APPENDIX D. LABORATORY REPORTS AND DATA VALIDATION REPORT

Analytical Resources, Inc.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

30 July 2018

Amara Vandervort
Windward Environmental, LLC
200 West Mercer Street, Suite 401
Seattle, WA 98119-3958

RE: AOC3 Task 4 (Seeps)

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

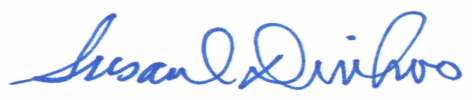
Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)	Associated SDG ID(s)
18F0248	18F0185
18F0226	18F0185
18F0208	18F0185
18F0185	18F0185

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the requirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, Inc.



Susan Dunnihoo, Director, Client Services

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Cert# 100006-011

PJLA Testing
Accreditation # 66169

18f0185

1 of 1

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 3082

Project/Client Name: Windward
Project Number: AOC3 Task 4
Contact Name: Amara Vandervort
Sampled By: BB, AS, AH, SD, CL, SW, JM

Ship to: ARI Labs
Attn: Sue Dunnihoo
Shipper: Hand deliver
Form filled out by: Bent Bergquist

Shipping Date: 6/12/18
Airbill Number: NA
Turnaround requested: Std

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) TOC/DOC	TSS	PAHs	PCB Aroclors	SVOCs	metals/ mercury	Dioxins/ furans (hold)	PCB congeners (hold)	Comments / Instructions [Jar tag number(s)]
6/11/18	1612	LDW18-SP-RB1	8	W	X	X	X	X	X	X	X	X	
6/11/18	1637	LDW18-SP-RB2	8	W	X	X	X	X	X	X	X	X	Hold
6/12/18	1206	LDW18-SP-30	7	W	X	X	X	X	X	X	X		
6/12/18	0919	LDW18-SP-32	7	W	X	X	X	X	X	X	X		
6/12/18	1056	LDW18-SP-35	7	W	X	X	X	X	X	X	X		
6/12/18	1027	LDW18-SP-38	7	W	X	X	X	X	X	X	X		
6/12/18	1205	LDW18-SP-42	8	W	X	X	X	X	X	X	X	X	
6/12/18	1300	LDW18-SP-43	14	W	X	X	X	X	X	X	X		extra volume for QC
		Total Number of Containers	66		Purchase Order / Statement of Work #								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Bent Bergquist		Print name:	
Signature:	Company: ARI	Signature:	Company:
Company: Windward		Company:	
Date/Time: 6/12/18 14:55	Date/Time: 06/12/18 1455	Date/Time:	Date/Time:

* Distribution: White copies accompany shipment; yellow retained by consignor.

Wind Ward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SUBCONTRACT ORDER
To: Materials Testing & Consulting, Inc. (Olympia)
ARI Work Order:18F0185

SENDING LABORATORY:

Analytical Resources, Inc.
4611 S. 134th Place, Suite 100
Tukwila, WA 98168
Phone: (206) 695-6200
Fax: (206) 695-6201
Project Manager: Susan Dunnihoo
E-Mail: sue.dunnihoo@arilabs.c

RECEIVING LABORATORY:

Materials Testing & Consulting, Inc. (Olympia)
2118 Black Lake Blvd. SW
Olympia, WA 98512
Phone :(360) 534-9777
Fax:

PLEASE SEND DATA TO subdata@arilabs.com

Analysis	Due	Expires	Sub Laboratory ID	Comments
Sample ID: 18F0185-01 **Sampled: 06/11/18 16:12 Matrix: Water**				**TOC and Metals samples unpreserve**
Filter 1 u for Organics (Subc)	06/26/18	06/12/18 16:12		

Containers Supplied:

18F0185-01 D Glass NM, Amber, 500 mL	**18F0185-01 E** Glass NM, Amber, 500 mL	**18F0185-01 F** Glass NM, Amber, 1000 mL

Sample ID: 18F0185-03 **Sampled: 06/12/18 12:06 Matrix: Water**				**TOC and Metals samples unpreserve**
Filter 1 u for Organics (Subc)	06/26/18	06/13/18 12:06		

Containers Supplied:

18F0185-03 D Glass NM, Amber, 500 mL	**18F0185-03 E** Glass NM, Amber, 500 mL	**18F0185-03 F** Glass NM, Amber, 1000 mL

Sample ID: 18F0185-04 **Sampled: 06/12/18 09:19 Matrix: Water**				**TOC and Metals samples unpreserve**
Filter 1 u for Organics (Subc)	06/26/18	06/13/18 09:19		

Containers Supplied:

18F0185-04 D Glass NM, Amber, 500 mL	**18F0185-04 E** Glass NM, Amber, 500 mL	**18F0185-04 F** Glass NM, Amber, 1000 mL

Sample ID: 18F0185-05 **Sampled: 06/12/18 10:56 Matrix: Water**				**TOC and Metals samples unpreserve**
Filter 1 u for Organics (Subc)	06/26/18	06/13/18 10:56		

Containers Supplied:

18F0185-05 D Glass NM, Amber, 500 mL	**18F0185-05 E** Glass NM, Amber, 500 mL	**18F0185-05 F** Glass NM, Amber, 1000 mL

DUE 8 02/15
BACK FRIDAY PLEASE

Released By	Date	Received By	Date
JBW	06/14/18 @ 1341		6-14-18
	6-18-18		6/18/18 8:00

Printed: 6/14/2018 11:47:26AM

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SUBCONTRACT ORDER
To: Materials Testing & Consulting, Inc. (Olympia)
ARI Work Order:18F0185

Analysis	Due	Expires	Sub Laboratory ID	Comments
Sample ID: 18F0185-06 **Sampled: 06/12/18 10:27 Matrix: Water**				**TOC and Metals samples unpreserved**
Filter 1 u for Organics (Subc)	06/26/18	06/13/18 10:27		

Containers Supplied:

18F0185-06 D Glass NM, Amber, 500 mL	**18F0185-06 E** Glass NM, Amber, 500 mL	**18F0185-06 F** Glass NM, Amber, 1000 mL

Analysis	Due	Expires	Sub Laboratory ID	Comments
Sample ID: 18F0185-07 **Sampled: 06/12/18 12:05 Matrix: Water**				**TOC and Metals samples unpreserved**
Filter 1 u for Organics (Subc)	06/26/18	06/13/18 12:05		

Containers Supplied:

18F0185-07 D Glass NM, Amber, 500 mL	**18F0185-07 E** Glass NM, Amber, 500 mL	**18F0185-07 F** Glass NM, Amber, 1000 mL

Analysis	Due	Expires	Sub Laboratory ID	Comments
Sample ID: 18F0185-08 **Sampled: 06/12/18 13:00 Matrix: Water**				**TOC and Metals samples unpreserved**
Filter 1 u for Organics (Subc)	06/26/18	06/13/18 13:00		

Containers Supplied:

18F0185-08 E Glass NM, Amber, 500 mL	**18F0185-08 F** Glass NM, Amber, 500 mL	**18F0185-08 G** Glass NM, Amber, 500 mL	**18F0185-08 H** Glass NM, Amber, 500 mL
18F0185-08 I Glass NM, Amber, 500 mL	**18F0185-08 J** Glass NM, Amber, 500 mL	**18F0185-08 K** Glass NM, Amber, 1000 mL	**18F0185-08 L** Glass NM, Amber, 1000 mL
18F0185-08 M Glass NM, Amber, 1000 mL			

*Samples filtered 1µm

Released By	06/14/18 @ 1341 Date	Received By	6-14-18 Date
Released By	6-18-18 Date	Received By	6/18/18 8:00 Date

18F0208

1 of 1

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 3083

Project/Client Name: Windward
Project Number: AOC3 Task 4
Contact Name: Amara Vandervort
Sampled By: AH, AV, SD, CL, JM, SW, KK

Ship to: ARI Labs
Attn: Sue Dunninao
Shipper: Hand deliver
Form filled out by: A-Hawley

Shipping Date: 6/13/18
Airbill Number: NA
Turnaround requested: Std

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)								Comments / Instructions [Jar tag number(s)]
					TOC / DOC	TSS	PAHs	PCB Aroclors	SVOCs	metals / mercury	Dioxins / Furans (HOLD)	PCB congeners (HOLD)	
6/13/18	0953	LDW18-SP-06	7	W	X	X	X	X	X	X	X		
6/13/18	1217	LDW18-SP-33	7	W	X	X	X	X	X	X	X		
6/13/18	1235	LDW18-SP-24	8	W	X	X	X	X	X	X	X	X	
6/13/18	1242	LDW18-SP-24-FD	8	W	X	X	X	X	X	X	X	X	
		Total Number of Containers	30	Purchase Order / Statement of Work #									

1) Released by: A Hawley	1) Rec'd by: Brandan Fisk	2) Released by:	2) Rec'd by:
Print name: Abby Hawley		Print name:	
Signature: A Hawley	Company: ARI	Signature:	Company:
Company: Windward		Company:	
Date/Time: 6/13/18 1626	Date/Time: 6/13/18 1628	Date/Time:	Date/Time:

* Distribution: White copies accompany shipment; yellow retained by consignor.

Wind Ward environmental LLC

200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SUBCONTRACT ORDER
To: Materials Testing & Consulting, Inc. (Olympia)
ARI Work Order:18F0208

SENDING LABORATORY:

Analytical Resources, Inc.
4611 S. 134th Place, Suite 100
Tukwila, WA 98168
Phone: (206) 695-6200
Fax: (206) 695-6201
Project Manager: Susan Dunnihoo
E-Mail: sue.dunnihoo@arilabs.c

RECEIVING LABORATORY:

Materials Testing & Consulting, Inc. (Olympia)
2118 Black Lake Blvd. SW
Olympia, WA 98512
Phone :(360) 534-9777
Fax:

PLEASE SEND DATA TO subdata@arilabs.com

Analysis	Due	Expires	Sub Laboratory ID	Comments
Sample ID: 18F0208-01 **Sampled: 06/13/18 09:53 Matrix: Water**				**Metals are not field filtered, TOC/DO**
Filter 1 u for Organics (Subc)	06/28/18	06/14/18 09:53		

Containers Supplied:

18F0208-01 B Glass NM, Amber, 1000 mL	**18F0208-01 C** Glass NM, Amber, 500 mL	**18F0208-01 D** Glass NM, Amber, 500 mL

Sample ID: 18F0208-02 **Sampled: 06/13/18 12:17 Matrix: Water**				**Metals are not field filtered, TOC/DO**
Filter 1 u for Organics (Subc)	06/28/18	06/14/18 12:17		

Containers Supplied:

18F0208-02 B Glass NM, Amber, 1000 mL	**18F0208-02 C** Glass NM, Amber, 500 mL	**18F0208-02 D** Glass NM, Amber, 500 mL

Sample ID: 18F0208-03 **Sampled: 06/13/18 12:35 Matrix: Water**				**Metals are not field filtered, TOC/DO**
Filter 1 u for Organics (Subc)	06/28/18	06/14/18 12:35		

Containers Supplied:

18F0208-03 C Glass NM, Amber, 1000 mL	**18F0208-03 D** Glass NM, Amber, 500 mL	**18F0208-03 E** Glass NM, Amber, 500 mL

Sample ID: 18F0208-04 **Sampled: 06/13/18 12:42 Matrix: Water**				**Metals are not field filtered, TOC/DO**
Filter 1 u for Organics (Subc)	06/28/18	06/14/18 12:42		

Containers Supplied:

18F0208-04 C Glass NM, Amber, 1000 mL	**18F0208-04 D** Glass NM, Amber, 500 mL	**18F0208-04 E** Glass NM, Amber, 500 mL

*Samples filtered 1µm

DUE RACK 6/19 or sooner please!

Released By	Date	Received By	Date
[signature] SSW	06/14/18 @1341	[signature]	6-14-18
[signature]	6-18-18	[signature]	6/18/18 800

Printed: 6/14/2018 12:46:00PM

1 of 1 18F0226

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 3084

Project/Client Name: Windward
Project Number: AOC3 Task 4
Contact Name: Amara Vandervort
Sampled By: BB, AH - Windward

Ship to: ARI Labs
Attn: Sue Dunrihoo
Shipper: Hand deliver
Form filled out by: Bert Bergquist

Shipping Date: 6/14/18
Airbill Number: NA
Turnaround requested: Std.

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) TOC/DOC	TSS	PAHs	PCB Aroclors	SVOCs	Metals/ Mercury	Dioxin/ furans (HTLD)	PCB congeners (HTLD)	Comments / Instructions [Jar tag number(s)]
6/14/18	1408	LDW18-SP-05	7	Water	X	X	X	X	X	X	X		
	1041	LDW18-SP-57	BB ~~8~~ 15		X	X	X	X	X	X	X	X	extra volume for QC
	1308	LDW18-SP-73	7		X	X	X	X	X	X	X		
	1314	LDW18-SP-74	7		X	X	X	X	X	X	X		
	1210	LDW18-SP-77	8		X	X	X	X	X	X	X	X	
	1204	LDW18-SP-78	8		X	X	X	X	X	X	X	X	
	0950	LDW18-SP-79	8		X	X	X	X	X	X	X	X	
	0953	LDW18-SP-84	7		X	X	X	X	X	X	X		
↓	1111	LDW18-SP-87	8	↓	X	X	X	X	X	X	X	X	
		Total Number of Containers	75	Purchase Order / Statement of Work #									

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: A. Hawley	Stephanie Fisher	Print name:	
Signature: Abby Hawley	Company: ARI	Signature:	Company:
Company: Windward		Company:	
Date/Time: 6/14/18 1545	Date/Time: 6/14/18 1545	Date/Time:	Date/Time:

* Distribution: White copies accompany shipment; yellow retained by consignor.

Wind Ward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

1 of 1 18F0248

CHAIN-OF-CUSTODY/TEST REQUEST FORM

№ 3085

Project/Client Name: Windward
Project Number: AOC3 Task 4
Contact Name: Amara Vandervort
Sampled By: Windward - BB, AH

Ship to: ARI Labs
Attn: Sue Dunninoo
Shipper: Hand deliver
Form filled out by: Berit Bergquist

Shipping Date: 6/15/18
Airbill Number: NA
Turnaround requested: Std.

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)								Comments / Instructions [Jar tag number(s)]
					TOC / DOC	TSS	PAHs	PCB Aroclors	SVOCs	metals/ mercury	Dioxins/ furans (HOLD)	PCB congeners (HOLD)	
6/15/18	1133	LDW18-SP-01	8	Water	X	X	X	X	X	X	X	X	
	1345	LDW18-SP-45	7		X	X	X	X	X	X	X		
	1316	LDW18-SP-47	7		X	X	X	X	X	X	X		
	1325	LDW18-SP-66	8		X	X	X	X	X	X	X	X	
	1113	LDW18-SP-70	8		X	X	X	X	X	X	X	X	
	1208	LDW18-SP-83	7		X	X	X	X	X	X	X		
	1219	LDW18-SP-86	8		X	X	X	X	X	X	X	X	
↓	1052	LDW18-SP-88	8	↓	X	X	X	X	X	X	X	X	
		Total Number of Containers	61	Purchase Order / Statement of Work #									

1) Released by: B. Bergquist	1) Rec'd by: Stephanie Fishel	2) Released by:	2) Rec'd by:
Print name: Berit Bergquist	Company: ARI	Print name:	Company:
Signature:		Signature:	
Company: Windward		Company:	
Date/Time: 6/15/18 16:10	Date/Time: 6/15/18 1610	Date/Time:	Date/Time:

* Distribution: White copies accompany shipment; yellow retained by consignor.

Wind Ward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Windward

Project Name: AOC 3 Task 4 Seeps

COC No(s): _____ NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: 18F0185

Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES (NO)

Were custody papers included with the cooler? (YES) NO

Were custody papers properly filled out (ink, signed, etc.) (YES) NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) Sef 3.9°C 3.9°C 4.3°C 5.6°C

Time: 1455

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: D00520G

Cooler Accepted by: JAin Date: 06/12/18 Time: 1455

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES (NO)

What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)? NA (YES) NO

Were all bottles sealed in individual plastic bags? (YES) NO

Did all bottles arrive in good condition (unbroken)? (YES) NO

Were all bottle labels complete and legible? (YES) NO

Did the number of containers listed on COC match with the number of containers received? (YES) NO

Did all bottle labels and tags agree with custody papers? (YES) NO

Were all bottles used correct for the requested analyses? (YES) NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)... NA (YES) NO

Were all VOC vials free of air bubbles? (NA) YES NO

Was sufficient amount of sample sent in each bottle? (YES) NO

Date VOC Trip Blank was made at ARI... (NA) _____

Was Sample Split by ARI : (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

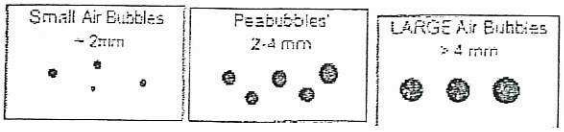
Samples Logged by: Sef Date: 6/13/18 Time: 1102

*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: Date:



Small → "sm" (< 2 mm)
Peabubbles → "pb" (2 to < 4 mm)
Large → "lg" (4 to < 6 mm)
Headspace → "hs" (> 6 mm)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Printed: 6/13/2018 11:48:14AM

WORK ORDER

18F0185

Client: Windward Environmental, LLC
Project Manager: Susan Dunnihoo

Project: AOC3 Task 4 (Seeps)
Project Number: [none]

Preservation Confirmation

Container ID	Container Type	pH
18F0185-01 A	Glass NM, Amber, 250 mL	(1) split + filtered for DOC then preserved Both Volumes for TOC/DOC with 0.5mL (1:1) H_2SO_4 to ~~pH 2.~~ pH <2.0. 6-13-18 MC
18F0185-01 B	HDPE NM, 125 mL	
18F0185-01 C	HDPE NM, 500 mL	
18F0185-01 D	Glass NM, Amber, 500 mL	
18F0185-01 E	Glass NM, Amber, 500 mL	
18F0185-01 F	Glass NM, Amber, 1000 mL	
18F0185-01 G	Glass NM, Amber, 1000 mL	
18F0185-01 H	Glass NM, Amber, 1000 mL	
18F0185-02 A	Glass NM, Amber, 250 mL	(1) 6-13-18 MC
18F0185-02 B	HDPE NM, 125 mL	
18F0185-02 C	HDPE NM, 500 mL	
18F0185-02 D	Glass NM, Amber, 500 mL	
18F0185-02 E	Glass NM, Amber, 500 mL	
18F0185-02 F	Glass NM, Amber, 1000 mL	
18F0185-02 G	Glass NM, Amber, 1000 mL	
18F0185-02 H	Glass NM, Amber, 1000 mL	
18F0185-03 A	Glass NM, Amber, 250 mL	(1)
18F0185-03 B	HDPE NM, 125 mL	
18F0185-03 C	HDPE NM, 500 mL	
18F0185-03 D	Glass NM, Amber, 500 mL	
18F0185-03 E	Glass NM, Amber, 500 mL	
18F0185-03 F	Glass NM, Amber, 1000 mL	
18F0185-03 G	Glass NM, Amber, 1000 mL	
18F0185-04 A	Glass NM, Amber, 250 mL	(1)
18F0185-04 B	HDPE NM, 125 mL	
18F0185-04 C	HDPE NM, 500 mL	
18F0185-04 D	Glass NM, Amber, 500 mL	
18F0185-04 E	Glass NM, Amber, 500 mL	
18F0185-04 F	Glass NM, Amber, 1000 mL	
18F0185-04 G	Glass NM, Amber, 1000 mL	
18F0185-05 A	Glass NM, Amber, 250 mL	(1)
18F0185-05 B	HDPE NM, 125 mL	
18F0185-05 C	HDPE NM, 500 mL	
18F0185-05 D	Glass NM, Amber, 500 mL	
18F0185-05 E	Glass NM, Amber, 500 mL	

Reviewed By

Date

Page 1 of 2

WORK ORDER

18F0185

Client: Windward Environmental, LLC | **Project Manager:** Susan Dunnihoo

Project: AOC3 Task 4 (Seeps) | **Project Number:** [none]

18F0185-05 F	Glass NM, Amber, 1000 mL
18F0185-05 G	Glass NM, Amber, 1000 mL
18F0185-06 A	Glass NM, Amber, 250 mL
18F0185-06 B	HDPE NM, 125 mL
18F0185-06 C	HDPE NM, 500 mL
18F0185-06 D	Glass NM, Amber, 500 mL
18F0185-06 E	Glass NM, Amber, 500 mL
18F0185-06 F	Glass NM, Amber, 1000 mL
18F0185-06 G	Glass NM, Amber, 1000 mL
18F0185-07 A	Glass NM, Amber, 250 mL
18F0185-07 B	HDPE NM, 125 mL
18F0185-07 C	HDPE NM, 500 mL
18F0185-07 D	Glass NM, Amber, 500 mL
18F0185-07 E	Glass NM, Amber, 500 mL
18F0185-07 F	Glass NM, Amber, 1000 mL
18F0185-07 G	Glass NM, Amber, 1000 mL
18F0185-07 H	Glass NM, Amber, 1000 mL
18F0185-08 A	Glass NM, Amber, 250 mL
18F0185-08 B	HDPE NM, 125 mL
18F0185-08 C	HDPE NM, 500 mL
18F0185-08 D	HDPE NM, 500 mL
18F0185-08 E	Glass NM, Amber, 500 mL
18F0185-08 F	Glass NM, Amber, 500 mL
18F0185-08 G	Glass NM, Amber, 500 mL
18F0185-08 H	Glass NM, Amber, 500 mL
18F0185-08 I	Glass NM, Amber, 500 mL
18F0185-08 J	Glass NM, Amber, 500 mL
18F0185-08 K	Glass NM, Amber, 1000 mL
18F0185-08 L	Glass NM, Amber, 1000 mL
18F0185-08 M	Glass NM, Amber, 1000 mL
18F0185-08 N	Glass NM, Amber, 1000 mL

(1) cont. 6-13-18

(1)

(1)

Preservation Confirmed By _____ Date _____

Page 2 of 2

Reviewed By _____ Date _____

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Windward / MTC
Project Name: _____
COC No(s): _____ NA
Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____
Assigned ARI Job No: 18F0185
Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	NO
Were custody papers included with the cooler?	YES	NO
Were custody papers properly filled out (ink, signed, etc.)	YES	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) 5.1 5.4 6.9 ___ ___ ___
Time: 925
If cooler temperature is out of compliance fill out form 00070F
Temp Gun ID#: D0002565

Cooler Accepted by: BF Date: 6/19/18 Time: 800

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	NO
What kind of packing material was used? ... Bubble Wrap (Wet Ice) Gel Packs (Baggies) Foam Block Paper Other:			
Was sufficient ice used (if appropriate)?	NA	YES	NO
Were all bottles sealed in individual plastic bags?		YES	NO
Did all bottles arrive in good condition (unbroken)?		YES	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?		YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)...	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI	NA		

Was Sample Split by ARI : NA YES Date/Time: _____ Equipment: _____ Split by: _____

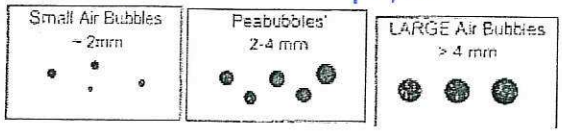
Samples Logged by: BF Date: 6/18/18 Time: 940

** *Notify Project Manager of discrepancies or concerns* **

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:
LDW18-SP-32 (sample -04E)
-30 (sample -03D) returned out of temp
-42 (sample -07E)

By: BF Date: 6/19/18



Small → "sm" (< 2 mm)
Peabubbles → "pb" (2 to < 4 mm)
Large → "lg" (4 to < 6 mm)
Headspace → "hs" (> 6 mm)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SUBCONTRACT ORDER
To: Materials Testing & Consulting, Inc. (Olympia)
ARI Work Order: 18F0185

SENDING LABORATORY:

Analytical Resources, Inc.
4611 S. 134th Place, Suite 100
Tukwila, WA 98168
Phone: (206) 695-6200
Fax: (206) 695-6201
Project Manager: Susan Dunnihoo
E-Mail: sue.dunnihoo@arilabs.c

RECEIVING LABORATORY:

Materials Testing & Consulting, Inc. (Olympia)
2118 Black Lake Blvd. SW
Olympia, WA 98512
Phone :(360) 534-9777
Fax:

PLEASE SEND DATA TO subdata@arilabs.com

Analysis	Due	Expires	Sub Laboratory ID	Comments
Sample ID: 18F0185-01 **Sampled: 06/11/18 16:12** **Matrix: Water**			S18-1200	**TOC and Metals samples unpreservec**
Filter 1 u for Organics (Subc)	06/26/18	06/12/18 16:12		

Containers Supplied:

18F0185-01 D Glass NM, Amber, 500 mL	**18F0185-01 E** Glass NM, Amber, 500 mL	**18F0185-01 F** Glass NM, Amber, 1000 mL

Analysis	Due	Expires	Sub Laboratory ID	Comments
Sample ID: 18F0185-03 **Sampled: 06/12/18 12:06** **Matrix: Water**			S18-1201	**TOC and Metals samples unpreservec**
Filter 1 u for Organics (Subc)	06/26/18	06/13/18 12:06		

Containers Supplied:

18F0185-03 D Glass NM, Amber, 500 mL	**18F0185-03 E** Glass NM, Amber, 500 mL	**18F0185-03 F** Glass NM, Amber, 1000 mL

Analysis	Due	Expires	Sub Laboratory ID	Comments
Sample ID: 18F0185-04 **Sampled: 06/12/18 09:19** **Matrix: Water**			S18-1202	**TOC and Metals samples unpreservec**
Filter 1 u for Organics (Subc)	06/26/18	06/13/18 09:19		

Containers Supplied:

18F0185-04 D Glass NM, Amber, 500 mL	**18F0185-04 E** Glass NM, Amber, 500 mL	**18F0185-04 F** Glass NM, Amber, 1000 mL

Analysis	Due	Expires	Sub Laboratory ID	Comments
Sample ID: 18F0185-05 **Sampled: 06/12/18 10:56** **Matrix: Water**			S18-1203	**TOC and Metals samples unpreservec**
Filter 1 u for Organics (Subc)	06/26/18	06/13/18 10:56		

Containers Supplied:

18F0185-05 D Glass NM, Amber, 500 mL	**18F0185-05 E** Glass NM, Amber, 500 mL	**18F0185-05 F** Glass NM, Amber, 1000 mL

DUE 8 06/15
RAUL
FRIDAY
PLEASE

Released By — 06/14/18 @ 1341 — Date — Received By — 06-14-18 — Date

Released By — 6-18-18 — Date — Received By — 6/18/18 8:00 — Date

Printed: 6/14/2018 11:47:26AM

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SUBCONTRACT ORDER
To: Materials Testing & Consulting, Inc. (Olympia)
ARI Work Order:18F0185

Analysis	Due	Expires	Sub Laboratory ID	Comments
Sample ID: 18F0185-06 **Sampled: 06/12/18 10:27 Matrix: Water**			S18-1204	**TOC and Metals samples unpreserved**
Filter 1 u for Organics (Subc)	06/26/18	06/13/18 10:27		

Containers Supplied:

18F0185-06 D Glass NM, Amber, 500 mL	**18F0185-06 E** Glass NM, Amber, 500 mL	**18F0185-06 F** Glass NM, Amber, 1000 mL

Sample ID: 18F0185-07 **Sampled: 06/12/18 12:05 Matrix: Water**			S18-1205	**TOC and Metals samples unpreserved**
Filter 1 u for Organics (Subc)	06/26/18	06/13/18 12:05		

Containers Supplied:

18F0185-07 D Glass NM, Amber, 500 mL	**18F0185-07 E** Glass NM, Amber, 500 mL	**18F0185-07 F** Glass NM, Amber, 1000 mL

Sample ID: 18F0185-08 **Sampled: 06/12/18 13:00 Matrix: Water**			S18-1206	**TOC and Metals samples unpreserved**
Filter 1 u for Organics (Subc)	06/26/18	06/13/18 13:00		

Containers Supplied:

18F0185-08 E Glass NM, Amber, 500 mL	**18F0185-08 F** Glass NM, Amber, 500 mL	**18F0185-08 G** Glass NM, Amber, 500 mL	**18F0185-08 H** Glass NM, Amber, 500 mL
18F0185-08 I Glass NM, Amber, 500 mL	**18F0185-08 J** Glass NM, Amber, 500 mL	**18F0185-08 K** Glass NM, Amber, 1000 mL	**18F0185-08 L** Glass NM, Amber, 1000 mL
18F0185-08 M Glass NM, Amber, 1000 mL			

*Samples filtered 1µm

Released By	Date	Received By	Date
06/14/18 @ 1341		6-14-18	
Released By	Date	Received By	Date
6-18-18		6/18/18	8:00

Printed: 6/14/2018 11:47:26AM

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Printed: 6/14/2018 12:45:31PM

WORK ORDER

18F0208

Client: Windward Environmental, LLC
Project Manager: Susan Dunnihoo
Project: AOC3 Task 4 (Seeps)
Project Number: [none]

Preservation Confirmation

Container ID	Container Type	pH	
18F0208-01 A	Glass NM, Amber, 1000 mL		
18F0208-01 B	Glass NM, Amber, 1000 mL		
18F0208-01 C	Glass NM, Amber, 500 mL		
18F0208-01 D	Glass NM, Amber, 500 mL		
18F0208-01 E	HDPE NM, 500 mL	72	fail
18F0208-01 F	HDPE NM, 125 mL		
18F0208-01 G	Glass NM, Amber, 250 mL		
18F0208-02 A	Glass NM, Amber, 1000 mL		
18F0208-02 B	Glass NM, Amber, 1000 mL		
18F0208-02 C	Glass NM, Amber, 500 mL		
18F0208-02 D	Glass NM, Amber, 500 mL		
18F0208-02 E	HDPE NM, 500 mL	72	fail
18F0208-02 F	HDPE NM, 125 mL		
18F0208-02 G	Glass NM, Amber, 250 mL		
18F0208-03 A	Glass NM, Amber, 1000 mL		
18F0208-03 B	Glass NM, Amber, 1000 mL		
18F0208-03 C	Glass NM, Amber, 1000 mL		
18F0208-03 D	Glass NM, Amber, 500 mL		
18F0208-03 E	Glass NM, Amber, 500 mL		
18F0208-03 F	HDPE NM, 500 mL	72	fail
18F0208-03 G	HDPE NM, 125 mL		
18F0208-03 H	Glass NM, Amber, 250 mL		
18F0208-04 A	Glass NM, Amber, 1000 mL		
18F0208-04 B	Glass NM, Amber, 1000 mL		
18F0208-04 C	Glass NM, Amber, 1000 mL		
18F0208-04 D	Glass NM, Amber, 500 mL		
18F0208-04 E	Glass NM, Amber, 500 mL		
18F0208-04 F	HDPE NM, 500 mL	72	fail
18F0208-04 G	HDPE NM, 125 mL		
18F0208-04 H	Glass NM, Amber, 250 mL		

JBW
Preservation Confirmed By

06/14/18
Date

Reviewed By

Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: WINDWARD

Project Name: AOC3 LDW

COC No(s): 3083 NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other:

Assigned ARI Job No: 18F0208

Tracking No: NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES NO

Were custody papers included with the cooler? YES NO

Were custody papers properly filled out (ink, signed, etc.) YES NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) 13.9 4.7 8.7 8.6 5.4

Time: 1626

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: D007565

Cooler Accepted by: Set For BF Date: 6/13/18 Time: 1626

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? YES NO

What kind of packing material was used? ... Bubble Wrap ~~Wet Ice~~ Gel Packs ~~Baggies~~ Foam Block Paper Other:

Was sufficient ice used (if appropriate)? NA YES NO

Were all bottles sealed in individual plastic bags? YES NO

Did all bottles arrive in good condition (unbroken)? YES NO

Were all bottle labels complete and legible? YES NO

Did the number of containers listed on COC match with the number of containers received? YES NO

Did all bottle labels and tags agree with custody papers? YES NO

Were all bottles used correct for the requested analyses? JBW YES NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)... NA YES NO

Were all VOC vials free of air bubbles? NA YES NO

Was sufficient amount of sample sent in each bottle? YES NO

Date VOC Trip Blank was made at ARI NA

Was Sample Split by ARI : NA YES Date/Time: Equipment: Split by:

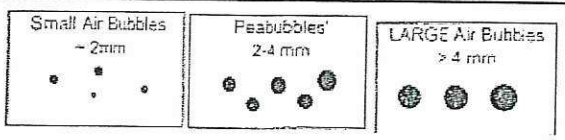
Samples Logged by: JBW Date: 06/14/18 Time: 1837

*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: Date:



Small → "sm" (< 2 mm)
Peabubbles → "pb" (2 to < 4 mm)
Large → "lg" (4 to < 6 mm)
Headspace → "hs" (> 6 mm)

Incorporated
Analytical Chemists and
Consultants

Cooler Temperature Compliance Form

ARI Work Order: 18F0208

Cooler#: 1 Temperature(°C): 13.9

Sample ID	Bottle Count	Bottle Type
Samples recived above 6°		Seals (hold for comp)

Cooler#: 2 Temperature(°C): 4.7

Sample ID	Bottle Count	Bottle Type
IN temp.		Waters

Cooler#: 3 Temperature(°C): 6.7

Sample ID	Bottle Count	Bottle Type
Samples recived above 6		Waters

Cooler#: 4 Temperature(°C): 5.6

Sample ID	Bottle Count	Bottle Type
Samples recived above	6°	Seals (hold for comp)
Cooler # 5 Temp(°C) 5.4		Seals
IN temp		

Completed by: Sef Date: 6/13/15 Time: 1626



Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Windward / MTC

Project Name: _____

COC No(s): _____ NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: 18F0208

Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	NO
Were custody papers included with the cooler?	YES	NO
Were custody papers properly filled out (ink, signed, etc.)	YES	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) 5.1 5.4 ___ ___ ___ ___

Time: 925

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: D00256E

Cooler Accepted by: BF Date: 6/18/18 Time: 800

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	NO
What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other:			
Was sufficient ice used (if appropriate)?	NA	YES	NO
Were all bottles sealed in individual plastic bags?		YES	NO
Did all bottles arrive in good condition (unbroken)?		YES	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?		YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)...	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI	NA		

Was Sample Split by ARI : NA YES Date/Time: _____ Equipment: _____ Split by: _____

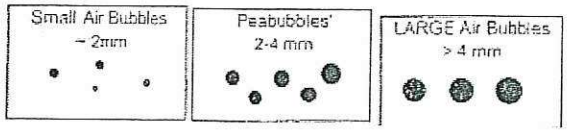
Samples Logged by: BF Date: 6/18/18 Time: 940

** *Notify Project Manager of discrepancies or concerns* **

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: Date:



Small → "sm" (< 2 mm)
Peabubbles → "pb" (2 to < 4 mm)
Large → "lg" (4 to < 6 mm)
Headspace → "hs" (> 6 mm)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Printed: 6/14/2018 12:45:31PM

WORK ORDER

18F0208

Client: Windward Environmental, LLC	**Project Manager:** Susan Dunnihoo
Project: AOC3 Task 4 (Seeps)	**Project Number:** [none]

Preservation Confirmation

Container ID	Container Type	pH	
18F0208-01 A	Glass NM, Amber, 1000 mL		
18F0208-01 B	Glass NM, Amber, 1000 mL		
18F0208-01 C	Glass NM, Amber, 500 mL		
18F0208-01 D	Glass NM, Amber, 500 mL		
18F0208-01 E	HDPE NM, 500 mL	72	fail
18F0208-01 F	HDPE NM, 125 mL		
18F0208-01 G	Glass NM, Amber, 250 mL		
18F0208-02 A	Glass NM, Amber, 1000 mL		
18F0208-02 B	Glass NM, Amber, 1000 mL		
18F0208-02 C	Glass NM, Amber, 500 mL		
18F0208-02 D	Glass NM, Amber, 500 mL		
18F0208-02 E	HDPE NM, 500 mL	72	fail
18F0208-02 F	HDPE NM, 125 mL		
18F0208-02 G	Glass NM, Amber, 250 mL		
18F0208-03 A	Glass NM, Amber, 1000 mL		
18F0208-03 B	Glass NM, Amber, 1000 mL		
18F0208-03 C	Glass NM, Amber, 1000 mL		
18F0208-03 D	Glass NM, Amber, 500 mL		
18F0208-03 E	Glass NM, Amber, 500 mL		
18F0208-03 F	HDPE NM, 500 mL	72	fail
18F0208-03 G	HDPE NM, 125 mL		
18F0208-03 H	Glass NM, Amber, 250 mL		
18F0208-04 A	Glass NM, Amber, 1000 mL		
18F0208-04 B	Glass NM, Amber, 1000 mL		
18F0208-04 C	Glass NM, Amber, 1000 mL		
18F0208-04 D	Glass NM, Amber, 500 mL		
18F0208-04 E	Glass NM, Amber, 500 mL		
18F0208-04 F	HDPE NM, 500 mL	72	fail
18F0208-04 G	HDPE NM, 125 mL		
18F0208-04 H	Glass NM, Amber, 250 mL		

JBw
Preservation Confirmed By

06/14/18
Date

filtered & preserved
6/15/18 DP

Reviewed By

Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SUBCONTRACT ORDER
To: Materials Testing & Consulting, Inc. (Olympia)
ARI Work Order:18F0208

SENDING LABORATORY:

Analytical Resources, Inc.
4611 S. 134th Place, Suite 100
Tukwila, WA 98168
Phone: (206) 695-6200
Fax: (206) 695-6201
Project Manager: Susan Dunnihoo
E-Mail: sue.dunnihoo@arilabs.c

RECEIVING LABORATORY:

Materials Testing & Consulting, Inc. (Olympia)
2118 Black Lake Blvd. SW
Olympia, WA 98512
Phone :(360) 534-9777
Fax:

PLEASE SEND DATA TO subdata@arilabs.com

Analysis	Due	Expires	Sub Laboratory ID	Comments
Sample ID: 18F0208-01 **Sampled: 06/13/18 09:53 Matrix: Water**			S18-1207	**Metals are not field filtered, TOC/DO**
Filter 1 u for Organics (Subc)	06/28/18	06/14/18 09:53		

Containers Supplied:

18F0208-01 B Glass NM, Amber, 1000 mL	**18F0208-01 C** Glass NM, Amber, 500 mL	**18F0208-01 D** Glass NM, Amber, 500 mL

Sample ID: 18F0208-02 **Sampled: 06/13/18 12:17 Matrix: Water**			S18-1208	**Metals are not field filtered, TOC/DO**
Filter 1 u for Organics (Subc)	06/28/18	06/14/18 12:17		

Containers Supplied:

18F0208-02 B Glass NM, Amber, 1000 mL	**18F0208-02 C** Glass NM, Amber, 500 mL	**18F0208-02 D** Glass NM, Amber, 500 mL

Sample ID: 18F0208-03 **Sampled: 06/13/18 12:35 Matrix: Water**			S18-1209	**Metals are not field filtered, TOC/DO**
Filter 1 u for Organics (Subc)	06/28/18	06/14/18 12:35		

Containers Supplied:

18F0208-03 C Glass NM, Amber, 1000 mL	**18F0208-03 D** Glass NM, Amber, 500 mL	**18F0208-03 E** Glass NM, Amber, 500 mL

Sample ID: 18F0208-04 **Sampled: 06/13/18 12:42 Matrix: Water**			S18-1210	**Metals are not field filtered, TOC/DO**
Filter 1 u for Organics (Subc)	06/28/18	06/14/18 12:42		

Containers Supplied:

18F0208-04 C Glass NM, Amber, 1000 mL	**18F0208-04 D** Glass NM, Amber, 500 mL	**18F0208-04 E** Glass NM, Amber, 500 mL

*Samples filtered 1µm

DUE RACK 6/19 or sooner please!

Released By	Date	Received By	Date
[signature] SSW	06/14/18 @1341	[signature]	6-14-18
[signature]	6-18-18	[signature]	6/18/18 800

Printed: 6/14/2018 12:46:00PM

WORK ORDER

18F0226

Client: Windward Environmental, LLC **Project Manager:** Susan Dunnihoo

Project: AOC3 Task 4 (Seeps) **Project Number:** [none]

Preservation Confirmation

Container ID	Container Type	pH	
18F0226-01 A	Glass NM, Amber, 1000 mL		
18F0226-01 B	Glass NM, Amber, 1000 mL		
18F0226-01 C	Glass NM, Amber, 500 mL		
18F0226-01 D	Glass NM, Amber, 500 mL		
18F0226-01 E	Glass NM, Amber, 250 mL	>2	fail
18F0226-01 F	HDPE NM, 500 mL	>2	fail
18F0226-01 G	HDPE NM, 125 mL		
18F0226-02 A	Glass NM, Amber, 1000 mL		
18F0226-02 B	Glass NM, Amber, 1000 mL		
18F0226-02 C	Glass NM, Amber, 1000 mL		
18F0226-02 D	Glass NM, Amber, 1000 mL		
18F0226-02 E	Glass NM, Amber, 1000 mL		
18F0226-02 F	Glass NM, Amber, 500 mL		
18F0226-02 G	Glass NM, Amber, 500 mL		
18F0226-02 H	Glass NM, Amber, 500 mL		
18F0226-02 I	Glass NM, Amber, 500 mL		
18F0226-02 J	Glass NM, Amber, 500 mL		
18F0226-02 K	Glass NM, Amber, 500 mL		
18F0226-02 L	Glass NM, Amber, 250 mL	>2	fail
18F0226-02 M	HDPE NM, 500 mL	>2	fail
18F0226-02 N	HDPE NM, 500 mL	>2	fail
18F0226-02 O	HDPE NM, 125 mL		
18F0226-03 A	Glass NM, Amber, 1000 mL		
18F0226-03 B	Glass NM, Amber, 1000 mL		
18F0226-03 C	Glass NM, Amber, 500 mL		
18F0226-03 D	Glass NM, Amber, 500 mL		
18F0226-03 E	Glass NM, Amber, 250 mL	>2	fail
18F0226-03 F	HDPE NM, 500 mL	>2	fail
18F0226-03 G	HDPE NM, 125 mL		
18F0226-04 A	Glass NM, Amber, 1000 mL		
18F0226-04 B	Glass NM, Amber, 1000 mL		
18F0226-04 C	Glass NM, Amber, 500 mL		
18F0226-04 D	Glass NM, Amber, 500 mL		
18F0226-04 E	Glass NM, Amber, 250 mL	>2	fail
18F0226-04 F	HDPE NM, 500 mL	>2	fail

Reviewed By Date

WORK ORDER

18F0226

Client: Windward Environmental, LLC | **Project Manager:** Susan Dunnihoo

Project: AOC3 Task 4 (Seeps) | **Project Number:** [none]

18F0226-04 G	HDPE NM, 125 mL		
18F0226-05 A	Glass NM, Amber, 1000 mL		
18F0226-05 B	Glass NM, Amber, 1000 mL		
18F0226-05 C	Glass NM, Amber, 1000 mL		
18F0226-05 D	Glass NM, Amber, 500 mL		
18F0226-05 E	Glass NM, Amber, 500 mL		
18F0226-05 F	Glass NM, Amber, 250 mL	>2	fail
18F0226-05 G	HDPE NM, 500 mL	>2	fail
18F0226-05 H	HDPE NM, 125 mL		
18F0226-06 A	Glass NM, Amber, 1000 mL		
18F0226-06 B	Glass NM, Amber, 1000 mL		
18F0226-06 C	Glass NM, Amber, 1000 mL		
18F0226-06 D	Glass NM, Amber, 500 mL		
18F0226-06 E	Glass NM, Amber, 500 mL		
18F0226-06 F	Glass NM, Amber, 250 mL	>2	fail
18F0226-06 G	HDPE NM, 500 mL	>2	fail
18F0226-06 H	HDPE NM, 125 mL		
18F0226-07 A	Glass NM, Amber, 1000 mL		
18F0226-07 B	Glass NM, Amber, 1000 mL		
18F0226-07 C	Glass NM, Amber, 1000 mL		
18F0226-07 D	Glass NM, Amber, 500 mL		
18F0226-07 E	Glass NM, Amber, 500 mL		
18F0226-07 F	Glass NM, Amber, 250 mL	>2	fail
18F0226-07 G	HDPE NM, 500 mL	>2	fail
18F0226-07 H	HDPE NM, 125 mL		
18F0226-08 A	Glass NM, Amber, 1000 mL		
18F0226-08 B	Glass NM, Amber, 1000 mL		
18F0226-08 C	Glass NM, Amber, 500 mL		
18F0226-08 D	Glass NM, Amber, 500 mL		
18F0226-08 E	Glass NM, Amber, 250 mL	>2	fail
18F0226-08 F	HDPE NM, 500 mL	>2	fail
18F0226-08 G	HDPE NM, 125 mL		
18F0226-09 A	Glass NM, Amber, 1000 mL		
18F0226-09 B	Glass NM, Amber, 1000 mL		
18F0226-09 C	Glass NM, Amber, 1000 mL		
18F0226-09 D	Glass NM, Amber, 500 mL		
18F0226-09 E	Glass NM, Amber, 500 mL		

Reviewed By _____ Date _____

WORK ORDER

18F0226

Client: Windward Environmental, LLC | **Project Manager: Susan Dunnihoo**

Project: AOC3 Task 4 (Seeps) | **Project Number: [none]**

18F0226-09 F	Glass NM, Amber, 250 mL	>2	fail
18F0226-09 G	HDPE NM, 500 mL	>2	fail
18F0226-09 H	HDPE NM, 125 mL		

JBm
Preservation Confirmed By

06/15/18
Date

Reviewed By

Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SUBCONTRACT ORDER
To: Materials Testing & Consulting, Inc. (Olympia)
ARI Work Order:18F0226

SENDING LABORATORY:

Analytical Resources, Inc.
4611 S. 134th Place, Suite 100
Tukwila, WA 98168
Phone: (206) 695-6200
Fax: (206) 695-6201
Project Manager: Susan Dunnihoo
E-Mail: sue.dunnihoo@arilabs.c

RECEIVING LABORATORY:

Materials Testing & Consulting, Inc. (Olympia)
2118 Black Lake Blvd. SW
Olympia, WA 98512
Phone :(360) 534-9777
Fax:

PLEASE SEND DATA TO subdata@arilabs.com

Analysis	Due	Expires	Sub Laboratory ID	Comments
Sample ID: 18F0226-01 **Sampled: 06/14/18 14:08 Matrix: Water**				**Metals are not field filtered, TOC/DO**
Filter 1 u for Organics (Subc)	06/29/18	06/15/18 14:08		

Containers Supplied:

18F0226-01 B Glass NM, Amber, 1000 mL	**18F0226-01 C** Glass NM, Amber, 500 mL	**18F0226-01 D** Glass NM, Amber, 500 mL

Analysis	Due	Expires	Sub Laboratory ID	Comments
Sample ID: 18F0226-02 **Sampled: 06/14/18 10:41 Matrix: Water**				**Extra Volume for QC. Metals are not**
Filter 1 u for Organics (Subc)	06/29/18	06/15/18 10:41		

Containers Supplied:

18F0226-02 C Glass NM, Amber, 1000 mL	**18F0226-02 D** Glass NM, Amber, 1000 mL	**18F0226-02 E** Glass NM, Amber, 1000 mL	**18F0226-02 F** Glass NM, Amber, 500 mL
18F0226-02 G Glass NM, Amber, 500 mL	**18F0226-02 H** Glass NM, Amber, 500 mL	**18F0226-02 I** Glass NM, Amber, 500 mL	**18F0226-02 J** Glass NM, Amber, 500 mL
18F0226-02 K Glass NM, Amber, 500 mL			

Analysis	Due	Expires	Sub Laboratory ID	Comments
Sample ID: 18F0226-03 **Sampled: 06/14/18 13:08 Matrix: Water**				**Metals are not field filtered, TOC/DO**
Filter 1 u for Organics (Subc)	06/29/18	06/15/18 13:08		

Containers Supplied:

18F0226-03 B Glass NM, Amber, 1000 mL	**18F0226-03 C** Glass NM, Amber, 500 mL	**18F0226-03 D** Glass NM, Amber, 500 mL

Analysis	Due	Expires	Sub Laboratory ID	Comments
Sample ID: 18F0226-04 **Sampled: 06/14/18 13:14 Matrix: Water**				**Metals are not field filtered, TOC/DO**
Filter 1 u for Organics (Subc)	06/29/18	06/15/18 13:14		

Containers Supplied:

18F0226-04 B Glass NM, Amber, 1000 mL	**18F0226-04 C** Glass NM, Amber, 500 mL	**18F0226-04 D** Glass NM, Amber, 500 mL

Released By	Date	Received By	Date
Released By	Date	Received By	Date

Printed: 6/15/2018 8:36:32AM

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SUBCONTRACT ORDER
To: Materials Testing & Consulting, Inc. (Olympia)
ARI Work Order:18F0226

Analysis	Due	Expires	Sub Laboratory ID	Comments
Sample ID: 18F0226-05 **Sampled: 06/14/18 12:10 Matrix: Water**				**Metals are not field filtered, TOC/DO**
Filter 1 u for Organics (Subc)	06/29/18	06/15/18 12:10		
Containers Supplied:				
18F0226-05 C Glass NM, Amber, 1000 mL	**18F0226-05 D** Glass NM, Amber, 500 mL	**18F0226-05 E** Glass NM, Amber, 500 mL		
Sample ID: 18F0226-06 **Sampled: 06/14/18 12:04 Matrix: Water**				**Metals are not field filtered, TOC/DO**
Filter 1 u for Organics (Subc)	06/29/18	06/15/18 12:04		
Containers Supplied:				
18F0226-06 C Glass NM, Amber, 1000 mL	**18F0226-06 D** Glass NM, Amber, 500 mL	**18F0226-06 E** Glass NM, Amber, 500 mL		
Sample ID: 18F0226-07 **Sampled: 06/14/18 09:50 Matrix: Water**				**Metals are not field filtered, TOC/DO**
Filter 1 u for Organics (Subc)	06/29/18	06/15/18 09:50		
Containers Supplied:				
18F0226-07 C Glass NM, Amber, 1000 mL	**18F0226-07 D** Glass NM, Amber, 500 mL	**18F0226-07 E** Glass NM, Amber, 500 mL		
Sample ID: 18F0226-08 **Sampled: 06/14/18 09:53 Matrix: Water**				**Metals are not field filtered, TOC/DO**
Filter 1 u for Organics (Subc)	06/29/18	06/15/18 09:53		
Containers Supplied:				
18F0226-08 B Glass NM, Amber, 1000 mL	**18F0226-08 C** Glass NM, Amber, 500 mL	**18F0226-08 D** Glass NM, Amber, 500 mL		
Sample ID: 18F0226-09 **Sampled: 06/14/18 11:11 Matrix: Water**				**Metals are not field filtered, TOC/DO**
Filter 1 u for Organics (Subc)	06/29/18	06/15/18 11:11		
Containers Supplied:				
18F0226-09 C Glass NM, Amber, 1000 mL	**18F0226-09 D** Glass NM, Amber, 500 mL	**18F0226-09 E** Glass NM, Amber, 500 mL		

Released By	Date	Received By	Date
Released By	Date	Received By	Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Windward

Project Name: AOC3 Task 4

COC No(s): _____ NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: 18F0226

Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	NO
Were custody papers included with the cooler?	YES	NO
Were custody papers properly filled out (ink, signed, etc.)	YES	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) 11.5 12.1 9.9 10.9 6.3

Time: 1545

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: D002565

Cooler Accepted by: SEF Date: 6/14/18 Time: 1545

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	NO
What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____			
Was sufficient ice used (if appropriate)?	NA JBW	YES	NO
Were all bottles sealed in individual plastic bags?		YES	NO
Did all bottles arrive in good condition (unbroken)?		YES	NO
Were all bottle labels complete and legible?		YES	NO
Did the number of containers listed on COC match with the number of containers received?		YES	NO
Did all bottle labels and tags agree with custody papers?		YES	NO
Were all bottles used correct for the requested analyses?	JBW	YES	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)...	NA	YES	NO
Were all VOC vials free of air bubbles?	NA	YES	NO
Was sufficient amount of sample sent in each bottle?		YES	NO
Date VOC Trip Blank was made at ARI	NA		

Was Sample Split by ARI : NA YES Date/Time: _____ Equipment: _____ Split by: _____

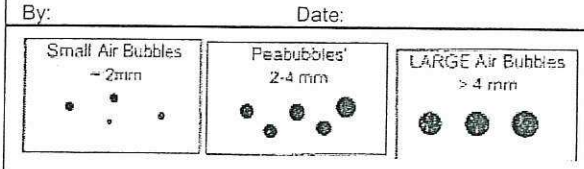
Samples Logged by: JBW Date: 06/15/18 Time: 0807

*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: Date:



Small → "sm" (< 2 mm)	
Peabubbles → "pb" (2 to < 4 mm)	
Large → "lg" (4 to < 6 mm)	
Headspace → "hs" (> 6 mm)	

Incorporated
Analytical Chemists and
Consultants

Cooler Temperature Compliance Form

ARI Work Order: 18F0226

Cooler#: 1 Temperature(°C): 11.5

Sample ID	Bottle Count	Bottle Type
Samples recieved above 6°		

Cooler#: 2 Temperature(°C): 12.1

Sample ID	Bottle Count	Bottle Type
Samples recieved above 6°		

Cooler#: 3 Temperature(°C): 9.9

Sample ID	Bottle Count	Bottle Type
Samples recieved above 6°		

Cooler#: 4 Temperature(°C): 10.9

Sample ID	Bottle Count	Bottle Type
Samples recieved above 6°		
Cooler #5	6.3	
Samples recieved above 6°		

Completed by: Sef Date: 6/14/18 Time: 1545

WORK ORDER

18F0226

Client: Windward Environmental, LLC
Project Manager: Susan Dunnihoo

Project: AOC3 Task 4 (Seeps)
Project Number: [none]

Preservation Confirmation

Container ID	Container Type	pH	
18F0226-01 A	Glass NM, Amber, 1000 mL		
18F0226-01 B	Glass NM, Amber, 1000 mL		
18F0226-01 C	Glass NM, Amber, 500 mL		
18F0226-01 D	Glass NM, Amber, 500 mL		
18F0226-01 E	Glass NM, Amber, 250 mL	>2	fail
18F0226-01 F	HDPE NM, 500 mL	>2	fail
18F0226-01 G	HDPE NM, 125 mL		
18F0226-02 A	Glass NM, Amber, 1000 mL		
18F0226-02 B	Glass NM, Amber, 1000 mL		
18F0226-02 C	Glass NM, Amber, 1000 mL		
18F0226-02 D	Glass NM, Amber, 1000 mL		
18F0226-02 E	Glass NM, Amber, 1000 mL		
18F0226-02 F	Glass NM, Amber, 500 mL		
18F0226-02 G	Glass NM, Amber, 500 mL		
18F0226-02 H	Glass NM, Amber, 500 mL		
18F0226-02 I	Glass NM, Amber, 500 mL		
18F0226-02 J	Glass NM, Amber, 500 mL		
18F0226-02 K	Glass NM, Amber, 500 mL		
18F0226-02 L	Glass NM, Amber, 250 mL	>2	fail
18F0226-02 M	HDPE NM, 500 mL	>2	fail
18F0226-02 N	HDPE NM, 500 mL	>2	fail
18F0226-02 O	HDPE NM, 125 mL		
18F0226-03 A	Glass NM, Amber, 1000 mL		
18F0226-03 B	Glass NM, Amber, 1000 mL		
18F0226-03 C	Glass NM, Amber, 500 mL		
18F0226-03 D	Glass NM, Amber, 500 mL		
18F0226-03 E	Glass NM, Amber, 250 mL	>2	fail
18F0226-03 F	HDPE NM, 500 mL	>2	fail
18F0226-03 G	HDPE NM, 125 mL		
18F0226-04 A	Glass NM, Amber, 1000 mL		
18F0226-04 B	Glass NM, Amber, 1000 mL		
18F0226-04 C	Glass NM, Amber, 500 mL		
18F0226-04 D	Glass NM, Amber, 500 mL		
18F0226-04 E	Glass NM, Amber, 250 mL	>2	fail
18F0226-04 F	HDPE NM, 500 mL	>2	fail

Reviewed By

Date

WORK ORDER

18F0226

Client: Windward Environmental, LLC	**Project Manager: Susan Dunnihoo**
Project: AOC3 Task 4 (Seeps)	**Project Number: [none]**

18F0226-09 F	Glass NM, Amber, 250 mL	>2	fail
18F0226-09 G	HDPE NM, 500 mL	>2	fail
18F0226-09 H	HDPE NM, 125 mL		

JBm
Preservation Confirmed By

06/15/18
Date

filtered + preserved
6/19/18 DP

Reviewed By

Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Windard Project Name: AOC3 Task 4

COC No(s): 3085 NA Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: 18F0248 Tracking No: _____ NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler? YES NO

Were custody papers included with the cooler? ..... YES NO

Were custody papers properly filled out (ink, signed, etc.) ..... YES NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry) 9.4 9.2 11.8 14.0 ___ ___

Time: 1610

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: D002565

Cooler Accepted by: Set Date: 6/15/18 Time: 1610

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler? ..... YES NO

What kind of packing material was used? ... Bubble Wrap Wet Ice Gel Packs Baggies Foam Block Paper Other: _____

Was sufficient ice used (if appropriate)? ..... NA YES NO

Were all bottles sealed in individual plastic bags? ..... YES NO

Did all bottles arrive in good condition (unbroken)? ..... YES NO

Were all bottle labels complete and legible? ..... YES NO

Did the number of containers listed on COC match with the number of containers received? ..... YES NO

Did all bottle labels and tags agree with custody papers? ..... YES NO

Were all bottles used correct for the requested analyses? ..... YES NO

Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)... NA YES NO

Were all VOC vials free of air bubbles? ..... NA YES NO

Was sufficient amount of sample sent in each bottle? ..... YES NO

Date VOC Trip Blank was made at ARI..... NA _____

Was Sample Split by ARI : NA YES Date/Time:_____ Equipment:_____ Split by:_____

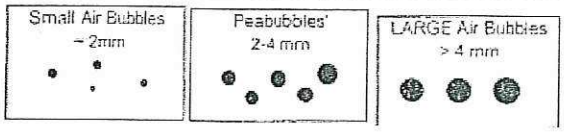
Samples Logged by: Set Date: 6/15/18 Time: 1718

*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: Date:



Small → "sm" (< 2 mm)

Peabubbles → "pb" (2 to < 4 mm)

Large → "lg" (4 to < 6 mm)

Headspace → "hs" (> 6 mm)

Incorporated
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Consultants

Cooler Temperature Compliance Form

ARI Work Order: 18F0248

Cooler#: 1 Temperature(°C): 9.4

Sample ID	Bottle Count	Bottle Type
Samples received above 6°		

Cooler#: 2 Temperature(°C): 9.2

Sample ID	Bottle Count	Bottle Type
" "		

Cooler#: 3 Temperature(°C): 11.8

Sample ID	Bottle Count	Bottle Type
" "		

Cooler#: 4 Temperature(°C): 14.0

Sample ID	Bottle Count	Bottle Type
" "		

Completed by: Set Date: 6/15/18 Time: 1610

Windward Environmental, LLC	Project: AOC3 Task 4 (Seeps)	
200 West Mercer Street, Suite 401	Project Number: [none]	**Reported:**
Seattle WA, 98119-3958	Project Manager: Amara Vandervort	30-Jul-2018 12:12

Case Narrative

Sample aliquots for organic and dissolved analyses were filtered per the QAPP before analysis .

Semivolatiles - EPA Method SW8270D

The samples were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

The method blanks were clean at the reporting limits.

The LCS percent recoveries were within control limits.

The matrix spike/matrix spike duplicate recoveries and RPD were within project limits for all QC sets.

Polynuclear Aromatic Hydrocarbons (PAH) - EPA Method SW8270D-SIM

Acenaphthylene was added to the target list per client instructions.

The samples were extracted and analyzed within the recommended holding times.

The results for benzo(j)fluoranthene, chrysene and fluoranthene were high of limits in SGG0067-ICV1 and SGG0076-ICV1. Associated positive results have been “Q”-flagged.

Internal standard areas were within limits.

The surrogate percent recoveries for fluoranthene-d10 were outside limits low for the LCS BGF0416 (52.6%) and the matrix spike BGF0416-MS (55.6%). Outliers have been flagged on the summary sheets. Recoveries in LDW18-SP-38 were low of limits for 2-methylnaphthalene-d10 (37.2%) and fluoranthene-d10 (42.4%). Recoveries in LDW18-SP-42 were low of limits for 2-methylnaphthalene-d10 (40.6%) and fluoranthene-d10 (47.1%). The surrogate percent recoveries for fluoranthene-d10 were outside limits low for LDW18-SP-43 (51.0%). No sample volume was available to re-extract the samples.

The method blanks were clean at the reporting limits.

The LCS percent recoveries were within control limits.

The matrix spike/matrix spike duplicate recoveries and RPD were within limits.

Sample LDW18-SP-33 was rerun due to acenaphthene above the calibration range of the instrument. Sample LDW18-SP-77 was rerun at dilution, but due to a non-target analyte over the calibration range.

PCB Aroclors - EPA Method SW8082A

The samples were extracted and analyzed within the recommended holding times.

The response for aroclor 1016 on the second column was high of limits in SGF0299-CCV2 and SGF0341-CCV2. The response for aroclor 1260 on the first column was high of limits for SG0299-CCV4. The response for aroclor 1254 on the second column was low of limits in SGF0341-ICV1. The response for aroclor 1260 on the second column was high of limits for SGF0341-ICV2, SGF0393-CCV2 and SGF0393-ICV2. The response for aroclor 1242 was high of limits on the second

Windward Environmental, LLC	Project: AOC3 Task 4 (Seeps)	
200 West Mercer Street, Suite 401	Project Number: [none]	**Reported:**
Seattle WA, 98119-3958	Project Manager: Amara Vandervort	30-Jul-2018 12:12

Case Narrative

column for SDG0393-CCV9.

Internal standard areas were within limits.

The result for TCMX on the first column for sample LDW18-SP-42 has been reported “NRS”, due to interference. The reported surrogate percent recoveries were within control limits.

The method blanks were clean at the reporting limits.

The LCS percent recoveries were within control limits.

The matrix spike/matrix spike duplicate recoveries and RPD were within limits.

Dissolved Metals including Mercury - EPA Method 6020A, 6020A-KED and 7470B

The samples were digested and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The method blanks were clean at the reporting limits.

The LCS percent recoveries were within control limits.

Duplicate RPD and matrix spike recoveries were within limits.

Wet Chemistry (TOC,DOC and TSS)

The samples were initially prepared and analyzed within the recommended holding times. Due to QC issues with the instrument, several results for dissolved organic carbon have been “*”-flagged to indicate issues with the analysis. Some samples were run in holding time but due to QC issues were rerun outside of holding time after instrument maintenance and stabilization; both sets of results have been reported.

Initial and continuing calibrations were within method requirements with exceptions

The method blanks were clean at the reporting limits.

The LCS percent recoveries were within control limits.

The suspended solids duplicate RPD was outside limits for sample LDW18-SP-57. The TOC duplicate result for LDW18-SP-01 was outside limits and rerun outside of holding time. All other duplicate RPD and matrix spike recoveries were within limits.

Windward Environmental, LLC	Project: AOC3 Task 4 (Seeps)	
200 West Mercer Street, Suite 401	Project Number: [none]	**Reported:**
Seattle, WA 98119-3958	Project Manager: Amara Vandervort	07/30/2018 12:12

ANALYTICAL REPORT FOR SAMPLES

Laboratory ID	Sample ID	Matrix	Date Sampled	Date Received
18F0185-01	LDW18-SP-RB1	Water	06/11/18 16:12	06/12/18 14:55
18F0185-02	LDW18-SP-RB2	Water	06/11/18 16:37	06/12/18 14:55
18F0185-03	LDW18-SP-30	Water	06/12/18 12:06	06/12/18 14:55
18F0185-04	LDW18-SP-32	Water	06/12/18 09:19	06/12/18 14:55
18F0185-05	LDW18-SP-35	Water	06/12/18 10:56	06/12/18 14:55
18F0185-06	LDW18-SP-38	Water	06/12/18 10:27	06/12/18 14:55
18F0185-07	LDW18-SP-42	Water	06/12/18 12:05	06/12/18 14:55
18F0185-08	LDW18-SP-43	Water	06/12/18 13:00	06/12/18 14:55

Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)	
200 West Mercer Street, Suite 401	Project Number:	[none]	**Reported:**
Seattle, WA 98119-3958	Project Manager:	Amara Vandervort	07/30/2018 12:12

ANALYTICAL REPORT FOR SAMPLES

Laboratory ID	Sample ID	Matrix	Date Sampled	Date Received
18F0208-01	LDW18-SP-06	Water	06/13/18 09:53	06/13/18 16:26
18F0208-02	LDW18-SP-33	Water	06/13/18 12:17	06/13/18 16:26
18F0208-03	LDW18-SP-24	Water	06/13/18 12:35	06/13/18 16:26
18F0208-04	LDW18-SP-24-FD	Water	06/13/18 12:42	06/13/18 16:26

Windward Environmental, LLC	Project: AOC3 Task 4 (Seeps)	
200 West Mercer Street, Suite 401	Project Number: [none]	**Reported:**
Seattle, WA 98119-3958	Project Manager: Amara Vandervort	07/30/2018 12:12

ANALYTICAL REPORT FOR SAMPLES

Laboratory ID	Sample ID	Matrix	Date Sampled	Date Received
18F0226-01	LDW18-SP-05	Water	06/14/18 14:08	06/14/18 15:45
18F0226-02	LDW18-SP-57	Water	06/14/18 10:41	06/14/18 15:45
18F0226-03	LDW18-SP-73	Water	06/14/18 13:08	06/14/18 15:45
18F0226-04	LDW18-SP-74	Water	06/14/18 13:14	06/14/18 15:45
18F0226-05	LDW18-SP-77	Water	06/14/18 12:10	06/14/18 15:45
18F0226-06	LDW18-SP-78	Water	06/14/18 12:04	06/14/18 15:45
18F0226-07	LDW18-SP-79	Water	06/14/18 09:50	06/14/18 15:45
18F0226-08	LDW18-SP-84	Water	06/14/18 09:53	06/14/18 15:45
18F0226-09	LDW18-SP-87	Water	06/14/18 11:11	06/14/18 15:45

Windward Environmental, LLC	Project: AOC3 Task 4 (Seeps)	
200 West Mercer Street, Suite 401	Project Number: [none]	**Reported:**
Seattle, WA 98119-3958	Project Manager: Amara Vandervort	07/30/2018 12:12

ANALYTICAL REPORT FOR SAMPLES

Laboratory ID	Sample ID	Matrix	Date Sampled	Date Received
18F0248-01	LDW18-SP-01	Water	06/15/18 11:33	06/14/18 15:45
18F0248-02	LDW18-SP-45	Water	06/15/18 13:45	06/14/18 15:45
18F0248-03	LDW18-SP-47	Water	06/15/18 13:16	06/14/18 15:45
18F0248-04	LDW18-SP-66	Water	06/15/18 13:25	06/14/18 15:45
18F0248-05	LDW18-SP-70	Water	06/15/18 11:13	06/14/18 15:45
18F0248-06	LDW18-SP-83	Water	06/15/18 12:08	06/14/18 15:45
18F0248-07	LDW18-SP-86	Water	06/15/18 12:19	06/14/18 15:45
18F0248-08	LDW18-SP-88	Water	06/15/18 10:52	06/14/18 15:45

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0185

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0185-01 (LDW18-SP-RB1) Sampled 06/11/2018 16:12

Current Status	*Out*	*Location*	*In*
18F0185-01 A [Glass NM, Amber, 250 mL]		*Hazard Info:Fluorene [1.93032E-03ug/L];Phenanthrene [0.0530092ug/L];Fluoran*	
Sample Receiving	06/13/2018 11:08 by SEF	***START***	06/13/2018 11:08 by SEF
	06/13/2018 11:08 by SEF	***START***	06/13/2018 11:08 by SEF
	06/13/2018 11:08 by SEF	***START***	06/13/2018 11:08 by SEF
	06/13/2018 11:08 by SEF	***START***	06/13/2018 11:08 by SEF
18F0185-01 A 01 [Glass NM, Amber, 250 mL		*Hazard Info:Fluorene [1.93032E-03ug/L];Phenanthrene [0.0530092ug/L];Fluoran*	
Conventionals	06/13/2018 12:15 by CDE	Conv Login Bench	06/13/2018 14:52 by YK
	06/13/2018 12:15 by CDE	Conv Login Bench	06/13/2018 14:52 by YK
	06/13/2018 12:15 by CDE	Conv Login Bench	06/13/2018 14:52 by YK
	06/13/2018 12:15 by CDE	Conv Login Bench	06/13/2018 14:52 by YK
18F0185-01 B 01 [HDPE NM, 125 mL]		*Hazard Info:Fluorene [1.93032E-03ug/L];Phenanthrene [0.0530092ug/L];Fluoran*	
Metals	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/29/2018 08:06 by DP	DA-02	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0185

Client:	Windward Environmental, LLC	Received:	13-Jun-2018 16:26
Project:	AOC3 Task 4 (Seeps)	Received By:	Brandon Fisk
Number:	[none]	Temp (°C):	13.90

18F0185-01 (LDW18-SP-RB1) Sampled 06/11/2018 16:12

Current Status	*Out*	*Location*	*In*
18F0185-01 B 01 [HDPE NM, 125 mL]		*Hazard Info:Fluorene [1.93032E-03ug/L];Phenanthrene [0.0530092ug/L];Fluoran*	
Metals	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
18F0185-01 C [HDPE NM, 500 mL]		*Hazard Info:Fluorene [1.93032E-03ug/L];Phenanthrene [0.0530092ug/L];Fluoran*	
Sample Receiving	06/13/2018 11:08 by SEF	***START***	06/13/2018 11:08 by SEF
	06/13/2018 11:08 by SEF	***START***	06/13/2018 11:08 by SEF
	06/13/2018 11:08 by SEF	***START***	06/13/2018 11:08 by SEF
	06/13/2018 11:08 by SEF	***START***	06/13/2018 11:08 by SEF
Conventionals	06/13/2018 14:29 by CDE	solids Cart	06/18/2018 07:01 by KLE
	06/13/2018 14:29 by CDE	solids Cart	06/18/2018 07:01 by KLE
	06/13/2018 14:29 by CDE	solids Cart	06/18/2018 07:01 by KLE
	06/13/2018 14:29 by CDE	solids Cart	06/18/2018 07:01 by KLE
18F0185-01 D [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [1.93032E-03ug/L];Phenanthrene [0.0530092ug/L];Fluoran*	
Sample Receiving	06/13/2018 11:08 by SEF	***START***	06/13/2018 11:08 by SEF
	06/13/2018 11:08 by SEF	***START***	06/13/2018 11:08 by SEF

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0185

Client:	Windward Environmental, LLC	Received:	14-Jun-2018 15:45
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	11.50

18F0185-01 (LDW18-SP-RB1) Sampled 06/11/2018 16:12

Current Status	*Out*	*Location*	*In*
18F0185-01 D [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [1.93032E-03ug/L];Phenanthrene [0.0530092ug/L];Fluoran*	
Sample Receiving	06/13/2018 11:08 by SEF	***START***	06/13/2018 11:08 by SEF
	06/13/2018 11:08 by SEF	***START***	06/13/2018 11:08 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
Extractions	06/18/2018 13:13 by WPW	Water Lab	by
	06/18/2018 13:13 by WPW	Water Lab	by
	06/18/2018 13:13 by WPW	Water Lab	by
	06/18/2018 13:13 by WPW	Water Lab	by
18F0185-01 E [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [1.93032E-03ug/L];Phenanthrene [0.0530092ug/L];Fluoran*	
Sample Receiving	06/13/2018 11:08 by SEF	***START***	06/13/2018 11:08 by SEF
	06/13/2018 11:08 by SEF	***START***	06/13/2018 11:08 by SEF
	06/13/2018 11:08 by SEF	***START***	06/13/2018 11:08 by SEF
	06/13/2018 11:08 by SEF	***START***	06/13/2018 11:08 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
Extractions	06/18/2018 13:46 by WPW	Water Lab	by
	06/18/2018 13:46 by WPW	Water Lab	by
	06/18/2018 13:46 by WPW	Water Lab	by
	06/18/2018 13:46 by WPW	Water Lab	by
18F0185-01 F [Glass NM, Amber, 1000 mL]		*Hazard Info:Fluorene [1.93032E-03ug/L];Phenanthrene [0.0530092ug/L];Fluoran*	
Sample Receiving	06/13/2018 11:08 by SEF	***START***	06/13/2018 11:08 by SEF
	06/13/2018 11:08 by SEF	***START***	06/13/2018 11:08 by SEF
	06/13/2018 11:08 by SEF	***START***	06/13/2018 11:08 by SEF
	06/13/2018 11:08 by SEF	***START***	06/13/2018 11:08 by SEF
	06/13/2018 11:41 by SEF	R-05 W06 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:41 by SEF	R-05 W06 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:41 by SEF	R-05 W06 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:41 by SEF	R-05 W06 Ext	06/14/2018 11:45 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:51 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:51 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:51 by SEF

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0185

Client:	Windward Environmental, LLC	Received:	15-Jun-2018 16:10
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	9.40

18F0185-01 (LDW18-SP-RB1) Sampled 06/11/2018 16:12

Current Status	*Out*	*Location*	*In*
18F0185-01 F [Glass NM, Amber, 1000 mL]		*Hazard Info:Fluorene [1.93032E-03ug/L];Phenanthrene [0.0530092ug/L];Fluoran*	
Sample Receiving	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:51 by SEF
	06/18/2018 13:12 by SEF	Water Lab	by
	06/18/2018 13:12 by SEF	Water Lab	by
	06/18/2018 13:12 by SEF	Water Lab	by
	06/18/2018 13:12 by SEF	Water Lab	by

18F0185-03 (LDW18-SP-30) Sampled 06/12/2018 12:06

Current Status	*Out*	*Location*	*In*
18F0185-03 A [Glass NM, Amber, 250 mL]		*Hazard Info:Fluorene [8.06361E-03ug/L];Phenanthrene [0.0370441ug/L];Anthrac*	
Sample Receiving	06/13/2018 11:09 by SEF	***START***	06/13/2018 11:09 by SEF
	06/13/2018 11:09 by SEF	***START***	06/13/2018 11:09 by SEF
	06/13/2018 11:09 by SEF	***START***	06/13/2018 11:09 by SEF
	06/13/2018 11:09 by SEF	***START***	06/13/2018 11:09 by SEF
18F0185-03 A 01 [Glass NM, Amber, 250 mL		*Hazard Info:Fluorene [8.06361E-03ug/L];Phenanthrene [0.0370441ug/L];Anthrac*	
Conventionals	06/13/2018 12:15 by CDE	Conv Login Bench	06/13/2018 14:52 by YK
	06/13/2018 12:15 by CDE	Conv Login Bench	06/13/2018 14:52 by YK
	06/13/2018 12:15 by CDE	Conv Login Bench	06/13/2018 14:52 by YK
	06/13/2018 12:15 by CDE	Conv Login Bench	06/13/2018 14:52 by YK
18F0185-03 B 01 [HDPE NM, 125 mL]		*Hazard Info:Fluorene [8.06361E-03ug/L];Phenanthrene [0.0370441ug/L];Anthrac*	
Metals	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0185

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0185-03 (LDW18-SP-30) Sampled 06/12/2018 12:06

Current Status	*Out*	*Location*	*In*
18F0185-03 B 01 [HDPE NM, 125 mL]		*Hazard Info:Fluorene [8.06361E-03ug/L];Phenanthrene [0.0370441ug/L];Anthrac*	
Metals	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
18F0185-03 C [HDPE NM, 500 mL]		*Hazard Info:Fluorene [8.06361E-03ug/L];Phenanthrene [0.0370441ug/L];Anthrac*	
Sample Receiving	06/13/2018 11:09 by SEF	***START***	06/13/2018 11:09 by SEF
	06/13/2018 11:09 by SEF	***START***	06/13/2018 11:09 by SEF

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0185

Client:	Windward Environmental, LLC	Received:	14-Jun-2018 15:45
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	11.50

18F0185-03 (LDW18-SP-30) Sampled 06/12/2018 12:06

Current Status	*Out*	*Location*	*In*
18F0185-03 C [HDPE NM, 500 mL]		*Hazard Info:Fluorene [8.06361E-03ug/L];Phenanthrene [0.0370441ug/L];Anthrac*	
Sample Receiving	06/13/2018 11:09 by SEF	***START***	06/13/2018 11:09 by SEF
	06/13/2018 11:09 by SEF	***START***	06/13/2018 11:09 by SEF
Conventionals	06/13/2018 14:29 by CDE	solids Cart	06/18/2018 07:01 by KLE
	06/13/2018 14:29 by CDE	solids Cart	06/18/2018 07:01 by KLE
	06/13/2018 14:29 by CDE	solids Cart	06/18/2018 07:01 by KLE
	06/13/2018 14:29 by CDE	solids Cart	06/18/2018 07:01 by KLE
18F0185-03 D [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [8.06361E-03ug/L];Phenanthrene [0.0370441ug/L];Anthrac*	
Sample Receiving	06/13/2018 11:09 by SEF	***START***	06/13/2018 11:09 by SEF
	06/13/2018 11:09 by SEF	***START***	06/13/2018 11:09 by SEF
	06/13/2018 11:09 by SEF	***START***	06/13/2018 11:09 by SEF
	06/13/2018 11:09 by SEF	***START***	06/13/2018 11:09 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
Extractions	06/18/2018 13:13 by WPW	Water Lab	by
	06/18/2018 13:13 by WPW	Water Lab	by
	06/18/2018 13:13 by WPW	Water Lab	by
	06/18/2018 13:13 by WPW	Water Lab	by
18F0185-03 E [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [8.06361E-03ug/L];Phenanthrene [0.0370441ug/L];Anthrac*	
Sample Receiving	06/13/2018 11:09 by SEF	***START***	06/13/2018 11:09 by SEF
	06/13/2018 11:09 by SEF	***START***	06/13/2018 11:09 by SEF
	06/13/2018 11:09 by SEF	***START***	06/13/2018 11:09 by SEF
	06/13/2018 11:09 by SEF	***START***	06/13/2018 11:09 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
Extractions	06/18/2018 13:46 by WPW	Water Lab	by
	06/18/2018 13:46 by WPW	Water Lab	by
	06/18/2018 13:46 by WPW	Water Lab	by
	06/18/2018 13:46 by WPW	Water Lab	by
18F0185-03 F [Glass NM, Amber, 1000 mL]		*Hazard Info:Fluorene [8.06361E-03ug/L];Phenanthrene [0.0370441ug/L];Anthrac*	
Sample Receiving	06/13/2018 11:09 by SEF	***START***	06/13/2018 11:09 by SEF

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0185

Client:	Windward Environmental, LLC	Received:	13-Jun-2018 16:26
Project:	AOC3 Task 4 (Seeps)	Received By:	Brandon Fisk
Number:	[none]	Temp (°C):	13.90

18F0185-03 (LDW18-SP-30) Sampled 06/12/2018 12:06

Current Status	*Out*	*Location*	*In*
18F0185-03 F [Glass NM, Amber, 1000 mL]		*Hazard Info:Fluorene [8.06361E-03ug/L];Phenanthrene [0.0370441ug/L];Anthrac*	
Sample Receiving	06/13/2018 11:09 by SEF	***START***	06/13/2018 11:09 by SEF
	06/13/2018 11:09 by SEF	***START***	06/13/2018 11:09 by SEF
	06/13/2018 11:09 by SEF	***START***	06/13/2018 11:09 by SEF
	06/13/2018 11:41 by SEF	R-05 W06 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:41 by SEF	R-05 W06 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:41 by SEF	R-05 W06 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:41 by SEF	R-05 W06 Ext	06/14/2018 11:45 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:51 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:51 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:51 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:51 by SEF
	06/18/2018 13:12 by SEF	Water Lab	by
	06/18/2018 13:12 by SEF	Water Lab	by
	06/18/2018 13:12 by SEF	Water Lab	by
	06/18/2018 13:12 by SEF	Water Lab	by

18F0185-04 (LDW18-SP-32) Sampled 06/12/2018 09:19

Current Status	*Out*	*Location*	*In*
18F0185-04 A [Glass NM, Amber, 250 mL]		*Hazard Info:Fluorene [1.30024E-03ug/L];Phenanthrene [3.82889E-03ug/L];Fluor*	
Sample Receiving	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
18F0185-04 A 01 [Glass NM, Amber, 250 mL		*Hazard Info:Fluorene [1.30024E-03ug/L];Phenanthrene [3.82889E-03ug/L];Fluor*	
Conventionals	06/13/2018 12:15 by CDE	Conv Login Bench	06/13/2018 14:52 by YK
	06/13/2018 12:15 by CDE	Conv Login Bench	06/13/2018 14:52 by YK
	06/13/2018 12:15 by CDE	Conv Login Bench	06/13/2018 14:52 by YK
	06/13/2018 12:15 by CDE	Conv Login Bench	06/13/2018 14:52 by YK
18F0185-04 B 01 [HDPE NM, 125 mL]		*Hazard Info:Fluorene [1.30024E-03ug/L];Phenanthrene [3.82889E-03ug/L];Fluor*	
Metals	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0185

Client:	Windward Environmental, LLC	Received:	14-Jun-2018 15:45
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	11.50

18F0185-04 (LDW18-SP-32) Sampled 06/12/2018 09:19

Current Status	*Out*	*Location*	*In*
18F0185-04 B 01 [HDPE NM, 125 mL]		*Hazard Info:Fluorene [1.30024E-03ug/L];Phenanthrene [3.82889E-03ug/L];Fluor*	
Metals	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0185

Client:	Windward Environmental, LLC	Received:	14-Jun-2018 15:45
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	11.50

18F0185-04 (LDW18-SP-32) Sampled 06/12/2018 09:19

Current Status	*Out*	*Location*	*In*
18F0185-04 B 01 [HDPE NM, 125 mL]		*Hazard Info:Fluorene [1.30024E-03ug/L];Phenanthrene [3.82889E-03ug/L];Fluor*	
Metals	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
18F0185-04 C [HDPE NM, 500 mL]		*Hazard Info:Fluorene [1.30024E-03ug/L];Phenanthrene [3.82889E-03ug/L];Fluor*	
Sample Receiving	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
Conventionals	06/13/2018 14:29 by CDE	solids Cart	06/18/2018 07:01 by KLE
	06/13/2018 14:29 by CDE	solids Cart	06/18/2018 07:01 by KLE
	06/13/2018 14:29 by CDE	solids Cart	06/18/2018 07:01 by KLE
	06/13/2018 14:29 by CDE	solids Cart	06/18/2018 07:01 by KLE
18F0185-04 D [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [1.30024E-03ug/L];Phenanthrene [3.82889E-03ug/L];Fluor*	
Sample Receiving	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
Extractions	06/18/2018 13:13 by WPW	Water Lab	by
	06/18/2018 13:13 by WPW	Water Lab	by
	06/18/2018 13:13 by WPW	Water Lab	by
	06/18/2018 13:13 by WPW	Water Lab	by
18F0185-04 E [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [1.30024E-03ug/L];Phenanthrene [3.82889E-03ug/L];Fluor*	
Sample Receiving	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0185

Client:	Windward Environmental, LLC	Received:	13-Jun-2018 16:26
Project:	AOC3 Task 4 (Seeps)	Received By:	Brandon Fisk
Number:	[none]	Temp (°C):	13.90

18F0185-04 (LDW18-SP-32) Sampled 06/12/2018 09:19

Current Status	*Out*	*Location*	*In*
18F0185-04 E [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [1.30024E-03ug/L];Phenanthrene [3.82889E-03ug/L];Fluor*	
Sample Receiving	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
Extractions	06/18/2018 13:46 by WPW	Water Lab	by
	06/18/2018 13:46 by WPW	Water Lab	by
	06/18/2018 13:46 by WPW	Water Lab	by
	06/18/2018 13:46 by WPW	Water Lab	by
18F0185-04 F [Glass NM, Amber, 1000 mL]		*Hazard Info:Fluorene [1.30024E-03ug/L];Phenanthrene [3.82889E-03ug/L];Fluor*	
Sample Receiving	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:41 by SEF	R-05 W06 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:41 by SEF	R-05 W06 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:41 by SEF	R-05 W06 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:41 by SEF	R-05 W06 Ext	06/14/2018 11:45 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:51 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:51 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:51 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:51 by SEF
	06/18/2018 13:12 by SEF	Water Lab	by
	06/18/2018 13:12 by SEF	Water Lab	by
	06/18/2018 13:12 by SEF	Water Lab	by
	06/18/2018 13:12 by SEF	Water Lab	by

18F0185-05 (LDW18-SP-35) Sampled 06/12/2018 10:56

Current Status	*Out*	*Location*	*In*
18F0185-05 A [Glass NM, Amber, 250 mL]		*Hazard Info:Acenaphthene [8.49252E-03ug/L];Fluorene [9.8983E-04ug/L];Phenan*	
Sample Receiving	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
18F0185-05 A 01 [Glass NM, Amber, 250 mL		*Hazard Info:Acenaphthene [8.49252E-03ug/L];Fluorene [9.8983E-04ug/L];Phenan*	
Conventionals	06/13/2018 12:15 by CDE	Conv Login Bench	06/13/2018 14:52 by YK
	06/13/2018 12:15 by CDE	Conv Login Bench	06/13/2018 14:52 by YK
	06/13/2018 12:15 by CDE	Conv Login Bench	06/13/2018 14:52 by YK
	06/13/2018 12:15 by CDE	Conv Login Bench	06/13/2018 14:52 by YK
18F0185-05 B 01 [HDPE NM, 125 mL]		*Hazard Info:Acenaphthene [8.49252E-03ug/L];Fluorene [9.8983E-04ug/L];Phenan*	
Metals	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0185

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0185-05 (LDW18-SP-35) Sampled 06/12/2018 10:56

Current Status	*Out*	*Location*	*In*
18F0185-05 B 01 [HDPE NM, 125 mL]		*Hazard Info:Acenaphthene [8.49252E-03ug/L];Fluorene [9.8983E-04ug/L];Phenan*	
Metals	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0185

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0185-05 (LDW18-SP-35) Sampled 06/12/2018 10:56

Current Status	*Out*	*Location*	*In*
18F0185-05 B 01 [HDPE NM, 125 mL]		*Hazard Info:Acenaphthene [8.49252E-03ug/L];Fluorene [9.8983E-04ug/L];Phenan*	
Metals	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
18F0185-05 C [HDPE NM, 500 mL]		*Hazard Info:Acenaphthene [8.49252E-03ug/L];Fluorene [9.8983E-04ug/L];Phenan*	
Sample Receiving	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
Conventionals	06/13/2018 14:29 by CDE	solids Cart	06/18/2018 07:01 by KLE
	06/13/2018 14:29 by CDE	solids Cart	06/18/2018 07:01 by KLE
	06/13/2018 14:29 by CDE	solids Cart	06/18/2018 07:01 by KLE
	06/13/2018 14:29 by CDE	solids Cart	06/18/2018 07:01 by KLE
18F0185-05 D [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthene [8.49252E-03ug/L];Fluorene [9.8983E-04ug/L];Phenan*	
Sample Receiving	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
Extractions	06/18/2018 13:13 by WPW	Water Lab	by
	06/18/2018 13:13 by WPW	Water Lab	by
	06/18/2018 13:13 by WPW	Water Lab	by
	06/18/2018 13:13 by WPW	Water Lab	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0185

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0185-05 (LDW18-SP-35) Sampled 06/12/2018 10:56

Current Status	*Out*	*Location*	*In*
18F0185-05 E [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthene [8.49252E-03ug/L];Fluorene [9.8983E-04ug/L];Phenan*	
Sample Receiving	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
Extractions	06/18/2018 13:46 by WPW	Water Lab	by
	06/18/2018 13:46 by WPW	Water Lab	by
	06/18/2018 13:46 by WPW	Water Lab	by
	06/18/2018 13:46 by WPW	Water Lab	by
18F0185-05 F [Glass NM, Amber, 1000 mL]		*Hazard Info:Acenaphthene [8.49252E-03ug/L];Fluorene [9.8983E-04ug/L];Phenan*	
Sample Receiving	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:10 by SEF	***START***	06/13/2018 11:10 by SEF
	06/13/2018 11:40 by SEF	R-05 W03 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:40 by SEF	R-05 W03 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:40 by SEF	R-05 W03 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:40 by SEF	R-05 W03 Ext	06/14/2018 11:45 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:51 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:51 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:51 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:51 by SEF
	06/18/2018 13:12 by SEF	Water Lab	by
	06/18/2018 13:12 by SEF	Water Lab	by
	06/18/2018 13:12 by SEF	Water Lab	by
	06/18/2018 13:12 by SEF	Water Lab	by

18F0185-06 (LDW18-SP-38) Sampled 06/12/2018 10:27

Current Status	*Out*	*Location*	*In*
18F0185-06 A [Glass NM, Amber, 250 mL]		*Hazard Info:Acenaphthene [0.0113074ug/L];Fluorene [1.79342E-03ug/L];Phenant*	
Sample Receiving	06/13/2018 11:11 by SEF	***START***	06/13/2018 11:11 by SEF
	06/13/2018 11:11 by SEF	***START***	06/13/2018 11:11 by SEF
	06/13/2018 11:11 by SEF	***START***	06/13/2018 11:11 by SEF
	06/13/2018 11:11 by SEF	***START***	06/13/2018 11:11 by SEF
18F0185-06 A 01 [Glass NM, Amber, 250 mL		*Hazard Info:Acenaphthene [0.0113074ug/L];Fluorene [1.79342E-03ug/L];Phenant*	
Conventionals	06/13/2018 12:15 by CDE	Conv Login Bench	06/13/2018 14:52 by YK

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0185

Client:	Windward Environmental, LLC	Received:	13-Jun-2018 16:26
Project:	AOC3 Task 4 (Seeps)	Received By:	Brandon Fisk
Number:	[none]	Temp (°C):	13.90

18F0185-06 (LDW18-SP-38) Sampled 06/12/2018 10:27

Current Status	*Out*	*Location*	*In*
18F0185-06 A 01 [Glass NM, Amber, 250 mL		*Hazard Info:Acenaphthene [0.0113074ug/L];Fluorene [1.79342E-03ug/L];Phenant*	
Conventionals	06/13/2018 12:15 by CDE	Conv Login Bench	06/13/2018 14:52 by YK
	06/13/2018 12:15 by CDE	Conv Login Bench	06/13/2018 14:52 by YK
	06/13/2018 12:15 by CDE	Conv Login Bench	06/13/2018 14:52 by YK
18F0185-06 B 01 [HDPE NM, 125 mL]		*Hazard Info:Acenaphthene [0.0113074ug/L];Fluorene [1.79342E-03ug/L];Phenant*	
Metals	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0185

Client:	Windward Environmental, LLC	Received:	15-Jun-2018 16:10
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	9.40

18F0185-06 (LDW18-SP-38) Sampled 06/12/2018 10:27

Current Status	*Out*	*Location*	*In*
18F0185-06 B 01 [HDPE NM, 125 mL]		*Hazard Info:Acenaphthene [0.0113074ug/L];Fluorene [1.79342E-03ug/L];Phenant*	
Metals	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
18F0185-06 C [HDPE NM, 500 mL]		*Hazard Info:Acenaphthene [0.0113074ug/L];Fluorene [1.79342E-03ug/L];Phenant*	
Sample Receiving	06/13/2018 11:11 by SEF	***START***	06/13/2018 11:11 by SEF
	06/13/2018 11:11 by SEF	***START***	06/13/2018 11:11 by SEF
	06/13/2018 11:11 by SEF	***START***	06/13/2018 11:11 by SEF
	06/13/2018 11:11 by SEF	***START***	06/13/2018 11:11 by SEF
Conventionals	06/13/2018 14:29 by CDE	solids Cart	06/18/2018 07:01 by KLE
	06/13/2018 14:29 by CDE	solids Cart	06/18/2018 07:01 by KLE
	06/13/2018 14:29 by CDE	solids Cart	06/18/2018 07:01 by KLE
	06/13/2018 14:29 by CDE	solids Cart	06/18/2018 07:01 by KLE
18F0185-06 D [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthene [0.0113074ug/L];Fluorene [1.79342E-03ug/L];Phenant*	
Sample Receiving	06/13/2018 11:11 by SEF	***START***	06/13/2018 11:11 by SEF
	06/13/2018 11:11 by SEF	***START***	06/13/2018 11:11 by SEF
	06/13/2018 11:11 by SEF	***START***	06/13/2018 11:11 by SEF
	06/13/2018 11:11 by SEF	***START***	06/13/2018 11:11 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0185

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0185-06 (LDW18-SP-38) Sampled 06/12/2018 10:27

Current Status	*Out*	*Location*	*In*
18F0185-06 D [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthene [0.0113074ug/L];Fluorene [1.79342E-03ug/L];Phenant*	
Sample Receiving	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
Extractions	06/18/2018 13:13 by WPW	Water Lab	by
	06/18/2018 13:13 by WPW	Water Lab	by
	06/18/2018 13:13 by WPW	Water Lab	by
	06/18/2018 13:13 by WPW	Water Lab	by
18F0185-06 E [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthene [0.0113074ug/L];Fluorene [1.79342E-03ug/L];Phenant*	
Sample Receiving	06/13/2018 11:11 by SEF	***START***	06/13/2018 11:11 by SEF
	06/13/2018 11:11 by SEF	***START***	06/13/2018 11:11 by SEF
	06/13/2018 11:11 by SEF	***START***	06/13/2018 11:11 by SEF
	06/13/2018 11:11 by SEF	***START***	06/13/2018 11:11 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
Extractions	06/18/2018 13:46 by WPW	Water Lab	by
	06/18/2018 13:46 by WPW	Water Lab	by
	06/18/2018 13:46 by WPW	Water Lab	by
	06/18/2018 13:46 by WPW	Water Lab	by
18F0185-06 F [Glass NM, Amber, 1000 mL]		*Hazard Info:Acenaphthene [0.0113074ug/L];Fluorene [1.79342E-03ug/L];Phenant*	
Sample Receiving	06/13/2018 11:11 by SEF	***START***	06/13/2018 11:11 by SEF
	06/13/2018 11:11 by SEF	***START***	06/13/2018 11:11 by SEF
	06/13/2018 11:11 by SEF	***START***	06/13/2018 11:11 by SEF
	06/13/2018 11:11 by SEF	***START***	06/13/2018 11:11 by SEF
	06/13/2018 11:40 by SEF	R-05 W03 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:40 by SEF	R-05 W03 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:40 by SEF	R-05 W03 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:40 by SEF	R-05 W03 Ext	06/14/2018 11:45 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:51 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:51 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:51 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:51 by SEF
	06/18/2018 13:12 by SEF	Water Lab	by
	06/18/2018 13:12 by SEF	Water Lab	by
	06/18/2018 13:12 by SEF	Water Lab	by
	06/18/2018 13:12 by SEF	Water Lab	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0185

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0185-07 (LDW18-SP-42) Sampled 06/12/2018 12:05

Current Status	*Out*	*Location*	*In*
18F0185-07 A [Glass NM, Amber, 250 mL]		*Hazard Info:Fluorene [1.32003E-03ug/L];Phenanthrene [3.32822E-03ug/L];Anthr*	
Sample Receiving	06/13/2018 11:12 by SEF	***START***	06/13/2018 11:12 by SEF
	06/13/2018 11:12 by SEF	***START***	06/13/2018 11:12 by SEF
	06/13/2018 11:12 by SEF	***START***	06/13/2018 11:12 by SEF
	06/13/2018 11:12 by SEF	***START***	06/13/2018 11:12 by SEF
18F0185-07 A 01 [Glass NM, Amber, 250 mL		*Hazard Info:Fluorene [1.32003E-03ug/L];Phenanthrene [3.32822E-03ug/L];Anthr*	
Conventionals	06/13/2018 12:15 by CDE	Conv Login Bench	06/13/2018 14:52 by YK
	06/13/2018 12:15 by CDE	Conv Login Bench	06/13/2018 14:52 by YK
	06/13/2018 12:15 by CDE	Conv Login Bench	06/13/2018 14:52 by YK
	06/13/2018 12:15 by CDE	Conv Login Bench	06/13/2018 14:52 by YK
18F0185-07 B 01 [HDPE NM, 125 mL]		*Hazard Info:Fluorene [1.32003E-03ug/L];Phenanthrene [3.32822E-03ug/L];Anthr*	
Metals	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/29/2018 08:06 by DP	DA-02	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0185

Client:	Windward Environmental, LLC	Received:	13-Jun-2018 16:26
Project:	AOC3 Task 4 (Seeps)	Received By:	Brandon Fisk
Number:	[none]	Temp (°C):	13.90

18F0185-07 (LDW18-SP-42) Sampled 06/12/2018 12:05

Current Status	*Out*	*Location*	*In*
18F0185-07 B 01 [HDPE NM, 125 mL]		*Hazard Info:Fluorene [1.32003E-03ug/L];Phenanthrene [3.32822E-03ug/L];Anthr*	
Metals	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
18F0185-07 C [HDPE NM, 500 mL]		*Hazard Info:Fluorene [1.32003E-03ug/L];Phenanthrene [3.32822E-03ug/L];Anthr*	
Sample Receiving	06/13/2018 11:12 by SEF	***START***	06/13/2018 11:12 by SEF
	06/13/2018 11:12 by SEF	***START***	06/13/2018 11:12 by SEF
	06/13/2018 11:12 by SEF	***START***	06/13/2018 11:12 by SEF
	06/13/2018 11:12 by SEF	***START***	06/13/2018 11:12 by SEF
Conventionals	06/13/2018 14:29 by CDE	solids Cart	06/18/2018 07:01 by KLE
	06/13/2018 14:29 by CDE	solids Cart	06/18/2018 07:01 by KLE
	06/13/2018 14:29 by CDE	solids Cart	06/18/2018 07:01 by KLE
	06/13/2018 14:29 by CDE	solids Cart	06/18/2018 07:01 by KLE
18F0185-07 D [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [1.32003E-03ug/L];Phenanthrene [3.32822E-03ug/L];Anthr*	
Sample Receiving	06/13/2018 11:12 by SEF	***START***	06/13/2018 11:12 by SEF
	06/13/2018 11:12 by SEF	***START***	06/13/2018 11:12 by SEF

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0185

Client:	Windward Environmental, LLC	Received:	14-Jun-2018 15:45
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	11.50

18F0185-07 (LDW18-SP-42) Sampled 06/12/2018 12:05

Current Status	*Out*	*Location*	*In*
18F0185-07 D [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [1.32003E-03ug/L];Phenanthrene [3.32822E-03ug/L];Anthr*	
Sample Receiving	06/13/2018 11:12 by SEF	***START***	06/13/2018 11:12 by SEF
	06/13/2018 11:12 by SEF	***START***	06/13/2018 11:12 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
Extractions	06/18/2018 13:13 by WPW	Water Lab	by
	06/18/2018 13:13 by WPW	Water Lab	by
	06/18/2018 13:13 by WPW	Water Lab	by
	06/18/2018 13:13 by WPW	Water Lab	by
18F0185-07 E [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [1.32003E-03ug/L];Phenanthrene [3.32822E-03ug/L];Anthr*	
Sample Receiving	06/13/2018 11:12 by SEF	***START***	06/13/2018 11:12 by SEF
	06/13/2018 11:12 by SEF	***START***	06/13/2018 11:12 by SEF
	06/13/2018 11:12 by SEF	***START***	06/13/2018 11:12 by SEF
	06/13/2018 11:12 by SEF	***START***	06/13/2018 11:12 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:43 by SEF	R-05 W11 Ext	06/14/2018 11:45 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
Extractions	06/18/2018 13:46 by WPW	Water Lab	by
	06/18/2018 13:46 by WPW	Water Lab	by
	06/18/2018 13:46 by WPW	Water Lab	by
	06/18/2018 13:46 by WPW	Water Lab	by
18F0185-07 F [Glass NM, Amber, 1000 mL]		*Hazard Info:Fluorene [1.32003E-03ug/L];Phenanthrene [3.32822E-03ug/L];Anthr*	
Sample Receiving	06/13/2018 11:12 by SEF	***START***	06/13/2018 11:12 by SEF
	06/13/2018 11:12 by SEF	***START***	06/13/2018 11:12 by SEF
	06/13/2018 11:12 by SEF	***START***	06/13/2018 11:12 by SEF
	06/13/2018 11:12 by SEF	***START***	06/13/2018 11:12 by SEF
	06/13/2018 11:40 by SEF	R-05 W03 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:40 by SEF	R-05 W03 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:40 by SEF	R-05 W03 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:40 by SEF	R-05 W03 Ext	06/14/2018 11:45 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:51 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:51 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:51 by SEF

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0185

Client:	Windward Environmental, LLC	Received:	15-Jun-2018 16:10
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	9.40

18F0185-07 (LDW18-SP-42) Sampled 06/12/2018 12:05

Current Status	*Out*	*Location*	*In*
18F0185-07 F [Glass NM, Amber, 1000 mL]		*Hazard Info:Fluorene [1.32003E-03ug/L];Phenanthrene [3.32822E-03ug/L];Anthr*	
Sample Receiving	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:51 by SEF
	06/18/2018 13:12 by SEF	Water Lab	by
	06/18/2018 13:12 by SEF	Water Lab	by
	06/18/2018 13:12 by SEF	Water Lab	by
	06/18/2018 13:12 by SEF	Water Lab	by

18F0185-08 (LDW18-SP-43) Sampled 06/12/2018 13:00

Current Status	*Out*	*Location*	*In*
18F0185-08 A [Glass NM, Amber, 250 mL]		*Hazard Info:Phenanthrene [1.10339E-03ug/L];Pyrene [4.5915E-04ug/L]*	
Sample Receiving	06/13/2018 11:16 by SEF	***START***	06/13/2018 11:16 by SEF
	06/13/2018 11:16 by SEF	***START***	06/13/2018 11:16 by SEF
	06/13/2018 11:16 by SEF	***START***	06/13/2018 11:16 by SEF
	06/13/2018 11:16 by SEF	***START***	06/13/2018 11:16 by SEF
18F0185-08 A 01 [Glass NM, Amber, 250 mL		*Hazard Info:Phenanthrene [1.10339E-03ug/L];Pyrene [4.5915E-04ug/L]*	
Conventionals	06/13/2018 12:15 by CDE	Conv Login Bench	06/13/2018 14:52 by YK
	06/13/2018 12:15 by CDE	Conv Login Bench	06/13/2018 14:52 by YK
	06/13/2018 12:15 by CDE	Conv Login Bench	06/13/2018 14:52 by YK
	06/13/2018 12:15 by CDE	Conv Login Bench	06/13/2018 14:52 by YK
18F0185-08 B 01 [HDPE NM, 125 mL]		*Hazard Info:Phenanthrene [1.10339E-03ug/L];Pyrene [4.5915E-04ug/L]*	
Metals	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0185

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0185-08 (LDW18-SP-43) Sampled 06/12/2018 13:00

Current Status	*Out*	*Location*	*In*
18F0185-08 B 01 [HDPE NM, 125 mL]		*Hazard Info:Phenanthrene [1.10339E-03ug/L];Pyrene [4.5915E-04ug/L]*	
Metals	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/14/2018 04:43 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
18F0185-08 C [HDPE NM, 500 mL]		*Hazard Info:Phenanthrene [1.10339E-03ug/L];Pyrene [4.5915E-04ug/L]*	
Sample Receiving	06/13/2018 11:16 by SEF	***START***	06/13/2018 11:16 by SEF
	06/13/2018 11:16 by SEF	***START***	06/13/2018 11:16 by SEF

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0185

Client:	Windward Environmental, LLC	Received:	14-Jun-2018 15:45
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	11.50

18F0185-08 (LDW18-SP-43) Sampled 06/12/2018 13:00

Current Status	*Out*	*Location*	*In*
18F0185-08 C [HDPE NM, 500 mL]		*Hazard Info:Phenanthrene [1.10339E-03ug/L];Pyrene [4.5915E-04ug/L]*	
Sample Receiving	06/13/2018 11:16 by SEF	***START***	06/13/2018 11:16 by SEF
	06/13/2018 11:16 by SEF	***START***	06/13/2018 11:16 by SEF
Conventionals	06/13/2018 14:29 by CDE	solids Cart	06/18/2018 07:01 by KLE
	06/13/2018 14:29 by CDE	solids Cart	06/18/2018 07:01 by KLE
	06/13/2018 14:29 by CDE	solids Cart	06/18/2018 07:01 by KLE
	06/13/2018 14:29 by CDE	solids Cart	06/18/2018 07:01 by KLE
18F0185-08 E [Glass NM, Amber, 500 mL]		*Hazard Info:Phenanthrene [1.10339E-03ug/L];Pyrene [4.5915E-04ug/L]*	
Sample Receiving	06/13/2018 11:16 by SEF	***START***	06/13/2018 11:16 by SEF
	06/13/2018 11:16 by SEF	***START***	06/13/2018 11:16 by SEF
	06/13/2018 11:16 by SEF	***START***	06/13/2018 11:16 by SEF
	06/13/2018 11:16 by SEF	***START***	06/13/2018 11:16 by SEF
	06/13/2018 11:41 by SEF	R-05 W06 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:41 by SEF	R-05 W06 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:41 by SEF	R-05 W06 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:41 by SEF	R-05 W06 Ext	06/14/2018 11:45 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
Extractions	06/18/2018 13:13 by WPW	Water Lab	by
	06/18/2018 13:13 by WPW	Water Lab	by
	06/18/2018 13:13 by WPW	Water Lab	by
	06/18/2018 13:13 by WPW	Water Lab	by
18F0185-08 H [Glass NM, Amber, 500 mL]		*Hazard Info:Phenanthrene [1.10339E-03ug/L];Pyrene [4.5915E-04ug/L]*	
Sample Receiving	06/13/2018 11:16 by SEF	***START***	06/13/2018 11:16 by SEF
	06/13/2018 11:16 by SEF	***START***	06/13/2018 11:16 by SEF
	06/13/2018 11:16 by SEF	***START***	06/13/2018 11:16 by SEF
	06/13/2018 11:16 by SEF	***START***	06/13/2018 11:16 by SEF
	06/13/2018 11:41 by SEF	R-05 W06 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:41 by SEF	R-05 W06 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:41 by SEF	R-05 W06 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:41 by SEF	R-05 W06 Ext	06/14/2018 11:45 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:49 by SEF
Extractions	06/18/2018 13:46 by WPW	Water Lab	by
	06/18/2018 13:46 by WPW	Water Lab	by
	06/18/2018 13:46 by WPW	Water Lab	by
	06/18/2018 13:46 by WPW	Water Lab	by
18F0185-08 K [Glass NM, Amber, 1000 mL]		*Hazard Info:Phenanthrene [1.10339E-03ug/L];Pyrene [4.5915E-04ug/L]*	
Sample Receiving	06/13/2018 11:16 by SEF	***START***	06/13/2018 11:16 by SEF

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0185

Client:	Windward Environmental, LLC	Received:	13-Jun-2018 16:26
Project:	AOC3 Task 4 (Seeps)	Received By:	Brandon Fisk
Number:	[none]	Temp (°C):	13.90

18F0185-08 (LDW18-SP-43) Sampled 06/12/2018 13:00

Current Status	*Out*	*Location*	*In*
18F0185-08 K [Glass NM, Amber, 1000 mL]		*Hazard Info:Phenanthrene [1.10339E-03ug/L];Pyrene [4.5915E-04ug/L]*	
Sample Receiving	06/13/2018 11:16 by SEF	***START***	06/13/2018 11:16 by SEF
	06/13/2018 11:16 by SEF	***START***	06/13/2018 11:16 by SEF
	06/13/2018 11:16 by SEF	***START***	06/13/2018 11:16 by SEF
	06/13/2018 11:40 by SEF	R-05 W03 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:40 by SEF	R-05 W03 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:40 by SEF	R-05 W03 Ext	06/14/2018 11:45 by SEF
	06/13/2018 11:40 by SEF	R-05 W03 Ext	06/14/2018 11:45 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:52 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:52 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:52 by SEF
	06/14/2018 11:45 by SEF	ials Testing & Consulting, Inc. (Oly	06/18/2018 09:52 by SEF
	06/18/2018 13:12 by SEF	Water Lab	by
	06/18/2018 13:12 by SEF	Water Lab	by
	06/18/2018 13:12 by SEF	Water Lab	by
	06/18/2018 13:12 by SEF	Water Lab	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0208

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0208-01 (LDW18-SP-06) Sampled 06/13/2018 09:53

Current Status	*Out*	*Location*	*In*
18F0208-01 B [Glass NM, Amber, 1000 mL]		*Hazard Info:Fluorene [9.4456E-04ug/L];Phenanthrene [3.69203E-03ug/L];Fluora*	
Sample Receiving	06/14/2018 12:42 by JBW	***START***	06/14/2018 12:42 by JBW
	06/14/2018 12:42 by JBW	***START***	06/14/2018 12:42 by JBW
	06/14/2018 12:42 by JBW	***START***	06/14/2018 12:42 by JBW
	06/14/2018 12:42 by JBW	***START***	06/14/2018 12:42 by JBW
Extractions	06/19/2018 11:06 by RCSM	Water Lab	by
	06/19/2018 11:06 by RCSM	Water Lab	by
	06/19/2018 11:06 by RCSM	Water Lab	by
	06/19/2018 11:06 by RCSM	Water Lab	by
18F0208-01 C [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [9.4456E-04ug/L];Phenanthrene [3.69203E-03ug/L];Fluora*	
Sample Receiving	06/14/2018 12:42 by JBW	***START***	06/14/2018 12:42 by JBW
	06/14/2018 12:42 by JBW	***START***	06/14/2018 12:42 by JBW
	06/14/2018 12:42 by JBW	***START***	06/14/2018 12:42 by JBW
	06/14/2018 12:42 by JBW	***START***	06/14/2018 12:42 by JBW
Extractions	06/19/2018 16:40 by RCSM	Water Lab	by
	06/19/2018 16:40 by RCSM	Water Lab	by
	06/19/2018 16:40 by RCSM	Water Lab	by
	06/19/2018 16:40 by RCSM	Water Lab	by
18F0208-01 D [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [9.4456E-04ug/L];Phenanthrene [3.69203E-03ug/L];Fluora*	
Sample Receiving	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
Extractions	06/20/2018 13:10 by RCSM	Water Lab	by
	06/20/2018 13:10 by RCSM	Water Lab	by
	06/20/2018 13:10 by RCSM	Water Lab	by
	06/20/2018 13:10 by RCSM	Water Lab	by
18F0208-01 E [HDPE NM, 500 mL]		*Hazard Info:Fluorene [9.4456E-04ug/L];Phenanthrene [3.69203E-03ug/L];Fluora*	
Sample Receiving	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
18F0208-01 E 01 [HDPE NM, 500 mL]		*Hazard Info:Fluorene [9.4456E-04ug/L];Phenanthrene [3.69203E-03ug/L];Fluora*	
Metals	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0208

Client:	Windward Environmental, LLC	Received:	14-Jun-2018 15:45
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	11.50

18F0208-01 (LDW18-SP-06) Sampled 06/13/2018 09:53

Current Status	*Out*	*Location*	*In*
18F0208-01 E 01 [HDPE NM, 500 mL]		*Hazard Info:Fluorene [9.4456E-04ug/L];Phenanthrene [3.69203E-03ug/L];Fluora*	
Metals	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0208

Client:	Windward Environmental, LLC	Received:	14-Jun-2018 15:45
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	11.50

18F0208-01 (LDW18-SP-06) Sampled 06/13/2018 09:53

Current Status	*Out*	*Location*	*In*
18F0208-01 E 01 [HDPE NM, 500 mL]		*Hazard Info:Fluorene [9.4456E-04ug/L];Phenanthrene [3.69203E-03ug/L];Fluora*	
Metals	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
18F0208-01 G [Glass NM, Amber, 250 mL]		*Hazard Info:Fluorene [9.4456E-04ug/L];Phenanthrene [3.69203E-03ug/L];Fluora*	
Sample Receiving	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
18F0208-01 G 01 [Glass NM, Amber, 250 ml		*Hazard Info:Fluorene [9.4456E-04ug/L];Phenanthrene [3.69203E-03ug/L];Fluora*	
Conventionals	06/14/2018 14:19 by YK	Conv Login Bench	06/14/2018 14:55 by YK
	06/14/2018 14:19 by YK	Conv Login Bench	06/14/2018 14:55 by YK
	06/14/2018 14:19 by YK	Conv Login Bench	06/14/2018 14:55 by YK
	06/14/2018 14:19 by YK	Conv Login Bench	06/14/2018 14:55 by YK

18F0208-02 (LDW18-SP-33) Sampled 06/13/2018 12:17

Current Status	*Out*	*Location*	*In*
18F0208-02 B [Glass NM, Amber, 1000 mL]		*Hazard Info:Acenaphthene [1.377408ug/L];Fluorene [0.794798ug/L];Acenaphthyle*	
Sample Receiving	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
Extractions	06/19/2018 11:06 by RCSM	Water Lab	by
	06/19/2018 11:06 by RCSM	Water Lab	by
	06/19/2018 11:06 by RCSM	Water Lab	by
	06/19/2018 11:06 by RCSM	Water Lab	by
18F0208-02 C [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthene [1.377408ug/L];Fluorene [0.794798ug/L];Acenaphthyle*	
Sample Receiving	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
Extractions	06/19/2018 16:40 by RCSM	Water Lab	by
	06/19/2018 16:40 by RCSM	Water Lab	by
	06/19/2018 16:40 by RCSM	Water Lab	by
	06/19/2018 16:40 by RCSM	Water Lab	by
18F0208-02 D [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthene [1.377408ug/L];Fluorene [0.794798ug/L];Acenaphthyle*	

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0208

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0208-02 (LDW18-SP-33) Sampled 06/13/2018 12:17

Current Status	*Out*	*Location*	*In*
18F0208-02 D [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthene [1.377408ug/L];Fluorene [0.794798ug/L];Acenaphthyle*	
Sample Receiving	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
Extractions	06/20/2018 13:10 by RCSM	Water Lab	by
	06/20/2018 13:10 by RCSM	Water Lab	by
	06/20/2018 13:10 by RCSM	Water Lab	by
	06/20/2018 13:10 by RCSM	Water Lab	by
18F0208-02 E [HDPE NM, 500 mL]		*Hazard Info:Acenaphthene [1.377408ug/L];Fluorene [0.794798ug/L];Acenaphthyle*	
Sample Receiving	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
18F0208-02 E 01 [HDPE NM, 500 mL]		*Hazard Info:Acenaphthene [1.377408ug/L];Fluorene [0.794798ug/L];Acenaphthyle*	
Metals	06/15/2018 08:27 by DP	Metals Prep Lab	06/29/2018 08:29 by DP

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0208

Client:	Windward Environmental, LLC	Received:	13-Jun-2018 16:26
Project:	AOC3 Task 4 (Seeps)	Received By:	Brandon Fisk
Number:	[none]	Temp (°C):	13.90

18F0208-02 (LDW18-SP-33) Sampled 06/13/2018 12:17

Current Status	*Out*	*Location*	*In*
18F0208-02 E 01 [HDPE NM, 500 mL]		*Hazard Info:Acenaphthene [1.377408ug/L];Fluorene [0.794798ug/L];Acenaphthyle*	
Metals	06/15/2018 08:27 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:27 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:27 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
18F0208-02 G [Glass NM, Amber, 250 mL]		*Hazard Info:Acenaphthene [1.377408ug/L];Fluorene [0.794798ug/L];Acenaphthyle*	
Sample Receiving	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
	06/14/2018 12:43 by JBW	***START***	06/14/2018 12:43 by JBW
18F0208-02 G 01 [Glass NM, Amber, 250 ml		*Hazard Info:Acenaphthene [1.377408ug/L];Fluorene [0.794798ug/L];Acenaphthyle*	
Conventionals	06/14/2018 14:19 by YK	Conv Login Bench	06/14/2018 14:55 by YK
	06/14/2018 14:19 by YK	Conv Login Bench	06/14/2018 14:55 by YK

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0208

Client:	Windward Environmental, LLC	Received:	14-Jun-2018 15:45
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	11.50

18F0208-02 (LDW18-SP-33) Sampled 06/13/2018 12:17

Current Status	*Out*	*Location*	*In*
18F0208-02 G 01 [Glass NM, Amber, 250 ml		*Hazard Info:Acenaphthene [1.377408ug/L];Fluorene [0.794798ug/L];Acenaphthyle*	
Conventionals	06/14/2018 14:19 by YK	Conv Login Bench	06/14/2018 14:55 by YK
	06/14/2018 14:19 by YK	Conv Login Bench	06/14/2018 14:55 by YK

18F0208-03 (LDW18-SP-24) Sampled 06/13/2018 12:35

Current Status	*Out*	*Location*	*In*
18F0208-03 C [Glass NM, Amber, 1000 mL]		*Hazard Info:Fluorene [1.28592E-03ug/L];Phenanthrene [3.41786E-03ug/L];Anthr*	
Sample Receiving	06/14/2018 12:44 by JBW	***START***	06/14/2018 12:44 by JBW
	06/14/2018 12:44 by JBW	***START***	06/14/2018 12:44 by JBW
	06/14/2018 12:44 by JBW	***START***	06/14/2018 12:44 by JBW
	06/14/2018 12:44 by JBW	***START***	06/14/2018 12:44 by JBW
Extractions	06/19/2018 11:06 by RCSM	Water Lab	by
	06/19/2018 11:06 by RCSM	Water Lab	by
	06/19/2018 11:06 by RCSM	Water Lab	by
	06/19/2018 11:06 by RCSM	Water Lab	by
18F0208-03 D [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [1.28592E-03ug/L];Phenanthrene [3.41786E-03ug/L];Anthr*	
Sample Receiving	06/14/2018 12:44 by JBW	***START***	06/14/2018 12:44 by JBW
	06/14/2018 12:44 by JBW	***START***	06/14/2018 12:44 by JBW
	06/14/2018 12:44 by JBW	***START***	06/14/2018 12:44 by JBW
	06/14/2018 12:44 by JBW	***START***	06/14/2018 12:44 by JBW
Extractions	06/19/2018 16:40 by RCSM	Water Lab	by
	06/19/2018 16:40 by RCSM	Water Lab	by
	06/19/2018 16:40 by RCSM	Water Lab	by
	06/19/2018 16:40 by RCSM	Water Lab	by
18F0208-03 E [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [1.28592E-03ug/L];Phenanthrene [3.41786E-03ug/L];Anthr*	
Sample Receiving	06/14/2018 12:44 by JBW	***START***	06/14/2018 12:44 by JBW
	06/14/2018 12:44 by JBW	***START***	06/14/2018 12:44 by JBW
	06/14/2018 12:44 by JBW	***START***	06/14/2018 12:44 by JBW
	06/14/2018 12:44 by JBW	***START***	06/14/2018 12:44 by JBW
Extractions	06/20/2018 13:10 by RCSM	Water Lab	by
	06/20/2018 13:10 by RCSM	Water Lab	by
	06/20/2018 13:10 by RCSM	Water Lab	by
	06/20/2018 13:10 by RCSM	Water Lab	by
18F0208-03 F [HDPE NM, 500 mL]		*Hazard Info:Fluorene [1.28592E-03ug/L];Phenanthrene [3.41786E-03ug/L];Anthr*	
Sample Receiving	06/14/2018 12:44 by JBW	***START***	06/14/2018 12:44 by JBW
	06/14/2018 12:44 by JBW	***START***	06/14/2018 12:44 by JBW
	06/14/2018 12:44 by JBW	***START***	06/14/2018 12:44 by JBW
	06/14/2018 12:44 by JBW	***START***	06/14/2018 12:44 by JBW
18F0208-03 F 01 [HDPE NM, 500 mL]		*Hazard Info:Fluorene [1.28592E-03ug/L];Phenanthrene [3.41786E-03ug/L];Anthr*	
Metals	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0208

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0208-03 (LDW18-SP-24) Sampled 06/13/2018 12:35

Current Status	*Out*	*Location*	*In*
18F0208-03 F 01 [HDPE NM, 500 mL]		*Hazard Info:Fluorene [1.28592E-03ug/L];Phenanthrene [3.41786E-03ug/L];Anthr*	
Metals	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0208

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0208-03 (LDW18-SP-24) Sampled 06/13/2018 12:35

Current Status	*Out*	*Location*	*In*
18F0208-03 F 01 [HDPE NM, 500 mL]		*Hazard Info:Fluorene [1.28592E-03ug/L];Phenanthrene [3.41786E-03ug/L];Anthr*	
Metals	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
18F0208-03 H [Glass NM, Amber, 250 mL]		*Hazard Info:Fluorene [1.28592E-03ug/L];Phenanthrene [3.41786E-03ug/L];Anthr*	
Sample Receiving	06/14/2018 12:44 by JBW	***START***	06/14/2018 12:44 by JBW
	06/14/2018 12:44 by JBW	***START***	06/14/2018 12:44 by JBW
	06/14/2018 12:44 by JBW	***START***	06/14/2018 12:44 by JBW
	06/14/2018 12:44 by JBW	***START***	06/14/2018 12:44 by JBW
18F0208-03 H 01 [Glass NM, Amber, 250 ml		*Hazard Info:Fluorene [1.28592E-03ug/L];Phenanthrene [3.41786E-03ug/L];Anthr*	
Conventionals	06/14/2018 14:19 by YK	Conv Login Bench	06/14/2018 14:55 by YK
	06/14/2018 14:19 by YK	Conv Login Bench	06/14/2018 14:55 by YK
	06/14/2018 14:19 by YK	Conv Login Bench	06/14/2018 14:55 by YK
	06/14/2018 14:19 by YK	Conv Login Bench	06/14/2018 14:55 by YK

18F0208-04 (LDW18-SP-24-FD) Sampled 06/13/2018 12:42

Current Status	*Out*	*Location*	*In*
18F0208-04 C [Glass NM, Amber, 1000 mL]		*Hazard Info:Fluorene [0.0194124ug/L];Phenanthrene [0.046095ug/L];Fluoranthen*	
Sample Receiving	06/14/2018 12:45 by JBW	***START***	06/14/2018 12:45 by JBW
	06/14/2018 12:45 by JBW	***START***	06/14/2018 12:45 by JBW
	06/14/2018 12:45 by JBW	***START***	06/14/2018 12:45 by JBW
	06/14/2018 12:45 by JBW	***START***	06/14/2018 12:45 by JBW
Extractions	06/19/2018 11:06 by RCSM	Water Lab	by
	06/19/2018 11:06 by RCSM	Water Lab	by
	06/19/2018 11:06 by RCSM	Water Lab	by
	06/19/2018 11:06 by RCSM	Water Lab	by
18F0208-04 D [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [0.0194124ug/L];Phenanthrene [0.046095ug/L];Fluoranthen*	
Sample Receiving	06/14/2018 12:45 by JBW	***START***	06/14/2018 12:45 by JBW
	06/14/2018 12:45 by JBW	***START***	06/14/2018 12:45 by JBW
	06/14/2018 12:45 by JBW	***START***	06/14/2018 12:45 by JBW

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0208

Client:	Windward Environmental, LLC	Received:	15-Jun-2018 16:10
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	9.40

18F0208-04 (LDW18-SP-24-FD) Sampled 06/13/2018 12:42

Current Status	*Out*	*Location*	*In*
18F0208-04 D [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [0.0194124ug/L];Phenanthrene [0.046095ug/L];Fluoranthen*	
Sample Receiving	06/14/2018 12:45 by JBW	***START***	06/14/2018 12:45 by JBW
Extractions	06/19/2018 16:40 by RCSM	Water Lab	by
	06/19/2018 16:40 by RCSM	Water Lab	by
	06/19/2018 16:40 by RCSM	Water Lab	by
	06/19/2018 16:40 by RCSM	Water Lab	by
18F0208-04 E [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [0.0194124ug/L];Phenanthrene [0.046095ug/L];Fluoranthen*	
Sample Receiving	06/14/2018 12:45 by JBW	***START***	06/14/2018 12:45 by JBW
	06/14/2018 12:45 by JBW	***START***	06/14/2018 12:45 by JBW
	06/14/2018 12:45 by JBW	***START***	06/14/2018 12:45 by JBW
	06/14/2018 12:45 by JBW	***START***	06/14/2018 12:45 by JBW
Extractions	06/20/2018 13:10 by RCSM	Water Lab	by
	06/20/2018 13:10 by RCSM	Water Lab	by
	06/20/2018 13:10 by RCSM	Water Lab	by
	06/20/2018 13:10 by RCSM	Water Lab	by
18F0208-04 F [HDPE NM, 500 mL]		*Hazard Info:Fluorene [0.0194124ug/L];Phenanthrene [0.046095ug/L];Fluoranthen*	
Sample Receiving	06/14/2018 12:45 by JBW	***START***	06/14/2018 12:45 by JBW
	06/14/2018 12:45 by JBW	***START***	06/14/2018 12:45 by JBW
	06/14/2018 12:45 by JBW	***START***	06/14/2018 12:45 by JBW
	06/14/2018 12:45 by JBW	***START***	06/14/2018 12:45 by JBW
18F0208-04 F 01 [HDPE NM, 500 mL]		*Hazard Info:Fluorene [0.0194124ug/L];Phenanthrene [0.046095ug/L];Fluoranthen*	
Metals	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0208

Client:	Windward Environmental, LLC	Received:	14-Jun-2018 15:45
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	11.50

18F0208-04 (LDW18-SP-24-FD) Sampled 06/13/2018 12:42

Current Status	*Out*	*Location*	*In*
18F0208-04 F 01 [HDPE NM, 500 mL]		*Hazard Info:Fluorene [0.0194124ug/L];Phenanthrene [0.046095ug/L];Fluoranthen*	
Metals	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/15/2018 08:26 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
18F0208-04 H [Glass NM, Amber, 250 mL]		*Hazard Info:Fluorene [0.0194124ug/L];Phenanthrene [0.046095ug/L];Fluoranthen*	

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0208

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0208-04 (LDW18-SP-24-FD) Sampled 06/13/2018 12:42

Current Status	*Out*	*Location*	*In*
18F0208-04 H [Glass NM, Amber, 250 mL]		*Hazard Info:Fluorene [0.0194124ug/L];Phenanthrene [0.046095ug/L];Fluoranthen*	
Sample Receiving	06/14/2018 12:45 by JBW	***START***	06/14/2018 12:45 by JBW
	06/14/2018 12:45 by JBW	***START***	06/14/2018 12:45 by JBW
	06/14/2018 12:45 by JBW	***START***	06/14/2018 12:45 by JBW
	06/14/2018 12:45 by JBW	***START***	06/14/2018 12:45 by JBW
18F0208-04 H 01 [Glass NM, Amber, 250 ml		*Hazard Info:Fluorene [0.0194124ug/L];Phenanthrene [0.046095ug/L];Fluoranthen*	
Conventionals	06/14/2018 14:19 by YK	Conv Login Bench	06/14/2018 14:55 by YK
	06/14/2018 14:19 by YK	Conv Login Bench	06/14/2018 14:55 by YK
	06/14/2018 14:19 by YK	Conv Login Bench	06/14/2018 14:55 by YK
	06/14/2018 14:19 by YK	Conv Login Bench	06/14/2018 14:55 by YK

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0226

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0226-01 (LDW18-SP-05) Sampled 06/14/2018 14:08

Current Status	*Out*	*Location*	*In*
18F0226-01 B [Glass NM, Amber, 1000 mL]		*Hazard Info:Phenanthrene [6.35454E-03ug/L];Fluoranthene [0.0044732ug/L];Pyr*	
Sample Receiving	06/15/2018 08:10 by JBW	***START***	06/15/2018 08:10 by JBW
	06/15/2018 08:10 by JBW	***START***	06/15/2018 08:10 by JBW
	06/15/2018 08:10 by JBW	***START***	06/15/2018 08:10 by JBW
	06/15/2018 08:10 by JBW	***START***	06/15/2018 08:10 by JBW
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 09:24 by CCT
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 09:24 by CCT
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 09:24 by CCT
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 09:24 by CCT
Extractions	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
18F0226-01 C [Glass NM, Amber, 500 mL]		*Hazard Info:Phenanthrene [6.35454E-03ug/L];Fluoranthene [0.0044732ug/L];Pyr*	
Sample Receiving	06/15/2018 08:10 by JBW	***START***	06/15/2018 08:10 by JBW
	06/15/2018 08:10 by JBW	***START***	06/15/2018 08:10 by JBW
	06/15/2018 08:10 by JBW	***START***	06/15/2018 08:10 by JBW
	06/15/2018 08:10 by JBW	***START***	06/15/2018 08:10 by JBW
Extractions	06/21/2018 14:43 by WPW	Water Lab	by
	06/21/2018 14:43 by WPW	Water Lab	by
	06/21/2018 14:43 by WPW	Water Lab	by
	06/21/2018 14:43 by WPW	Water Lab	by
18F0226-01 D [Glass NM, Amber, 500 mL]		*Hazard Info:Phenanthrene [6.35454E-03ug/L];Fluoranthene [0.0044732ug/L];Pyr*	
Sample Receiving	06/15/2018 08:10 by JBW	***START***	06/15/2018 08:10 by JBW
	06/15/2018 08:10 by JBW	***START***	06/15/2018 08:10 by JBW
	06/15/2018 08:10 by JBW	***START***	06/15/2018 08:10 by JBW
	06/15/2018 08:10 by JBW	***START***	06/15/2018 08:10 by JBW
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 13:03 by RCSM
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 13:03 by RCSM
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 13:03 by RCSM
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 13:03 by RCSM
Extractions	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
18F0226-01 E [Glass NM, Amber, 250 mL]		*Hazard Info:Phenanthrene [6.35454E-03ug/L];Fluoranthene [0.0044732ug/L];Pyr*	
Sample Receiving	06/15/2018 08:10 by JBW	***START***	06/15/2018 08:10 by JBW
	06/15/2018 08:10 by JBW	***START***	06/15/2018 08:10 by JBW
	06/15/2018 08:10 by JBW	***START***	06/15/2018 08:10 by JBW
	06/15/2018 08:10 by JBW	***START***	06/15/2018 08:10 by JBW
Conventionals	07/12/2018 17:21 by CDE	R-03 G-11	by
	07/12/2018 17:21 by CDE	R-03 G-11	by
	07/12/2018 17:21 by CDE	R-03 G-11	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0226

Client:	Windward Environmental, LLC	Received:	15-Jun-2018 16:10
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	9.40

18F0226-01 (LDW18-SP-05) Sampled 06/14/2018 14:08

Current Status	*Out*	*Location*	*In*
18F0226-01 E [Glass NM, Amber, 250 mL]		*Hazard Info:Phenanthrene [6.35454E-03ug/L];Fluoranthene [0.0044732ug/L];Pyr*	
Conventionals	07/12/2018 17:21 by CDE	R-03 G-11	by
18F0226-01 E 01 [Glass NM, Amber, 250 mL		*Hazard Info:Phenanthrene [6.35454E-03ug/L];Fluoranthene [0.0044732ug/L];Pyr*	
Conventionals	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	by
	07/12/2018 17:15 by CDE	R-03 G-10	by
	07/12/2018 17:15 by CDE	R-03 G-10	by
	07/12/2018 17:15 by CDE	R-03 G-10	by
18F0226-01 F [HDPE NM, 500 mL]		*Hazard Info:Phenanthrene [6.35454E-03ug/L];Fluoranthene [0.0044732ug/L];Pyr*	
Sample Receiving	06/15/2018 08:10 by JBW	***START***	06/15/2018 08:10 by JBW
	06/15/2018 08:10 by JBW	***START***	06/15/2018 08:10 by JBW
	06/15/2018 08:10 by JBW	***START***	06/15/2018 08:10 by JBW
	06/15/2018 08:10 by JBW	***START***	06/15/2018 08:10 by JBW
18F0226-01 G 01 [HDPE NM, 125 mL]		*Hazard Info:Phenanthrene [6.35454E-03ug/L];Fluoranthene [0.0044732ug/L];Pyr*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0226

Client:	Windward Environmental, LLC	Received:	14-Jun-2018 15:45
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	11.50

18F0226-01 (LDW18-SP-05) Sampled 06/14/2018 14:08

Current Status	*Out*	*Location*	*In*
18F0226-01 G 01 [HDPE NM, 125 mL]		*Hazard Info:Phenanthrene [6.35454E-03ug/L];Fluoranthene [0.0044732ug/L];Pyr*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:29 by DP
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by
	06/29/2018 08:29 by DP	DA-09	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0226

Client:	Windward Environmental, LLC	Received:	14-Jun-2018 15:45
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	11.50

18F0226-02 (LDW18-SP-57) Sampled 06/14/2018 10:41

Current Status	*Out*	*Location*	*In*
18F0226-02 C [Glass NM, Amber, 1000 mL]		*Hazard Info:Acenaphthene [4.12304E-03ug/L];Fluorene [1.83086E-03ug/L];Phena*	
Sample Receiving	06/15/2018 08:11 by JBW	***START***	06/15/2018 08:11 by JBW
	06/15/2018 08:11 by JBW	***START***	06/15/2018 08:11 by JBW
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 09:24 by CCT
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 09:24 by CCT
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 09:24 by CCT
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 09:24 by CCT
Extractions	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
18F0226-02 F [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthene [4.12304E-03ug/L];Fluorene [1.83086E-03ug/L];Phena*	
Sample Receiving	06/15/2018 08:11 by JBW	***START***	06/15/2018 08:11 by JBW
	06/15/2018 08:11 by JBW	***START***	06/15/2018 08:11 by JBW
	06/15/2018 08:11 by JBW	***START***	06/15/2018 08:11 by JBW
	06/15/2018 08:11 by JBW	***START***	06/15/2018 08:11 by JBW
	06/15/2018 08:16 by JBW	R02 N-03	06/15/2018 08:16 by JBW
	06/15/2018 08:16 by JBW	R02 N-03	06/15/2018 08:16 by JBW
	06/15/2018 08:16 by JBW	R02 N-03	06/15/2018 08:16 by JBW
	06/15/2018 08:16 by JBW	R02 N-03	06/15/2018 08:16 by JBW
Extractions	06/21/2018 14:43 by WPW	Water Lab	by
	06/21/2018 14:43 by WPW	Water Lab	by
	06/21/2018 14:43 by WPW	Water Lab	by
	06/21/2018 14:43 by WPW	Water Lab	by
18F0226-02 I [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthene [4.12304E-03ug/L];Fluorene [1.83086E-03ug/L];Phena*	
Sample Receiving	06/15/2018 08:16 by JBW	***START***	06/15/2018 08:16 by JBW
	06/15/2018 08:16 by JBW	***START***	06/15/2018 08:16 by JBW
	06/15/2018 08:16 by JBW	***START***	06/15/2018 08:16 by JBW
	06/15/2018 08:16 by JBW	***START***	06/15/2018 08:16 by JBW
Extractions	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
18F0226-02 L [Glass NM, Amber, 250 mL]		*Hazard Info:Acenaphthene [4.12304E-03ug/L];Fluorene [1.83086E-03ug/L];Phena*	
Sample Receiving	06/15/2018 08:16 by JBW	***START***	06/15/2018 08:16 by JBW
	06/15/2018 08:16 by JBW	***START***	06/15/2018 08:16 by JBW
	06/15/2018 08:16 by JBW	***START***	06/15/2018 08:16 by JBW
	06/15/2018 08:16 by JBW	***START***	06/15/2018 08:16 by JBW
Conventionals	07/12/2018 17:11 by CDE	Consumed	by
	07/12/2018 17:11 by CDE	Consumed	by
	07/12/2018 17:11 by CDE	Consumed	by
	07/12/2018 17:11 by CDE	Consumed	by
18F0226-02 L 01 [Glass NM, Amber, 250 mL		*Hazard Info:Acenaphthene [4.12304E-03ug/L];Fluorene [1.83086E-03ug/L];Phena*	

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0226

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0226-02 (LDW18-SP-57) Sampled 06/14/2018 10:41

Current Status	*Out*	*Location*	*In*
18F0226-02 L 01 [Glass NM, Amber, 250 mL		*Hazard Info:Acenaphthene [4.12304E-03ug/L];Fluorene [1.83086E-03ug/L];Phena*	
Conventionals	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	07/12/2018 17:11 by CDE	Consumed	by
	07/12/2018 17:11 by CDE	Consumed	by
	07/12/2018 17:11 by CDE	Consumed	by
	07/12/2018 17:11 by CDE	Consumed	by
18F0226-02 M [HDPE NM, 500 mL]		*Hazard Info:Acenaphthene [4.12304E-03ug/L];Fluorene [1.83086E-03ug/L];Phena*	
Sample Receiving	06/15/2018 08:16 by JBW	***START***	06/15/2018 08:16 by JBW
	06/15/2018 08:16 by JBW	***START***	06/15/2018 08:16 by JBW
	06/15/2018 08:16 by JBW	***START***	06/15/2018 08:16 by JBW
	06/15/2018 08:16 by JBW	***START***	06/15/2018 08:16 by JBW
18F0226-02 O 01 [HDPE NM, 125 mL]		*Hazard Info:Acenaphthene [4.12304E-03ug/L];Fluorene [1.83086E-03ug/L];Phena*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0226

Client:	Windward Environmental, LLC	Received:	13-Jun-2018 16:26
Project:	AOC3 Task 4 (Seeps)	Received By:	Brandon Fisk
Number:	[none]	Temp (°C):	13.90

18F0226-02 (LDW18-SP-57) Sampled 06/14/2018 10:41

Current Status	*Out*	*Location*	*In*
18F0226-02 O 01 [HDPE NM, 125 mL]		*Hazard Info:Acenaphthene [4.12304E-03ug/L];Fluorene [1.83086E-03ug/L];Phena*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0226

Client:	Windward Environmental, LLC	Received:	13-Jun-2018 16:26
Project:	AOC3 Task 4 (Seeps)	Received By:	Brandon Fisk
Number:	[none]	Temp (°C):	13.90

18F0226-03 (LDW18-SP-73) Sampled 06/14/2018 13:08

Current Status	*Out*	*Location*	*In*
18F0226-03 B [Glass NM, Amber, 1000 mL]		*Hazard Info:Fluorene [1.69228E-03ug/L];Phenanthrene [0.0058651ug/L];Anthrac*	
Extractions	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
18F0226-03 C [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [1.69228E-03ug/L];Phenanthrene [0.0058651ug/L];Anthrac*	
Sample Receiving	06/15/2018 08:11 by JBW	***START***	06/15/2018 08:11 by JBW
	06/15/2018 08:11 by JBW	***START***	06/15/2018 08:11 by JBW
	06/15/2018 08:11 by JBW	***START***	06/15/2018 08:11 by JBW
	06/15/2018 08:11 by JBW	***START***	06/15/2018 08:11 by JBW
Extractions	06/21/2018 14:43 by WPW	Water Lab	by
	06/21/2018 14:43 by WPW	Water Lab	by
	06/21/2018 14:43 by WPW	Water Lab	by
	06/21/2018 14:43 by WPW	Water Lab	by
18F0226-03 D [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [1.69228E-03ug/L];Phenanthrene [0.0058651ug/L];Anthrac*	
Sample Receiving	06/15/2018 08:11 by JBW	***START***	06/15/2018 08:11 by JBW
	06/15/2018 08:11 by JBW	***START***	06/15/2018 08:11 by JBW
	06/15/2018 08:11 by JBW	***START***	06/15/2018 08:11 by JBW
	06/15/2018 08:11 by JBW	***START***	06/15/2018 08:11 by JBW
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 13:03 by RCSM
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 13:03 by RCSM
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 13:03 by RCSM
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 13:03 by RCSM
Extractions	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
18F0226-03 E [Glass NM, Amber, 250 mL]		*Hazard Info:Fluorene [1.69228E-03ug/L];Phenanthrene [0.0058651ug/L];Anthrac*	
Sample Receiving	06/15/2018 08:11 by JBW	***START***	06/15/2018 08:11 by JBW
	06/15/2018 08:11 by JBW	***START***	06/15/2018 08:11 by JBW
	06/15/2018 08:11 by JBW	***START***	06/15/2018 08:11 by JBW
	06/15/2018 08:11 by JBW	***START***	06/15/2018 08:11 by JBW
Conventionals	07/12/2018 17:21 by CDE	R-03 G-11	07/17/2018 12:27 by CDE
	07/12/2018 17:21 by CDE	R-03 G-11	07/17/2018 12:27 by CDE
	07/12/2018 17:21 by CDE	R-03 G-11	07/17/2018 12:27 by CDE
	07/12/2018 17:21 by CDE	R-03 G-11	07/17/2018 12:27 by CDE
	07/17/2018 12:27 by CDE	R-03 G-11	07/23/2018 17:12 by CDE
	07/17/2018 12:27 by CDE	R-03 G-11	07/23/2018 17:12 by CDE
	07/17/2018 12:27 by CDE	R-03 G-11	07/23/2018 17:12 by CDE
	07/17/2018 12:27 by CDE	R-03 G-11	07/23/2018 17:12 by CDE
	07/23/2018 17:12 by CDE	R-03 F-1	by
	07/23/2018 17:12 by CDE	R-03 F-1	by
	07/23/2018 17:12 by CDE	R-03 F-1	by
	07/23/2018 17:12 by CDE	R-03 F-1	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0226

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0226-03 (LDW18-SP-73) Sampled 06/14/2018 13:08

Current Status	*Out*	*Location*	*In*
18F0226-03 E 01 [Glass NM, Amber, 250 mL		*Hazard Info:Fluorene [1.69228E-03ug/L];Phenanthrene [0.0058651ug/L];Anthrac*	
Conventionals	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	by
	07/12/2018 17:15 by CDE	R-03 G-10	by
	07/12/2018 17:15 by CDE	R-03 G-10	by
	07/12/2018 17:15 by CDE	R-03 G-10	by
18F0226-03 F [HDPE NM, 500 mL]		*Hazard Info:Fluorene [1.69228E-03ug/L];Phenanthrene [0.0058651ug/L];Anthrac*	
Sample Receiving	06/15/2018 08:11 by JBW	***START***	06/15/2018 08:11 by JBW
	06/15/2018 08:11 by JBW	***START***	06/15/2018 08:11 by JBW
	06/15/2018 08:11 by JBW	***START***	06/15/2018 08:11 by JBW
	06/15/2018 08:11 by JBW	***START***	06/15/2018 08:11 by JBW
18F0226-03 G 01 [HDPE NM, 125 mL]		*Hazard Info:Fluorene [1.69228E-03ug/L];Phenanthrene [0.0058651ug/L];Anthrac*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0226

Client:	Windward Environmental, LLC	Received:	13-Jun-2018 16:26
Project:	AOC3 Task 4 (Seeps)	Received By:	Brandon Fisk
Number:	[none]	Temp (°C):	13.90

18F0226-03 (LDW18-SP-73) Sampled 06/14/2018 13:08

Current Status	*Out*	*Location*	*In*
18F0226-03 G 01 [HDPE NM, 125 mL]		*Hazard Info:Fluorene [1.69228E-03ug/L];Phenanthrene [0.0058651ug/L];Anthrac*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0226

Client:	Windward Environmental, LLC	Received:	13-Jun-2018 16:26
Project:	AOC3 Task 4 (Seeps)	Received By:	Brandon Fisk
Number:	[none]	Temp (°C):	13.90

18F0226-04 (LDW18-SP-74) Sampled 06/14/2018 13:14

Current Status	*Out*	*Location*	*In*
18F0226-04 B [Glass NM, Amber, 1000 mL]		*Hazard Info:Acenaphthene [0.0269341ug/L];Fluorene [1.34834E-03ug/L];Phenant*	
Extractions	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
18F0226-04 C [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthene [0.0269341ug/L];Fluorene [1.34834E-03ug/L];Phenant*	
Sample Receiving	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
Extractions	06/21/2018 14:43 by WPW	Water Lab	by
	06/21/2018 14:43 by WPW	Water Lab	by
	06/21/2018 14:43 by WPW	Water Lab	by
	06/21/2018 14:43 by WPW	Water Lab	by
18F0226-04 D [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthene [0.0269341ug/L];Fluorene [1.34834E-03ug/L];Phenant*	
Sample Receiving	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 13:03 by RCSM
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 13:03 by RCSM
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 13:03 by RCSM
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 13:03 by RCSM
Extractions	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
18F0226-04 E [Glass NM, Amber, 250 mL]		*Hazard Info:Acenaphthene [0.0269341ug/L];Fluorene [1.34834E-03ug/L];Phenant*	
Sample Receiving	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
Conventionals	07/12/2018 17:21 by CDE	R-03 G-11	07/17/2018 12:27 by CDE
	07/12/2018 17:21 by CDE	R-03 G-11	07/17/2018 12:27 by CDE
	07/12/2018 17:21 by CDE	R-03 G-11	07/17/2018 12:27 by CDE
	07/12/2018 17:21 by CDE	R-03 G-11	07/17/2018 12:27 by CDE
	07/17/2018 12:27 by CDE	R-03 G-11	07/23/2018 17:12 by CDE
	07/17/2018 12:27 by CDE	R-03 G-11	07/23/2018 17:12 by CDE
	07/17/2018 12:27 by CDE	R-03 G-11	07/23/2018 17:12 by CDE
	07/17/2018 12:27 by CDE	R-03 G-11	07/23/2018 17:12 by CDE
	07/23/2018 17:12 by CDE	R-03 F-1	by
	07/23/2018 17:12 by CDE	R-03 F-1	by
	07/23/2018 17:12 by CDE	R-03 F-1	by
	07/23/2018 17:12 by CDE	R-03 F-1	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0226

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0226-04 (LDW18-SP-74) Sampled 06/14/2018 13:14

Current Status	*Out*	*Location*	*In*
18F0226-04 E 01 [Glass NM, Amber, 250 mL		*Hazard Info:Acenaphthene [0.0269341ug/L];Fluorene [1.34834E-03ug/L];Phenant*	
Conventionals	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	by
	07/12/2018 17:15 by CDE	R-03 G-10	by
	07/12/2018 17:15 by CDE	R-03 G-10	by
	07/12/2018 17:15 by CDE	R-03 G-10	by
18F0226-04 F [HDPE NM, 500 mL]		*Hazard Info:Acenaphthene [0.0269341ug/L];Fluorene [1.34834E-03ug/L];Phenant*	
Sample Receiving	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
18F0226-04 G 01 [HDPE NM, 125 mL]		*Hazard Info:Acenaphthene [0.0269341ug/L];Fluorene [1.34834E-03ug/L];Phenant*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0226

Client:	Windward Environmental, LLC	Received:	13-Jun-2018 16:26
Project:	AOC3 Task 4 (Seeps)	Received By:	Brandon Fisk
Number:	[none]	Temp (°C):	13.90

18F0226-04 (LDW18-SP-74) Sampled 06/14/2018 13:14

Current Status	*Out*	*Location*	*In*
18F0226-04 G 01 [HDPE NM, 125 mL]		*Hazard Info:Acenaphthene [0.0269341ug/L];Fluorene [1.34834E-03ug/L];Phenant*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0226

Client:	Windward Environmental, LLC	Received:	13-Jun-2018 16:26
Project:	AOC3 Task 4 (Seeps)	Received By:	Brandon Fisk
Number:	[none]	Temp (°C):	13.90

18F0226-05 (LDW18-SP-77) Sampled 06/14/2018 12:10

Current Status	*Out*	*Location*	*In*
18F0226-05 C [Glass NM, Amber, 1000 mL]		*Hazard Info:Acenaphthylene [0.0359843ug/L];Acenaphthene [6.69722ug/L];Fluore*	
Sample Receiving	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 09:24 by CCT
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 09:24 by CCT
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 09:24 by CCT
Extractions	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
18F0226-05 D [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthylene [0.0359843ug/L];Acenaphthene [6.69722ug/L];Fluore*	
Sample Receiving	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 14:43 by WPW
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 14:43 by WPW
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 14:43 by WPW
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 14:43 by WPW
Extractions	06/21/2018 14:43 by WPW	Water Lab	by
	06/21/2018 14:43 by WPW	Water Lab	by
	06/21/2018 14:43 by WPW	Water Lab	by
	06/21/2018 14:43 by WPW	Water Lab	by
18F0226-05 E [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthylene [0.0359843ug/L];Acenaphthene [6.69722ug/L];Fluore*	
Sample Receiving	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
Extractions	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
18F0226-05 F [Glass NM, Amber, 250 mL]		*Hazard Info:Acenaphthylene [0.0359843ug/L];Acenaphthene [6.69722ug/L];Fluore*	
Sample Receiving	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
Conventionals	07/12/2018 17:21 by CDE	R-03 G-11	07/17/2018 12:27 by CDE
	07/12/2018 17:21 by CDE	R-03 G-11	07/17/2018 12:27 by CDE
	07/12/2018 17:21 by CDE	R-03 G-11	07/17/2018 12:27 by CDE
	07/12/2018 17:21 by CDE	R-03 G-11	07/17/2018 12:27 by CDE
	07/17/2018 12:27 by CDE	R-03 G-11	07/23/2018 17:12 by CDE
	07/17/2018 12:27 by CDE	R-03 G-11	07/23/2018 17:12 by CDE
	07/17/2018 12:27 by CDE	R-03 G-11	07/23/2018 17:12 by CDE
	07/17/2018 12:27 by CDE	R-03 G-11	07/23/2018 17:12 by CDE

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0226

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0226-05 (LDW18-SP-77) Sampled 06/14/2018 12:10

Current Status	*Out*	*Location*	*In*
18F0226-05 F [Glass NM, Amber, 250 mL]		*Hazard Info:Acenaphthylene [0.0359843ug/L];Acenaphthene [6.69722ug/L];Fluore*	
Conventionals	07/23/2018 17:12 by CDE	R-03 F-1	by
	07/23/2018 17:12 by CDE	R-03 F-1	by
	07/23/2018 17:12 by CDE	R-03 F-1	by
	07/23/2018 17:12 by CDE	R-03 F-1	by
18F0226-05 F 01 [Glass NM, Amber, 250 mL		*Hazard Info:Acenaphthylene [0.0359843ug/L];Acenaphthene [6.69722ug/L];Fluore*	
Conventionals	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	by
	07/12/2018 17:15 by CDE	R-03 G-10	by
	07/12/2018 17:15 by CDE	R-03 G-10	by
	07/12/2018 17:15 by CDE	R-03 G-10	by
18F0226-05 G [HDPE NM, 500 mL]		*Hazard Info:Acenaphthylene [0.0359843ug/L];Acenaphthene [6.69722ug/L];Fluore*	
Sample Receiving	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
	06/15/2018 08:12 by JBW	***START***	06/15/2018 08:12 by JBW
18F0226-05 H 01 [HDPE NM, 125 mL]		*Hazard Info:Acenaphthylene [0.0359843ug/L];Acenaphthene [6.69722ug/L];Fluore*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0226

Client:	Windward Environmental, LLC	Received:	15-Jun-2018 16:10
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	9.40

18F0226-05 (LDW18-SP-77) Sampled 06/14/2018 12:10

Current Status	*Out*	*Location*	*In*
18F0226-05 H 01 [HDPE NM, 125 mL]		*Hazard Info:Acenaphthylene [0.0359843ug/L];Acenaphthene [6.69722ug/L];Fluore*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0226

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0226-06 (LDW18-SP-78) Sampled 06/14/2018 12:04

Current Status	*Out*	*Location*	*In*
18F0226-06 C [Glass NM, Amber, 1000 mL]		*Hazard Info:Acenaphthene [6.92104E-03ug/L];Fluorene [2.01749E-03ug/L];Phena*	
Sample Receiving	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
Extractions	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
18F0226-06 D [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthene [6.92104E-03ug/L];Fluorene [2.01749E-03ug/L];Phena*	
Sample Receiving	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
Extractions	06/21/2018 14:43 by WPW	Water Lab	by
	06/21/2018 14:43 by WPW	Water Lab	by
	06/21/2018 14:43 by WPW	Water Lab	by
	06/21/2018 14:43 by WPW	Water Lab	by
18F0226-06 E [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthene [6.92104E-03ug/L];Fluorene [2.01749E-03ug/L];Phena*	
Sample Receiving	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
Extractions	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
18F0226-06 F [Glass NM, Amber, 250 mL]		*Hazard Info:Acenaphthene [6.92104E-03ug/L];Fluorene [2.01749E-03ug/L];Phena*	
Sample Receiving	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
Conventionals	07/12/2018 17:21 by CDE	R-03 G-11	07/17/2018 12:27 by CDE
	07/12/2018 17:21 by CDE	R-03 G-11	07/17/2018 12:27 by CDE
	07/12/2018 17:21 by CDE	R-03 G-11	07/17/2018 12:27 by CDE
	07/12/2018 17:21 by CDE	R-03 G-11	07/17/2018 12:27 by CDE
	07/17/2018 12:27 by CDE	R-03 G-11	07/23/2018 17:12 by CDE
	07/17/2018 12:27 by CDE	R-03 G-11	07/23/2018 17:12 by CDE
	07/17/2018 12:27 by CDE	R-03 G-11	07/23/2018 17:12 by CDE
	07/17/2018 12:27 by CDE	R-03 G-11	07/23/2018 17:12 by CDE
	07/23/2018 17:12 by CDE	R-03 F-1	by
	07/23/2018 17:12 by CDE	R-03 F-1	by
	07/23/2018 17:12 by CDE	R-03 F-1	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0226

Client:	Windward Environmental, LLC	Received:	15-Jun-2018 16:10
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	9.40

18F0226-06 (LDW18-SP-78) Sampled 06/14/2018 12:04

Current Status	*Out*	*Location*	*In*
18F0226-06 F [Glass NM, Amber, 250 mL]		*Hazard Info:Acenaphthene [6.92104E-03ug/L];Fluorene [2.01749E-03ug/L];Phena*	
Conventionals	07/23/2018 17:12 by CDE	R-03 F-1	by
18F0226-06 F 01 [Glass NM, Amber, 250 mL		*Hazard Info:Acenaphthene [6.92104E-03ug/L];Fluorene [2.01749E-03ug/L];Phena*	
Conventionals	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	by
	07/12/2018 17:15 by CDE	R-03 G-10	by
	07/12/2018 17:15 by CDE	R-03 G-10	by
	07/12/2018 17:15 by CDE	R-03 G-10	by
18F0226-06 G [HDPE NM, 500 mL]		*Hazard Info:Acenaphthene [6.92104E-03ug/L];Fluorene [2.01749E-03ug/L];Phena*	
Sample Receiving	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
18F0226-06 H 01 [HDPE NM, 125 mL]		*Hazard Info:Acenaphthene [6.92104E-03ug/L];Fluorene [2.01749E-03ug/L];Phena*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0226

Client:	Windward Environmental, LLC	Received:	14-Jun-2018 15:45
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	11.50

18F0226-06 (LDW18-SP-78) Sampled 06/14/2018 12:04

Current Status	*Out*	*Location*	*In*
18F0226-06 H 01 [HDPE NM, 125 mL]		*Hazard Info:Acenaphthene [6.92104E-03ug/L];Fluorene [2.01749E-03ug/L];Phena*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0226

Client:	Windward Environmental, LLC	Received:	14-Jun-2018 15:45
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	11.50

18F0226-07 (LDW18-SP-79) Sampled 06/14/2018 09:50

Current Status	*Out*	*Location*	*In*
18F0226-07 C [Glass NM, Amber, 1000 mL]		*Hazard Info:Acenaphthene [0.0262114ug/L];Fluorene [0.0023513ug/L];Phenanthr*	
Sample Receiving	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 09:24 by CCT
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 09:24 by CCT
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 09:24 by CCT
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 09:24 by CCT
Extractions	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
18F0226-07 D [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthene [0.0262114ug/L];Fluorene [0.0023513ug/L];Phenanthr*	
Sample Receiving	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/20/2018 14:52 by JBW	R-05 W05 Ext	06/21/2018 14:43 by WPW
	06/20/2018 14:52 by JBW	R-05 W05 Ext	06/21/2018 14:43 by WPW
	06/20/2018 14:52 by JBW	R-05 W05 Ext	06/21/2018 14:43 by WPW
	06/20/2018 14:52 by JBW	R-05 W05 Ext	06/21/2018 14:43 by WPW
Extractions	06/21/2018 14:43 by WPW	Water Lab	by
	06/21/2018 14:43 by WPW	Water Lab	by
	06/21/2018 14:43 by WPW	Water Lab	by
	06/21/2018 14:43 by WPW	Water Lab	by
18F0226-07 E [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthene [0.0262114ug/L];Fluorene [0.0023513ug/L];Phenanthr*	
Sample Receiving	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
Extractions	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
18F0226-07 F [Glass NM, Amber, 250 mL]		*Hazard Info:Acenaphthene [0.0262114ug/L];Fluorene [0.0023513ug/L];Phenanthr*	
Sample Receiving	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
Conventionals	07/12/2018 17:21 by CDE	R-03 G-11	07/17/2018 12:27 by CDE
	07/12/2018 17:21 by CDE	R-03 G-11	07/17/2018 12:27 by CDE
	07/12/2018 17:21 by CDE	R-03 G-11	07/17/2018 12:27 by CDE
	07/12/2018 17:21 by CDE	R-03 G-11	07/17/2018 12:27 by CDE
	07/17/2018 12:27 by CDE	R-03 G-11	07/23/2018 17:12 by CDE

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0226

Client:	Windward Environmental, LLC	Received:	13-Jun-2018 16:26
Project:	AOC3 Task 4 (Seeps)	Received By:	Brandon Fisk
Number:	[none]	Temp (°C):	13.90

18F0226-07 (LDW18-SP-79) Sampled 06/14/2018 09:50

Current Status	*Out*	*Location*	*In*
18F0226-07 F [Glass NM, Amber, 250 mL]		*Hazard Info:Acenaphthene [0.0262114ug/L];Fluorene [0.0023513ug/L];Phenanthr*	
Conventionals	07/17/2018 12:27 by CDE	R-03 G-11	07/23/2018 17:12 by CDE
	07/17/2018 12:27 by CDE	R-03 G-11	07/23/2018 17:12 by CDE
	07/17/2018 12:27 by CDE	R-03 G-11	07/23/2018 17:12 by CDE
	07/23/2018 17:12 by CDE	R-03 F-1	by
	07/23/2018 17:12 by CDE	R-03 F-1	by
	07/23/2018 17:12 by CDE	R-03 F-1	by
	07/23/2018 17:12 by CDE	R-03 F-1	by
18F0226-07 F 01 [Glass NM, Amber, 250 mL		*Hazard Info:Acenaphthene [0.0262114ug/L];Fluorene [0.0023513ug/L];Phenanthr*	
Conventionals	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	by
	07/12/2018 17:15 by CDE	R-03 G-10	by
	07/12/2018 17:15 by CDE	R-03 G-10	by
	07/12/2018 17:15 by CDE	R-03 G-10	by
18F0226-07 G [HDPE NM, 500 mL]		*Hazard Info:Acenaphthene [0.0262114ug/L];Fluorene [0.0023513ug/L];Phenanthr*	
Sample Receiving	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
18F0226-07 H 01 [HDPE NM, 125 mL]		*Hazard Info:Acenaphthene [0.0262114ug/L];Fluorene [0.0023513ug/L];Phenanthr*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0226

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0226-07 (LDW18-SP-79) Sampled 06/14/2018 09:50

Current Status	*Out*	*Location*	*In*
18F0226-07 H 01 [HDPE NM, 125 mL]		*Hazard Info:Acenaphthene [0.0262114ug/L];Fluorene [0.0023513ug/L];Phenanthr*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0226

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0226-08 (LDW18-SP-84) Sampled 06/14/2018 09:53

Current Status	*Out*	*Location*	*In*
18F0226-08 B [Glass NM, Amber, 1000 mL]		*Hazard Info:Fluorene [6.9632E-04ug/L];Phenanthrene [3.33815E-03ug/L];Fluora*	
Sample Receiving	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 09:24 by CCT
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 09:24 by CCT
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 09:24 by CCT
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 09:24 by CCT
Extractions	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
18F0226-08 C [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [6.9632E-04ug/L];Phenanthrene [3.33815E-03ug/L];Fluora*	
Sample Receiving	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
Extractions	06/21/2018 14:43 by WPW	Water Lab	by
	06/21/2018 14:43 by WPW	Water Lab	by
	06/21/2018 14:43 by WPW	Water Lab	by
	06/21/2018 14:43 by WPW	Water Lab	by
18F0226-08 D [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [6.9632E-04ug/L];Phenanthrene [3.33815E-03ug/L];Fluora*	
Sample Receiving	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
Extractions	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
18F0226-08 E [Glass NM, Amber, 250 mL]		*Hazard Info:Fluorene [6.9632E-04ug/L];Phenanthrene [3.33815E-03ug/L];Fluora*	
Sample Receiving	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
Conventionals	07/12/2018 17:21 by CDE	R-03 G-11	by
	07/12/2018 17:21 by CDE	R-03 G-11	by
	07/12/2018 17:21 by CDE	R-03 G-11	by
	07/12/2018 17:21 by CDE	R-03 G-11	by
18F0226-08 E 01 [Glass NM, Amber, 250 mL		*Hazard Info:Fluorene [6.9632E-04ug/L];Phenanthrene [3.33815E-03ug/L];Fluora*	
Conventionals	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0226

Client:	Windward Environmental, LLC	Received:	14-Jun-2018 15:45
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	11.50

18F0226-08 (LDW18-SP-84) Sampled 06/14/2018 09:53

Current Status	*Out*	*Location*	*In*
18F0226-08 E 01 [Glass NM, Amber, 250 mL		*Hazard Info:Fluorene [6.9632E-04ug/L];Phenanthrene [3.33815E-03ug/L];Fluora*	
Conventionals	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	by
	07/12/2018 17:15 by CDE	R-03 G-10	by
	07/12/2018 17:15 by CDE	R-03 G-10	by
	07/12/2018 17:15 by CDE	R-03 G-10	by
18F0226-08 F [HDPE NM, 500 mL]		*Hazard Info:Fluorene [6.9632E-04ug/L];Phenanthrene [3.33815E-03ug/L];Fluora*	
Sample Receiving	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
18F0226-08 G 01 [HDPE NM, 125 mL]		*Hazard Info:Fluorene [6.9632E-04ug/L];Phenanthrene [3.33815E-03ug/L];Fluora*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0226

Client:	Windward Environmental, LLC	Received:	15-Jun-2018 16:10
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	9.40

18F0226-08 (LDW18-SP-84) Sampled 06/14/2018 09:53

Current Status	*Out*	*Location*	*In*
18F0226-08 G 01 [HDPE NM, 125 mL]		*Hazard Info:Fluorene [6.9632E-04ug/L];Phenanthrene [3.33815E-03ug/L];Fluora*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0226

Client:	Windward Environmental, LLC	Received:	15-Jun-2018 16:10
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	9.40

18F0226-09 (LDW18-SP-87) Sampled 06/14/2018 11:11

Current Status	*Out*	*Location*	*In*
18F0226-09 C [Glass NM, Amber, 1000 mL]		*Hazard Info:Acenaphthylene [1.36221E-03ug/L];Acenaphthene [0.0603554ug/L];F*	
Sample Receiving	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 09:24 by CCT
Extractions	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
18F0226-09 D [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthylene [1.36221E-03ug/L];Acenaphthene [0.0603554ug/L];F*	
Sample Receiving	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
Extractions	06/21/2018 14:43 by WPW	Water Lab	by
	06/21/2018 14:43 by WPW	Water Lab	by
	06/21/2018 14:43 by WPW	Water Lab	by
	06/21/2018 14:43 by WPW	Water Lab	by
18F0226-09 E [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthylene [1.36221E-03ug/L];Acenaphthene [0.0603554ug/L];F*	
Sample Receiving	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
Extractions	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
18F0226-09 F [Glass NM, Amber, 250 mL]		*Hazard Info:Acenaphthylene [1.36221E-03ug/L];Acenaphthene [0.0603554ug/L];F*	
Sample Receiving	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
Conventionals	07/12/2018 17:21 by CDE	R-03 G-11	07/17/2018 12:27 by CDE
	07/12/2018 17:21 by CDE	R-03 G-11	07/17/2018 12:27 by CDE
	07/12/2018 17:21 by CDE	R-03 G-11	07/17/2018 12:27 by CDE
	07/12/2018 17:21 by CDE	R-03 G-11	07/17/2018 12:27 by CDE
	07/17/2018 12:27 by CDE	R-03 G-11	07/23/2018 17:12 by CDE
	07/17/2018 12:27 by CDE	R-03 G-11	07/23/2018 17:12 by CDE
	07/17/2018 12:27 by CDE	R-03 G-11	07/23/2018 17:12 by CDE
	07/17/2018 12:27 by CDE	R-03 G-11	07/23/2018 17:12 by CDE
	07/23/2018 17:12 by CDE	R-03 F-1	by
	07/23/2018 17:12 by CDE	R-03 F-1	by
	07/23/2018 17:12 by CDE	R-03 F-1	by
	07/23/2018 17:12 by CDE	R-03 F-1	by
18F0226-09 F 01 [Glass NM, Amber, 250 mL		*Hazard Info:Acenaphthylene [1.36221E-03ug/L];Acenaphthene [0.0603554ug/L];F*	
Conventionals	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0226

Client:	Windward Environmental, LLC	Received:	13-Jun-2018 16:26
Project:	AOC3 Task 4 (Seeps)	Received By:	Brandon Fisk
Number:	[none]	Temp (°C):	13.90

18F0226-09 (LDW18-SP-87) Sampled 06/14/2018 11:11

Current Status	*Out*	*Location*	*In*
18F0226-09 F 01 [Glass NM, Amber, 250 mL		*Hazard Info:Acenaphthylene [1.36221E-03ug/L];Acenaphthene [0.0603554ug/L];F*	
Conventionals	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	by
	07/12/2018 17:15 by CDE	R-03 G-10	by
	07/12/2018 17:15 by CDE	R-03 G-10	by
	07/12/2018 17:15 by CDE	R-03 G-10	by
18F0226-09 G [HDPE NM, 500 mL]		*Hazard Info:Acenaphthylene [1.36221E-03ug/L];Acenaphthene [0.0603554ug/L];F*	
Sample Receiving	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
	06/15/2018 08:13 by JBW	***START***	06/15/2018 08:13 by JBW
18F0226-09 H 01 [HDPE NM, 125 mL]		*Hazard Info:Acenaphthylene [1.36221E-03ug/L];Acenaphthene [0.0603554ug/L];F*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0226

Client:	Windward Environmental, LLC	Received:	14-Jun-2018 15:45
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	11.50

18F0226-09 (LDW18-SP-87) Sampled 06/14/2018 11:11

Current Status	*Out*	*Location*	*In*
18F0226-09 H 01 [HDPE NM, 125 mL]		*Hazard Info:Acenaphthylene [1.36221E-03ug/L];Acenaphthene [0.0603554ug/L];F*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0248

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0248-01 (LDW18-SP-01) Sampled 06/15/2018 11:33

Current Status	*Out*	*Location*	*In*
18F0248-01 A [Glass NM, Amber, 250 mL]		*Hazard Info:Acenaphthene [0.517073ug/L];Acenaphthylene [3.01262E-03ug/L];Fl*	
Sample Receiving	06/15/2018 17:22 by SEF	***START***	06/15/2018 17:22 by SEF
	06/15/2018 17:22 by SEF	***START***	06/15/2018 17:22 by SEF
	06/15/2018 17:22 by SEF	***START***	06/15/2018 17:22 by SEF
	06/15/2018 17:22 by SEF	***START***	06/15/2018 17:22 by SEF
Conventionals	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
18F0248-01 A 01 [Glass NM, Amber, 250 mL		*Hazard Info:Acenaphthene [0.517073ug/L];Acenaphthylene [3.01262E-03ug/L];Fl*	
Conventionals	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:07 by CDE
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
18F0248-01 B 01 [HDPE NM, 125 mL]		*Hazard Info:Acenaphthene [0.517073ug/L];Acenaphthylene [3.01262E-03ug/L];Fl*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0248

Client:	Windward Environmental, LLC	Received:	13-Jun-2018 16:26
Project:	AOC3 Task 4 (Seeps)	Received By:	Brandon Fisk
Number:	[none]	Temp (°C):	13.90

18F0248-01 (LDW18-SP-01) Sampled 06/15/2018 11:33

Current Status	*Out*	*Location*	*In*
18F0248-01 B 01 [HDPE NM, 125 mL]		*Hazard Info:Acenaphthene [0.517073ug/L];Acenaphthylene [3.01262E-03ug/L];Fl*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0248

Client:	Windward Environmental, LLC	Received:	13-Jun-2018 16:26
Project:	AOC3 Task 4 (Seeps)	Received By:	Brandon Fisk
Number:	[none]	Temp (°C):	13.90

18F0248-01 (LDW18-SP-01) Sampled 06/15/2018 11:33

Current Status	*Out*	*Location*	*In*
18F0248-01 B 01 [HDPE NM, 125 mL]		*Hazard Info:Acenaphthene [0.517073ug/L];Acenaphthylene [3.01262E-03ug/L];Fl*	
Metals	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
18F0248-01 C [HDPE NM, 500 mL]		*Hazard Info:Acenaphthene [0.517073ug/L];Acenaphthylene [3.01262E-03ug/L];Fl*	
Sample Receiving	06/15/2018 17:22 by SEF	***START***	06/15/2018 17:22 by SEF
	06/15/2018 17:22 by SEF	***START***	06/15/2018 17:22 by SEF
	06/15/2018 17:22 by SEF	***START***	06/15/2018 17:22 by SEF
	06/15/2018 17:22 by SEF	***START***	06/15/2018 17:22 by SEF
Conventionals	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
18F0248-01 D [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthene [0.517073ug/L];Acenaphthylene [3.01262E-03ug/L];Fl*	
Sample Receiving	06/15/2018 17:22 by SEF	***START***	06/15/2018 17:22 by SEF
	06/15/2018 17:22 by SEF	***START***	06/15/2018 17:22 by SEF
	06/15/2018 17:22 by SEF	***START***	06/15/2018 17:22 by SEF
	06/15/2018 17:22 by SEF	***START***	06/15/2018 17:22 by SEF
	06/15/2018 17:24 by SEF		06/15/2018 17:24 by SEF
	06/15/2018 17:24 by SEF		06/15/2018 17:24 by SEF
	06/15/2018 17:24 by SEF		06/15/2018 17:24 by SEF
	06/15/2018 17:24 by SEF		06/15/2018 17:24 by SEF
Extractions	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
18F0248-01 E [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthene [0.517073ug/L];Acenaphthylene [3.01262E-03ug/L];Fl*	
Sample Receiving	06/15/2018 17:22 by SEF	***START***	06/15/2018 17:22 by SEF
	06/15/2018 17:22 by SEF	***START***	06/15/2018 17:22 by SEF
	06/15/2018 17:22 by SEF	***START***	06/15/2018 17:22 by SEF
	06/15/2018 17:22 by SEF	***START***	06/15/2018 17:22 by SEF
	06/15/2018 17:24 by SEF		06/15/2018 17:24 by SEF
	06/15/2018 17:24 by SEF		06/15/2018 17:24 by SEF
	06/15/2018 17:24 by SEF		06/15/2018 17:24 by SEF
	06/15/2018 17:24 by SEF		06/15/2018 17:24 by SEF
Extractions	06/22/2018 10:46 by RCSM	Water Lab	by
	06/22/2018 10:46 by RCSM	Water Lab	by
	06/22/2018 10:46 by RCSM	Water Lab	by
	06/22/2018 10:46 by RCSM	Water Lab	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0248

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0248-01 (LDW18-SP-01) Sampled 06/15/2018 11:33

Current Status	*Out*	*Location*	*In*
18F0248-01 F [Glass NM, Amber, 1000 mL]		*Hazard Info:Acenaphthene [0.517073ug/L];Acenaphthylene [3.01262E-03ug/L];Fl*	
Sample Receiving	06/15/2018 17:22 by SEF	***START***	06/15/2018 17:22 by SEF
	06/15/2018 17:22 by SEF	***START***	06/15/2018 17:22 by SEF
	06/15/2018 17:22 by SEF	***START***	06/15/2018 17:22 by SEF
	06/15/2018 17:22 by SEF	***START***	06/15/2018 17:22 by SEF
	06/15/2018 17:24 by SEF		06/15/2018 17:24 by SEF
	06/15/2018 17:24 by SEF		06/15/2018 17:24 by SEF
	06/15/2018 17:24 by SEF		06/15/2018 17:24 by SEF
	06/15/2018 17:24 by SEF		06/15/2018 17:24 by SEF
Extractions	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by

18F0248-02 (LDW18-SP-45) Sampled 06/15/2018 13:45

Current Status	*Out*	*Location*	*In*
18F0248-02 A [Glass NM, Amber, 250 mL]		*Hazard Info:Acenaphthene [2.08323E-03ug/L];Fluorene [1.81833E-03ug/L];Phena*	
Sample Receiving	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
Conventionals	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
18F0248-02 A 01 [Glass NM, Amber, 250 mL		*Hazard Info:Acenaphthene [2.08323E-03ug/L];Fluorene [1.81833E-03ug/L];Phena*	
Conventionals	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:07 by CDE
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0248

Client:	Windward Environmental, LLC	Received:	15-Jun-2018 16:10
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	9.40

18F0248-02 (LDW18-SP-45) Sampled 06/15/2018 13:45

Current Status	*Out*	*Location*	*In*
18F0248-02 A 01 [Glass NM, Amber, 250 mL		*Hazard Info:Acenaphthene [2.08323E-03ug/L];Fluorene [1.81833E-03ug/L];Phena*	
Conventionals	07/23/2018 17:07 by CDE	R-03 E-12	by
18F0248-02 B 01 [HDPE NM, 125 mL]		*Hazard Info:Acenaphthene [2.08323E-03ug/L];Fluorene [1.81833E-03ug/L];Phena*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0248

Client:	Windward Environmental, LLC	Received:	13-Jun-2018 16:26
Project:	AOC3 Task 4 (Seeps)	Received By:	Brandon Fisk
Number:	[none]	Temp (°C):	13.90

18F0248-02 (LDW18-SP-45) Sampled 06/15/2018 13:45

Current Status	*Out*	*Location*	*In*
18F0248-02 B 01 [HDPE NM, 125 mL]		*Hazard Info:Acenaphthene [2.08323E-03ug/L];Fluorene [1.81833E-03ug/L];Phena*	
Metals	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
18F0248-02 C [HDPE NM, 500 mL]		*Hazard Info:Acenaphthene [2.08323E-03ug/L];Fluorene [1.81833E-03ug/L];Phena*	
Sample Receiving	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
Conventionals	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
18F0248-02 D [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthene [2.08323E-03ug/L];Fluorene [1.81833E-03ug/L];Phena*	
Sample Receiving	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
Extractions	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
18F0248-02 E [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthene [2.08323E-03ug/L];Fluorene [1.81833E-03ug/L];Phena*	

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0248

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0248-02 (LDW18-SP-45) Sampled 06/15/2018 13:45

Current Status	*Out*	*Location*	*In*
18F0248-02 E [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthene [2.08323E-03ug/L];Fluorene [1.81833E-03ug/L];Phena*	
Sample Receiving	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
Extractions	06/22/2018 10:46 by RCSM	Water Lab	by
	06/22/2018 10:46 by RCSM	Water Lab	by
	06/22/2018 10:46 by RCSM	Water Lab	by
	06/22/2018 10:46 by RCSM	Water Lab	by
18F0248-02 F [Glass NM, Amber, 1000 mL]		*Hazard Info:Acenaphthene [2.08323E-03ug/L];Fluorene [1.81833E-03ug/L];Phena*	
Sample Receiving	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
Extractions	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by

18F0248-03 (LDW18-SP-47) Sampled 06/15/2018 13:16

Current Status	*Out*	*Location*	*In*
18F0248-03 A [Glass NM, Amber, 250 mL]		*Hazard Info:Acenaphthene [2.57258E-03ug/L];Fluorene [3.18729E-03ug/L];Phena*	
Sample Receiving	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
Conventionals	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
18F0248-03 A 01 [Glass NM, Amber, 250 mL		*Hazard Info:Acenaphthene [2.57258E-03ug/L];Fluorene [3.18729E-03ug/L];Phena*	
Conventionals	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:12 by CDE

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0248

Client:	Windward Environmental, LLC	Received:	13-Jun-2018 16:26
Project:	AOC3 Task 4 (Seeps)	Received By:	Brandon Fisk
Number:	[none]	Temp (°C):	13.90

18F0248-03 (LDW18-SP-47) Sampled 06/15/2018 13:16

Current Status	*Out*	*Location*	*In*
18F0248-03 A 01 [Glass NM, Amber, 250 mL		*Hazard Info:Acenaphthene [2.57258E-03ug/L];Fluorene [3.18729E-03ug/L];Phena*	
Conventionals	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:12 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:12 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:12 by CDE
	07/23/2018 17:12 by CDE	R-03 F-1	by
	07/23/2018 17:12 by CDE	R-03 F-1	by
	07/23/2018 17:12 by CDE	R-03 F-1	by
	07/23/2018 17:12 by CDE	R-03 F-1	by
18F0248-03 B 01 [HDPE NM, 125 mL]		*Hazard Info:Acenaphthene [2.57258E-03ug/L];Fluorene [3.18729E-03ug/L];Phena*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0248

Client:	Windward Environmental, LLC	Received:	15-Jun-2018 16:10
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	9.40

18F0248-03 (LDW18-SP-47) Sampled 06/15/2018 13:16

Current Status	*Out*	*Location*	*In*
18F0248-03 B 01 [HDPE NM, 125 mL]		*Hazard Info:Acenaphthene [2.57258E-03ug/L];Fluorene [3.18729E-03ug/L];Phena*	
Metals	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
18F0248-03 C [HDPE NM, 500 mL]		*Hazard Info:Acenaphthene [2.57258E-03ug/L];Fluorene [3.18729E-03ug/L];Phena*	
Sample Receiving	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
Conventionals	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
18F0248-03 D [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthene [2.57258E-03ug/L];Fluorene [3.18729E-03ug/L];Phena*	
Sample Receiving	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0248

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0248-03 (LDW18-SP-47) Sampled 06/15/2018 13:16

Current Status	*Out*	*Location*	*In*
18F0248-03 D [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthene [2.57258E-03ug/L];Fluorene [3.18729E-03ug/L];Phena*	
Sample Receiving	06/20/2018 14:52 by JBW	R-05 W05 Ext	06/21/2018 13:03 by RCSM
	06/20/2018 14:52 by JBW	R-05 W05 Ext	06/21/2018 13:03 by RCSM
	06/20/2018 14:52 by JBW	R-05 W05 Ext	06/21/2018 13:03 by RCSM
	06/20/2018 14:52 by JBW	R-05 W05 Ext	06/21/2018 13:03 by RCSM
Extractions	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
18F0248-03 E [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthene [2.57258E-03ug/L];Fluorene [3.18729E-03ug/L];Phena*	
Sample Receiving	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
Extractions	06/22/2018 10:46 by RCSM	Water Lab	by
	06/22/2018 10:46 by RCSM	Water Lab	by
	06/22/2018 10:46 by RCSM	Water Lab	by
	06/22/2018 10:46 by RCSM	Water Lab	by
18F0248-03 F [Glass NM, Amber, 1000 mL]		*Hazard Info:Acenaphthene [2.57258E-03ug/L];Fluorene [3.18729E-03ug/L];Phena*	
Sample Receiving	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
Extractions	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by

18F0248-04 (LDW18-SP-66) Sampled 06/15/2018 13:25

Current Status	*Out*	*Location*	*In*
18F0248-04 A [Glass NM, Amber, 250 mL]		*Hazard Info:Fluorene [2.29708E-03ug/L];Phenanthrene [0.0067652ug/L];Anthrac*	
Sample Receiving	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
Conventionals	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0248

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0248-04 (LDW18-SP-66) Sampled 06/15/2018 13:25

Current Status	*Out*	*Location*	*In*
18F0248-04 A 01 [Glass NM, Amber, 250 mL		*Hazard Info:Fluorene [2.29708E-03ug/L];Phenanthrene [0.0067652ug/L];Anthrac*	
Conventionals	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:07 by CDE
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
18F0248-04 B 01 [HDPE NM, 125 mL]		*Hazard Info:Fluorene [2.29708E-03ug/L];Phenanthrene [0.0067652ug/L];Anthrac*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0248

Client:	Windward Environmental, LLC	Received:	14-Jun-2018 15:45
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	11.50

18F0248-04 (LDW18-SP-66) Sampled 06/15/2018 13:25

Current Status	*Out*	*Location*	*In*
18F0248-04 B 01 [HDPE NM, 125 mL]		*Hazard Info:Fluorene [2.29708E-03ug/L];Phenanthrene [0.0067652ug/L];Anthrac*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
18F0248-04 C [HDPE NM, 500 mL]		*Hazard Info:Fluorene [2.29708E-03ug/L];Phenanthrene [0.0067652ug/L];Anthrac*	
Sample Receiving	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0248

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0248-04 (LDW18-SP-66) Sampled 06/15/2018 13:25

Current Status	*Out*	*Location*	*In*
18F0248-04 C [HDPE NM, 500 mL]		*Hazard Info:Fluorene [2.29708E-03ug/L];Phenanthrene [0.0067652ug/L];Anthrac*	
Conventionals	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
18F0248-04 D [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [2.29708E-03ug/L];Phenanthrene [0.0067652ug/L];Anthrac*	
Sample Receiving	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/20/2018 14:52 by JBW	R-05 W05 Ext	06/21/2018 13:03 by RCSM
	06/20/2018 14:52 by JBW	R-05 W05 Ext	06/21/2018 13:03 by RCSM
	06/20/2018 14:52 by JBW	R-05 W05 Ext	06/21/2018 13:03 by RCSM
	06/20/2018 14:52 by JBW	R-05 W05 Ext	06/21/2018 13:03 by RCSM
Extractions	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
18F0248-04 E [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [2.29708E-03ug/L];Phenanthrene [0.0067652ug/L];Anthrac*	
Sample Receiving	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
Extractions	06/22/2018 10:49 by RCSM	Water Lab	by
	06/22/2018 10:49 by RCSM	Water Lab	by
	06/22/2018 10:49 by RCSM	Water Lab	by
	06/22/2018 10:49 by RCSM	Water Lab	by
18F0248-04 F [Glass NM, Amber, 1000 mL]		*Hazard Info:Fluorene [2.29708E-03ug/L];Phenanthrene [0.0067652ug/L];Anthrac*	
Sample Receiving	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
Extractions	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by

18F0248-05 (LDW18-SP-70) Sampled 06/15/2018 11:13

Current Status	*Out*	*Location*	*In*
18F0248-05 A [Glass NM, Amber, 250 mL]		*Hazard Info:Fluorene [5.4734E-04ug/L];Phenanthrene [1.82876E-03ug/L];Fluora*	
Sample Receiving	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0248

Client:	Windward Environmental, LLC	Received:	15-Jun-2018 16:10
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	9.40

18F0248-05 (LDW18-SP-70) Sampled 06/15/2018 11:13

Current Status	*Out*	*Location*	*In*
18F0248-05 A [Glass NM, Amber, 250 mL]		*Hazard Info:Fluorene [5.4734E-04ug/L];Phenanthrene [1.82876E-03ug/L];Fluora*	
Sample Receiving	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
Conventionals	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
18F0248-05 A 01 [Glass NM, Amber, 250 mL		*Hazard Info:Fluorene [5.4734E-04ug/L];Phenanthrene [1.82876E-03ug/L];Fluora*	
Conventionals	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:07 by CDE
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
18F0248-05 B 01 [HDPE NM, 125 mL]		*Hazard Info:Fluorene [5.4734E-04ug/L];Phenanthrene [1.82876E-03ug/L];Fluora*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0248

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0248-05 (LDW18-SP-70) Sampled 06/15/2018 11:13

Current Status	*Out*	*Location*	*In*
18F0248-05 B 01 [HDPE NM, 125 mL]		*Hazard Info:Fluorene [5.4734E-04ug/L];Phenanthrene [1.82876E-03ug/L];Fluora*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0248

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0248-05 (LDW18-SP-70) Sampled 06/15/2018 11:13

Current Status	*Out*	*Location*	*In*
18F0248-05 B 01 [HDPE NM, 125 mL]		*Hazard Info:Fluorene [5.4734E-04ug/L];Phenanthrene [1.82876E-03ug/L];Fluora*	
Metals	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
18F0248-05 C [HDPE NM, 500 mL]		*Hazard Info:Fluorene [5.4734E-04ug/L];Phenanthrene [1.82876E-03ug/L];Fluora*	
Sample Receiving	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
Conventionals	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
18F0248-05 D [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [5.4734E-04ug/L];Phenanthrene [1.82876E-03ug/L];Fluora*	
Sample Receiving	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/20/2018 14:52 by JBW	R-05 W05 Ext	06/21/2018 13:03 by RCSM
	06/20/2018 14:52 by JBW	R-05 W05 Ext	06/21/2018 13:03 by RCSM
	06/20/2018 14:52 by JBW	R-05 W05 Ext	06/21/2018 13:03 by RCSM
	06/20/2018 14:52 by JBW	R-05 W05 Ext	06/21/2018 13:03 by RCSM
Extractions	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
18F0248-05 E [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [5.4734E-04ug/L];Phenanthrene [1.82876E-03ug/L];Fluora*	
Sample Receiving	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
Extractions	06/22/2018 10:46 by RCSM	Water Lab	by
	06/22/2018 10:46 by RCSM	Water Lab	by
	06/22/2018 10:46 by RCSM	Water Lab	by
	06/22/2018 10:46 by RCSM	Water Lab	by
18F0248-05 F [Glass NM, Amber, 1000 mL]		*Hazard Info:Fluorene [5.4734E-04ug/L];Phenanthrene [1.82876E-03ug/L];Fluora*	
Sample Receiving	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
	06/15/2018 17:25 by SEF	***START***	06/15/2018 17:25 by SEF
Extractions	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0248

Client:	Windward Environmental, LLC	Received:	14-Jun-2018 15:45
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	11.50

18F0248-05 (LDW18-SP-70) Sampled 06/15/2018 11:13

Current Status	*Out*	*Location*	*In*
18F0248-05 F [Glass NM, Amber, 1000 mL]		*Hazard Info:Fluorene [5.4734E-04ug/L];Phenanthrene [1.82876E-03ug/L];Fluora*	
Extractions	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by

18F0248-06 (LDW18-SP-83) Sampled 06/15/2018 12:08

Current Status	*Out*	*Location*	*In*
18F0248-06 A [Glass NM, Amber, 250 mL]		*Hazard Info:Fluorene [1.21202E-03ug/L];Phenanthrene [4.90013E-03ug/L];Fluor*	
Sample Receiving	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
Conventionals	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
18F0248-06 A 01 [Glass NM, Amber, 250 mL		*Hazard Info:Fluorene [1.21202E-03ug/L];Phenanthrene [4.90013E-03ug/L];Fluor*	
Conventionals	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:07 by CDE
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
18F0248-06 B 01 [HDPE NM, 125 mL]		*Hazard Info:Fluorene [1.21202E-03ug/L];Phenanthrene [4.90013E-03ug/L];Fluor*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0248

Client:	Windward Environmental, LLC	Received:	15-Jun-2018 16:10
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	9.40

18F0248-06 (LDW18-SP-83) Sampled 06/15/2018 12:08

Current Status	*Out*	*Location*	*In*
18F0248-06 B 01 [HDPE NM, 125 mL]		*Hazard Info:Fluorene [1.21202E-03ug/L];Phenanthrene [4.90013E-03ug/L];Fluor*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0248

Client:	Windward Environmental, LLC	Received:	15-Jun-2018 16:10
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	9.40

18F0248-06 (LDW18-SP-83) Sampled 06/15/2018 12:08

Current Status	*Out*	*Location*	*In*
18F0248-06 B 01 [HDPE NM, 125 mL]		*Hazard Info:Fluorene [1.21202E-03ug/L];Phenanthrene [4.90013E-03ug/L];Fluor*	
Metals	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
18F0248-06 C [HDPE NM, 500 mL]		*Hazard Info:Fluorene [1.21202E-03ug/L];Phenanthrene [4.90013E-03ug/L];Fluor*	
Sample Receiving	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
Conventionals	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
18F0248-06 D [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [1.21202E-03ug/L];Phenanthrene [4.90013E-03ug/L];Fluor*	
Sample Receiving	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
Extractions	06/22/2018 10:46 by RCSM	Water Lab	by
	06/22/2018 10:46 by RCSM	Water Lab	by
	06/22/2018 10:46 by RCSM	Water Lab	by
	06/22/2018 10:46 by RCSM	Water Lab	by
18F0248-06 E [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [1.21202E-03ug/L];Phenanthrene [4.90013E-03ug/L];Fluor*	
Sample Receiving	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/20/2018 14:52 by JBW	R-05 W05 Ext	06/21/2018 13:03 by RCSM
	06/20/2018 14:52 by JBW	R-05 W05 Ext	06/21/2018 13:03 by RCSM
	06/20/2018 14:52 by JBW	R-05 W05 Ext	06/21/2018 13:03 by RCSM
	06/20/2018 14:52 by JBW	R-05 W05 Ext	06/21/2018 13:03 by RCSM
Extractions	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0248

Client:	Windward Environmental, LLC	Received:	14-Jun-2018 15:45
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	11.50

18F0248-06 (LDW18-SP-83) Sampled 06/15/2018 12:08

Current Status	*Out*	*Location*	*In*
18F0248-06 E [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [1.21202E-03ug/L];Phenanthrene [4.90013E-03ug/L];Fluor*	
Extractions	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
18F0248-06 F [Glass NM, Amber, 1000 mL]		*Hazard Info:Fluorene [1.21202E-03ug/L];Phenanthrene [4.90013E-03ug/L];Fluor*	
Sample Receiving	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
Extractions	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by

18F0248-07 (LDW18-SP-86) Sampled 06/15/2018 12:19

Current Status	*Out*	*Location*	*In*
18F0248-07 A [Glass NM, Amber, 250 mL]		*Hazard Info:Fluorene [5.4888E-04ug/L];Phenanthrene [3.24851E-03ug/L];Fluora*	
Sample Receiving	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
Conventionals	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
18F0248-07 A 01 [Glass NM, Amber, 250 mL		*Hazard Info:Fluorene [5.4888E-04ug/L];Phenanthrene [3.24851E-03ug/L];Fluora*	
Conventionals	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:07 by CDE
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0248

Client:	Windward Environmental, LLC	Received:	15-Jun-2018 16:10
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	9.40

18F0248-07 (LDW18-SP-86) Sampled 06/15/2018 12:19

Current Status	*Out*	*Location*	*In*
18F0248-07 A 01 [Glass NM, Amber, 250 mL		*Hazard Info:Fluorene [5.4888E-04ug/L];Phenanthrene [3.24851E-03ug/L];Fluora*	
Conventionals	07/23/2018 17:07 by CDE	R-03 E-12	by
18F0248-07 B 01 [HDPE NM, 125 mL]		*Hazard Info:Fluorene [5.4888E-04ug/L];Phenanthrene [3.24851E-03ug/L];Fluora*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/29/2018 08:06 by DP
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0248

Client:	Windward Environmental, LLC	Received:	13-Jun-2018 16:26
Project:	AOC3 Task 4 (Seeps)	Received By:	Brandon Fisk
Number:	[none]	Temp (°C):	13.90

18F0248-07 (LDW18-SP-86) Sampled 06/15/2018 12:19

Current Status	*Out*	*Location*	*In*
18F0248-07 B 01 [HDPE NM, 125 mL]		*Hazard Info:Fluorene [5.4888E-04ug/L];Phenanthrene [3.24851E-03ug/L];Fluora*	
Metals	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
	06/29/2018 08:06 by DP	DA-02	by
18F0248-07 C [HDPE NM, 500 mL]		*Hazard Info:Fluorene [5.4888E-04ug/L];Phenanthrene [3.24851E-03ug/L];Fluora*	
Sample Receiving	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
Conventionals	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
18F0248-07 D [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [5.4888E-04ug/L];Phenanthrene [3.24851E-03ug/L];Fluora*	
Sample Receiving	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
Extractions	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
18F0248-07 E [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [5.4888E-04ug/L];Phenanthrene [3.24851E-03ug/L];Fluora*	

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0248

Client:	Windward Environmental, LLC	Received:	12-Jun-2018 14:55
Project:	AOC3 Task 4 (Seeps)	Received By:	Jacob Walter
Number:	[none]	Temp (°C):	3.90

18F0248-07 (LDW18-SP-86) Sampled 06/15/2018 12:19

Current Status	*Out*	*Location*	*In*
18F0248-07 E [Glass NM, Amber, 500 mL]		*Hazard Info:Fluorene [5.4888E-04ug/L];Phenanthrene [3.24851E-03ug/L];Fluora*	
Sample Receiving	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
Extractions	06/22/2018 10:46 by RCSM	Water Lab	by
	06/22/2018 10:46 by RCSM	Water Lab	by
	06/22/2018 10:46 by RCSM	Water Lab	by
	06/22/2018 10:46 by RCSM	Water Lab	by
18F0248-07 F [Glass NM, Amber, 1000 mL]		*Hazard Info:Fluorene [5.4888E-04ug/L];Phenanthrene [3.24851E-03ug/L];Fluora*	
Sample Receiving	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
Extractions	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by

18F0248-08 (LDW18-SP-88) Sampled 06/15/2018 10:52

Current Status	*Out*	*Location*	*In*
18F0248-08 A [Glass NM, Amber, 250 mL]		*Hazard Info:Acenaphthene [3.77585E-03ug/L];Fluorene [1.84358E-03ug/L];Phena*	
Sample Receiving	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
Conventionals	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 H-4	07/23/2018 17:07 by CDE
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
18F0248-08 A 01 [Glass NM, Amber, 250 mL		*Hazard Info:Acenaphthene [3.77585E-03ug/L];Fluorene [1.84358E-03ug/L];Phena*	
Conventionals	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	06/22/2018 10:10 by CDE	Conv Login Bench	06/22/2018 10:14 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/12/2018 17:15 by CDE	R-03 G-10	07/17/2018 12:27 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:07 by CDE

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0248

Client:	Windward Environmental, LLC	Received:	13-Jun-2018 16:26
Project:	AOC3 Task 4 (Seeps)	Received By:	Brandon Fisk
Number:	[none]	Temp (°C):	13.90

18F0248-08 (LDW18-SP-88) Sampled 06/15/2018 10:52

Current Status	*Out*	*Location*	*In*
18F0248-08 A 01 [Glass NM, Amber, 250 mL		*Hazard Info:Acenaphthene [3.77585E-03ug/L];Fluorene [1.84358E-03ug/L];Phena*	
Conventionals	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:07 by CDE
	07/17/2018 12:27 by CDE	R-03 G-10	07/23/2018 17:07 by CDE
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
	07/23/2018 17:07 by CDE	R-03 E-12	by
18F0248-08 B 01 [HDPE NM, 125 mL]		*Hazard Info:Acenaphthene [3.77585E-03ug/L];Fluorene [1.84358E-03ug/L];Phena*	
Metals	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/19/2018 06:33 by DP	Metals Prep Lab	06/20/2018 05:10 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0248

Client:	Windward Environmental, LLC	Received:	15-Jun-2018 16:10
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	9.40

18F0248-08 (LDW18-SP-88) Sampled 06/15/2018 10:52

Current Status	*Out*	*Location*	*In*
18F0248-08 B 01 [HDPE NM, 125 mL]		*Hazard Info:Acenaphthene [3.77585E-03ug/L];Fluorene [1.84358E-03ug/L];Phena*	
Metals	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/20/2018 05:10 by DP		06/29/2018 08:06 by DP
	06/29/2018 08:06 by DP	DA-02	06/29/2018 13:33 by TCH
	06/29/2018 08:06 by DP	DA-02	06/29/2018 13:33 by TCH
	06/29/2018 08:06 by DP	DA-02	06/29/2018 13:33 by TCH
	06/29/2018 08:06 by DP	DA-02	06/29/2018 13:33 by TCH
	06/29/2018 08:06 by DP	DA-02	06/29/2018 13:33 by TCH
	06/29/2018 08:06 by DP	DA-02	06/29/2018 13:33 by TCH
	06/29/2018 08:06 by DP	DA-02	06/29/2018 13:33 by TCH
	06/29/2018 08:06 by DP	DA-02	06/29/2018 13:33 by TCH
	06/29/2018 08:06 by DP	DA-02	06/29/2018 13:33 by TCH
	06/29/2018 08:06 by DP	DA-02	06/29/2018 13:33 by TCH
	06/29/2018 08:06 by DP	DA-02	06/29/2018 13:33 by TCH
	06/29/2018 08:06 by DP	DA-02	06/29/2018 13:33 by TCH
	06/29/2018 08:06 by DP	DA-02	06/29/2018 13:33 by TCH
	06/29/2018 08:06 by DP	DA-02	06/29/2018 13:33 by TCH
	06/29/2018 08:06 by DP	DA-02	06/29/2018 13:33 by TCH
	06/29/2018 08:06 by DP	DA-02	06/29/2018 13:33 by TCH

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0248

Client:	Windward Environmental, LLC	Received:	15-Jun-2018 16:10
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	9.40

18F0248-08 (LDW18-SP-88) Sampled 06/15/2018 10:52

Current Status	*Out*	*Location*	*In*
18F0248-08 B 01 [HDPE NM, 125 mL]		*Hazard Info:Acenaphthene [3.77585E-03ug/L];Fluorene [1.84358E-03ug/L];Phena*	
Metals	06/29/2018 08:06 by DP	DA-02	06/29/2018 13:33 by TCH

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0248

Client:	Windward Environmental, LLC	Received:	15-Jun-2018 16:10
Project:	AOC3 Task 4 (Seeps)	Received By:	Stephanie Fishel
Number:	[none]	Temp (°C):	9.40

18F0248-08 (LDW18-SP-88) Sampled 06/15/2018 10:52

Current Status	*Out*	*Location*	*In*
18F0248-08 B 01 [HDPE NM, 125 mL]		*Hazard Info:Acenaphthene [3.77585E-03ug/L];Fluorene [1.84358E-03ug/L];Phena*	
Metals	06/29/2018 13:33 by TCH	X-79	by
	06/29/2018 13:33 by TCH	X-79	by
	06/29/2018 13:33 by TCH	X-79	by
	06/29/2018 13:33 by TCH	X-79	by
	06/29/2018 13:33 by TCH	X-79	by
18F0248-08 C [HDPE NM, 500 mL]		*Hazard Info:Acenaphthene [3.77585E-03ug/L];Fluorene [1.84358E-03ug/L];Phena*	
Sample Receiving	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
Conventionals	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
	06/15/2018 17:48 by CDE	solids Cart	06/19/2018 07:23 by KLE
18F0248-08 D [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthene [3.77585E-03ug/L];Fluorene [1.84358E-03ug/L];Phena*	
Sample Receiving	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
Extractions	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
	06/21/2018 13:03 by RCSM	Water Lab	by
18F0248-08 E [Glass NM, Amber, 500 mL]		*Hazard Info:Acenaphthene [3.77585E-03ug/L];Fluorene [1.84358E-03ug/L];Phena*	
Sample Receiving	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/22/2018 10:46 by RCSM
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/22/2018 10:46 by RCSM
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/22/2018 10:46 by RCSM
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/22/2018 10:46 by RCSM
Extractions	06/22/2018 10:46 by RCSM	Water Lab	by
	06/22/2018 10:46 by RCSM	Water Lab	by
	06/22/2018 10:46 by RCSM	Water Lab	by
	06/22/2018 10:46 by RCSM	Water Lab	by
18F0248-08 F [Glass NM, Amber, 1000 mL]		*Hazard Info:Acenaphthene [3.77585E-03ug/L];Fluorene [1.84358E-03ug/L];Phena*	
Sample Receiving	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/15/2018 17:26 by SEF	***START***	06/15/2018 17:26 by SEF
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 09:24 by CCT

INTERNAL CHAIN OF CUSTODY

Work Order: 18F0248

Client:	Windward Environmental, LLC	Received:	13-Jun-2018 16:26
Project:	AOC3 Task 4 (Seeps)	Received By:	Brandon Fisk
Number:	[none]	Temp (°C):	13.90

18F0248-08 (LDW18-SP-88) Sampled 06/15/2018 10:52

Current Status	*Out*	*Location*	*In*
18F0248-08 F [Glass NM, Amber, 1000 mL]		*Hazard Info:Acenaphthene [3.77585E-03ug/L];Fluorene [1.84358E-03ug/L];Phena*	
Sample Receiving	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 09:24 by CCT
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 09:24 by CCT
	06/20/2018 14:45 by JBW	R-05 W02 Ext	06/21/2018 09:24 by CCT
Extractions	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by
	06/21/2018 09:24 by CCT	water Lab	by

QUALIFIERS AND NOTES

Qualifier	Definition
U	This analyte is not detected above the applicable reporting or detection limit.
Q	Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20% RSD, <20% drift or minimum RRF)
P1	The reported value is greater than 40% difference between the concentrations determined on two GC columns where applicable.
NRS	This surrogate not reported due to chromatographic interference
M	Estimated value for a GC/MS analyte detected and confirmed by an analyst but with low spectral match parameters.
J	Estimated concentration value detected below the reporting limit.
H	Hold time violation - Hold time was exceeded.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL)
D	The reported value is from a dilution
B	This analyte was detected in the method blank.
*	Flagged value is not within established control limits.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

LDW18-SP-RB1

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D
Semivolatile Organic Compounds (SepF)

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-01	SDG:	18F0185
Sampled:	06/11/18 16:12	Prepared:	06/18/18 15:20	File ID:	N1218062104.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/21/18 13:07
Batch:	BGF0417	Sequence:	SGF0272	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT12	Column:	ZB-5MS	Calibration:	BE00052

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	3.0	U	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	21.2	56.5	32.5 - 120	
Phenol-d5	37.500	15.8	42.0	17.8 - 120	
2-Chlorophenol-d4	37.500	28.5	76.1	55 - 120	
1,2-Dichlorobenzene-d4	25.000	18.5	74.2	49.3 - 120	
Nitrobenzene-d5	25.000	19.7	78.8	56.1 - 120	
2-Fluorobiphenyl	25.000	19.0	76.2	54.4 - 120	
2,4,6-Tribromophenol	37.500	29.9	79.7	49.3 - 128	
p-Terphenyl-d14	25.000	26.8	107	60 - 120	

Data File: \\target\share\chem3\nt12.i\20180621.b\N1218062104.D

Date : 21-JUN-2018 13:07

Client ID:

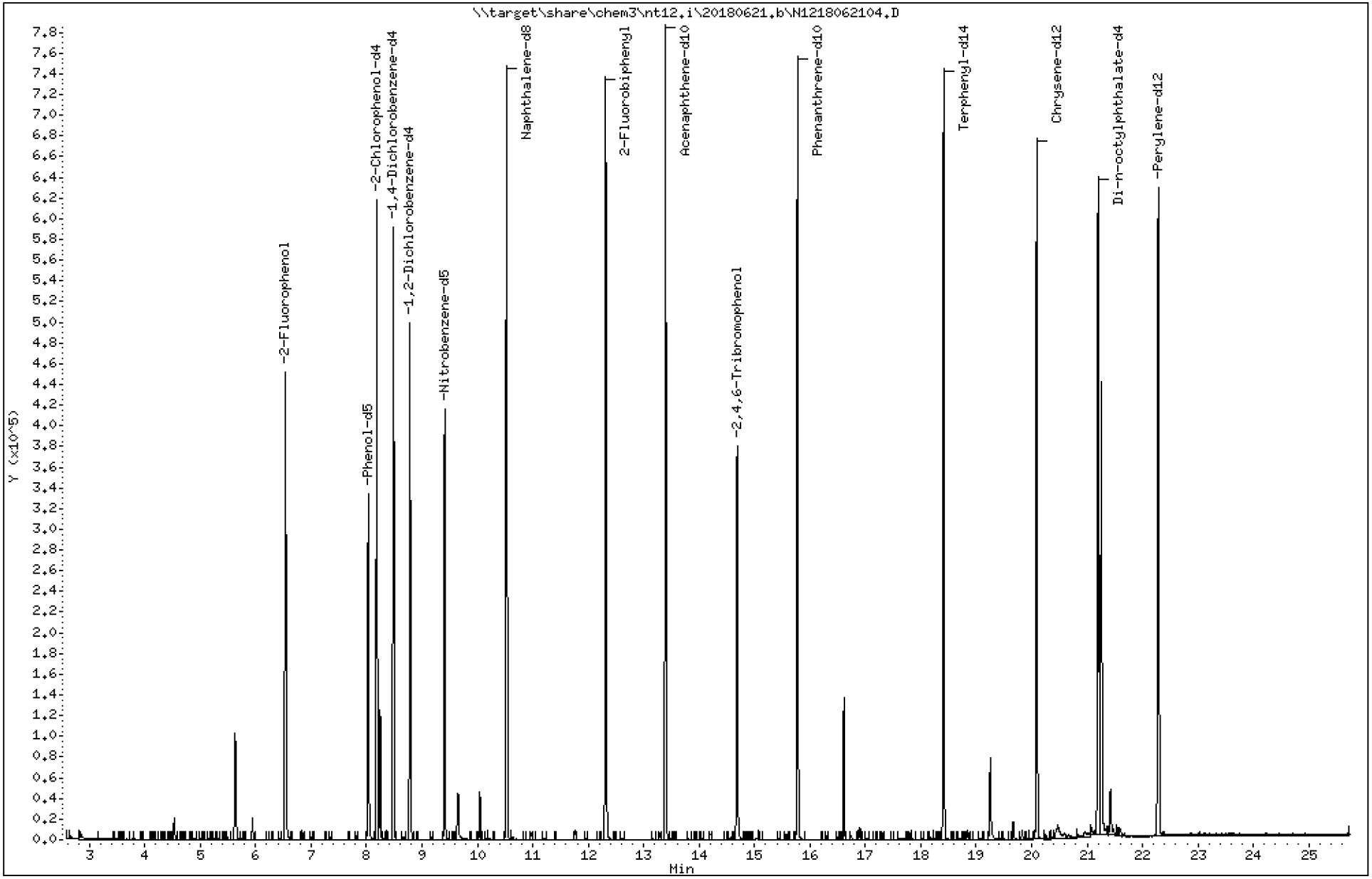
Instrument: nt12.i

Sample Info: 18F0185-01

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



Data File: \\target\share\chem3\nt12.i\20180621.b\N1218062104.D

Date : 21-JUN-2018 13:07

Client ID:

Instrument: nt12.i

Sample Info: 18F0185-01

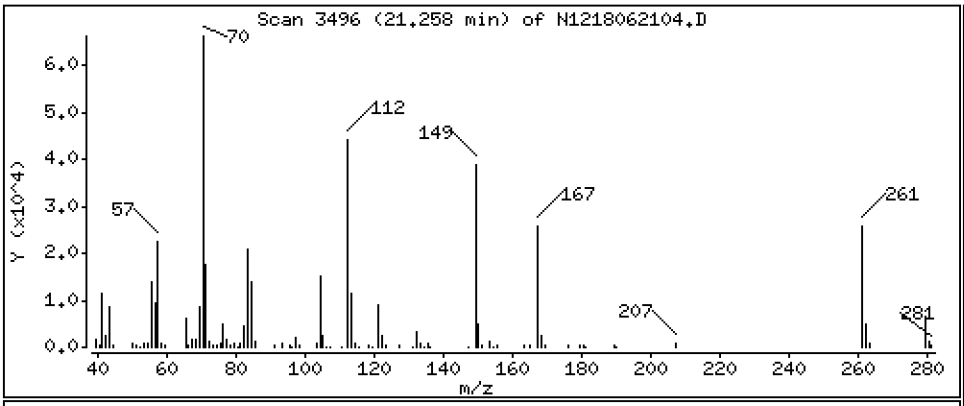
Operator: JZ

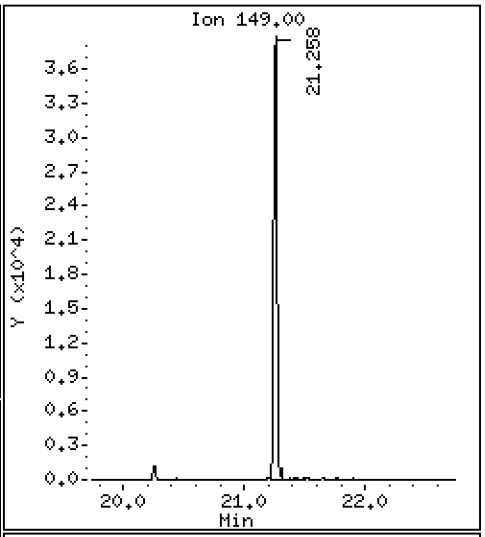
Column phase: ZB-5msi

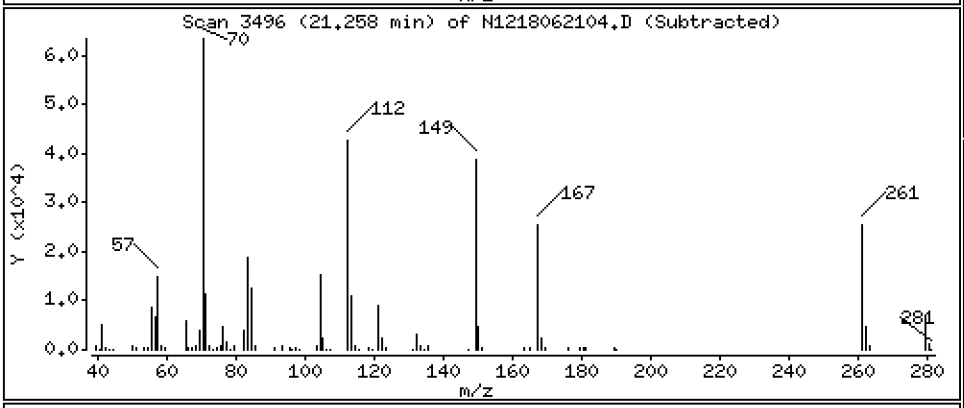
Column diameter: 0.32

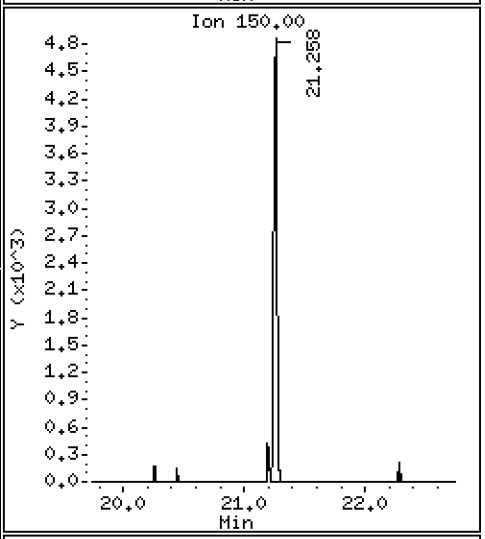
73 Di-n-octylphthalate

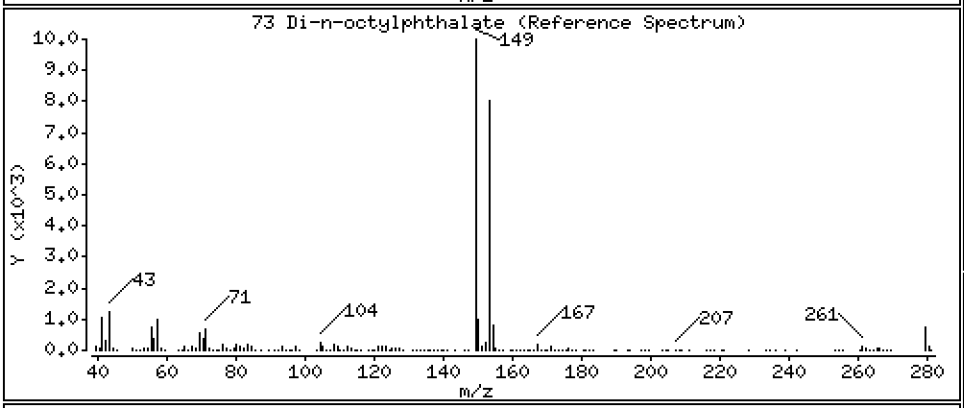
Concentration: 2.244 ug/mL

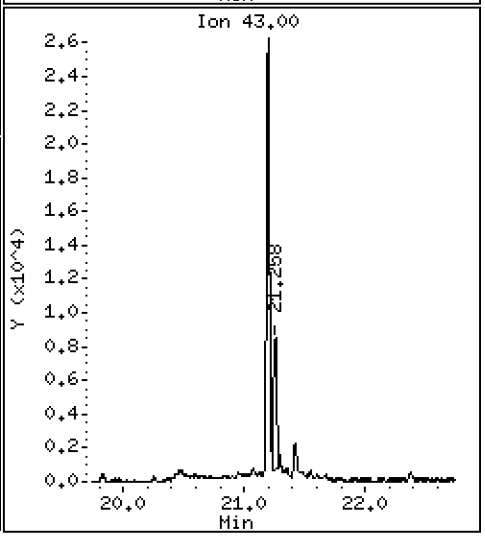


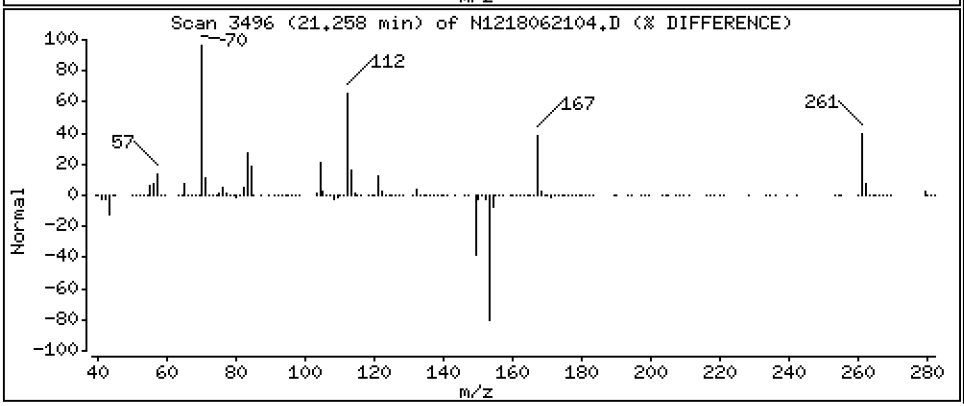












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180621.b\N1218062104.D
Lab Smp Id: 18F0185-01
Inj Date : 21-JUN-2018 13:07
Operator : JZ   Inst ID: nt12.i
Smp Info : 18F0185-01
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Meth Date : 21-Jun-2018 14:28 jianqing   Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36   Cal File: N1218051608.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$ 1	2-Fluorophenol	112	6.535	6.561	(0.770)	196545	21.1779	21.18(R)
$ 2	Phenol-d5	99	8.025	8.057	(0.946)	183779	15.7614	15.76(R)
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	8.185	8.212	(0.965)	255684	28.5395	28.54(R)
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.485	8.511	(1.000)	129295	20.0000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.784	8.810	(1.035)	111681	18.5468	18.55(R)
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					
17	Hexachloroethane	117	Compound Not Detected.					
16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
15	4-Methylphenol	108	Compound Not Detected.					
$ 18	Nitrobenzene-d5	82	9.409	9.435	(0.894)	198528	19.6907	19.69(R)
19	Nitrobenzene	77	Compound Not Detected.					
20	Isophorone	82	Compound Not Detected.					
21	2-Nitrophenol	139	Compound Not Detected.					
22	2,4-Dimethylphenol	107	Compound Not Detected.					
23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
24	Benzoic acid	105	Compound Not Detected.					
25	2,4-Dichlorophenol	162	Compound Not Detected.					
26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
* 27	Naphthalene-d8	136	10.525	10.552	(1.000)	492917	20.0000	
28	Naphthalene	128	Compound Not Detected.					
29	4-Chloroaniline	127	Compound Not Detected.					
30	Hexachlorobutadiene	225	Compound Not Detected.					
31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
32	2-Methylnaphthalene	141	Compound Not Detected.					
33	Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	12.315	12.342	(0.919)	354054	19.0443	19.04(R)
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	13.394	13.421	(1.000)	261398	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	Compound Not Detected.					
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	Compound Not Detected.					
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	14.687	14.719	(1.097)	65369	29.8712	29.87(R)
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	15.777	15.809	(1.000)	444843	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	Compound Not Detected.					
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	18.410	18.442	(0.916)	391802	26.7892	26.79(R)
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	20.093	20.136	(1.000)	379665	20.0000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134	Di-n-octylphthalate-d4	153	21.199	21.226	(1.000)	535834	20.0000	
	73	Di-n-octylphthalate	149	21.258	21.242	(1.003)	64223	2.24408	2.244
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	22.284	22.305	(1.000)	373192	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	Compound Not Detected.					
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062104.D
Lab Smp Id: 18F0185-01
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Misc Info: 18-

Calibration Date: 21-JUN-2018
Calibration Time: 11:24
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	129295	1.82
27 Naphthalene-d8	478458	239229	956916	492917	3.02
42 Acenaphthene-d10	247659	123830	495318	261398	5.55
59 Phenanthrene-d10	421930	210965	843860	444843	5.43
69 Chrysene-d12	450836	225418	901672	379665	-15.79
134 Di-n-octylphthala	583434	291717	1166868	535834	-8.16
77 Perylene-d12	453093	226547	906186	373192	-17.63

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.51	8.01	9.01	8.49	-0.31
27 Naphthalene-d8	10.55	10.05	11.05	10.53	-0.25
42 Acenaphthene-d10	13.42	12.92	13.92	13.39	-0.20
59 Phenanthrene-d10	15.81	15.31	16.31	15.78	-0.20
69 Chrysene-d12	20.14	19.64	20.64	20.09	-0.21
134 Di-n-octylphthala	21.23	20.73	21.73	21.20	-0.13
77 Perylene-d12	22.31	21.81	22.81	22.28	-0.10

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062104.D

Lab ID: 18F0185-01
nt12.i, SW846180516.m, 21-JUN-2018 13:07

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-30

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D
Semivolatile Organic Compounds (SepF)

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-03	SDG:	18F0185
Sampled:	06/12/18 12:06	Prepared:	06/18/18 15:20	File ID:	N1218062105.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/21/18 13:41
Batch:	BGF0417	Sequence:	SGF0272	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT12	Column:	ZB-5MS	Calibration:	BE00052

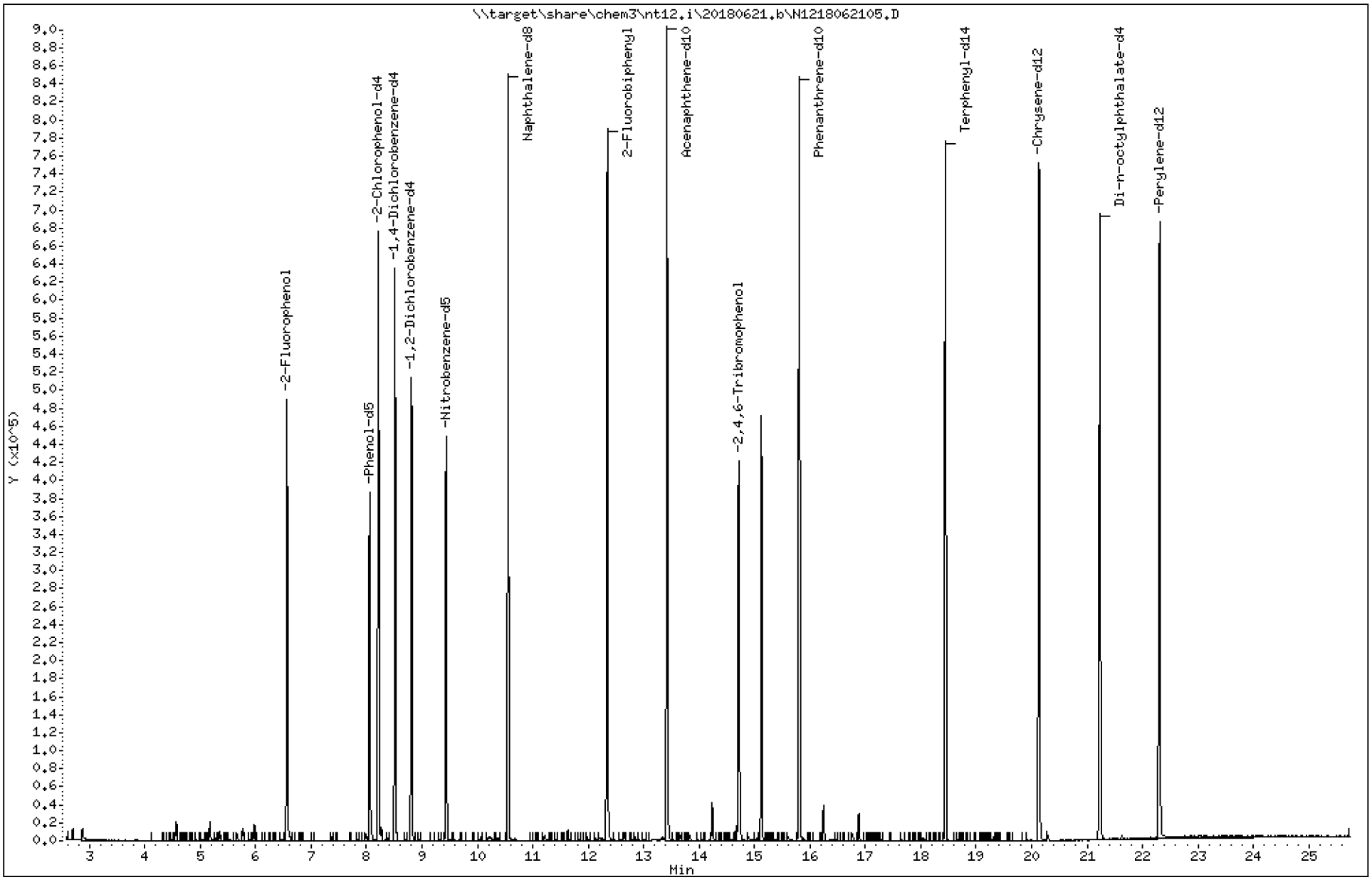
CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	3.0	U	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	20.7	55.3	32.5 - 120	
Phenol-d5	37.500	16.1	43.0	17.8 - 120	
2-Chlorophenol-d4	37.500	26.8	71.5	55 - 120	
1,2-Dichlorobenzene-d4	25.000	16.7	66.9	49.3 - 120	
Nitrobenzene-d5	25.000	18.8	75.2	56.1 - 120	
2-Fluorobiphenyl	25.000	18.3	73.4	54.4 - 120	
2,4,6-Tribromophenol	37.500	29.2	77.9	49.3 - 128	
p-Terphenyl-d14	25.000	25.4	102	60 - 120	

Data File: \\target\share\chem3\nt12.i\20180621.b\N1218062105.D
Date : 21-JUN-2018 13:41
Client ID:
Sample Info: 18F0185-03

Instrument: nt12.i
Operator: JZ
Column diameter: 0.32

Column phase: ZB-5msi



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 143 of 6523

Data File: \\target\share\chem3\nt12.i\20180621.b\N1218062105.D

Date : 21-JUN-2018 13:41

Client ID:

Instrument: nt12.i

Sample Info: 18F0185-03

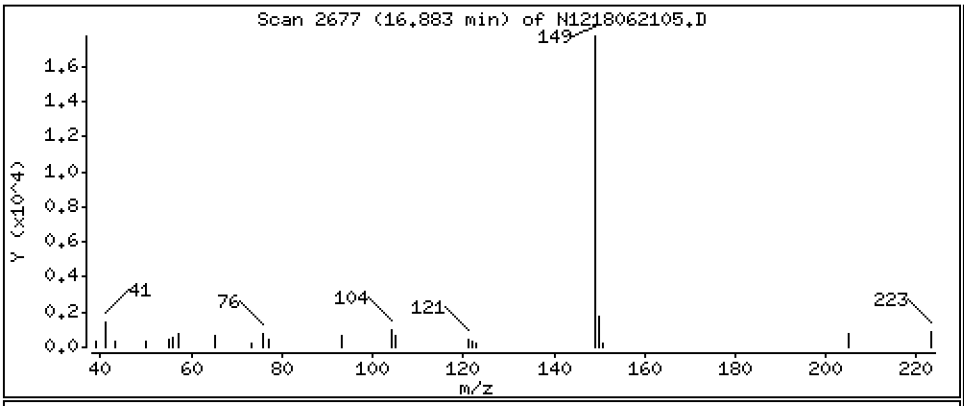
Operator: JZ

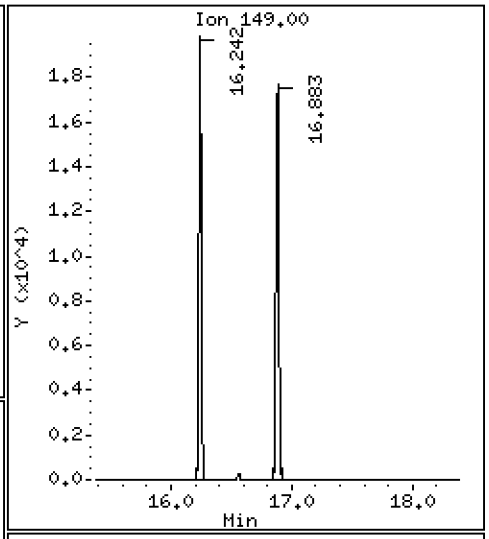
Column phase: ZB-5msi

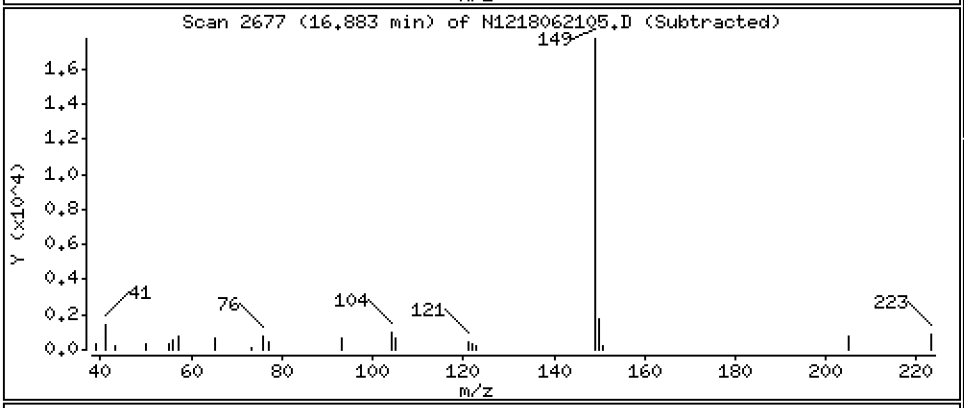
Column diameter: 0.32

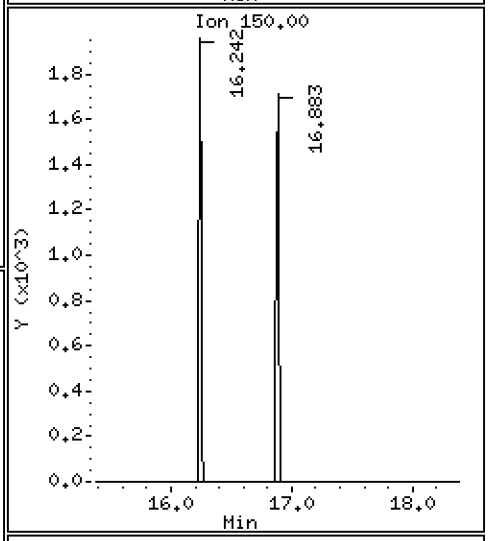
63 Di-n-butylphthalate

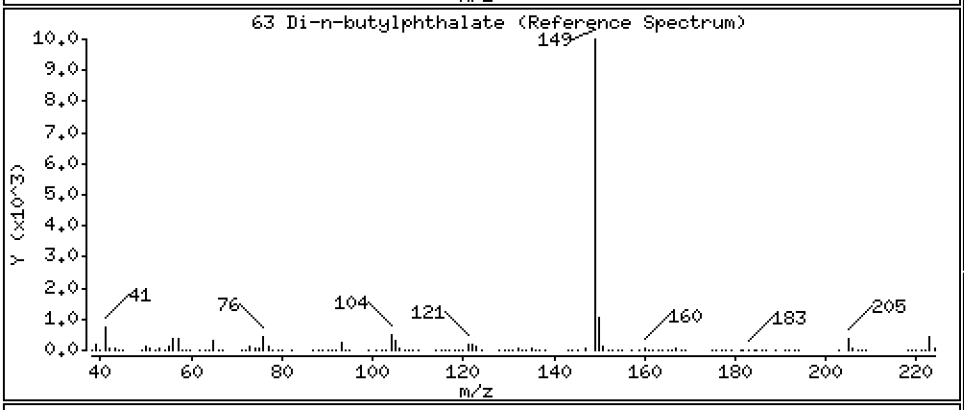
Concentration: 0.8072 ug/mL

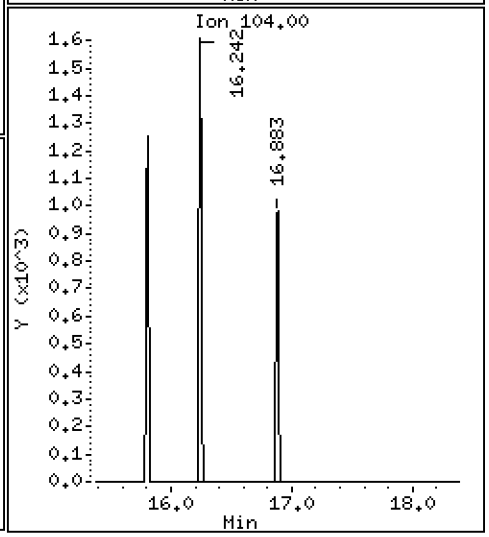


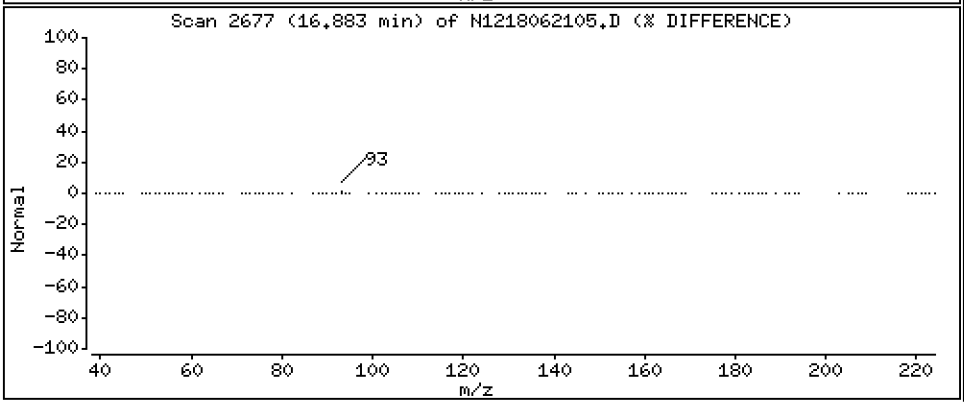












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180621.b\N1218062105.D
Lab Smp Id: 18F0185-03
Inj Date : 21-JUN-2018 13:41
Operator : JZ Inst ID: nt12.i
Smp Info : 18F0185-03
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Meth Date : 21-Jun-2018 14:28 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
$	1	2-Fluorophenol	112	6.561	6.561	(0.771)	219613	20.7298	20.73(R)
$	2	Phenol-d5	99	8.052	8.057	(0.946)	214471	16.1132	16.11(R)
	3	Phenol	94	Compound Not Detected.					
$	5	2-Chlorophenol-d4	132	8.212	8.212	(0.965)	274391	26.8305	26.83(R)
	4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6	2-Chlorophenol	128	Compound Not Detected.					
	7	1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8	1,4-Dichlorobenzene-d4	152	8.511	8.511	(1.000)	147593	20.0000	
	9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10	1,2-Dichlorobenzene-d4	152	8.810	8.810	(1.035)	115038	16.7358	16.74(R)
	12	1,2-Dichlorobenzene	146	Compound Not Detected.					
	11	Benzyl alcohol	108	Compound Not Detected.					
	14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
	13	2-Methylphenol	108	Compound Not Detected.					
	17	Hexachloroethane	117	Compound Not Detected.					
	16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15	4-Methylphenol	108	Compound Not Detected.					
$	18	Nitrobenzene-d5	82	9.435	9.435	(0.894)	213139	18.8009	18.80(R)
	19	Nitrobenzene	77	Compound Not Detected.					
	20	Isophorone	82	Compound Not Detected.					
	21	2-Nitrophenol	139	Compound Not Detected.					
	22	2,4-Dimethylphenol	107	Compound Not Detected.					
	23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24	Benzoic acid	105	Compound Not Detected.					
	25	2,4-Dichlorophenol	162	Compound Not Detected.					
	26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27	Naphthalene-d8	136	10.552	10.552	(1.000)	554240	20.0000	
	28	Naphthalene	128	Compound Not Detected.					
	29	4-Chloroaniline	127	Compound Not Detected.					
	30	Hexachlorobutadiene	225	Compound Not Detected.					
	31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32	2-Methylnaphthalene	141	Compound Not Detected.					
	33	Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	12.342	12.342	(0.920)	383763	18.3436	18.34(R)
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	13.421	13.421	(1.000)	294155	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	Compound Not Detected.					
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	Compound Not Detected.					
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	14.714	14.719	(1.096)	71905	29.1989	29.20(R)
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	15.803	15.809	(1.000)	498395	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	16.883	16.882	(1.068)	25103	0.80721	0.8072
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	18.442	18.442	(0.916)	428719	25.4137	25.41(R)
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	20.131	20.136	(1.000)	437924	20.0000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134	Di-n-octylphthalate-d4	153	21.231	21.226	(1.000)	583073	20.0000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	22.305	22.305	(1.000)	410191	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	Compound Not Detected.					
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062105.D
Lab Smp Id: 18F0185-03
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Misc Info: 18-

Calibration Date: 21-JUN-2018
Calibration Time: 11:24
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	147593	16.23
27 Naphthalene-d8	478458	239229	956916	554240	15.84
42 Acenaphthene-d10	247659	123830	495318	294155	18.77
59 Phenanthrene-d10	421930	210965	843860	498395	18.12
69 Chrysene-d12	450836	225418	901672	437924	-2.86
134 Di-n-octylphthala	583434	291717	1166868	583073	-0.06
77 Perylene-d12	453093	226547	906186	410191	-9.47

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.51	8.01	9.01	8.51	0.00
27 Naphthalene-d8	10.55	10.05	11.05	10.55	0.00
42 Acenaphthene-d10	13.42	12.92	13.92	13.42	0.00
59 Phenanthrene-d10	15.81	15.31	16.31	15.80	-0.03
69 Chrysene-d12	20.14	19.64	20.64	20.13	-0.03
134 Di-n-octylphthala	21.23	20.73	21.73	21.23	0.03
77 Perylene-d12	22.31	21.81	22.81	22.31	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062105.D

Lab ID: 18F0185-03
nt12.i, SW846180516.m, 21-JUN-2018 13:41

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-32

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D
Semivolatile Organic Compounds (SepF)

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-04	SDG:	18F0185
Sampled:	06/12/18 09:19	Prepared:	06/18/18 15:20	File ID:	N1218062106.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/21/18 14:15
Batch:	BGF0417	Sequence:	SGF0272	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT12	Column:	ZB-5MS	Calibration:	BE00052

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	3.0	U	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	20.2	53.8	32.5 - 120	
Phenol-d5	37.500	15.5	41.3	17.8 - 120	
2-Chlorophenol-d4	37.500	26.5	70.5	55 - 120	
1,2-Dichlorobenzene-d4	25.000	16.8	67.1	49.3 - 120	
Nitrobenzene-d5	25.000	18.7	74.6	56.1 - 120	
2-Fluorobiphenyl	25.000	18.0	72.1	54.4 - 120	
2,4,6-Tribromophenol	37.500	28.6	76.2	49.3 - 128	
p-Terphenyl-d14	25.000	25.2	101	60 - 120	

Data File: \\target\share\chem3\nt12.i\20180621.b\N1218062106.D

Date : 21-JUN-2018 14:15

Client ID:

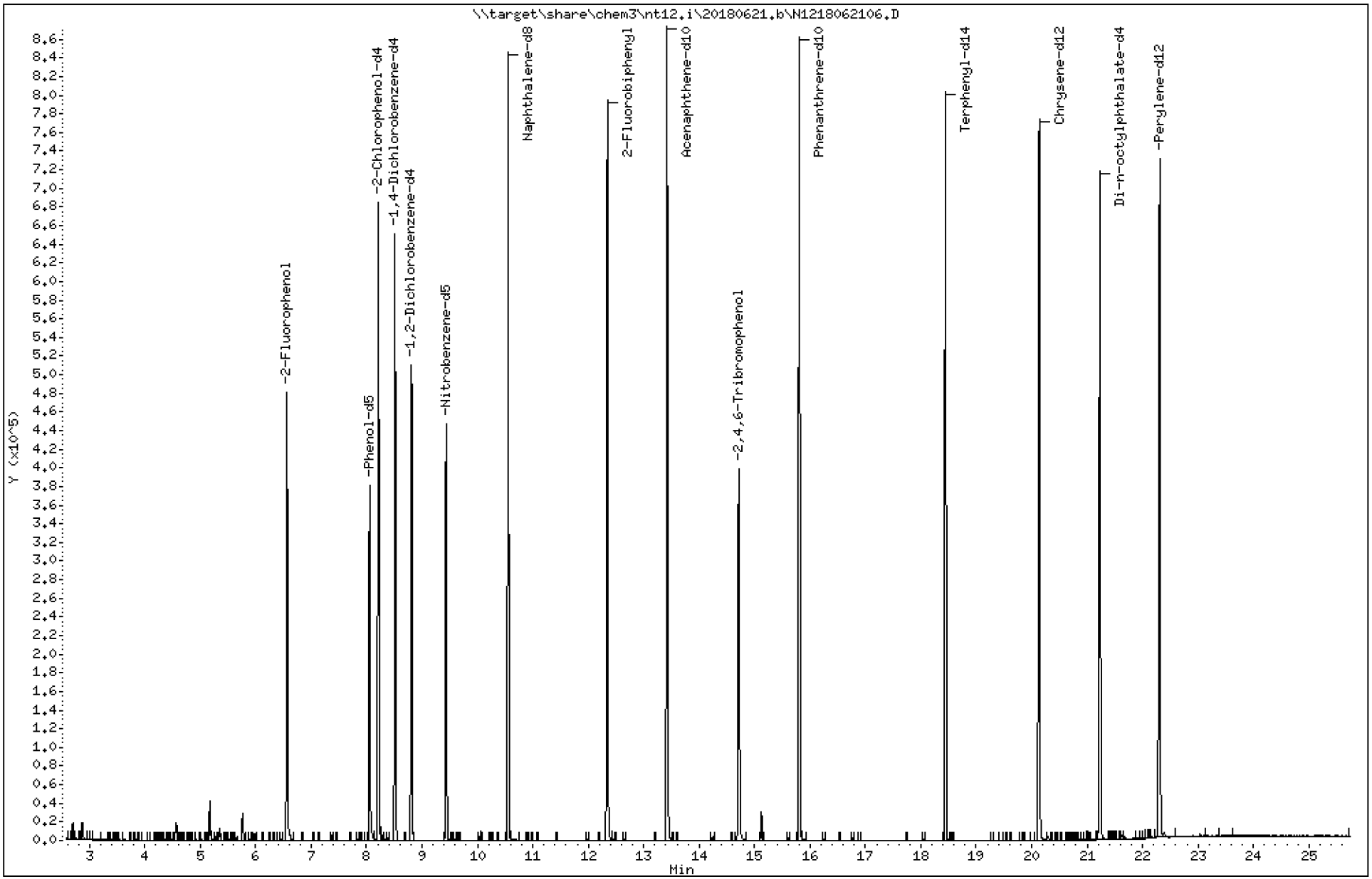
Sample Info: 18F0185-04

Instrument: nt12.i

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 151 of 6523

ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180621.b\N1218062106.D
Lab Smp Id: 18F0185-04
Inj Date : 21-JUN-2018 14:15
Operator : JZ   Inst ID: nt12.i
Smp Info : 18F0185-04
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Meth Date : 21-Jun-2018 14:28 jianqing   Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36   Cal File: N1218051608.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1	2-Fluorophenol	112	6.561	6.561	(0.771)	218220	20.1702	20.17(R)
$	2	Phenol-d5	99	8.051	8.057	(0.946)	210561	15.4906	15.49(R)
	3	Phenol	94	Compound Not Detected.					
$	5	2-Chlorophenol-d4	132	8.212	8.212	(0.965)	276286	26.4542	26.45(R)
	4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6	2-Chlorophenol	128	Compound Not Detected.					
	7	1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8	1,4-Dichlorobenzene-d4	152	8.511	8.511	(1.000)	150726	20.0000	
	9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10	1,2-Dichlorobenzene-d4	152	8.810	8.810	(1.035)	117812	16.7831	16.78(R)
	12	1,2-Dichlorobenzene	146	Compound Not Detected.					
	11	Benzyl alcohol	108	Compound Not Detected.					
	14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
	13	2-Methylphenol	108	Compound Not Detected.					
	17	Hexachloroethane	117	Compound Not Detected.					
	16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15	4-Methylphenol	108	Compound Not Detected.					
$	18	Nitrobenzene-d5	82	9.435	9.435	(0.894)	217209	18.6621	18.66(R)
	19	Nitrobenzene	77	Compound Not Detected.					
	20	Isophorone	82	Compound Not Detected.					
	21	2-Nitrophenol	139	Compound Not Detected.					
	22	2,4-Dimethylphenol	107	Compound Not Detected.					
	23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24	Benzoic acid	105	Compound Not Detected.					
	25	2,4-Dichlorophenol	162	Compound Not Detected.					
	26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27	Naphthalene-d8	136	10.552	10.552	(1.000)	569024	20.0000	
	28	Naphthalene	128	Compound Not Detected.					
	29	4-Chloroaniline	127	Compound Not Detected.					
	30	Hexachlorobutadiene	225	Compound Not Detected.					
	31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32	2-Methylnaphthalene	141	Compound Not Detected.					
	33	Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	12.341	12.342	(0.920)	390343	18.0344	18.03(R)
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	13.420	13.421	(1.000)	304328	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	Compound Not Detected.					
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	Compound Not Detected.					
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	14.719	14.719	(1.097)	72757	28.5572	28.56(R)
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	15.808	15.809	(1.000)	513782	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	Compound Not Detected.					
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	18.442	18.442	(0.916)	436666	25.2416	25.24(R)
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	20.136	20.136	(1.000)	449083	20.0000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134	Di-n-octylphthalate-d4	153	21.225	21.226	(1.000)	588321	20.0000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	22.305	22.305	(1.000)	427951	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	Compound Not Detected.					
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062106.D
Lab Smp Id: 18F0185-04
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Misc Info: 18-

Calibration Date: 21-JUN-2018
Calibration Time: 11:24
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	150726	18.70
27 Naphthalene-d8	478458	239229	956916	569024	18.93
42 Acenaphthene-d10	247659	123830	495318	304328	22.88
59 Phenanthrene-d10	421930	210965	843860	513782	21.77
69 Chrysene-d12	450836	225418	901672	449083	-0.39
134 Di-n-octylphthala	583434	291717	1166868	588321	0.84
77 Perylene-d12	453093	226547	906186	427951	-5.55

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.51	8.01	9.01	8.51	-0.00
27 Naphthalene-d8	10.55	10.05	11.05	10.55	-0.00
42 Acenaphthene-d10	13.42	12.92	13.92	13.42	-0.00
59 Phenanthrene-d10	15.81	15.31	16.31	15.81	-0.00
69 Chrysene-d12	20.14	19.64	20.64	20.14	-0.00
134 Di-n-octylphthala	21.23	20.73	21.73	21.23	-0.00
77 Perylene-d12	22.31	21.81	22.81	22.31	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062106.D

Lab ID: 18F0185-04
nt12.i, SW846180516.m, 21-JUN-2018 14:15

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

LDW18-SP-35

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D
Semivolatile Organic Compounds (SepF)

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-05	SDG:	18F0185
Sampled:	06/12/18 10:56	Prepared:	06/18/18 15:20	File ID:	N1218062107.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/21/18 14:49
Batch:	BGF0417	Sequence:	SGF0272	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT12	Column:	ZB-5MS	Calibration:	BE00052

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	3.0	U	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	20.1	53.7	32.5 - 120	
Phenol-d5	37.500	15.7	41.8	17.8 - 120	
2-Chlorophenol-d4	37.500	26.3	70.1	55 - 120	
1,2-Dichlorobenzene-d4	25.000	16.4	65.8	49.3 - 120	
Nitrobenzene-d5	25.000	18.4	73.5	56.1 - 120	
2-Fluorobiphenyl	25.000	18.0	72.0	54.4 - 120	
2,4,6-Tribromophenol	37.500	29.0	77.4	49.3 - 128	
p-Terphenyl-d14	25.000	24.9	99.5	60 - 120	

Data File: \\target\share\chem3\nt12.i\20180621.b\N1218062107.D

Date : 21-JUN-2018 14:49

Client ID:

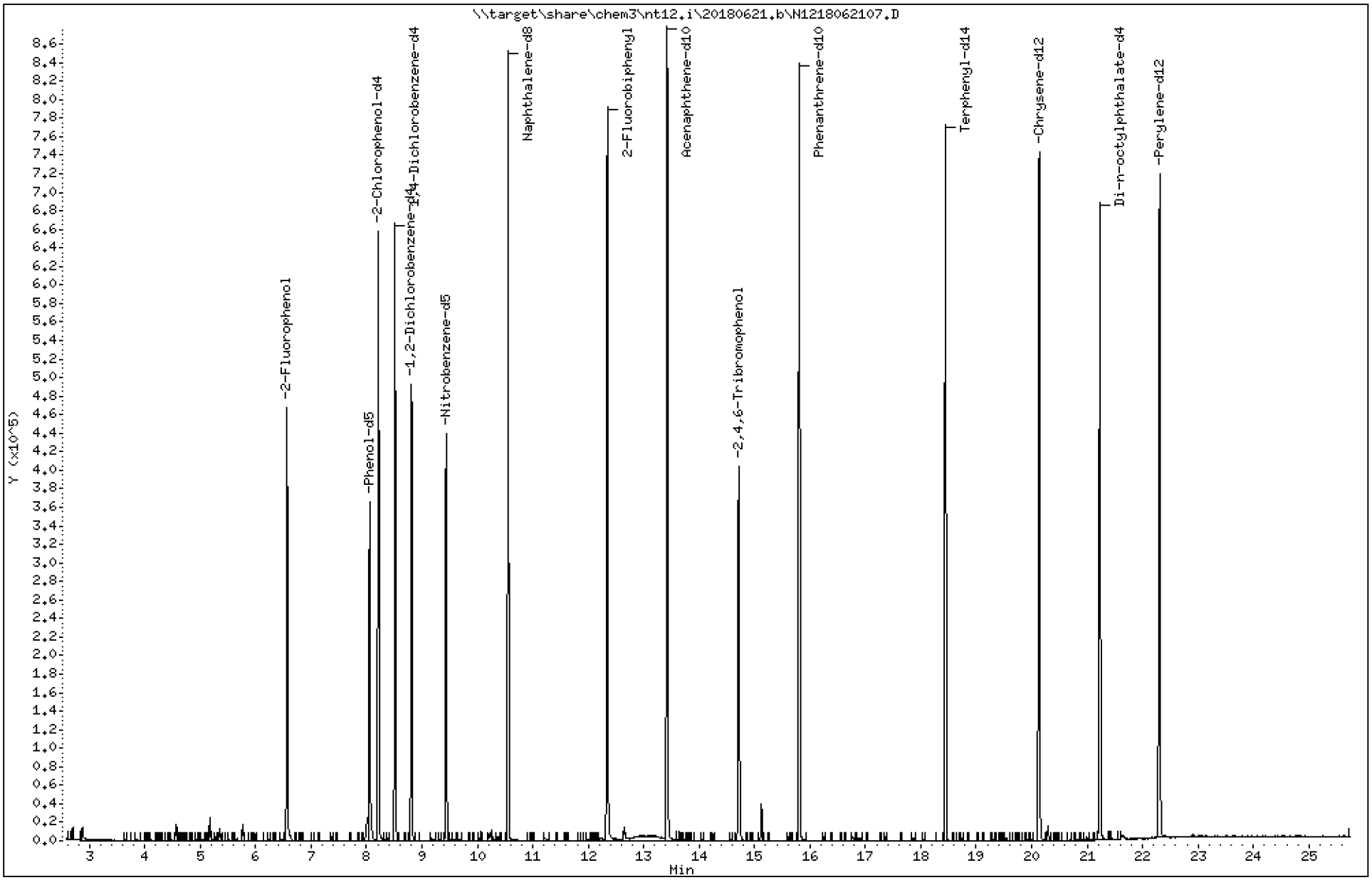
Instrument: nt12.i

Sample Info: 18F0185-05

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180621.b\N1218062107.D
Lab Smp Id: 18F0185-05
Inj Date : 21-JUN-2018 14:49
Operator : JZ   Inst ID: nt12.i
Smp Info : 18F0185-05
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Meth Date : 21-Jun-2018 14:28 jianqing   Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36   Cal File: N1218051608.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$ 1	2-Fluorophenol	112	6.566	6.561	(0.772)	210696	20.1238	20.12(R)
$ 2	Phenol-d5	99	8.052	8.057	(0.946)	206048	15.6639	15.66(R)
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	8.212	8.212	(0.965)	265633	26.2820	26.28(R)
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.511	8.511	(1.000)	145864	20.0000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.810	8.810	(1.035)	111701	16.4429	16.44(R)
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					
17	Hexachloroethane	117	Compound Not Detected.					
16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
15	4-Methylphenol	108	Compound Not Detected.					
$ 18	Nitrobenzene-d5	82	9.435	9.435	(0.894)	207643	18.3774	18.38(R)
19	Nitrobenzene	77	Compound Not Detected.					
20	Isophorone	82	Compound Not Detected.					
21	2-Nitrophenol	139	Compound Not Detected.					
22	2,4-Dimethylphenol	107	Compound Not Detected.					
23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
24	Benzoic acid	105	Compound Not Detected.					
25	2,4-Dichlorophenol	162	Compound Not Detected.					
26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
* 27	Naphthalene-d8	136	10.552	10.552	(1.000)	552390	20.0000	
28	Naphthalene	128	Compound Not Detected.					
29	4-Chloroaniline	127	Compound Not Detected.					
30	Hexachlorobutadiene	225	Compound Not Detected.					
31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
32	2-Methylnaphthalene	141	Compound Not Detected.					
33	Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	12.341	12.342	(0.920)	377207	17.9902	17.99(R)
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	13.421	13.421	(1.000)	294810	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	Compound Not Detected.					
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	Compound Not Detected.					
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	14.713	14.719	(1.096)	71634	29.0242	29.02(R)
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	15.803	15.809	(1.000)	500473	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	Compound Not Detected.					
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	18.442	18.442	(0.916)	418880	24.8834	24.88(R)
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	20.136	20.136	(1.000)	436992	20.0000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134	Di-n-octylphthalate-d4	153	21.226	21.226	(1.000)	579044	20.0000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	22.305	22.305	(1.000)	412817	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	Compound Not Detected.					
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062107.D
Lab Smp Id: 18F0185-05
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Misc Info: 18-

Calibration Date: 21-JUN-2018
Calibration Time: 11:24
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	145864	14.87
27 Naphthalene-d8	478458	239229	956916	552390	15.45
42 Acenaphthene-d10	247659	123830	495318	294810	19.04
59 Phenanthrene-d10	421930	210965	843860	500473	18.62
69 Chrysene-d12	450836	225418	901672	436992	-3.07
134 Di-n-octylphthala	583434	291717	1166868	579044	-0.75
77 Perylene-d12	453093	226547	906186	412817	-8.89

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.51	8.01	9.01	8.51	-0.00
27 Naphthalene-d8	10.55	10.05	11.05	10.55	-0.00
42 Acenaphthene-d10	13.42	12.92	13.92	13.42	-0.00
59 Phenanthrene-d10	15.81	15.31	16.31	15.80	-0.03
69 Chrysene-d12	20.14	19.64	20.64	20.14	-0.00
134 Di-n-octylphthala	21.23	20.73	21.73	21.23	-0.00
77 Perylene-d12	22.31	21.81	22.81	22.31	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062107.D

Lab ID: 18F0185-05
nt12.i, SW846180516.m, 21-JUN-2018 14:49

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-38

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D
Semivolatile Organic Compounds (SepF)

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-06	SDG:	18F0185
Sampled:	06/12/18 10:27	Prepared:	06/18/18 15:20	File ID:	N1218062108.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/21/18 15:23
Batch:	BGF0417	Sequence:	SGF0272	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT12	Column:	ZB-5MS	Calibration:	BE00052

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	3.0	U	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	19.2	51.2	32.5 - 120	
Phenol-d5	37.500	14.8	39.4	17.8 - 120	
2-Chlorophenol-d4	37.500	25.7	68.5	55 - 120	
1,2-Dichlorobenzene-d4	25.000	16.2	64.7	49.3 - 120	
Nitrobenzene-d5	25.000	18.1	72.2	56.1 - 120	
2-Fluorobiphenyl	25.000	18.0	71.9	54.4 - 120	
2,4,6-Tribromophenol	37.500	30.2	80.4	49.3 - 128	
p-Terphenyl-d14	25.000	25.7	103	60 - 120	

Data File: \\target\share\chem3\nt12.i\20180621.b\N1218062108.D

Date : 21-JUN-2018 15:23

Client ID:

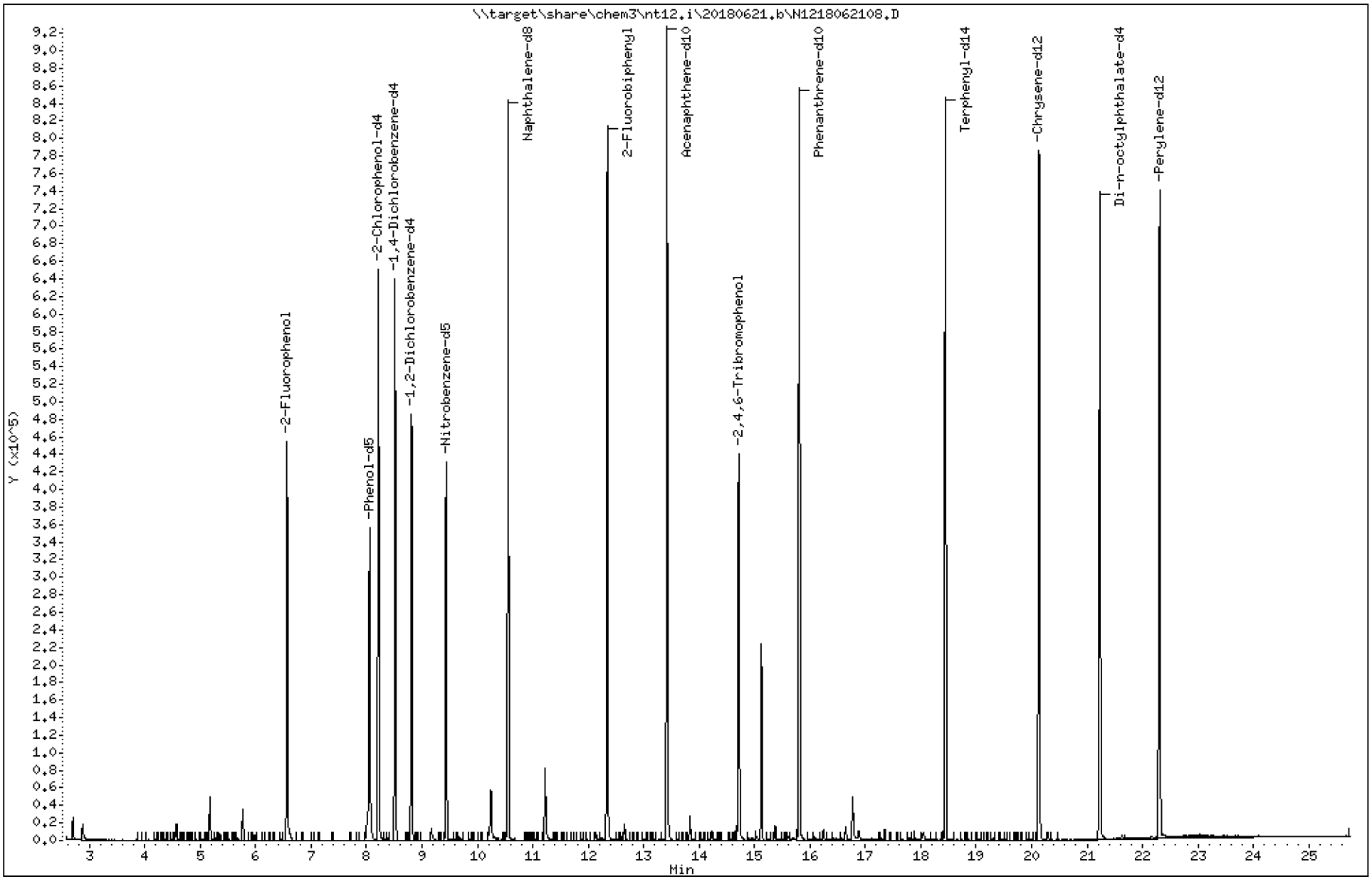
Instrument: nt12.i

Sample Info: 18F0185-06

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 165 of 6523

ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180621.b\N1218062108.D
Lab Smp Id: 18F0185-06
Inj Date : 21-JUN-2018 15:23
Operator : JZ Inst ID: nt12.i
Smp Info : 18F0185-06
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Meth Date : 21-Jun-2018 14:28 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$ 1	2-Fluorophenol	112	6.567	6.561	(0.772)	205013	19.1992	19.20(R)
$ 2	Phenol-d5	99	8.052	8.057	(0.946)	198345	14.7843	14.78(R)
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	8.212	8.212	(0.965)	264979	25.7060	25.71(R)
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.511	8.511	(1.000)	148765	20.0000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.810	8.810	(1.035)	112038	16.1709	16.17(R)
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					
17	Hexachloroethane	117	Compound Not Detected.					
16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
15	4-Methylphenol	108	Compound Not Detected.					
$ 18	Nitrobenzene-d5	82	9.435	9.435	(0.894)	205316	18.0603	18.06(R)
19	Nitrobenzene	77	Compound Not Detected.					
20	Isophorone	82	Compound Not Detected.					
21	2-Nitrophenol	139	Compound Not Detected.					
22	2,4-Dimethylphenol	107	Compound Not Detected.					
23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
24	Benzoic acid	105	Compound Not Detected.					
25	2,4-Dichlorophenol	162	Compound Not Detected.					
26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
* 27	Naphthalene-d8	136	10.552	10.552	(1.000)	555791	20.0000	
28	Naphthalene	128	Compound Not Detected.					
29	4-Chloroaniline	127	Compound Not Detected.					
30	Hexachlorobutadiene	225	Compound Not Detected.					
31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
32	2-Methylnaphthalene	141	Compound Not Detected.					
33	Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	12.342	12.342	(0.920)	383257	17.9638	17.96(R)
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	13.421	13.421	(1.000)	299978	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	Compound Not Detected.					
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	Compound Not Detected.					
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	14.714	14.719	(1.096)	75751	30.1635	30.16(R)
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	15.803	15.809	(1.000)	510258	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	Compound Not Detected.					
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	18.443	18.442	(0.916)	448871	25.6537	25.65(R)
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	20.136	20.136	(1.000)	454219	20.0000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134	Di-n-octylphthalate-d4	153	21.226	21.226	(1.000)	615391	20.0000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	22.305	22.305	(1.000)	432637	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	Compound Not Detected.					
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062108.D
Lab Smp Id: 18F0185-06
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Misc Info: 18-

Calibration Date: 21-JUN-2018
Calibration Time: 11:24
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	148765	17.15
27 Naphthalene-d8	478458	239229	956916	555791	16.16
42 Acenaphthene-d10	247659	123830	495318	299978	21.13
59 Phenanthrene-d10	421930	210965	843860	510258	20.93
69 Chrysene-d12	450836	225418	901672	454219	0.75
134 Di-n-octylphthala	583434	291717	1166868	615391	5.48
77 Perylene-d12	453093	226547	906186	432637	-4.51

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.51	8.01	9.01	8.51	0.00
27 Naphthalene-d8	10.55	10.05	11.05	10.55	0.00
42 Acenaphthene-d10	13.42	12.92	13.92	13.42	0.00
59 Phenanthrene-d10	15.81	15.31	16.31	15.80	-0.03
69 Chrysene-d12	20.14	19.64	20.64	20.14	0.00
134 Di-n-octylphthala	21.23	20.73	21.73	21.23	0.00
77 Perylene-d12	22.31	21.81	22.81	22.31	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062108.D

Lab ID: 18F0185-06
nt12.i, SW846180516.m, 21-JUN-2018 15:23

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-42

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D
Semivolatile Organic Compounds (SepF)

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-07	SDG:	18F0185
Sampled:	06/12/18 12:05	Prepared:	06/18/18 15:20	File ID:	N1218062109.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/21/18 15:57
Batch:	BGF0417	Sequence:	SGF0272	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT12	Column:	ZB-5MS	Calibration:	BE00052

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	3.0	U	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	20.6	55.0	32.5 - 120	
Phenol-d5	37.500	15.3	40.7	17.8 - 120	
2-Chlorophenol-d4	37.500	28.7	76.5	55 - 120	
1,2-Dichlorobenzene-d4	25.000	18.5	74.0	49.3 - 120	
Nitrobenzene-d5	25.000	20.2	80.8	56.1 - 120	
2-Fluorobiphenyl	25.000	19.3	77.4	54.4 - 120	
2,4,6-Tribromophenol	37.500	31.0	82.6	49.3 - 128	
p-Terphenyl-d14	25.000	27.3	109	60 - 120	

Data File: \\target\share\chem3\nt12.i\20180621.b\N1218062109.D

Date : 21-JUN-2018 15:57

Client ID:

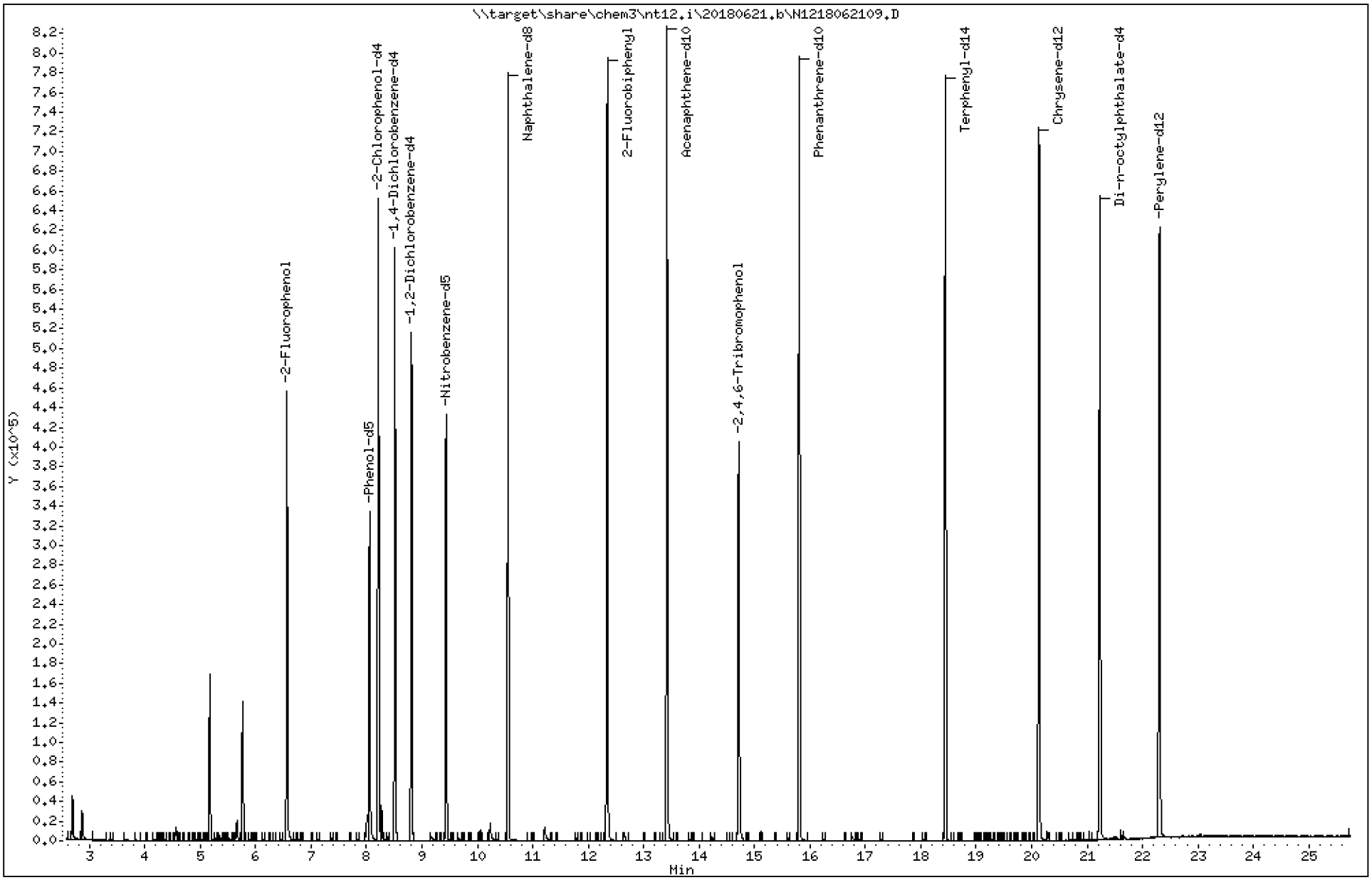
Instrument: nt12.i

Sample Info: 18F0185-07

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180621.b\N1218062109.D
Lab Smp Id: 18F0185-07
Inj Date : 21-JUN-2018 15:57
Operator : JZ   Inst ID: nt12.i
Smp Info : 18F0185-07
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Meth Date : 21-Jun-2018 14:28 jianqing   Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36   Cal File: N1218051608.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.562	6.561	(0.771)	199109	20.6314	20.63(R)
$	2 Phenol-d5	99	8.052	8.057	(0.946)	185052	15.2619	15.26(R)
	3 Phenol	94	Compound Not Detected.					
$	5 2-Chlorophenol-d4	132	8.212	8.212	(0.965)	267413	28.7040	28.70(R)
	4 Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6 2-Chlorophenol	128	Compound Not Detected.					
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	8.512	8.511	(1.000)	134451	20.0000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	8.811	8.810	(1.035)	115887	18.5072	18.51(R)
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	Compound Not Detected.					
	14 2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
	13 2-Methylphenol	108	Compound Not Detected.					
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	9.436	9.435	(0.894)	212404	20.2077	20.21(R)
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.552	10.552	(1.000)	513875	20.0000	
	28 Naphthalene	128	Compound Not Detected.					
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	141	Compound Not Detected.					
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	12.342	12.342	(0.920)	380408	19.3378	19.34(R)
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	13.421	13.421	(1.000)	276593	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	Compound Not Detected.					
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	Compound Not Detected.					
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	14.714	14.719	(1.096)	71694	30.9617	30.96(R)
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	15.804	15.809	(1.000)	472411	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	Compound Not Detected.					
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	18.443	18.442	(0.916)	430153	27.3409	27.34(R)
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	20.131	20.136	(1.000)	408417	20.0000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134	Di-n-octylphthalate-d4	153	21.226	21.226	(1.000)	548721	20.0000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	22.305	22.305	(1.000)	385619	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	Compound Not Detected.					
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062109.D
Lab Smp Id: 18F0185-07
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Misc Info: 18-

Calibration Date: 21-JUN-2018
Calibration Time: 11:24
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	134451	5.88
27 Naphthalene-d8	478458	239229	956916	513875	7.40
42 Acenaphthene-d10	247659	123830	495318	276593	11.68
59 Phenanthrene-d10	421930	210965	843860	472411	11.96
69 Chrysene-d12	450836	225418	901672	408417	-9.41
134 Di-n-octylphthala	583434	291717	1166868	548721	-5.95
77 Perylene-d12	453093	226547	906186	385619	-14.89

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.51	8.01	9.01	8.51	0.00
27 Naphthalene-d8	10.55	10.05	11.05	10.55	0.00
42 Acenaphthene-d10	13.42	12.92	13.92	13.42	0.00
59 Phenanthrene-d10	15.81	15.31	16.31	15.80	-0.03
69 Chrysene-d12	20.14	19.64	20.64	20.13	-0.02
134 Di-n-octylphthala	21.23	20.73	21.73	21.23	0.00
77 Perylene-d12	22.31	21.81	22.81	22.31	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062109.D

Lab ID: 18F0185-07
nt12.i, SW846180516.m, 21-JUN-2018 15:57

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-43

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D
Semivolatile Organic Compounds (SepF)

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-08	SDG:	18F0185
Sampled:	06/12/18 13:00	Prepared:	06/18/18 15:20	File ID:	N1218062110.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/21/18 16:31
Batch:	BGF0417	Sequence:	SGF0272	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT12	Column:	ZB-5MS	Calibration:	BE00052

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	3.0	U	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	18.8	50.0	32.5 - 120	
Phenol-d5	37.500	13.8	36.8	17.8 - 120	
2-Chlorophenol-d4	37.500	25.5	68.0	55 - 120	
1,2-Dichlorobenzene-d4	25.000	15.9	63.5	49.3 - 120	
Nitrobenzene-d5	25.000	17.7	70.7	56.1 - 120	
2-Fluorobiphenyl	25.000	16.9	67.4	54.4 - 120	
2,4,6-Tribromophenol	37.500	27.1	72.3	49.3 - 128	
p-Terphenyl-d14	25.000	23.8	95.1	60 - 120	

Data File: \\target\share\chem3\nt12.i\20180621.b\N1218062110.D

Page 1

Date : 21-JUN-2018 16:31

Client ID:

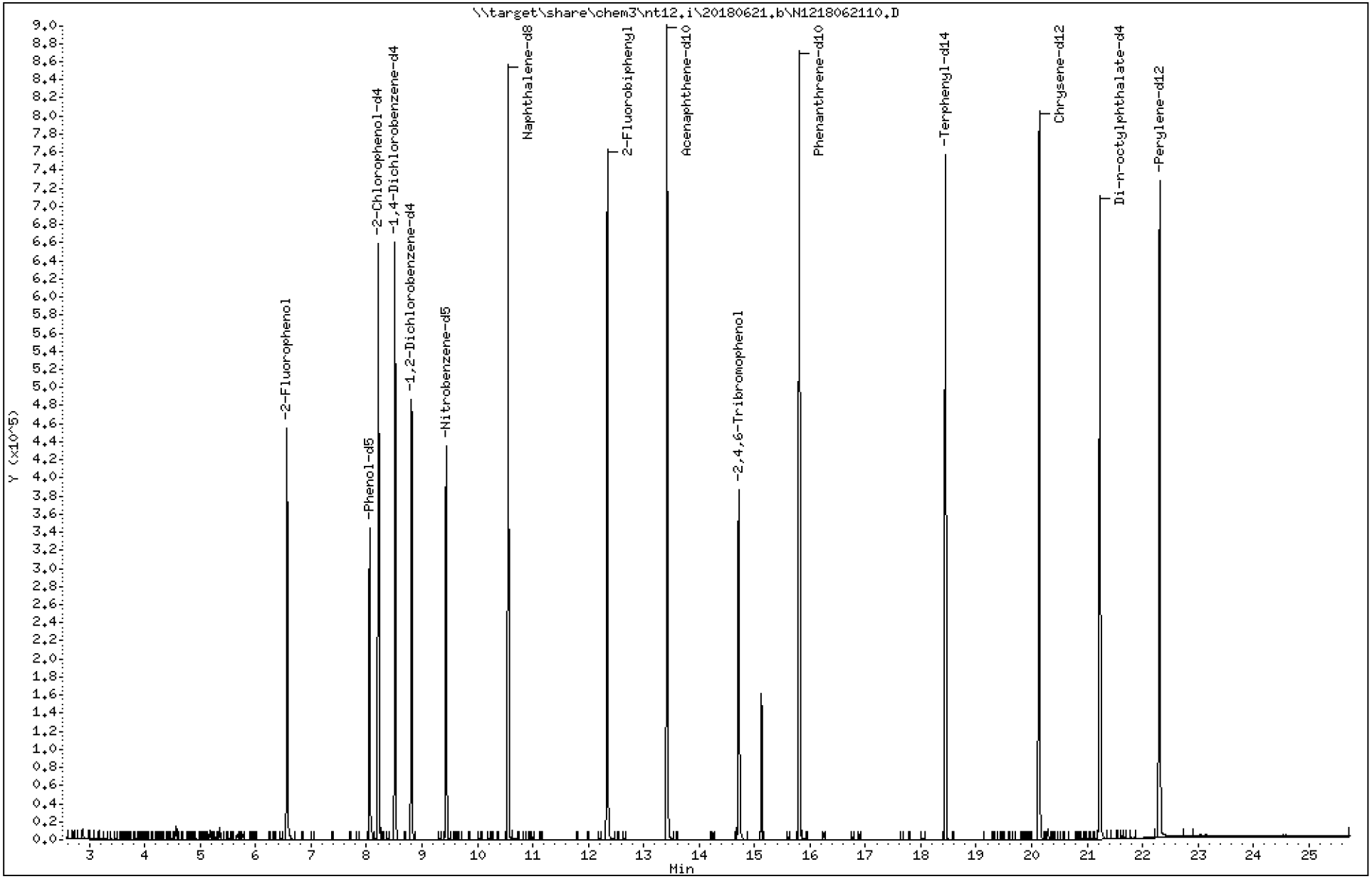
Instrument: nt12.i

Sample Info: 18F0185-08

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 179 of 6523

ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180621.b\N1218062110.D
Lab Smp Id: 18F0185-08
Inj Date : 21-JUN-2018 16:31
Operator : JZ Inst ID: nt12.i
Smp Info : 18F0185-08
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Meth Date : 21-Jun-2018 14:28 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
$	1	2-Fluorophenol	112	6.566	6.561	(0.772)	204355	18.7686	18.77(R)
$	2	Phenol-d5	99	8.052	8.057	(0.946)	188784	13.8003	13.80(R)
	3	Phenol	94	Compound Not Detected.					
$	5	2-Chlorophenol-d4	132	8.212	8.212	(0.965)	268103	25.5075	25.51(R)
	4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6	2-Chlorophenol	128	Compound Not Detected.					
	7	1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8	1,4-Dichlorobenzene-d4	152	8.511	8.511	(1.000)	151690	20.0000	
	9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10	1,2-Dichlorobenzene-d4	152	8.810	8.810	(1.035)	112136	15.8730	15.87(R)
	12	1,2-Dichlorobenzene	146	Compound Not Detected.					
	11	Benzyl alcohol	108	Compound Not Detected.					
	14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
	13	2-Methylphenol	108	Compound Not Detected.					
	17	Hexachloroethane	117	Compound Not Detected.					
	16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15	4-Methylphenol	108	Compound Not Detected.					
$	18	Nitrobenzene-d5	82	9.435	9.435	(0.894)	208119	17.6676	17.67(R)
	19	Nitrobenzene	77	Compound Not Detected.					
	20	Isophorone	82	Compound Not Detected.					
	21	2-Nitrophenol	139	Compound Not Detected.					
	22	2,4-Dimethylphenol	107	Compound Not Detected.					
	23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24	Benzoic acid	105	Compound Not Detected.					
	25	2,4-Dichlorophenol	162	Compound Not Detected.					
	26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27	Naphthalene-d8	136	10.552	10.552	(1.000)	575900	20.0000	
	28	Naphthalene	128	Compound Not Detected.					
	29	4-Chloroaniline	127	Compound Not Detected.					
	30	Hexachlorobutadiene	225	Compound Not Detected.					
	31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32	2-Methylnaphthalene	141	Compound Not Detected.					
	33	Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	12.341	12.342	(0.920)	369315	16.8609	16.86(R)
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	13.421	13.421	(1.000)	307973	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	Compound Not Detected.					
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	Compound Not Detected.					
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	14.713	14.719	(1.096)	69932	27.1236	27.12(R)
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	15.809	15.809	(1.000)	526049	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	Compound Not Detected.					
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	18.442	18.442	(0.916)	419522	23.7687	23.77(R)
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	20.136	20.136	(1.000)	458187	20.0000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134	Di-n-octylphthalate-d4	153	21.226	21.226	(1.000)	605828	20.0000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	22.305	22.305	(1.000)	432017	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	Compound Not Detected.					
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062110.D
Lab Smp Id: 18F0185-08
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Misc Info: 18-

Calibration Date: 21-JUN-2018
Calibration Time: 11:24
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	151690	19.46
27 Naphthalene-d8	478458	239229	956916	575900	20.37
42 Acenaphthene-d10	247659	123830	495318	307973	24.35
59 Phenanthrene-d10	421930	210965	843860	526049	24.68
69 Chrysene-d12	450836	225418	901672	458187	1.63
134 Di-n-octylphthala	583434	291717	1166868	605828	3.84
77 Perylene-d12	453093	226547	906186	432017	-4.65

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.51	8.01	9.01	8.51	-0.00
27 Naphthalene-d8	10.55	10.05	11.05	10.55	-0.00
42 Acenaphthene-d10	13.42	12.92	13.92	13.42	-0.00
59 Phenanthrene-d10	15.81	15.31	16.31	15.81	-0.00
69 Chrysene-d12	20.14	19.64	20.64	20.14	-0.00
134 Di-n-octylphthala	21.23	20.73	21.73	21.23	-0.00
77 Perylene-d12	22.31	21.81	22.81	22.31	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062110.D

Lab ID: 18F0185-08
nt12.i, SW846180516.m, 21-JUN-2018 16:31

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-06

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D
Semivolatile Organic Compounds (SepF)

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-01	SDG:	18F0185
Sampled:	06/13/18 09:53	Prepared:	06/20/18 13:36	File ID:	N1218062115.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/21/18 19:20
Batch:	BGF0434	Sequence:	SGF0272	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT12	Column:	ZB-5MS	Calibration:	BE00052

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	0.6	J	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	20.7	55.1	32.5 - 120	
Phenol-d5	37.500	18.0	48.0	17.8 - 120	
2-Chlorophenol-d4	37.500	28.1	75.1	55 - 120	
1,2-Dichlorobenzene-d4	25.000	18.4	73.8	49.3 - 120	
Nitrobenzene-d5	25.000	19.8	79.1	56.1 - 120	
2-Fluorobiphenyl	25.000	19.3	77.2	54.4 - 120	
2,4,6-Tribromophenol	37.500	31.4	83.9	49.3 - 128	
p-Terphenyl-d14	25.000	25.5	102	60 - 120	

Data File: \\target\share\chem3\nt12.i\20180621.b\N1218062115.D

Date : 21-JUN-2018 19:20

Client ID:

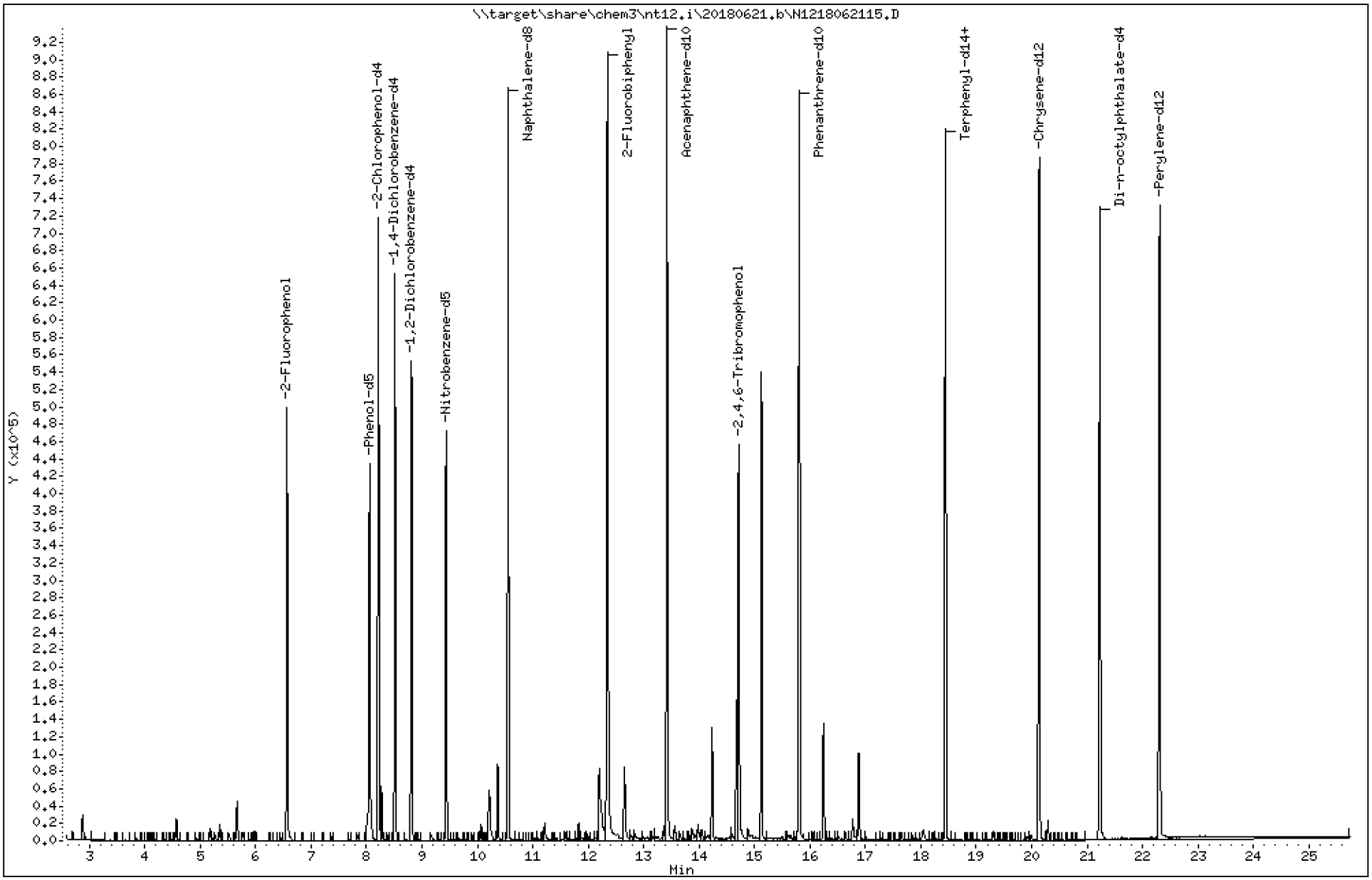
Sample Info: 18F0208-01

Instrument: nt12.i

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 186 of 6523

Data File: \\target\share\chem3\nt12.i\20180621.b\N1218062115.D

Date : 21-JUN-2018 19:20

Client ID:

Instrument: nt12.i

Sample Info: 18F0208-01

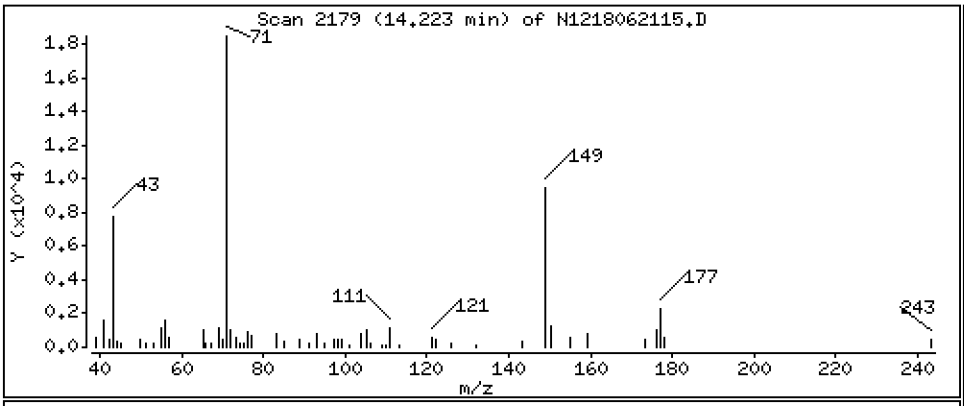
Operator: JZ

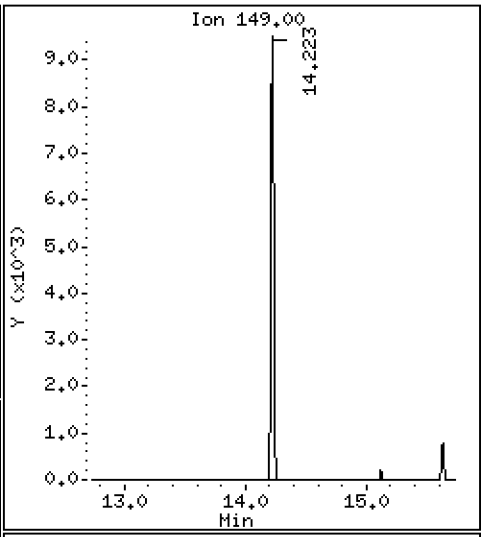
Column phase: ZB-5msi

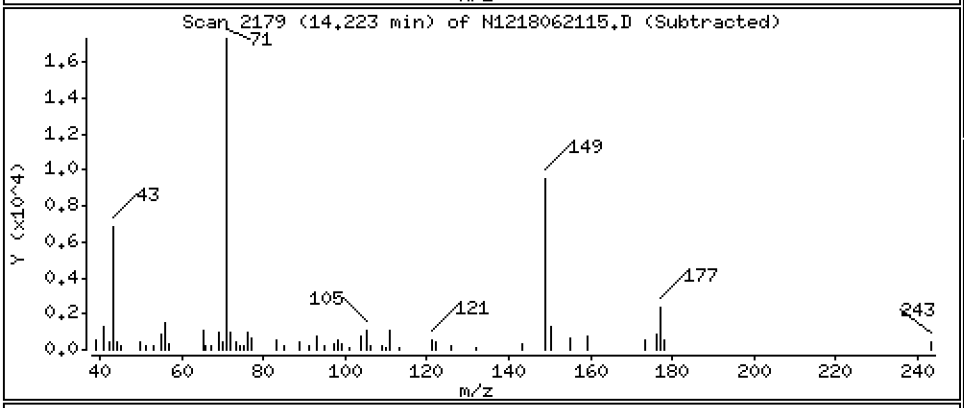
Column diameter: 0.32

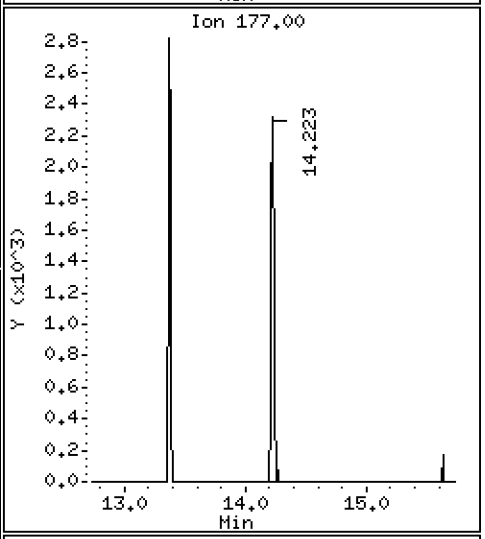
50 Diethylphthalate

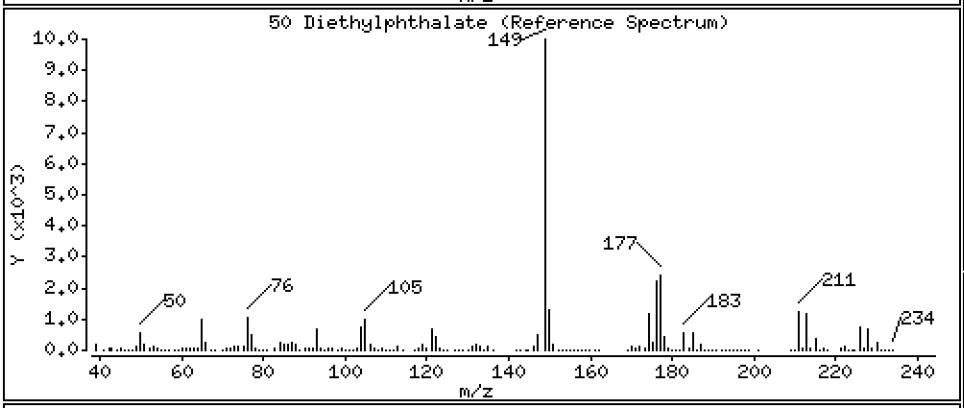
Concentration: 0.6110 ug/mL

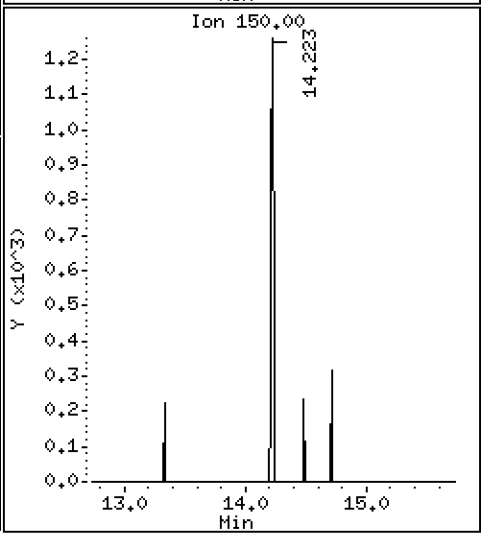


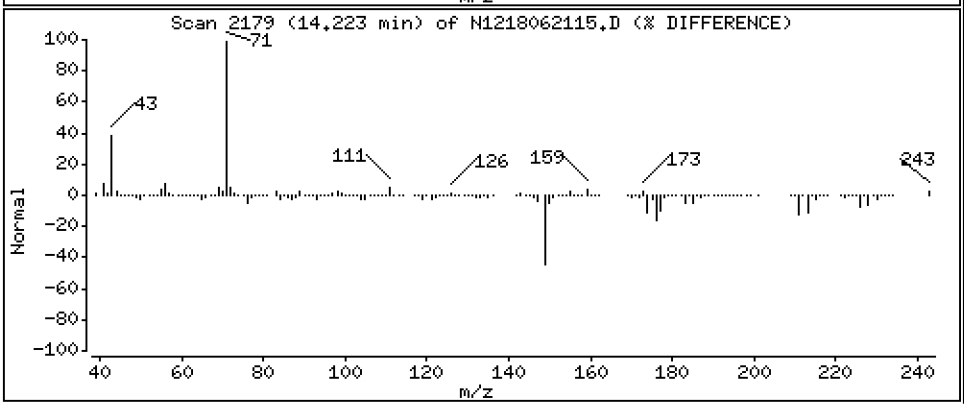












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Date : 21-JUN-2018 19:20

Client ID:

Instrument: nt12.i

Sample Info: 18F0208-01

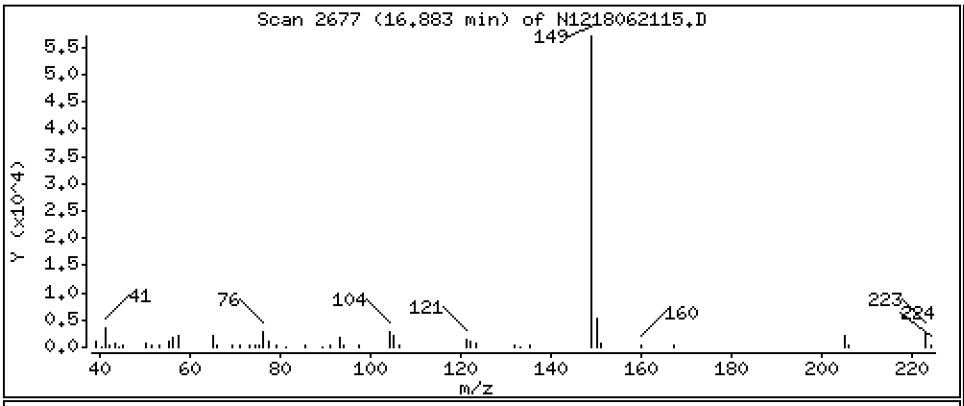
Operator: JZ

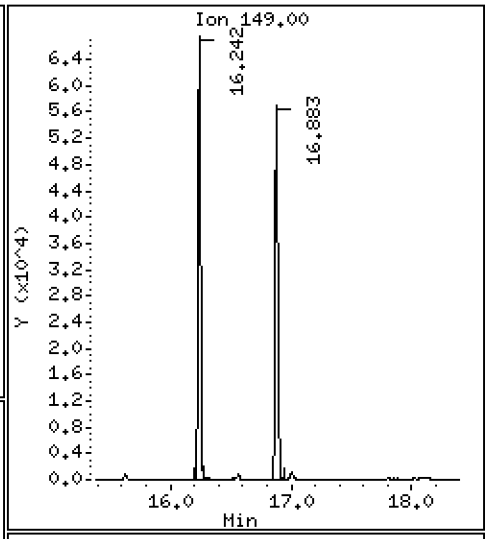
Column phase: ZB-5msi

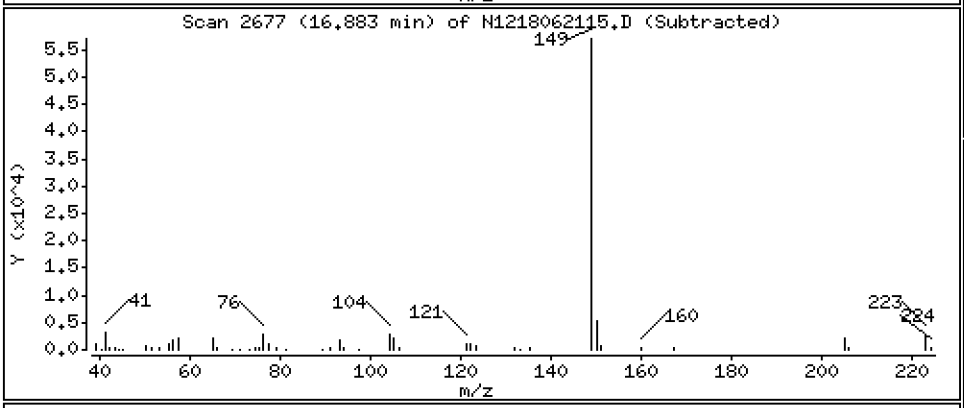
Column diameter: 0.32

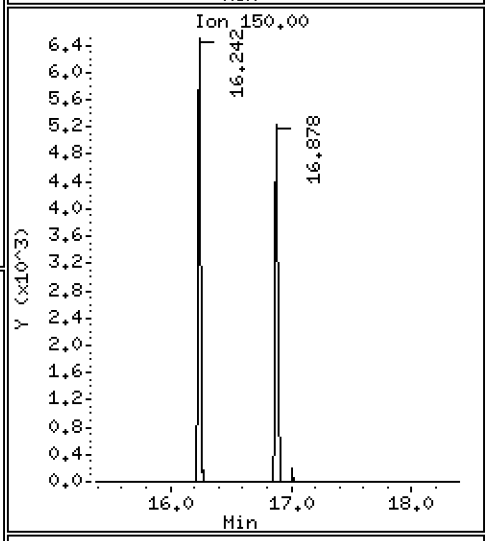
63 Di-n-butylphthalate

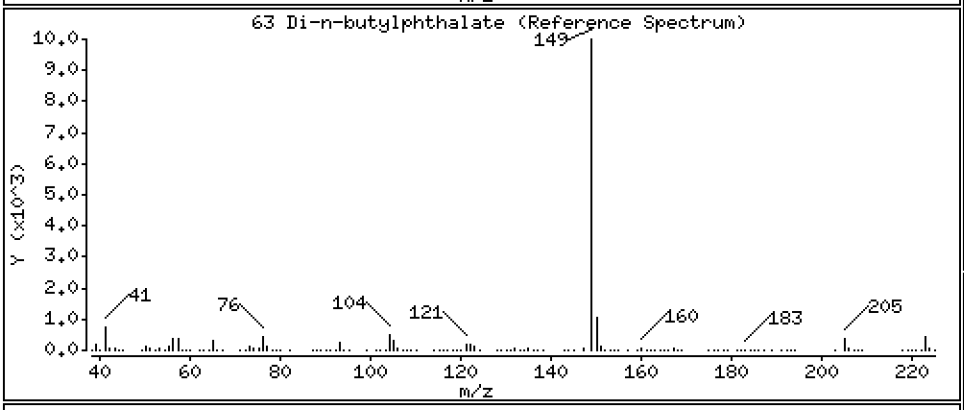
Concentration: 2.625 ug/mL

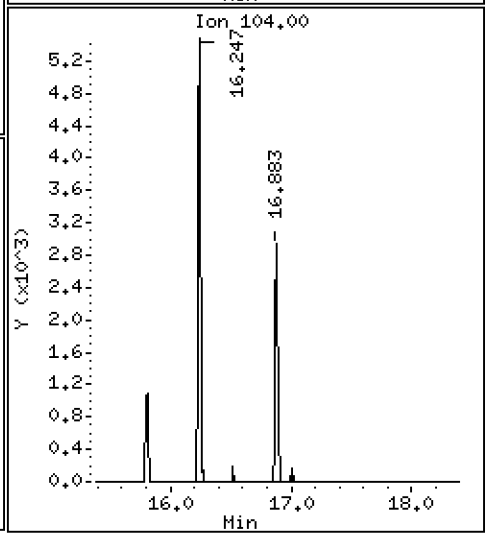


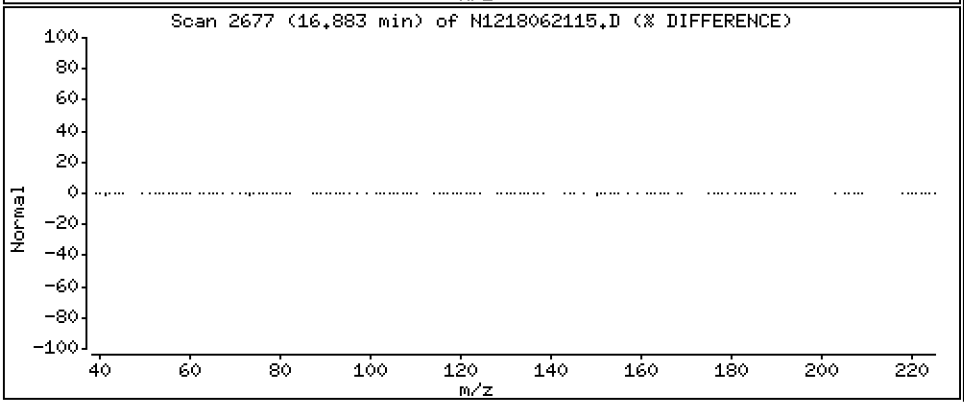












Data File: \\target\share\chem3\nt12.i\20180621.b\N1218062115.D

Date : 21-JUN-2018 19:20

Client ID:

Instrument: nt12.i

Sample Info: 18F0208-01

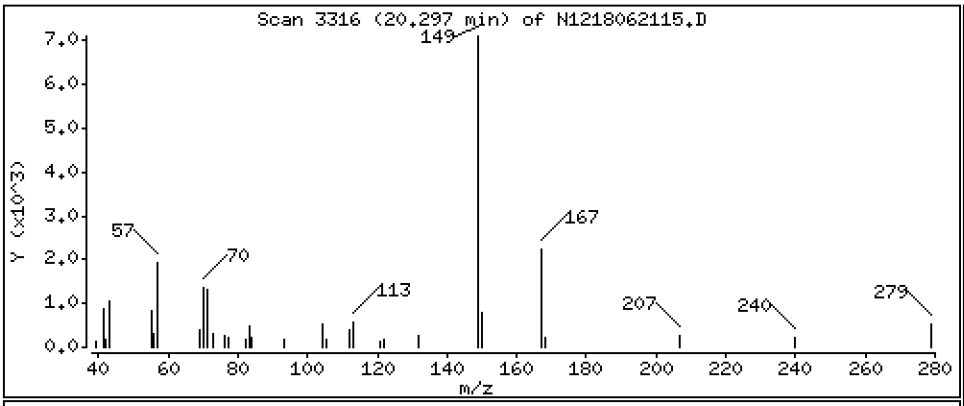
Operator: JZ

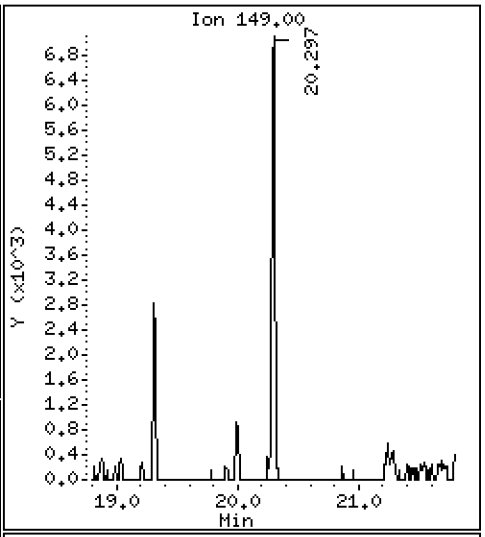
Column phase: ZB-5msi

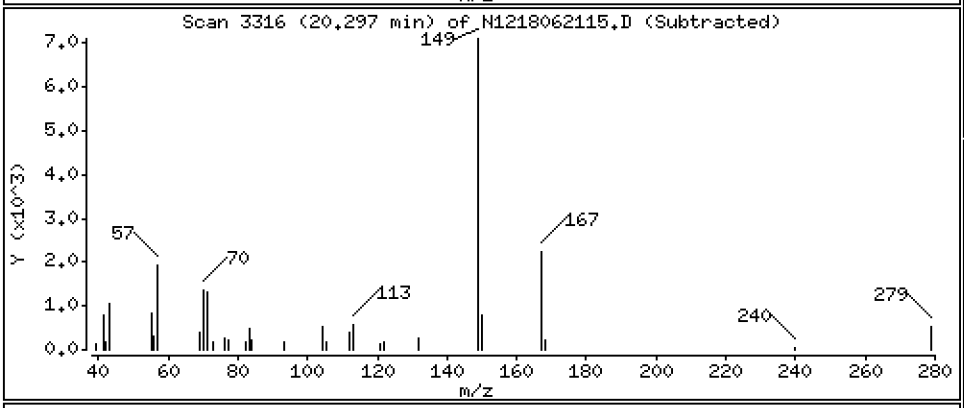
Column diameter: 0.32

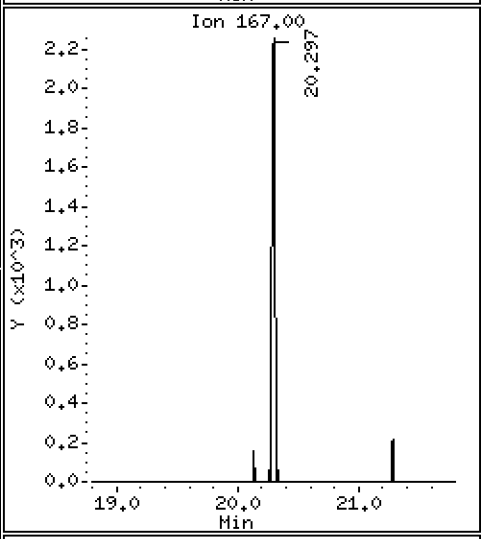
72 bis(2-Ethylhexyl)phthalate

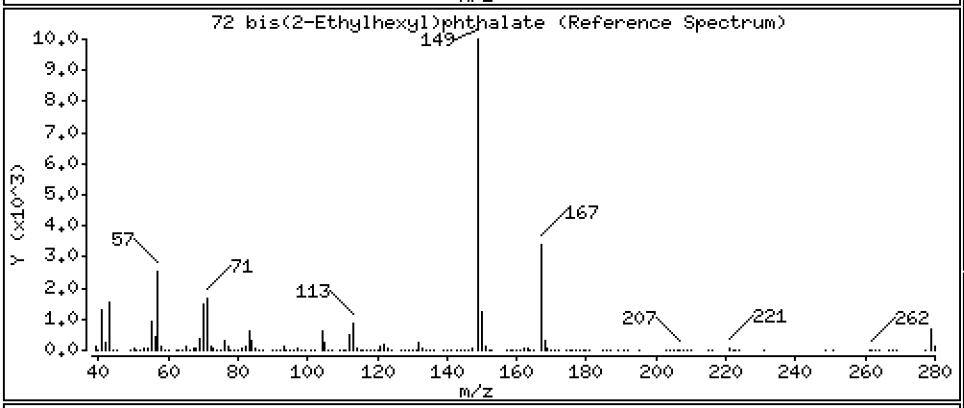
Concentration: 0.6269 ug/mL

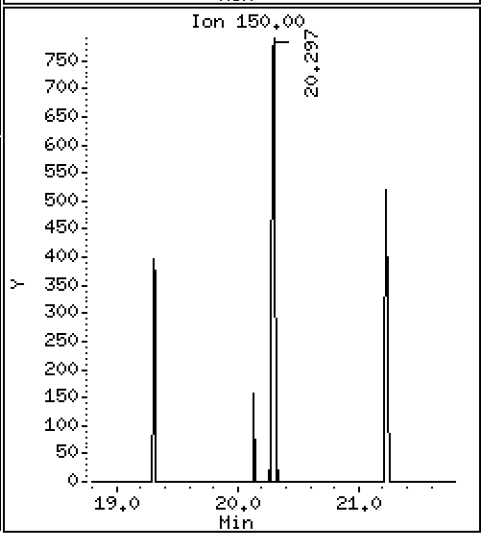


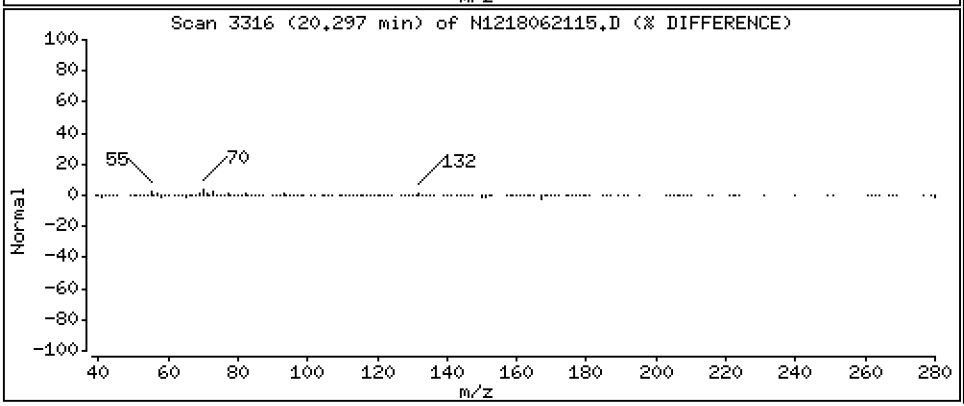












Data File: \\target\share\chem3\nt12.i\20180621.b\N1218062115.D

Date : 21-JUN-2018 19:20

Client ID:

Instrument: nt12.i

Sample Info: 18F0208-01

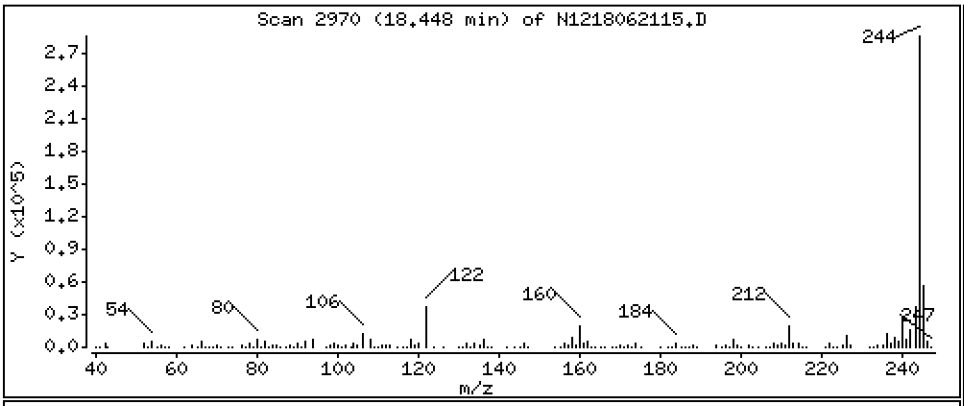
Operator: JZ

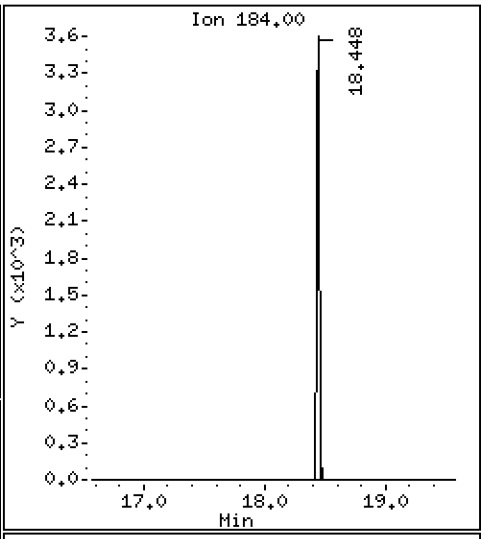
Column phase: ZB-5msi

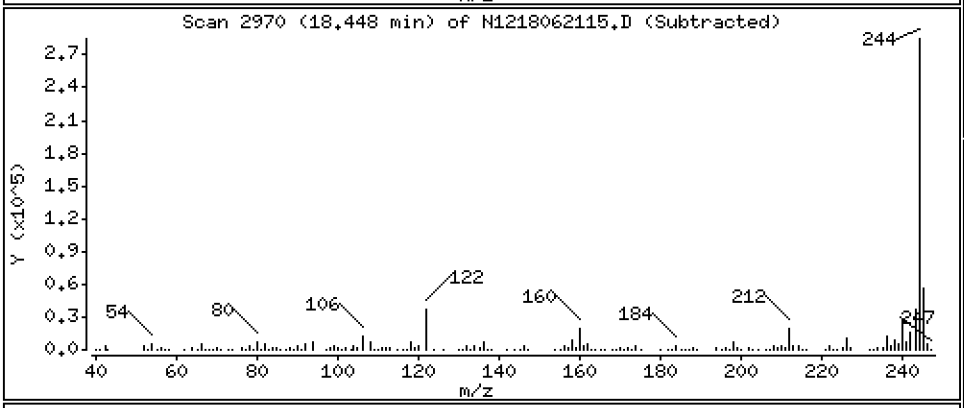
Column diameter: 0.32

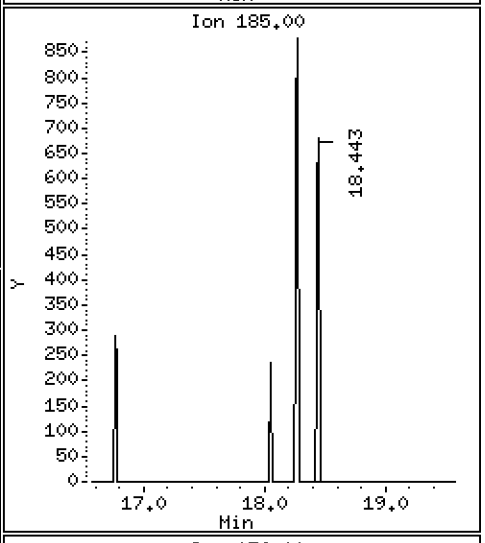
93 Benzidine

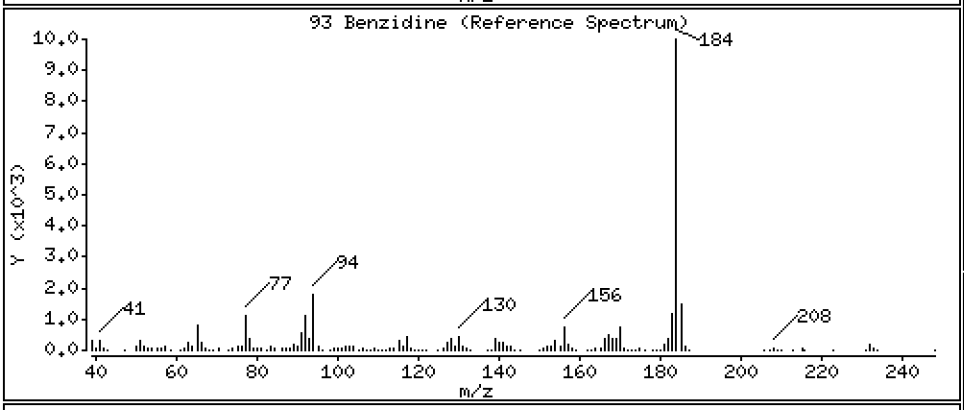
Concentration: 0.5320 ug/mL

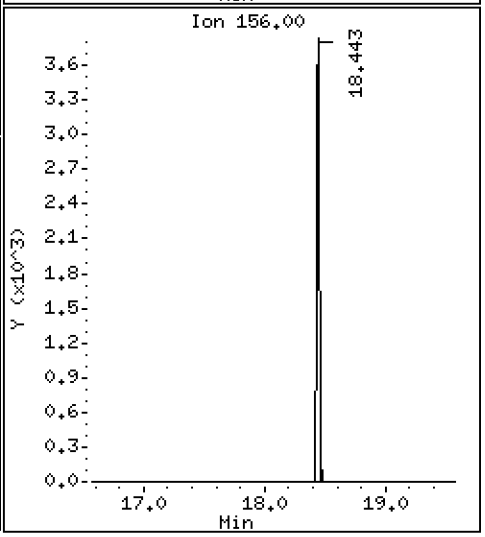


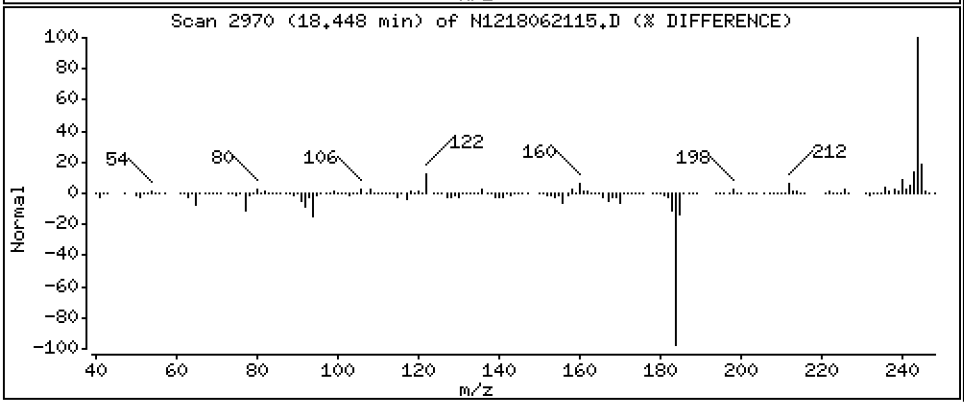












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180621.b\N1218062115.D
Lab Smp Id: 18F0208-01
Inj Date : 21-JUN-2018 19:20
Operator : JZ   Inst ID: nt12.i
Smp Info : 18F0208-01
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Meth Date : 22-Jun-2018 12:06 jianqing   Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36   Cal File: N1218051608.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.561	6.567	(0.771)	222202	20.6688	20.67(R)
$	2 Phenol-d5	99	8.052	8.062	(0.946)	243375	18.0185	18.02(R)
	3 Phenol	94	Compound Not Detected.					
$	5 2-Chlorophenol-d4	132	8.212	8.217	(0.965)	292112	28.1473	28.15(R)
	4 Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6 2-Chlorophenol	128	Compound Not Detected.					
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	8.511	8.516	(1.000)	149774	20.0000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	8.810	8.816	(1.035)	128626	18.4401	18.44(R)
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	Compound Not Detected.					
	14 2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
	13 2-Methylphenol	108	Compound Not Detected.					
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	9.435	9.441	(0.894)	228585	19.7864	19.79(R)
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.552	10.557	(1.000)	564799	20.0000	
	28 Naphthalene	128	Compound Not Detected.					
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	141	Compound Not Detected.					
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	12.342	12.347	(0.920)	417102	19.3015	19.30(R)
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	13.421	13.426	(1.000)	303843	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	Compound Not Detected.					
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	14.222	14.233	(1.060)	12487	0.61099	0.6110
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	14.714	14.719	(1.096)	79987	31.4451	31.45(R)
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	15.803	15.809	(1.000)	516825	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	16.883	16.888	(1.068)	84664	2.62538	2.625
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	18.442	18.448	(0.916)	447380	25.5175	25.52(R)
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	20.136	20.141	(1.000)	455126	20.0000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	20.296	20.296	(0.956)	11247	0.62688	0.6269
*	134	Di-n-octylphthalate-d4	153	21.226	21.231	(1.000)	603873	20.0000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	22.305	22.310	(1.000)	437109	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	18.448	18.074	(0.916)	5456	0.53199	0.5320
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	Compound Not Detected.					
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062115.D
Lab Smp Id: 18F0208-01
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Misc Info: 18-

Calibration Date: 21-JUN-2018
Calibration Time: 22:08
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	149774	17.95
27 Naphthalene-d8	478458	239229	956916	564799	18.05
42 Acenaphthene-d10	247659	123830	495318	303843	22.69
59 Phenanthrene-d10	421930	210965	843860	516825	22.49
69 Chrysene-d12	450836	225418	901672	455126	0.95
134 Di-n-octylphthala	583434	291717	1166868	603873	3.50
77 Perylene-d12	453093	226547	906186	437109	-3.53

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.52	8.02	9.02	8.51	-0.06
27 Naphthalene-d8	10.56	10.06	11.06	10.55	-0.05
42 Acenaphthene-d10	13.43	12.93	13.93	13.42	-0.04
59 Phenanthrene-d10	15.81	15.31	16.31	15.80	-0.03
69 Chrysene-d12	20.14	19.64	20.64	20.14	-0.03
134 Di-n-octylphthala	21.23	20.73	21.73	21.23	-0.02
77 Perylene-d12	22.31	21.81	22.81	22.31	-0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062115.D

Lab ID: 18F0208-01
nt12.i, SW846180516.m, 21-JUN-2018 19:20

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

LDW18-SP-33

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D
Semivolatile Organic Compounds (SepF)

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-02	SDG:	18F0185
Sampled:	06/13/18 12:17	Prepared:	06/20/18 13:36	File ID:	N1218062116.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/21/18 19:53
Batch:	BGF0434	Sequence:	SGF0272	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT12	Column:	ZB-5MS	Calibration:	BE00052

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	0.6	J	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	0.7	J	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	20.0	53.5	32.5 - 120	
Phenol-d5	37.500	17.0	45.3	17.8 - 120	
2-Chlorophenol-d4	37.500	27.4	73.2	55 - 120	
1,2-Dichlorobenzene-d4	25.000	17.8	71.0	49.3 - 120	
Nitrobenzene-d5	25.000	19.5	78.1	56.1 - 120	
2-Fluorobiphenyl	25.000	19.3	77.1	54.4 - 120	
2,4,6-Tribromophenol	37.500	31.2	83.2	49.3 - 128	
p-Terphenyl-d14	25.000	25.1	101	60 - 120	

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Date : 21-JUN-2018 19:53

Client ID:

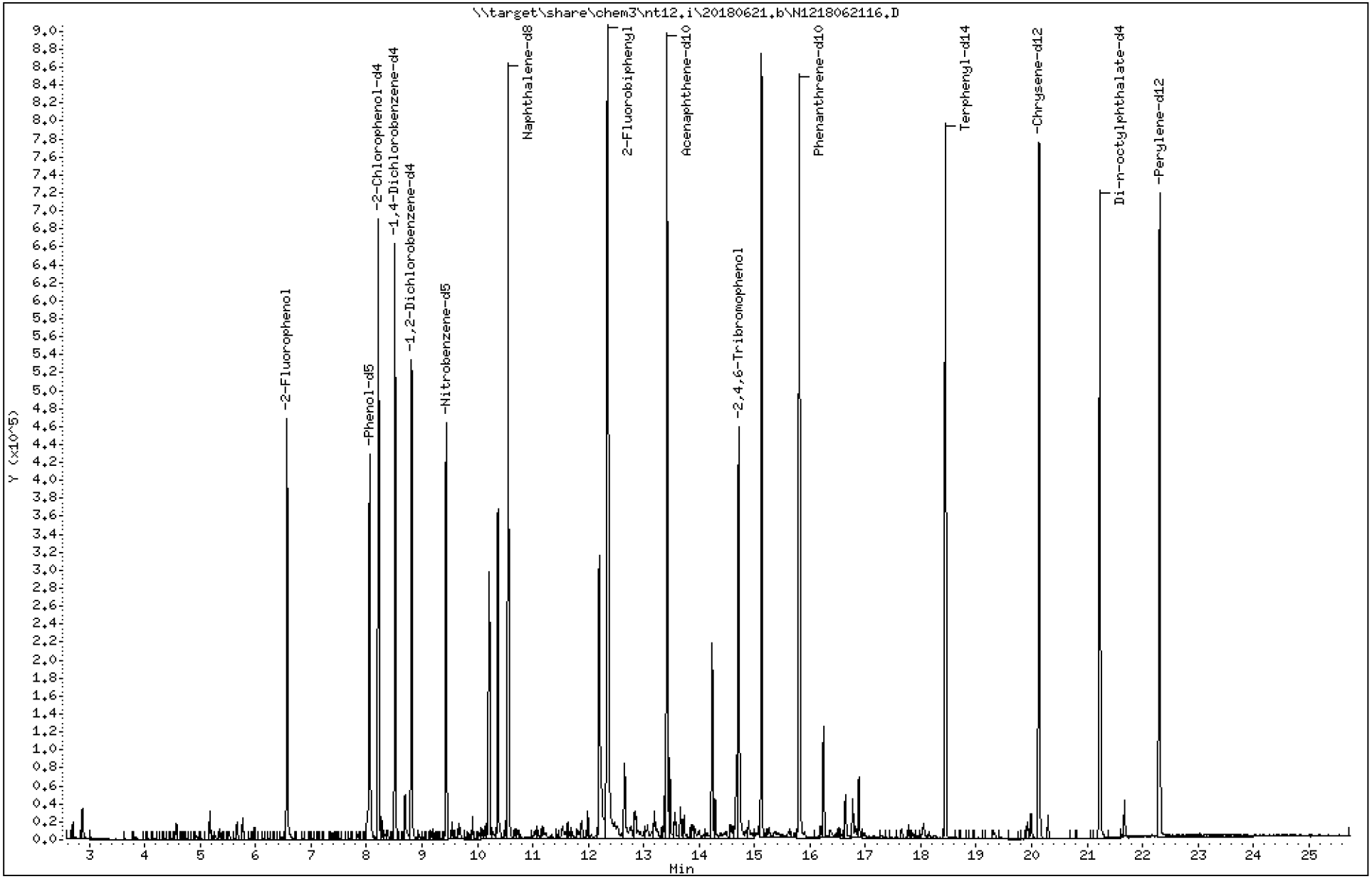
Instrument: nt12.i

Sample Info: 18F0208-02

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



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Date : 21-JUN-2018 19:53

Client ID:

Instrument: nt12.i

Sample Info: 18F0208-02

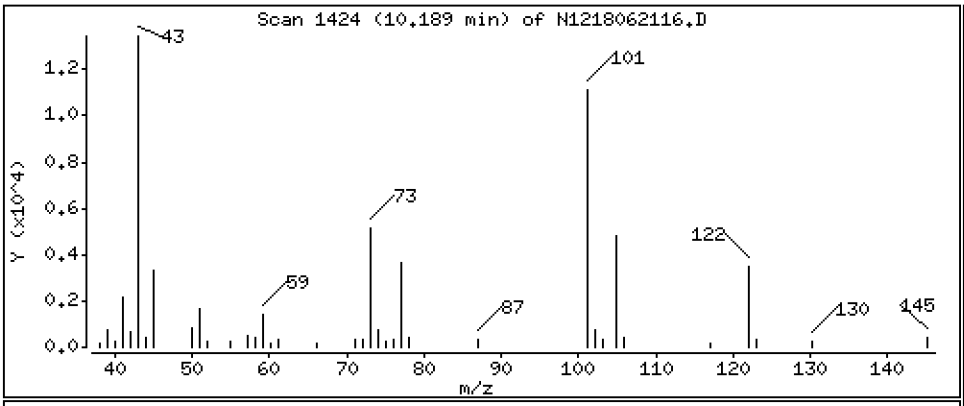
Operator: JZ

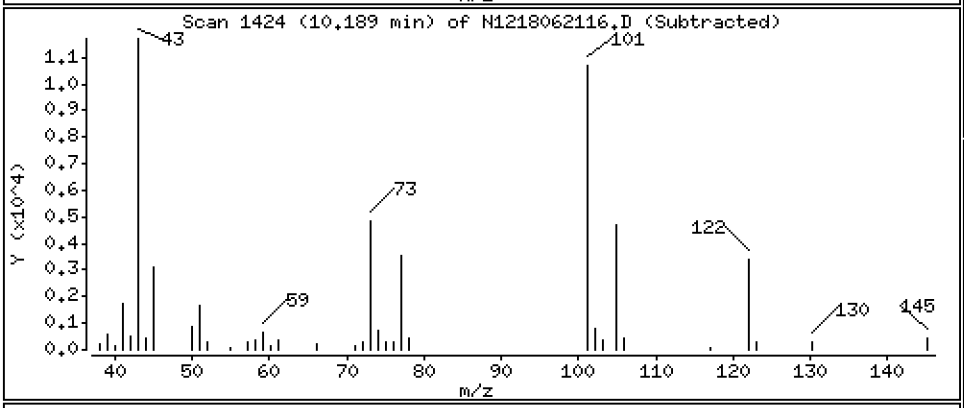
Column phase: ZB-5msi

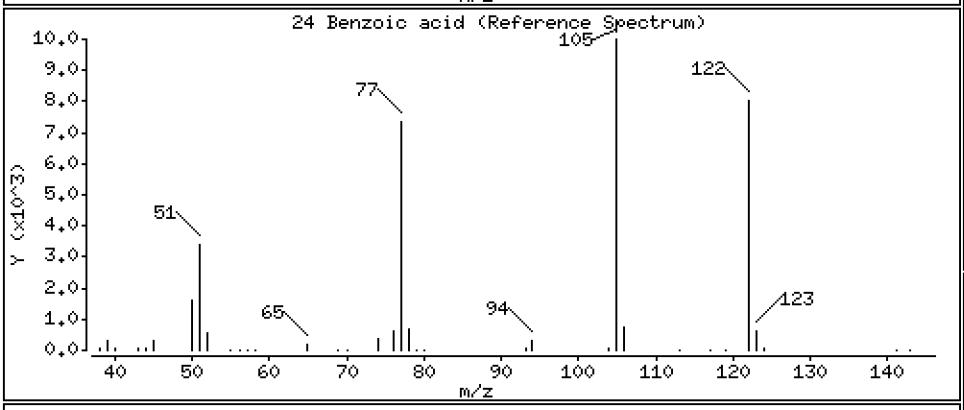
Column diameter: 0.32

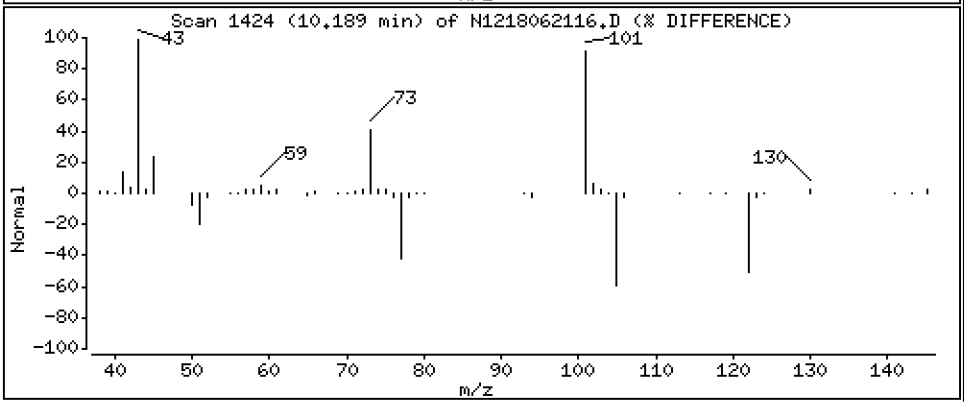
24 Benzoic acid

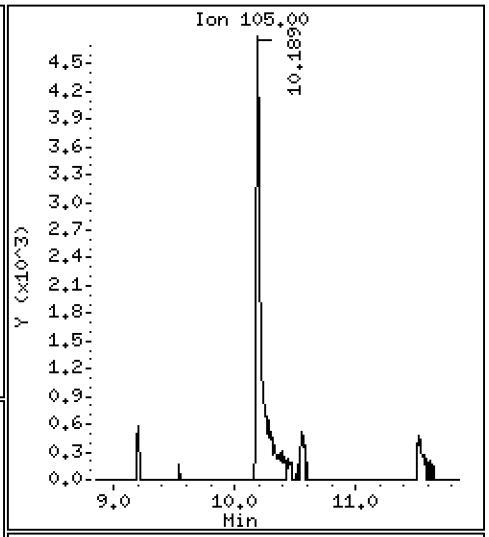
Concentration: 1.813 ug/mL

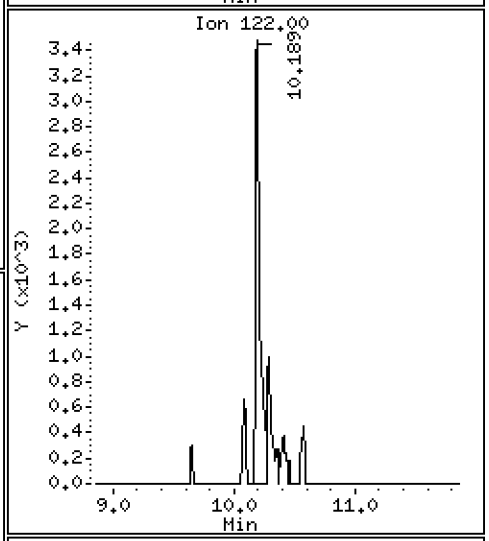


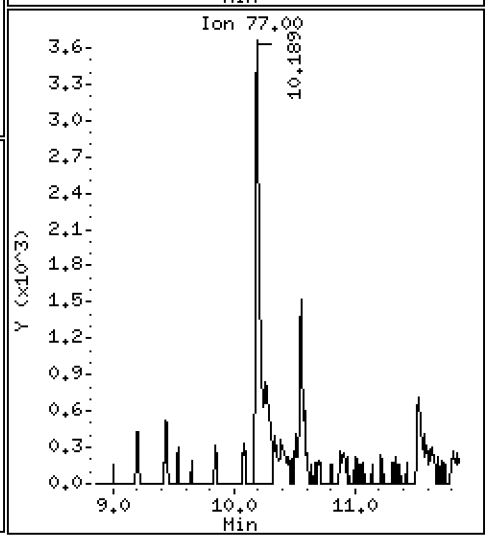












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Date : 21-JUN-2018 19:53

Client ID:

Instrument: nt12.i

Sample Info: 18F0208-02

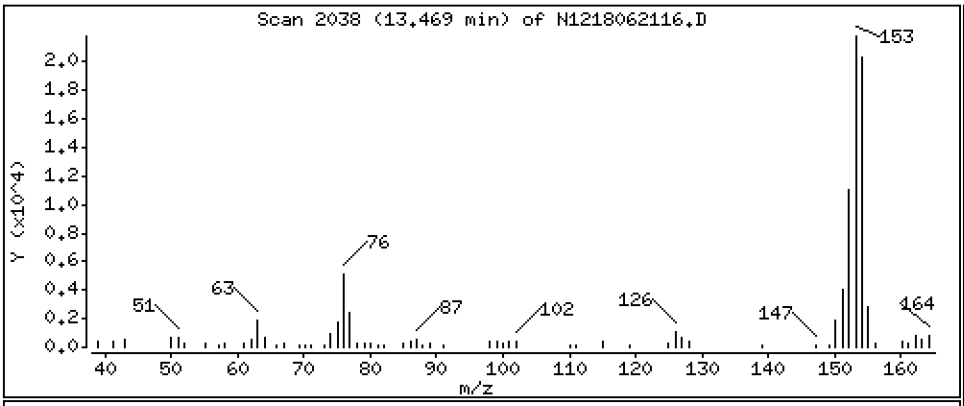
Operator: JZ

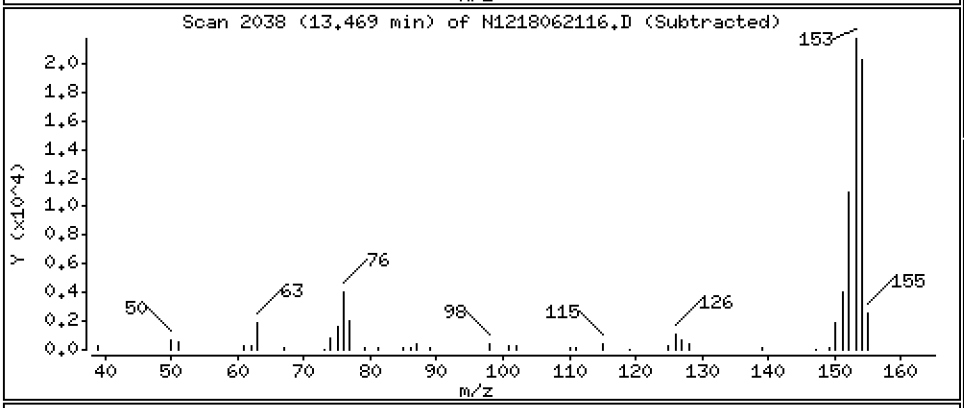
Column phase: ZB-5msi

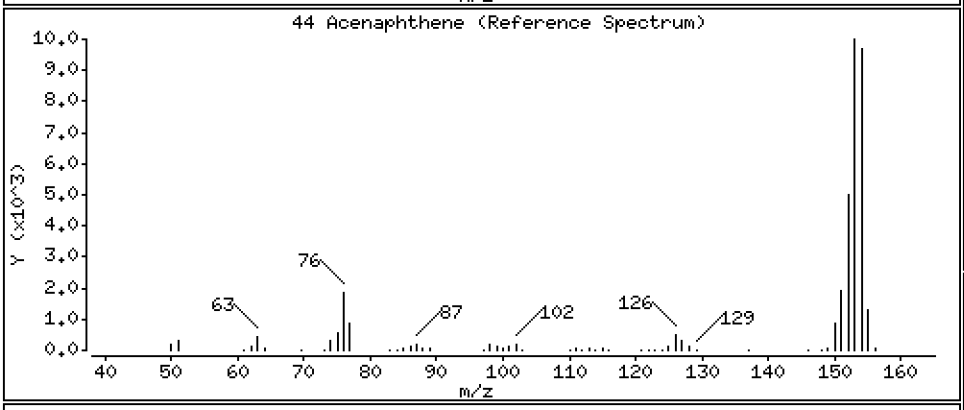
Column diameter: 0.32

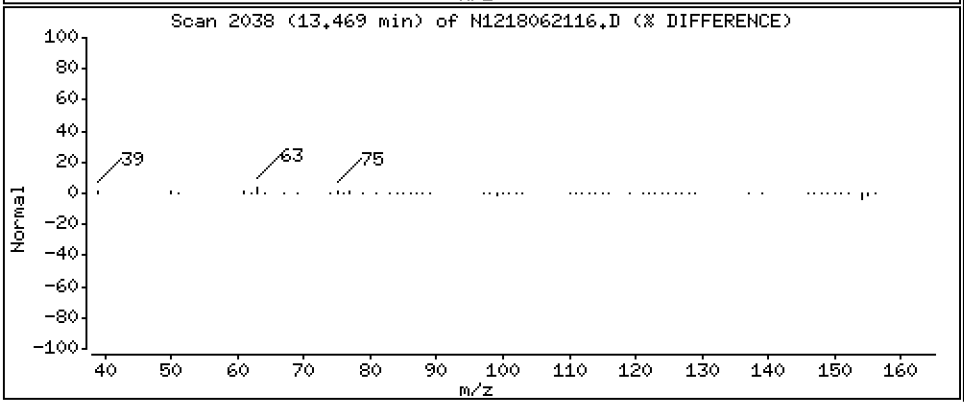
44 Acenaphthene

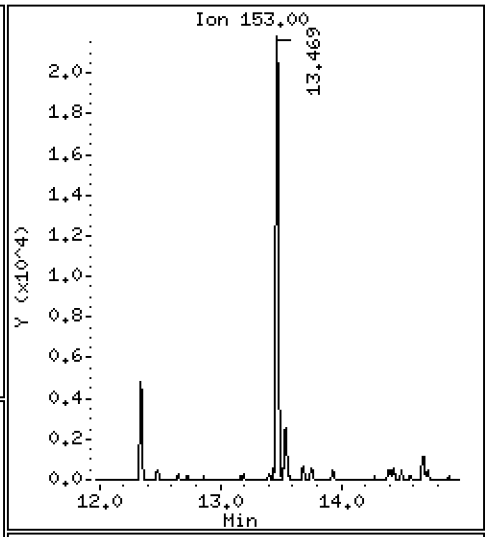
Concentration: 1.556 ug/mL

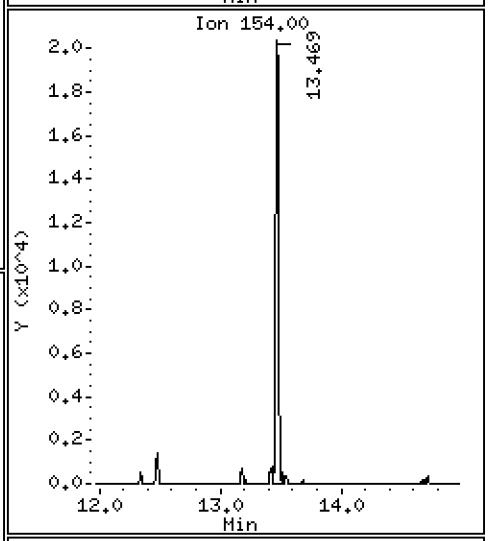


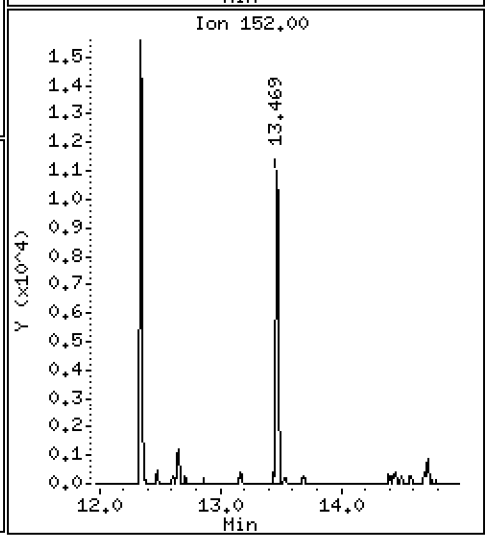












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Date : 21-JUN-2018 19:53

Client ID:

Instrument: nt12.i

Sample Info: 18F0208-02

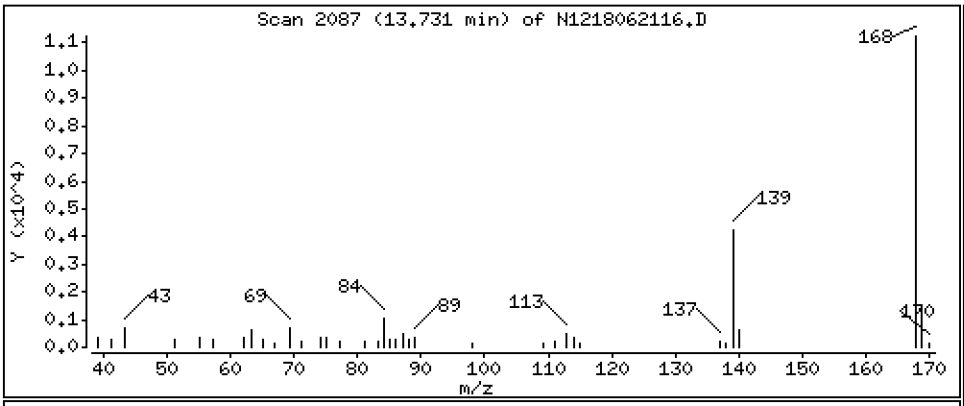
Operator: JZ

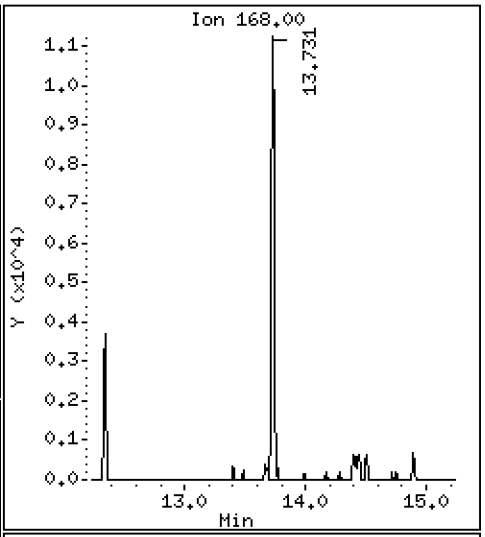
Column phase: ZB-5msi

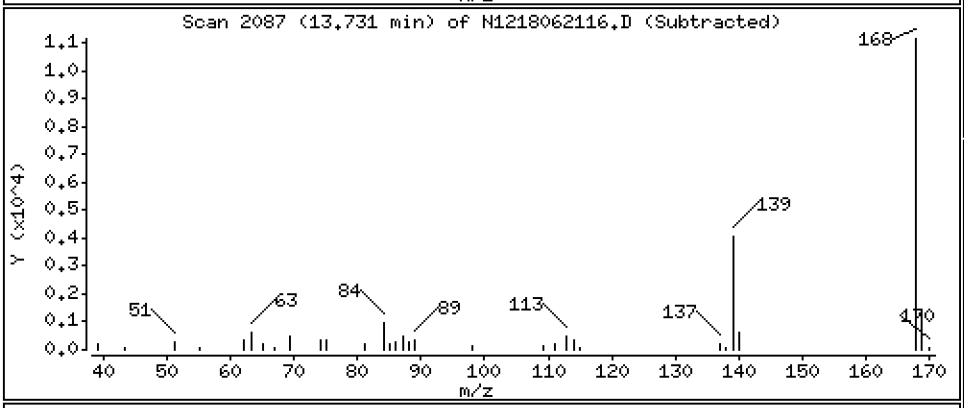
Column diameter: 0.32

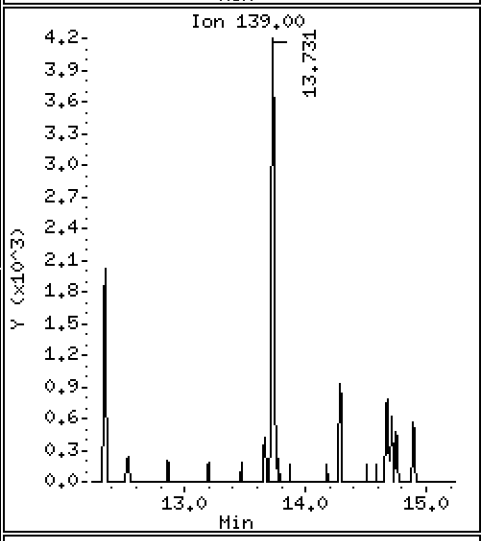
46 Dibenzofuran

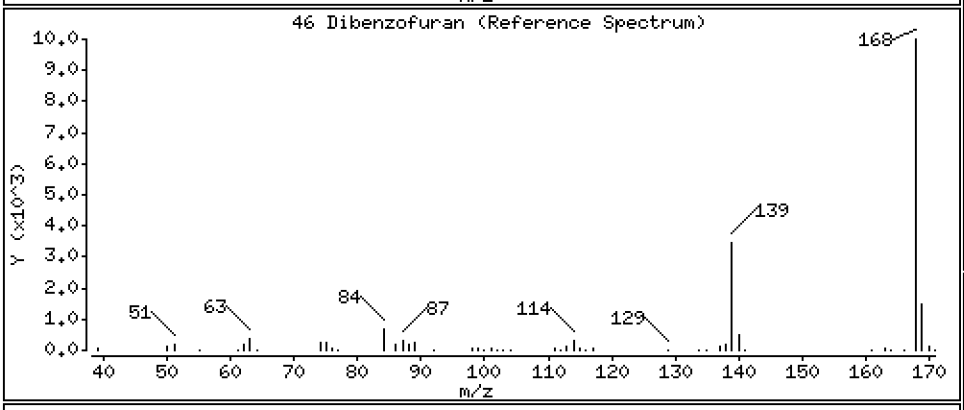
Concentration: 0.5505 ug/mL

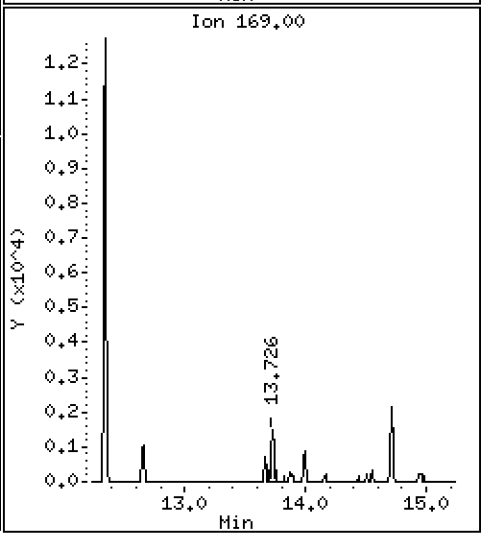


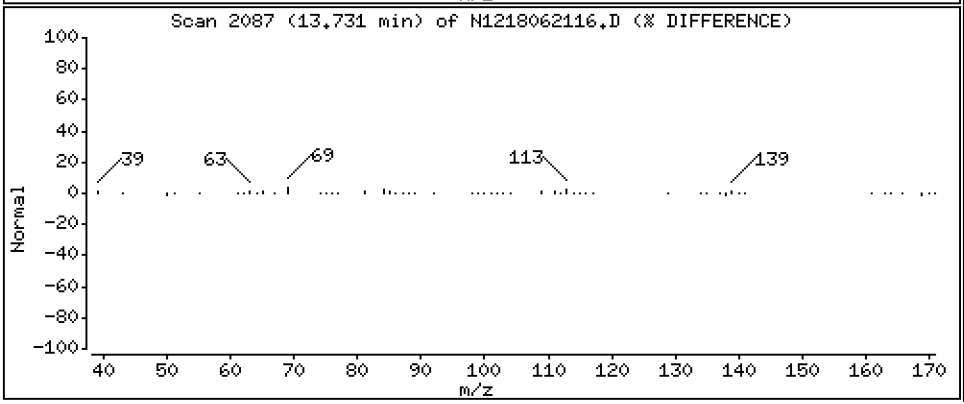












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Date : 21-JUN-2018 19:53

Client ID:

Instrument: nt12.i

Sample Info: 18F0208-02

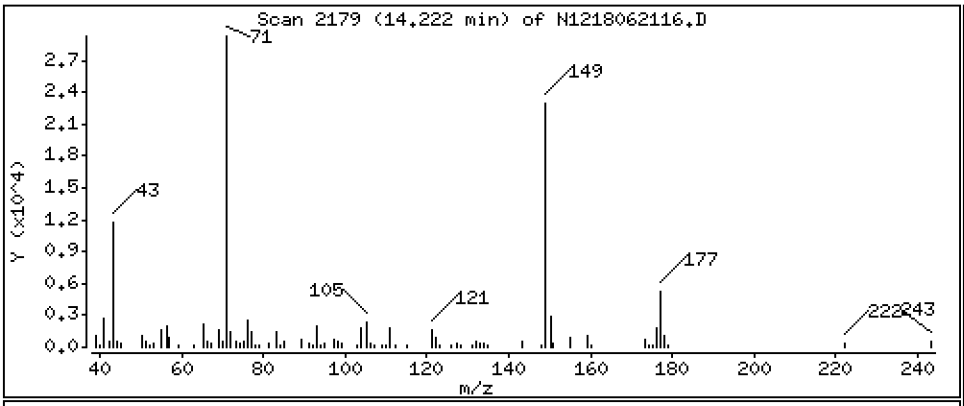
Operator: JZ

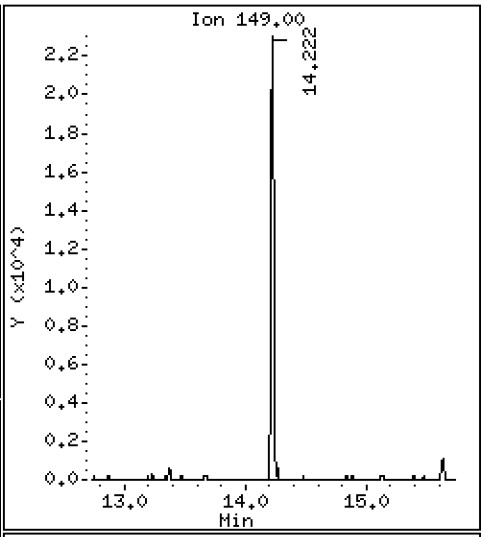
Column phase: ZB-5msi

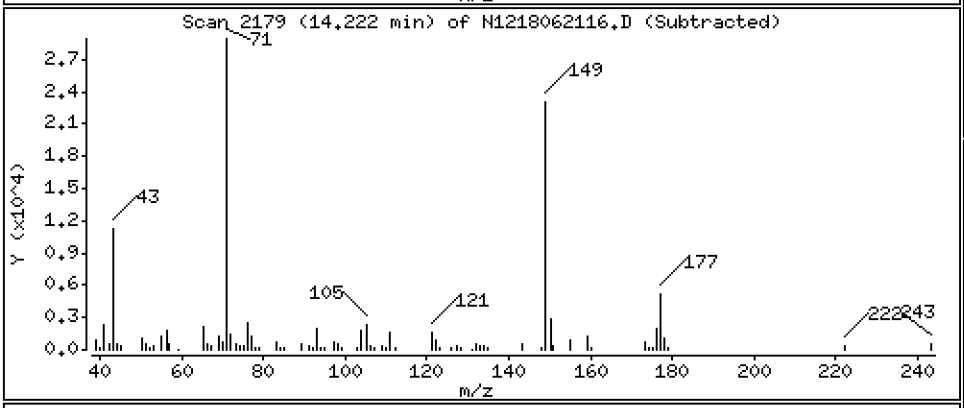
Column diameter: 0.32

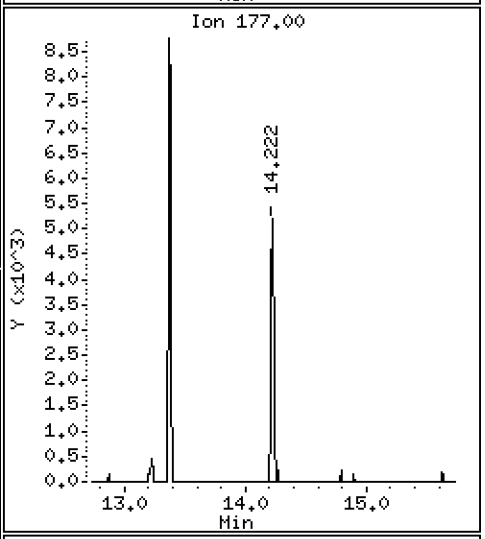
50 Diethylphthalate

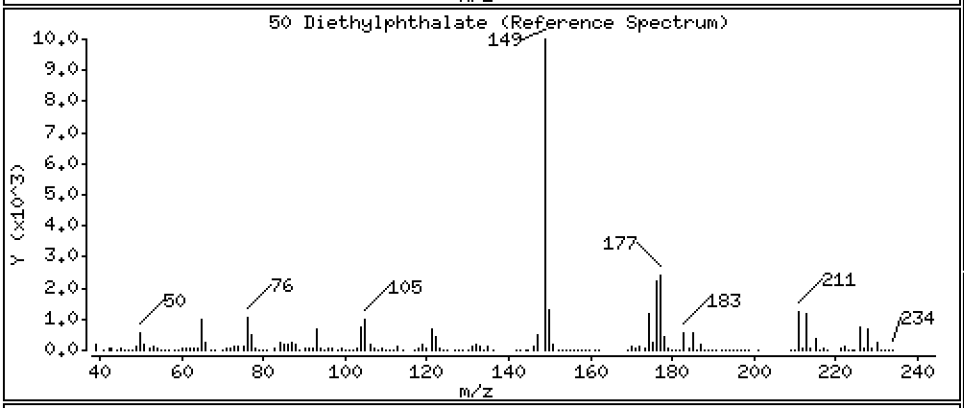
Concentration: 1.500 ug/mL

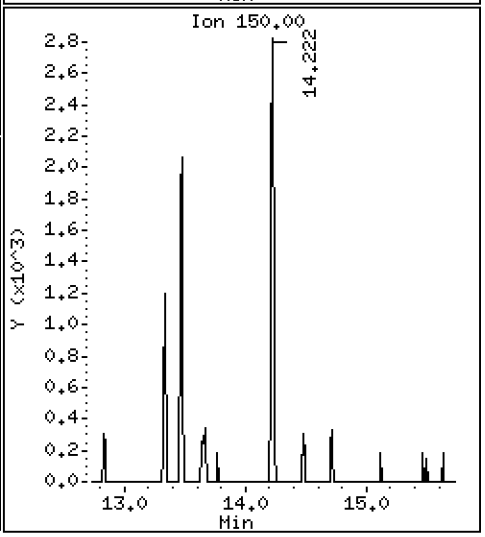


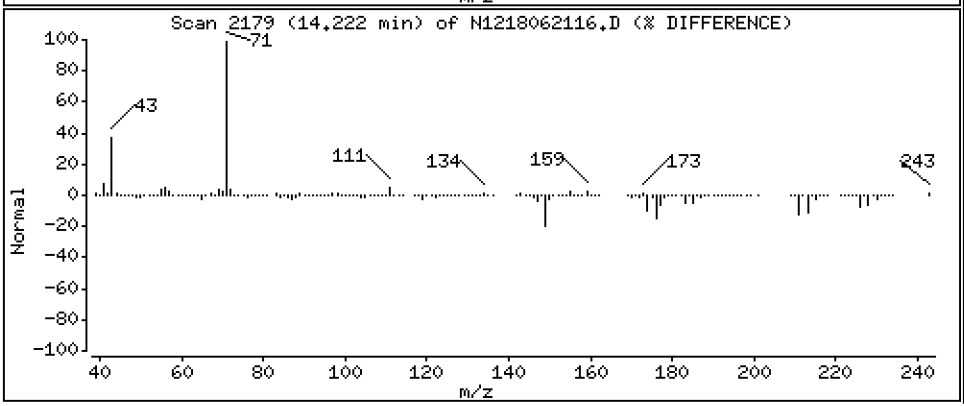












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Date : 21-JUN-2018 19:53

Client ID:

Instrument: nt12.i

Sample Info: 18F0208-02

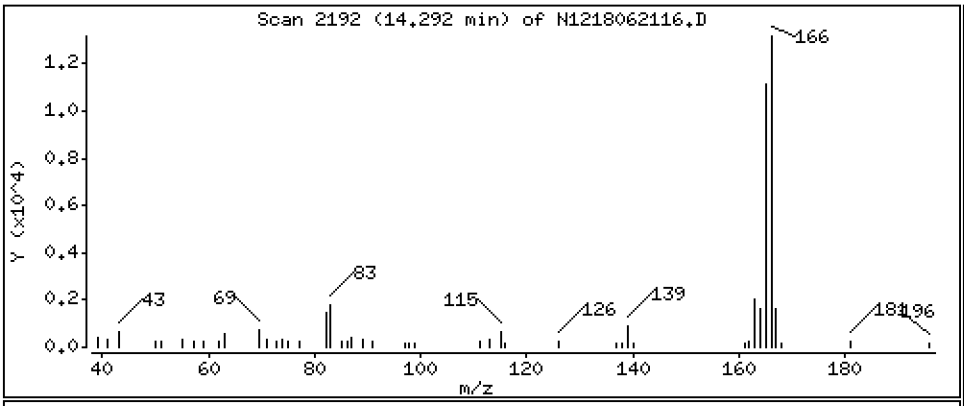
Operator: JZ

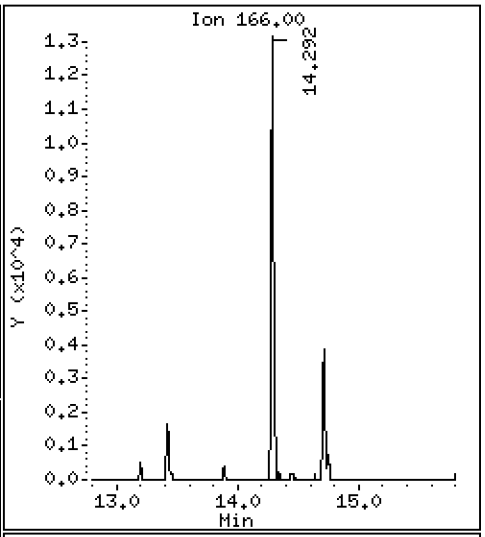
Column phase: ZB-5msi

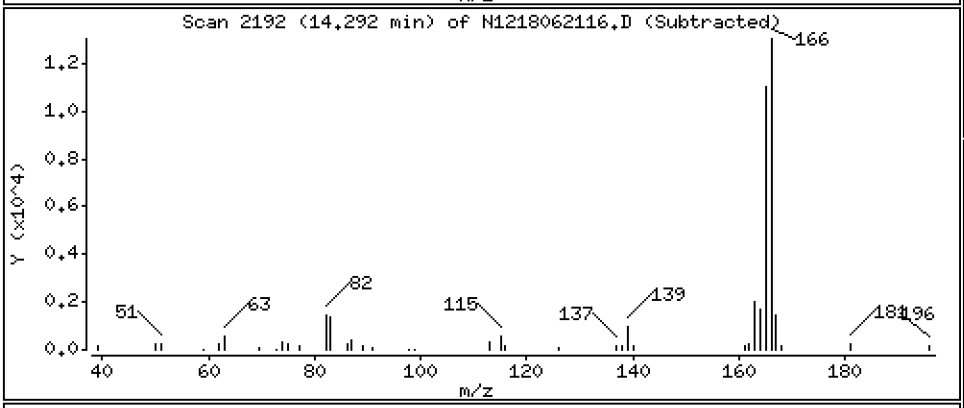
Column diameter: 0.32

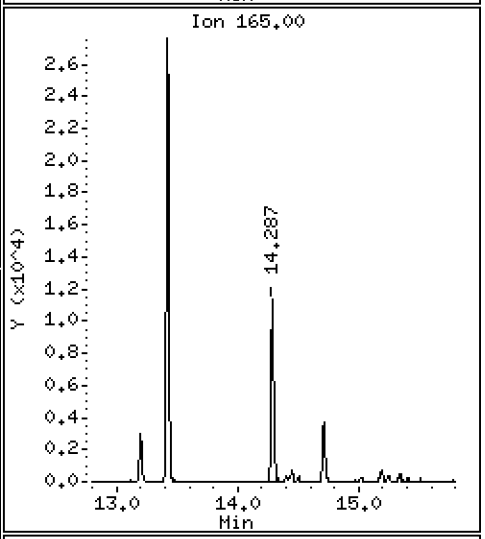
49 Fluorene

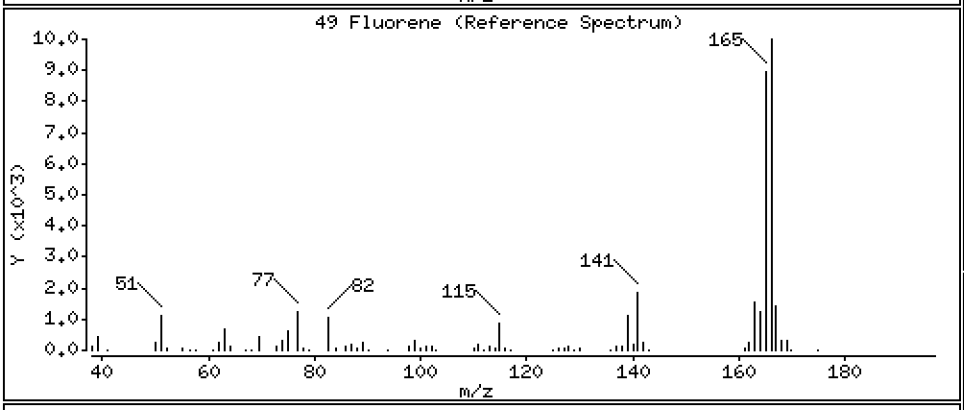
Concentration: 0.7632 ug/mL

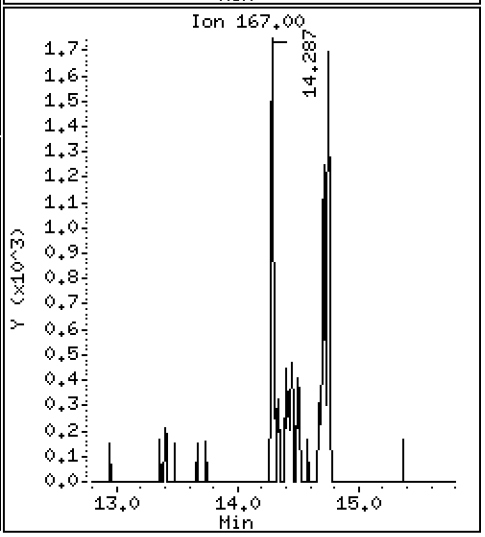


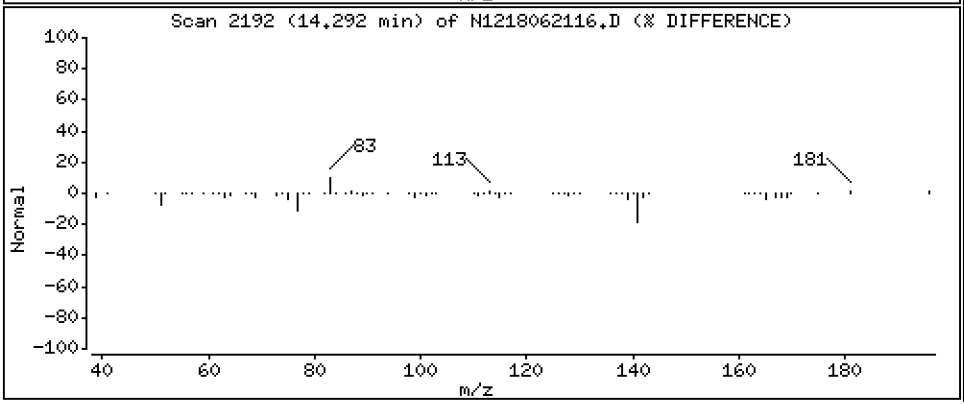












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Date : 21-JUN-2018 19:53

Client ID:

Instrument: nt12.i

Sample Info: 18F0208-02

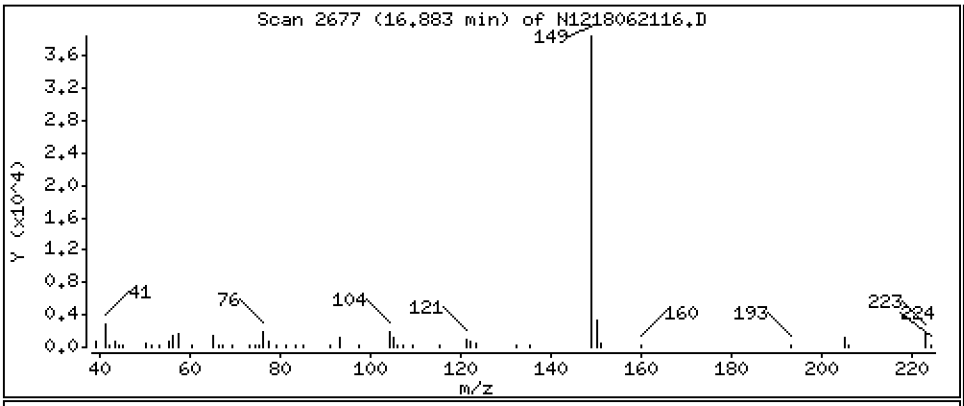
Operator: JZ

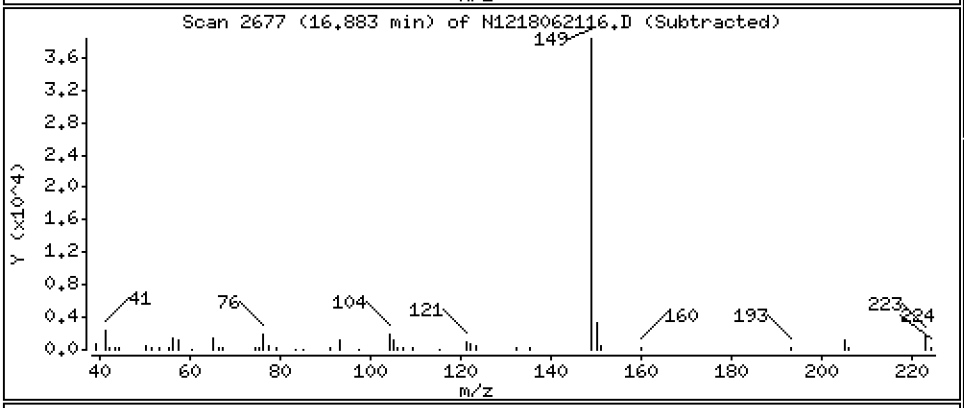
Column phase: ZB-5msi

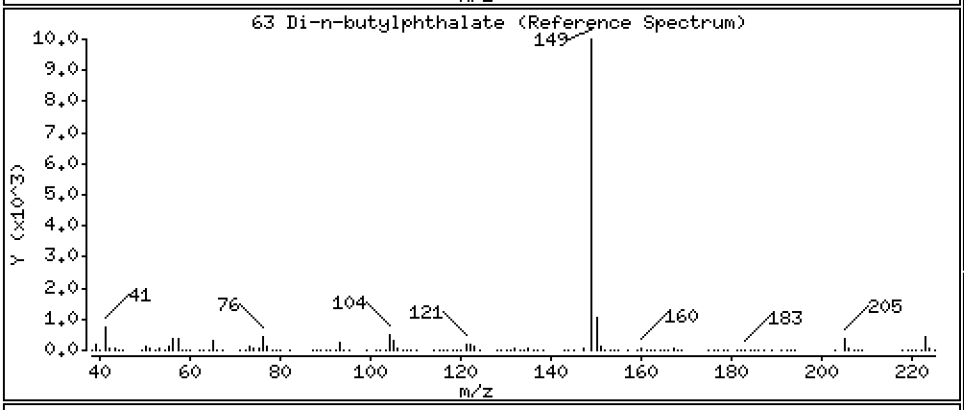
Column diameter: 0.32

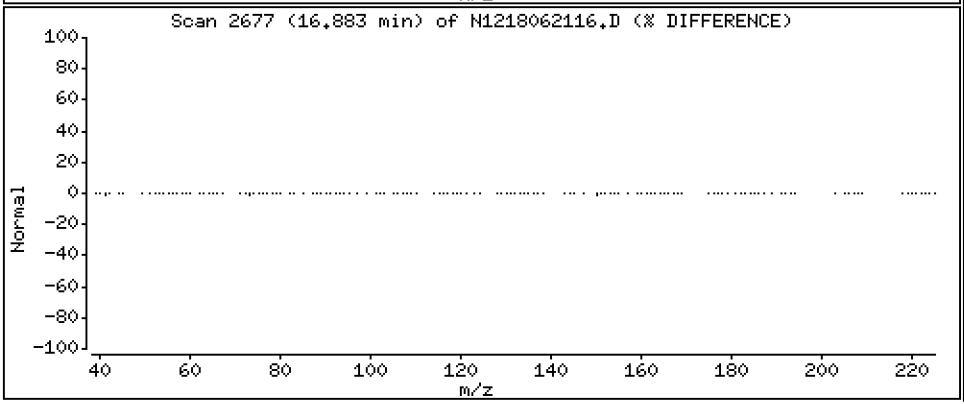
63 Di-n-butylphthalate

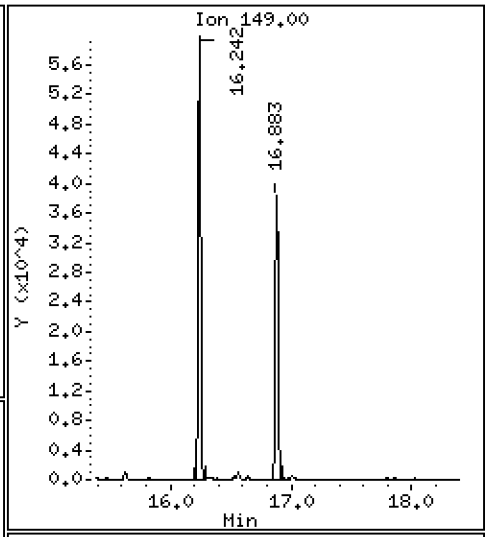
Concentration: 1.696 ug/mL

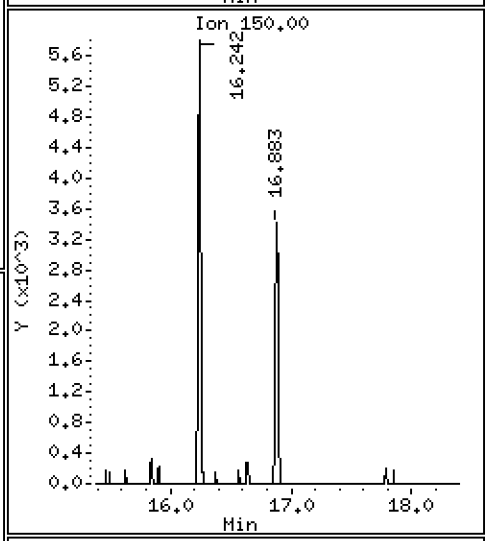


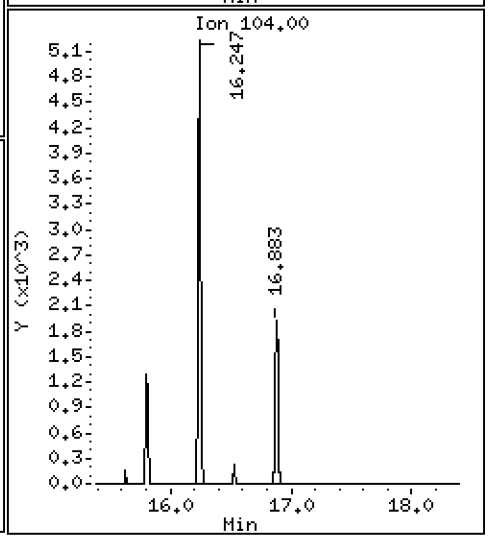












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Date : 21-JUN-2018 19:53

Client ID:

Instrument: nt12.i

Sample Info: 18F0208-02

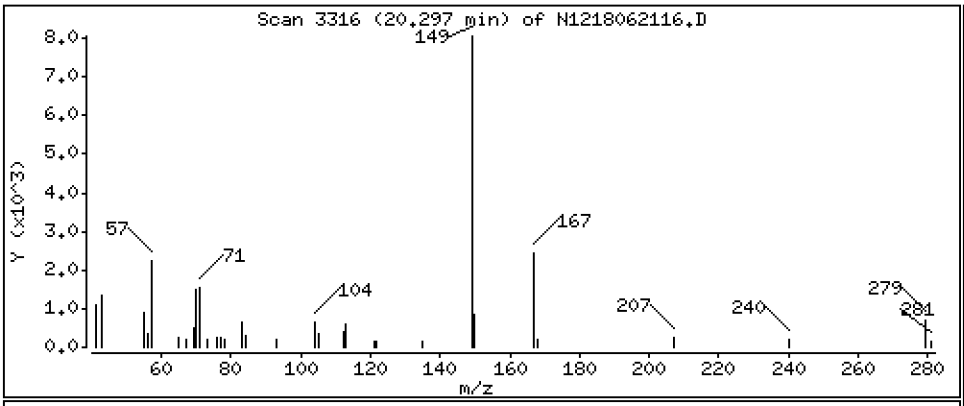
Operator: JZ

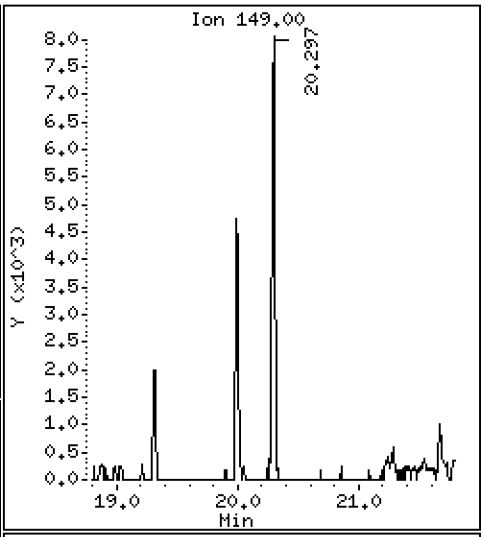
Column phase: ZB-5msi

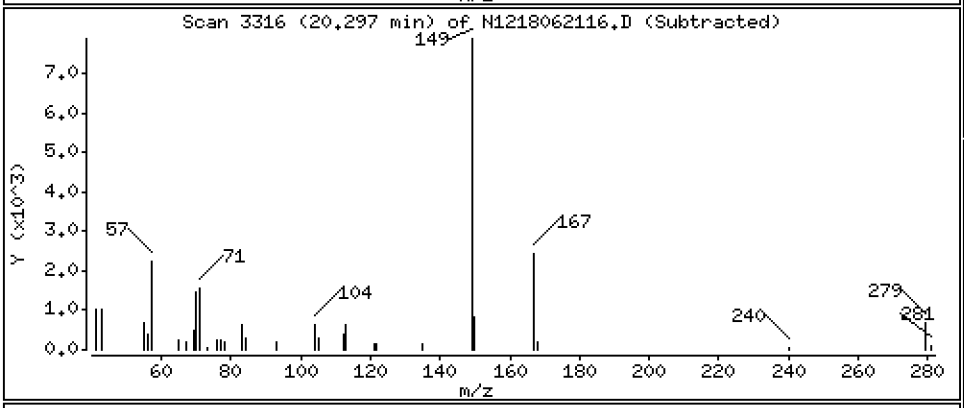
Column diameter: 0.32

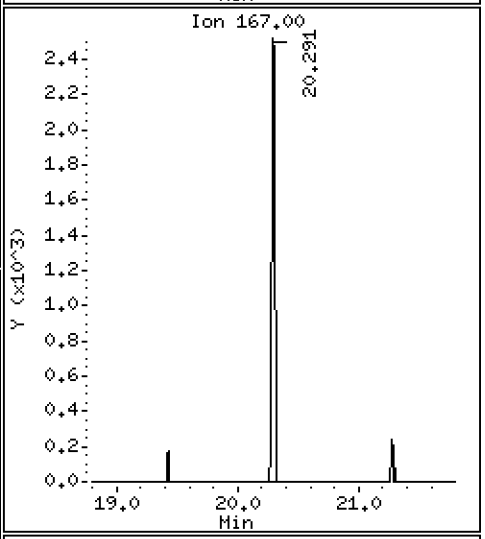
72 bis(2-Ethylhexyl)phthalate

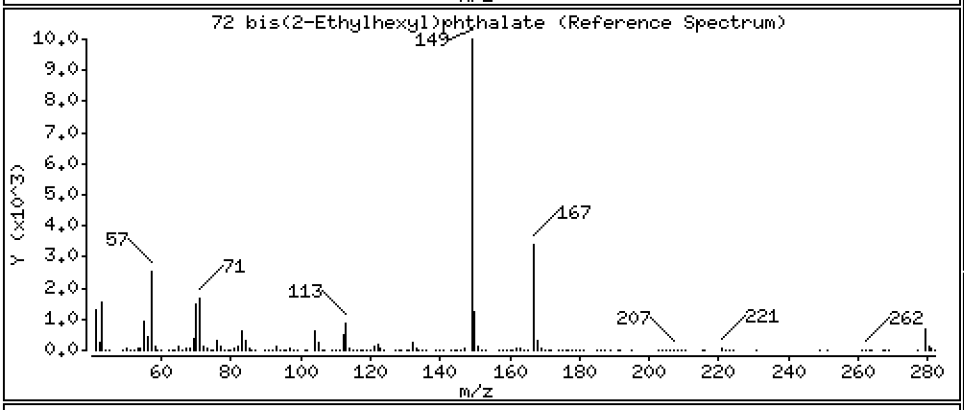
Concentration: 0.6691 ug/mL

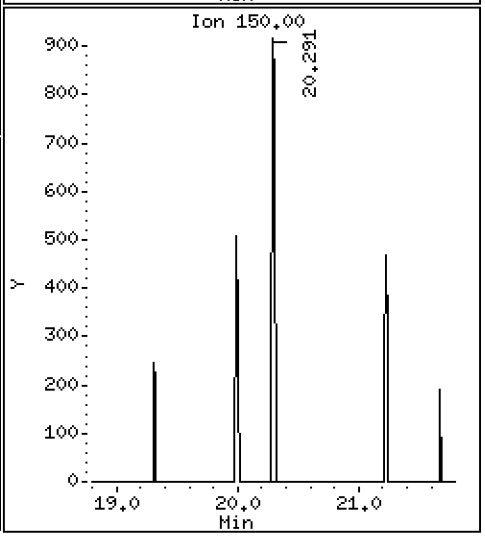


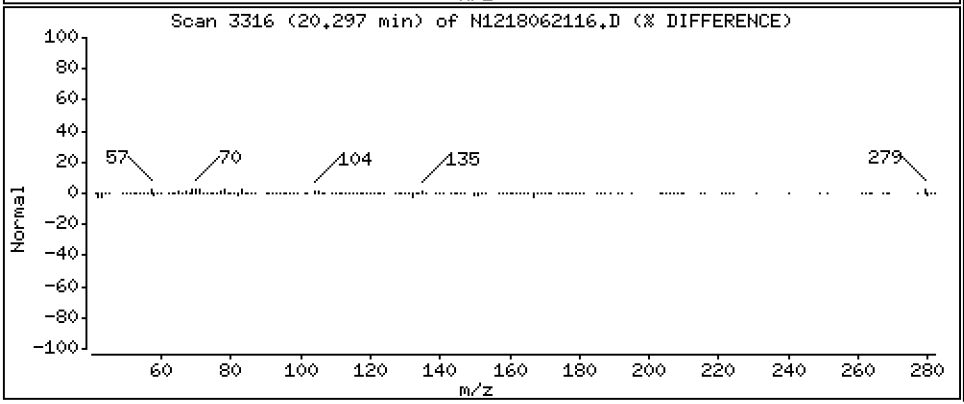












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180621.b\N1218062116.D
Lab Smp Id: 18F0208-02
Inj Date : 21-JUN-2018 19:53
Operator : JZ   Inst ID: nt12.i
Smp Info : 18F0208-02
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Meth Date : 22-Jun-2018 12:06 jianqing   Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36   Cal File: N1218051608.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1	2-Fluorophenol	112	6.567	6.567	(0.772)	214856	20.0442	20.04(R)
$	2	Phenol-d5	99	8.057	8.062	(0.947)	228720	16.9833	16.98(R)
	3	Phenol	94	Compound Not Detected.					
$	5	2-Chlorophenol-d4	132	8.212	8.217	(0.965)	283903	27.4367	27.44(R)
	4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6	2-Chlorophenol	128	Compound Not Detected.					
	7	1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8	1,4-Dichlorobenzene-d4	152	8.511	8.516	(1.000)	149335	20.0000	
	9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10	1,2-Dichlorobenzene-d4	152	8.810	8.816	(1.035)	123506	17.7581	17.76(R)
	12	1,2-Dichlorobenzene	146	Compound Not Detected.					
	11	Benzyl alcohol	108	Compound Not Detected.					
	14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
	13	2-Methylphenol	108	Compound Not Detected.					
	17	Hexachloroethane	117	Compound Not Detected.					
	16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15	4-Methylphenol	108	Compound Not Detected.					
$	18	Nitrobenzene-d5	82	9.435	9.441	(0.894)	225888	19.5213	19.52(R)
	19	Nitrobenzene	77	Compound Not Detected.					
	20	Isophorone	82	Compound Not Detected.					
	21	2-Nitrophenol	139	Compound Not Detected.					
	22	2,4-Dimethylphenol	107	Compound Not Detected.					
	23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24	Benzoic acid	105	10.189	10.354	(0.966)	14602	1.81254	1.813
	25	2,4-Dichlorophenol	162	Compound Not Detected.					
	26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27	Naphthalene-d8	136	10.552	10.557	(1.000)	565714	20.0000	
	28	Naphthalene	128	Compound Not Detected.					
	29	4-Chloroaniline	127	Compound Not Detected.					
	30	Hexachlorobutadiene	225	Compound Not Detected.					
	31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32	2-Methylnaphthalene	141	Compound Not Detected.					
	33	Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	12.342	12.347	(0.920)	408926	19.2801	19.28(R)
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	13.421	13.426	(1.000)	298217	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	13.469	13.474	(1.004)	28715	1.55553	1.556
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	13.731	13.736	(1.023)	15453	0.55051	0.5505
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	14.222	14.233	(1.060)	30085	1.49983	1.500
	49	Fluorene	166	14.291	14.297	(1.065)	17878	0.76316	0.7632
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	14.713	14.719	(1.096)	77904	31.2040	31.20(R)
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	15.809	15.809	(1.000)	505584	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	16.882	16.888	(1.068)	53500	1.69589	1.696
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	18.442	18.448	(0.916)	430475	25.1292	25.13(R)
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	20.131	20.141	(1.000)	444696	20.0000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	20.296	20.296	(0.956)	11920	0.66915	0.6691
*	134	Di-n-octylphthalate-d4	153	21.226	21.231	(1.000)	599580	20.0000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	22.305	22.310	(1.000)	436319	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	Compound Not Detected.					
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062116.D
Lab Smp Id: 18F0208-02
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Misc Info: 18-

Calibration Date: 21-JUN-2018
Calibration Time: 22:08
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	149335	17.60
27 Naphthalene-d8	478458	239229	956916	565714	18.24
42 Acenaphthene-d10	247659	123830	495318	298217	20.41
59 Phenanthrene-d10	421930	210965	843860	505584	19.83
69 Chrysene-d12	450836	225418	901672	444696	-1.36
134 Di-n-octylphthala	583434	291717	1166868	599580	2.77
77 Perylene-d12	453093	226547	906186	436319	-3.70

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.52	8.02	9.02	8.51	-0.06
27 Naphthalene-d8	10.56	10.06	11.06	10.55	-0.05
42 Acenaphthene-d10	13.43	12.93	13.93	13.42	-0.04
59 Phenanthrene-d10	15.81	15.31	16.31	15.81	0.00
69 Chrysene-d12	20.14	19.64	20.64	20.13	-0.05
134 Di-n-octylphthala	21.23	20.73	21.73	21.23	-0.03
77 Perylene-d12	22.31	21.81	22.81	22.31	-0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062116.D

Lab ID: 18F0208-02
nt12.i, SW846180516.m, 21-JUN-2018 19:53

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

LDW18-SP-24

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D
Semivolatile Organic Compounds (SepF)

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-03	SDG:	18F0185
Sampled:	06/13/18 12:35	Prepared:	06/20/18 13:36	File ID:	N1218062117.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/21/18 20:27
Batch:	BGF0434	Sequence:	SGF0272	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT12	Column:	ZB-5MS	Calibration:	BE00052

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	3.0	U	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	22.1	59.0	32.5 - 120	
Phenol-d5	37.500	18.9	50.4	17.8 - 120	
2-Chlorophenol-d4	37.500	30.4	81.1	55 - 120	
1,2-Dichlorobenzene-d4	25.000	19.8	79.2	49.3 - 120	
Nitrobenzene-d5	25.000	21.4	85.8	56.1 - 120	
2-Fluorobiphenyl	25.000	21.4	85.8	54.4 - 120	
2,4,6-Tribromophenol	37.500	35.5	94.7	49.3 - 128	
p-Terphenyl-d14	25.000	29.3	117	60 - 120	

Data File: \\target\share\chem3\nt12.i\20180621.b\N1218062117.D

Date : 21-JUN-2018 20:27

Client ID:

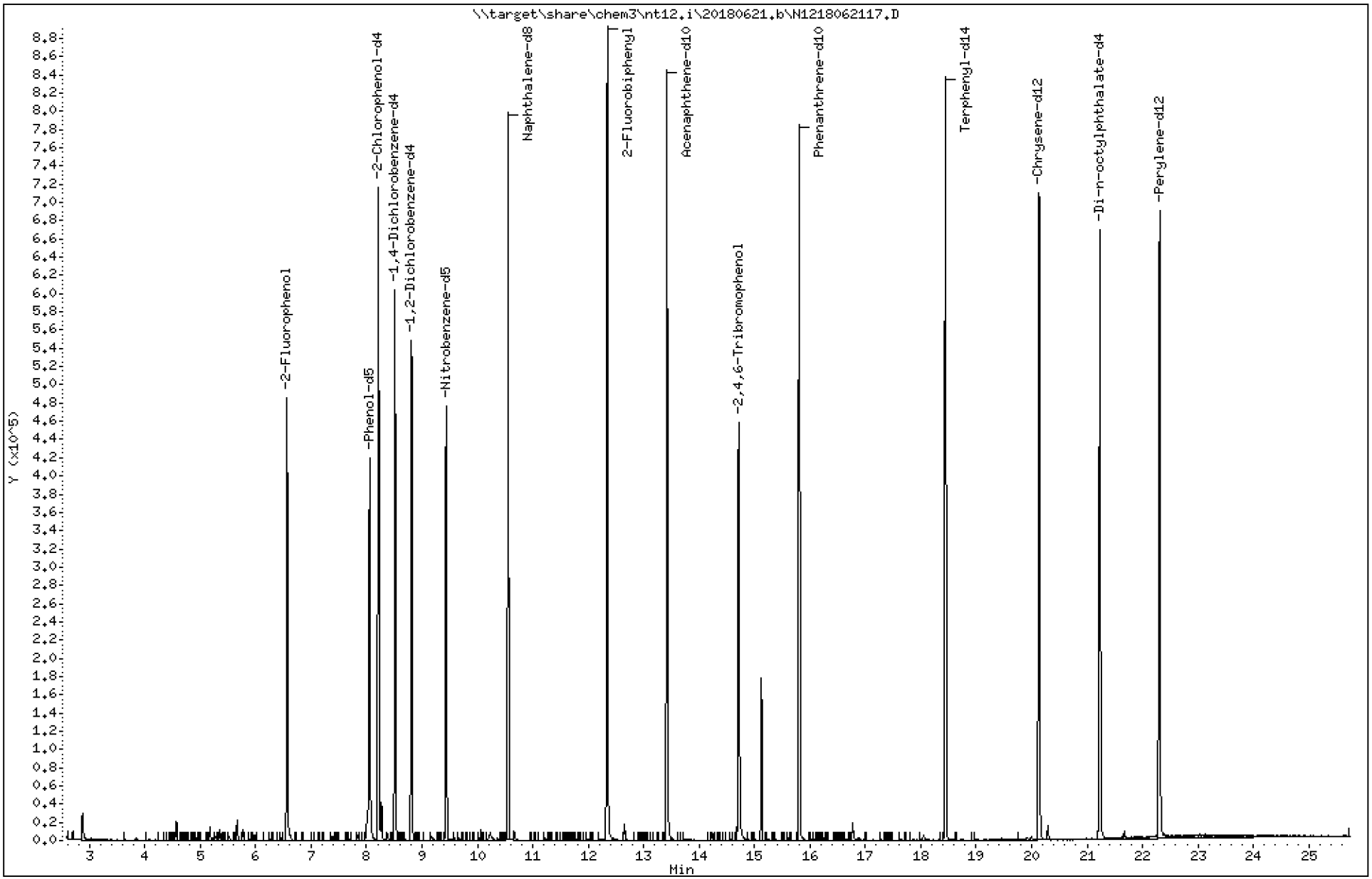
Instrument: nt12.i

Sample Info: 18F0208-03

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180621.b\N1218062117.D
Lab Smp Id: 18F0208-03
Inj Date : 21-JUN-2018 20:27
Operator : JZ   Inst ID: nt12.i
Smp Info : 18F0208-03
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Meth Date : 22-Jun-2018 12:06 jianqing   Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36   Cal File: N1218051608.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.567	6.567	(0.772)	220305	22.1431	22.14(R)
$	2 Phenol-d5	99	8.052	8.062	(0.946)	236371	18.9097	18.91(R)
	3 Phenol	94	Compound Not Detected.					
$	5 2-Chlorophenol-d4	132	8.212	8.217	(0.965)	291998	30.4029	30.40(R)
	4 Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6 2-Chlorophenol	128	Compound Not Detected.					
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	8.511	8.516	(1.000)	138608	20.0000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	8.810	8.816	(1.035)	127835	19.8030	19.80(R)
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	Compound Not Detected.					
	14 2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
	13 2-Methylphenol	108	Compound Not Detected.					
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	9.435	9.441	(0.894)	229296	21.4451	21.45(R)
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.552	10.557	(1.000)	522735	20.0000	
	28 Naphthalene	128	Compound Not Detected.					
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	141	Compound Not Detected.					
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG					CONCENTRATIONS ON-COLUMN	CONCENTRATIONS FINAL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	12.342	12.347	(0.920)	429110	21.4407	21.44(R)
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	13.421	13.426	(1.000)	281402	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	Compound Not Detected.					
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	Compound Not Detected.					
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	14.714	14.719	(1.096)	83679	35.5200	35.52(R)
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	15.803	15.809	(1.000)	475663	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	Compound Not Detected.					
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	18.442	18.448	(0.916)	469432	29.3293	29.33(R)
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	20.136	20.141	(1.000)	415494	20.0000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134	Di-n-octylphthalate-d4	153	21.226	21.231	(1.000)	561948	20.0000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	22.305	22.310	(1.000)	404392	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	Compound Not Detected.					
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062117.D
Lab Smp Id: 18F0208-03
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Misc Info: 18-

Calibration Date: 21-JUN-2018
Calibration Time: 22:08
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	138608	9.16
27 Naphthalene-d8	478458	239229	956916	522735	9.25
42 Acenaphthene-d10	247659	123830	495318	281402	13.62
59 Phenanthrene-d10	421930	210965	843860	475663	12.74
69 Chrysene-d12	450836	225418	901672	415494	-7.84
134 Di-n-octylphthala	583434	291717	1166868	561948	-3.68
77 Perylene-d12	453093	226547	906186	404392	-10.75

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.52	8.02	9.02	8.51	-0.06
27 Naphthalene-d8	10.56	10.06	11.06	10.55	-0.05
42 Acenaphthene-d10	13.43	12.93	13.93	13.42	-0.04
59 Phenanthrene-d10	15.81	15.31	16.31	15.80	-0.03
69 Chrysene-d12	20.14	19.64	20.64	20.14	-0.03
134 Di-n-octylphthala	21.23	20.73	21.73	21.23	-0.02
77 Perylene-d12	22.31	21.81	22.81	22.31	-0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062117.D

Lab ID: 18F0208-03
nt12.i, SW846180516.m, 21-JUN-2018 20:27

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-24-FD

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D
Semivolatile Organic Compounds (SepF)

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-04	SDG:	18F0185
Sampled:	06/13/18 12:42	Prepared:	06/20/18 13:36	File ID:	N1218062118.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/21/18 21:01
Batch:	BGF0434	Sequence:	SGF0272	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT12	Column:	ZB-5MS	Calibration:	BE00052

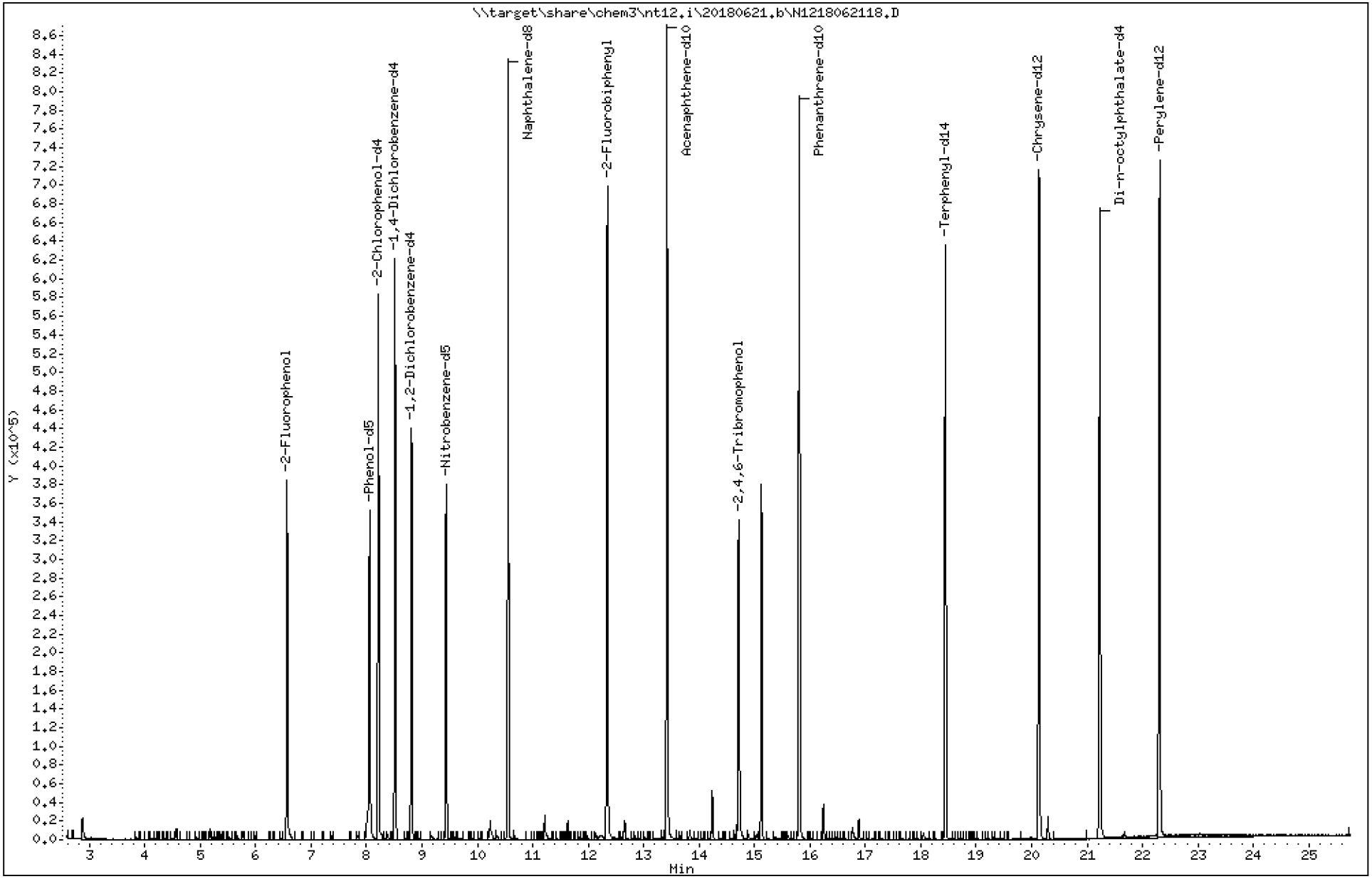
CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	0.6	J	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	16.8	44.7	32.5 - 120	
Phenol-d5	37.500	15.0	39.9	17.8 - 120	
2-Chlorophenol-d4	37.500	23.2	61.9	55 - 120	
1,2-Dichlorobenzene-d4	25.000	15.0	60.1	49.3 - 120	
Nitrobenzene-d5	25.000	16.6	66.3	56.1 - 120	
2-Fluorobiphenyl	25.000	16.7	66.9	54.4 - 120	
2,4,6-Tribromophenol	37.500	25.8	68.7	49.3 - 128	
p-Terphenyl-d14	25.000	21.3	85.0	60 - 120	

Data File: \\target\share\chem3\nt12.i\20180621.b\N1218062118.D
Date : 21-JUN-2018 21:01
Client ID:
Sample Info: 18F0208-04

Instrument: nt12.i
Operator: JZ
Column diameter: 0.32

Column phase: ZB-5msi



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 218 of 6523

Data File: \\target\share\chem3\nt12.i\20180621.b\N1218062118.D

Date : 21-JUN-2018 21:01

Client ID:

Instrument: nt12.i

Sample Info: 18F0208-04

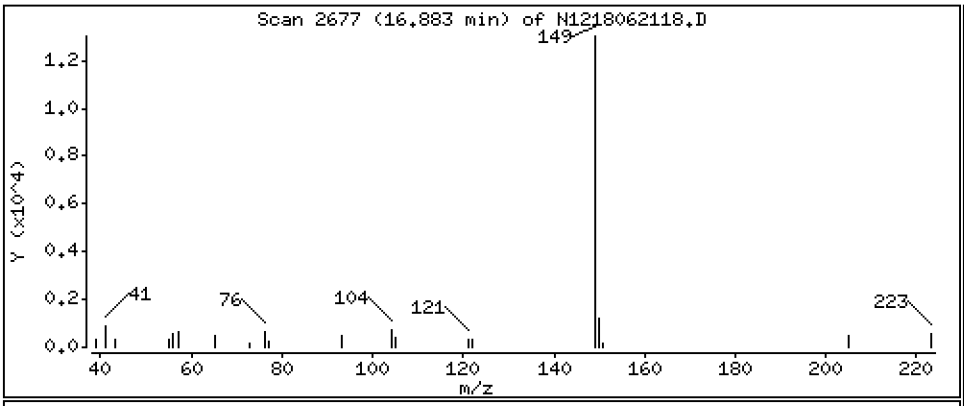
Operator: JZ

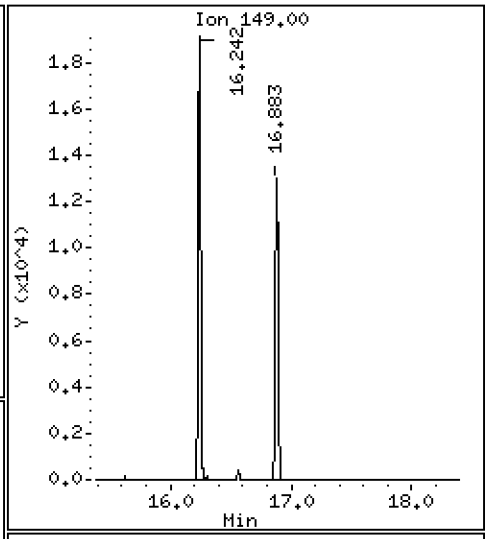
Column phase: ZB-5msi

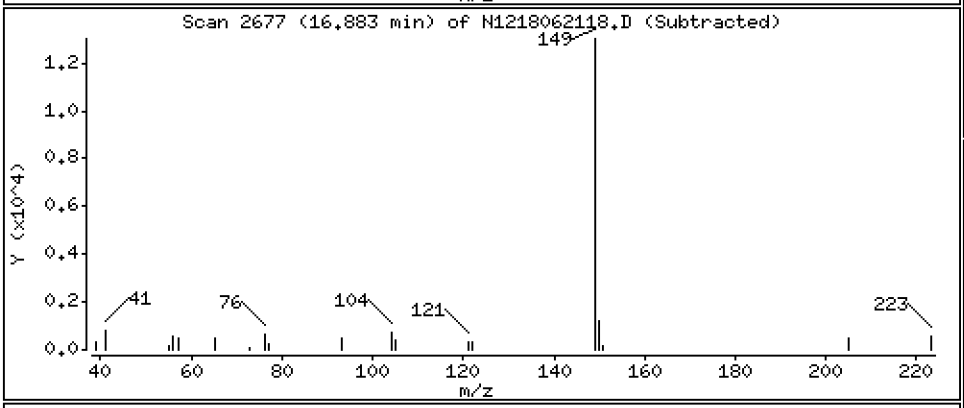
Column diameter: 0.32

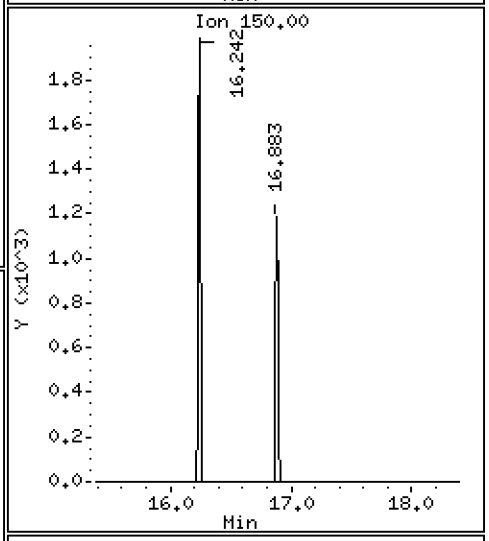
63 Di-n-butylphthalate

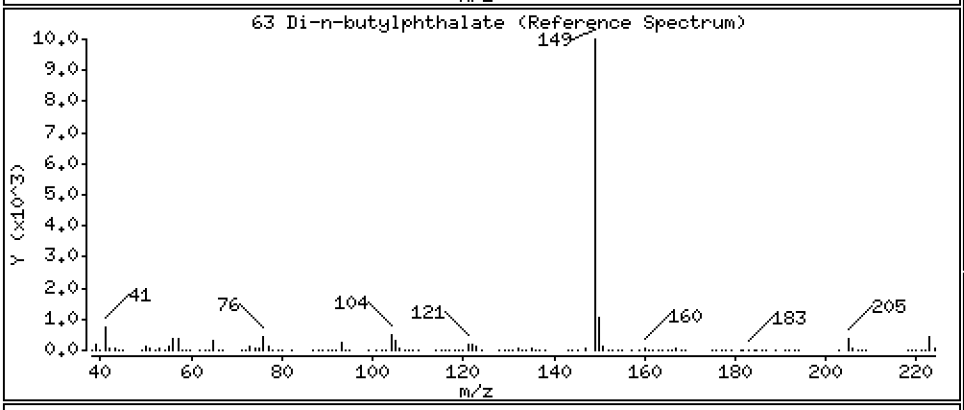
Concentration: 0.6005 ug/mL

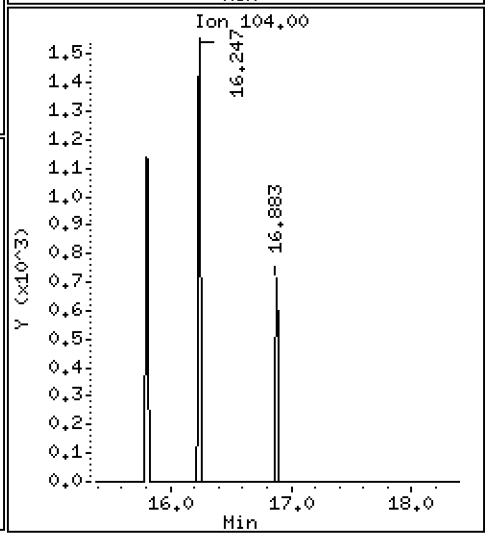


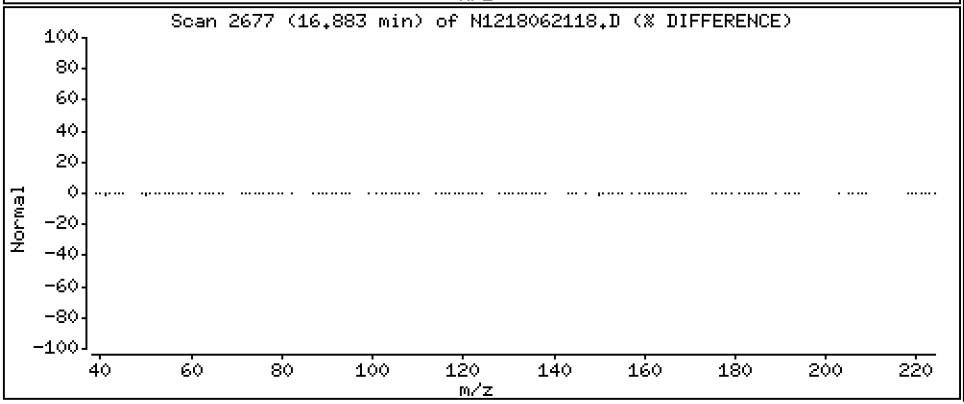












Data File: \\target\share\chem3\nt12.i\20180621.b\N1218062118.D

Date : 21-JUN-2018 21:01

Client ID:

Instrument: nt12.i

Sample Info: 18F0208-04

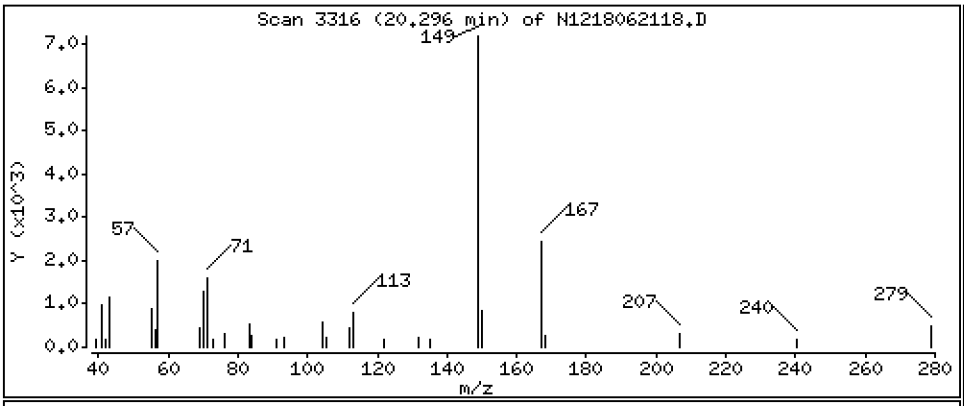
Operator: JZ

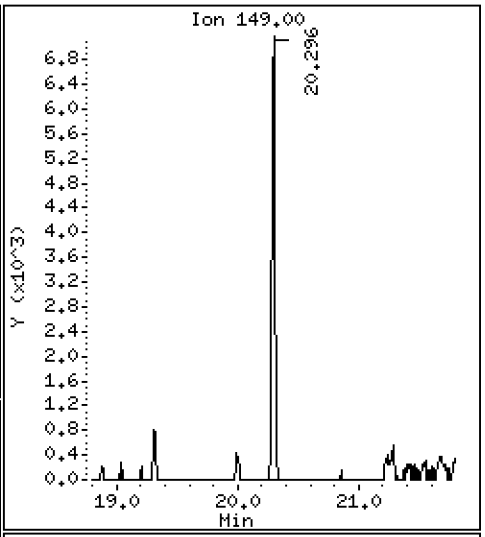
Column phase: ZB-5msi

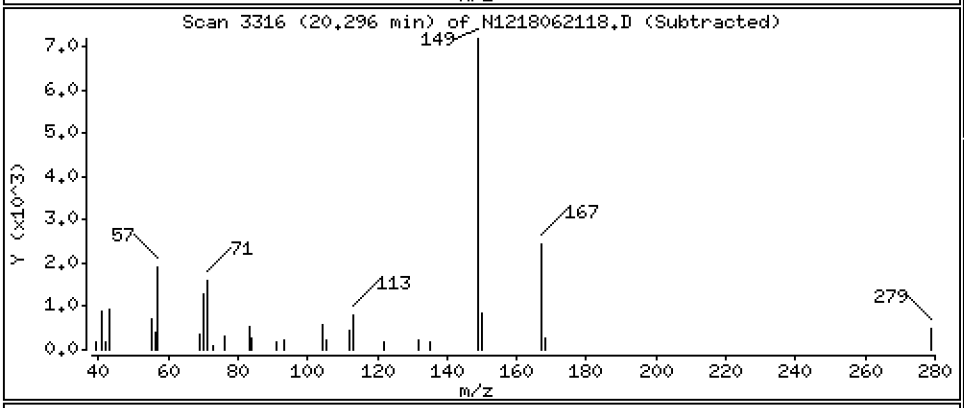
Column diameter: 0.32

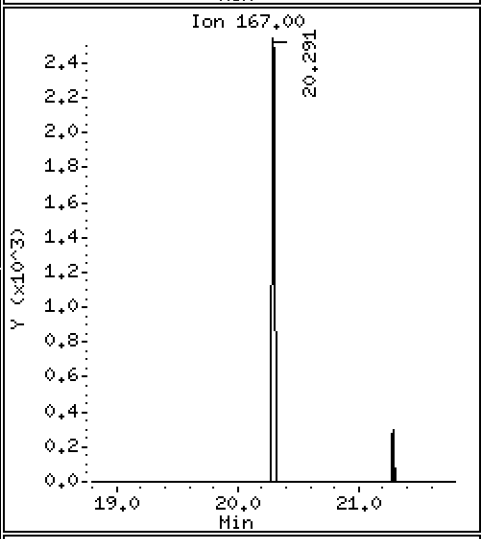
72 bis(2-Ethylhexyl)phthalate

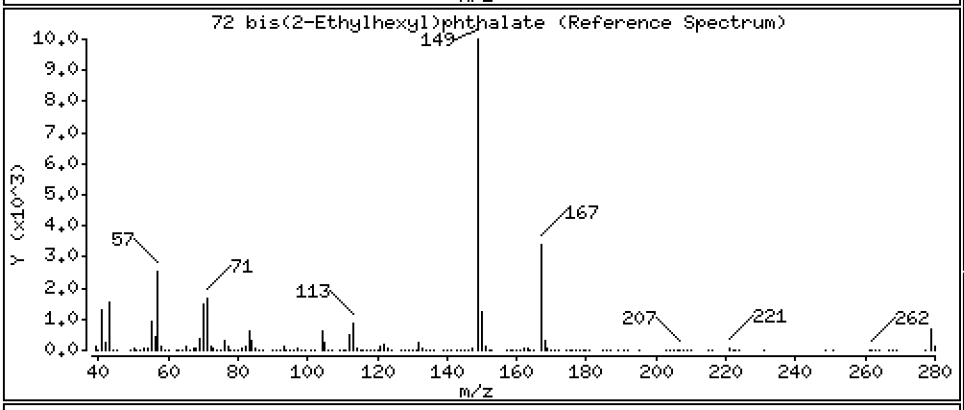
Concentration: 0.6480 ug/mL

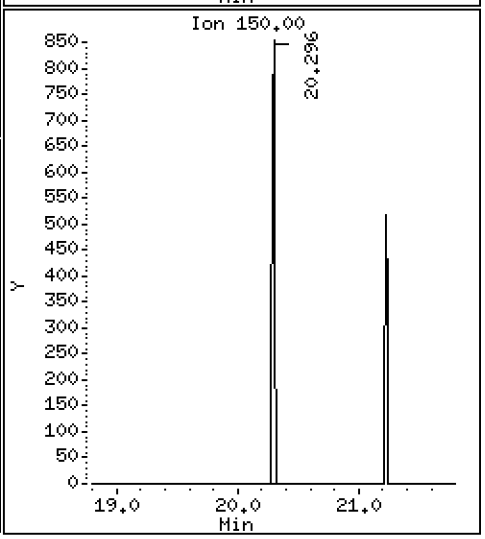


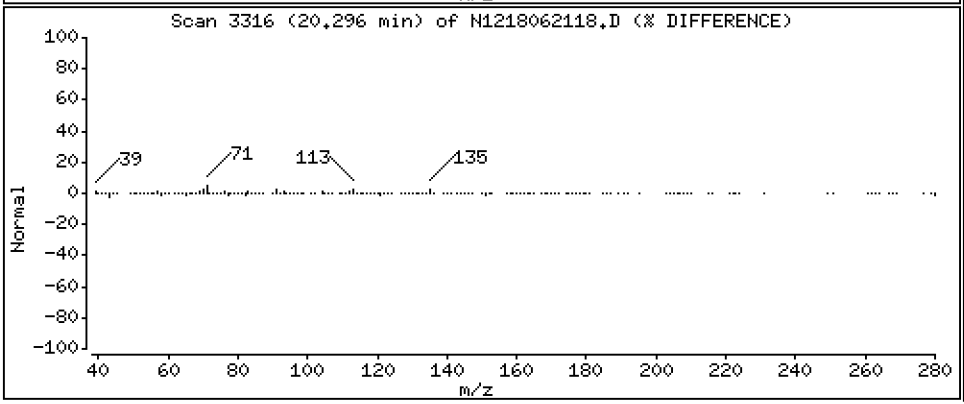












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180621.b\N1218062118.D
Lab Smp Id: 18F0208-04
Inj Date : 21-JUN-2018 21:01
Operator : JZ   Inst ID: nt12.i
Smp Info : 18F0208-04
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Meth Date : 22-Jun-2018 12:06 jianqing   Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36   Cal File: N1218051608.D
Als bottle: 18
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$ 1	2-Fluorophenol	112	6.566	6.567	(0.771)	174982	16.7765	16.78(R)
$ 2	Phenol-d5	99	8.052	8.062	(0.945)	195963	14.9540	14.95(R)
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	8.212	8.217	(0.964)	233682	23.2089	23.21(R)
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.516	8.516	(1.000)	145310	20.0000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.810	8.816	(1.034)	101603	15.0135	15.01(R)
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					
17	Hexachloroethane	117	Compound Not Detected.					
16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
15	4-Methylphenol	108	Compound Not Detected.					
$ 18	Nitrobenzene-d5	82	9.435	9.441	(0.894)	183763	16.5707	16.57(R)
19	Nitrobenzene	77	Compound Not Detected.					
20	Isophorone	82	Compound Not Detected.					
21	2-Nitrophenol	139	Compound Not Detected.					
22	2,4-Dimethylphenol	107	Compound Not Detected.					
23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
24	Benzoic acid	105	Compound Not Detected.					
25	2,4-Dichlorophenol	162	Compound Not Detected.					
26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
* 27	Naphthalene-d8	136	10.552	10.557	(1.000)	542164	20.0000	
28	Naphthalene	128	Compound Not Detected.					
29	4-Chloroaniline	127	Compound Not Detected.					
30	Hexachlorobutadiene	225	Compound Not Detected.					
31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
32	2-Methylnaphthalene	141	Compound Not Detected.					
33	Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	12.341	12.347	(0.920)	341700	16.7216	16.72(R)
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	13.421	13.426	(1.000)	287320	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	Compound Not Detected.					
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	Compound Not Detected.					
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	14.713	14.719	(1.096)	61961	25.7594	25.76(R)
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	15.803	15.809	(1.000)	475217	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	16.882	16.888	(1.068)	17805	0.60046	0.6005
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	18.442	18.448	(0.916)	344471	21.2528	21.25(R)
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	20.136	20.141	(1.000)	420756	20.0000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	20.296	20.296	(0.956)	10926	0.64803	0.6480
*	134	Di-n-octylphthalate-d4	153	21.226	21.231	(1.000)	567488	20.0000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	22.305	22.310	(1.000)	424533	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	Compound Not Detected.					
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062118.D
Lab Smp Id: 18F0208-04
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Misc Info: 18-

Calibration Date: 21-JUN-2018
Calibration Time: 22:08
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	145310	14.43
27 Naphthalene-d8	478458	239229	956916	542164	13.31
42 Acenaphthene-d10	247659	123830	495318	287320	16.01
59 Phenanthrene-d10	421930	210965	843860	475217	12.63
69 Chrysene-d12	450836	225418	901672	420756	-6.67
134 Di-n-octylphthala	583434	291717	1166868	567488	-2.73
77 Perylene-d12	453093	226547	906186	424533	-6.30

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.52	8.02	9.02	8.52	-0.00
27 Naphthalene-d8	10.56	10.06	11.06	10.55	-0.05
42 Acenaphthene-d10	13.43	12.93	13.93	13.42	-0.04
59 Phenanthrene-d10	15.81	15.31	16.31	15.80	-0.03
69 Chrysene-d12	20.14	19.64	20.64	20.14	-0.03
134 Di-n-octylphthala	21.23	20.73	21.73	21.23	-0.03
77 Perylene-d12	22.31	21.81	22.81	22.31	-0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062118.D

Lab ID: 18F0208-04
nt12.i, SW846180516.m, 21-JUN-2018 21:01

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-05

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D
Semivolatile Organic Compounds (SepF)

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-01	SDG:	18F0185
Sampled:	06/14/18 14:08	Prepared:	06/21/18 15:35	File ID:	N1218062607.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/26/18 14:24
Batch:	BGF0515	Sequence:	SGF0333	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT12	Column:	ZB-5MS	Calibration:	BE00052

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	3.0	U	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	21.7	57.8	32.5 - 120	
Phenol-d5	37.500	17.2	45.8	17.8 - 120	
2-Chlorophenol-d4	37.500	27.7	73.8	55 - 120	
1,2-Dichlorobenzene-d4	25.000	16.6	66.2	49.3 - 120	
Nitrobenzene-d5	25.000	19.9	79.7	56.1 - 120	
2-Fluorobiphenyl	25.000	18.4	73.6	54.4 - 120	
2,4,6-Tribromophenol	37.500	30.8	82.1	49.3 - 128	
p-Terphenyl-d14	25.000	26.4	106	60 - 120	

Data File: \\target\share\chem3\nt12.i\20180626.b\N1218062607.D

Page 1

Date : 26-JUN-2018 14:24

Client ID:

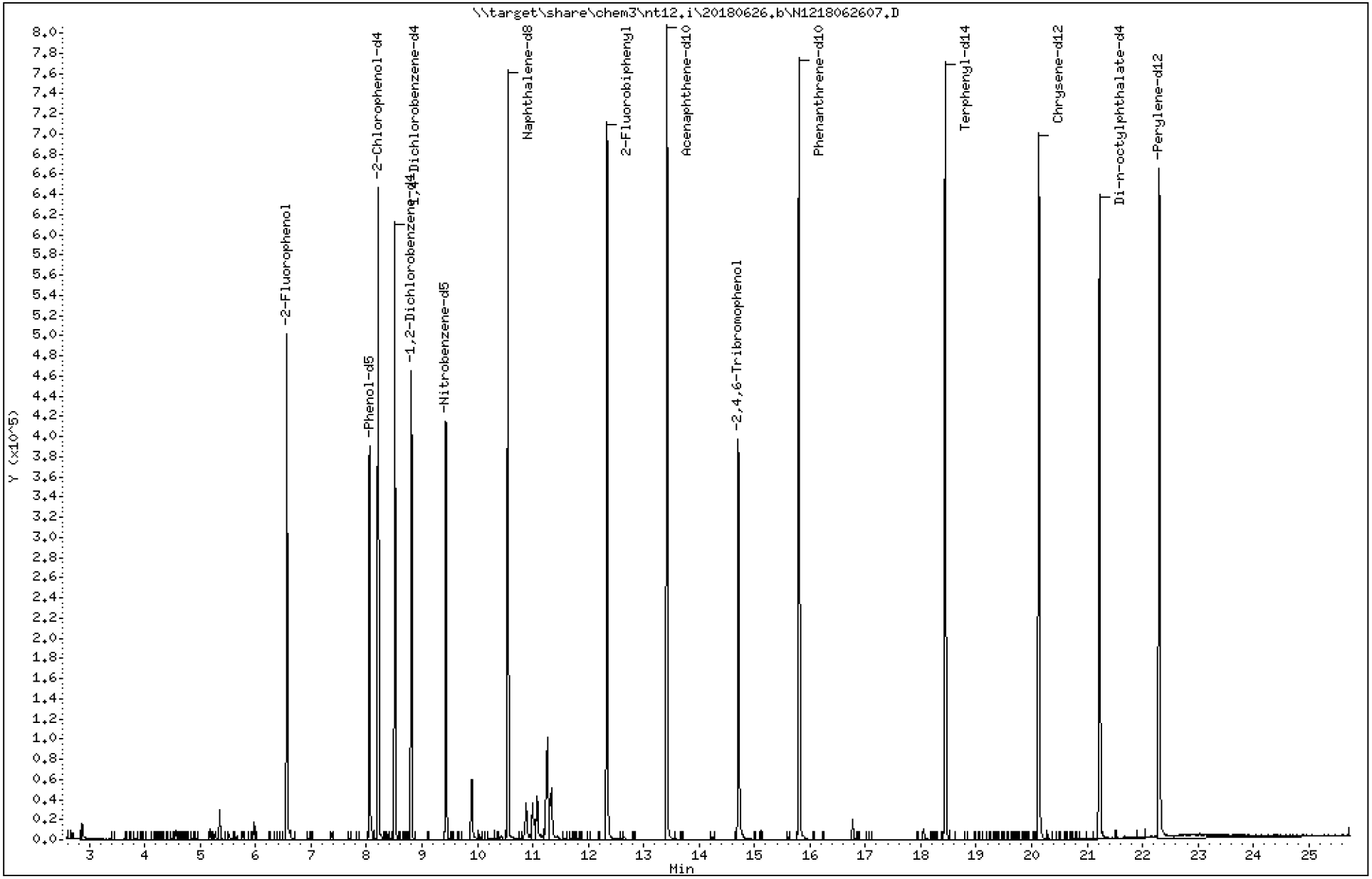
Instrument: nt12.i

Sample Info: 18F0226-01

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 227 of 6523

ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180626.b\N1218062607.D
Lab Smp Id: 18F0226-01
Inj Date : 26-JUN-2018 14:24
Operator : JZ   Inst ID: nt12.i
Smp Info : 18F0226-01
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180626.b\SW846180516.m
Meth Date : 26-Jun-2018 13:52 jianqing   Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36   Cal File: N1218051608.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$ 1	2-Fluorophenol	112	6.561	6.535	(0.771)	216898	21.6690	21.67(R)
$ 2	Phenol-d5	99	8.052	8.036	(0.946)	215858	17.1644	17.16(R)
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	8.207	8.191	(0.964)	267304	27.6637	27.66(R)
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.511	8.490	(1.000)	139450	20.0000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.811	8.789	(1.035)	107494	16.5515	16.55(R)
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					
17	Hexachloroethane	117	Compound Not Detected.					
16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
15	4-Methylphenol	108	Compound Not Detected.					
$ 18	Nitrobenzene-d5	82	9.436	9.414	(0.894)	210578	19.9298	19.93(R)
19	Nitrobenzene	77	Compound Not Detected.					
20	Isophorone	82	Compound Not Detected.					
21	2-Nitrophenol	139	Compound Not Detected.					
22	2,4-Dimethylphenol	107	Compound Not Detected.					
23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
24	Benzoic acid	105	Compound Not Detected.					
25	2,4-Dichlorophenol	162	Compound Not Detected.					
26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
* 27	Naphthalene-d8	136	10.552	10.531	(1.000)	516563	20.0000	
28	Naphthalene	128	Compound Not Detected.					
29	4-Chloroaniline	127	Compound Not Detected.					
30	Hexachlorobutadiene	225	Compound Not Detected.					
31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
32	2-Methylnaphthalene	141	Compound Not Detected.					
33	Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	12.336	12.320	(0.920)	364358	18.4120	18.41(R)
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	13.416	13.399	(1.000)	278244	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	Compound Not Detected.					
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	Compound Not Detected.					
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	14.714	14.692	(1.097)	71731	30.7939	30.79(R)
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	15.804	15.782	(1.000)	472695	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	Compound Not Detected.					
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	18.443	18.416	(0.916)	426880	26.3968	26.40(R)
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	20.131	20.115	(1.000)	419805	20.0000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134	Di-n-octylphthalate-d4	153	21.226	21.204	(1.000)	551992	20.0000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	22.300	22.278	(1.000)	420590	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	Compound Not Detected.					
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062607.D
Lab Smp Id: 18F0226-01
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180626.b\SW846180516.m
Misc Info: 18-

Calibration Date: 26-JUN-2018
Calibration Time: 10:31
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	139450	9.82
27 Naphthalene-d8	478458	239229	956916	516563	7.96
42 Acenaphthene-d10	247659	123830	495318	278244	12.35
59 Phenanthrene-d10	421930	210965	843860	472695	12.03
69 Chrysene-d12	450836	225418	901672	419805	-6.88
134 Di-n-octylphthala	583434	291717	1166868	551992	-5.39
77 Perylene-d12	453093	226547	906186	420590	-7.17

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.49	7.99	8.99	8.51	0.25
27 Naphthalene-d8	10.53	10.03	11.03	10.55	0.20
42 Acenaphthene-d10	13.40	12.90	13.90	13.42	0.12
59 Phenanthrene-d10	15.78	15.28	16.28	15.80	0.14
69 Chrysene-d12	20.12	19.62	20.62	20.13	0.08
134 Di-n-octylphthala	21.20	20.70	21.70	21.23	0.10
77 Perylene-d12	22.28	21.78	22.78	22.30	0.10

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062607.D

Lab ID: 18F0226-01
nt12.i, SW846180516.m, 26-JUN-2018 14:24

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-57

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D
Semivolatile Organic Compounds (SepF)

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-02	SDG:	18F0185
Sampled:	06/14/18 10:41	Prepared:	06/21/18 15:35	File ID:	N1218062608.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/26/18 14:58
Batch:	BGF0515	Sequence:	SGF0333	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT12	Column:	ZB-5MS	Calibration:	BE00052

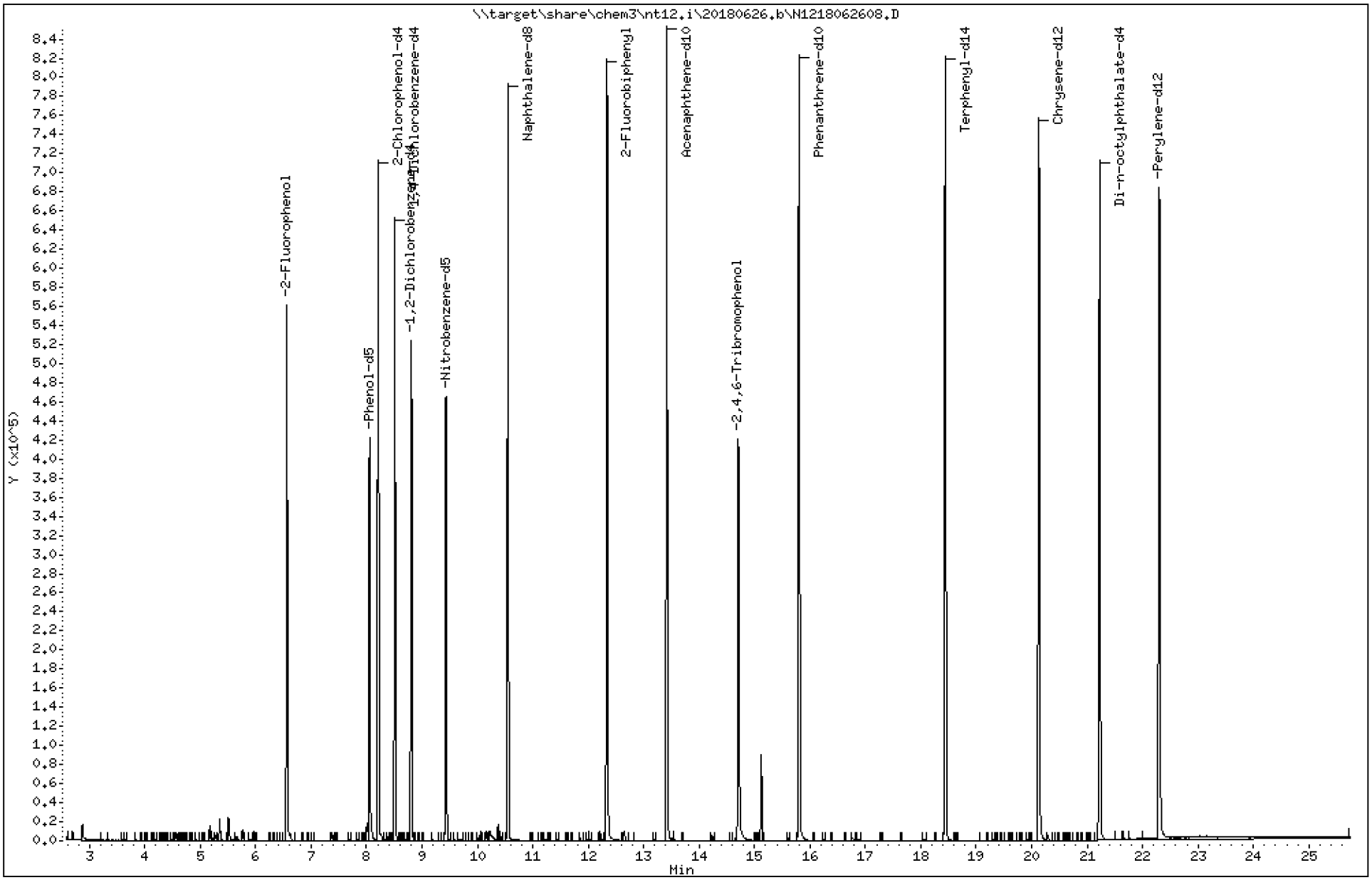
CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	3.0	U	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	23.1	61.6	32.5 - 120	
Phenol-d5	37.500	17.6	46.9	17.8 - 120	
2-Chlorophenol-d4	37.500	29.8	79.3	55 - 120	
1,2-Dichlorobenzene-d4	25.000	17.8	71.2	49.3 - 120	
Nitrobenzene-d5	25.000	20.9	83.7	56.1 - 120	
2-Fluorobiphenyl	25.000	19.3	77.2	54.4 - 120	
2,4,6-Tribromophenol	37.500	33.4	89.2	49.3 - 128	
p-Terphenyl-d14	25.000	27.6	110	60 - 120	

Data File: \\target\share\chem3\nt12.i\20180626.b\N1218062608.D
Date : 26-JUN-2018 14:58
Client ID:
Sample Info: 18F0226-02

Instrument: nt12.i
Operator: JZ
Column diameter: 0.32

Column phase: ZB-5msi



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 234 of 6523

ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180626.b\N1218062608.D
Lab Smp Id: 18F0226-02
Inj Date : 26-JUN-2018 14:58
Operator : JZ   Inst ID: nt12.i
Smp Info : 18F0226-02
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180626.b\SW846180516.m
Meth Date : 26-Jun-2018 13:52 jianqing   Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36   Cal File: N1218051608.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
$	1	2-Fluorophenol	112	6.561	6.535	(0.771)	240993	23.0840	23.08(R)
$	2	Phenol-d5	99	8.052	8.036	(0.946)	230455	17.5699	17.57(R)
	3	Phenol	94	Compound Not Detected.					
$	5	2-Chlorophenol-d4	132	8.212	8.191	(0.965)	299850	29.7531	29.75(R)
	4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6	2-Chlorophenol	128	Compound Not Detected.					
	7	1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8	1,4-Dichlorobenzene-d4	152	8.511	8.490	(1.000)	145444	20.0000	
	9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10	1,2-Dichlorobenzene-d4	152	8.810	8.789	(1.035)	120542	17.7956	17.80(R)
	12	1,2-Dichlorobenzene	146	Compound Not Detected.					
	11	Benzyl alcohol	108	Compound Not Detected.					
	14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
	13	2-Methylphenol	108	Compound Not Detected.					
	17	Hexachloroethane	117	Compound Not Detected.					
	16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15	4-Methylphenol	108	Compound Not Detected.					
$	18	Nitrobenzene-d5	82	9.430	9.414	(0.894)	235278	20.9169	20.92(R)
	19	Nitrobenzene	77	Compound Not Detected.					
	20	Isophorone	82	Compound Not Detected.					
	21	2-Nitrophenol	139	Compound Not Detected.					
	22	2,4-Dimethylphenol	107	Compound Not Detected.					
	23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24	Benzoic acid	105	Compound Not Detected.					
	25	2,4-Dichlorophenol	162	Compound Not Detected.					
	26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27	Naphthalene-d8	136	10.552	10.531	(1.000)	549917	20.0000	
	28	Naphthalene	128	Compound Not Detected.					
	29	4-Chloroaniline	127	Compound Not Detected.					
	30	Hexachlorobutadiene	225	Compound Not Detected.					
	31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32	2-Methylnaphthalene	141	Compound Not Detected.					
	33	Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	12.336	12.320	(0.920)	399370	19.3113	19.31(R)
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	13.415	13.399	(1.000)	290778	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	Compound Not Detected.					
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	Compound Not Detected.					
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	14.714	14.692	(1.097)	81393	33.4356	33.44(R)
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	15.803	15.782	(1.000)	498626	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	Compound Not Detected.					
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	18.442	18.416	(0.916)	476560	27.6149	27.61(R)
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	20.131	20.115	(1.000)	447989	20.0000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134	Di-n-octylphthalate-d4	153	21.226	21.204	(1.000)	584098	20.0000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	22.299	22.278	(1.000)	440396	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	Compound Not Detected.					
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062608.D
Lab Smp Id: 18F0226-02
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180626.b\SW846180516.m
Misc Info: 18-

Calibration Date: 26-JUN-2018
Calibration Time: 10:31
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	145444	14.54
27 Naphthalene-d8	478458	239229	956916	549917	14.94
42 Acenaphthene-d10	247659	123830	495318	290778	17.41
59 Phenanthrene-d10	421930	210965	843860	498626	18.18
69 Chrysene-d12	450836	225418	901672	447989	-0.63
134 Di-n-octylphthala	583434	291717	1166868	584098	0.11
77 Perylene-d12	453093	226547	906186	440396	-2.80

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.49	7.99	8.99	8.51	0.25
27 Naphthalene-d8	10.53	10.03	11.03	10.55	0.20
42 Acenaphthene-d10	13.40	12.90	13.90	13.42	0.12
59 Phenanthrene-d10	15.78	15.28	16.28	15.80	0.14
69 Chrysene-d12	20.12	19.62	20.62	20.13	0.08
134 Di-n-octylphthala	21.20	20.70	21.70	21.23	0.10
77 Perylene-d12	22.28	21.78	22.78	22.30	0.10

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062608.D

Lab ID: 18F0226-02
nt12.i, SW846180516.m, 26-JUN-2018 14:58

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-73

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D
Semivolatile Organic Compounds (SepF)

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-03	SDG:	18F0185
Sampled:	06/14/18 13:08	Prepared:	06/21/18 15:35	File ID:	N1218062611.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/26/18 16:41
Batch:	BGF0515	Sequence:	SGF0333	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT12	Column:	ZB-5MS	Calibration:	BE00052

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	3.0	U	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	26.5	70.6	32.5 - 120	
Phenol-d5	37.500	20.1	53.6	17.8 - 120	
2-Chlorophenol-d4	37.500	33.3	88.7	55 - 120	
1,2-Dichlorobenzene-d4	25.000	20.3	81.1	49.3 - 120	
Nitrobenzene-d5	25.000	23.8	95.3	56.1 - 120	
2-Fluorobiphenyl	25.000	22.3	89.2	54.4 - 120	
2,4,6-Tribromophenol	37.500	38.3	102	49.3 - 128	
p-Terphenyl-d14	25.000	30.3	121	60 - 120	*

Data File: \\target\share\chem3\nt12.i\20180626.b\N1218062611.D

Date : 26-JUN-2018 16:41

Client ID:

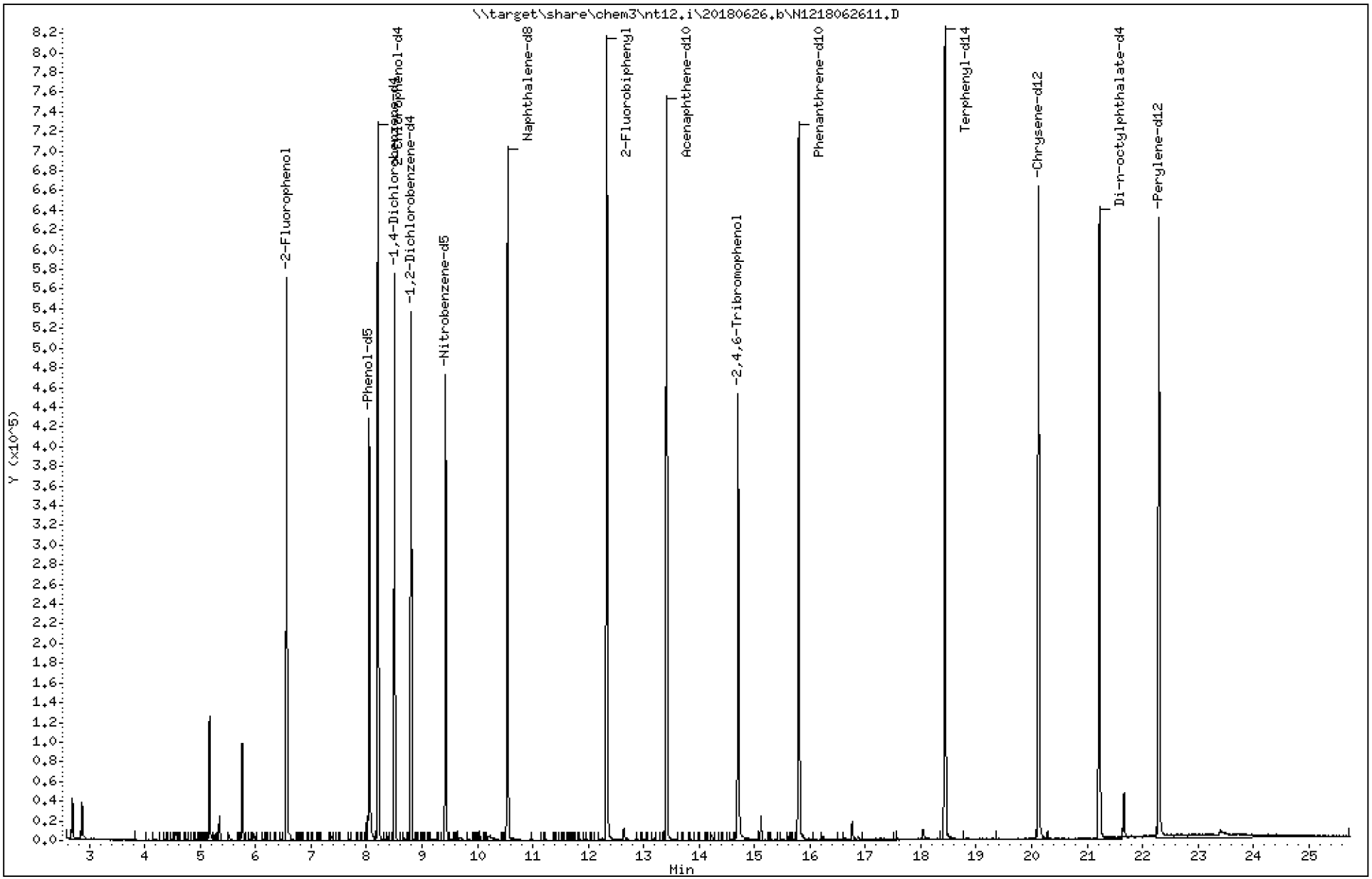
Instrument: nt12.i

Sample Info: 18F0226-03

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



Data File: \\target\share\chem3\nt12.i\20180626.b\N1218062611.D

Date : 26-JUN-2018 16:41

Client ID:

Instrument: nt12.i

Sample Info: 18F0226-03

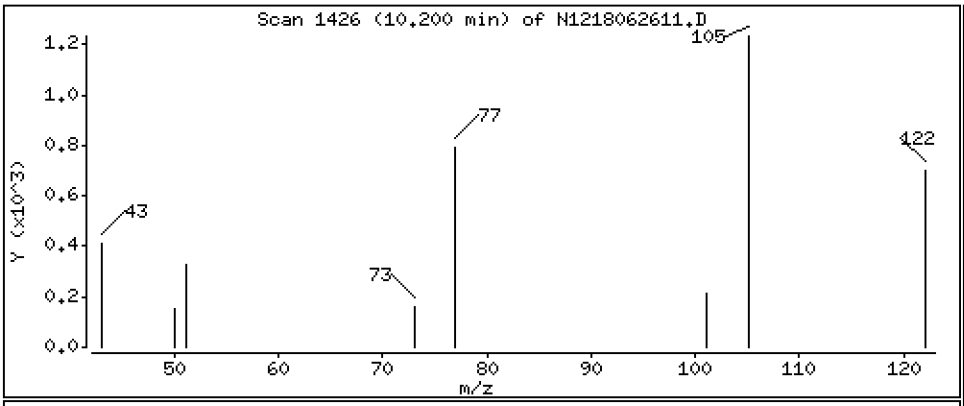
Operator: JZ

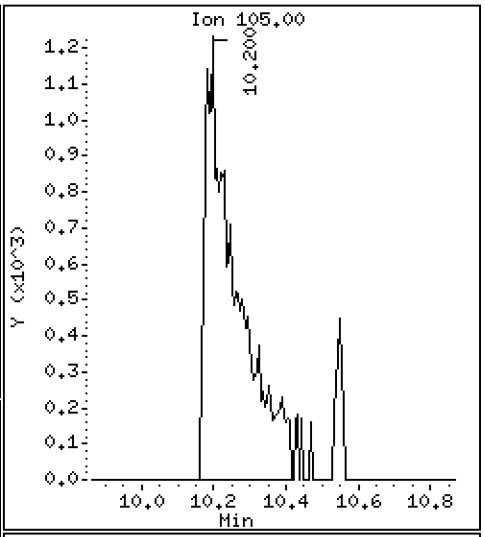
Column phase: ZB-5msi

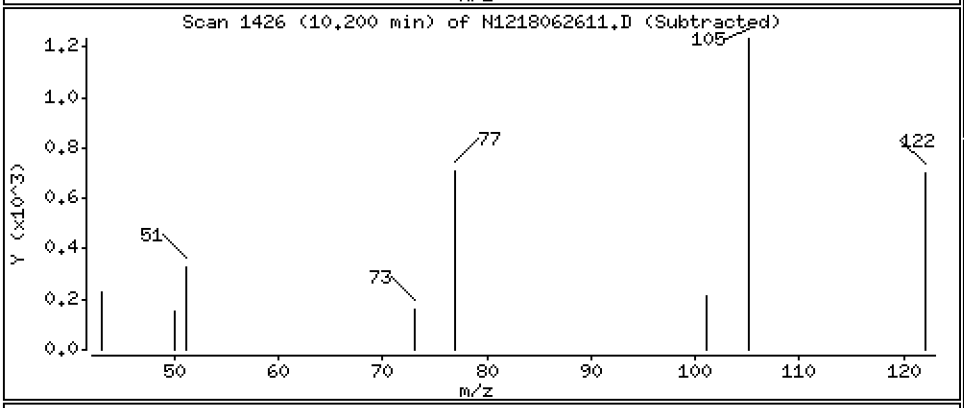
Column diameter: 0.32

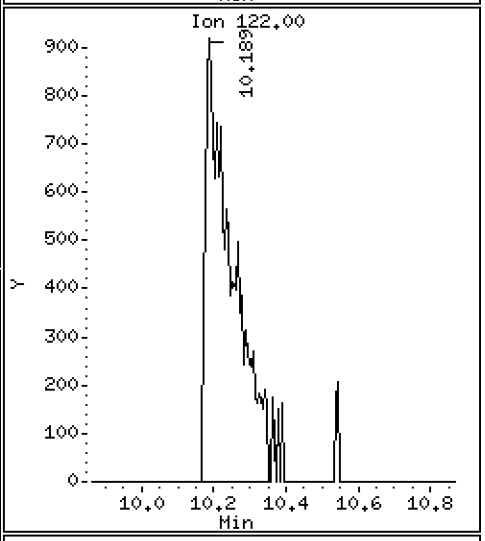
24 Benzoic acid

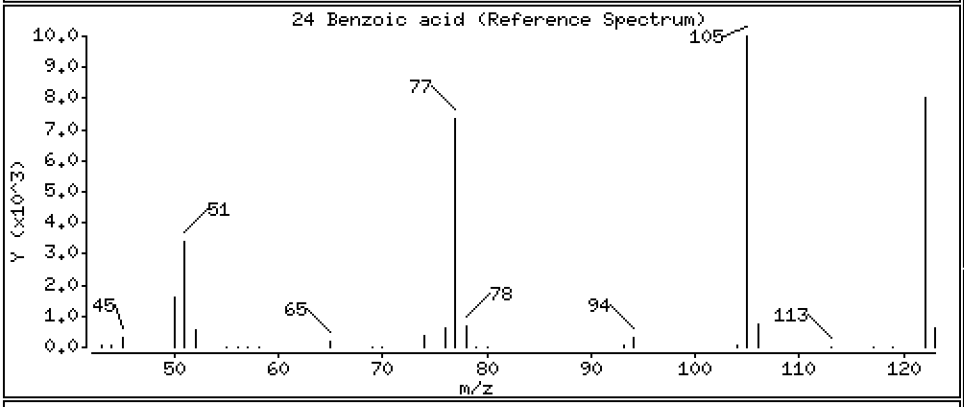
Concentration: 1.040 ug/mL

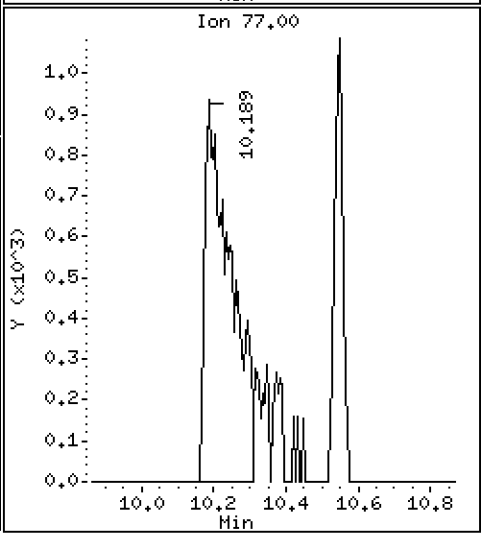


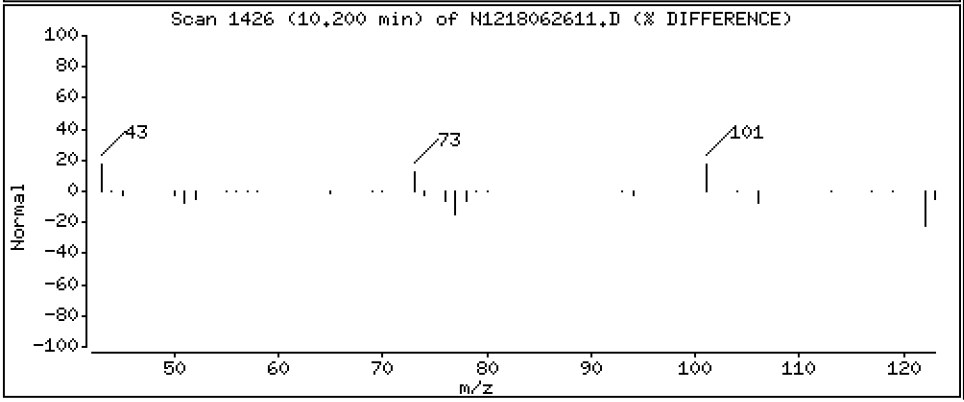












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180626.b\N1218062611.D
Lab Smp Id: 18F0226-03
Inj Date : 26-JUN-2018 16:41
Operator : JZ Inst ID: nt12.i
Smp Info : 18F0226-03
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180626.b\SW846180516.m
Meth Date : 27-Jun-2018 13:26 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1	2-Fluorophenol	112	6.556	6.556	(0.771)	249359	26.4935	26.49(R)
$	2	Phenol-d5	99	8.047	8.057	(0.946)	237554	20.0888	20.09(R)
	3	Phenol	94	Compound Not Detected.					
$	5	2-Chlorophenol-d4	132	8.207	8.207	(0.965)	302274	33.2687	33.27(R)
	4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6	2-Chlorophenol	128	Compound Not Detected.					
	7	1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8	1,4-Dichlorobenzene-d4	152	8.506	8.506	(1.000)	131126	20.0000	
	9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10	1,2-Dichlorobenzene-d4	152	8.805	8.805	(1.035)	123865	20.2829	20.28(R)
	12	1,2-Dichlorobenzene	146	Compound Not Detected.					
	11	Benzyl alcohol	108	Compound Not Detected.					
	14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
	13	2-Methylphenol	108	Compound Not Detected.					
	17	Hexachloroethane	117	Compound Not Detected.					
	16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15	4-Methylphenol	108	Compound Not Detected.					
$	18	Nitrobenzene-d5	82	9.425	9.435	(0.894)	237128	23.8182	23.82(R)
	19	Nitrobenzene	77	Compound Not Detected.					
	20	Isophorone	82	Compound Not Detected.					
	21	2-Nitrophenol	139	Compound Not Detected.					
	22	2,4-Dimethylphenol	107	Compound Not Detected.					
	23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24	Benzoic acid	105	10.199	10.365	(0.968)	7208	1.03992	1.040
	25	2,4-Dichlorophenol	162	Compound Not Detected.					
	26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27	Naphthalene-d8	136	10.541	10.546	(1.000)	486729	20.0000	
	28	Naphthalene	128	Compound Not Detected.					
	29	4-Chloroaniline	127	Compound Not Detected.					
	30	Hexachlorobutadiene	225	Compound Not Detected.					
	31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32	2-Methylnaphthalene	141	Compound Not Detected.					
	33	Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG					CONCENTRATIONS ON-COLUMN	CONCENTRATIONS FINAL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	12.331	12.336	(0.920)	407892	22.2967	22.30(R)
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	13.410	13.415	(1.000)	257218	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	Compound Not Detected.					
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	Compound Not Detected.					
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	14.703	14.713	(1.096)	82437	38.2828	38.28(R)
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	15.798	15.798	(1.000)	436754	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	Compound Not Detected.					
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	18.437	18.437	(0.916)	458124	30.2744	30.27(R)
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	20.125	20.130	(1.000)	392827	20.0000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134	Di-n-octylphthalate-d4	153	21.220	21.226	(1.000)	522389	20.0000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	22.294	22.299	(1.000)	379485	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	Compound Not Detected.					
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062611.D
Lab Smp Id: 18F0226-03
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180626.b\SW846180516.m
Misc Info: 18-

Calibration Date: 26-JUN-2018
Calibration Time: 22:20
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	131126	3.26
27 Naphthalene-d8	478458	239229	956916	486729	1.73
42 Acenaphthene-d10	247659	123830	495318	257218	3.86
59 Phenanthrene-d10	421930	210965	843860	436754	3.51
69 Chrysene-d12	450836	225418	901672	392827	-12.87
134 Di-n-octylphthala	583434	291717	1166868	522389	-10.46
77 Perylene-d12	453093	226547	906186	379485	-16.25

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.51	8.01	9.01	8.51	0.00
27 Naphthalene-d8	10.55	10.05	11.05	10.54	-0.05
42 Acenaphthene-d10	13.42	12.92	13.92	13.41	-0.04
59 Phenanthrene-d10	15.80	15.30	16.30	15.80	0.00
69 Chrysene-d12	20.13	19.63	20.63	20.13	-0.03
134 Di-n-octylphthala	21.23	20.73	21.73	21.22	-0.02
77 Perylene-d12	22.30	21.80	22.80	22.29	-0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062611.D

Lab ID: 18F0226-03
nt12.i, SW846180516.m, 26-JUN-2018 16:41

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-74

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D
Semivolatile Organic Compounds (SepF)

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-04	SDG:	18F0185
Sampled:	06/14/18 13:14	Prepared:	06/21/18 15:35	File ID:	N1218062612.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/26/18 17:15
Batch:	BGF0515	Sequence:	SGF0333	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT12	Column:	ZB-5MS	Calibration:	BE00052

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	3.0	U	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	22.4	59.6	32.5 - 120	
Phenol-d5	37.500	17.2	45.9	17.8 - 120	
2-Chlorophenol-d4	37.500	29.2	78.0	55 - 120	
1,2-Dichlorobenzene-d4	25.000	17.9	71.6	49.3 - 120	
Nitrobenzene-d5	25.000	21.0	83.9	56.1 - 120	
2-Fluorobiphenyl	25.000	20.0	80.0	54.4 - 120	
2,4,6-Tribromophenol	37.500	34.7	92.6	49.3 - 128	
p-Terphenyl-d14	25.000	27.7	111	60 - 120	

Data File: \\target\share\chem3\nt12.i\20180626.b\N1218062612.D

Date : 26-JUN-2018 17:15

Client ID:

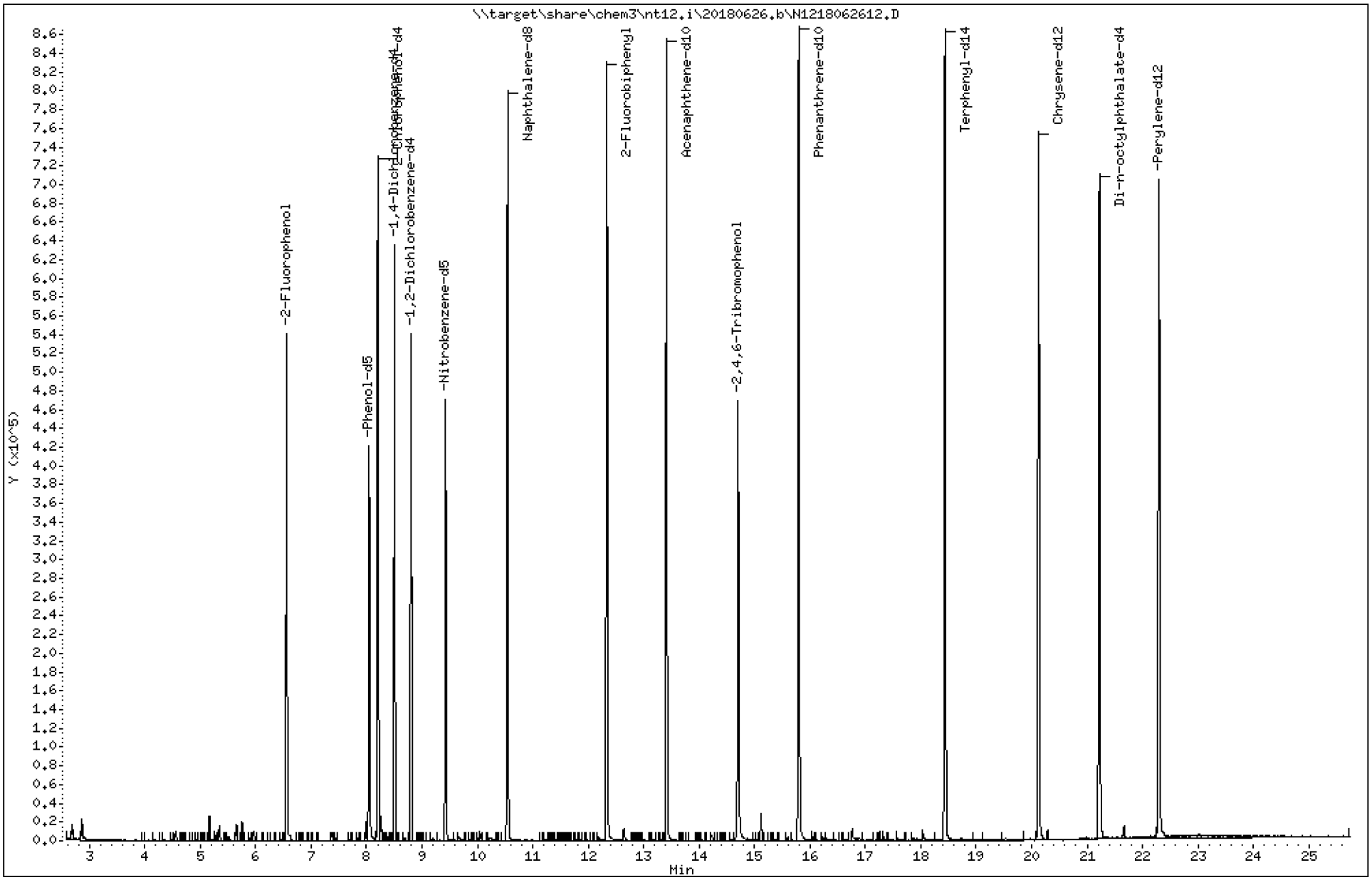
Instrument: nt12.i

Sample Info: 18F0226-04

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180626.b\N1218062612.D
Lab Smp Id: 18F0226-04
Inj Date : 26-JUN-2018 17:15
Operator : JZ Inst ID: nt12.i
Smp Info : 18F0226-04
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180626.b\SW846180516.m
Meth Date : 27-Jun-2018 13:26 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
$	1	2-Fluorophenol	112	6.556	6.556	(0.771)	235808	22.3554	22.36(R)
$	2	Phenol-d5	99	8.047	8.057	(0.946)	228092	17.2112	17.21(R)
	3	Phenol	94	Compound Not Detected.					
$	5	2-Chlorophenol-d4	132	8.202	8.207	(0.964)	297804	29.2466	29.25(R)
	4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6	2-Chlorophenol	128	Compound Not Detected.					
	7	1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8	1,4-Dichlorobenzene-d4	152	8.506	8.506	(1.000)	146953	20.0000	
	9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10	1,2-Dichlorobenzene-d4	152	8.805	8.805	(1.035)	122462	17.8934	17.89(R)
	12	1,2-Dichlorobenzene	146	Compound Not Detected.					
	11	Benzyl alcohol	108	Compound Not Detected.					
	14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
	13	2-Methylphenol	108	Compound Not Detected.					
	17	Hexachloroethane	117	Compound Not Detected.					
	16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15	4-Methylphenol	108	Compound Not Detected.					
$	18	Nitrobenzene-d5	82	9.425	9.435	(0.894)	234604	20.9855	20.99(R)
	19	Nitrobenzene	77	Compound Not Detected.					
	20	Isophorone	82	Compound Not Detected.					
	21	2-Nitrophenol	139	Compound Not Detected.					
	22	2,4-Dimethylphenol	107	Compound Not Detected.					
	23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24	Benzoic acid	105	Compound Not Detected.					
	25	2,4-Dichlorophenol	162	Compound Not Detected.					
	26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27	Naphthalene-d8	136	10.547	10.546	(1.000)	546548	20.0000	
	28	Naphthalene	128	Compound Not Detected.					
	29	4-Chloroaniline	127	Compound Not Detected.					
	30	Hexachlorobutadiene	225	Compound Not Detected.					
	31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32	2-Methylnaphthalene	141	Compound Not Detected.					
	33	Hexachlorocyclopentadiene	237	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$ 36	2-Fluorobiphenyl	172	12.331	12.336	(0.920)	415275	19.9953	20.00(R)
37	2-Chloronaphthalene	162	Compound Not Detected.					
38	2-Nitroaniline	65	Compound Not Detected.					
39	Dimethylphthalate	163	Compound Not Detected.					
40	Acenaphthylene	152	Compound Not Detected.					
41	2,6-Dinitrotoluene	165	Compound Not Detected.					
* 42	Acenaphthene-d10	164	13.410	13.415	(1.000)	292015	20.0000	
43	3-Nitroaniline	138	Compound Not Detected.					
44	Acenaphthene	153	Compound Not Detected.					
45	2,4-Dinitrophenol	184	Compound Not Detected.					
46	Dibenzofuran	168	Compound Not Detected.					
47	4-Nitrophenol	109	Compound Not Detected.					
48	2,4-Dinitrotoluene	165	Compound Not Detected.					
50	Diethylphthalate	149	Compound Not Detected.					
49	Fluorene	166	Compound Not Detected.					
51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
52	4-Nitroaniline	138	Compound Not Detected.					
53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$ 55	2,4,6-Tribromophenol	330	14.708	14.713	(1.097)	84912	34.7334	34.73(R)
56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
57	Hexachlorobenzene	284	Compound Not Detected.					
58	Pentachlorophenol	266	Compound Not Detected.					
* 59	Phenanthrene-d10	188	15.798	15.798	(1.000)	501215	20.0000	
60	Phenanthrene	178	Compound Not Detected.					
61	Anthracene	178	Compound Not Detected.					
62	Carbazole	167	Compound Not Detected.					
63	Di-n-butylphthalate	149	Compound Not Detected.					
64	Fluoranthene	202	Compound Not Detected.					
65	Pyrene	202	Compound Not Detected.					
$ 66	Terphenyl-d14	244	18.437	18.437	(0.916)	482008	27.6801	27.68(R)
67	Butylbenzylphthalate	149	Compound Not Detected.					
68	Benzo(a)anthracene	228	Compound Not Detected.					
* 69	Chrysene-d12	240	20.125	20.130	(1.000)	452044	20.0000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	Compound Not Detected.					
72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
* 134	Di-n-octylphthalate-d4	153	21.221	21.226	(1.000)	601243	20.0000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	Compound Not Detected.					
75	Benzo(k)fluoranthene	252	Compound Not Detected.					
76	Benzo(a)pyrene	252	Compound Not Detected.					
* 77	Perylene-d12	264	22.294	22.299	(1.000)	436027	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	141	Compound Not Detected.					
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062612.D
Lab Smp Id: 18F0226-04
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180626.b\SW846180516.m
Misc Info: 18-

Calibration Date: 26-JUN-2018
Calibration Time: 22:20
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	146953	15.73
27 Naphthalene-d8	478458	239229	956916	546548	14.23
42 Acenaphthene-d10	247659	123830	495318	292015	17.91
59 Phenanthrene-d10	421930	210965	843860	501215	18.79
69 Chrysene-d12	450836	225418	901672	452044	0.27
134 Di-n-octylphthala	583434	291717	1166868	601243	3.05
77 Perylene-d12	453093	226547	906186	436027	-3.77

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.51	8.01	9.01	8.51	0.00
27 Naphthalene-d8	10.55	10.05	11.05	10.55	0.00
42 Acenaphthene-d10	13.42	12.92	13.92	13.41	-0.04
59 Phenanthrene-d10	15.80	15.30	16.30	15.80	0.00
69 Chrysene-d12	20.13	19.63	20.63	20.13	-0.03
134 Di-n-octylphthala	21.23	20.73	21.73	21.22	-0.02
77 Perylene-d12	22.30	21.80	22.80	22.29	-0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062612.D

Lab ID: 18F0226-04
nt12.i, SW846180516.m, 26-JUN-2018 17:15

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-77

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D
Semivolatile Organic Compounds (SepF)

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-05	SDG:	18F0185
Sampled:	06/14/18 12:10	Prepared:	06/21/18 15:35	File ID:	N1218062613.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/26/18 17:49
Batch:	BGF0515	Sequence:	SGF0333	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT12	Column:	ZB-5MS	Calibration:	BE00052

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	3.0	U	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	23.2	62.0	32.5 - 120	
Phenol-d5	37.500	18.0	47.9	17.8 - 120	
2-Chlorophenol-d4	37.500	29.5	78.6	55 - 120	
1,2-Dichlorobenzene-d4	25.000	18.1	72.2	49.3 - 120	
Nitrobenzene-d5	25.000	20.6	82.5	56.1 - 120	
2-Fluorobiphenyl	25.000	19.3	77.3	54.4 - 120	
2,4,6-Tribromophenol	37.500	33.7	89.9	49.3 - 128	
p-Terphenyl-d14	25.000	26.7	107	60 - 120	

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Date : 26-JUN-2018 17:49

Client ID:

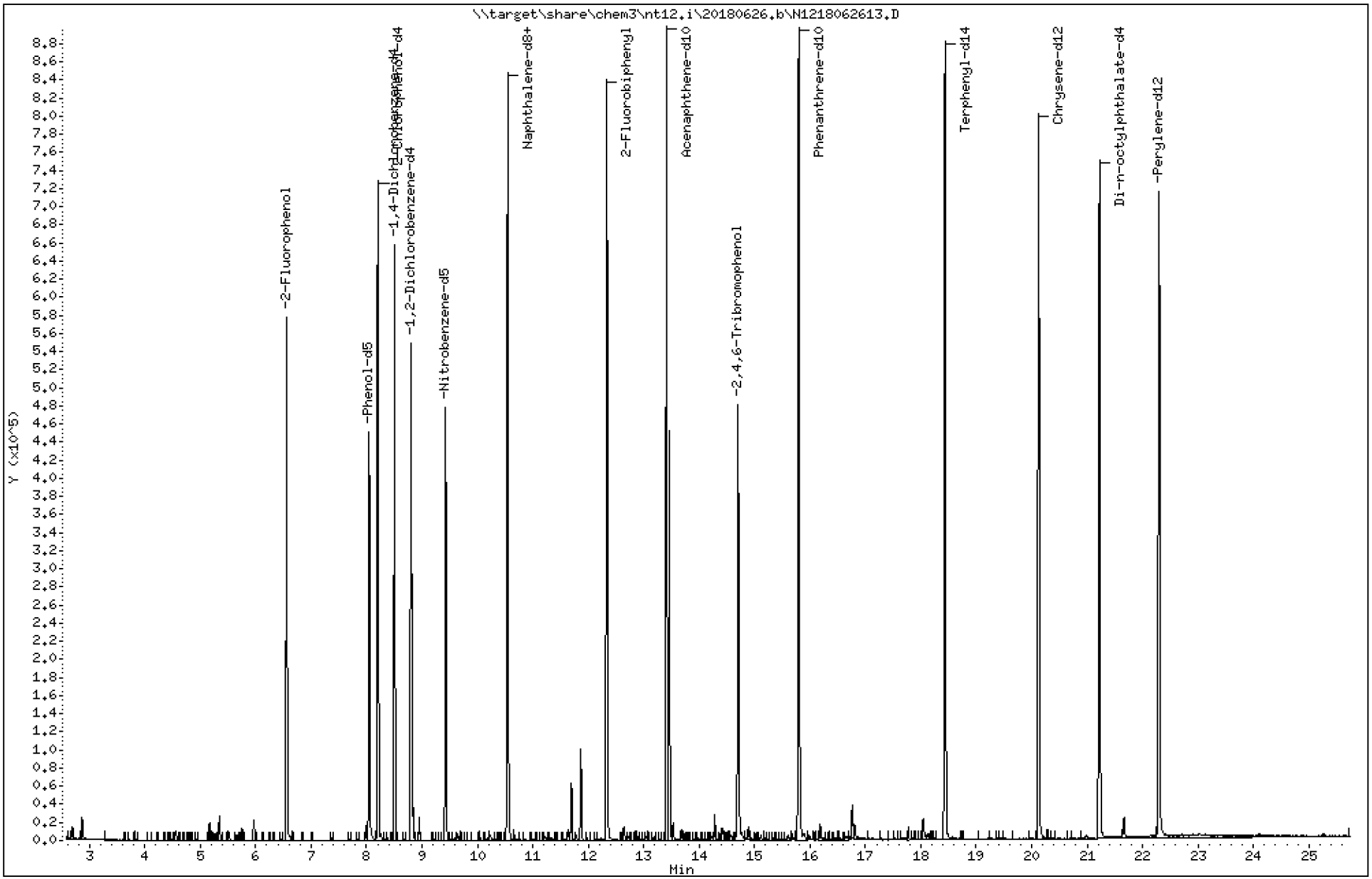
Instrument: nt12.i

Sample Info: 18F0226-05

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



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Date : 26-JUN-2018 17:49

Client ID:

Instrument: nt12.i

Sample Info: 18F0226-05

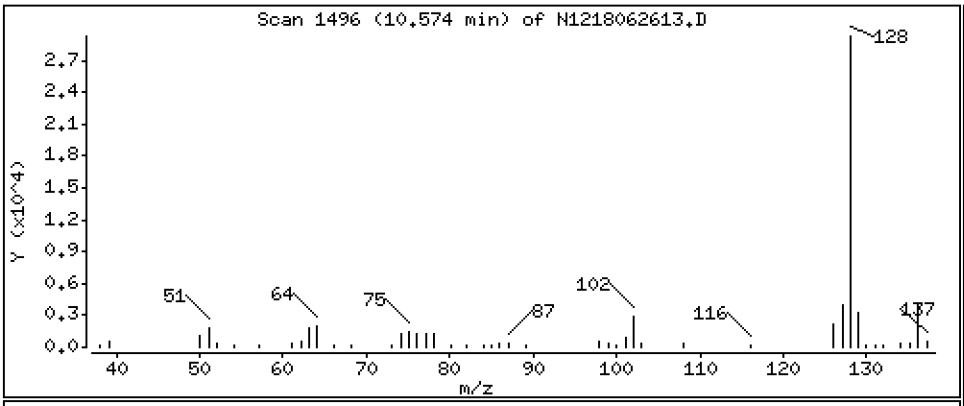
Operator: JZ

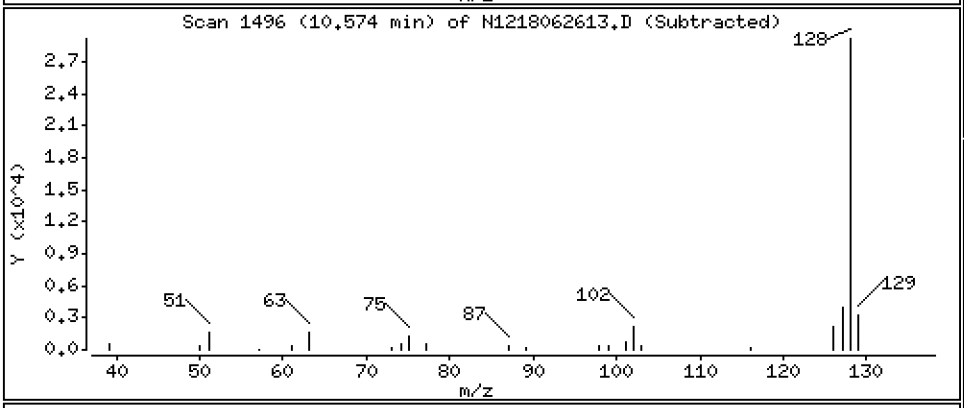
Column phase: ZB-5msi

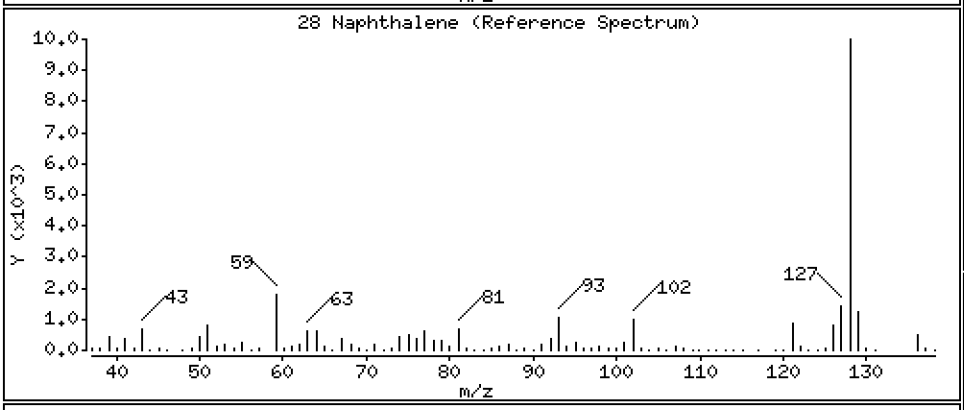
Column diameter: 0.32

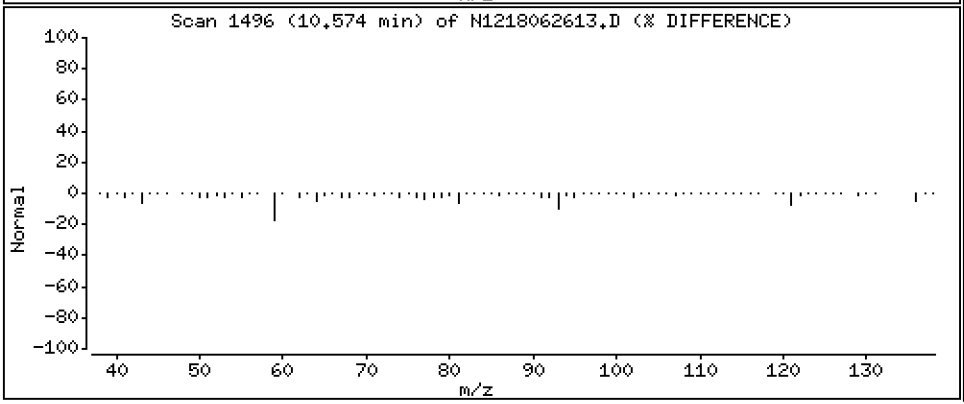
28 Naphthalene

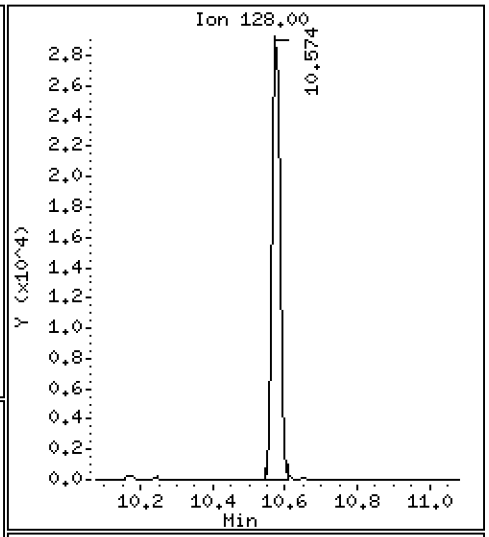
Concentration: 1.029 ug/mL

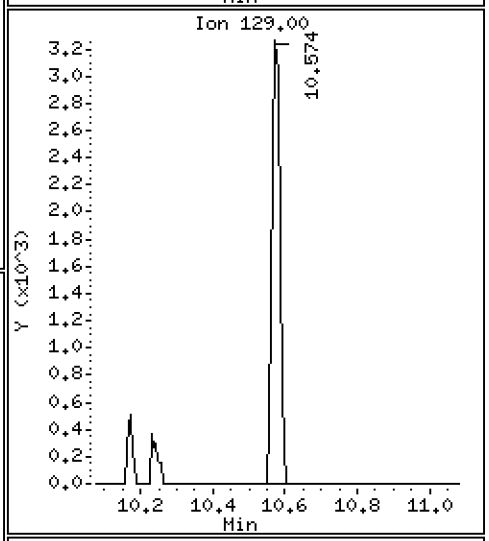


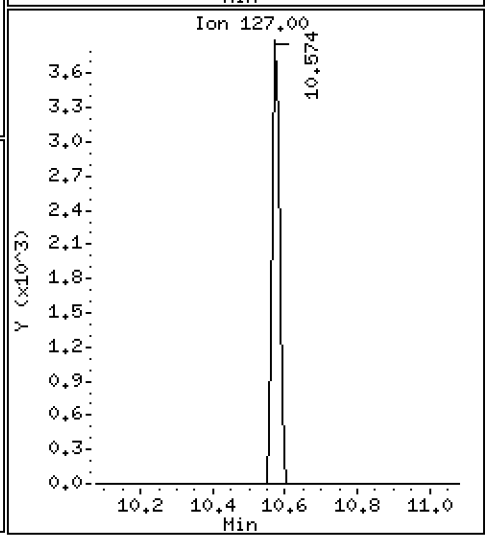












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Date : 26-JUN-2018 17:49

Client ID:

Instrument: nt12.i

Sample Info: 18F0226-05

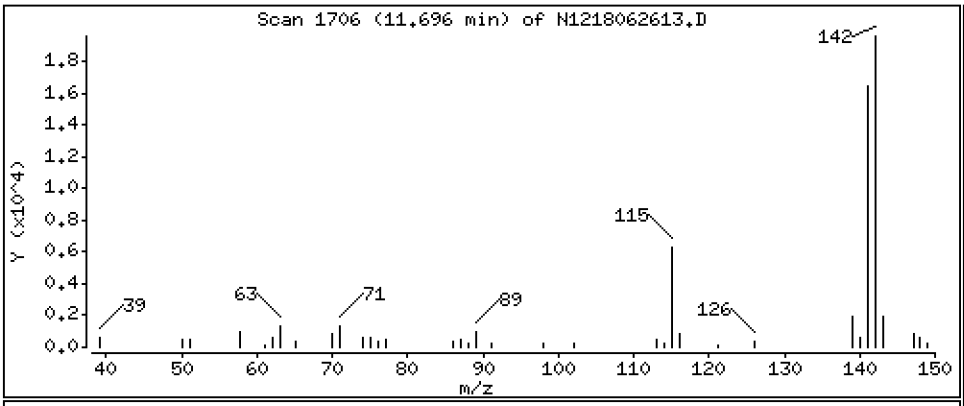
Operator: JZ

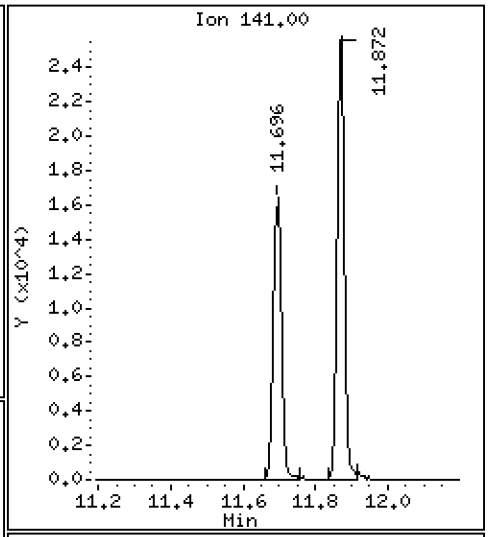
Column phase: ZB-5msi

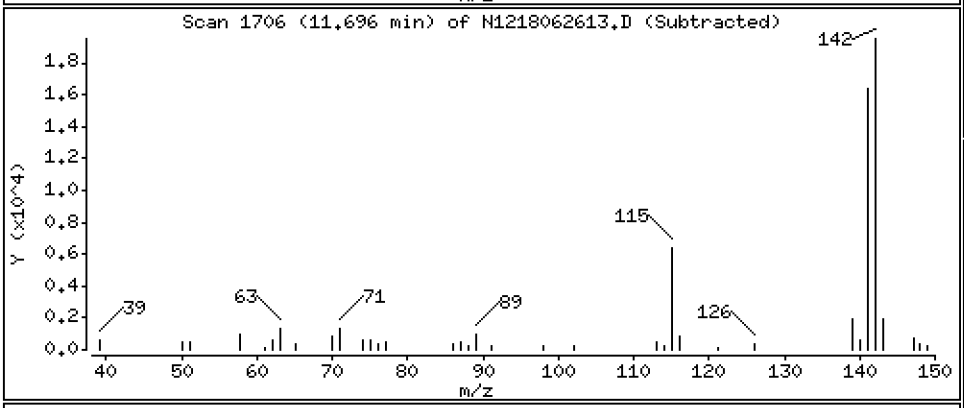
Column diameter: 0.32

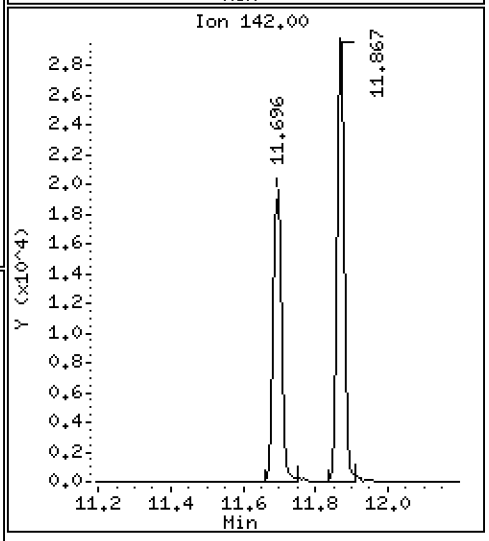
32 2-Methylnaphthalene

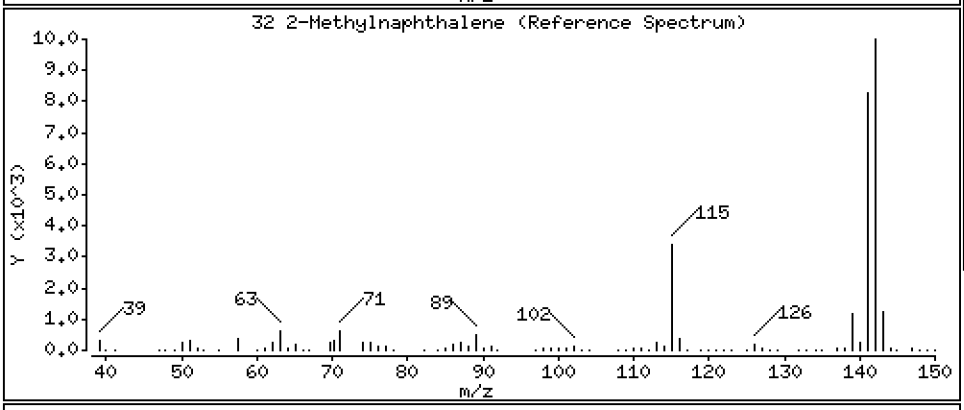
Concentration: 1.262 ug/mL

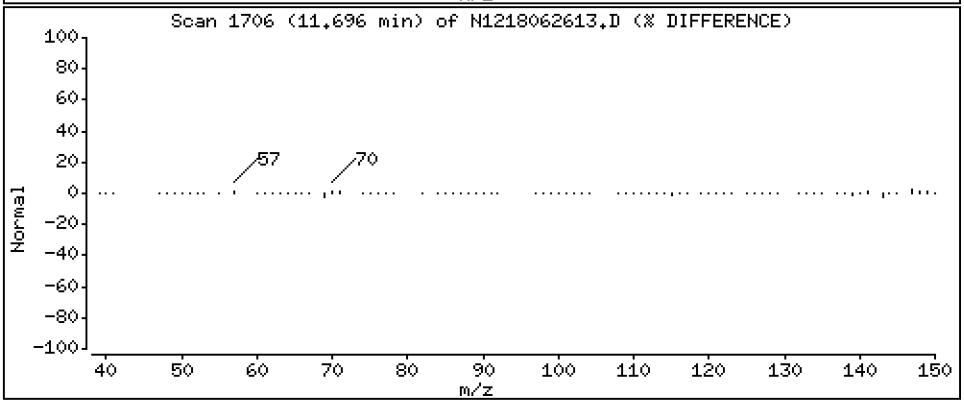












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Date : 26-JUN-2018 17:49

Client ID:

Instrument: nt12.i

Sample Info: 18F0226-05

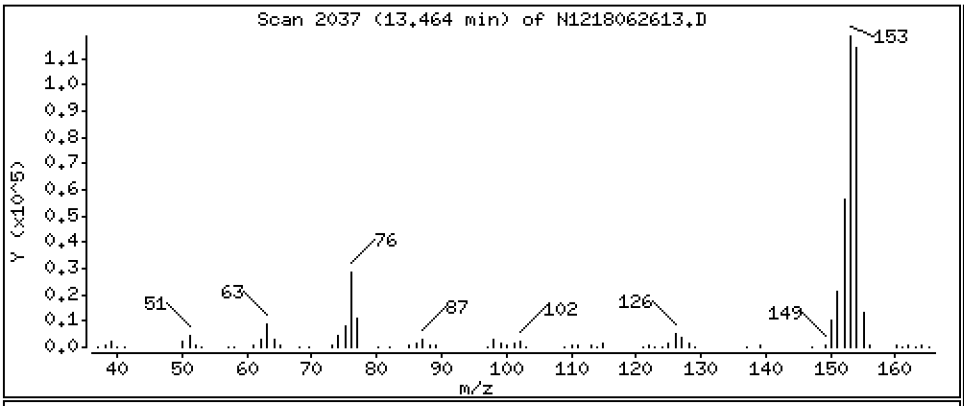
Operator: JZ

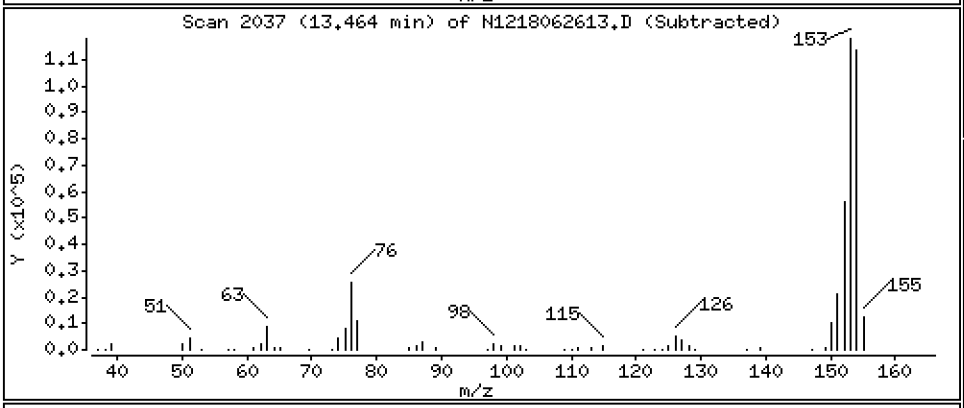
Column phase: ZB-5msi

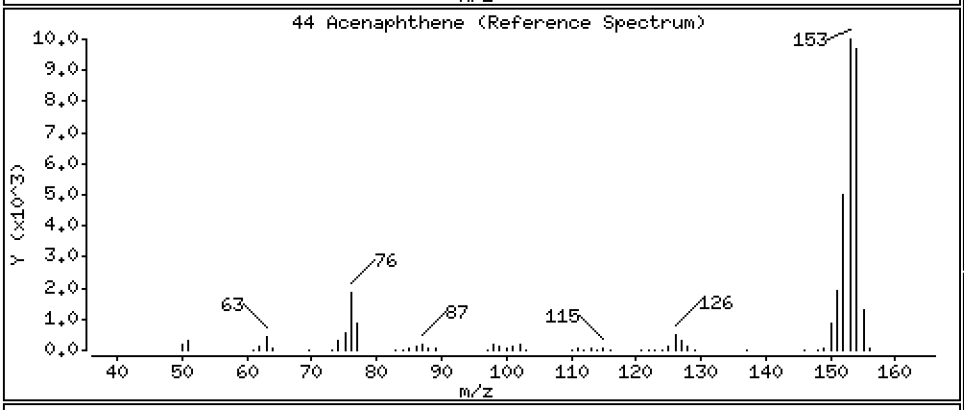
Column diameter: 0.32

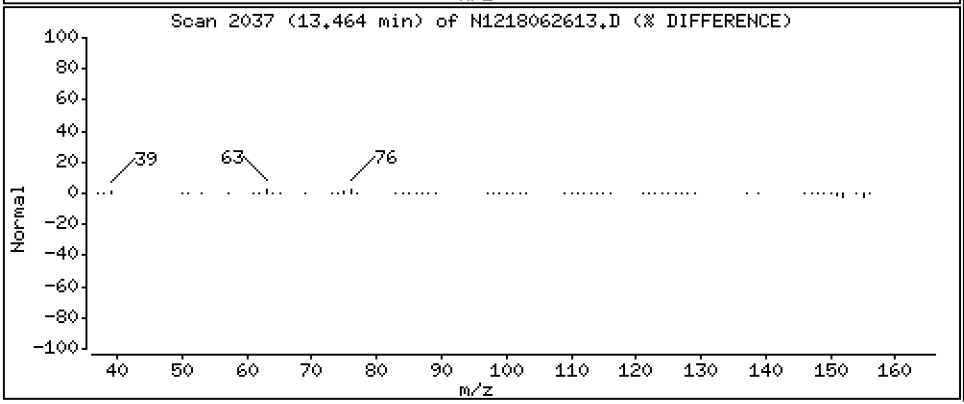
44 Acenaphthene

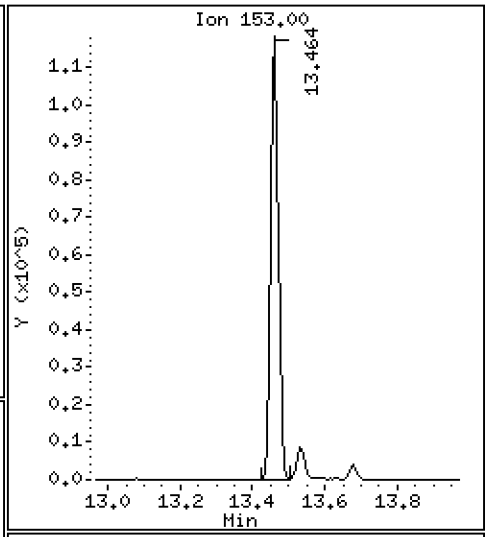
Concentration: 8.349 ug/mL

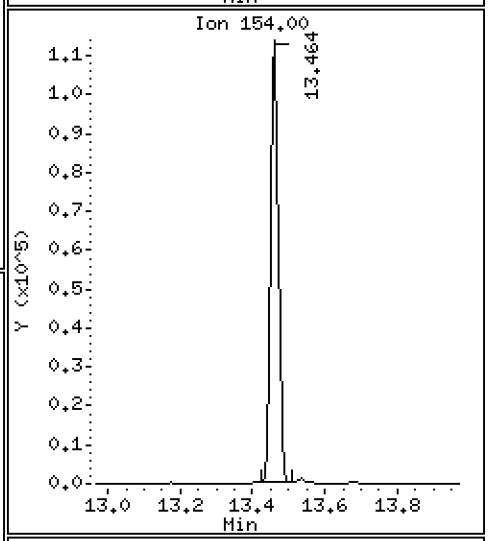


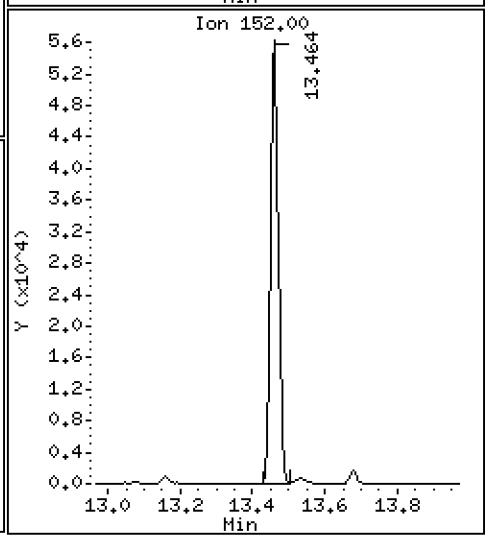












Data File: \\target\share\chem3\nt12.i\20180626.b\N1218062613.D

Date : 26-JUN-2018 17:49

Client ID:

Instrument: nt12.i

Sample Info: 18F0226-05

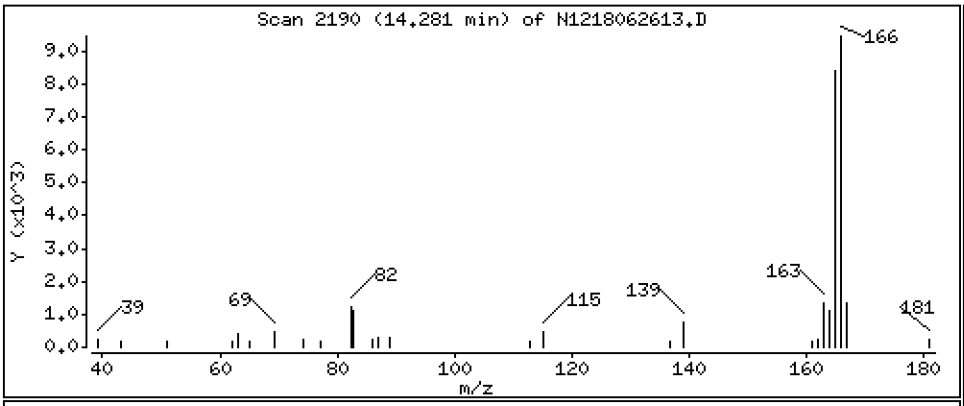
Operator: JZ

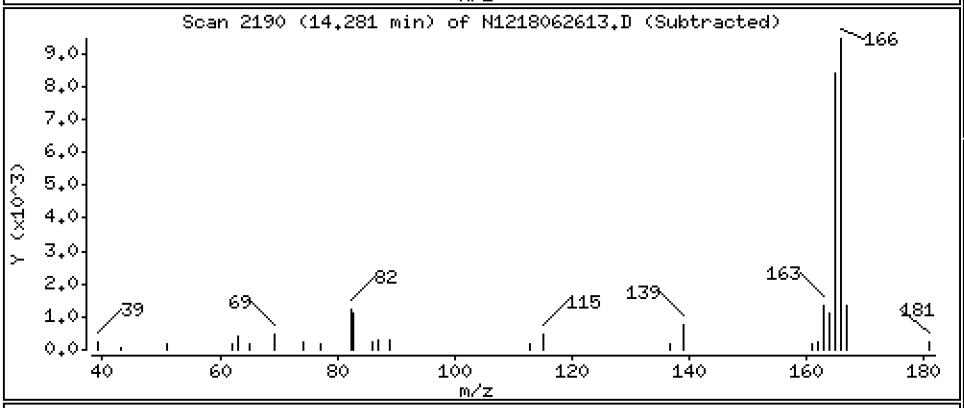
Column phase: ZB-5msi

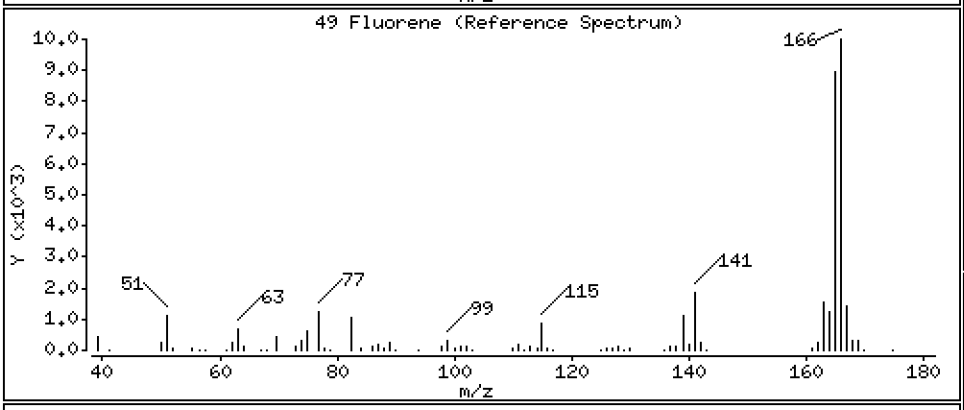
Column diameter: 0.32

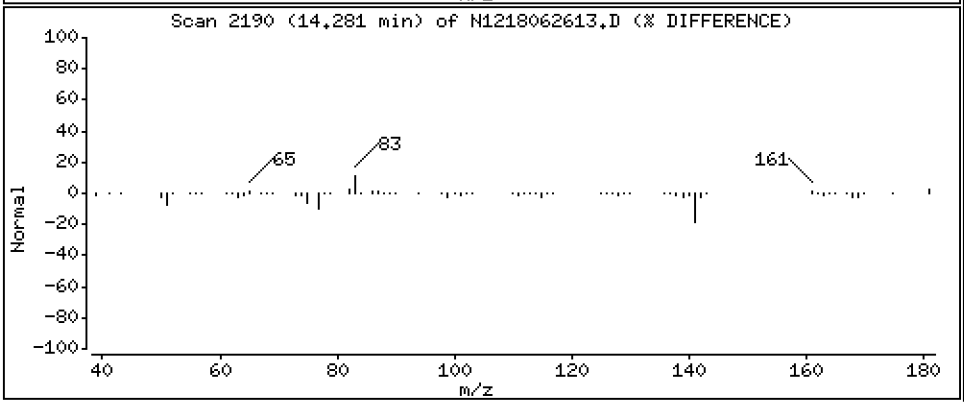
49 Fluorene

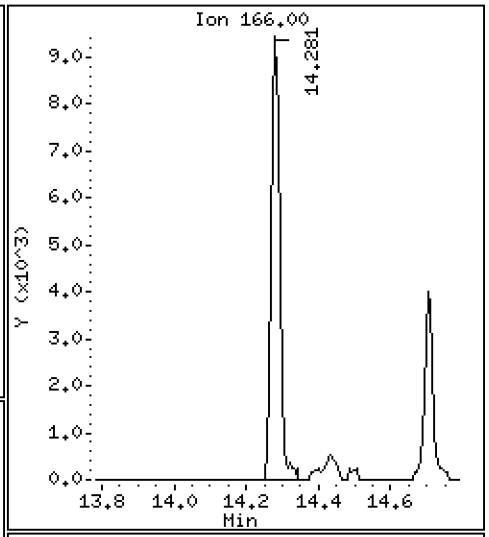
Concentration: 0.5530 ug/mL

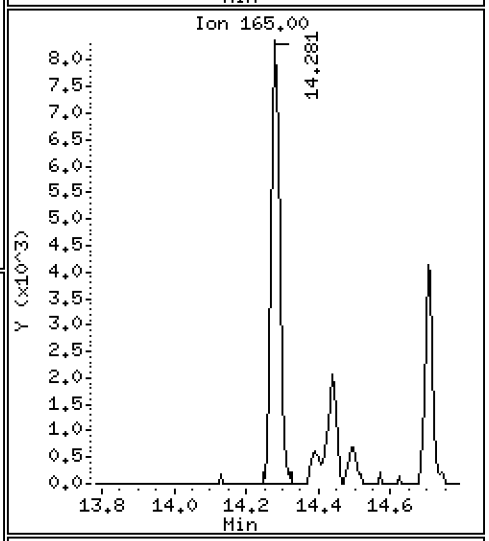


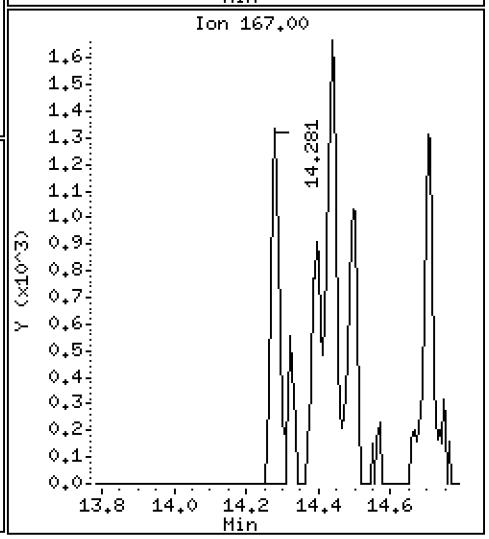












Data File: \\target\share\chem3\nt12.i\20180626.b\N1218062613.D

Date : 26-JUN-2018 17:49

Client ID:

Instrument: nt12.i

Sample Info: 18F0226-05

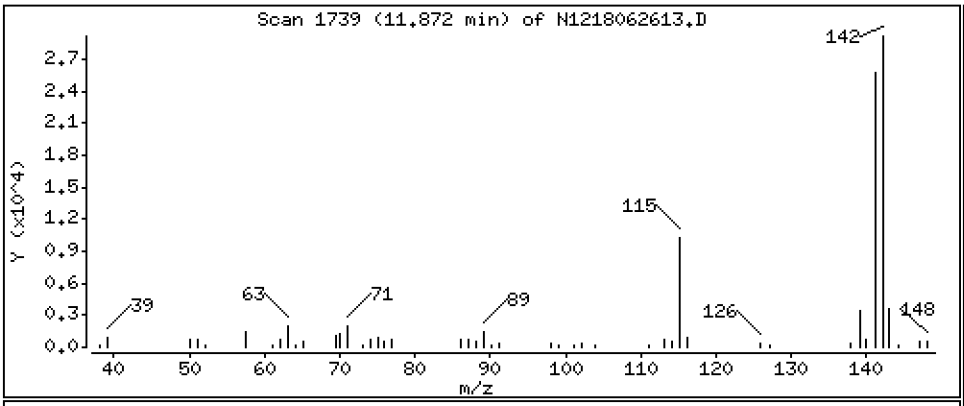
Operator: JZ

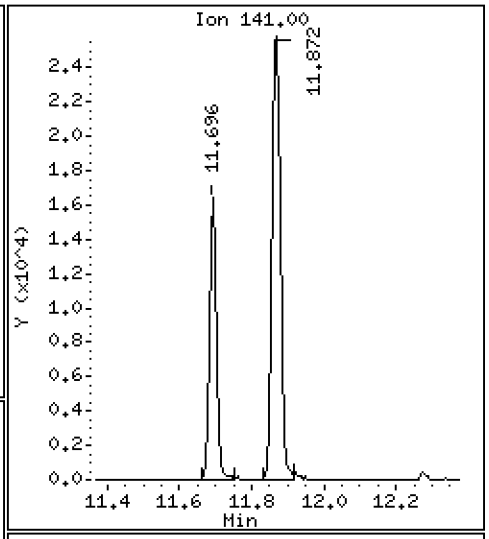
Column phase: ZB-5msi

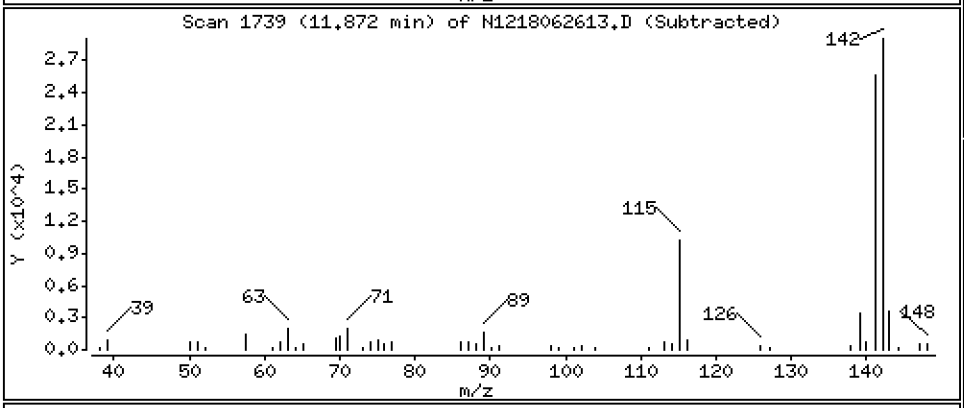
Column diameter: 0.32

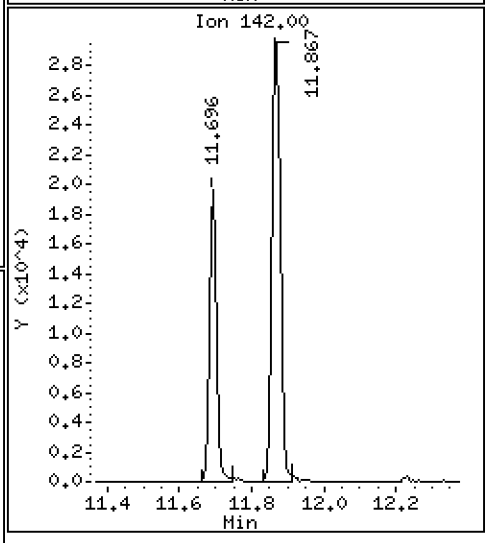
105 1-methylnaphthalene

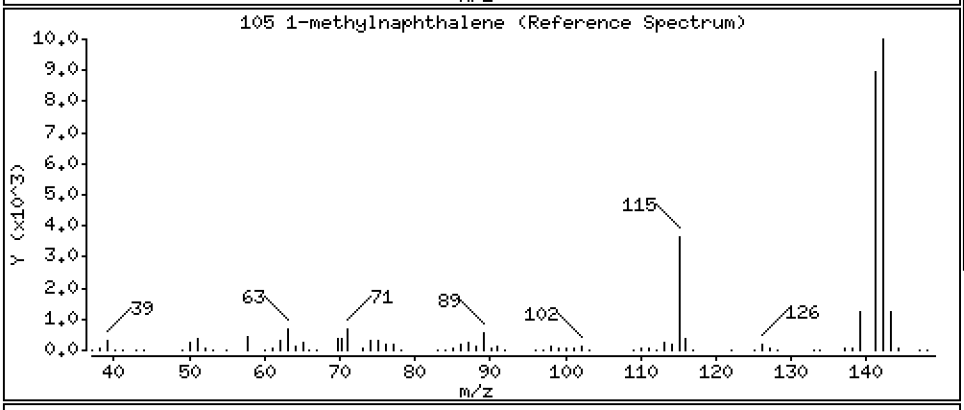
Concentration: 2.319 ug/mL

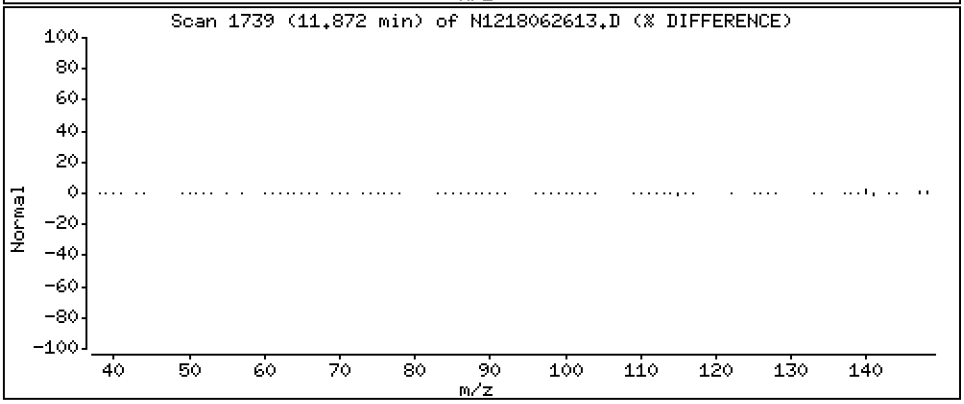












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180626.b\N1218062613.D
Lab Smp Id: 18F0226-05
Inj Date : 26-JUN-2018 17:49
Operator : JZ   Inst ID: nt12.i
Smp Info : 18F0226-05
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180626.b\SW846180516.m
Meth Date : 27-Jun-2018 13:26 jianqing   Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36   Cal File: N1218051608.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1	2-Fluorophenol	112	6.556	6.556	(0.771)	250504	23.2377	23.24(R)
$	2	Phenol-d5	99	8.046	8.057	(0.946)	243296	17.9635	17.96(R)
	3	Phenol	94	Compound Not Detected.					
$	5	2-Chlorophenol-d4	132	8.207	8.207	(0.965)	306822	29.4840	29.48(R)
	4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6	2-Chlorophenol	128	Compound Not Detected.					
	7	1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8	1,4-Dichlorobenzene-d4	152	8.506	8.506	(1.000)	150184	20.0000	
	9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10	1,2-Dichlorobenzene-d4	152	8.805	8.805	(1.035)	126292	18.0560	18.06(R)
	12	1,2-Dichlorobenzene	146	Compound Not Detected.					
	11	Benzyl alcohol	108	Compound Not Detected.					
	14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
	13	2-Methylphenol	108	Compound Not Detected.					
	17	Hexachloroethane	117	Compound Not Detected.					
	16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15	4-Methylphenol	108	Compound Not Detected.					
$	18	Nitrobenzene-d5	82	9.425	9.435	(0.894)	241439	20.6134	20.61(R)
	19	Nitrobenzene	77	Compound Not Detected.					
	20	Isophorone	82	Compound Not Detected.					
	21	2-Nitrophenol	139	Compound Not Detected.					
	22	2,4-Dimethylphenol	107	Compound Not Detected.					
	23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24	Benzoic acid	105	Compound Not Detected.					
	25	2,4-Dichlorophenol	162	Compound Not Detected.					
	26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27	Naphthalene-d8	136	10.547	10.546	(1.000)	572624	20.0000	
	28	Naphthalene	128	10.573	10.579	(1.003)	37197	1.02879	1.029
	29	4-Chloroaniline	127	Compound Not Detected.					
	30	Hexachlorobutadiene	225	Compound Not Detected.					
	31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32	2-Methylnaphthalene	141	11.695	11.695	(1.109)	21986	1.26196	1.262
	33	Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	12.331	12.336	(0.919)	417178	19.3228	19.32(R)
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	13.415	13.415	(1.000)	303563	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	13.463	13.469	(1.004)	156877	8.34859	8.349
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	Compound Not Detected.					
	49	Fluorene	166	14.281	14.286	(1.065)	13209	0.55305	0.5530
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	14.708	14.713	(1.096)	85665	33.7084	33.71(R)
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	15.798	15.798	(1.000)	521181	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	Compound Not Detected.					
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	18.437	18.437	(0.916)	482227	26.6795	26.68(R)
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	20.125	20.130	(1.000)	469210	20.0000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134	Di-n-octylphthalate-d4	153	21.220	21.226	(1.000)	624220	20.0000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	22.300	22.299	(1.000)	450871	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	11.871	11.871	(1.126)	36101	2.31888	2.319
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062613.D
Lab Smp Id: 18F0226-05
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180626.b\SW846180516.m
Misc Info: 18-

Calibration Date: 26-JUN-2018
Calibration Time: 22:20
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	150184	18.27
27 Naphthalene-d8	478458	239229	956916	572624	19.68
42 Acenaphthene-d10	247659	123830	495318	303563	22.57
59 Phenanthrene-d10	421930	210965	843860	521181	23.52
69 Chrysene-d12	450836	225418	901672	469210	4.08
134 Di-n-octylphthala	583434	291717	1166868	624220	6.99
77 Perylene-d12	453093	226547	906186	450871	-0.49

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.51	8.01	9.01	8.51	0.00
27 Naphthalene-d8	10.55	10.05	11.05	10.55	0.00
42 Acenaphthene-d10	13.42	12.92	13.92	13.42	0.00
59 Phenanthrene-d10	15.80	15.30	16.30	15.80	0.00
69 Chrysene-d12	20.13	19.63	20.63	20.13	-0.03
134 Di-n-octylphthala	21.23	20.73	21.73	21.22	-0.02
77 Perylene-d12	22.30	21.80	22.80	22.30	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062613.D

Lab ID: 18F0226-05
nt12.i, SW846180516.m, 26-JUN-2018 17:49

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

LDW18-SP-78

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D
Semivolatile Organic Compounds (SepF)

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-06	SDG:	18F0185
Sampled:	06/14/18 12:04	Prepared:	06/21/18 15:35	File ID:	N1218062614.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/26/18 18:23
Batch:	BGF0515	Sequence:	SGF0333	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT12	Column:	ZB-5MS	Calibration:	BE00052

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	3.0	U	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	22.2	59.3	32.5 - 120	
Phenol-d5	37.500	17.1	45.5	17.8 - 120	
2-Chlorophenol-d4	37.500	28.1	74.9	55 - 120	
1,2-Dichlorobenzene-d4	25.000	16.5	66.0	49.3 - 120	
Nitrobenzene-d5	25.000	20.0	80.1	56.1 - 120	
2-Fluorobiphenyl	25.000	18.2	72.7	54.4 - 120	
2,4,6-Tribromophenol	37.500	32.4	86.4	49.3 - 128	
p-Terphenyl-d14	25.000	26.5	106	60 - 120	

Data File: \\target\share\chem3\nt12.i\20180626.b\N1218062614.D

Page 1

Date : 26-JUN-2018 18:23

Client ID:

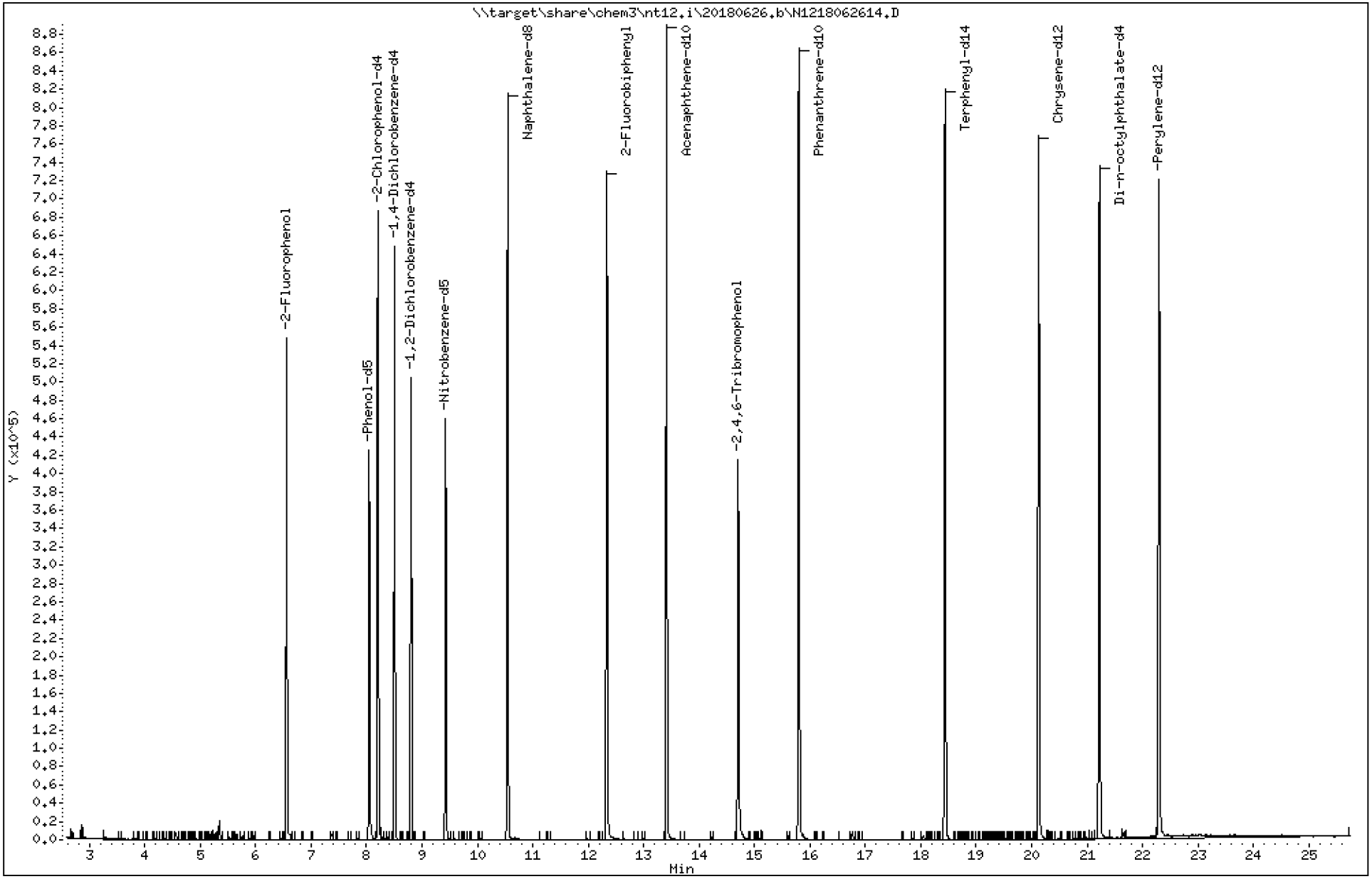
Instrument: nt12.i

Sample Info: 18F0226-06

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 268 of 6523

ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180626.b\N1218062614.D
Lab Smp Id: 18F0226-06
Inj Date : 26-JUN-2018 18:23
Operator : JZ   Inst ID: nt12.i
Smp Info : 18F0226-06
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180626.b\SW846180516.m
Meth Date : 27-Jun-2018 13:26 jianqing   Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36   Cal File: N1218051608.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.556	6.556	(0.771)	237114	22.2373	22.24(R)
$	2 Phenol-d5	99	8.046	8.057	(0.946)	228575	17.0620	17.06(R)
	3 Phenol	94	Compound Not Detected.					
$	5 2-Chlorophenol-d4	132	8.207	8.207	(0.965)	288989	28.0754	28.08(R)
	4 Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6 2-Chlorophenol	128	Compound Not Detected.					
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	8.506	8.506	(1.000)	148552	20.0000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	8.805	8.805	(1.035)	114146	16.4988	16.50(R)
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	Compound Not Detected.					
	14 2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
	13 2-Methylphenol	108	Compound Not Detected.					
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	9.430	9.435	(0.894)	227066	20.0263	20.03(R)
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.547	10.546	(1.000)	554325	20.0000	
	28 Naphthalene	128	Compound Not Detected.					
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	141	Compound Not Detected.					
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG					CONCENTRATIONS ON-COLUMN	CONCENTRATIONS FINAL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	12.336	12.336	(0.920)	380558	18.1808	18.18(R)
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	13.415	13.415	(1.000)	294310	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	Compound Not Detected.					
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	Compound Not Detected.					
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	14.708	14.713	(1.096)	79815	32.3939	32.39(R)
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	15.798	15.798	(1.000)	506939	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	Compound Not Detected.					
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	18.437	18.437	(0.916)	464265	26.5498	26.55(R)
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	20.125	20.130	(1.000)	453939	20.0000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134	Di-n-octylphthalate-d4	153	21.220	21.226	(1.000)	594565	20.0000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	22.294	22.299	(1.000)	439590	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	Compound Not Detected.					
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062614.D
Lab Smp Id: 18F0226-06
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180626.b\SW846180516.m
Misc Info: 18-

Calibration Date: 26-JUN-2018
Calibration Time: 22:20
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	148552	16.99
27 Naphthalene-d8	478458	239229	956916	554325	15.86
42 Acenaphthene-d10	247659	123830	495318	294310	18.84
59 Phenanthrene-d10	421930	210965	843860	506939	20.15
69 Chrysene-d12	450836	225418	901672	453939	0.69
134 Di-n-octylphthala	583434	291717	1166868	594565	1.91
77 Perylene-d12	453093	226547	906186	439590	-2.98

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.51	8.01	9.01	8.51	0.00
27 Naphthalene-d8	10.55	10.05	11.05	10.55	0.00
42 Acenaphthene-d10	13.42	12.92	13.92	13.42	0.00
59 Phenanthrene-d10	15.80	15.30	16.30	15.80	0.00
69 Chrysene-d12	20.13	19.63	20.63	20.13	-0.03
134 Di-n-octylphthala	21.23	20.73	21.73	21.22	-0.02
77 Perylene-d12	22.30	21.80	22.80	22.29	-0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062614.D

Lab ID: 18F0226-06
nt12.i, SW846180516.m, 26-JUN-2018 18:23

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

LDW18-SP-79

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D
Semivolatile Organic Compounds (SepF)

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-07	SDG:	18F0185
Sampled:	06/14/18 09:50	Prepared:	06/21/18 15:35	File ID:	N1218062615.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/26/18 18:57
Batch:	BGF0515	Sequence:	SGF0333	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT12	Column:	ZB-5MS	Calibration:	BE00052

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	1.4	J	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	23.9	63.7	32.5 - 120	
Phenol-d5	37.500	19.5	51.9	17.8 - 120	
2-Chlorophenol-d4	37.500	29.5	78.8	55 - 120	
1,2-Dichlorobenzene-d4	25.000	17.1	68.3	49.3 - 120	
Nitrobenzene-d5	25.000	20.4	81.6	56.1 - 120	
2-Fluorobiphenyl	25.000	18.7	74.8	54.4 - 120	
2,4,6-Tribromophenol	37.500	33.8	90.0	49.3 - 128	
p-Terphenyl-d14	25.000	27.6	110	60 - 120	

Data File: \\target\share\chem3\nt12.i\20180626.b\N1218062615.D

Date : 26-JUN-2018 18:57

Client ID:

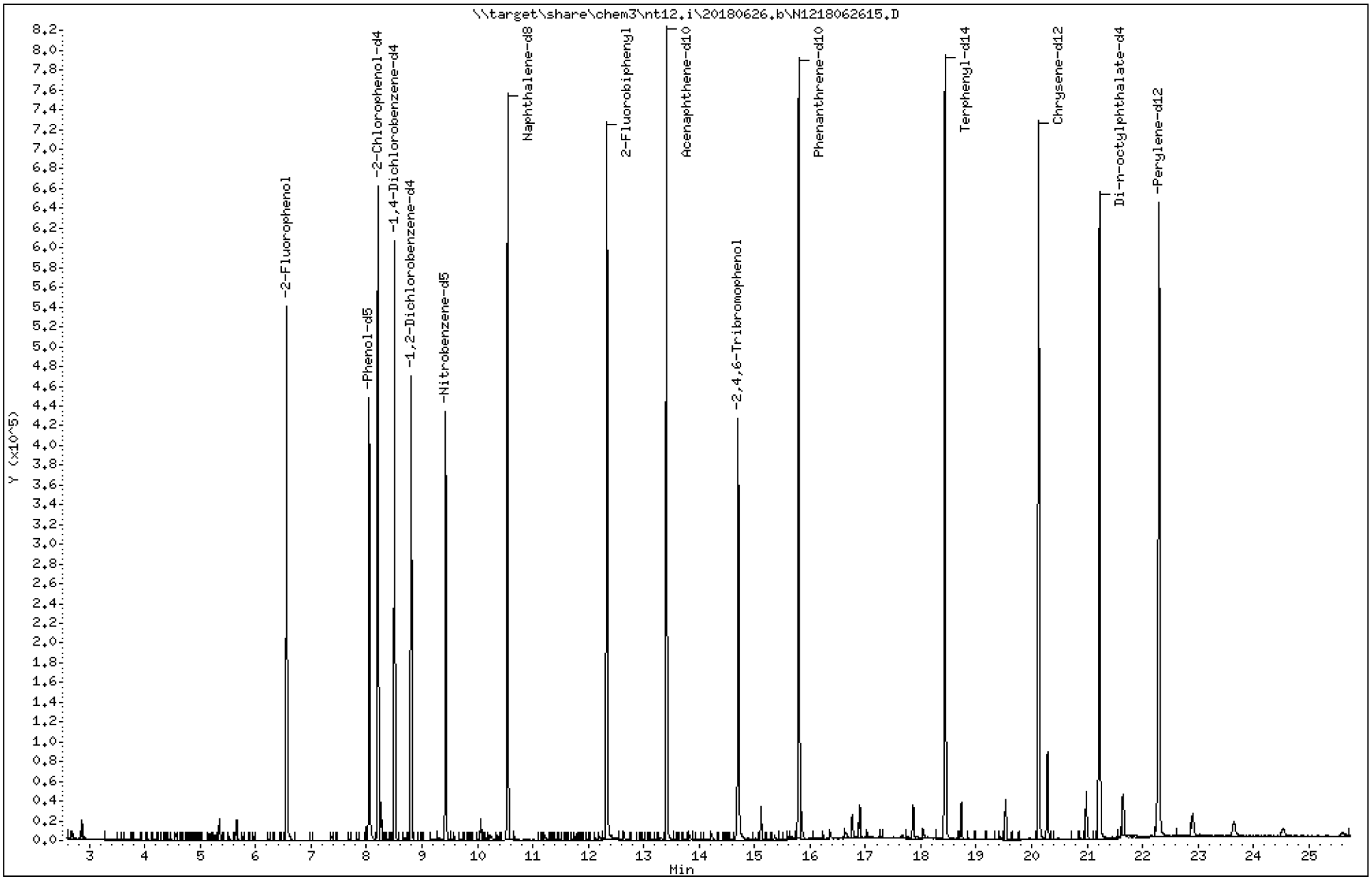
Instrument: nt12.i

Sample Info: 18F0226-07

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



Data File: \\target\share\chem3\nt12.i\20180626.b\N1218062615.D

Date : 26-JUN-2018 18:57

Client ID:

Instrument: nt12.i

Sample Info: 18F0226-07

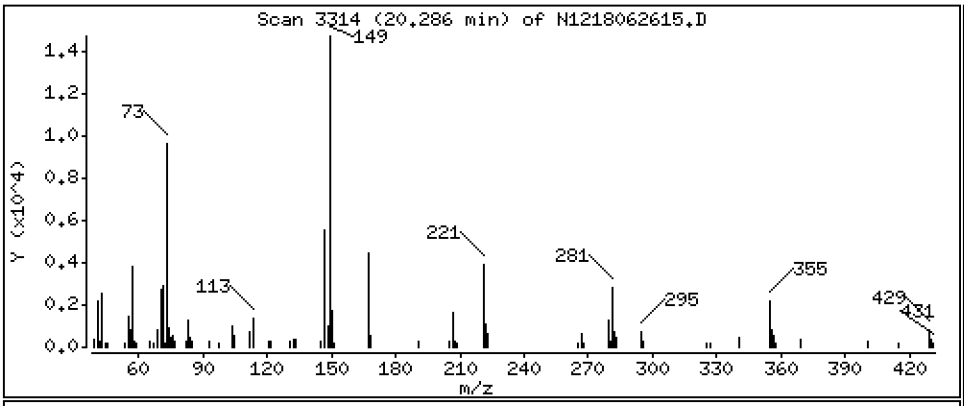
Operator: JZ

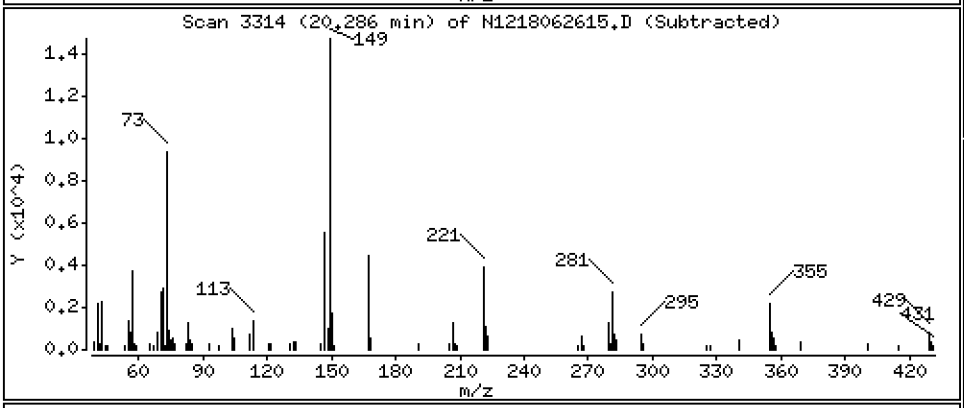
Column phase: ZB-5msi

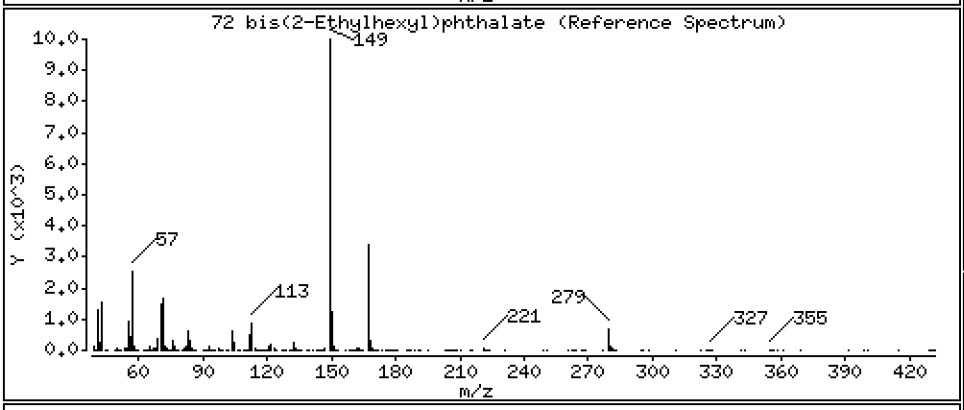
Column diameter: 0.32

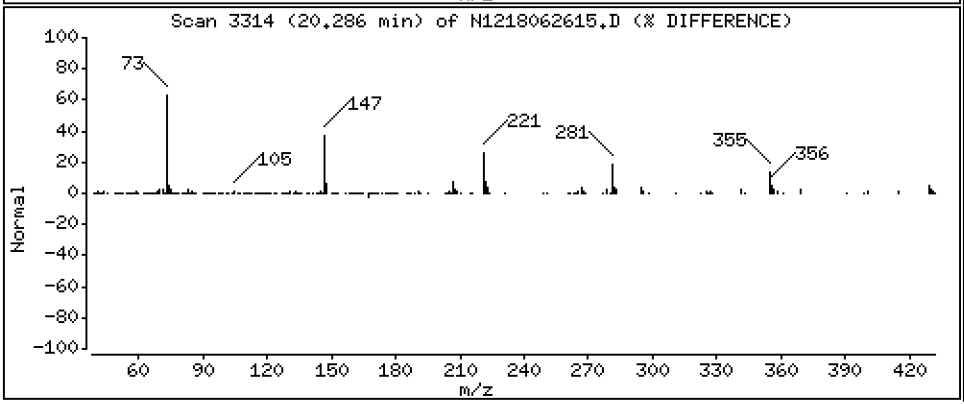
72 bis(2-Ethylhexyl)phthalate

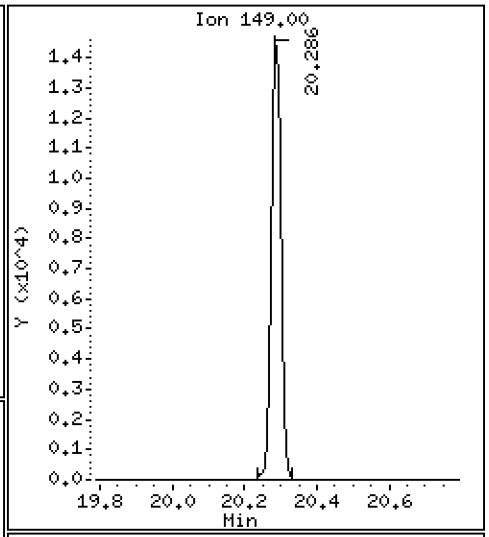
Concentration: 1.431 ug/mL

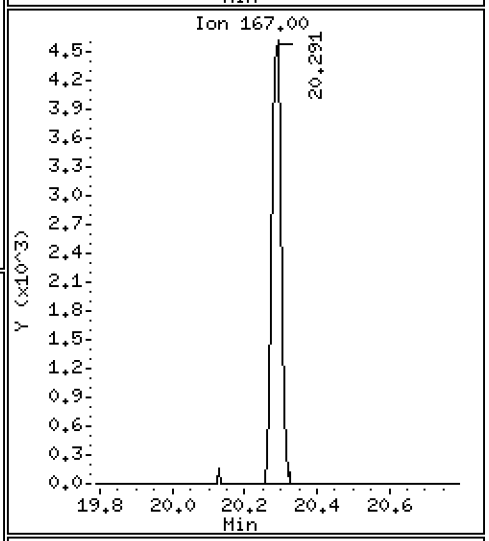


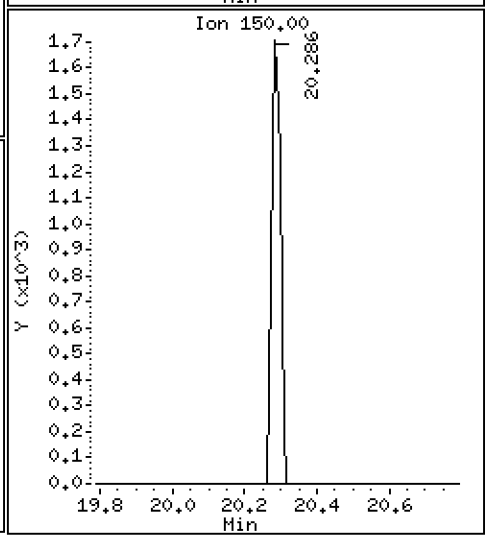












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180626.b\N1218062615.D
Lab Smp Id: 18F0226-07
Inj Date : 26-JUN-2018 18:57
Operator : JZ Inst ID: nt12.i
Smp Info : 18F0226-07
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180626.b\SW846180516.m
Meth Date : 27-Jun-2018 13:26 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

								CONCENTRATIONS	
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE		ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.556	6.556	(0.771)	233970		23.8842	23.88(R)
$	2 Phenol-d5	99	8.046	8.057	(0.946)	239710		19.4766	19.48(R)
	3 Phenol	94	Compound Not Detected.						
$	5 2-Chlorophenol-d4	132	8.207	8.207	(0.965)	279278		29.5330	29.53(R)
	4 Bis(2-Chloroethyl)ether	93	Compound Not Detected.						
	6 2-Chlorophenol	128	Compound Not Detected.						
	7 1,3-Dichlorobenzene	146	Compound Not Detected.						
*	8 1,4-Dichlorobenzene-d4	152	8.506	8.506	(1.000)	136475		20.0000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.						
$	10 1,2-Dichlorobenzene-d4	152	8.805	8.805	(1.035)	108498		17.0702	17.07(R)
	12 1,2-Dichlorobenzene	146	Compound Not Detected.						
	11 Benzyl alcohol	108	Compound Not Detected.						
	14 2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.						
	13 2-Methylphenol	108	Compound Not Detected.						
	17 Hexachloroethane	117	Compound Not Detected.						
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.						
	15 4-Methylphenol	108	Compound Not Detected.						
$	18 Nitrobenzene-d5	82	9.430	9.435	(0.894)	214271		20.3981	20.40(R)
	19 Nitrobenzene	77	Compound Not Detected.						
	20 Isophorone	82	Compound Not Detected.						
	21 2-Nitrophenol	139	Compound Not Detected.						
	22 2,4-Dimethylphenol	107	Compound Not Detected.						
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.						
	24 Benzoic acid	105	Compound Not Detected.						
	25 2,4-Dichlorophenol	162	Compound Not Detected.						
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
*	27 Naphthalene-d8	136	10.546	10.546	(1.000)	513554		20.0000	
	28 Naphthalene	128	Compound Not Detected.						
	29 4-Chloroaniline	127	Compound Not Detected.						
	30 Hexachlorobutadiene	225	Compound Not Detected.						
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.						
	32 2-Methylnaphthalene	141	Compound Not Detected.						
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.						

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	12.331	12.336	(0.920)	362633	18.6955	18.70(R)
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	13.410	13.415	(1.000)	272727	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	Compound Not Detected.					
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	Compound Not Detected.					
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	14.708	14.713	(1.097)	77096	33.7666	33.77(R)
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	15.798	15.798	(1.000)	462324	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	Compound Not Detected.					
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	18.437	18.437	(0.916)	434450	27.6070	27.61(R)
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	20.125	20.130	(1.000)	408520	20.0000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	20.285	20.291	(0.956)	23073	1.43137	1.431
*	134	Di-n-octylphthalate-d4	153	21.220	21.226	(1.000)	542558	20.0000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	22.299	22.299	(1.000)	399310	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	Compound Not Detected.					
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062615.D
Lab Smp Id: 18F0226-07
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180626.b\SW846180516.m
Misc Info: 18-

Calibration Date: 26-JUN-2018
Calibration Time: 22:20
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	136475	7.48
27 Naphthalene-d8	478458	239229	956916	513554	7.34
42 Acenaphthene-d10	247659	123830	495318	272727	10.12
59 Phenanthrene-d10	421930	210965	843860	462324	9.57
69 Chrysene-d12	450836	225418	901672	408520	-9.39
134 Di-n-octylphthala	583434	291717	1166868	542558	-7.01
77 Perylene-d12	453093	226547	906186	399310	-11.87

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.51	8.01	9.01	8.51	0.00
27 Naphthalene-d8	10.55	10.05	11.05	10.55	0.00
42 Acenaphthene-d10	13.42	12.92	13.92	13.41	-0.04
59 Phenanthrene-d10	15.80	15.30	16.30	15.80	0.00
69 Chrysene-d12	20.13	19.63	20.63	20.13	-0.03
134 Di-n-octylphthala	21.23	20.73	21.73	21.22	-0.03
77 Perylene-d12	22.30	21.80	22.80	22.30	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062615.D

Lab ID: 18F0226-07
nt12.i, SW846180516.m, 26-JUN-2018 18:57

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

LDW18-SP-84

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D
Semivolatile Organic Compounds (SepF)

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-08	SDG:	18F0185
Sampled:	06/14/18 09:53	Prepared:	06/21/18 15:35	File ID:	N1218062616.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/26/18 19:31
Batch:	BGF0515	Sequence:	SGF0333	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT12	Column:	ZB-5MS	Calibration:	BE00052

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	3.0	U	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	19.2	51.1	32.5 - 120	
Phenol-d5	37.500	14.9	39.7	17.8 - 120	
2-Chlorophenol-d4	37.500	24.7	66.0	55 - 120	
1,2-Dichlorobenzene-d4	25.000	15.7	62.7	49.3 - 120	
Nitrobenzene-d5	25.000	17.7	70.9	56.1 - 120	
2-Fluorobiphenyl	25.000	17.6	70.4	54.4 - 120	
2,4,6-Tribromophenol	37.500	30.7	82.0	49.3 - 128	
p-Terphenyl-d14	25.000	25.9	104	60 - 120	

Data File: \\target\share\chem3\nt12.i\20180626.b\N1218062616.D

Date : 26-JUN-2018 19:31

Client ID:

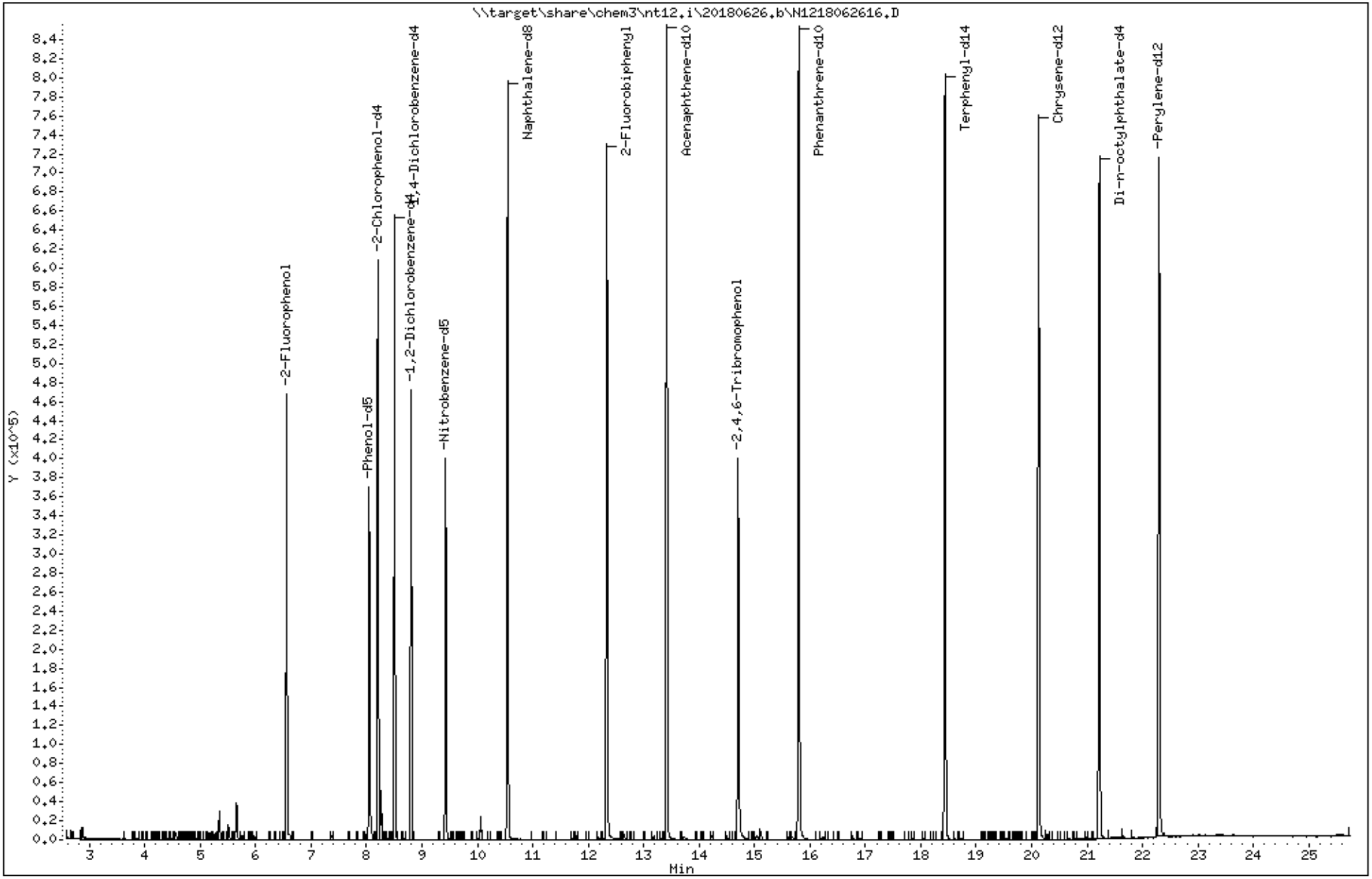
Instrument: nt12.i

Sample Info: 18F0226-08

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180626.b\N1218062616.D
Lab Smp Id: 18F0226-08
Inj Date : 26-JUN-2018 19:31
Operator : JZ   Inst ID: nt12.i
Smp Info : 18F0226-08
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180626.b\SW846180516.m
Meth Date : 27-Jun-2018 13:26 jianqing   Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36   Cal File: N1218051608.D
Als bottle: 16
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.556	6.556	(0.771)	201510	19.1629	19.16(R)
$	2 Phenol-d5	99	8.046	8.057	(0.946)	196651	14.8846	14.88(R)
	3 Phenol	94	Compound Not Detected.					
$	5 2-Chlorophenol-d4	132	8.201	8.207	(0.964)	251218	24.7478	24.75(R)
	4 Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6 2-Chlorophenol	128	Compound Not Detected.					
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	8.506	8.506	(1.000)	146500	20.0000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	8.805	8.805	(1.035)	106899	15.6677	15.67(R)
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	Compound Not Detected.					
	14 2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
	13 2-Methylphenol	108	Compound Not Detected.					
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	9.425	9.435	(0.894)	199531	17.7282	17.73(R)
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.546	10.546	(1.000)	550249	20.0000	
	28 Naphthalene	128	Compound Not Detected.					
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	141	Compound Not Detected.					
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	12.336	12.336	(0.920)	365791	17.6083	17.61(R)
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	13.410	13.415	(1.000)	292087	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	Compound Not Detected.					
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	Compound Not Detected.					
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	14.708	14.713	(1.097)	75151	30.7331	30.73(R)
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	15.798	15.798	(1.000)	501768	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	Compound Not Detected.					
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	18.437	18.437	(0.916)	452907	25.9498	25.95(R)
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	20.125	20.130	(1.000)	453073	20.0000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134	Di-n-octylphthalate-d4	153	21.220	21.226	(1.000)	582604	20.0000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	22.294	22.299	(1.000)	439535	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	Compound Not Detected.					
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062616.D
Lab Smp Id: 18F0226-08
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180626.b\SW846180516.m
Misc Info: 18-

Calibration Date: 26-JUN-2018
Calibration Time: 22:20
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	146500	15.37
27 Naphthalene-d8	478458	239229	956916	550249	15.00
42 Acenaphthene-d10	247659	123830	495318	292087	17.94
59 Phenanthrene-d10	421930	210965	843860	501768	18.92
69 Chrysene-d12	450836	225418	901672	453073	0.50
134 Di-n-octylphthala	583434	291717	1166868	582604	-0.14
77 Perylene-d12	453093	226547	906186	439535	-2.99

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.51	8.01	9.01	8.51	-0.00
27 Naphthalene-d8	10.55	10.05	11.05	10.55	-0.00
42 Acenaphthene-d10	13.42	12.92	13.92	13.41	-0.04
59 Phenanthrene-d10	15.80	15.30	16.30	15.80	-0.00
69 Chrysene-d12	20.13	19.63	20.63	20.13	-0.03
134 Di-n-octylphthala	21.23	20.73	21.73	21.22	-0.03
77 Perylene-d12	22.30	21.80	22.80	22.29	-0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062616.D

Lab ID: 18F0226-08
nt12.i, SW846180516.m, 26-JUN-2018 19:31

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

LDW18-SP-87

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D
Semivolatile Organic Compounds (SepF)

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-09	SDG:	18F0185
Sampled:	06/14/18 11:11	Prepared:	06/21/18 15:35	File ID:	N1218062617.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/26/18 20:05
Batch:	BGF0515	Sequence:	SGF0333	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT12	Column:	ZB-5MS	Calibration:	BE00052

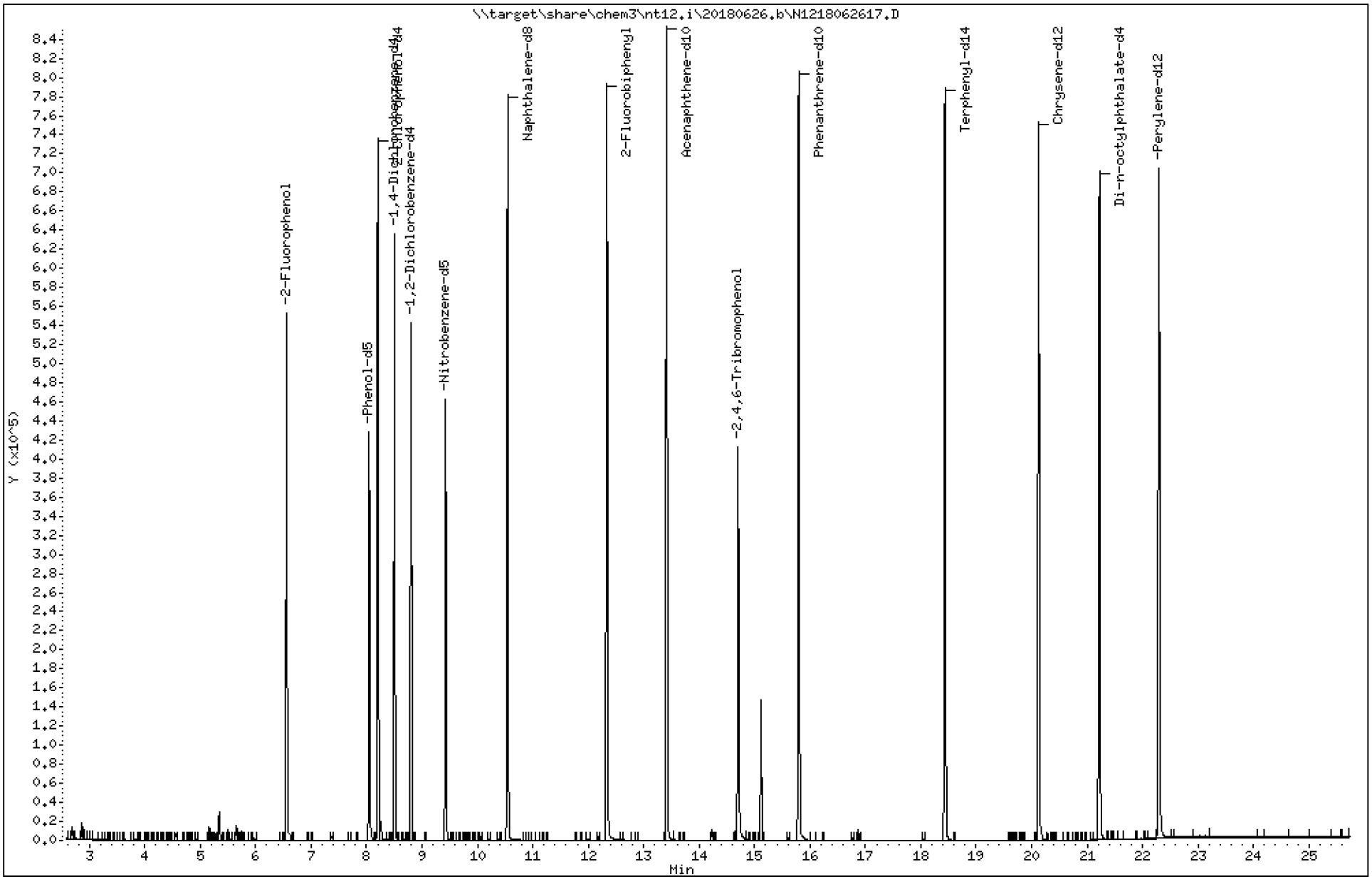
CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	3.0	U	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	23.5	62.8	32.5 - 120	
Phenol-d5	37.500	17.9	47.7	17.8 - 120	
2-Chlorophenol-d4	37.500	29.6	78.9	55 - 120	
1,2-Dichlorobenzene-d4	25.000	19.0	75.8	49.3 - 120	
Nitrobenzene-d5	25.000	20.8	83.3	56.1 - 120	
2-Fluorobiphenyl	25.000	19.9	79.8	54.4 - 120	
2,4,6-Tribromophenol	37.500	32.2	85.8	49.3 - 128	
p-Terphenyl-d14	25.000	26.0	104	60 - 120	

Data File: \\target\share\chem3\nt12.i\20180626.b\N1218062617.D
Date : 26-JUN-2018 20:05
Client ID:
Sample Info: 18F0226-09

Instrument: nt12.i
Operator: JZ
Column diameter: 0.32

Column phase: ZB-5msi



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 290 of 6523

ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180626.b\N1218062617.D
Lab Smp Id: 18F0226-09
Inj Date : 26-JUN-2018 20:05
Operator : JZ Inst ID: nt12.i
Smp Info : 18F0226-09
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180626.b\SW846180516.m
Meth Date : 27-Jun-2018 13:26 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 17
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1	2-Fluorophenol	112	6.556	6.556	(0.771)	244726	23.5454	23.55(R)
$	2	Phenol-d5	99	8.046	8.057	(0.946)	233588	17.8876	17.89(R)
	3	Phenol	94	Compound Not Detected.					
$	5	2-Chlorophenol-d4	132	8.201	8.207	(0.964)	296961	29.5969	29.60(R)
	4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6	2-Chlorophenol	128	Compound Not Detected.					
	7	1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8	1,4-Dichlorobenzene-d4	152	8.506	8.506	(1.000)	144803	20.0000	
	9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10	1,2-Dichlorobenzene-d4	152	8.805	8.805	(1.035)	127800	18.9506	18.95(R)
	12	1,2-Dichlorobenzene	146	Compound Not Detected.					
	11	Benzyl alcohol	108	Compound Not Detected.					
	14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
	13	2-Methylphenol	108	Compound Not Detected.					
	17	Hexachloroethane	117	Compound Not Detected.					
	16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15	4-Methylphenol	108	Compound Not Detected.					
$	18	Nitrobenzene-d5	82	9.425	9.435	(0.894)	229906	20.8214	20.82(R)
	19	Nitrobenzene	77	Compound Not Detected.					
	20	Isophorone	82	Compound Not Detected.					
	21	2-Nitrophenol	139	Compound Not Detected.					
	22	2,4-Dimethylphenol	107	Compound Not Detected.					
	23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24	Benzoic acid	105	Compound Not Detected.					
	25	2,4-Dichlorophenol	162	Compound Not Detected.					
	26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27	Naphthalene-d8	136	10.547	10.546	(1.000)	539826	20.0000	
	28	Naphthalene	128	Compound Not Detected.					
	29	4-Chloroaniline	127	Compound Not Detected.					
	30	Hexachlorobutadiene	225	Compound Not Detected.					
	31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32	2-Methylnaphthalene	141	Compound Not Detected.					
	33	Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	12.331	12.336	(0.920)	404509	19.9480	19.95(R)
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	13.410	13.415	(1.000)	285119	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	Compound Not Detected.					
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	Compound Not Detected.					
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	14.708	14.713	(1.097)	76819	32.1829	32.18(R)
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	15.798	15.798	(1.000)	489362	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	Compound Not Detected.					
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	18.437	18.437	(0.916)	445559	26.0250	26.03(R)
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	20.125	20.130	(1.000)	444434	20.0000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134	Di-n-octylphthalate-d4	153	21.220	21.226	(1.000)	568298	20.0000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	22.294	22.299	(1.000)	440987	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	Compound Not Detected.					
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062617.D
Lab Smp Id: 18F0226-09
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180626.b\SW846180516.m
Misc Info: 18-

Calibration Date: 26-JUN-2018
Calibration Time: 22:20
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	144803	14.03
27 Naphthalene-d8	478458	239229	956916	539826	12.83
42 Acenaphthene-d10	247659	123830	495318	285119	15.13
59 Phenanthrene-d10	421930	210965	843860	489362	15.98
69 Chrysene-d12	450836	225418	901672	444434	-1.42
134 Di-n-octylphthala	583434	291717	1166868	568298	-2.59
77 Perylene-d12	453093	226547	906186	440987	-2.67

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.51	8.01	9.01	8.51	0.00
27 Naphthalene-d8	10.55	10.05	11.05	10.55	0.00
42 Acenaphthene-d10	13.42	12.92	13.92	13.41	-0.04
59 Phenanthrene-d10	15.80	15.30	16.30	15.80	0.00
69 Chrysene-d12	20.13	19.63	20.63	20.13	-0.03
134 Di-n-octylphthala	21.23	20.73	21.73	21.22	-0.02
77 Perylene-d12	22.30	21.80	22.80	22.29	-0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062617.D

Lab ID: 18F0226-09
nt12.i, SW846180516.m, 26-JUN-2018 20:05

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-01

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D
Semivolatile Organic Compounds (SepF)

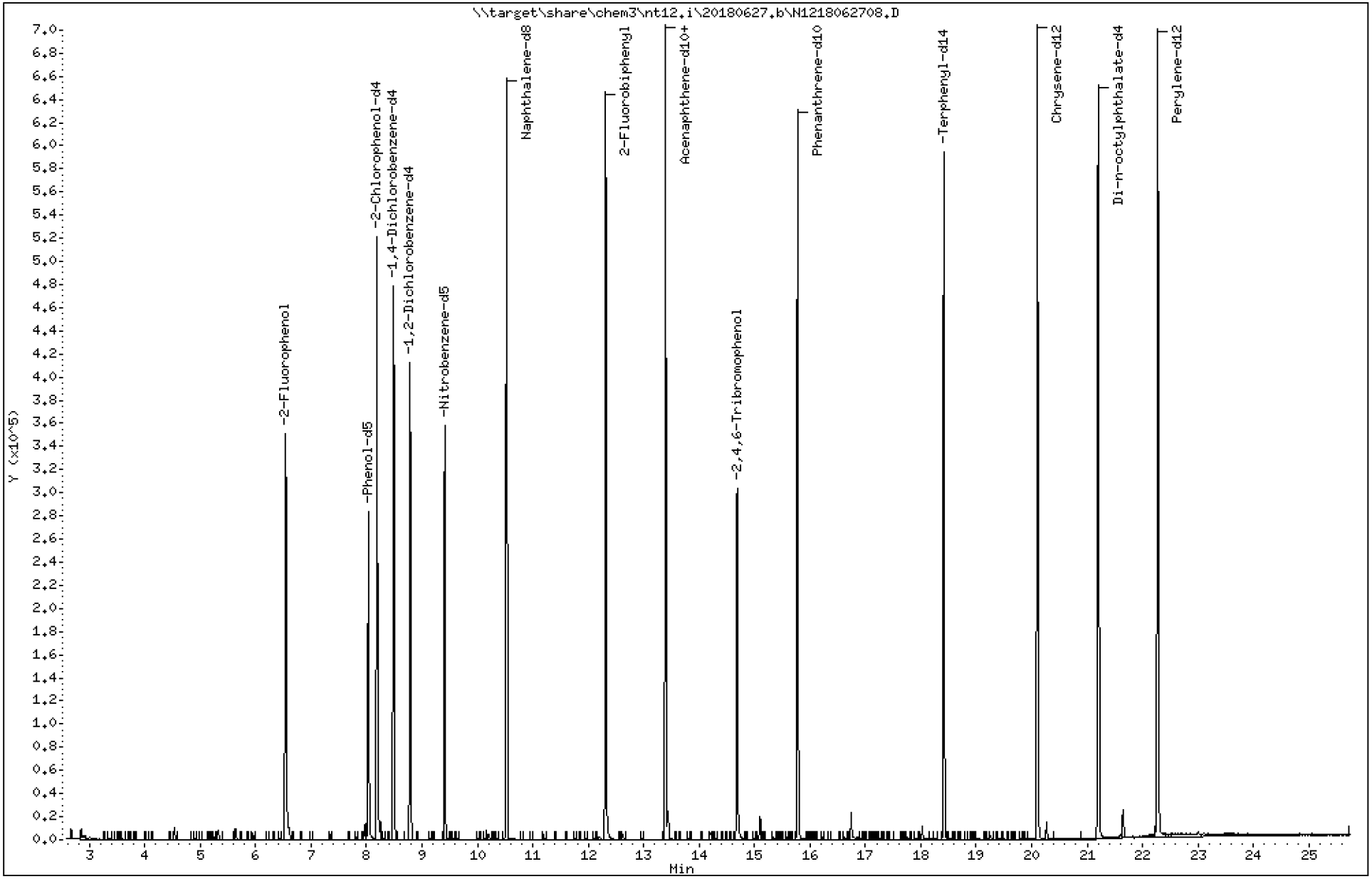
Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-01	SDG:	18F0185
Sampled:	06/15/18 11:33	Prepared:	06/22/18 12:06	File ID:	N1218062708.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/27/18 16:46
Batch:	BGF0552	Sequence:	SGF0348	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT12	Column:	ZB-5MS	Calibration:	BE00052

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	3.0	U	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	21.3	56.9	32.5 - 120	
Phenol-d5	37.500	15.0	39.9	17.8 - 120	
2-Chlorophenol-d4	37.500	27.7	73.7	55 - 120	
1,2-Dichlorobenzene-d4	25.000	18.2	73.0	49.3 - 120	
Nitrobenzene-d5	25.000	19.7	78.8	56.1 - 120	
2-Fluorobiphenyl	25.000	19.5	78.2	54.4 - 120	
2,4,6-Tribromophenol	37.500	29.8	79.6	49.3 - 128	
p-Terphenyl-d14	25.000	21.8	87.0	60 - 120	

Data File: \\target\share\chem3\nt12.i\20180627.b\N1218062708.D
Date : 27-JUN-2018 16:46
Client ID:
Sample Info: 18F0248-01

Instrument: nt12.i
Operator: JZ
Column phase: ZB-5msi
Column diameter: 0.32



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 297 of 6523

Data File: \\target\share\chem3\nt12.i\20180627.b\N1218062708.D

Date : 27-JUN-2018 16:46

Client ID:

Instrument: nt12.i

Sample Info: 18F0248-01

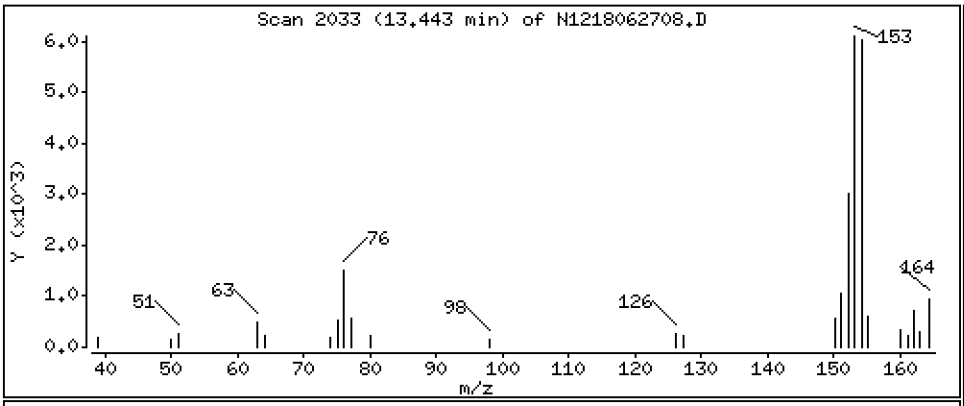
Operator: JZ

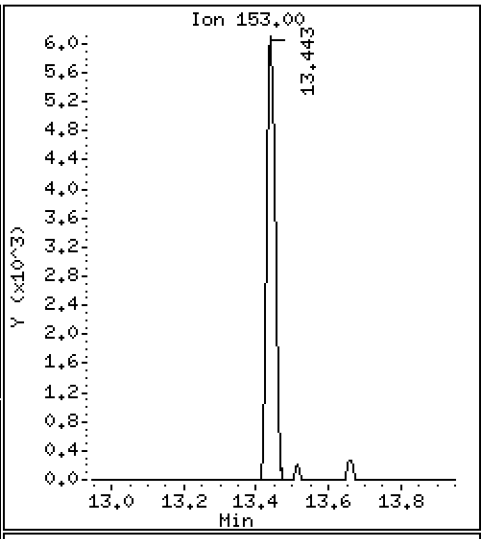
Column phase: ZB-5msi

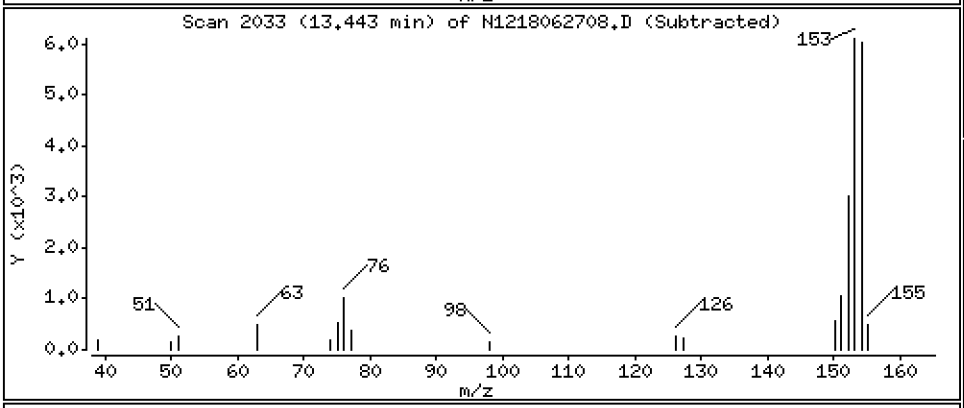
Column diameter: 0.32

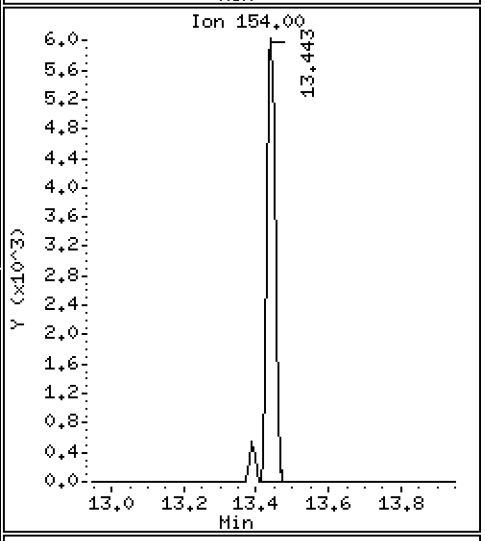
44 Acenaphthene

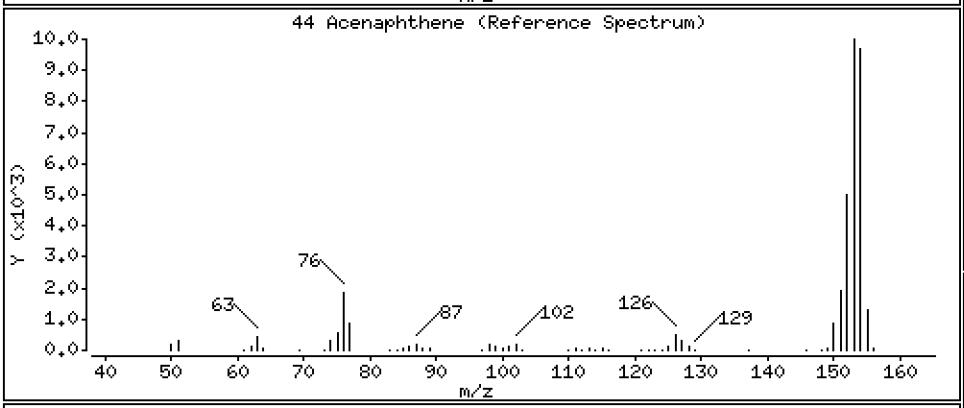
Concentration: 0.6101 ug/mL

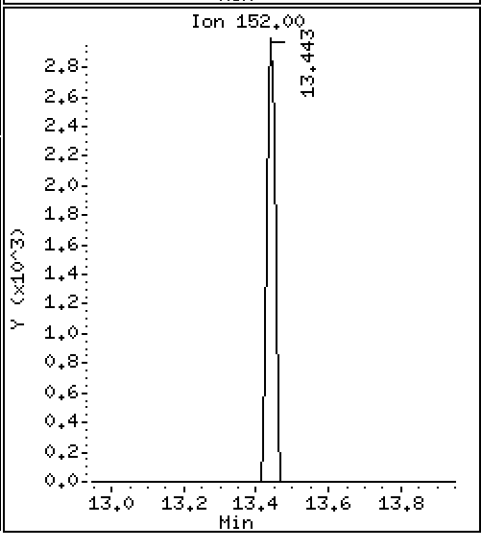


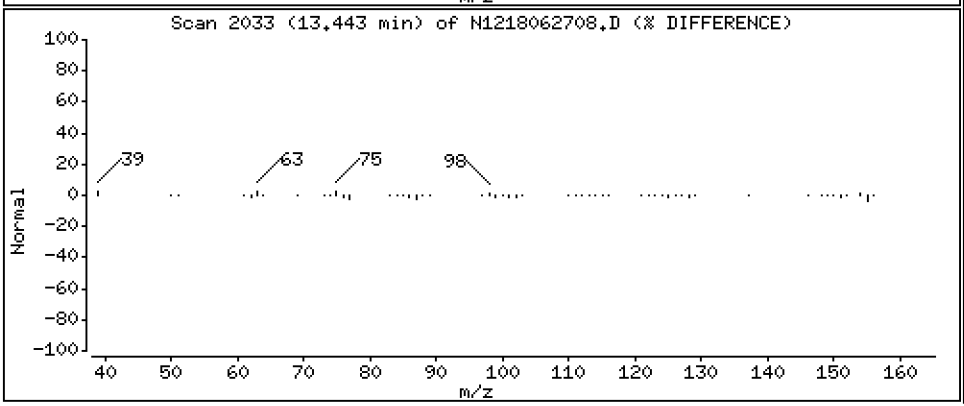












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180627.b\N1218062708.D
Lab Smp Id: 18F0248-01
Inj Date : 27-JUN-2018 16:46
Operator : JZ Inst ID: nt12.i
Smp Info : 18F0248-01
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180627.b\SW846180516.m
Meth Date : 28-Jun-2018 14:05 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$ 1	2-Fluorophenol	112	6.540	6.540	(0.770)	179411	21.3275	21.33(R)
$ 2	Phenol-d5	99	8.030	8.036	(0.946)	158308	14.9785	14.98(R)
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	8.185	8.191	(0.964)	224546	27.6514	27.65(R)
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.490	8.490	(1.000)	117196	20.0000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.789	8.789	(1.035)	99577	18.2439	18.24(R)
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					
17	Hexachloroethane	117	Compound Not Detected.					
16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
15	4-Methylphenol	108	Compound Not Detected.					
$ 18	Nitrobenzene-d5	82	9.409	9.414	(0.894)	175083	19.6953	19.70(R)
19	Nitrobenzene	77	Compound Not Detected.					
20	Isophorone	82	Compound Not Detected.					
21	2-Nitrophenol	139	Compound Not Detected.					
22	2,4-Dimethylphenol	107	Compound Not Detected.					
23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
24	Benzoic acid	105	Compound Not Detected.					
25	2,4-Dichlorophenol	162	Compound Not Detected.					
26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
* 27	Naphthalene-d8	136	10.525	10.531	(1.000)	434605	20.0000	
28	Naphthalene	128	Compound Not Detected.					
29	4-Chloroaniline	127	Compound Not Detected.					
30	Hexachlorobutadiene	225	Compound Not Detected.					
31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
32	2-Methylnaphthalene	141	Compound Not Detected.					
33	Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	12.315	12.315	(0.919)	309500	19.5433	19.54(R)
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	13.394	13.394	(1.000)	222669	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	13.442	13.447	(1.004)	8409	0.61008	0.6101
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	Compound Not Detected.					
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	14.687	14.692	(1.097)	55612	29.8327	29.83(R)
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	15.777	15.777	(1.000)	370270	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	Compound Not Detected.					
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	18.416	18.416	(0.916)	328791	21.7586	21.76(R)
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	20.104	20.109	(1.000)	392268	20.0000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134	Di-n-octylphthalate-d4	153	21.199	21.204	(1.000)	533947	20.0000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	22.273	22.278	(1.000)	413211	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	Compound Not Detected.					
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062708.D
Lab Smp Id: 18F0248-01
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180627.b\SW846180516.m
Misc Info: 18-

Calibration Date: 27-JUN-2018
Calibration Time: 11:13
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	117196	-7.71
27 Naphthalene-d8	478458	239229	956916	434605	-9.17
42 Acenaphthene-d10	247659	123830	495318	222669	-10.09
59 Phenanthrene-d10	421930	210965	843860	370270	-12.24
69 Chrysene-d12	450836	225418	901672	392268	-12.99
134 Di-n-octylphthala	583434	291717	1166868	533947	-8.48
77 Perylene-d12	453093	226547	906186	413211	-8.80

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.49	7.99	8.99	8.49	-0.00
27 Naphthalene-d8	10.53	10.03	11.03	10.53	-0.05
42 Acenaphthene-d10	13.39	12.89	13.89	13.39	0.00
59 Phenanthrene-d10	15.78	15.28	16.28	15.78	-0.00
69 Chrysene-d12	20.11	19.61	20.61	20.10	-0.03
134 Di-n-octylphthala	21.20	20.70	21.70	21.20	-0.03
77 Perylene-d12	22.28	21.78	22.78	22.27	-0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062708.D

Lab ID: 18F0248-01
nt12.i, SW846180516.m, 27-JUN-2018 16:46

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-45

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D
Semivolatile Organic Compounds (SepF)

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-02	SDG:	18F0185
Sampled:	06/15/18 13:45	Prepared:	06/22/18 12:06	File ID:	N1218062709.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/27/18 17:20
Batch:	BGF0552	Sequence:	SGF0348	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT12	Column:	ZB-5MS	Calibration:	BE00052

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	3.0	U	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	21.6	57.7	32.5 - 120	
Phenol-d5	37.500	15.6	41.7	17.8 - 120	
2-Chlorophenol-d4	37.500	28.1	75.0	55 - 120	
1,2-Dichlorobenzene-d4	25.000	18.5	74.2	49.3 - 120	
Nitrobenzene-d5	25.000	20.0	79.9	56.1 - 120	
2-Fluorobiphenyl	25.000	19.8	79.4	54.4 - 120	
2,4,6-Tribromophenol	37.500	30.3	80.9	49.3 - 128	
p-Terphenyl-d14	25.000	22.3	89.1	60 - 120	

Data File: \\target\share\chem3\nt12.i\20180627.b\N1218062709.D

Date : 27-JUN-2018 17:20

Client ID:

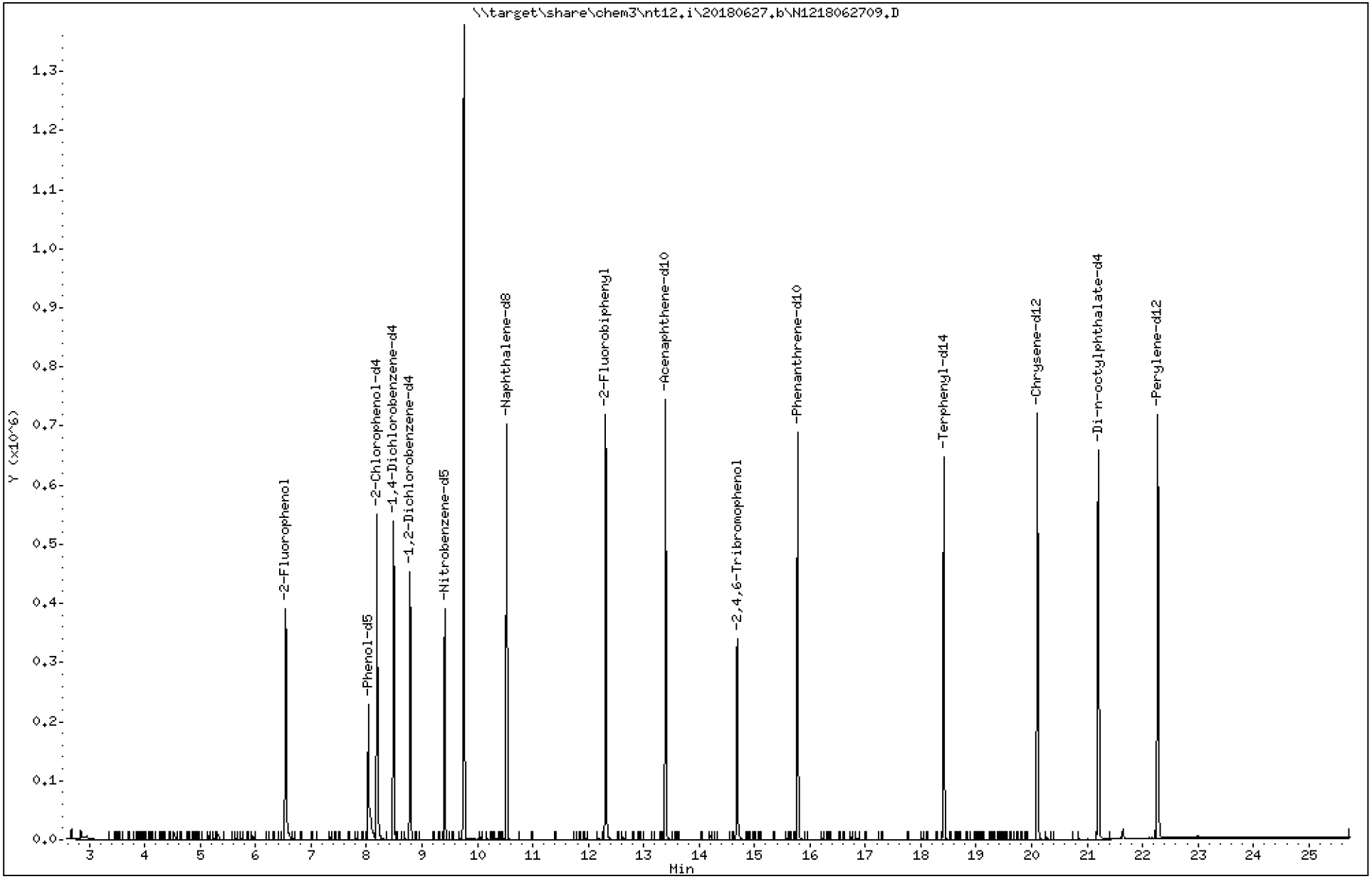
Instrument: nt12.i

Sample Info: 18F0248-02

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180627.b\N1218062709.D
Lab Smp Id: 18F0248-02
Inj Date : 27-JUN-2018 17:20
Operator : JZ Inst ID: nt12.i
Smp Info : 18F0248-02
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180627.b\SW846180516.m
Meth Date : 28-Jun-2018 14:05 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$ 1	2-Fluorophenol	112	6.540	6.540	(0.770)	197835	21.6486	21.65(R)
$ 2	Phenol-d5	99	8.030	8.036	(0.946)	179658	15.6477	15.65(R)
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	8.191	8.191	(0.965)	248223	28.1378	28.14(R)
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.490	8.490	(1.000)	127314	20.0000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.789	8.789	(1.035)	109936	18.5410	18.54(R)
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					
17	Hexachloroethane	117	Compound Not Detected.					
16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
15	4-Methylphenol	108	Compound Not Detected.					
$ 18	Nitrobenzene-d5	82	9.409	9.414	(0.894)	192969	19.9836	19.98(R)
19	Nitrobenzene	77	Compound Not Detected.					
20	Isophorone	82	Compound Not Detected.					
21	2-Nitrophenol	139	Compound Not Detected.					
22	2,4-Dimethylphenol	107	Compound Not Detected.					
23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
24	Benzoic acid	105	Compound Not Detected.					
25	2,4-Dichlorophenol	162	Compound Not Detected.					
26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
* 27	Naphthalene-d8	136	10.525	10.531	(1.000)	472092	20.0000	
28	Naphthalene	128	Compound Not Detected.					
29	4-Chloroaniline	127	Compound Not Detected.					
30	Hexachlorobutadiene	225	Compound Not Detected.					
31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
32	2-Methylnaphthalene	141	Compound Not Detected.					
33	Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	12.315	12.315	(0.919)	341995	19.8418	19.84(R)
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	13.394	13.394	(1.000)	242346	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	Compound Not Detected.					
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	Compound Not Detected.					
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	14.687	14.692	(1.097)	61551	30.3377	30.34(R)
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	15.776	15.777	(1.000)	403958	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	Compound Not Detected.					
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	18.416	18.416	(0.916)	355892	22.2630	22.26(R)
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	20.104	20.109	(1.000)	414980	20.0000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134	Di-n-octylphthalate-d4	153	21.204	21.204	(1.000)	553579	20.0000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	22.278	22.278	(1.000)	432619	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	Compound Not Detected.					
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062709.D
Lab Smp Id: 18F0248-02
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180627.b\SW846180516.m
Misc Info: 18-

Calibration Date: 27-JUN-2018
Calibration Time: 11:13
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	127314	0.26
27 Naphthalene-d8	478458	239229	956916	472092	-1.33
42 Acenaphthene-d10	247659	123830	495318	242346	-2.15
59 Phenanthrene-d10	421930	210965	843860	403958	-4.26
69 Chrysene-d12	450836	225418	901672	414980	-7.95
134 Di-n-octylphthala	583434	291717	1166868	553579	-5.12
77 Perylene-d12	453093	226547	906186	432619	-4.52

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.49	7.99	8.99	8.49	-0.00
27 Naphthalene-d8	10.53	10.03	11.03	10.53	-0.05
42 Acenaphthene-d10	13.39	12.89	13.89	13.39	-0.00
59 Phenanthrene-d10	15.78	15.28	16.28	15.78	-0.00
69 Chrysene-d12	20.11	19.61	20.61	20.10	-0.03
134 Di-n-octylphthala	21.20	20.70	21.70	21.20	-0.00
77 Perylene-d12	22.28	21.78	22.78	22.28	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062709.D

Lab ID: 18F0248-02
nt12.i, SW846180516.m, 27-JUN-2018 17:20

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

LDW18-SP-47

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D
Semivolatile Organic Compounds (SepF)

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-03	SDG:	18F0185
Sampled:	06/15/18 13:16	Prepared:	06/22/18 12:06	File ID:	N1218062710.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/27/18 17:54
Batch:	BGF0552	Sequence:	SGF0348	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT12	Column:	ZB-5MS	Calibration:	BE00052

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	0.6	J	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	16.0	42.7	32.5 - 120	
Phenol-d5	37.500	11.7	31.1	17.8 - 120	
2-Chlorophenol-d4	37.500	21.7	57.9	55 - 120	
1,2-Dichlorobenzene-d4	25.000	14.0	55.9	49.3 - 120	
Nitrobenzene-d5	25.000	15.3	61.3	56.1 - 120	
2-Fluorobiphenyl	25.000	15.6	62.3	54.4 - 120	
2,4,6-Tribromophenol	37.500	23.8	63.3	49.3 - 128	
p-Terphenyl-d14	25.000	18.3	73.2	60 - 120	

Data File: \\target\share\chem3\nt12.i\20180627.b\N1218062710.D

Date : 27-JUN-2018 17:54

Client ID:

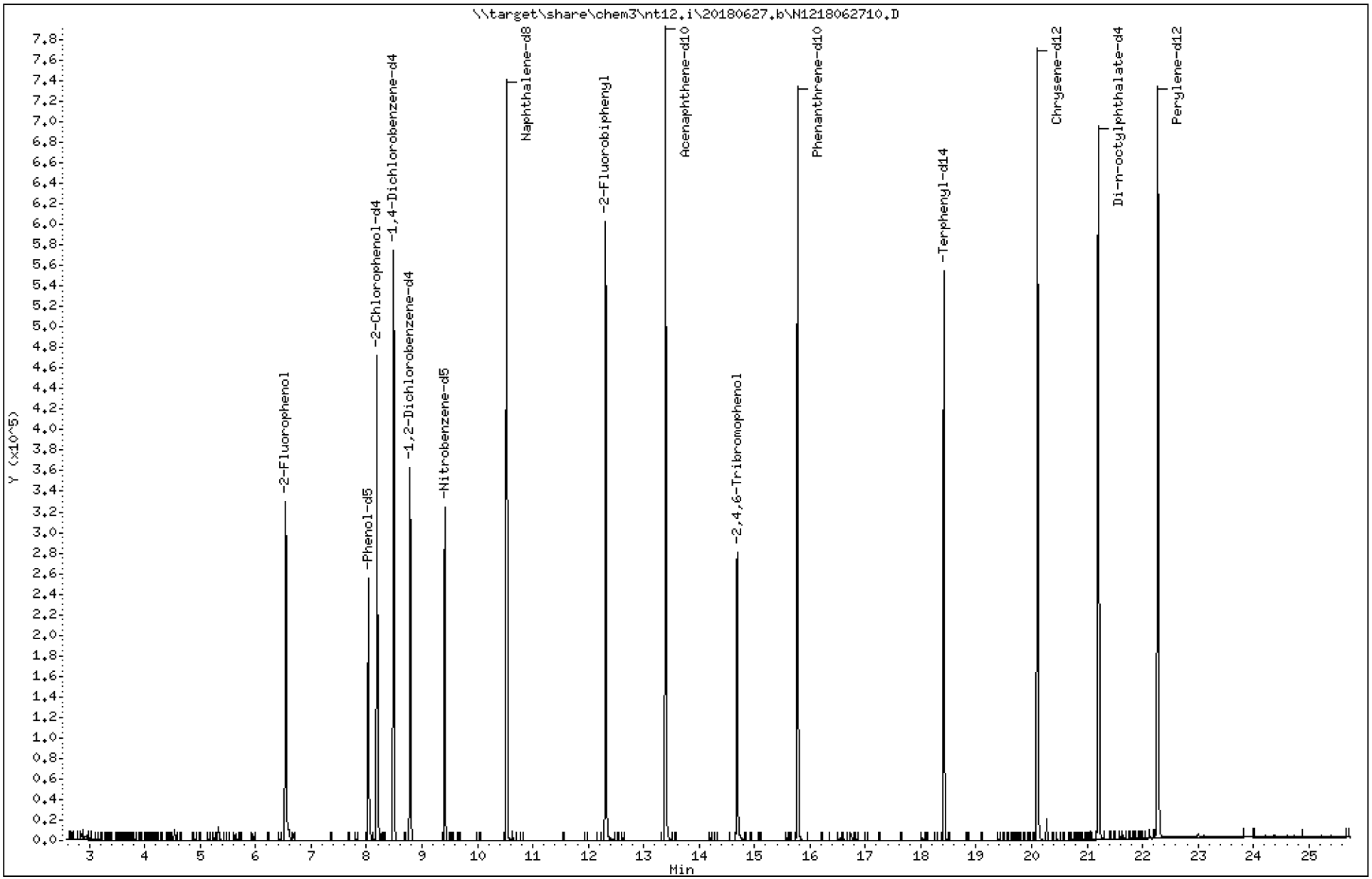
Sample Info: 18F0248-03

Instrument: nt12.i

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 312 of 6523

Data File: \\target\share\chem3\nt12.i\20180627.b\N1218062710.D

Date : 27-JUN-2018 17:54

Client ID:

Instrument: nt12.i

Sample Info: 18F0248-03

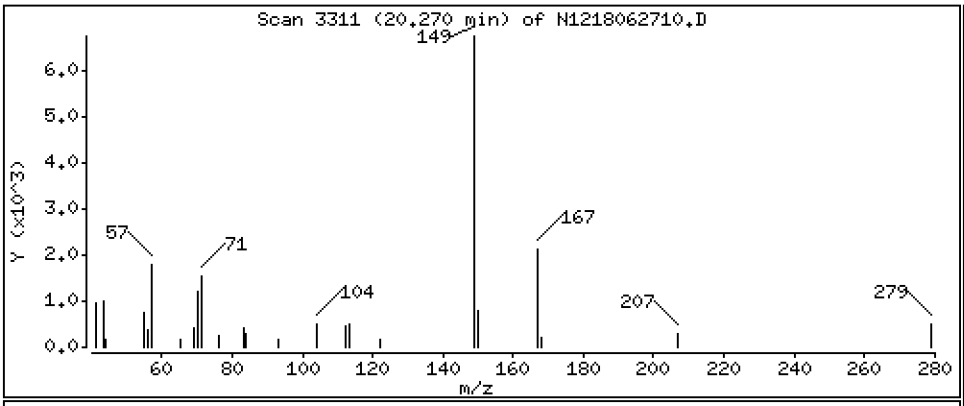
Operator: JZ

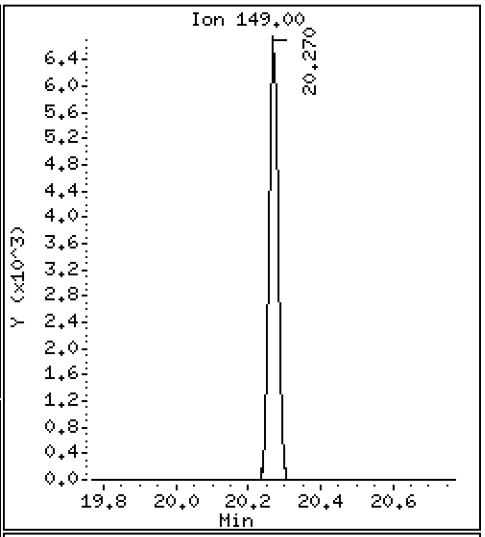
Column phase: ZB-5msi

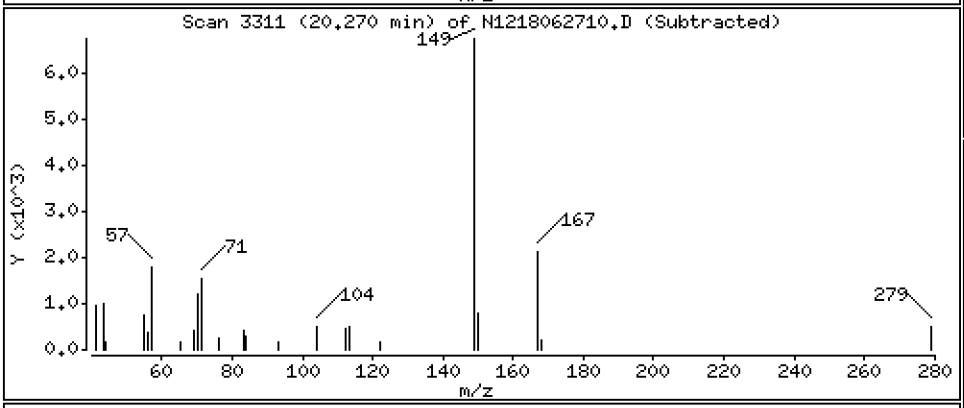
Column diameter: 0.32

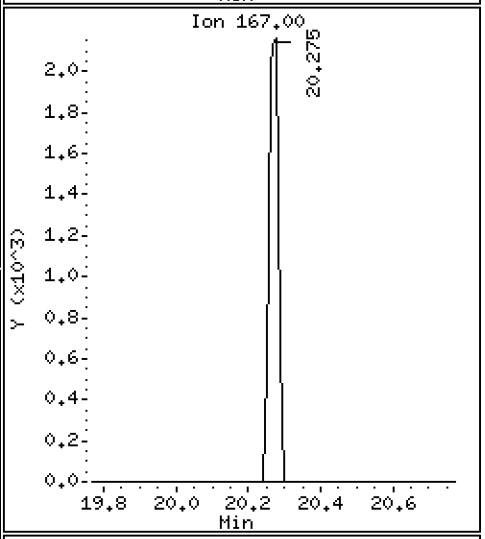
72 bis(2-Ethylhexyl)phthalate

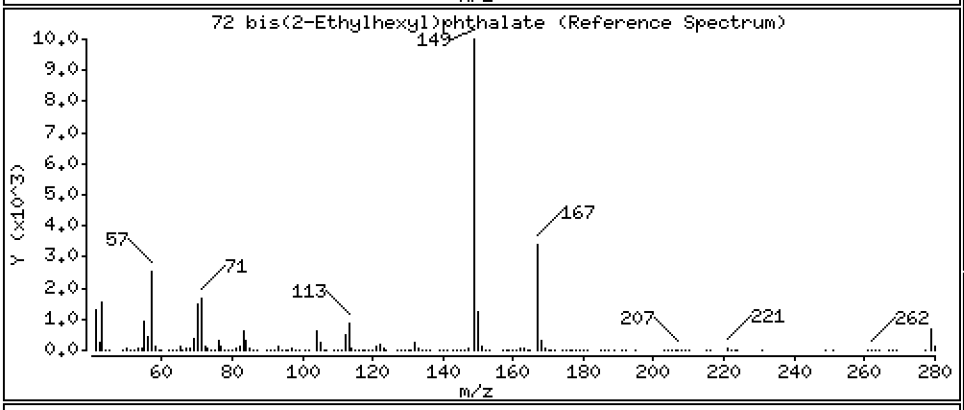
Concentration: 0.5854 ug/mL

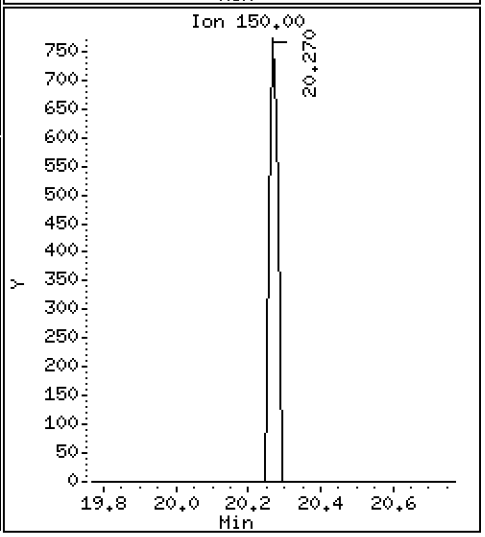


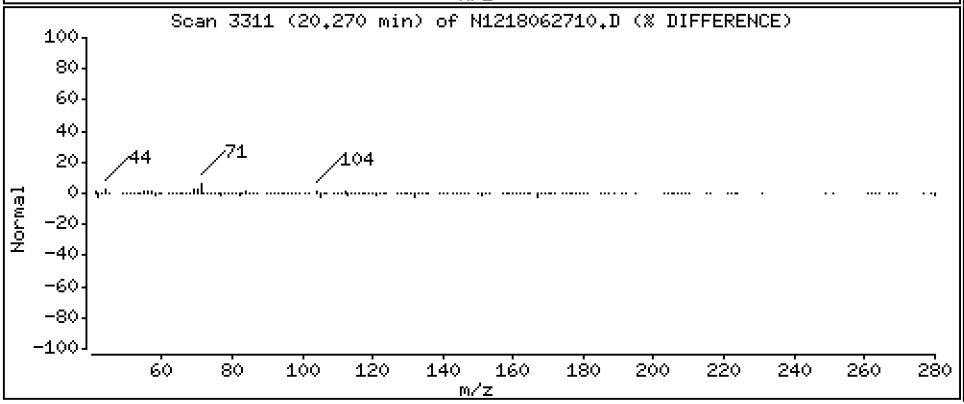












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180627.b\N1218062710.D
Lab Smp Id: 18F0248-03
Inj Date : 27-JUN-2018 17:54
Operator : JZ   Inst ID: nt12.i
Smp Info : 18F0248-03
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180627.b\SW846180516.m
Meth Date : 28-Jun-2018 14:05 jianqing   Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36   Cal File: N1218051608.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$ 1	2-Fluorophenol	112	6.540	6.540	(0.770)	155009	16.0274	16.03(R)
$ 2	Phenol-d5	99	8.030	8.036	(0.946)	141614	11.6544	11.65(R)
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	8.185	8.191	(0.964)	202760	21.7175	21.72(R)
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.490	8.490	(1.000)	134740	20.0000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.789	8.789	(1.035)	87624	13.9636	13.96(R)
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					
17	Hexachloroethane	117	Compound Not Detected.					
16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
15	4-Methylphenol	108	Compound Not Detected.					
$ 18	Nitrobenzene-d5	82	9.409	9.414	(0.894)	156707	15.3267	15.33(R)
19	Nitrobenzene	77	Compound Not Detected.					
20	Isophorone	82	Compound Not Detected.					
21	2-Nitrophenol	139	Compound Not Detected.					
22	2,4-Dimethylphenol	107	Compound Not Detected.					
23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
24	Benzoic acid	105	Compound Not Detected.					
25	2,4-Dichlorophenol	162	Compound Not Detected.					
26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
* 27	Naphthalene-d8	136	10.525	10.531	(1.000)	499863	20.0000	
28	Naphthalene	128	Compound Not Detected.					
29	4-Chloroaniline	127	Compound Not Detected.					
30	Hexachlorobutadiene	225	Compound Not Detected.					
31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
32	2-Methylnaphthalene	141	Compound Not Detected.					
33	Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG					CONCENTRATIONS ON-COLUMN	CONCENTRATIONS FINAL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	12.315	12.315	(0.919)	283800	15.5662	15.57(R)
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	13.394	13.394	(1.000)	256346	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	Compound Not Detected.					
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	Compound Not Detected.					
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	14.687	14.692	(1.097)	50971	23.7509	23.75(R)
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	15.777	15.777	(1.000)	426887	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	Compound Not Detected.					
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	18.416	18.416	(0.916)	298664	18.3022	18.30(R)
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	20.104	20.109	(1.000)	423617	20.0000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	20.269	20.269	(0.956)	9856	0.58541	0.5854
*	134	Di-n-octylphthalate-d4	153	21.204	21.204	(1.000)	566676	20.0000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	22.273	22.278	(1.000)	452888	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	Compound Not Detected.					
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062710.D
Lab Smp Id: 18F0248-03
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180627.b\SW846180516.m
Misc Info: 18-

Calibration Date: 27-JUN-2018
Calibration Time: 11:13
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	134740	6.11
27 Naphthalene-d8	478458	239229	956916	499863	4.47
42 Acenaphthene-d10	247659	123830	495318	256346	3.51
59 Phenanthrene-d10	421930	210965	843860	426887	1.17
69 Chrysene-d12	450836	225418	901672	423617	-6.04
134 Di-n-octylphthala	583434	291717	1166868	566676	-2.87
77 Perylene-d12	453093	226547	906186	452888	-0.05

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.49	7.99	8.99	8.49	0.00
27 Naphthalene-d8	10.53	10.03	11.03	10.53	-0.05
42 Acenaphthene-d10	13.39	12.89	13.89	13.39	0.00
59 Phenanthrene-d10	15.78	15.28	16.28	15.78	0.00
69 Chrysene-d12	20.11	19.61	20.61	20.10	-0.03
134 Di-n-octylphthala	21.20	20.70	21.70	21.20	0.00
77 Perylene-d12	22.28	21.78	22.78	22.27	-0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062710.D

Lab ID: 18F0248-03
nt12.i, SW846180516.m, 27-JUN-2018 17:54

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

LDW18-SP-66

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D
Semivolatile Organic Compounds (SepF)

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-04	SDG:	18F0185
Sampled:	06/15/18 13:25	Prepared:	06/22/18 12:06	File ID:	N1218062711.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/27/18 18:28
Batch:	BGF0552	Sequence:	SGF0348	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT12	Column:	ZB-5MS	Calibration:	BE00052

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	3.0	U	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	21.7	57.8	32.5 - 120	
Phenol-d5	37.500	15.7	41.8	17.8 - 120	
2-Chlorophenol-d4	37.500	29.1	77.5	55 - 120	
1,2-Dichlorobenzene-d4	25.000	19.2	76.7	49.3 - 120	
Nitrobenzene-d5	25.000	20.5	81.9	56.1 - 120	
2-Fluorobiphenyl	25.000	20.3	81.3	54.4 - 120	
2,4,6-Tribromophenol	37.500	32.6	87.0	49.3 - 128	
p-Terphenyl-d14	25.000	25.6	102	60 - 120	

Data File: \\target\share\chem3\nt12.i\20180627.b\N1218062711.D

Page 1

Date : 27-JUN-2018 18:28

Client ID:

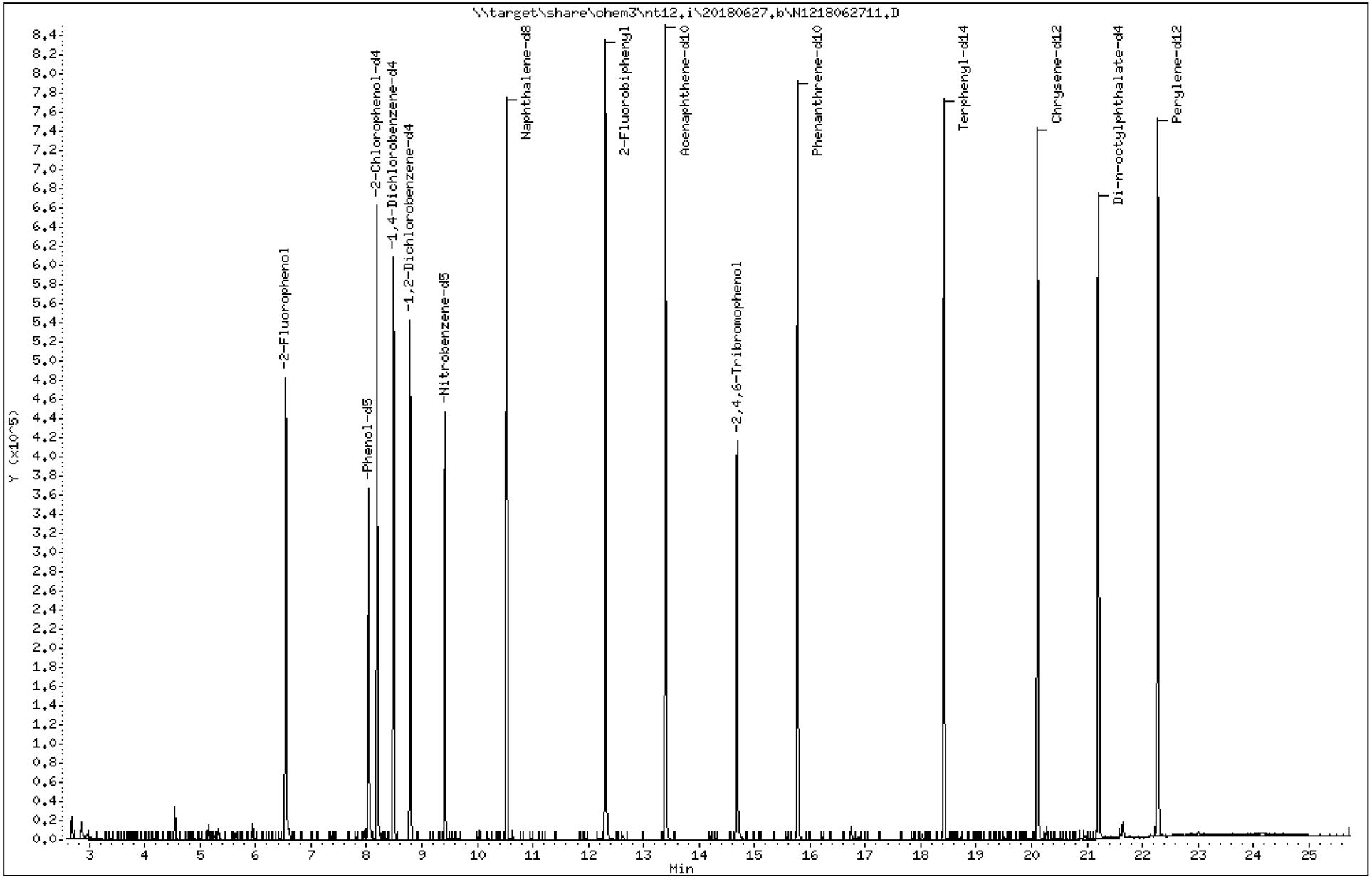
Instrument: nt12.i

Sample Info: 18F0248-04

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 320 of 6523

ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180627.b\N1218062711.D
Lab Smp Id: 18F0248-04
Inj Date : 27-JUN-2018 18:28
Operator : JZ Inst ID: nt12.i
Smp Info : 18F0248-04
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180627.b\SW846180516.m
Meth Date : 28-Jun-2018 14:05 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$ 1	2-Fluorophenol	112	6.540	6.540	(0.770)	219381	21.6690	21.67(R)
$ 2	Phenol-d5	99	8.030	8.036	(0.946)	199437	15.6791	15.68(R)
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	8.185	8.191	(0.964)	284172	29.0764	29.08(R)
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.490	8.490	(1.000)	141047	20.0000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.789	8.789	(1.035)	125919	19.1689	19.17(R)
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					
17	Hexachloroethane	117	Compound Not Detected.					
16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
15	4-Methylphenol	108	Compound Not Detected.					
$ 18	Nitrobenzene-d5	82	9.409	9.414	(0.894)	222564	20.4715	20.47(R)
19	Nitrobenzene	77	Compound Not Detected.					
20	Isophorone	82	Compound Not Detected.					
21	2-Nitrophenol	139	Compound Not Detected.					
22	2,4-Dimethylphenol	107	Compound Not Detected.					
23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
24	Benzoic acid	105	Compound Not Detected.					
25	2,4-Dichlorophenol	162	Compound Not Detected.					
26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
* 27	Naphthalene-d8	136	10.525	10.531	(1.000)	531518	20.0000	
28	Naphthalene	128	Compound Not Detected.					
29	4-Chloroaniline	127	Compound Not Detected.					
30	Hexachlorobutadiene	225	Compound Not Detected.					
31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
32	2-Methylnaphthalene	141	Compound Not Detected.					
33	Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	12.315	12.315	(0.919)	396754	20.3134	20.31(R)
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	13.394	13.394	(1.000)	274623	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	Compound Not Detected.					
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	Compound Not Detected.					
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	14.687	14.692	(1.097)	75017	32.6292	32.63(R)
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	15.777	15.777	(1.000)	459236	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	Compound Not Detected.					
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	18.416	18.416	(0.916)	426265	25.5761	25.58(R)
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	20.104	20.109	(1.000)	432652	20.0000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134	Di-n-octylphthalate-d4	153	21.204	21.204	(1.000)	579890	20.0000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	22.278	22.278	(1.000)	462209	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	Compound Not Detected.					
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062711.D
Lab Smp Id: 18F0248-04
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180627.b\SW846180516.m
Misc Info: 18-

Calibration Date: 27-JUN-2018
Calibration Time: 11:13
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	141047	11.08
27 Naphthalene-d8	478458	239229	956916	531518	11.09
42 Acenaphthene-d10	247659	123830	495318	274623	10.89
59 Phenanthrene-d10	421930	210965	843860	459236	8.84
69 Chrysene-d12	450836	225418	901672	432652	-4.03
134 Di-n-octylphthala	583434	291717	1166868	579890	-0.61
77 Perylene-d12	453093	226547	906186	462209	2.01

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.49	7.99	8.99	8.49	0.00
27 Naphthalene-d8	10.53	10.03	11.03	10.53	-0.05
42 Acenaphthene-d10	13.39	12.89	13.89	13.39	0.00
59 Phenanthrene-d10	15.78	15.28	16.28	15.78	0.00
69 Chrysene-d12	20.11	19.61	20.61	20.10	-0.03
134 Di-n-octylphthala	21.20	20.70	21.70	21.20	0.00
77 Perylene-d12	22.28	21.78	22.78	22.28	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062711.D

Lab ID: 18F0248-04
nt12.i, SW846180516.m, 27-JUN-2018 18:28

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-70

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D
Semivolatile Organic Compounds (SepF)

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-05	SDG:	18F0185
Sampled:	06/15/18 11:13	Prepared:	06/22/18 12:06	File ID:	N1218062712.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/27/18 19:01
Batch:	BGF0552	Sequence:	SGF0348	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT12	Column:	ZB-5MS	Calibration:	BE00052

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	3.0	U	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	23.4	62.4	32.5 - 120	
Phenol-d5	37.500	16.7	44.5	17.8 - 120	
2-Chlorophenol-d4	37.500	30.8	82.1	55 - 120	
1,2-Dichlorobenzene-d4	25.000	20.6	82.2	49.3 - 120	
Nitrobenzene-d5	25.000	21.9	87.4	56.1 - 120	
2-Fluorobiphenyl	25.000	21.3	85.1	54.4 - 120	
2,4,6-Tribromophenol	37.500	32.7	87.1	49.3 - 128	
p-Terphenyl-d14	25.000	24.6	98.4	60 - 120	

Data File: \\target\share\chem3\nt12.i\20180627.b\N1218062712.D

Date : 27-JUN-2018 19:01

Client ID:

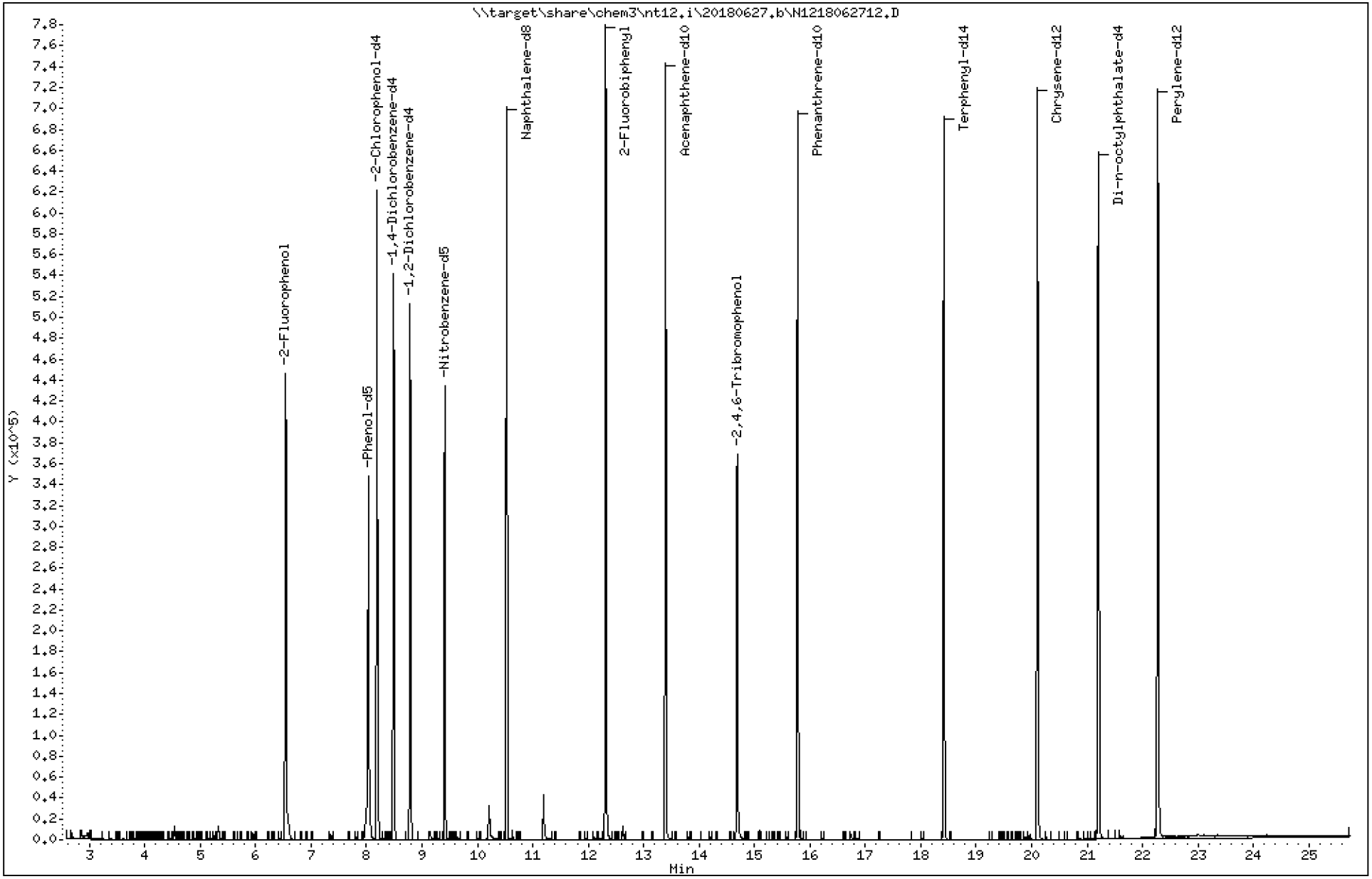
Instrument: nt12.i

Sample Info: 18F0248-05

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180627.b\N1218062712.D
Lab Smp Id: 18F0248-05
Inj Date : 27-JUN-2018 19:01
Operator : JZ Inst ID: nt12.i
Smp Info : 18F0248-05
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180627.b\SW846180516.m
Meth Date : 28-Jun-2018 14:05 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$ 1	2-Fluorophenol	112	6.540	6.540	(0.770)	211771	23.4032	23.40(R)
$ 2	Phenol-d5	99	8.030	8.036	(0.946)	189896	16.7032	16.70(R)
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	8.185	8.191	(0.964)	268808	30.7731	30.77(R)
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.490	8.490	(1.000)	126065	20.0000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.789	8.789	(1.035)	120668	20.5527	20.55(R)
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					
17	Hexachloroethane	117	Compound Not Detected.					
16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
15	4-Methylphenol	108	Compound Not Detected.					
$ 18	Nitrobenzene-d5	82	9.409	9.414	(0.894)	211214	21.8585	21.86(R)
19	Nitrobenzene	77	Compound Not Detected.					
20	Isophorone	82	Compound Not Detected.					
21	2-Nitrophenol	139	Compound Not Detected.					
22	2,4-Dimethylphenol	107	Compound Not Detected.					
23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
24	Benzoic acid	105	Compound Not Detected.					
25	2,4-Dichlorophenol	162	Compound Not Detected.					
26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
* 27	Naphthalene-d8	136	10.525	10.531	(1.000)	472405	20.0000	
28	Naphthalene	128	Compound Not Detected.					
29	4-Chloroaniline	127	Compound Not Detected.					
30	Hexachlorobutadiene	225	Compound Not Detected.					
31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
32	2-Methylnaphthalene	141	Compound Not Detected.					
33	Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG					CONCENTRATIONS ON-COLUMN	CONCENTRATIONS FINAL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/mL)	(ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	12.315	12.315	(0.919)	371232	21.2767	21.28(R)
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	13.394	13.394	(1.000)	245323	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	Compound Not Detected.					
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	Compound Not Detected.					
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	14.687	14.692	(1.097)	67112	32.6772	32.68(R)
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	15.777	15.777	(1.000)	402564	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	Compound Not Detected.					
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	18.416	18.416	(0.916)	384005	24.6037	24.60(R)
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	20.104	20.109	(1.000)	405163	20.0000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134	Di-n-octylphthalate-d4	153	21.204	21.204	(1.000)	544600	20.0000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	22.278	22.278	(1.000)	435833	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	Compound Not Detected.					
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062712.D
Lab Smp Id: 18F0248-05
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180627.b\SW846180516.m
Misc Info: 18-

Calibration Date: 27-JUN-2018
Calibration Time: 11:13
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	126065	-0.72
27 Naphthalene-d8	478458	239229	956916	472405	-1.27
42 Acenaphthene-d10	247659	123830	495318	245323	-0.94
59 Phenanthrene-d10	421930	210965	843860	402564	-4.59
69 Chrysene-d12	450836	225418	901672	405163	-10.13
134 Di-n-octylphthala	583434	291717	1166868	544600	-6.66
77 Perylene-d12	453093	226547	906186	435833	-3.81

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.49	7.99	8.99	8.49	0.00
27 Naphthalene-d8	10.53	10.03	11.03	10.53	-0.05
42 Acenaphthene-d10	13.39	12.89	13.89	13.39	0.00
59 Phenanthrene-d10	15.78	15.28	16.28	15.78	0.00
69 Chrysene-d12	20.11	19.61	20.61	20.10	-0.03
134 Di-n-octylphthala	21.20	20.70	21.70	21.20	0.00
77 Perylene-d12	22.28	21.78	22.78	22.28	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062712.D

Lab ID: 18F0248-05
nt12.i, SW846180516.m, 27-JUN-2018 19:01

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-83

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D
Semivolatile Organic Compounds (SepF)

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-06	SDG:	18F0185
Sampled:	06/15/18 12:08	Prepared:	06/22/18 12:06	File ID:	N1218062713.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/27/18 19:35
Batch:	BGF0552	Sequence:	SGF0348	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT12	Column:	ZB-5MS	Calibration:	BE00052

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	3.0	U	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	21.1	56.2	32.5 - 120	
Phenol-d5	37.500	14.8	39.4	17.8 - 120	
2-Chlorophenol-d4	37.500	28.6	76.2	55 - 120	
1,2-Dichlorobenzene-d4	25.000	18.9	75.7	49.3 - 120	
Nitrobenzene-d5	25.000	20.2	80.8	56.1 - 120	
2-Fluorobiphenyl	25.000	20.1	80.4	54.4 - 120	
2,4,6-Tribromophenol	37.500	29.8	79.4	49.3 - 128	
p-Terphenyl-d14	25.000	22.4	89.8	60 - 120	

Data File: \\target\share\chem3\nt12.i\20180627.b\N1218062713.D

Date : 27-JUN-2018 19:35

Client ID:

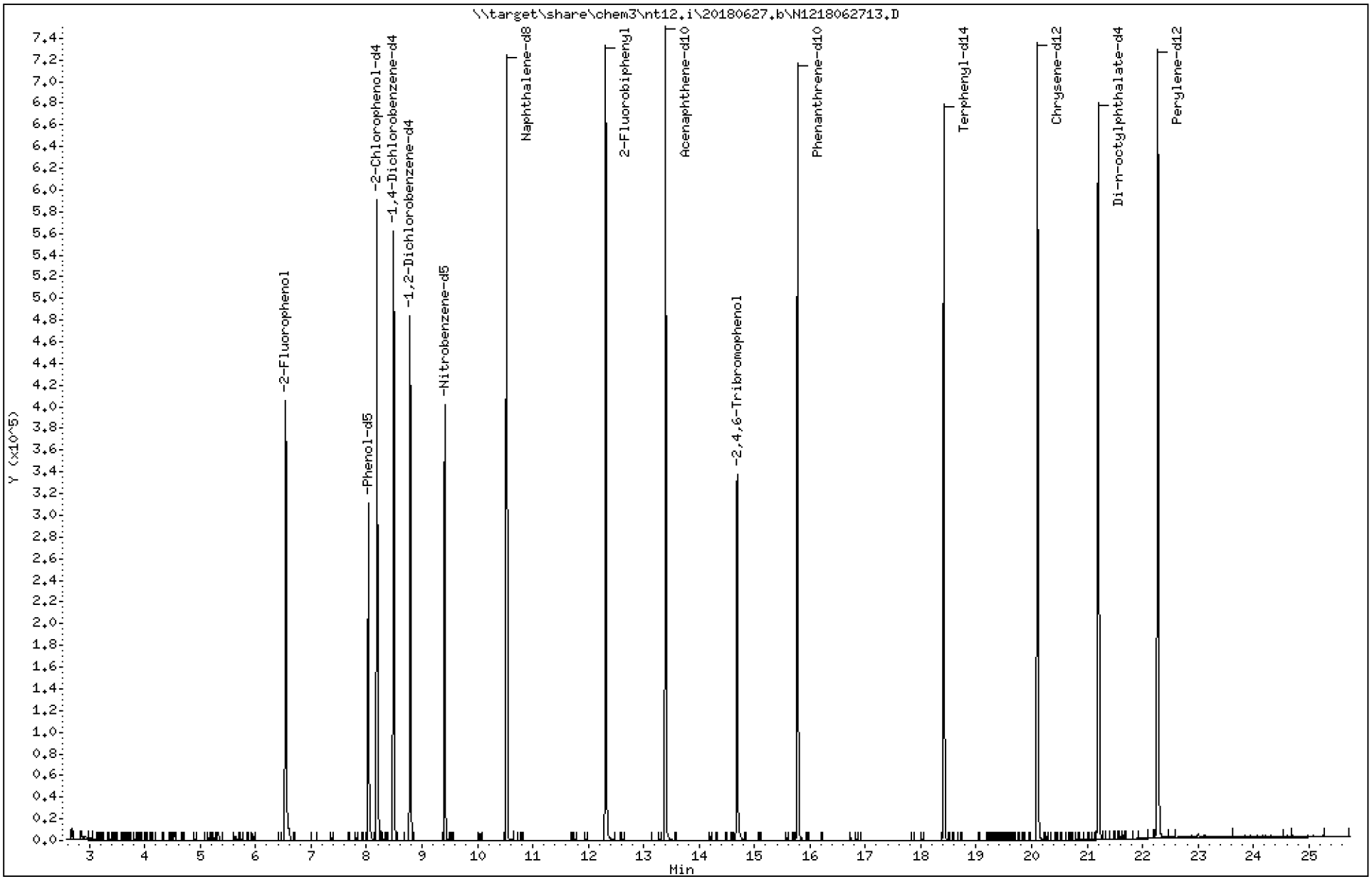
Instrument: nt12.i

Sample Info: 18F0248-06

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180627.b\N1218062713.D
Lab Smp Id: 18F0248-06
Inj Date : 27-JUN-2018 19:35
Operator : JZ Inst ID: nt12.i
Smp Info : 18F0248-06
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180627.b\SW846180516.m
Meth Date : 28-Jun-2018 14:05 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$ 1	2-Fluorophenol	112	6.540	6.540	(0.770)	196517	21.0896	21.09(R)
$ 2	Phenol-d5	99	8.031	8.036	(0.946)	173187	14.7931	14.79(R)
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	8.186	8.191	(0.964)	257075	28.5791	28.58(R)
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.490	8.490	(1.000)	129818	20.0000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.789	8.789	(1.035)	114376	18.9178	18.92(R)
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					
17	Hexachloroethane	117	Compound Not Detected.					
16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
15	4-Methylphenol	108	Compound Not Detected.					
$ 18	Nitrobenzene-d5	82	9.409	9.414	(0.894)	199721	20.1912	20.19(R)
19	Nitrobenzene	77	Compound Not Detected.					
20	Isophorone	82	Compound Not Detected.					
21	2-Nitrophenol	139	Compound Not Detected.					
22	2,4-Dimethylphenol	107	Compound Not Detected.					
23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
24	Benzoic acid	105	Compound Not Detected.					
25	2,4-Dichlorophenol	162	Compound Not Detected.					
26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
* 27	Naphthalene-d8	136	10.525	10.531	(1.000)	483587	20.0000	
28	Naphthalene	128	Compound Not Detected.					
29	4-Chloroaniline	127	Compound Not Detected.					
30	Hexachlorobutadiene	225	Compound Not Detected.					
31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
32	2-Methylnaphthalene	141	Compound Not Detected.					
33	Hexachlorocyclopentadiene	237	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$ 36	2-Fluorobiphenyl	172	12.315	12.315	(0.919)	355250	20.1044	20.10(R)
37	2-Chloronaphthalene	162	Compound Not Detected.					
38	2-Nitroaniline	65	Compound Not Detected.					
39	Dimethylphthalate	163	Compound Not Detected.					
40	Acenaphthylene	152	Compound Not Detected.					
41	2,6-Dinitrotoluene	165	Compound Not Detected.					
* 42	Acenaphthene-d10	164	13.394	13.394	(1.000)	248451	20.0000	
43	3-Nitroaniline	138	Compound Not Detected.					
44	Acenaphthene	153	Compound Not Detected.					
45	2,4-Dinitrophenol	184	Compound Not Detected.					
46	Dibenzofuran	168	Compound Not Detected.					
47	4-Nitrophenol	109	Compound Not Detected.					
48	2,4-Dinitrotoluene	165	Compound Not Detected.					
50	Diethylphthalate	149	Compound Not Detected.					
49	Fluorene	166	Compound Not Detected.					
51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
52	4-Nitroaniline	138	Compound Not Detected.					
53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$ 55	2,4,6-Tribromophenol	330	14.687	14.692	(1.097)	61944	29.7812	29.78(R)
56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
57	Hexachlorobenzene	284	Compound Not Detected.					
58	Pentachlorophenol	266	Compound Not Detected.					
* 59	Phenanthrene-d10	188	15.777	15.777	(1.000)	413567	20.0000	
60	Phenanthrene	178	Compound Not Detected.					
61	Anthracene	178	Compound Not Detected.					
62	Carbazole	167	Compound Not Detected.					
63	Di-n-butylphthalate	149	Compound Not Detected.					
64	Fluoranthene	202	Compound Not Detected.					
65	Pyrene	202	Compound Not Detected.					
$ 66	Terphenyl-d14	244	18.416	18.416	(0.916)	370551	22.4469	22.45(R)
67	Butylbenzylphthalate	149	Compound Not Detected.					
68	Benzo(a)anthracene	228	Compound Not Detected.					
* 69	Chrysene-d12	240	20.104	20.109	(1.000)	428534	20.0000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	Compound Not Detected.					
72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
* 134	Di-n-octylphthalate-d4	153	21.199	21.204	(1.000)	565227	20.0000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	Compound Not Detected.					
75	Benzo(k)fluoranthene	252	Compound Not Detected.					
76	Benzo(a)pyrene	252	Compound Not Detected.					
* 77	Perylene-d12	264	22.278	22.278	(1.000)	455268	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	141	Compound Not Detected.					
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062713.D
Lab Smp Id: 18F0248-06
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180627.b\SW846180516.m
Misc Info: 18-

Calibration Date: 27-JUN-2018
Calibration Time: 11:13
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	129818	2.23
27 Naphthalene-d8	478458	239229	956916	483587	1.07
42 Acenaphthene-d10	247659	123830	495318	248451	0.32
59 Phenanthrene-d10	421930	210965	843860	413567	-1.98
69 Chrysene-d12	450836	225418	901672	428534	-4.95
134 Di-n-octylphthala	583434	291717	1166868	565227	-3.12
77 Perylene-d12	453093	226547	906186	455268	0.48

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.49	7.99	8.99	8.49	0.00
27 Naphthalene-d8	10.53	10.03	11.03	10.53	-0.05
42 Acenaphthene-d10	13.39	12.89	13.89	13.39	0.00
59 Phenanthrene-d10	15.78	15.28	16.28	15.78	0.00
69 Chrysene-d12	20.11	19.61	20.61	20.10	-0.03
134 Di-n-octylphthala	21.20	20.70	21.70	21.20	-0.02
77 Perylene-d12	22.28	21.78	22.78	22.28	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062713.D

Lab ID: 18F0248-06
nt12.i, SW846180516.m, 27-JUN-2018 19:35

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

LDW18-SP-86

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D
Semivolatile Organic Compounds (SepF)

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-07	SDG:	18F0185
Sampled:	06/15/18 12:19	Prepared:	06/22/18 12:06	File ID:	N1218062714.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/27/18 20:09
Batch:	BGF0552	Sequence:	SGF0348	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT12	Column:	ZB-5MS	Calibration:	BE00052

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	3.0	U	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	21.4	57.1	32.5 - 120	
Phenol-d5	37.500	15.1	40.2	17.8 - 120	
2-Chlorophenol-d4	37.500	28.8	76.8	55 - 120	
1,2-Dichlorobenzene-d4	25.000	18.9	75.8	49.3 - 120	
Nitrobenzene-d5	25.000	20.2	81.0	56.1 - 120	
2-Fluorobiphenyl	25.000	20.1	80.3	54.4 - 120	
2,4,6-Tribromophenol	37.500	30.0	80.0	49.3 - 128	
p-Terphenyl-d14	25.000	22.7	90.9	60 - 120	

Data File: \\target\share\chem3\nt12.i\20180627.b\N1218062714.D

Date : 27-JUN-2018 20:09

Client ID:

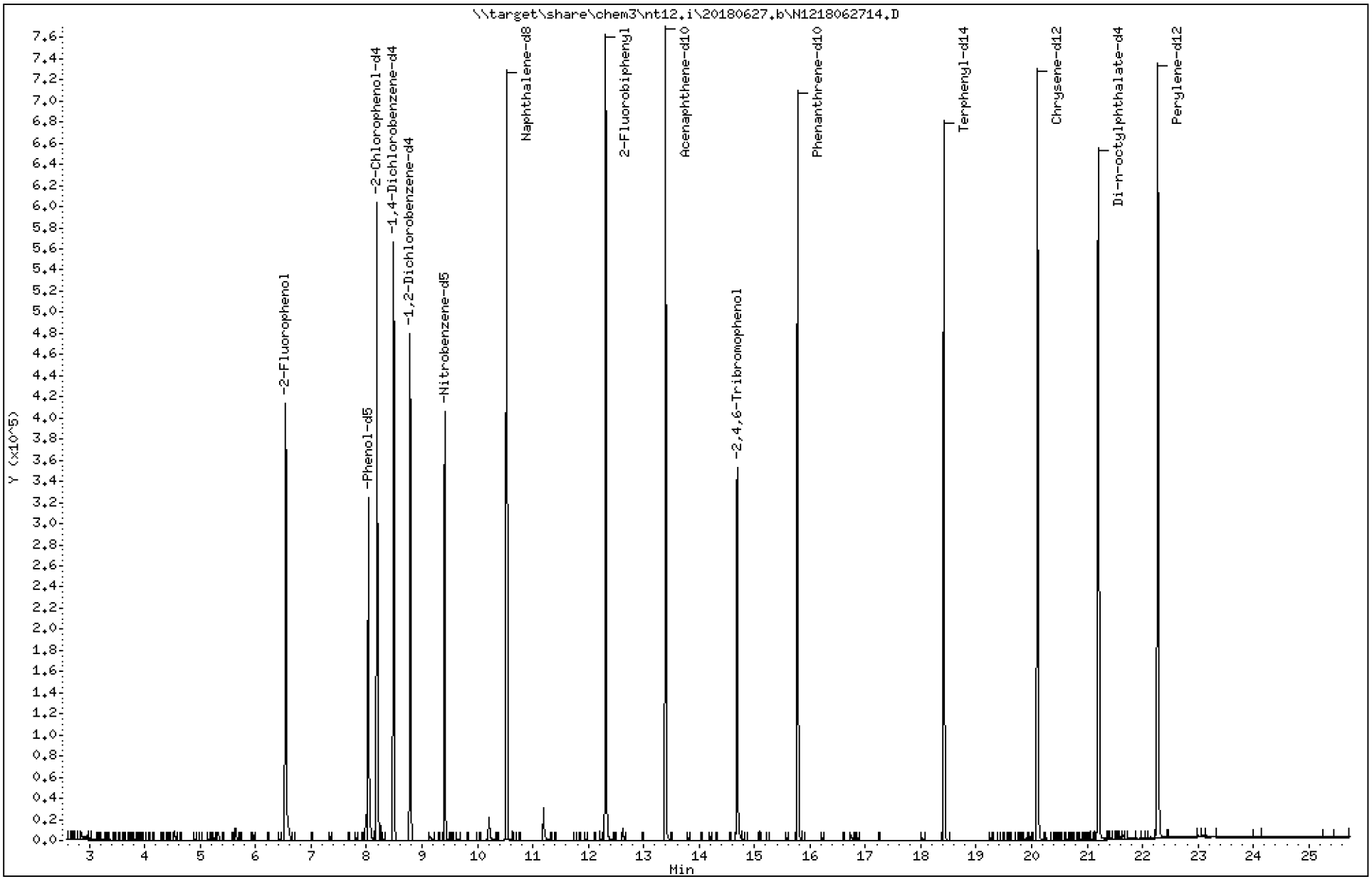
Instrument: nt12.i

Sample Info: 18F0248-07

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180627.b\N1218062714.D
Lab Smp Id: 18F0248-07
Inj Date : 27-JUN-2018 20:09
Operator : JZ Inst ID: nt12.i
Smp Info : 18F0248-07
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180627.b\SW846180516.m
Meth Date : 28-Jun-2018 14:05 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$ 1	2-Fluorophenol	112	6.540	6.540	(0.770)	199360	21.3945	21.39(R)
$ 2	Phenol-d5	99	8.030	8.036	(0.946)	176487	15.0749	15.07(R)
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	8.185	8.191	(0.964)	259203	28.8155	28.82(R)
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.490	8.490	(1.000)	129819	20.0000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.789	8.789	(1.035)	114552	18.9468	18.95(R)
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					
17	Hexachloroethane	117	Compound Not Detected.					
16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
15	4-Methylphenol	108	Compound Not Detected.					
$ 18	Nitrobenzene-d5	82	9.409	9.414	(0.894)	201060	20.2434	20.24(R)
19	Nitrobenzene	77	Compound Not Detected.					
20	Isophorone	82	Compound Not Detected.					
21	2-Nitrophenol	139	Compound Not Detected.					
22	2,4-Dimethylphenol	107	Compound Not Detected.					
23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
24	Benzoic acid	105	Compound Not Detected.					
25	2,4-Dichlorophenol	162	Compound Not Detected.					
26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
* 27	Naphthalene-d8	136	10.525	10.531	(1.000)	485574	20.0000	
28	Naphthalene	128	Compound Not Detected.					
29	4-Chloroaniline	127	Compound Not Detected.					
30	Hexachlorobutadiene	225	Compound Not Detected.					
31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
32	2-Methylnaphthalene	141	Compound Not Detected.					
33	Hexachlorocyclopentadiene	237	Compound Not Detected.					

		QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
Compounds								
34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$ 36	2-Fluorobiphenyl	172	12.315	12.315	(0.919)	358470	20.0682	20.07(R)
37	2-Chloronaphthalene	162	Compound Not Detected.					
38	2-Nitroaniline	65	Compound Not Detected.					
39	Dimethylphthalate	163	Compound Not Detected.					
40	Acenaphthylene	152	Compound Not Detected.					
41	2,6-Dinitrotoluene	165	Compound Not Detected.					
* 42	Acenaphthene-d10	164	13.394	13.394	(1.000)	251155	20.0000	
43	3-Nitroaniline	138	Compound Not Detected.					
44	Acenaphthene	153	Compound Not Detected.					
45	2,4-Dinitrophenol	184	Compound Not Detected.					
46	Dibenzofuran	168	Compound Not Detected.					
47	4-Nitrophenol	109	Compound Not Detected.					
48	2,4-Dinitrotoluene	165	Compound Not Detected.					
50	Diethylphthalate	149	Compound Not Detected.					
49	Fluorene	166	Compound Not Detected.					
51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
52	4-Nitroaniline	138	Compound Not Detected.					
53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$ 55	2,4,6-Tribromophenol	330	14.687	14.692	(1.097)	63060	29.9913	29.99(R)
56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
57	Hexachlorobenzene	284	Compound Not Detected.					
58	Pentachlorophenol	266	Compound Not Detected.					
* 59	Phenanthrene-d10	188	15.777	15.777	(1.000)	411978	20.0000	
60	Phenanthrene	178	Compound Not Detected.					
61	Anthracene	178	Compound Not Detected.					
62	Carbazole	167	Compound Not Detected.					
63	Di-n-butylphthalate	149	Compound Not Detected.					
64	Fluoranthene	202	Compound Not Detected.					
65	Pyrene	202	Compound Not Detected.					
$ 66	Terphenyl-d14	244	18.416	18.416	(0.916)	369185	22.7127	22.71(R)
67	Butylbenzylphthalate	149	Compound Not Detected.					
68	Benzo(a)anthracene	228	Compound Not Detected.					
* 69	Chrysene-d12	240	20.104	20.109	(1.000)	421958	20.0000	
70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
71	Chrysene	228	Compound Not Detected.					
72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
* 134	Di-n-octylphthalate-d4	153	21.204	21.204	(1.000)	562067	20.0000	
73	Di-n-octylphthalate	149	Compound Not Detected.					
74	Benzo(b)fluoranthene	252	Compound Not Detected.					
75	Benzo(k)fluoranthene	252	Compound Not Detected.					
76	Benzo(a)pyrene	252	Compound Not Detected.					
* 77	Perylene-d12	264	22.278	22.278	(1.000)	448313	20.0000	
78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
90	N-Nitrosodimethylamine	74	Compound Not Detected.					
91	Aniline	93	Compound Not Detected.					
93	Benzidine	184	Compound Not Detected.					
103	Pyridine	79	Compound Not Detected.					
105	1-methylnaphthalene	141	Compound Not Detected.					
111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062714.D
Lab Smp Id: 18F0248-07
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180627.b\SW846180516.m
Misc Info: 18-

Calibration Date: 27-JUN-2018
Calibration Time: 11:13
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	129819	2.23
27 Naphthalene-d8	478458	239229	956916	485574	1.49
42 Acenaphthene-d10	247659	123830	495318	251155	1.41
59 Phenanthrene-d10	421930	210965	843860	411978	-2.36
69 Chrysene-d12	450836	225418	901672	421958	-6.41
134 Di-n-octylphthala	583434	291717	1166868	562067	-3.66
77 Perylene-d12	453093	226547	906186	448313	-1.05

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.49	7.99	8.99	8.49	-0.00
27 Naphthalene-d8	10.53	10.03	11.03	10.53	-0.05
42 Acenaphthene-d10	13.39	12.89	13.89	13.39	0.00
59 Phenanthrene-d10	15.78	15.28	16.28	15.78	-0.00
69 Chrysene-d12	20.11	19.61	20.61	20.10	-0.03
134 Di-n-octylphthala	21.20	20.70	21.70	21.20	0.00
77 Perylene-d12	22.28	21.78	22.78	22.28	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062714.D

Lab ID: 18F0248-07
nt12.i, SW846180516.m, 27-JUN-2018 20:09

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-88

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D
Semivolatile Organic Compounds (SepF)

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-08	SDG:	18F0185
Sampled:	06/15/18 10:52	Prepared:	06/22/18 12:06	File ID:	N1218062715.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/27/18 20:42
Batch:	BGF0552	Sequence:	SGF0348	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT12	Column:	ZB-5MS	Calibration:	BE00052

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	3.0	U	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	21.0	56.1	32.5 - 120	
Phenol-d5	37.500	15.1	40.2	17.8 - 120	
2-Chlorophenol-d4	37.500	28.0	74.6	55 - 120	
1,2-Dichlorobenzene-d4	25.000	18.2	72.8	49.3 - 120	
Nitrobenzene-d5	25.000	20.1	80.5	56.1 - 120	
2-Fluorobiphenyl	25.000	19.8	79.1	54.4 - 120	
2,4,6-Tribromophenol	37.500	30.8	82.1	49.3 - 128	
p-Terphenyl-d14	25.000	23.4	93.6	60 - 120	

Data File: \\target\share\chem3\nt12.i\20180627.b\N1218062715.D

Date : 27-JUN-2018 20:42

Client ID:

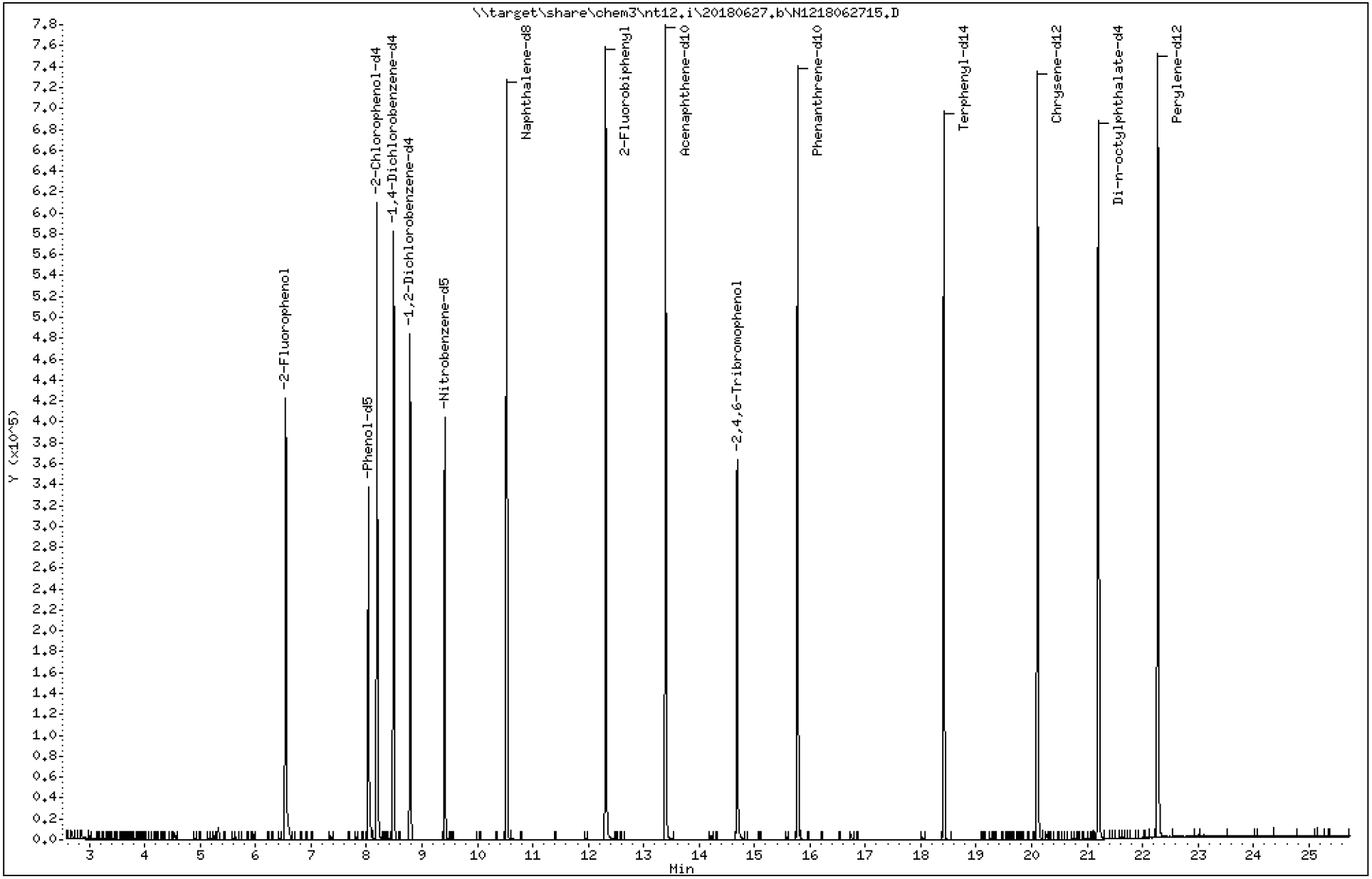
Instrument: nt12.i

Sample Info: 18F0248-08

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180627.b\N1218062715.D
Lab Smp Id: 18F0248-08
Inj Date : 27-JUN-2018 20:42
Operator : JZ Inst ID: nt12.i
Smp Info : 18F0248-08
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180627.b\SW846180516.m
Meth Date : 28-Jun-2018 14:05 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 15
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$ 1	2-Fluorophenol	112	6.540	6.540	(0.770)	204362	21.0208	21.02(R)
$ 2	Phenol-d5	99	8.030	8.036	(0.946)	184332	15.0913	15.09(R)
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	8.185	8.191	(0.964)	262605	27.9817	27.98(R)
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.490	8.490	(1.000)	135442	20.0000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.789	8.789	(1.035)	114782	18.1966	18.20(R)
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					
17	Hexachloroethane	117	Compound Not Detected.					
16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
15	4-Methylphenol	108	Compound Not Detected.					
$ 18	Nitrobenzene-d5	82	9.409	9.414	(0.894)	205614	20.1252	20.13(R)
19	Nitrobenzene	77	Compound Not Detected.					
20	Isophorone	82	Compound Not Detected.					
21	2-Nitrophenol	139	Compound Not Detected.					
22	2,4-Dimethylphenol	107	Compound Not Detected.					
23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
24	Benzoic acid	105	Compound Not Detected.					
25	2,4-Dichlorophenol	162	Compound Not Detected.					
26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
* 27	Naphthalene-d8	136	10.525	10.531	(1.000)	499489	20.0000	
28	Naphthalene	128	Compound Not Detected.					
29	4-Chloroaniline	127	Compound Not Detected.					
30	Hexachlorobutadiene	225	Compound Not Detected.					
31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
32	2-Methylnaphthalene	141	Compound Not Detected.					
33	Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	12.315	12.315	(0.919)	359811	19.7733	19.77(R)
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	13.394	13.394	(1.000)	255855	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	Compound Not Detected.					
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	Compound Not Detected.					
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	14.687	14.692	(1.097)	65942	30.7859	30.79(R)
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	15.777	15.777	(1.000)	424055	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	Compound Not Detected.					
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	18.416	18.416	(0.916)	389192	23.3981	23.40(R)
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	20.104	20.109	(1.000)	431794	20.0000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134	Di-n-octylphthalate-d4	153	21.204	21.204	(1.000)	573511	20.0000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	22.278	22.278	(1.000)	458271	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	Compound Not Detected.					
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062715.D
Lab Smp Id: 18F0248-08
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180627.b\SW846180516.m
Misc Info: 18-

Calibration Date: 27-JUN-2018
Calibration Time: 11:13
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	135442	6.66
27 Naphthalene-d8	478458	239229	956916	499489	4.40
42 Acenaphthene-d10	247659	123830	495318	255855	3.31
59 Phenanthrene-d10	421930	210965	843860	424055	0.50
69 Chrysene-d12	450836	225418	901672	431794	-4.22
134 Di-n-octylphthala	583434	291717	1166868	573511	-1.70
77 Perylene-d12	453093	226547	906186	458271	1.14

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.49	7.99	8.99	8.49	0.00
27 Naphthalene-d8	10.53	10.03	11.03	10.53	-0.05
42 Acenaphthene-d10	13.39	12.89	13.89	13.39	0.00
59 Phenanthrene-d10	15.78	15.28	16.28	15.78	0.00
69 Chrysene-d12	20.11	19.61	20.61	20.10	-0.03
134 Di-n-octylphthala	21.20	20.70	21.70	21.20	0.00
77 Perylene-d12	22.28	21.78	22.78	22.28	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062715.D

Lab ID: 18F0248-08
nt12.i, SW846180516.m, 27-JUN-2018 20:42

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

PREPARATION BATCH SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGF0417 Batch Matrix: Water Preparation: EPA 3510C SepF

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-RB1	18F0185-01	N1218062104.D	06/18/18 15:20	
LDW18-SP-30	18F0185-03	N1218062105.D	06/18/18 15:20	
LDW18-SP-32	18F0185-04	N1218062106.D	06/18/18 15:20	
LDW18-SP-35	18F0185-05	N1218062107.D	06/18/18 15:20	
LDW18-SP-38	18F0185-06	N1218062108.D	06/18/18 15:20	
LDW18-SP-42	18F0185-07	N1218062109.D	06/18/18 15:20	
LDW18-SP-43	18F0185-08	N1218062110.D	06/18/18 15:20	
Blank	BGF0417-BLK1	N1218062102.D	06/18/18 15:20	
LCS	BGF0417-BS1	N1218062103.D	06/18/18 15:20	
LDW18-SP-43	BGF0417-MS1	N1218062111.D	06/18/18 15:20	
LDW18-SP-43	BGF0417-MSD1	N1218062112.D	06/18/18 15:20	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BGF0417

Prepared using: EPA 3510C SepF

8270D SVOC (1-20 ug/L SepF) in Water (Version:AOC Seeps Task 4)

Matrix: Water **Date Prepared:** 6/18/18 **Balance ID:** _____ **Set Up By:** CCT 6/18/18

The following standards may be missing from this batch!

Designator	Description
39	Benzidine Spike
QLS 14	QLS Spike (Freezer)
21	Spike SKYBHT

Analysis: 8270D SVOC (1-20 ug/L SepF)

Lab Number & Container	Initial (mL) Actual	Actual	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
18F0185-01 E	500.00	500	0.5	0.5	
18F0185-03 E	500.00	500	0.5	0.5	
18F0185-04 E	500.00	500	0.5	0.5	
18F0185-05 E	500.00	500	0.5	0.5	
18F0185-06 E	500.00	500	0.5	0.5	
18F0185-07 E	500.00	500	0.5	0.5	
18F0185-08 H	500.00	500	0.5	0.5	

Batch QC

Lab Number	Initial (mL) Actual	Actual	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
BGF0417-BLK1	500.00	500	0.5	0.5	
BGF0417-BS1	500.00	500	0.5	0.5	
BGF0417-MS1	500.00	500	0.5	0.5	Use 18F0185-08
BGF0417-MSD1	500.00	500	0.5	0.5	Use 18F0185-08 J

CCT 6/18/18 — Client ID verified By / Date

6/21/18 — Preparation Reviewed By / Date

6/18/18 1520 — Extraction Date and Time

Printed: 6/18/2018 9:08:30AM

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BGF0417

Prepared using: EPA 3510C SepF

8270D SVOC (1-20 ug/L SepF) in Water (Version:AOC Seeps Task 4)

Prep Steps

Extract w/ DCM
CLF / 6/18/18
Analyst/Date

KD 80-85°C
1 (2) 3 4 5 6
BH 6/20/18
Analyst/Date

TurboVap
(1) (2) 3 4 5
SC 6/21/18
Analyst/Date

Vialing
SC 6/21/18
Analyst/Date

Reagents Used

Station/Reagent	Standard ID
Separatory Funnel Analyst: CLF/KL Date: 6/18/18	
Methylene Chloride	G004967
1:1 Sulfuric Acid/DI H2O	G004625
~~10 N Sodium Hydroxide~~	
Anhydrous Sodium Sulfate	G005382
KD Analyst: BH Date: 6/20/18	
Methylene Chloride	G004967
Vialing Analyst: SC Date: 6/21/18	
Methylene Chloride	G005487

Surrogates & Spike Standards Used

Type		Standard ID	Vol uL	Analyst	Witness
Surrogate 100/150µg/mL	A	G005127 Exp: 12/05/2018	125µL	KL	CLF
Full List Spike (Freezer) 100µg/m	7	G001872 (V) Exp: 07/30/2018	125µL	KL	CLF
Base Spike 200µg/mL	56	G001872 (V) Exp: 07/30/2018	125µL	KL	CLF
Acid Spike 100/200µg/mL	38	G001872 (V) Exp: 07/30/2018	125µL	KL	CLF

(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.

If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator inthe Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

Extraction Parameter: BTEX

Element Batch: BQF0417 Work Order(s): 18F0185

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Received in 32oz jar(s)=Homogenized in Pyrex dish=	
☐ Other (Details)=	
Aqueous:	
☒ No Anomalies	CLS 5/18/18
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
☐ Received in 1.0L Bottle(s)=No Bottle Rinse=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
☐ Share Samples Y / N	
☐ Multiple Jars Y / N	
☐ Sample Pre-Screens indicate analyte activity=	
☐ Sample weights/volumes reduced based on Pre-Screen=	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BGF0417

Prepared using: EPA 3510C SepF

8270D SVOC (1-20 ug/L SepF) in Water (Version:AOC Seeps Task 4)

Prep Instructions	
SPECIAL INSTRUCTIONS: 1. Add surr/spk. 2. Adjust Acid (pH <2) using 1:1 Sulfuric Acid. (1/4 pipet for blanks & 1/2 pipet for samples). Verify pH! 3. Extract 1X 60mL DCM, Plus 2X 30mL DCM. ~~4. Adjust Basic (pH >12) using 1 pipet 10 N Sodium Hydroxide solution. Verify pH!~~ ~~5. Extract 1X 60mL DCM, Plus 2X 30mL DCM.~~ ~~6. Pour Acid Fraction first into KD then Basic Fraction into Acid.~~ 7. KD to 5mL at 80°. 8. TurboVap to 0.5mL. Archive [Y] / N	

PREPARATION BATCH SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGF0434 Batch Matrix: Water Preparation: EPA 3510C SepF

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-06	18F0208-01	N1218062115.D	06/20/18 13:36	
LDW18-SP-33	18F0208-02	N1218062116.D	06/20/18 13:36	
LDW18-SP-24	18F0208-03	N1218062117.D	06/20/18 13:36	
LDW18-SP-24-FD	18F0208-04	N1218062118.D	06/20/18 13:36	
Blank	BGF0434-BLK1	N1218062113.D	06/20/18 13:36	
LCS	BGF0434-BS1	N1218062114.D	06/20/18 13:36	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BGF0434

Prepared using: EPA 3510C SepF

625 SVOC in Water (Version:With Benzidine)
8270D SVOC (1-20 ug/L SepF) in Water (Version:AOC Seeps Task 4)

Matrix: Water **Date Prepared:** 6/20/18 **Balance ID:** N/A **Set Up By:** CCT 6/19/18

The following standards may be missing from this batch!

Designator	Description
QLS 14	QLS Spike (Freezer)
21	Spike SKYBHT

Analysis: 625 SVOC

Lab Number & Container	Initial (mL) Actual	Actual	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
18F0206-03 B	500.00	500	0.5	0.5	

Analysis: 8270D SVOC (1-20 ug/L SepF)

Lab Number & Container	Initial (mL) Actual	Actual	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
18F0208-01 D	500.00	500	0.5	0.5	
18F0208-02 D	500.00	"	0.5	0.5	
18F0208-03 E	500.00	"	0.5	0.5	
18F0208-04 E	500.00	"	0.5	0.5	

Batch QC

Lab Number	Initial (mL) Actual	Actual	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
BGF0434-BLK1	500.00	500	0.5	0.5	
BGF0434-BS1	500.00	500	0.5	0.5	

BH 6/20/18 — Client ID verified By / Date

Preparation Reviewed By — 6/21/18 Date

6/20/18 13:36 — Extraction Date and Time

Printed: 6/19/2018 11:03:47AM

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BGF0434

Prepared using: EPA 3510C SepF

625 SVOC in Water (Version:With Benzidine)
8270D SVOC (1-20 ug/L SepF) in Water (Version:AOC Seeps Task 4)

Prep Steps

Extract w/ DCM
RM BH 6/20/18
Analyst/Date

KD 80-85°C
Φ
1 (2) 3 4 5 6
BH 6/21/18
Analyst/Date

TurboVap
(1) 2 (3) 4 5
6/21/18
Analyst/Date

Vialing
6/21/18
Analyst/Date

Reagents Used

Station/Reagent	Standard ID
Separatory Funnel Analyst: RM/BH Date: 6/20/18	
Methylene Chloride	G005487
1:1 Sulfuric Acid/DI H2O	G004625
10 N Sodium Hydroxide	F001655
Anhydrous Sodium Sulfate	G005382
KD Analyst: BH Date: 6/21/18	
Methylene Chloride	G005487
Vialing Analyst: Date: 6/21/18	
Methylene Chloride	G004682

Surrogates & Spike Standards Used

Type	Standard ID	Vol uL	Analyst	Witness
Surrogate 100/150µg/mL	A G005127 Exp: 12/05/2018	125µL	RM	BH
Full List Spike (Freezer) 100µg/m	7 G004696 (V) Exp: 07/30/2018	125µL	RM	BH
Base Spike 200µg/mL	56 G004696 (V) Exp: 07/30/2018	125µL	RM	BH
Benzidine Spike 500µg/mL	39 G004696 (V) Exp: 07/30/2018	125µL	RM	BH
Acid Spike 100/200µg/mL	38 G004696 (V) Exp: 07/30/2018	125µL	RM	BH

(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.

If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator inthe Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).

ORGANICS PREPARATION BENCH SHEET

Batch: BGF0434

Prepared using: EPA 3510C SepF

625 SVOC in Water (Version:With Benzidine)
8270D SVOC (1-20 ug/L SepF) in Water (Version:AOC Seeps Task 4)

Prep Instructions	
SPECIAL INSTRUCTIONS: 1. Add surr/spk. 2. Adjust Acid (pH <2) using 1:1 Sulfuric Acid. (1/4 pipet for blanks & 1/2 pipet for samples). Verify pH! 3. Extract 1X 60mL DCM, Plus 2X 30mL DCM. 4. Adjust Basic (pH >12) using 1 pipet 10 N Sodium Hydroxide solution. Verify pH! 5. Extract 1X 60mL DCM, Plus 2X 30mL DCM. 6. Pour Acid Fraction first into KD then Basic Fraction into Acid. 7. KD to 5mL at 80°. 8. TurboVap to 0.5mL. Archive: Y / N	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

Extraction Parameter: BAN

Element Batch: BGF0434 Work Order(s): 18F0206-03, 18F0208

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Received in 32oz jar(s)=Homogenized in Pyrex dish=	
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☒ Turbid/Color= 206-03: rust color, turbid	BH 6/20/18
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
☐ Received in 1.0L Bottle(s)=No Bottle Rinse=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
☐ Share Samples Y / N	
☐ Multiple Jars Y / N	
☐ Sample Pre-Screens indicate analyte activity=	
☐ Sample weights/volumes reduced based on Pre-Screen=	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

PREPARATION BATCH SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGF0515 Batch Matrix: Water Preparation: EPA 3510C SepF

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-05	18F0226-01	N1218062607.D	06/21/18 15:35	
LDW18-SP-57	18F0226-02	N1218062608.D	06/21/18 15:35	
LDW18-SP-73	18F0226-03	N1218062611.D	06/21/18 15:35	
LDW18-SP-74	18F0226-04	N1218062612.D	06/21/18 15:35	
LDW18-SP-77	18F0226-05	N1218062613.D	06/21/18 15:35	
LDW18-SP-78	18F0226-06	N1218062614.D	06/21/18 15:35	
LDW18-SP-79	18F0226-07	N1218062615.D	06/21/18 15:35	
LDW18-SP-84	18F0226-08	N1218062616.D	06/21/18 15:35	
LDW18-SP-87	18F0226-09	N1218062617.D	06/21/18 15:35	
Blank	BGF0515-BLK1	N1218062605.D	06/21/18 15:35	
LCS	BGF0515-BS1	N1218062606.D	06/21/18 15:35	
LDW18-SP-57	BGF0515-MS1	N1218062609.D	06/21/18 15:35	
LDW18-SP-57	BGF0515-MSD1	N1218062610.D	06/21/18 15:35	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BGF0515

Prepared using: EPA 3510C SepF

8270D SVOC (1-20 ug/L SepF) in Water (Version:AOC Seeps Task 4)

Matrix: Water **Date Prepared:** 6/21/18 **Balance ID:** _____ **Set Up By:** CCT 6/20/18

The following standards may be missing from this batch!

Designator	Description
39	Benzidine Spike
QLS 14	QLS Spike (Freezer)
21	Spike SKYBHT

Analysis: 8270D SVOC (1-20 ug/L SepF)

Lab Number & Container	Initial (mL) Actual	Actual	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
18F0226-01 C	500.00	500	0.5	0.5	
18F0226-02 F	500.00		0.5	0.5	
18F0226-03 C	500.00		0.5	0.5	
18F0226-04 C	500.00		0.5	0.5	
18F0226-05 D	500.00		0.5	0.5	
18F0226-06 D	500.00		0.5	0.5	
18F0226-07 D	500.00		0.5	0.5	
18F0226-08 C	500.00		0.5	0.5	
18F0226-09 D	500.00		0.5	0.5	

Batch QC

Lab Number	Initial (mL) Actual	Actual	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
BGF0515-BLK1	500.00	500	0.5	0.5	
BGF0515-BS1	500.00		0.5	0.5	
BGF0515-MS1	500.00		0.5	0.5	Use 18F0226-02 G
BGF0515-MSD1	500.00		0.5	0.5	Use 18F0226-02 H

CCT 6/21/18 — Client ID verified By / Date

_____ — Preparation Reviewed By / Date

6/21/18 1535 — Extraction Date and Time

Printed: 6/20/2018 2:05:14PM

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BGF0515

Prepared using: EPA 3510C SepF

8270D SVOC (1-20 ug/L SepF) in Water (Version:AOC Seeps Task 4)

Prep Steps

Extract w/ DCM Analyst/Date
KD 80-85°C Φ 1 (2) 3 4 5 6 BH 6/26/18 Analyst/Date
TurboVap 1 2 3 4 5 Analyst/Date
Vialing Analyst/Date

Reagents Used

Station/Reagent	Standard ID
Separatory Funnel Analyst: RM Date: 6/21/18	
Methylene Chloride	6005487
1:1 Sulfuric Acid/DI H2O	6004625
~~10 N Sodium Hydroxide~~	
Anhydrous Sodium Sulfate	6005382
KD Analyst: BH Date: 6/26/18	
Methylene Chloride	6005487
Vialing Analyst: VB Date: 6.26.18	
Methylene Chloride 6005487	

Surrogates & Spike Standards Used

Type		Standard ID	Vol uL	Analyst	Witness
Surrogate 100/150µg/mL	A	G005127 Exp: 12/05/2018	125µL	AG	WW
Full List Spike (Freezer) 100µg/m	7	G001872 (V) Exp: 07/30/2018	125µL	AG	WW
Base Spike 200µg/mL	56	G001872 (V) Exp: 07/30/2018	125µL	AG	WW
Acid Spike 100/200µg/mL	38	G001872 (V) Exp: 07/30/2018	125µL	AG	WW

(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.

If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator inthe Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).

ORGANICS PREPARATION BENCH SHEET

Batch: BGF0515

Prepared using: EPA 3510C SepF

8270D SVOC (1-20 ug/L SepF) in Water (Version:AOC Seeps Task 4)

Prep Instructions	
SPECIAL INSTRUCTIONS: 1. Add surr/spk. 2. Adjust Acid (pH <2) using 1:1 Sulfuric Acid. (1/4 pipet for blanks & 1/2 pipet for samples). Verify pH! 3. Extract 1X 60mL DCM, Plus 2X 30mL DCM. ~~4. Adjust Basic (pH > 12) using 1 pipet 10 N Sodium Hydroxide solution. Verify pH!~~ ~~5. Extract 1X 60mL DCM, Plus 2X 30mL DCM.~~ ~~6. Pour Acid Fraction first into KD then Basic Fraction into Acid.~~ 7. KD to 5mL at 80°. 8. TurboVap to 0.5mL. Archive: Y / N	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

Extraction Parameter: BAN

Element Batch: BGF0515 Work Order(s): 18F0226

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Received in 32oz jar(s)=Homogenized in Pyrex dish=	
☐ Other (Details)=	
Aqueous:	
☑ No Anomalies	RM 6/21/18
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
☐ Received in 1.0L Bottle(s)=No Bottle Rinse=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
☐ Share Samples Y / N	
☐ Multiple Jars Y / N	
☐ Sample Pre-Screens indicate analyte activity=	
☐ Sample weights/volumes reduced based on Pre-Screen=	

PREPARATION BATCH SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGF0552 Batch Matrix: Water Preparation: EPA 3510C SepF

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-01	18F0248-01	N1218062708.D	06/22/18 12:06	
LDW18-SP-45	18F0248-02	N1218062709.D	06/22/18 12:06	
LDW18-SP-47	18F0248-03	N1218062710.D	06/22/18 12:06	
LDW18-SP-66	18F0248-04	N1218062711.D	06/22/18 12:06	
LDW18-SP-70	18F0248-05	N1218062712.D	06/22/18 12:06	
LDW18-SP-83	18F0248-06	N1218062713.D	06/22/18 12:06	
LDW18-SP-86	18F0248-07	N1218062714.D	06/22/18 12:06	
LDW18-SP-88	18F0248-08	N1218062715.D	06/22/18 12:06	
Blank	BGF0552-BLK1	N1218062706.D	06/22/18 12:06	
LCS	BGF0552-BS1	N1218062707.D	06/22/18 12:06	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BGF0552

Prepared using: EPA 3510C SepF

8270D SVOC (1-20 ug/L SepF) in Water (Version:AOC Seeps Task 4)

Matrix: Water **Date Prepared:** 6/22/18 **Balance ID:** N/A **Set Up By:** CCT 6/22/18

The following standards may be missing from this batch!

Designator	Description
39	Benzidine Spike
QLS 14	QLS Spike (Freezer)
21	Spike SKYBHT

Analysis: 8270D SVOC (1-20 ug/L SepF)

Lab Number & Container	Initial (mL) Actual	Actual	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
18F0248-01 E	500.00	500	0.5	0.5	
18F0248-02 E	500.00	"	0.5	0.5	
18F0248-03 E	500.00	"	0.5	0.5	
18F0248-04 E	500.00	"	0.5	0.5	
18F0248-05 E	500.00	"	0.5	0.5	
18F0248-06 D	500.00	"	0.5	0.5	
18F0248-07 E	500.00	"	0.5	0.5	
18F0248-08 E	500.00	"	0.5	0.5	

Batch QC

Lab Number	Initial (mL) Actual	Actual	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
BGF0552-BLK1	500.00	500	0.5	0.5	
BGF0552-BS1	500.00	"	0.5	0.5	

RL 6/22/18
Client ID verified By / Date

6/27/18
Preparation Reviewed By / Date

6/22/18 12:06
Extraction Date and Time

Printed: 6/22/2018 8:10:48AM

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BGF0552

Prepared using: EPA 3510C SepF

8270D SVOC (1-20 ug/L SepF) in Water (Version:AOC Seeps Task 4)

Prep Steps

Extract w/ DCM
BH 6/22/18
Analyst/Date

KD 80-85°C
1 (2) 3 4 5 6
BH 6/27/18
Analyst/Date

TurboVap
(1) 2 3 4 5
6/27/18
Analyst/Date

Vialing
6/27/18
Analyst/Date

Reagents Used

Station/Reagent	Standard ID
Separatory Funnel Analyst: BH/RK Date: 6/22/18	
Methylene Chloride	G005487
1:1 Sulfuric Acid/DI H2O	G004625
~~10 N Sodium Hydroxide~~	
Anhydrous Sodium Sulfate	G005382
KD Analyst: BH Date: 6/27/18	
Methylene Chloride	G005487
Vialing Analyst: Date: 6/27/18	
Methylene Chloride	G005487

Surrogates & Spike Standards Used

Type	Standard ID	Vol uL	Analyst	Witness
Surrogate 100/150µg/mL	A G005127 Exp: 12/05/2018	125µL	RK	BH
Full List Spike (Freezer) 100µg/m	7 G001872 (V) Exp: 07/30/2018	125µL	RK	BH
Base Spike 200µg/mL	56 G001872 (V) Exp: 07/30/2018	125µL	RK	BH
Acid Spike 100/200µg/mL	38 G001872 (V) Exp: 07/30/2018	125µL	RK	BH

(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.

If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator inthe Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).

ORGANICS PREPARATION BENCH SHEET

Batch: BGF0552

Prepared using: EPA 3510C SepF

8270D SVOC (1-20 ug/L SepF) in Water (Version:AOC Seeps Task 4)

Prep Instructions	
SPECIAL INSTRUCTIONS: 1. Add surr/spk. 2. Adjust Acid (pH <2) using 1:1 Sulfuric Acid. (1/4 pipet for blanks & 1/2 pipet for samples). Verify pH! 3. Extract 1X 60mL DCM, Plus 2X 30mL DCM. ~~4. Adjust Basic (pH > 12) using 1 pipet 10 N Sodium Hydroxide solution. Verify pH!~~ ~~5. Extract 1X 60mL DCM, Plus 2X 30mL DCM.~~ ~~6. Pour Acid Fraction first into KD then Basic Fraction into Acid.~~ 7. KD to 5mL at 80°. 8. TurboVap to 0.5mL. Archive: Y / (N)	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

Extraction Parameter: BAN

Element Batch: BGF0552 Work Order(s): 18F0248

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Received in 32oz jar(s)=Homogenized in Pyrex dish=	
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
☐ Received in 1.0L Bottle(s)=No Bottle Rinse=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
☐ Share Samples Y / N	
☐ Multiple Jars Y / N	
☐ Sample Pre-Screens indicate analyte activity=	
☐ Sample weights/volumes reduced based on Pre-Screen=	

Form I

METHOD BLANK DATA SHEET

EPA 8270D

Blank

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC			Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Laboratory ID:	BGF0417-BLK1	File ID:	N1218062102.D
Sampled:	N/A	Prepared:	06/18/18 15:20	Analyzed:	06/21/18 11:59
Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	500 mL / 0.5 mL
Batch:	BGF0417	Sequence:	SGF0272	Calibration:	BE00052
Instrument:	NT12	Column:	ZB-5MS		

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	3.0	U	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	22.0	58.7	32.5 - 120	
Phenol-d5	37.500	16.1	43.0	17.8 - 120	
2-Chlorophenol-d4	37.500	29.7	79.3	55 - 120	
1,2-Dichlorobenzene-d4	25.000	17.9	71.7	49.3 - 120	
Nitrobenzene-d5	25.000	20.7	82.7	56.1 - 120	
2-Fluorobiphenyl	25.000	19.4	77.4	54.4 - 120	
2,4,6-Tribromophenol	37.500	31.1	82.9	49.3 - 128	
p-Terphenyl-d14	25.000	27.3	109	60 - 120	

Data File: \\target\share\chem3\nt12.i\20180621.b\N1218062102.D

Page 1

Date : 21-JUN-2018 11:59

Client ID:

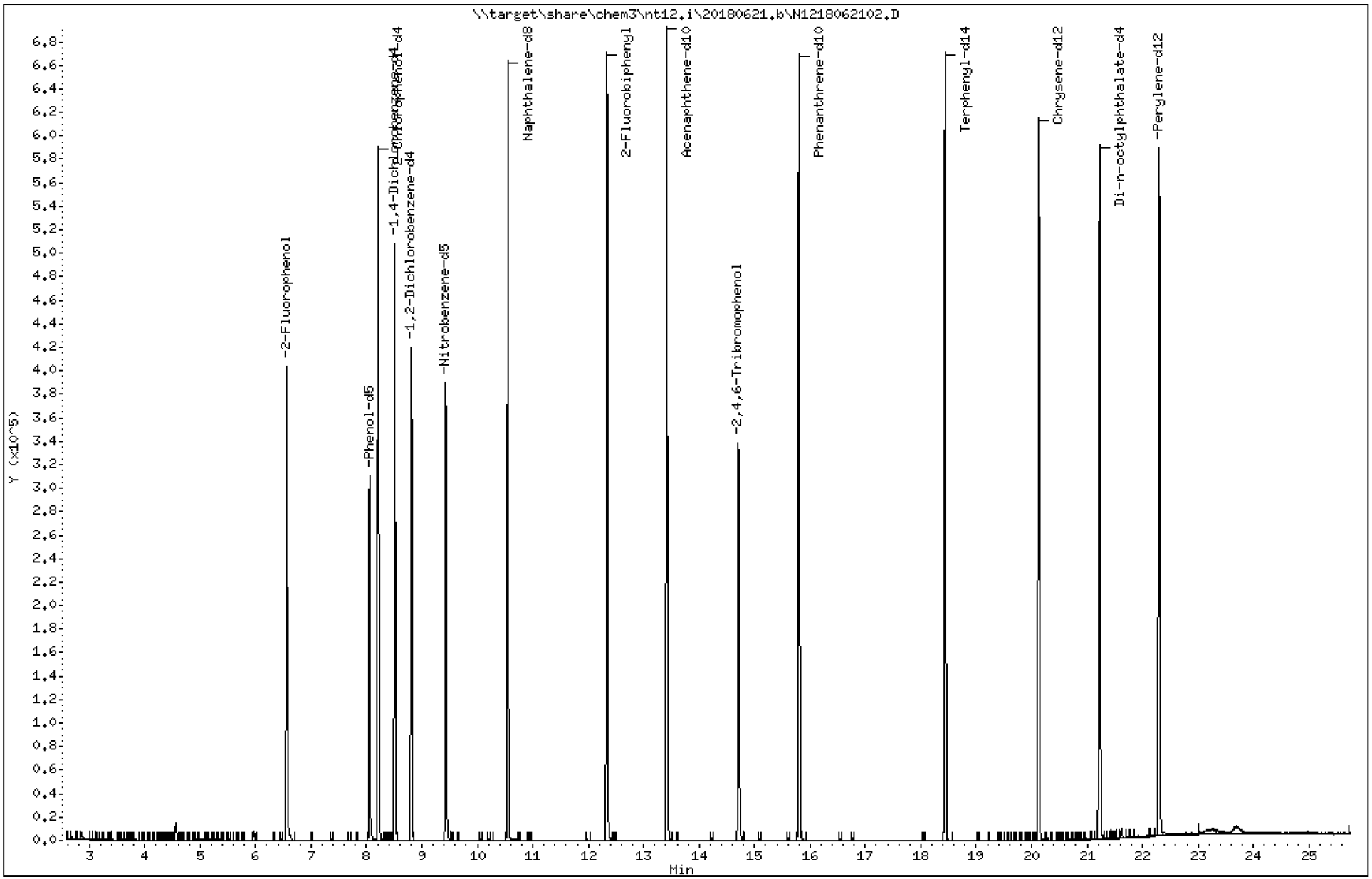
Instrument: nt12.i

Sample Info: BGF0417-BLK1,

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 375 of 6523

ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180621.b\N1218062102.D
Lab Smp Id: BGF0417-BLK1
Inj Date : 21-JUN-2018 11:59
Operator : JZ   Inst ID: nt12.i
Smp Info : BGF0417-BLK1,
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Meth Date : 21-Jun-2018 14:28 jianqing   Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36   Cal File: N1218051608.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.562	6.561	(0.771)	187653	22.0044	22.00(R)
$	2 Phenol-d5	99	8.052	8.057	(0.946)	172830	16.1306	16.13(R)
	3 Phenol	94	Compound Not Detected.					
$	5 2-Chlorophenol-d4	132	8.207	8.212	(0.964)	244772	29.7328	29.73(R)
	4 Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6 2-Chlorophenol	128	Compound Not Detected.					
	7 1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8 1,4-Dichlorobenzene-d4	152	8.512	8.511	(1.000)	118809	20.0000	
	9 1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10 1,2-Dichlorobenzene-d4	152	8.811	8.810	(1.035)	99142	17.9176	17.92(R)
	12 1,2-Dichlorobenzene	146	Compound Not Detected.					
	11 Benzyl alcohol	108	Compound Not Detected.					
	14 2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
	13 2-Methylphenol	108	Compound Not Detected.					
	17 Hexachloroethane	117	Compound Not Detected.					
	16 N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15 4-Methylphenol	108	Compound Not Detected.					
$	18 Nitrobenzene-d5	82	9.430	9.435	(0.894)	188438	20.6765	20.68(R)
	19 Nitrobenzene	77	Compound Not Detected.					
	20 Isophorone	82	Compound Not Detected.					
	21 2-Nitrophenol	139	Compound Not Detected.					
	22 2,4-Dimethylphenol	107	Compound Not Detected.					
	23 Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24 Benzoic acid	105	Compound Not Detected.					
	25 2,4-Dichlorophenol	162	Compound Not Detected.					
	26 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27 Naphthalene-d8	136	10.547	10.552	(1.000)	445557	20.0000	
	28 Naphthalene	128	Compound Not Detected.					
	29 4-Chloroaniline	127	Compound Not Detected.					
	30 Hexachlorobutadiene	225	Compound Not Detected.					
	31 4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32 2-Methylnaphthalene	141	Compound Not Detected.					
	33 Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	12.337	12.342	(0.920)	323474	19.3583	19.36(R)
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	13.416	13.421	(1.000)	234947	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	Compound Not Detected.					
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	Compound Not Detected.					
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	14.714	14.719	(1.097)	61150	31.0892	31.09(R)
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	15.804	15.809	(1.000)	392932	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	Compound Not Detected.					
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	18.437	18.442	(0.916)	373140	27.3036	27.30(R)
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	20.131	20.136	(1.000)	354769	20.0000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134	Di-n-octylphthalate-d4	153	21.221	21.226	(1.000)	482937	20.0000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	22.300	22.305	(1.000)	349218	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	Compound Not Detected.					
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062102.D
Lab Smp Id: BGF0417-BLK1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Misc Info: 18-

Calibration Date: 21-JUN-2018
Calibration Time: 11:24
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	118809	-6.44
27 Naphthalene-d8	478458	239229	956916	445557	-6.88
42 Acenaphthene-d10	247659	123830	495318	234947	-5.13
59 Phenanthrene-d10	421930	210965	843860	392932	-6.87
69 Chrysene-d12	450836	225418	901672	354769	-21.31
134 Di-n-octylphthala	583434	291717	1166868	482937	-17.23
77 Perylene-d12	453093	226547	906186	349218	-22.93

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.51	8.01	9.01	8.51	0.00
27 Naphthalene-d8	10.55	10.05	11.05	10.55	-0.05
42 Acenaphthene-d10	13.42	12.92	13.92	13.42	-0.04
59 Phenanthrene-d10	15.81	15.31	16.31	15.80	-0.03
69 Chrysene-d12	20.14	19.64	20.64	20.13	-0.02
134 Di-n-octylphthala	21.23	20.73	21.73	21.22	-0.02
77 Perylene-d12	22.31	21.81	22.81	22.30	-0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062102.D

Lab ID: BGF0417-BLK1
nt12.i, SW846180516.m, 21-JUN-2018 11:59

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

Form I

METHOD BLANK DATA SHEET

EPA 8270D

Blank

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC			Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Laboratory ID:	BGF0434-BLK1	File ID:	N1218062113.D
Sampled:	N/A	Prepared:	06/20/18 13:36	Analyzed:	06/21/18 18:12
Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	500 mL / 0.5 mL
Batch:	BGF0434	Sequence:	SGF0272	Calibration:	BE00052
Instrument:	NT12	Column:	ZB-5MS		

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	3.0	U	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	20.9	55.6	32.5 - 120	
Phenol-d5	37.500	15.4	41.0	17.8 - 120	
2-Chlorophenol-d4	37.500	28.7	76.6	55 - 120	
1,2-Dichlorobenzene-d4	25.000	18.2	72.9	49.3 - 120	
Nitrobenzene-d5	25.000	20.2	80.7	56.1 - 120	
2-Fluorobiphenyl	25.000	19.3	77.4	54.4 - 120	
2,4,6-Tribromophenol	37.500	30.6	81.6	49.3 - 128	
p-Terphenyl-d14	25.000	26.2	105	60 - 120	

Data File: \\target\share\chem3\nt12.i\20180621.b\N1218062113.D

Date : 21-JUN-2018 18:12

Client ID:

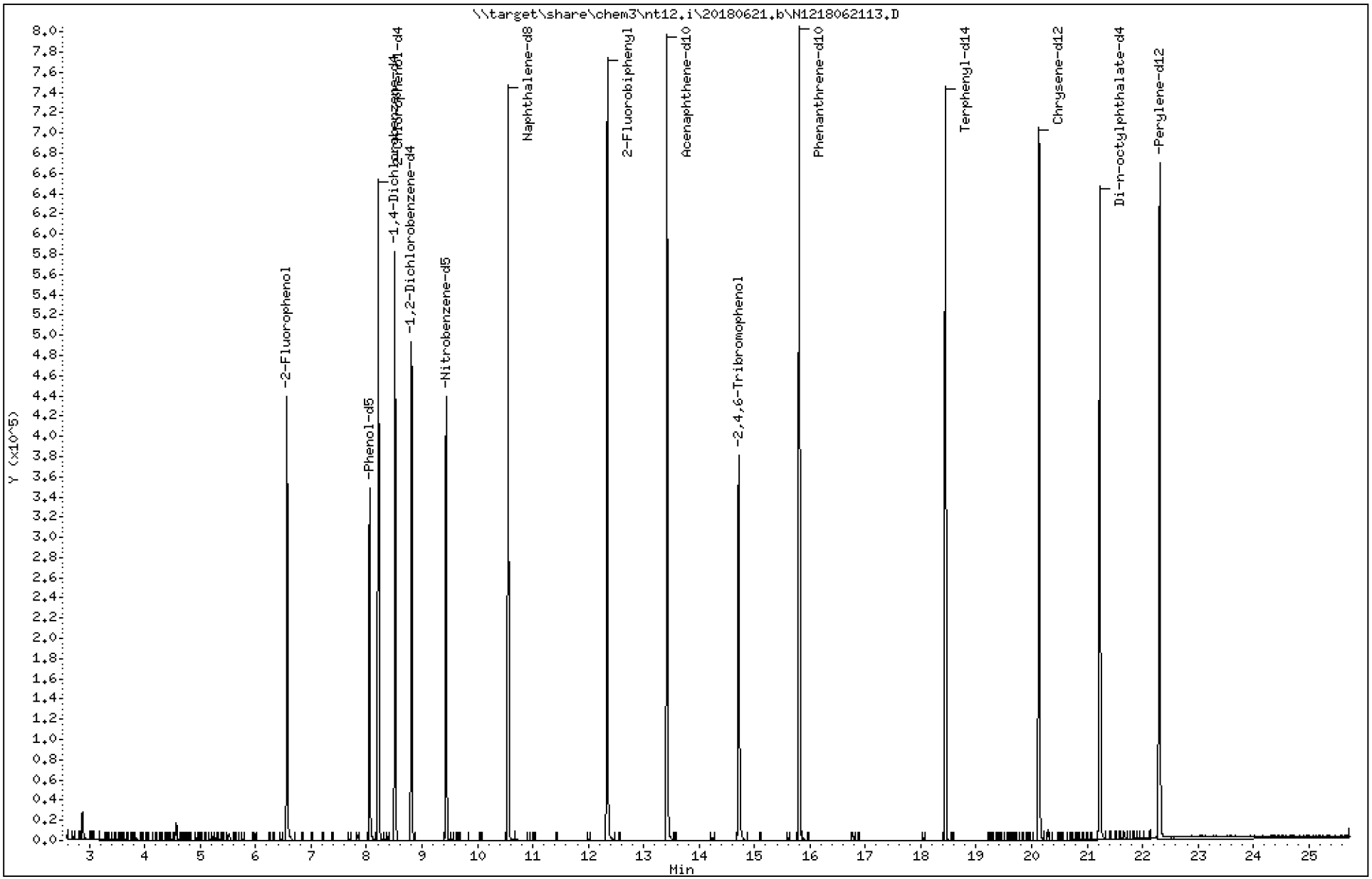
Instrument: nt12.i

Sample Info: BGF0434-BLK1,

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180621.b\N1218062113.D
Lab Smp Id: BGF0434-BLK1
Inj Date : 21-JUN-2018 18:12
Operator : JZ Inst ID: nt12.i
Smp Info : BGF0434-BLK1,
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Meth Date : 22-Jun-2018 12:06 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 13
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
$	1	2-Fluorophenol	112	6.562	6.567	(0.771)	201212	20.8503	20.85(R)
$	2	Phenol-d5	99	8.052	8.062	(0.946)	186249	15.3613	15.36(R)
	3	Phenol	94	Compound Not Detected.					
$	5	2-Chlorophenol-d4	132	8.212	8.217	(0.965)	267448	28.7090	28.71(R)
	4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
	6	2-Chlorophenol	128	Compound Not Detected.					
	7	1,3-Dichlorobenzene	146	Compound Not Detected.					
*	8	1,4-Dichlorobenzene-d4	152	8.511	8.516	(1.000)	134445	20.0000	
	9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$	10	1,2-Dichlorobenzene-d4	152	8.811	8.816	(1.035)	114176	18.2348	18.23(R)
	12	1,2-Dichlorobenzene	146	Compound Not Detected.					
	11	Benzyl alcohol	108	Compound Not Detected.					
	14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
	13	2-Methylphenol	108	Compound Not Detected.					
	17	Hexachloroethane	117	Compound Not Detected.					
	16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
	15	4-Methylphenol	108	Compound Not Detected.					
$	18	Nitrobenzene-d5	82	9.436	9.441	(0.894)	209276	20.1692	20.17(R)
	19	Nitrobenzene	77	Compound Not Detected.					
	20	Isophorone	82	Compound Not Detected.					
	21	2-Nitrophenol	139	Compound Not Detected.					
	22	2,4-Dimethylphenol	107	Compound Not Detected.					
	23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
	24	Benzoic acid	105	Compound Not Detected.					
	25	2,4-Dichlorophenol	162	Compound Not Detected.					
	26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
*	27	Naphthalene-d8	136	10.552	10.557	(1.000)	507276	20.0000	
	28	Naphthalene	128	Compound Not Detected.					
	29	4-Chloroaniline	127	Compound Not Detected.					
	30	Hexachlorobutadiene	225	Compound Not Detected.					
	31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
	32	2-Methylnaphthalene	141	Compound Not Detected.					
	33	Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	12.342	12.347	(0.920)	378151	19.3457	19.35(R)
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	13.421	13.426	(1.000)	274839	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	Compound Not Detected.					
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	Compound Not Detected.					
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	14.714	14.719	(1.096)	70389	30.5921	30.59(R)
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	15.804	15.809	(1.000)	470889	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	Compound Not Detected.					
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	18.443	18.448	(0.916)	416388	26.1792	26.18(R)
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	20.131	20.141	(1.000)	412891	20.0000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134	Di-n-octylphthalate-d4	153	21.226	21.231	(1.000)	543317	20.0000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	22.305	22.310	(1.000)	399948	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	Compound Not Detected.					
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062113.D
Lab Smp Id: BGF0434-BLK1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Misc Info: 18-

Calibration Date: 21-JUN-2018
Calibration Time: 22:08
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	134445	5.88
27 Naphthalene-d8	478458	239229	956916	507276	6.02
42 Acenaphthene-d10	247659	123830	495318	274839	10.97
59 Phenanthrene-d10	421930	210965	843860	470889	11.60
69 Chrysene-d12	450836	225418	901672	412891	-8.42
134 Di-n-octylphthala	583434	291717	1166868	543317	-6.88
77 Perylene-d12	453093	226547	906186	399948	-11.73

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.52	8.02	9.02	8.51	-0.06
27 Naphthalene-d8	10.56	10.06	11.06	10.55	-0.05
42 Acenaphthene-d10	13.43	12.93	13.93	13.42	-0.04
59 Phenanthrene-d10	15.81	15.31	16.31	15.80	-0.03
69 Chrysene-d12	20.14	19.64	20.64	20.13	-0.05
134 Di-n-octylphthala	21.23	20.73	21.73	21.23	-0.02
77 Perylene-d12	22.31	21.81	22.81	22.31	-0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062113.D

Lab ID: BGF0434-BLK1
nt12.i, SW846180516.m, 21-JUN-2018 18:12

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

Form I

METHOD BLANK DATA SHEET

EPA 8270D

Blank

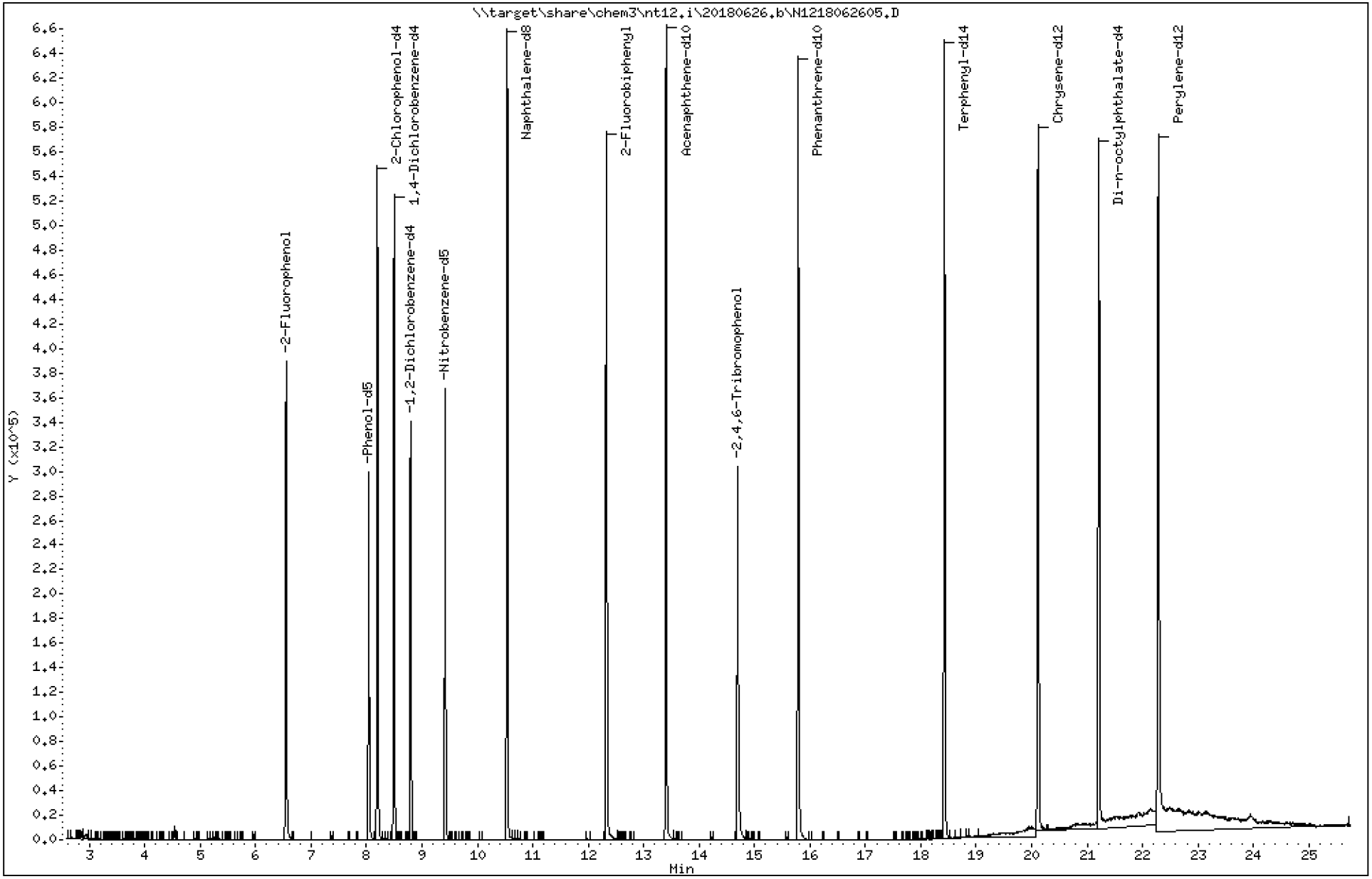
Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC			Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Laboratory ID:	BGF0515-BLK1	File ID:	N1218062605.D
Sampled:	N/A	Prepared:	06/21/18 15:35	Analyzed:	06/26/18 13:17
Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	500 mL / 0.5 mL
Batch:	BGF0515	Sequence:	SGF0333	Calibration:	BE00052
Instrument:	NT12	Column:	ZB-5MS		

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	3.0	U	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	20.1	53.7	32.5 - 120	
Phenol-d5	37.500	15.1	40.4	17.8 - 120	
2-Chlorophenol-d4	37.500	27.2	72.7	55 - 120	
1,2-Dichlorobenzene-d4	25.000	13.8	55.1	49.3 - 120	
Nitrobenzene-d5	25.000	20.2	80.8	56.1 - 120	
2-Fluorobiphenyl	25.000	17.9	71.5	54.4 - 120	
2,4,6-Tribromophenol	37.500	31.7	84.5	49.3 - 128	
p-Terphenyl-d14	25.000	27.5	110	60 - 120	

Data File: \\target\share\chem3\nt12.i\20180626.b\N1218062605.D
Date : 26-JUN-2018 13:17
Client ID:
Sample Info: BGF0515-BLK1,

Instrument: nt12.i
Operator: JZ
Column phase: ZB-5msi
Column diameter: 0.32



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 389 of 6523

ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180626.b\N1218062605.D
Lab Smp Id: BGF0515-BLK1
Inj Date : 26-JUN-2018 13:17
Operator : JZ Inst ID: nt12.i
Smp Info : BGF0515-BLK1,
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180626.b\SW846180516.m
Meth Date : 26-Jun-2018 13:52 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$ 1	2-Fluorophenol	112	6.545	6.535	(0.770)	171952	20.1316	20.13(R)
$ 2	Phenol-d5	99	8.036	8.036	(0.946)	162494	15.1420	15.14(R)
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	8.196	8.191	(0.965)	224636	27.2440	27.24(R)
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.495	8.490	(1.000)	118996	20.0000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.794	8.789	(1.035)	76276	13.7634	13.76(R)
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					
17	Hexachloroethane	117	Compound Not Detected.					
16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
15	4-Methylphenol	108	Compound Not Detected.					
$ 18	Nitrobenzene-d5	82	9.419	9.414	(0.894)	181695	20.2063	20.21(R)
19	Nitrobenzene	77	Compound Not Detected.					
20	Isophorone	82	Compound Not Detected.					
21	2-Nitrophenol	139	Compound Not Detected.					
22	2,4-Dimethylphenol	107	Compound Not Detected.					
23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
24	Benzoic acid	105	Compound Not Detected.					
25	2,4-Dichlorophenol	162	Compound Not Detected.					
26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
* 27	Naphthalene-d8	136	10.536	10.531	(1.000)	439612	20.0000	
28	Naphthalene	128	Compound Not Detected.					
29	4-Chloroaniline	127	Compound Not Detected.					
30	Hexachlorobutadiene	225	Compound Not Detected.					
31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
32	2-Methylnaphthalene	141	Compound Not Detected.					
33	Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	12.325	12.320	(0.919)	289257	17.8829	17.88(R)
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	13.404	13.399	(1.000)	227428	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	Compound Not Detected.					
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	Compound Not Detected.					
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	14.697	14.692	(1.096)	60341	31.6922	31.69(R)
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	15.787	15.782	(1.000)	384571	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	Compound Not Detected.					
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	18.426	18.416	(0.916)	362896	27.4976	27.50(R)
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	20.114	20.115	(1.000)	342595	20.0000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134	Di-n-octylphthalate-d4	153	21.210	21.204	(1.000)	459085	20.0000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	22.283	22.278	(1.000)	341530	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	Compound Not Detected.					
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062605.D
Lab Smp Id: BGF0515-BLK1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180626.b\SW846180516.m
Misc Info: 18-

Calibration Date: 26-JUN-2018
Calibration Time: 10:31
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	118996	-6.29
27 Naphthalene-d8	478458	239229	956916	439612	-8.12
42 Acenaphthene-d10	247659	123830	495318	227428	-8.17
59 Phenanthrene-d10	421930	210965	843860	384571	-8.85
69 Chrysene-d12	450836	225418	901672	342595	-24.01
134 Di-n-octylphthala	583434	291717	1166868	459085	-21.31
77 Perylene-d12	453093	226547	906186	341530	-24.62

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.49	7.99	8.99	8.50	0.06
27 Naphthalene-d8	10.53	10.03	11.03	10.54	0.05
42 Acenaphthene-d10	13.40	12.90	13.90	13.40	0.04
59 Phenanthrene-d10	15.78	15.28	16.28	15.79	0.03
69 Chrysene-d12	20.12	19.62	20.62	20.11	-0.00
134 Di-n-octylphthala	21.20	20.70	21.70	21.21	0.02
77 Perylene-d12	22.28	21.78	22.78	22.28	0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062605.D

Lab ID: BGF0515-BLK1
nt12.i, SW846180516.m, 26-JUN-2018 13:17

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

Form I

METHOD BLANK DATA SHEET

EPA 8270D

Blank

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC			Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Laboratory ID:	BGF0552-BLK1	File ID:	N1218062706.D
Sampled:	N/A	Prepared:	06/22/18 12:06	Analyzed:	06/27/18 15:38
Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	500 mL / 0.5 mL
Batch:	BGF0552	Sequence:	SGF0348	Calibration:	BE00052
Instrument:	NT12	Column:	ZB-5MS		

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
108-95-2	Phenol	1	1.0	U	0.2	1.0
106-46-7	1,4-Dichlorobenzene	1	1.0	U	0.2	1.0
95-50-1	1,2-Dichlorobenzene	1	1.0	U	0.2	1.0
100-51-6	Benzyl alcohol	1	2.0	U	0.6	2.0
106-44-5	4-Methylphenol	1	2.0	U	0.4	2.0
105-67-9	2,4-Dimethylphenol	1	3.0	U	0.4	3.0
120-82-1	1,2,4-Trichlorobenzene	1	1.0	U	0.2	1.0
65-85-0	Benzoic acid	1	20.0	U	3.0	20.0
131-11-3	Dimethylphthalate	1	1.0	U	0.4	1.0
132-64-9	Dibenzofuran	1	1.0	U	0.4	1.0
86-30-6	N-Nitrosodiphenylamine	1	1.0	U	0.3	1.0
118-74-1	Hexachlorobenzene	1	1.0	U	0.3	1.0
87-86-5	Pentachlorophenol	1	10.0	U	1.6	10.0
85-68-7	Butylbenzylphthalate	1	1.0	U	0.3	1.0
117-81-7	bis(2-Ethylhexyl)phthalate	1	3.0	U	0.3	3.0

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorophenol	37.500	22.0	58.7	32.5 - 120	
Phenol-d5	37.500	15.6	41.5	17.8 - 120	
2-Chlorophenol-d4	37.500	30.0	80.0	55 - 120	
1,2-Dichlorobenzene-d4	25.000	19.0	75.8	49.3 - 120	
Nitrobenzene-d5	25.000	20.4	81.7	56.1 - 120	
2-Fluorobiphenyl	25.000	19.8	79.3	54.4 - 120	
2,4,6-Tribromophenol	37.500	33.7	90.0	49.3 - 128	
p-Terphenyl-d14	25.000	23.4	93.4	60 - 120	

Data File: \\target\share\chem3\nt12.i\20180627.b\N1218062706.D

Date : 27-JUN-2018 15:38

Client ID:

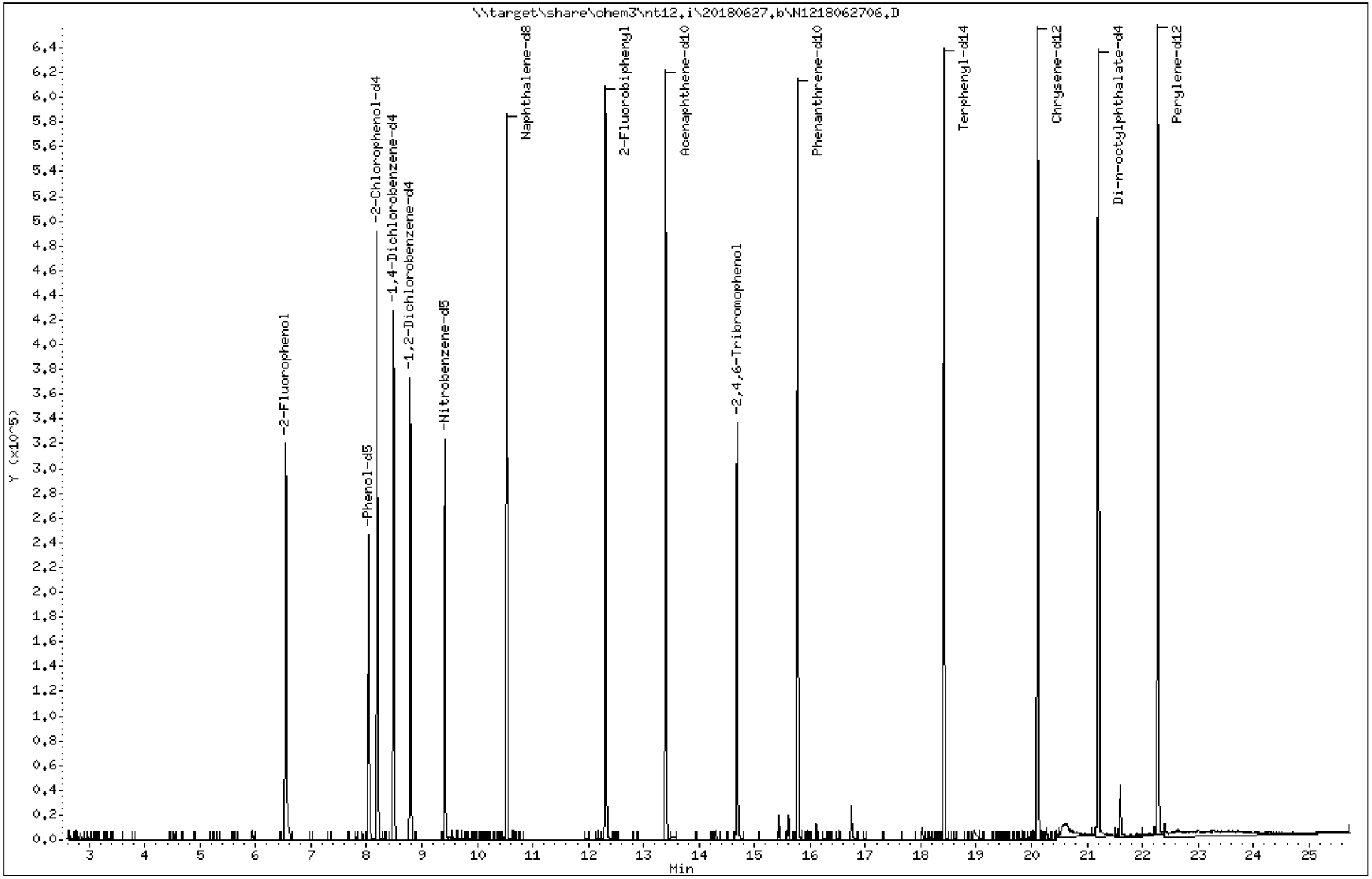
Sample Info: BGF0552-BLK1,

Column phase: ZB-5msi

Instrument: nt12.i

Operator: JZ

Column diameter: 0.32



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 396 of 6523

ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180627.b\N1218062706.D
Lab Smp Id: BGF0552-BLK1
Inj Date : 27-JUN-2018 15:38
Operator : JZ Inst ID: nt12.i
Smp Info : BGF0552-BLK1,
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180627.b\SW846180516.m
Meth Date : 28-Jun-2018 14:05 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$ 1	2-Fluorophenol	112	6.540	6.540	(0.770)	161821	22.0228	22.02(R)
$ 2	Phenol-d5	99	8.030	8.036	(0.946)	143696	15.5654	15.57(R)
3	Phenol	94	Compound Not Detected.					
$ 5	2-Chlorophenol-d4	132	8.191	8.191	(0.965)	212897	30.0144	30.01(R)
4	Bis(2-Chloroethyl)ether	93	Compound Not Detected.					
6	2-Chlorophenol	128	Compound Not Detected.					
7	1,3-Dichlorobenzene	146	Compound Not Detected.					
* 8	1,4-Dichlorobenzene-d4	152	8.490	8.490	(1.000)	102368	20.0000	
9	1,4-Dichlorobenzene	146	Compound Not Detected.					
$ 10	1,2-Dichlorobenzene-d4	152	8.789	8.789	(1.035)	90384	18.9582	18.96(R)
12	1,2-Dichlorobenzene	146	Compound Not Detected.					
11	Benzyl alcohol	108	Compound Not Detected.					
14	2,2'-oxybis(1-Chloropropane)	45	Compound Not Detected.					
13	2-Methylphenol	108	Compound Not Detected.					
17	Hexachloroethane	117	Compound Not Detected.					
16	N-Nitroso-di-n-propylamine	70	Compound Not Detected.					
15	4-Methylphenol	108	Compound Not Detected.					
$ 18	Nitrobenzene-d5	82	9.414	9.414	(0.894)	163627	20.4195	20.42(R)
19	Nitrobenzene	77	Compound Not Detected.					
20	Isophorone	82	Compound Not Detected.					
21	2-Nitrophenol	139	Compound Not Detected.					
22	2,4-Dimethylphenol	107	Compound Not Detected.					
23	Bis(2-Chloroethoxy)methane	93	Compound Not Detected.					
24	Benzoic acid	105	Compound Not Detected.					
25	2,4-Dichlorophenol	162	Compound Not Detected.					
26	1,2,4-Trichlorobenzene	180	Compound Not Detected.					
* 27	Naphthalene-d8	136	10.530	10.531	(1.000)	391763	20.0000	
28	Naphthalene	128	Compound Not Detected.					
29	4-Chloroaniline	127	Compound Not Detected.					
30	Hexachlorobutadiene	225	Compound Not Detected.					
31	4-Chloro-3-methylphenol	107	Compound Not Detected.					
32	2-Methylnaphthalene	141	Compound Not Detected.					
33	Hexachlorocyclopentadiene	237	Compound Not Detected.					

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	Compound Not Detected.					
	35	2,4,5-Trichlorophenol	196	Compound Not Detected.					
$	36	2-Fluorobiphenyl	172	12.315	12.315	(0.919)	287864	19.8328	19.83(R)
	37	2-Chloronaphthalene	162	Compound Not Detected.					
	38	2-Nitroaniline	65	Compound Not Detected.					
	39	Dimethylphthalate	163	Compound Not Detected.					
	40	Acenaphthylene	152	Compound Not Detected.					
	41	2,6-Dinitrotoluene	165	Compound Not Detected.					
*	42	Acenaphthene-d10	164	13.394	13.394	(1.000)	204080	20.0000	
	43	3-Nitroaniline	138	Compound Not Detected.					
	44	Acenaphthene	153	Compound Not Detected.					
	45	2,4-Dinitrophenol	184	Compound Not Detected.					
	46	Dibenzofuran	168	Compound Not Detected.					
	47	4-Nitrophenol	109	Compound Not Detected.					
	48	2,4-Dinitrotoluene	165	Compound Not Detected.					
	50	Diethylphthalate	149	Compound Not Detected.					
	49	Fluorene	166	Compound Not Detected.					
	51	4-Chlorophenyl-phenylether	204	Compound Not Detected.					
	52	4-Nitroaniline	138	Compound Not Detected.					
	53	4,6-Dinitro-2-methylphenol	198	Compound Not Detected.					
	54	N-Nitrosodiphenylamine	169	Compound Not Detected.					
$	55	2,4,6-Tribromophenol	330	14.687	14.692	(1.097)	57636	33.7347	33.73(R)
	56	4-Bromophenyl-phenylether	248	Compound Not Detected.					
	57	Hexachlorobenzene	284	Compound Not Detected.					
	58	Pentachlorophenol	266	Compound Not Detected.					
*	59	Phenanthrene-d10	188	15.777	15.777	(1.000)	358178	20.0000	
	60	Phenanthrene	178	Compound Not Detected.					
	61	Anthracene	178	Compound Not Detected.					
	62	Carbazole	167	Compound Not Detected.					
	63	Di-n-butylphthalate	149	Compound Not Detected.					
	64	Fluoranthene	202	Compound Not Detected.					
	65	Pyrene	202	Compound Not Detected.					
$	66	Terphenyl-d14	244	18.416	18.416	(0.916)	344293	23.3553	23.36(R)
	67	Butylbenzylphthalate	149	Compound Not Detected.					
	68	Benzo(a)anthracene	228	Compound Not Detected.					
*	69	Chrysene-d12	240	20.104	20.109	(1.000)	382680	20.0000	
	70	3,3'-Dichlorobenzidine	252	Compound Not Detected.					
	71	Chrysene	228	Compound Not Detected.					
	72	bis(2-Ethylhexyl)phthalate	149	Compound Not Detected.					
*	134	Di-n-octylphthalate-d4	153	21.204	21.204	(1.000)	527372	20.0000	
	73	Di-n-octylphthalate	149	Compound Not Detected.					
	74	Benzo(b)fluoranthene	252	Compound Not Detected.					
	75	Benzo(k)fluoranthene	252	Compound Not Detected.					
	76	Benzo(a)pyrene	252	Compound Not Detected.					
*	77	Perylene-d12	264	22.278	22.278	(1.000)	384108	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	79	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	80	Benzo(g,h,i)perylene	276	Compound Not Detected.					
	90	N-Nitrosodimethylamine	74	Compound Not Detected.					
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	Compound Not Detected.					
	111	Azobenzene (1,2-DP-Hydrazine)	77	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	Compound Not Detected.					

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062706.D
Lab Smp Id: BGF0552-BLK1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180627.b\SW846180516.m
Misc Info: 18-

Calibration Date: 27-JUN-2018
Calibration Time: 11:13
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	102368	-19.38
27 Naphthalene-d8	478458	239229	956916	391763	-18.12
42 Acenaphthene-d10	247659	123830	495318	204080	-17.60
59 Phenanthrene-d10	421930	210965	843860	358178	-15.11
69 Chrysene-d12	450836	225418	901672	382680	-15.12
134 Di-n-octylphthala	583434	291717	1166868	527372	-9.61
77 Perylene-d12	453093	226547	906186	384108	-15.23

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.49	7.99	8.99	8.49	-0.00
27 Naphthalene-d8	10.53	10.03	11.03	10.53	-0.00
42 Acenaphthene-d10	13.39	12.89	13.89	13.39	-0.00
59 Phenanthrene-d10	15.78	15.28	16.28	15.78	-0.00
69 Chrysene-d12	20.11	19.61	20.61	20.10	-0.03
134 Di-n-octylphthala	21.20	20.70	21.70	21.20	-0.00
77 Perylene-d12	22.28	21.78	22.78	22.28	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062706.D

Lab ID: BGF0552-BLK1
nt12.i, SW846180516.m, 27-JUN-2018 15:38

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/21/18 12:33
Batch:	BGF0417	Laboratory ID:	BGF0417-BS1
Preparation:	EPA 3510C SepF	Sequence Name:	LCS
Initial/Final:	500 mL / 0.5 mL		

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	Q	LCS % REC. #	QC LIMITS REC.
Phenol	25.0	10.7		42.8	10 - 160
1,4-Dichlorobenzene	25.0	14.2		56.8	10 - 160
1,2-Dichlorobenzene	25.0	14.7		58.9	10 - 160
Benzyl alcohol	25.0	13.8		55.1	10 - 160
4-Methylphenol	25.0	16.1		64.4	10 - 160
2,4-Dimethylphenol	75.0	43.8		58.4	10 - 160
1,2,4-Trichlorobenzene	25.0	14.8		59.2	10 - 160
Benzoic acid	138	52.8		38.4	10 - 160
Dimethylphthalate	25.0	19.8		79.3	10 - 160
Dibenzofuran	25.0	17.8		71.3	10 - 160
N-Nitrosodiphenylamine	25.0	19.2		76.9	10 - 160
Hexachlorobenzene	25.0	18.4		73.5	10 - 160
Pentachlorophenol	75.0	56.3		75.1	10 - 160
Butylbenzylphthalate	25.0	22.2		89.0	10 - 160
bis(2-Ethylhexyl)phthalate	25.0	20.9		83.6	10 - 160

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt12.i\20180621.b\N1218062103.D

Date : 21-JUN-2018 12:33

Client ID:

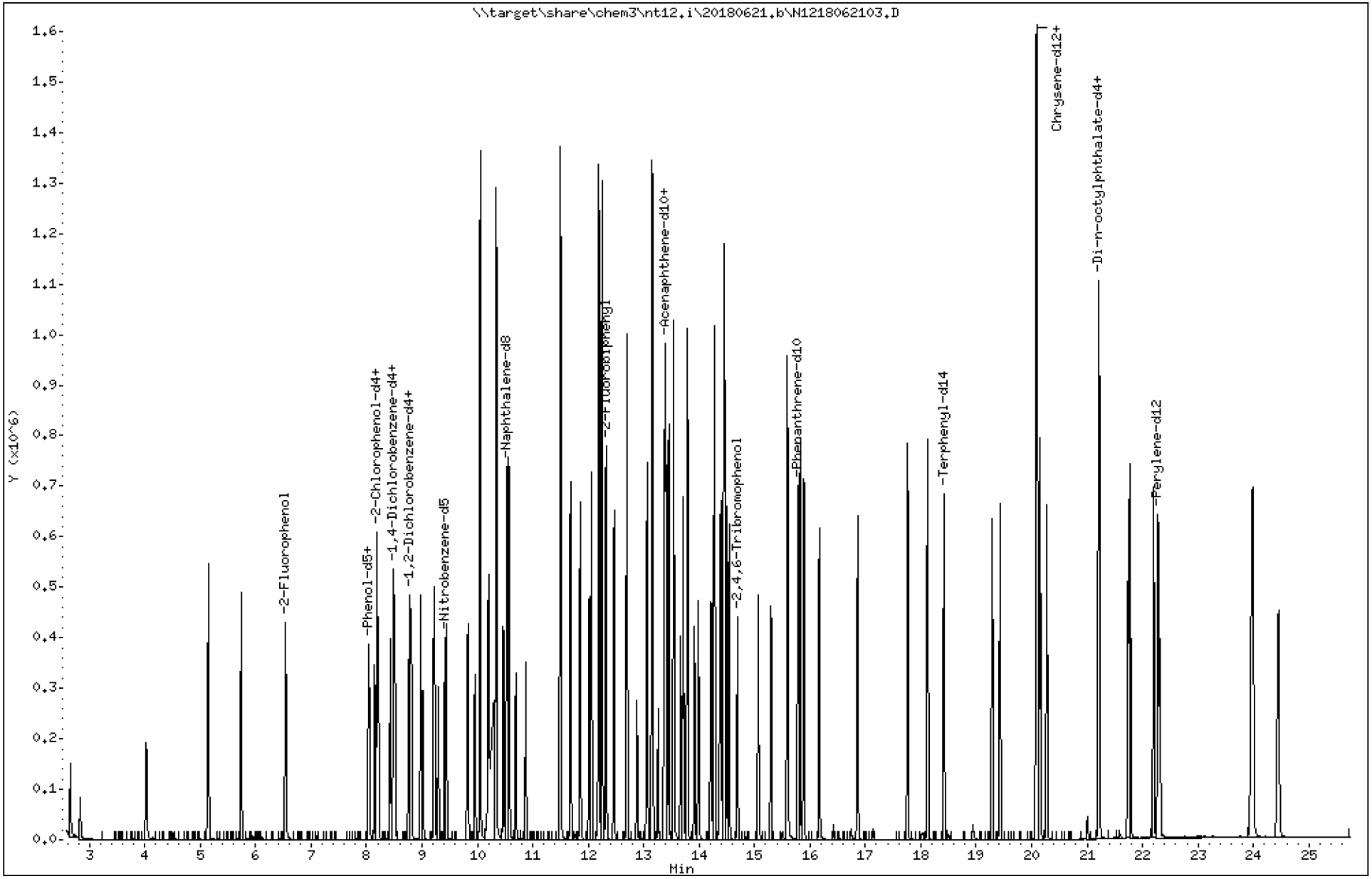
Instrument: nt12.i

Sample Info: BGF0417-BS1,

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

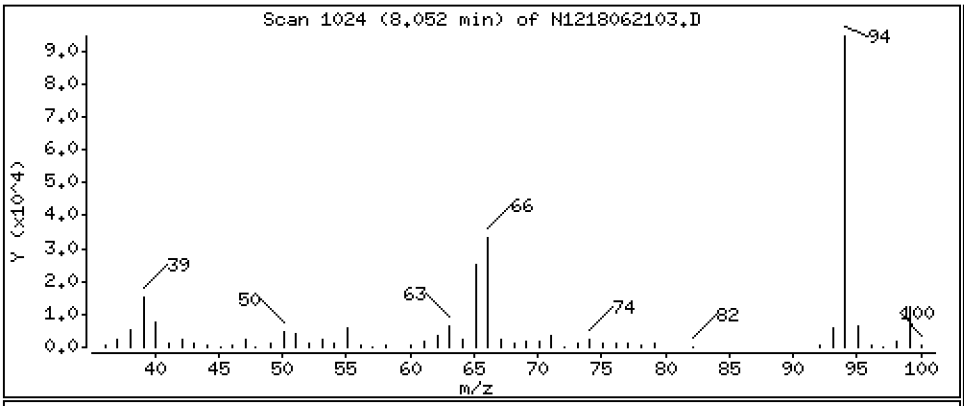
Operator: JZ

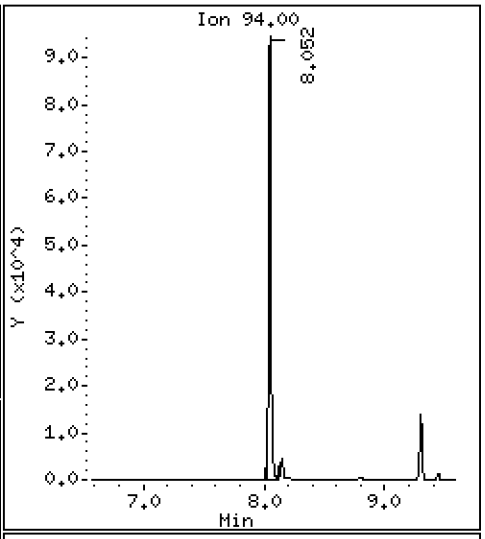
Column phase: ZB-5msi

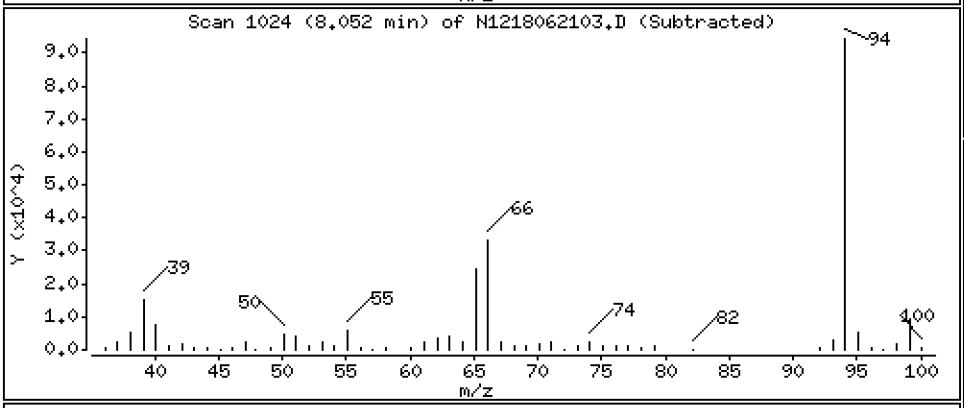
Column diameter: 0.32

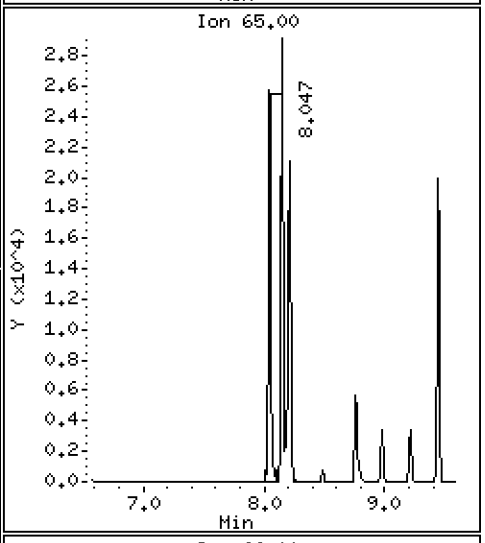
3 Phenol

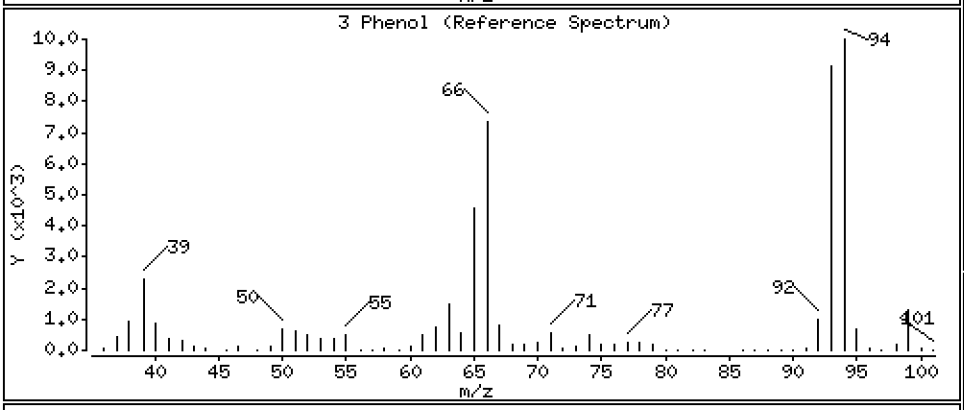
Concentration: 10.70 ug/mL

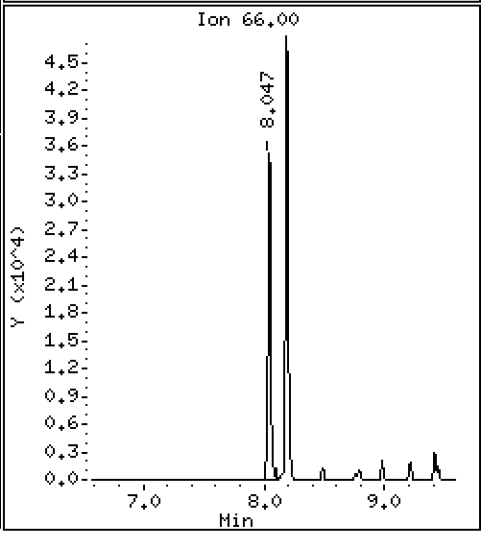


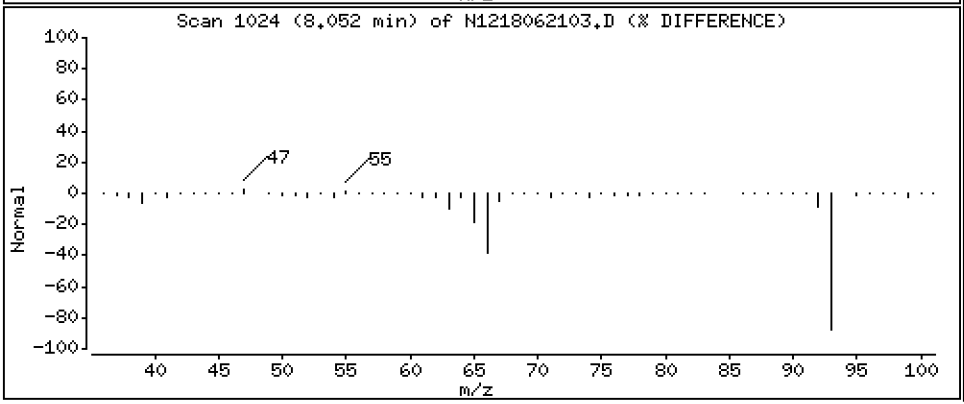












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

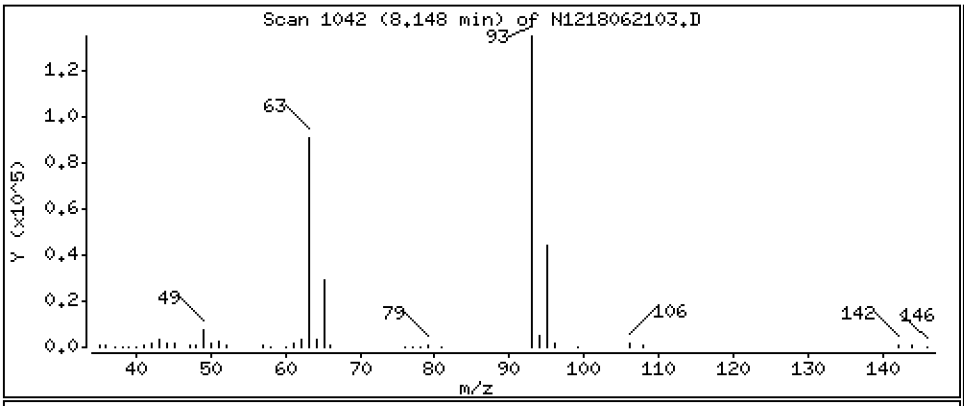
Operator: JZ

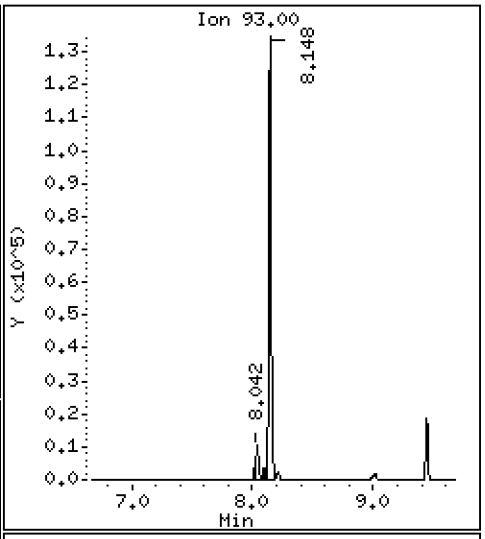
Column phase: ZB-5msi

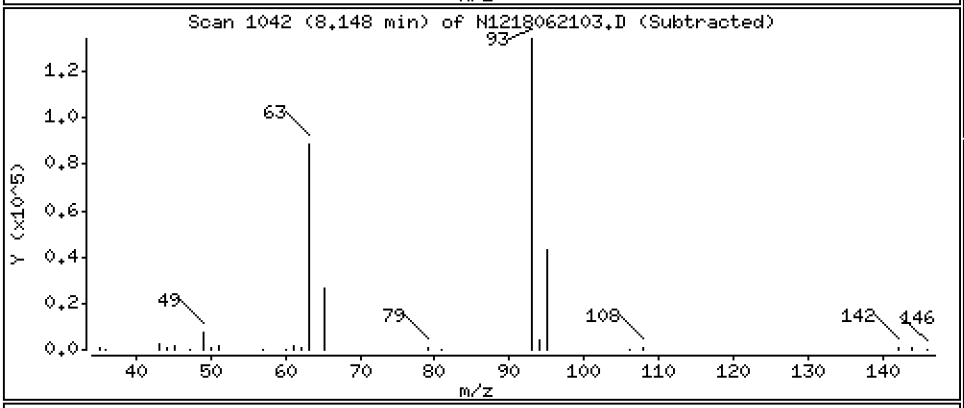
Column diameter: 0.32

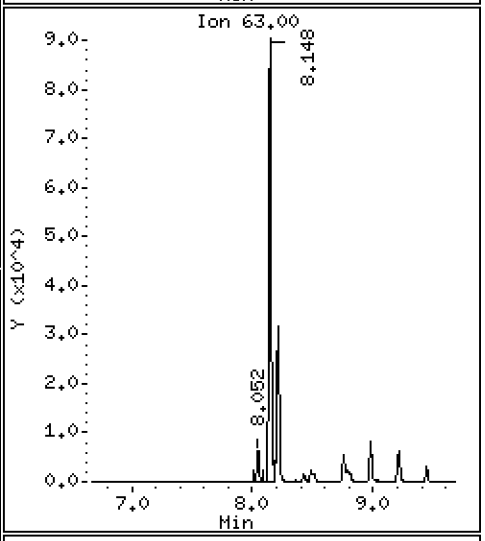
4 Bis(2-Chloroethyl)ether

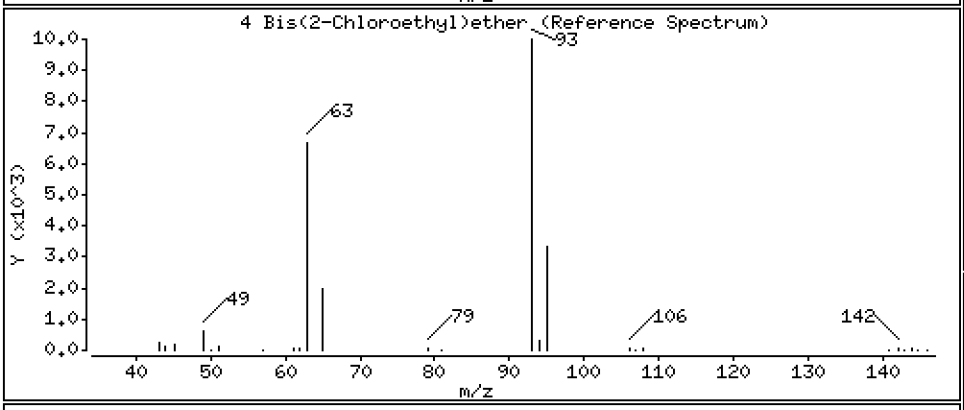
Concentration: 17.56 ug/mL

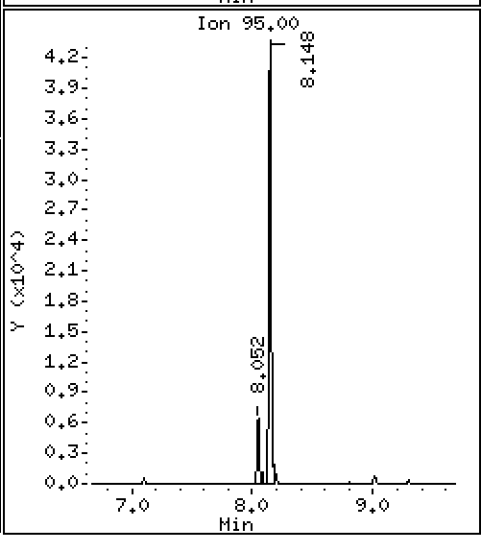


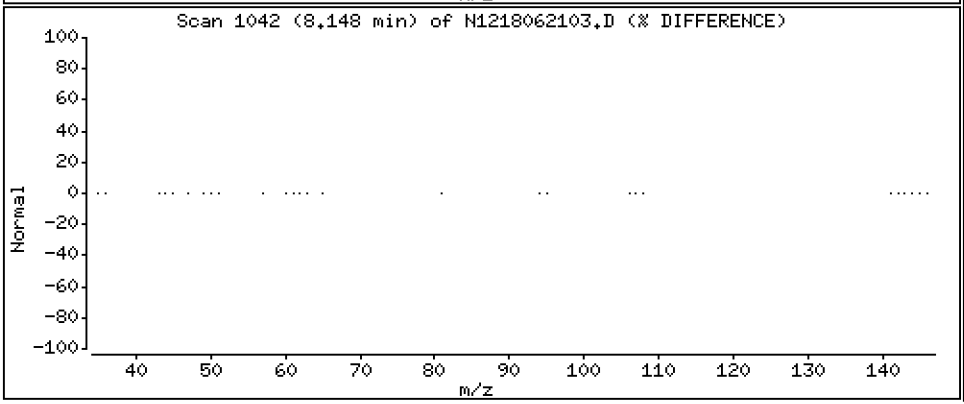












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

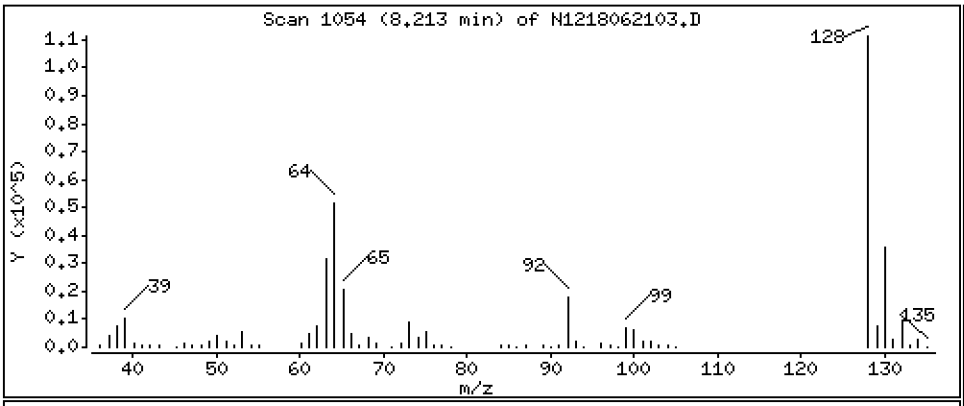
Operator: JZ

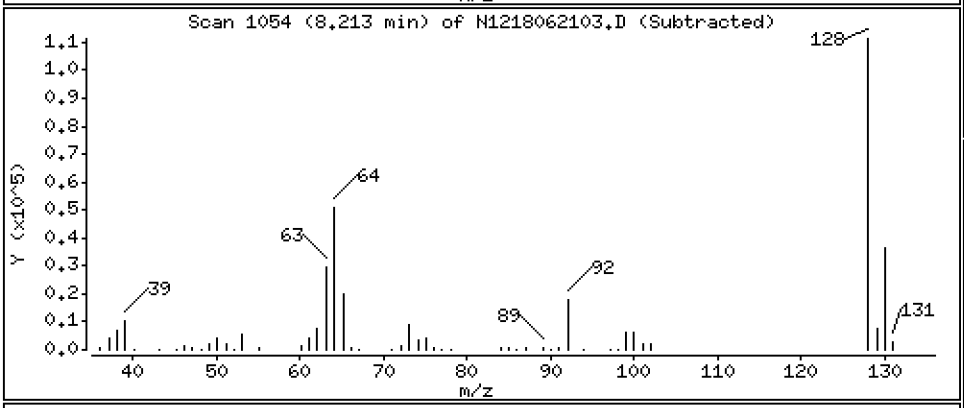
Column phase: ZB-5msi

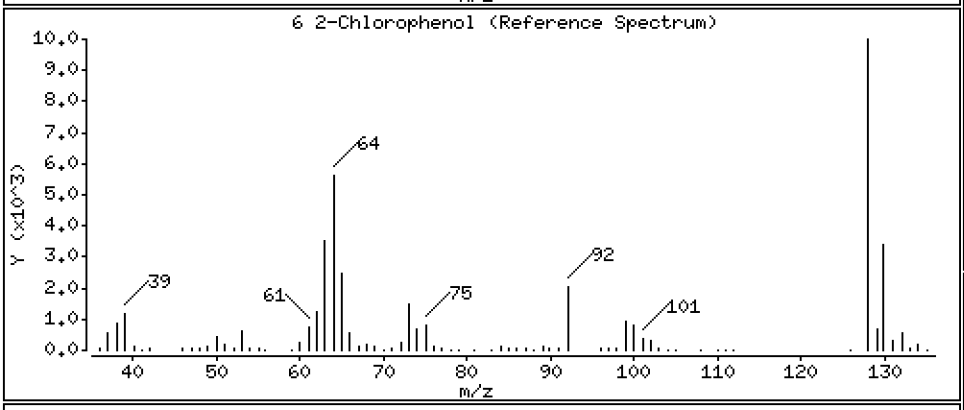
Column diameter: 0.32

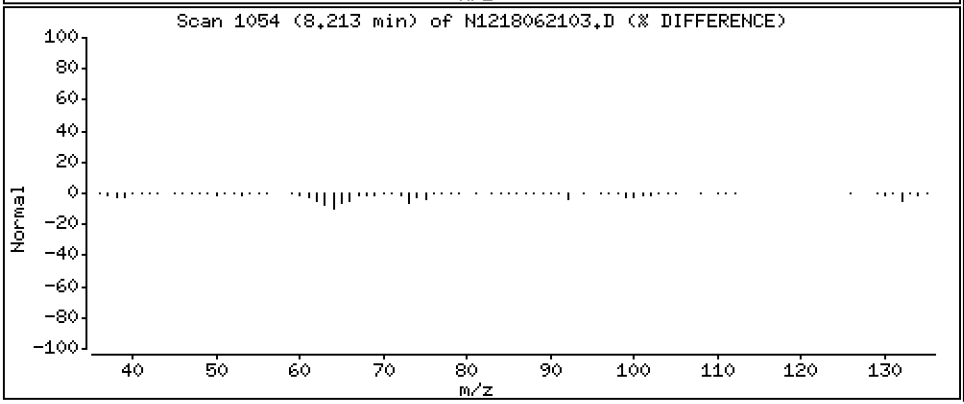
6 2-Chlorophenol

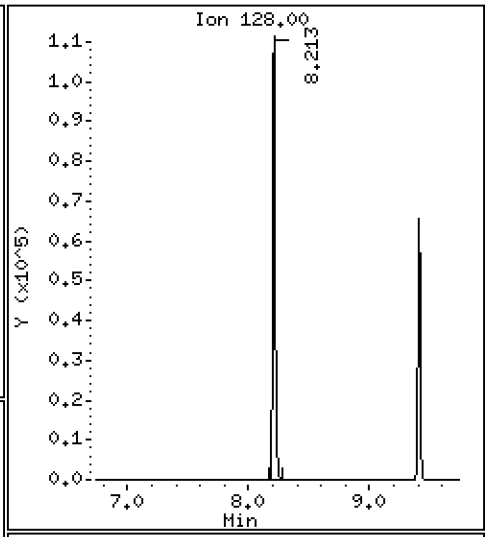
Concentration: 15.89 ug/mL

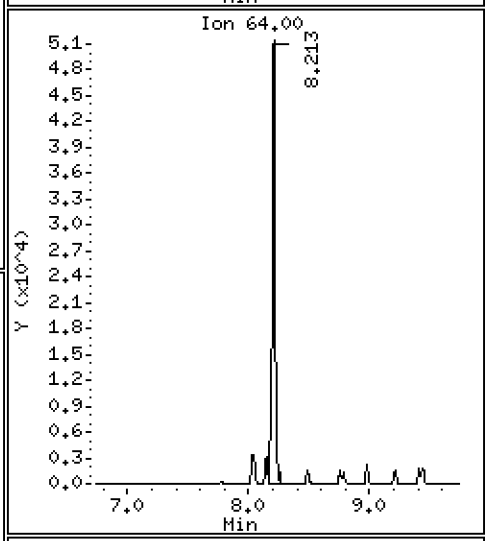


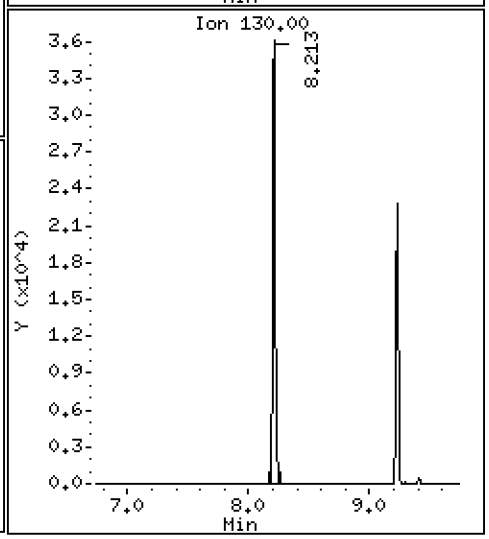












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

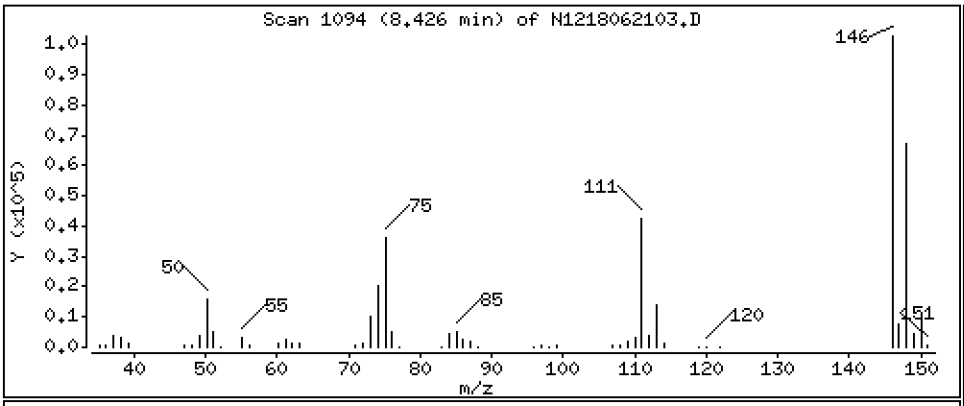
Operator: JZ

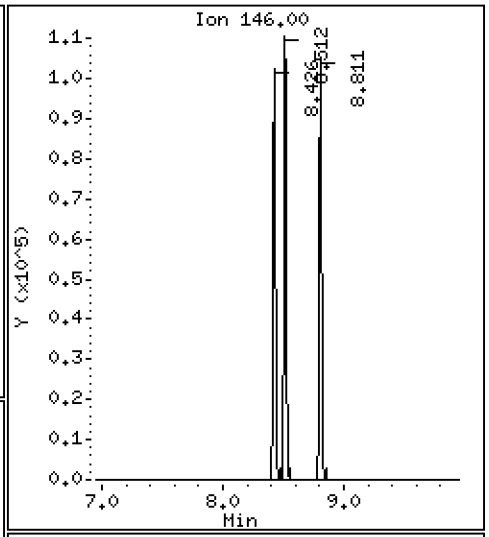
Column phase: ZB-5msi

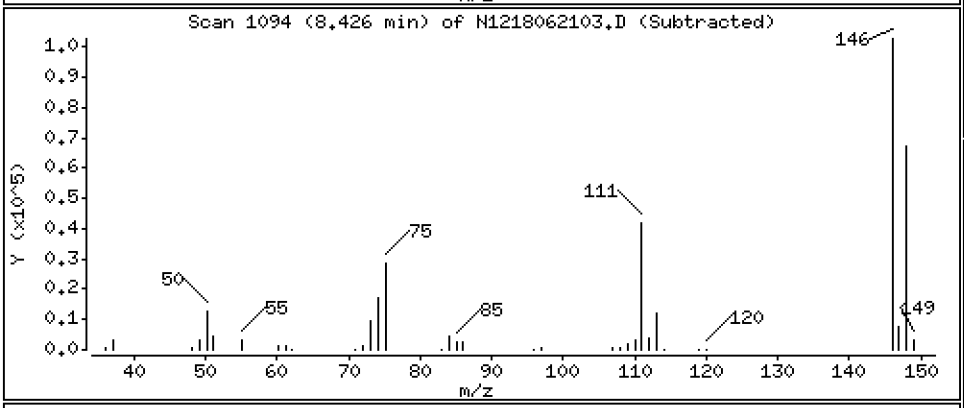
Column diameter: 0.32

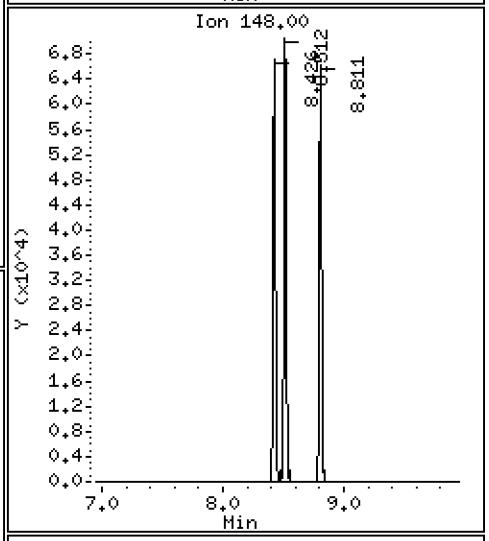
7 1,3-Dichlorobenzene

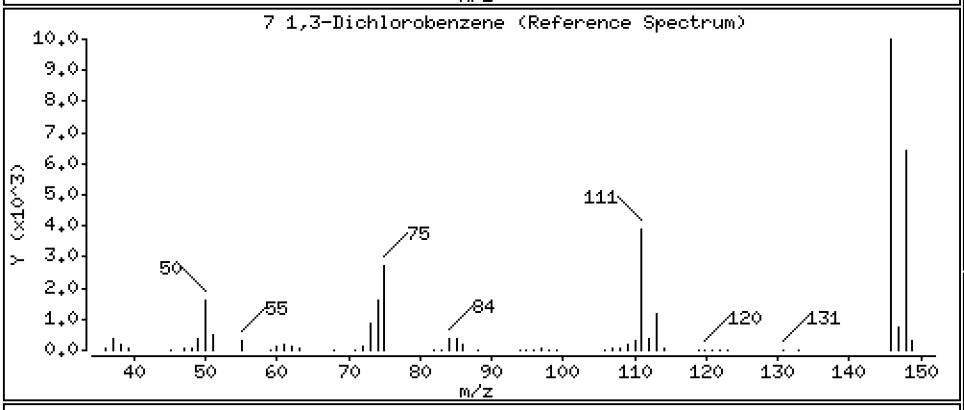
Concentration: 13.96 ug/mL

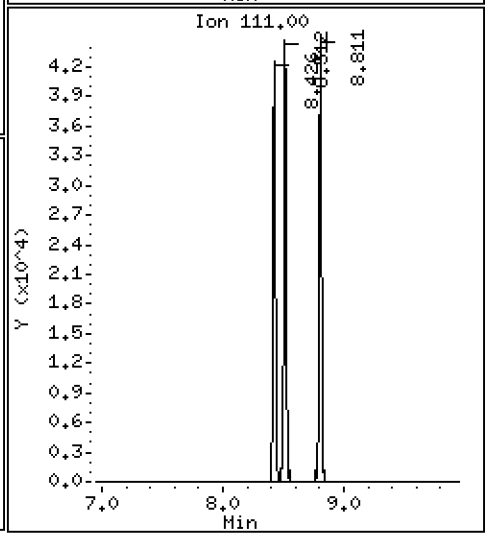


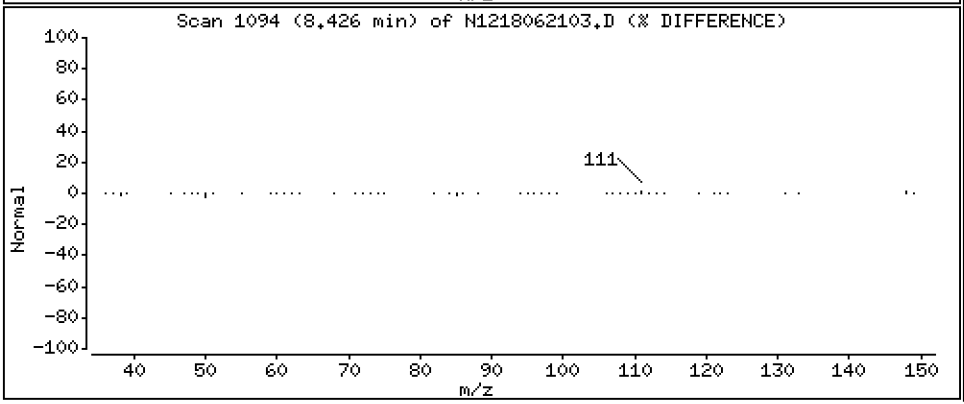












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

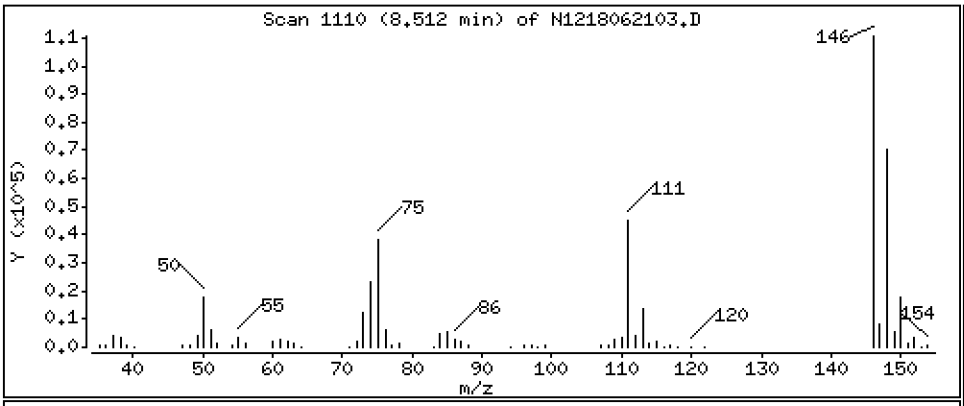
Operator: JZ

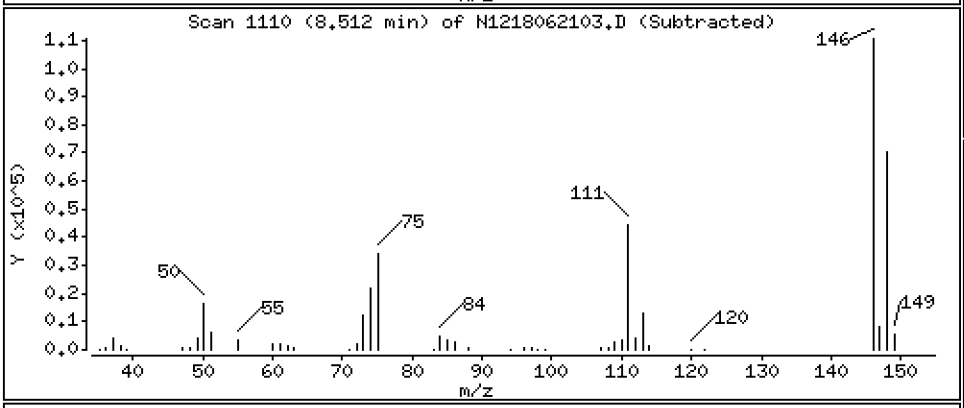
Column phase: ZB-5msi

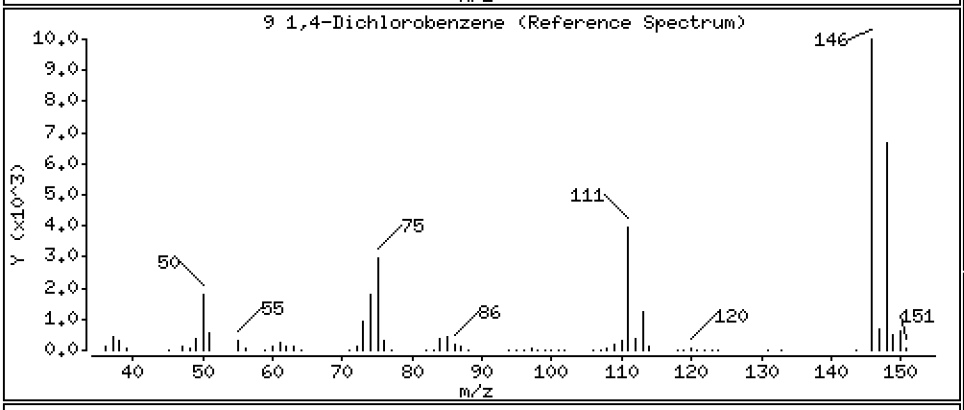
Column diameter: 0.32

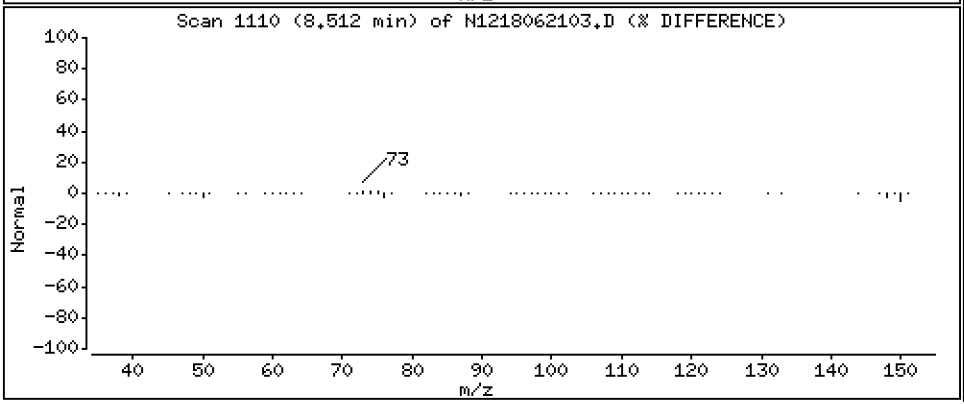
9 1,4-Dichlorobenzene

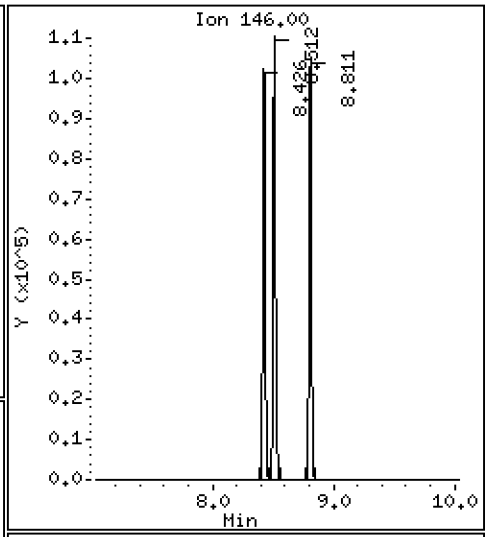
Concentration: 14.21 ug/mL

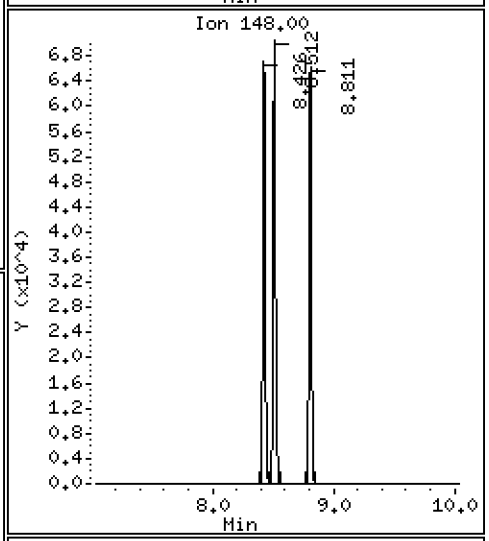


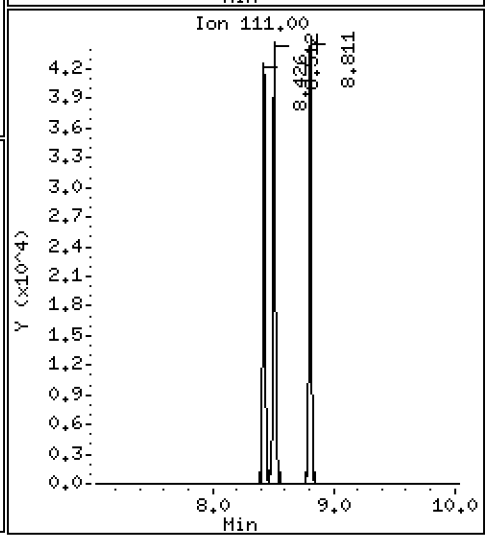












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

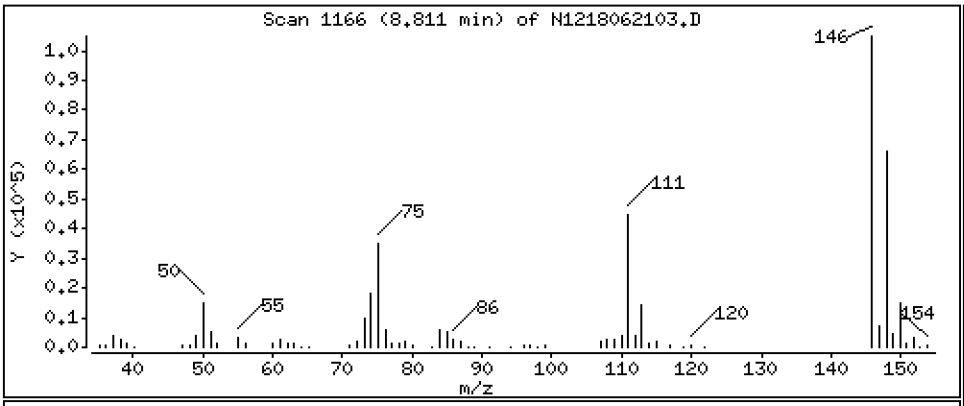
Operator: JZ

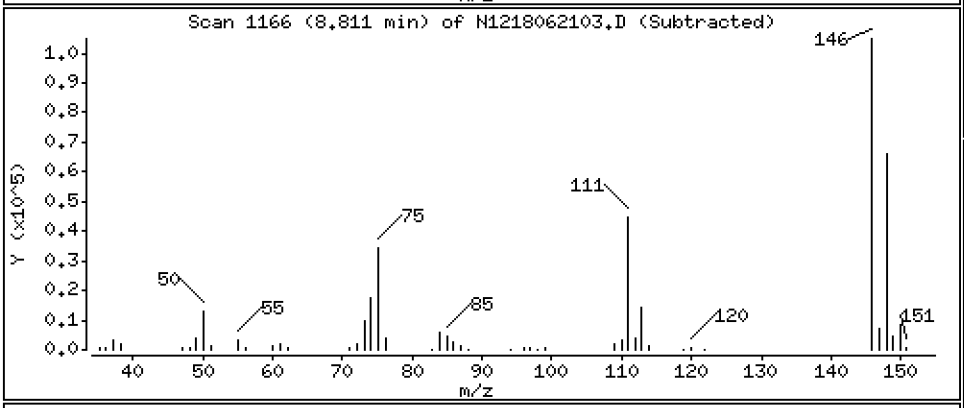
Column phase: ZB-5msi

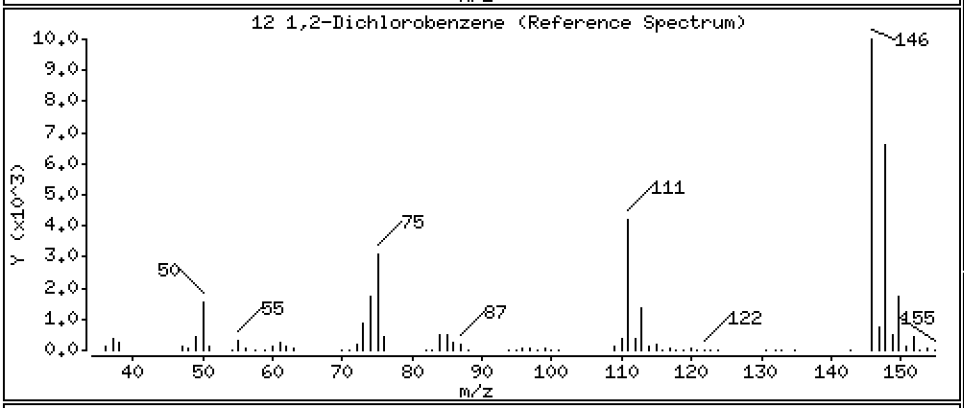
Column diameter: 0.32

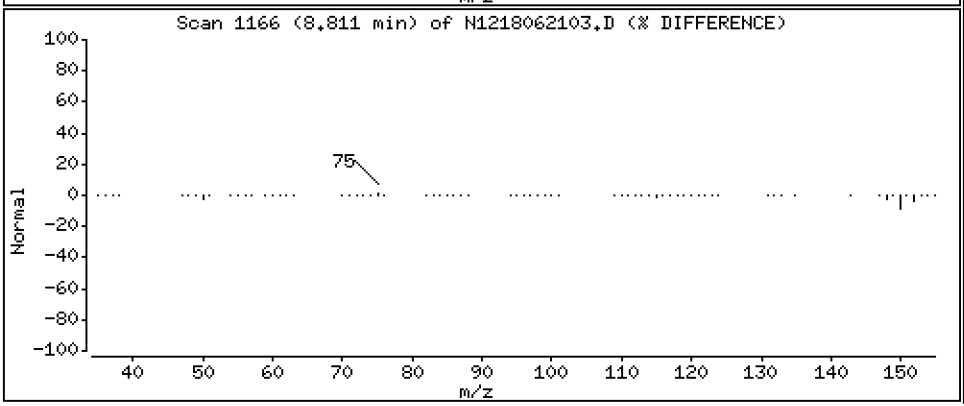
12 1,2-Dichlorobenzene

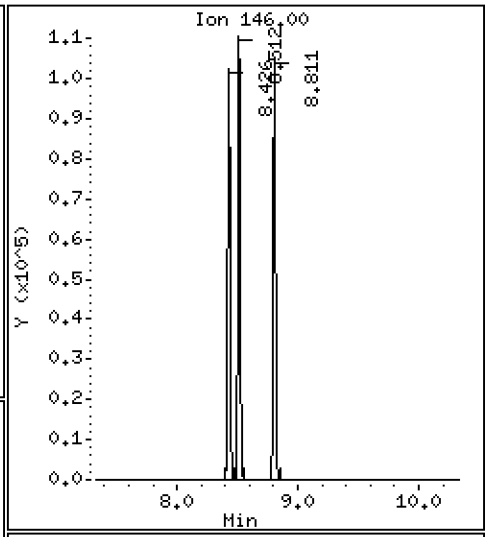
Concentration: 14.73 ug/mL

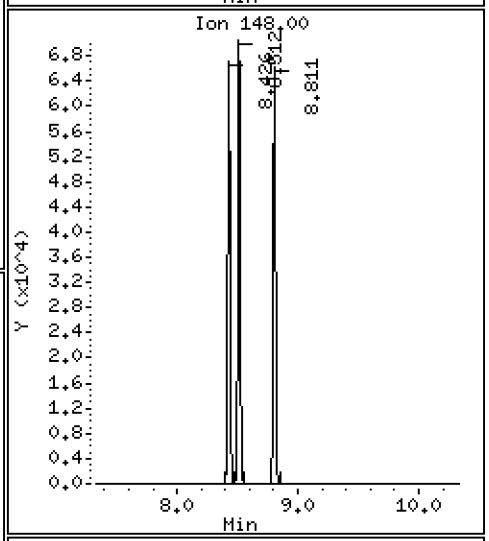


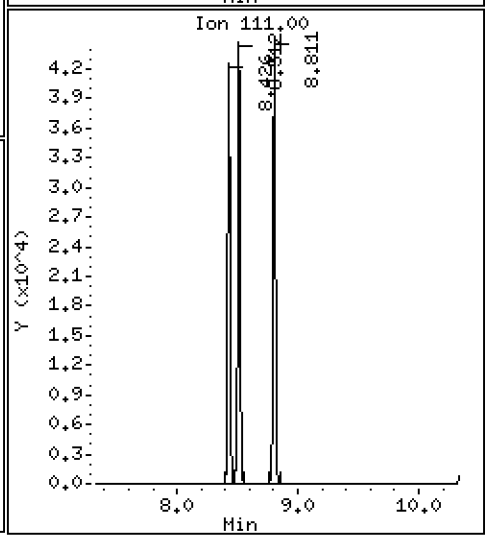












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

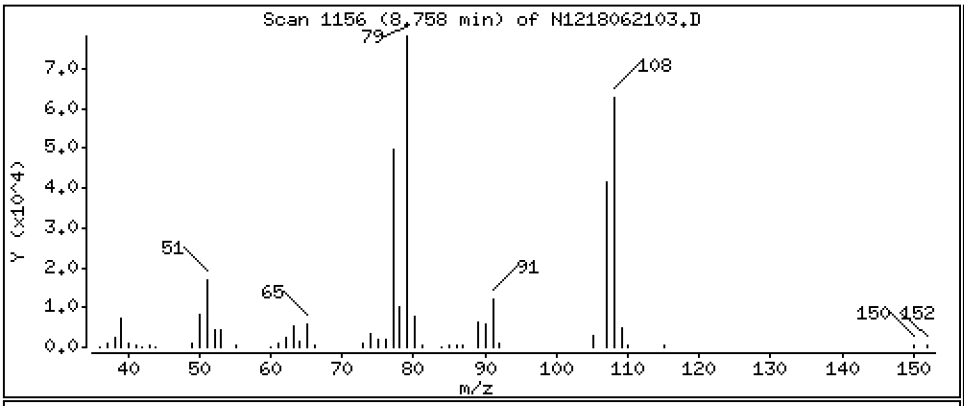
Operator: JZ

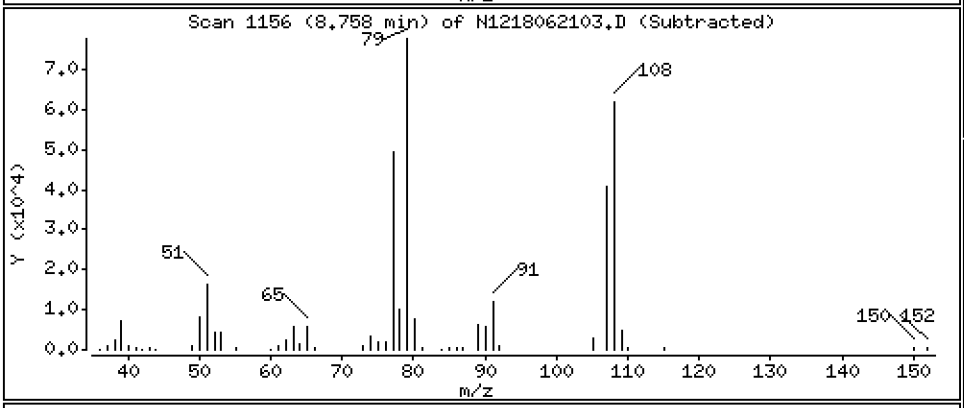
Column phase: ZB-5msi

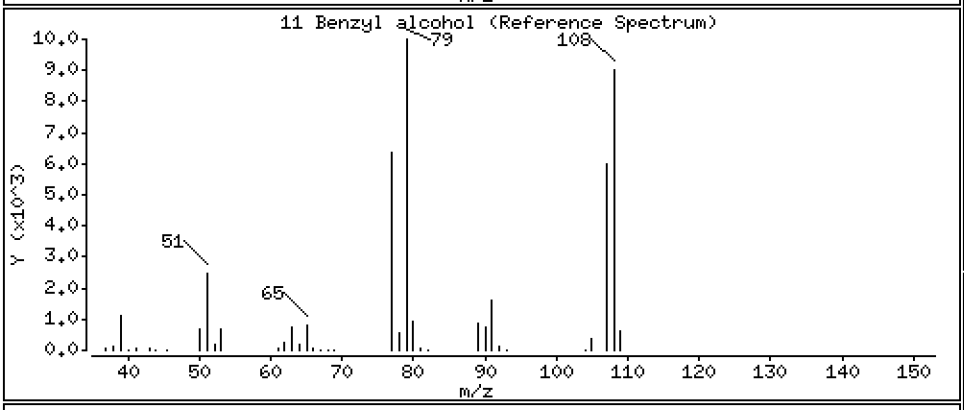
Column diameter: 0.32

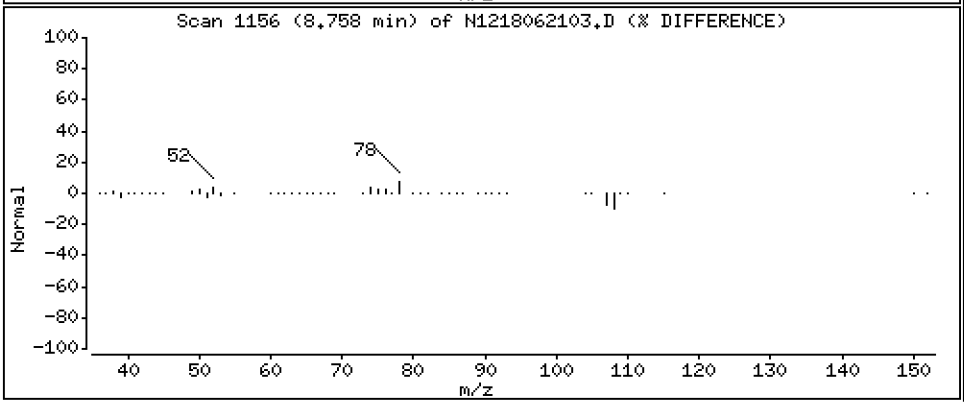
11 Benzyl alcohol

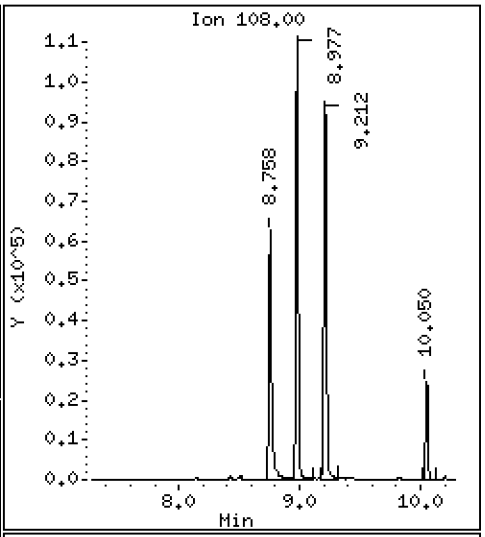
Concentration: 13.78 ug/mL

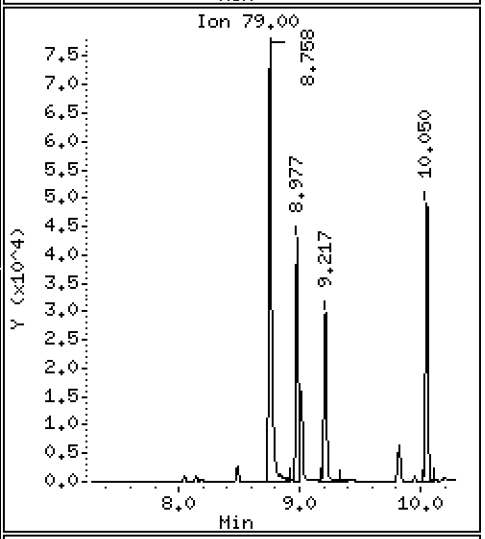


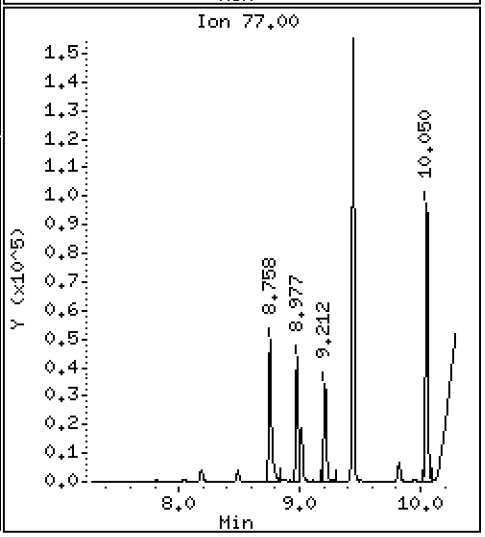












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

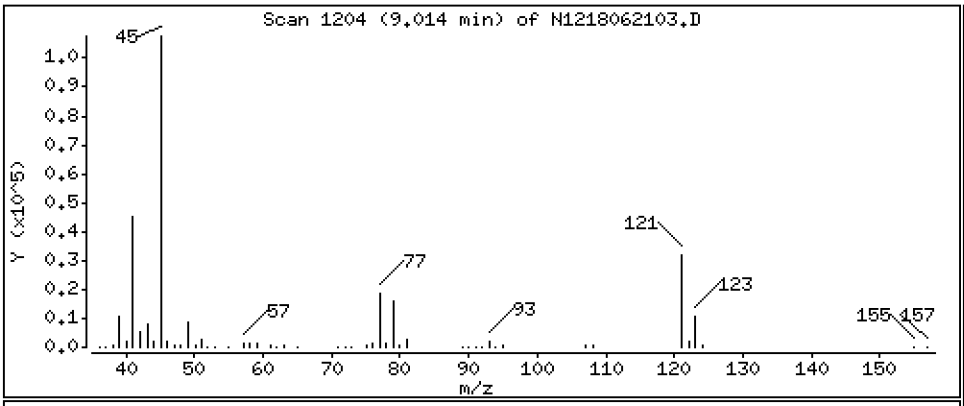
Operator: JZ

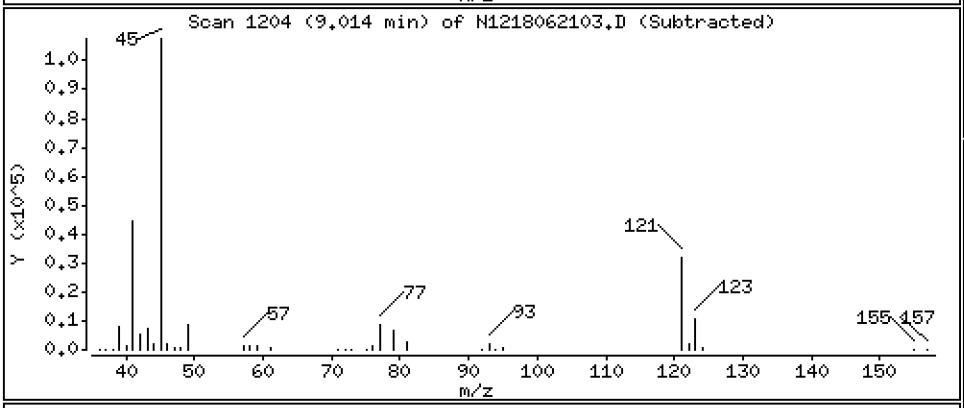
Column phase: ZB-5msi

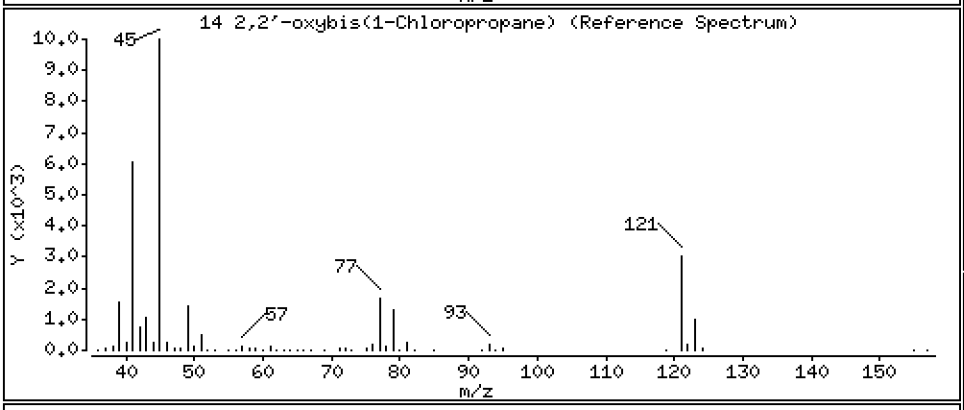
Column diameter: 0.32

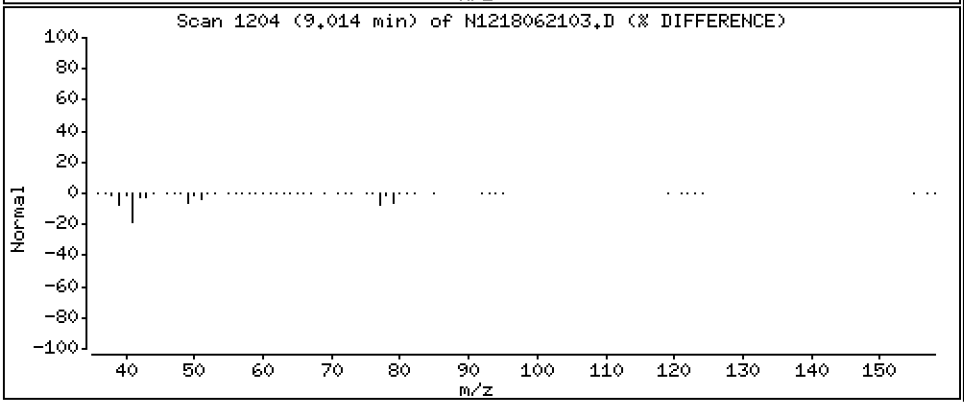
14 2,2'-oxybis(1-Chloropropane)

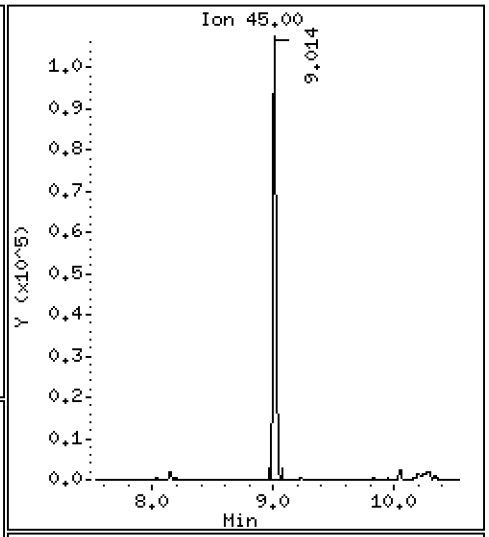
Concentration: 17.51 ug/mL

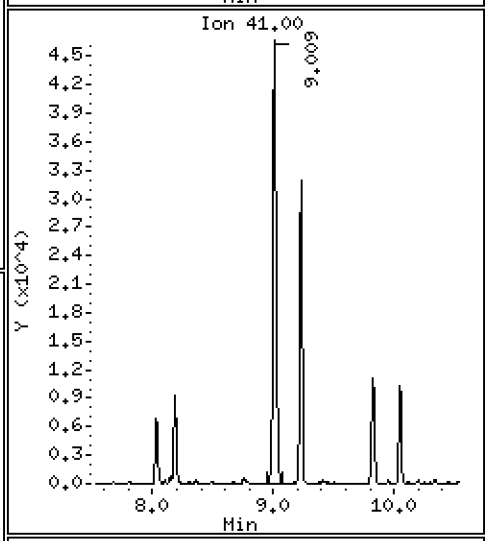


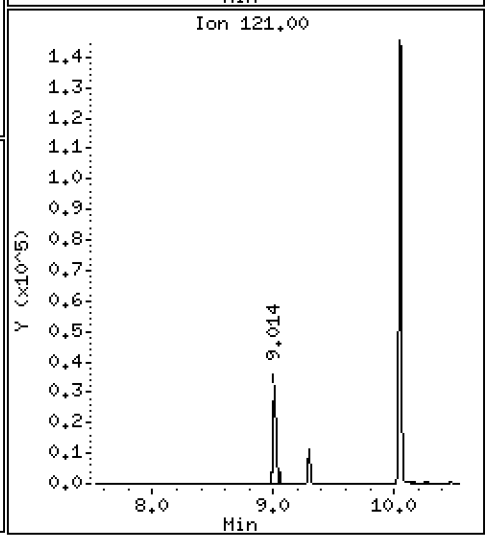












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

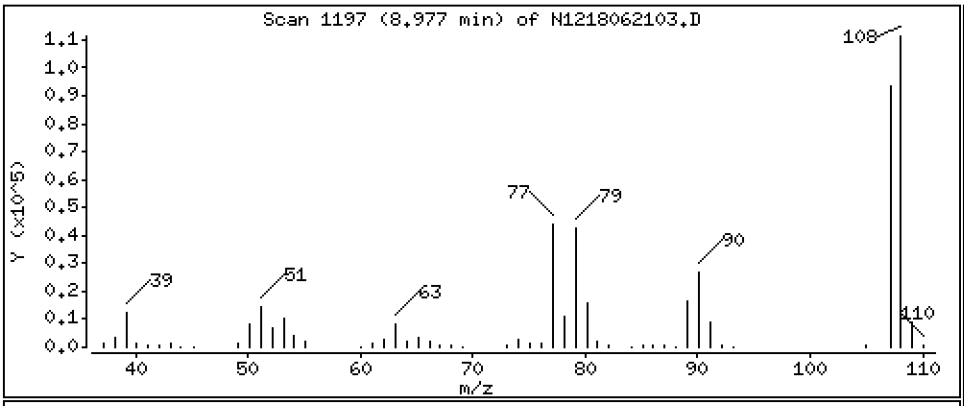
Operator: JZ

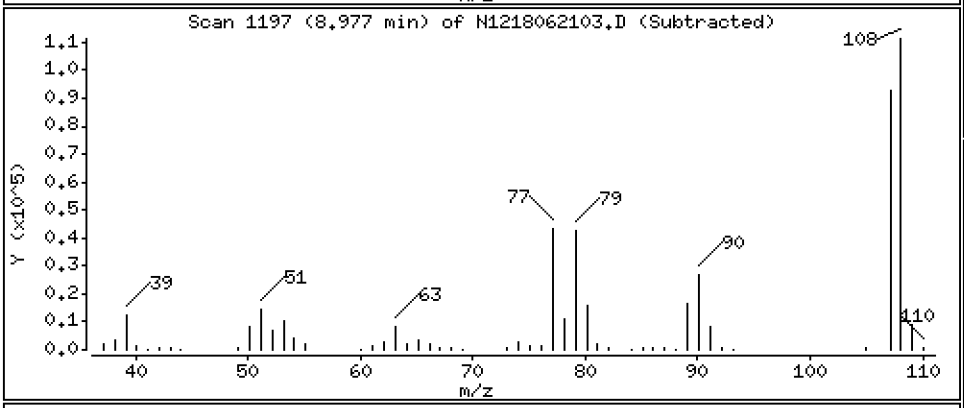
Column phase: ZB-5msi

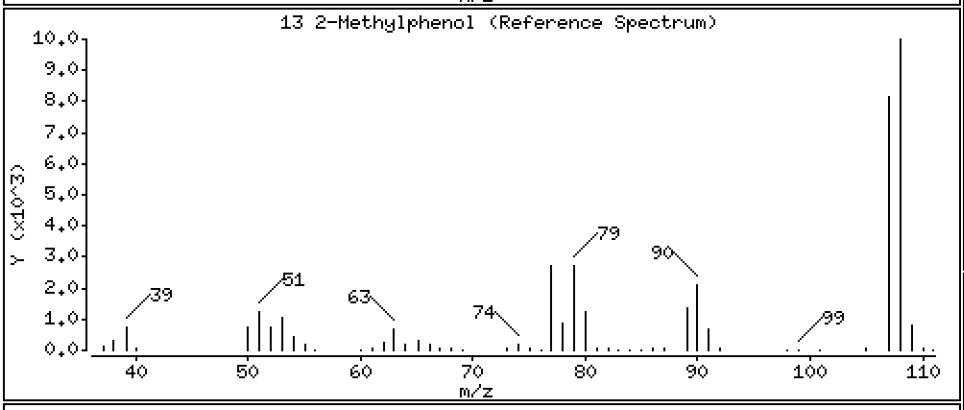
Column diameter: 0.32

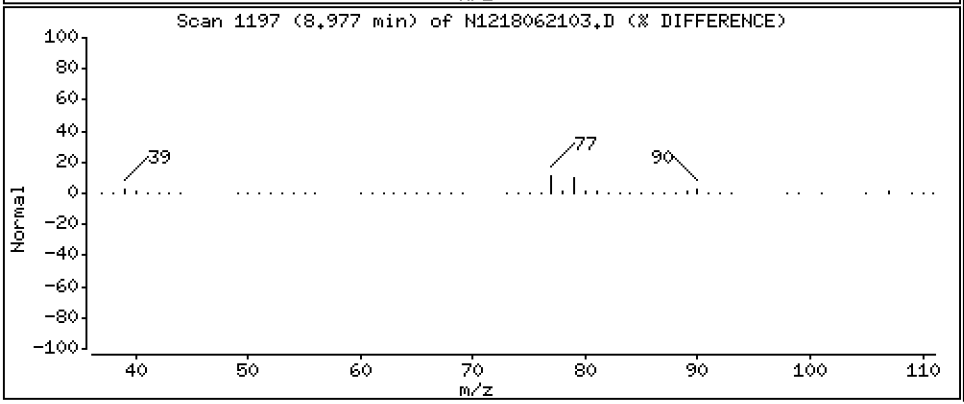
13 2-Methylphenol

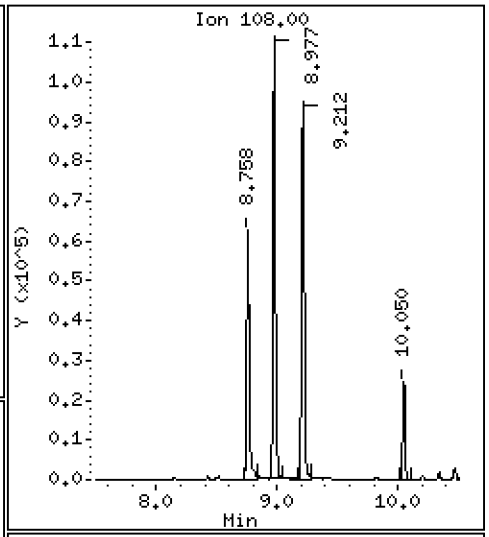
Concentration: 15.58 ug/mL

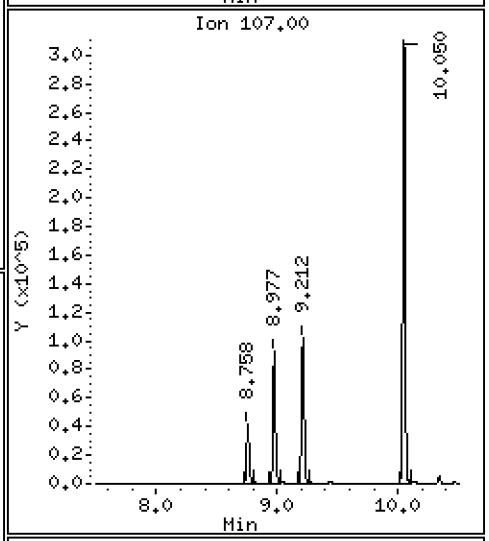


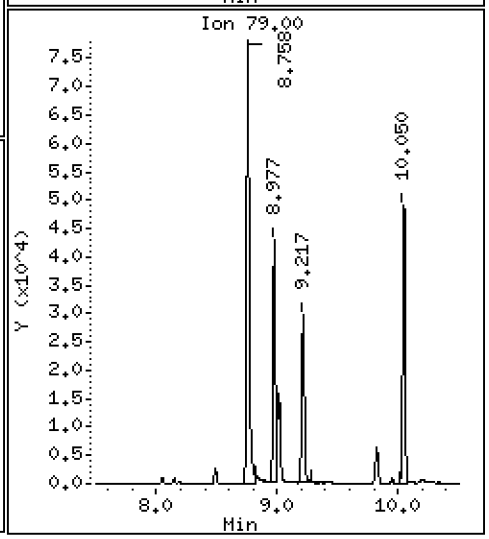












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

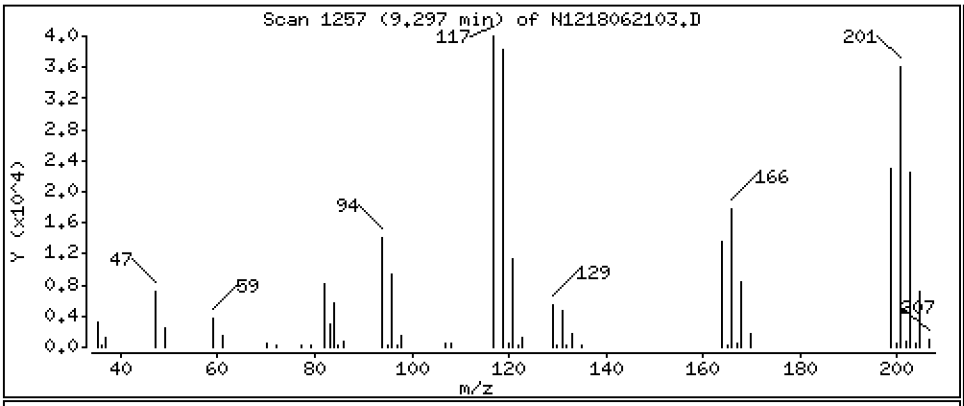
Operator: JZ

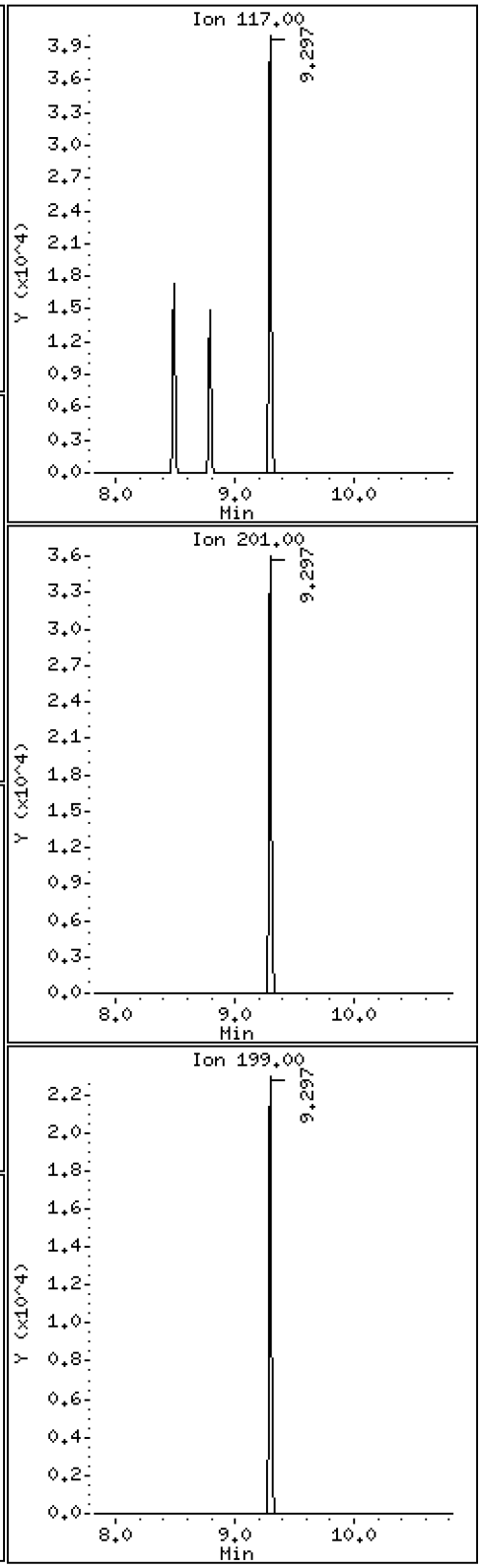
Column phase: ZB-5msi

Column diameter: 0.32

17 Hexachloroethane

Concentration: 13.65 ug/mL





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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

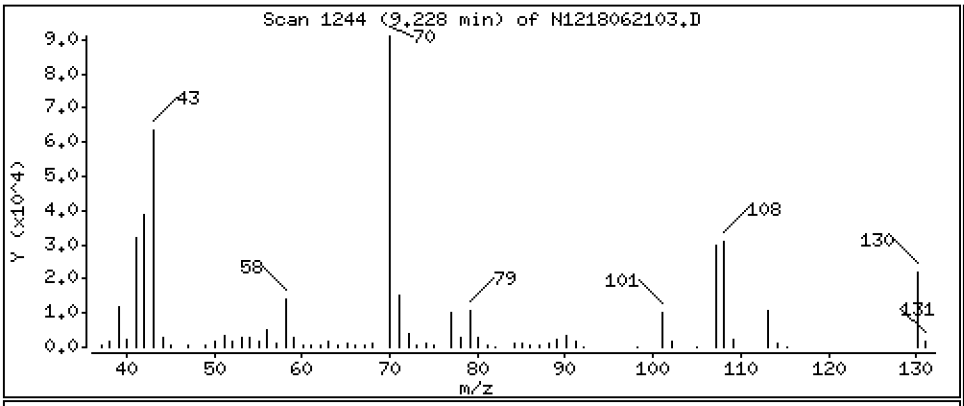
Operator: JZ

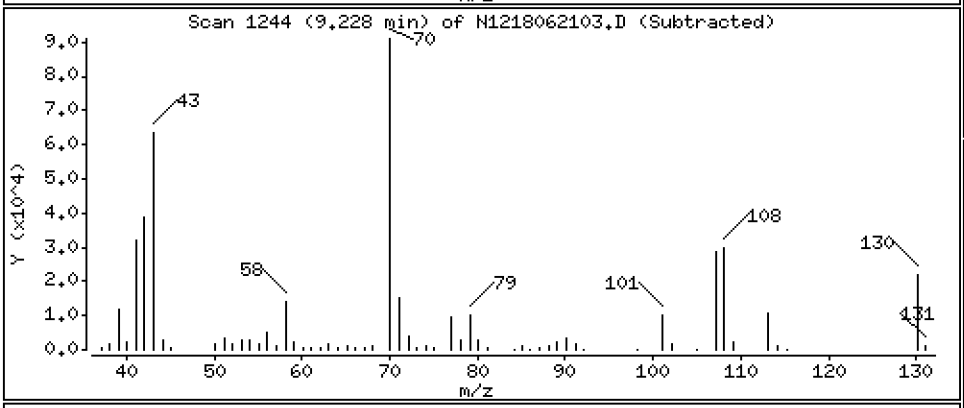
Column phase: ZB-5msi

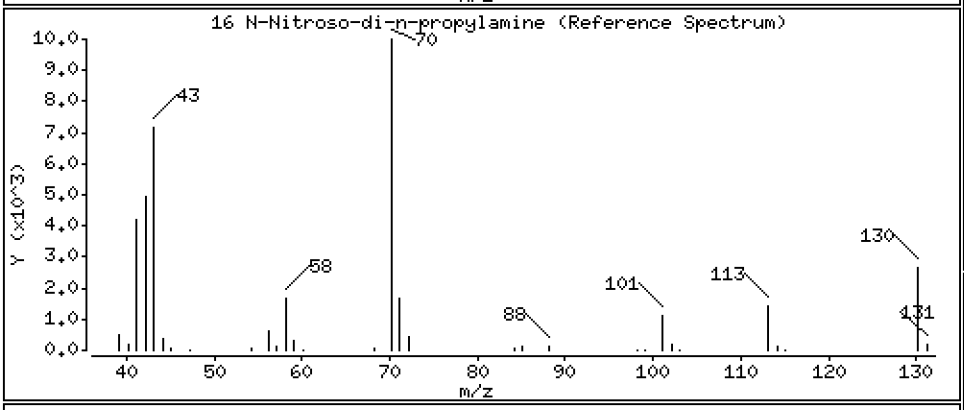
Column diameter: 0.32

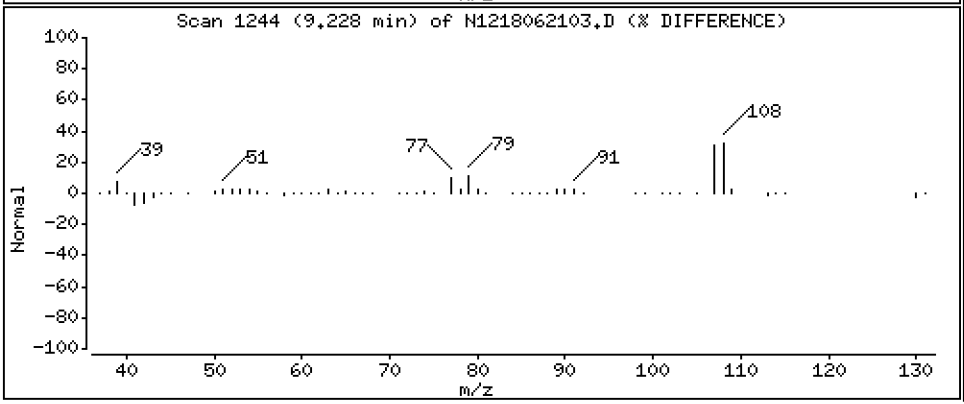
16 N-Nitroso-di-n-propylamine

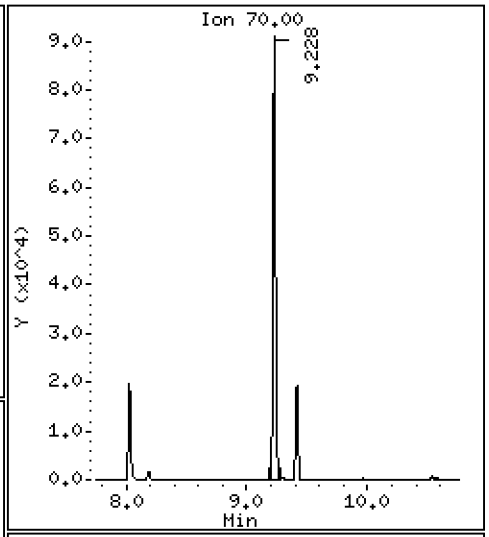
Concentration: 17.77 ug/mL

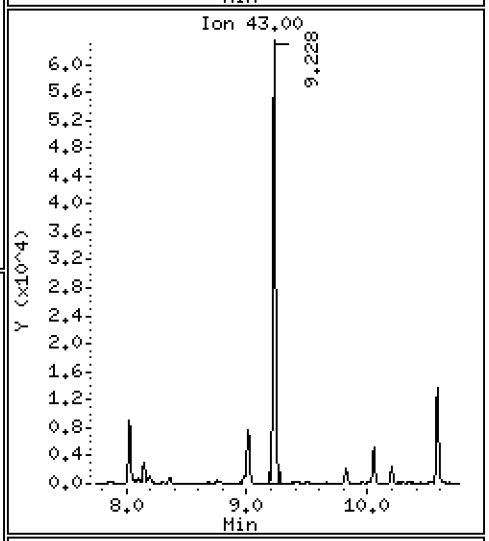


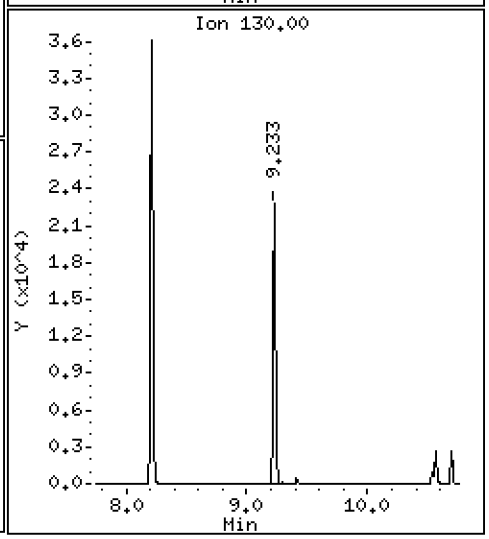












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

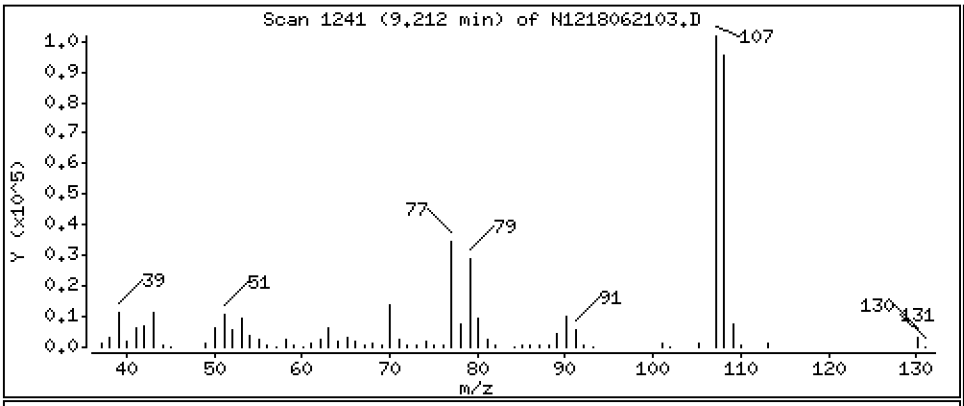
Operator: JZ

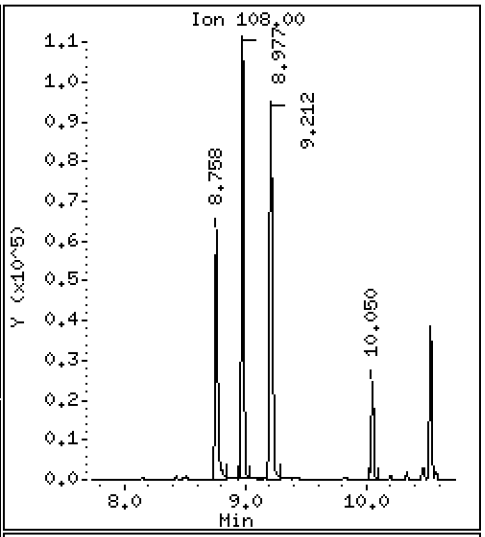
Column phase: ZB-5msi

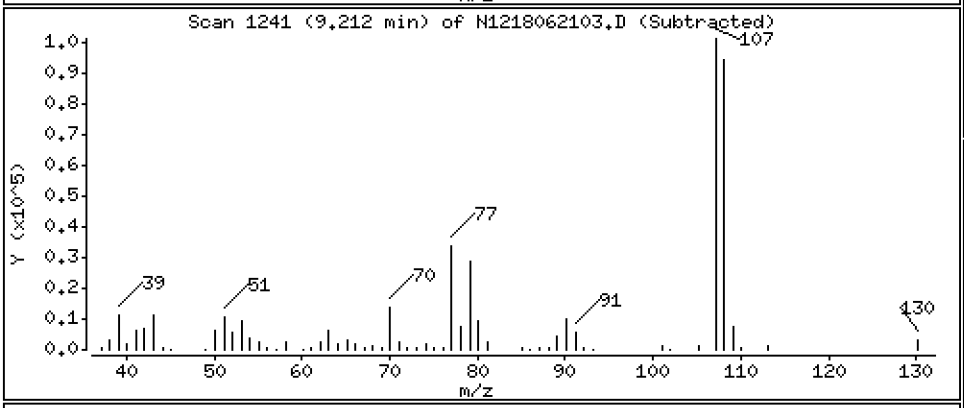
Column diameter: 0.32

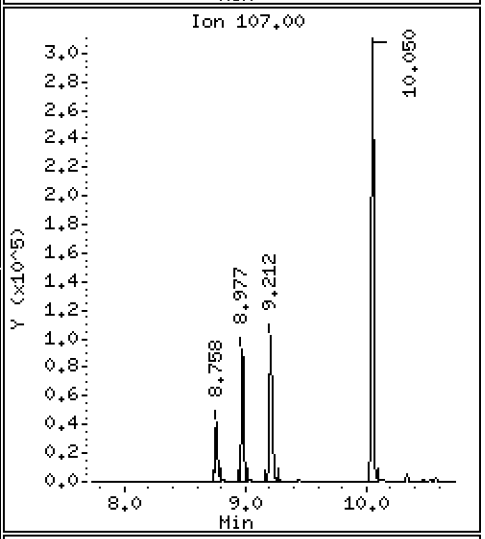
15 4-Methylphenol

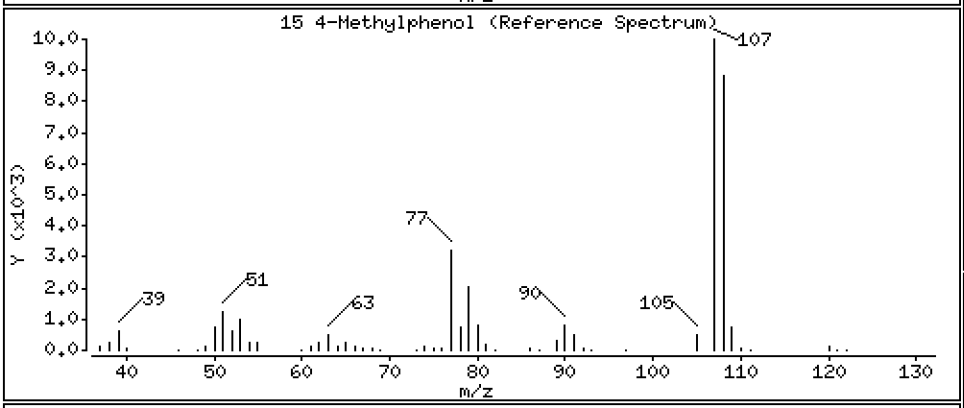
Concentration: 16.11 ug/mL

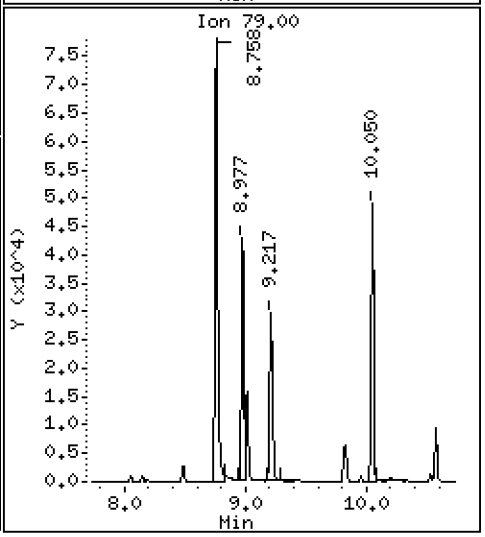


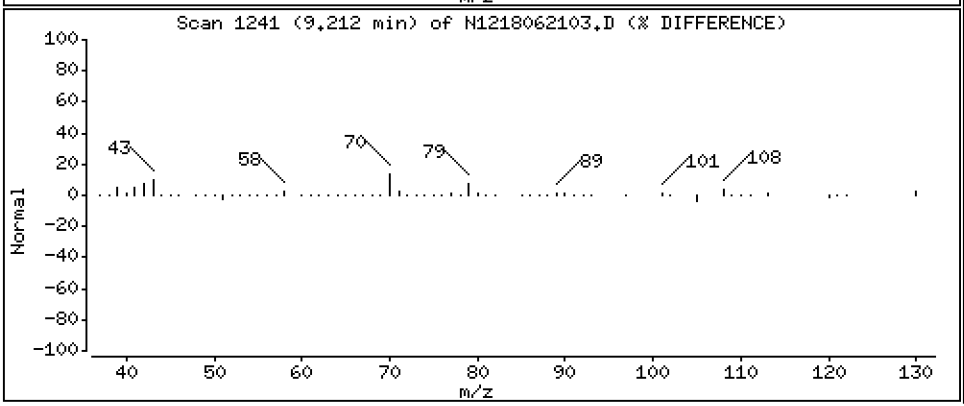












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

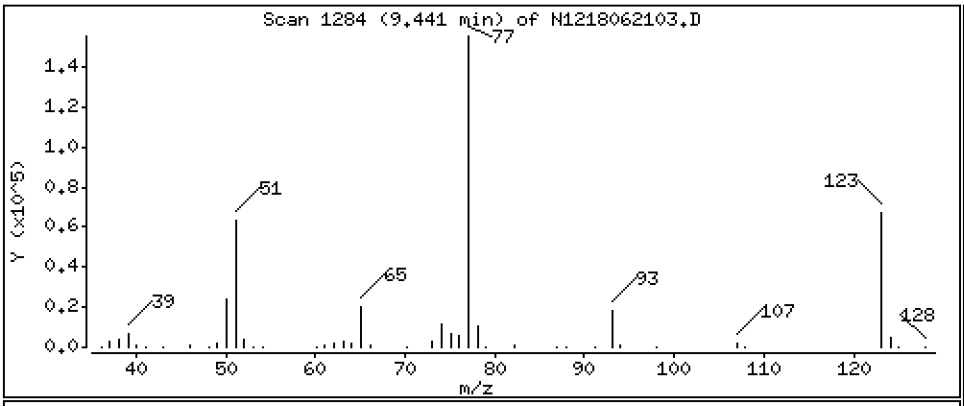
Operator: JZ

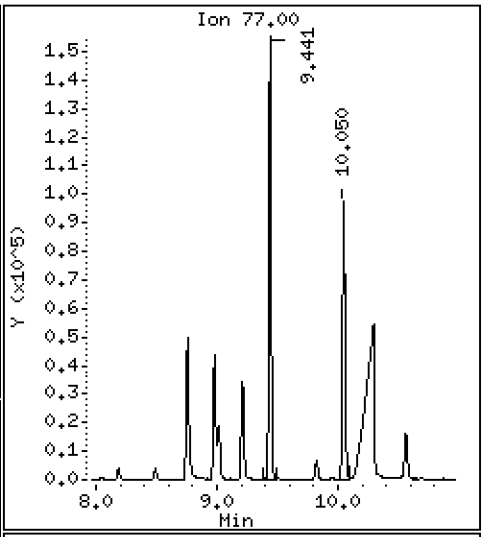
Column phase: ZB-5msi

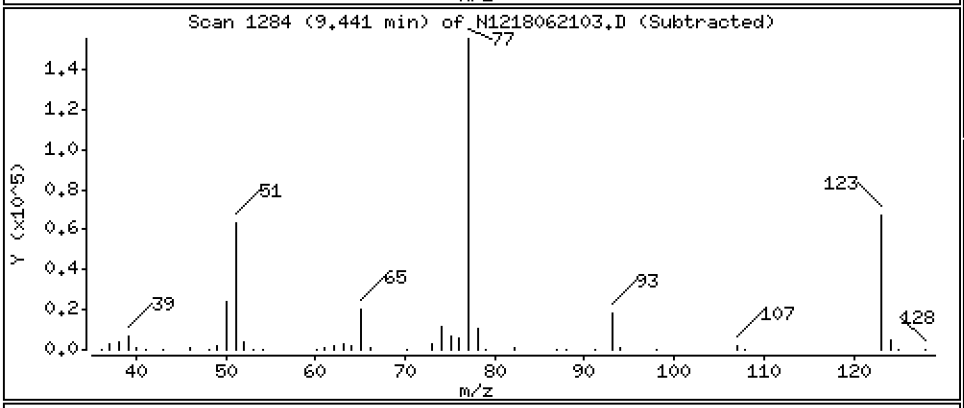
Column diameter: 0.32

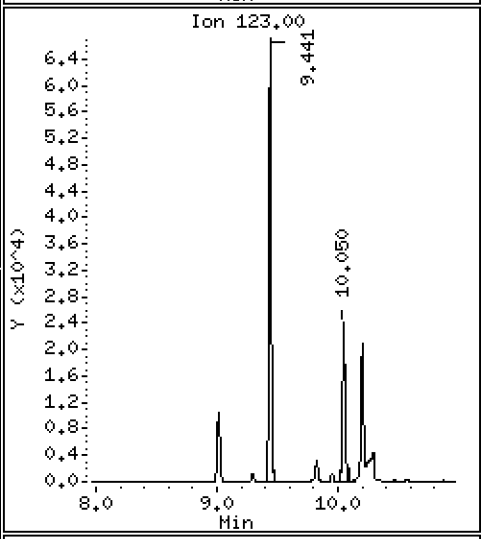
19 Nitrobenzene

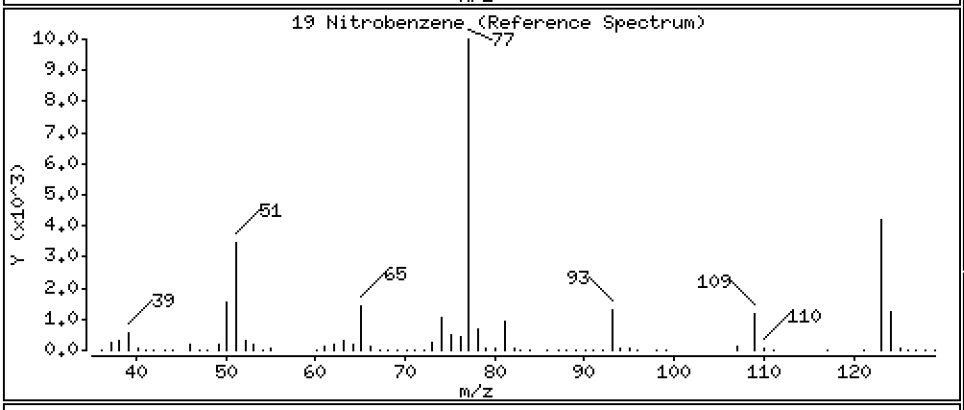
Concentration: 17.87 ug/mL

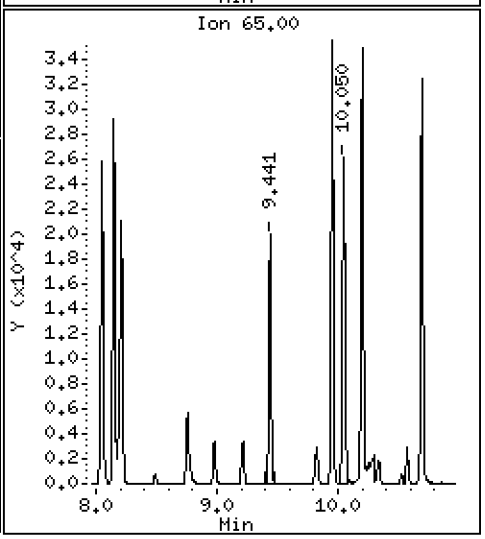


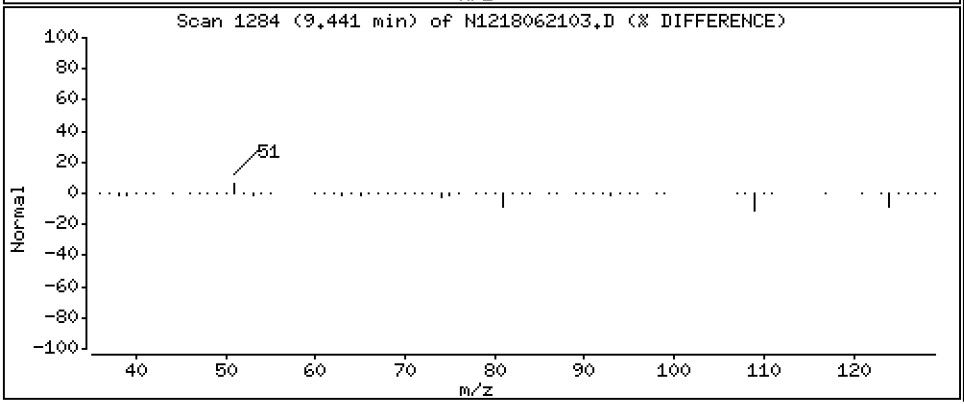












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

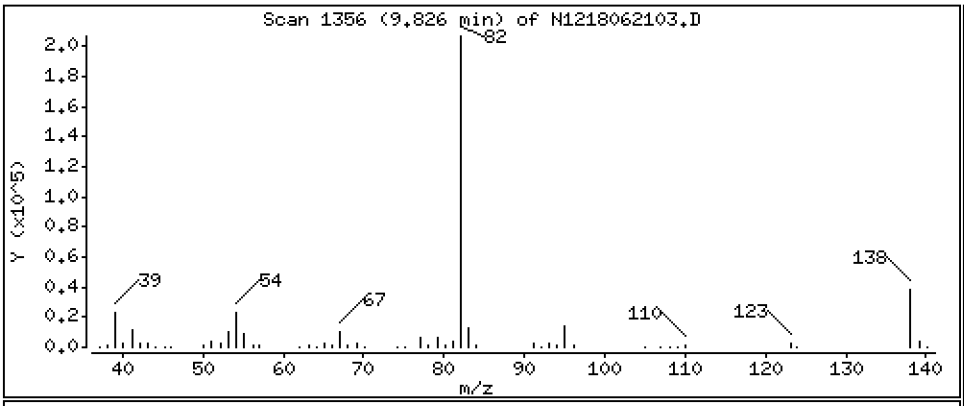
Operator: JZ

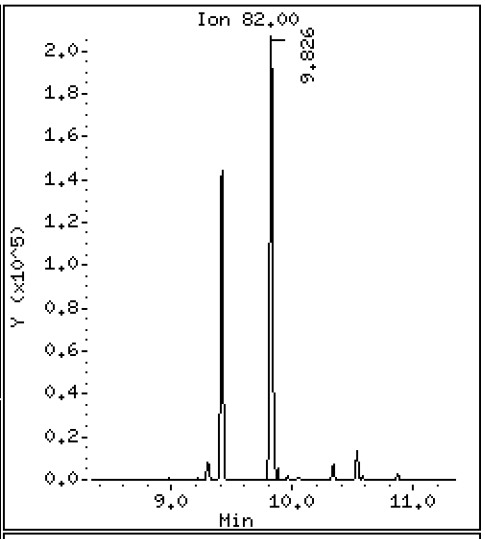
Column phase: ZB-5msi

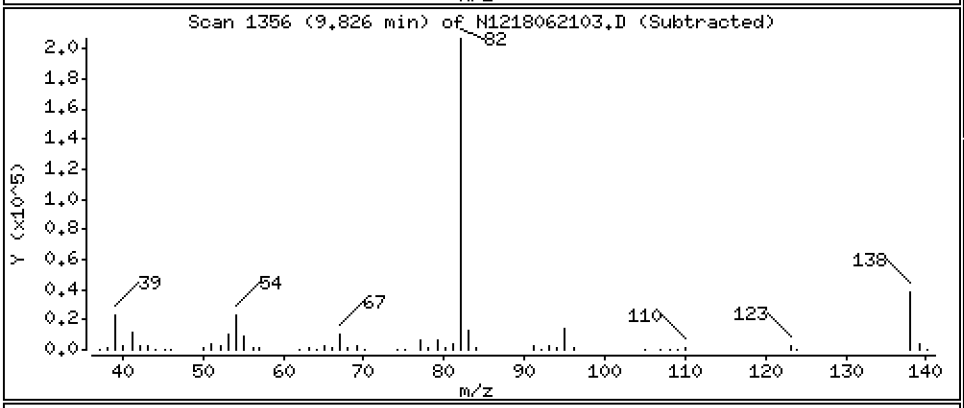
Column diameter: 0.32

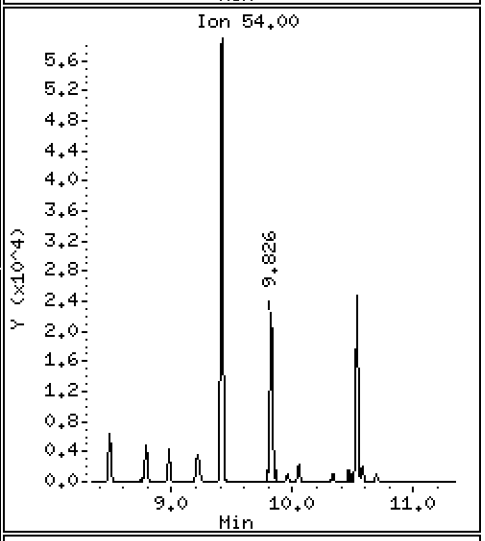
20 Isophorone

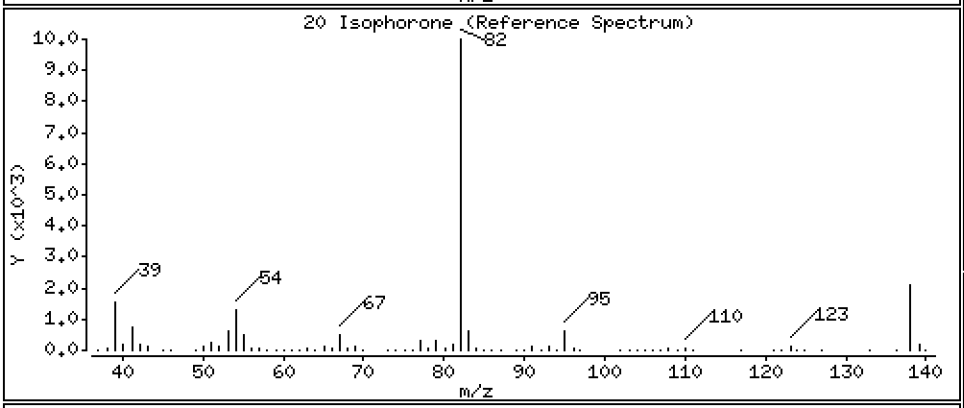
Concentration: 20.80 ug/mL

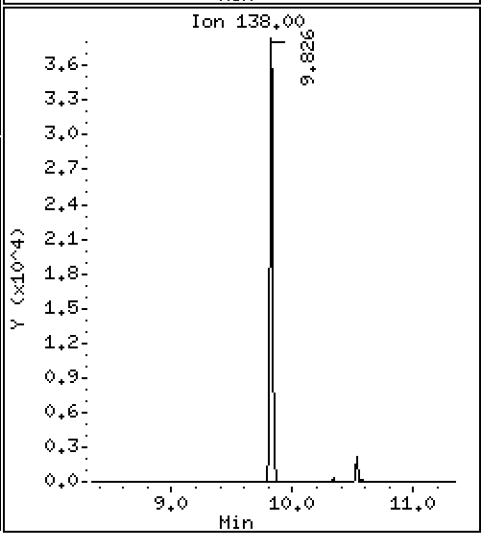


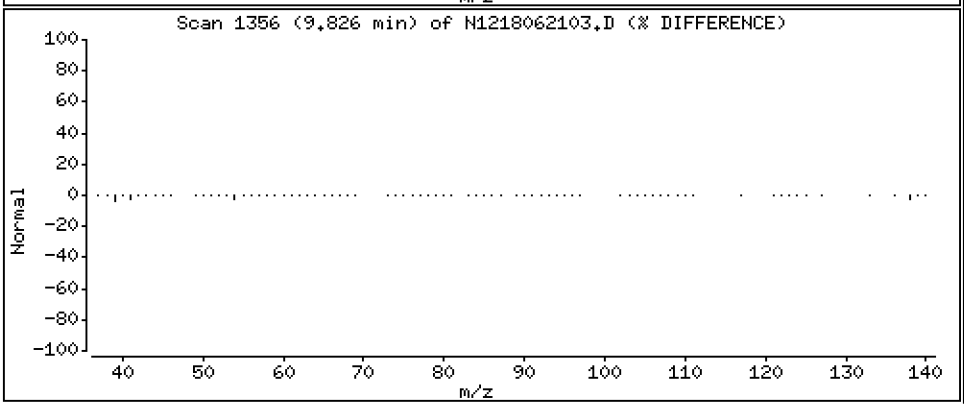












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

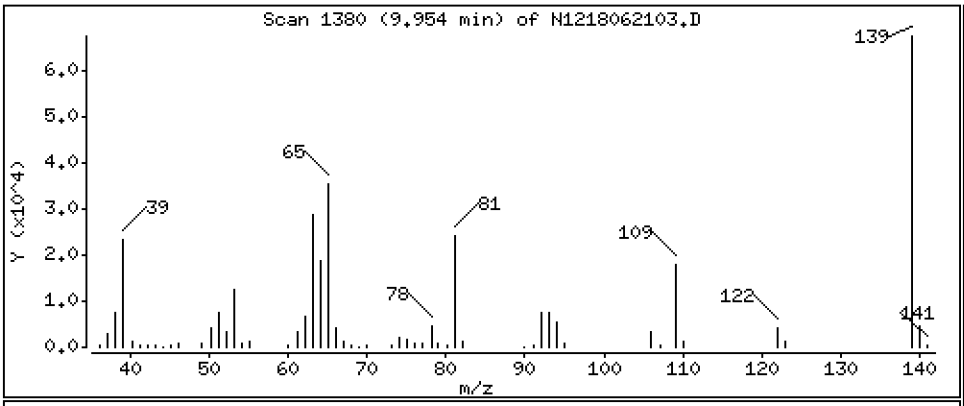
Operator: JZ

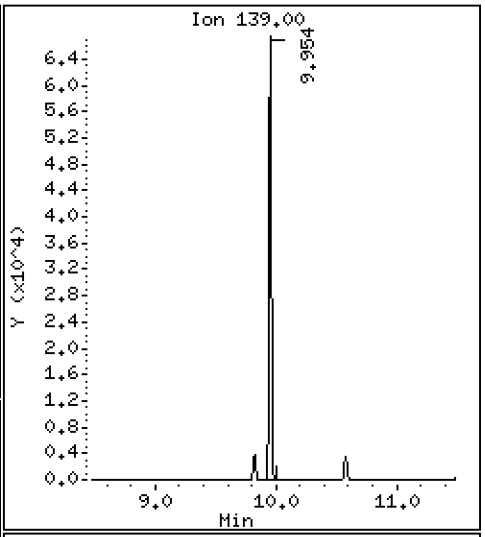
Column phase: ZB-5msi

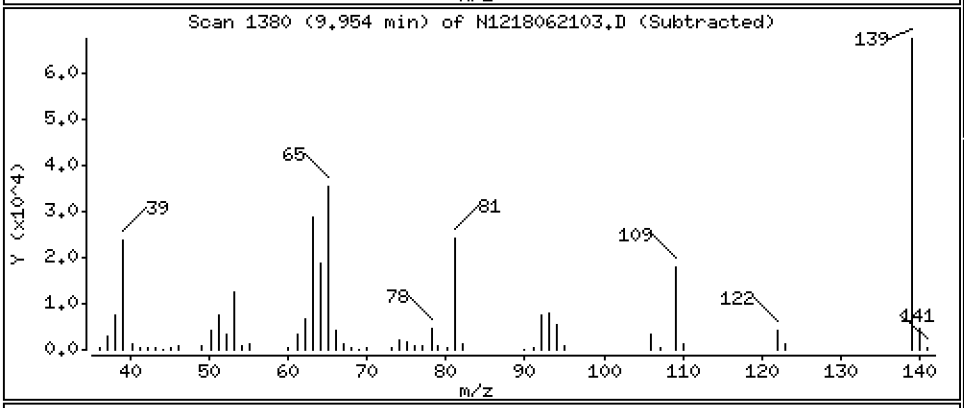
Column diameter: 0.32

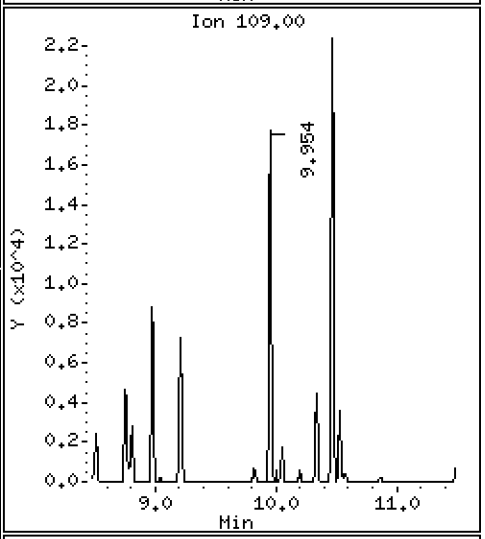
21 2-Nitrophenol

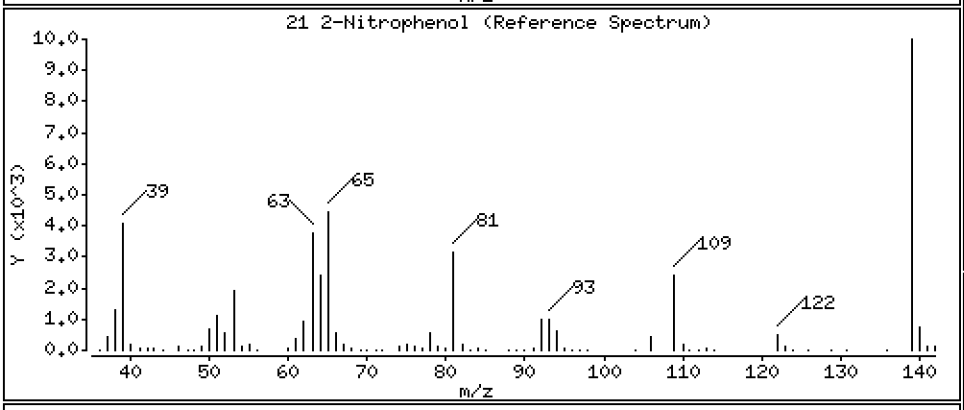
Concentration: 17.71 ug/mL

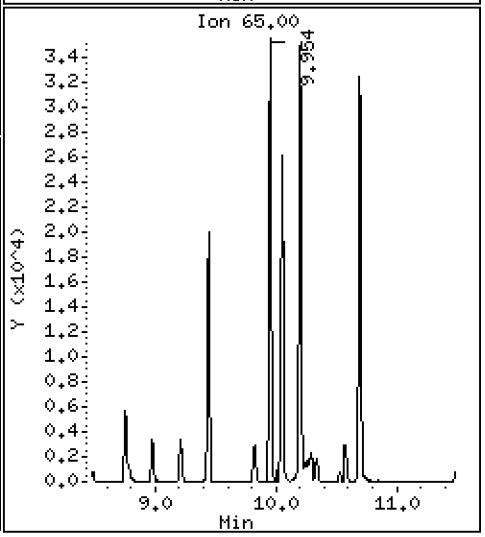


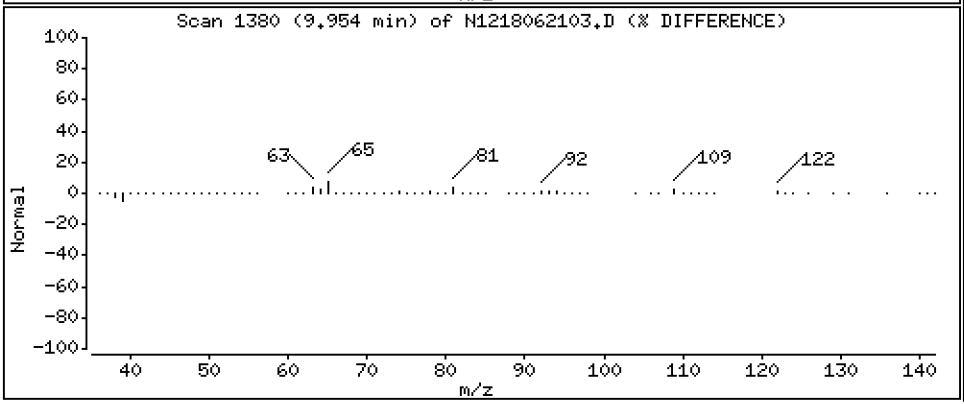












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

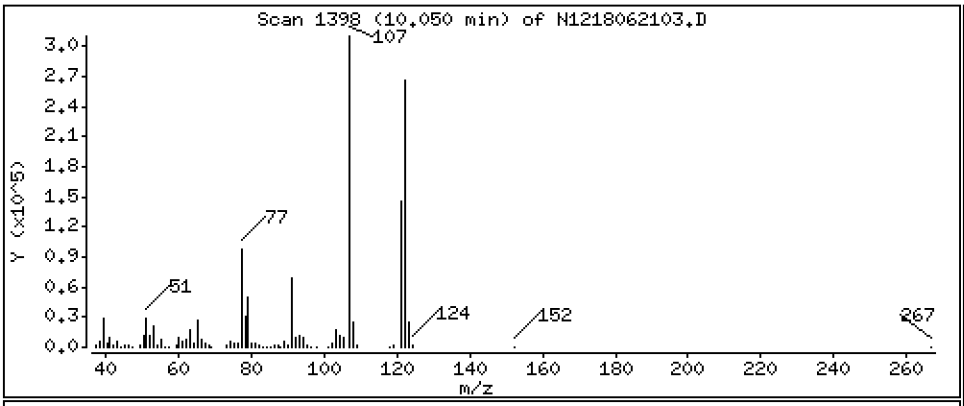
Operator: JZ

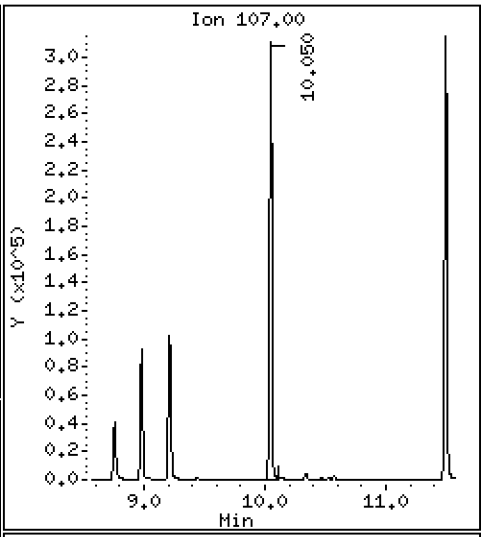
Column phase: ZB-5msi

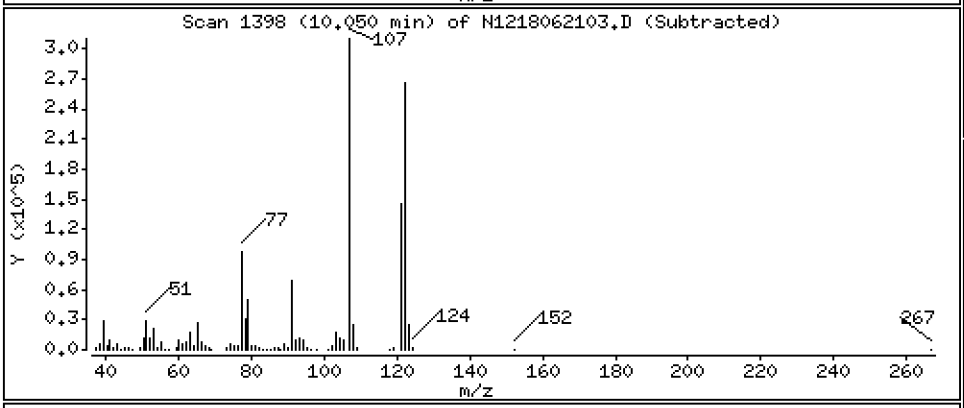
Column diameter: 0.32

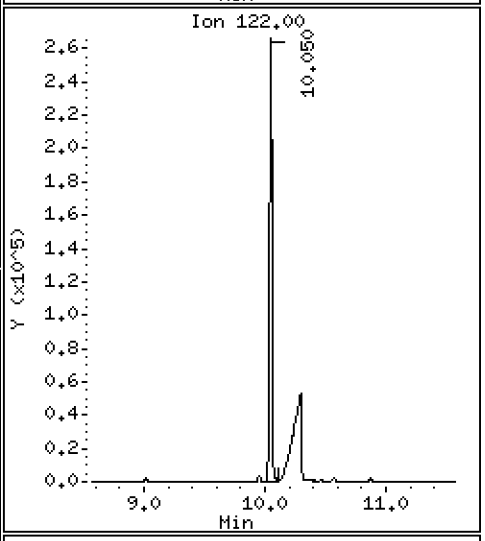
22 2,4-Dimethylphenol

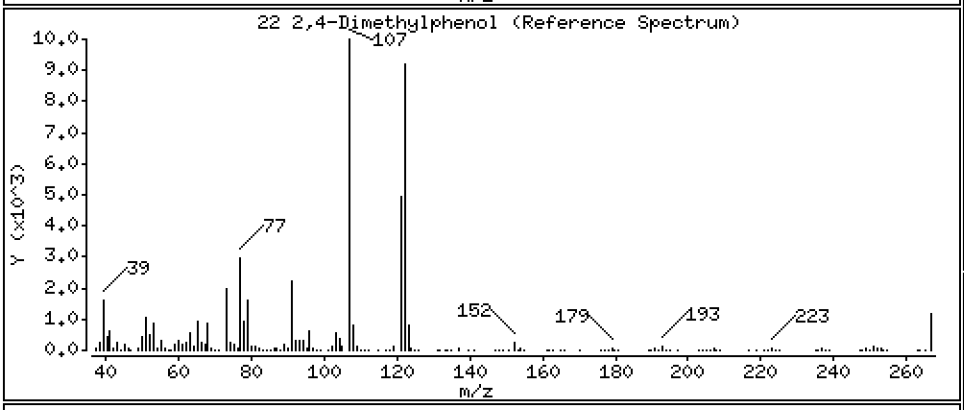
Concentration: 43.79 ug/mL

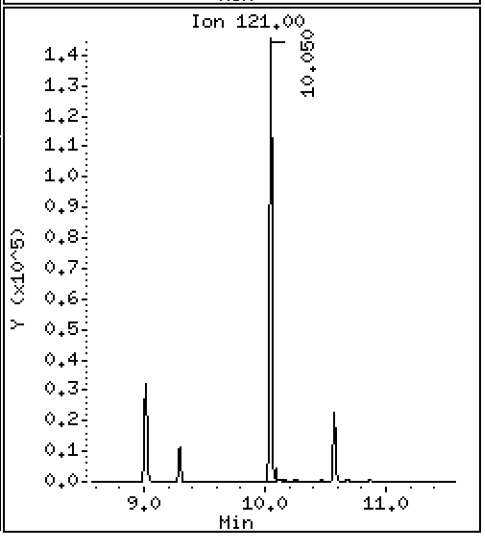


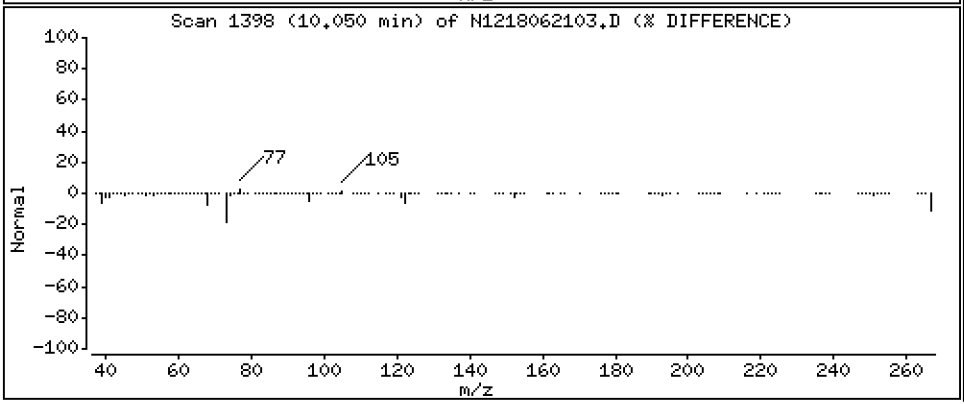












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

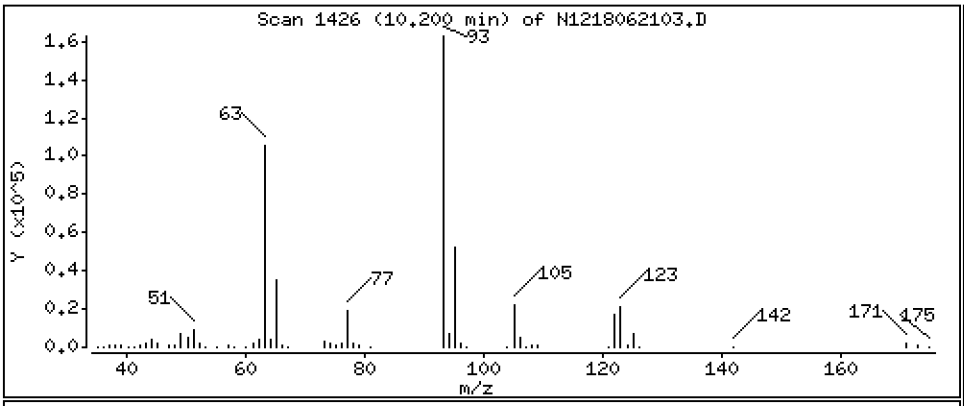
Operator: JZ

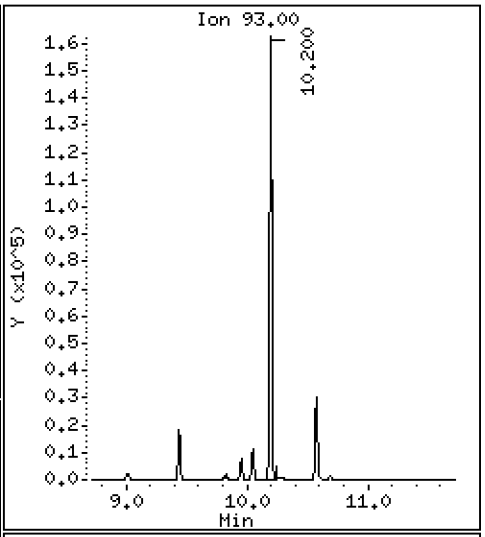
Column phase: ZB-5msi

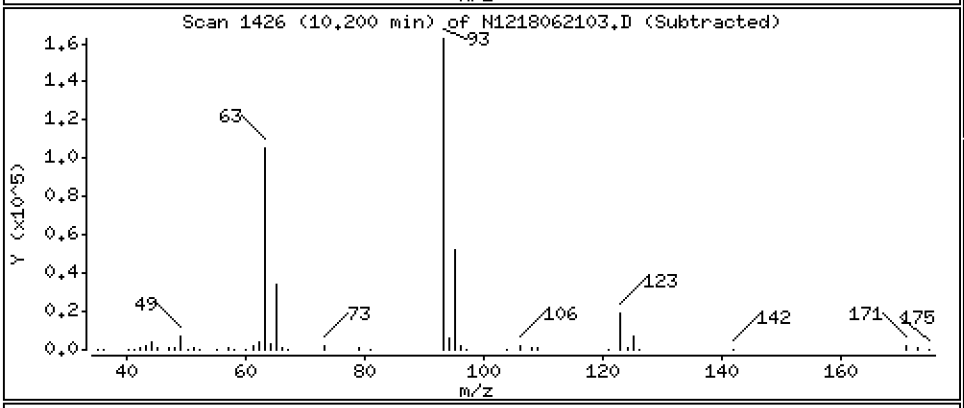
Column diameter: 0.32

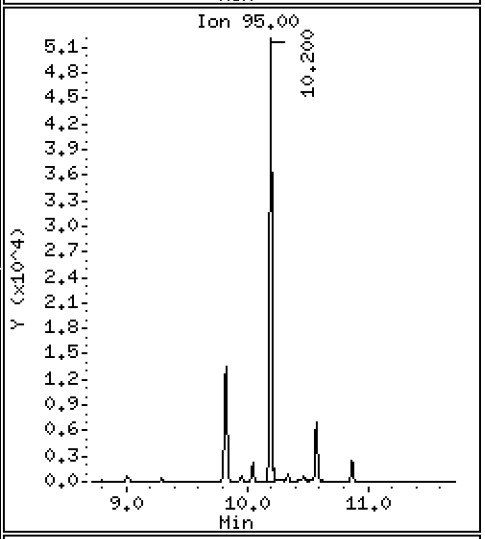
23 Bis(2-Chloroethoxy)methane

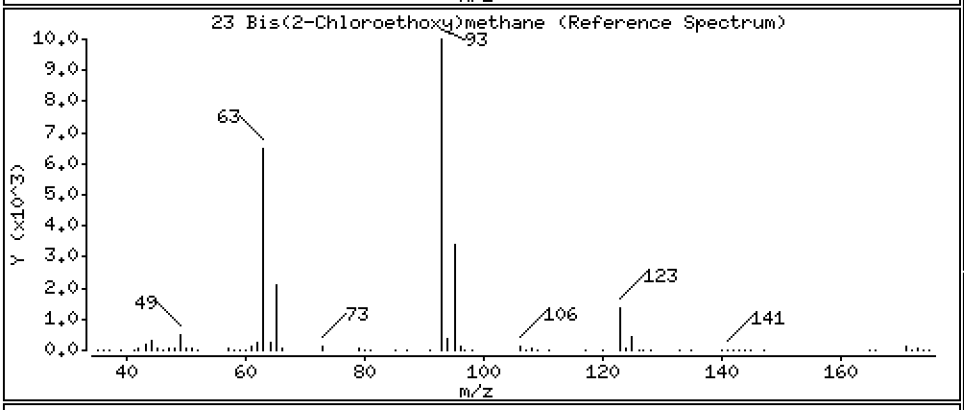
Concentration: 19.03 ug/mL

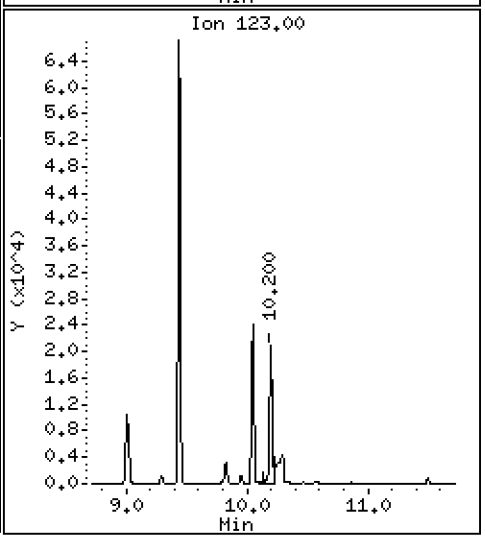


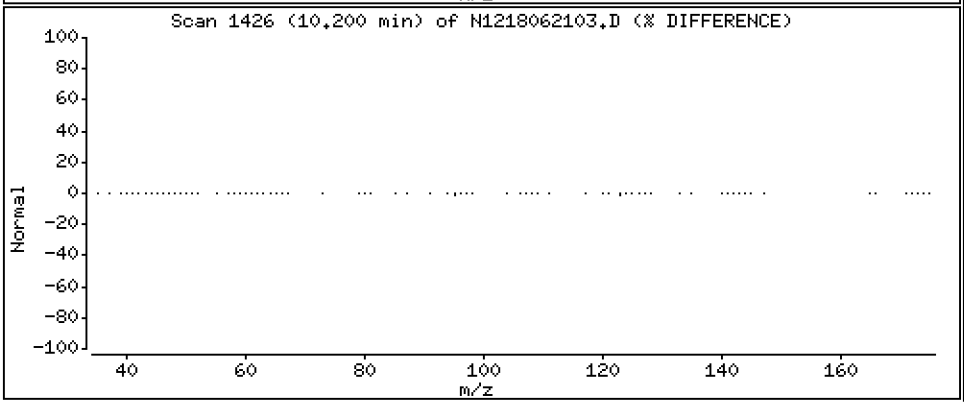












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

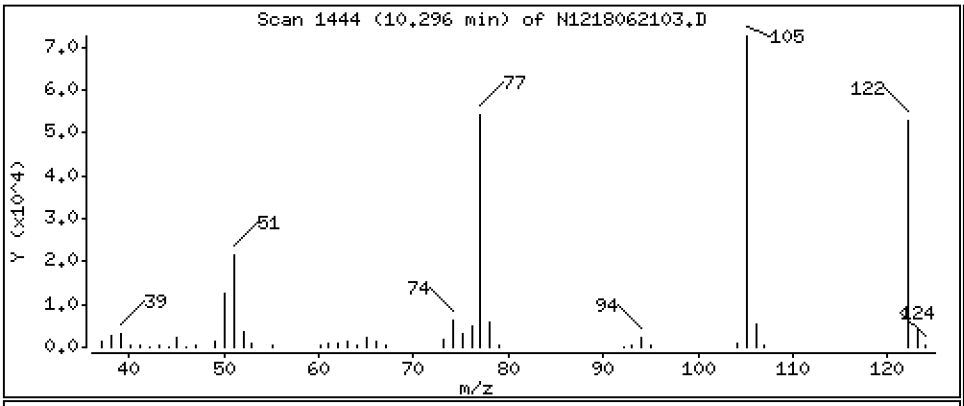
Operator: JZ

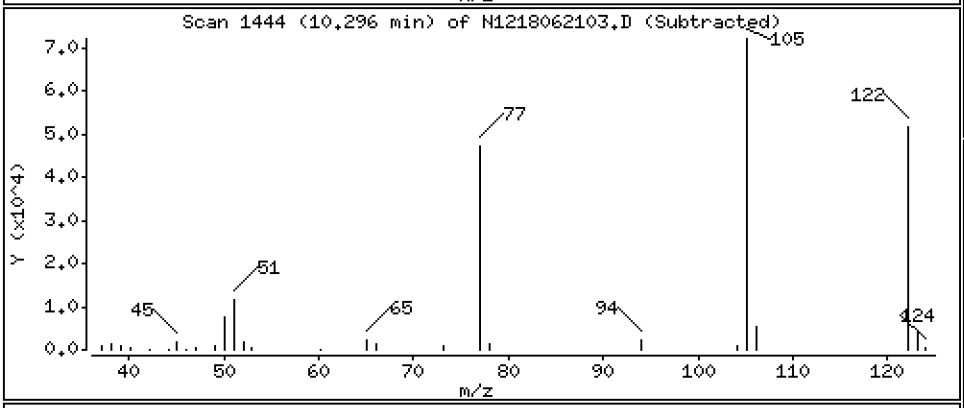
Column phase: ZB-5msi

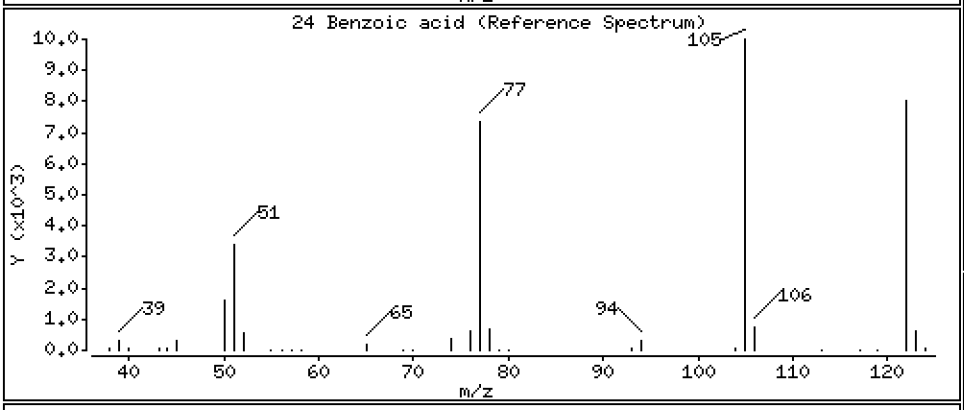
Column diameter: 0.32

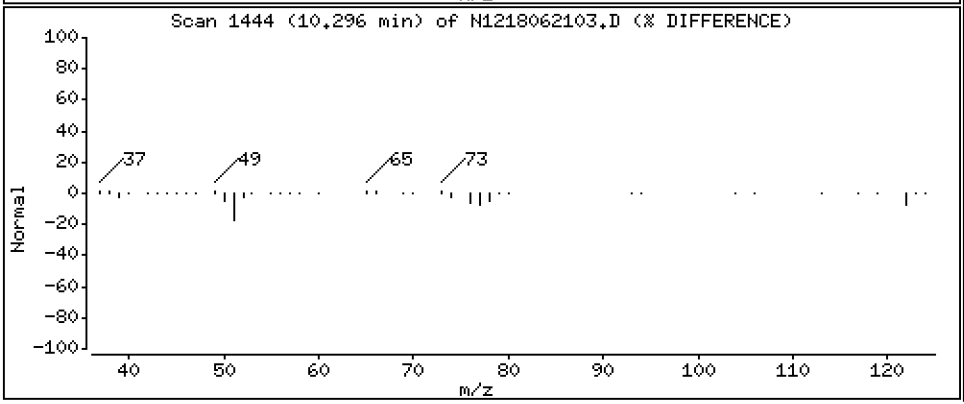
24 Benzoic acid

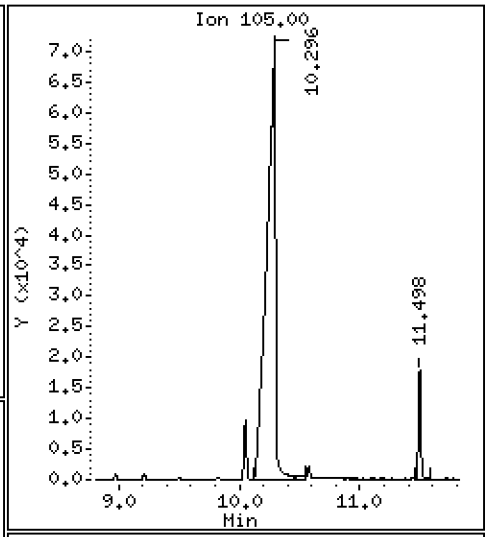
Concentration: 52.78 ug/mL

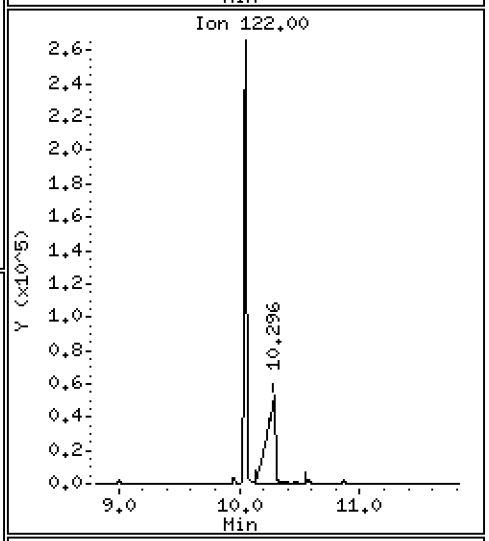


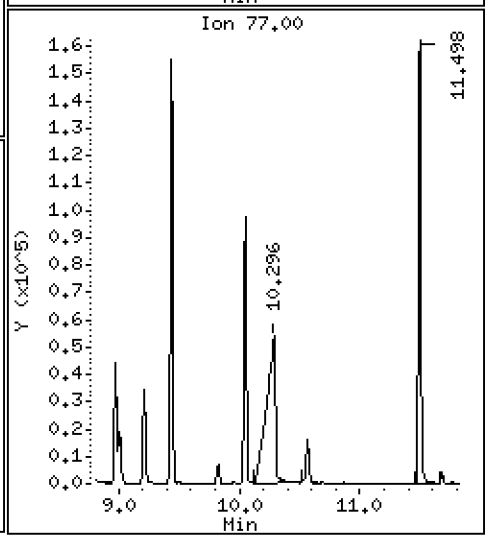












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

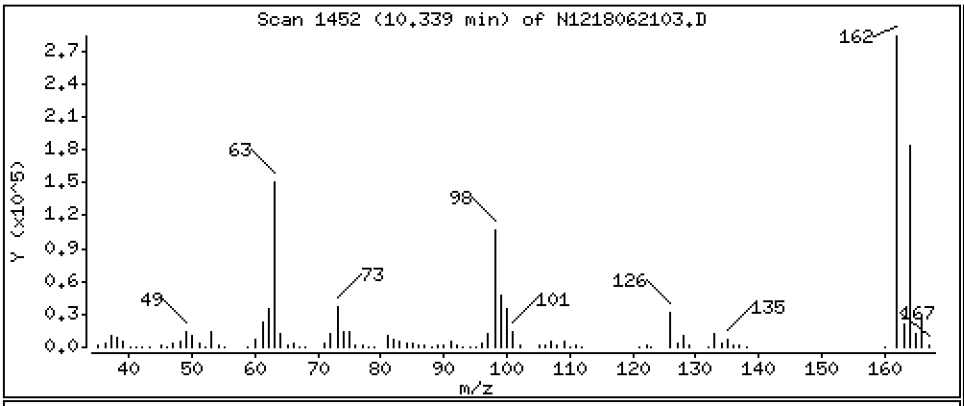
Operator: JZ

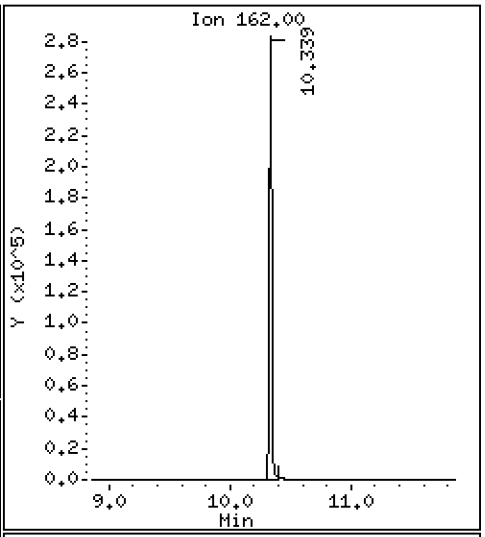
Column phase: ZB-5msi

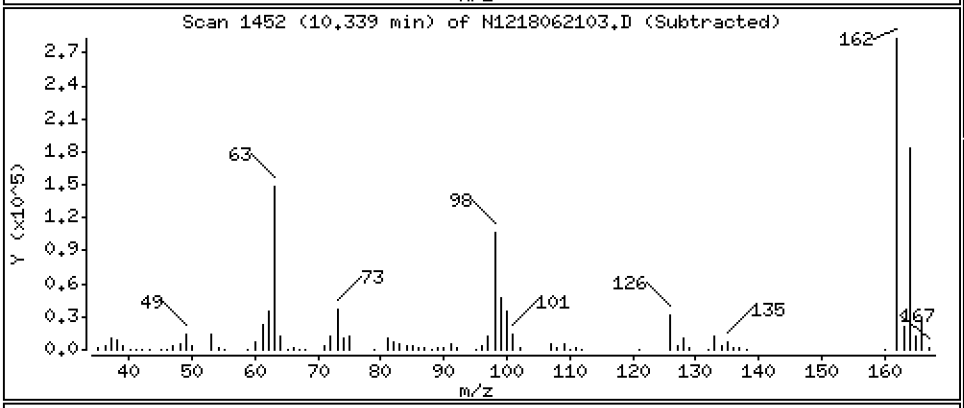
Column diameter: 0.32

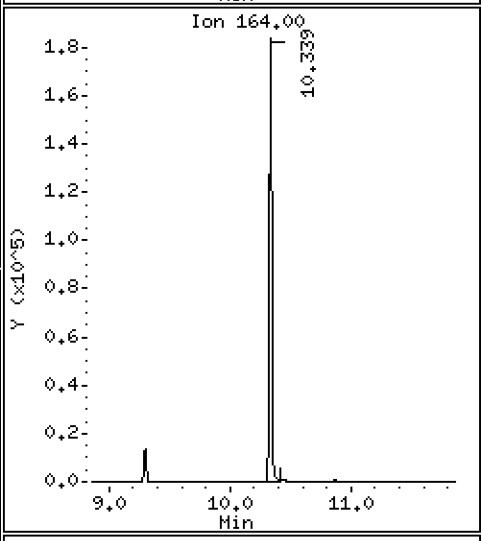
25 2,4-Dichlorophenol

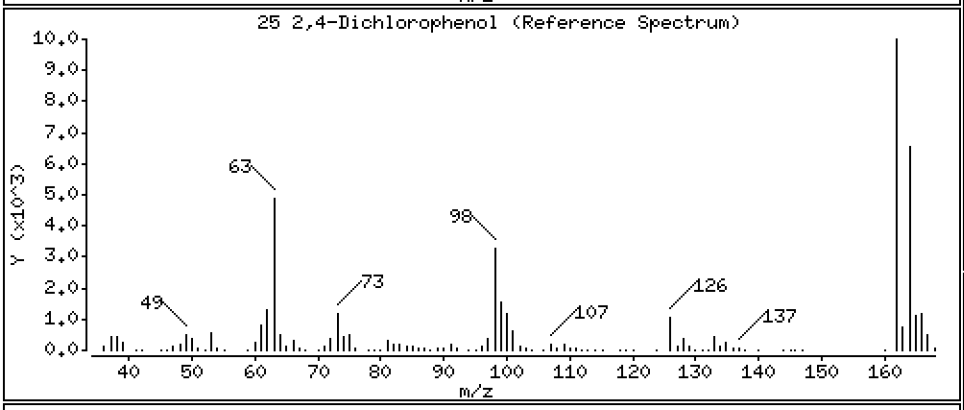
Concentration: 51.27 ug/mL

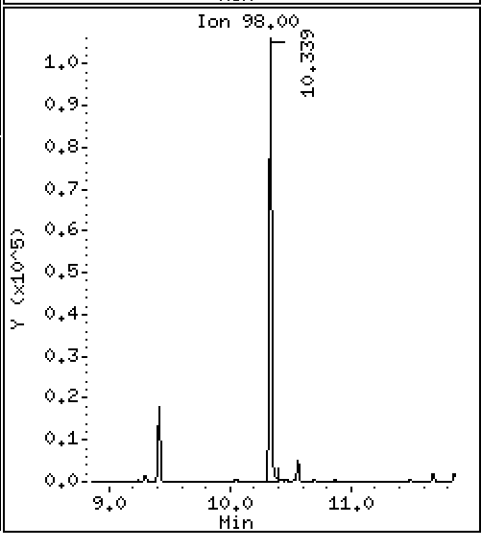


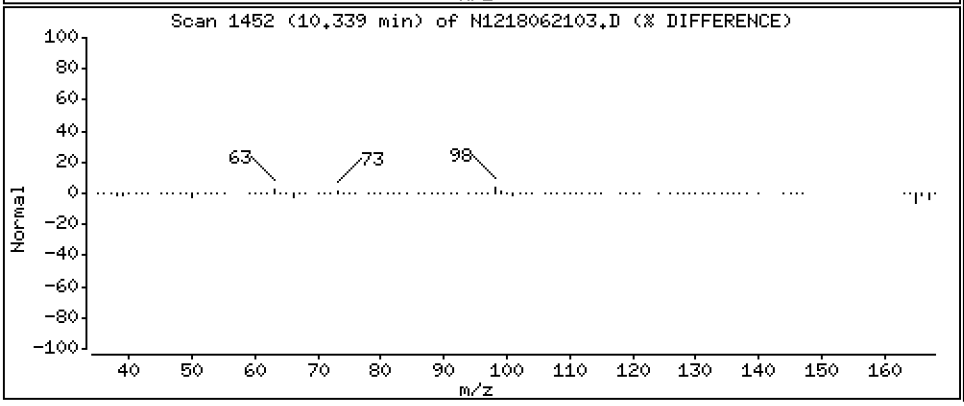












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

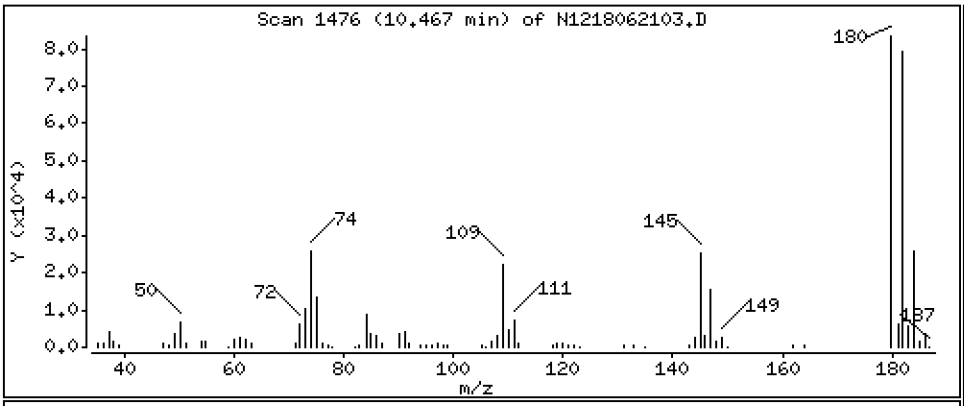
Operator: JZ

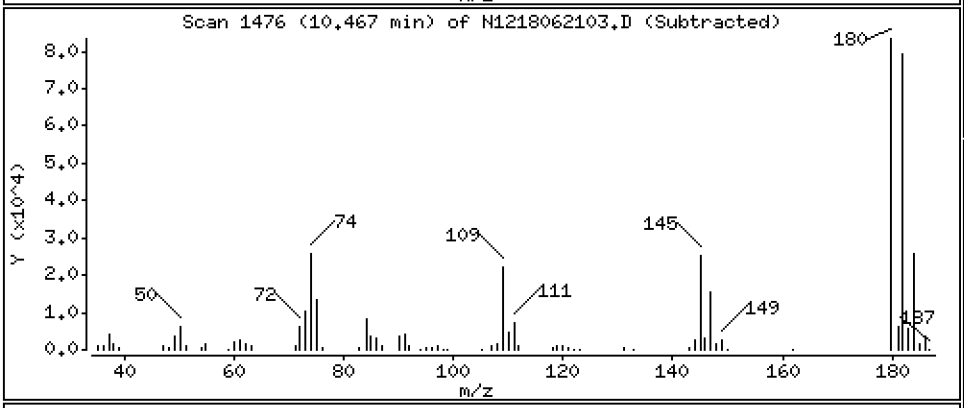
Column phase: ZB-5msi

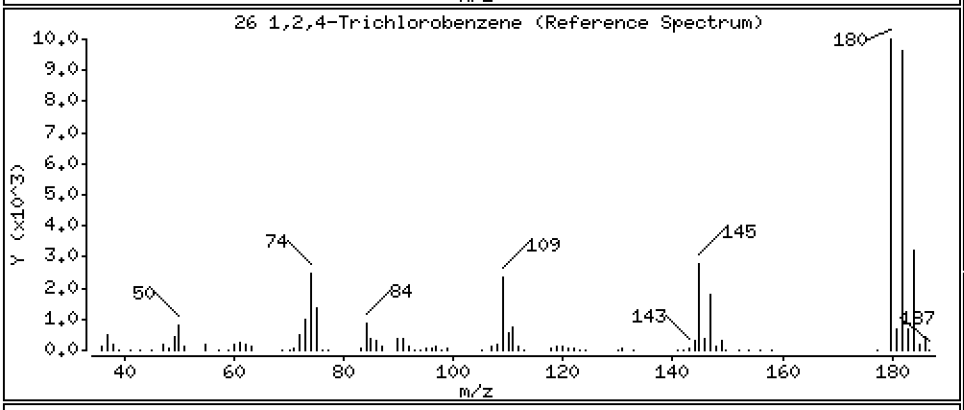
Column diameter: 0.32

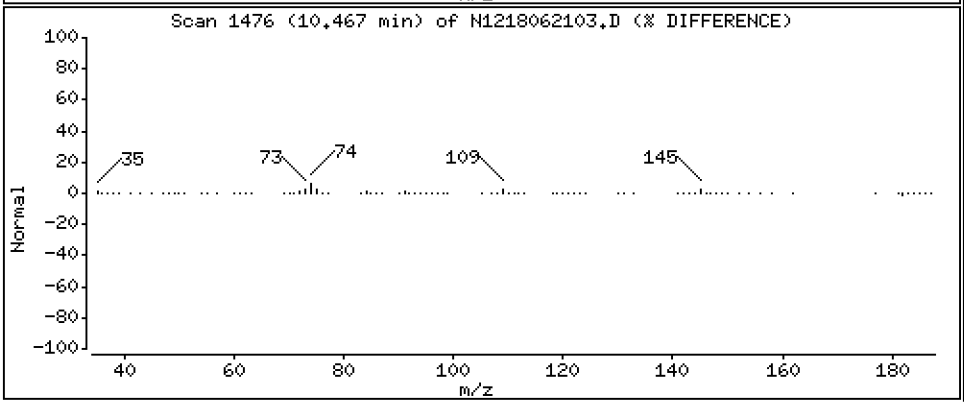
26 1,2,4-Trichlorobenzene

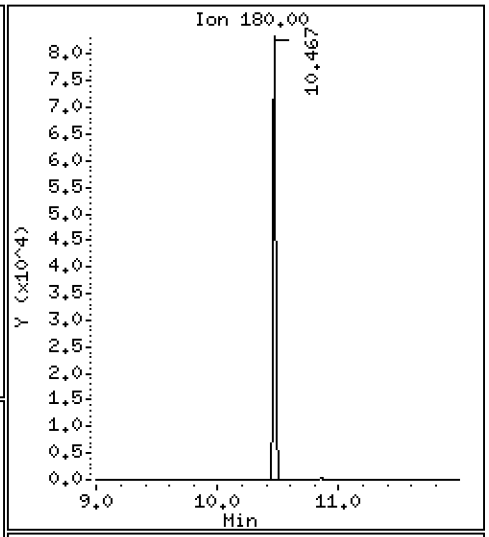
Concentration: 14.79 ug/mL

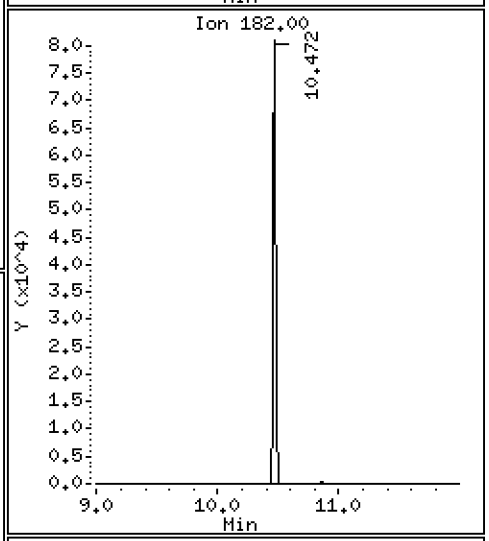


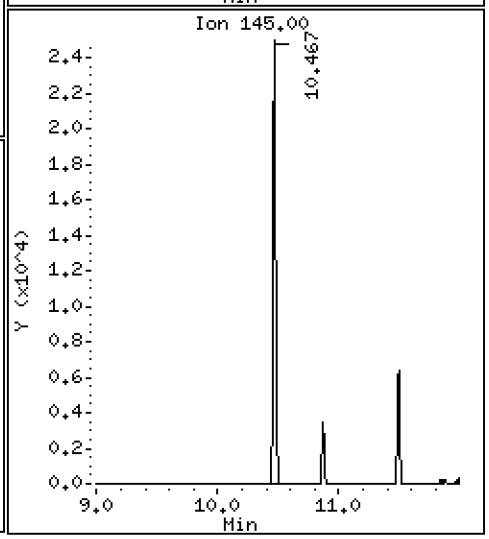












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

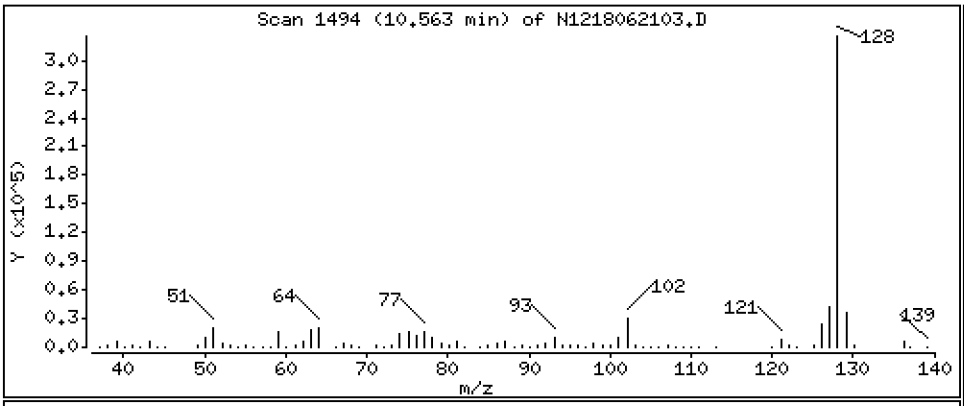
Operator: JZ

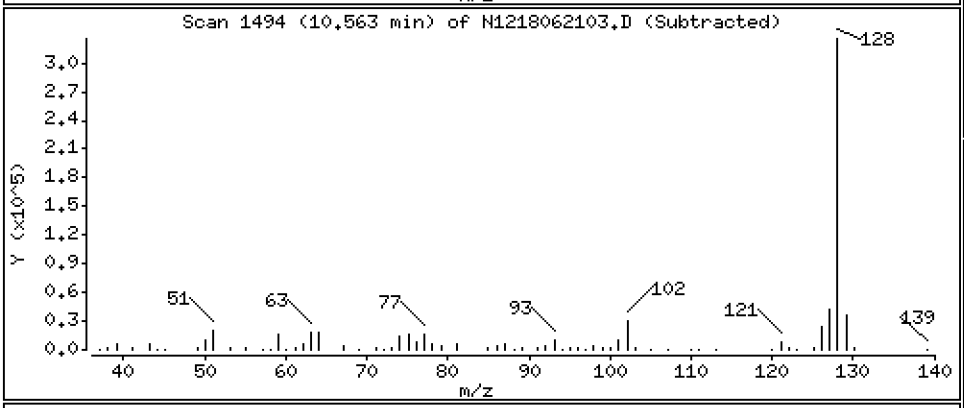
Column phase: ZB-5msi

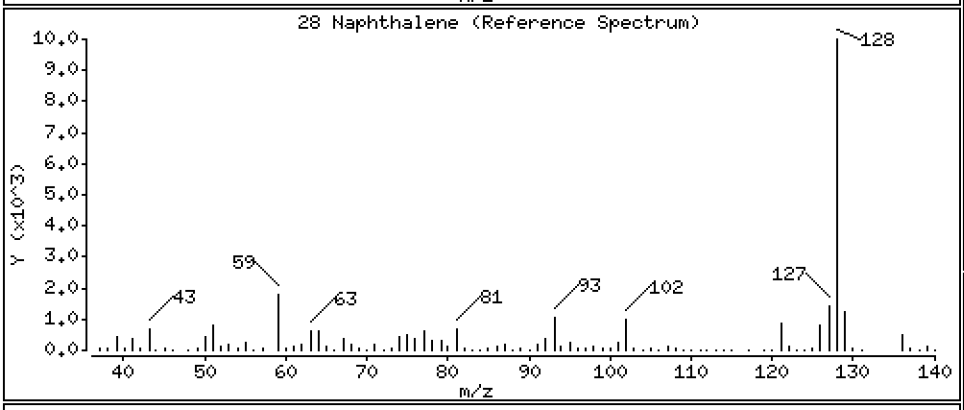
Column diameter: 0.32

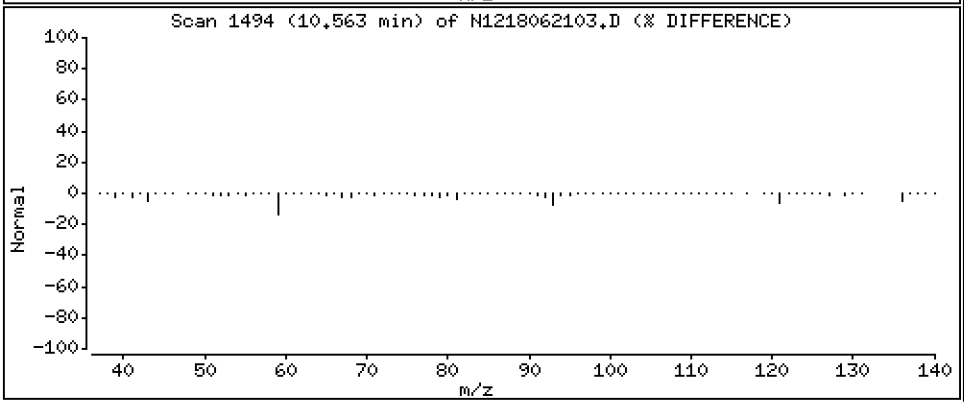
28 Naphthalene

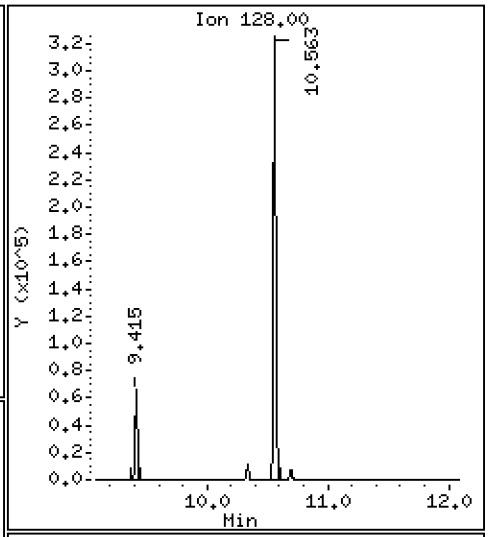
Concentration: 15.97 ug/mL

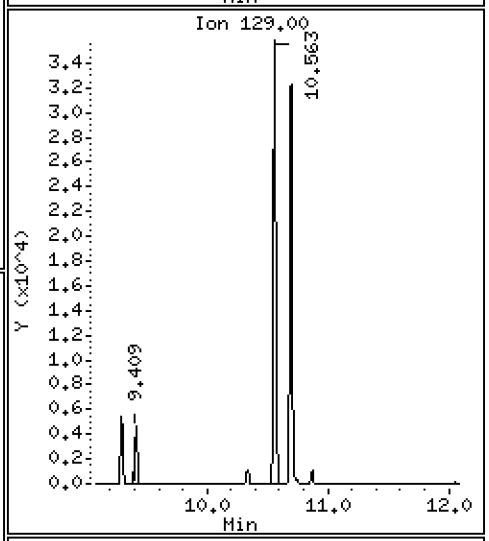


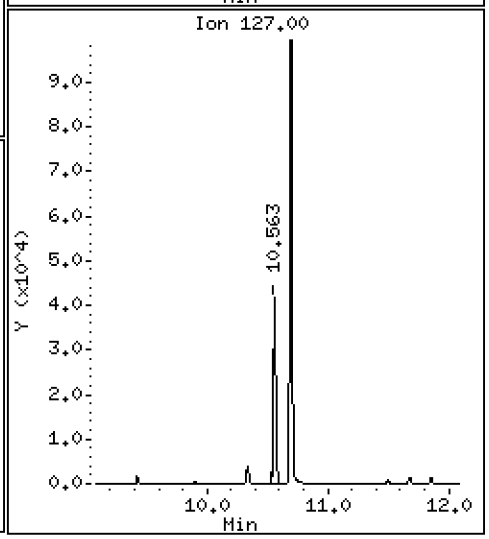












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

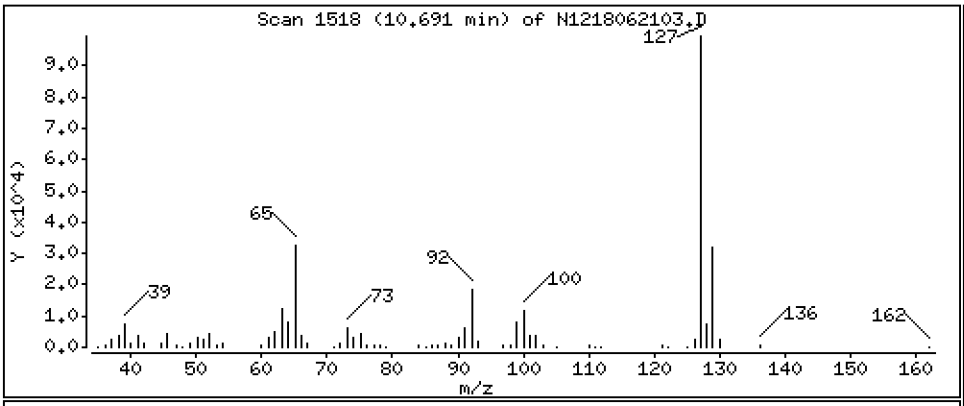
Operator: JZ

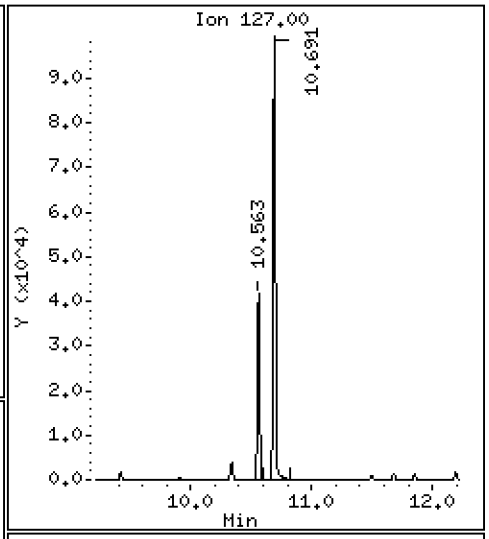
Column phase: ZB-5msi

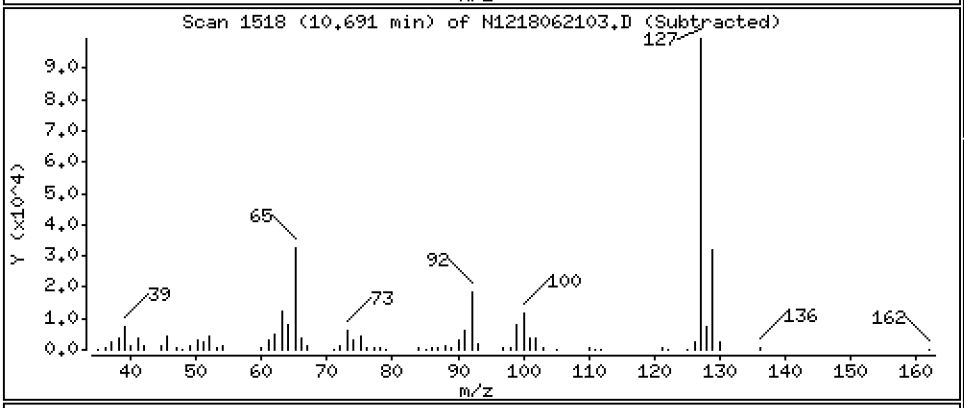
Column diameter: 0.32

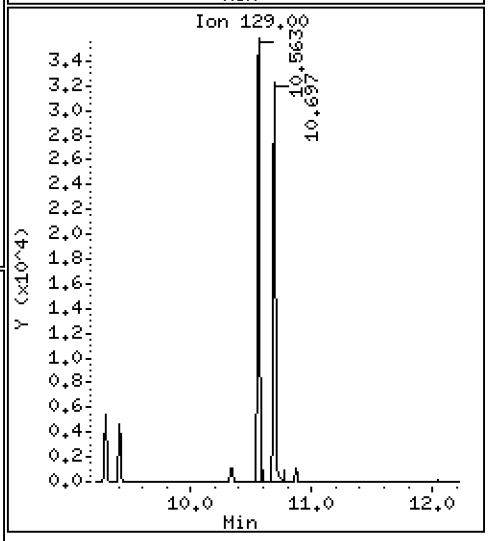
29 4-Chloroaniline

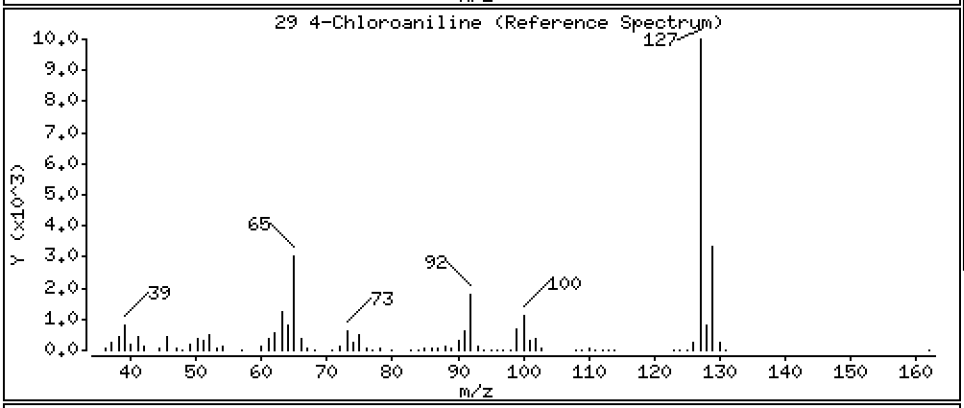
Concentration: 11.88 ug/mL

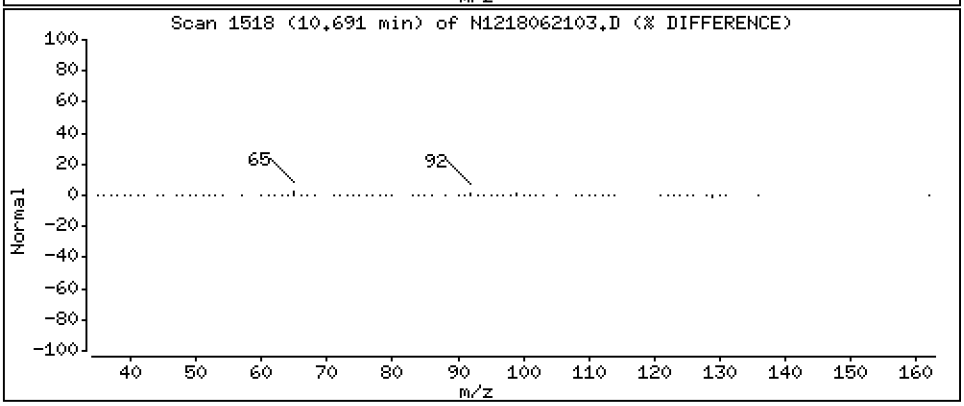












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

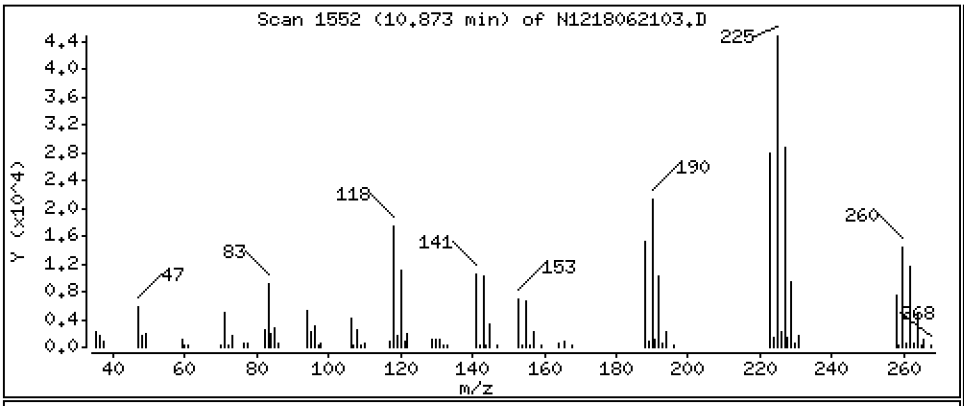
Operator: JZ

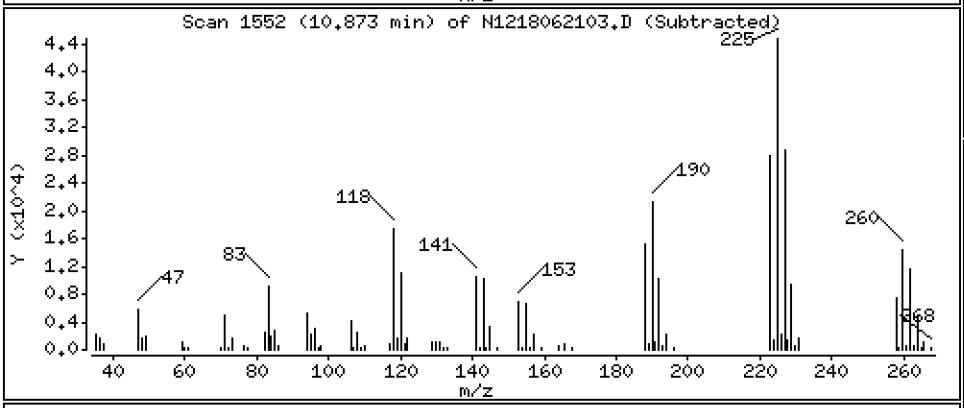
Column phase: ZB-5msi

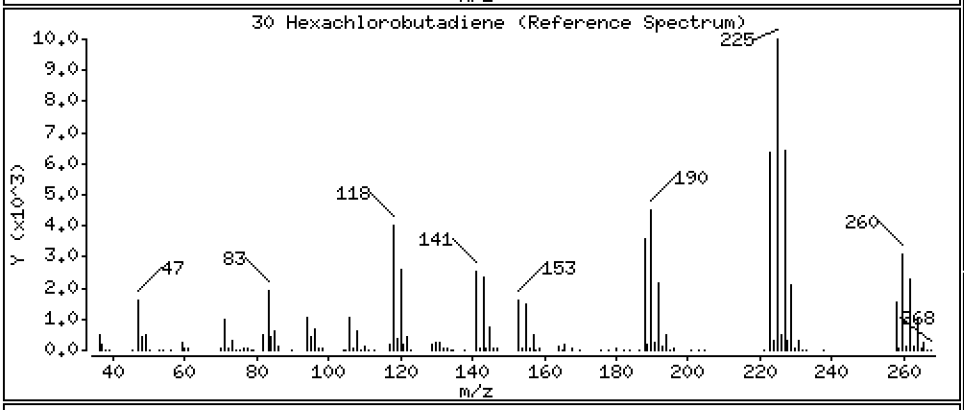
Column diameter: 0.32

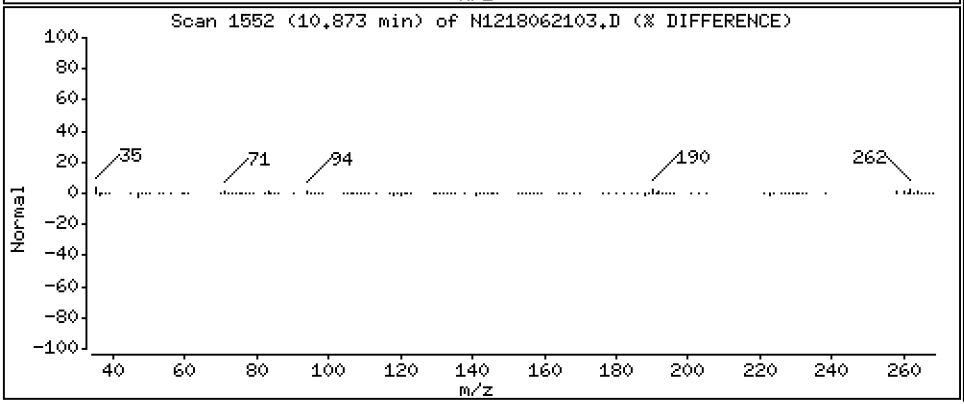
30 Hexachlorobutadiene

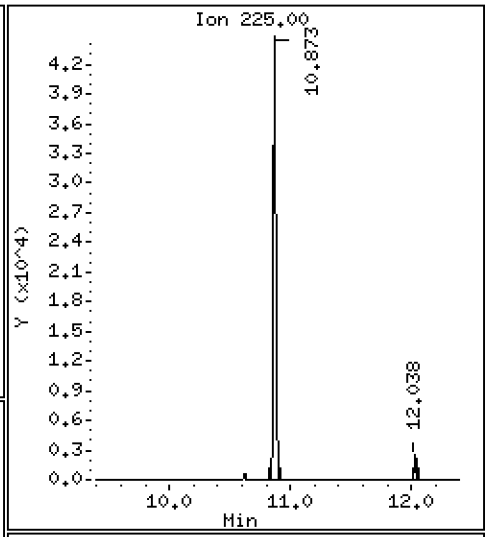
Concentration: 13.86 ug/mL

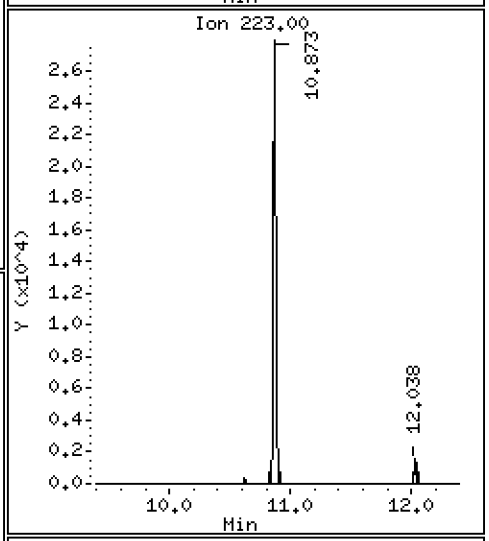


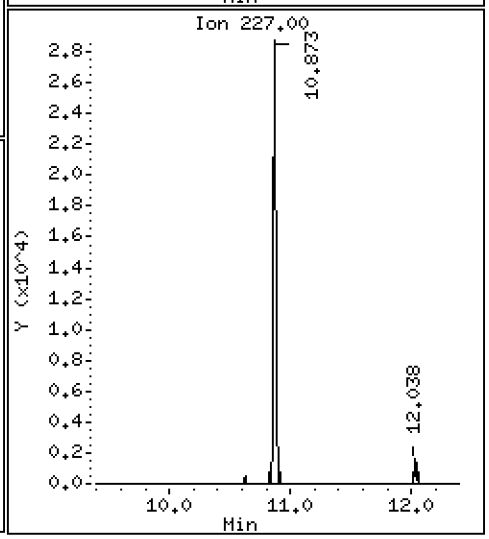












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

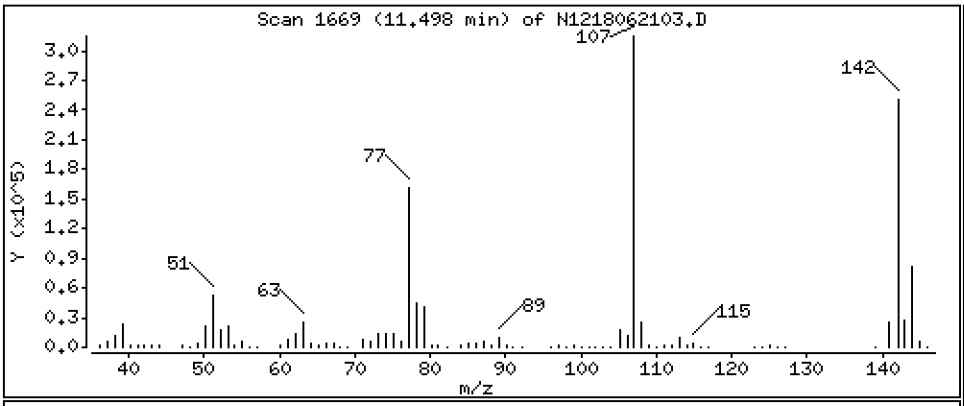
Operator: JZ

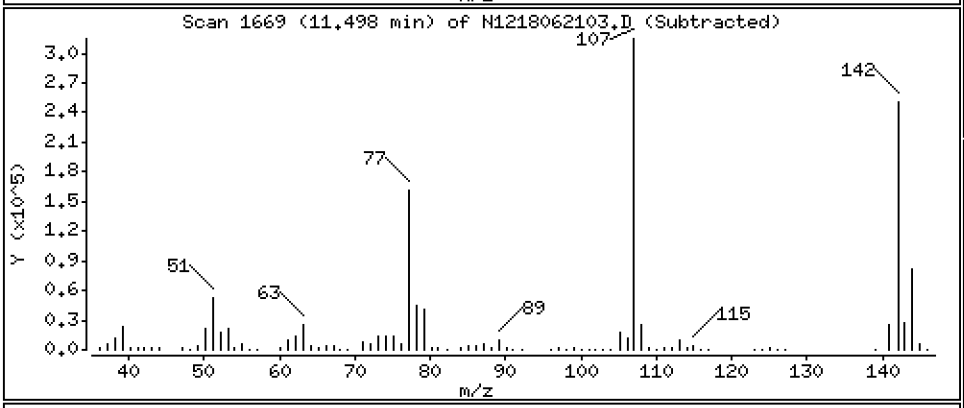
Column phase: ZB-5msi

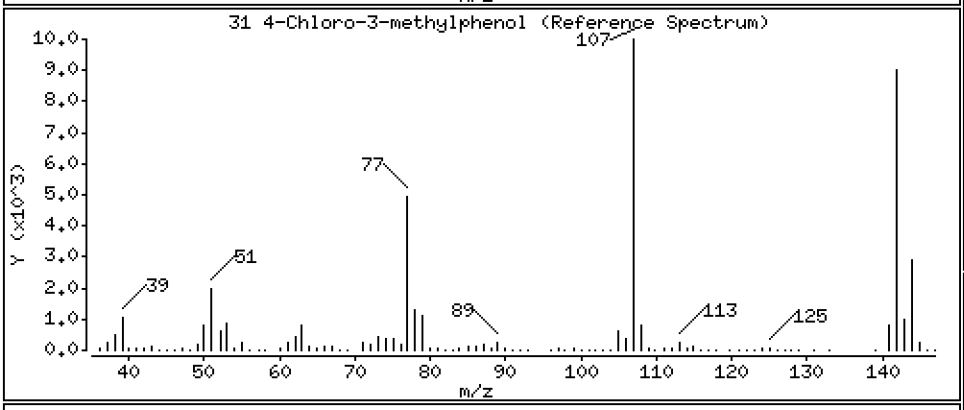
Column diameter: 0.32

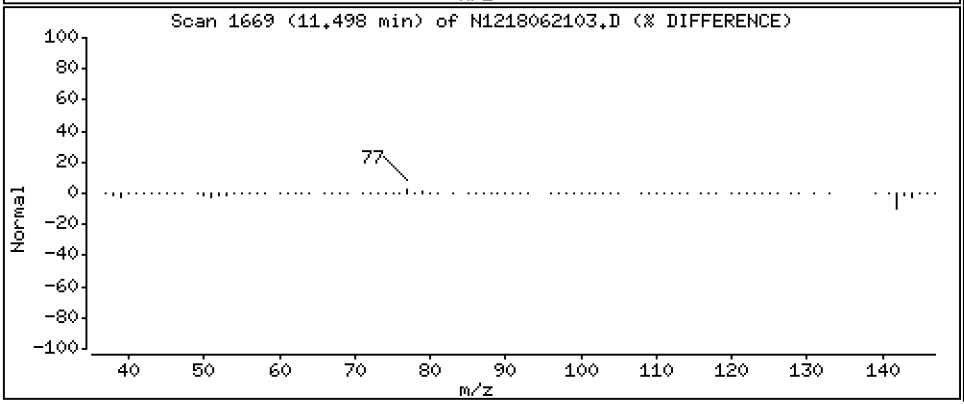
31 4-Chloro-3-methylphenol

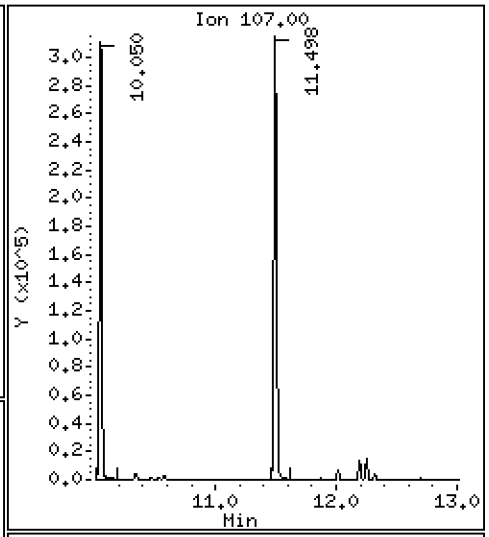
Concentration: 53.78 ug/mL

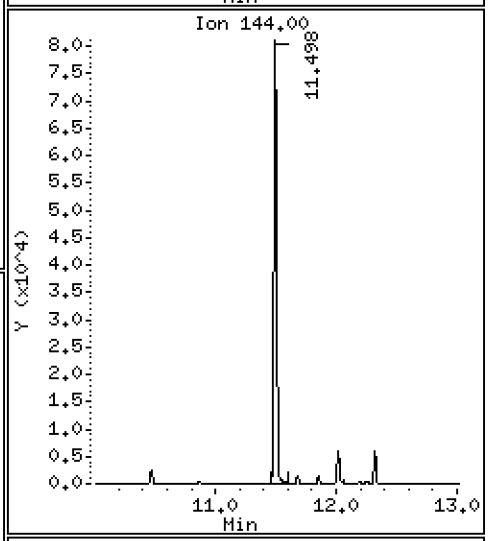


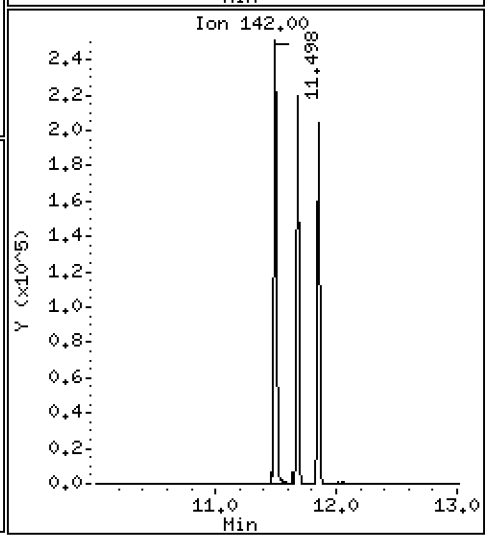












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

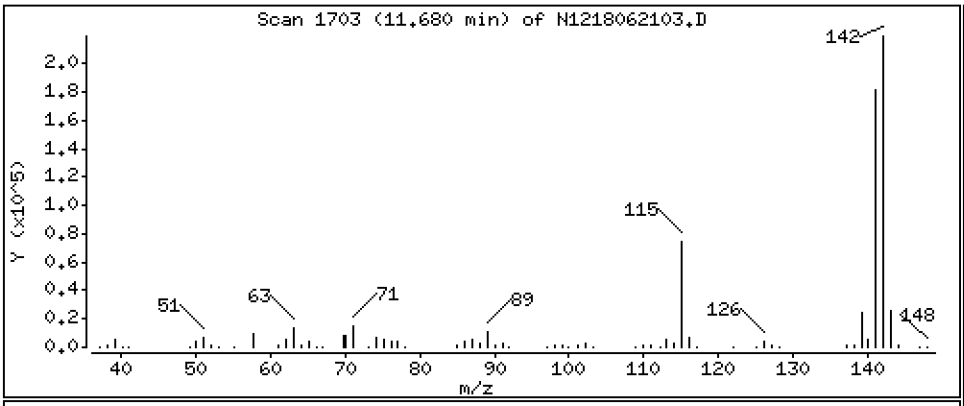
Operator: JZ

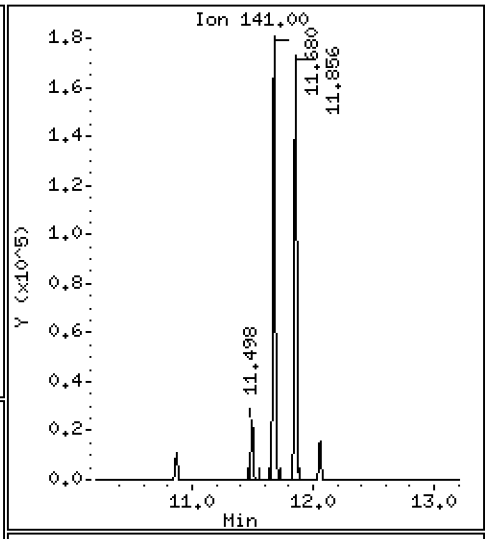
Column phase: ZB-5msi

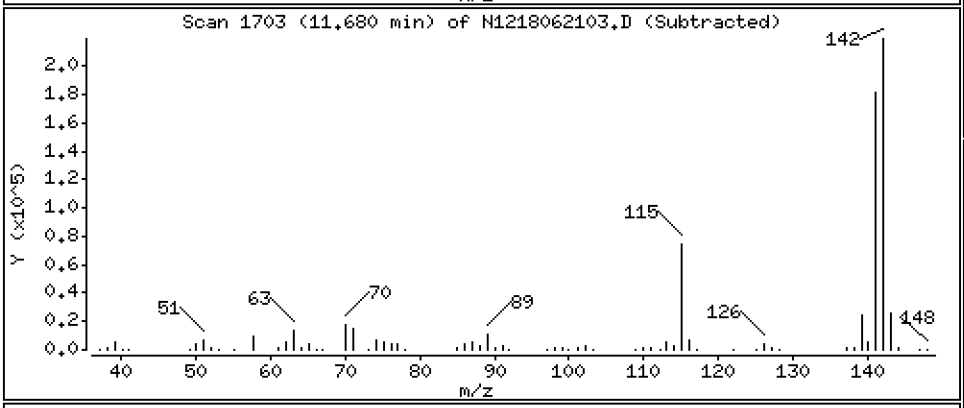
Column diameter: 0.32

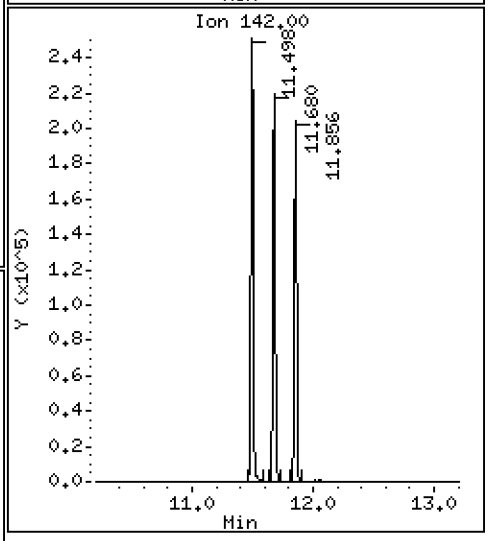
32 2-Methylnaphthalene

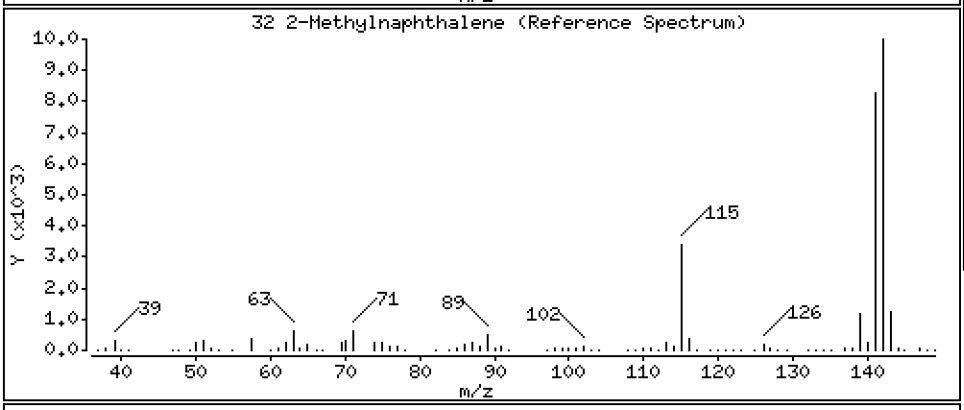
Concentration: 16.34 ug/mL

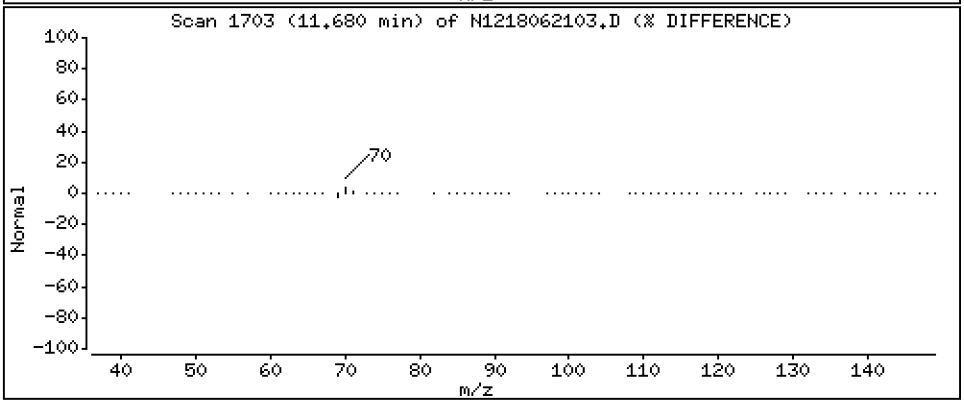












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

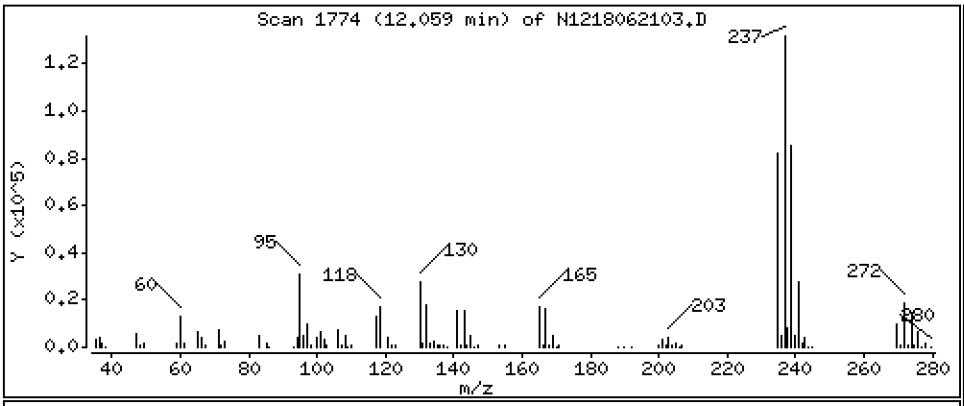
Operator: JZ

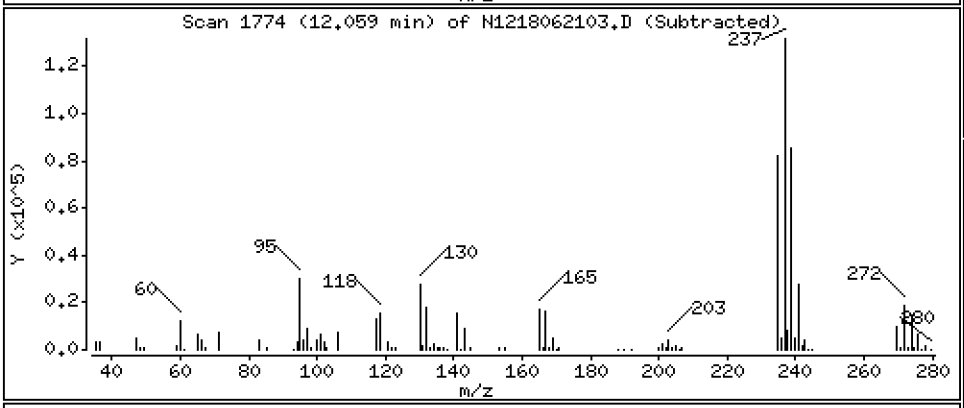
Column phase: ZB-5msi

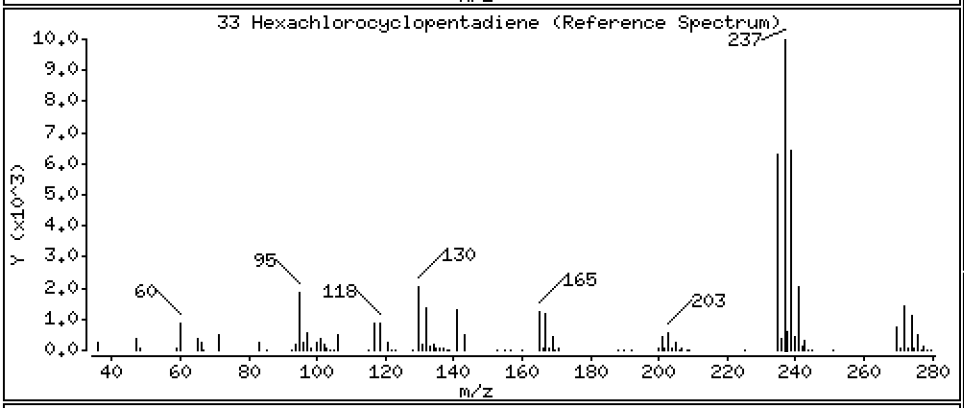
Column diameter: 0.32

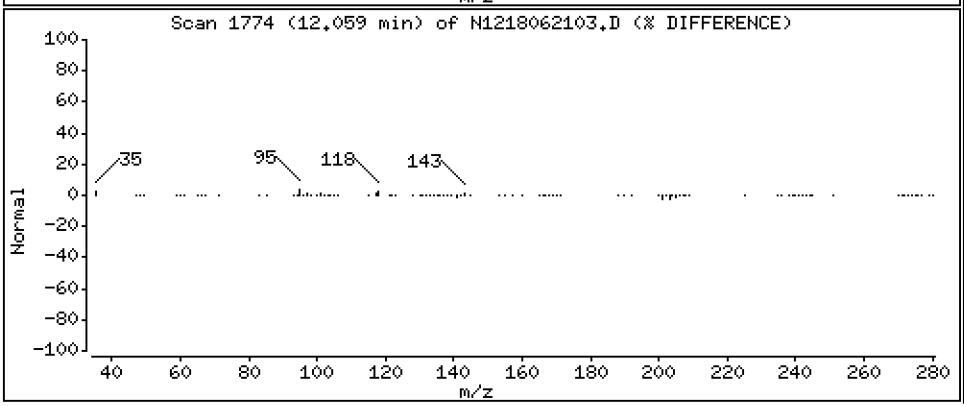
33 Hexachlorocyclopentadiene

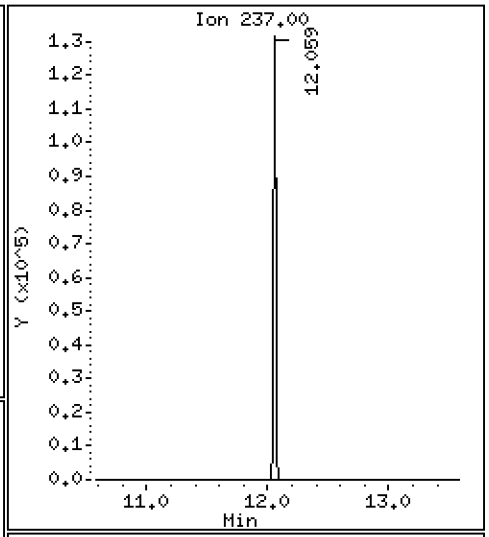
Concentration: 48.45 ug/mL

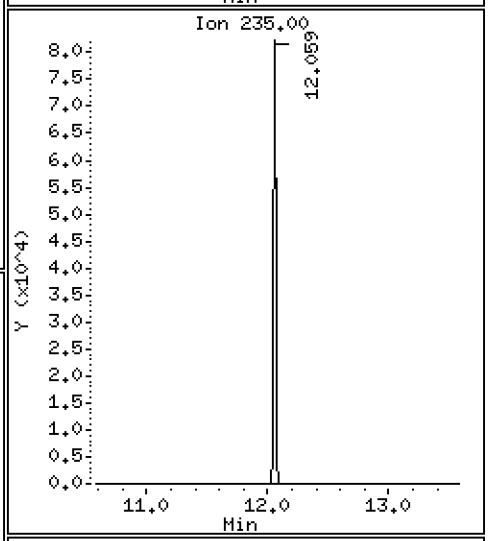


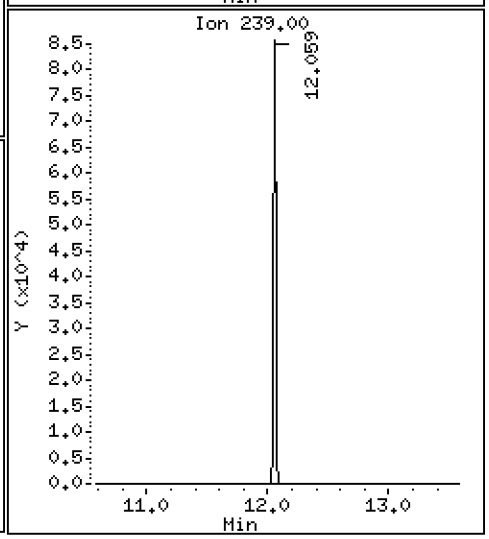












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

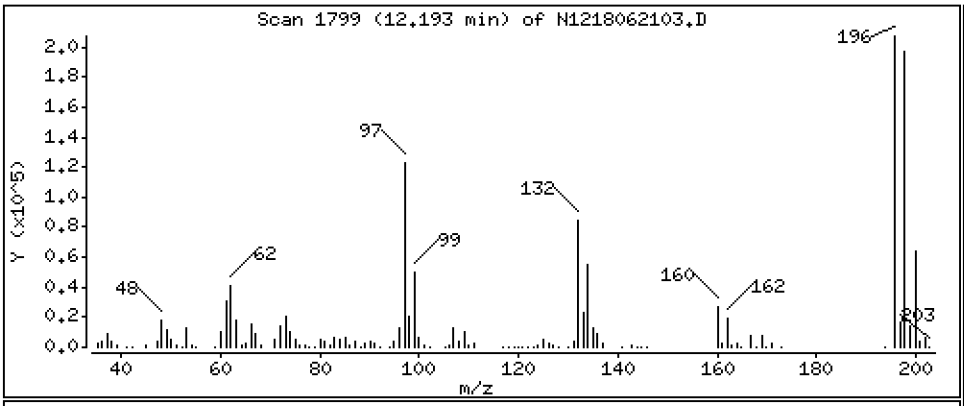
Operator: JZ

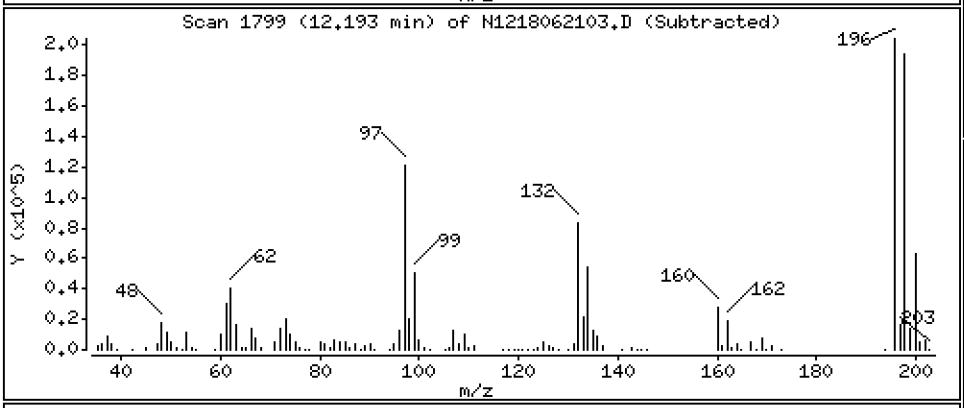
Column phase: ZB-5msi

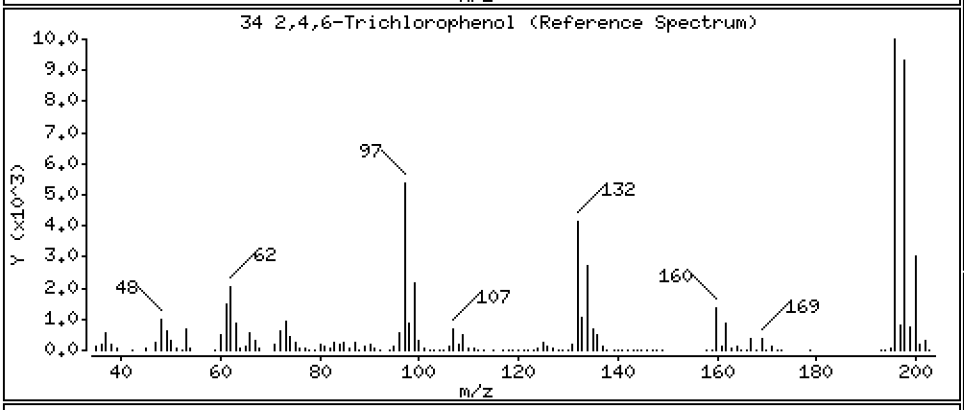
Column diameter: 0.32

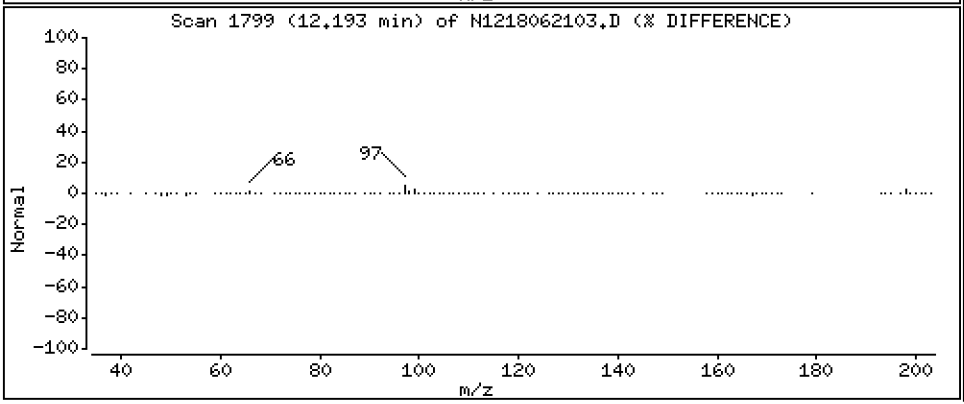
34 2,4,6-Trichlorophenol

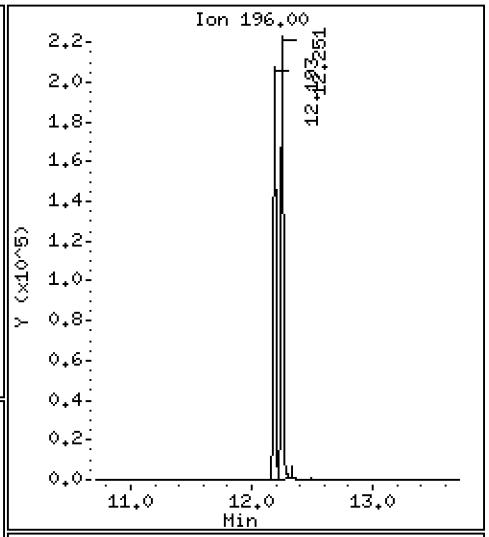
Concentration: 52.01 ug/mL

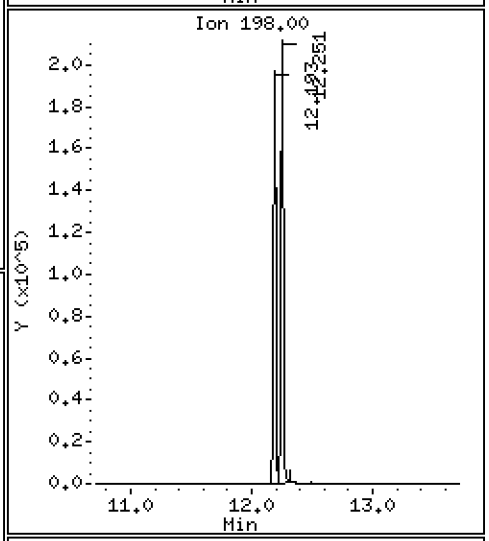


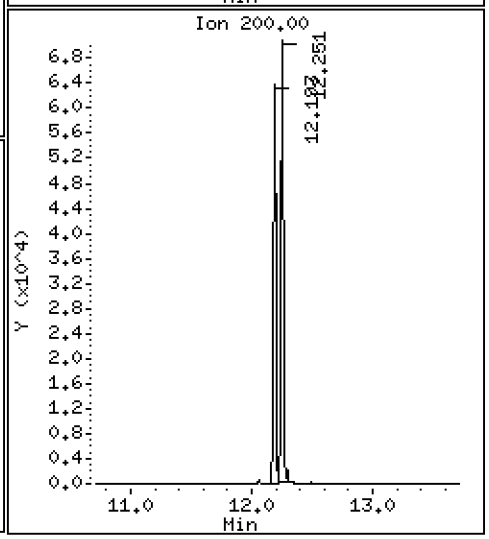












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

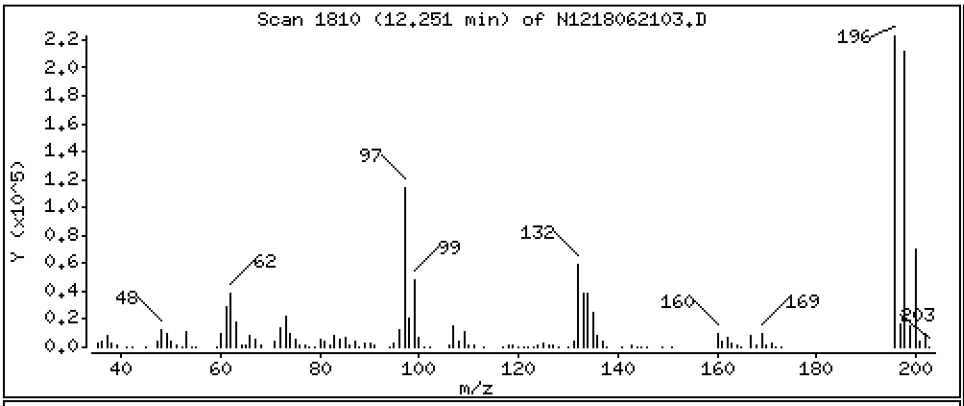
Operator: JZ

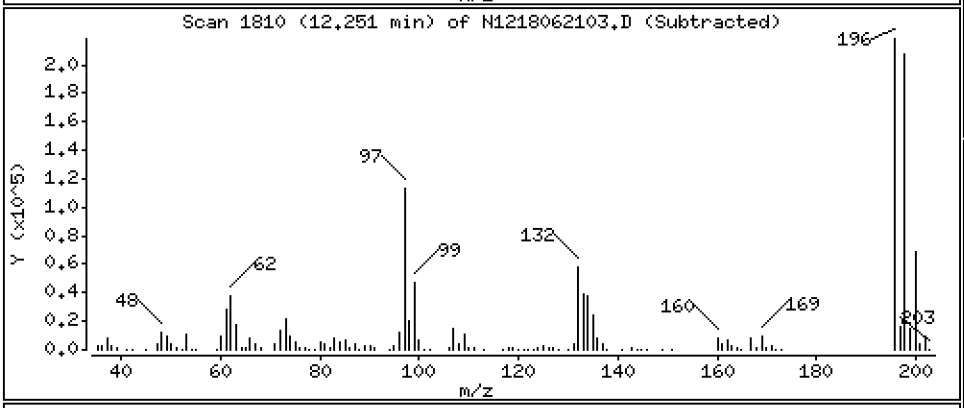
Column phase: ZB-5msi

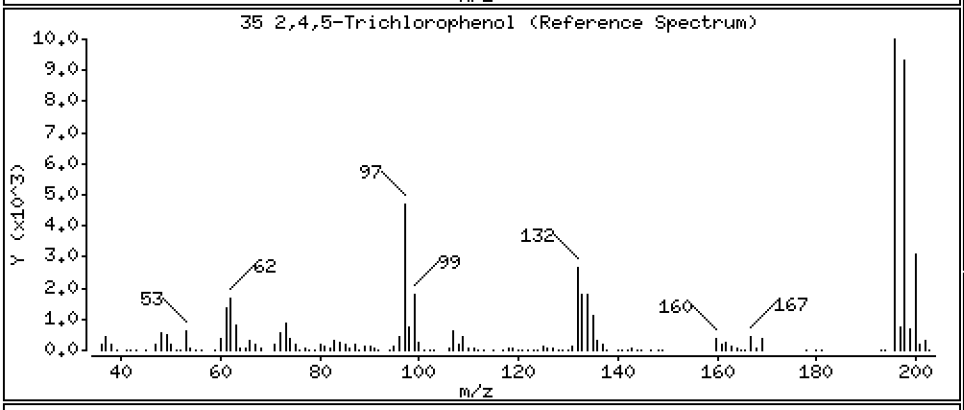
Column diameter: 0.32

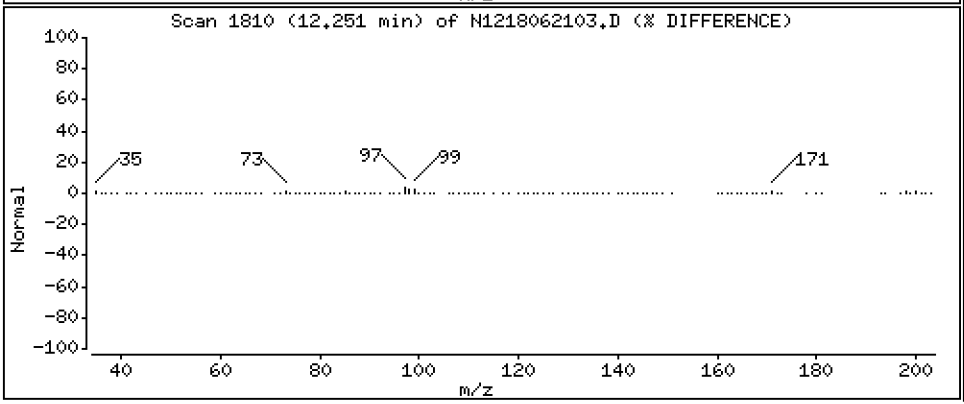
35 2,4,5-Trichlorophenol

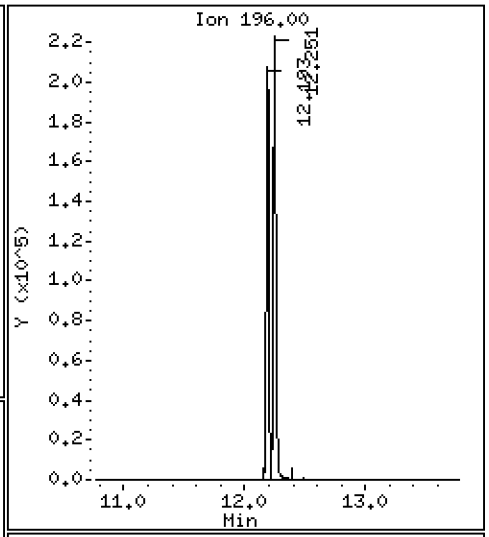
Concentration: 54.65 ug/mL

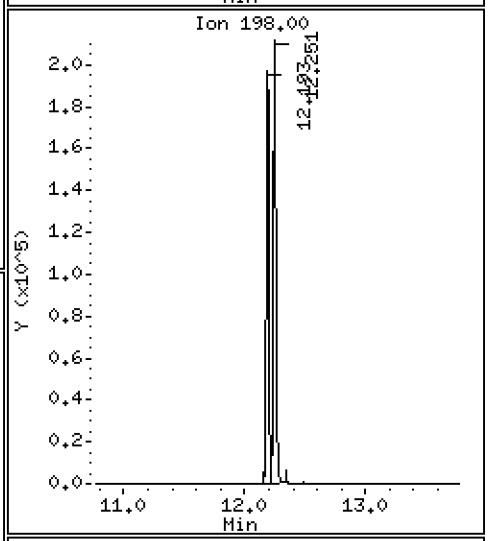


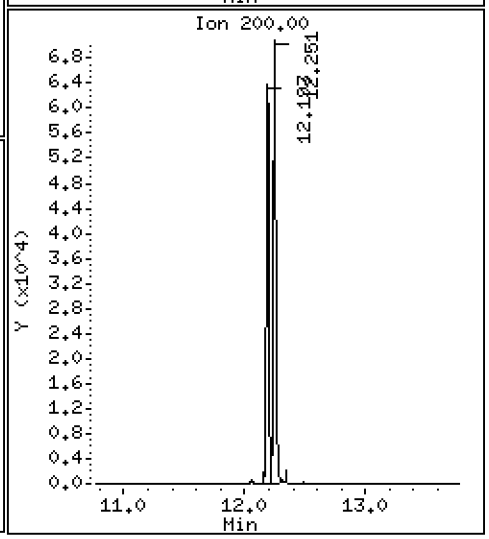












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

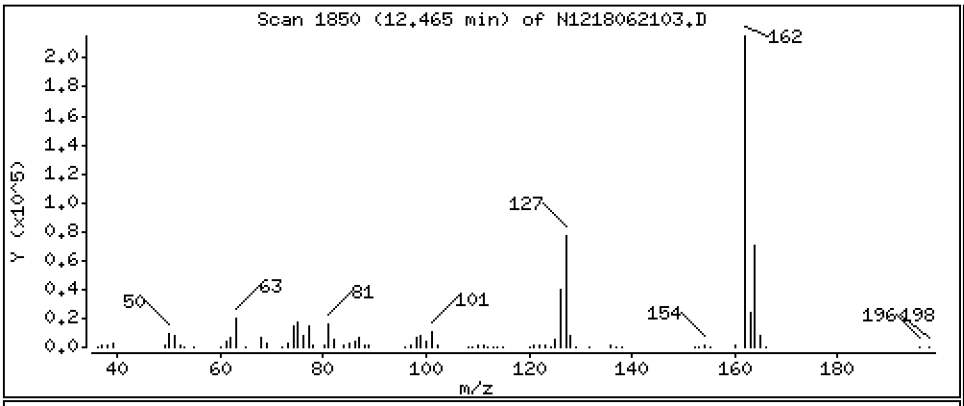
Operator: JZ

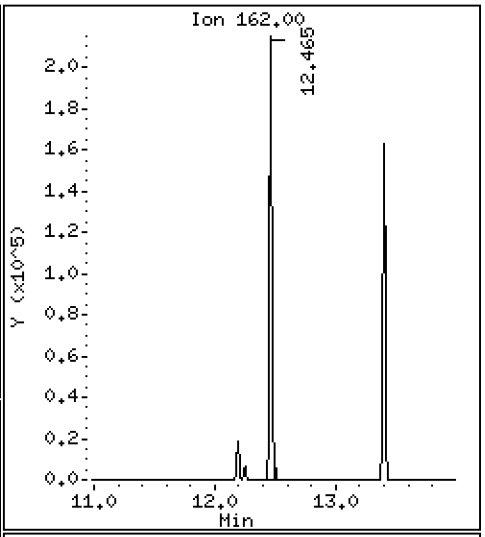
Column phase: ZB-5msi

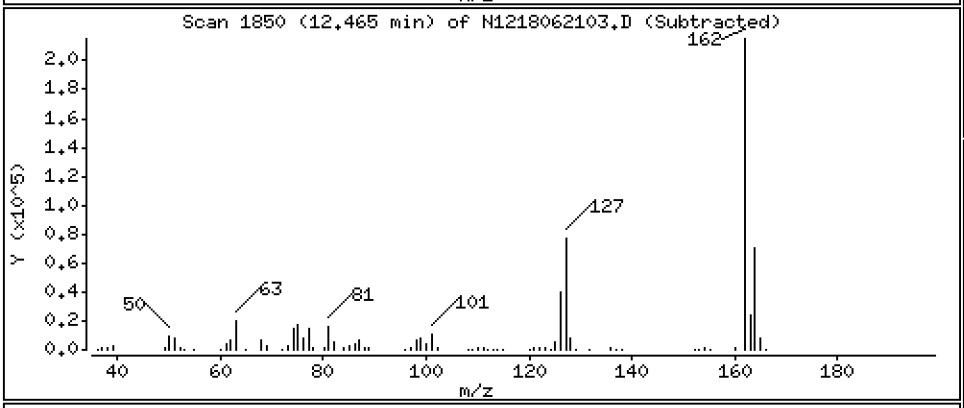
Column diameter: 0.32

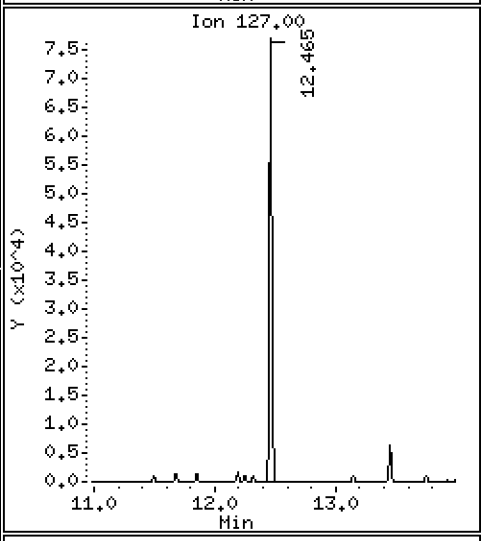
37 2-Chloronaphthalene

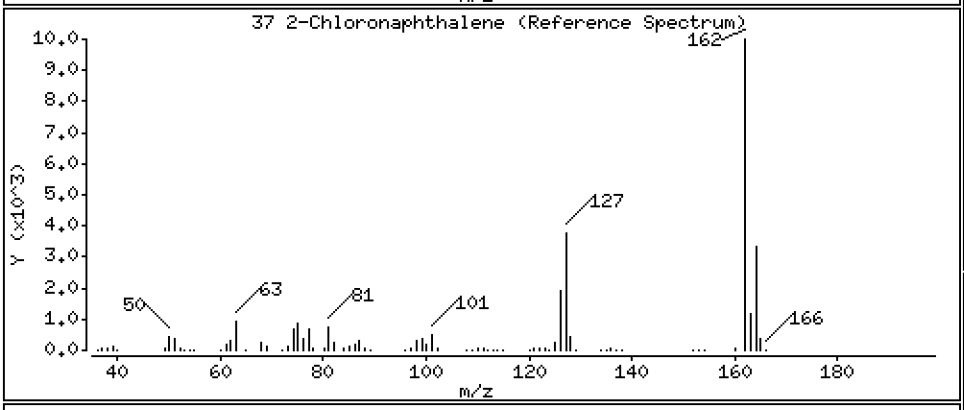
Concentration: 17.52 ug/mL

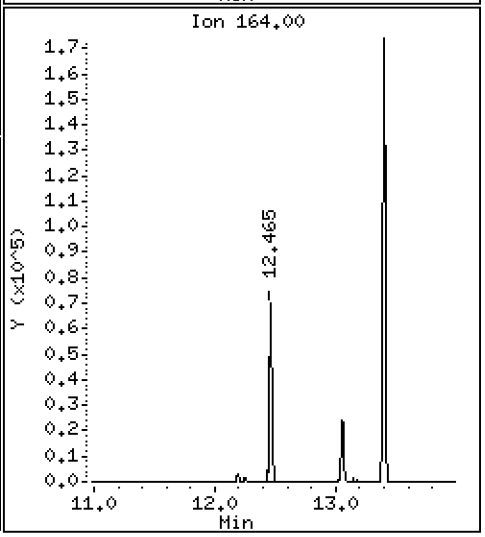


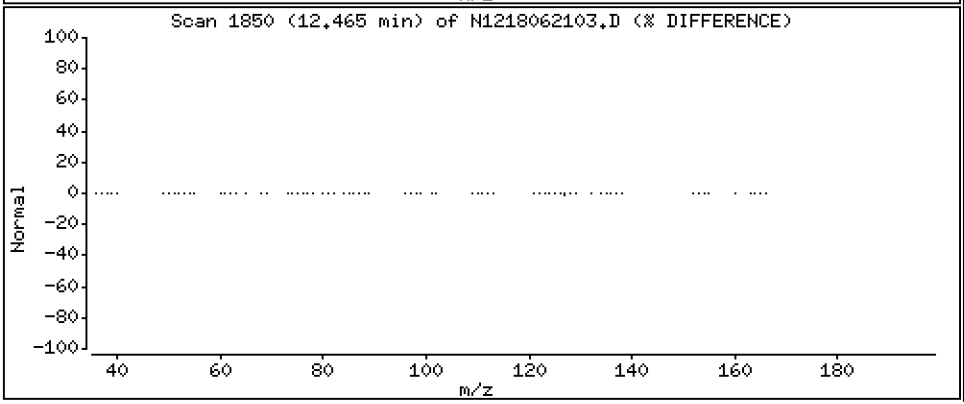












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

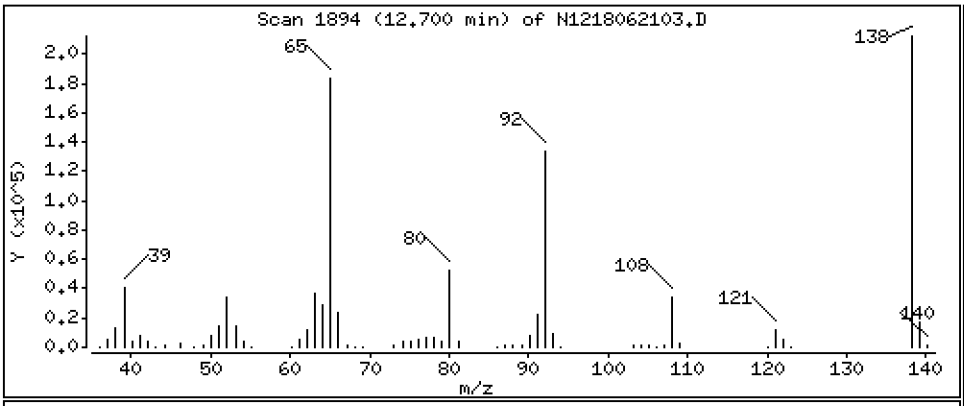
Operator: JZ

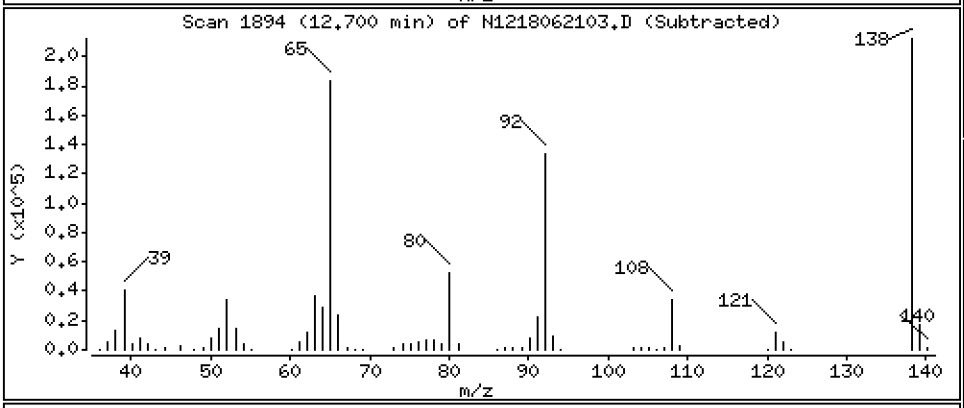
Column phase: ZB-5msi

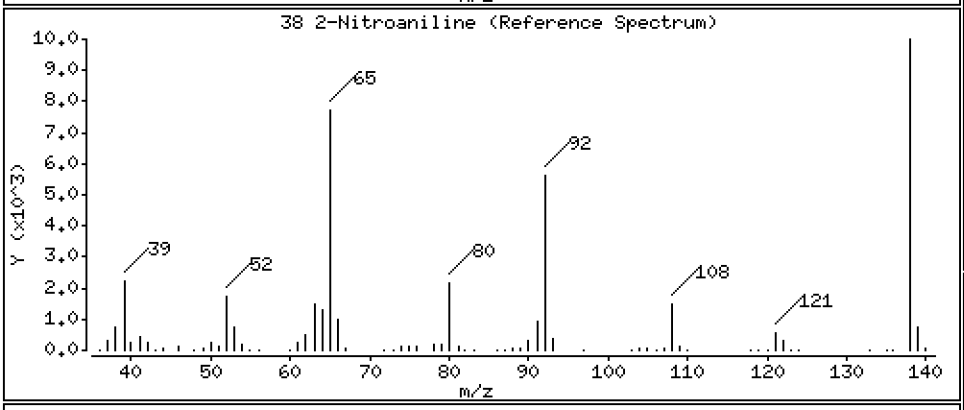
Column diameter: 0.32

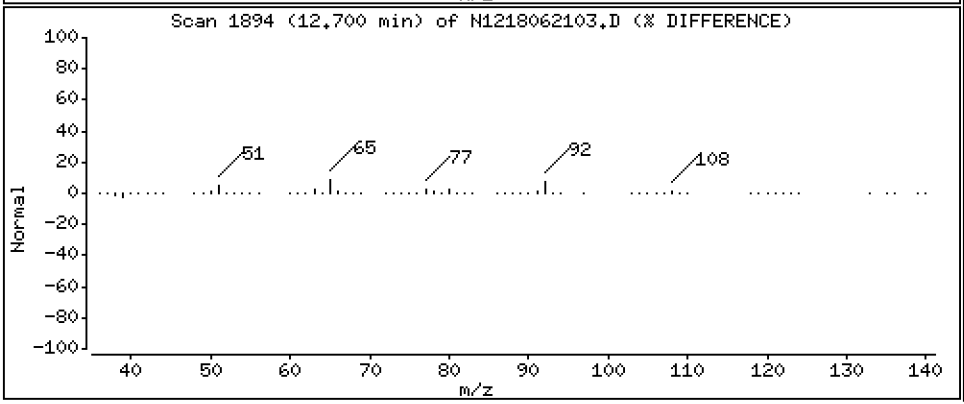
38 2-Nitroaniline

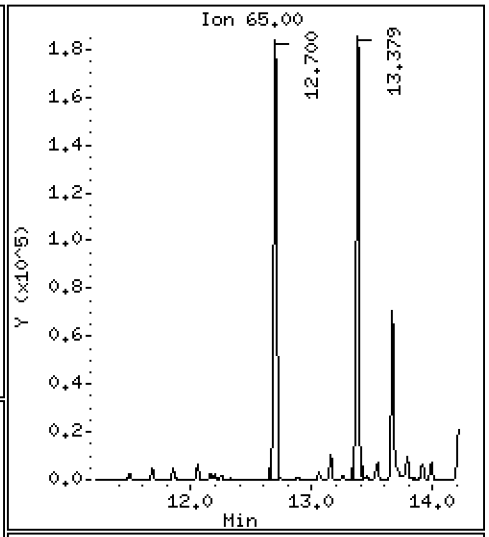
Concentration: 55.84 ug/mL

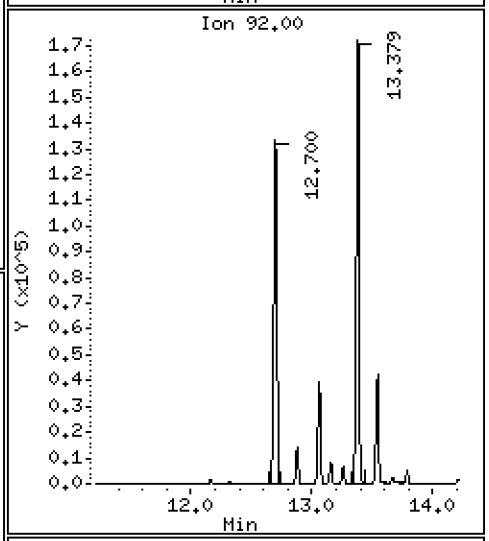


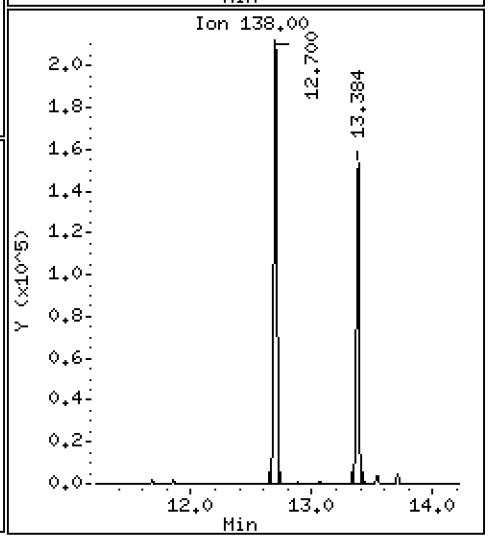












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

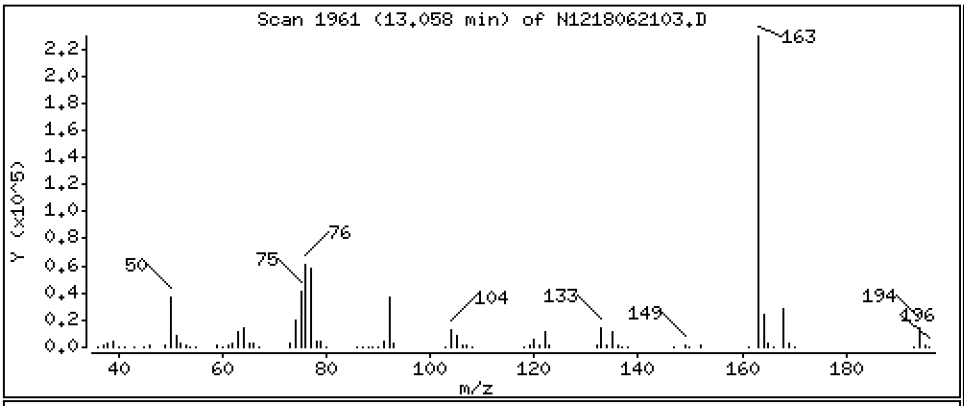
Operator: JZ

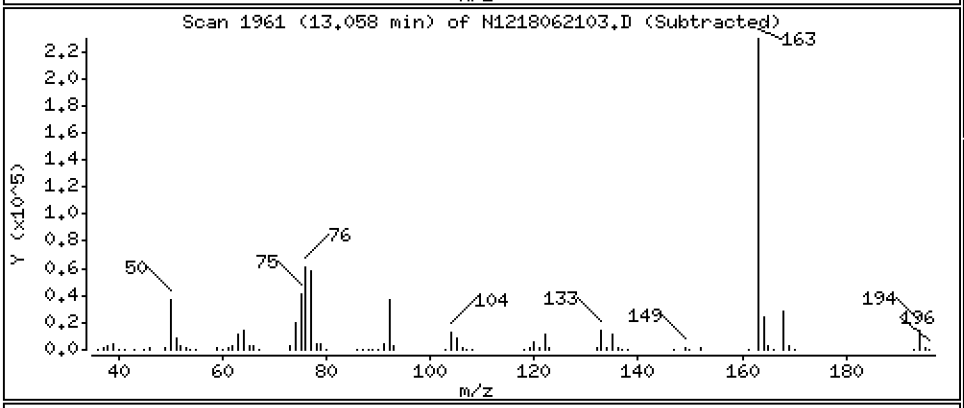
Column phase: ZB-5msi

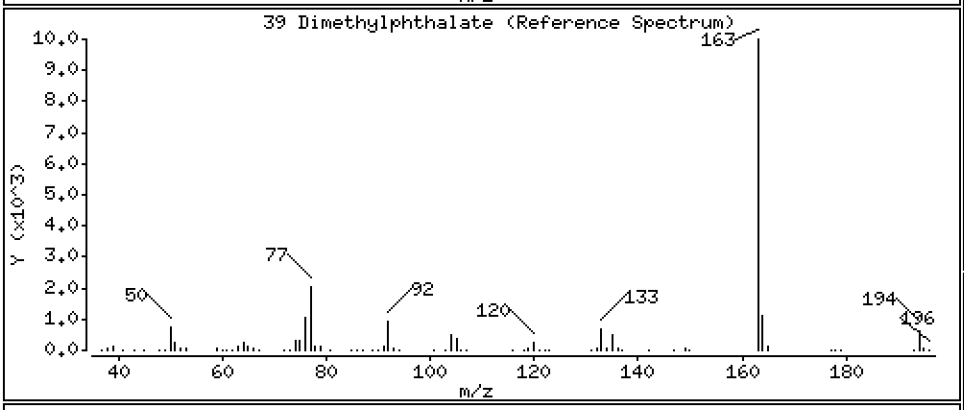
Column diameter: 0.32

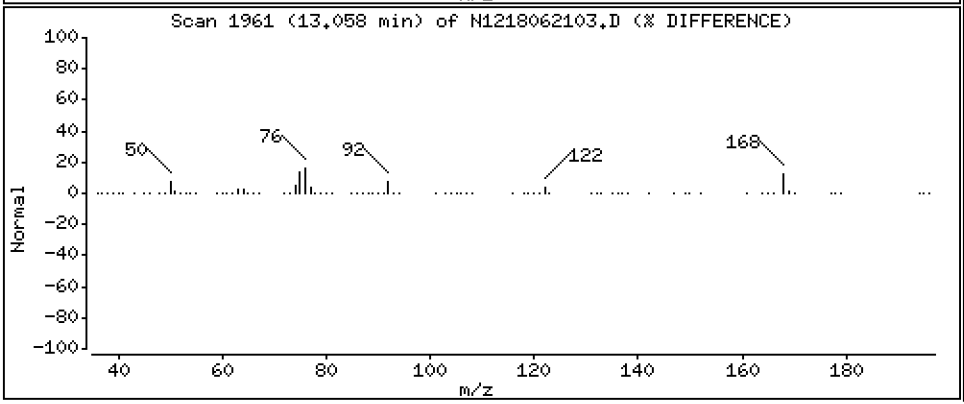
39 Dimethylphthalate

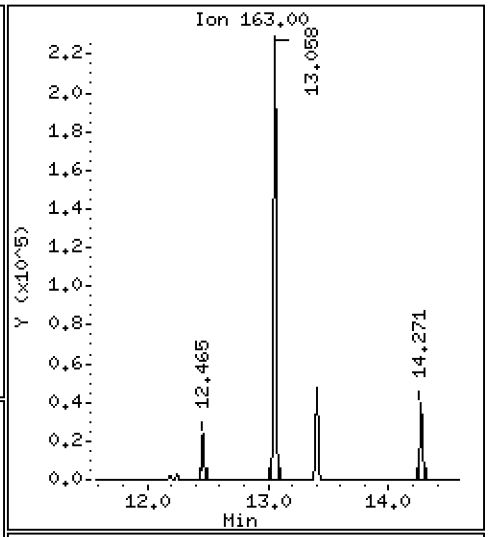
Concentration: 19.83 ug/mL

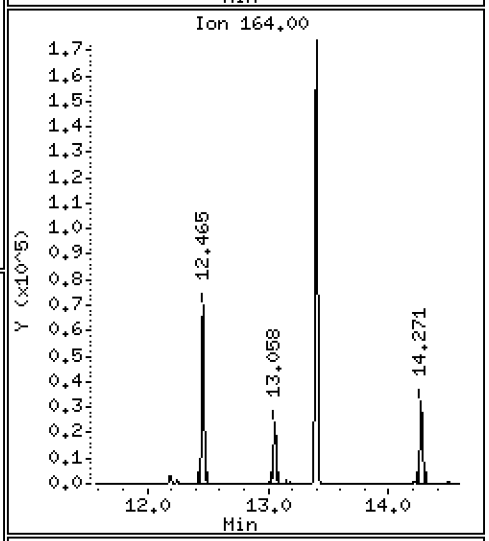


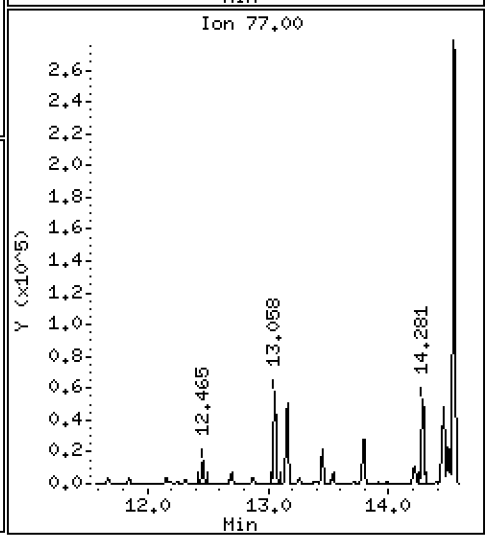












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

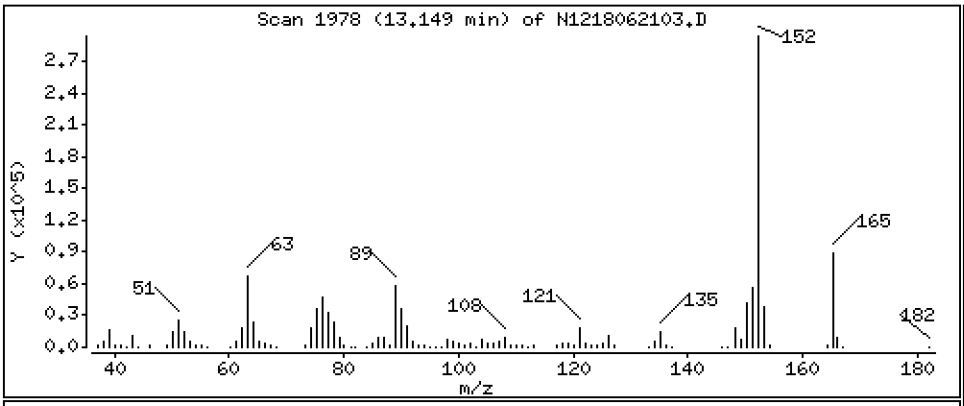
Operator: JZ

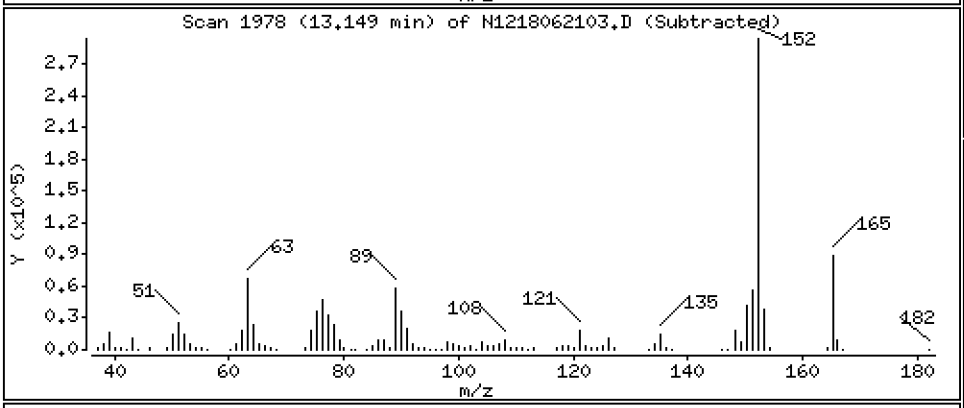
Column phase: ZB-5msi

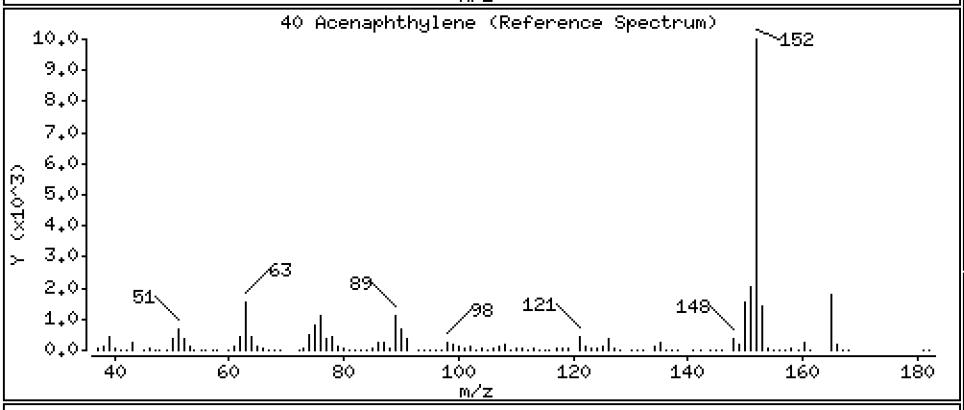
Column diameter: 0.32

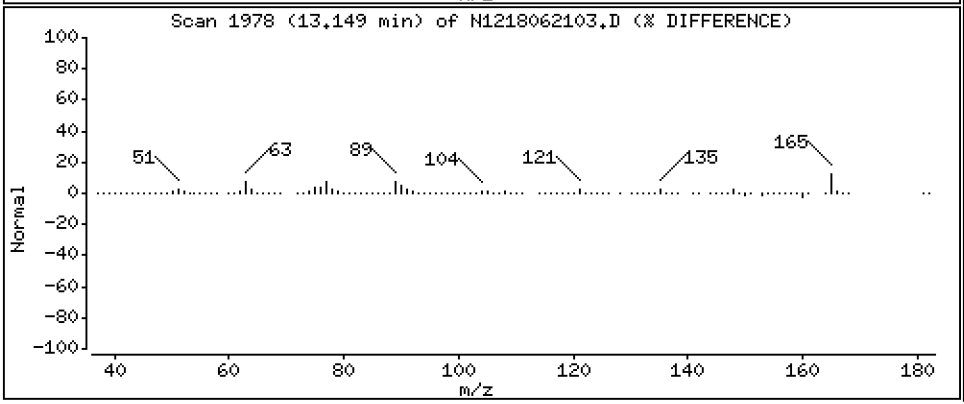
40 Acenaphthylene

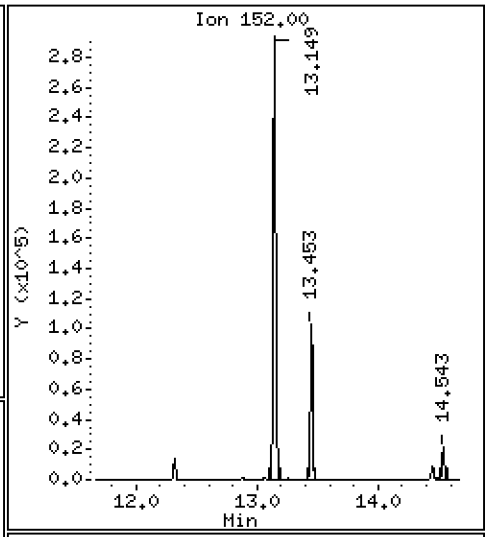
Concentration: 18.08 ug/mL

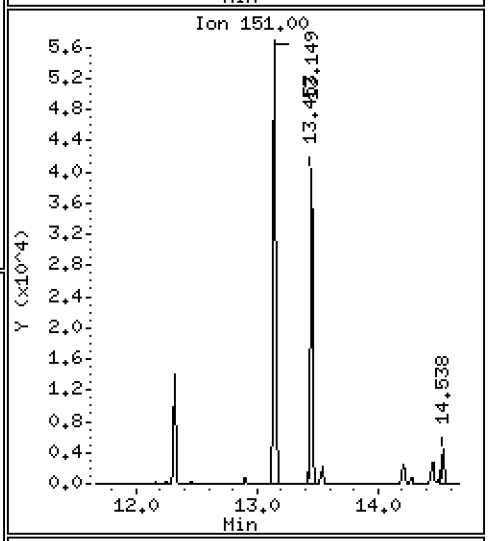


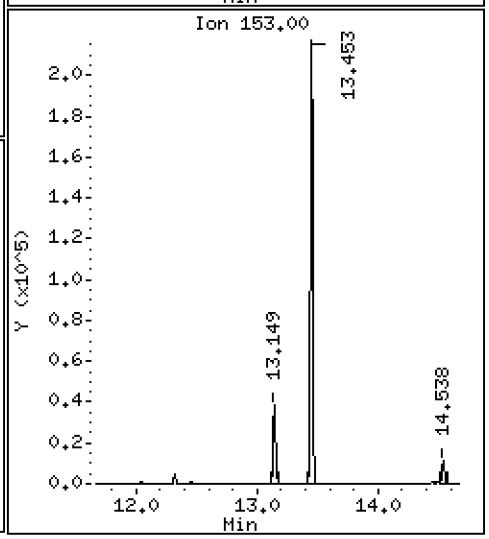












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

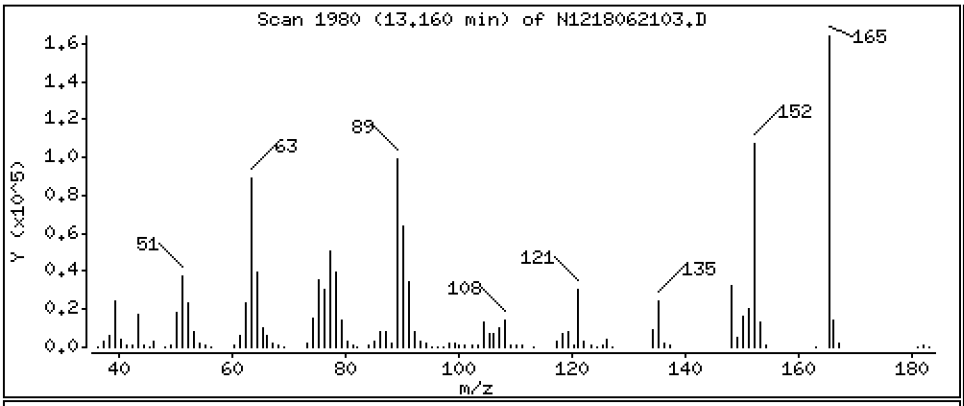
Operator: JZ

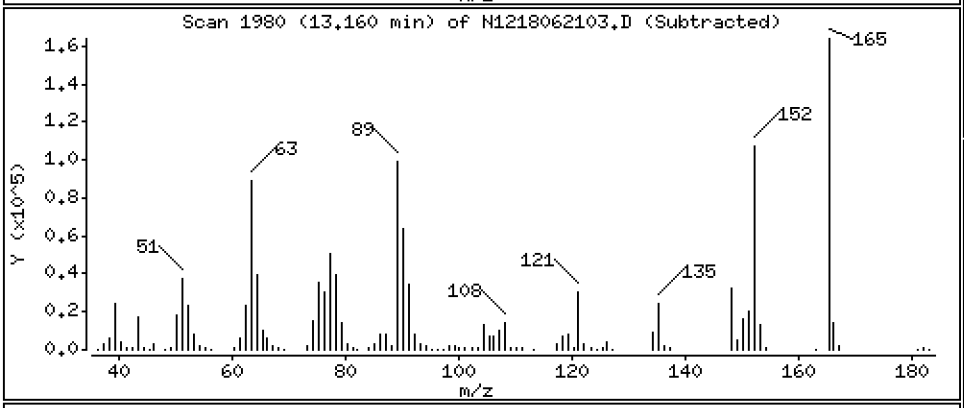
Column phase: ZB-5msi

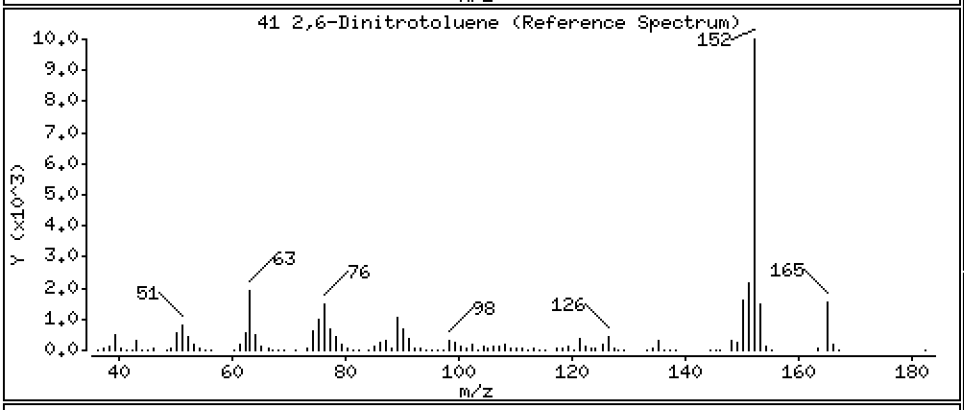
Column diameter: 0.32

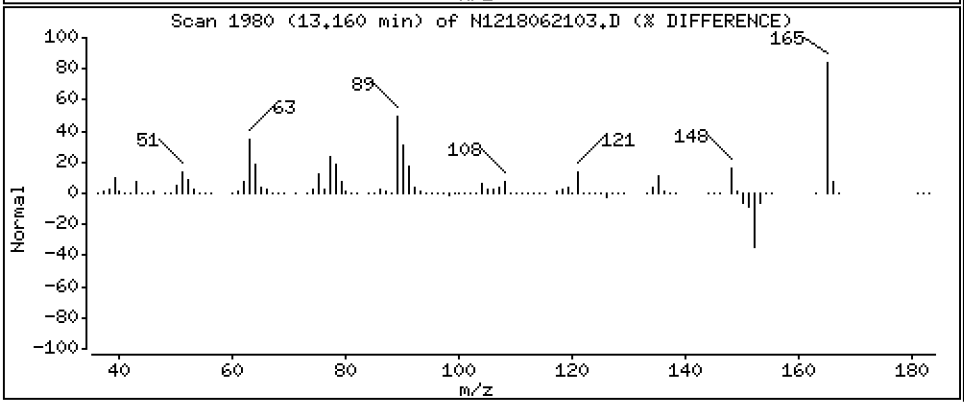
41 2,6-Dinitrotoluene

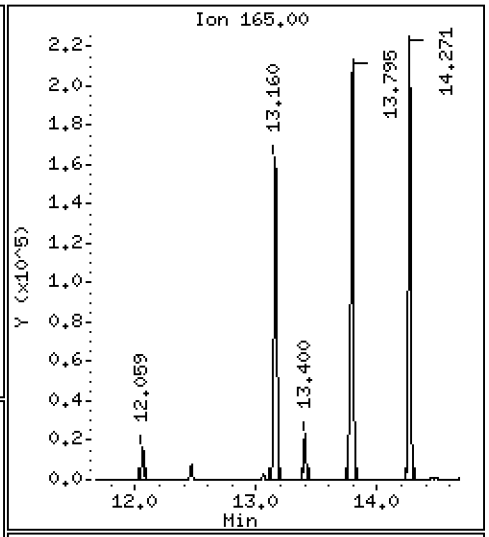
Concentration: 61.49 ug/mL

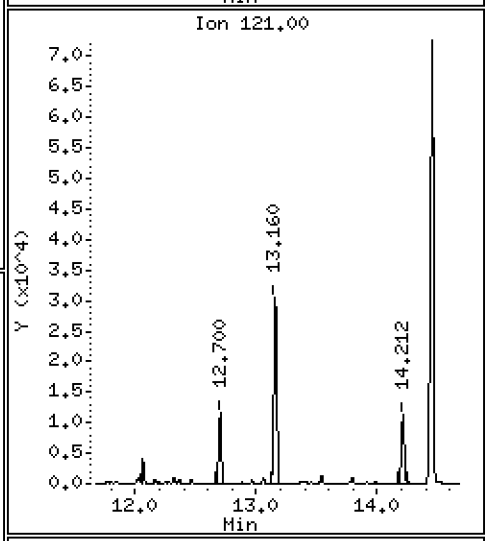


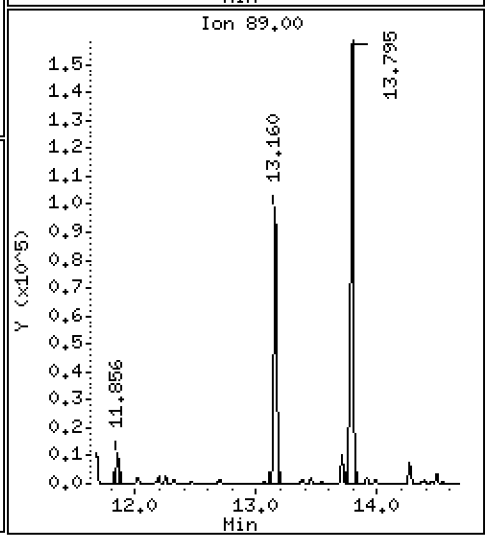












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

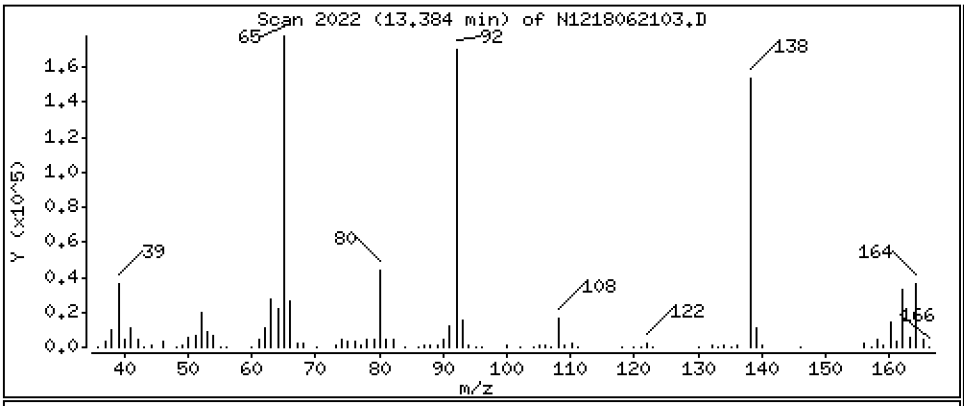
Operator: JZ

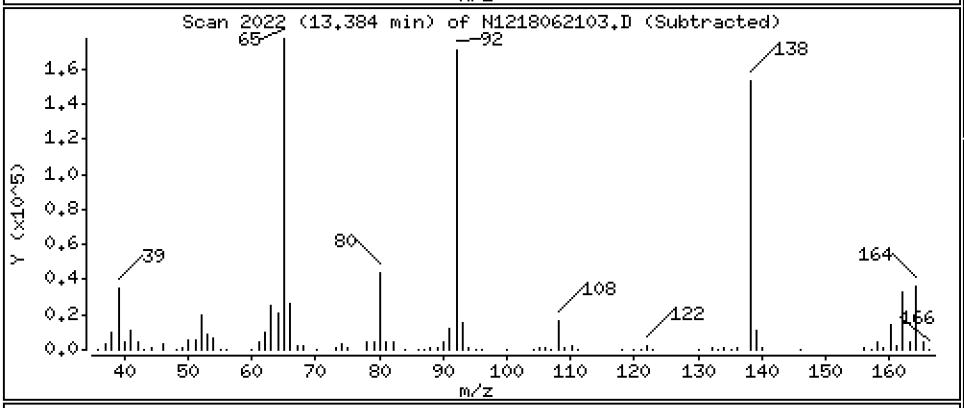
Column phase: ZB-5msi

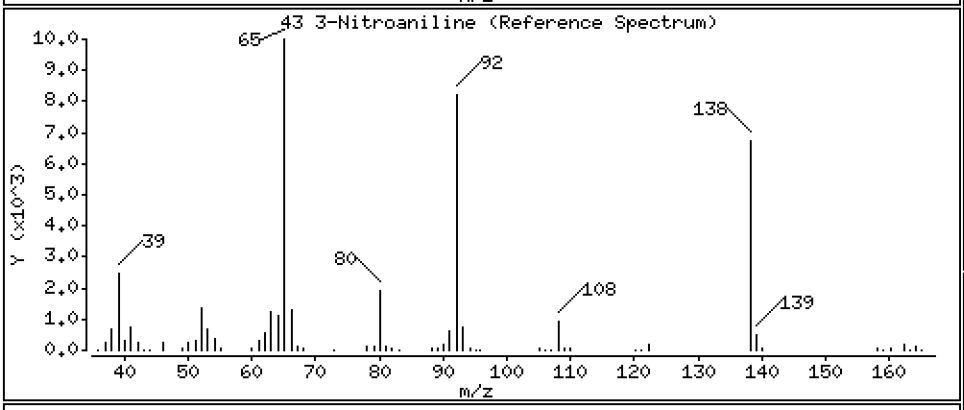
Column diameter: 0.32

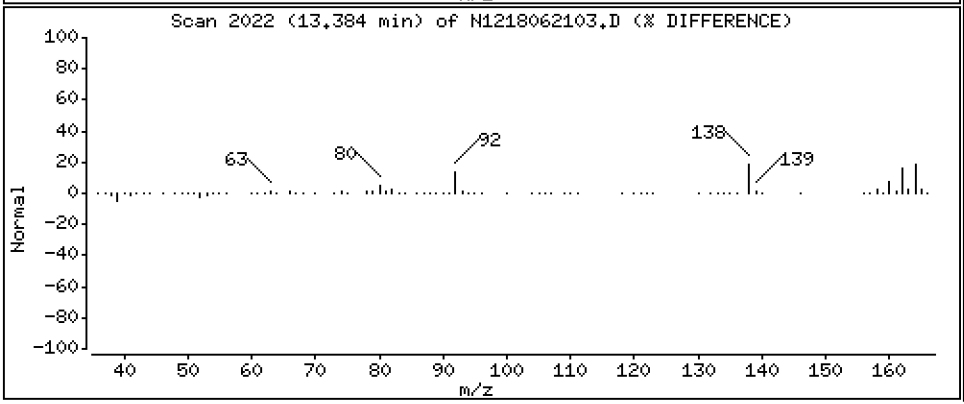
43 3-Nitroaniline

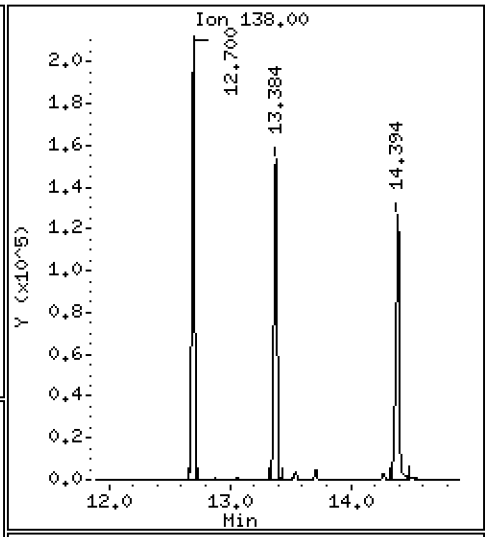
Concentration: 51.36 ug/mL

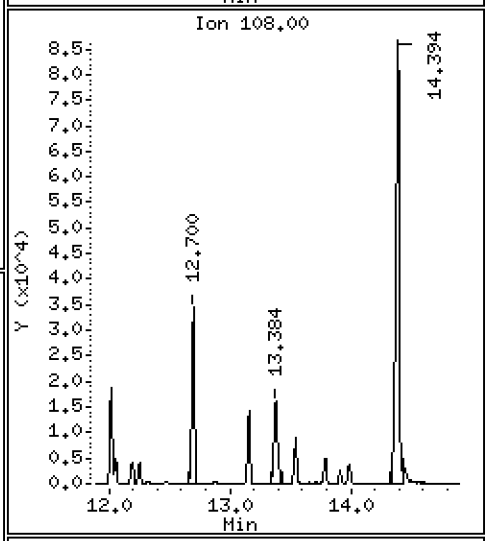


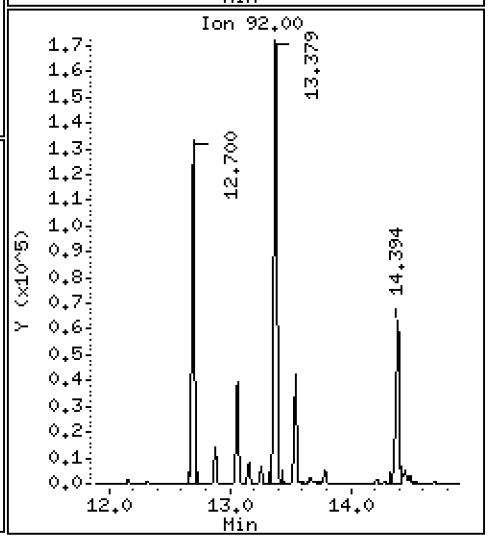












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

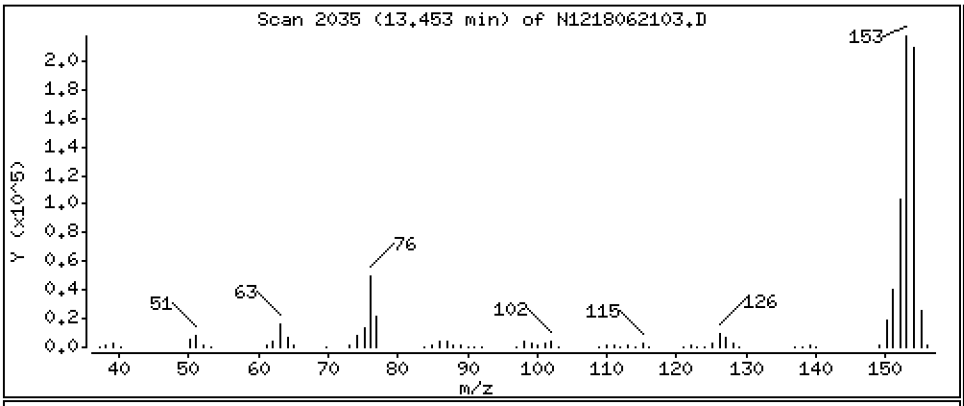
Operator: JZ

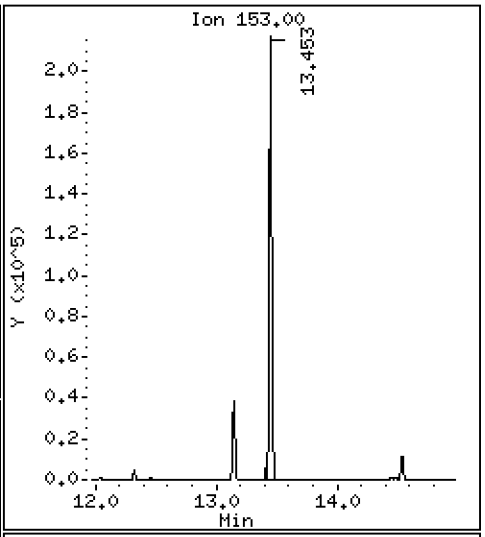
Column phase: ZB-5msi

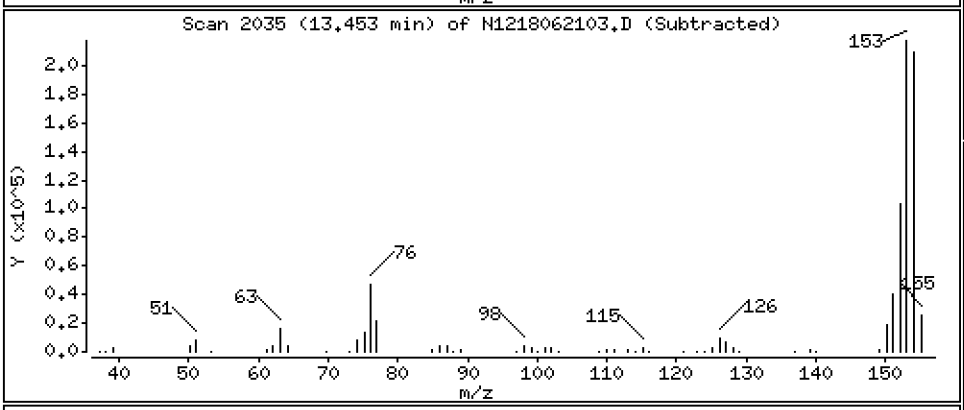
Column diameter: 0.32

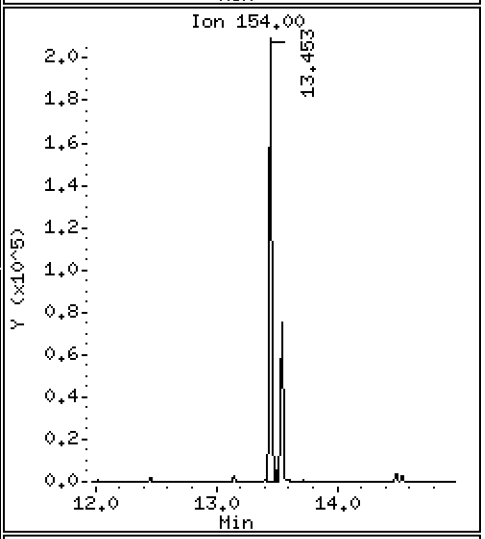
44 Acenaphthene

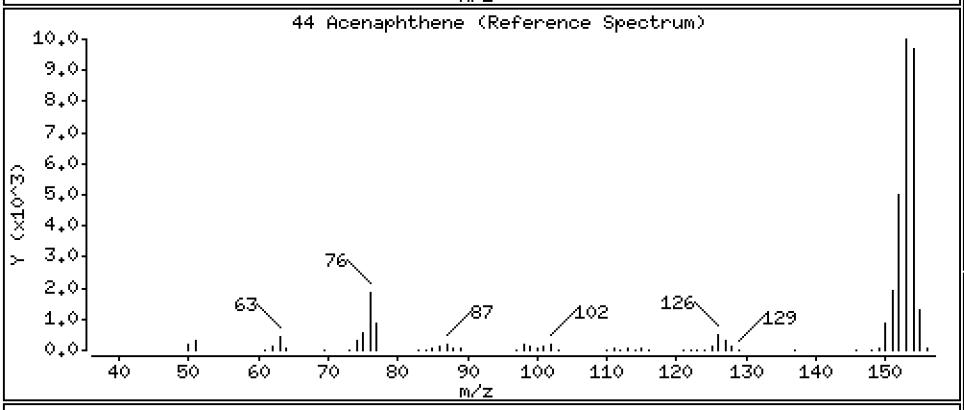
Concentration: 18.75 ug/mL

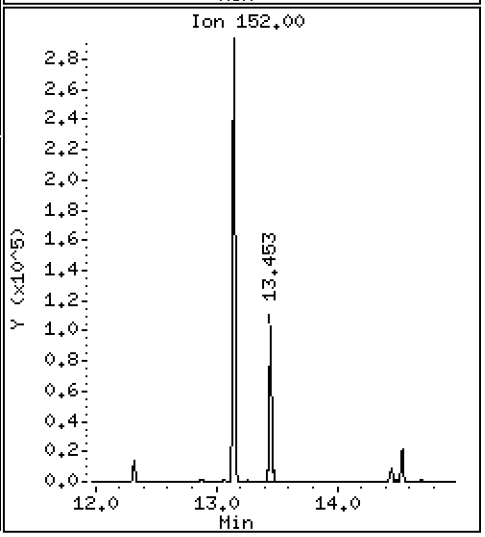


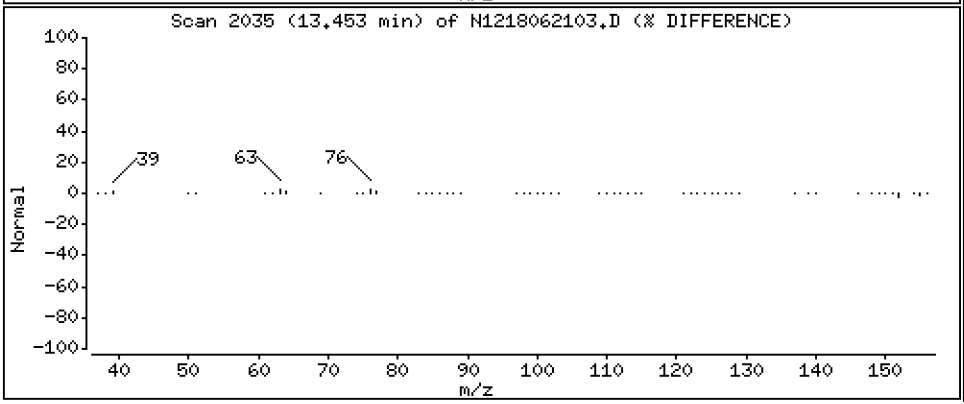












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

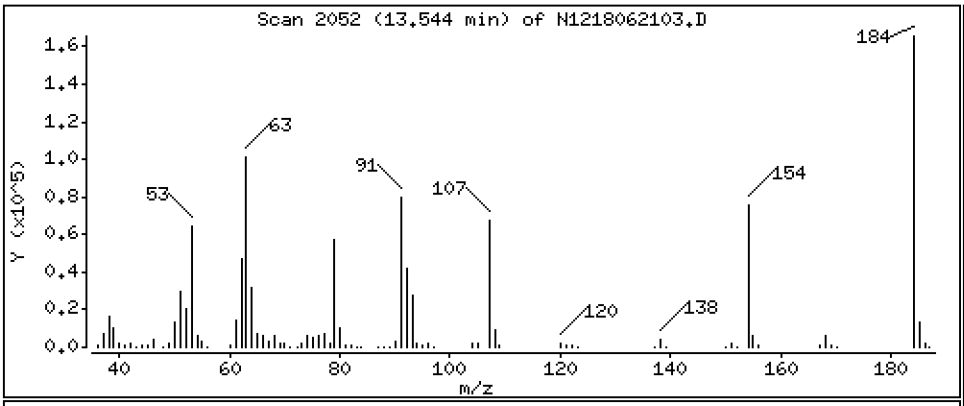
Operator: JZ

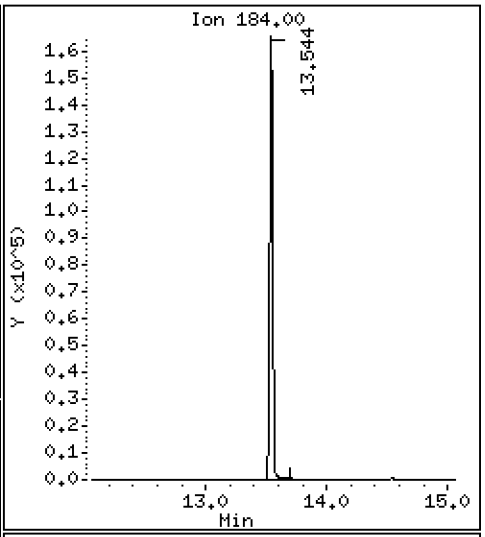
Column phase: ZB-5msi

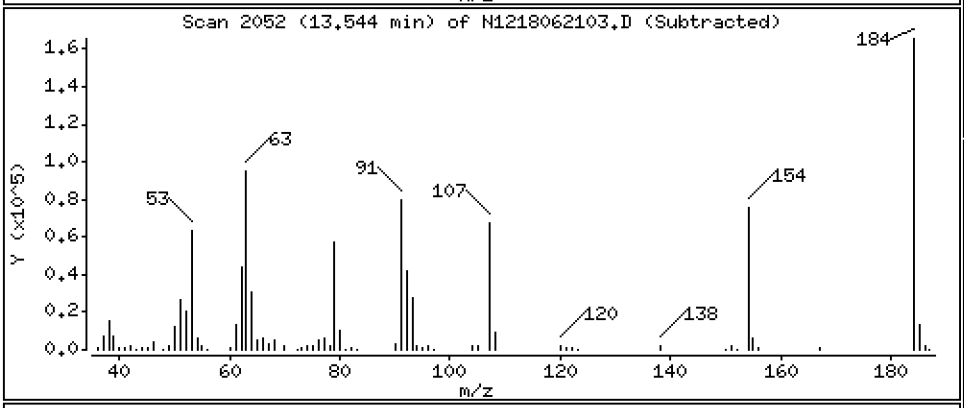
Column diameter: 0.32

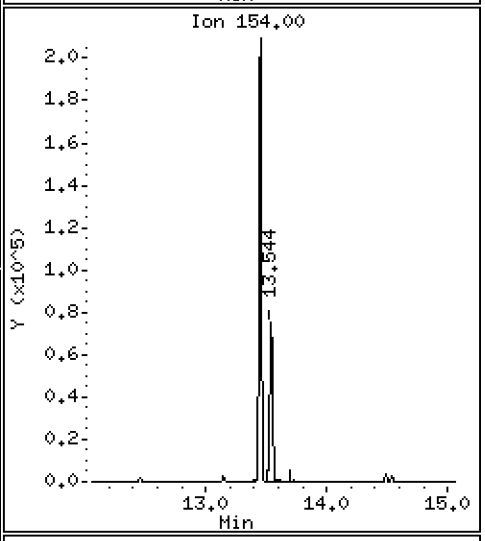
45 2,4-Dinitrophenol

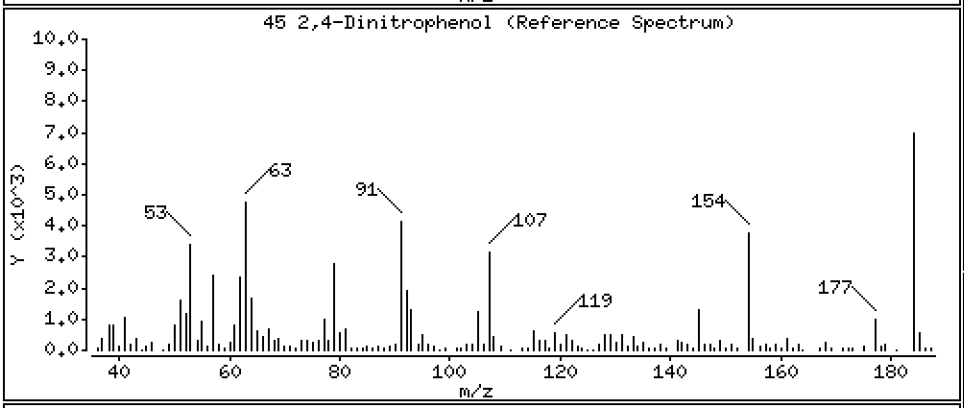
Concentration: 105.9 ug/mL

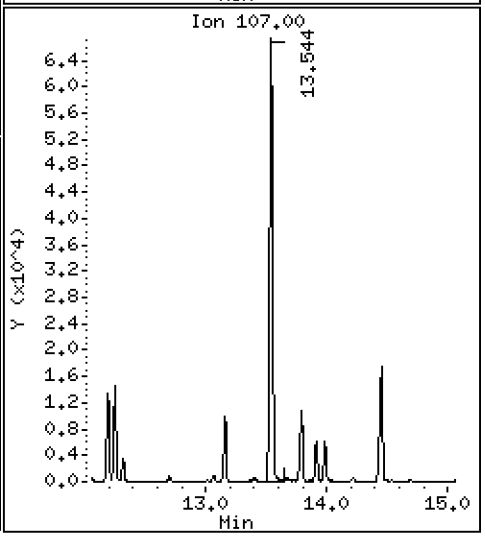


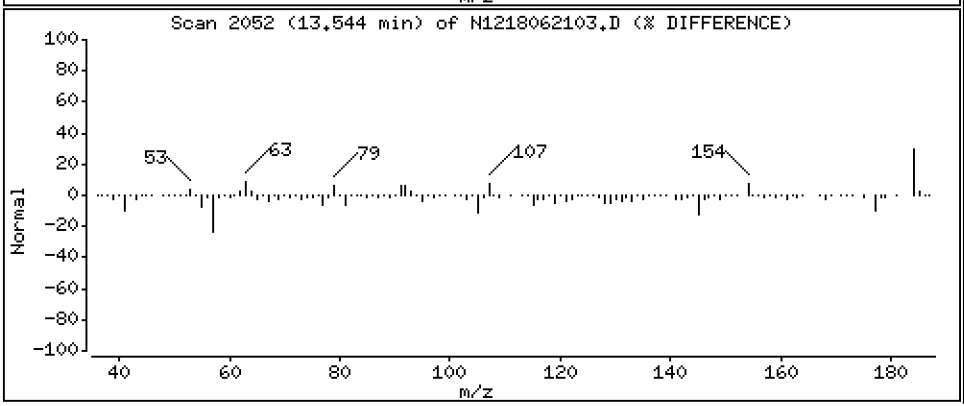












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

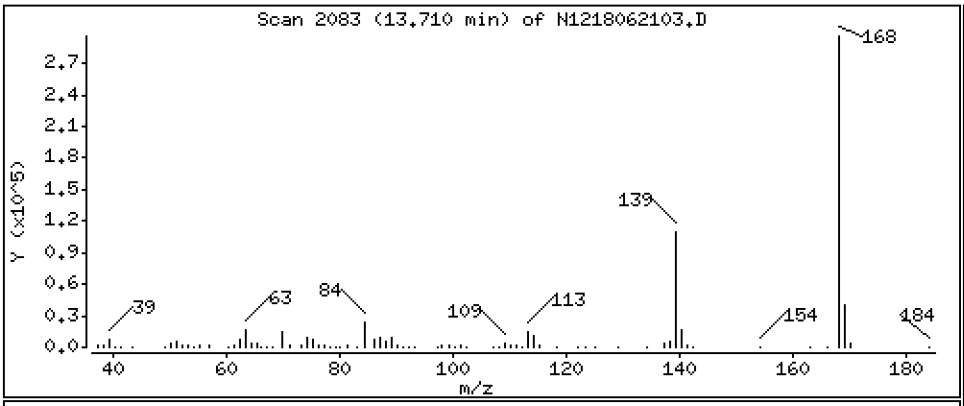
Operator: JZ

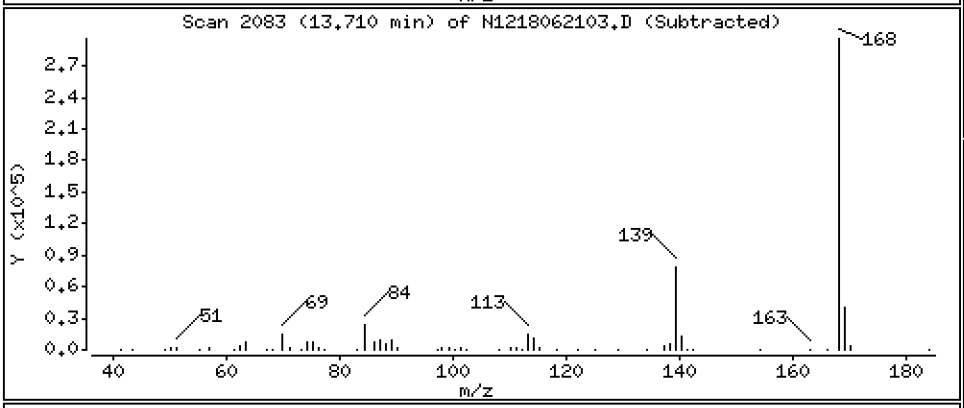
Column phase: ZB-5msi

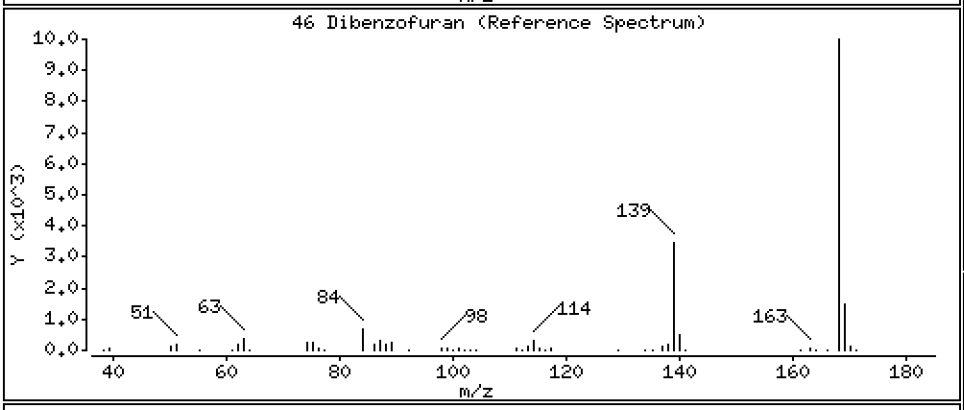
Column diameter: 0.32

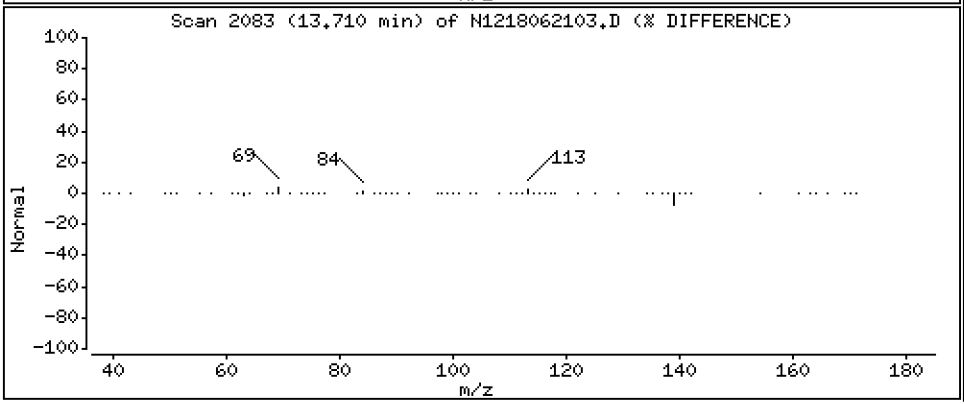
46 Dibenzofuran

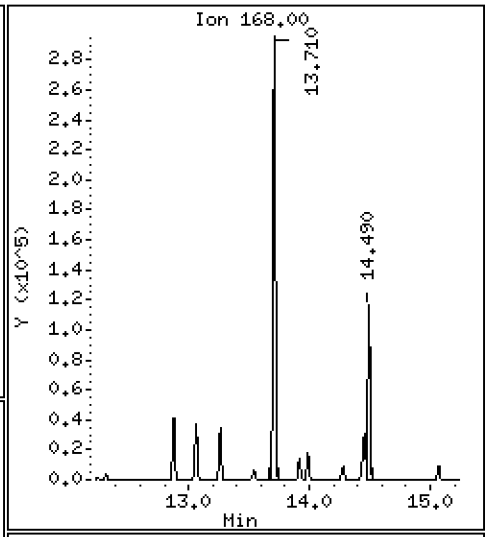
Concentration: 17.83 ug/mL

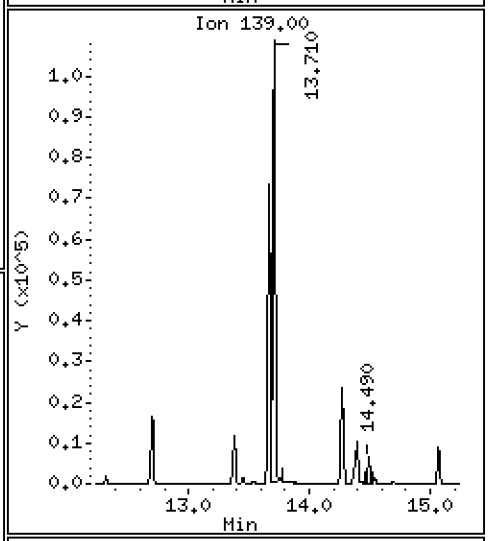


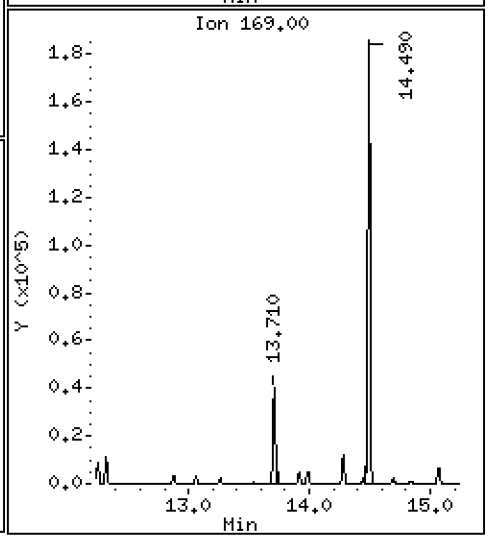












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

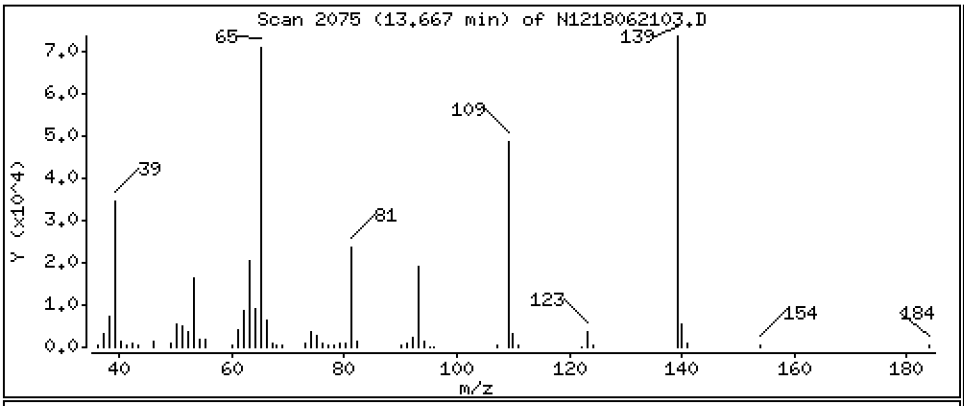
Operator: JZ

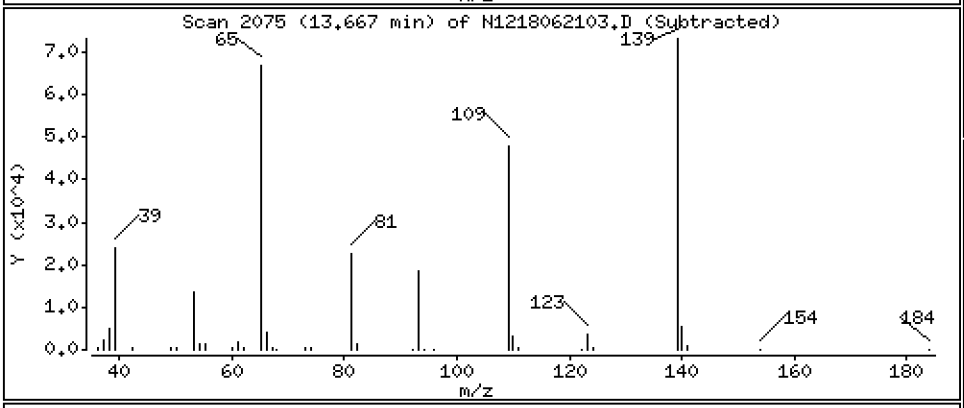
Column phase: ZB-5msi

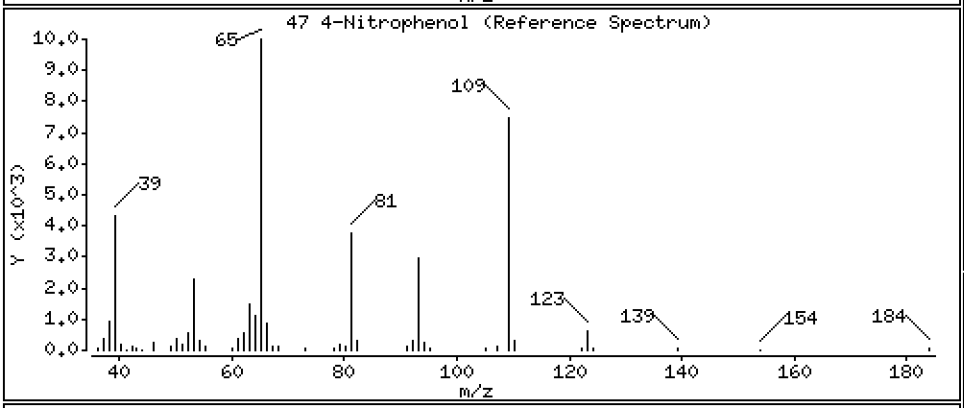
Column diameter: 0.32

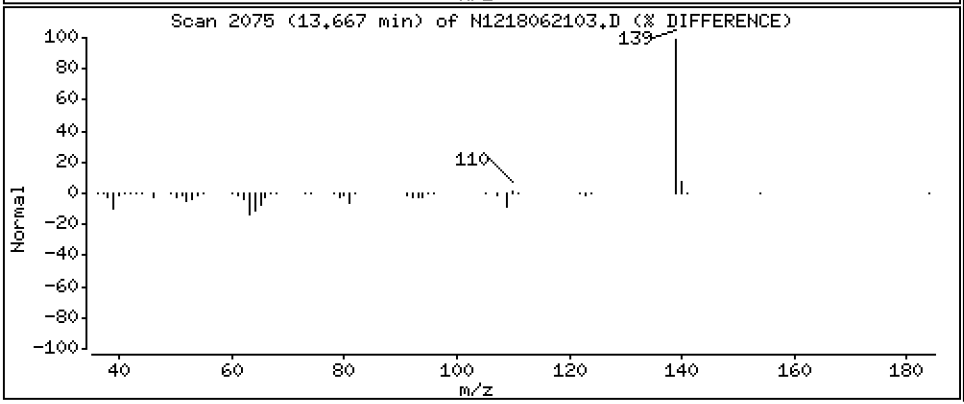
47 4-Nitrophenol

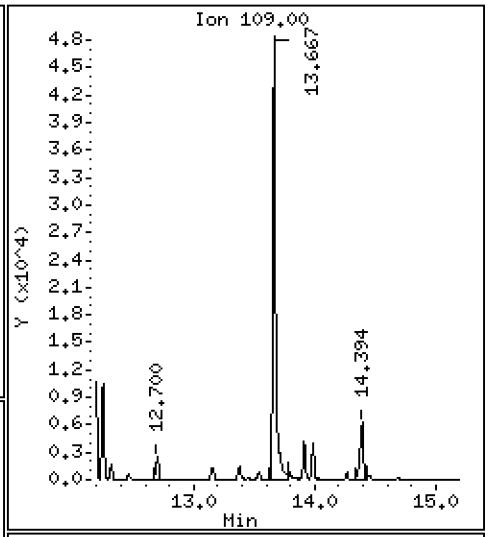
Concentration: 30.76 ug/mL

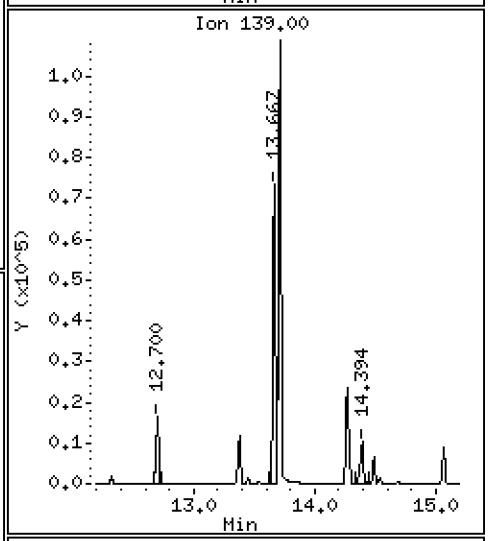


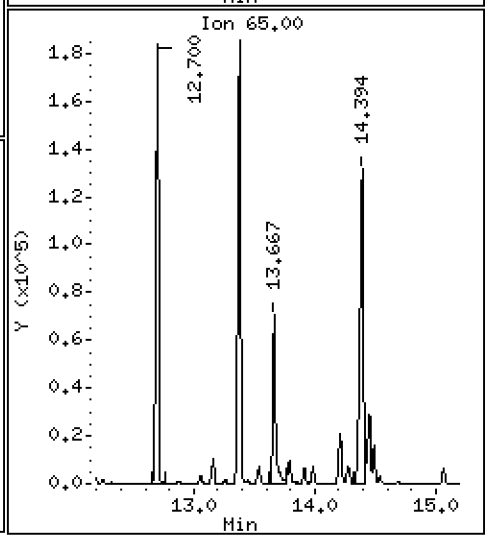












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

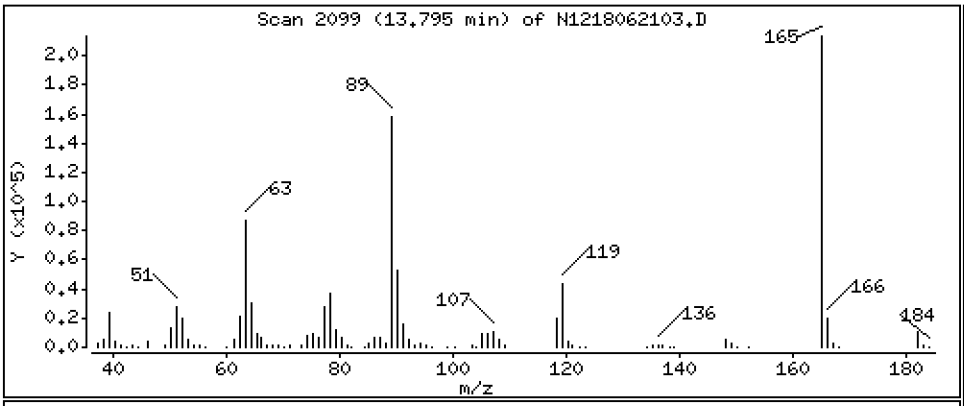
Operator: JZ

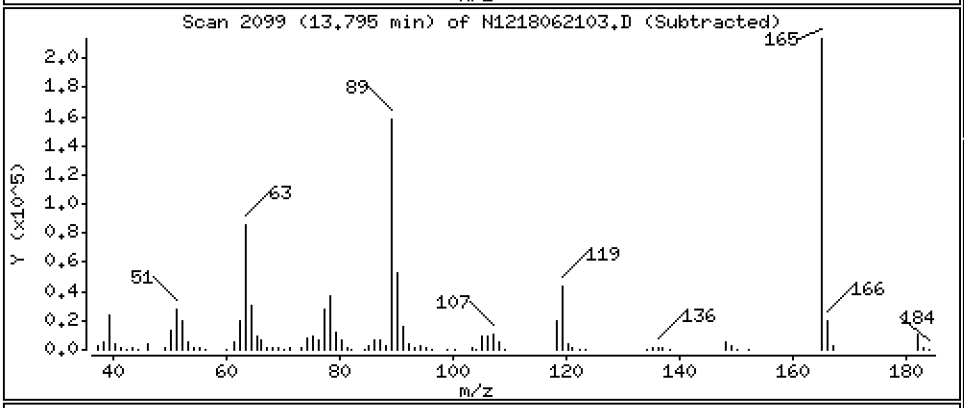
Column phase: ZB-5msi

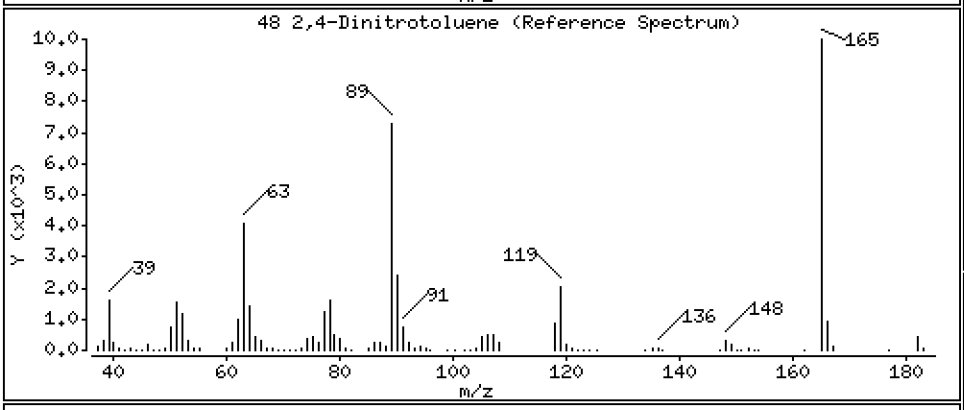
Column diameter: 0.32

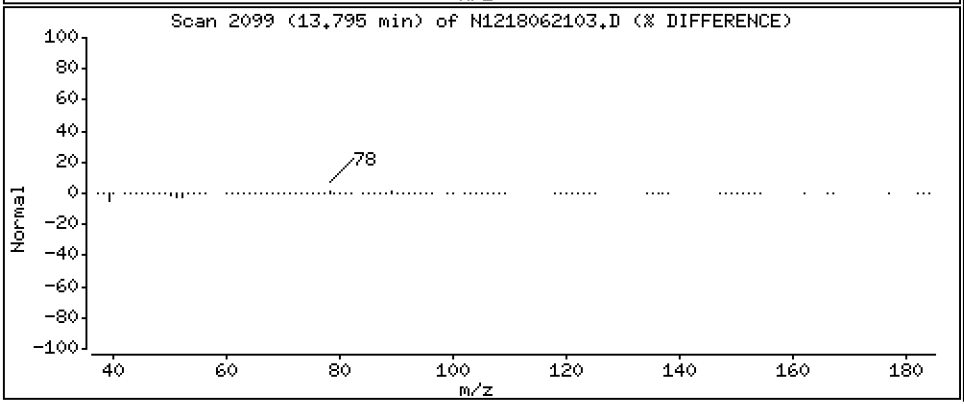
48 2,4-Dinitrotoluene

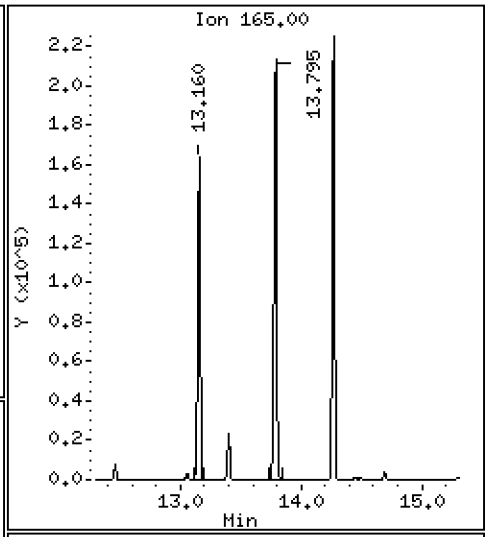
Concentration: 59.59 ug/mL

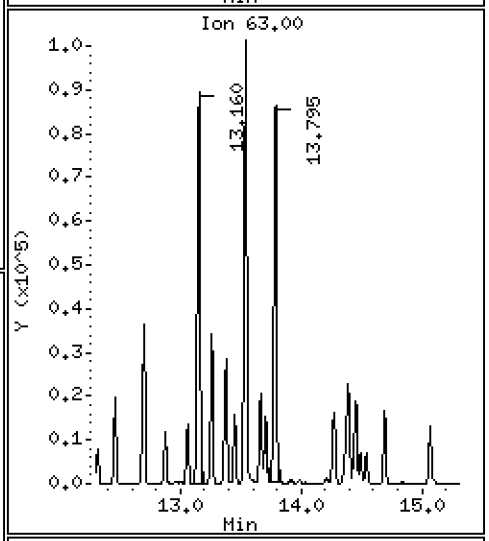


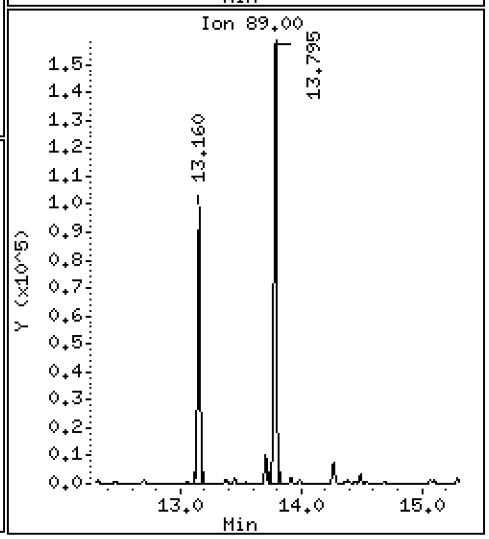












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

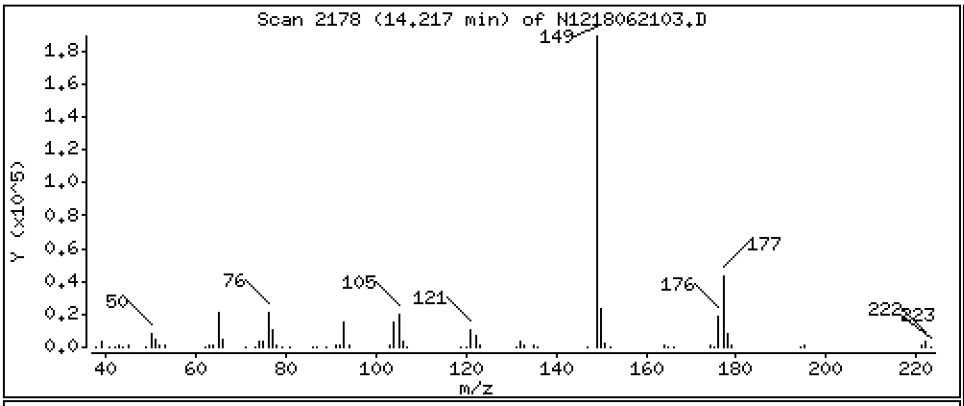
Operator: JZ

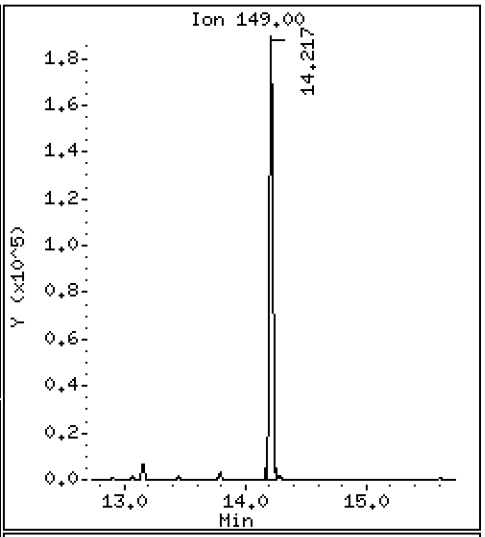
Column phase: ZB-5msi

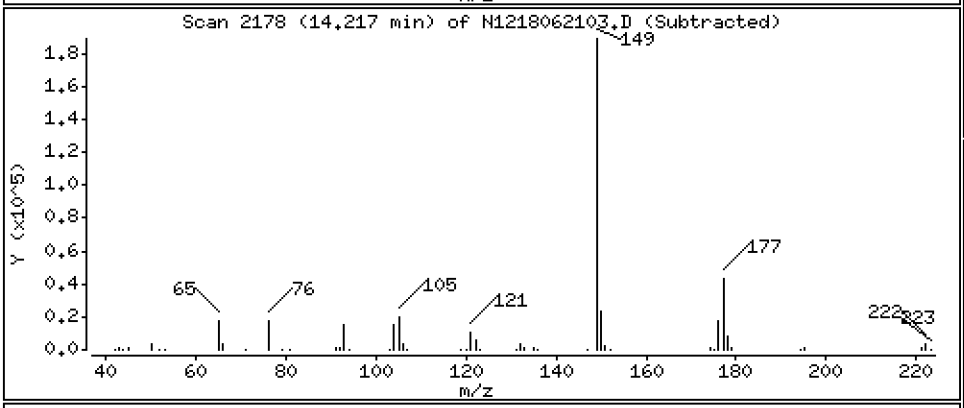
Column diameter: 0.32

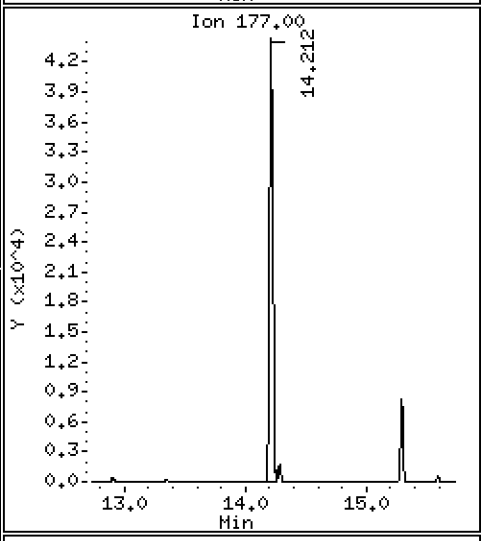
50 Diethylphthalate

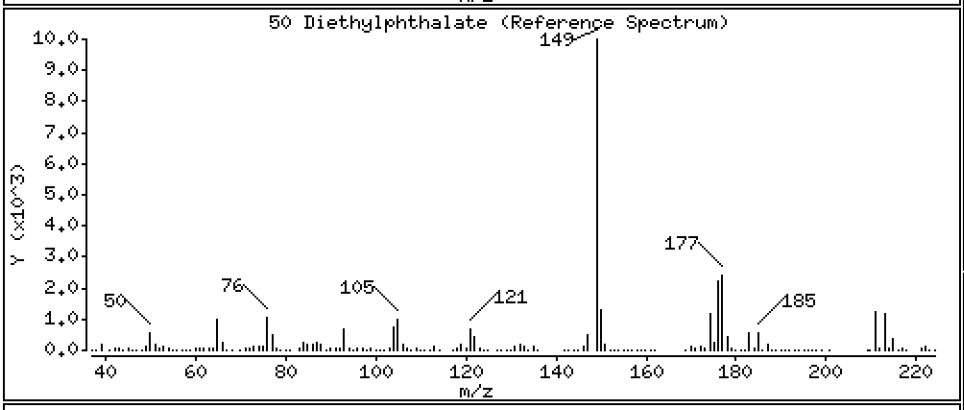
Concentration: 20.27 ug/mL

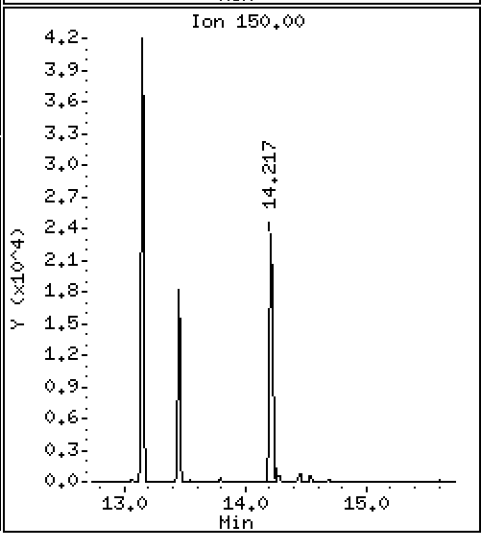


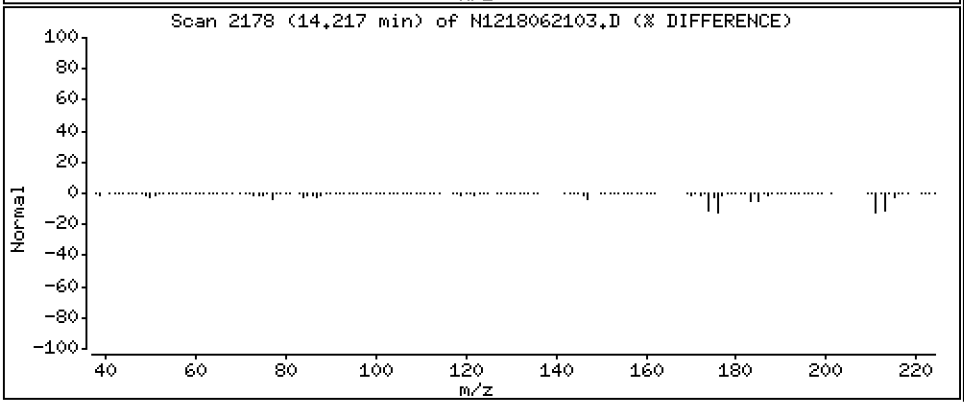












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

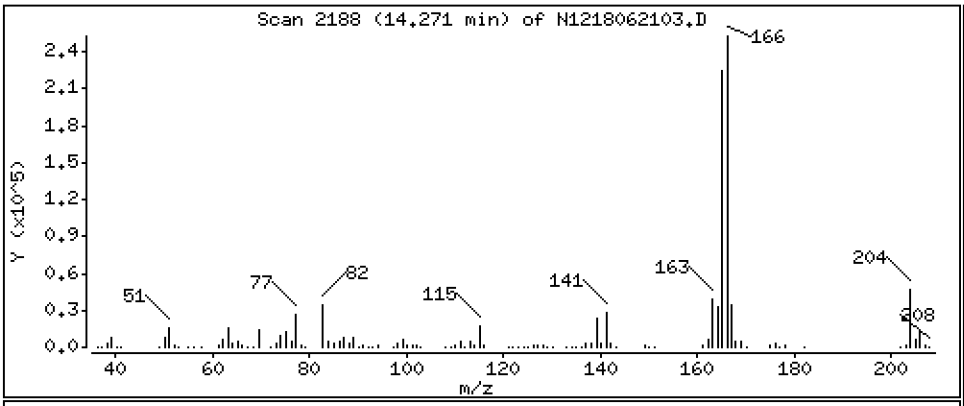
Operator: JZ

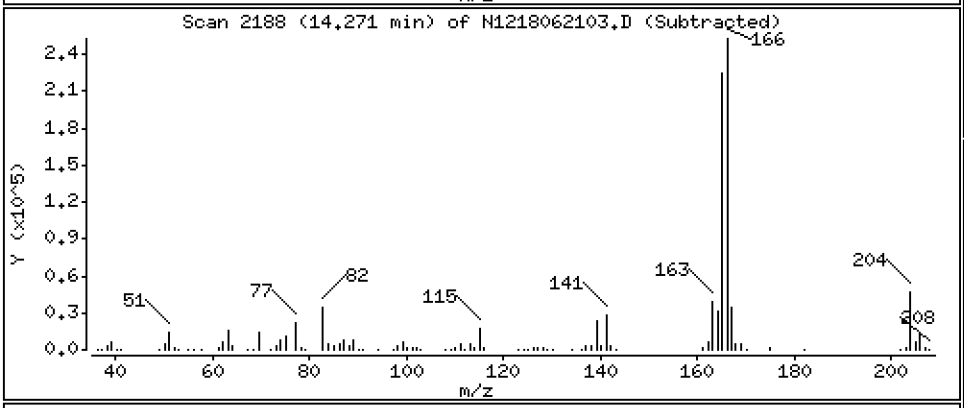
Column phase: ZB-5msi

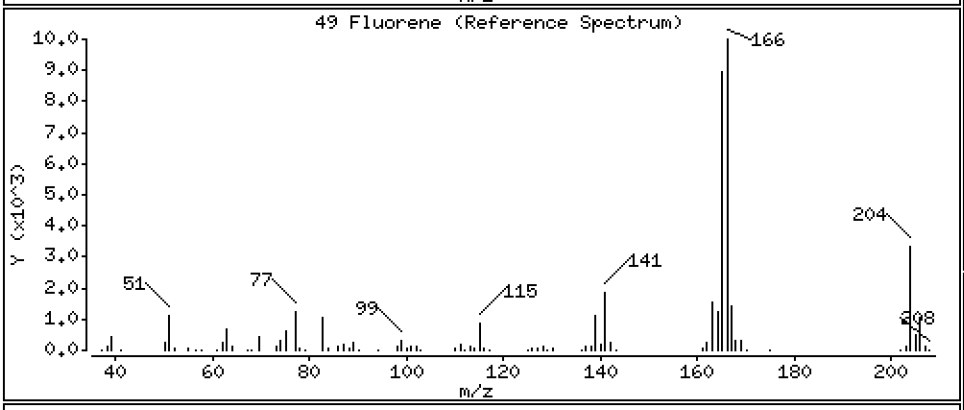
Column diameter: 0.32

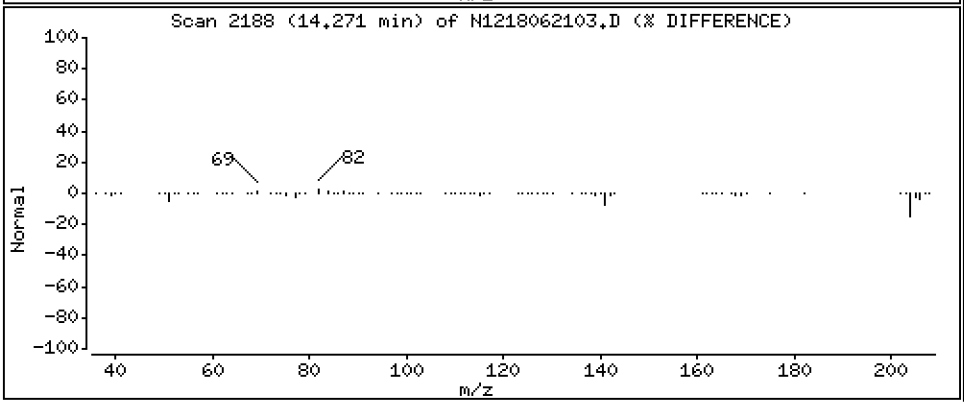
49 Fluorene

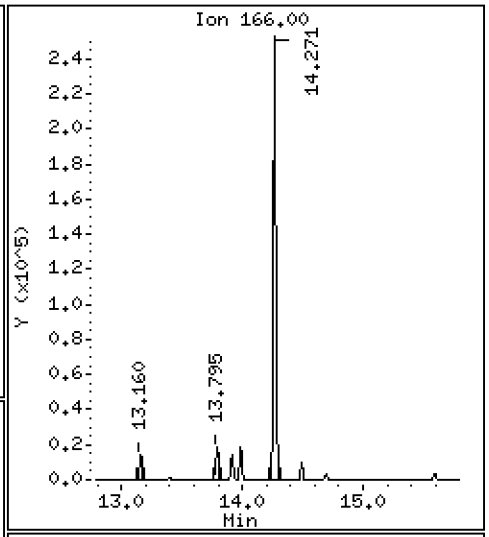
Concentration: 19.56 ug/mL

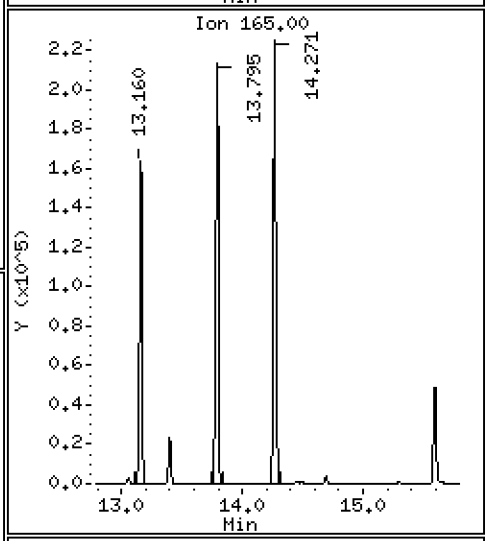


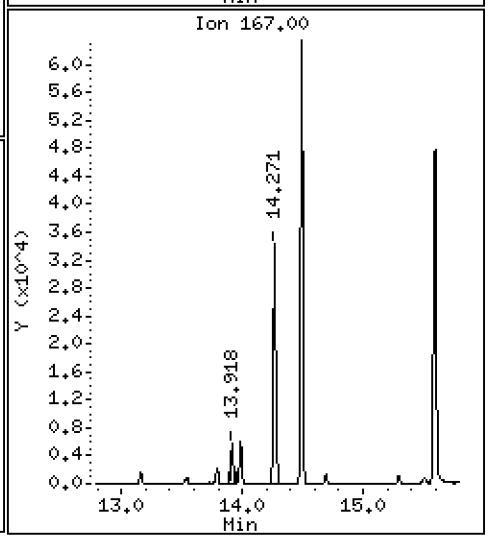












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

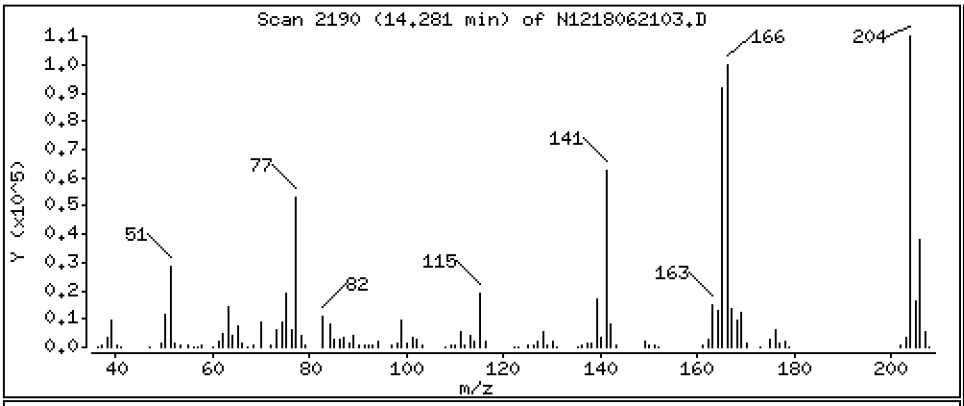
Operator: JZ

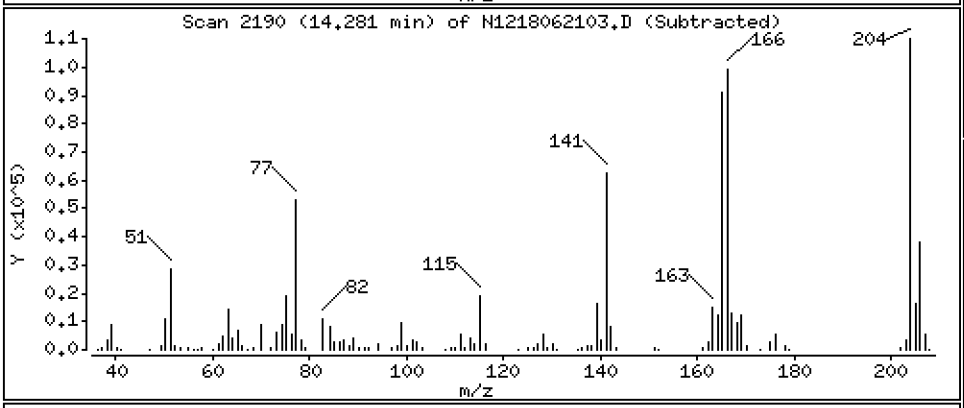
Column phase: ZB-5msi

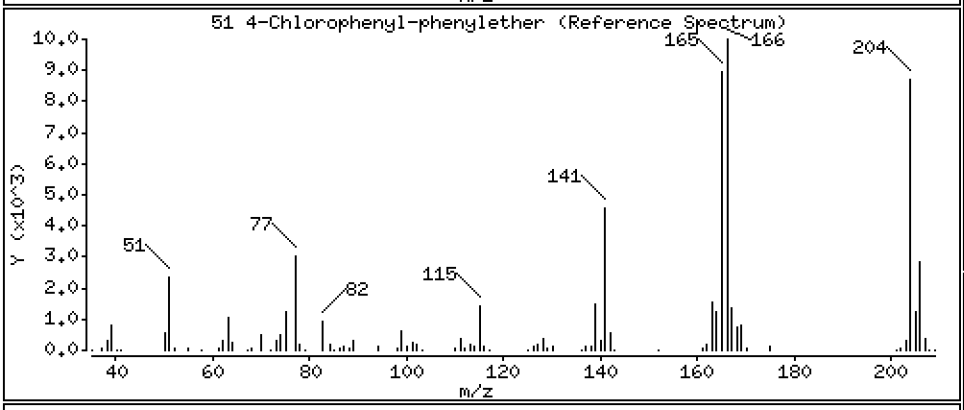
Column diameter: 0.32

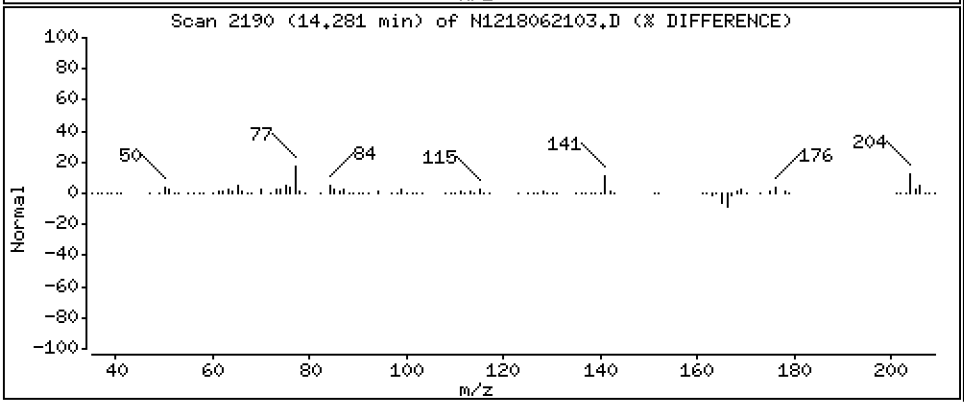
51 4-Chlorophenyl-phenylether

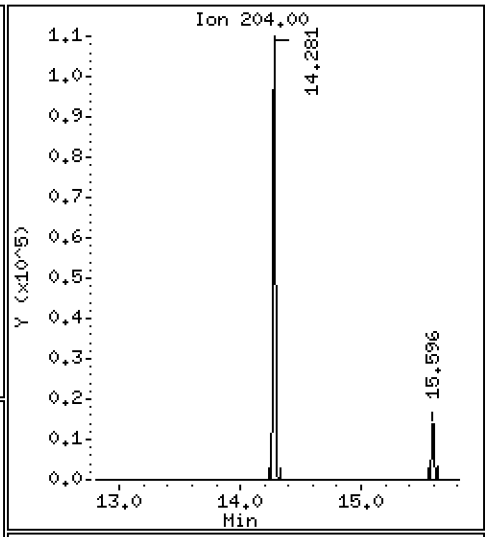
Concentration: 19.02 ug/mL

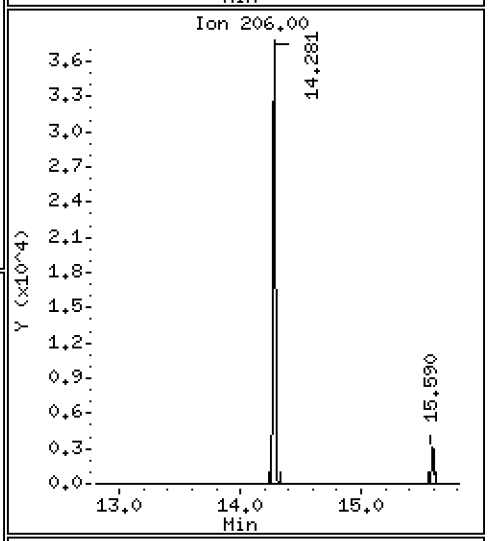


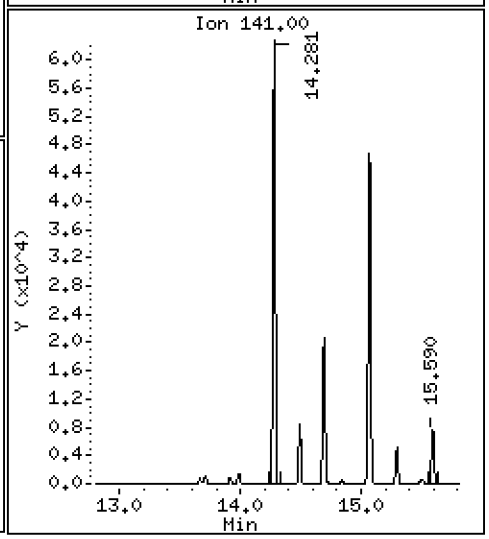












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

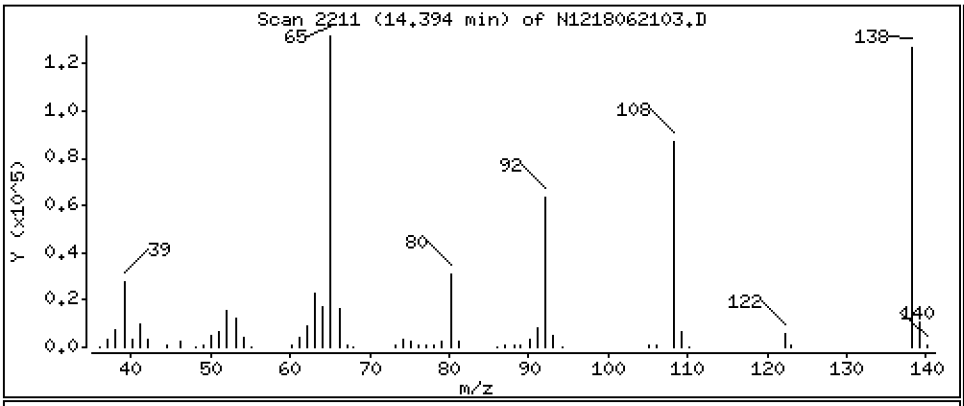
Operator: JZ

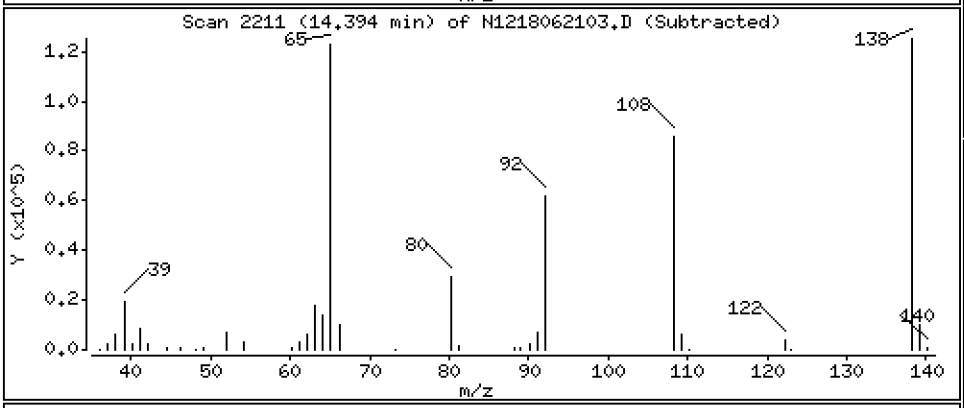
Column phase: ZB-5msi

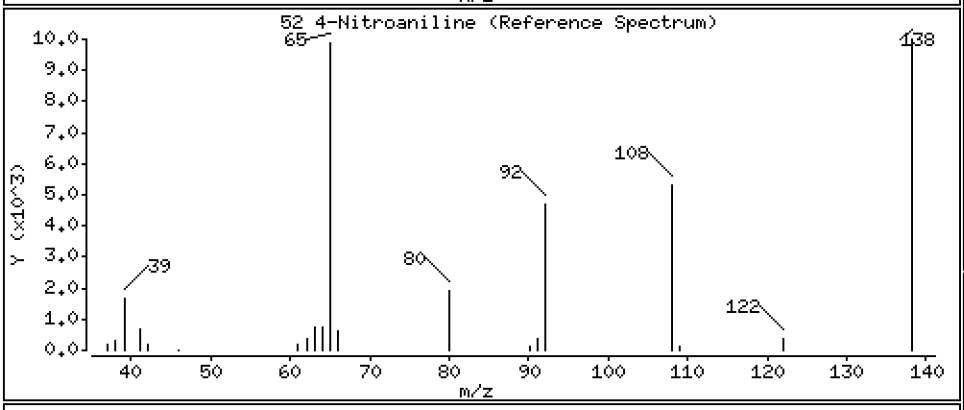
Column diameter: 0.32

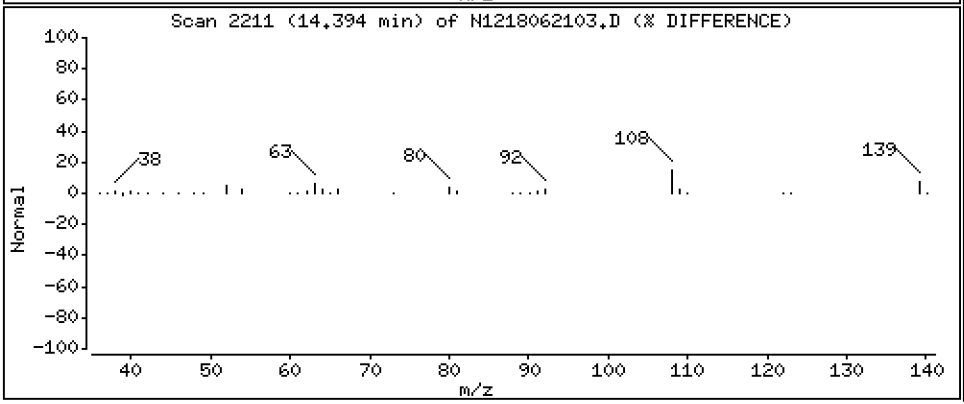
52 4-Nitroaniline

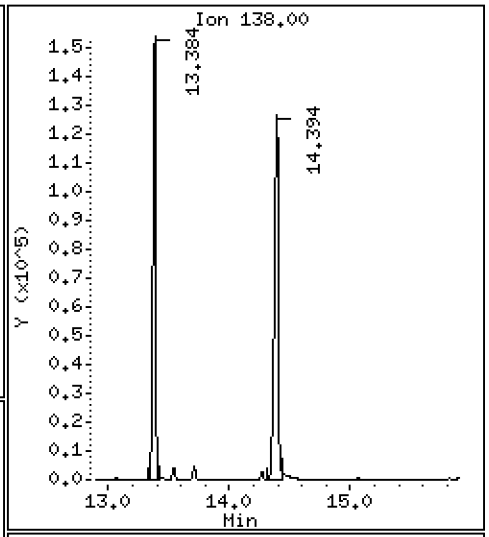
Concentration: 54.53 ug/mL

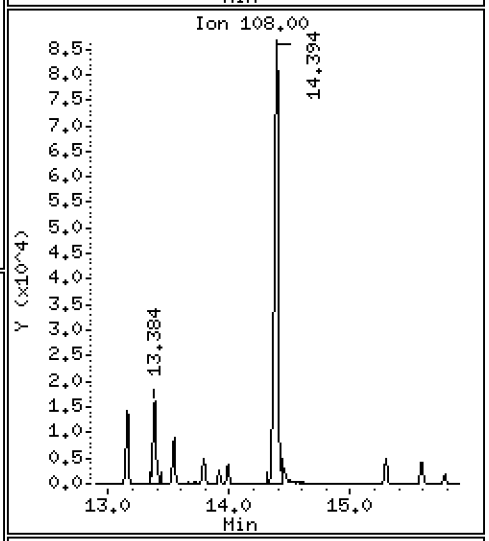


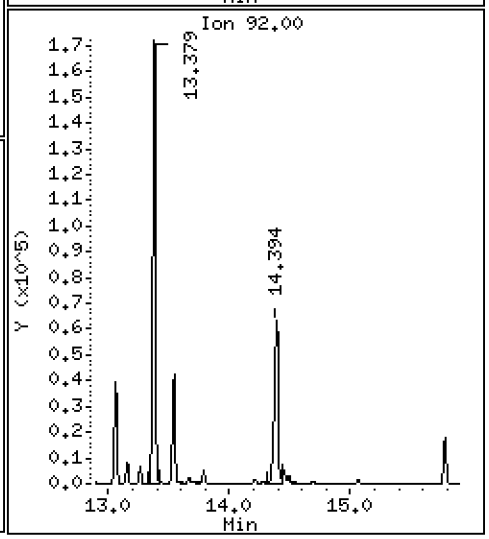












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

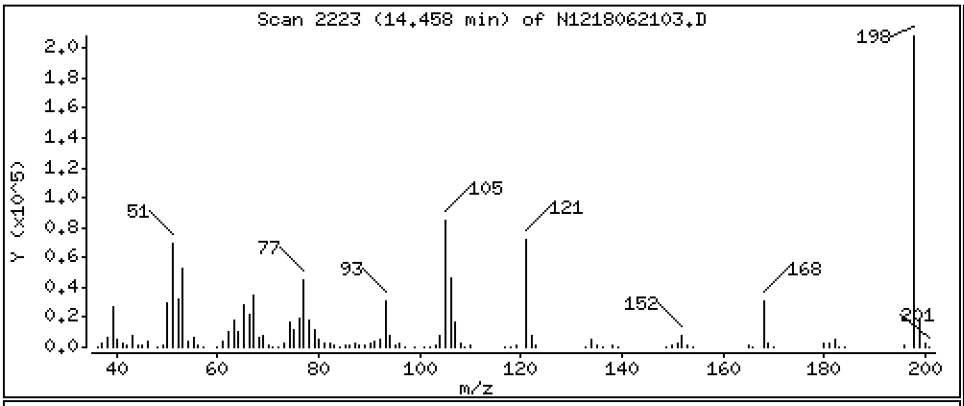
Operator: JZ

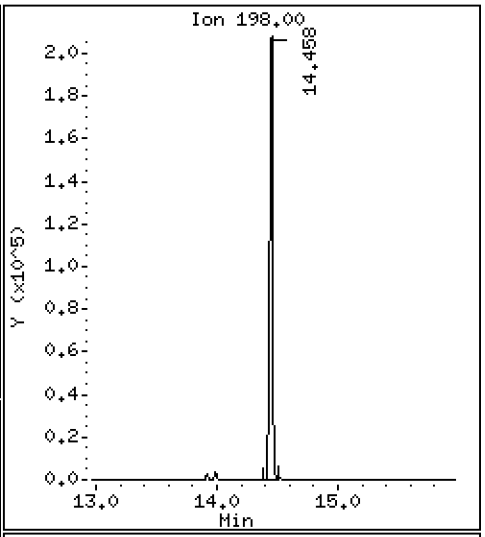
Column phase: ZB-5msi

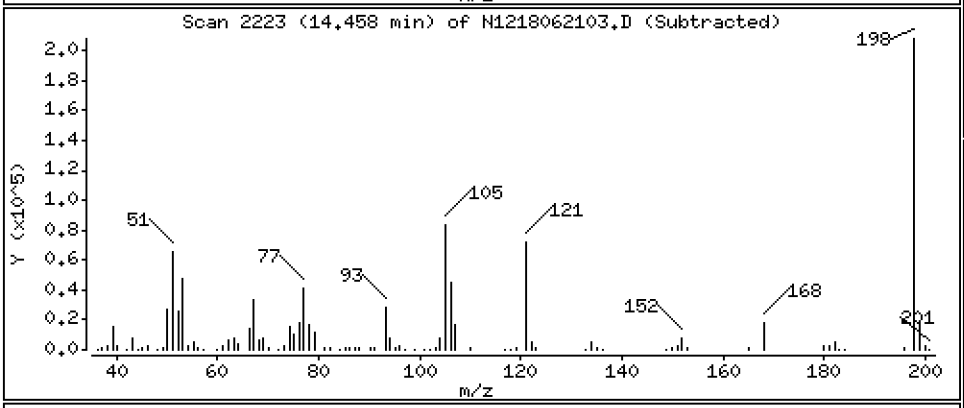
Column diameter: 0.32

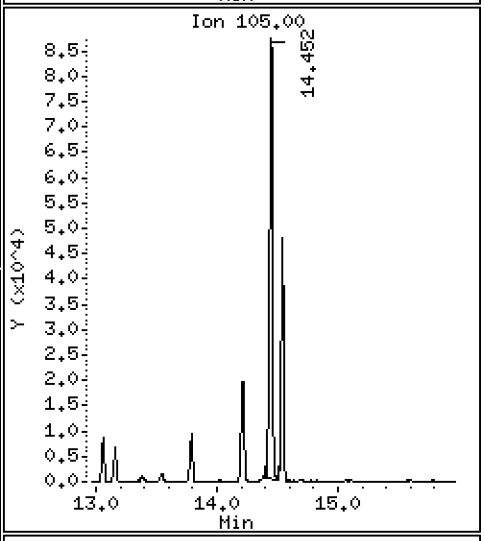
53 4,6-Dinitro-2-methylphenol

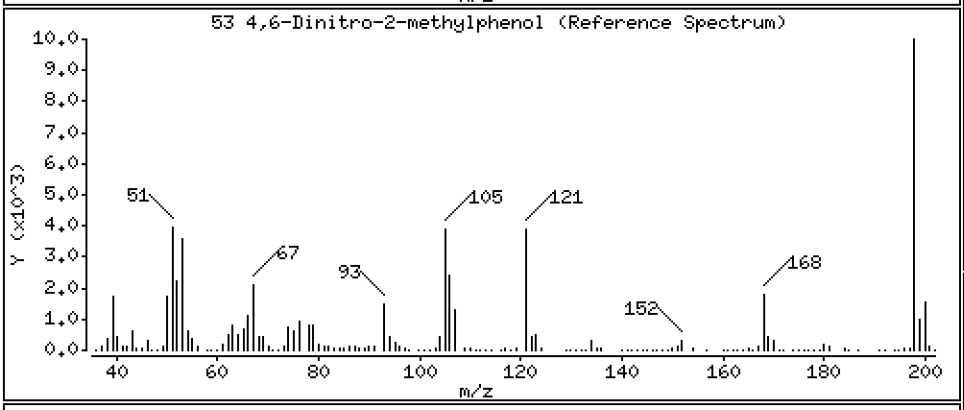
Concentration: 117.0 ug/mL

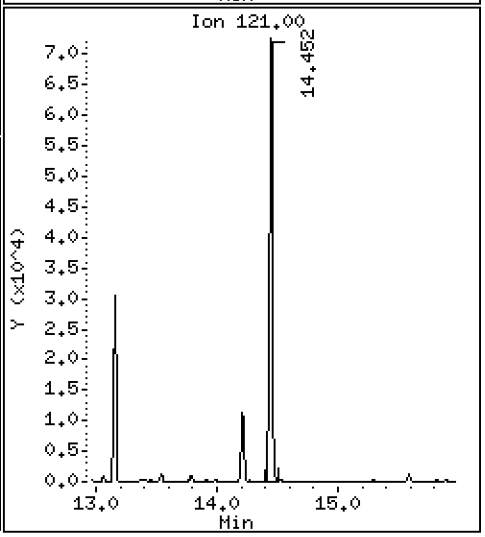


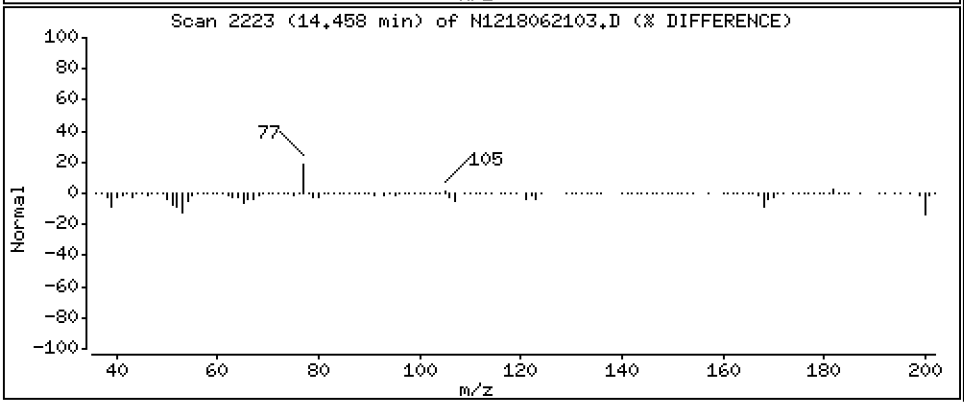












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

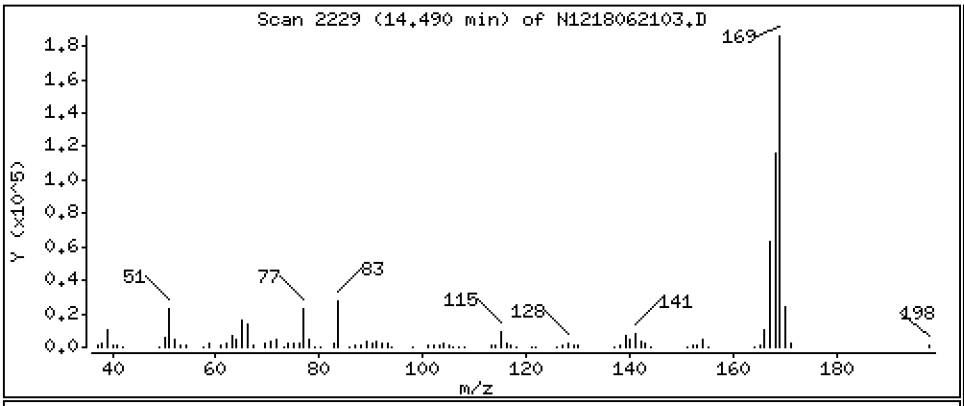
Operator: JZ

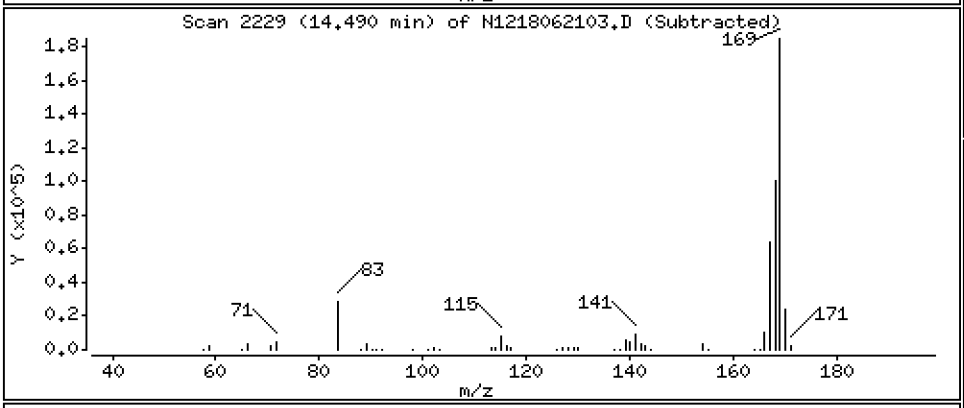
Column phase: ZB-5msi

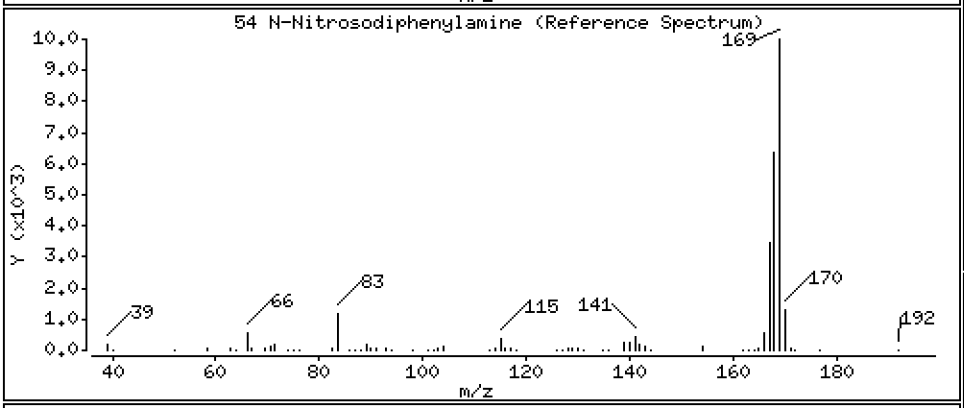
Column diameter: 0.32

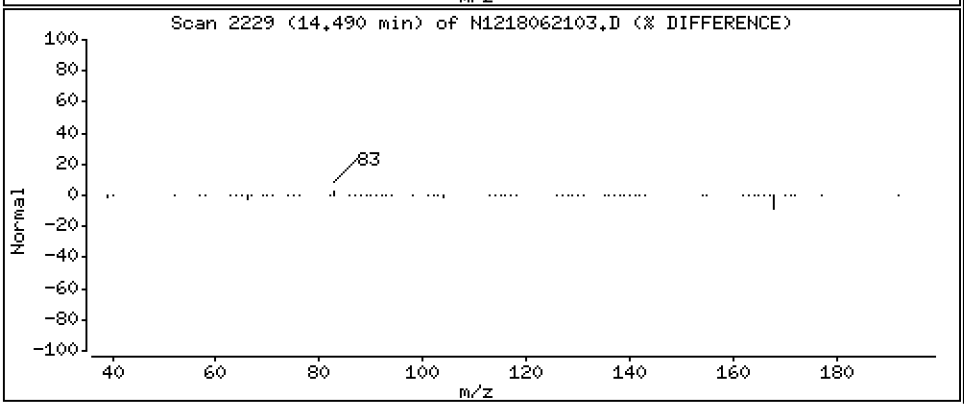
54 N-Nitrosodiphenylamine

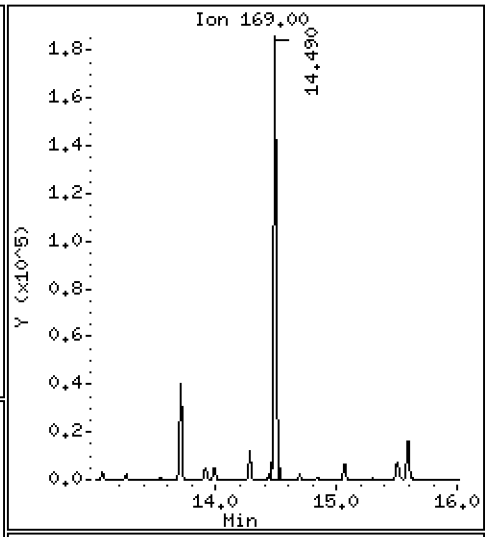
Concentration: 19.22 ug/mL

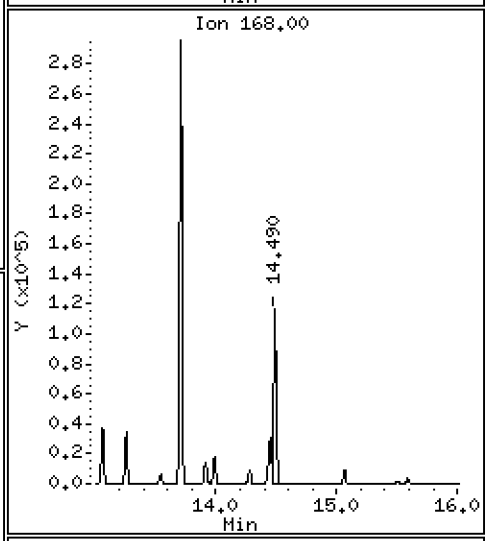


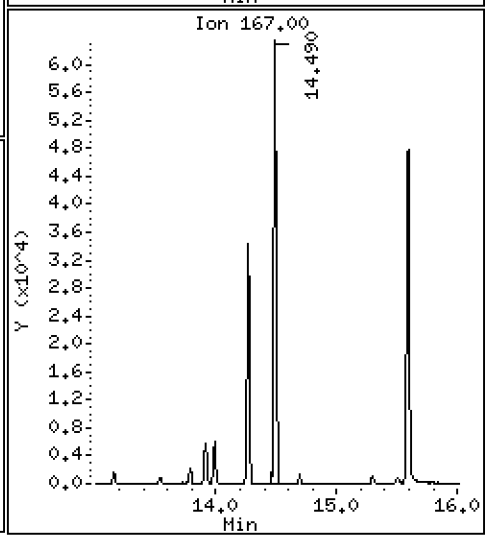












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

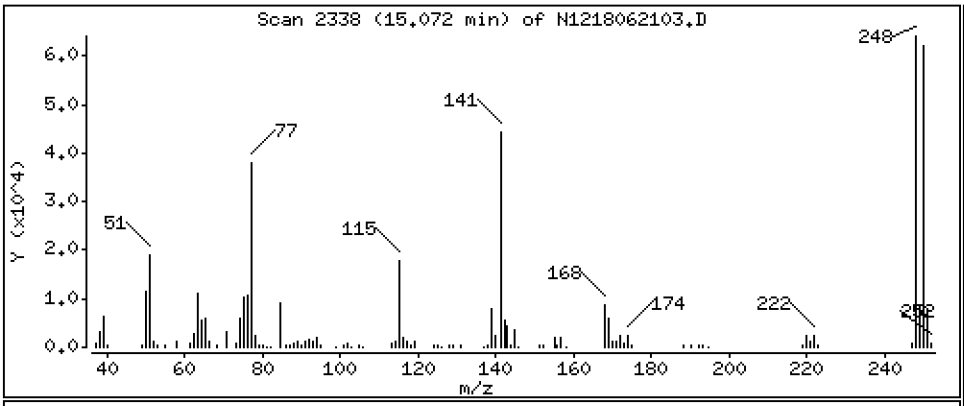
Operator: JZ

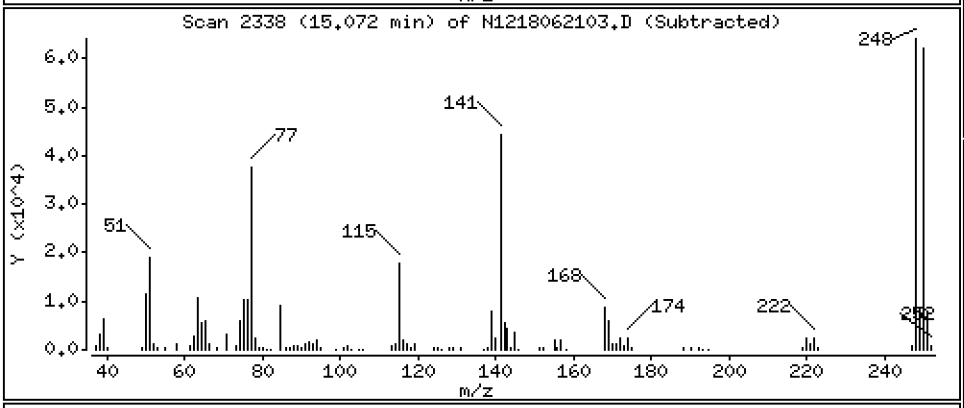
Column phase: ZB-5msi

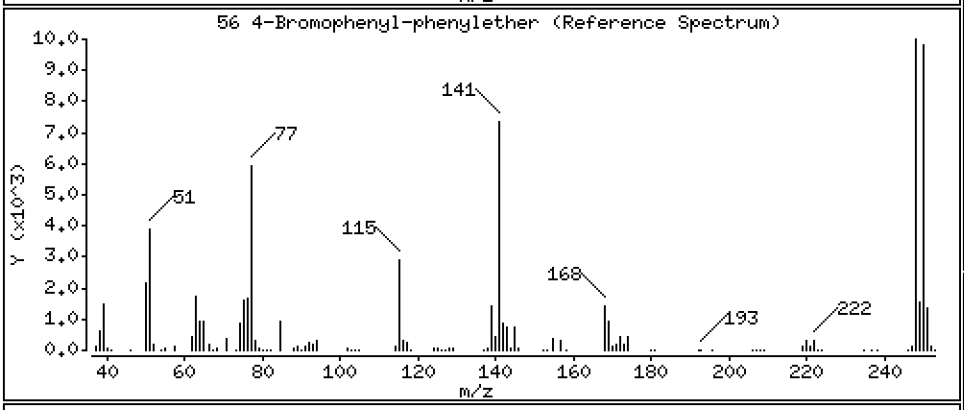
Column diameter: 0.32

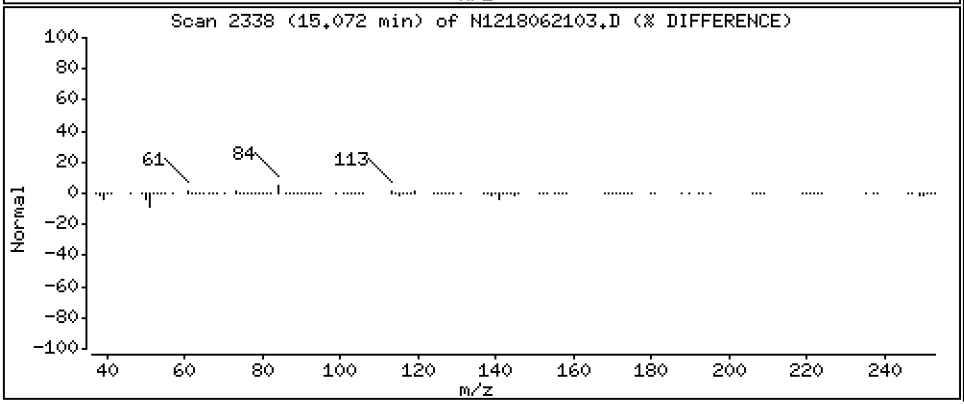
56 4-Bromophenyl-phenylether

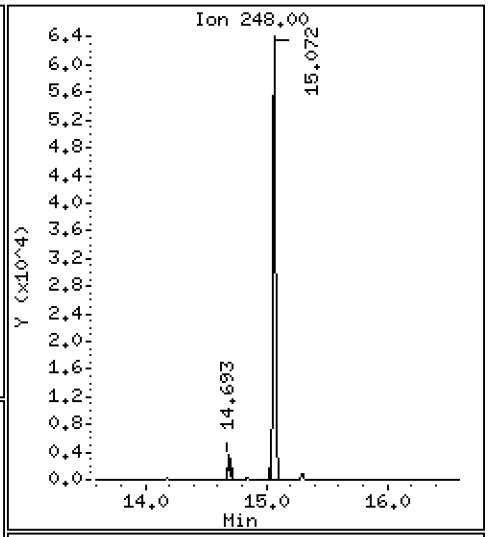
Concentration: 18.85 ug/mL

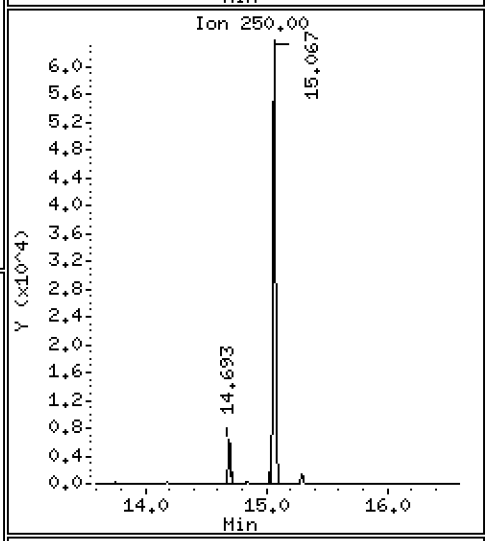


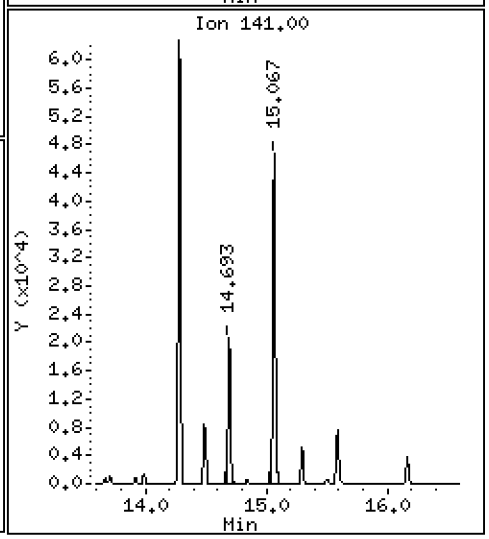












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

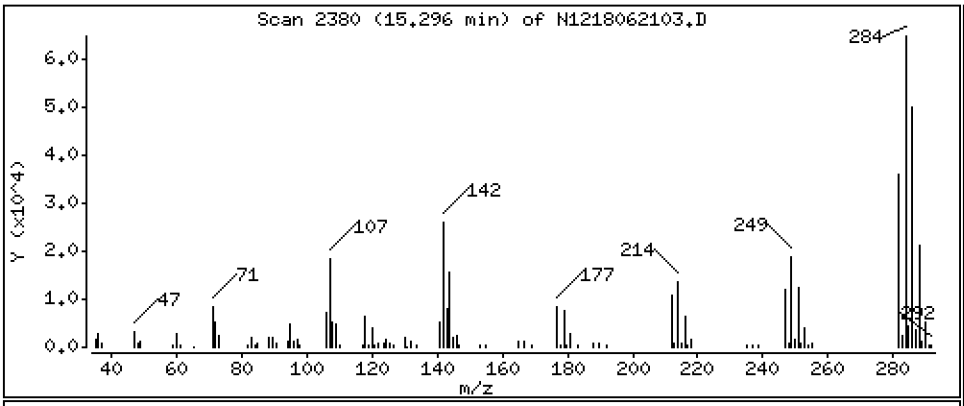
Operator: JZ

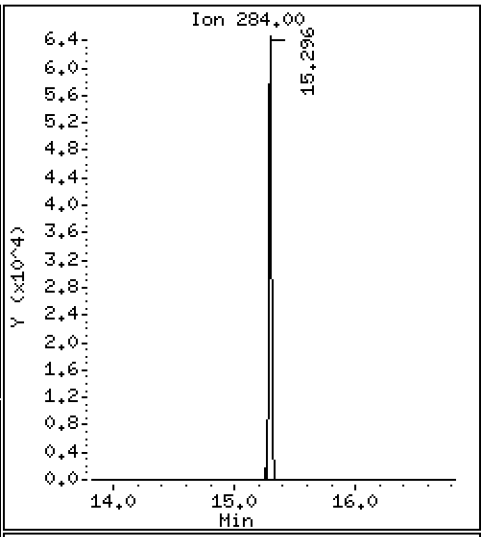
Column phase: ZB-5msi

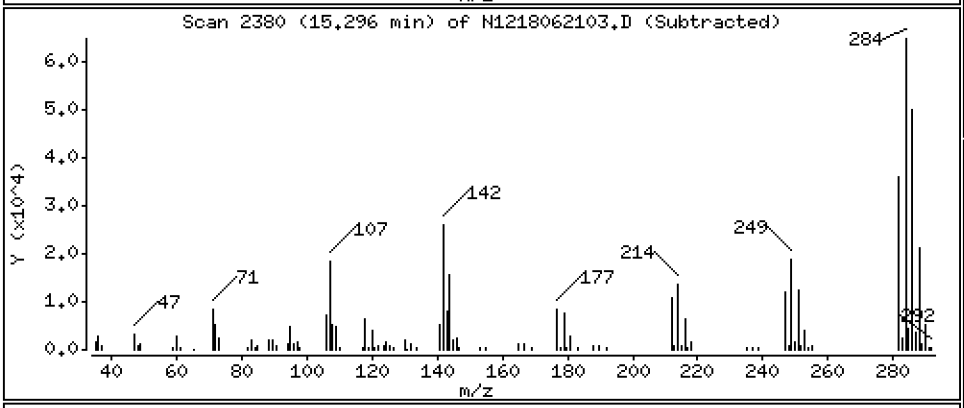
Column diameter: 0.32

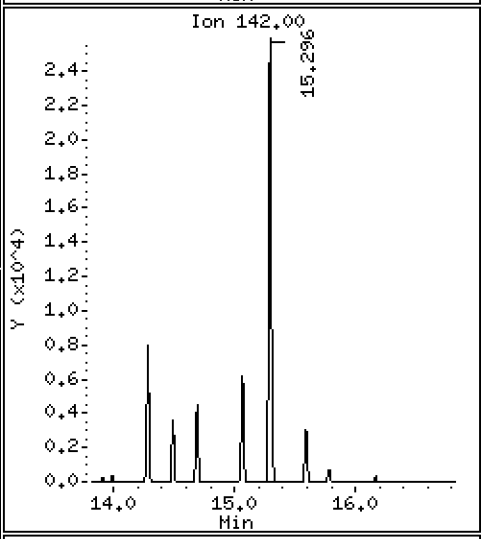
57 Hexachlorobenzene

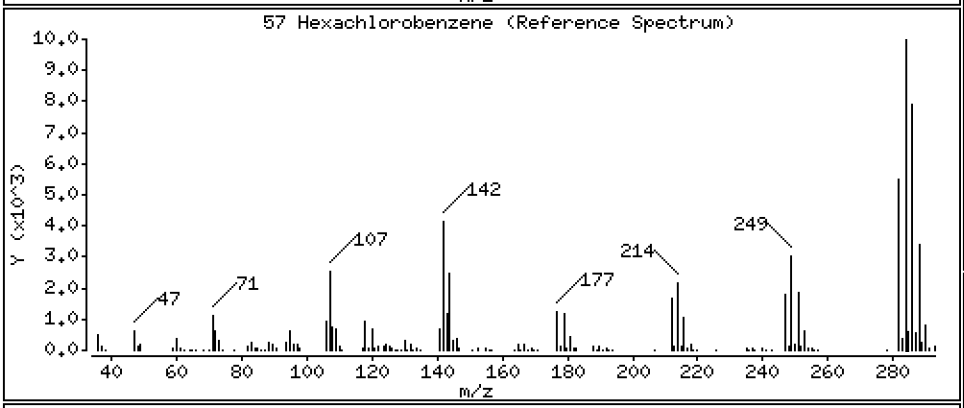
Concentration: 18.38 ug/mL

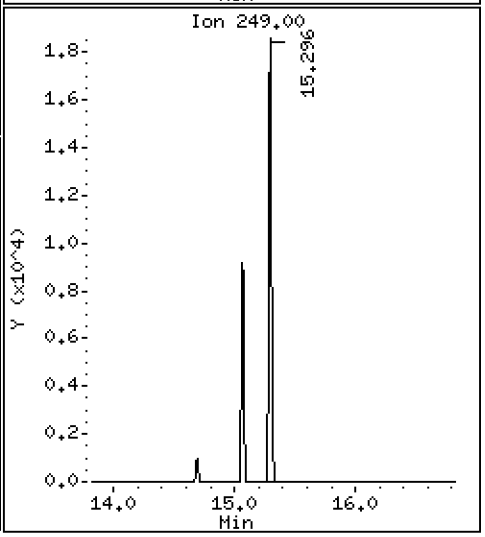


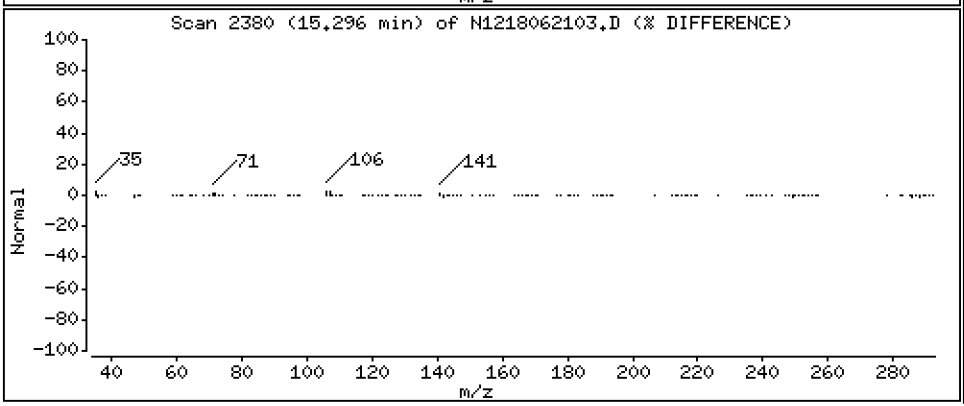












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

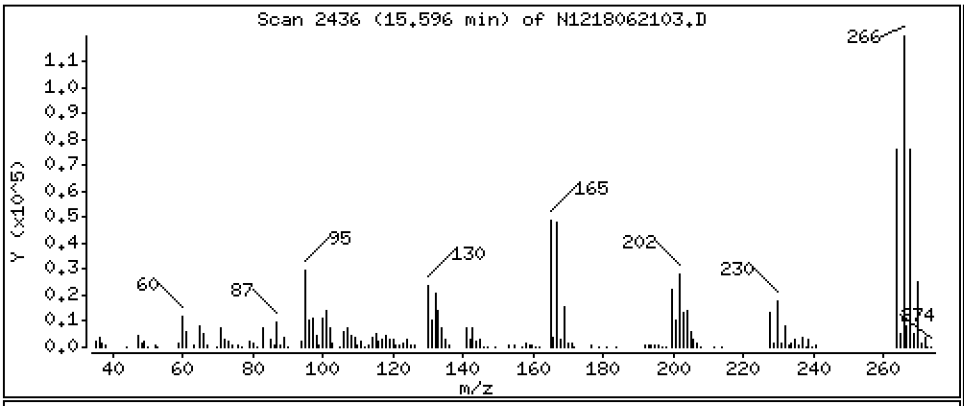
Operator: JZ

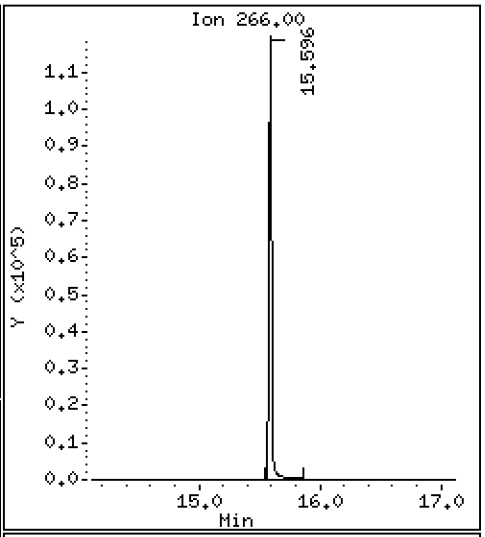
Column phase: ZB-5msi

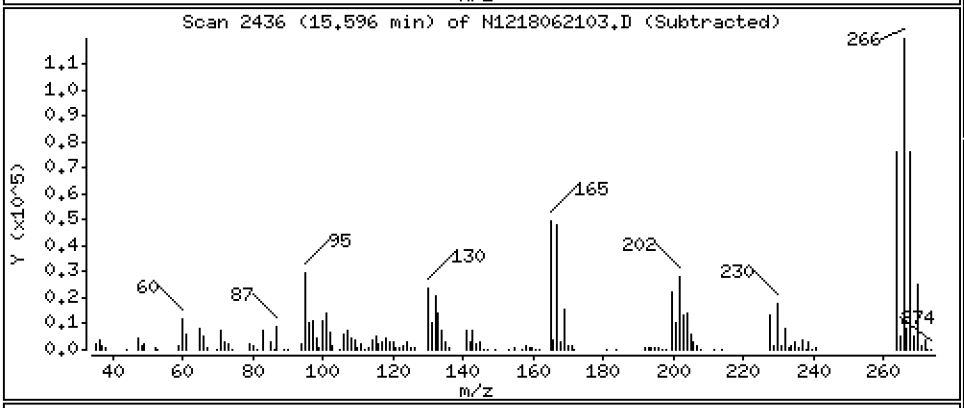
Column diameter: 0.32

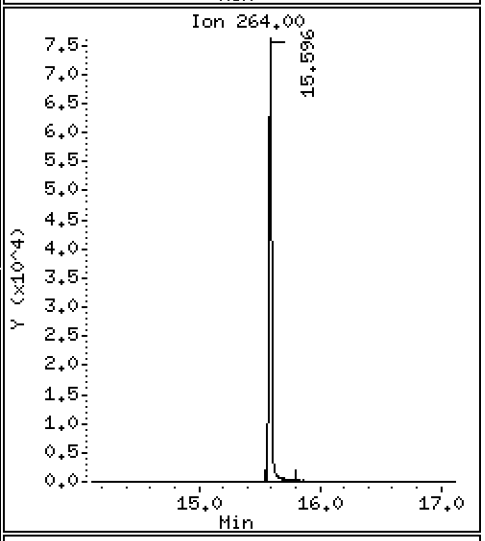
58 Pentachlorophenol

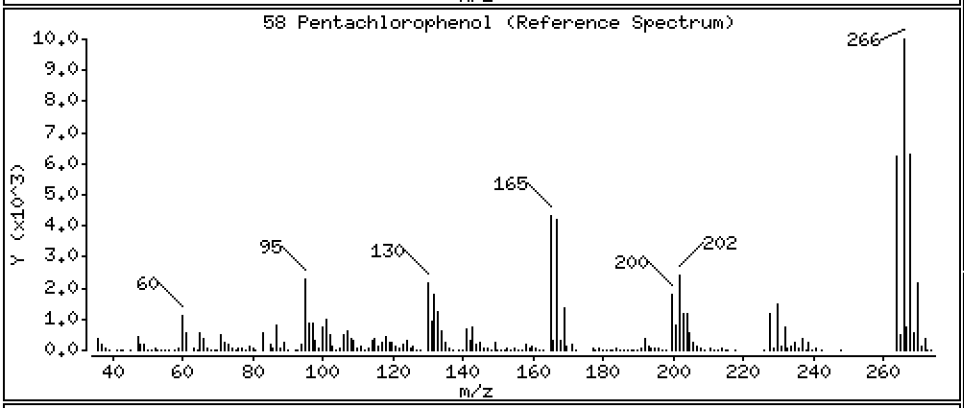
Concentration: 56.31 ug/mL

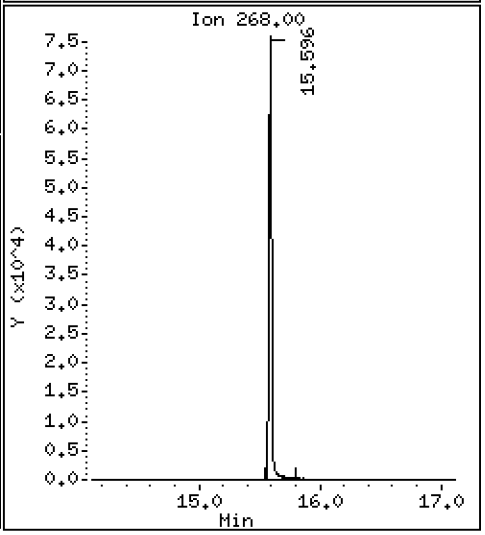


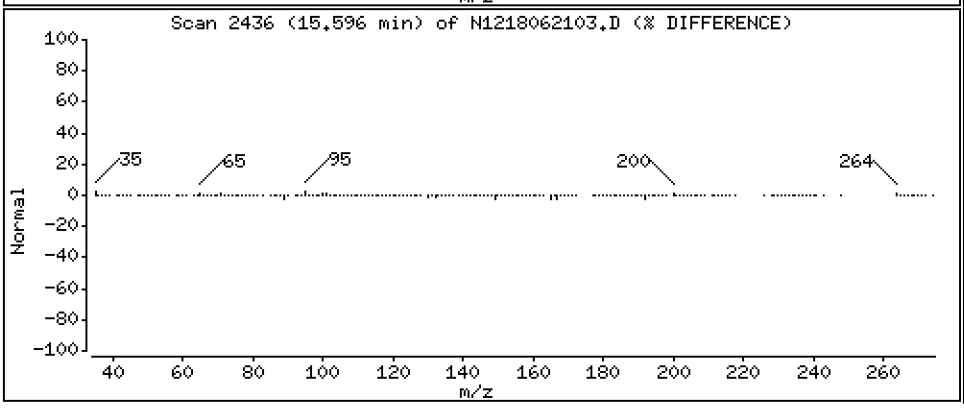












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

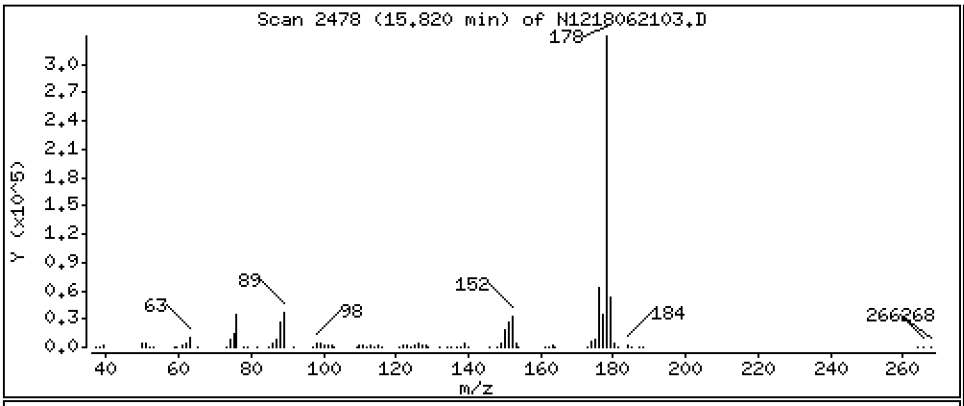
Operator: JZ

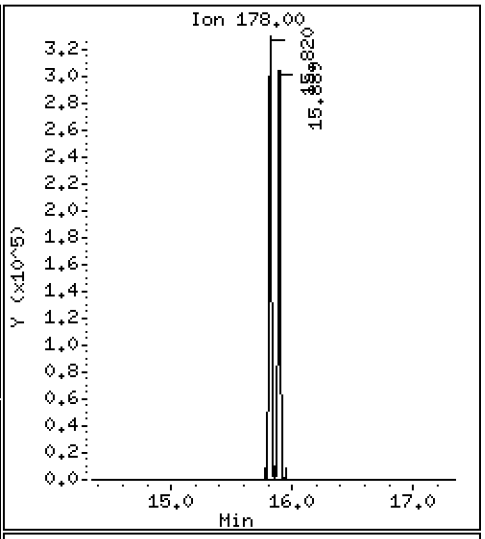
Column phase: ZB-5msi

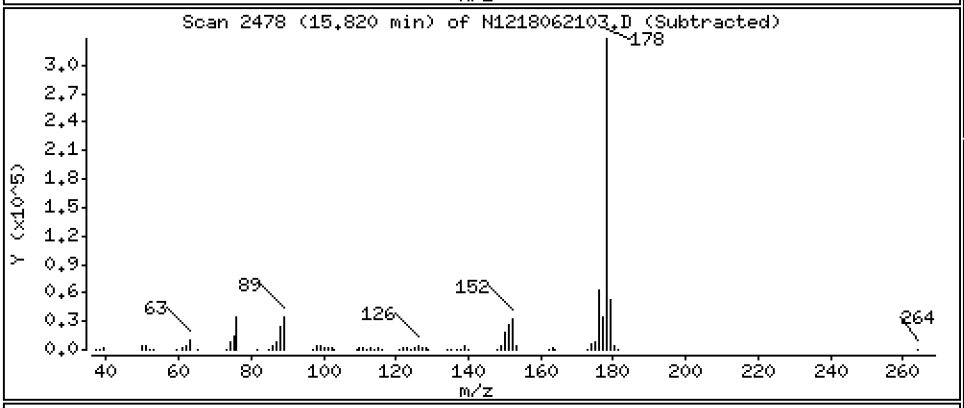
Column diameter: 0.32

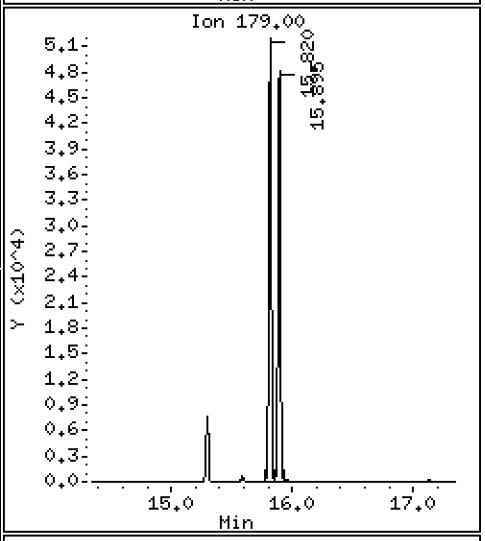
60 Phenanthrene

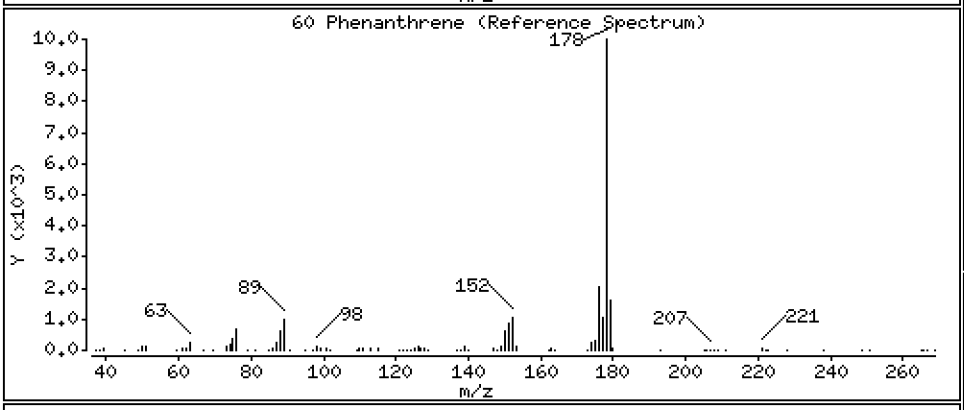
Concentration: 22.52 ug/mL

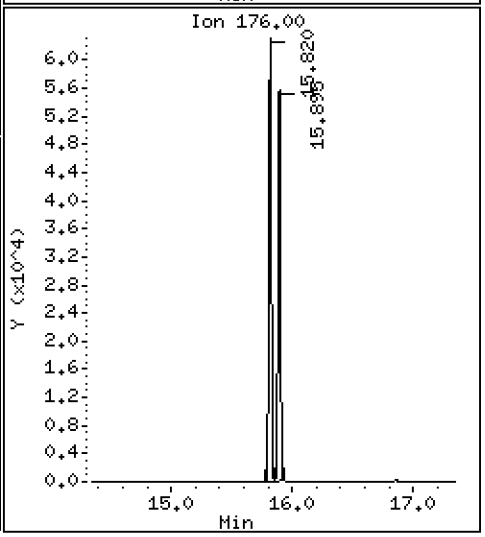


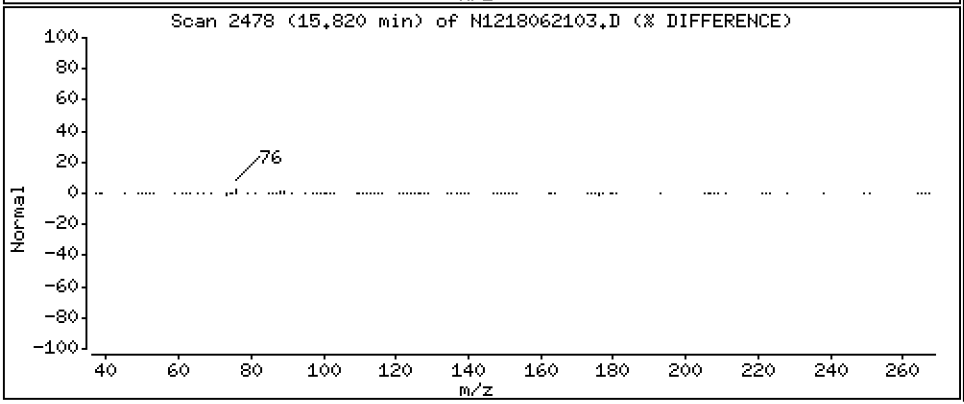












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

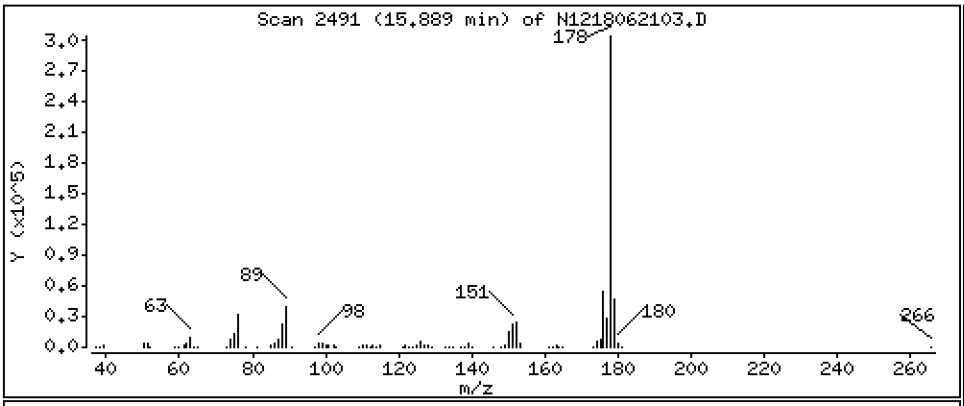
Operator: JZ

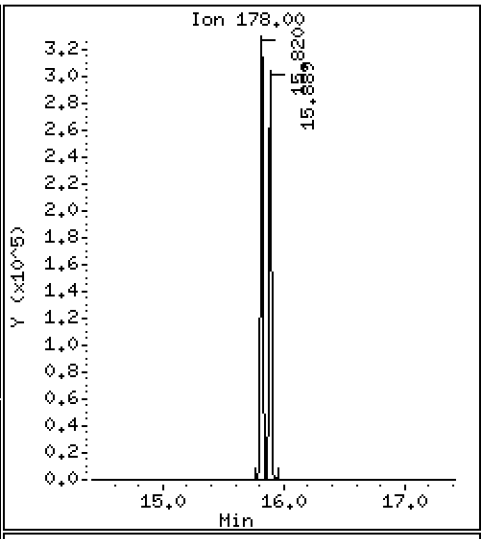
Column phase: ZB-5msi

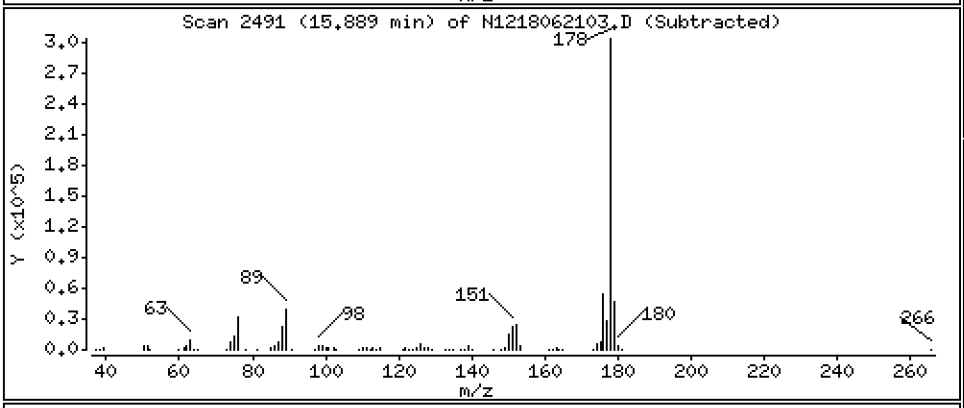
Column diameter: 0.32

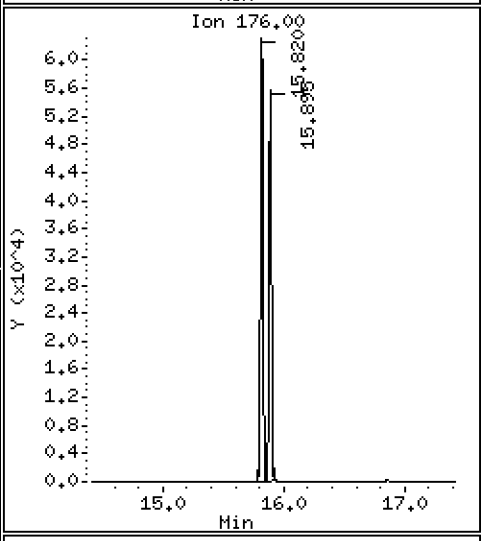
61 Anthracene

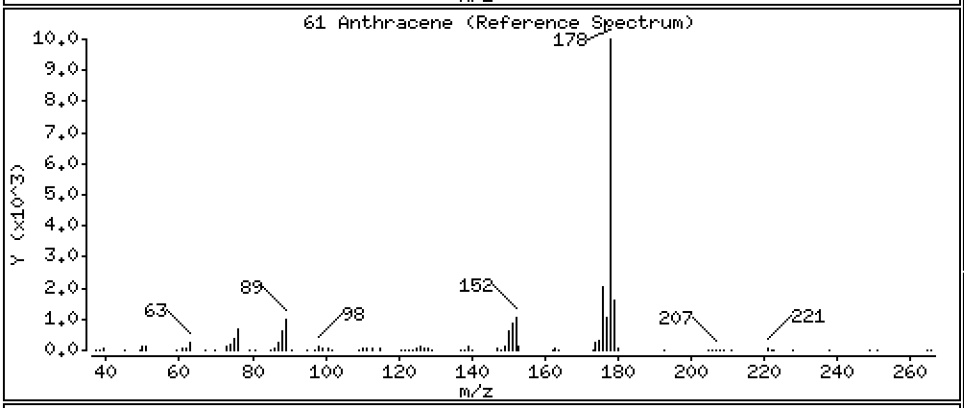
Concentration: 18.33 ug/mL

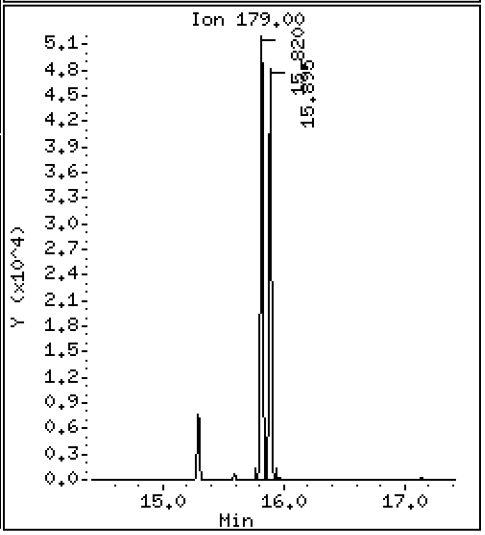


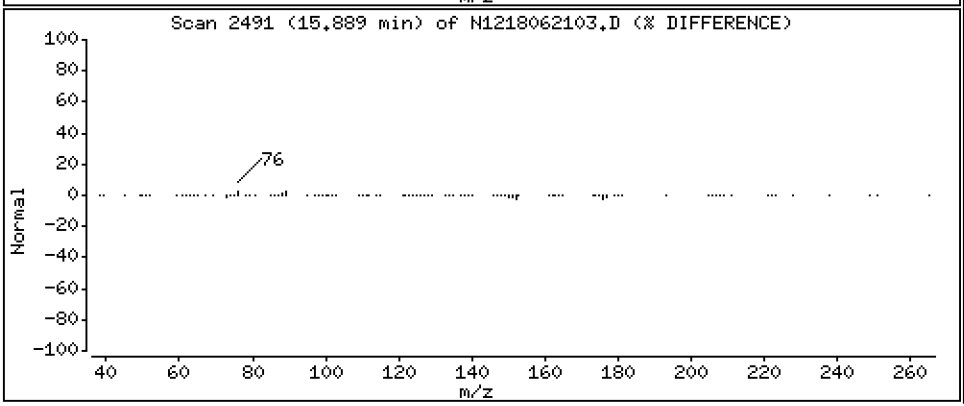












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

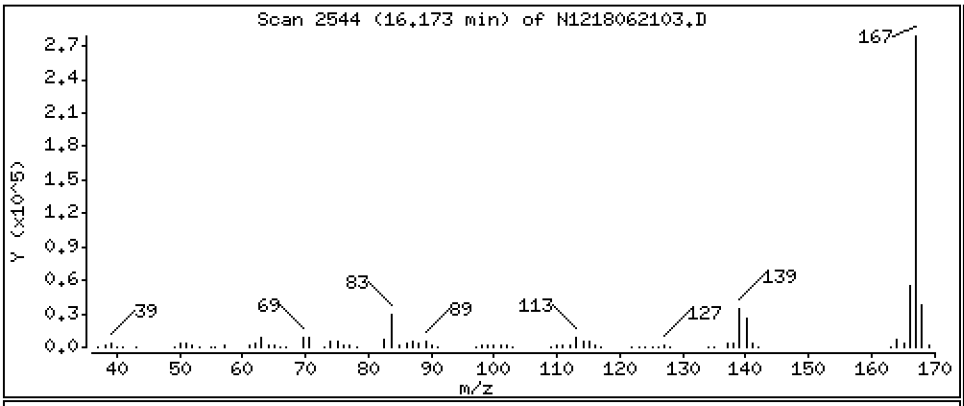
Operator: JZ

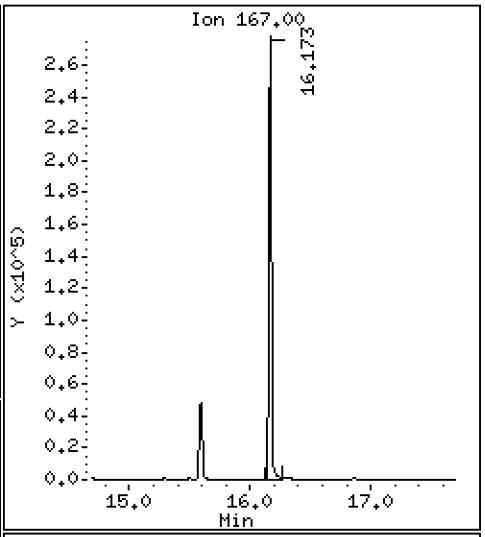
Column phase: ZB-5msi

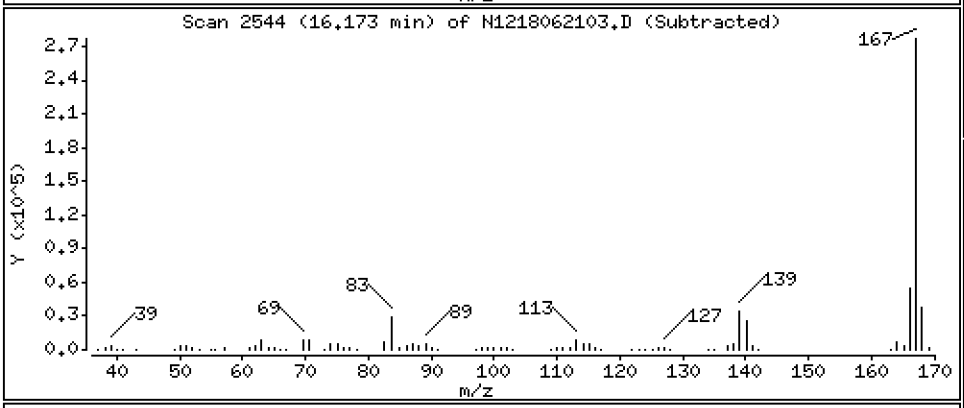
Column diameter: 0.32

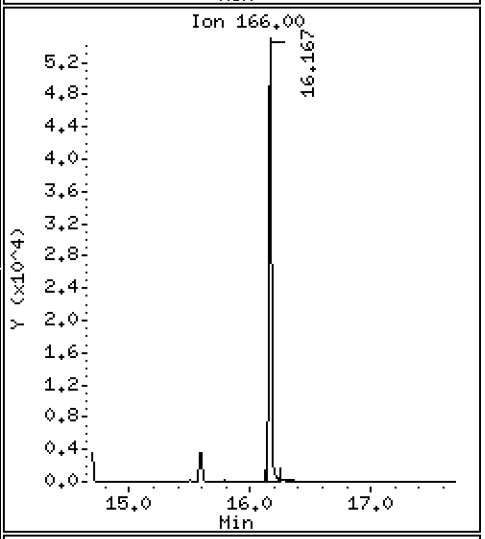
62 Carbazole

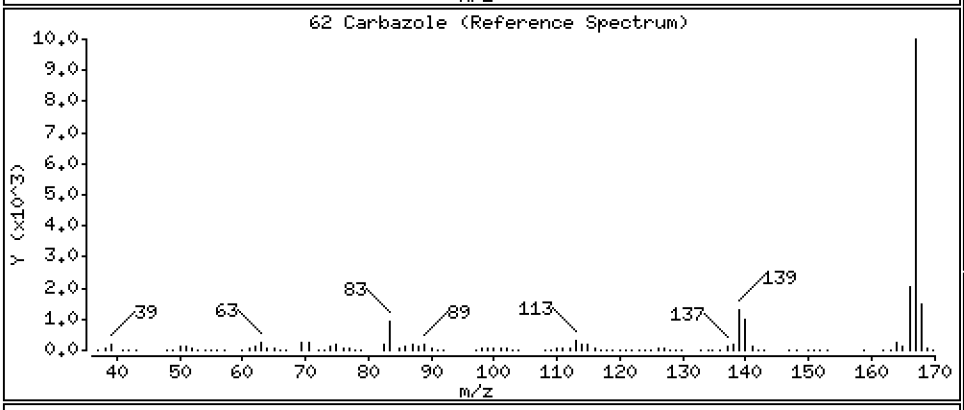
Concentration: 18.58 ug/mL

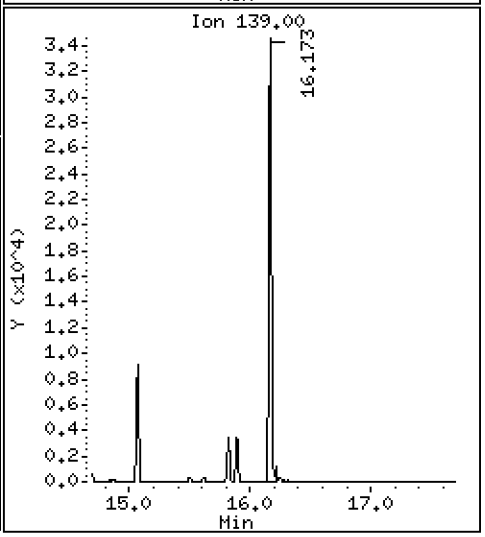


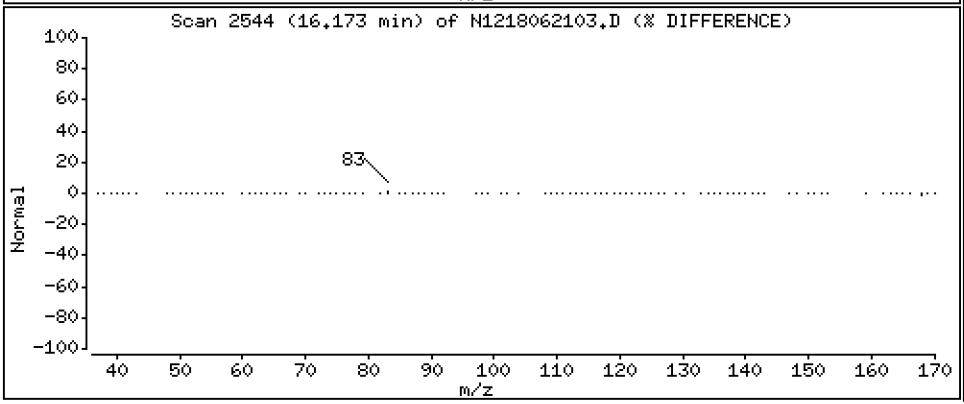












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

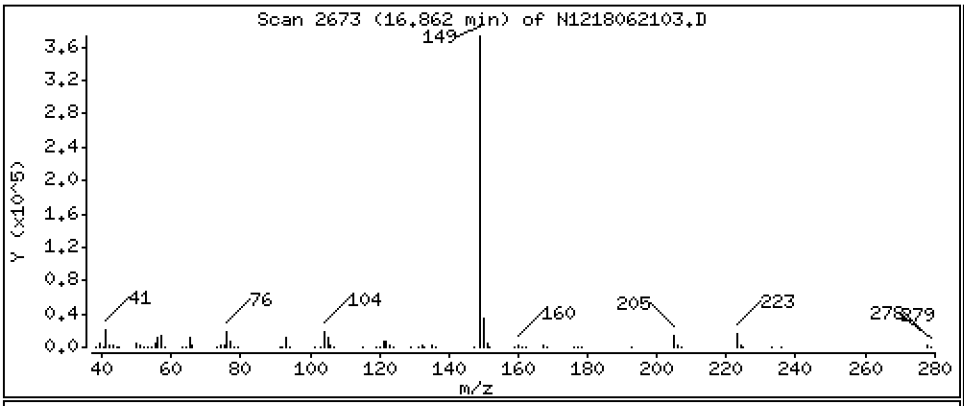
Operator: JZ

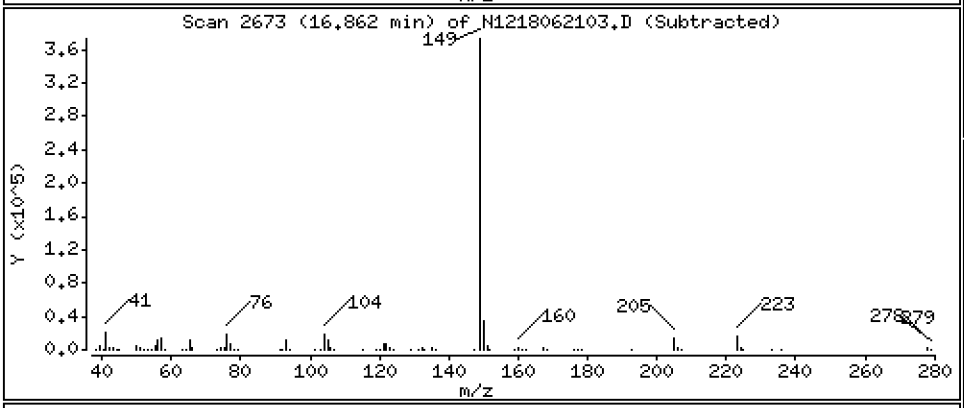
Column phase: ZB-5msi

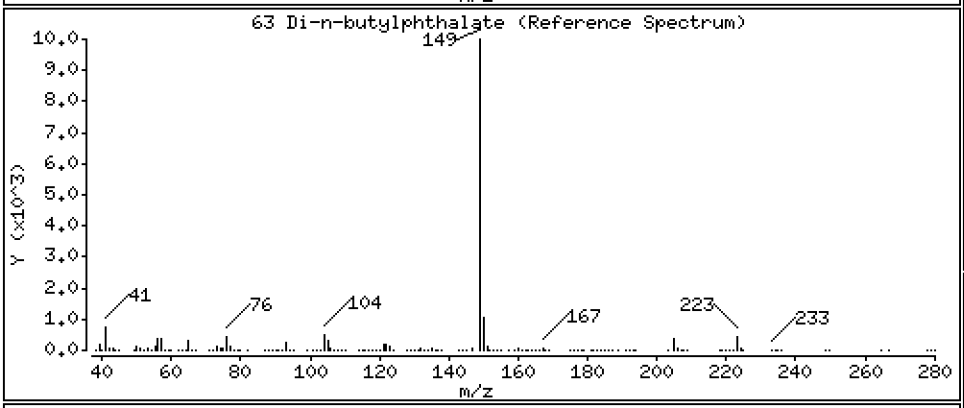
Column diameter: 0.32

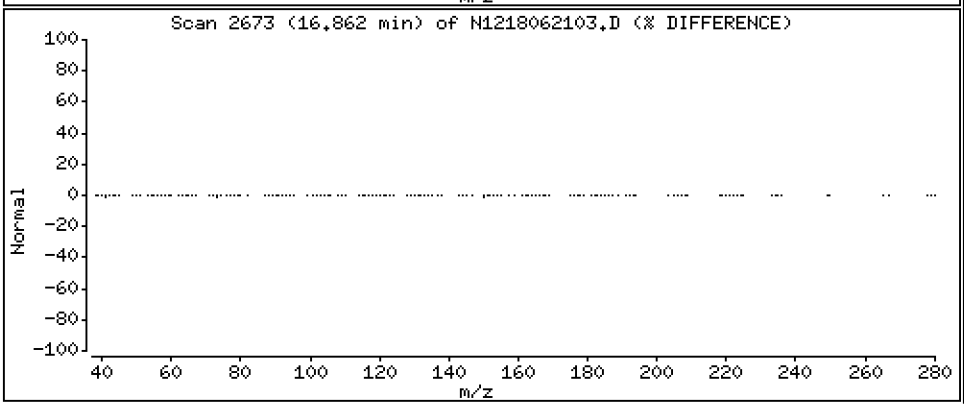
63 Di-n-butylphthalate

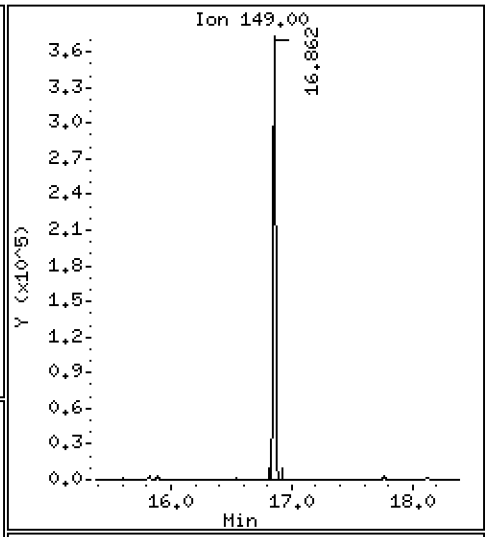
Concentration: 20.45 ug/mL

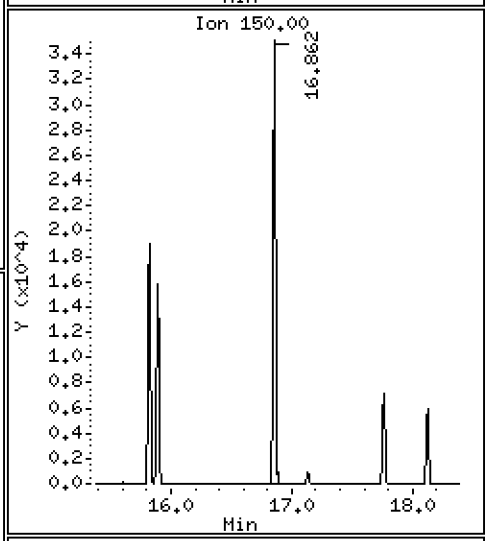


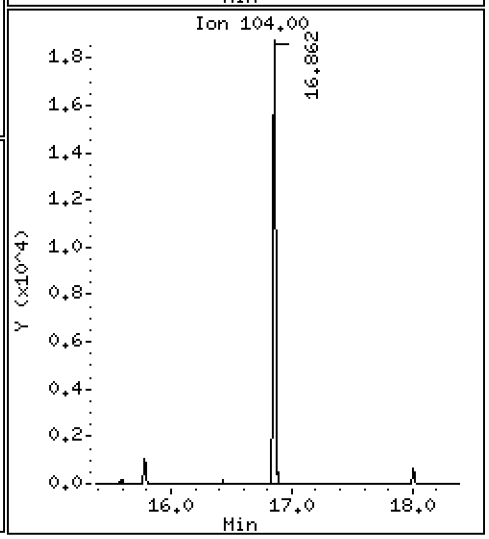












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

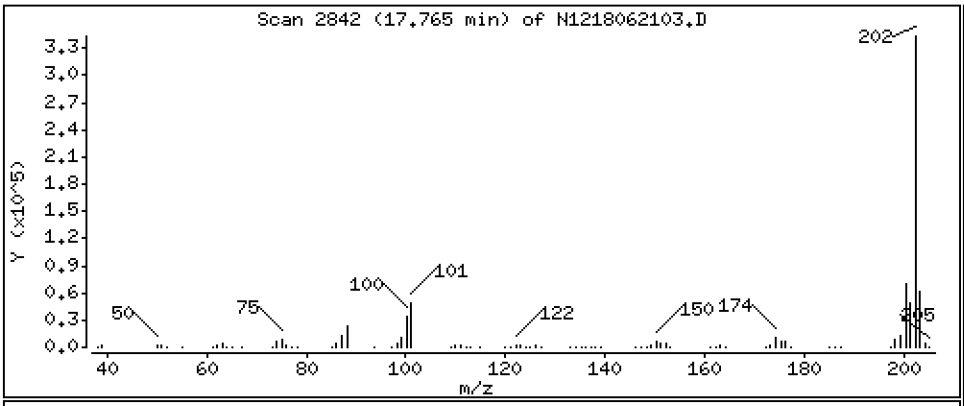
Operator: JZ

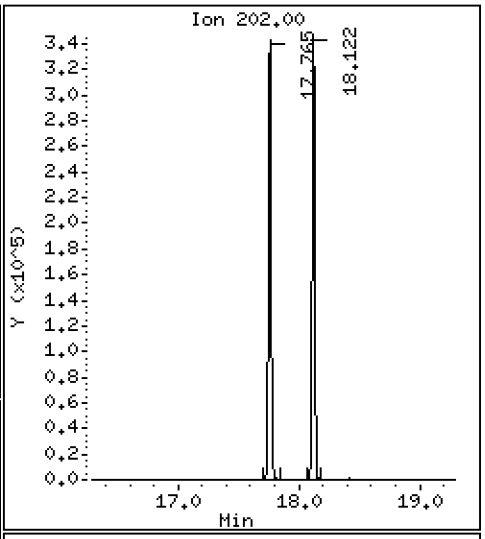
Column phase: ZB-5msi

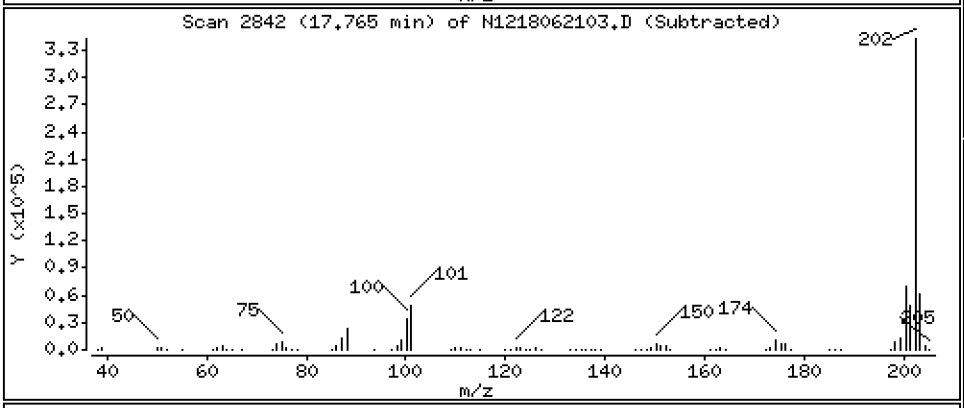
Column diameter: 0.32

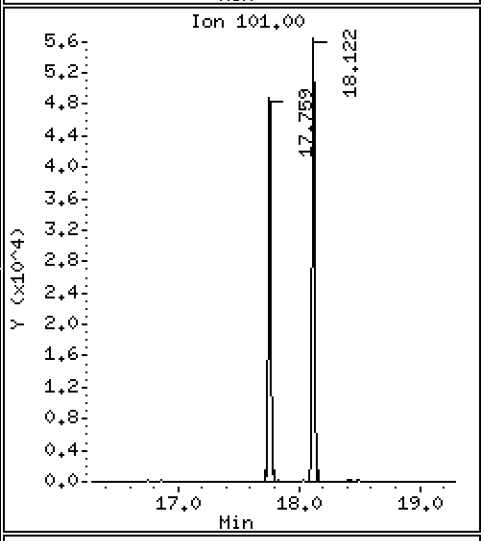
64 Fluoranthene

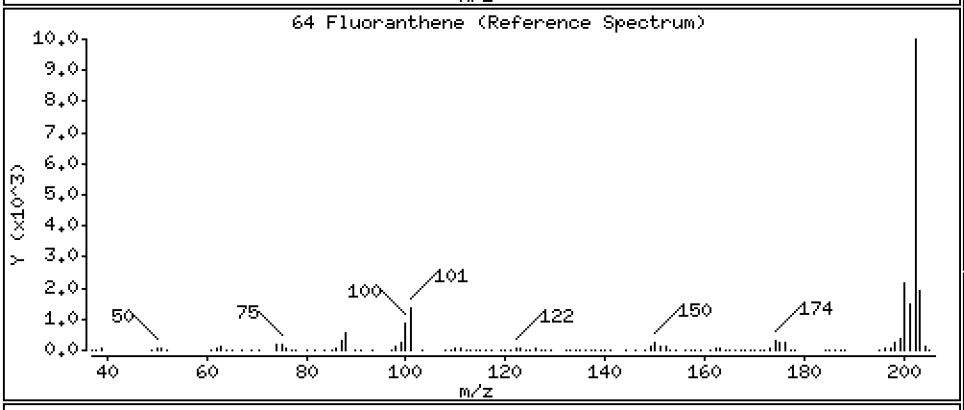
Concentration: 19.53 ug/mL

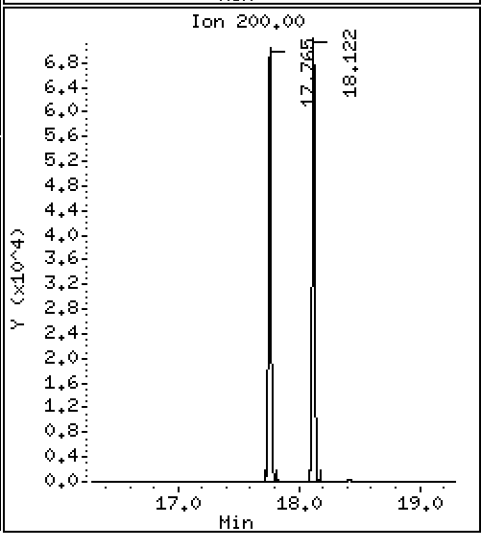


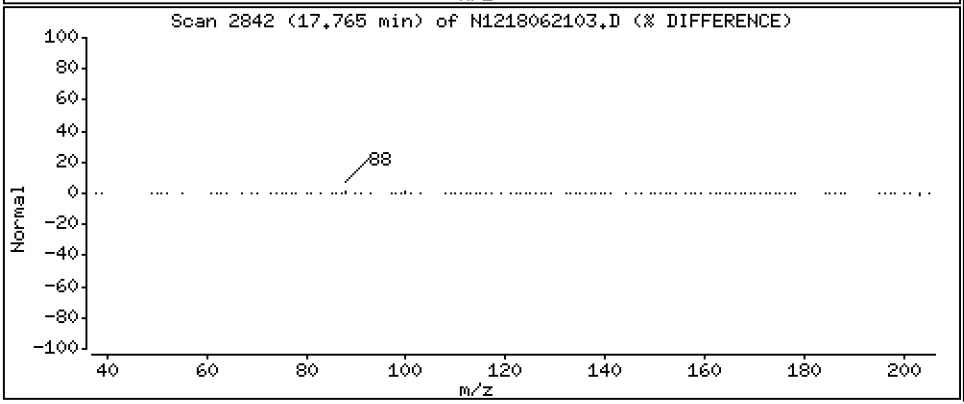












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

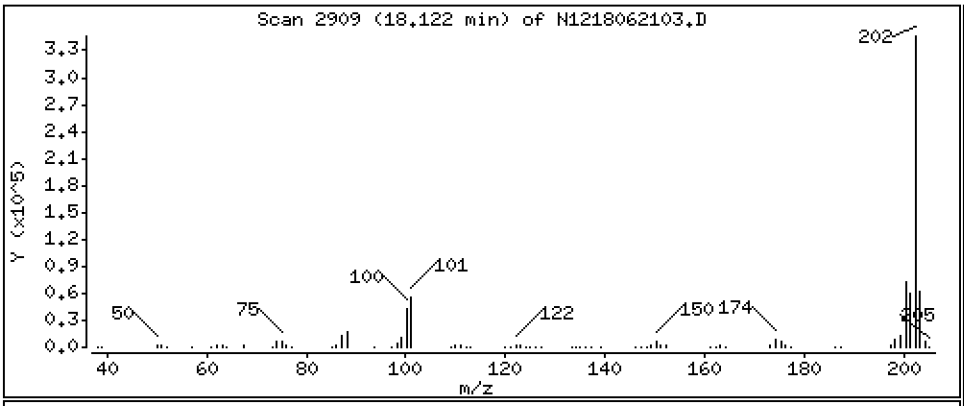
Operator: JZ

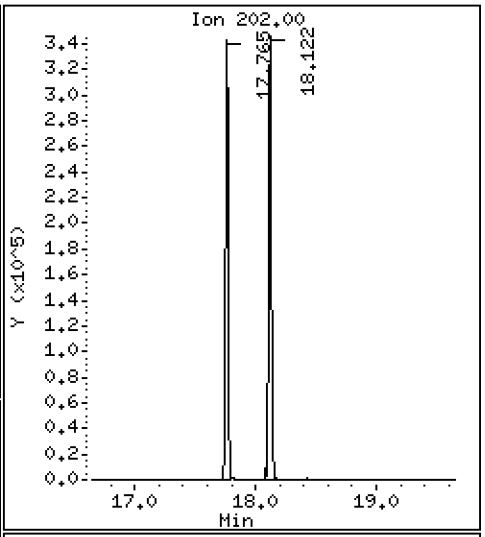
Column phase: ZB-5msi

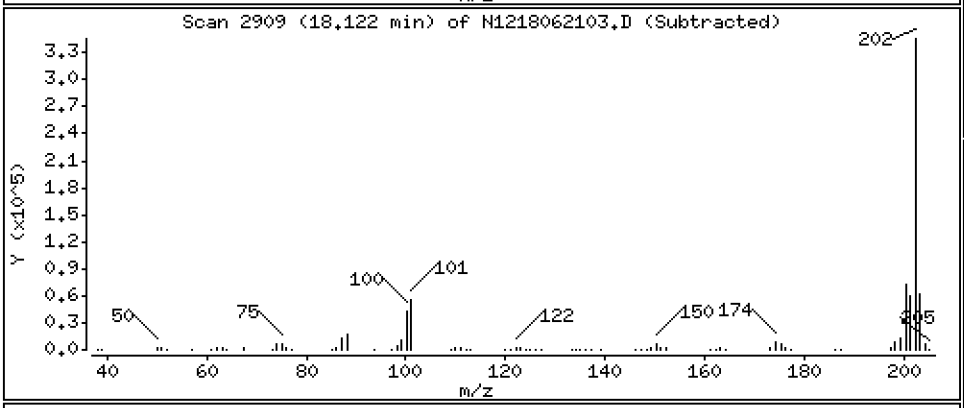
Column diameter: 0.32

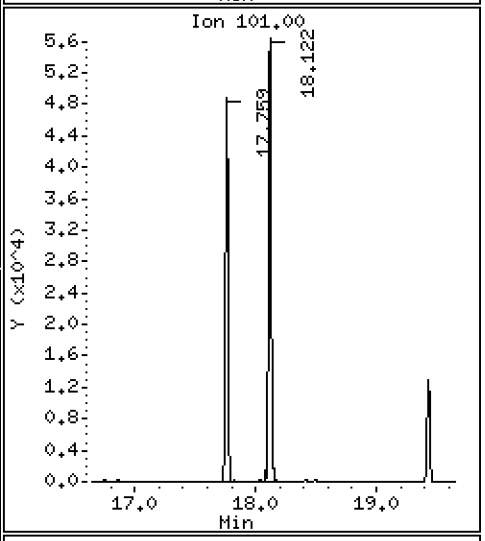
65 Pyrene

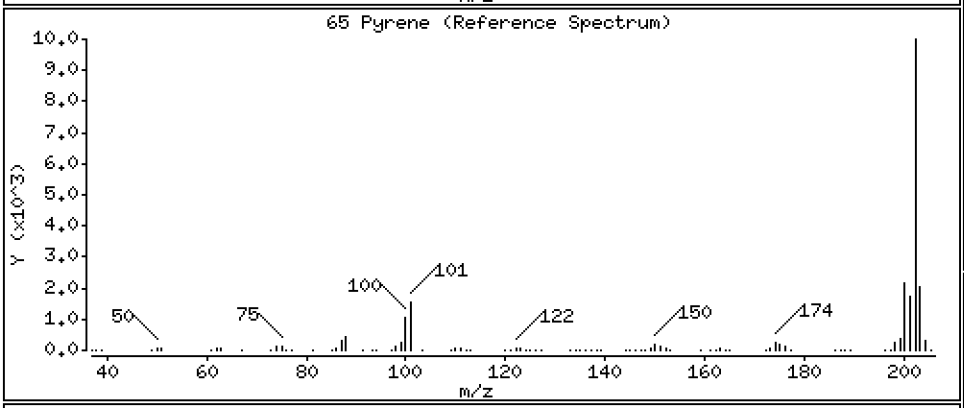
Concentration: 22.43 ug/mL

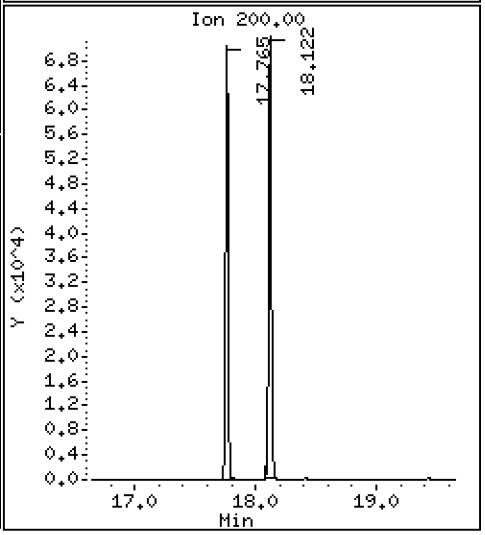


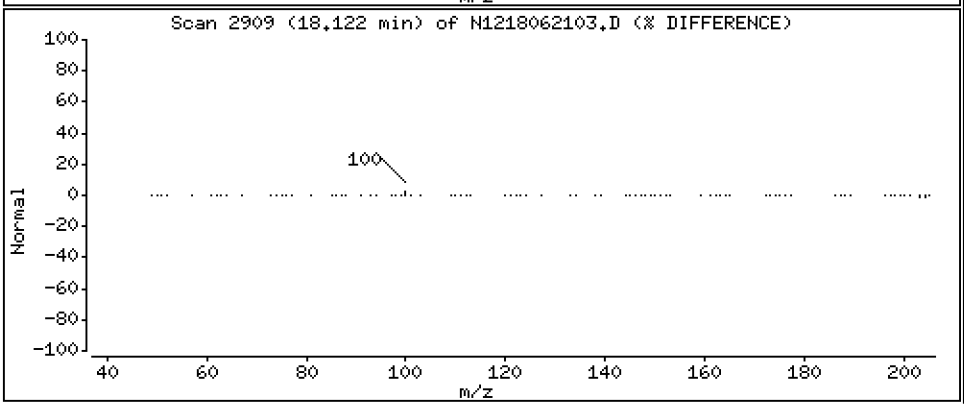












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

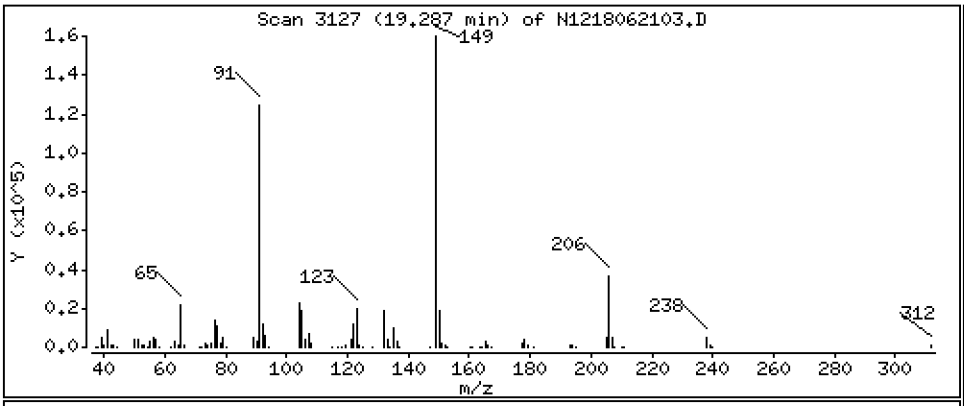
Operator: JZ

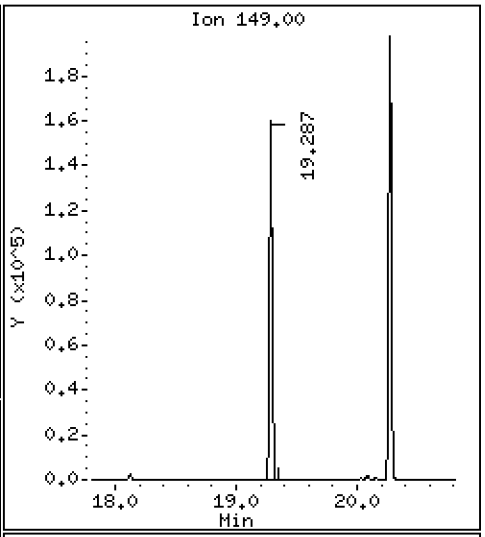
Column phase: ZB-5msi

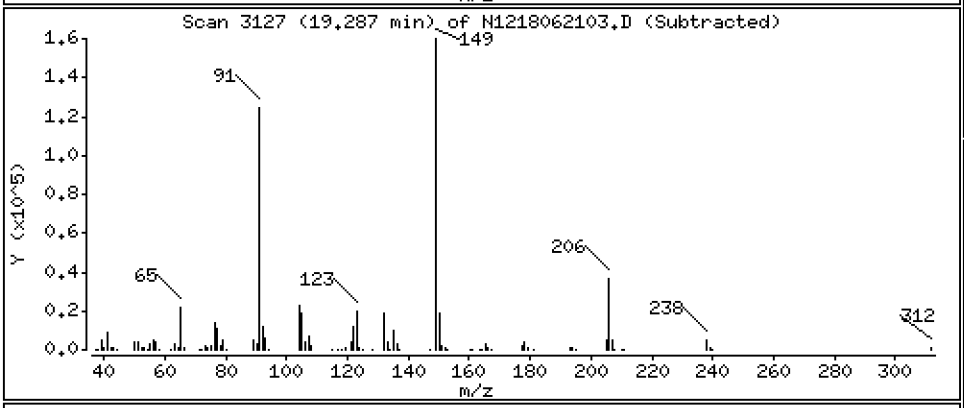
Column diameter: 0.32

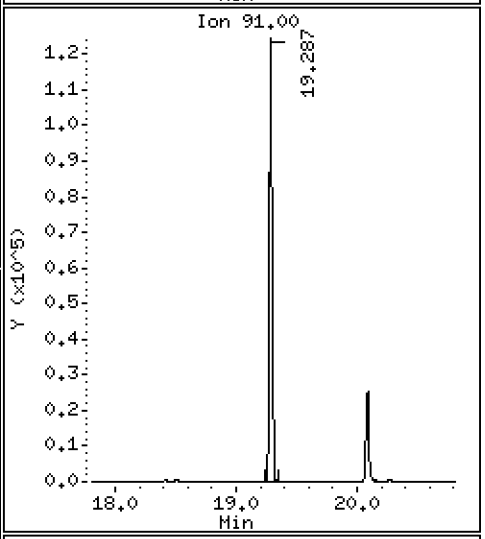
67 Butylbenzylphthalate

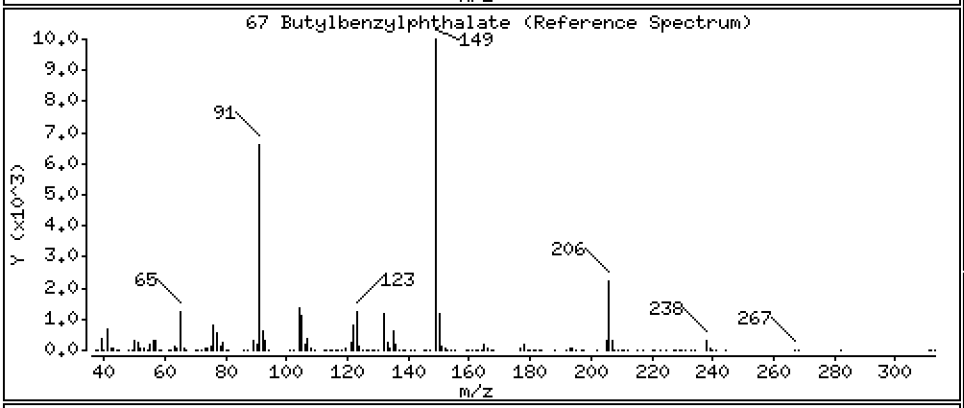
Concentration: 22.25 ug/mL

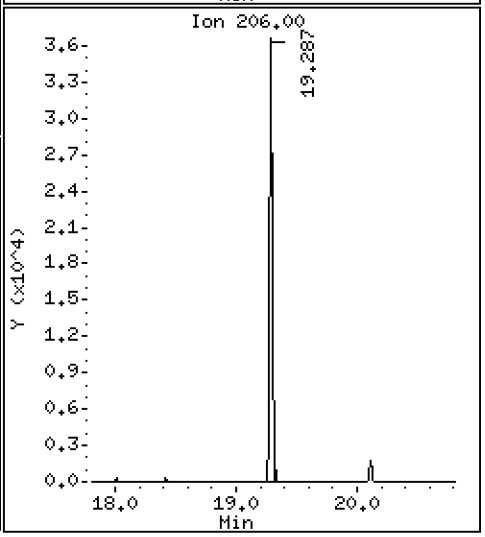


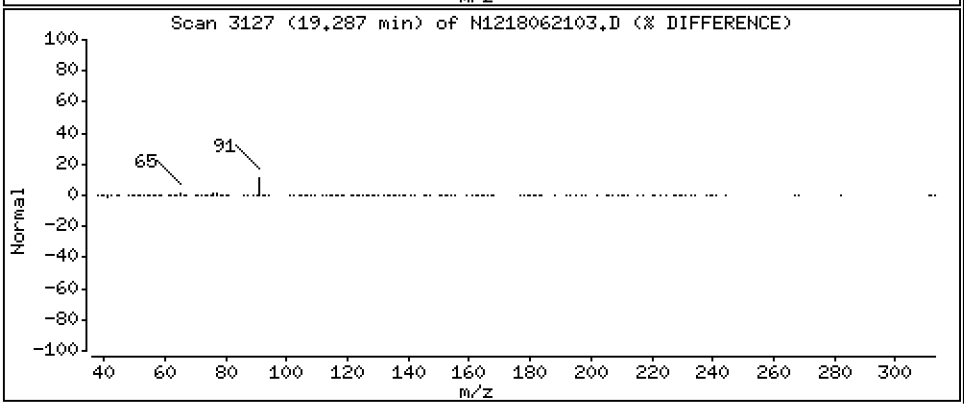












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

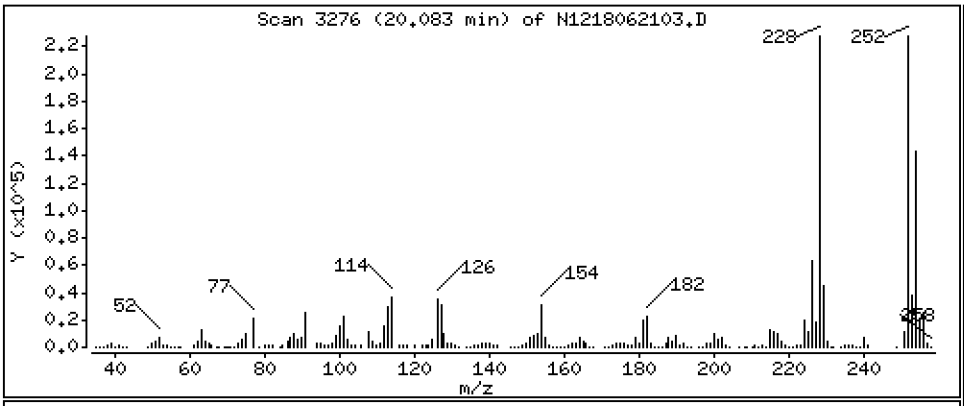
Operator: JZ

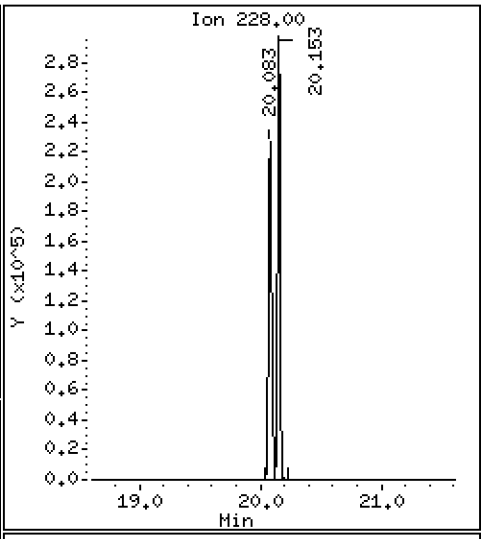
Column phase: ZB-5msi

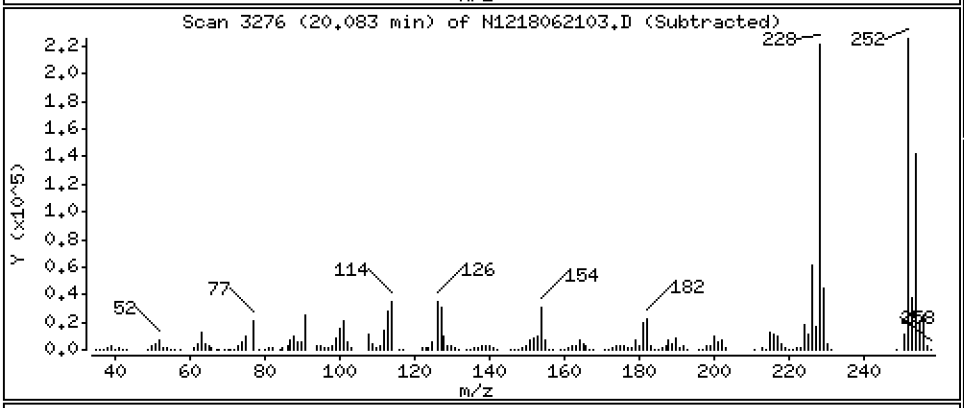
Column diameter: 0.32

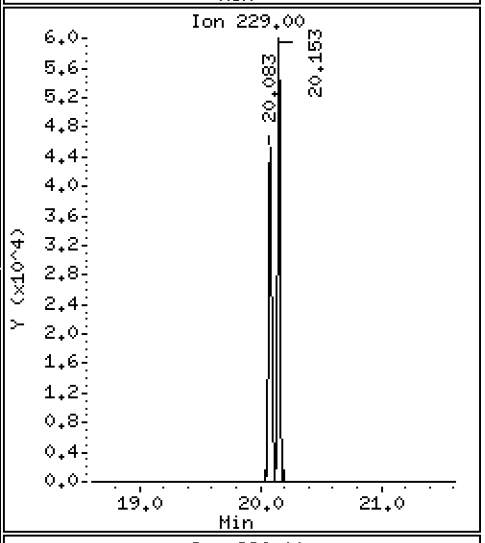
68 Benzo(a)anthracene

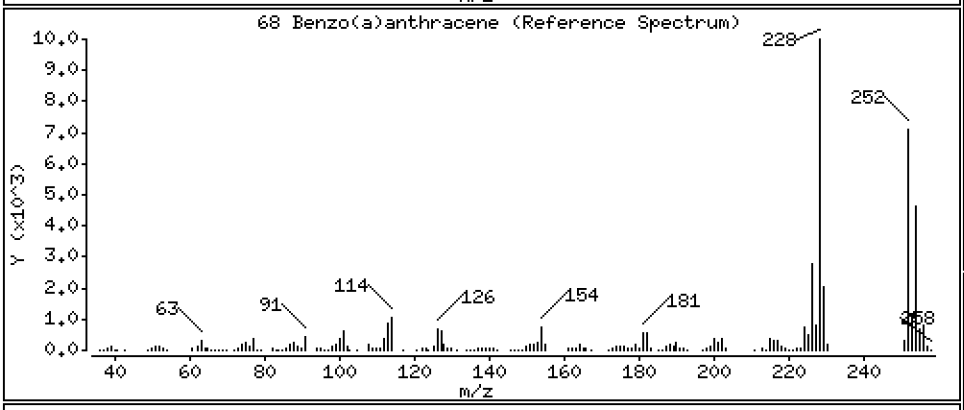
Concentration: 24.17 ug/mL

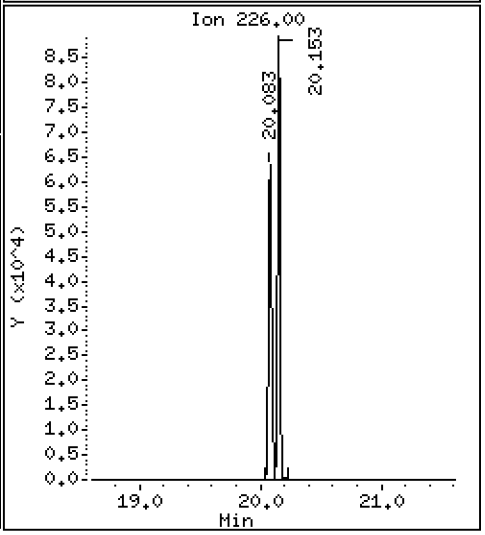


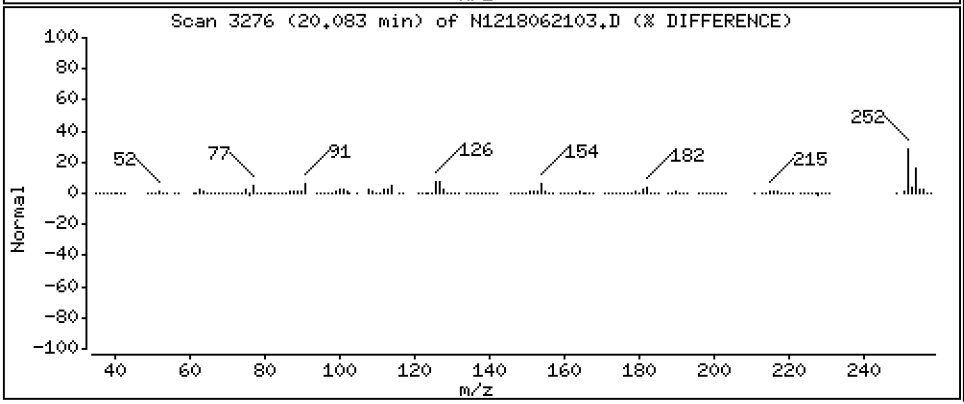












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

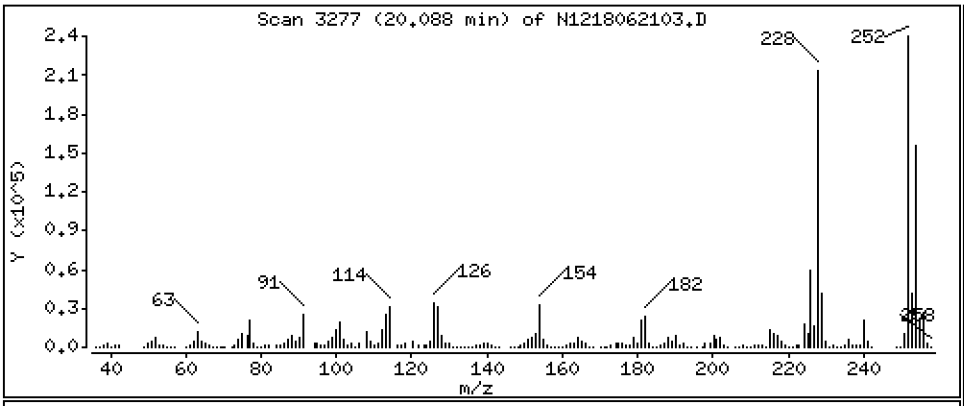
Operator: JZ

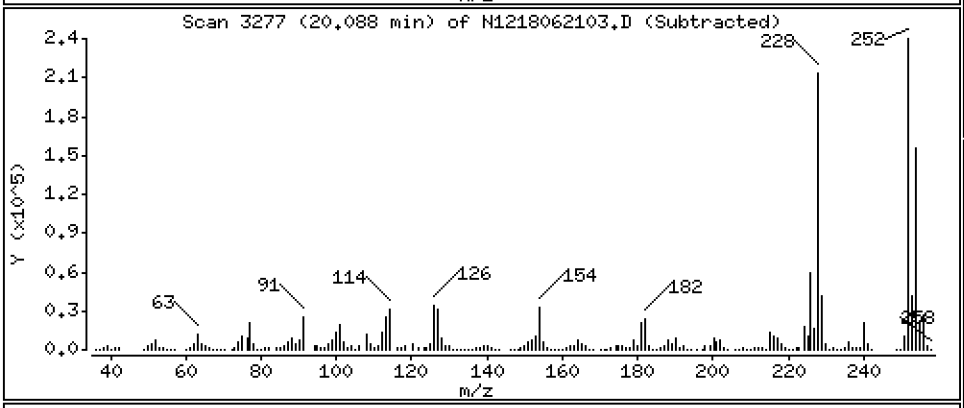
Column phase: ZB-5msi

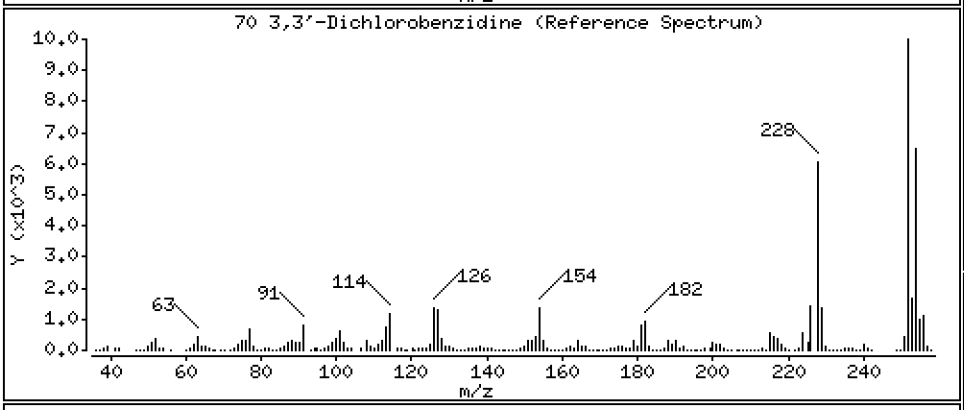
Column diameter: 0.32

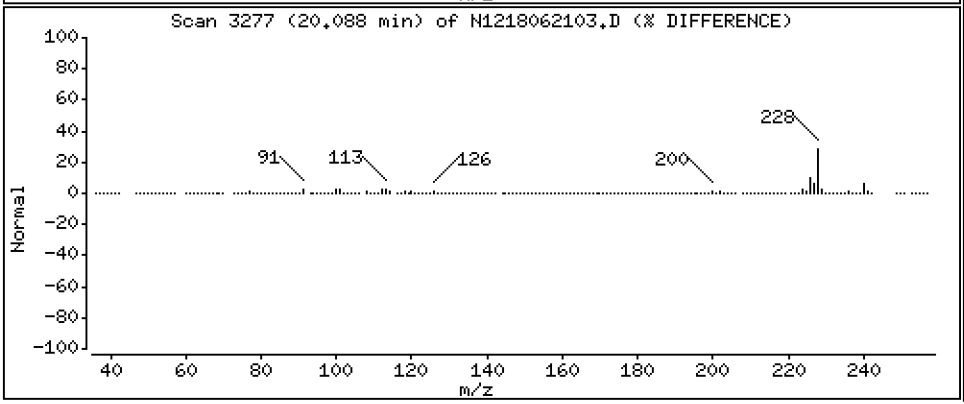
70 3,3'-Dichlorobenzidine

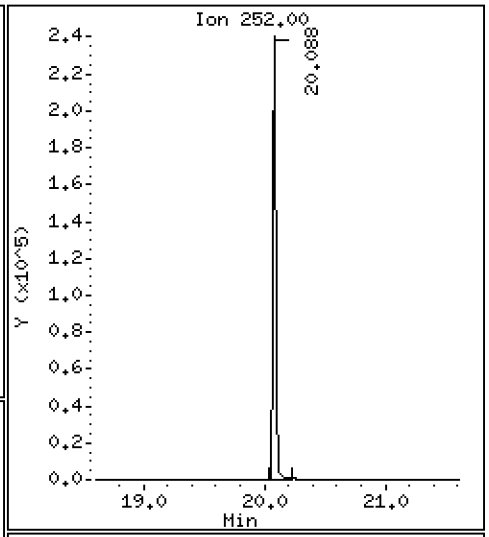
Concentration: 61.61 ug/mL

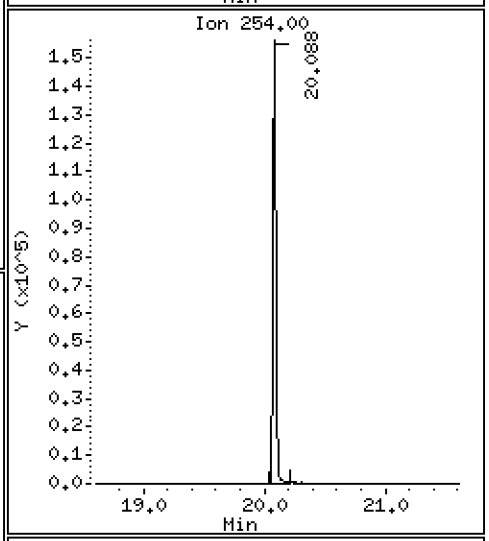


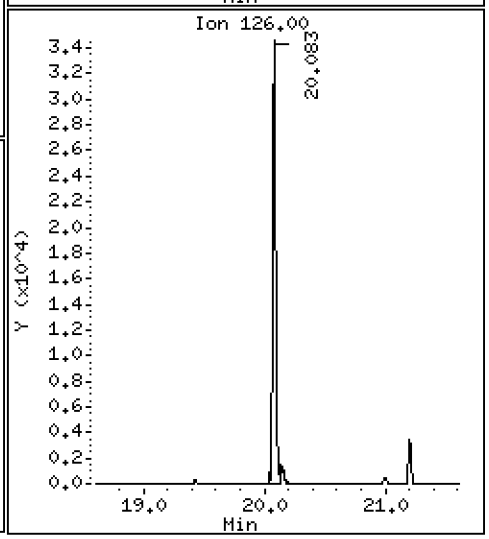












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

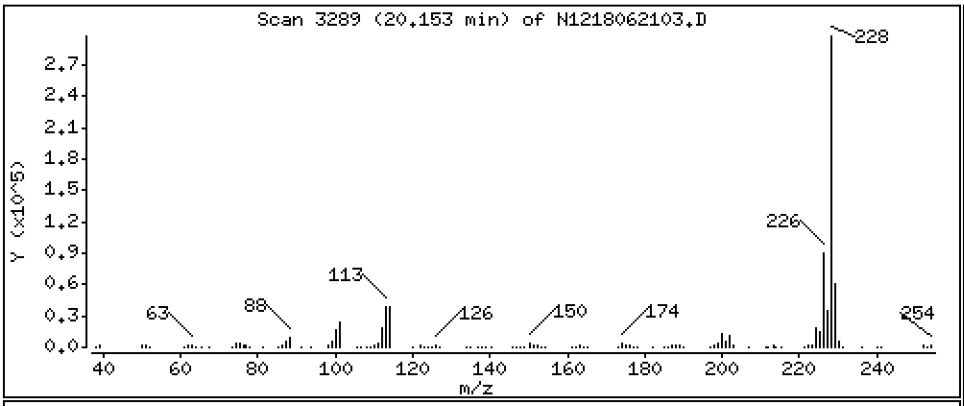
Operator: JZ

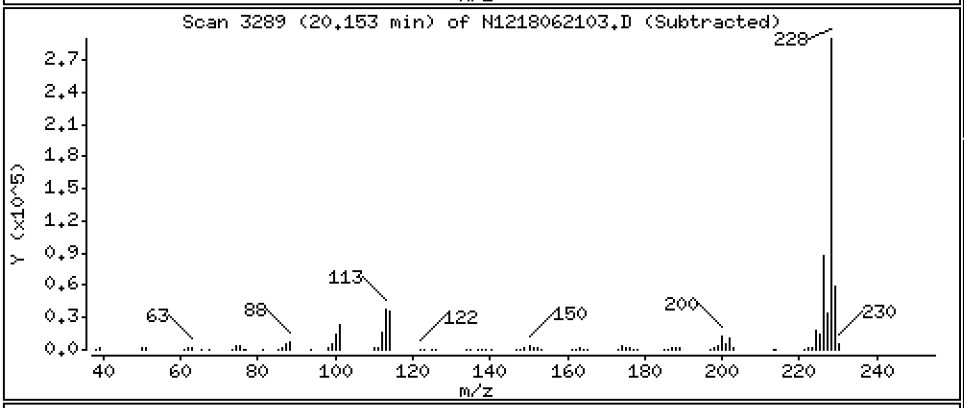
Column phase: ZB-5msi

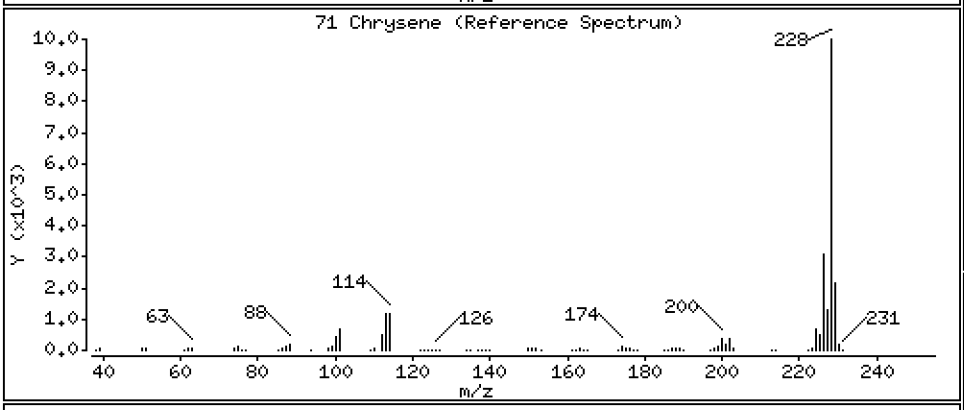
Column diameter: 0.32

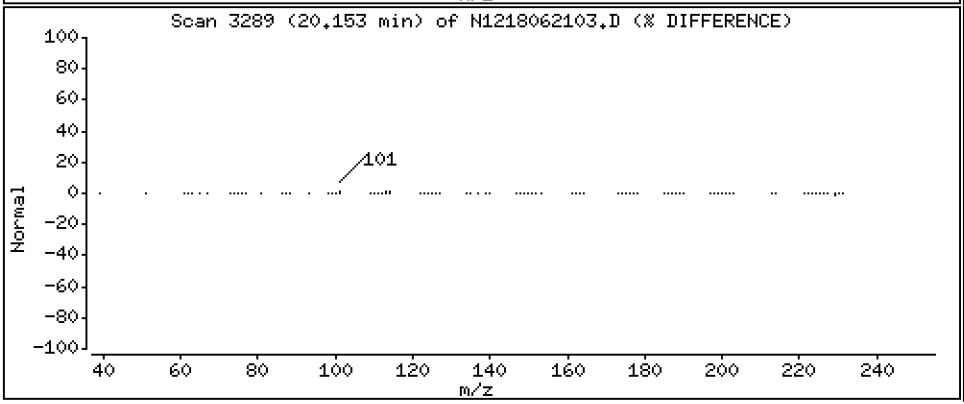
71 Chrysene

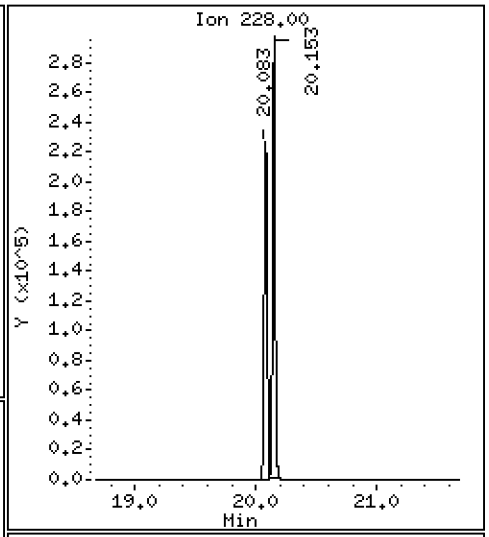
Concentration: 22.71 ug/mL

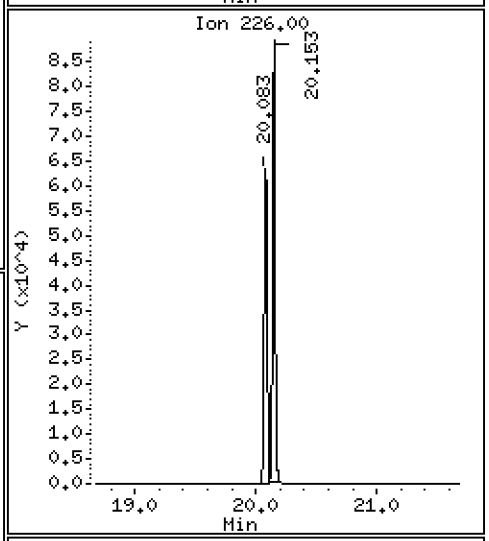


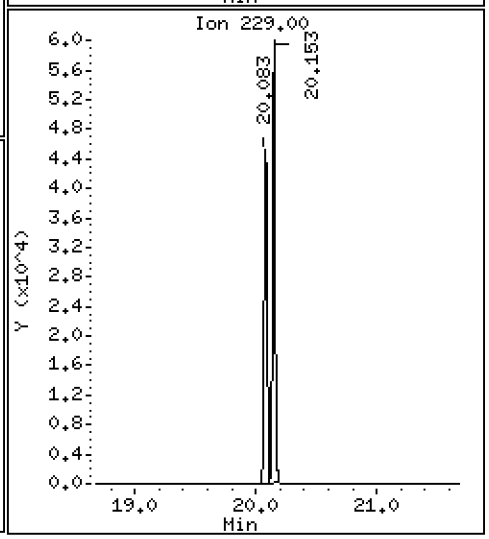












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

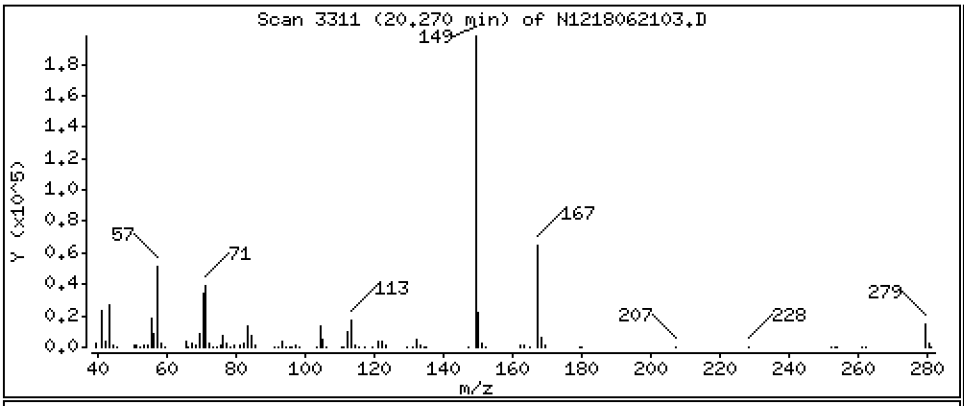
Operator: JZ

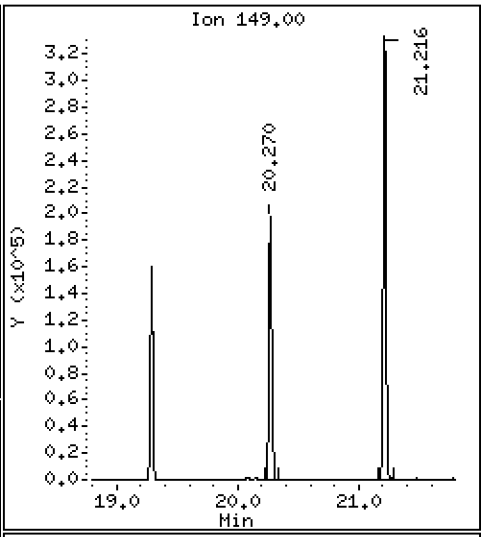
Column phase: ZB-5msi

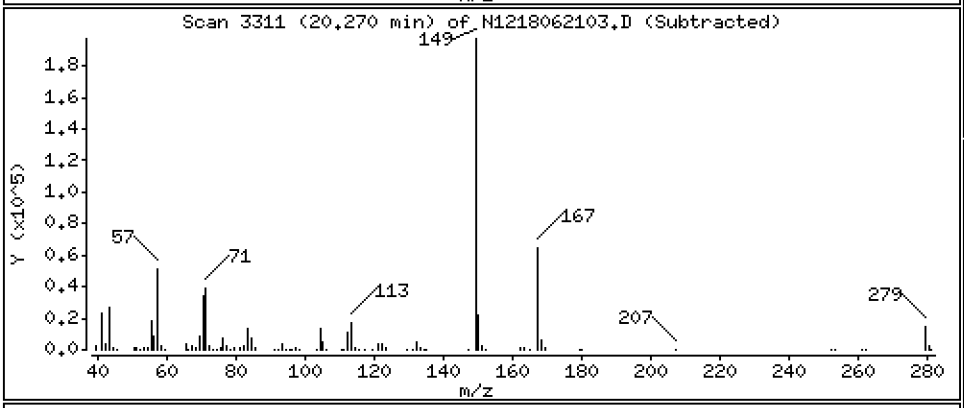
Column diameter: 0.32

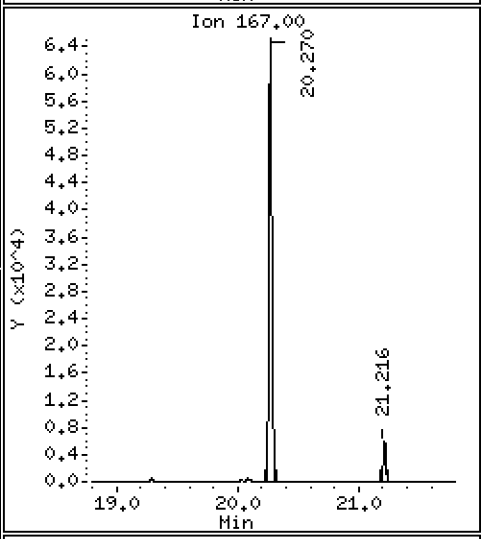
72 bis(2-Ethylhexyl)phthalate

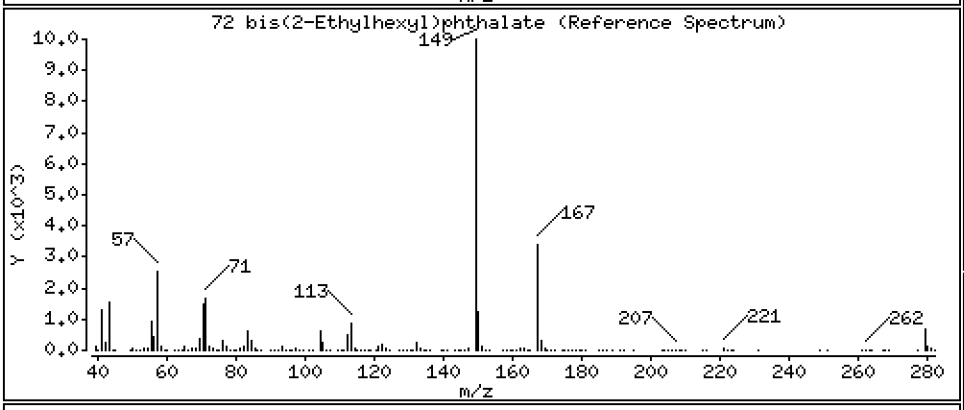
Concentration: 20.90 ug/mL

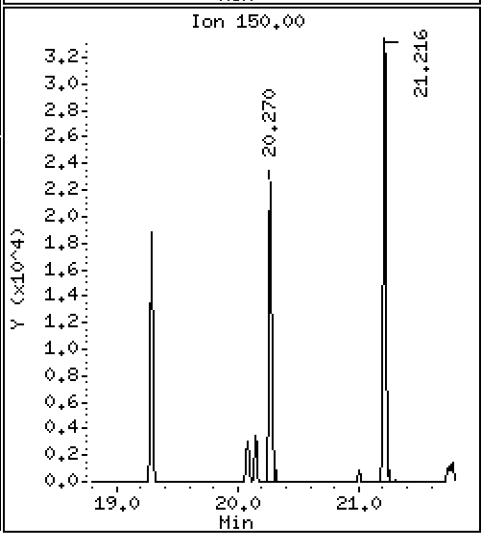


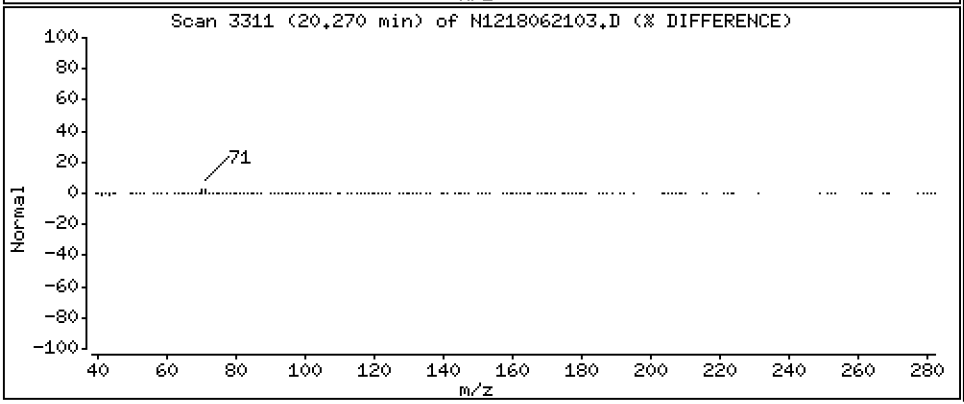












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

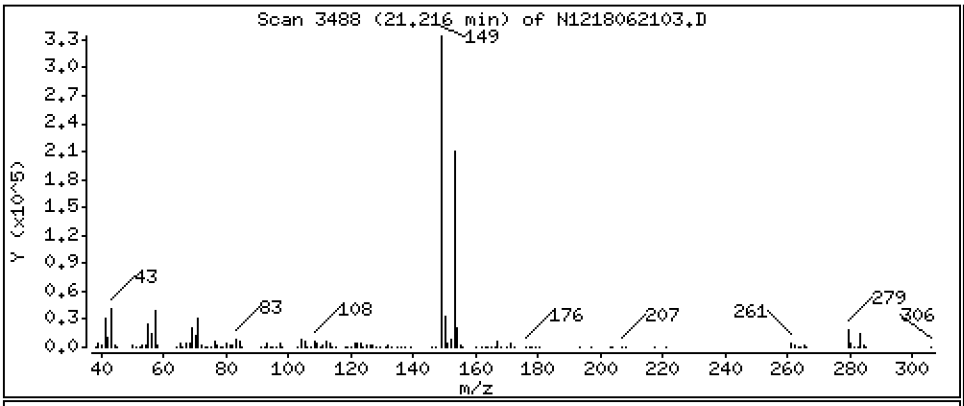
Operator: JZ

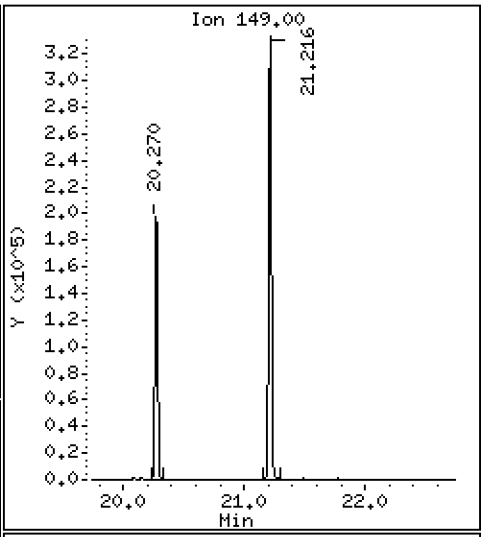
Column phase: ZB-5msi

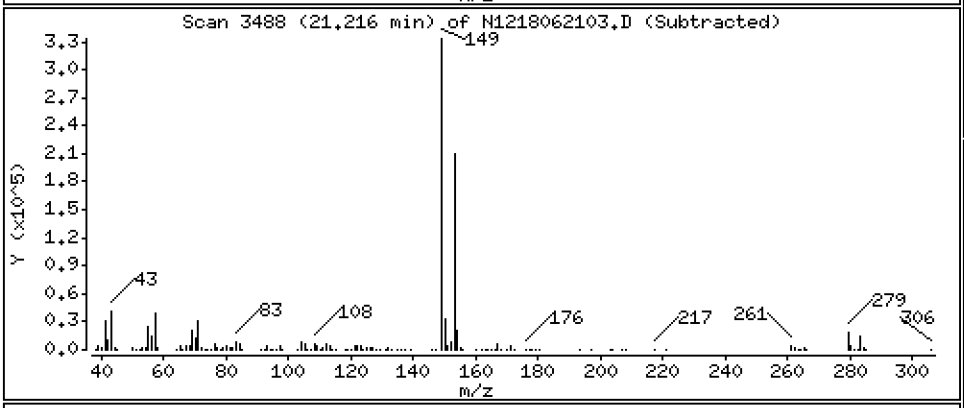
Column diameter: 0.32

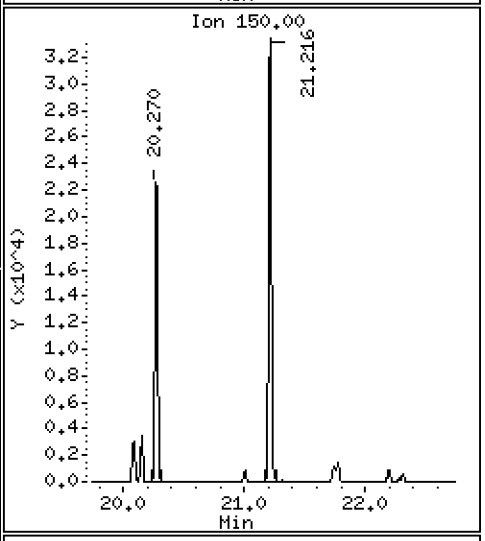
73 Di-n-octylphthalate

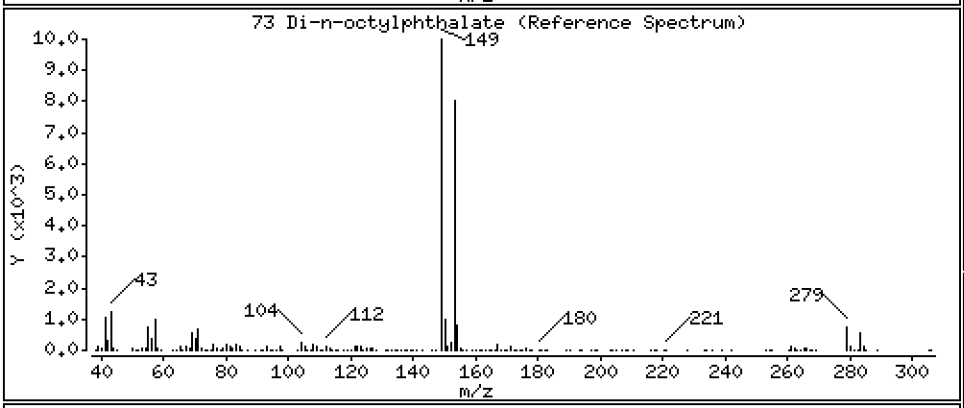
Concentration: 19.63 ug/mL

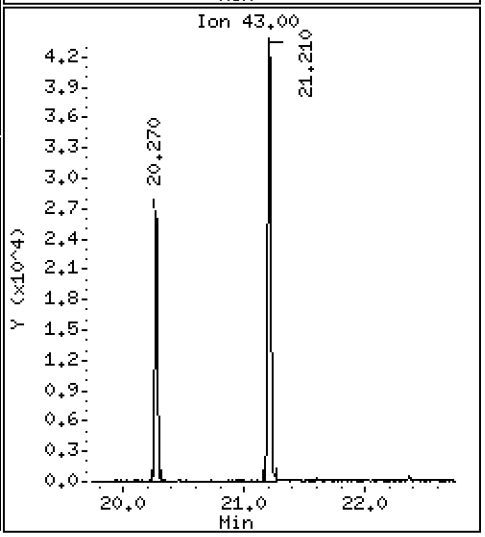


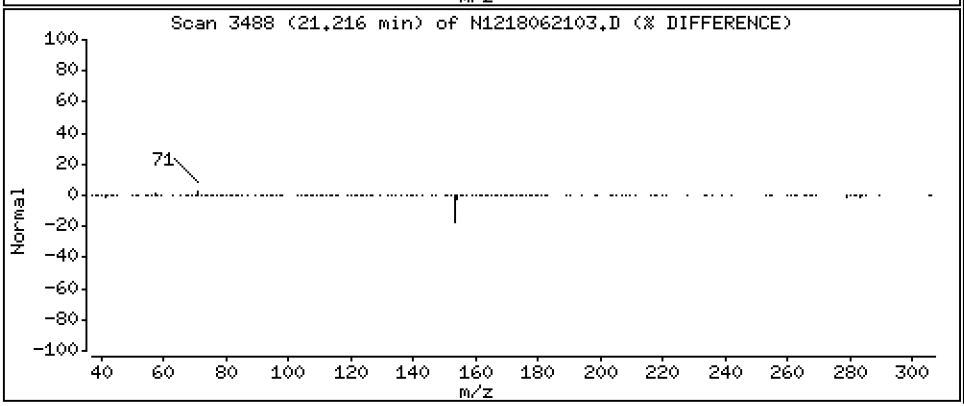












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

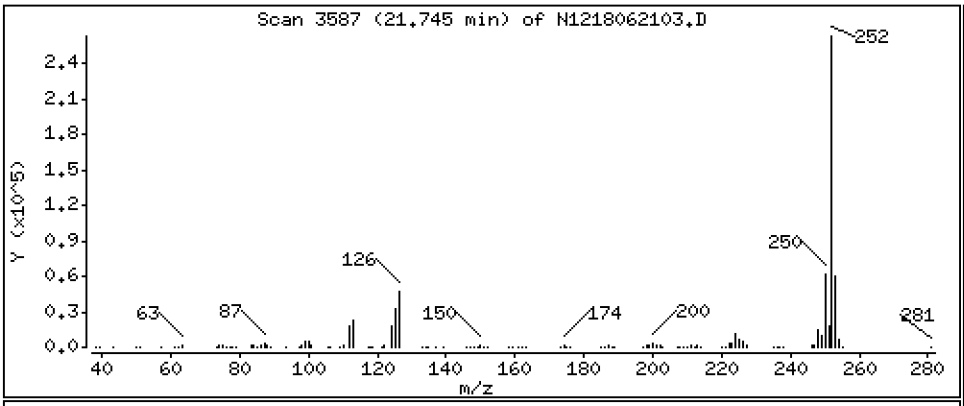
Operator: JZ

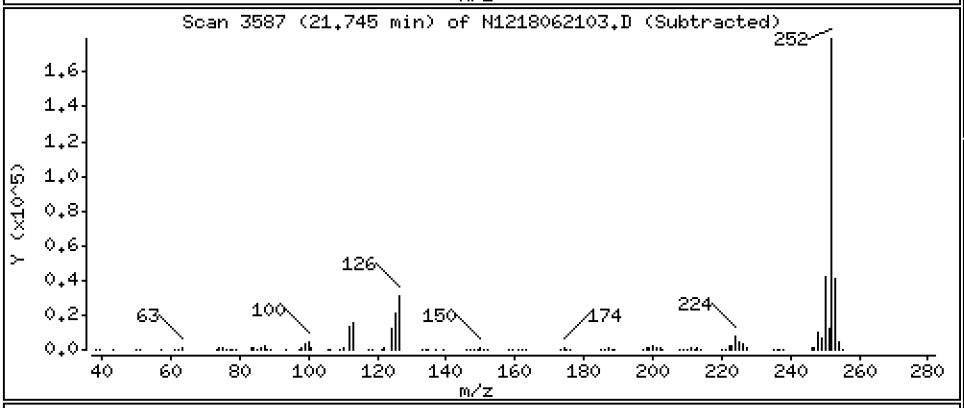
Column phase: ZB-5msi

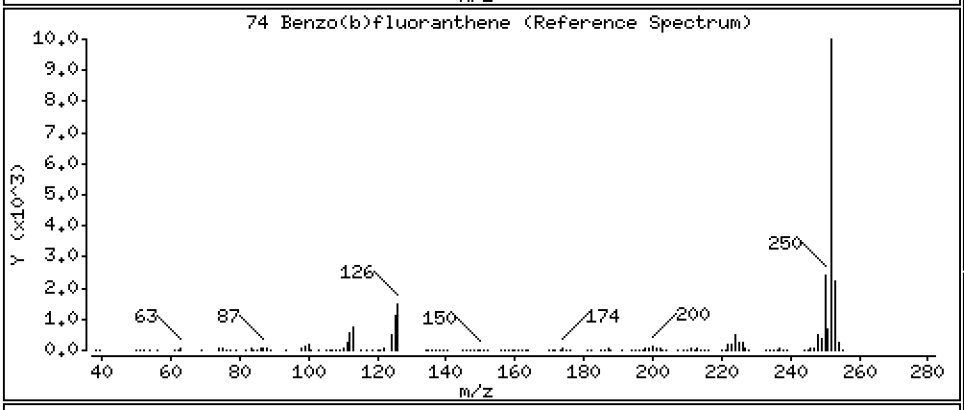
Column diameter: 0.32

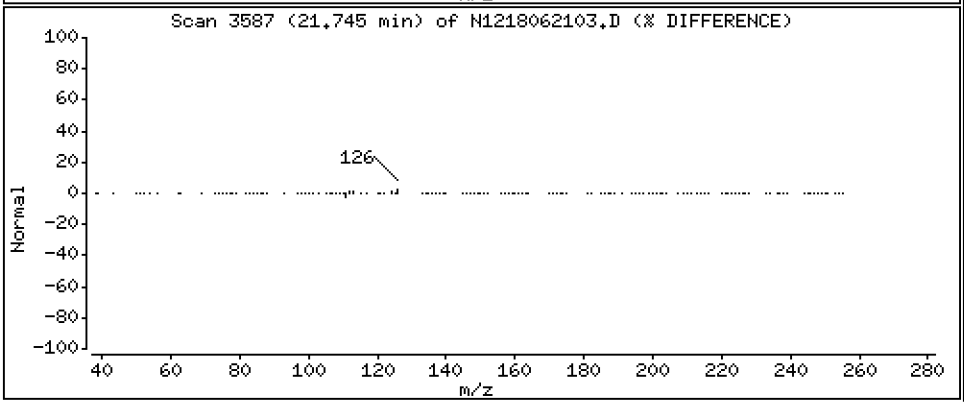
74 Benzo(b)fluoranthene

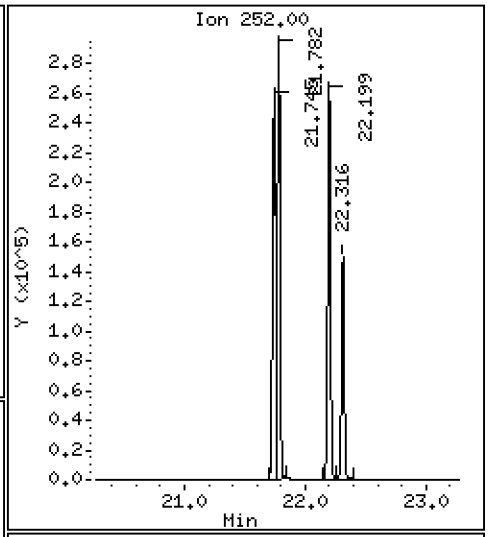
Concentration: 19.33 ug/mL

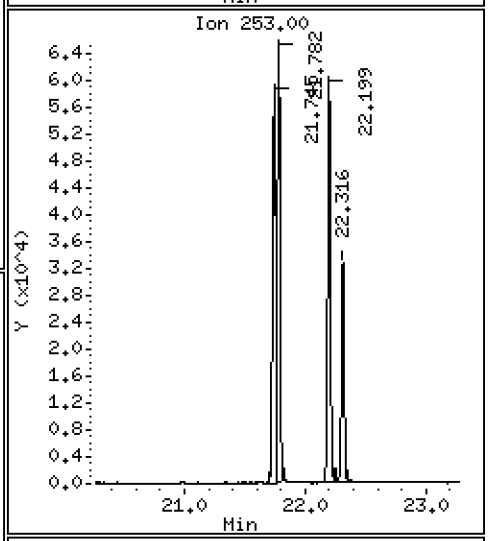


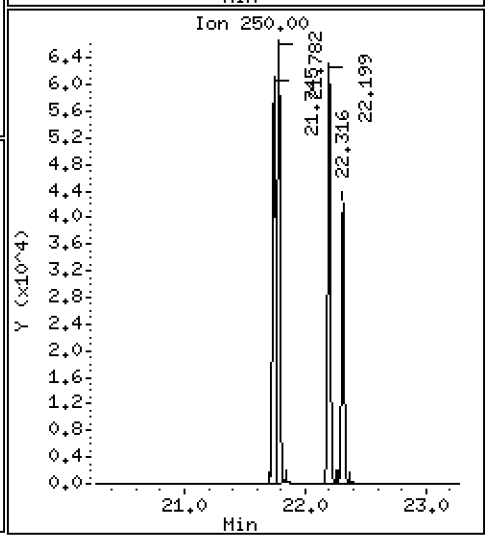












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

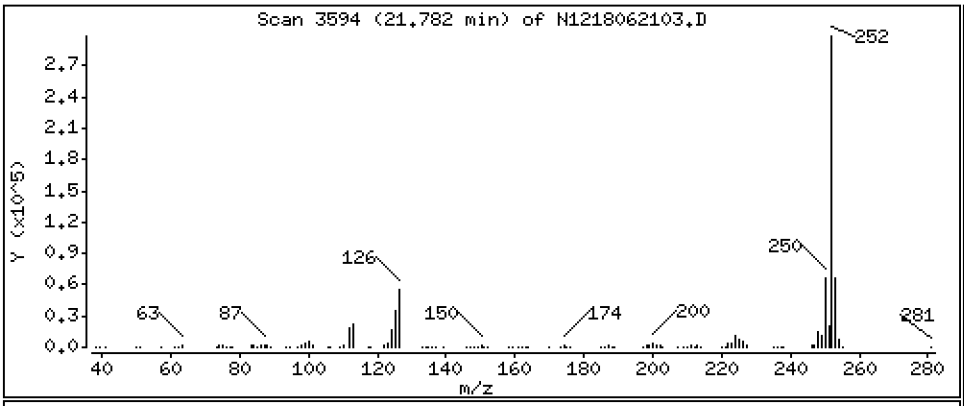
Operator: JZ

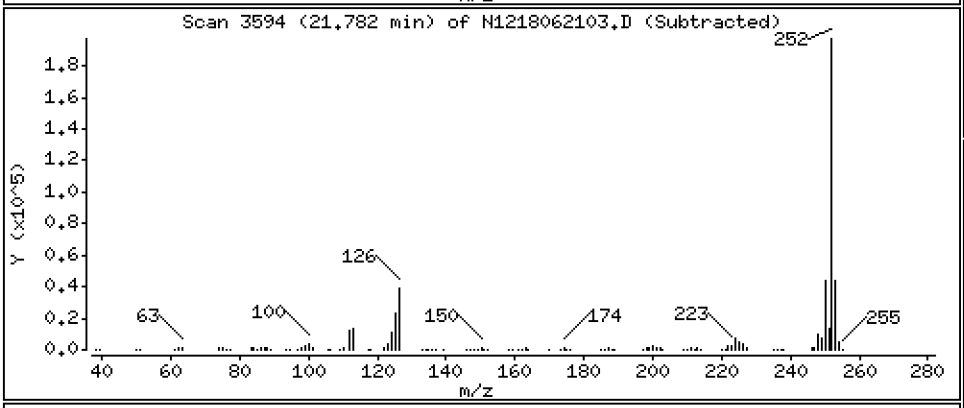
Column phase: ZB-5msi

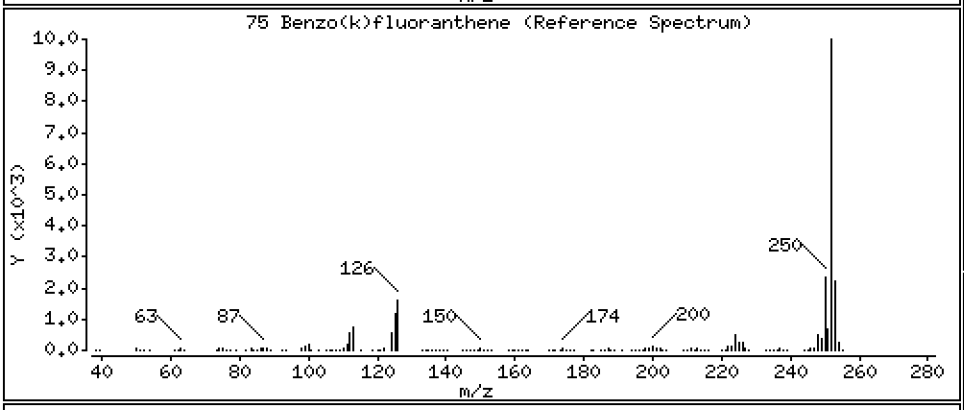
Column diameter: 0.32

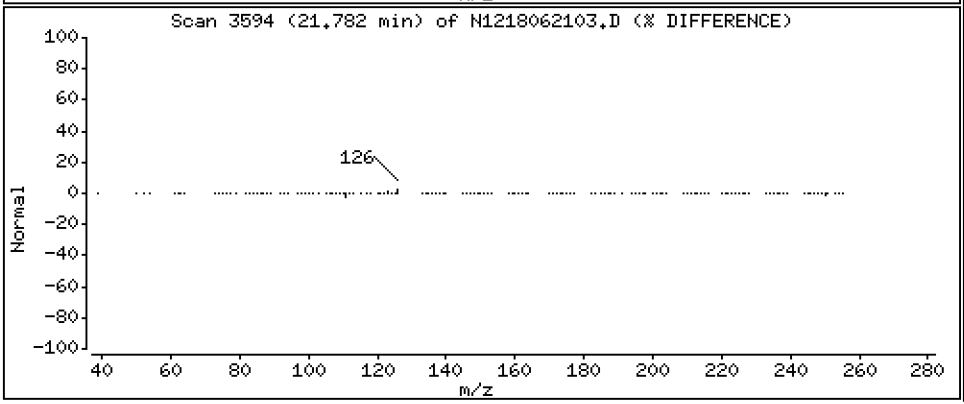
75 Benzo(k)fluoranthene

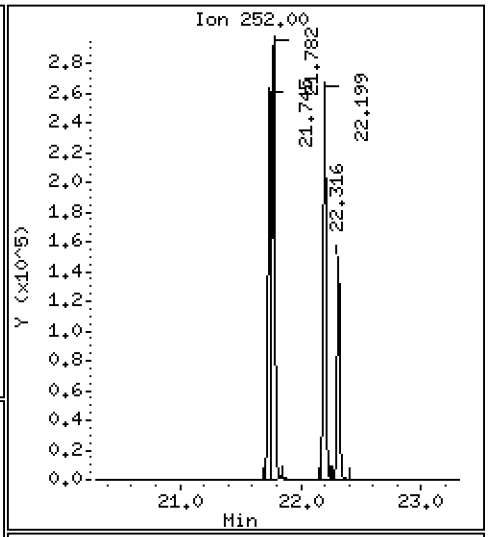
Concentration: 20.02 ug/mL

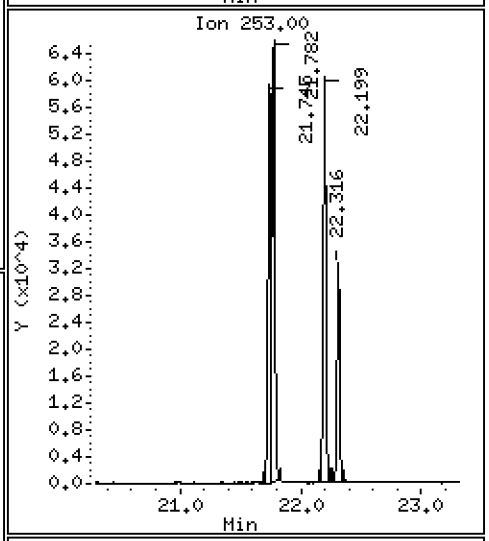


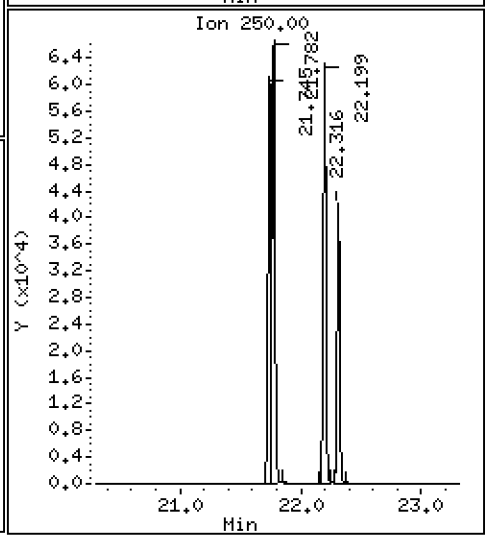












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

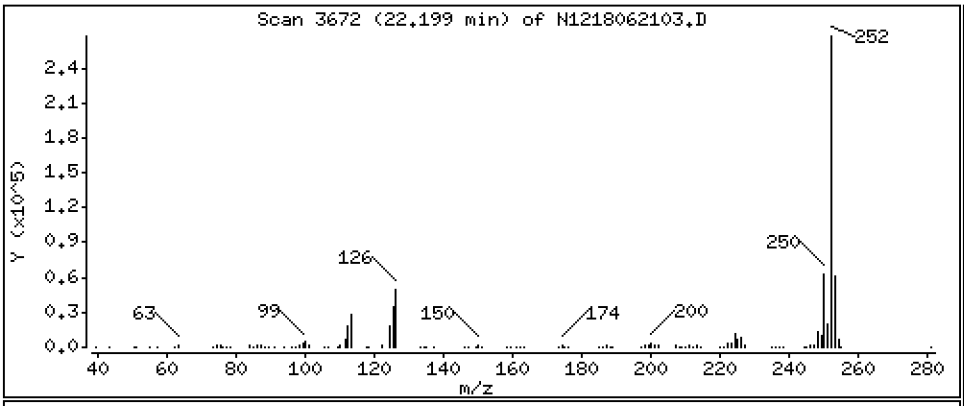
Operator: JZ

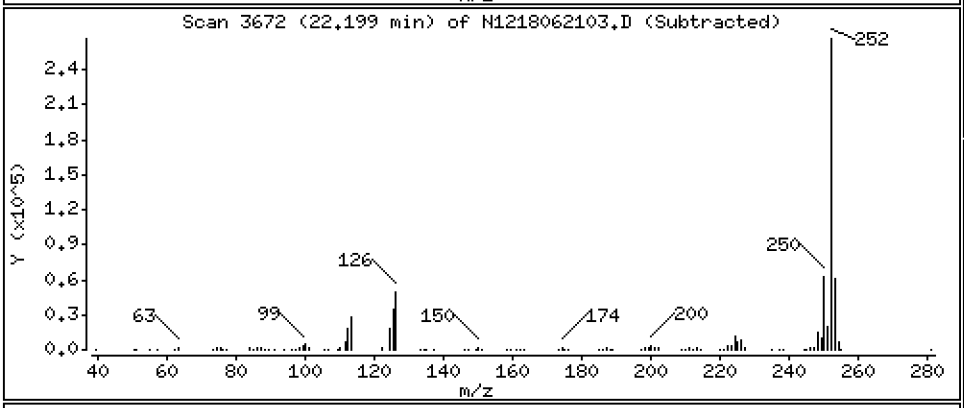
Column phase: ZB-5msi

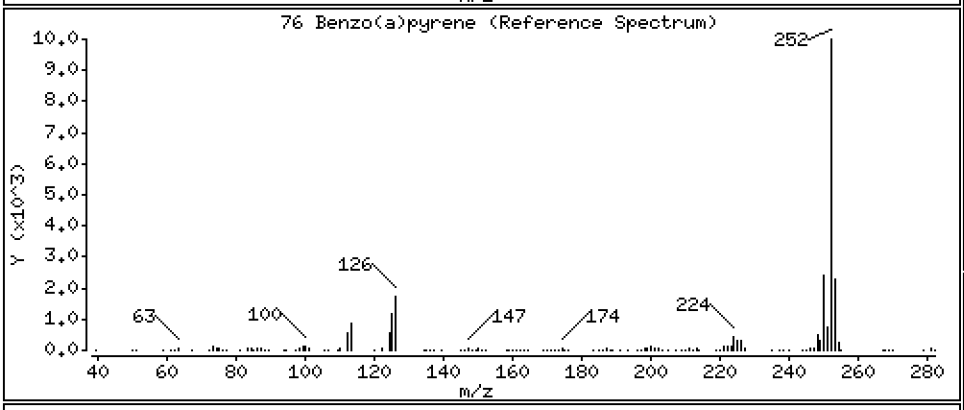
Column diameter: 0.32

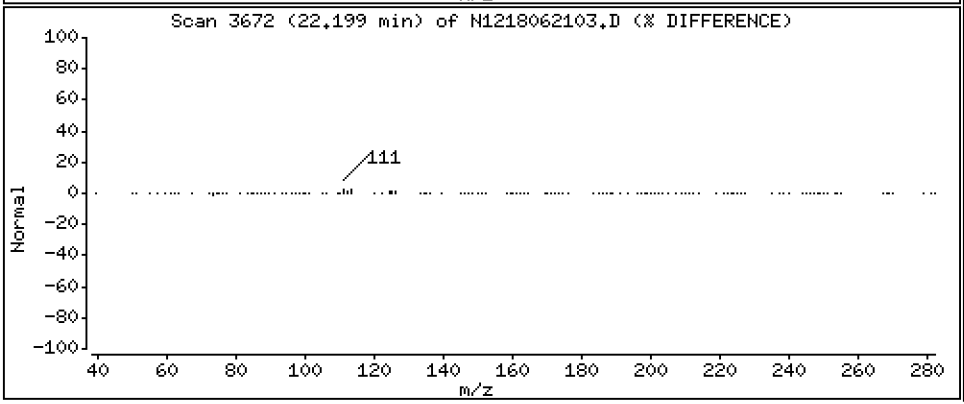
76 Benzo(a)pyrene

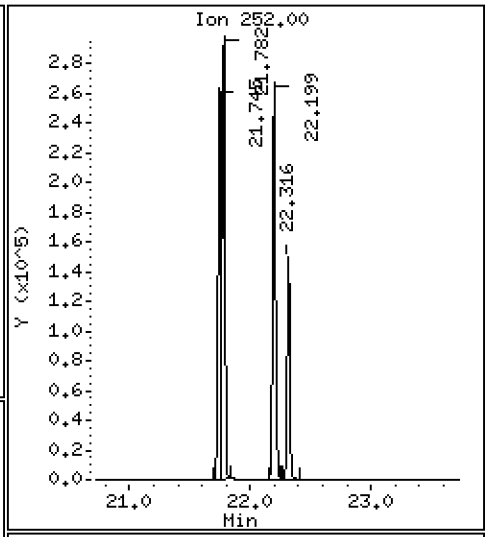
Concentration: 20.60 ug/mL

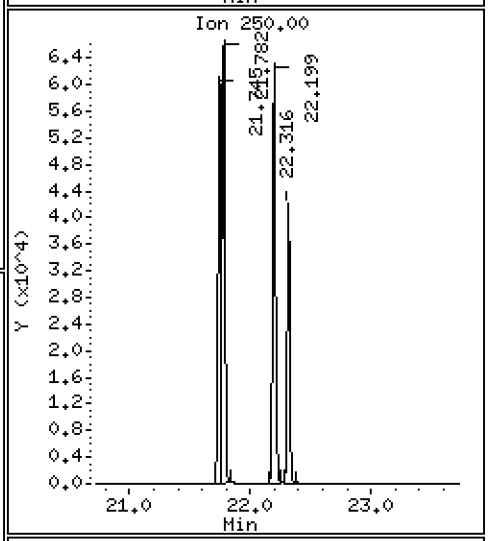


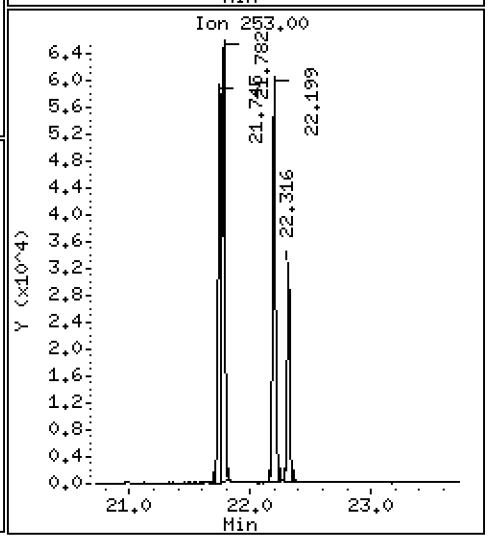












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

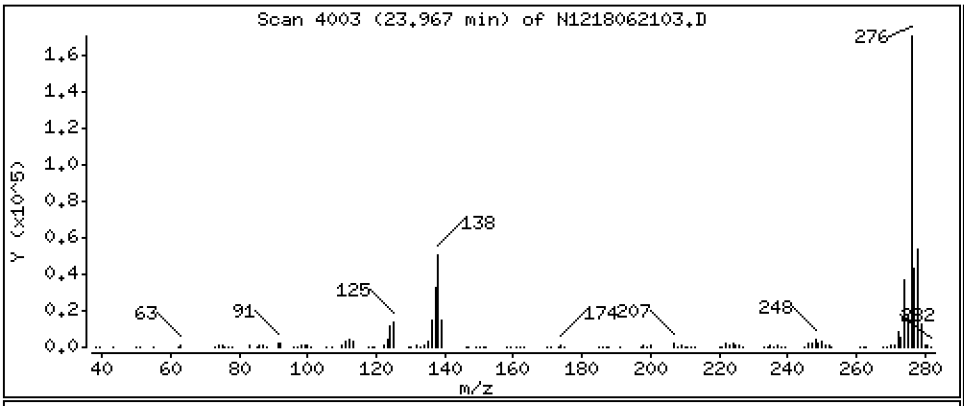
Operator: JZ

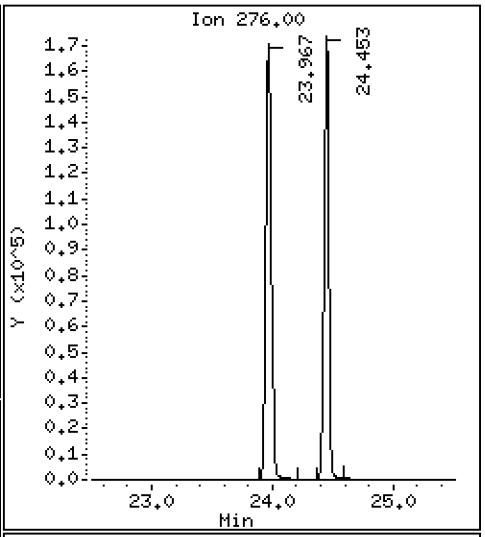
Column phase: ZB-5msi

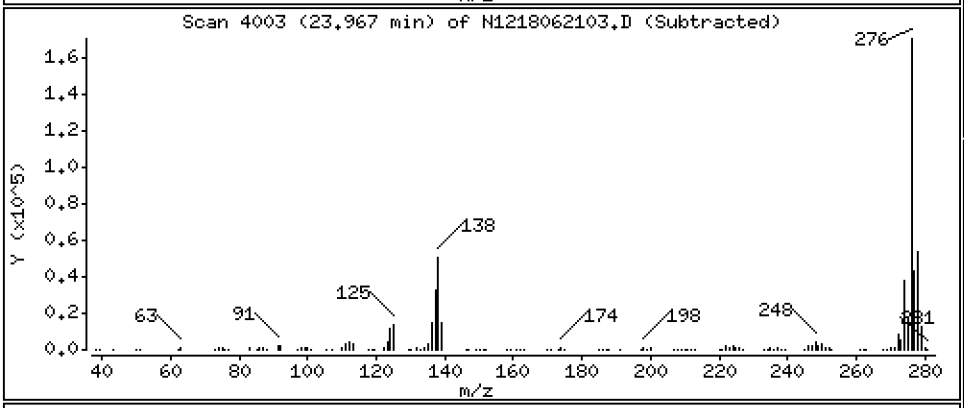
Column diameter: 0.32

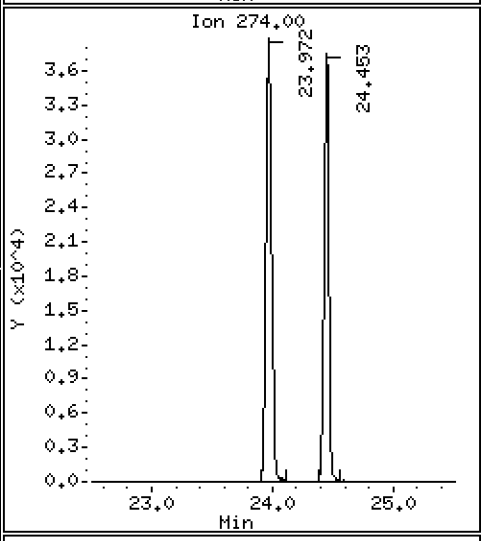
78 Indeno(1,2,3-cd)pyrene

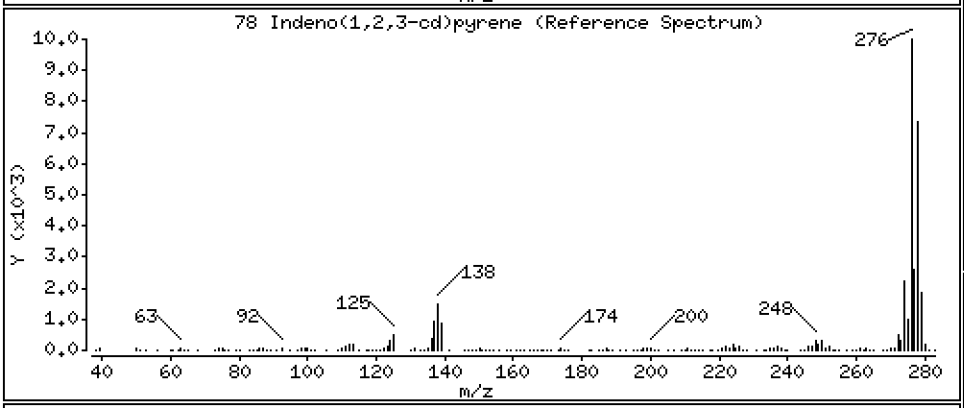
Concentration: 22.26 ug/mL

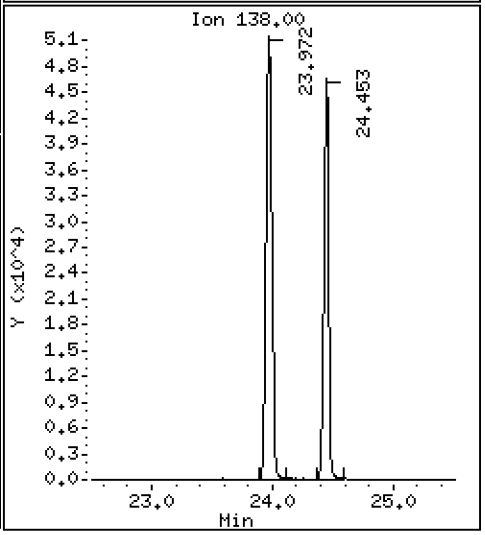


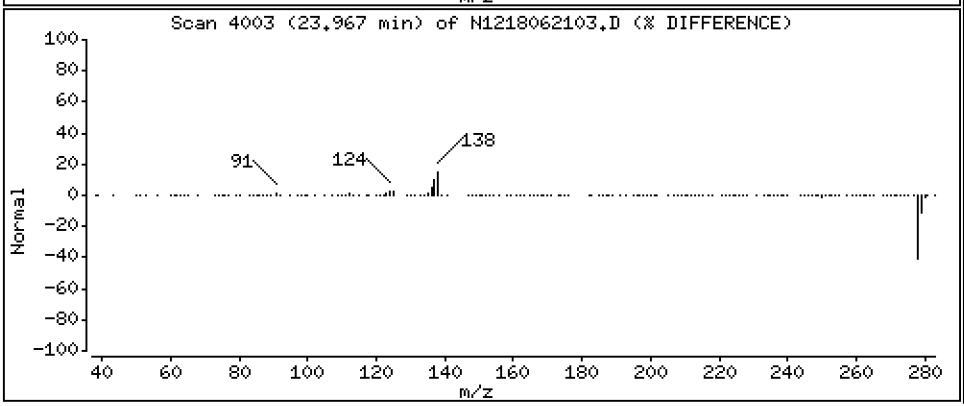












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

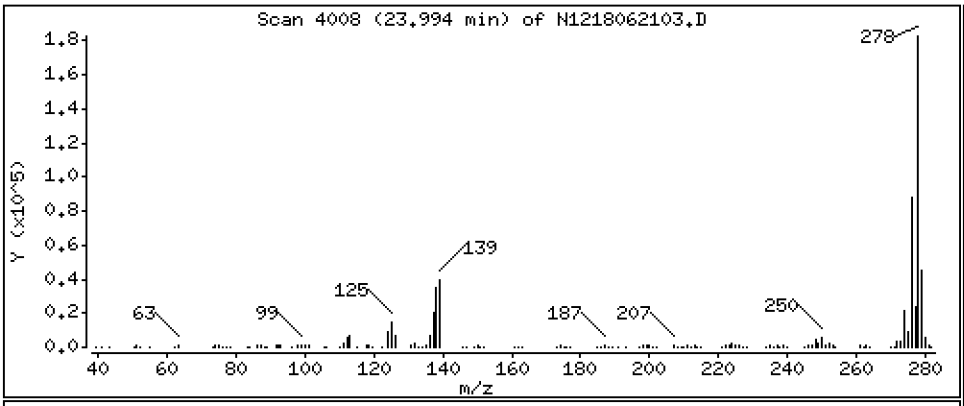
Operator: JZ

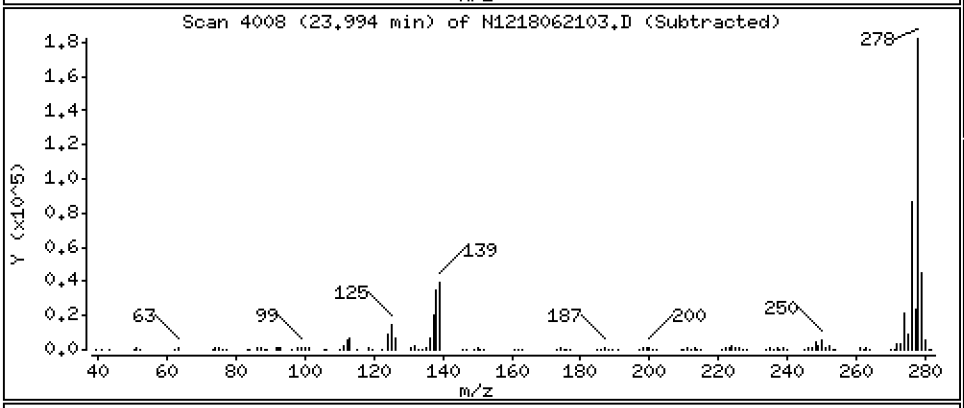
Column phase: ZB-5msi

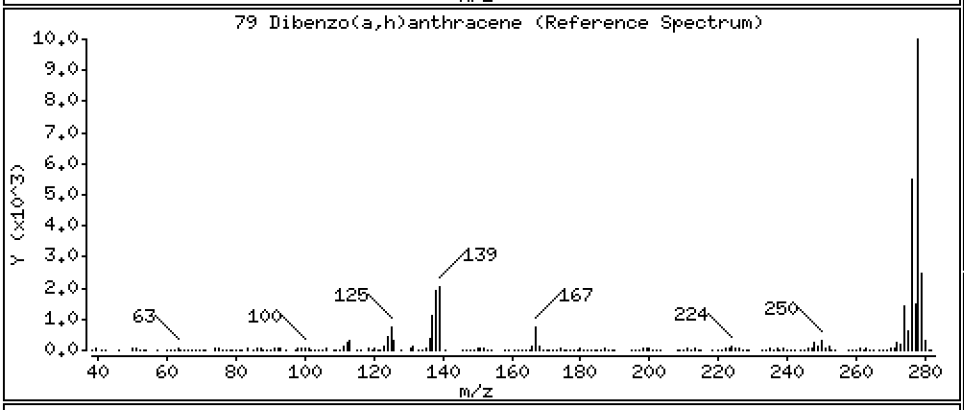
Column diameter: 0.32

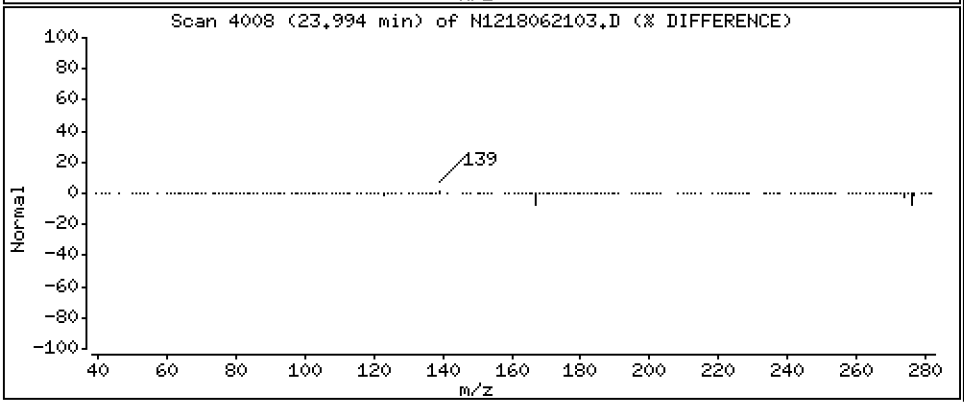
79 Dibenzo(a,h)anthracene

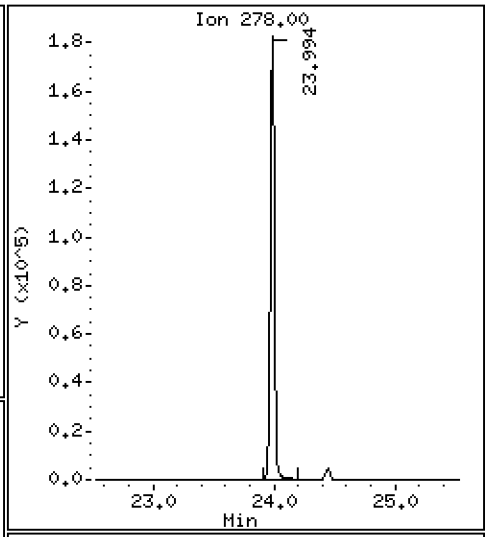
Concentration: 22.06 ug/mL

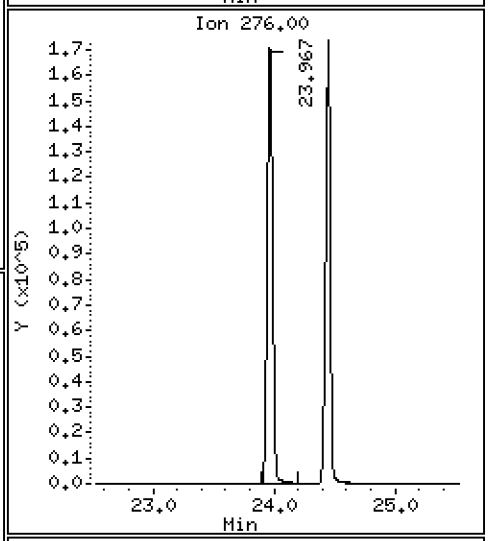


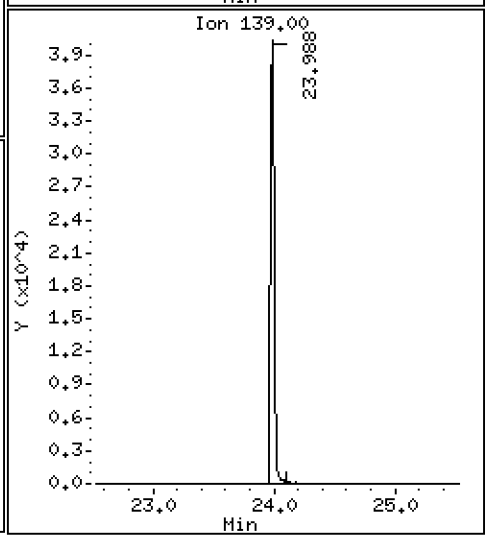












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

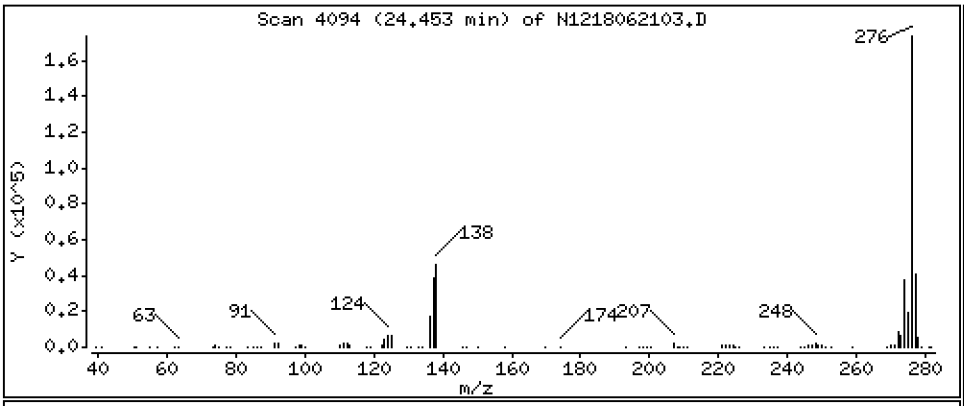
Operator: JZ

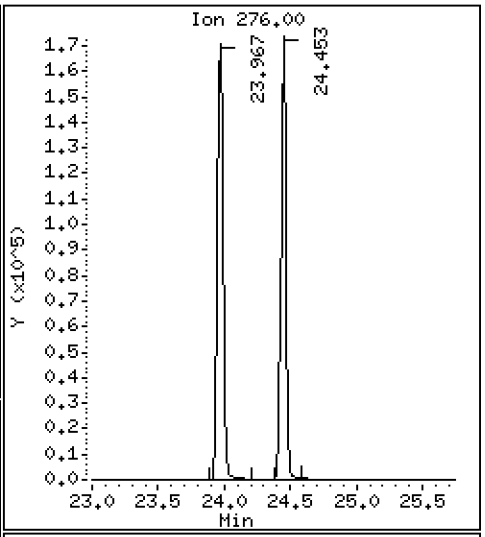
Column phase: ZB-5msi

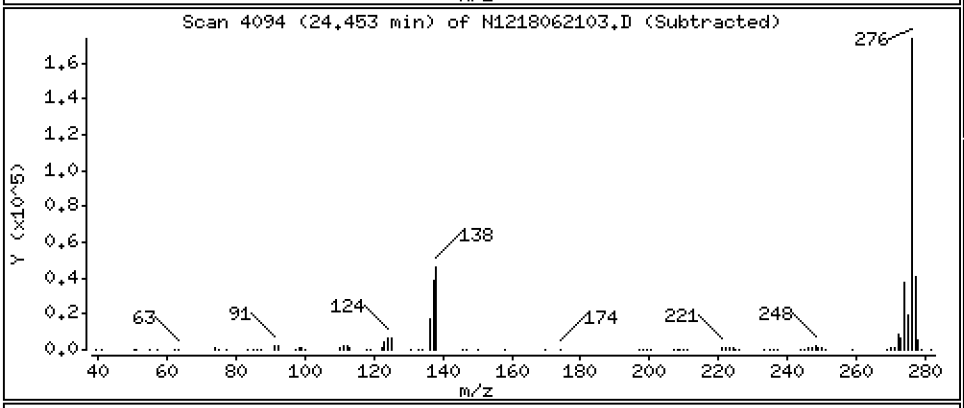
Column diameter: 0.32

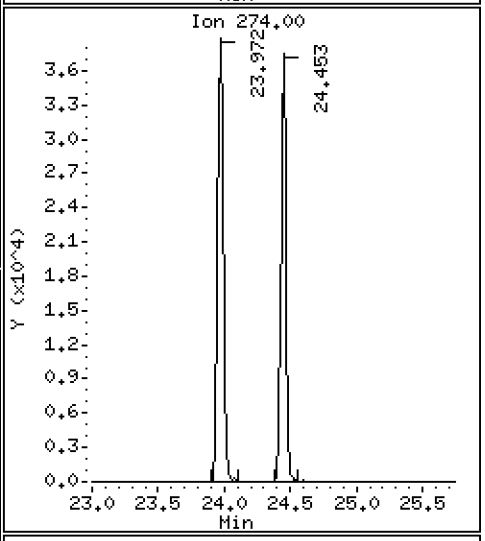
80 Benzo(g,h,i)perylene

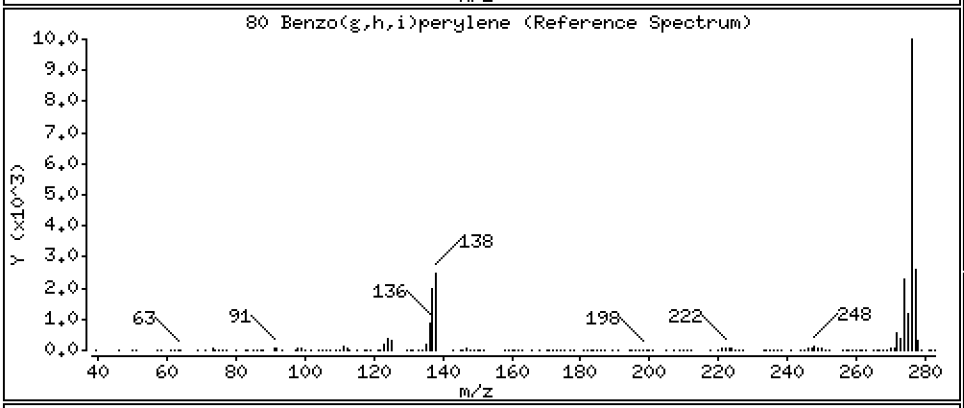
Concentration: 23.12 ug/mL

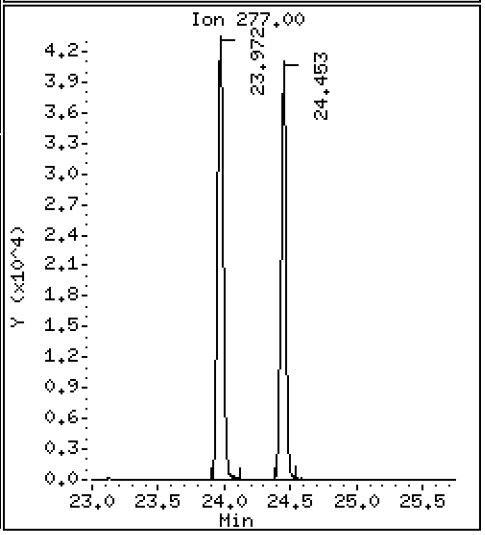


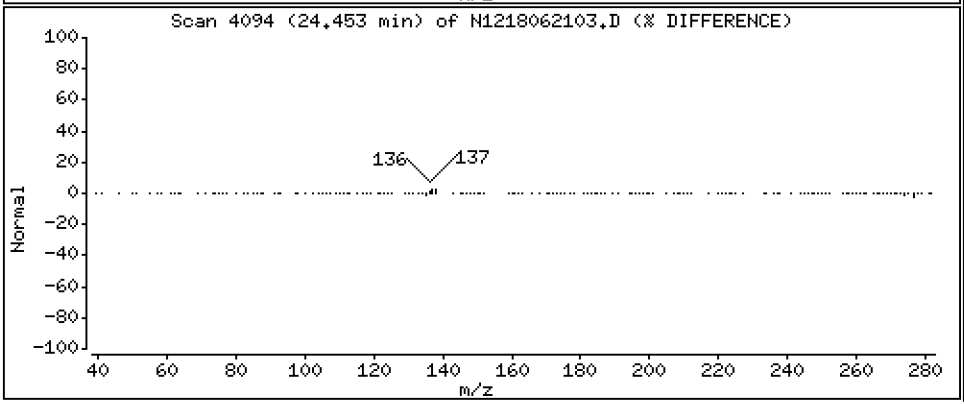












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

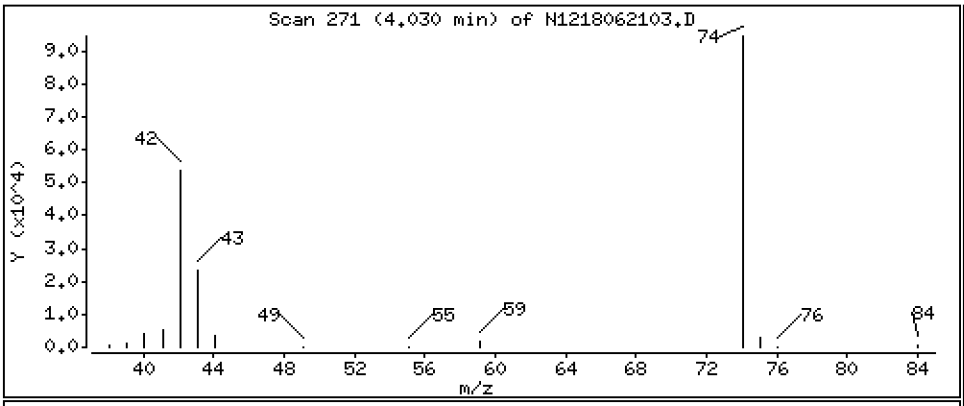
Operator: JZ

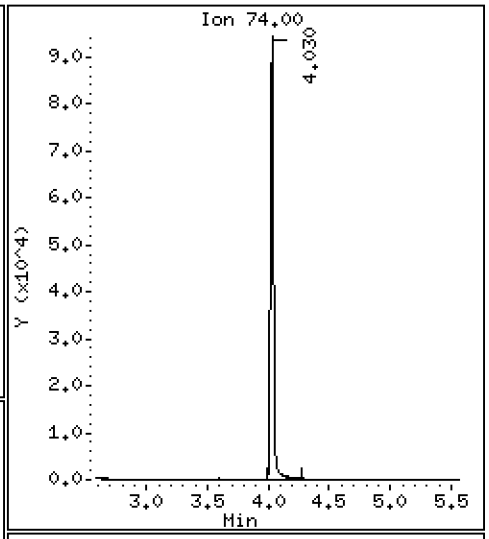
Column phase: ZB-5msi

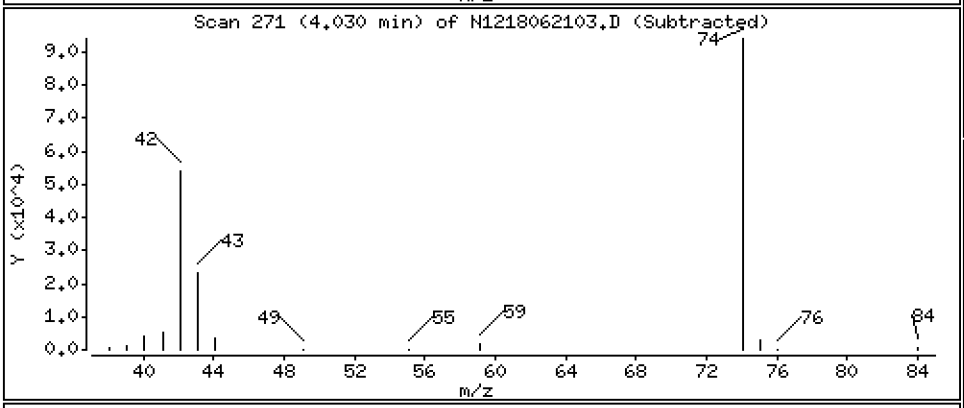
Column diameter: 0.32

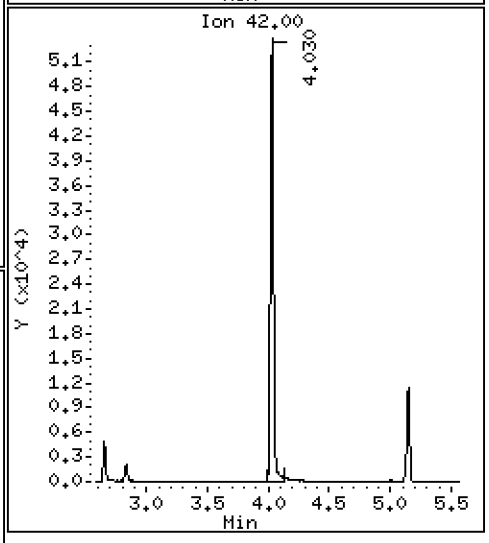
90 N-Nitrosodimethylamine

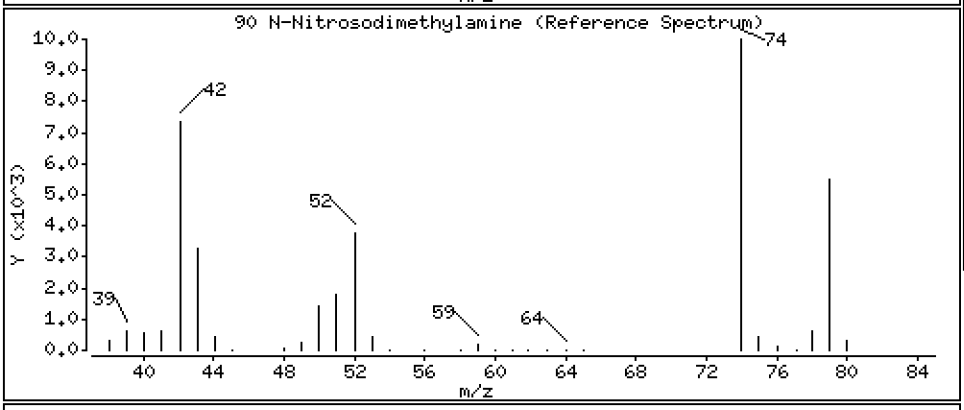
Concentration: 28.10 ug/mL

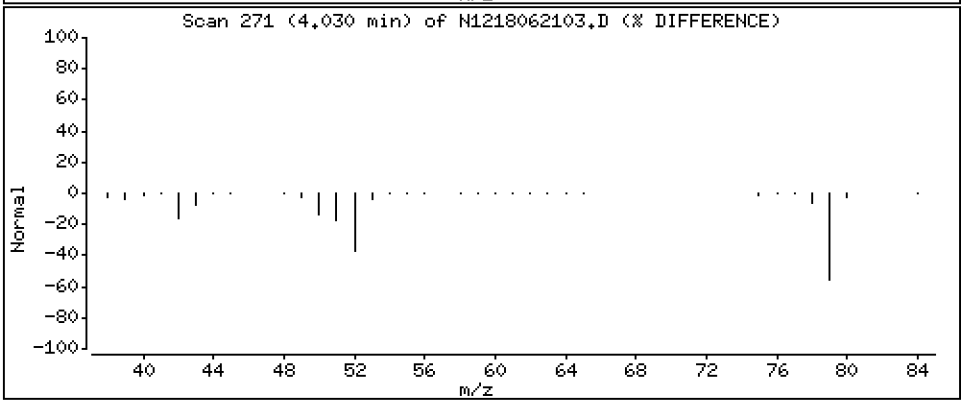












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

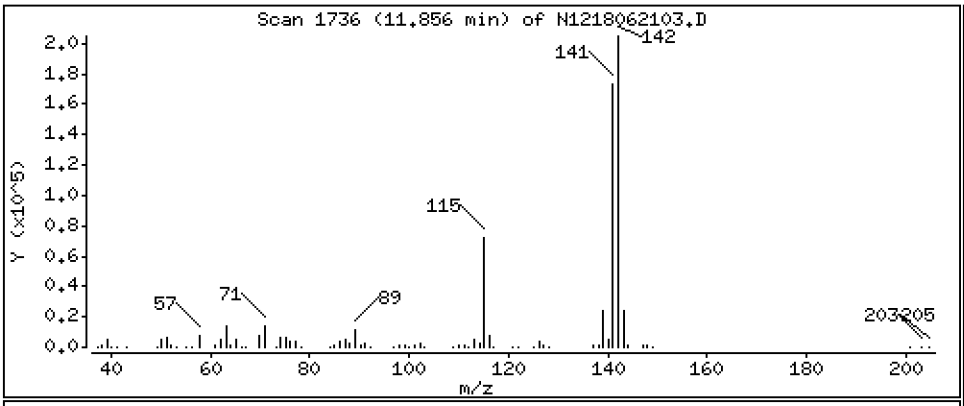
Operator: JZ

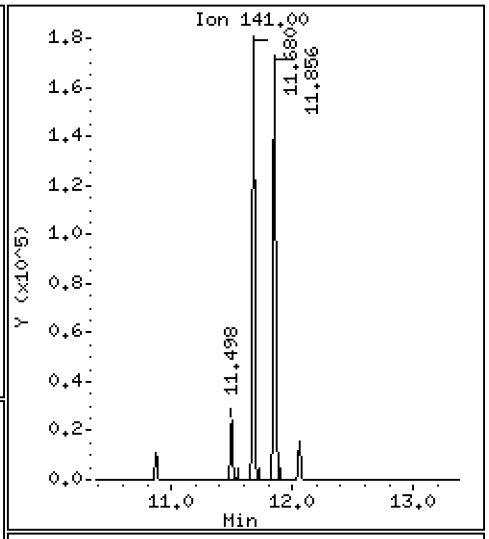
Column phase: ZB-5msi

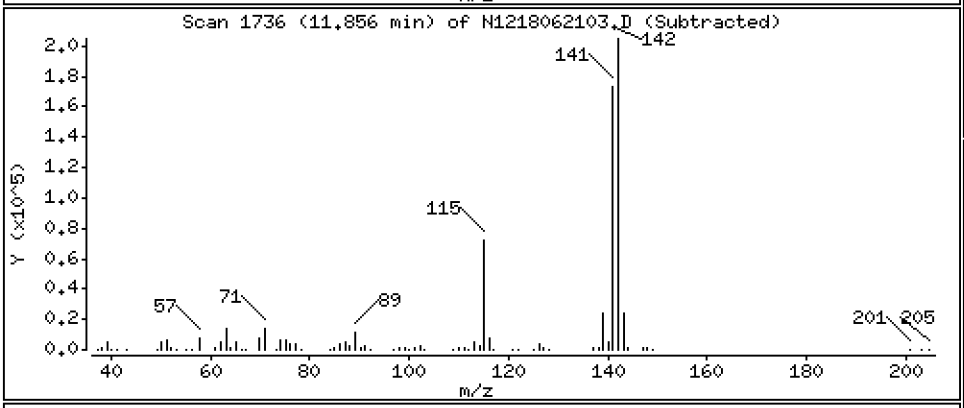
Column diameter: 0.32

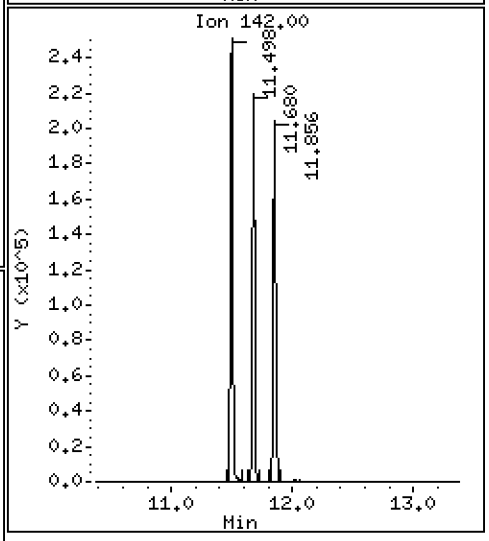
105 1-methylnaphthalene

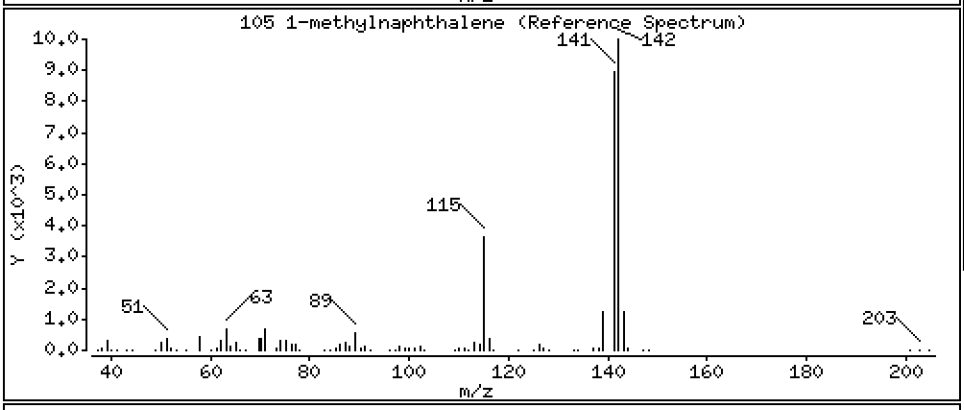
Concentration: 18.07 ug/mL

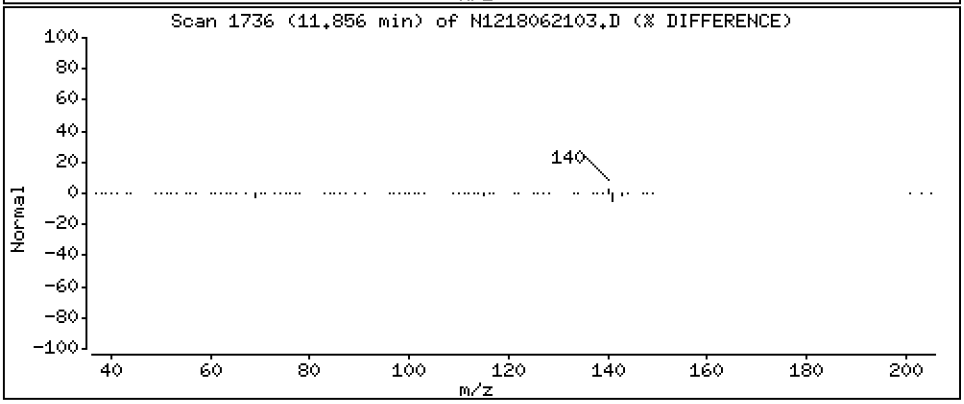












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

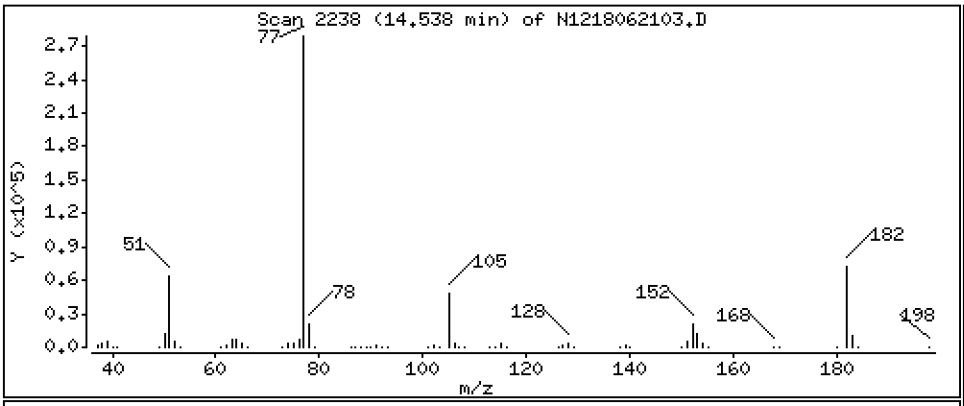
Operator: JZ

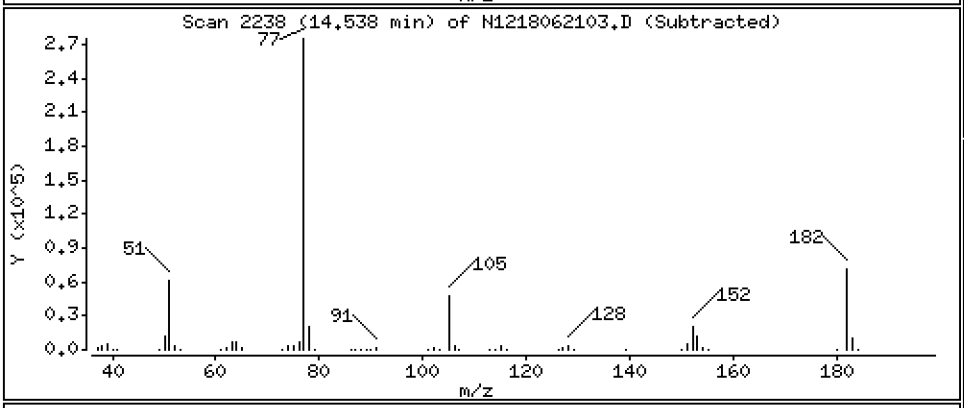
Column phase: ZB-5msi

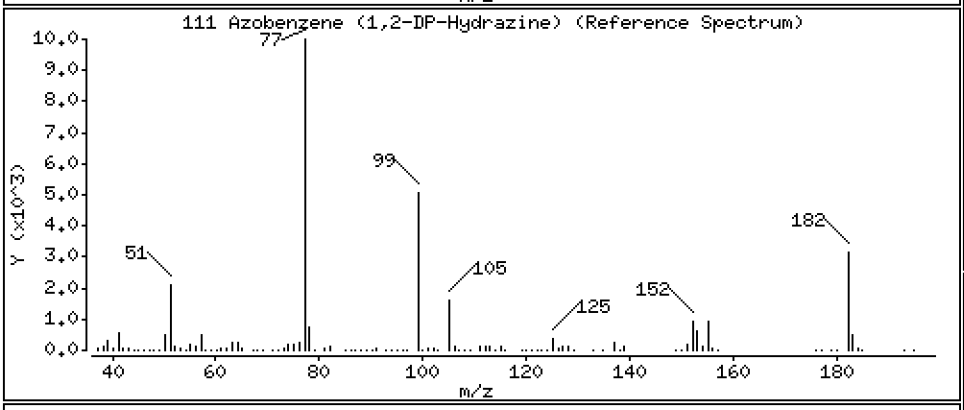
Column diameter: 0.32

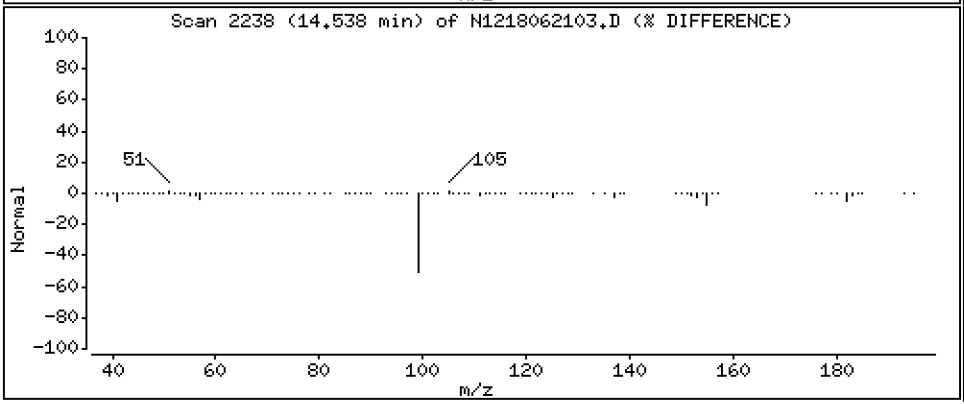
111 Azobenzene (1,2-DP-Hydrazine)

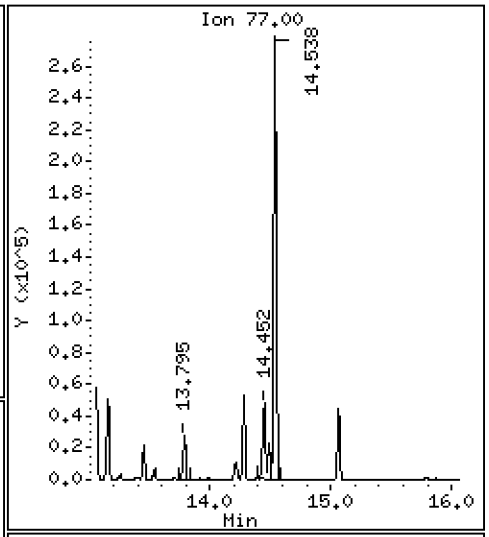
Concentration: 19.59 ug/mL

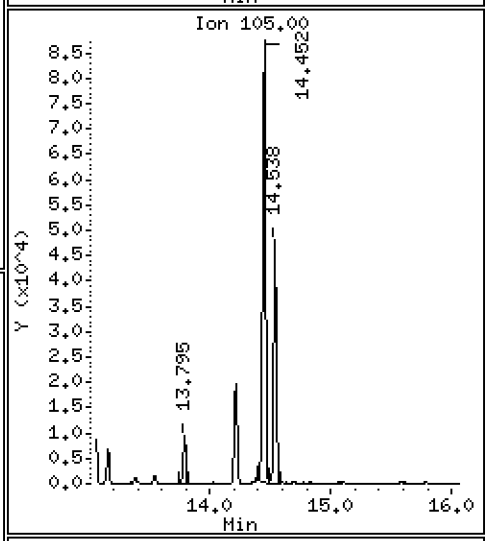


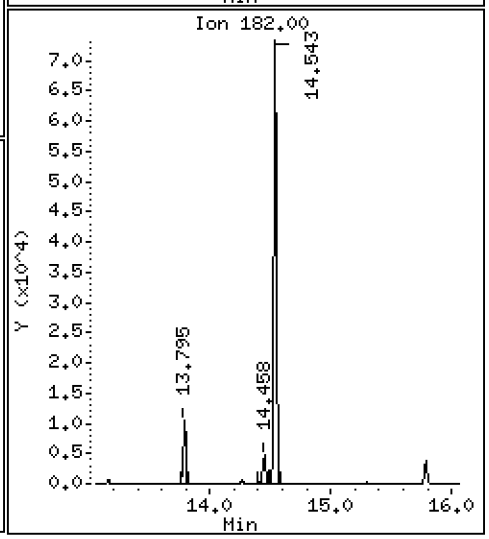












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Date : 21-JUN-2018 12:33

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-BS1,

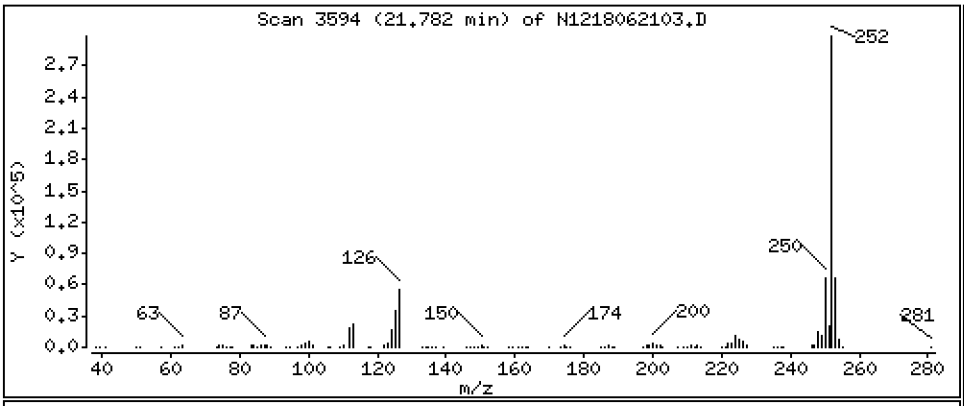
Operator: JZ

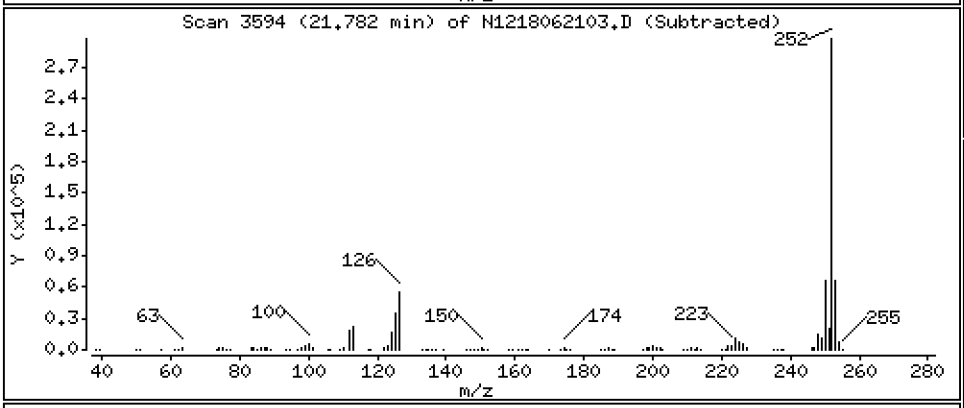
Column phase: ZB-5msi

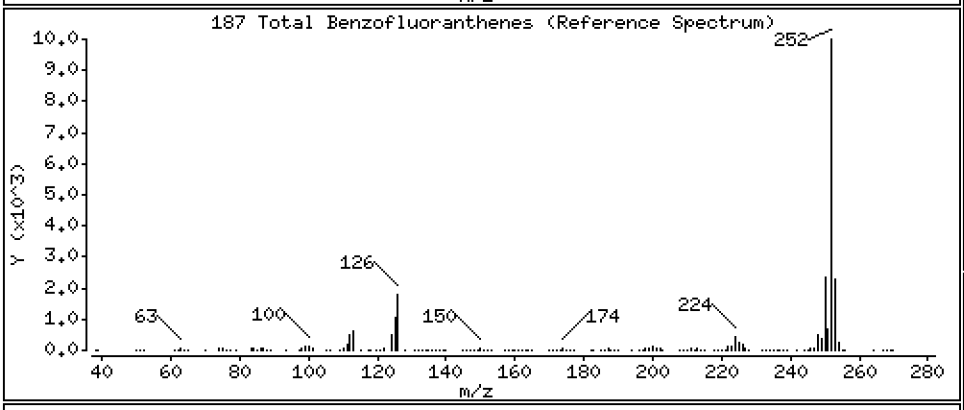
Column diameter: 0.32

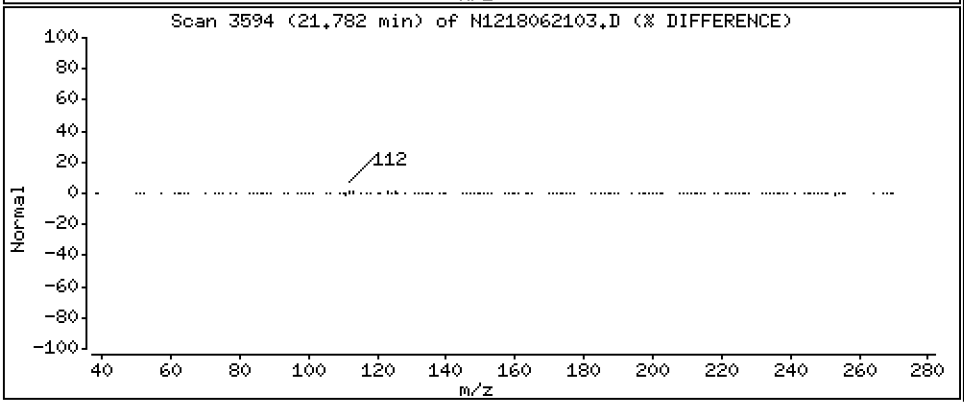
187 Total Benzofluoranthenes

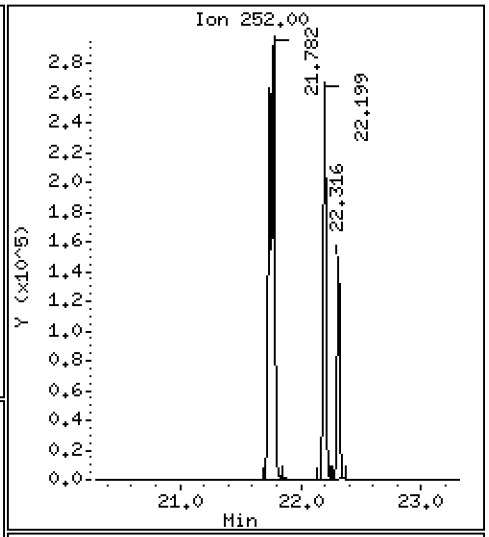
Concentration: 40.22 ug/mL

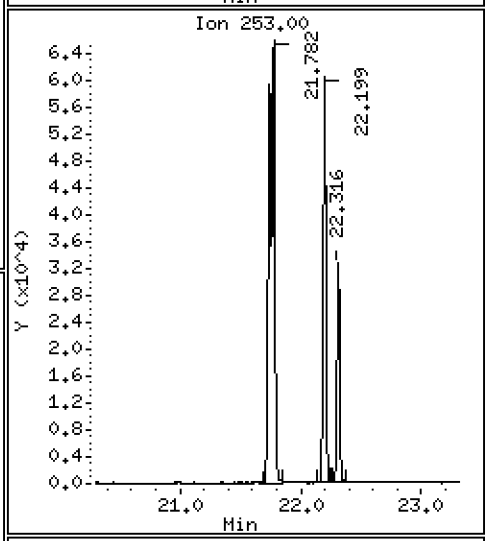


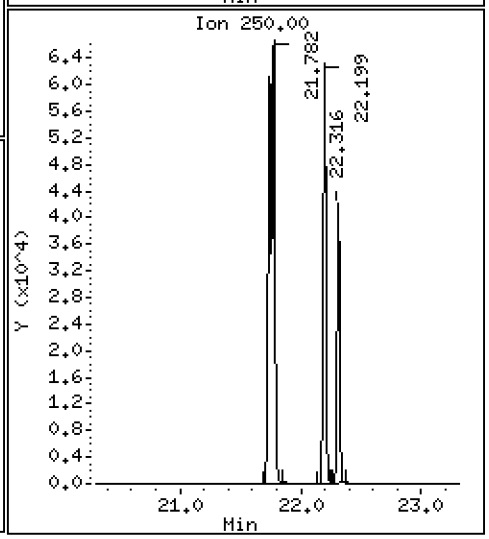












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180621.b\N1218062103.D
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Inj Date : 21-JUN-2018 12:33
Operator : JZ Inst ID: nt12.i
Smp Info : BGF0417-BS1,
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Meth Date : 21-Jun-2018 14:28 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.535	6.561	(0.770)	196505	21.5773	21.58(R)
$	2 Phenol-d5	99	8.030	8.057	(0.946)	192188	16.7968	16.80(R)
	3 Phenol	94	8.052	8.078	(0.949)	122631	10.7014	10.70
$	5 2-Chlorophenol-d4	132	8.185	8.212	(0.965)	253560	28.8420	28.84(R)
	4 Bis(2-Chloroethyl)ether	93	8.148	8.175	(0.960)	173634	17.5559	17.56
	6 2-Chlorophenol	128	8.212	8.239	(0.968)	155052	15.8883	15.89
	7 1,3-Dichlorobenzene	146	8.426	8.452	(0.993)	143780	13.9573	13.96
*	8 1,4-Dichlorobenzene-d4	152	8.485	8.511	(1.000)	126876	20.0000	
	9 1,4-Dichlorobenzene	146	8.511	8.538	(1.003)	145148	14.2114	14.21
$	10 1,2-Dichlorobenzene-d4	152	8.789	8.810	(1.036)	100533	17.0137	17.01(R)
	12 1,2-Dichlorobenzene	146	8.810	8.832	(1.038)	141284	14.7339	14.73
	11 Benzyl alcohol	108	8.757	8.784	(1.032)	98390	13.7750	13.78
	14 2,2'-oxybis(1-Chloropropane)	45	9.013	9.035	(1.062)	176659	17.5137	17.51
	13 2-Methylphenol	108	8.976	9.003	(1.058)	146141	15.5767	15.58
	17 Hexachloroethane	117	9.297	9.323	(1.096)	54951	13.6487	13.65
	16 N-Nitroso-di-n-propylamine	70	9.227	9.254	(1.088)	126424	17.7690	17.77
	15 4-Methylphenol	108	9.211	9.232	(1.086)	152375	16.1064	16.11
$	18 Nitrobenzene-d5	82	9.414	9.435	(0.894)	201144	20.2444	20.24(R)
	19 Nitrobenzene	77	9.441	9.467	(0.897)	193388	17.8723	17.87
	20 Isophorone	82	9.825	9.841	(0.933)	339791	20.8048	20.80
	21 2-Nitrophenol	139	9.954	9.980	(0.945)	89278	17.7059	17.71
	22 2,4-Dimethylphenol	107	10.050	10.071	(0.954)	441569	43.7877	43.79
	23 Bis(2-Chloroethoxy)methane	93	10.199	10.221	(0.969)	209319	19.0344	19.03
	24 Benzoic acid	105	10.296	10.317	(0.978)	365113	52.7818	52.78
	25 2,4-Dichlorophenol	162	10.338	10.360	(0.982)	401065	51.2693	51.27
	26 1,2,4-Trichlorobenzene	180	10.467	10.493	(0.994)	119938	14.7924	14.79
*	27 Naphthalene-d8	136	10.531	10.552	(1.000)	485753	20.0000	
	28 Naphthalene	128	10.563	10.584	(1.003)	425261	15.9713	15.97
	29 4-Chloroaniline	127	10.691	10.717	(1.015)	137398	11.8789	11.88
	30 Hexachlorobutadiene	225	10.873	10.894	(1.032)	61119	13.8575	13.86
	31 4-Chloro-3-methylphenol	107	11.498	11.513	(1.092)	442233	53.7771	53.78
	32 2-Methylnaphthalene	141	11.679	11.706	(1.109)	241421	16.3353	16.34
	33 Hexachlorocyclopentadiene	237	12.059	12.080	(0.900)	176929	48.4493	48.45

		QUANT SIG					CONCENTRATIONS	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34 2,4,6-Trichlorophenol	196	12.192	12.213	(0.910)	293116	52.0095	52.01
	35 2,4,5-Trichlorophenol	196	12.251	12.272	(0.914)	317050	54.6521	54.65
$	36 2-Fluorobiphenyl	172	12.320	12.342	(0.919)	357600	20.3118	20.31(R)
	37 2-Chloronaphthalene	162	12.465	12.486	(0.930)	282841	17.5198	17.52
	38 2-Nitroaniline	65	12.700	12.715	(0.948)	285579	55.8392	55.84
	39 Dimethylphthalate	163	13.058	13.079	(0.974)	346823	19.8337	19.83
	40 Acenaphthylene	152	13.148	13.170	(0.981)	417297	18.0757	18.08
	41 2,6-Dinitrotoluene	165	13.159	13.175	(0.982)	236453	61.4913	61.49
*	42 Acenaphthene-d10	164	13.399	13.421	(1.000)	247541	20.0000	
	43 3-Nitroaniline	138	13.383	13.394	(0.999)	240936	51.3629	51.36
	44 Acenaphthene	153	13.453	13.474	(1.004)	287292	18.7490	18.75
	45 2,4-Dinitrophenol	184	13.544	13.560	(1.011)	253375	105.948	105.9
	46 Dibenzofuran	168	13.709	13.736	(1.023)	415426	17.8293	17.83
	47 4-Nitrophenol	109	13.667	13.693	(1.020)	76106	30.7618	30.76
	48 2,4-Dinitrotoluene	165	13.795	13.805	(1.030)	324802	59.5904	59.59
	50 Diethylphthalate	149	14.217	14.233	(1.061)	337540	20.2723	20.27
	49 Fluorene	166	14.270	14.291	(1.065)	337878	19.5595	19.56
	51 4-Chlorophenyl-phenylether	204	14.281	14.307	(1.066)	153335	19.0184	19.02
	52 4-Nitroaniline	138	14.393	14.398	(1.074)	250343	54.5262	54.53
	53 4,6-Dinitro-2-methylphenol	198	14.457	14.468	(0.916)	354010	117.039	117.0
	54 N-Nitrosodiphenylamine	169	14.489	14.510	(0.918)	245528	19.2243	19.22
$	55 2,4,6-Tribromophenol	330	14.698	14.719	(1.097)	68806	33.2019	33.20(R)
	56 4-Bromophenyl-phenylether	248	15.072	15.093	(0.955)	91479	18.8471	18.85
	57 Hexachlorobenzene	284	15.296	15.323	(0.969)	92327	18.3846	18.38
	58 Pentachlorophenol	266	15.595	15.616	(0.988)	186939	56.3082	56.31
*	59 Phenanthrene-d10	188	15.782	15.809	(1.000)	421523	20.0000	
	60 Phenanthrene	178	15.819	15.846	(1.002)	470555	22.5179	22.52
	61 Anthracene	178	15.889	15.915	(1.007)	436782	18.3257	18.33
	62 Carbazole	167	16.172	16.193	(1.025)	427273	18.5836	18.58
	63 Di-n-butylphthalate	149	16.861	16.882	(1.068)	537778	20.4465	20.45
	64 Fluoranthene	202	17.764	17.791	(1.126)	510586	19.5311	19.53
	65 Pyrene	202	18.122	18.149	(0.901)	519248	22.4299	22.43
$	66 Terphenyl-d14	244	18.416	18.442	(0.916)	379575	26.3924	26.39(R)
	67 Butylbenzylphthalate	149	19.287	19.308	(0.959)	230403	22.2456	22.25
	68 Benzo(a)anthracene	228	20.083	20.109	(0.999)	409519	24.1696	24.17
*	69 Chrysene-d12	240	20.109	20.136	(1.000)	373347	20.0000	
	70 3,3'-Dichlorobenzidine	252	20.088	20.109	(0.999)	389717	61.6096	61.61
	71 Chrysene	228	20.152	20.179	(1.002)	429313	22.7064	22.71
	72 bis(2-Ethylhexyl)phthalate	149	20.270	20.296	(0.956)	314674	20.8953	20.90
*	134 Di-n-octylphthalate-d4	153	21.204	21.226	(1.000)	506880	20.0000	
	73 Di-n-octylphthalate	149	21.215	21.242	(1.000)	531340	19.6266	19.63
	74 Benzo(b)fluoranthene	252	21.744	21.771	(0.976)	467423	19.3312	19.33
	75 Benzo(k)fluoranthene	252	21.781	21.808	(0.978)	490927	20.0158	20.02
	76 Benzo(a)pyrene	252	22.198	22.225	(0.996)	423312	20.5984	20.60
*	77 Perylene-d12	264	22.278	22.305	(1.000)	392763	20.0000	
	78 Indeno(1,2,3-cd)pyrene	276	23.966	24.009	(1.076)	534789	22.2577	22.26
	79 Dibenzo(a,h)anthracene	278	23.993	24.030	(1.077)	433538	22.0555	22.06
	80 Benzo(g,h,i)perylene	276	24.453	24.500	(1.098)	463555	23.1221	23.12
	90 N-Nitrosodimethylamine	74	4.029	4.061	(0.475)	175030	28.0973	28.10
	91 Aniline	93	Compound Not Detected.					
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	Compound Not Detected.					
	105 1-methylnaphthalene	141	11.856	11.877	(1.126)	238628	18.0690	18.07
	111 Azobenzene (1,2-DP-Hydrazine)	77	14.537	14.559	(0.921)	385017	19.5915	19.59

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	21.781	21.808	(0.978)	912011	40.2176	40.22

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062103.D
Lab Smp Id: BGF0417-BS1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Misc Info: 18-

Calibration Date: 21-JUN-2018
Calibration Time: 11:24
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	126876	-0.08
27 Naphthalene-d8	478458	239229	956916	485753	1.52
42 Acenaphthene-d10	247659	123830	495318	247541	-0.05
59 Phenanthrene-d10	421930	210965	843860	421523	-0.10
69 Chrysene-d12	450836	225418	901672	373347	-17.19
134 Di-n-octylphthala	583434	291717	1166868	506880	-13.12
77 Perylene-d12	453093	226547	906186	392763	-13.32

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.51	8.01	9.01	8.49	-0.31
27 Naphthalene-d8	10.55	10.05	11.05	10.53	-0.20
42 Acenaphthene-d10	13.42	12.92	13.92	13.40	-0.16
59 Phenanthrene-d10	15.81	15.31	16.31	15.78	-0.17
69 Chrysene-d12	20.14	19.64	20.64	20.11	-0.13
134 Di-n-octylphthala	21.23	20.73	21.73	21.20	-0.10
77 Perylene-d12	22.31	21.81	22.81	22.28	-0.12

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062103.D

Lab ID: BGF0417-BS1
nt12.i, SW846180516.m, 21-JUN-2018 12:33

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/21/18 18:46
Batch:	BGF0434	Laboratory ID:	BGF0434-BS1
Preparation:	EPA 3510C SepF	Sequence Name:	LCS
Initial/Final:	500 mL / 0.5 mL		

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	Q	LCS % REC. #	QC LIMITS REC.
Phenol	25.0	15.0		60.0	10 - 160
1,4-Dichlorobenzene	25.0	16.4		65.6	10 - 160
1,2-Dichlorobenzene	25.0	16.9		67.4	10 - 160
Benzyl alcohol	25.0	18.6		74.4	10 - 160
4-Methylphenol	25.0	17.3		69.4	10 - 160
2,4-Dimethylphenol	75.0	48.8		65.0	10 - 160
1,2,4-Trichlorobenzene	25.0	17.0		68.1	10 - 160
Benzoic acid	138	60.5		44.0	10 - 160
Dimethylphthalate	25.0	22.0		87.9	10 - 160
Dibenzofuran	25.0	20.1		80.5	10 - 160
N-Nitrosodiphenylamine	25.0	21.4		85.6	10 - 160
Hexachlorobenzene	25.0	20.0		80.1	10 - 160
Pentachlorophenol	75.0	61.9		82.5	10 - 160
Butylbenzylphthalate	25.0	24.1		96.4	10 - 160
bis(2-Ethylhexyl)phthalate	25.0	23.8		95.2	10 - 160

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt12.i\20180621.b\N1218062114.D
Date : 21-JUN-2018 18:46
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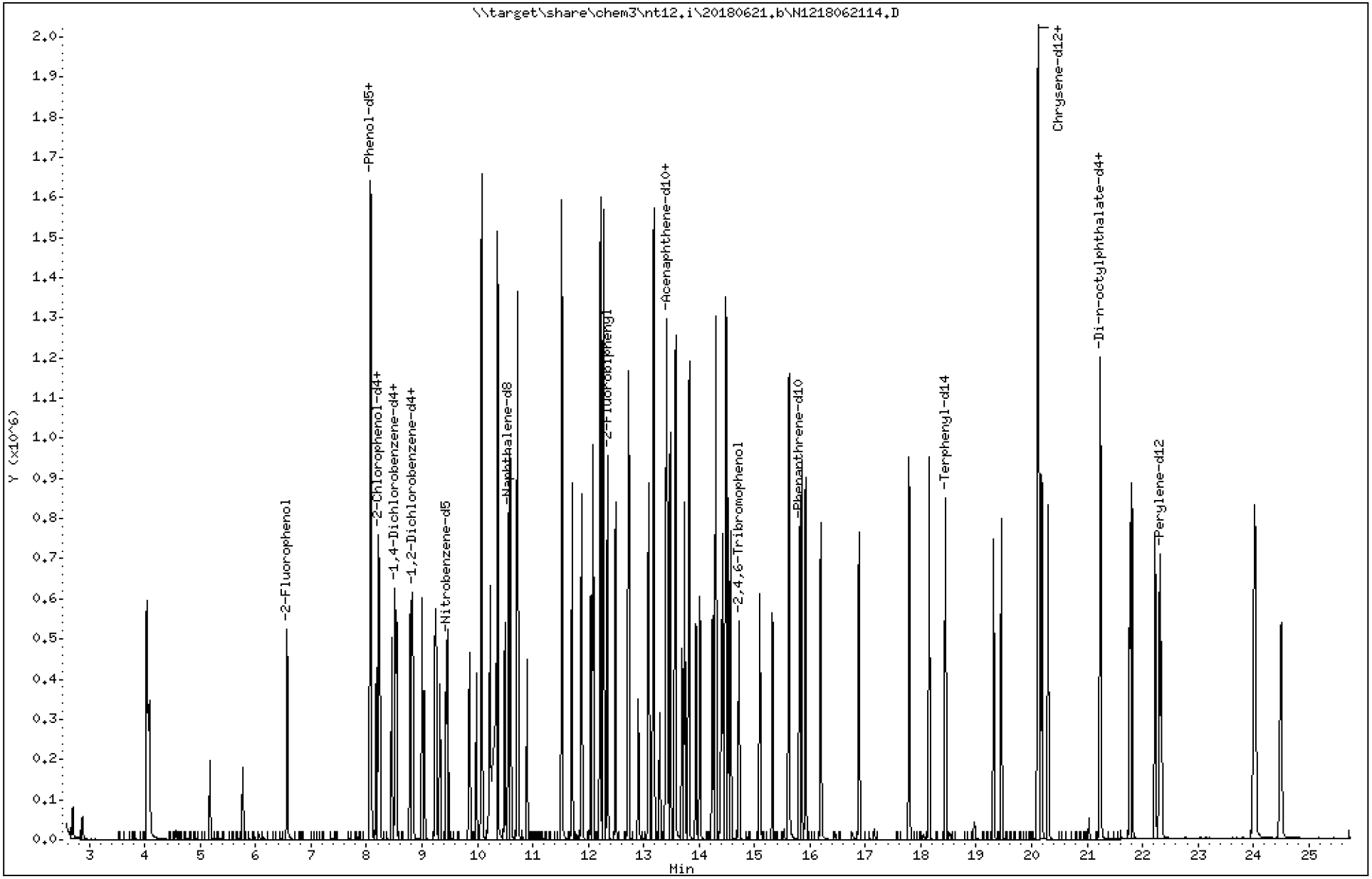
Sample Info: BGF0434-BS1,

Instrument: nt12.i
Operator: JZ
Column phase: ZB-5msi
Column diameter: 0.32



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 480 of 6523

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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

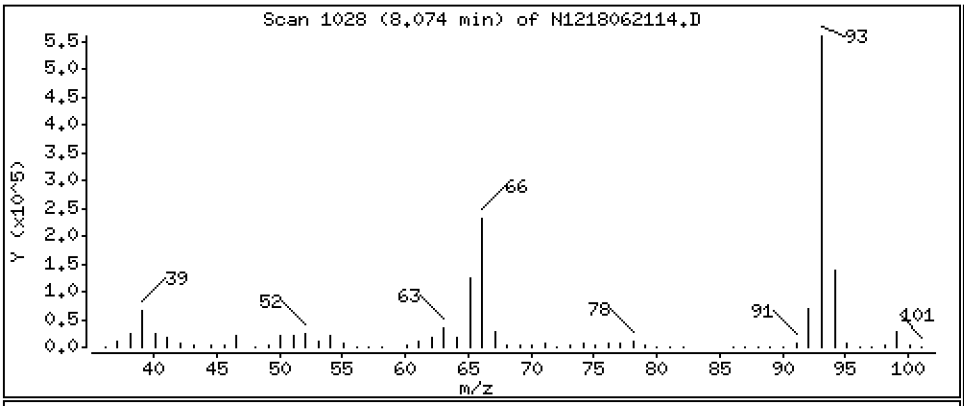
Operator: JZ

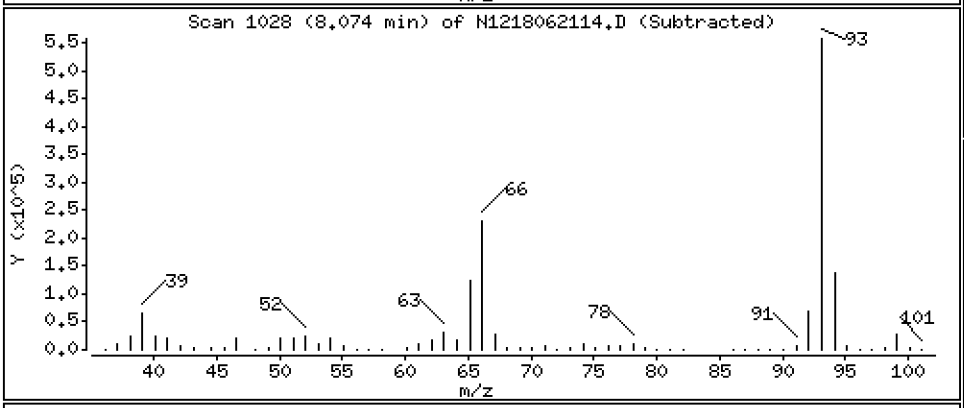
Column phase: ZB-5msi

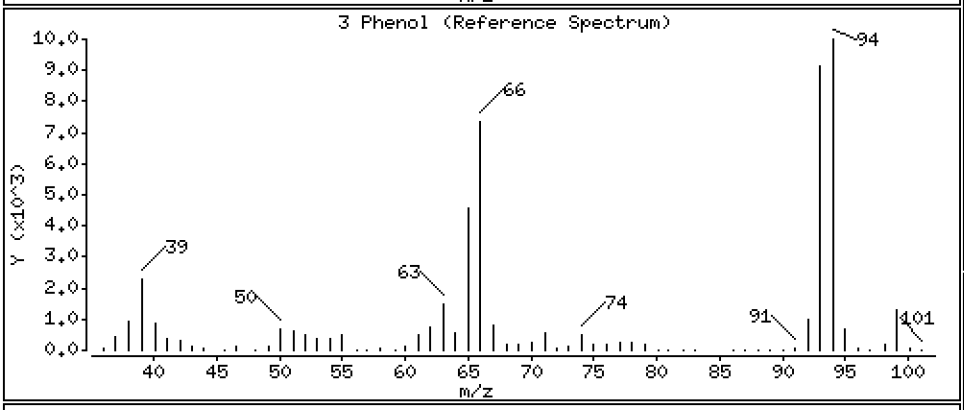
Column diameter: 0.32

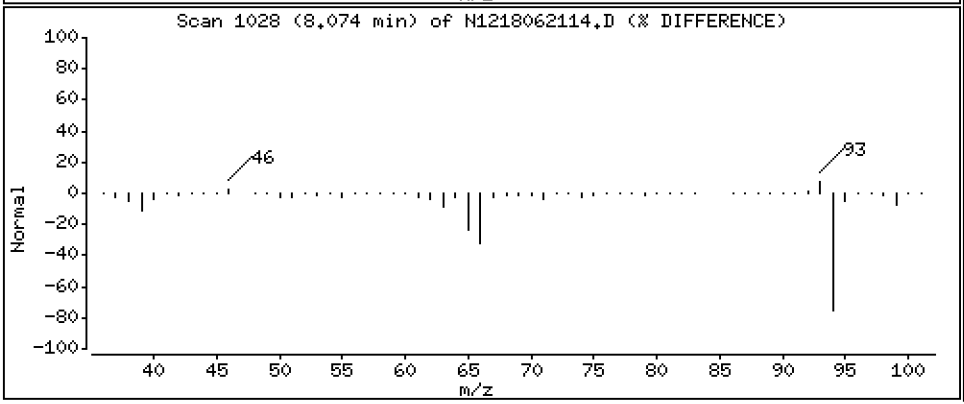
3 Phenol

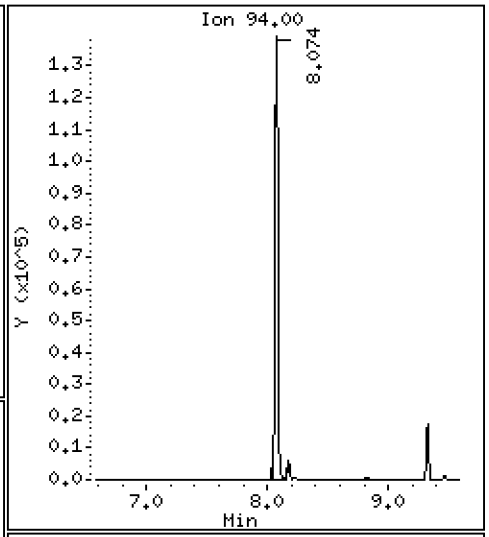
Concentration: 14.99 ug/mL

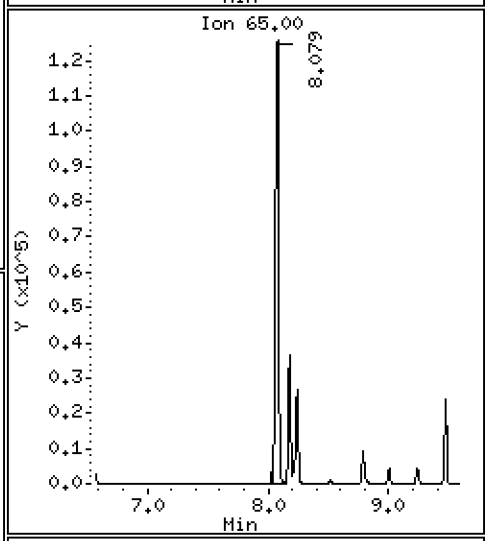


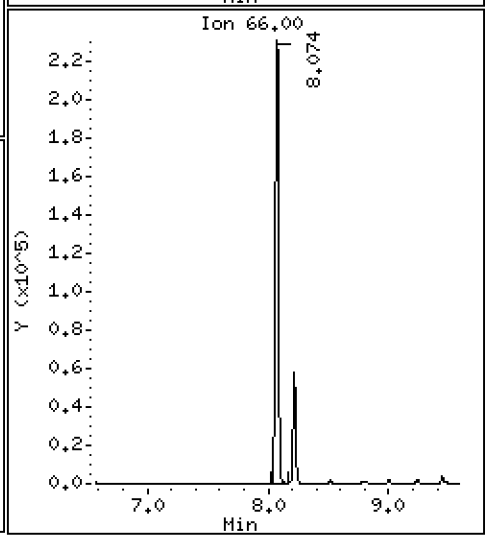












Data File: \\target\share\chem3\nt12.i\20180621.b\N1218062114.D

Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

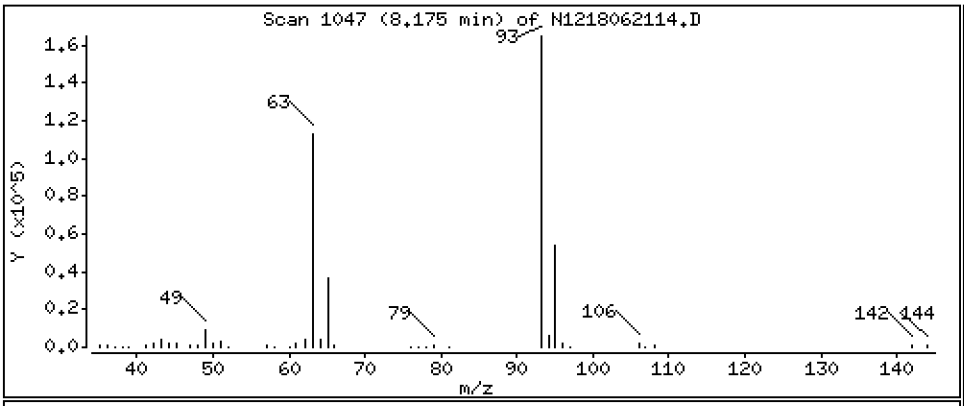
Operator: JZ

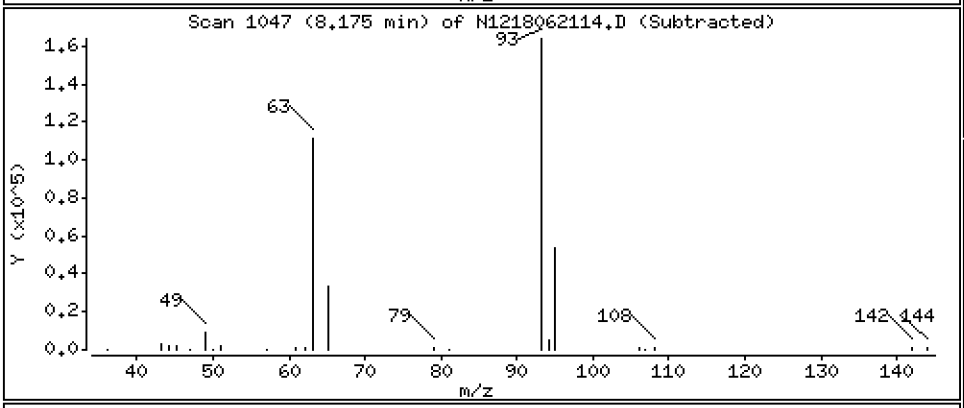
Column phase: ZB-5msi

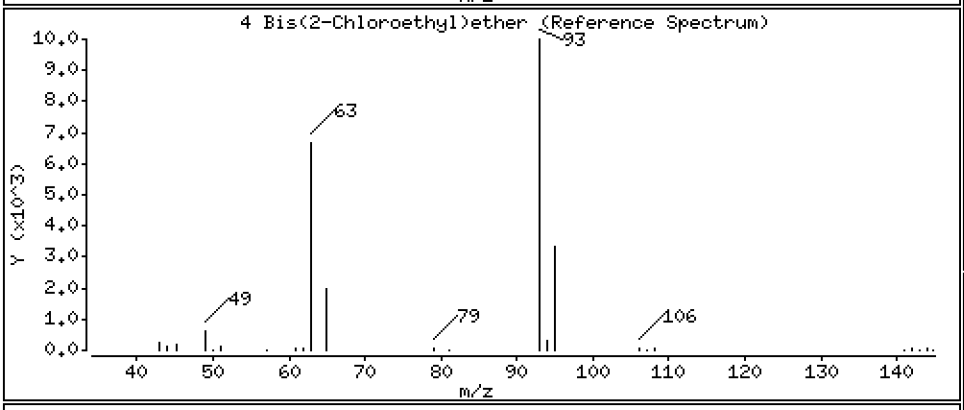
Column diameter: 0.32

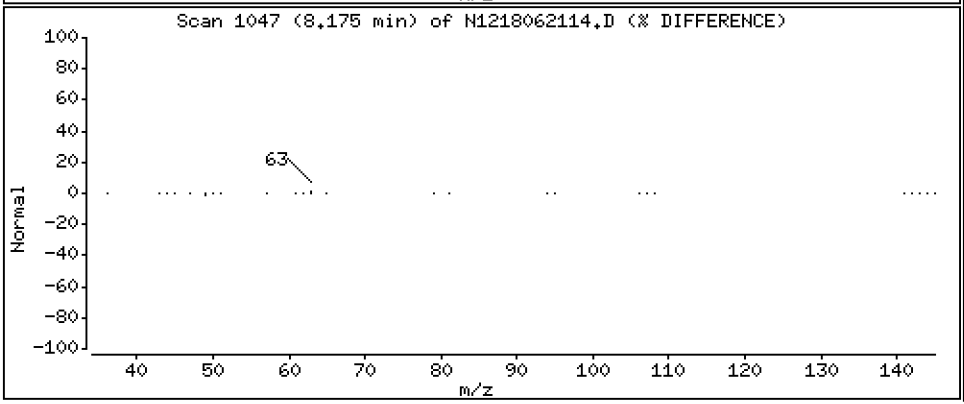
4 Bis(2-Chloroethyl)ether

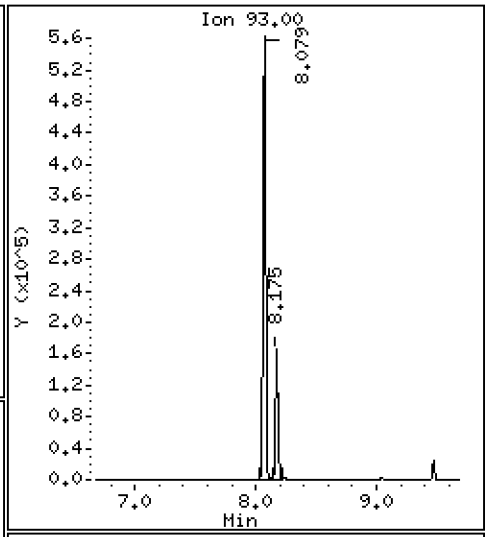
Concentration: 19.33 ug/mL

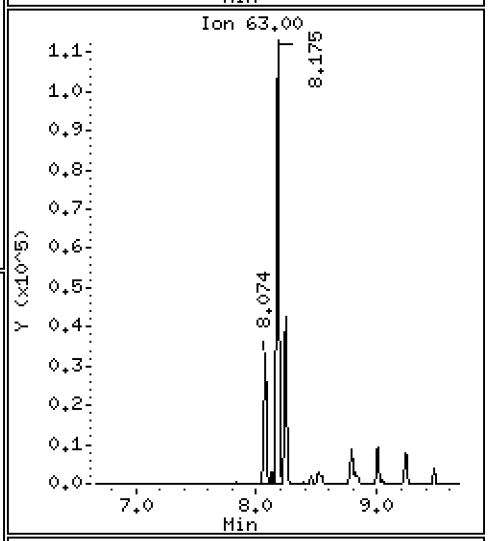


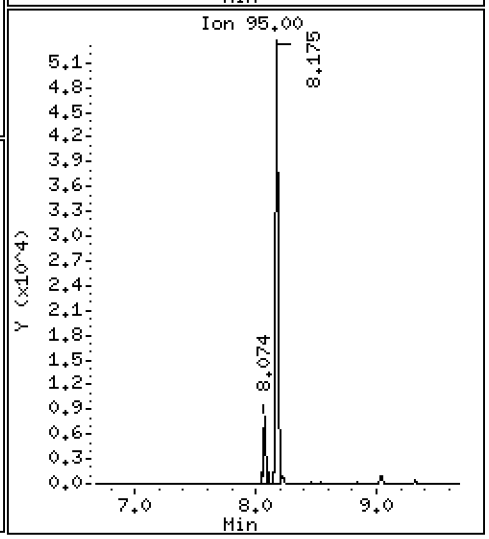












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

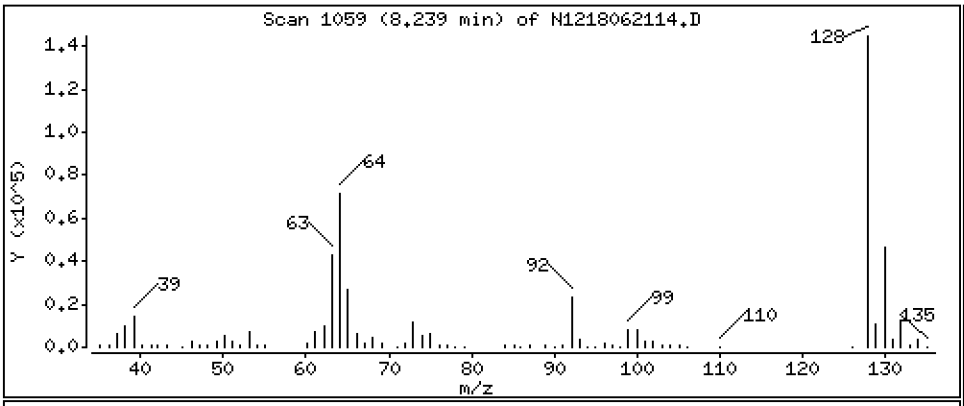
Operator: JZ

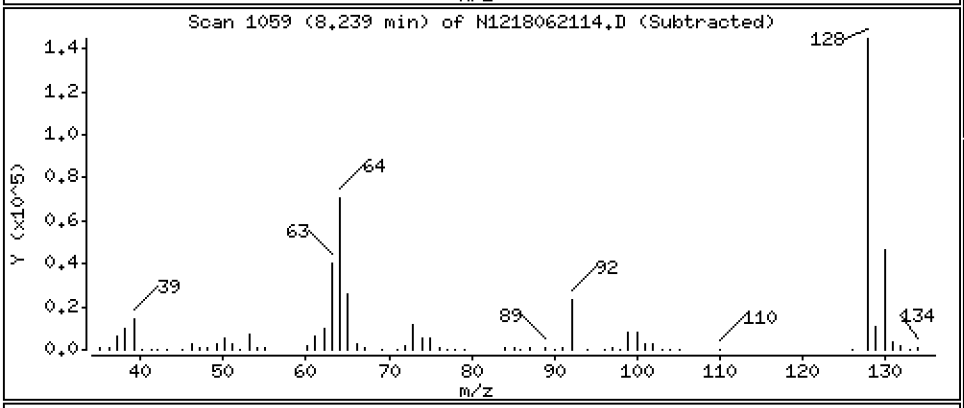
Column phase: ZB-5msi

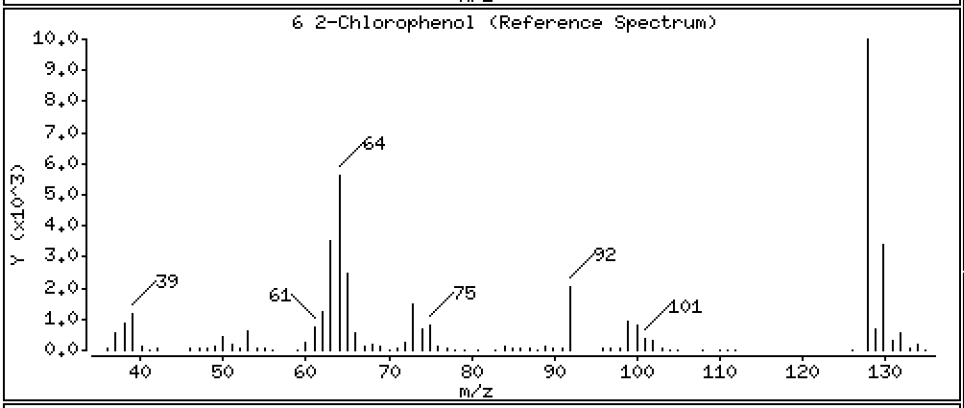
Column diameter: 0.32

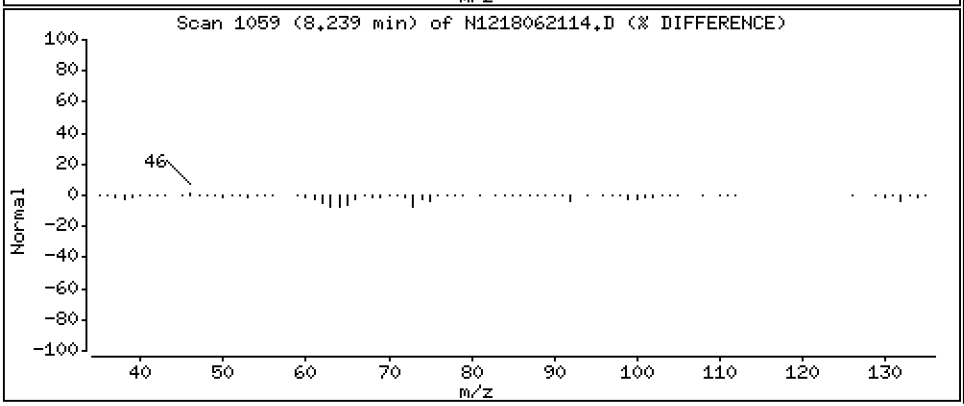
6 2-Chlorophenol

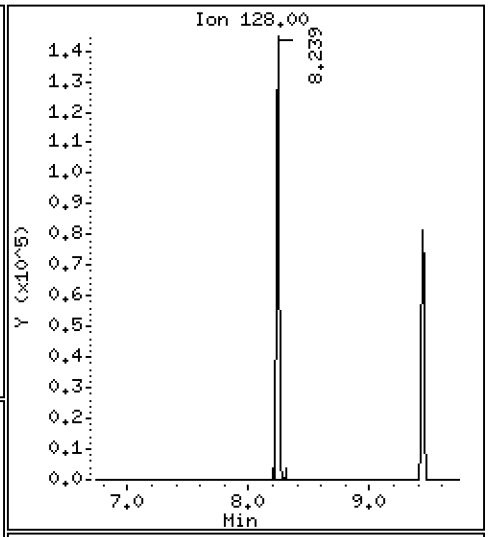
Concentration: 17.62 ug/mL

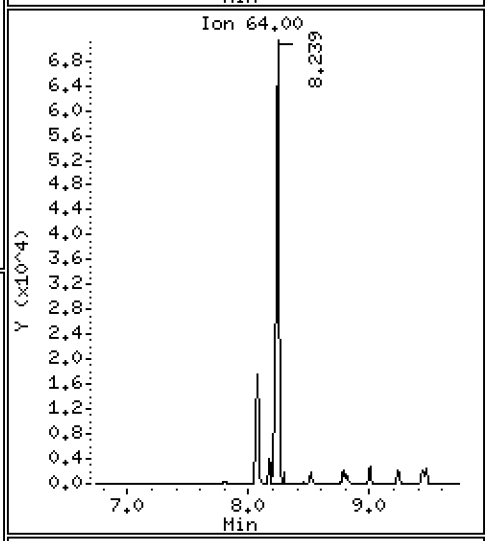


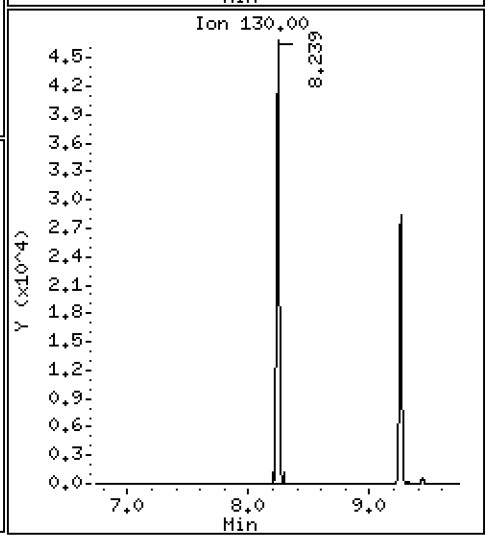












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

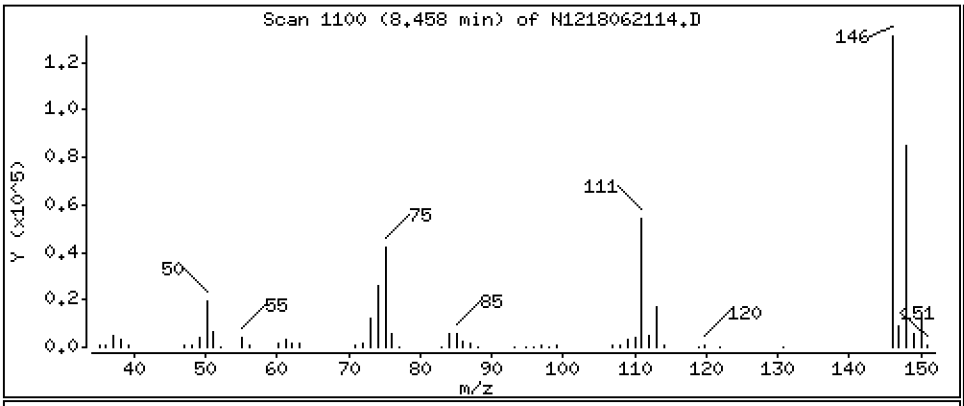
Operator: JZ

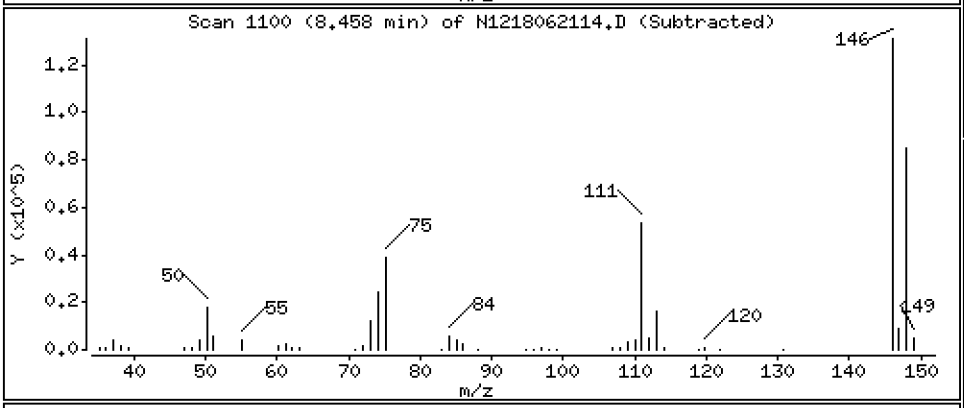
Column phase: ZB-5msi

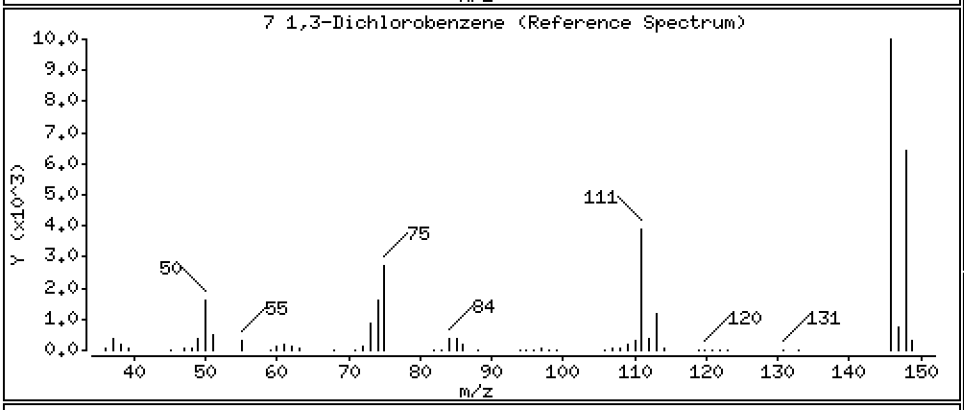
Column diameter: 0.32

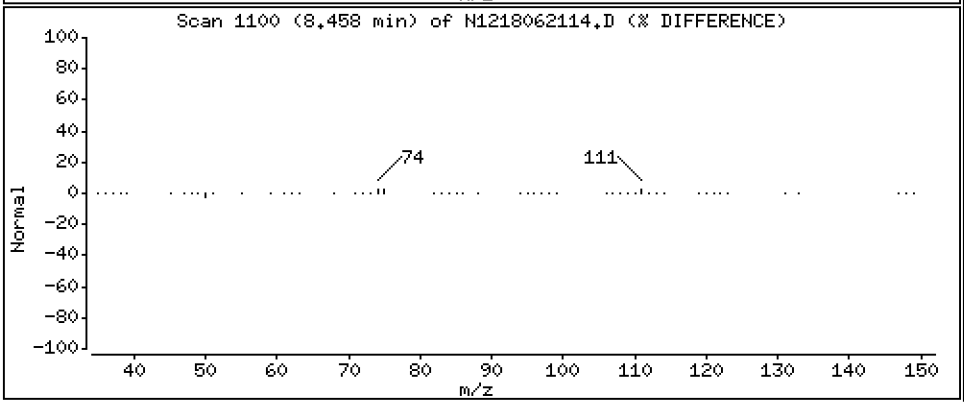
7 1,3-Dichlorobenzene

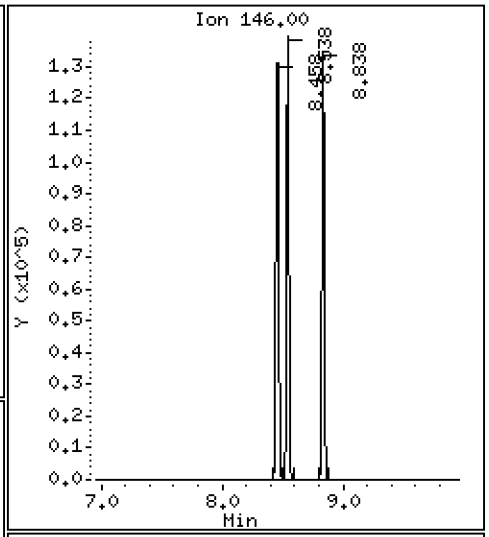
Concentration: 16.11 ug/mL

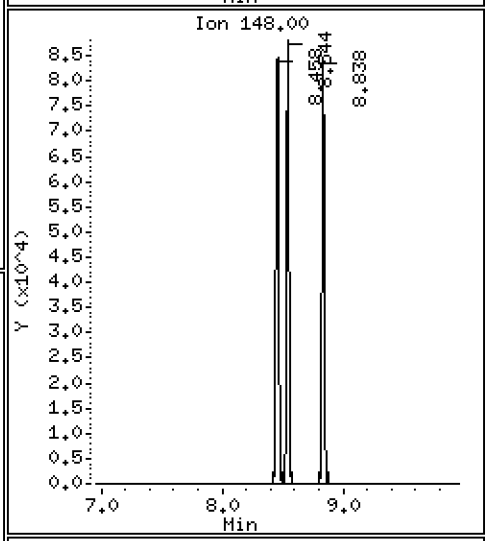


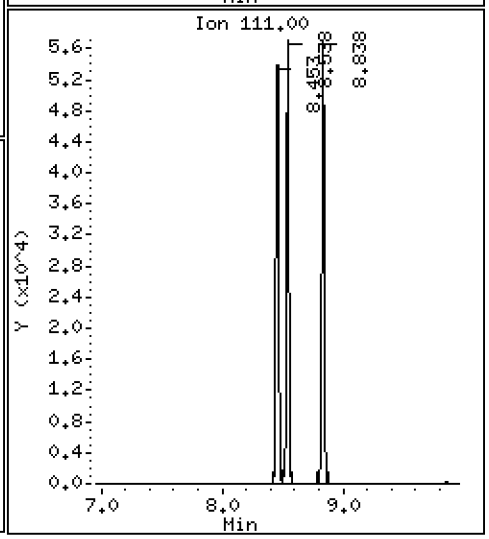












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

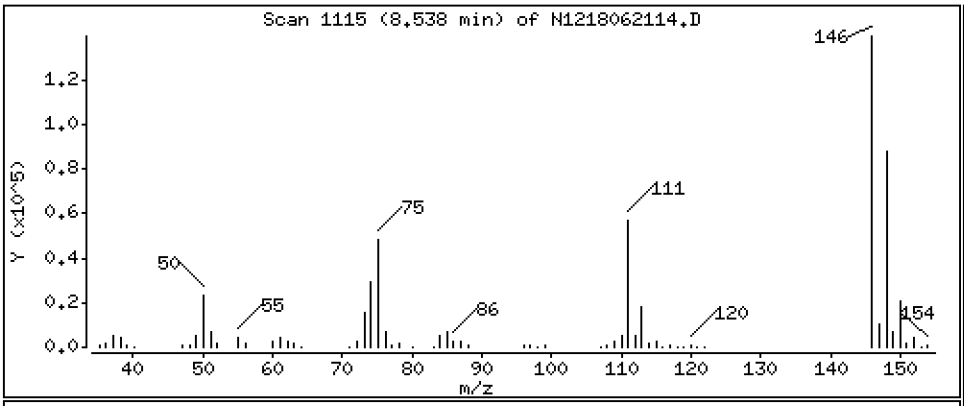
Operator: JZ

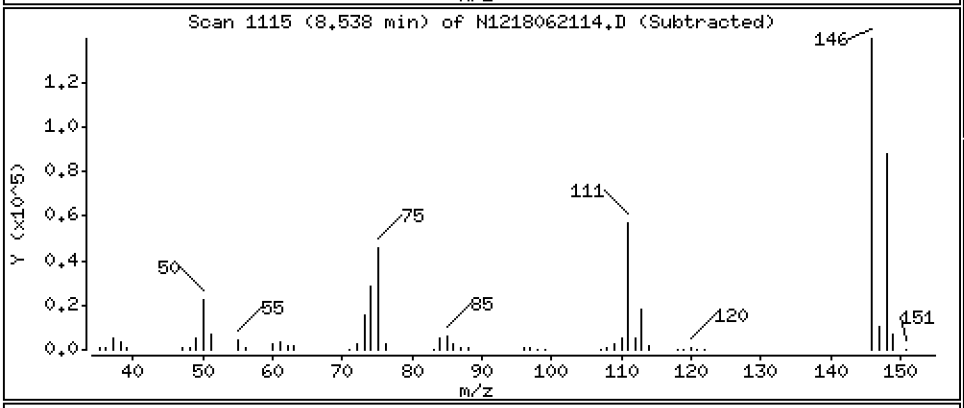
Column phase: ZB-5msi

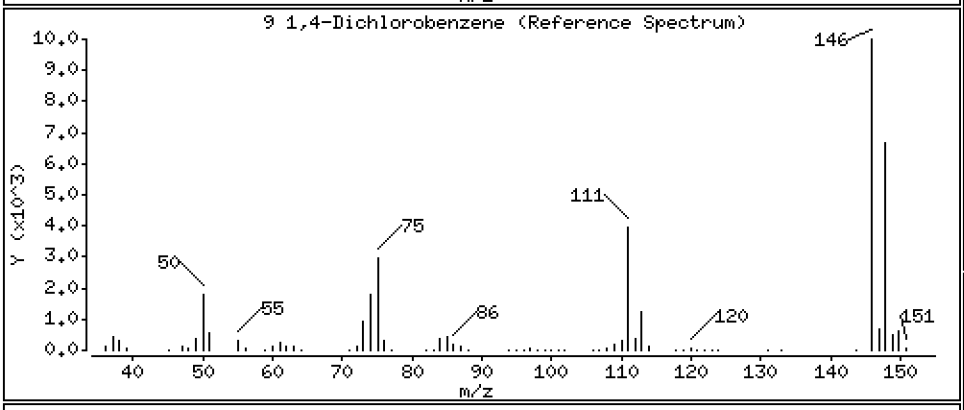
Column diameter: 0.32

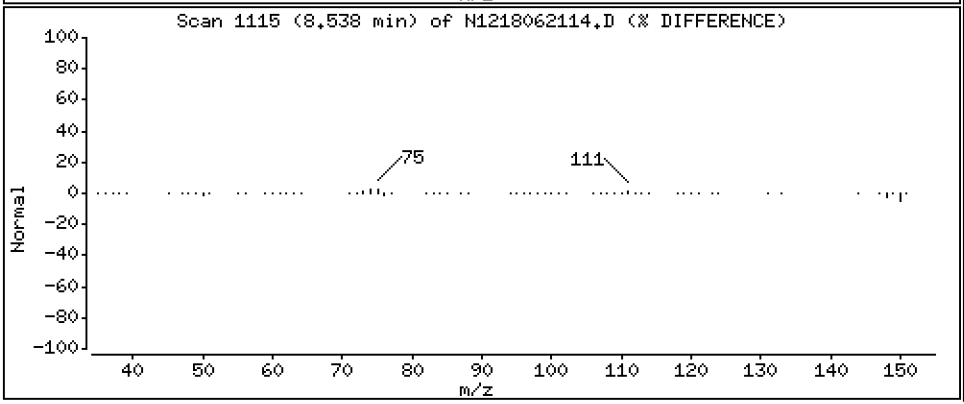
9 1,4-Dichlorobenzene

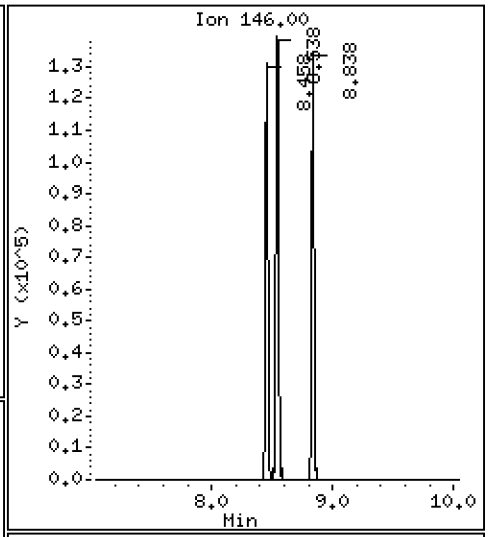
Concentration: 16.39 ug/mL

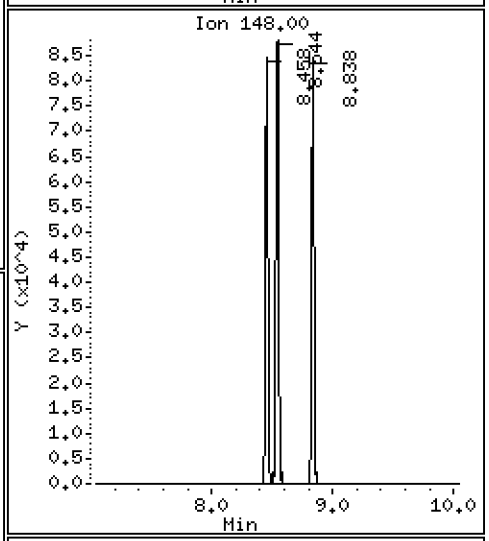


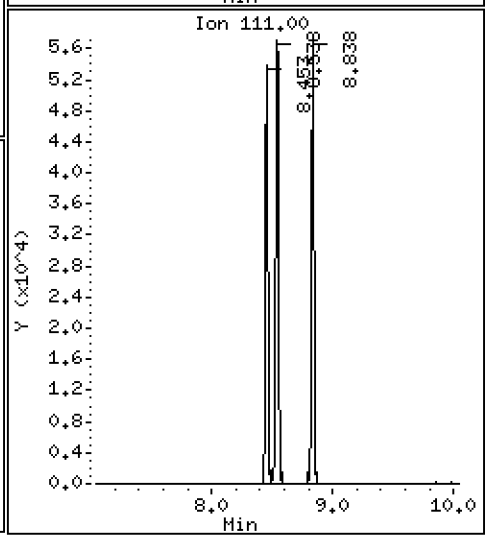












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

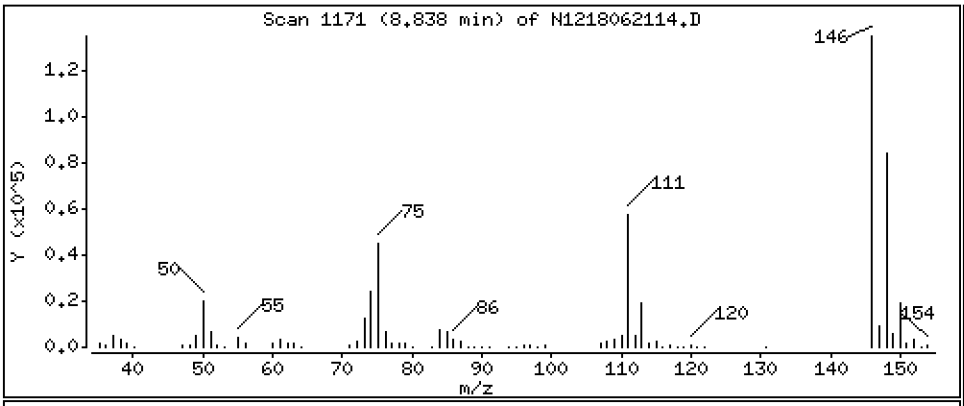
Operator: JZ

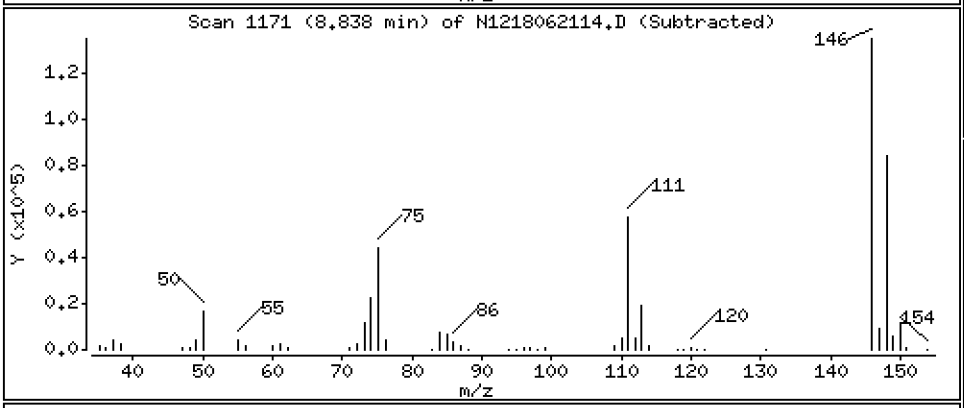
Column phase: ZB-5msi

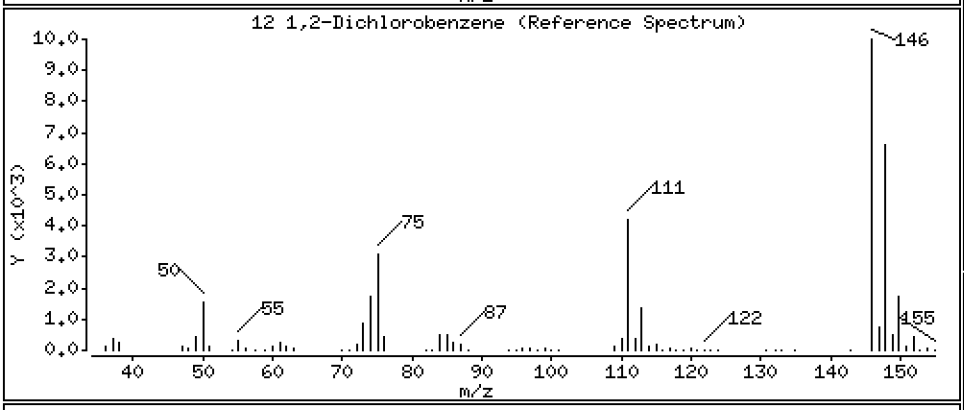
Column diameter: 0.32

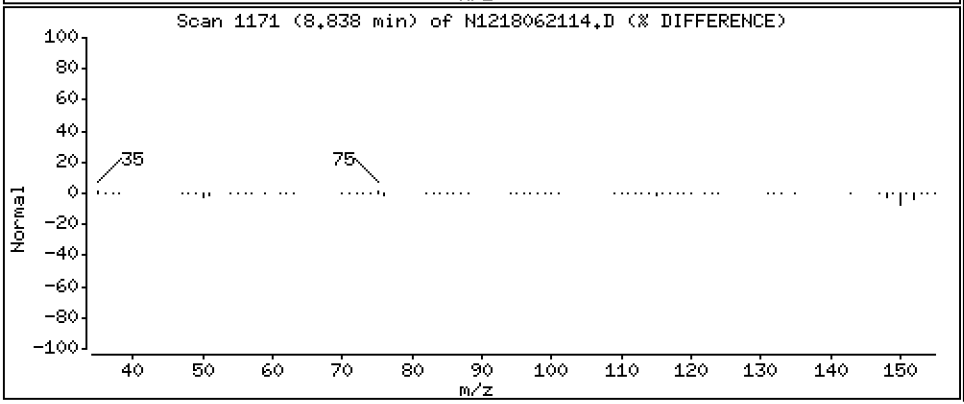
12 1,2-Dichlorobenzene

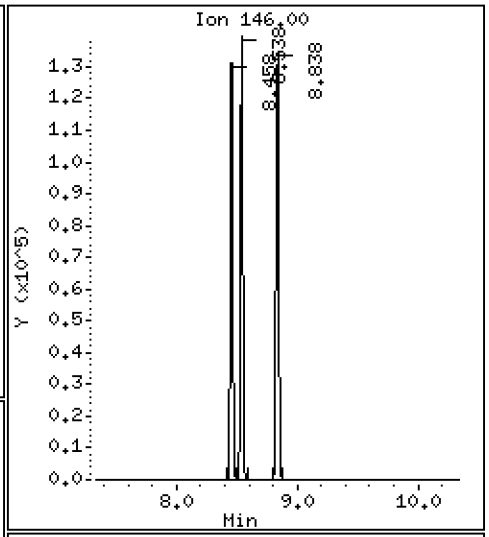
Concentration: 16.85 ug/mL

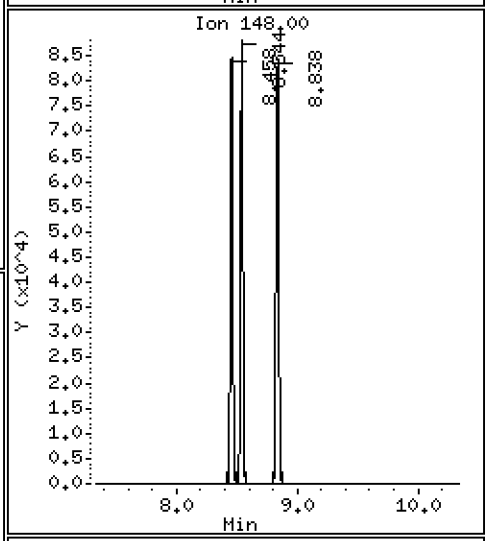


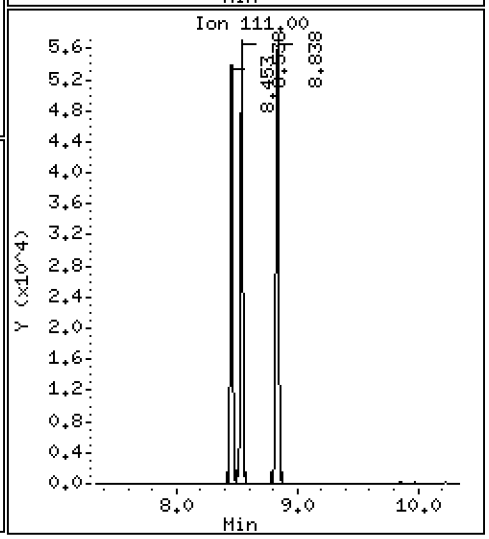












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

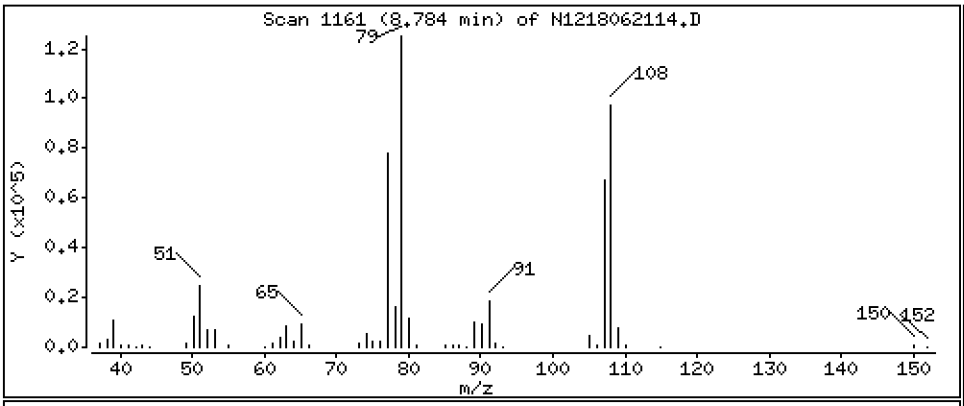
Operator: JZ

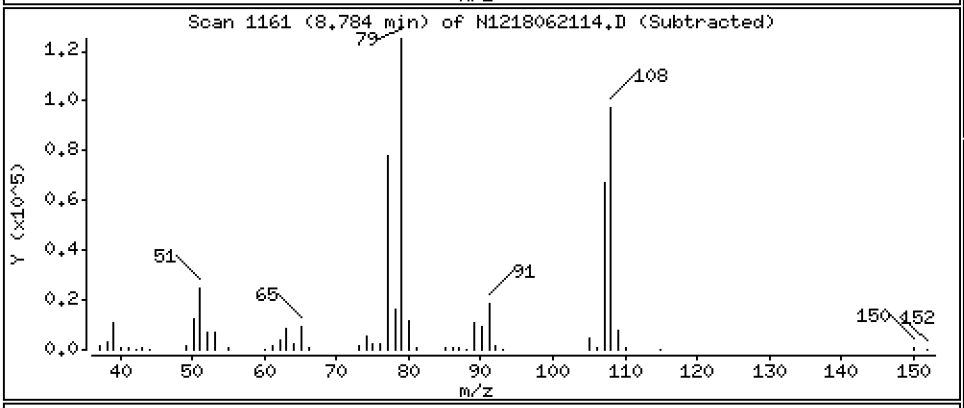
Column phase: ZB-5msi

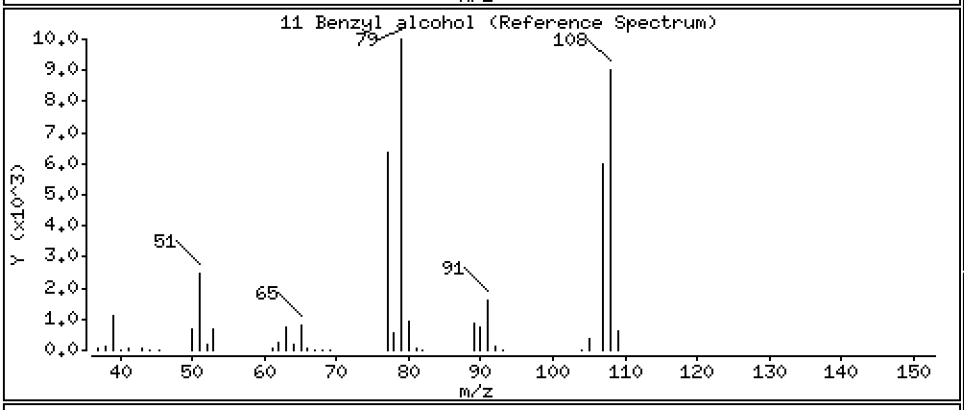
Column diameter: 0.32

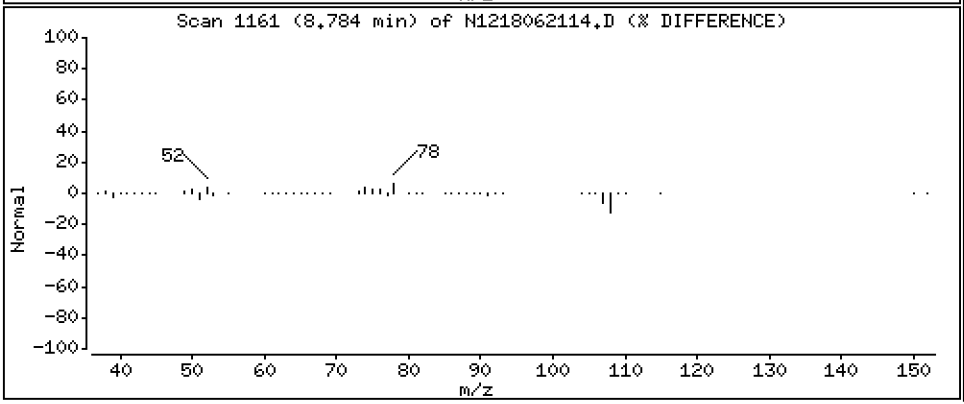
11 Benzyl alcohol

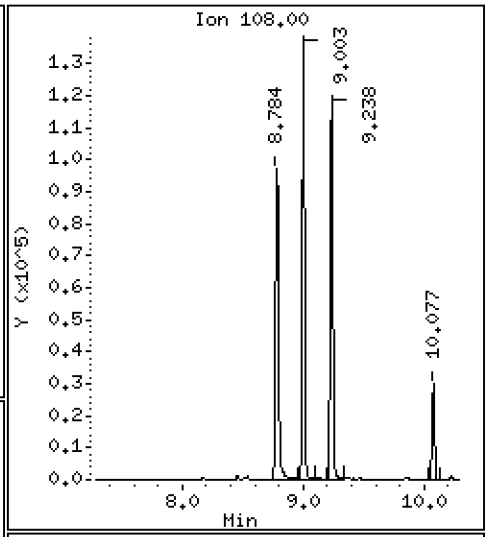
Concentration: 18.61 ug/mL

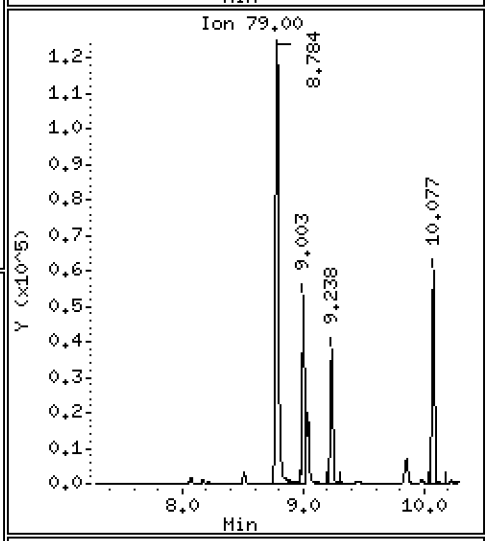


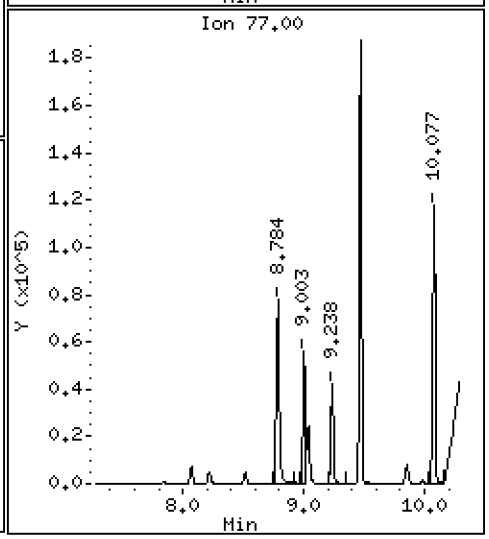












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

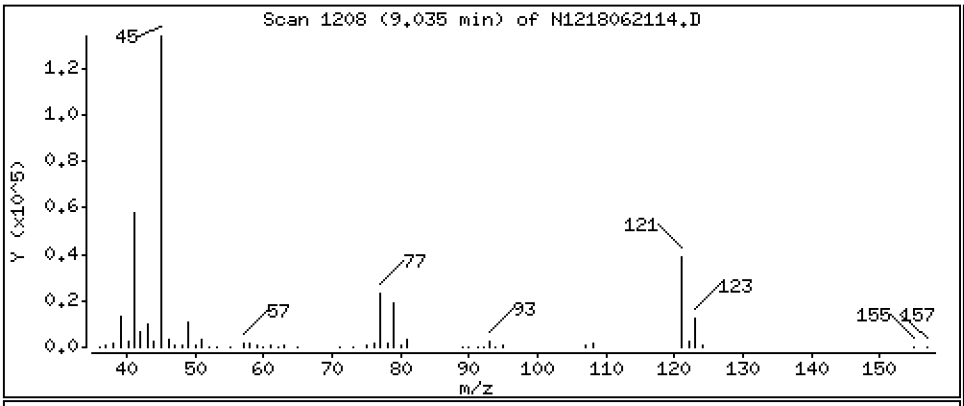
Operator: JZ

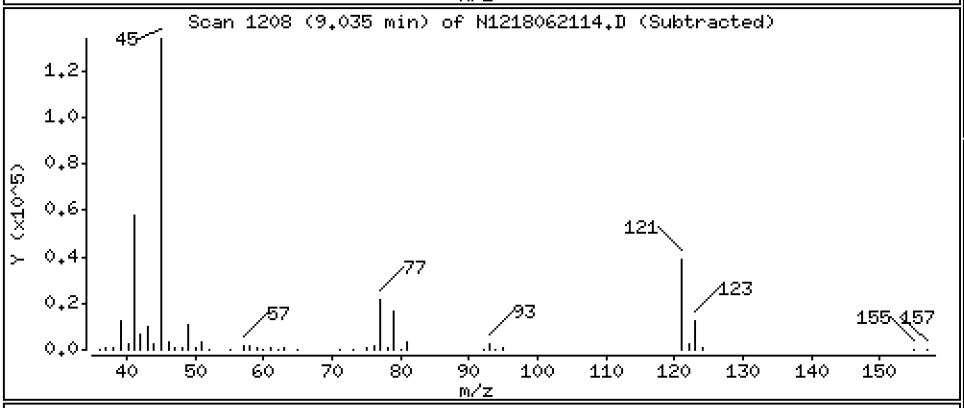
Column phase: ZB-5msi

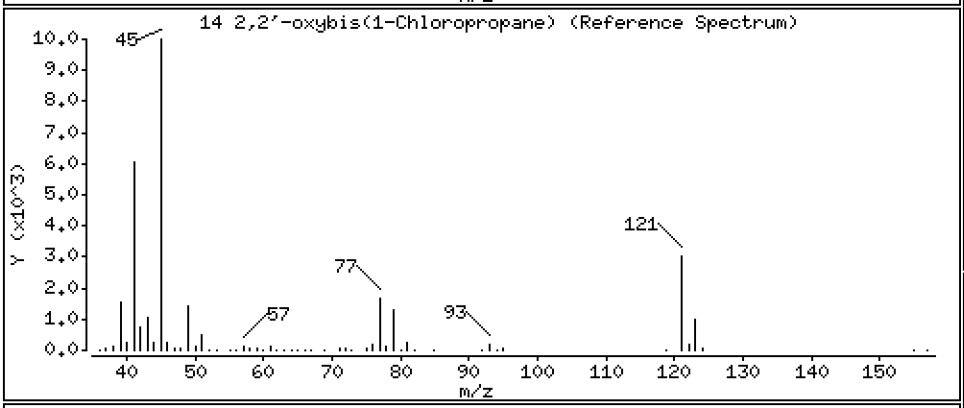
Column diameter: 0.32

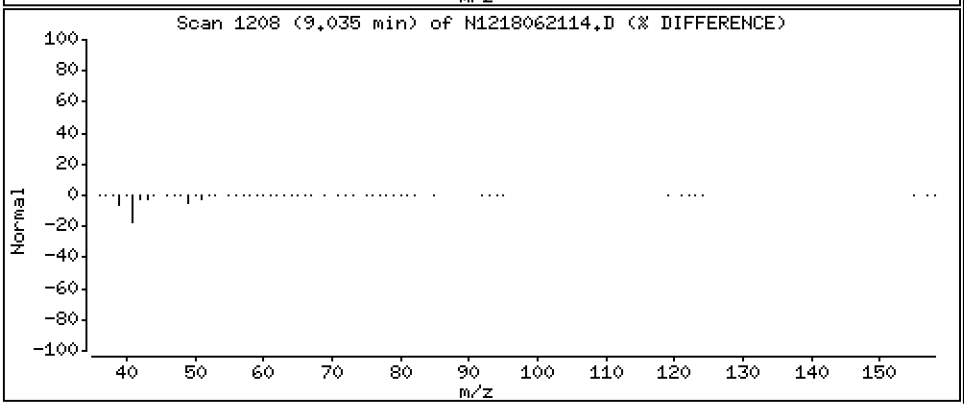
14 2,2'-oxybis(1-Chloropropane)

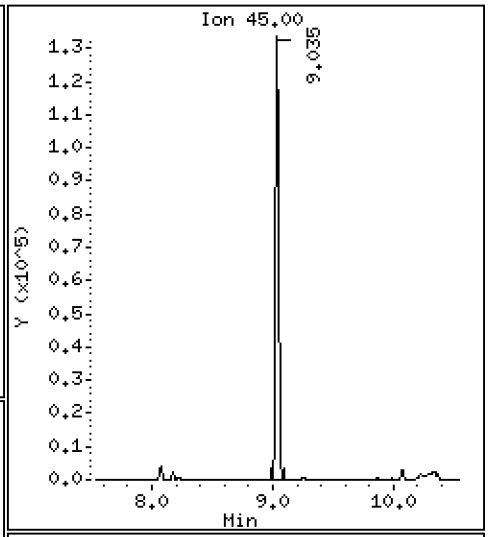
Concentration: 19.59 ug/mL

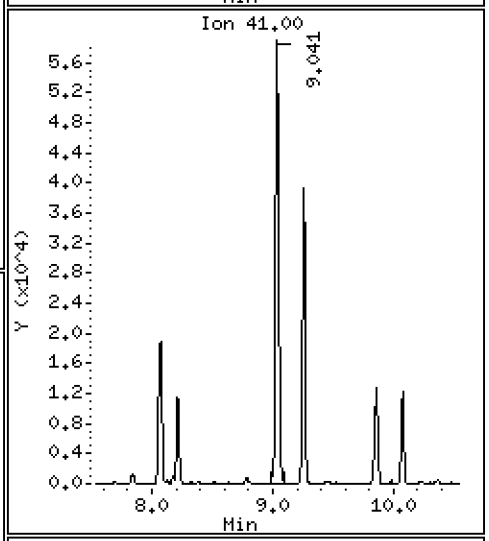


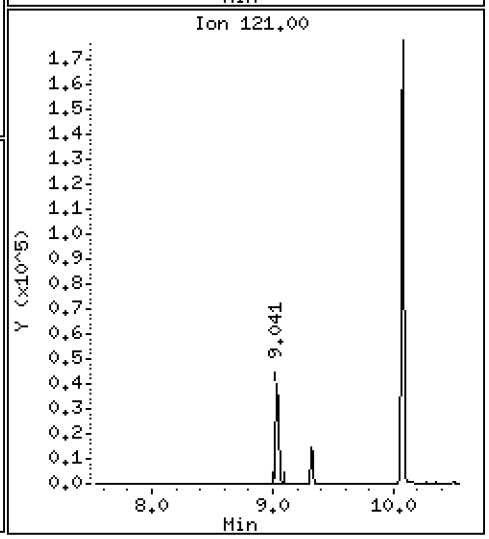












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

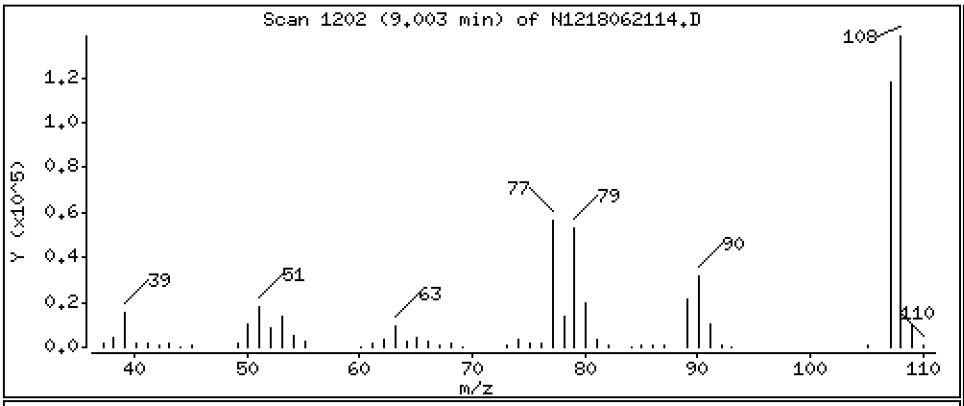
Operator: JZ

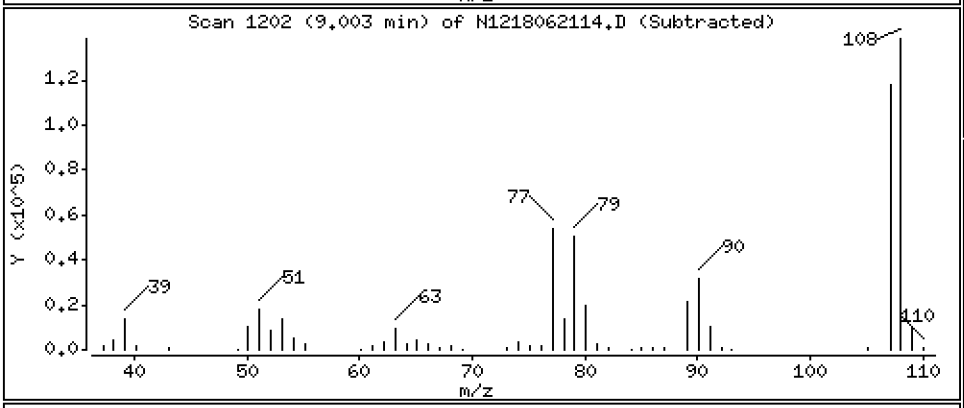
Column phase: ZB-5msi

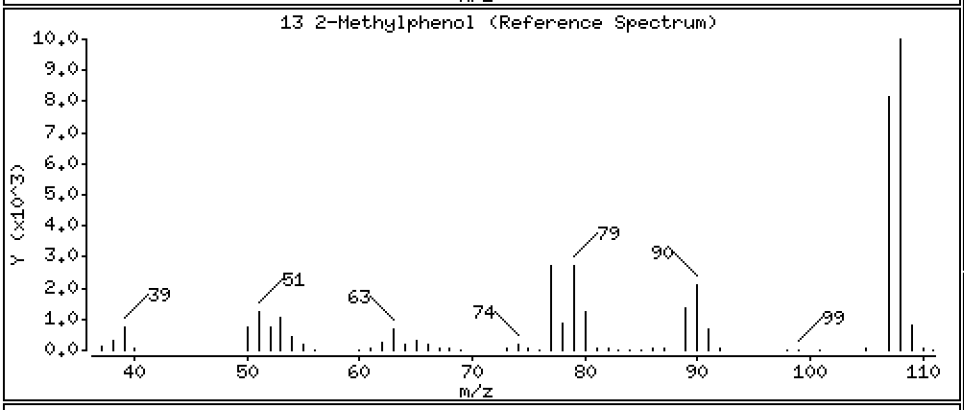
Column diameter: 0.32

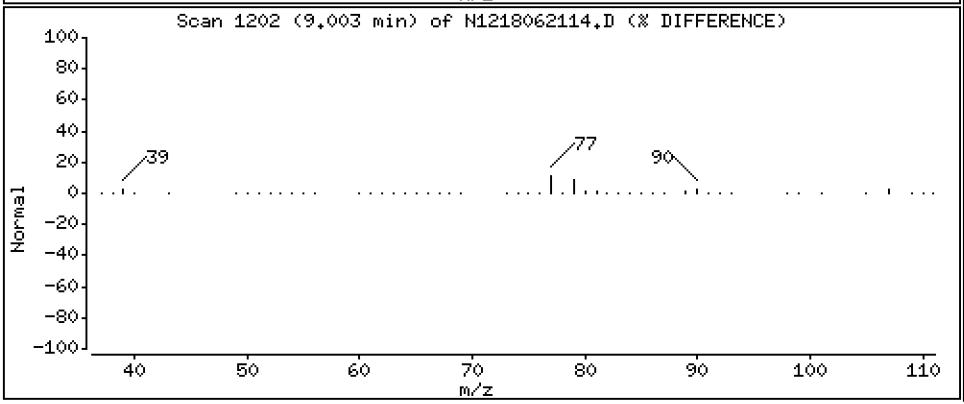
13 2-Methylphenol

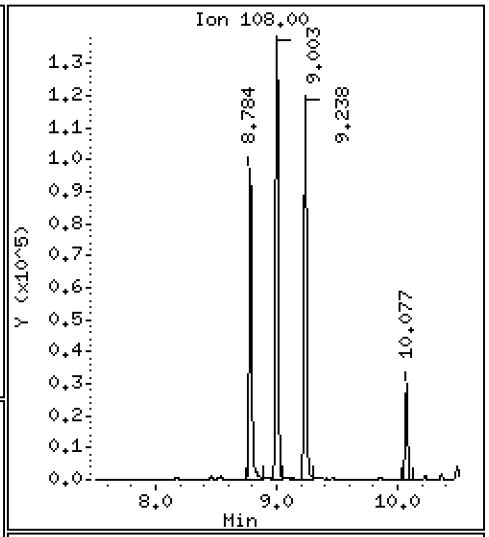
Concentration: 17.29 ug/mL

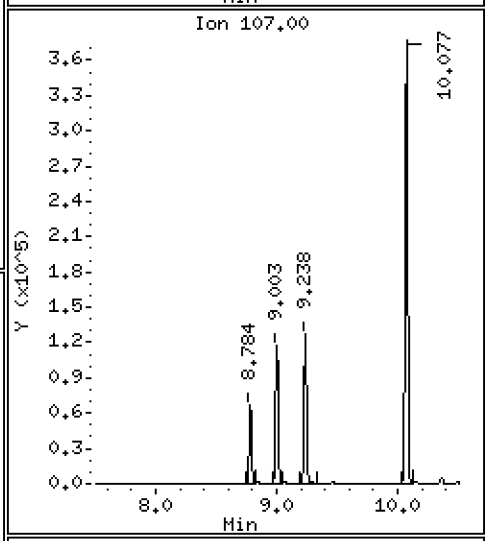


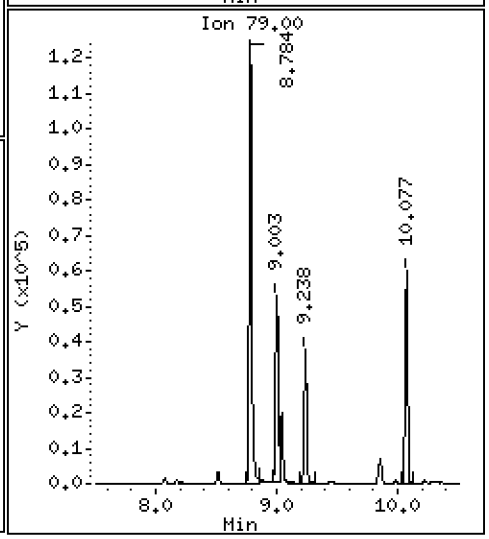












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

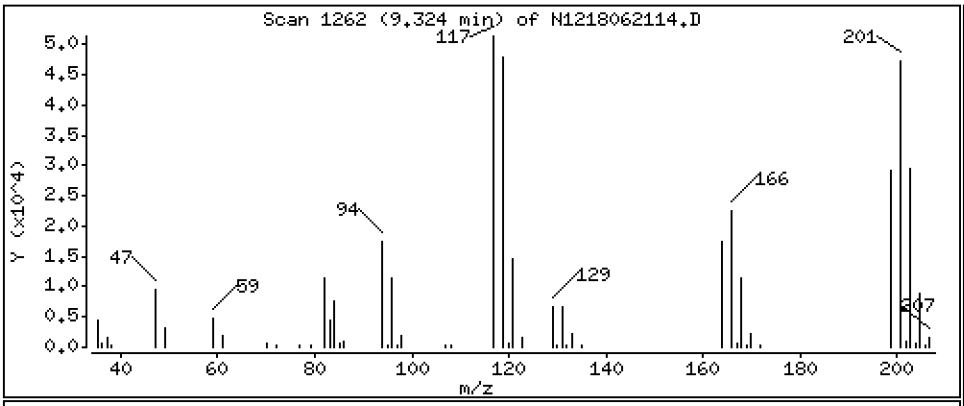
Operator: JZ

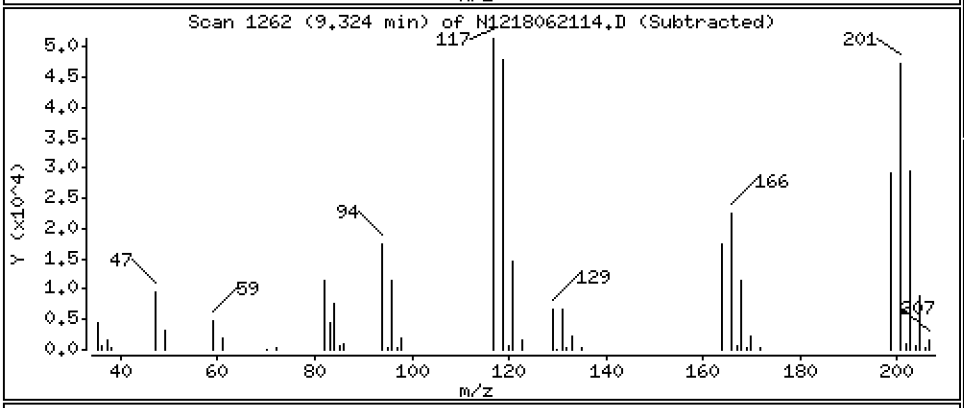
Column phase: ZB-5msi

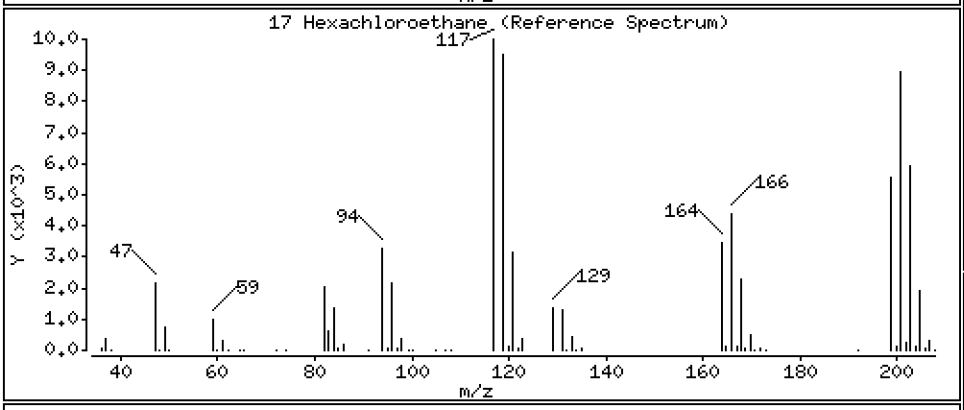
Column diameter: 0.32

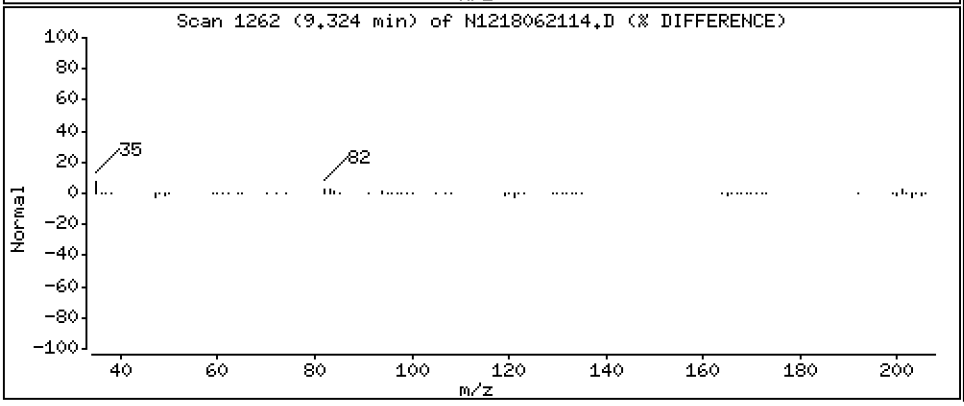
17 Hexachloroethane

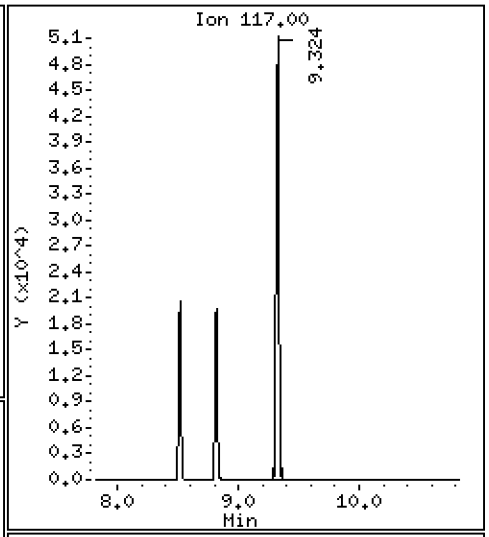
Concentration: 15.69 ug/mL

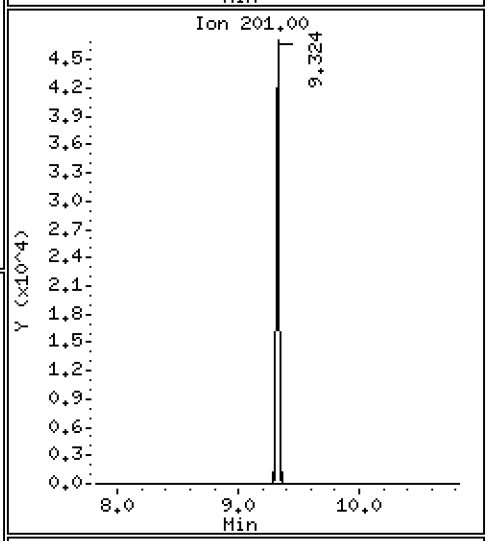


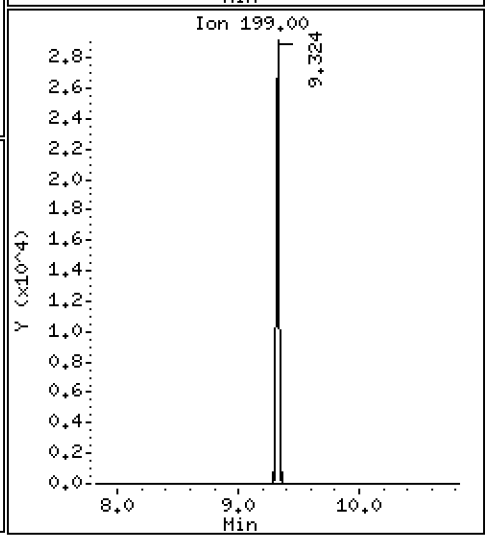












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

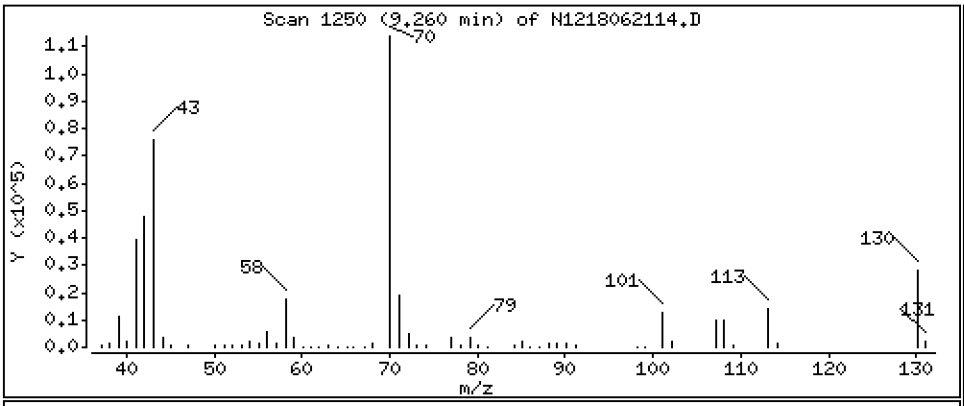
Operator: JZ

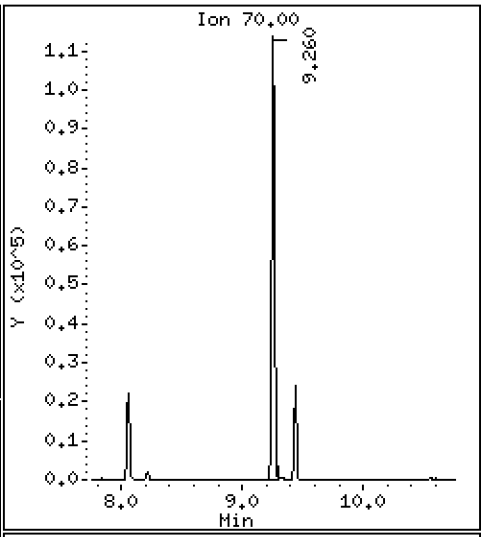
Column phase: ZB-5msi

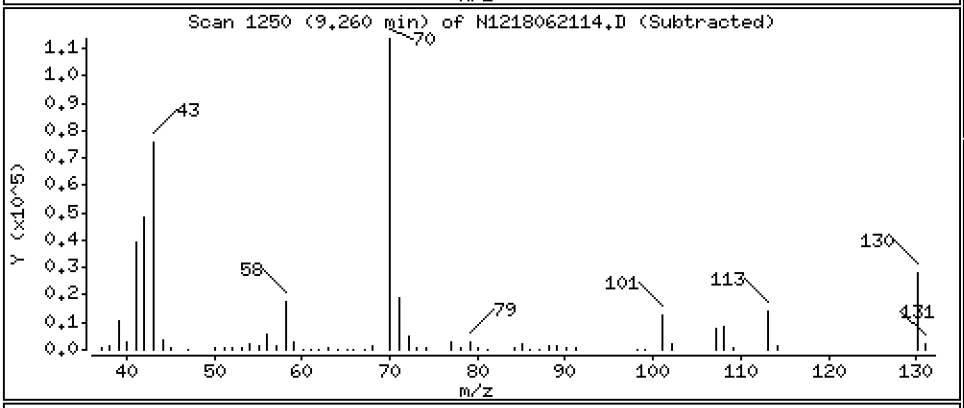
Column diameter: 0.32

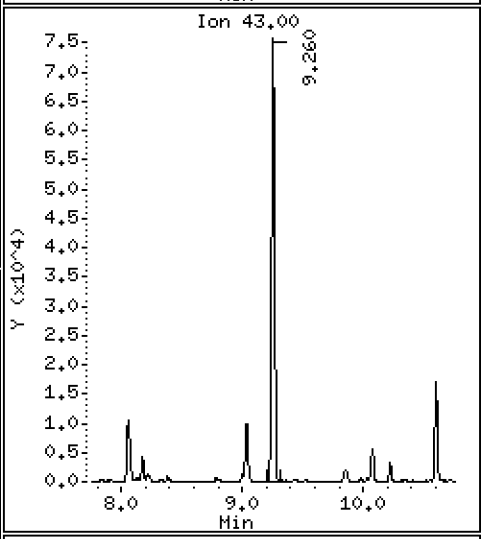
16 N-Nitroso-di-n-propylamine

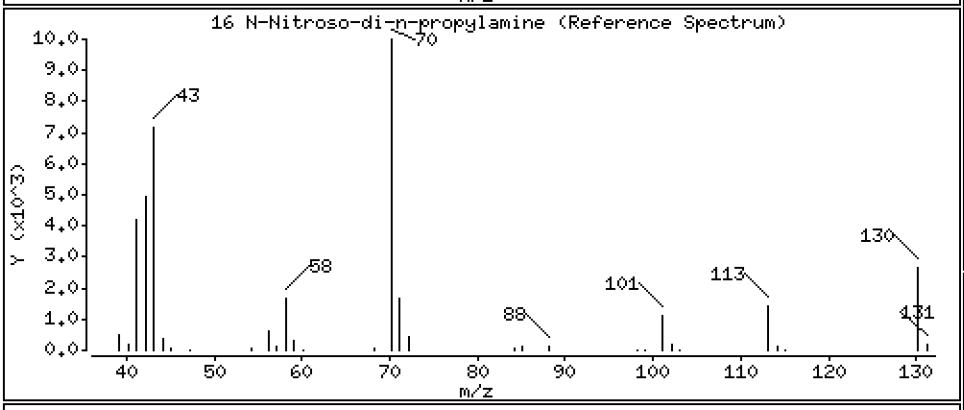
Concentration: 20.64 ug/mL

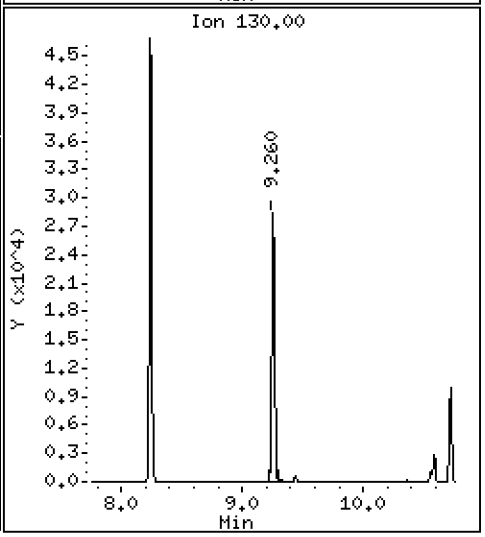


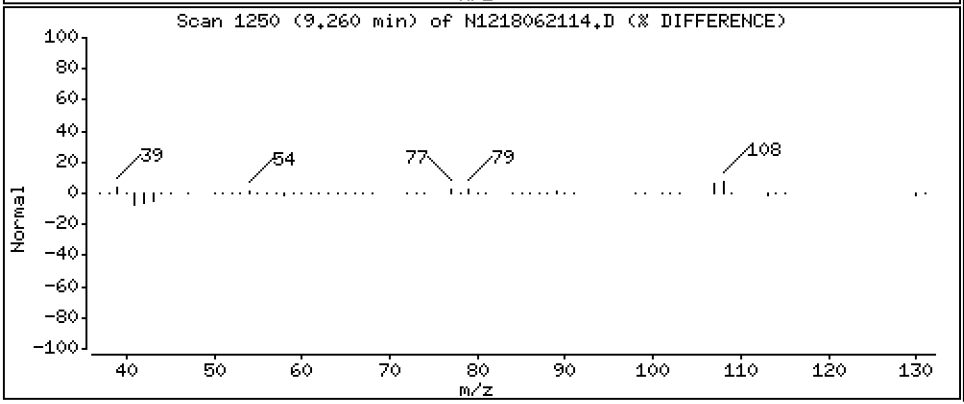












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

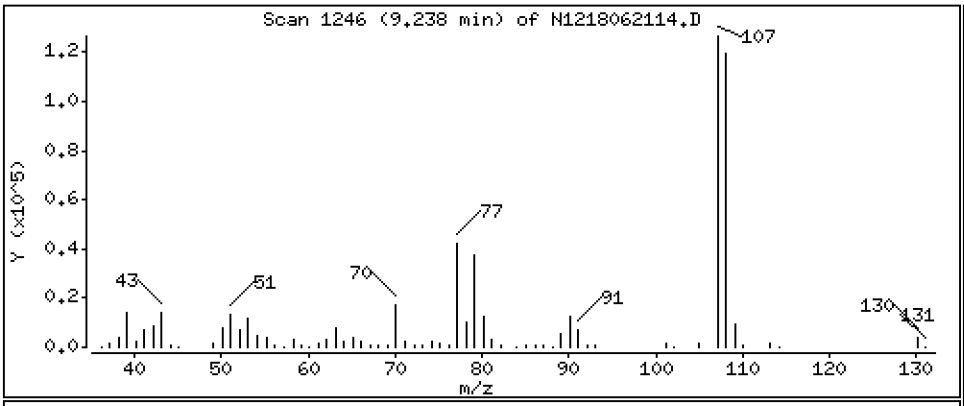
Operator: JZ

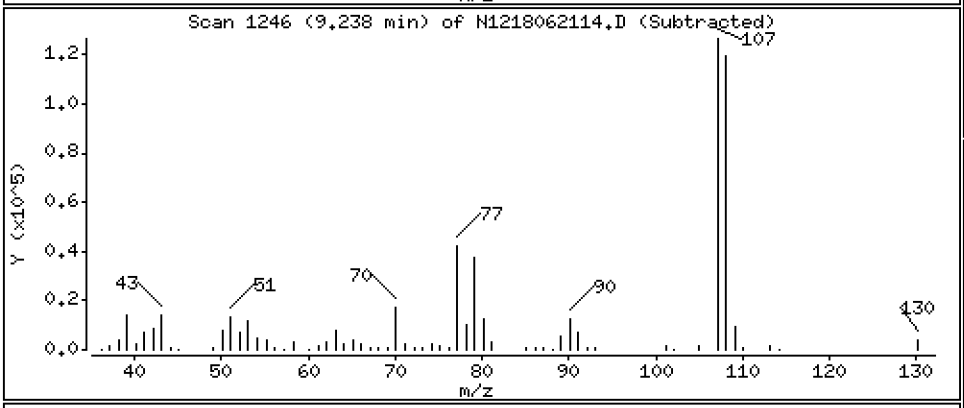
Column phase: ZB-5msi

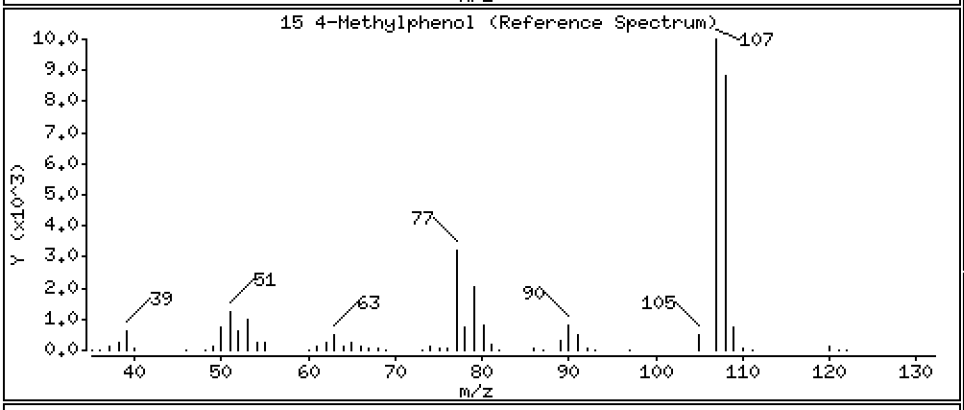
Column diameter: 0.32

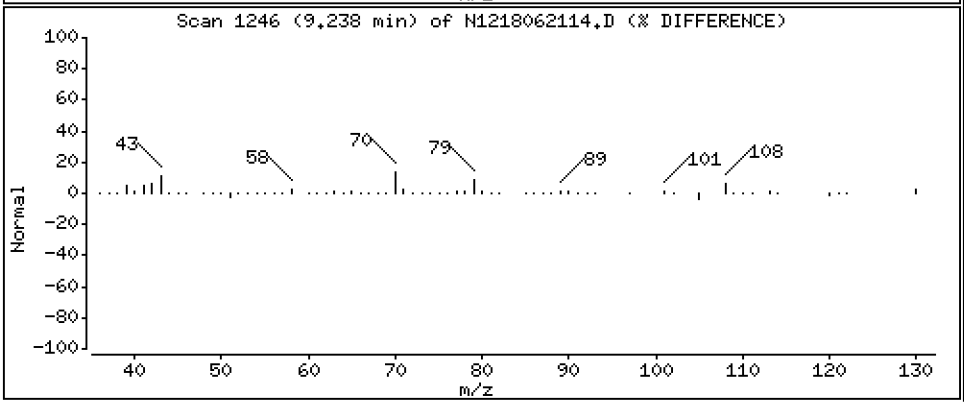
15 4-Methylphenol

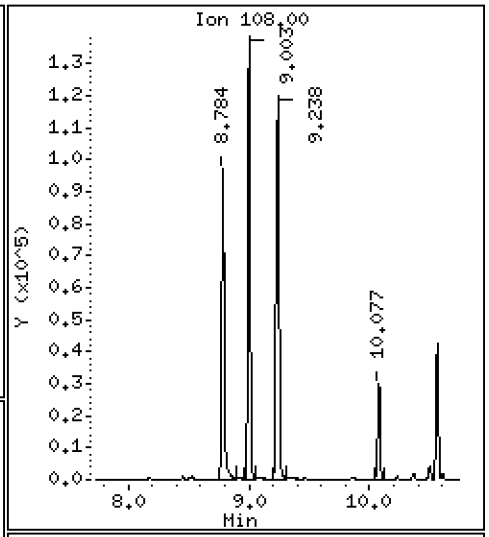
Concentration: 17.34 ug/mL

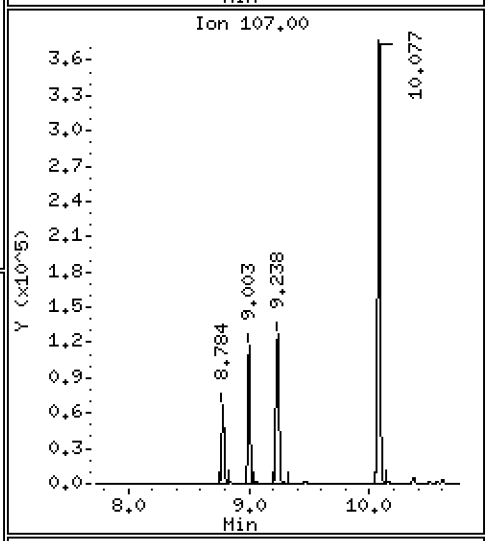


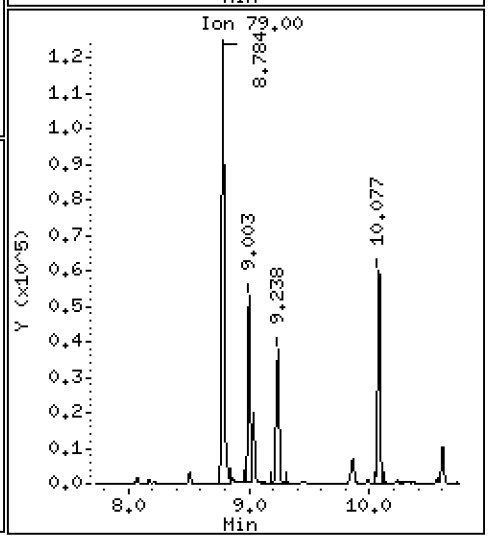












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

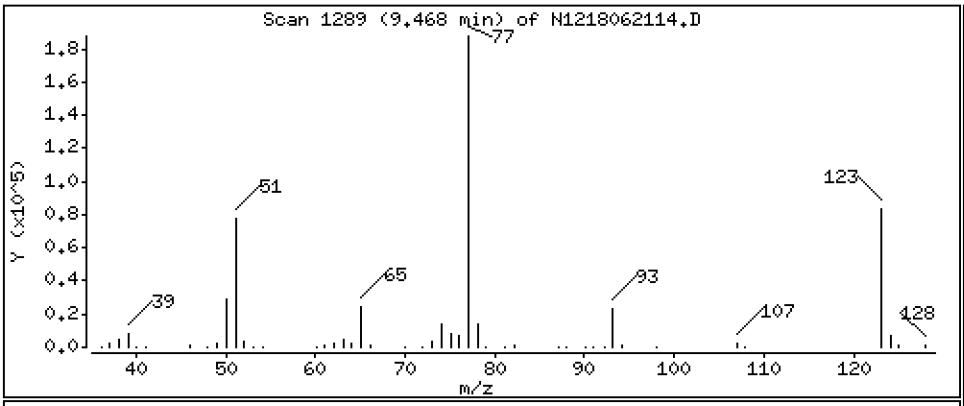
Operator: JZ

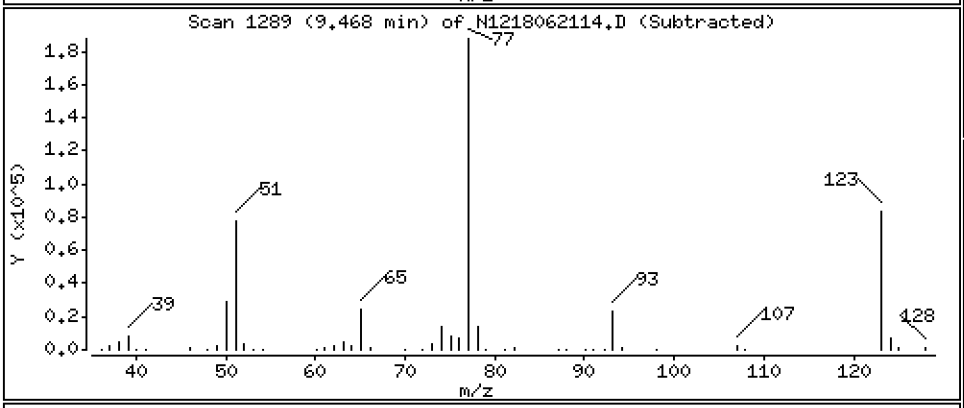
Column phase: ZB-5msi

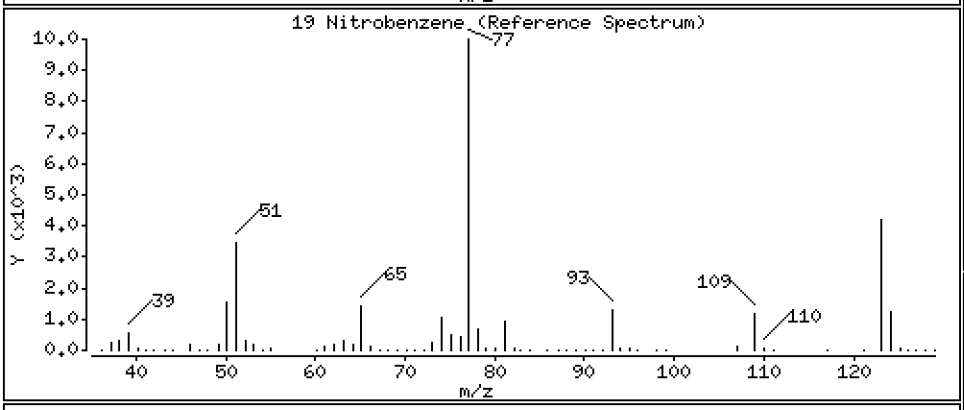
Column diameter: 0.32

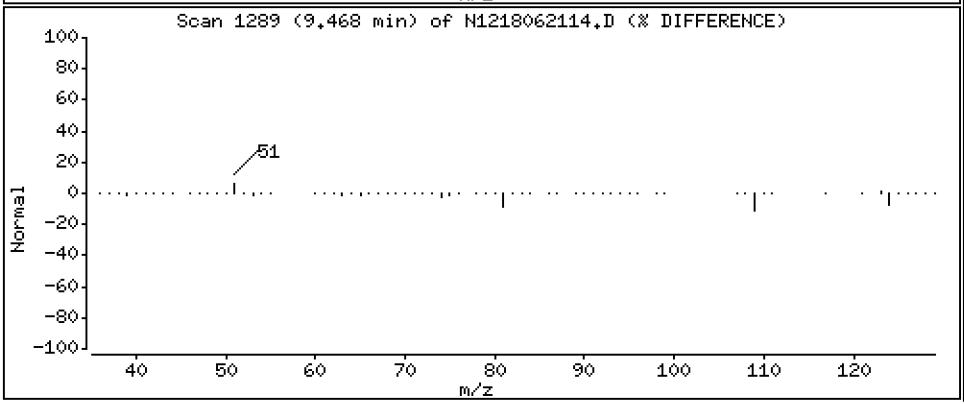
19 Nitrobenzene

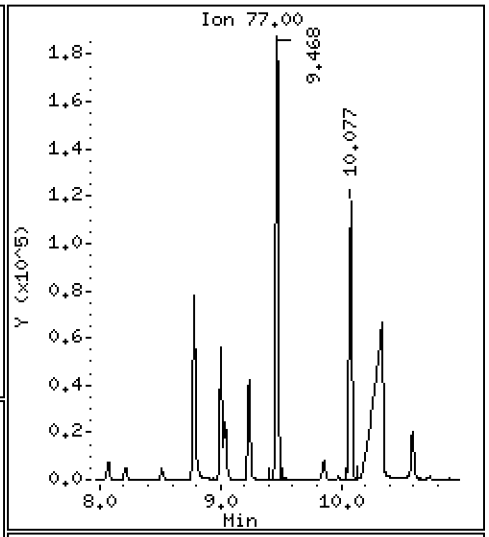
Concentration: 19.42 ug/mL

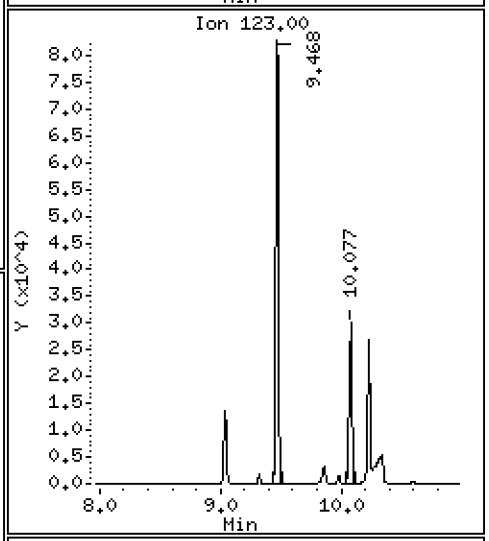


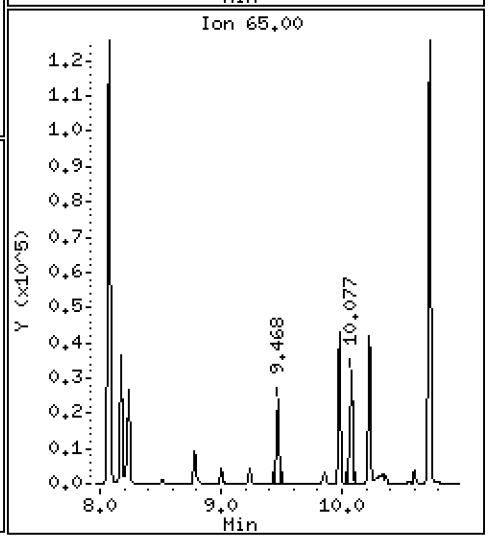












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

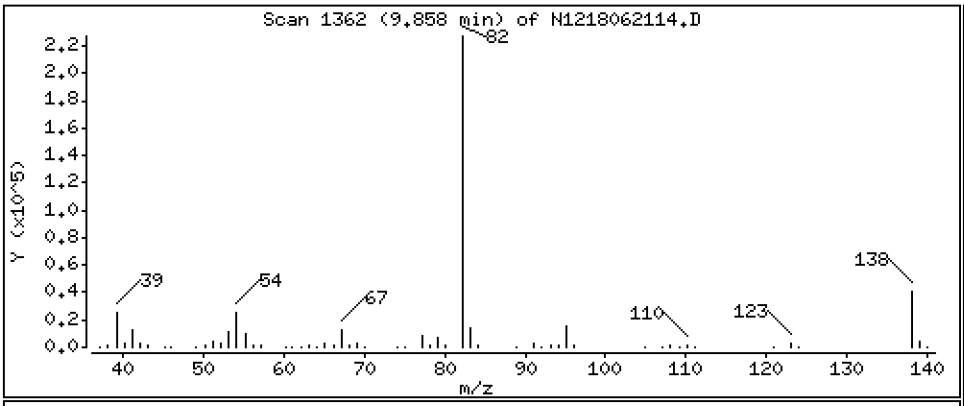
Operator: JZ

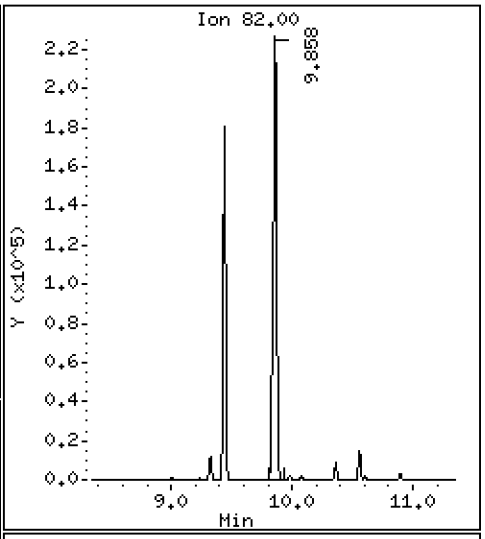
Column phase: ZB-5msi

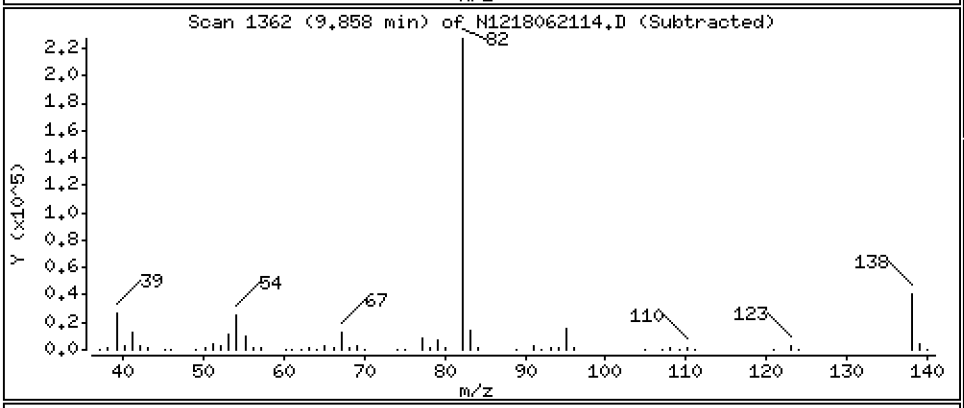
Column diameter: 0.32

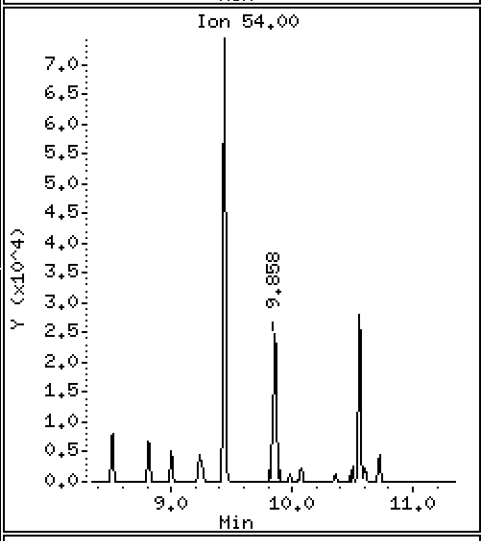
20 Isophorone

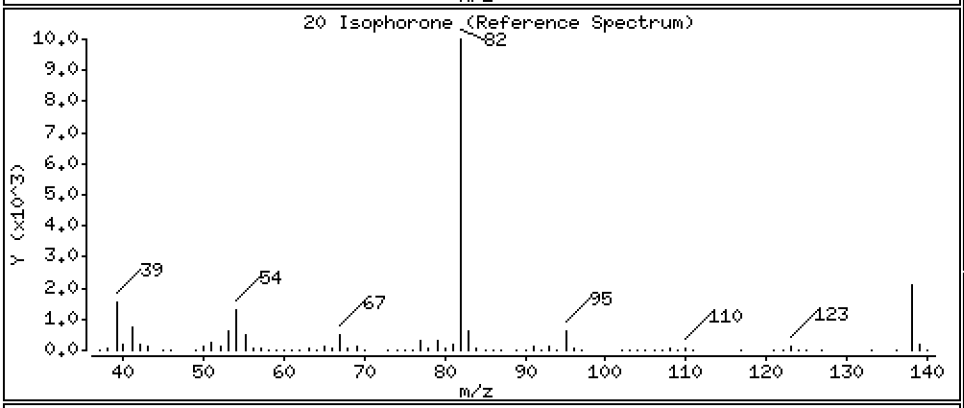
Concentration: 23.04 ug/mL

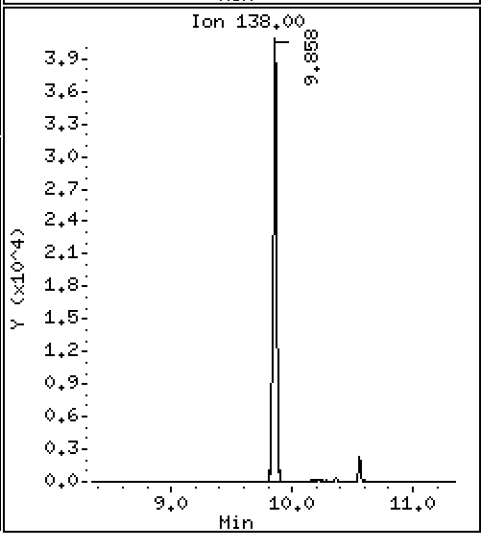


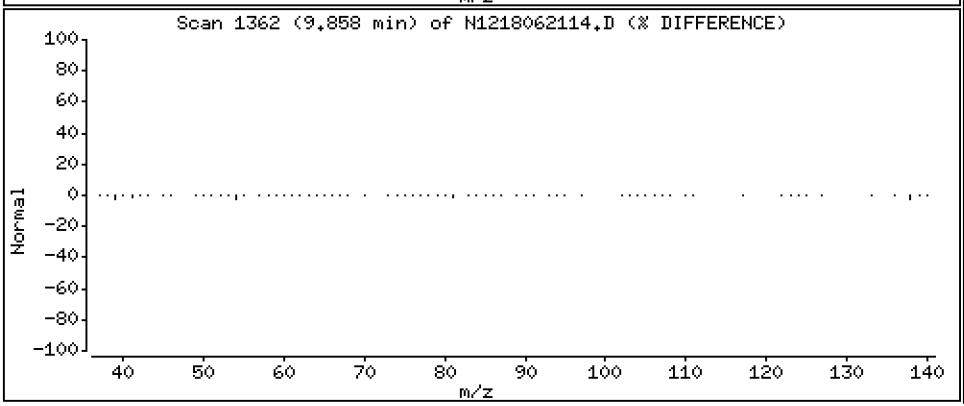












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

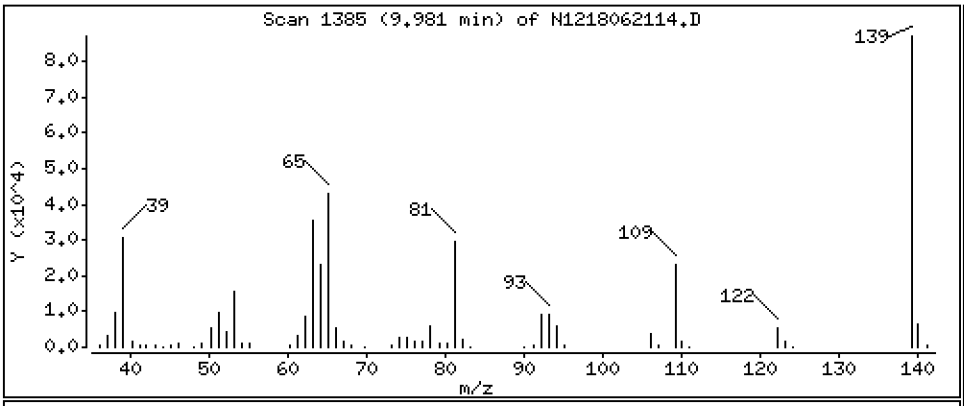
Operator: JZ

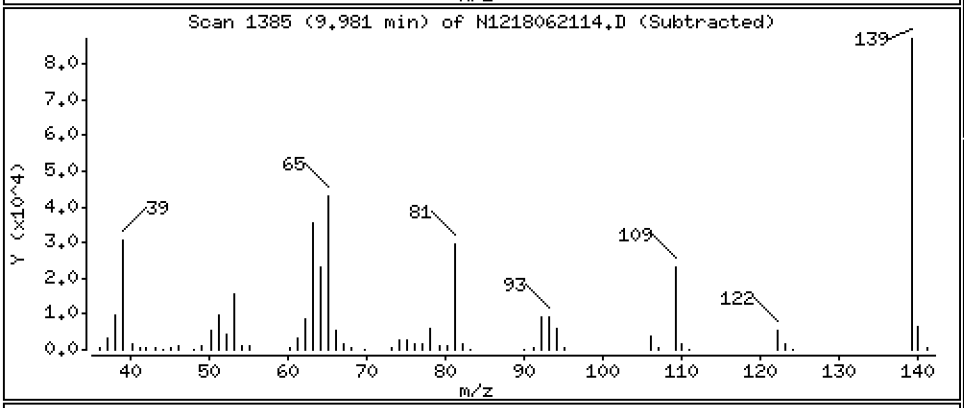
Column phase: ZB-5msi

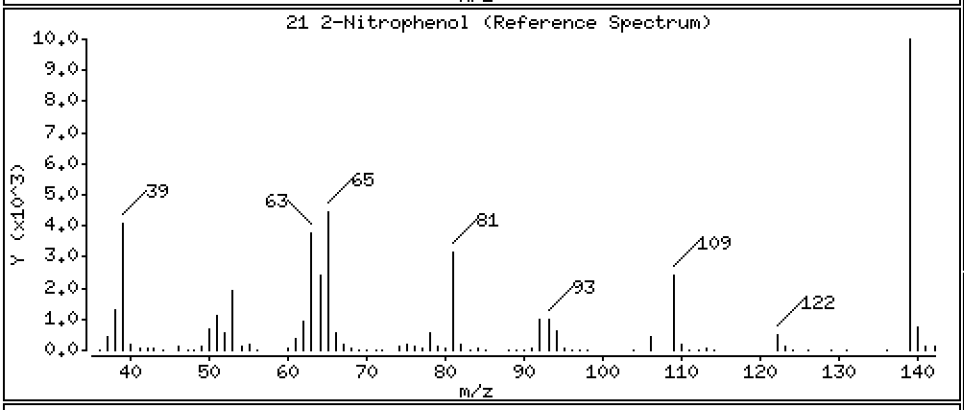
Column diameter: 0.32

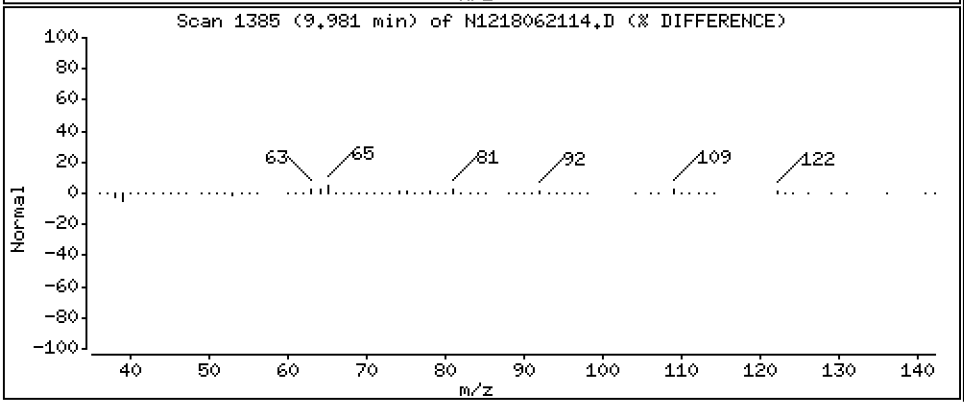
21 2-Nitrophenol

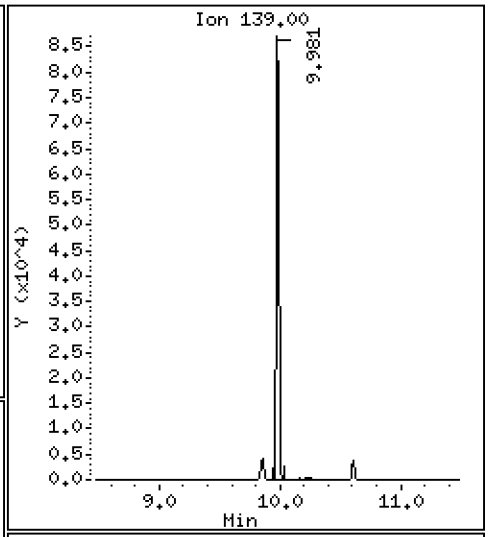
Concentration: 19.71 ug/mL

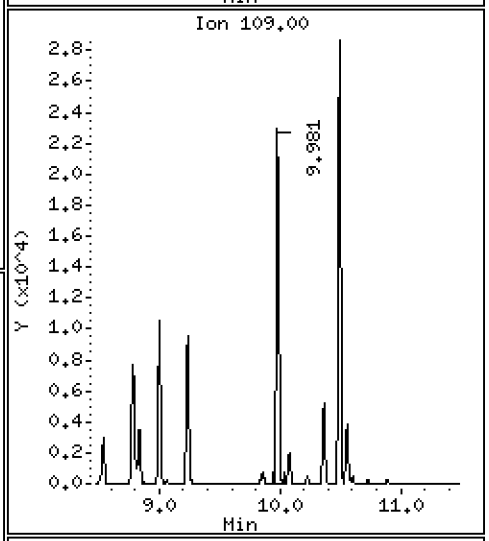


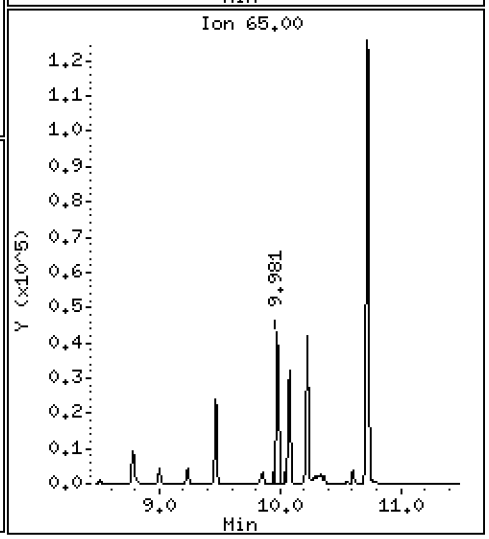












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

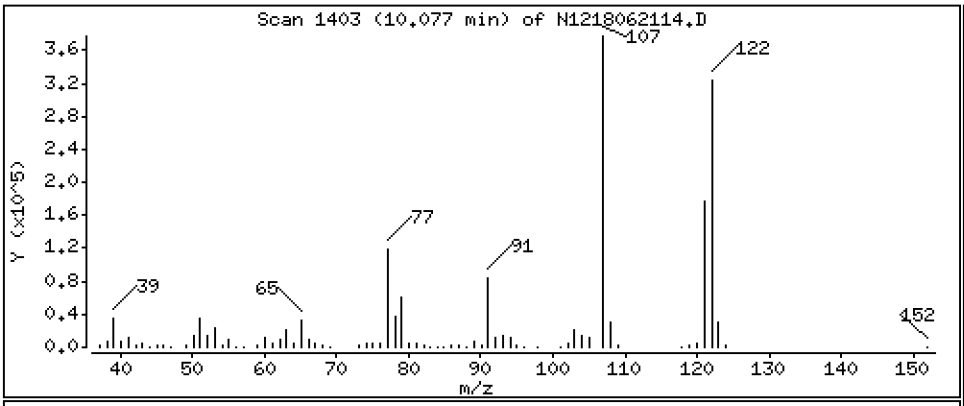
Operator: JZ

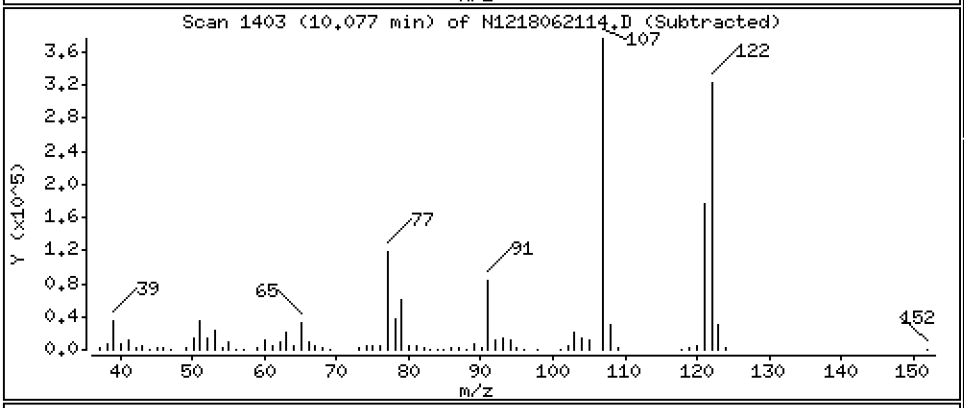
Column phase: ZB-5msi

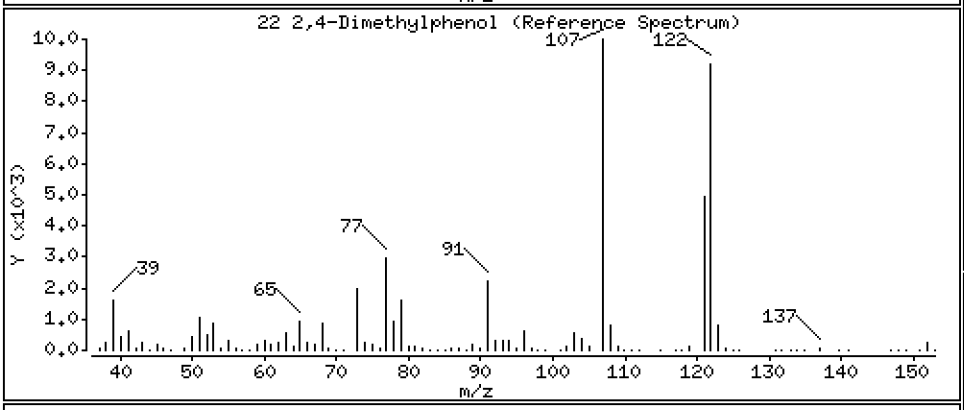
Column diameter: 0.32

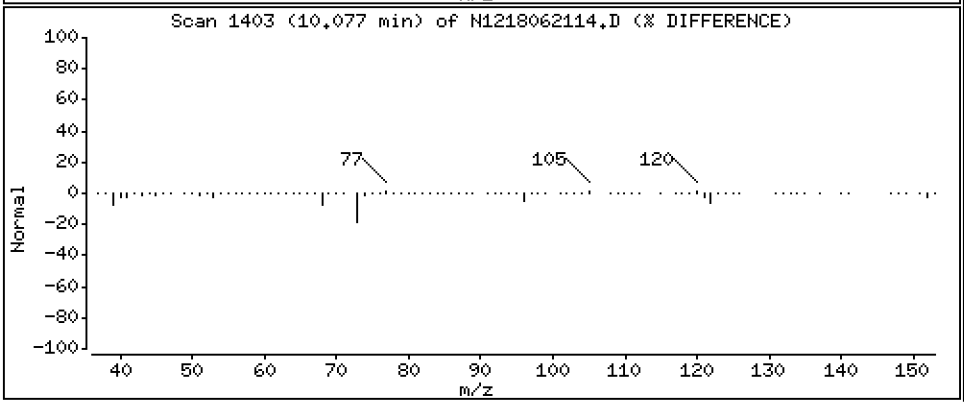
22 2,4-Dimethylphenol

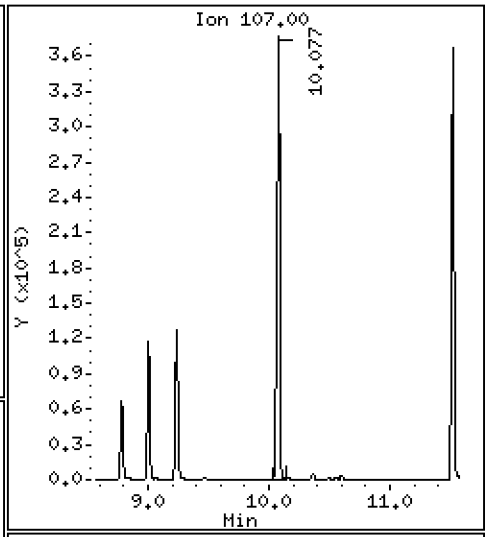
Concentration: 48.77 ug/mL

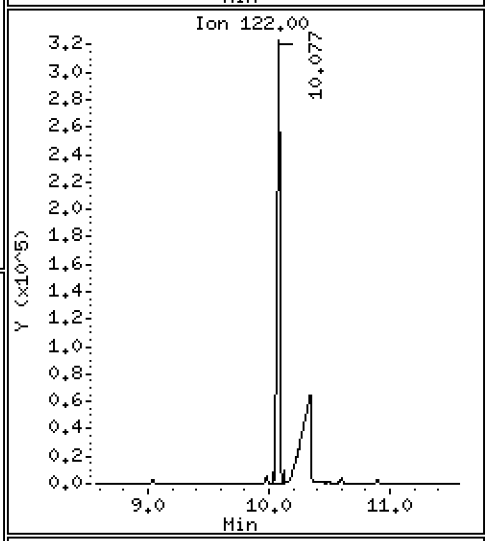


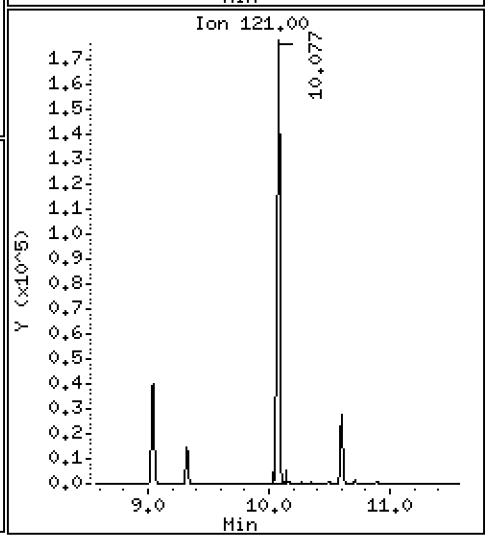












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

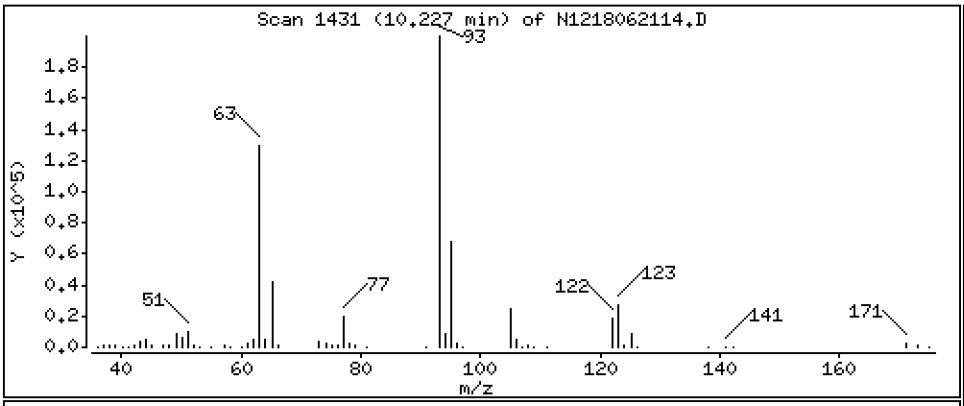
Operator: JZ

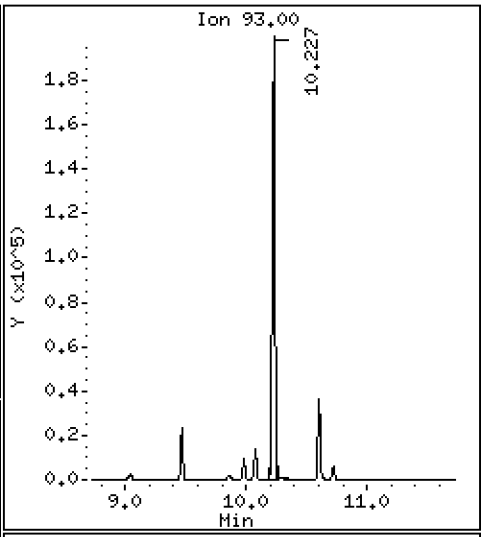
Column phase: ZB-5msi

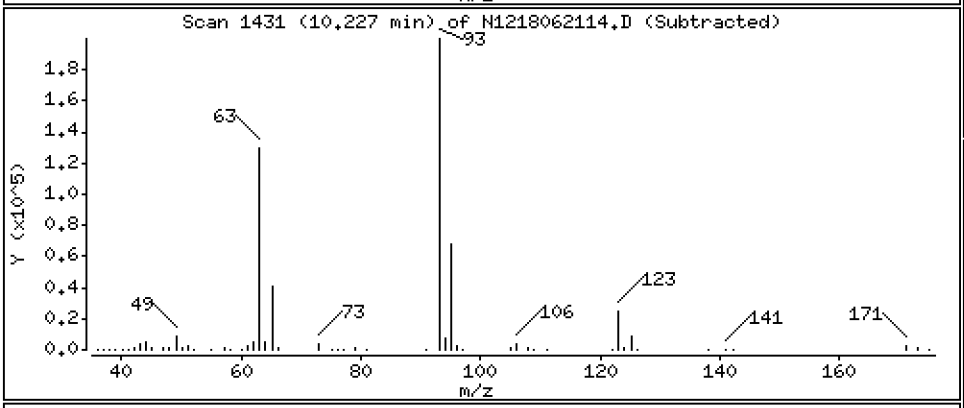
Column diameter: 0.32

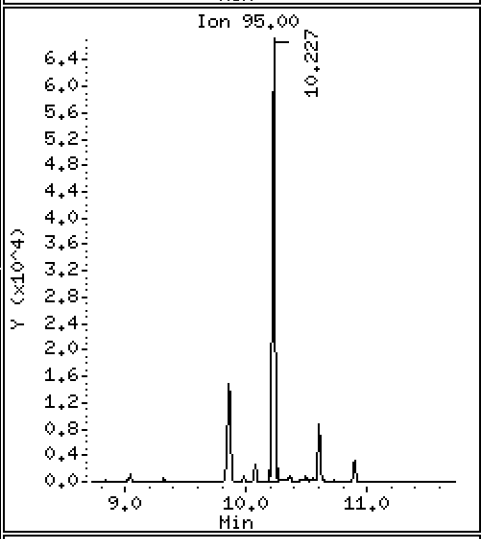
23 Bis(2-Chloroethoxy)methane

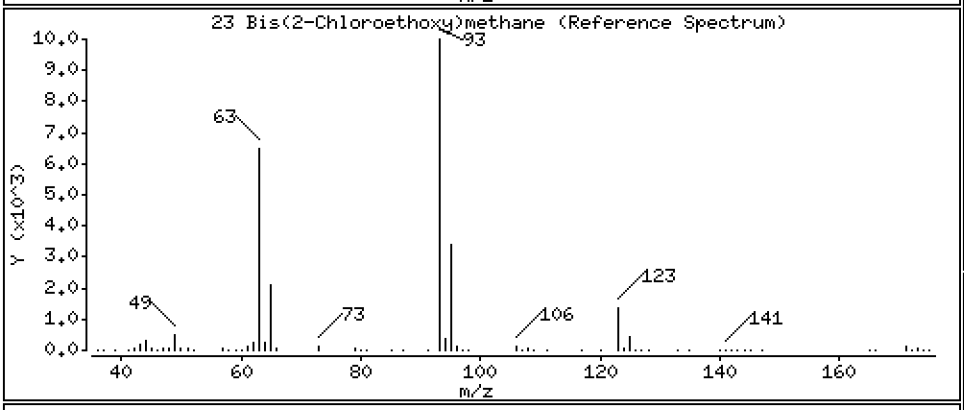
Concentration: 20.76 ug/mL

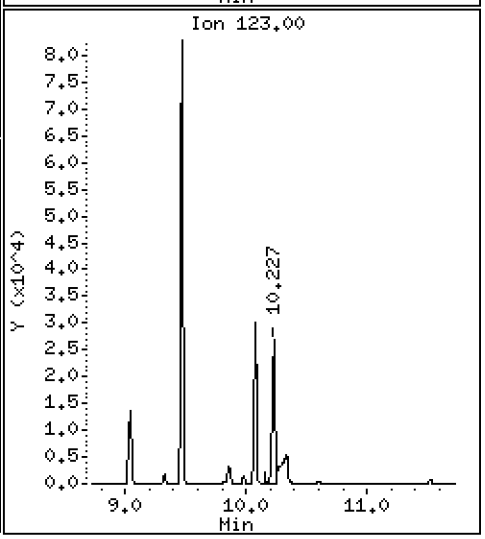


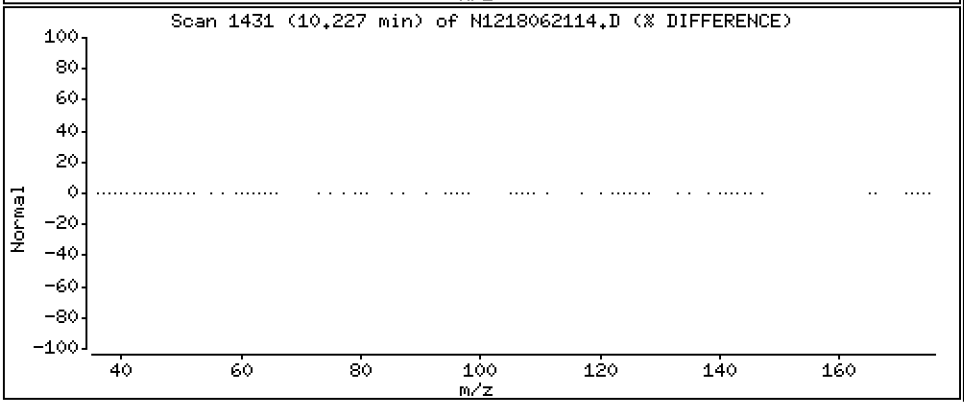












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

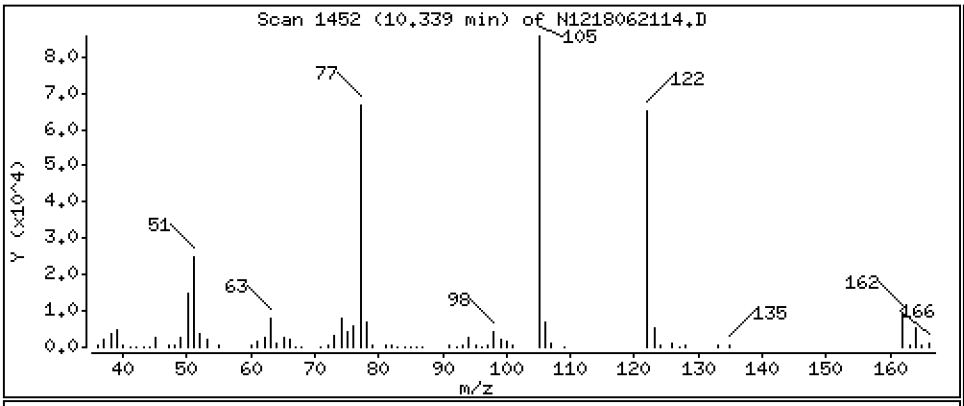
Operator: JZ

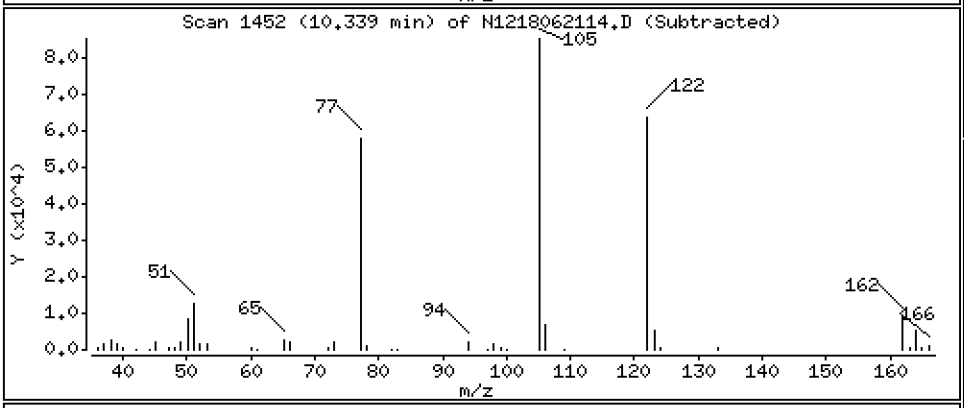
Column phase: ZB-5msi

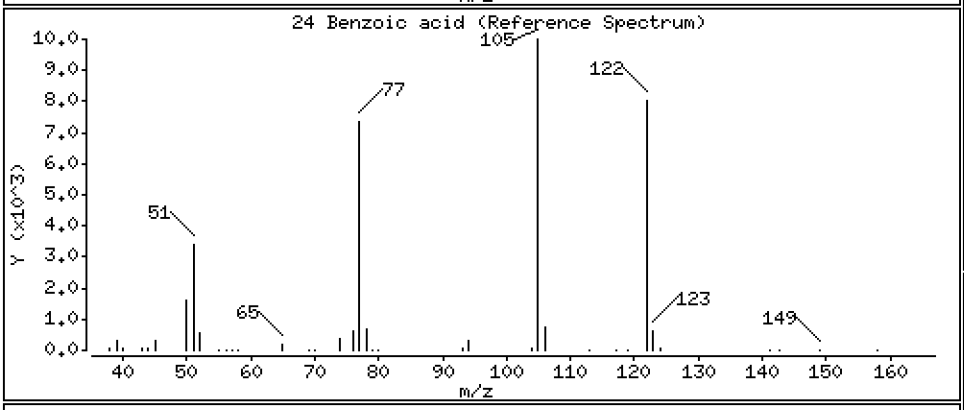
Column diameter: 0.32

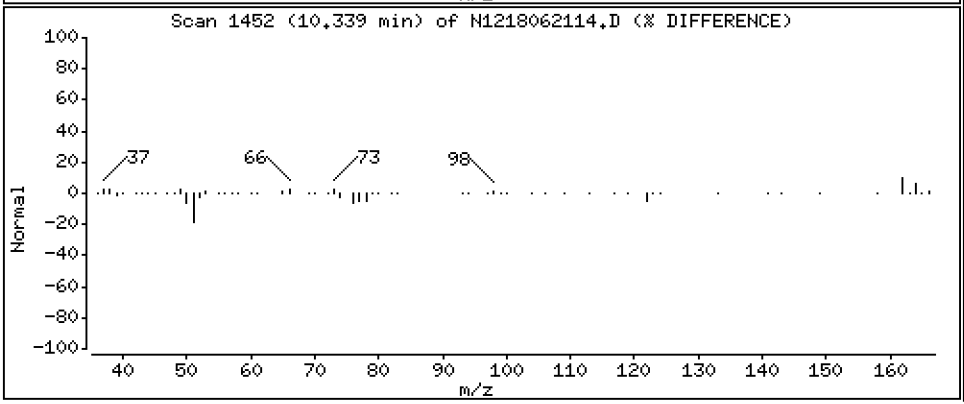
24 Benzoic acid

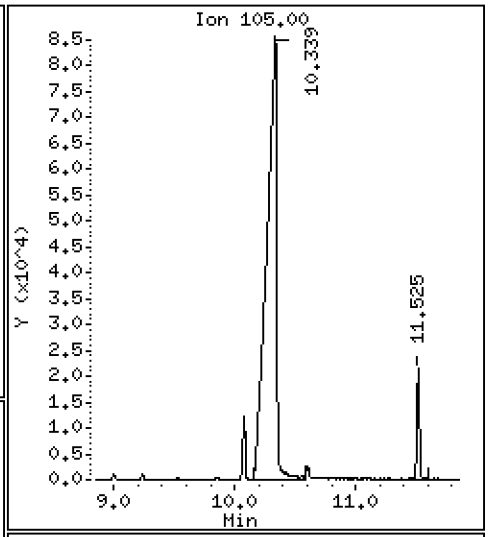
Concentration: 60.54 ug/mL

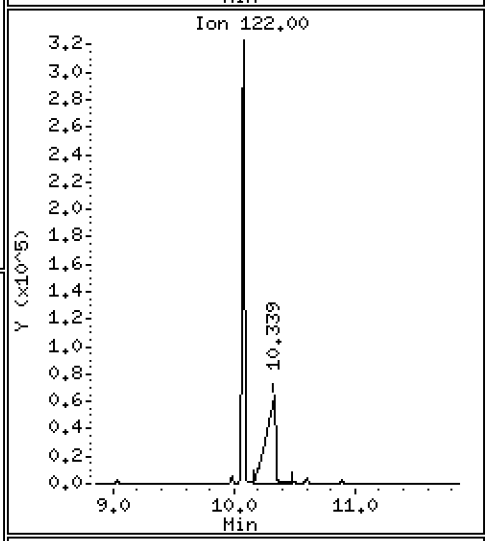


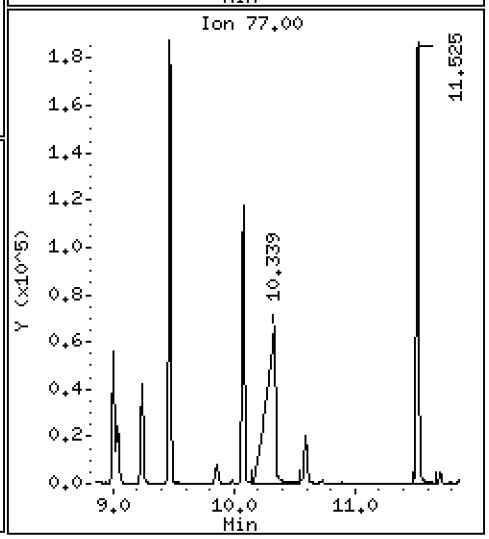












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

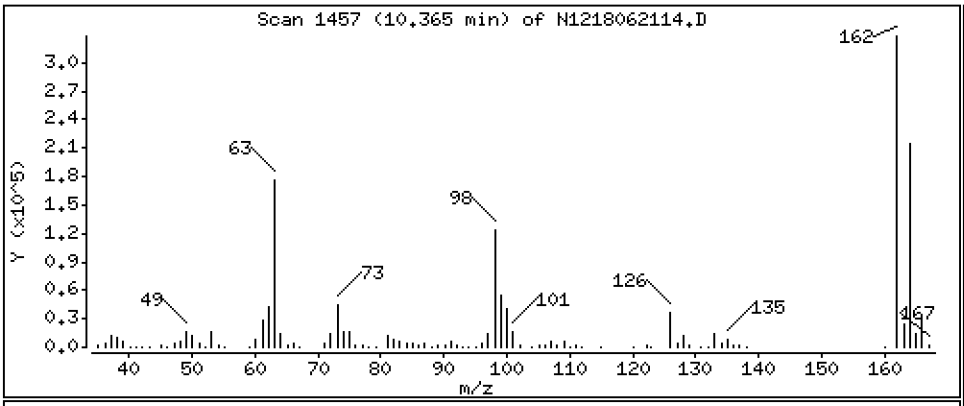
Operator: JZ

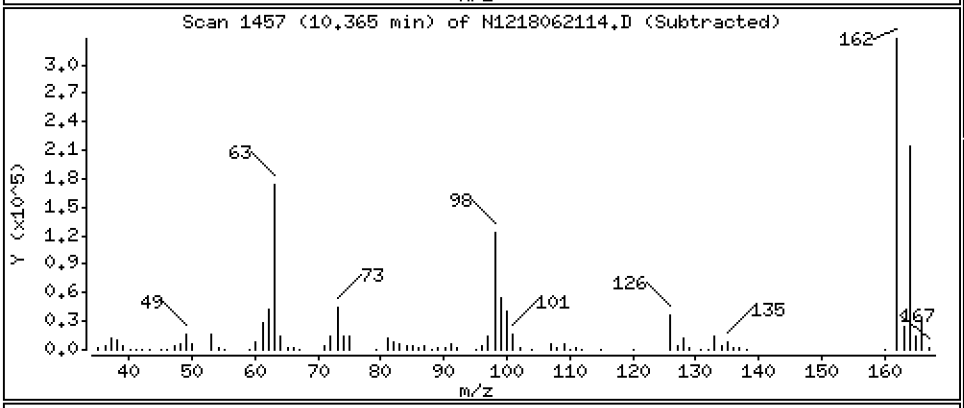
Column phase: ZB-5msi

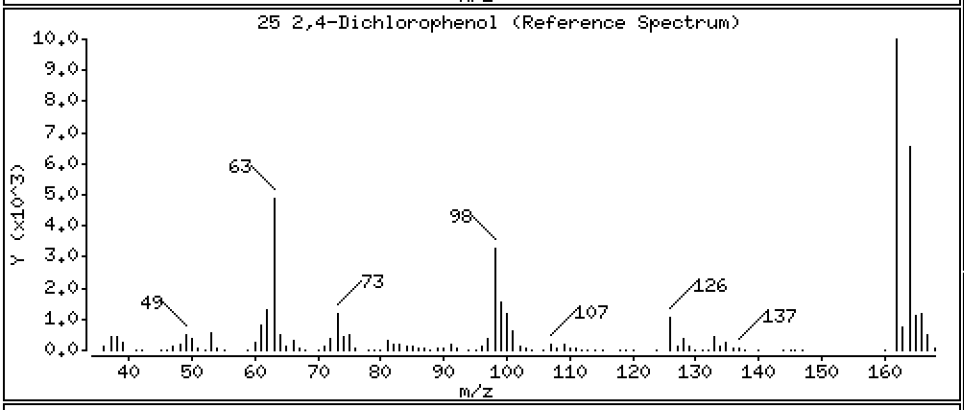
Column diameter: 0.32

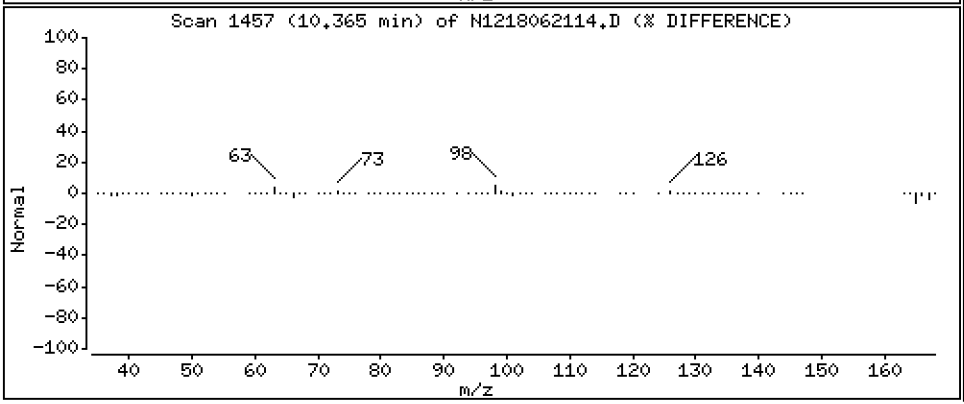
25 2,4-Dichlorophenol

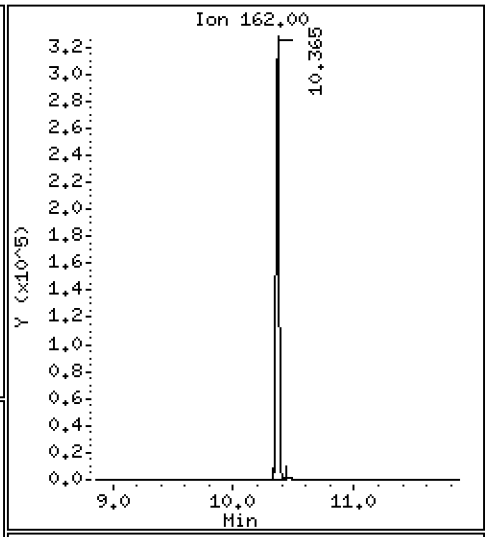
Concentration: 55.03 ug/mL

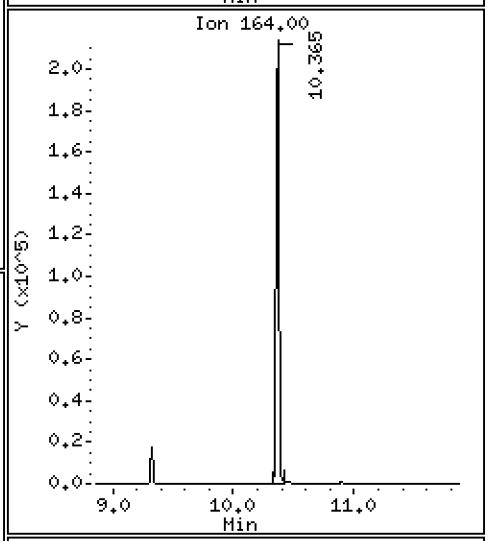


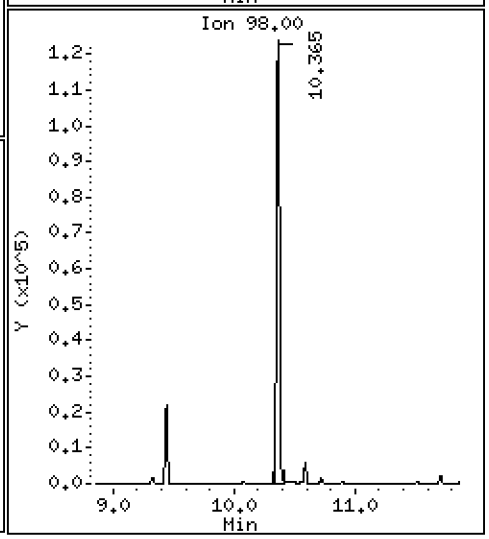












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

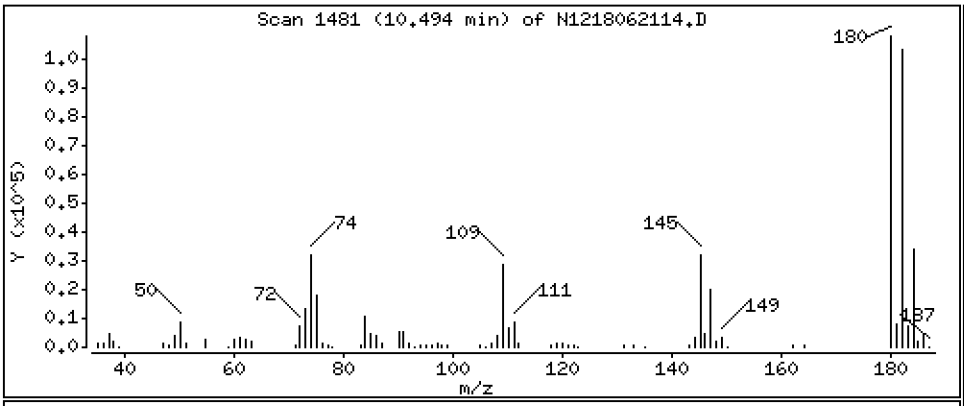
Operator: JZ

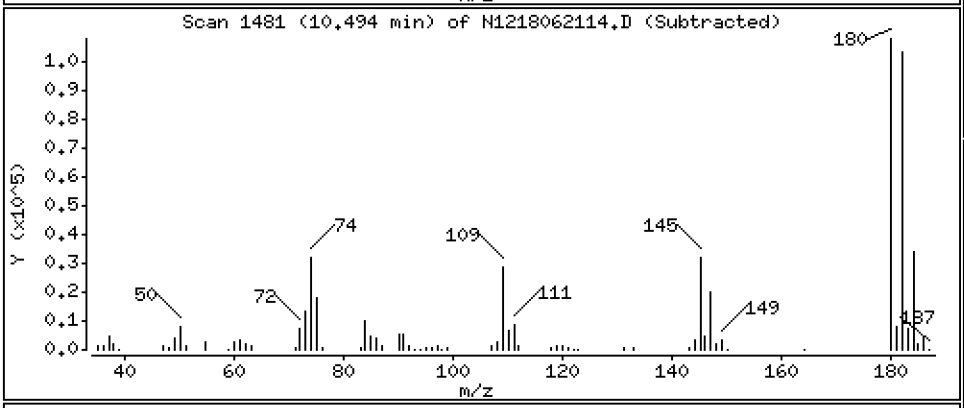
Column phase: ZB-5msi

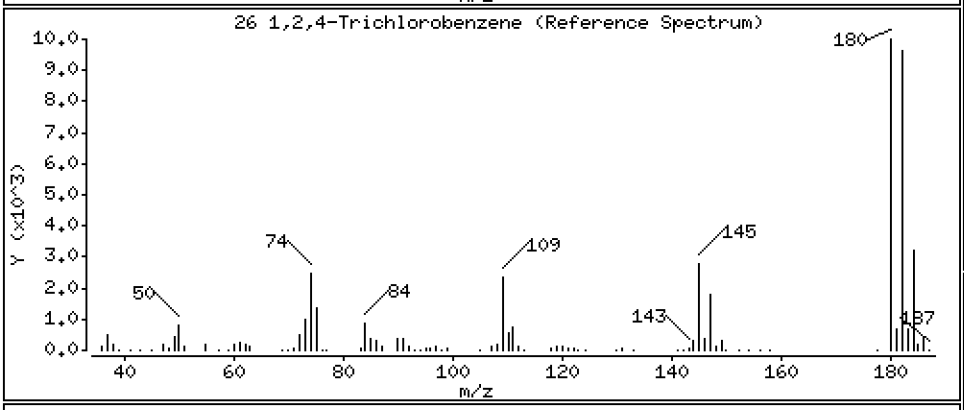
Column diameter: 0.32

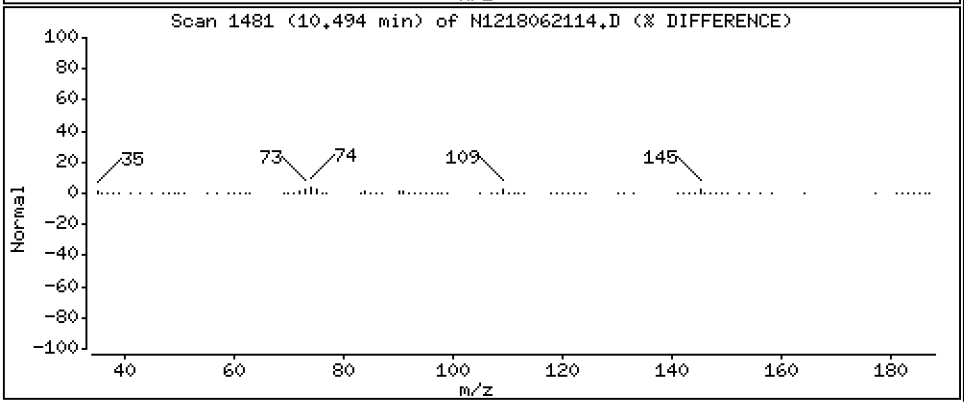
26 1,2,4-Trichlorobenzene

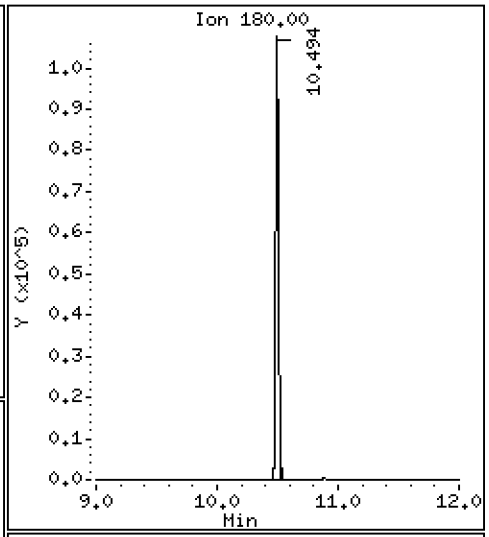
Concentration: 17.04 ug/mL

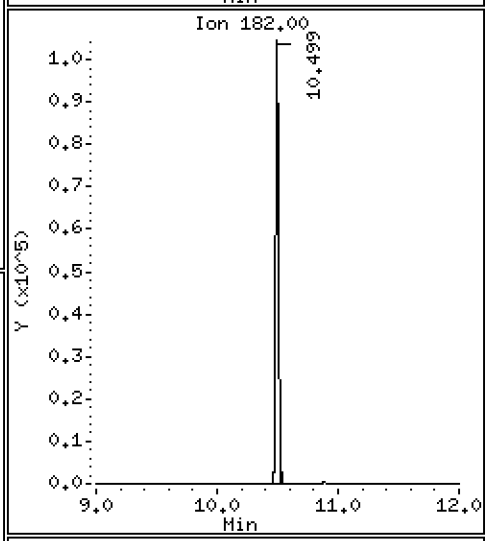


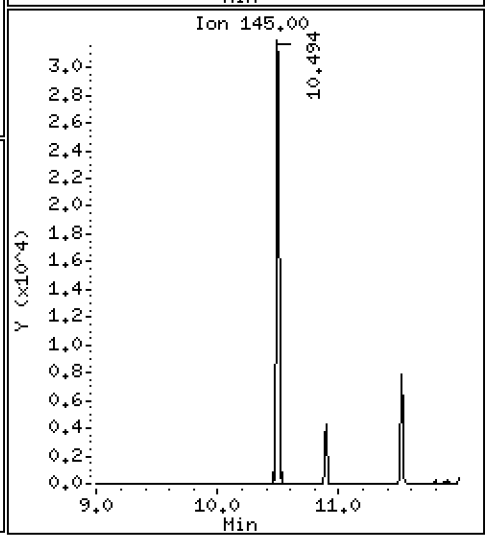












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

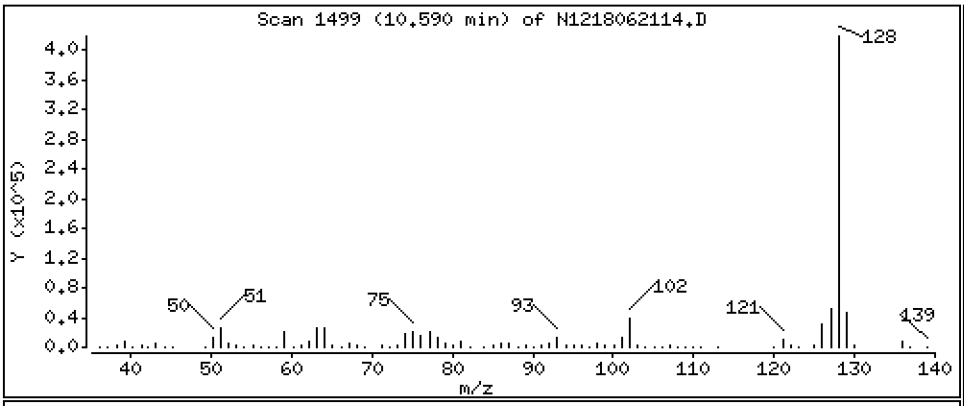
Operator: JZ

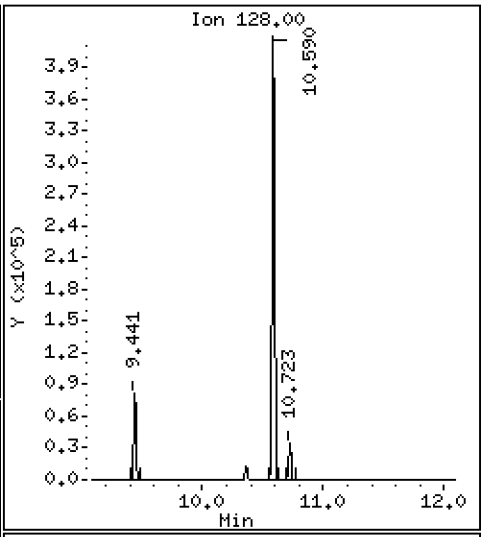
Column phase: ZB-5msi

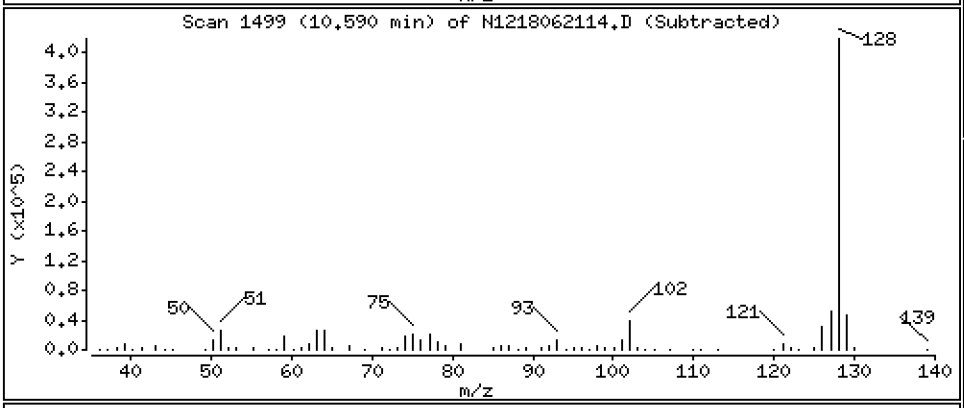
Column diameter: 0.32

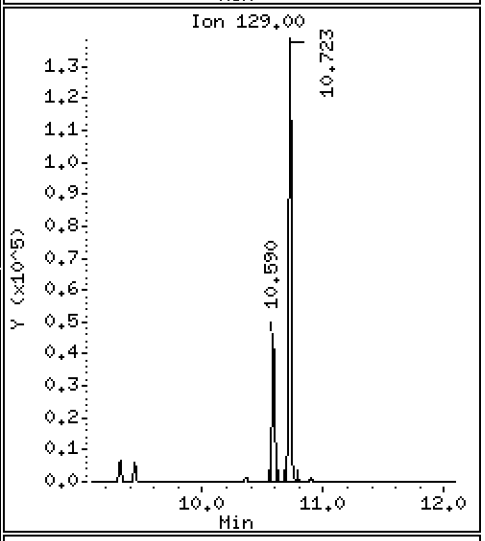
28 Naphthalene

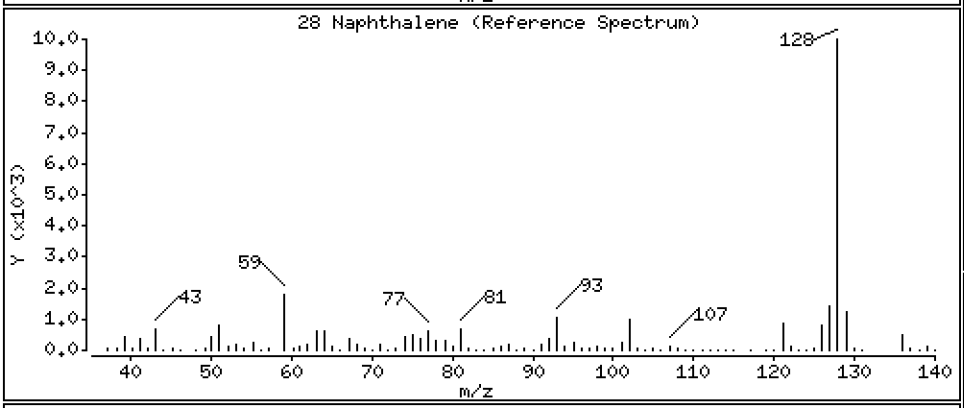
Concentration: 18.15 ug/mL

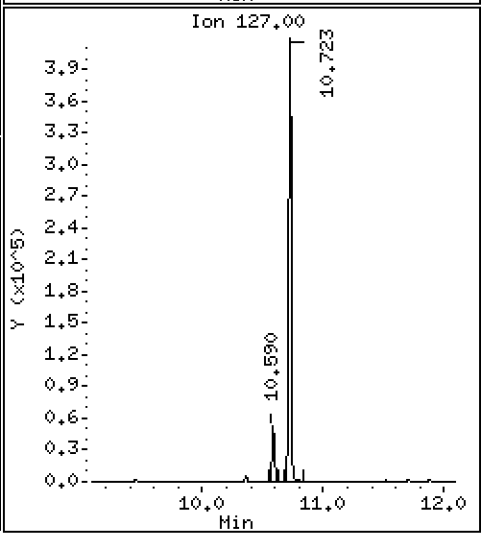


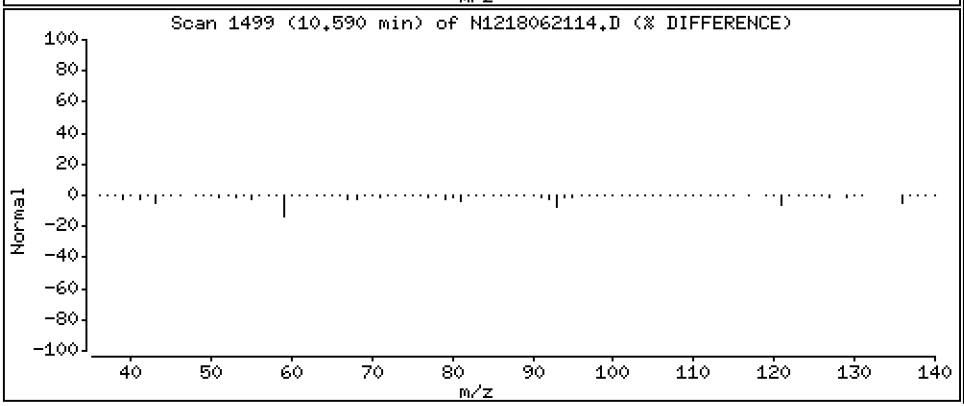












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

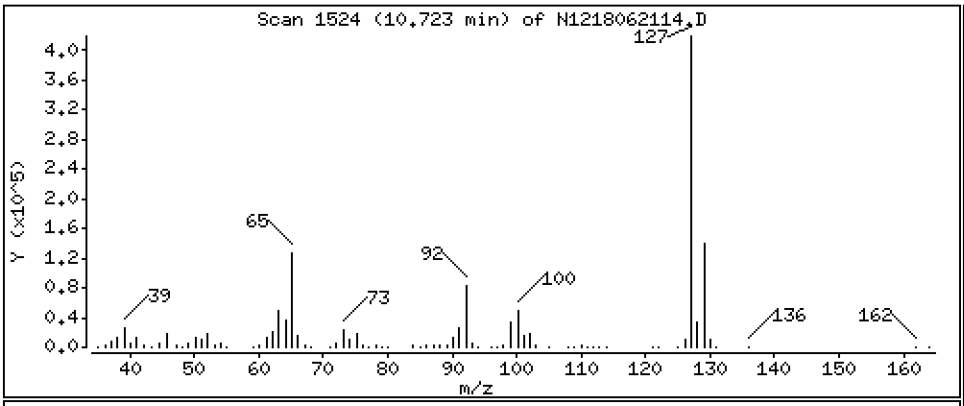
Operator: JZ

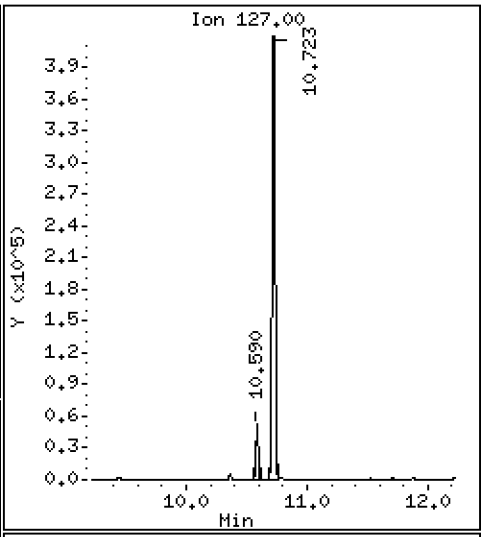
Column phase: ZB-5msi

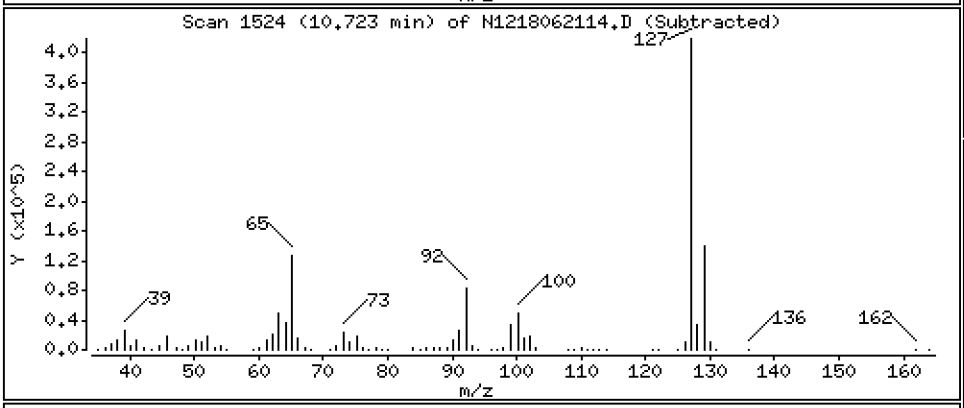
Column diameter: 0.32

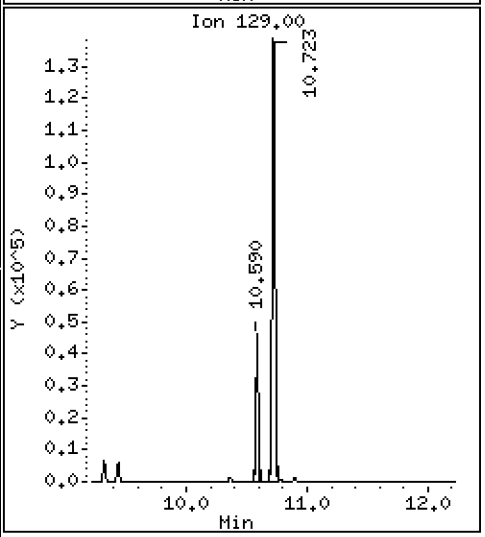
29 4-Chloroaniline

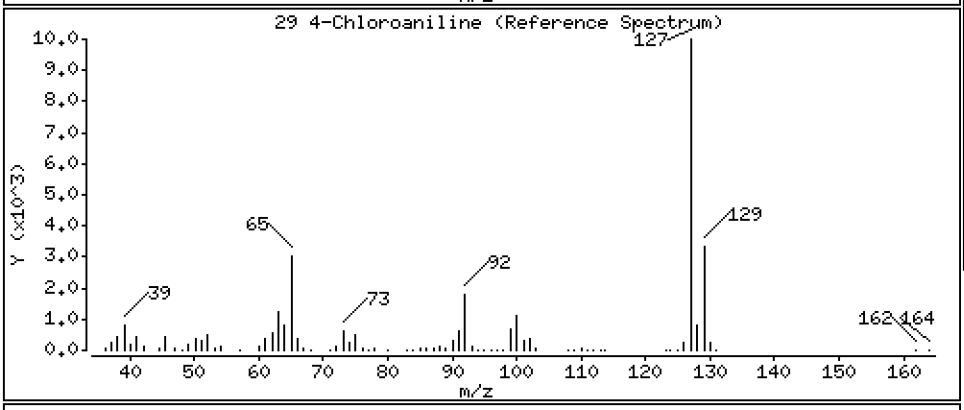
Concentration: 47.16 ug/mL

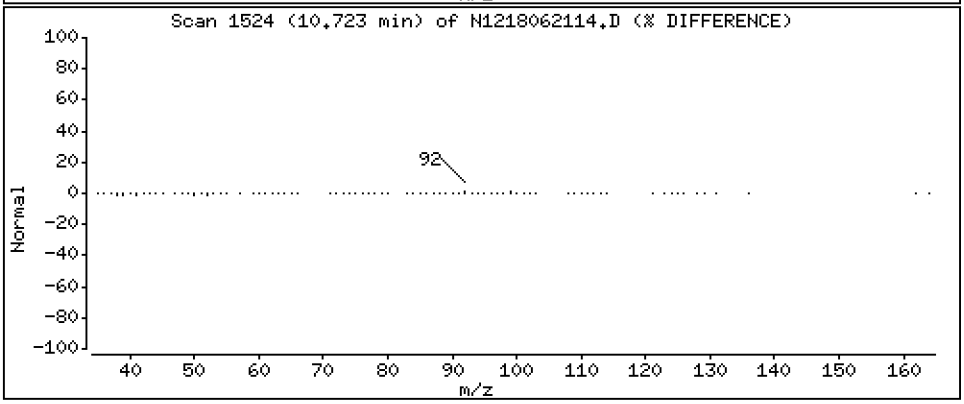












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

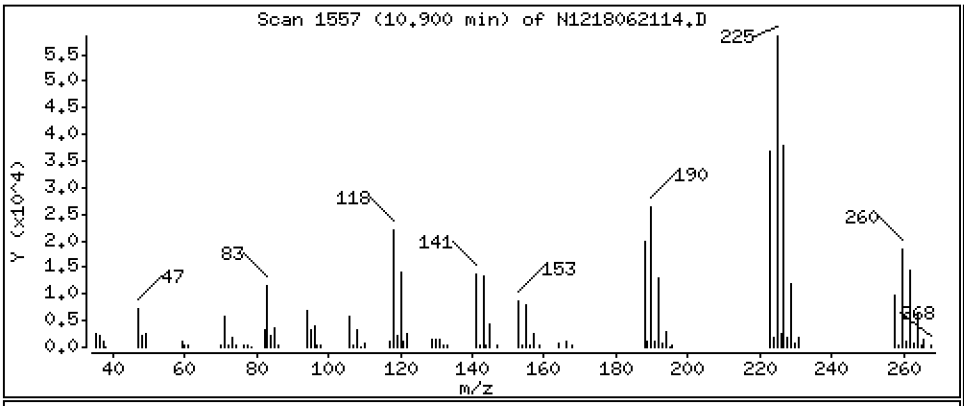
Operator: JZ

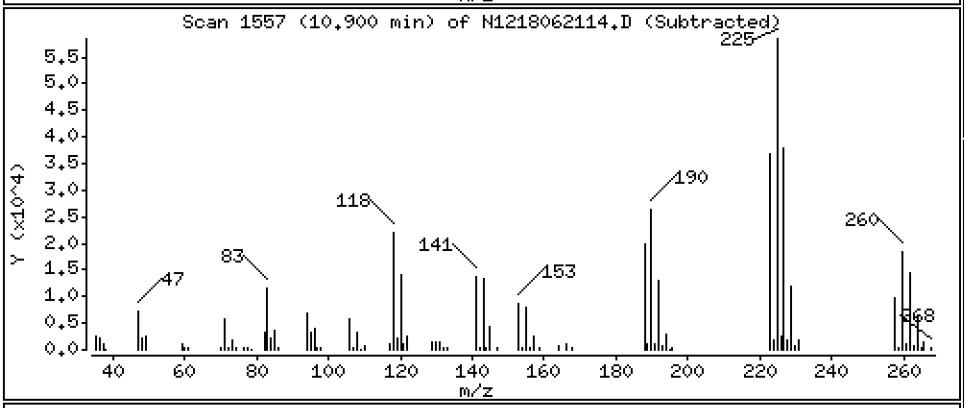
Column phase: ZB-5msi

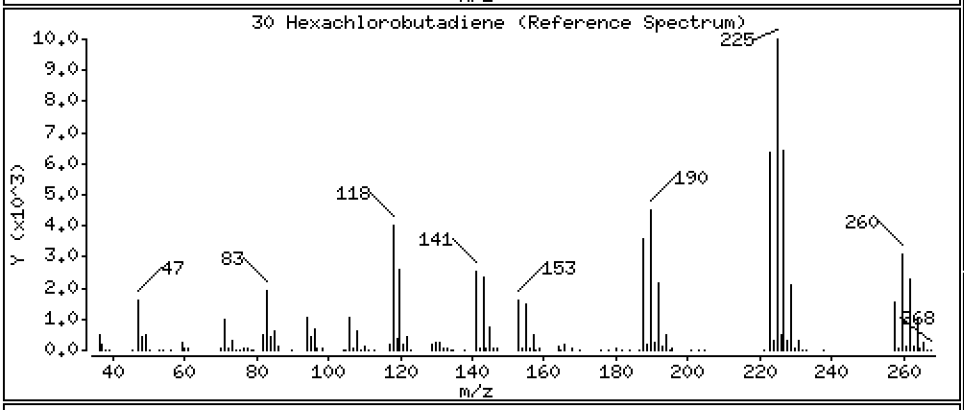
Column diameter: 0.32

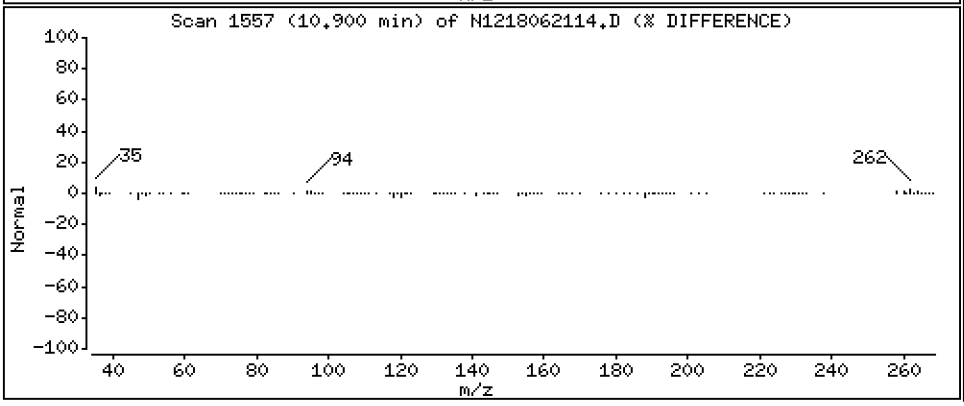
30 Hexachlorobutadiene

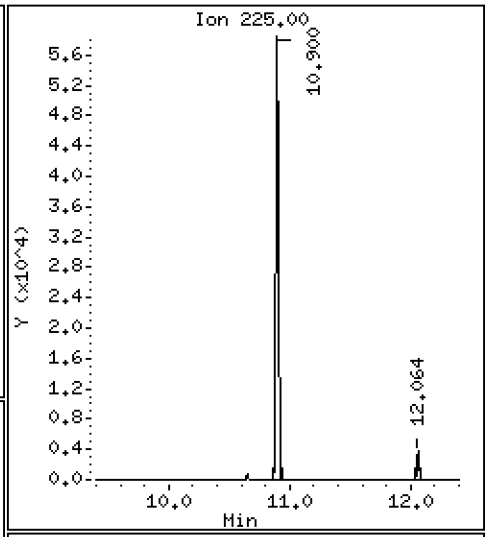
Concentration: 15.72 ug/mL

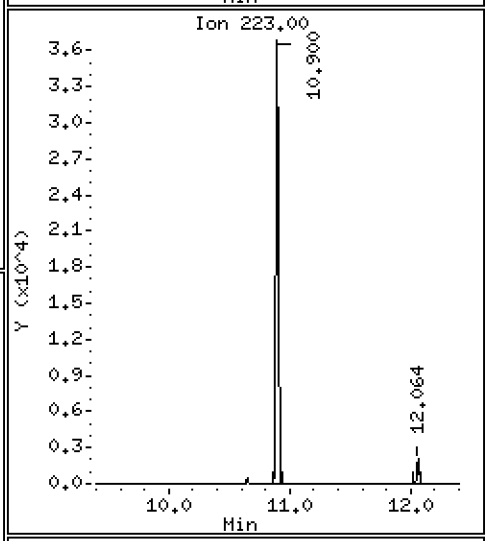


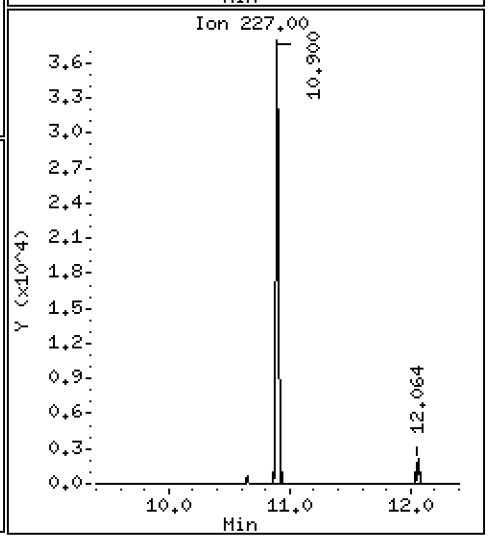












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

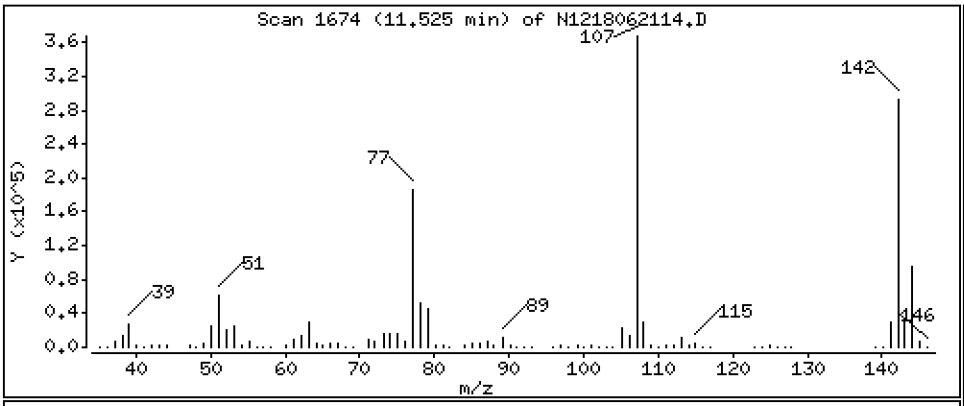
Operator: JZ

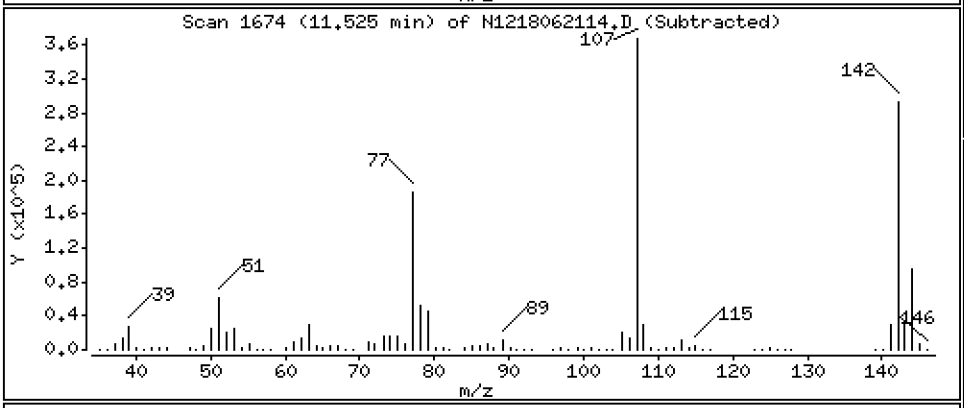
Column phase: ZB-5msi

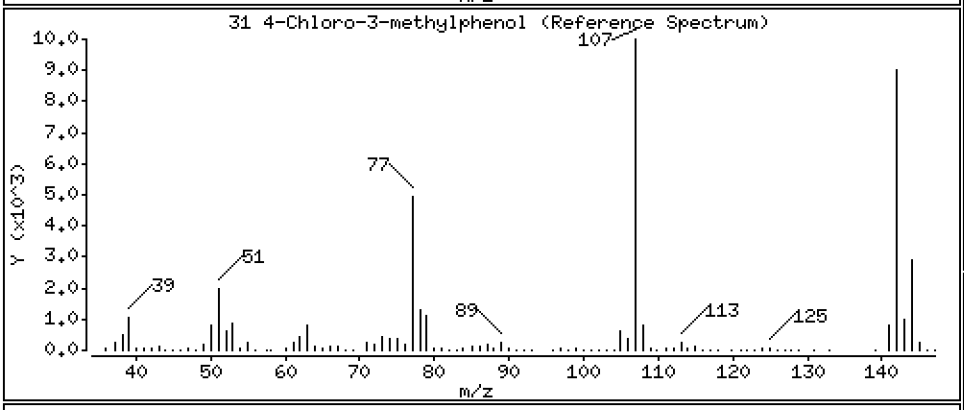
Column diameter: 0.32

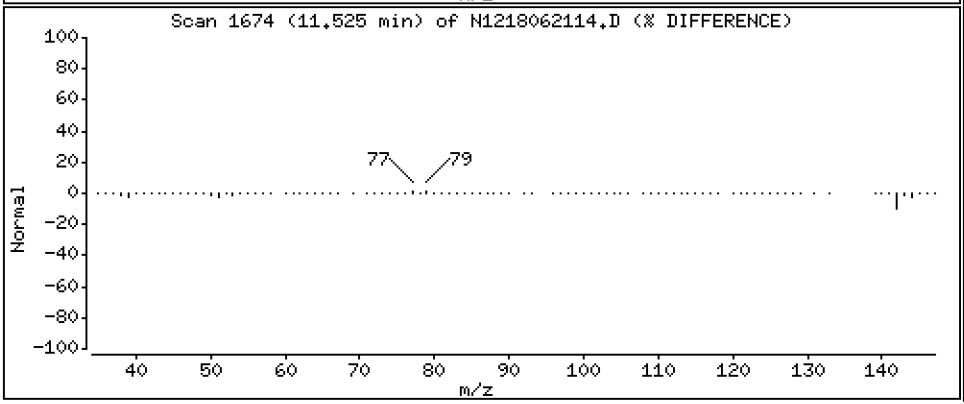
31 4-Chloro-3-methylphenol

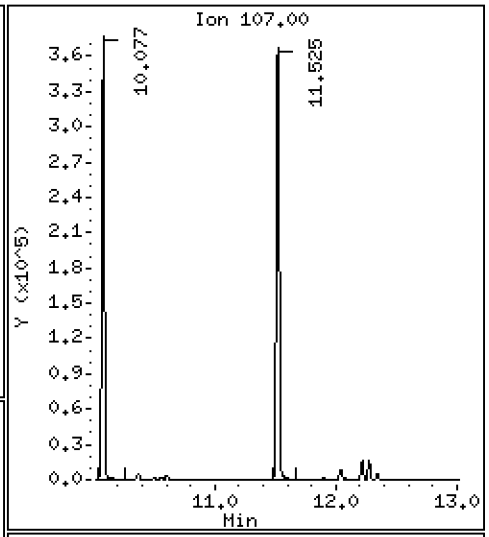
Concentration: 57.57 ug/mL

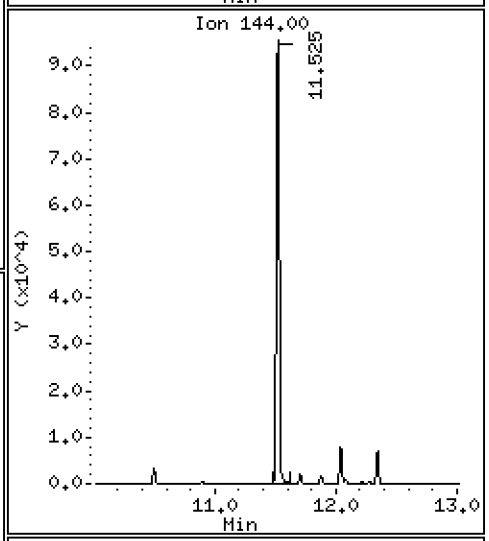


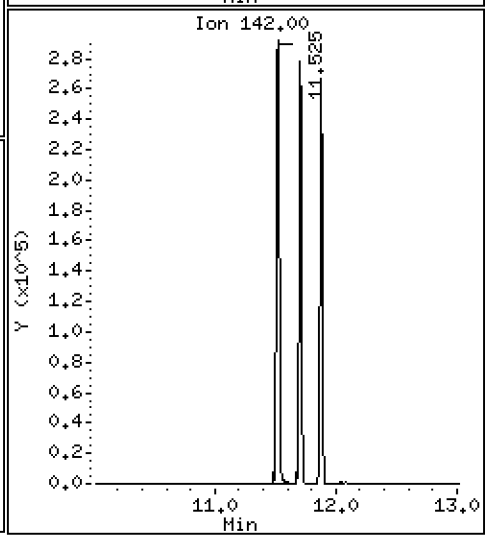












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

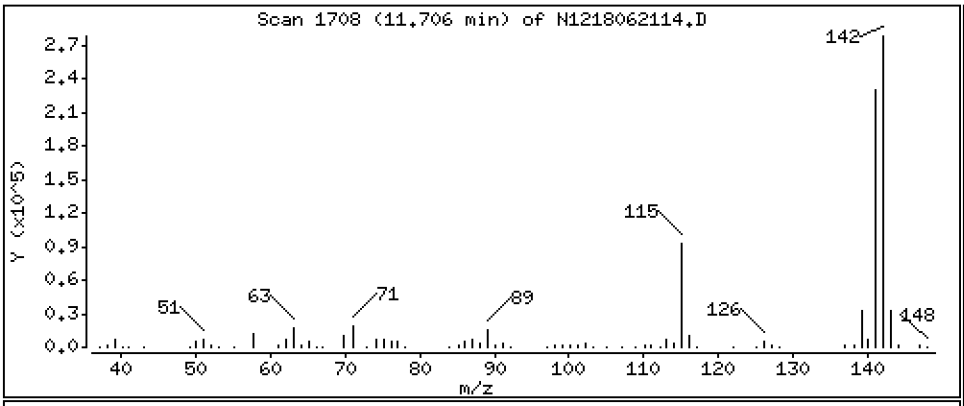
Operator: JZ

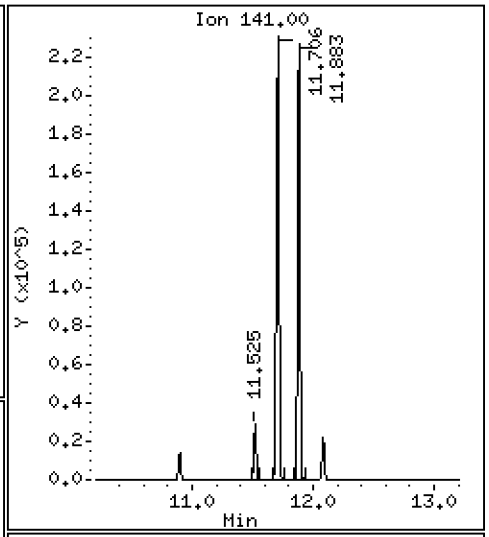
Column phase: ZB-5msi

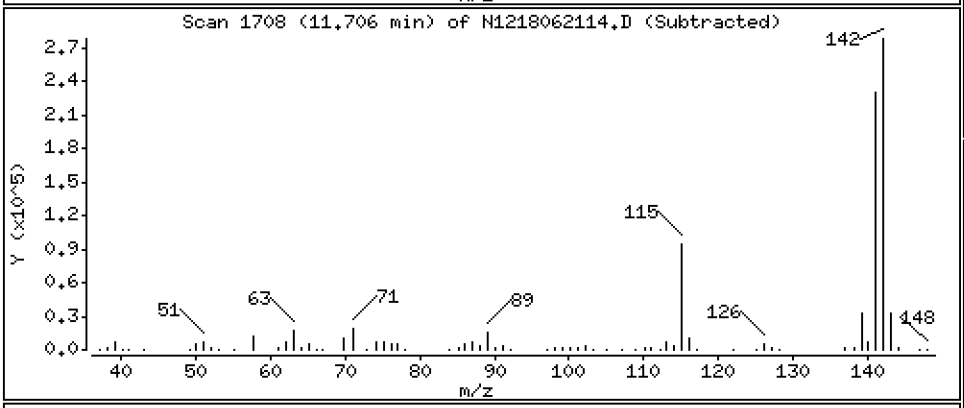
Column diameter: 0.32

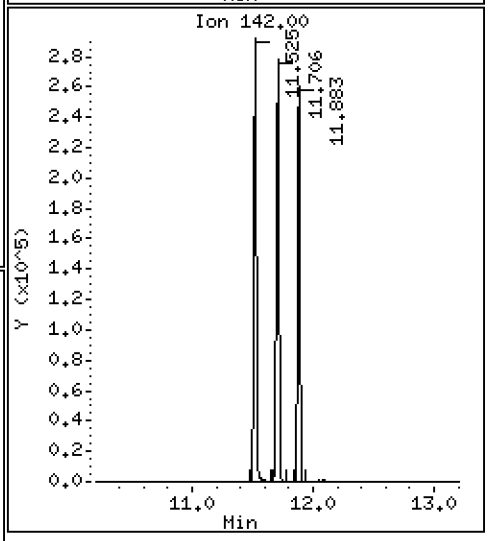
32 2-Methylnaphthalene

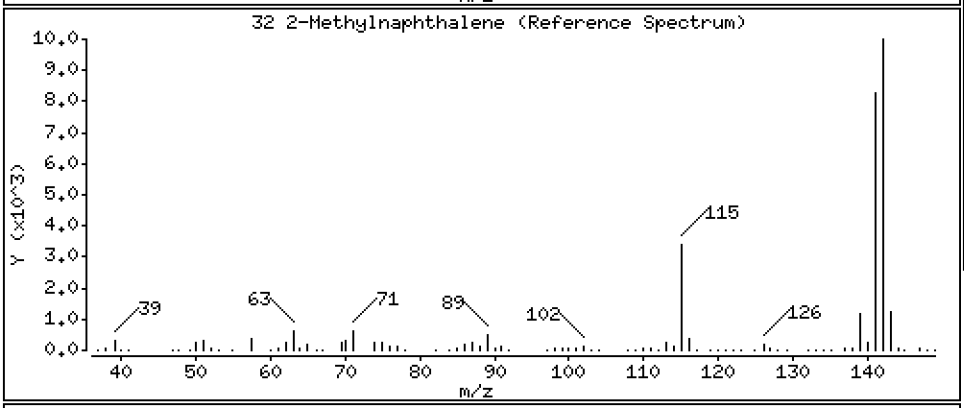
Concentration: 18.54 ug/mL

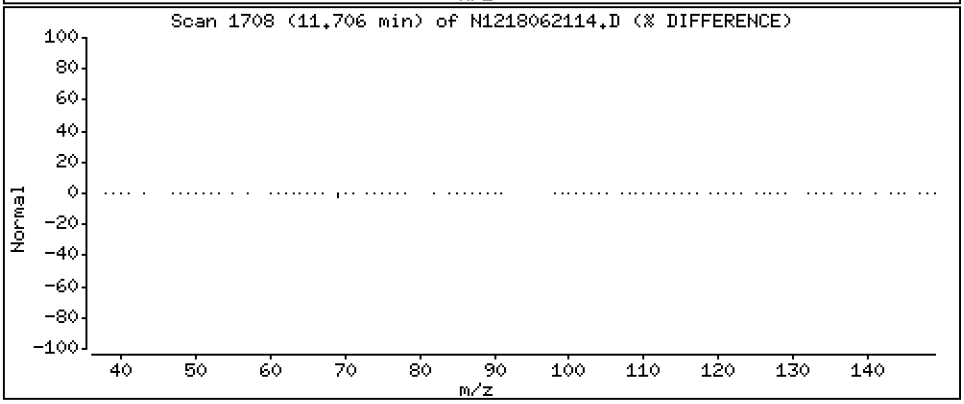












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

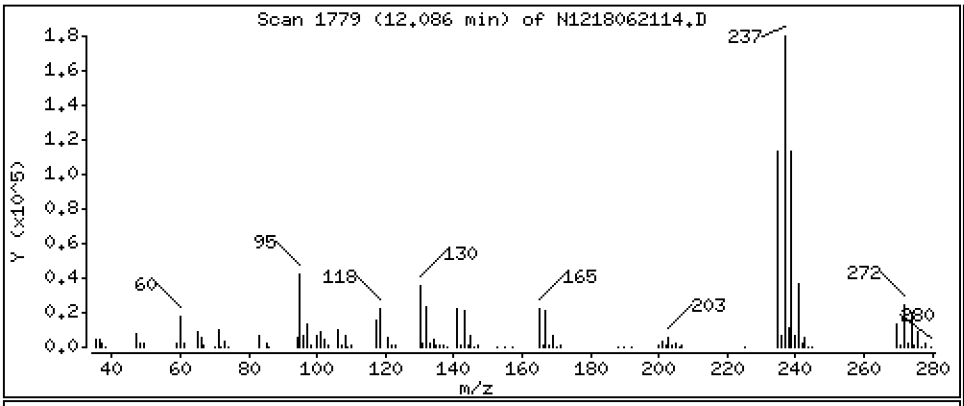
Operator: JZ

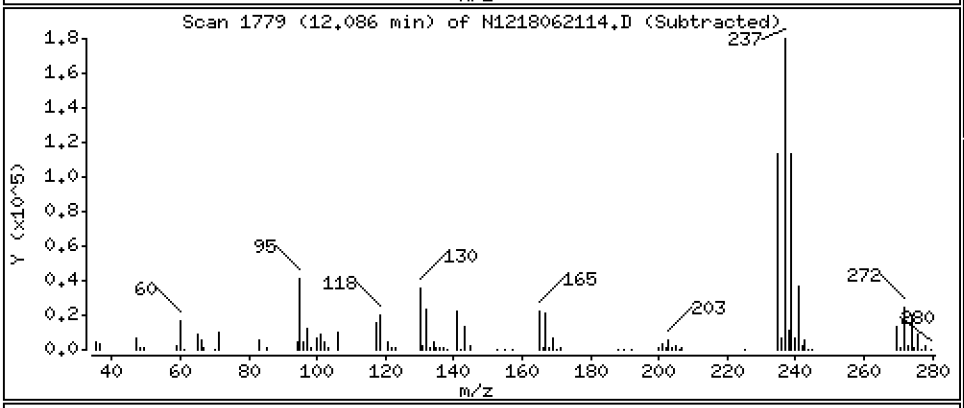
Column phase: ZB-5msi

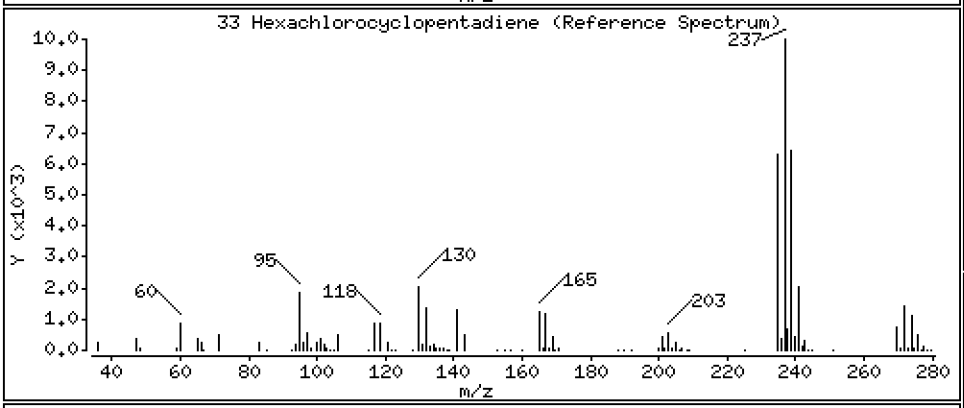
Column diameter: 0.32

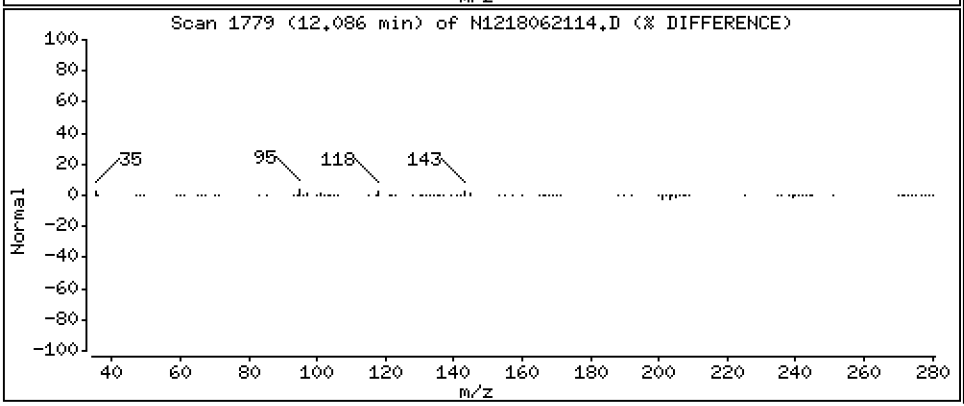
33 Hexachlorocyclopentadiene

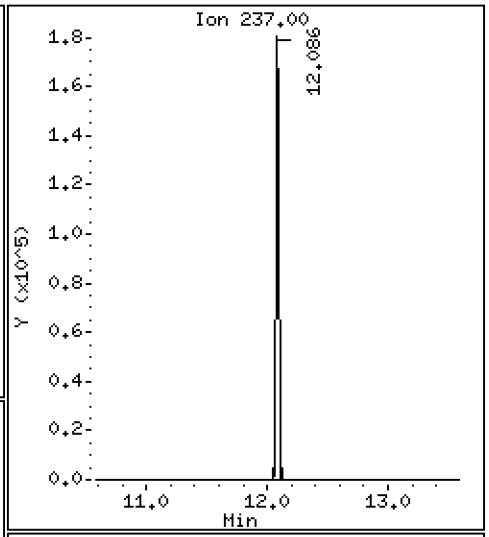
Concentration: 60.13 ug/mL

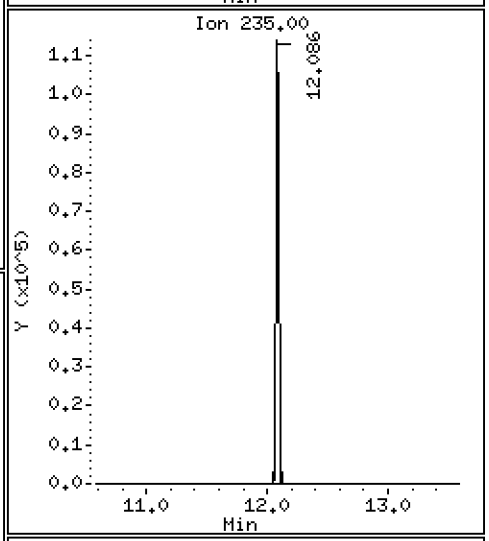


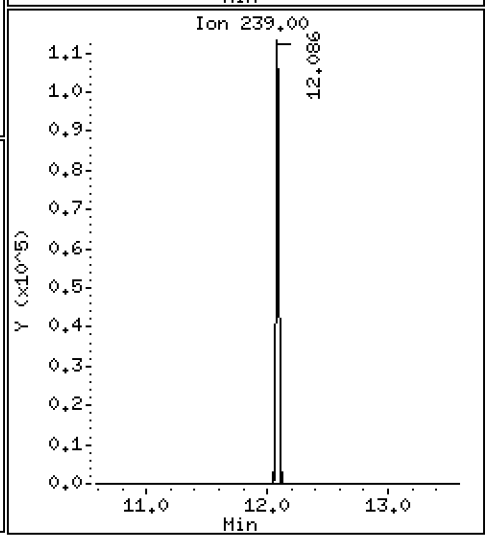












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

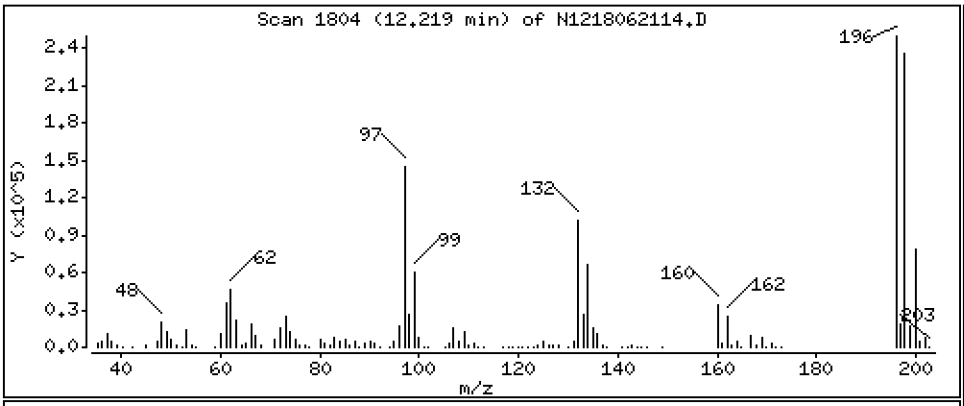
Operator: JZ

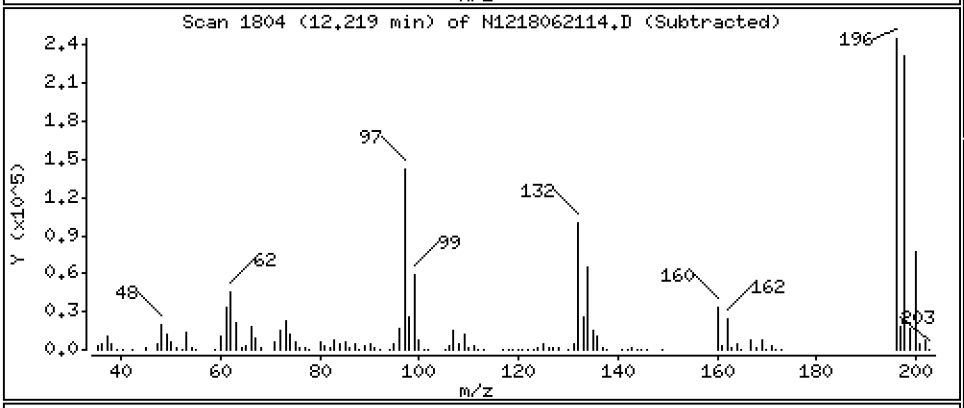
Column phase: ZB-5msi

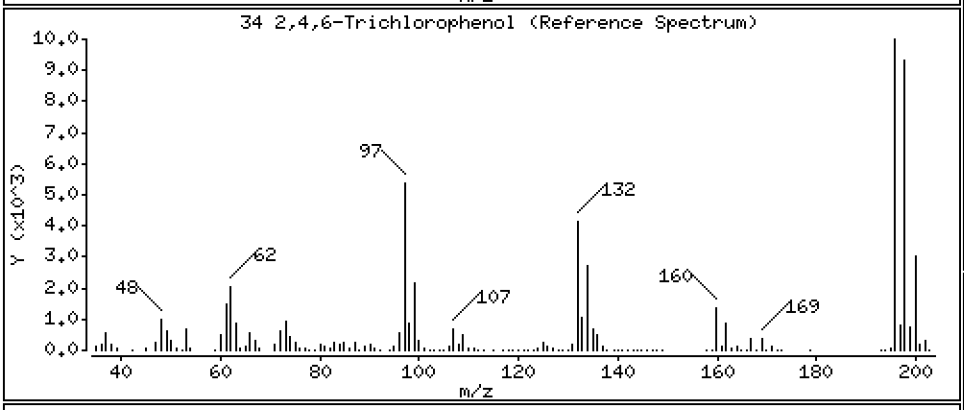
Column diameter: 0.32

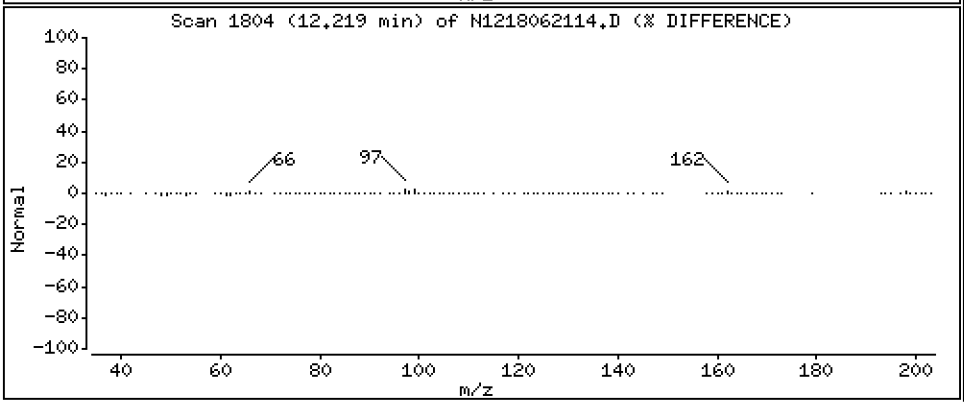
34 2,4,6-Trichlorophenol

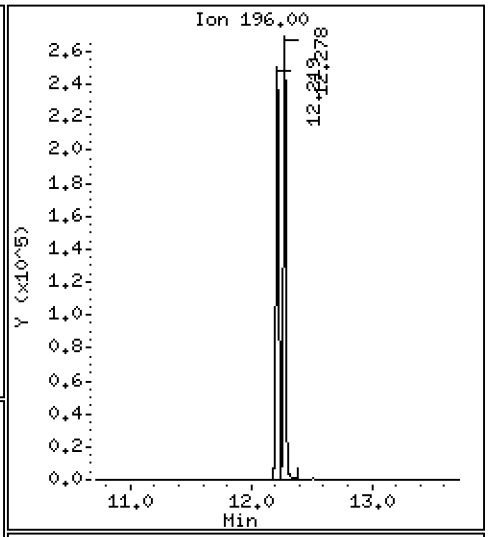
Concentration: 56.87 ug/mL

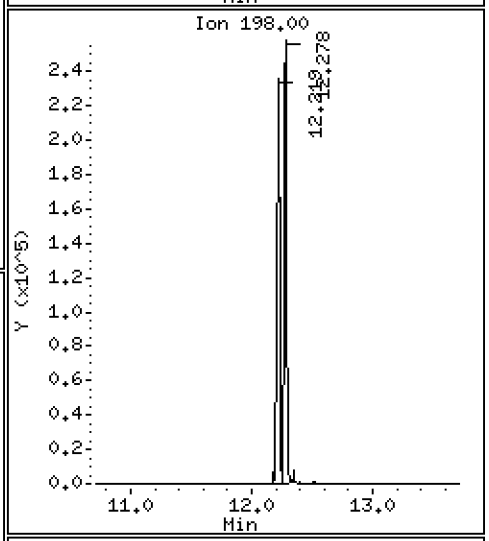


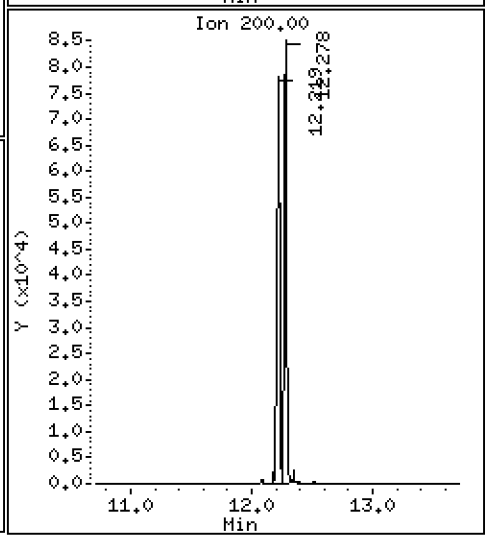












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

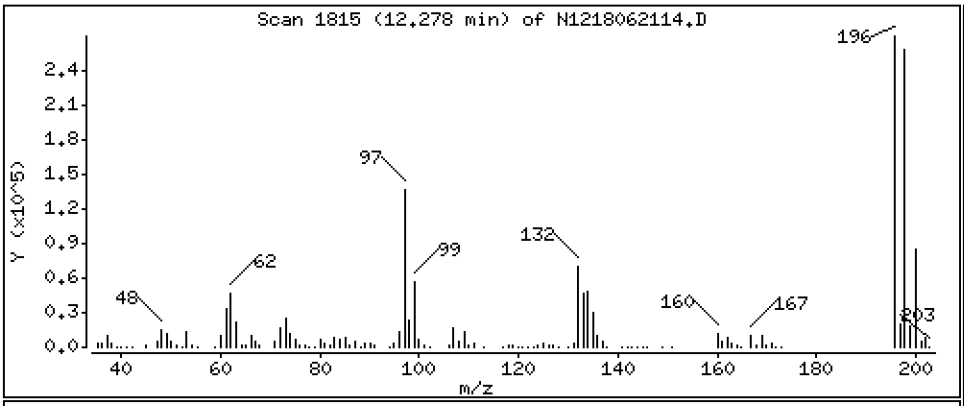
Operator: JZ

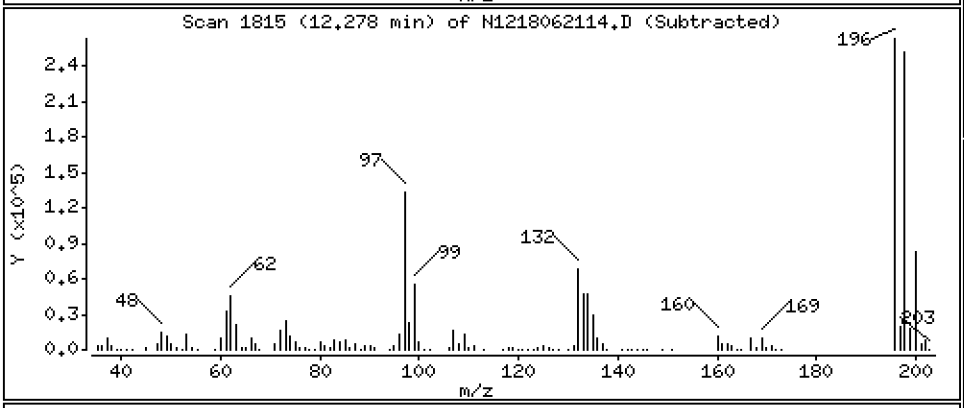
Column phase: ZB-5msi

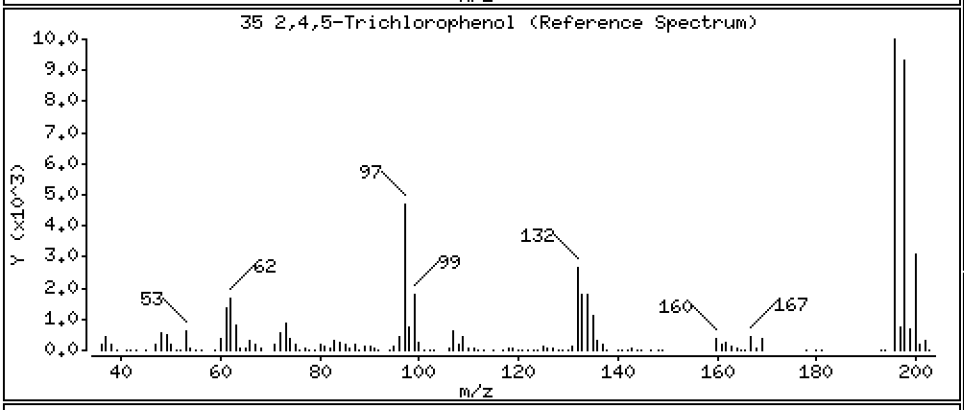
Column diameter: 0.32

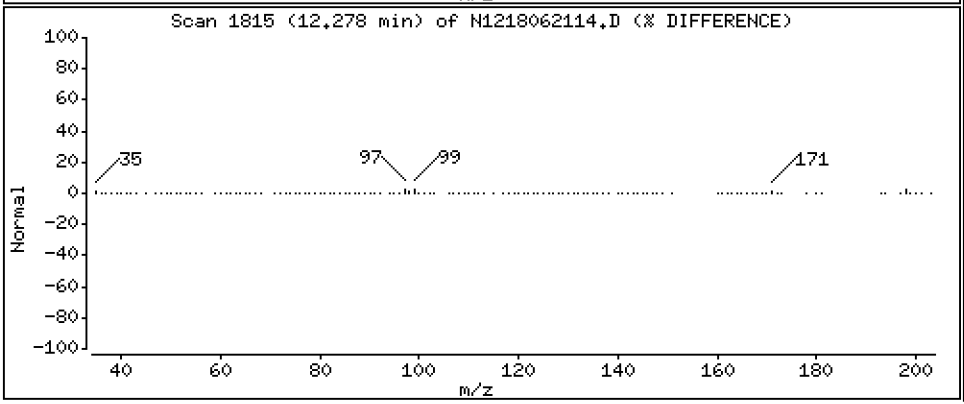
35 2,4,5-Trichlorophenol

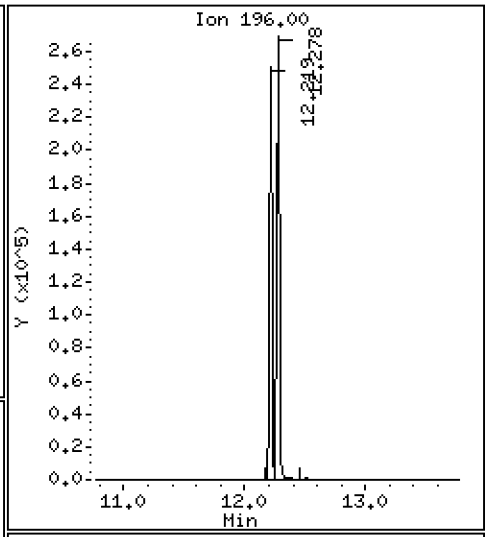
Concentration: 59.76 ug/mL

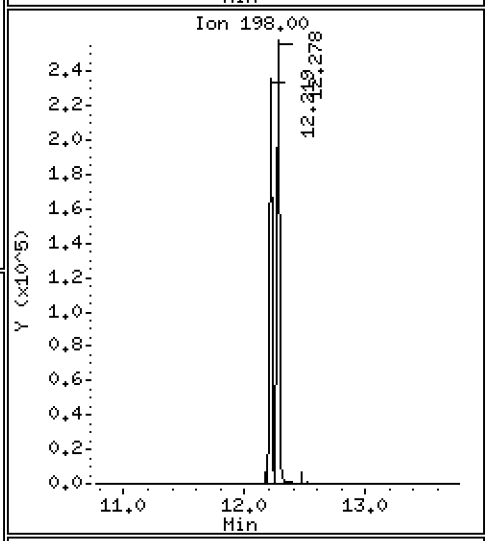


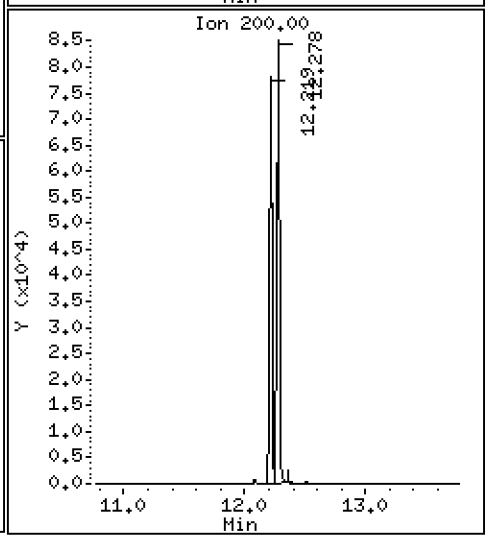












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

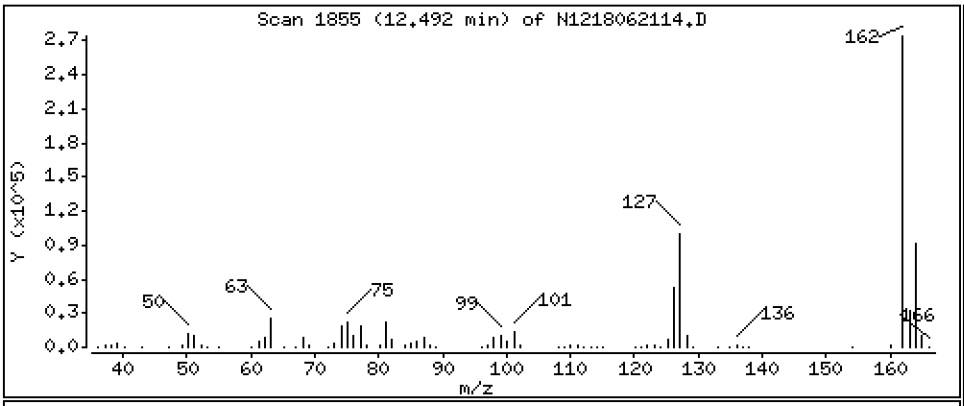
Operator: JZ

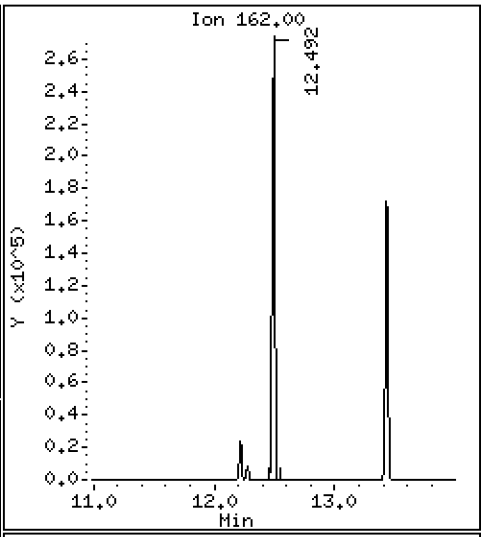
Column phase: ZB-5msi

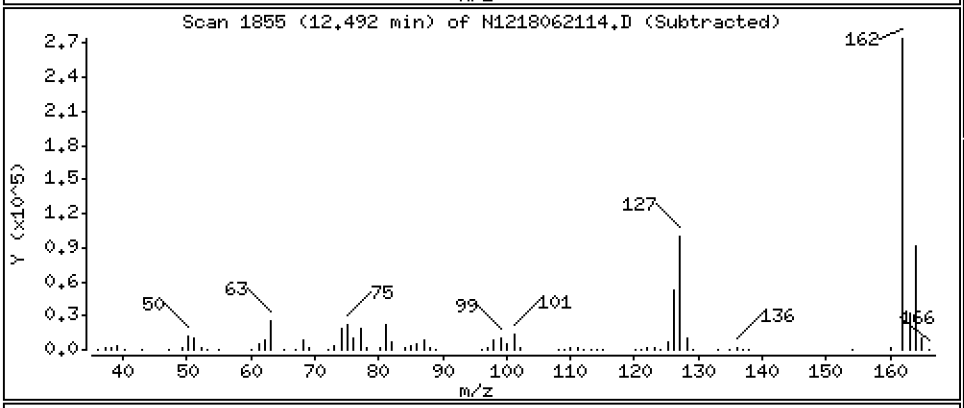
Column diameter: 0.32

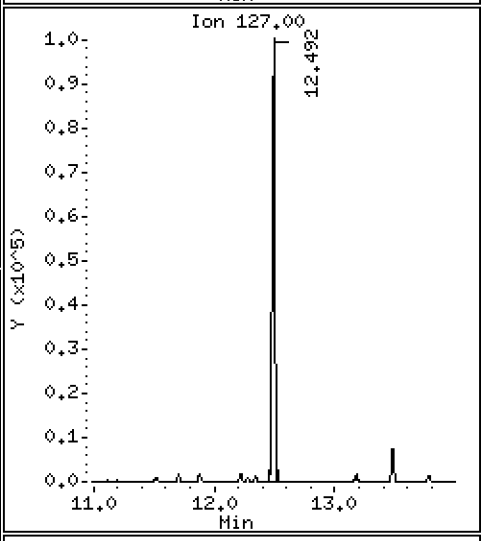
37 2-Chloronaphthalene

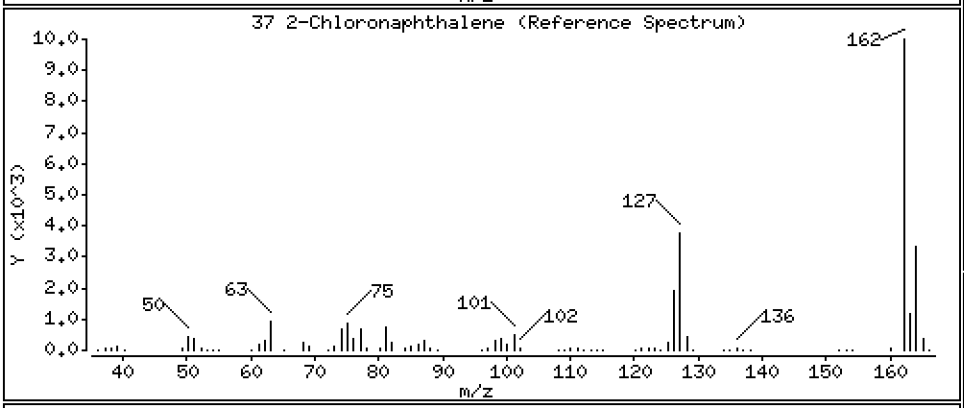
Concentration: 19.97 ug/mL

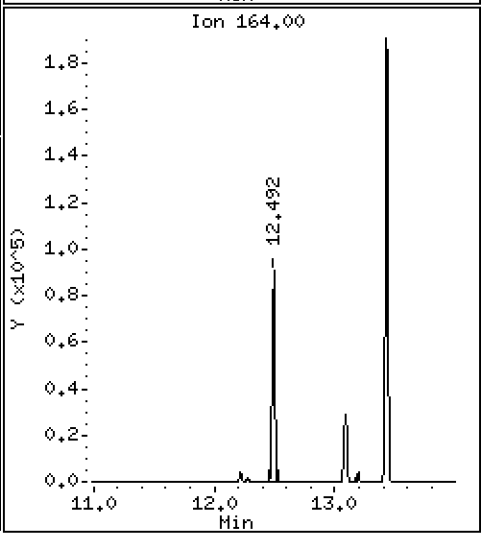


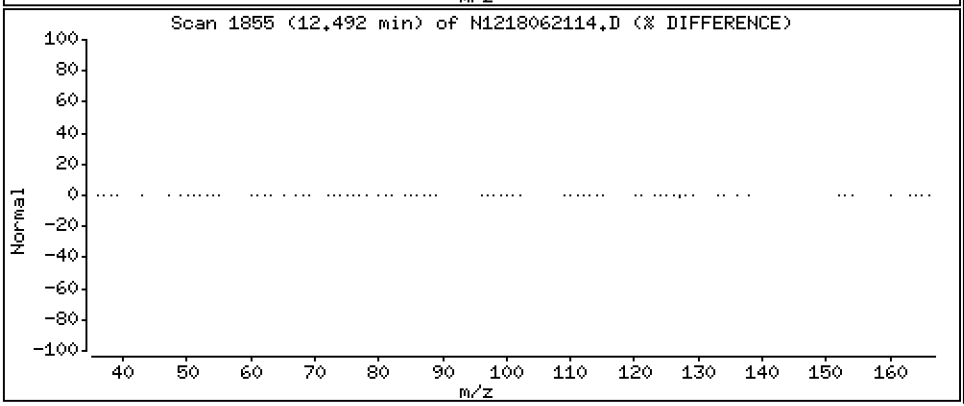












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

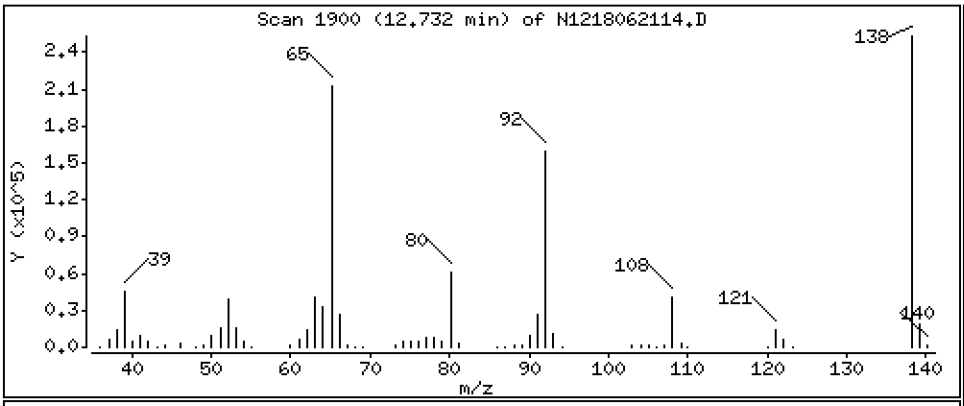
Operator: JZ

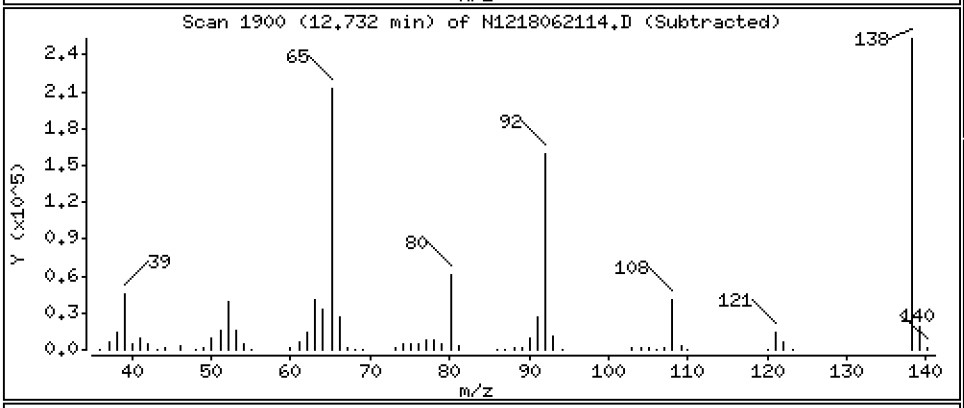
Column phase: ZB-5msi

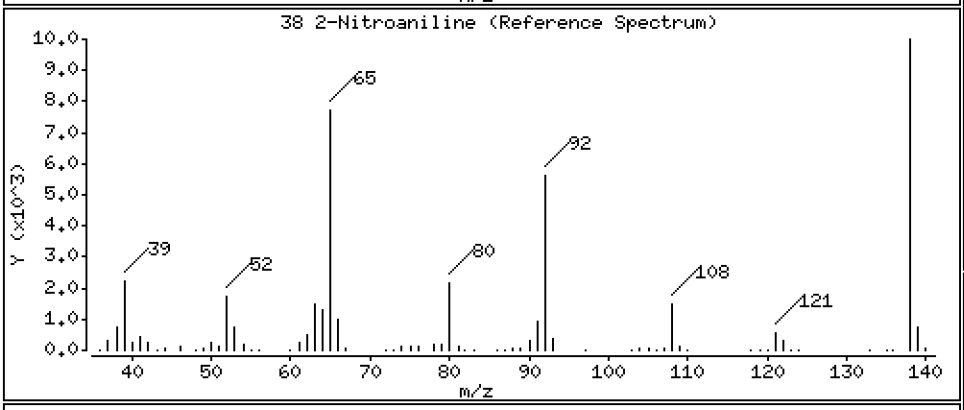
Column diameter: 0.32

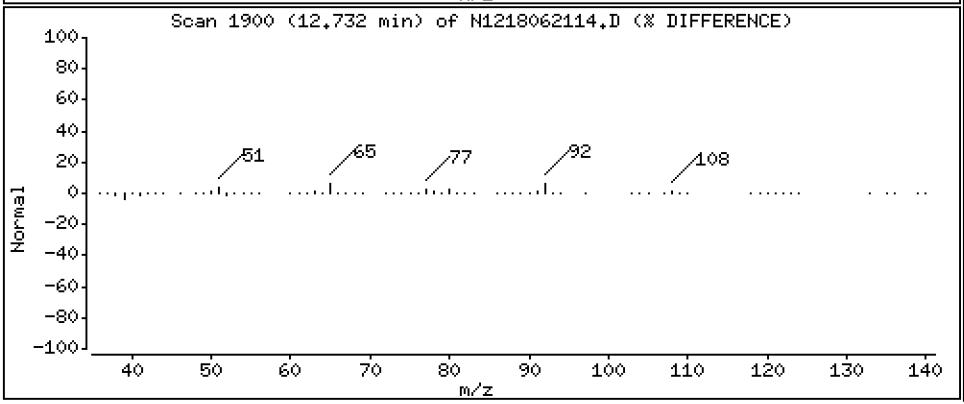
38 2-Nitroaniline

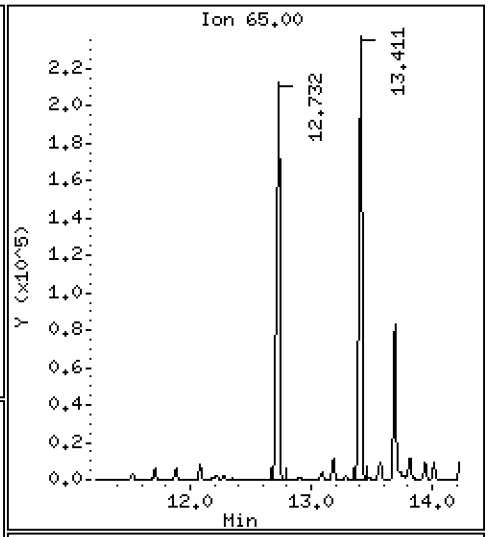
Concentration: 61.73 ug/mL

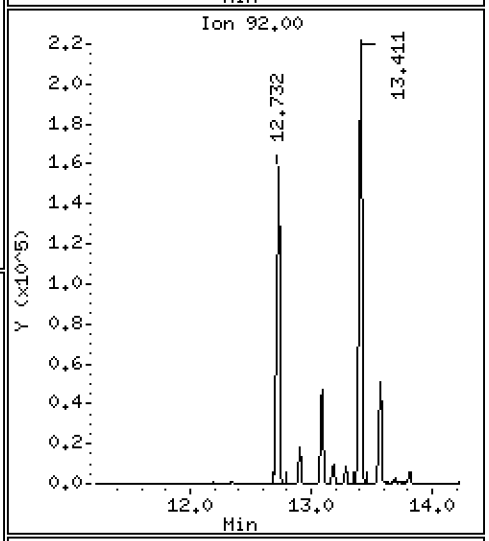


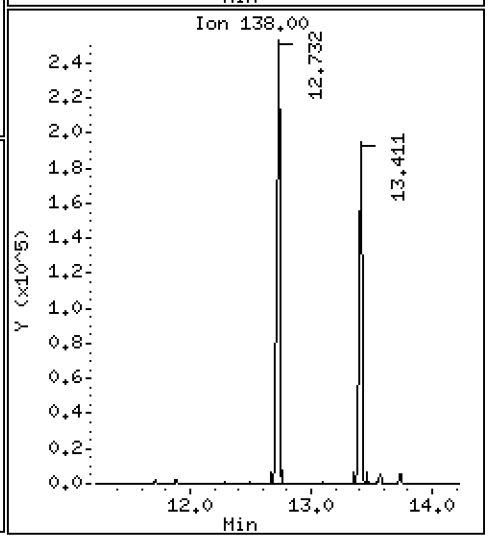












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

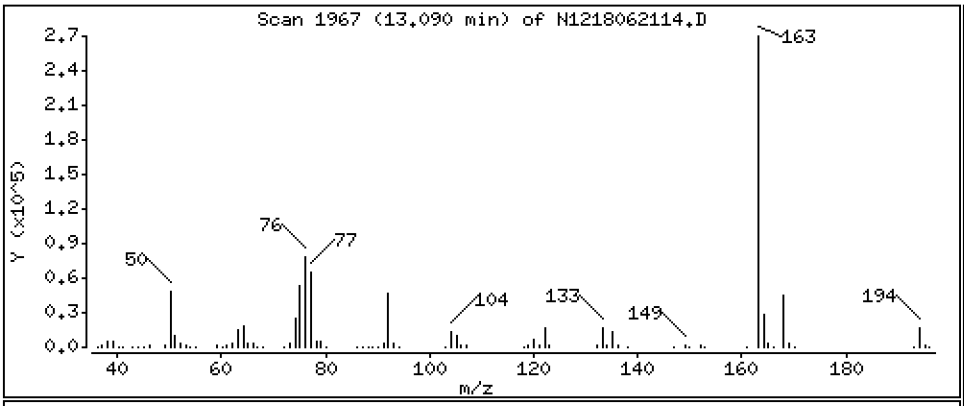
Operator: JZ

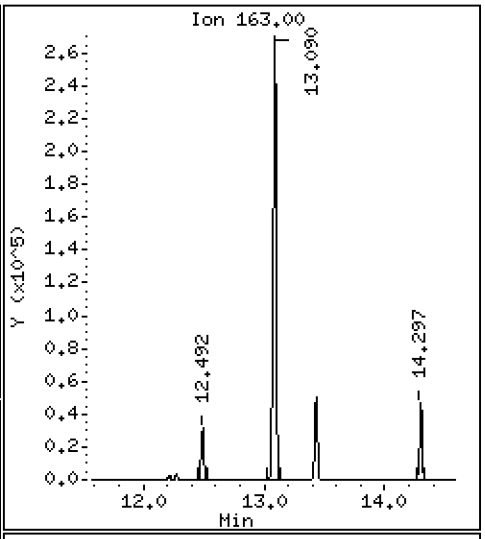
Column phase: ZB-5msi

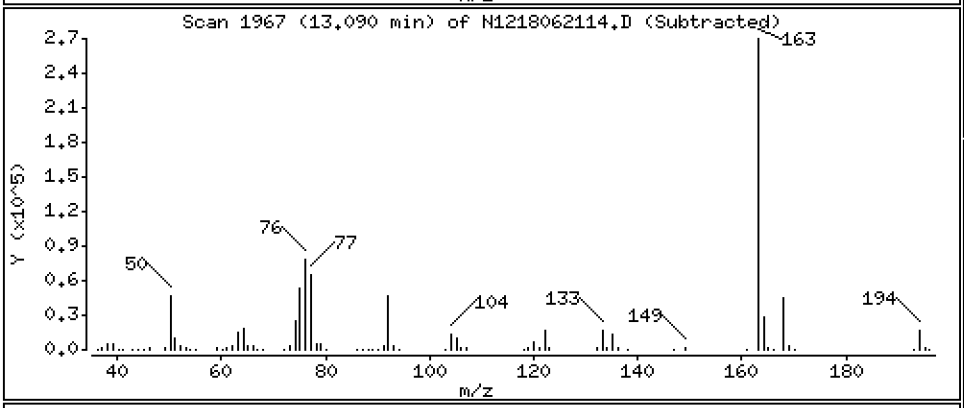
Column diameter: 0.32

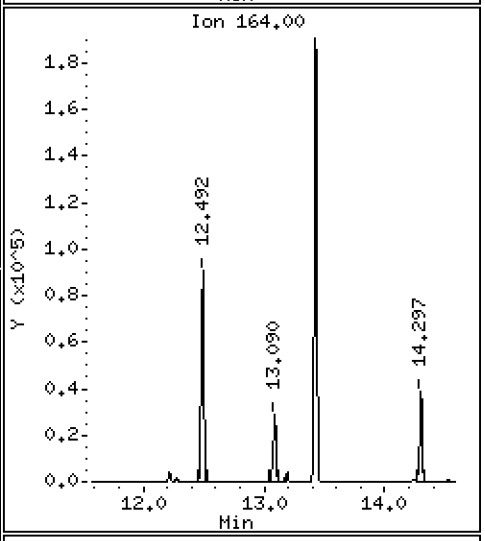
39 Dimethylphthalate

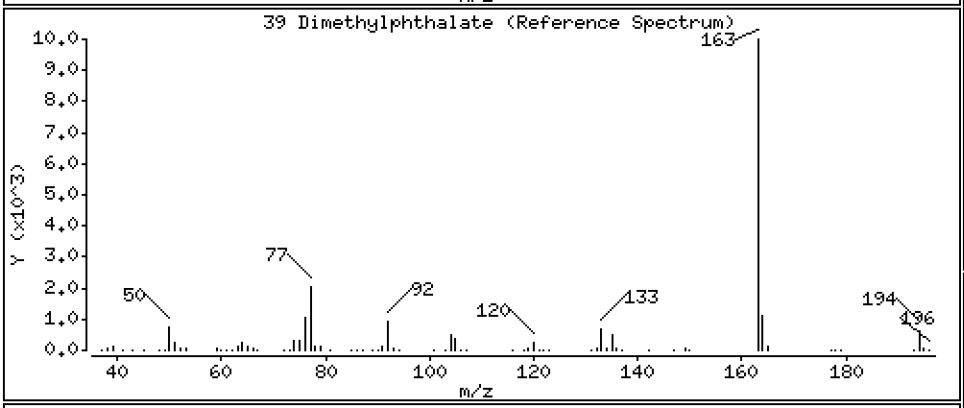
Concentration: 21.98 ug/mL

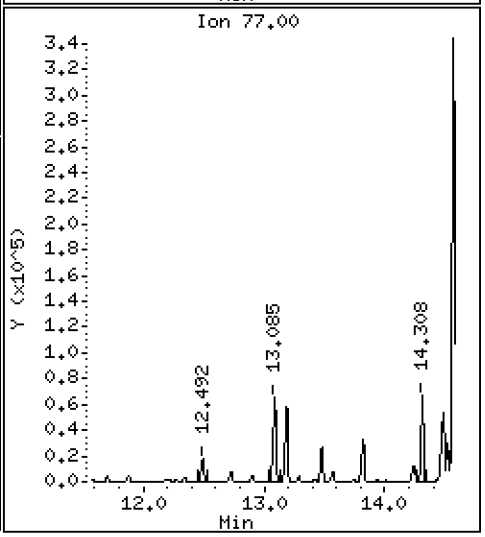


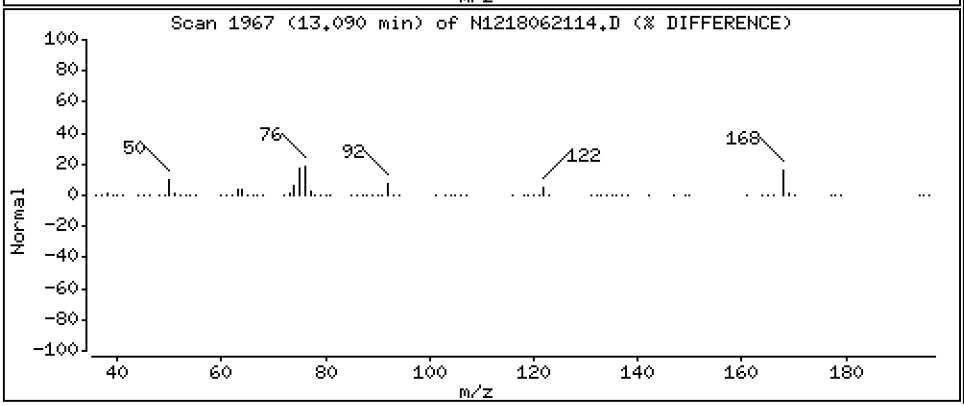












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

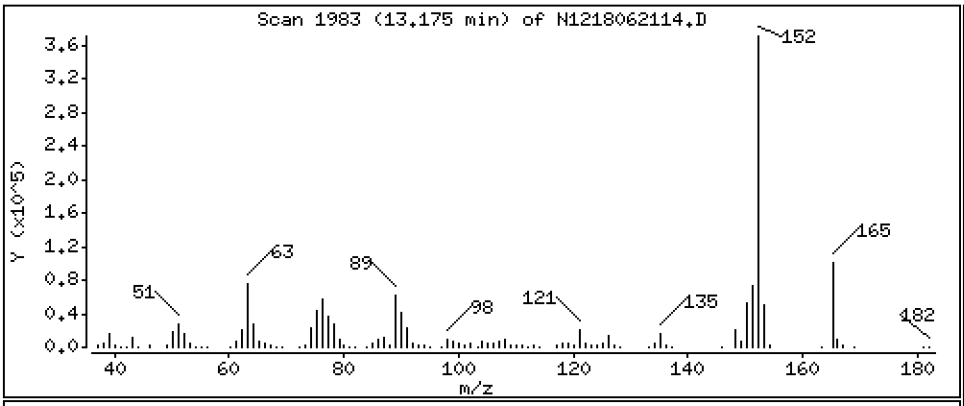
Operator: JZ

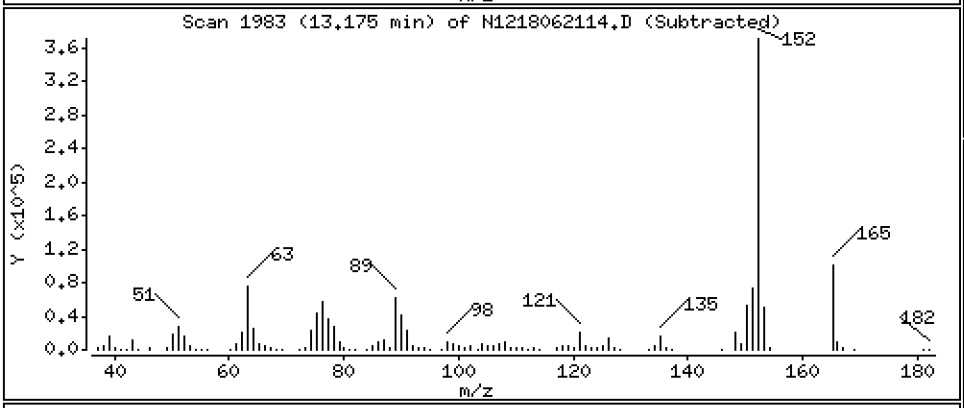
Column phase: ZB-5msi

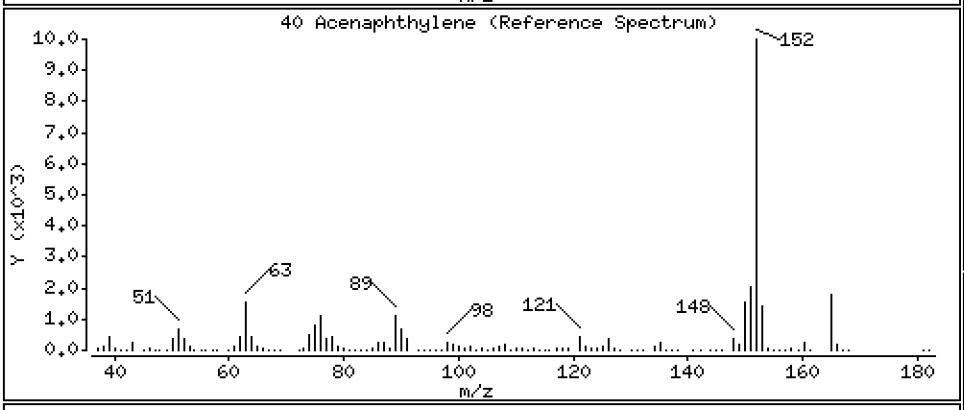
Column diameter: 0.32

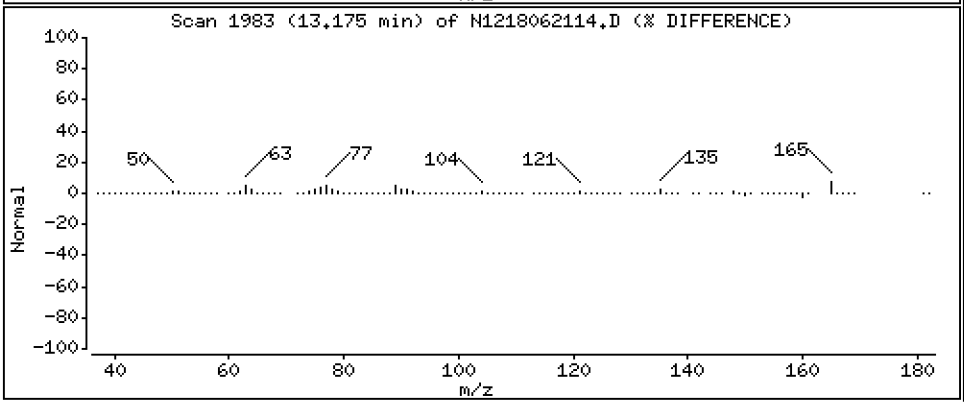
40 Acenaphthylene

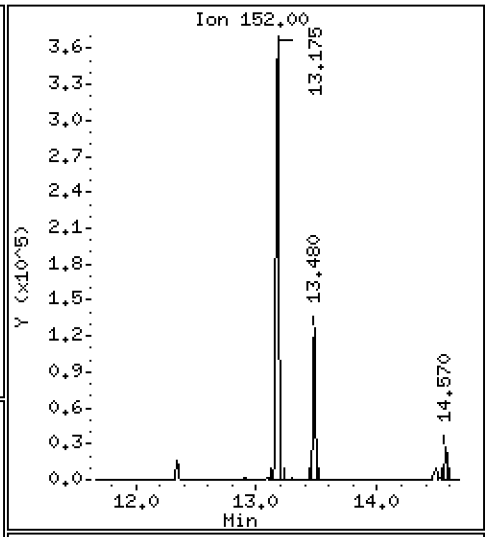
Concentration: 20.37 ug/mL

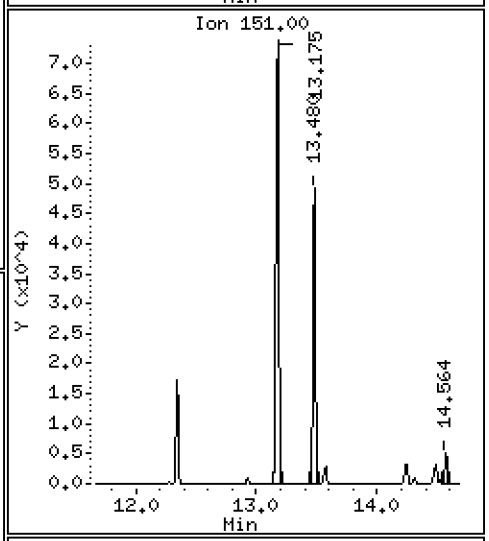


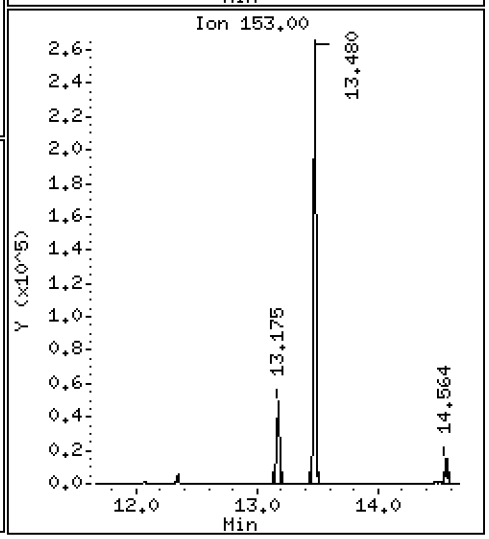












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

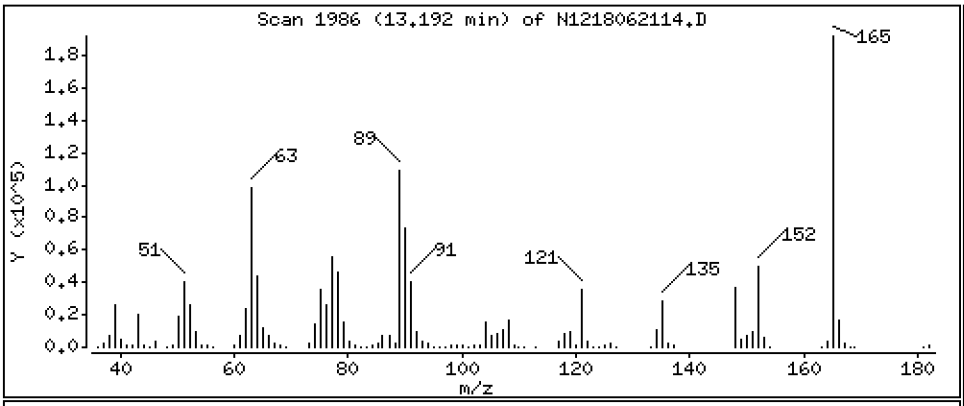
Operator: JZ

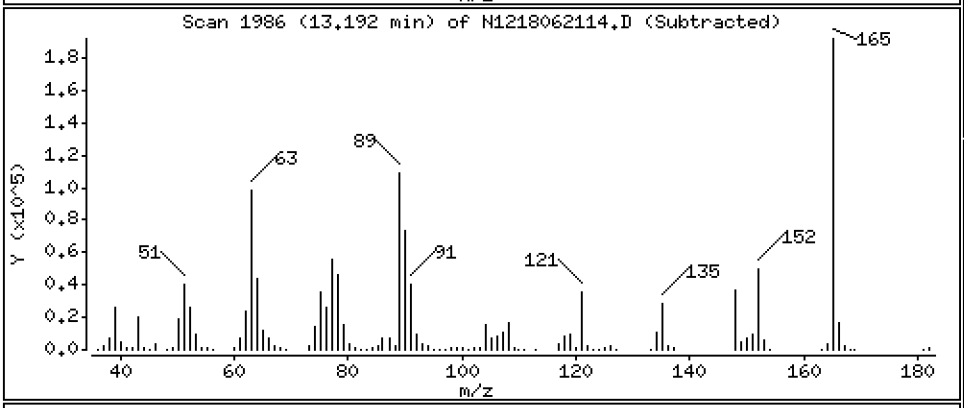
Column phase: ZB-5msi

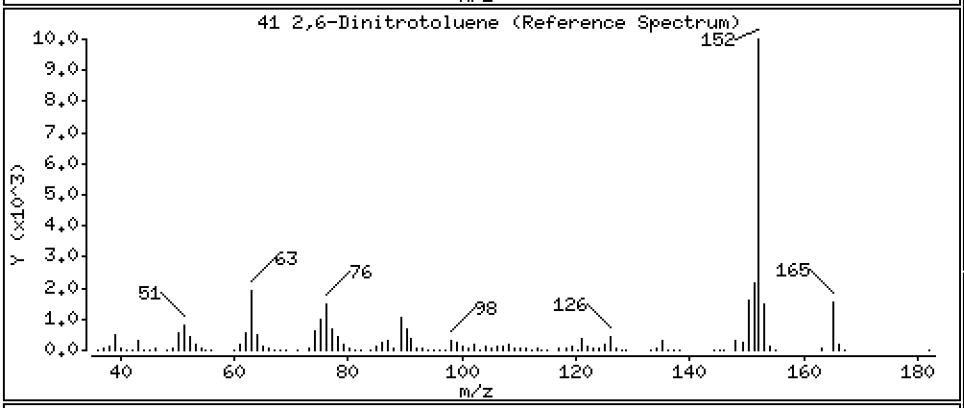
Column diameter: 0.32

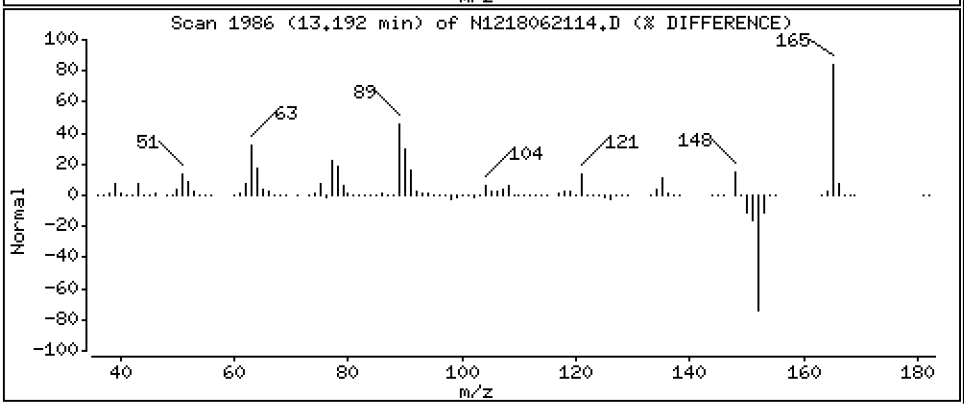
41 2,6-Dinitrotoluene

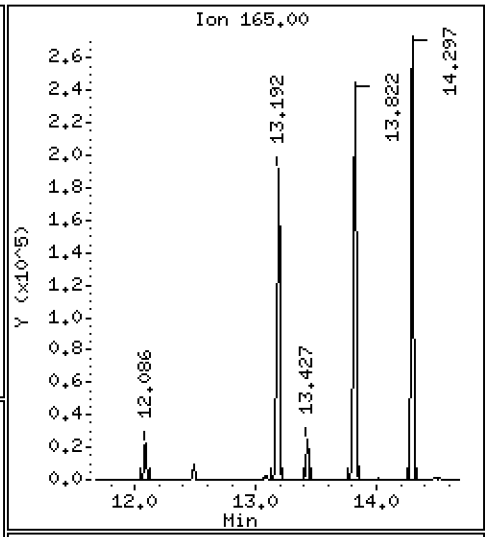
Concentration: 67.47 ug/mL

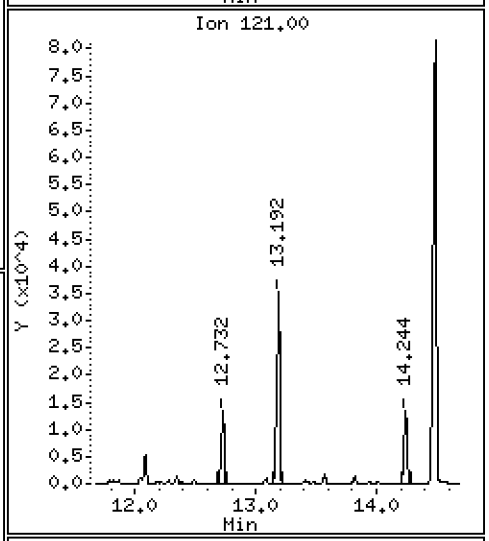


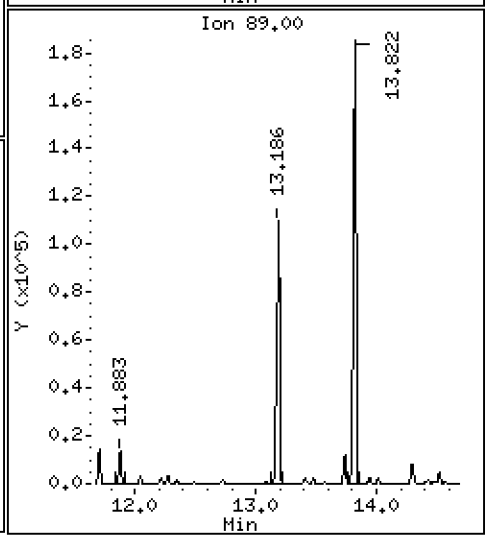












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

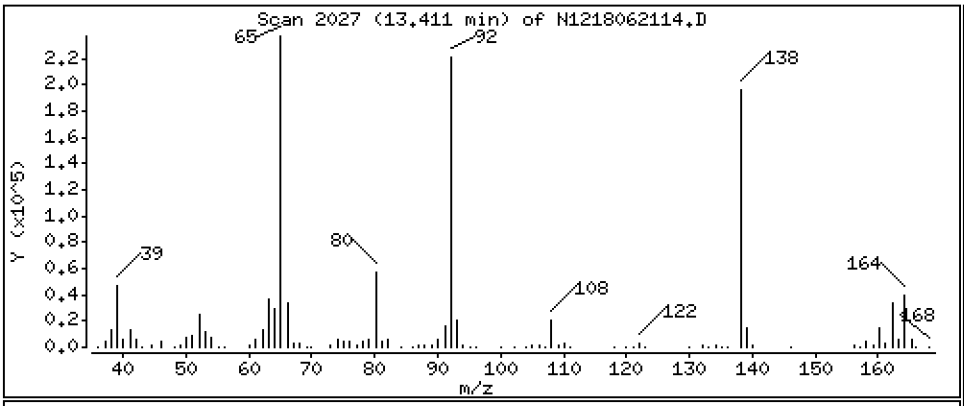
Operator: JZ

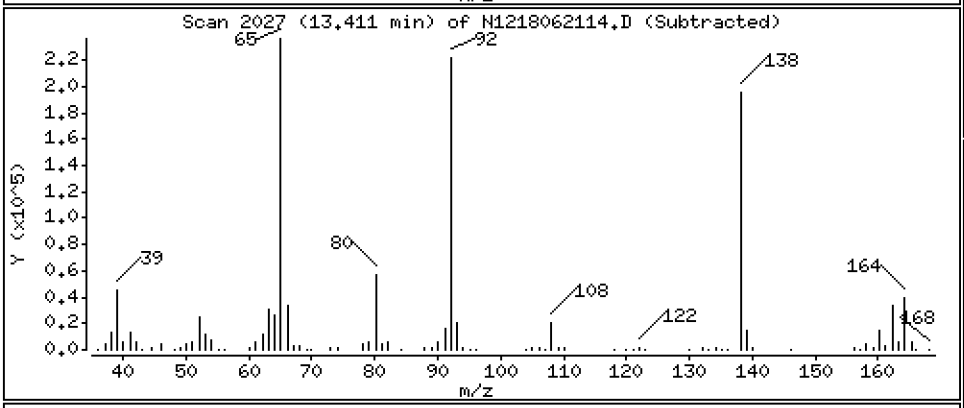
Column phase: ZB-5msi

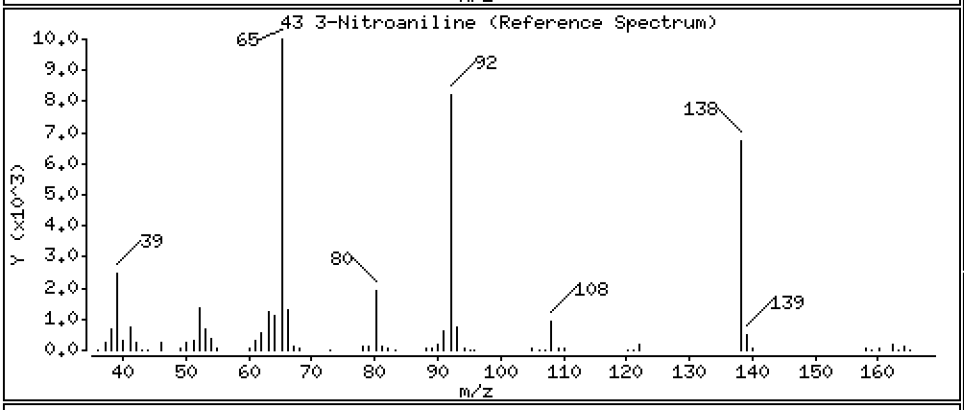
Column diameter: 0.32

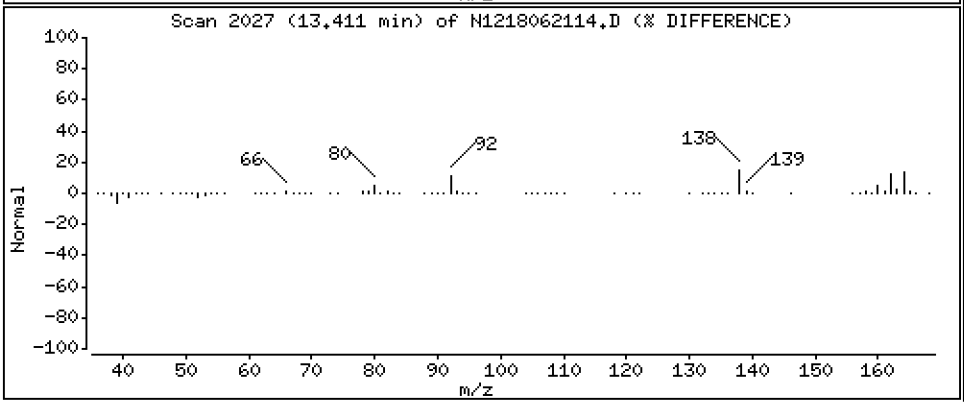
43 3-Nitroaniline

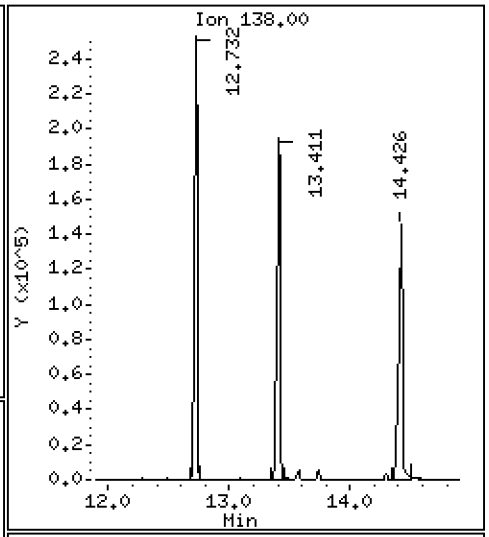
Concentration: 63.38 ug/mL

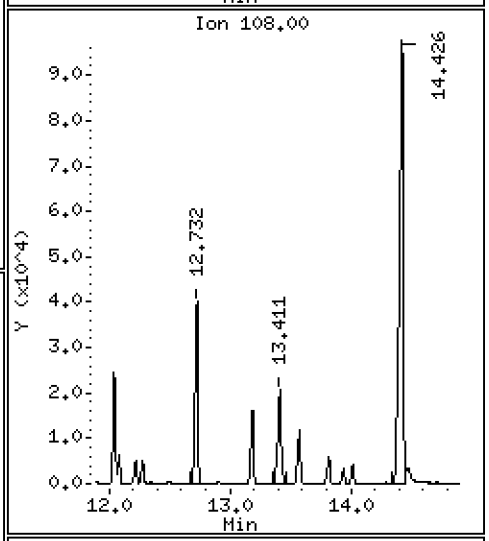


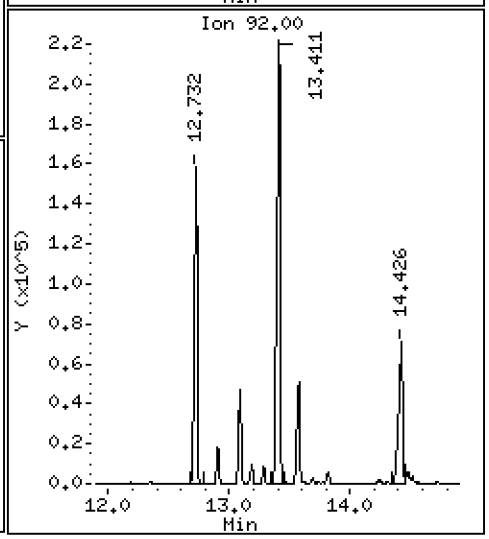












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

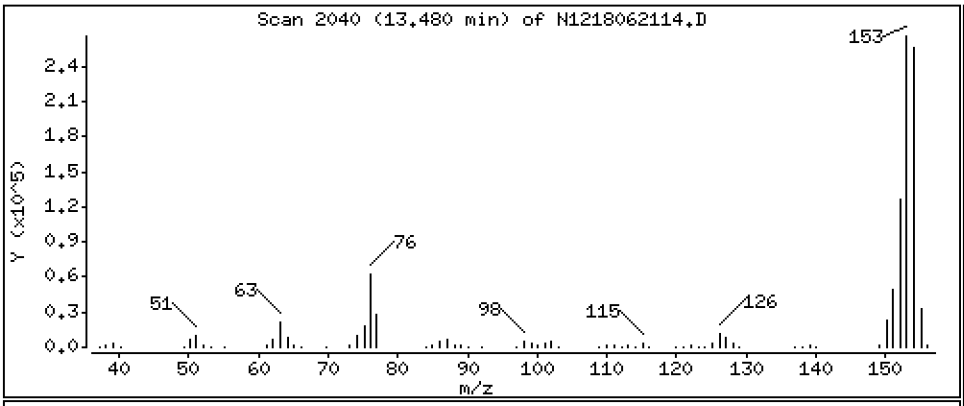
Operator: JZ

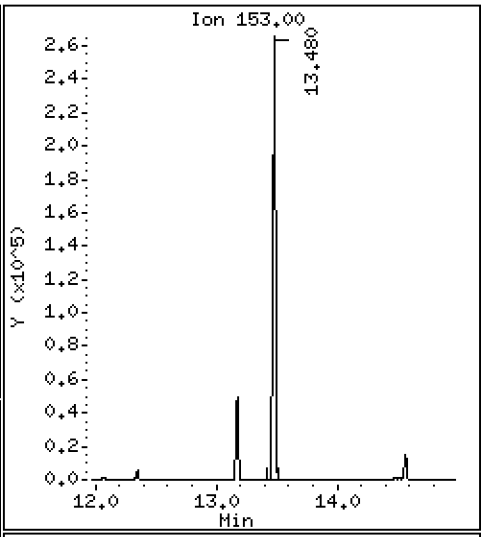
Column phase: ZB-5msi

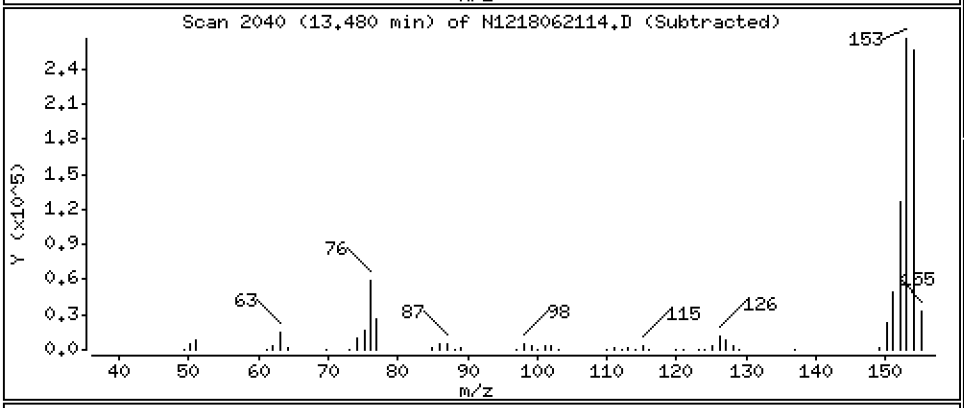
Column diameter: 0.32

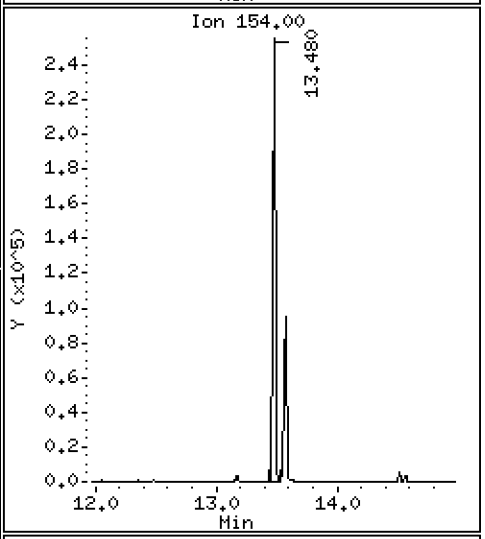
44 Acenaphthene

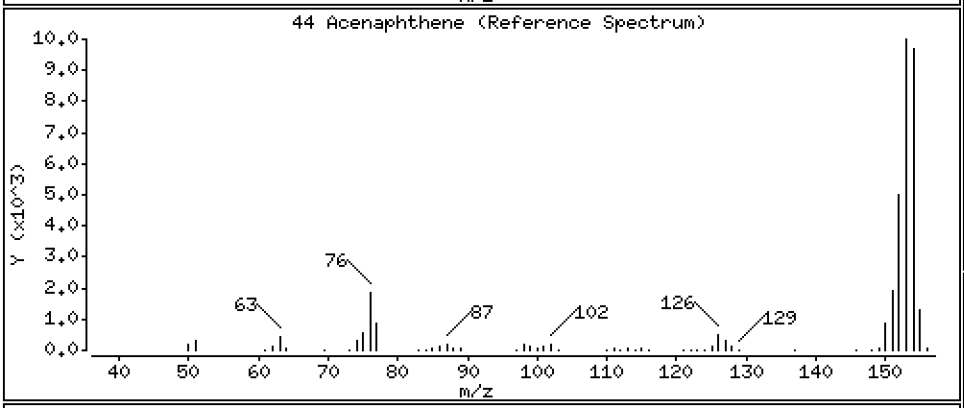
Concentration: 21.22 ug/mL

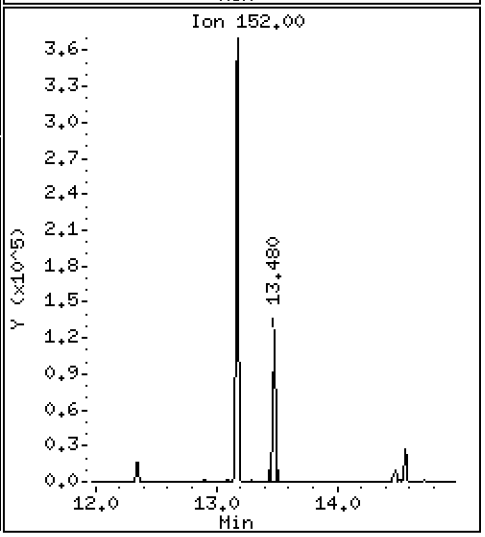


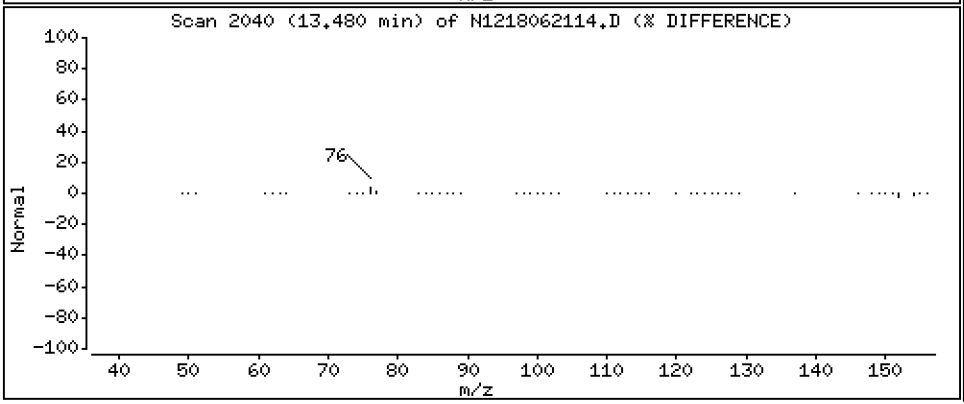












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

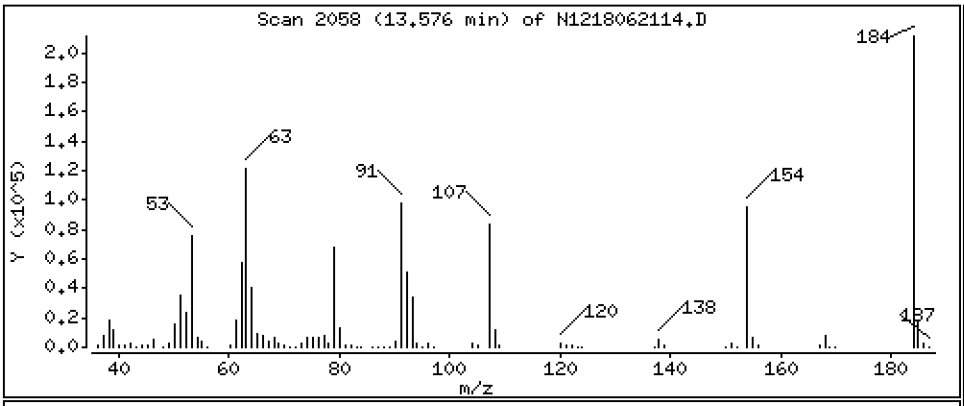
Operator: JZ

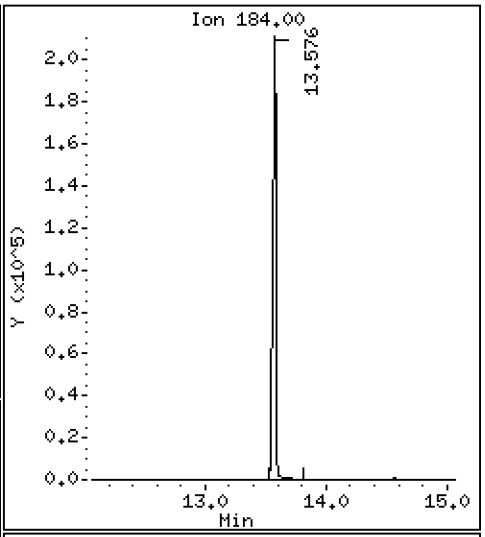
Column phase: ZB-5msi

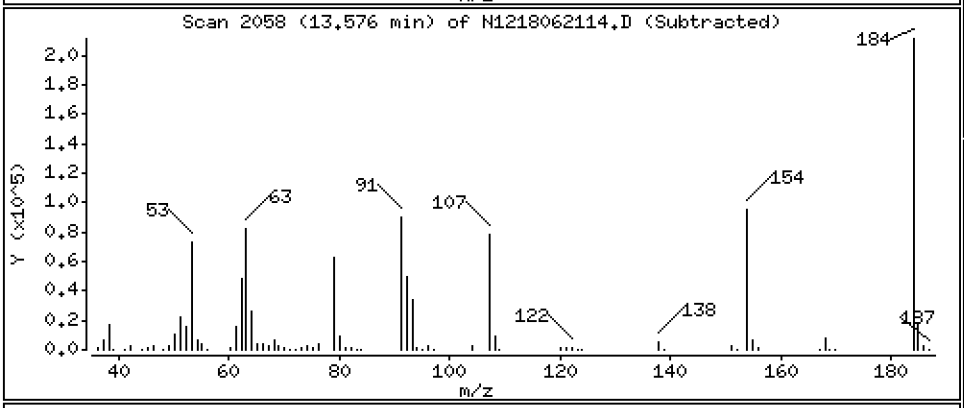
Column diameter: 0.32

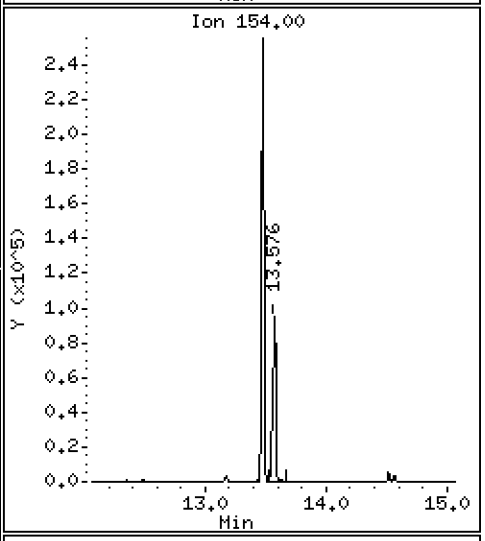
45 2,4-Dinitrophenol

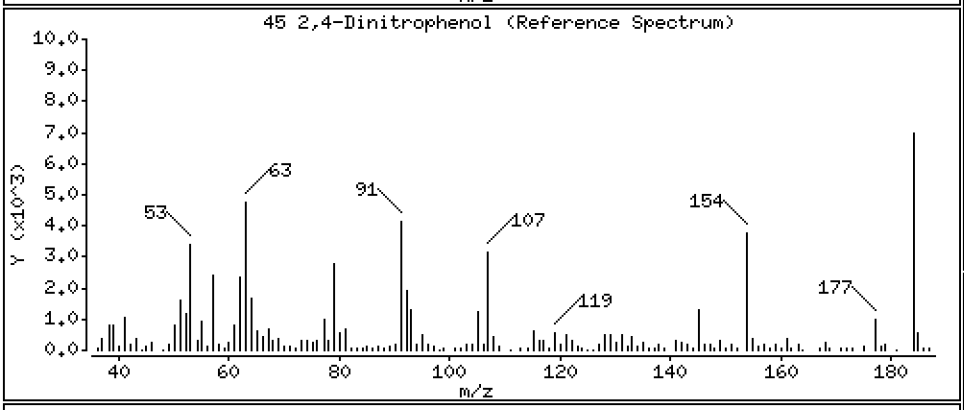
Concentration: 130.6 ug/mL

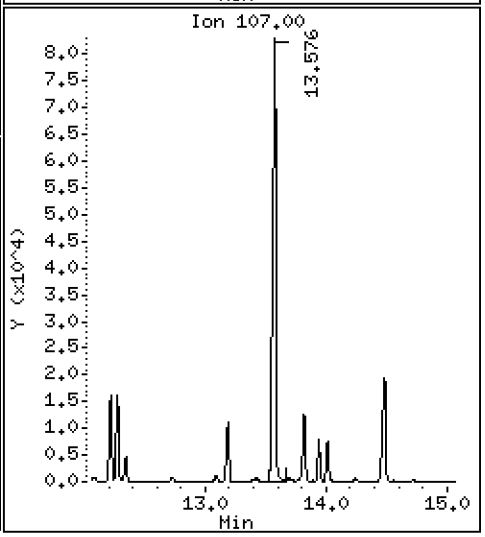


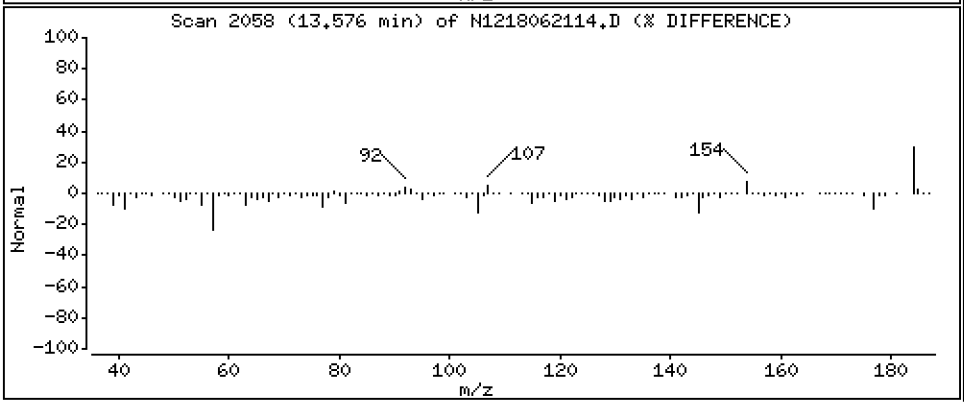












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

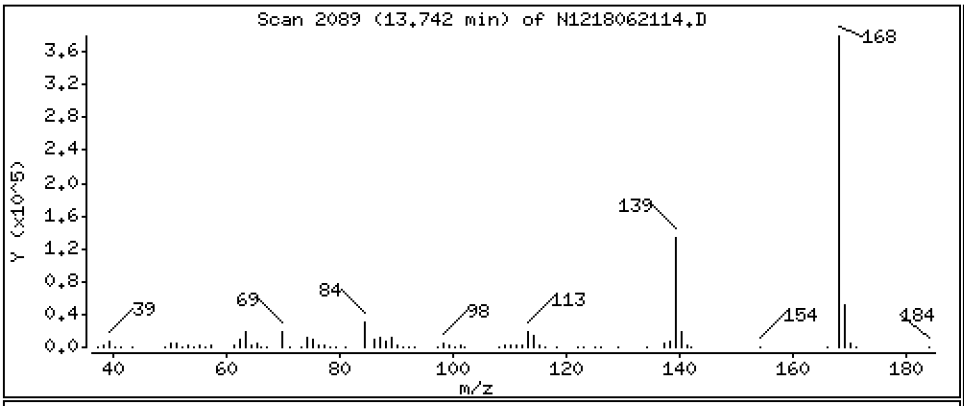
Operator: JZ

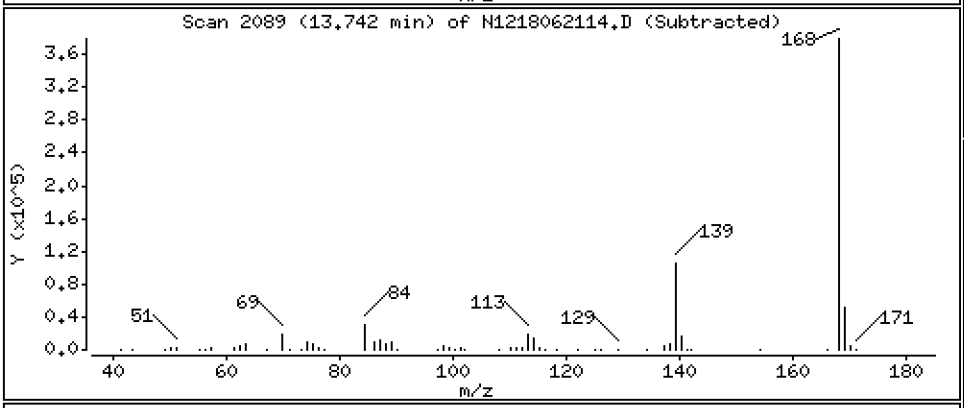
Column phase: ZB-5msi

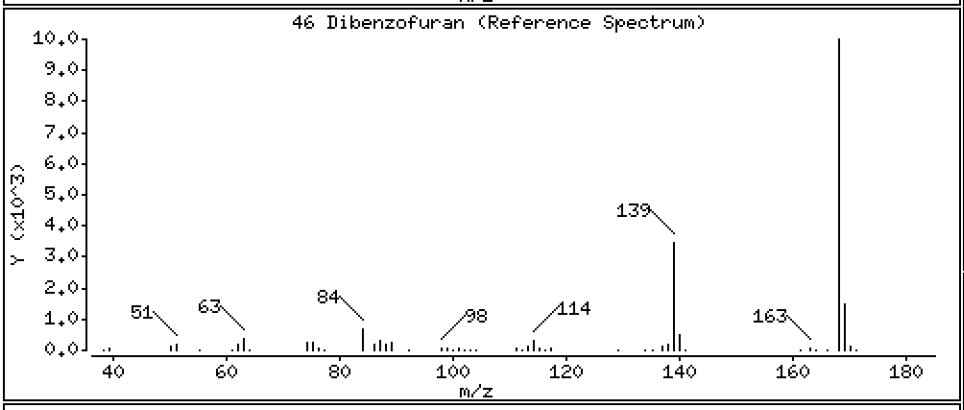
Column diameter: 0.32

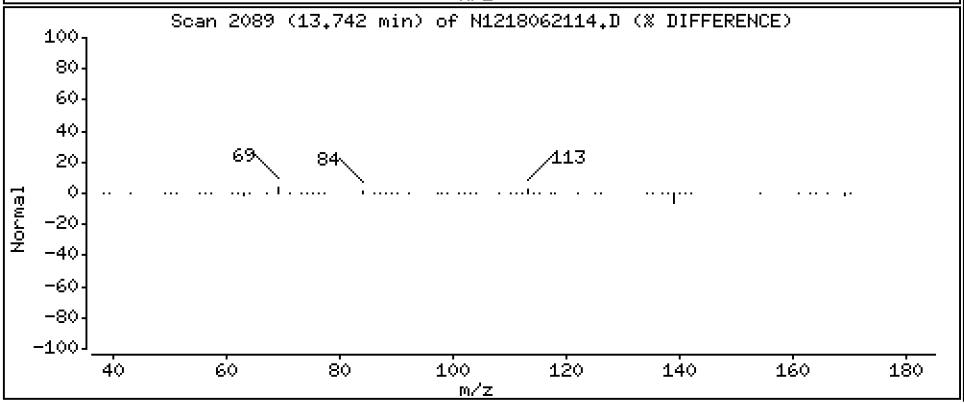
46 Dibenzofuran

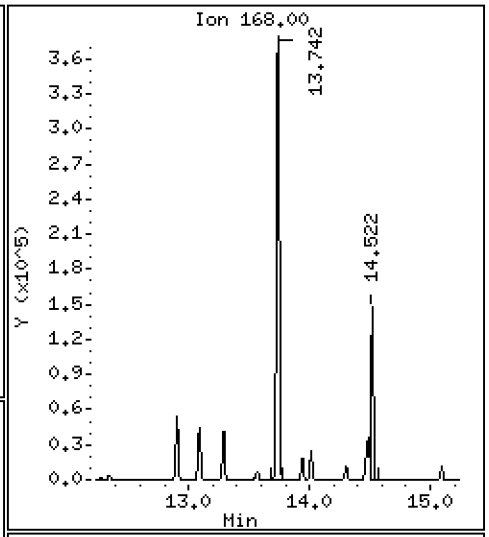
Concentration: 20.12 ug/mL

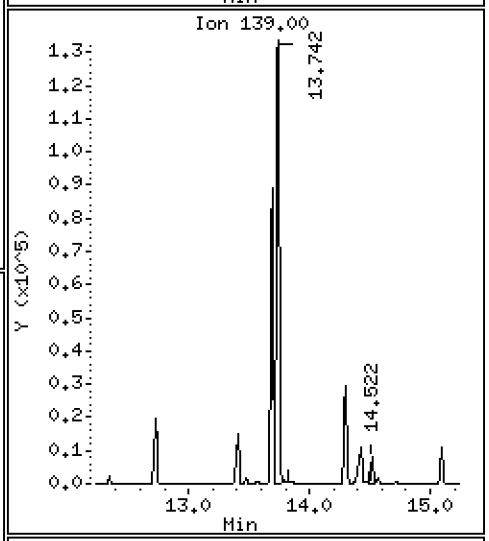


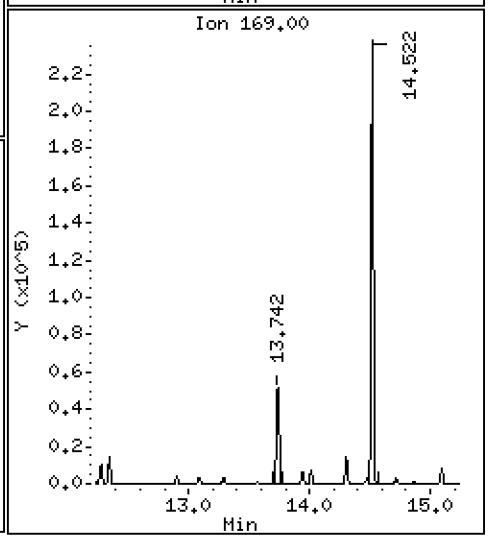












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

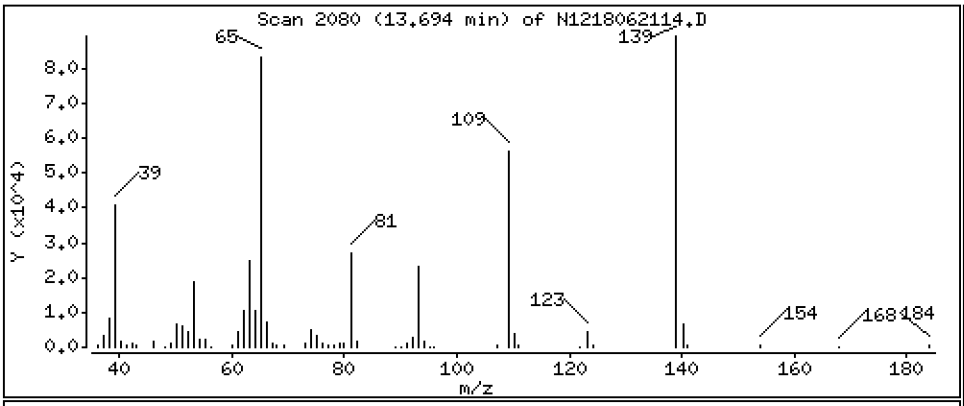
Operator: JZ

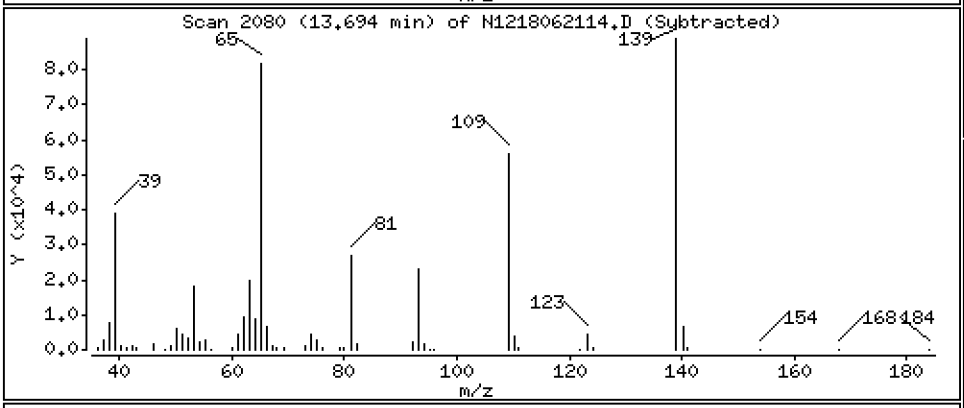
Column phase: ZB-5msi

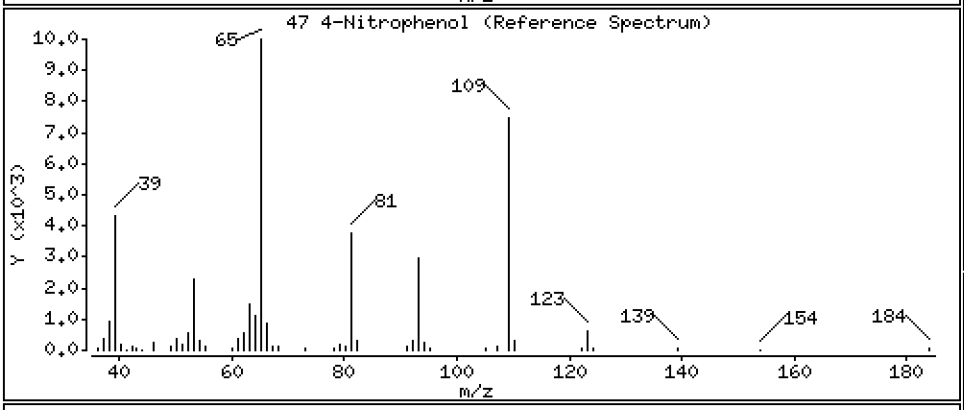
Column diameter: 0.32

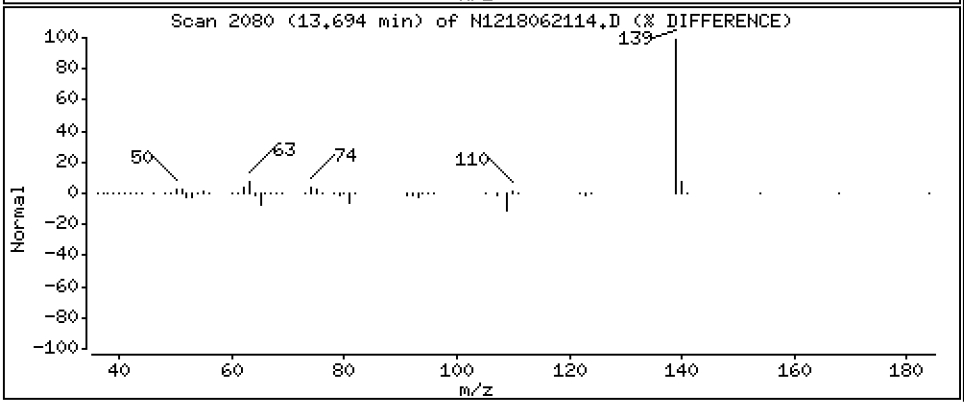
47 4-Nitrophenol

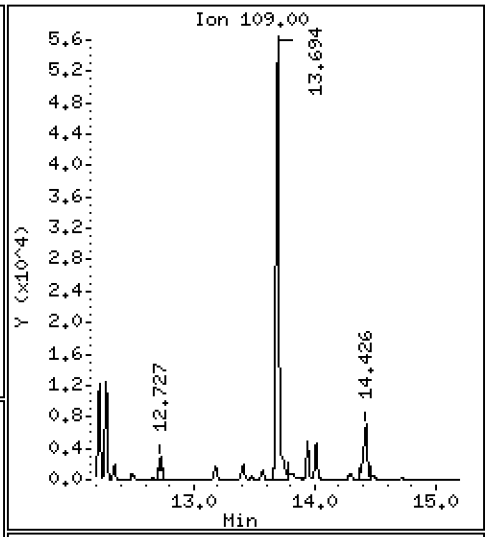
Concentration: 31.53 ug/mL

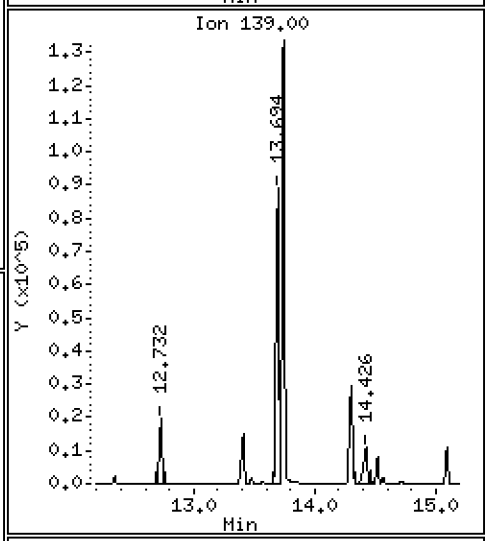


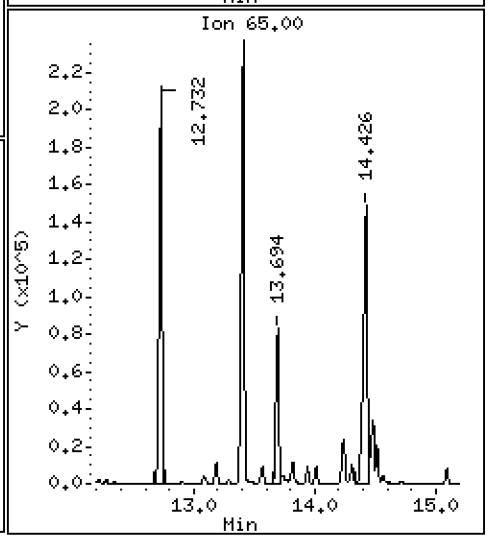












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

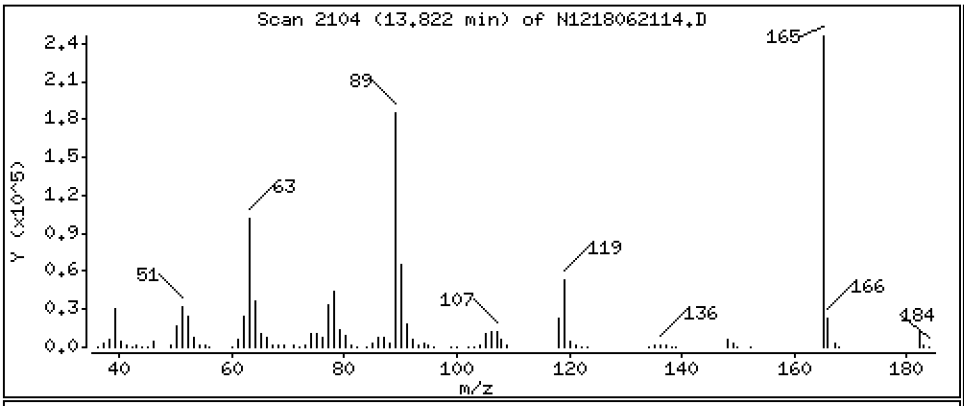
Operator: JZ

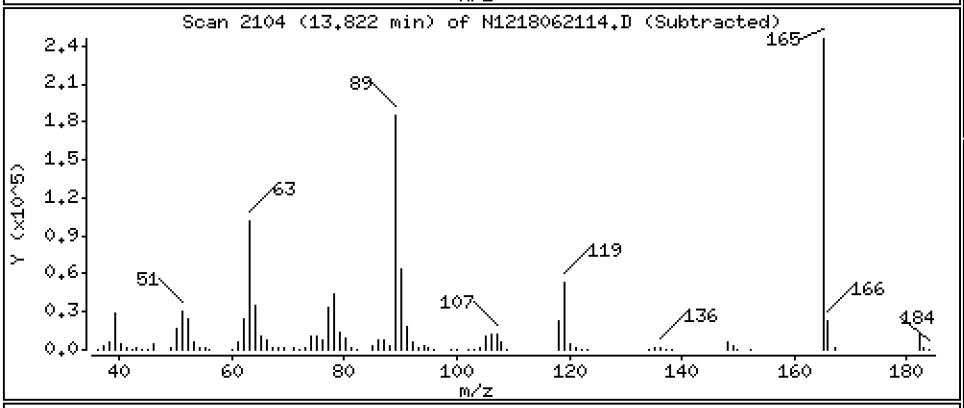
Column phase: ZB-5msi

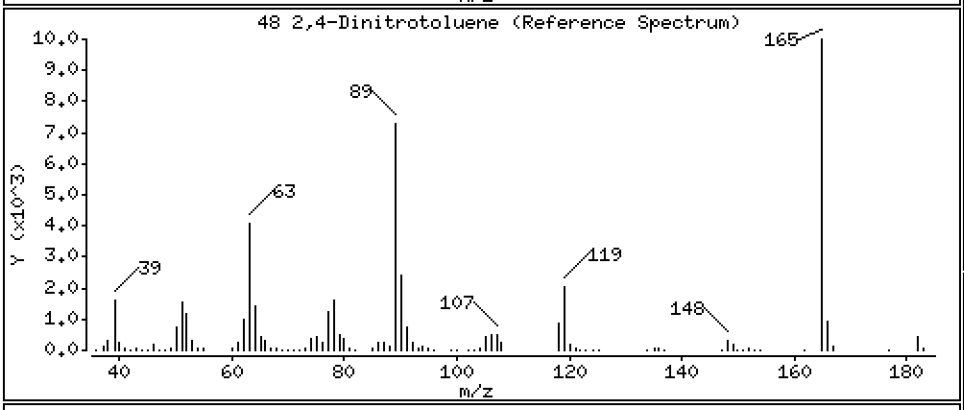
Column diameter: 0.32

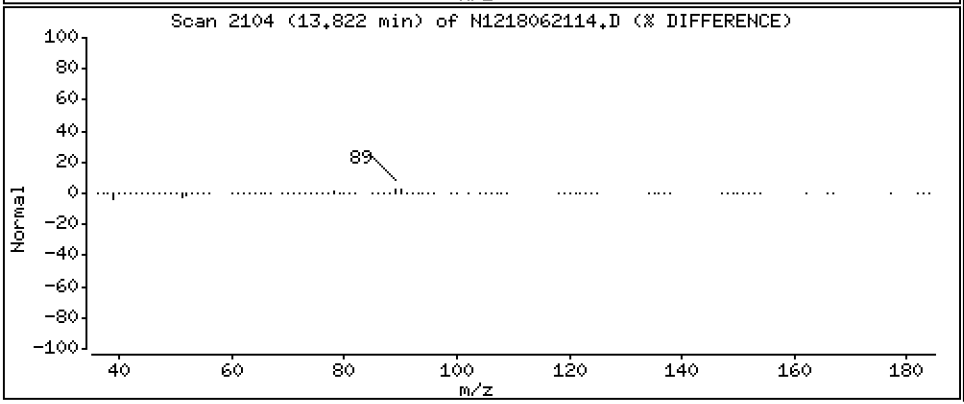
48 2,4-Dinitrotoluene

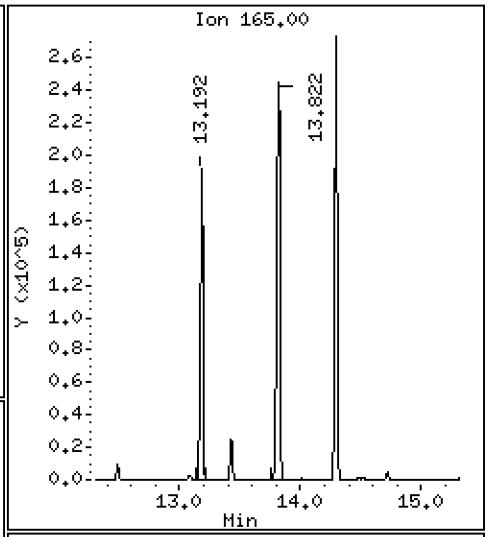
Concentration: 65.00 ug/mL

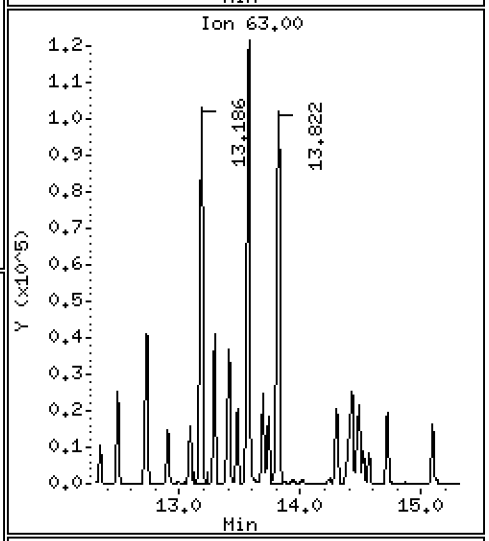


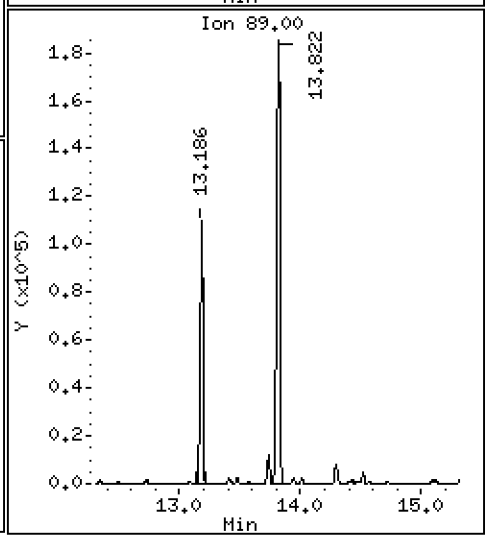












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

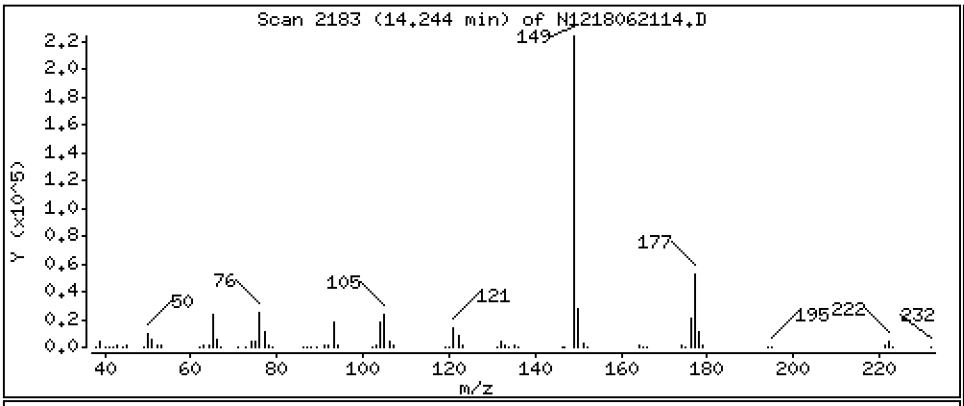
Operator: JZ

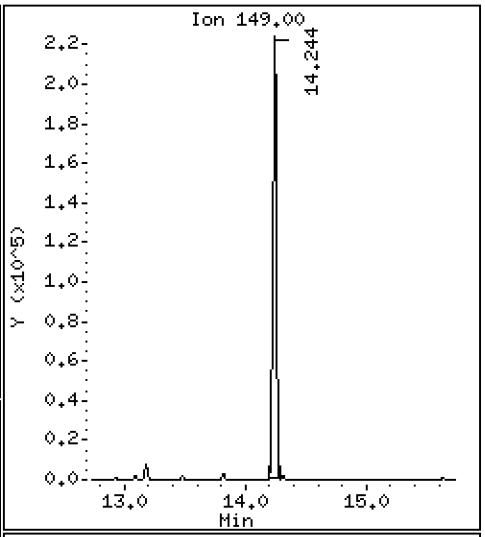
Column phase: ZB-5msi

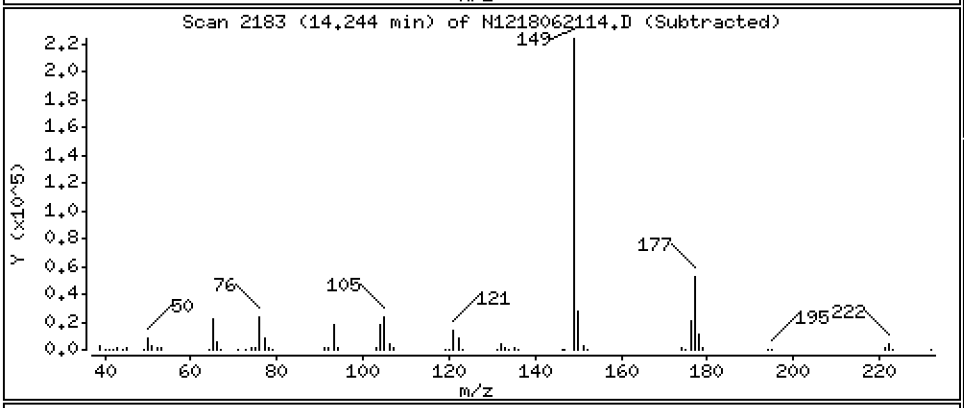
Column diameter: 0.32

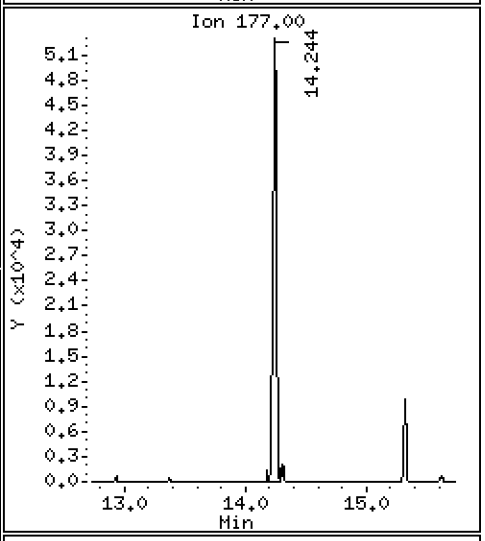
50 Diethylphthalate

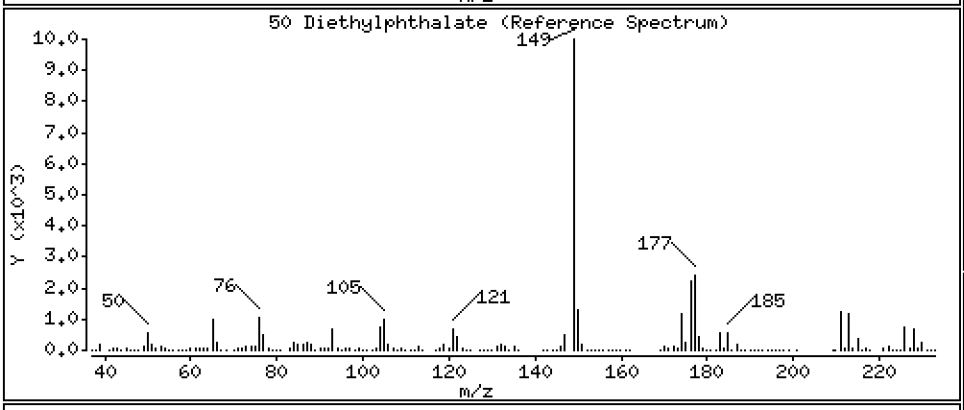
Concentration: 22.35 ug/mL

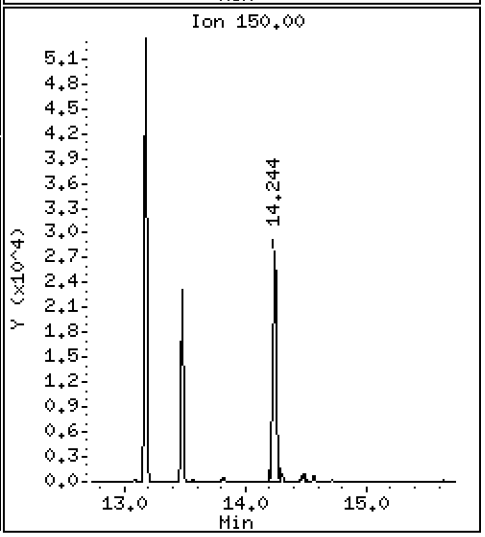


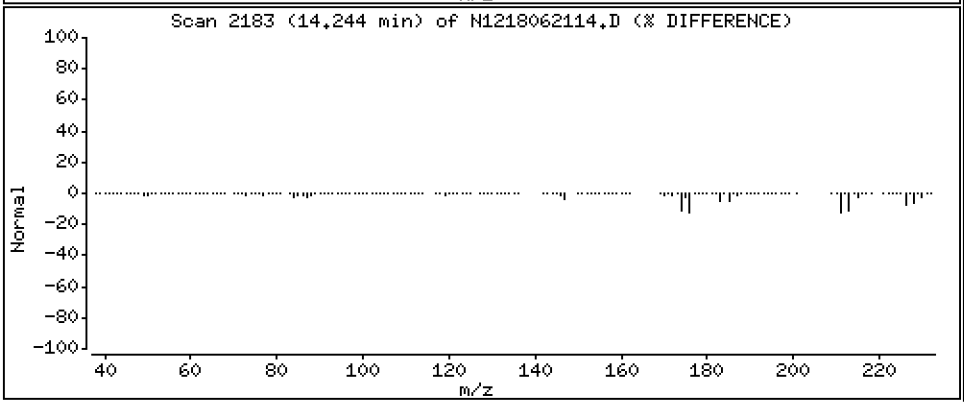












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

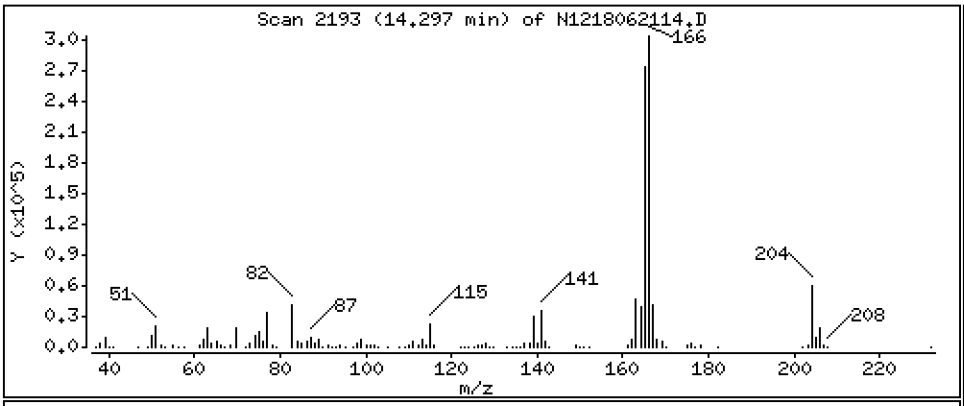
Operator: JZ

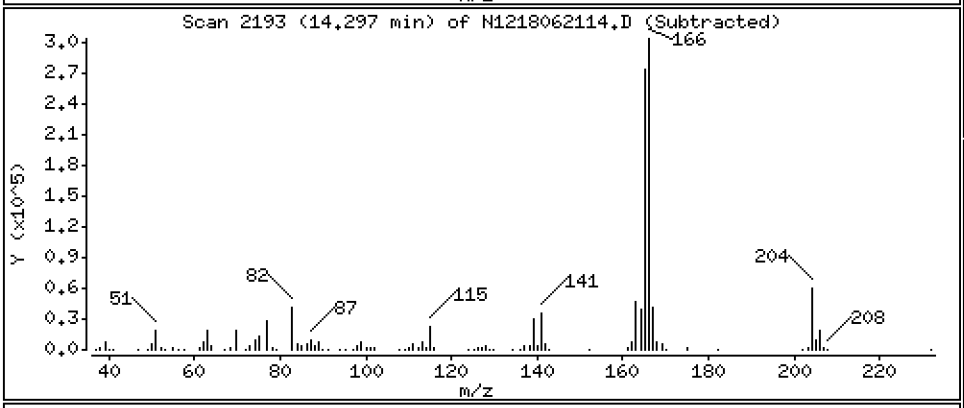
Column phase: ZB-5msi

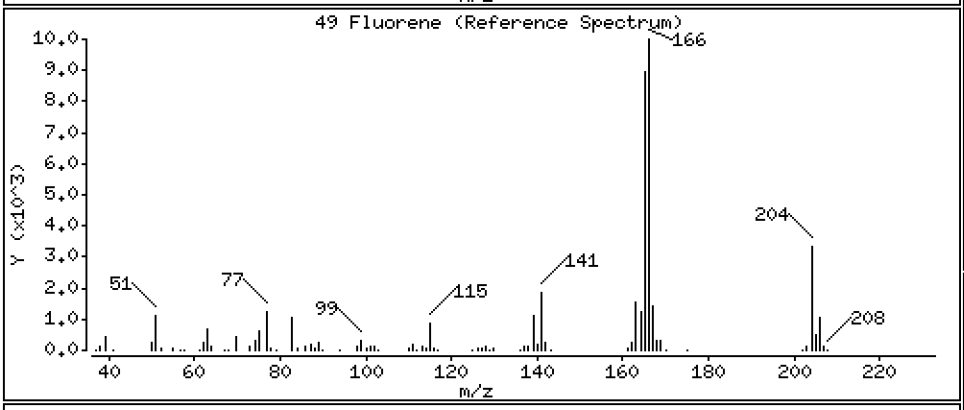
Column diameter: 0.32

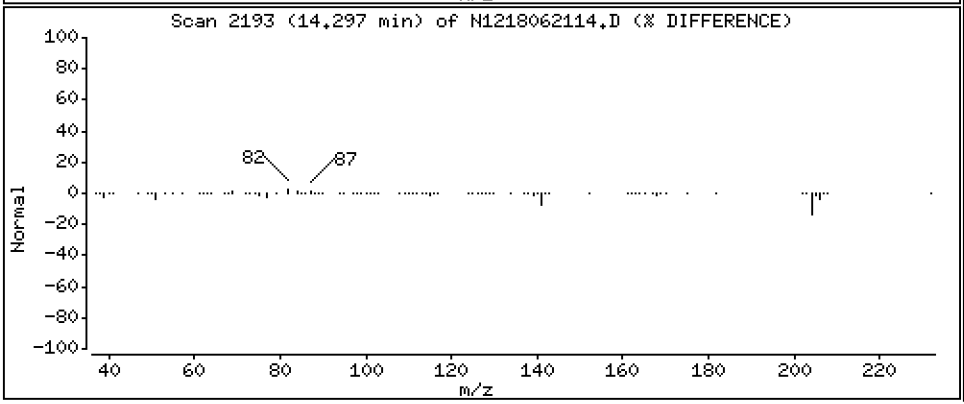
49 Fluorene

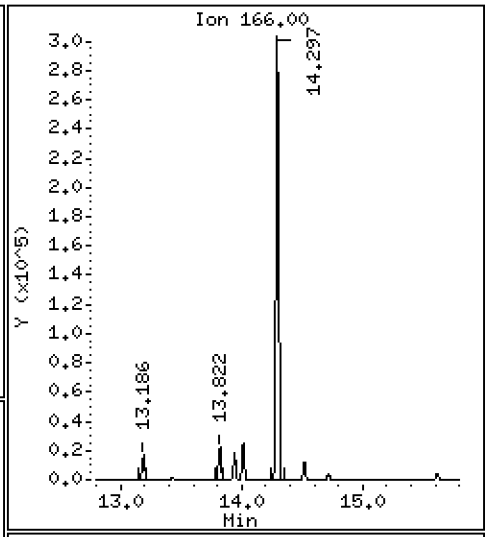
Concentration: 21.98 ug/mL

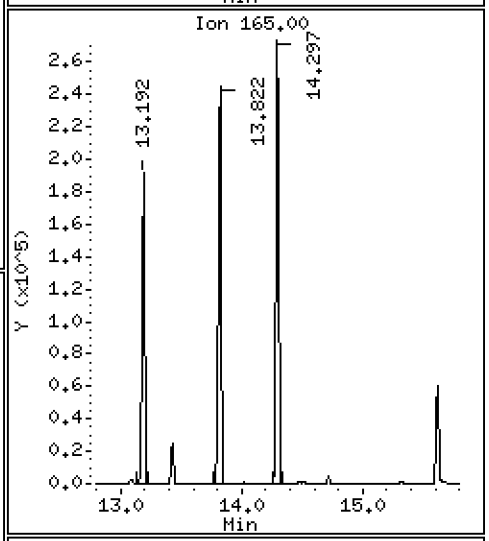


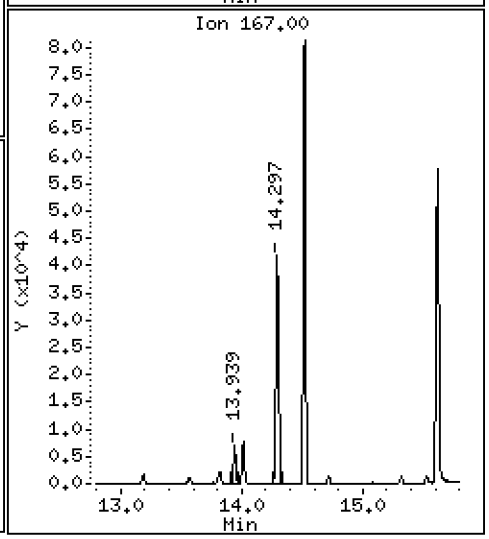












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

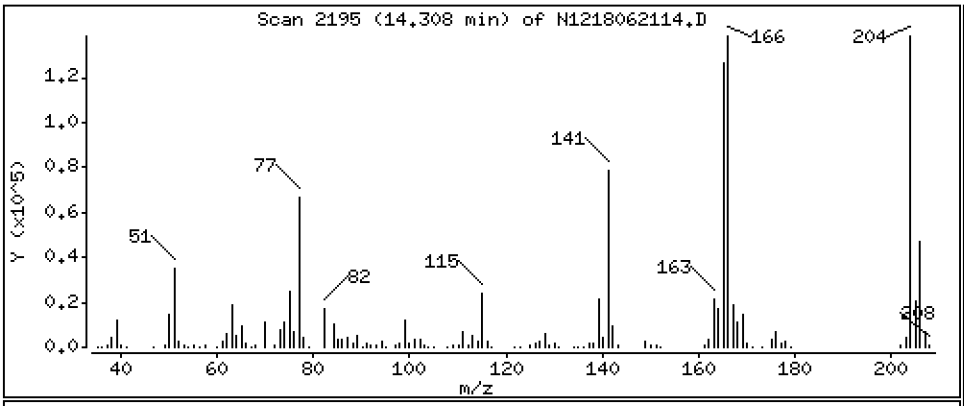
Operator: JZ

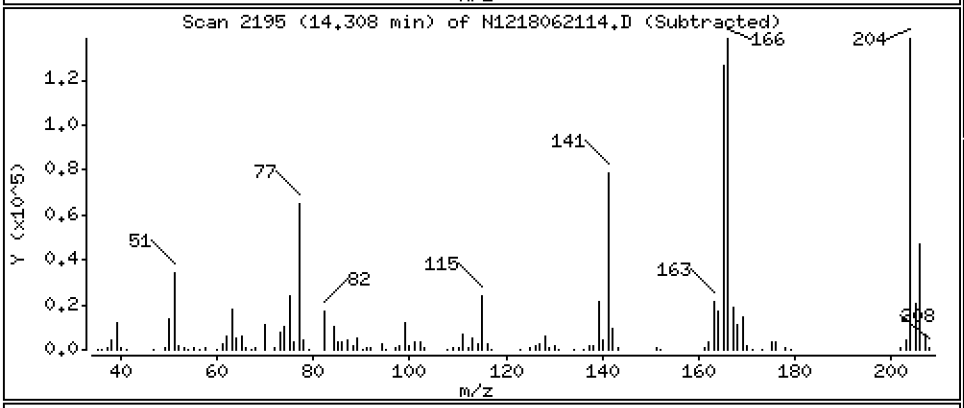
Column phase: ZB-5msi

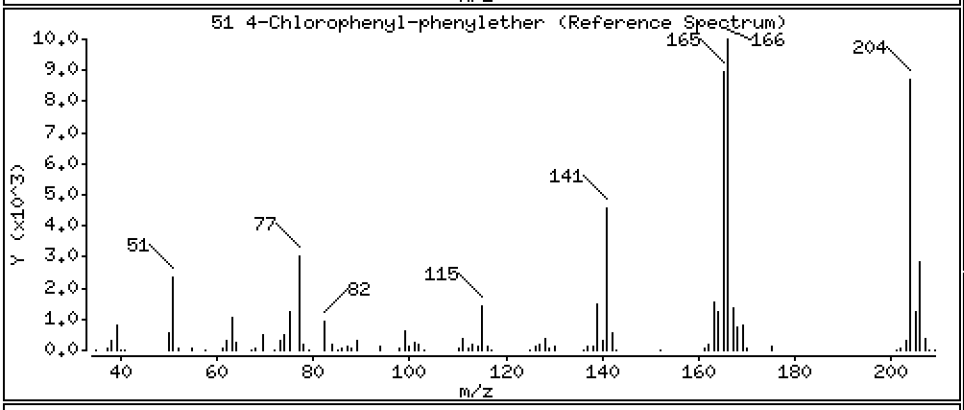
Column diameter: 0.32

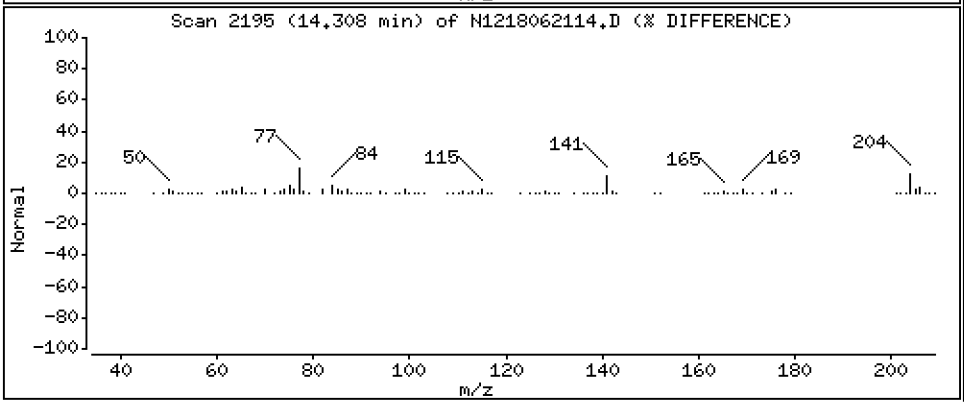
51 4-Chlorophenyl-phenylether

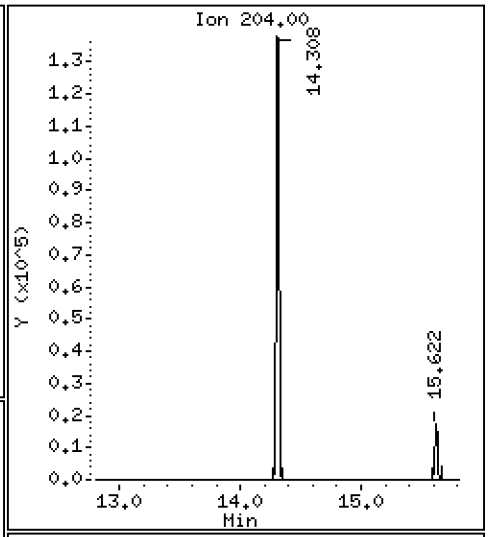
Concentration: 21.63 ug/mL

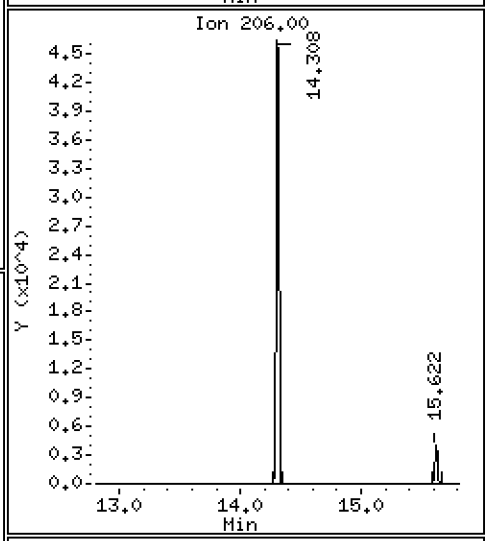


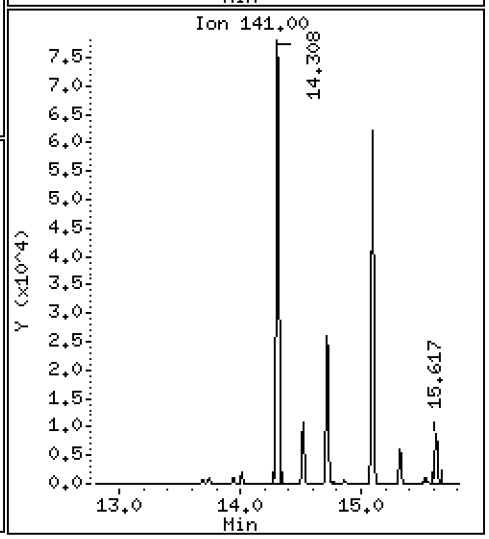












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

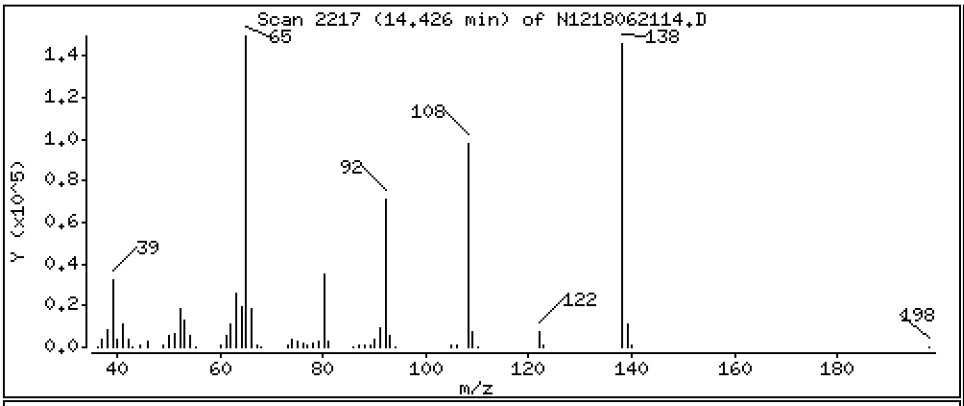
Operator: JZ

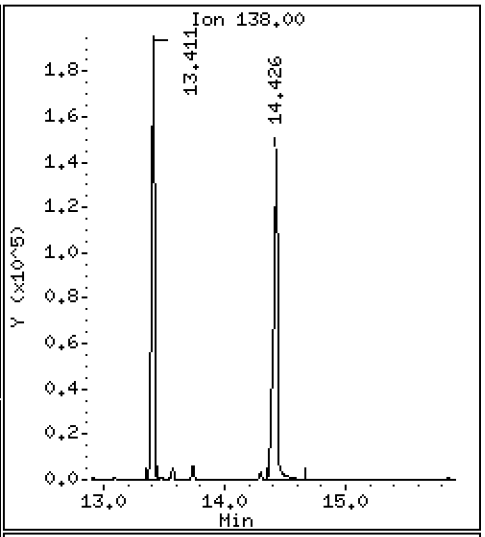
Column phase: ZB-5msi

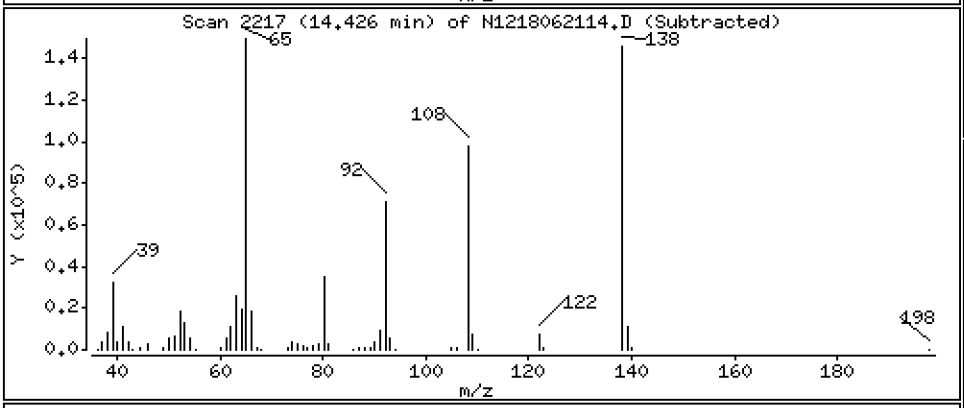
Column diameter: 0.32

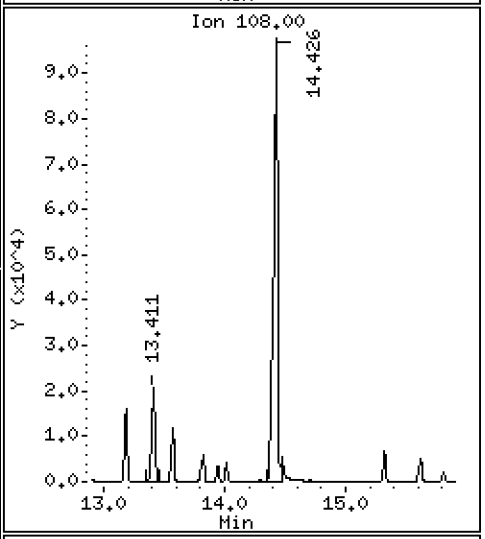
52 4-Nitroaniline

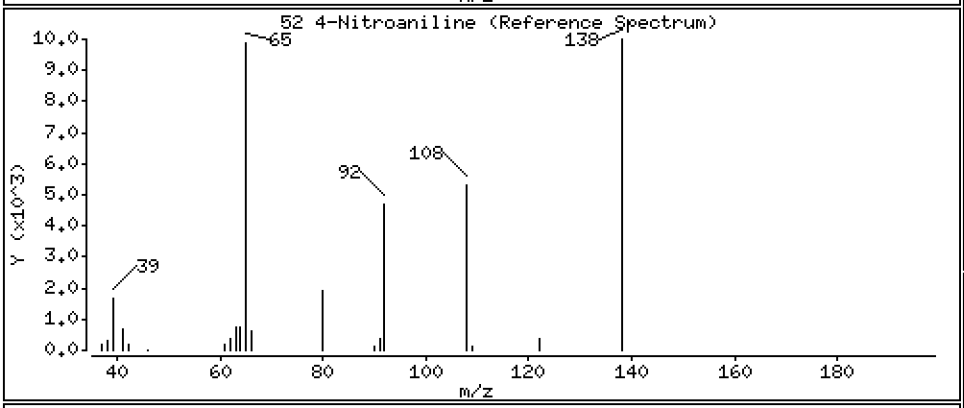
Concentration: 65.65 ug/mL

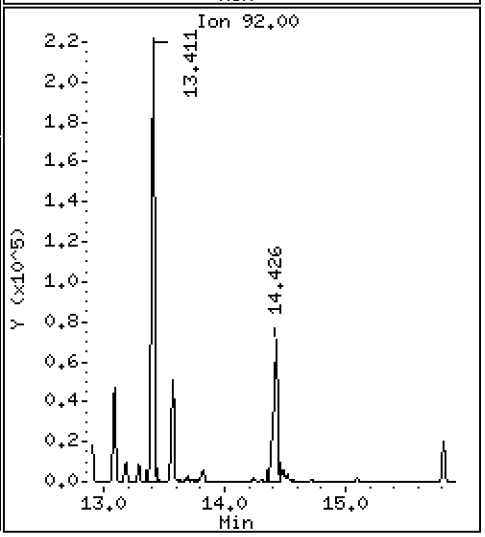


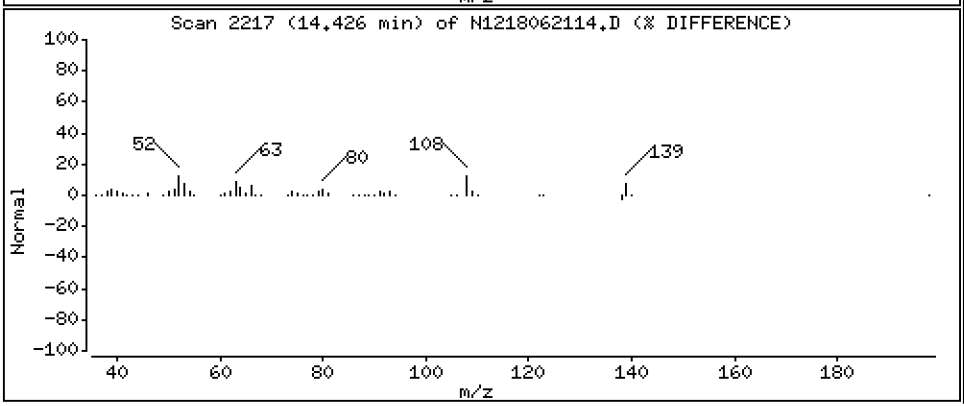












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

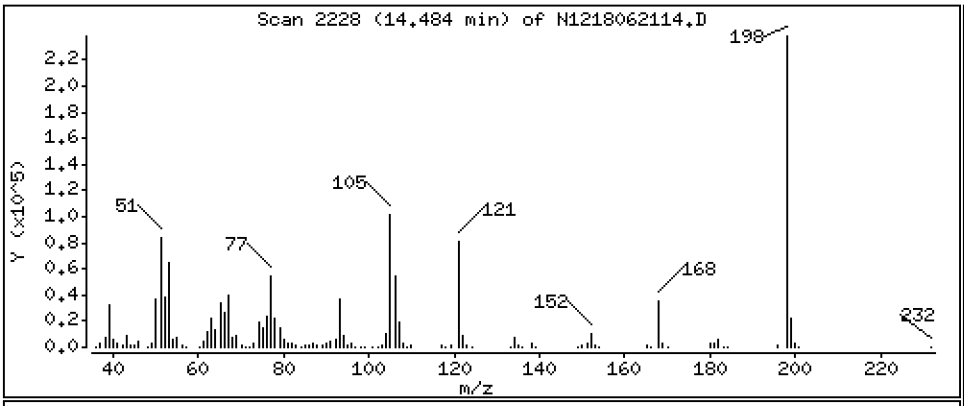
Operator: JZ

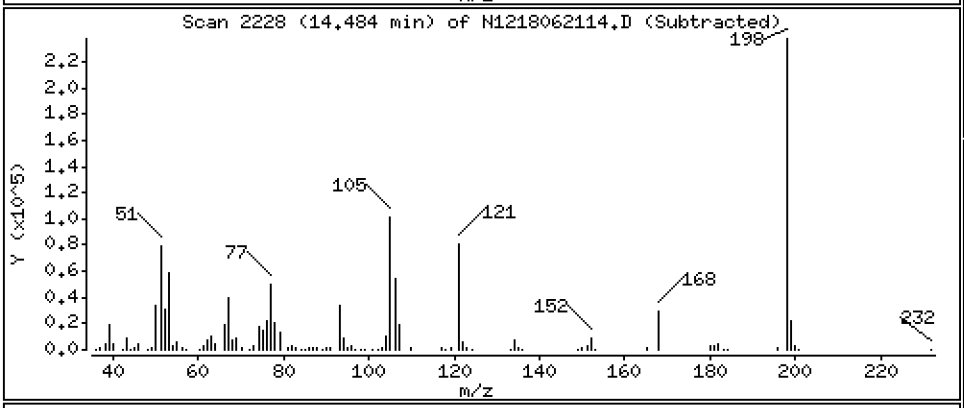
Column phase: ZB-5msi

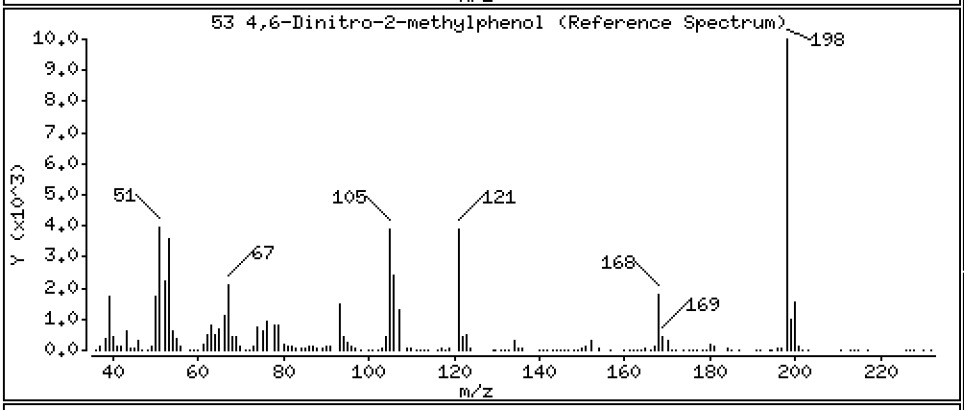
Column diameter: 0.32

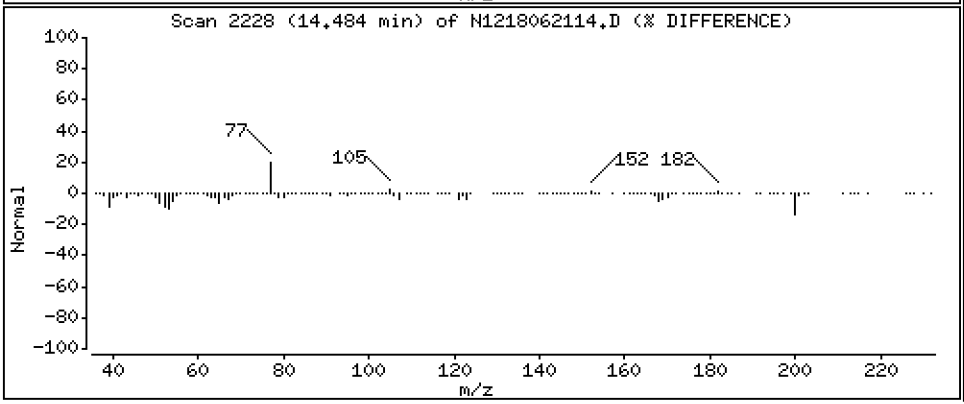
53 4,6-Dinitro-2-methylphenol

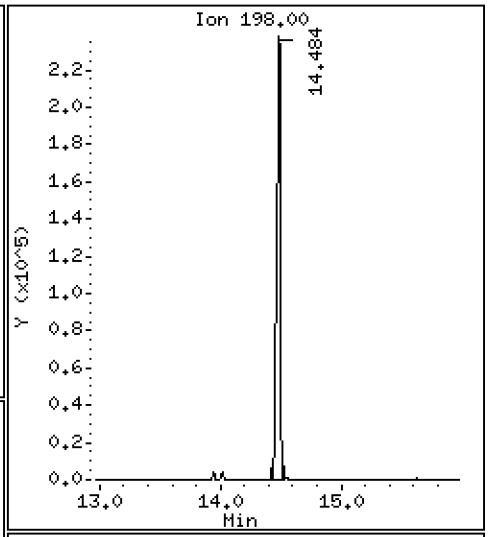
Concentration: 130.5 ug/mL

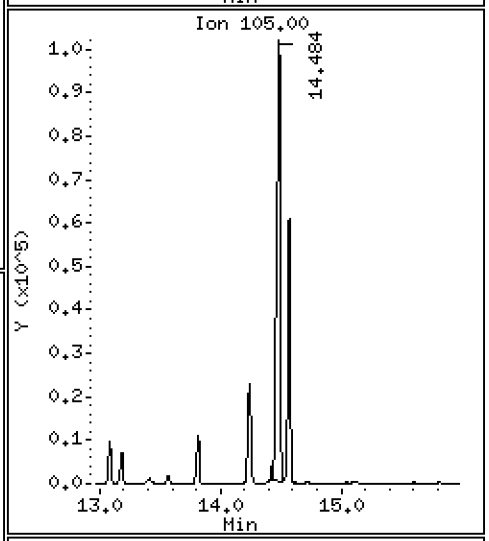


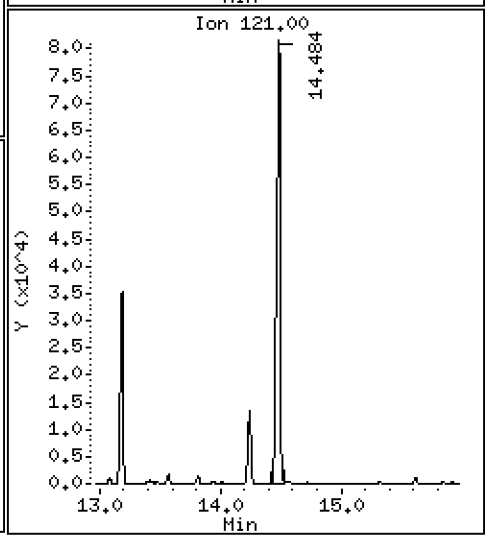












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

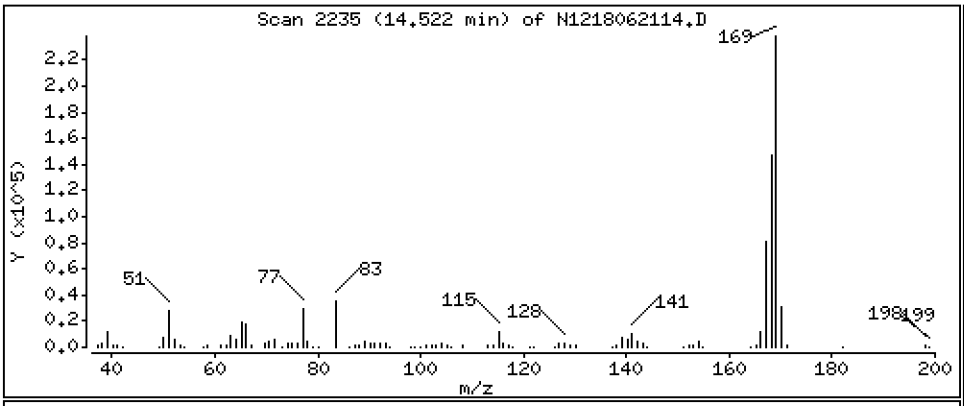
Operator: JZ

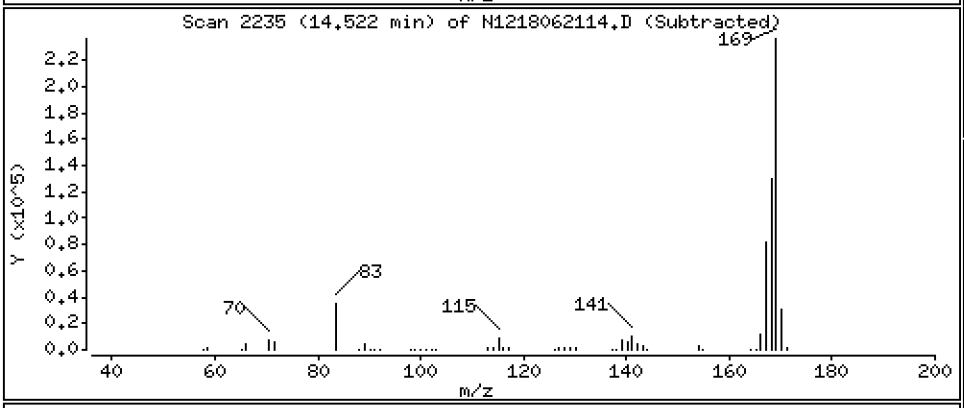
Column phase: ZB-5msi

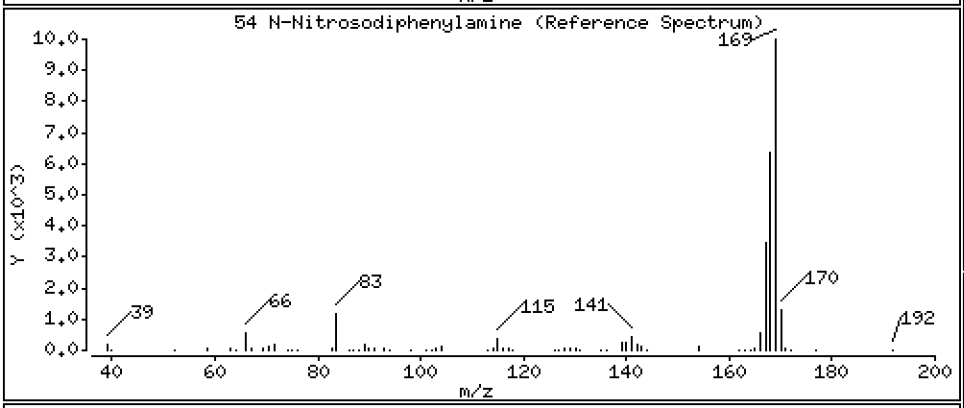
Column diameter: 0.32

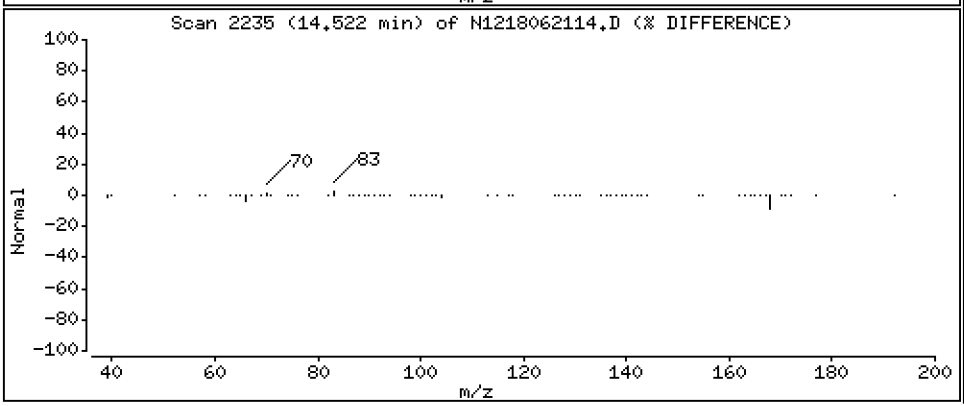
54 N-Nitrosodiphenylamine

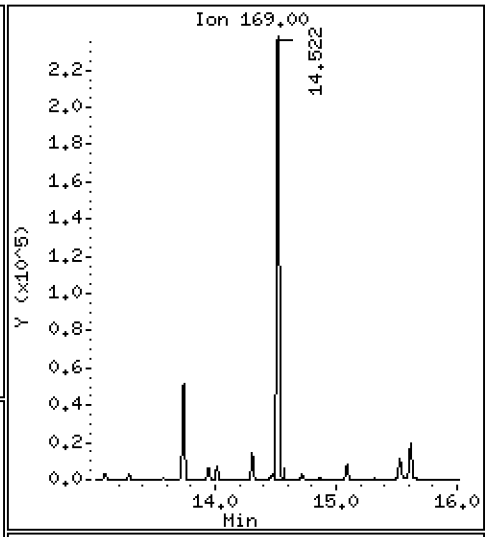
Concentration: 21.39 ug/mL

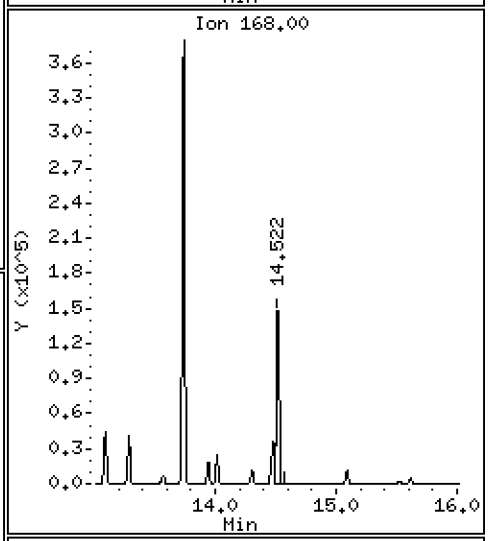


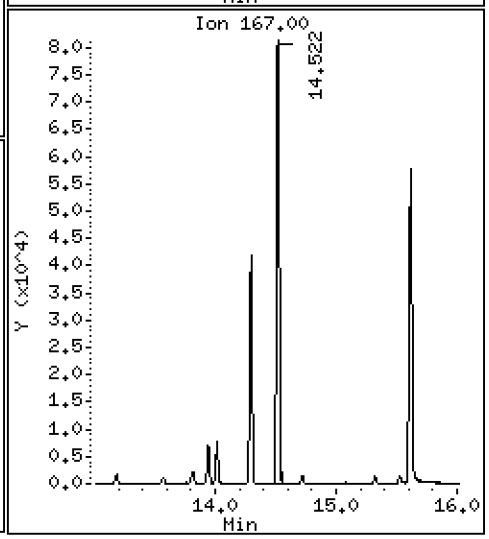












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

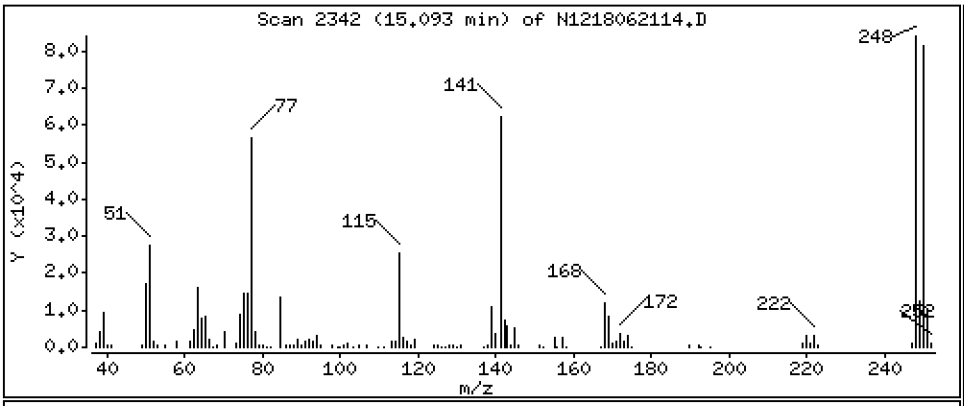
Operator: JZ

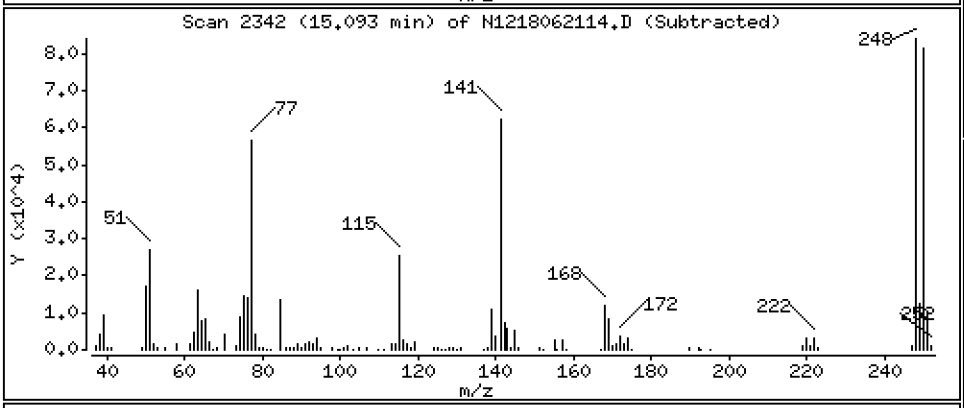
Column phase: ZB-5msi

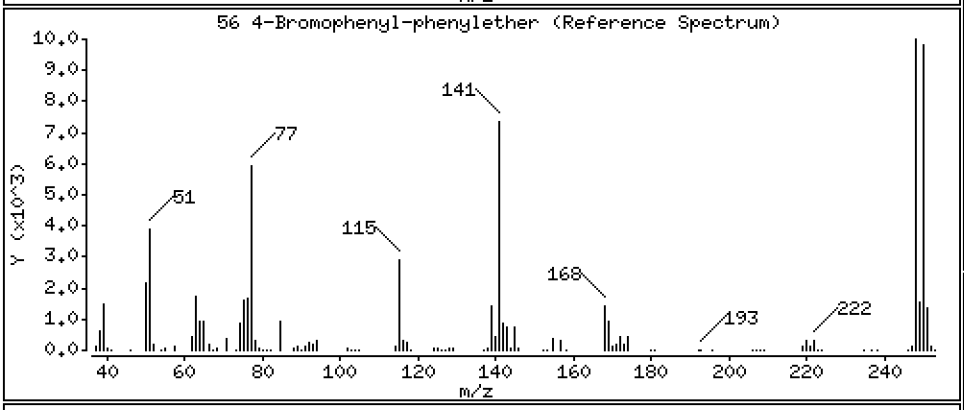
Column diameter: 0.32

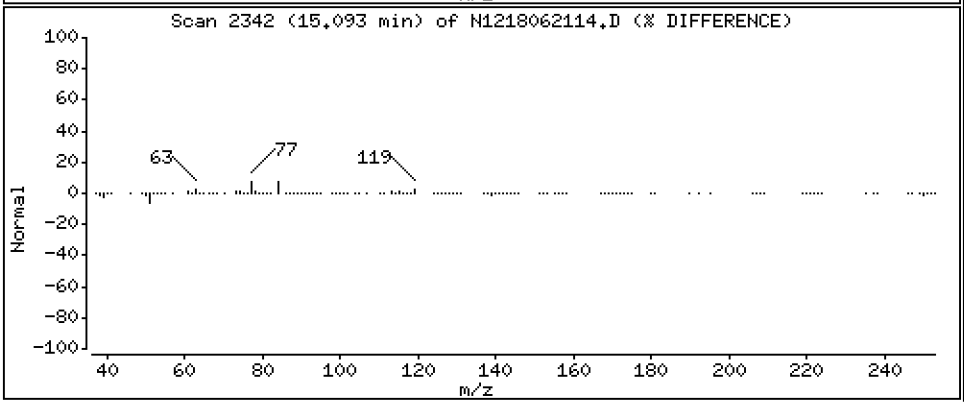
56 4-Bromophenyl-phenylether

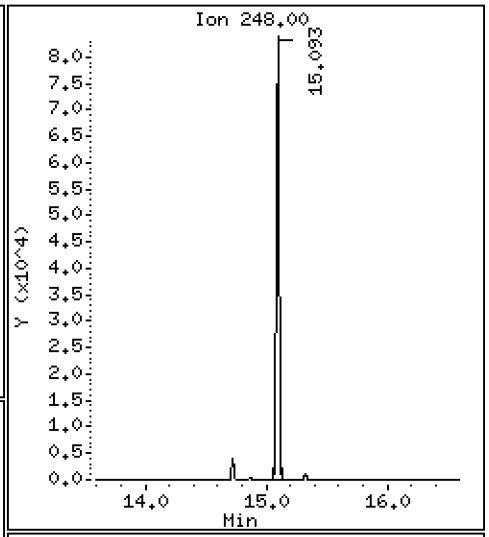
Concentration: 21.03 ug/mL

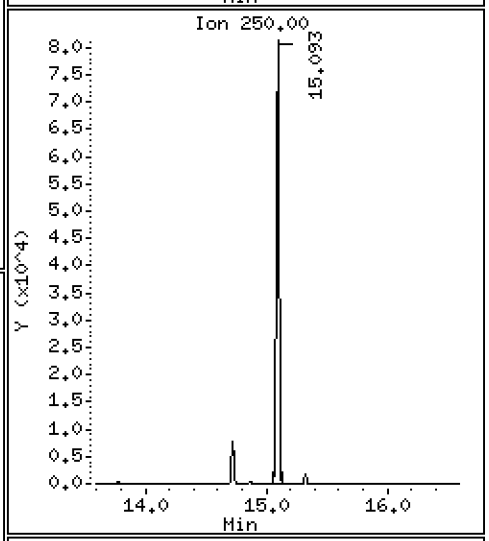


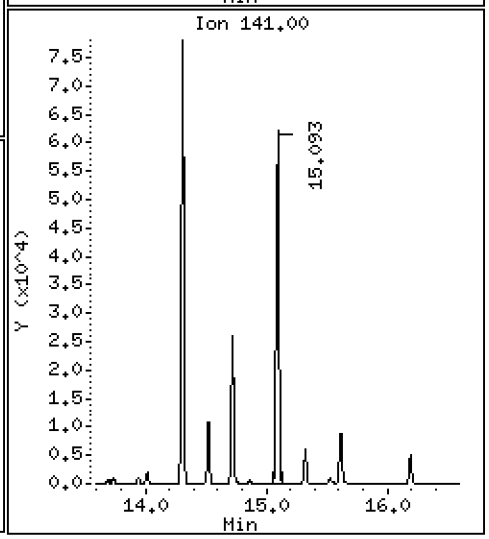












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

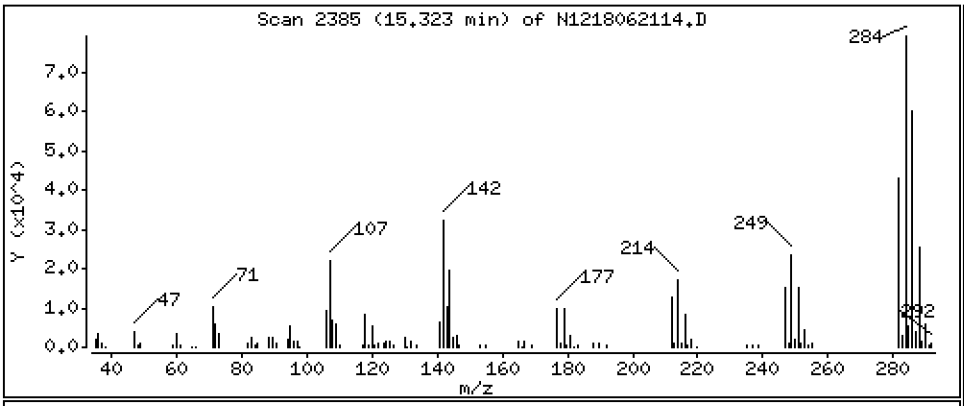
Operator: JZ

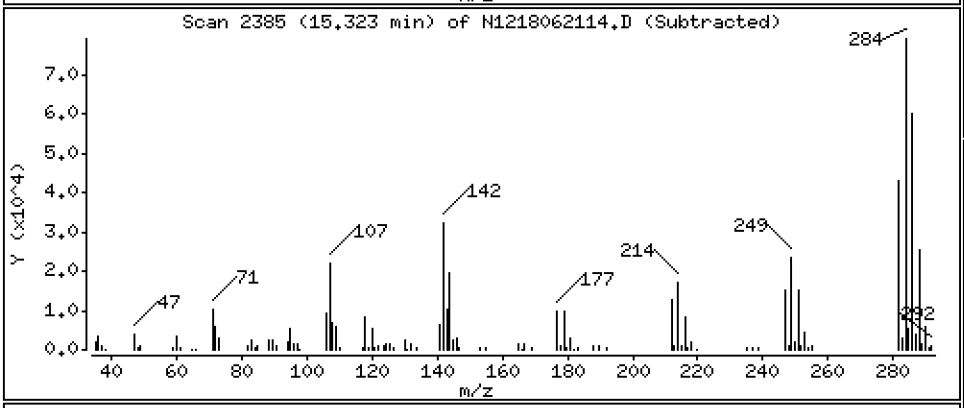
Column phase: ZB-5msi

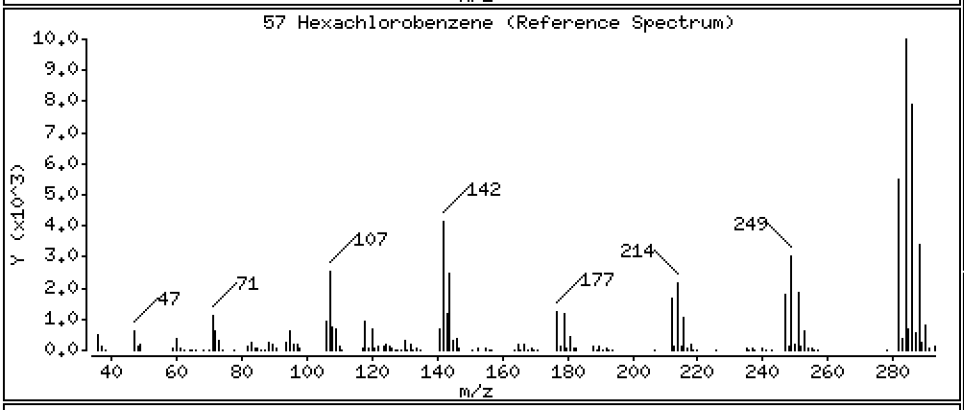
Column diameter: 0.32

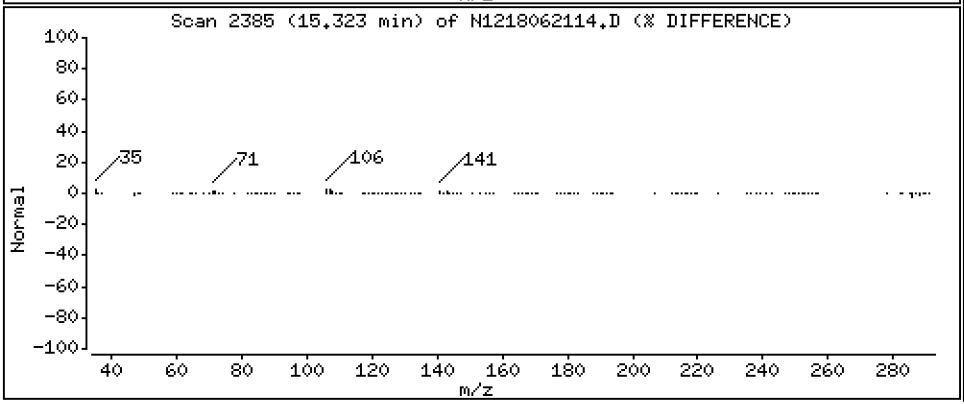
57 Hexachlorobenzene

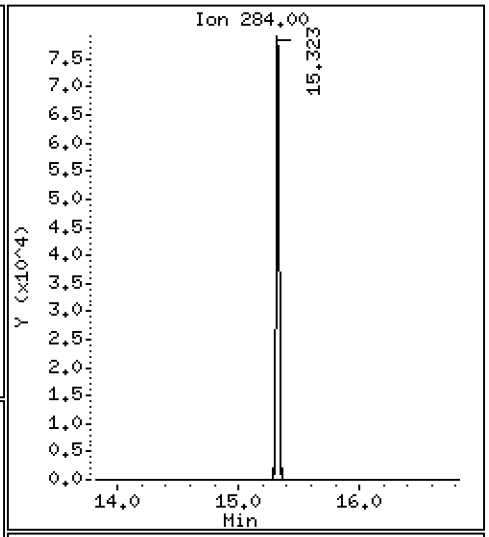
Concentration: 20.02 ug/mL

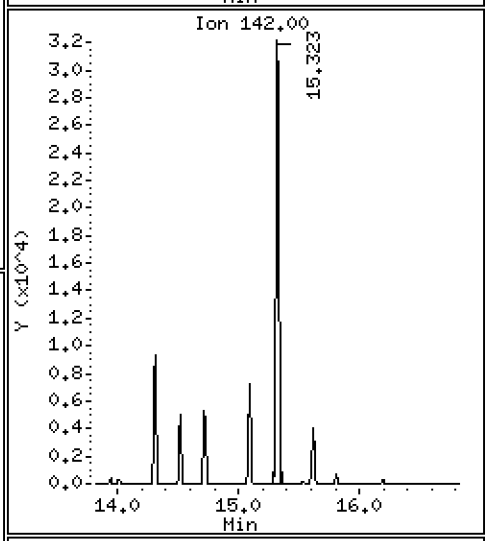


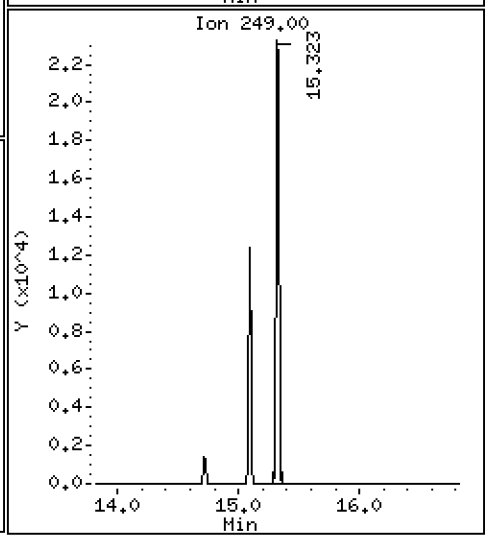












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

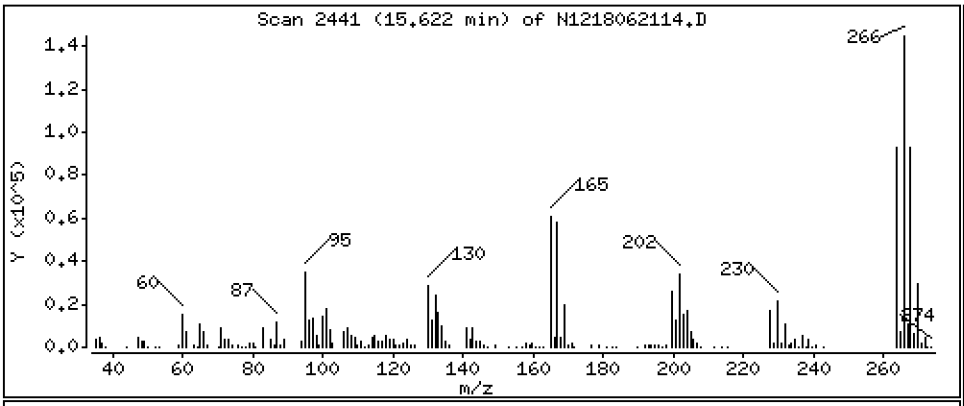
Operator: JZ

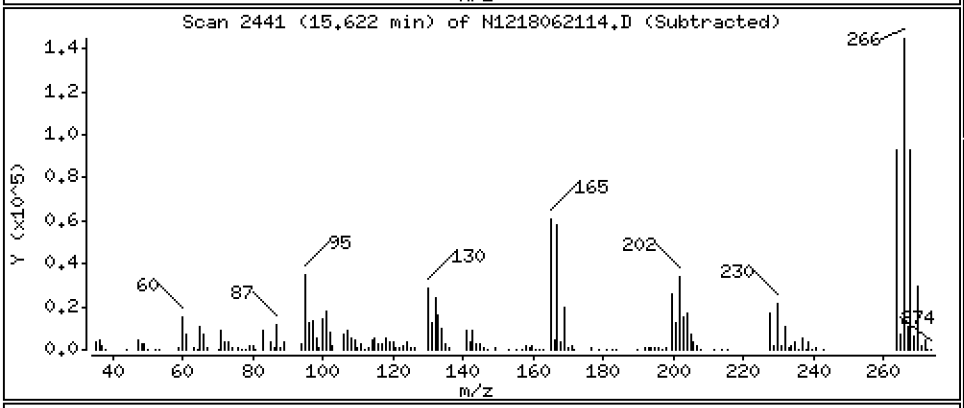
Column phase: ZB-5msi

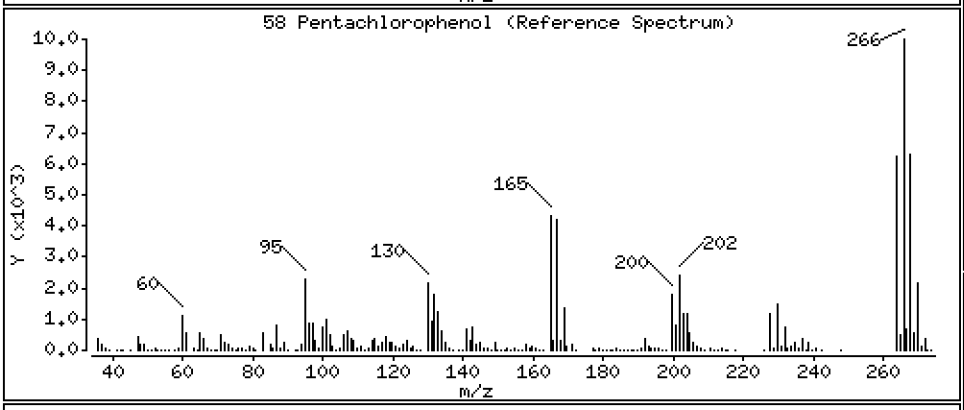
Column diameter: 0.32

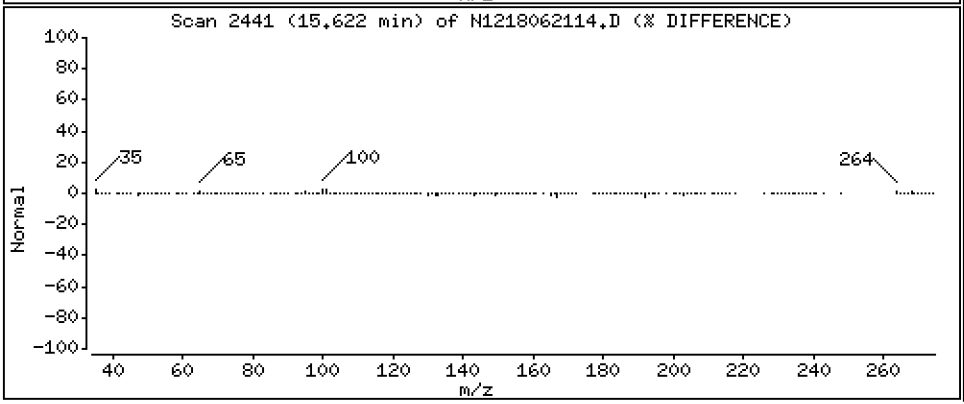
58 Pentachlorophenol

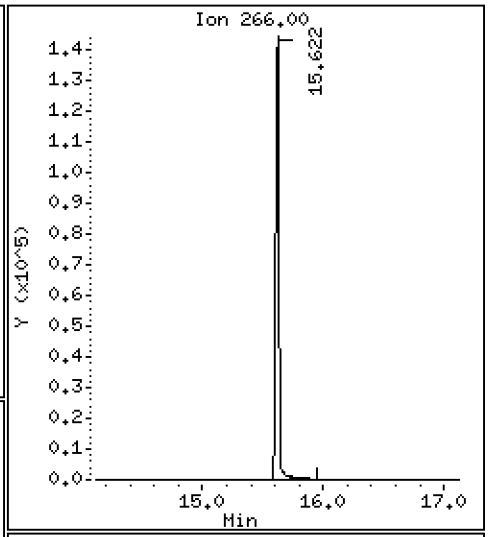
Concentration: 61.90 ug/mL

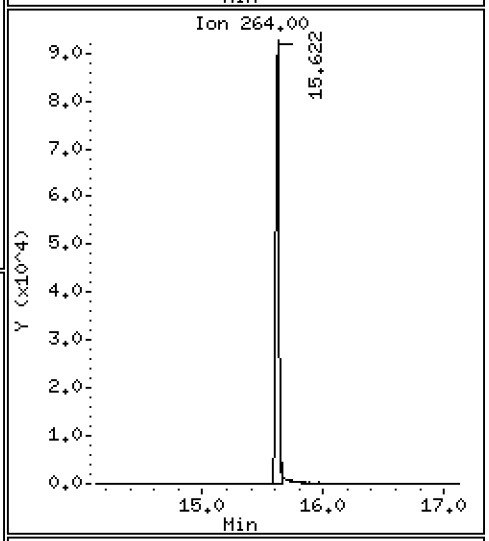


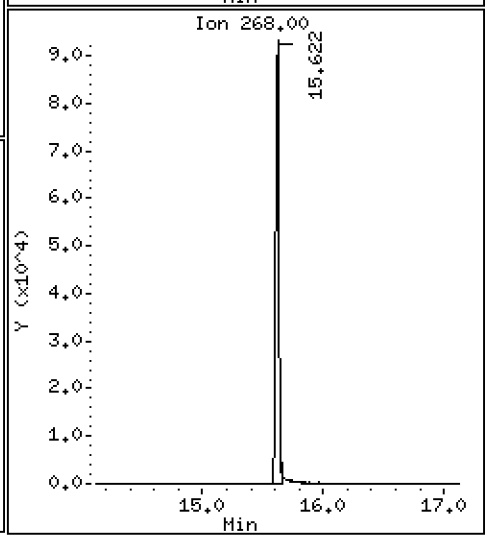












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

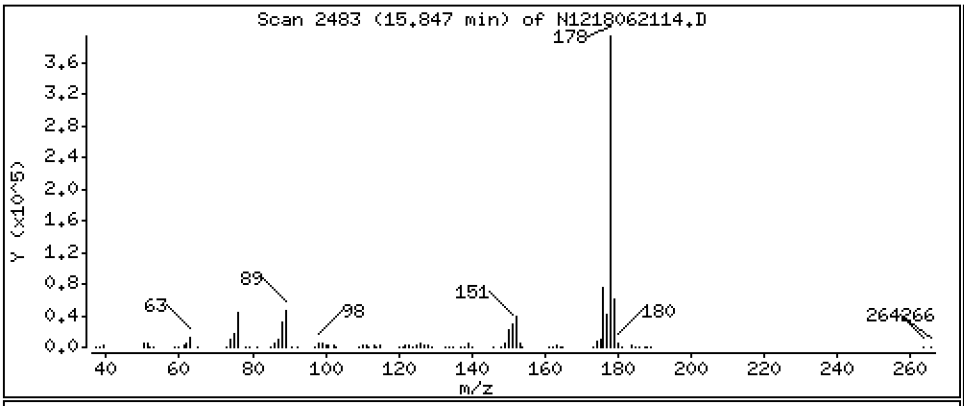
Operator: JZ

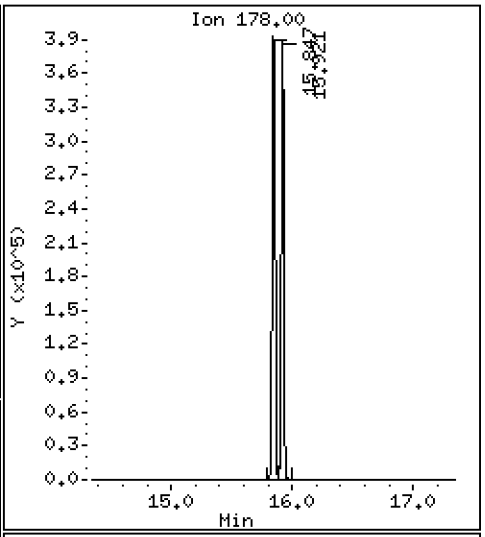
Column phase: ZB-5msi

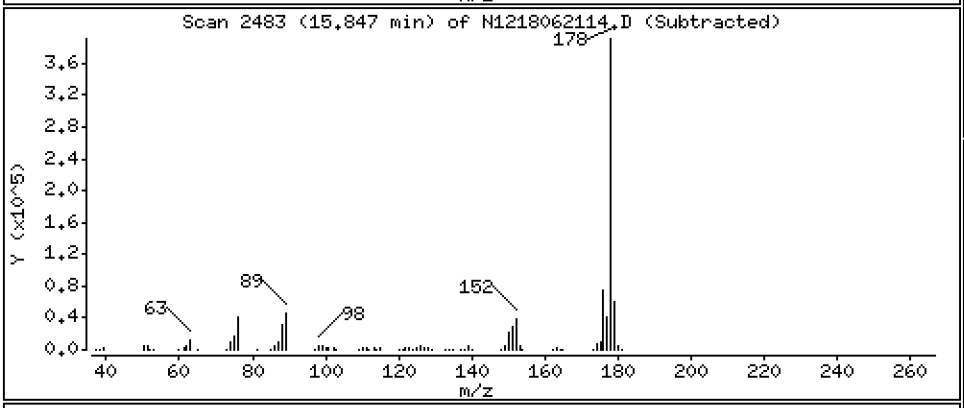
Column diameter: 0.32

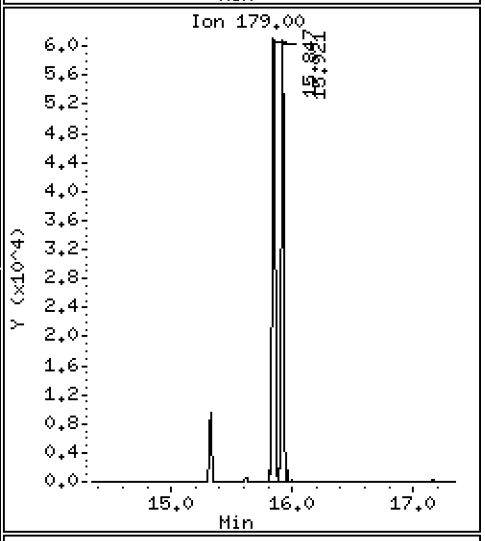
60 Phenanthrene

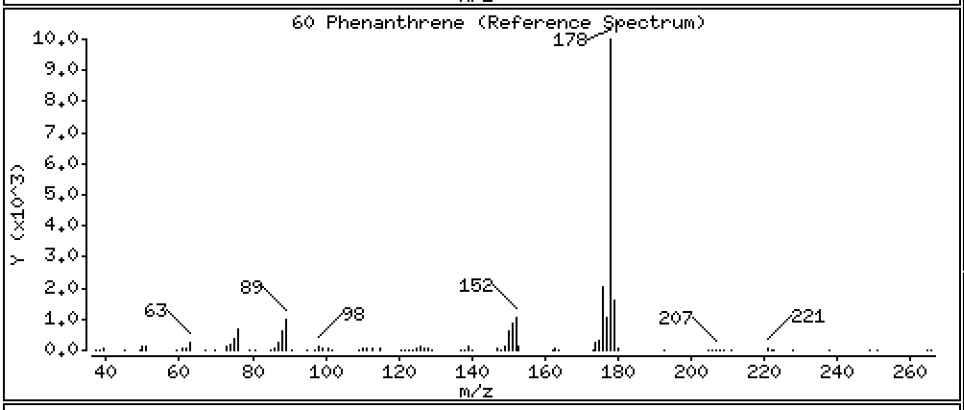
Concentration: 24.35 ug/mL

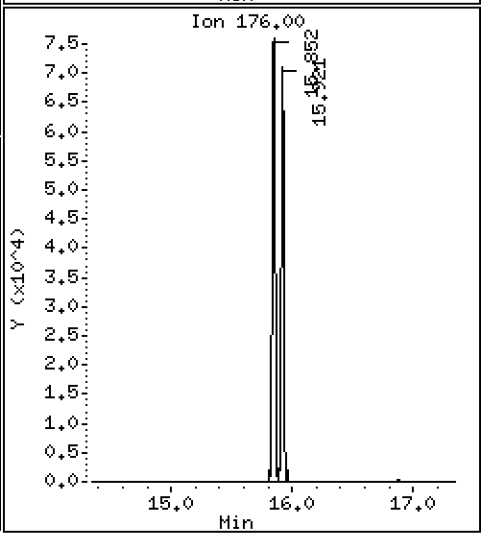


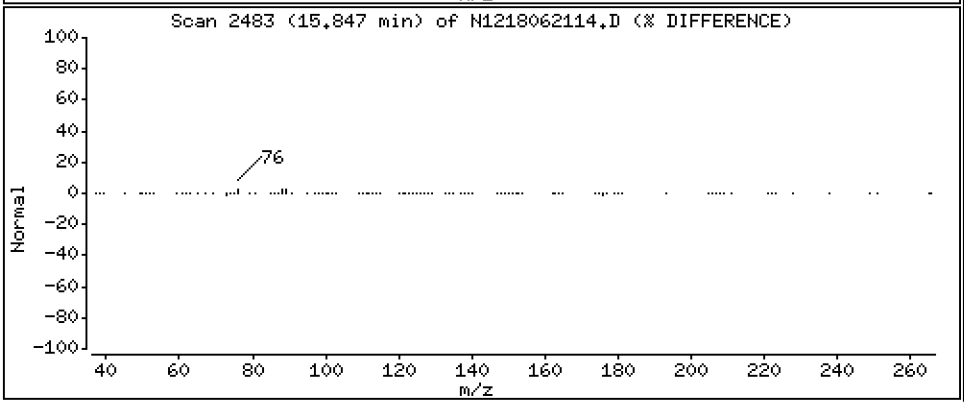












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

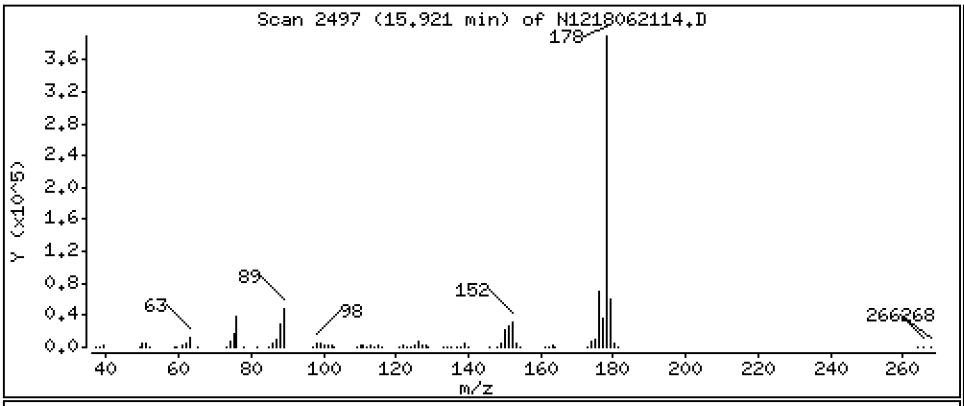
Operator: JZ

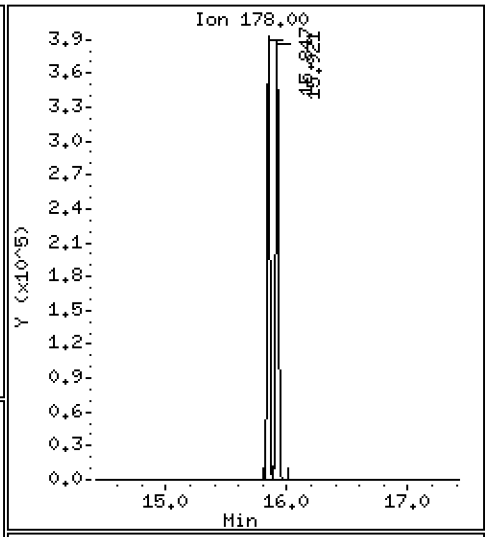
Column phase: ZB-5msi

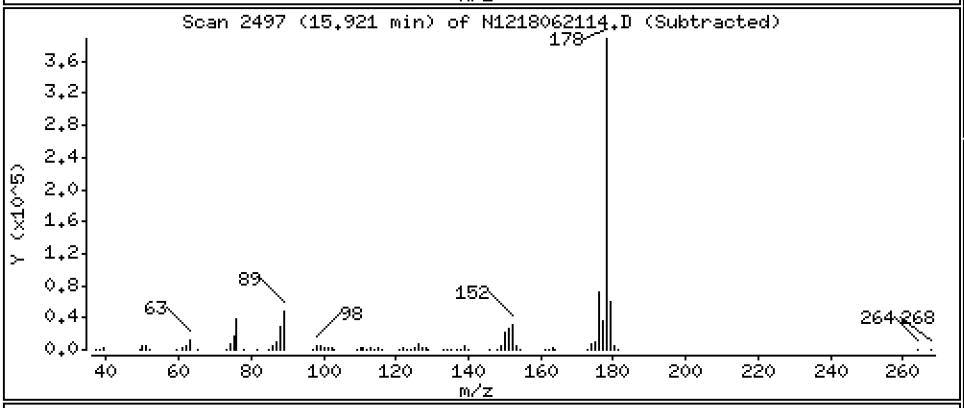
Column diameter: 0.32

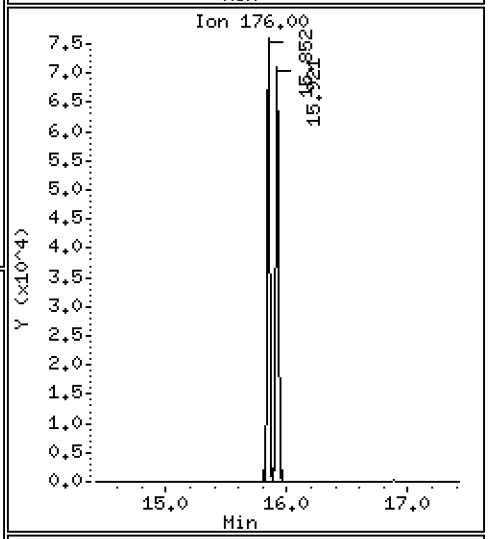
61 Anthracene

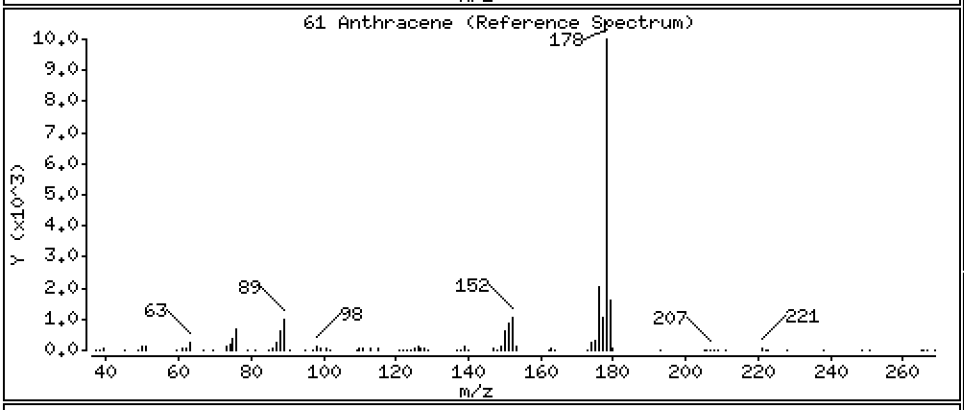
Concentration: 20.30 ug/mL

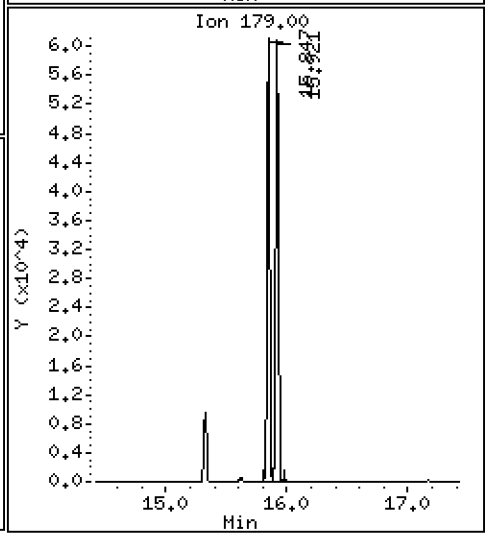


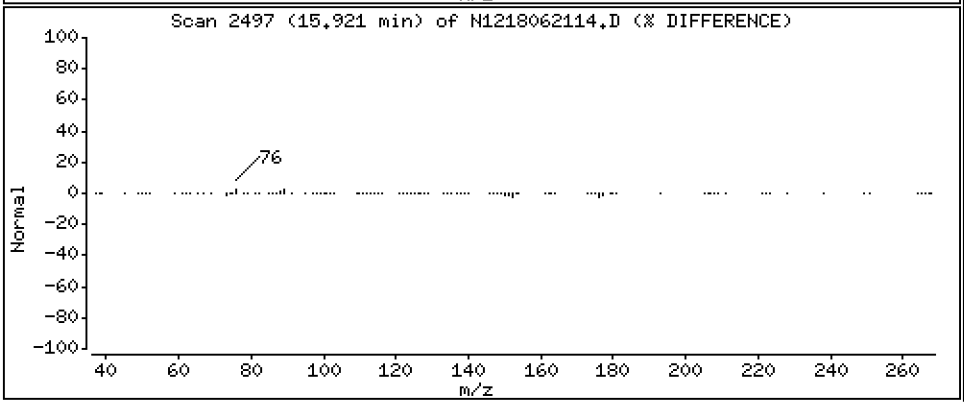












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

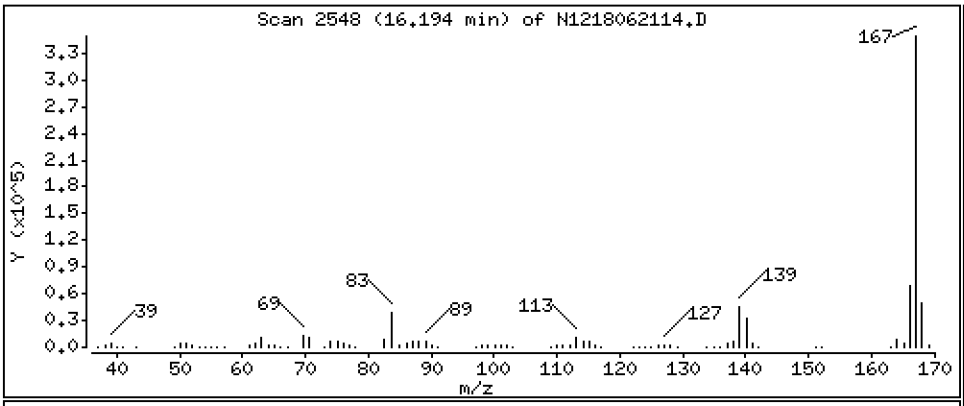
Operator: JZ

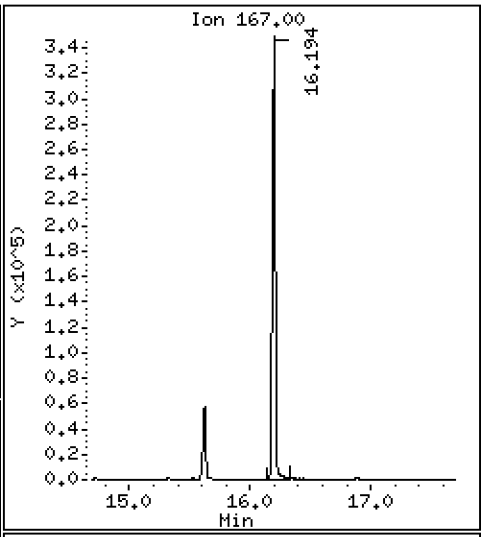
Column phase: ZB-5msi

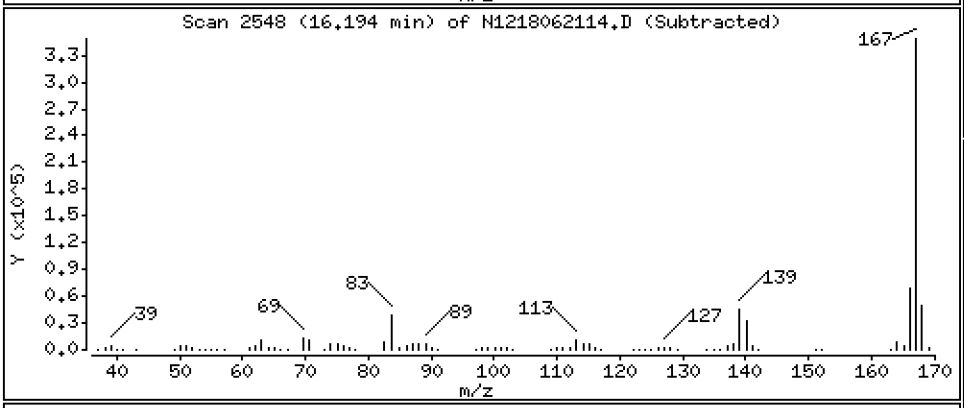
Column diameter: 0.32

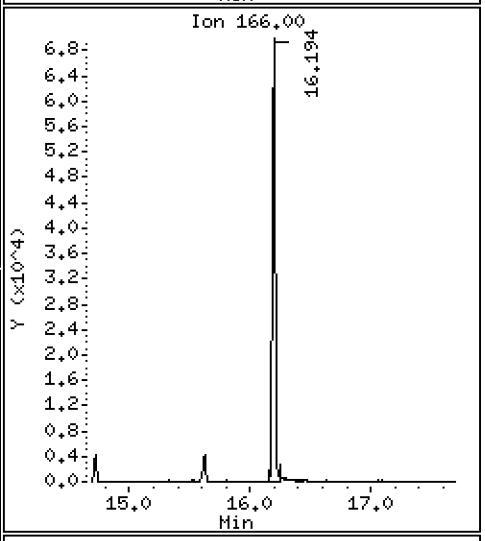
62 Carbazole

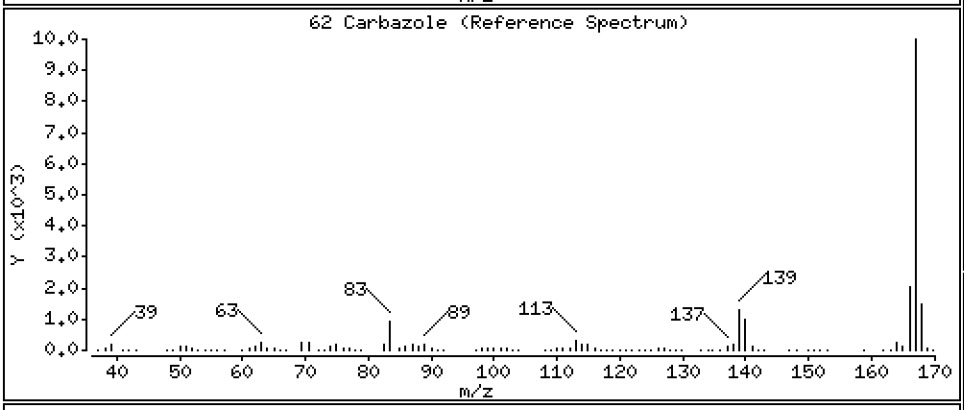
Concentration: 20.13 ug/mL

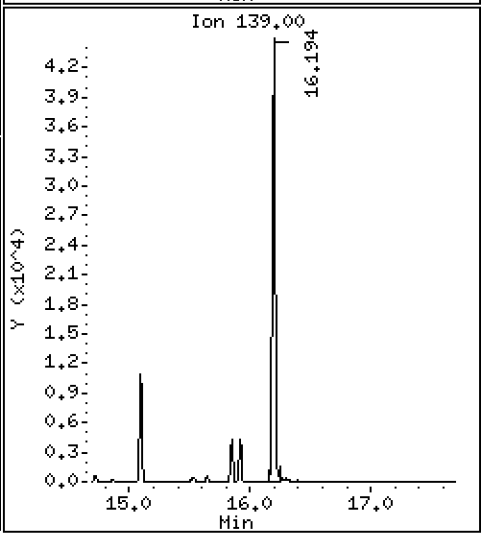


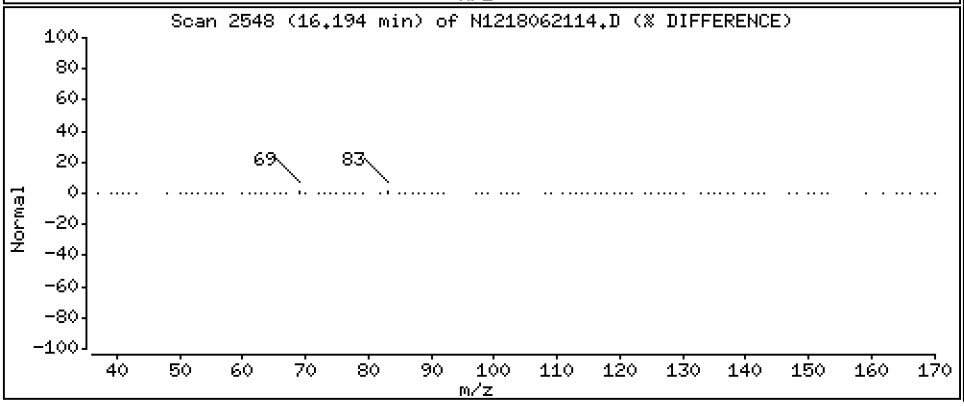












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

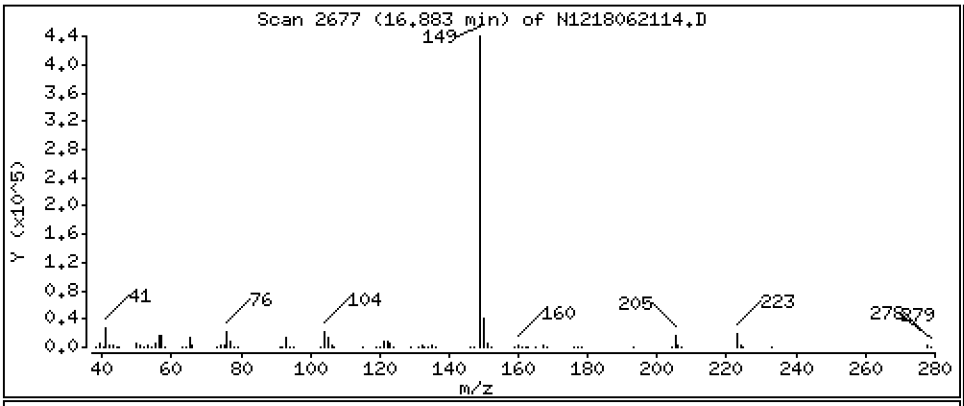
Operator: JZ

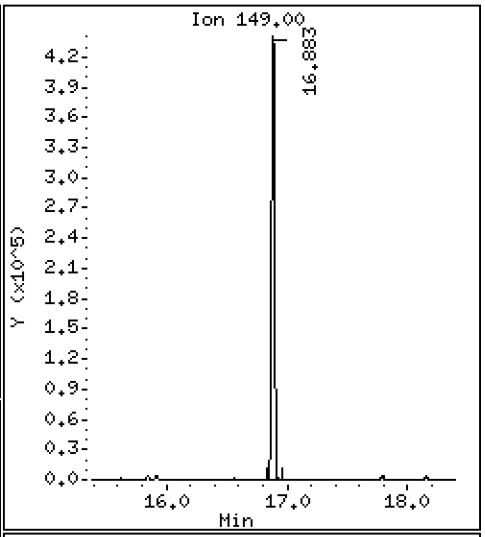
Column phase: ZB-5msi

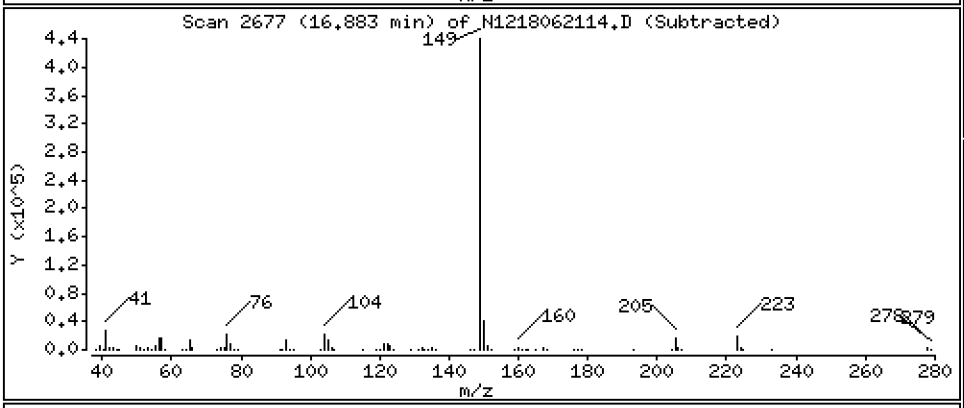
Column diameter: 0.32

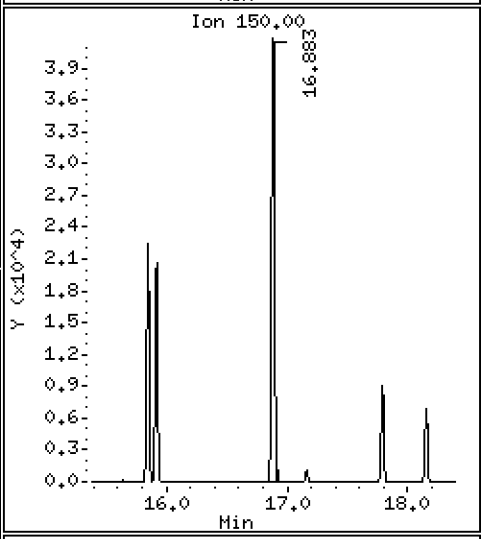
63 Di-n-butylphthalate

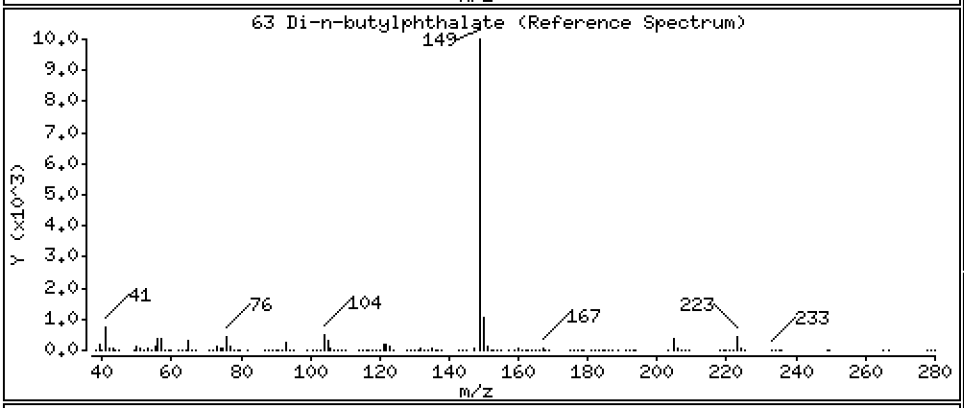
Concentration: 21.83 ug/mL

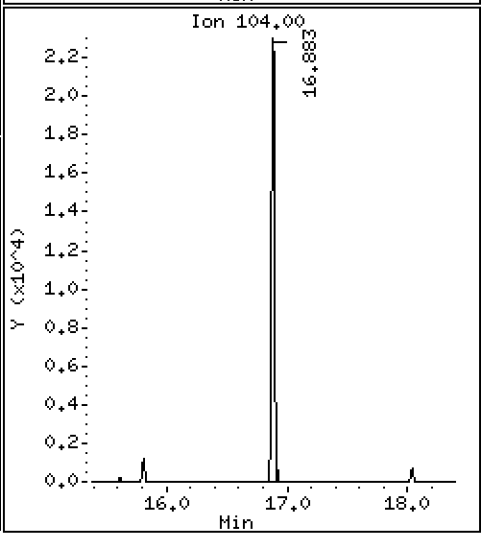


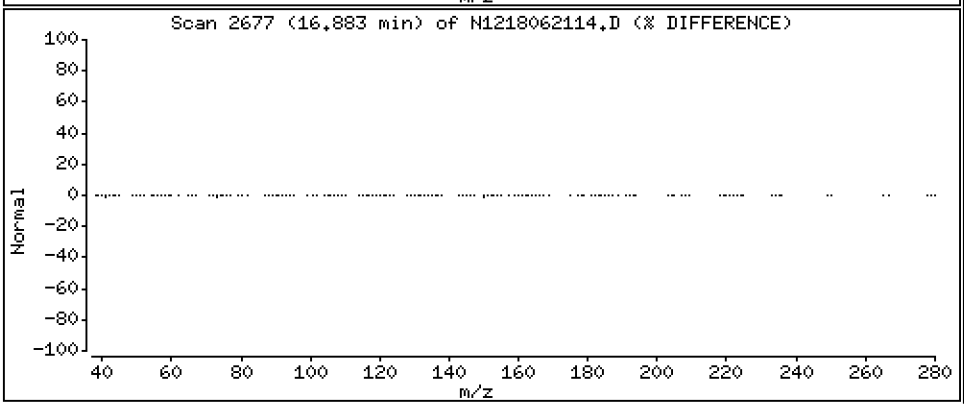












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

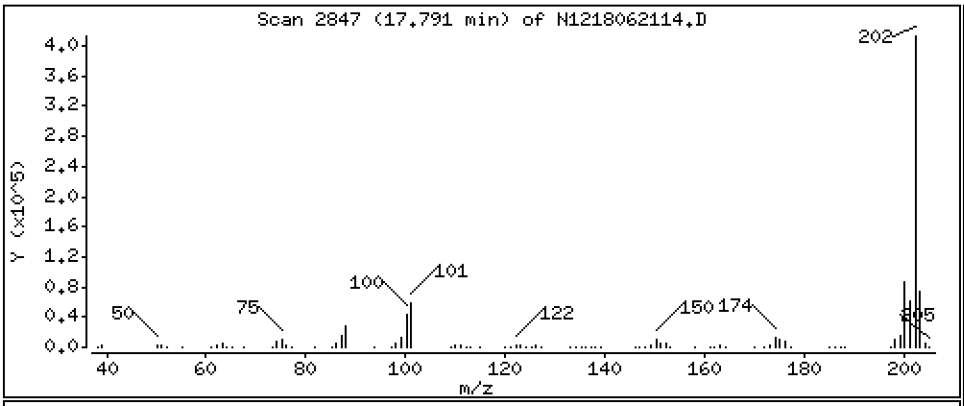
Operator: JZ

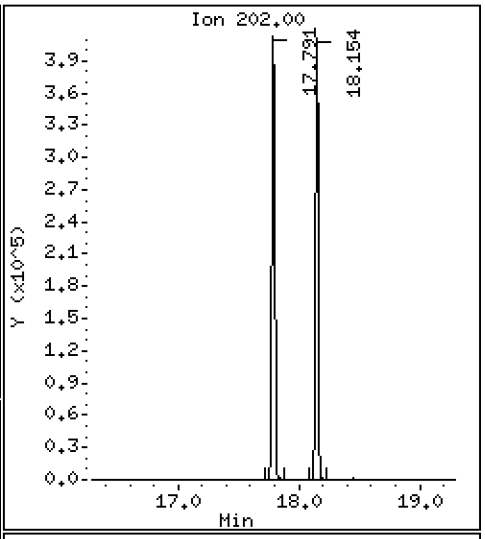
Column phase: ZB-5msi

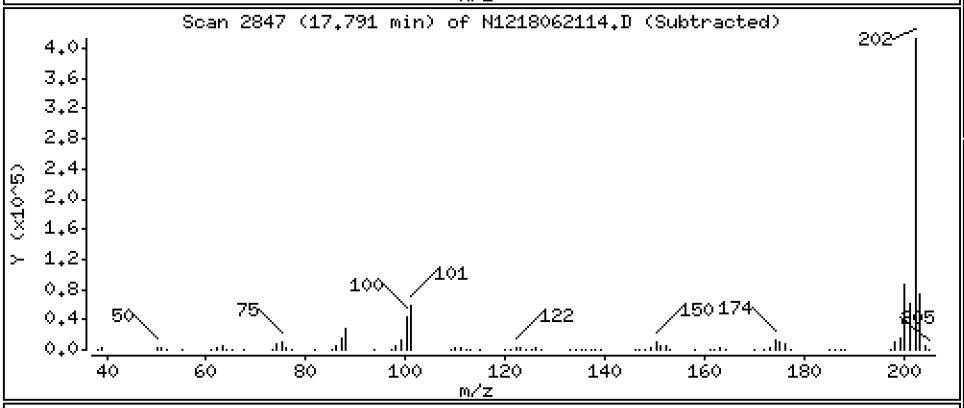
Column diameter: 0.32

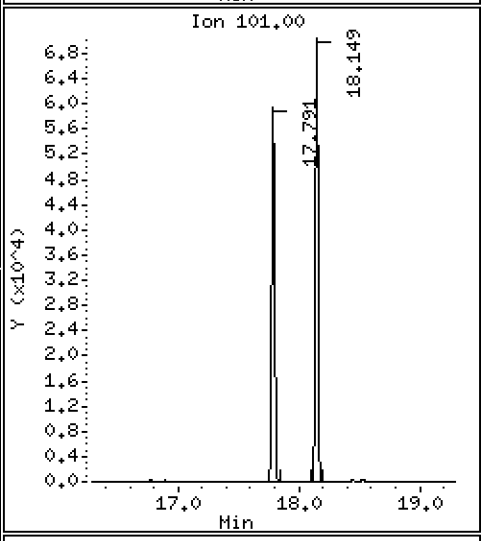
64 Fluoranthene

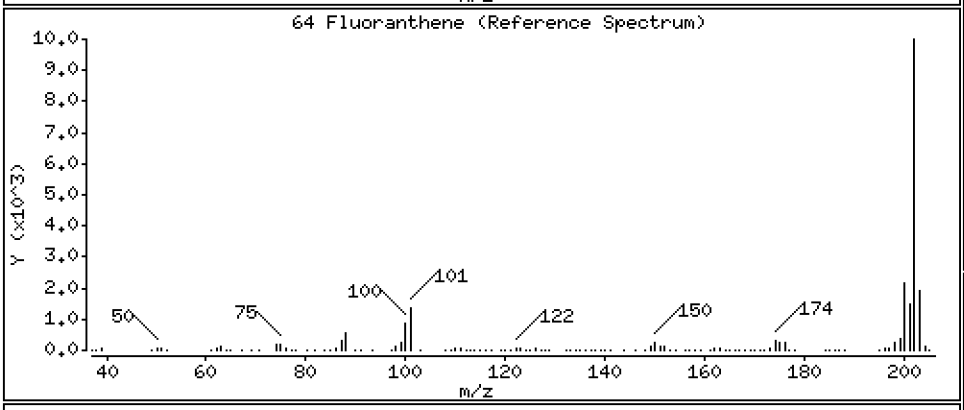
Concentration: 20.93 ug/mL

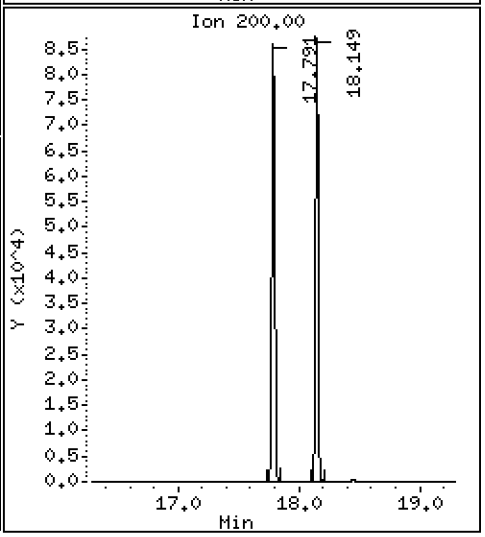


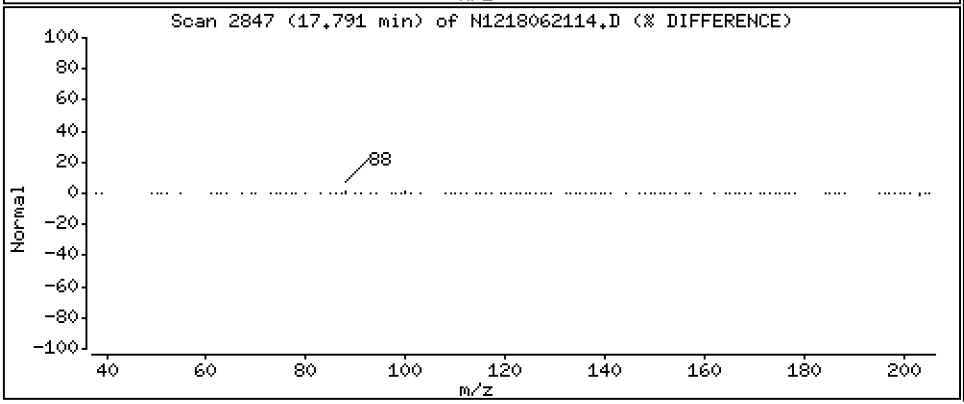












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

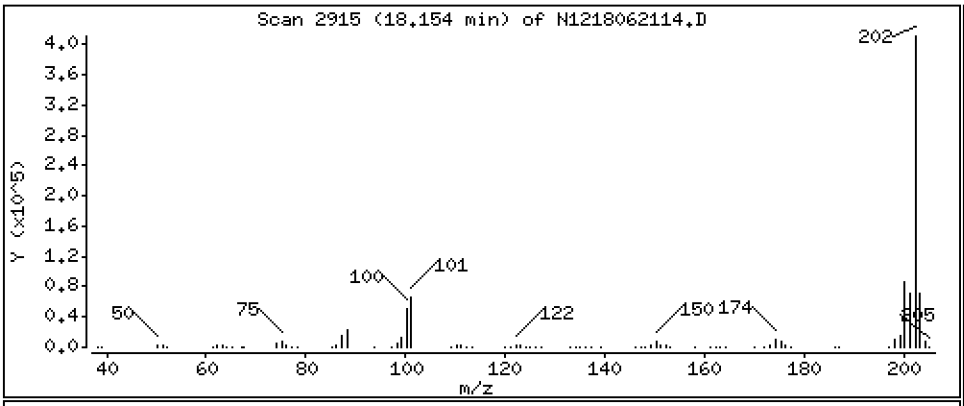
Operator: JZ

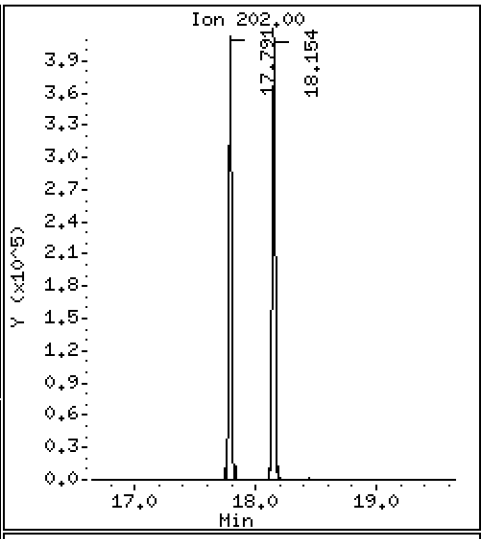
Column phase: ZB-5msi

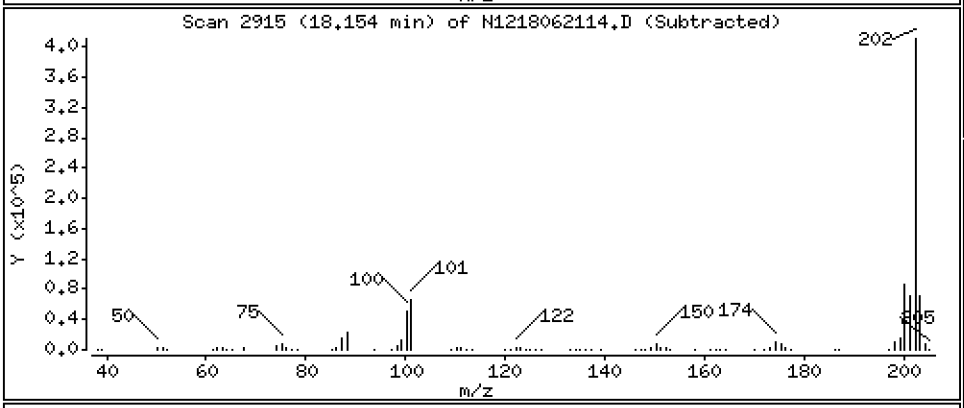
Column diameter: 0.32

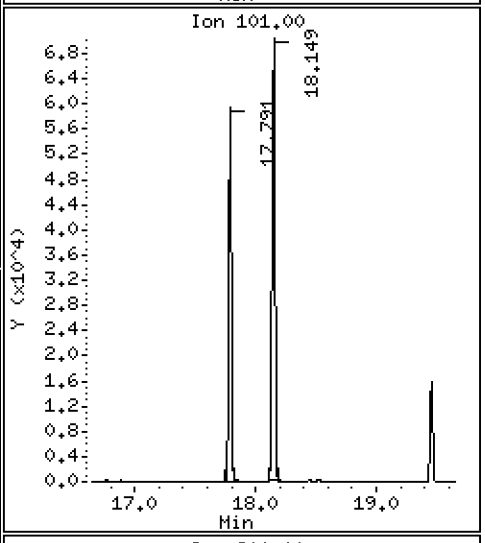
65 Pyrene

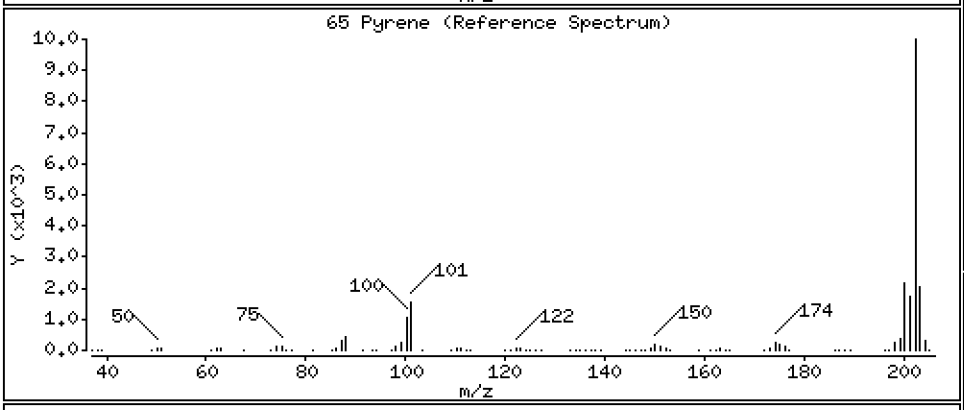
Concentration: 24.44 ug/mL

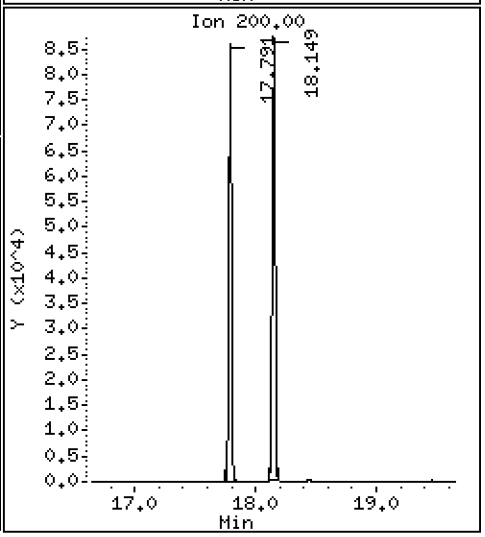


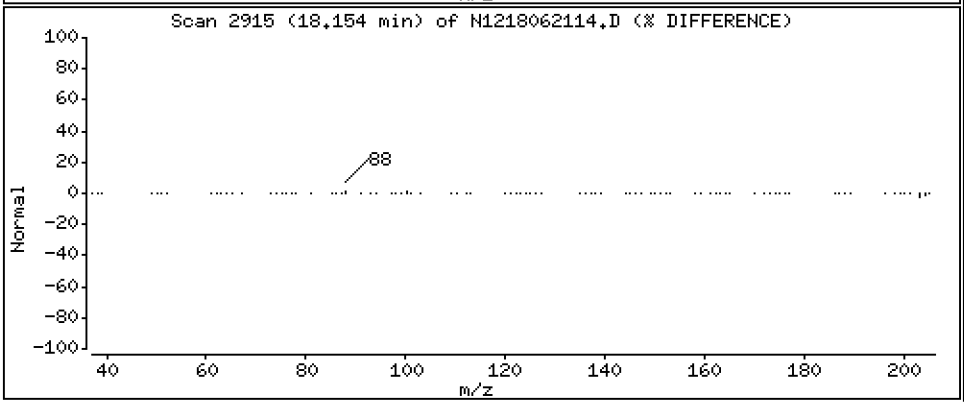












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

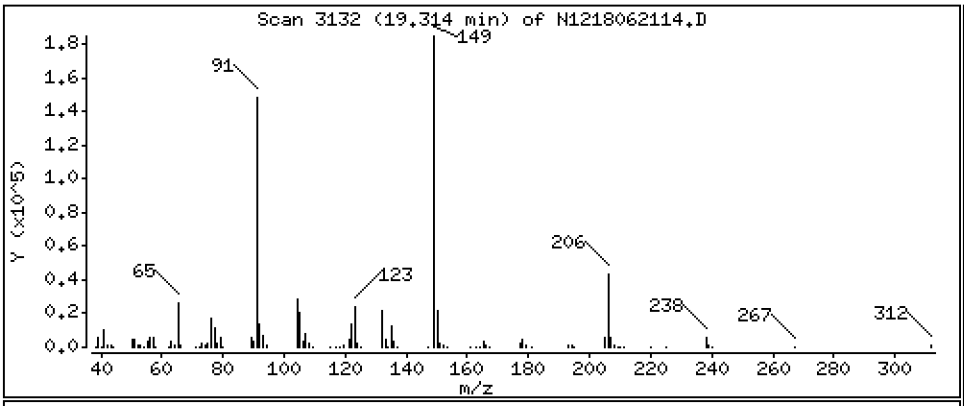
Operator: JZ

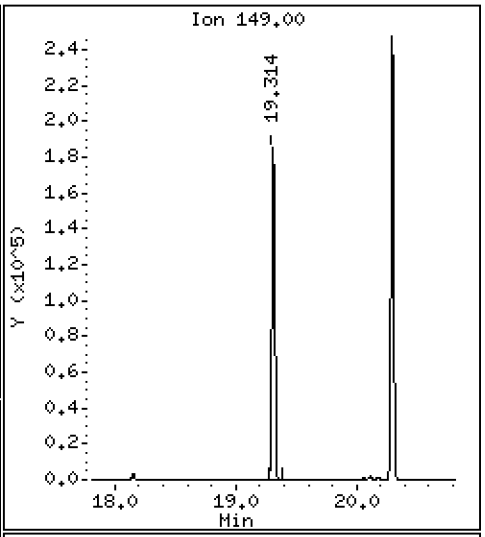
Column phase: ZB-5msi

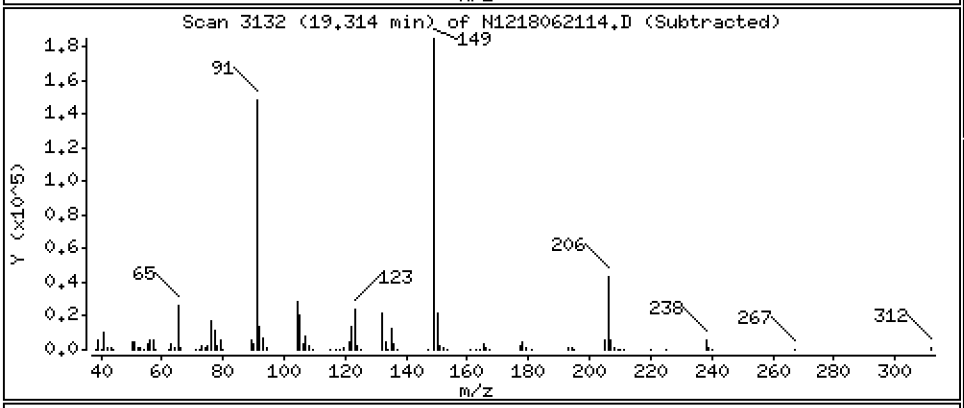
Column diameter: 0.32

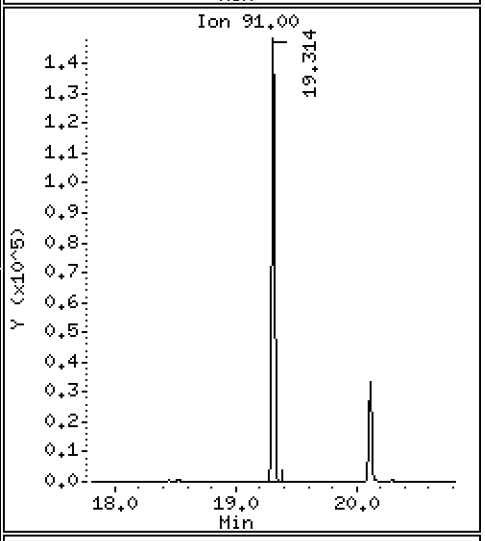
67 Butylbenzylphthalate

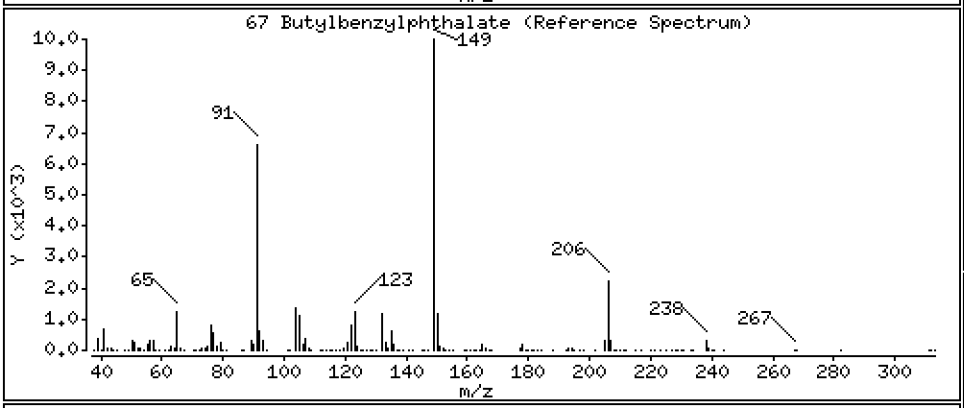
Concentration: 24.09 ug/mL

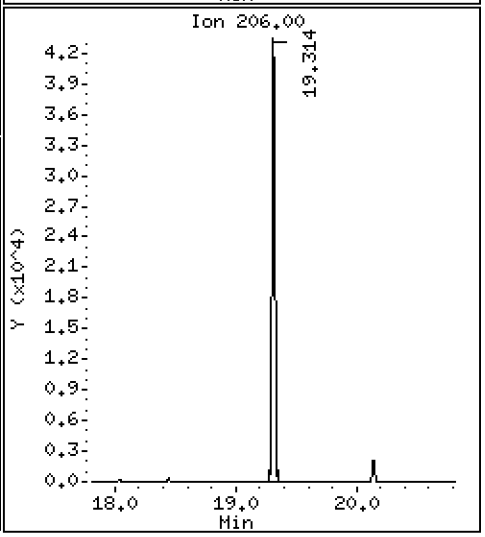


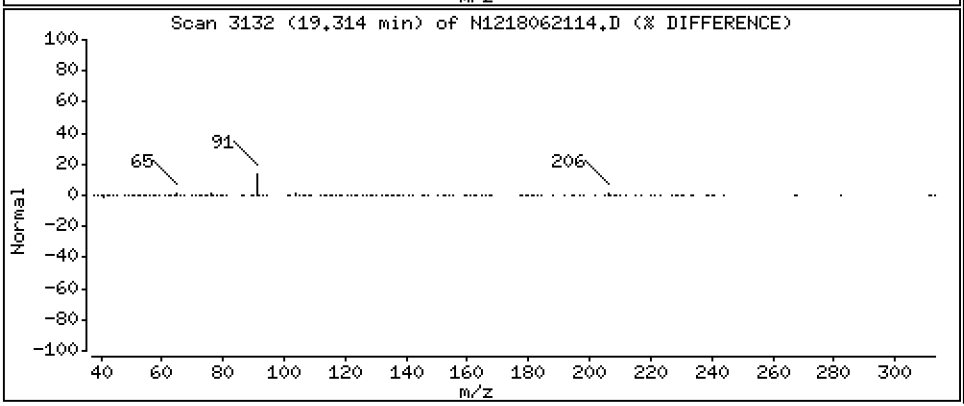












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

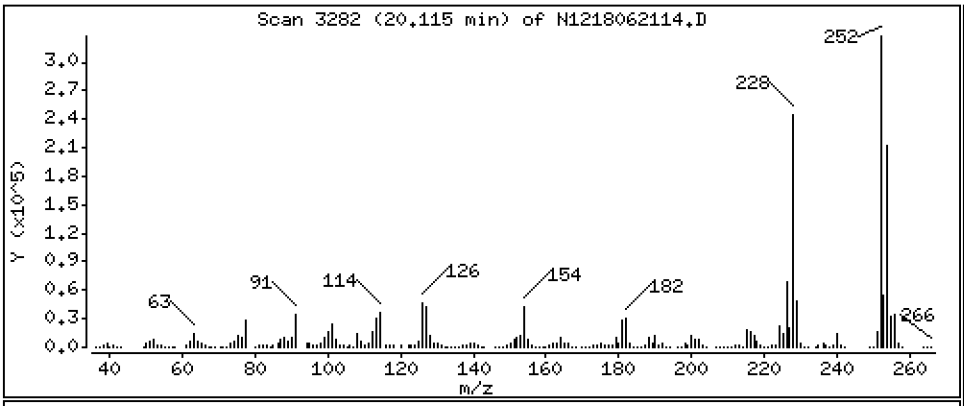
Operator: JZ

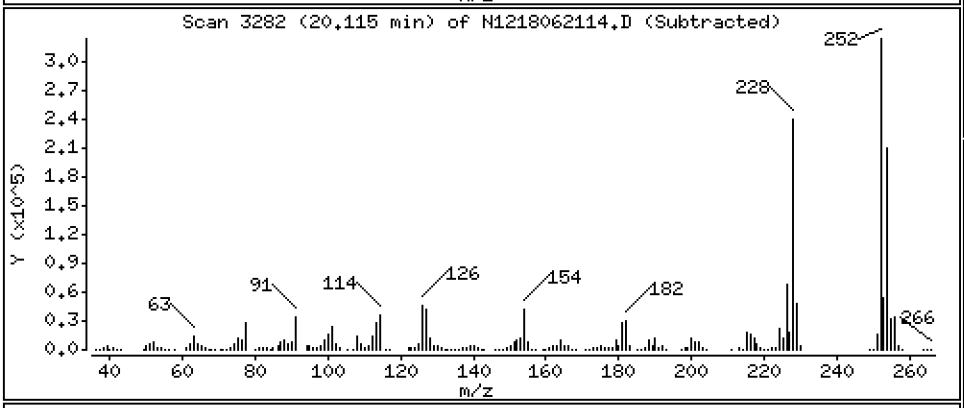
Column phase: ZB-5msi

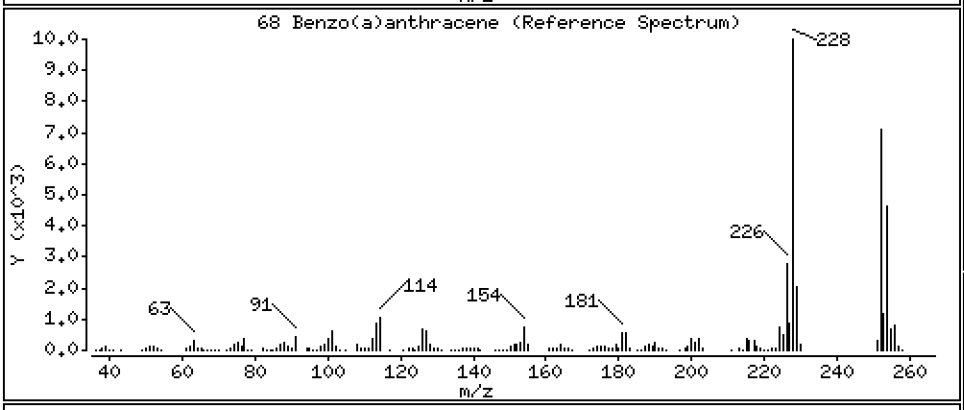
Column diameter: 0.32

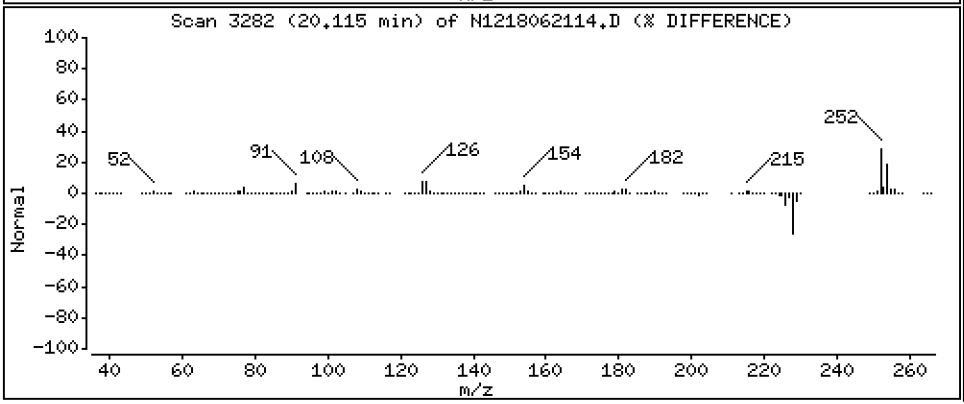
68 Benzo(a)anthracene

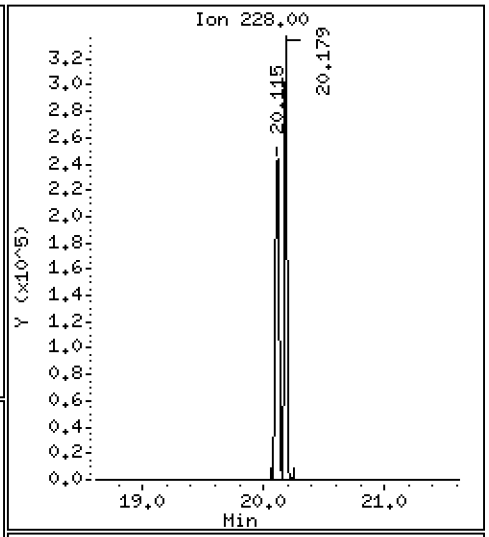
Concentration: 25.03 ug/mL

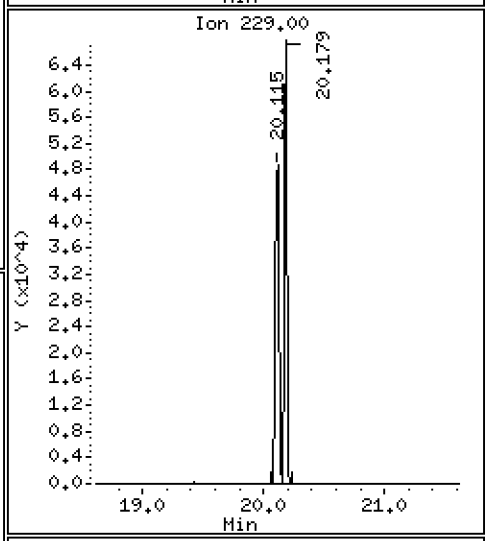


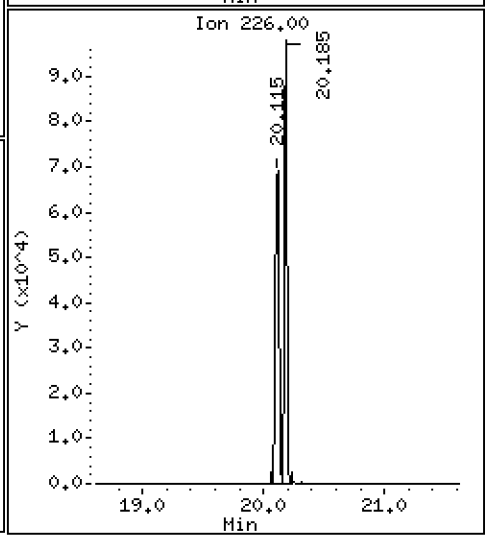












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

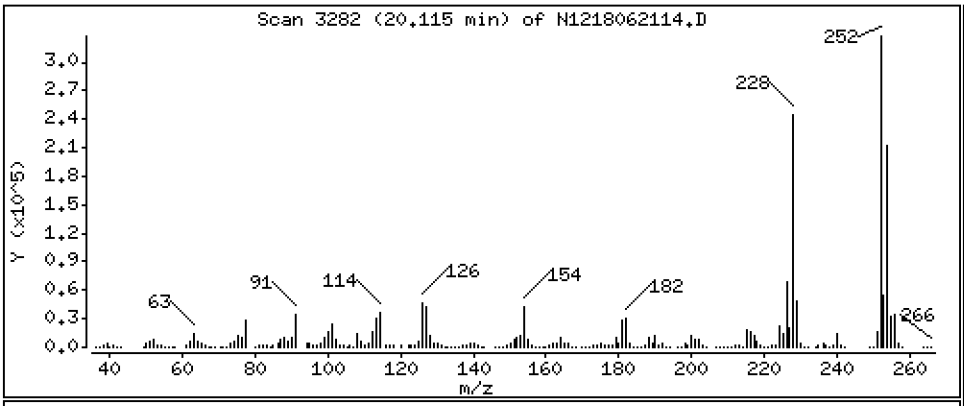
Operator: JZ

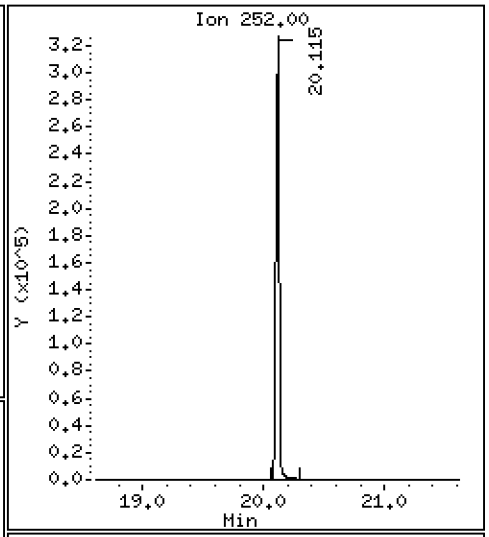
Column phase: ZB-5msi

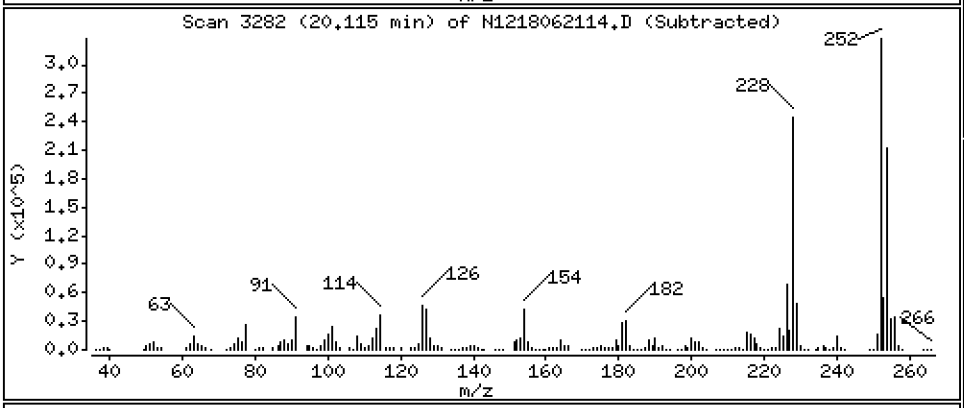
Column diameter: 0.32

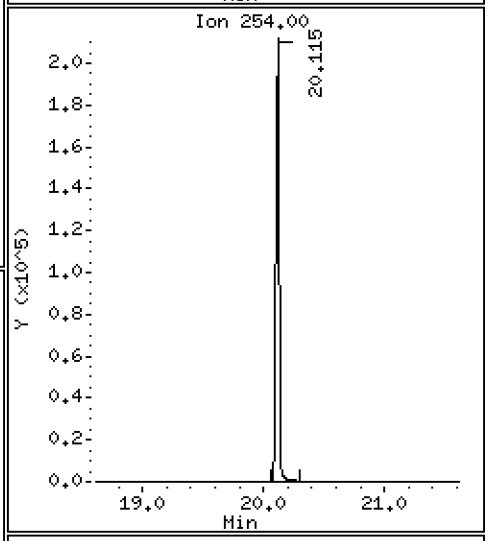
70 3,3'-Dichlorobenzidine

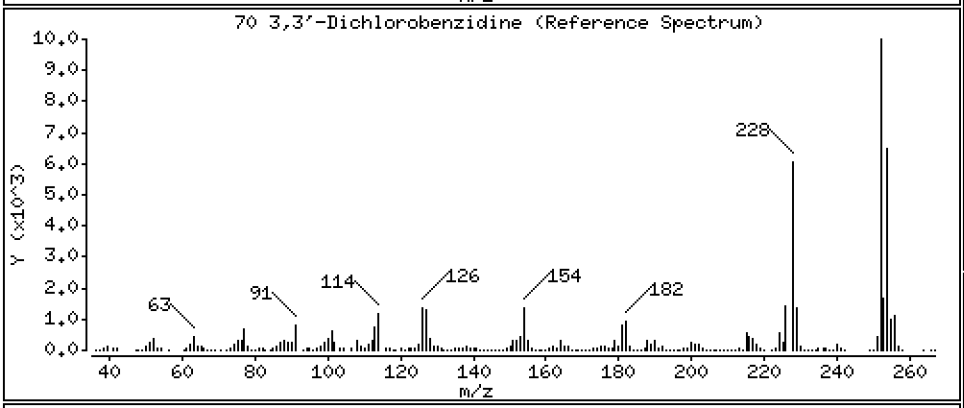
Concentration: 76.95 ug/mL

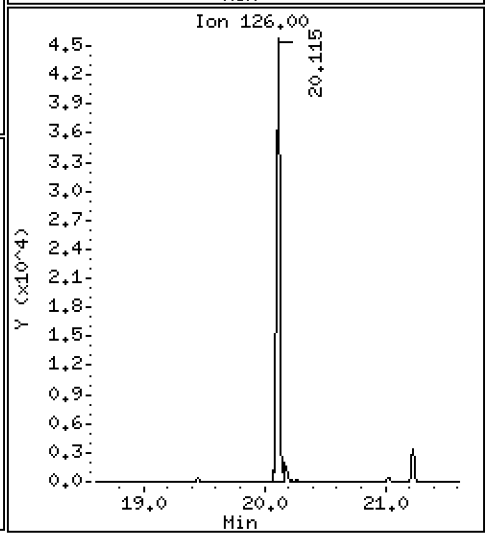


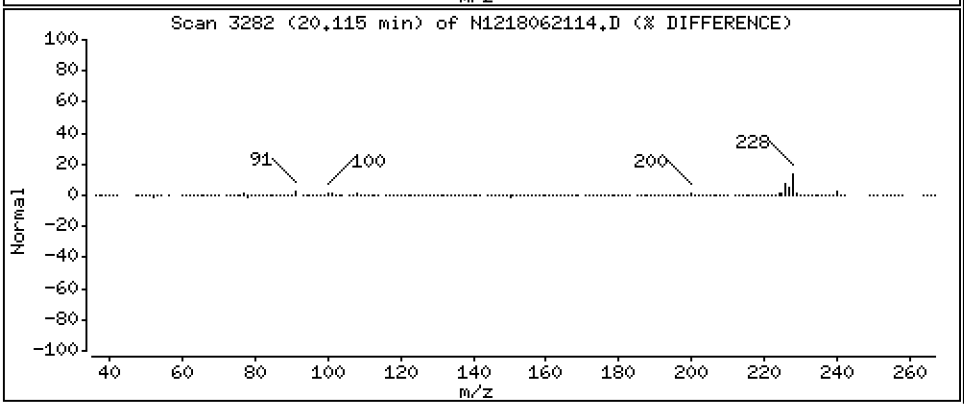












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

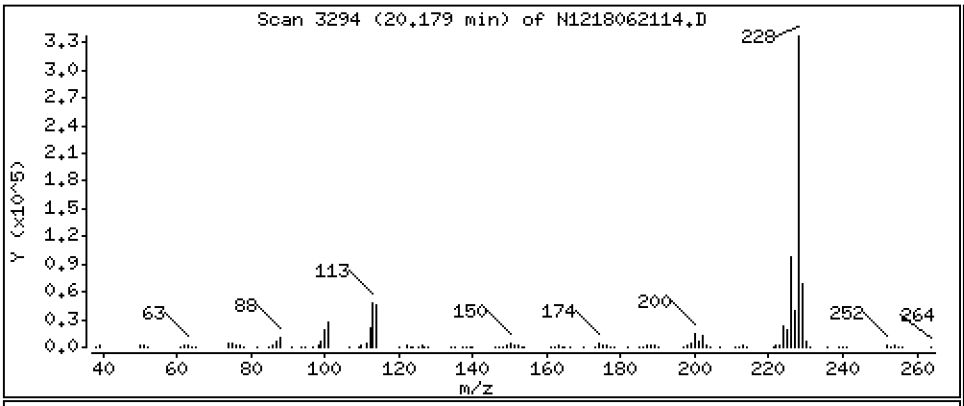
Operator: JZ

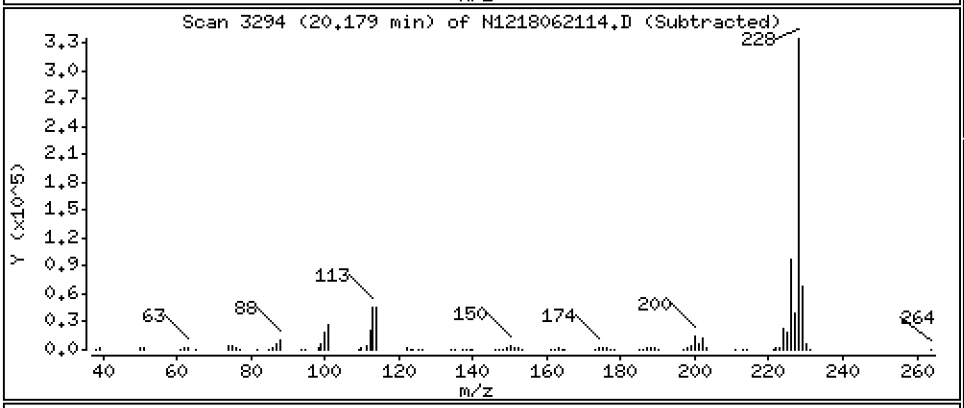
Column phase: ZB-5msi

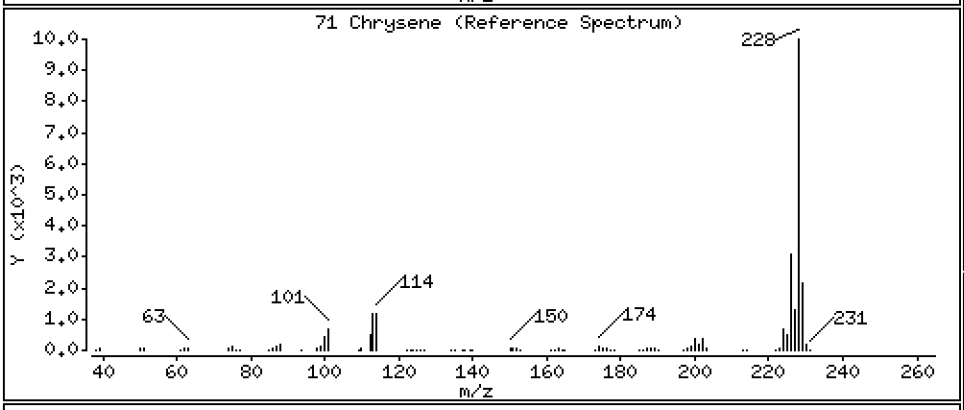
Column diameter: 0.32

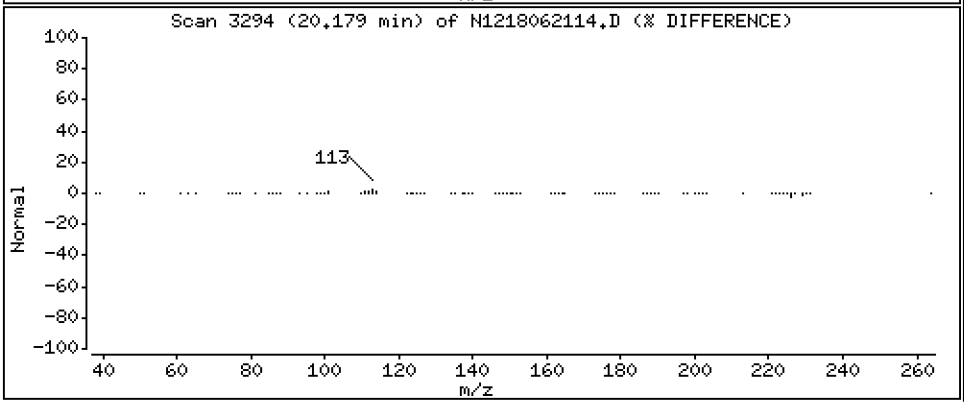
71 Chrysene

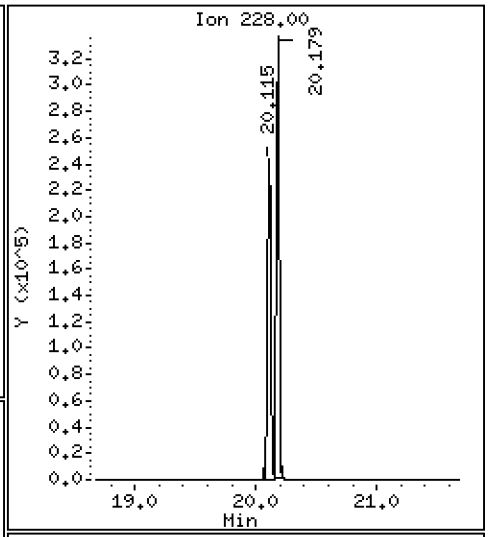
Concentration: 24.00 ug/mL

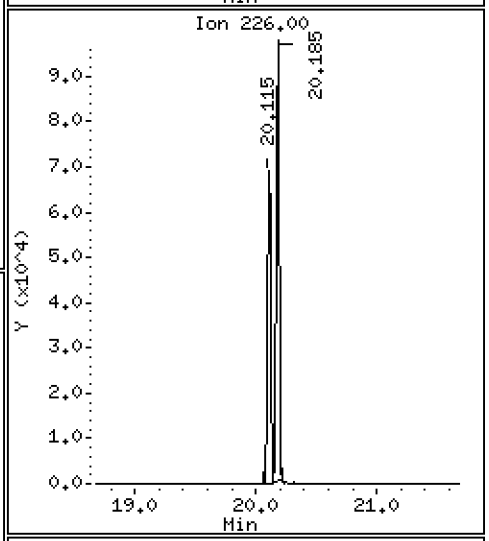


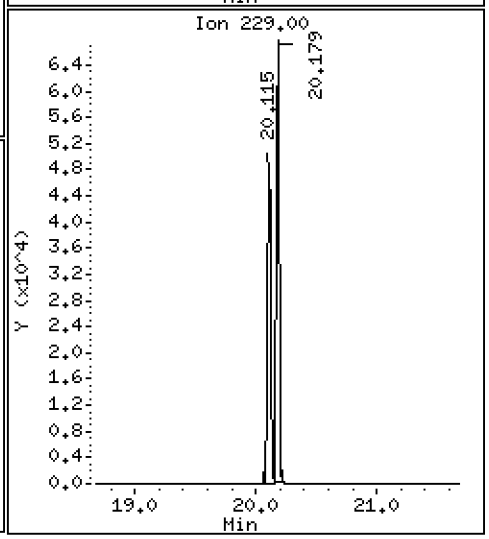












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

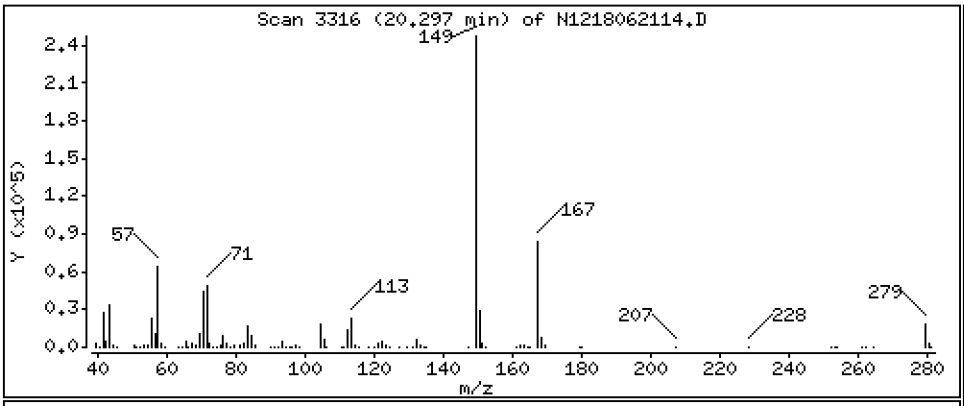
Operator: JZ

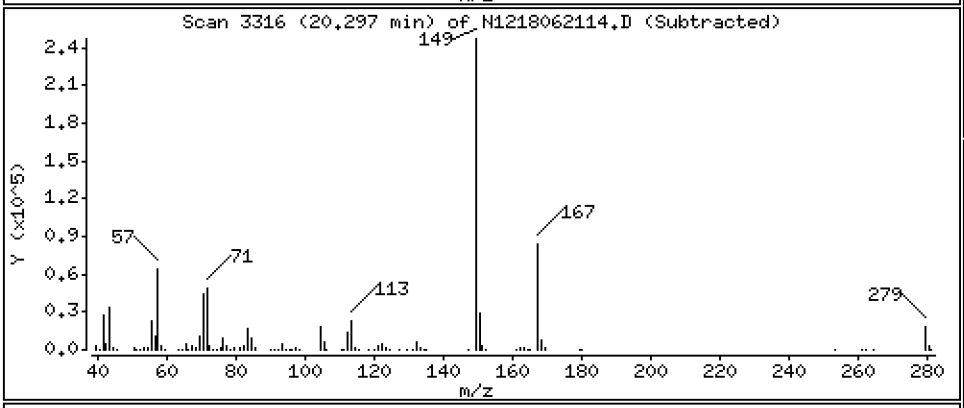
Column phase: ZB-5msi

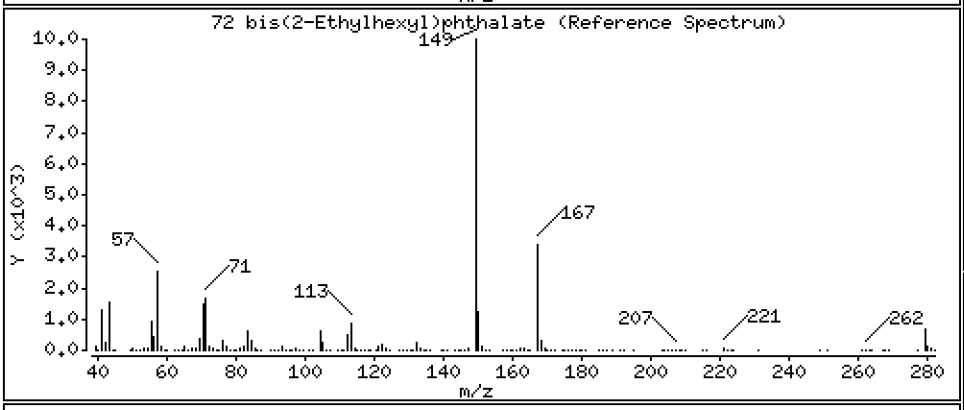
Column diameter: 0.32

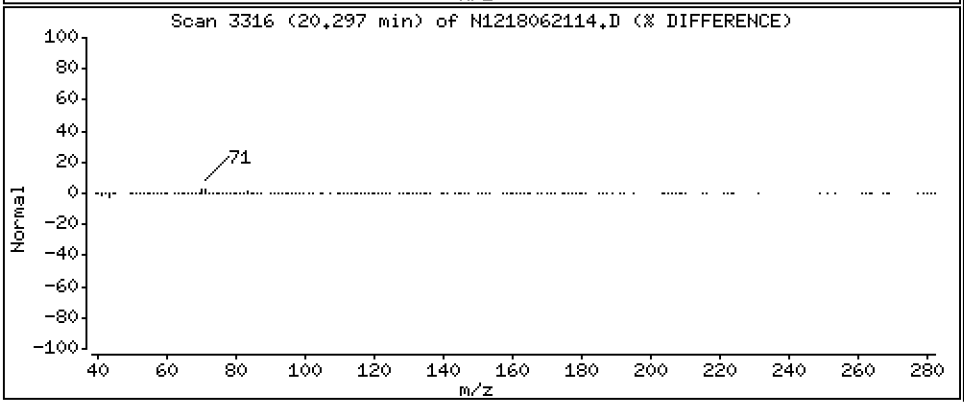
72 bis(2-Ethylhexyl)phthalate

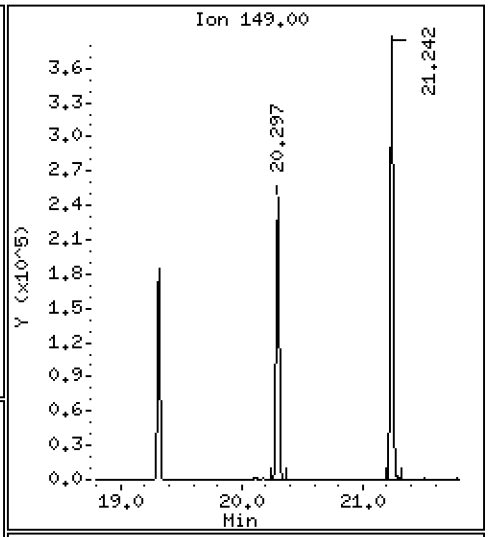
Concentration: 23.80 ug/mL

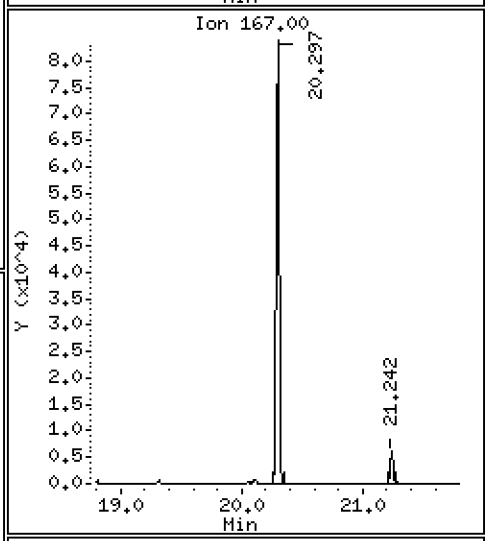


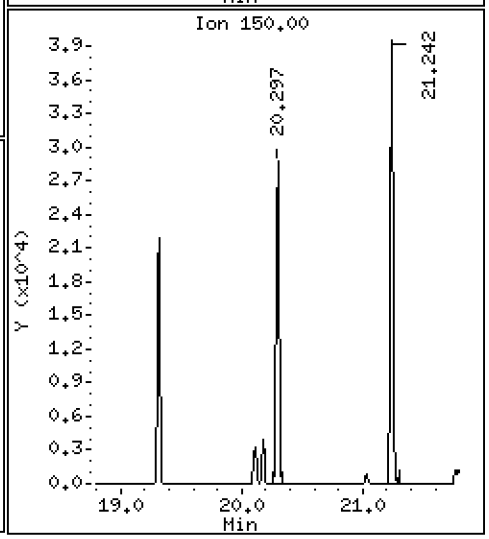












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

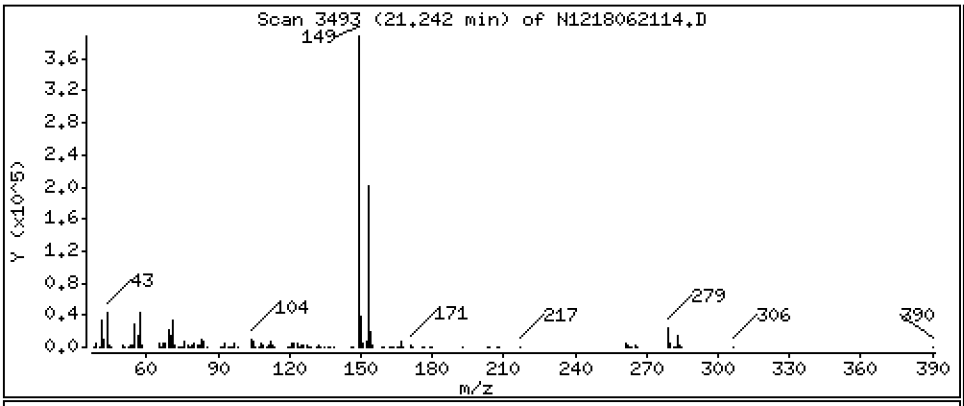
Operator: JZ

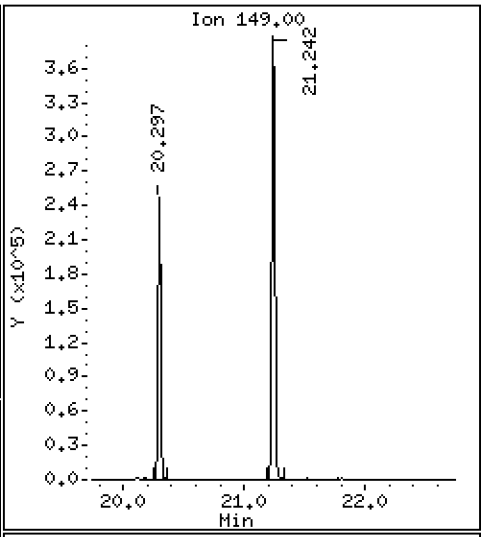
Column phase: ZB-5msi

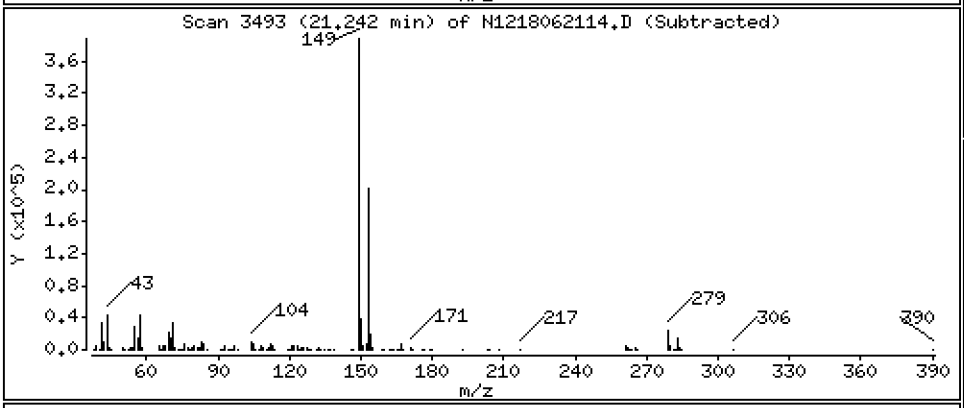
Column diameter: 0.32

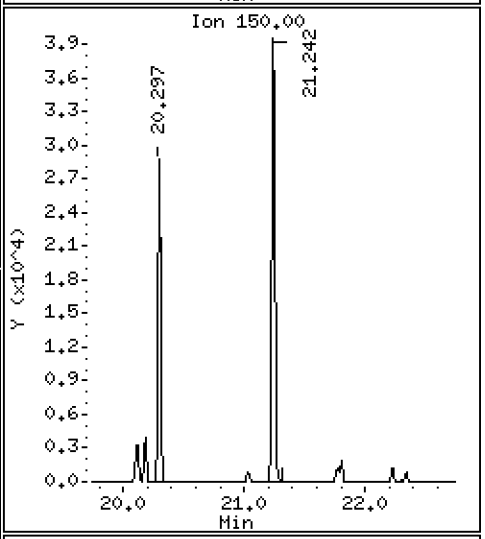
73 Di-n-octylphthalate

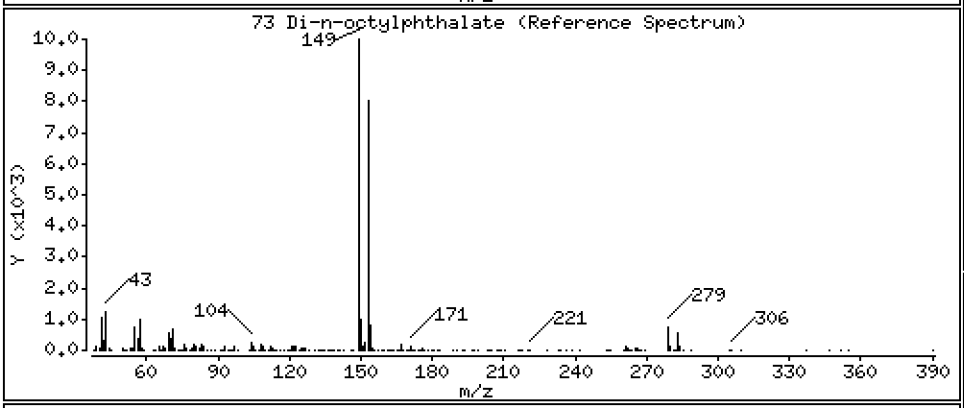
Concentration: 21.46 ug/mL

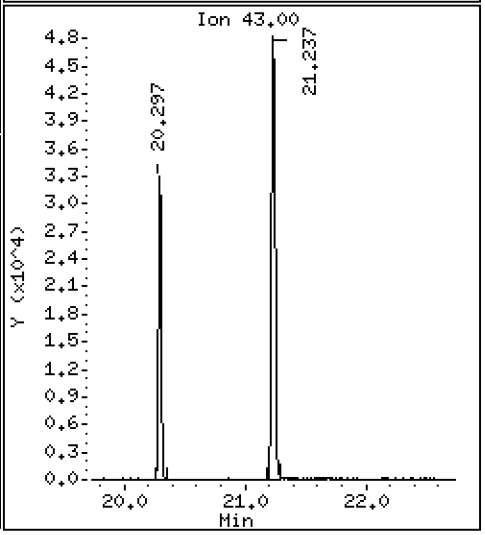


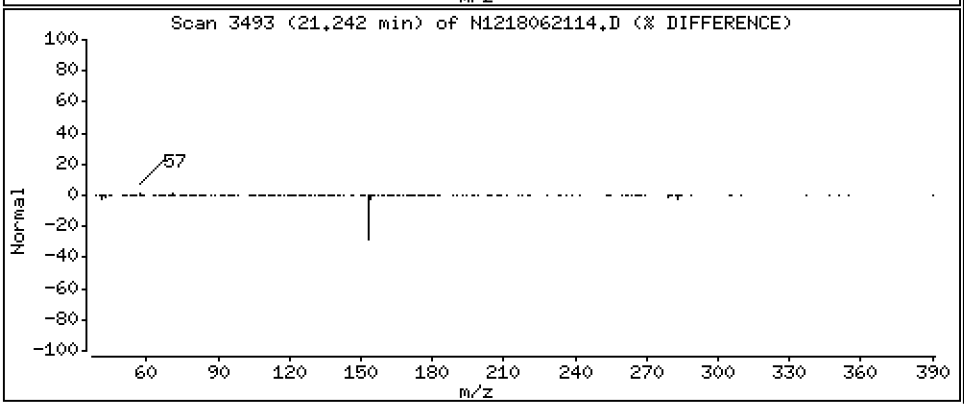












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

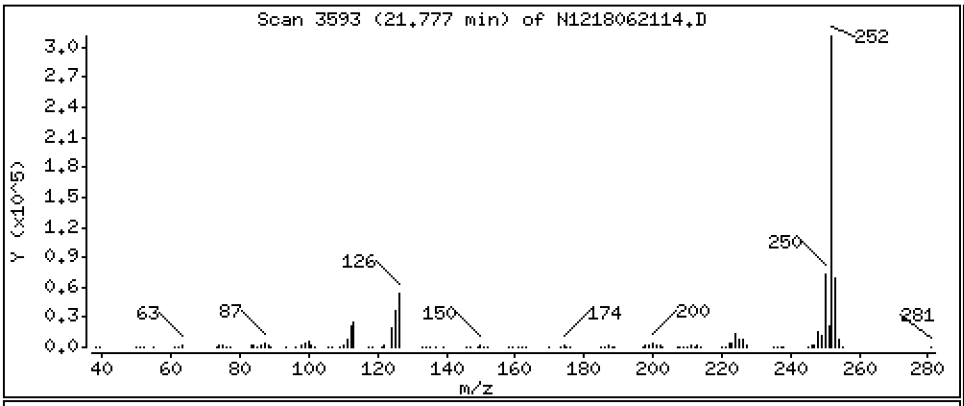
Operator: JZ

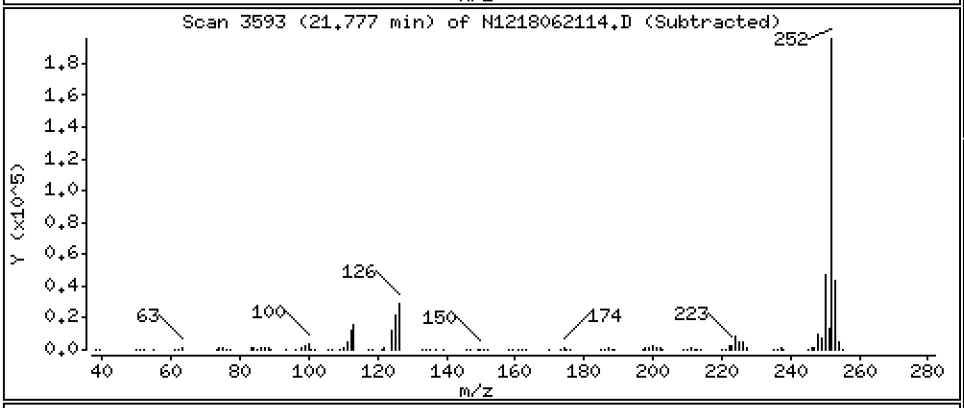
Column phase: ZB-5msi

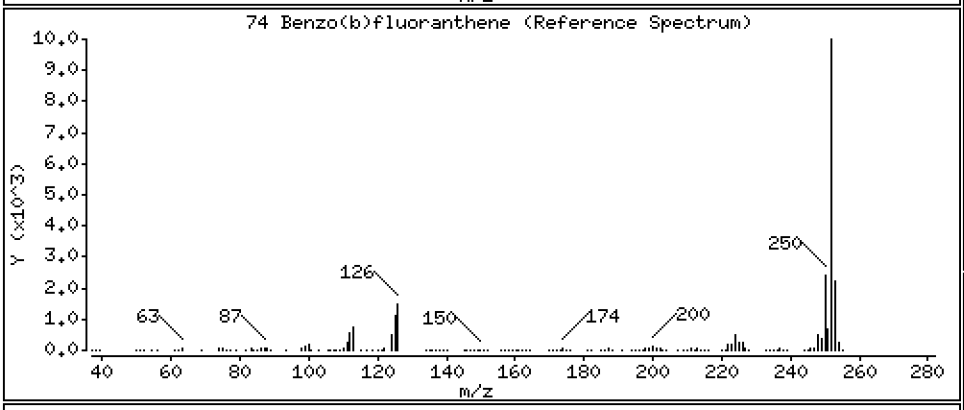
Column diameter: 0.32

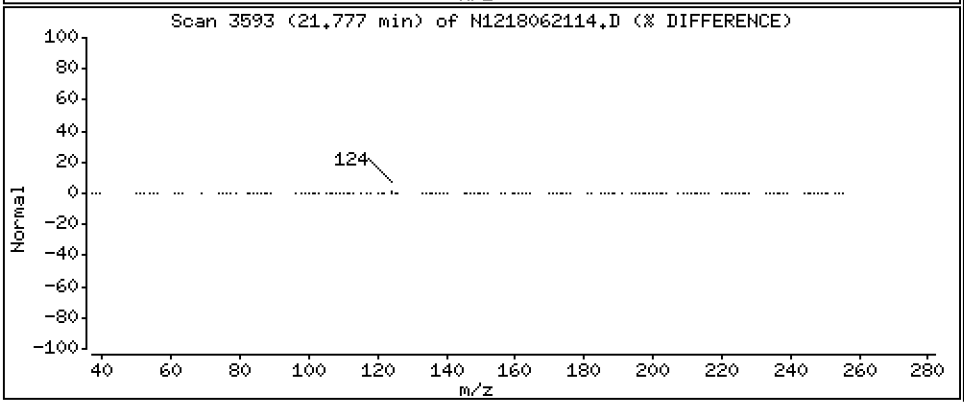
74 Benzo(b)fluoranthene

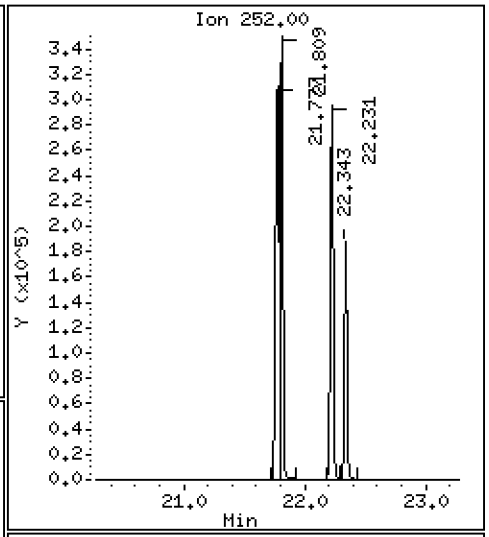
Concentration: 21.57 ug/mL

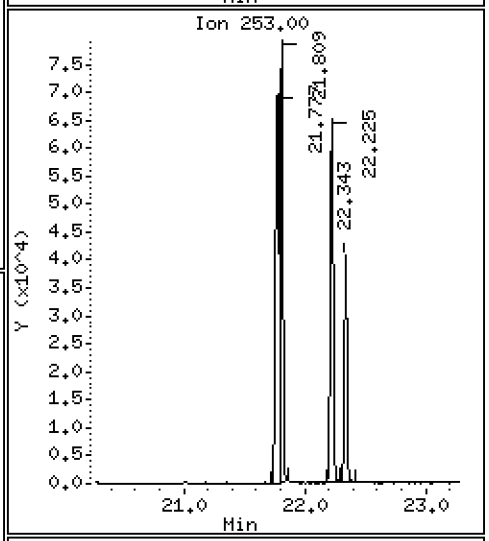


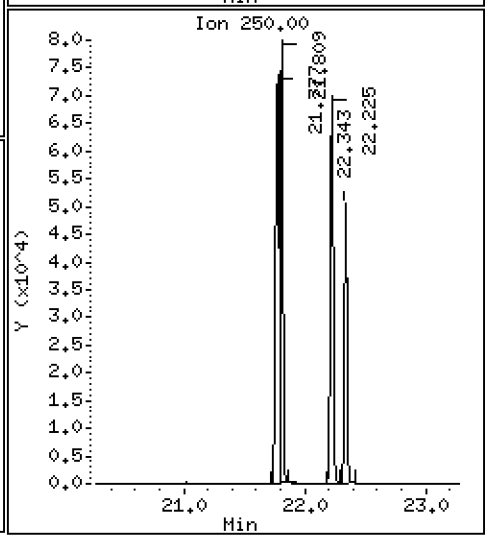












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

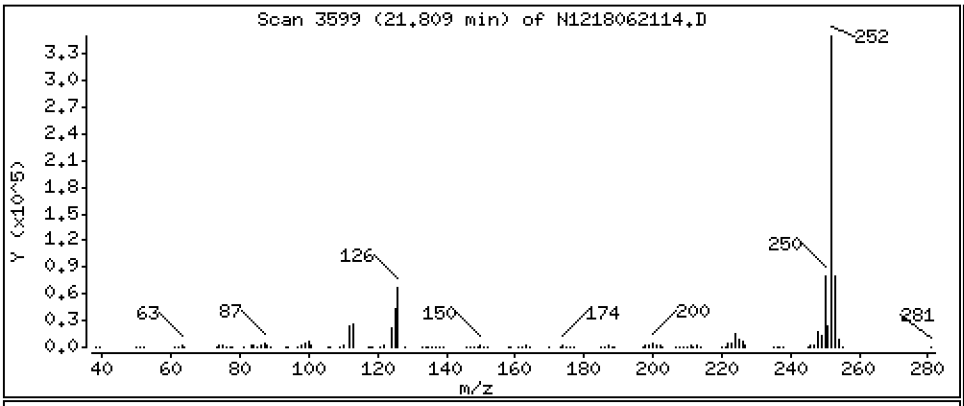
Operator: JZ

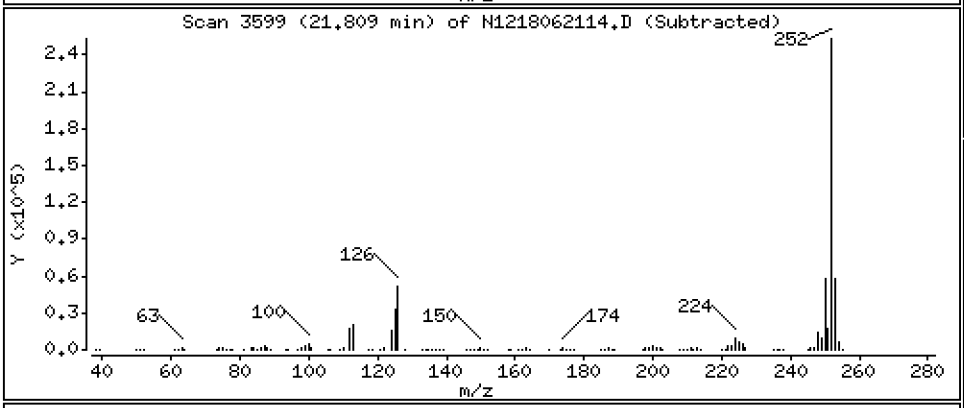
Column phase: ZB-5msi

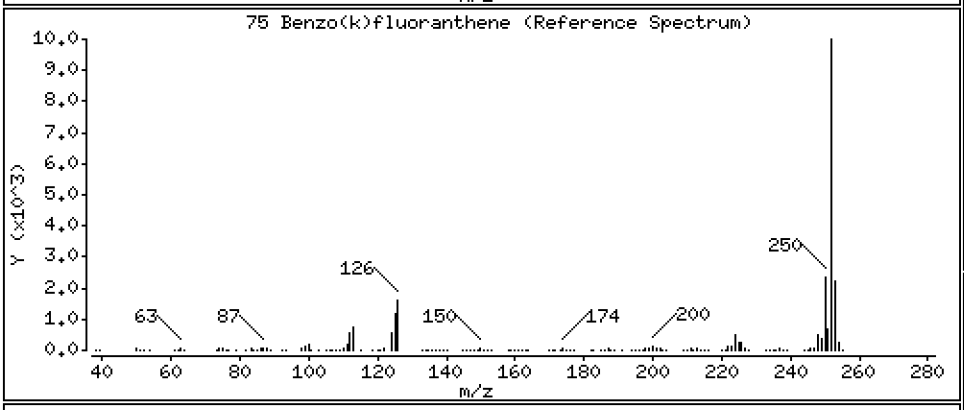
Column diameter: 0.32

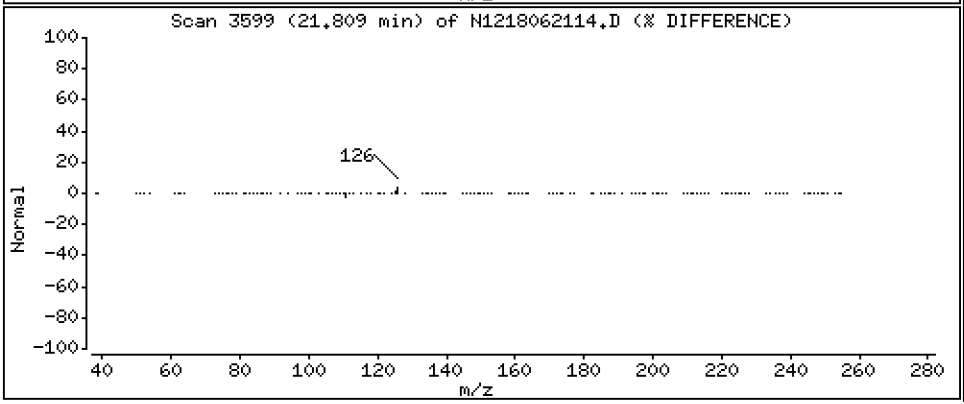
75 Benzo(k)fluoranthene

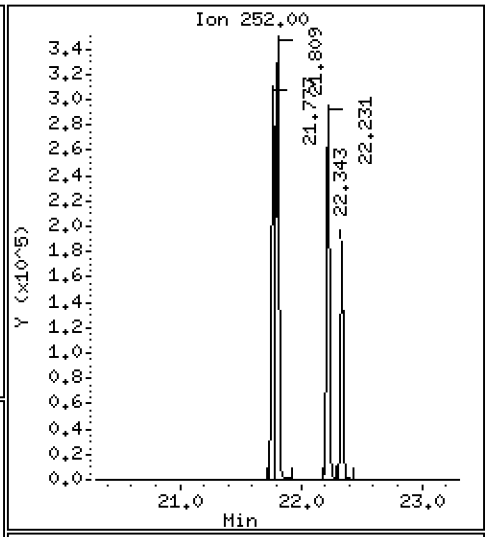
Concentration: 20.08 ug/mL

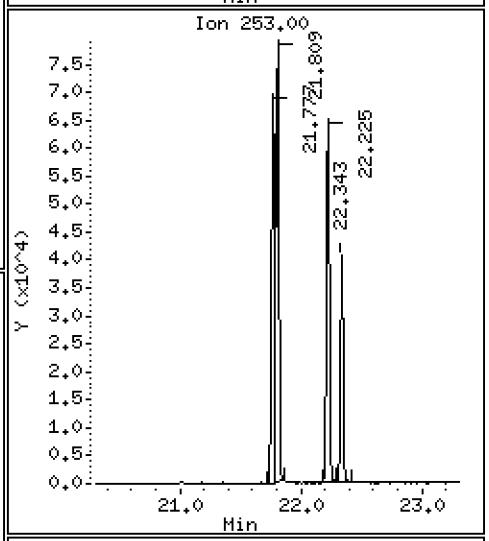


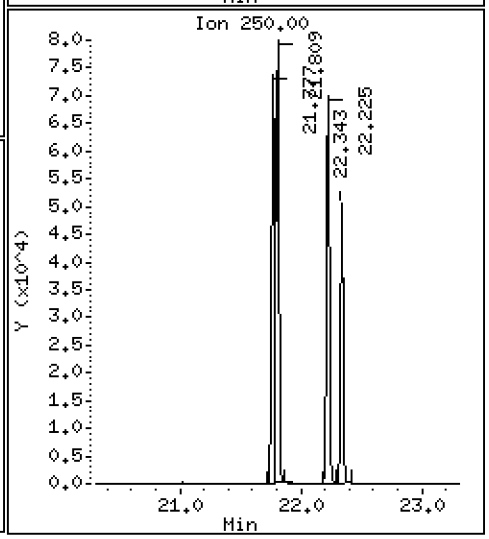












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

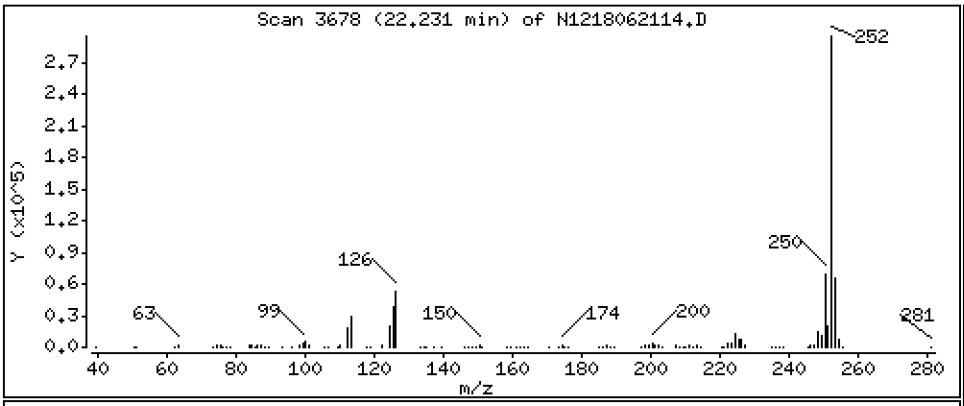
Operator: JZ

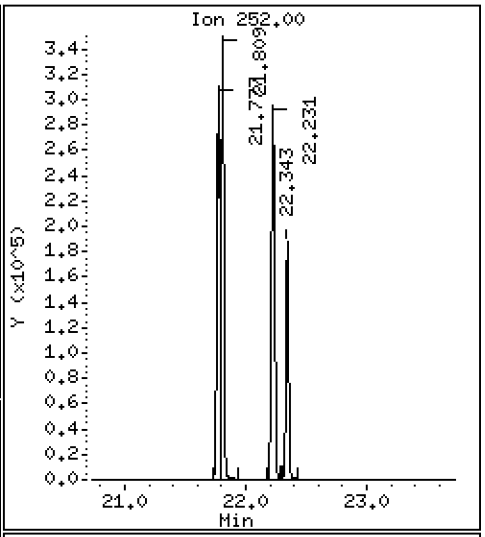
Column phase: ZB-5msi

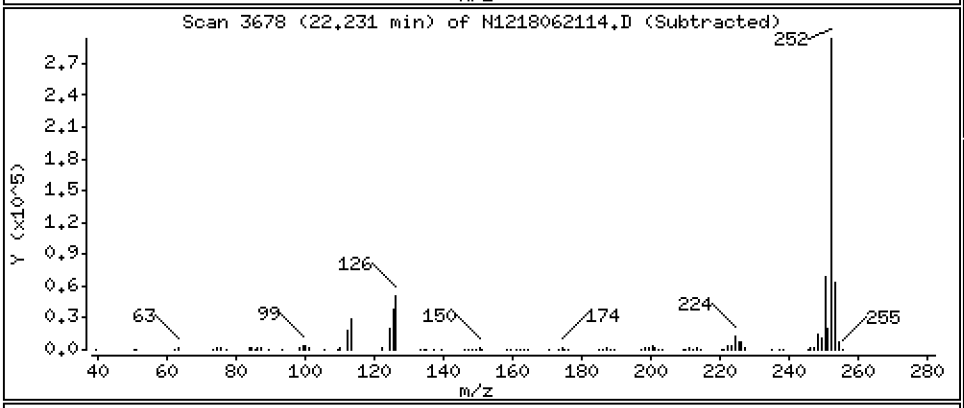
Column diameter: 0.32

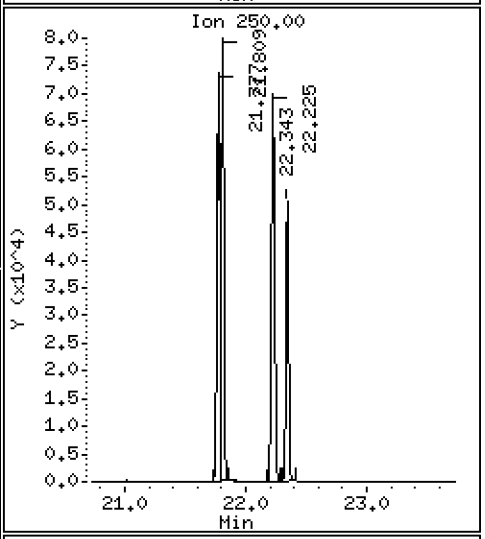
76 Benzo(a)pyrene

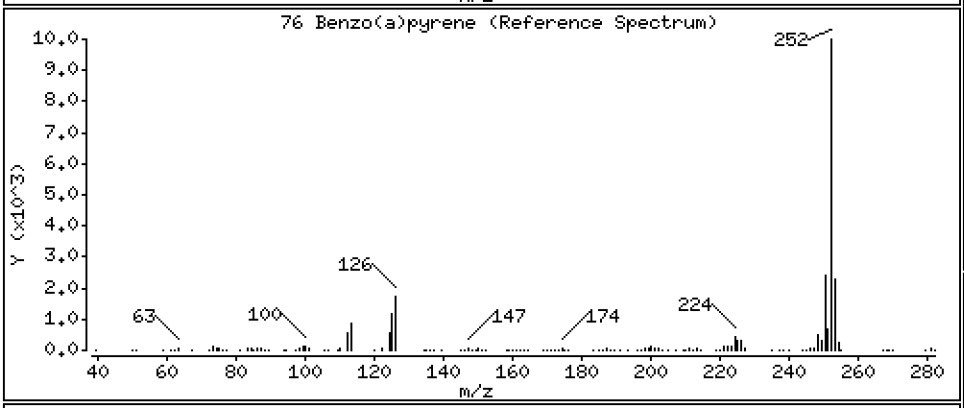
Concentration: 22.41 ug/mL

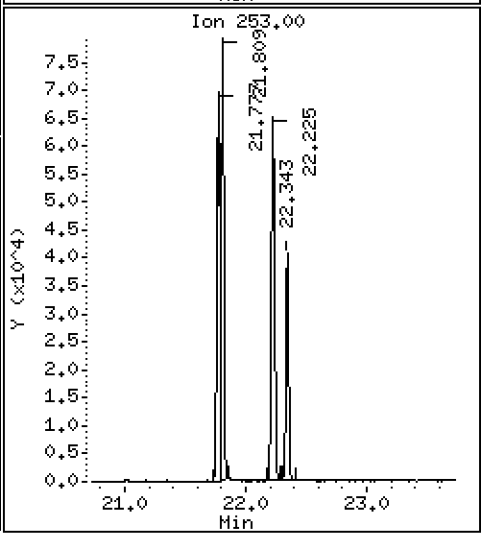


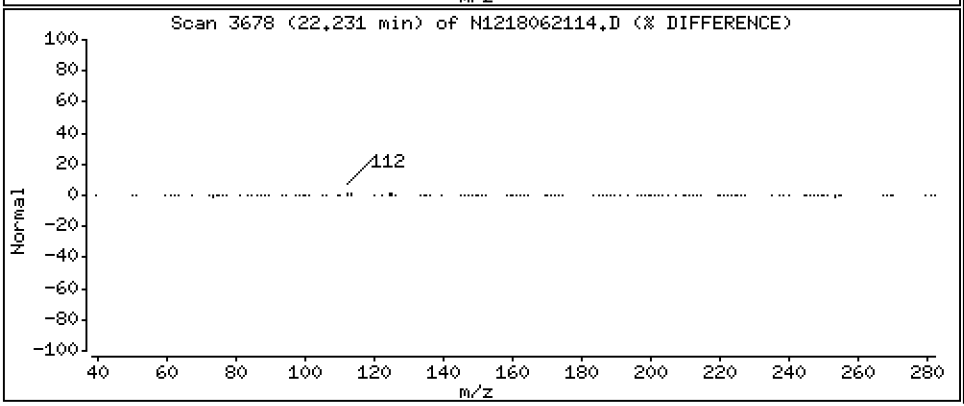












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

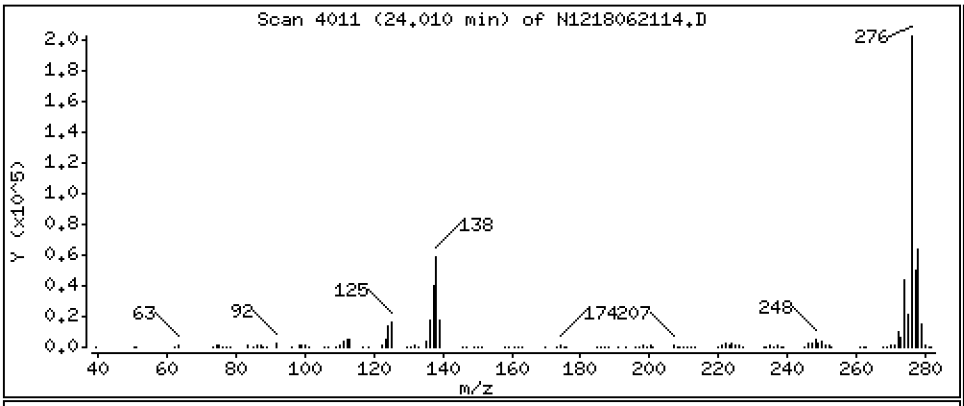
Operator: JZ

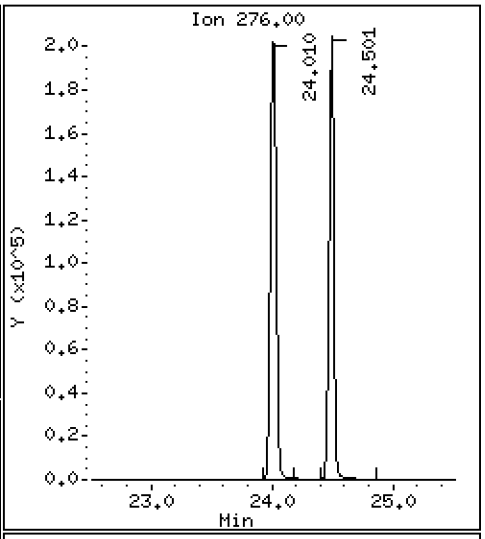
Column phase: ZB-5msi

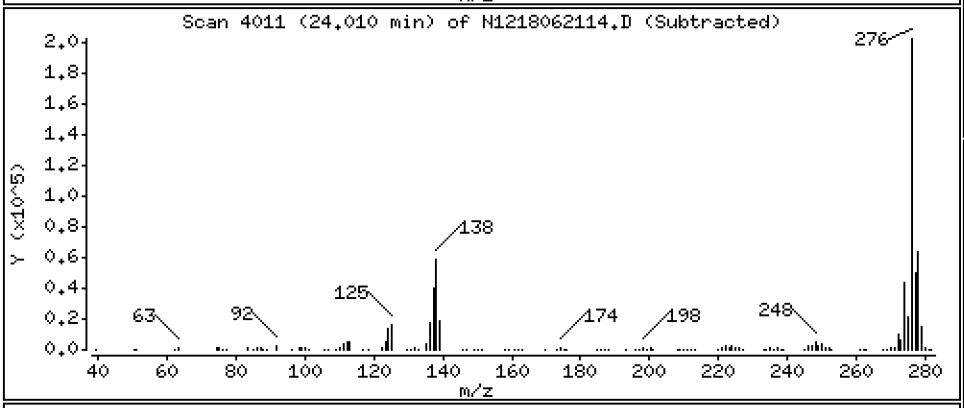
Column diameter: 0.32

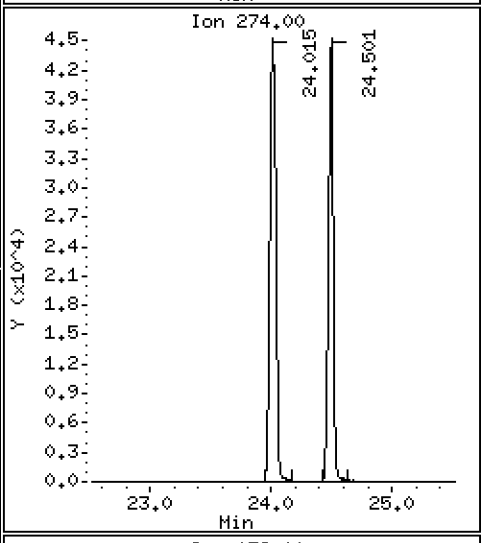
78 Indeno(1,2,3-cd)pyrene

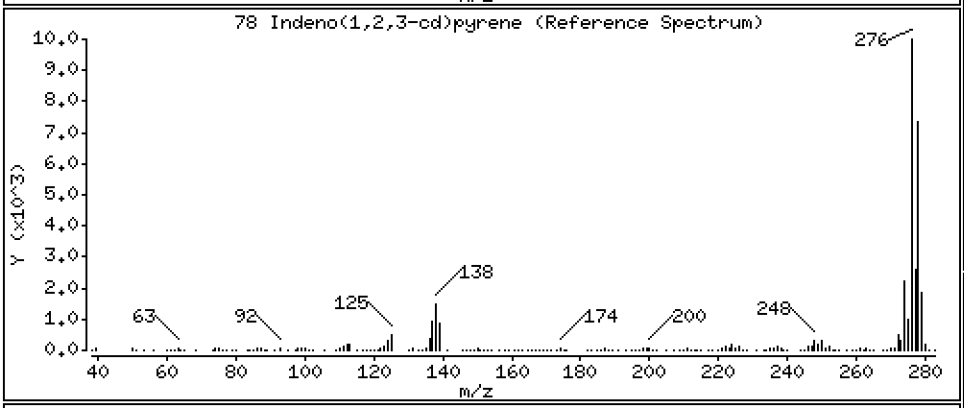
Concentration: 23.95 ug/mL

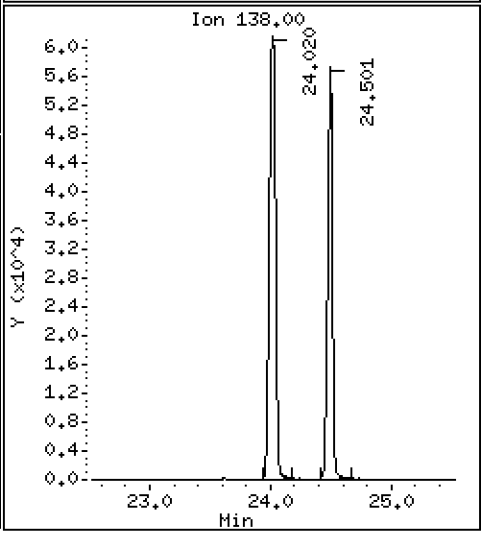


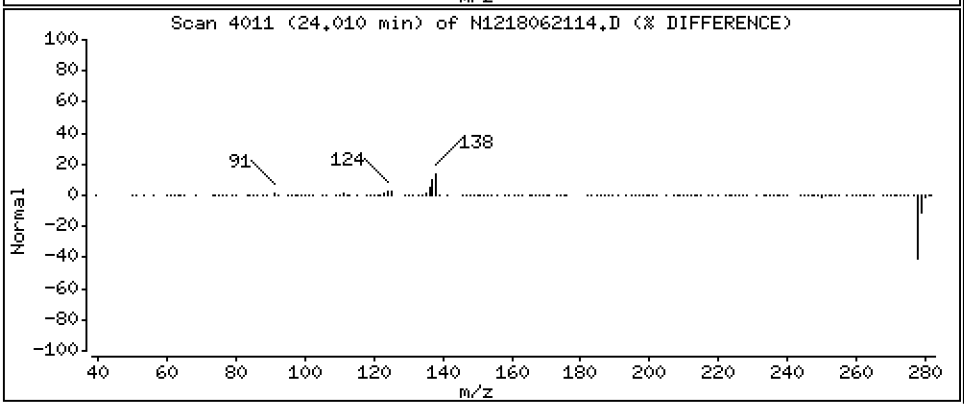












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

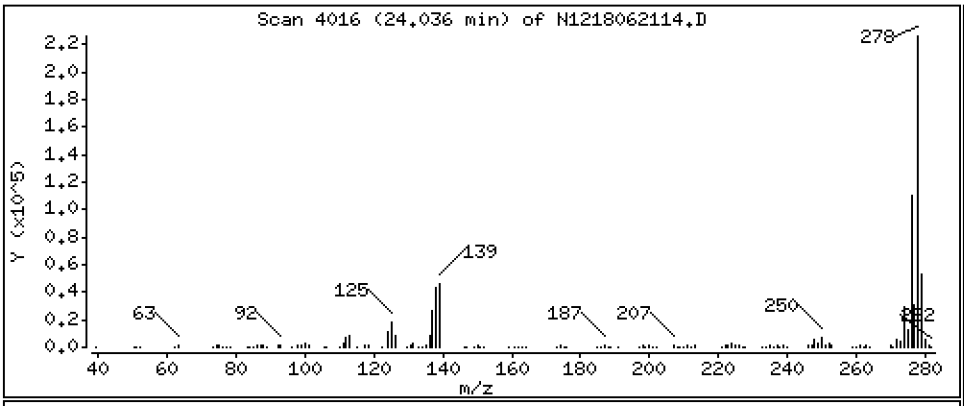
Operator: JZ

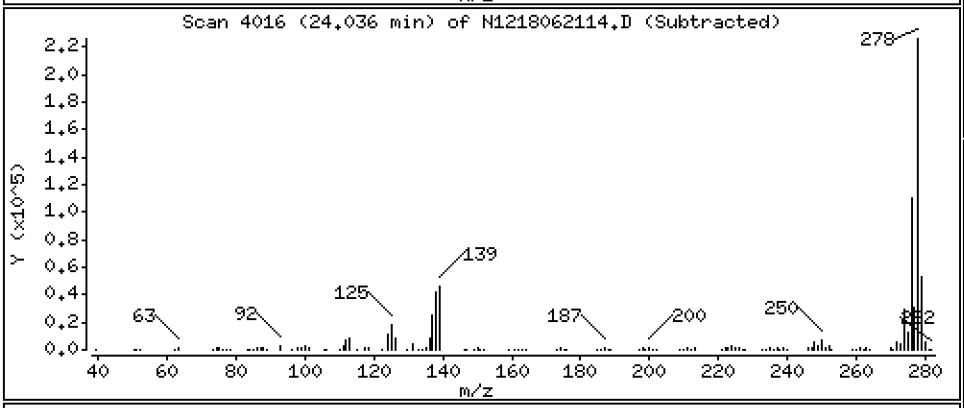
Column phase: ZB-5msi

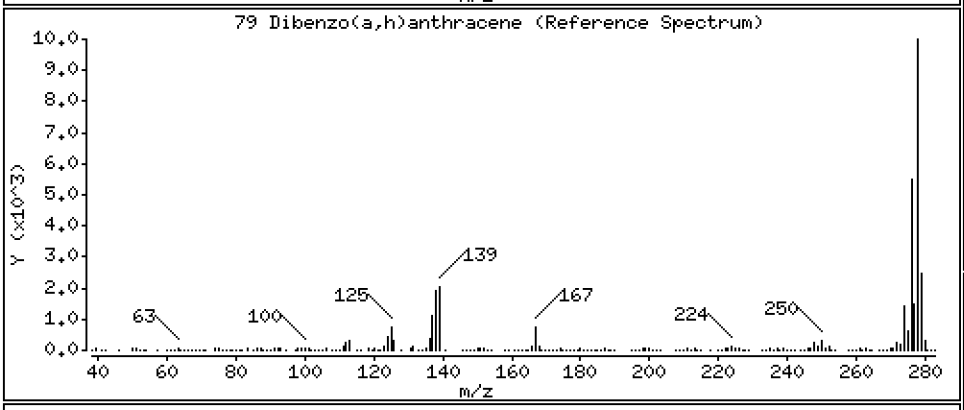
Column diameter: 0.32

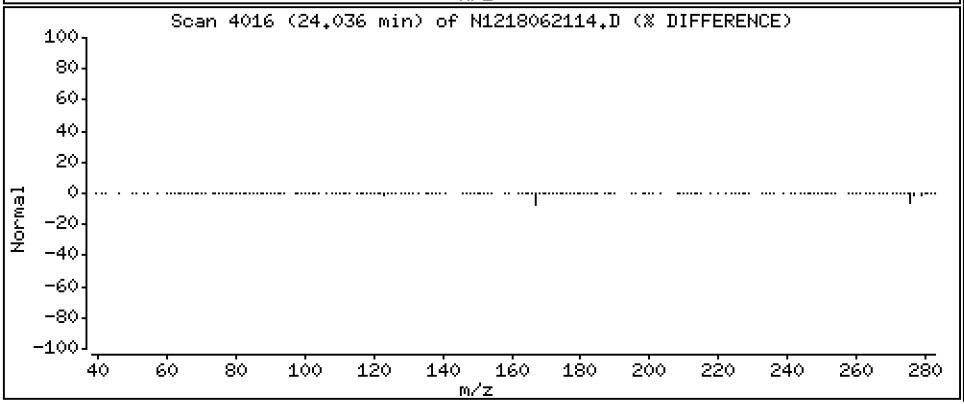
79 Dibenzo(a,h)anthracene

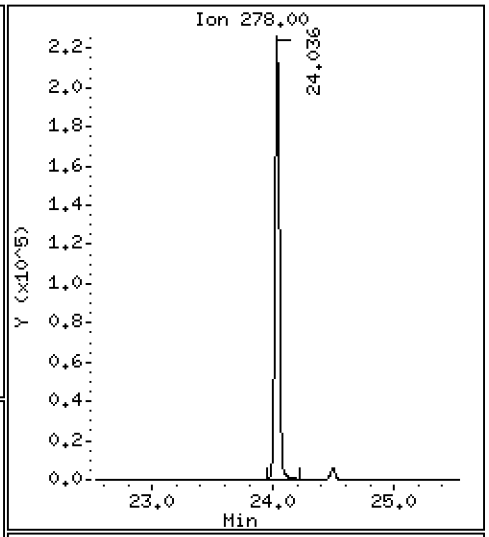
Concentration: 23.95 ug/mL

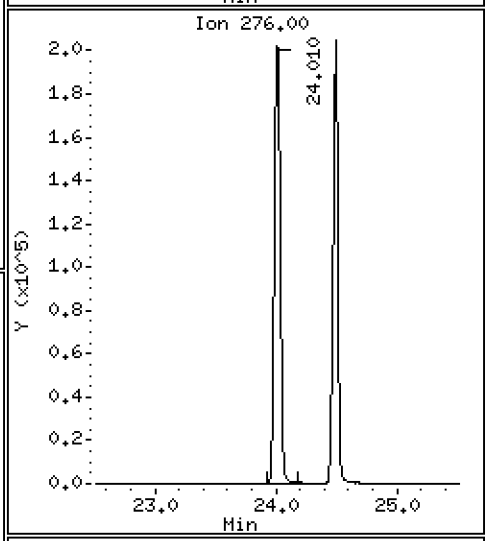


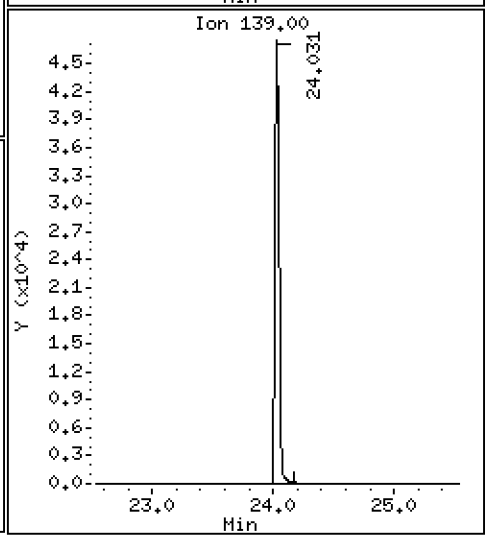












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

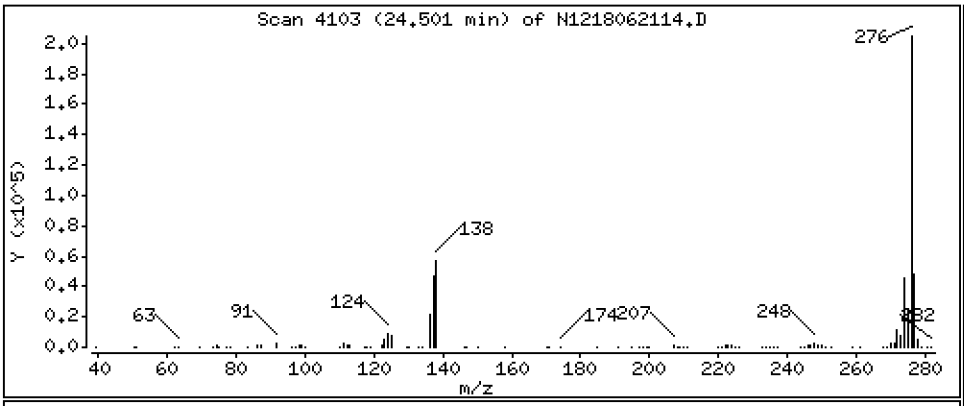
Operator: JZ

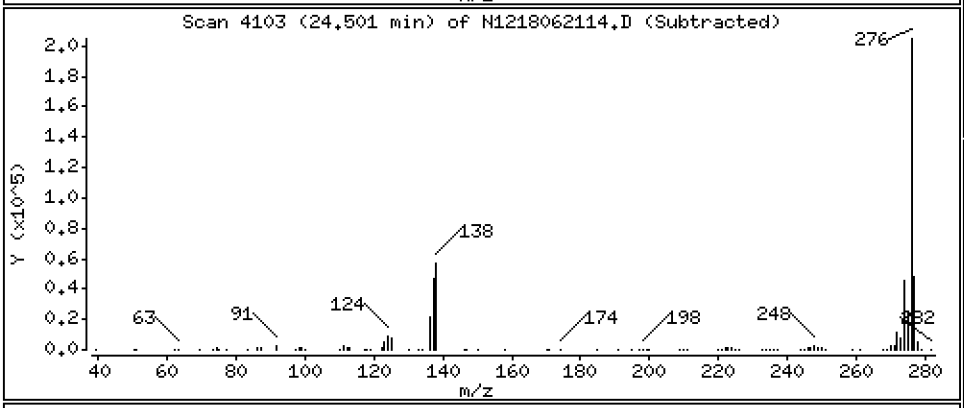
Column phase: ZB-5msi

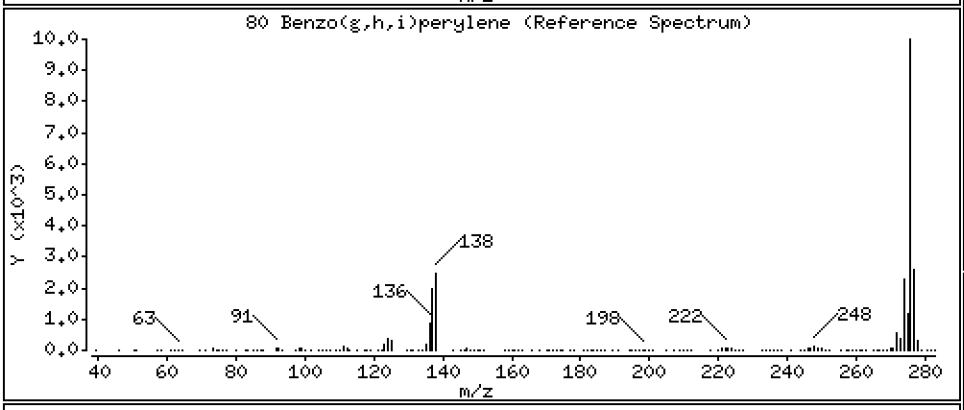
Column diameter: 0.32

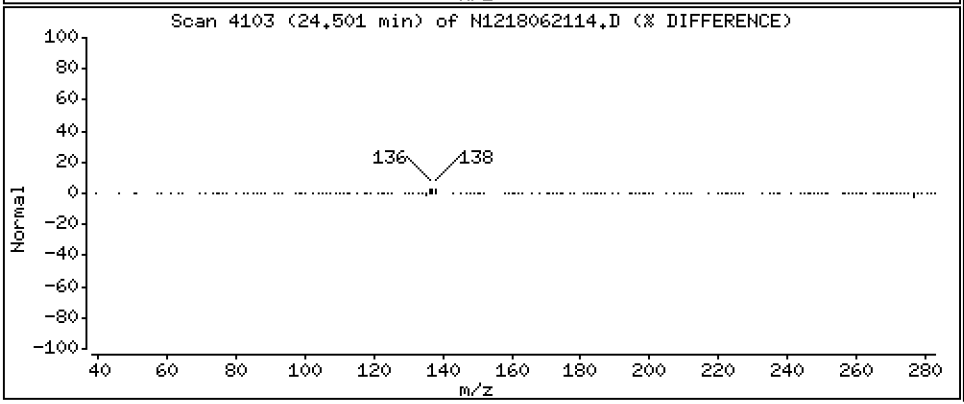
80 Benzo(g,h,i)perylene

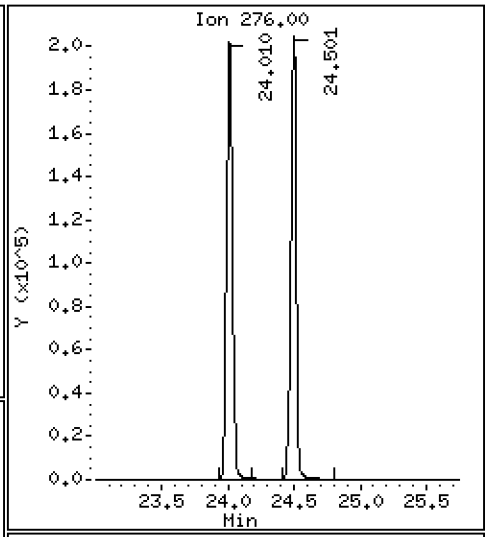
Concentration: 25.28 ug/mL

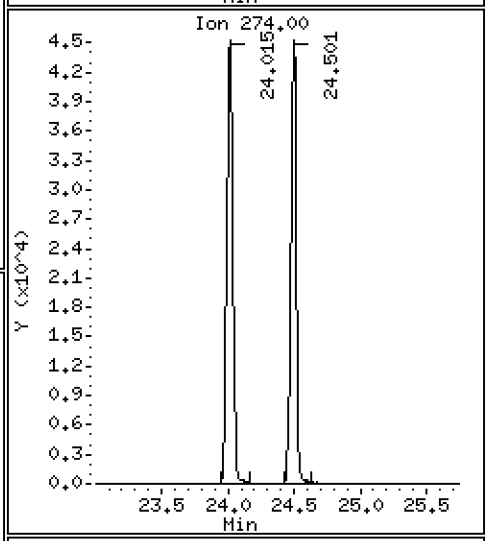


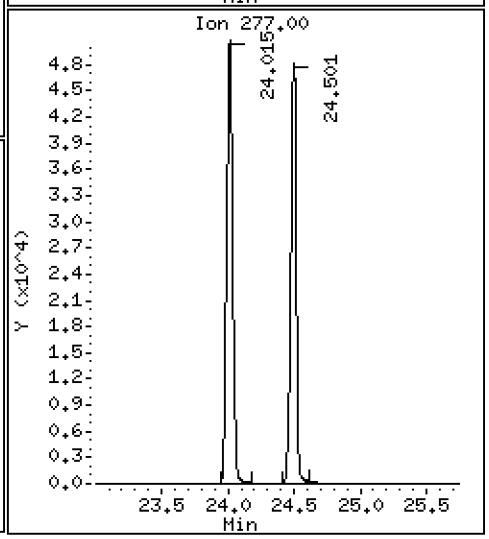












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

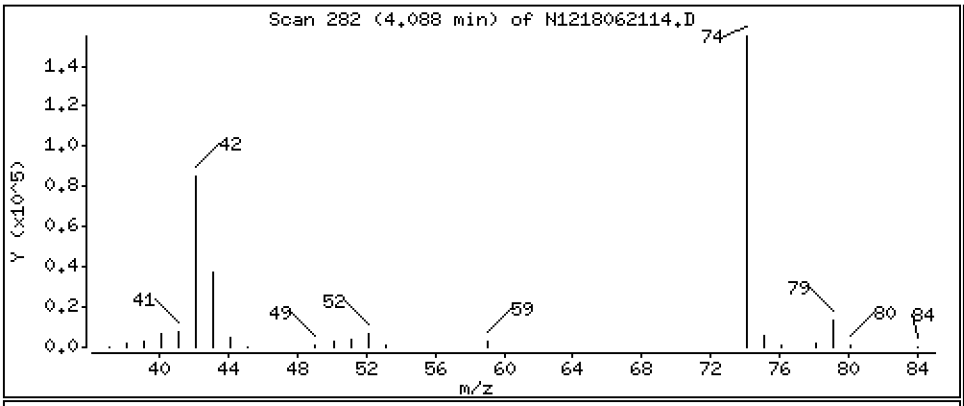
Operator: JZ

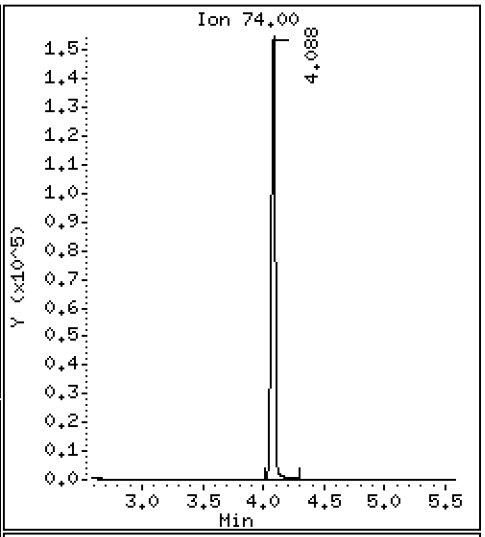
Column phase: ZB-5msi

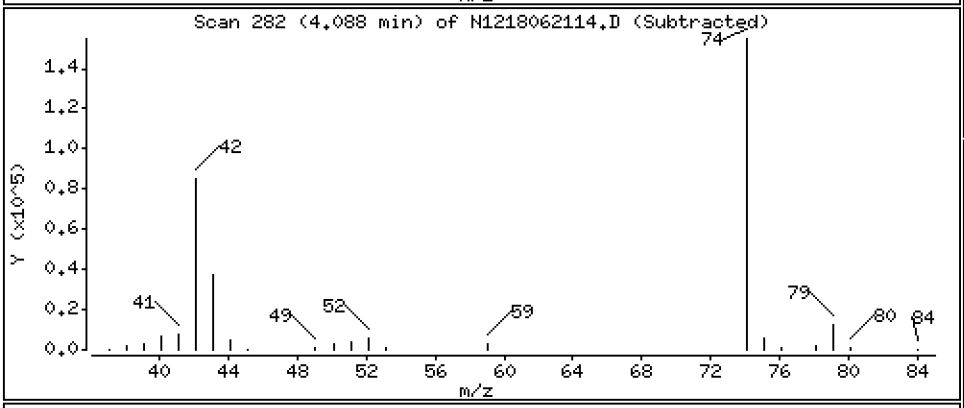
Column diameter: 0.32

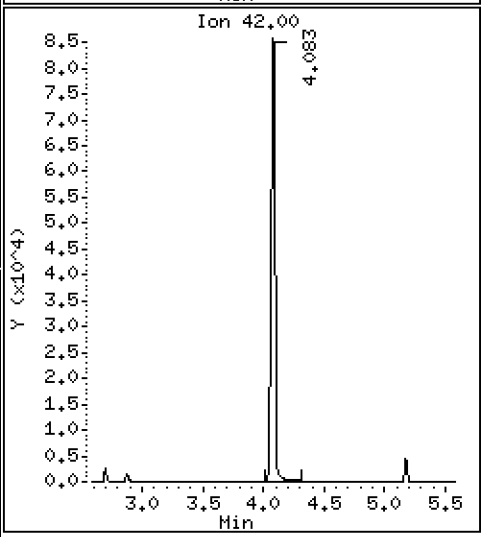
90 N-Nitrosodimethylamine

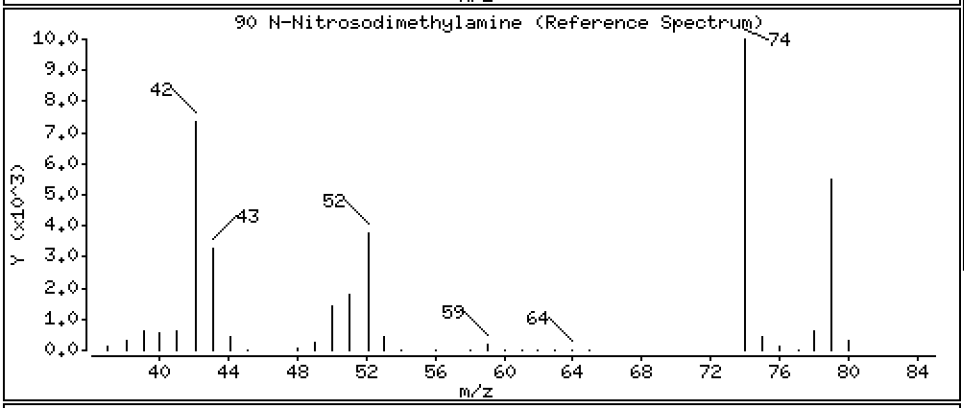
Concentration: 45.56 ug/mL

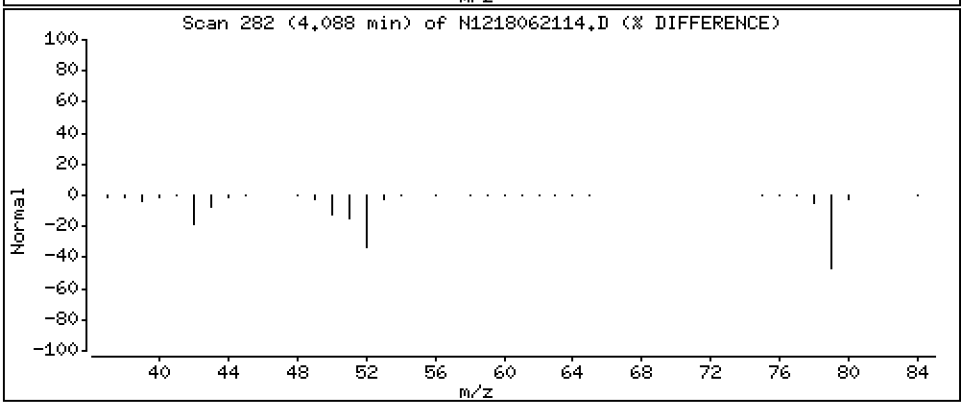












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

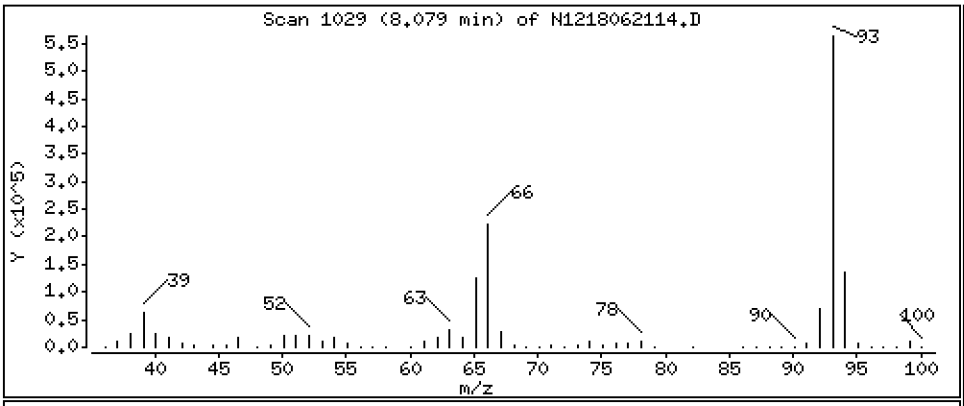
Operator: JZ

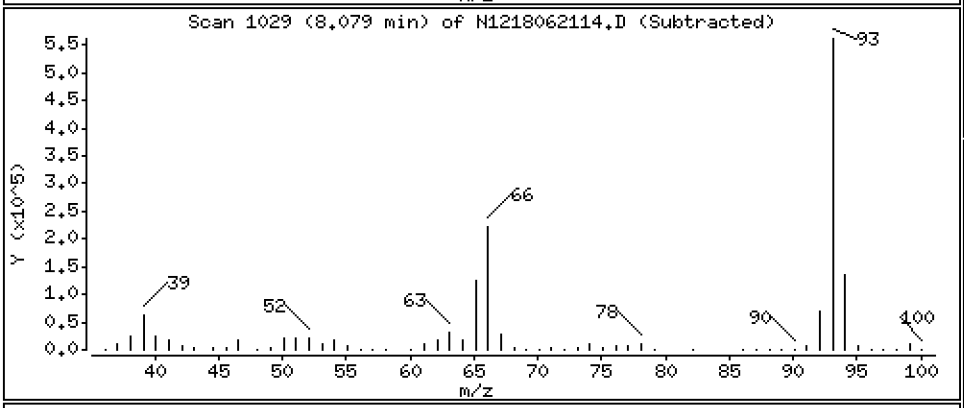
Column phase: ZB-5msi

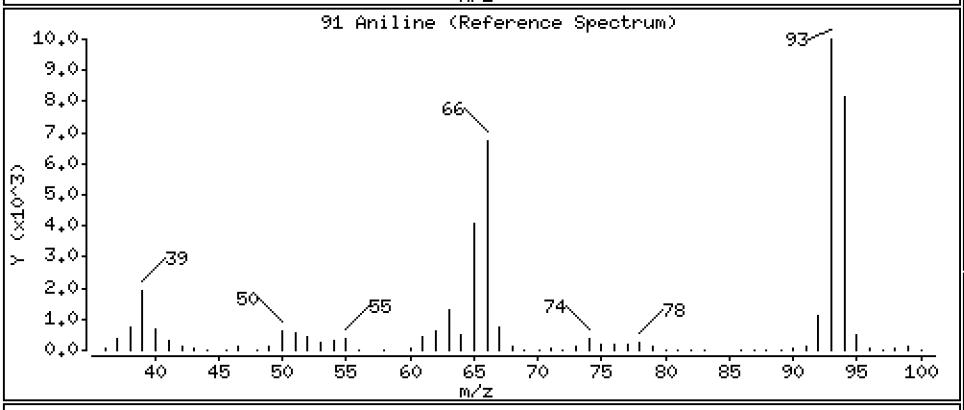
Column diameter: 0.32

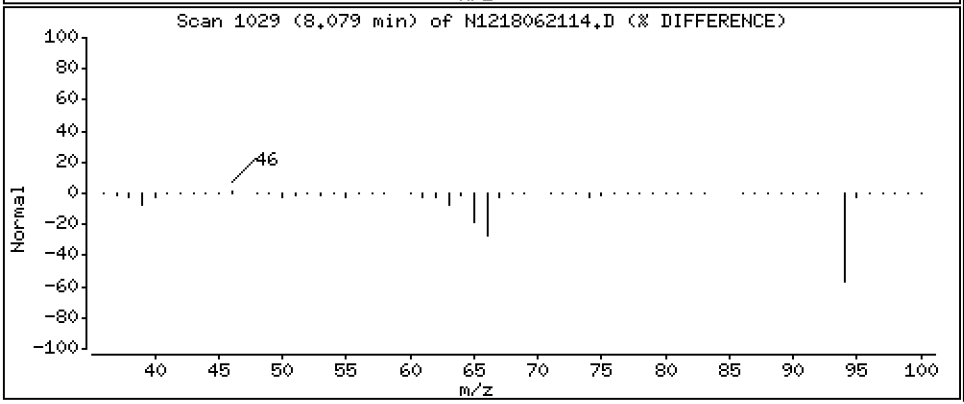
91 Aniline

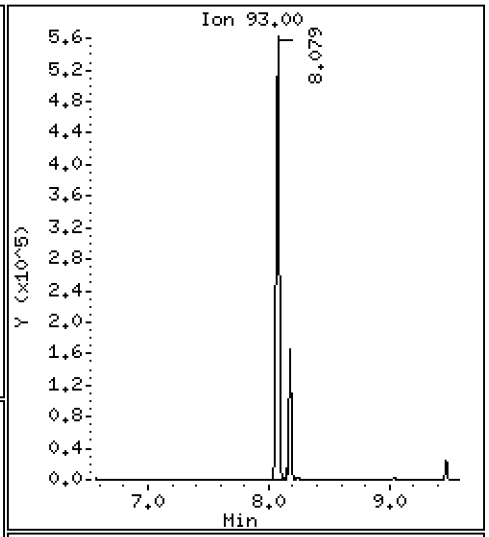
Concentration: 53.78 ug/mL

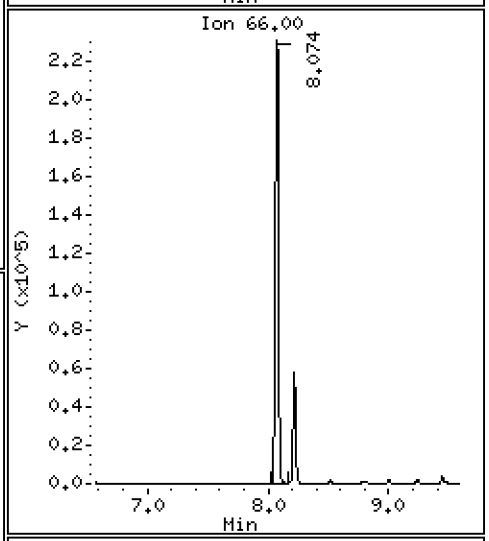


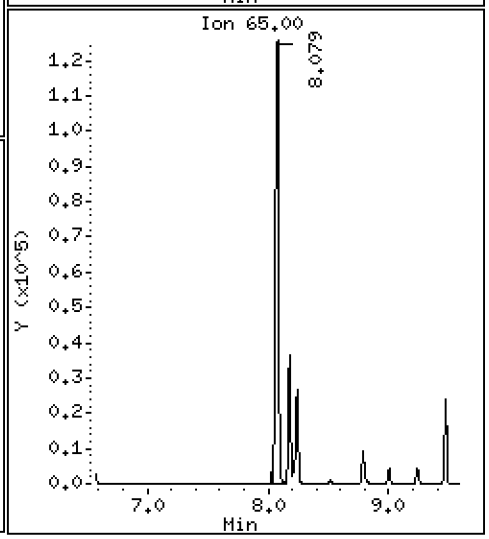












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

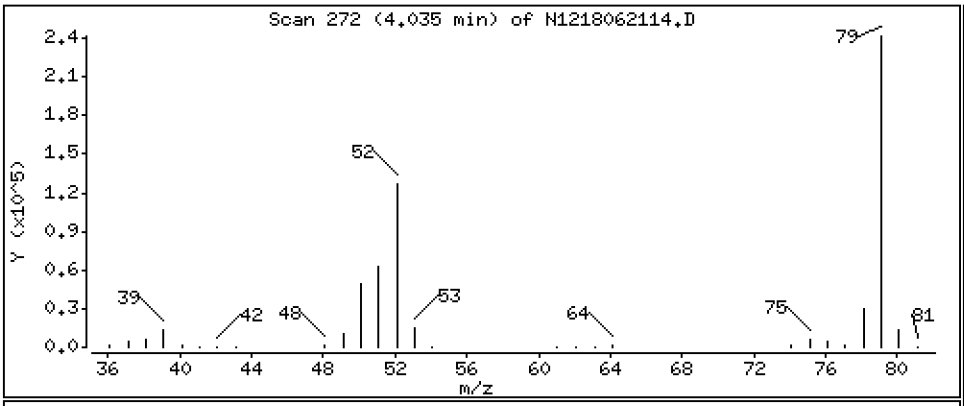
Operator: JZ

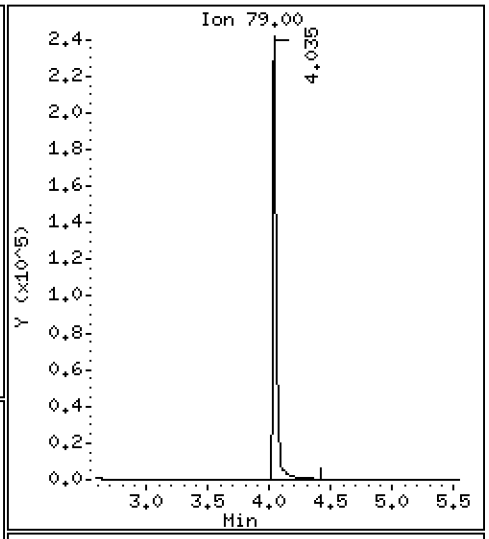
Column phase: ZB-5msi

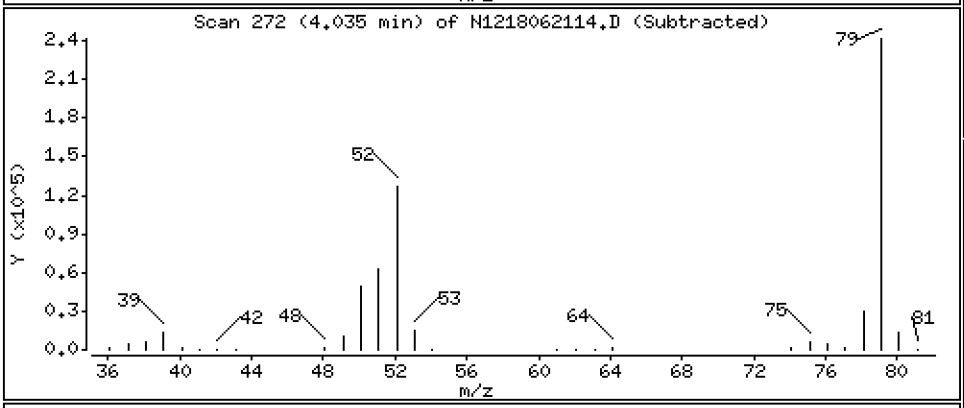
Column diameter: 0.32

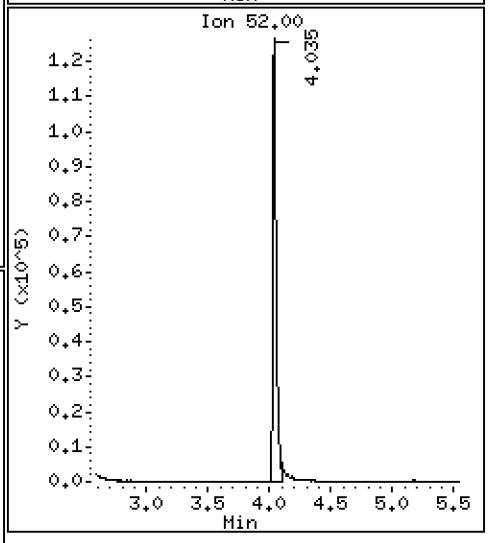
103 Pyridine

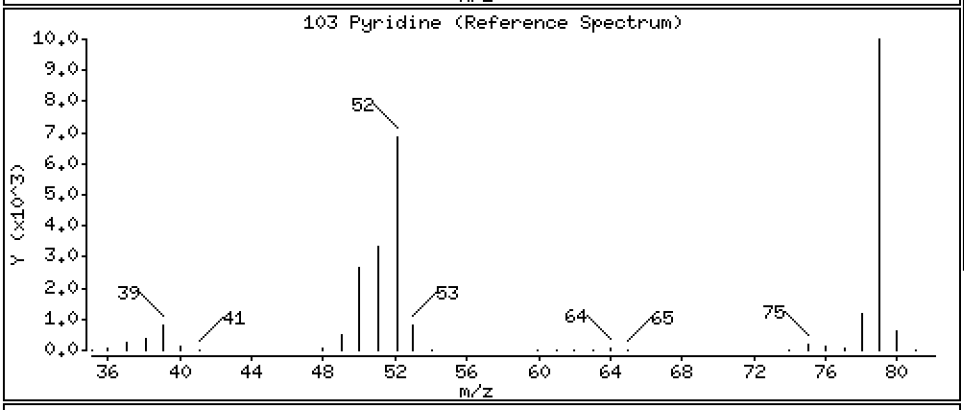
Concentration: 41.01 ug/mL

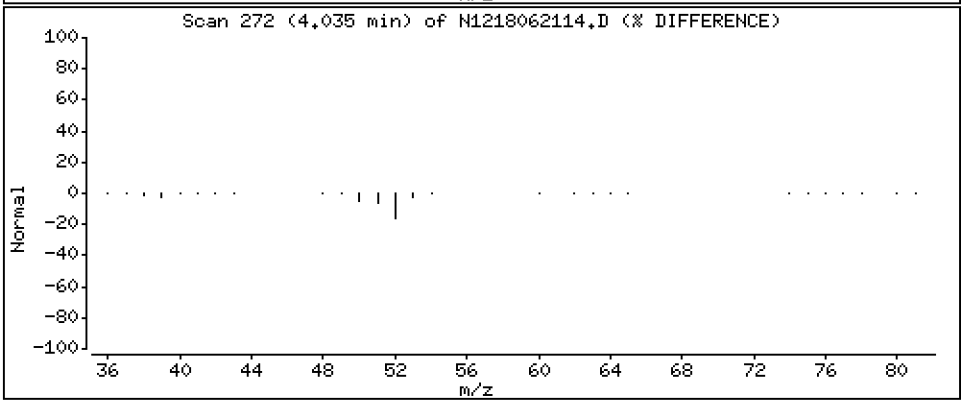












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

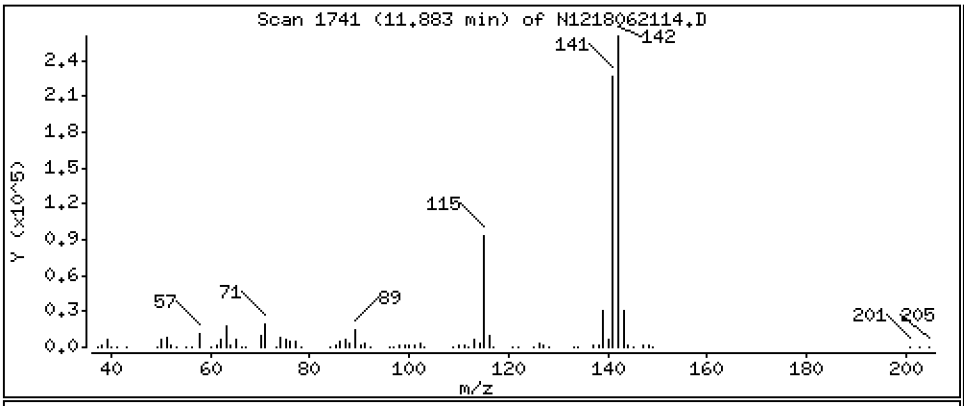
Operator: JZ

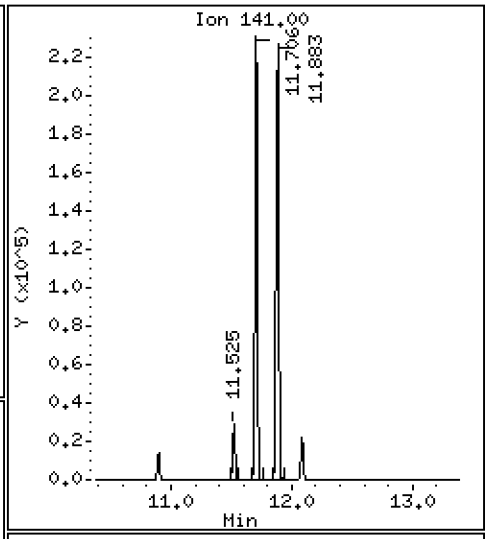
Column phase: ZB-5msi

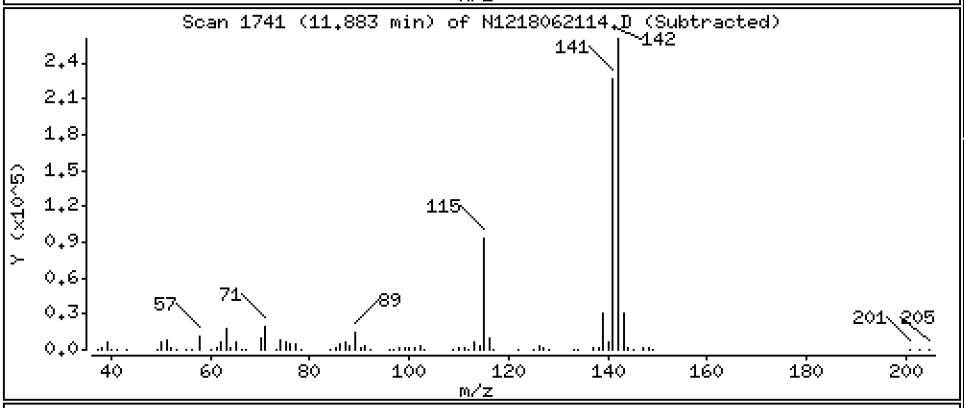
Column diameter: 0.32

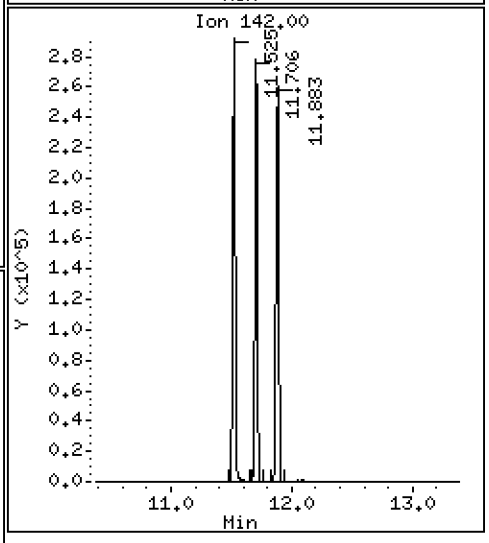
105 1-methylnaphthalene

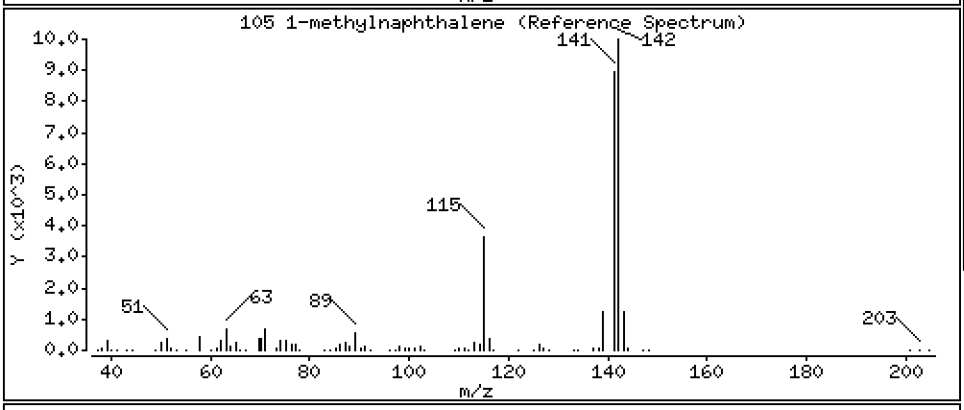
Concentration: 20.28 ug/mL

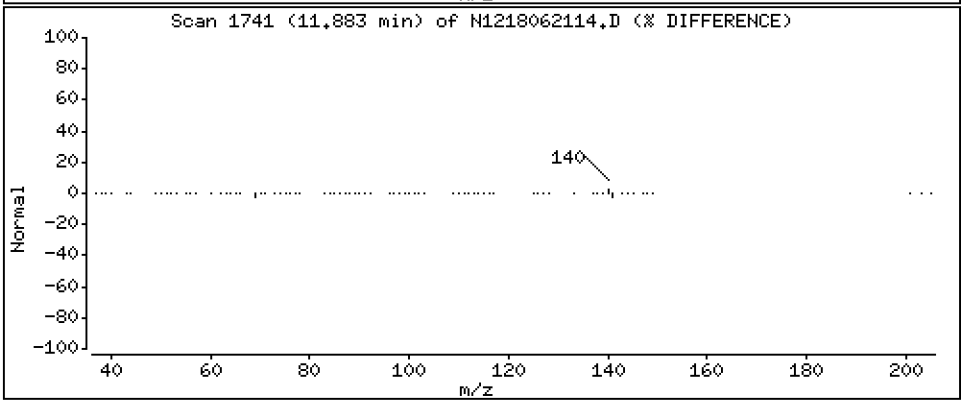












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

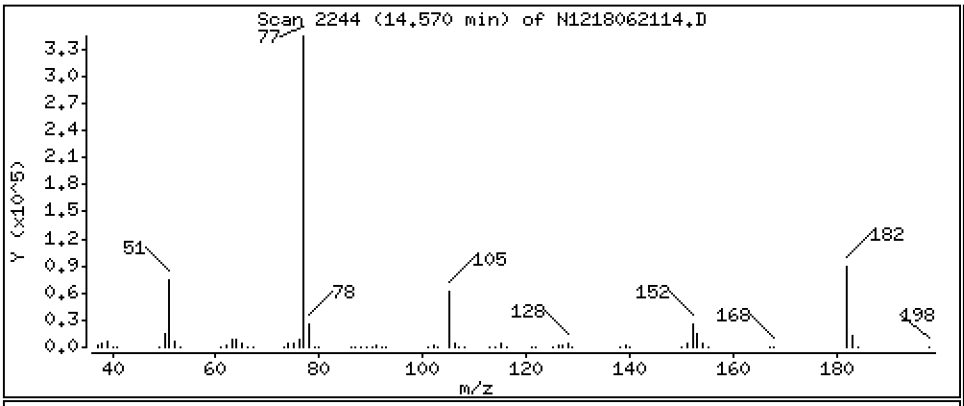
Operator: JZ

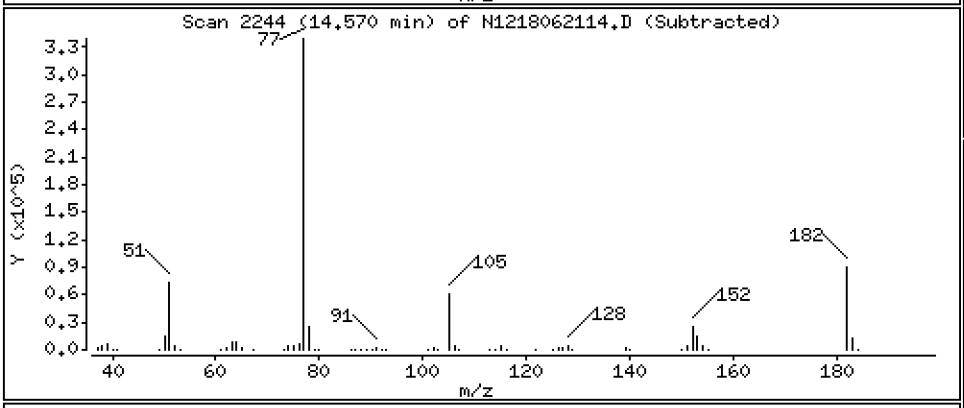
Column phase: ZB-5msi

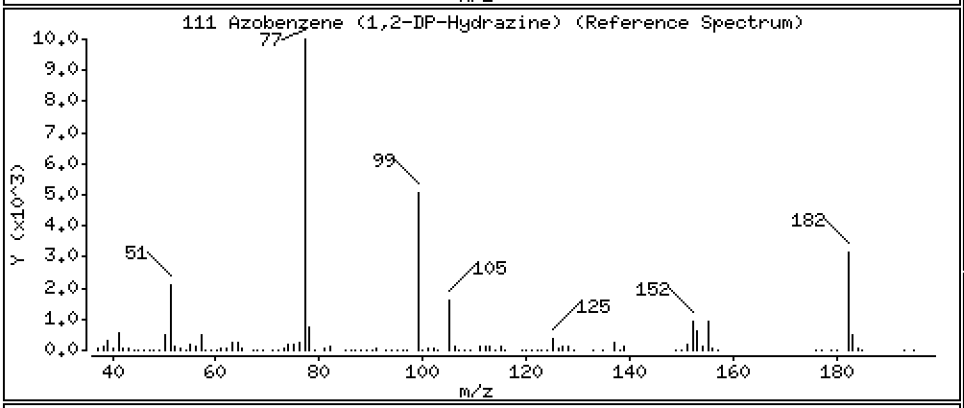
Column diameter: 0.32

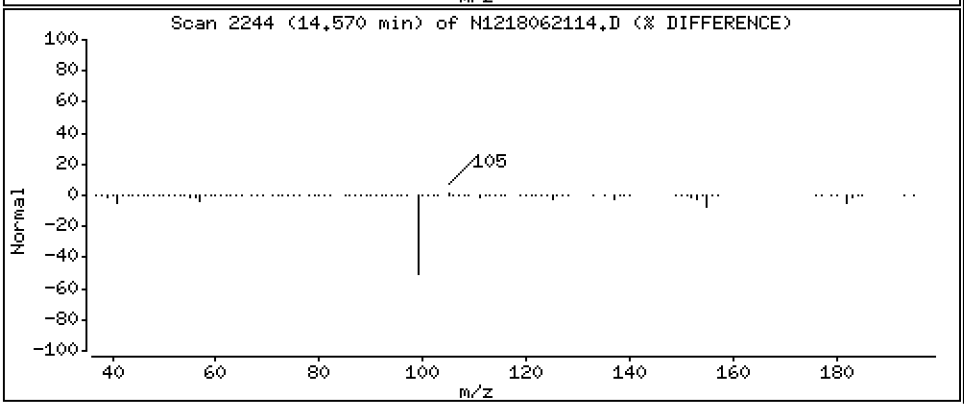
111 Azobenzene (1,2-DP-Hydrazine)

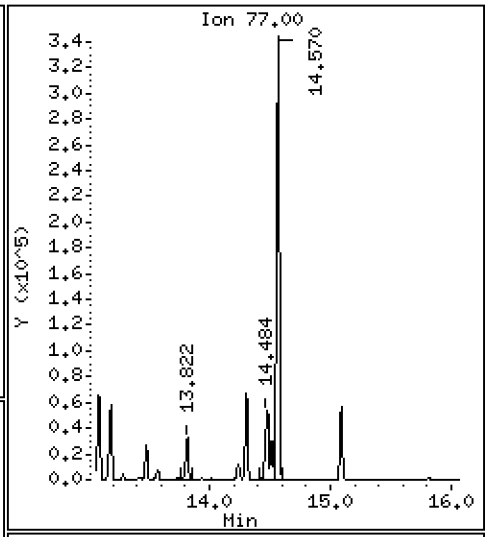
Concentration: 21.54 ug/mL

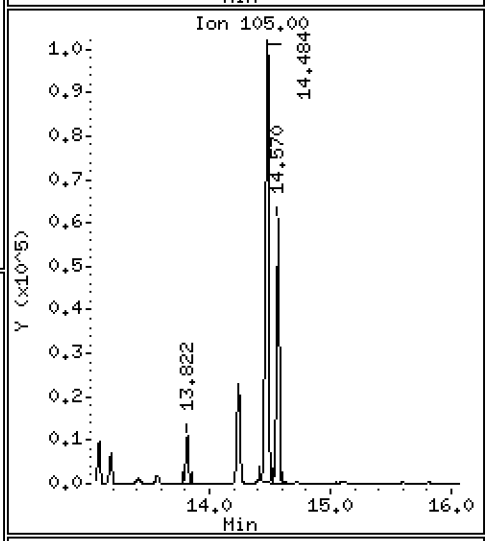


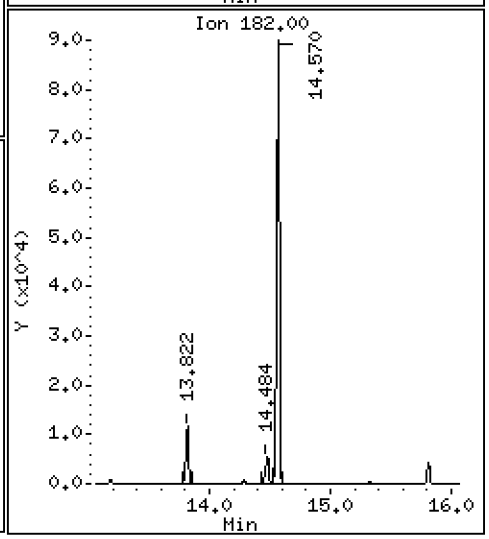












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Date : 21-JUN-2018 18:46

Client ID:

Instrument: nt12.i

Sample Info: BGF0434-BS1,

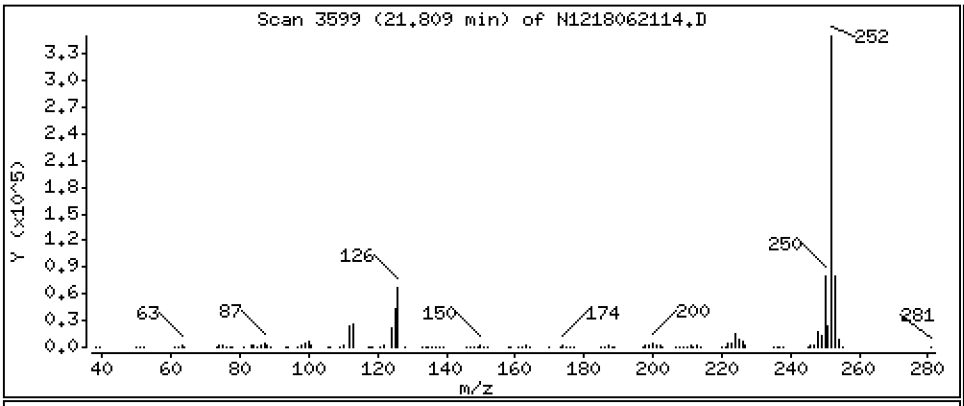
Operator: JZ

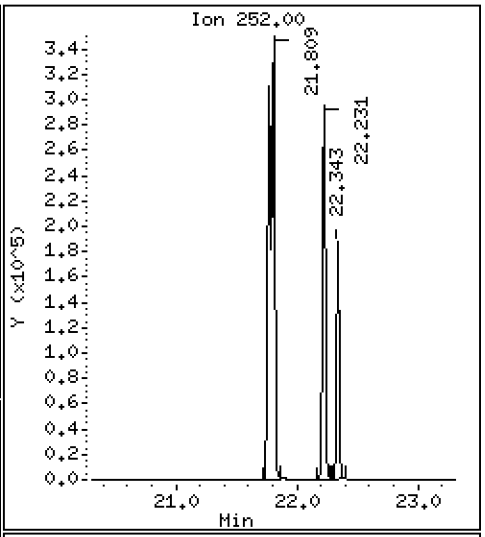
Column phase: ZB-5msi

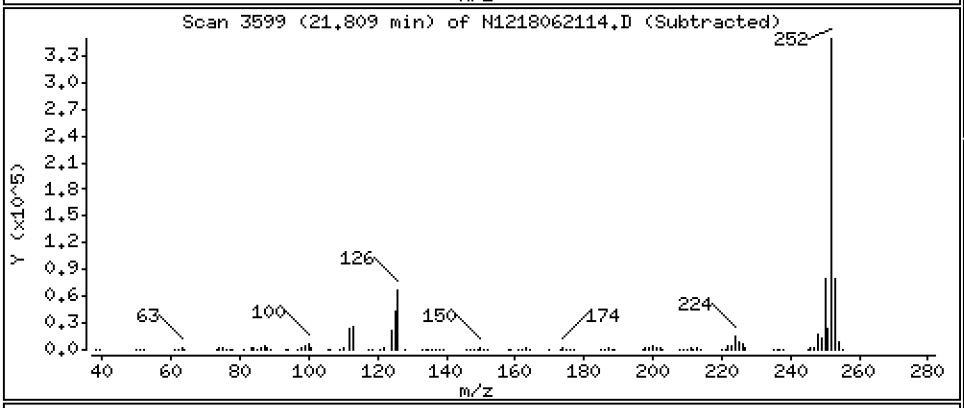
Column diameter: 0.32

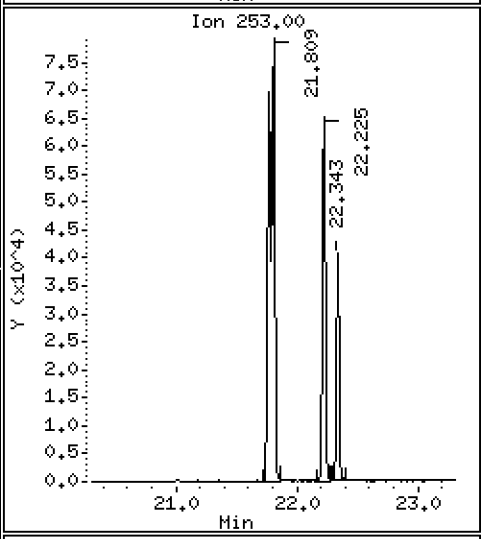
187 Total Benzofluoranthenes

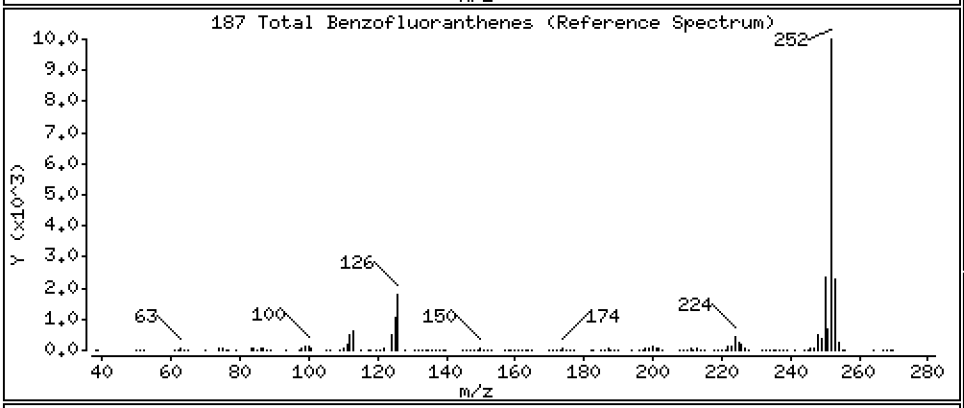
Concentration: 42.37 ug/mL

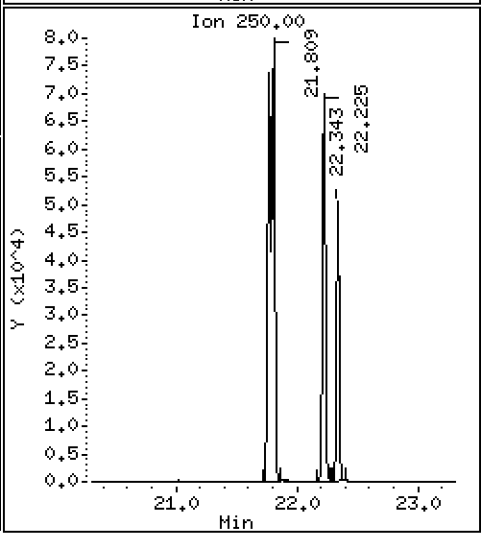


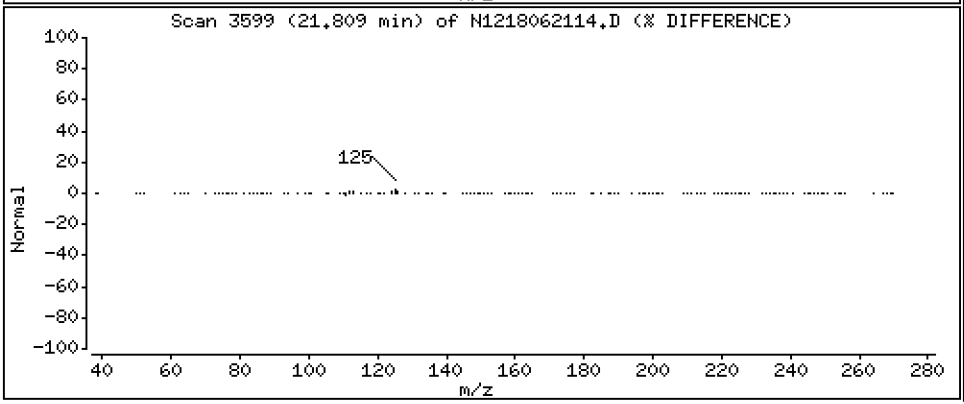












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

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Inj Date : 21-JUN-2018 18:46
Operator : JZ Inst ID: nt12.i
Smp Info : BGF0434-BS1,
Misc Info : 18-
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Meth Date : 22-Jun-2018 12:06 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 14
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.567	6.567	(0.771)	232068	22.8673	22.87(R)
$	2 Phenol-d5	99	8.057	8.062	(0.946)	210210	16.4865	16.49(R)
	3 Phenol	94	8.073	8.084	(0.948)	191449	14.9924	14.99
$	5 2-Chlorophenol-d4	132	8.217	8.217	(0.965)	313700	32.0210	32.02(R)
	4 Bis(2-Chloroethyl)ether	93	8.175	8.180	(0.960)	213034	19.3291	19.33
	6 2-Chlorophenol	128	8.239	8.239	(0.967)	191639	17.6222	17.62
	7 1,3-Dichlorobenzene	146	8.458	8.458	(0.993)	184932	16.1098	16.11
*	8 1,4-Dichlorobenzene-d4	152	8.517	8.516	(1.000)	141385	20.0000	
	9 1,4-Dichlorobenzene	146	8.538	8.543	(1.002)	186530	16.3889	16.39
$	10 1,2-Dichlorobenzene-d4	152	8.816	8.816	(1.035)	129545	19.6738	19.67(R)
	12 1,2-Dichlorobenzene	146	8.837	8.837	(1.038)	180079	16.8525	16.85
	11 Benzyl alcohol	108	8.784	8.789	(1.031)	148097	18.6064	18.61
	14 2,2'-oxybis(1-Chloropropane)	45	9.035	9.040	(1.061)	220199	19.5899	19.59
	13 2-Methylphenol	108	9.003	9.008	(1.057)	180749	17.2884	17.29
	17 Hexachloroethane	117	9.323	9.323	(1.095)	70405	15.6926	15.69
	16 N-Nitroso-di-n-propylamine	70	9.259	9.259	(1.087)	163628	20.6380	20.64
	15 4-Methylphenol	108	9.238	9.238	(1.085)	182806	17.3401	17.34
$	18 Nitrobenzene-d5	82	9.441	9.441	(0.894)	254095	22.5693	22.57(R)
	19 Nitrobenzene	77	9.467	9.473	(0.897)	238056	19.4158	19.42
	20 Isophorone	82	9.857	9.847	(0.934)	426403	23.0408	23.04
	21 2-Nitrophenol	139	9.980	9.980	(0.945)	112629	19.7127	19.71
	22 2,4-Dimethylphenol	107	10.076	10.071	(0.954)	557308	48.7723	48.77
	23 Bis(2-Chloroethoxy)methane	93	10.226	10.226	(0.969)	258746	20.7649	20.76
	24 Benzoic acid	105	10.338	10.354	(0.979)	474532	60.5406	60.54
	25 2,4-Dichlorophenol	162	10.365	10.365	(0.982)	487771	55.0279	55.03
	26 1,2,4-Trichlorobenzene	180	10.493	10.498	(0.994)	156511	17.0354	17.04
*	27 Naphthalene-d8	136	10.557	10.557	(1.000)	550416	20.0000	
	28 Naphthalene	128	10.589	10.589	(1.003)	538648	18.1527	18.15
	29 4-Chloroaniline	127	10.723	10.723	(1.016)	618077	47.1589	47.16
	30 Hexachlorobutadiene	225	10.899	10.899	(1.032)	78555	15.7184	15.72
	31 4-Chloro-3-methylphenol	107	11.524	11.519	(1.092)	536489	57.5747	57.57
	32 2-Methylnaphthalene	141	11.706	11.706	(1.109)	310454	18.5385	18.54
	33 Hexachlorocyclopentadiene	237	12.085	12.085	(0.900)	245955	60.1303	60.13

		QUANT SIG					CONCENTRATIONS	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34 2,4,6-Trichlorophenol	196	12.219	12.219	(0.910)	359009	56.8719	56.87
	35 2,4,5-Trichlorophenol	196	12.277	12.272	(0.914)	388331	59.7627	59.76
$	36 2-Fluorobiphenyl	172	12.347	12.347	(0.920)	451662	22.9041	22.90(R)
	37 2-Chloronaphthalene	162	12.491	12.491	(0.930)	361185	19.9740	19.97
	38 2-Nitroaniline	65	12.732	12.721	(0.948)	353631	61.7323	61.73
	39 Dimethylphthalate	163	13.090	13.079	(0.975)	430497	21.9794	21.98
	40 Acenaphthylene	152	13.175	13.175	(0.981)	526699	20.3686	20.37
	41 2,6-Dinitrotoluene	165	13.191	13.180	(0.982)	290605	67.4716	67.47
*	42 Acenaphthene-d10	164	13.426	13.426	(1.000)	277267	20.0000	
	43 3-Nitroaniline	138	13.410	13.399	(0.999)	332988	63.3761	63.38
	44 Acenaphthene	153	13.480	13.474	(1.004)	364116	21.2151	21.22
	45 2,4-Dinitrophenol	184	13.576	13.565	(1.011)	349756	130.570	130.6
	46 Dibenzofuran	168	13.741	13.736	(1.023)	525094	20.1199	20.12
	47 4-Nitrophenol	109	13.693	13.693	(1.020)	87363	31.5260	31.53
	48 2,4-Dinitrotoluene	165	13.821	13.811	(1.029)	396862	65.0049	65.00
	50 Diethylphthalate	149	14.243	14.233	(1.061)	416745	22.3459	22.35
	49 Fluorene	166	14.297	14.297	(1.065)	419911	21.9799	21.98
	51 4-Chlorophenyl-phenylether	204	14.308	14.307	(1.066)	192643	21.6252	21.63
	52 4-Nitroaniline	138	14.425	14.404	(1.074)	337618	65.6514	65.65
	53 4,6-Dinitro-2-methylphenol	198	14.484	14.473	(0.916)	453333	130.451	130.5
	54 N-Nitrosodiphenylamine	169	14.521	14.516	(0.918)	313886	21.3912	21.39
$	55 2,4,6-Tribromophenol	330	14.719	14.719	(1.096)	88704	38.2145	38.21(R)
	56 4-Bromophenyl-phenylether	248	15.093	15.093	(0.954)	117267	21.0286	21.03
	57 Hexachlorobenzene	284	15.323	15.322	(0.969)	115525	20.0223	20.02
	58 Pentachlorophenol	266	15.622	15.622	(0.988)	236101	61.8987	61.90
*	59 Phenanthrene-d10	188	15.814	15.809	(1.000)	484294	20.0000	
	60 Phenanthrene	178	15.846	15.846	(1.002)	584523	24.3462	24.35
	61 Anthracene	178	15.921	15.921	(1.007)	555880	20.2997	20.30
	62 Carbazole	167	16.193	16.193	(1.024)	531870	20.1345	20.13
	63 Di-n-butylphthalate	149	16.883	16.888	(1.068)	659709	21.8313	21.83
	64 Fluoranthene	202	17.791	17.791	(1.125)	628665	20.9310	20.93
	65 Pyrene	202	18.154	18.149	(0.901)	633746	24.4429	24.44
$	66 Terphenyl-d14	244	18.442	18.448	(0.916)	468713	29.0986	29.10(R)
	67 Butylbenzylphthalate	149	19.313	19.313	(0.959)	279443	24.0899	24.09
	68 Benzo(a)anthracene	228	20.115	20.114	(0.999)	475041	25.0329	25.03
*	69 Chrysene-d12	240	20.141	20.141	(1.000)	418146	20.0000	
	70 3,3'-Dichlorobenzidine	252	20.115	20.114	(0.999)	545193	76.9546	76.95
	71 Chrysene	228	20.179	20.179	(1.002)	508312	24.0043	24.00
	72 bis(2-Ethylhexyl)phthalate	149	20.296	20.296	(0.956)	382575	23.8048	23.80
*	134 Di-n-octylphthalate-d4	153	21.231	21.231	(1.000)	540935	20.0000	
	73 Di-n-octylphthalate	149	21.242	21.242	(1.000)	620098	21.4631	21.46
	74 Benzo(b)fluoranthene	252	21.776	21.776	(0.976)	578919	21.5678	21.57
	75 Benzo(k)fluoranthene	252	21.808	21.808	(0.977)	546452	20.0792	20.08
	76 Benzo(a)pyrene	252	22.230	22.230	(0.996)	511186	22.4073	22.41
*	77 Perylene-d12	264	22.310	22.310	(1.000)	436005	20.0000	
	78 Indeno(1,2,3-cd)pyrene	276	24.009	24.014	(1.076)	638755	23.9481	23.95
	79 Dibenzo(a,h)anthracene	278	24.036	24.036	(1.077)	522609	23.9500	23.95
	80 Benzo(g,h,i)perylene	276	24.501	24.506	(1.098)	562542	25.2767	25.28
	90 N-Nitrosodimethylamine	74	4.088	4.077	(0.480)	316269	45.5601	45.56
	91 Aniline	93	8.078	8.073	(0.949)	892025	53.7759	53.78
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	4.034	4.040	(0.474)	495255	41.0107	41.01
	105 1-methylnaphthalene	141	11.882	11.882	(1.125)	303486	20.2803	20.28
	111 Azobenzene (1,2-DP-Hydrazine)	77	14.569	14.564	(0.921)	486350	21.5402	21.54

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
187 Total Benzofluoranthenes	252	21.808	21.808	(0.977)	1066680	42.3730	42.37

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062114.D
Lab Smp Id: BGF0434-BS1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Misc Info: 18-

Calibration Date: 21-JUN-2018
Calibration Time: 22:08
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	141385	11.34
27 Naphthalene-d8	478458	239229	956916	550416	15.04
42 Acenaphthene-d10	247659	123830	495318	277267	11.96
59 Phenanthrene-d10	421930	210965	843860	484294	14.78
69 Chrysene-d12	450836	225418	901672	418146	-7.25
134 Di-n-octylphthala	583434	291717	1166868	540935	-7.28
77 Perylene-d12	453093	226547	906186	436005	-3.77

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.52	8.02	9.02	8.52	0.00
27 Naphthalene-d8	10.56	10.06	11.06	10.56	0.00
42 Acenaphthene-d10	13.43	12.93	13.93	13.43	0.00
59 Phenanthrene-d10	15.81	15.31	16.31	15.81	0.03
69 Chrysene-d12	20.14	19.64	20.64	20.14	0.00
134 Di-n-octylphthala	21.23	20.73	21.73	21.23	0.00
77 Perylene-d12	22.31	21.81	22.81	22.31	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062114.D

Lab ID: BGF0434-BS1
nt12.i, SW846180516.m, 21-JUN-2018 18:46

RT	CO-ELUTION COMPOUNDS
20.115	3,3′-Dichlorobenzidine and Benzo(a)anthracene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/26/18 13:50
Batch:	BGF0515	Laboratory ID:	BGF0515-BS1
Preparation:	EPA 3510C SepF	Sequence Name:	LCS
Initial/Final:	500 mL / 0.5 mL		

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	Q	LCS % REC. #	QC LIMITS REC.
Phenol	25.0	10.9		43.4	10 - 160
1,4-Dichlorobenzene	25.0	14.0		56.2	10 - 160
1,2-Dichlorobenzene	25.0	14.8		59.0	10 - 160
Benzyl alcohol	25.0	14.5		57.9	10 - 160
4-Methylphenol	25.0	16.9		67.8	10 - 160
2,4-Dimethylphenol	75.0	48.5		64.7	10 - 160
1,2,4-Trichlorobenzene	25.0	15.0		60.1	10 - 160
Benzoic acid	138	66.7		48.5	10 - 160
Dimethylphthalate	25.0	21.3		85.0	10 - 160
Dibenzofuran	25.0	19.3		77.2	10 - 160
N-Nitrosodiphenylamine	25.0	20.9		83.8	10 - 160
Hexachlorobenzene	25.0	19.4		77.6	10 - 160
Pentachlorophenol	75.0	62.6		83.4	10 - 160
Butylbenzylphthalate	25.0	23.9		95.4	10 - 160
bis(2-Ethylhexyl)phthalate	25.0	22.5		89.9	10 - 160

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt12.i\20180626.b\N1218062606.D

Date : 26-JUN-2018 13:50

Client ID:

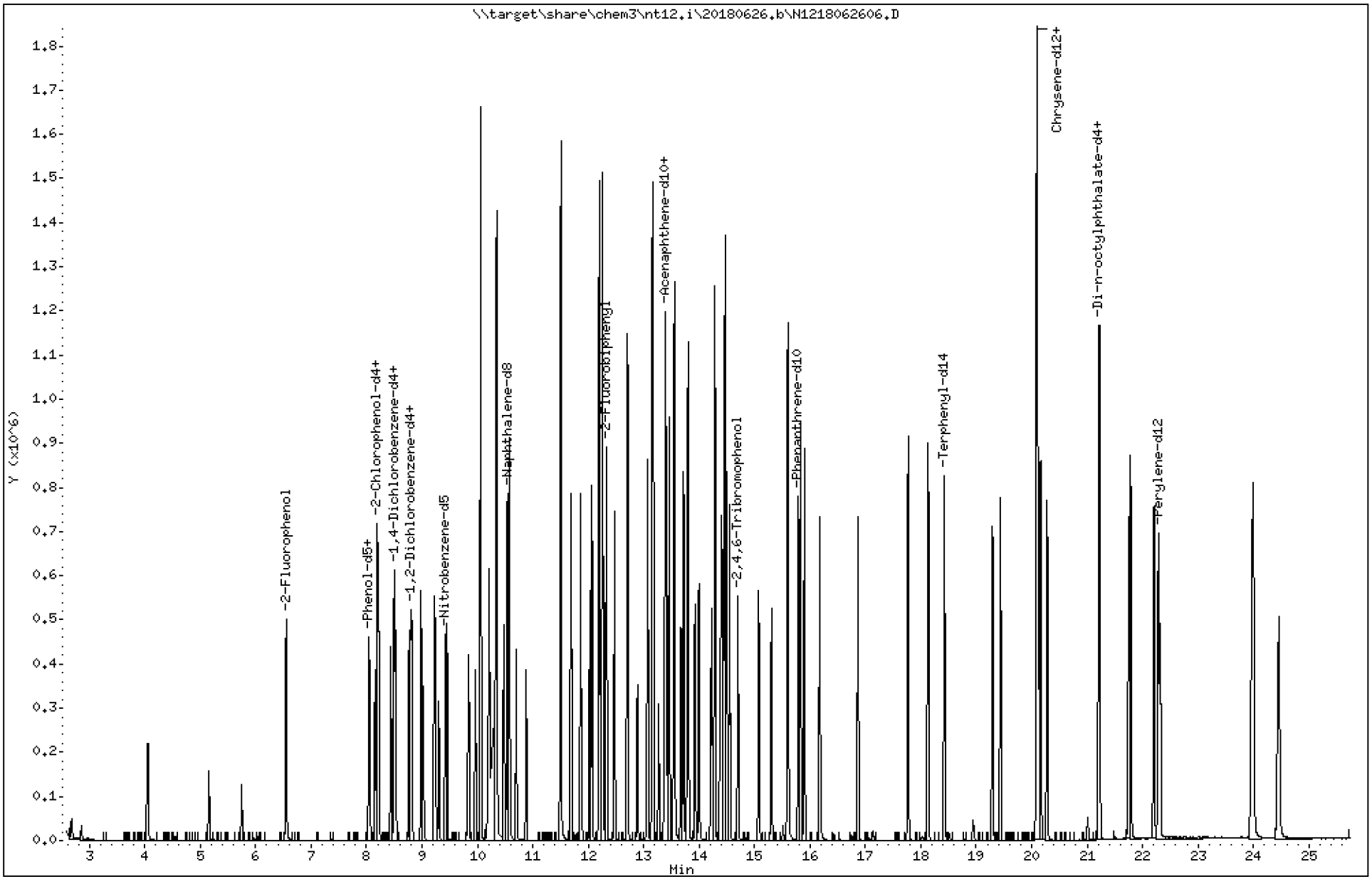
Instrument: nt12.i

Sample Info: BGF0515-BS1,

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

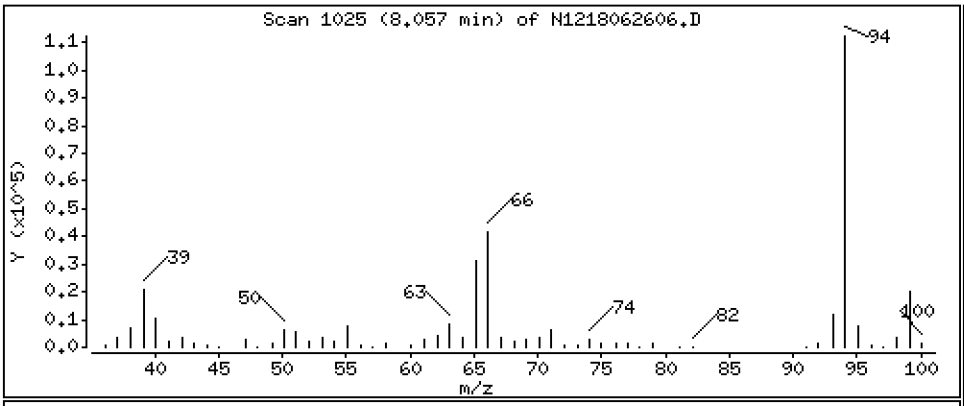
Operator: JZ

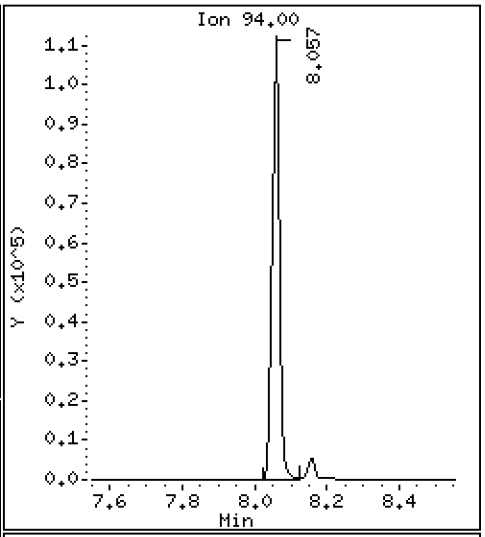
Column phase: ZB-5msi

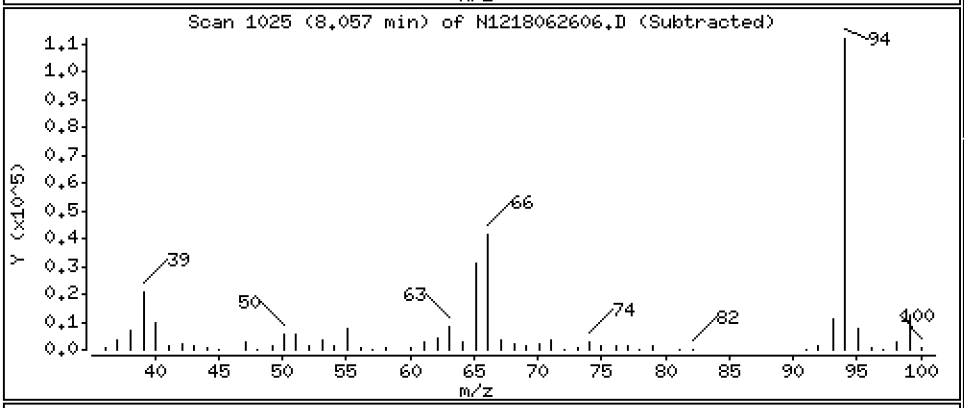
Column diameter: 0.32

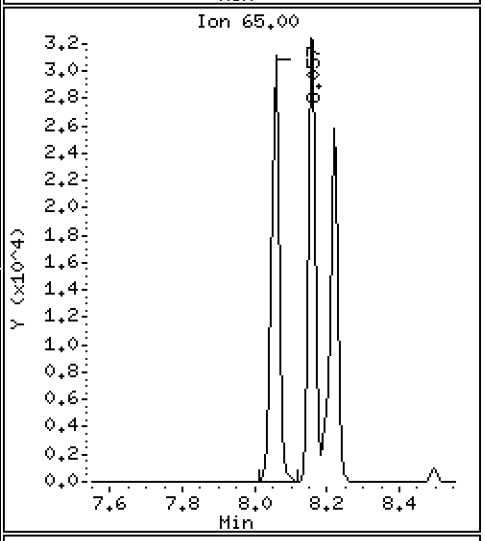
3 Phenol

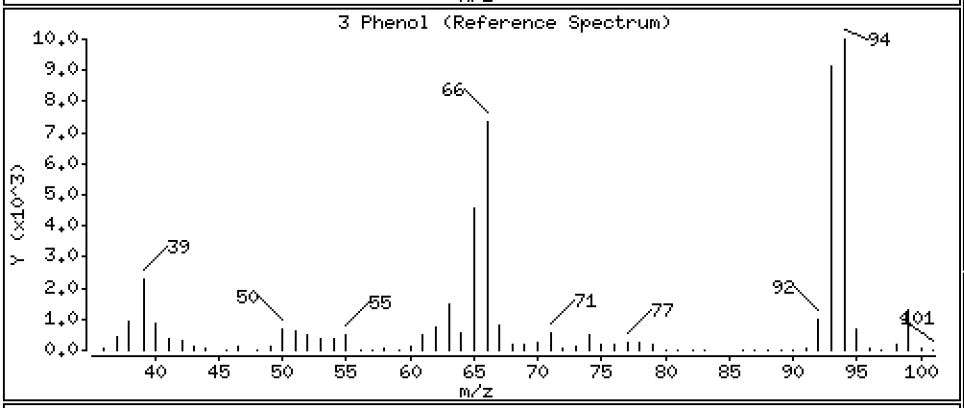
Concentration: 10.85 ug/mL

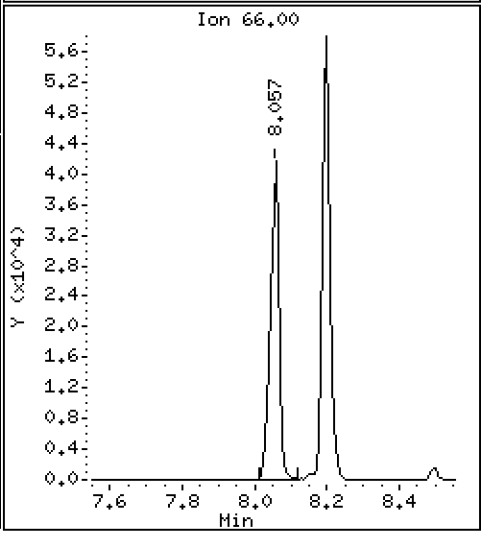


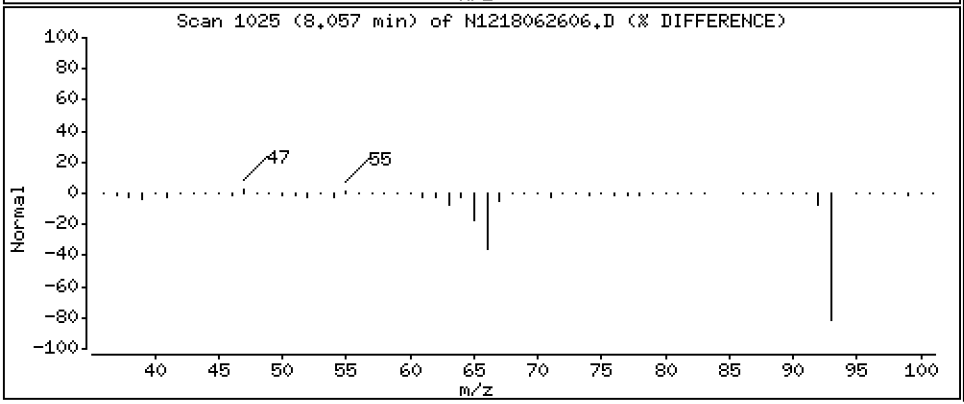












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

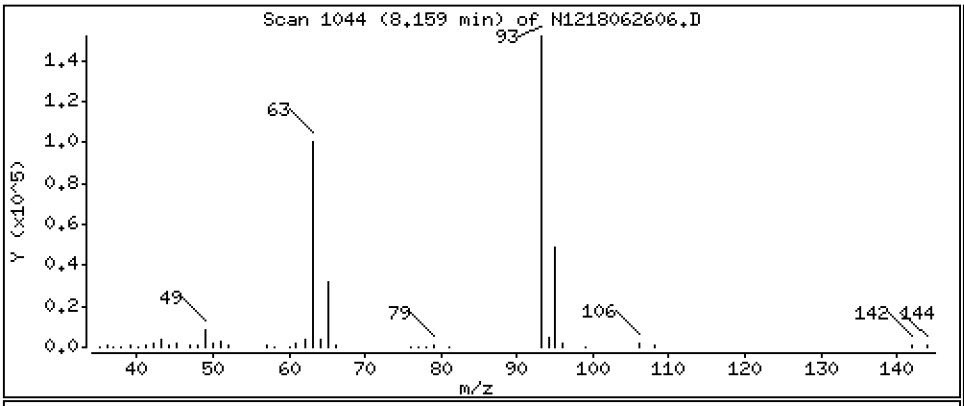
Operator: JZ

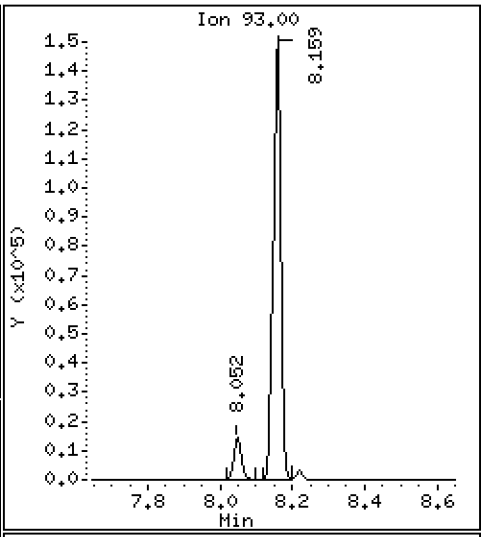
Column phase: ZB-5msi

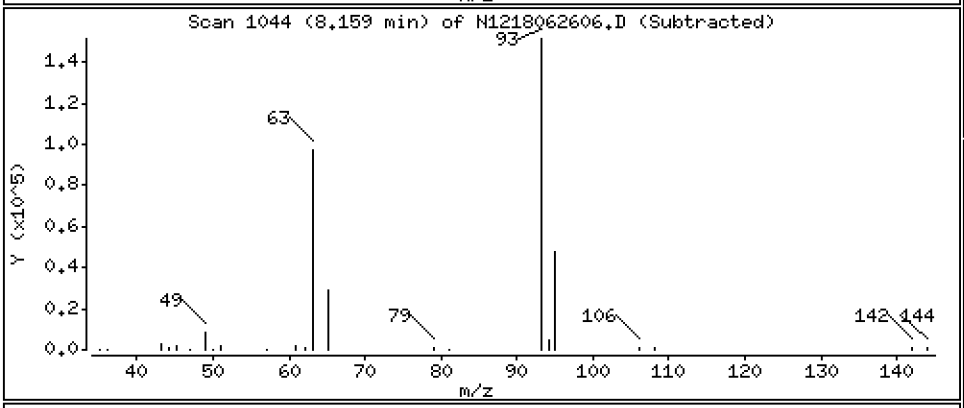
Column diameter: 0.32

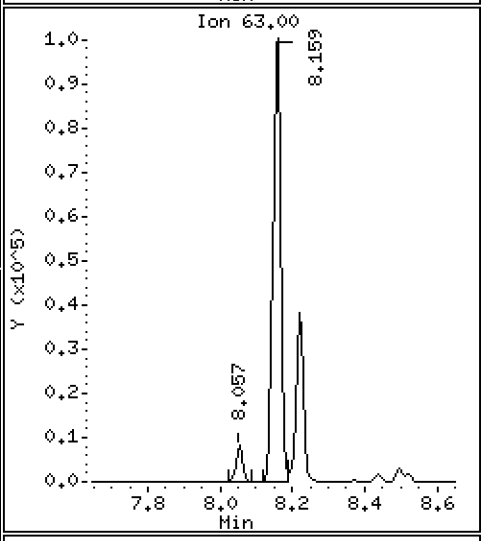
4 Bis(2-Chloroethyl)ether

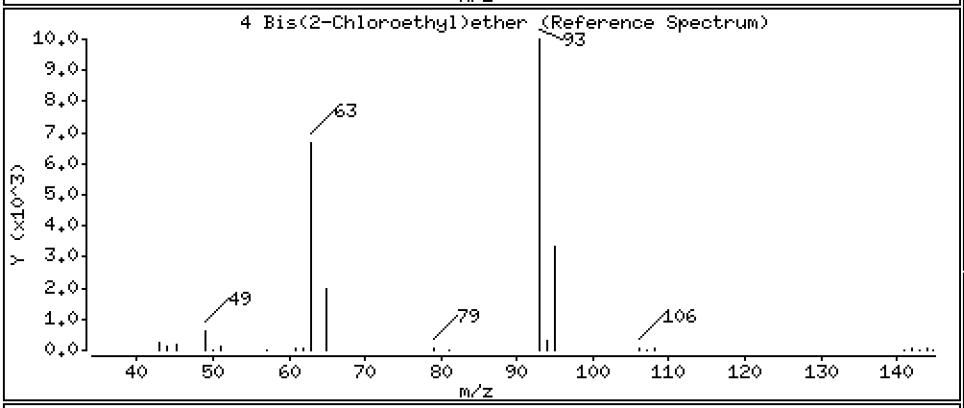
Concentration: 18.37 ug/mL

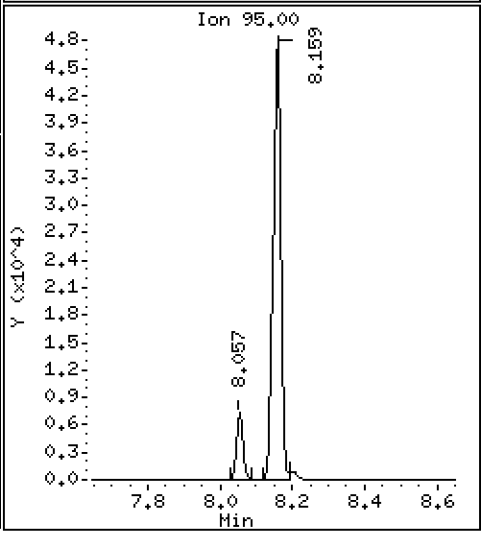


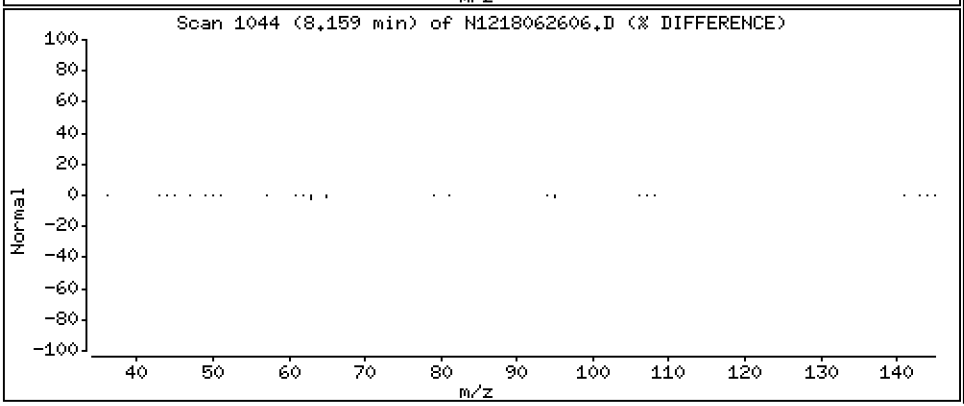












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

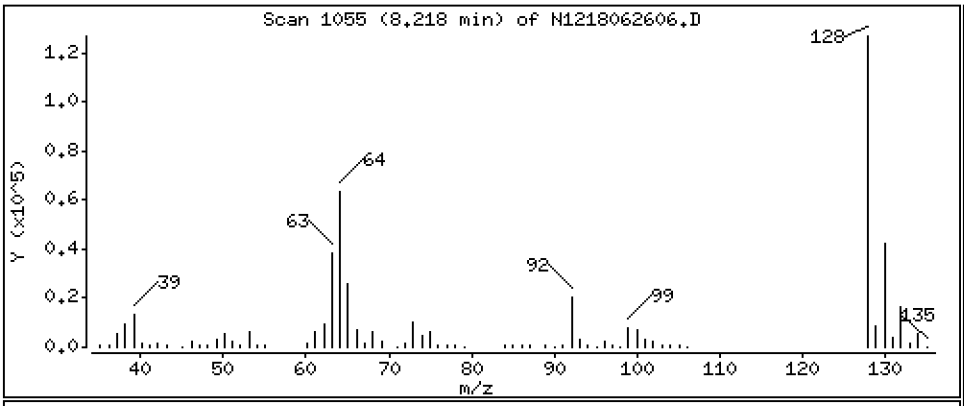
Operator: JZ

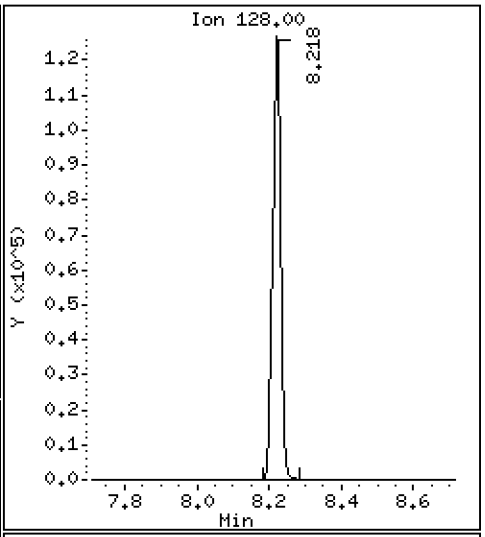
Column phase: ZB-5msi

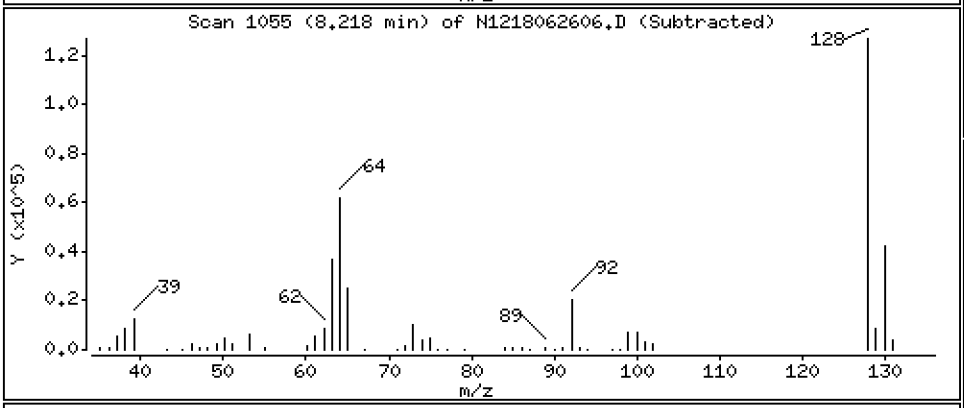
Column diameter: 0.32

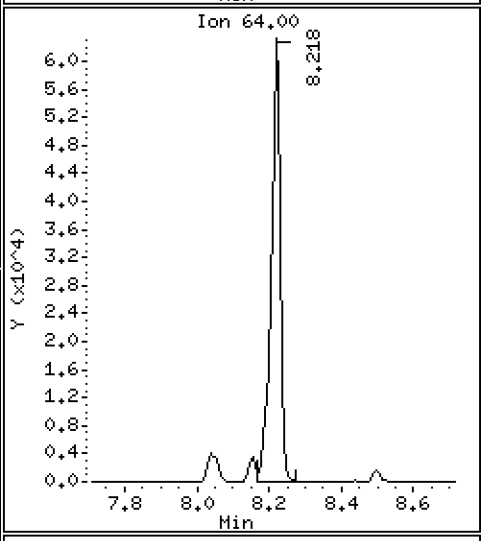
6 2-Chlorophenol

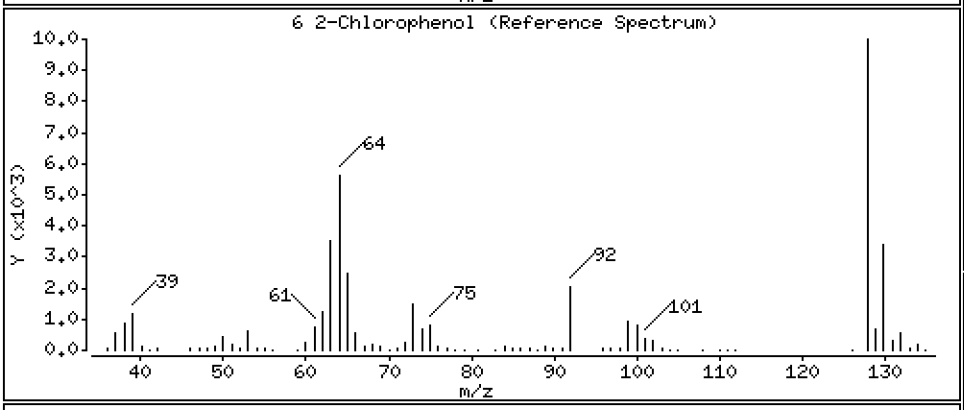
Concentration: 16.39 ug/mL

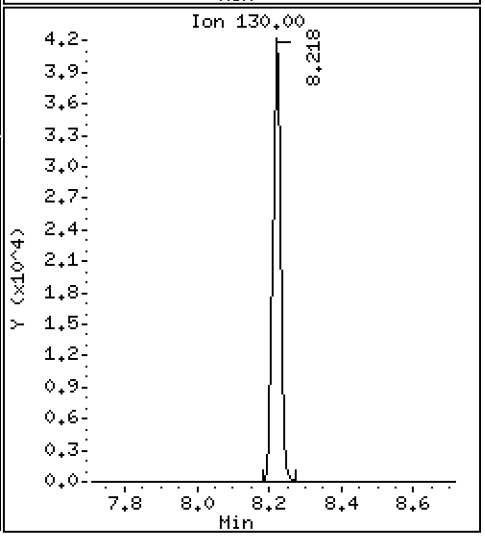


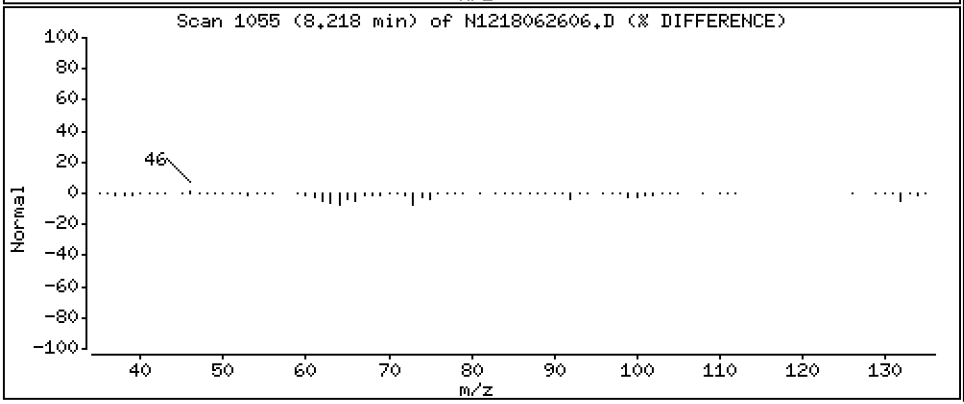












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

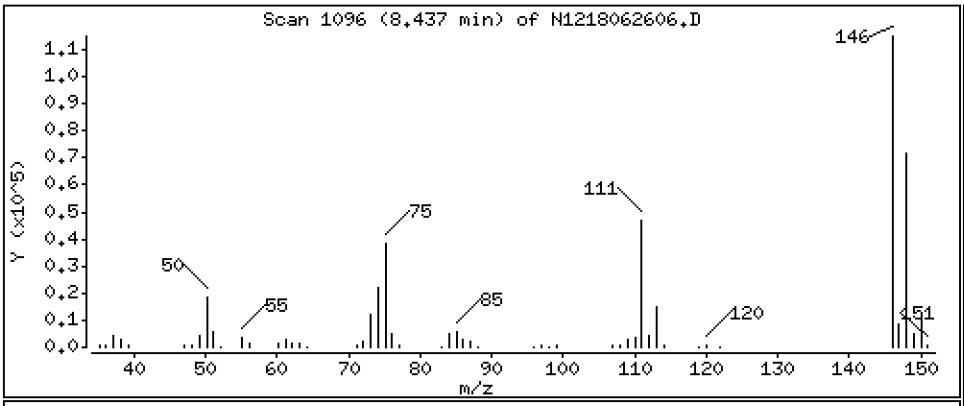
Operator: JZ

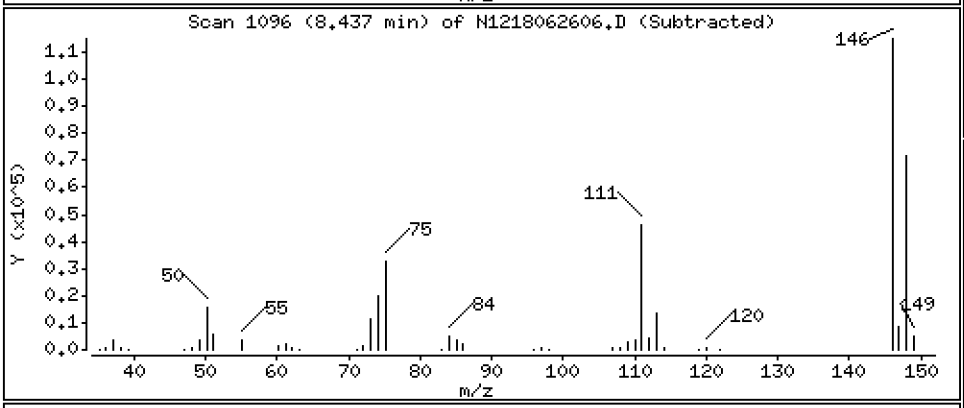
Column phase: ZB-5msi

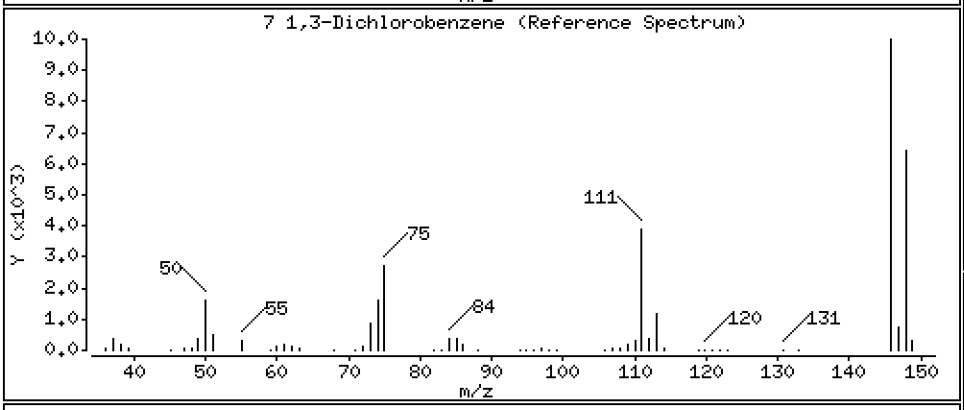
Column diameter: 0.32

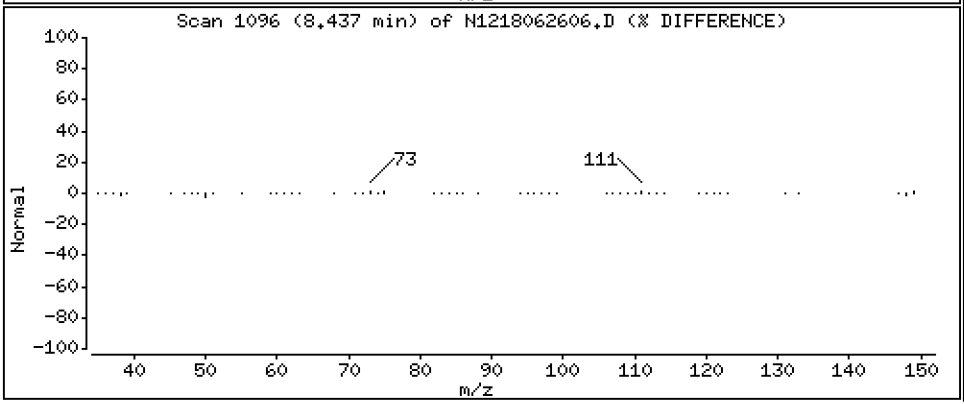
7 1,3-Dichlorobenzene

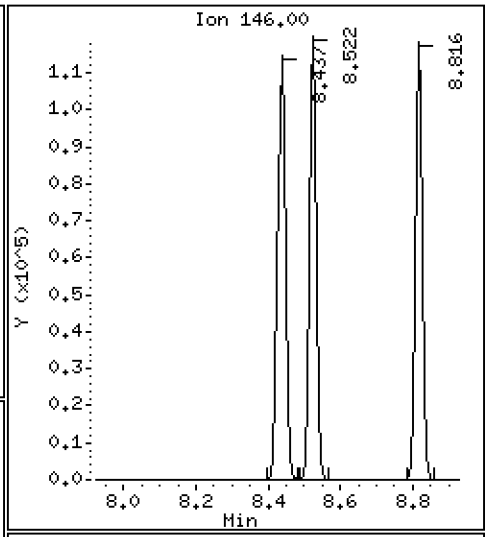
Concentration: 13.65 ug/mL

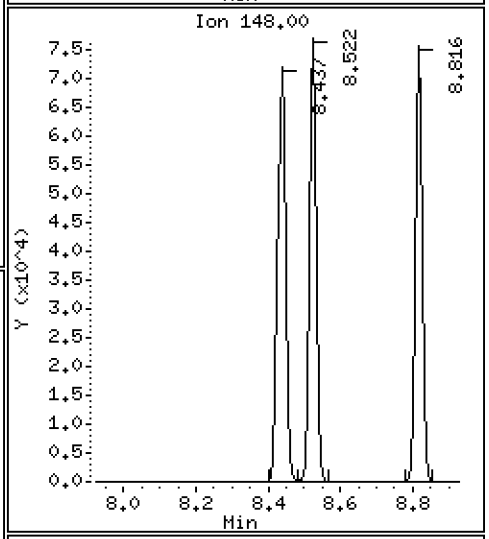


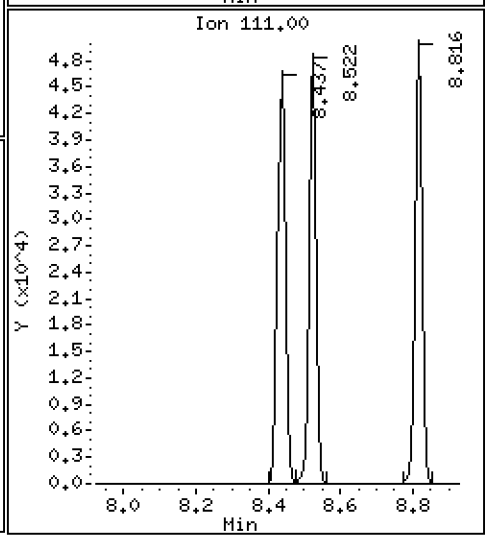












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

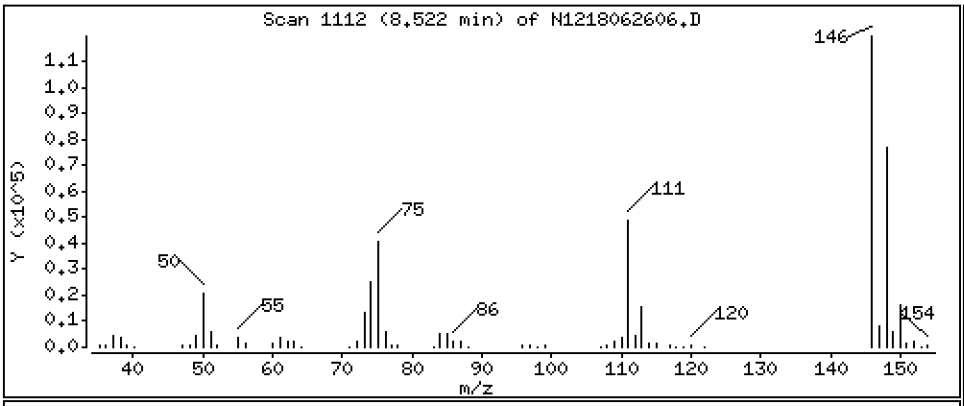
Operator: JZ

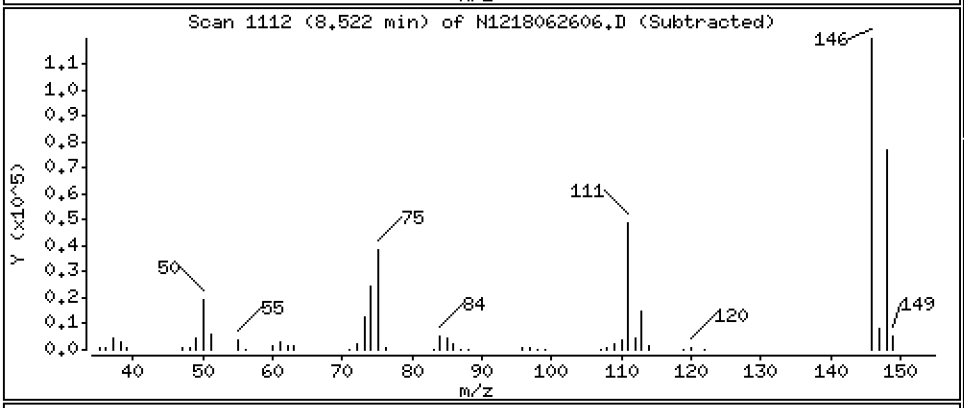
Column phase: ZB-5msi

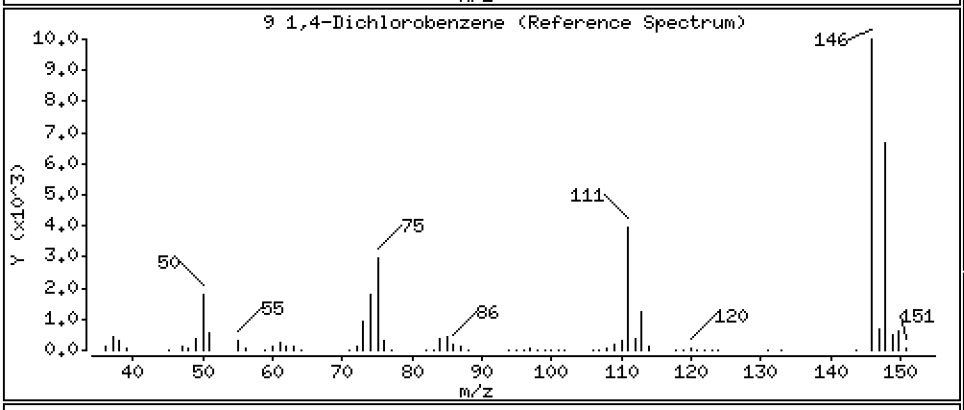
Column diameter: 0.32

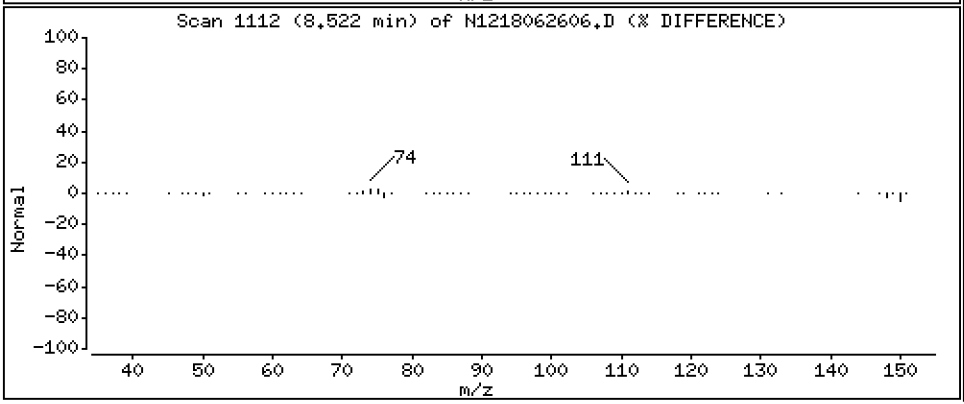
9 1,4-Dichlorobenzene

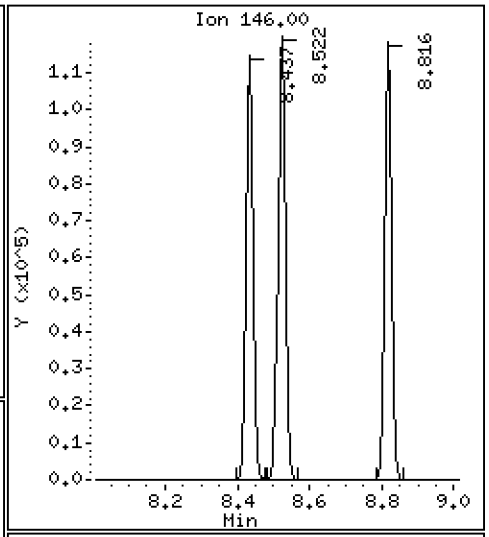
Concentration: 14.04 ug/mL

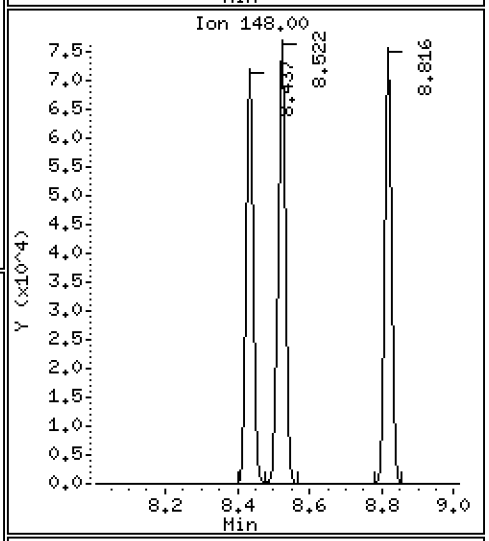


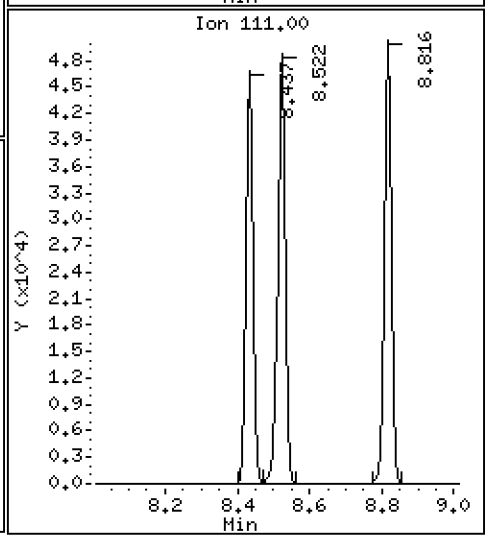












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

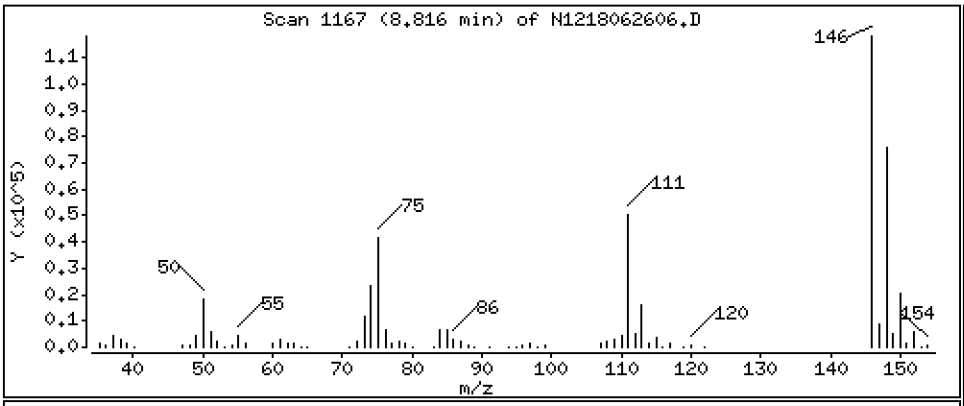
Operator: JZ

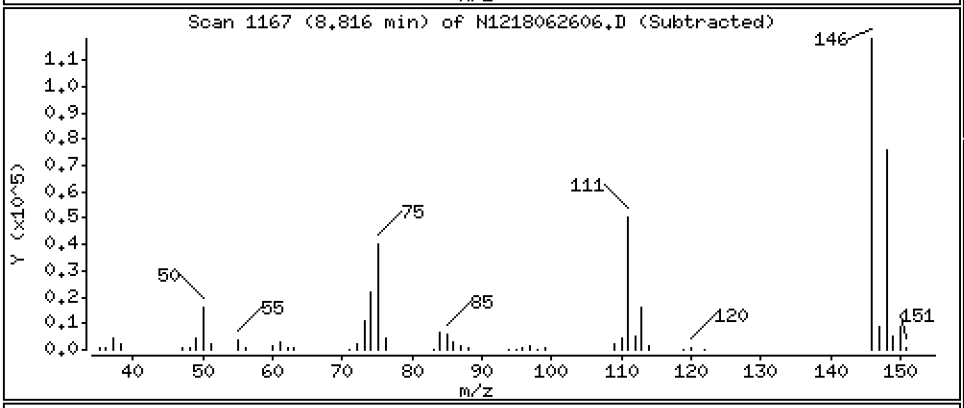
Column phase: ZB-5msi

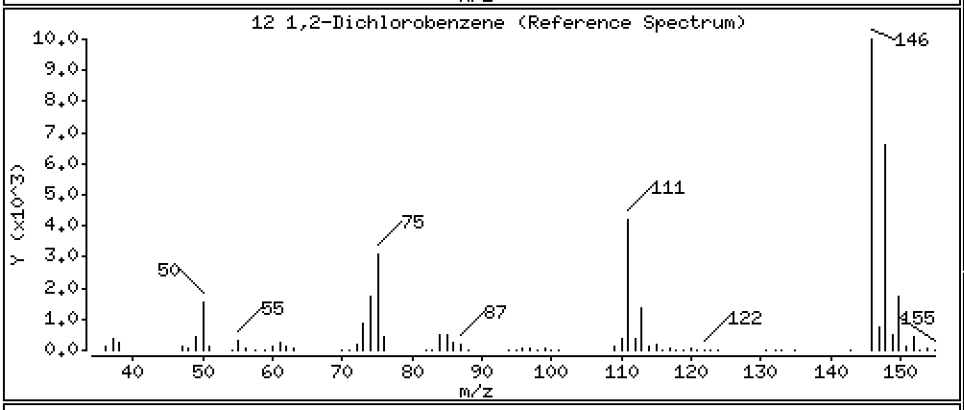
Column diameter: 0.32

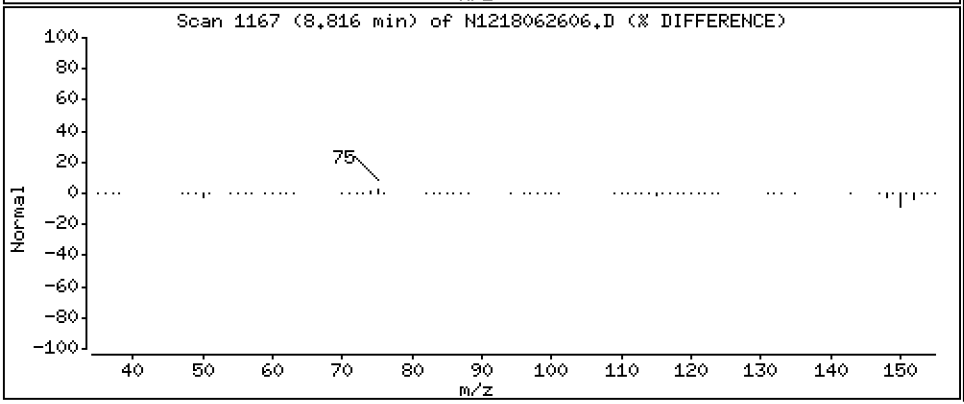
12 1,2-Dichlorobenzene

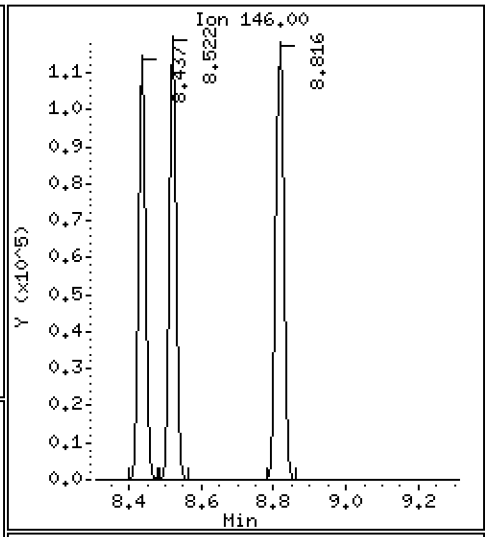
Concentration: 14.76 ug/mL

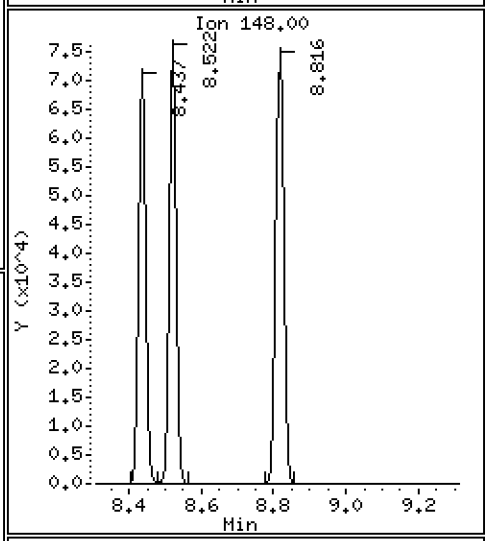


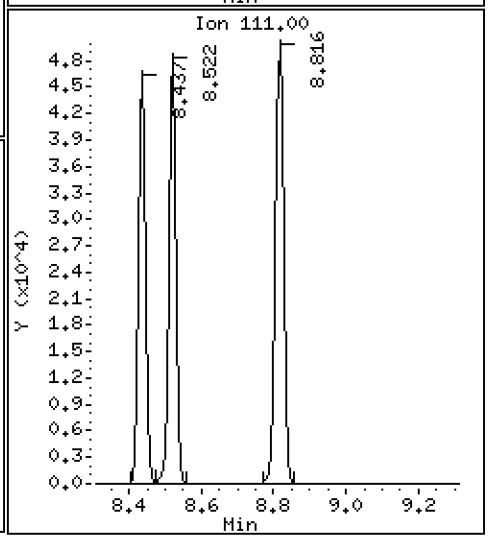












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

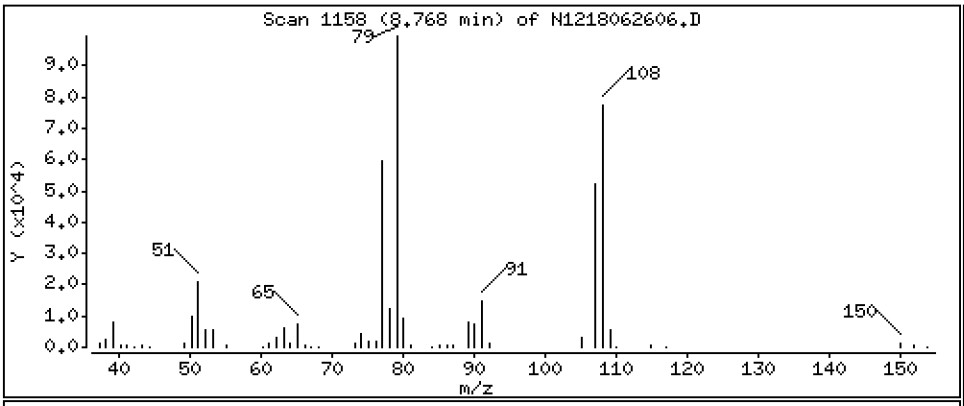
Operator: JZ

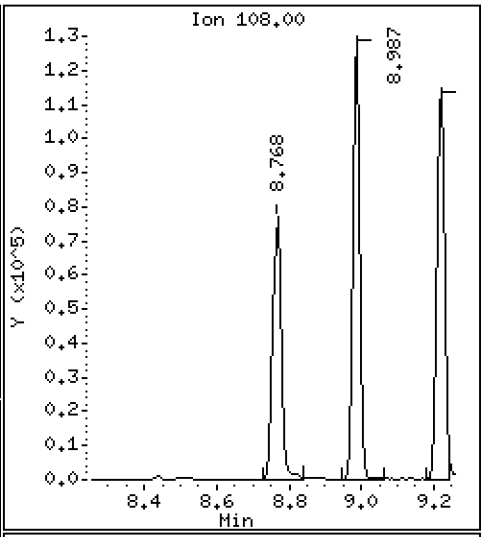
Column phase: ZB-5msi

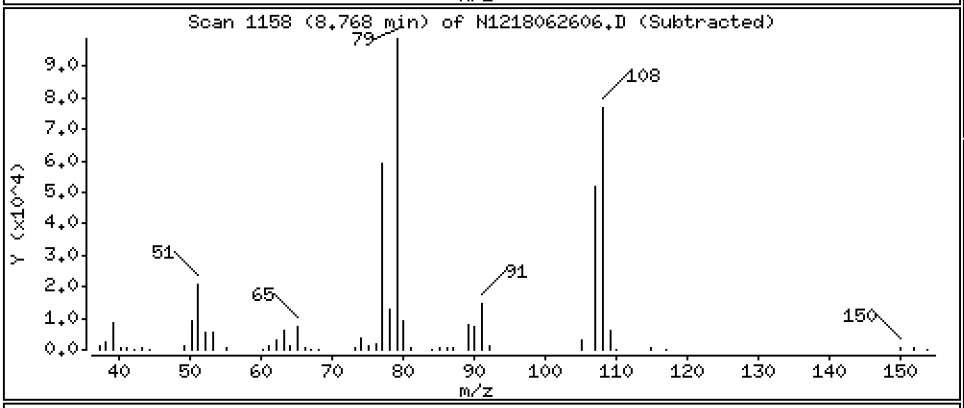
Column diameter: 0.32

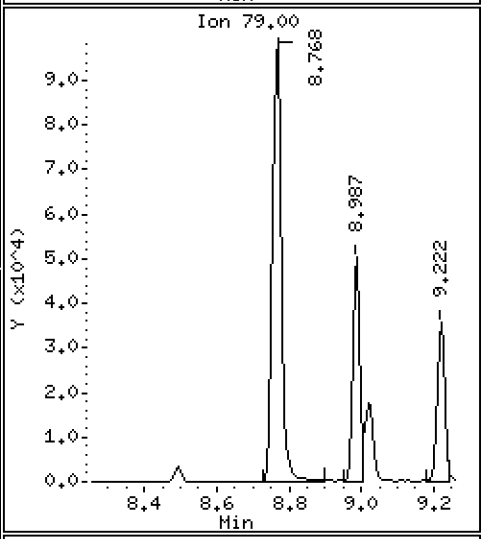
11 Benzyl alcohol

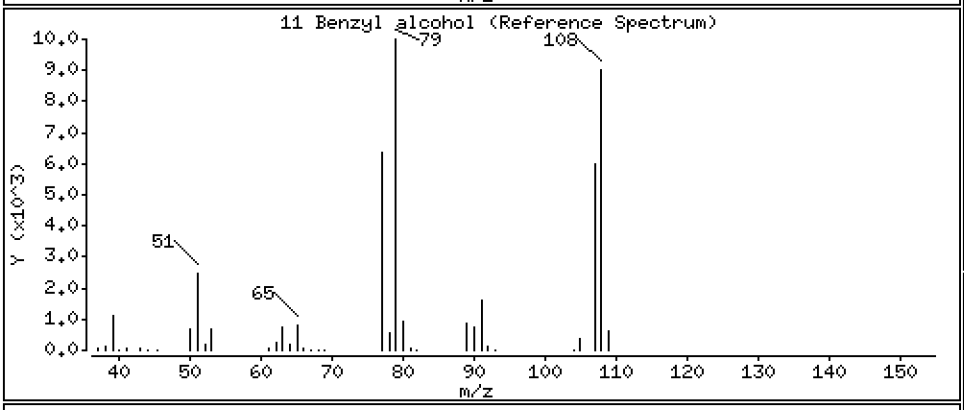
Concentration: 14.46 ug/mL

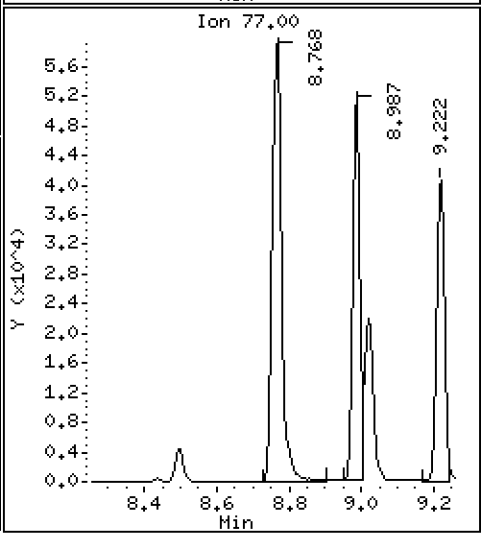


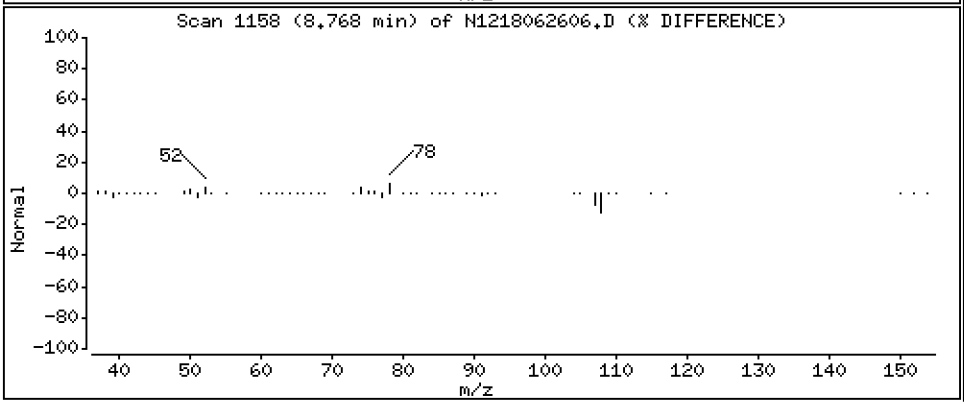












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

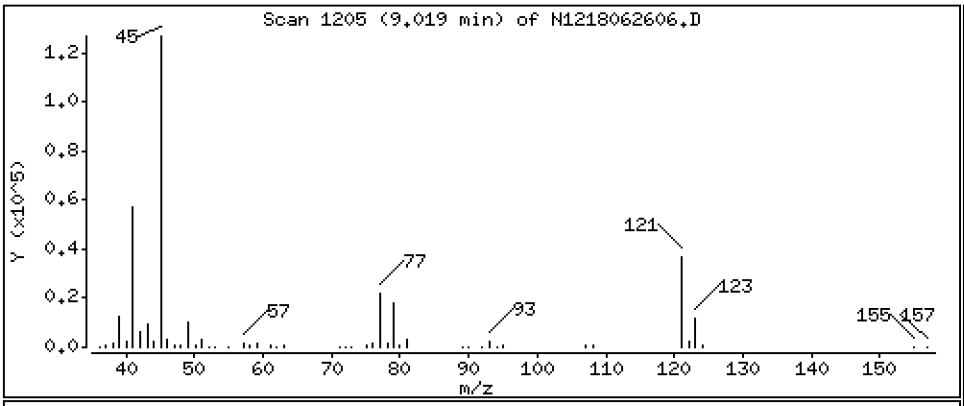
Operator: JZ

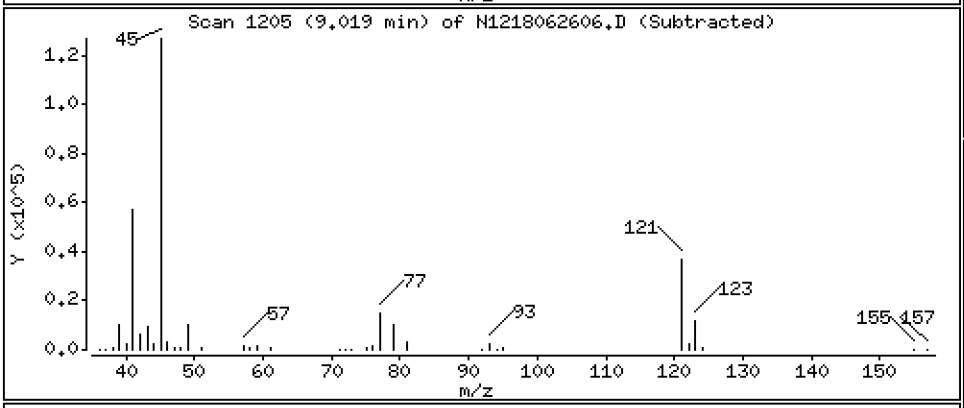
Column phase: ZB-5msi

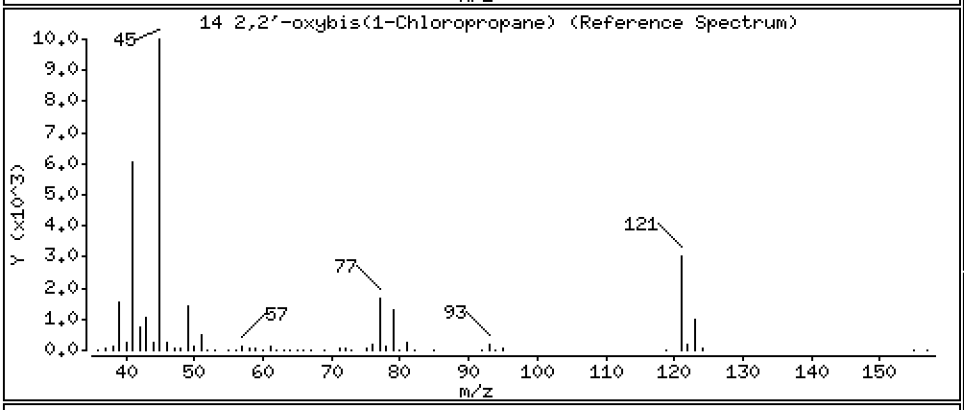
Column diameter: 0.32

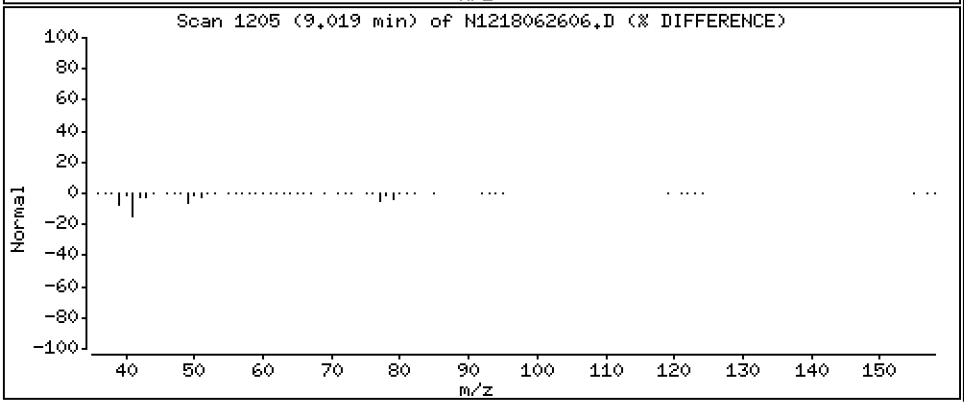
14 2,2'-oxybis(1-Chloropropane)

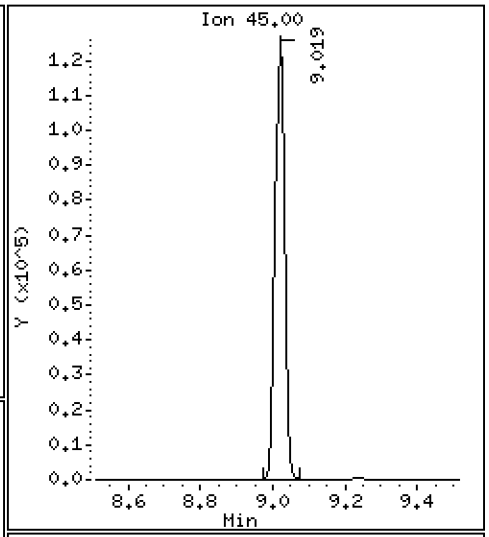
Concentration: 18.71 ug/mL

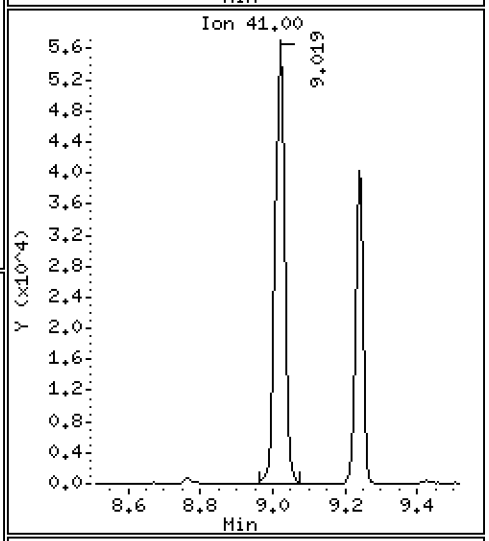


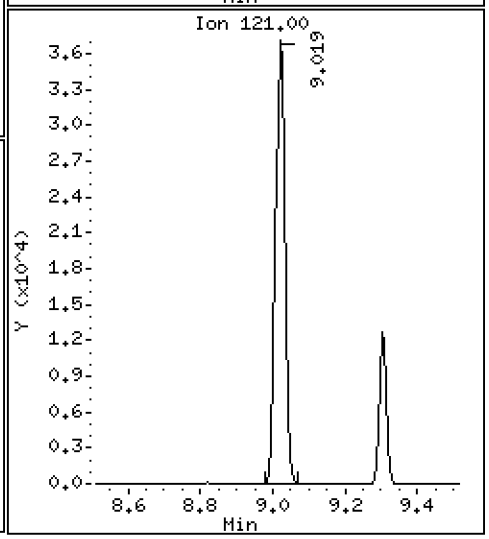












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

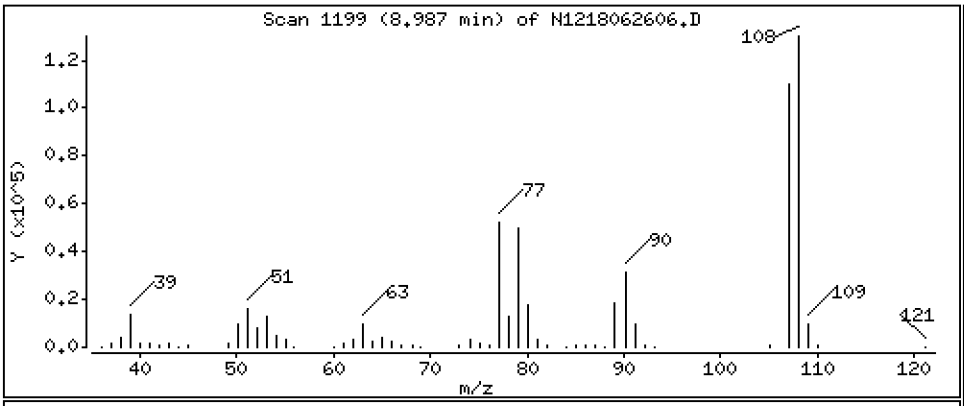
Operator: JZ

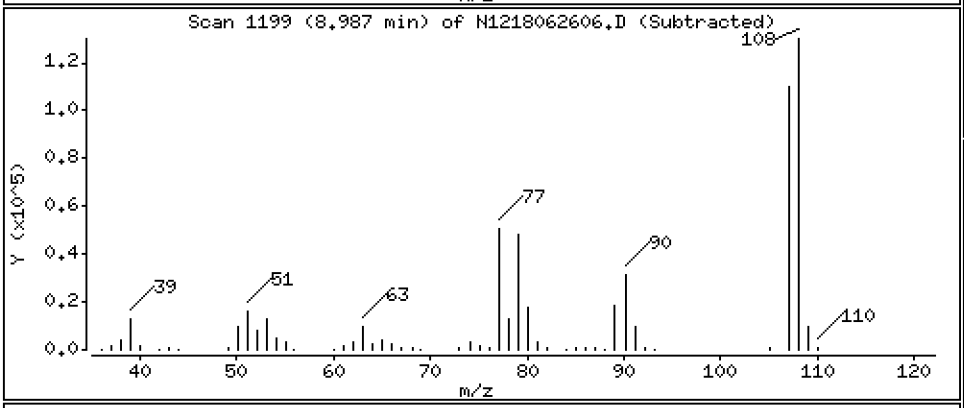
Column phase: ZB-5msi

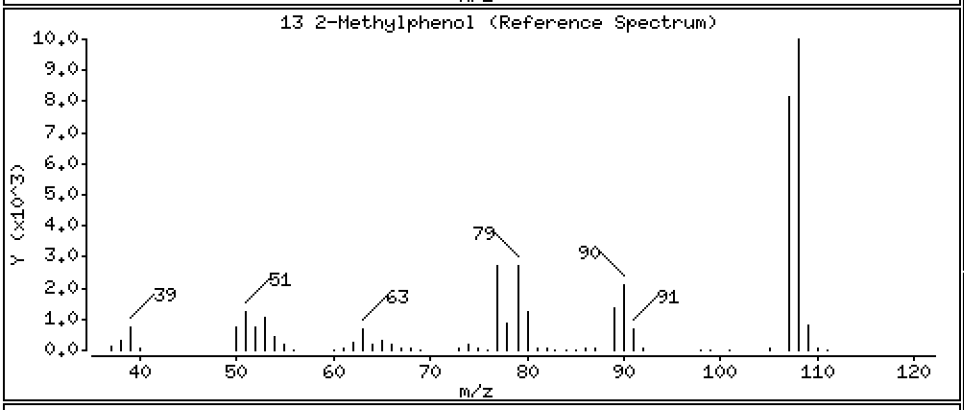
Column diameter: 0.32

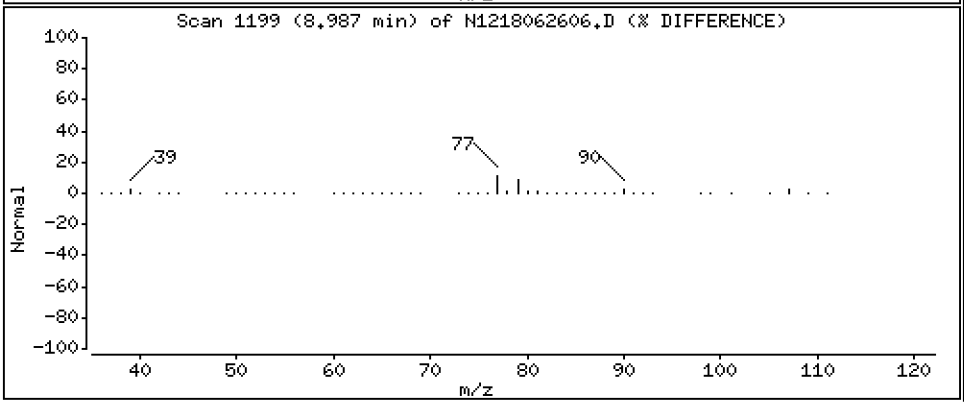
13 2-Methylphenol

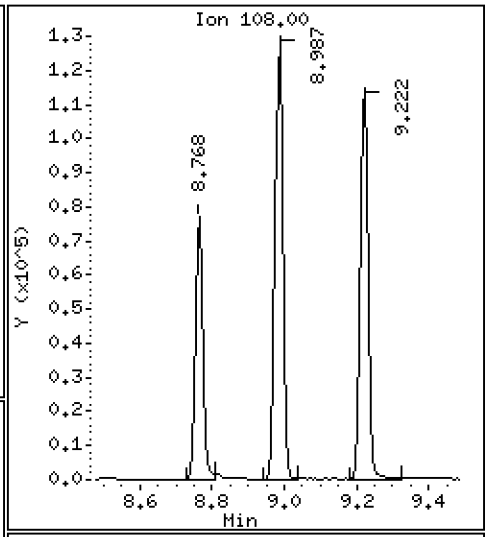
Concentration: 16.47 ug/mL

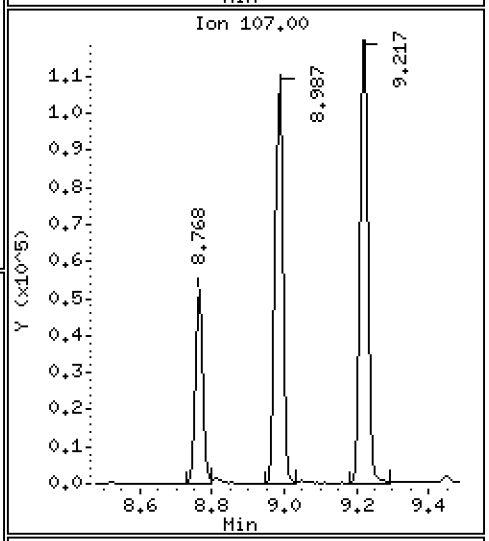


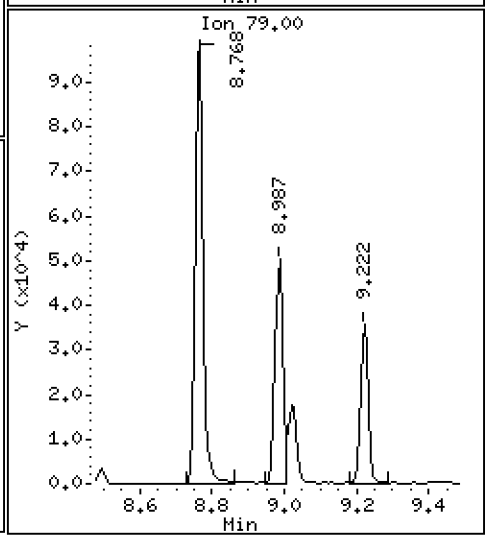












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

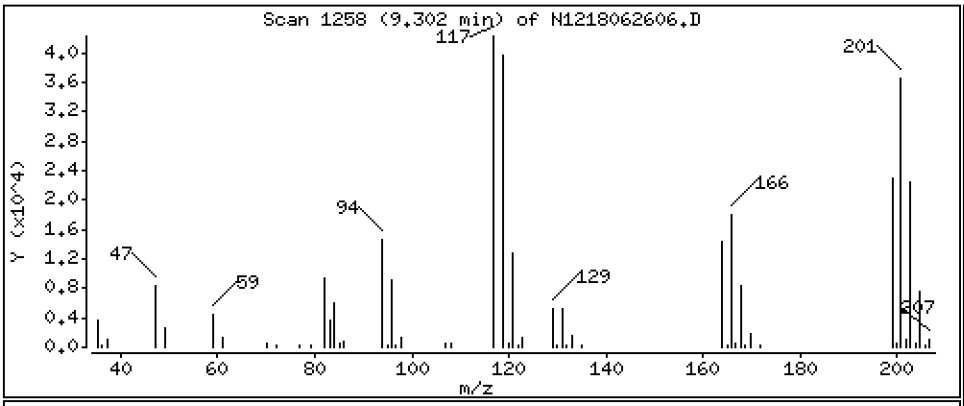
Operator: JZ

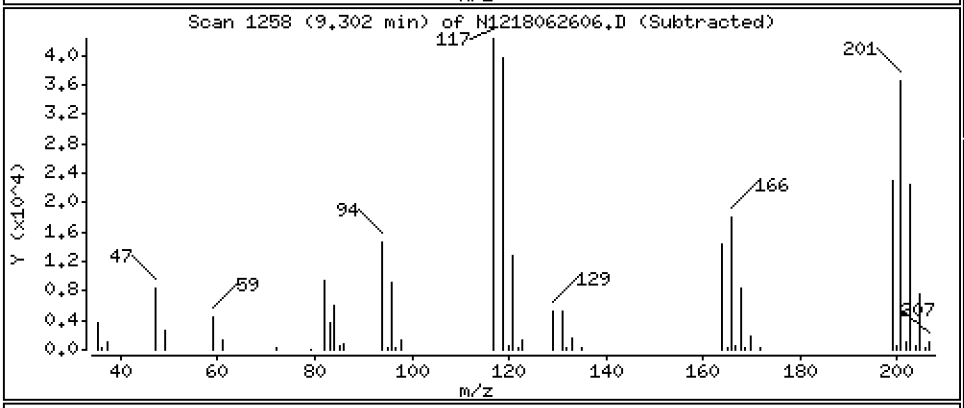
Column phase: ZB-5msi

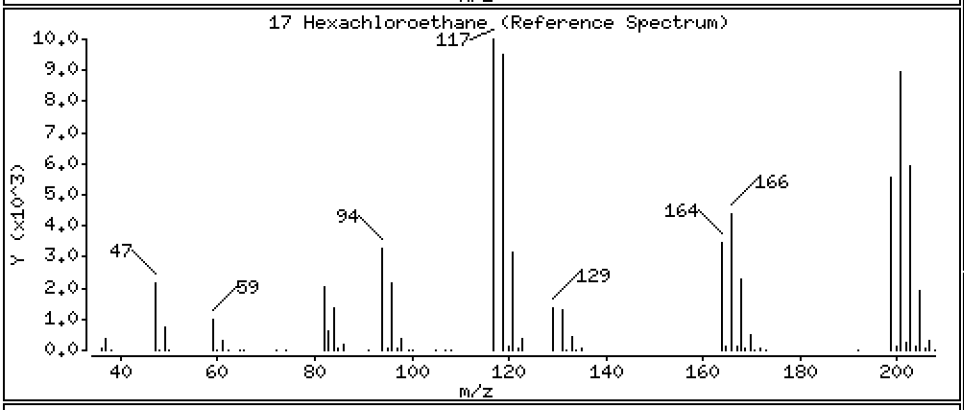
Column diameter: 0.32

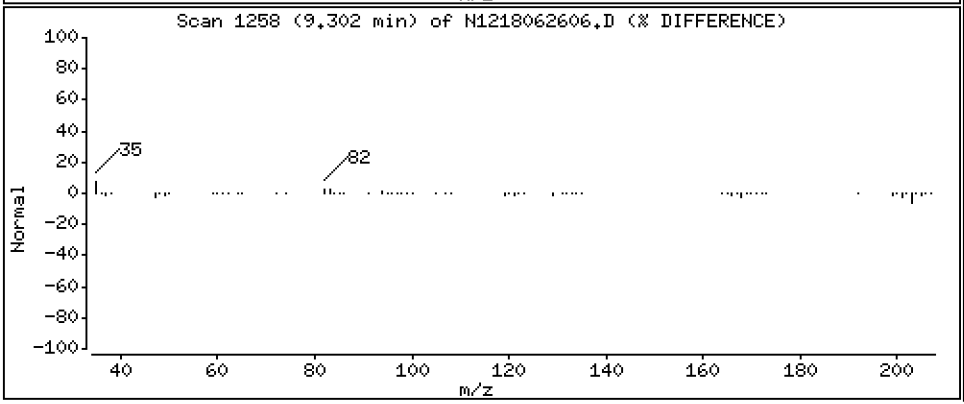
17 Hexachloroethane

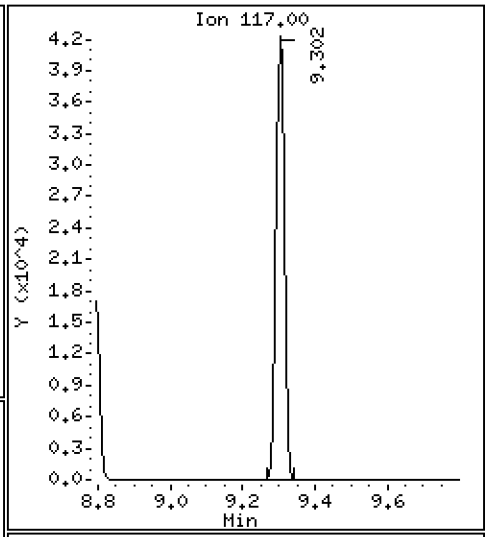
Concentration: 13.23 ug/mL

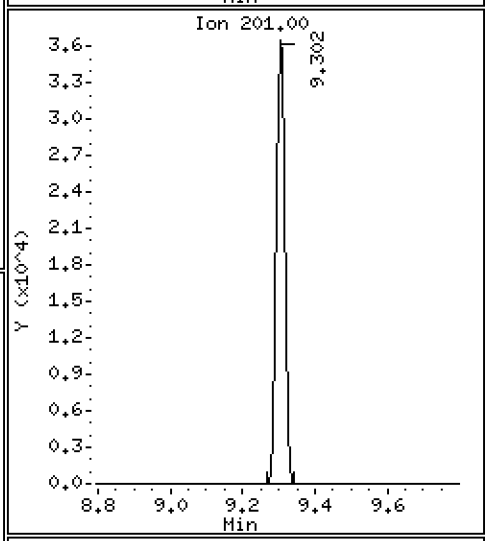


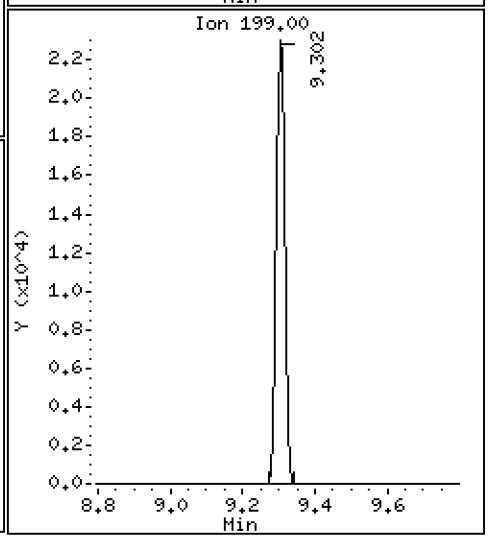












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

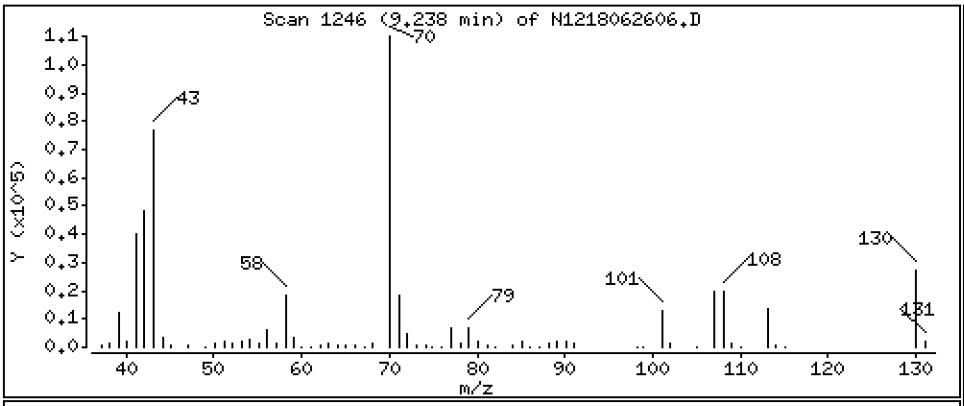
Operator: JZ

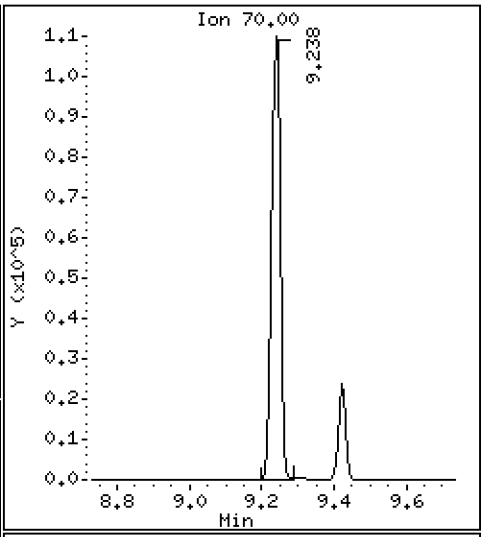
Column phase: ZB-5msi

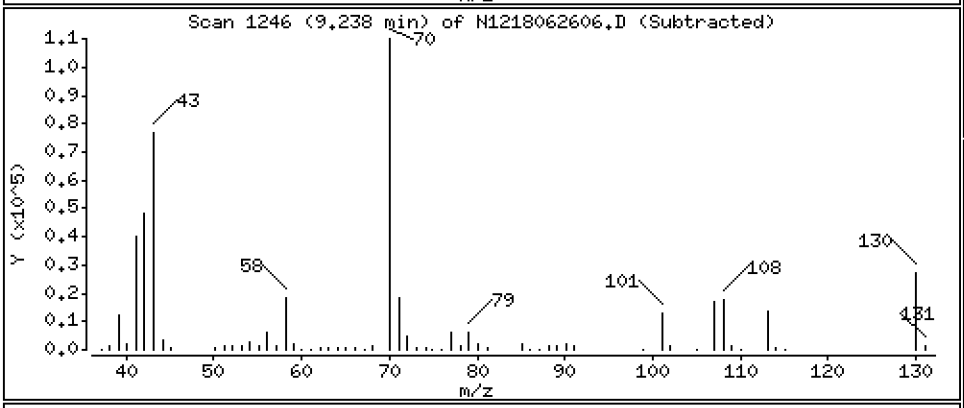
Column diameter: 0.32

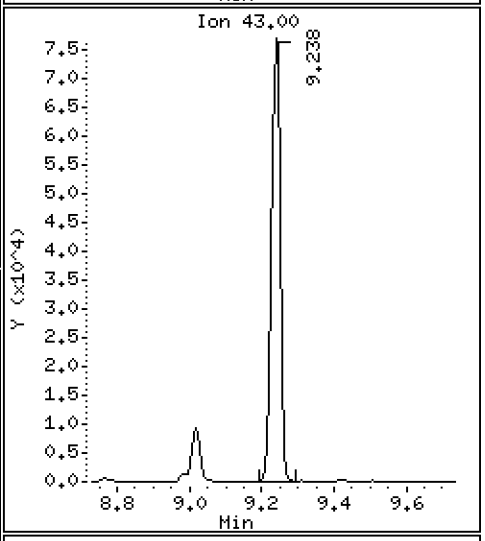
16 N-Nitroso-di-n-propylamine

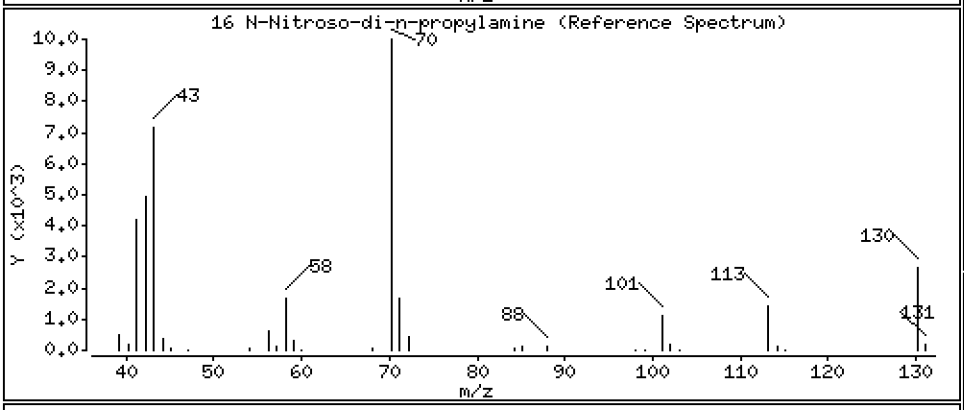
Concentration: 20.46 ug/mL

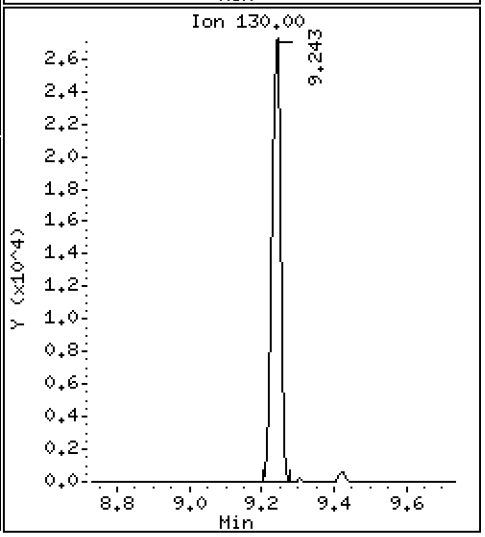


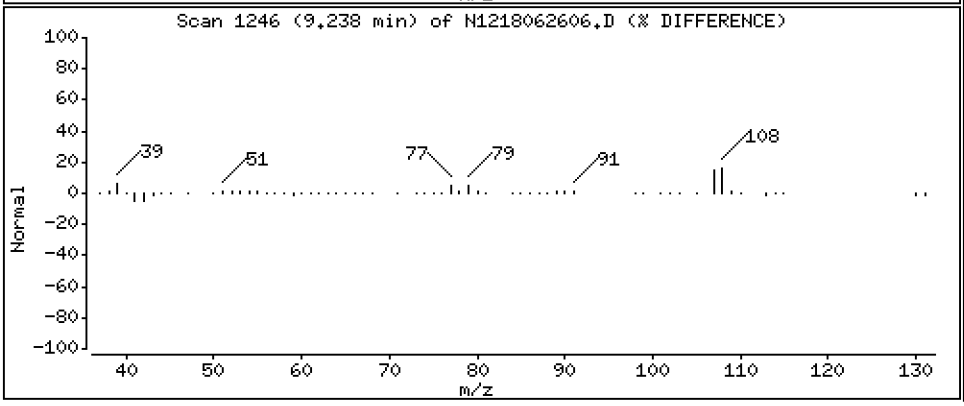












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

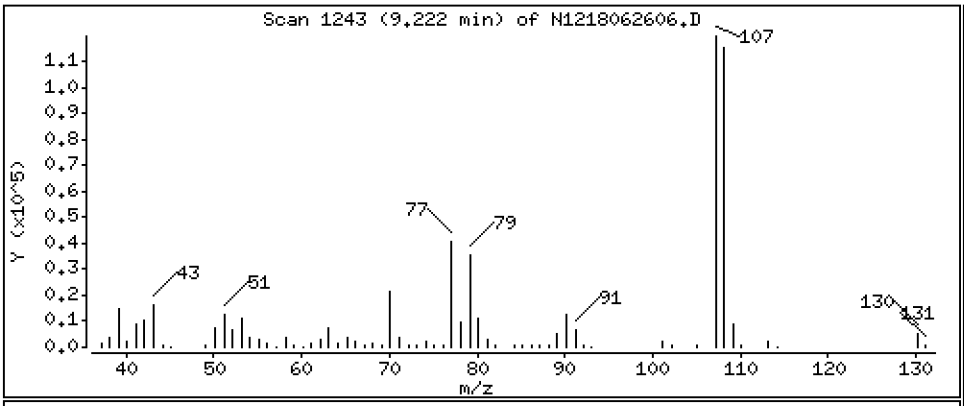
Operator: JZ

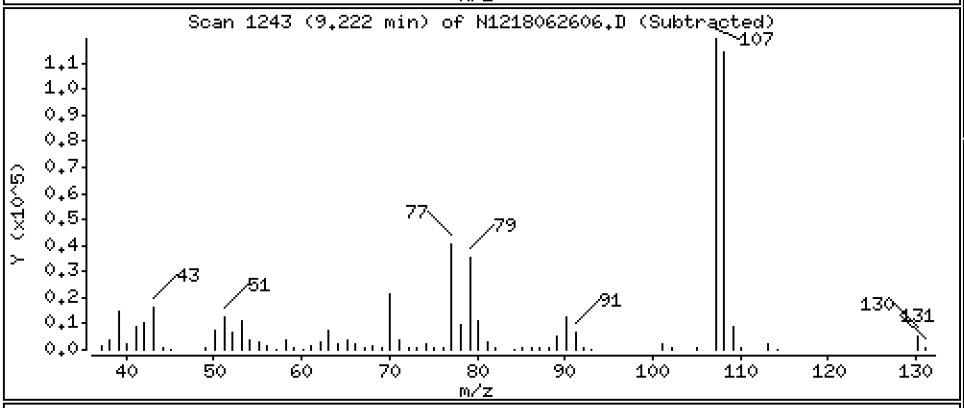
Column phase: ZB-5msi

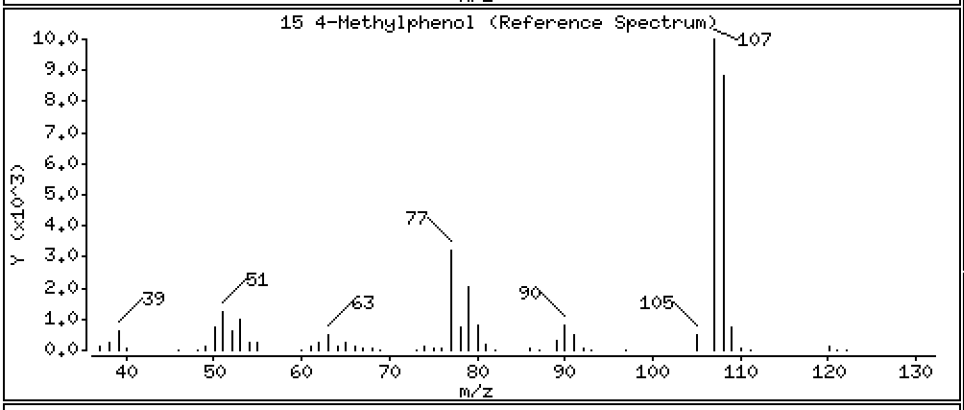
Column diameter: 0.32

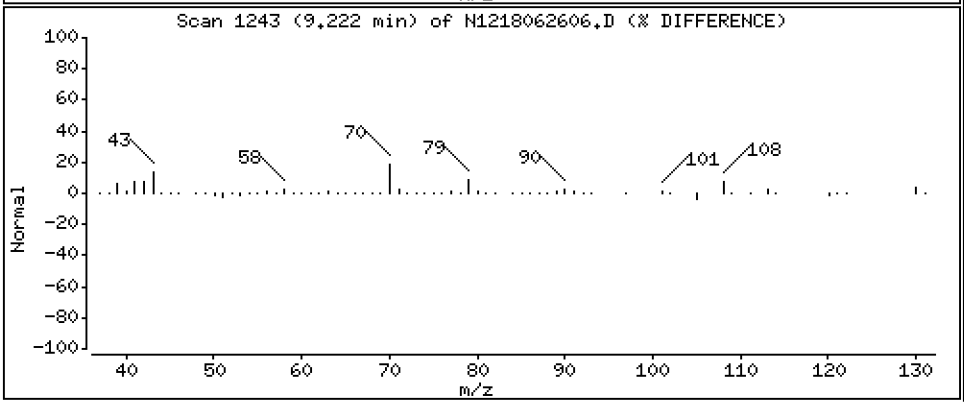
15 4-Methylphenol

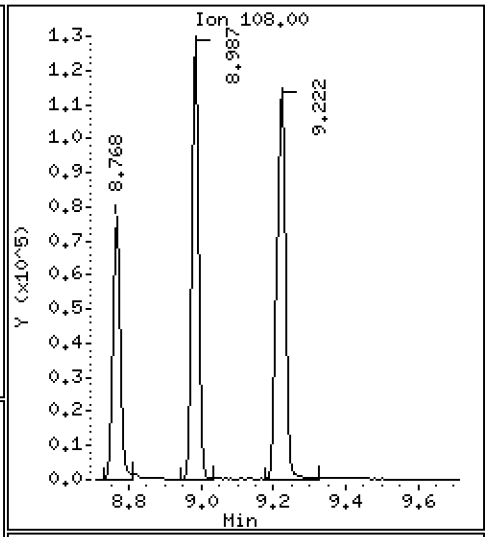
Concentration: 16.94 ug/mL

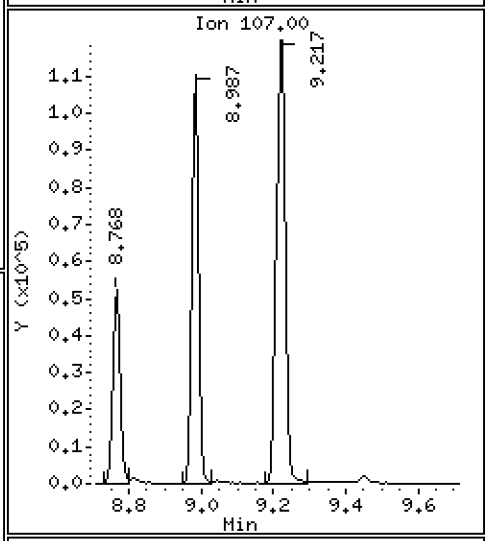


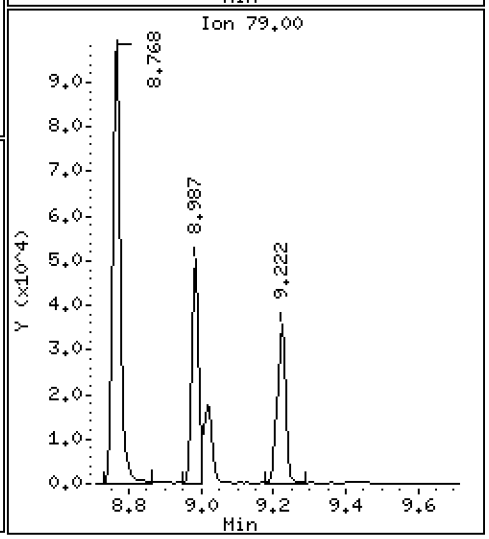












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

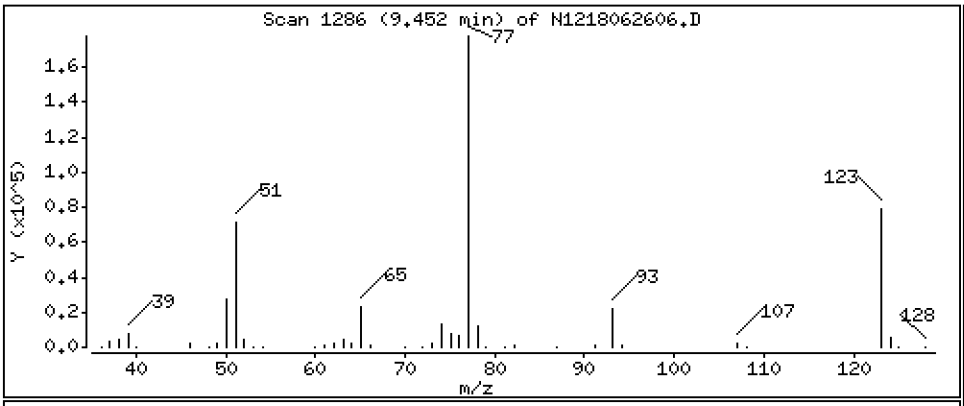
Operator: JZ

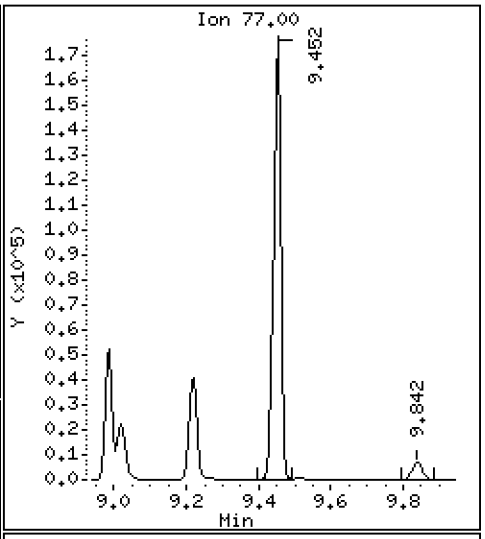
Column phase: ZB-5msi

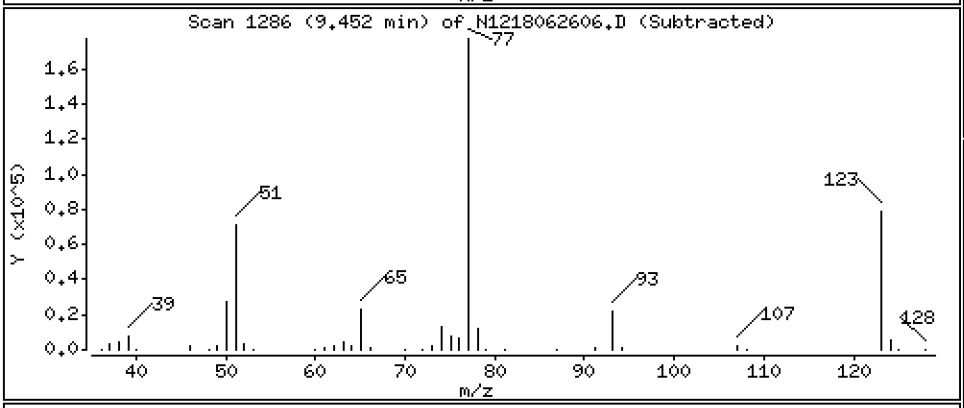
Column diameter: 0.32

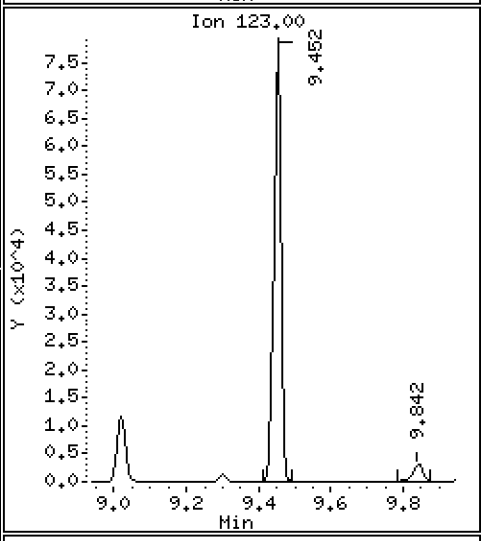
19 Nitrobenzene

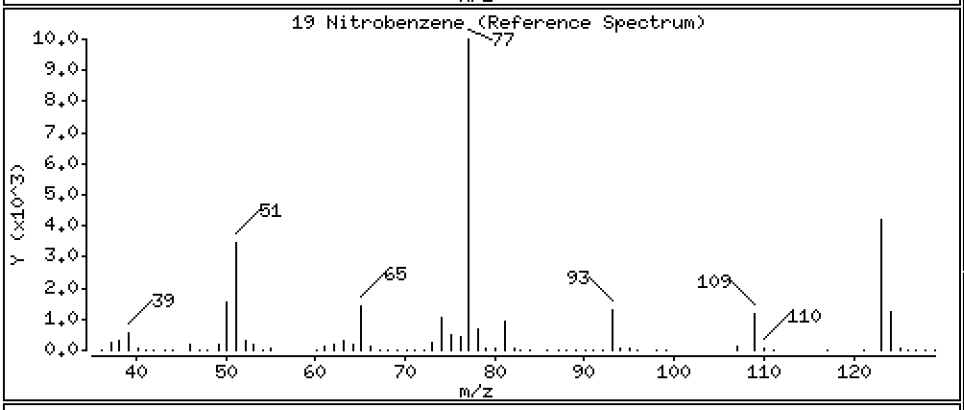
Concentration: 18.79 ug/mL

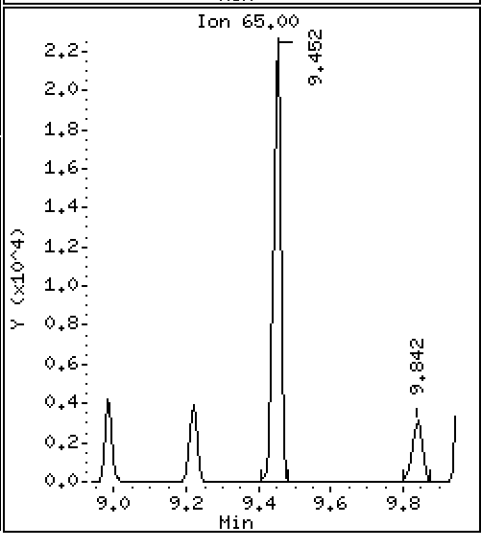


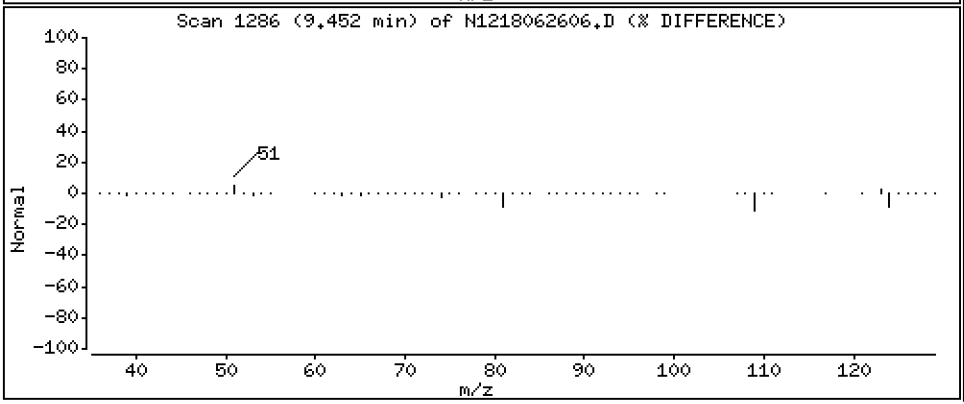












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

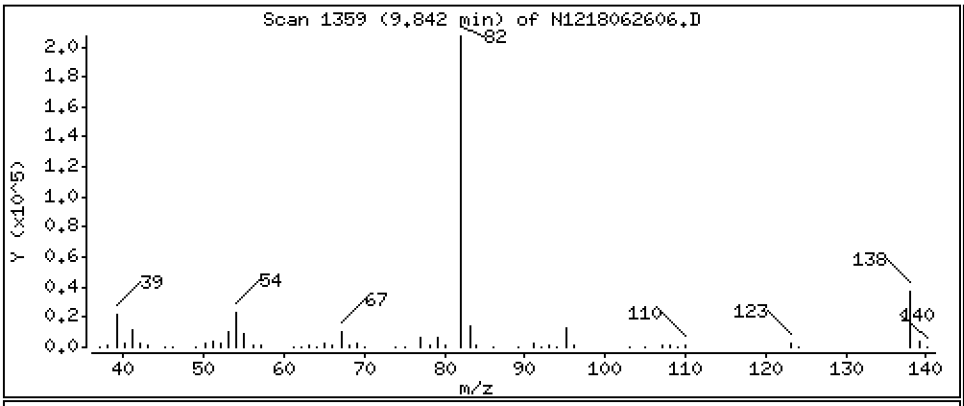
Operator: JZ

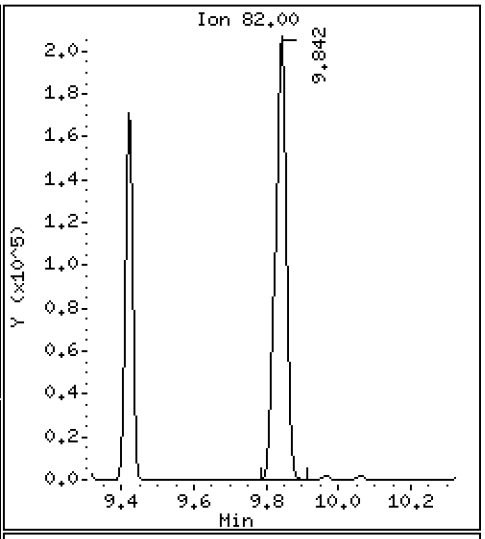
Column phase: ZB-5msi

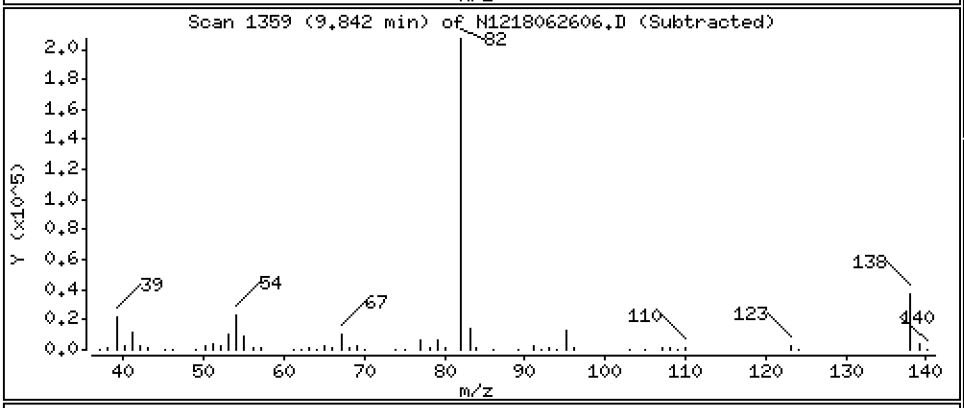
Column diameter: 0.32

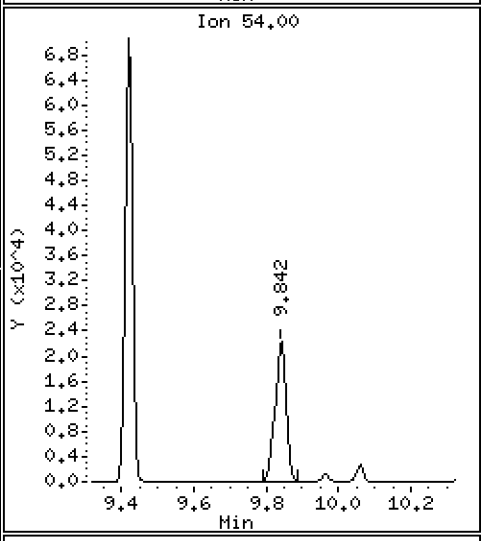
20 Isophorone

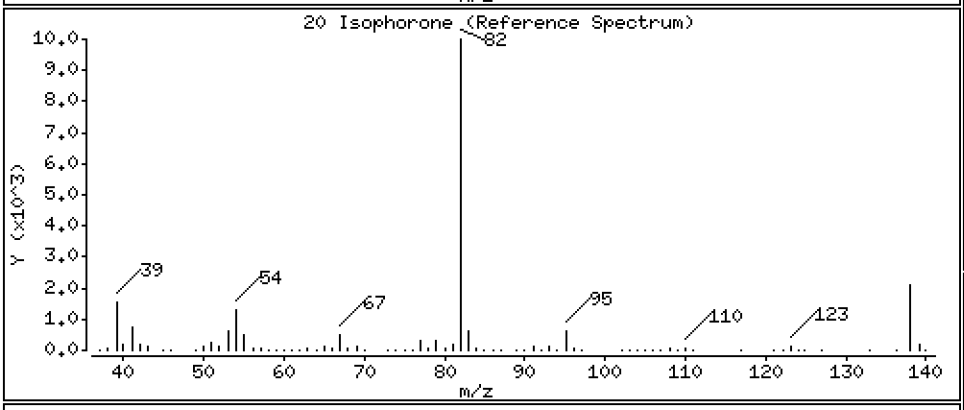
Concentration: 22.52 ug/mL

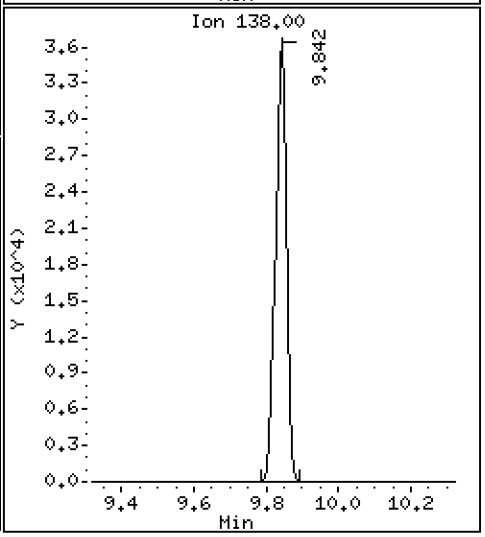


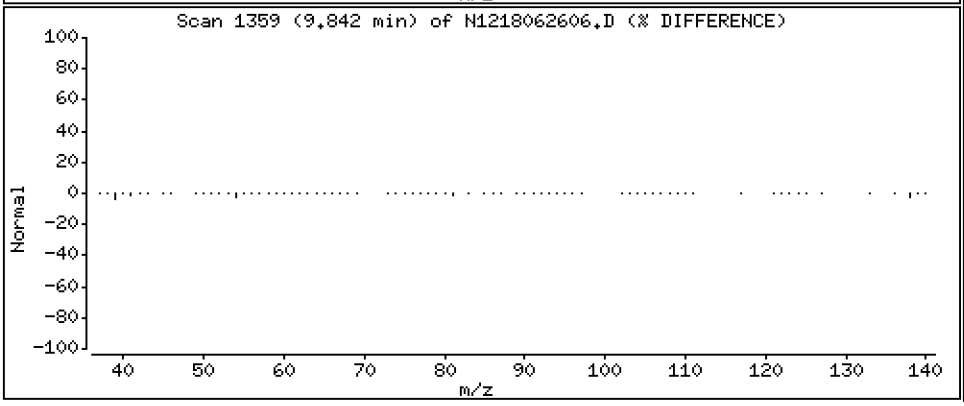












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

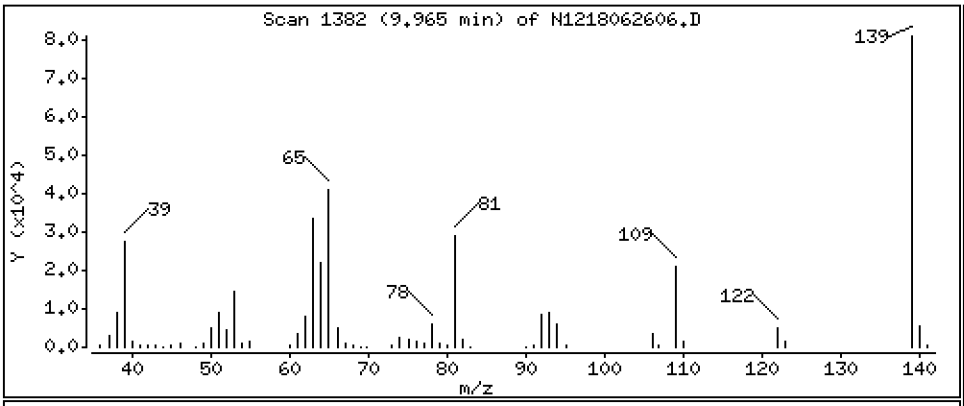
Operator: JZ

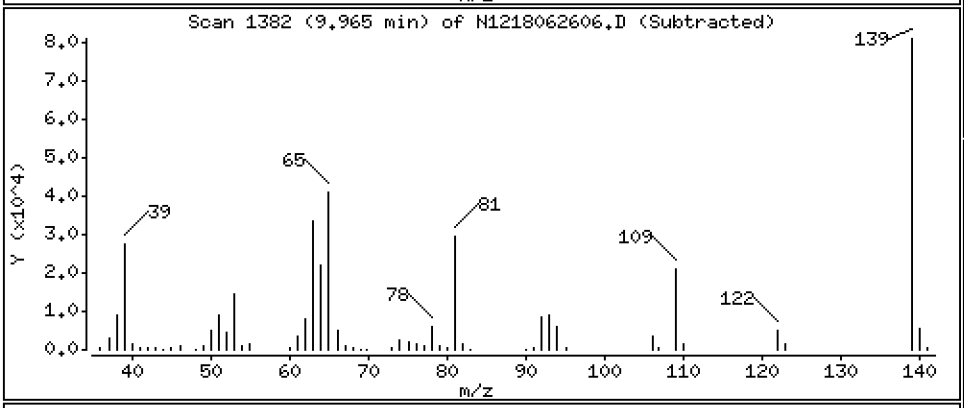
Column phase: ZB-5msi

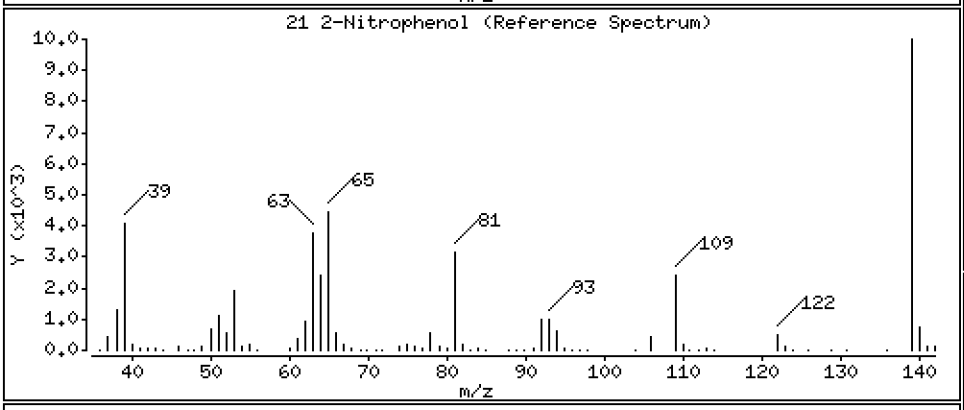
Column diameter: 0.32

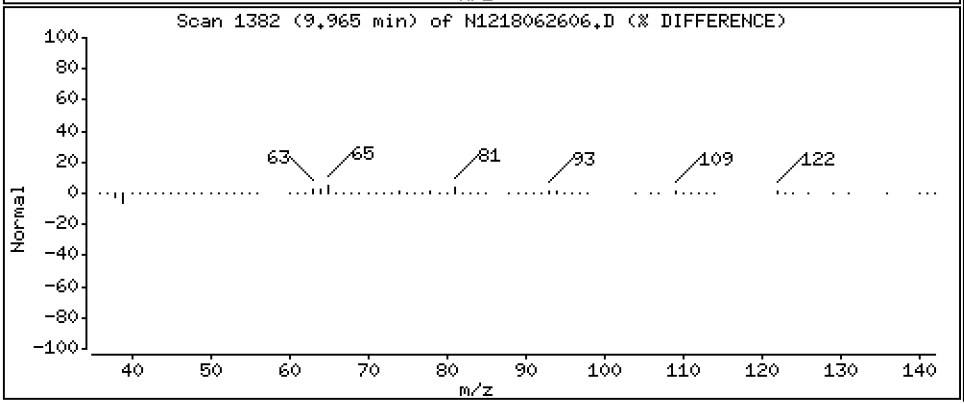
21 2-Nitrophenol

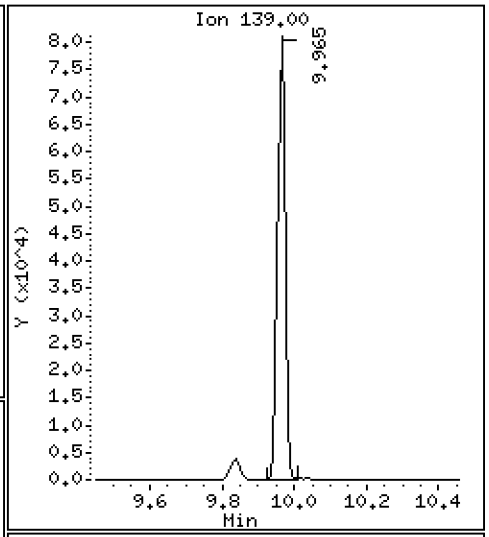
Concentration: 18.75 ug/mL

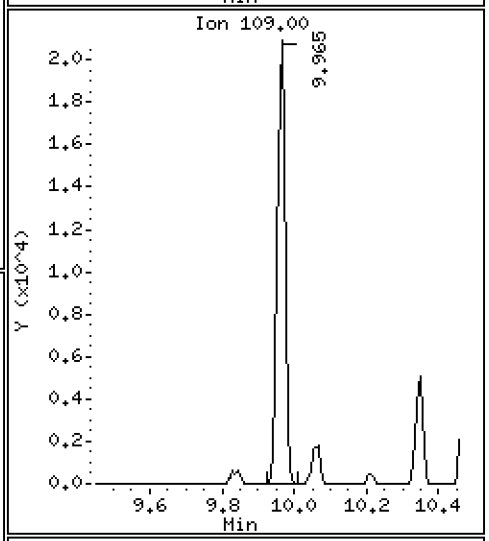


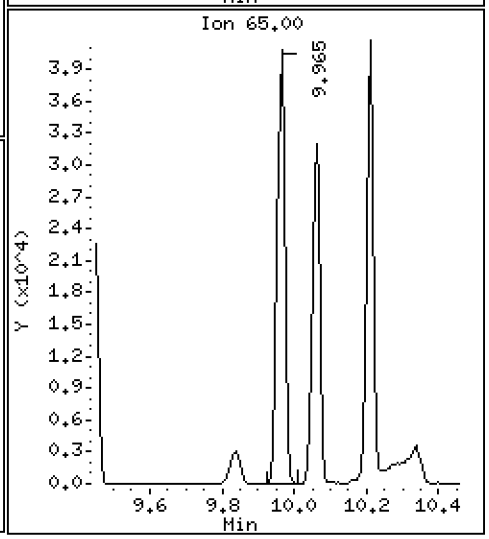












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

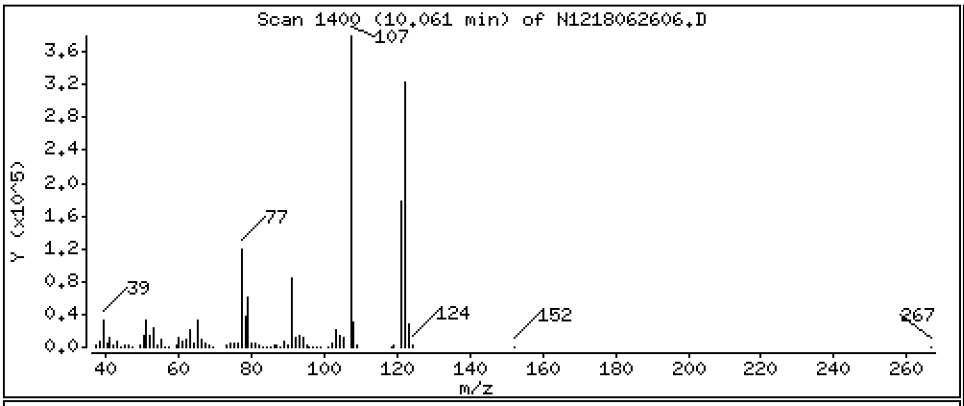
Operator: JZ

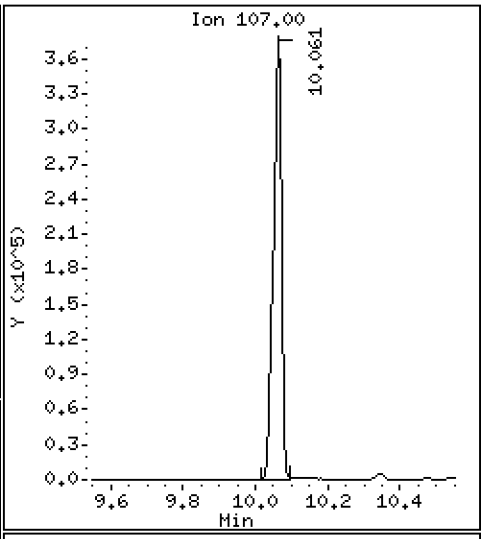
Column phase: ZB-5msi

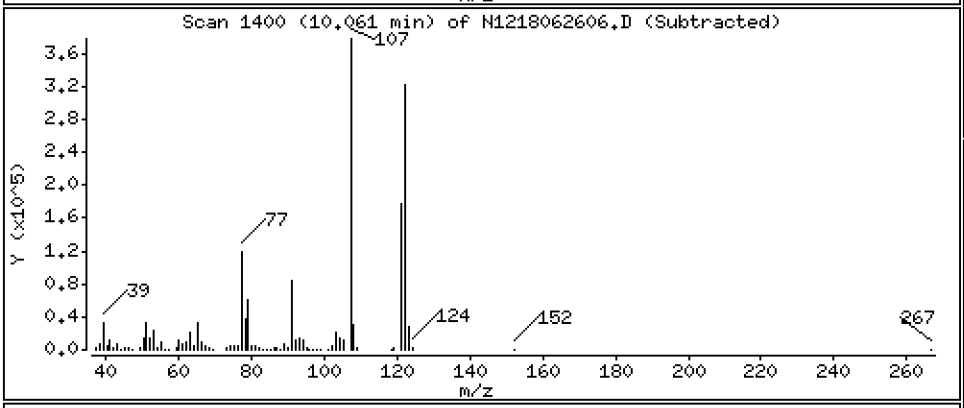
Column diameter: 0.32

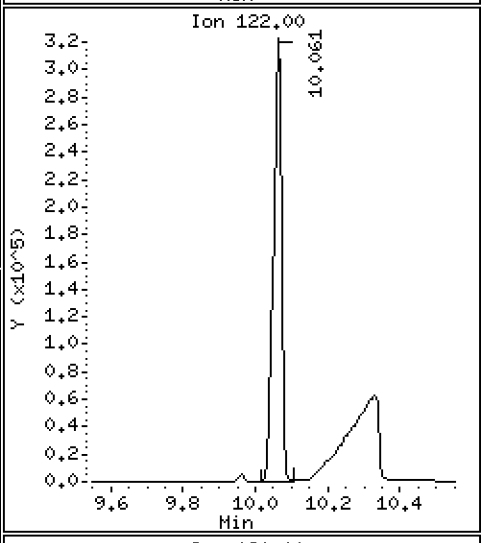
22 2,4-Dimethylphenol

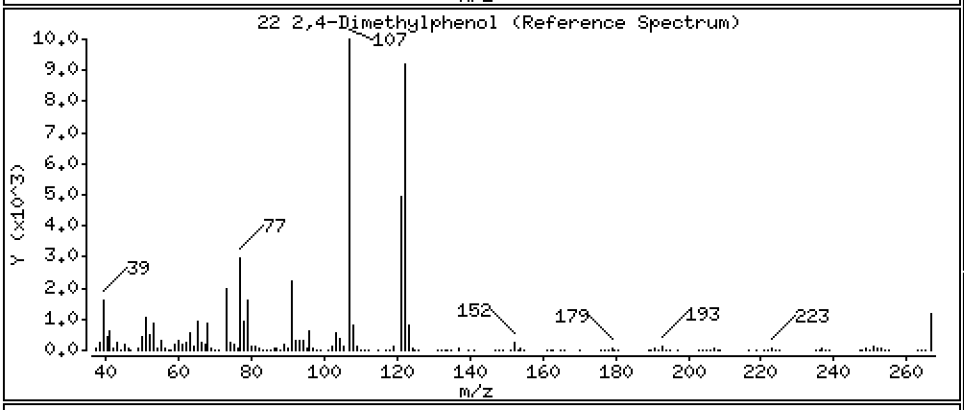
Concentration: 48.49 ug/mL

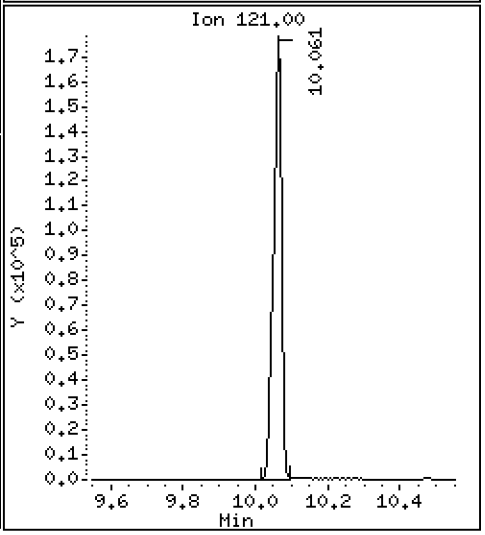


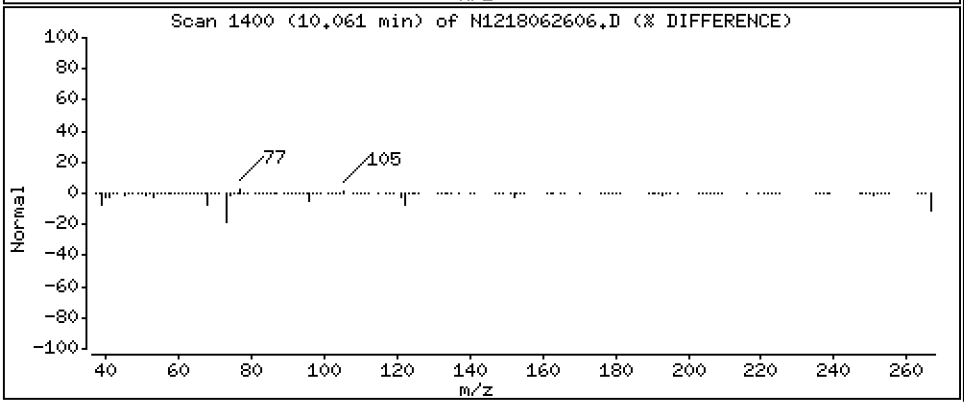












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

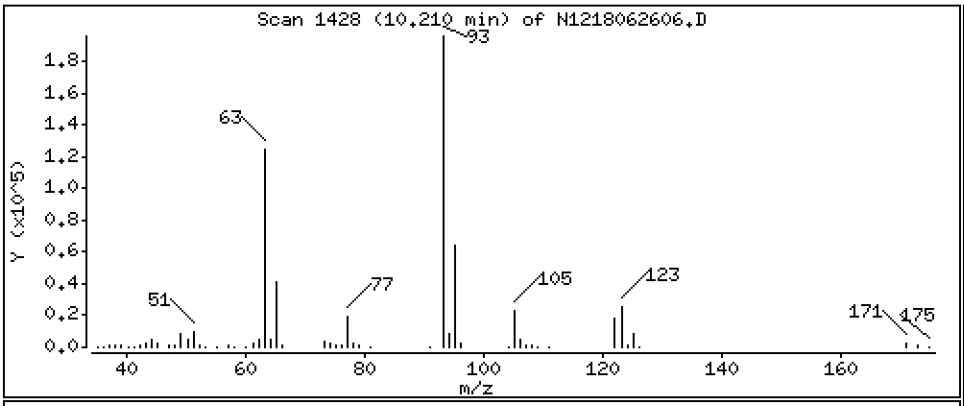
Operator: JZ

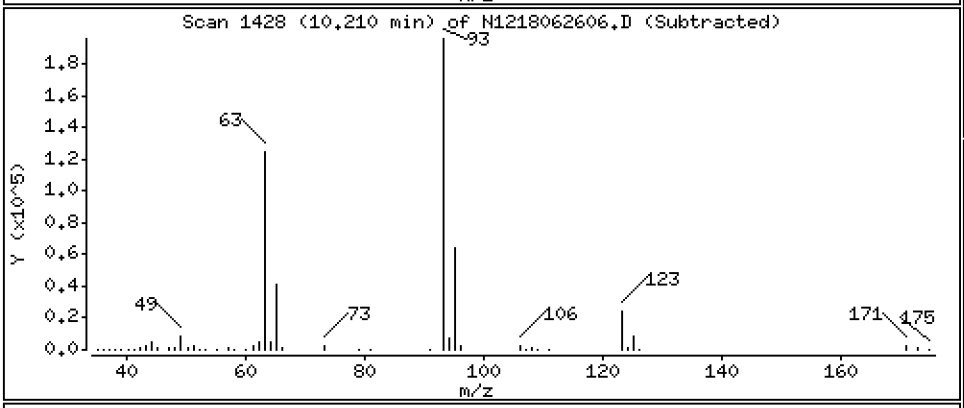
Column phase: ZB-5msi

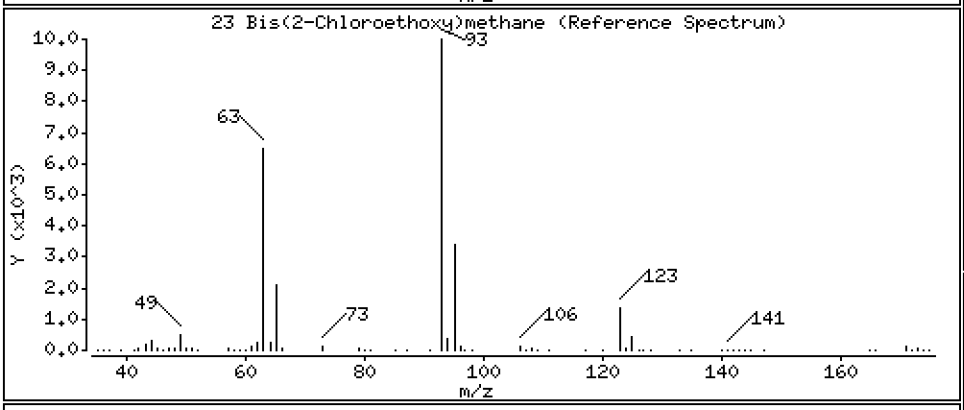
Column diameter: 0.32

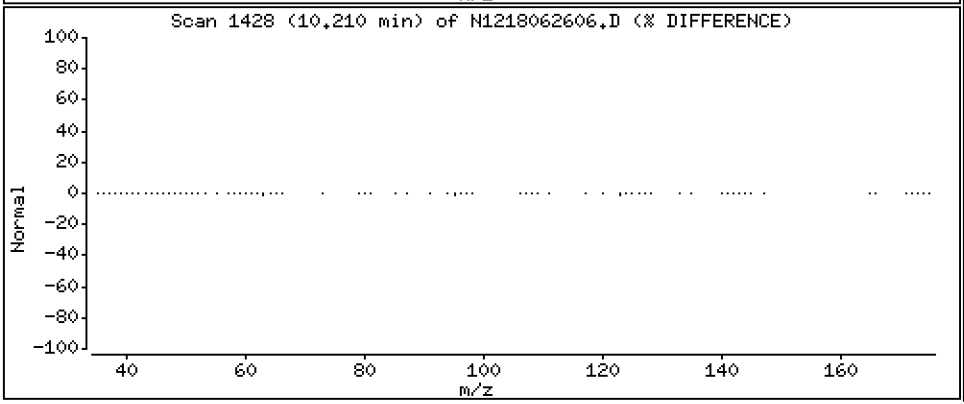
23 Bis(2-Chloroethoxy)methane

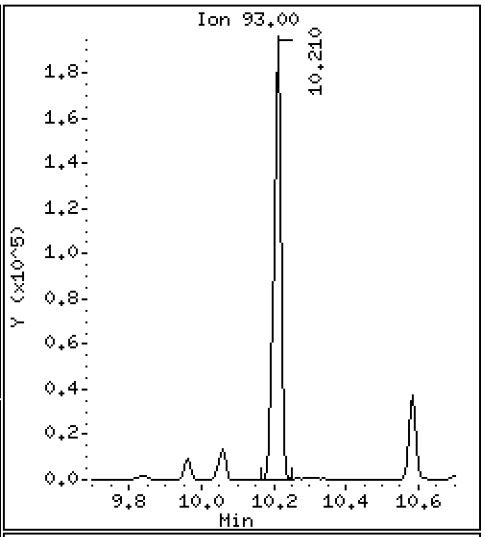
Concentration: 20.02 ug/mL

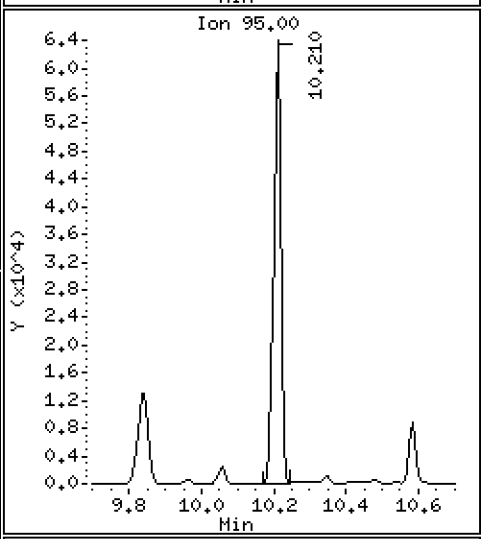


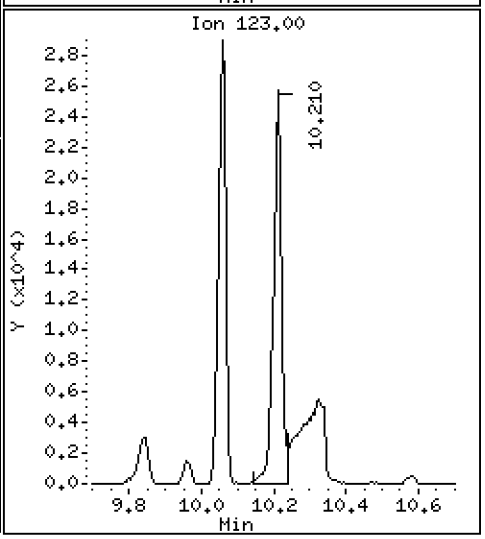












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

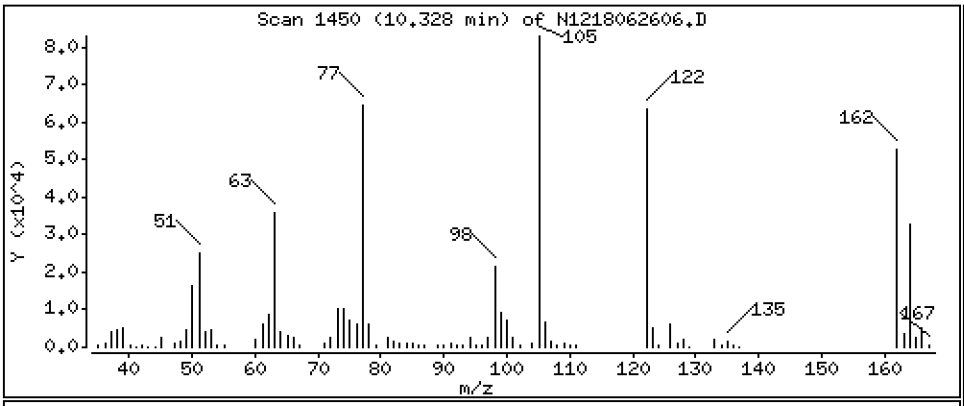
Operator: JZ

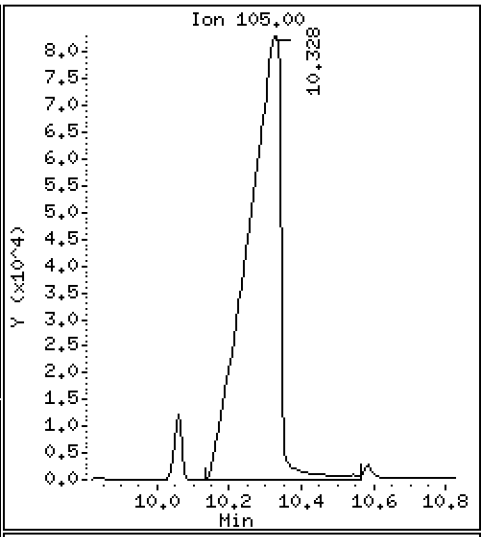
Column phase: ZB-5msi

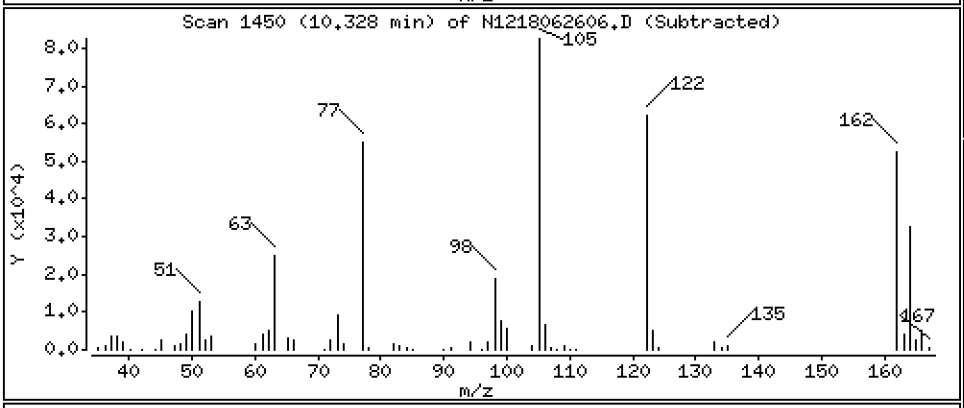
Column diameter: 0.32

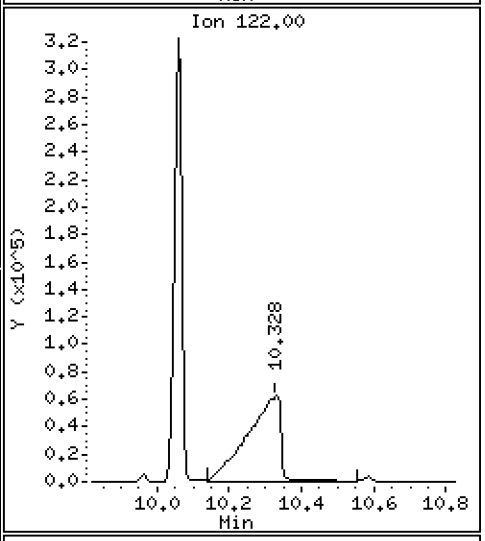
24 Benzoic acid

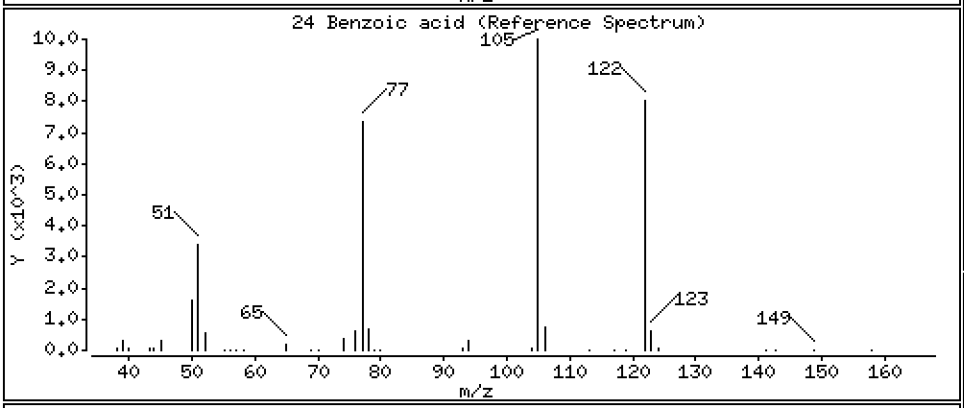
Concentration: 66.75 ug/mL

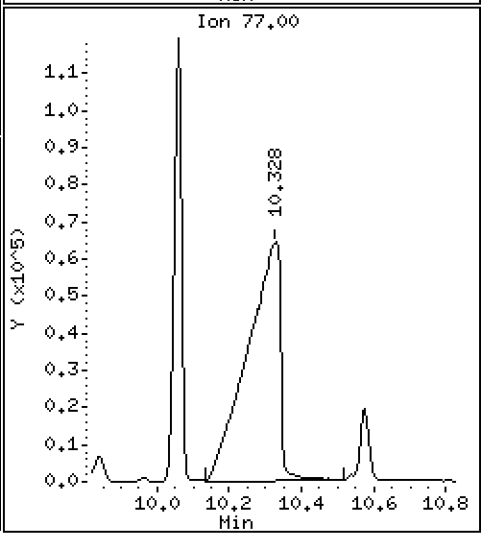


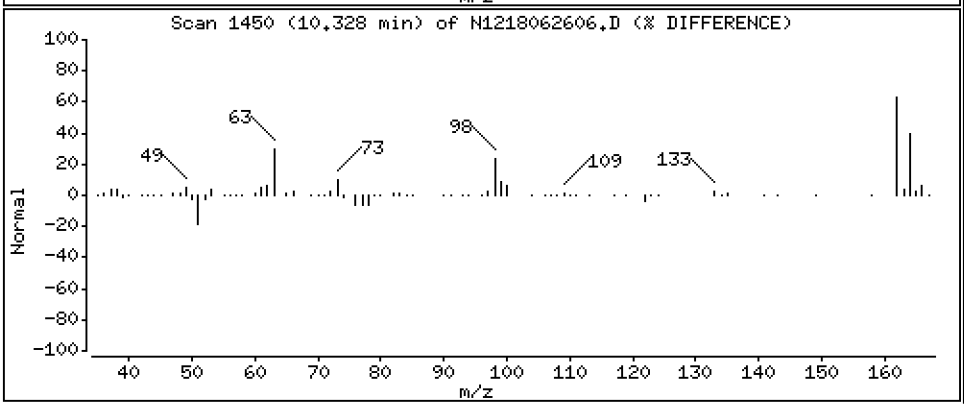












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

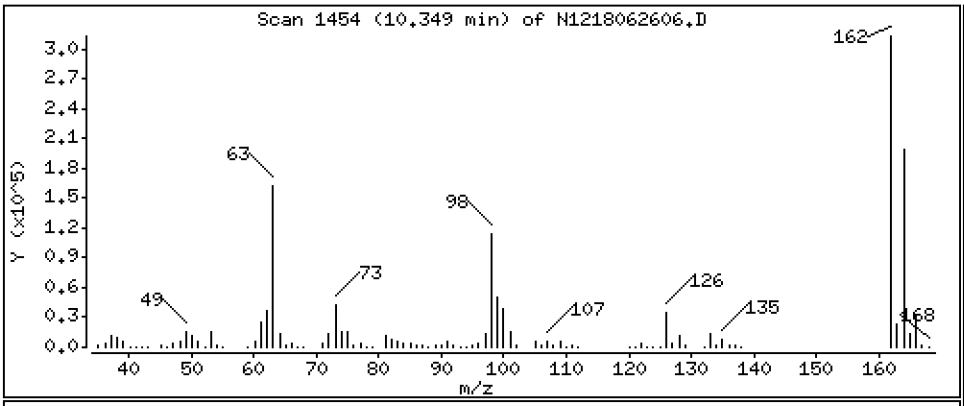
Operator: JZ

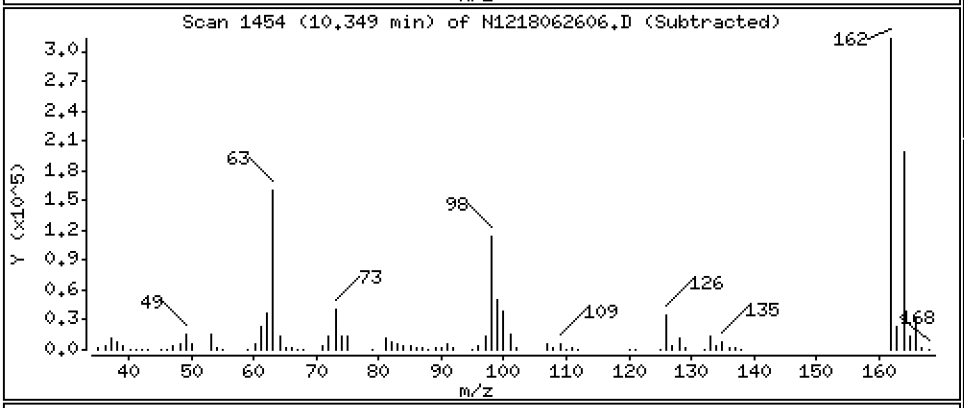
Column phase: ZB-5msi

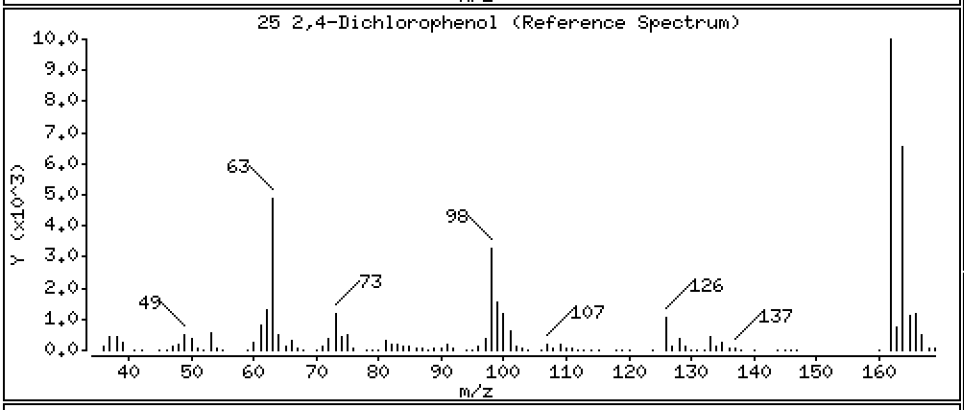
Column diameter: 0.32

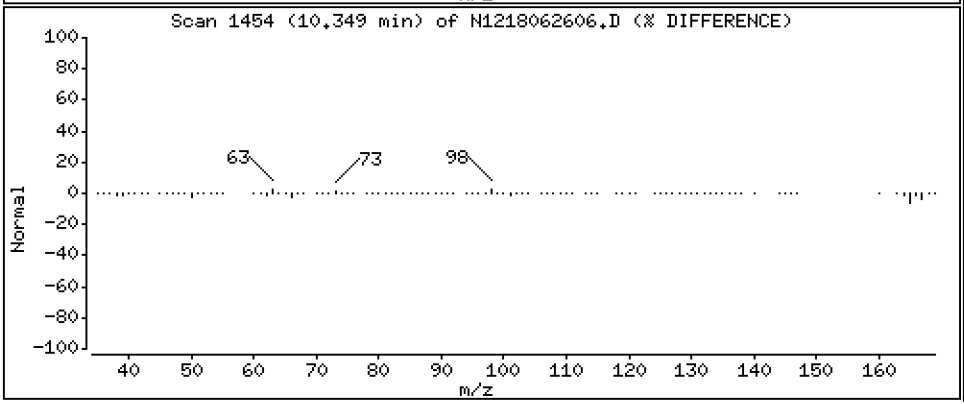
25 2,4-Dichlorophenol

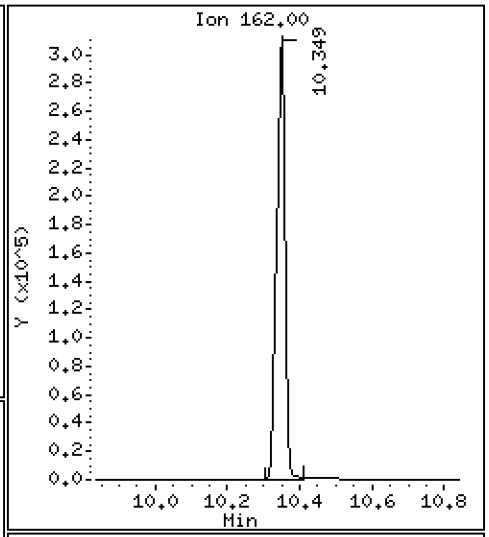
Concentration: 52.36 ug/mL

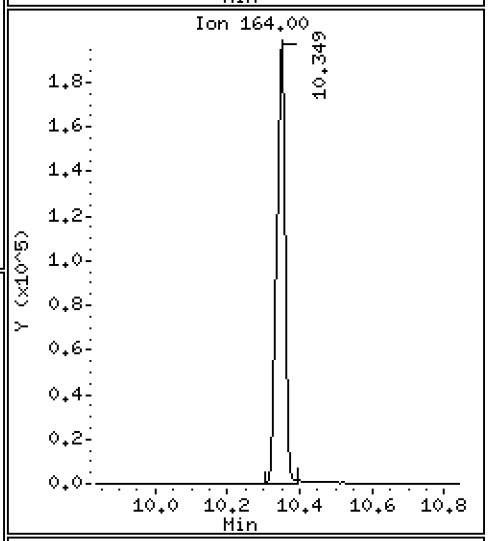


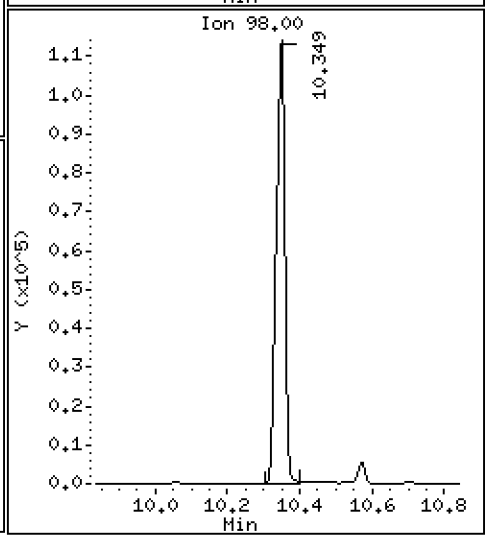












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

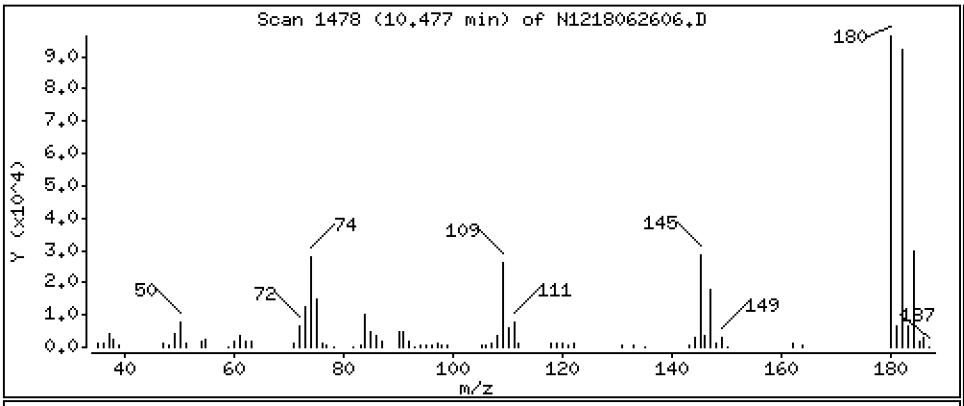
Operator: JZ

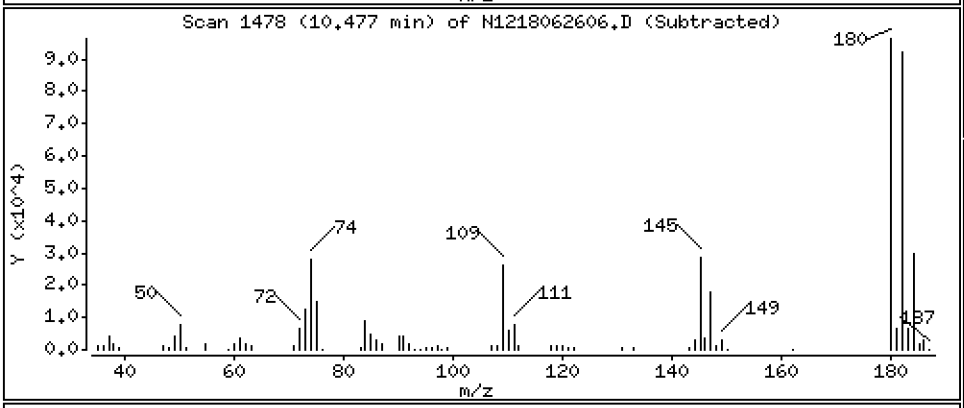
Column phase: ZB-5msi

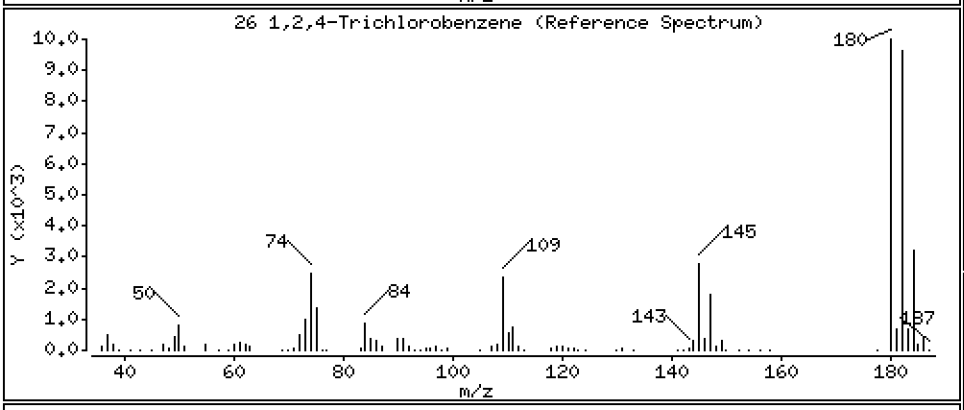
Column diameter: 0.32

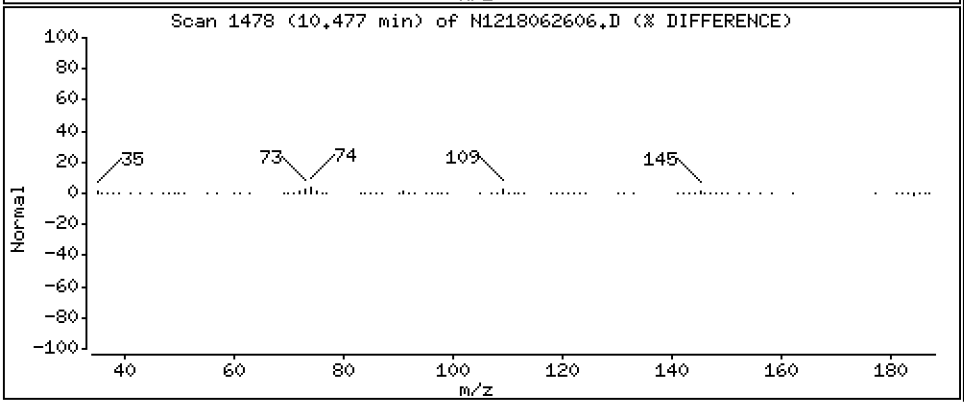
26 1,2,4-Trichlorobenzene

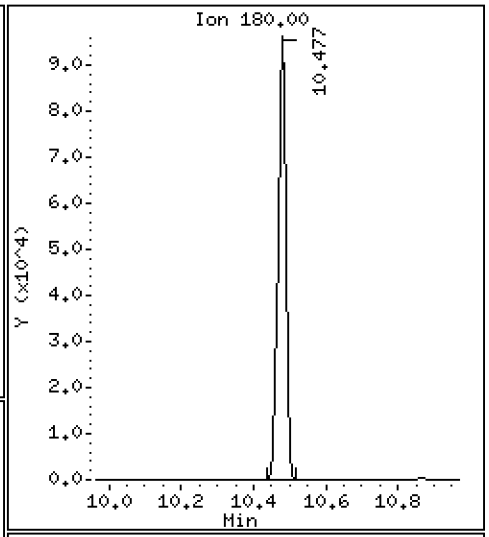
Concentration: 15.03 ug/mL

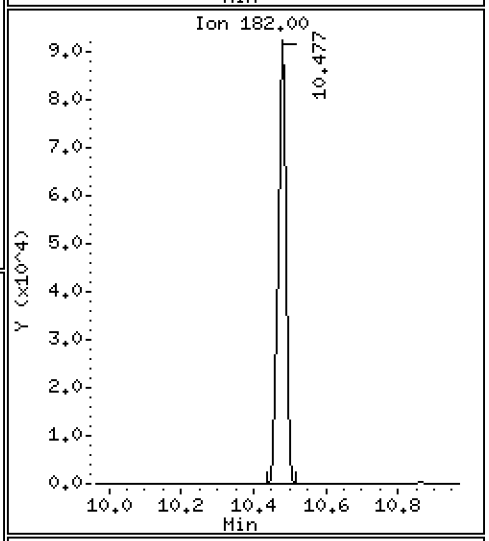


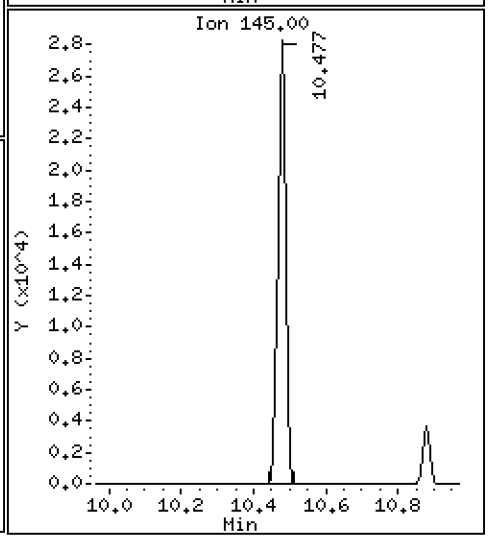












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

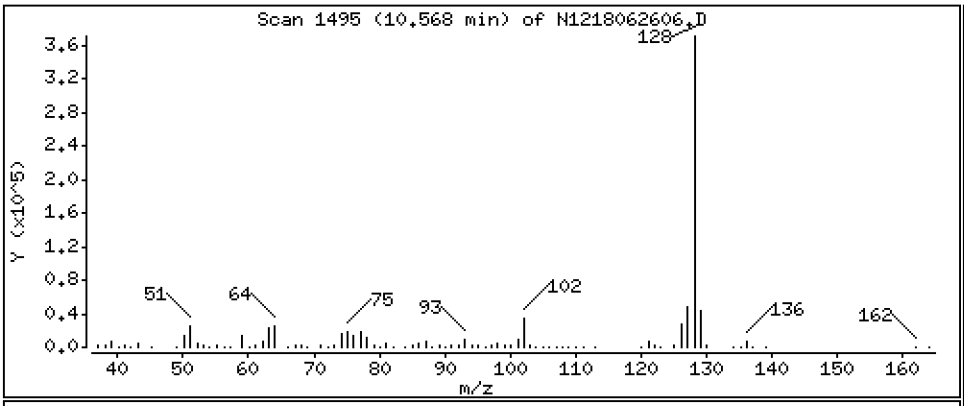
Operator: JZ

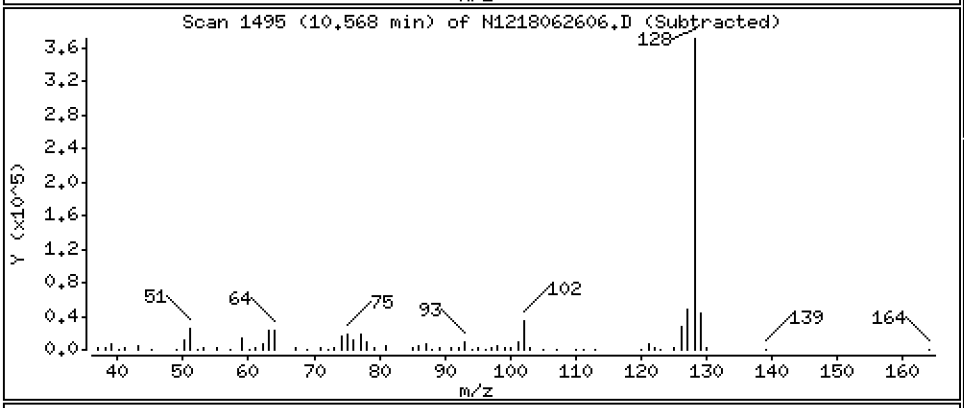
Column phase: ZB-5msi

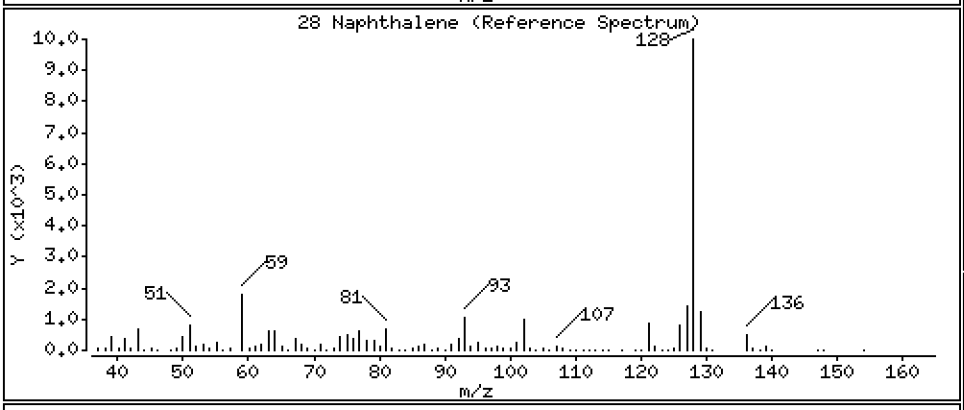
Column diameter: 0.32

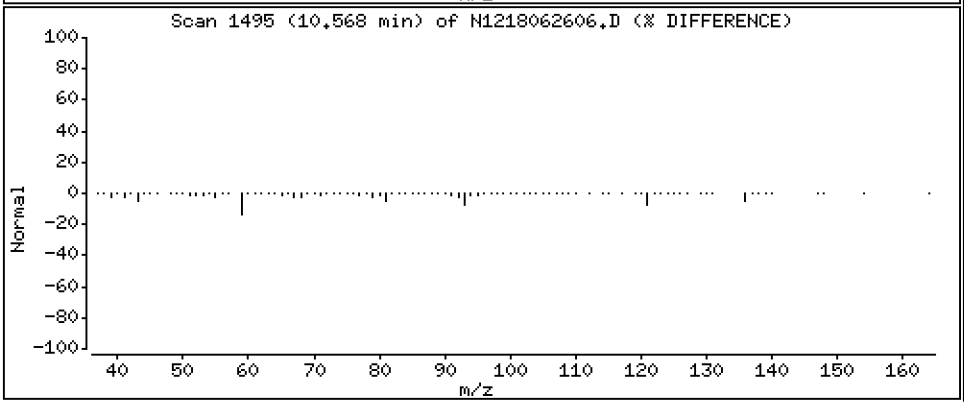
28 Naphthalene

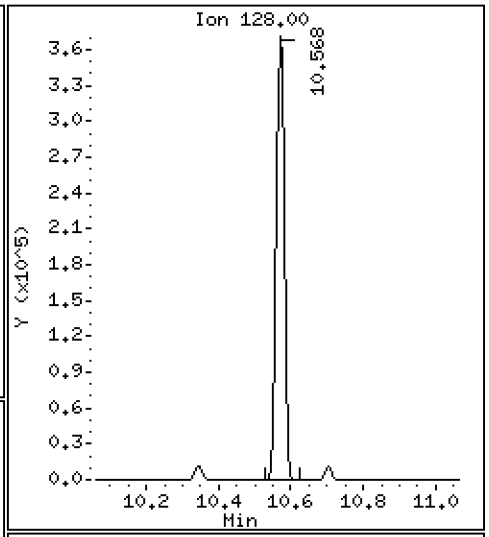
Concentration: 16.71 ug/mL

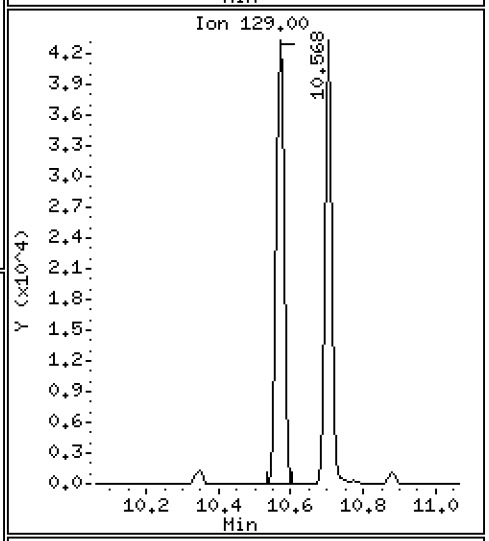


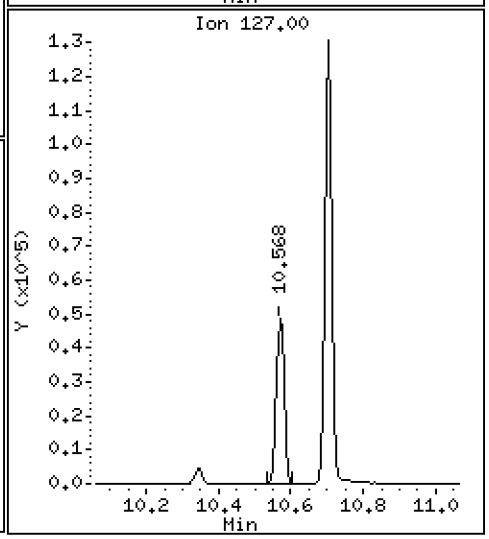












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

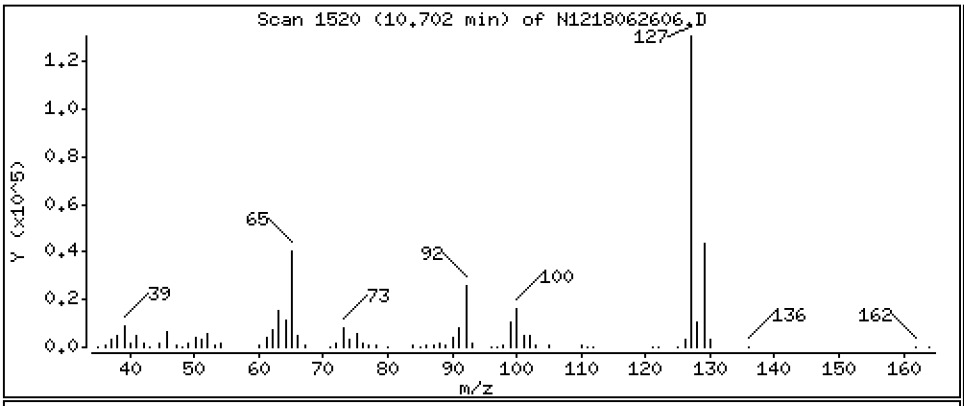
Operator: JZ

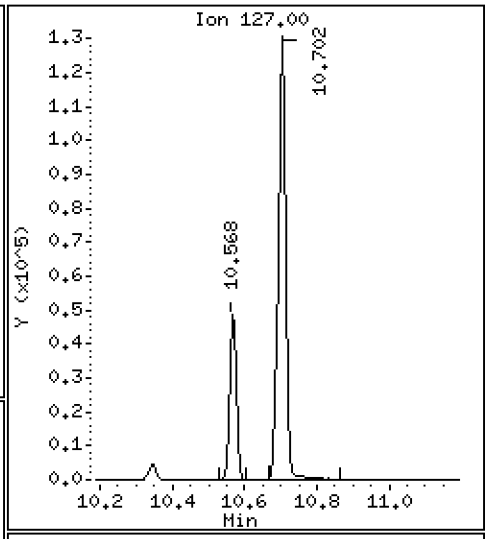
Column phase: ZB-5msi

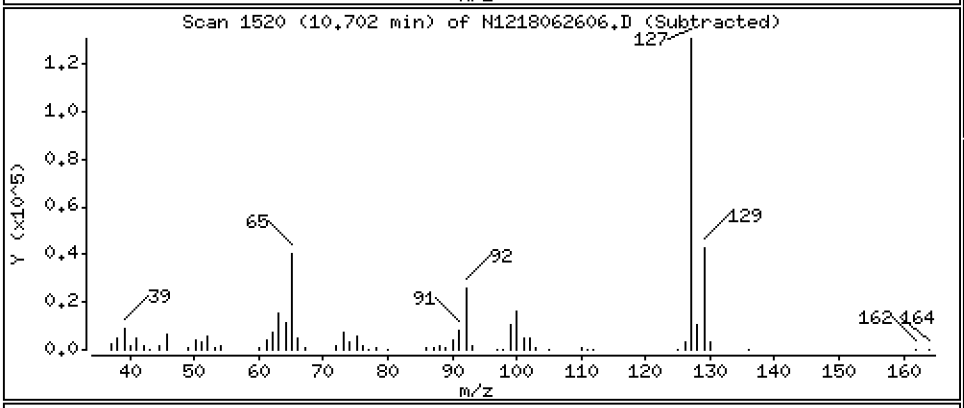
Column diameter: 0.32

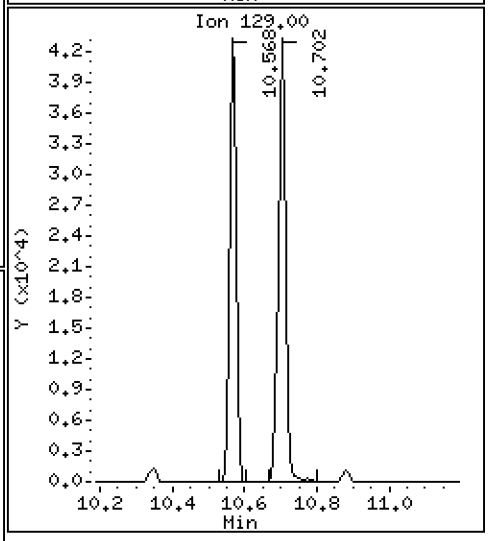
29 4-Chloroaniline

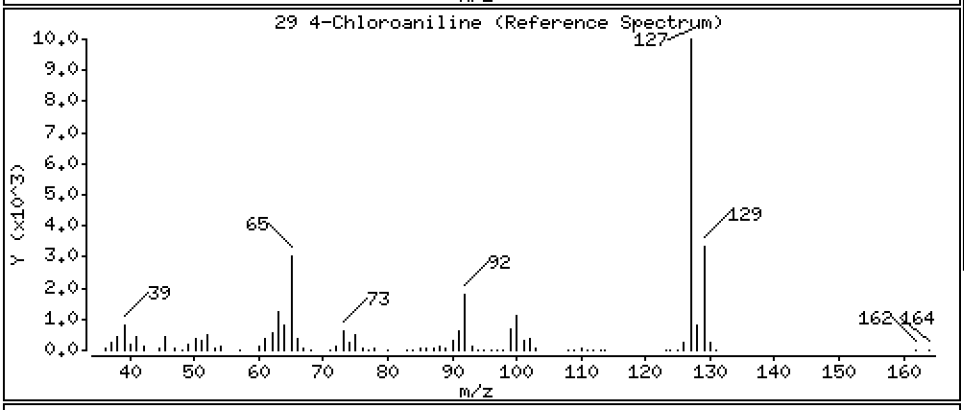
Concentration: 13.61 ug/mL

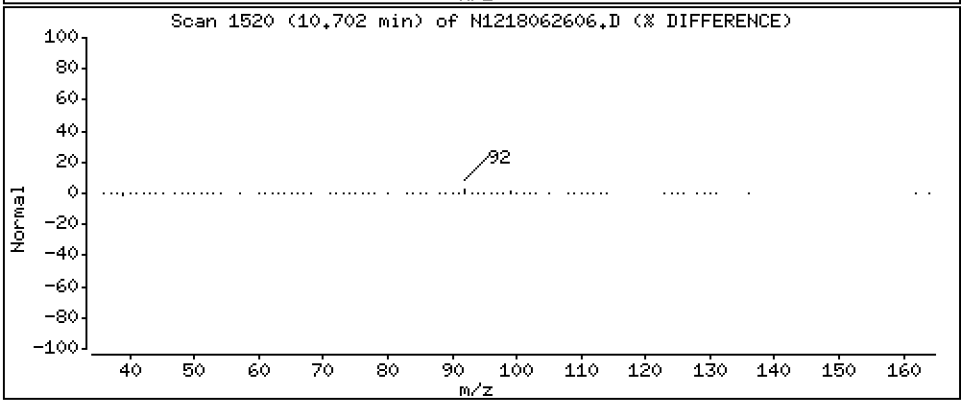












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

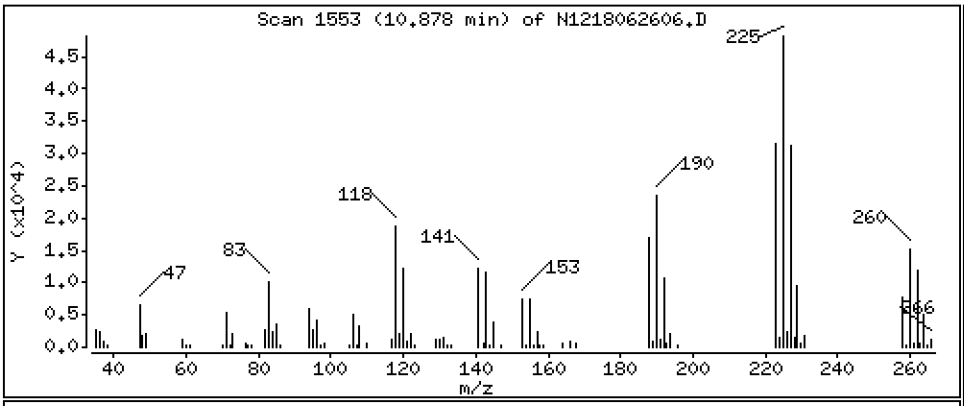
Operator: JZ

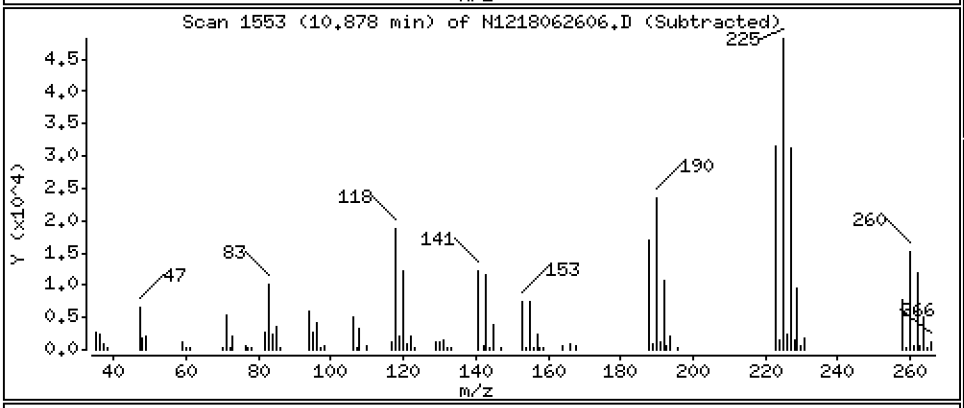
Column phase: ZB-5msi

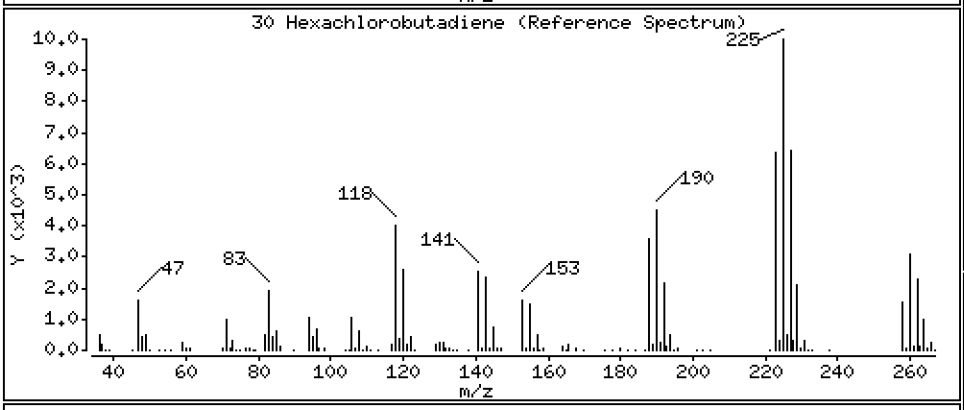
Column diameter: 0.32

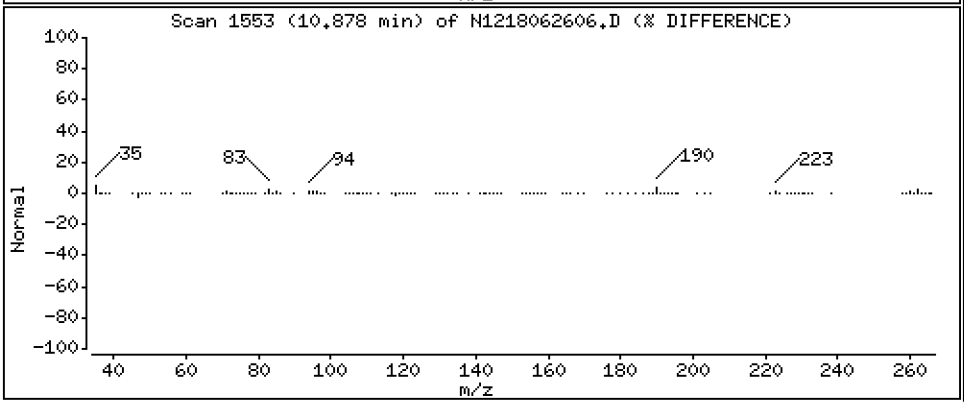
30 Hexachlorobutadiene

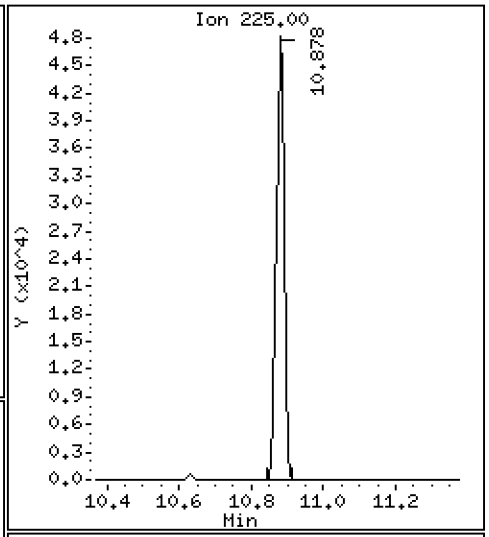
Concentration: 13.20 ug/mL

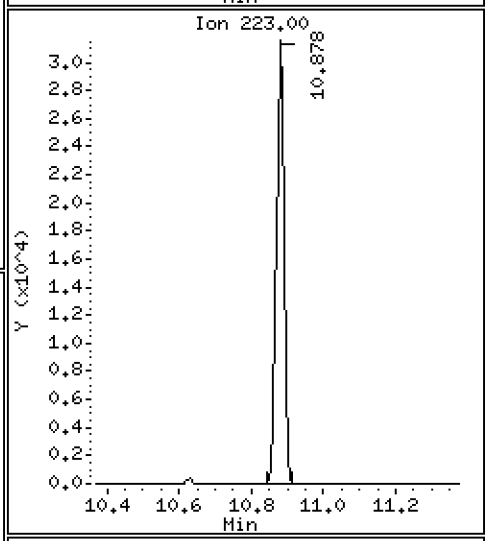


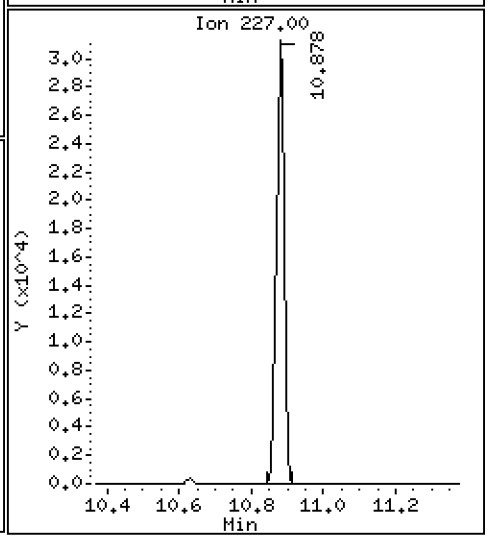












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

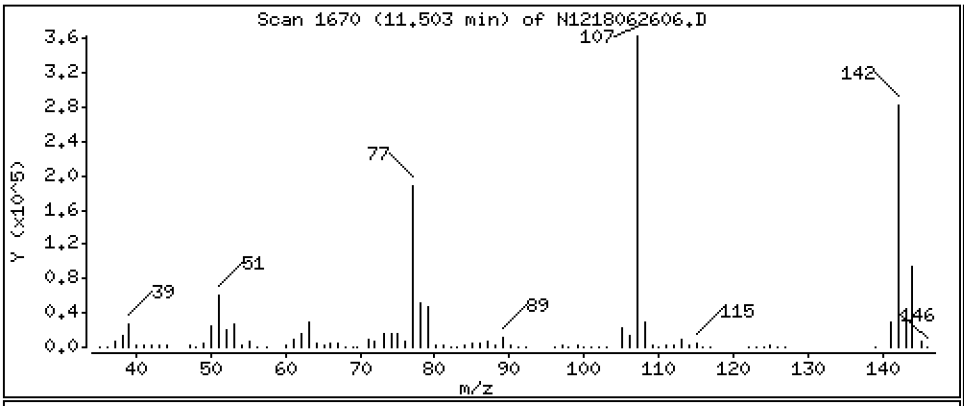
Operator: JZ

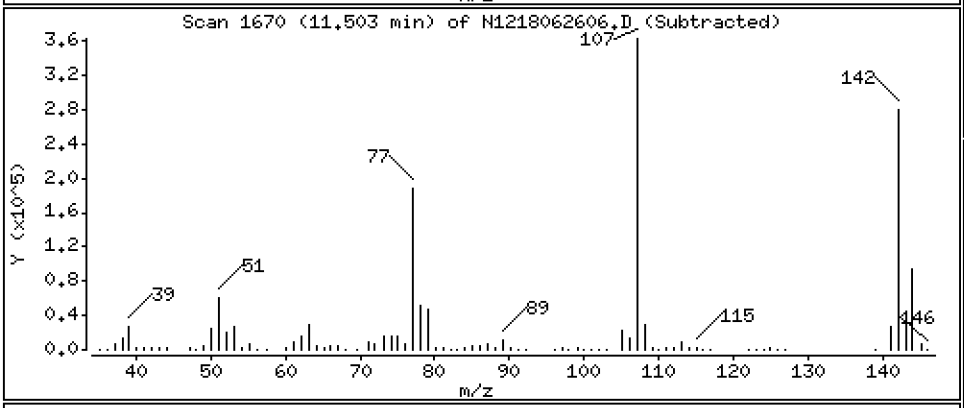
Column phase: ZB-5msi

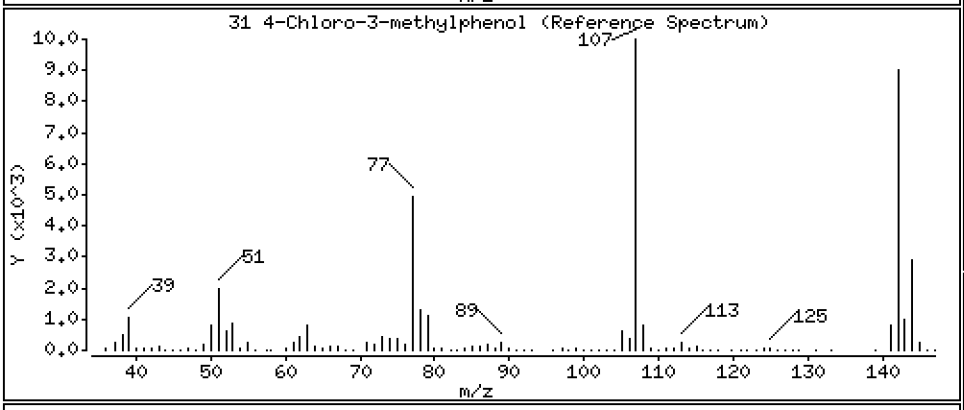
Column diameter: 0.32

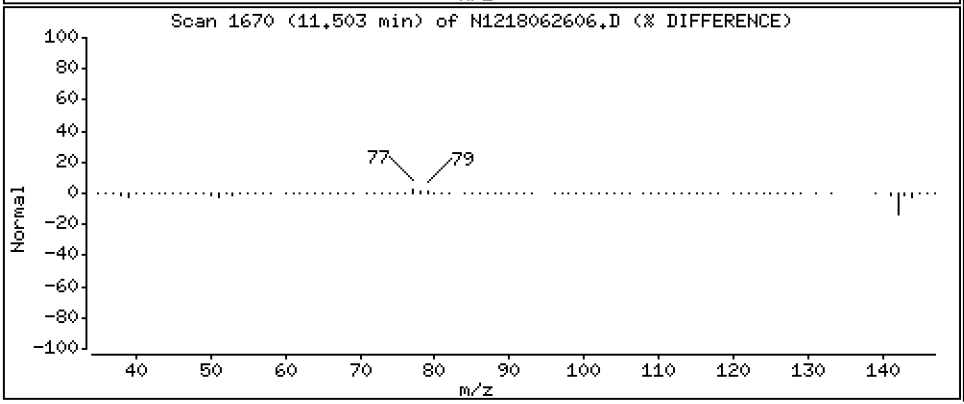
31 4-Chloro-3-methylphenol

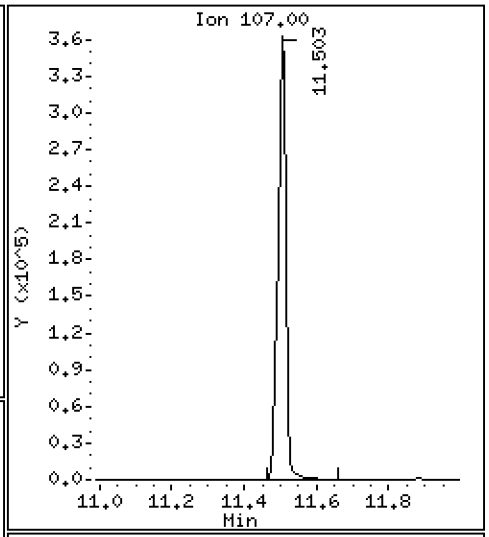
Concentration: 56.83 ug/mL

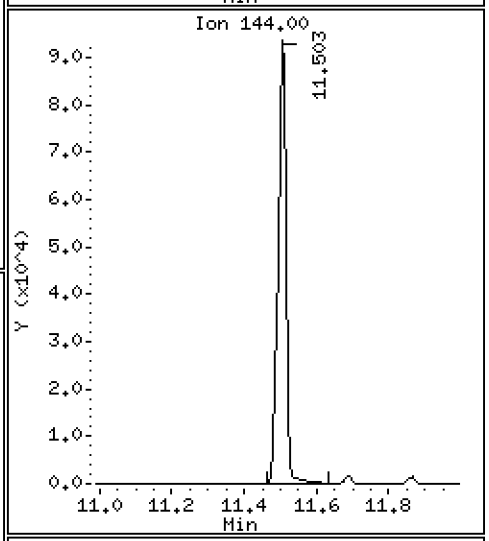


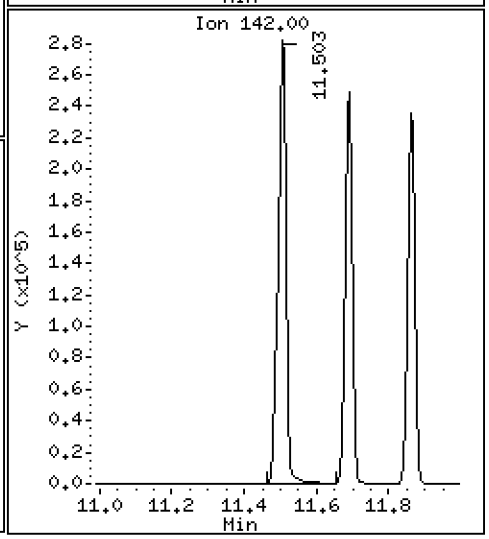












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

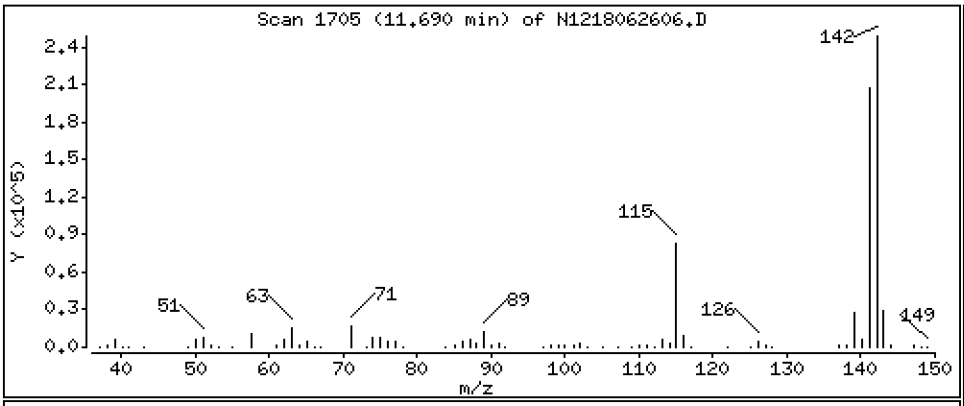
Operator: JZ

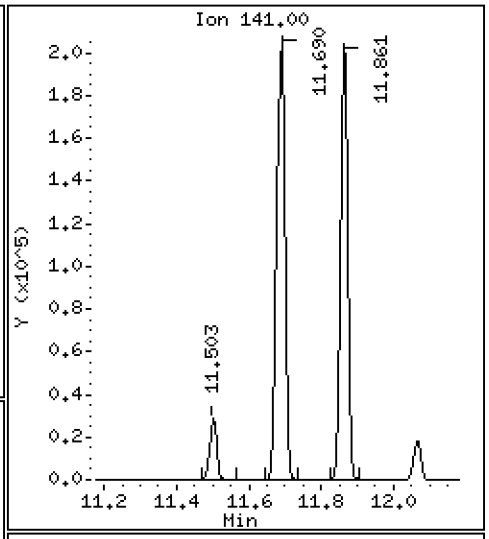
Column phase: ZB-5msi

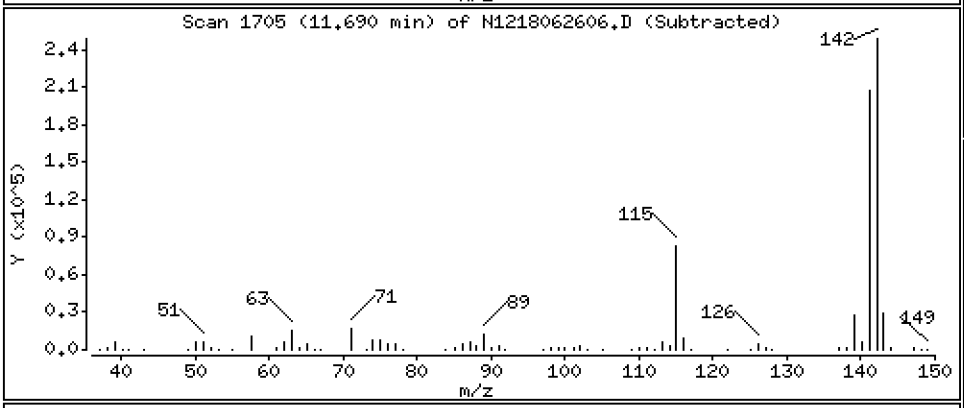
Column diameter: 0.32

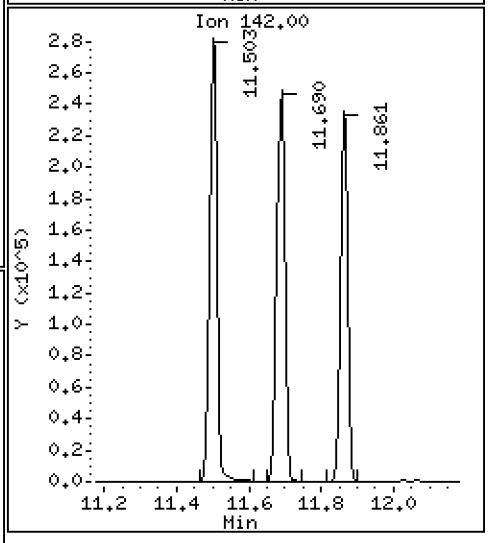
32 2-Methylnaphthalene

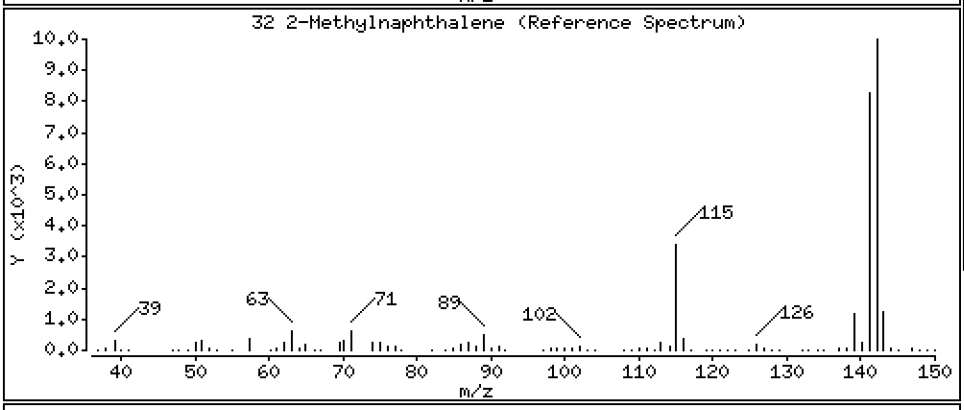
Concentration: 17.26 ug/mL

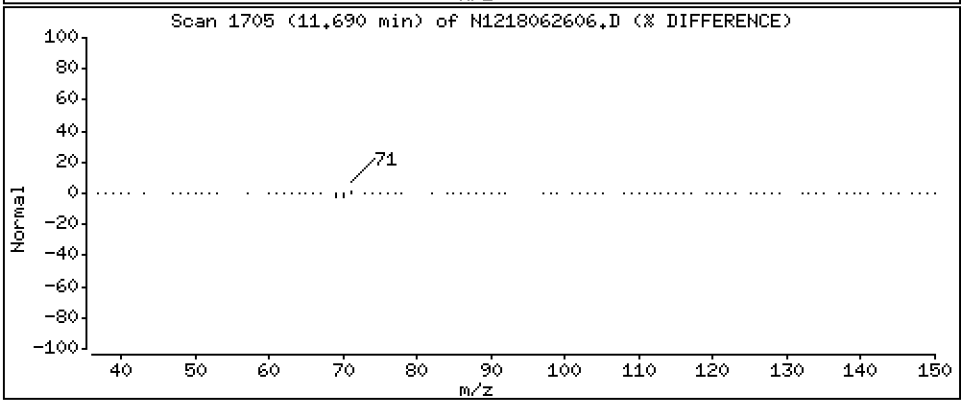












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

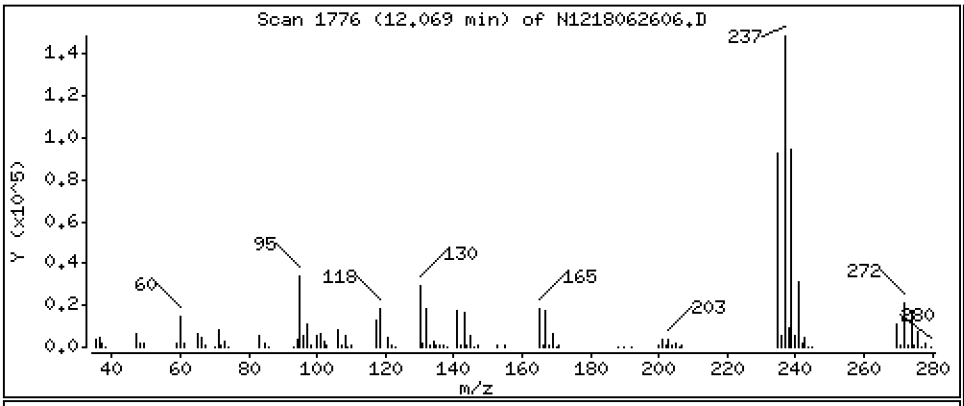
Operator: JZ

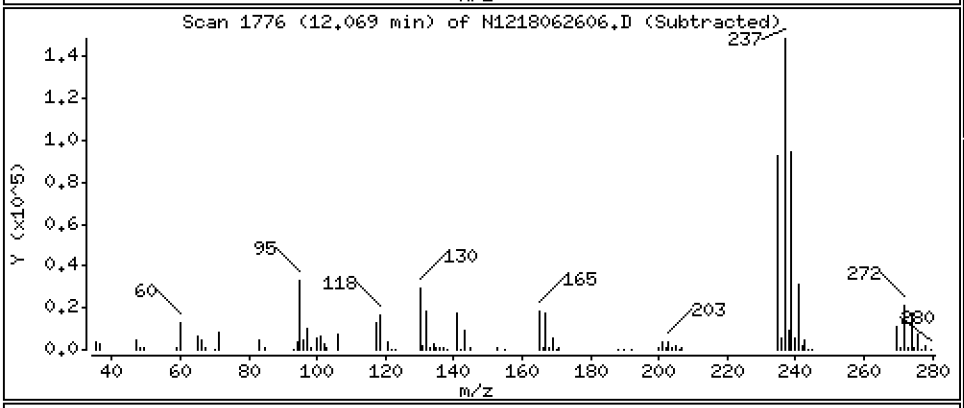
Column phase: ZB-5msi

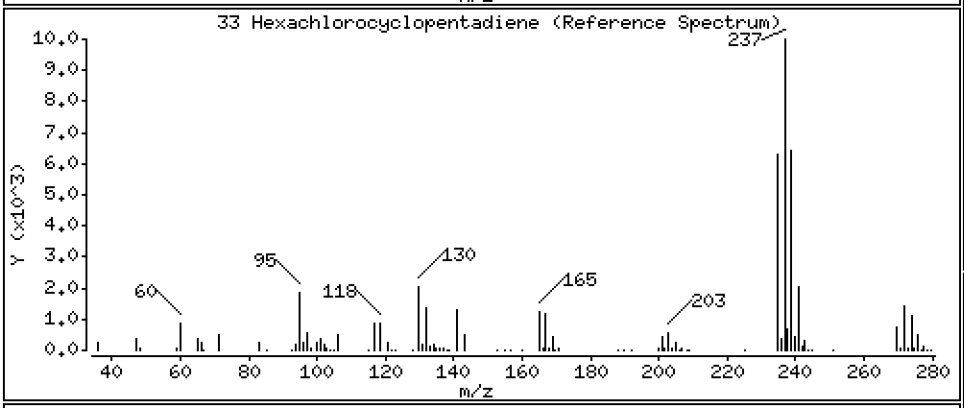
Column diameter: 0.32

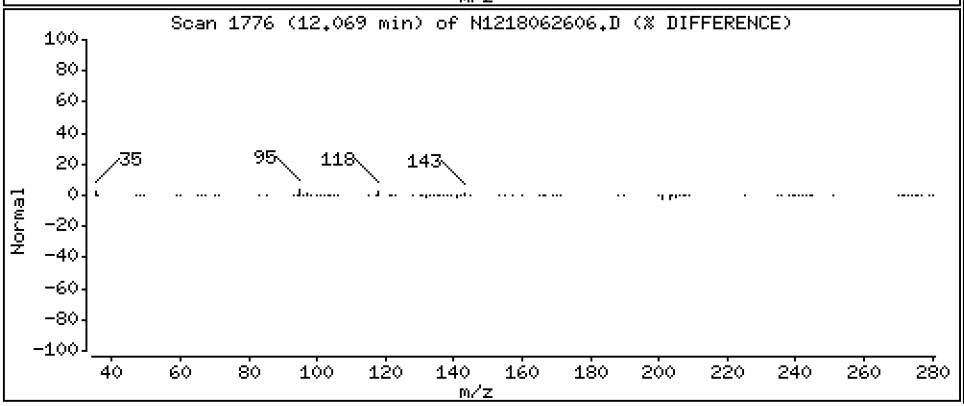
33 Hexachlorocyclopentadiene

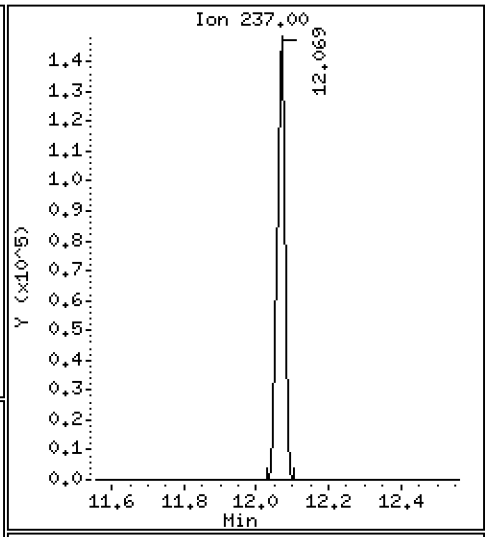
Concentration: 49.82 ug/mL

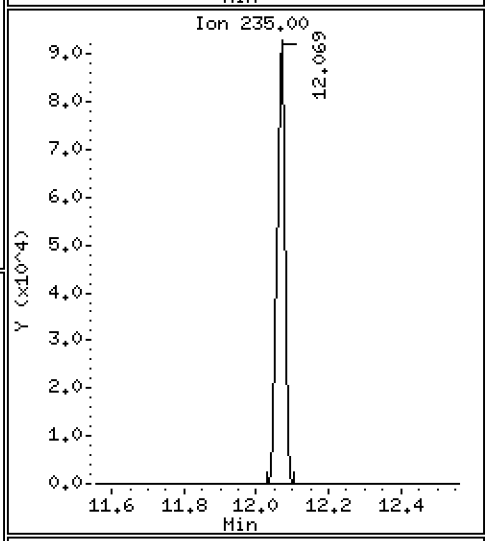


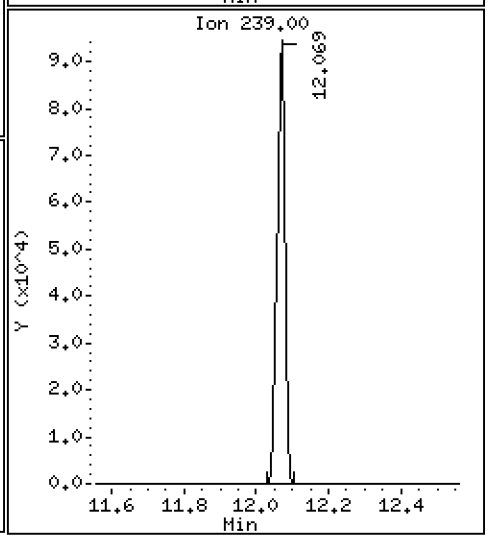












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

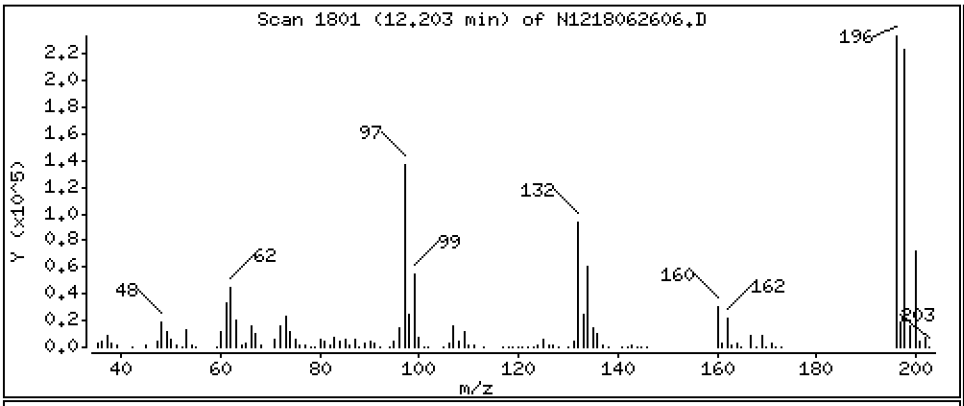
Operator: JZ

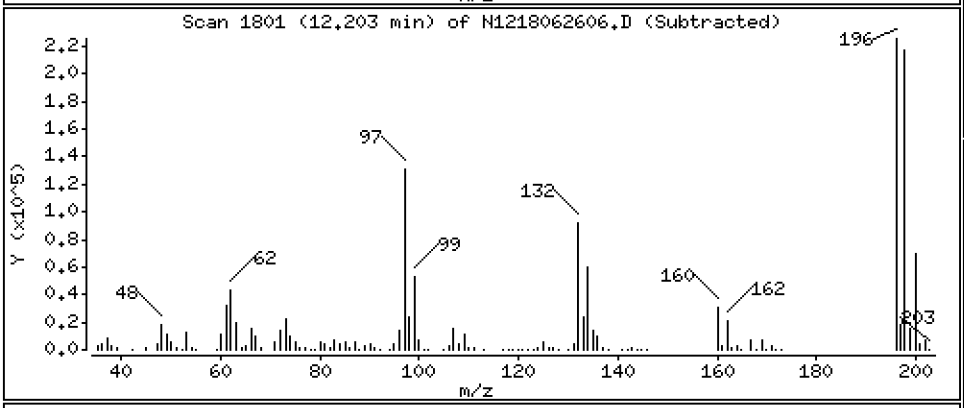
Column phase: ZB-5msi

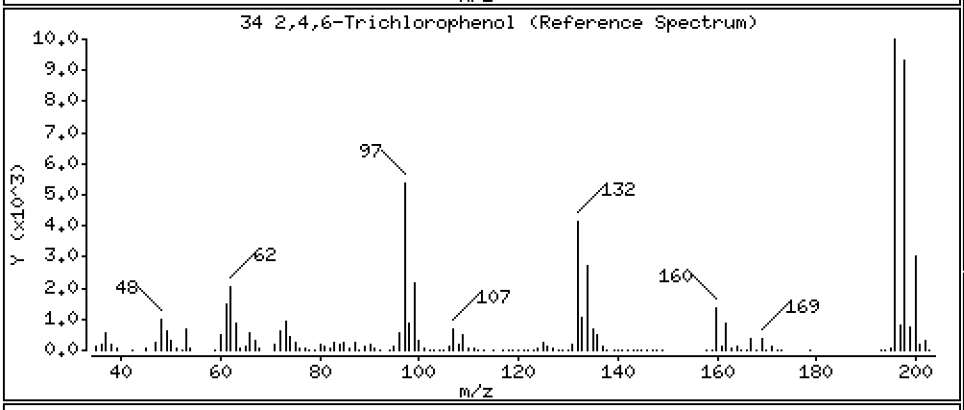
Column diameter: 0.32

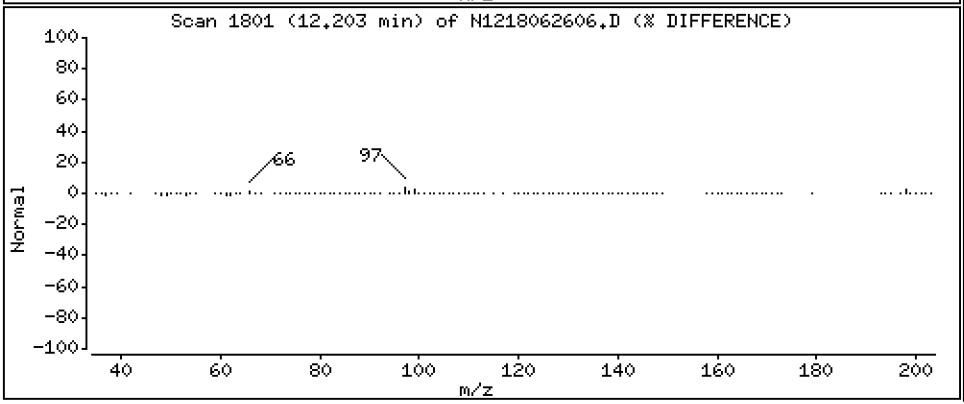
34 2,4,6-Trichlorophenol

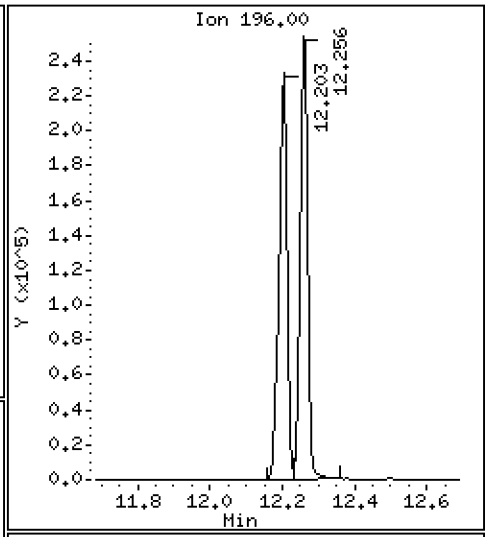
Concentration: 55.01 ug/mL

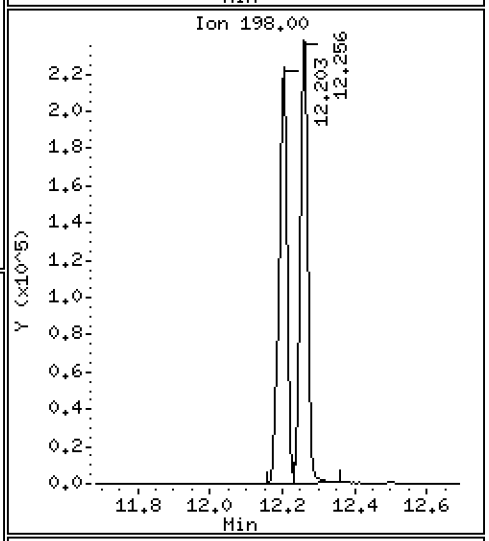


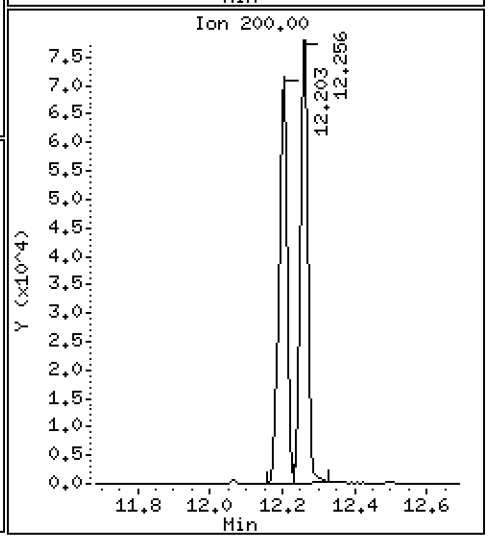












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

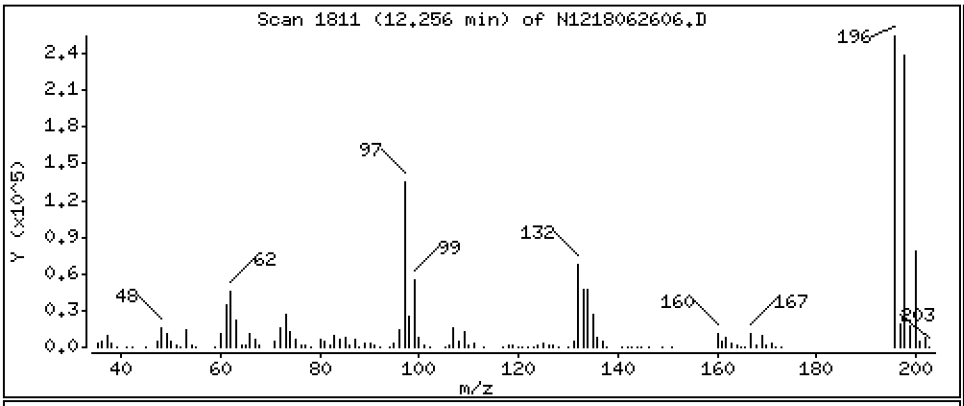
Operator: JZ

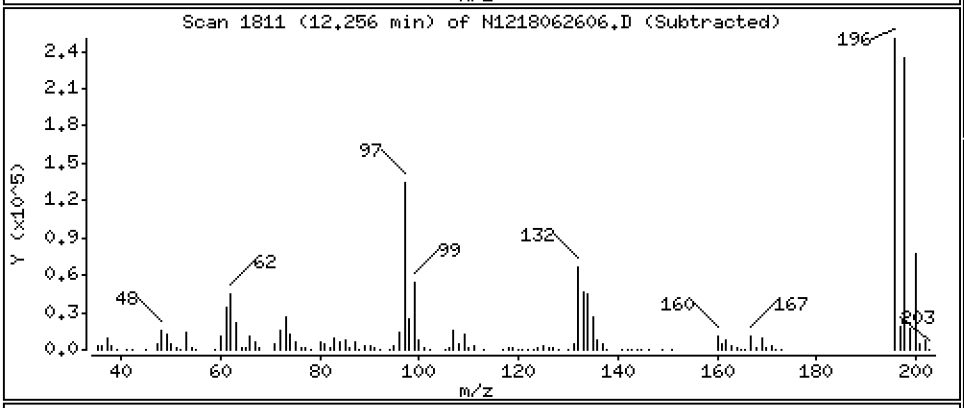
Column phase: ZB-5msi

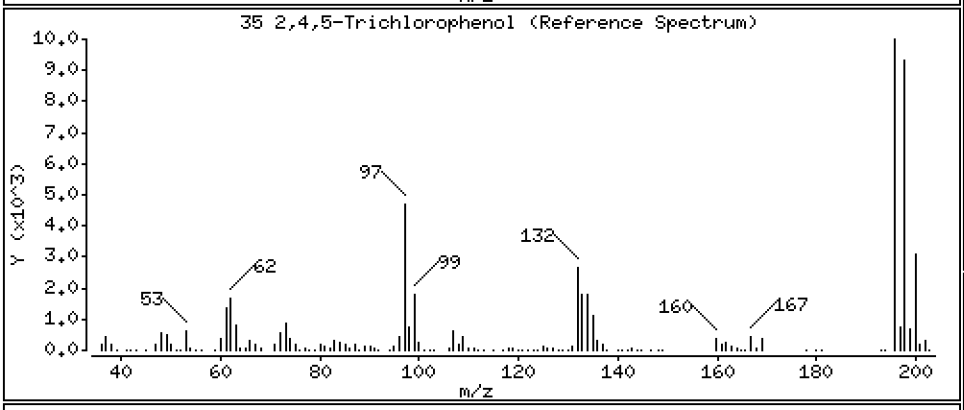
Column diameter: 0.32

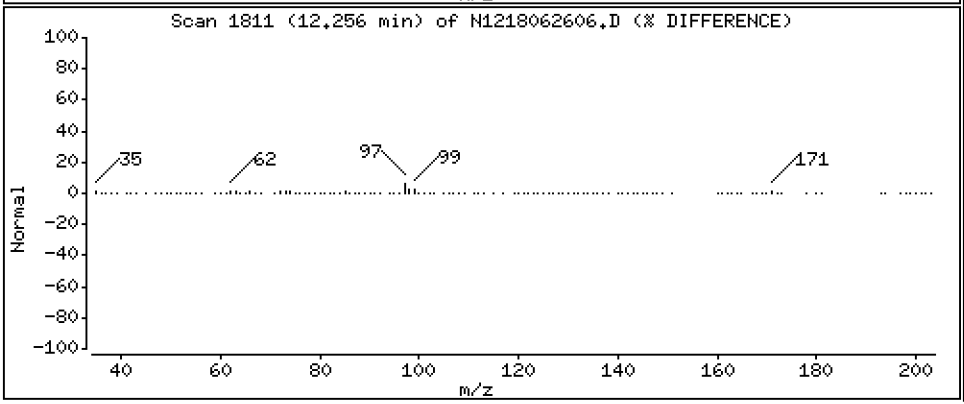
35 2,4,5-Trichlorophenol

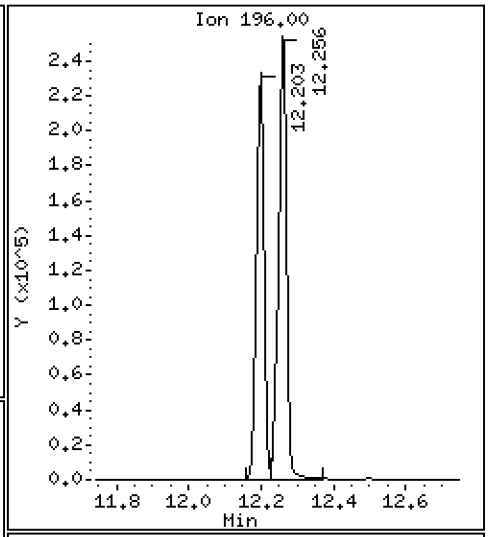
Concentration: 58.14 ug/mL

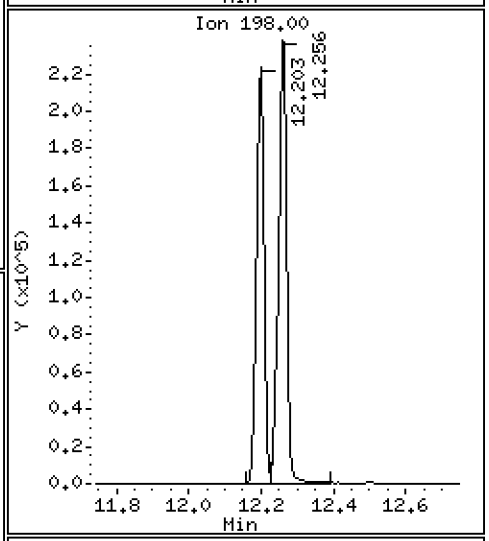


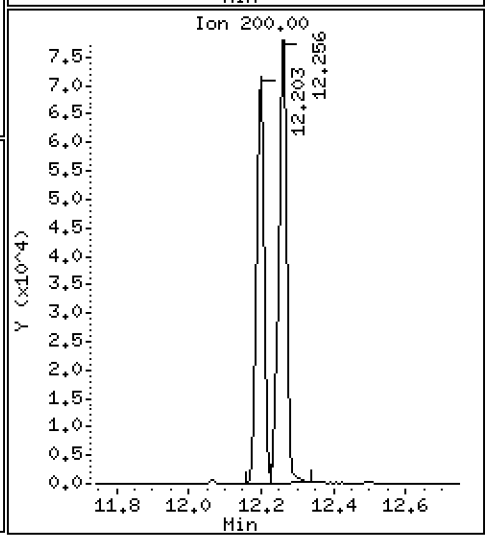












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

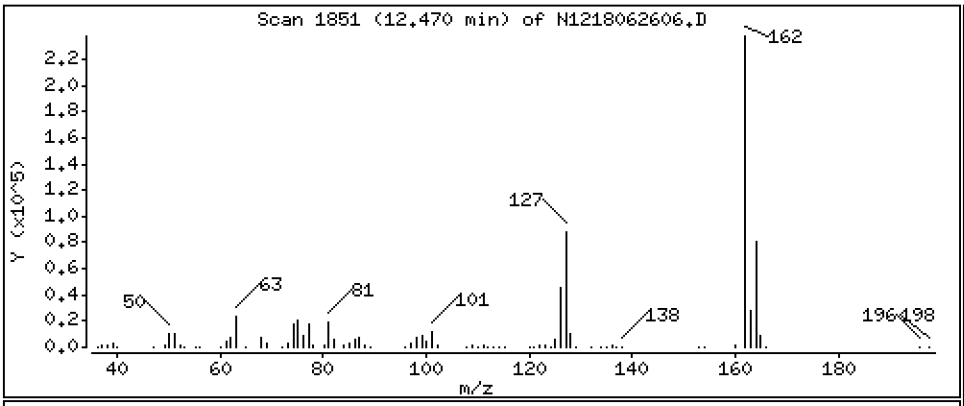
Operator: JZ

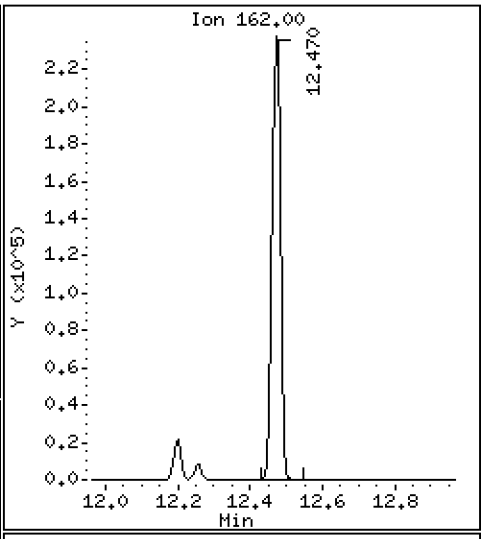
Column phase: ZB-5msi

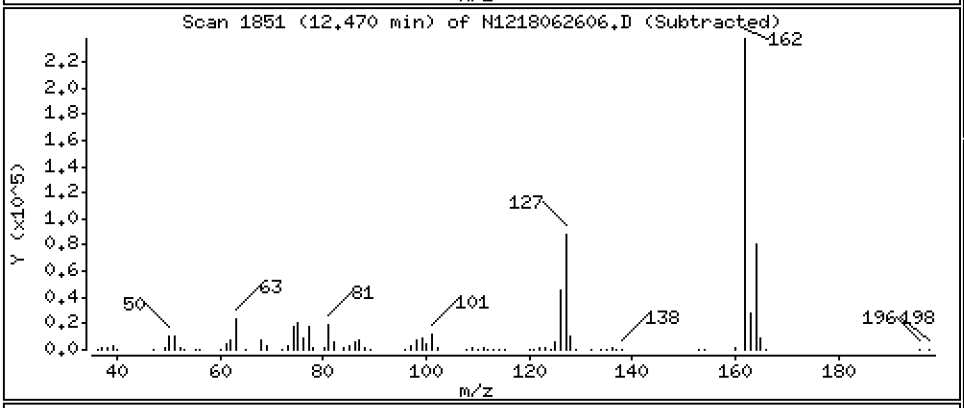
Column diameter: 0.32

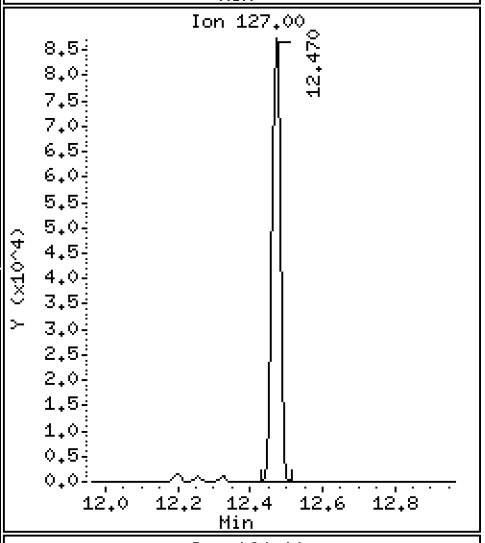
37 2-Chloronaphthalene

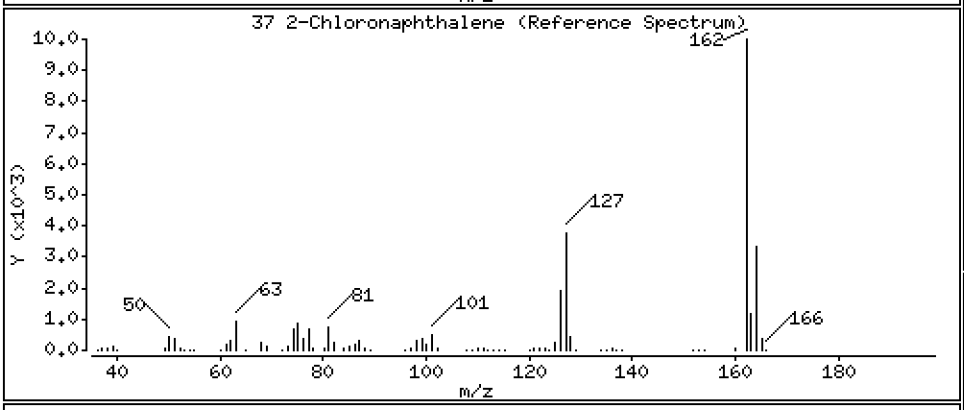
Concentration: 18.71 ug/mL

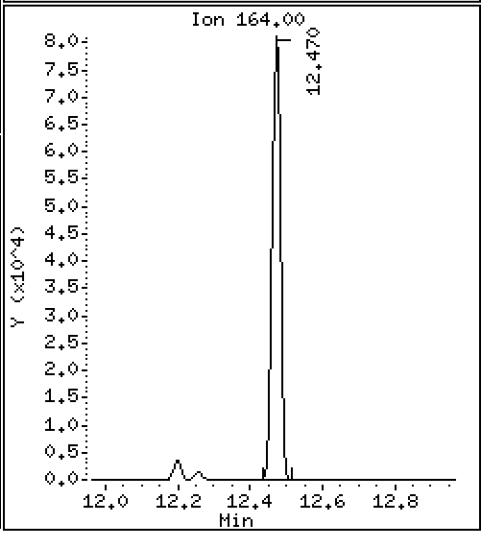


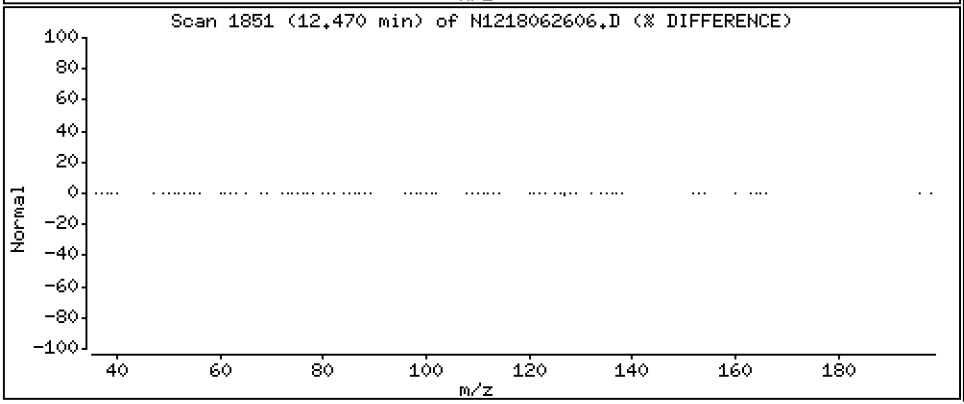












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

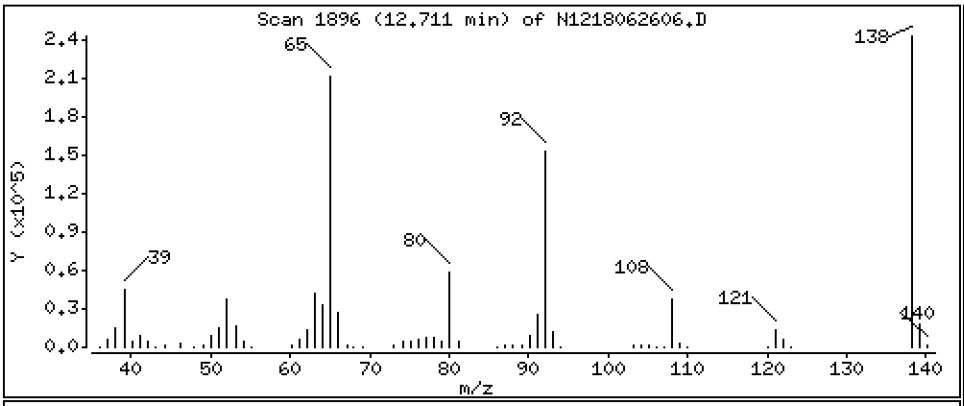
Operator: JZ

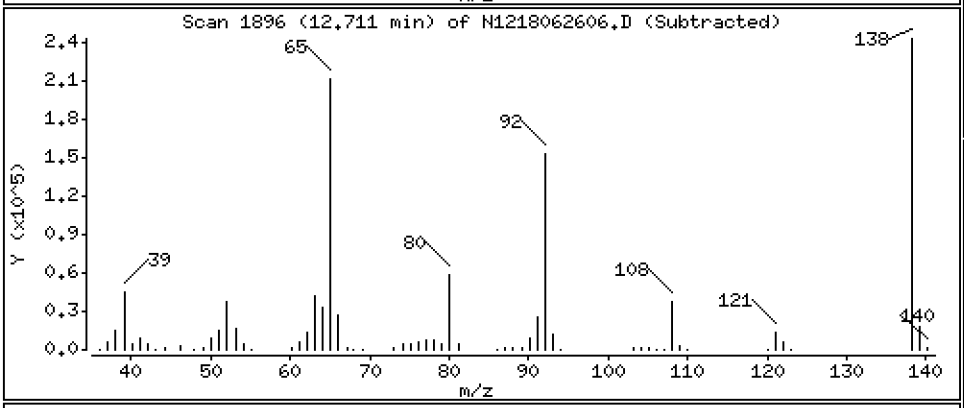
Column phase: ZB-5msi

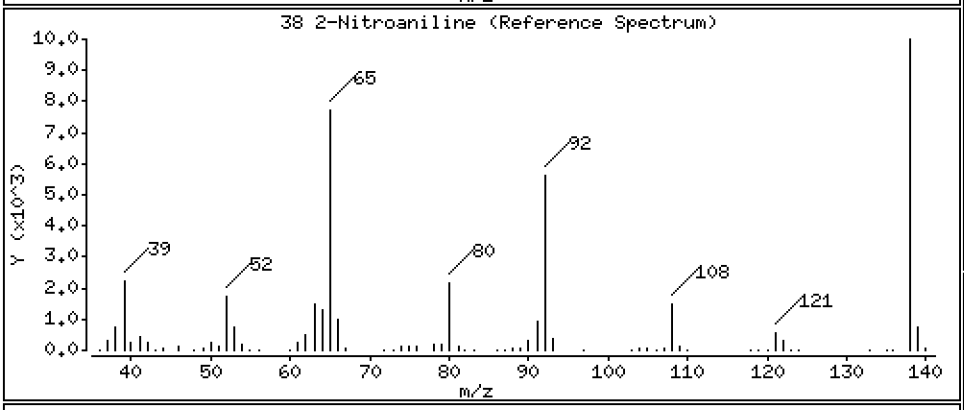
Column diameter: 0.32

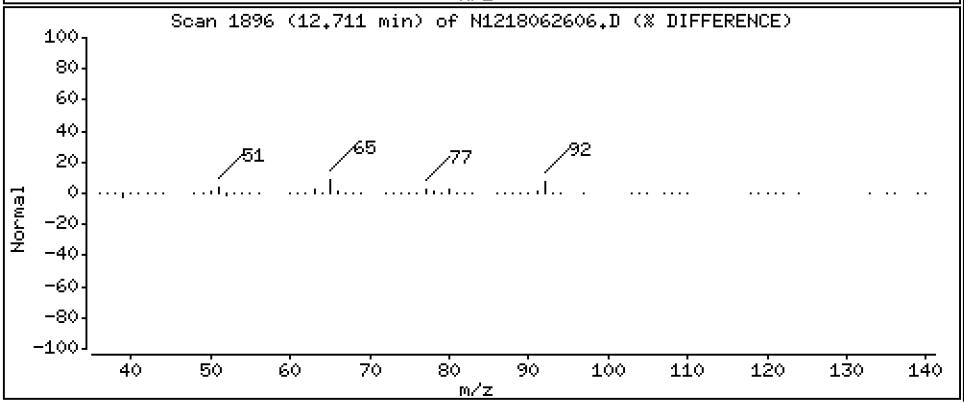
38 2-Nitroaniline

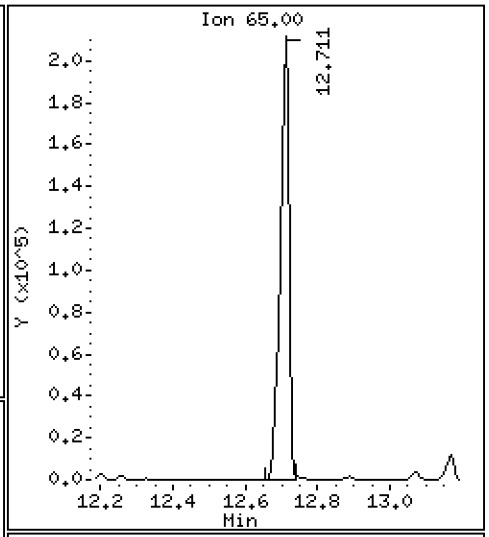
Concentration: 60.37 ug/mL

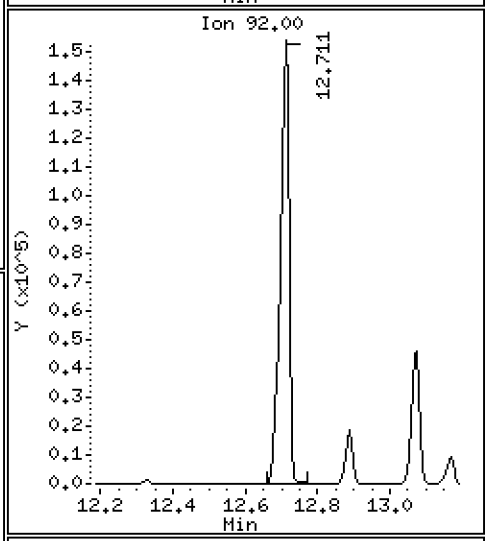


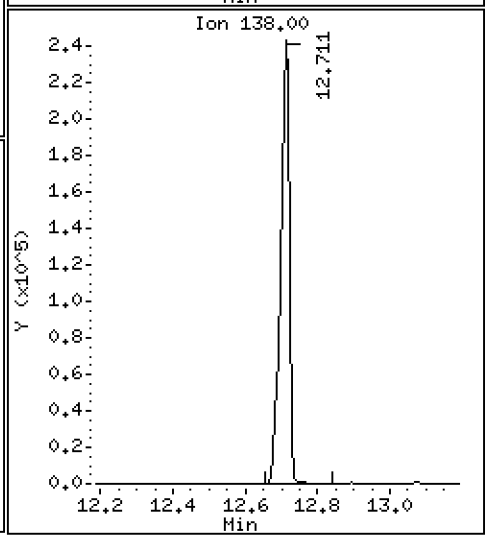












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

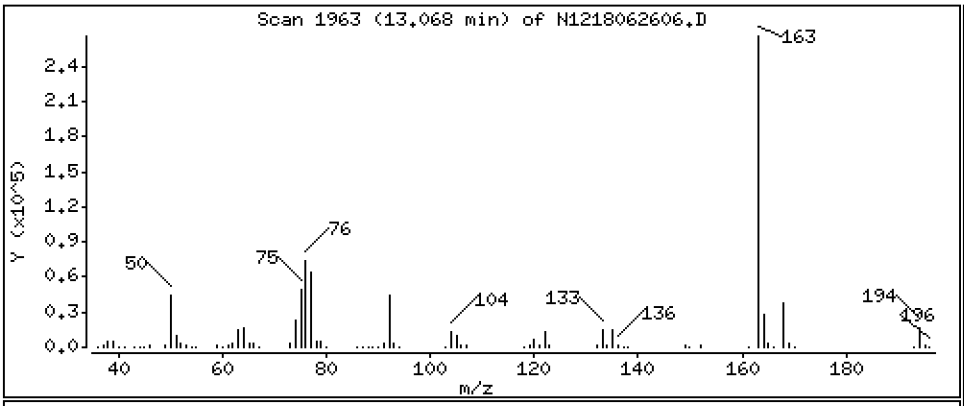
Operator: JZ

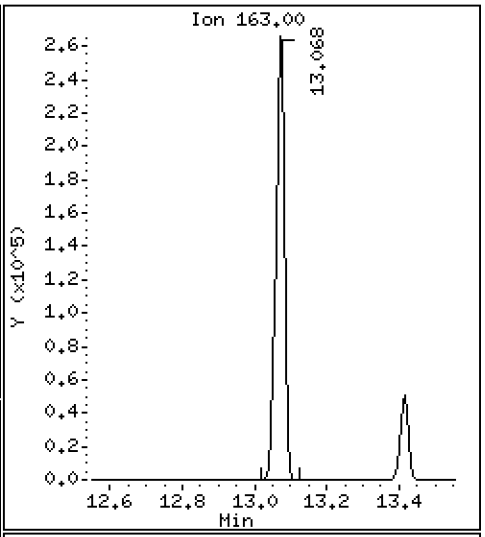
Column phase: ZB-5msi

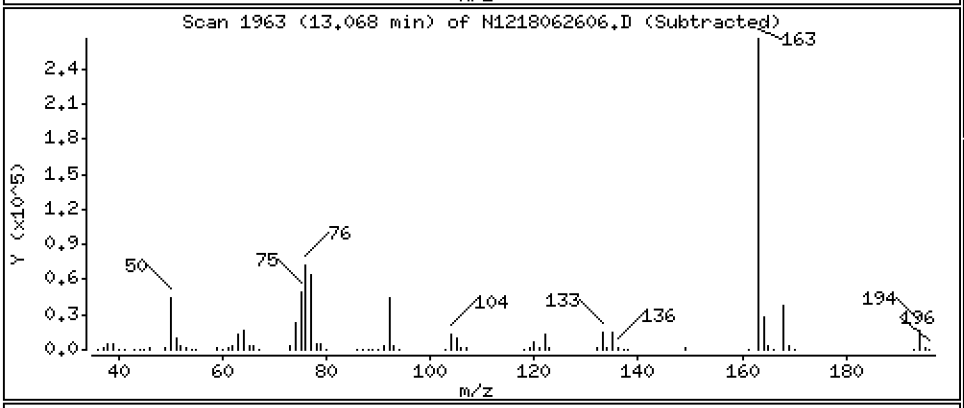
Column diameter: 0.32

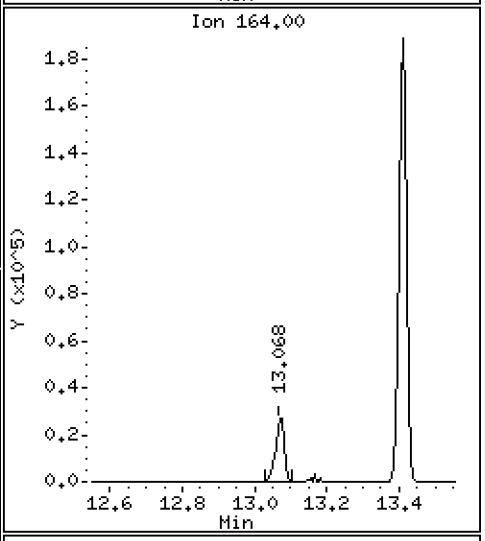
39 Dimethylphthalate

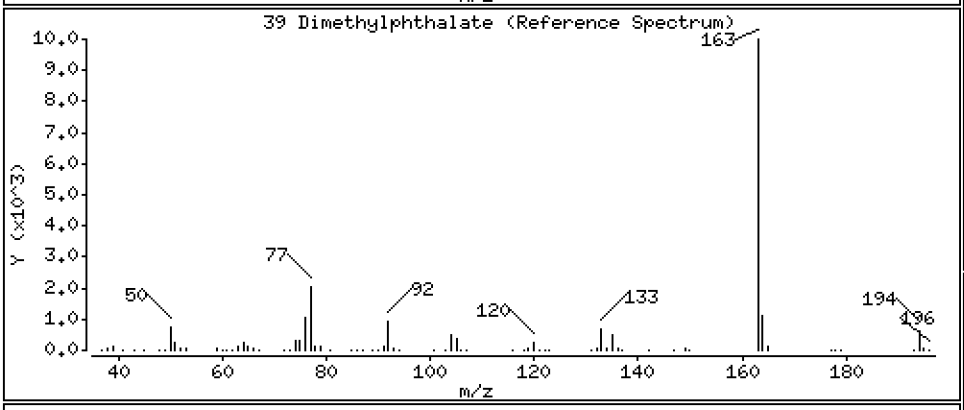
Concentration: 21.25 ug/mL

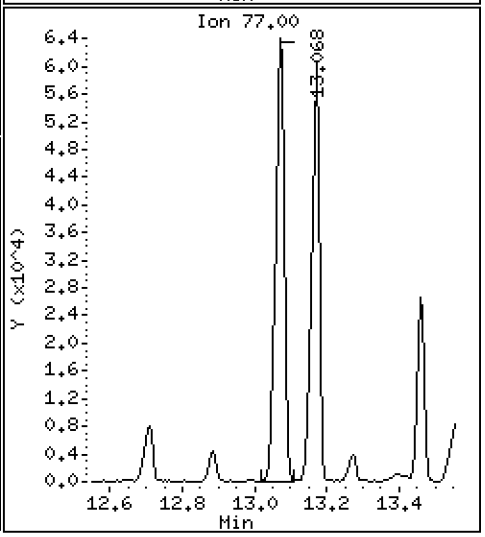


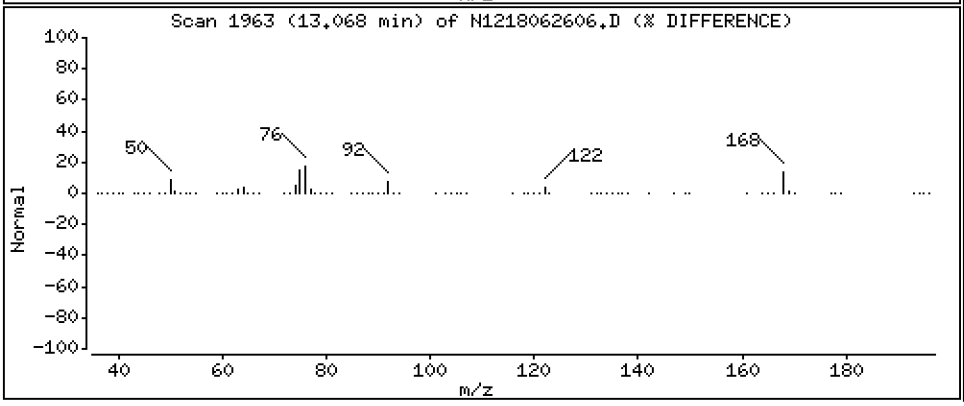












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

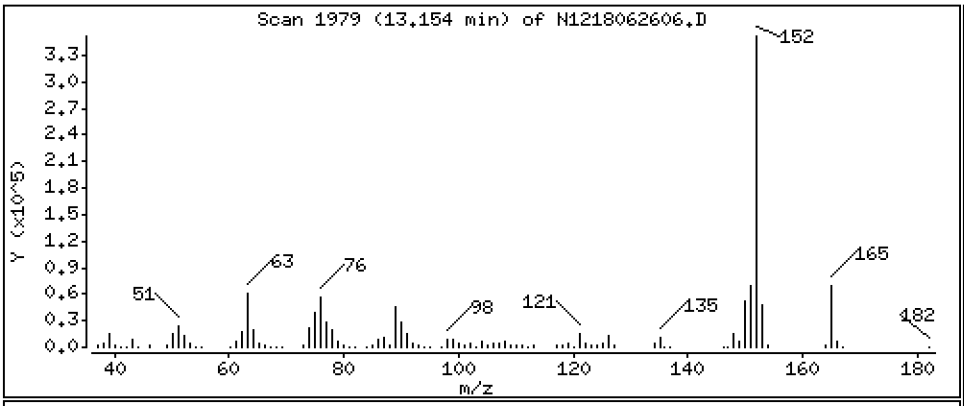
Operator: JZ

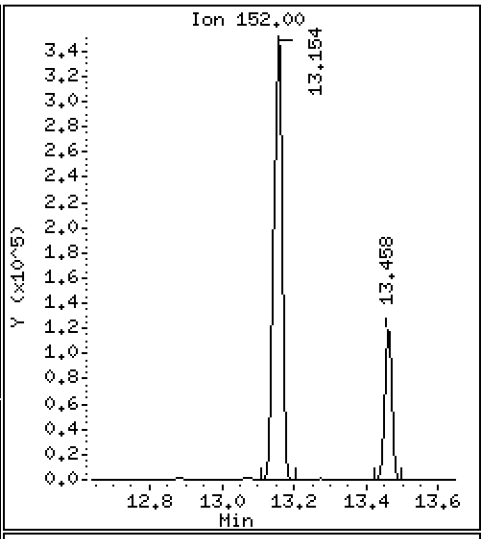
Column phase: ZB-5msi

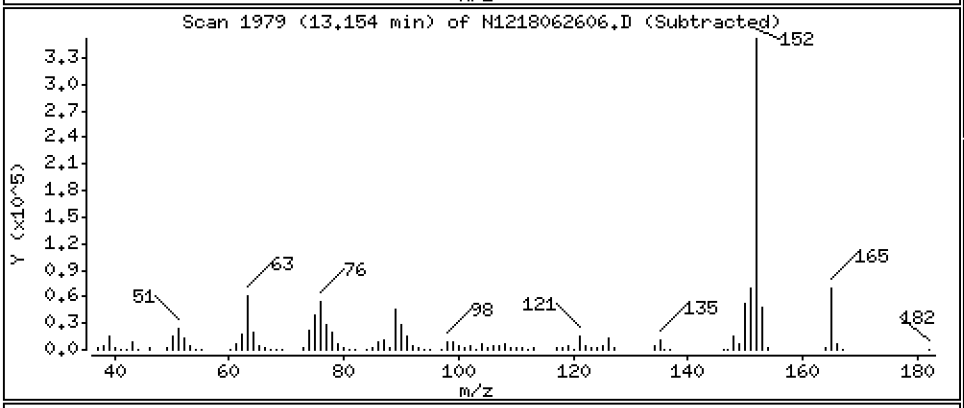
Column diameter: 0.32

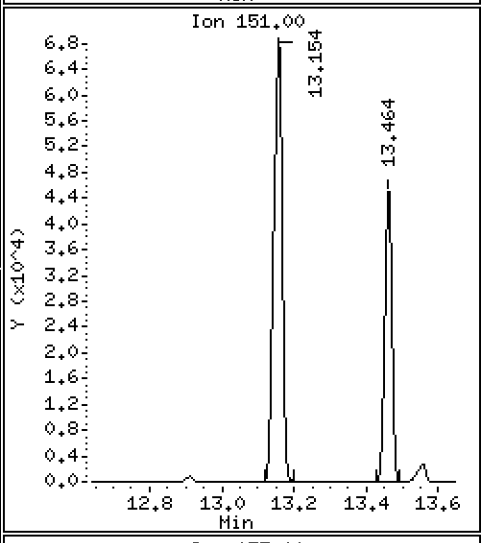
40 Acenaphthylene

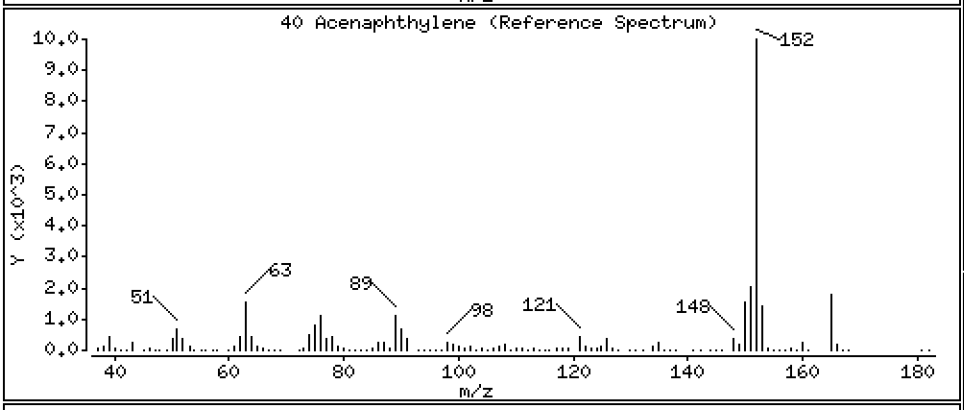
Concentration: 19.61 ug/mL

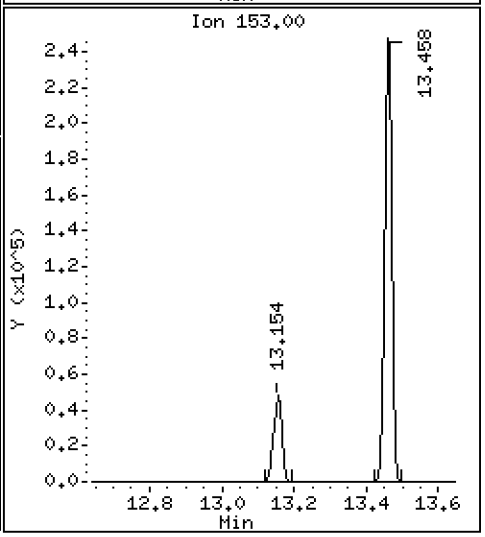


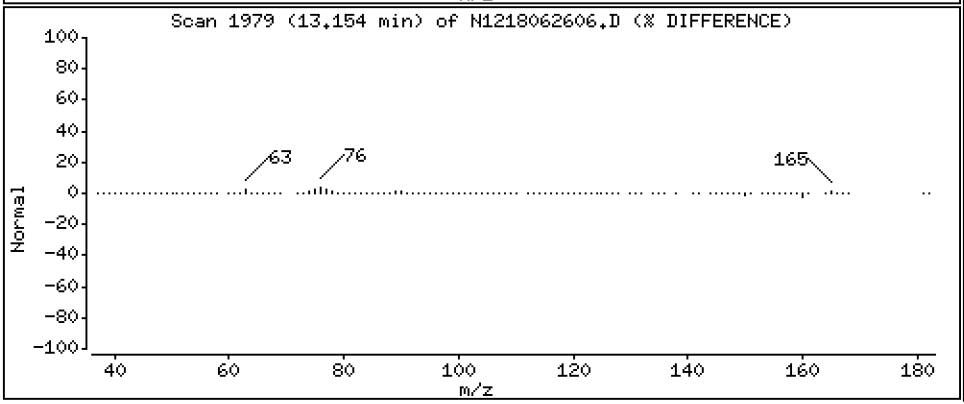












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

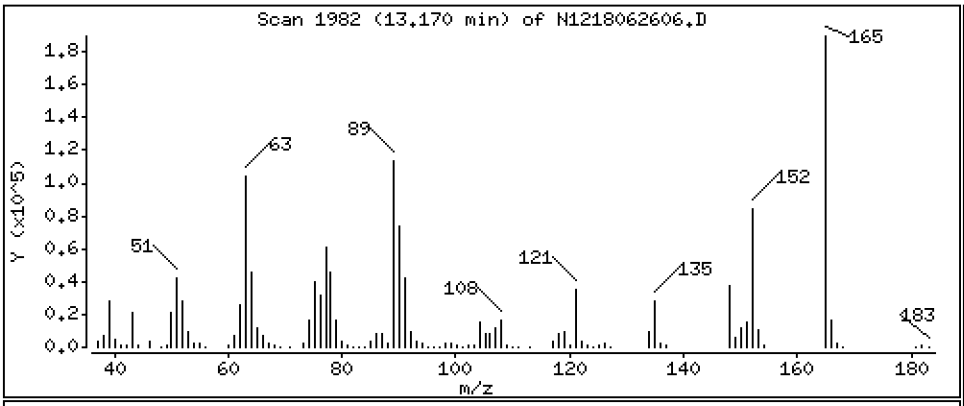
Operator: JZ

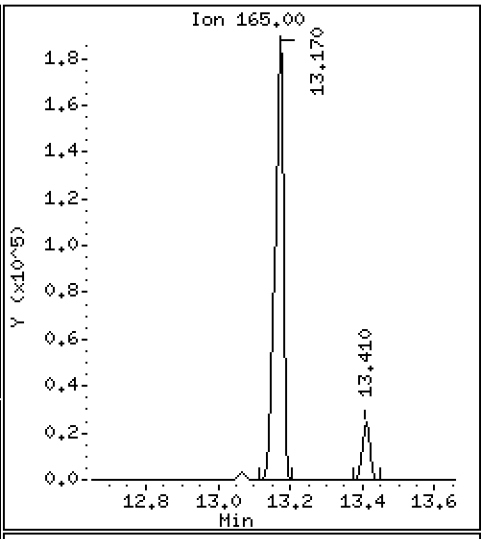
Column phase: ZB-5msi

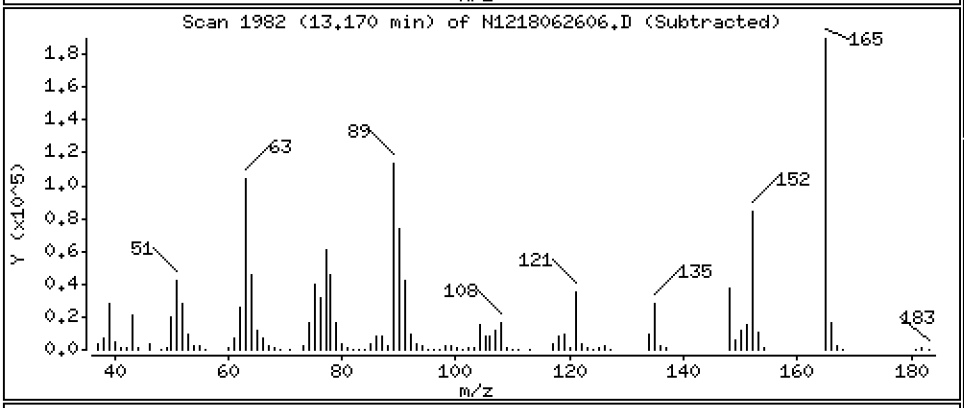
Column diameter: 0.32

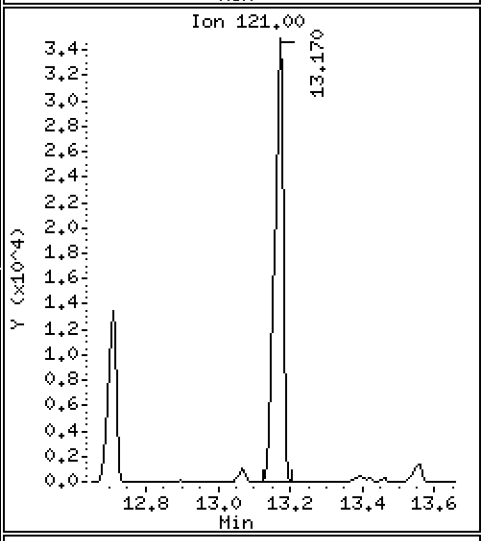
41 2,6-Dinitrotoluene

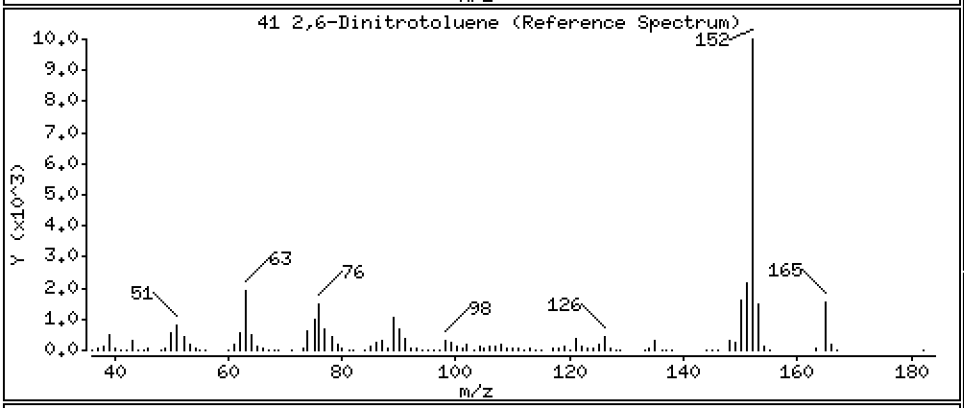
Concentration: 65.84 ug/mL

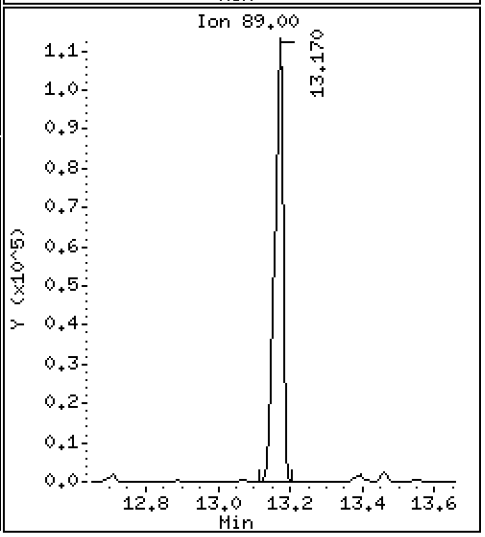


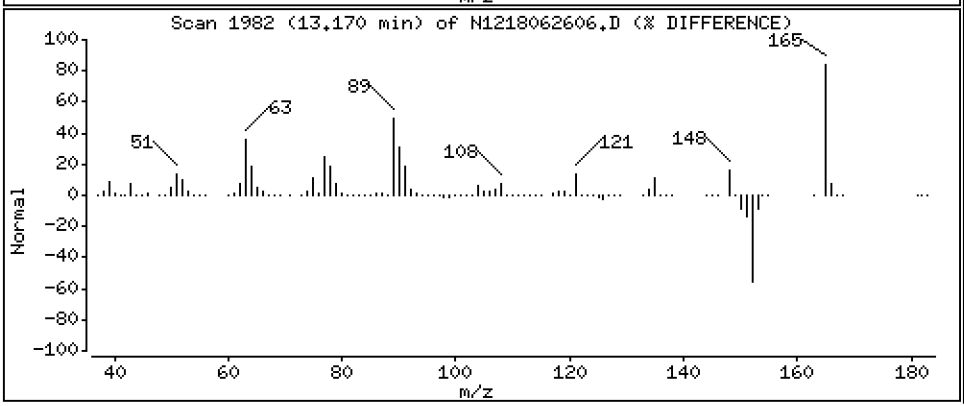












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

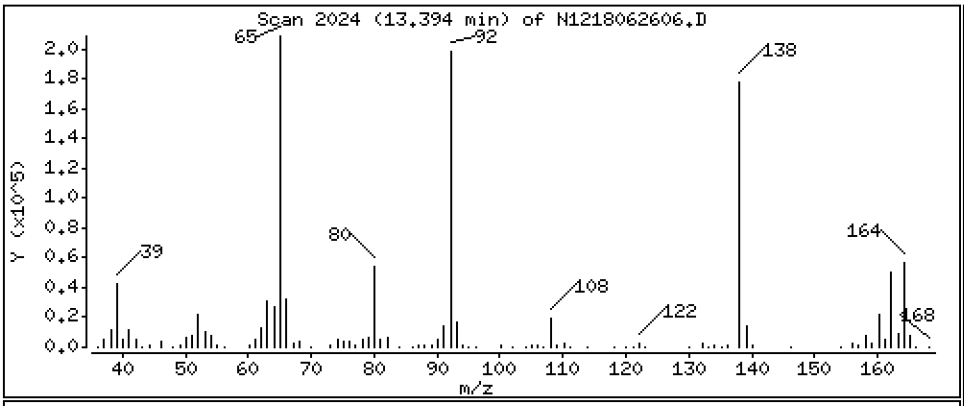
Operator: JZ

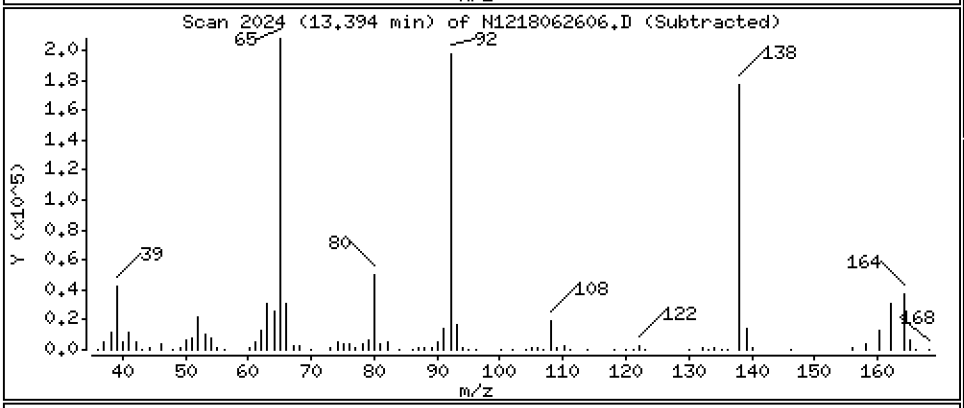
Column phase: ZB-5msi

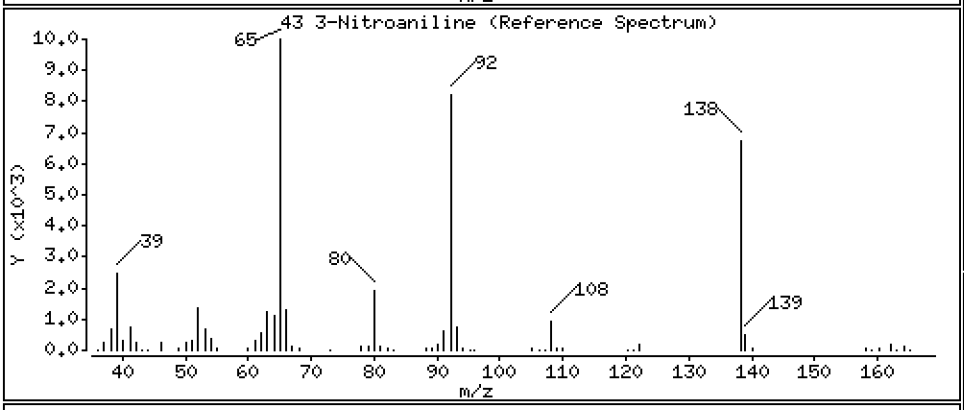
Column diameter: 0.32

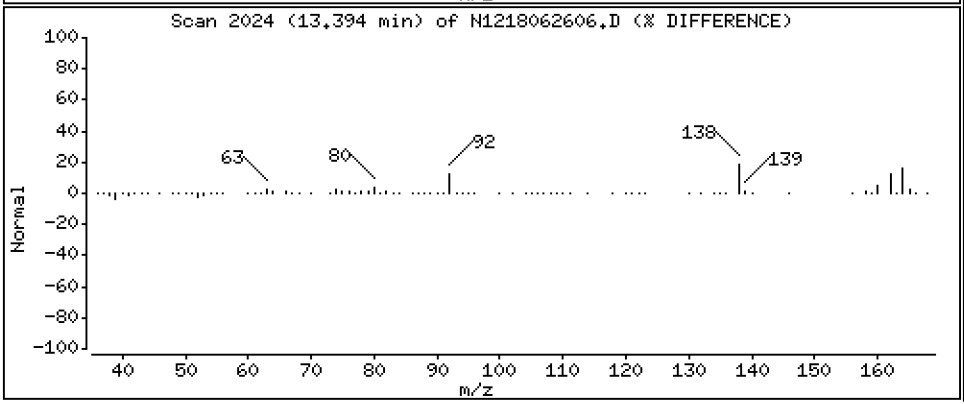
43 3-Nitroaniline

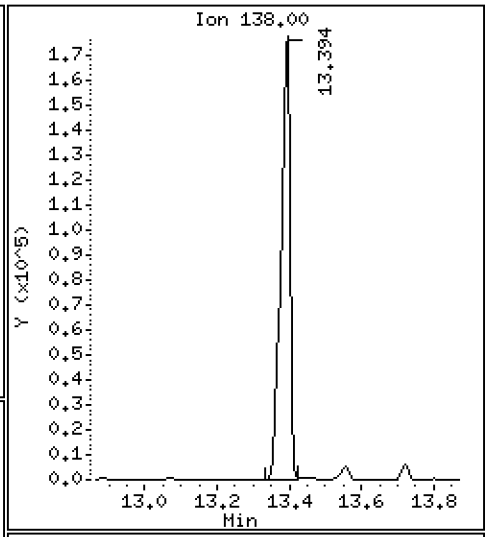
Concentration: 56.32 ug/mL

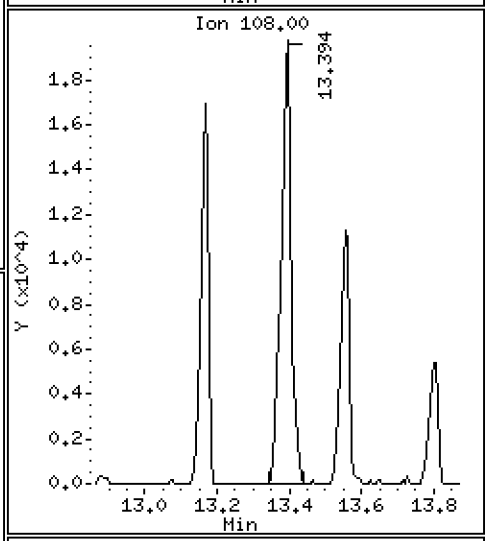


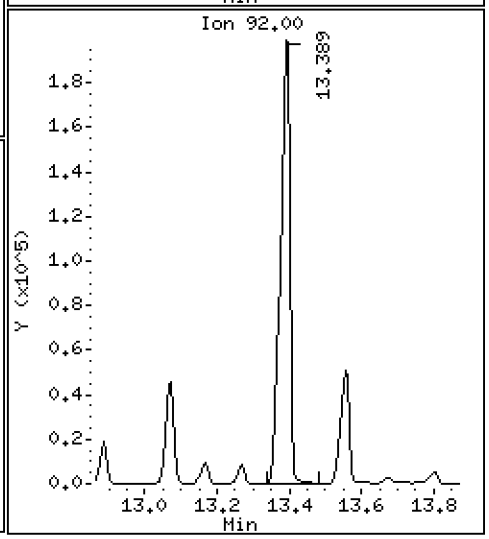












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

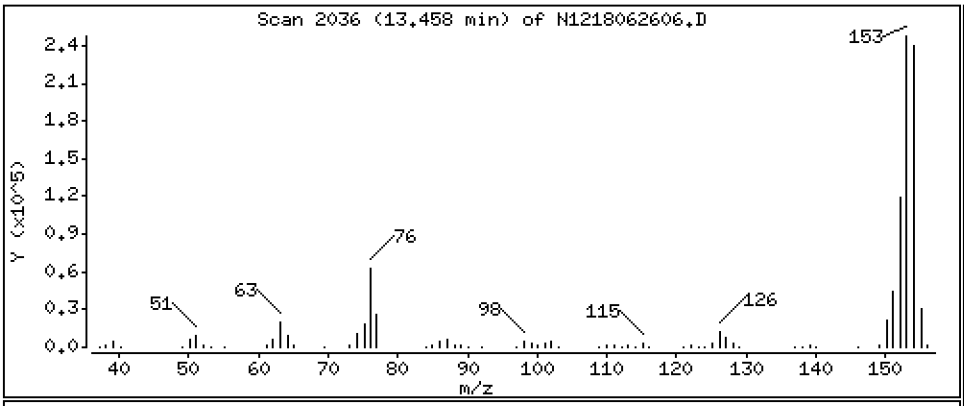
Operator: JZ

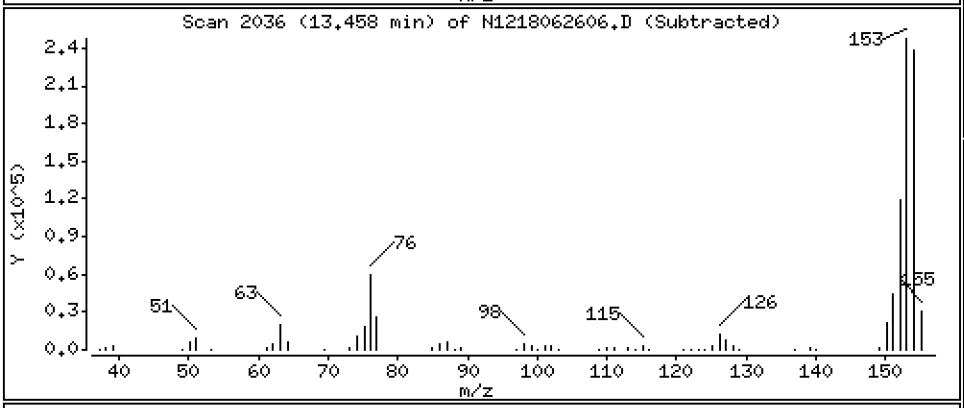
Column phase: ZB-5msi

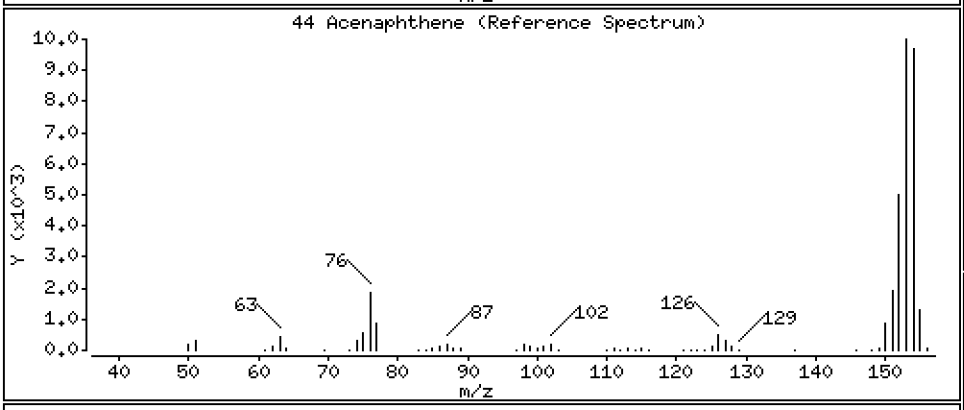
Column diameter: 0.32

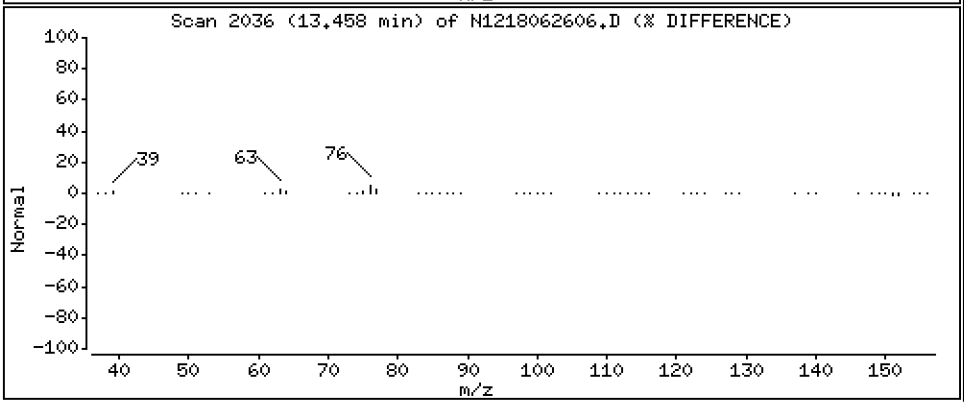
44 Acenaphthene

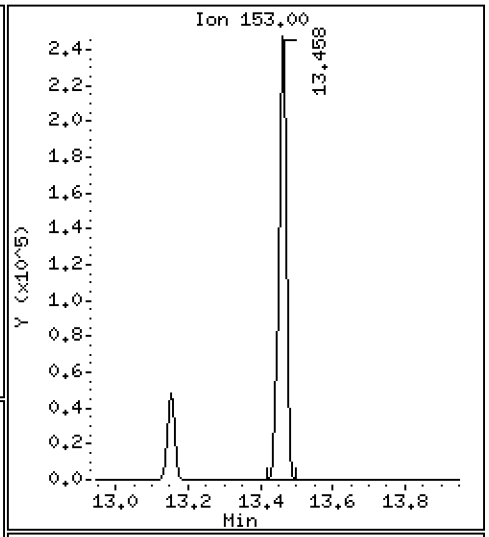
Concentration: 20.19 ug/mL

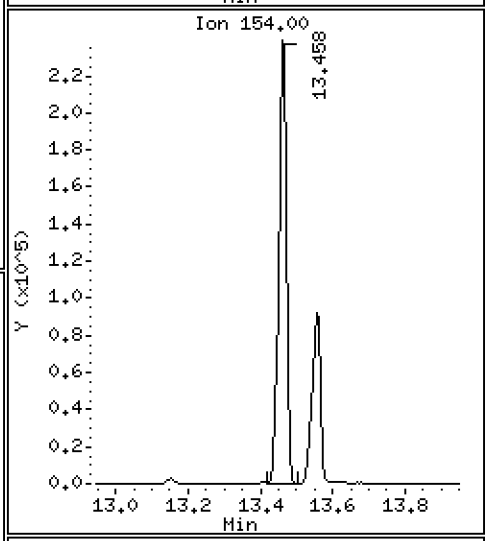


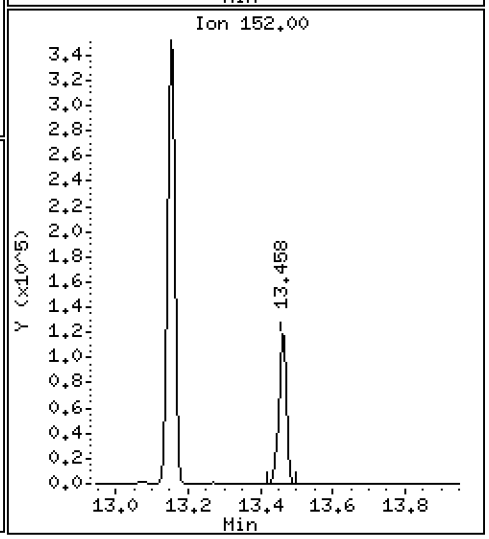












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

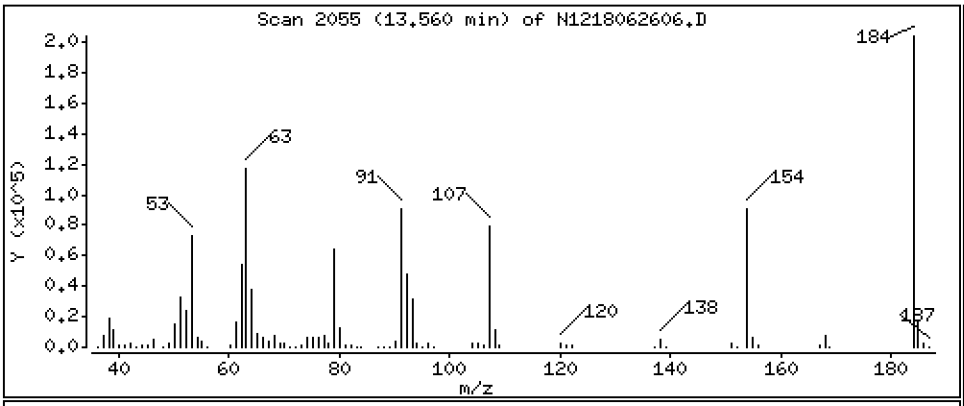
Operator: JZ

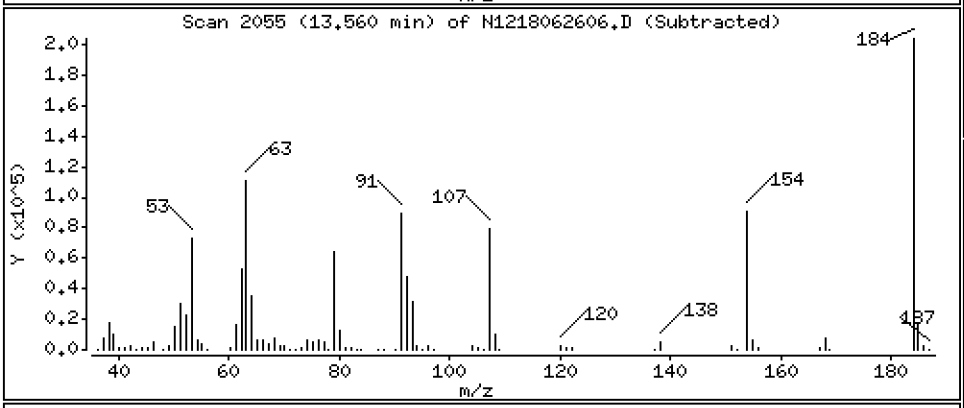
Column phase: ZB-5msi

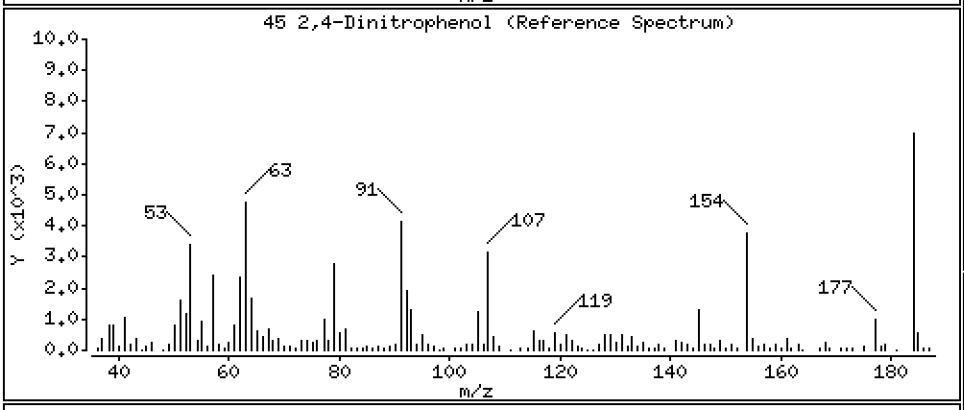
Column diameter: 0.32

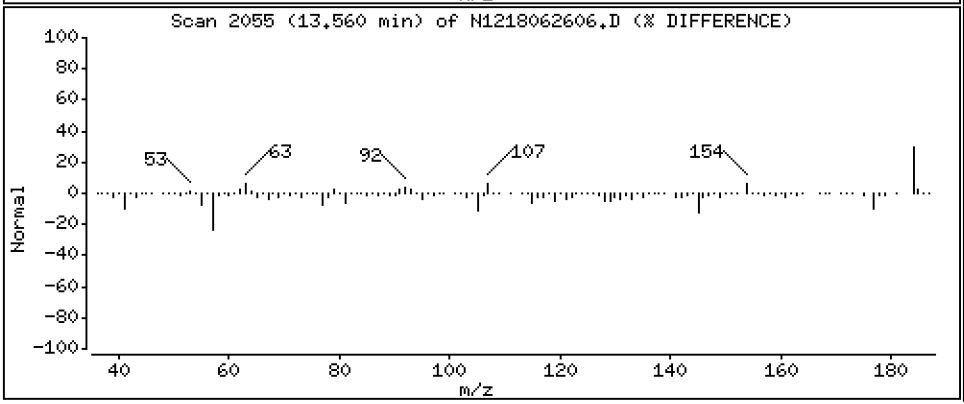
45 2,4-Dinitrophenol

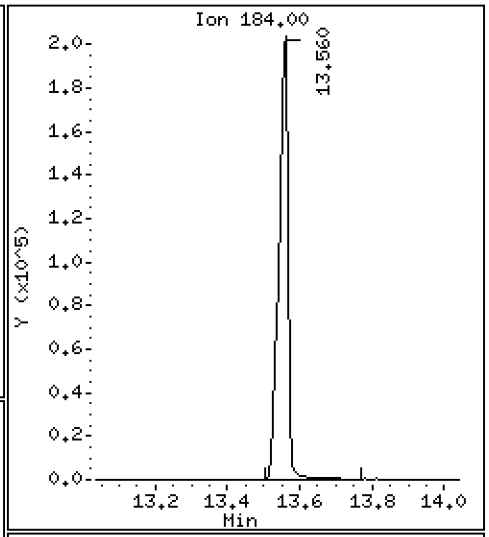
Concentration: 130.0 ug/mL

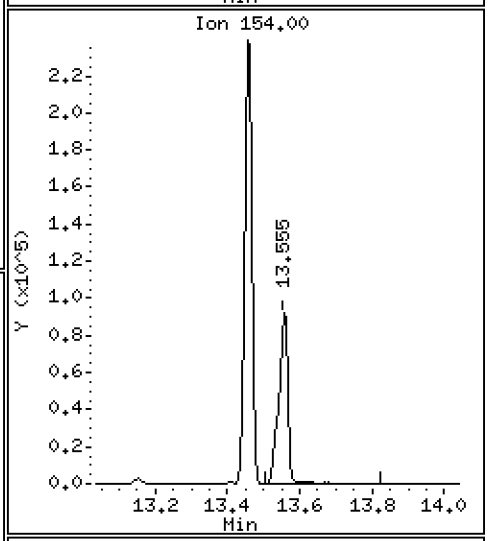


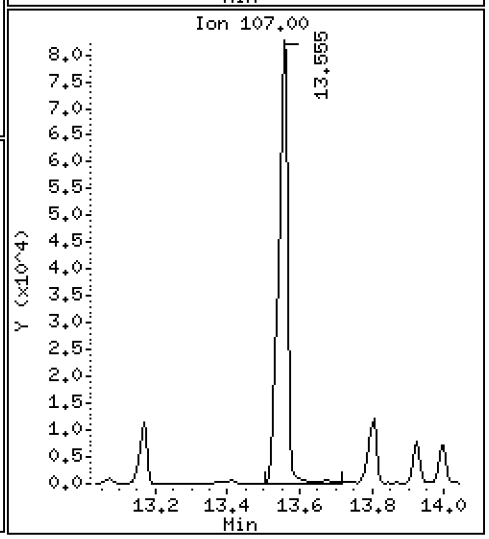












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

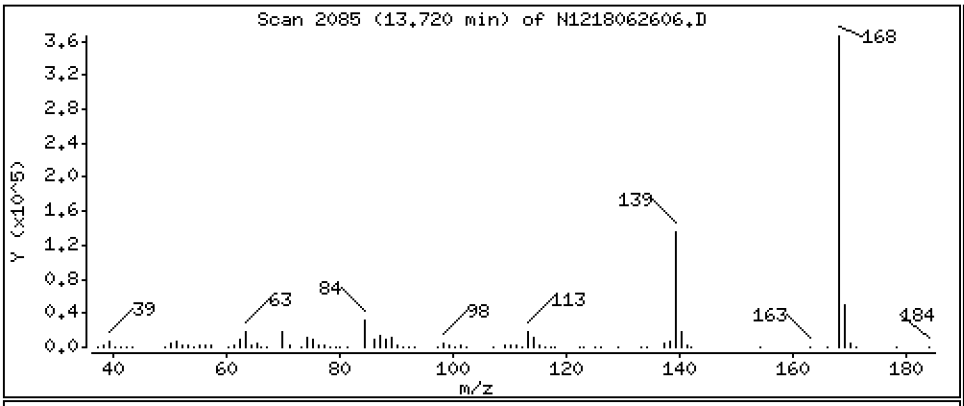
Operator: JZ

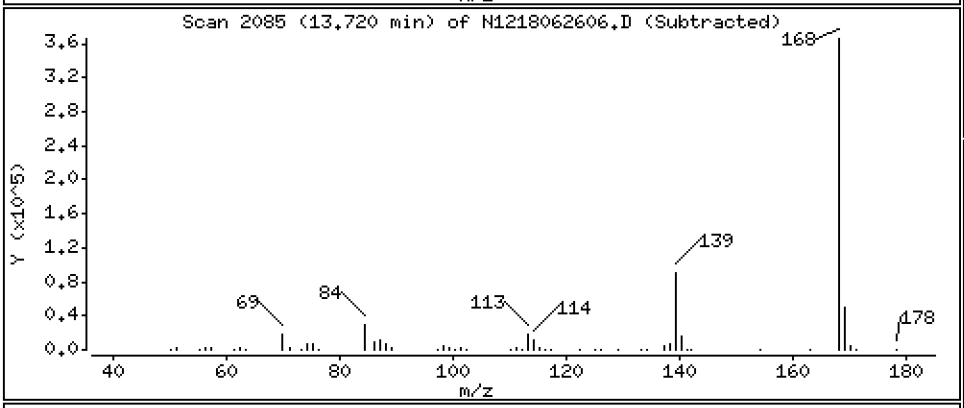
Column phase: ZB-5msi

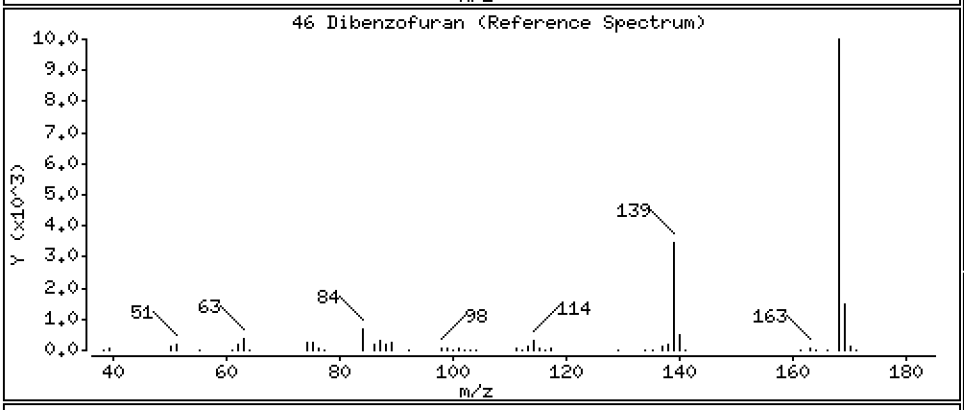
Column diameter: 0.32

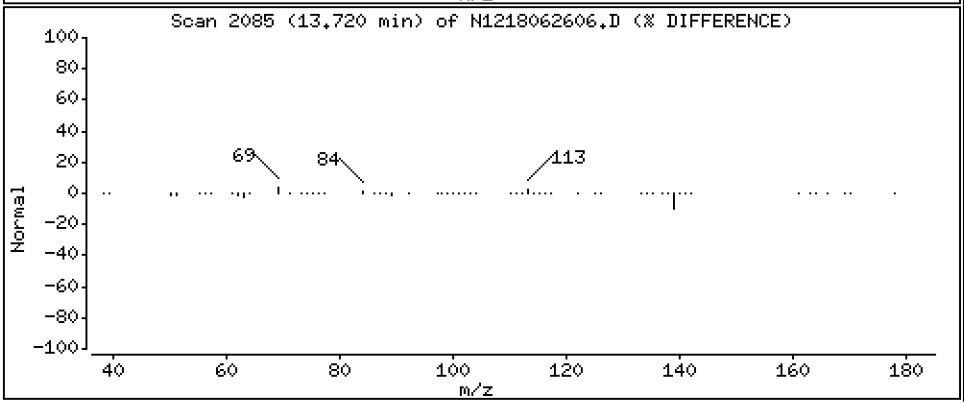
46 Dibenzofuran

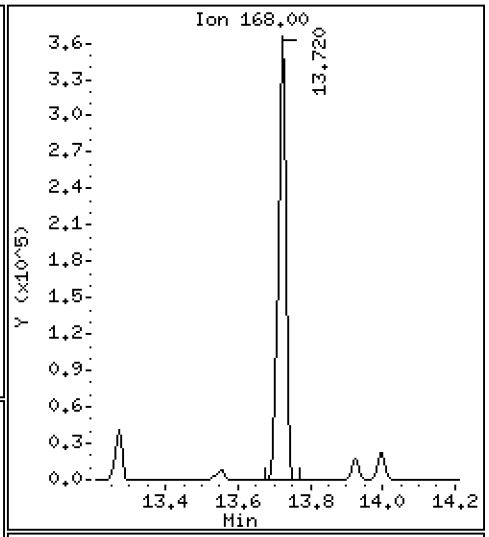
Concentration: 19.29 ug/mL

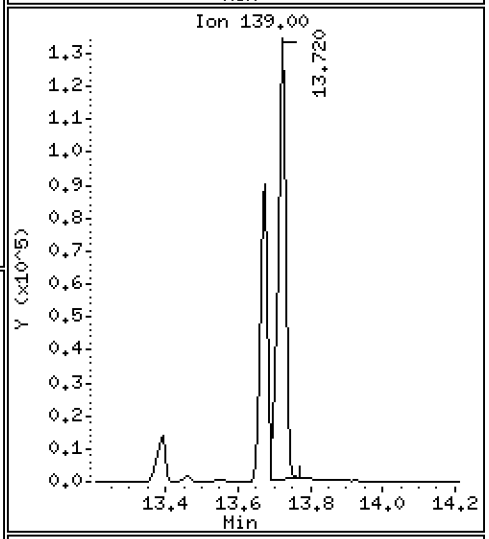


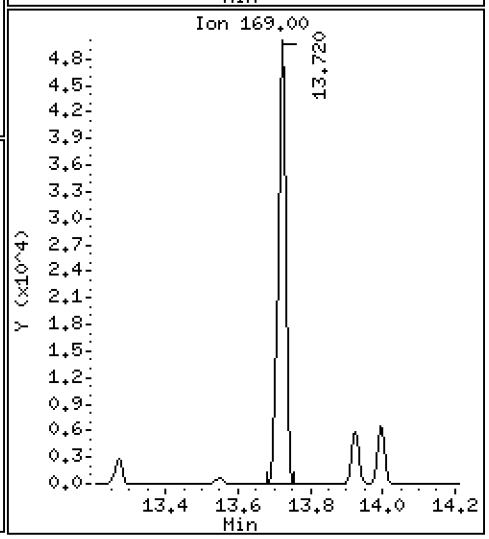












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

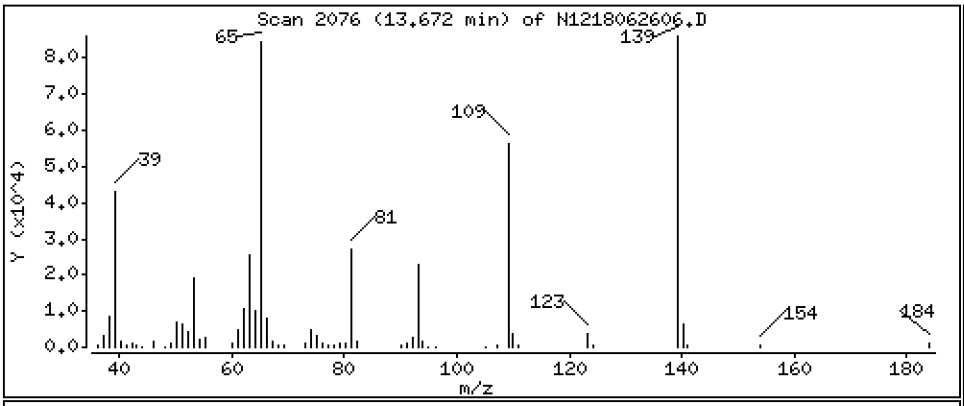
Operator: JZ

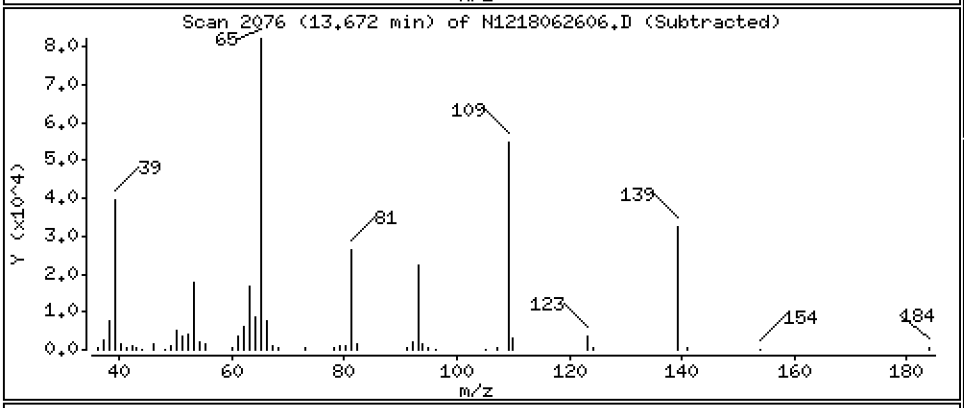
Column phase: ZB-5msi

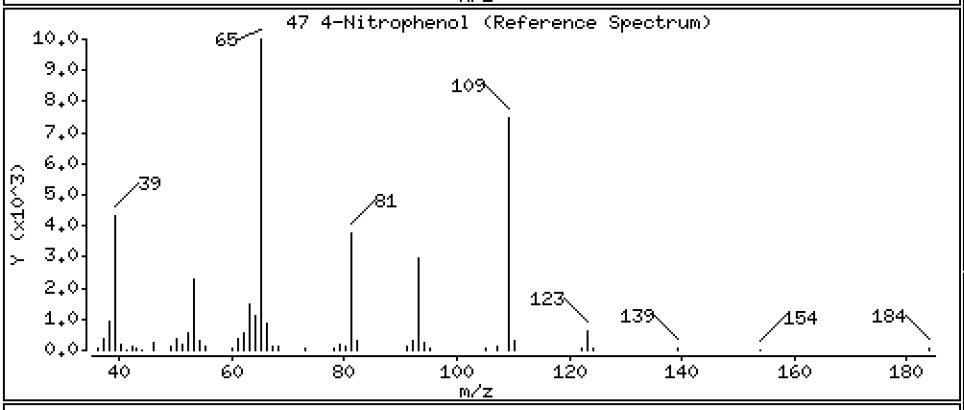
Column diameter: 0.32

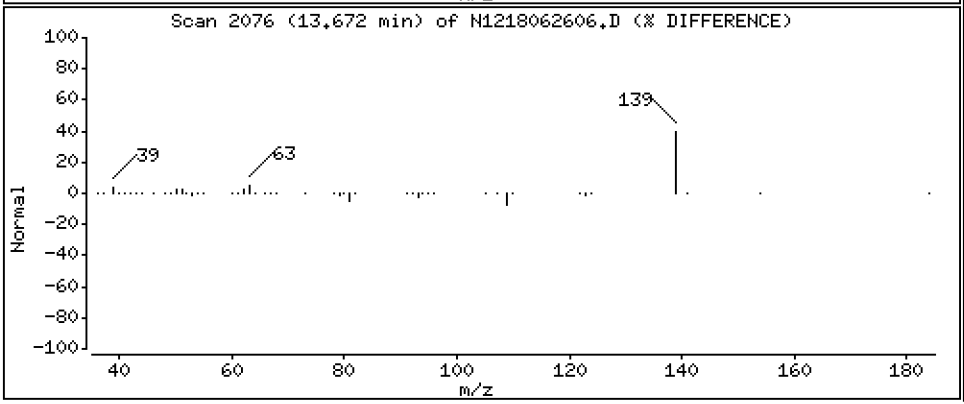
47 4-Nitrophenol

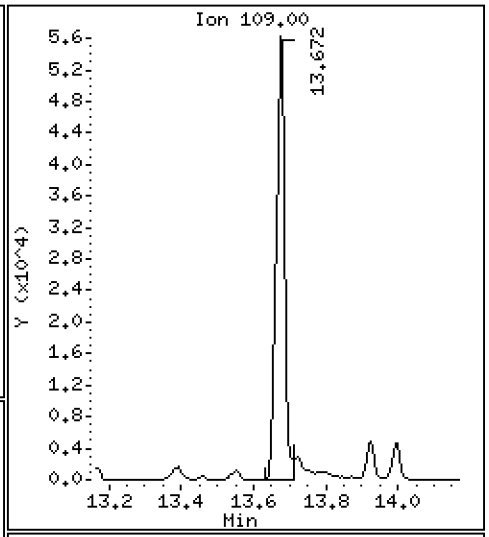
Concentration: 29.95 ug/mL

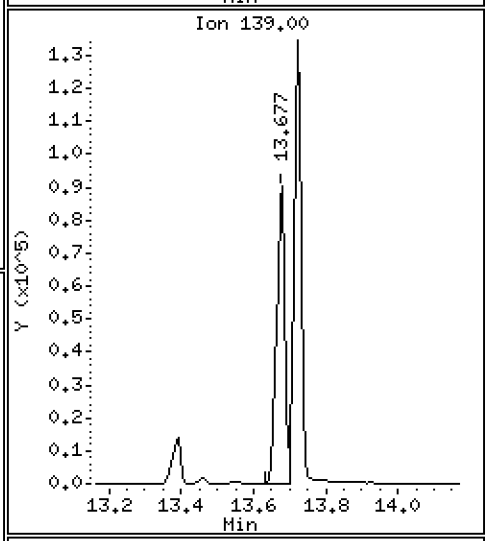


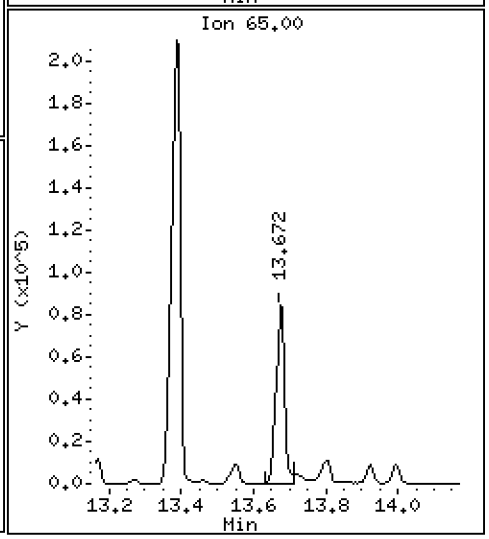












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

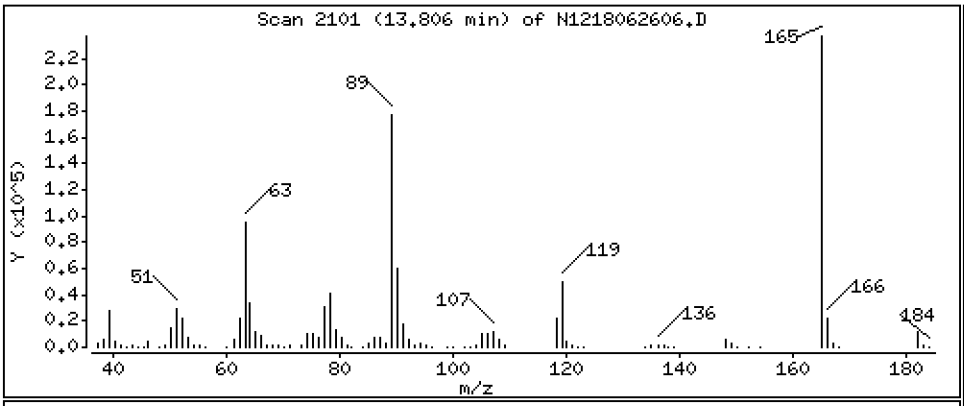
Operator: JZ

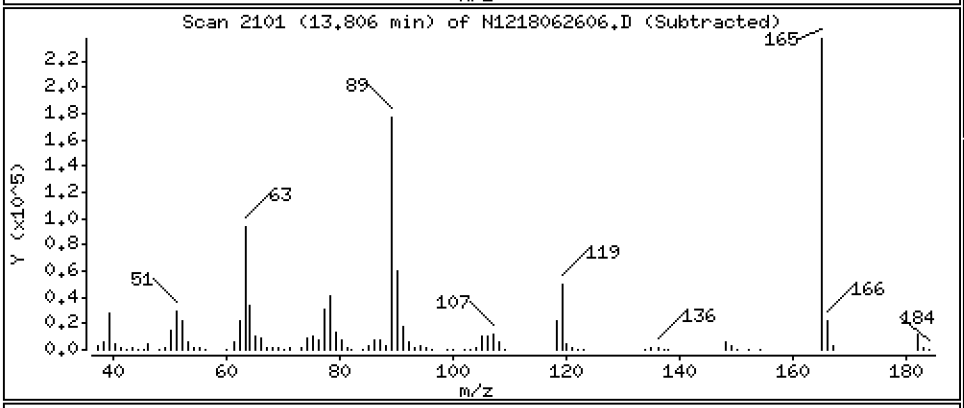
Column phase: ZB-5msi

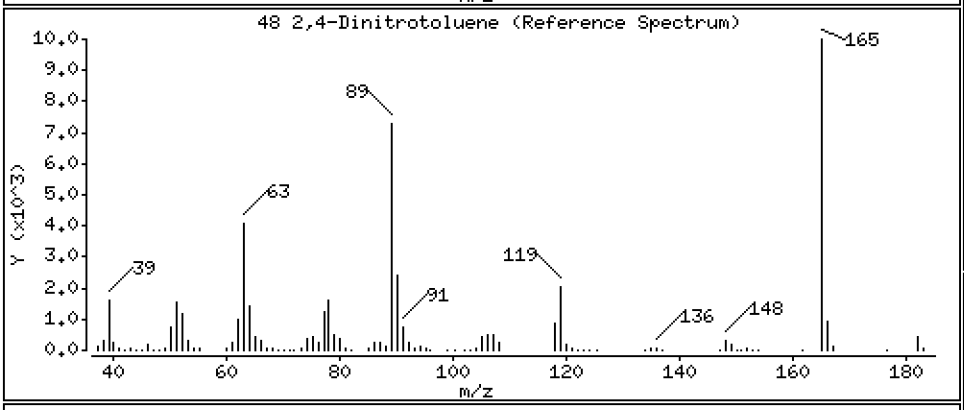
Column diameter: 0.32

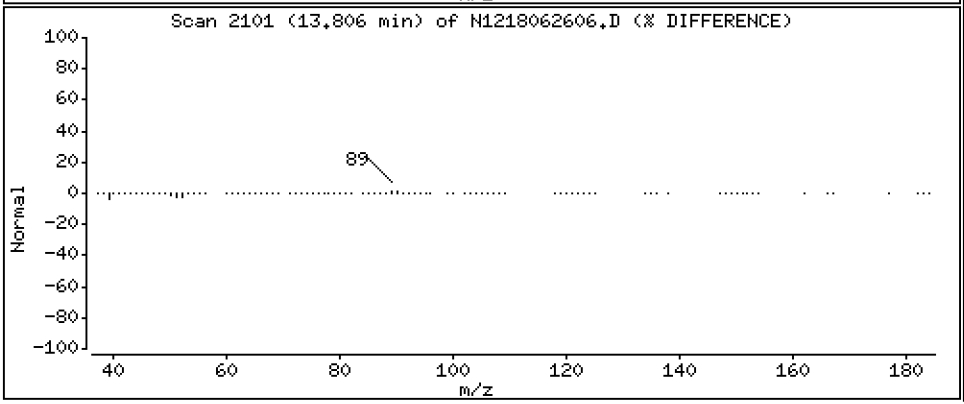
48 2,4-Dinitrotoluene

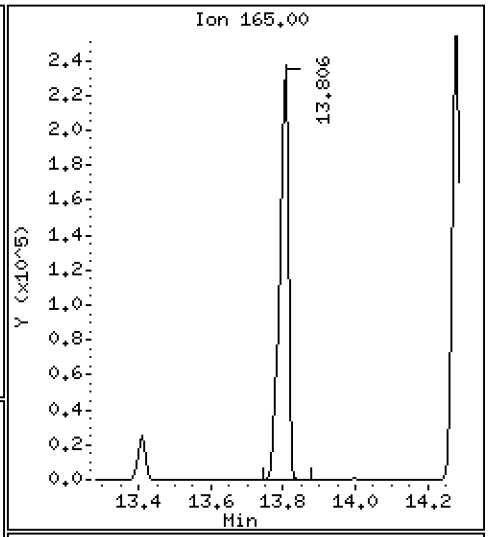
Concentration: 63.25 ug/mL

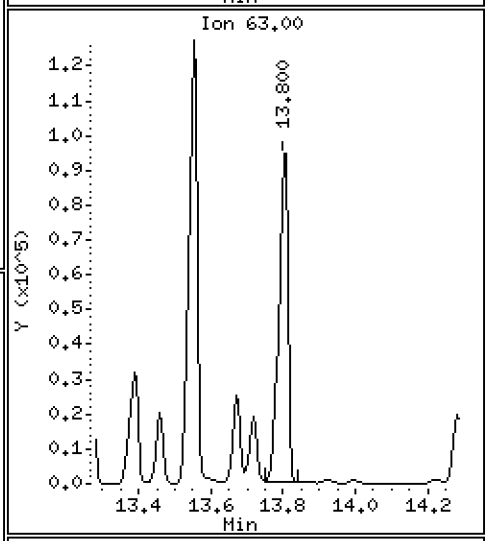


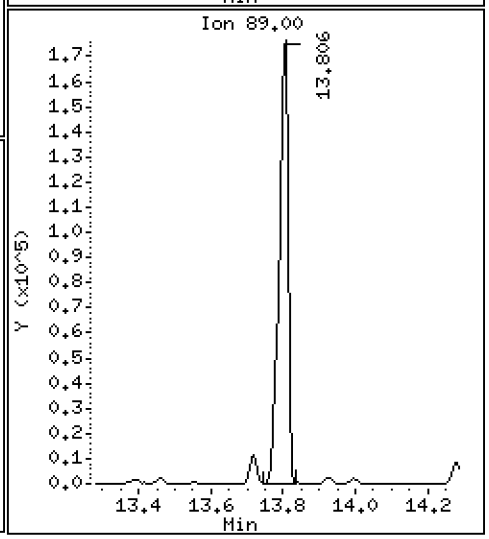












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

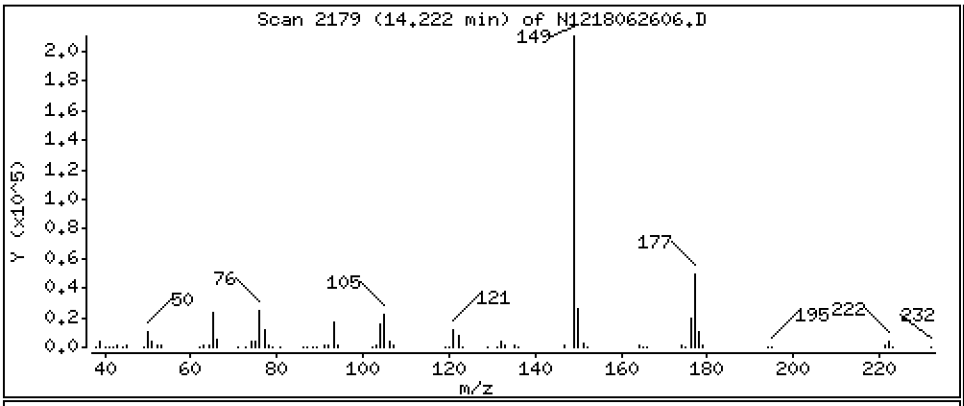
Operator: JZ

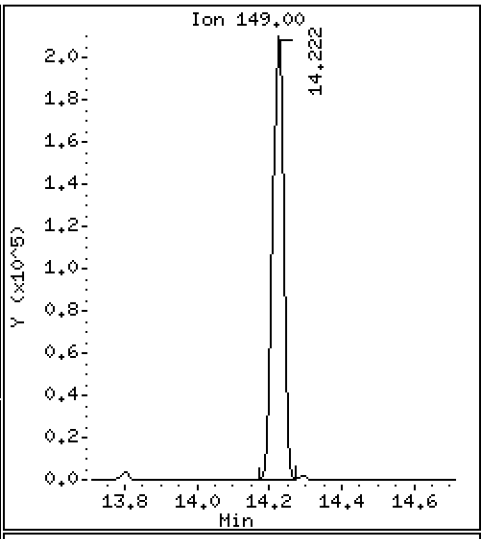
Column phase: ZB-5msi

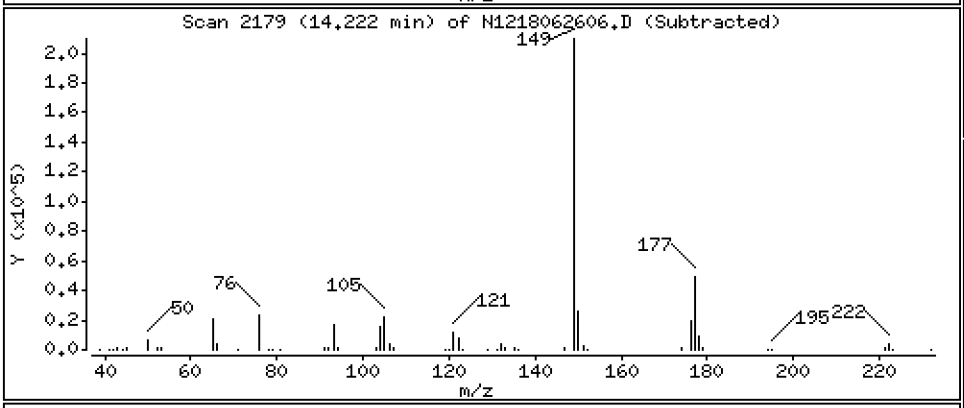
Column diameter: 0.32

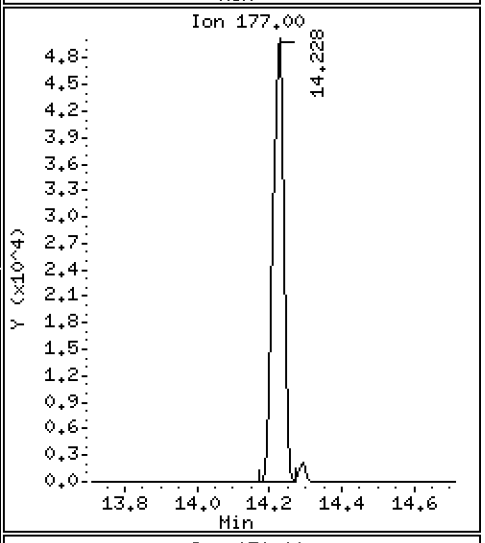
50 Diethylphthalate

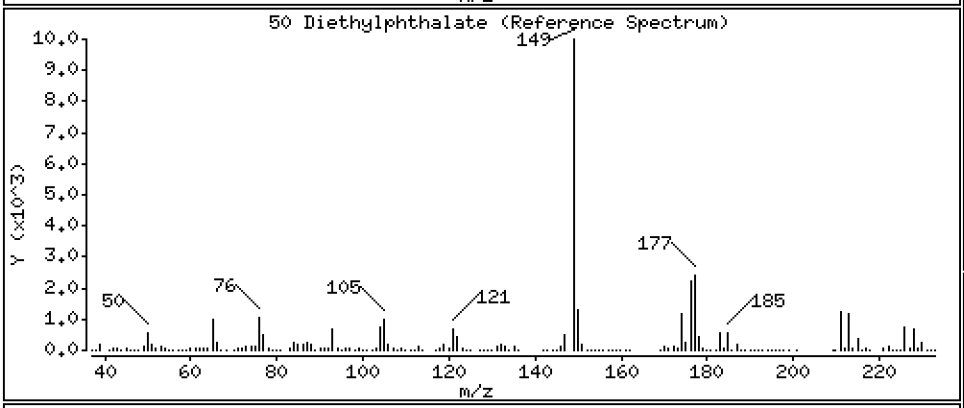
Concentration: 21.88 ug/mL

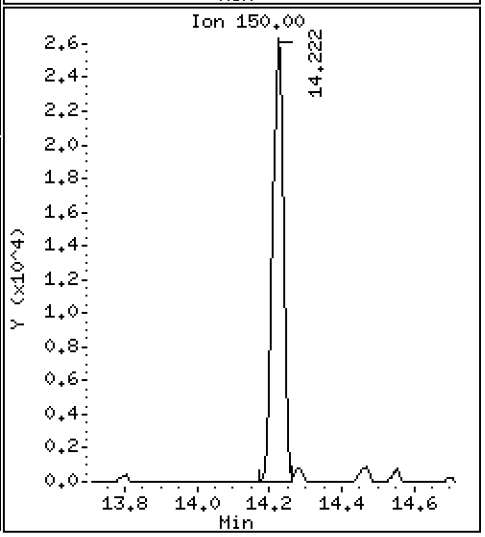


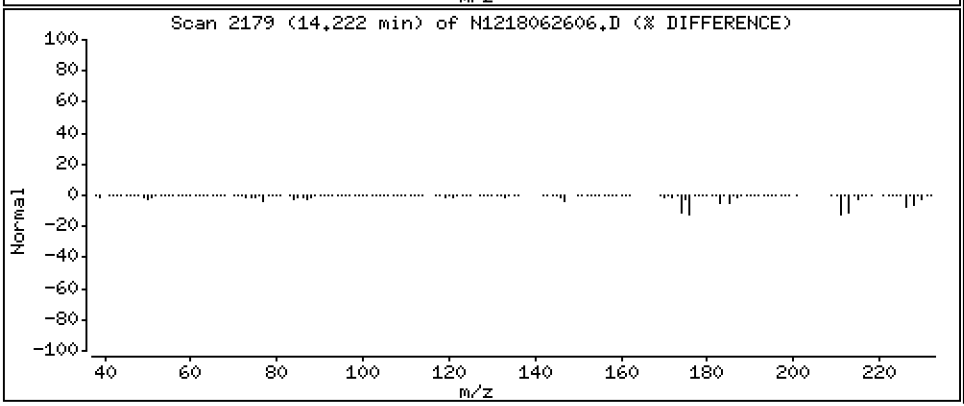












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

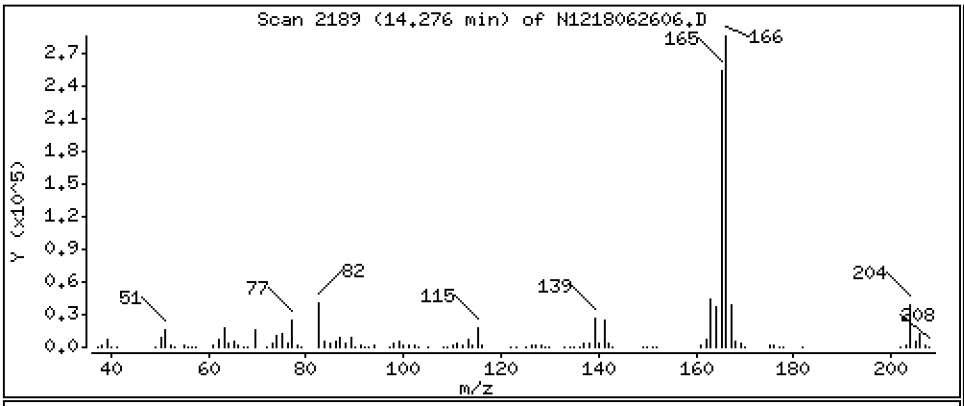
Operator: JZ

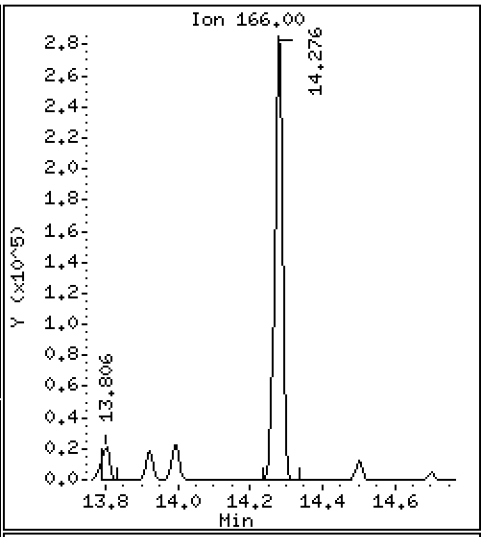
Column phase: ZB-5msi

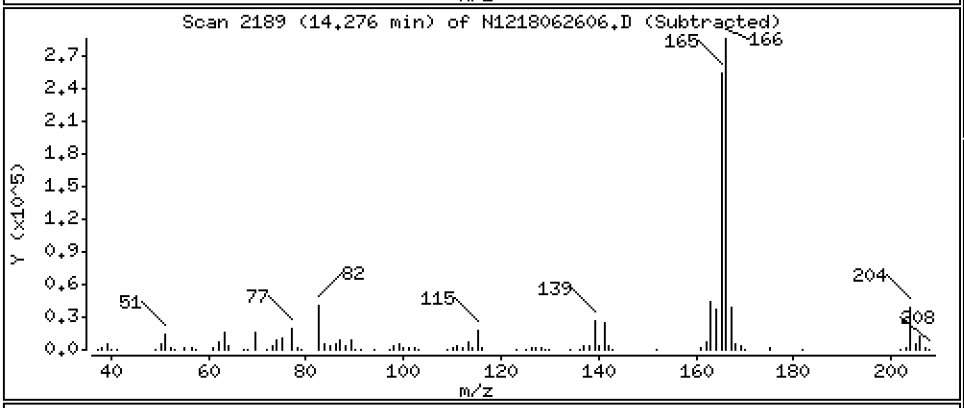
Column diameter: 0.32

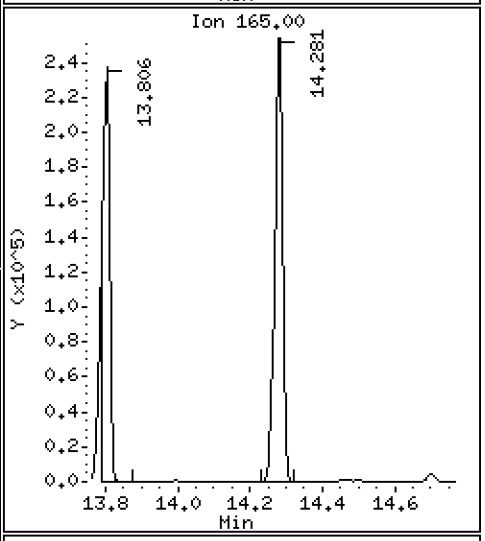
49 Fluorene

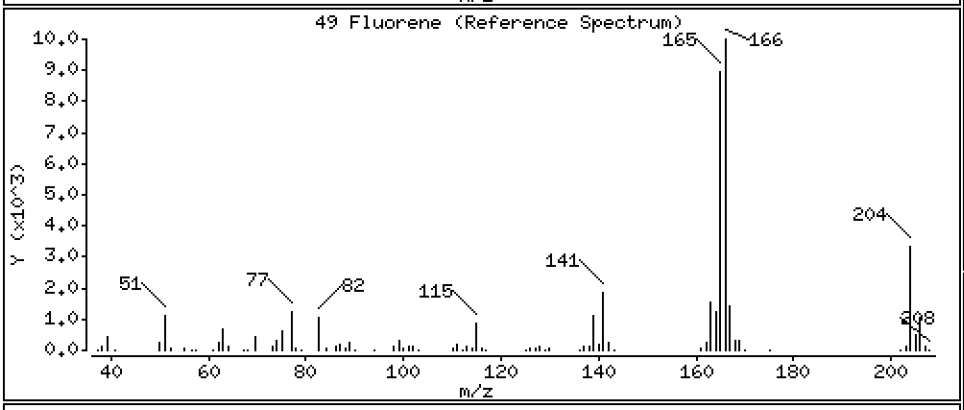
Concentration: 21.22 ug/mL

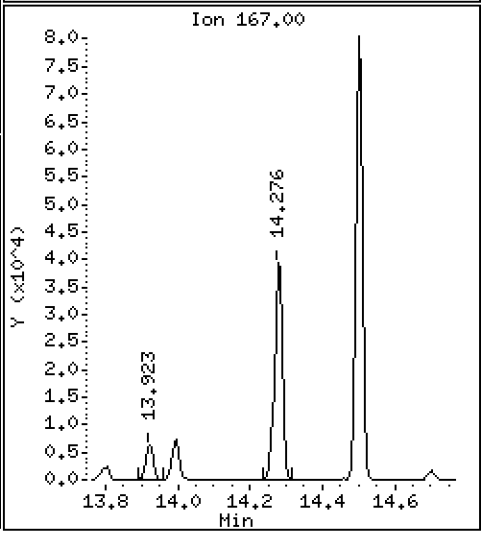


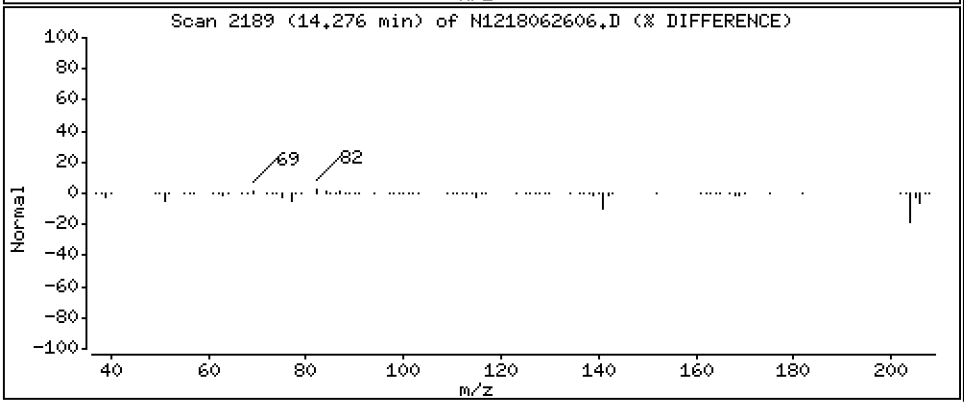












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

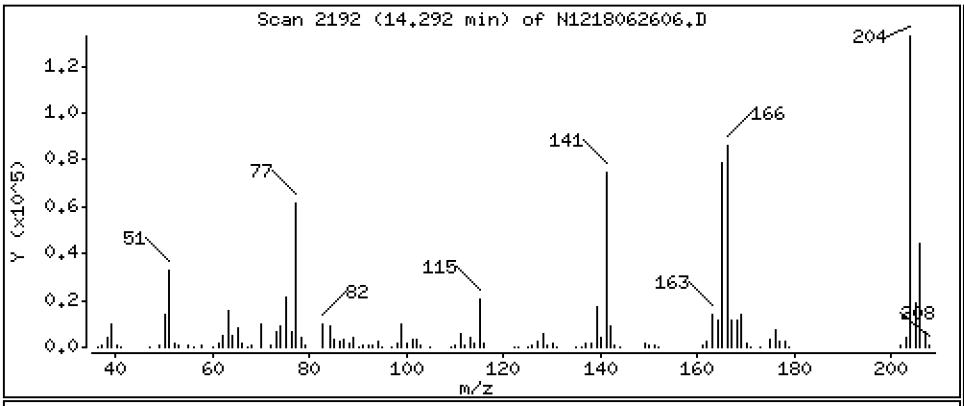
Operator: JZ

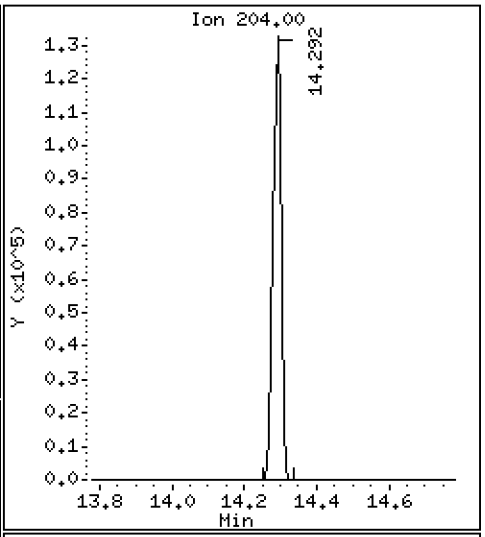
Column phase: ZB-5msi

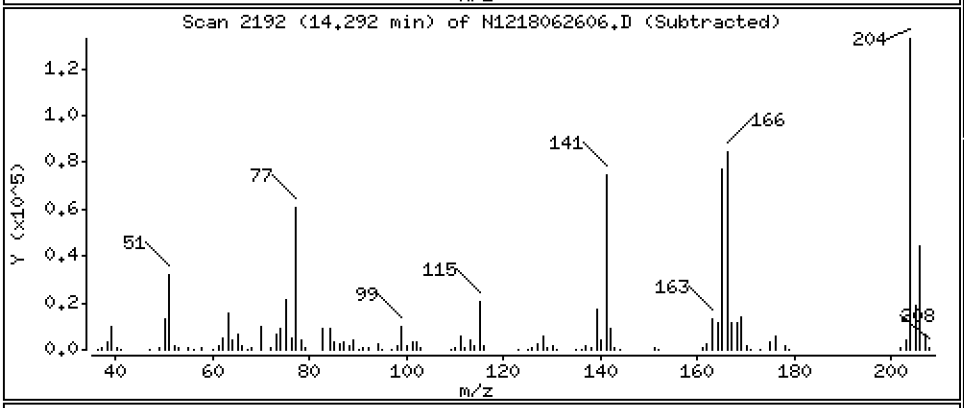
Column diameter: 0.32

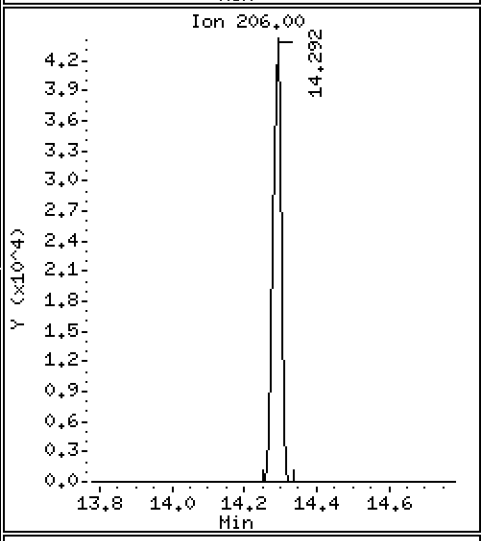
51 4-Chlorophenyl-phenylether

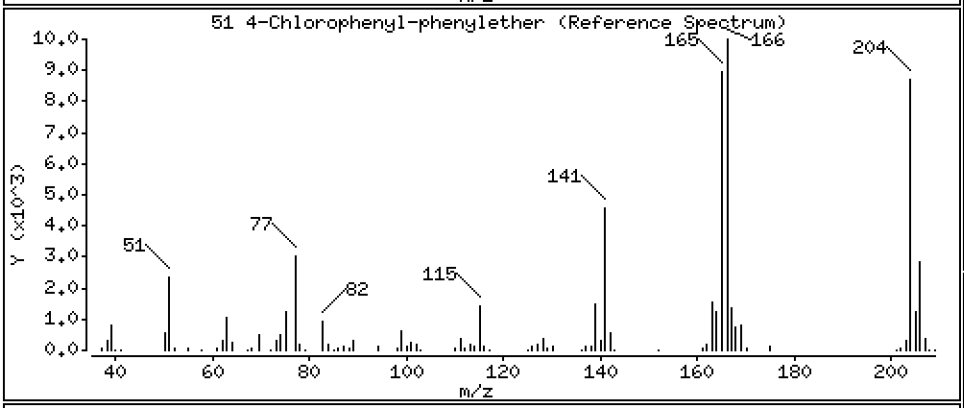
Concentration: 20.54 ug/mL

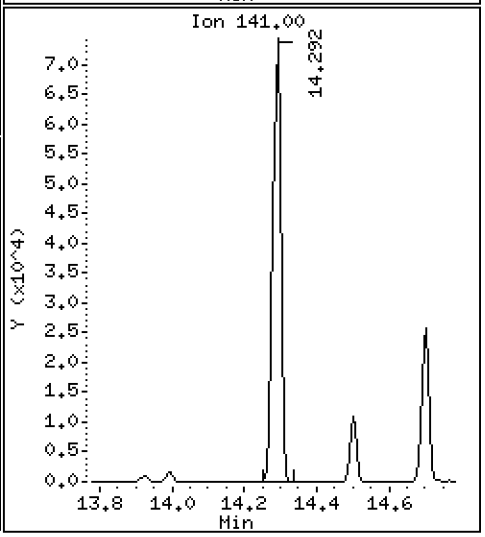


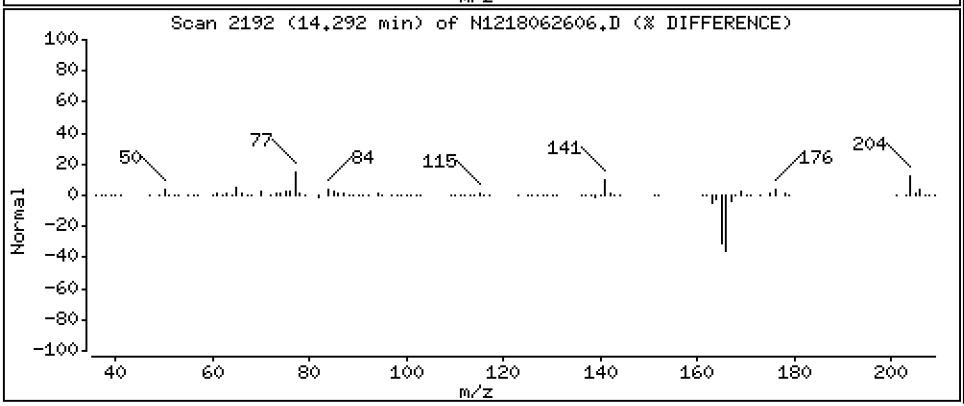












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

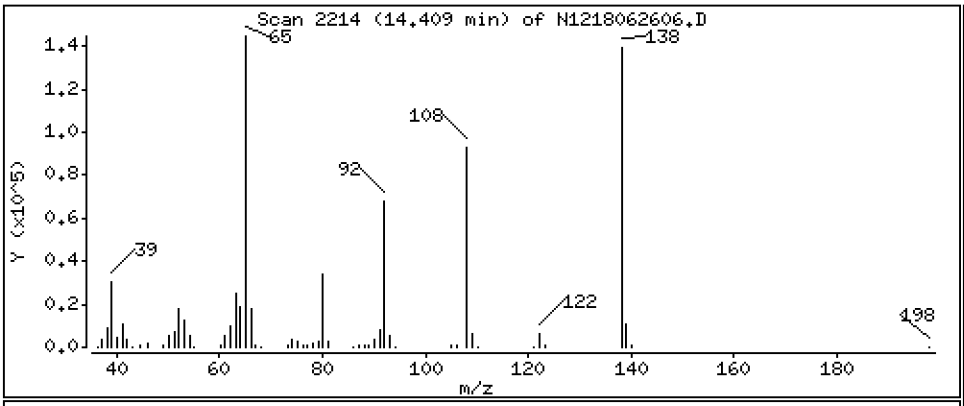
Operator: JZ

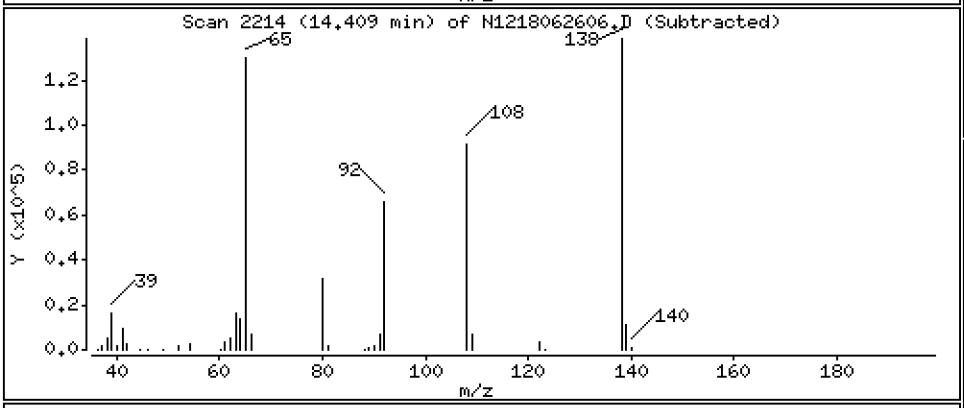
Column phase: ZB-5msi

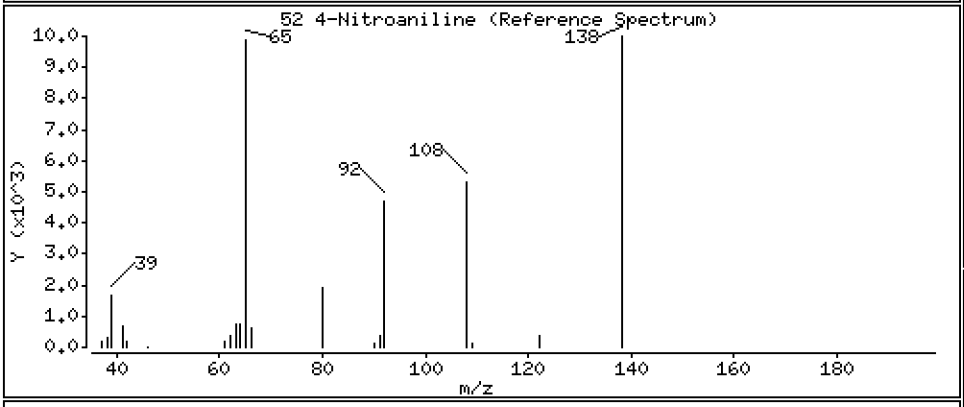
Column diameter: 0.32

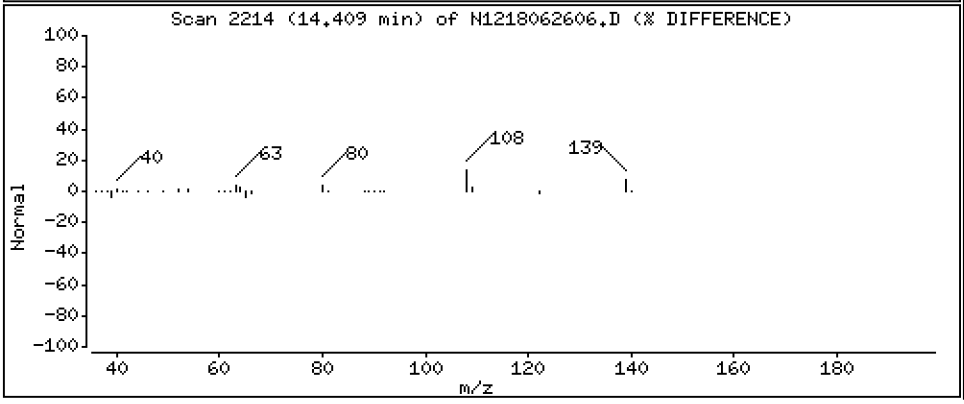
52 4-Nitroaniline

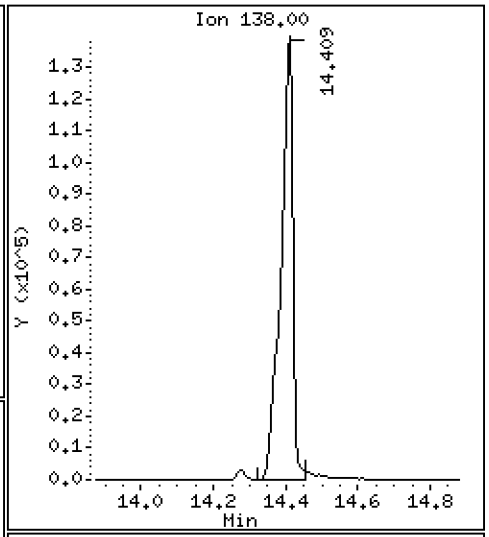
Concentration: 60.56 ug/mL

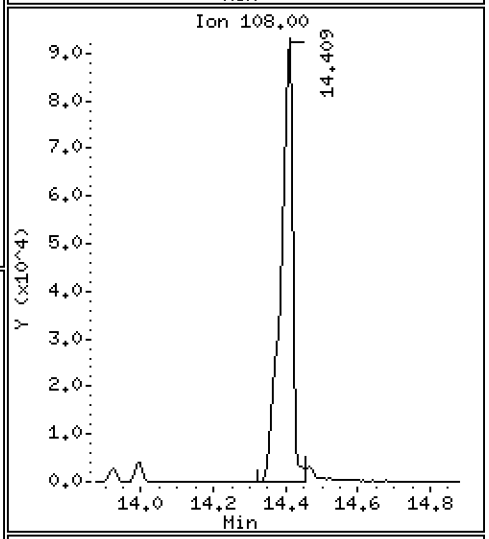


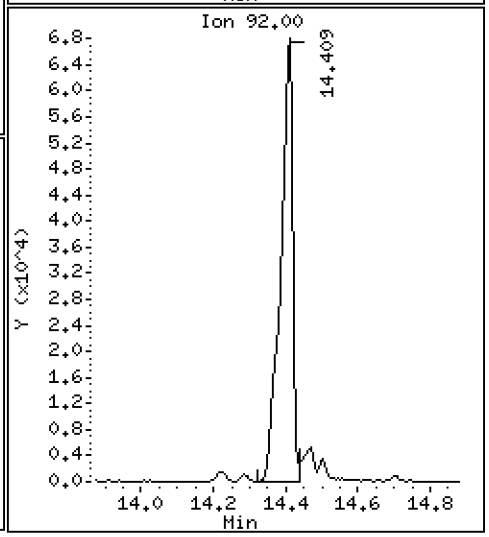












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

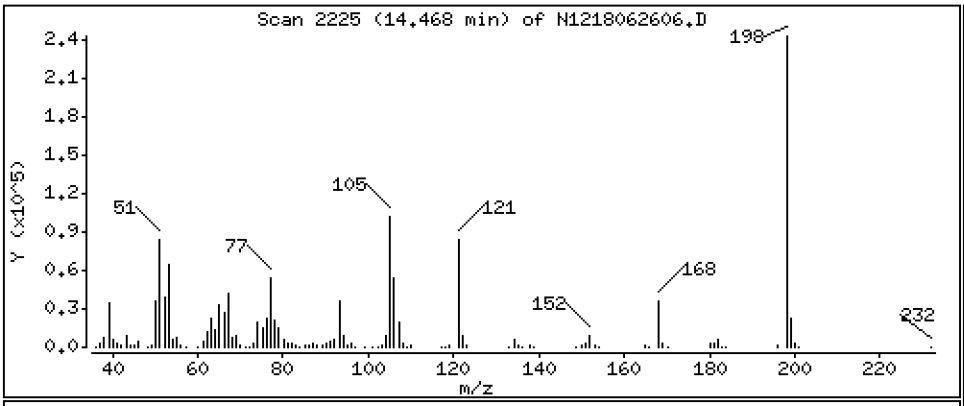
Operator: JZ

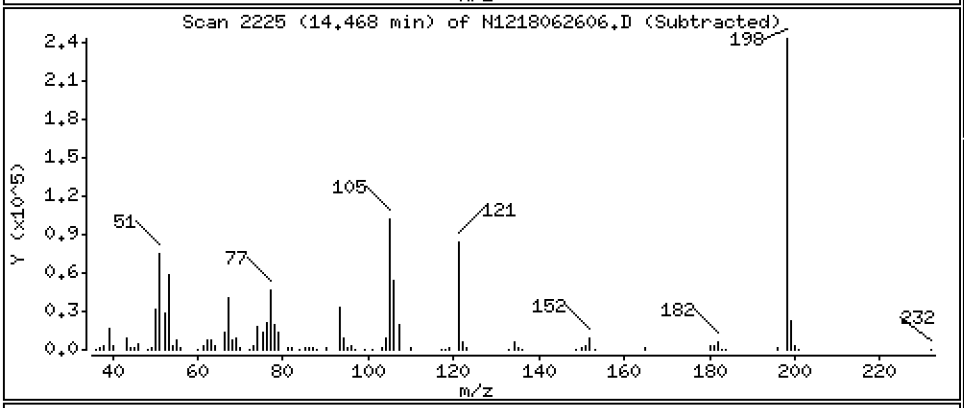
Column phase: ZB-5msi

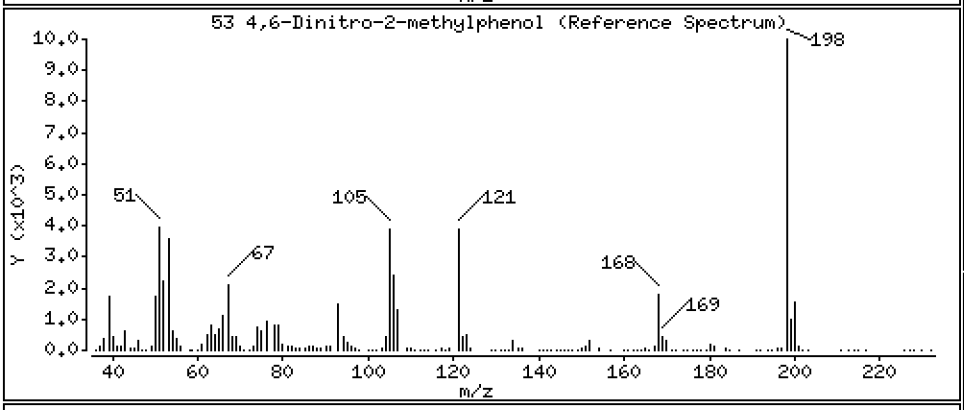
Column diameter: 0.32

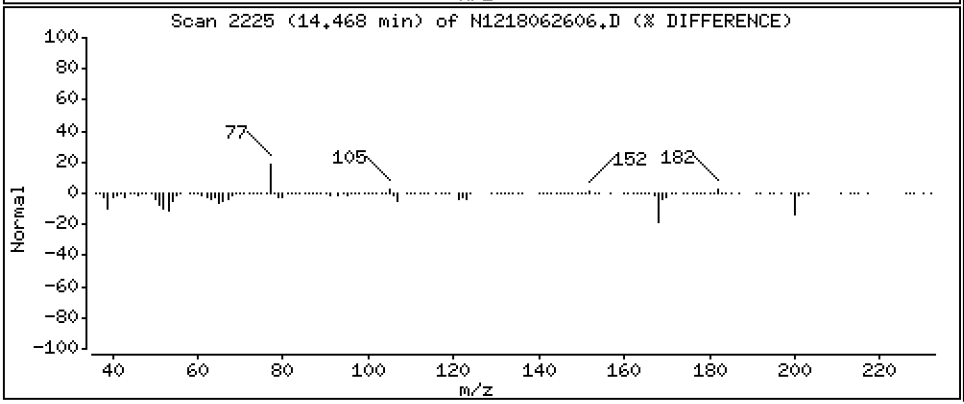
53 4,6-Dinitro-2-methylphenol

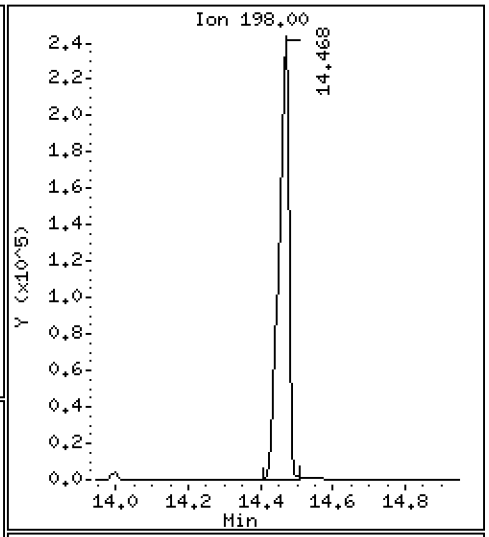
Concentration: 131.3 ug/mL

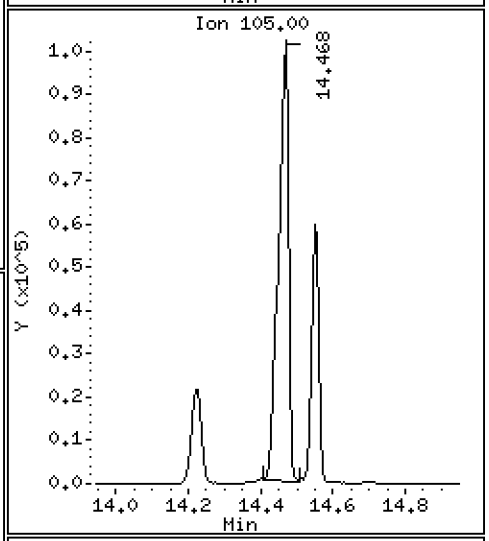


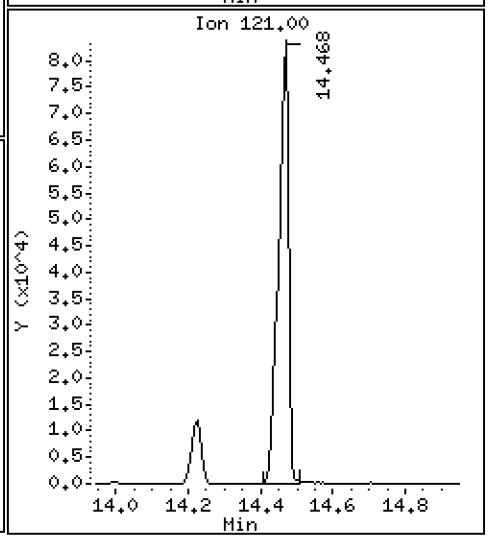












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

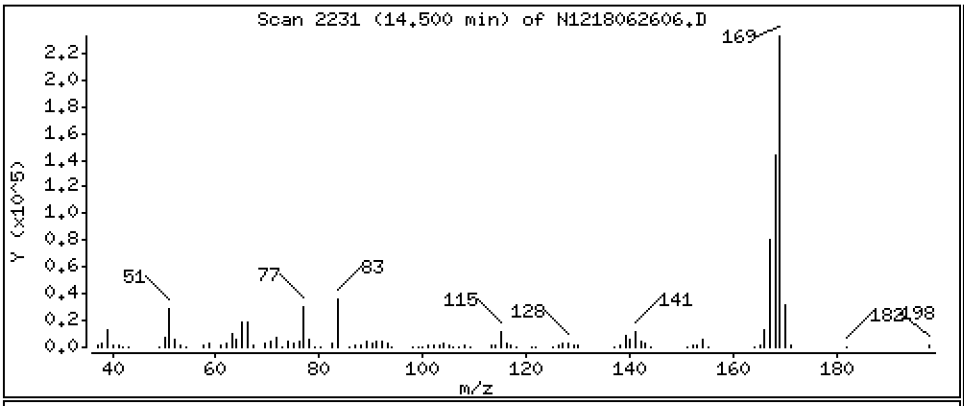
Operator: JZ

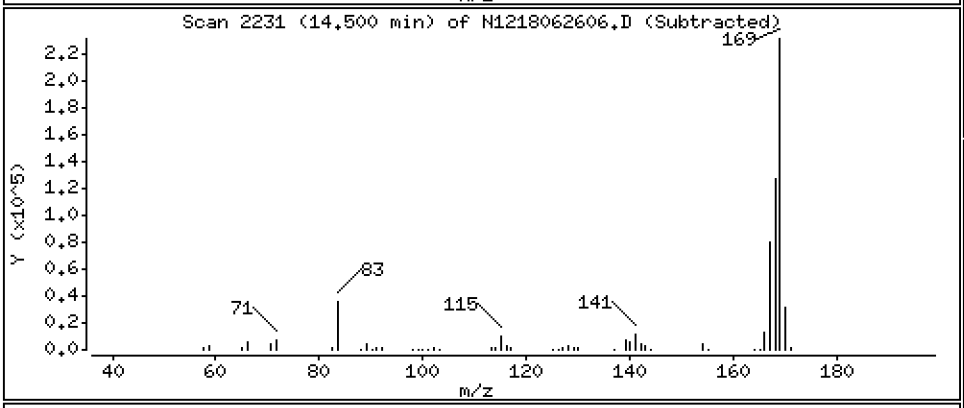
Column phase: ZB-5msi

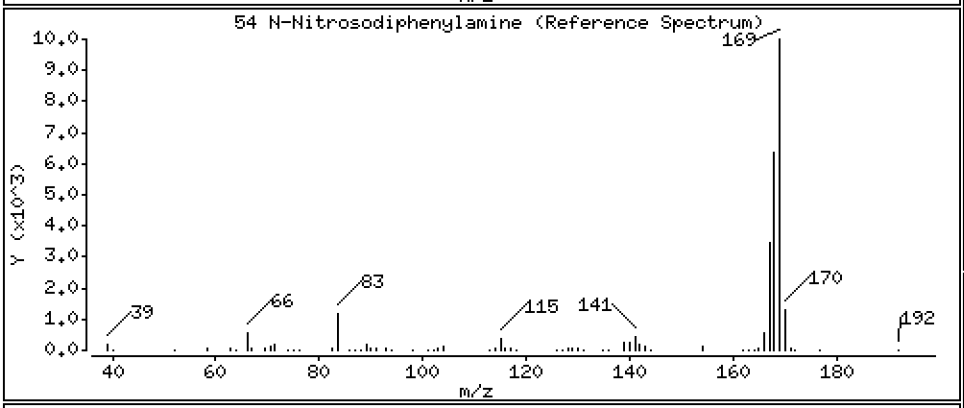
Column diameter: 0.32

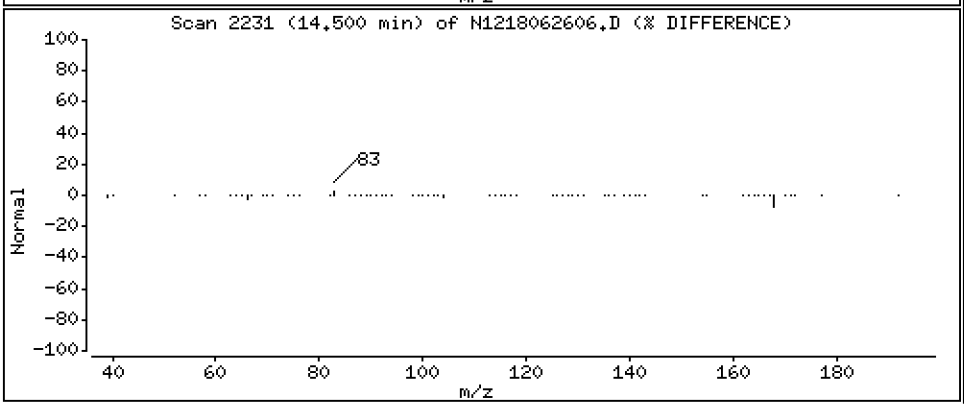
54 N-Nitrosodiphenylamine

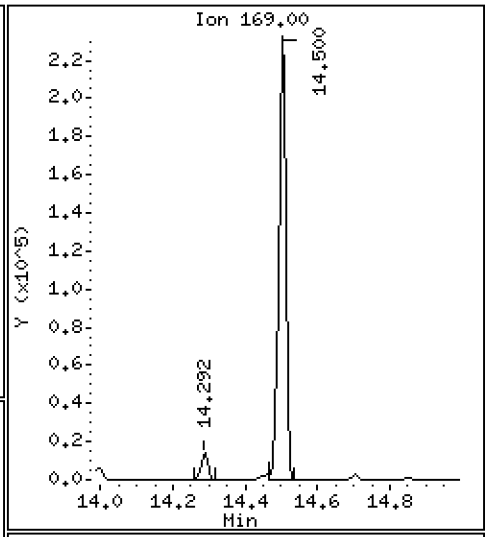
Concentration: 20.95 ug/mL

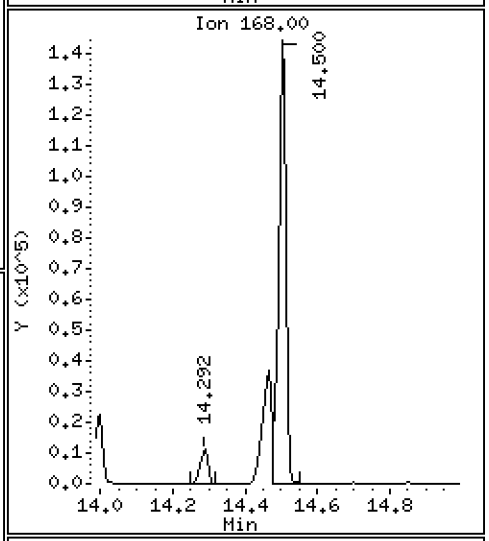


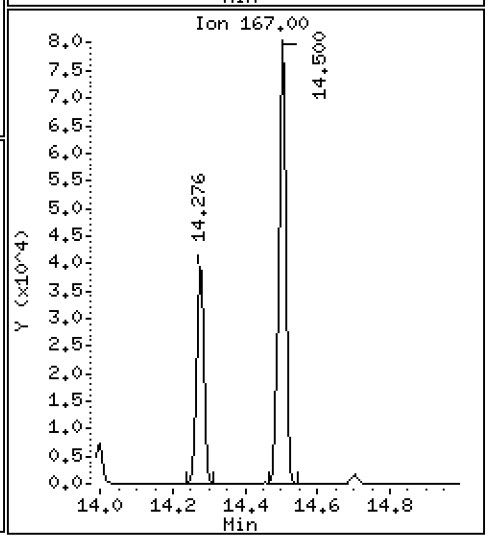












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

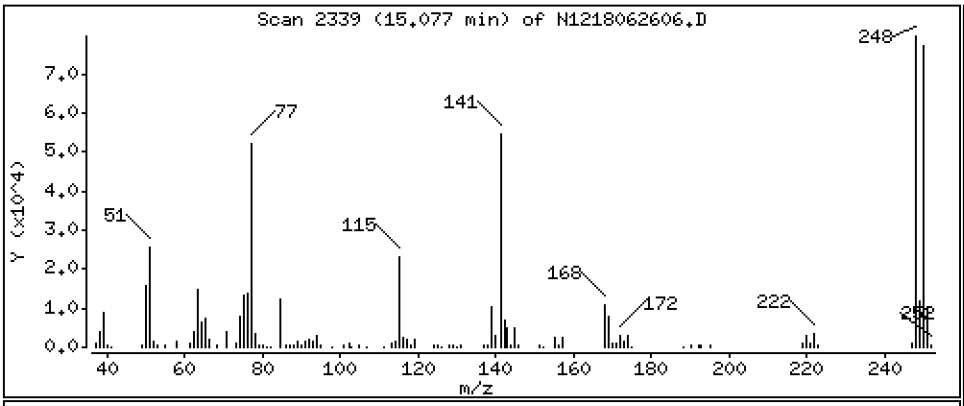
Operator: JZ

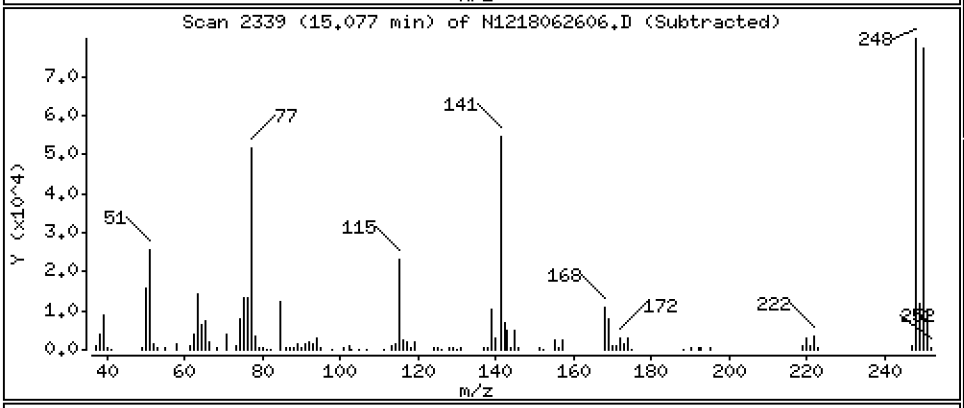
Column phase: ZB-5msi

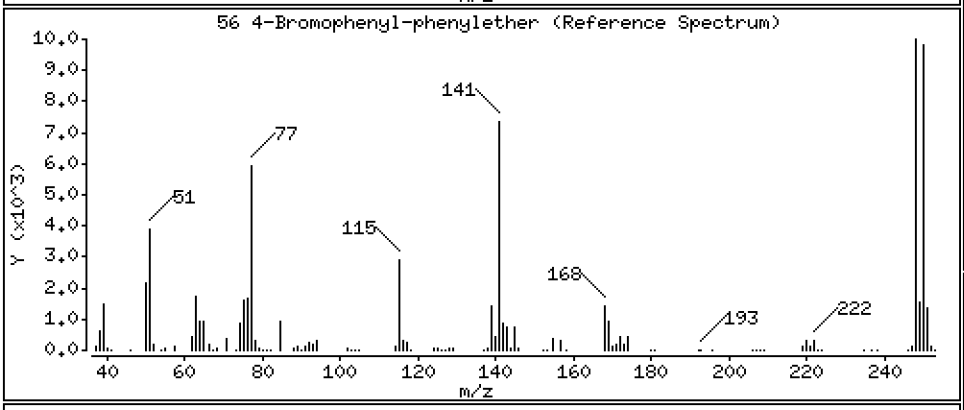
Column diameter: 0.32

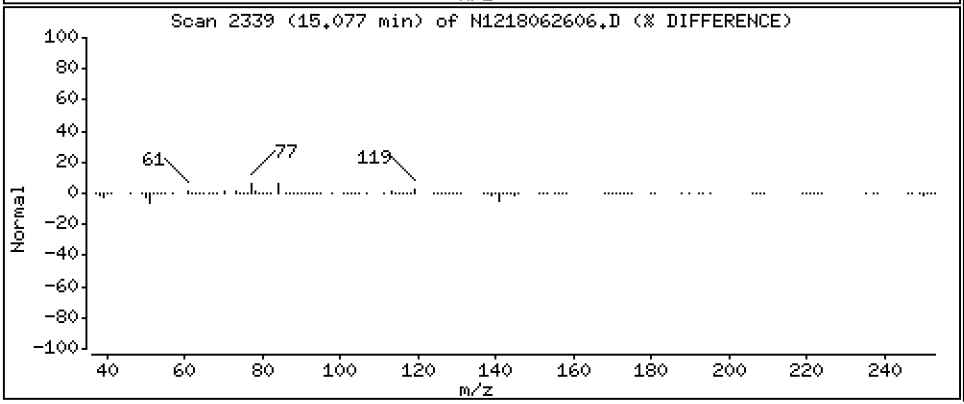
56 4-Bromophenyl-phenylether

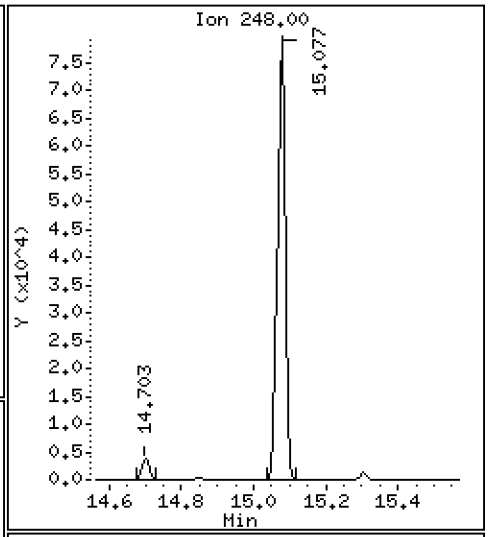
Concentration: 20.34 ug/mL

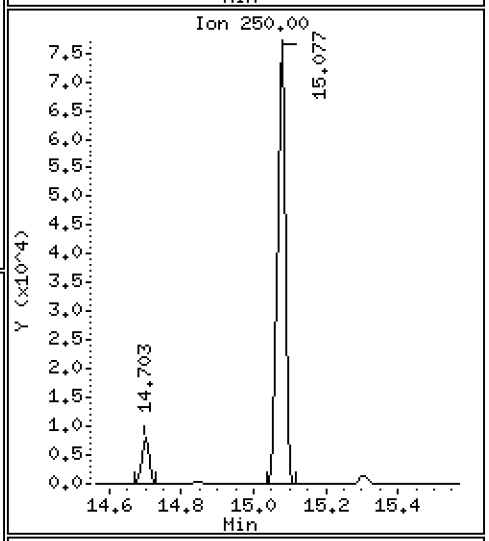


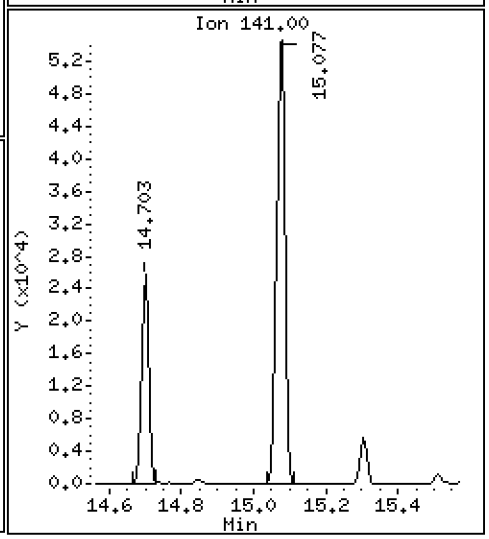












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

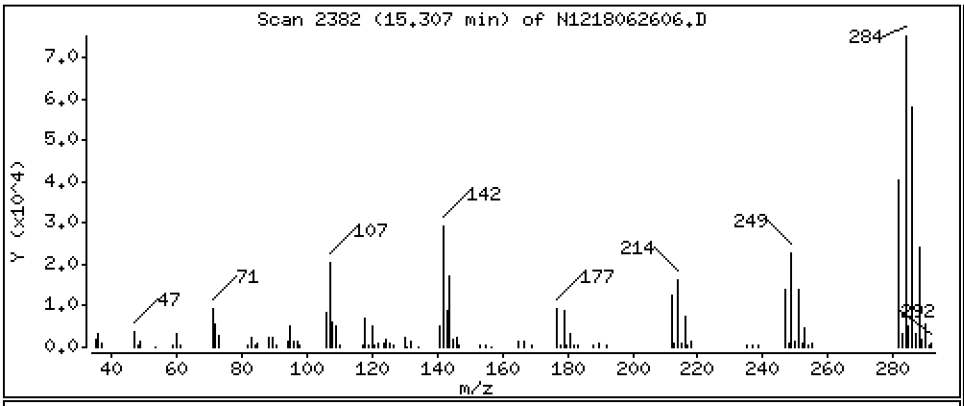
Operator: JZ

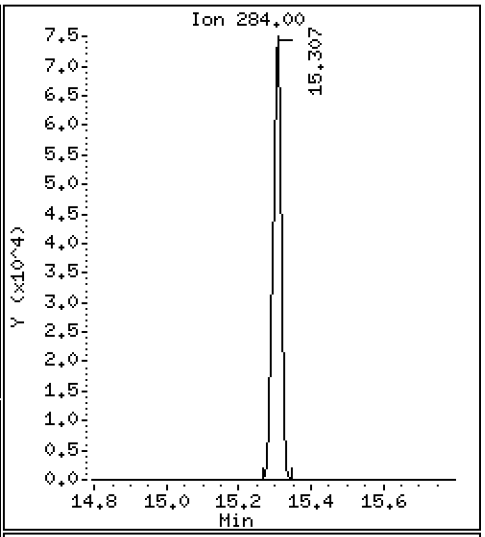
Column phase: ZB-5msi

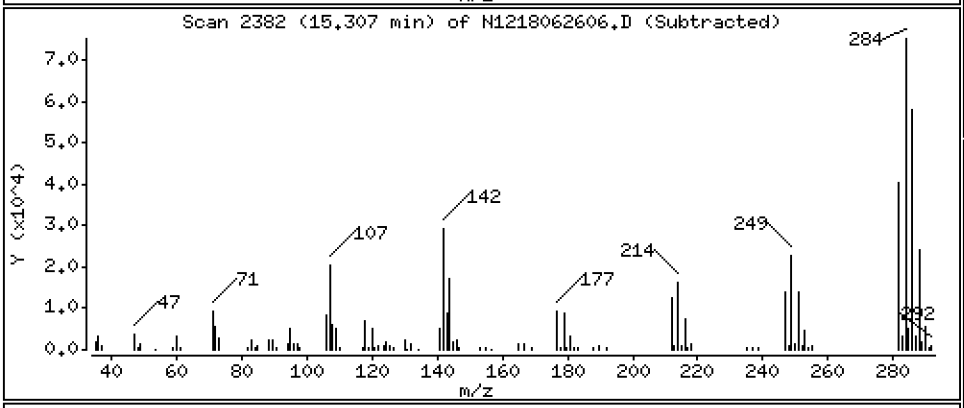
Column diameter: 0.32

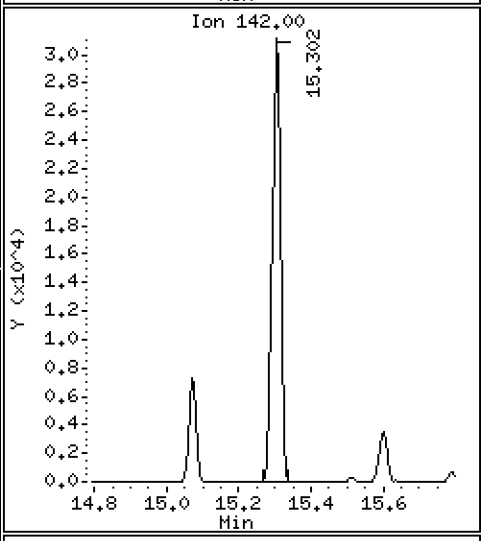
57 Hexachlorobenzene

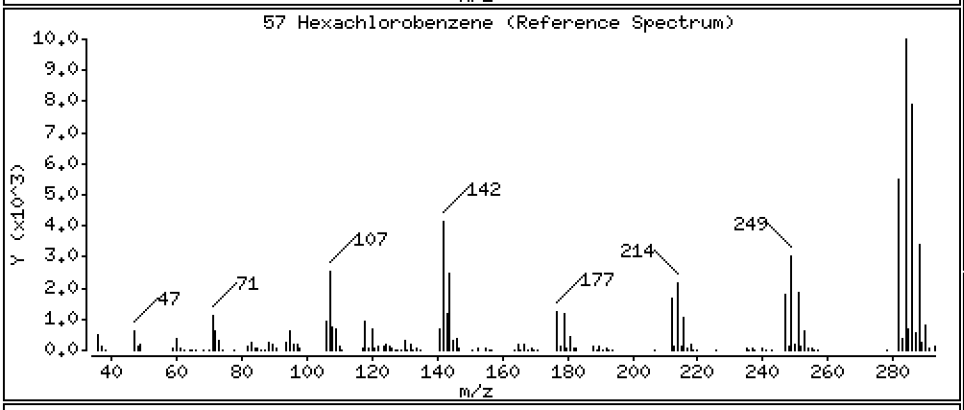
Concentration: 19.41 ug/mL

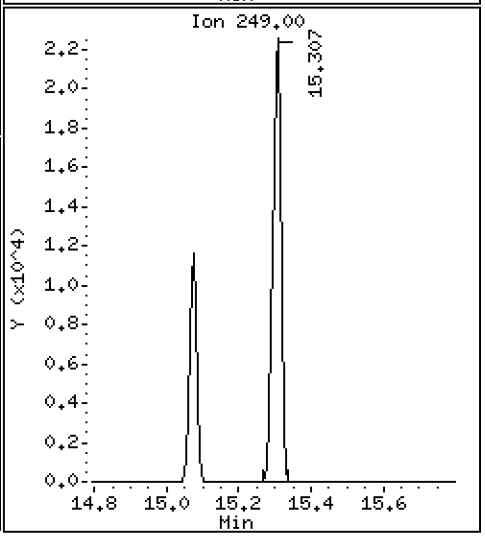


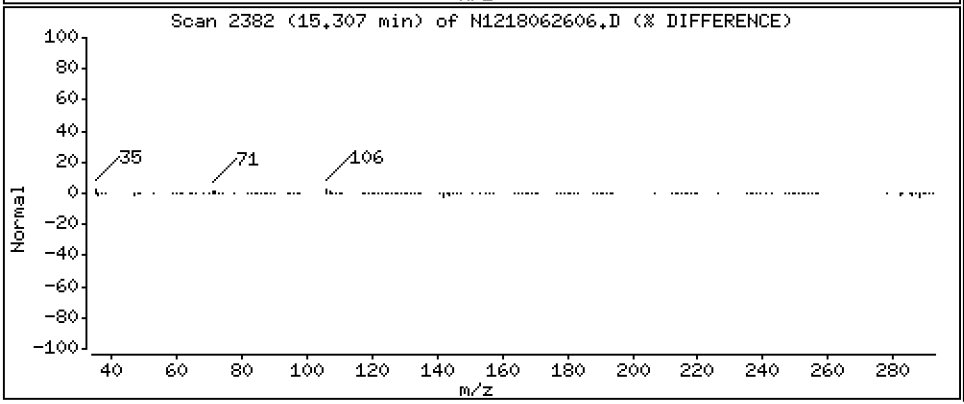












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

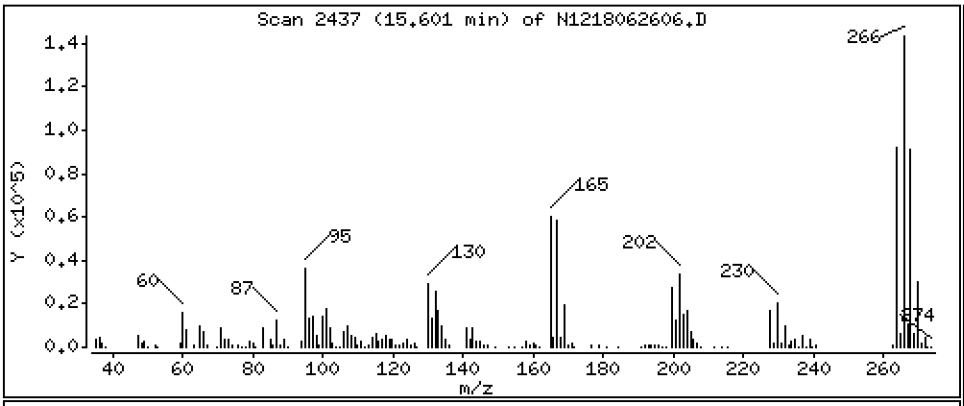
Operator: JZ

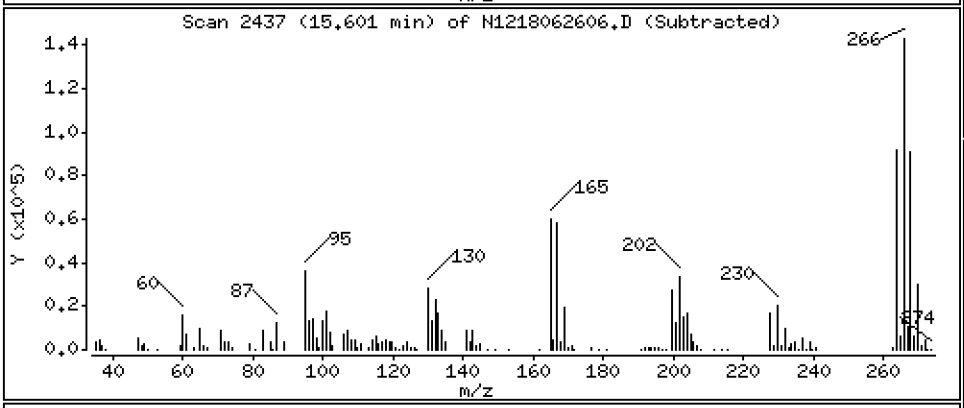
Column phase: ZB-5msi

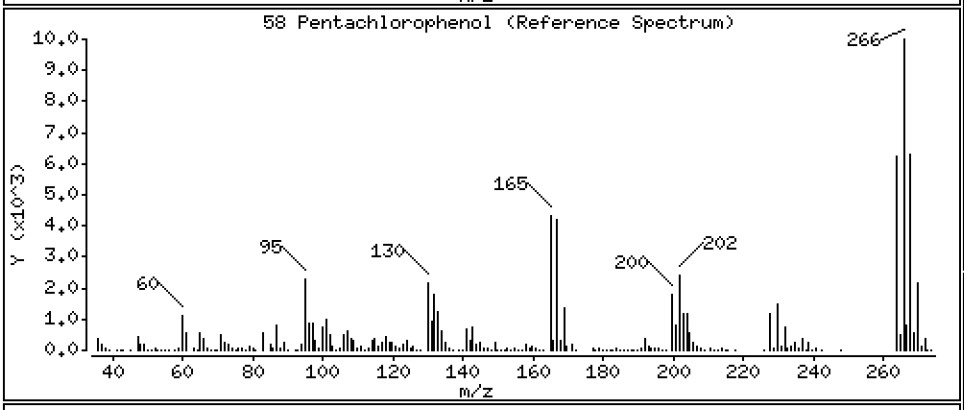
Column diameter: 0.32

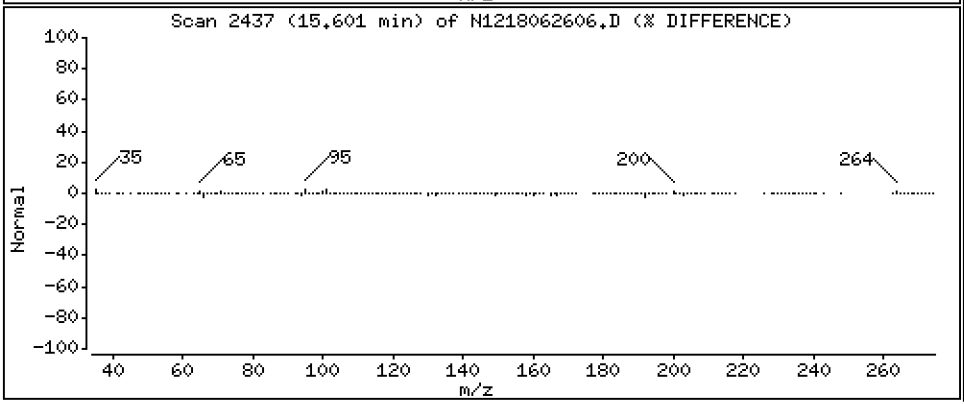
58 Pentachlorophenol

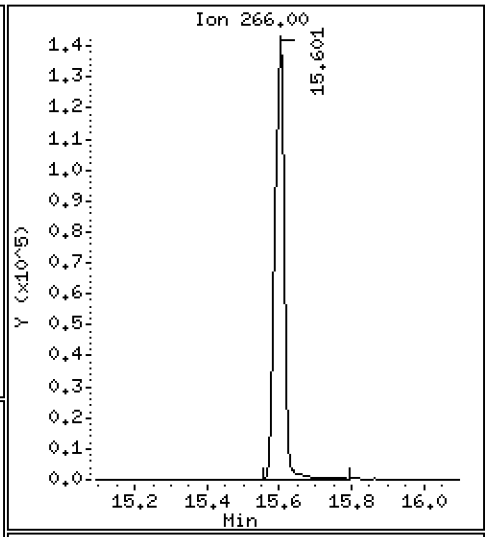
Concentration: 62.59 ug/mL

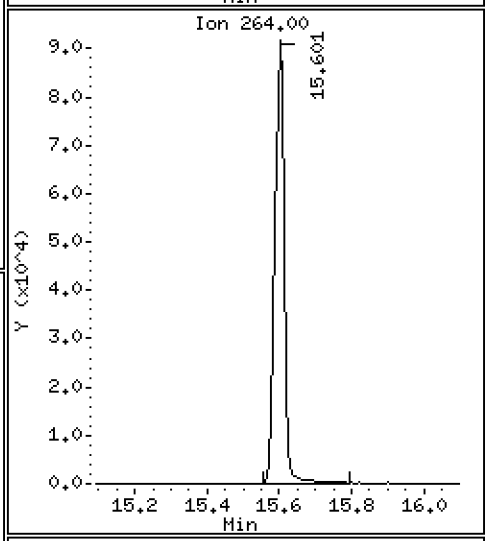


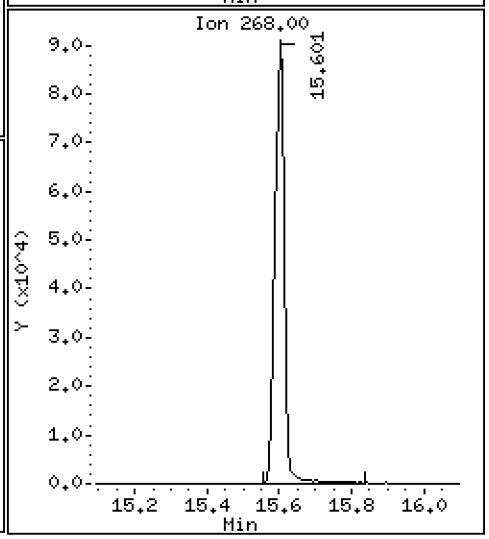












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

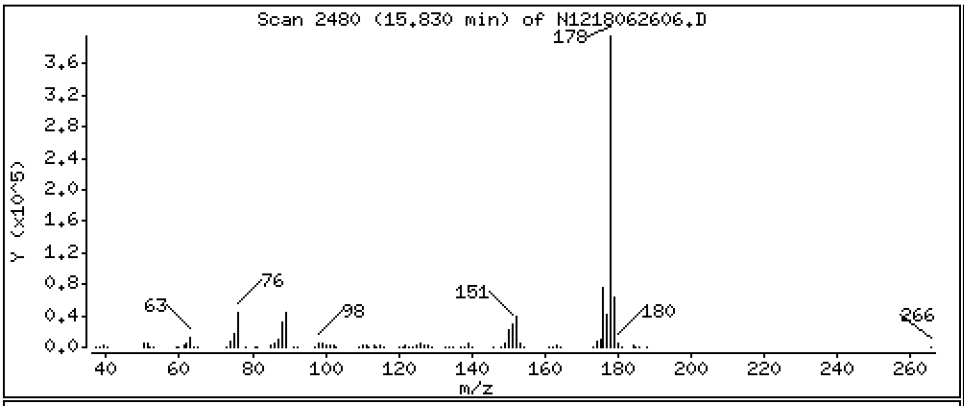
Operator: JZ

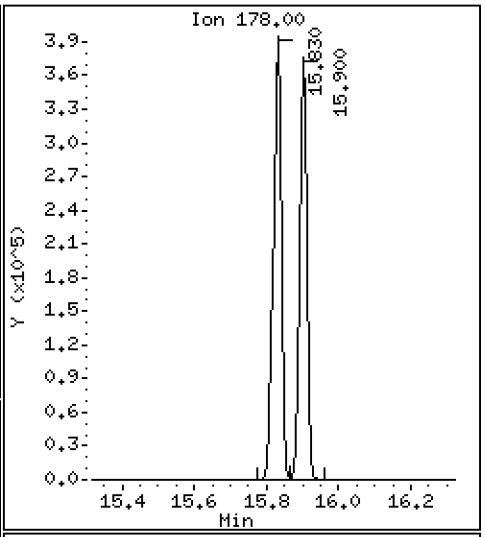
Column phase: ZB-5msi

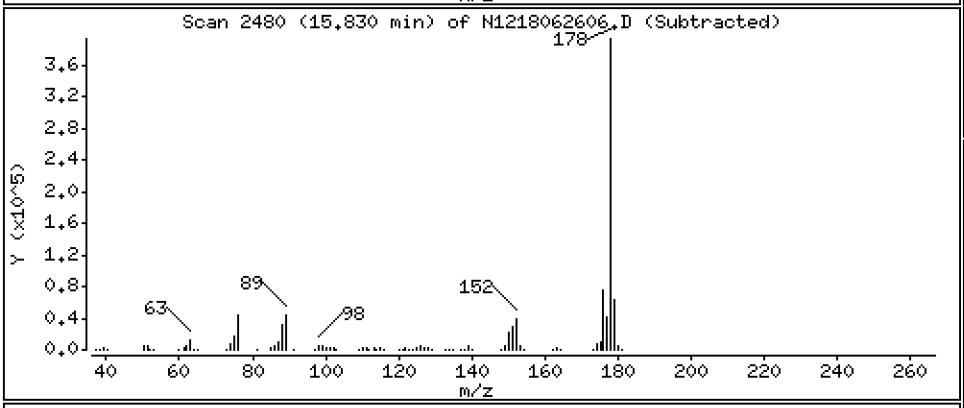
Column diameter: 0.32

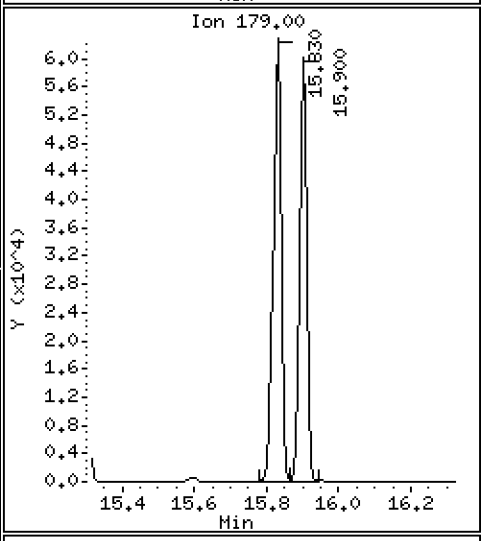
60 Phenanthrene

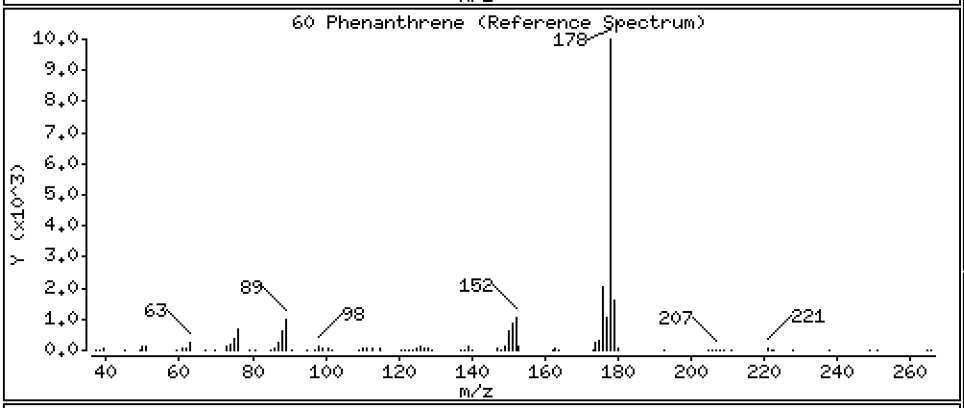
Concentration: 23.87 ug/mL

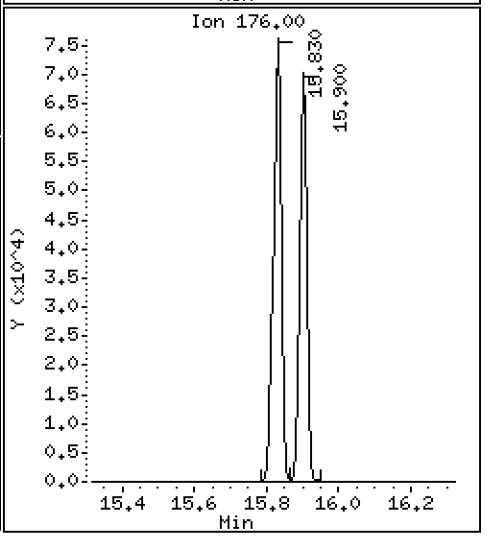


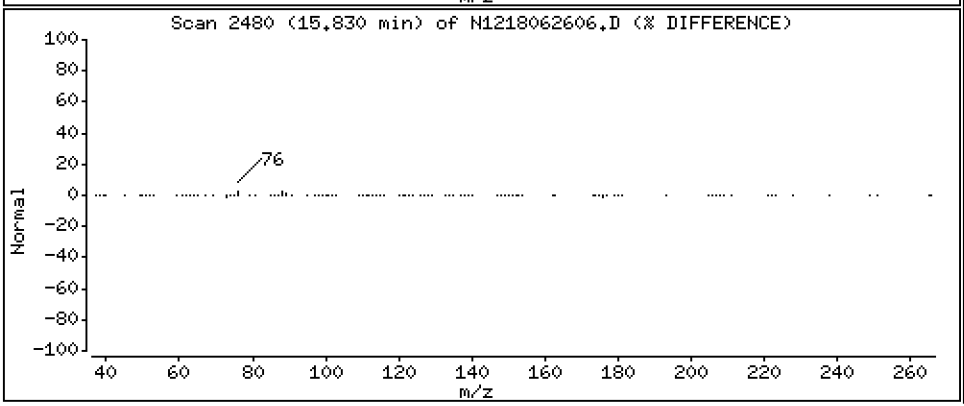












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

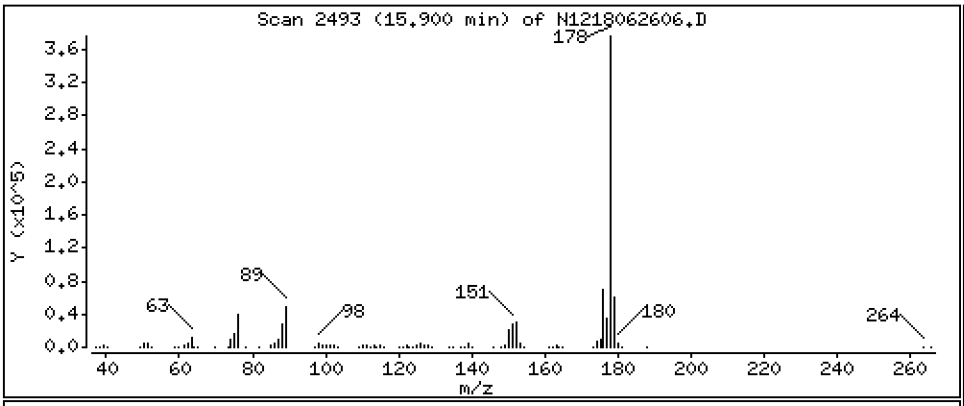
Operator: JZ

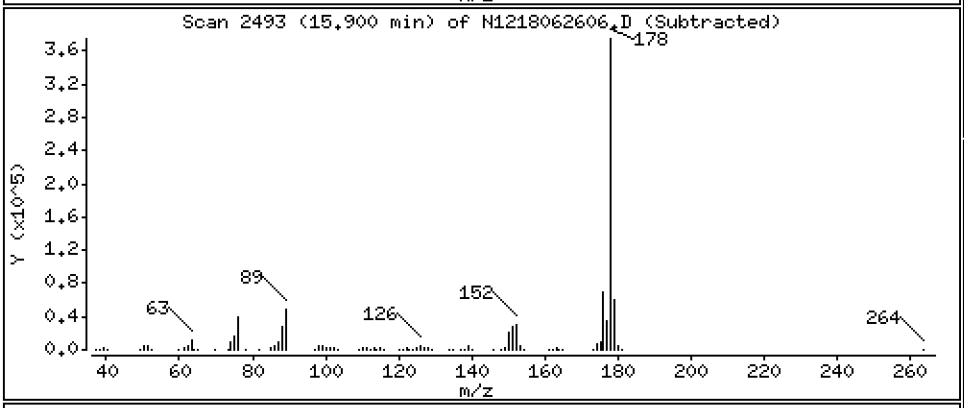
Column phase: ZB-5msi

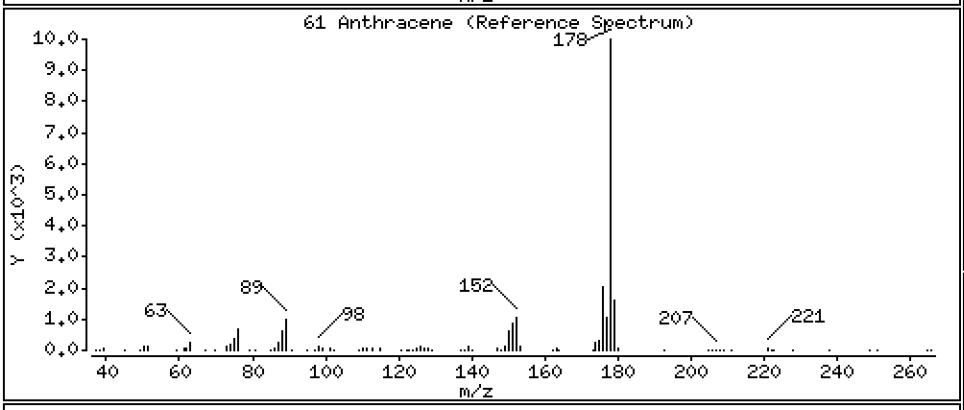
Column diameter: 0.32

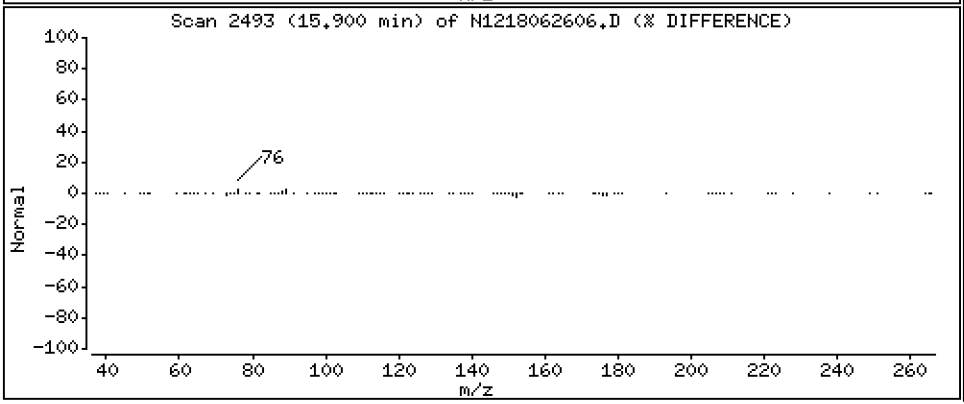
61 Anthracene

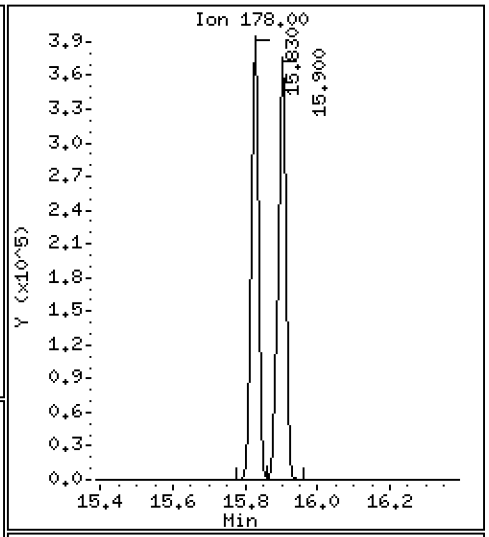
Concentration: 19.83 ug/mL

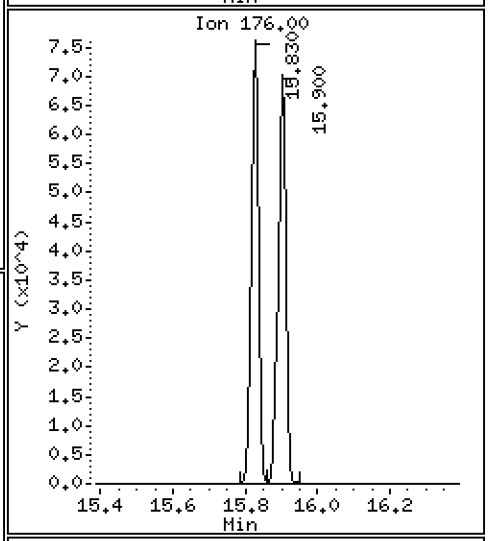


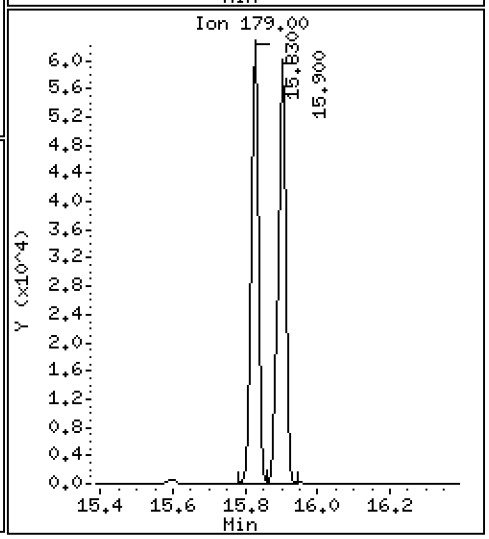












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

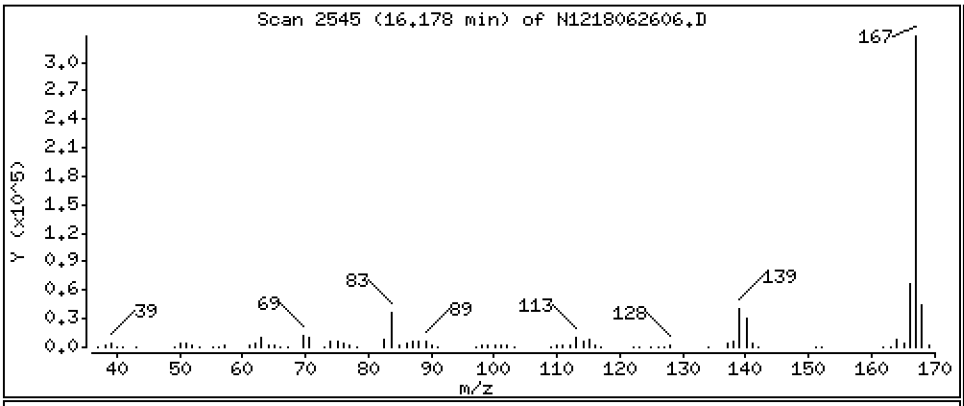
Operator: JZ

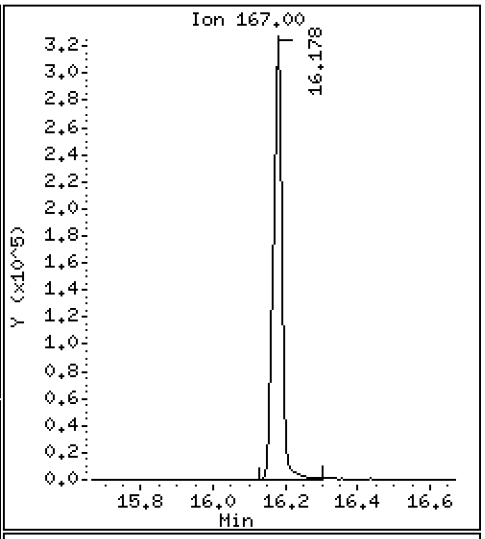
Column phase: ZB-5msi

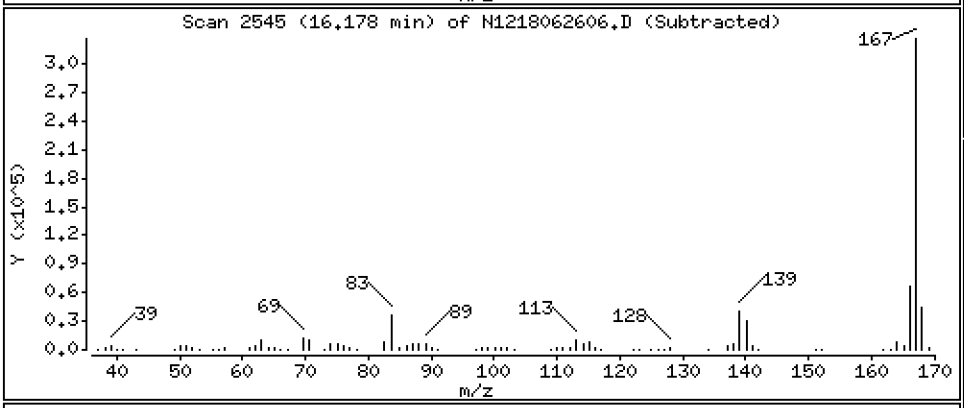
Column diameter: 0.32

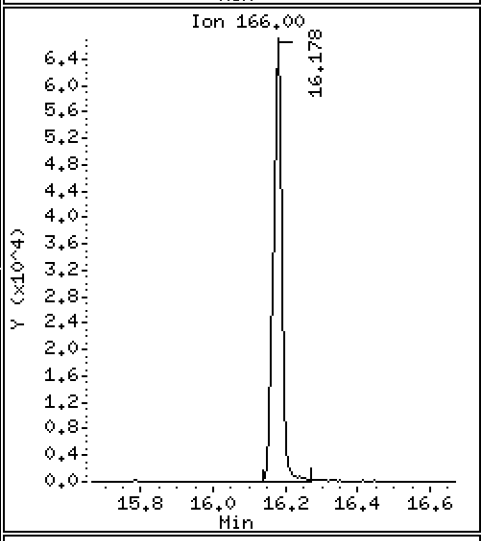
62 Carbazole

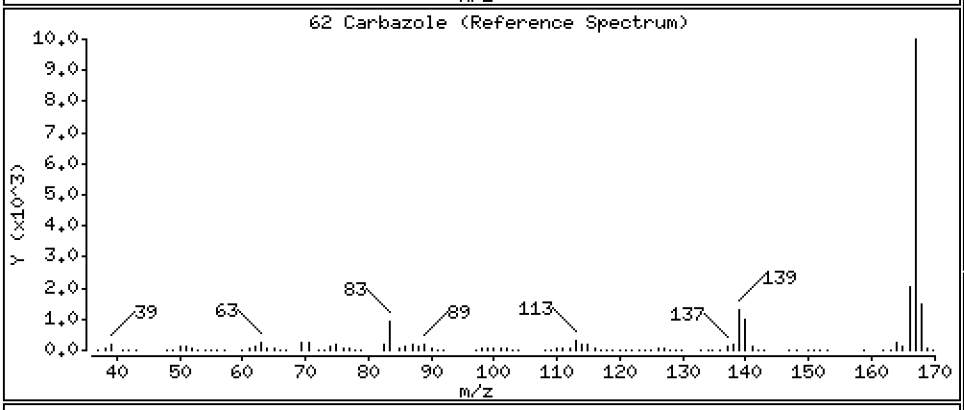
Concentration: 19.63 ug/mL

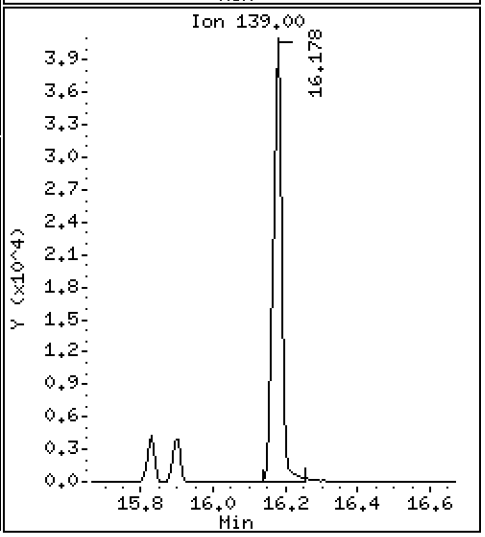


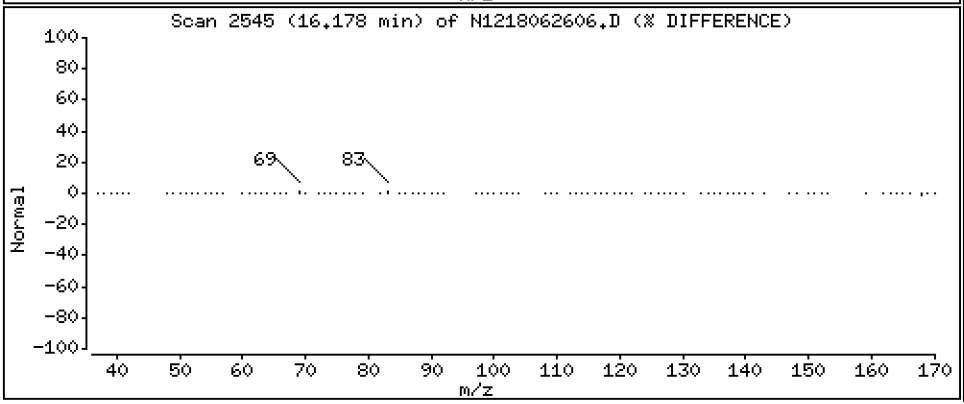












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

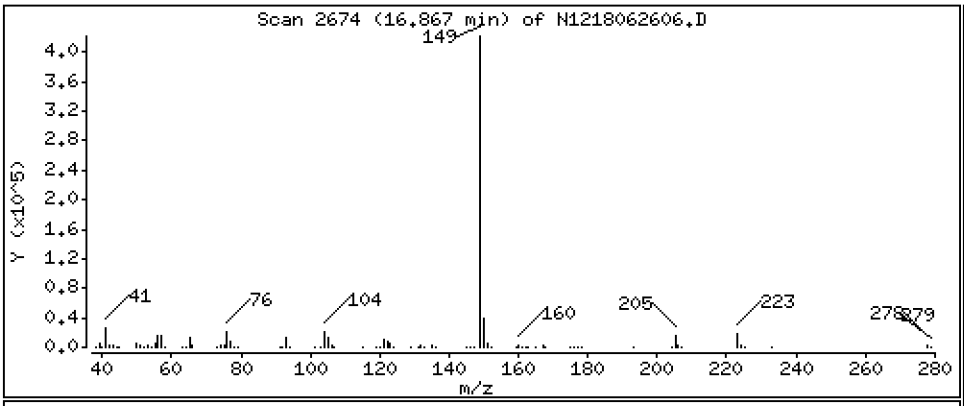
Operator: JZ

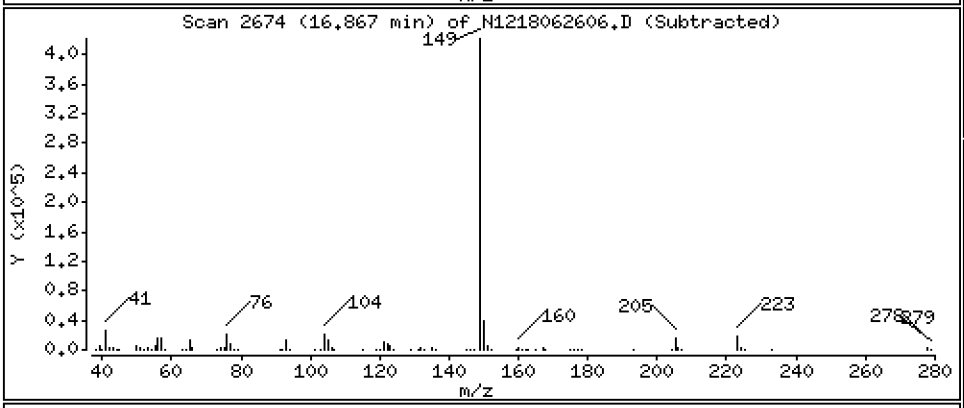
Column phase: ZB-5msi

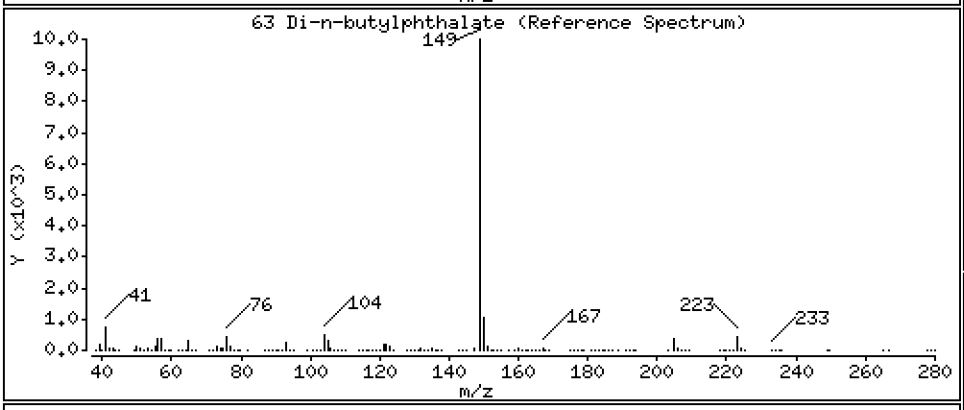
Column diameter: 0.32

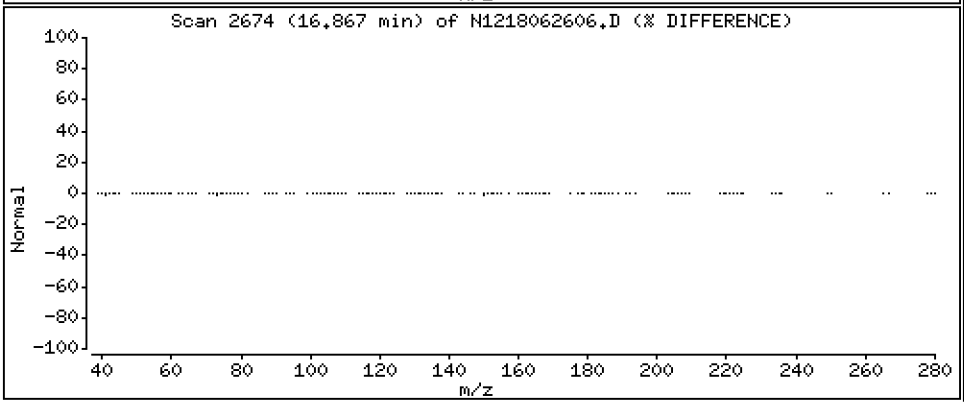
63 Di-n-butylphthalate

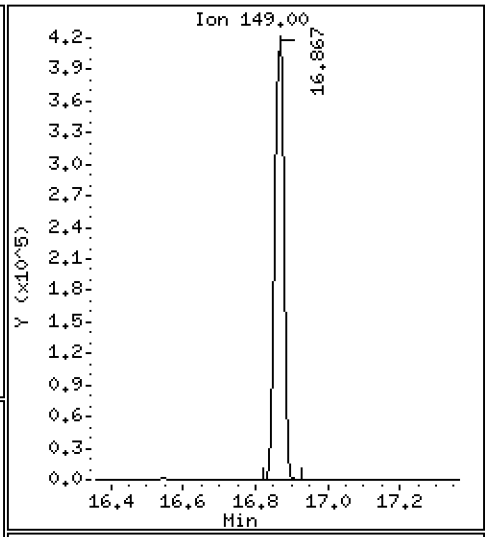
Concentration: 21.58 ug/mL

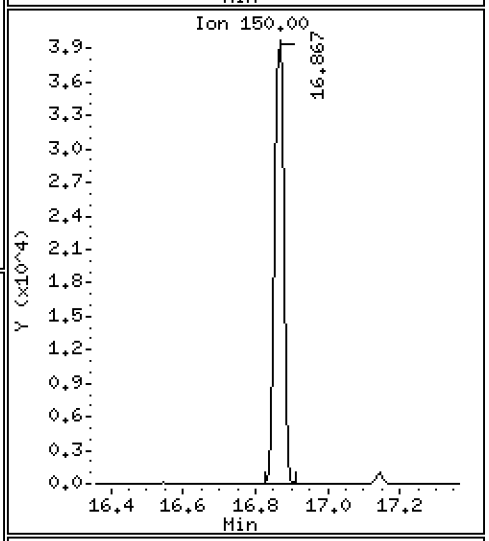


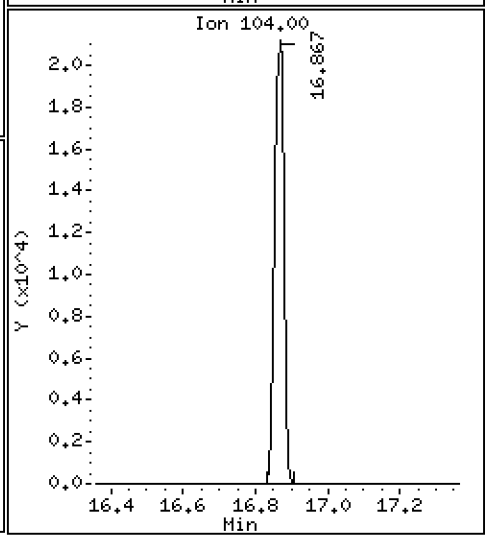












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

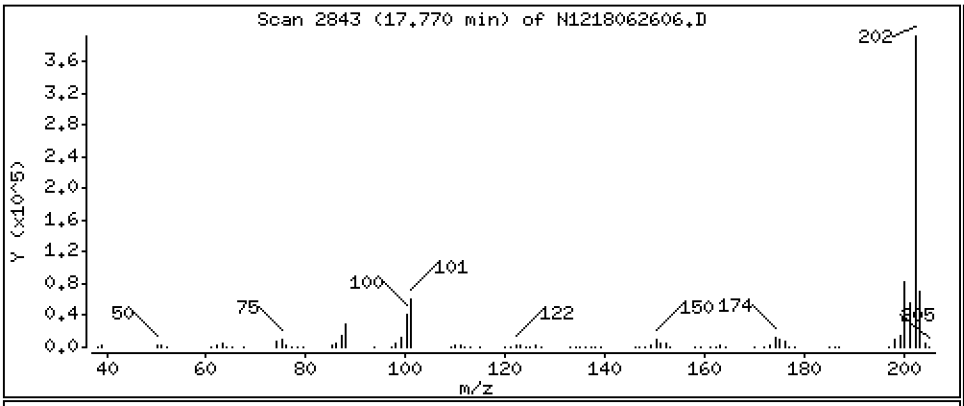
Operator: JZ

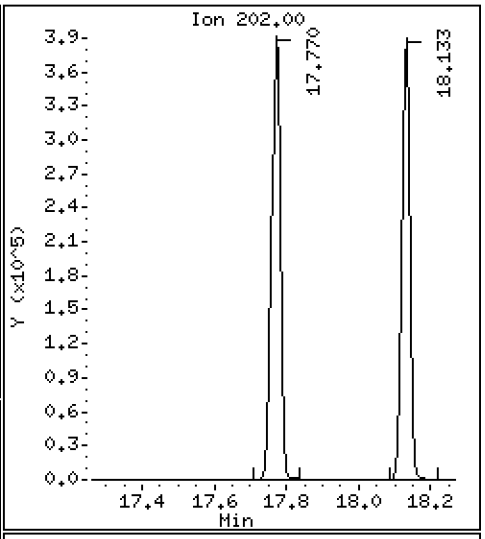
Column phase: ZB-5msi

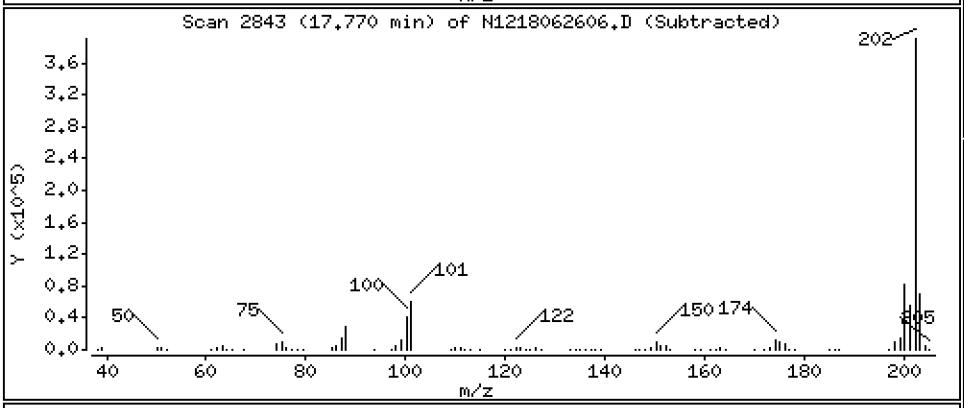
Column diameter: 0.32

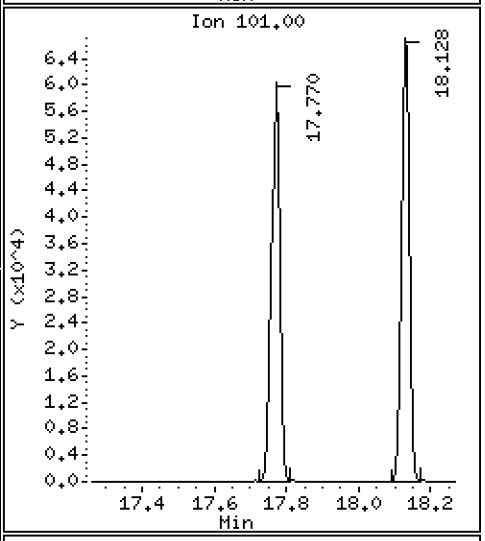
64 Fluoranthene

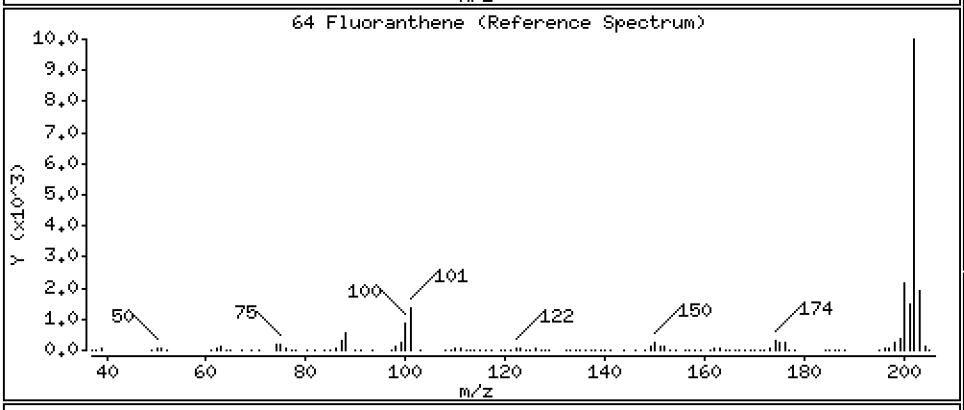
Concentration: 20.50 ug/mL

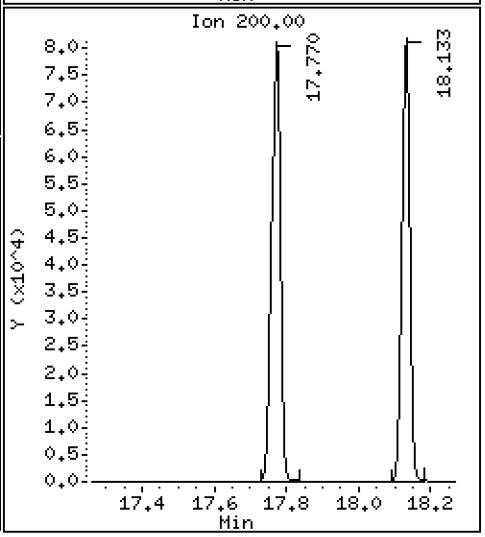


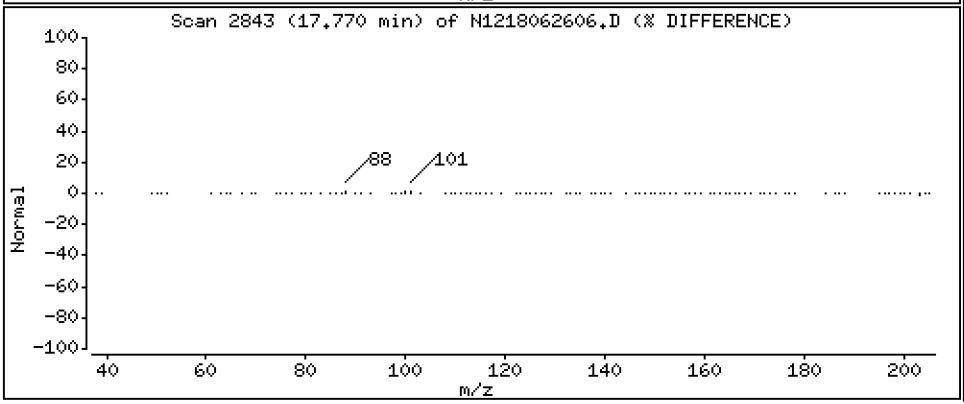












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

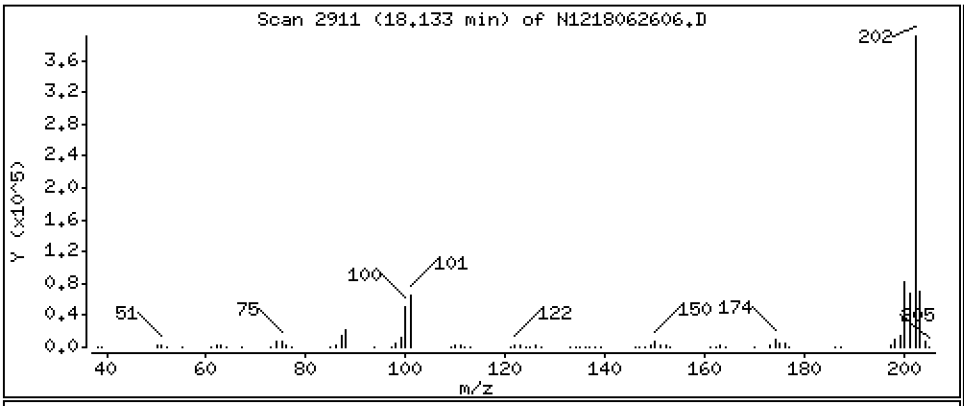
Operator: JZ

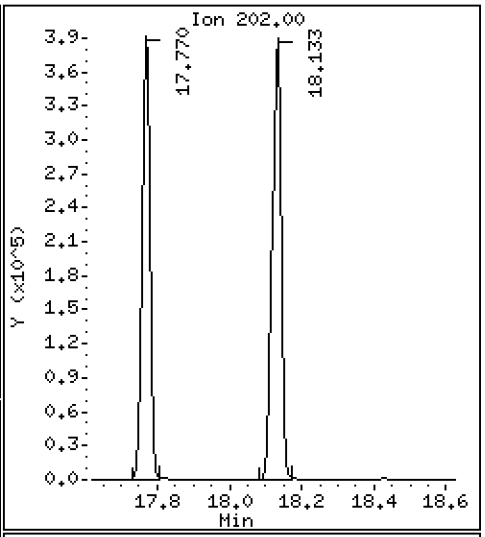
Column phase: ZB-5msi

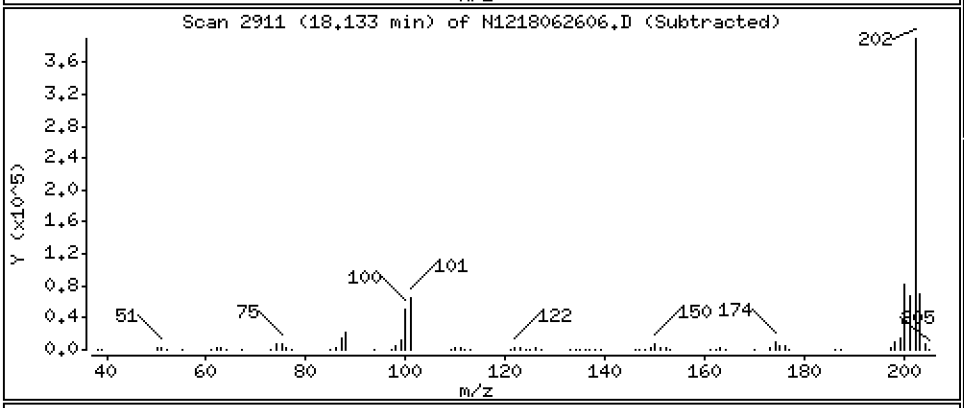
Column diameter: 0.32

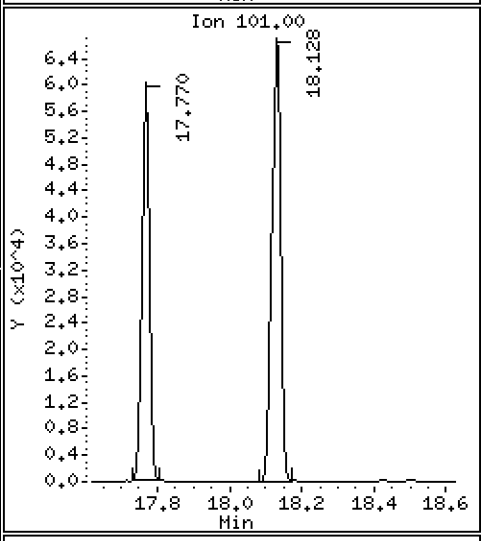
65 Pyrene

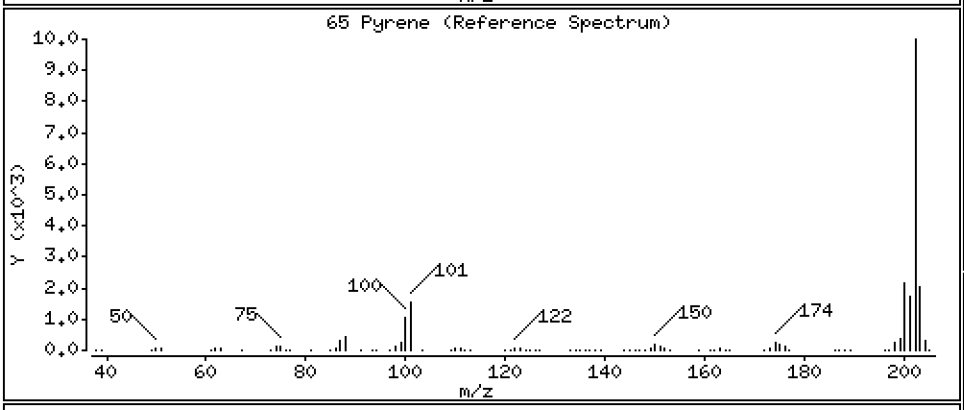
Concentration: 24.07 ug/mL

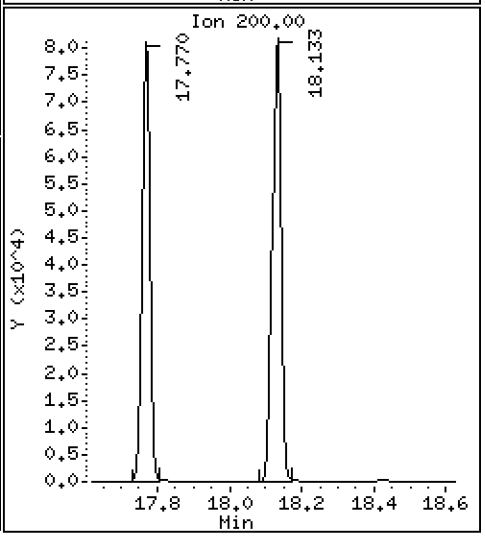


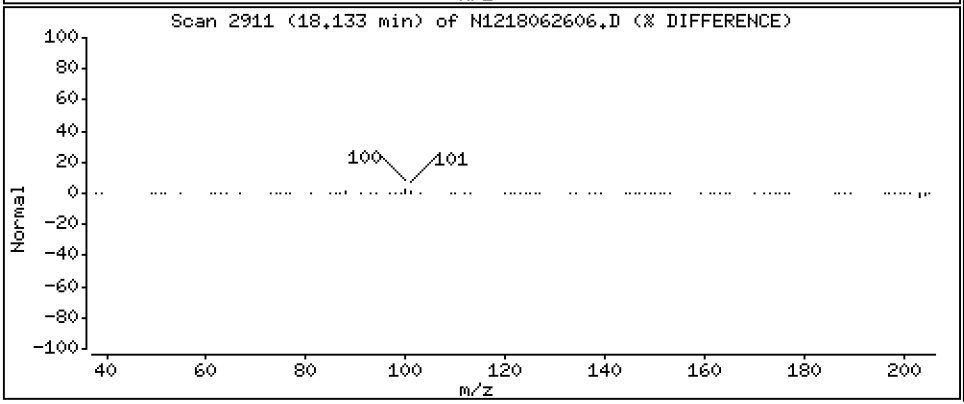












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

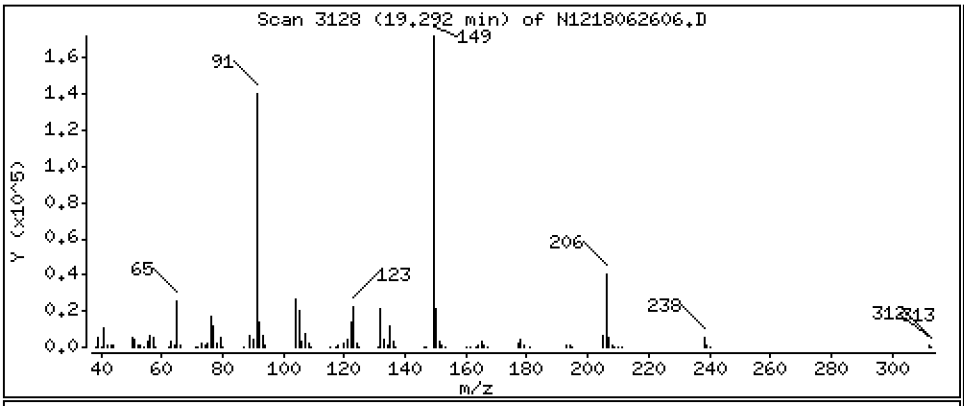
Operator: JZ

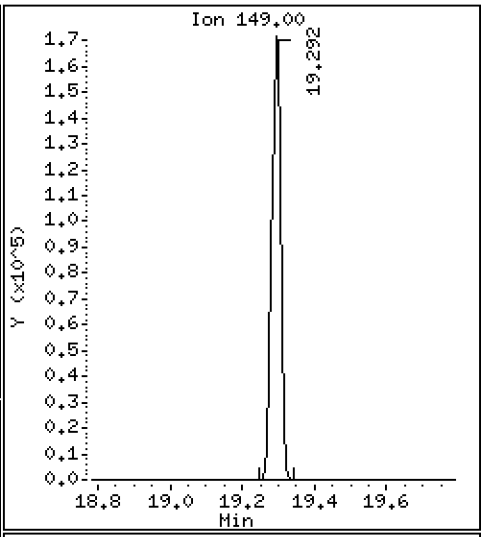
Column phase: ZB-5msi

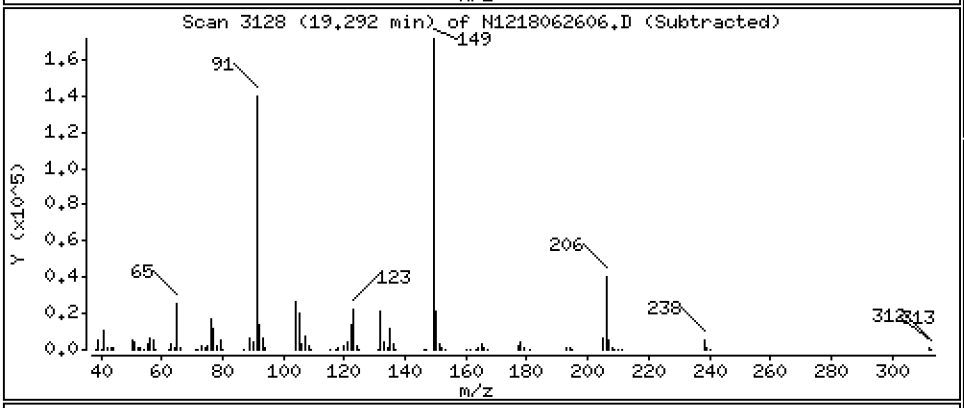
Column diameter: 0.32

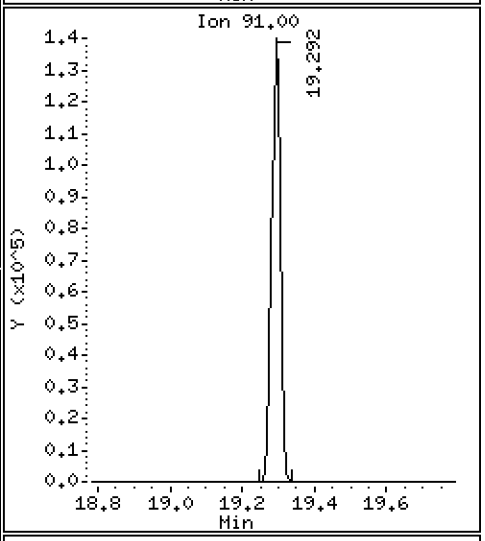
67 Butylbenzylphthalate

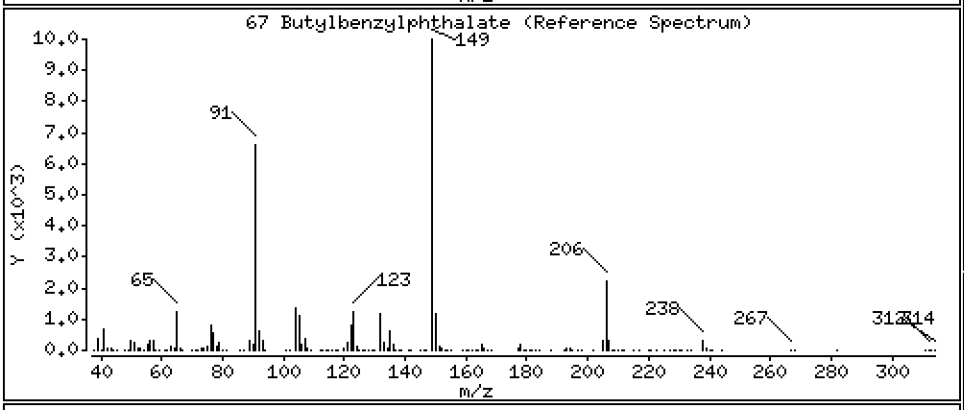
Concentration: 23.86 ug/mL

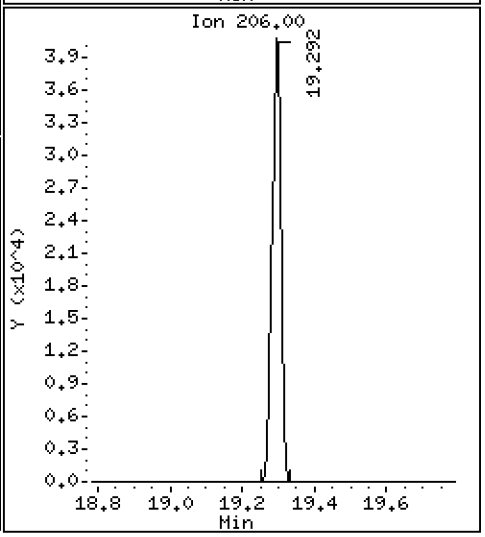


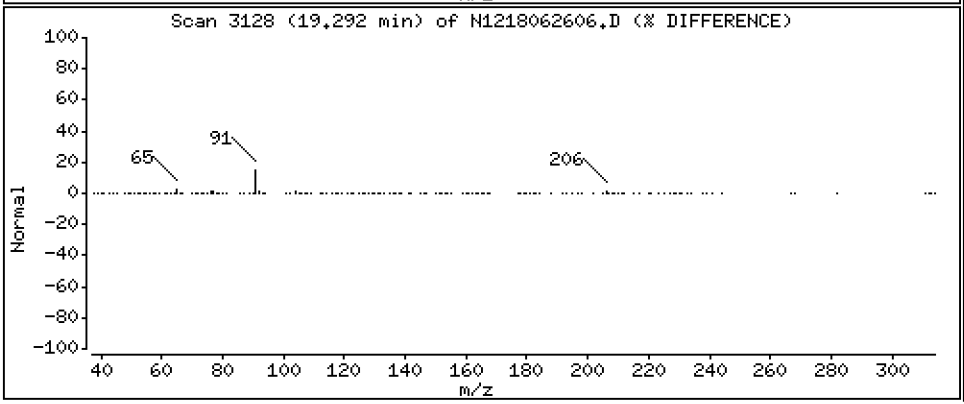












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

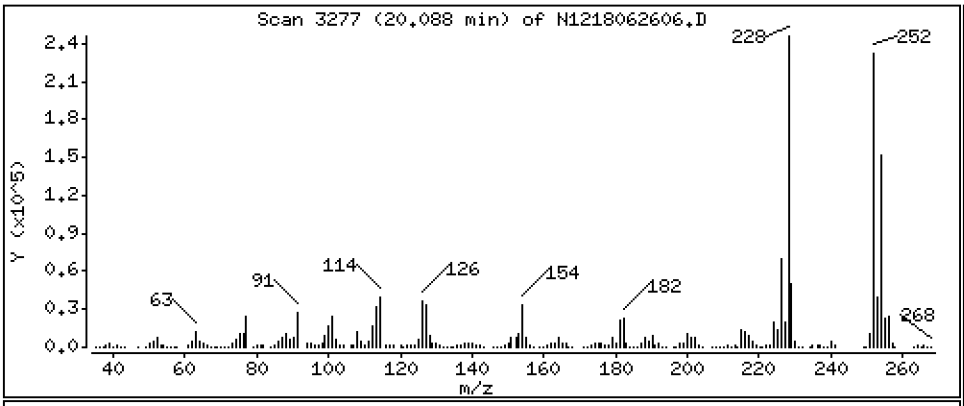
Operator: JZ

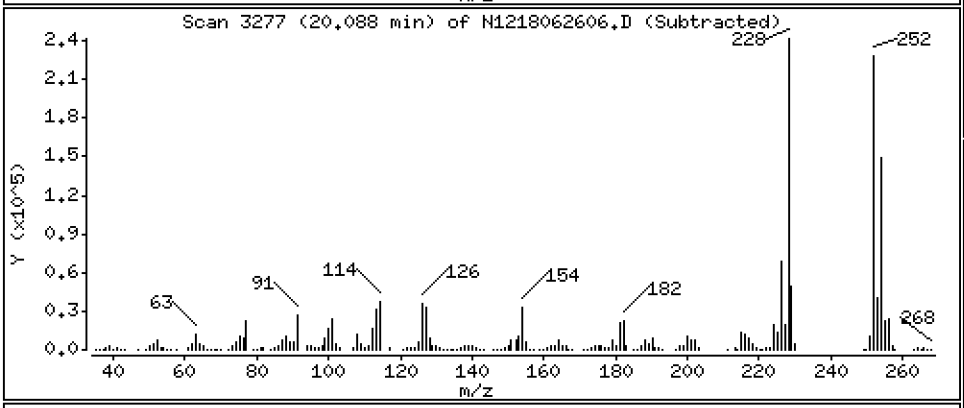
Column phase: ZB-5msi

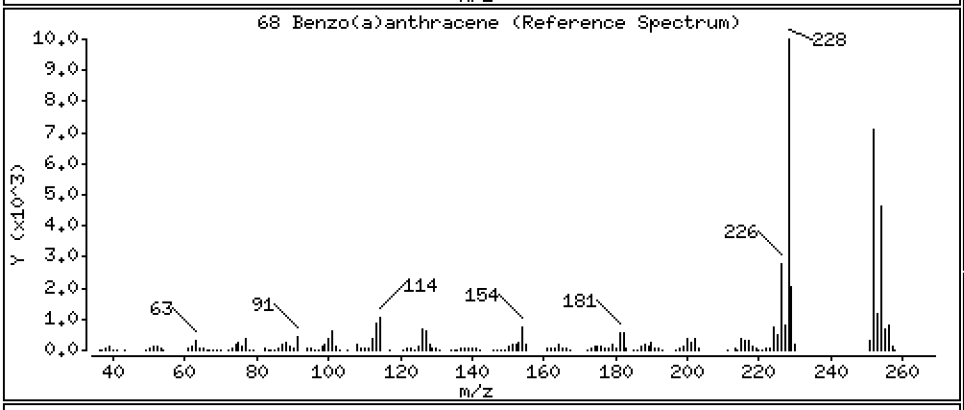
Column diameter: 0.32

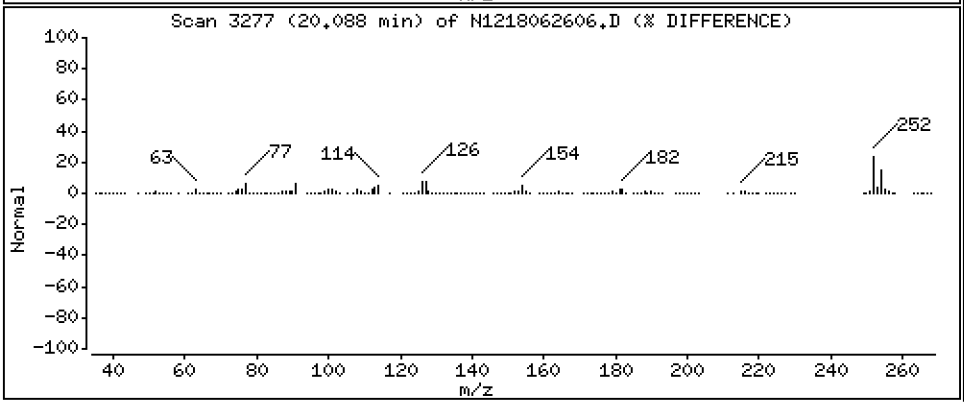
68 Benzo(a)anthracene

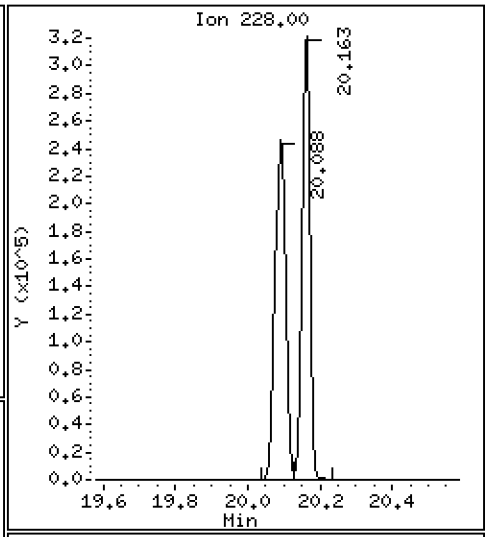
Concentration: 24.97 ug/mL

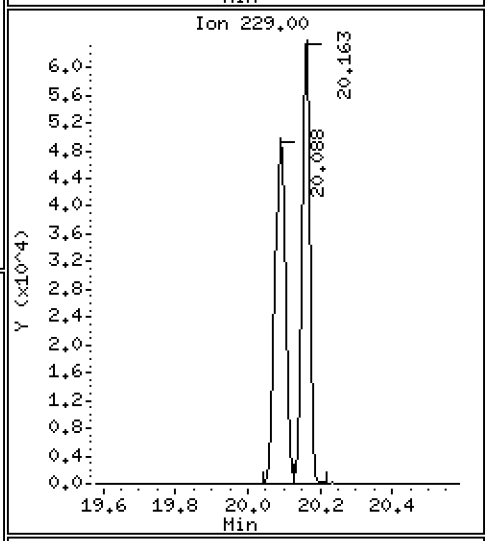


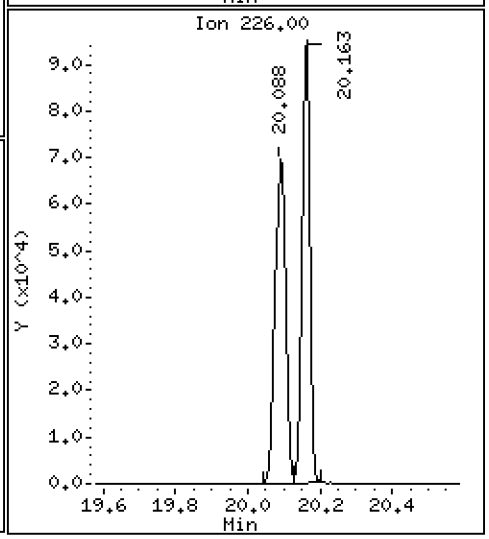












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

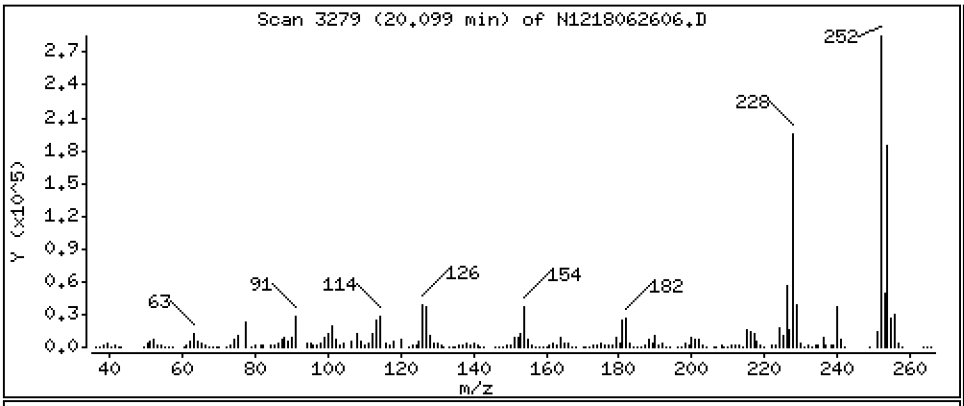
Operator: JZ

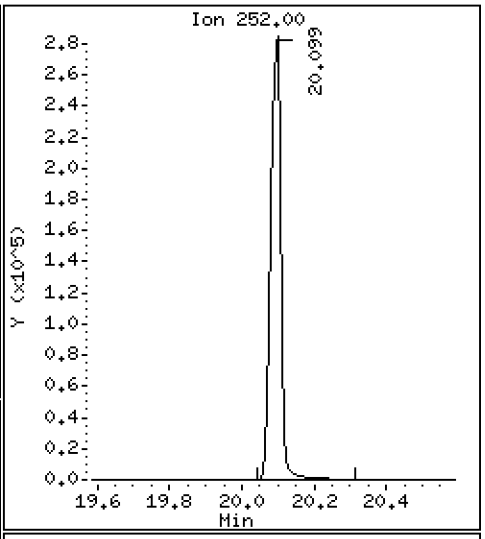
Column phase: ZB-5msi

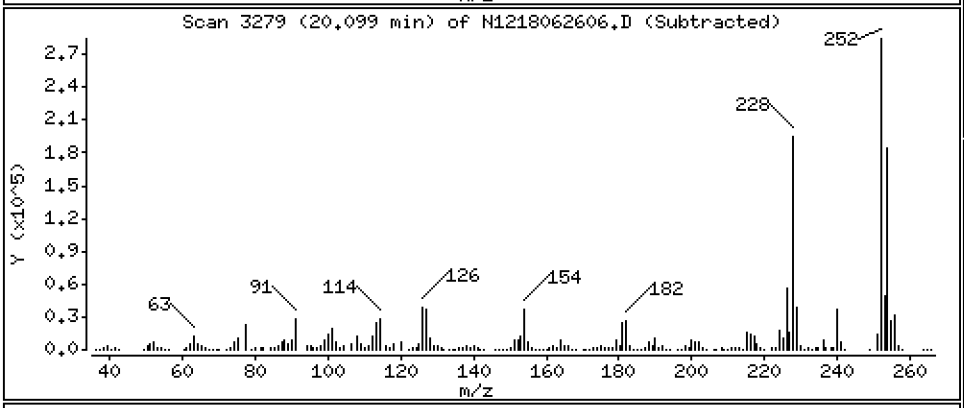
Column diameter: 0.32

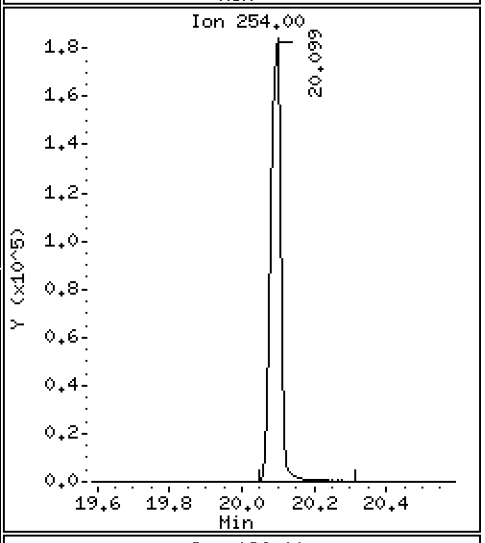
70 3,3'-Dichlorobenzidine

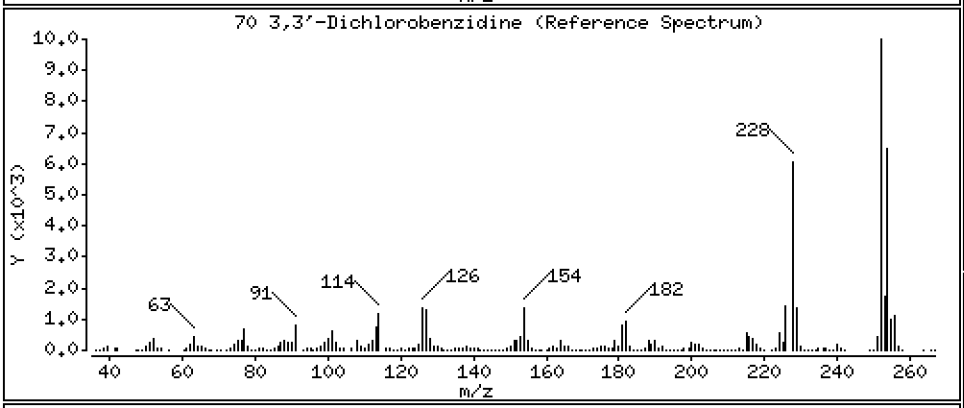
Concentration: 71.18 ug/mL

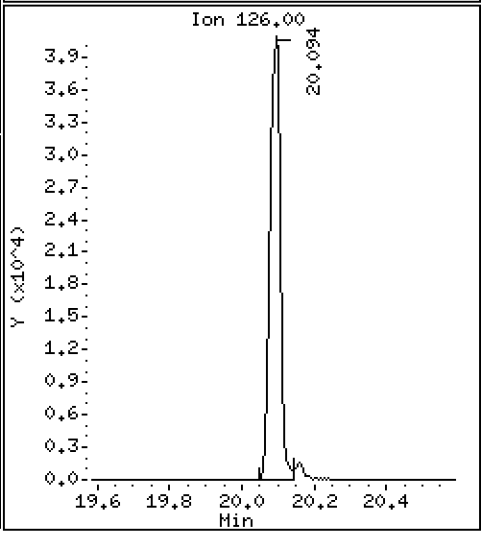


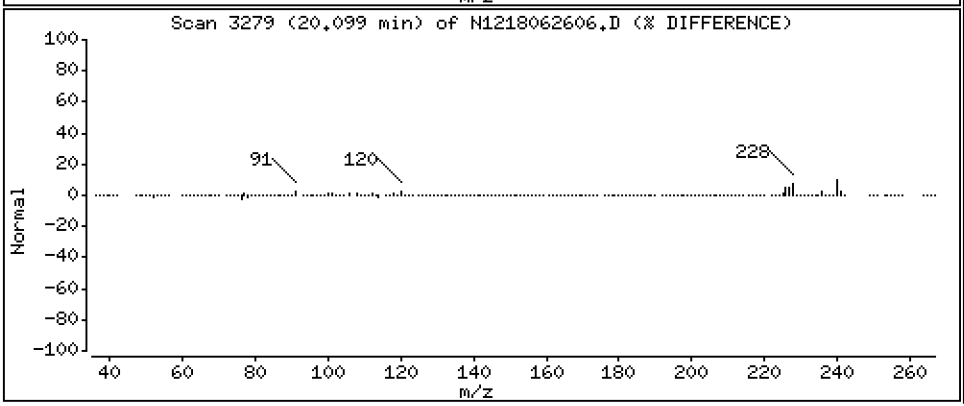












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

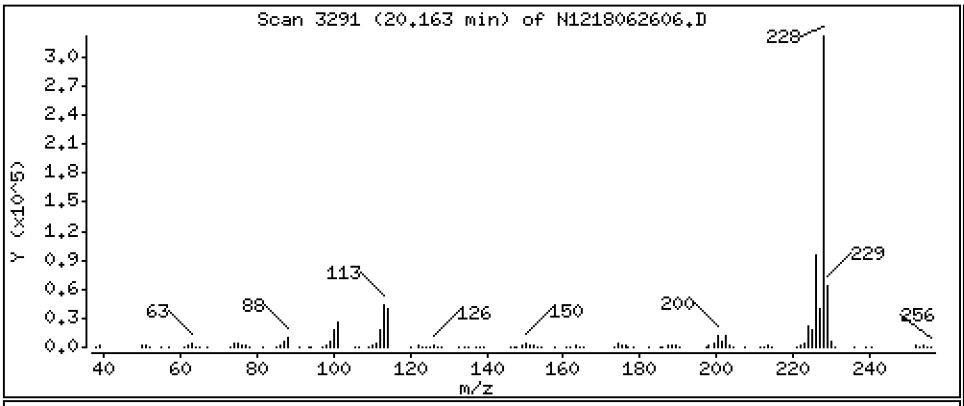
Operator: JZ

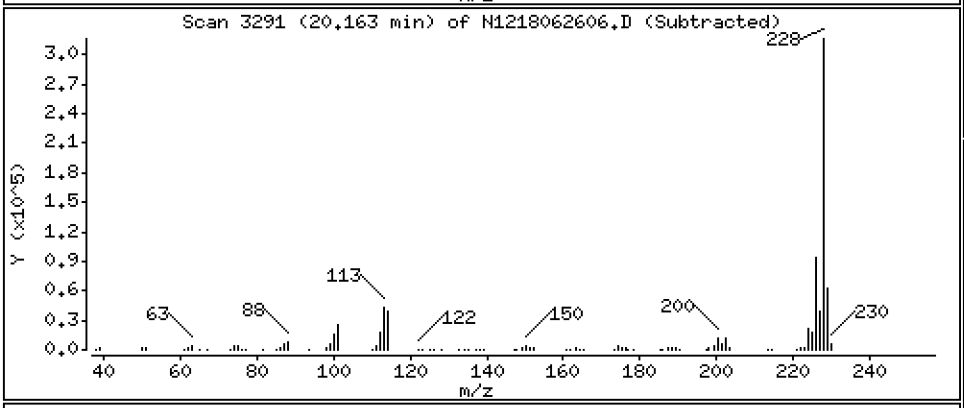
Column phase: ZB-5msi

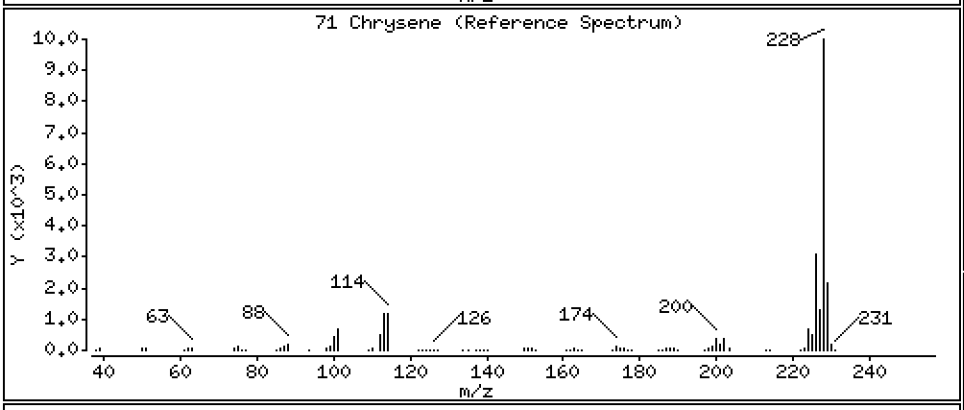
Column diameter: 0.32

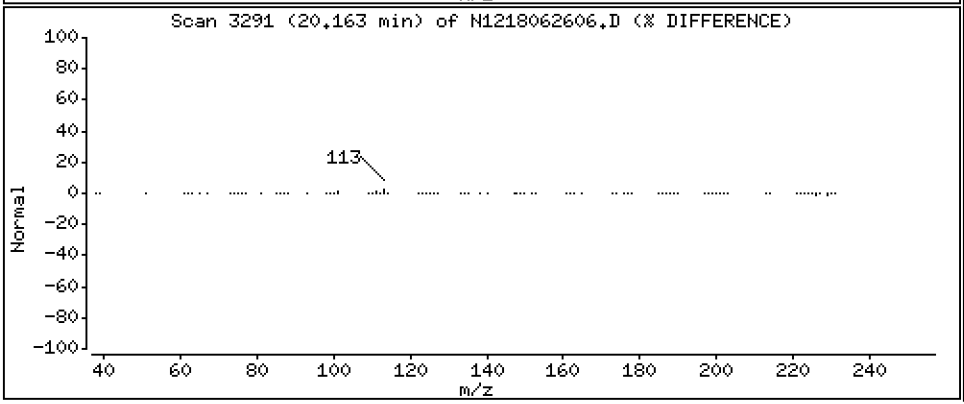
71 Chrysene

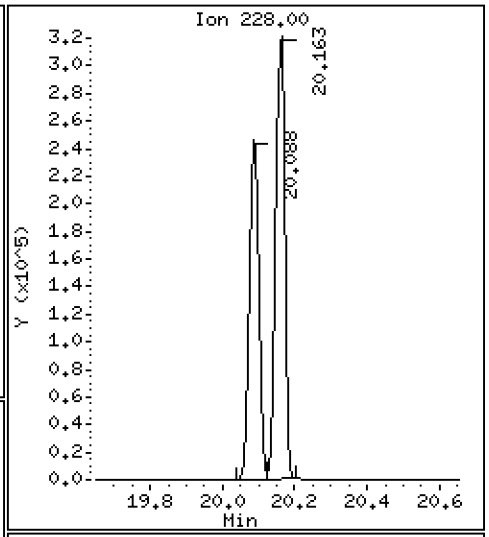
Concentration: 23.80 ug/mL

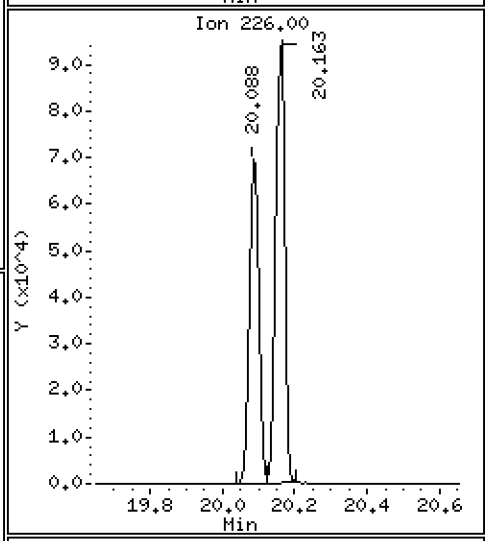


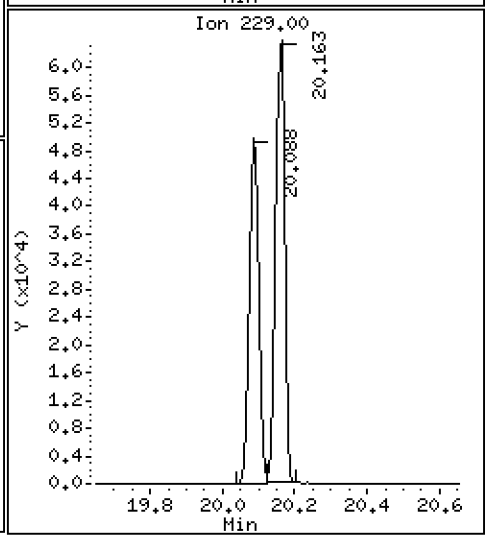












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

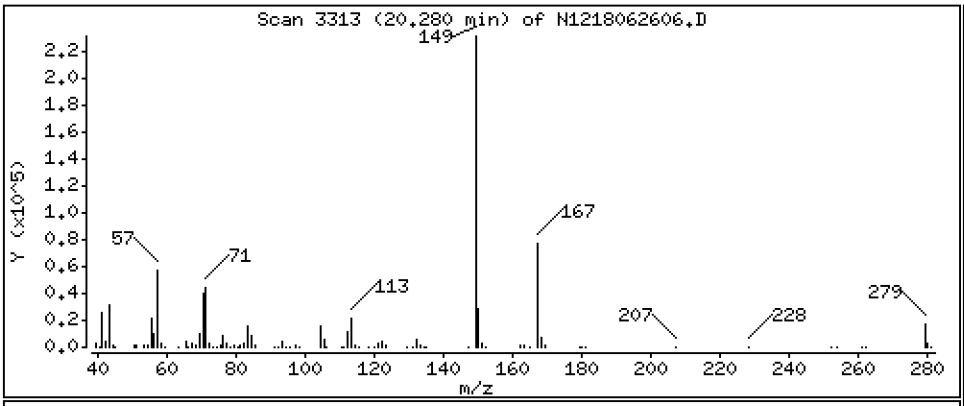
Operator: JZ

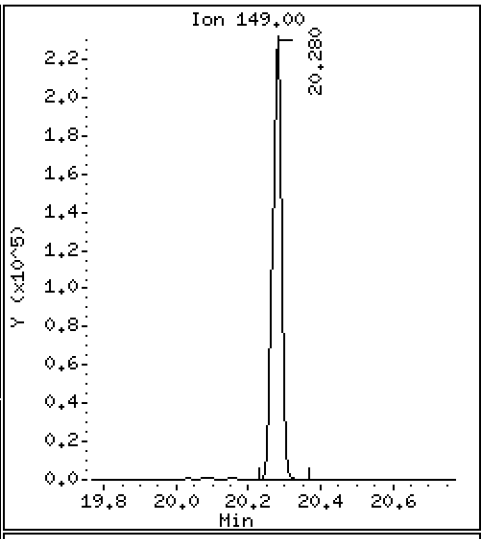
Column phase: ZB-5msi

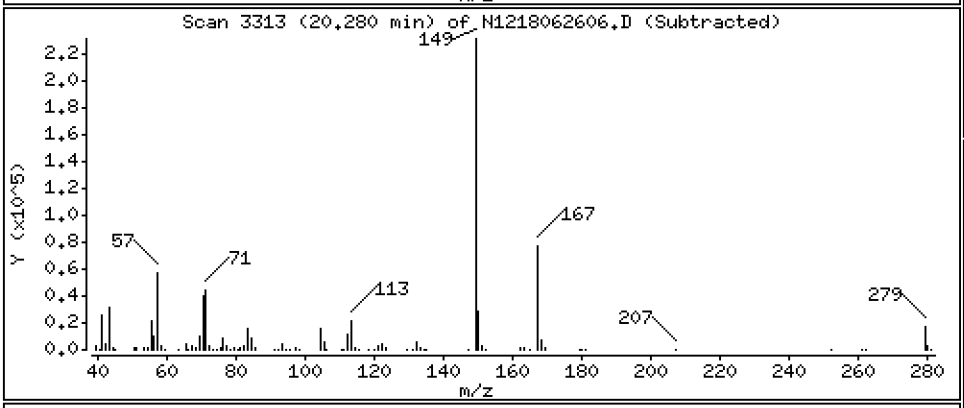
Column diameter: 0.32

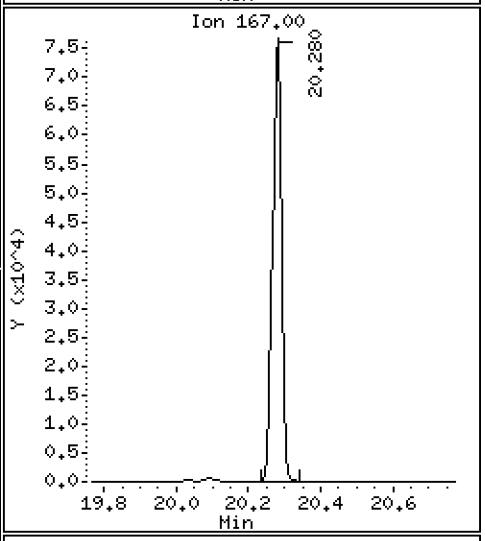
72 bis(2-Ethylhexyl)phthalate

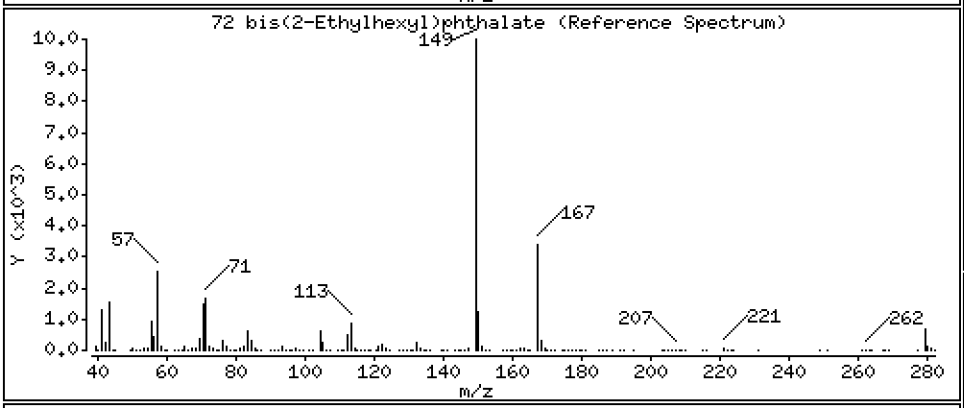
Concentration: 22.48 ug/mL

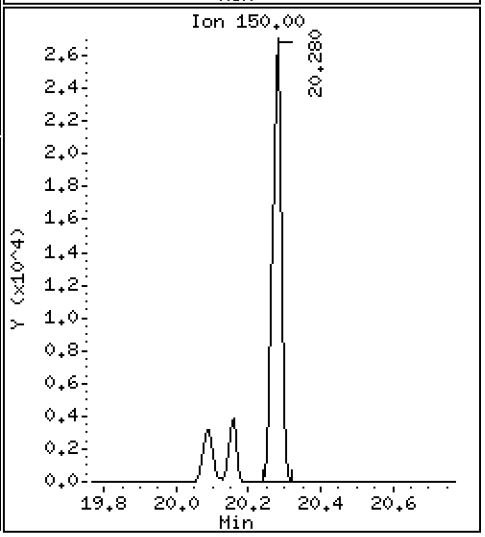


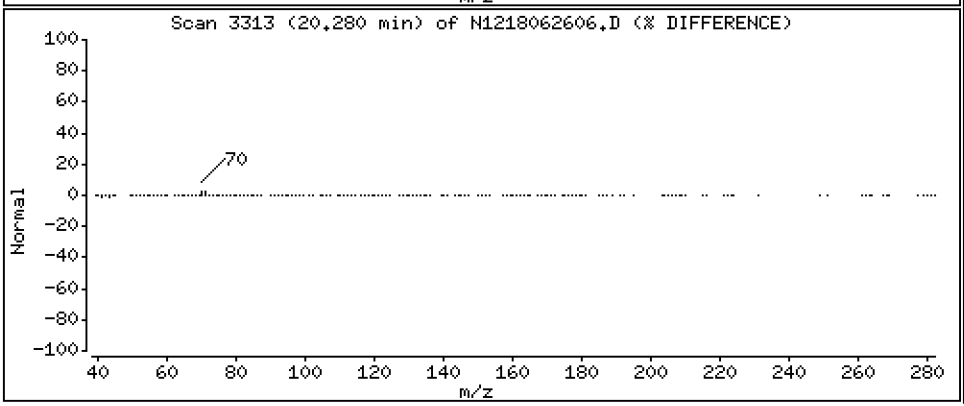












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

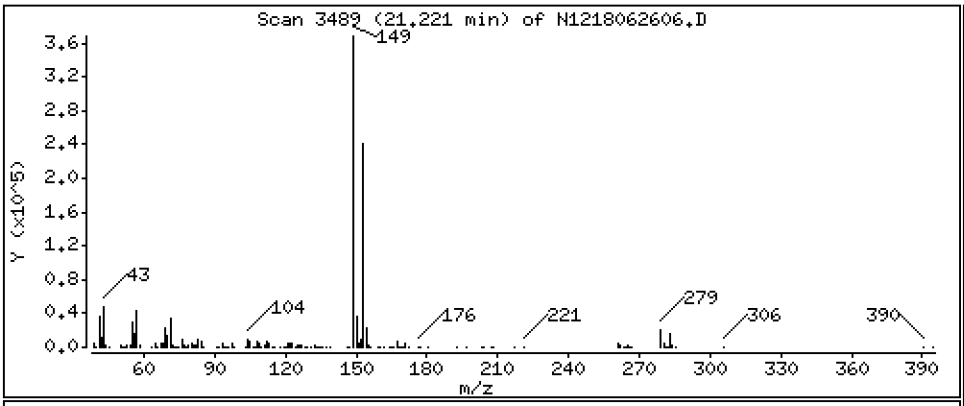
Operator: JZ

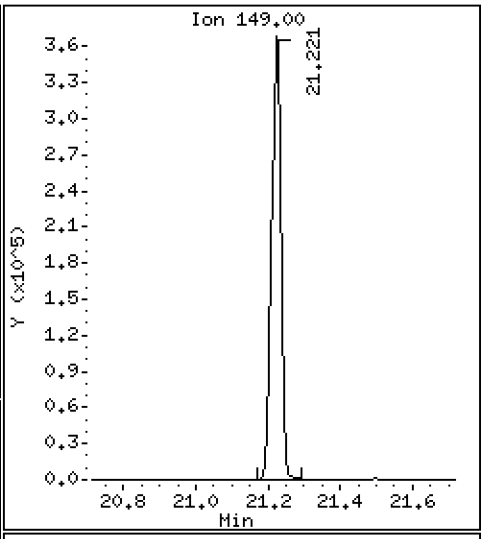
Column phase: ZB-5msi

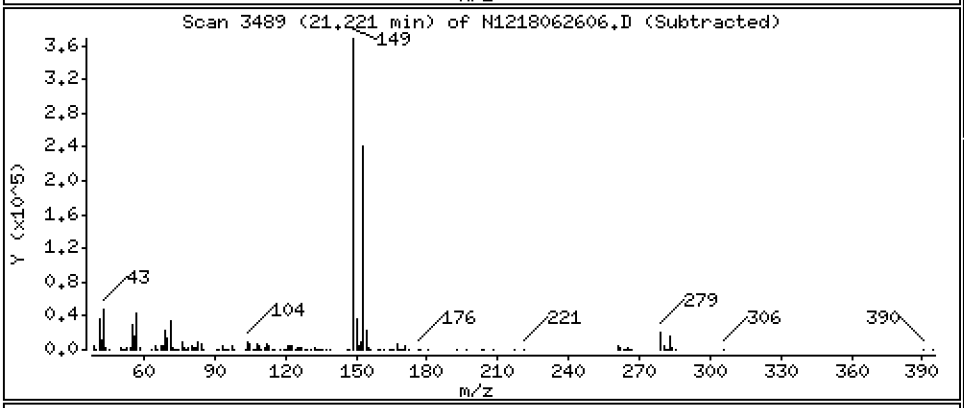
Column diameter: 0.32

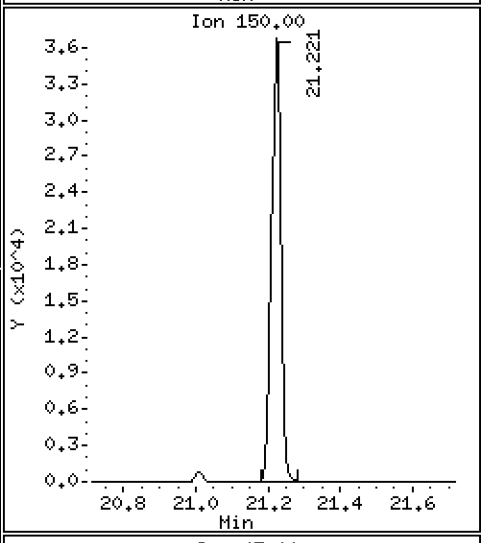
73 Di-n-octylphthalate

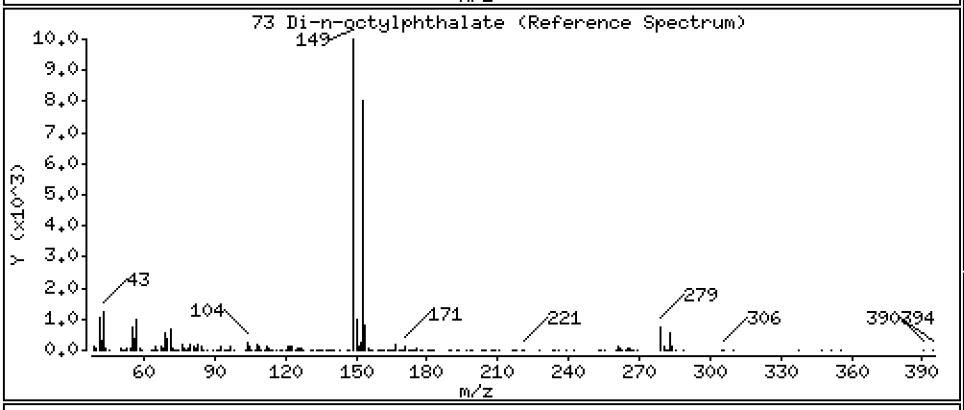
Concentration: 20.71 ug/mL

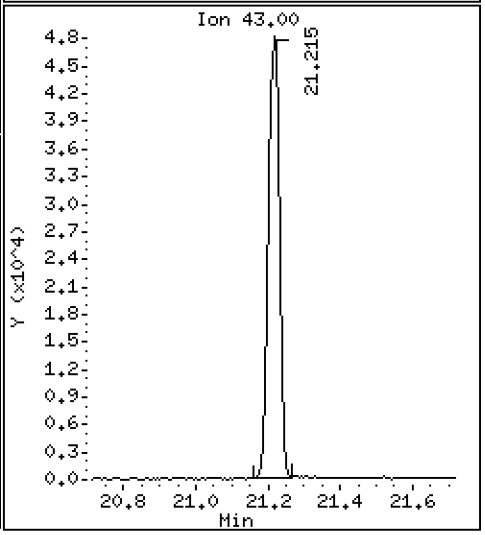


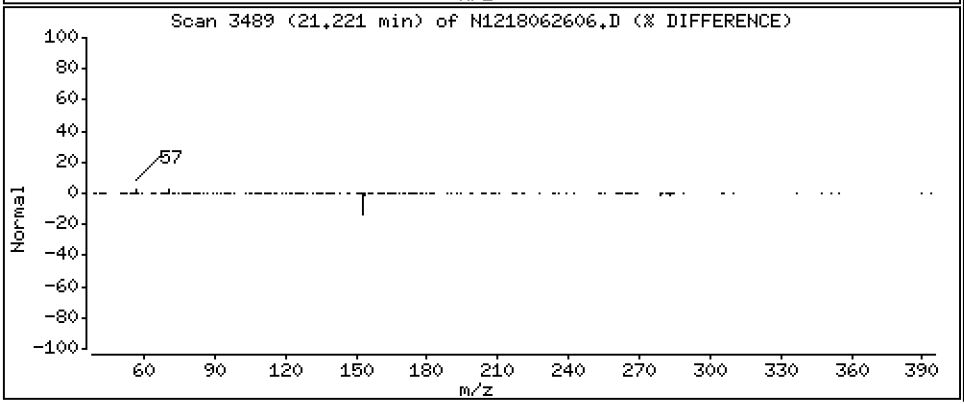












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

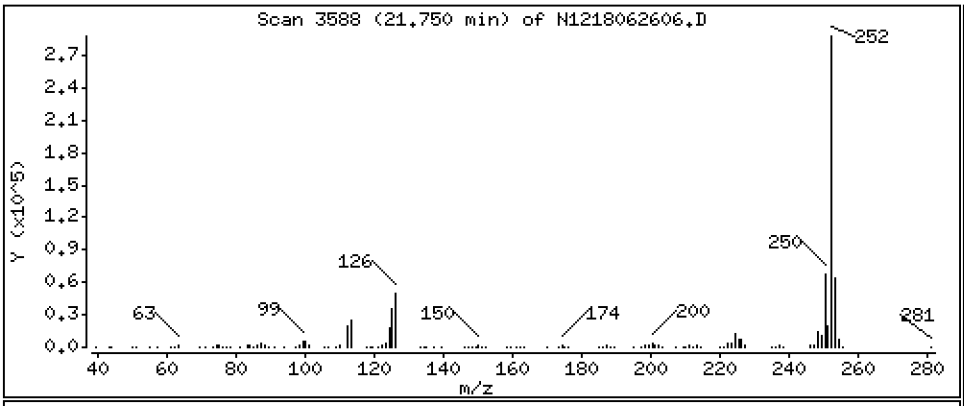
Operator: JZ

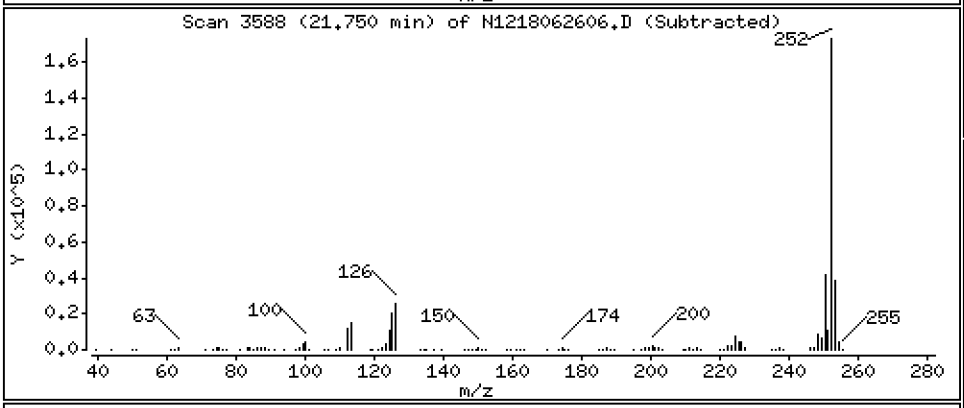
Column phase: ZB-5msi

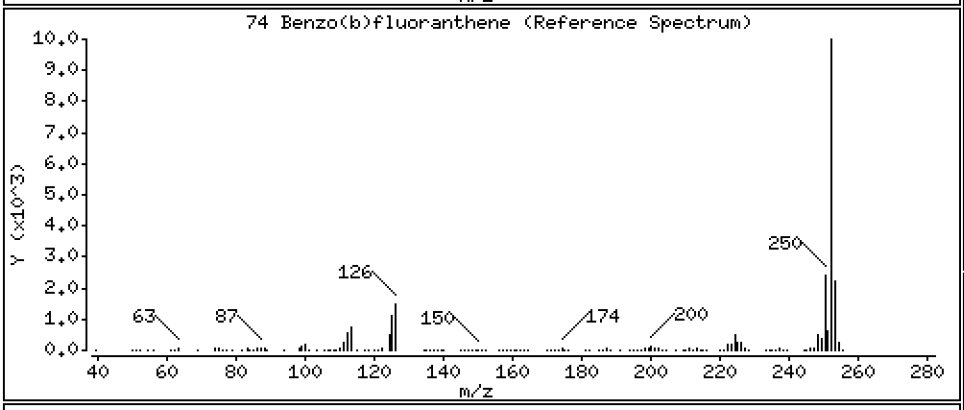
Column diameter: 0.32

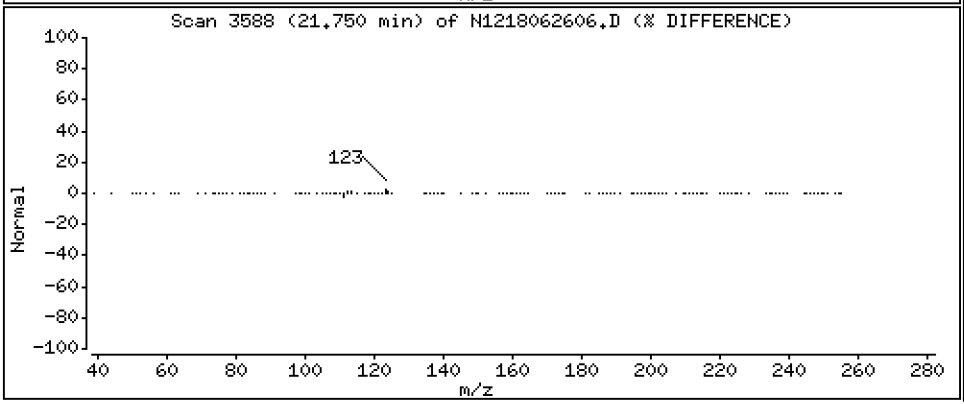
74 Benzo(b)fluoranthene

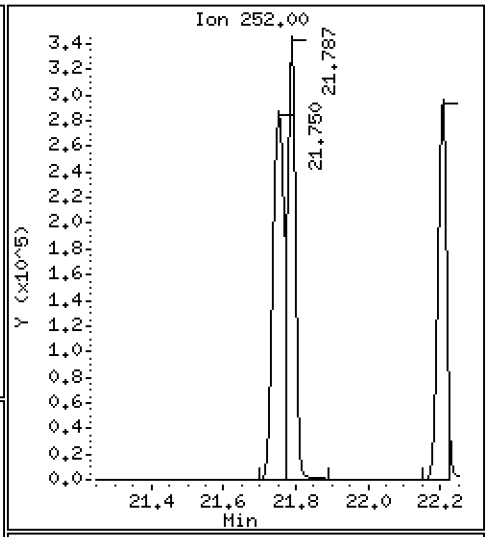
Concentration: 21.24 ug/mL

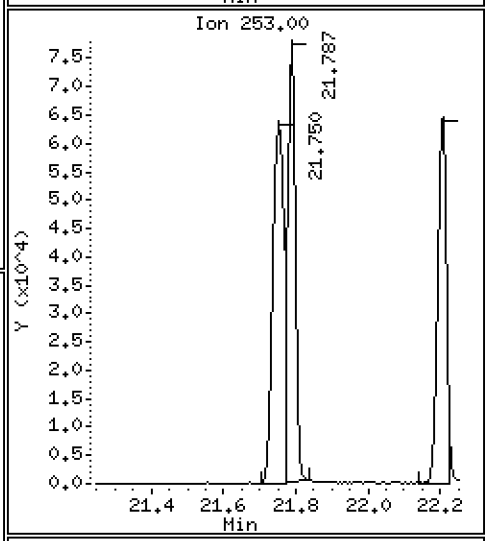


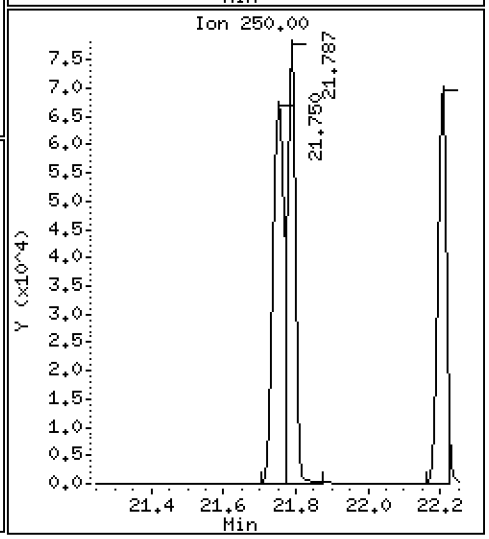












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

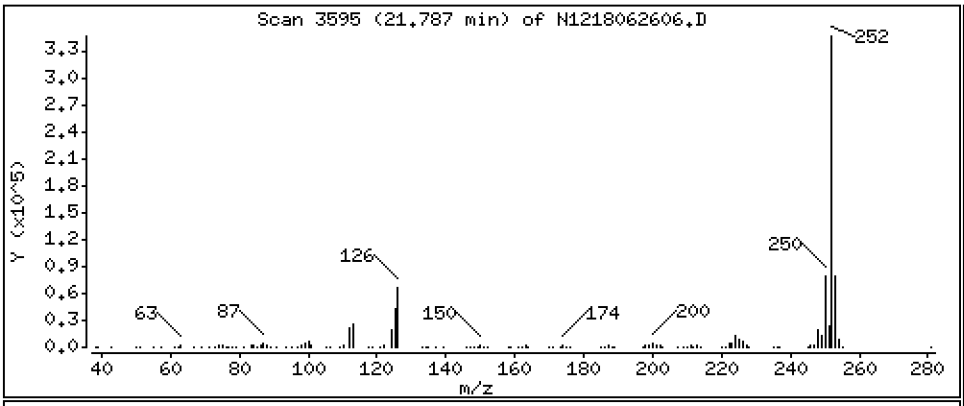
Operator: JZ

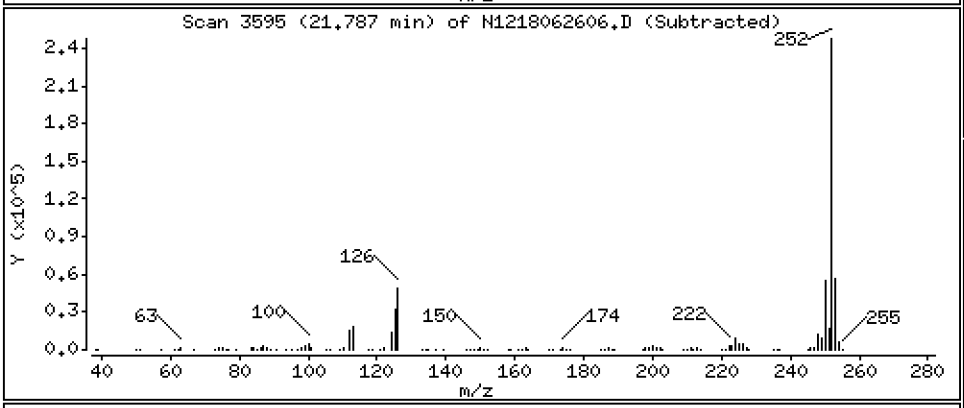
Column phase: ZB-5msi

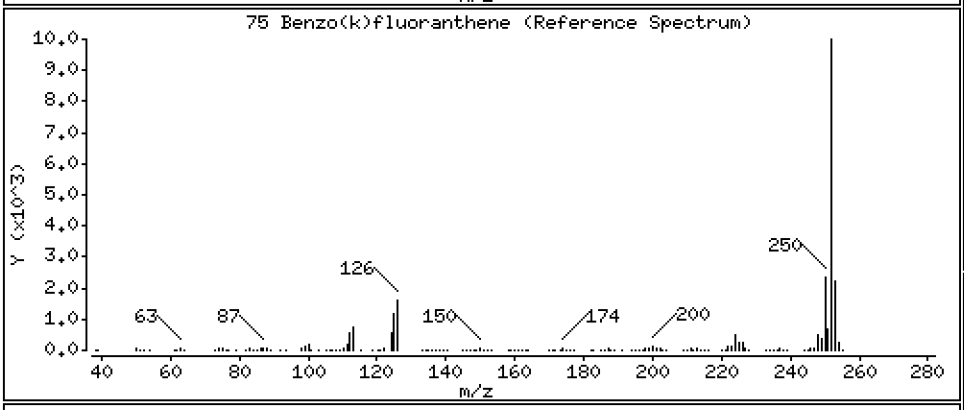
Column diameter: 0.32

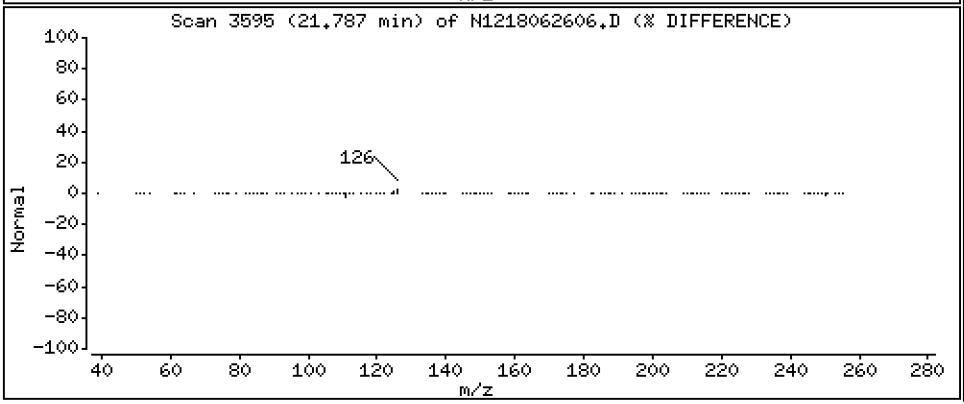
75 Benzo(k)fluoranthene

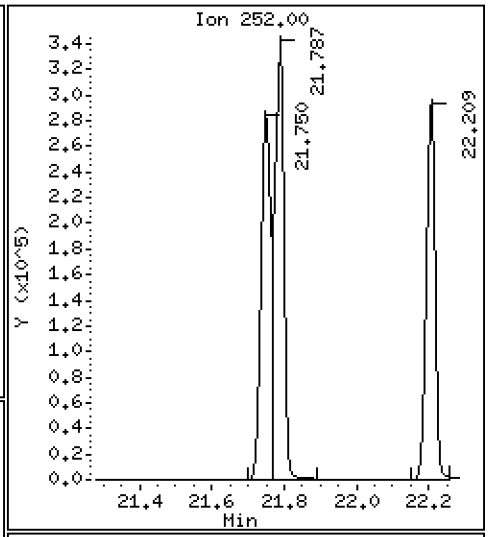
Concentration: 19.74 ug/mL

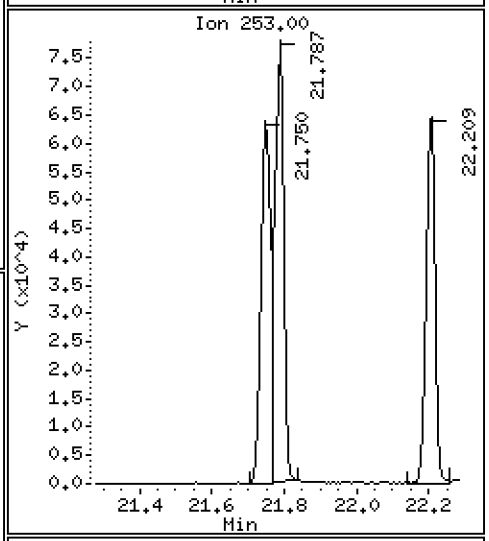


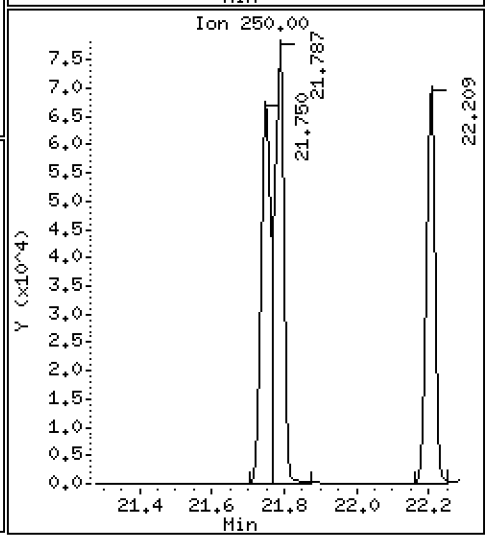












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

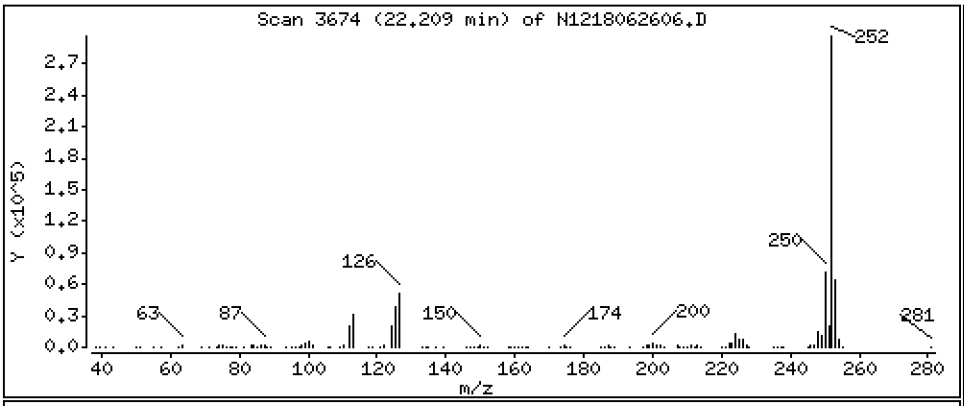
Operator: JZ

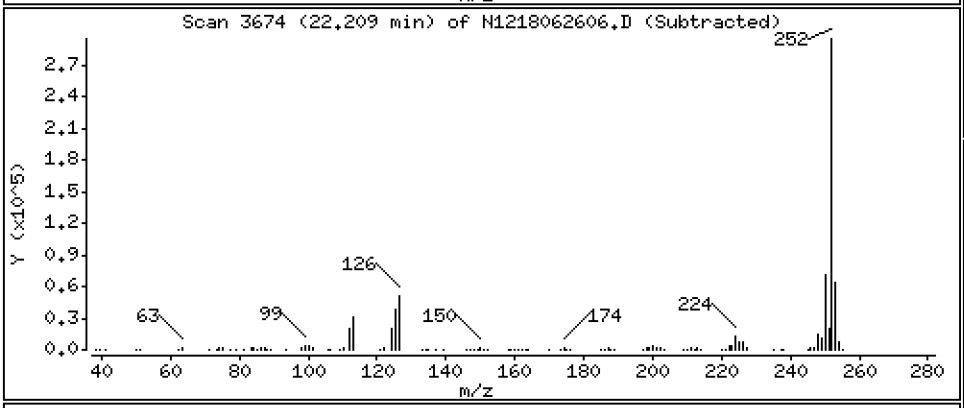
Column phase: ZB-5msi

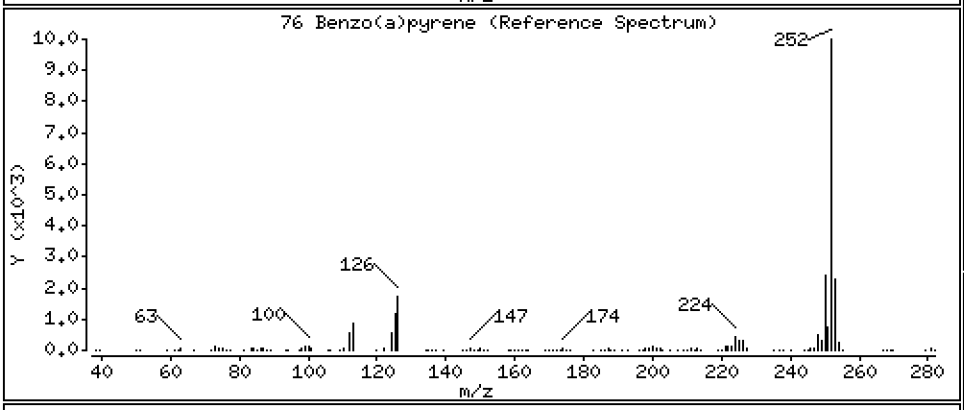
Column diameter: 0.32

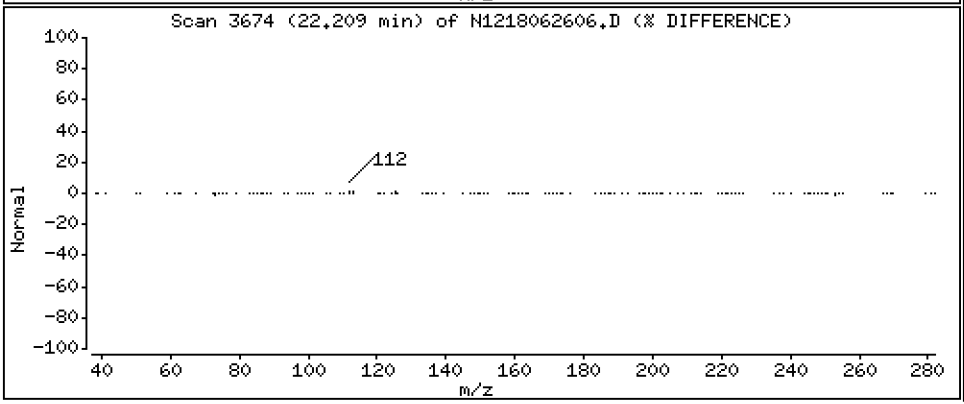
76 Benzo(a)pyrene

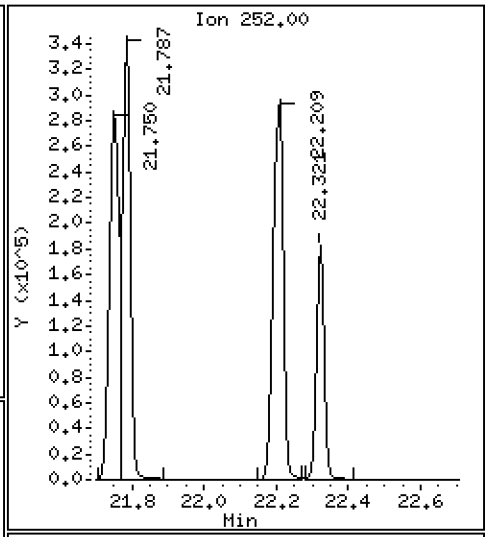
Concentration: 22.27 ug/mL

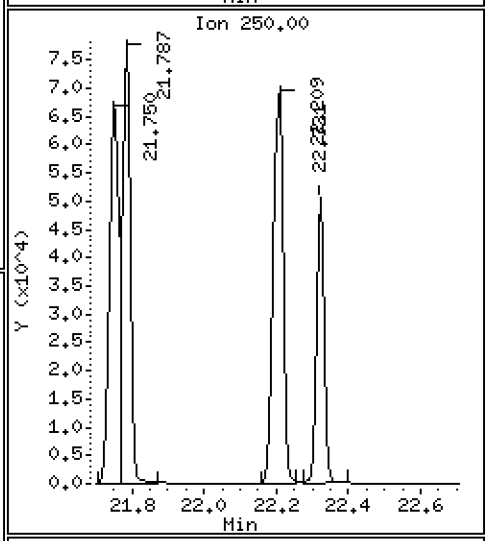


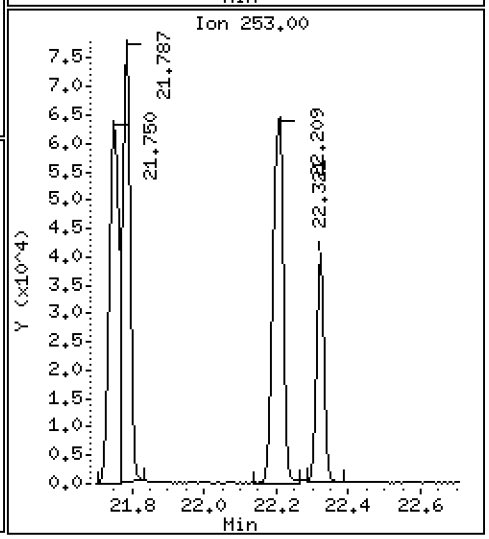












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

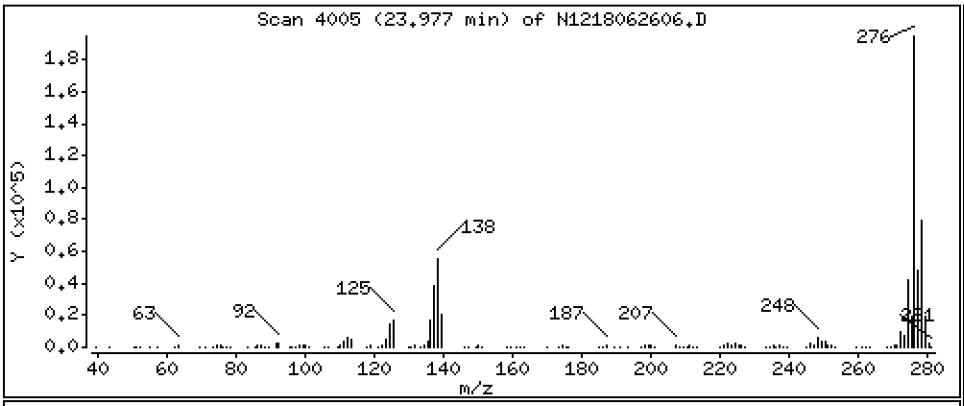
Operator: JZ

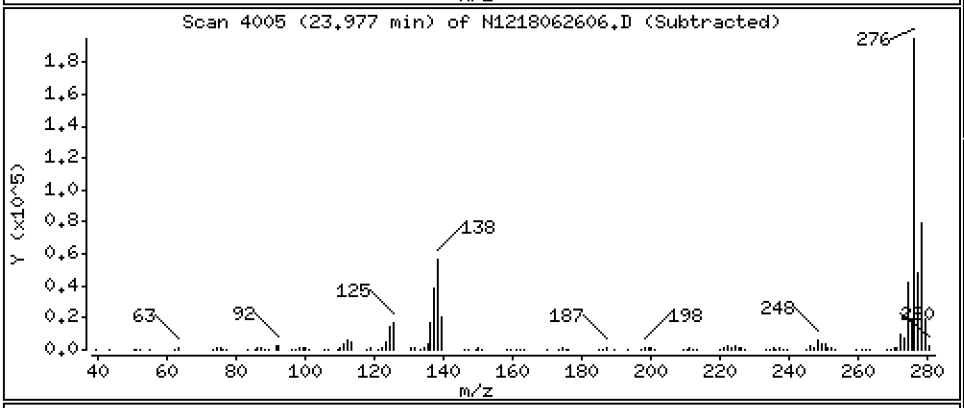
Column phase: ZB-5msi

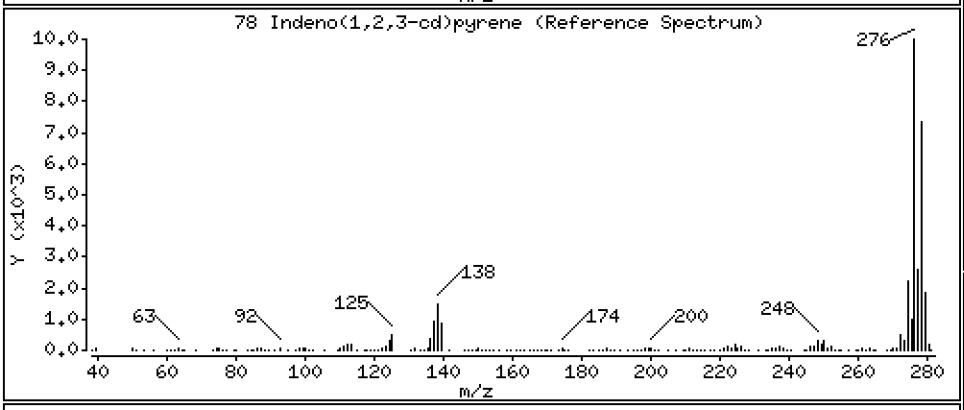
Column diameter: 0.32

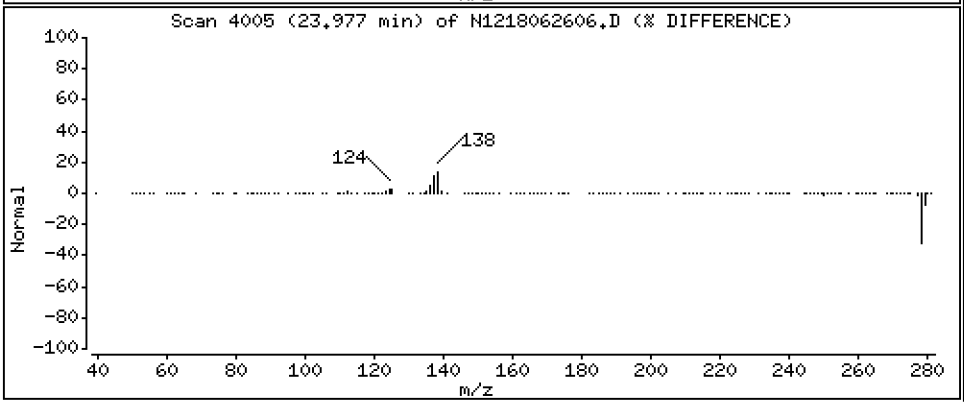
78 Indeno(1,2,3-cd)pyrene

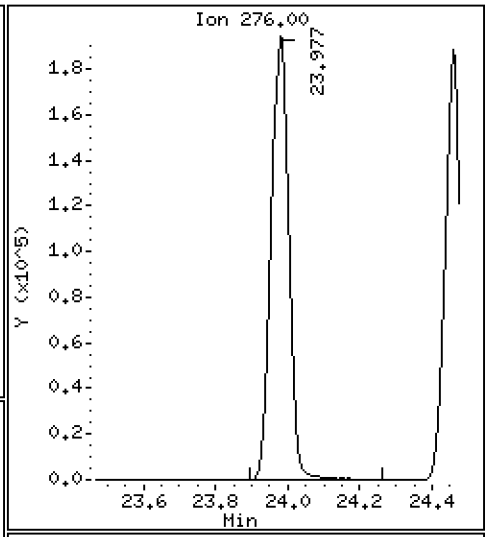
Concentration: 23.39 ug/mL

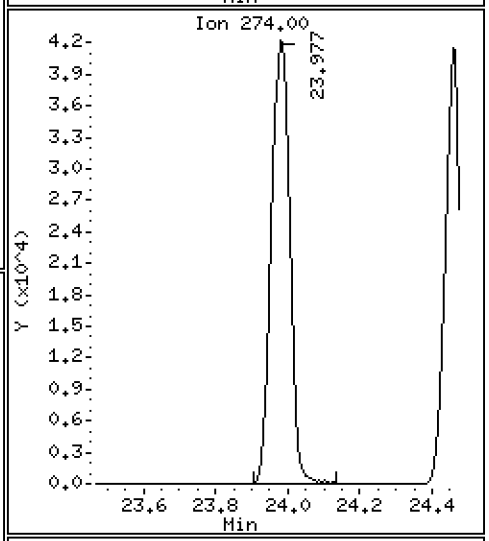


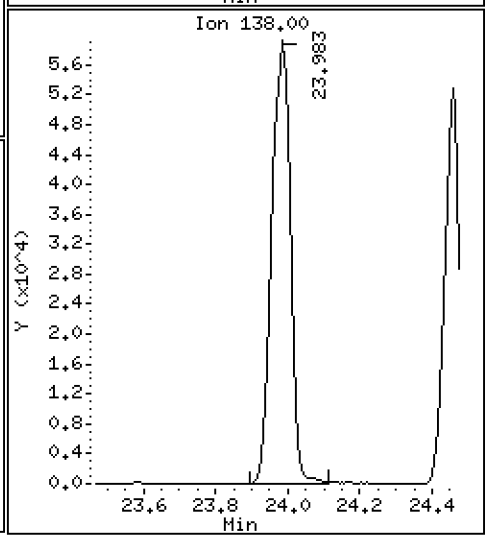












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

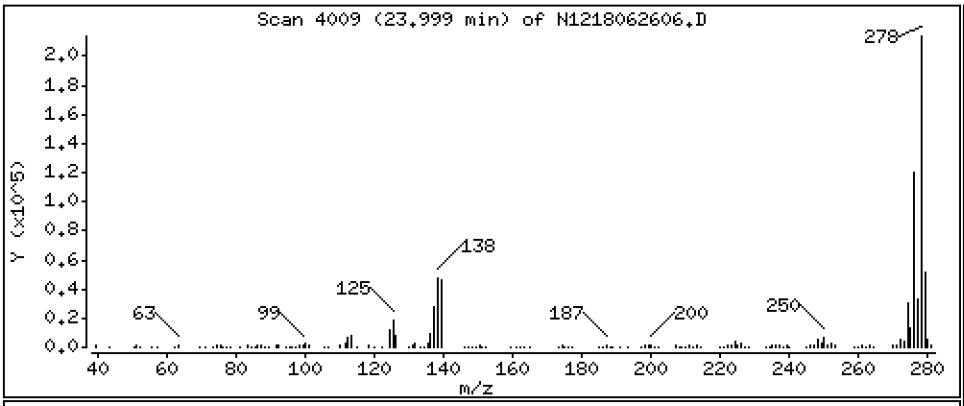
Operator: JZ

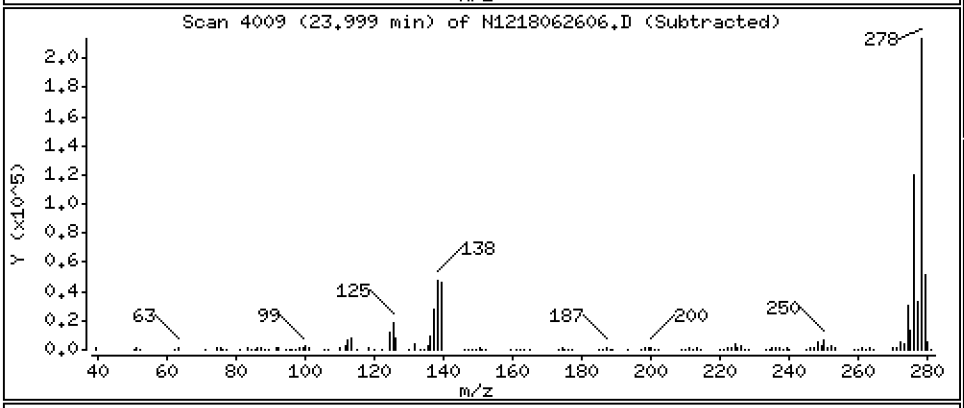
Column phase: ZB-5msi

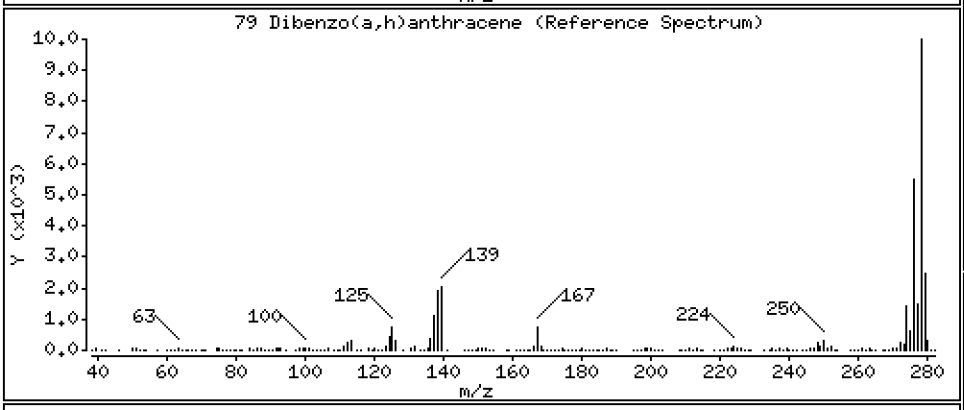
Column diameter: 0.32

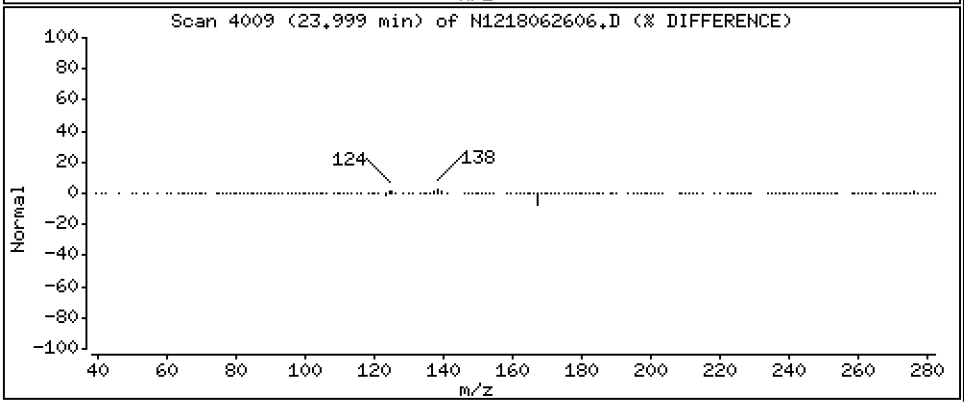
79 Dibenzo(a,h)anthracene

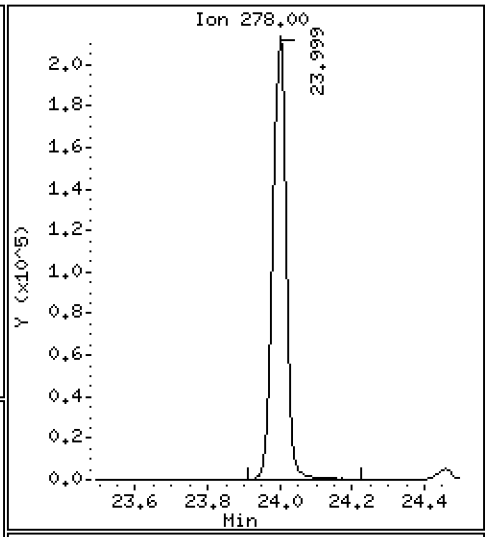
Concentration: 23.32 ug/mL

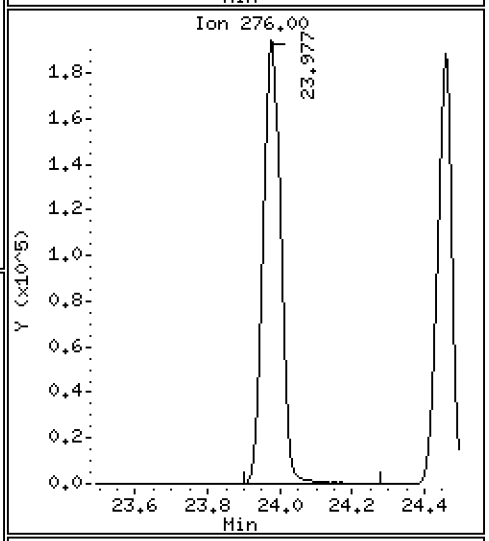


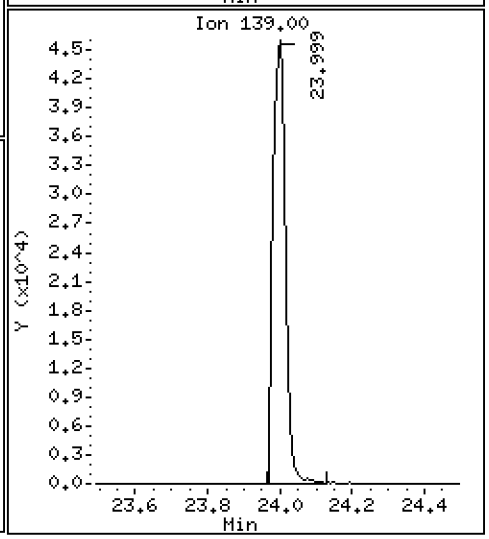












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

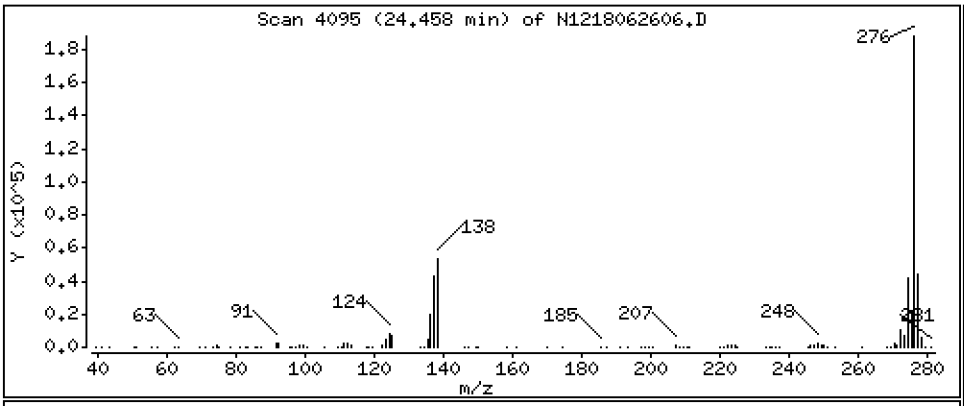
Operator: JZ

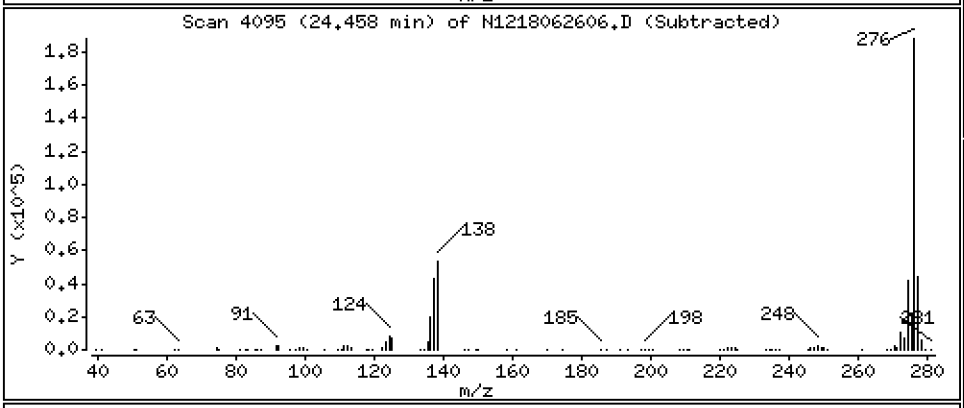
Column phase: ZB-5msi

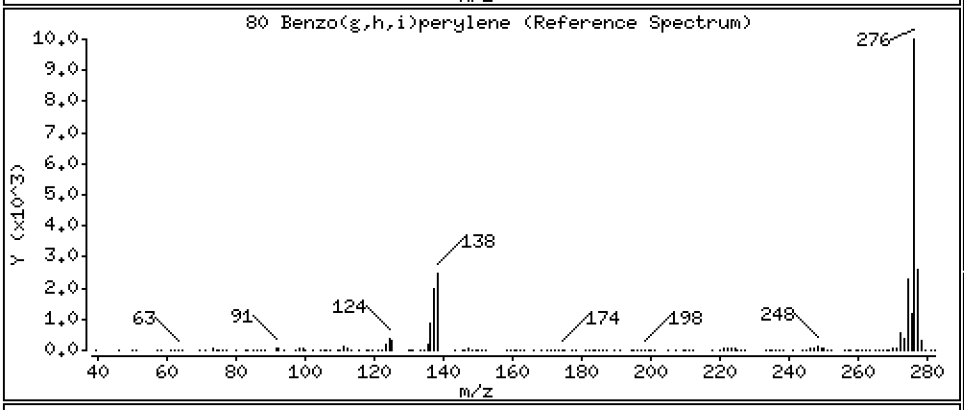
Column diameter: 0.32

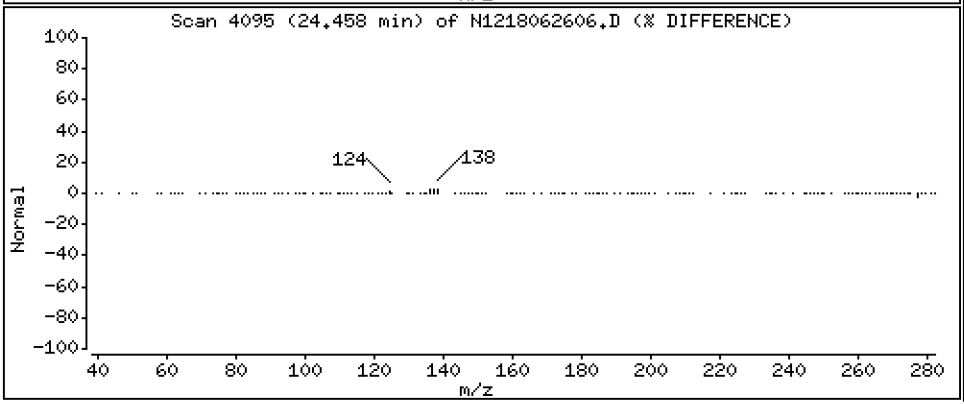
80 Benzo(g,h,i)perylene

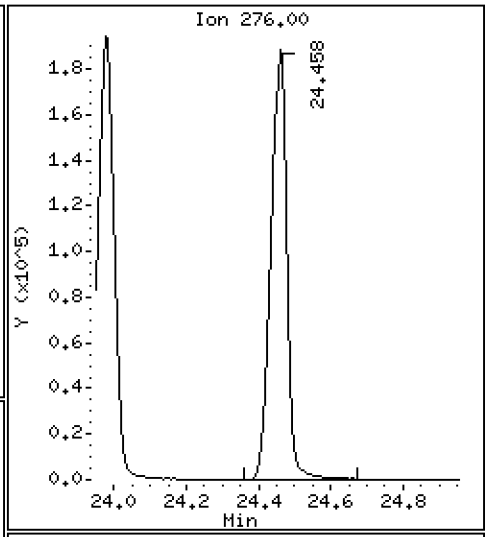
Concentration: 24.30 ug/mL

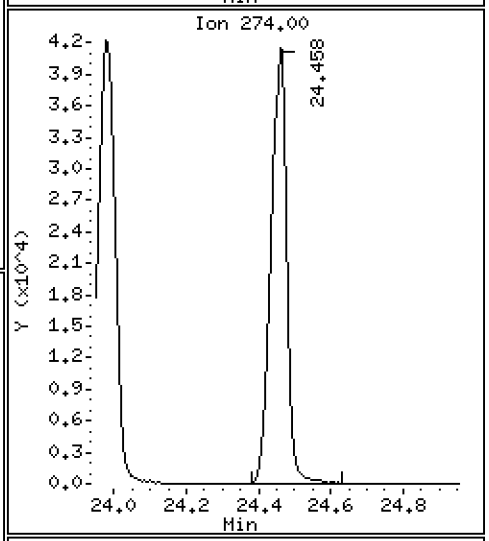


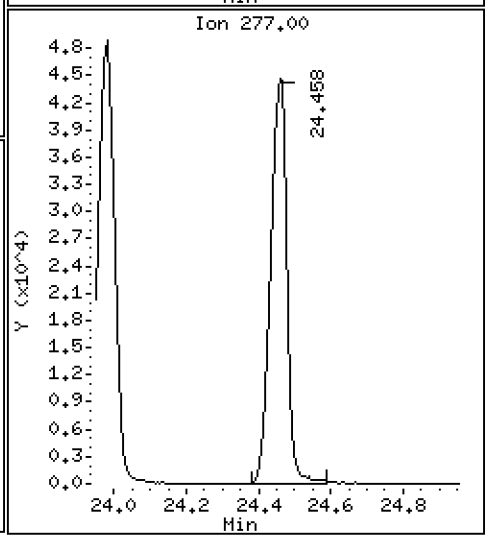












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

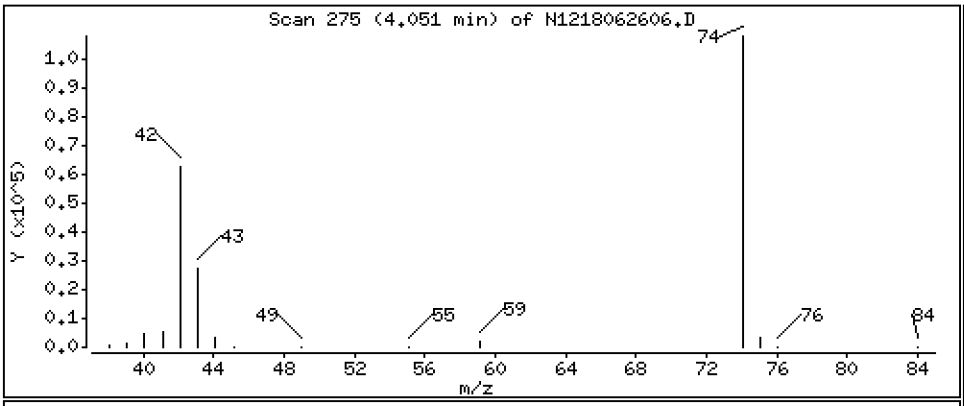
Operator: JZ

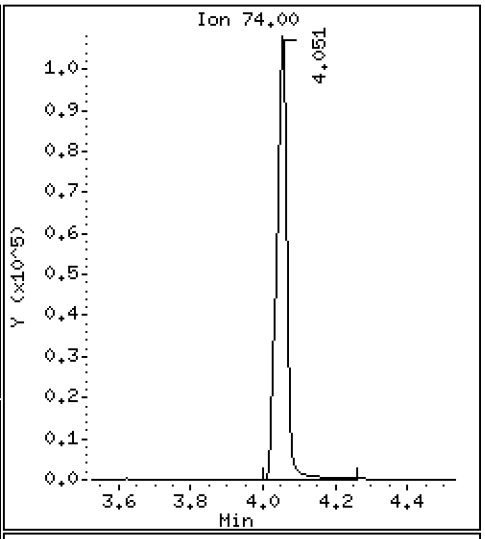
Column phase: ZB-5msi

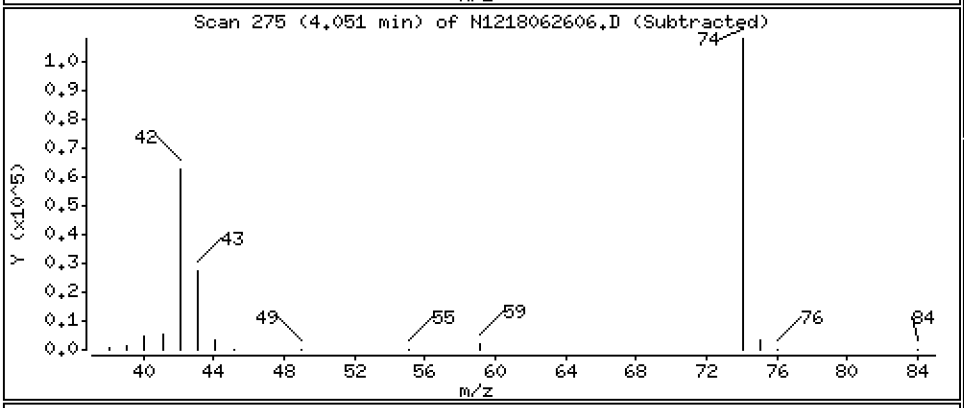
Column diameter: 0.32

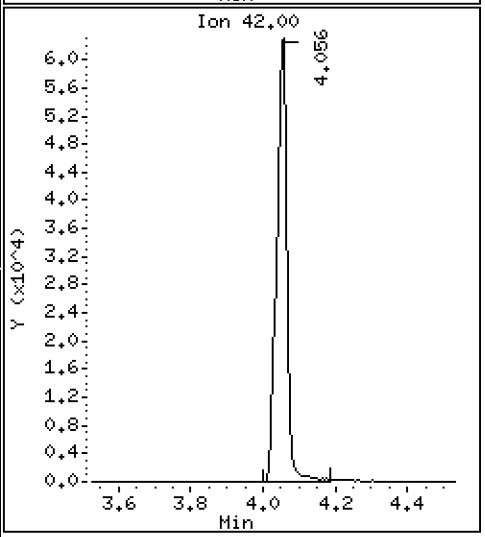
90 N-Nitrosodimethylamine

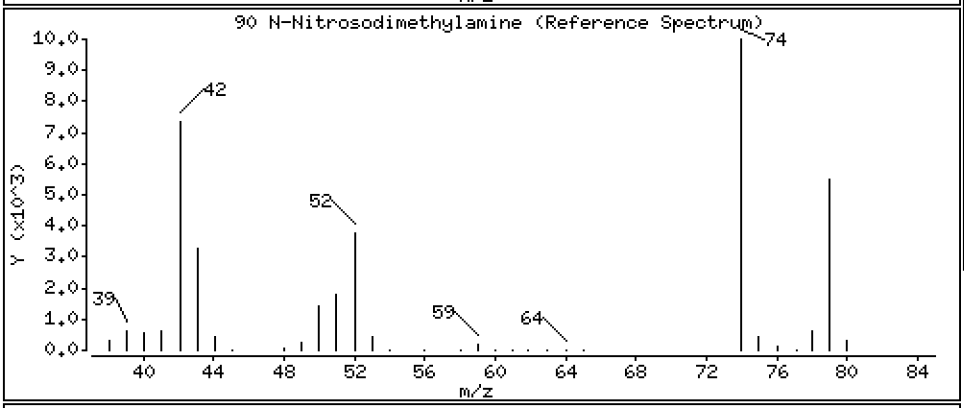
Concentration: 29.99 ug/mL

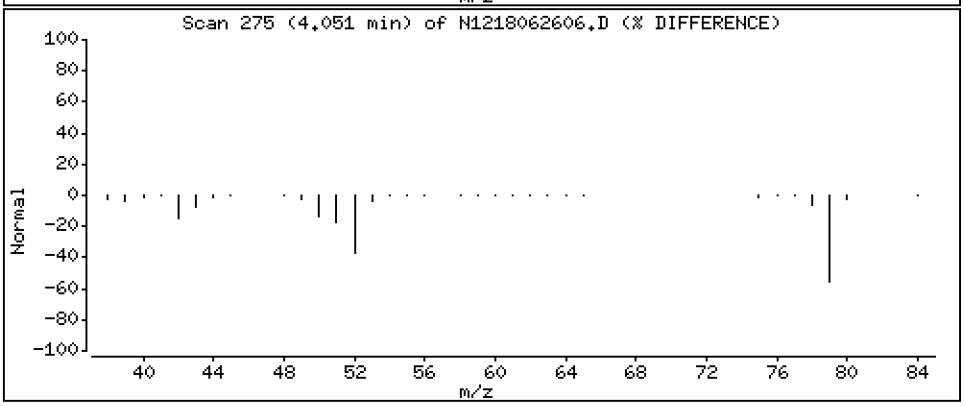












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

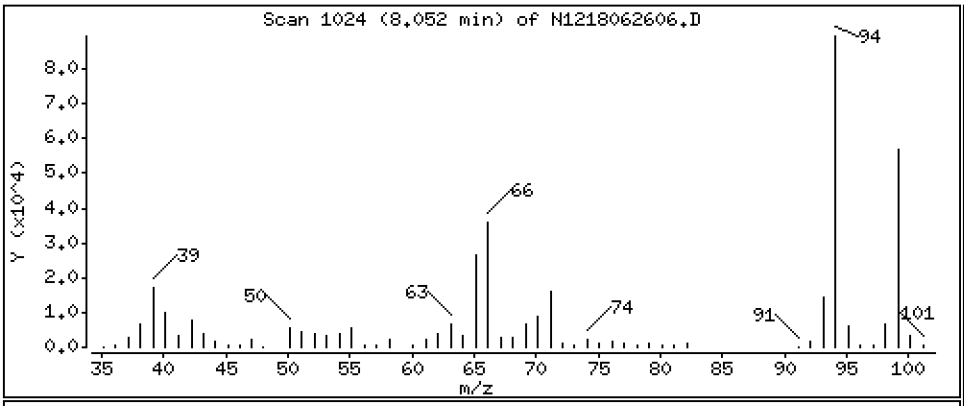
Operator: JZ

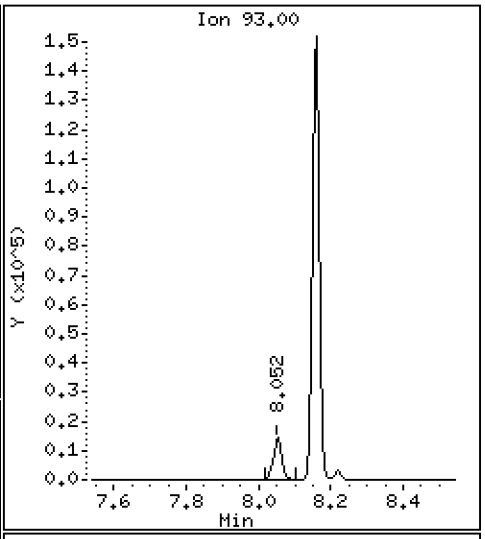
Column phase: ZB-5msi

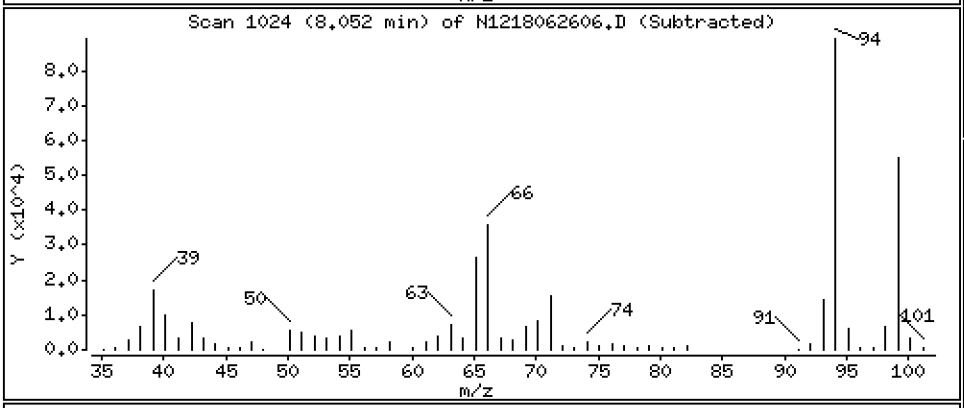
Column diameter: 0.32

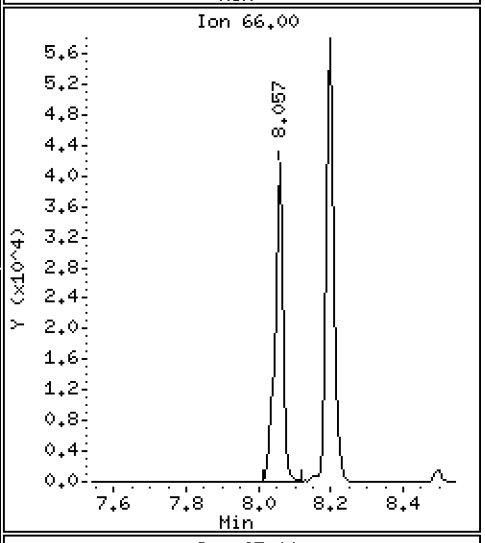
91 Aniline

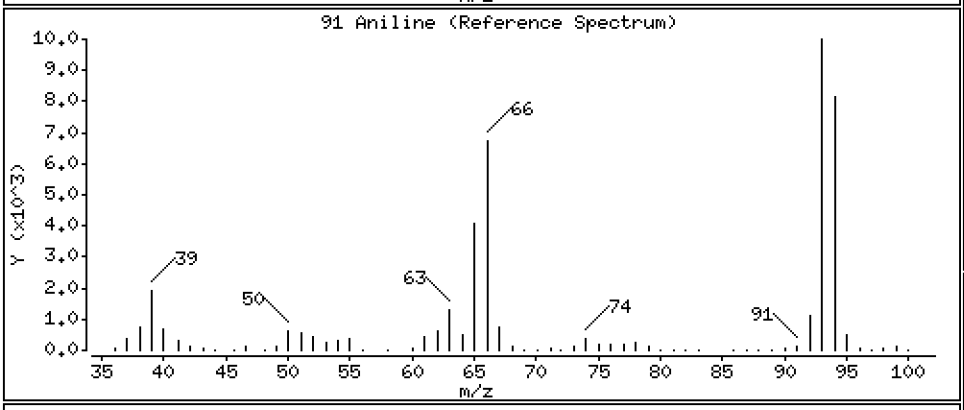
Concentration: 1.303 ug/mL

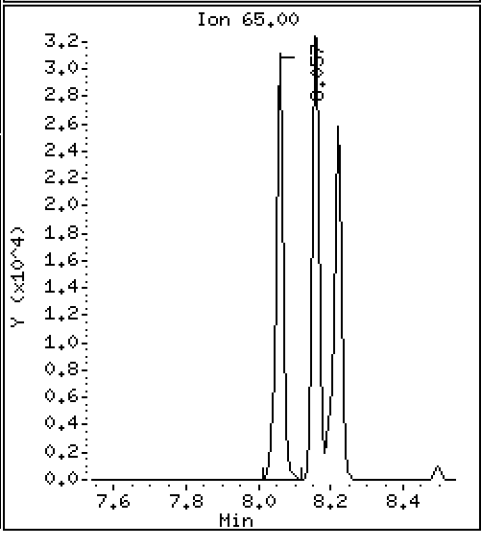


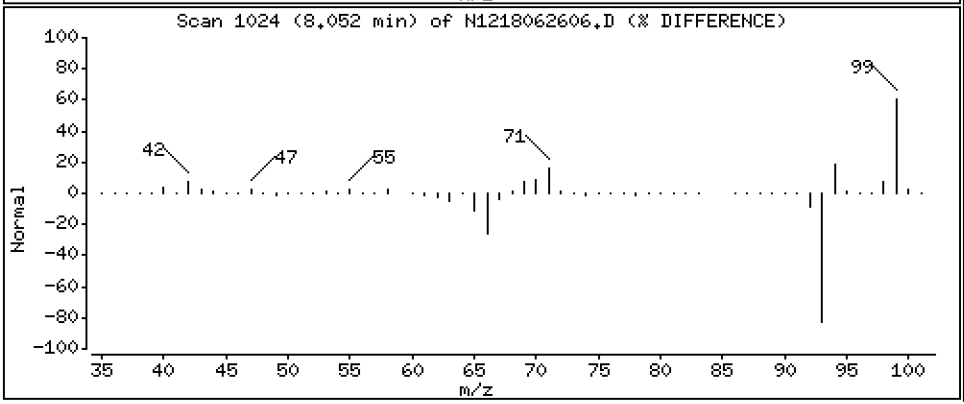












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

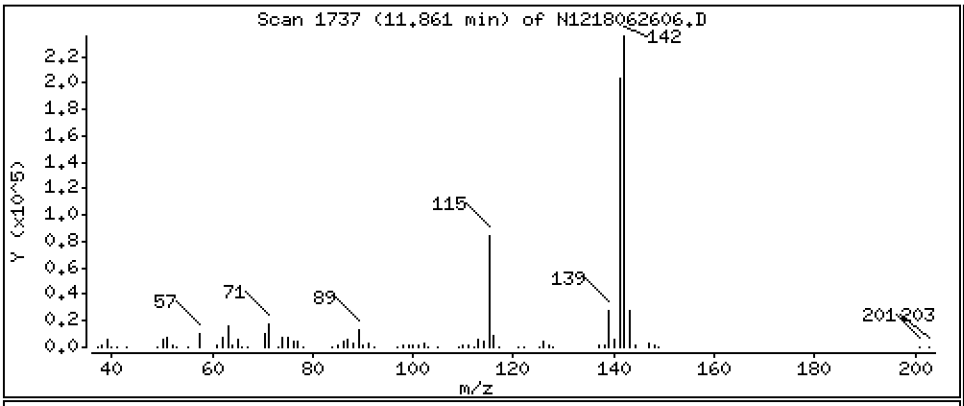
Operator: JZ

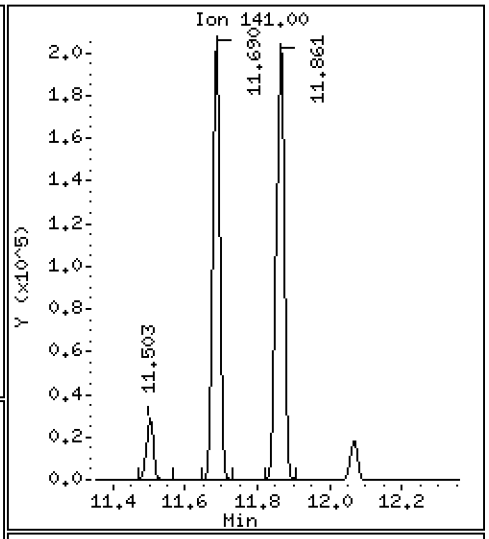
Column phase: ZB-5msi

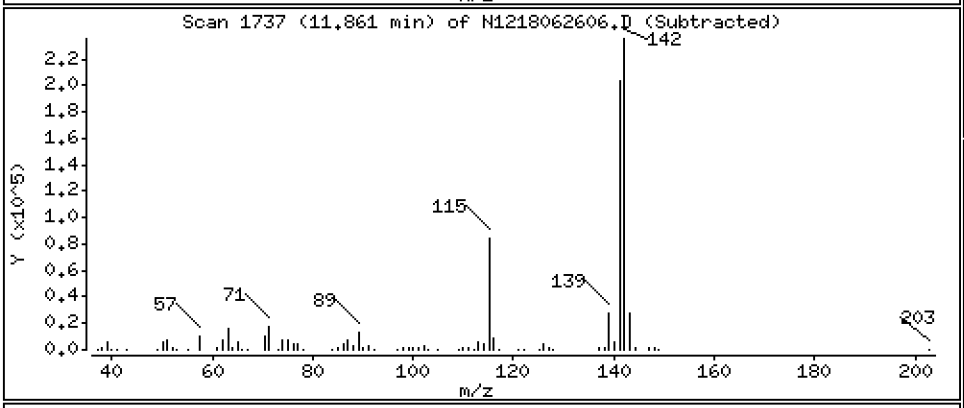
Column diameter: 0.32

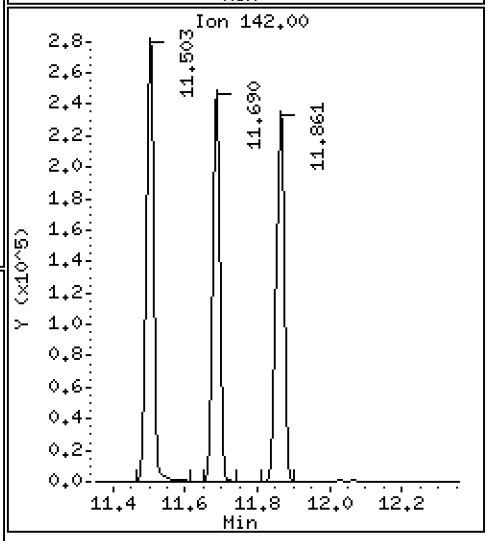
105 1-methylnaphthalene

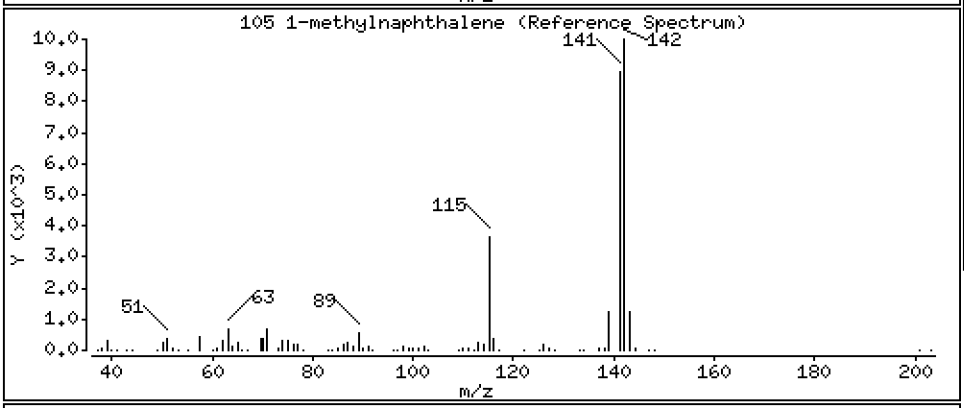
Concentration: 19.18 ug/mL

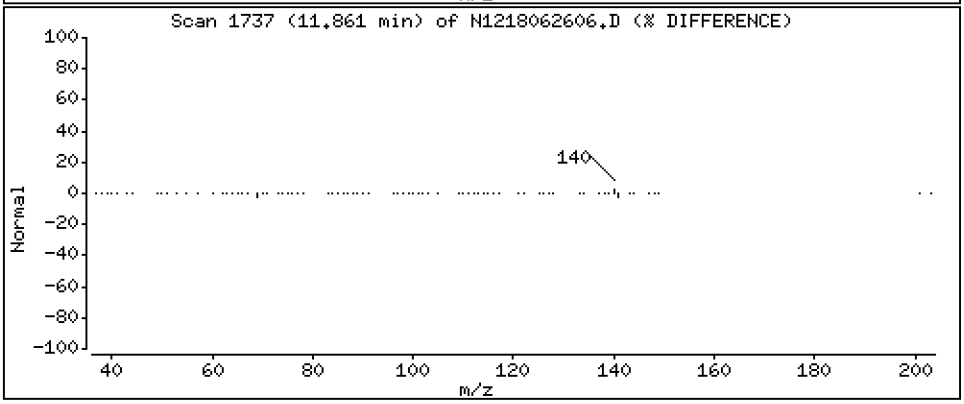












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

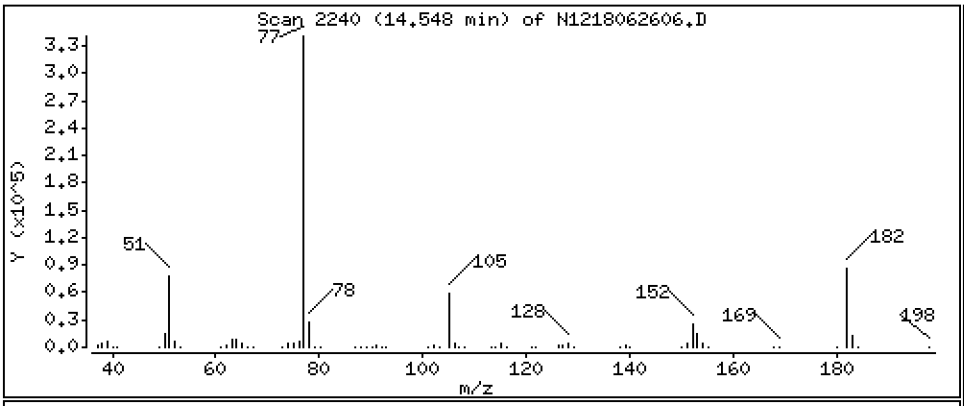
Operator: JZ

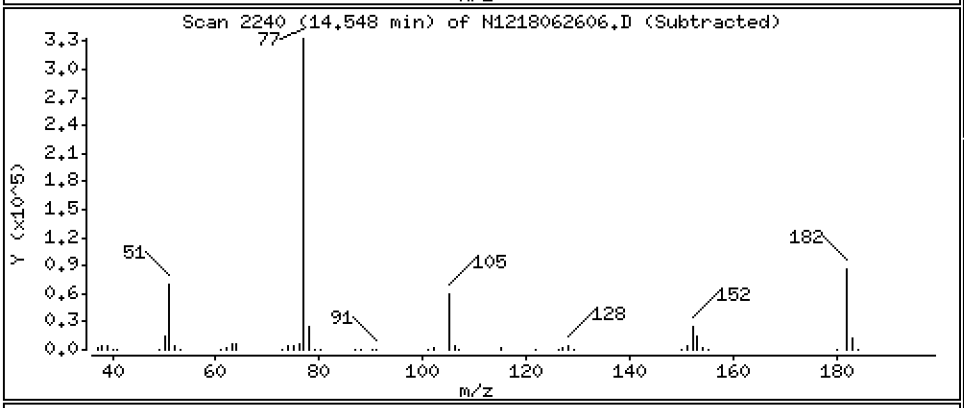
Column phase: ZB-5msi

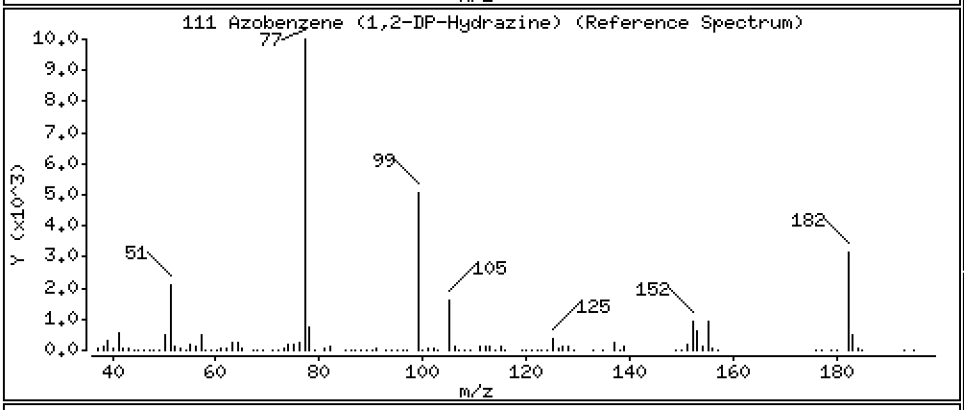
Column diameter: 0.32

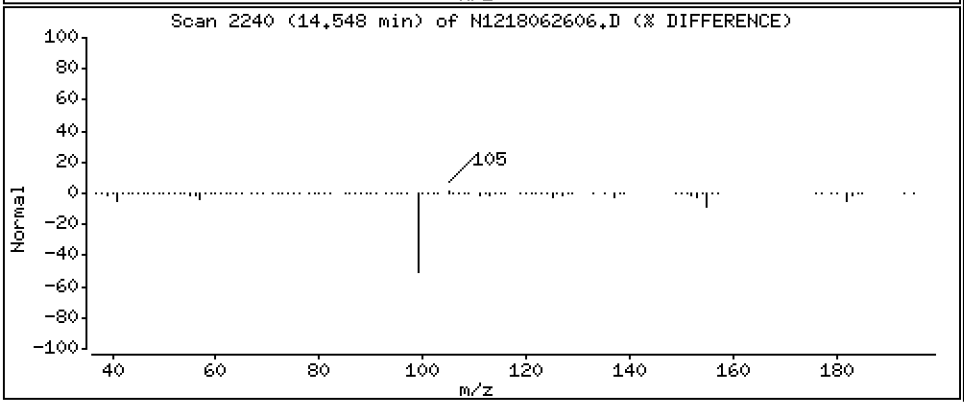
111 Azobenzene (1,2-DP-Hydrazine)

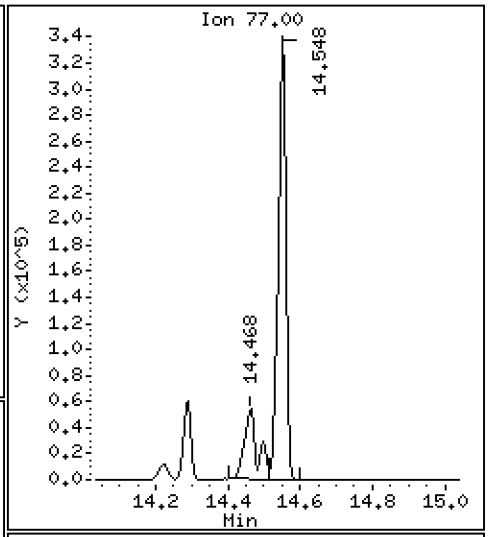
Concentration: 21.50 ug/mL

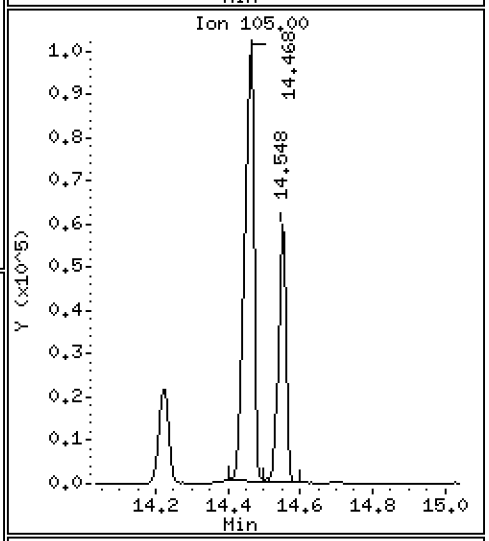


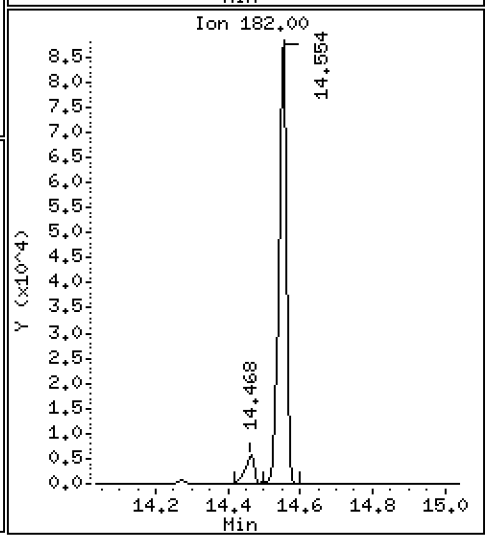












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Date : 26-JUN-2018 13:50

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-BS1,

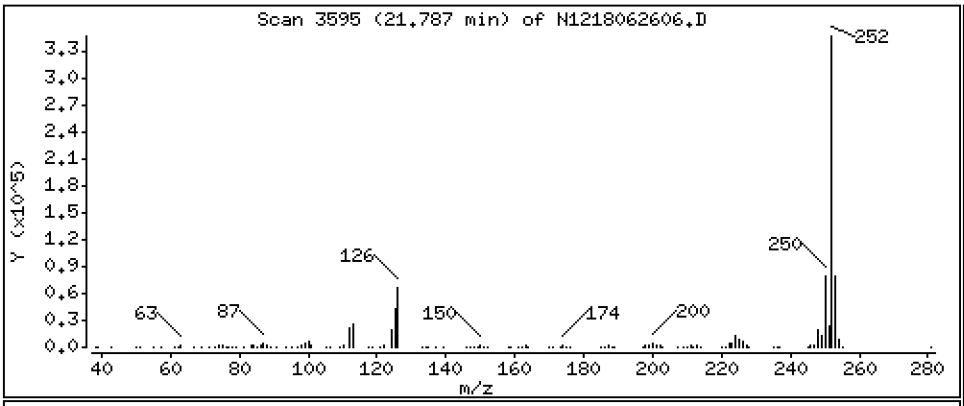
Operator: JZ

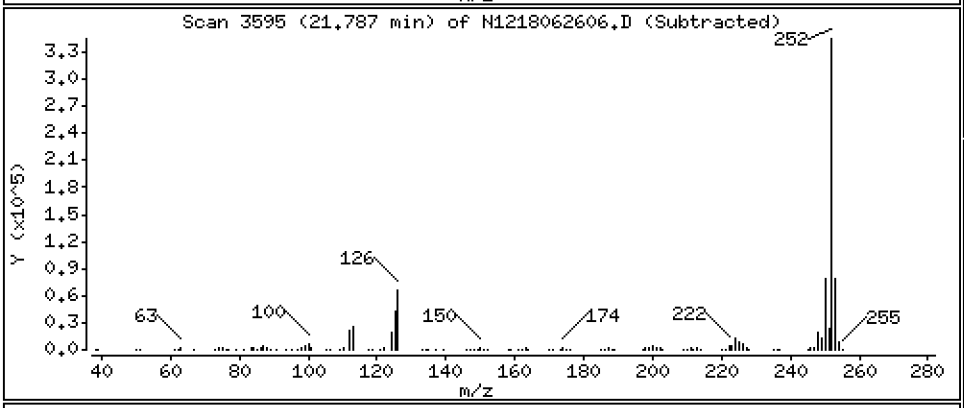
Column phase: ZB-5msi

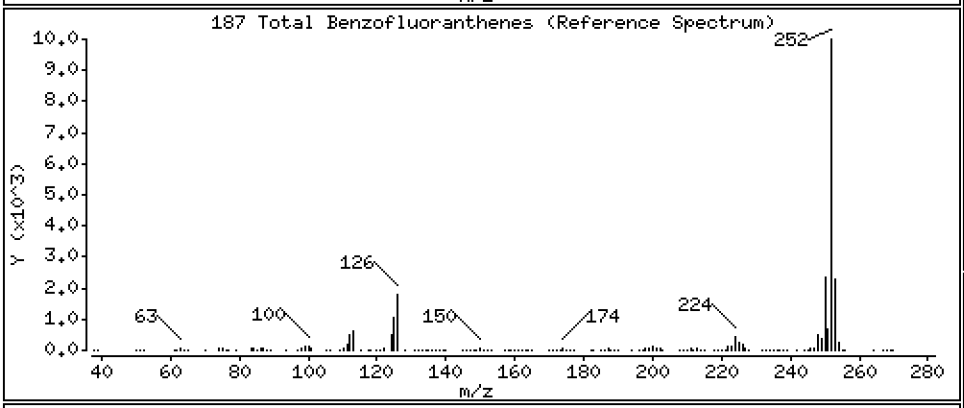
Column diameter: 0.32

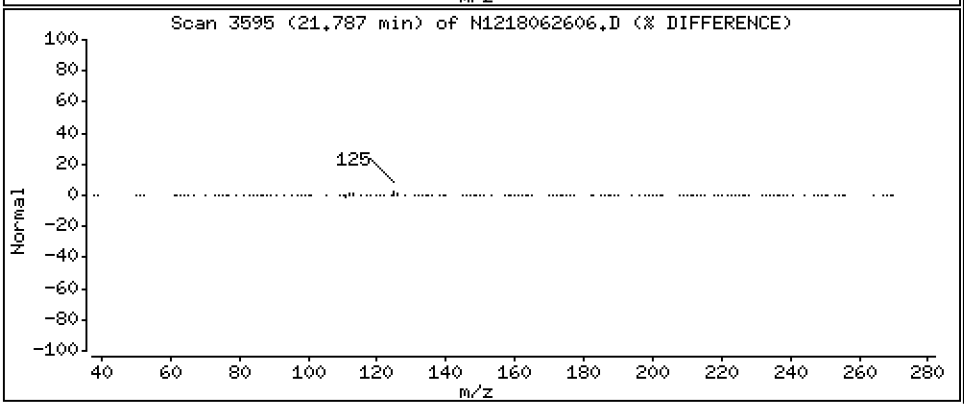
187 Total Benzofluoranthenes

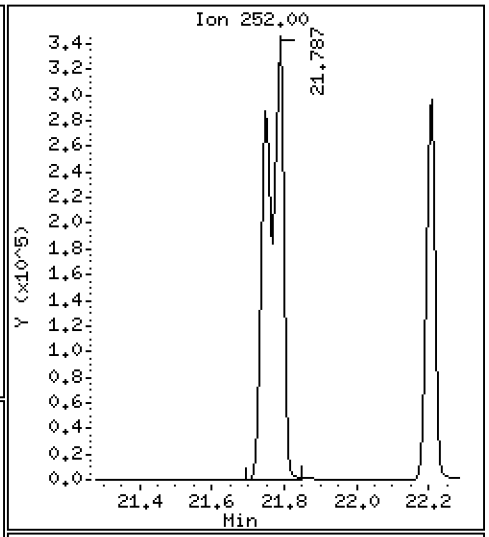
Concentration: 41.71 ug/mL

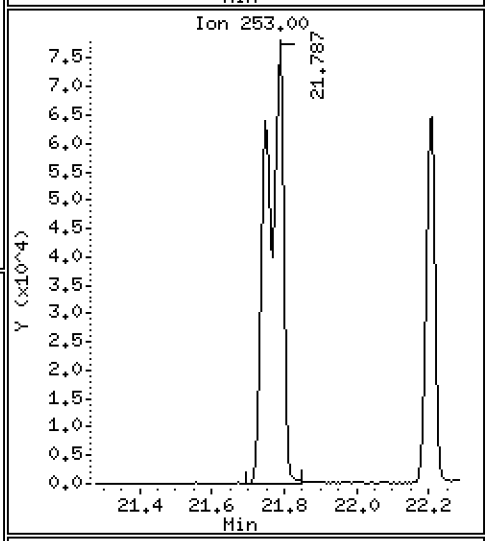


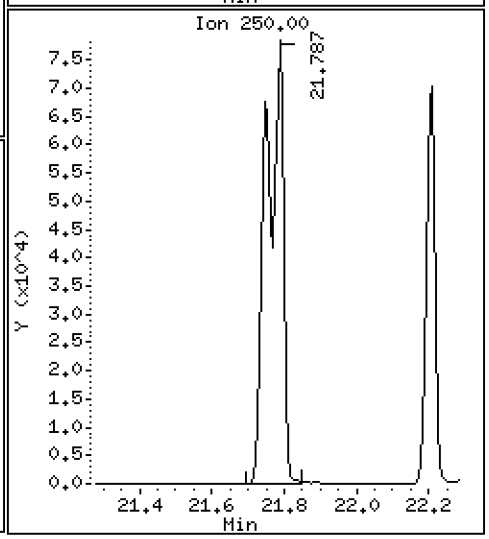












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180626.b\N1218062606.D
Lab Smp Id: BGF0515-BS1
Inj Date : 26-JUN-2018 13:50
Operator : JZ   Inst ID: nt12.i
Smp Info : BGF0515-BS1,
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180626.b\SW846180516.m
Meth Date : 26-Jun-2018 13:52 jianqing   Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36   Cal File: N1218051608.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.545	6.535	(0.770)	220899	22.1000	22.10(R)
$	2 Phenol-d5	99	8.041	8.036	(0.947)	219400	17.4707	17.47(R)
	3 Phenol	94	8.057	8.052	(0.948)	136476	10.8511	10.85
$	5 2-Chlorophenol-d4	132	8.196	8.191	(0.965)	292239	30.2871	30.29(R)
	4 Bis(2-Chloroethyl)ether	93	8.158	8.148	(0.960)	199370	18.3663	18.37
	6 2-Chlorophenol	128	8.217	8.212	(0.967)	175582	16.3929	16.39
	7 1,3-Dichlorobenzene	146	8.436	8.426	(0.993)	154322	13.6491	13.65
*	8 1,4-Dichlorobenzene-d4	152	8.495	8.490	(1.000)	139253	20.0000	
	9 1,4-Dichlorobenzene	146	8.522	8.511	(1.003)	157358	14.0375	14.04
$	10 1,2-Dichlorobenzene-d4	152	8.794	8.789	(1.035)	109835	16.9358	16.94(R)
	12 1,2-Dichlorobenzene	146	8.816	8.810	(1.038)	155342	14.7601	14.76
	11 Benzyl alcohol	108	8.767	8.757	(1.032)	113386	14.4636	14.46
	14 2,2'-oxybis(1-Chloropropane)	45	9.019	9.013	(1.062)	207117	18.7082	18.71
	13 2-Methylphenol	108	8.986	8.981	(1.058)	169569	16.4674	16.47
	17 Hexachloroethane	117	9.302	9.297	(1.095)	58444	13.2261	13.23
	16 N-Nitroso-di-n-propylamine	70	9.238	9.232	(1.087)	159736	20.4555	20.46
	15 4-Methylphenol	108	9.222	9.211	(1.086)	175903	16.9407	16.94
$	18 Nitrobenzene-d5	82	9.419	9.414	(0.894)	243743	22.0544	22.05(R)
	19 Nitrobenzene	77	9.451	9.441	(0.897)	226196	18.7933	18.79
	20 Isophorone	82	9.841	9.820	(0.934)	409192	22.5240	22.52
	21 2-Nitrophenol	139	9.964	9.954	(0.945)	105170	18.7513	18.75
	22 2,4-Dimethylphenol	107	10.060	10.050	(0.954)	543966	48.4944	48.49
	23 Bis(2-Chloroethoxy)methane	93	10.210	10.199	(0.969)	244935	20.0239	20.02
	24 Benzoic acid	105	10.327	10.322	(0.980)	513598	66.7493	66.75
	25 2,4-Dichlorophenol	162	10.349	10.338	(0.982)	455634	52.3631	52.36
	26 1,2,4-Trichlorobenzene	180	10.477	10.466	(0.994)	135517	15.0260	15.03
*	27 Naphthalene-d8	136	10.541	10.531	(1.000)	540317	20.0000	
	28 Naphthalene	128	10.568	10.563	(1.003)	492140	16.7121	16.71
	29 4-Chloroaniline	127	10.701	10.691	(1.015)	175060	13.6066	13.61
	30 Hexachlorobutadiene	225	10.878	10.872	(1.032)	64764	13.2011	13.20
	31 4-Chloro-3-methylphenol	107	11.503	11.492	(1.091)	519793	56.8256	56.83
	32 2-Methylnaphthalene	141	11.690	11.679	(1.109)	283671	17.2558	17.26
	33 Hexachlorocyclopentadiene	237	12.069	12.058	(0.900)	202021	49.8182	49.82

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	12.203	12.187	(0.910)	344263	55.0093	55.01
	35	2,4,5-Trichlorophenol	196	12.256	12.245	(0.914)	374533	58.1396	58.14
$	36	2-Fluorobiphenyl	172	12.325	12.320	(0.919)	423092	21.6415	21.64(R)
	37	2-Chloronaphthalene	162	12.470	12.464	(0.930)	335374	18.7076	18.71
	38	2-Nitroaniline	65	12.710	12.689	(0.948)	342837	60.3675	60.37
	39	Dimethylphthalate	163	13.068	13.052	(0.975)	412684	21.2528	21.25
	40	Acenaphthylene	152	13.153	13.143	(0.981)	502791	19.6128	19.61
	41	2,6-Dinitrotoluene	165	13.169	13.154	(0.982)	281136	65.8397	65.84
*	42	Acenaphthene-d10	164	13.410	13.399	(1.000)	274881	20.0000	
	43	3-Nitroaniline	138	13.394	13.367	(0.999)	293368	56.3200	56.32
	44	Acenaphthene	153	13.458	13.447	(1.004)	343518	20.1887	20.19
	45	2,4-Dinitrophenol	184	13.559	13.538	(1.011)	345255	130.009	130.0
	46	Dibenzofuran	168	13.720	13.709	(1.023)	499205	19.2939	19.29
	47	4-Nitrophenol	109	13.672	13.666	(1.020)	82295	29.9549	29.95
	48	2,4-Dinitrotoluene	165	13.805	13.784	(1.029)	382848	63.2538	63.25
	50	Diethylphthalate	149	14.222	14.211	(1.061)	404592	21.8825	21.88
	49	Fluorene	166	14.275	14.265	(1.065)	403549	21.2233	21.22
	51	4-Chlorophenyl-phenylether	204	14.291	14.281	(1.066)	182404	20.5376	20.54
	52	4-Nitroaniline	138	14.409	14.377	(1.074)	308778	60.5645	60.56
	53	4,6-Dinitro-2-methylphenol	198	14.468	14.446	(0.916)	442830	131.320	131.3
	54	N-Nitrosodiphenylamine	169	14.500	14.489	(0.918)	298274	20.9479	20.95
$	55	2,4,6-Tribromophenol	330	14.703	14.692	(1.096)	86238	37.4746	37.47(R)
	56	4-Bromophenyl-phenylether	248	15.077	15.066	(0.955)	110065	20.3399	20.34
	57	Hexachlorobenzene	284	15.306	15.296	(0.969)	108679	19.4110	19.41
	58	Pentachlorophenol	266	15.600	15.595	(0.988)	231651	62.5867	62.59
*	59	Phenanthrene-d10	188	15.793	15.782	(1.000)	469943	20.0000	
	60	Phenanthrene	178	15.830	15.819	(1.002)	556143	23.8716	23.87
	61	Anthracene	178	15.899	15.889	(1.007)	526939	19.8304	19.83
	62	Carbazole	167	16.177	16.167	(1.024)	503154	19.6291	19.63
	63	Di-n-butylphthalate	149	16.866	16.861	(1.068)	632867	21.5826	21.58
	64	Fluoranthene	202	17.769	17.764	(1.125)	597360	20.4961	20.50
	65	Pyrene	202	18.132	18.122	(0.901)	606145	24.0744	24.07
$	66	Terphenyl-d14	244	18.426	18.416	(0.916)	450876	28.8246	28.82(R)
	67	Butylbenzylphthalate	149	19.292	19.287	(0.959)	268741	23.8570	23.86
	68	Benzo(a)anthracene	228	20.088	20.083	(0.998)	460114	24.9682	24.97
*	69	Chrysene-d12	240	20.120	20.115	(1.000)	406057	20.0000	
	70	3,3'-Dichlorobenzidine	252	20.098	20.088	(0.999)	489737	71.1849	71.18
	71	Chrysene	228	20.162	20.152	(1.002)	489482	23.8033	23.80
	72	bis(2-Ethylhexyl)phthalate	149	20.280	20.269	(0.956)	362947	22.4816	22.48
*	134	Di-n-octylphthalate-d4	153	21.210	21.204	(1.000)	543388	20.0000	
	73	Di-n-octylphthalate	149	21.220	21.215	(1.000)	601180	20.7144	20.71
	74	Benzo(b)fluoranthene	252	21.749	21.749	(0.976)	565788	21.2446	21.24
	75	Benzo(k)fluoranthene	252	21.786	21.781	(0.977)	534255	19.7363	19.74
	76	Benzo(a)pyrene	252	22.209	22.203	(0.996)	504098	22.2706	22.27
*	77	Perylene-d12	264	22.289	22.278	(1.000)	432599	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	23.977	23.972	(1.076)	619087	23.3935	23.39
	79	Dibenzo(a,h)anthracene	278	23.998	23.993	(1.077)	504844	23.3180	23.32
	80	Benzo(g,h,i)perylene	276	24.458	24.452	(1.097)	536607	24.3012	24.30
	90	N-Nitrosodimethylamine	74	4.050	4.029	(0.477)	205031	29.9879	29.99
	91	Aniline	93	8.052	8.041	(0.948)	21295	1.30343	1.303
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	11.861	11.855	(1.125)	281726	19.1781	19.18
	111	Azobenzene (1,2-DP-Hydrazine)	77	14.548	14.537	(0.921)	471155	21.5045	21.50

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
187 Total Benzofluoranthenes	252	21.786	21.781	(0.977)	1041727	41.7076	41.71

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062606.D
Lab Smp Id: BGF0515-BS1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180626.b\SW846180516.m
Misc Info: 18-

Calibration Date: 26-JUN-2018
Calibration Time: 10:31
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	139253	9.66
27 Naphthalene-d8	478458	239229	956916	540317	12.93
42 Acenaphthene-d10	247659	123830	495318	274881	10.99
59 Phenanthrene-d10	421930	210965	843860	469943	11.38
69 Chrysene-d12	450836	225418	901672	406057	-9.93
134 Di-n-octylphthala	583434	291717	1166868	543388	-6.86
77 Perylene-d12	453093	226547	906186	432599	-4.52

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.49	7.99	8.99	8.50	0.06
27 Naphthalene-d8	10.53	10.03	11.03	10.54	0.10
42 Acenaphthene-d10	13.40	12.90	13.90	13.41	0.08
59 Phenanthrene-d10	15.78	15.28	16.28	15.79	0.07
69 Chrysene-d12	20.12	19.62	20.62	20.12	0.03
134 Di-n-octylphthala	21.20	20.70	21.70	21.21	0.02
77 Perylene-d12	22.28	21.78	22.78	22.29	0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062606.D

Lab ID: BGF0515-BS1
nt12.i, SW846180516.m, 26-JUN-2018 13:50

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

LCS / LCS DUPLICATE RECOVERY

EPA 8270D

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/27/18 16:12
Batch:	BGF0552	Laboratory ID:	BGF0552-BS1
Preparation:	EPA 3510C SepF	Sequence Name:	LCS
Initial/Final:	500 mL / 0.5 mL		

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	Q	LCS % REC. #	QC LIMITS REC.
Phenol	25.0	9.5		37.8	10 - 160
1,4-Dichlorobenzene	25.0	14.7		58.7	10 - 160
1,2-Dichlorobenzene	25.0	15.0		60.1	10 - 160
Benzyl alcohol	25.0	12.1		48.5	10 - 160
4-Methylphenol	25.0	14.2		56.7	10 - 160
2,4-Dimethylphenol	75.0	42.4		56.5	10 - 160
1,2,4-Trichlorobenzene	25.0	14.7		59.0	10 - 160
Benzoic acid	138	53.2		38.7	10 - 160
Dimethylphthalate	25.0	17.7		70.7	10 - 160
Dibenzofuran	25.0	16.1		64.2	10 - 160
N-Nitrosodiphenylamine	25.0	17.2		68.9	10 - 160
Hexachlorobenzene	25.0	16.5		66.0	10 - 160
Pentachlorophenol	75.0	54.2		72.3	10 - 160
Butylbenzylphthalate	25.0	18.7		75.0	10 - 160
bis(2-Ethylhexyl)phthalate	25.0	18.0		72.0	10 - 160

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt12.i\20180627.b\N1218062707.D

Date : 27-JUN-2018 16:12

Client ID:

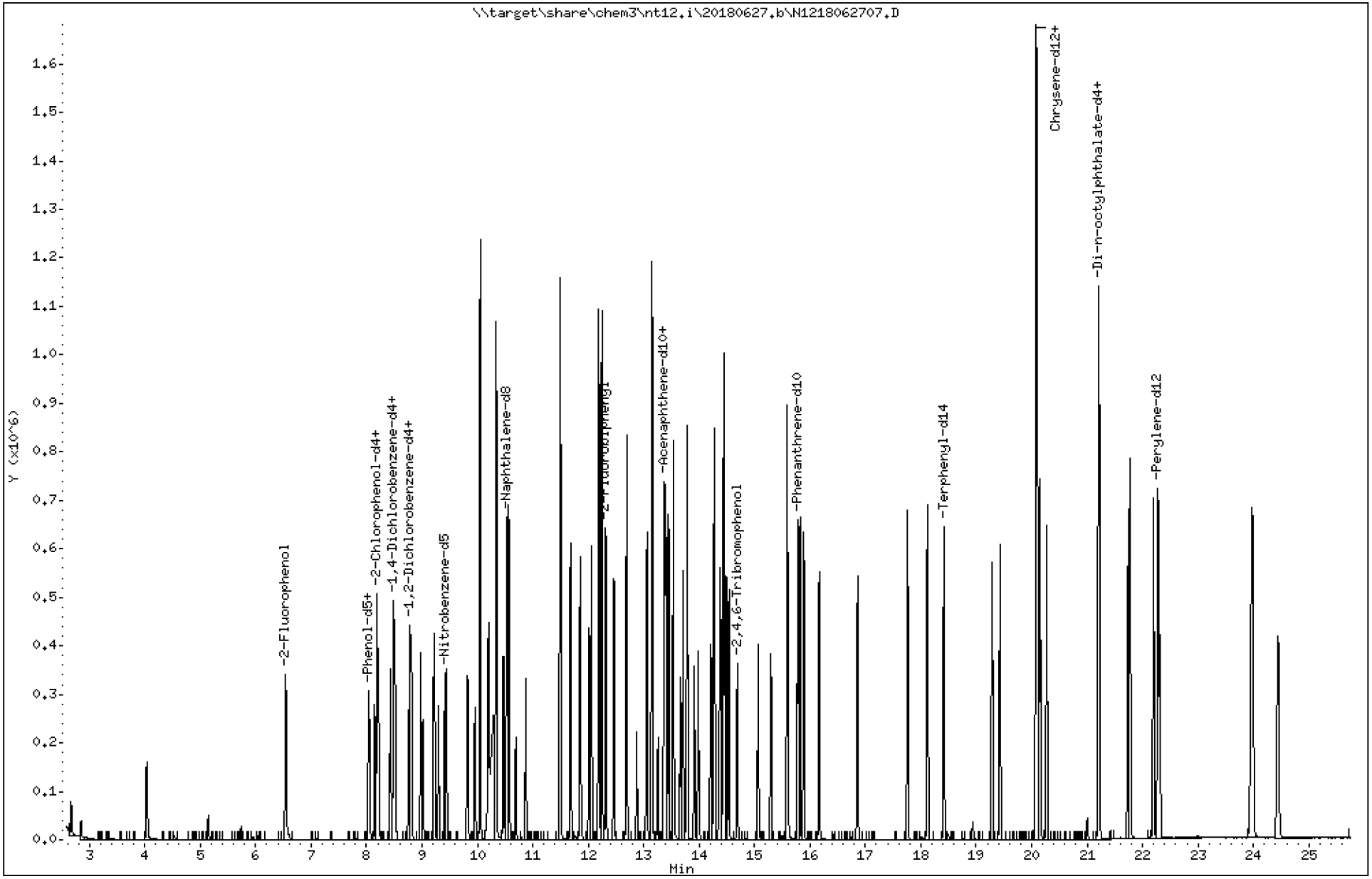
Instrument: nt12.i

Sample Info: BGF0552-BS1,

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

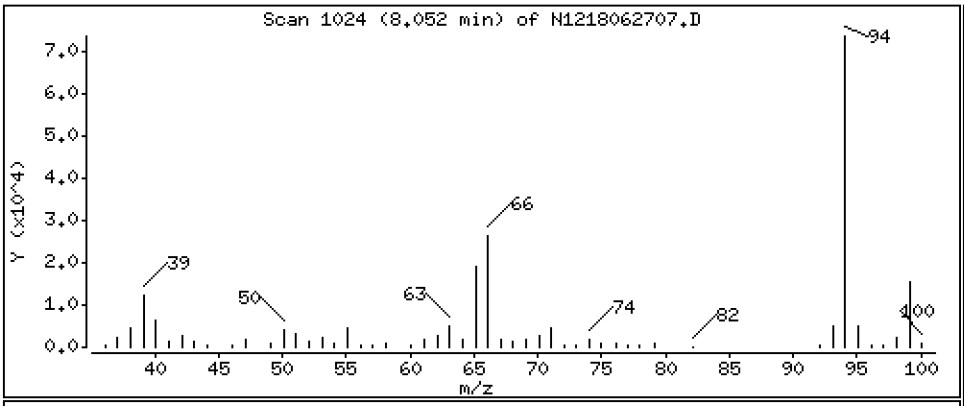
Operator: JZ

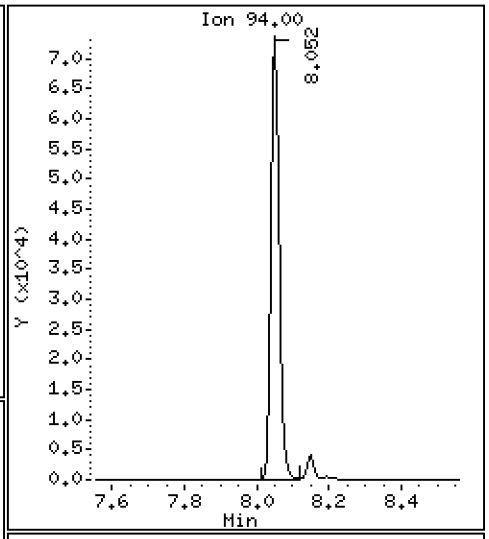
Column phase: ZB-5msi

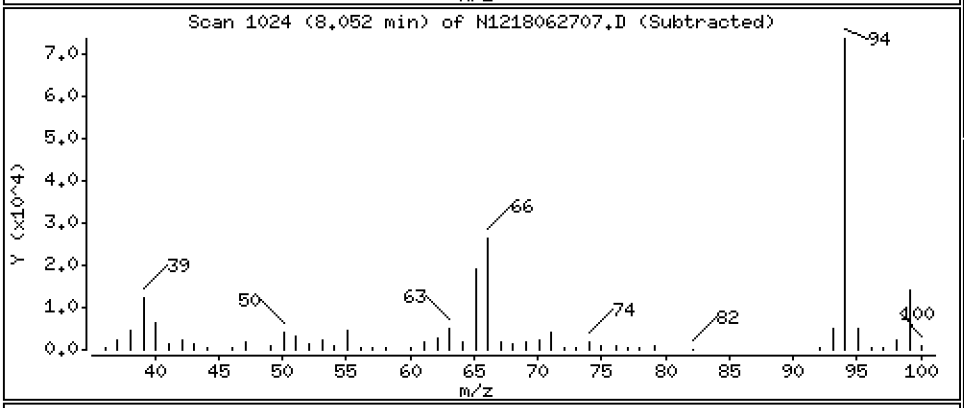
Column diameter: 0.32

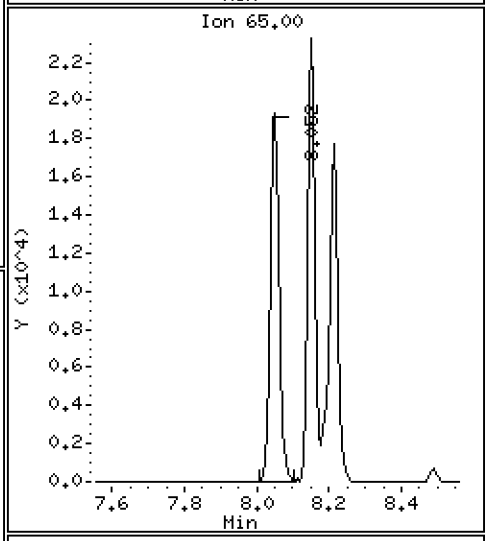
3 Phenol

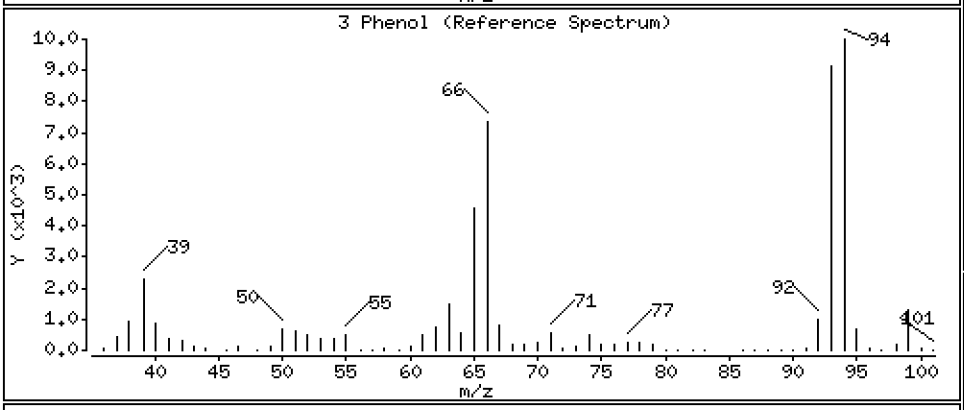
Concentration: 9.453 ug/mL

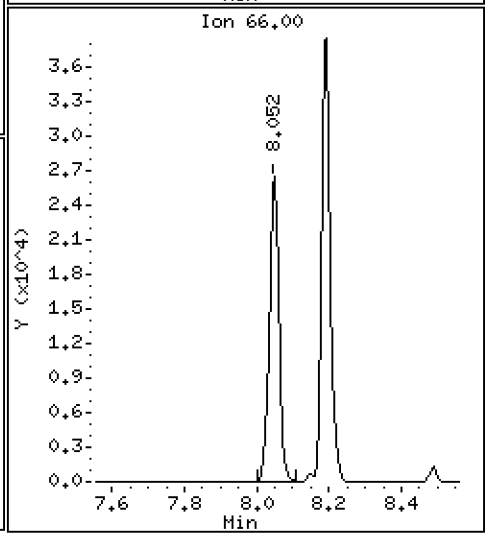


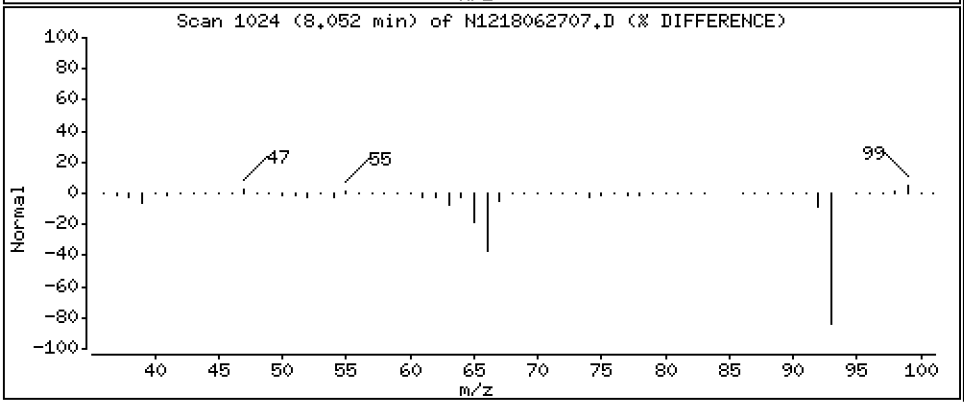












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

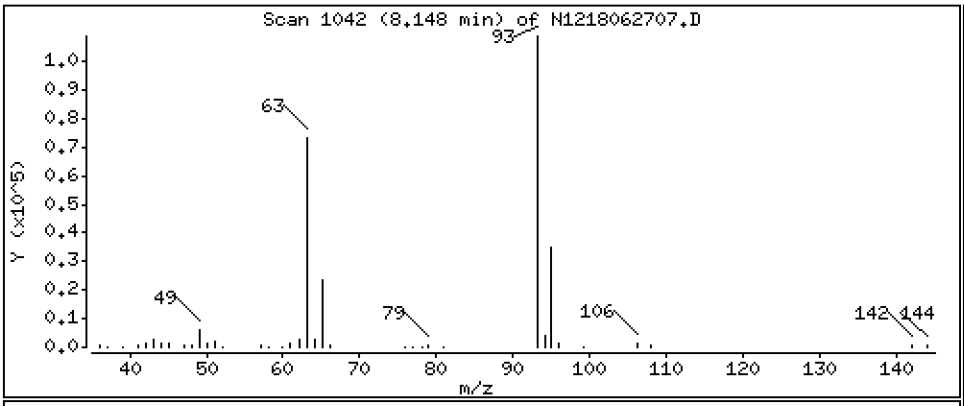
Operator: JZ

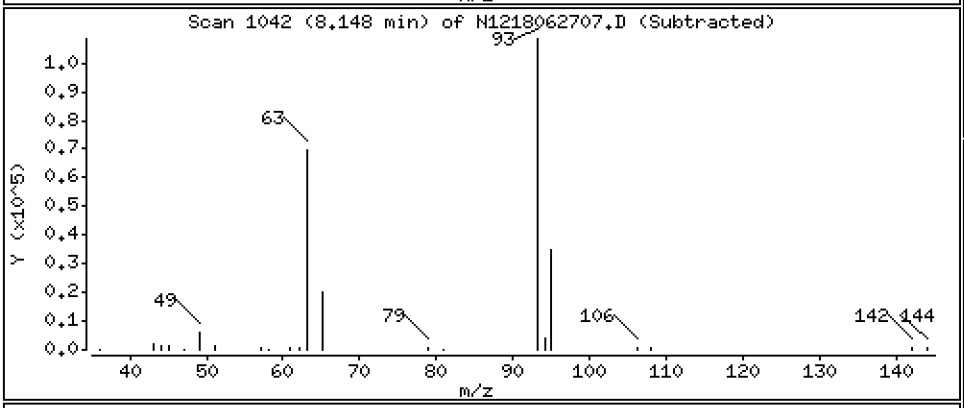
Column phase: ZB-5msi

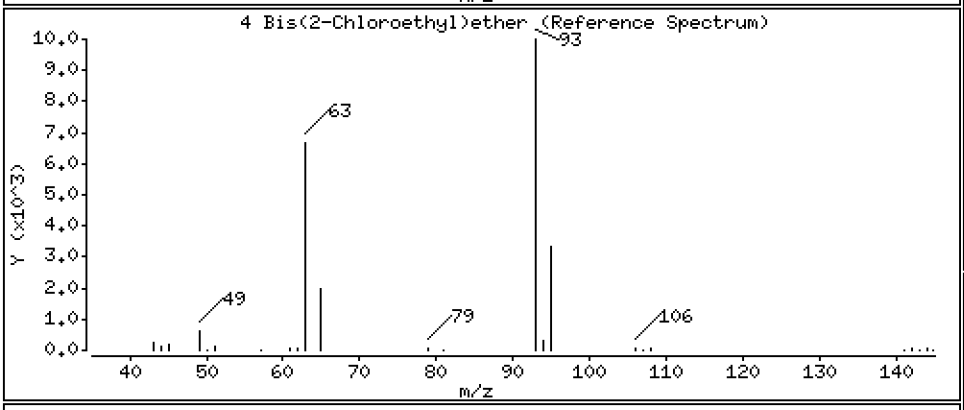
Column diameter: 0.32

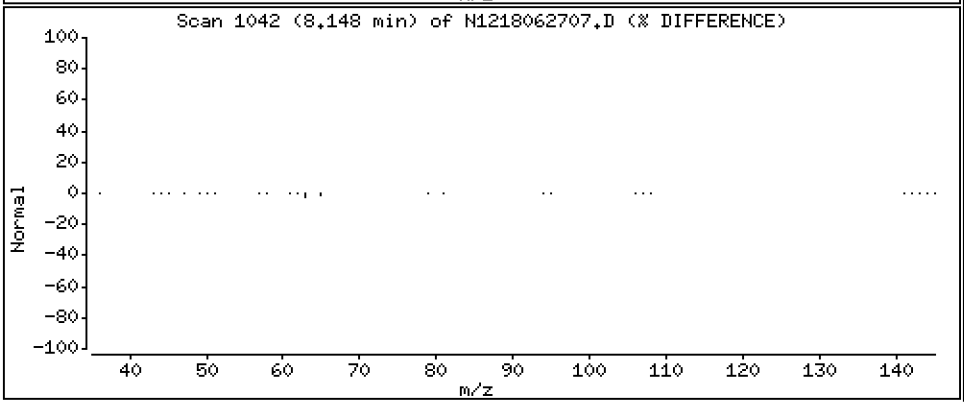
4 Bis(2-Chloroethyl)ether

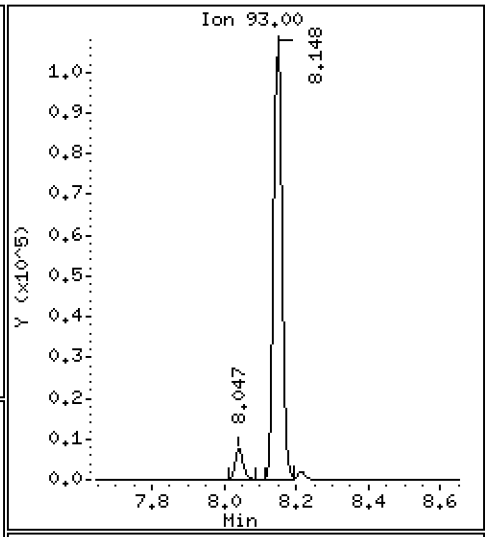
Concentration: 16.37 ug/mL

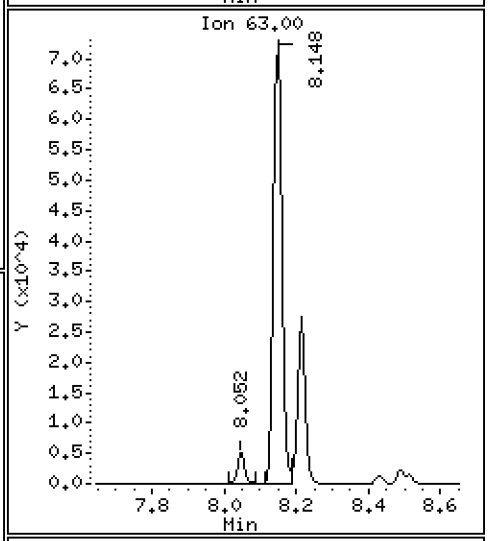


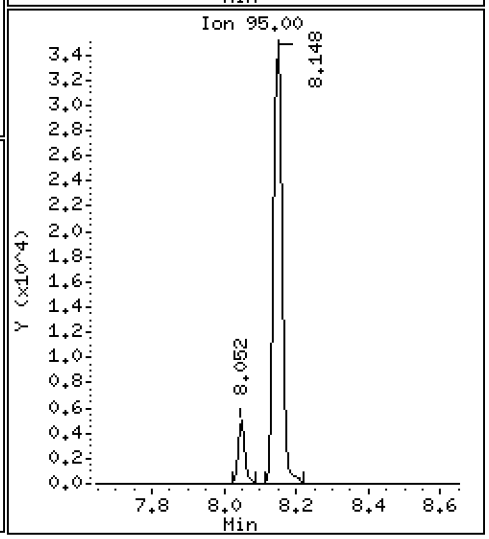












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

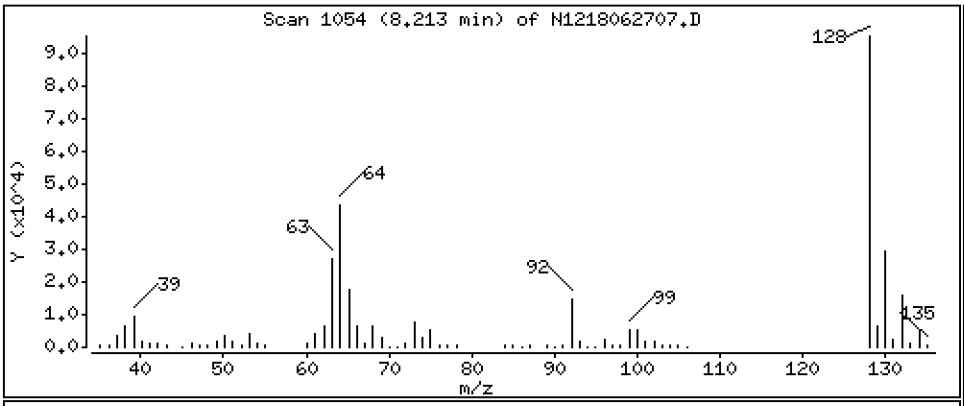
Operator: JZ

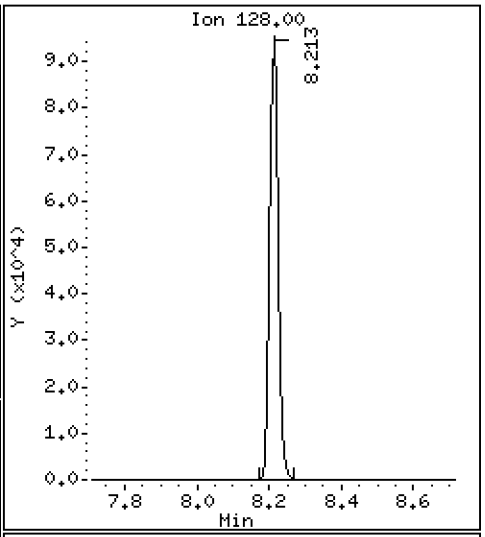
Column phase: ZB-5msi

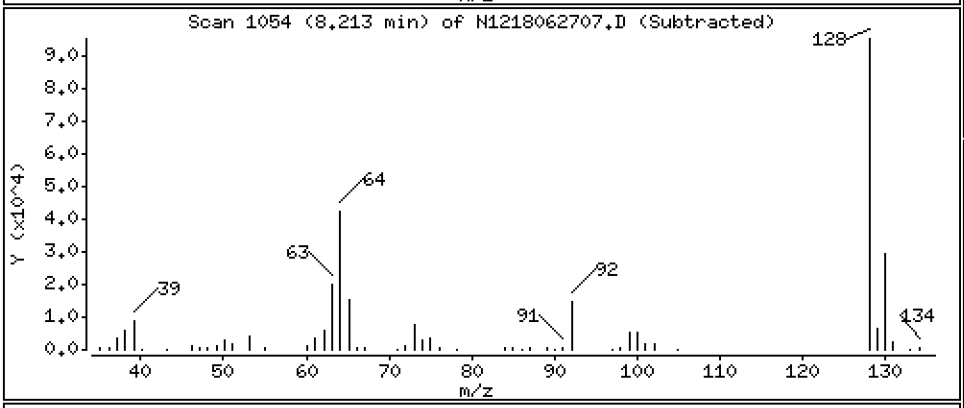
Column diameter: 0.32

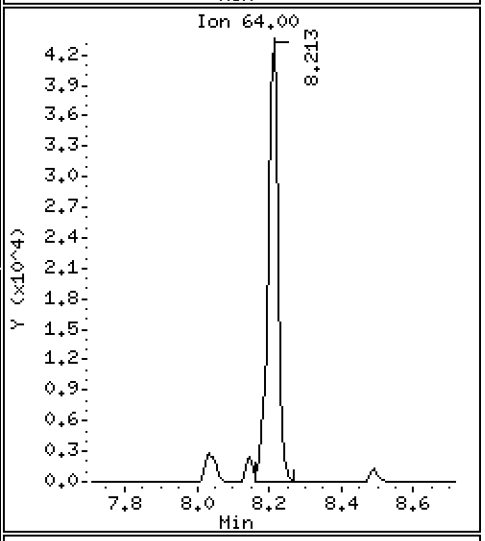
6 2-Chlorophenol

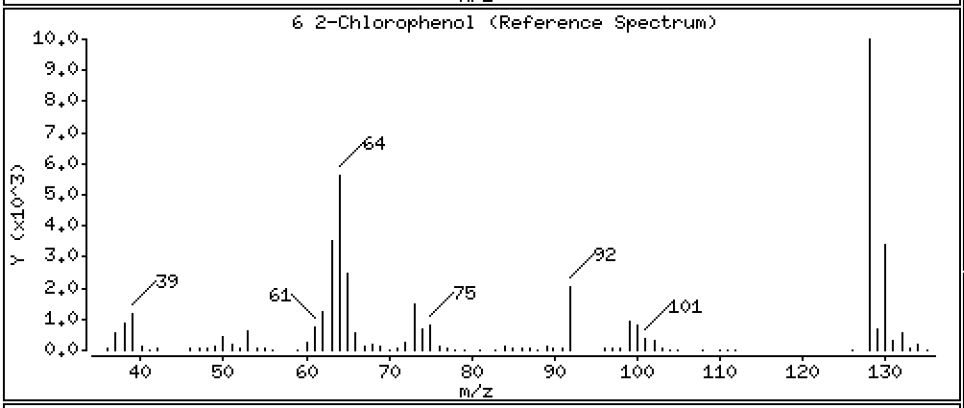
Concentration: 14.97 ug/mL

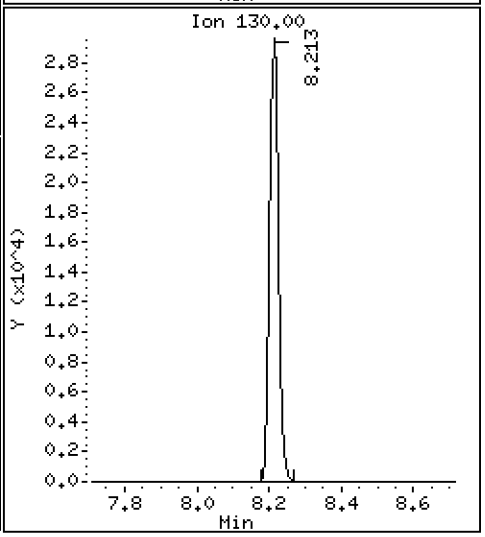


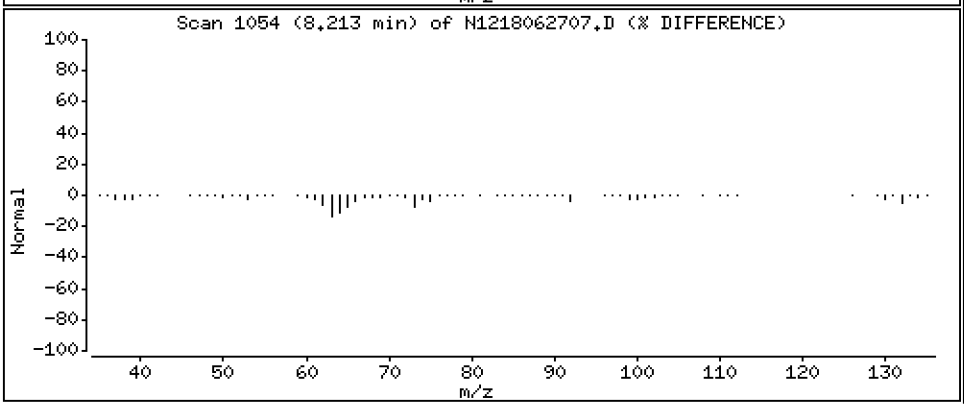












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

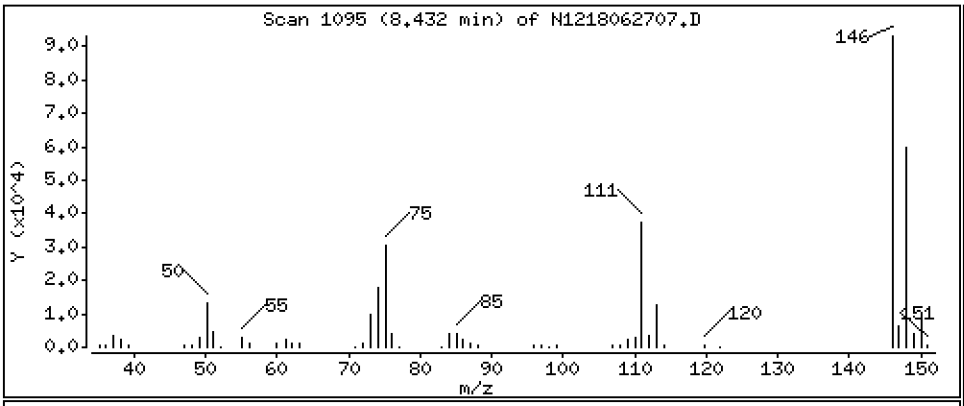
Operator: JZ

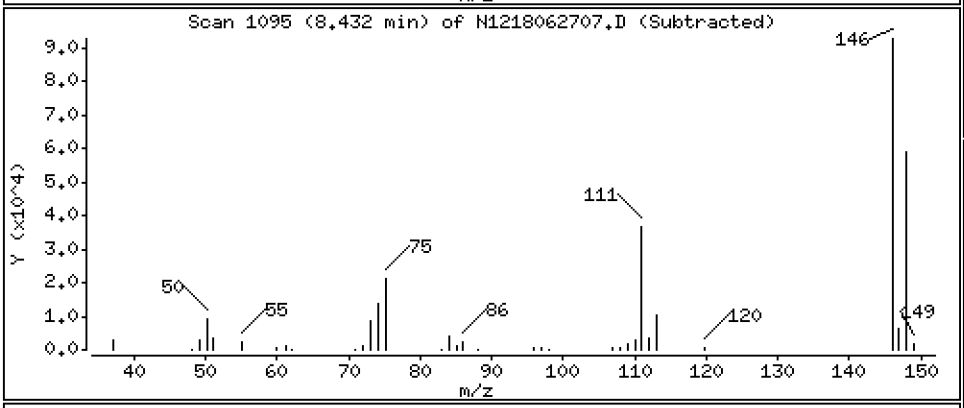
Column phase: ZB-5msi

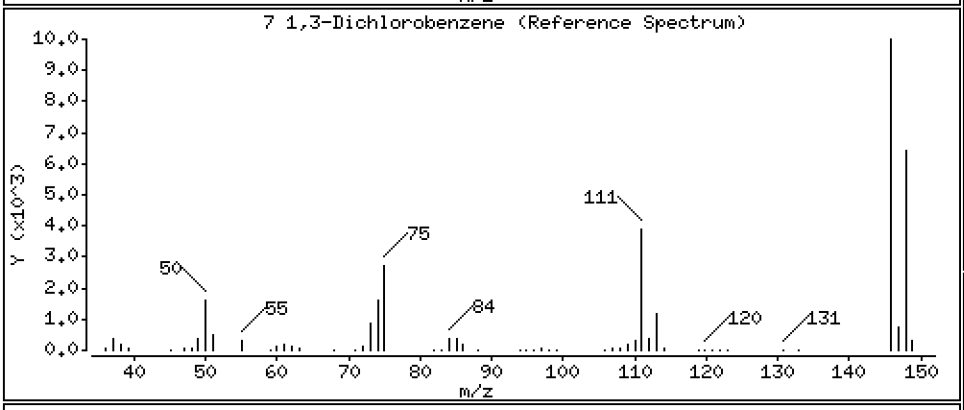
Column diameter: 0.32

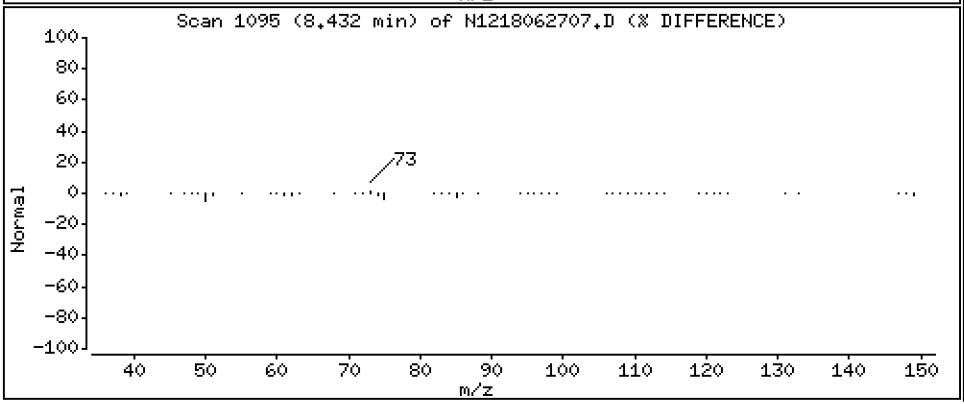
7 1,3-Dichlorobenzene

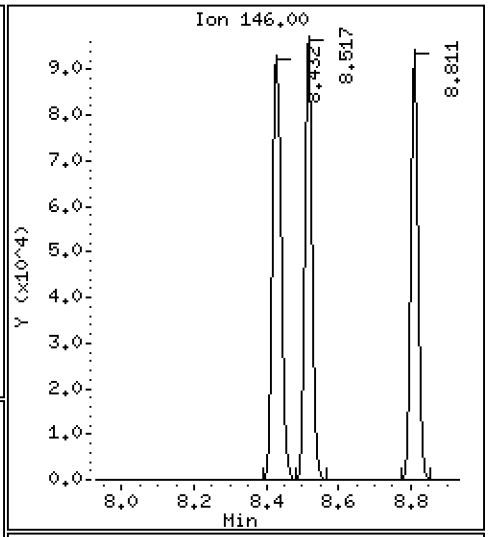
Concentration: 14.36 ug/mL

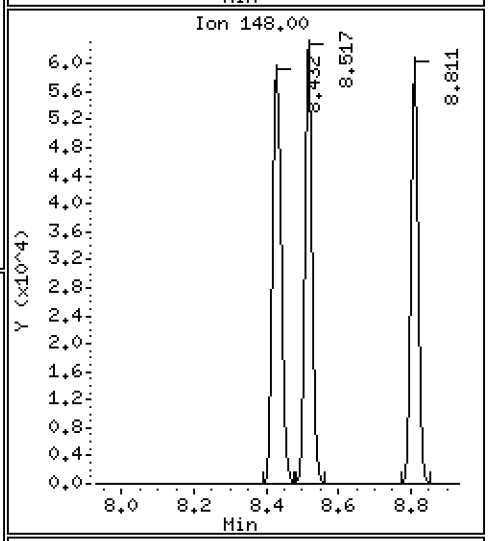


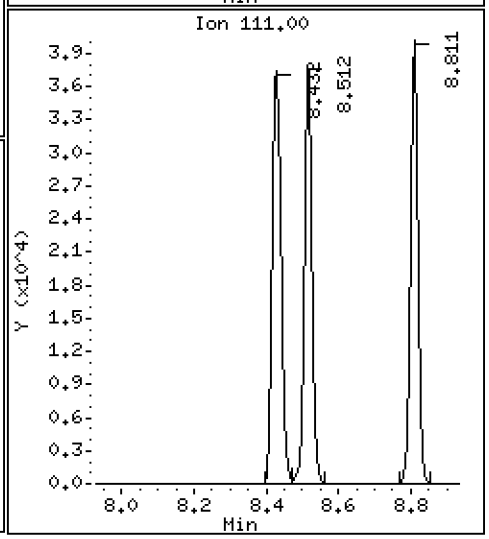












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

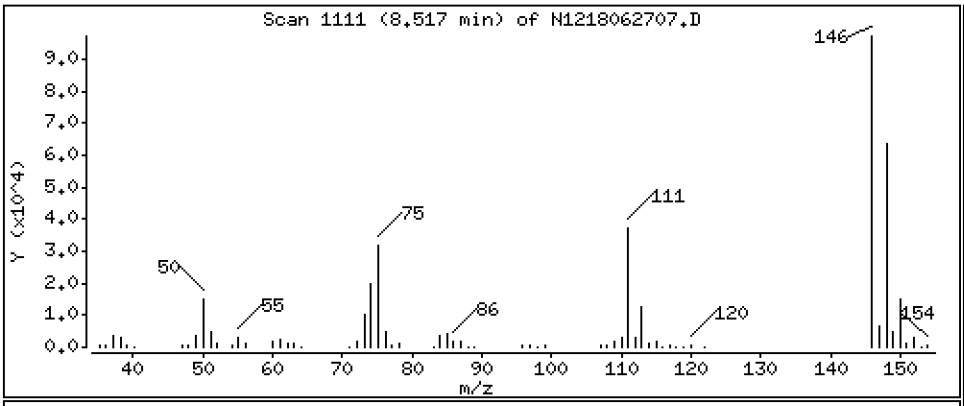
Operator: JZ

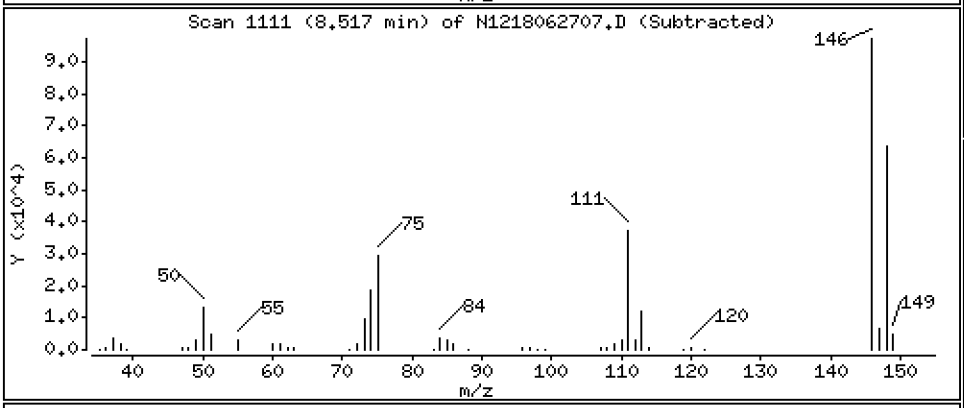
Column phase: ZB-5msi

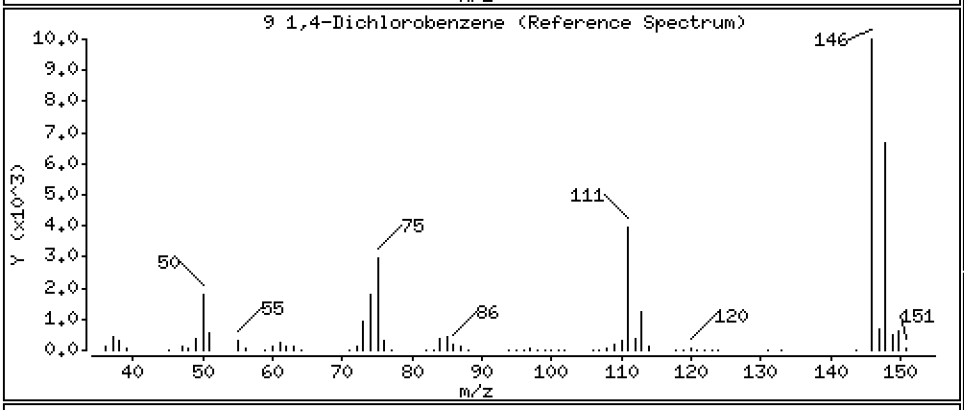
Column diameter: 0.32

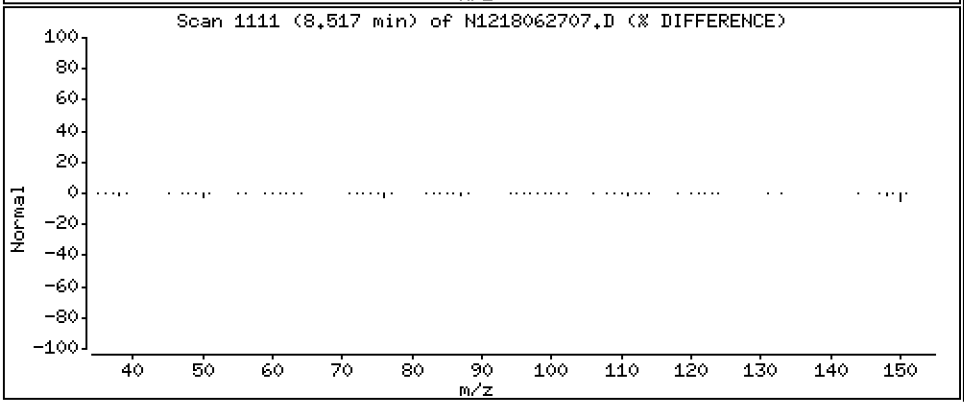
9 1,4-Dichlorobenzene

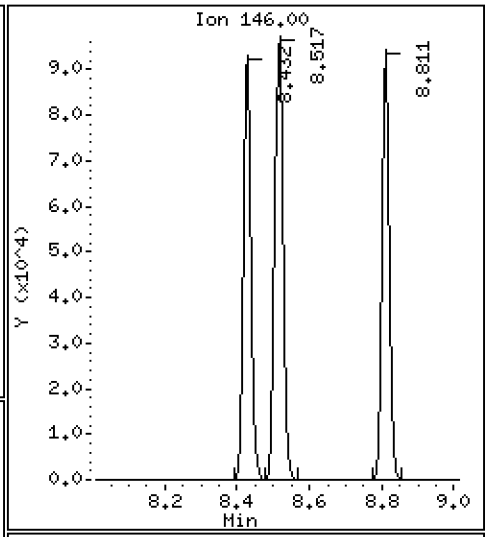
Concentration: 14.68 ug/mL

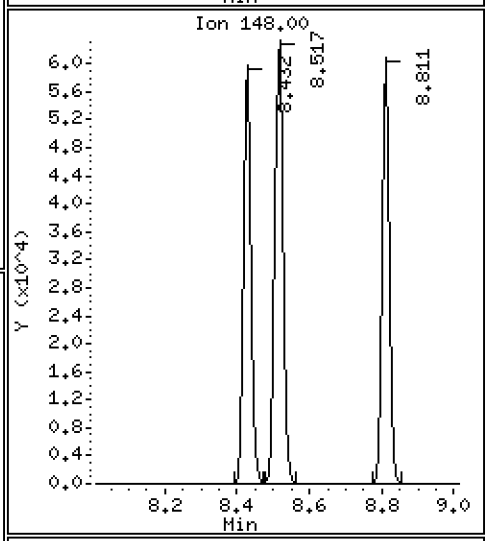


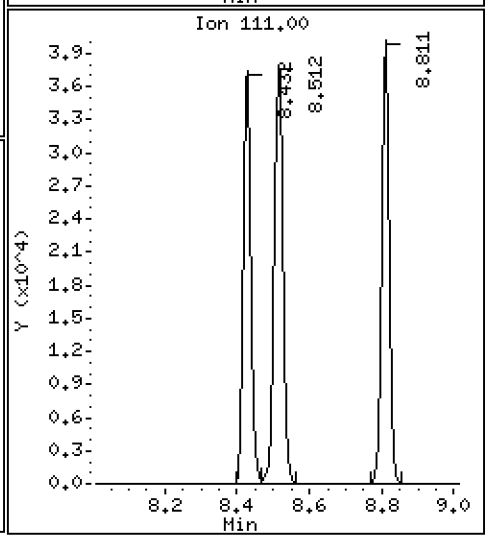












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

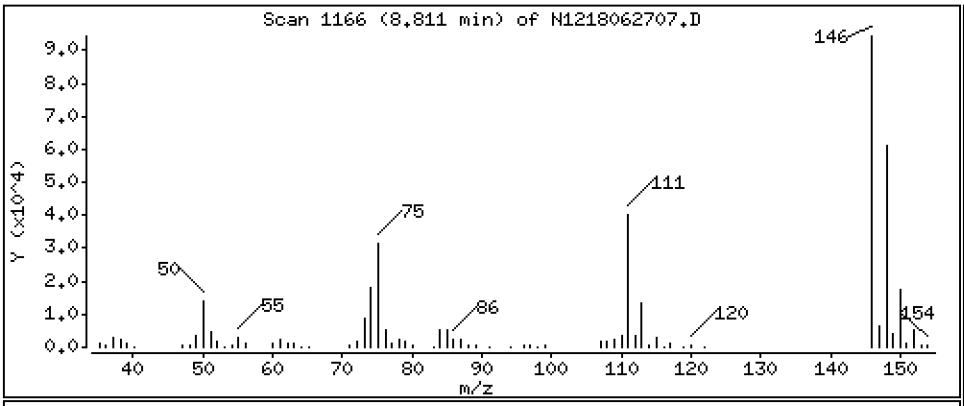
Operator: JZ

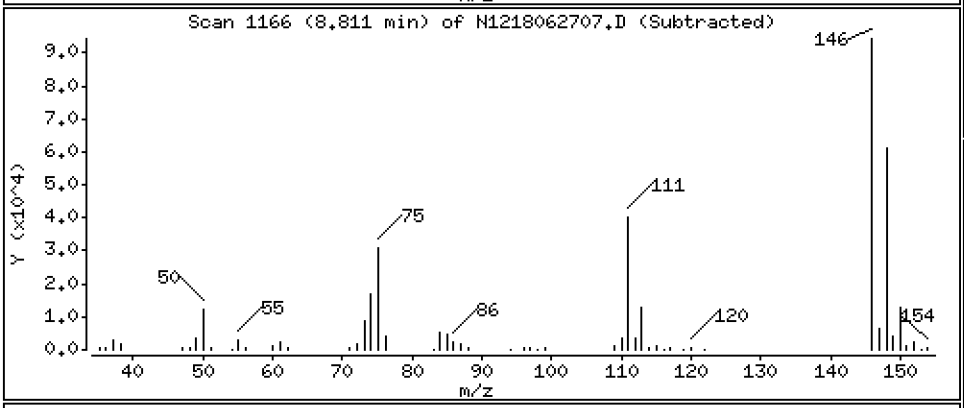
Column phase: ZB-5msi

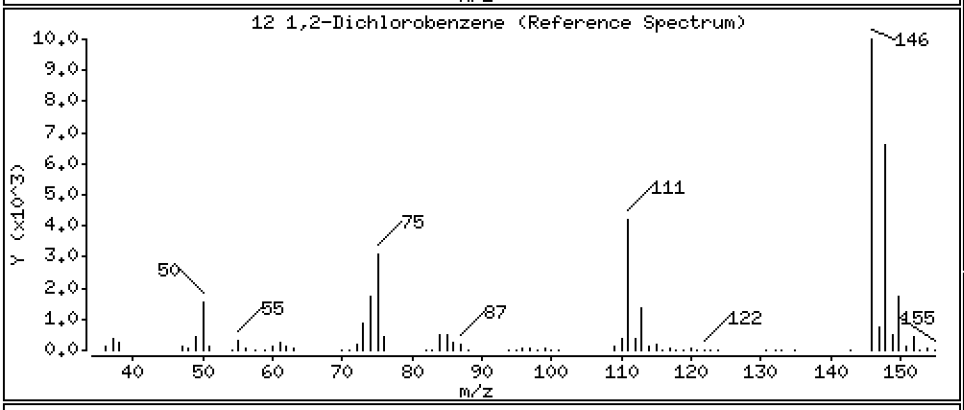
Column diameter: 0.32

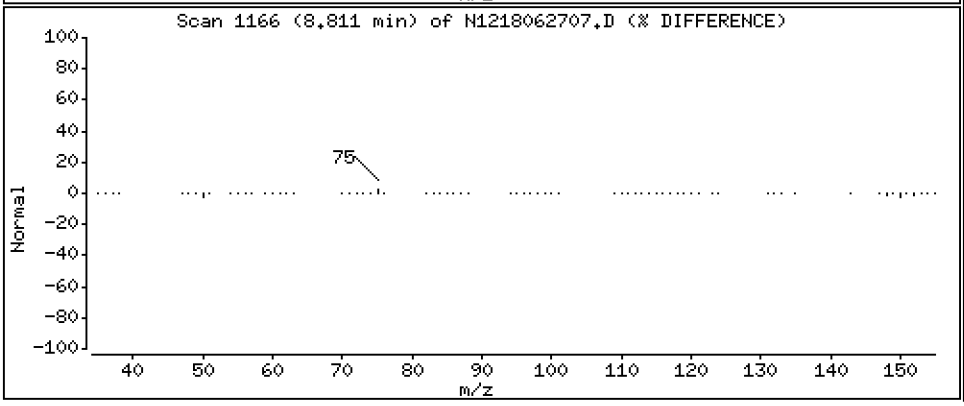
12 1,2-Dichlorobenzene

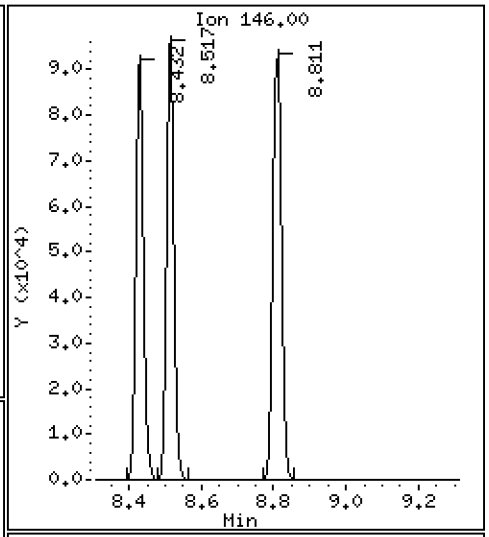
Concentration: 15.03 ug/mL

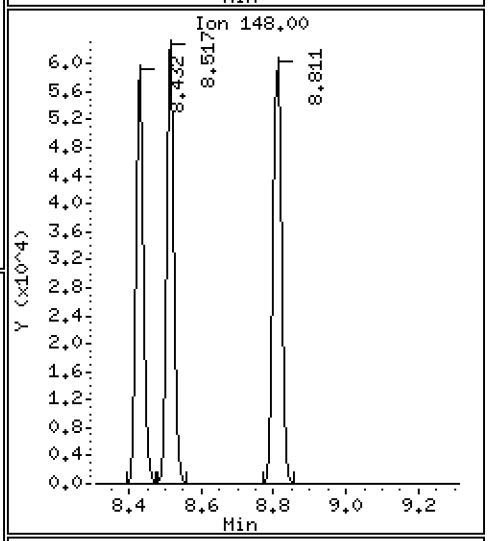


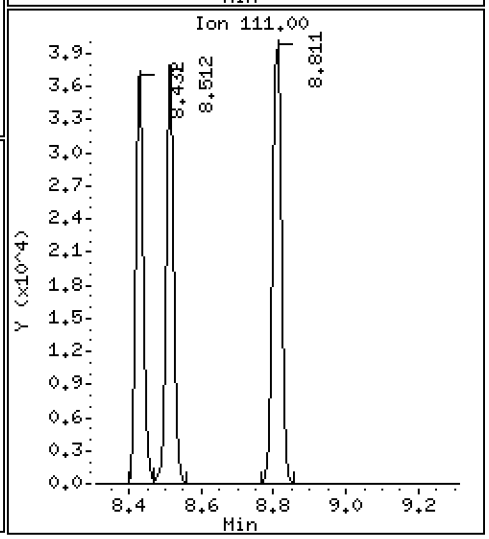












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

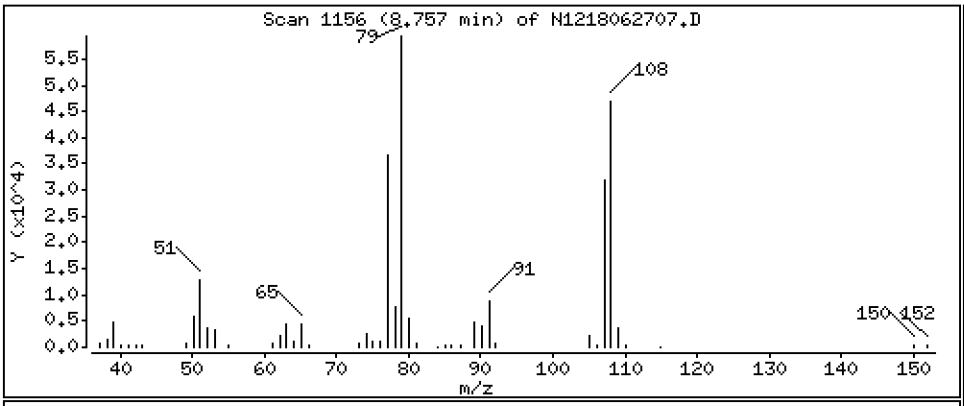
Operator: JZ

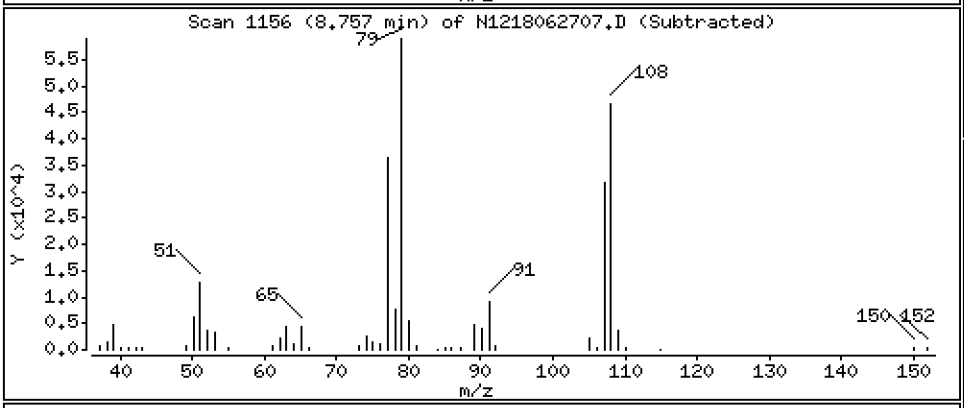
Column phase: ZB-5msi

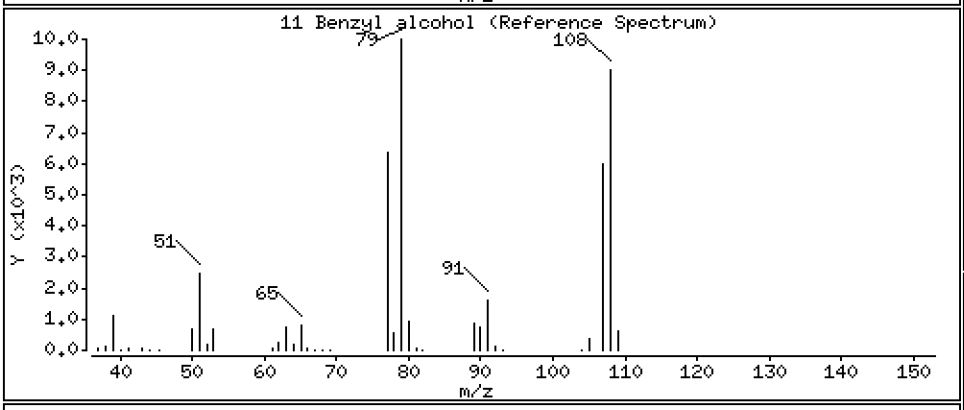
Column diameter: 0.32

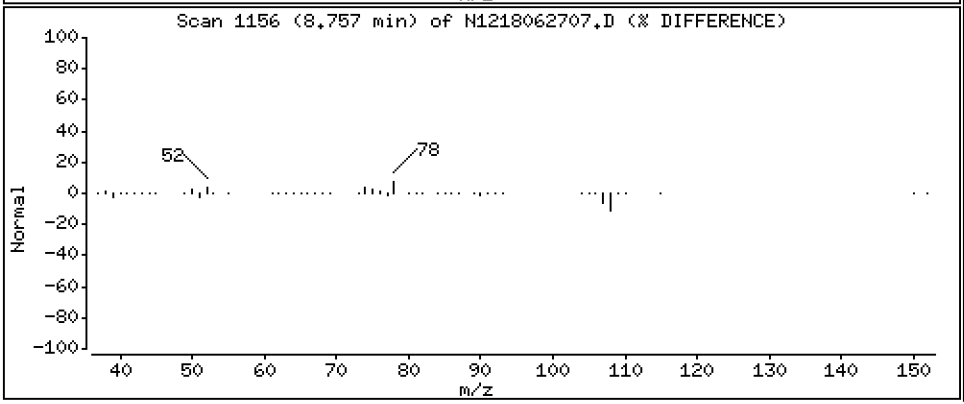
11 Benzyl alcohol

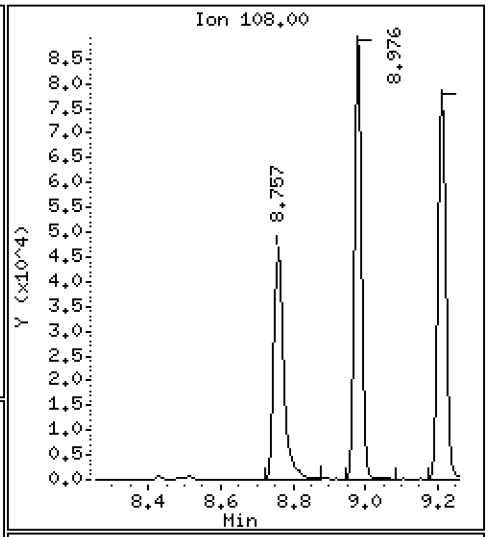
Concentration: 12.11 ug/mL

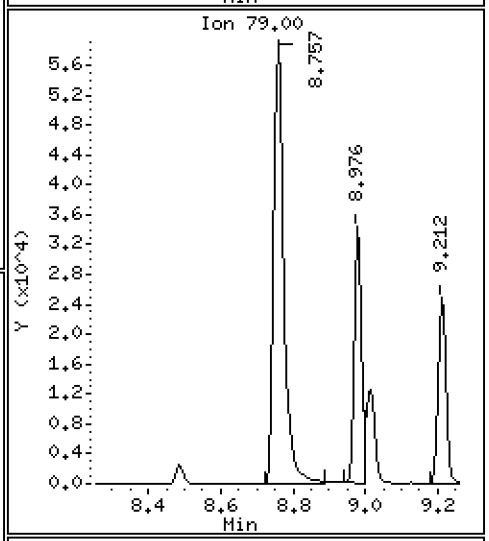


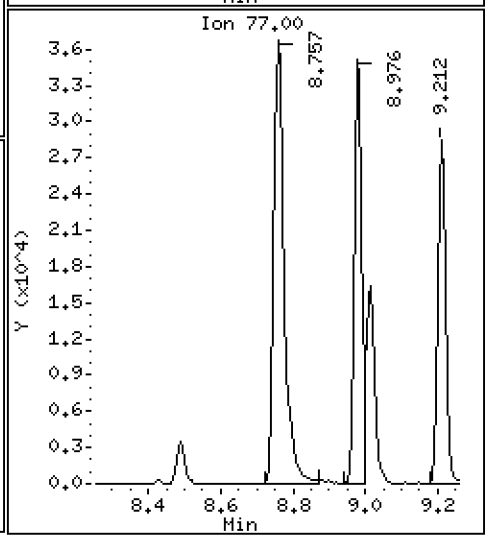












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

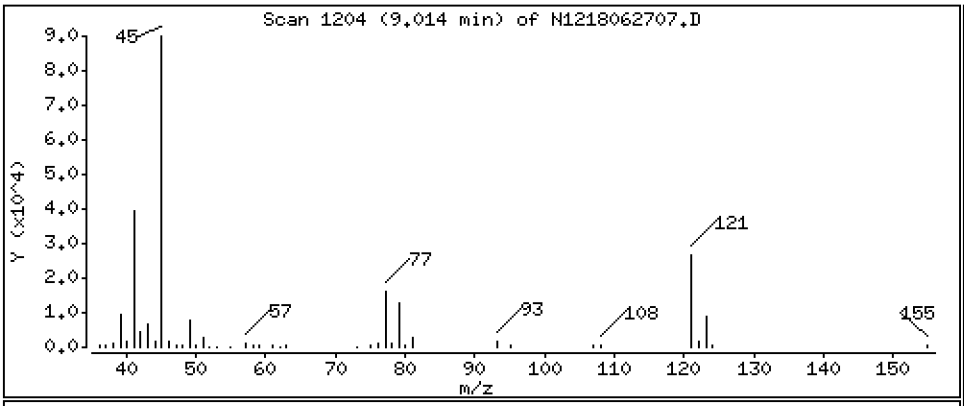
Operator: JZ

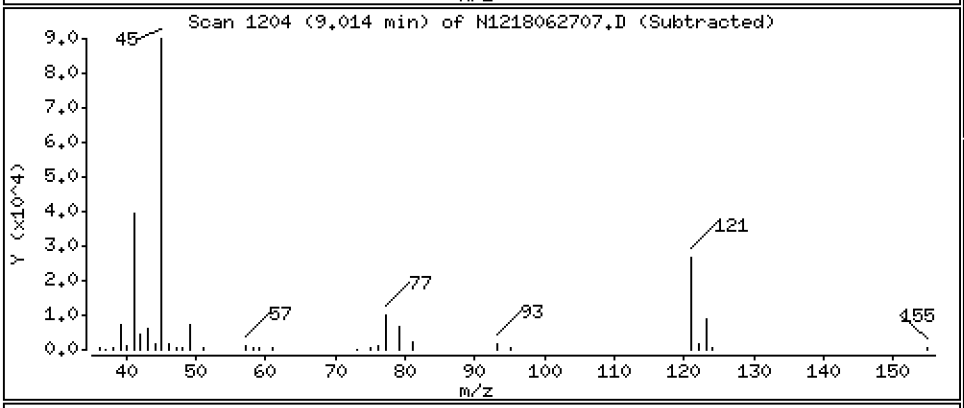
Column phase: ZB-5msi

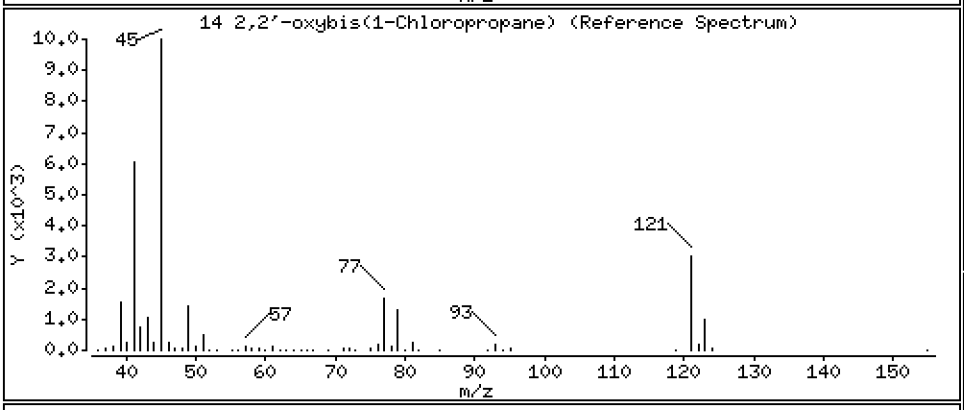
Column diameter: 0.32

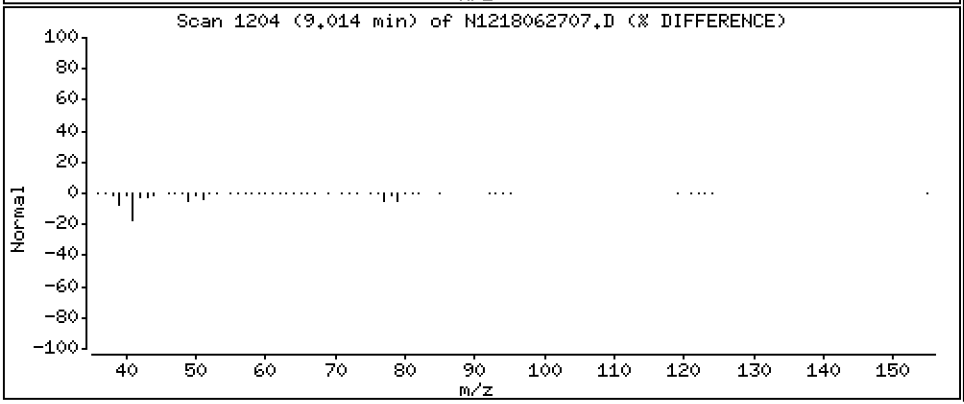
14 2,2'-oxybis(1-Chloropropane)

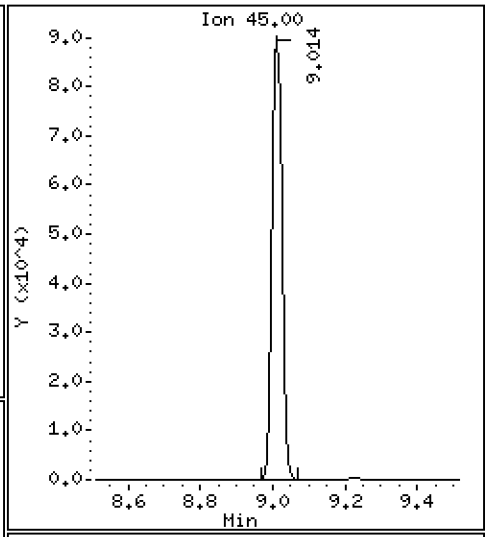
Concentration: 16.42 ug/mL

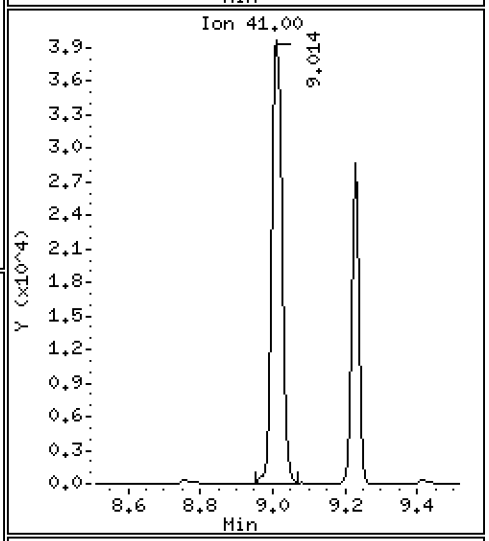


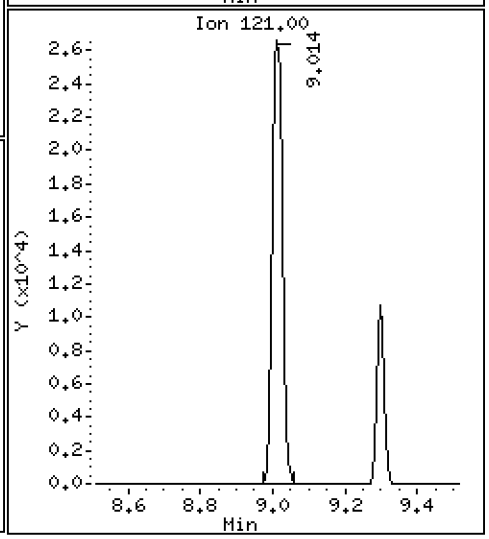












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

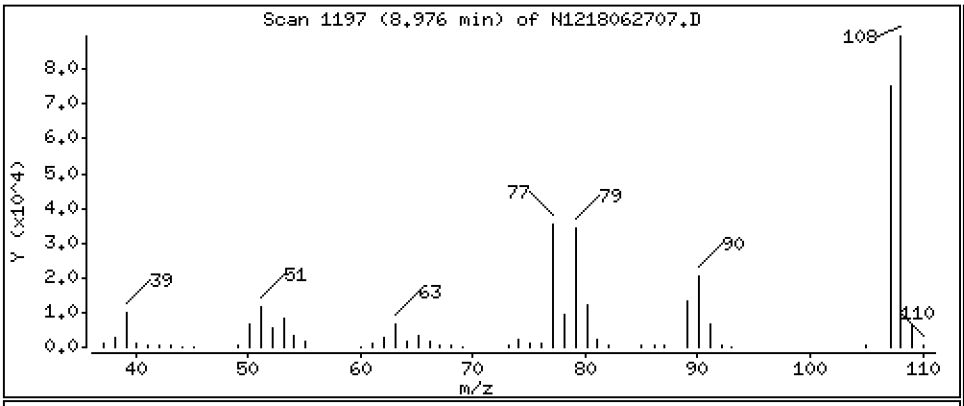
Operator: JZ

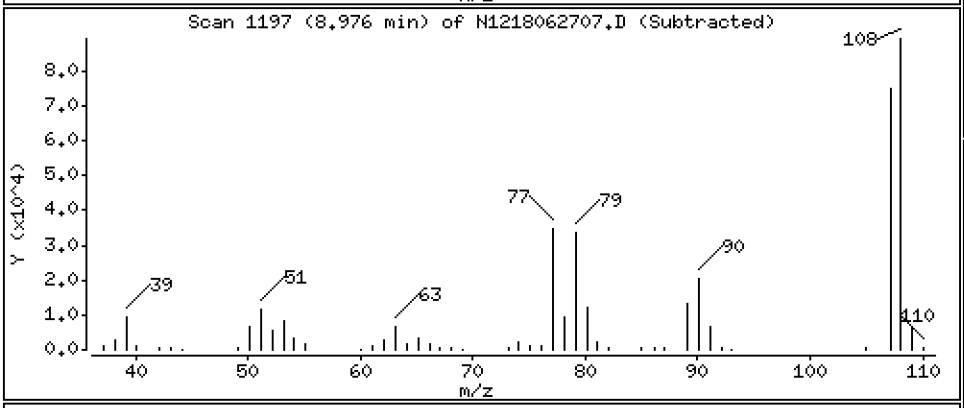
Column phase: ZB-5msi

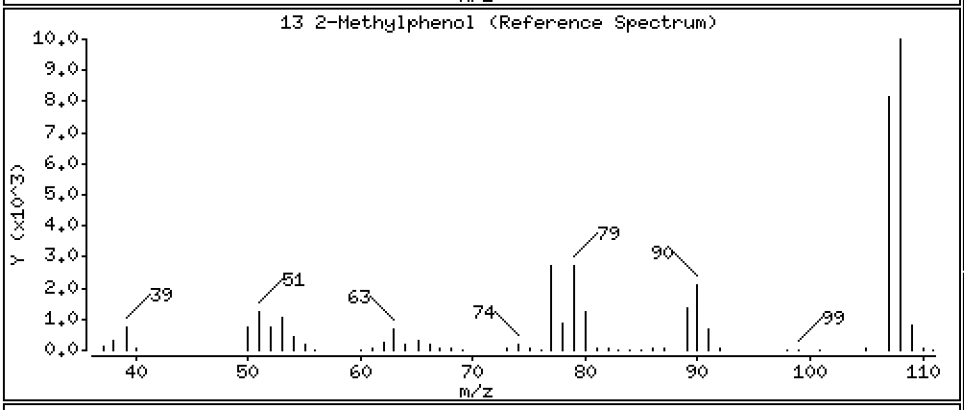
Column diameter: 0.32

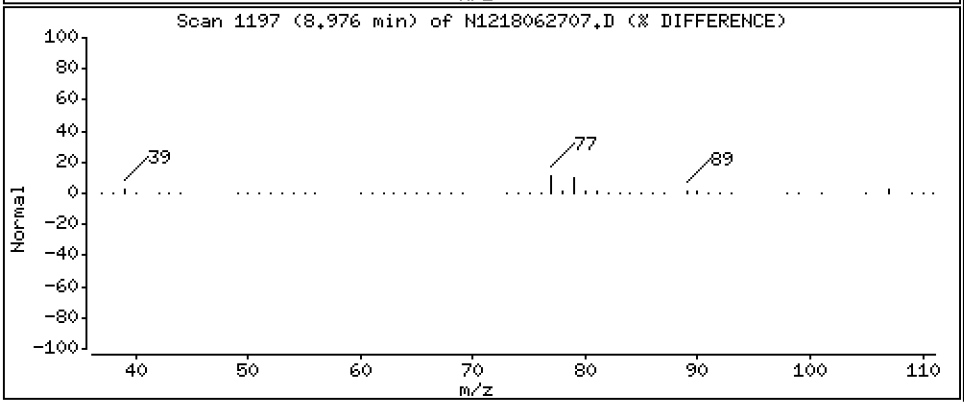
13 2-Methylphenol

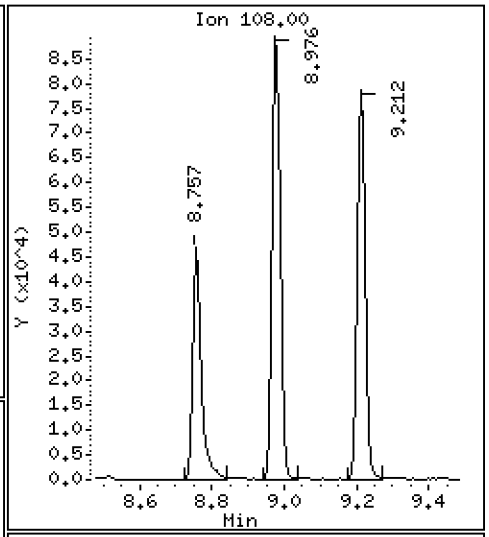
Concentration: 14.16 ug/mL

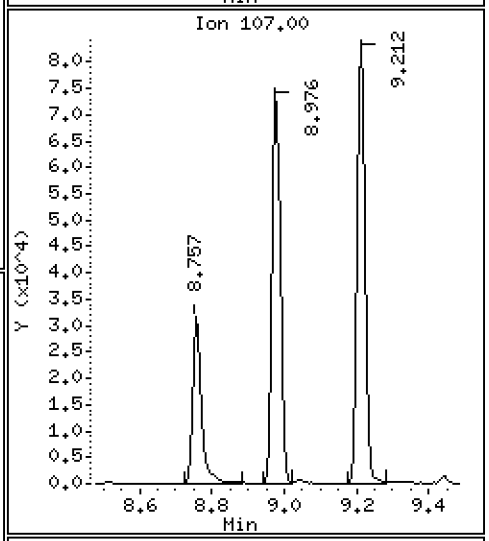


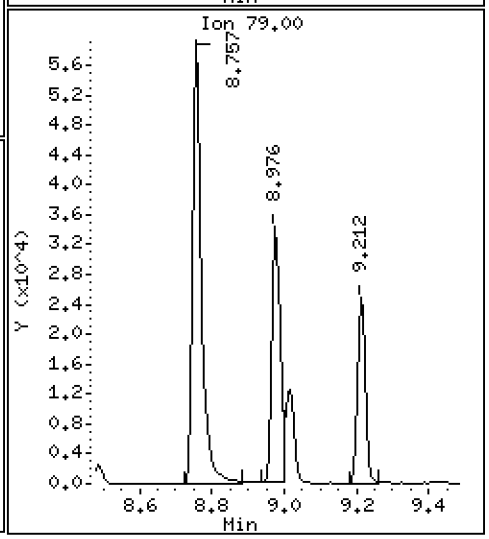












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

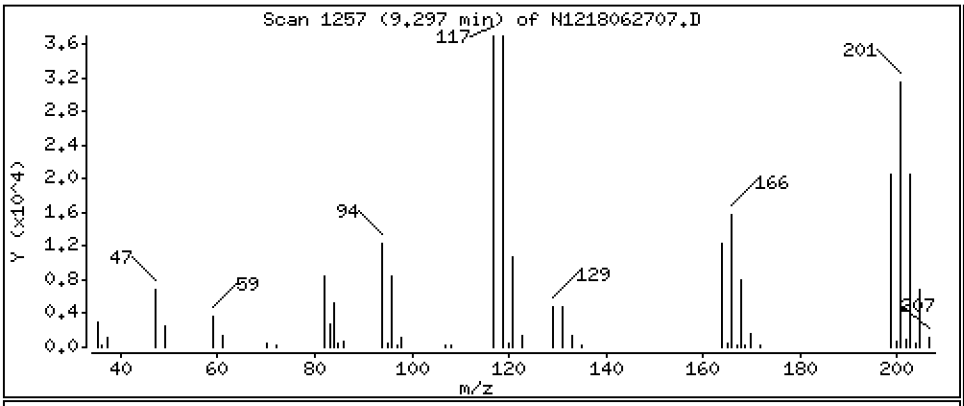
Operator: JZ

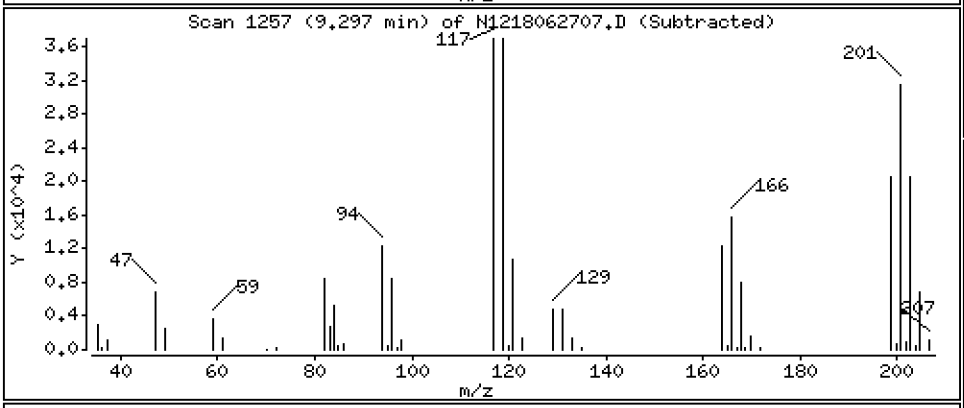
Column phase: ZB-5msi

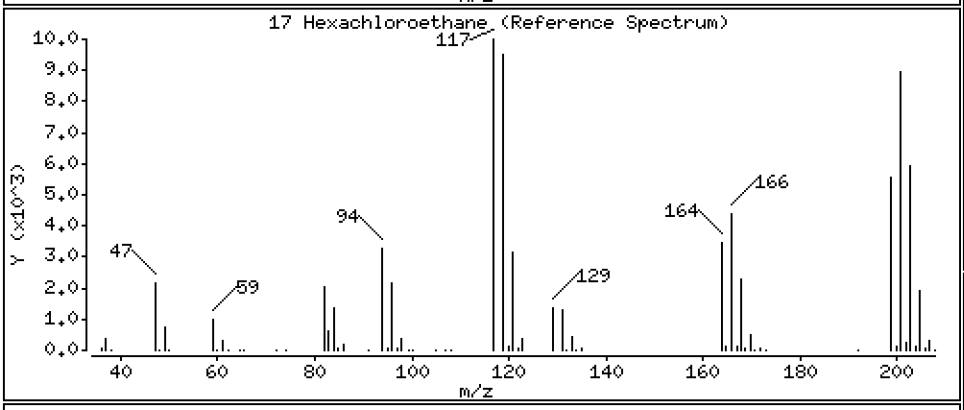
Column diameter: 0.32

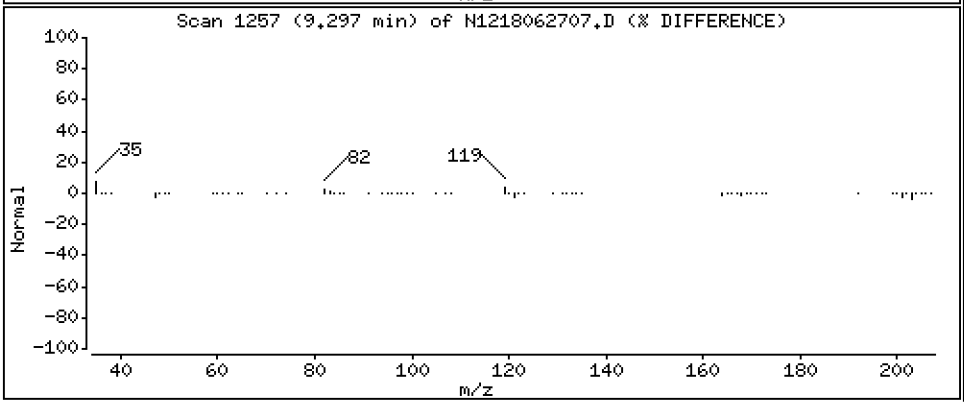
17 Hexachloroethane

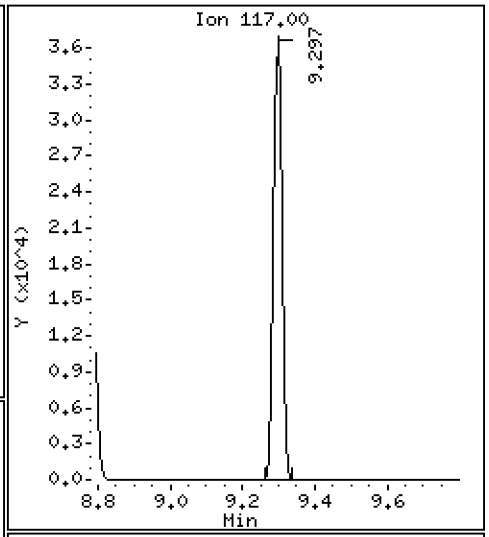
Concentration: 14.15 ug/mL

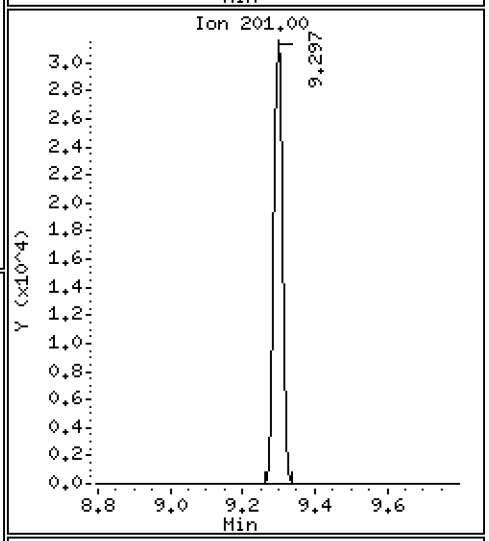


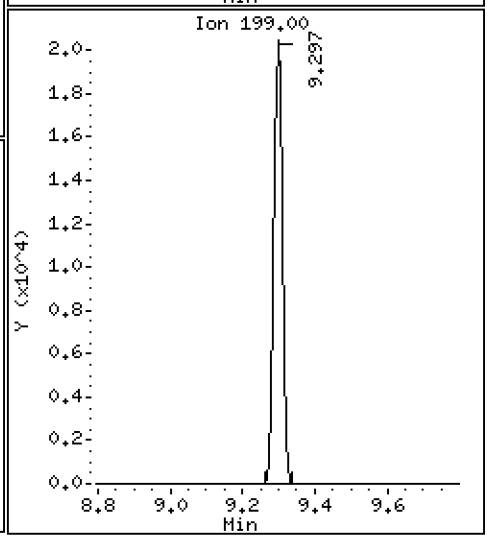












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

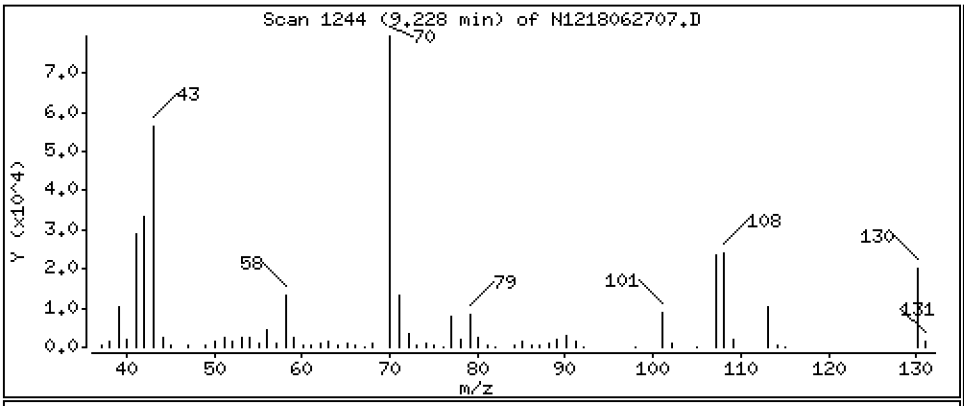
Operator: JZ

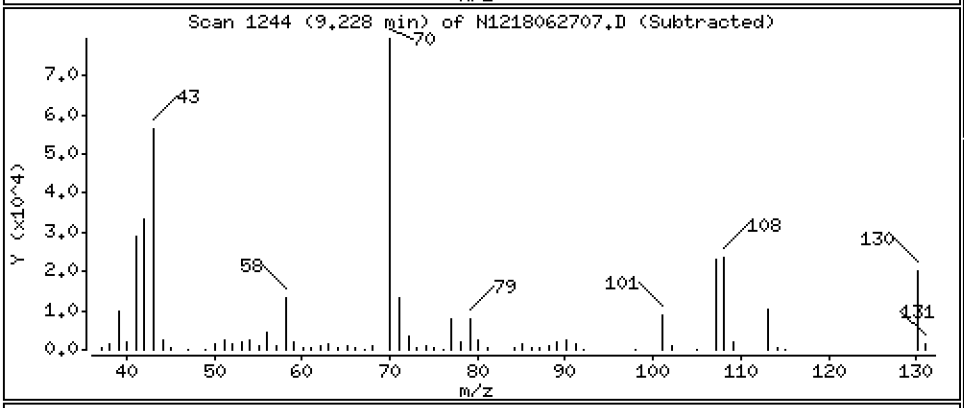
Column phase: ZB-5msi

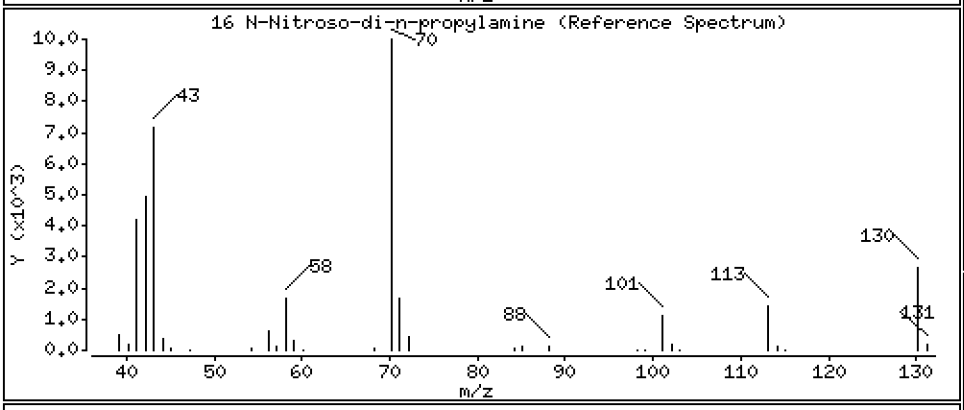
Column diameter: 0.32

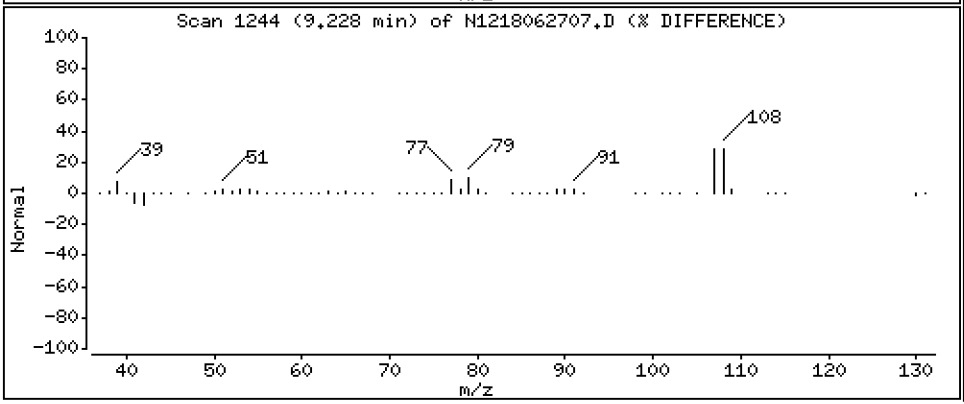
16 N-Nitroso-di-n-propylamine

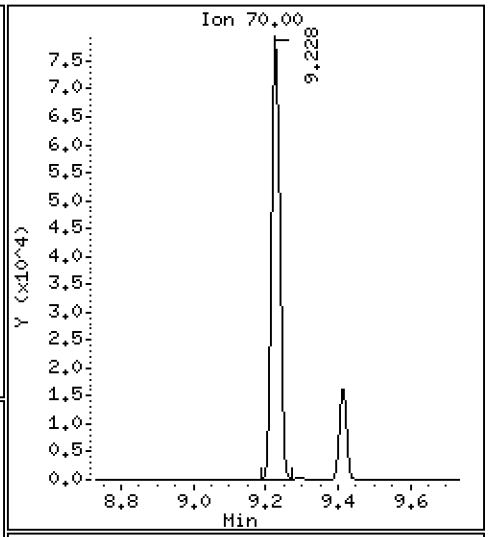
Concentration: 16.80 ug/mL

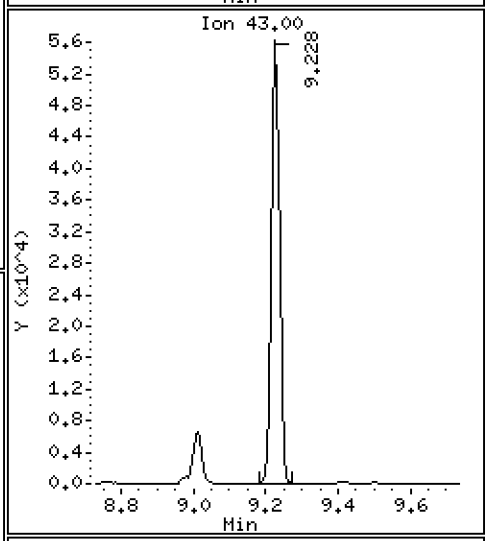


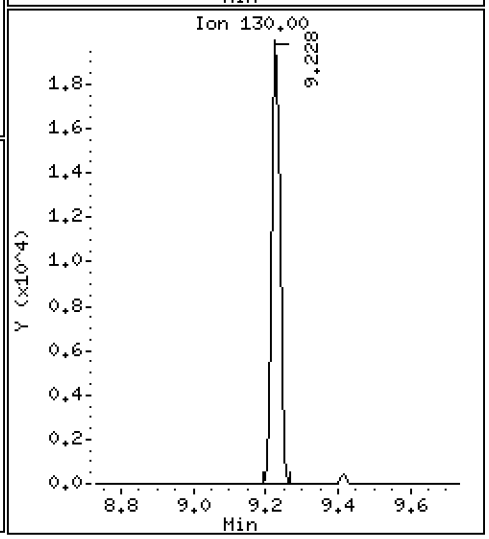












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

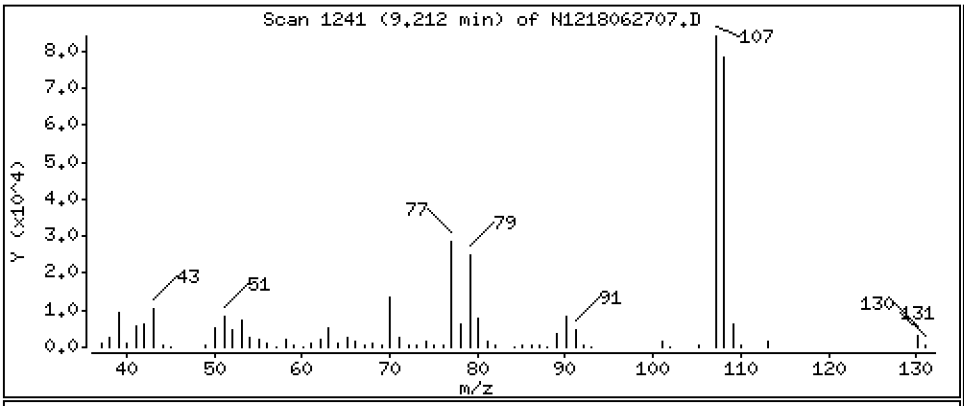
Operator: JZ

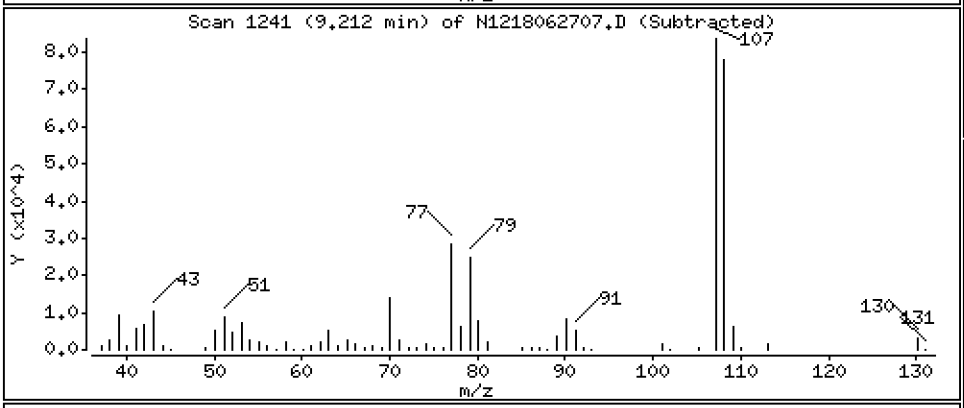
Column phase: ZB-5msi

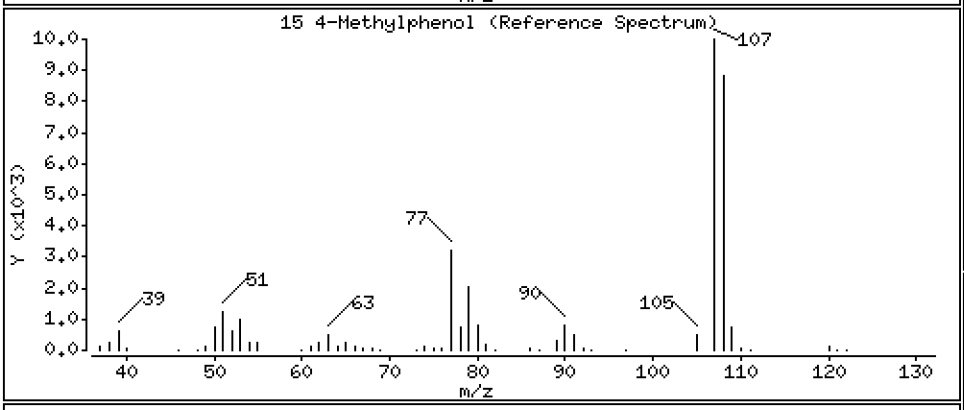
Column diameter: 0.32

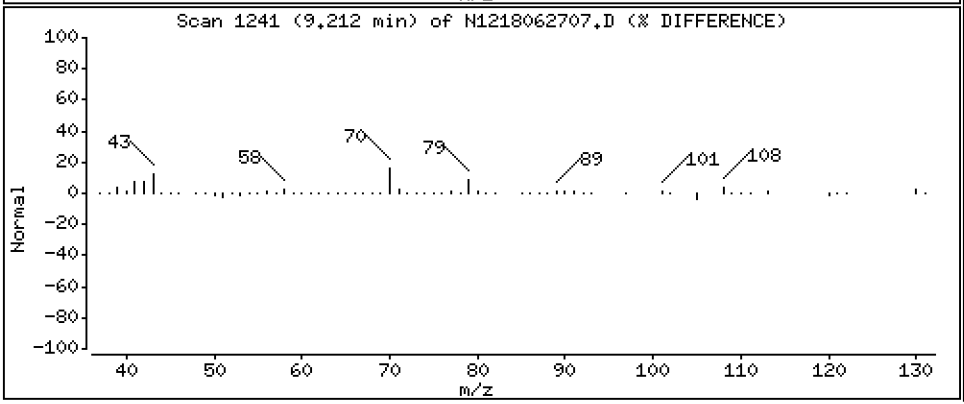
15 4-Methylphenol

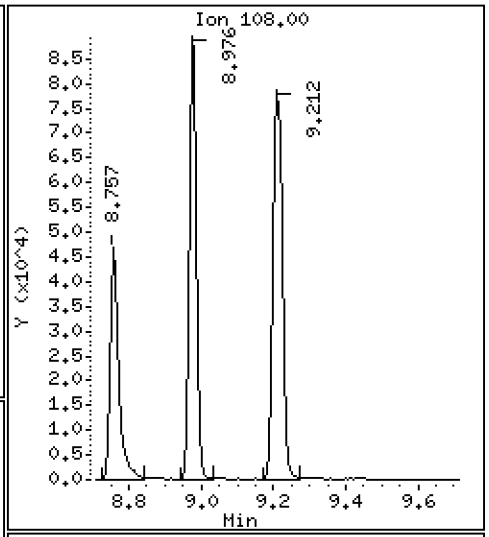
Concentration: 14.17 ug/mL

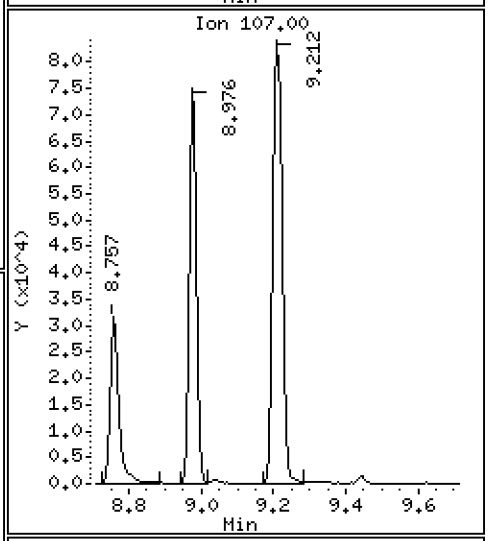


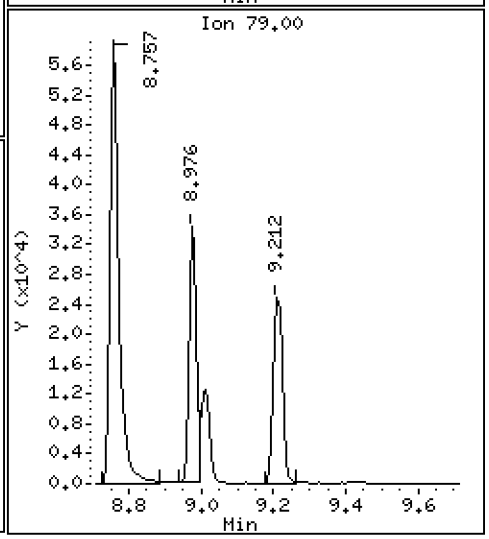












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

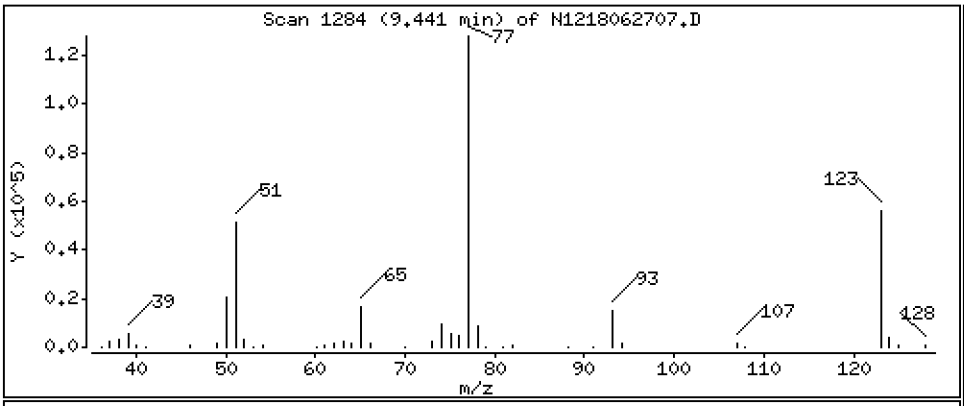
Operator: JZ

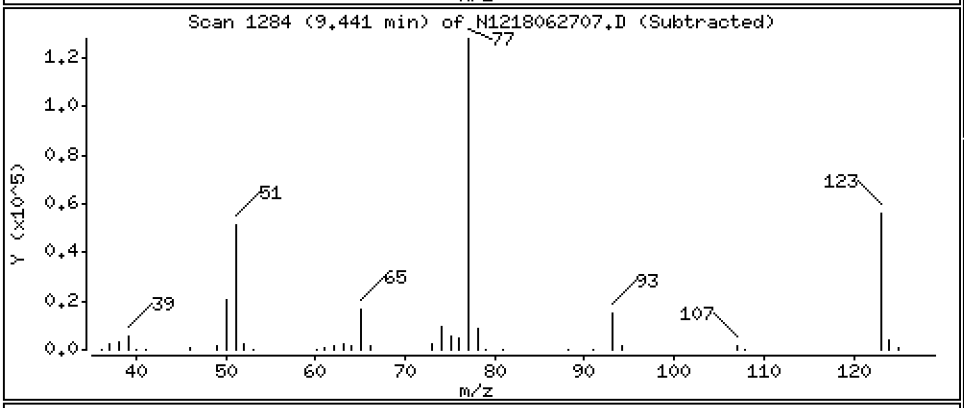
Column phase: ZB-5msi

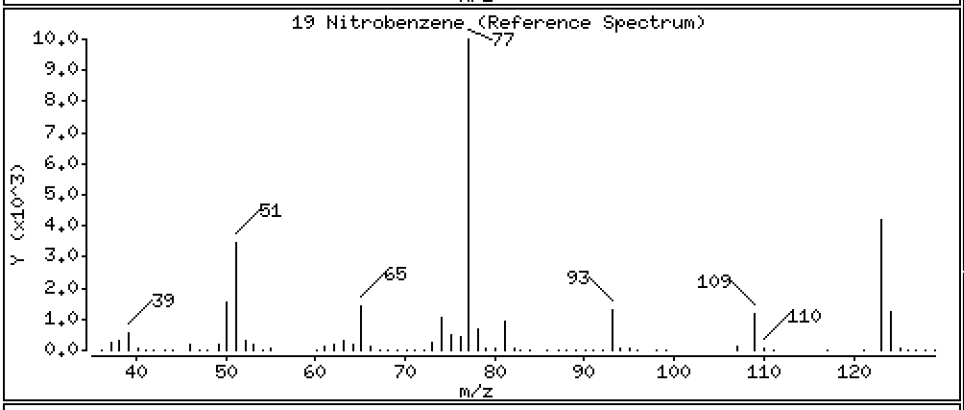
Column diameter: 0.32

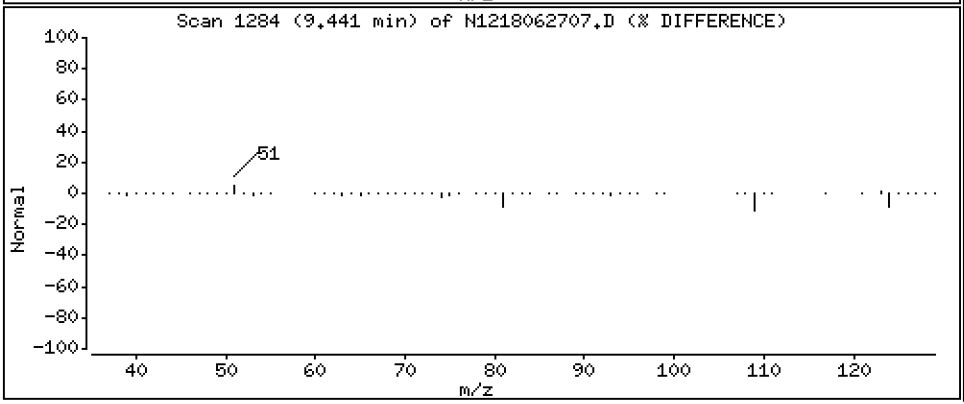
19 Nitrobenzene

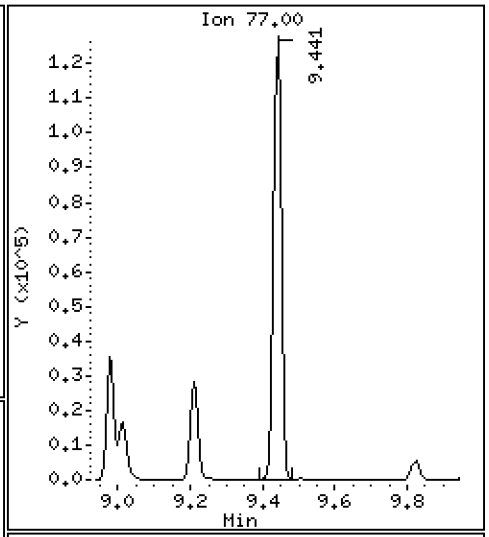
Concentration: 16.62 ug/mL

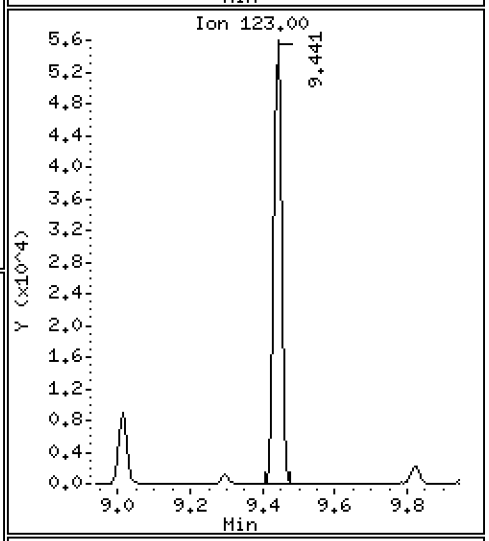


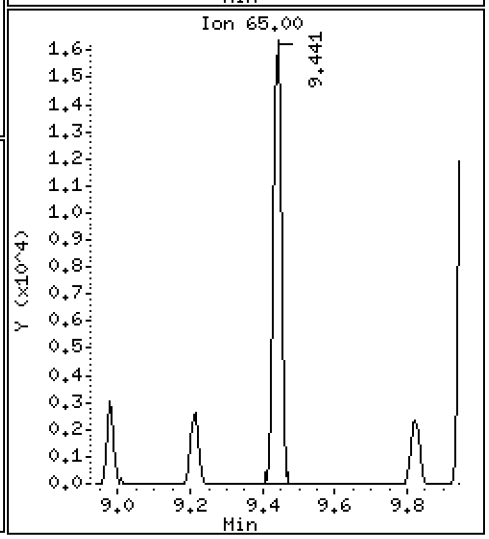












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

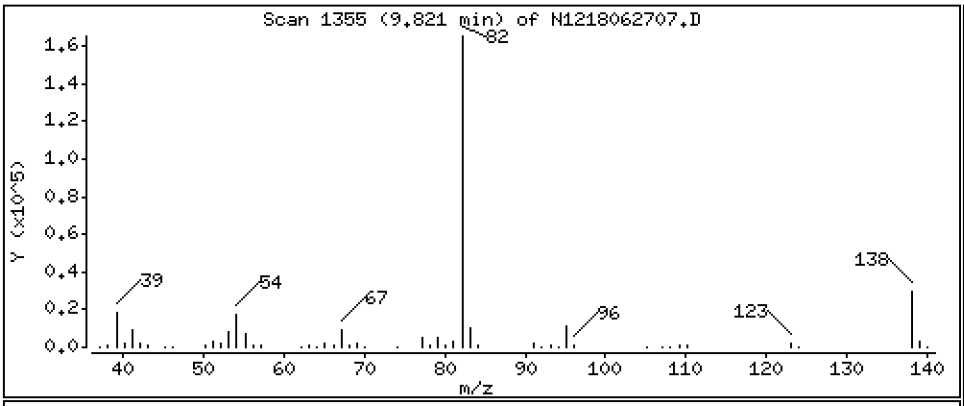
Operator: JZ

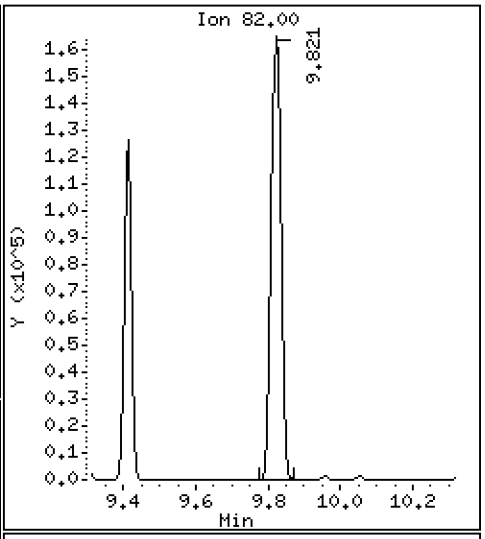
Column phase: ZB-5msi

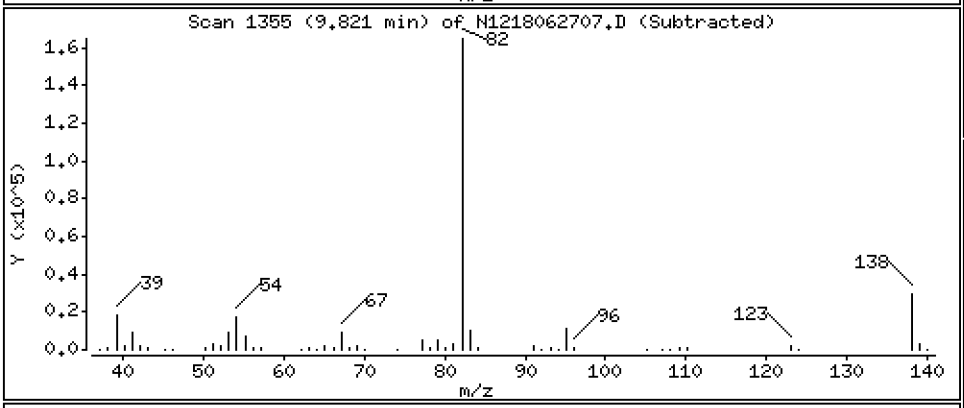
Column diameter: 0.32

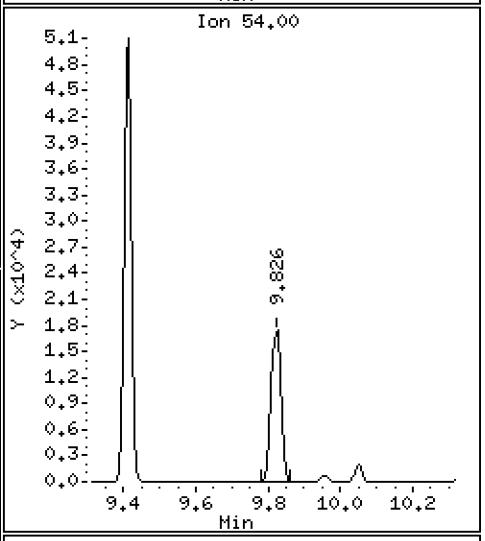
20 Isophorone

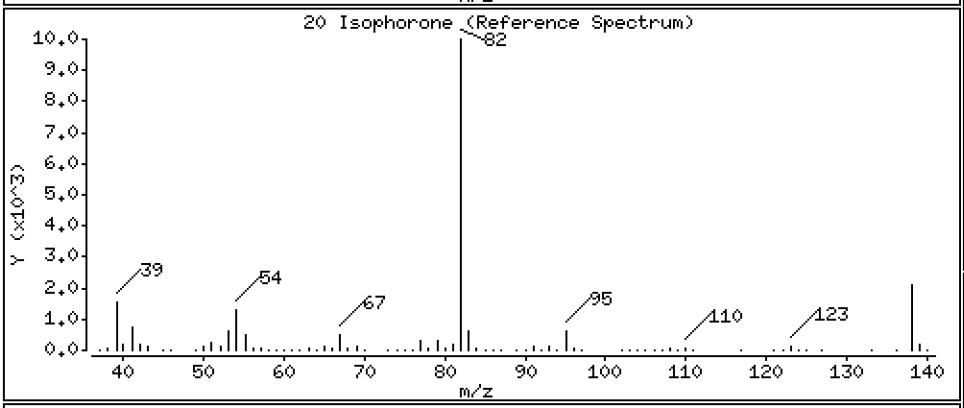
Concentration: 18.62 ug/mL

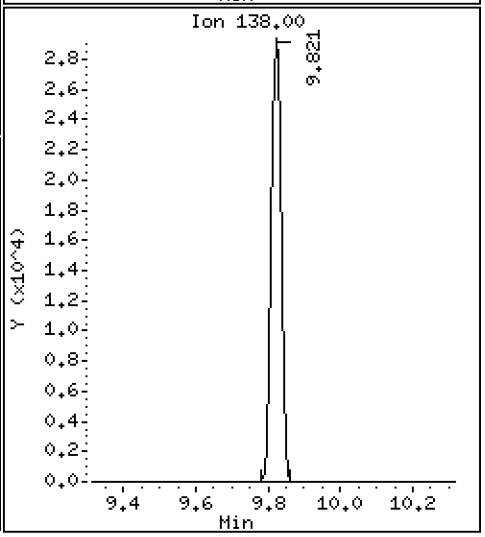


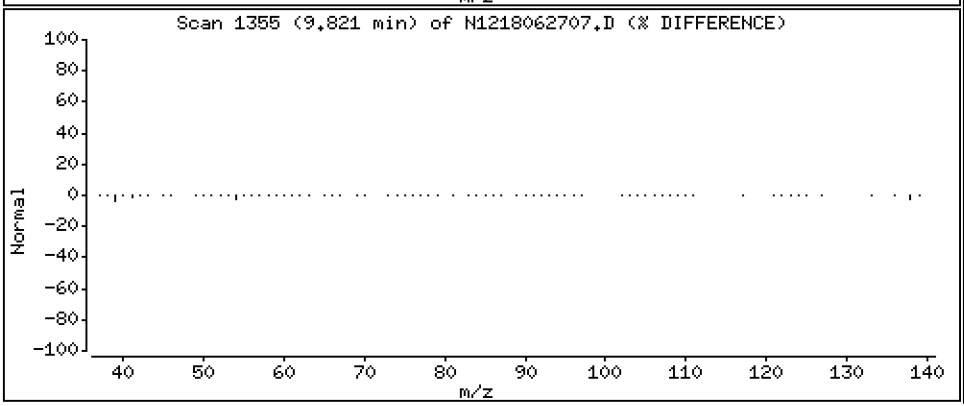












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

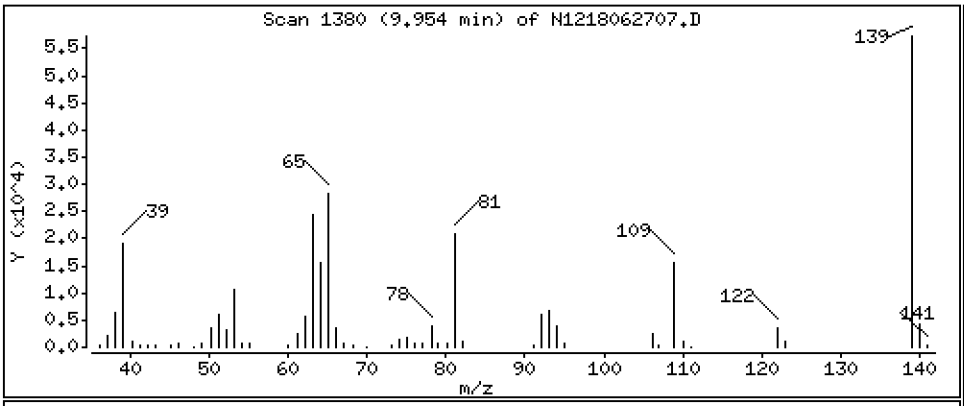
Operator: JZ

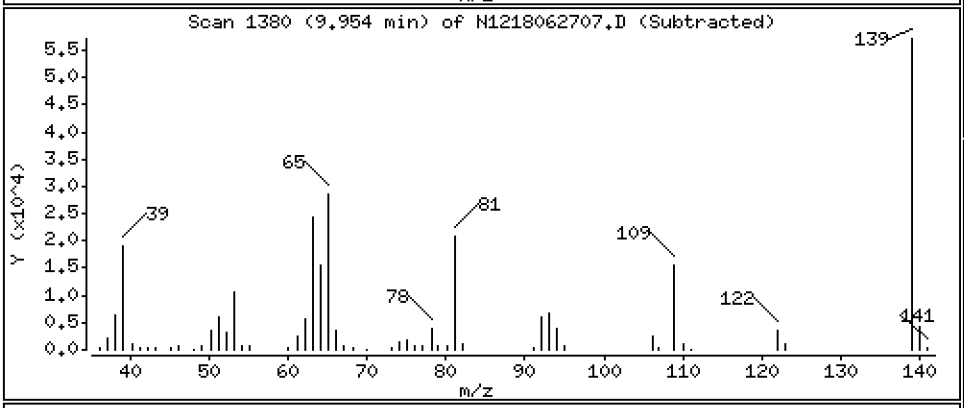
Column phase: ZB-5msi

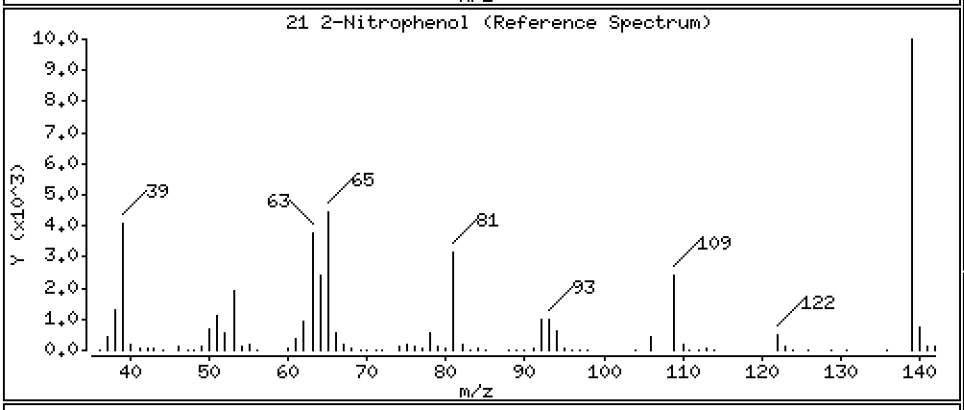
Column diameter: 0.32

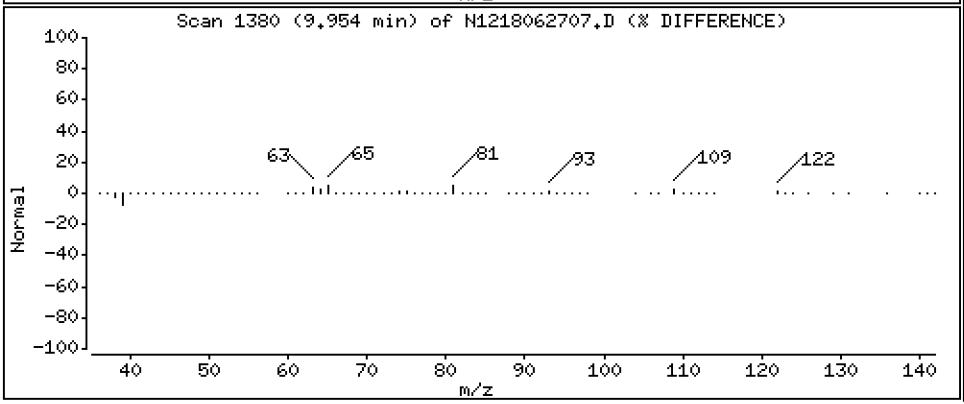
21 2-Nitrophenol

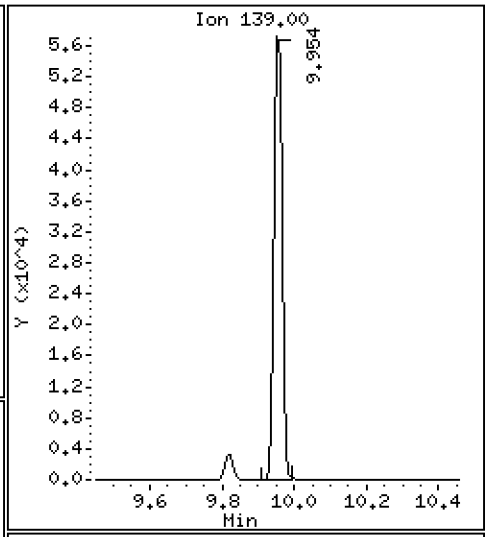
Concentration: 16.43 ug/mL

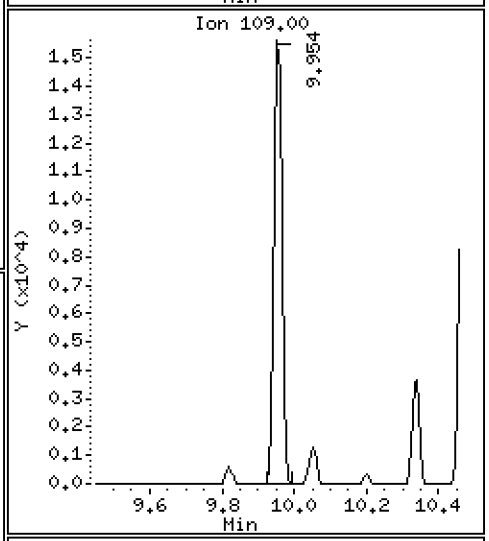


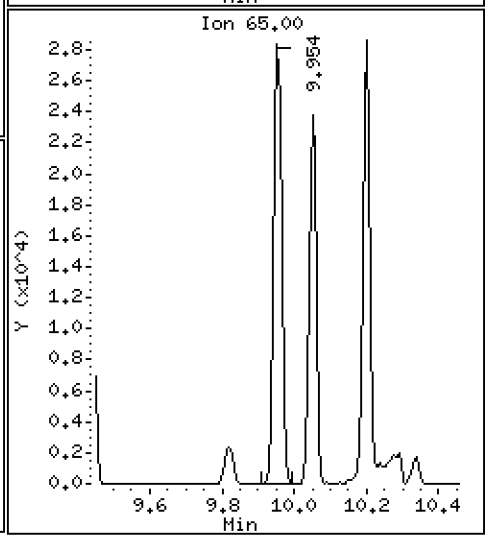












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

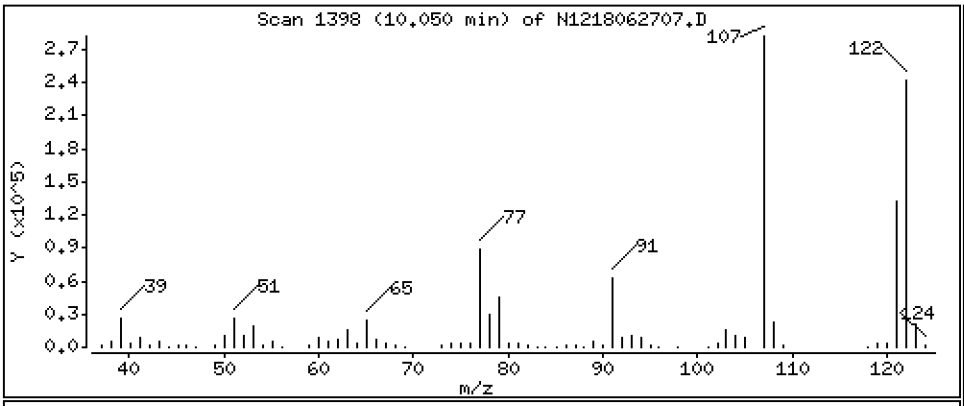
Operator: JZ

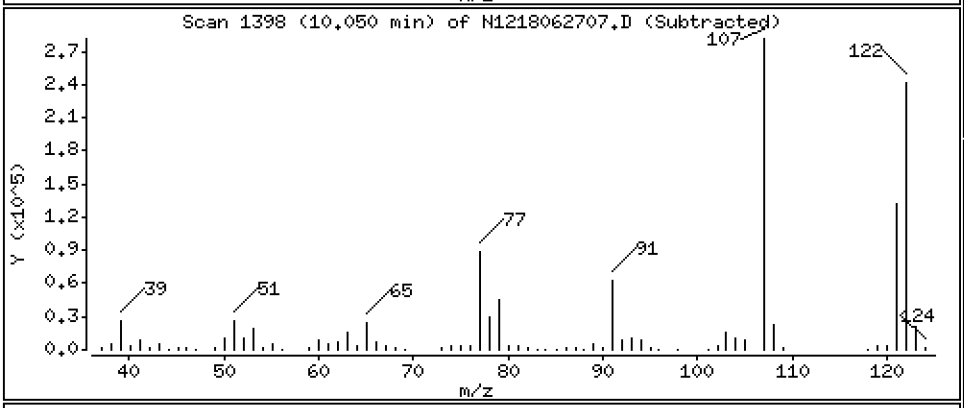
Column phase: ZB-5msi

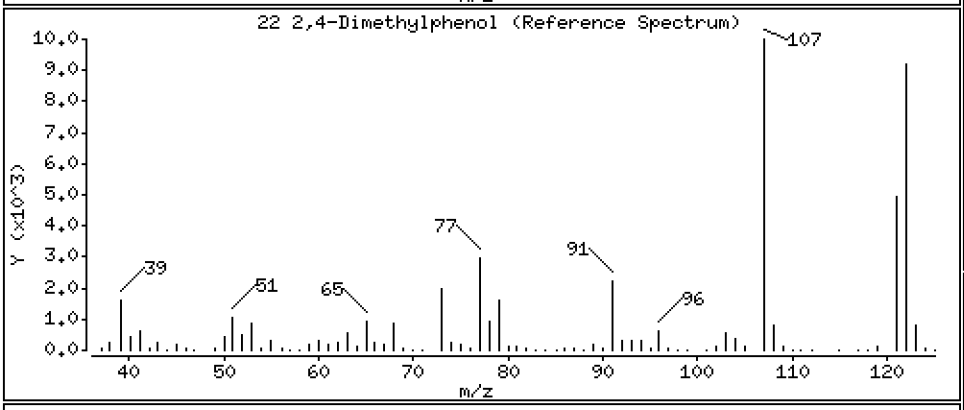
Column diameter: 0.32

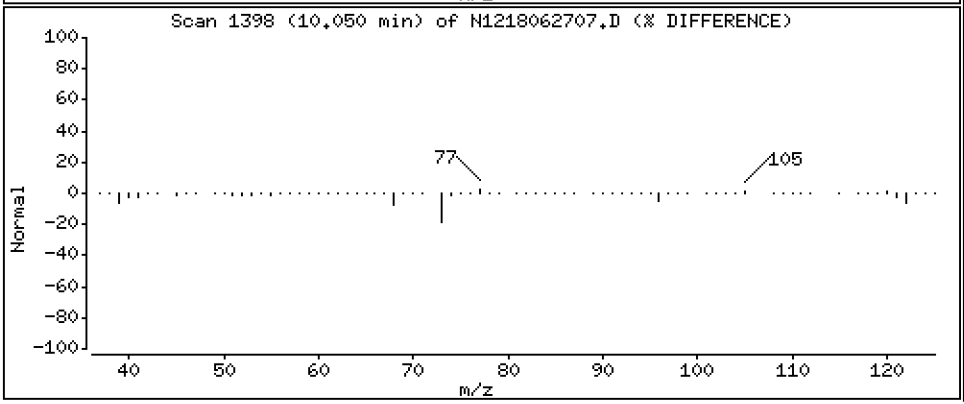
22 2,4-Dimethylphenol

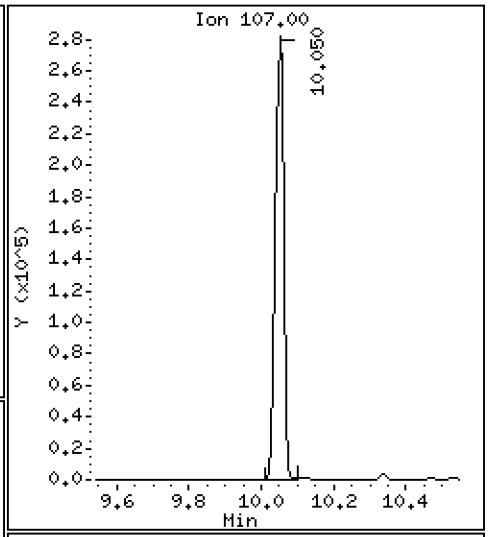
Concentration: 42.40 ug/mL

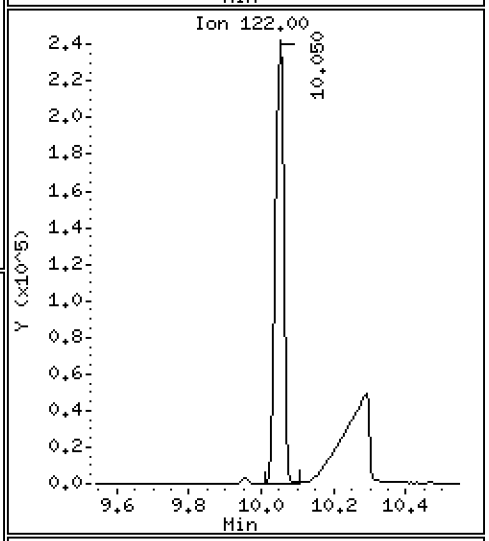


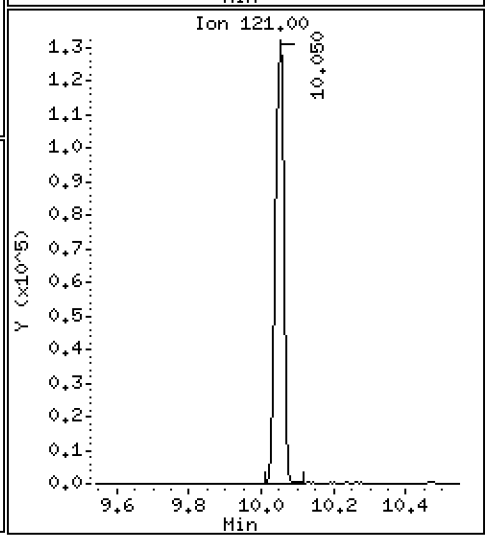












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

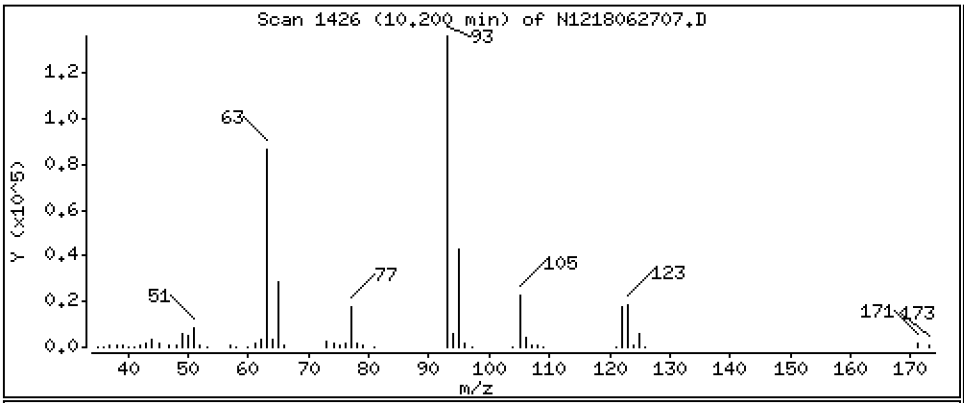
Operator: JZ

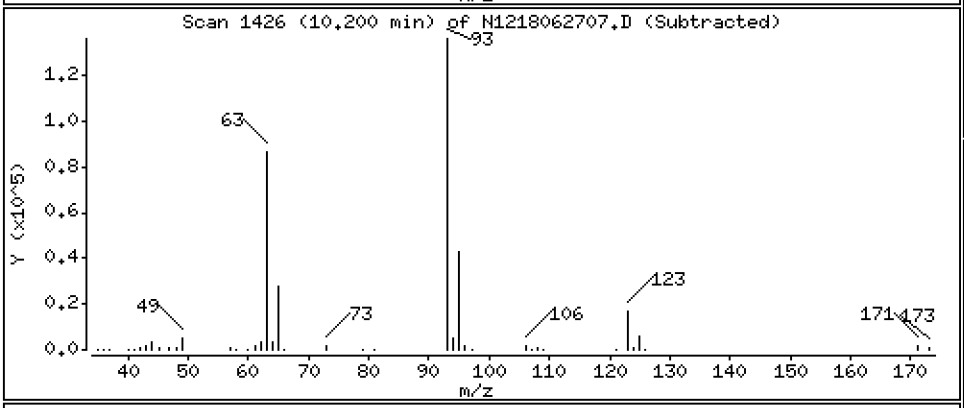
Column phase: ZB-5msi

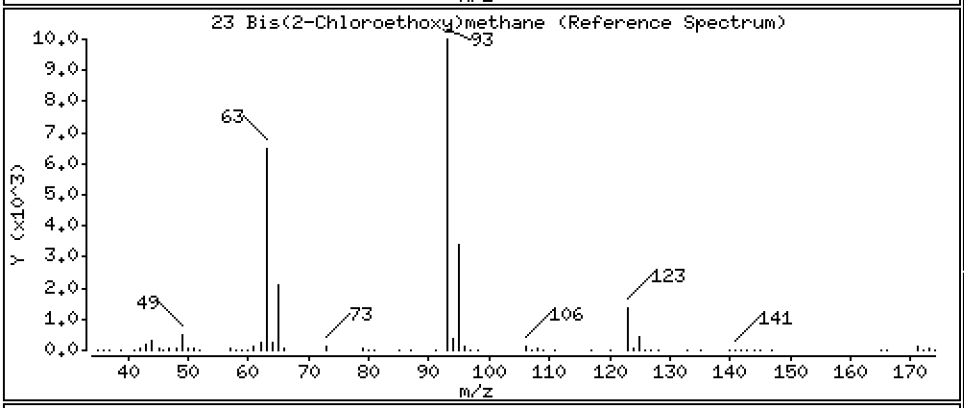
Column diameter: 0.32

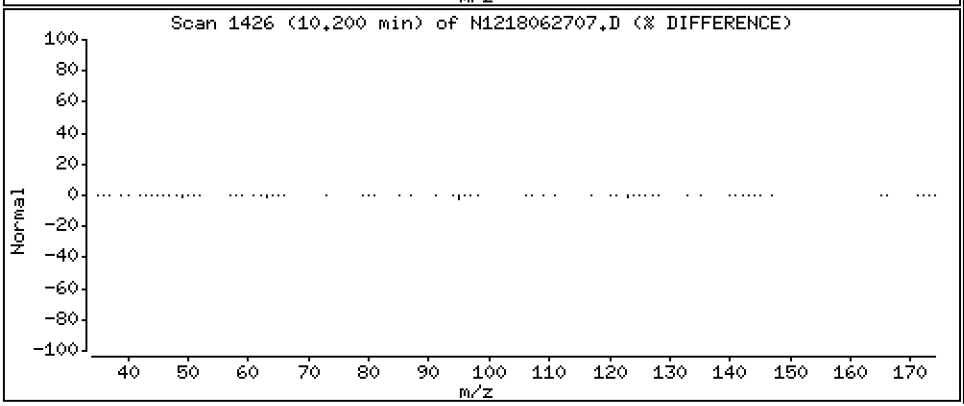
23 Bis(2-Chloroethoxy)methane

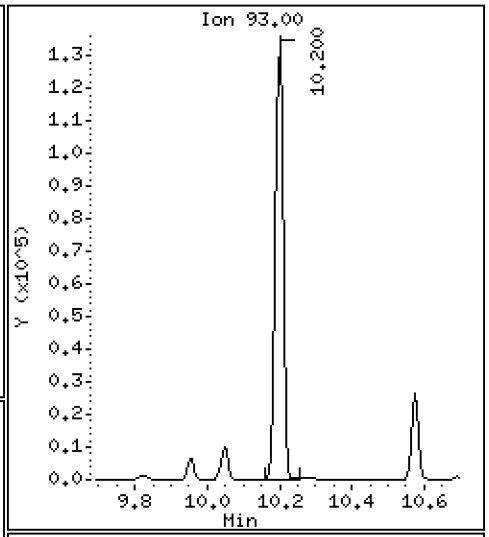
Concentration: 17.08 ug/mL

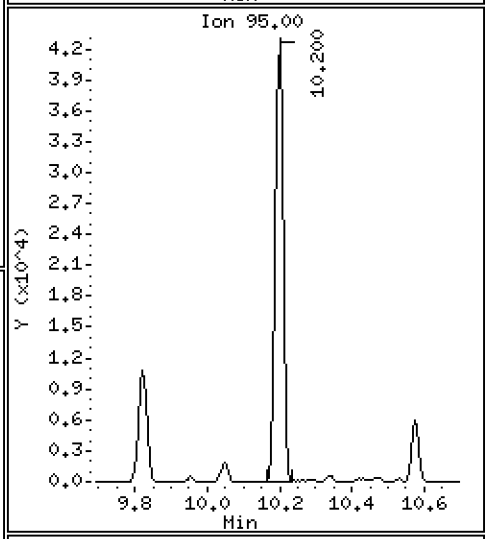


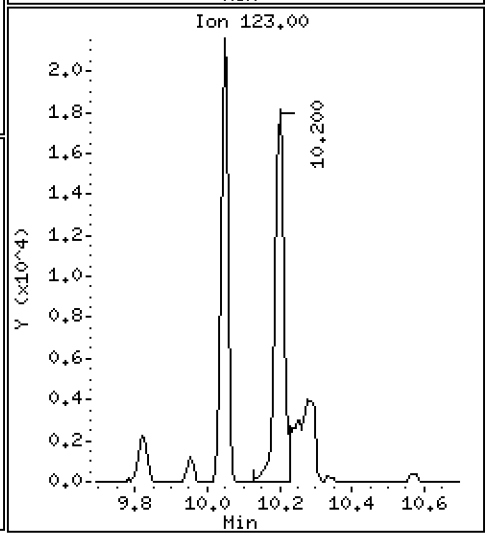












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

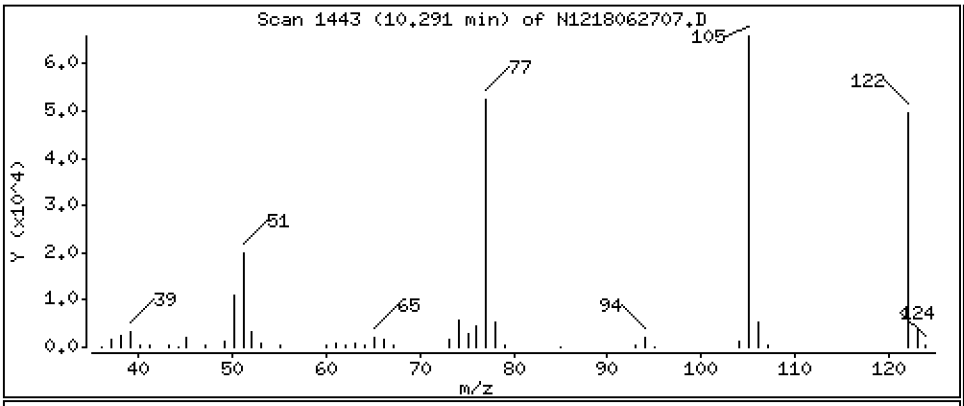
Operator: JZ

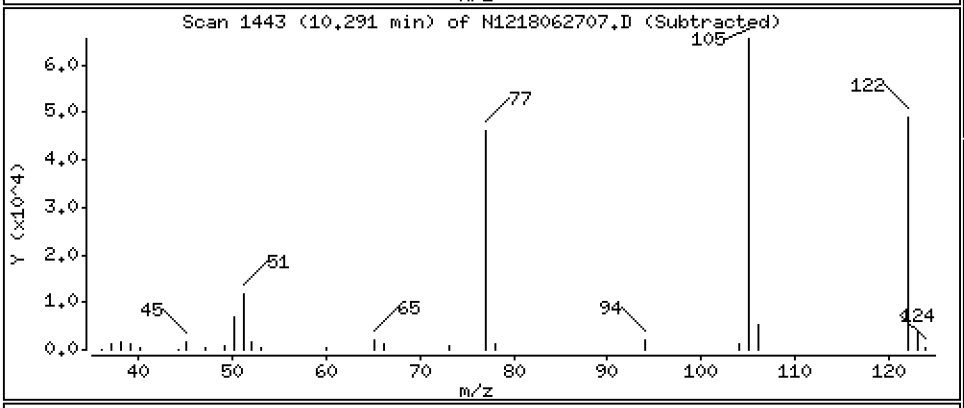
Column phase: ZB-5msi

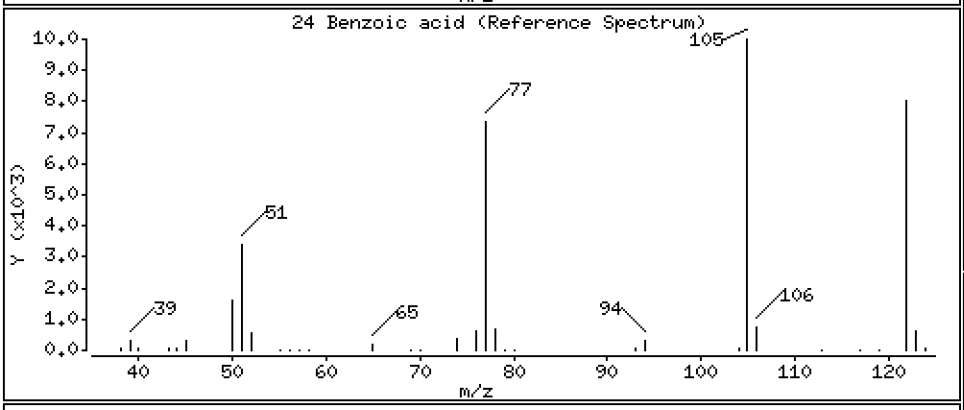
Column diameter: 0.32

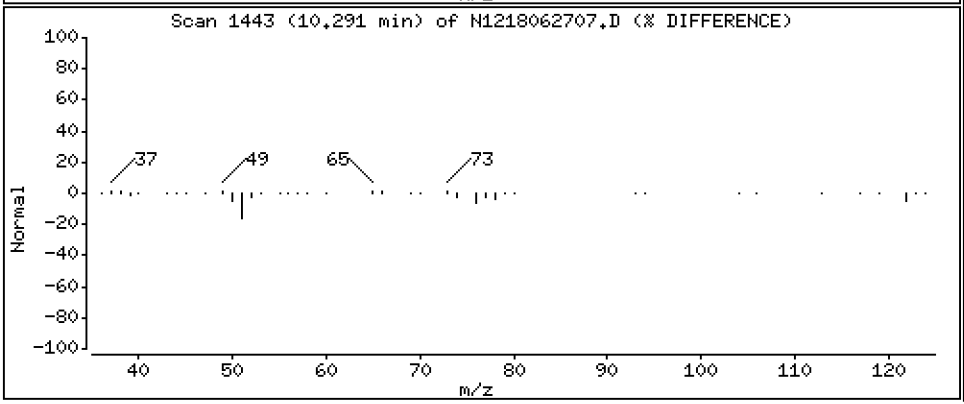
24 Benzoic acid

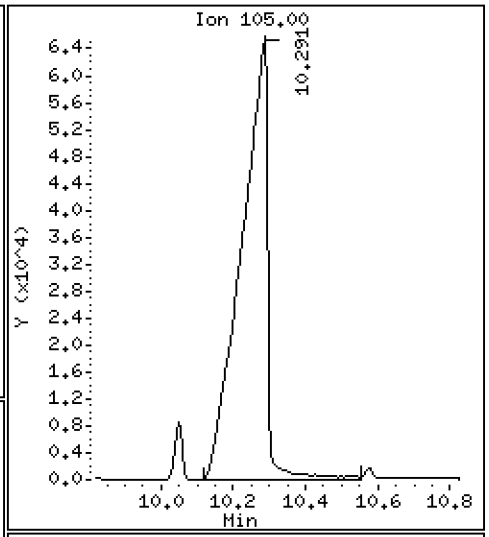
Concentration: 53.16 ug/mL

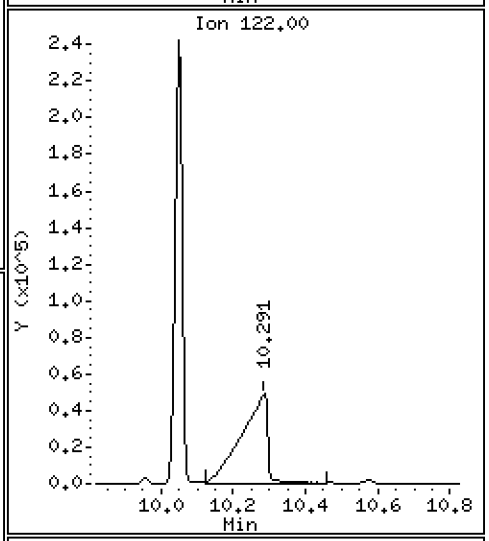


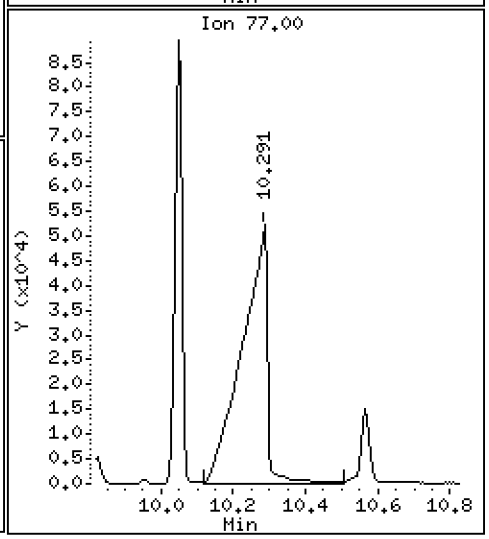












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

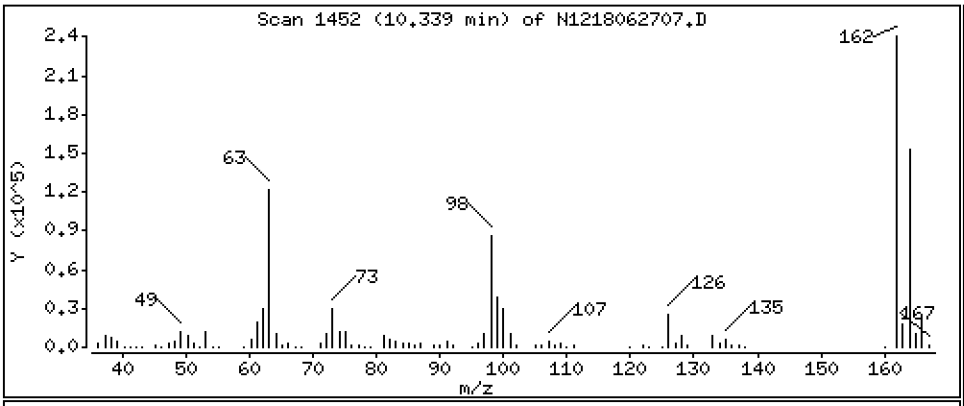
Operator: JZ

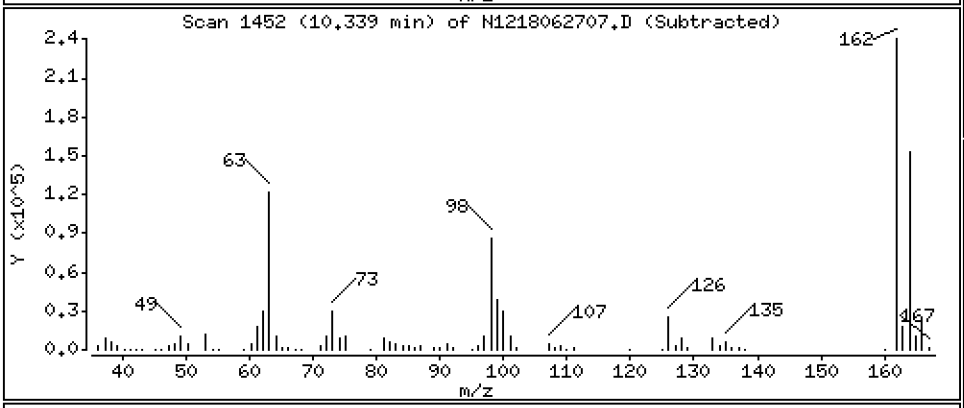
Column phase: ZB-5msi

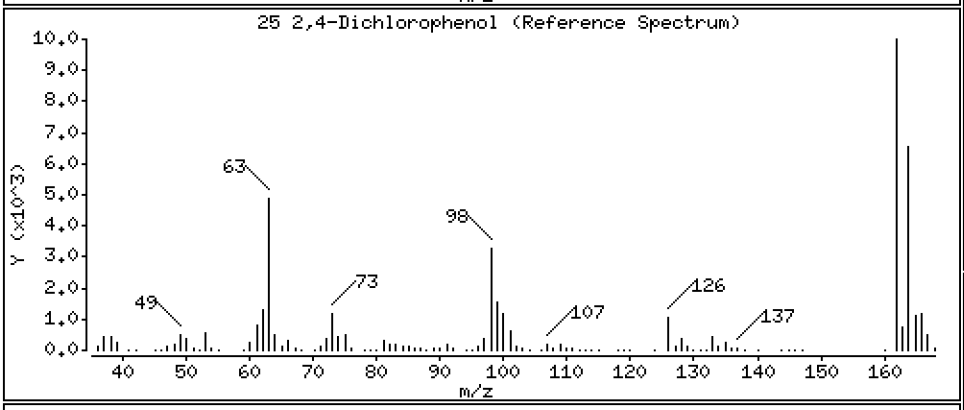
Column diameter: 0.32

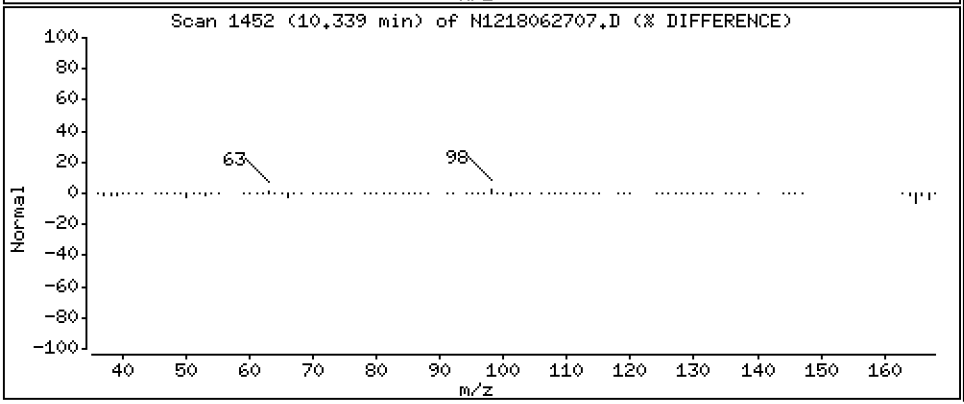
25 2,4-Dichlorophenol

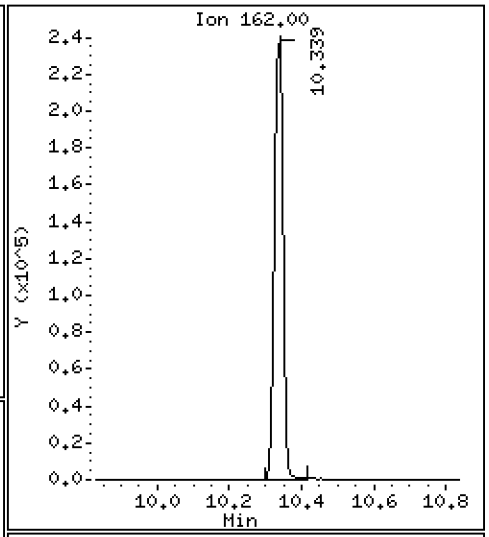
Concentration: 47.10 ug/mL

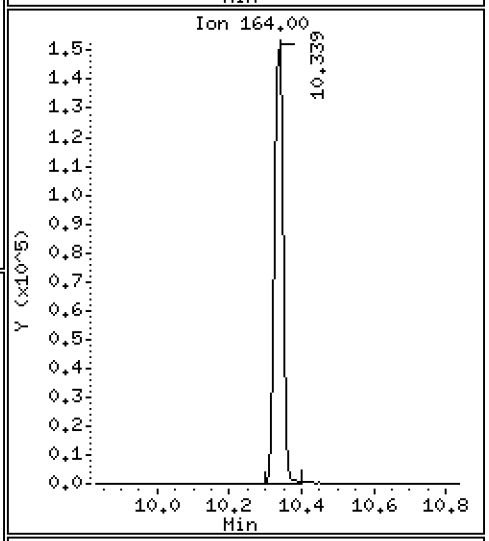


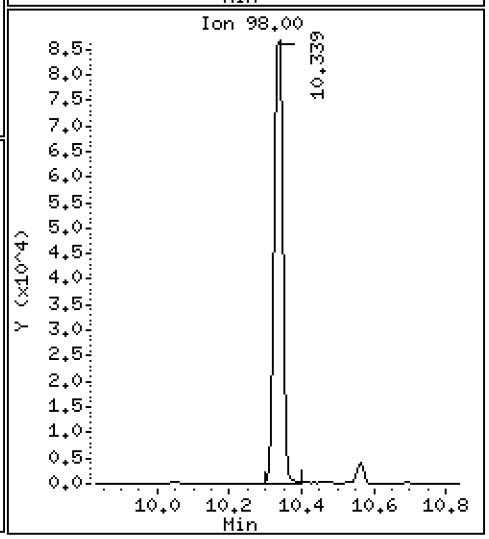












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

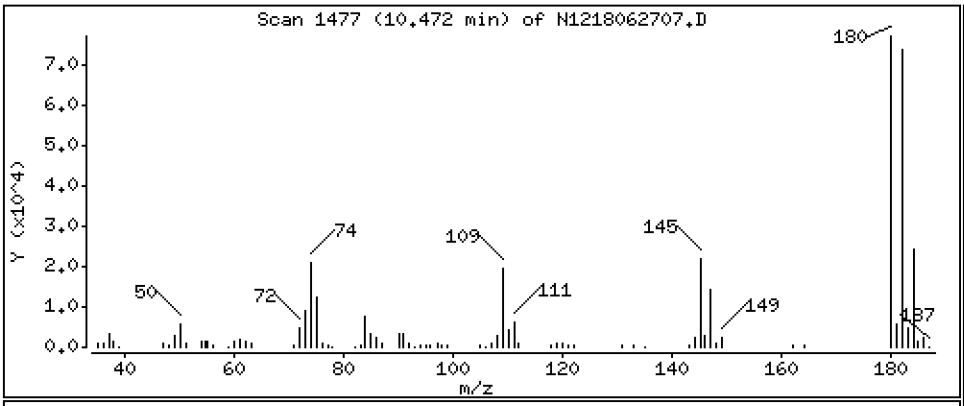
Operator: JZ

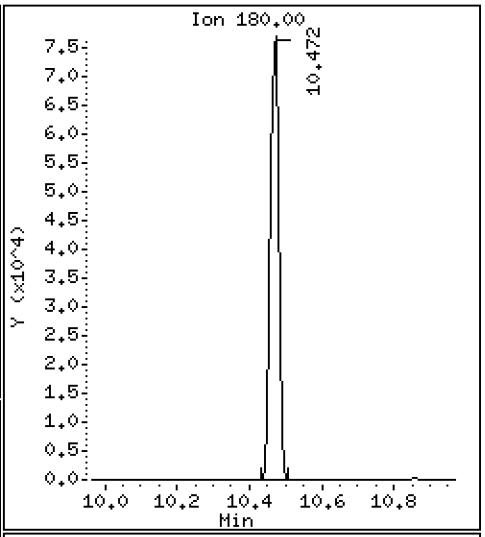
Column phase: ZB-5msi

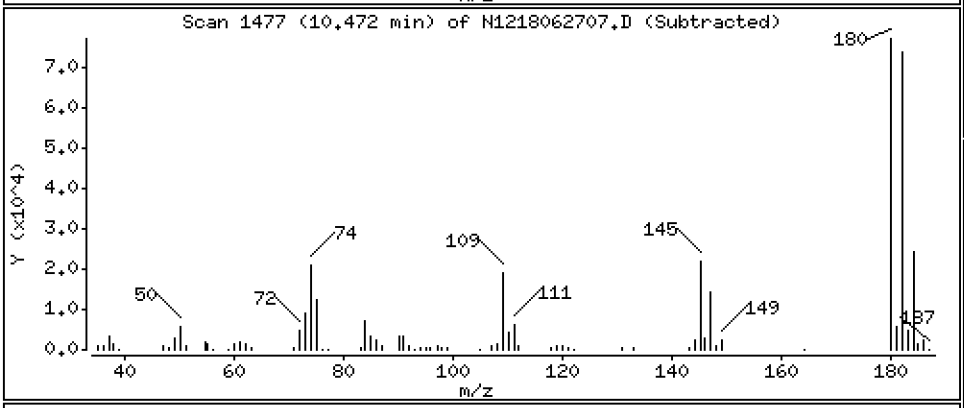
Column diameter: 0.32

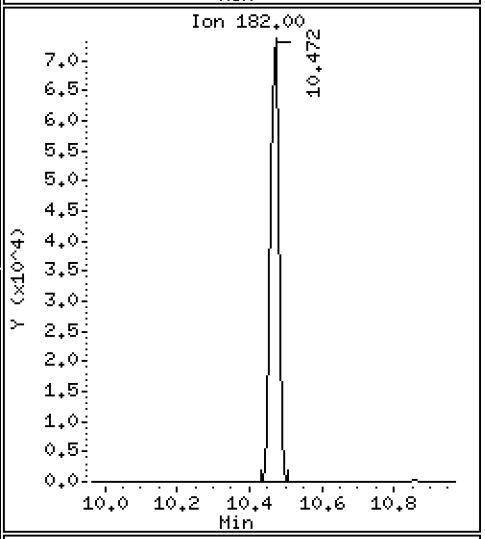
26 1,2,4-Trichlorobenzene

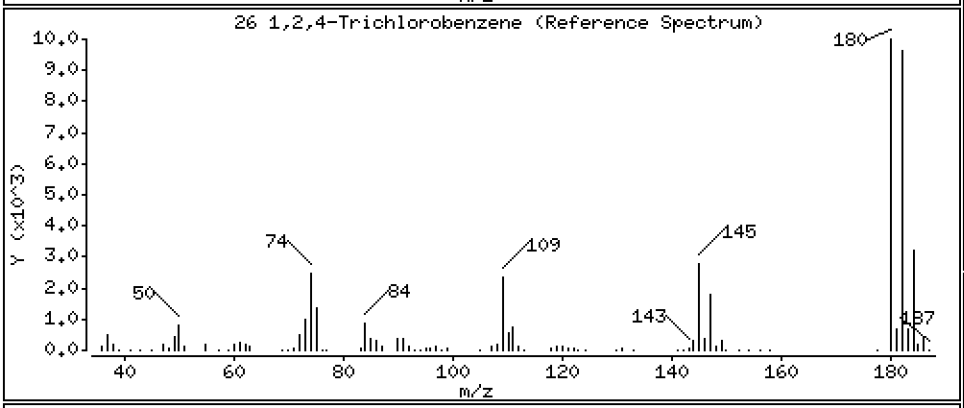
Concentration: 14.75 ug/mL

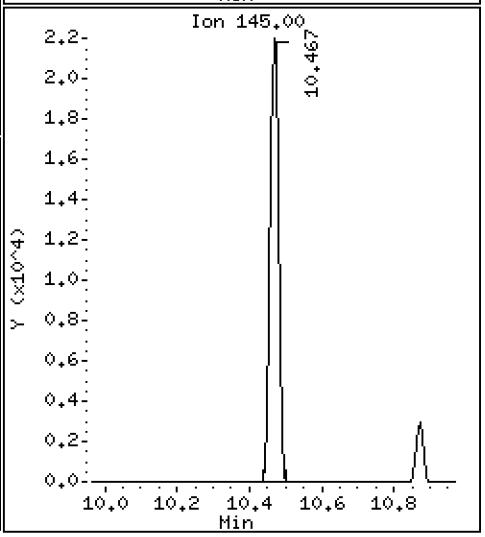


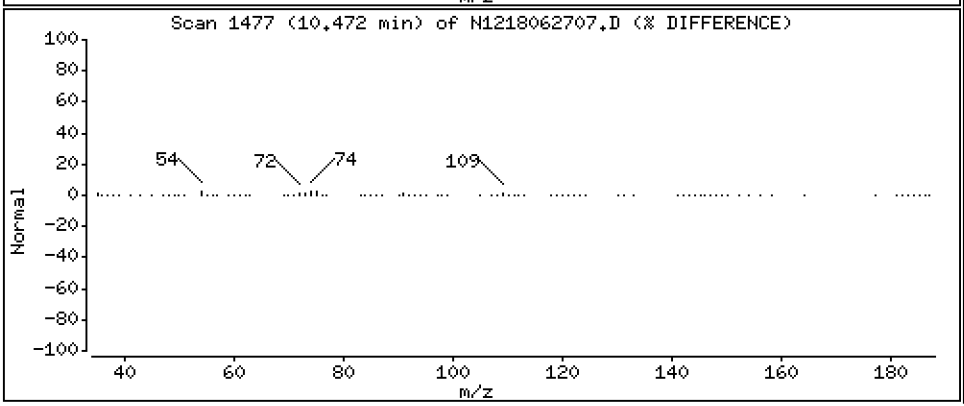












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

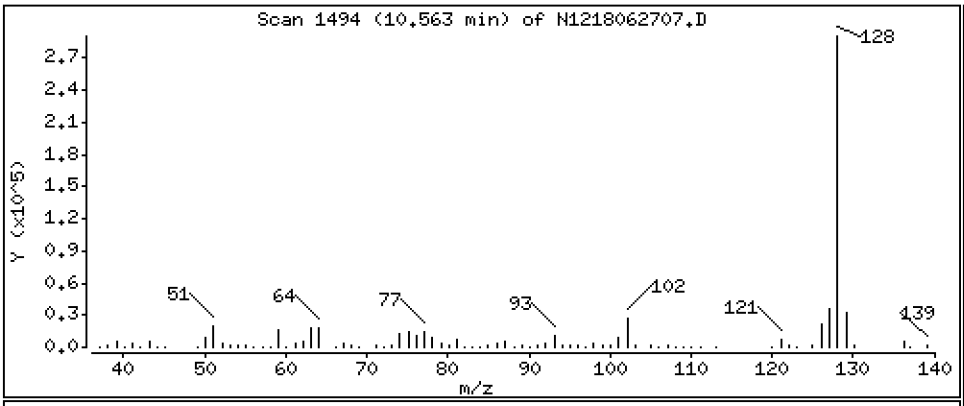
Operator: JZ

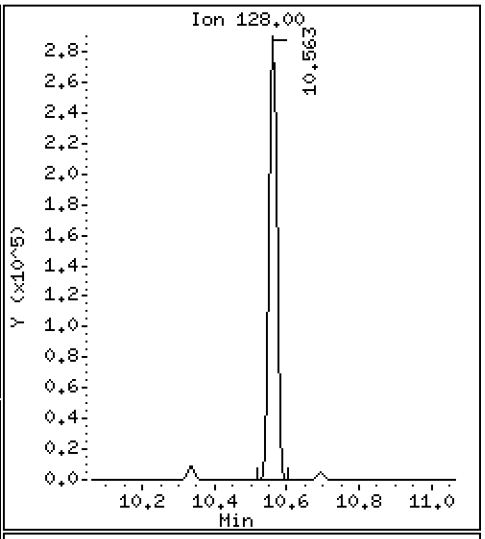
Column phase: ZB-5msi

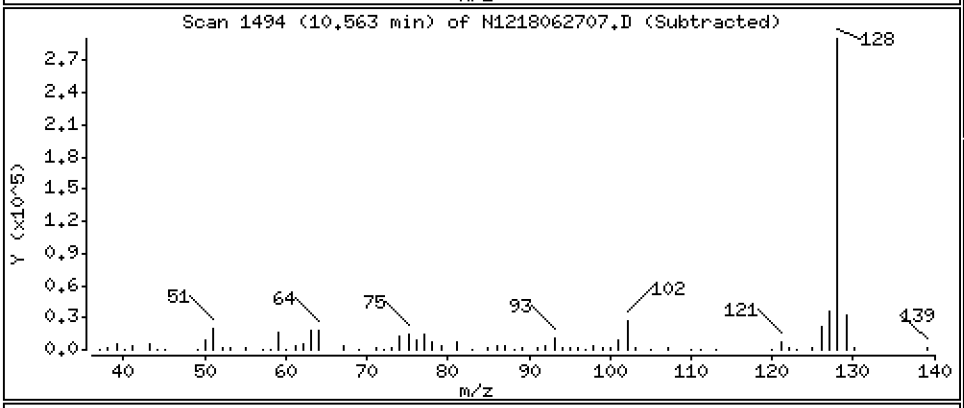
Column diameter: 0.32

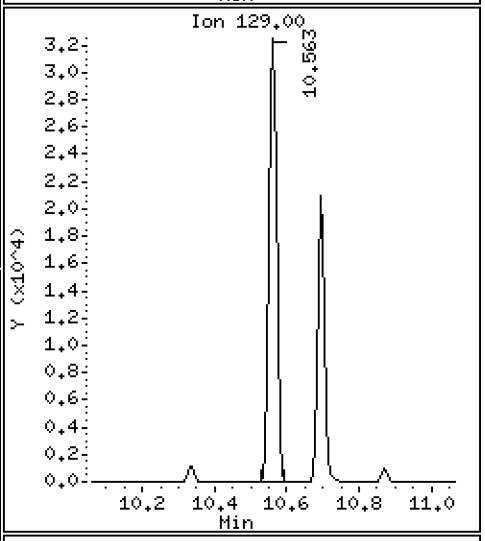
28 Naphthalene

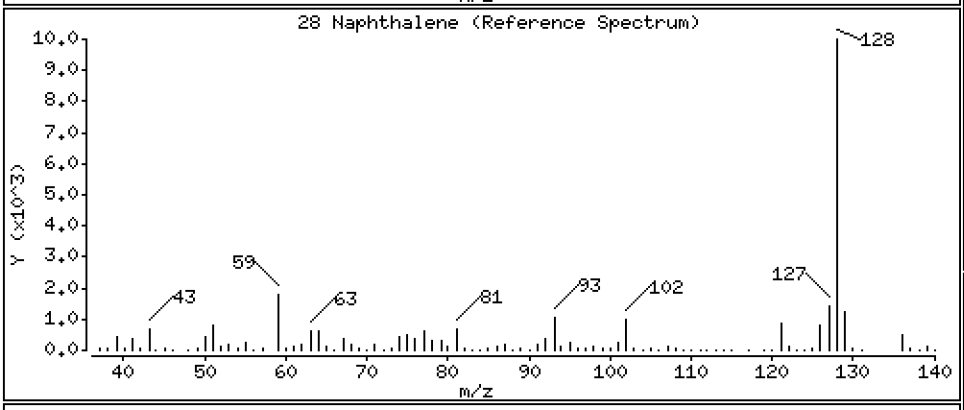
Concentration: 15.23 ug/mL

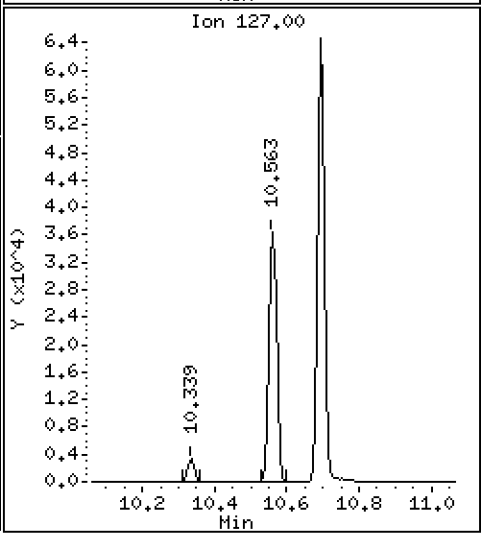


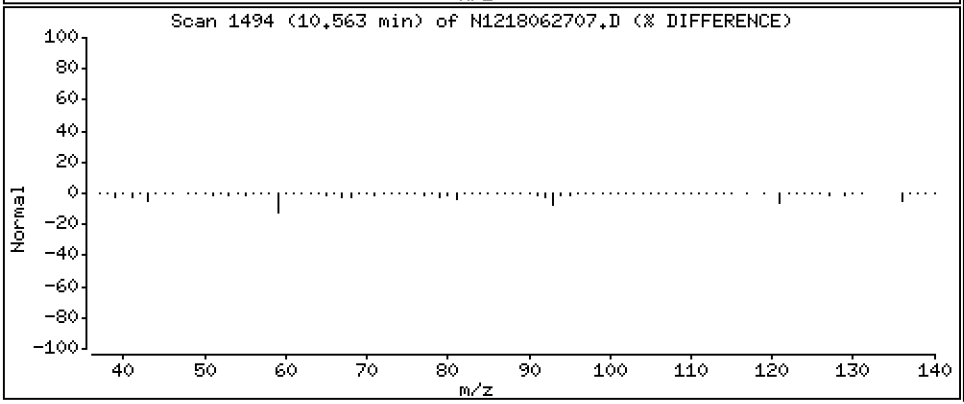












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

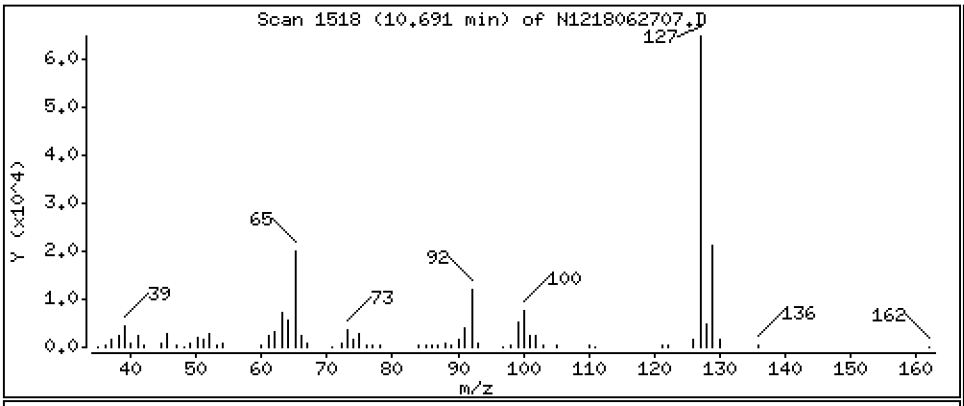
Operator: JZ

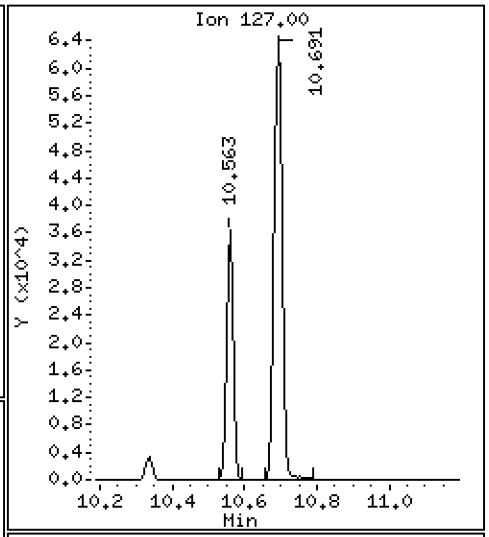
Column phase: ZB-5msi

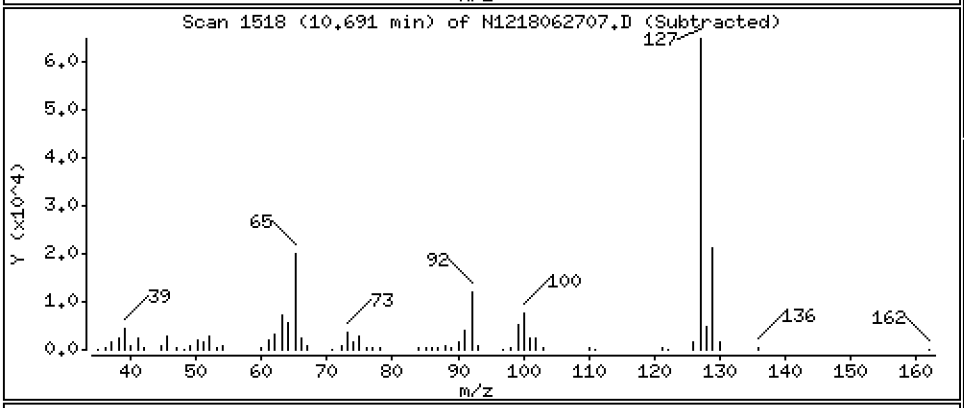
Column diameter: 0.32

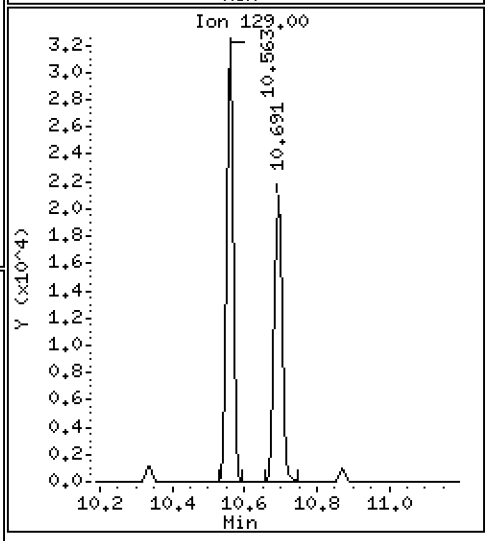
29 4-Chloroaniline

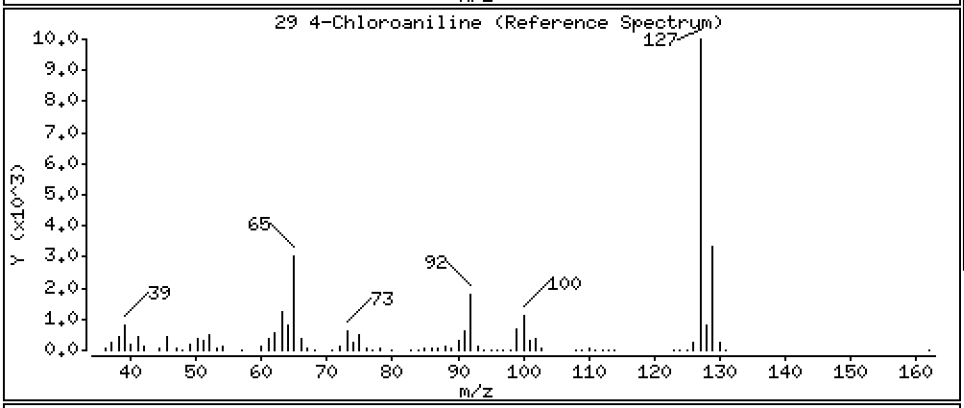
Concentration: 8.174 ug/mL

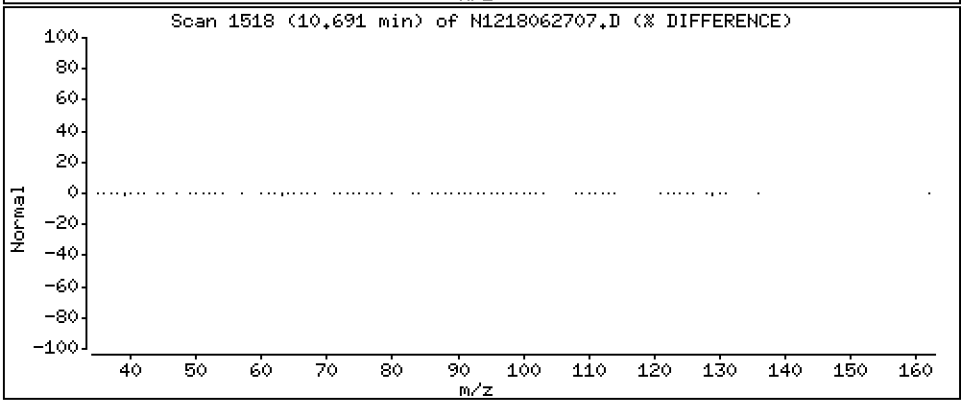












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

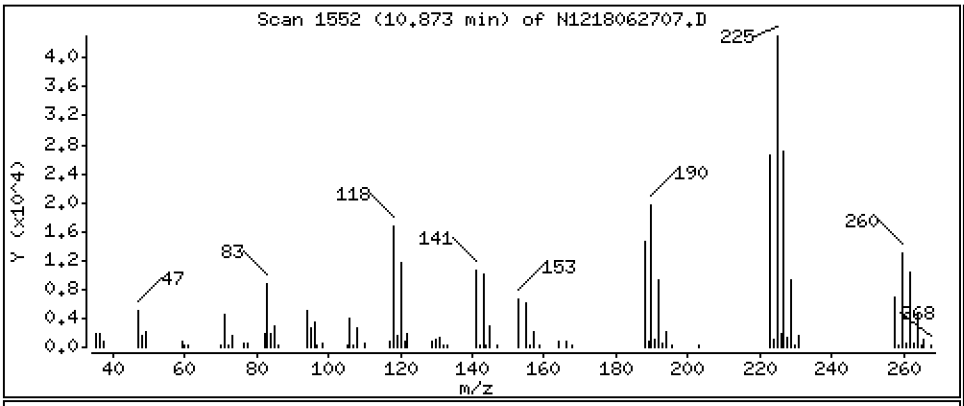
Operator: JZ

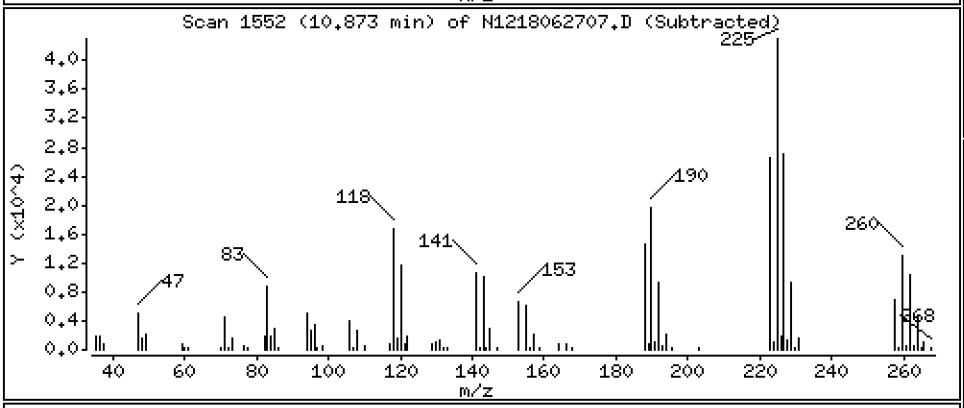
Column phase: ZB-5msi

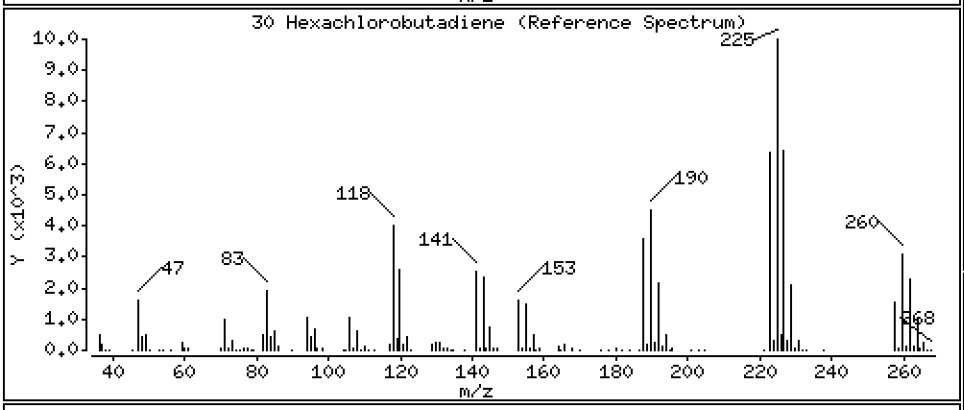
Column diameter: 0.32

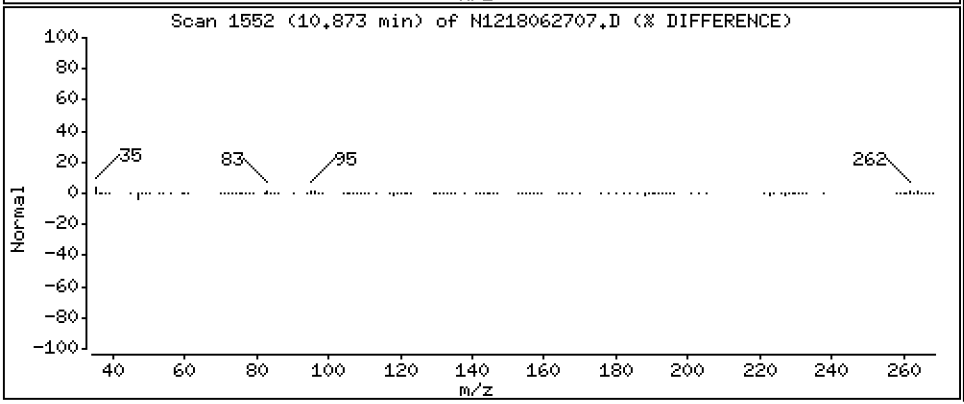
30 Hexachlorobutadiene

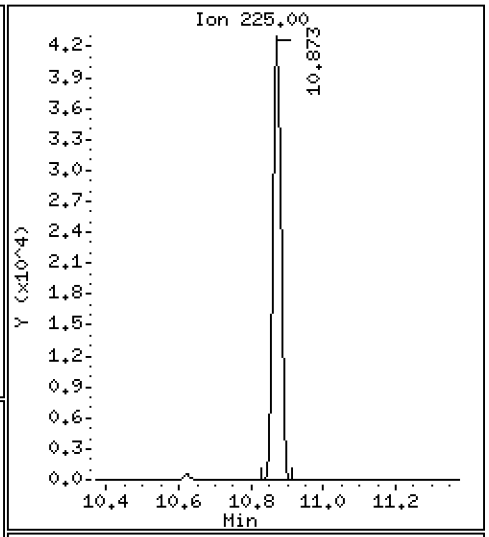
Concentration: 13.84 ug/mL

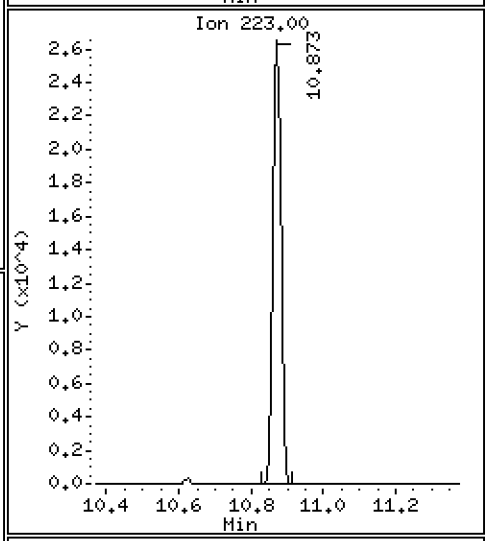


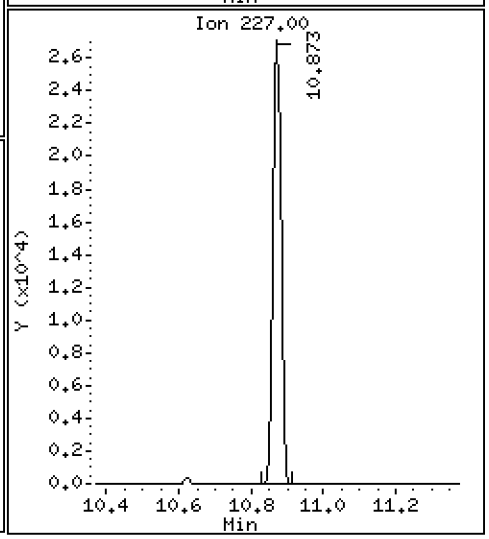












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

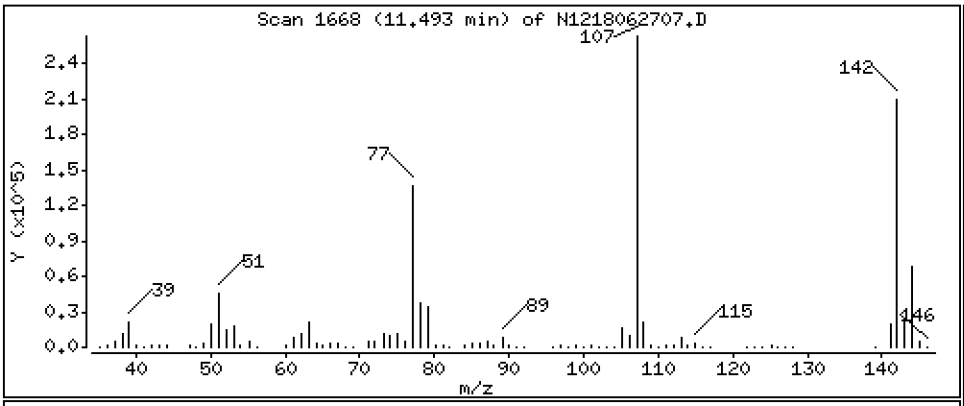
Operator: JZ

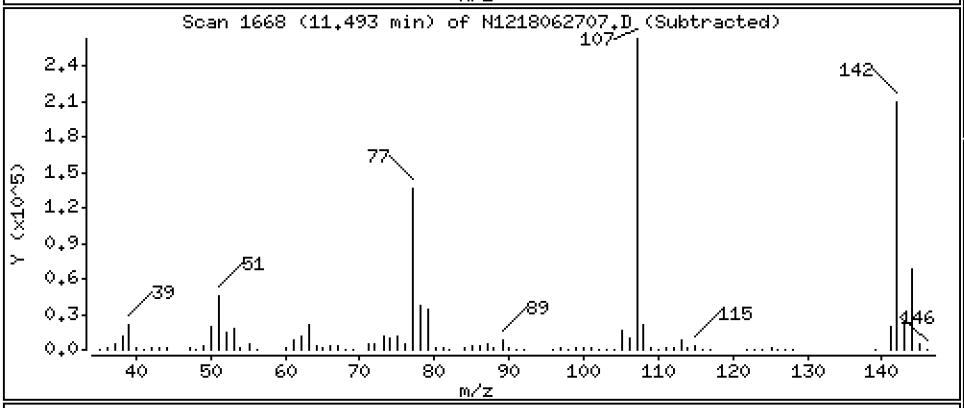
Column phase: ZB-5msi

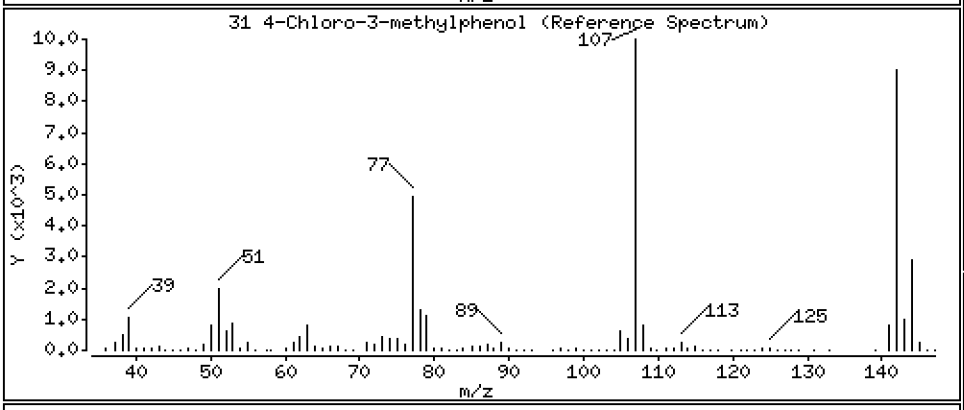
Column diameter: 0.32

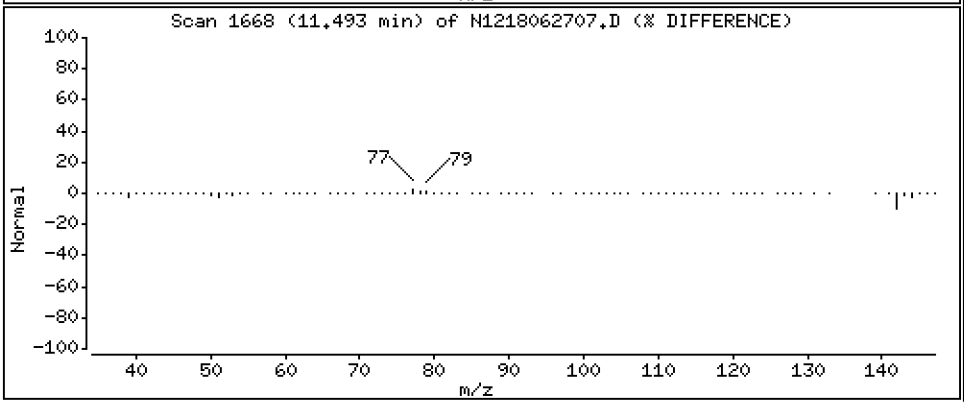
31 4-Chloro-3-methylphenol

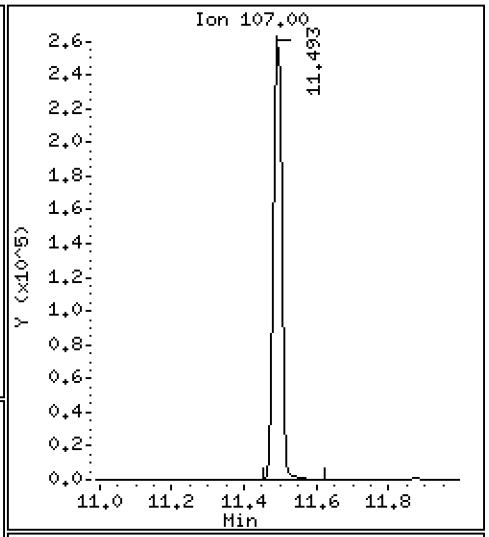
Concentration: 47.97 ug/mL

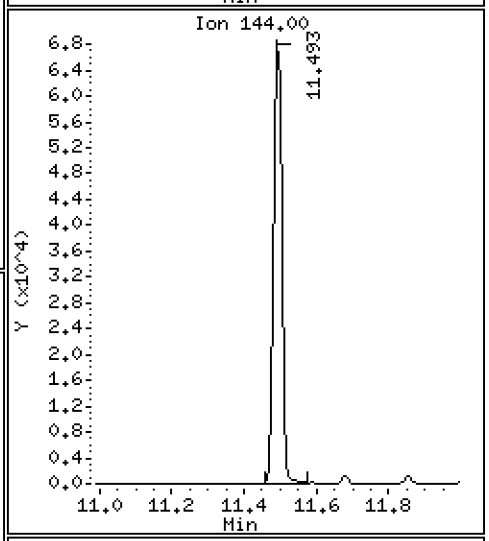


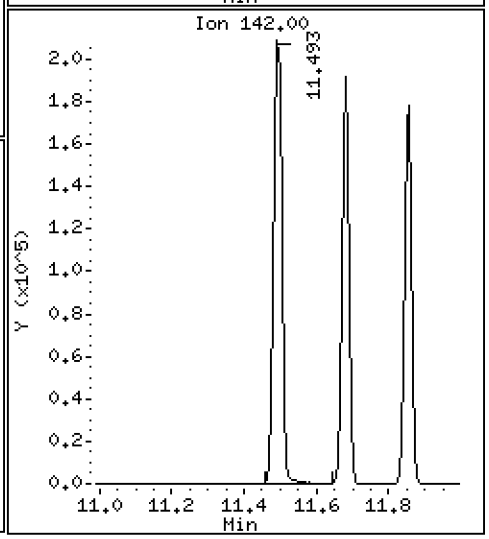












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

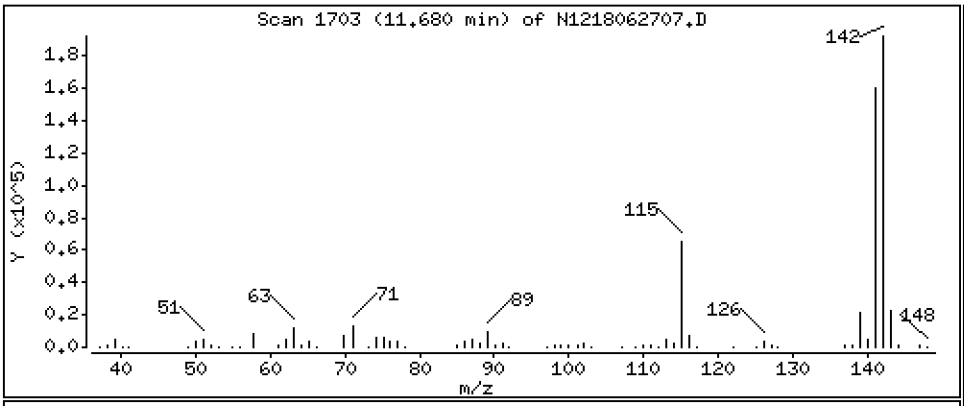
Operator: JZ

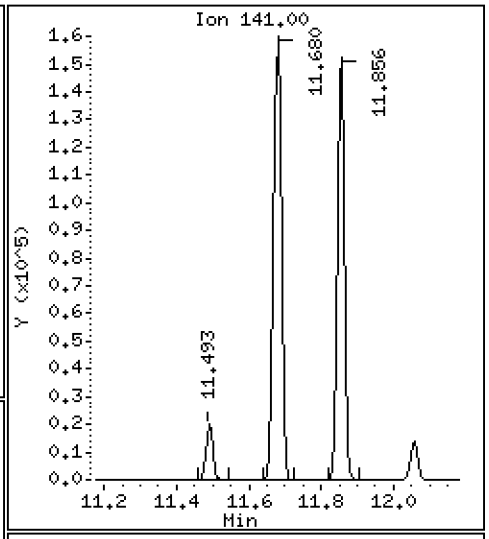
Column phase: ZB-5msi

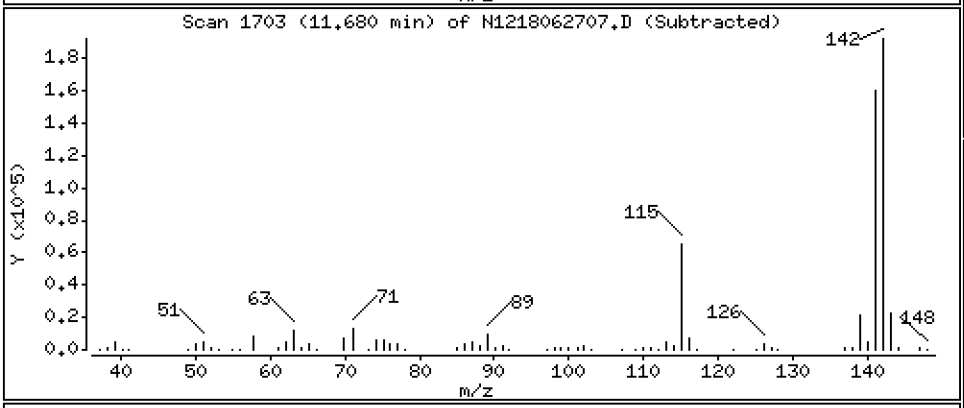
Column diameter: 0.32

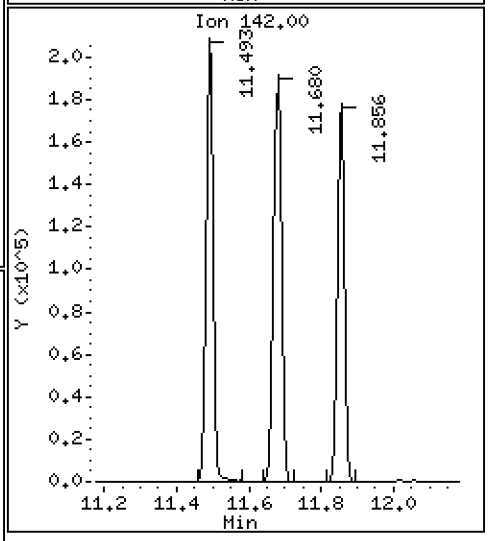
32 2-Methylnaphthalene

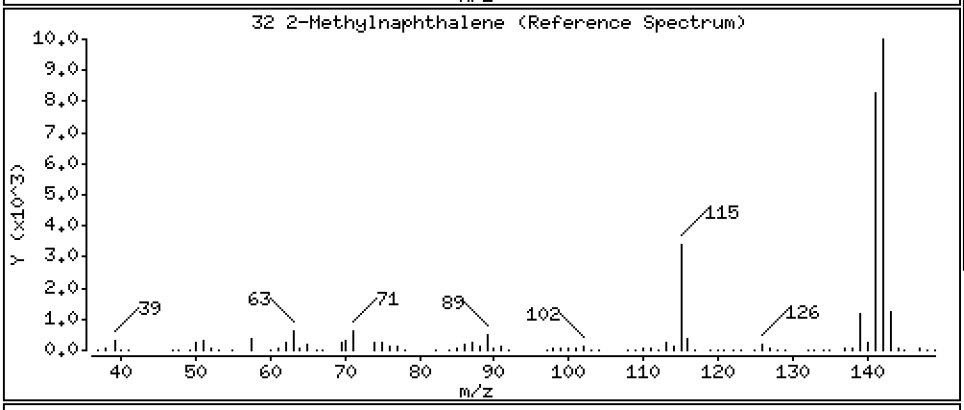
Concentration: 15.56 ug/mL

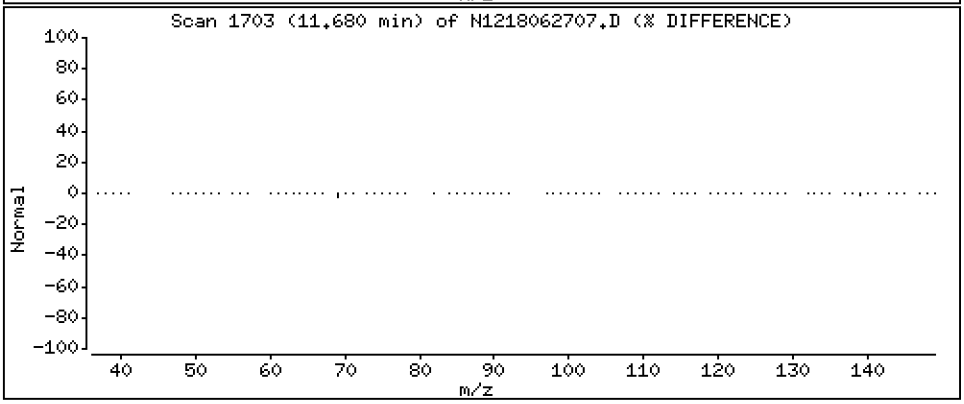












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

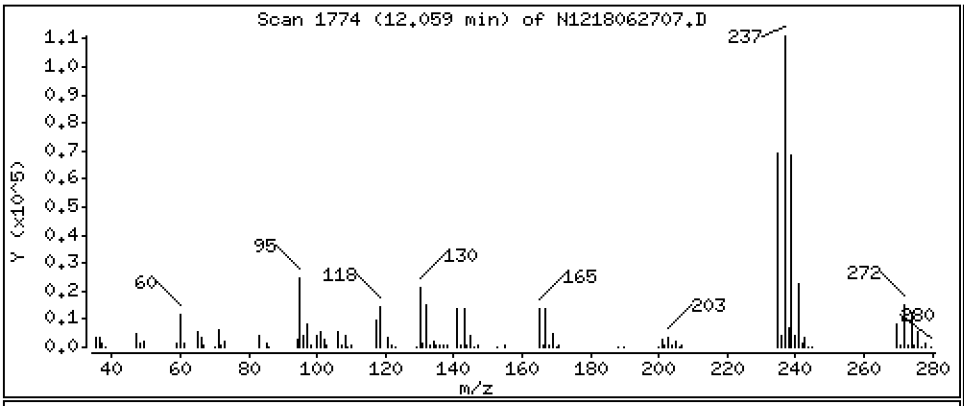
Operator: JZ

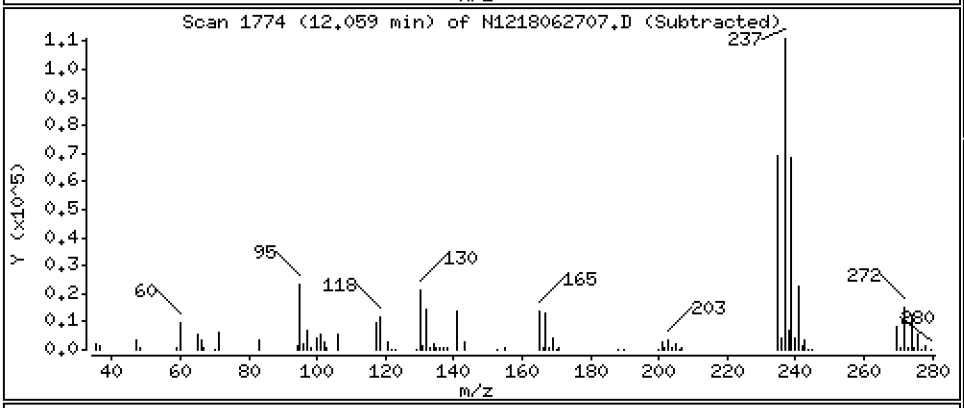
Column phase: ZB-5msi

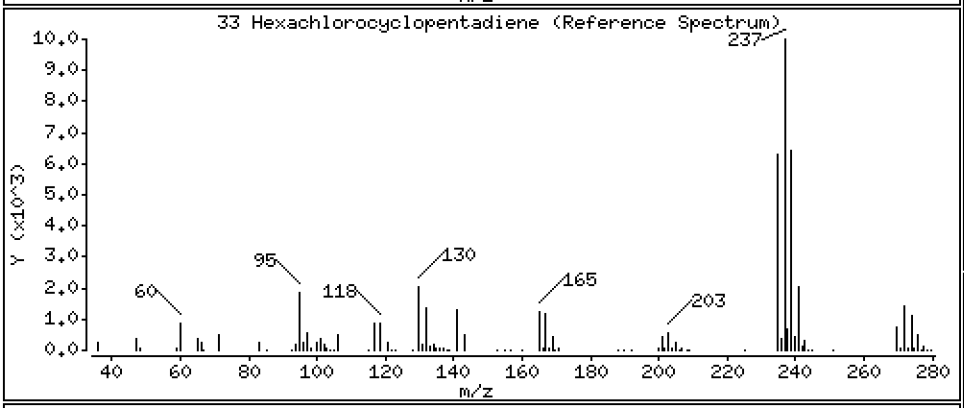
Column diameter: 0.32

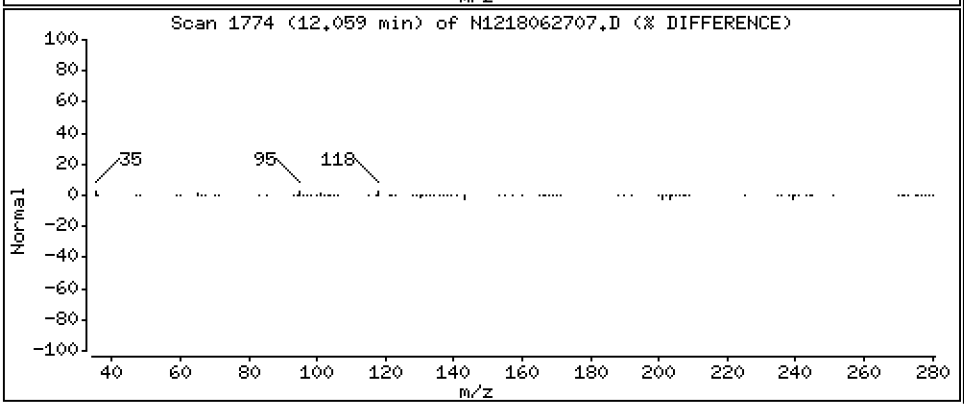
33 Hexachlorocyclopentadiene

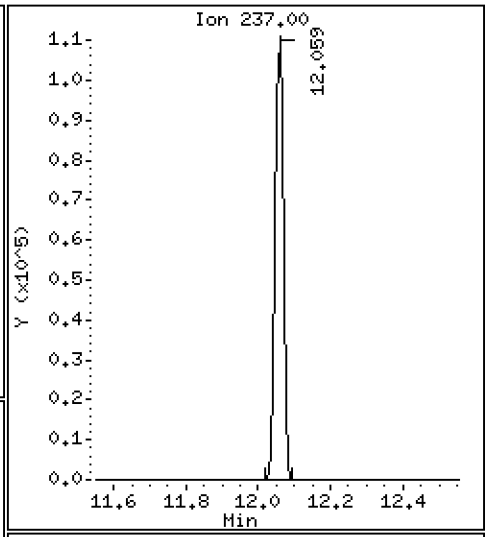
Concentration: 44.33 ug/mL

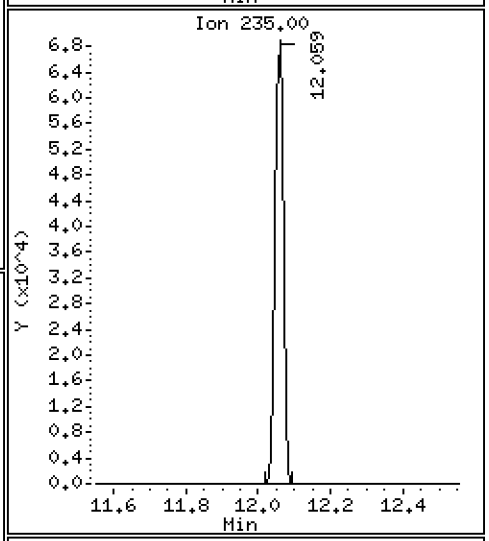


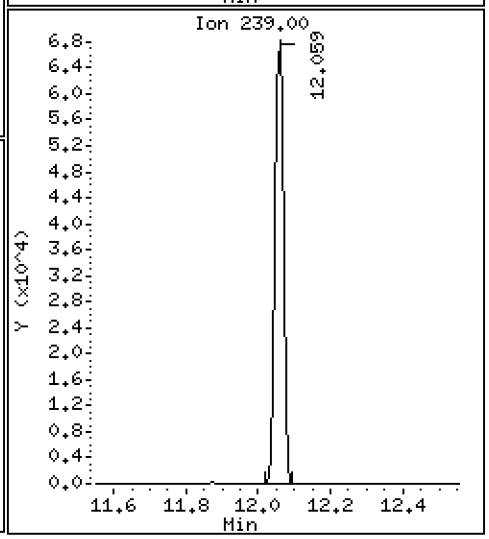












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

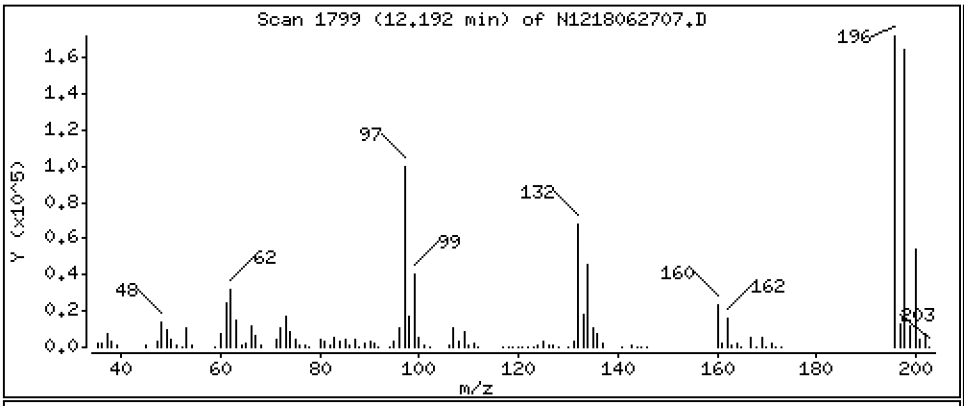
Operator: JZ

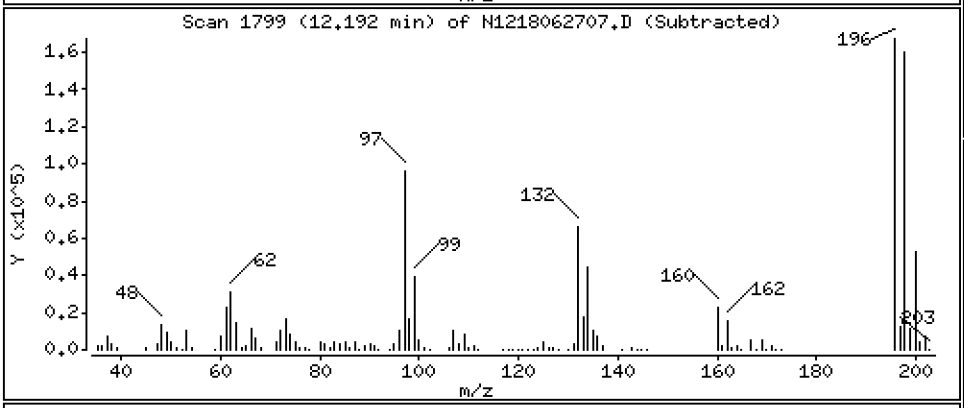
Column phase: ZB-5msi

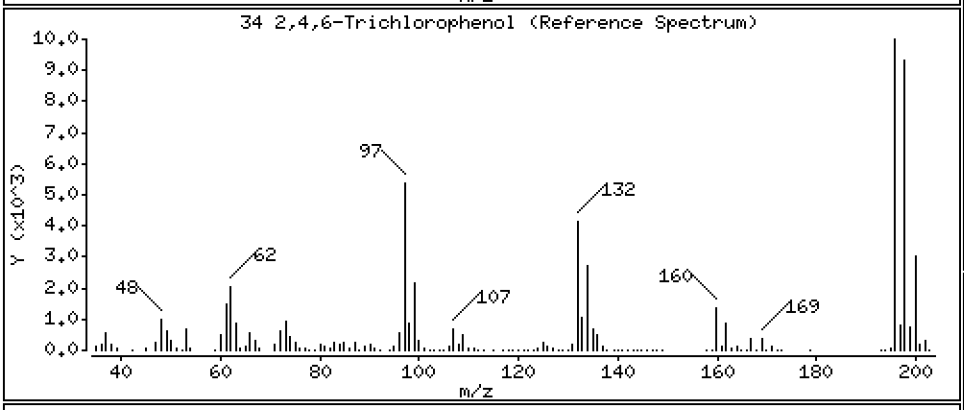
Column diameter: 0.32

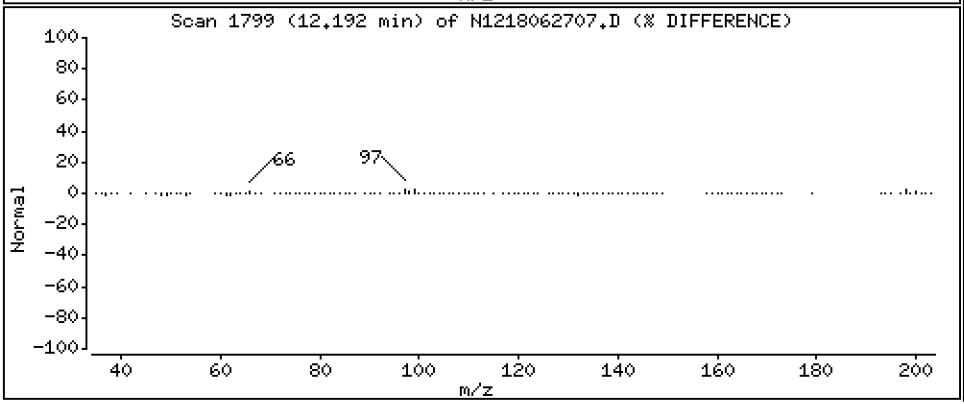
34 2,4,6-Trichlorophenol

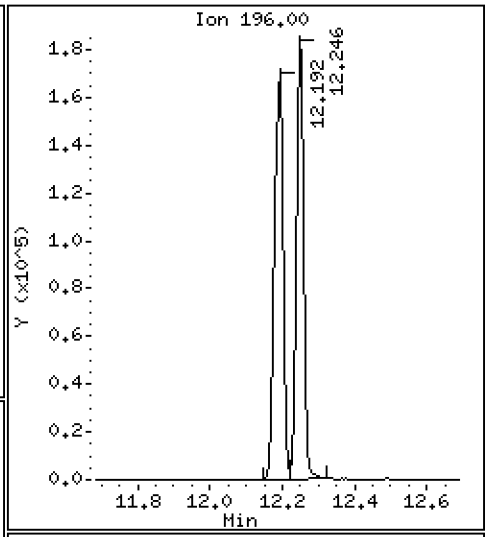
Concentration: 47.34 ug/mL

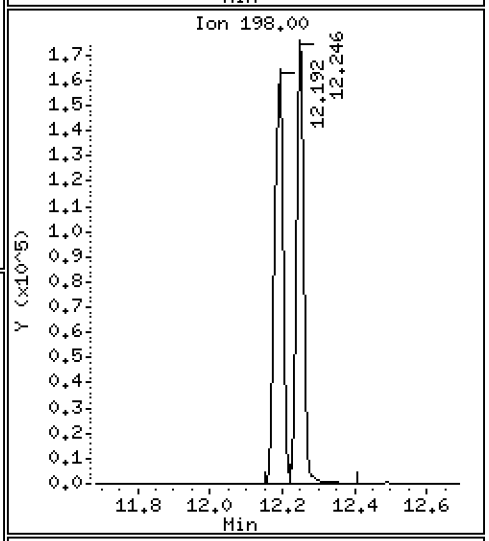


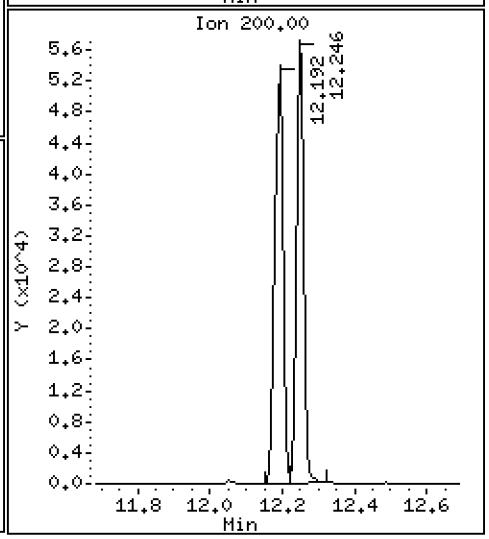












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

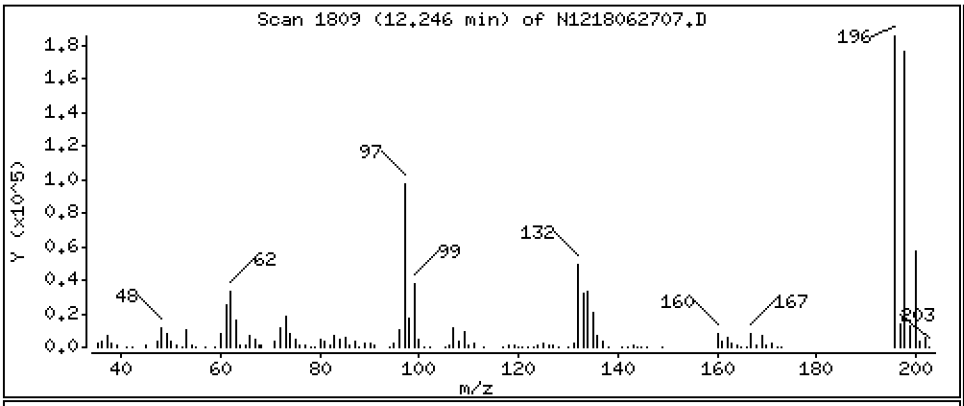
Operator: JZ

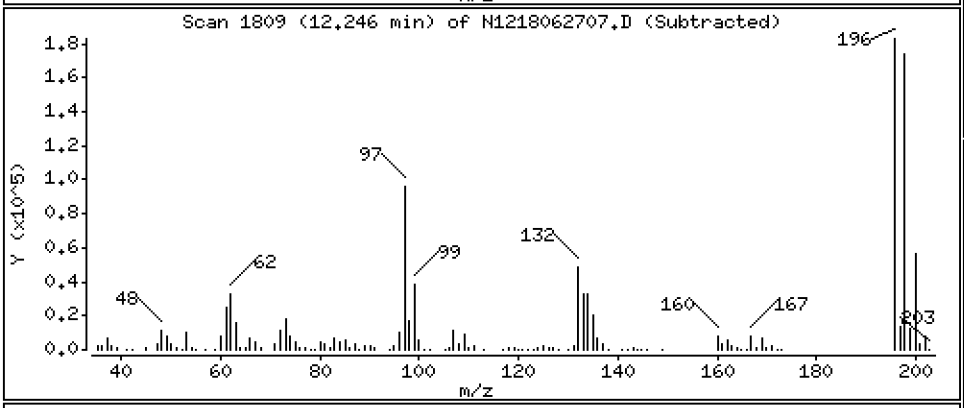
Column phase: ZB-5msi

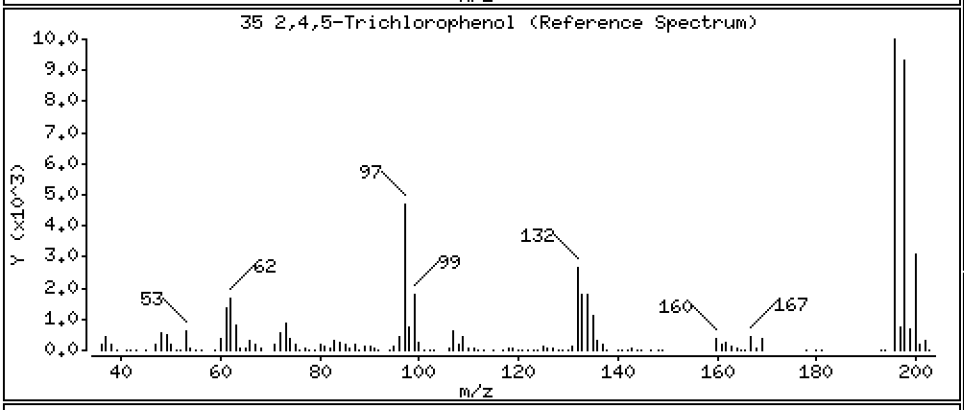
Column diameter: 0.32

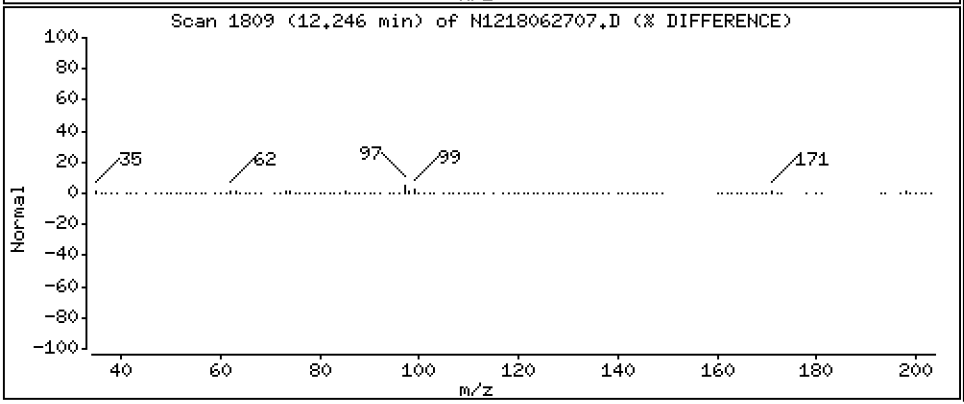
35 2,4,5-Trichlorophenol

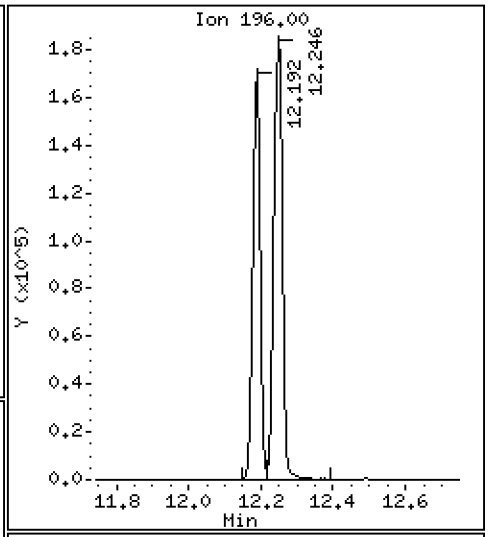
Concentration: 49.17 ug/mL

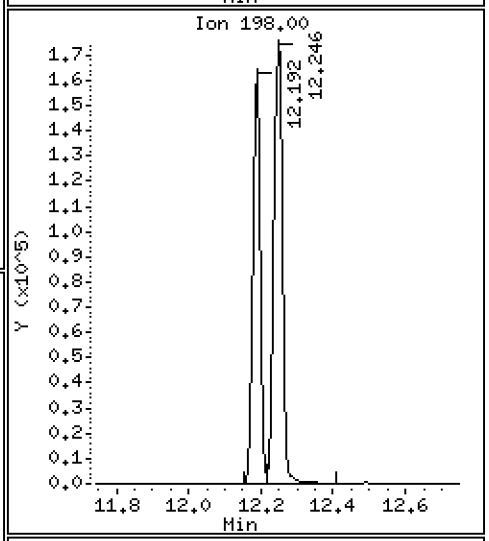


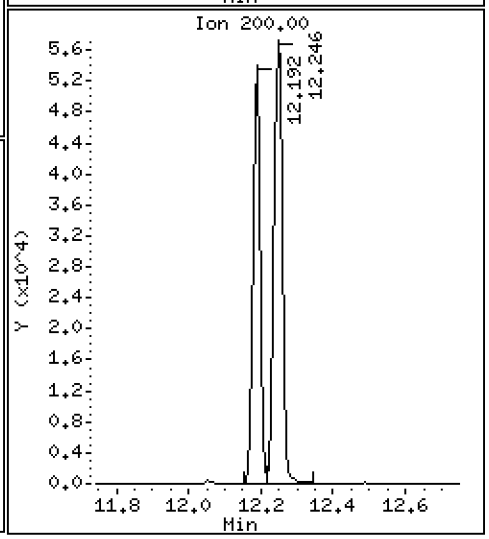












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

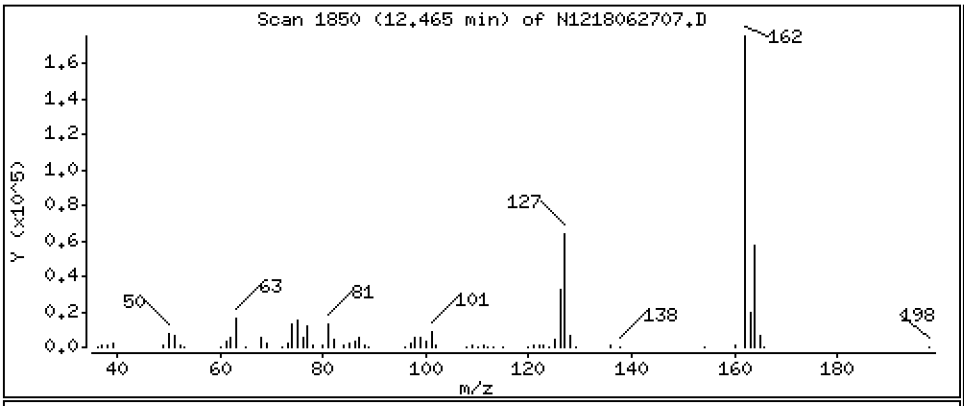
Operator: JZ

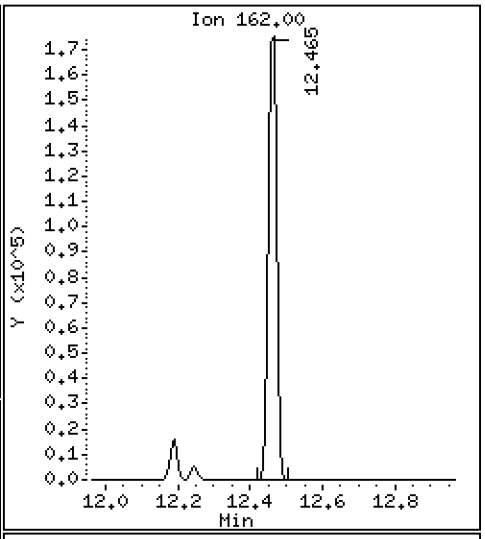
Column phase: ZB-5msi

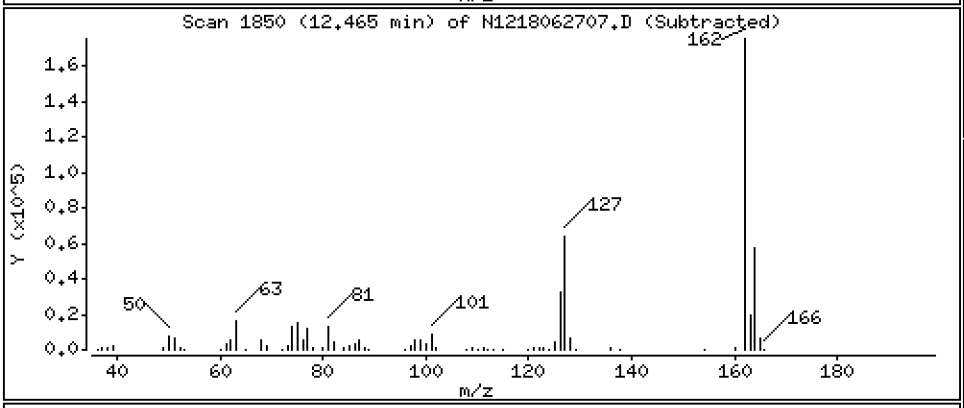
Column diameter: 0.32

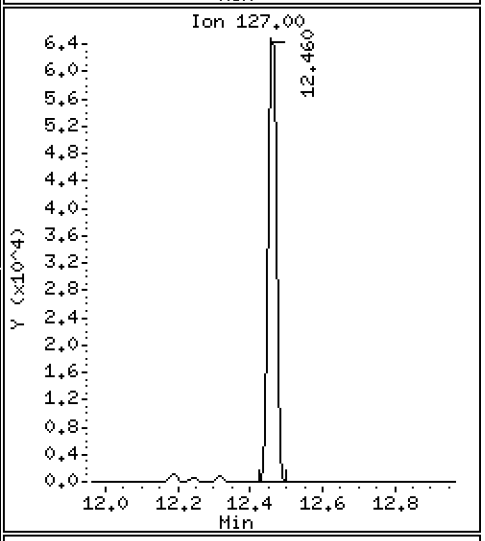
37 2-Chloronaphthalene

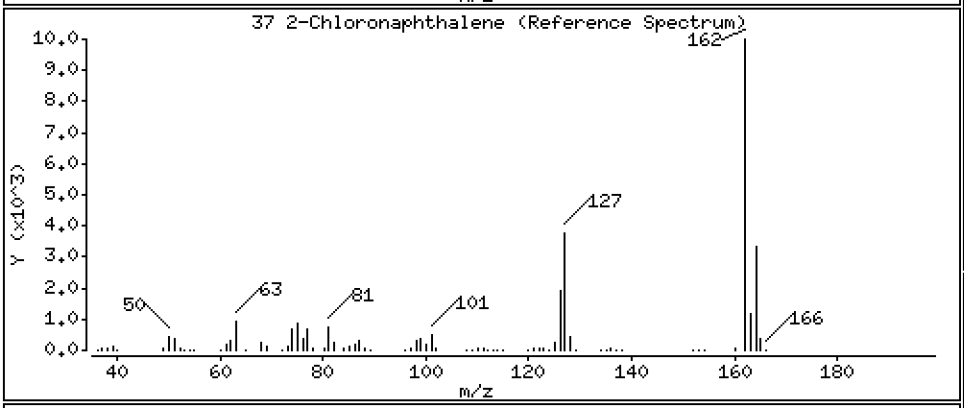
Concentration: 16.10 ug/mL

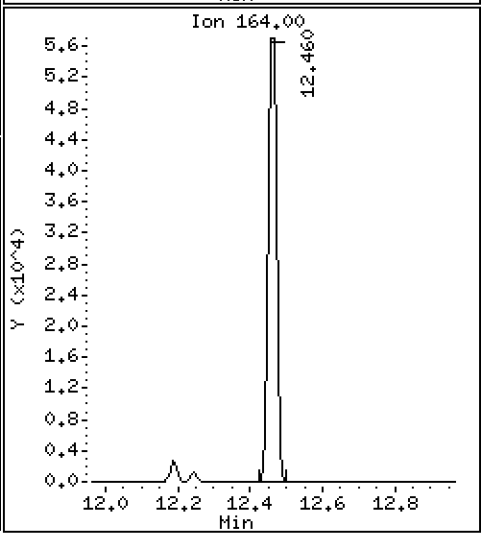


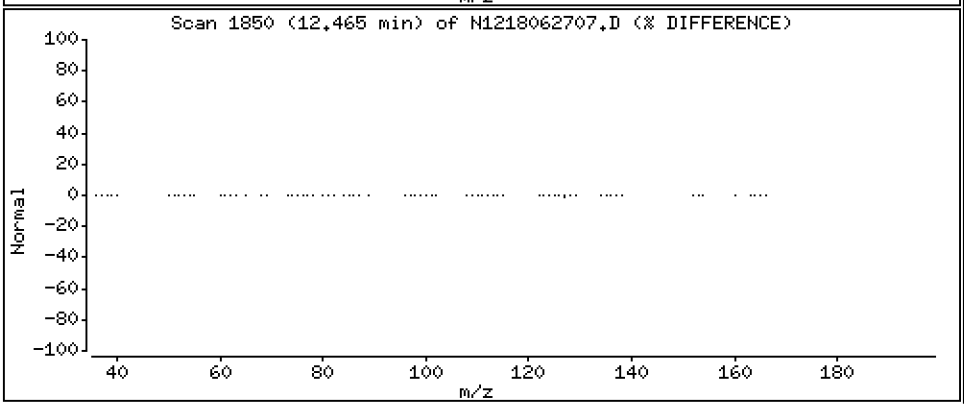












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

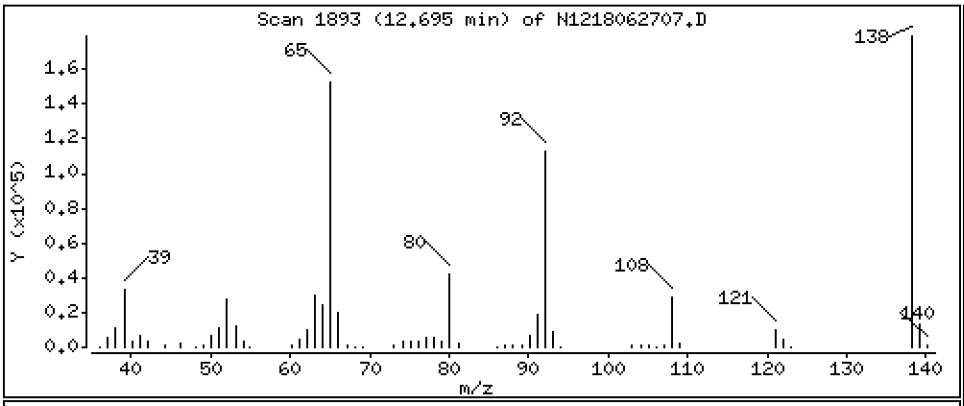
Operator: JZ

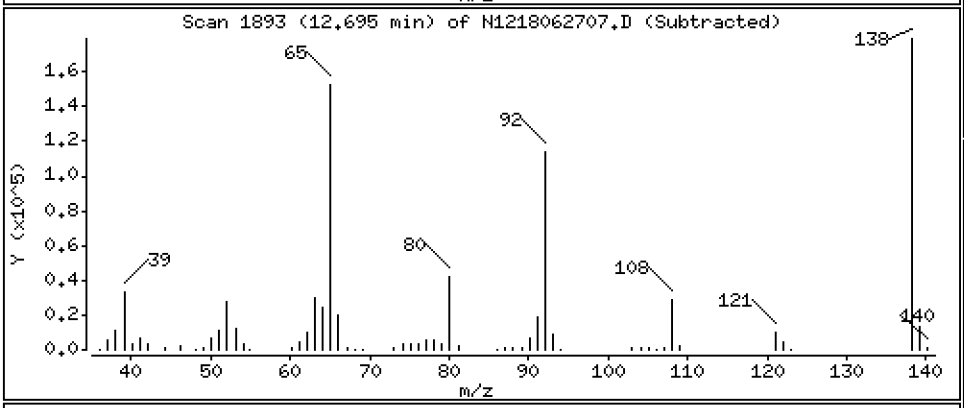
Column phase: ZB-5msi

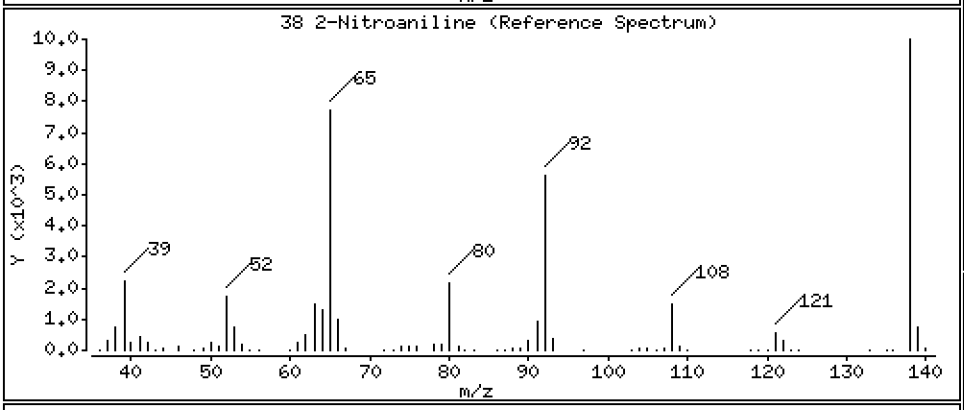
Column diameter: 0.32

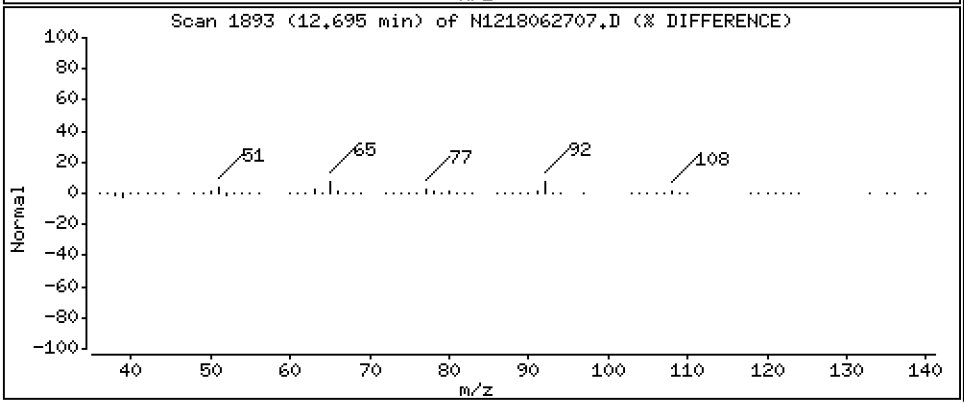
38 2-Nitroaniline

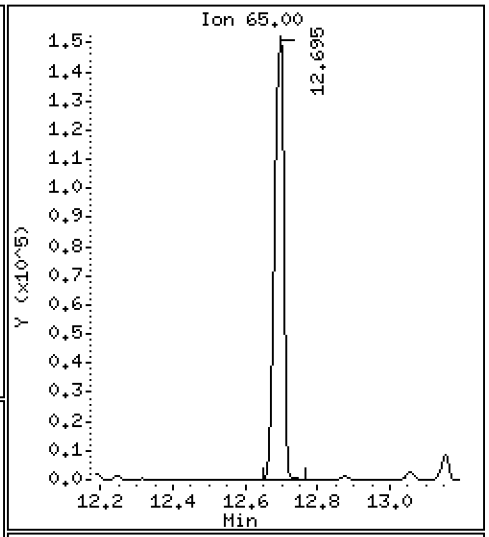
Concentration: 49.07 ug/mL

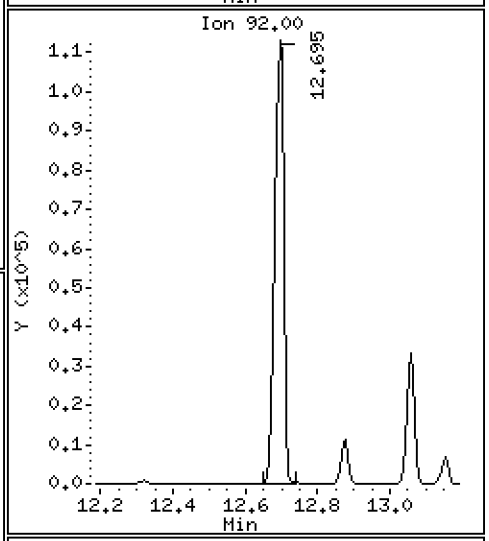


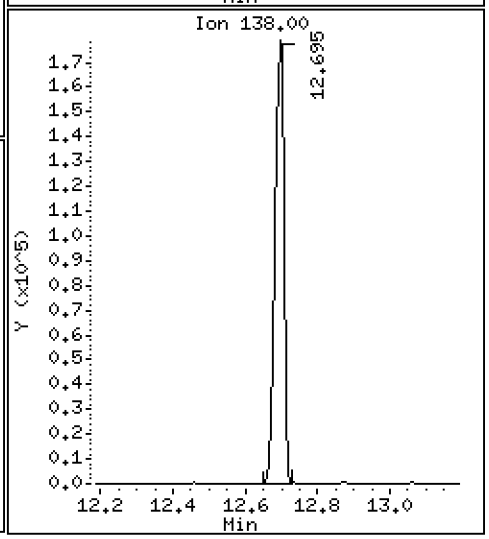












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

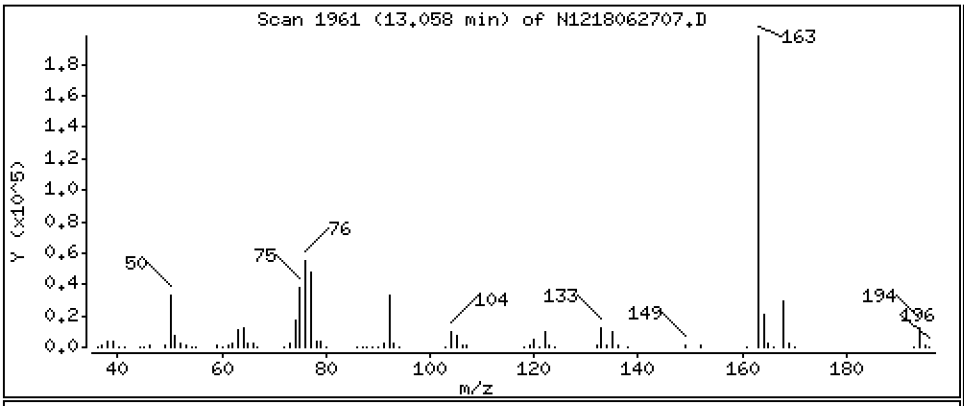
Operator: JZ

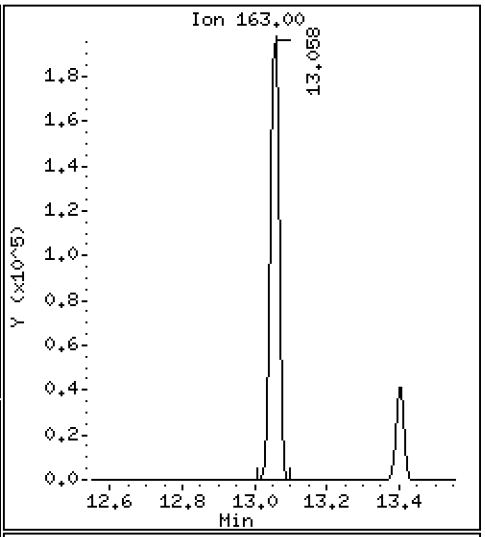
Column phase: ZB-5msi

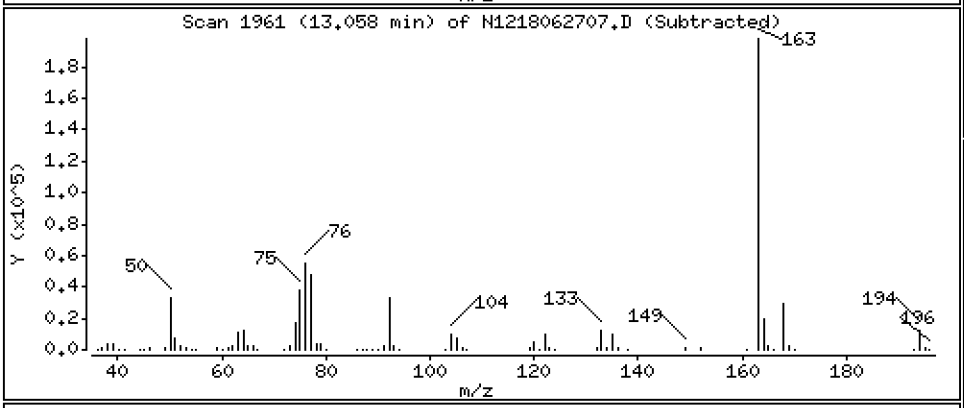
Column diameter: 0.32

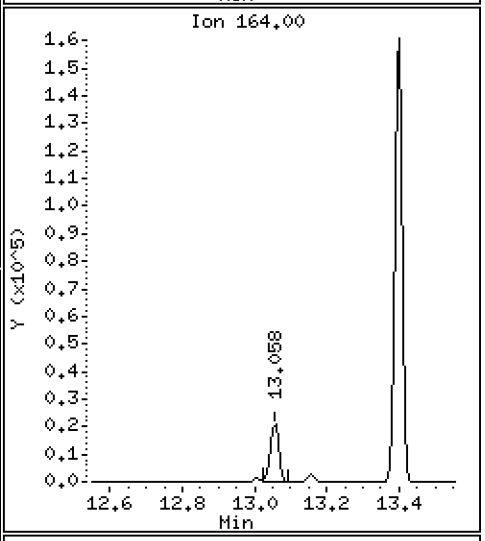
39 Dimethylphthalate

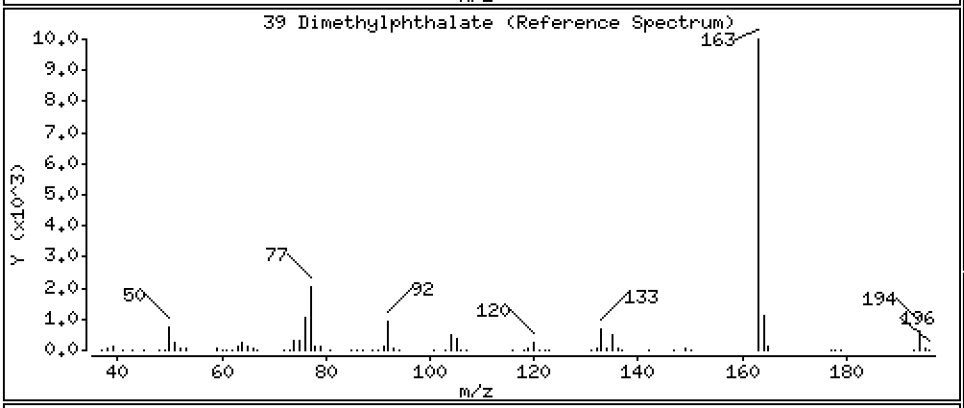
Concentration: 17.68 ug/mL

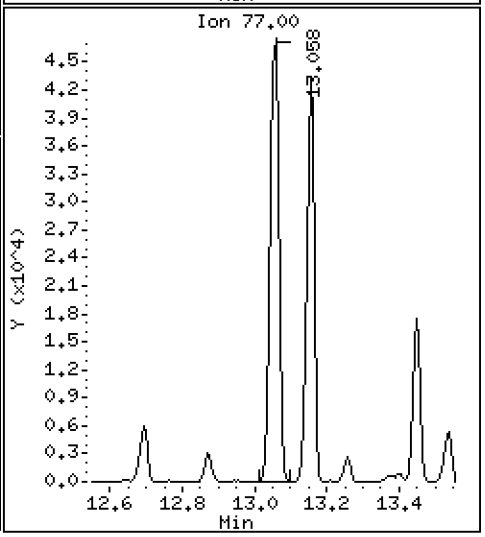


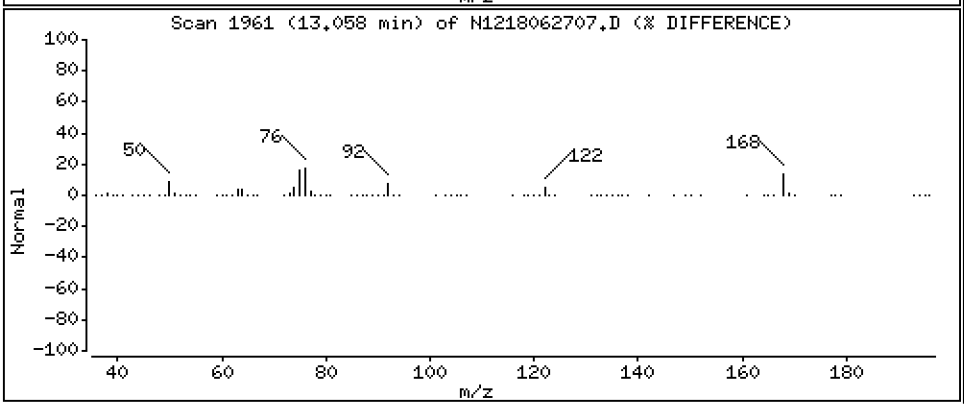












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

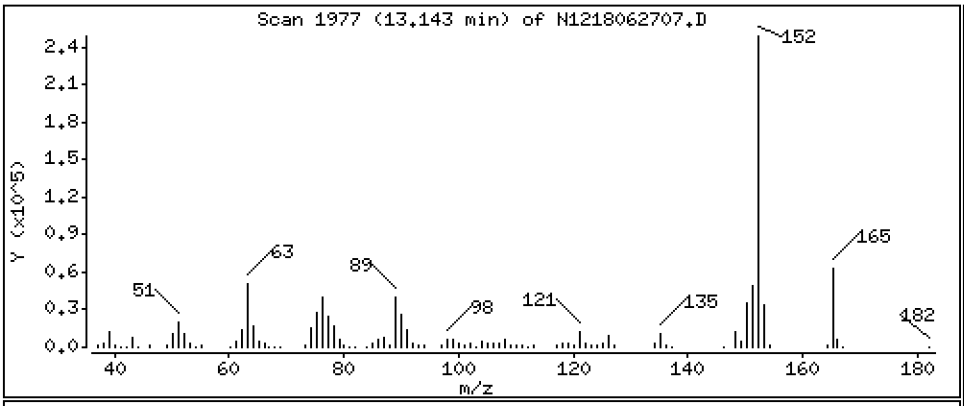
Operator: JZ

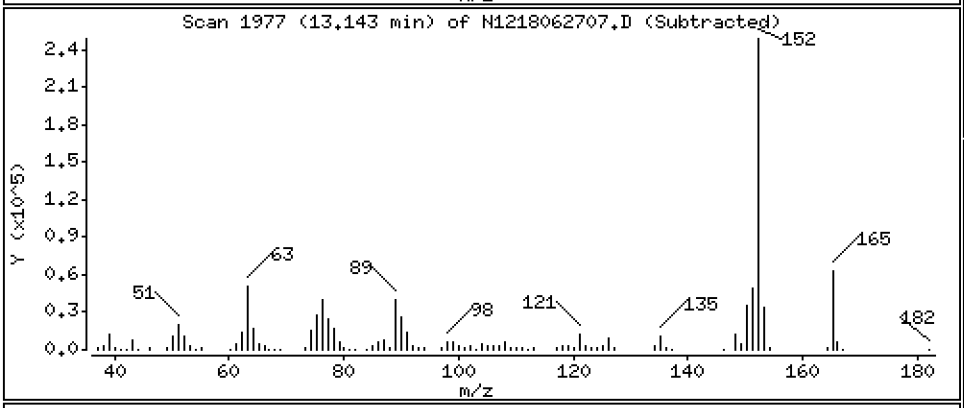
Column phase: ZB-5msi

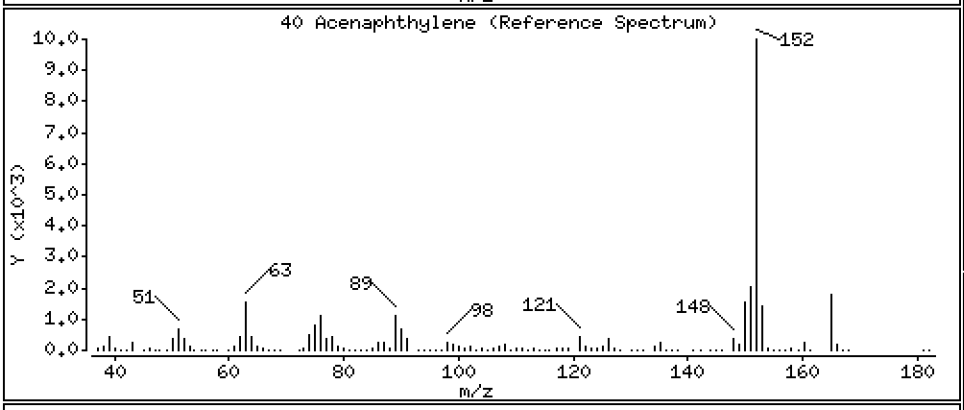
Column diameter: 0.32

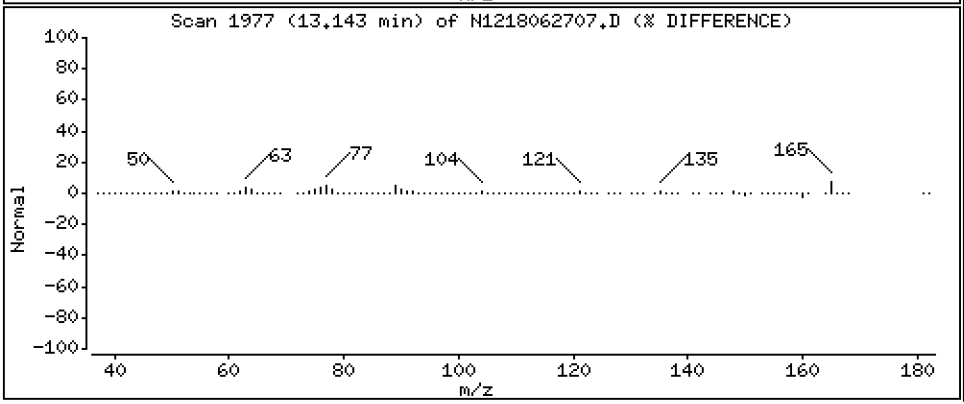
40 Acenaphthylene

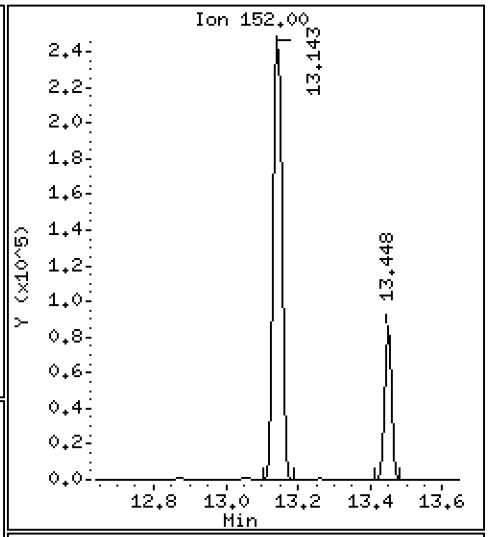
Concentration: 16.58 ug/mL

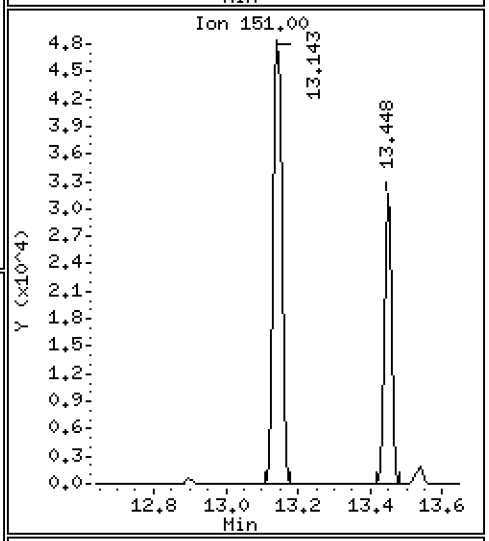


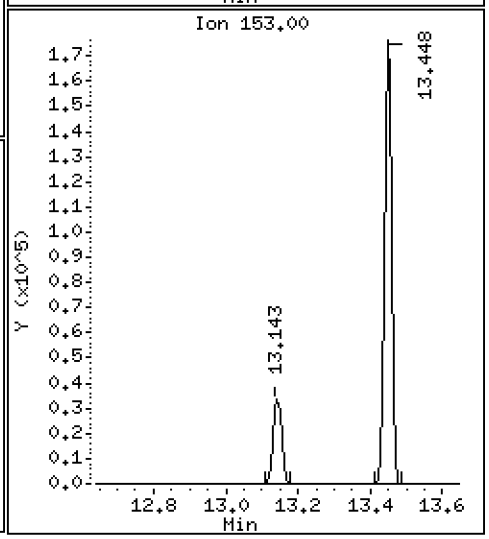












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

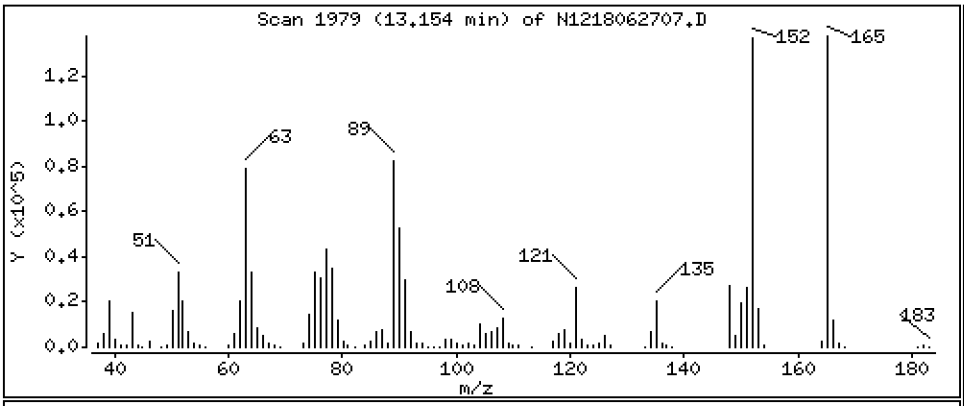
Operator: JZ

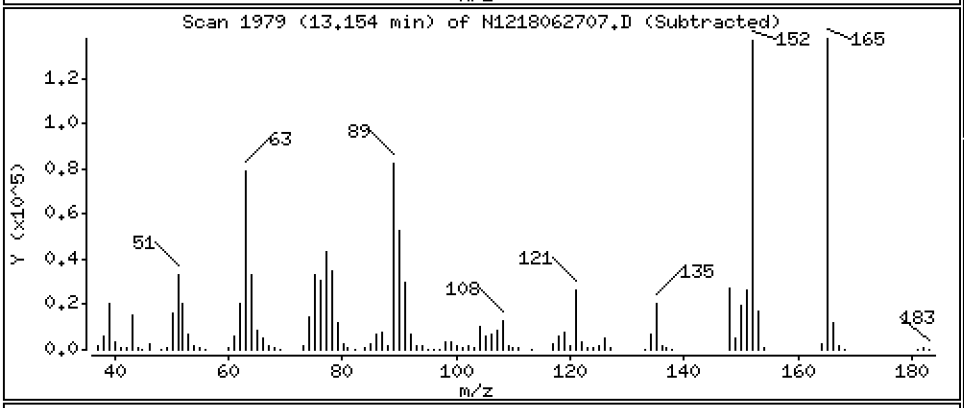
Column phase: ZB-5msi

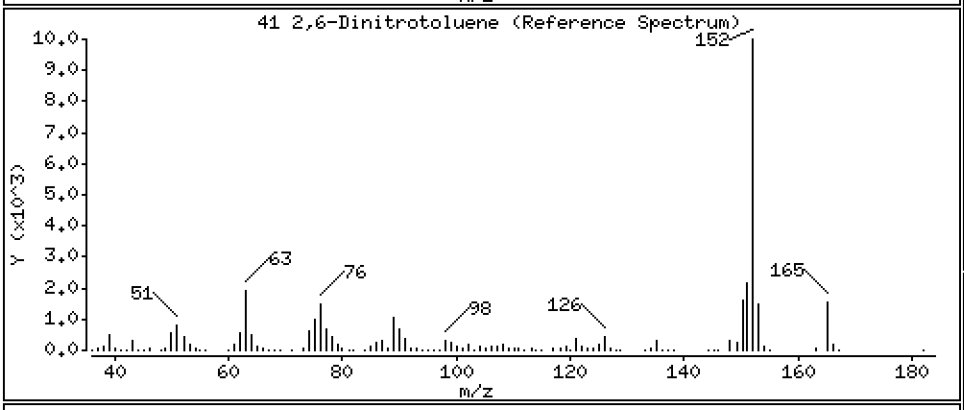
Column diameter: 0.32

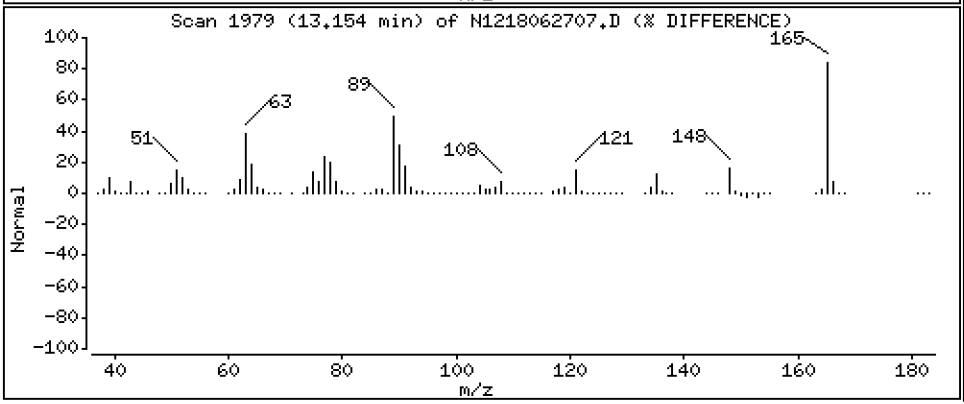
41 2,6-Dinitrotoluene

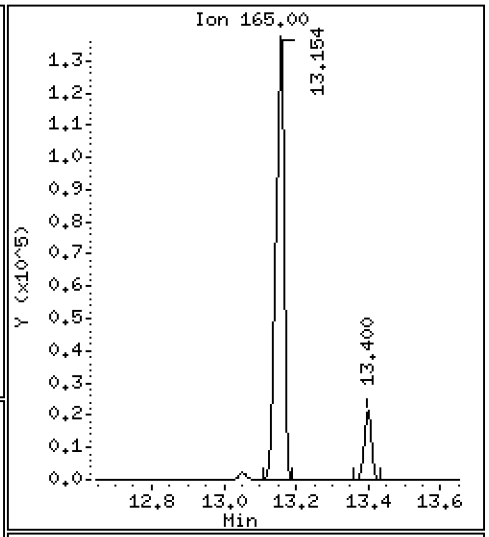
Concentration: 54.87 ug/mL

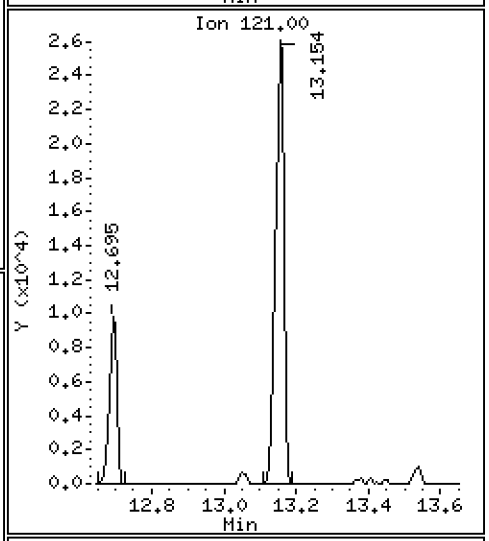


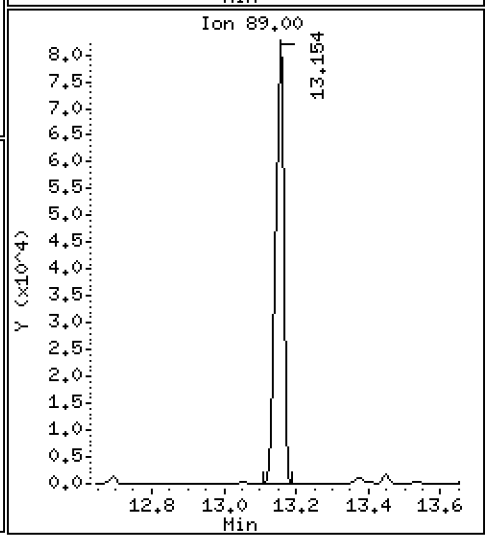












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

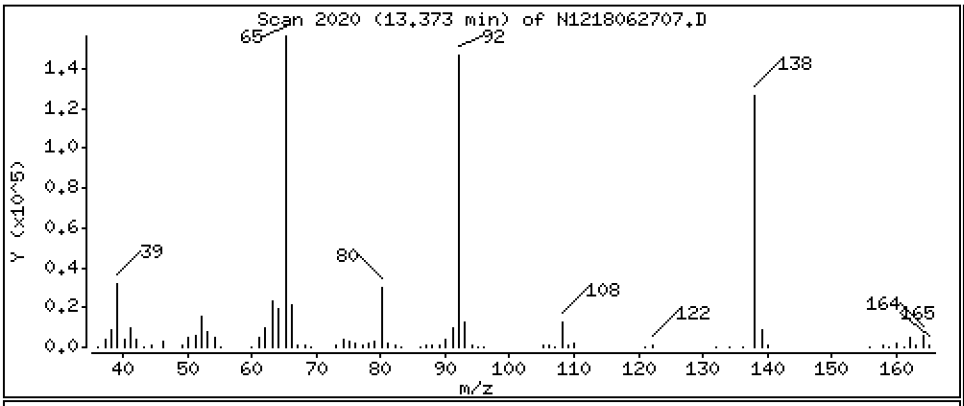
Operator: JZ

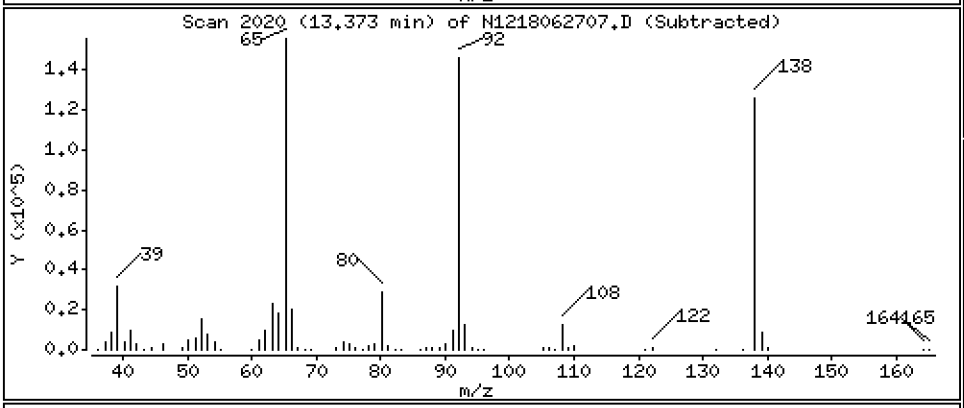
Column phase: ZB-5msi

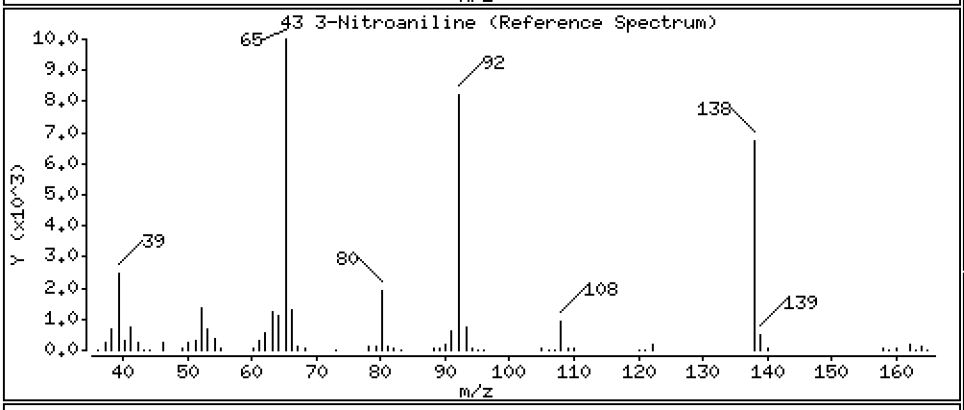
Column diameter: 0.32

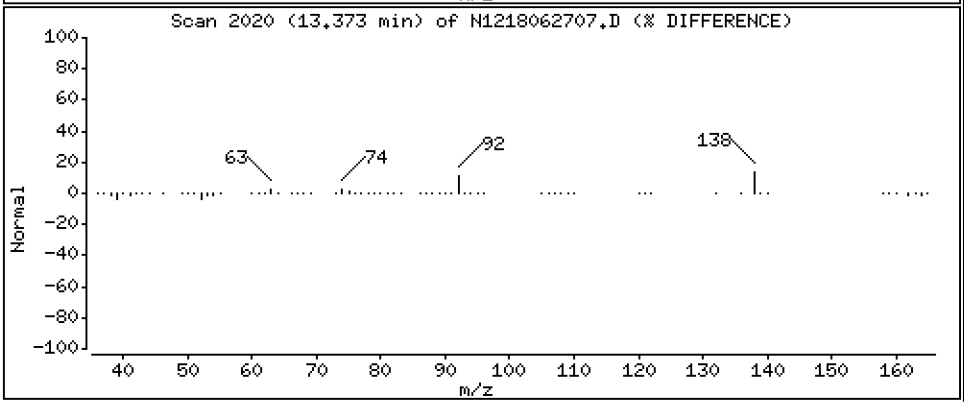
43 3-Nitroaniline

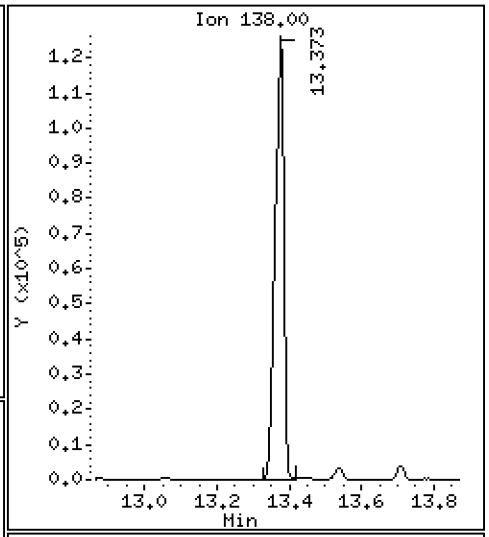
Concentration: 43.32 ug/mL

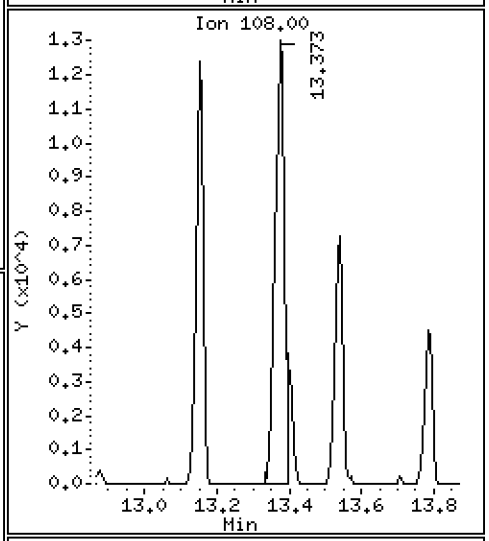


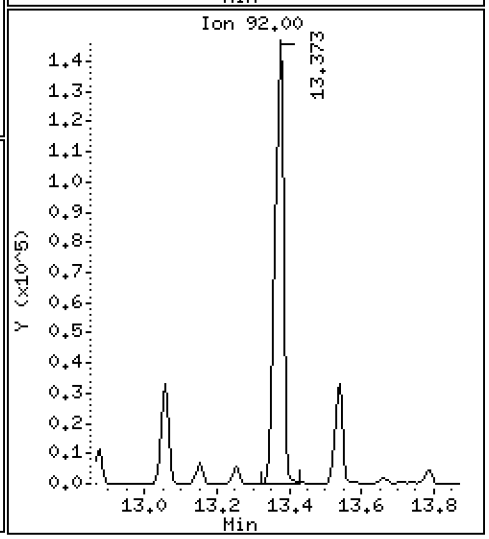












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

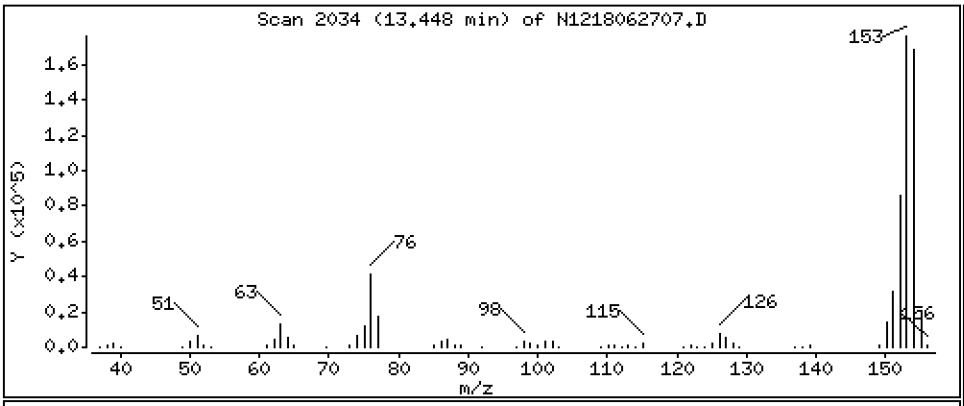
Operator: JZ

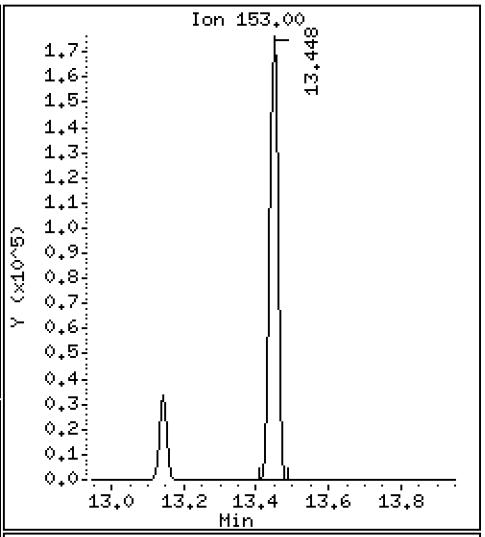
Column phase: ZB-5msi

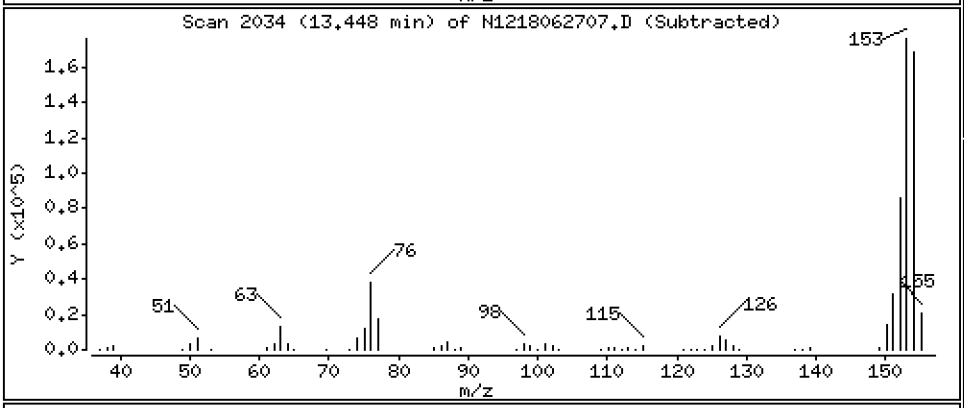
Column diameter: 0.32

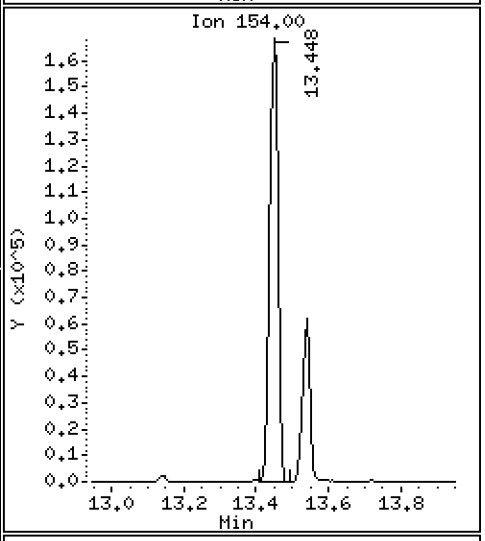
44 Acenaphthene

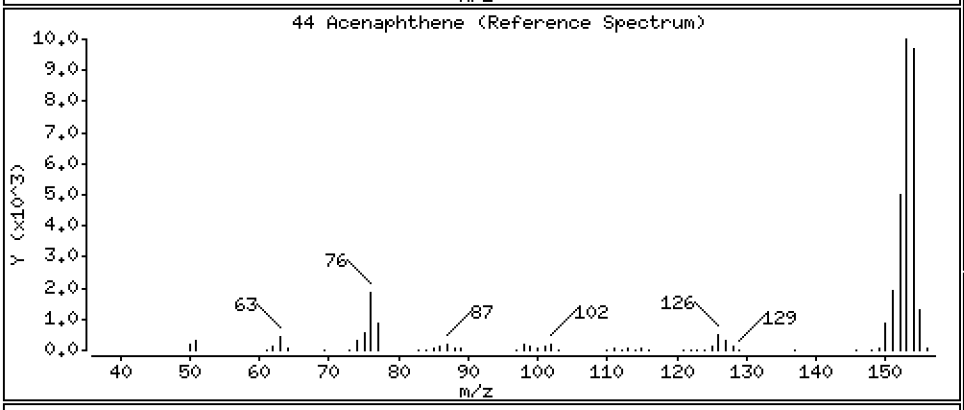
Concentration: 17.10 ug/mL

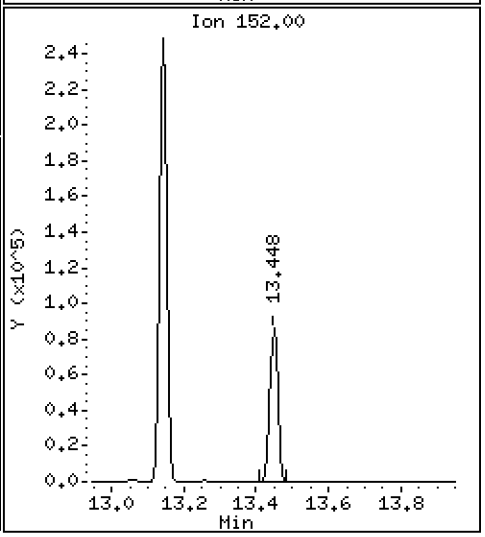


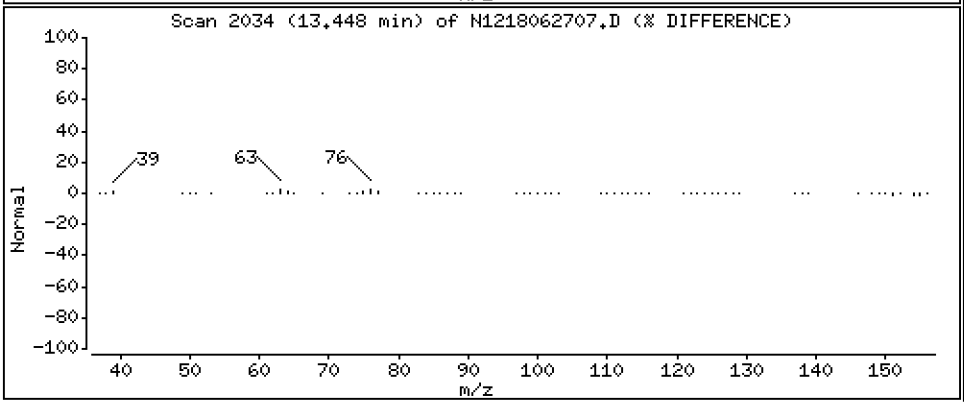












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

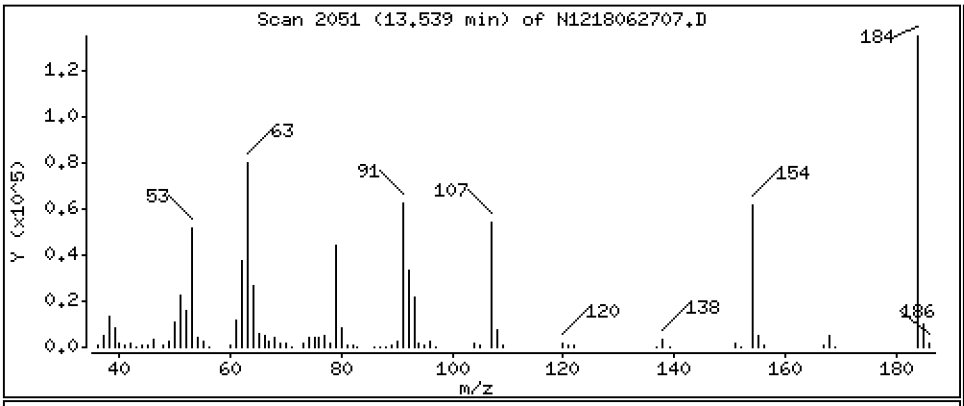
Operator: JZ

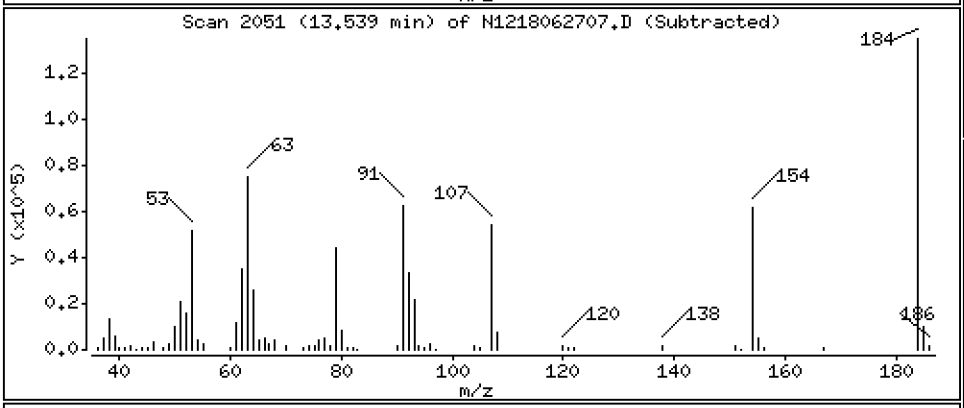
Column phase: ZB-5msi

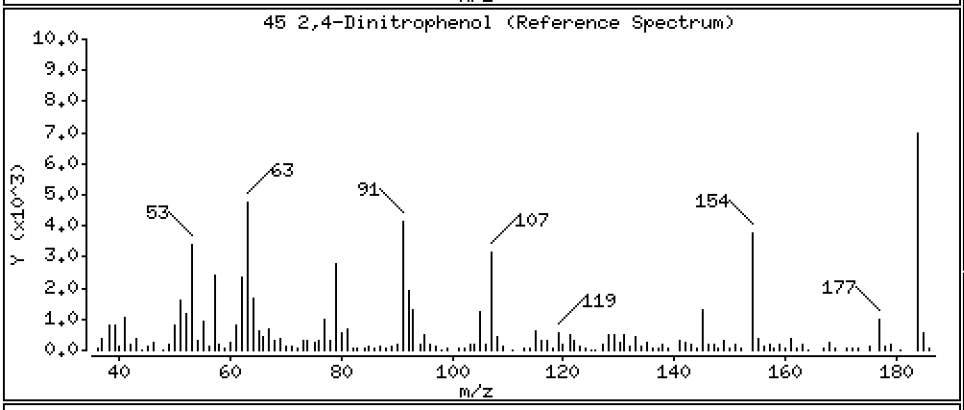
Column diameter: 0.32

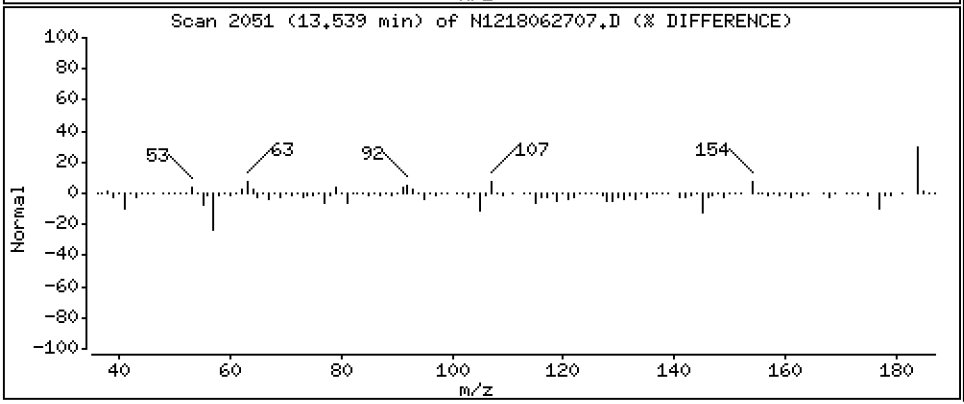
45 2,4-Dinitrophenol

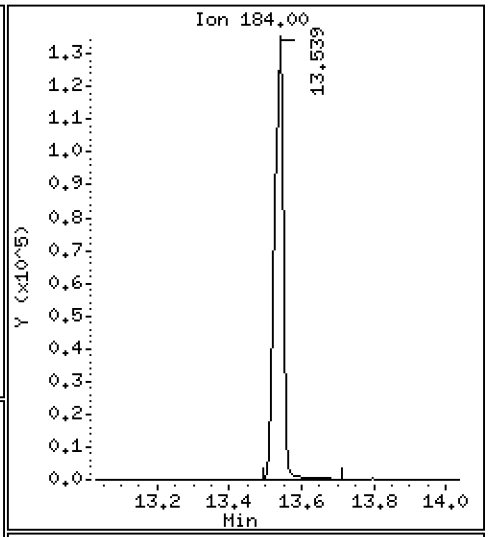
Concentration: 91.92 ug/mL

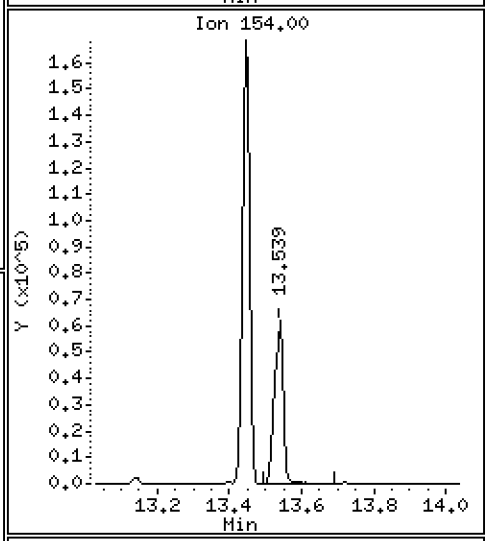


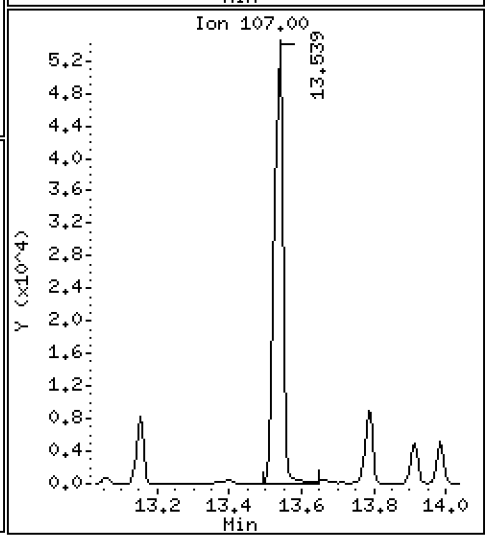












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

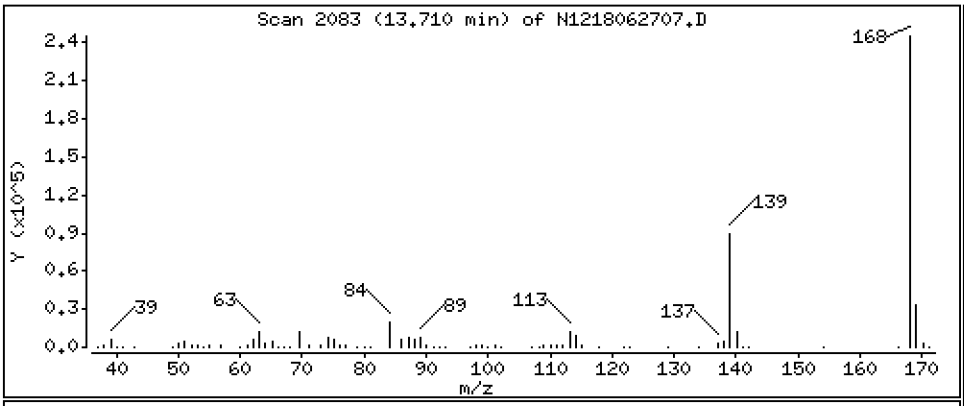
Operator: JZ

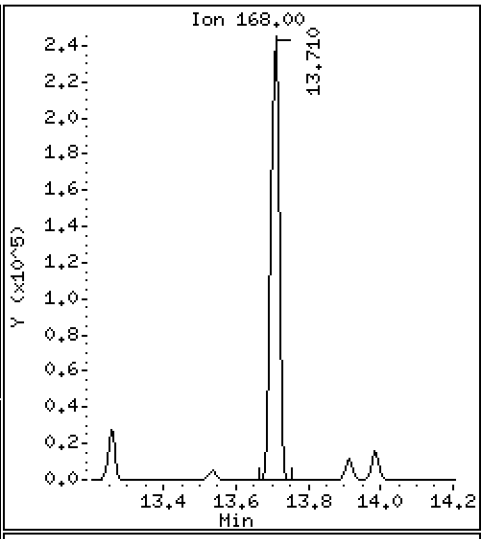
Column phase: ZB-5msi

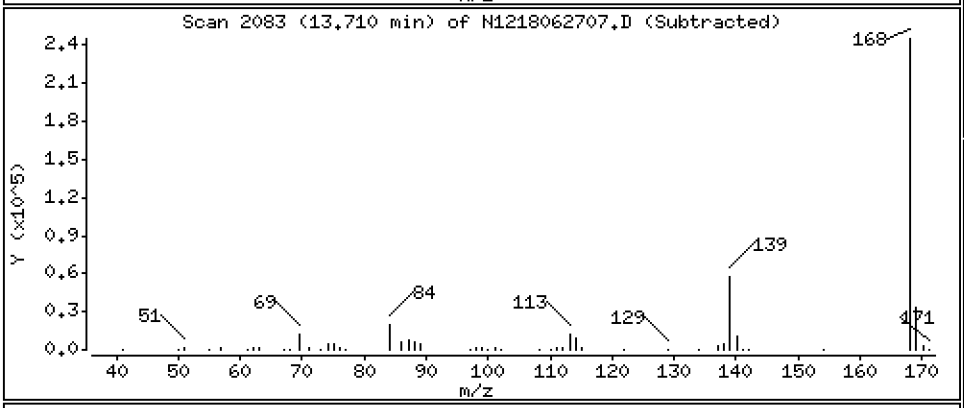
Column diameter: 0.32

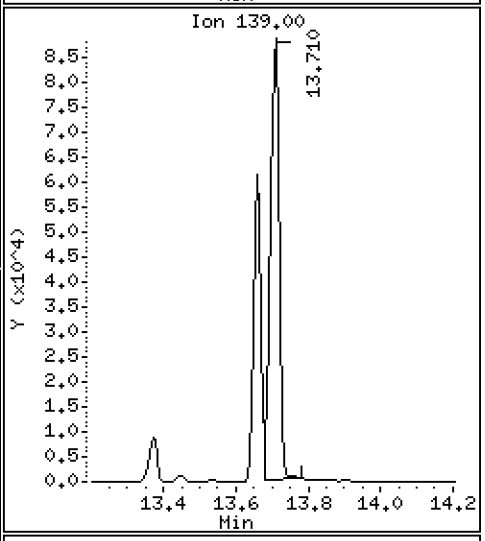
46 Dibenzofuran

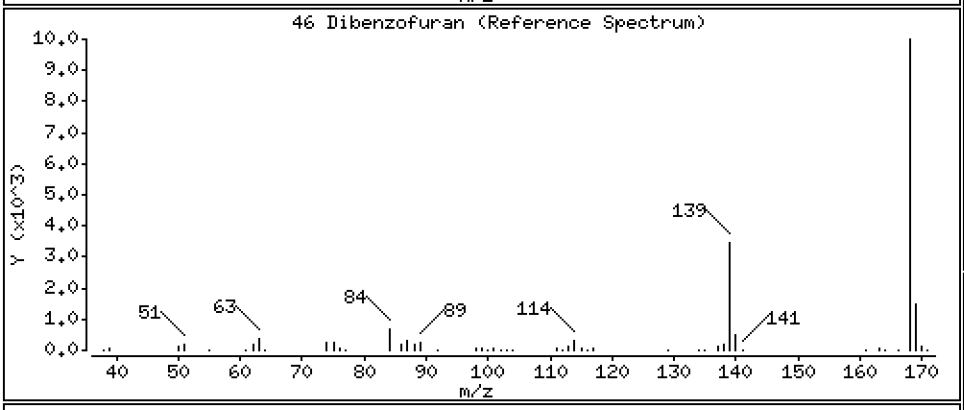
Concentration: 16.05 ug/mL

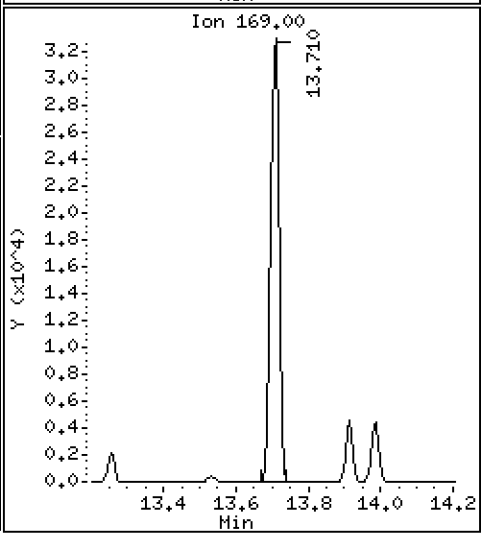


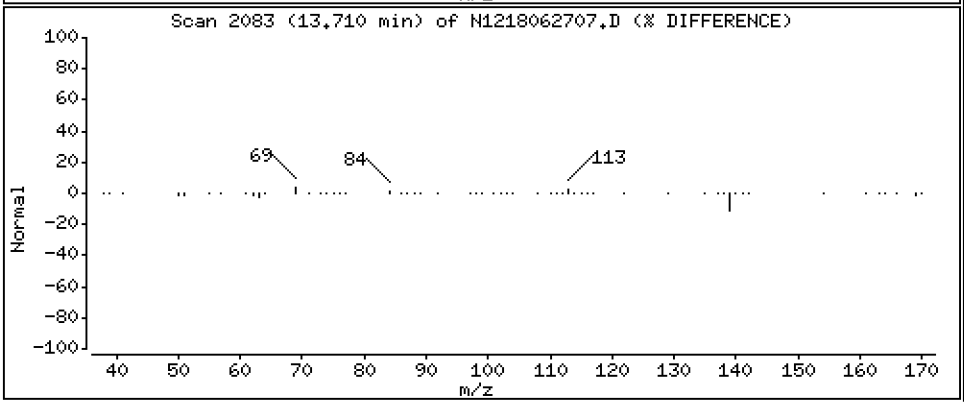












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

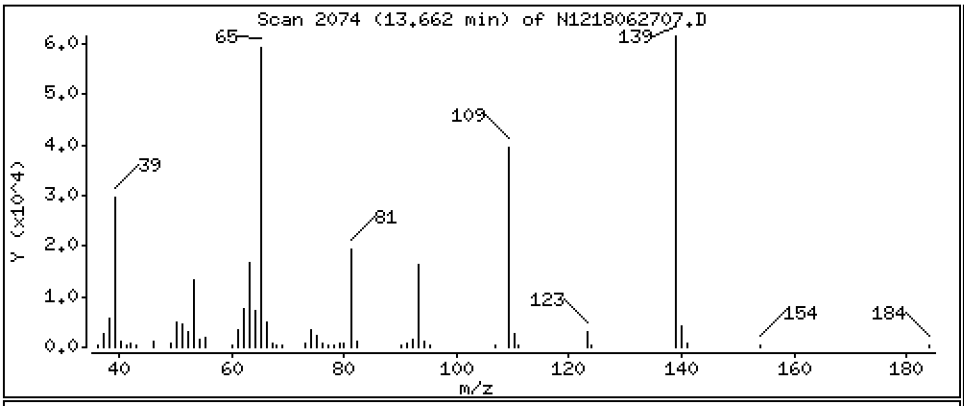
Operator: JZ

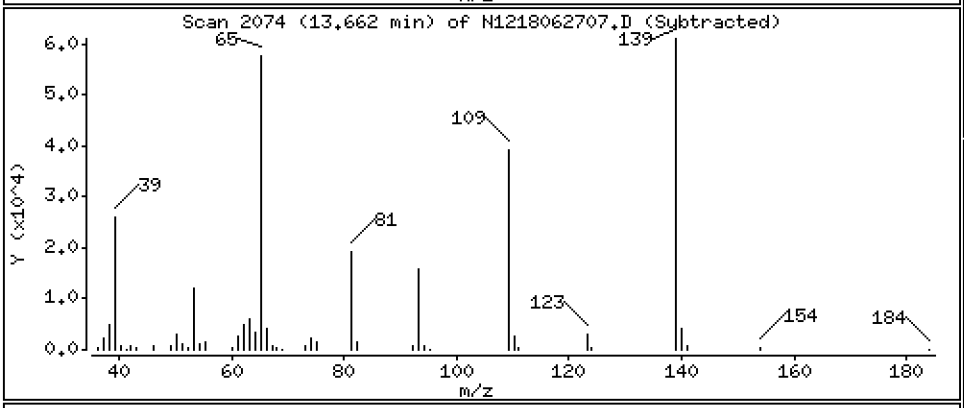
Column phase: ZB-5msi

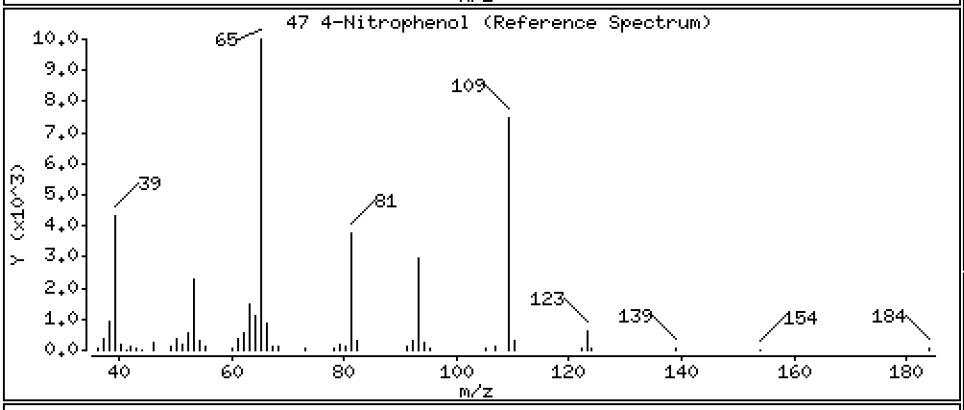
Column diameter: 0.32

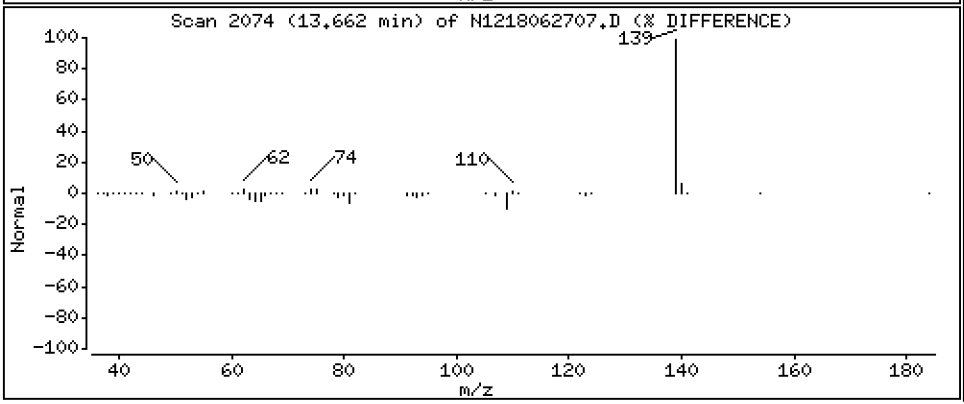
47 4-Nitrophenol

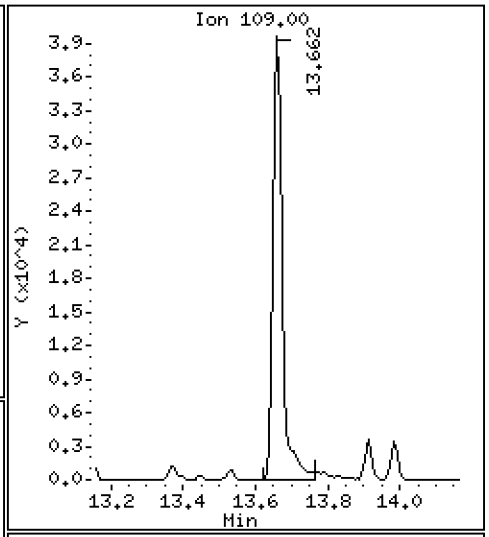
Concentration: 27.41 ug/mL

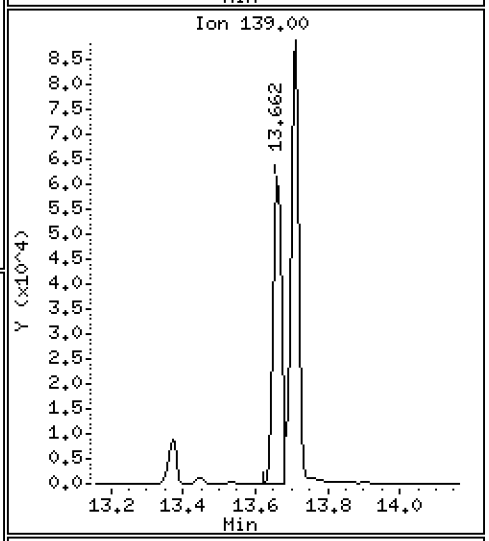


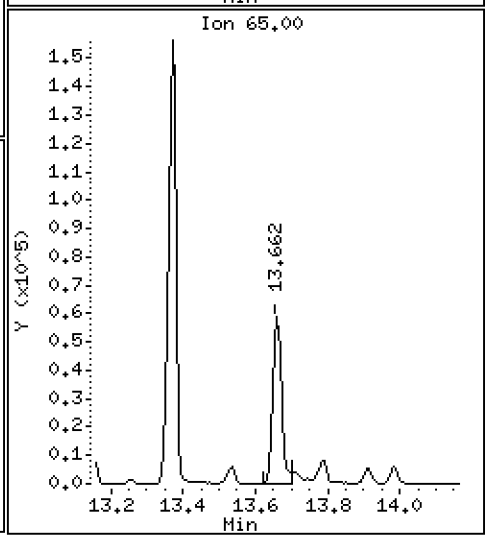












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

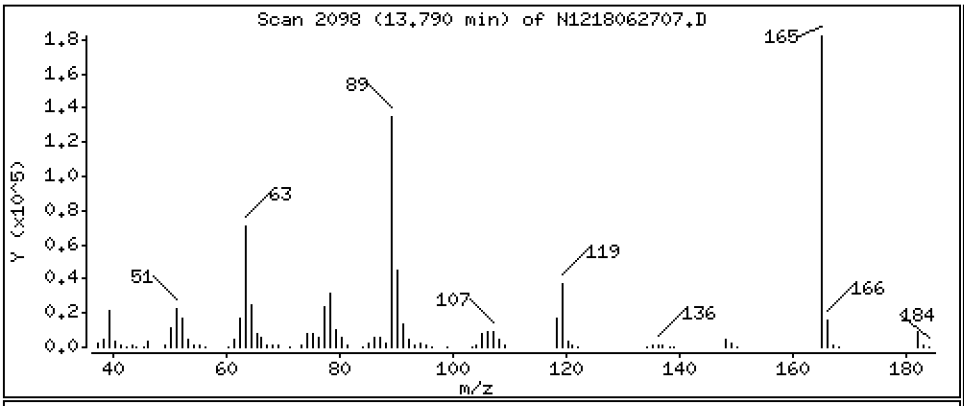
Operator: JZ

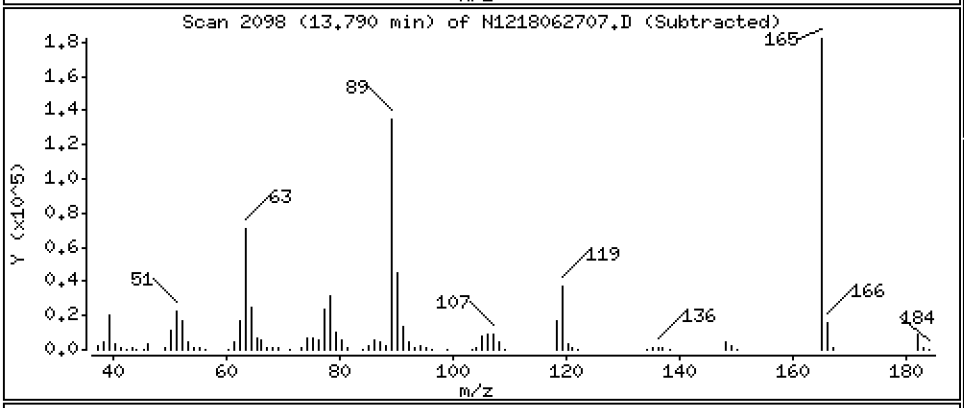
Column phase: ZB-5msi

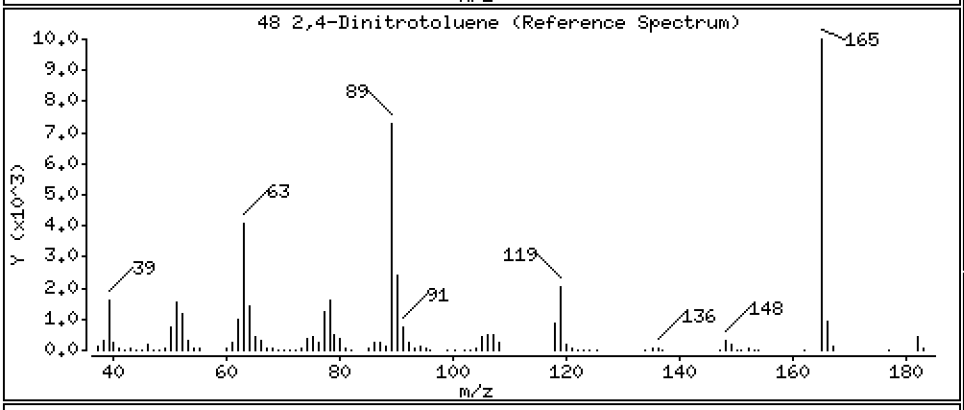
Column diameter: 0.32

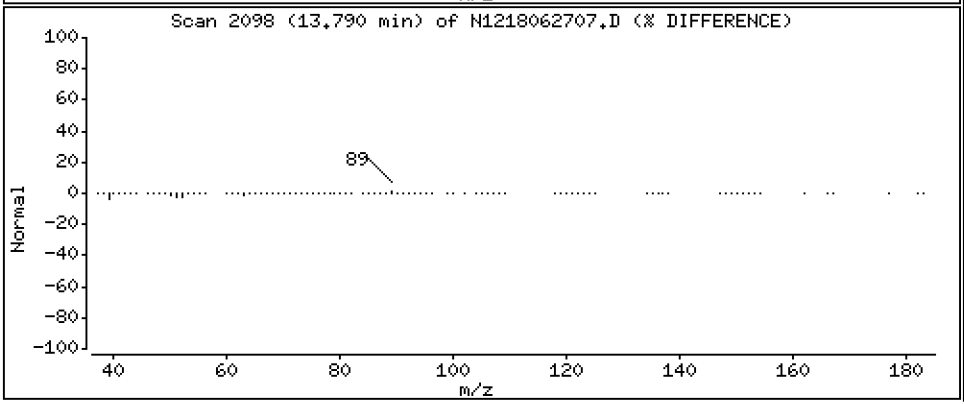
48 2,4-Dinitrotoluene

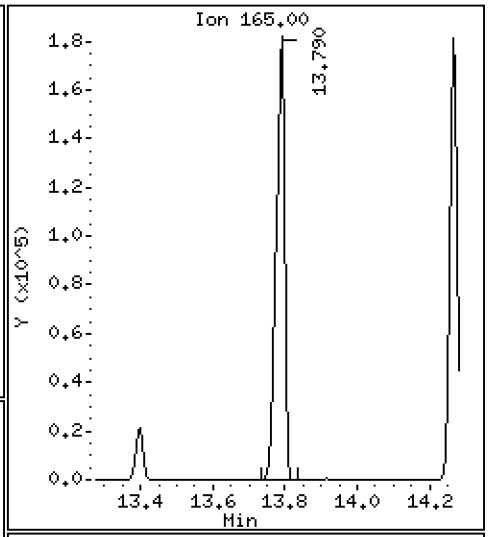
Concentration: 53.00 ug/mL

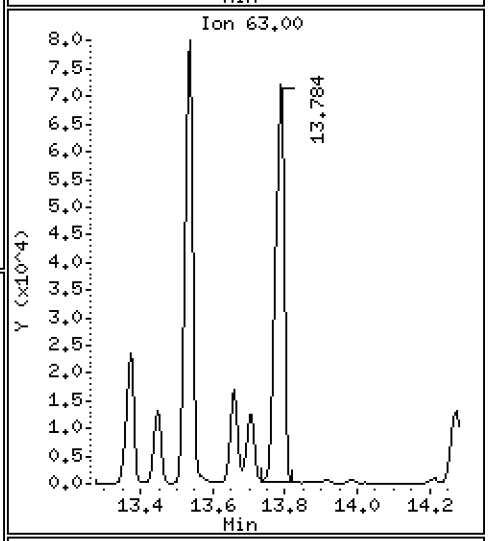


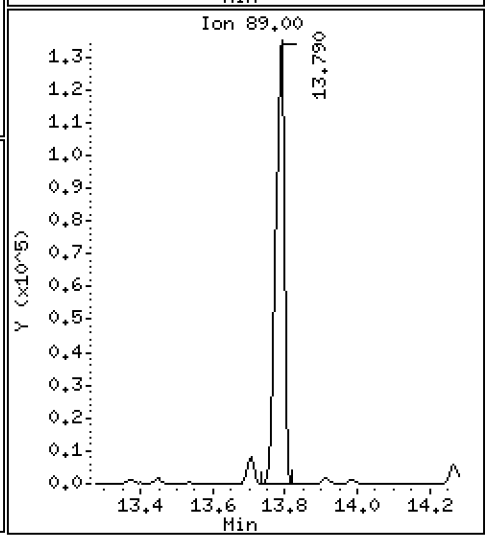












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

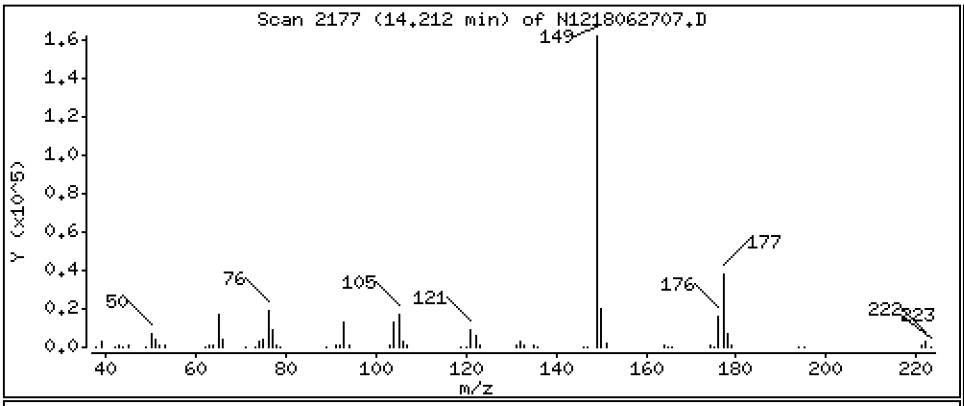
Operator: JZ

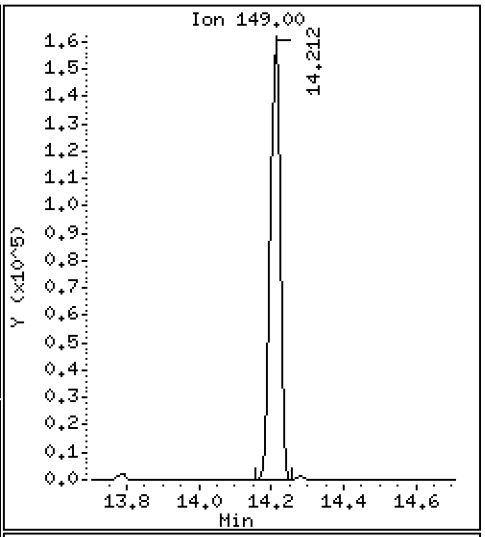
Column phase: ZB-5msi

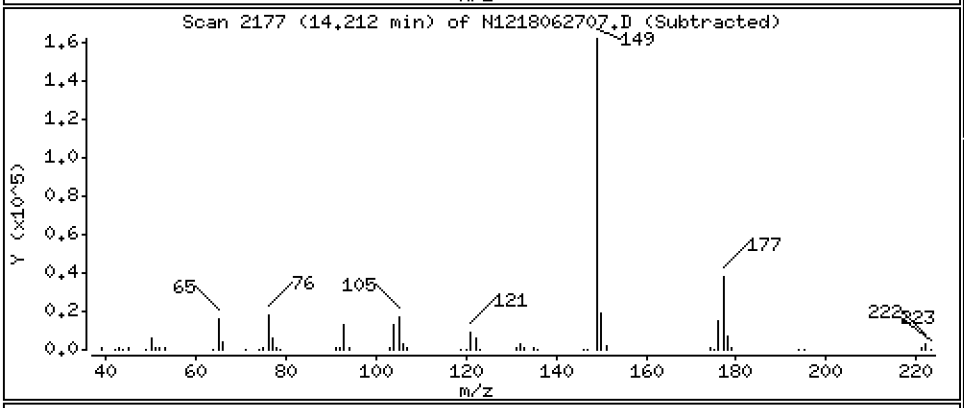
Column diameter: 0.32

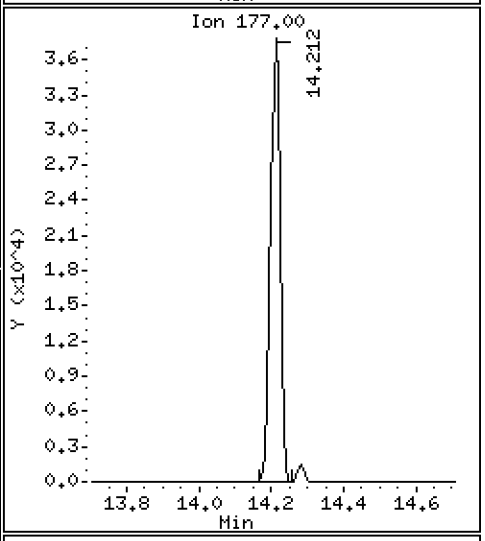
50 Diethylphthalate

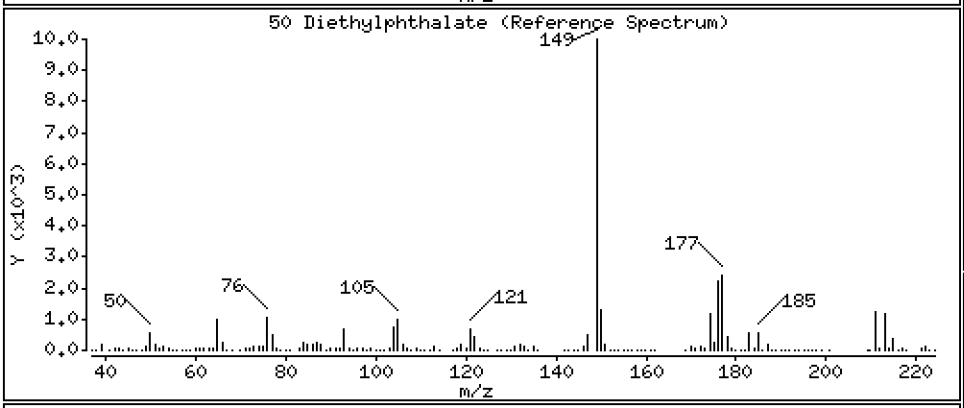
Concentration: 17.88 ug/mL

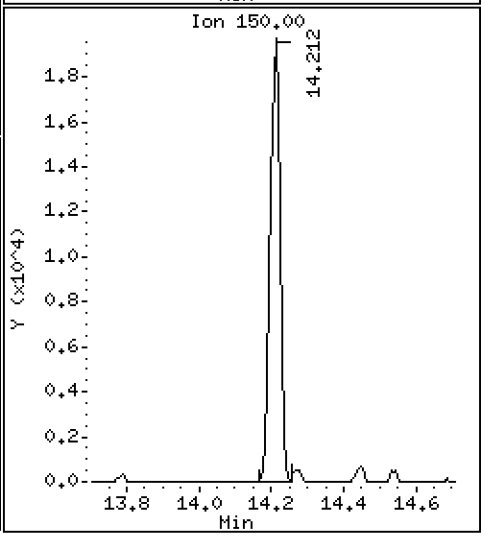


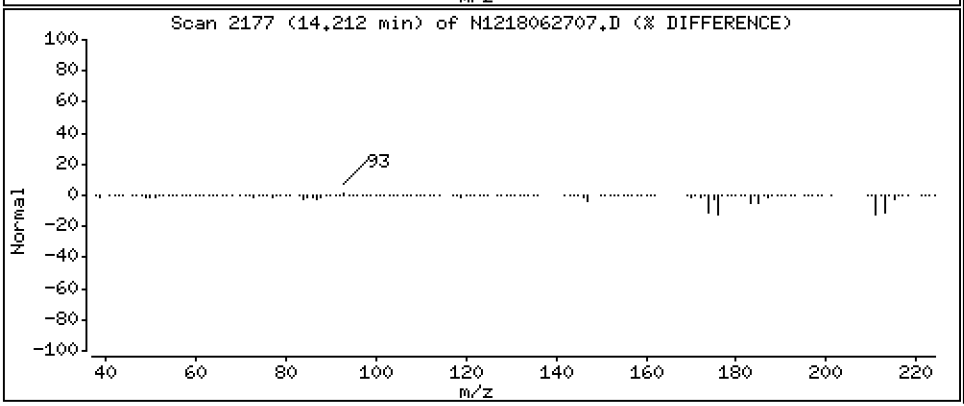












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

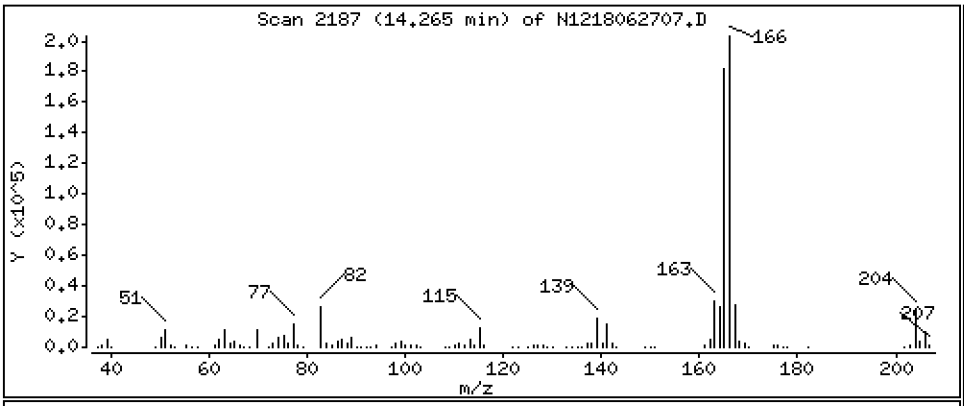
Operator: JZ

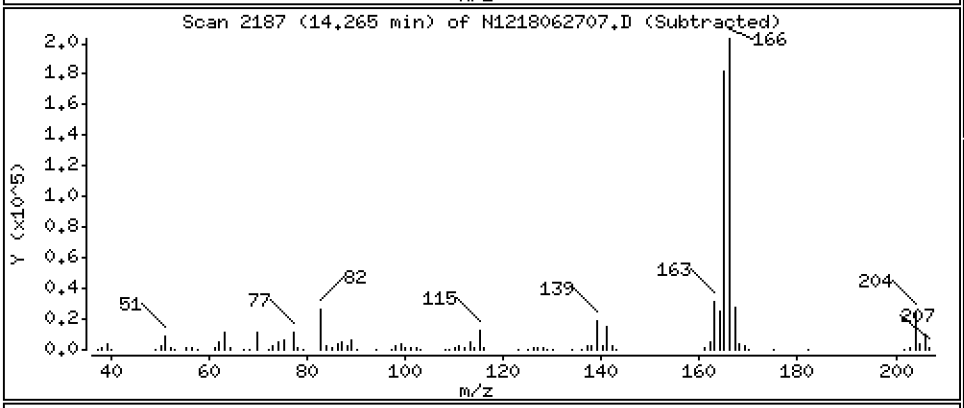
Column phase: ZB-5msi

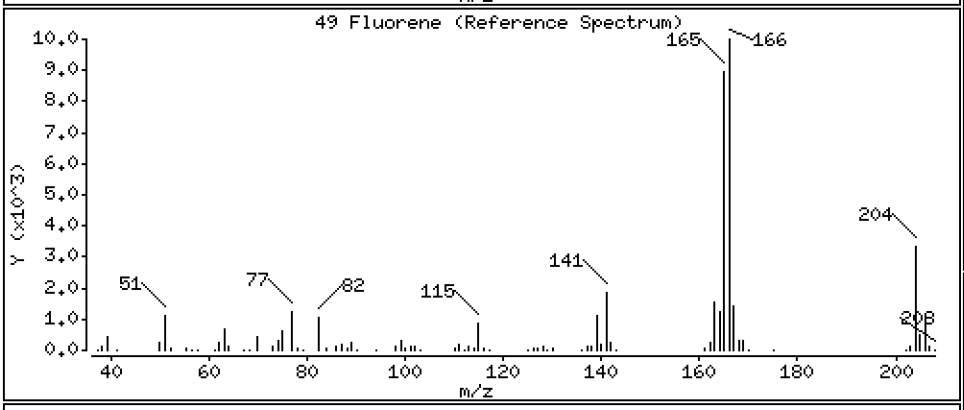
Column diameter: 0.32

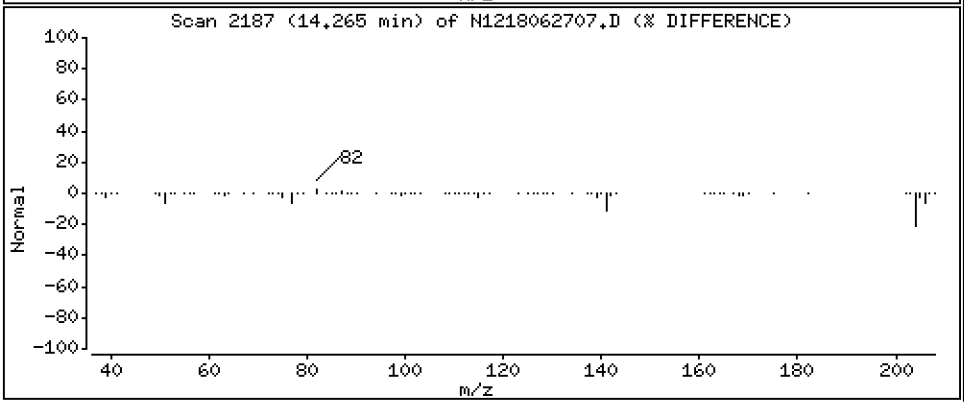
49 Fluorene

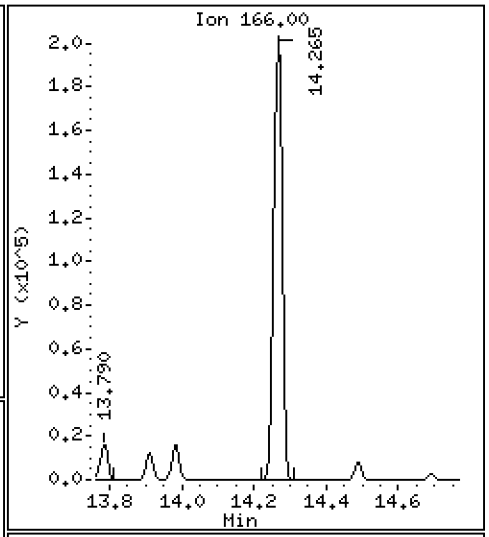
Concentration: 17.65 ug/mL

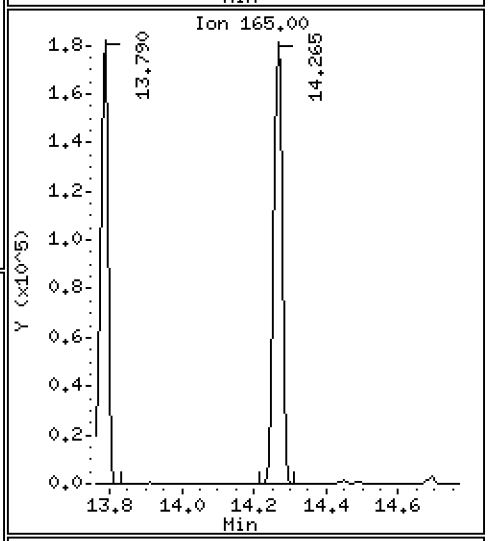


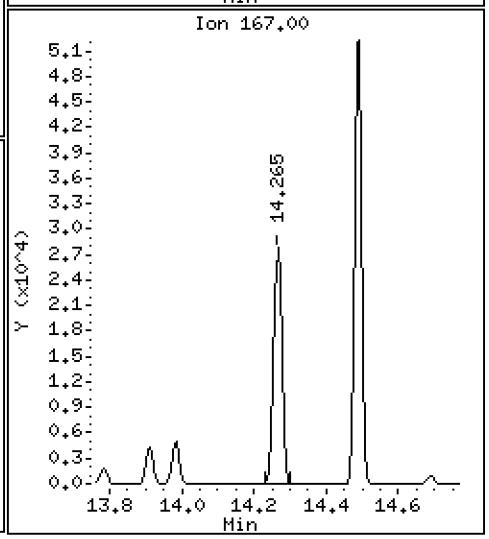












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

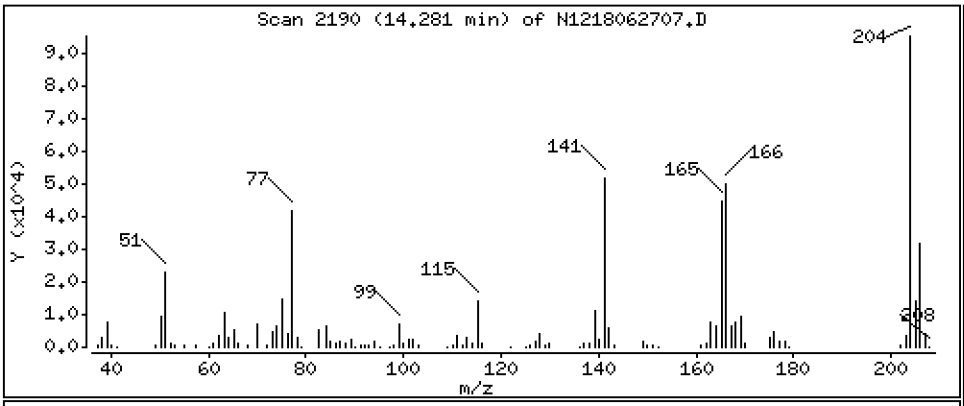
Operator: JZ

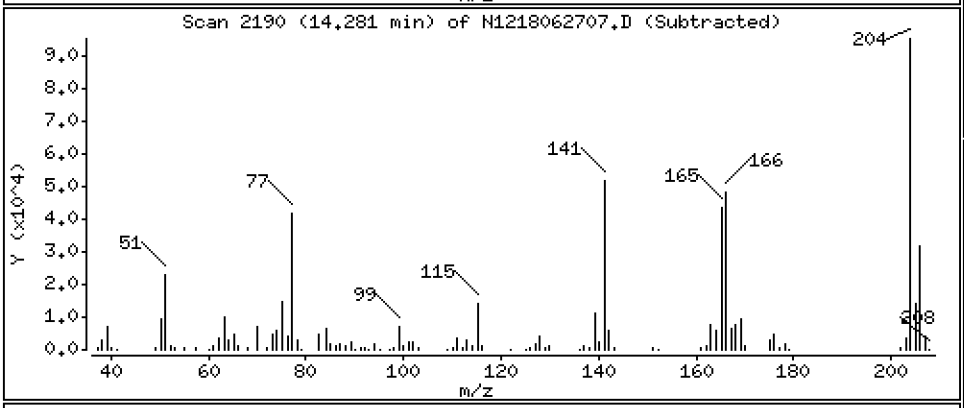
Column phase: ZB-5msi

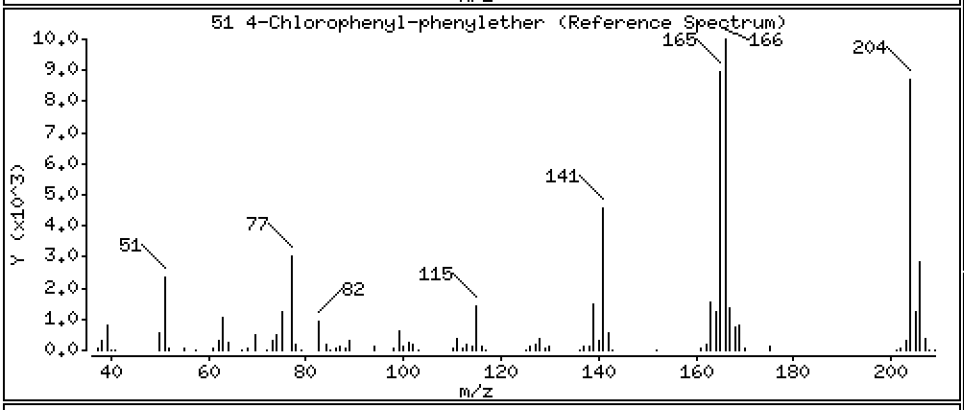
Column diameter: 0.32

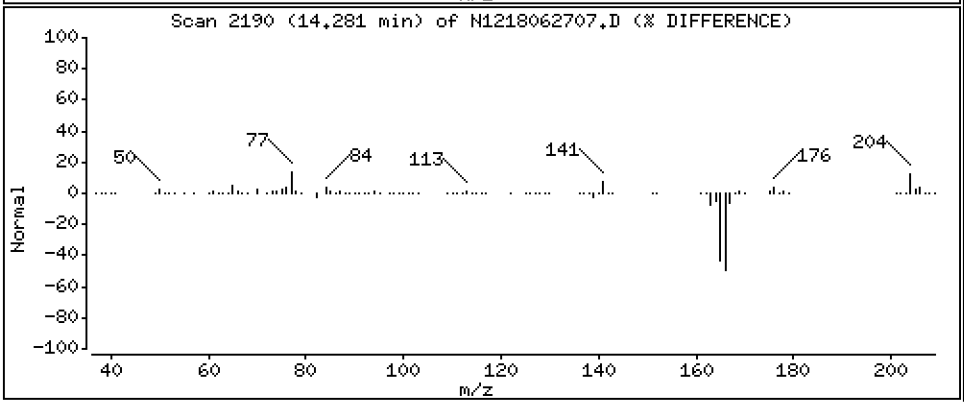
51 4-Chlorophenyl-phenylether

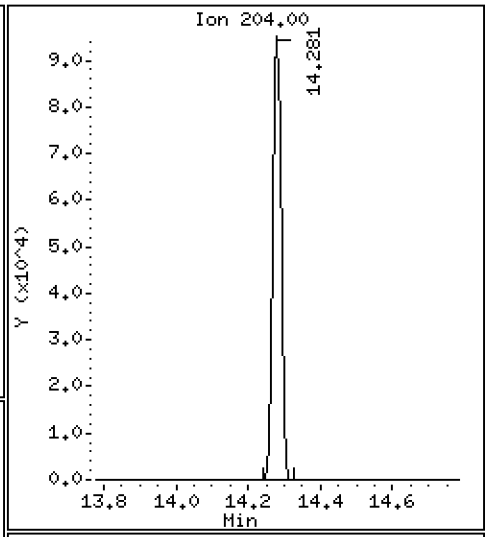
Concentration: 17.39 ug/mL

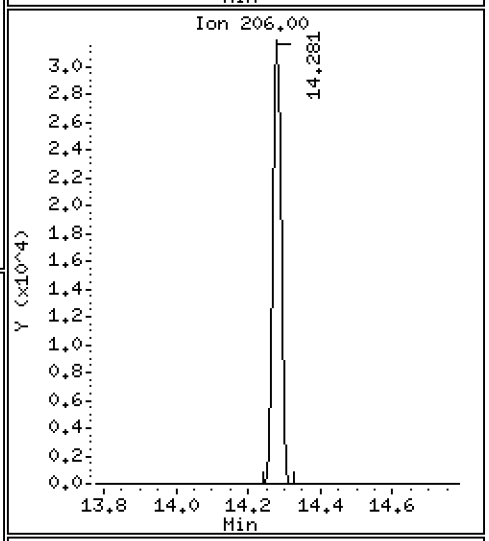


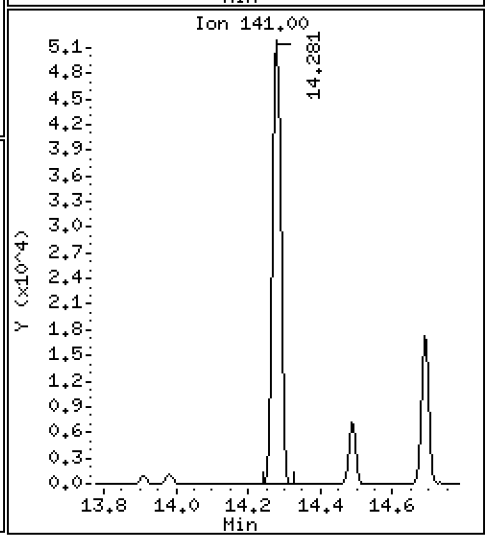












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

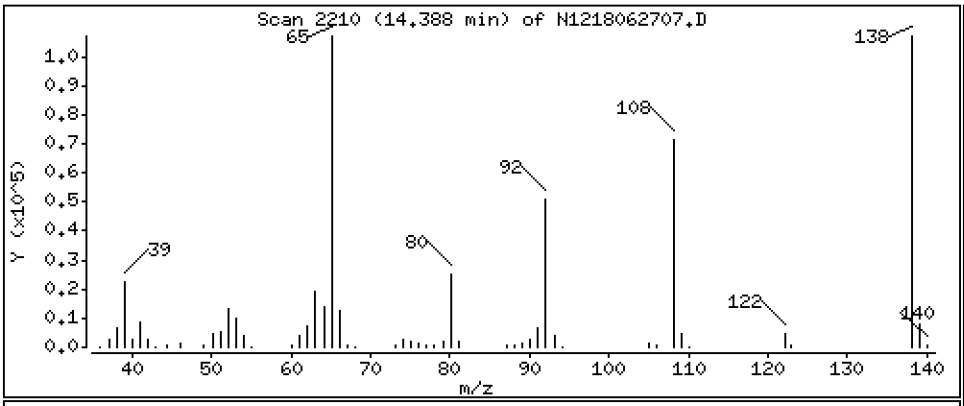
Operator: JZ

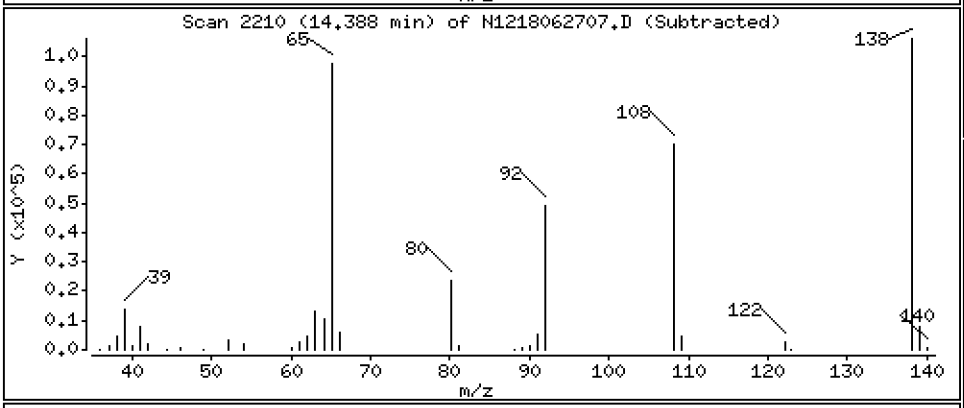
Column phase: ZB-5msi

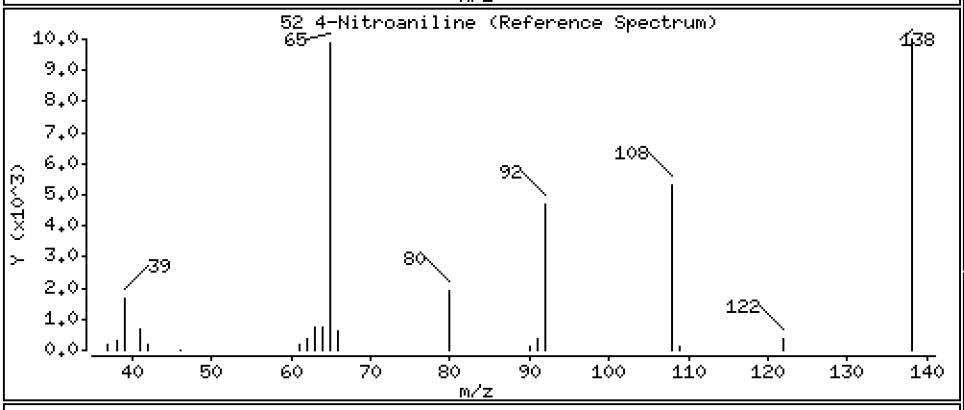
Column diameter: 0.32

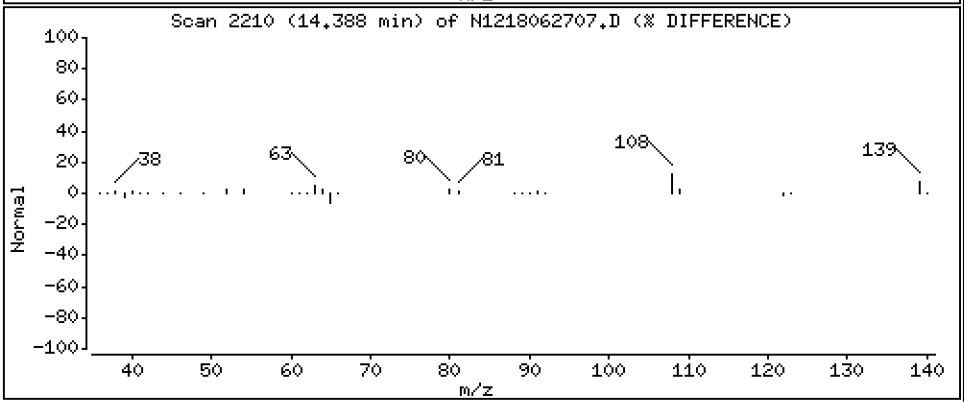
52 4-Nitroaniline

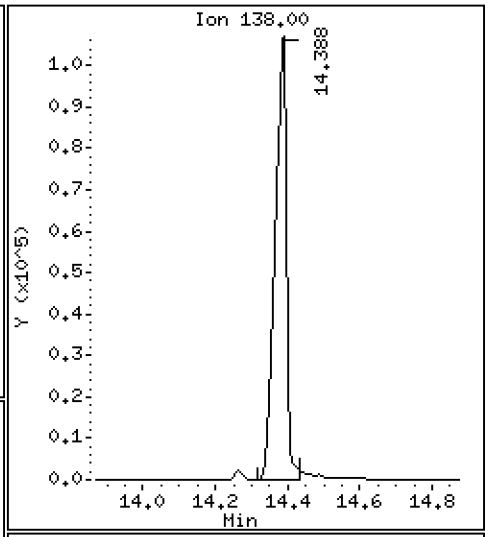
Concentration: 50.33 ug/mL

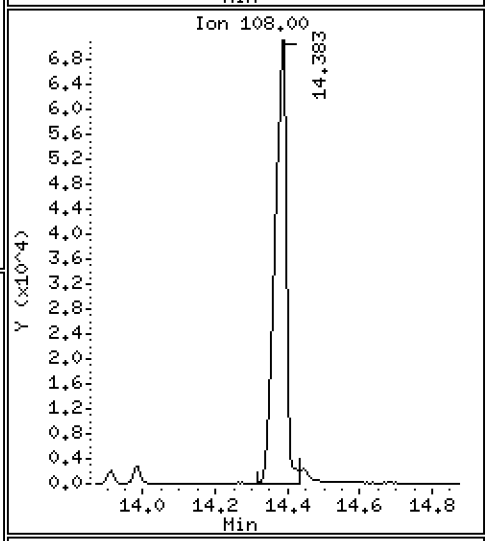


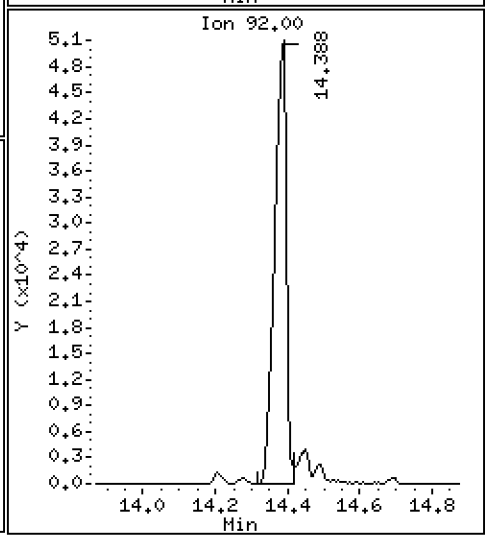












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

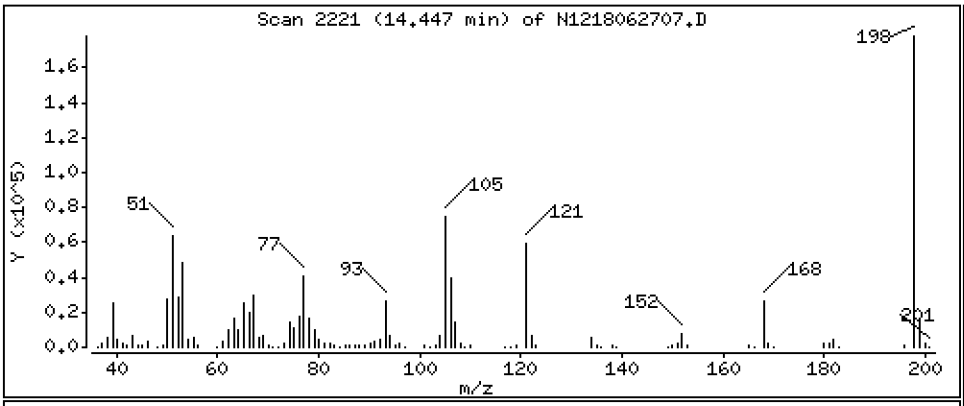
Operator: JZ

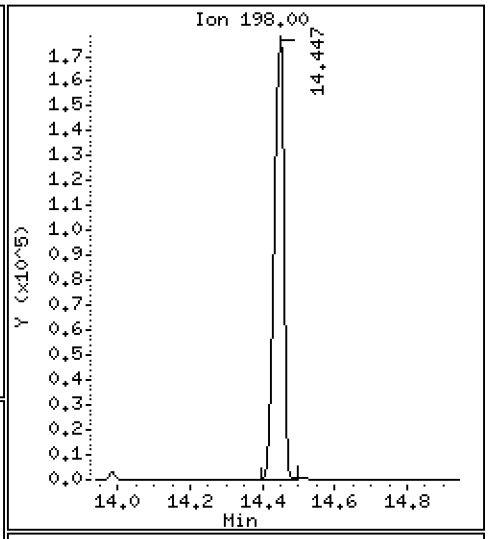
Column phase: ZB-5msi

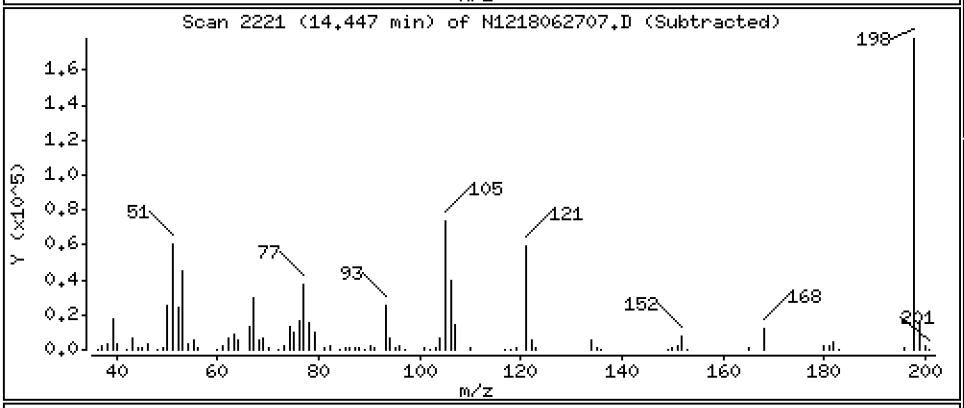
Column diameter: 0.32

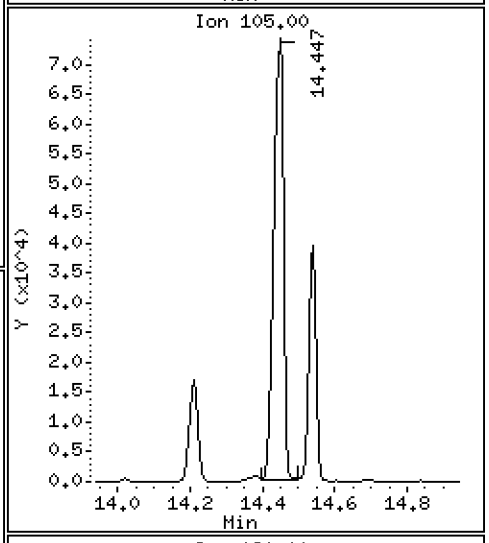
53 4,6-Dinitro-2-methylphenol

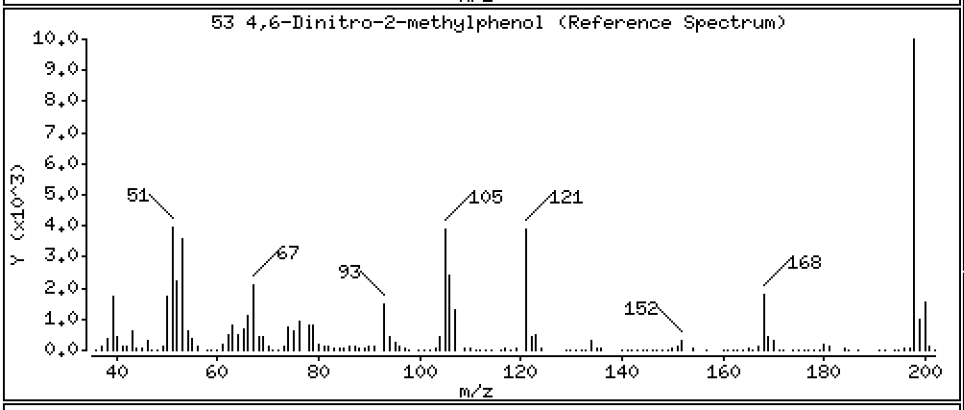
Concentration: 100.9 ug/mL

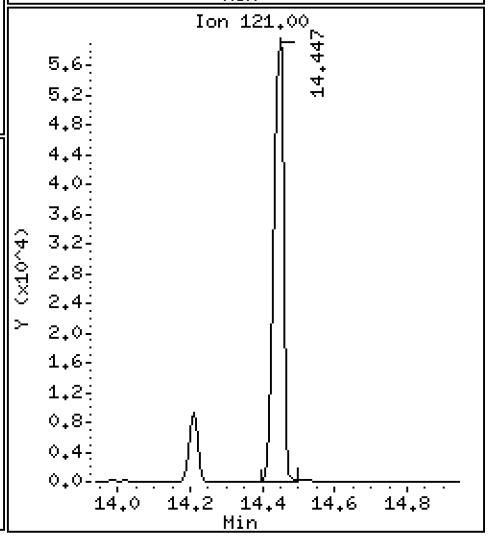


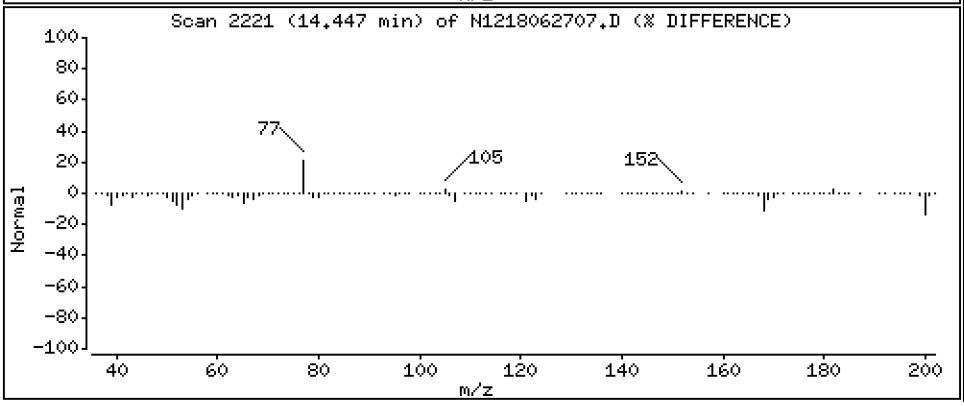












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

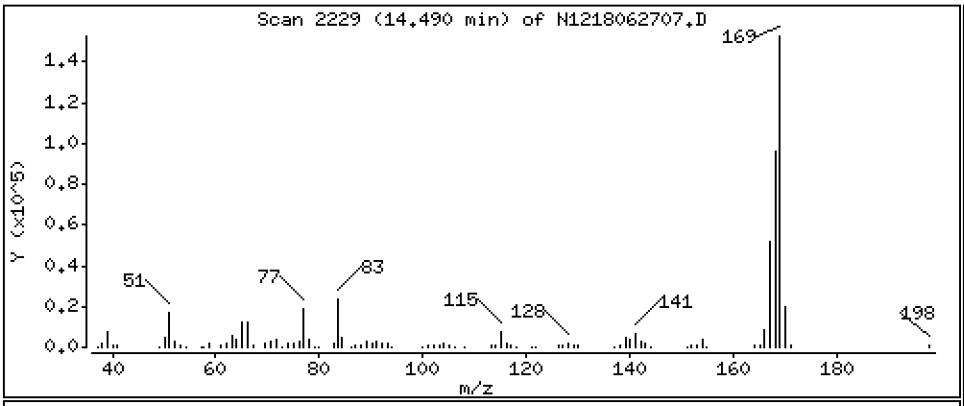
Operator: JZ

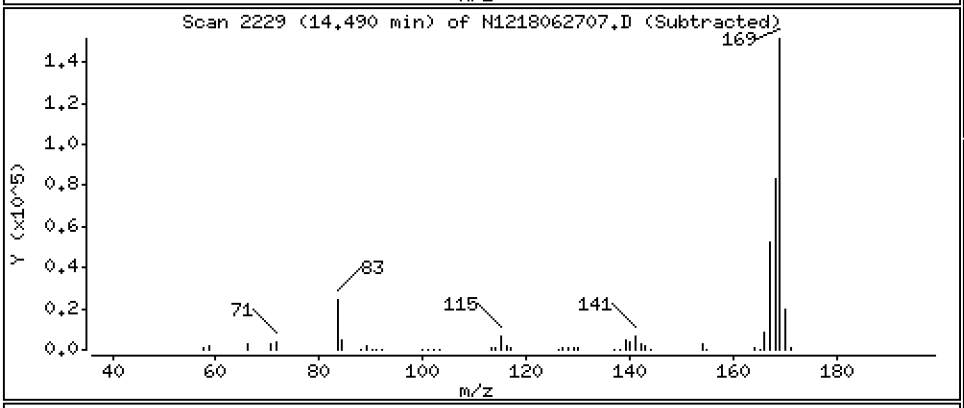
Column phase: ZB-5msi

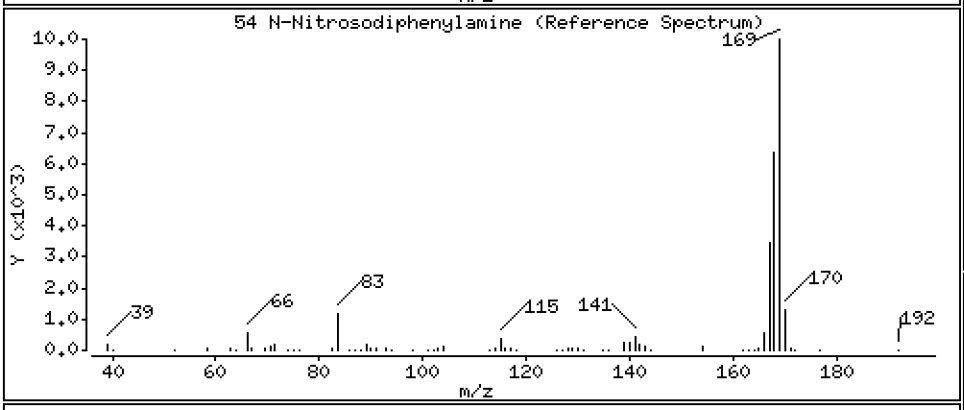
Column diameter: 0.32

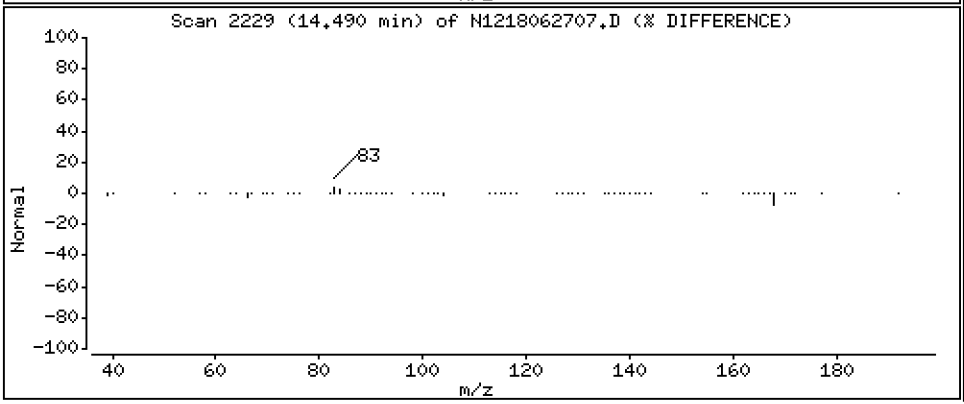
54 N-Nitrosodiphenylamine

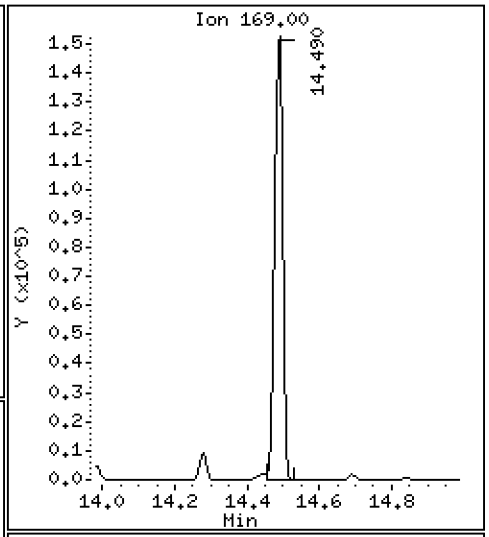
Concentration: 17.23 ug/mL

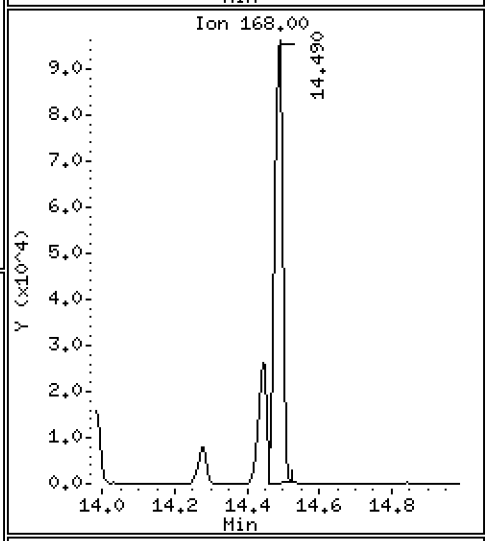


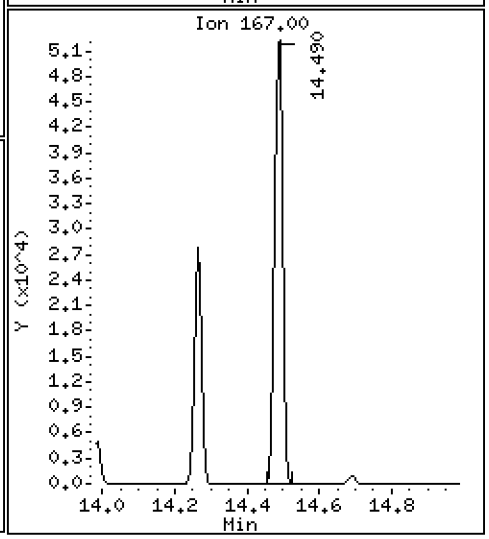












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

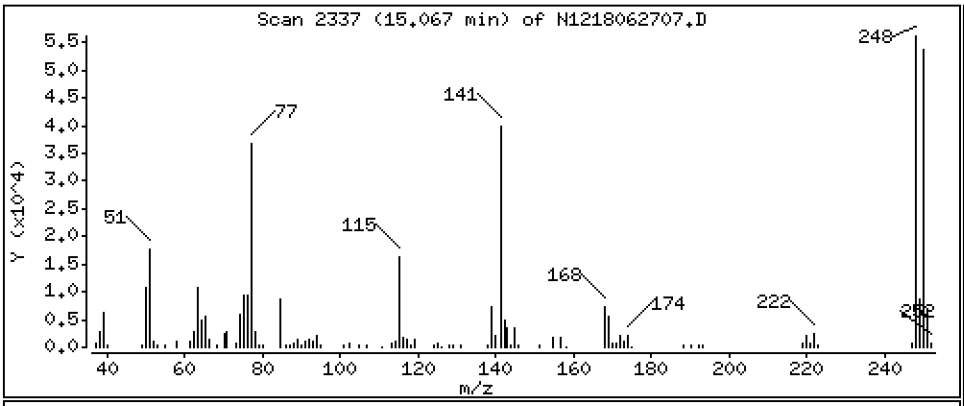
Operator: JZ

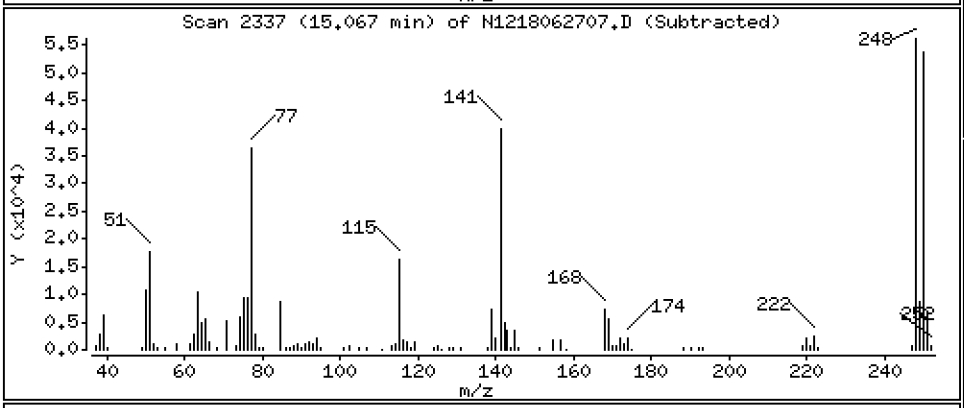
Column phase: ZB-5msi

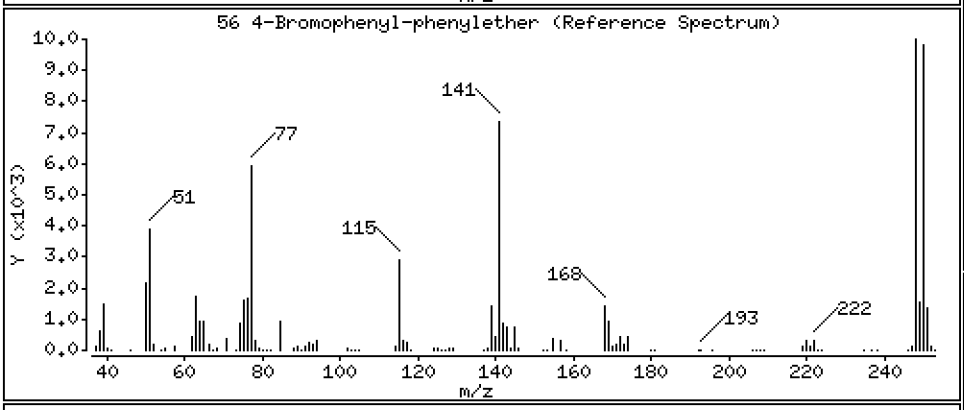
Column diameter: 0.32

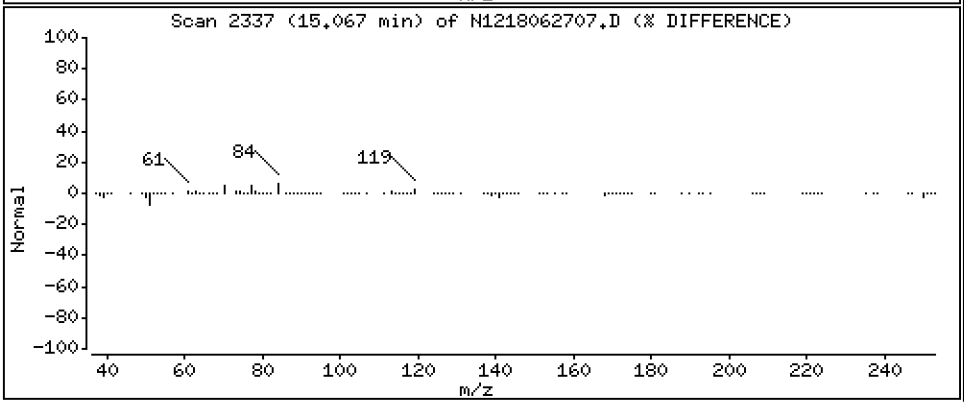
56 4-Bromophenyl-phenylether

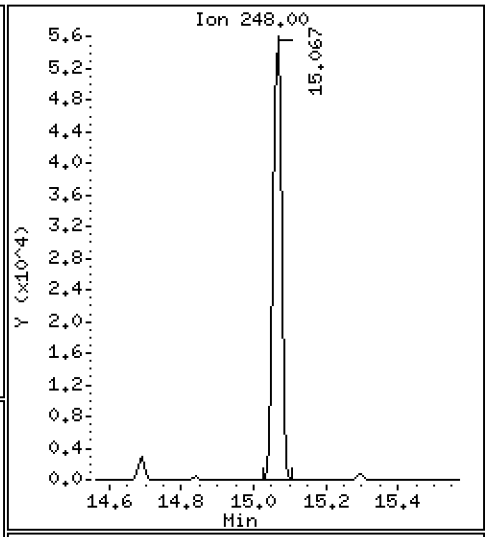
Concentration: 17.10 ug/mL

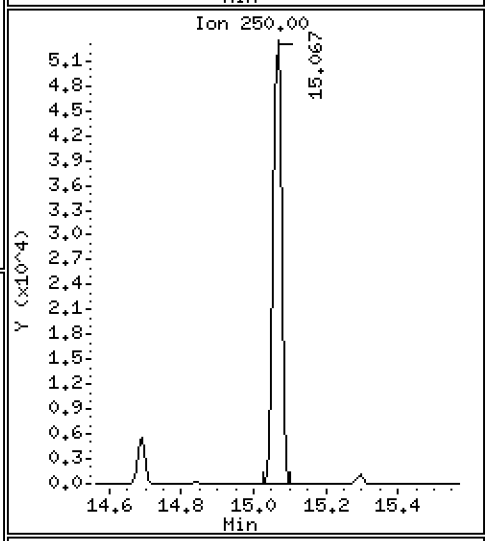


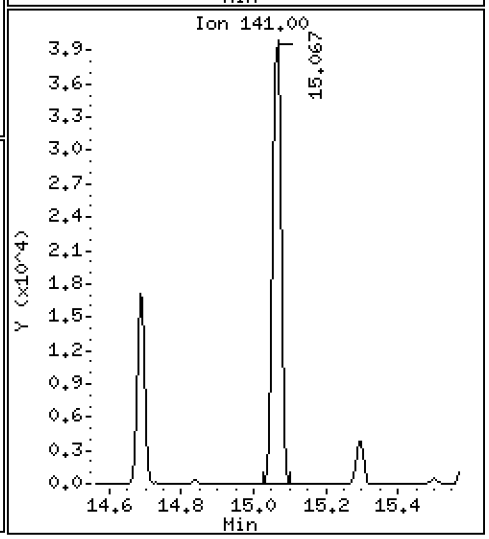












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

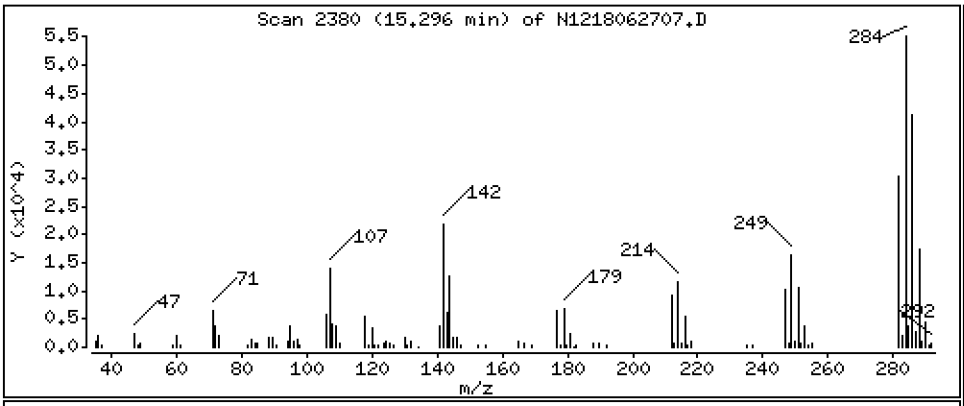
Operator: JZ

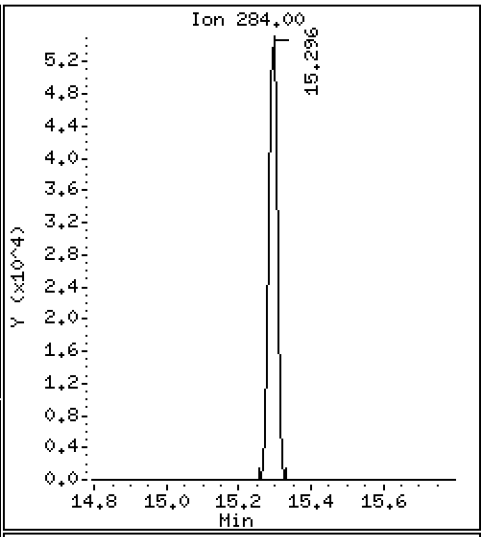
Column phase: ZB-5msi

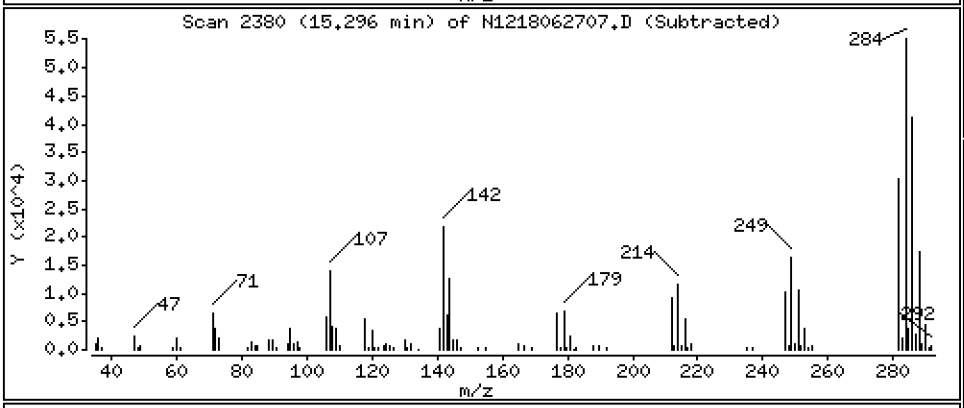
Column diameter: 0.32

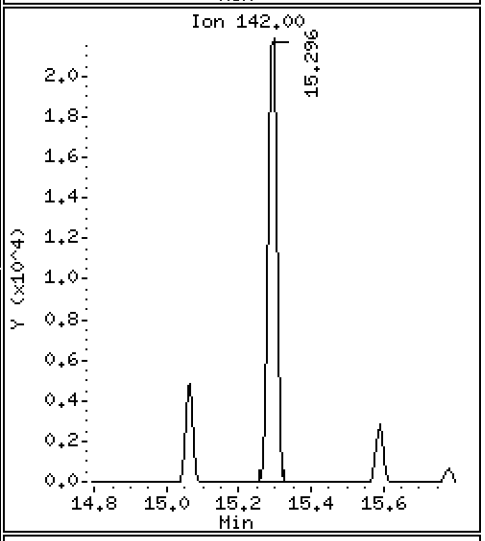
57 Hexachlorobenzene

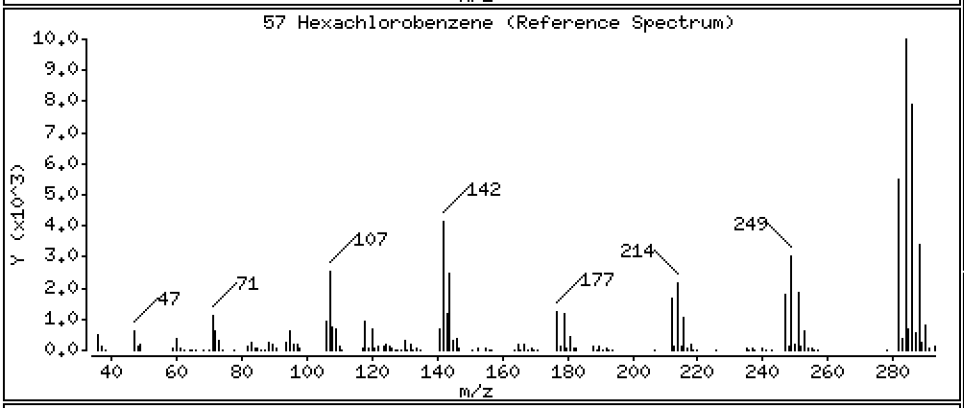
Concentration: 16.49 ug/mL

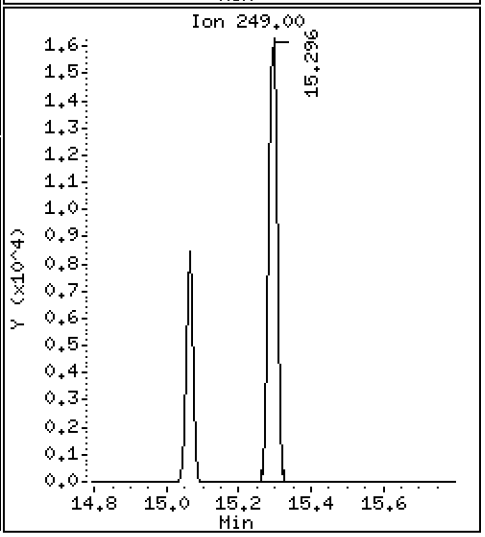


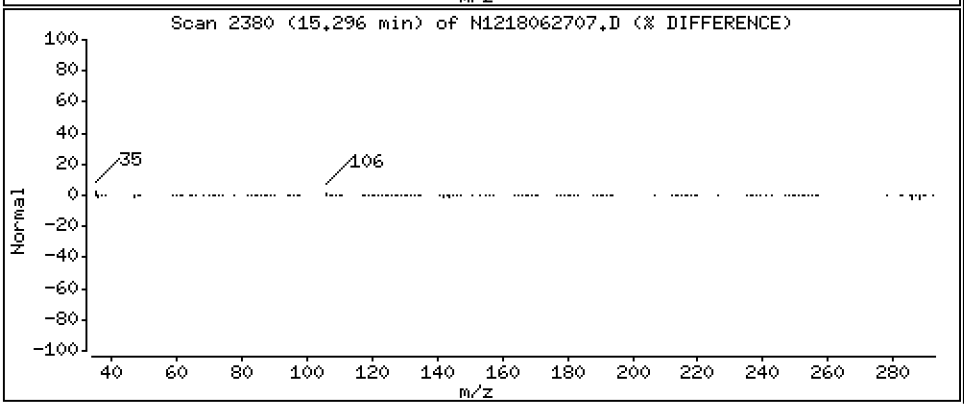












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

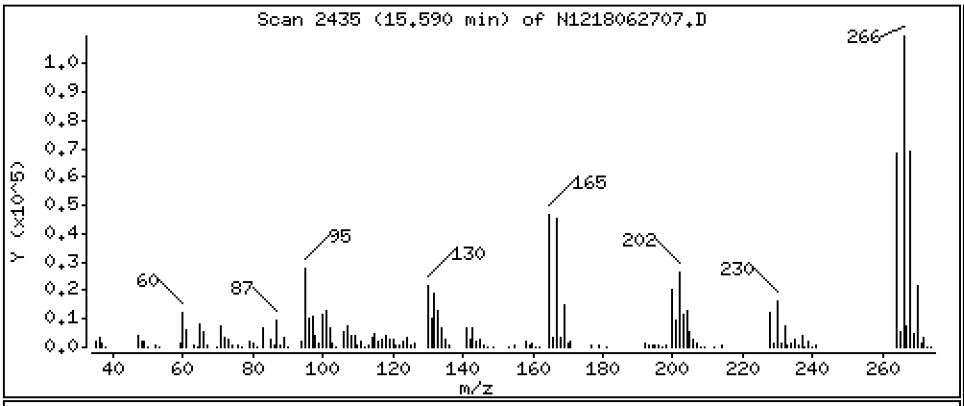
Operator: JZ

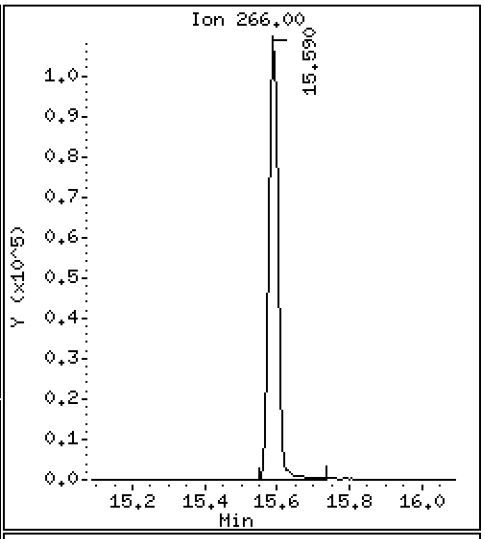
Column phase: ZB-5msi

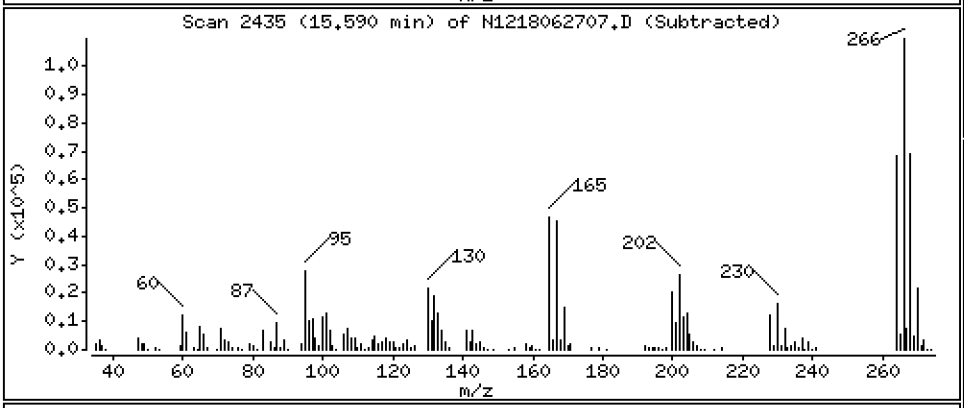
Column diameter: 0.32

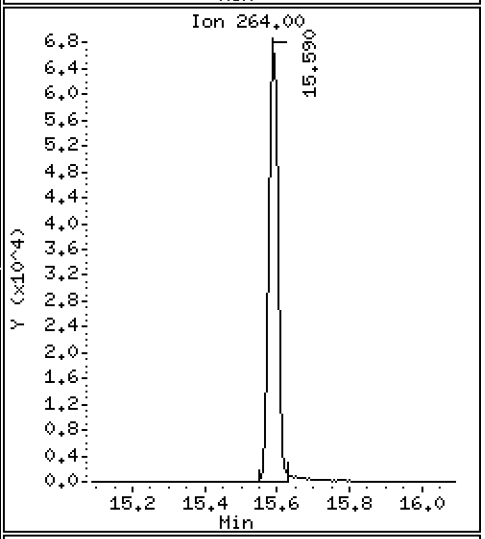
58 Pentachlorophenol

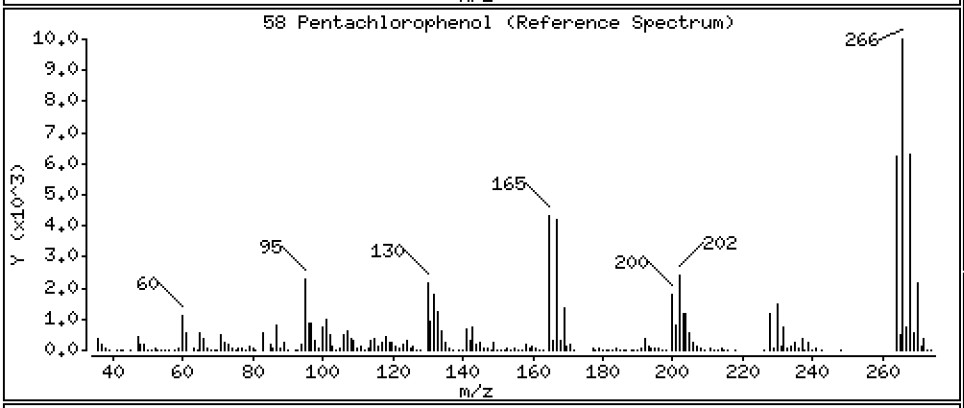
Concentration: 54.21 ug/mL

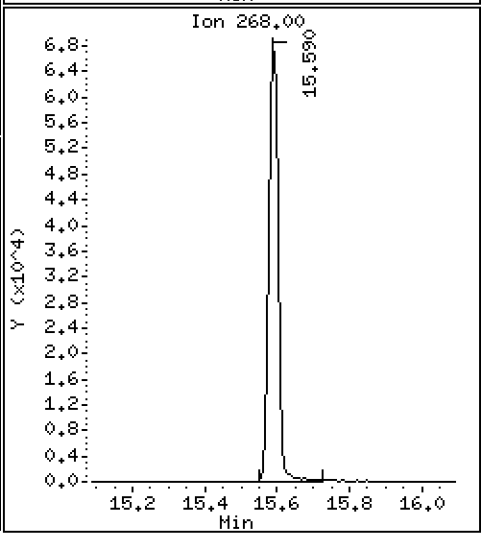


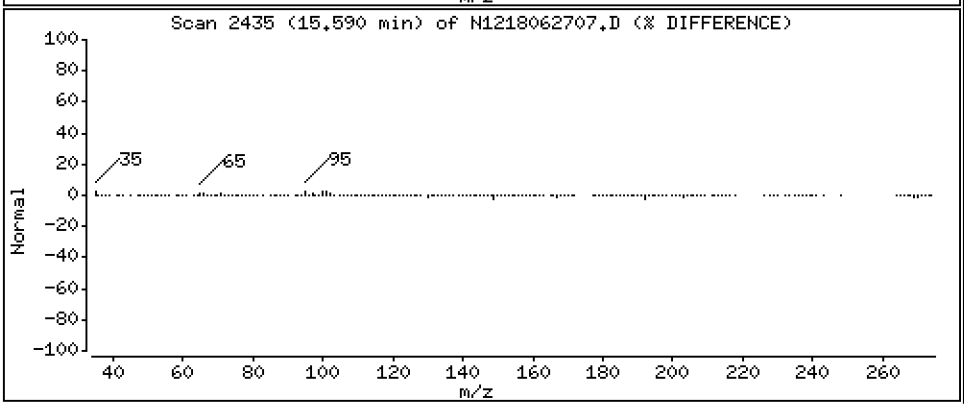












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

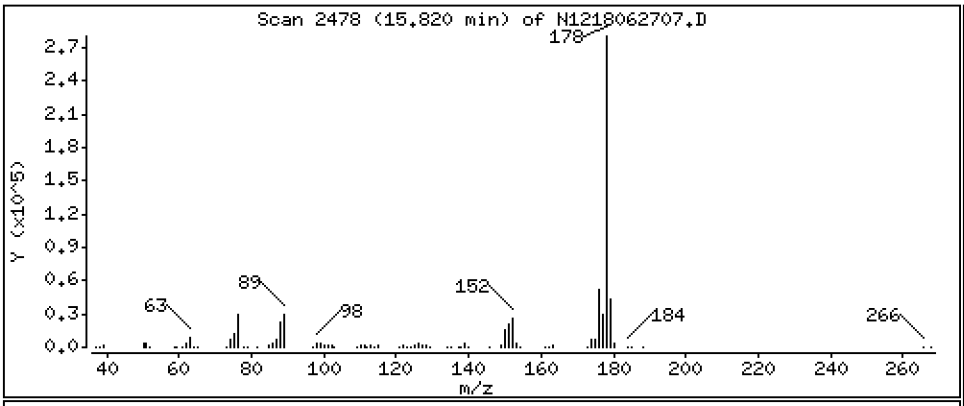
Operator: JZ

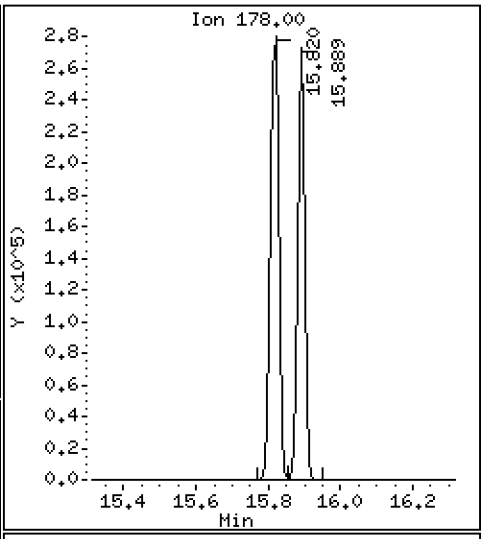
Column phase: ZB-5msi

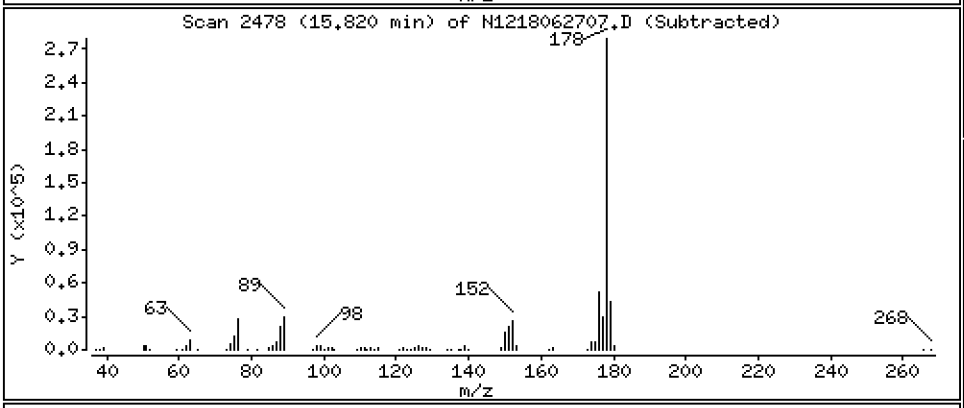
Column diameter: 0.32

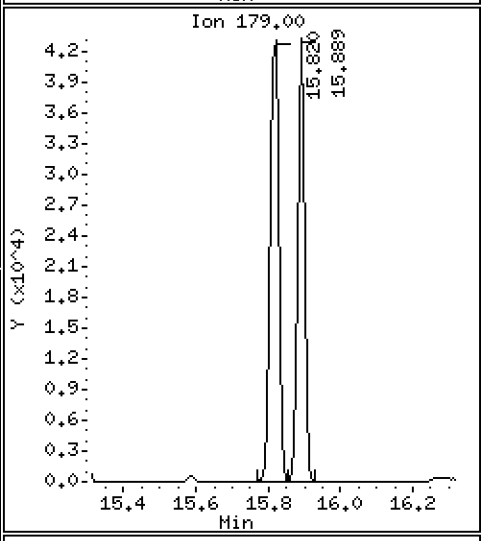
60 Phenanthrene

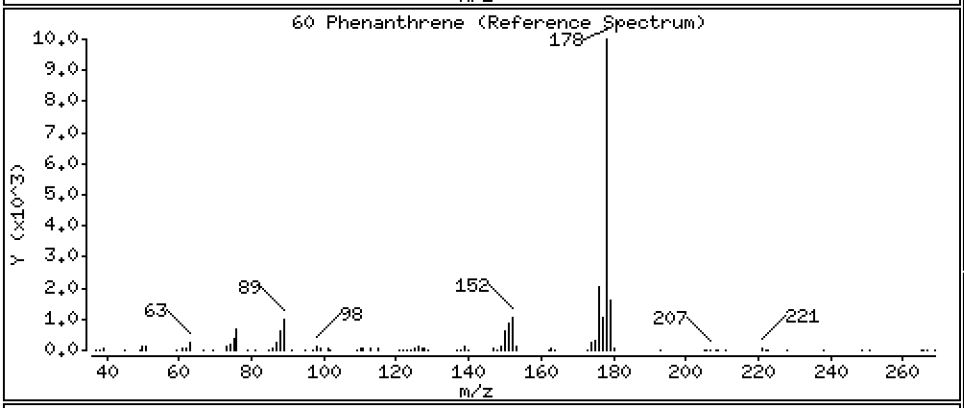
Concentration: 20.24 ug/mL

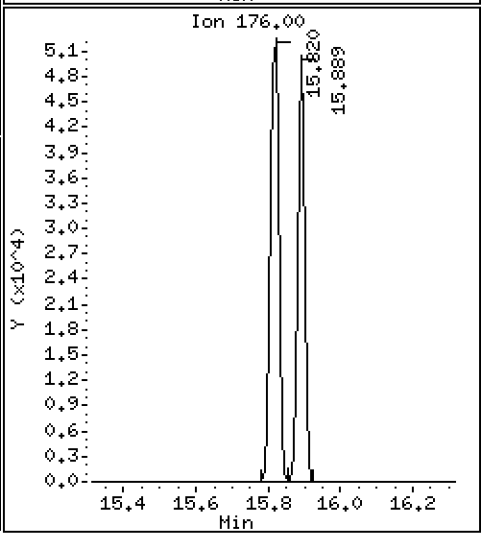


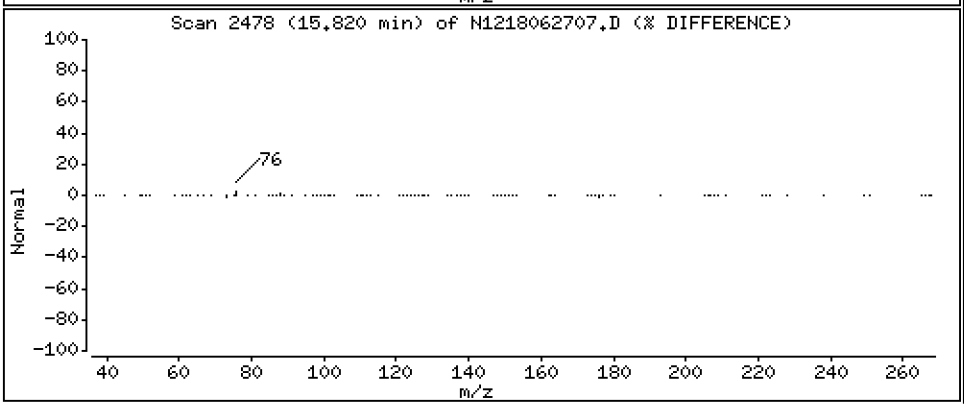












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

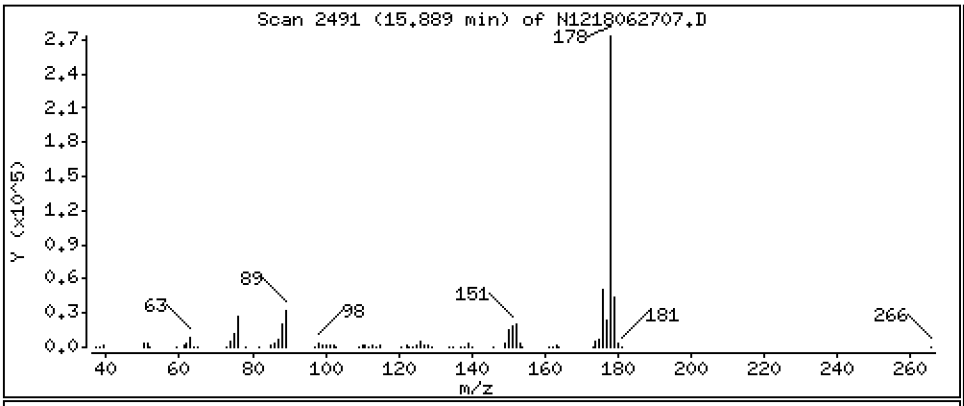
Operator: JZ

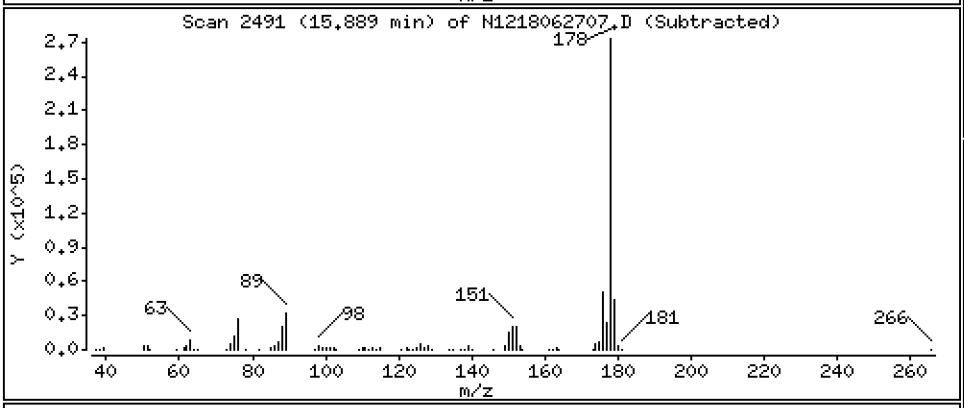
Column phase: ZB-5msi

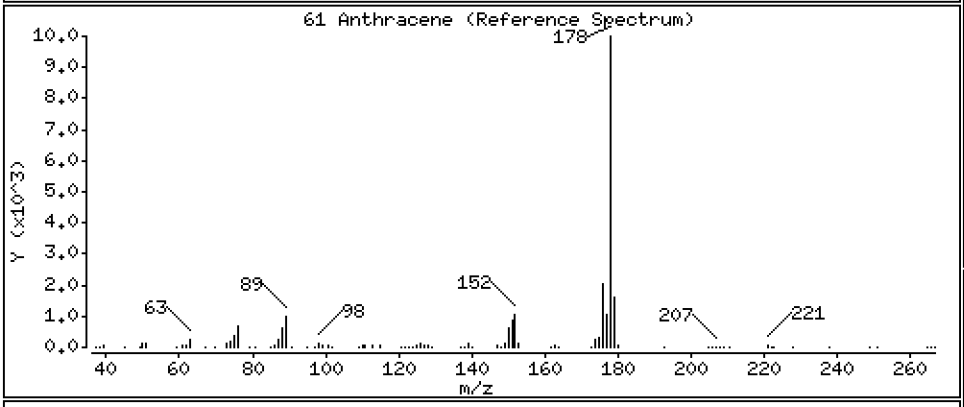
Column diameter: 0.32

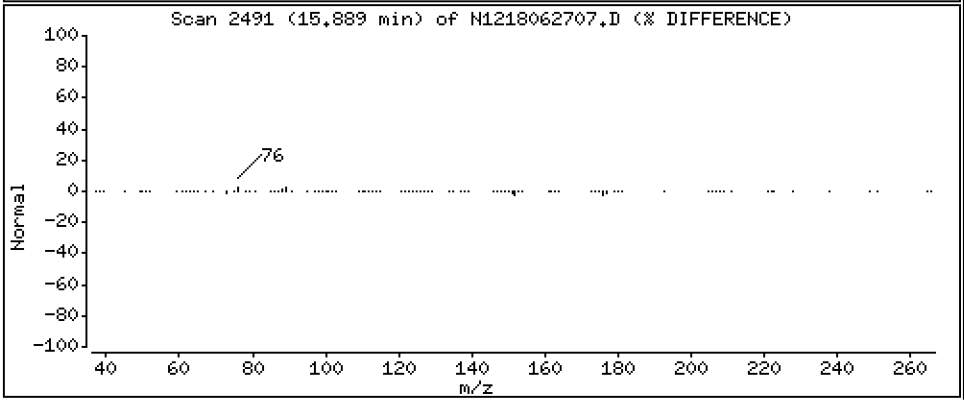
61 Anthracene

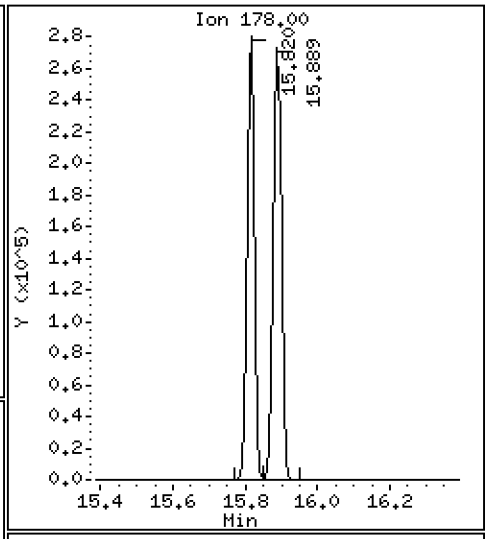
Concentration: 16.68 ug/mL

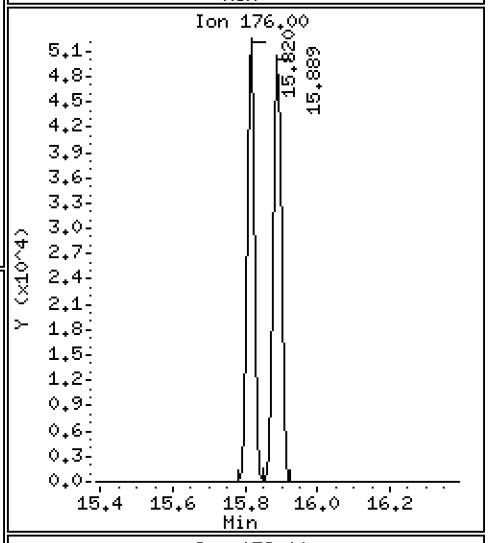


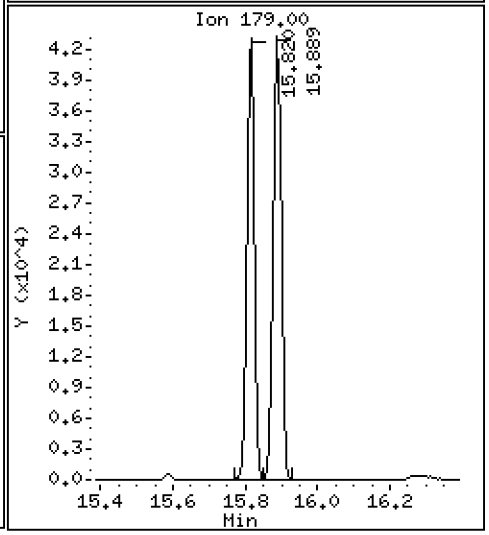












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

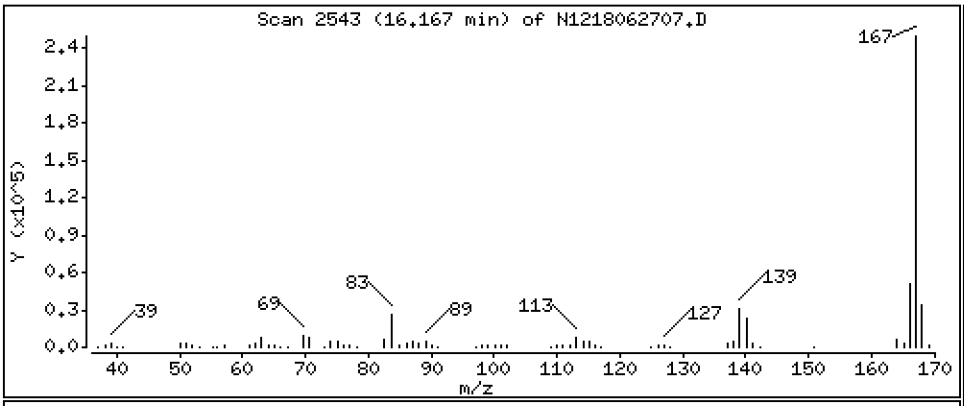
Operator: JZ

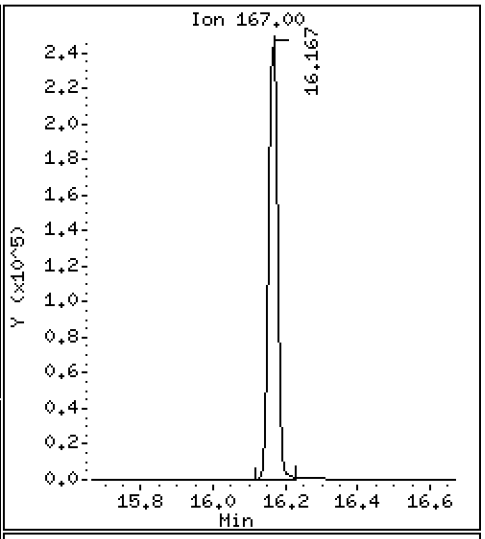
Column phase: ZB-5msi

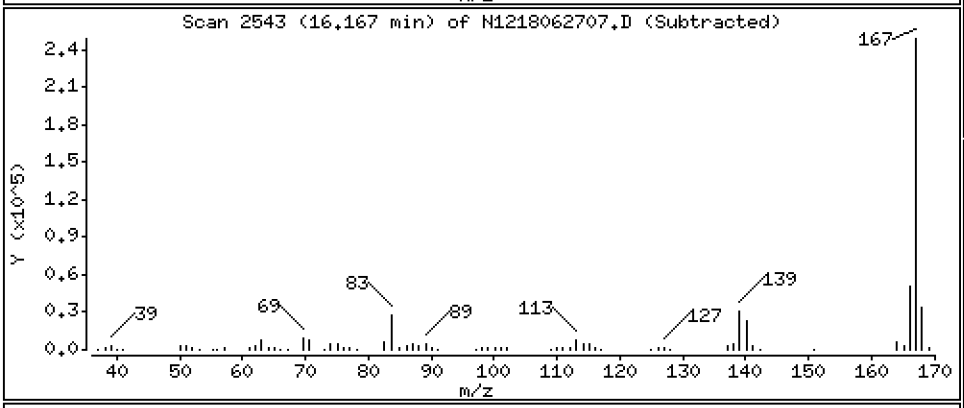
Column diameter: 0.32

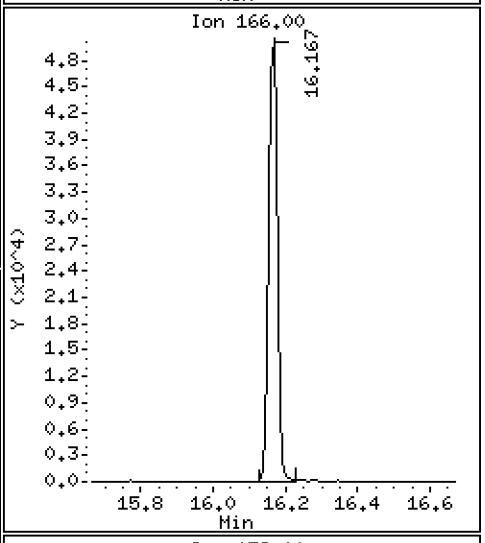
62 Carbazole

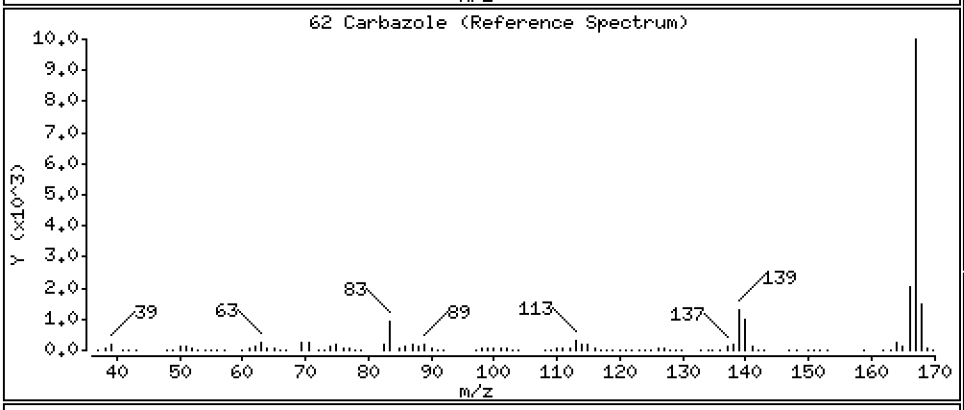
Concentration: 16.89 ug/mL

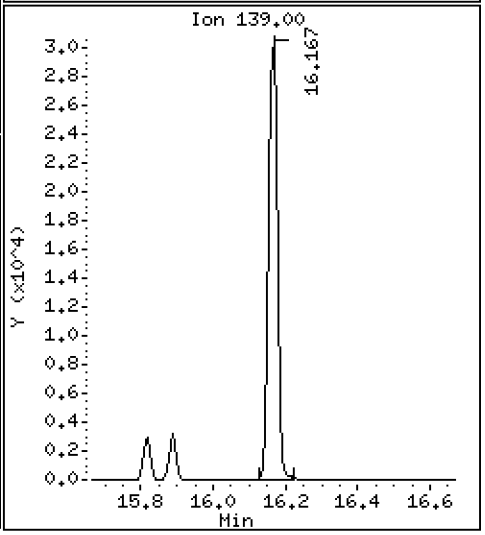


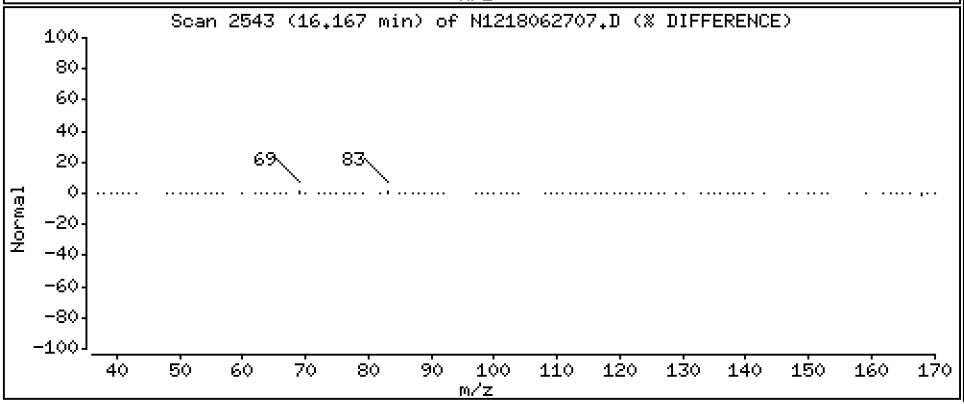












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

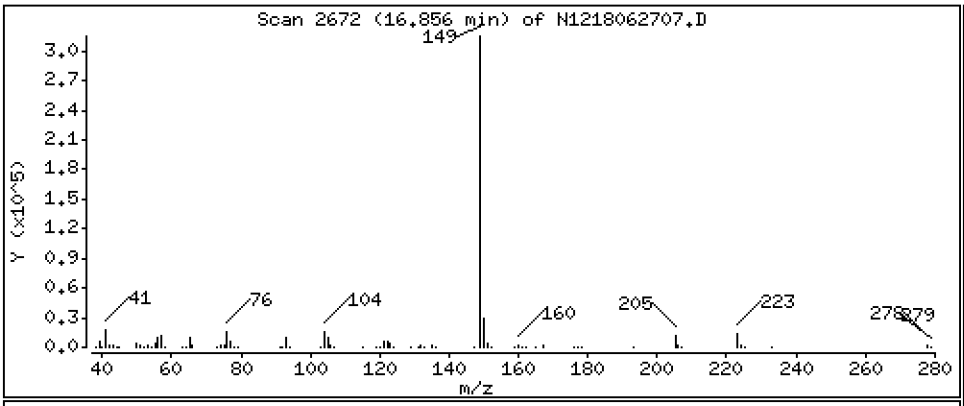
Operator: JZ

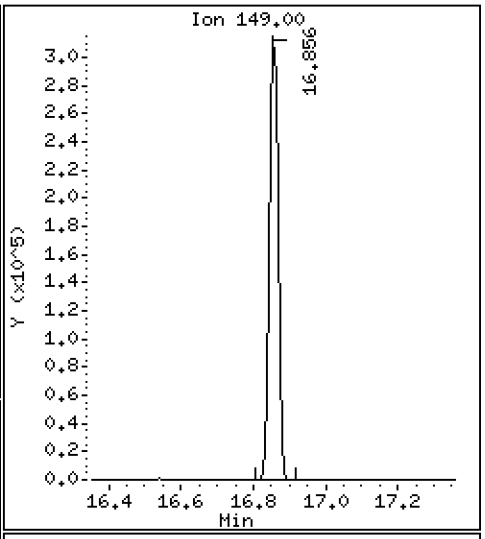
Column phase: ZB-5msi

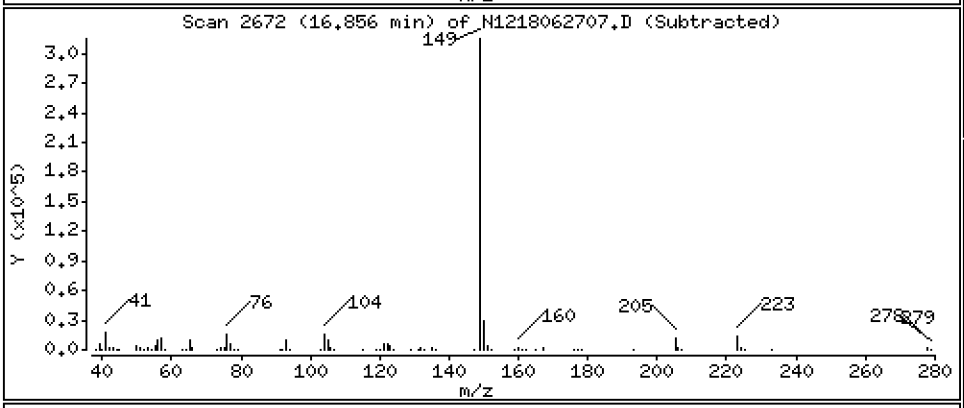
Column diameter: 0.32

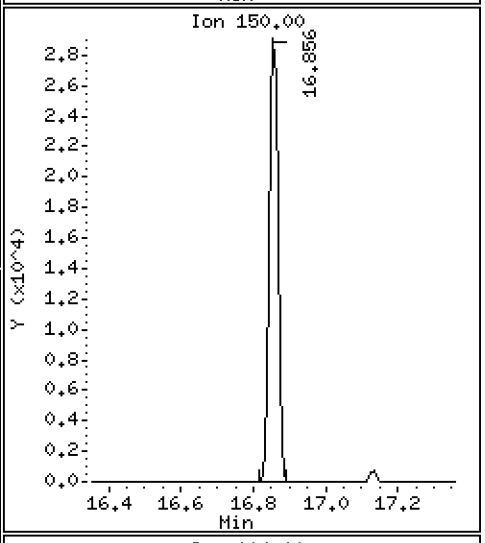
63 Di-n-butylphthalate

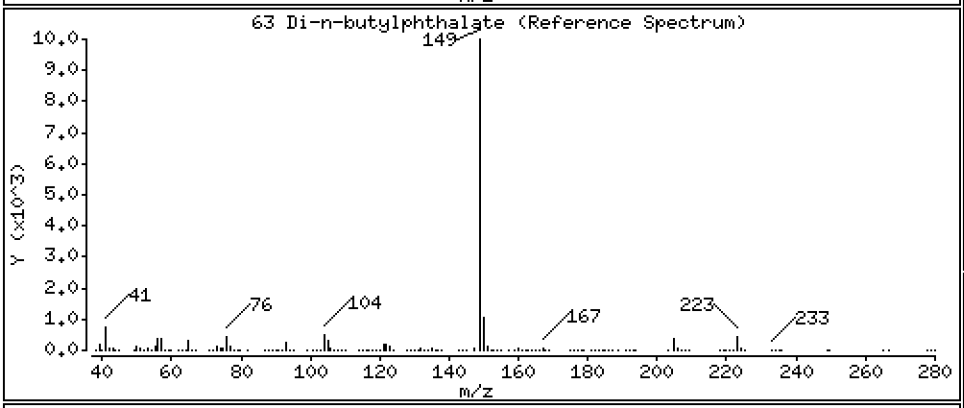
Concentration: 18.52 ug/mL

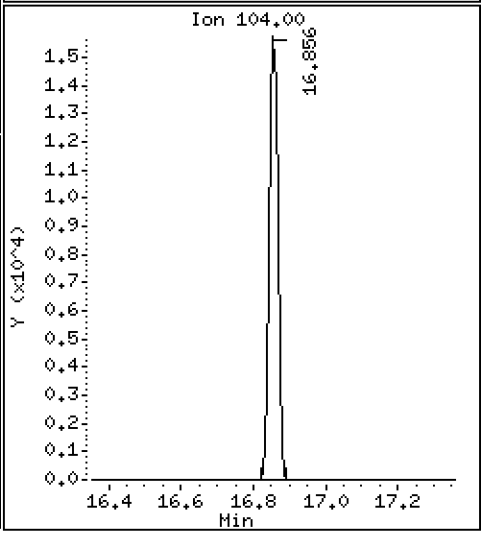


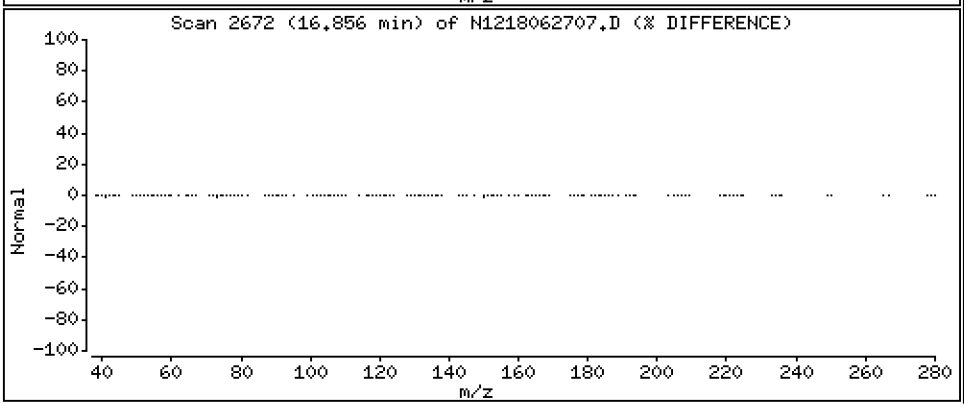












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

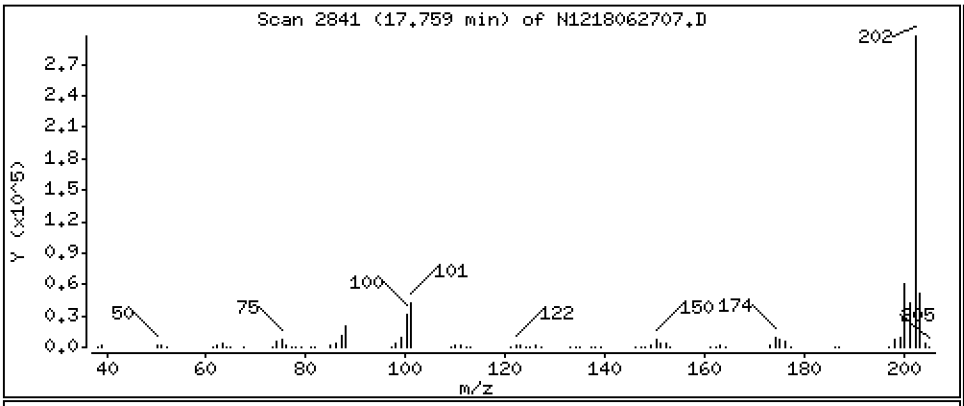
Operator: JZ

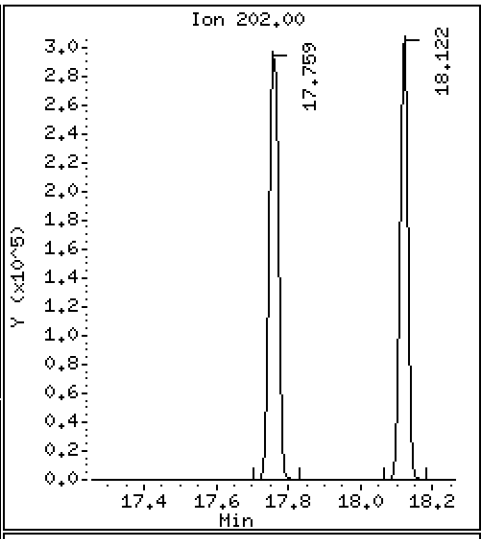
Column phase: ZB-5msi

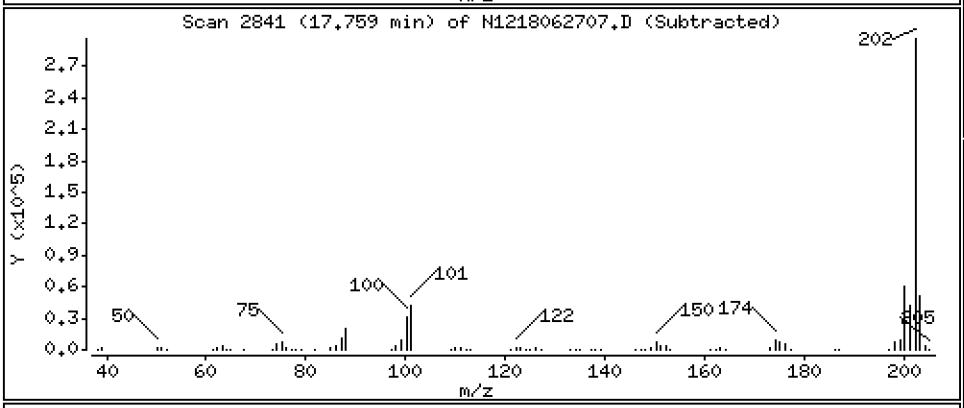
Column diameter: 0.32

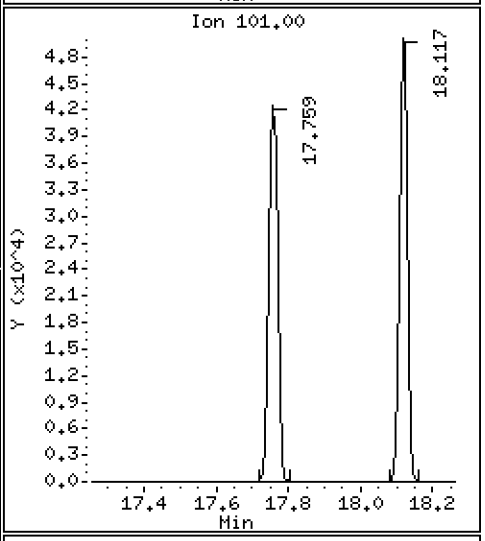
64 Fluoranthene

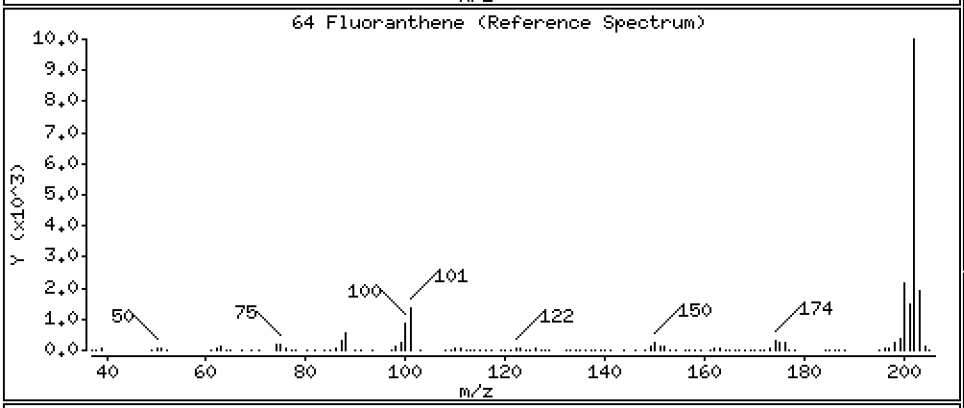
Concentration: 18.59 ug/mL

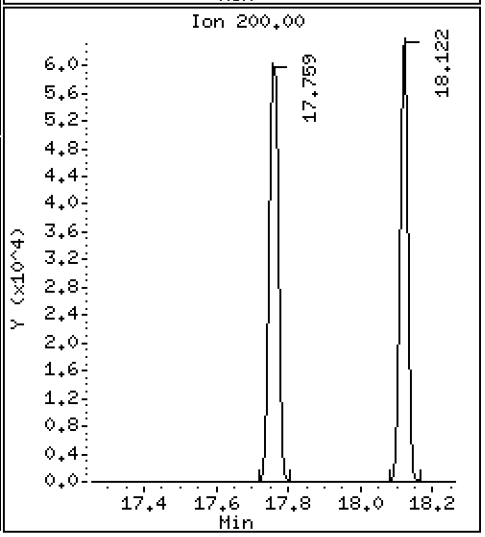


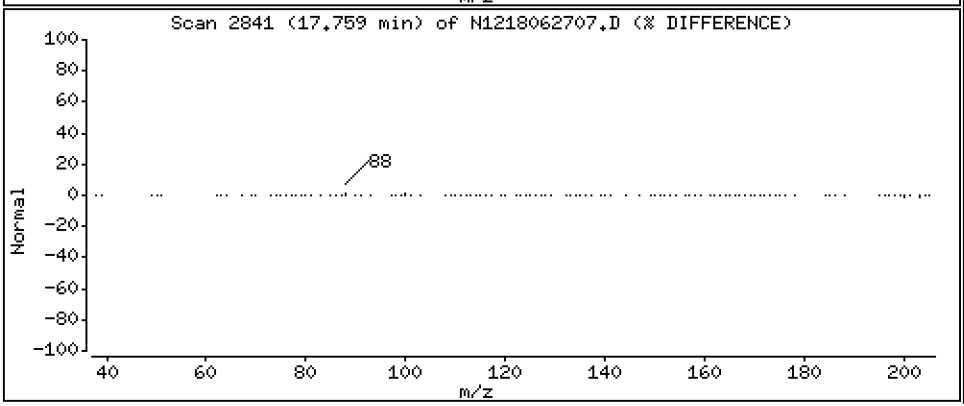












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

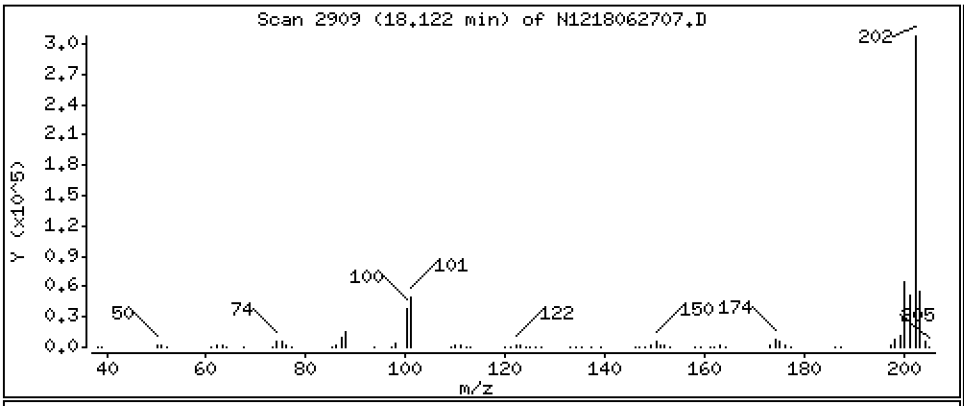
Operator: JZ

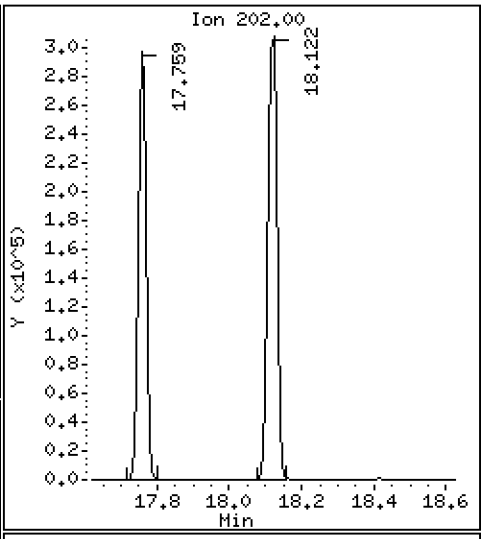
Column phase: ZB-5msi

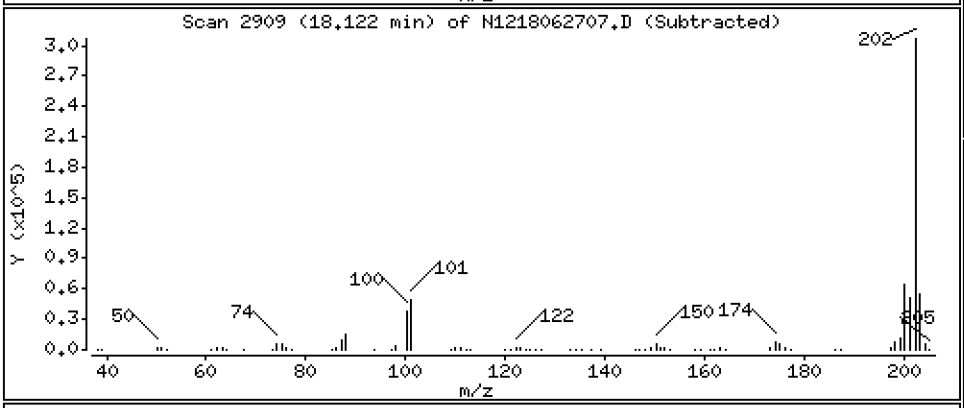
Column diameter: 0.32

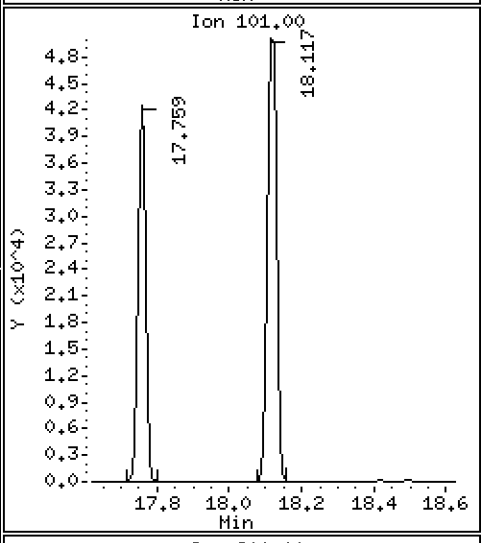
65 Pyrene

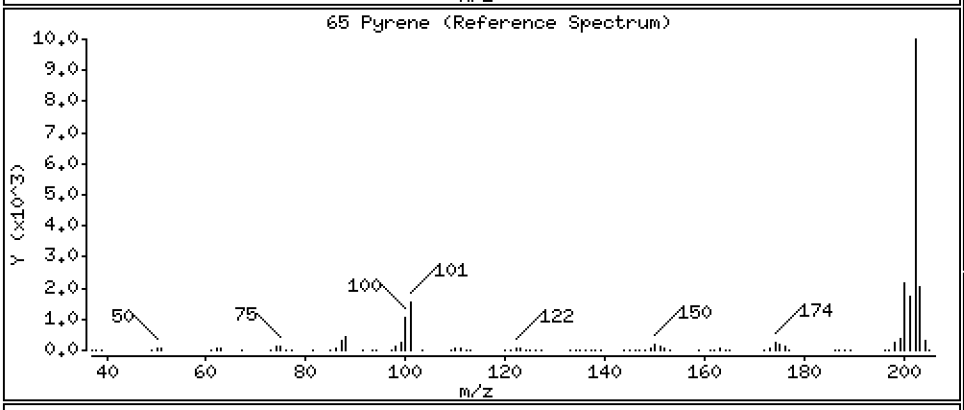
Concentration: 17.96 ug/mL

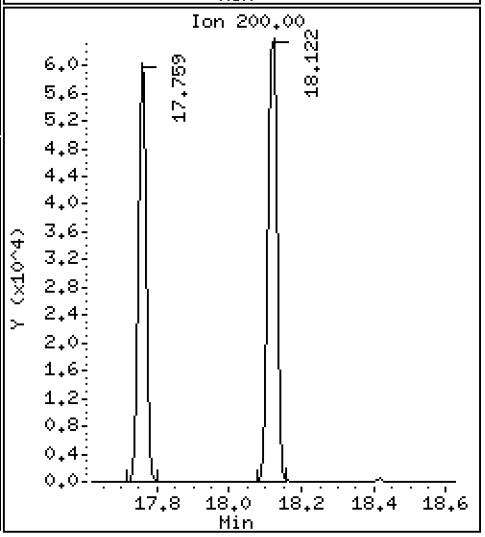


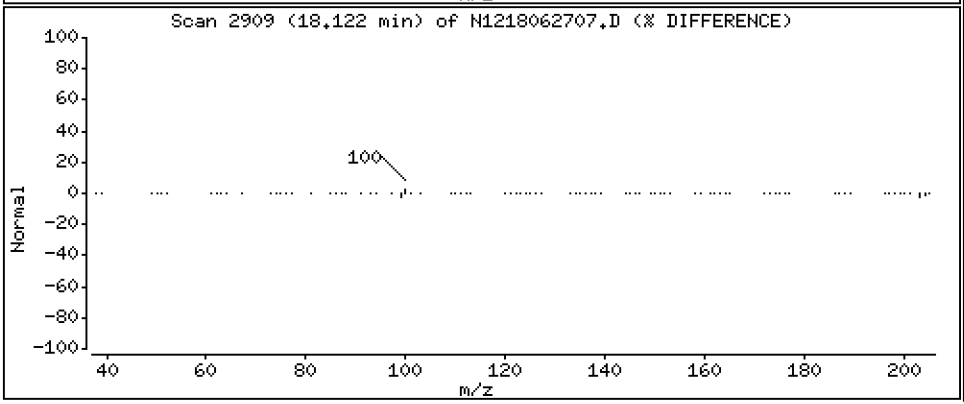












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

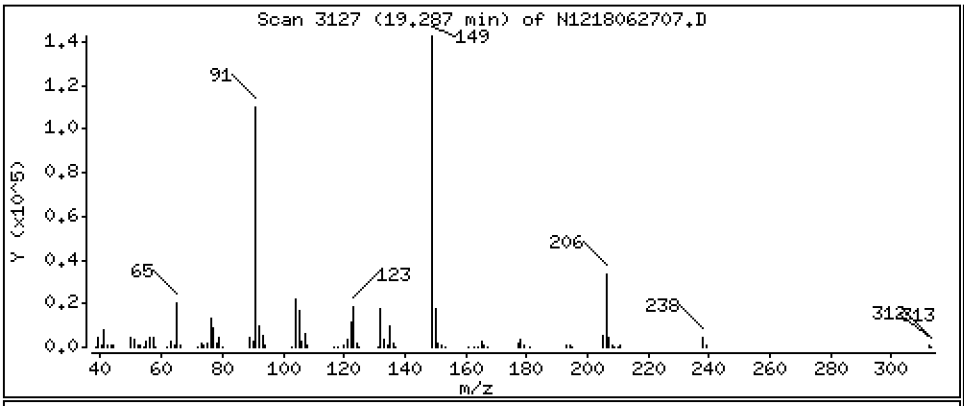
Operator: JZ

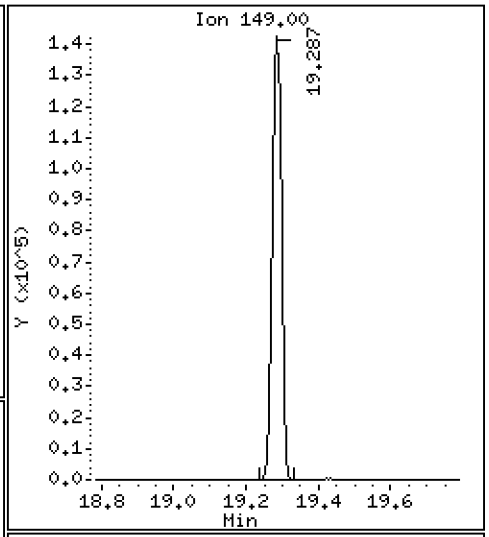
Column phase: ZB-5msi

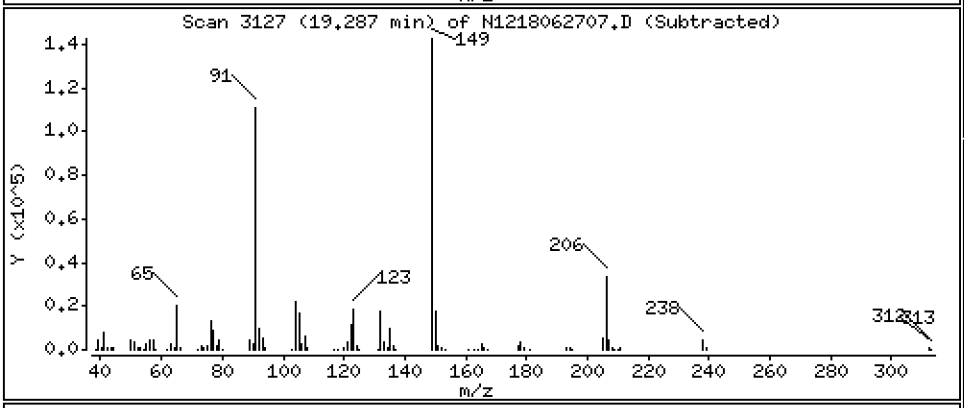
Column diameter: 0.32

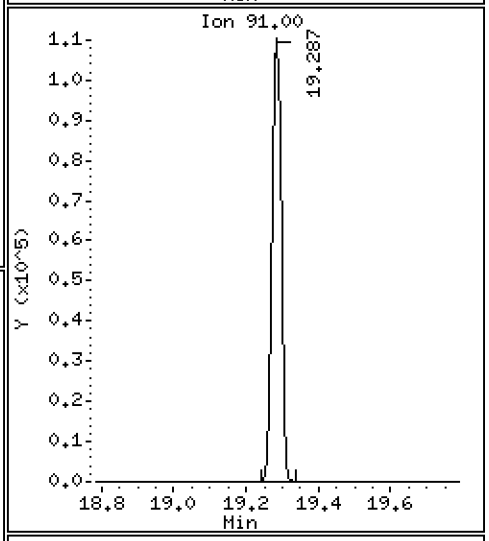
67 Butylbenzylphthalate

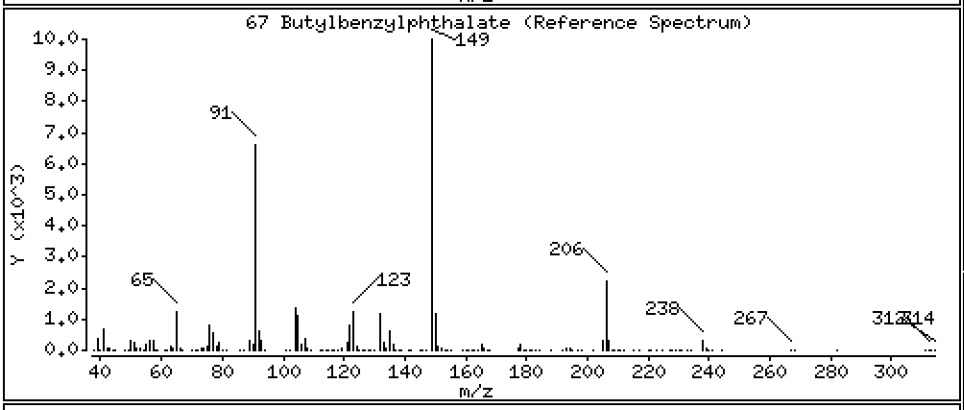
Concentration: 18.75 ug/mL

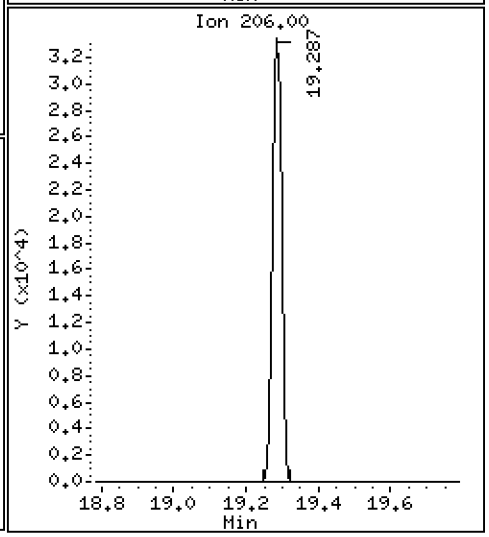


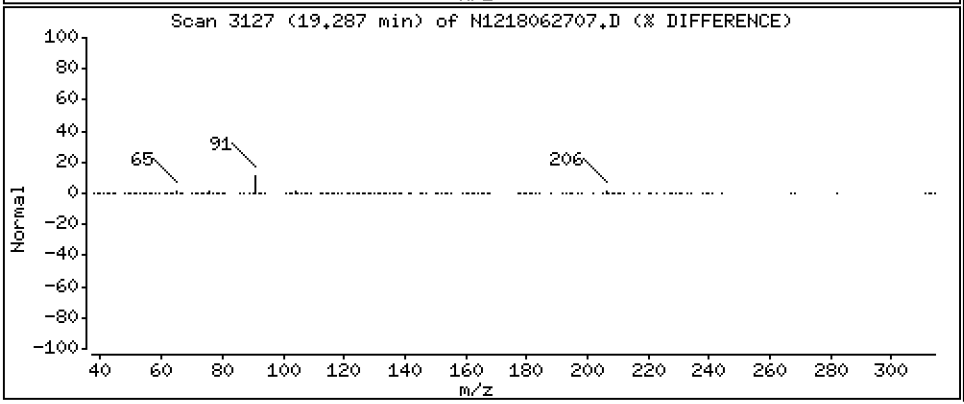












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

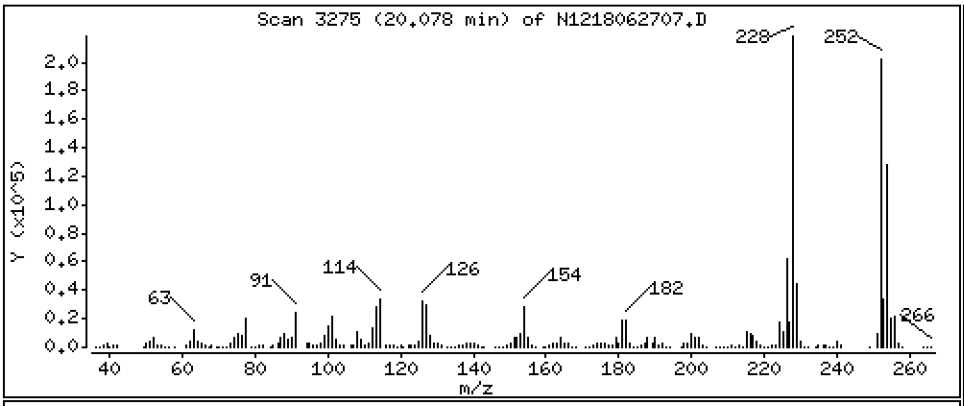
Operator: JZ

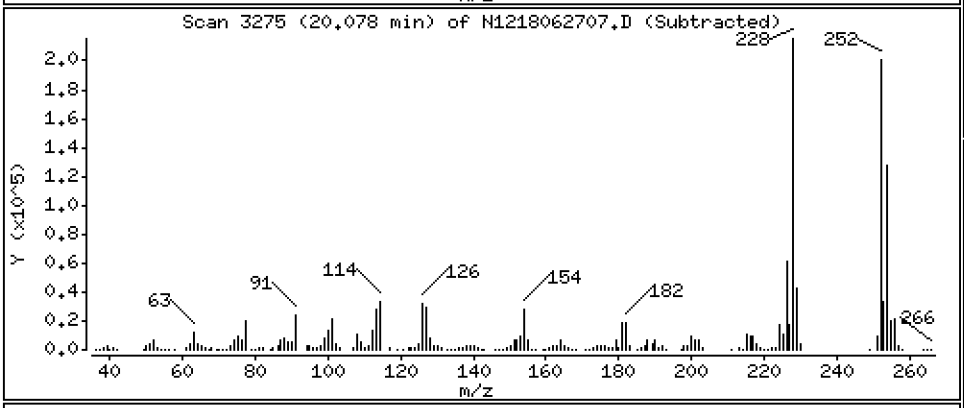
Column phase: ZB-5msi

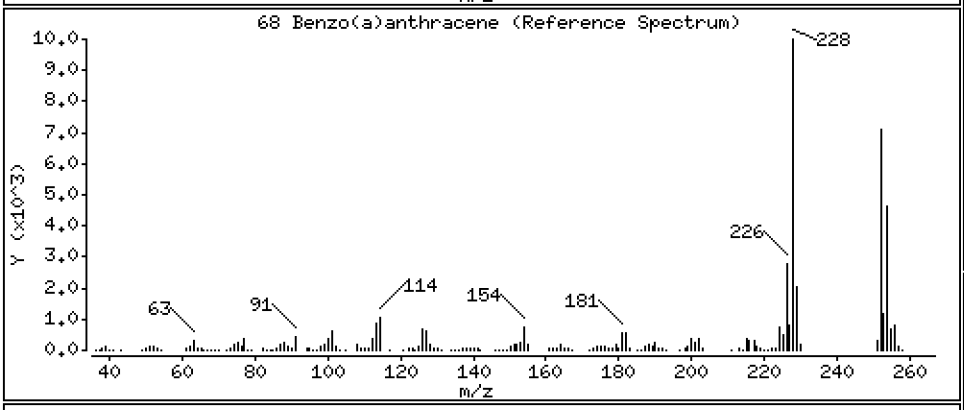
Column diameter: 0.32

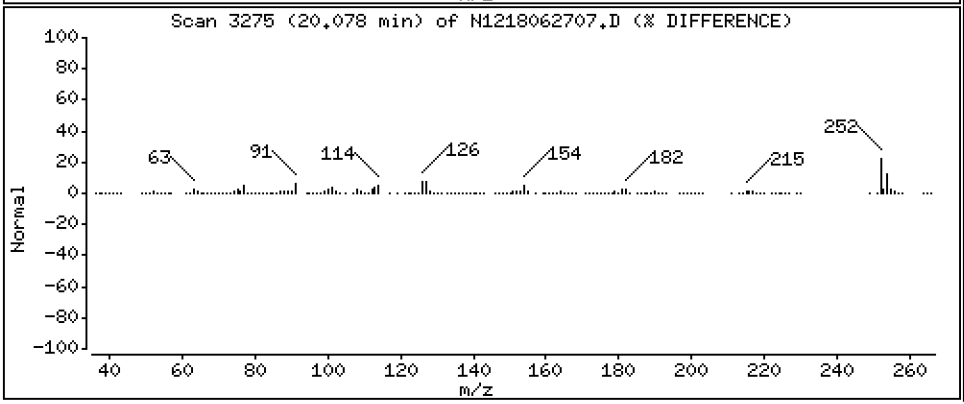
68 Benzo(a)anthracene

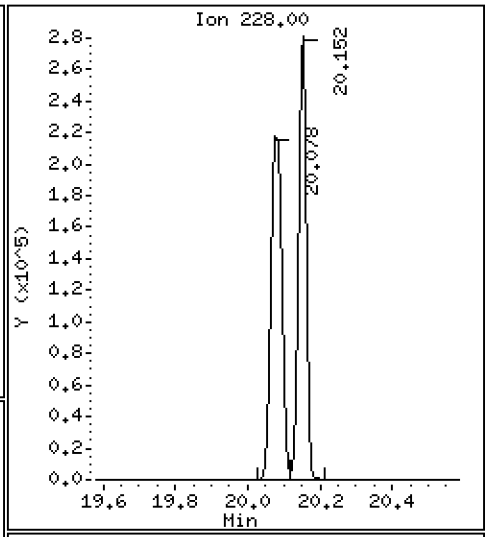
Concentration: 21.09 ug/mL

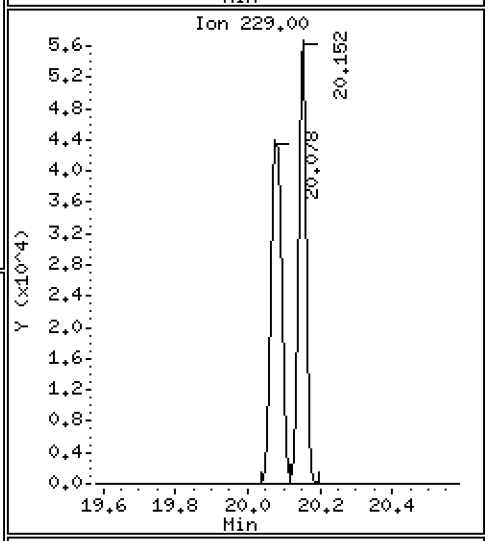


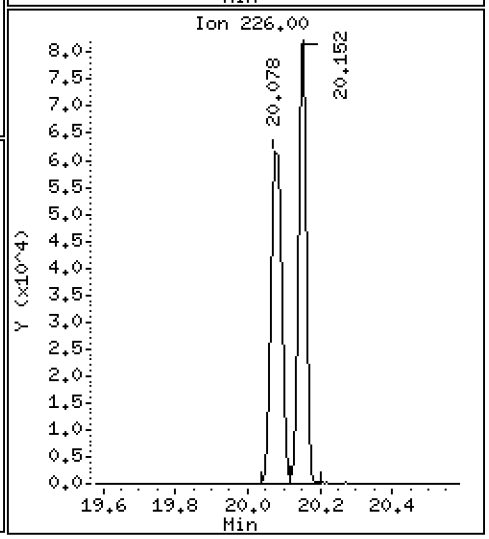












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

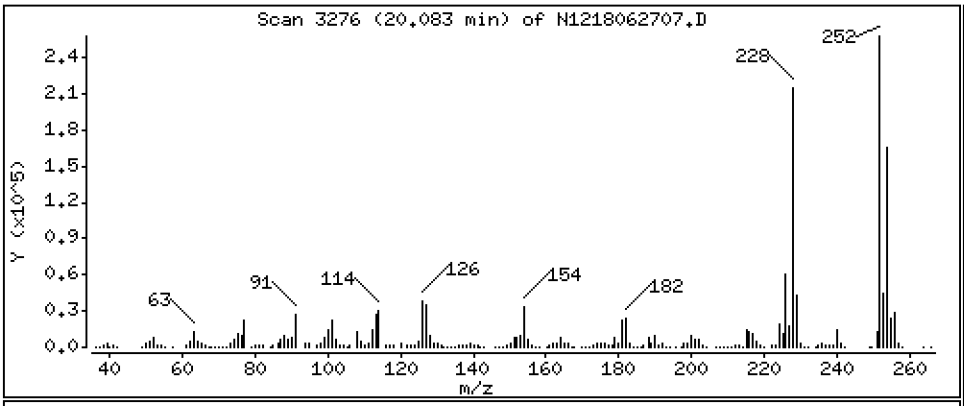
Operator: JZ

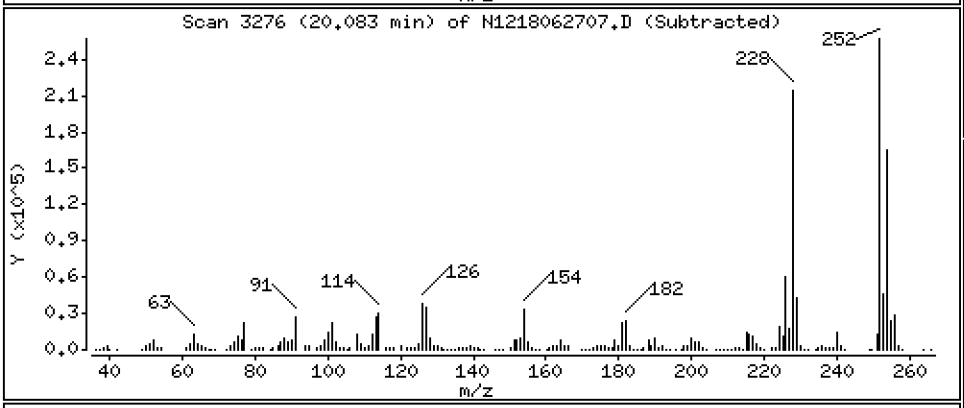
Column phase: ZB-5msi

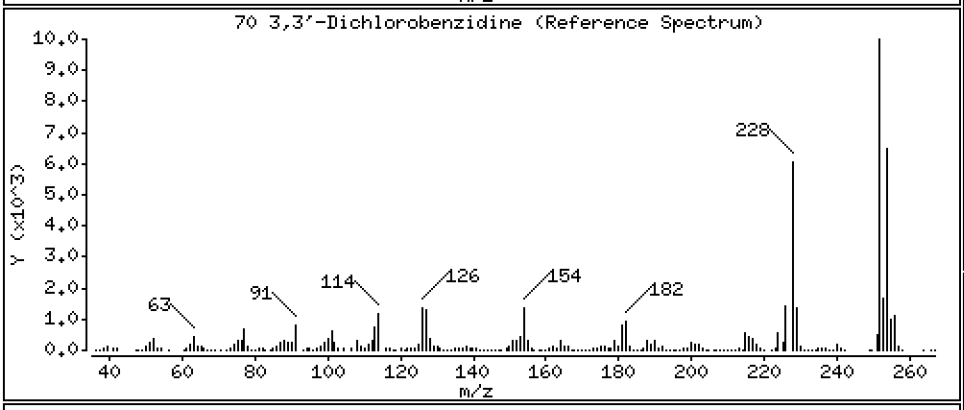
Column diameter: 0.32

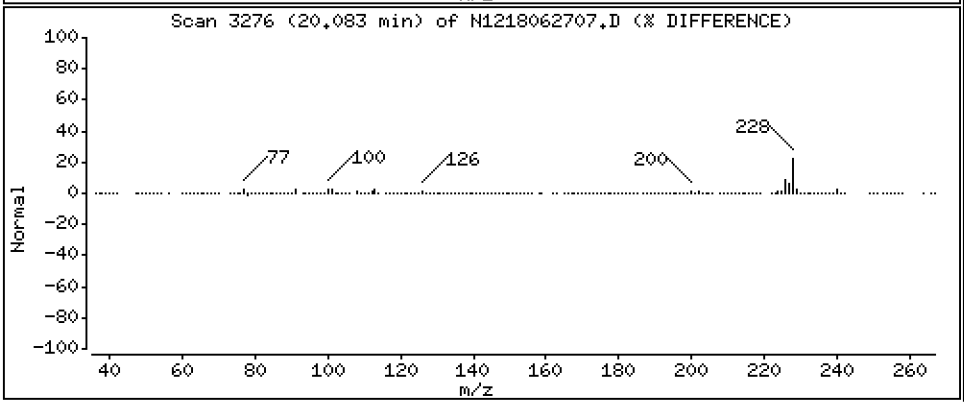
70 3,3'-Dichlorobenzidine

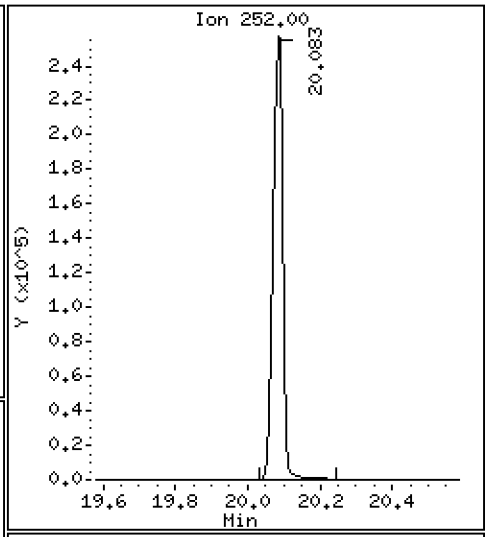
Concentration: 58.88 ug/mL

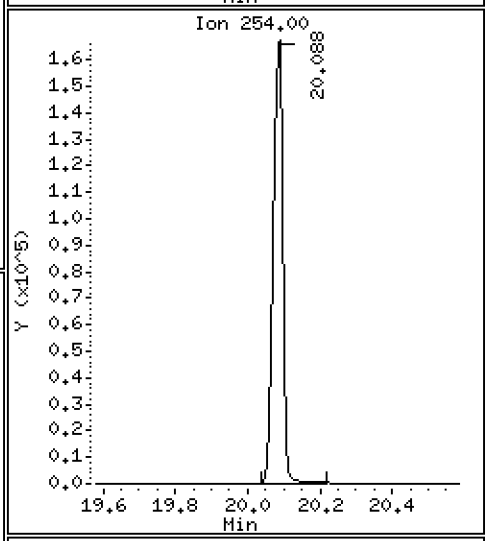


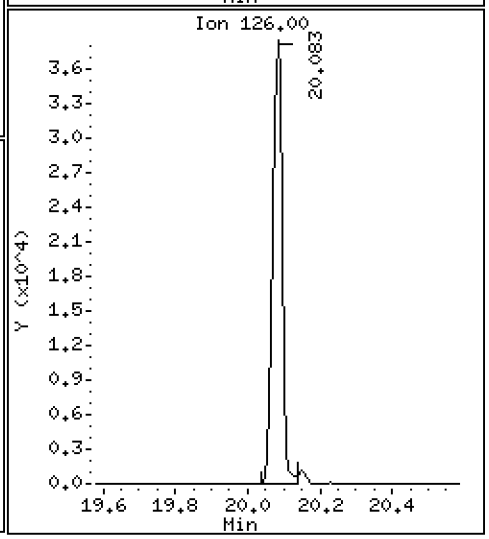












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

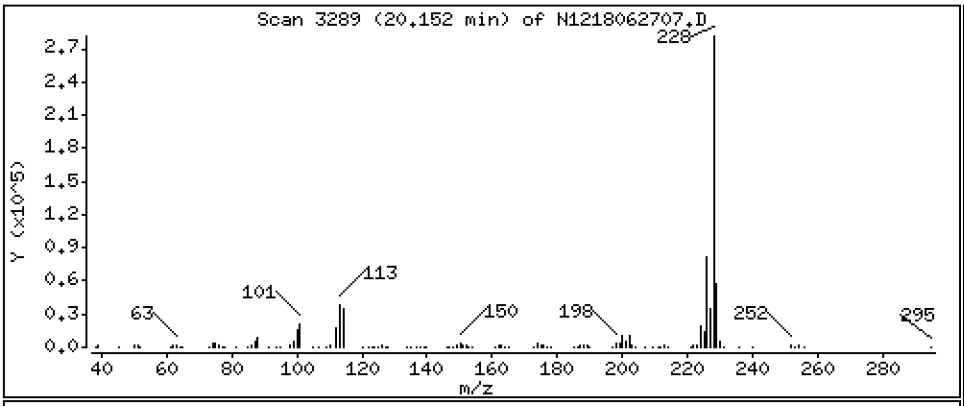
Operator: JZ

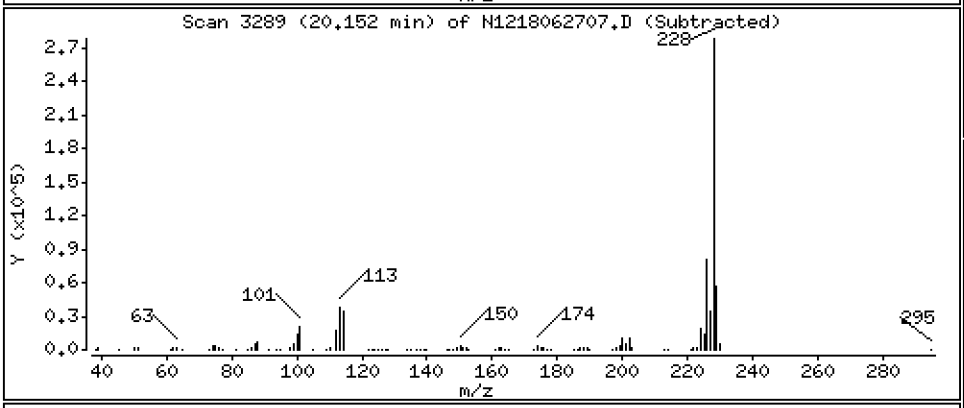
Column phase: ZB-5msi

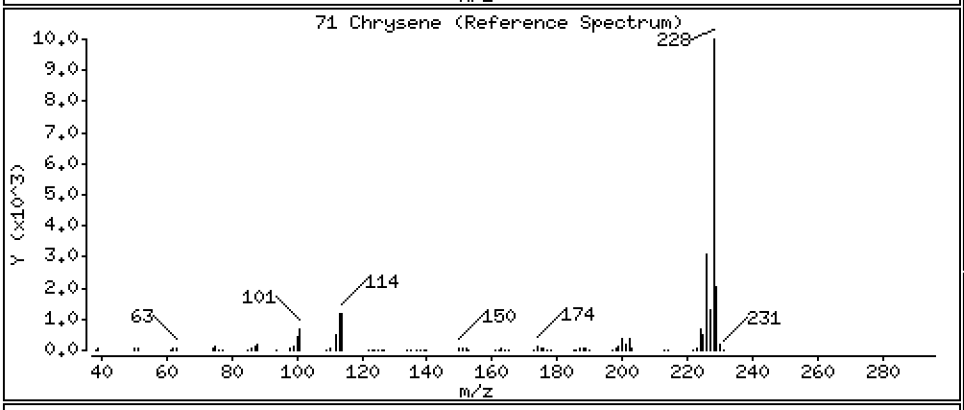
Column diameter: 0.32

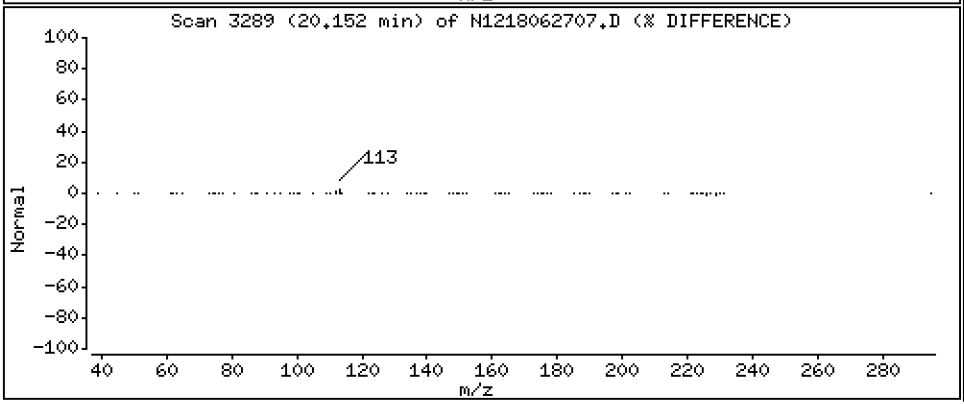
71 Chrysene

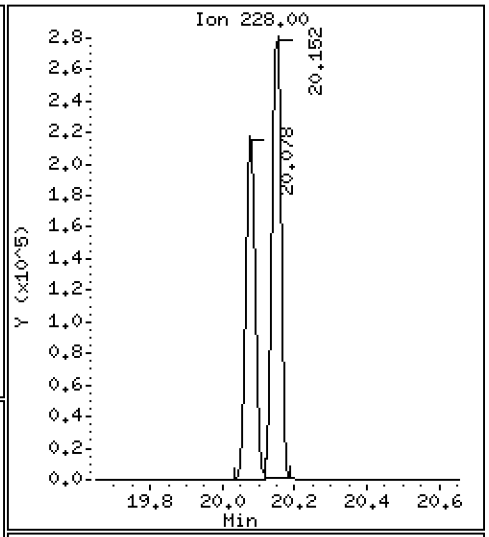
Concentration: 19.69 ug/mL

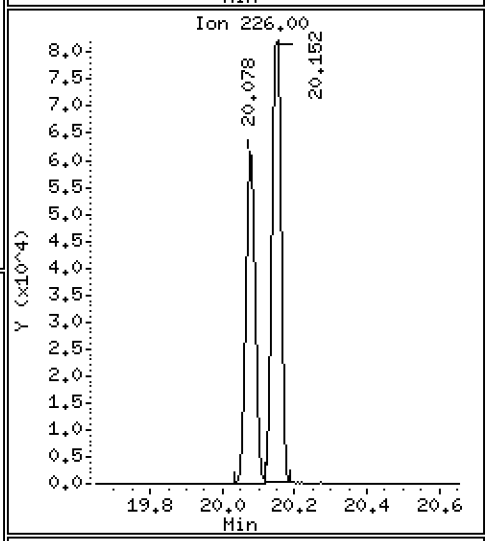


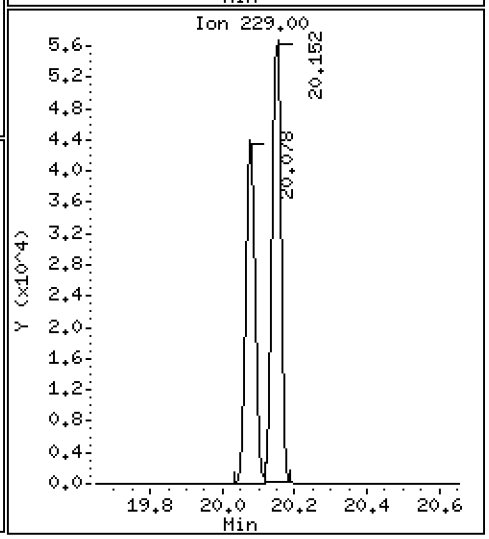












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

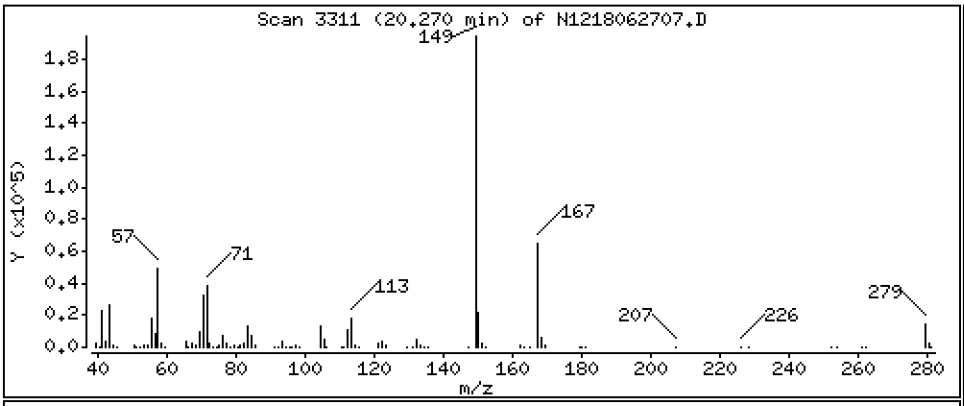
Operator: JZ

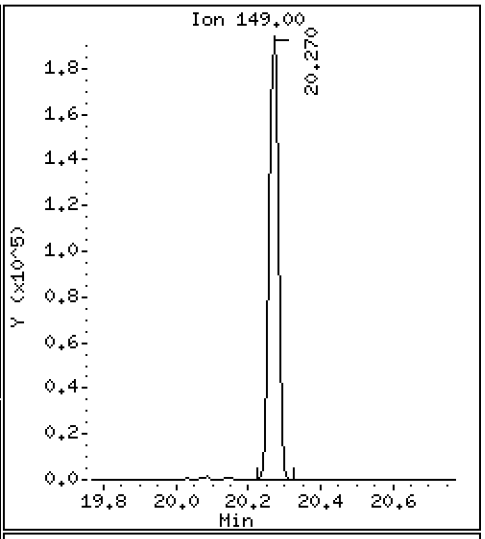
Column phase: ZB-5msi

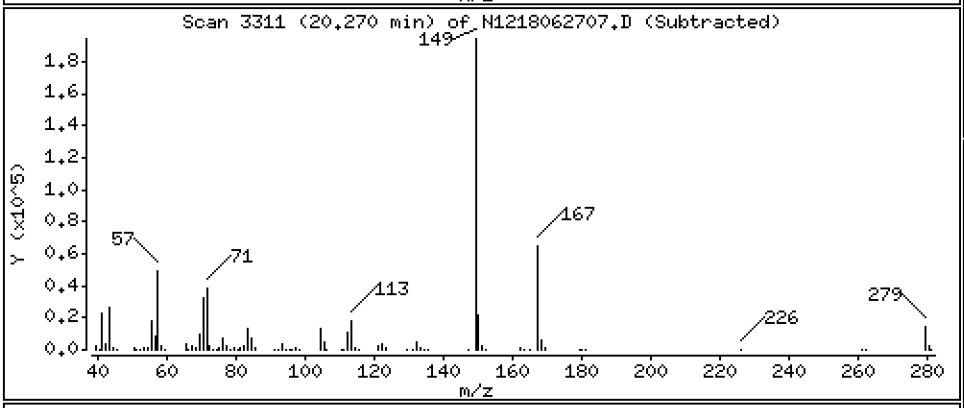
Column diameter: 0.32

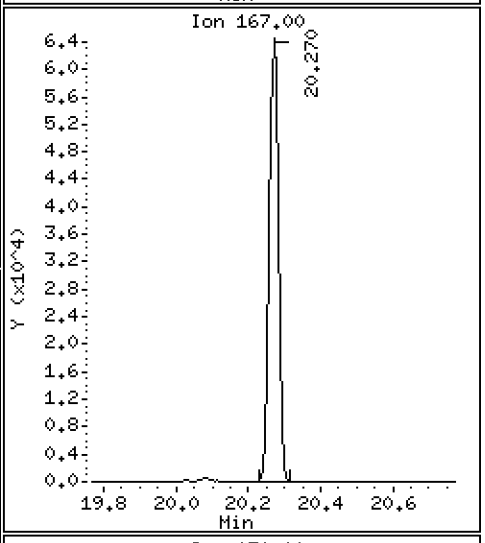
72 bis(2-Ethylhexyl)phthalate

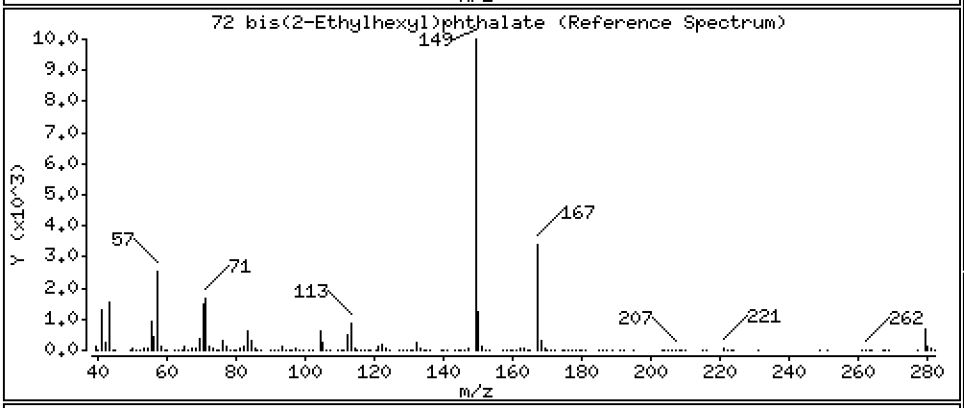
Concentration: 17.99 ug/mL

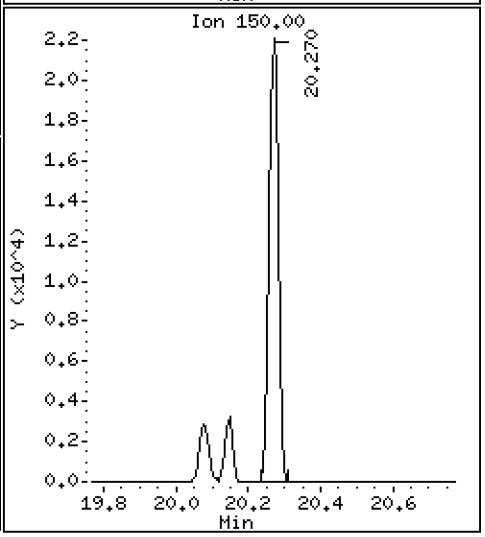


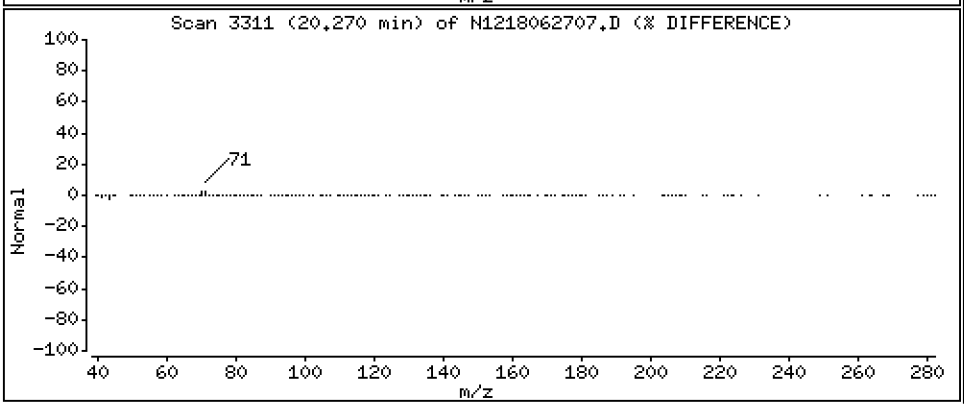












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

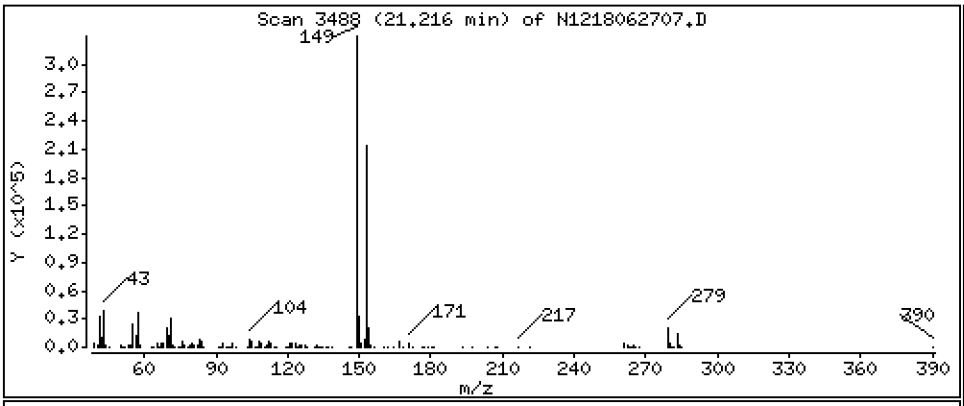
Operator: JZ

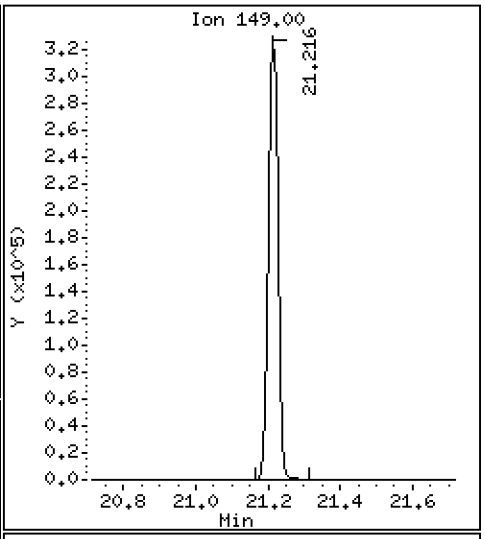
Column phase: ZB-5msi

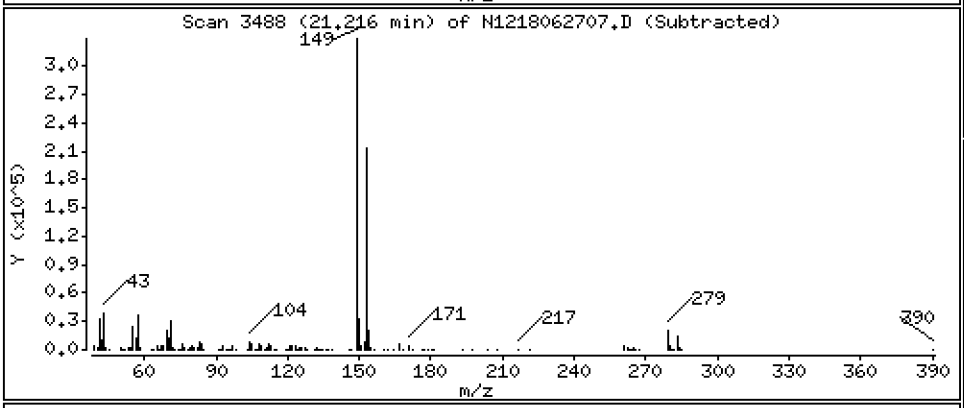
Column diameter: 0.32

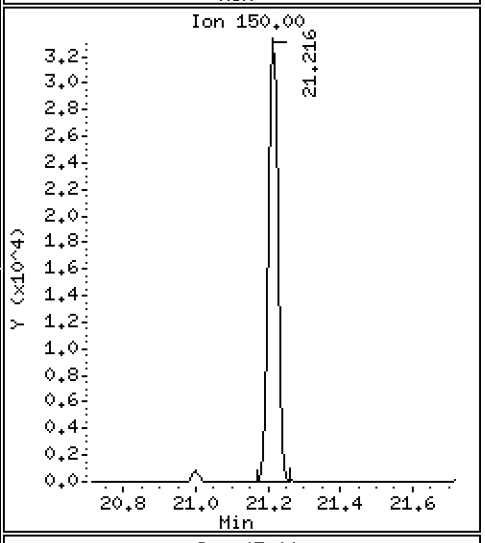
73 Di-n-octylphthalate

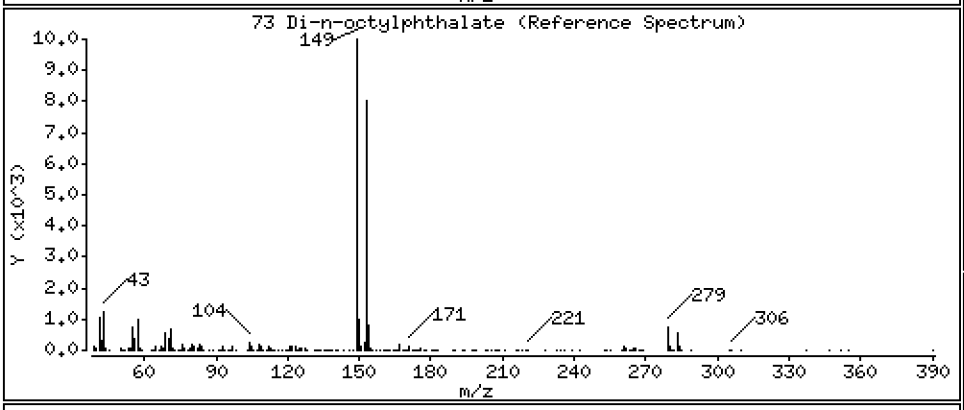
Concentration: 17.42 ug/mL

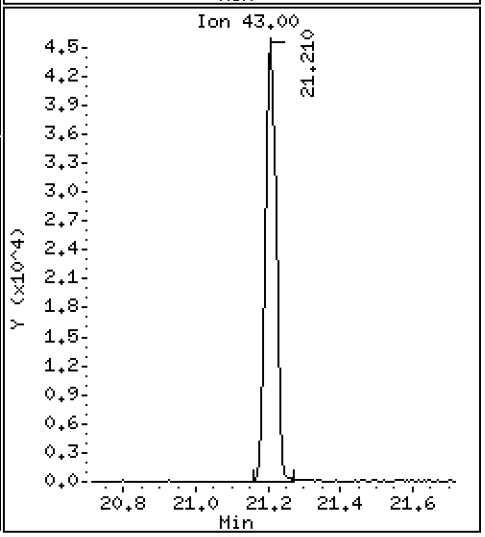


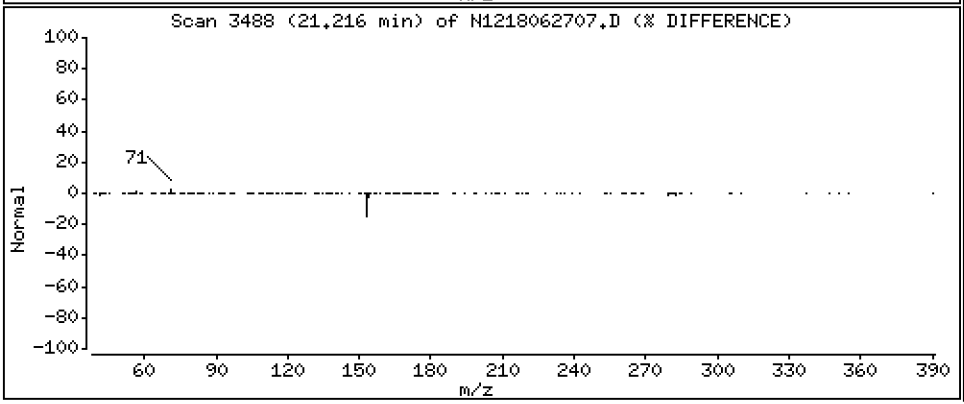












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

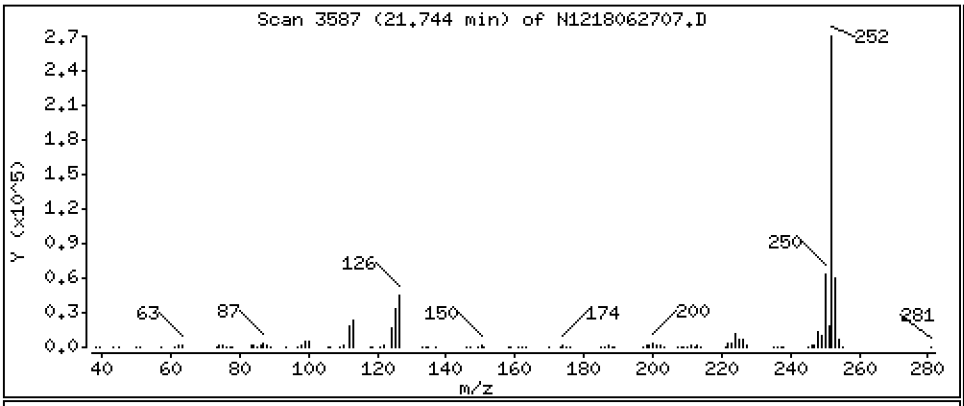
Operator: JZ

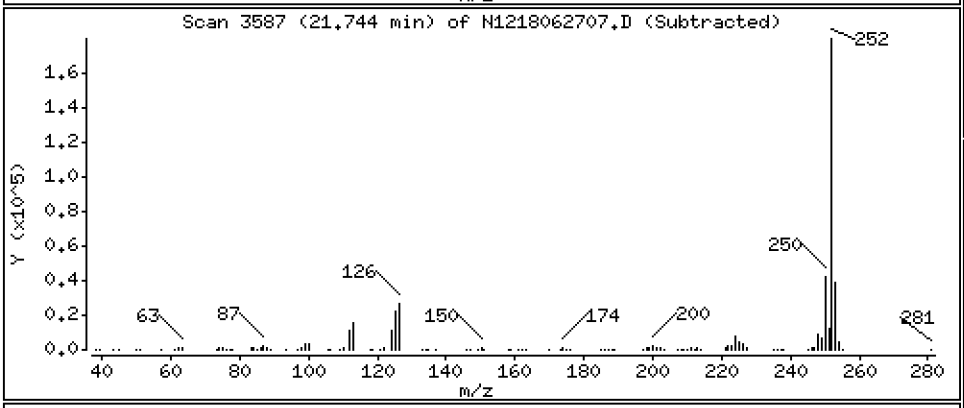
Column phase: ZB-5msi

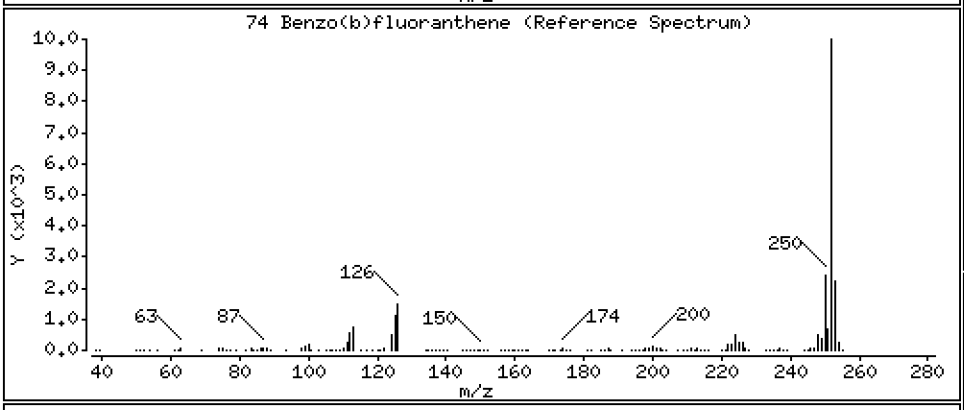
Column diameter: 0.32

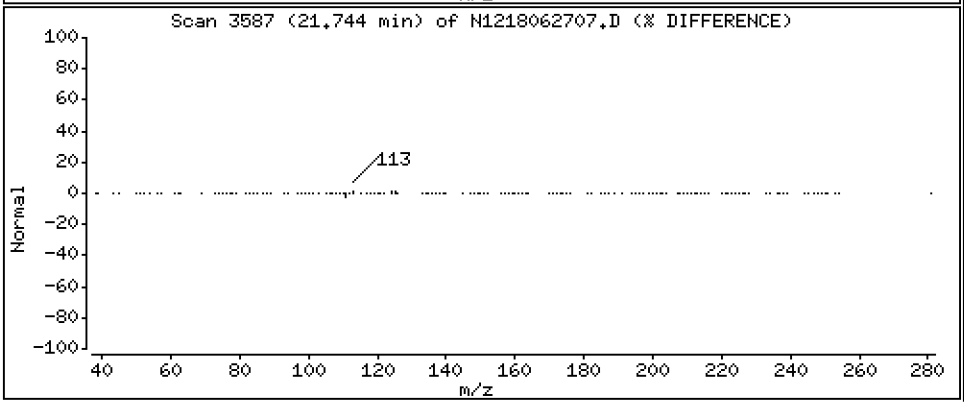
74 Benzo(b)fluoranthene

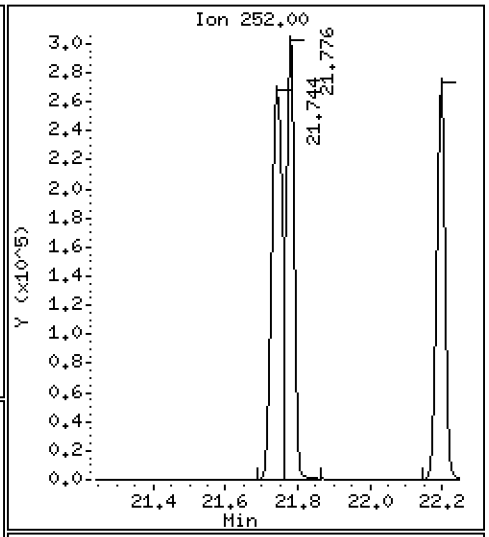
Concentration: 17.40 ug/mL

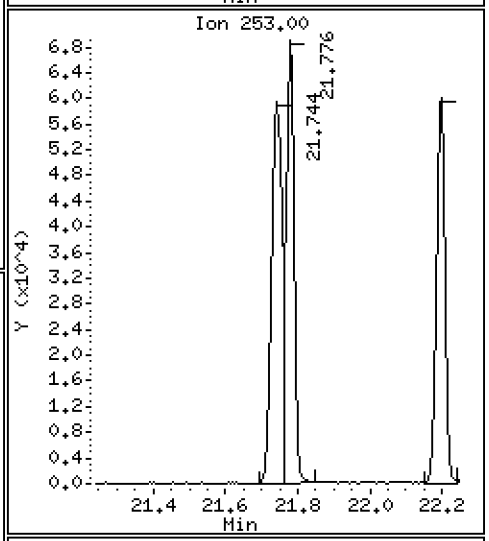


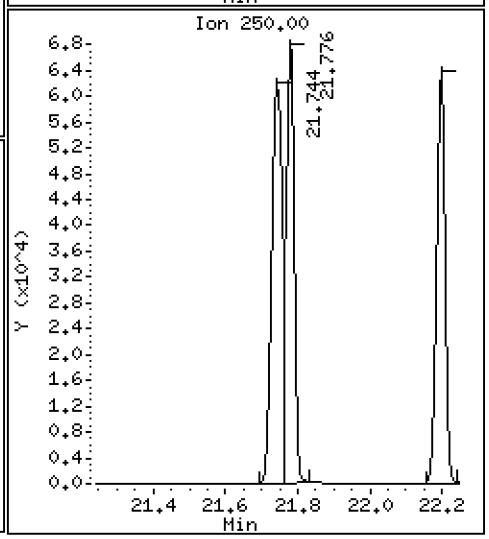












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

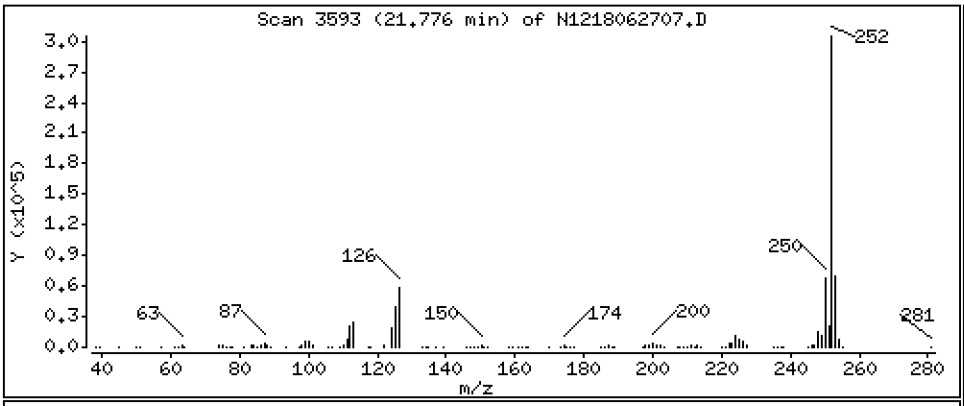
Operator: JZ

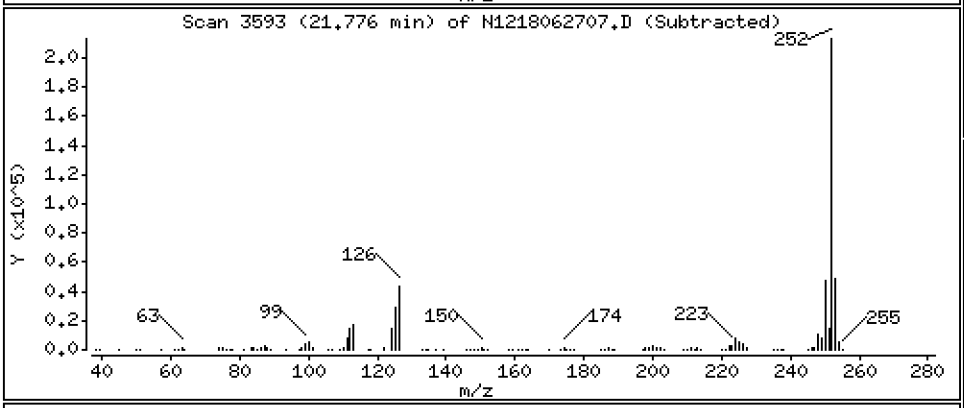
Column phase: ZB-5msi

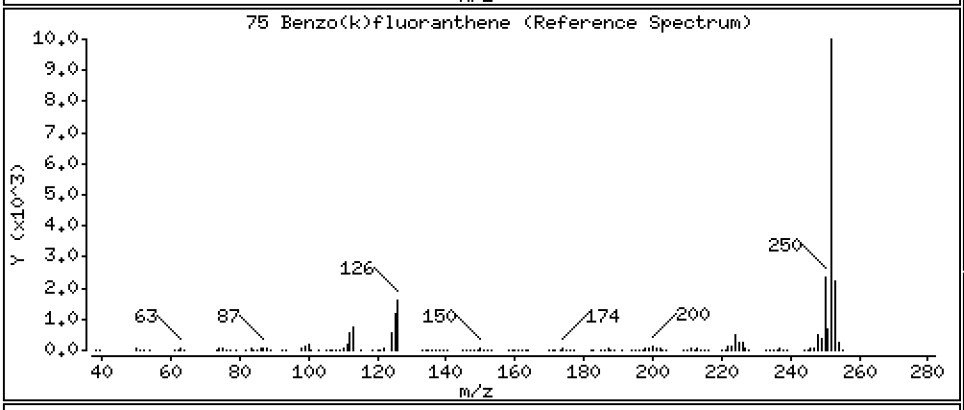
Column diameter: 0.32

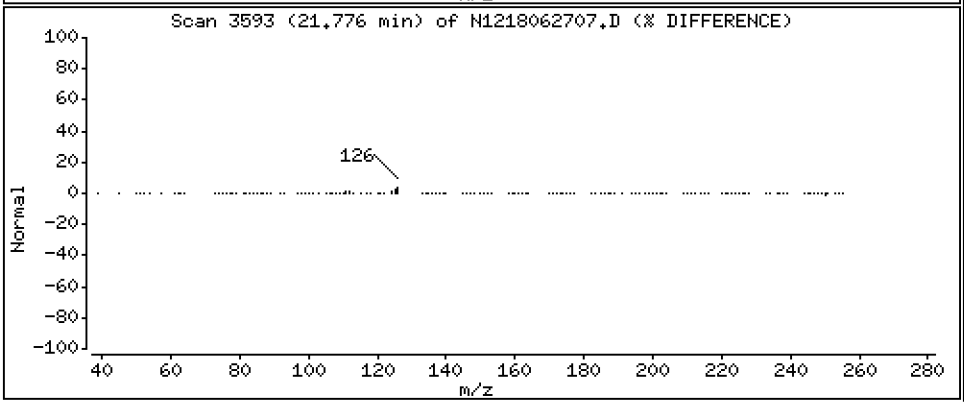
75 Benzo(k)fluoranthene

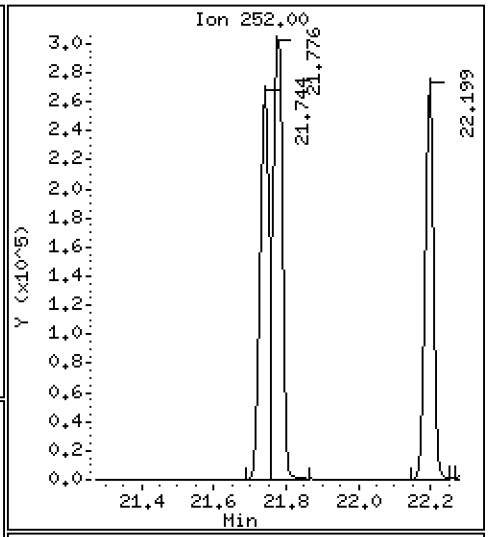
Concentration: 16.78 ug/mL

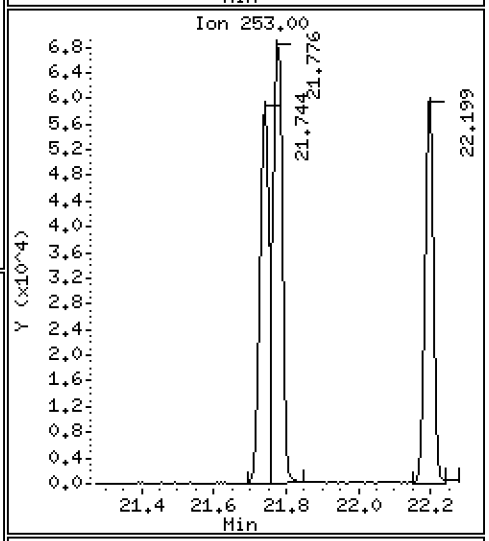


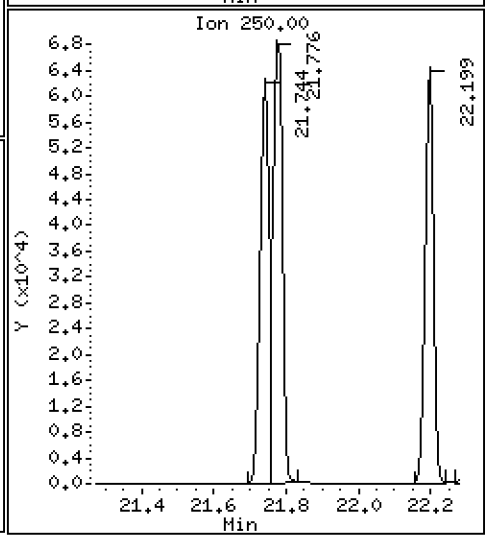












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

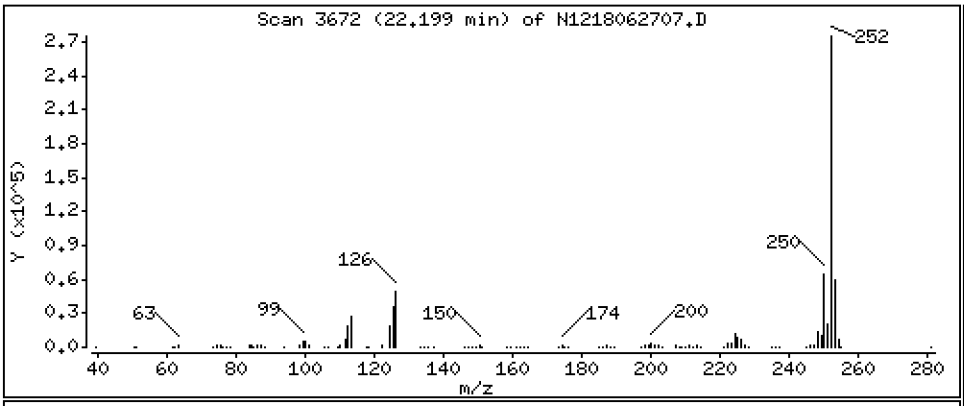
Operator: JZ

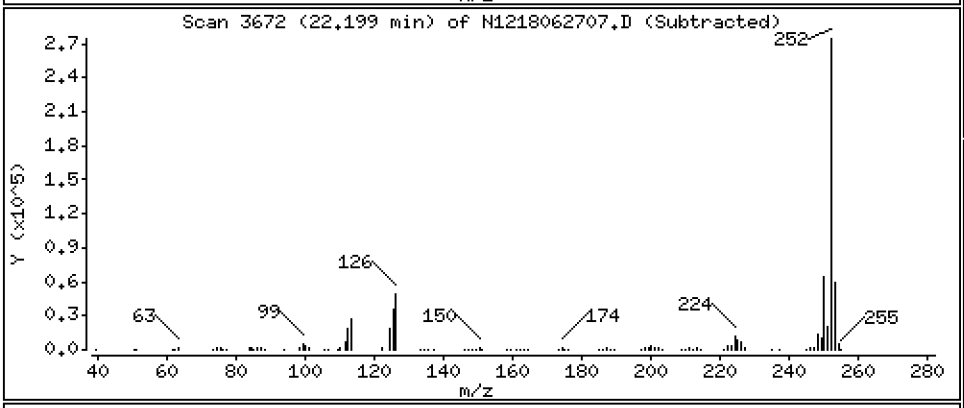
Column phase: ZB-5msi

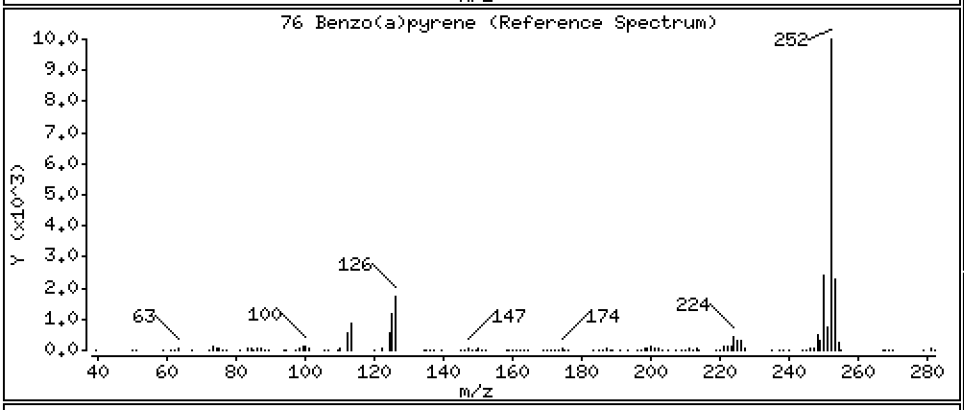
Column diameter: 0.32

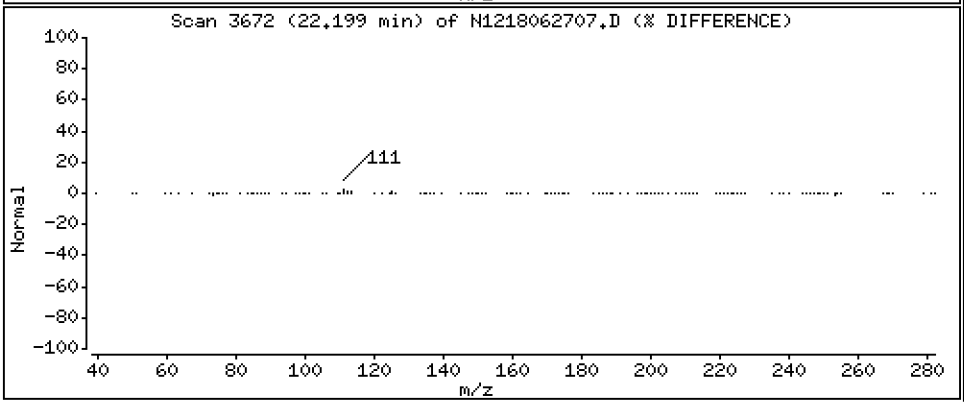
76 Benzo(a)pyrene

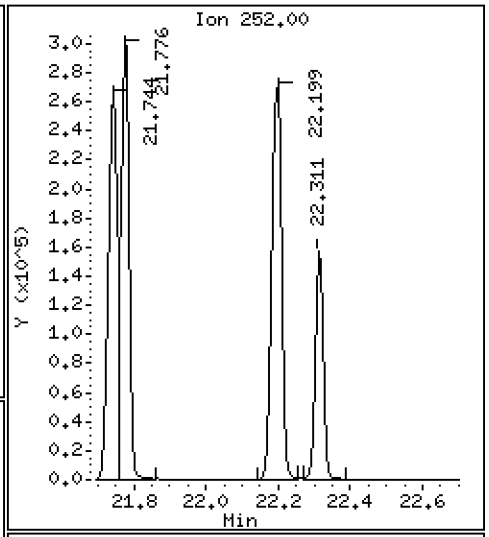
Concentration: 18.62 ug/mL

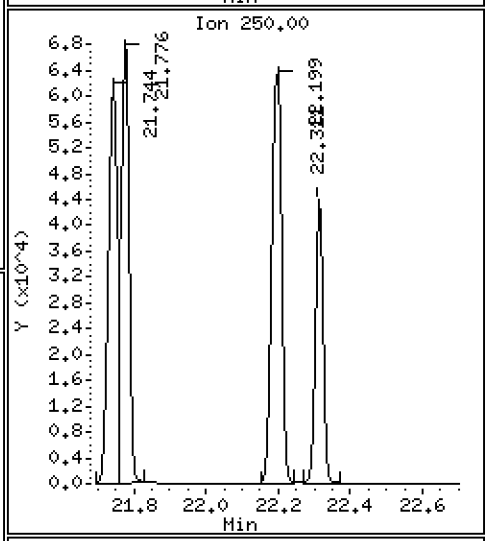


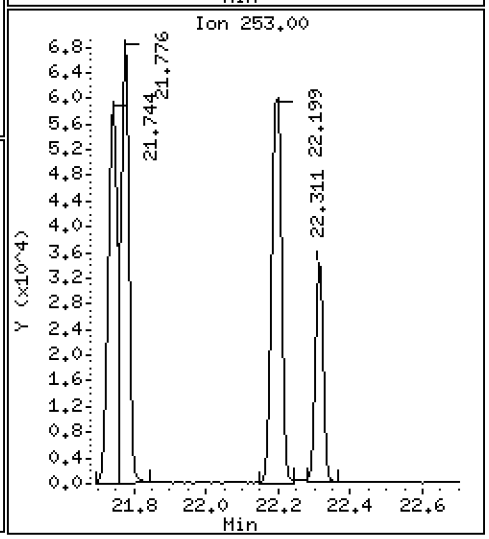












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

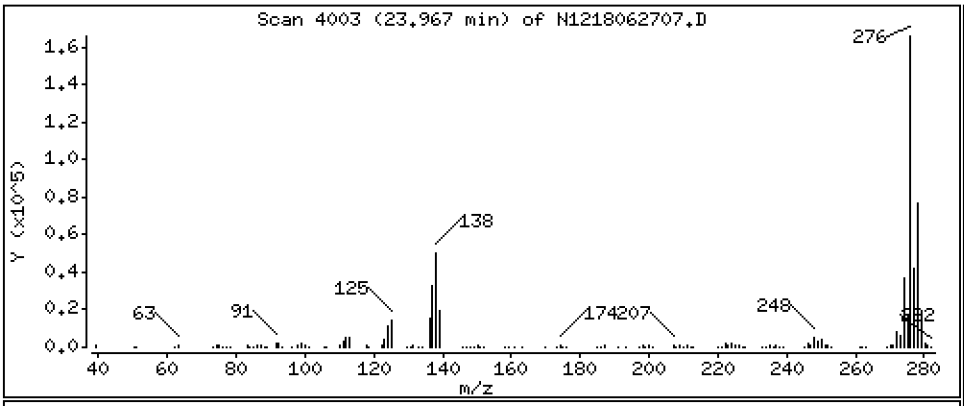
Operator: JZ

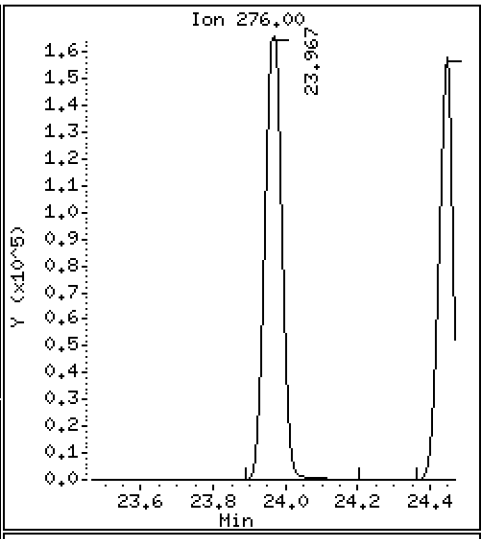
Column phase: ZB-5msi

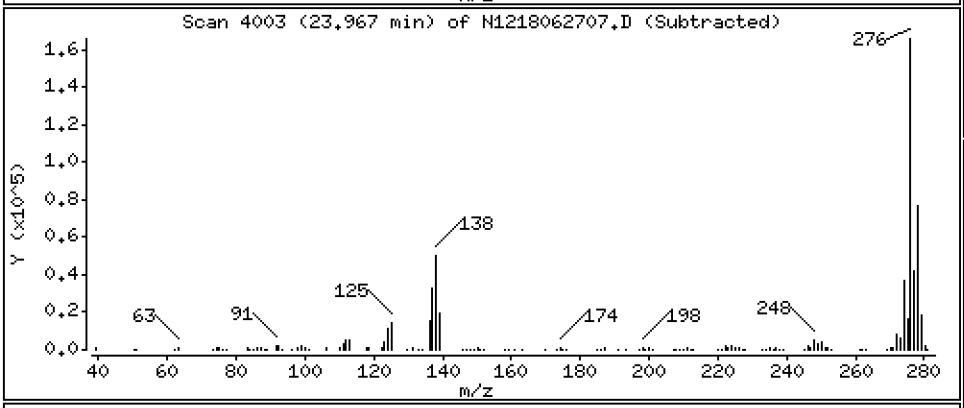
Column diameter: 0.32

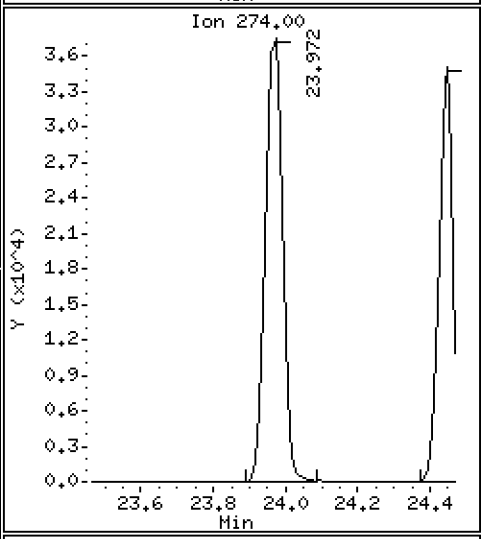
78 Indeno(1,2,3-cd)pyrene

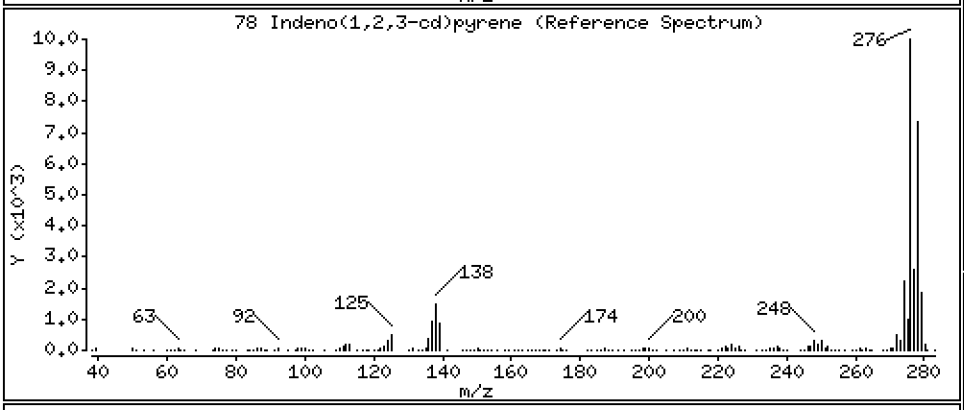
Concentration: 18.09 ug/mL

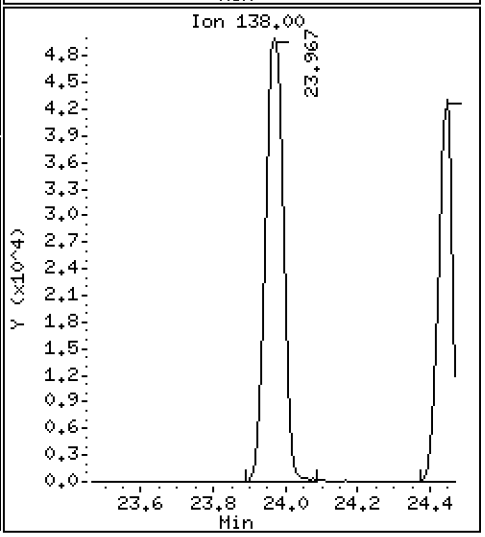


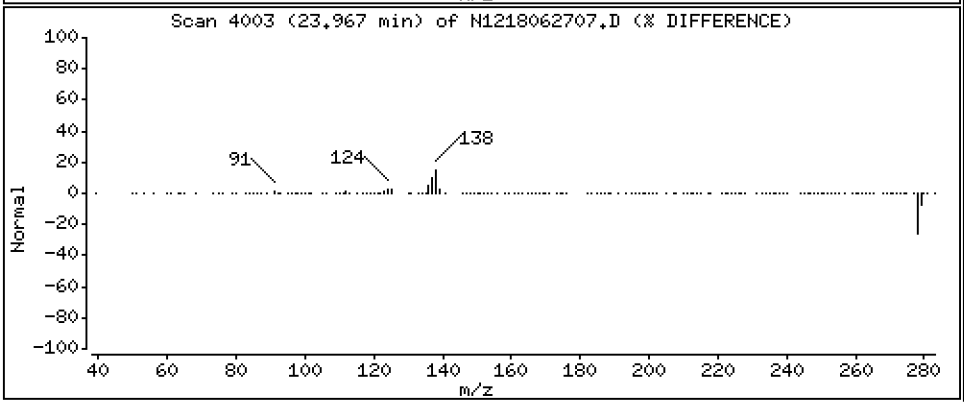












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

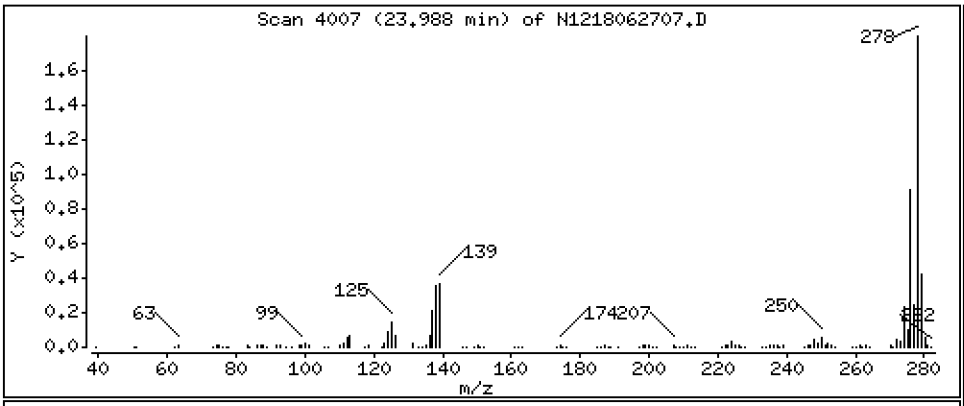
Operator: JZ

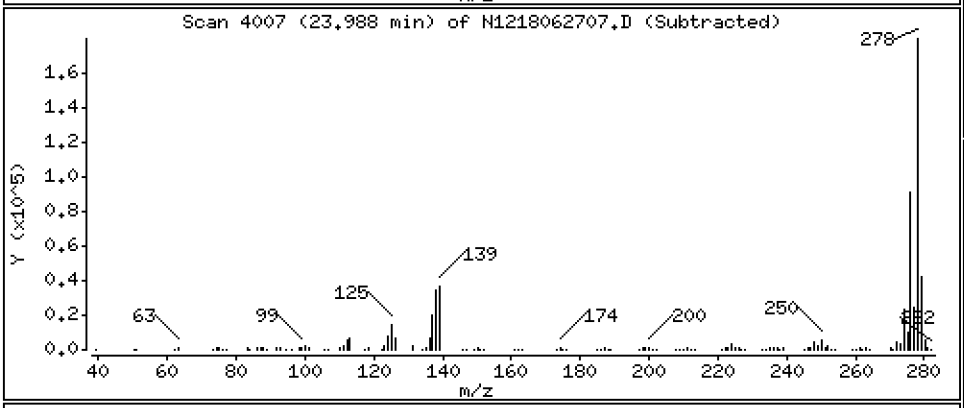
Column phase: ZB-5msi

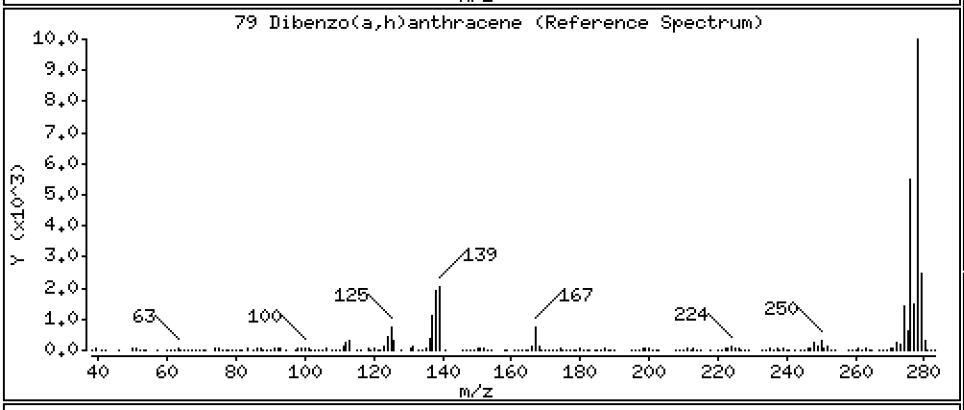
Column diameter: 0.32

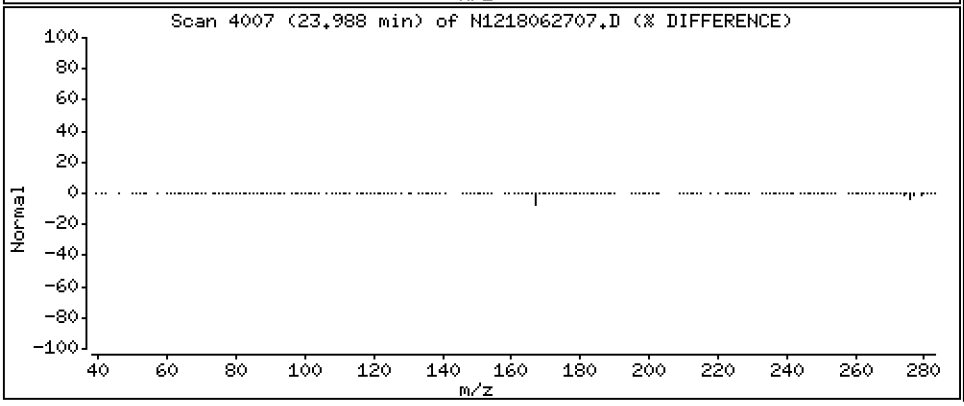
79 Dibenzo(a,h)anthracene

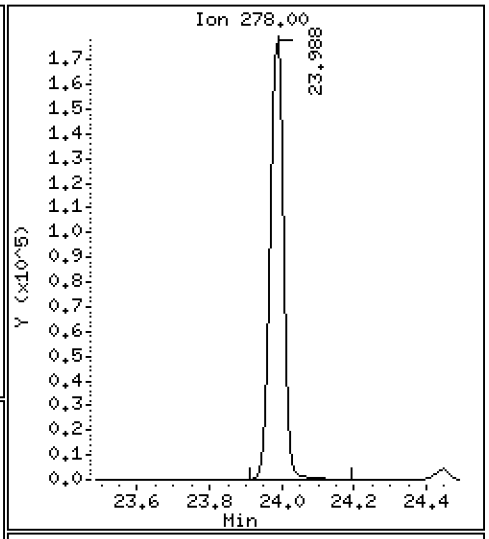
Concentration: 18.17 ug/mL

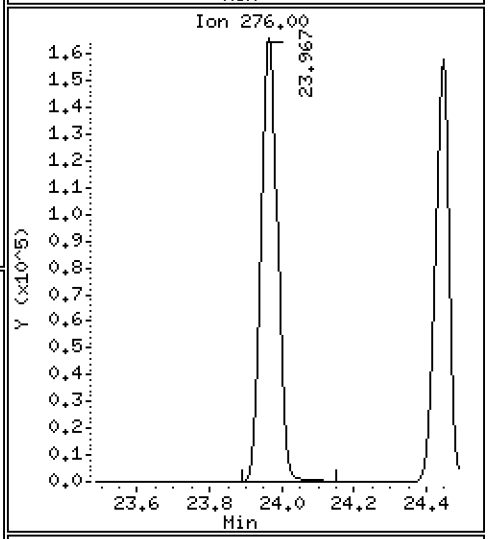


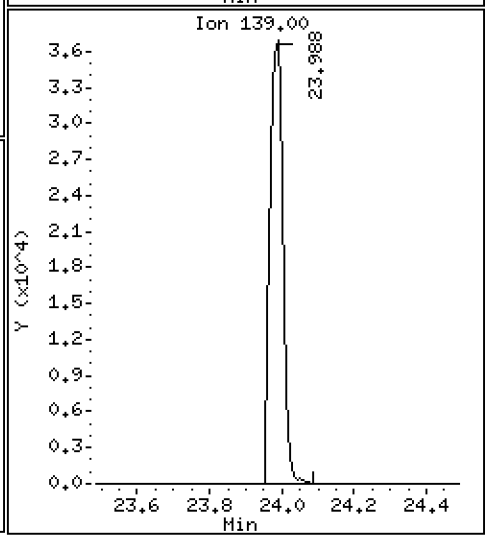












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

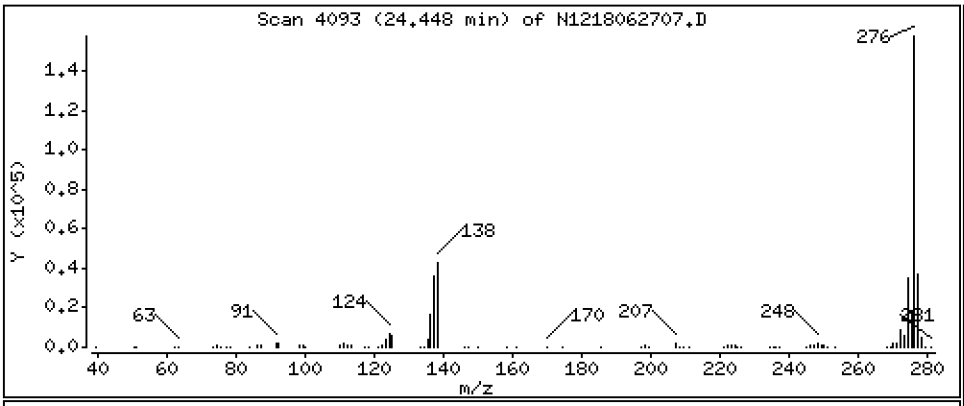
Operator: JZ

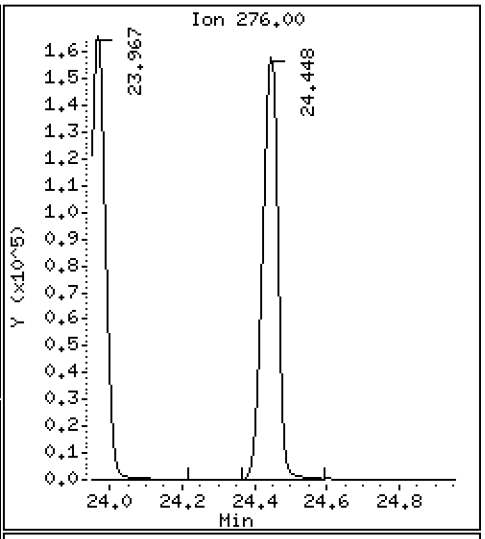
Column phase: ZB-5msi

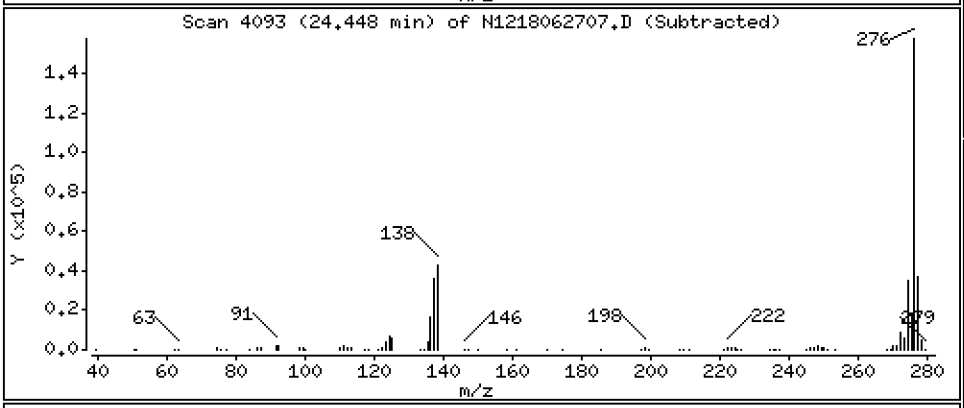
Column diameter: 0.32

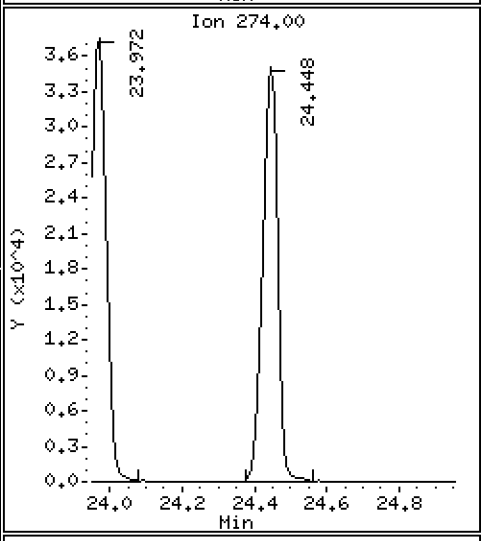
80 Benzo(g,h,i)perylene

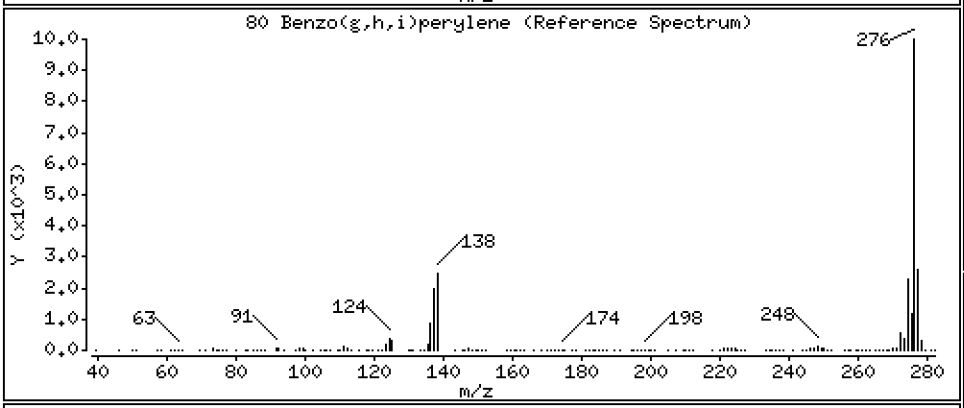
Concentration: 18.35 ug/mL

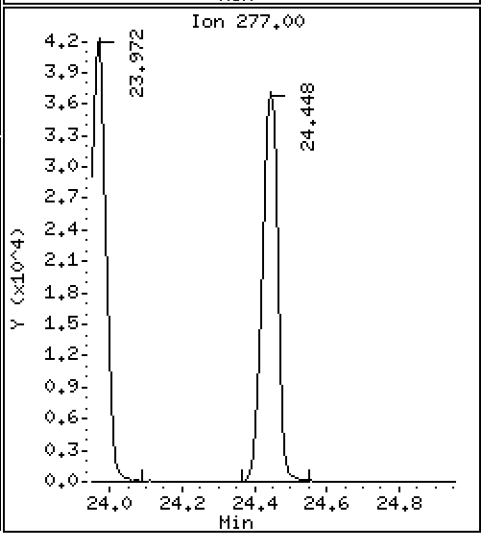


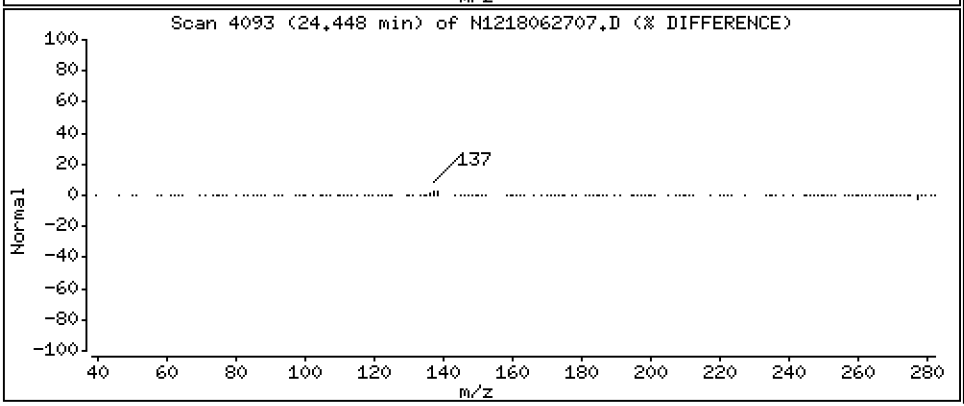












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

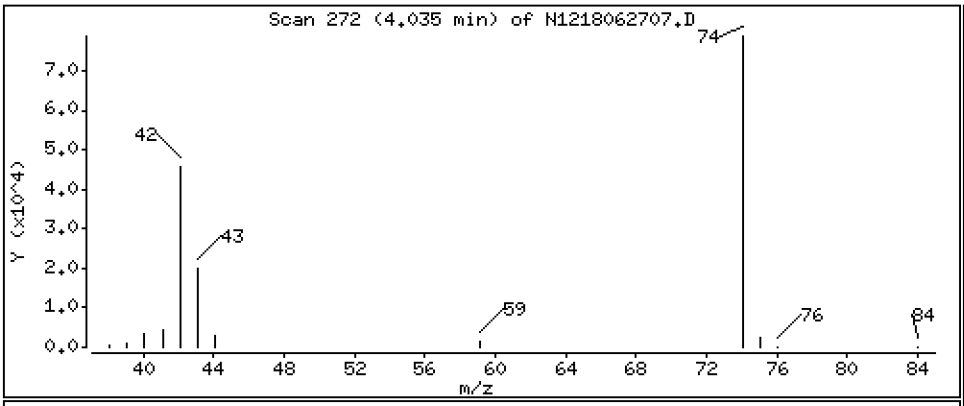
Operator: JZ

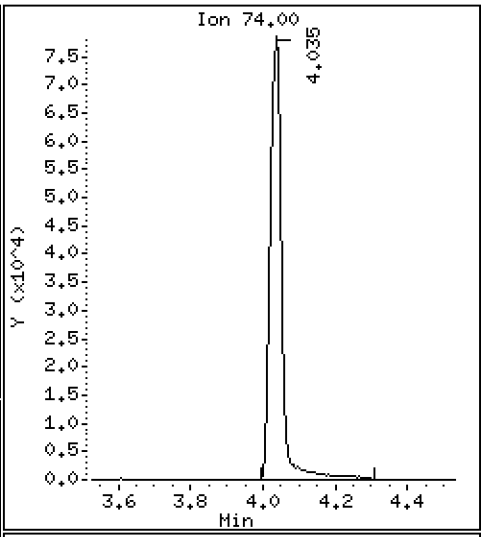
Column phase: ZB-5msi

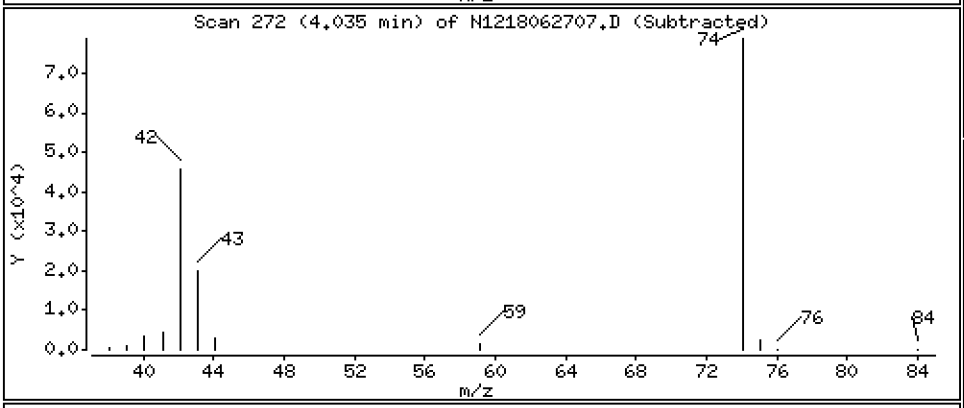
Column diameter: 0.32

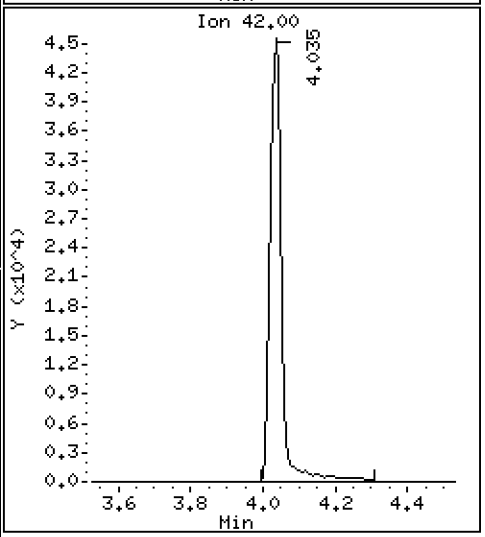
90 N-Nitrosodimethylamine

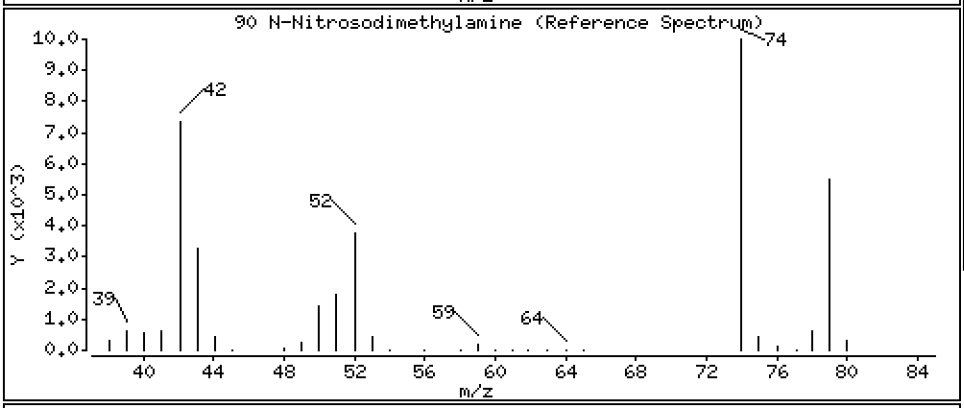
Concentration: 27.43 ug/mL

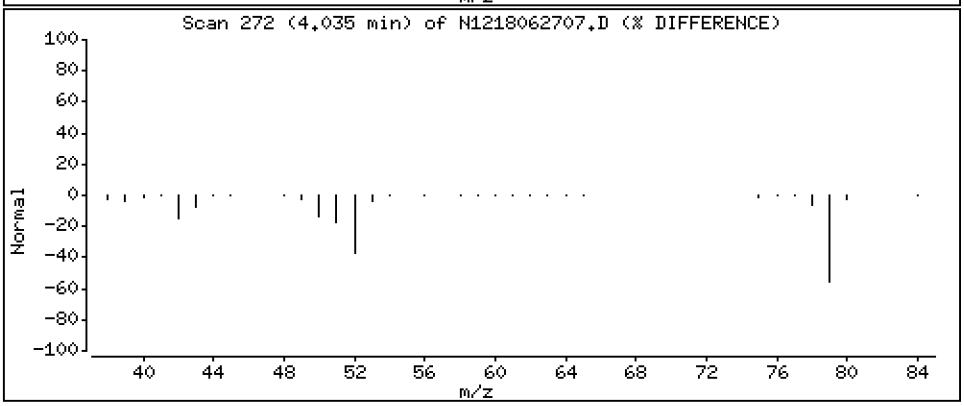












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

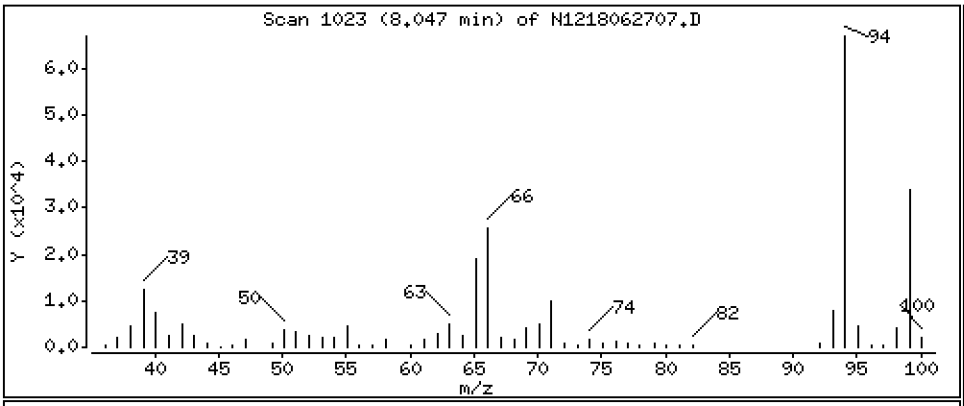
Operator: JZ

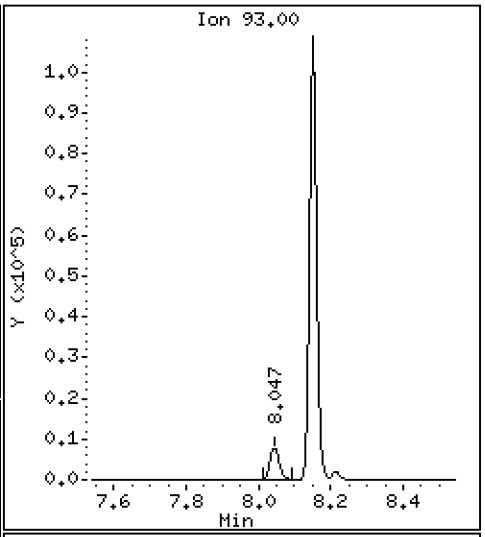
Column phase: ZB-5msi

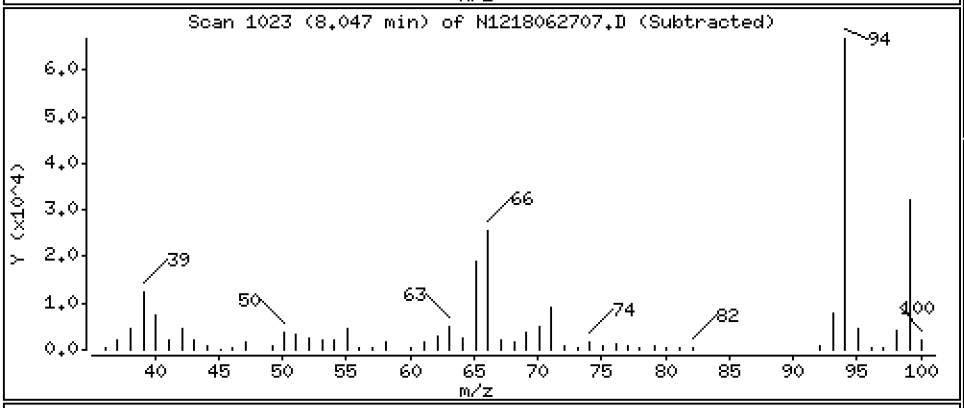
Column diameter: 0.32

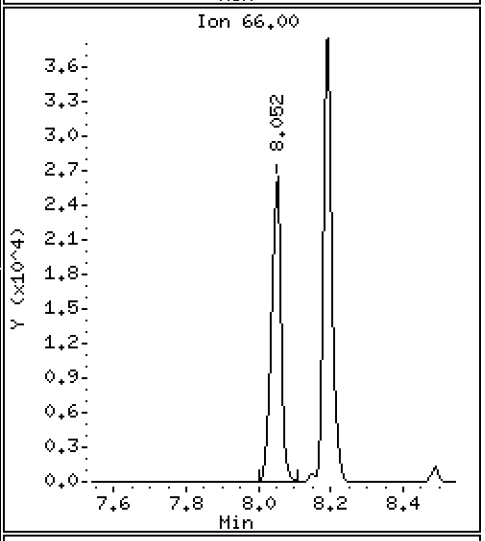
91 Aniline

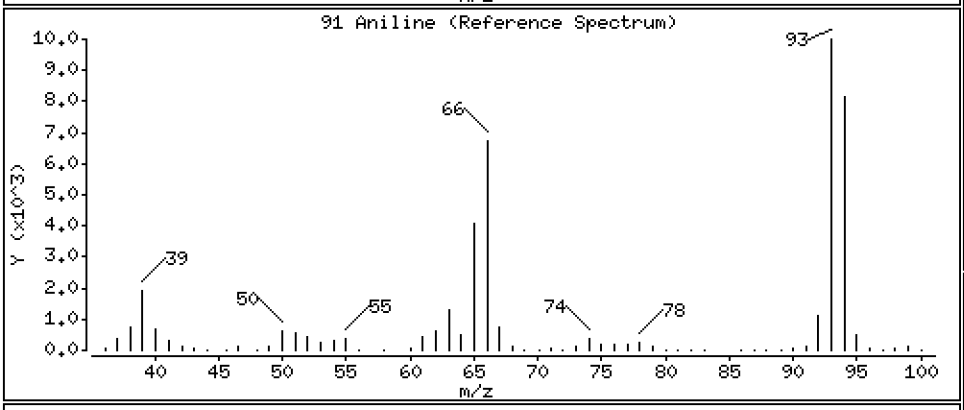
Concentration: 0.9000 ug/mL

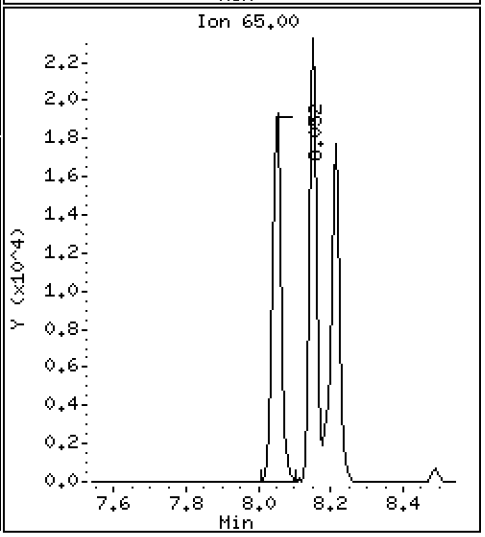


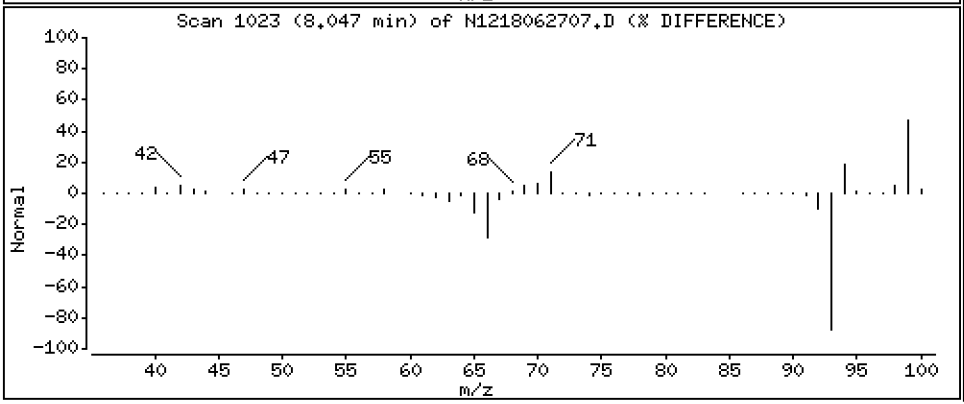












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

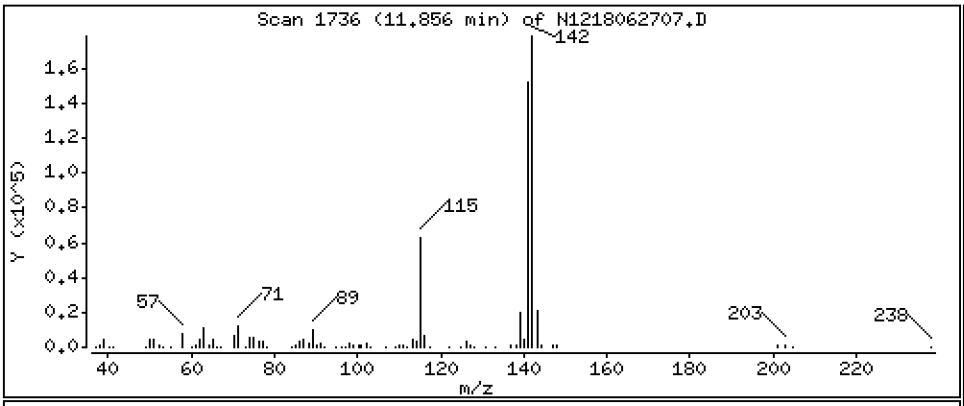
Operator: JZ

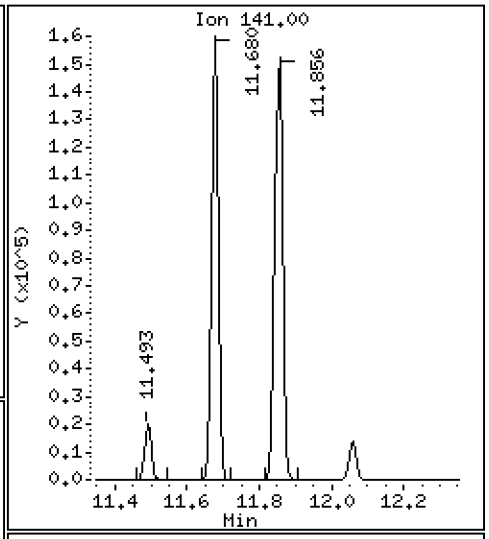
Column phase: ZB-5msi

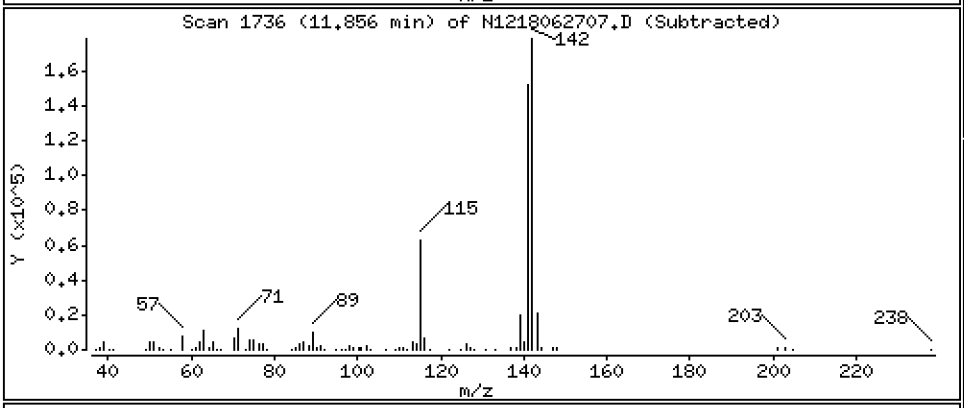
Column diameter: 0.32

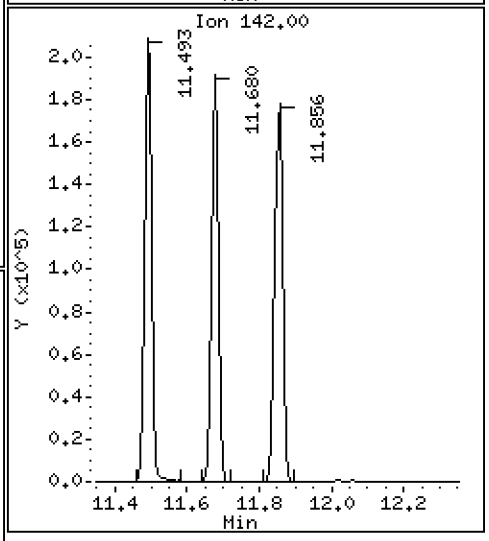
105 1-methylnaphthalene

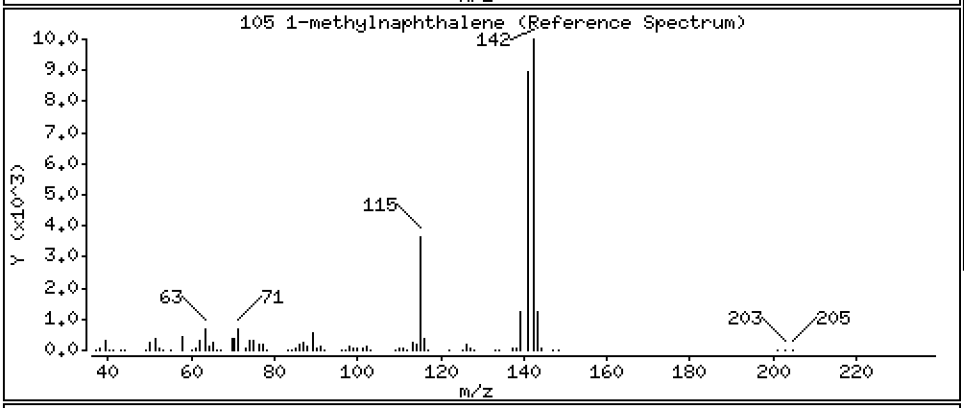
Concentration: 17.14 ug/mL

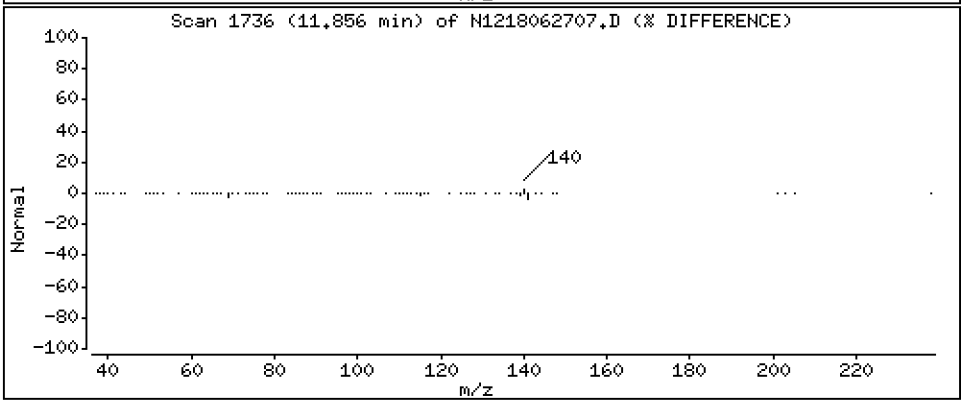












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Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

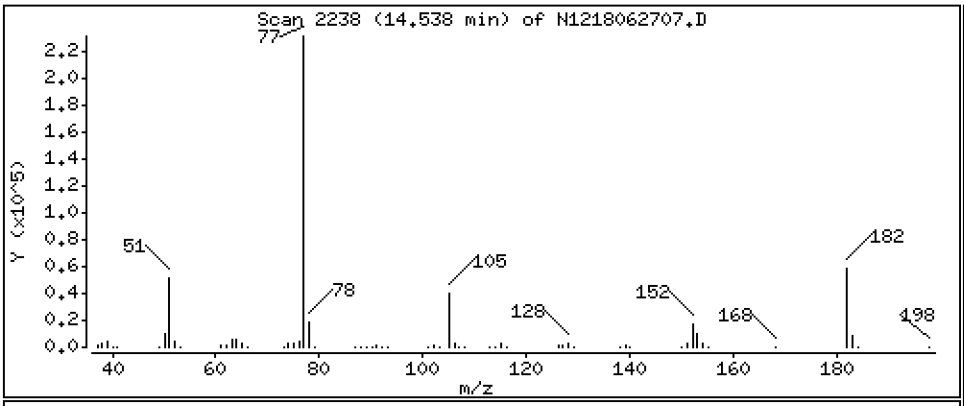
Operator: JZ

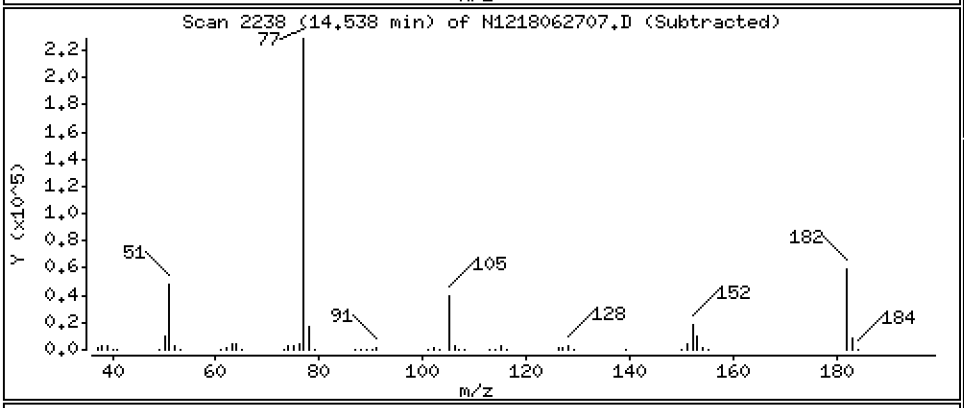
Column phase: ZB-5msi

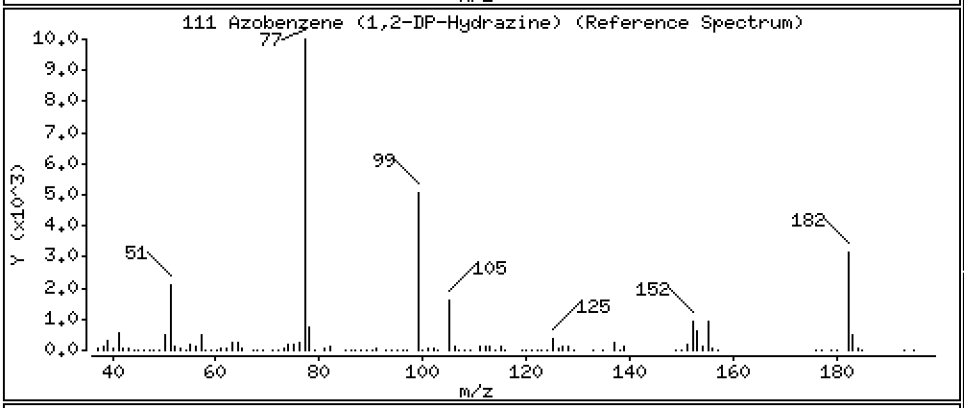
Column diameter: 0.32

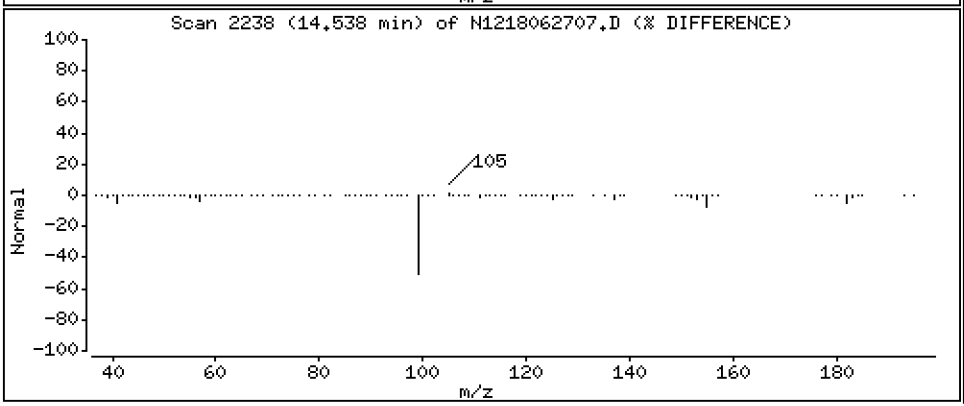
111 Azobenzene (1,2-DP-Hydrazine)

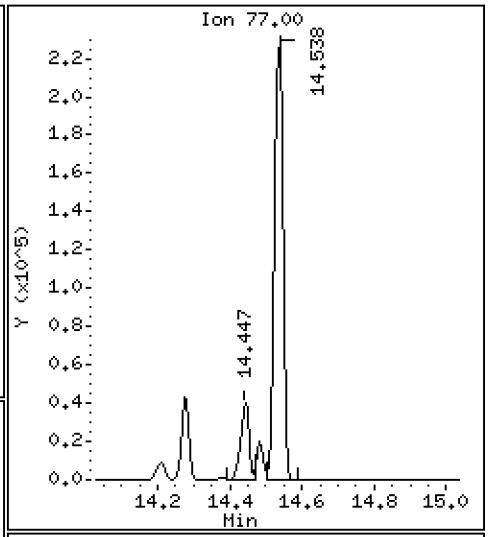
Concentration: 17.46 ug/mL

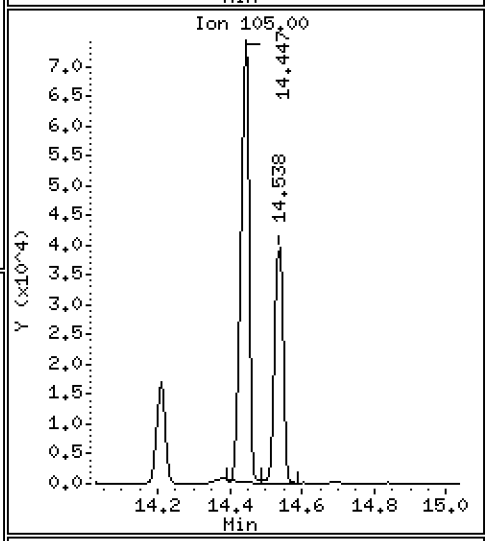


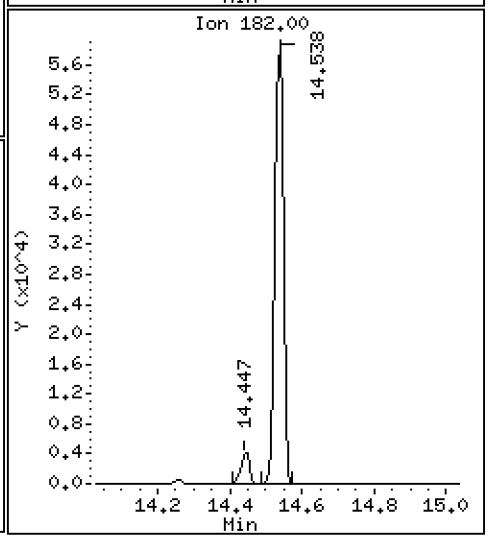












Data File: \\target\share\chem3\nt12.i\20180627.b\N1218062707.D

Date : 27-JUN-2018 16:12

Client ID:

Instrument: nt12.i

Sample Info: BGF0552-BS1,

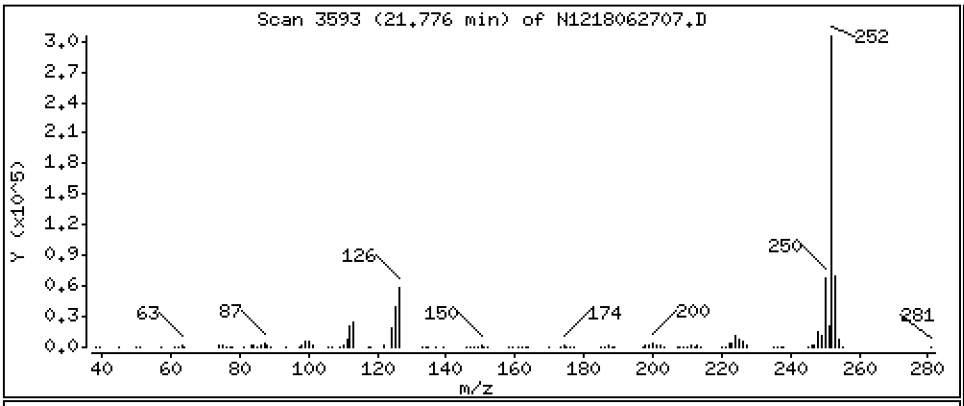
Operator: JZ

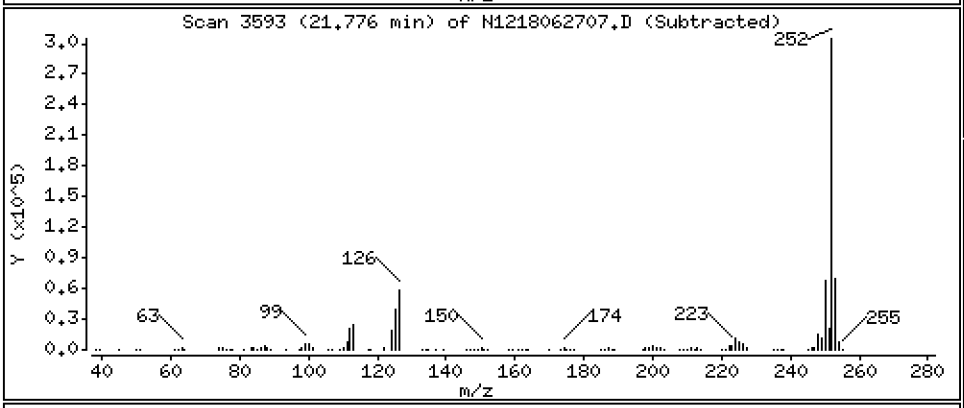
Column phase: ZB-5msi

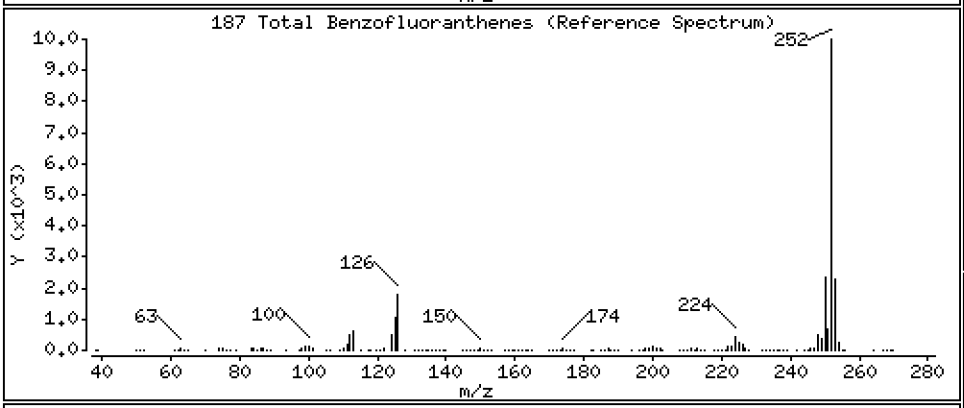
Column diameter: 0.32

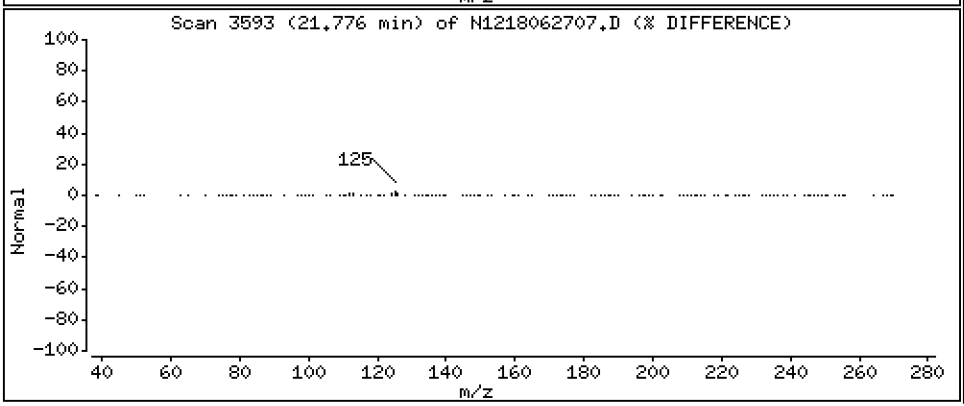
187 Total Benzofluoranthenes

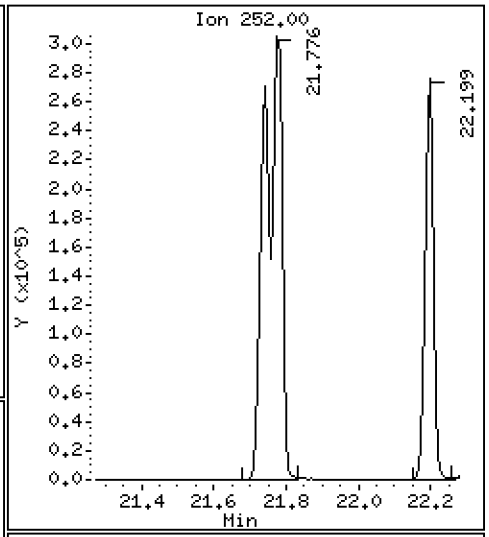
Concentration: 35.31 ug/mL

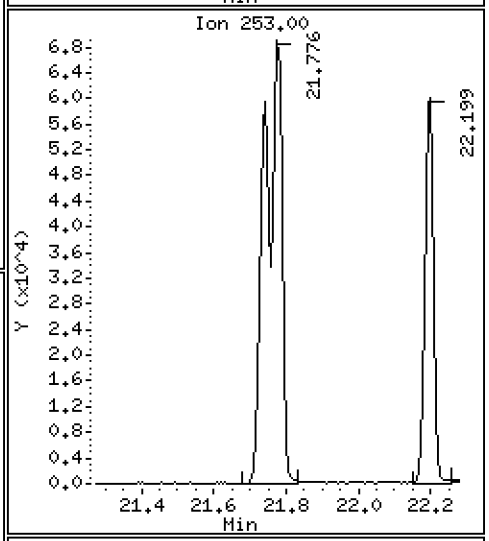


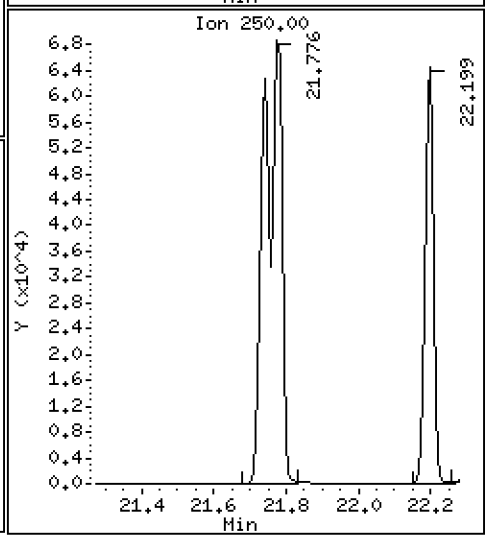












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180627.b\N1218062707.D
Lab Smp Id: BGF0552-BS1
Inj Date : 27-JUN-2018 16:12
Operator : JZ Inst ID: nt12.i
Smp Info : BGF0552-BS1,
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180627.b\SW846180516.m
Meth Date : 28-Jun-2018 14:05 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.540	6.540	(0.770)	170677	20.6185	20.62(R)
$	2 Phenol-d5	99	8.030	8.036	(0.946)	156795	15.0762	15.08(R)
	3 Phenol	94	8.052	8.057	(0.948)	98457	9.45254	9.453
$	5 2-Chlorophenol-d4	132	8.191	8.191	(0.965)	221073	27.6656	27.67(R)
	4 Bis(2-Chloroethyl)ether	93	8.148	8.148	(0.960)	147144	16.3678	16.37
	6 2-Chlorophenol	128	8.212	8.212	(0.967)	132755	14.9662	14.97
	7 1,3-Dichlorobenzene	146	8.431	8.431	(0.993)	134422	14.3559	14.36
*	8 1,4-Dichlorobenzene-d4	152	8.490	8.490	(1.000)	115324	20.0000	
	9 1,4-Dichlorobenzene	146	8.517	8.511	(1.003)	136322	14.6843	14.68
$	10 1,2-Dichlorobenzene-d4	152	8.789	8.789	(1.035)	93346	17.3799	17.38(R)
	12 1,2-Dichlorobenzene	146	8.810	8.810	(1.038)	131002	15.0302	15.03
	11 Benzyl alcohol	108	8.757	8.757	(1.031)	78649	12.1142	12.11
	14 2,2'-oxybis(1-Chloropropane)	45	9.013	9.013	(1.062)	150513	16.4163	16.42
	13 2-Methylphenol	108	8.976	8.981	(1.057)	120796	14.1649	14.16
	17 Hexachloroethane	117	9.297	9.296	(1.095)	51782	14.1500	14.15
	16 N-Nitroso-di-n-propylamine	70	9.227	9.232	(1.087)	108652	16.8008	16.80
	15 4-Methylphenol	108	9.211	9.211	(1.085)	121866	14.1719	14.17
$	18 Nitrobenzene-d5	82	9.414	9.414	(0.894)	172239	19.1630	19.16(R)
	19 Nitrobenzene	77	9.441	9.441	(0.897)	162714	16.6230	16.62
	20 Isophorone	82	9.820	9.815	(0.933)	275170	18.6246	18.62
	21 2-Nitrophenol	139	9.954	9.954	(0.945)	74956	16.4329	16.43
	22 2,4-Dimethylphenol	107	10.050	10.044	(0.954)	386792	42.4000	42.40
	23 Bis(2-Chloroethoxy)methane	93	10.199	10.194	(0.969)	169868	17.0757	17.08
	24 Benzoic acid	105	10.290	10.322	(0.977)	332673	53.1629	53.16
	25 2,4-Dichlorophenol	162	10.338	10.333	(0.982)	333319	47.1018	47.10
	26 1,2,4-Trichlorobenzene	180	10.472	10.466	(0.994)	108157	14.7459	14.75
*	27 Naphthalene-d8	136	10.531	10.531	(1.000)	439421	20.0000	
	28 Naphthalene	128	10.563	10.563	(1.003)	369090	15.2347	15.23
	29 4-Chloroaniline	127	10.691	10.691	(1.015)	85523	8.17361	8.174
	30 Hexachlorobutadiene	225	10.872	10.872	(1.032)	55210	13.8376	13.84
	31 4-Chloro-3-methylphenol	107	11.492	11.492	(1.091)	356849	47.9695	47.97
	32 2-Methylnaphthalene	141	11.679	11.679	(1.109)	207975	15.5560	15.56
	33 Hexachlorocyclopentadiene	237	12.058	12.053	(0.900)	148241	44.3291	44.33

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	12.192	12.187	(0.910)	244317	47.3401	47.34
	35	2,4,5-Trichlorophenol	196	12.245	12.245	(0.914)	261186	49.1656	49.17
$	36	2-Fluorobiphenyl	172	12.315	12.315	(0.919)	302705	18.7760	18.78(R)
	37	2-Chloronaphthalene	162	12.464	12.464	(0.930)	238085	16.1046	16.10
	38	2-Nitroaniline	65	12.694	12.689	(0.947)	229798	49.0672	49.07
	39	Dimethylphthalate	163	13.057	13.052	(0.974)	283187	17.6849	17.68
	40	Acenaphthylene	152	13.143	13.143	(0.981)	350488	16.5789	16.58
	41	2,6-Dinitrotoluene	165	13.154	13.148	(0.982)	193198	54.8660	54.87
*	42	Acenaphthene-d10	164	13.399	13.394	(1.000)	226681	20.0000	
	43	3-Nitroaniline	138	13.373	13.367	(0.998)	186078	43.3186	43.32
	44	Acenaphthene	153	13.447	13.447	(1.004)	239946	17.1002	17.10
	45	2,4-Dinitrophenol	184	13.538	13.533	(1.010)	201301	91.9197	91.92
	46	Dibenzofuran	168	13.709	13.704	(1.023)	342558	16.0548	16.05
	47	4-Nitrophenol	109	13.661	13.661	(1.020)	62102	27.4113	27.41
	48	2,4-Dinitrotoluene	165	13.789	13.779	(1.029)	264525	52.9977	53.00
	50	Diethylphthalate	149	14.211	14.206	(1.061)	272620	17.8800	17.88
	49	Fluorene	166	14.265	14.265	(1.065)	282150	17.6530	17.65
	51	4-Chlorophenyl-phenylether	204	14.281	14.281	(1.066)	129502	17.3866	17.39
	52	4-Nitroaniline	138	14.388	14.372	(1.074)	211618	50.3332	50.33
	53	4,6-Dinitro-2-methylphenol	198	14.446	14.441	(0.915)	281959	100.854	100.9
	54	N-Nitrosodiphenylamine	169	14.489	14.484	(0.918)	203411	17.2312	17.23
$	55	2,4,6-Tribromophenol	330	14.692	14.692	(1.096)	59206	31.1985	31.20(R)
	56	4-Bromophenyl-phenylether	248	15.066	15.066	(0.955)	76719	17.1008	17.10
	57	Hexachlorobenzene	284	15.296	15.296	(0.969)	76555	16.4926	16.49
	58	Pentachlorophenol	266	15.590	15.590	(0.988)	166360	54.2139	54.21
*	59	Phenanthrene-d10	188	15.782	15.777	(1.000)	389611	20.0000	
	60	Phenanthrene	178	15.819	15.814	(1.002)	390927	20.2397	20.24
	61	Anthracene	178	15.889	15.889	(1.007)	367470	16.6804	16.68
	62	Carbazole	167	16.167	16.167	(1.024)	359013	16.8937	16.89
	63	Di-n-butylphthalate	149	16.856	16.856	(1.068)	450213	18.5192	18.52
	64	Fluoranthene	202	17.759	17.759	(1.125)	449158	18.5887	18.59
	65	Pyrene	202	18.122	18.122	(0.901)	465056	17.9593	17.96
$	66	Terphenyl-d14	244	18.416	18.416	(0.916)	344582	21.4193	21.42(R)
	67	Butylbenzylphthalate	149	19.286	19.286	(0.959)	217179	18.7459	18.75
	68	Benzo(a)anthracene	228	20.077	20.082	(0.998)	399805	21.0949	21.09
*	69	Chrysene-d12	240	20.109	20.109	(1.000)	417619	20.0000	
	70	3,3'-Dichlorobenzidine	252	20.082	20.082	(0.999)	416608	58.8789	58.88
	71	Chrysene	228	20.152	20.152	(1.002)	416354	19.6866	19.69
	72	bis(2-Ethylhexyl)phthalate	149	20.269	20.269	(0.956)	298796	17.9940	17.99
*	134	Di-n-octylphthalate-d4	153	21.204	21.204	(1.000)	558908	20.0000	
	73	Di-n-octylphthalate	149	21.215	21.215	(1.000)	520096	17.4229	17.42
	74	Benzo(b)fluoranthene	252	21.744	21.744	(0.976)	486244	17.3959	17.40
	75	Benzo(k)fluoranthene	252	21.776	21.776	(0.977)	487490	16.7815	16.78
	76	Benzo(a)pyrene	252	22.198	22.198	(0.996)	442306	18.6182	18.62
*	77	Perylene-d12	264	22.278	22.278	(1.000)	454033	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	23.966	23.966	(1.076)	502359	18.0865	18.09
	79	Dibenzo(a,h)anthracene	278	23.988	23.988	(1.077)	412964	18.1737	18.17
	80	Benzo(g,h,i)perylene	276	24.447	24.452	(1.097)	425243	18.3487	18.35
	90	N-Nitrosodimethylamine	74	4.034	4.029	(0.475)	155290	27.4255	27.43
	91	Aniline	93	8.046	8.041	(0.948)	12177	0.89998	0.9000
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	11.855	11.850	(1.126)	204819	17.1442	17.14
	111	Azobenzene (1,2-DP-Hydrazine)	77	14.537	14.532	(0.921)	317110	17.4578	17.46

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
187 Total Benzofluoranthenes	252	21.776	21.776	(0.977)	925616	35.3094	35.31

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062707.D
Lab Smp Id: BGF0552-BS1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180627.b\SW846180516.m
Misc Info: 18-

Calibration Date: 27-JUN-2018
Calibration Time: 11:13
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	115324	-9.18
27 Naphthalene-d8	478458	239229	956916	439421	-8.16
42 Acenaphthene-d10	247659	123830	495318	226681	-8.47
59 Phenanthrene-d10	421930	210965	843860	389611	-7.66
69 Chrysene-d12	450836	225418	901672	417619	-7.37
134 Di-n-octylphthala	583434	291717	1166868	558908	-4.20
77 Perylene-d12	453093	226547	906186	454033	0.21

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.49	7.99	8.99	8.49	0.00
27 Naphthalene-d8	10.53	10.03	11.03	10.53	0.00
42 Acenaphthene-d10	13.39	12.89	13.89	13.40	0.04
59 Phenanthrene-d10	15.78	15.28	16.28	15.78	0.03
69 Chrysene-d12	20.11	19.61	20.61	20.11	0.00
134 Di-n-octylphthala	21.20	20.70	21.70	21.20	0.00
77 Perylene-d12	22.28	21.78	22.78	22.28	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062707.D

Lab ID: BGF0552-BS1
nt12.i, SW846180516.m, 27-JUN-2018 16:12

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

MS / MS DUPLICATE RECOVERY
EPA 8270D

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/21/18 17:04
Batch:	BGF0417	Laboratory ID:	BGF0417-MS1
Preparation:	EPA 3510C SepF	Sequence Name:	Matrix Spike
Initial/Final:	500 mL / 0.5 mL	Source Sample:	LDW18-SP-43

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	Q	MS CONCENTRATION (ug/L)	Q	MS % REC. #	QC LIMITS REC.
Phenol	25.0	ND	U	9.6		38.3	10 - 160
1,4-Dichlorobenzene	25.0	ND	U	12.6		50.2	10 - 160
1,2-Dichlorobenzene	25.0	ND	U	12.9		51.6	10 - 160
Benzyl alcohol	25.0	ND	U	11.9		47.4	10 - 160
4-Methylphenol	25.0	ND	U	13.7		54.9	10 - 160
2,4-Dimethylphenol	75.0	ND	U	37.1		49.5	10 - 160
1,2,4-Trichlorobenzene	25.0	ND	U	13.1		52.5	10 - 160
Benzoic acid	138	ND	U	54.2		39.4	10 - 160
Dimethylphthalate	25.0	ND	U	16.9		67.5	10 - 160
Dibenzofuran	25.0	ND	U	15.0		60.1	10 - 160
N-Nitrosodiphenylamine	25.0	ND	U	16.5		66.0	10 - 160
Hexachlorobenzene	25.0	ND	U	15.4		61.6	10 - 160
Pentachlorophenol	75.0	ND	U	48.3		64.5	10 - 160
Butylbenzylphthalate	25.0	ND	U	18.9		75.8	10 - 160
bis(2-Ethylhexyl)phthalate	25.0	ND	U	18.7		74.8	10 - 160

* Values outside of QC limits

MS / MS DUPLICATE RECOVERY
EPA 8270D

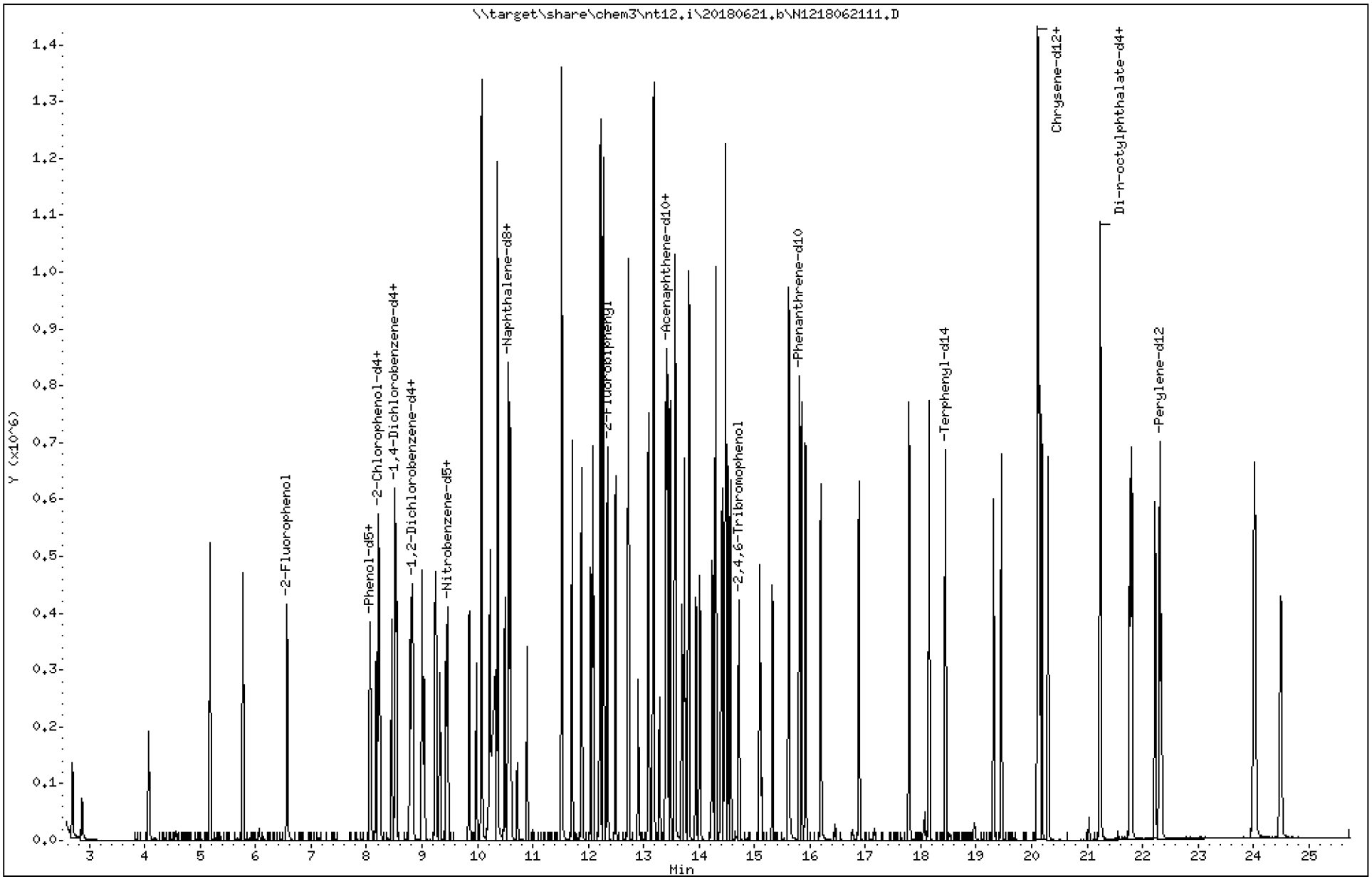
Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/21/18 17:38
Batch:	BGF0417	Laboratory ID:	BGF0417-MSD1
Preparation:	EPA 3510C SepF	Sequence Name:	Matrix Spike Dup
Initial/Final:	500 mL / 0.5 mL	Source Sample:	LDW18-SP-43

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	Q	MSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	25.0	10.0		40.1	4.47	30	10 - 160
1,4-Dichlorobenzene	25.0	13.8		55.0	9.08	30	10 - 160
1,2-Dichlorobenzene	25.0	14.3		57.1	10.1	30	10 - 160
Benzyl alcohol	25.0	12.8		51.3	7.82	30	10 - 160
4-Methylphenol	25.0	15.0		60.2	9.13	30	10 - 160
2,4-Dimethylphenol	75.0	40.9		54.6	9.82	30	10 - 160
1,2,4-Trichlorobenzene	25.0	14.7		59.0	11.5	30	10 - 160
Benzoic acid	138	59.2		43.0	8.72	30	10 - 160
Dimethylphthalate	25.0	19.2		76.7	12.8	30	10 - 160
Dibenzofuran	25.0	17.1		68.5	13.1	30	10 - 160
N-Nitrosodiphenylamine	25.0	18.5		73.9	11.3	30	10 - 160
Hexachlorobenzene	25.0	17.5		70.0	12.8	30	10 - 160
Pentachlorophenol	75.0	54.2		72.3	11.4	30	10 - 160
Butylbenzylphthalate	25.0	21.8		87.3	14.1	30	10 - 160
bis(2-Ethylhexyl)phthalate	25.0	21.2		84.8	12.6	30	10 - 160

* Values outside of QC limits

Data File: \\target\share\chem3\nt12.i\20180621.b\N1218062111.D
Date : 21-JUN-2018 17:04
Client ID:
Sample Info: BGF0417-MS1,

Instrument: nt12.i
Operator: JZ
Column phase: ZB-5msi
Column diameter: 0.32



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 716 of 6523

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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

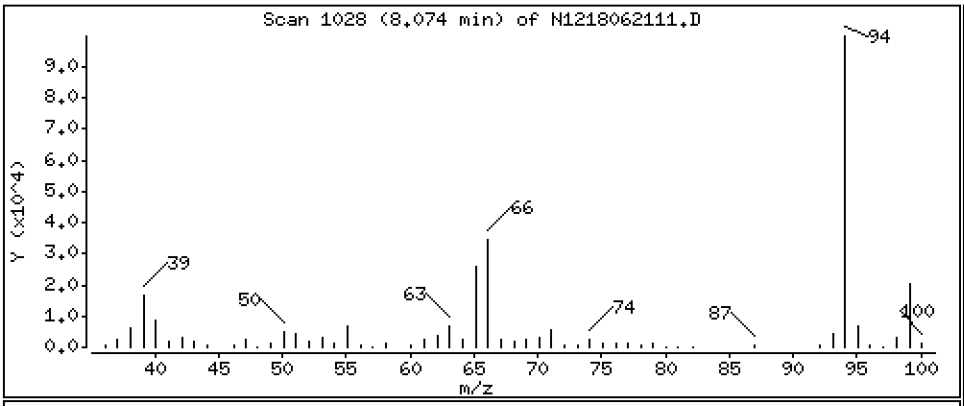
Operator: JZ

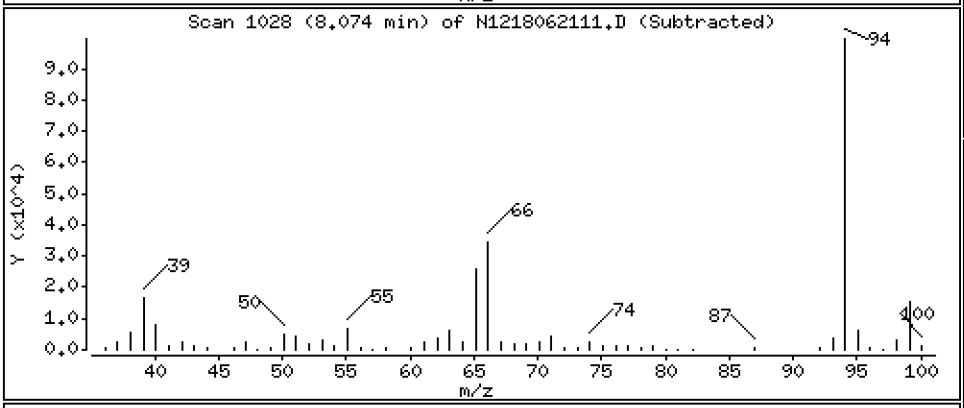
Column phase: ZB-5msi

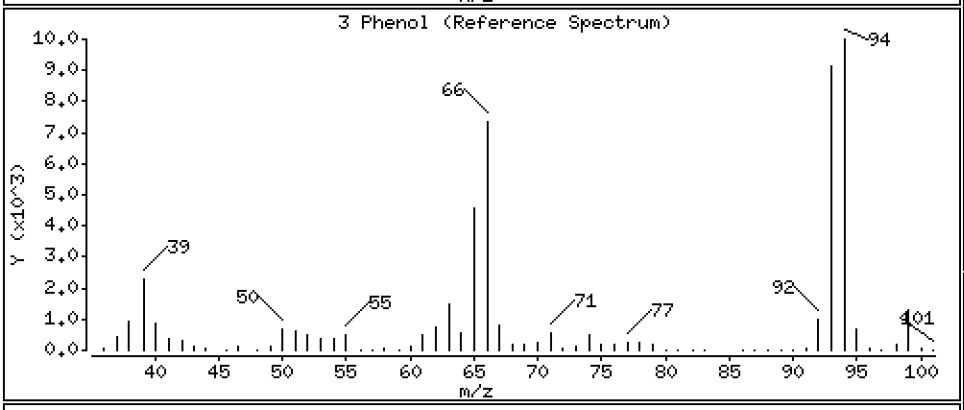
Column diameter: 0.32

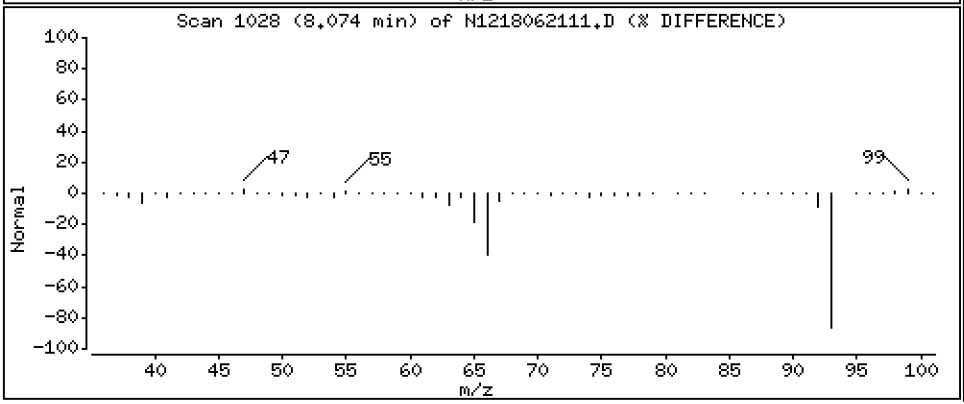
3 Phenol

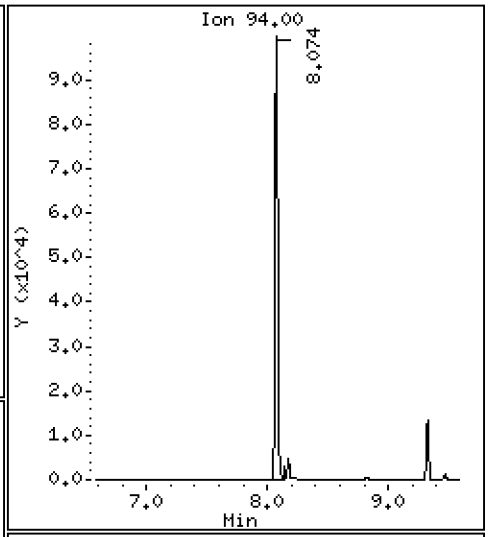
Concentration: 9.583 ug/mL

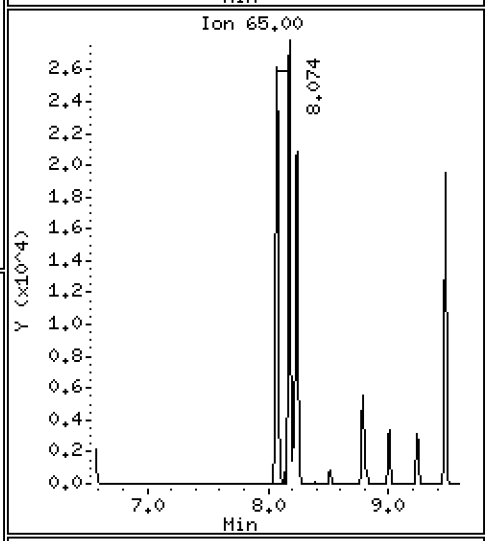


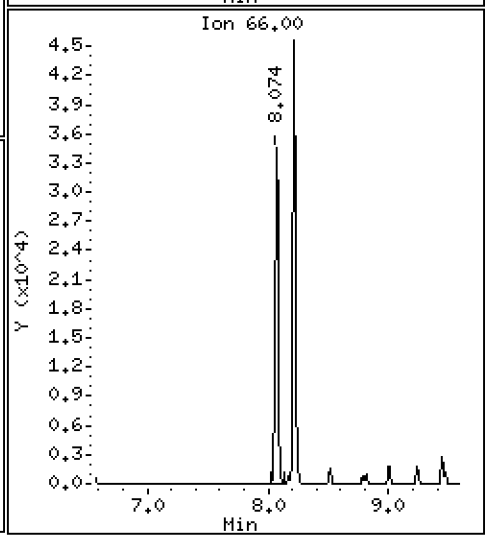












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

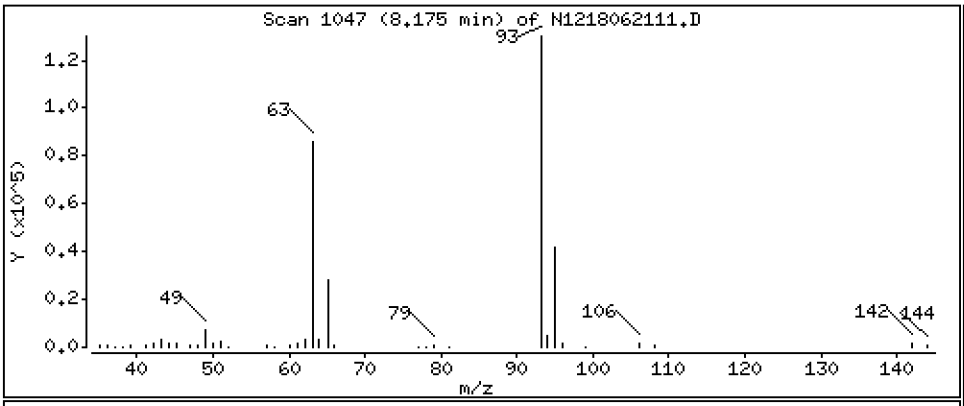
Operator: JZ

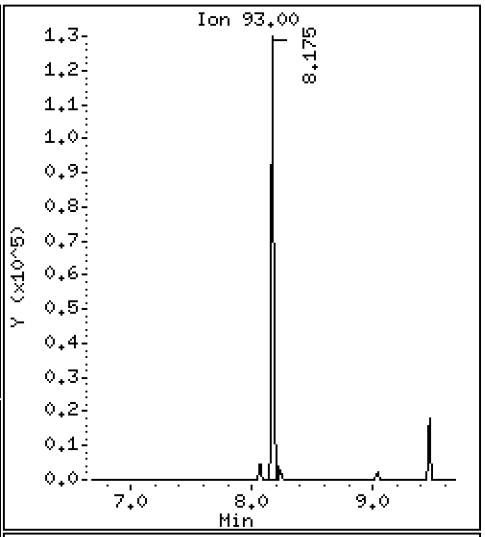
Column phase: ZB-5msi

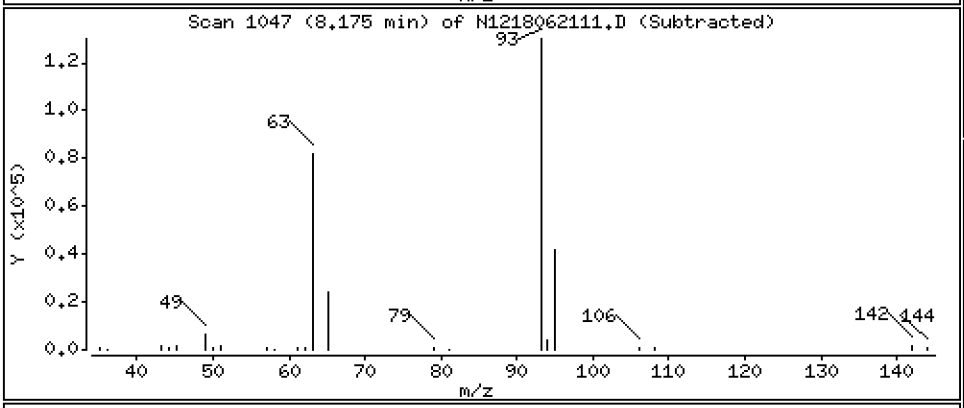
Column diameter: 0.32

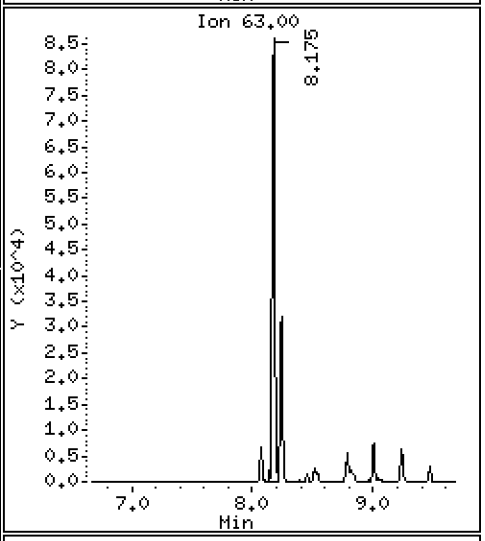
4 Bis(2-Chloroethyl)ether

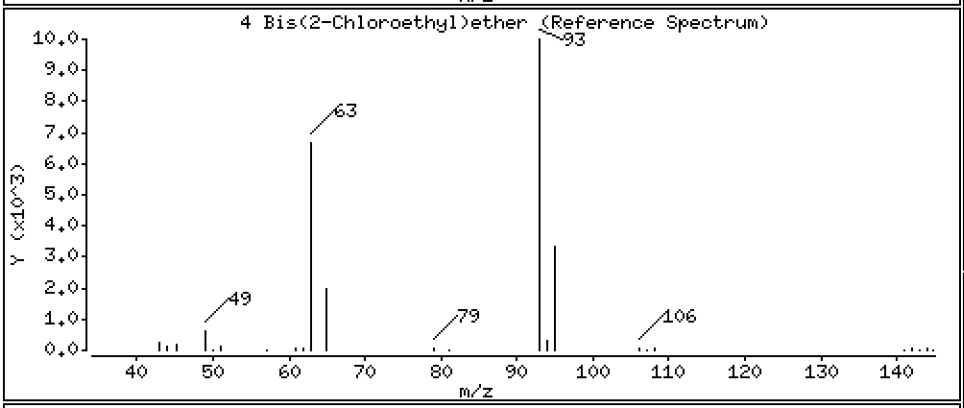
Concentration: 14.86 ug/mL

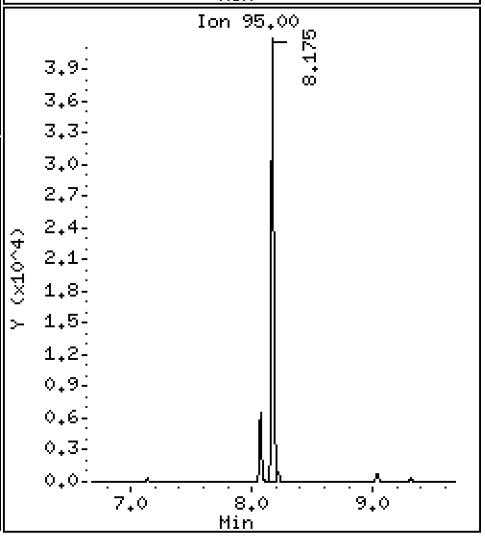


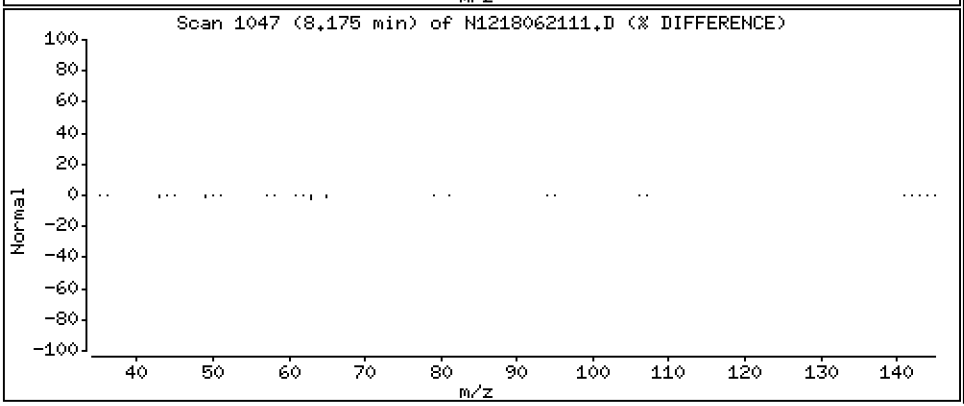












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

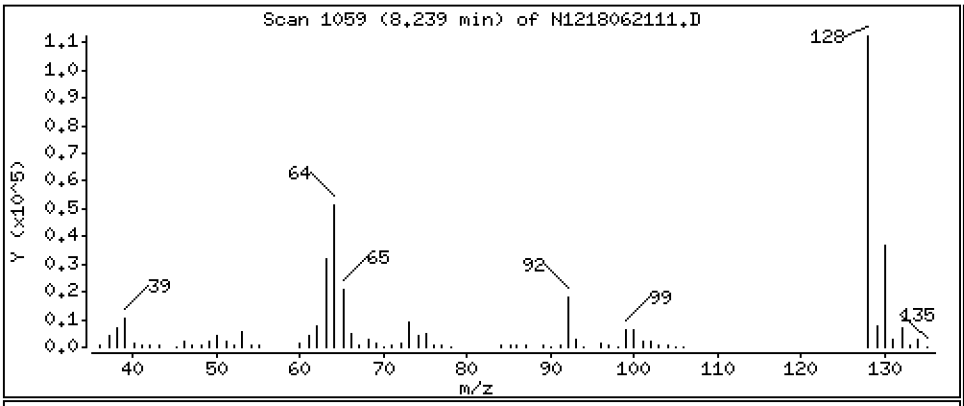
Operator: JZ

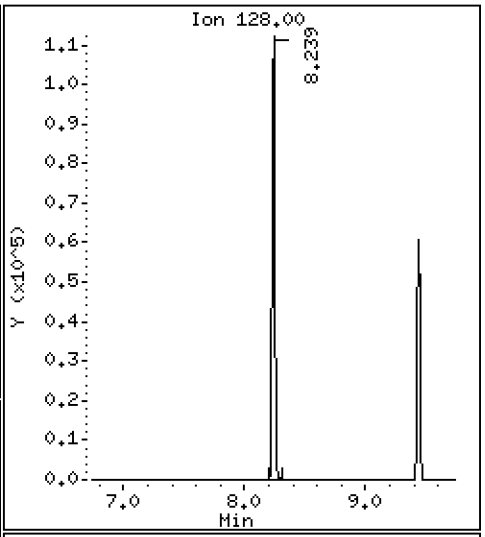
Column phase: ZB-5msi

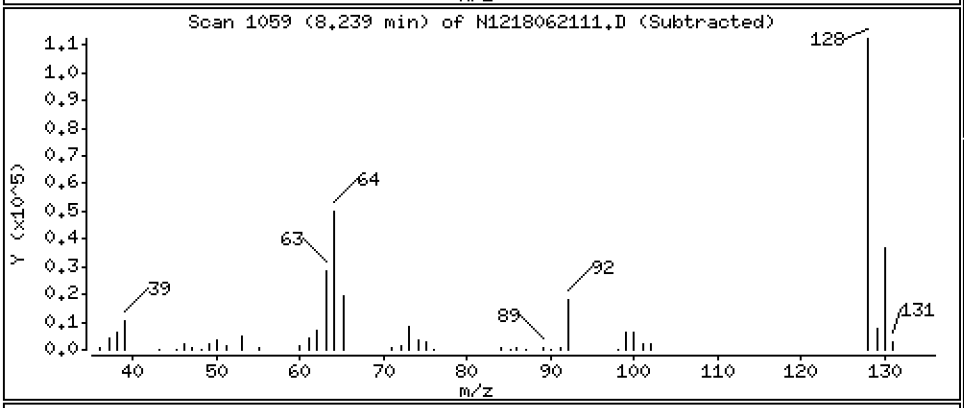
Column diameter: 0.32

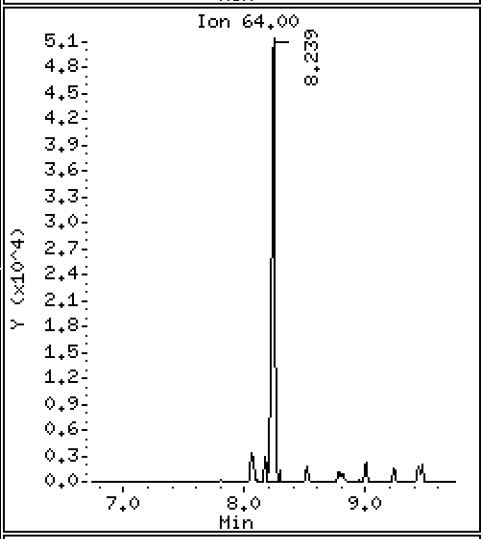
6 2-Chlorophenol

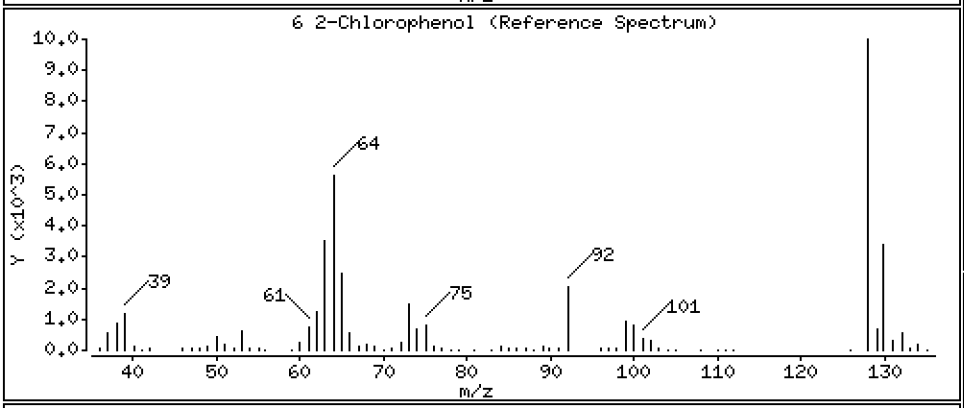
Concentration: 13.48 ug/mL

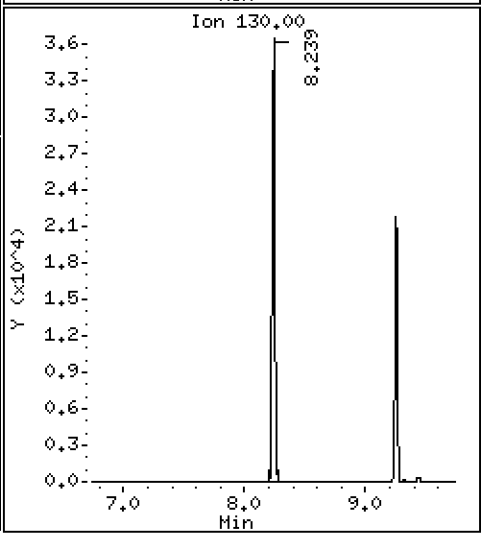


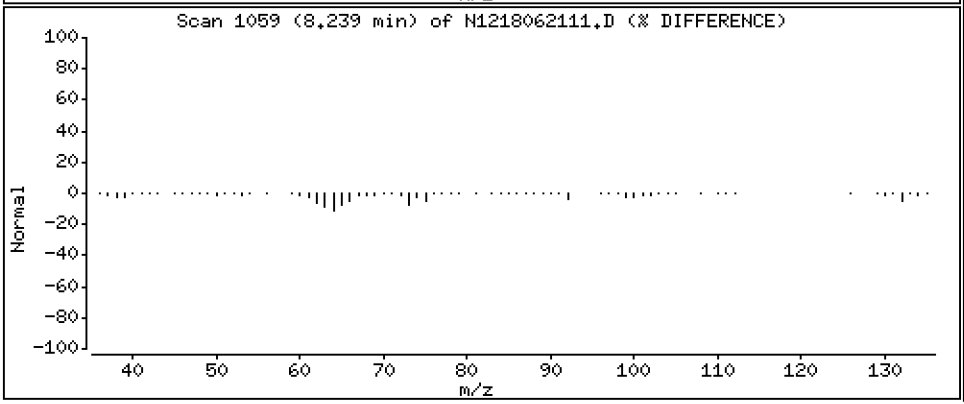












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

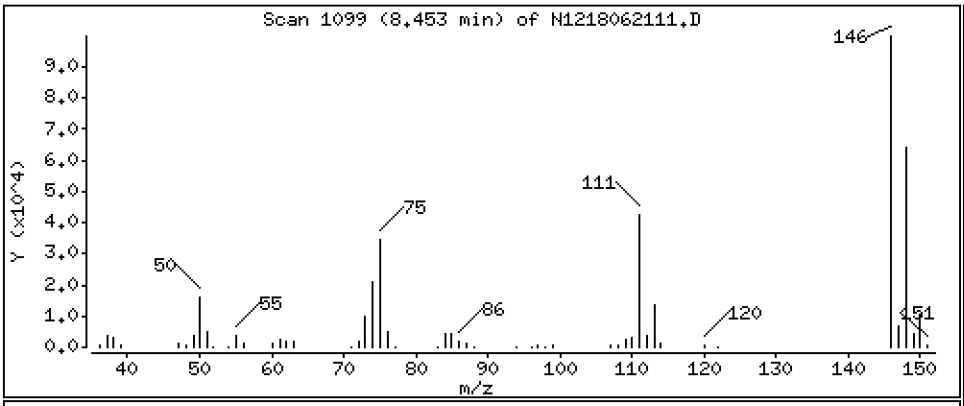
Operator: JZ

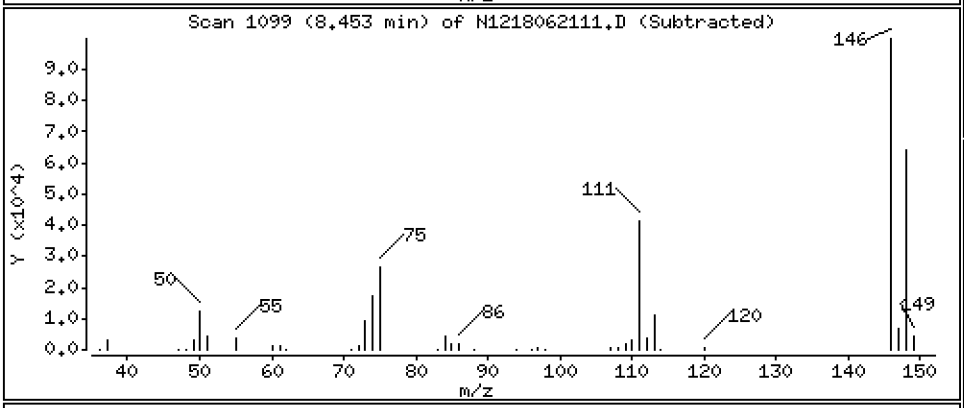
Column phase: ZB-5msi

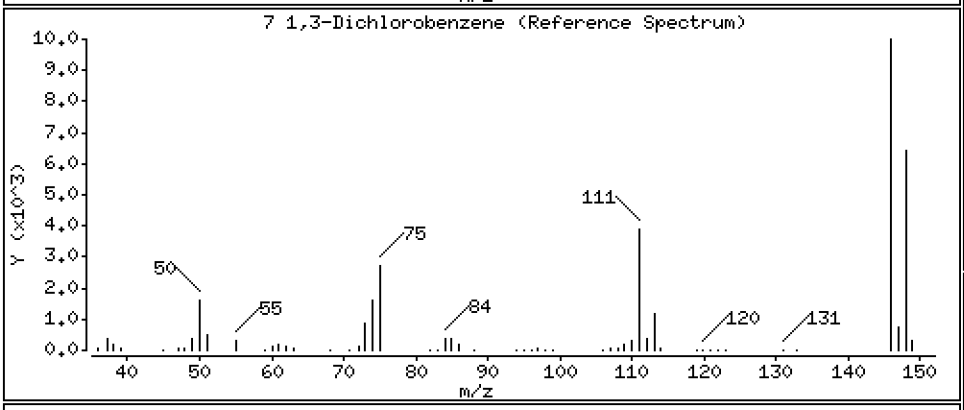
Column diameter: 0.32

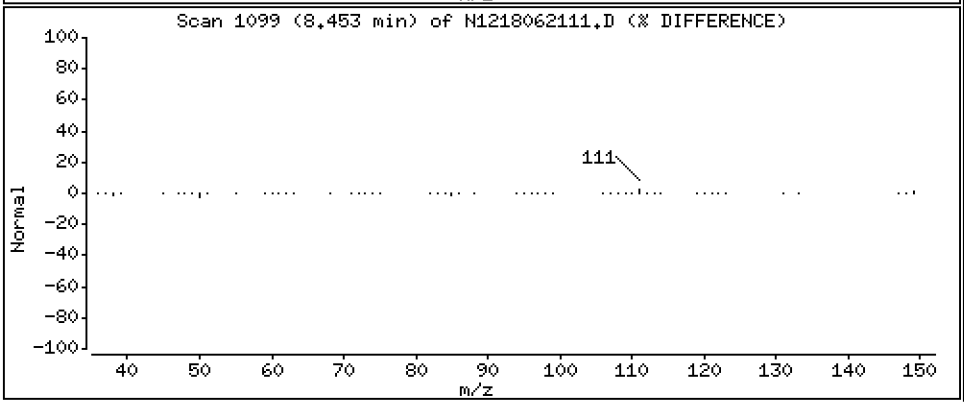
7 1,3-Dichlorobenzene

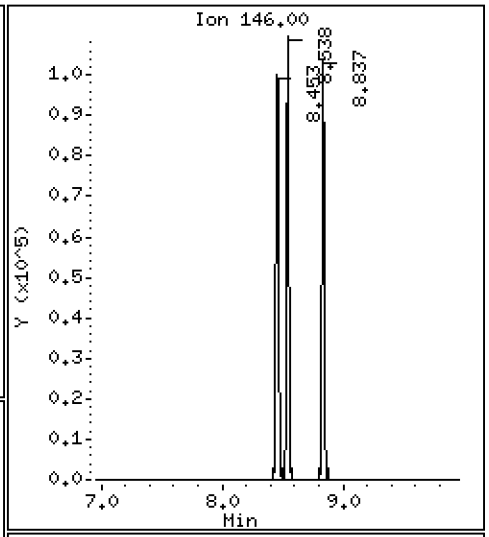
Concentration: 12.07 ug/mL

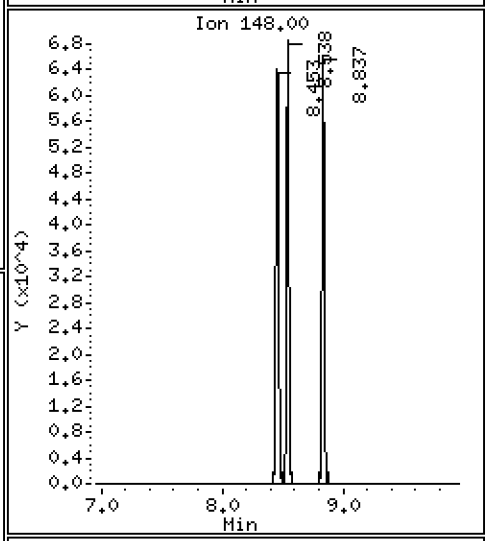


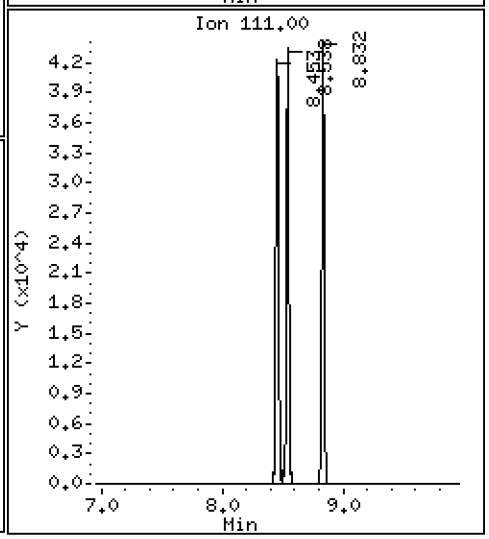












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

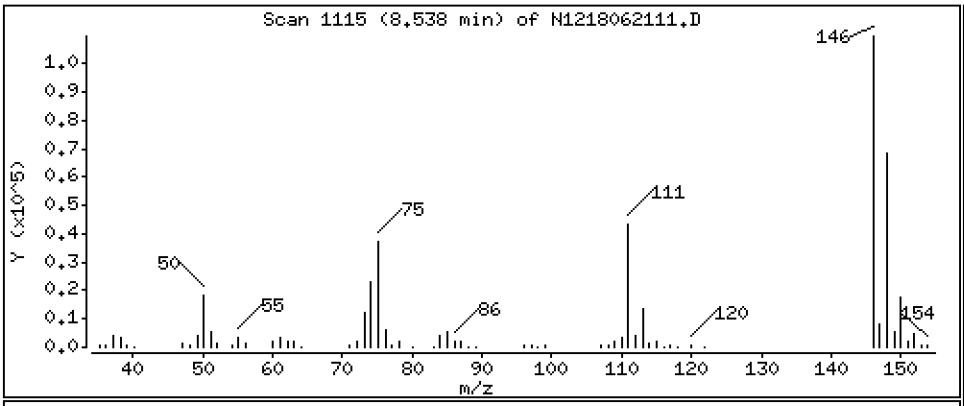
Operator: JZ

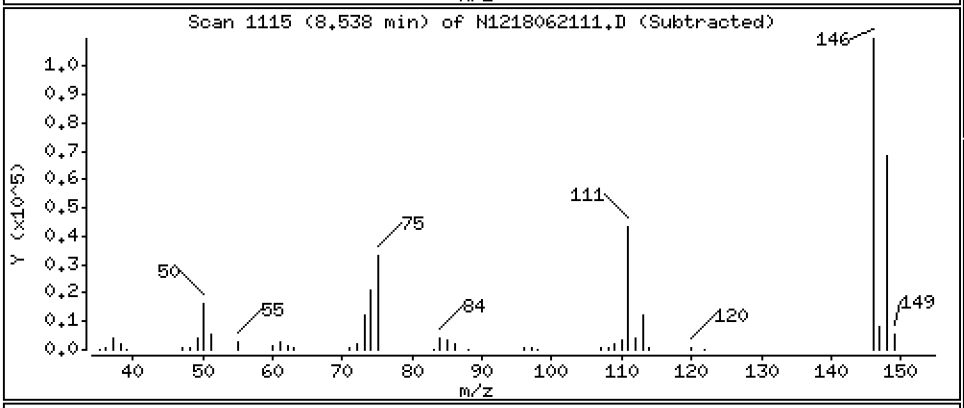
Column phase: ZB-5msi

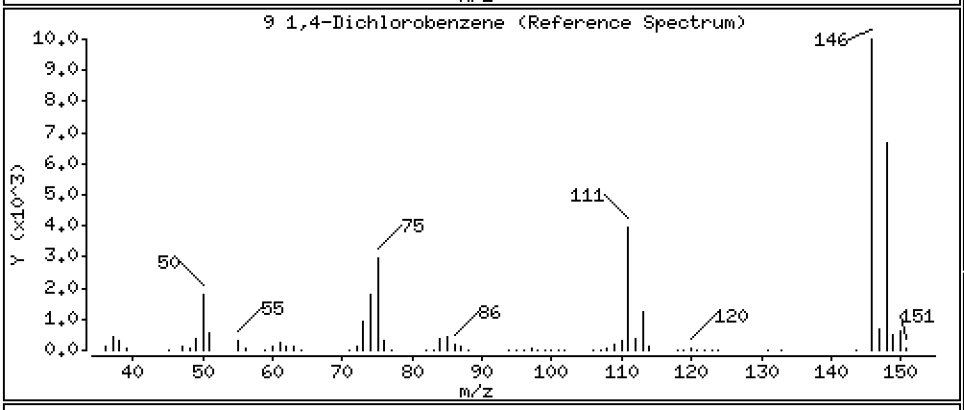
Column diameter: 0.32

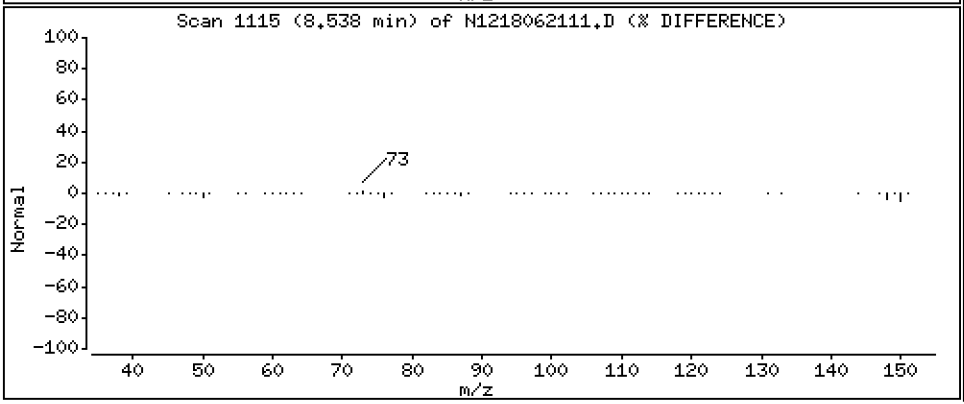
9 1,4-Dichlorobenzene

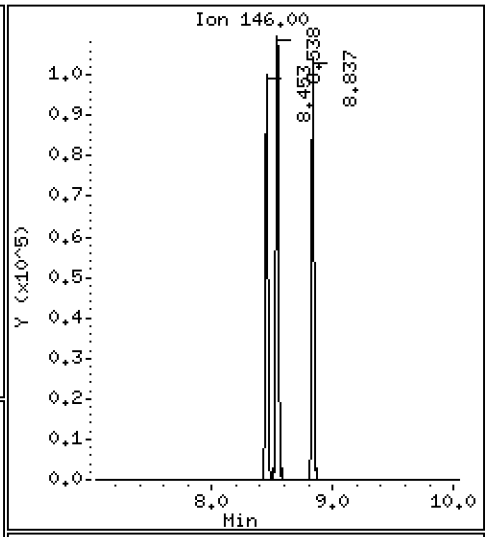
Concentration: 12.56 ug/mL

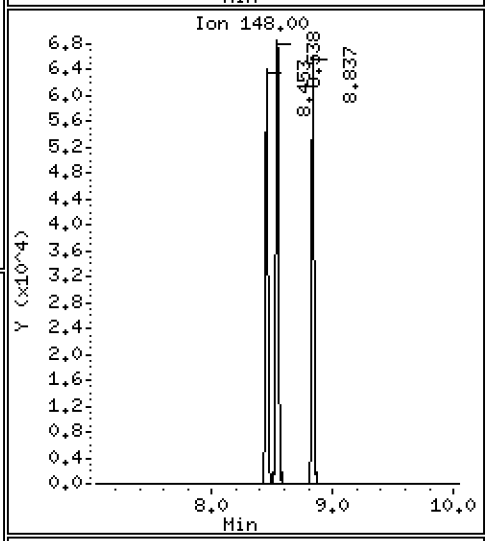


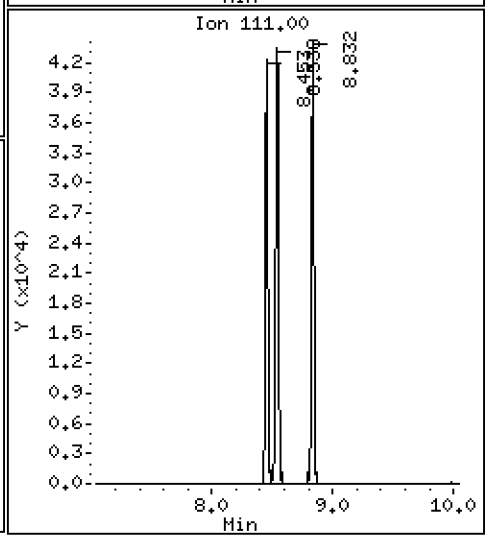












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

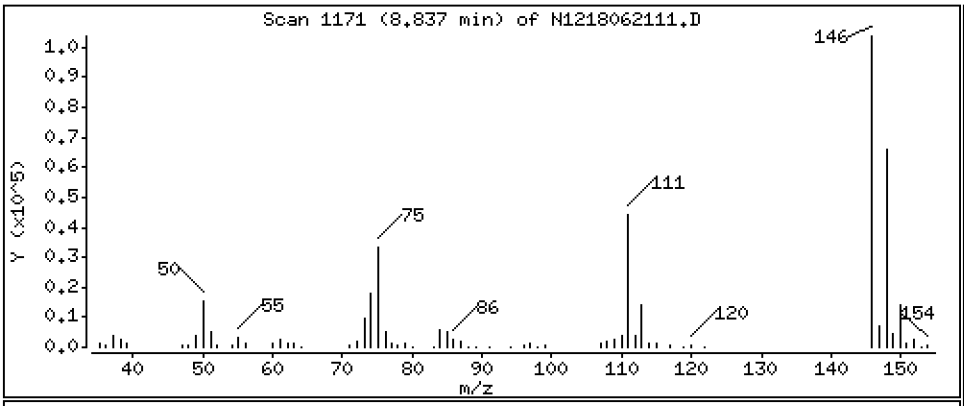
Operator: JZ

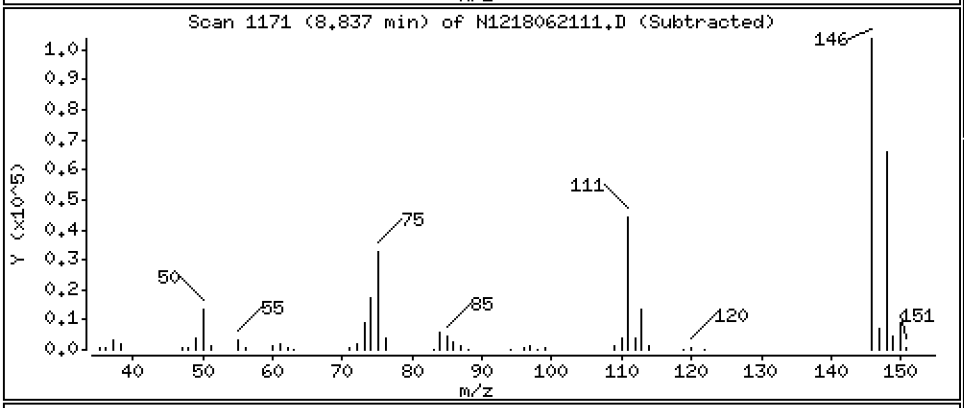
Column phase: ZB-5msi

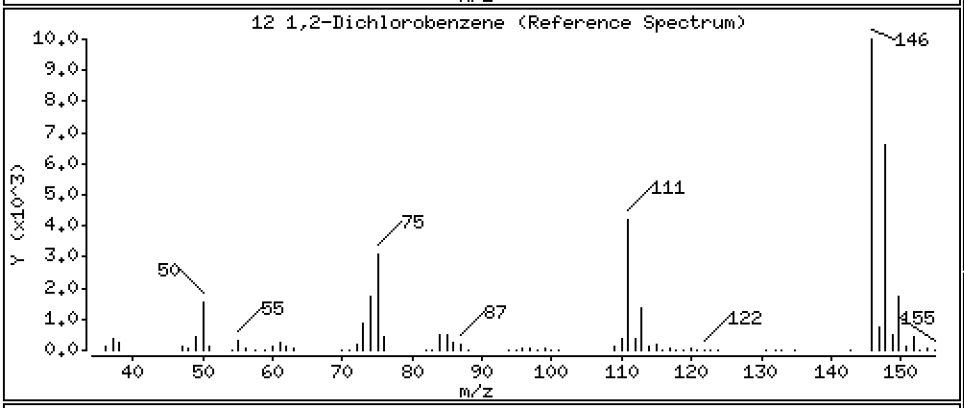
Column diameter: 0.32

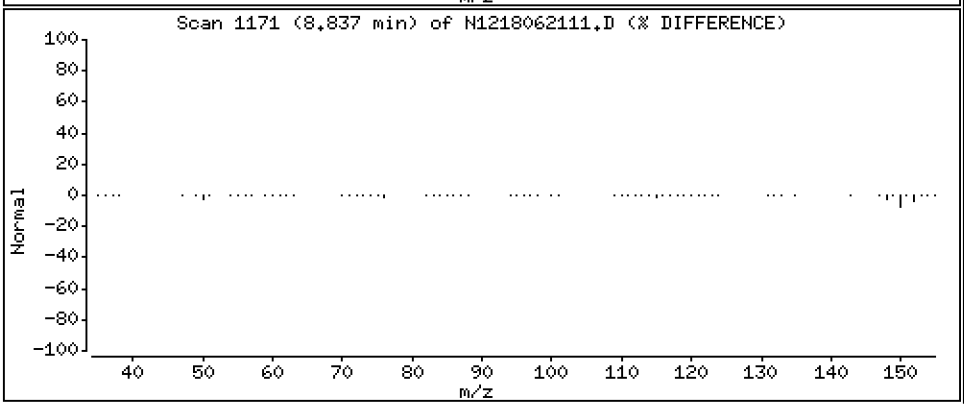
12 1,2-Dichlorobenzene

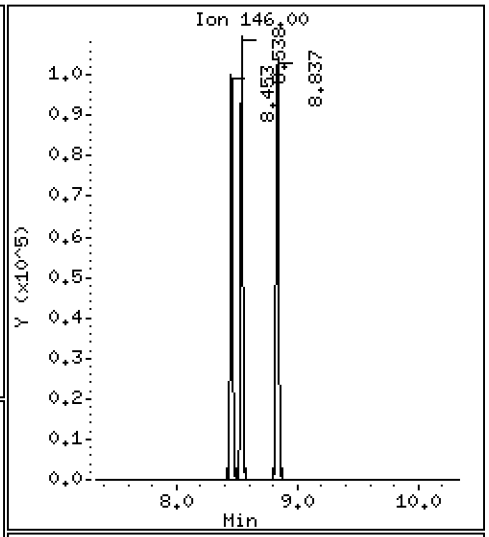
Concentration: 12.91 ug/mL

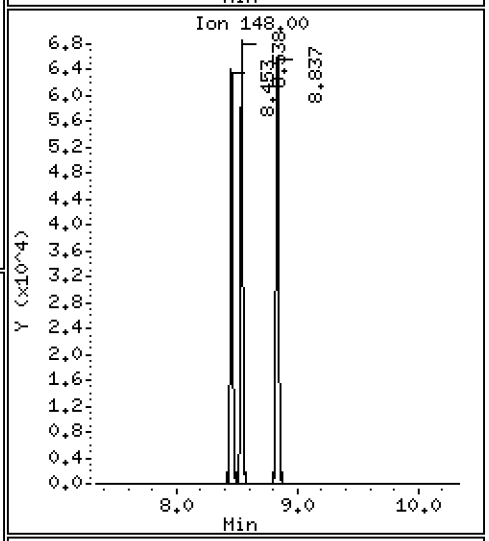


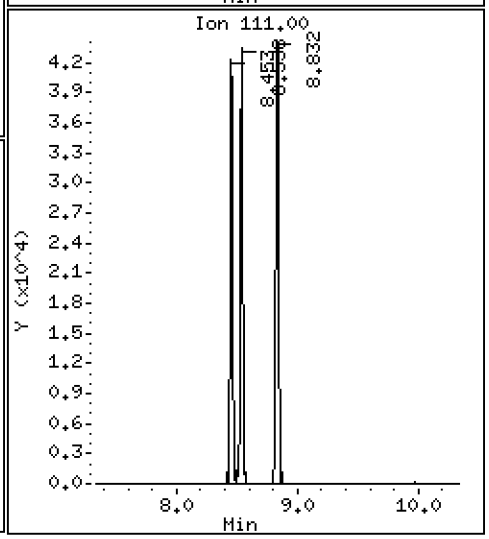












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

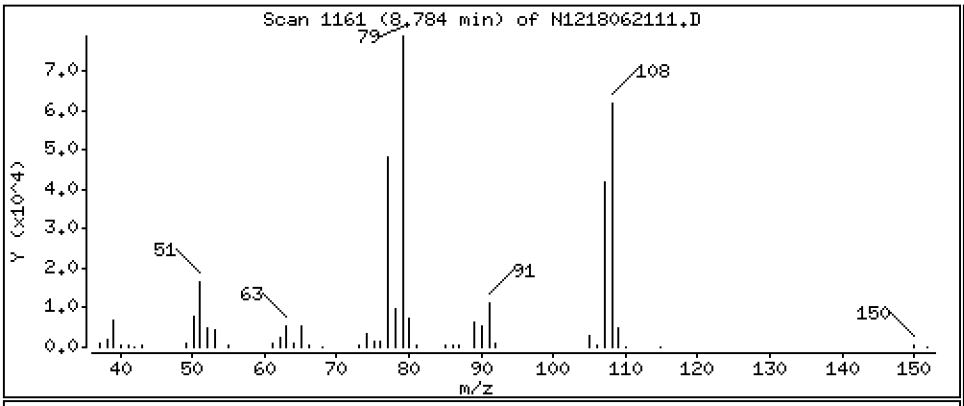
Operator: JZ

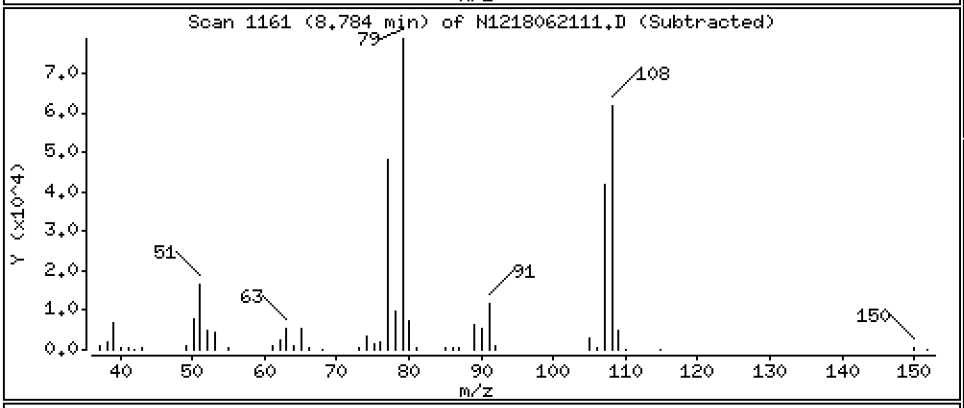
Column phase: ZB-5msi

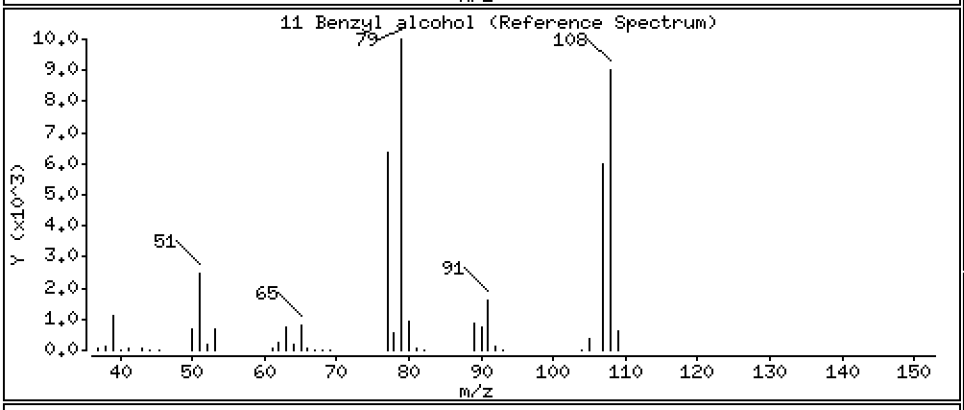
Column diameter: 0.32

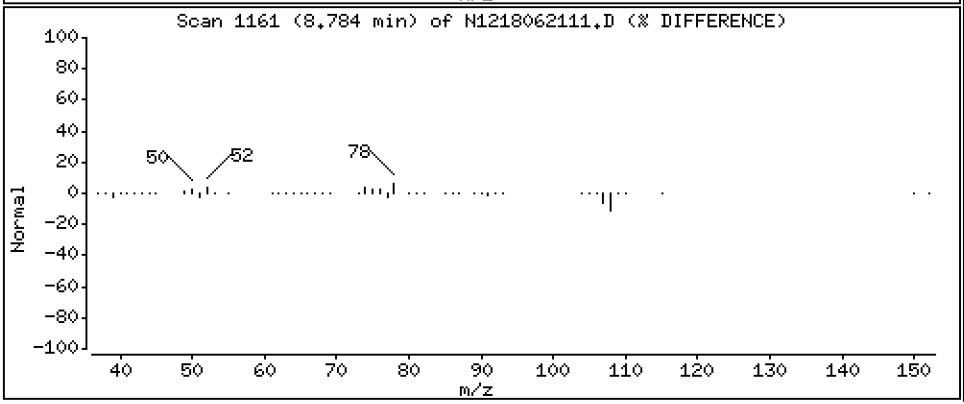
11 Benzyl alcohol

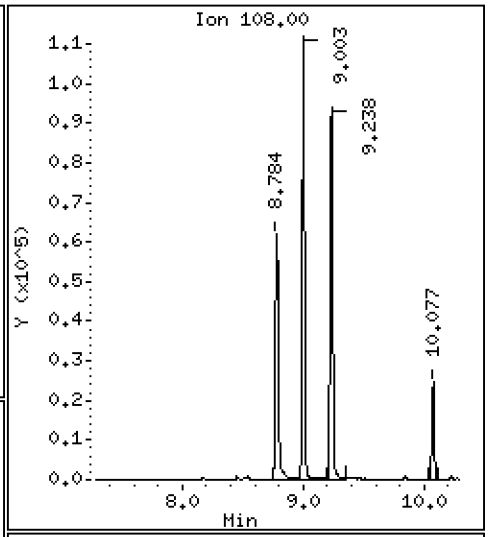
Concentration: 11.85 ug/mL

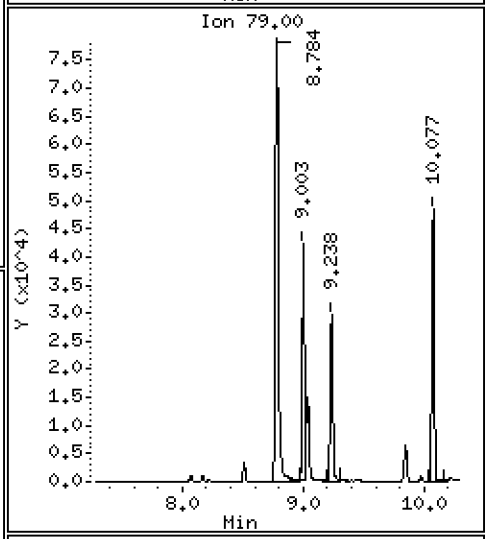


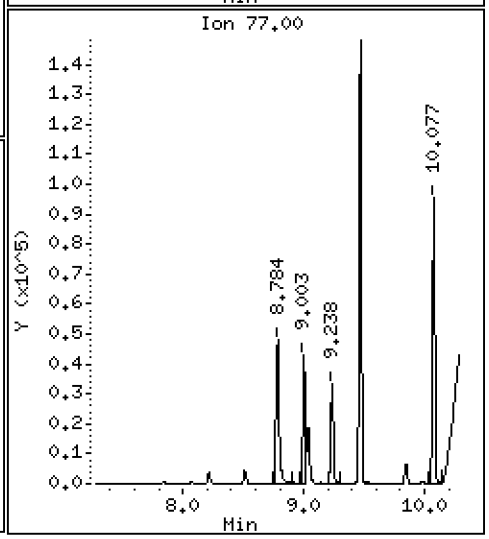












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

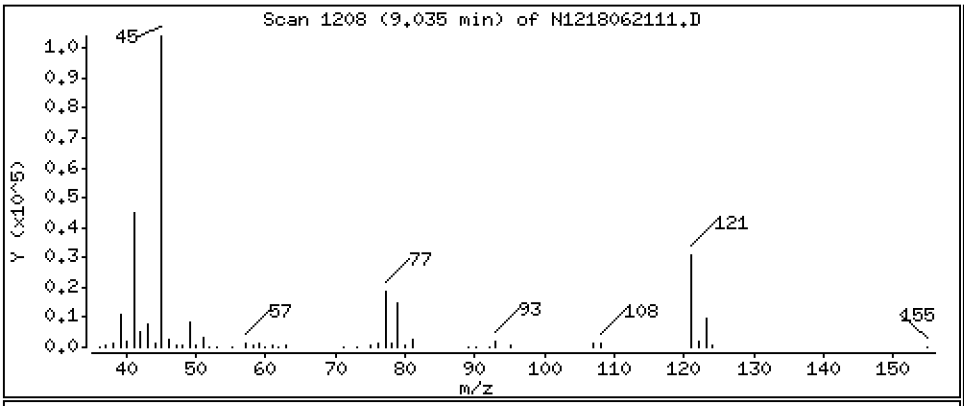
Operator: JZ

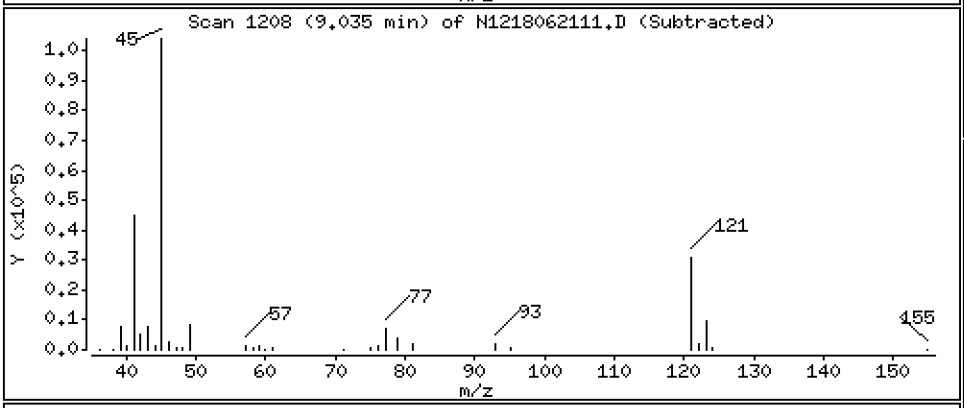
Column phase: ZB-5msi

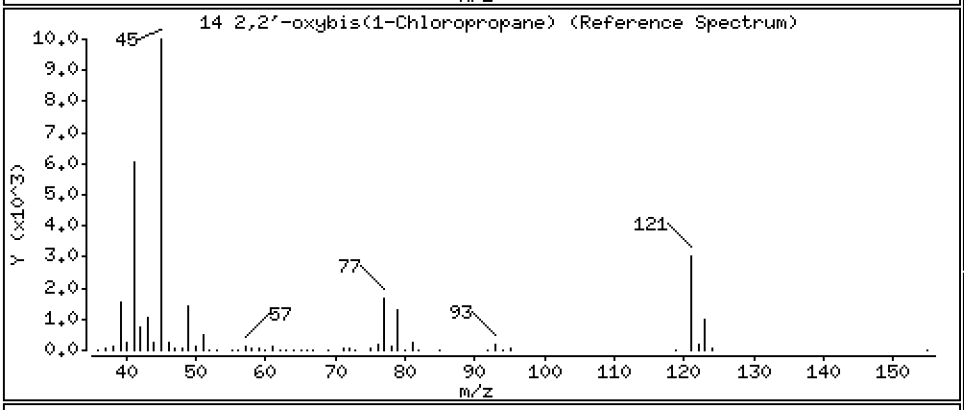
Column diameter: 0.32

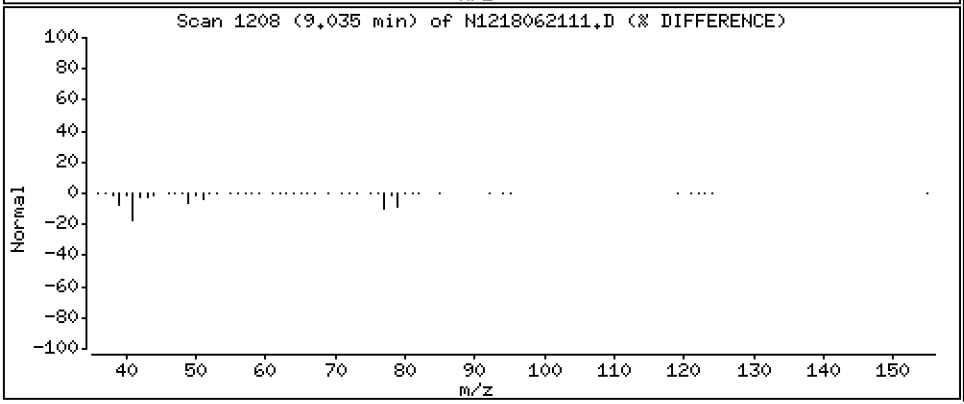
14 2,2'-oxybis(1-Chloropropane)

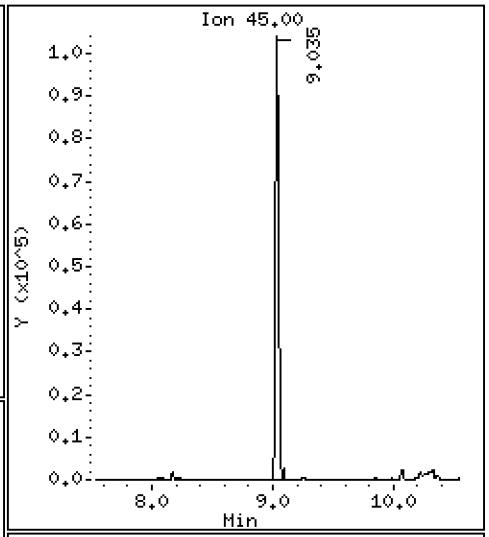
Concentration: 15.05 ug/mL

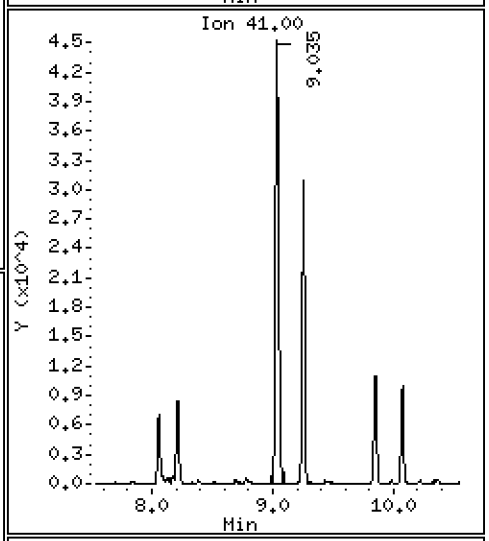


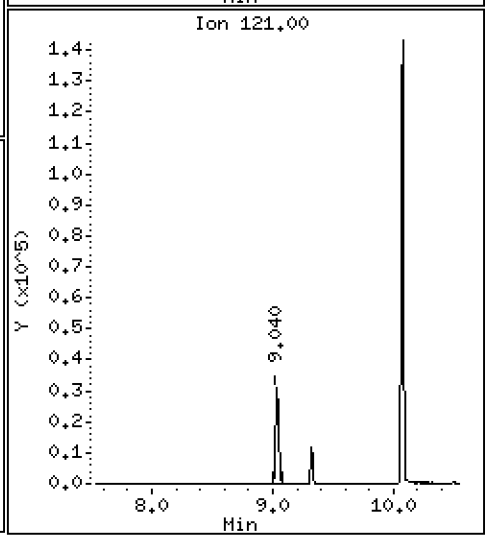












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

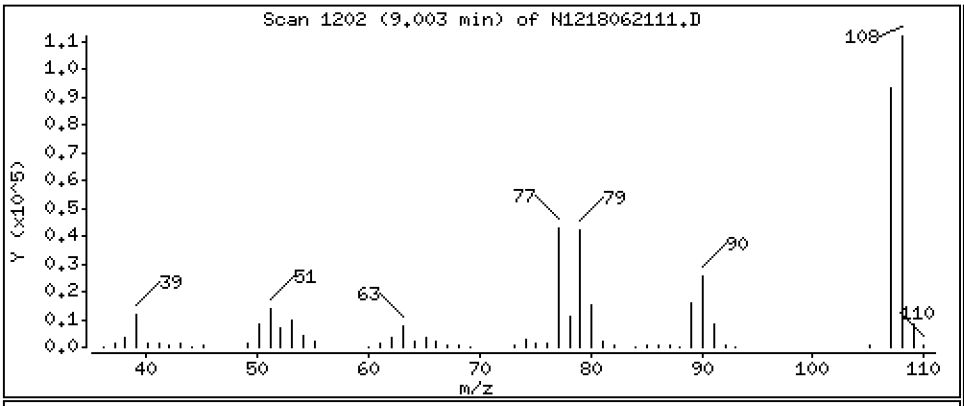
Operator: JZ

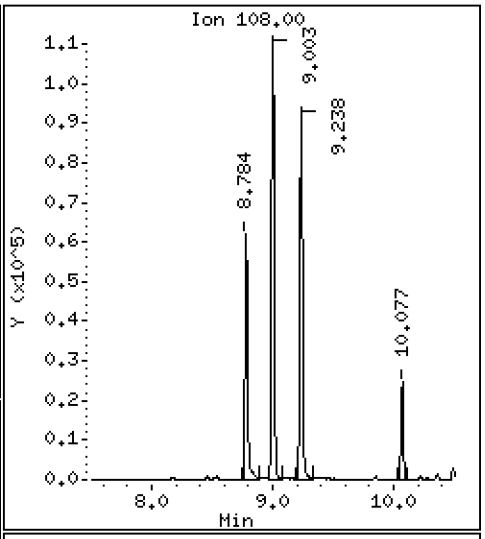
Column phase: ZB-5msi

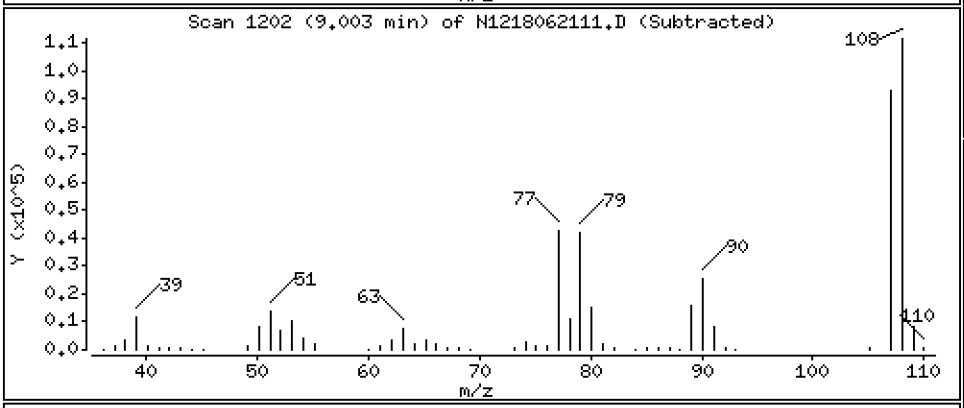
Column diameter: 0.32

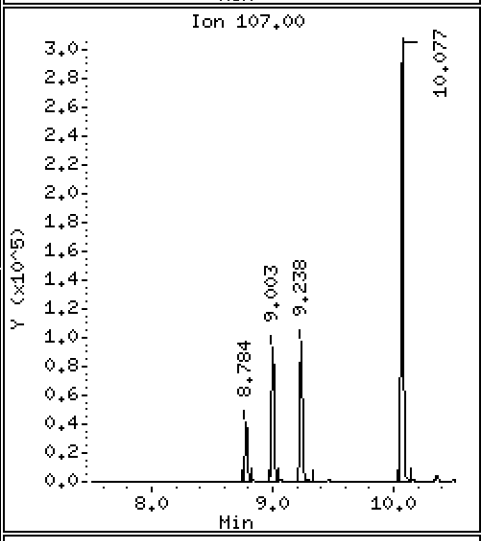
13 2-Methylphenol

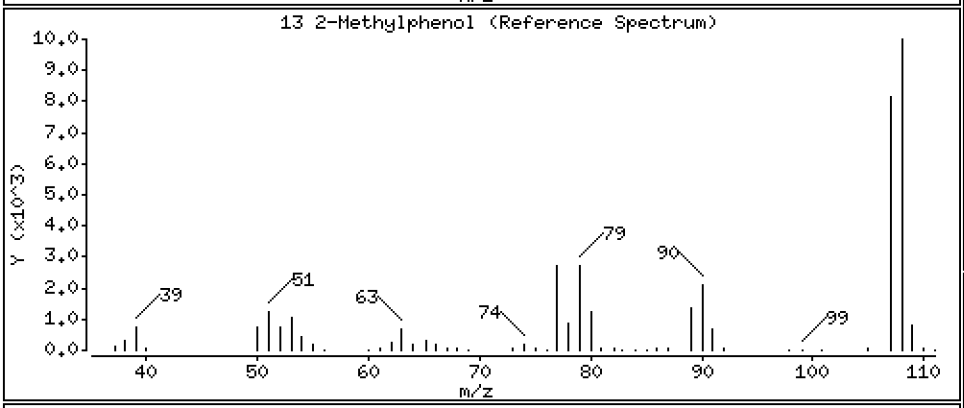
Concentration: 13.42 ug/mL

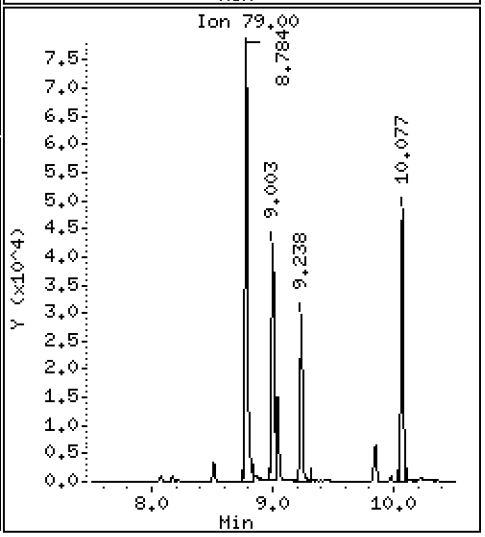


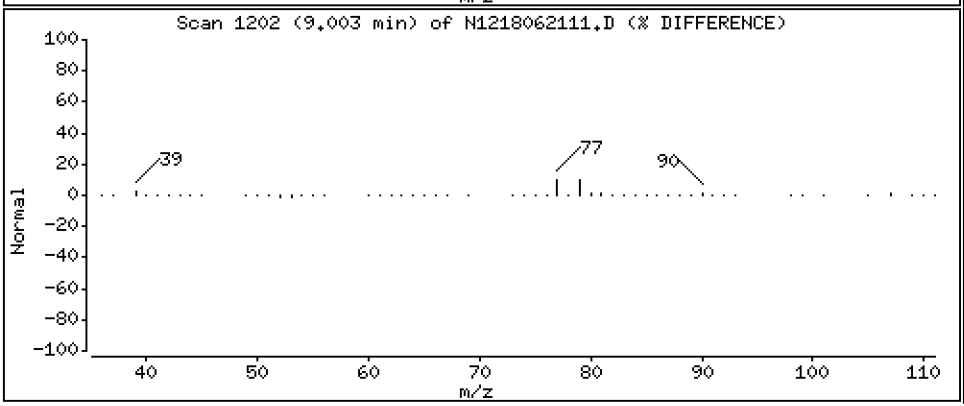












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

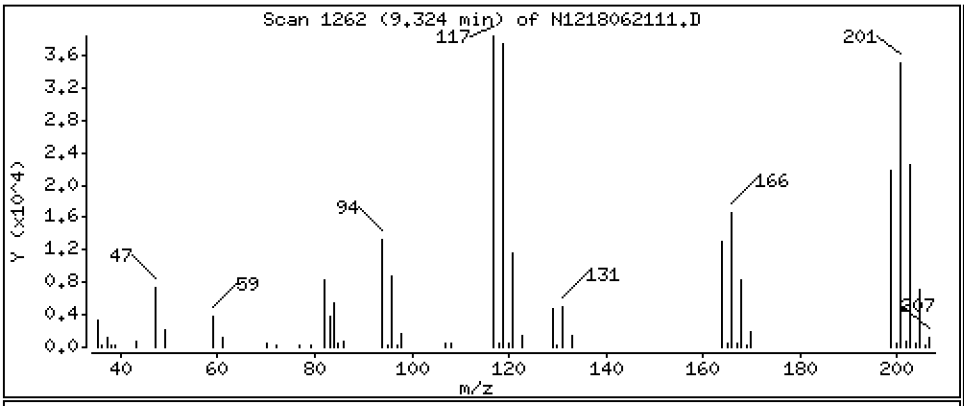
Operator: JZ

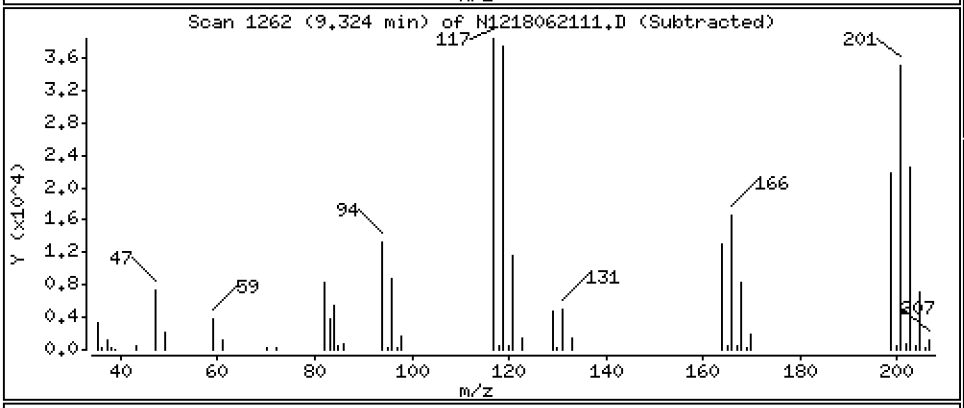
Column phase: ZB-5msi

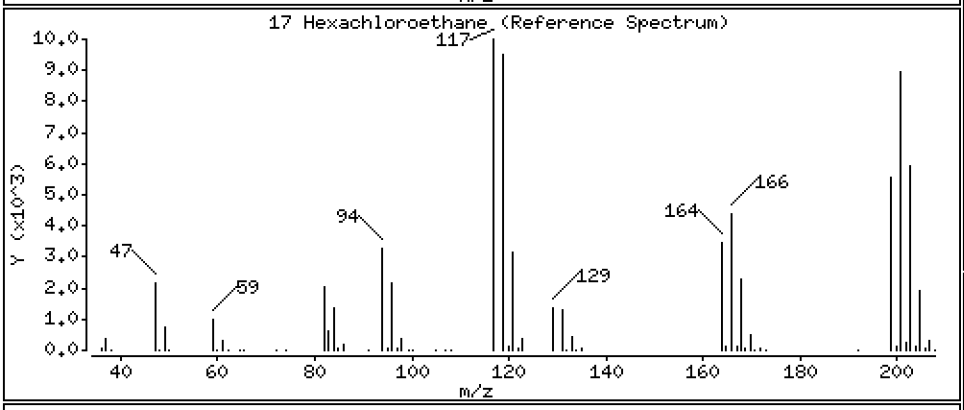
Column diameter: 0.32

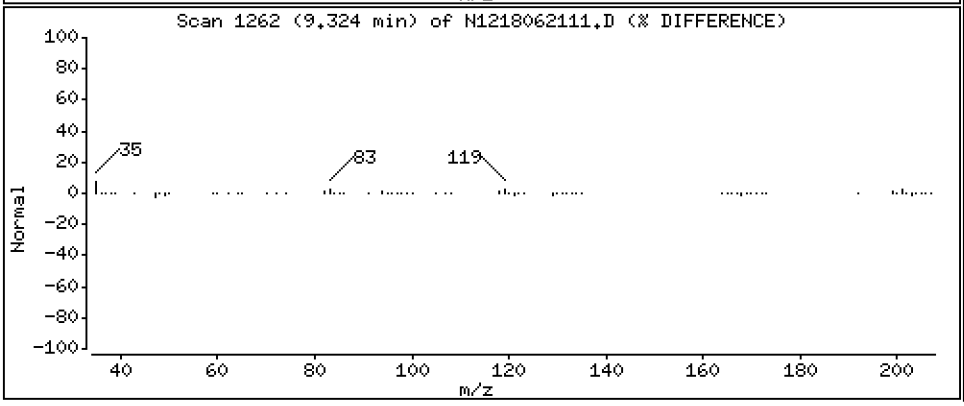
17 Hexachloroethane

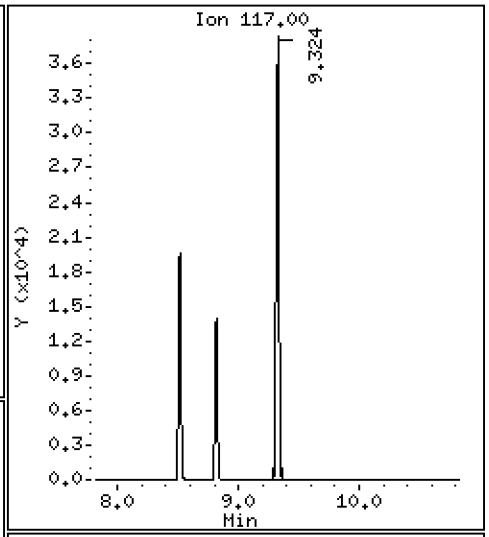
Concentration: 11.51 ug/mL

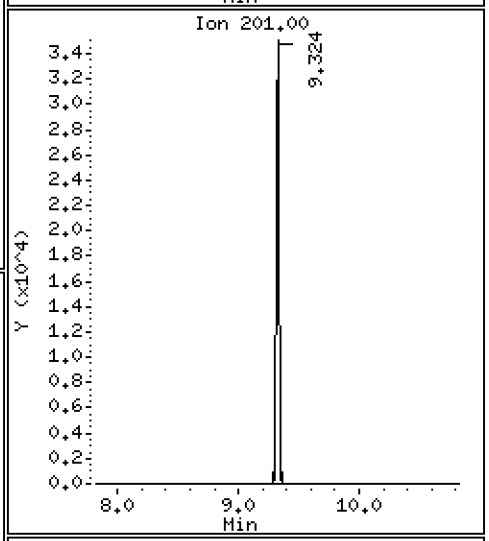


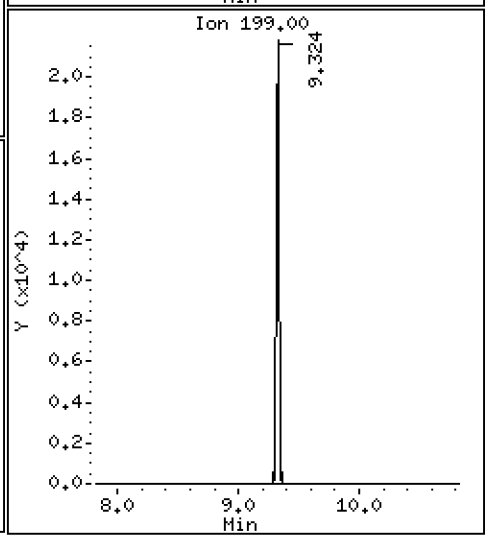












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

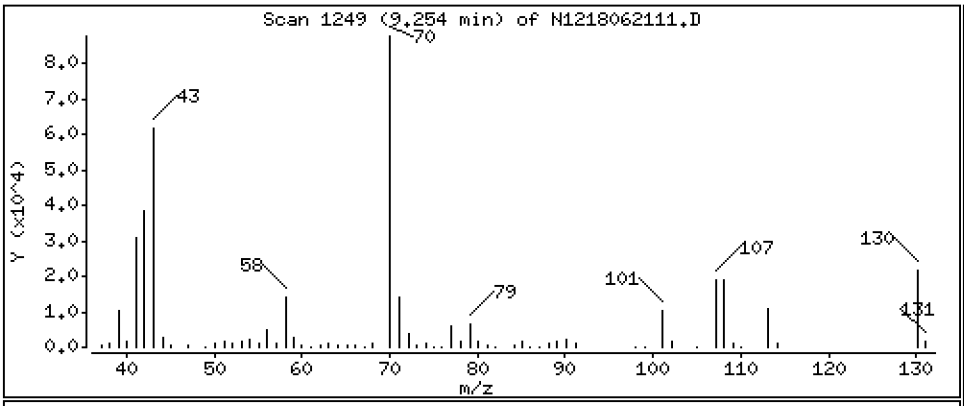
Operator: JZ

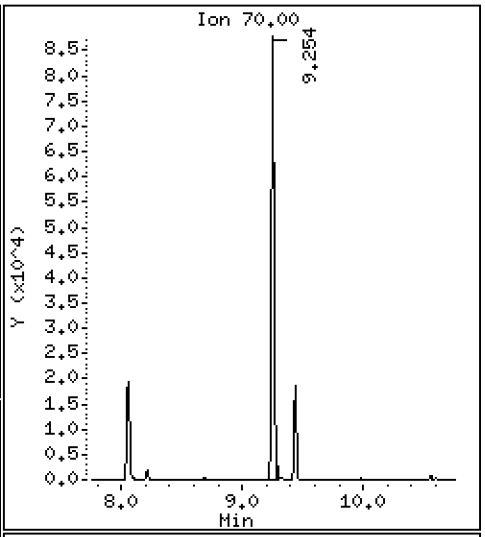
Column phase: ZB-5msi

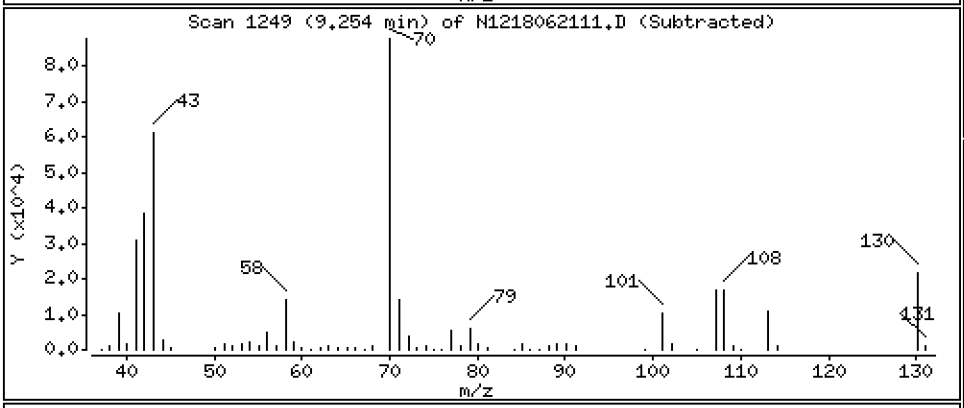
Column diameter: 0.32

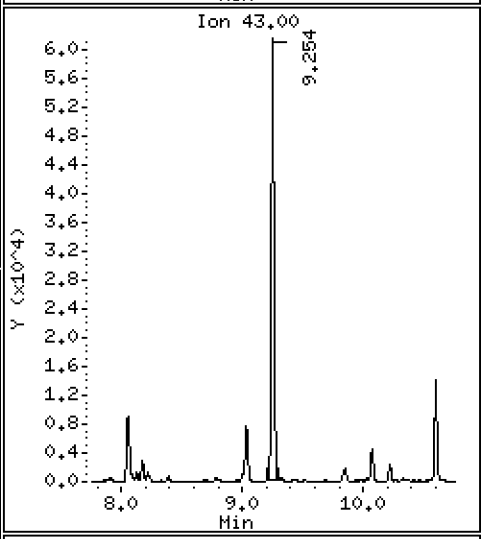
16 N-Nitroso-di-n-propylamine

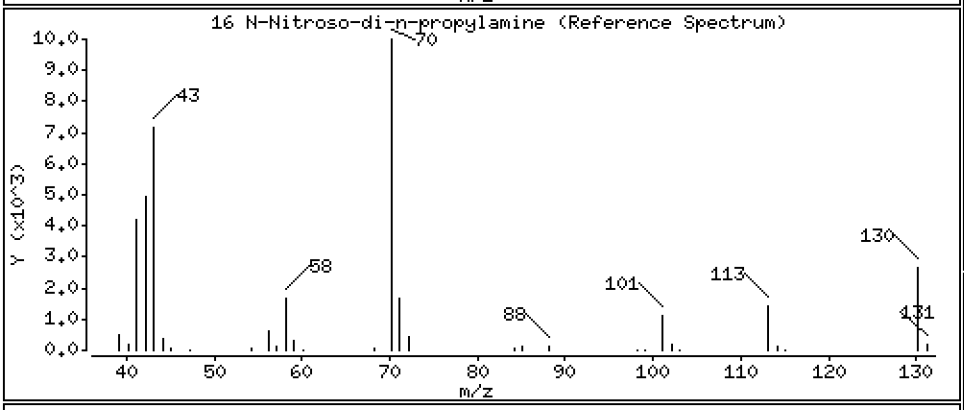
Concentration: 15.12 ug/mL

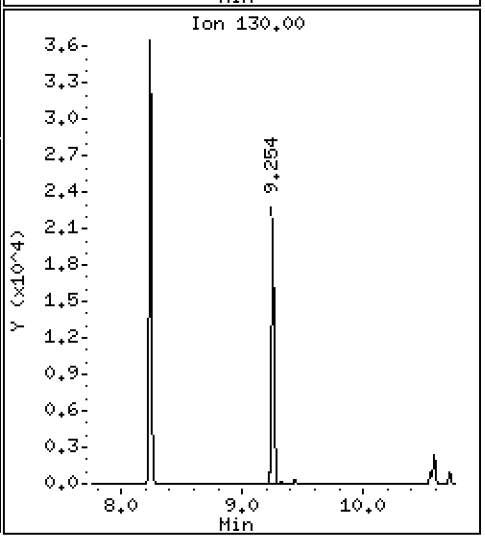


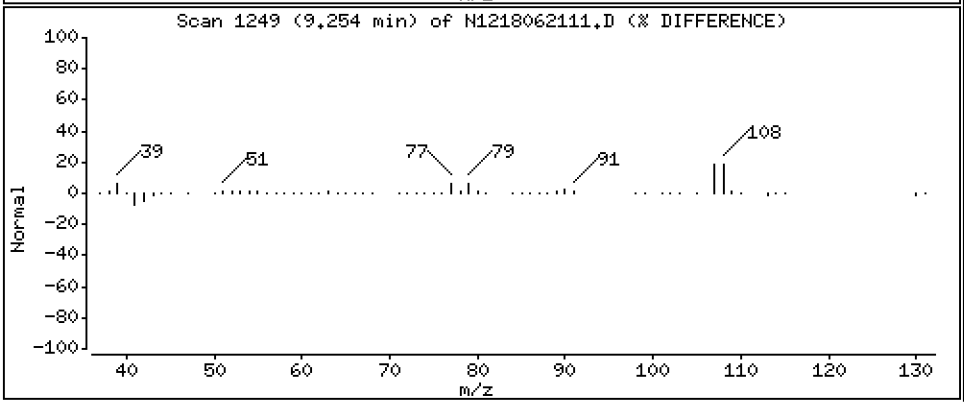












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

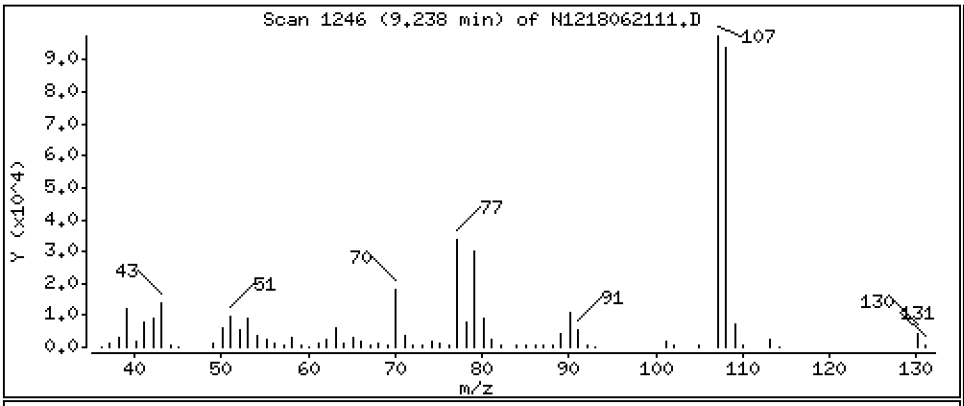
Operator: JZ

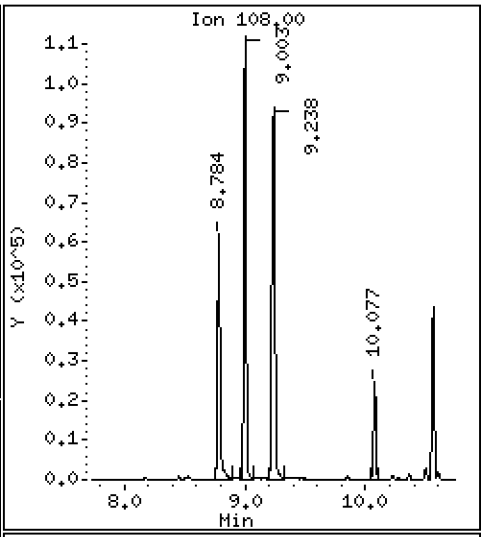
Column phase: ZB-5msi

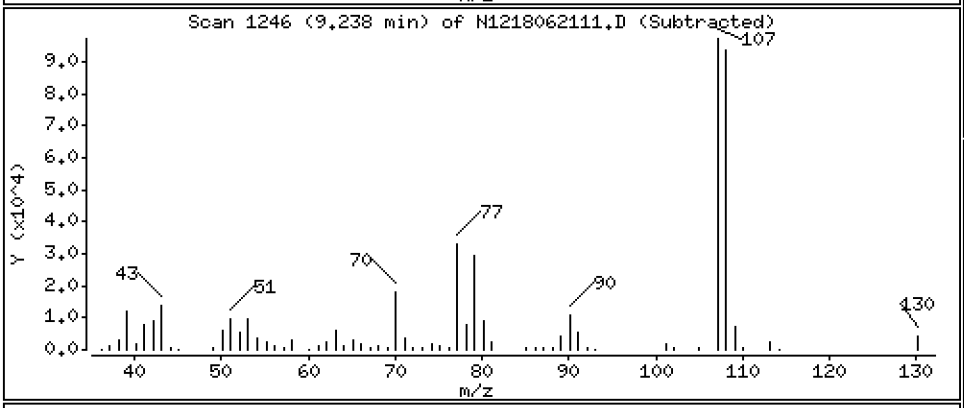
Column diameter: 0.32

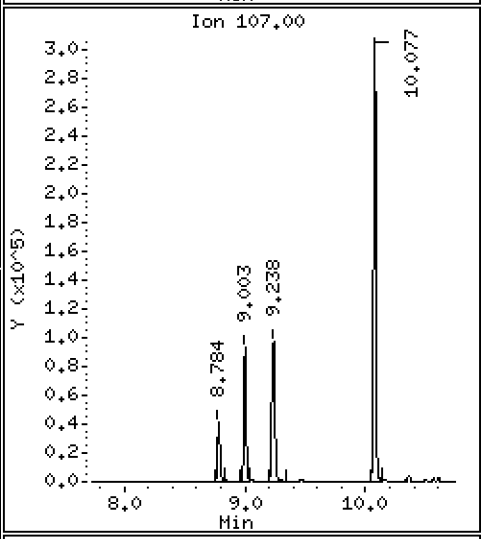
15 4-Methylphenol

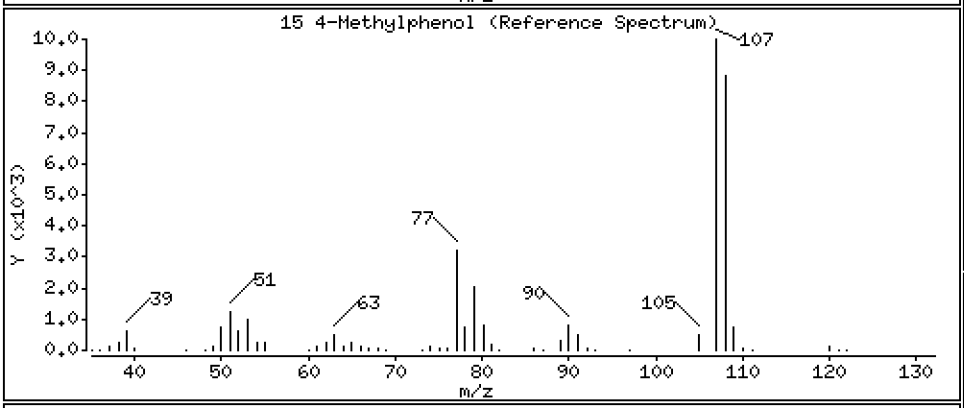
Concentration: 13.73 ug/mL

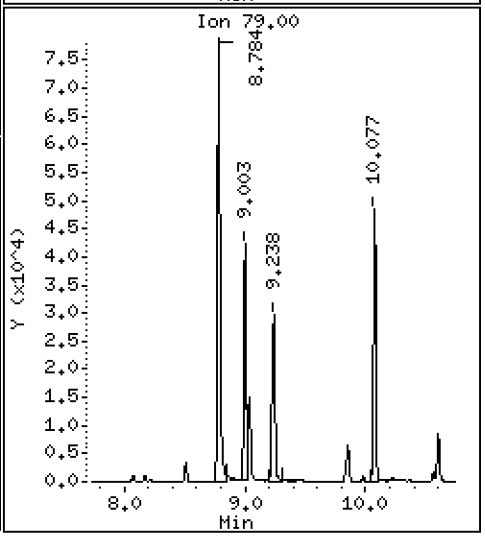


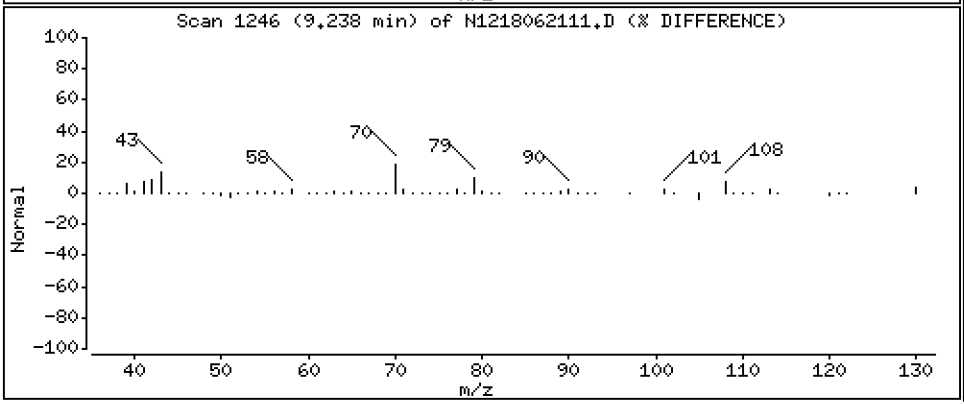












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

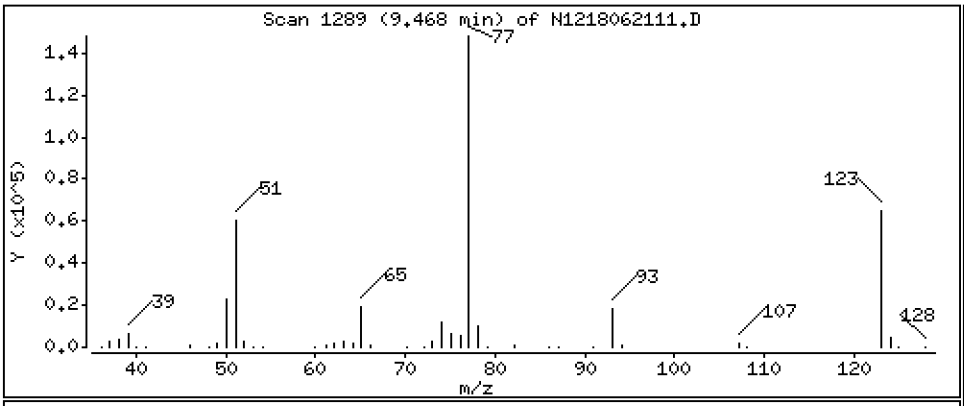
Operator: JZ

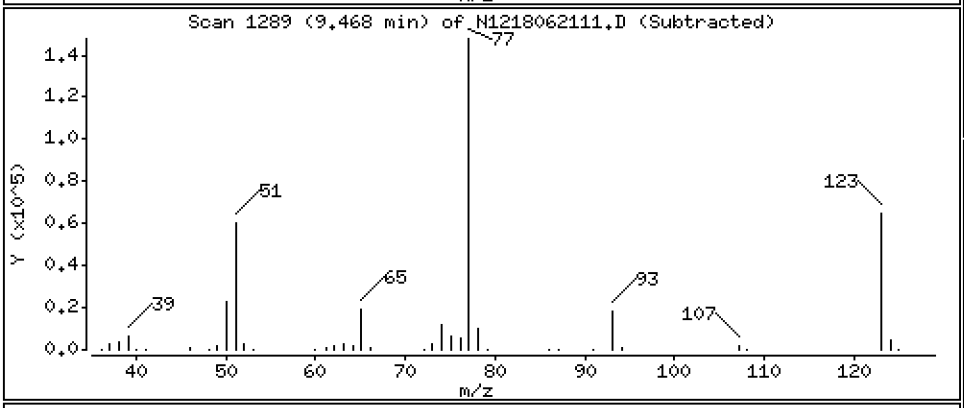
Column phase: ZB-5msi

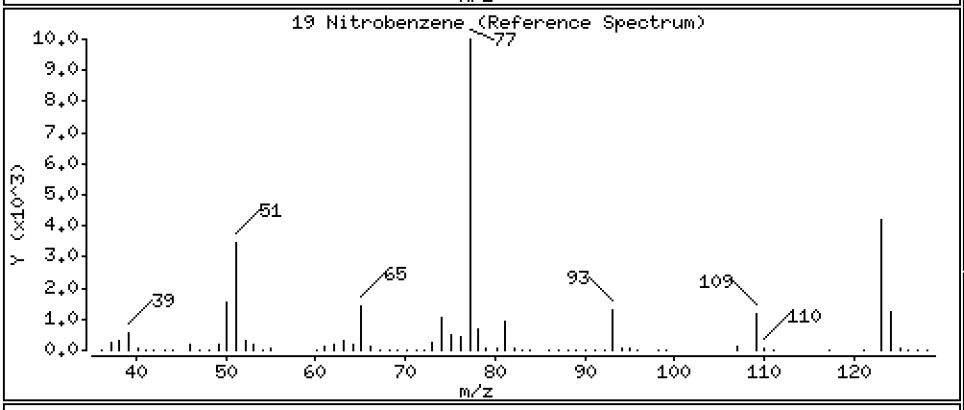
Column diameter: 0.32

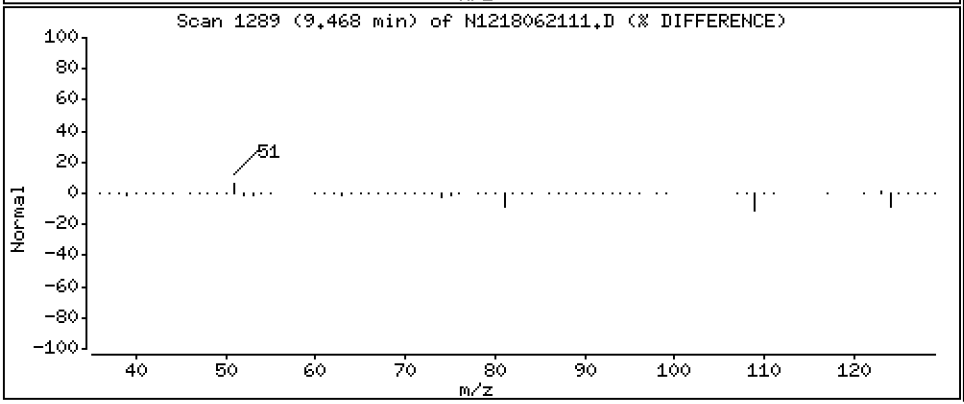
19 Nitrobenzene

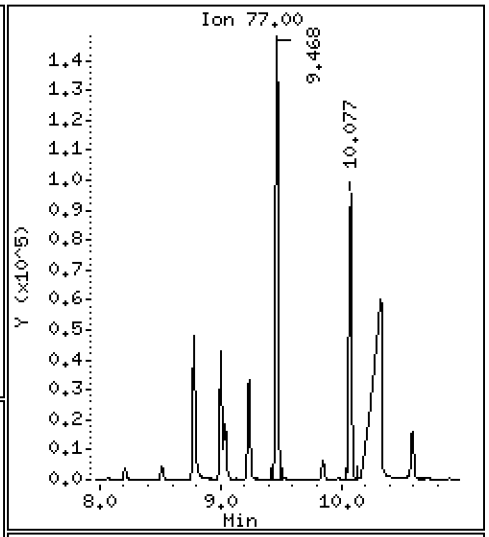
Concentration: 15.21 ug/mL

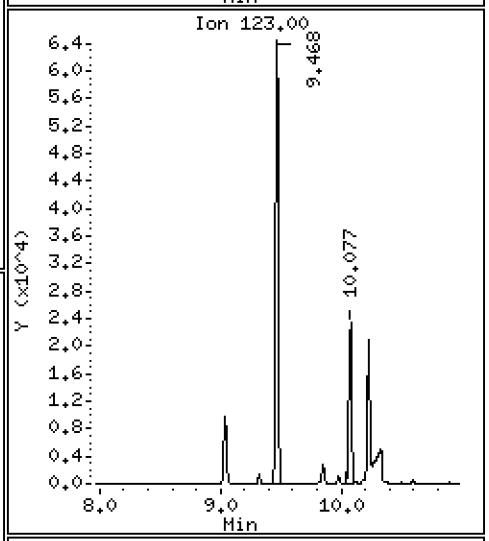


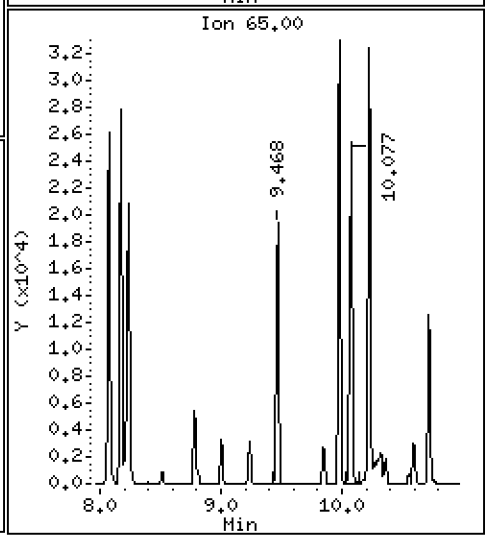












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

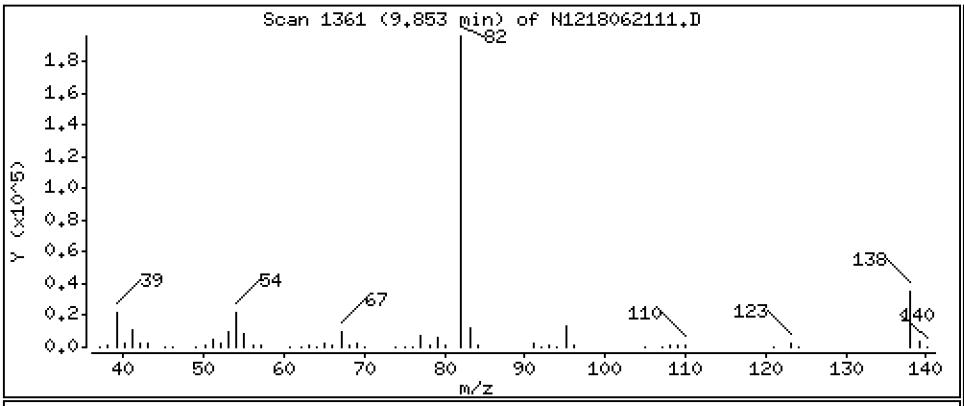
Operator: JZ

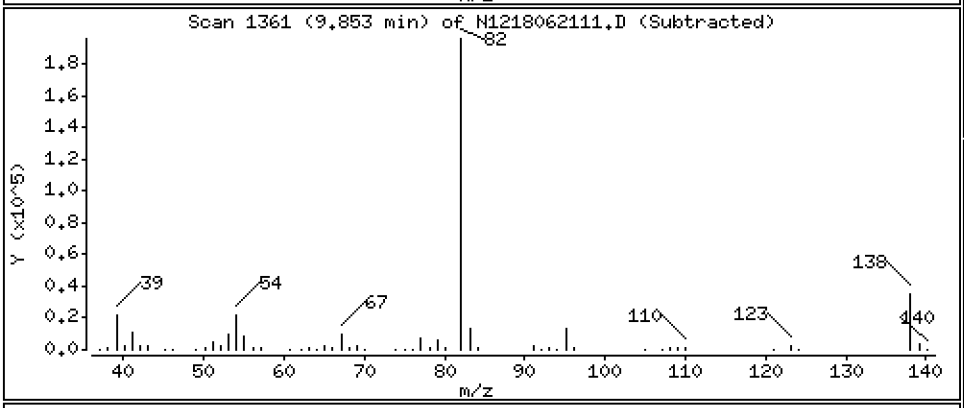
Column phase: ZB-5msi

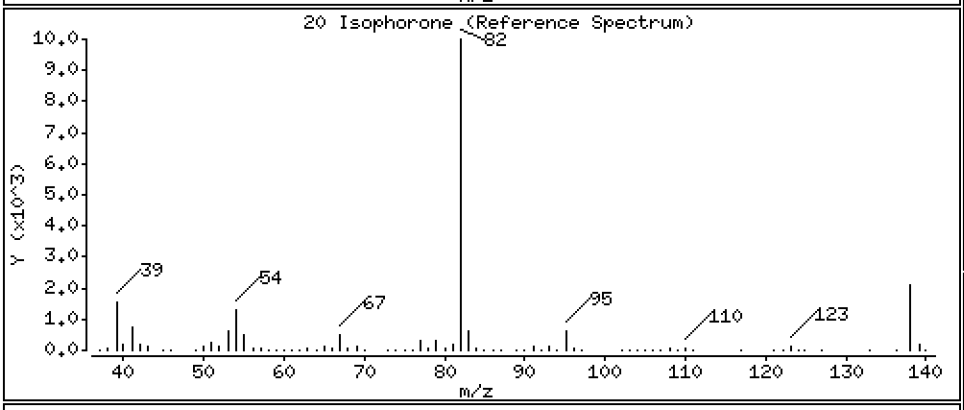
Column diameter: 0.32

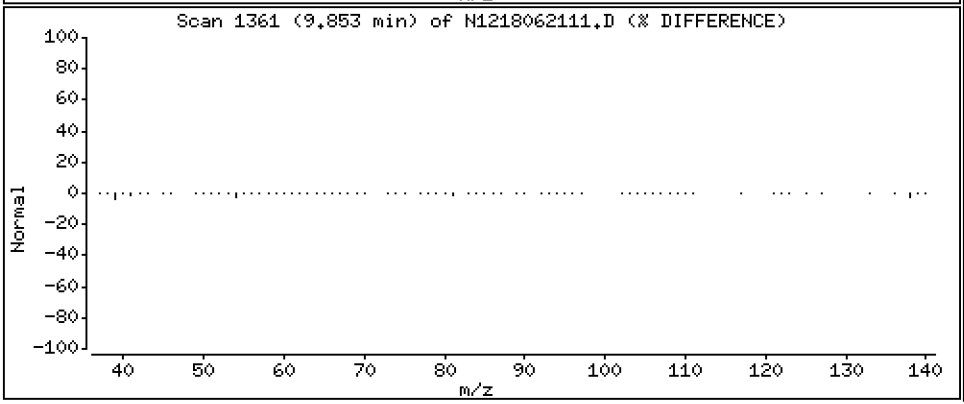
20 Isophorone

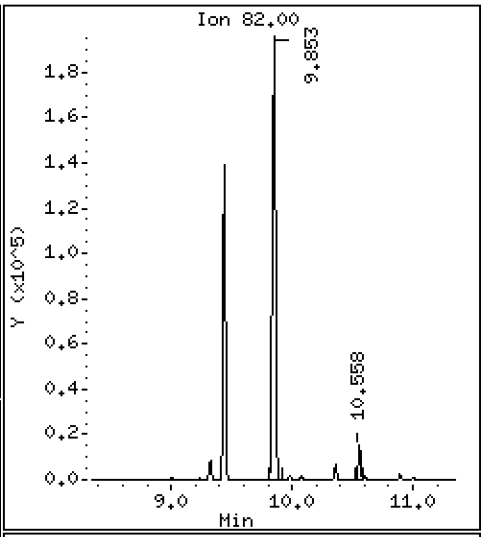
Concentration: 17.50 ug/mL

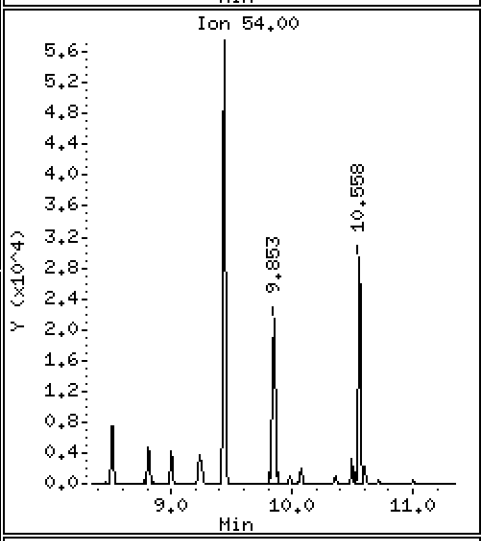


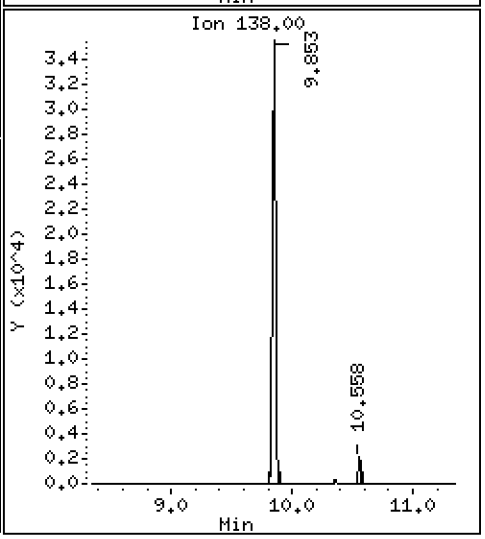












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

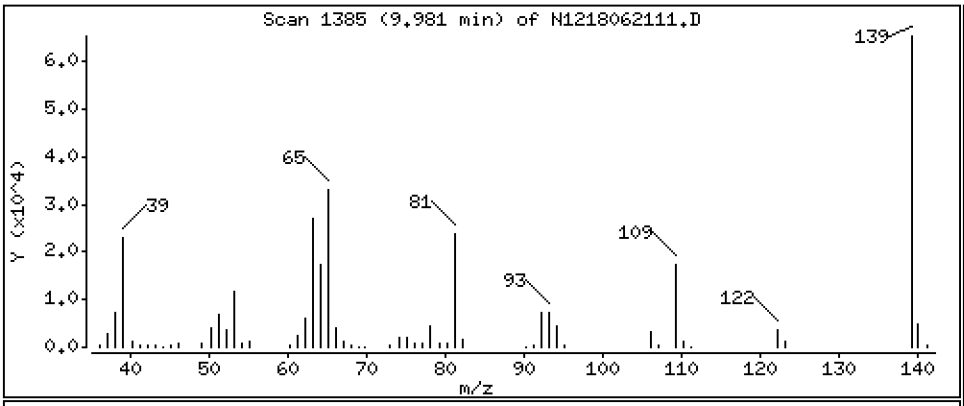
Operator: JZ

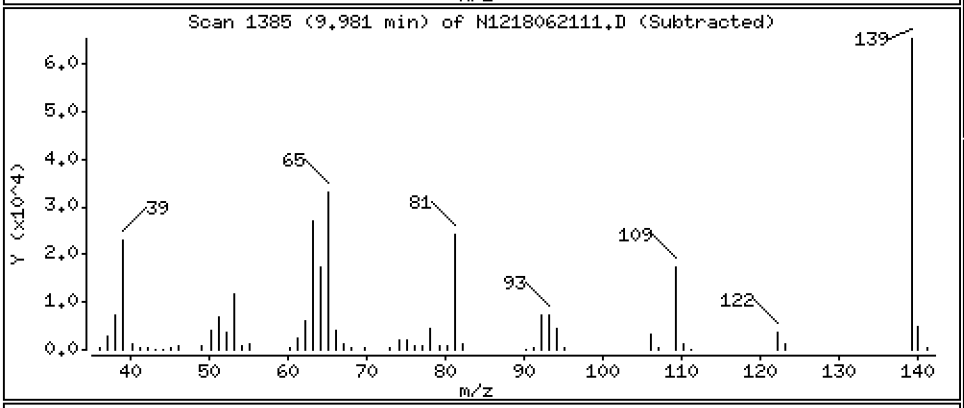
Column phase: ZB-5msi

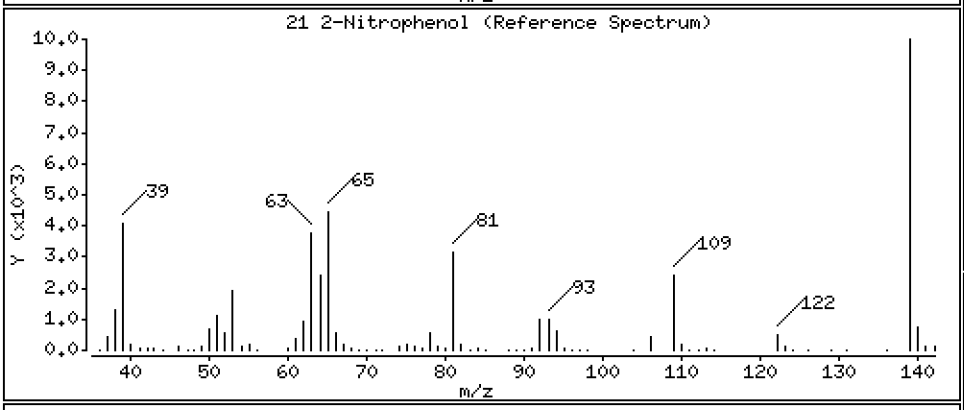
Column diameter: 0.32

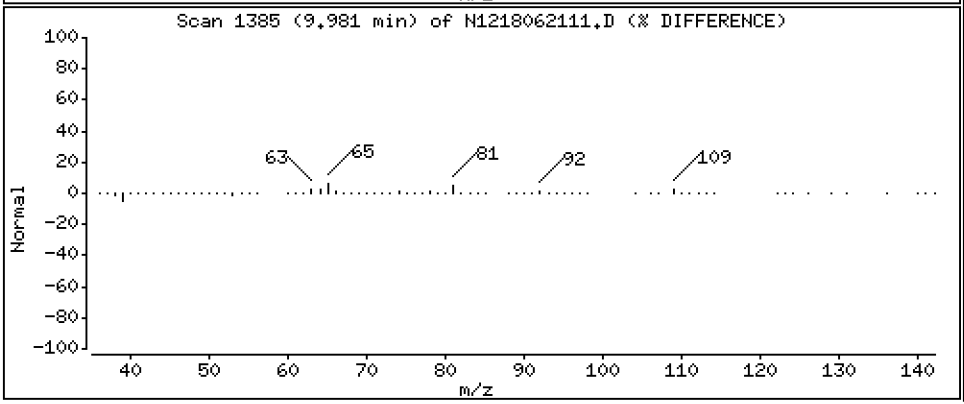
21 2-Nitrophenol

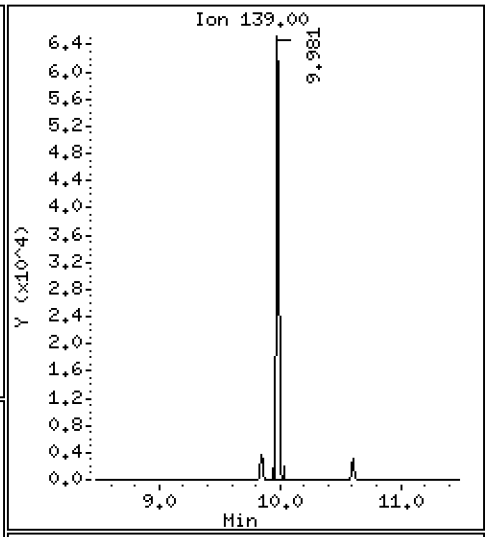
Concentration: 15.05 ug/mL

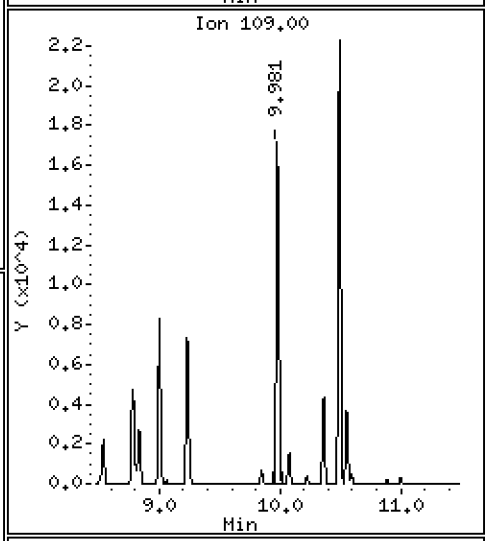


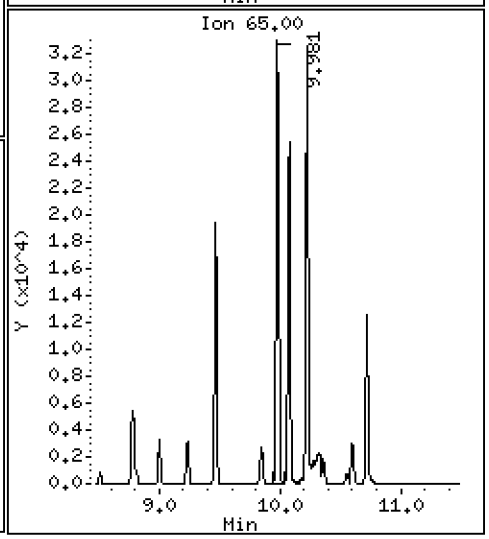












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

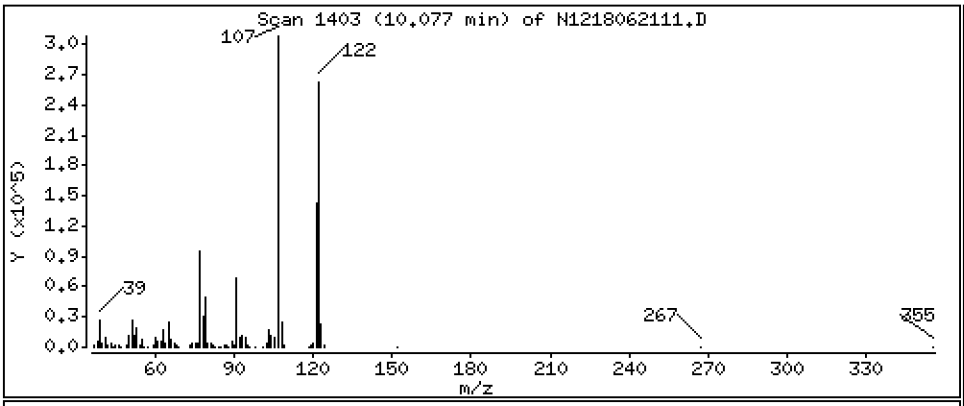
Operator: JZ

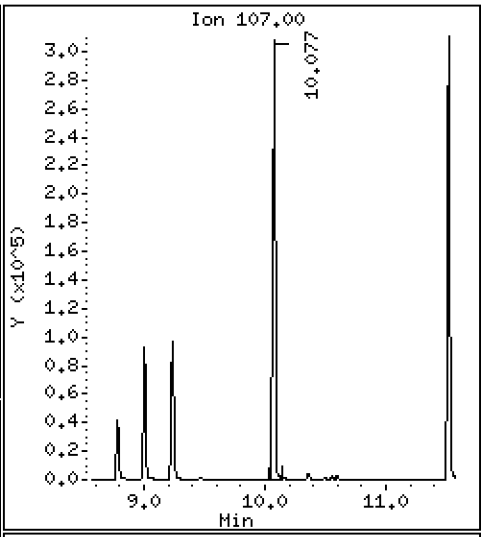
Column phase: ZB-5msi

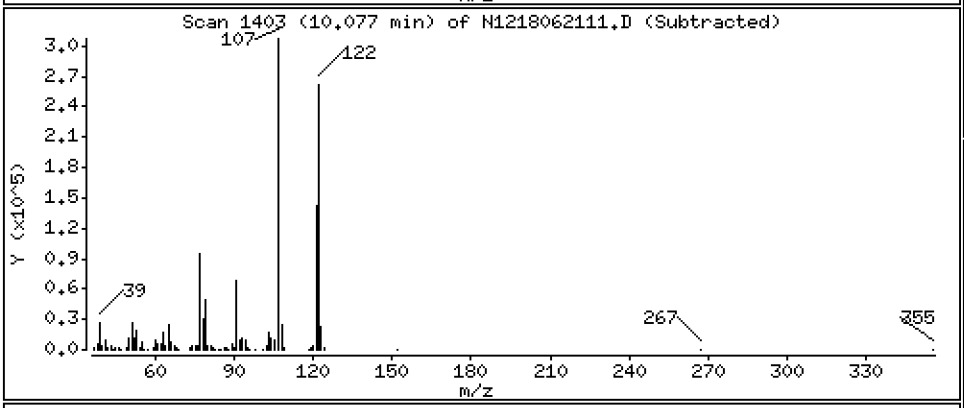
Column diameter: 0.32

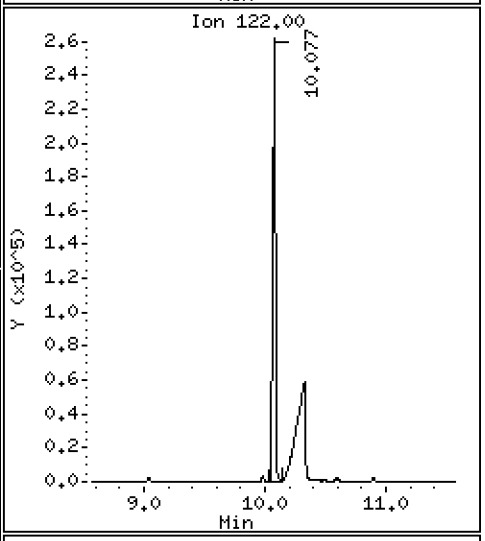
22 2,4-Dimethylphenol

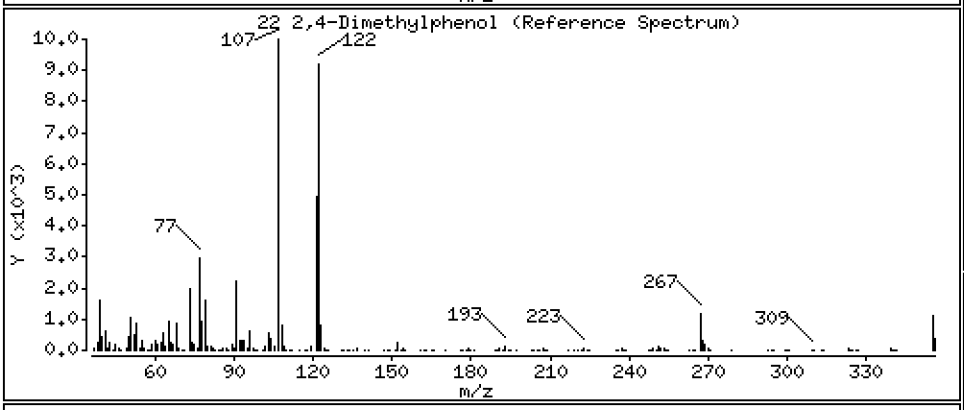
Concentration: 37.09 ug/mL

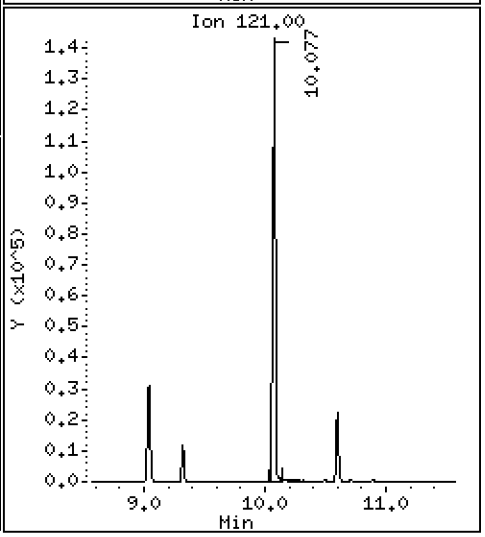


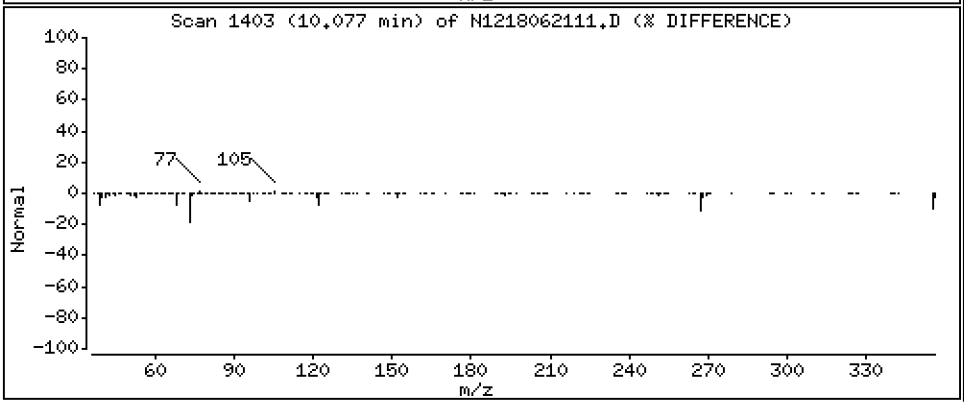












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

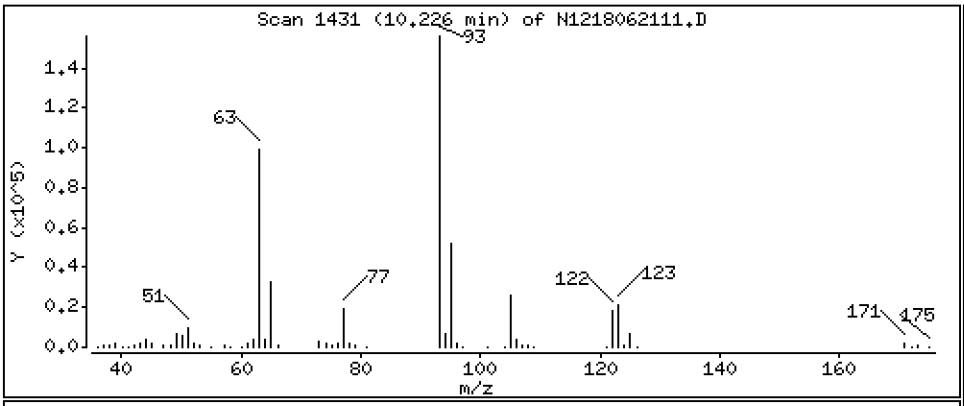
Operator: JZ

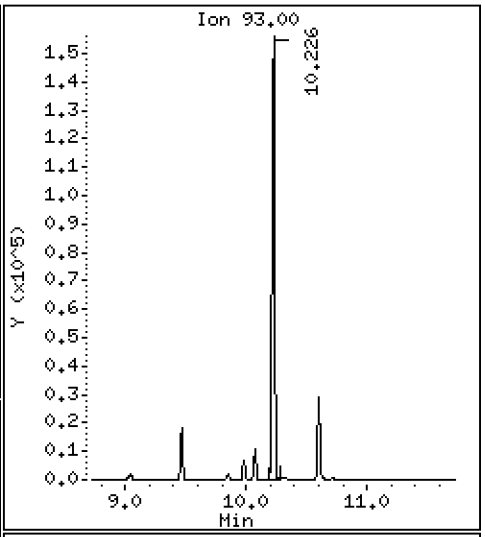
Column phase: ZB-5msi

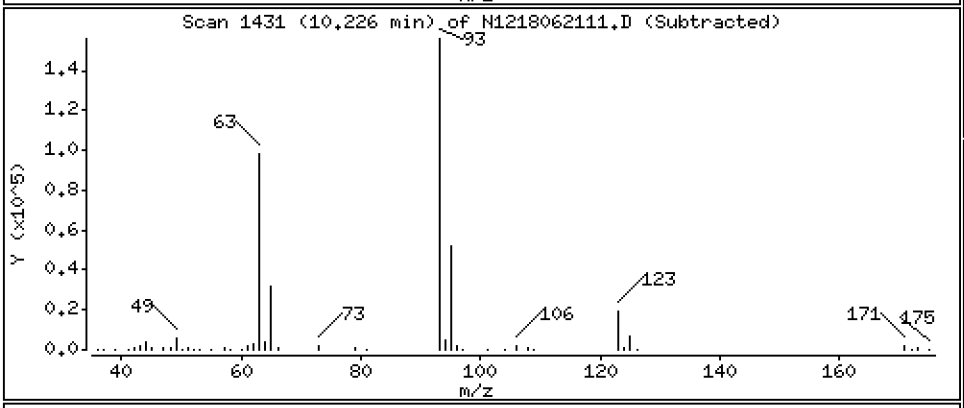
Column diameter: 0.32

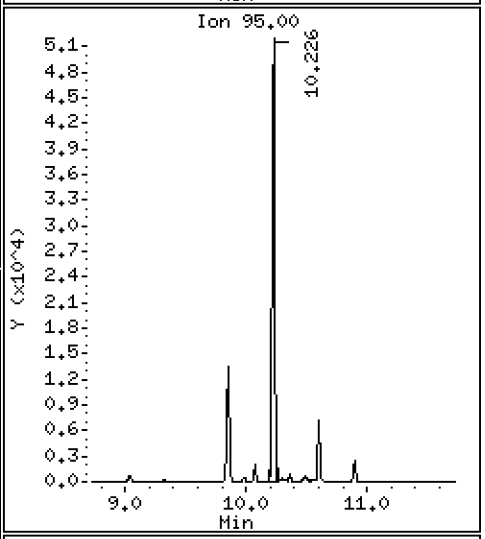
23 Bis(2-Chloroethoxy)methane

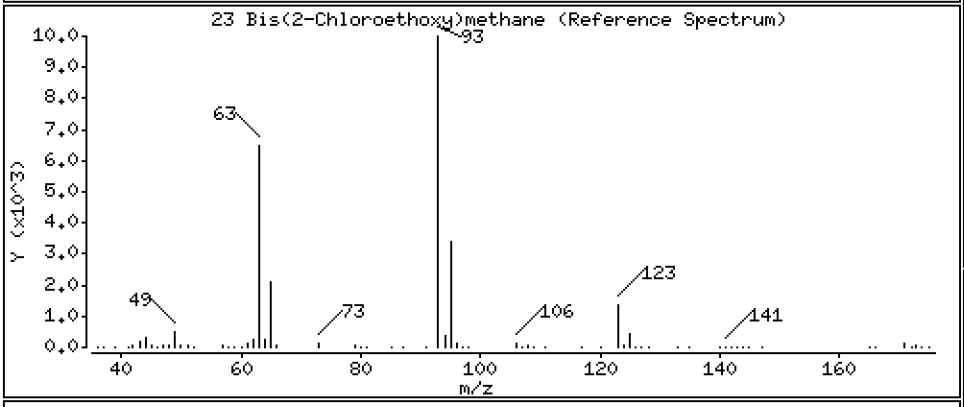
Concentration: 16.09 ug/mL

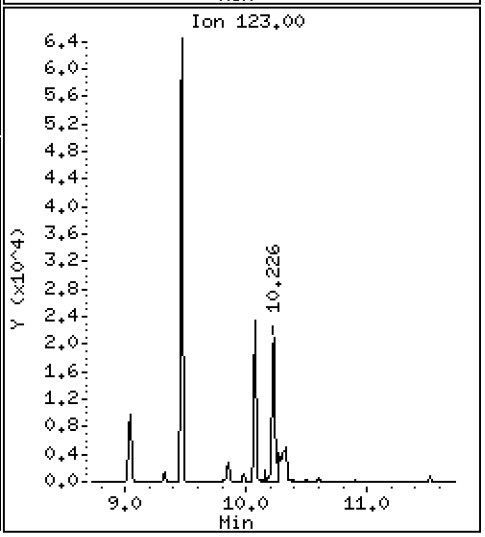


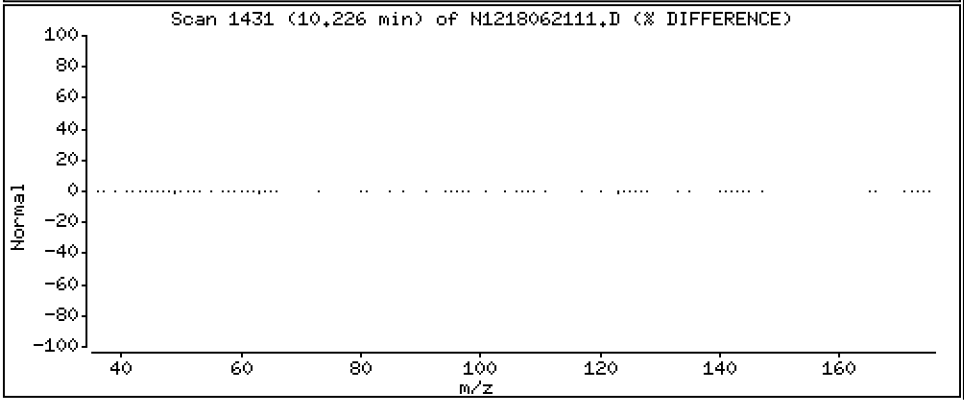












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

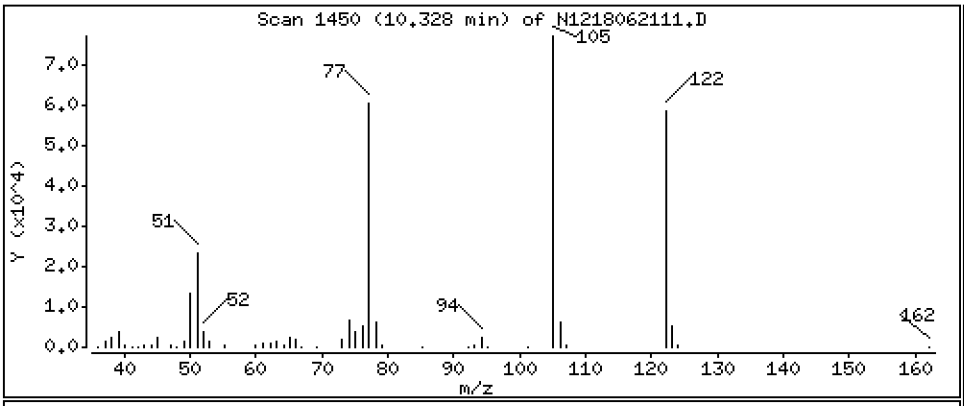
Operator: JZ

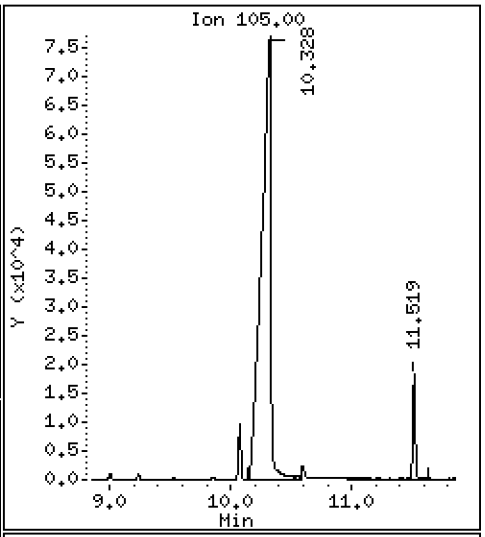
Column phase: ZB-5msi

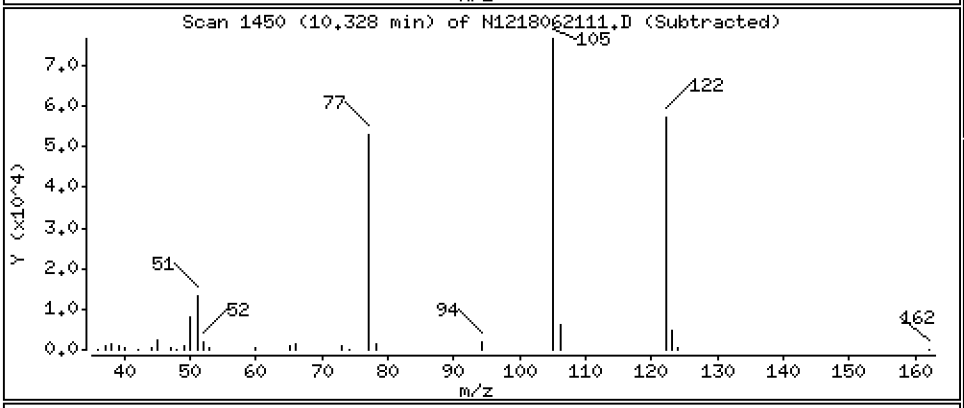
Column diameter: 0.32

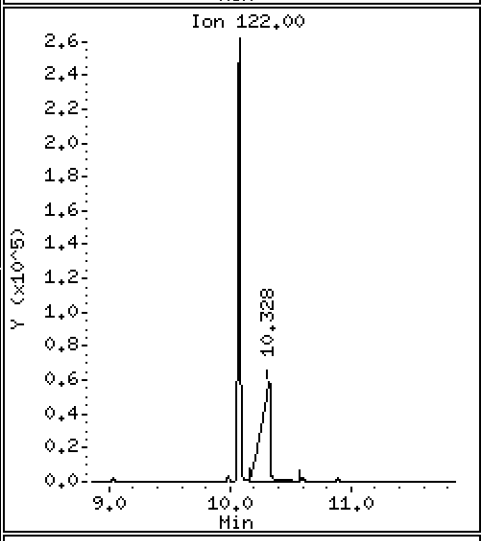
24 Benzoic acid

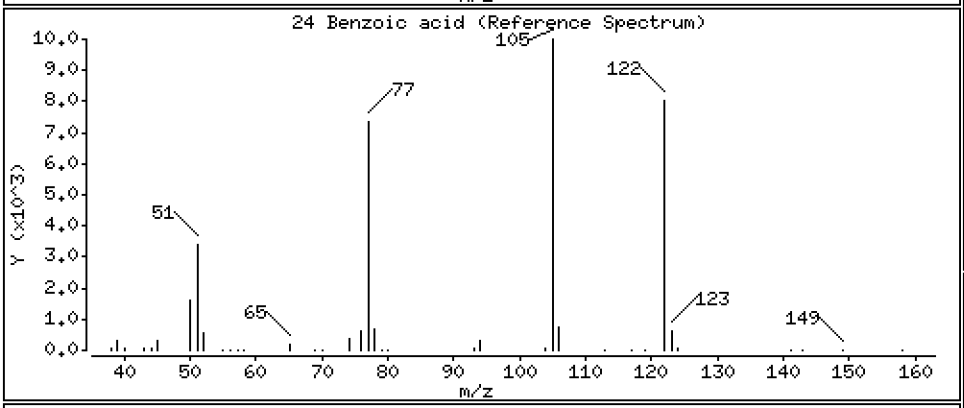
Concentration: 54.23 ug/mL

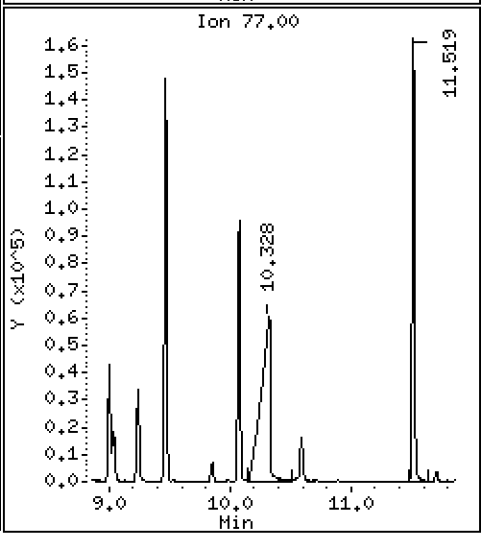


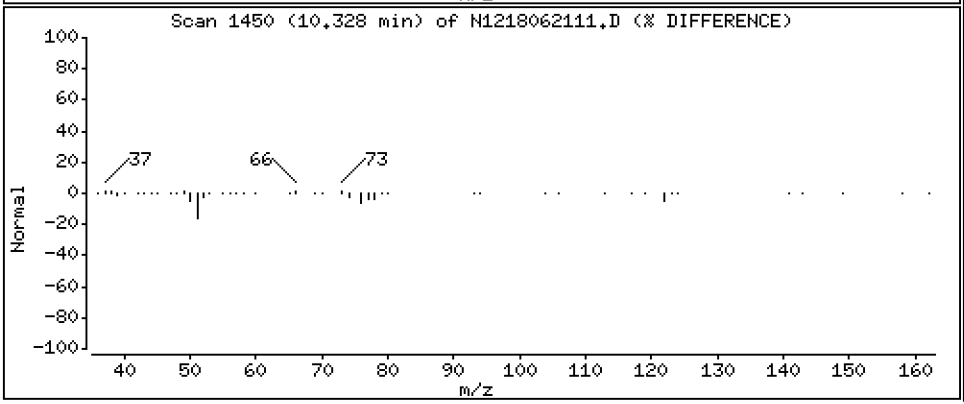












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

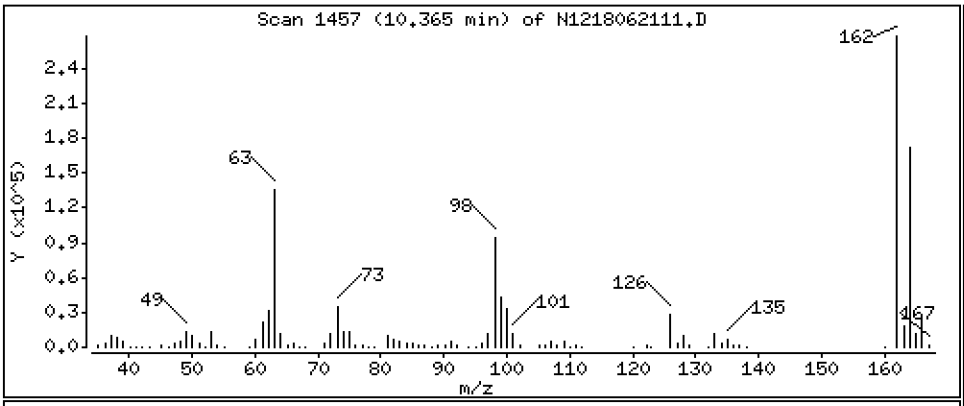
Operator: JZ

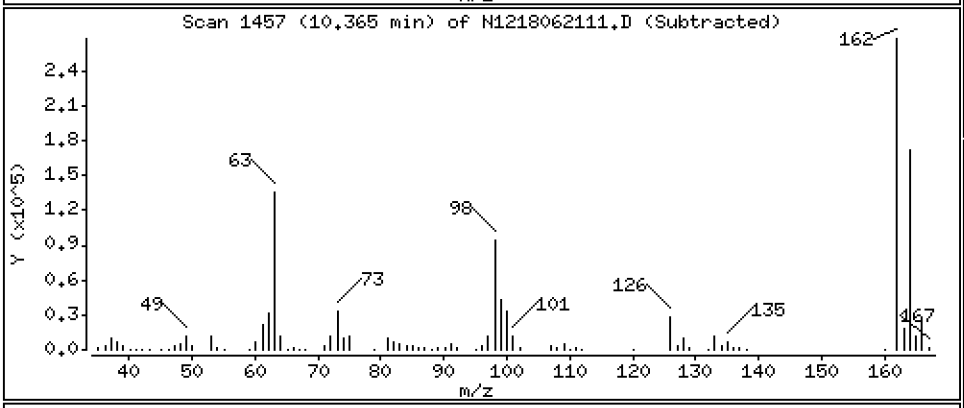
Column phase: ZB-5msi

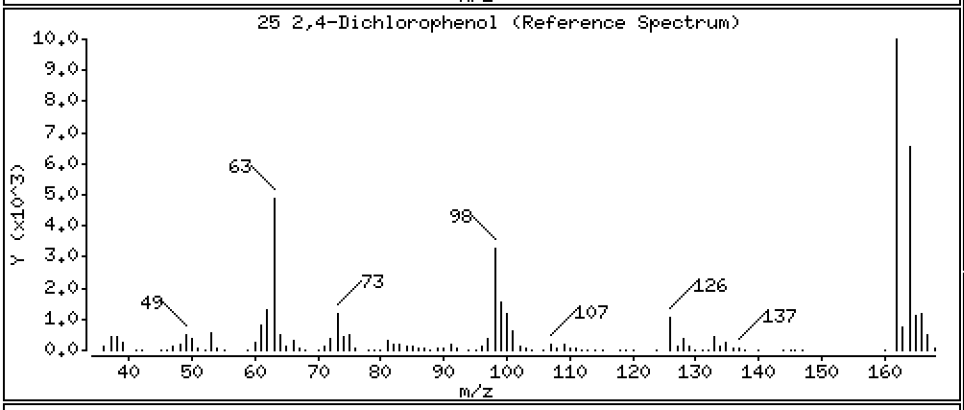
Column diameter: 0.32

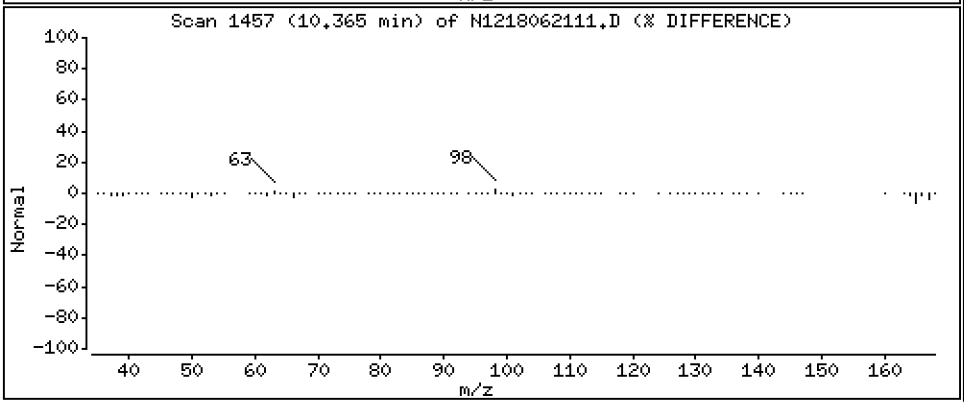
25 2,4-Dichlorophenol

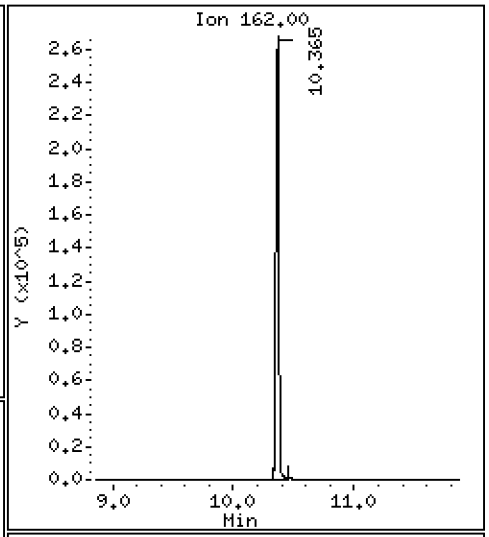
Concentration: 43.58 ug/mL

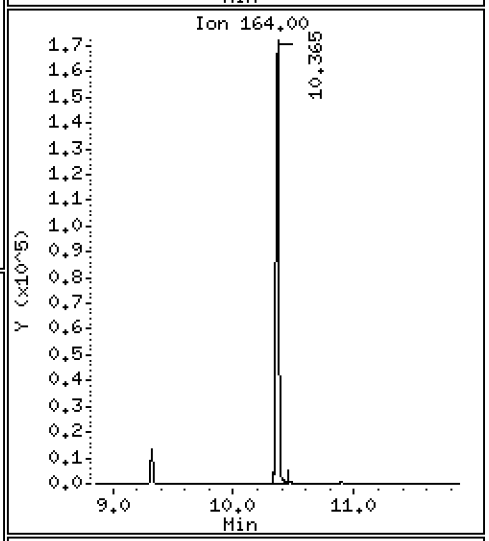


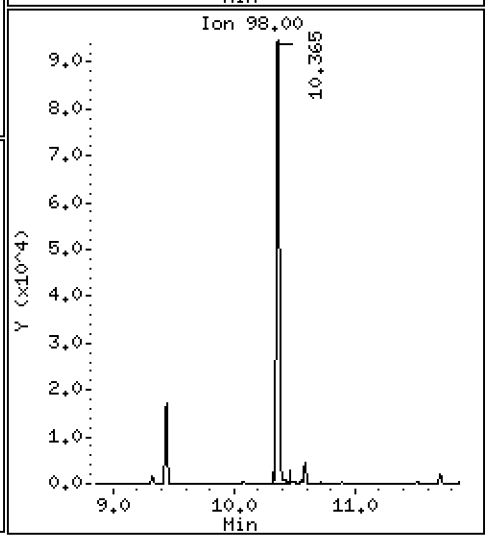












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

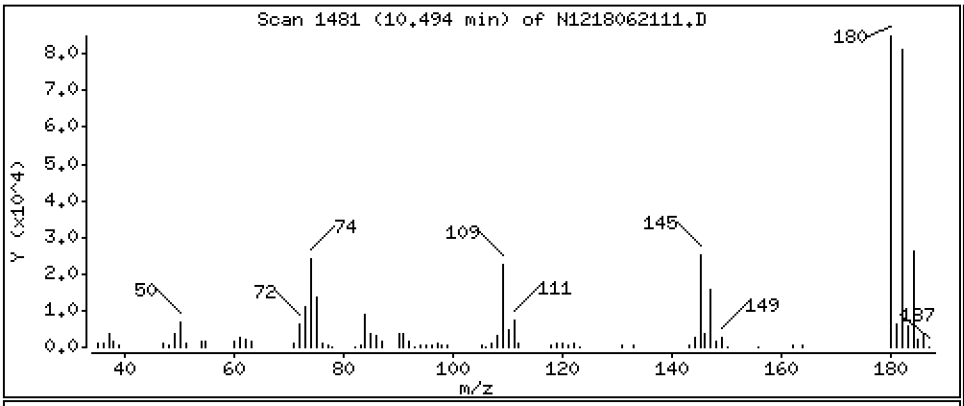
Operator: JZ

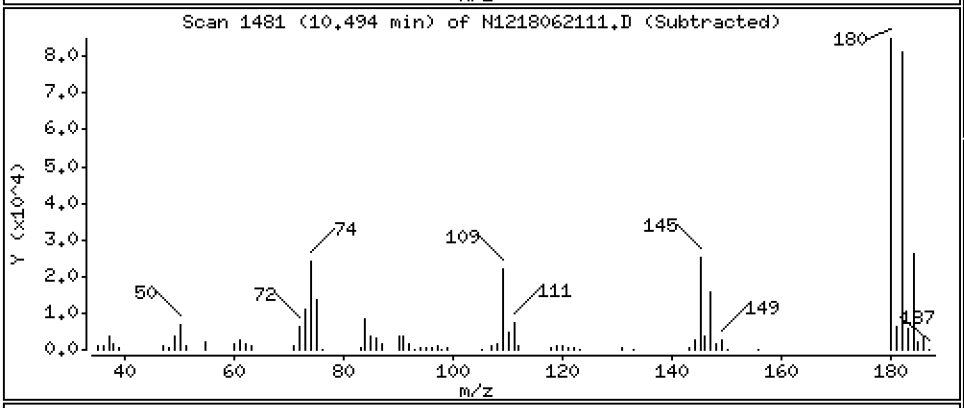
Column phase: ZB-5msi

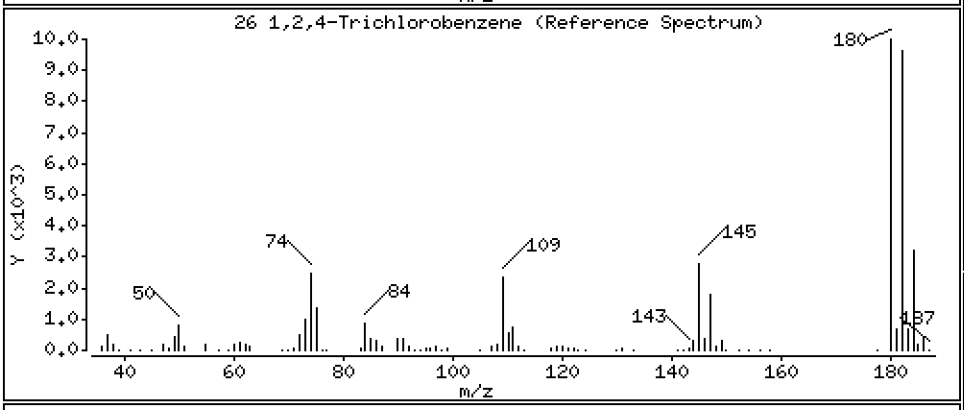
Column diameter: 0.32

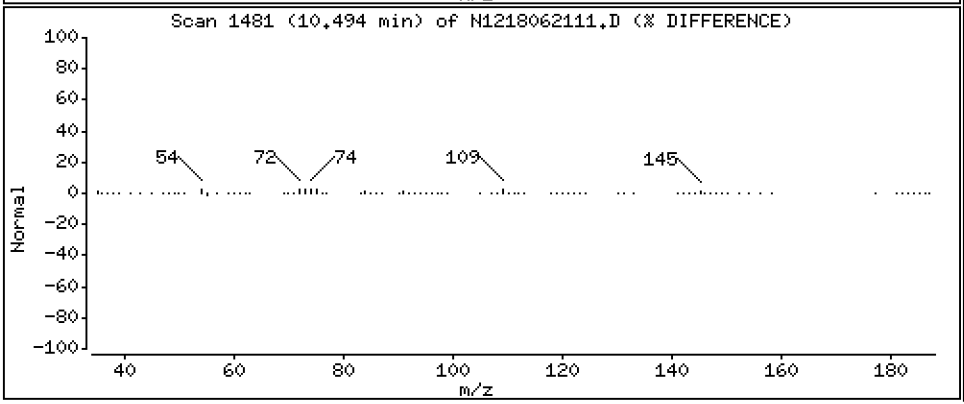
26 1,2,4-Trichlorobenzene

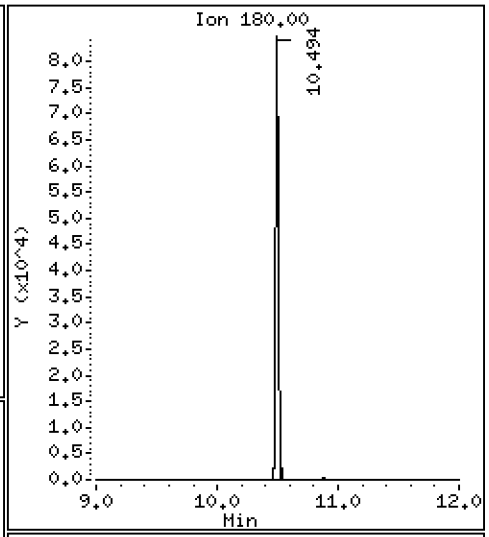
Concentration: 13.14 ug/mL

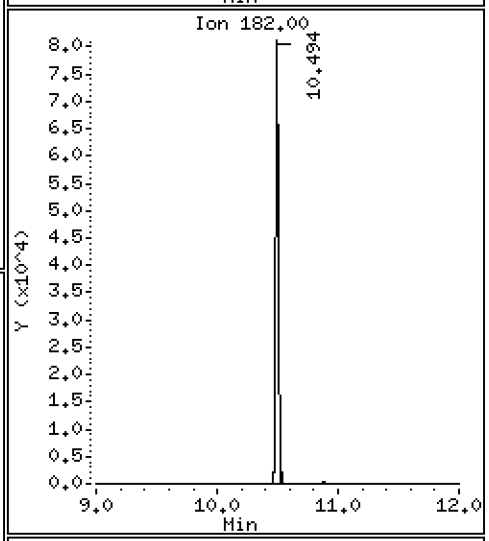


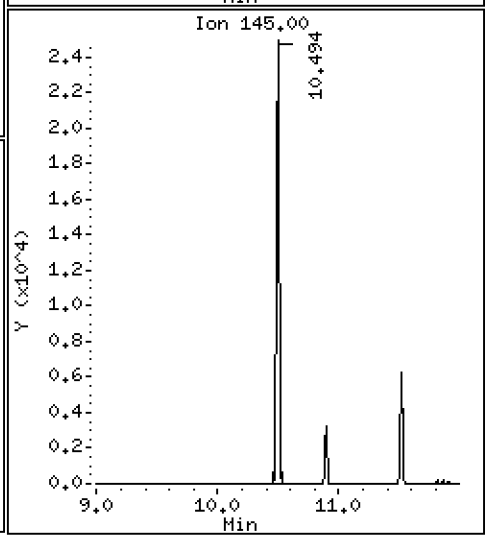












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

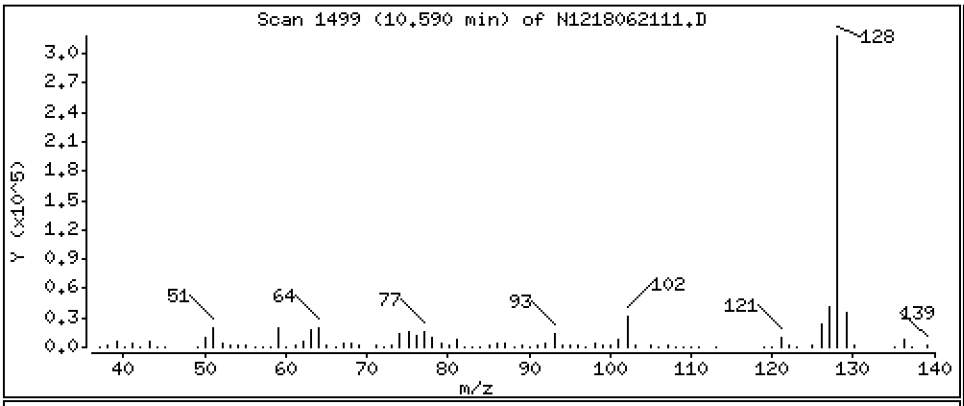
Operator: JZ

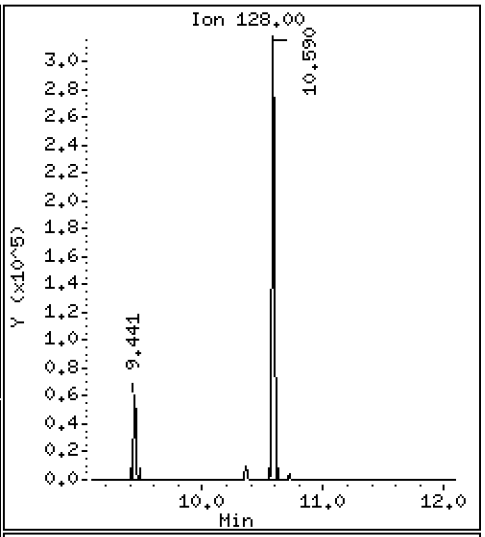
Column phase: ZB-5msi

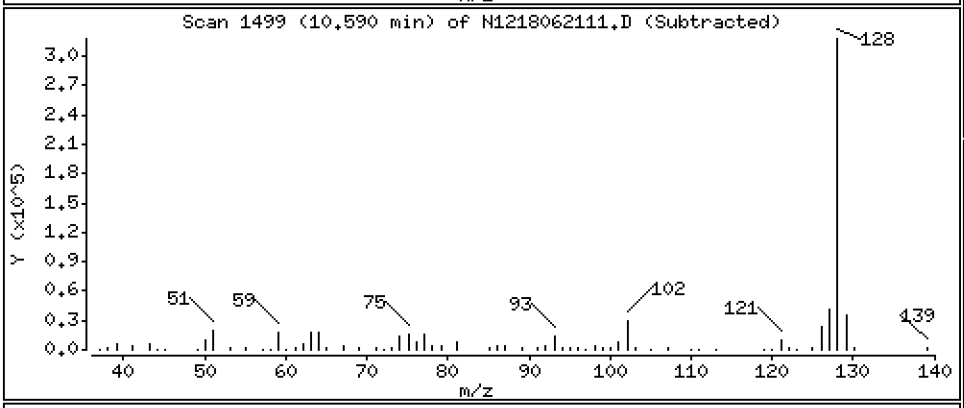
Column diameter: 0.32

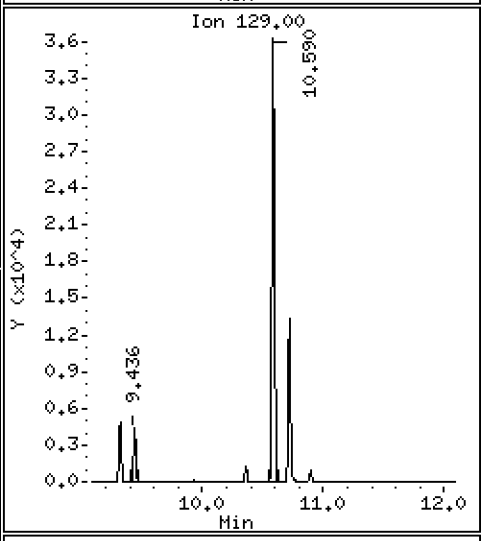
28 Naphthalene

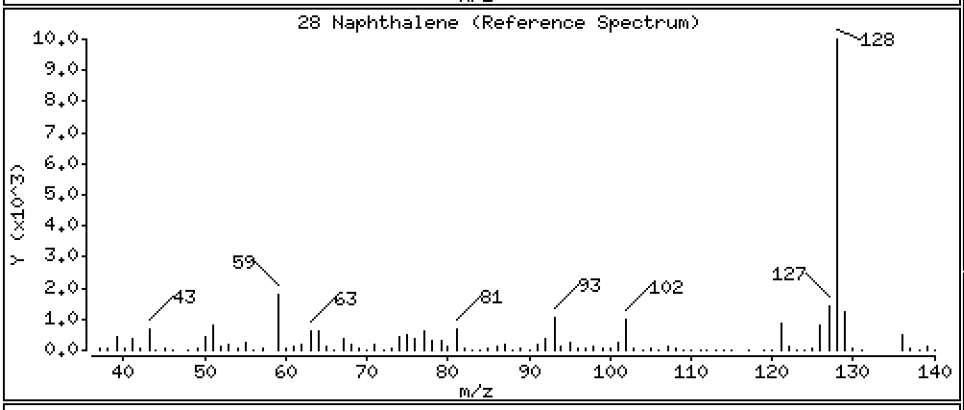
Concentration: 13.69 ug/mL

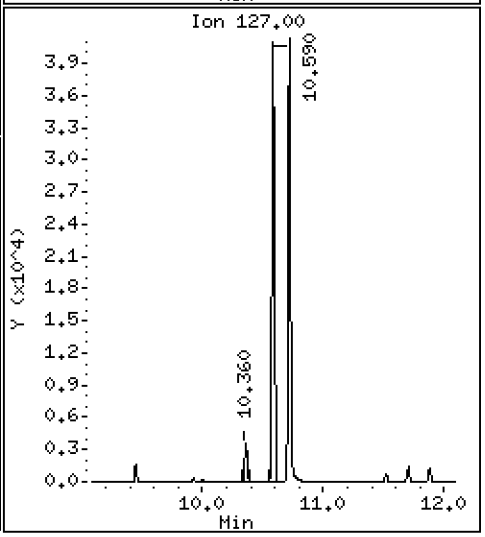


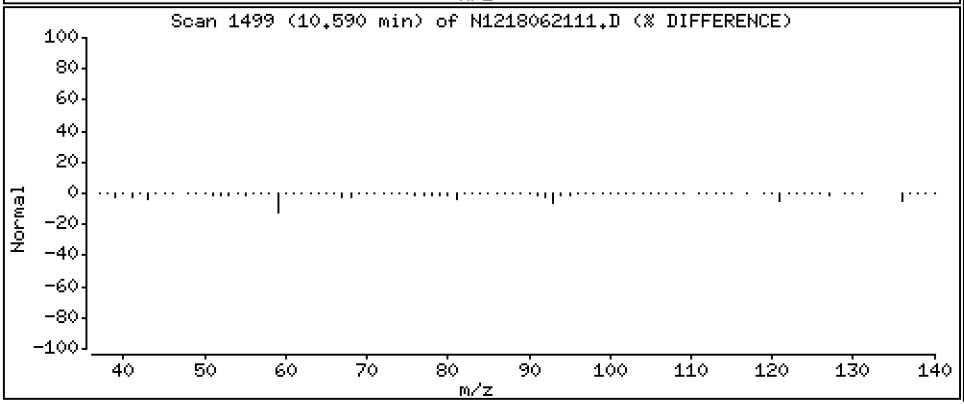












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

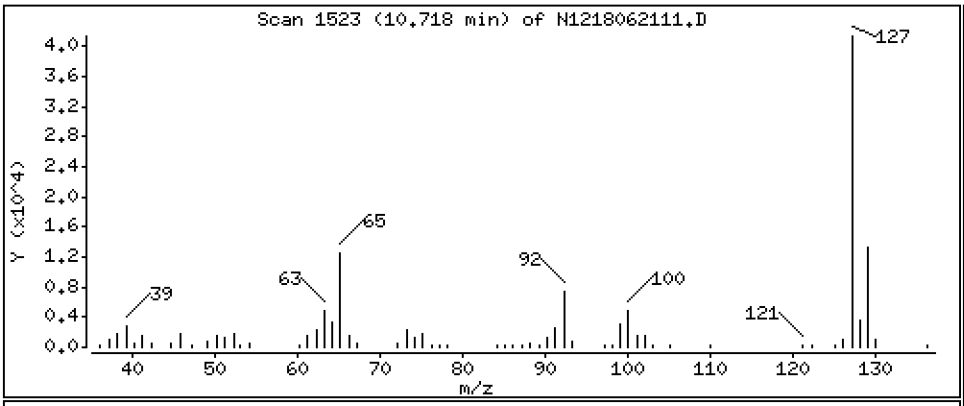
Operator: JZ

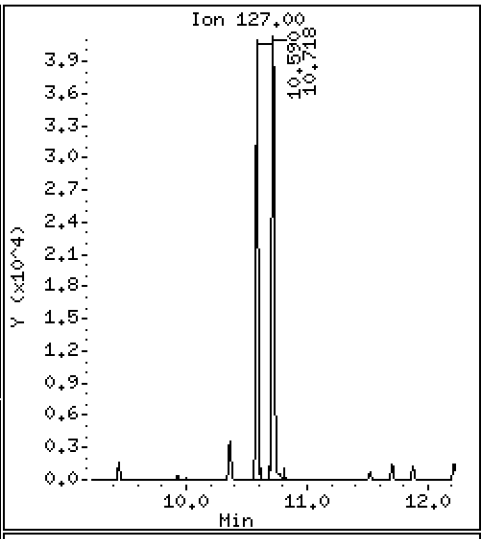
Column phase: ZB-5msi

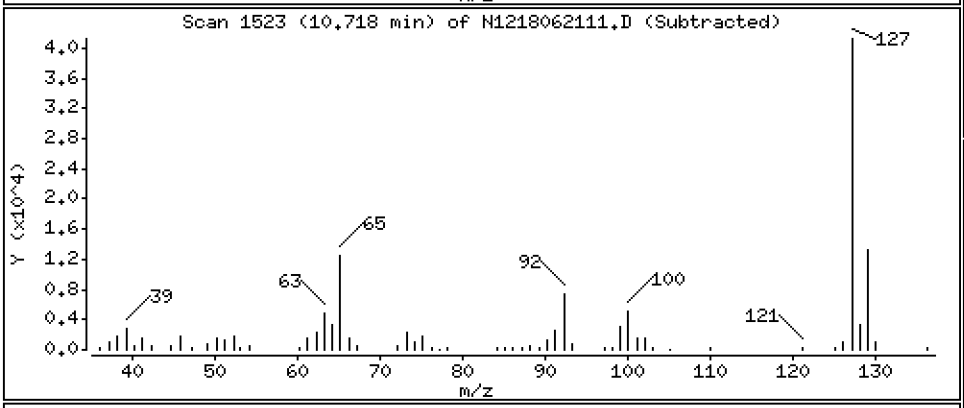
Column diameter: 0.32

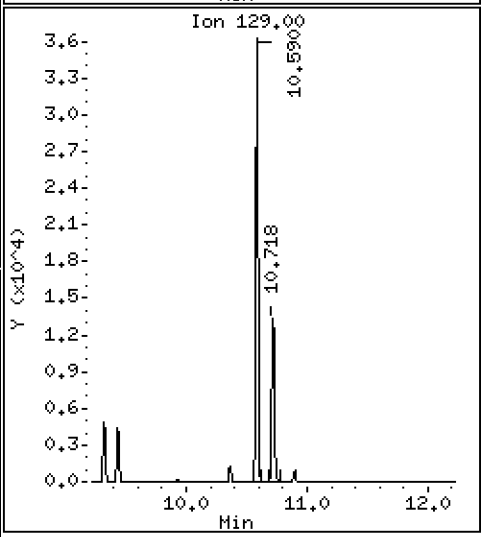
29 4-Chloroaniline

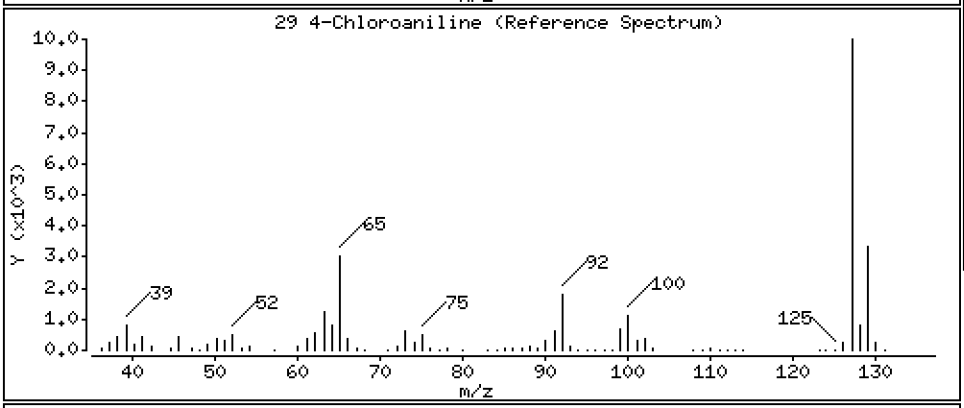
Concentration: 4.263 ug/mL

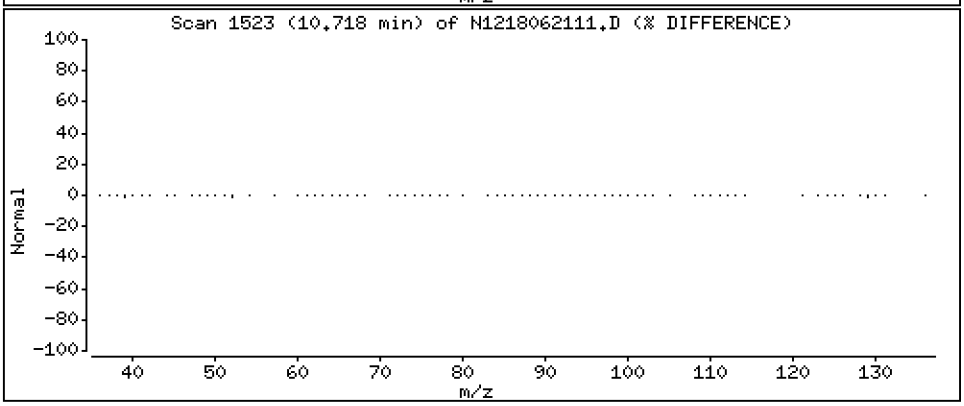












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

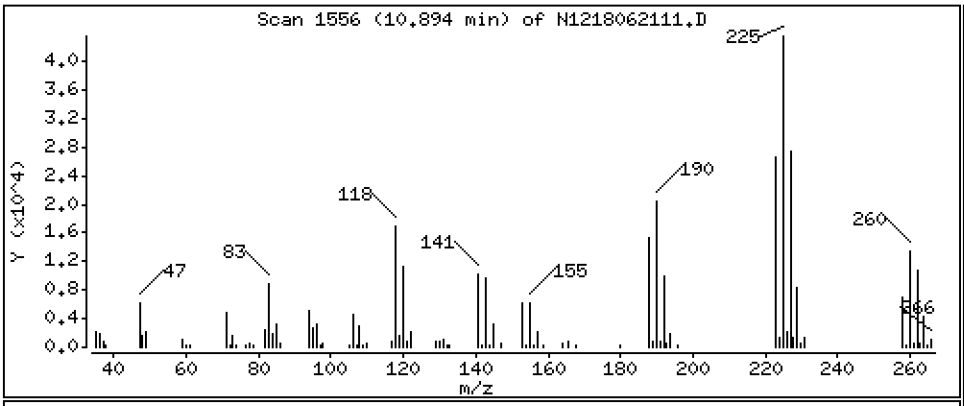
Operator: JZ

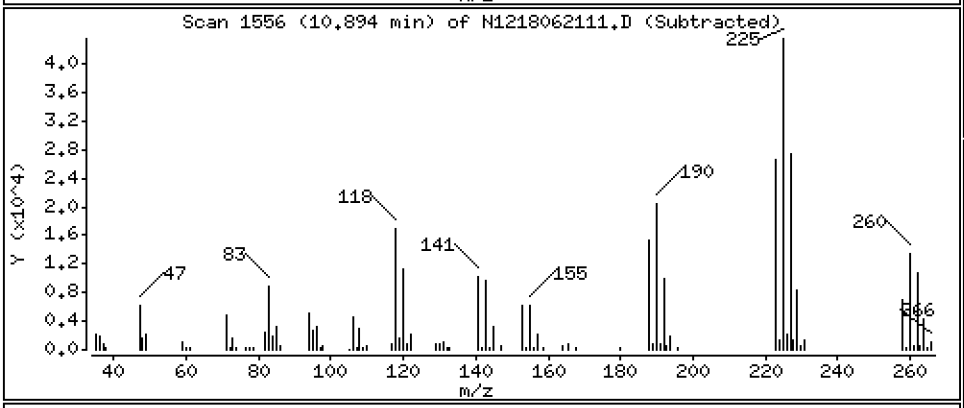
Column phase: ZB-5msi

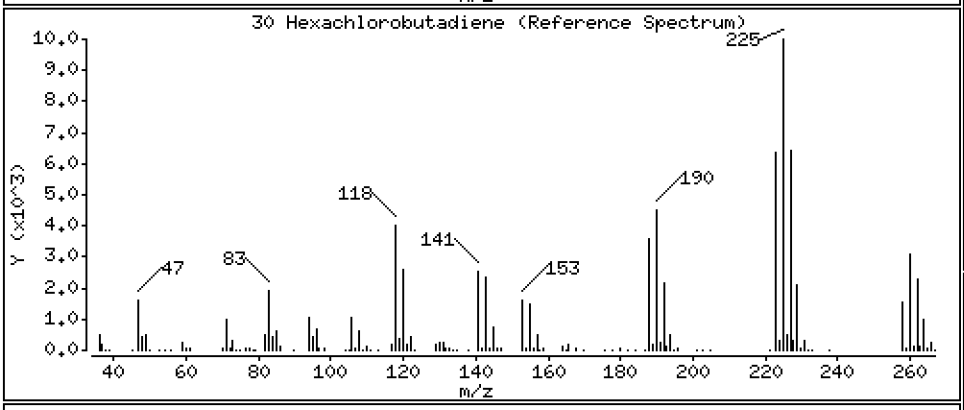
Column diameter: 0.32

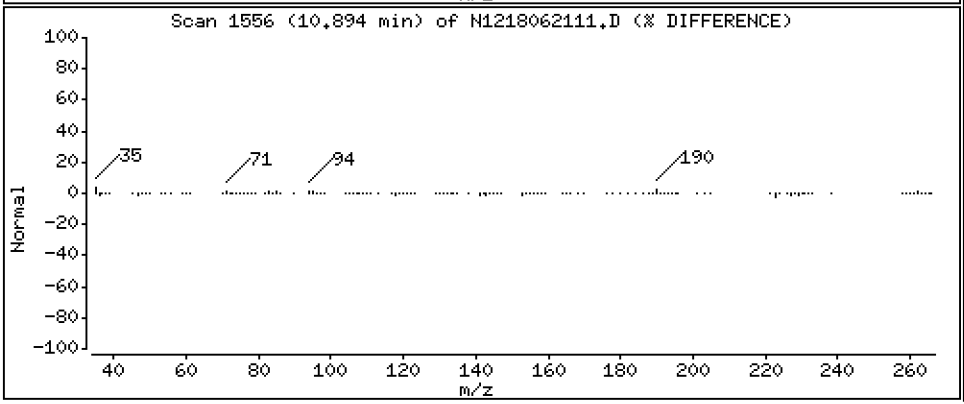
30 Hexachlorobutadiene

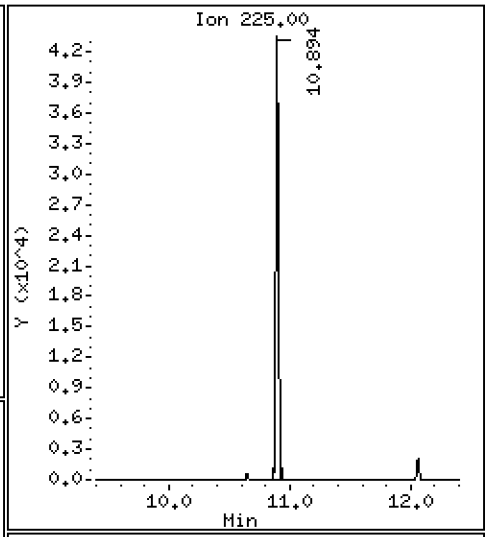
Concentration: 11.89 ug/mL

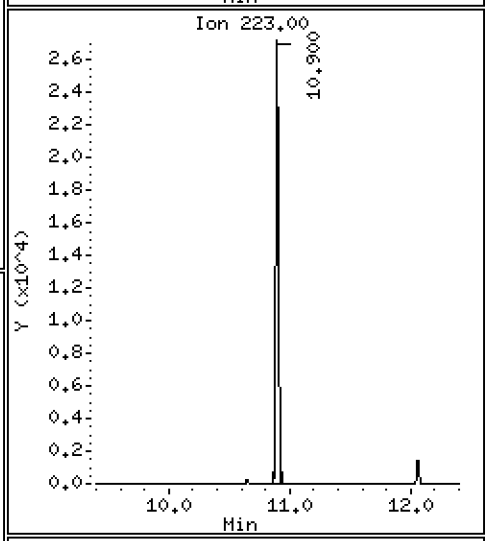


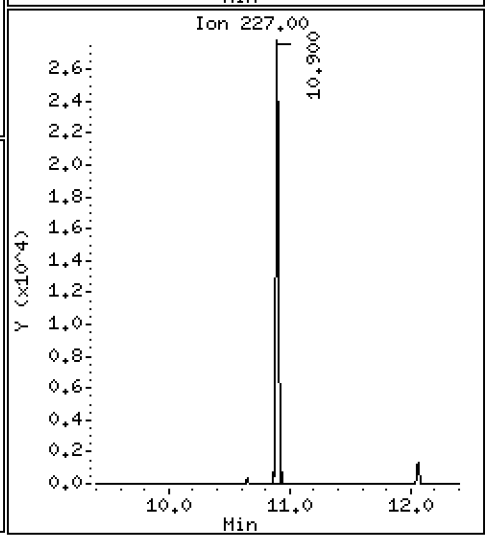












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

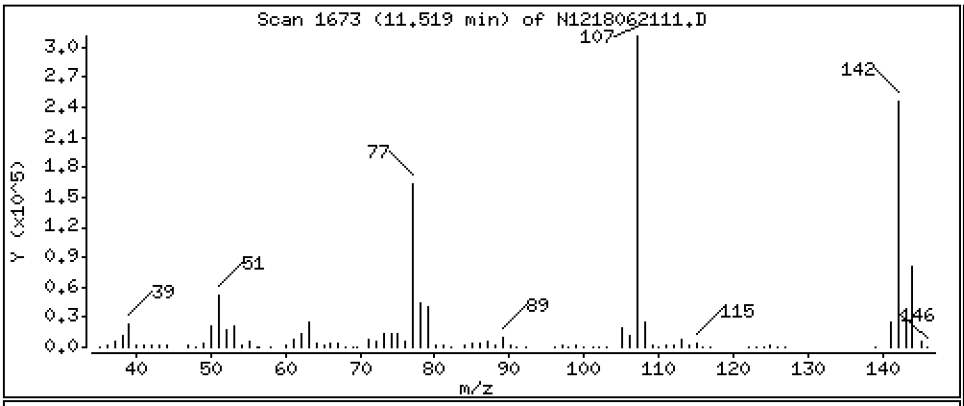
Operator: JZ

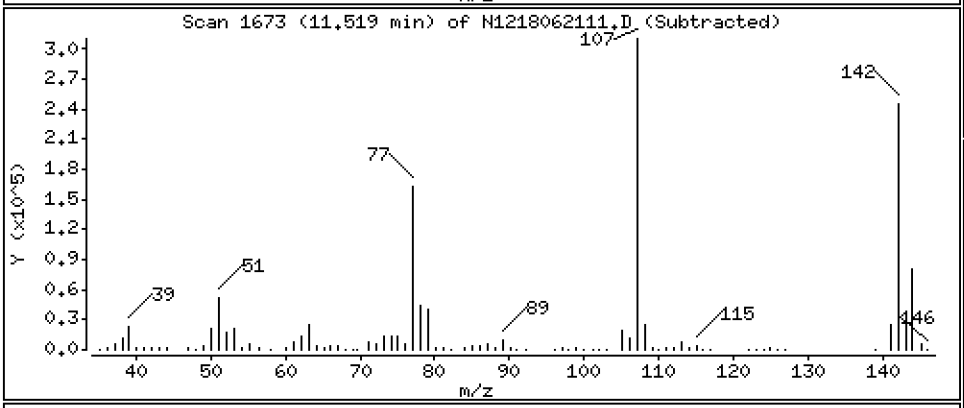
Column phase: ZB-5msi

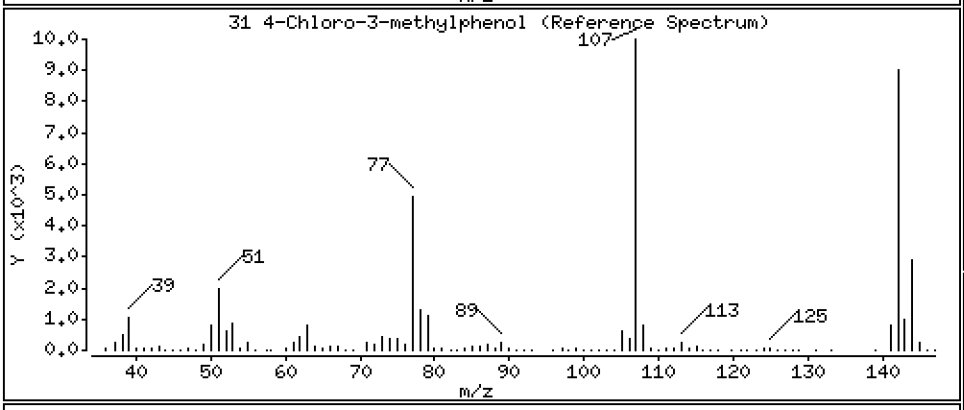
Column diameter: 0.32

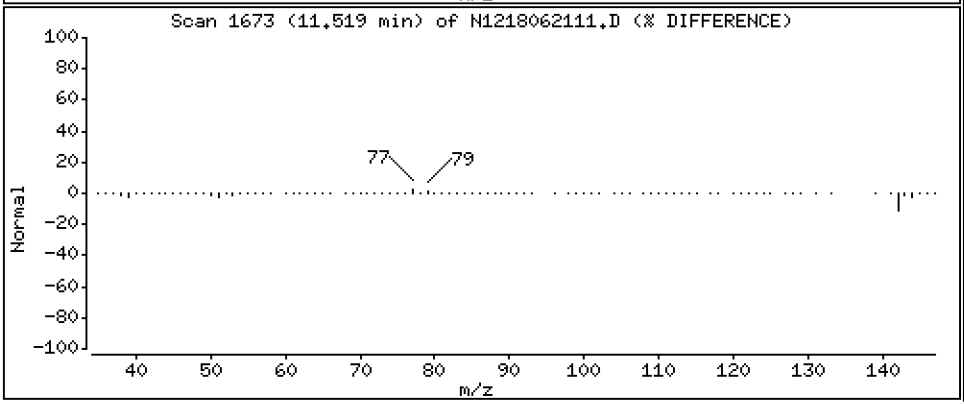
31 4-Chloro-3-methylphenol

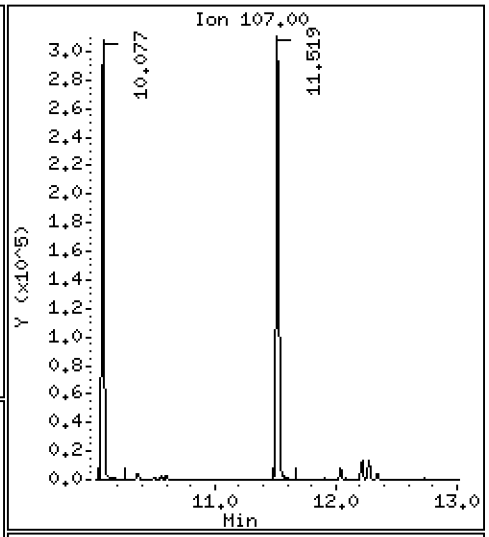
Concentration: 45.43 ug/mL

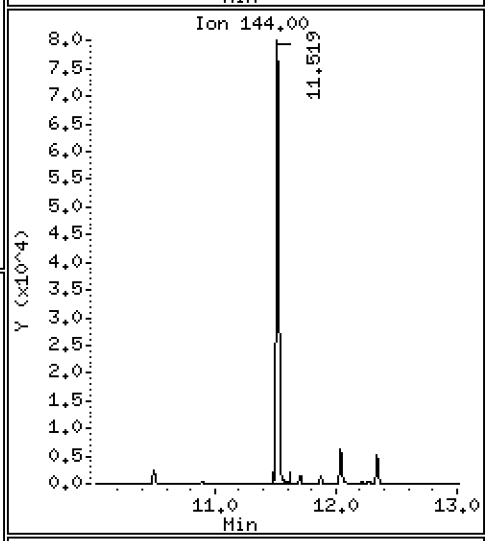


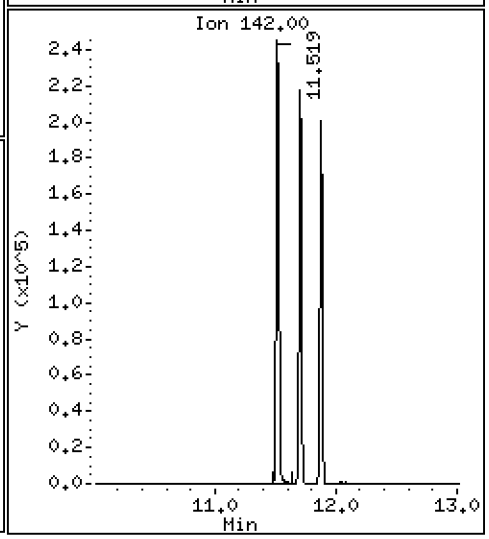












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

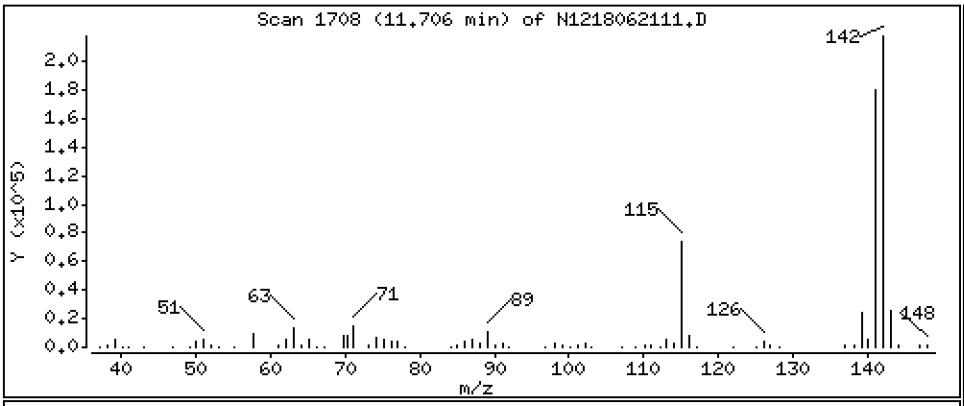
Operator: JZ

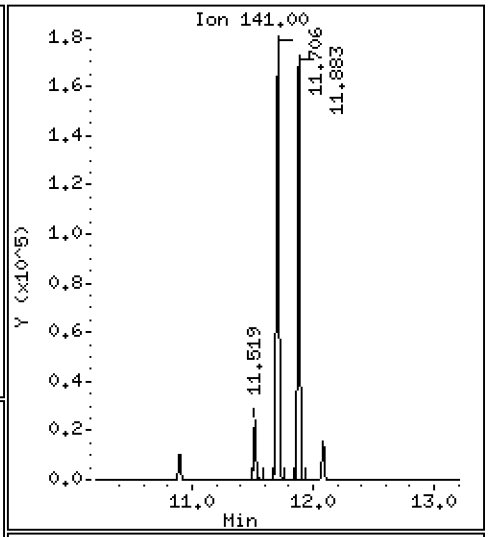
Column phase: ZB-5msi

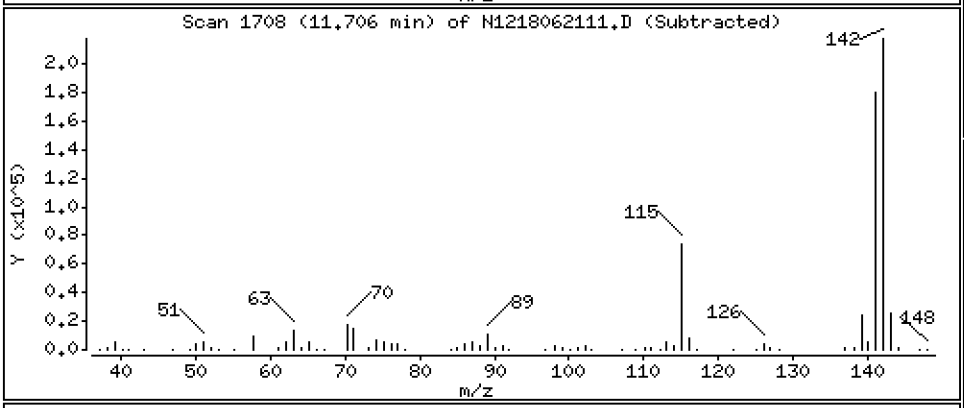
Column diameter: 0.32

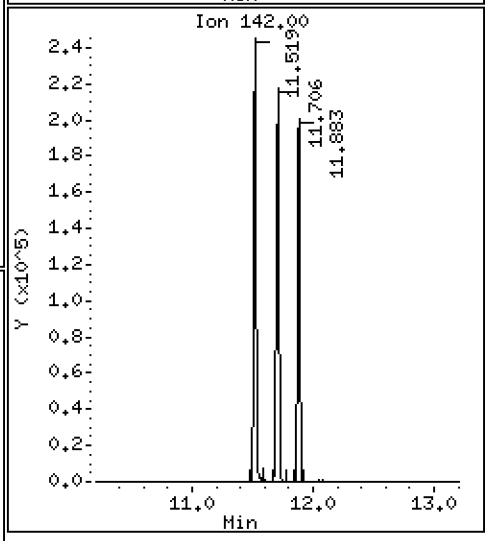
32 2-Methylnaphthalene

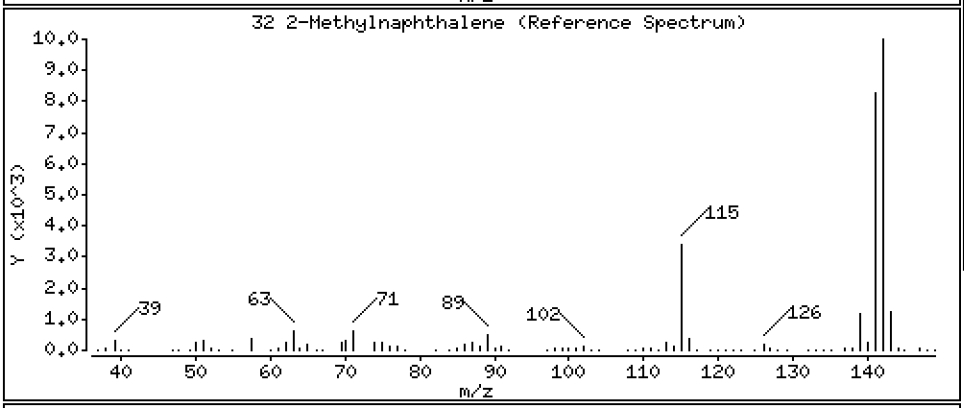
Concentration: 14.23 ug/mL

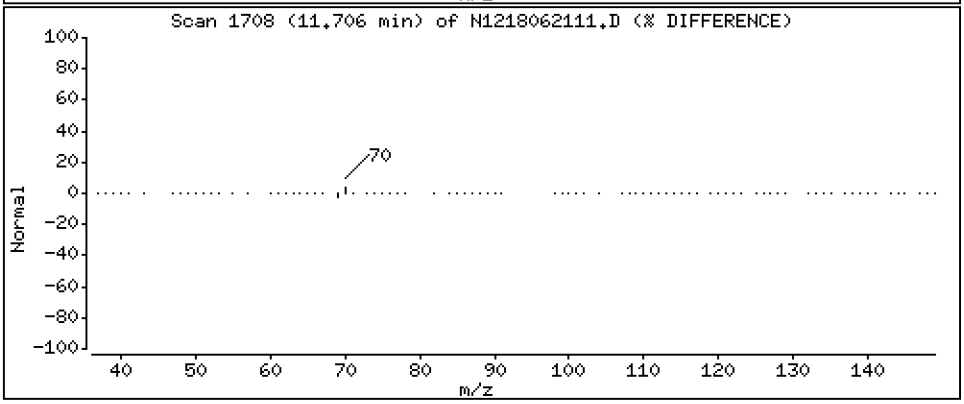












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

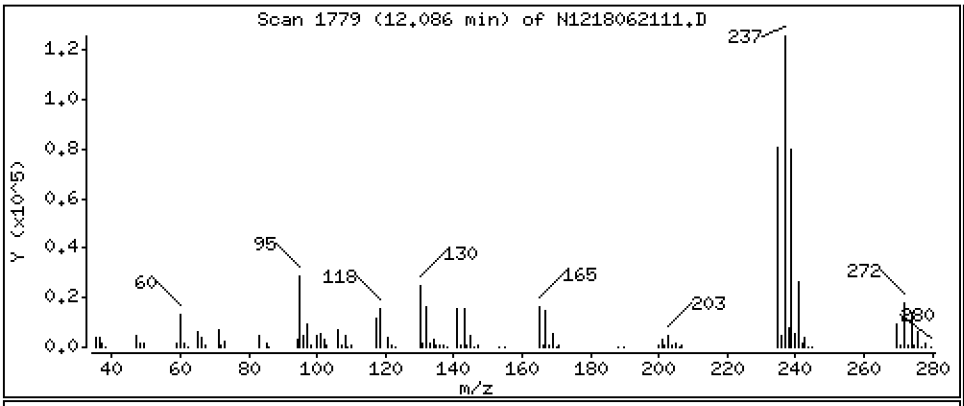
Operator: JZ

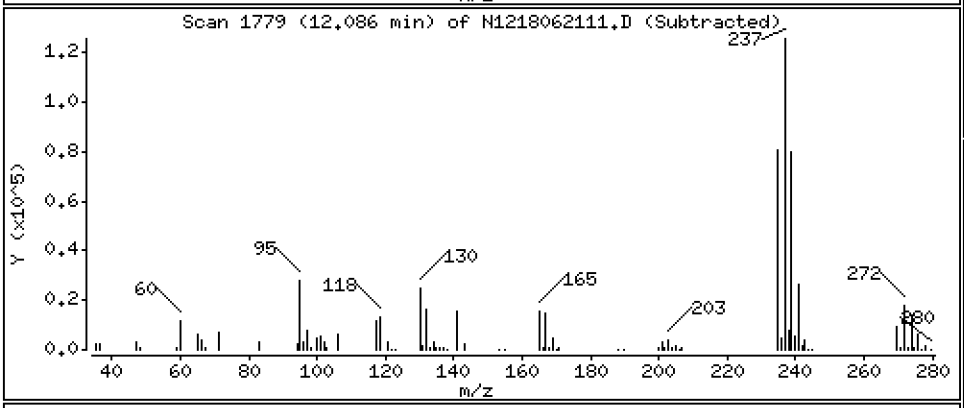
Column phase: ZB-5msi

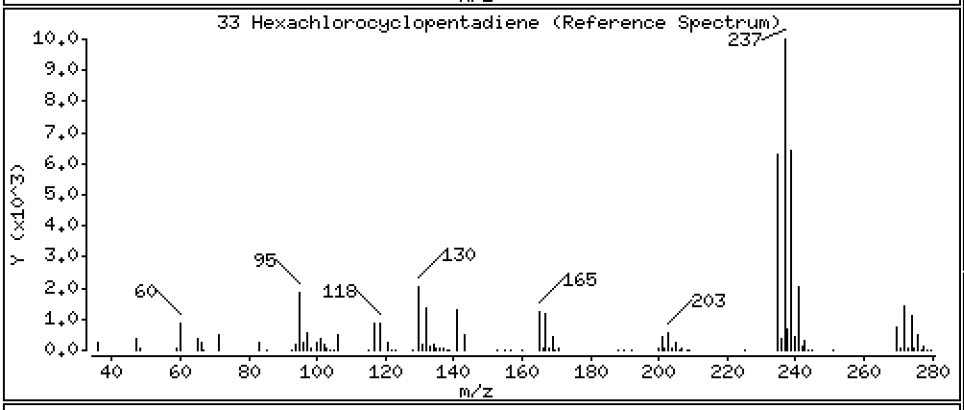
Column diameter: 0.32

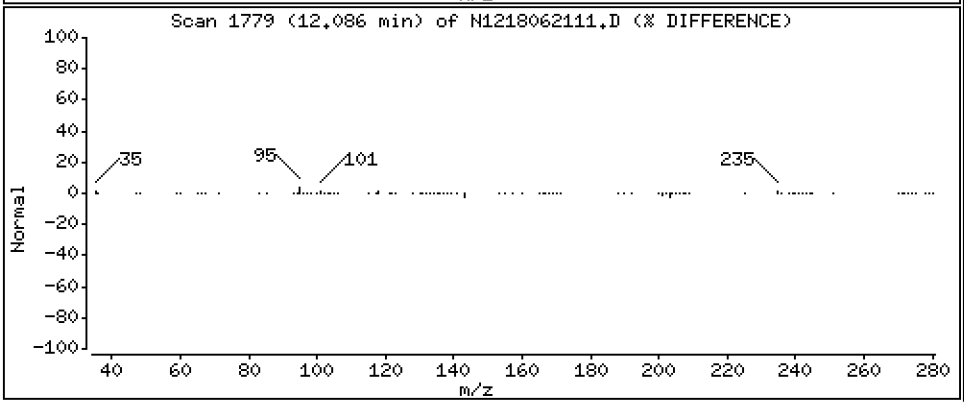
33 Hexachlorocyclopentadiene

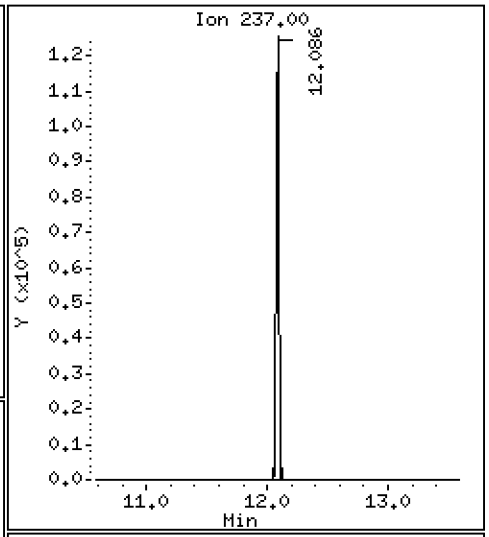
Concentration: 40.06 ug/mL

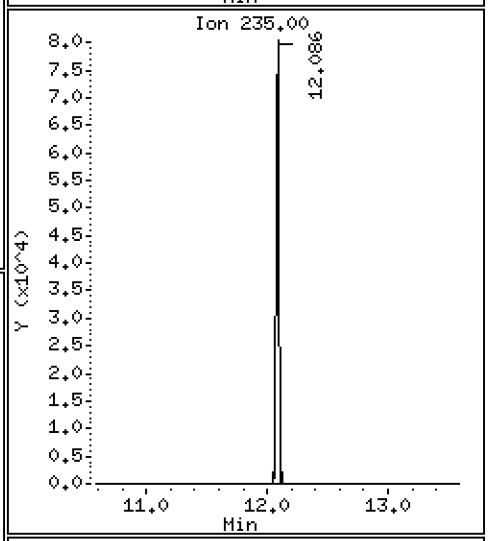


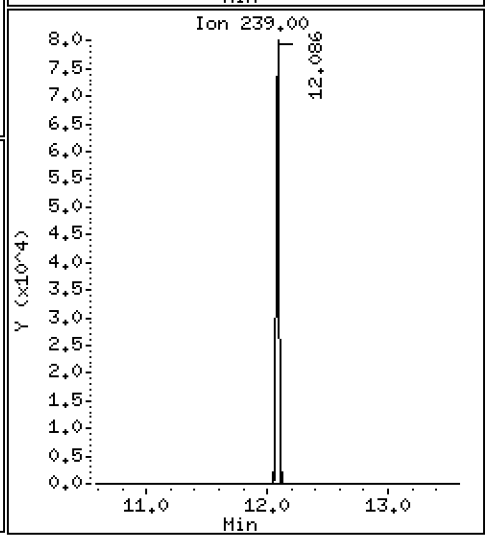












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

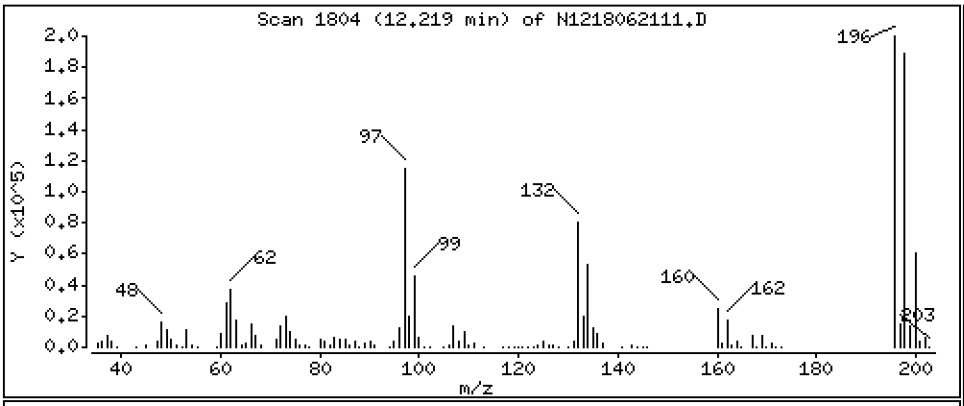
Operator: JZ

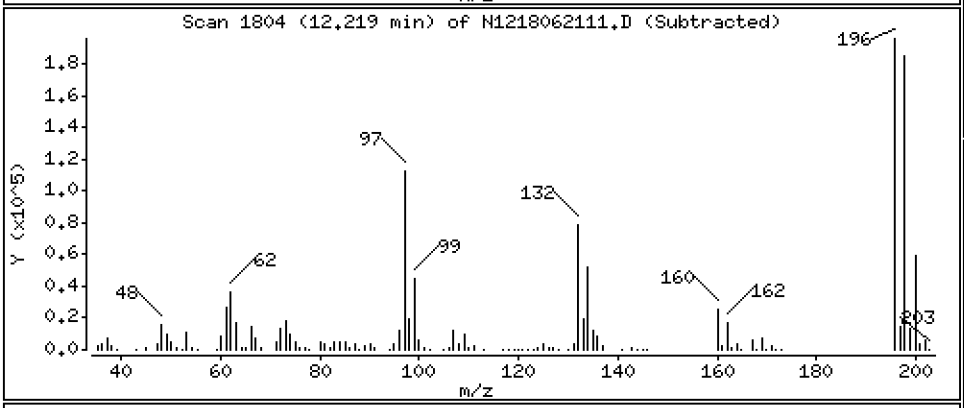
Column phase: ZB-5msi

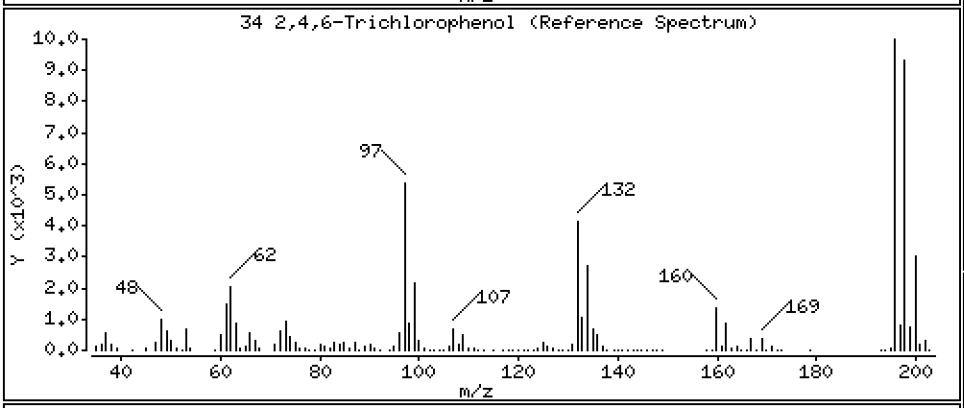
Column diameter: 0.32

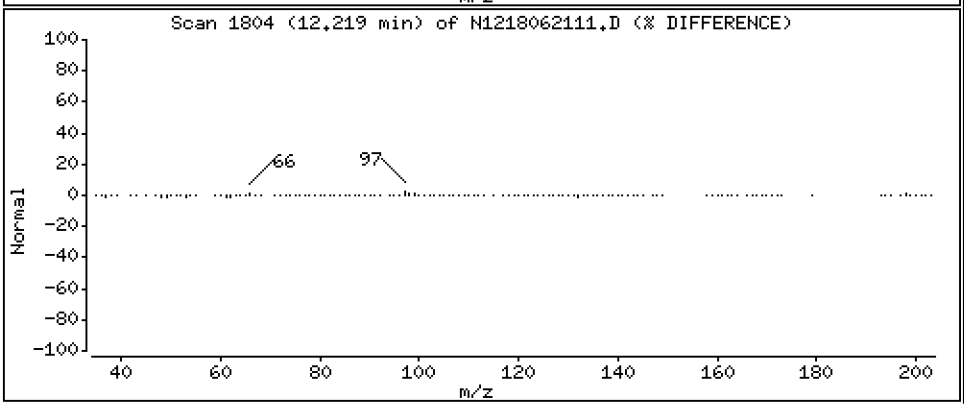
34 2,4,6-Trichlorophenol

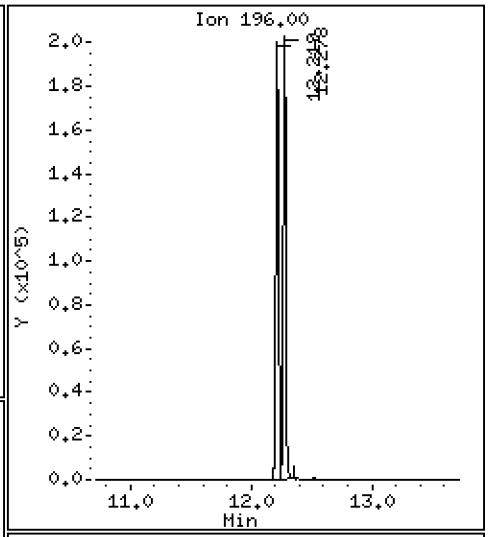
Concentration: 43.09 ug/mL

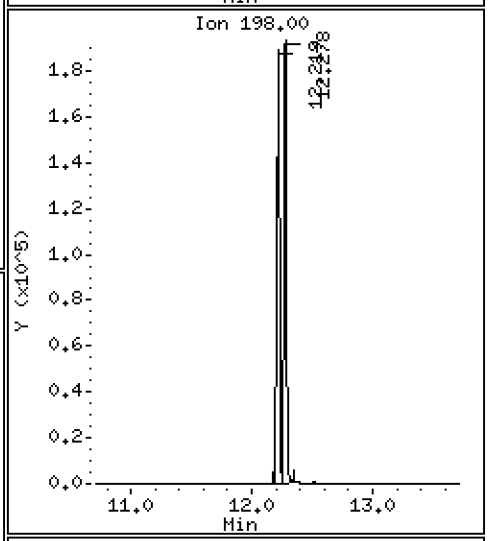


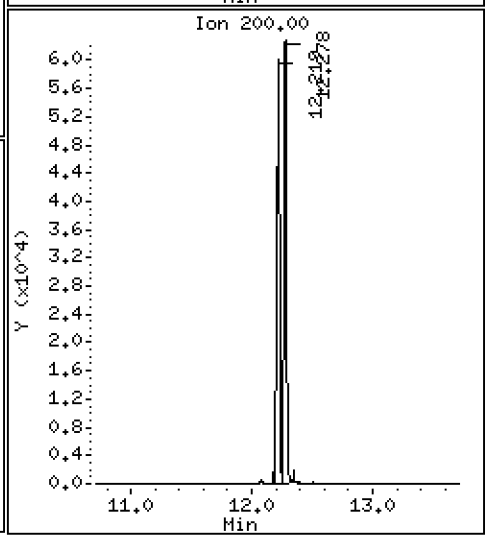












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

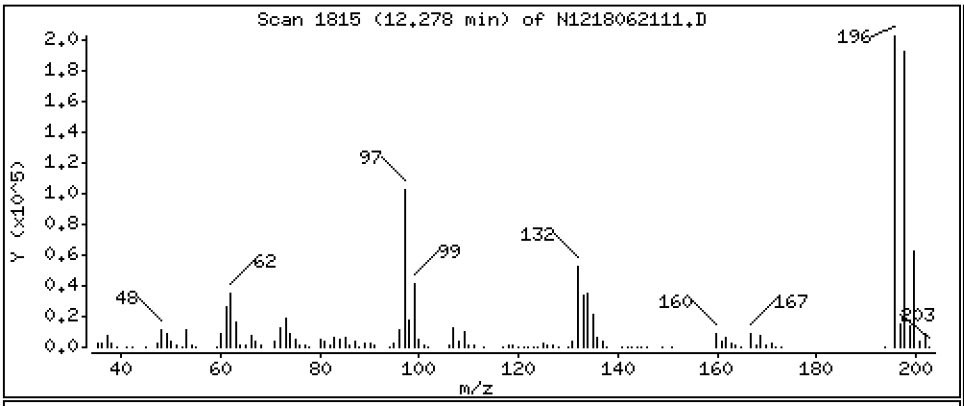
Operator: JZ

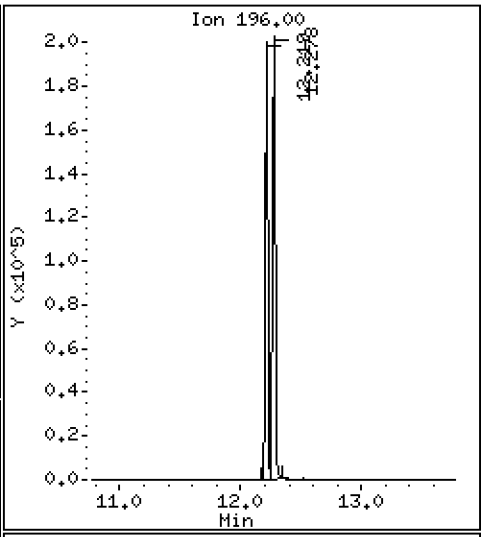
Column phase: ZB-5msi

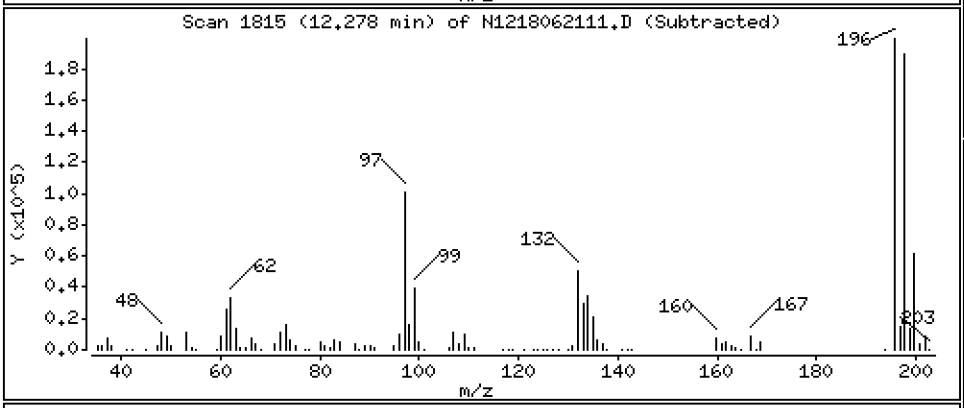
Column diameter: 0.32

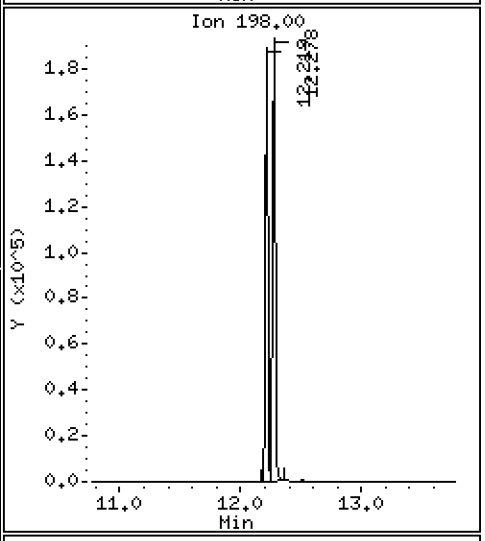
35 2,4,5-Trichlorophenol

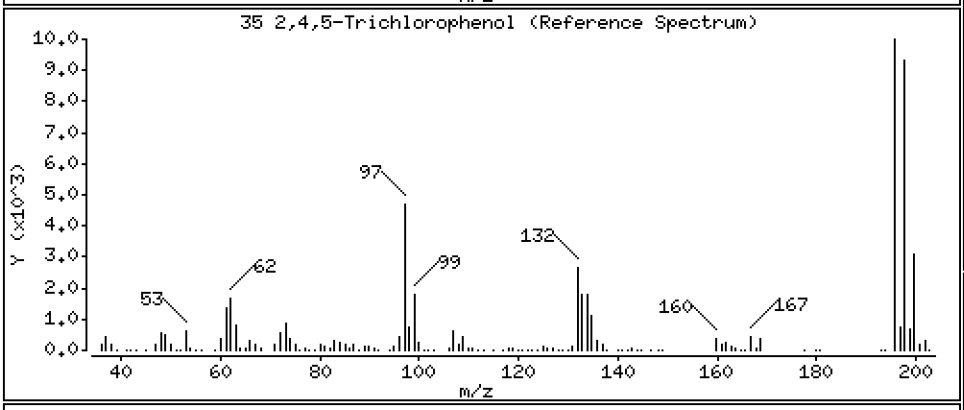
Concentration: 44.84 ug/mL

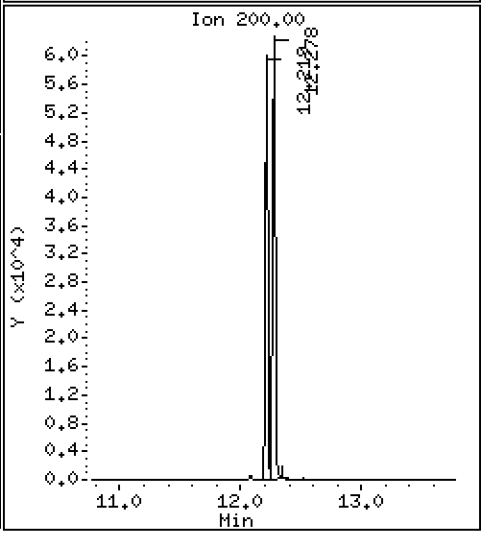


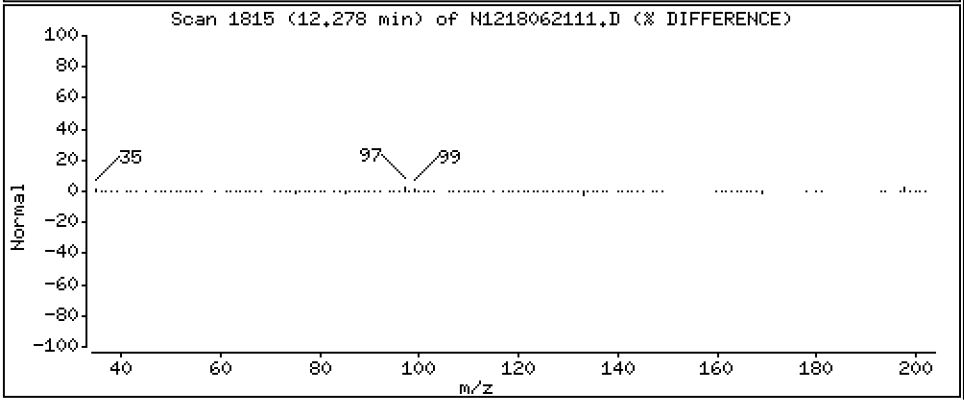












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

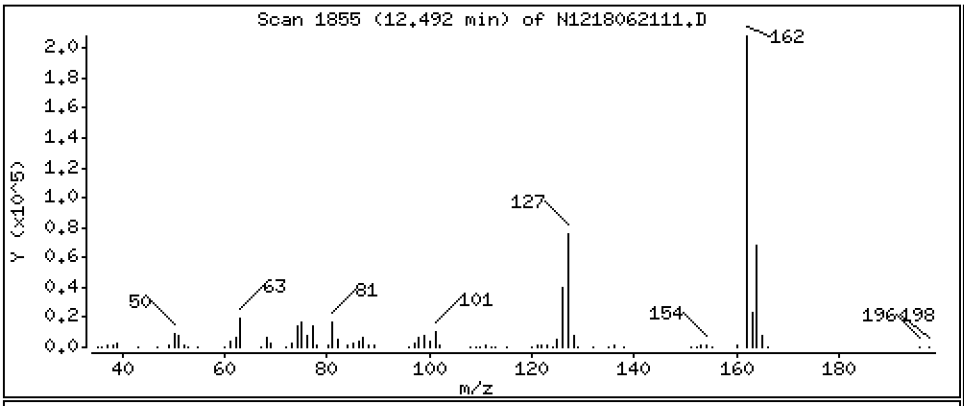
Operator: JZ

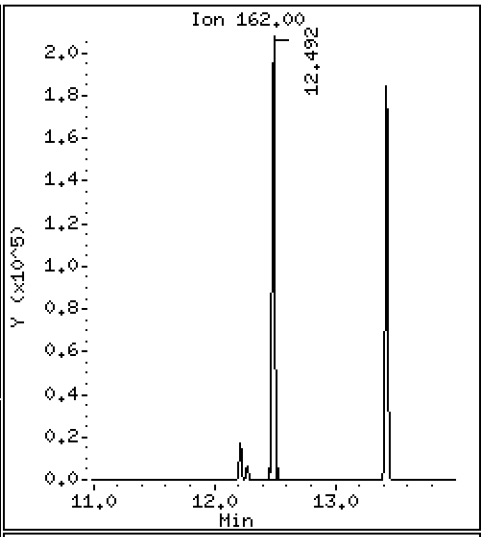
Column phase: ZB-5msi

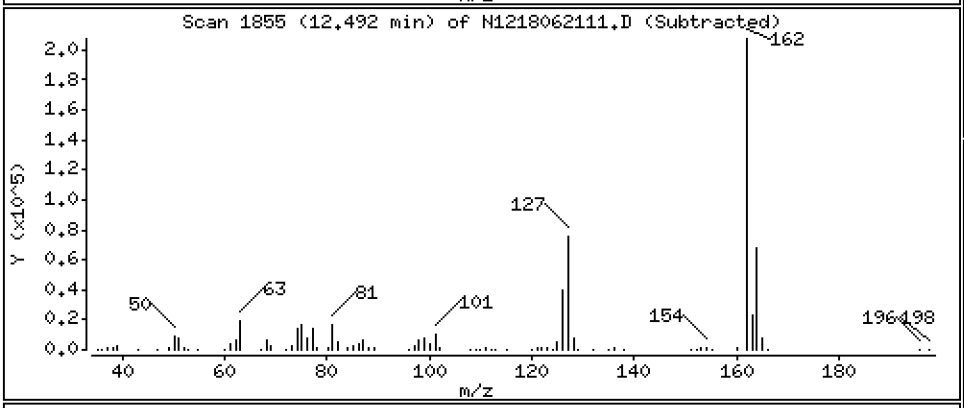
Column diameter: 0.32

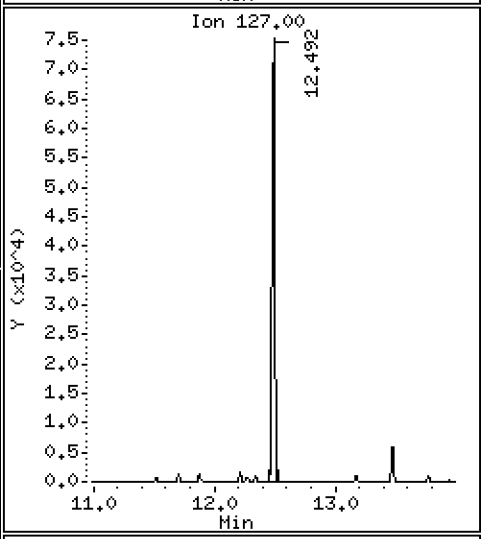
37 2-Chloronaphthalene

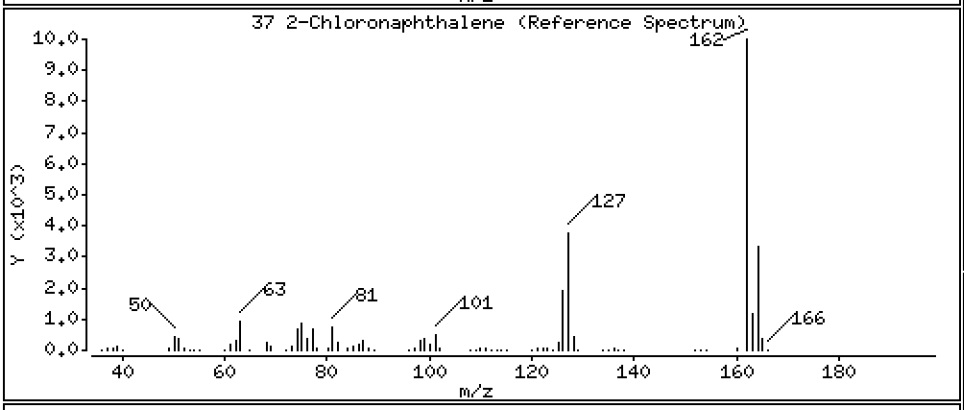
Concentration: 14.91 ug/mL

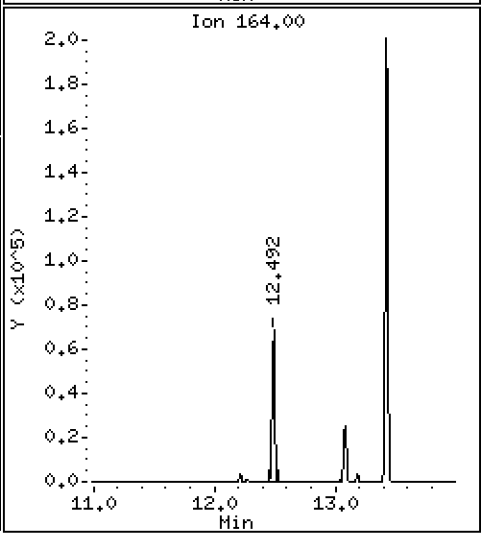


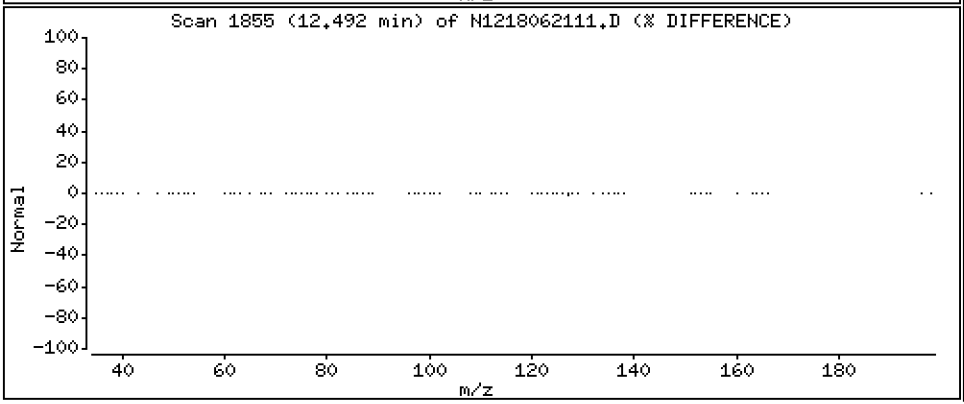












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

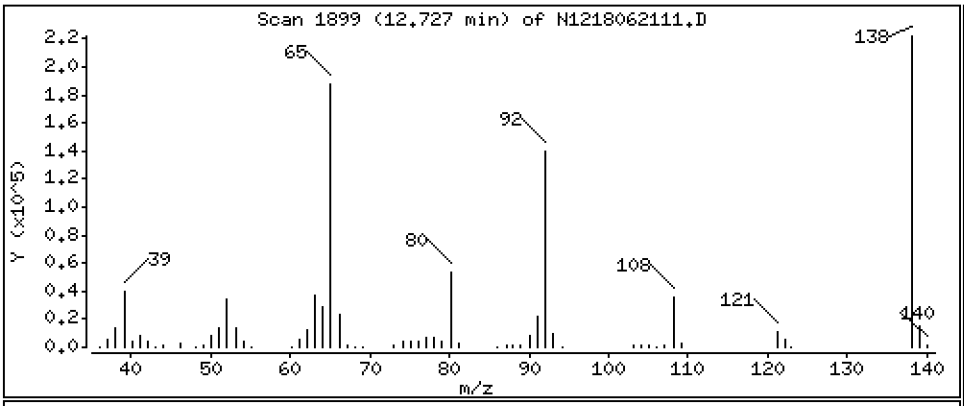
Operator: JZ

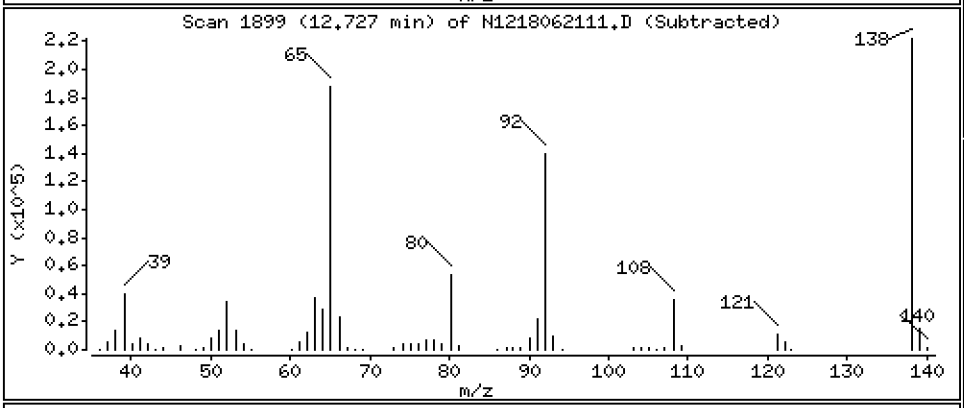
Column phase: ZB-5msi

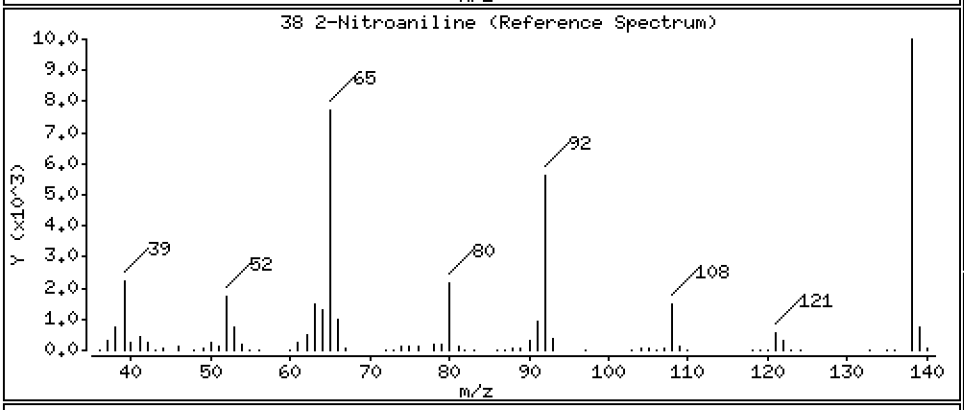
Column diameter: 0.32

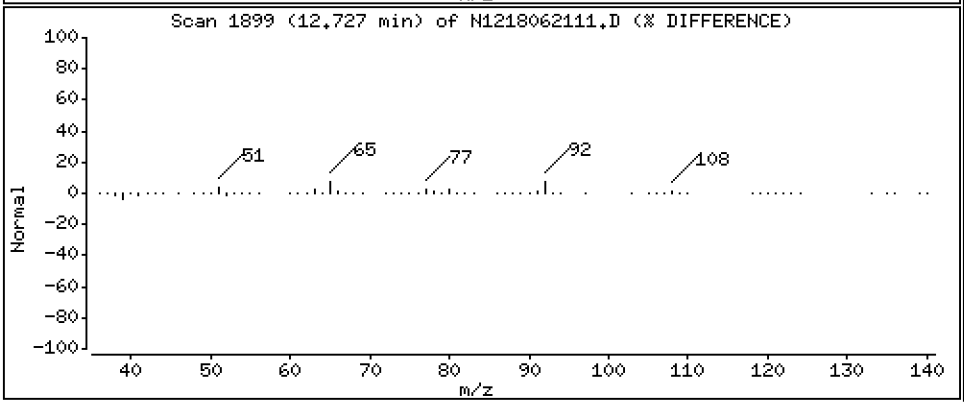
38 2-Nitroaniline

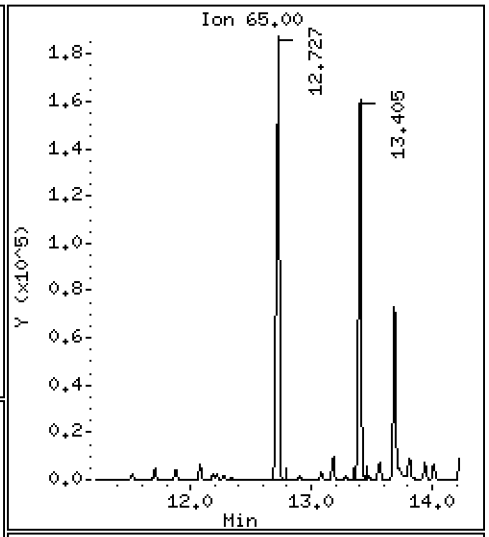
Concentration: 46.78 ug/mL

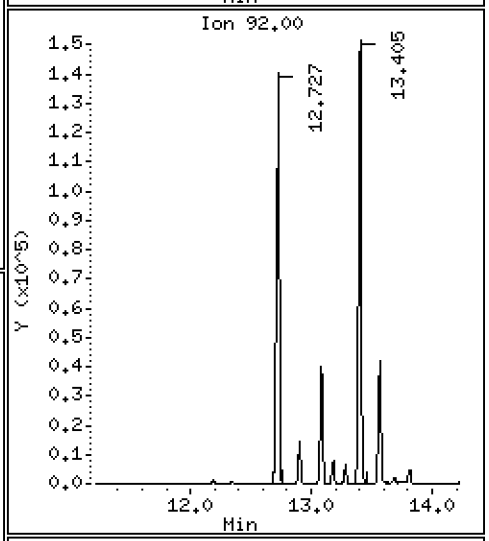


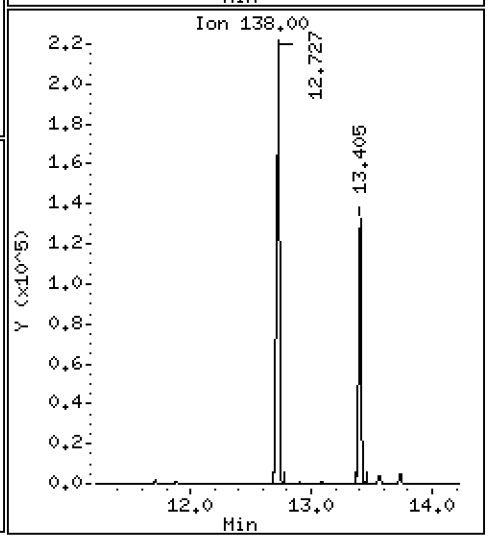












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

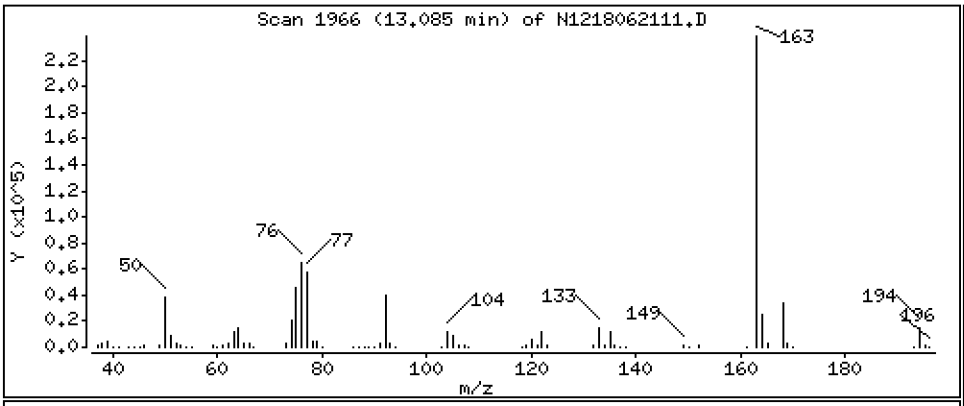
Operator: JZ

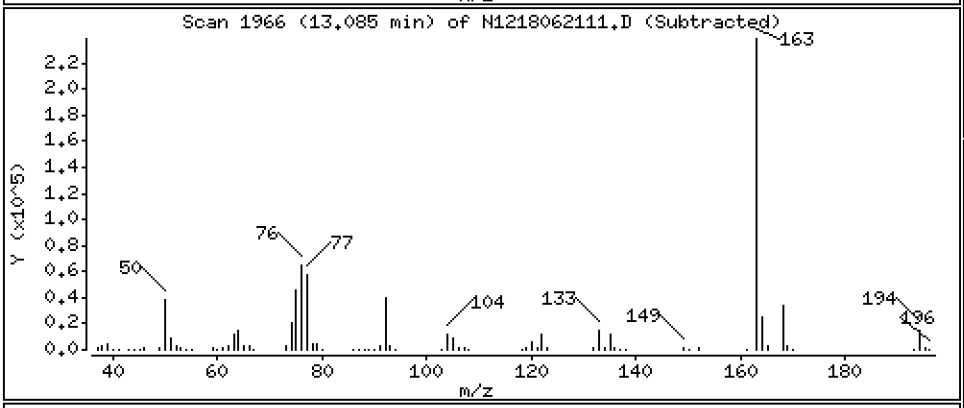
Column phase: ZB-5msi

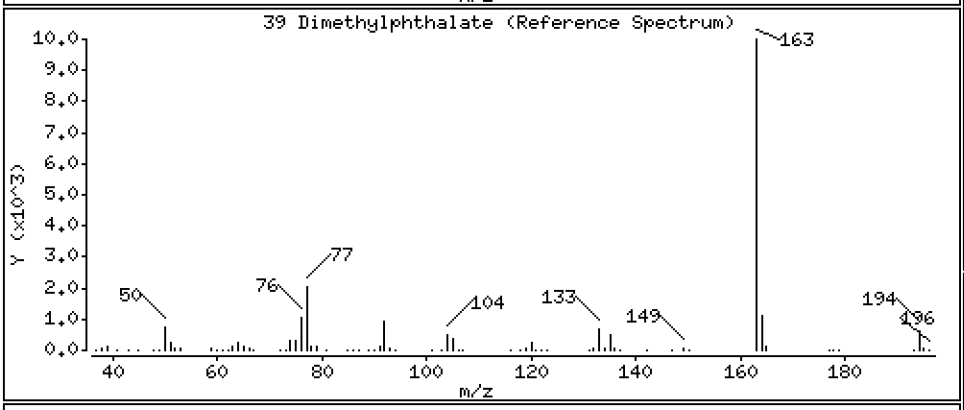
Column diameter: 0.32

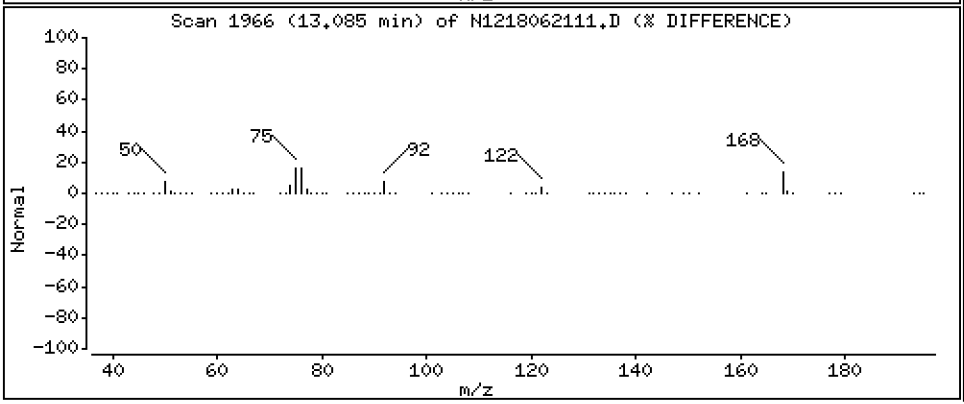
39 Dimethylphthalate

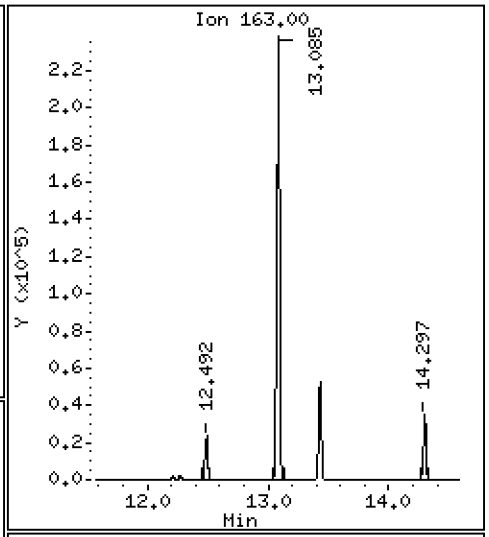
Concentration: 16.87 ug/mL

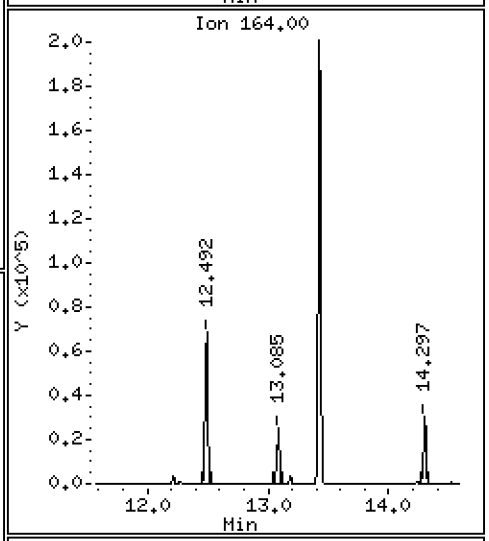


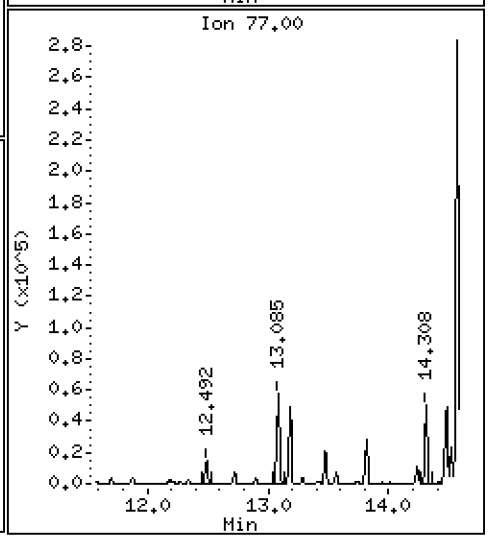












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

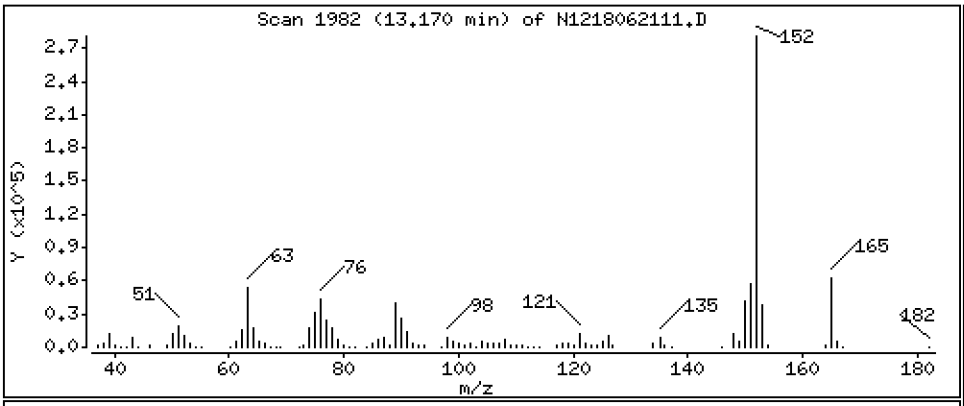
Operator: JZ

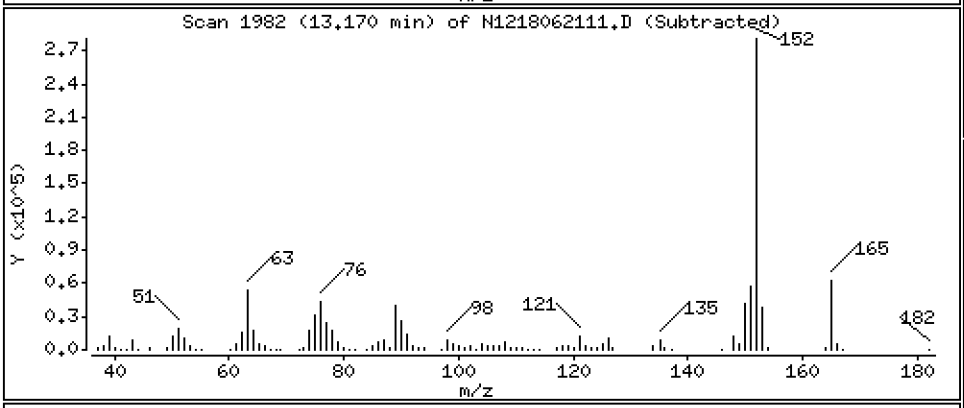
Column phase: ZB-5msi

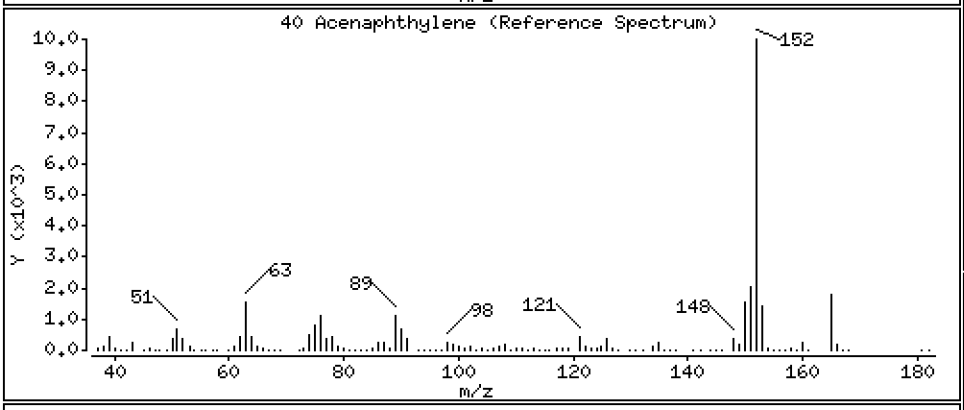
Column diameter: 0.32

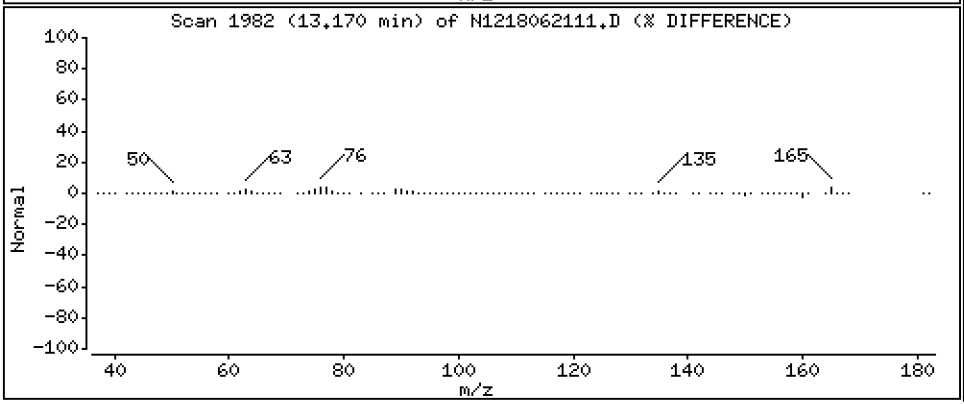
40 Acenaphthylene

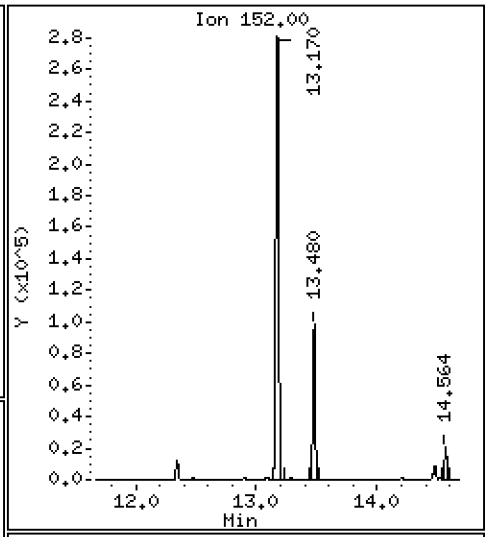
Concentration: 14.96 ug/mL

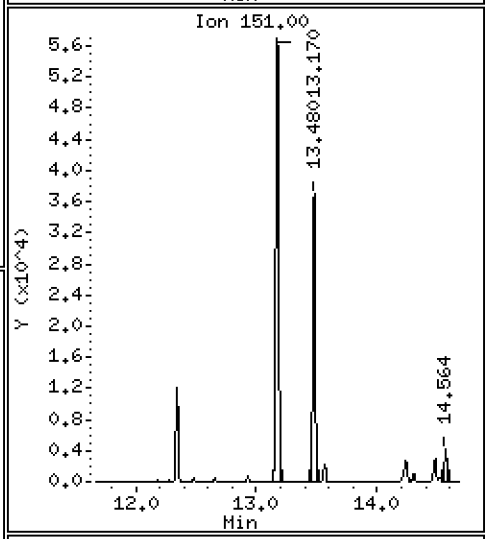


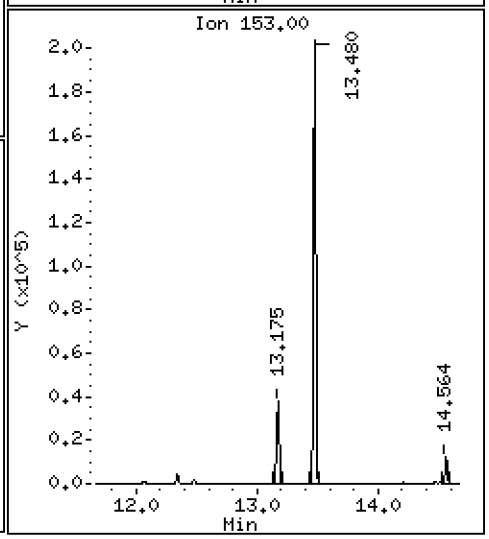












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

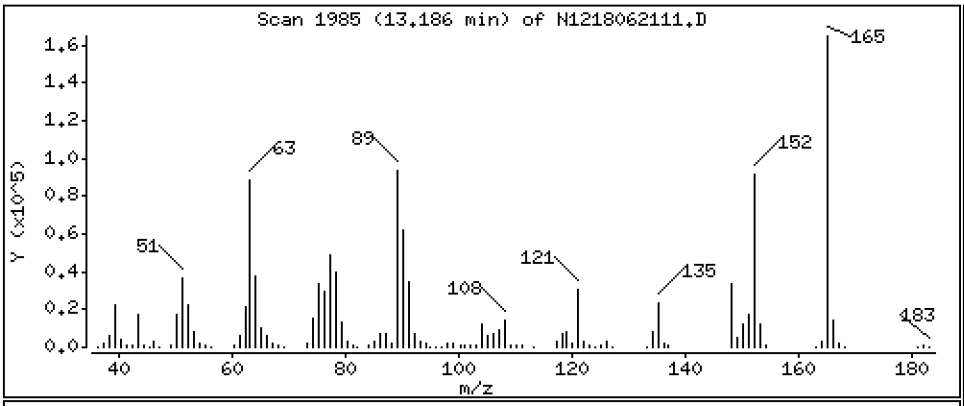
Operator: JZ

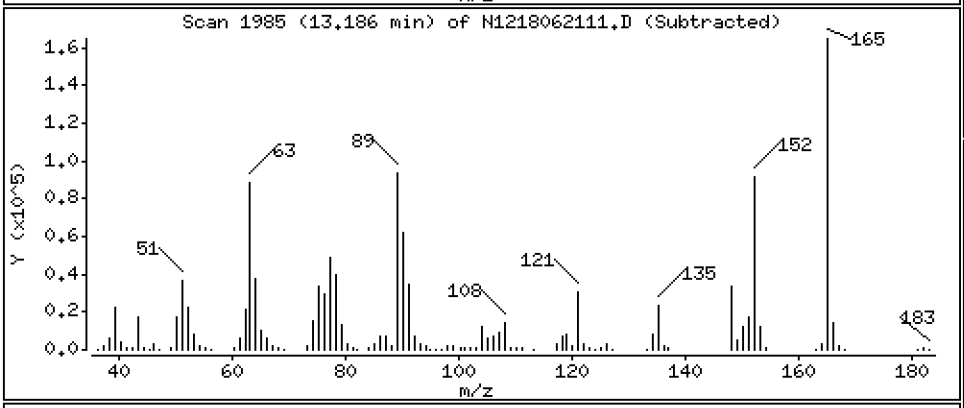
Column phase: ZB-5msi

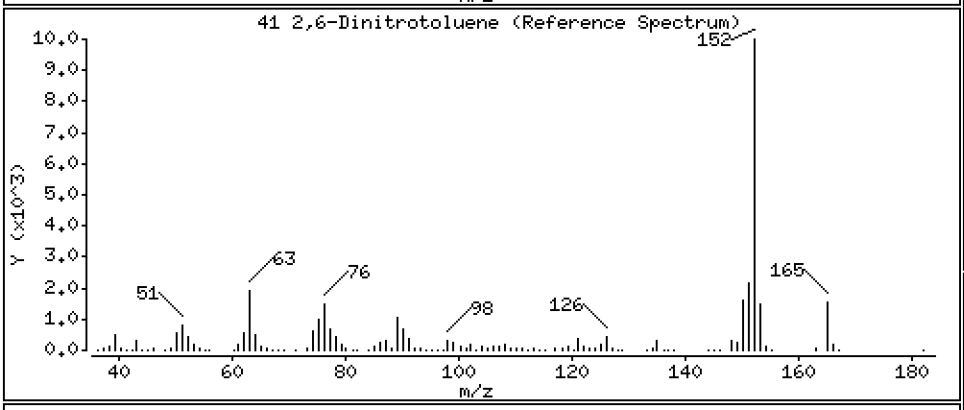
Column diameter: 0.32

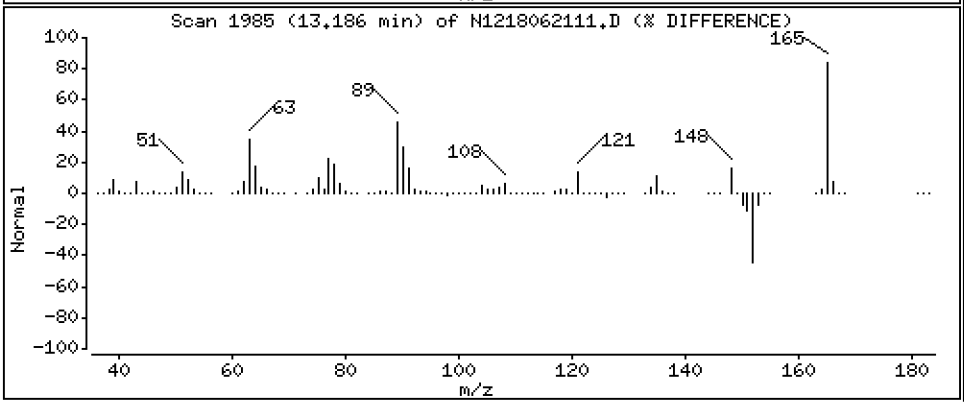
41 2,6-Dinitrotoluene

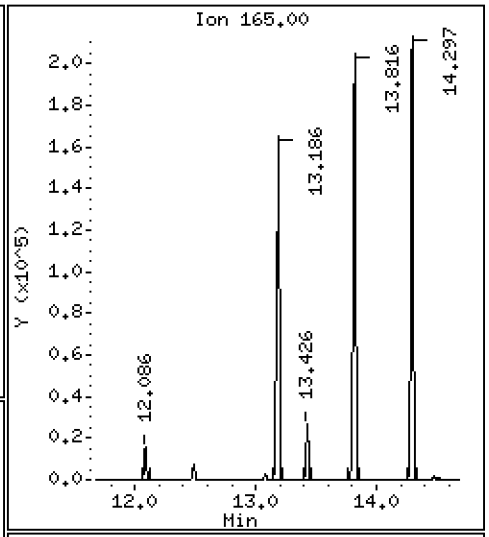
Concentration: 51.62 ug/mL

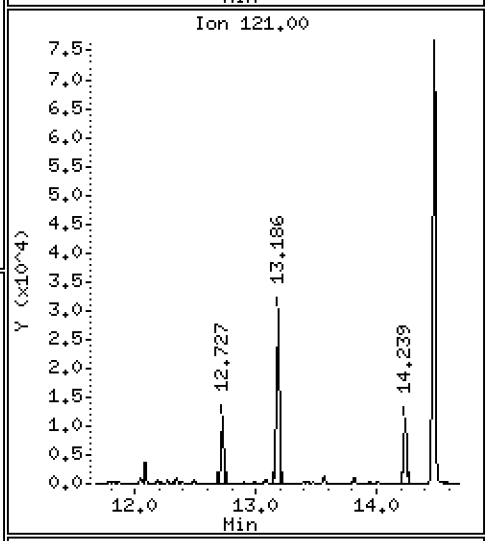


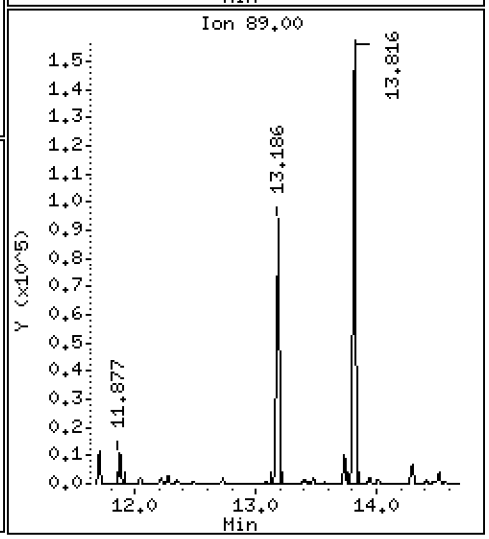












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

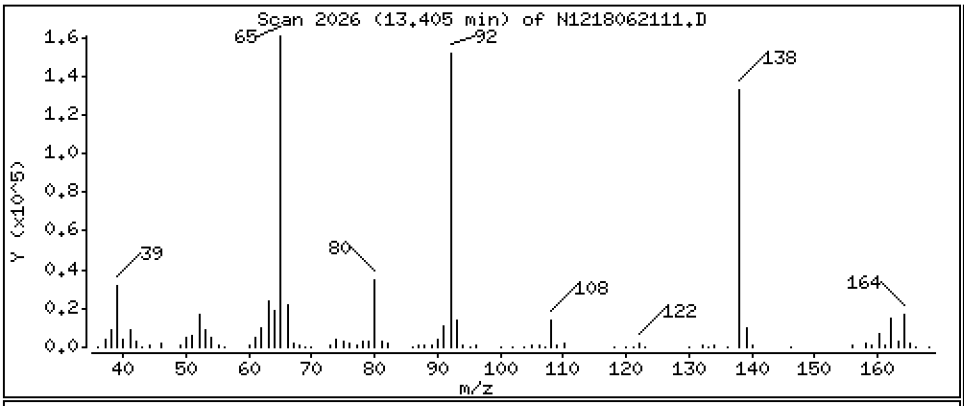
Operator: JZ

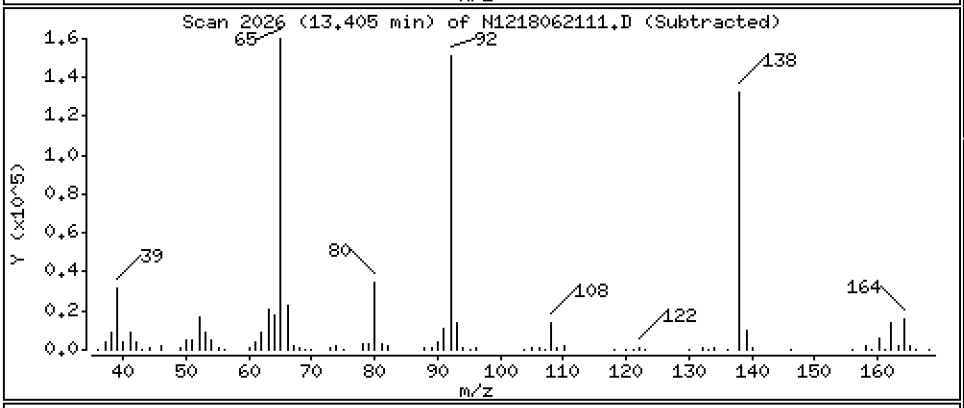
Column phase: ZB-5msi

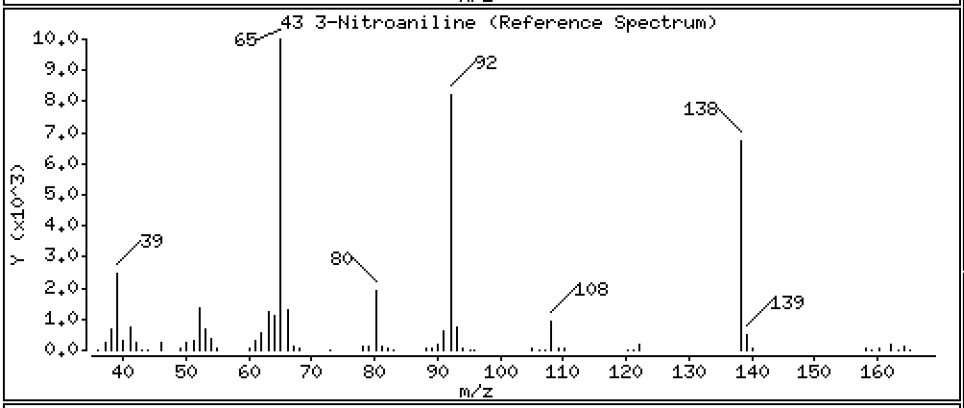
Column diameter: 0.32

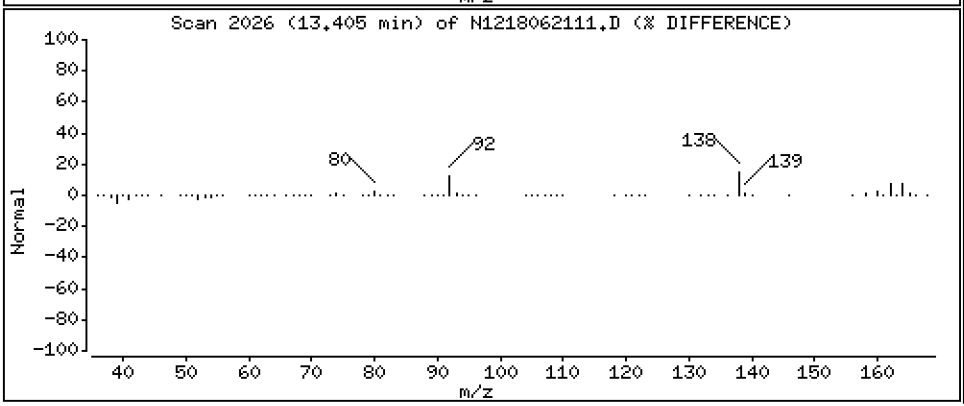
43 3-Nitroaniline

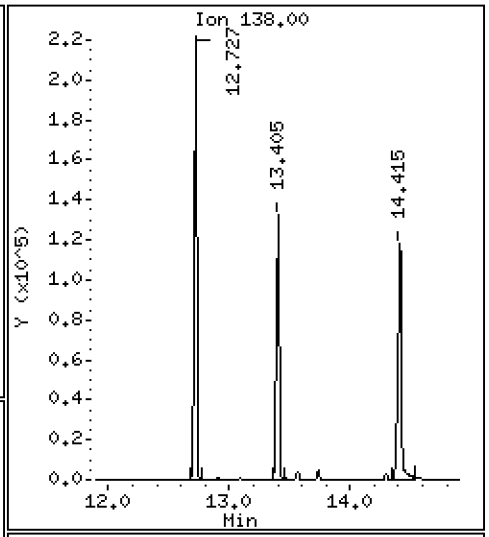
Concentration: 36.95 ug/mL

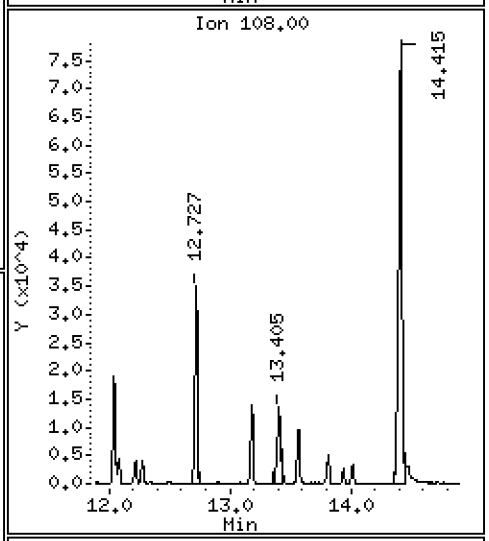


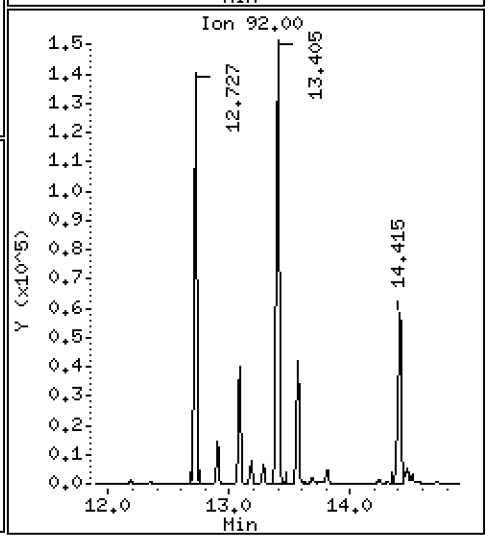












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

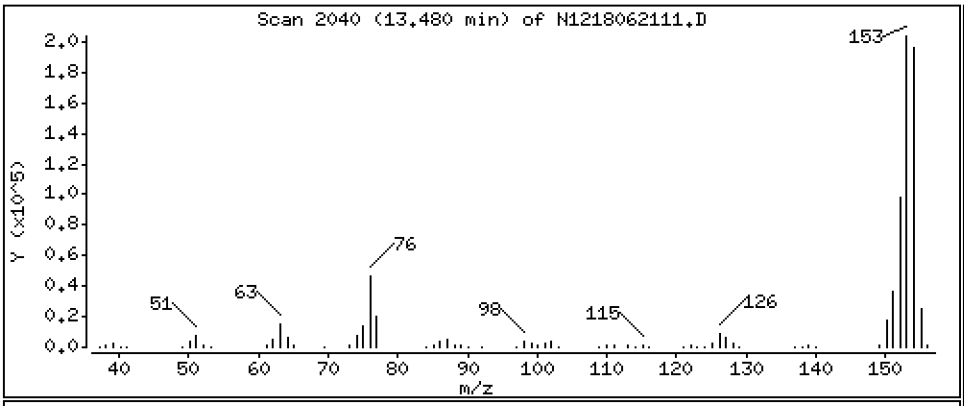
Operator: JZ

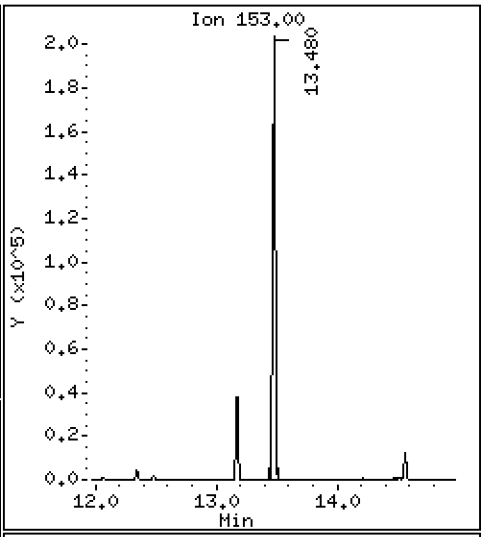
Column phase: ZB-5msi

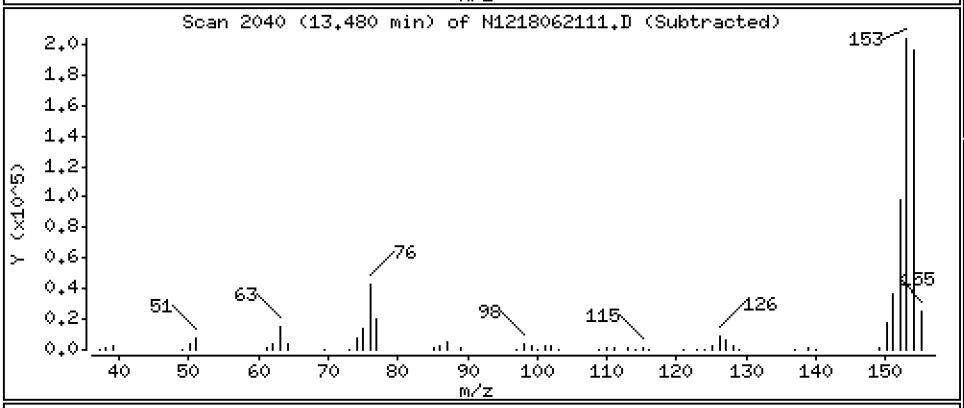
Column diameter: 0.32

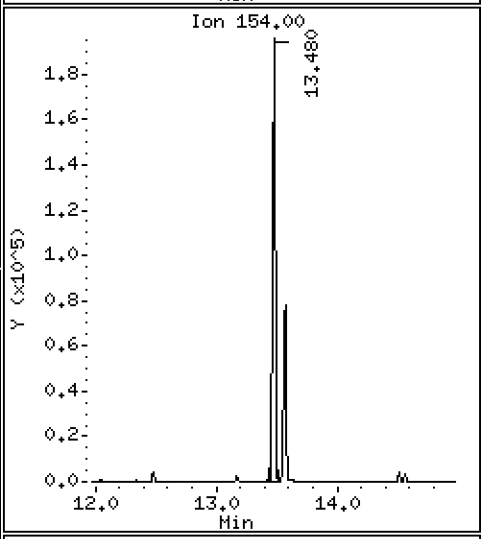
44 Acenaphthene

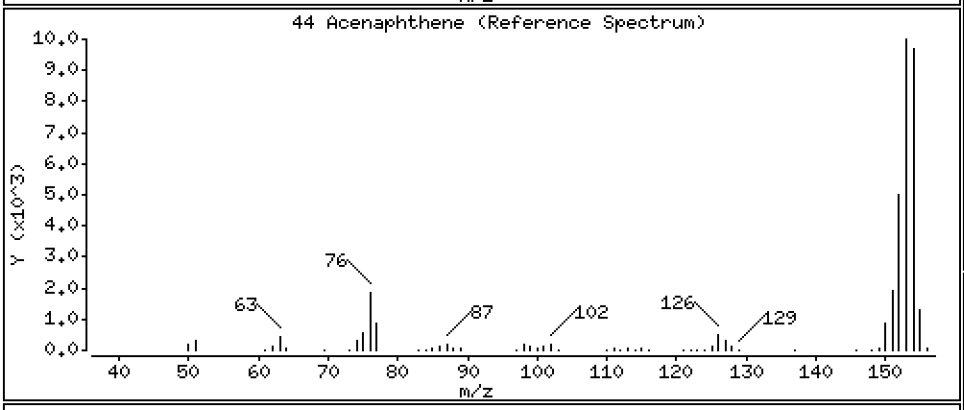
Concentration: 15.77 ug/mL

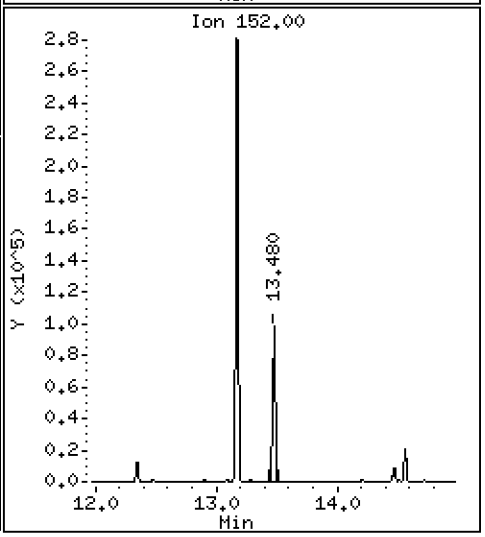


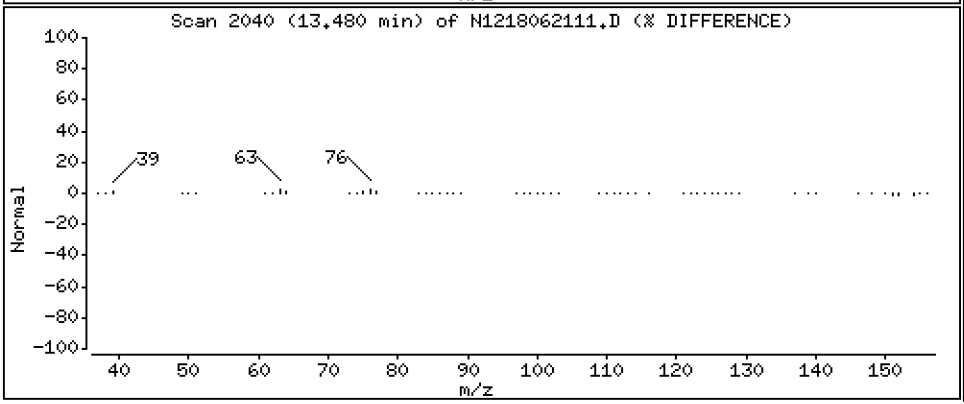












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

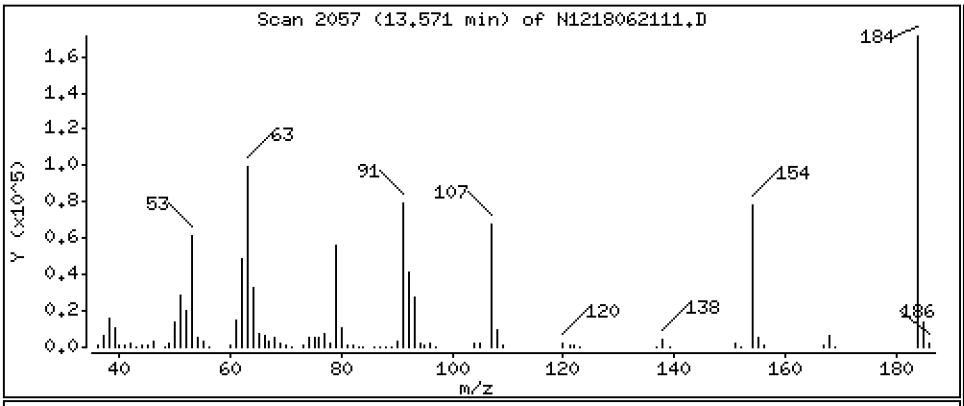
Operator: JZ

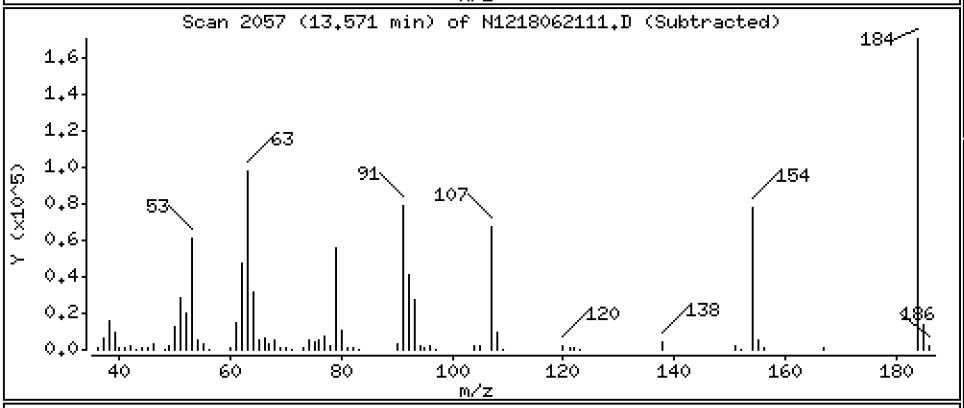
Column phase: ZB-5msi

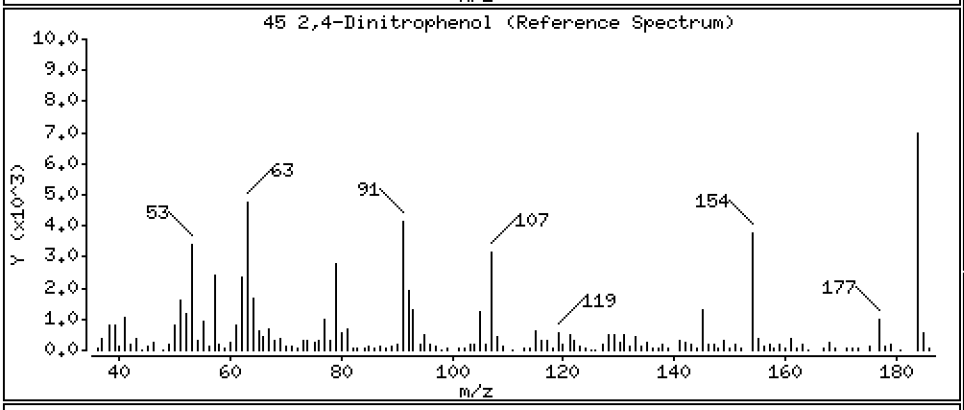
Column diameter: 0.32

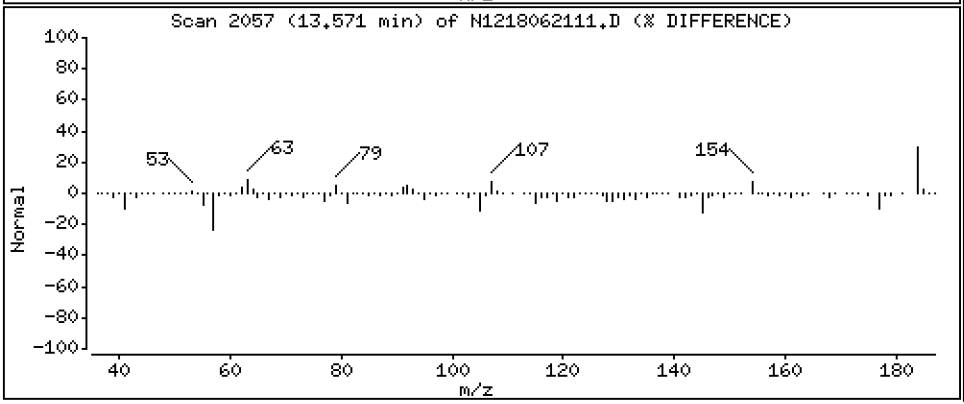
45 2,4-Dinitrophenol

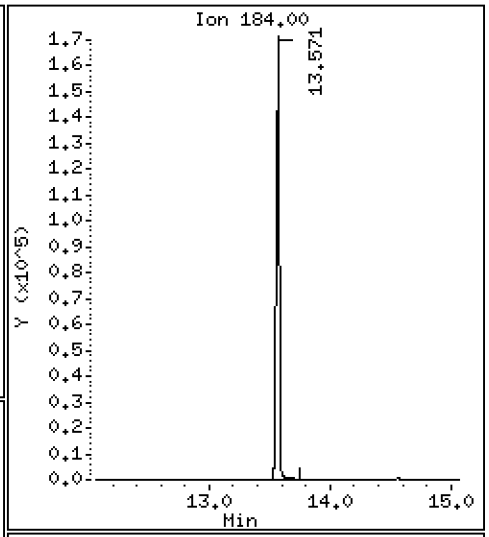
Concentration: 95.80 ug/mL

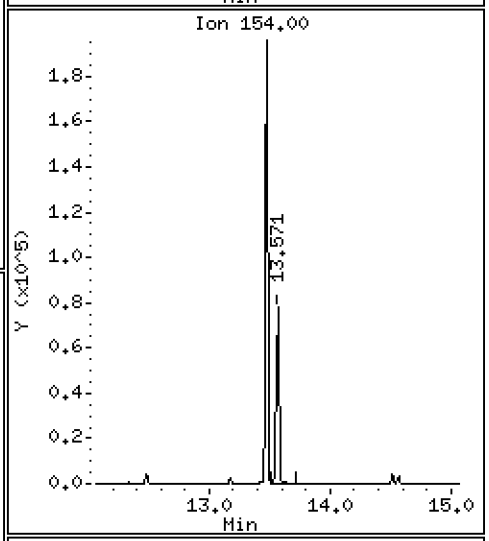


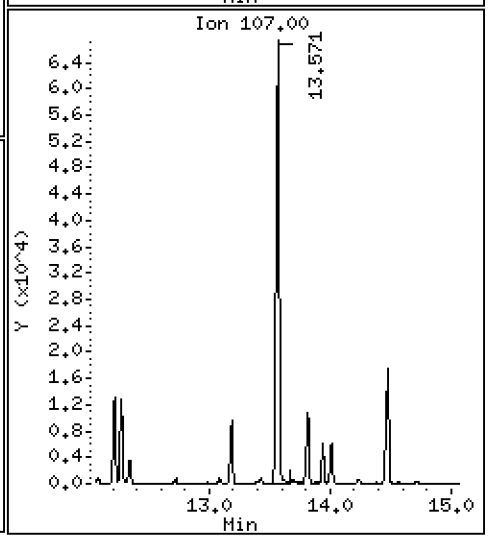












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

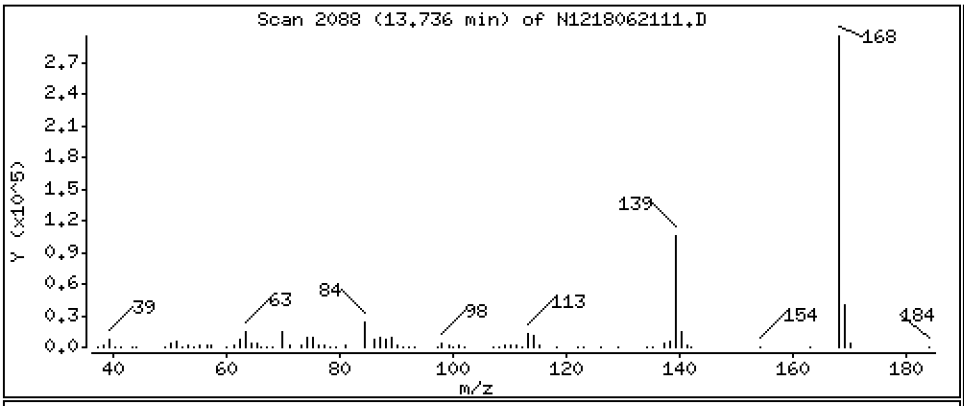
Operator: JZ

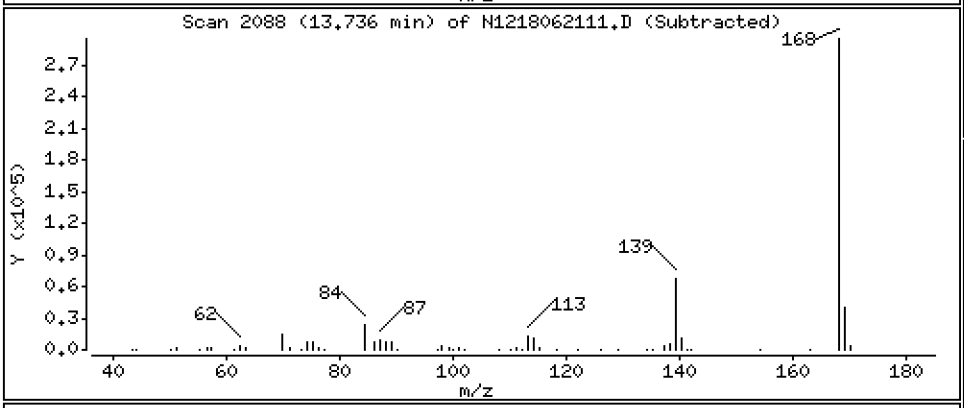
Column phase: ZB-5msi

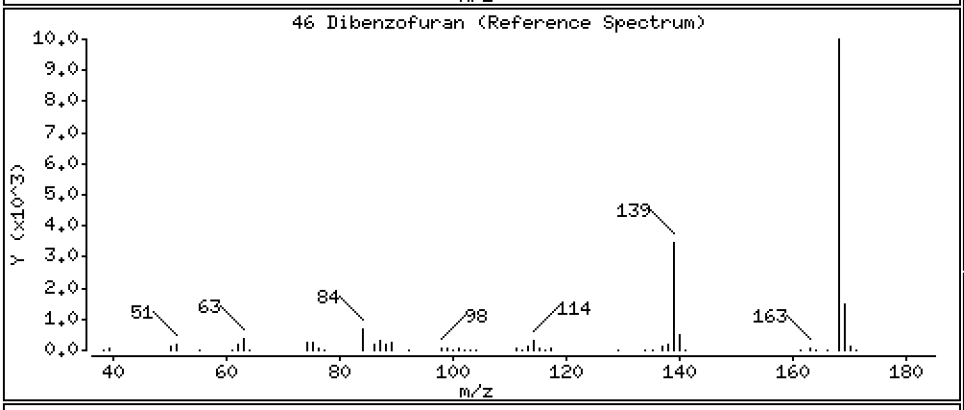
Column diameter: 0.32

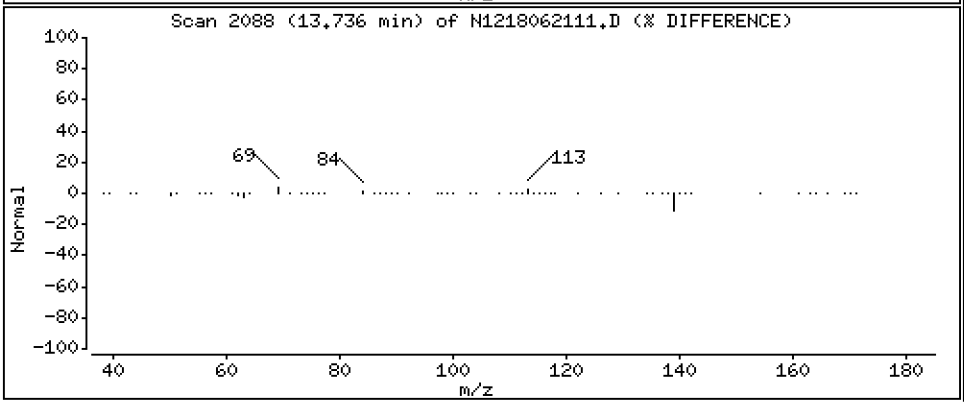
46 Dibenzofuran

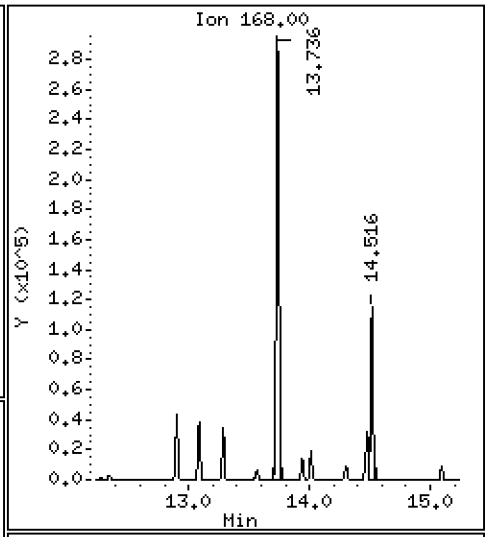
Concentration: 15.02 ug/mL

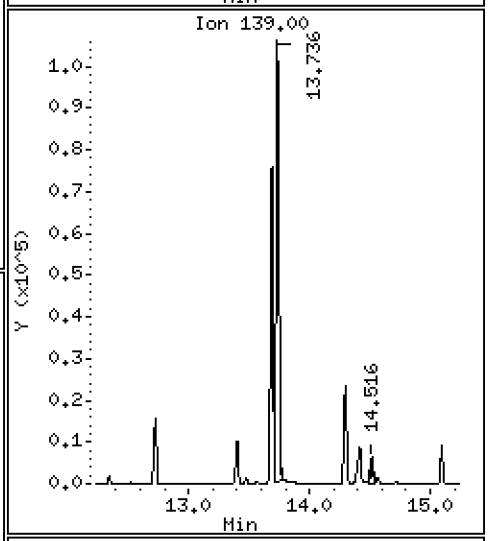


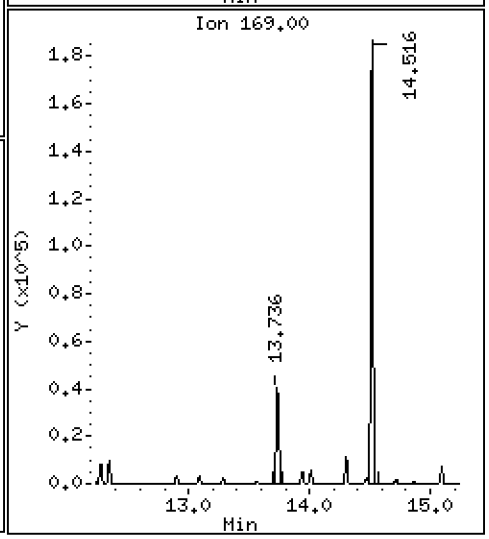












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

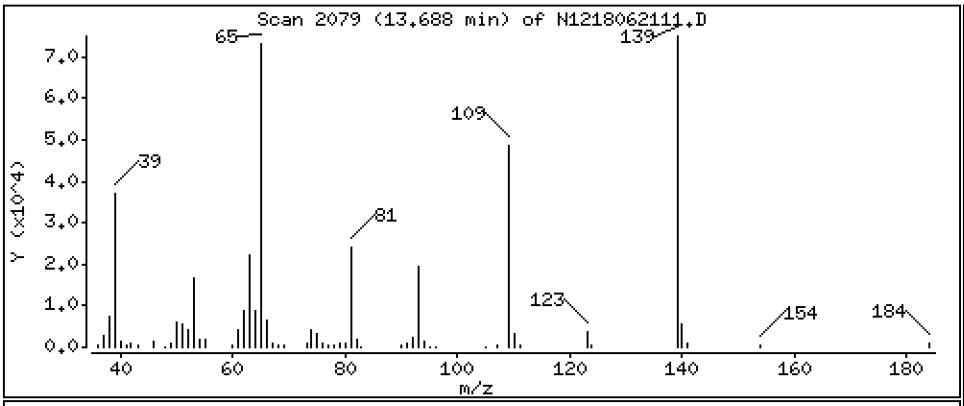
Operator: JZ

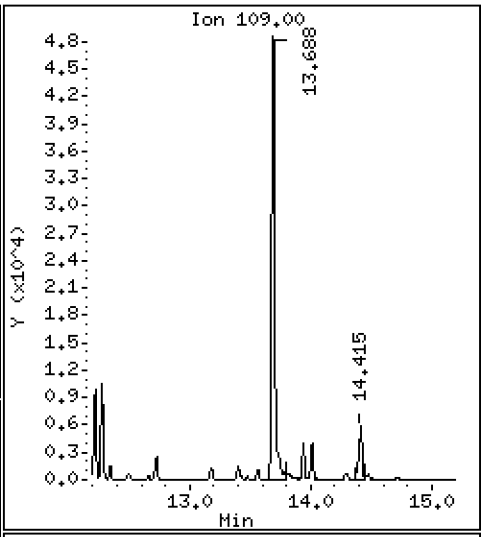
Column phase: ZB-5msi

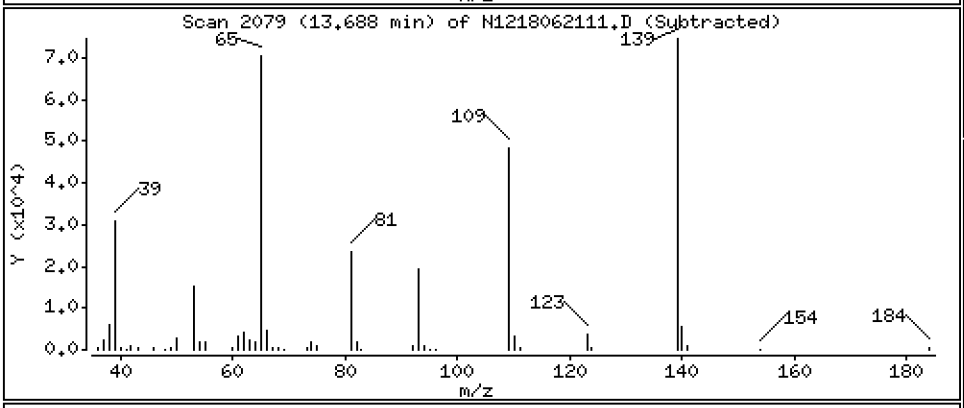
Column diameter: 0.32

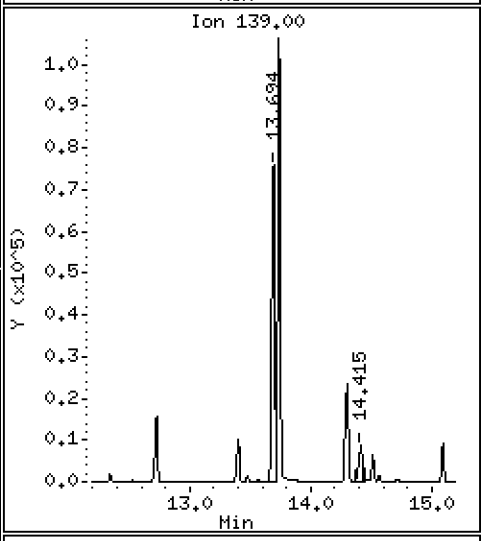
47 4-Nitrophenol

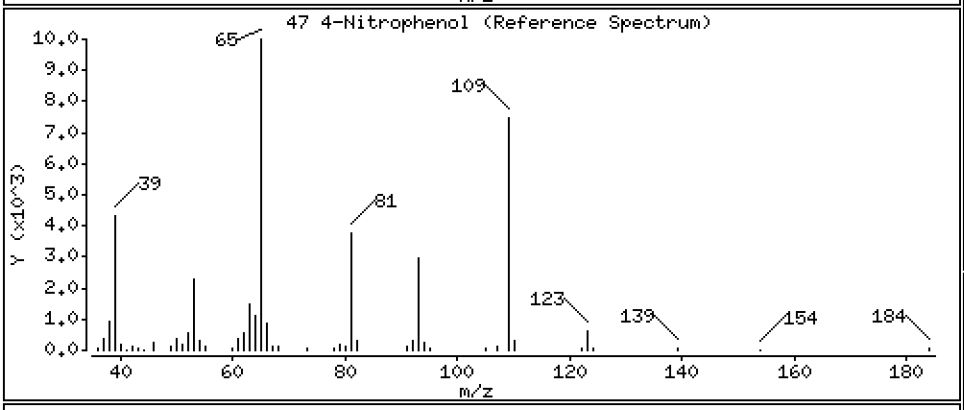
Concentration: 27.67 ug/mL

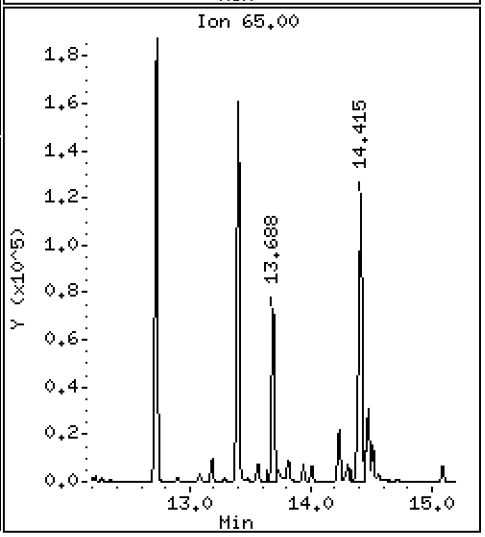


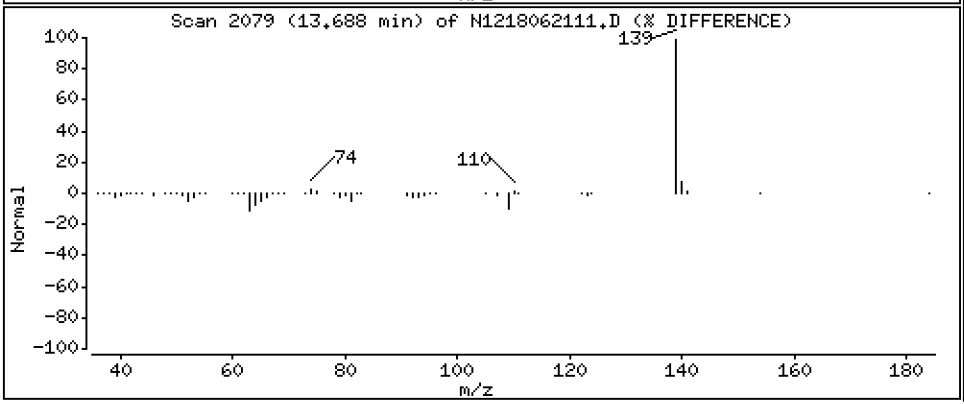












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

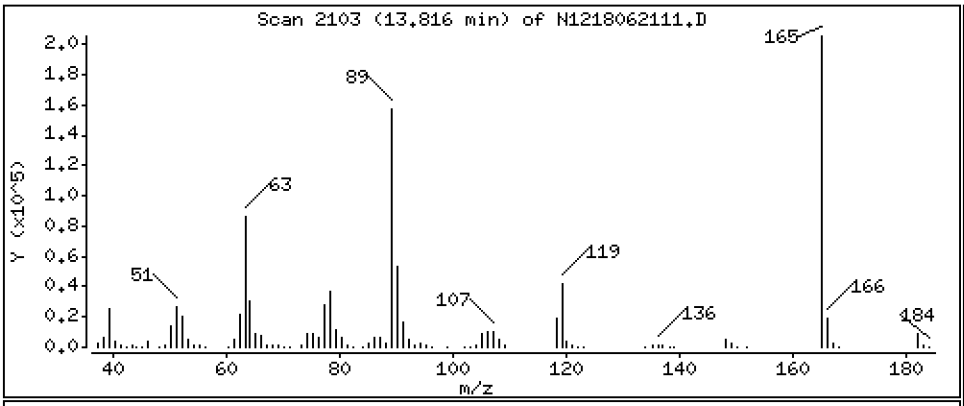
Operator: JZ

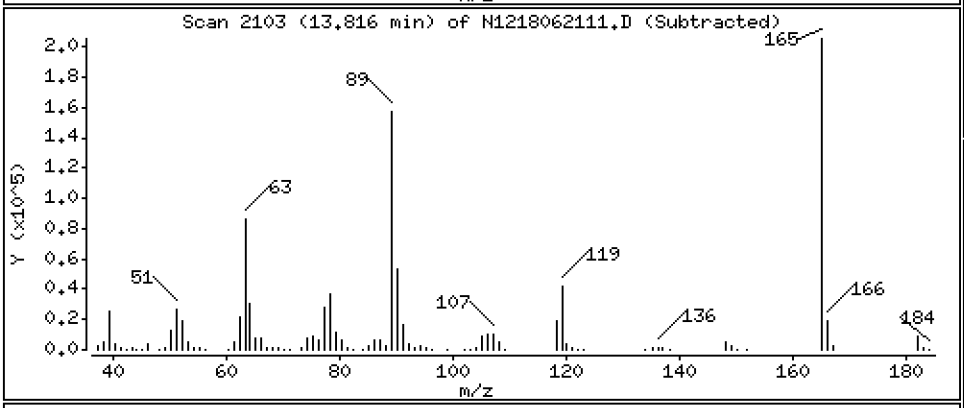
Column phase: ZB-5msi

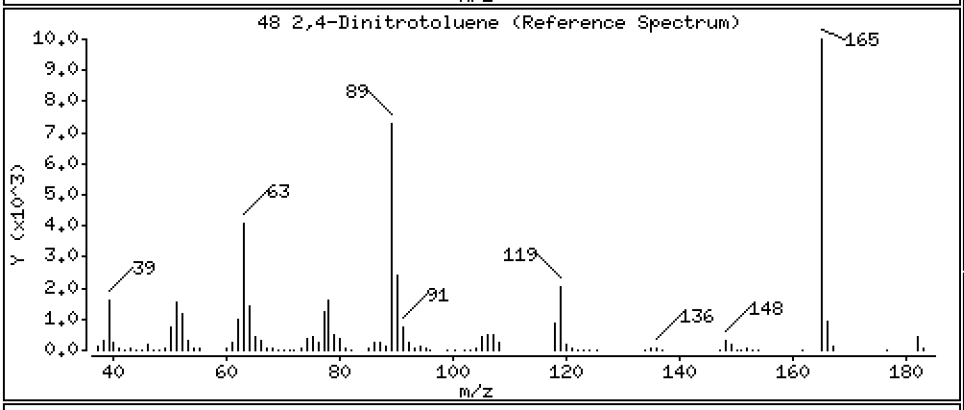
Column diameter: 0.32

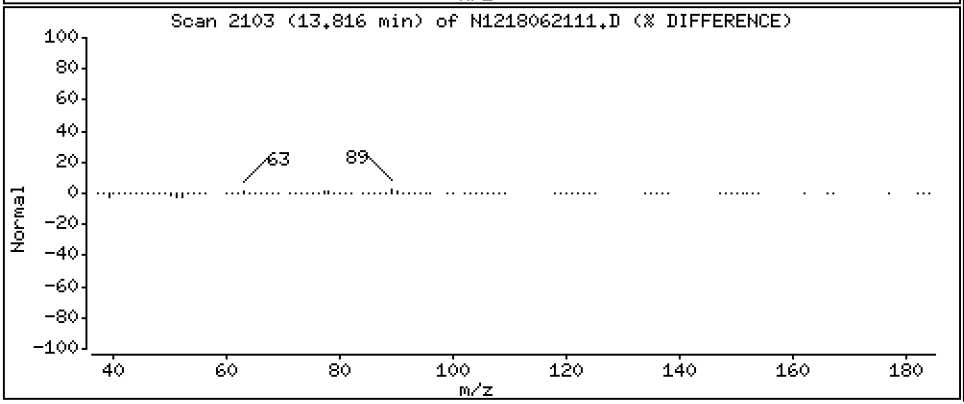
48 2,4-Dinitrotoluene

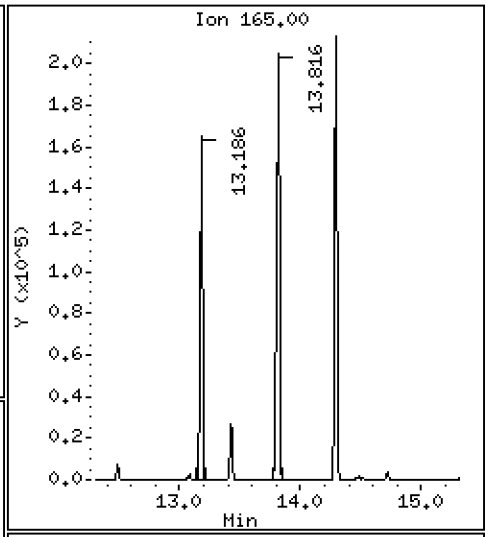
Concentration: 50.07 ug/mL

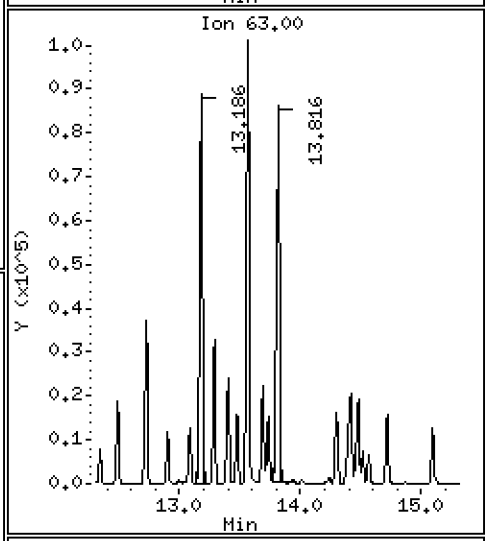


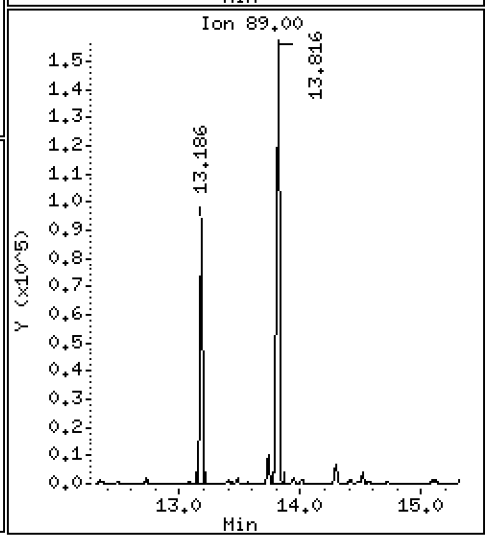












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

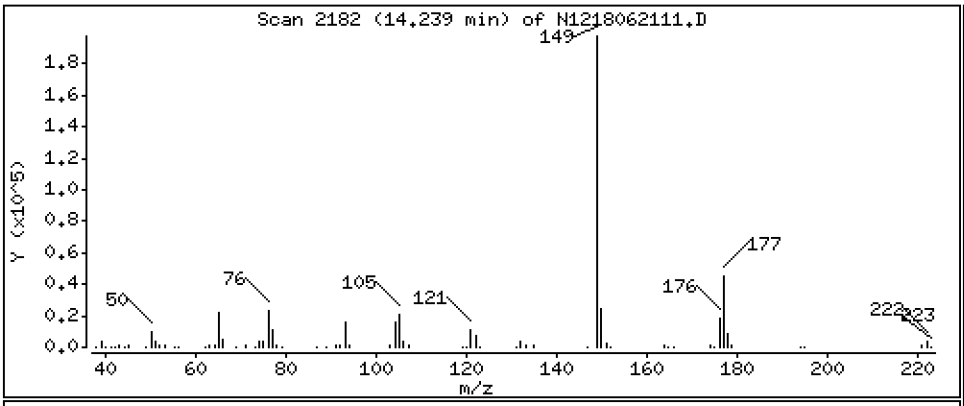
Operator: JZ

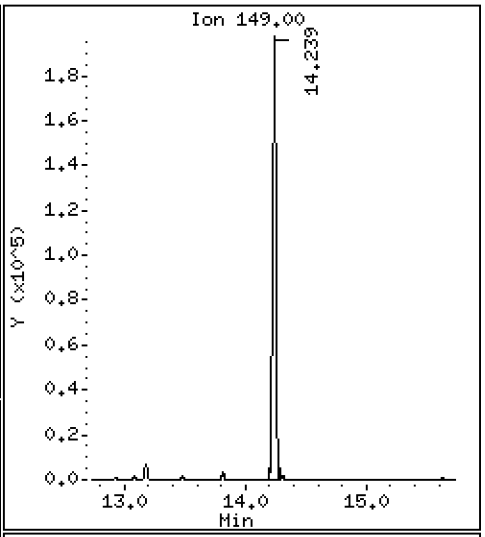
Column phase: ZB-5msi

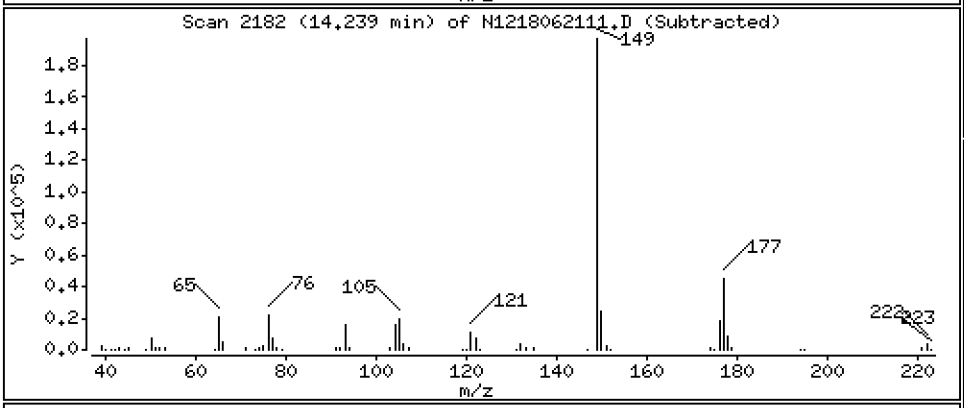
Column diameter: 0.32

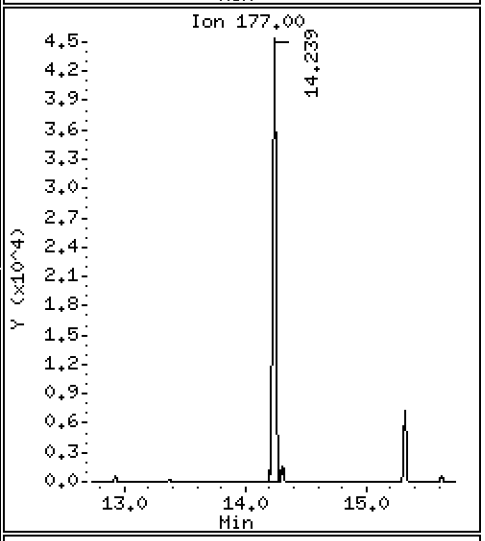
50 Diethylphthalate

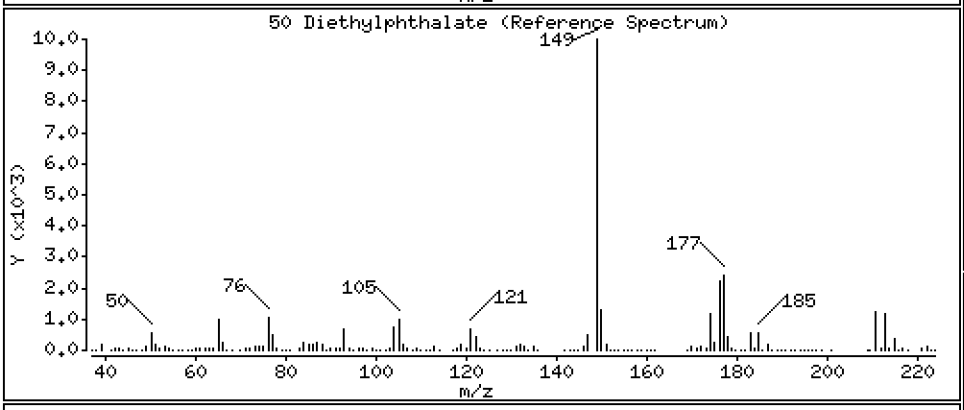
Concentration: 17.26 ug/mL

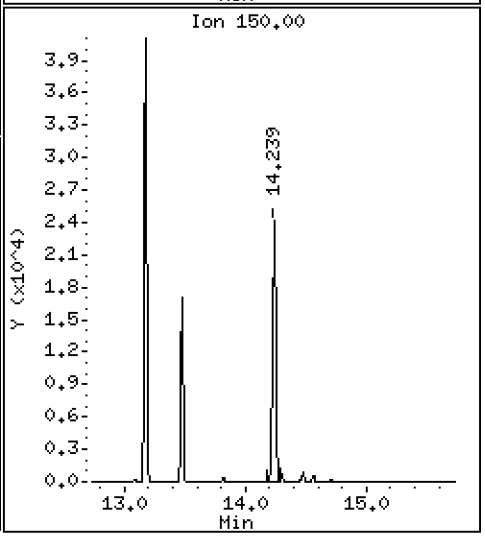


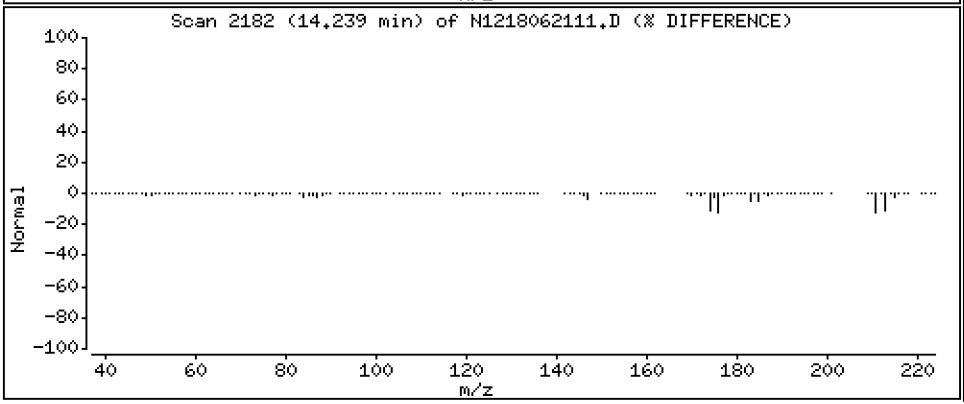












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

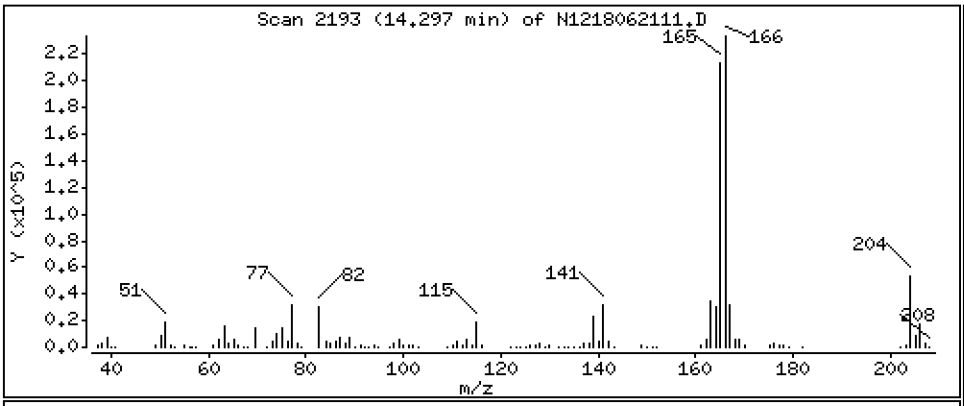
Operator: JZ

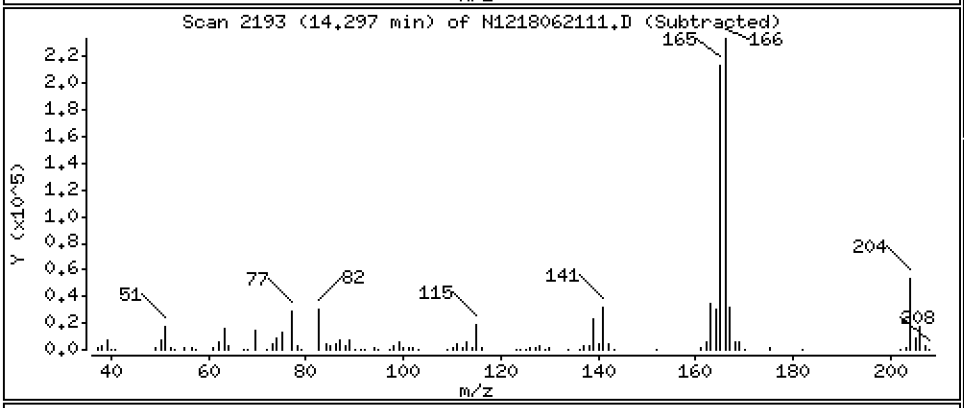
Column phase: ZB-5msi

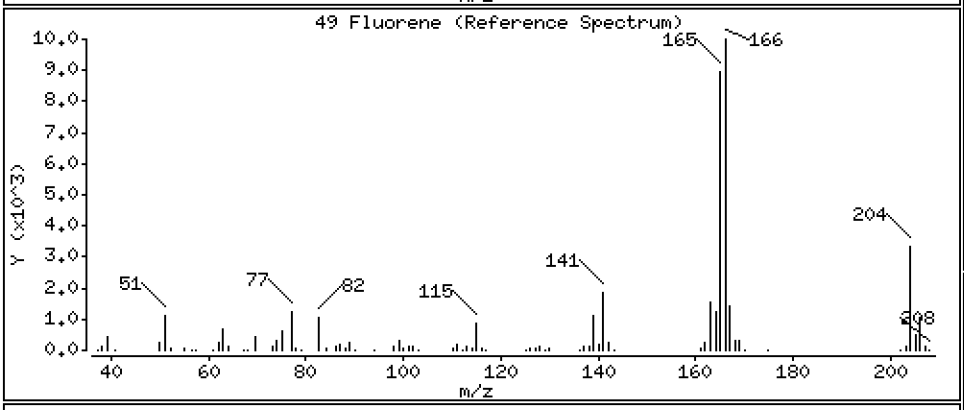
Column diameter: 0.32

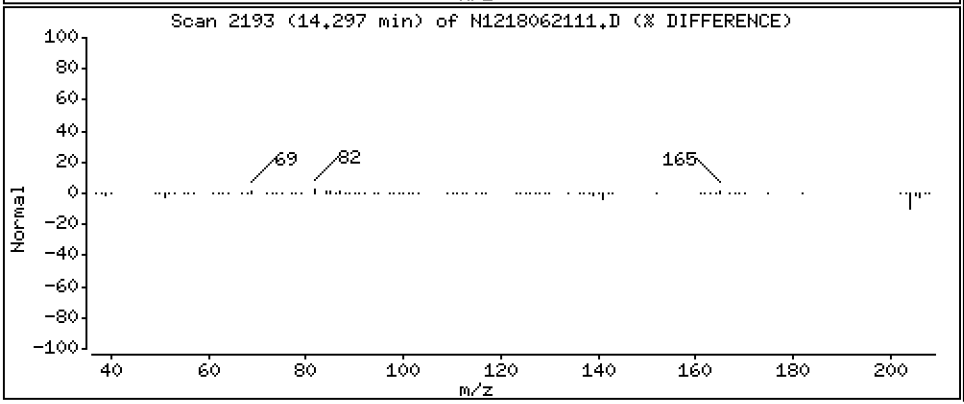
49 Fluorene

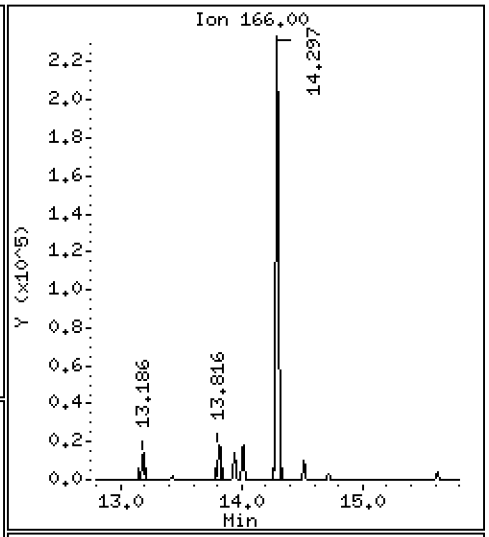
Concentration: 16.16 ug/mL

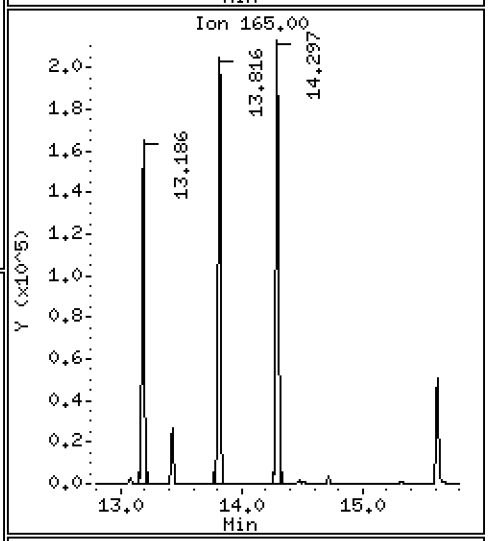


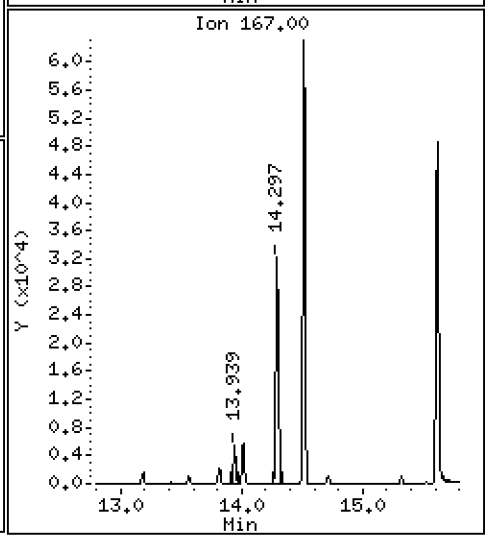












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

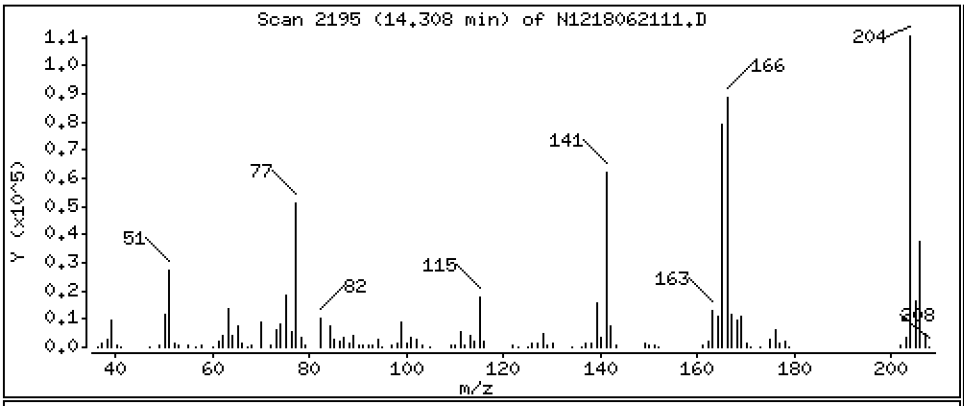
Operator: JZ

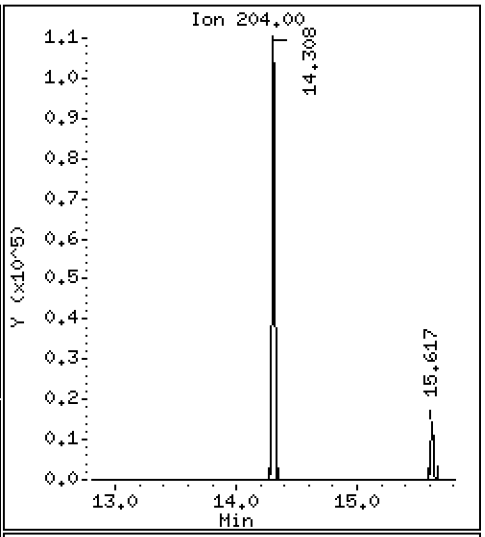
Column phase: ZB-5msi

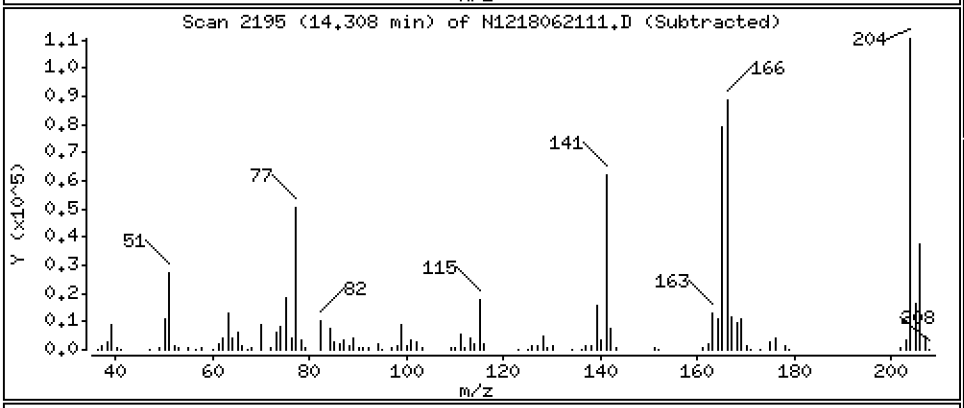
Column diameter: 0.32

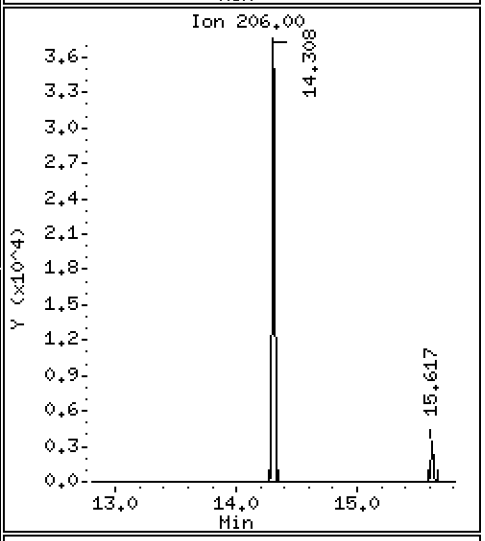
51 4-Chlorophenyl-phenylether

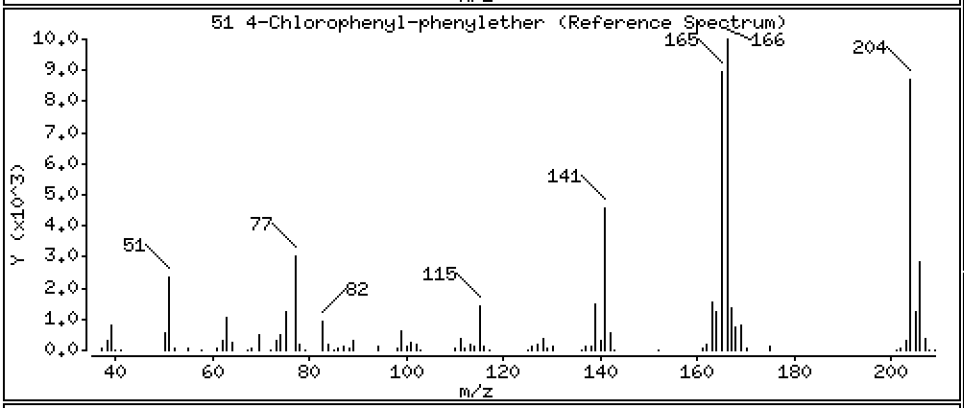
Concentration: 15.82 ug/mL

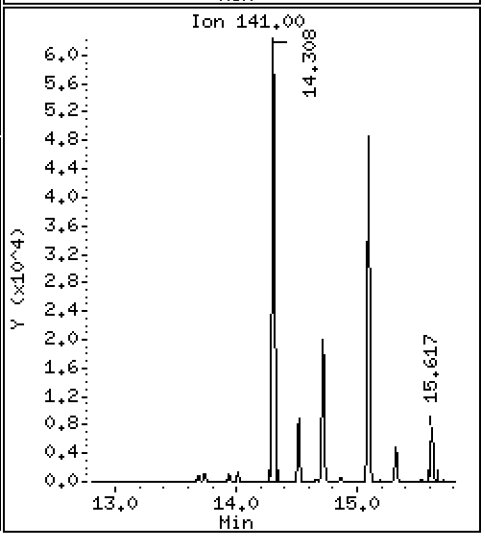


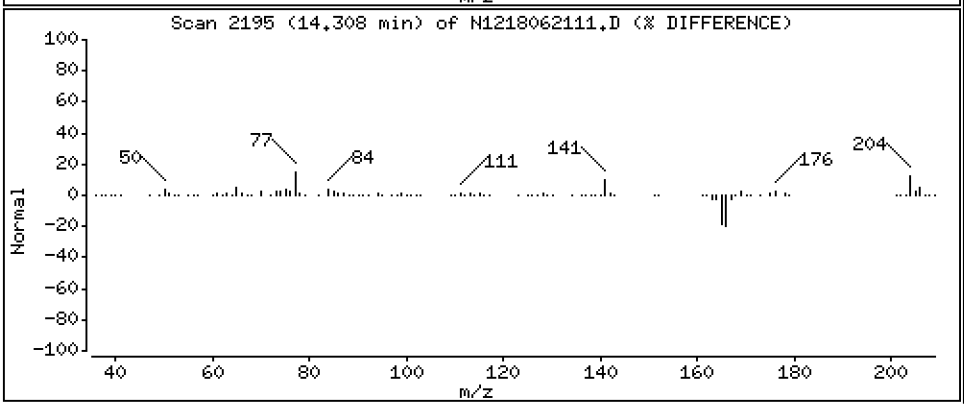












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

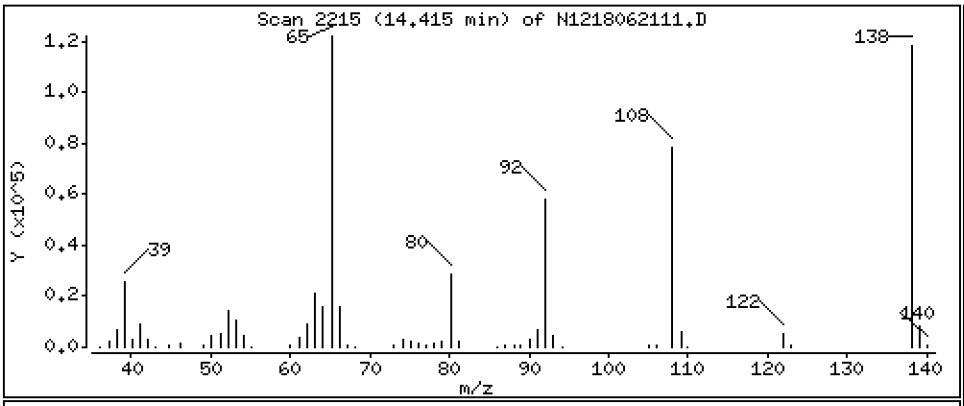
Operator: JZ

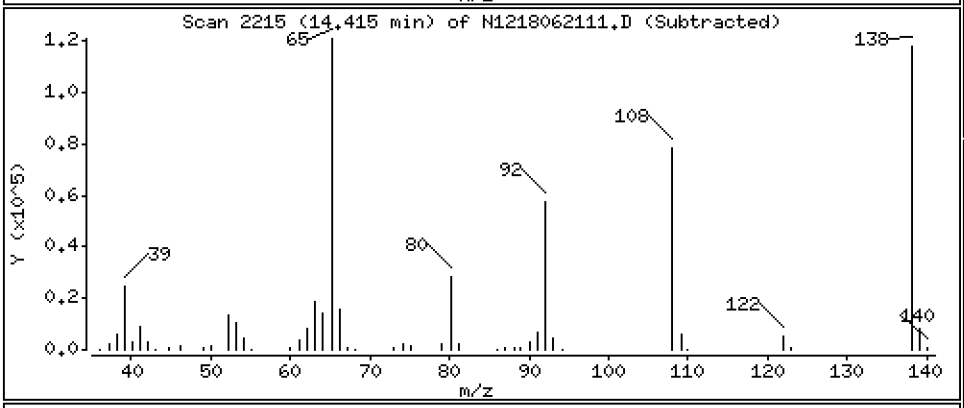
Column phase: ZB-5msi

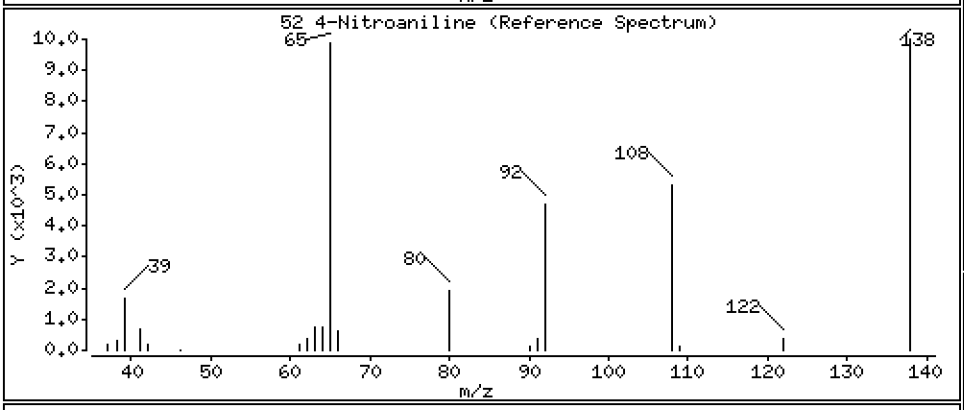
Column diameter: 0.32

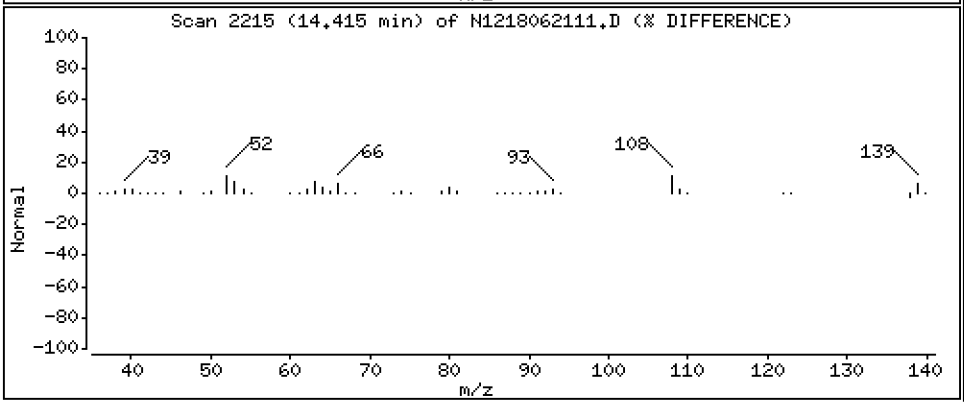
52 4-Nitroaniline

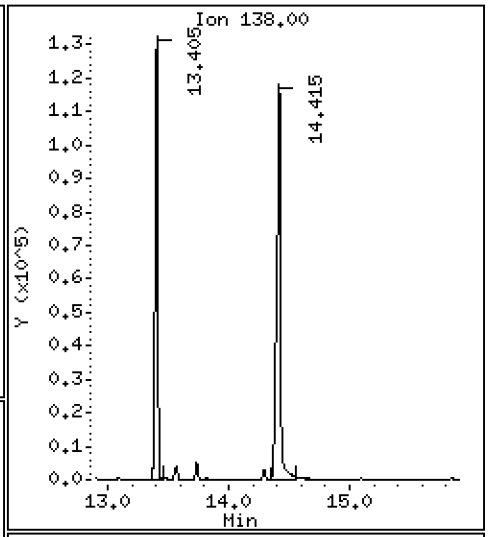
Concentration: 46.27 ug/mL

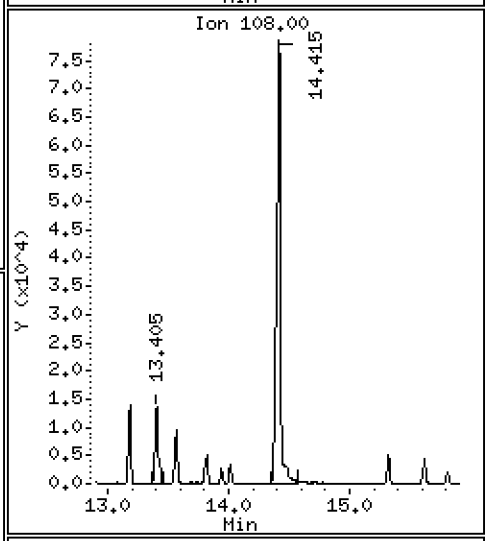


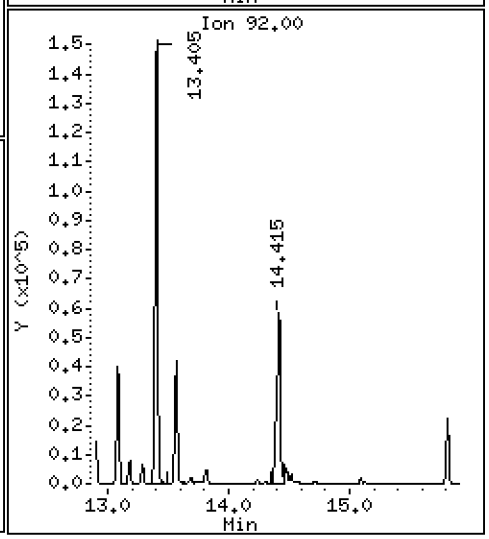












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

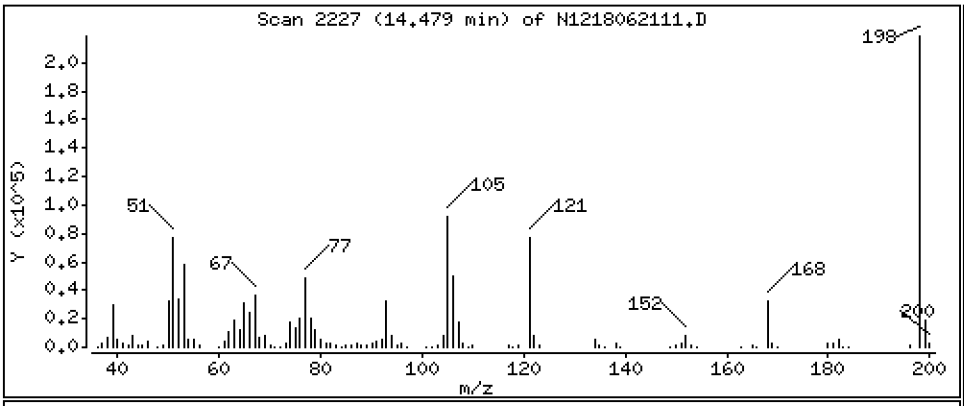
Operator: JZ

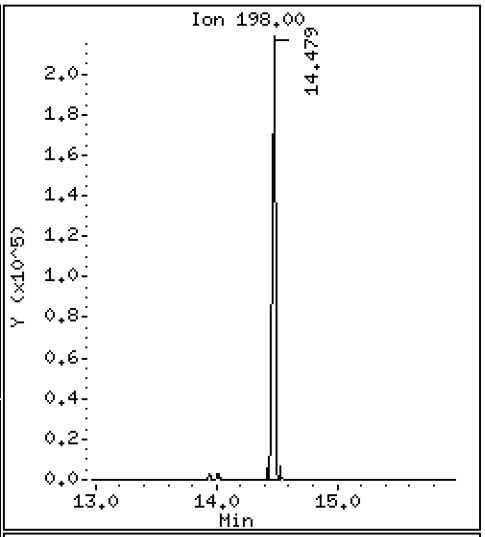
Column phase: ZB-5msi

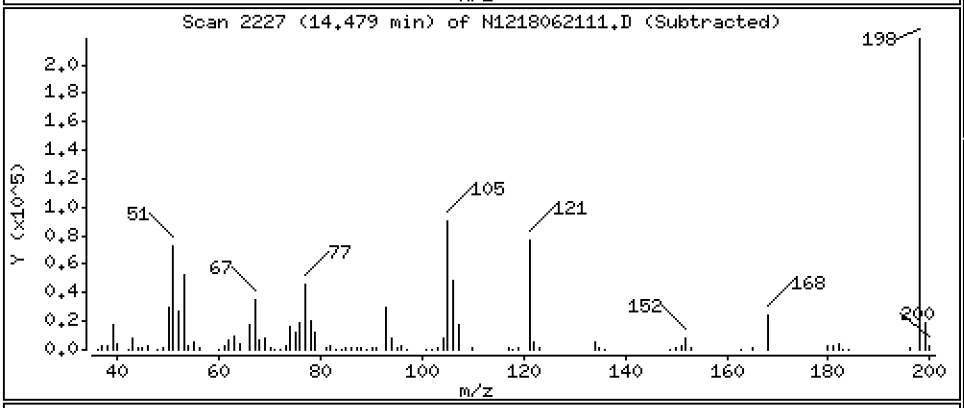
Column diameter: 0.32

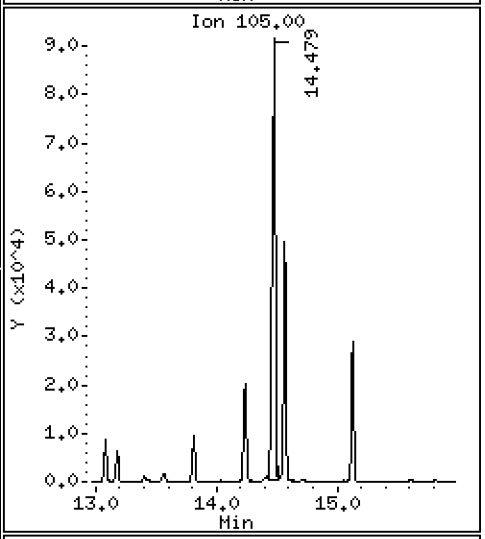
53 4,6-Dinitro-2-methylphenol

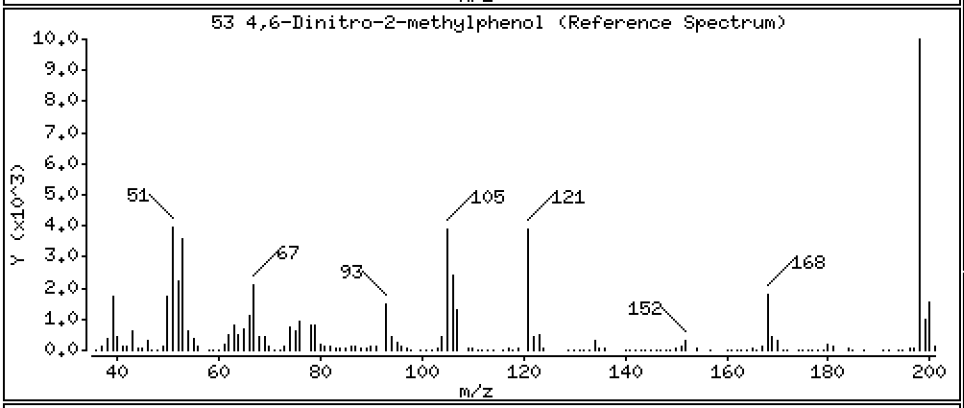
Concentration: 101.9 ug/mL

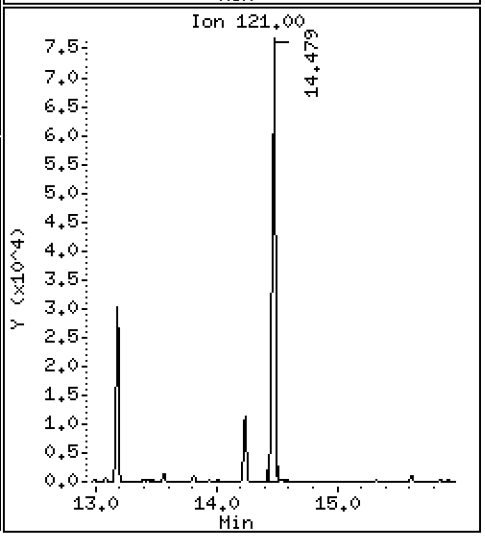


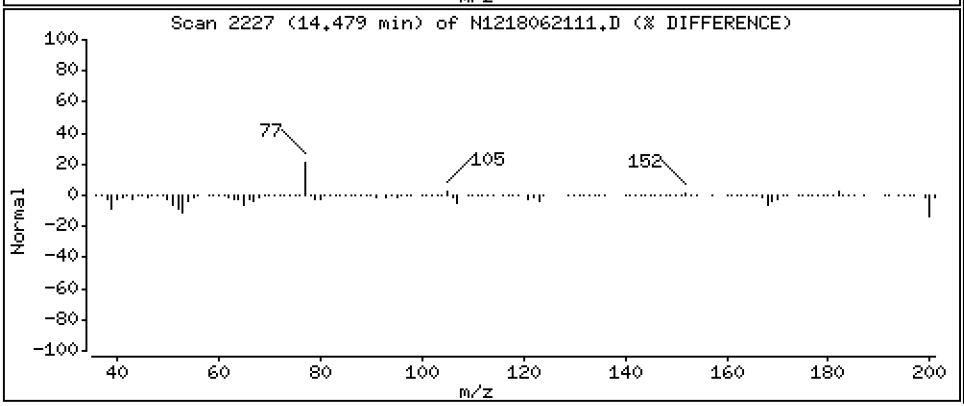












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

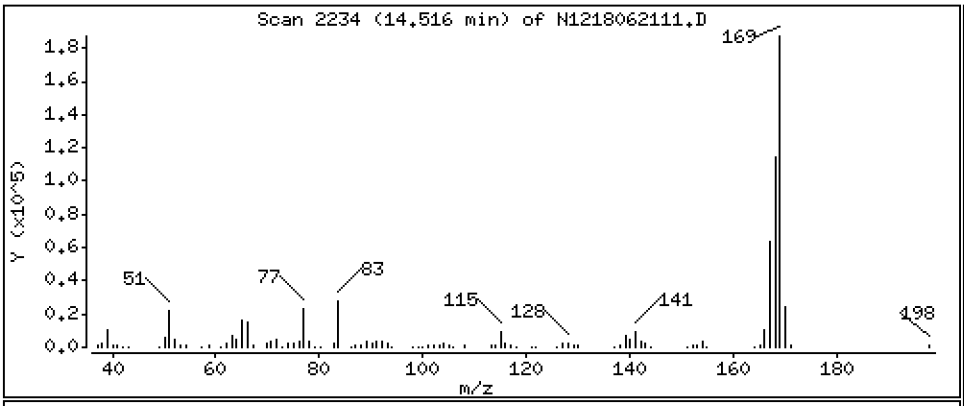
Operator: JZ

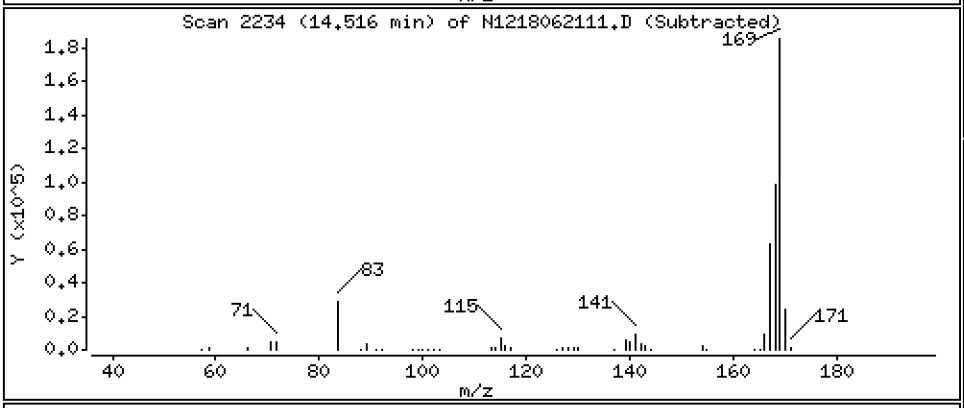
Column phase: ZB-5msi

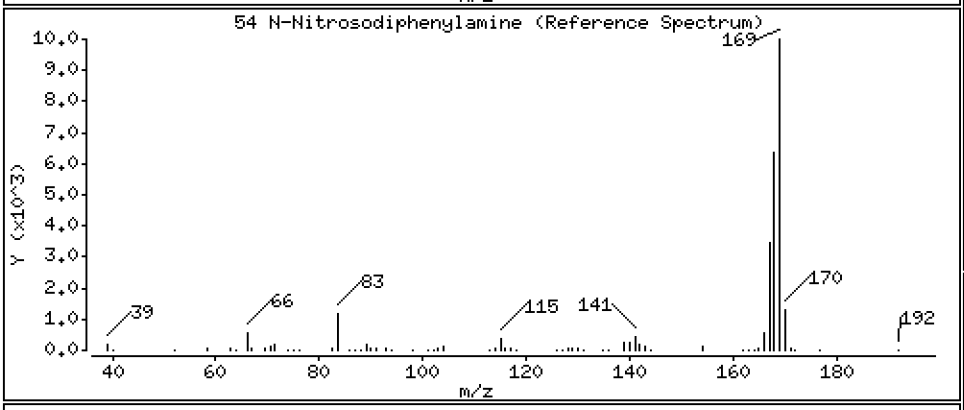
Column diameter: 0.32

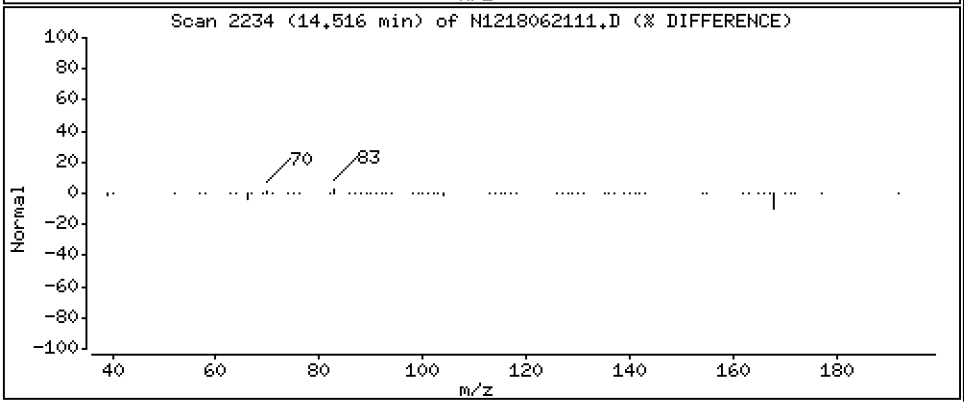
54 N-Nitrosodiphenylamine

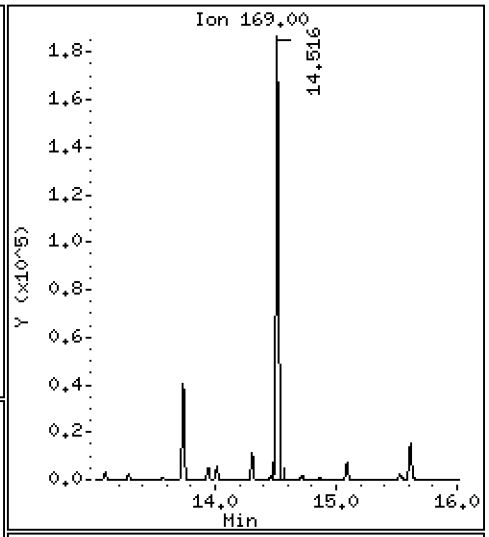
Concentration: 16.50 ug/mL

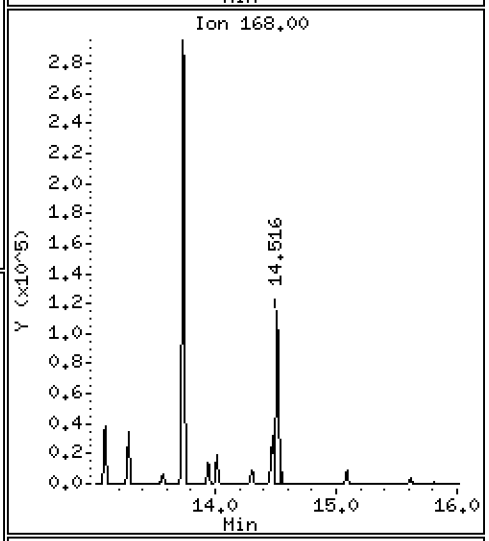


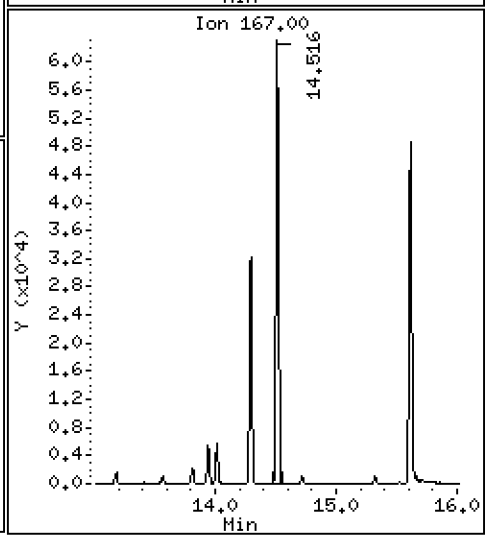












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

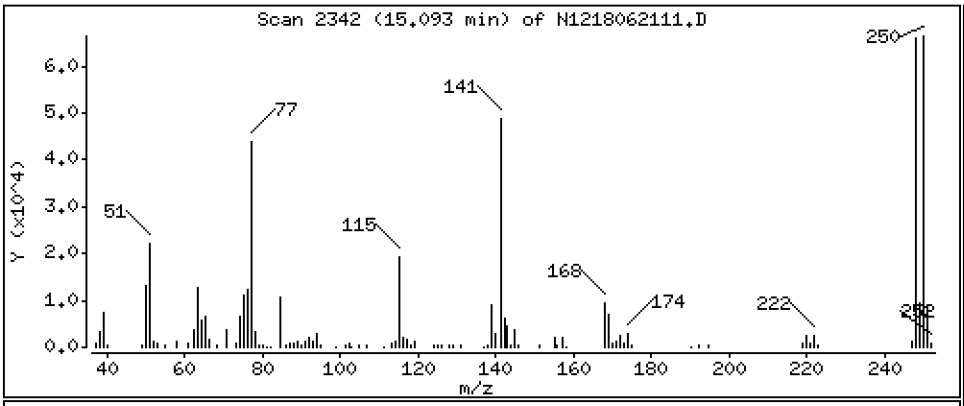
Operator: JZ

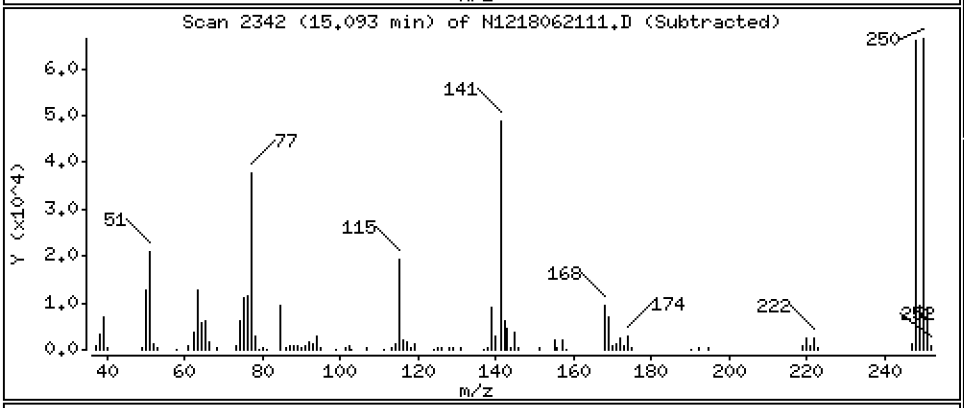
Column phase: ZB-5msi

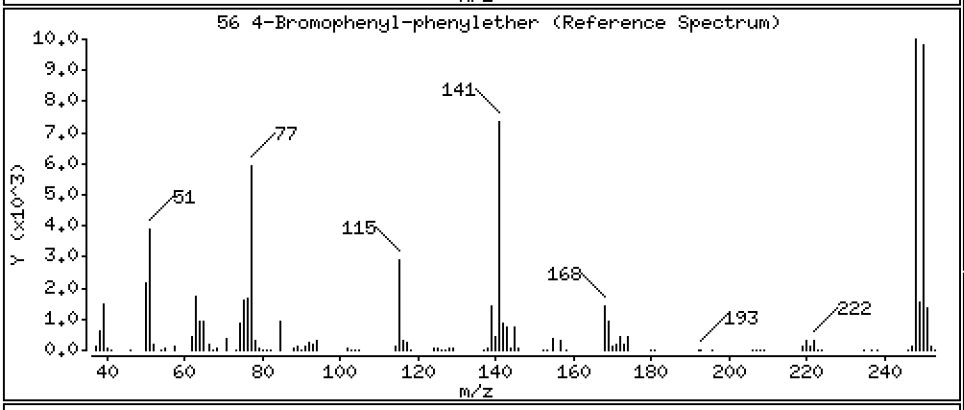
Column diameter: 0.32

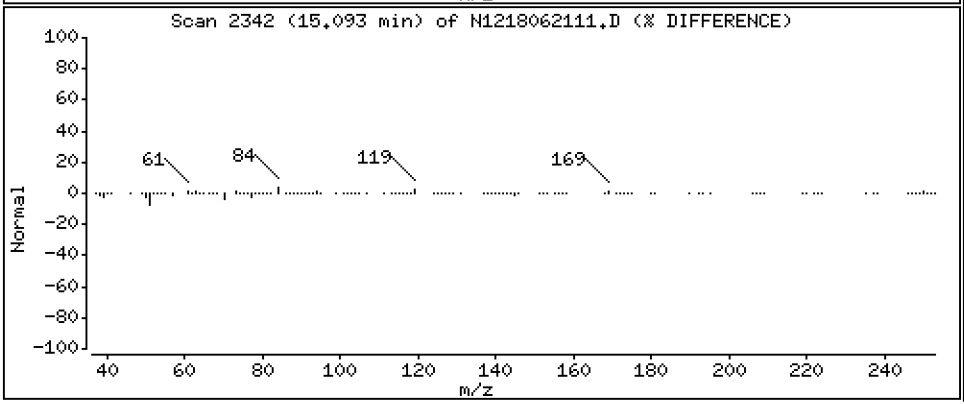
56 4-Bromophenyl-phenylether

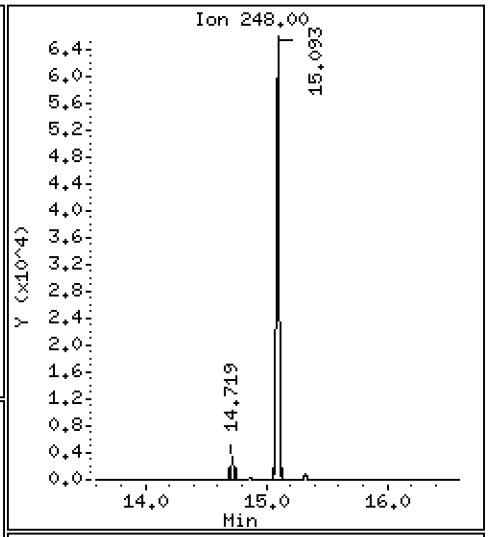
Concentration: 16.13 ug/mL

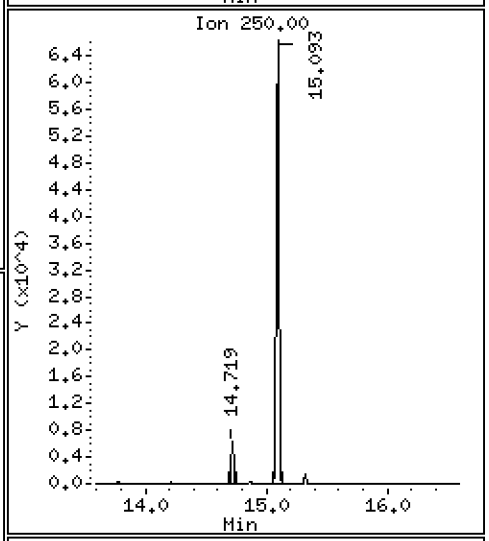


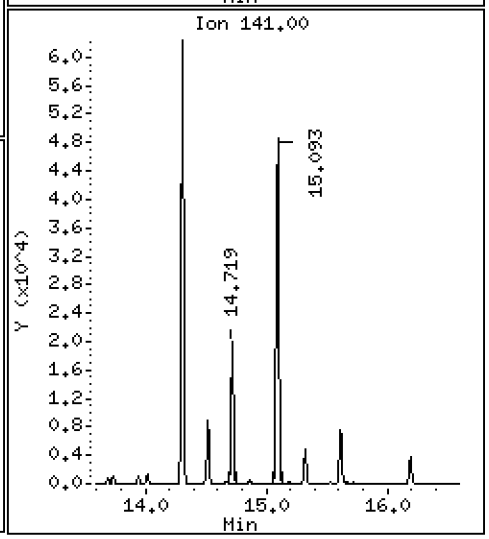












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

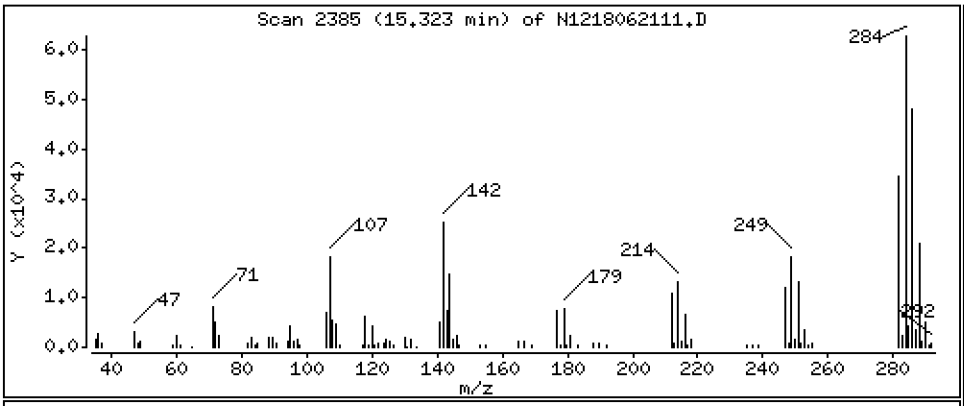
Operator: JZ

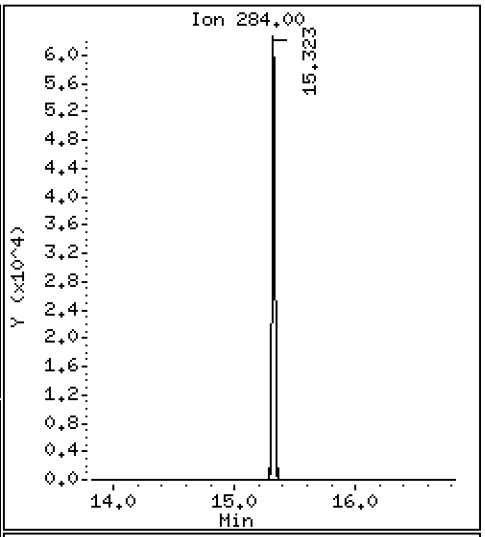
Column phase: ZB-5msi

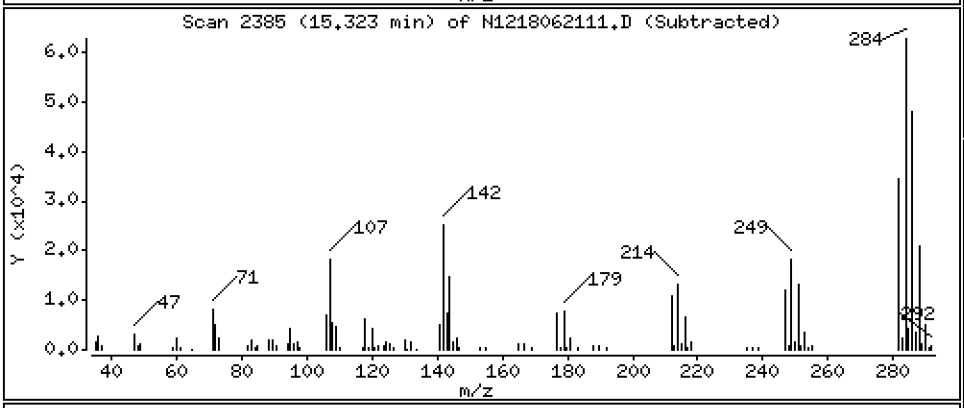
Column diameter: 0.32

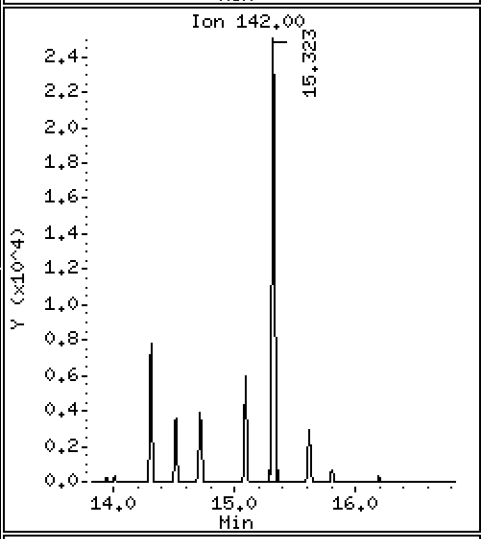
57 Hexachlorobenzene

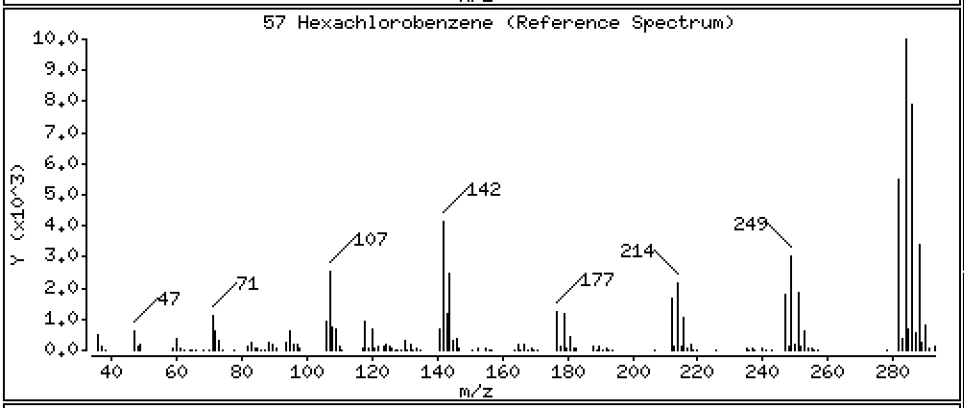
Concentration: 15.39 ug/mL

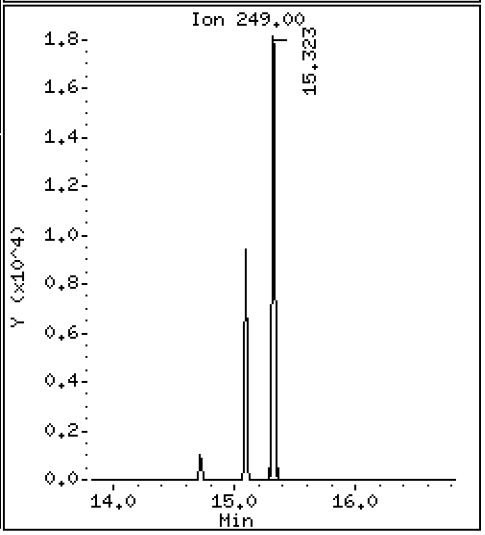


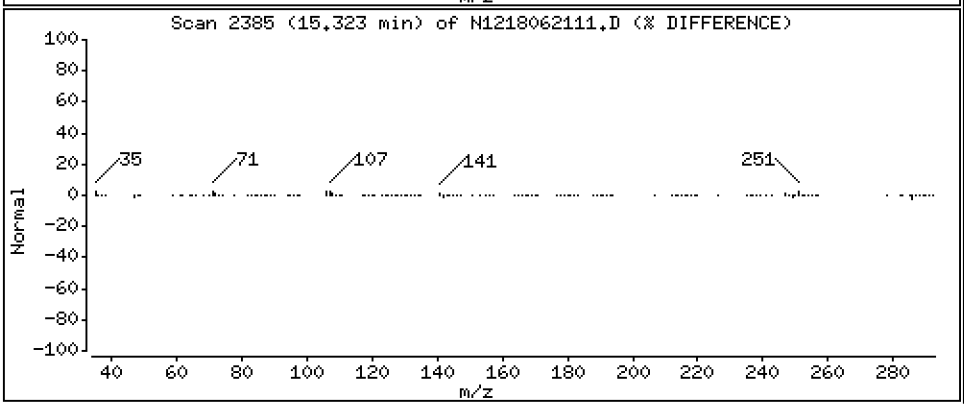












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

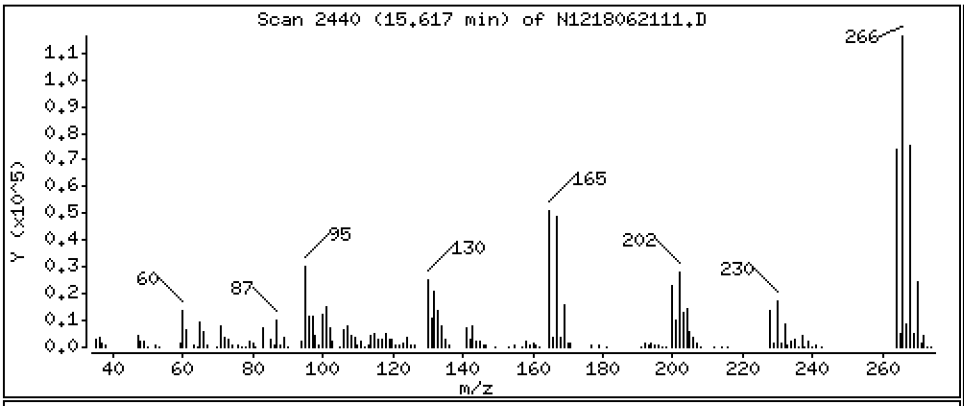
Operator: JZ

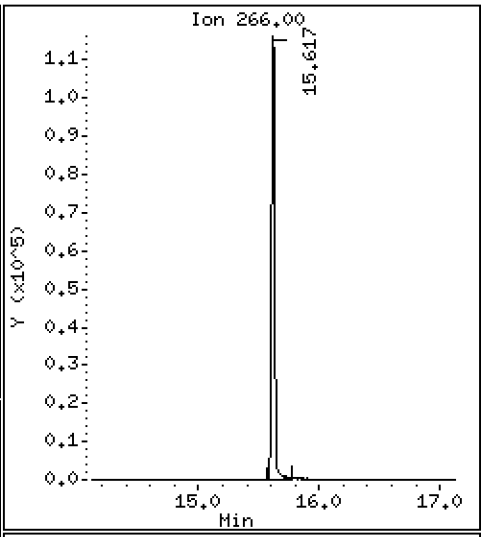
Column phase: ZB-5msi

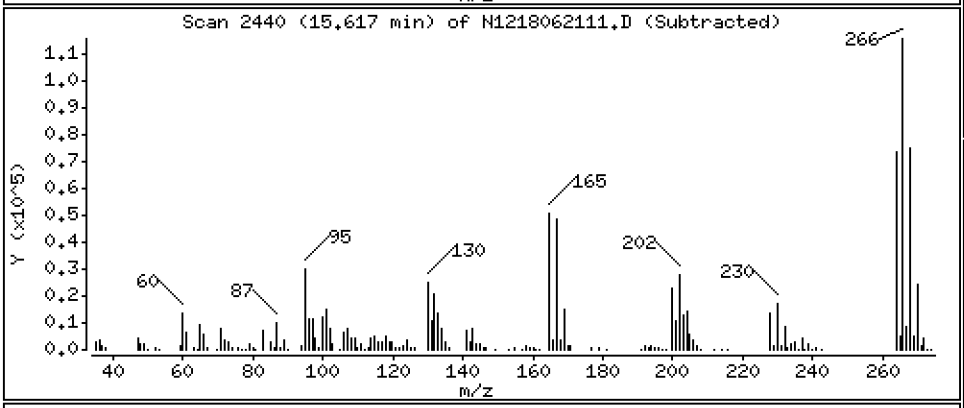
Column diameter: 0.32

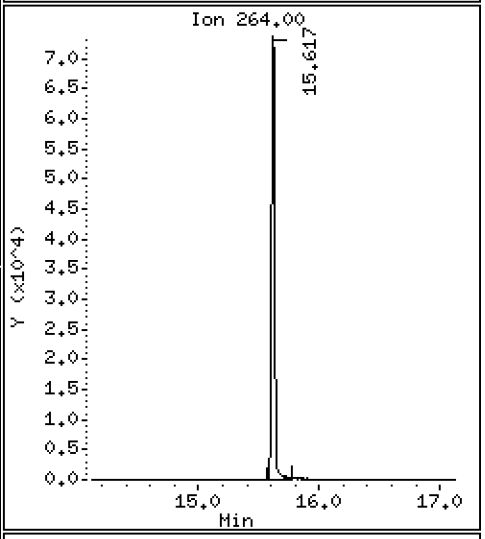
58 Pentachlorophenol

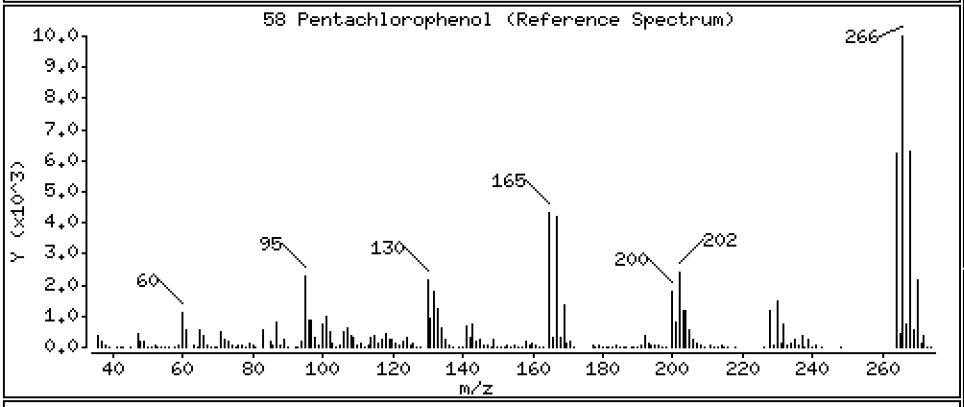
Concentration: 48.35 ug/mL

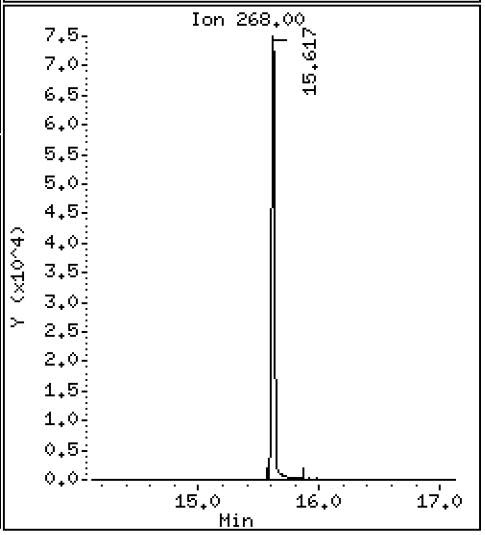


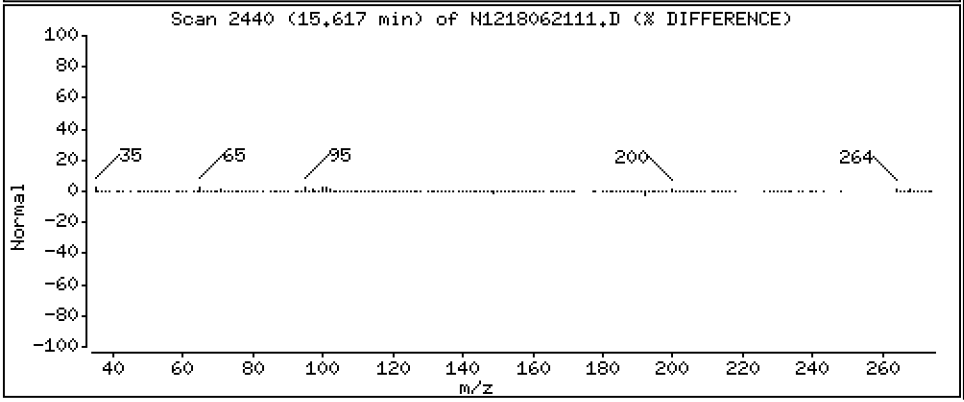












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

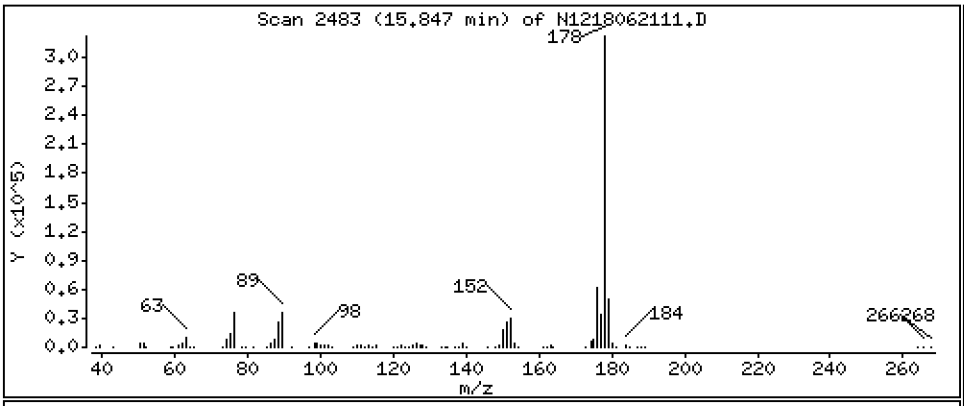
Operator: JZ

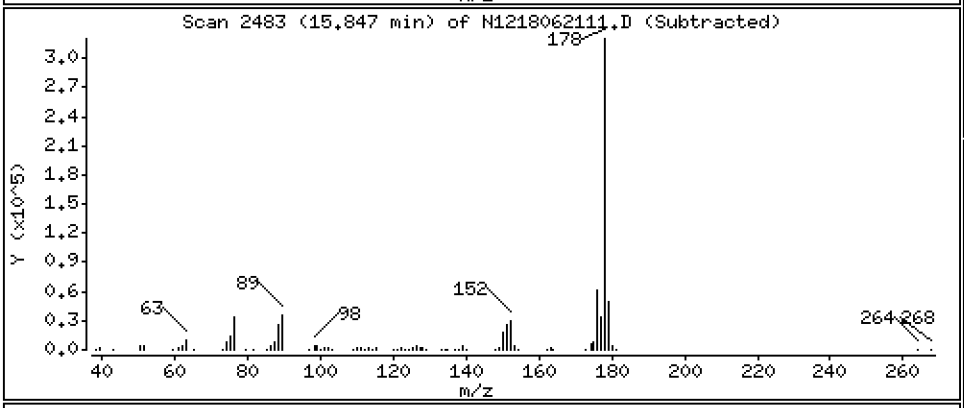
Column phase: ZB-5msi

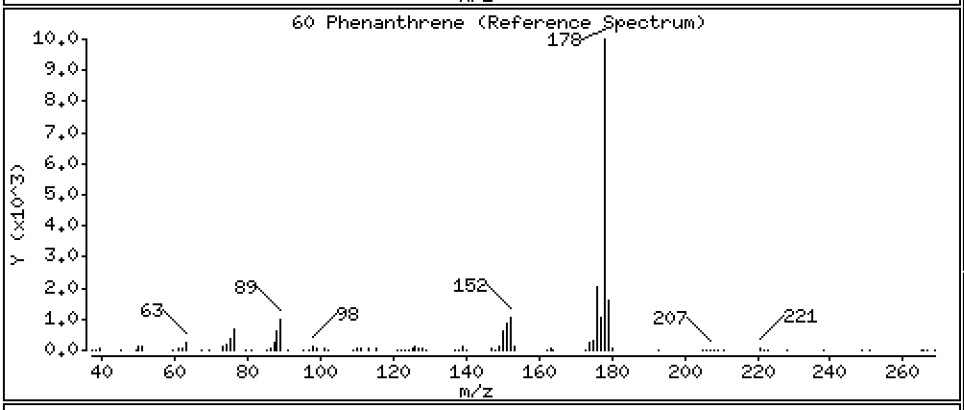
Column diameter: 0.32

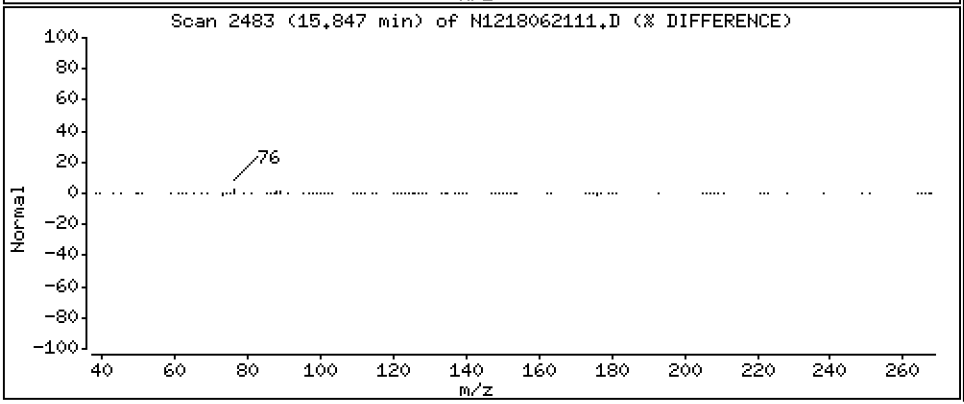
60 Phenanthrene

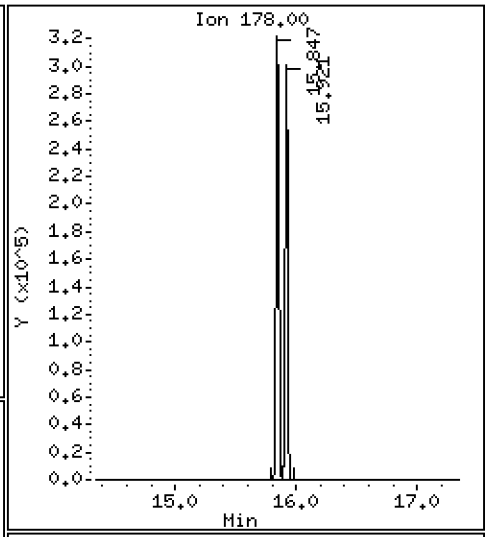
Concentration: 19.31 ug/mL

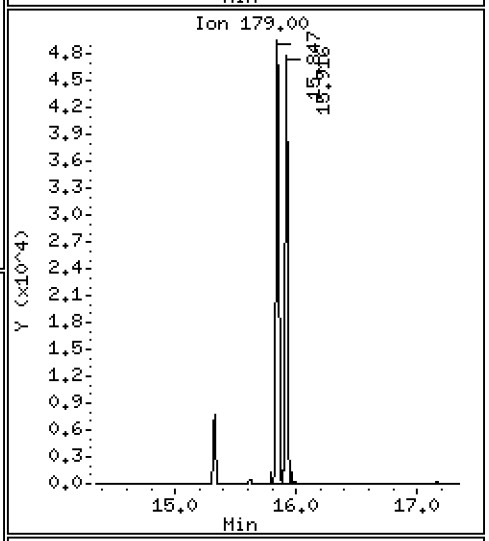


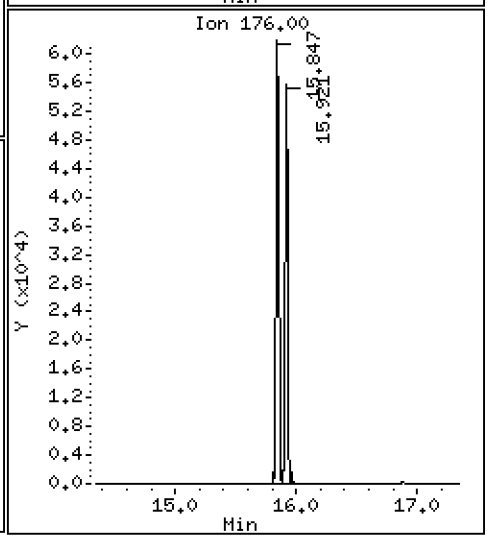












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

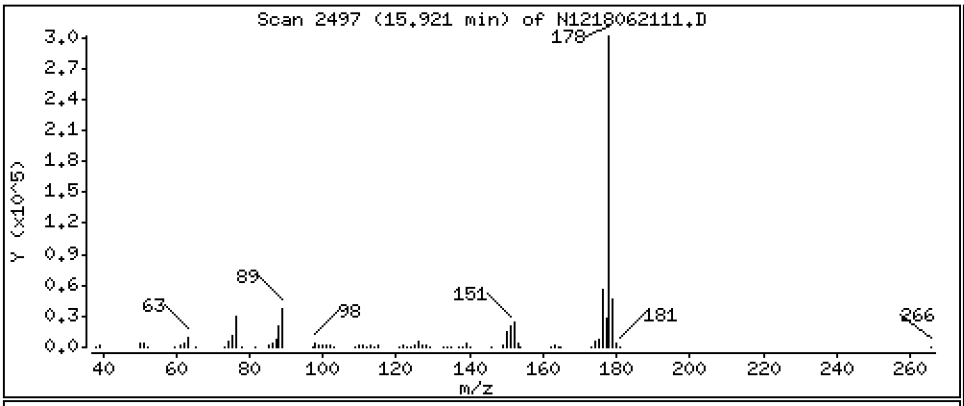
Operator: JZ

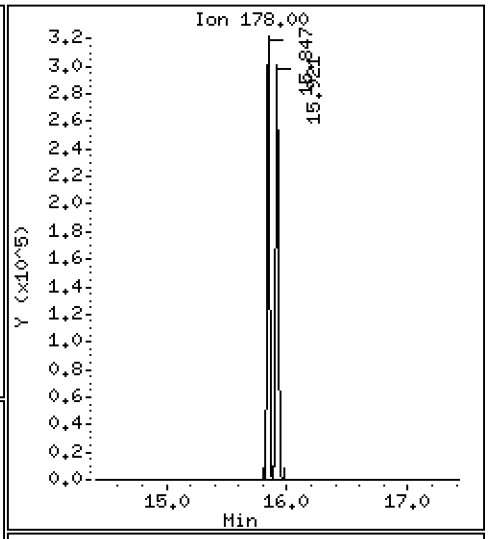
Column phase: ZB-5msi

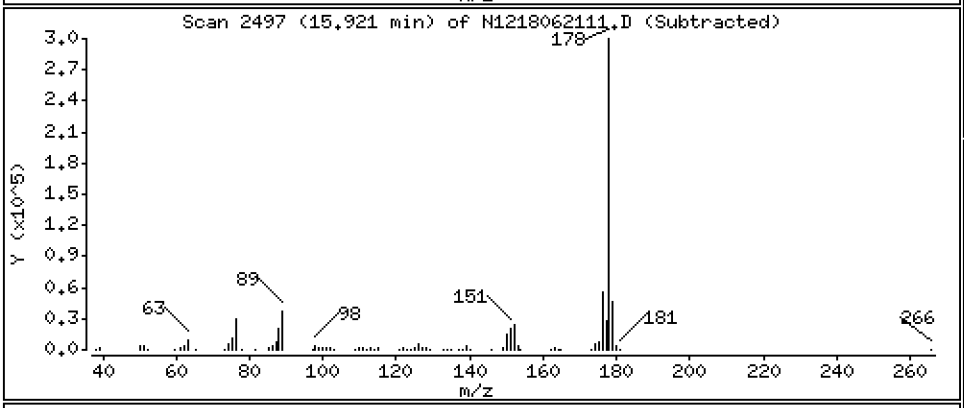
Column diameter: 0.32

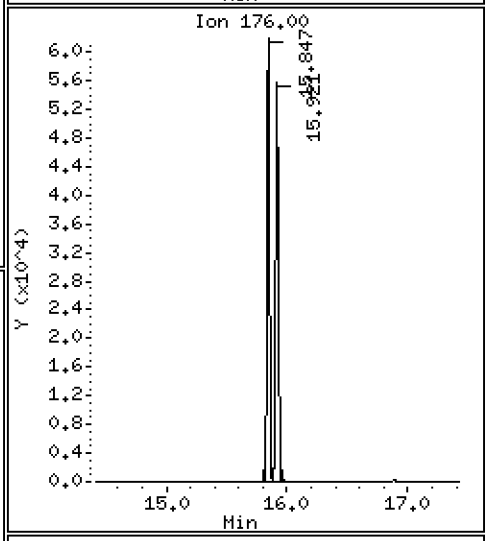
61 Anthracene

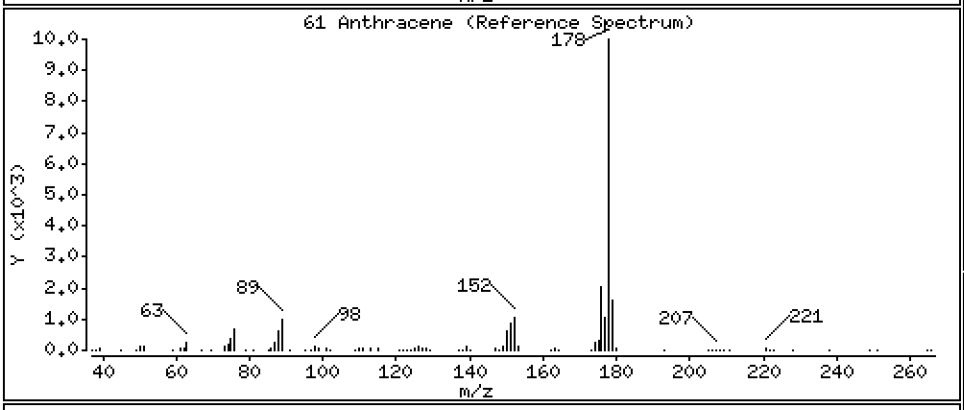
Concentration: 15.75 ug/mL

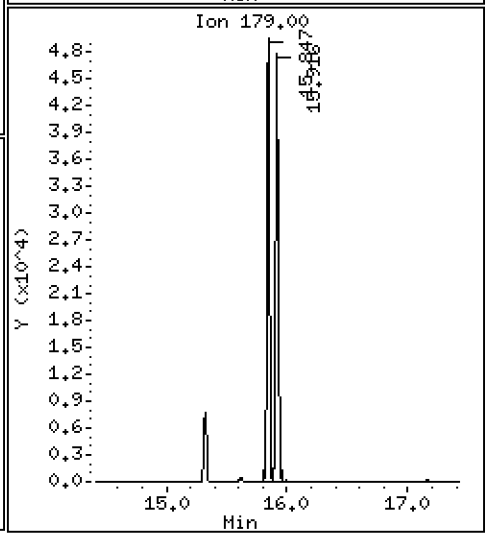


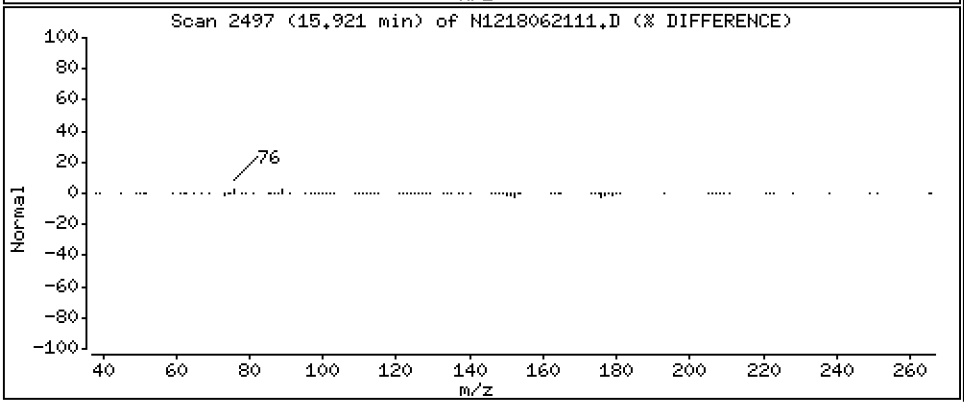












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

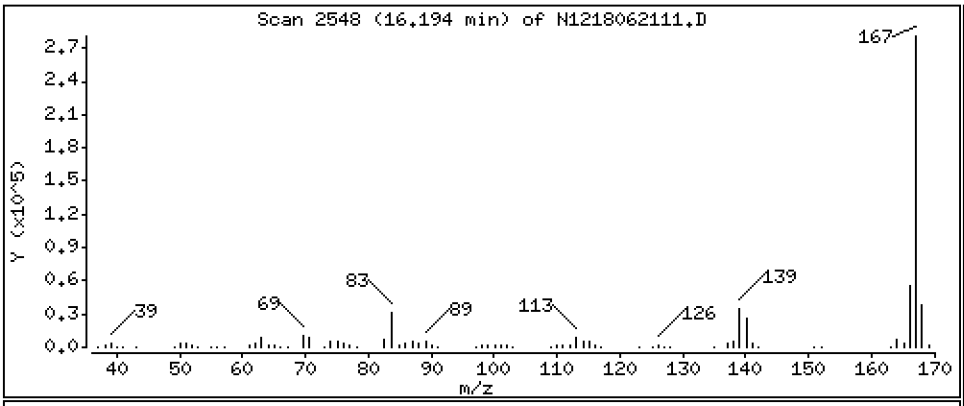
Operator: JZ

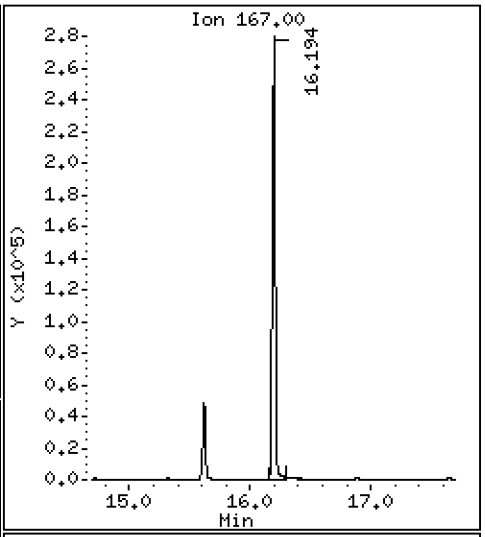
Column phase: ZB-5msi

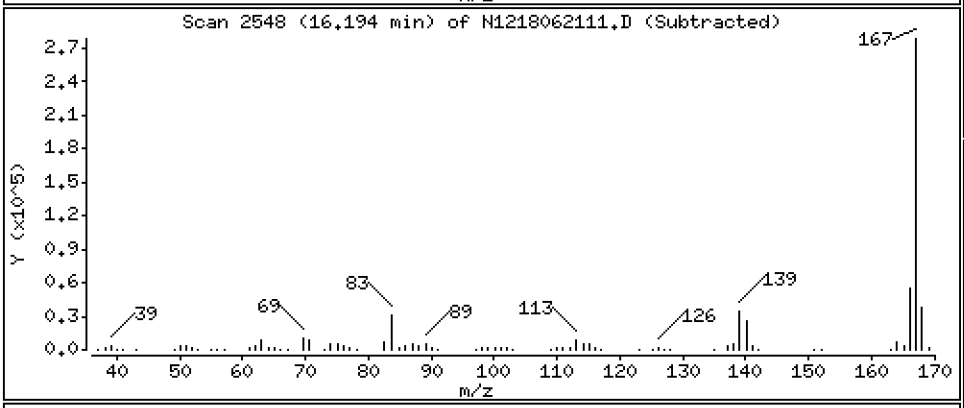
Column diameter: 0.32

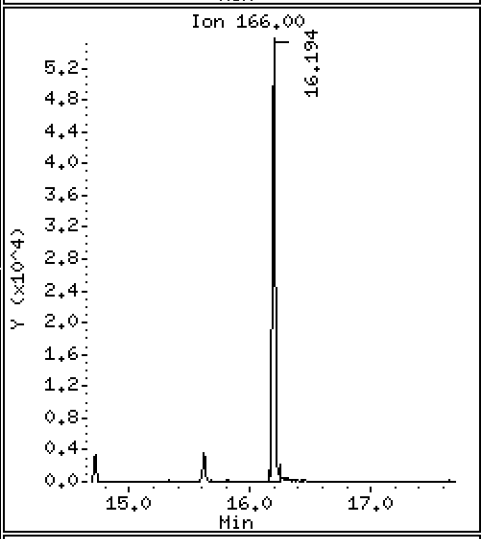
62 Carbazole

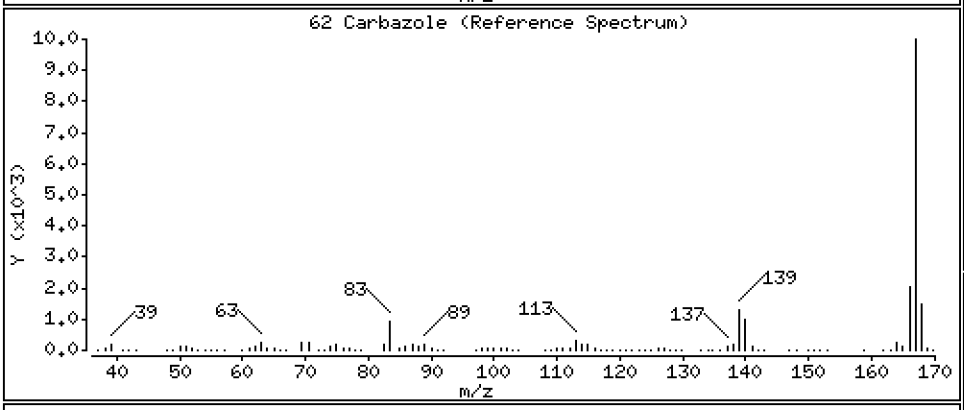
Concentration: 15.86 ug/mL

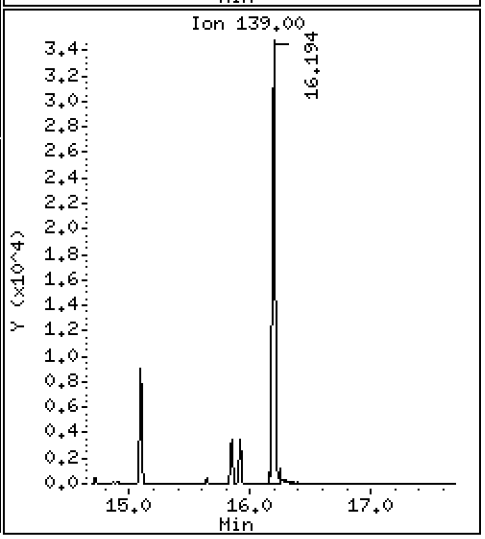


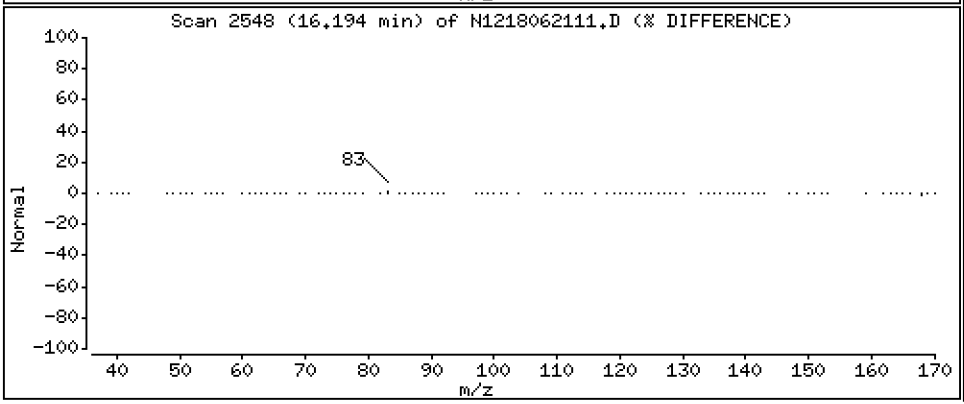












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

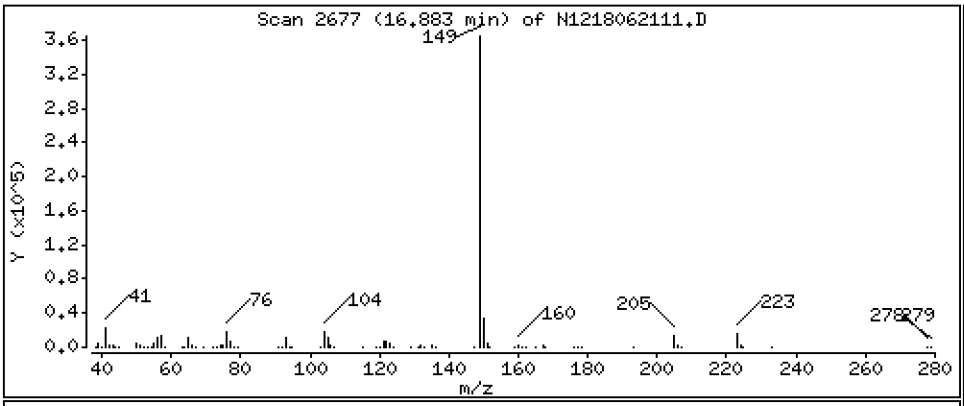
Operator: JZ

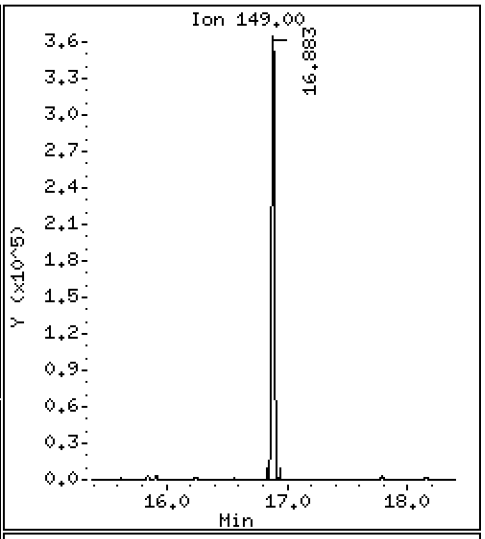
Column phase: ZB-5msi

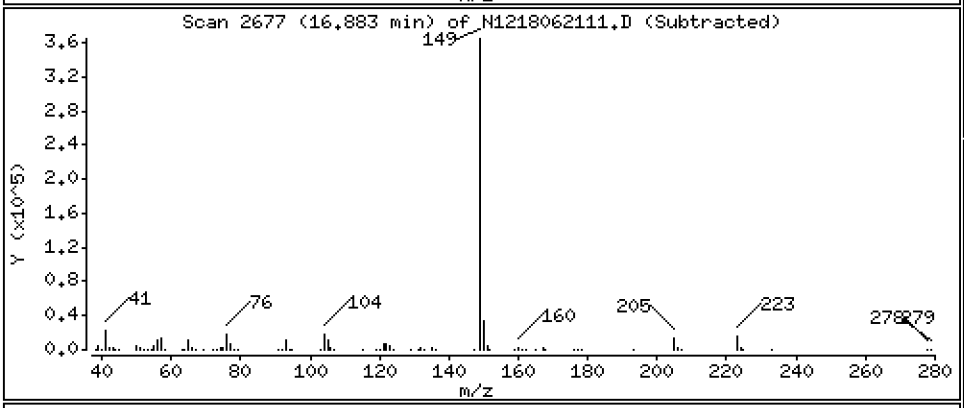
Column diameter: 0.32

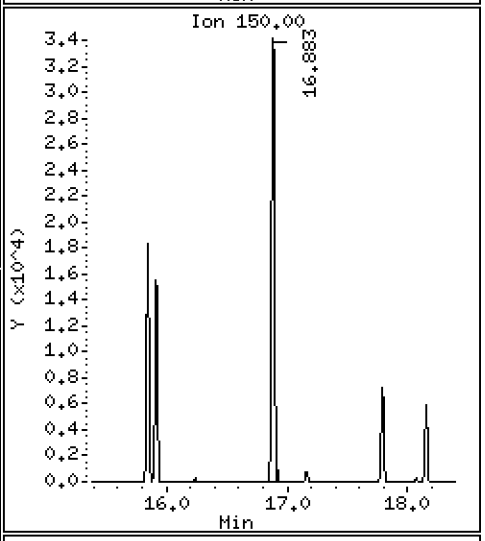
63 Di-n-butylphthalate

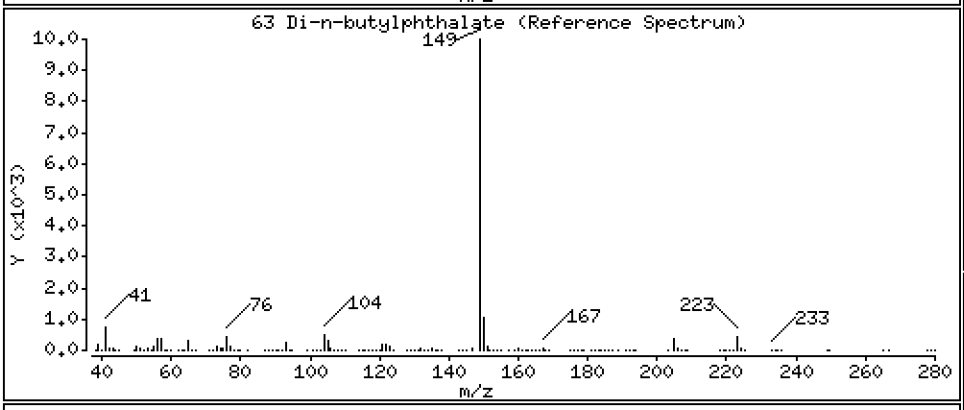
Concentration: 17.49 ug/mL

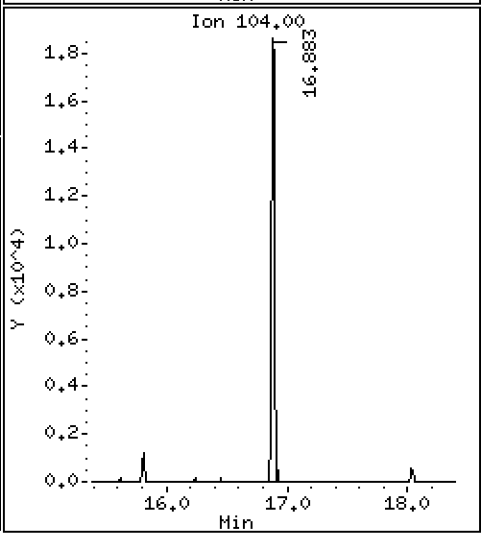


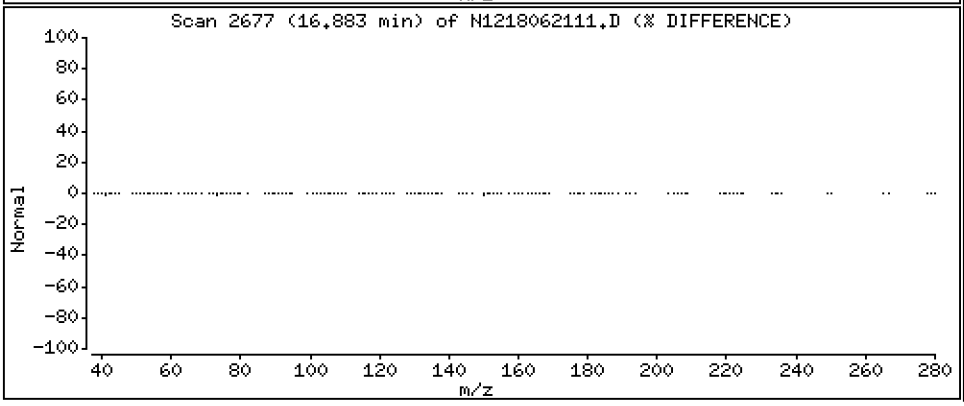












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

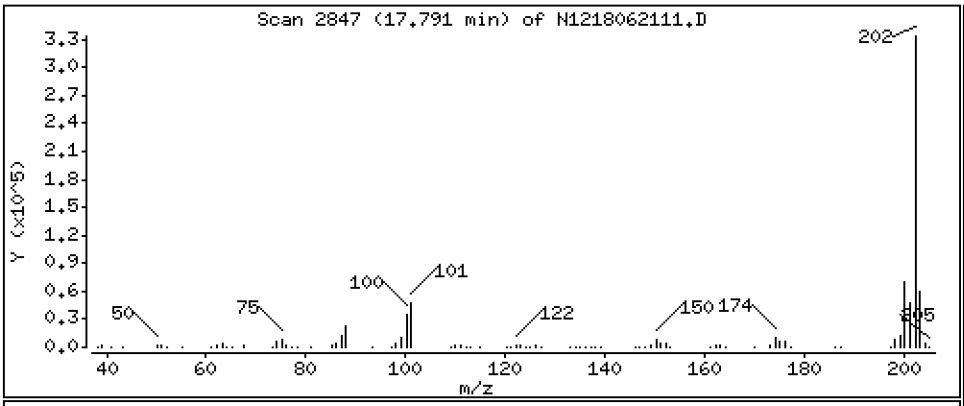
Operator: JZ

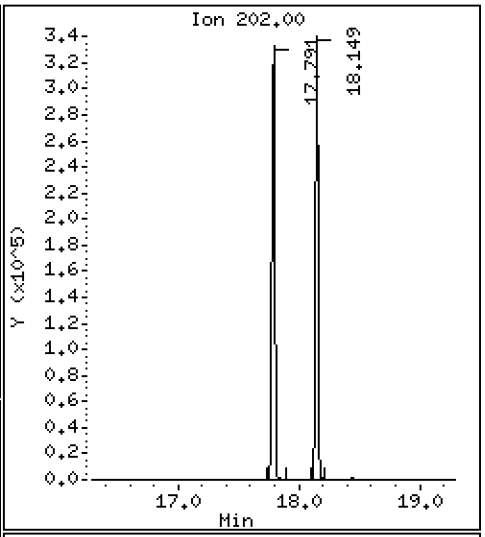
Column phase: ZB-5msi

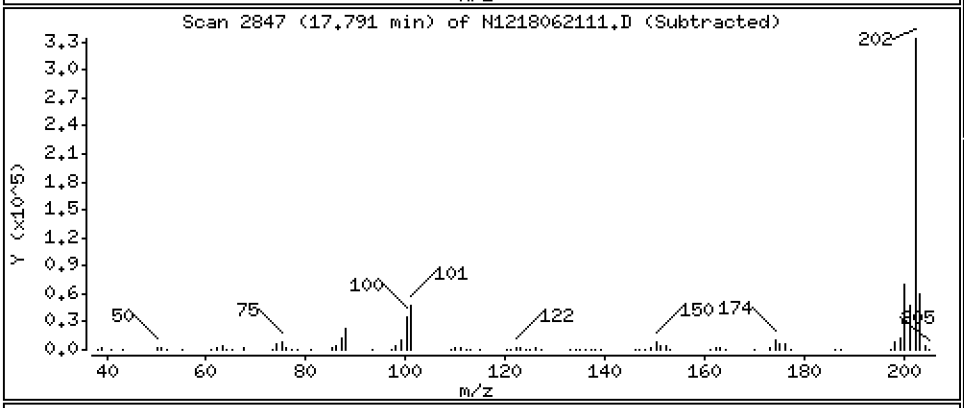
Column diameter: 0.32

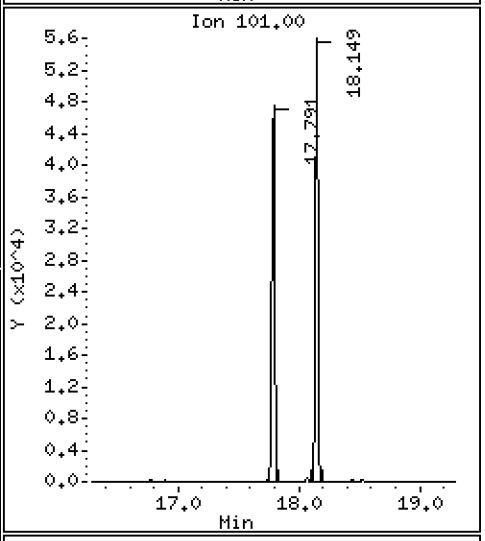
64 Fluoranthene

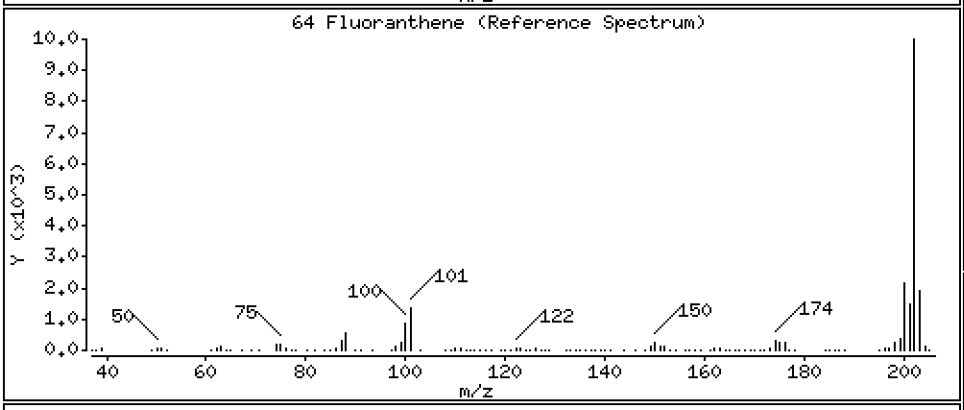
Concentration: 16.57 ug/mL

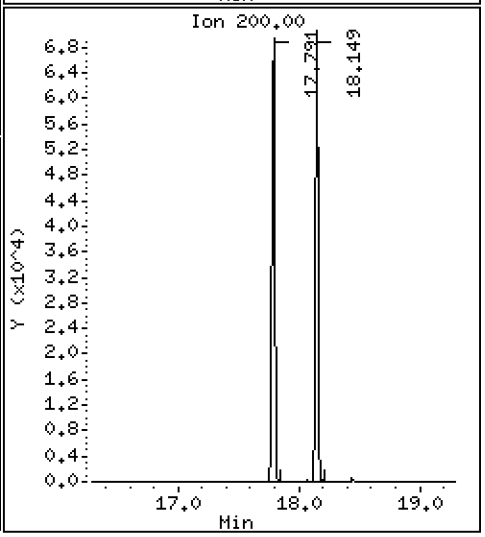


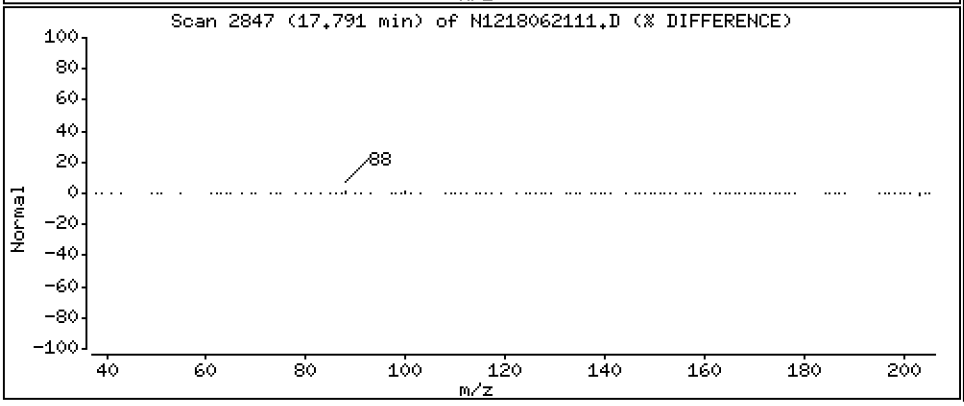












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

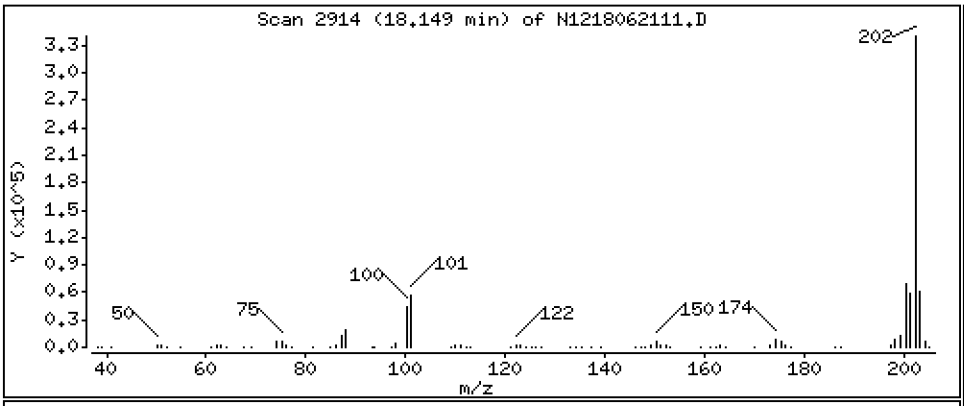
Operator: JZ

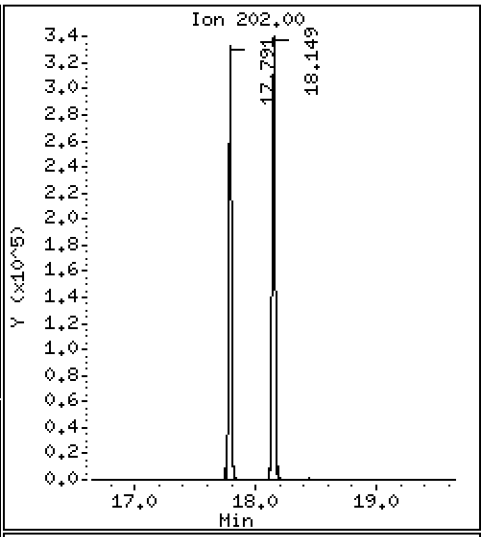
Column phase: ZB-5msi

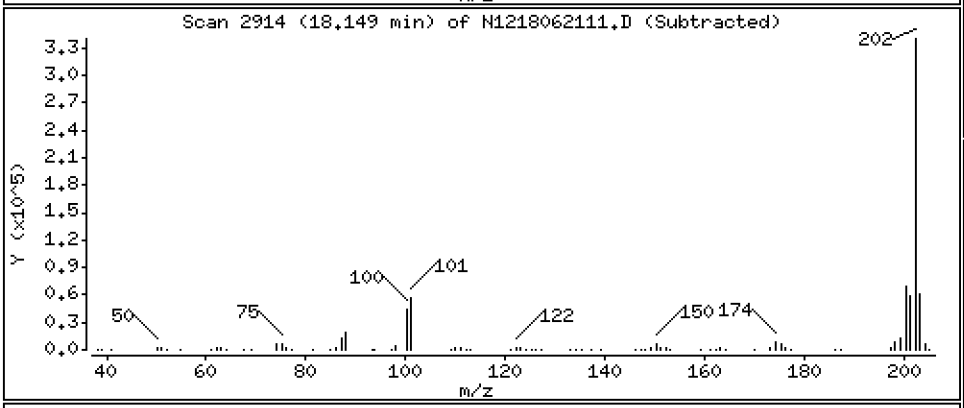
Column diameter: 0.32

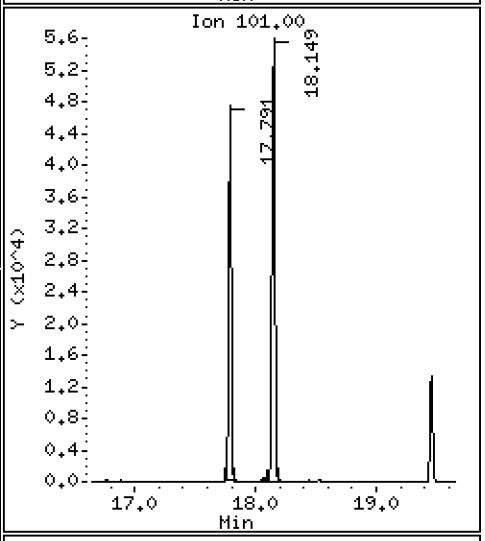
65 Pyrene

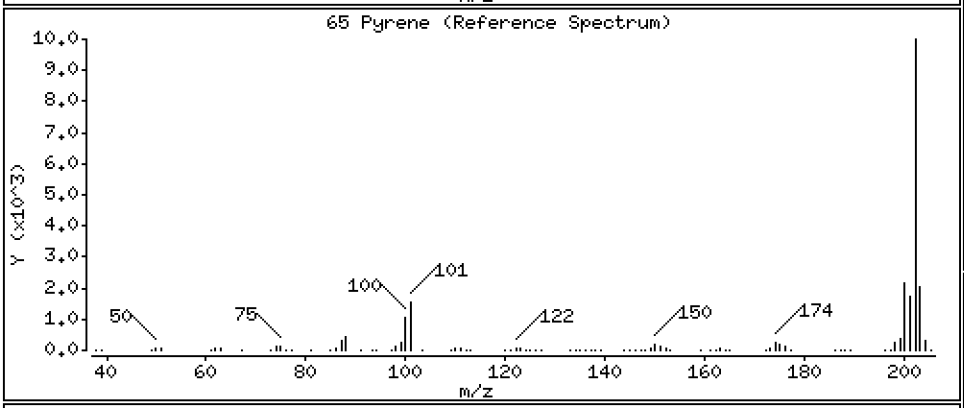
Concentration: 19.30 ug/mL

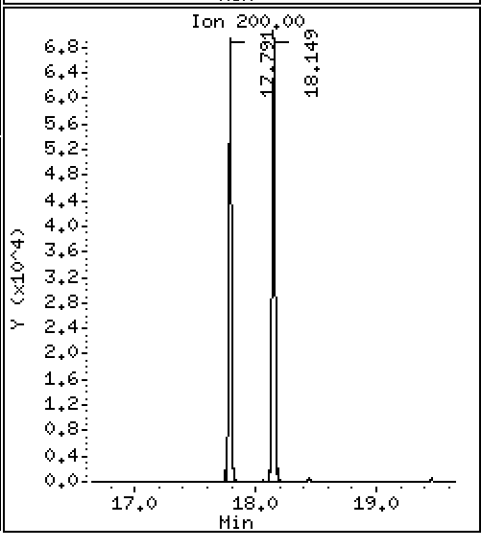


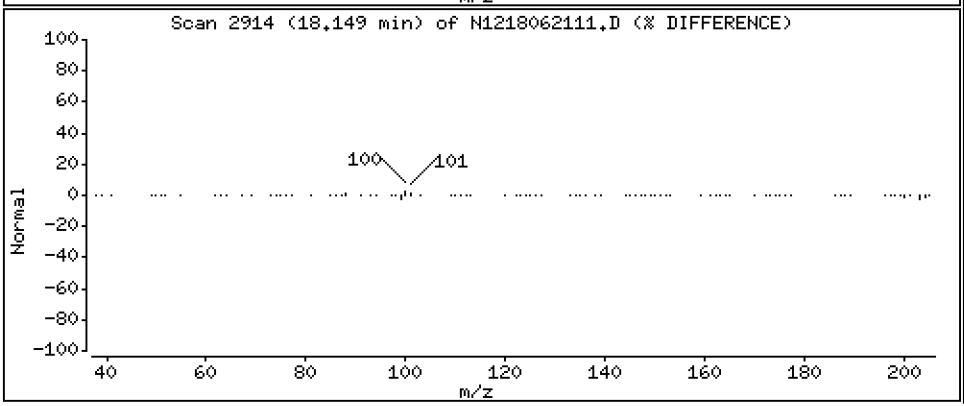












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

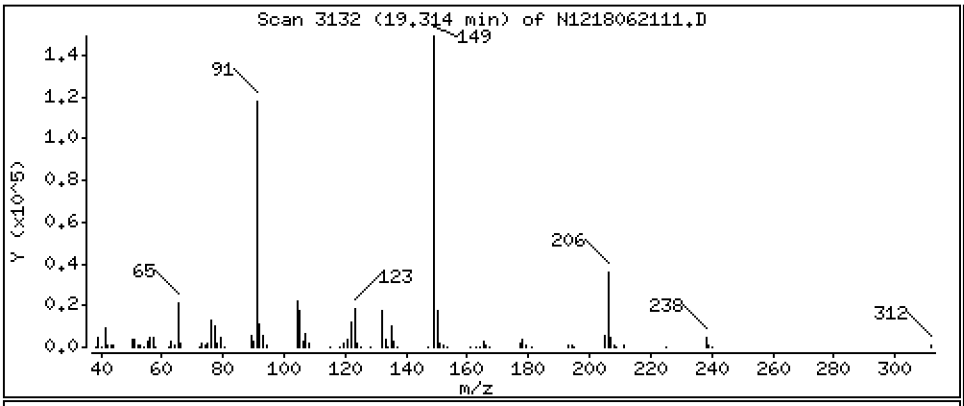
Operator: JZ

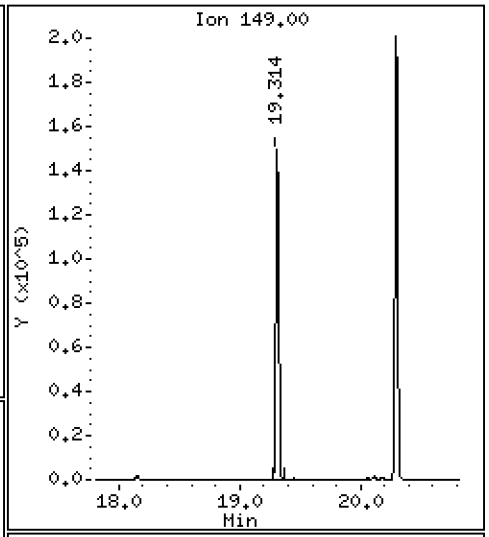
Column phase: ZB-5msi

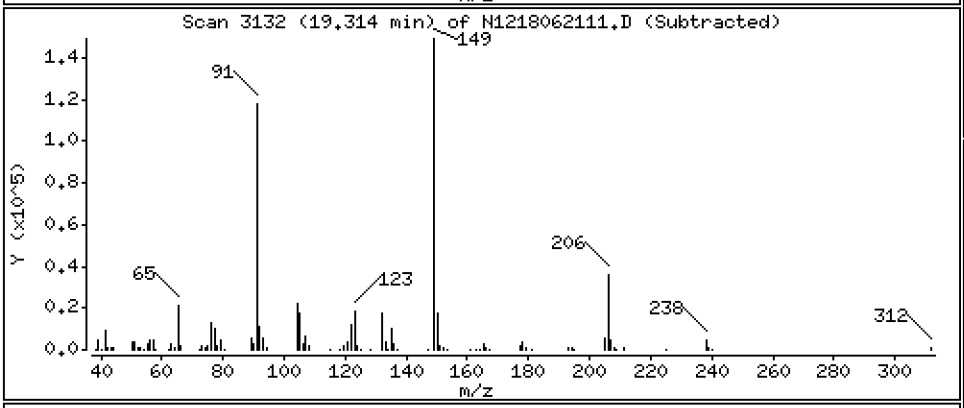
Column diameter: 0.32

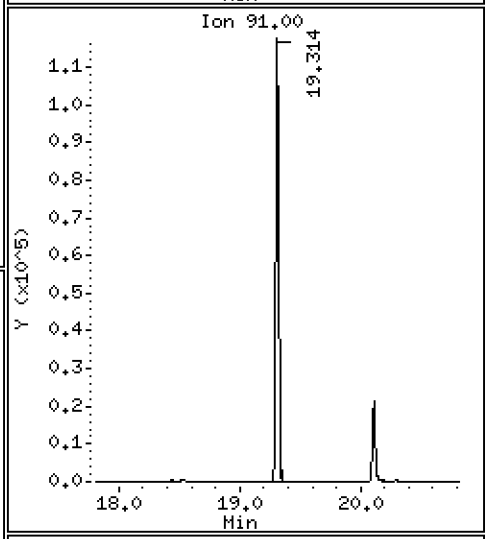
67 Butylbenzylphthalate

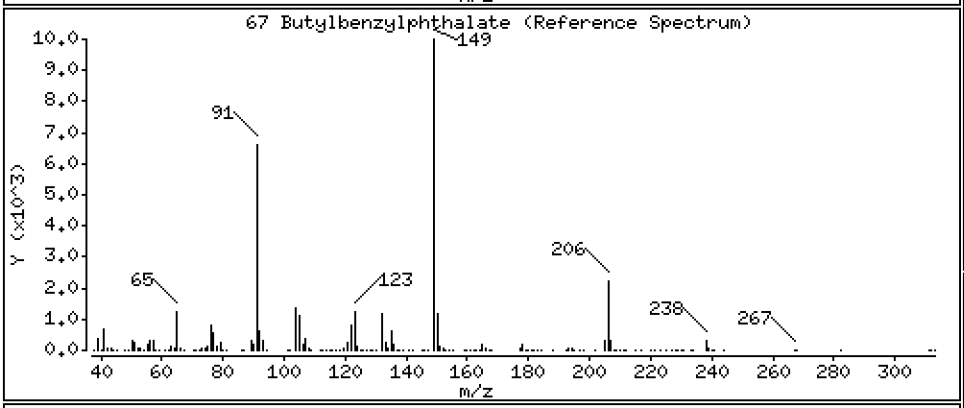
Concentration: 18.95 ug/mL

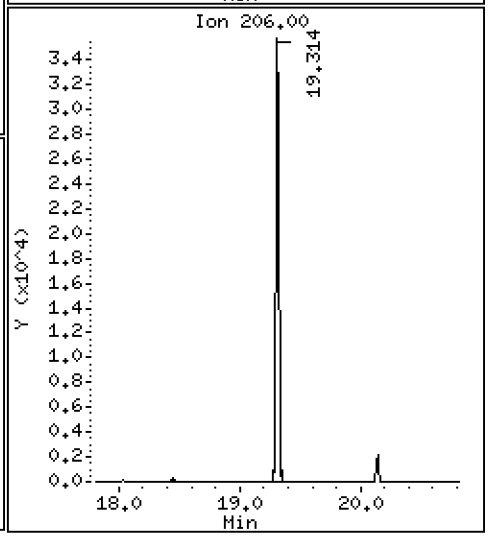


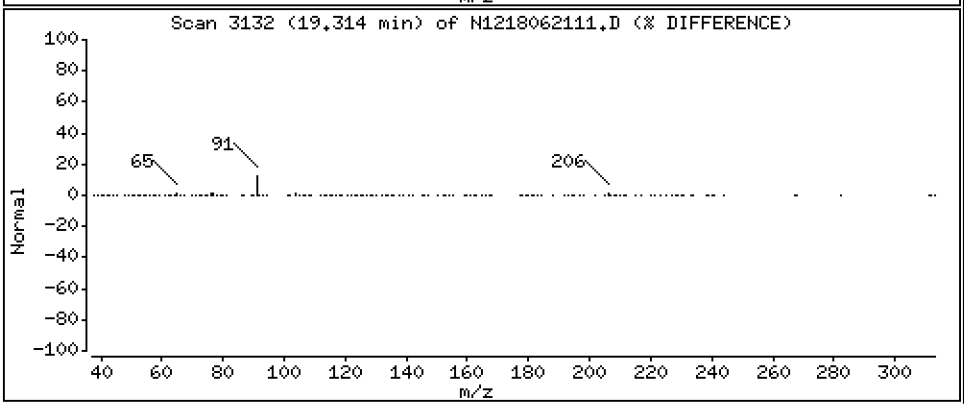












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

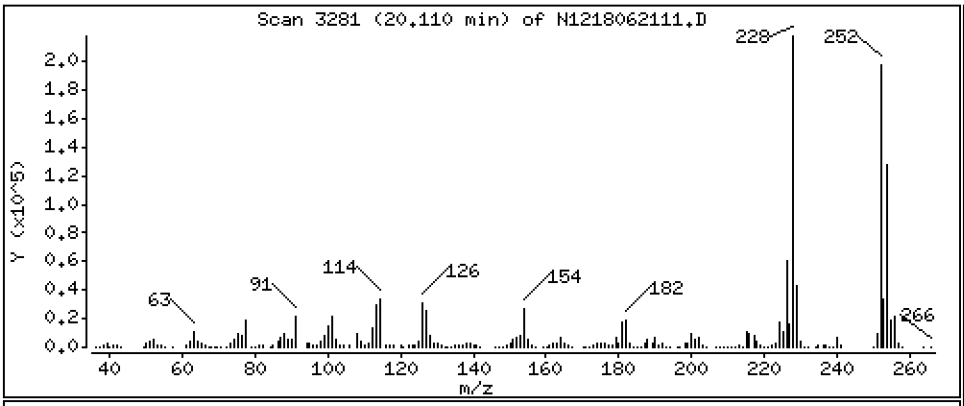
Operator: JZ

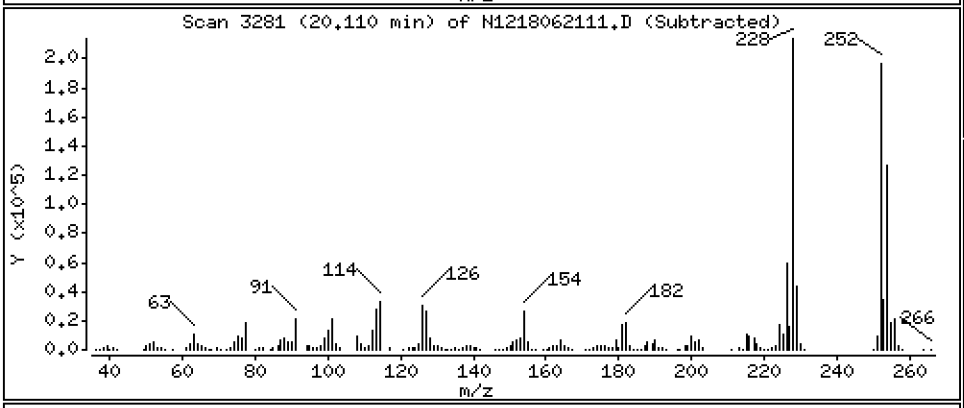
Column phase: ZB-5msi

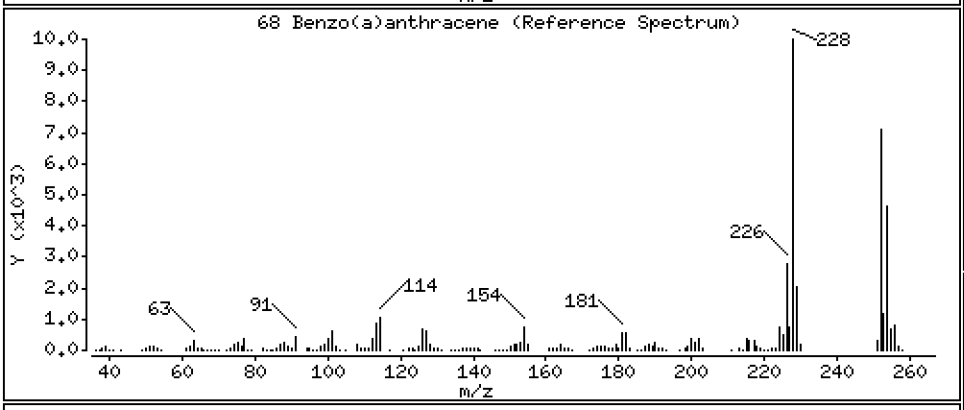
Column diameter: 0.32

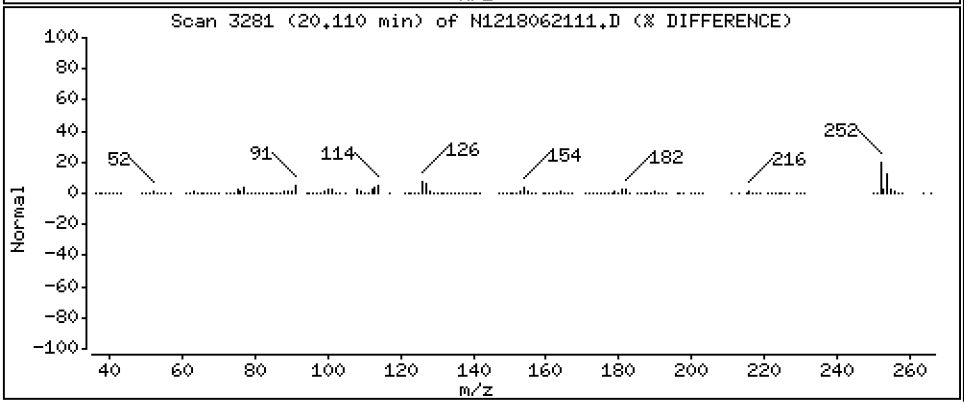
68 Benzo(a)anthracene

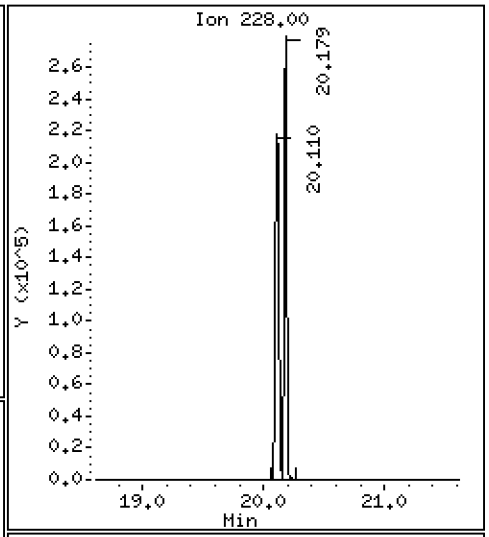
Concentration: 20.53 ug/mL

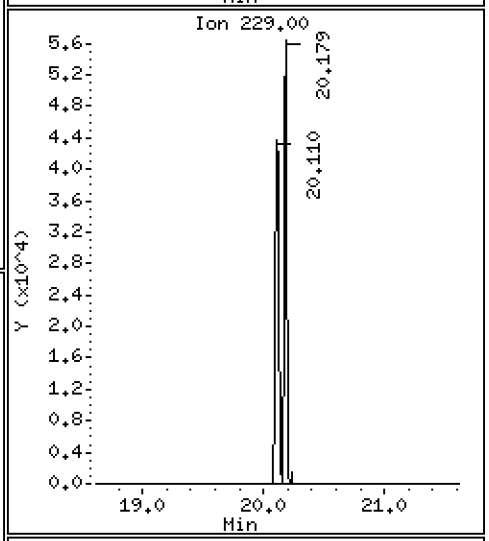


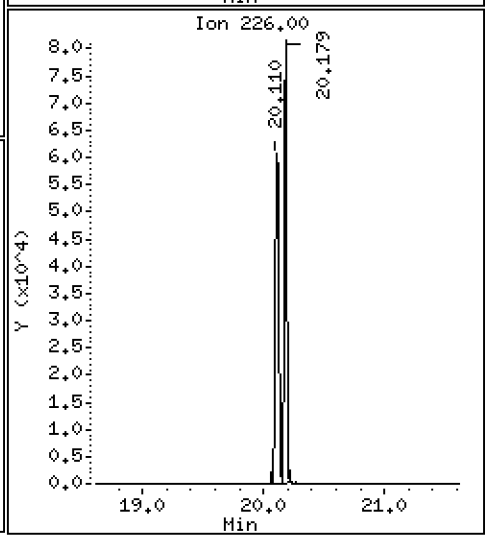












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

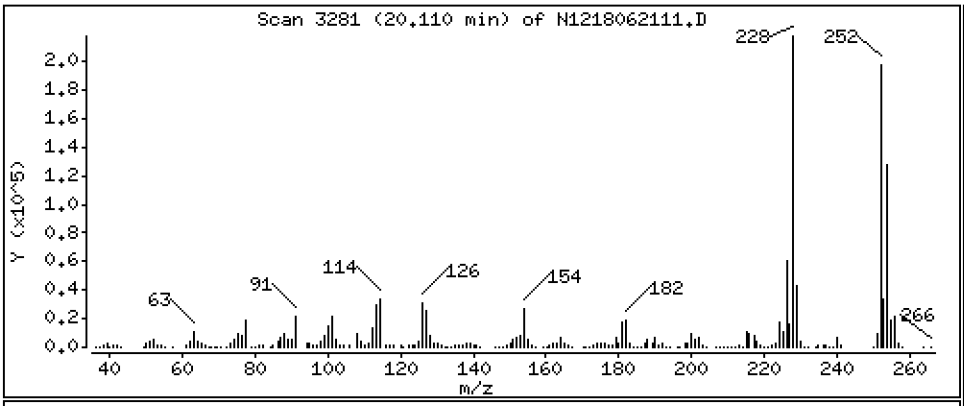
Operator: JZ

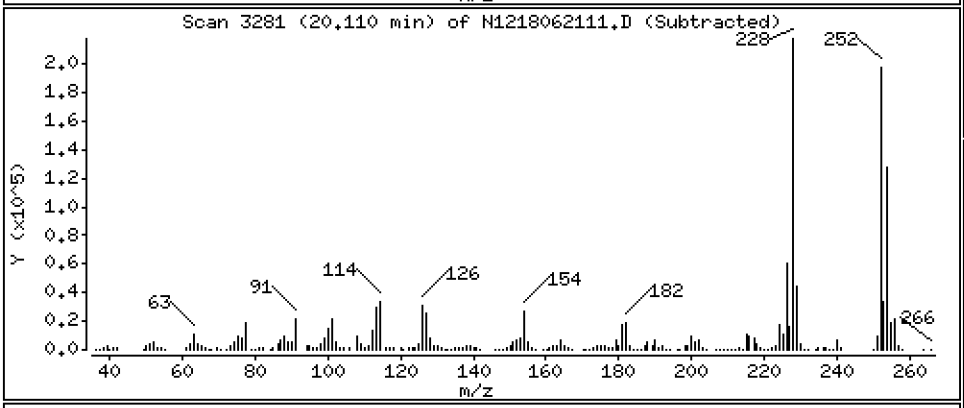
Column phase: ZB-5msi

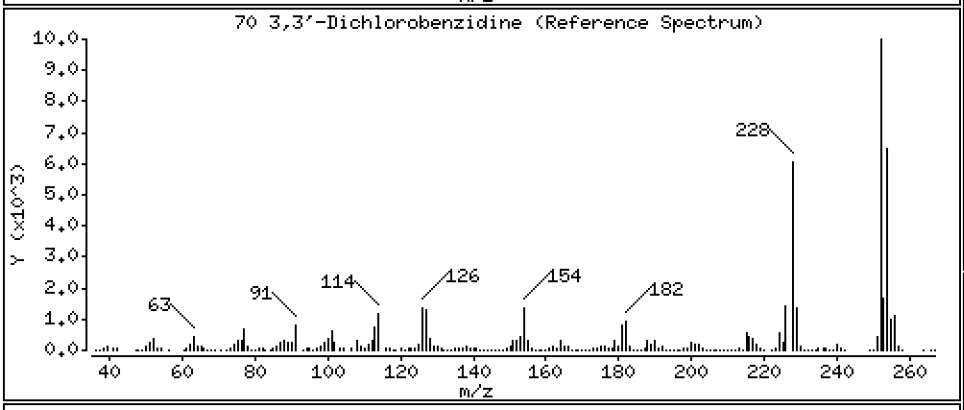
Column diameter: 0.32

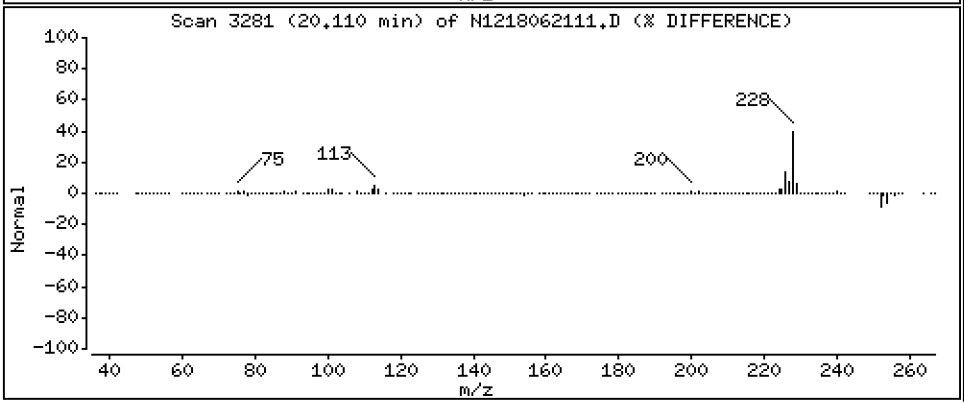
70 3,3'-Dichlorobenzidine

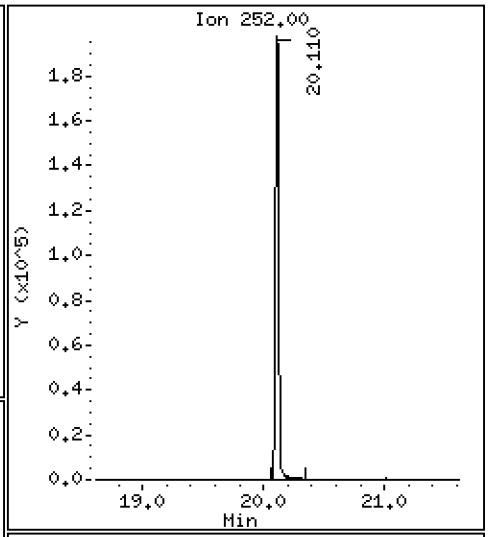
Concentration: 45.64 ug/mL

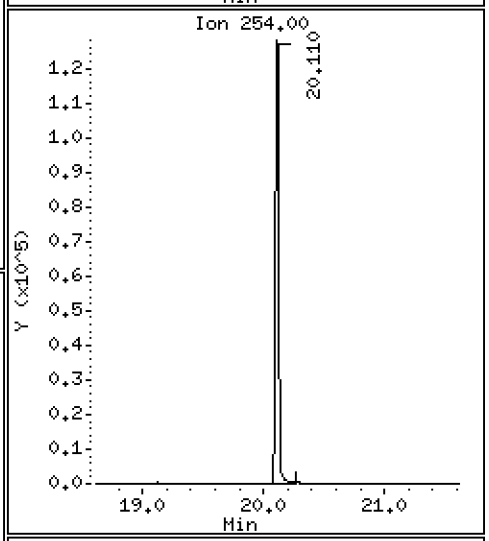


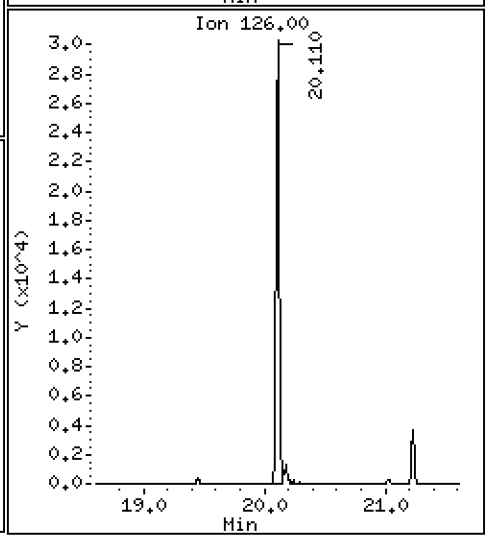












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

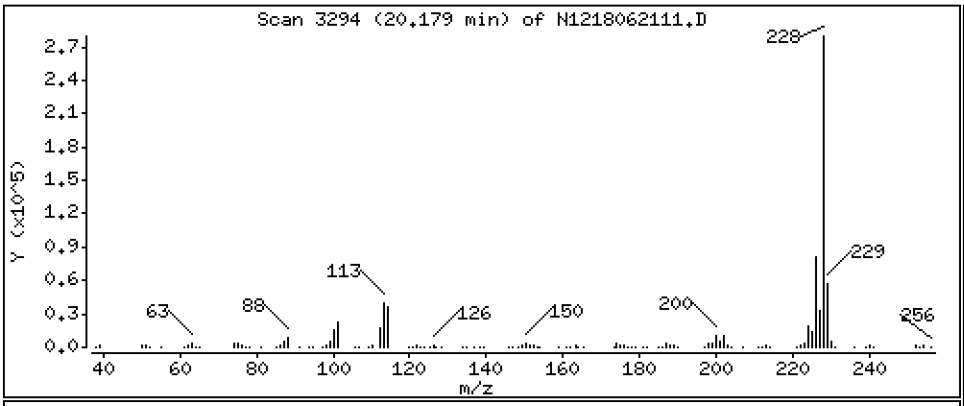
Operator: JZ

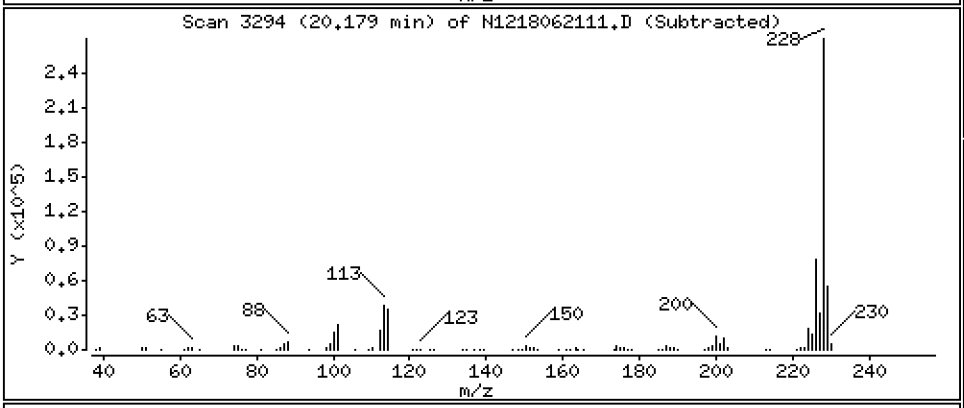
Column phase: ZB-5msi

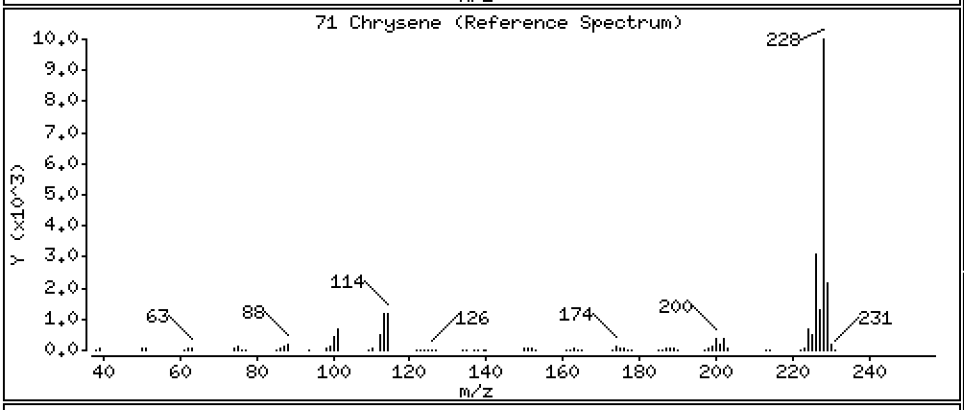
Column diameter: 0.32

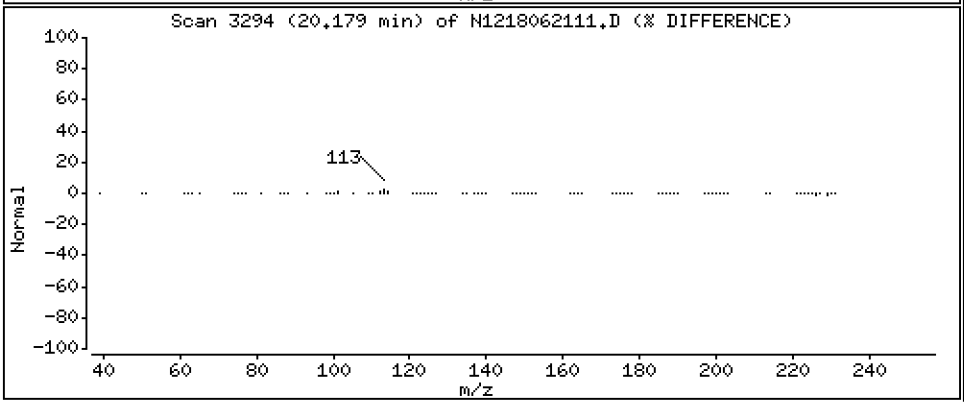
71 Chrysene

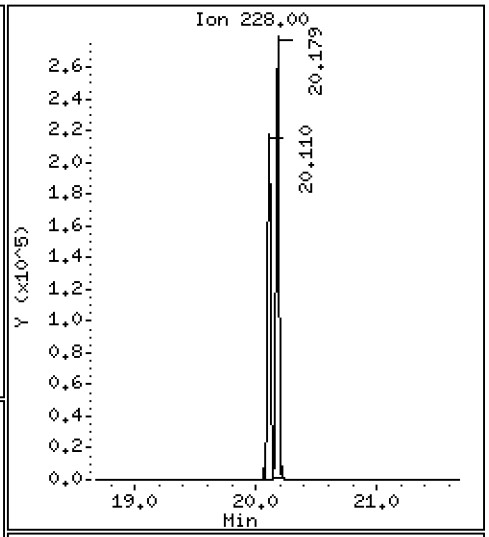
Concentration: 18.97 ug/mL

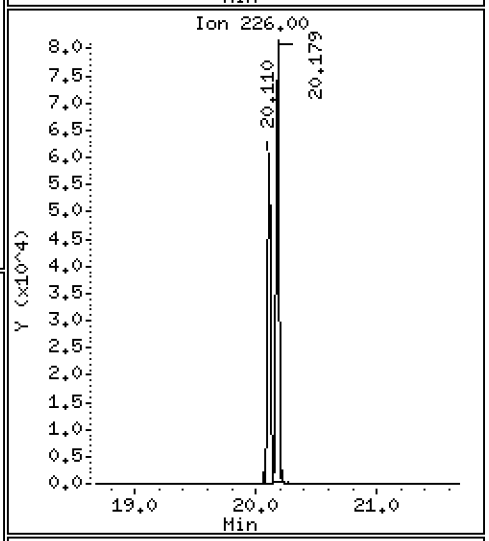


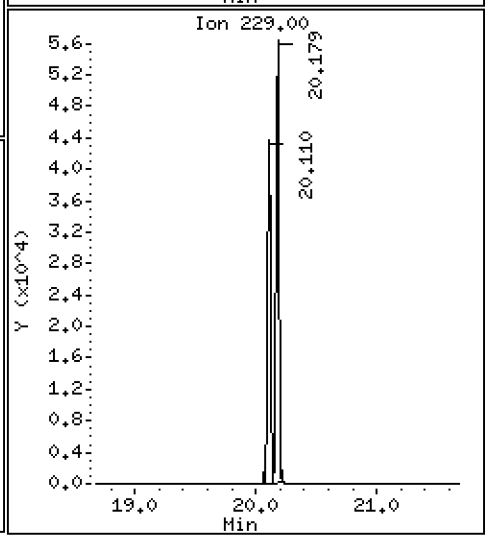












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

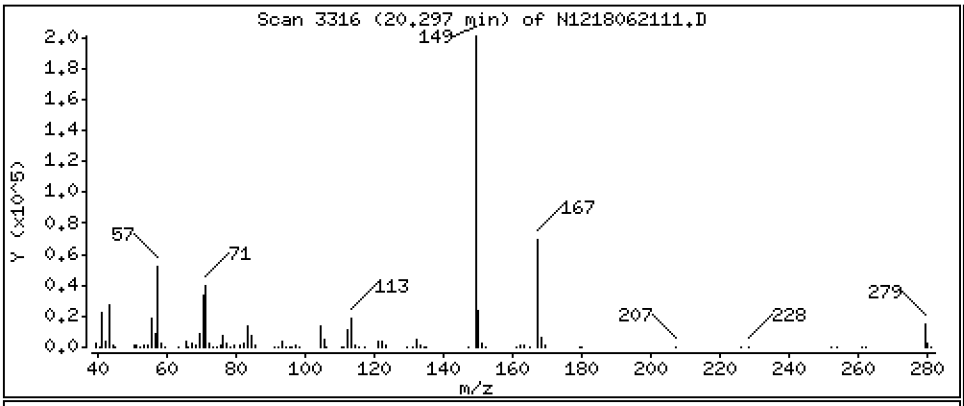
Operator: JZ

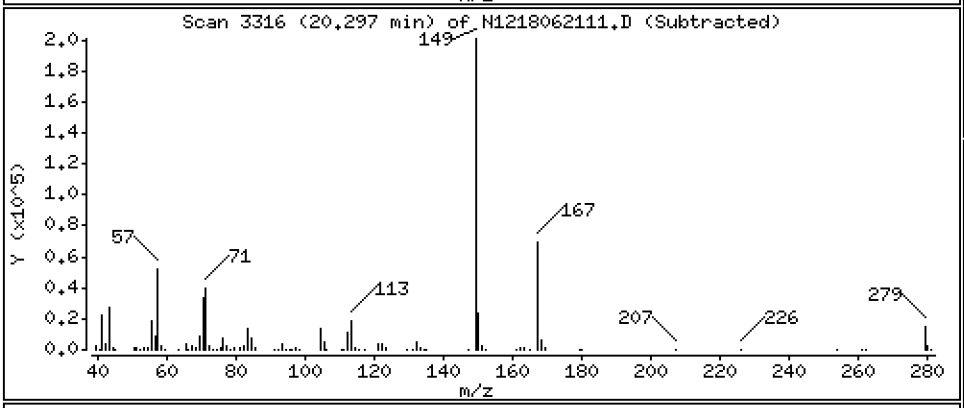
Column phase: ZB-5msi

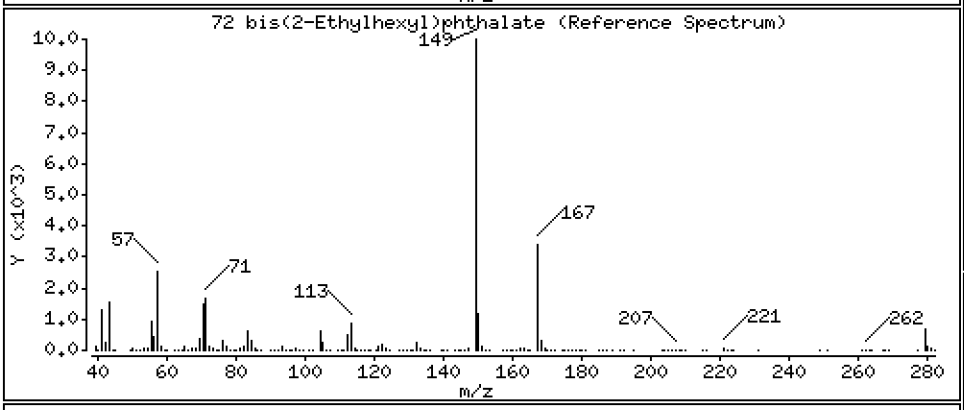
Column diameter: 0.32

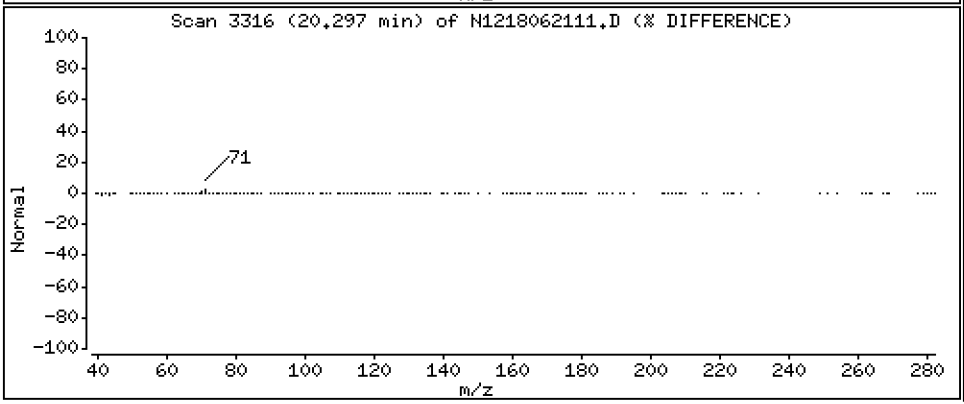
72 bis(2-Ethylhexyl)phthalate

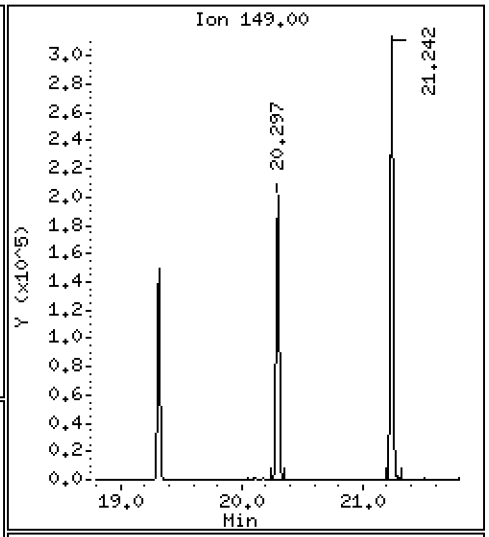
Concentration: 18.69 ug/mL

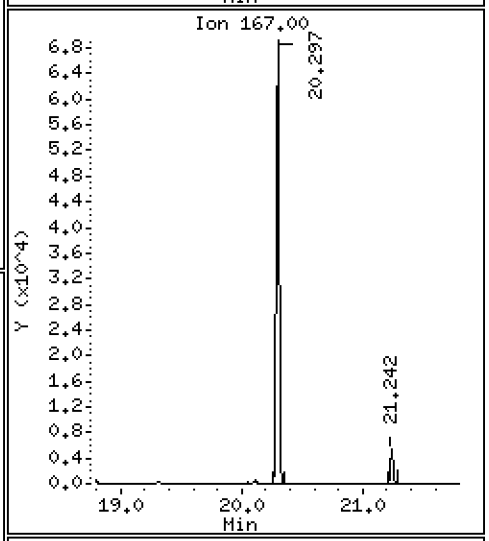


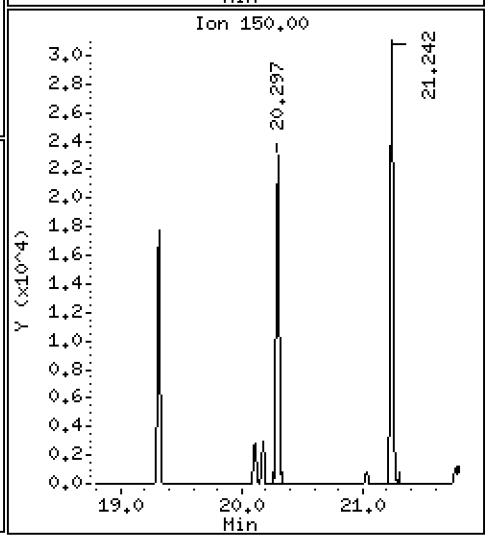












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

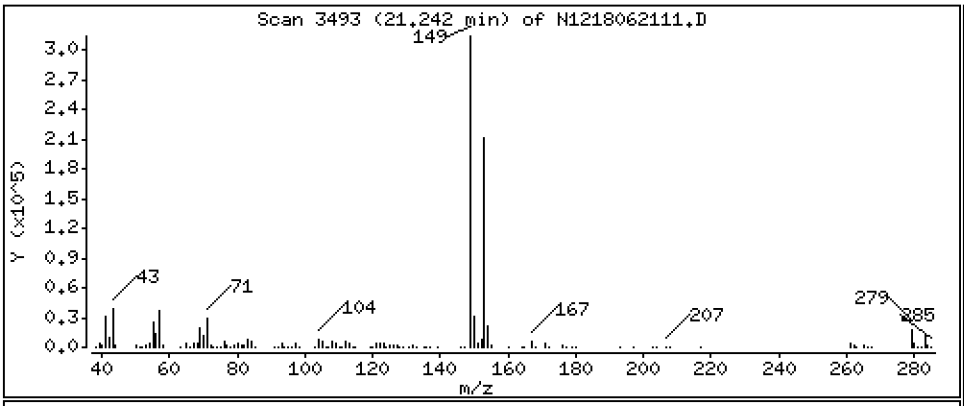
Operator: JZ

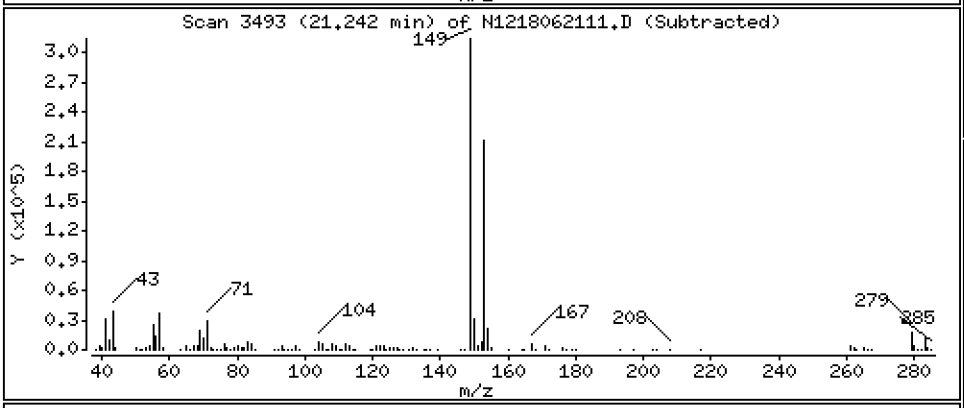
Column phase: ZB-5msi

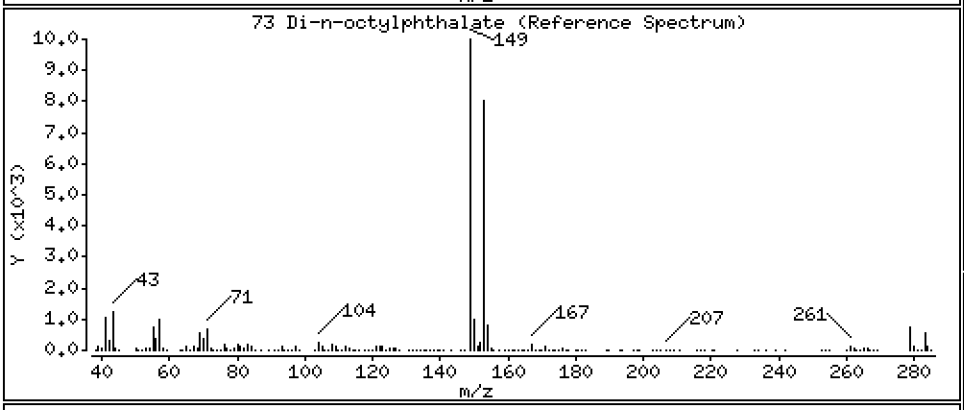
Column diameter: 0.32

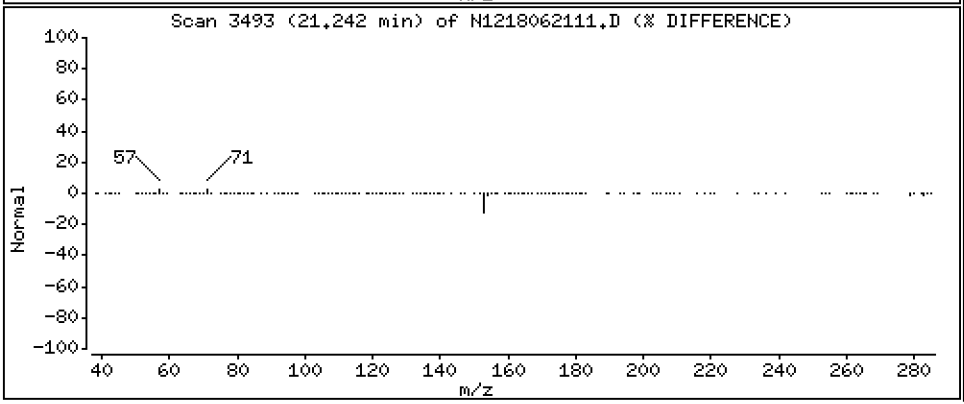
73 Di-n-octylphthalate

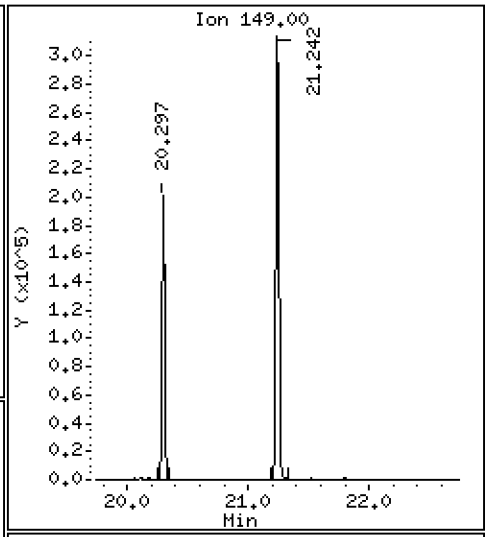
Concentration: 16.75 ug/mL

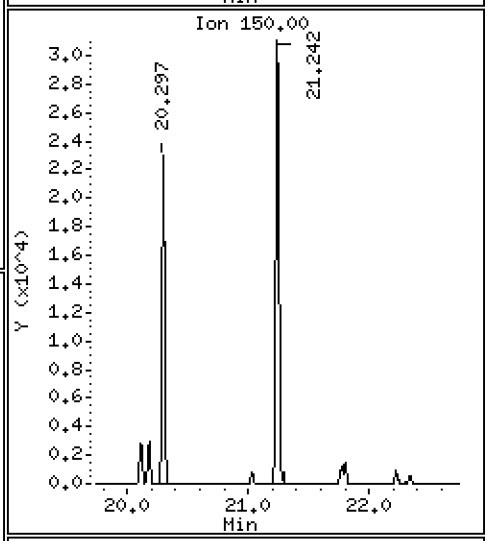


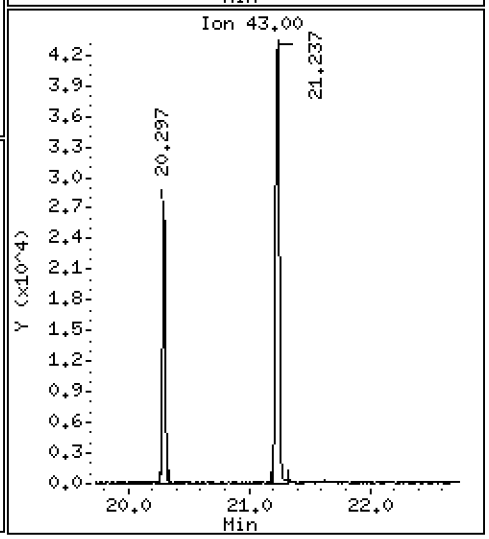












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

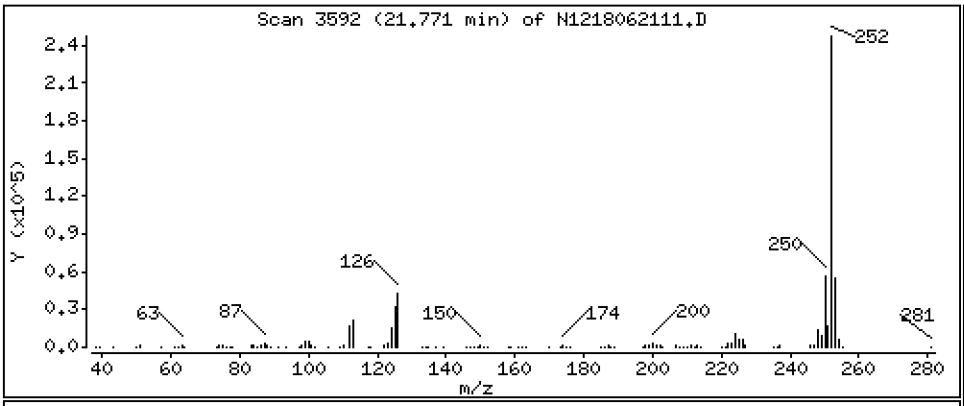
Operator: JZ

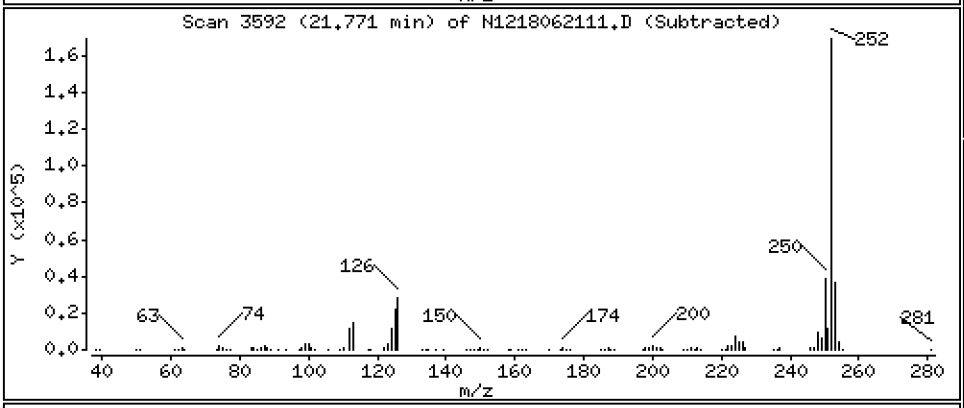
Column phase: ZB-5msi

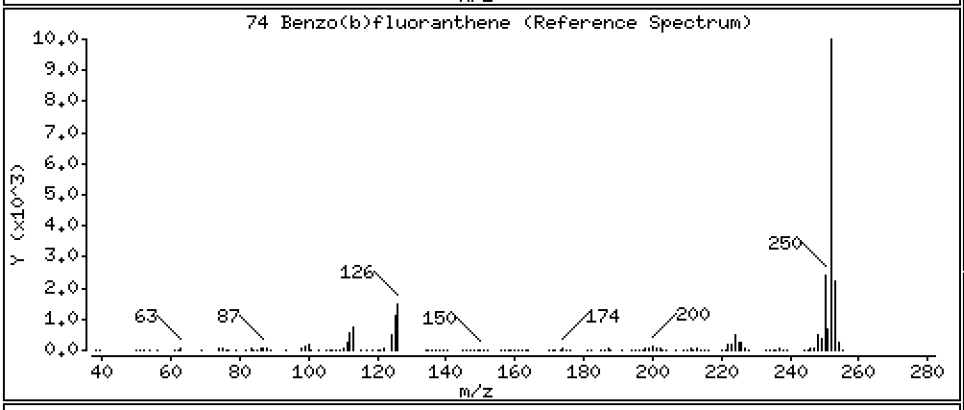
Column diameter: 0.32

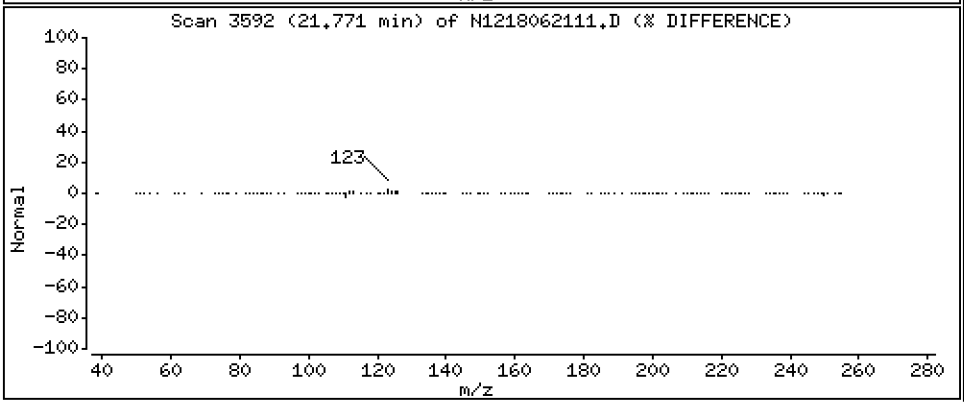
74 Benzo(b)fluoranthene

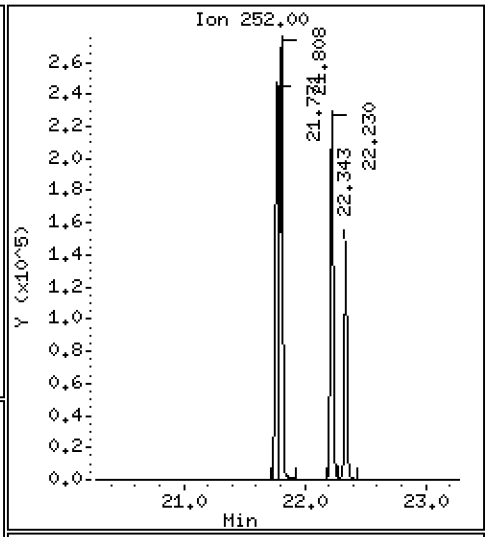
Concentration: 15.97 ug/mL

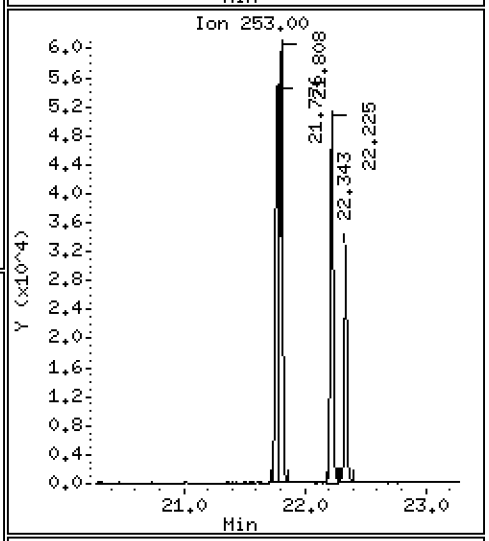


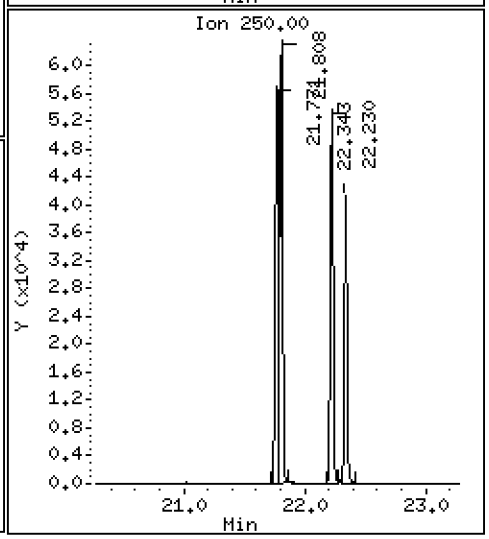












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

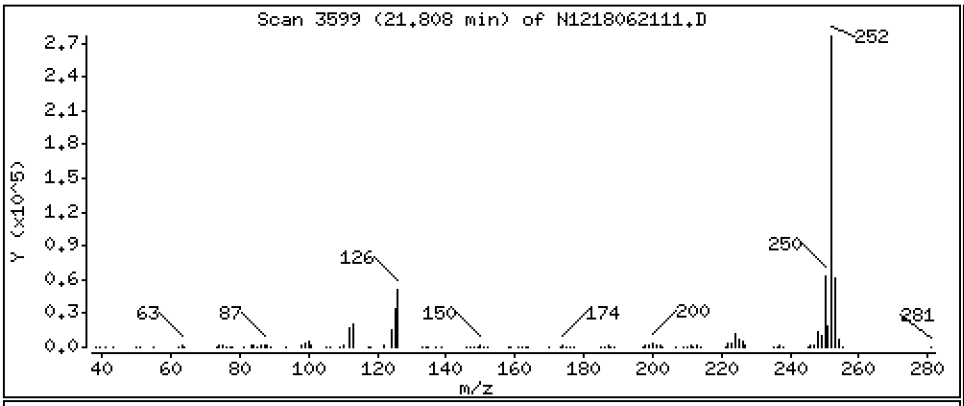
Operator: JZ

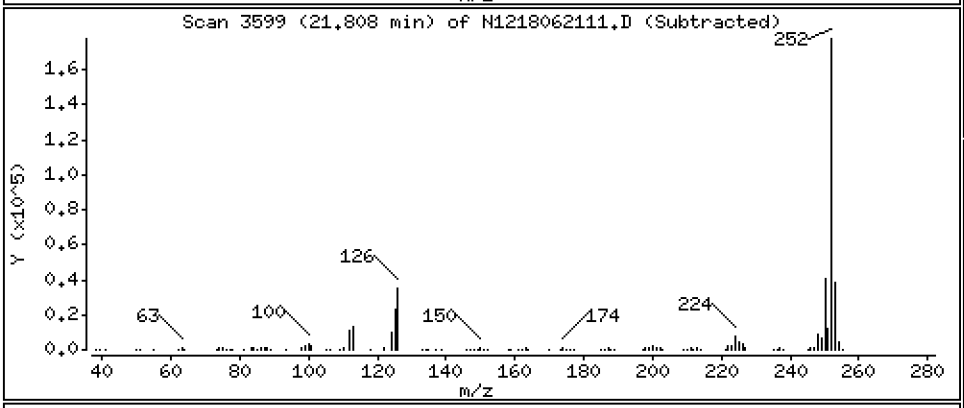
Column phase: ZB-5msi

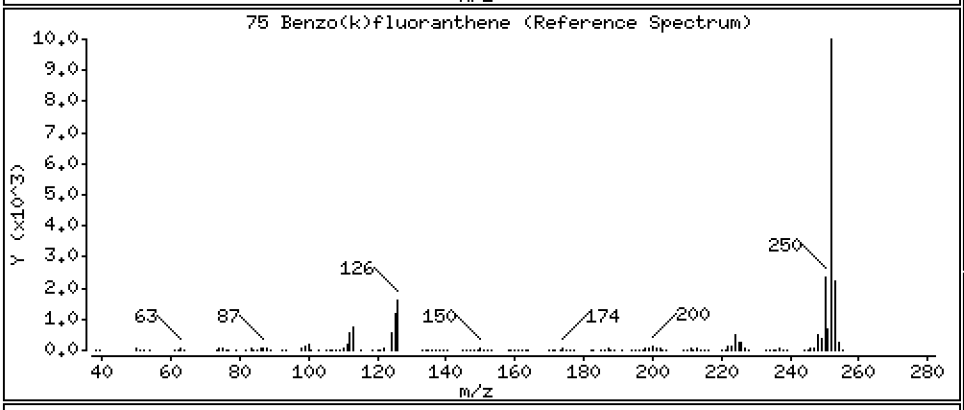
Column diameter: 0.32

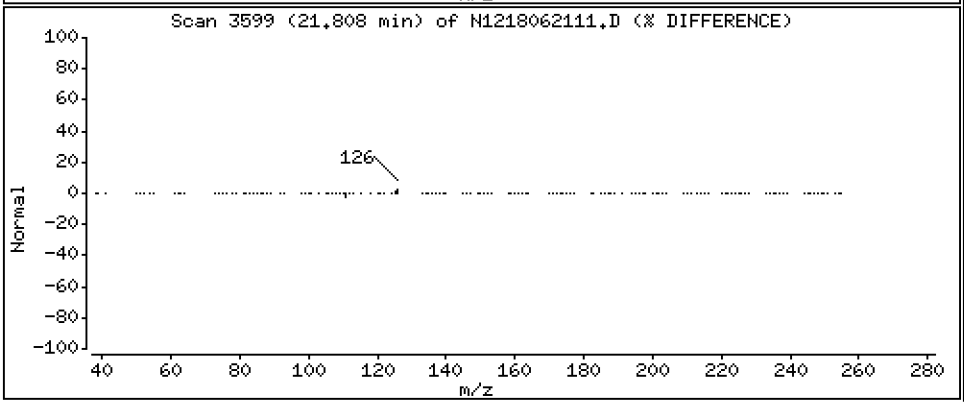
75 Benzo(k)fluoranthene

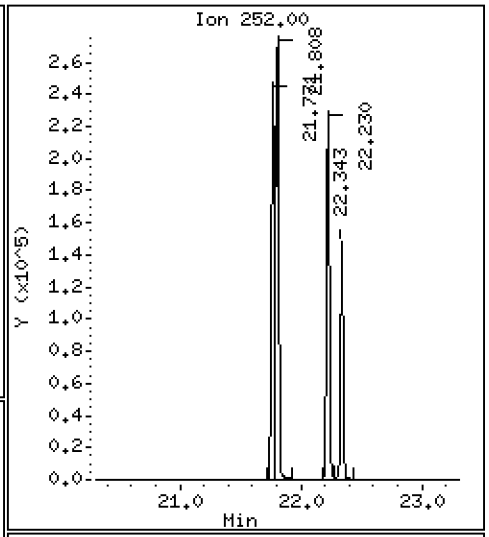
Concentration: 17.24 ug/mL

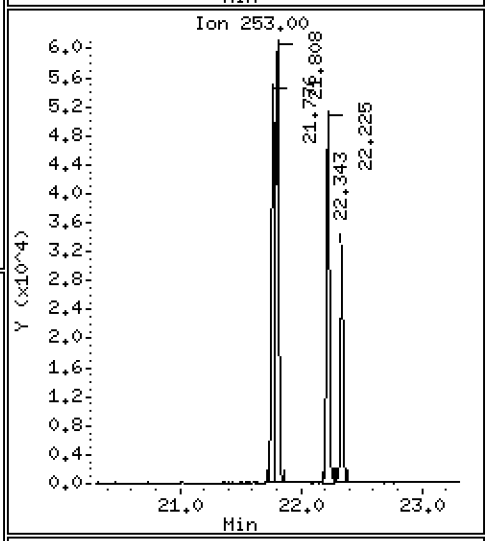


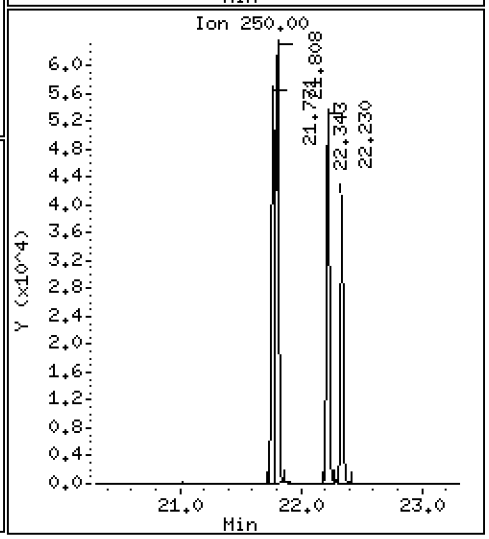












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

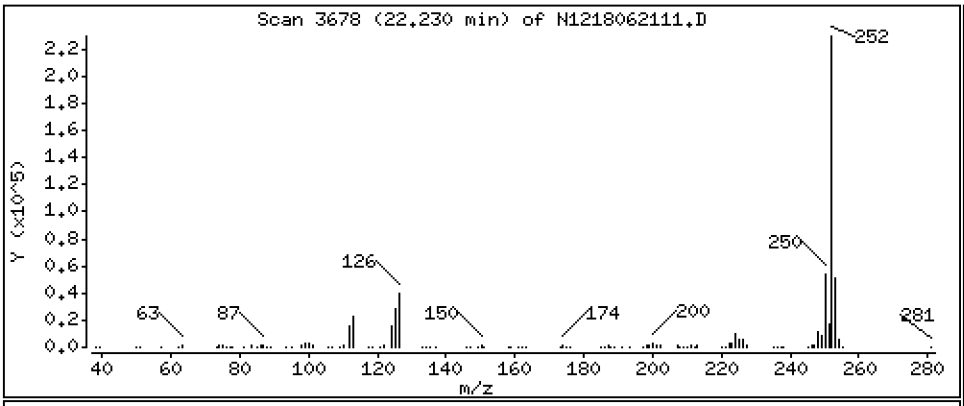
Operator: JZ

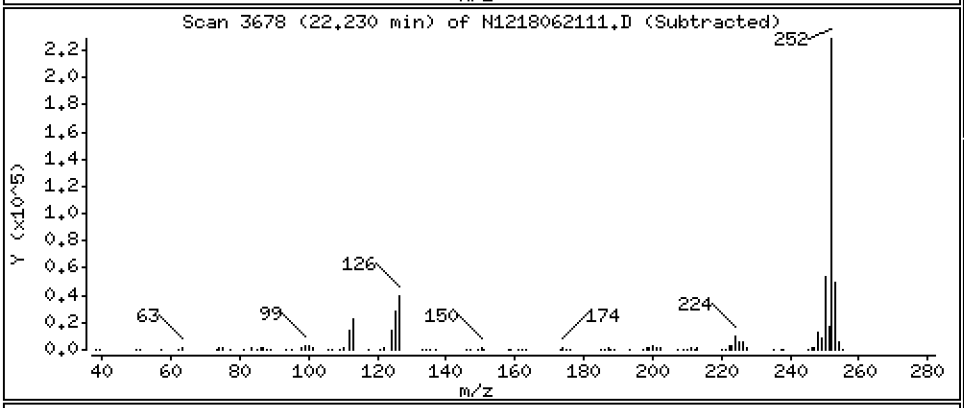
Column phase: ZB-5msi

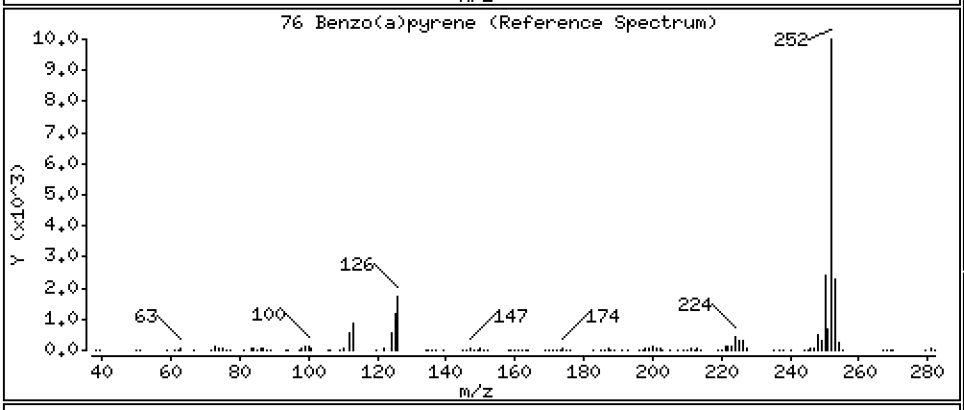
Column diameter: 0.32

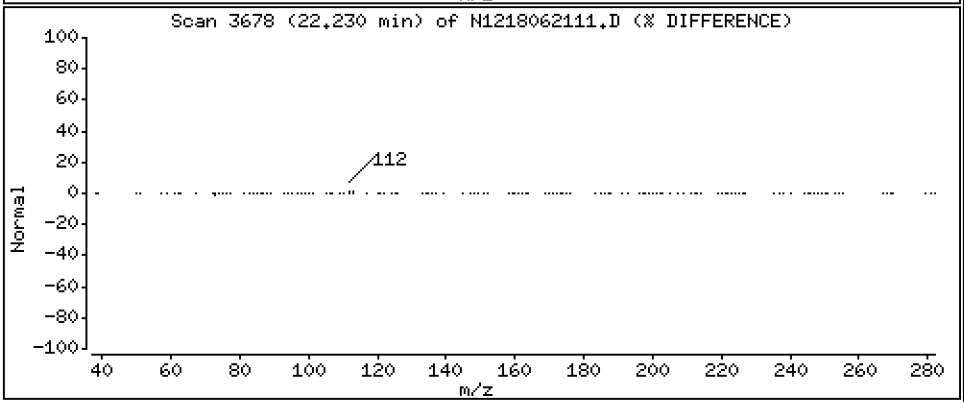
76 Benzo(a)pyrene

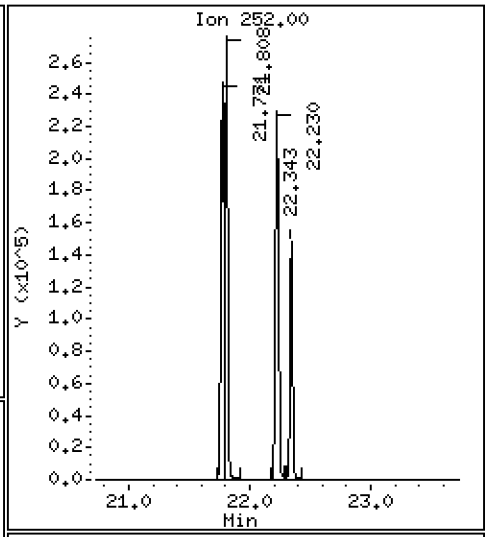
Concentration: 17.43 ug/mL

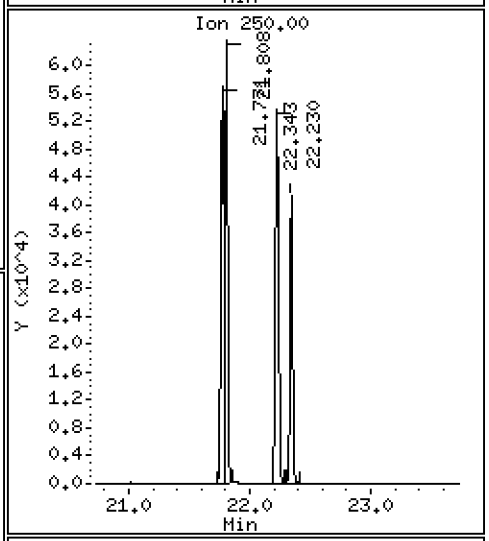


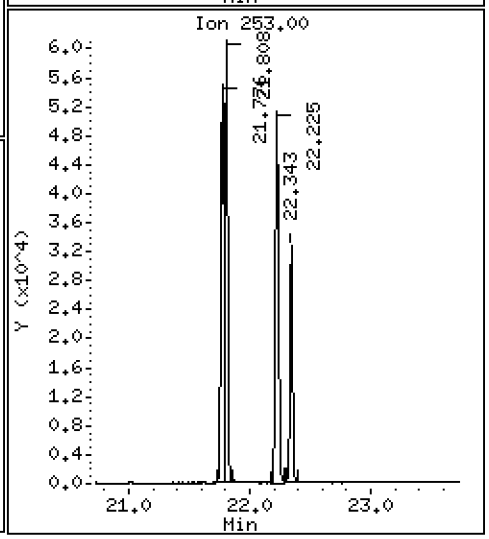












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

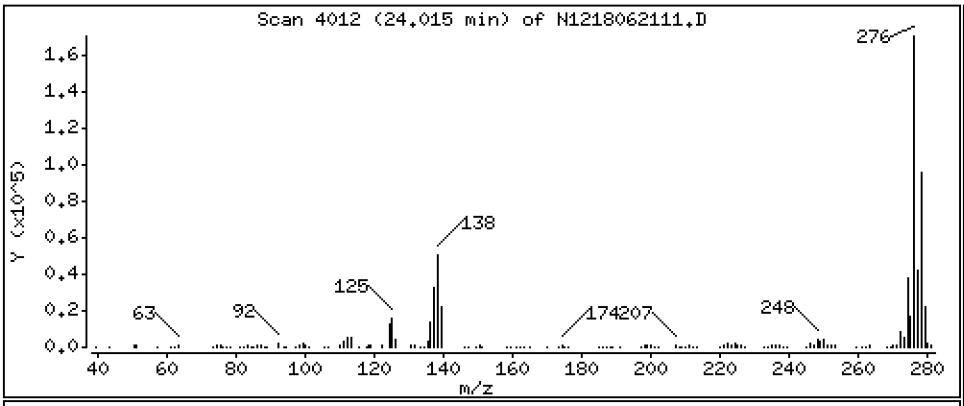
Operator: JZ

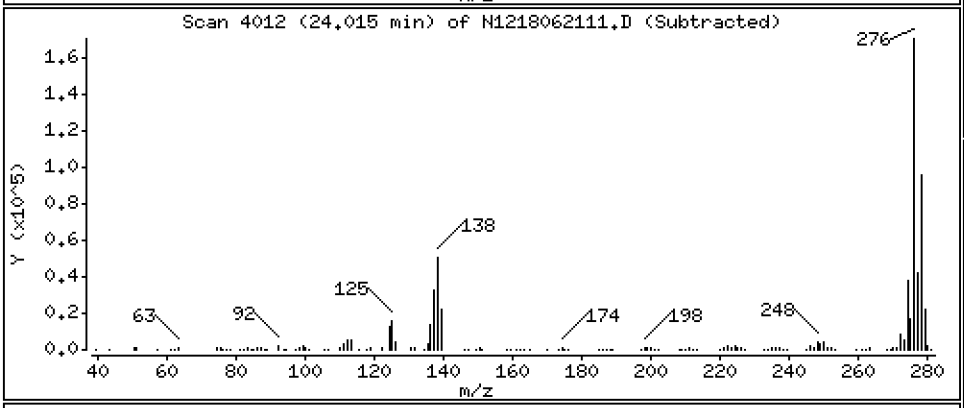
Column phase: ZB-5msi

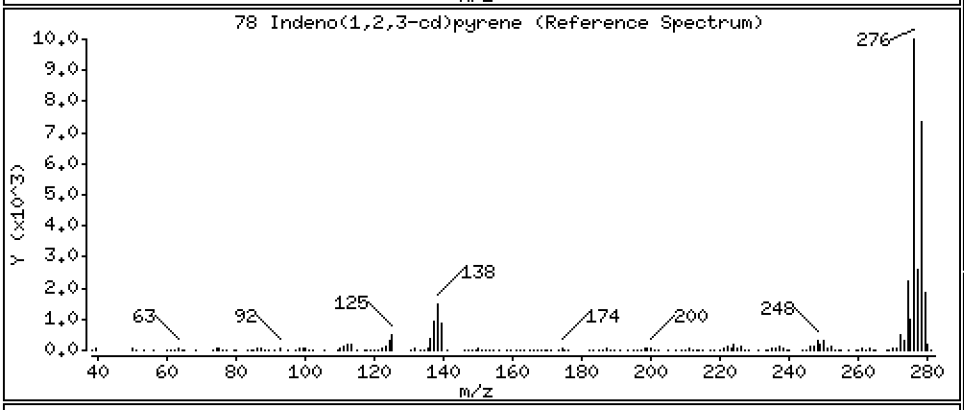
Column diameter: 0.32

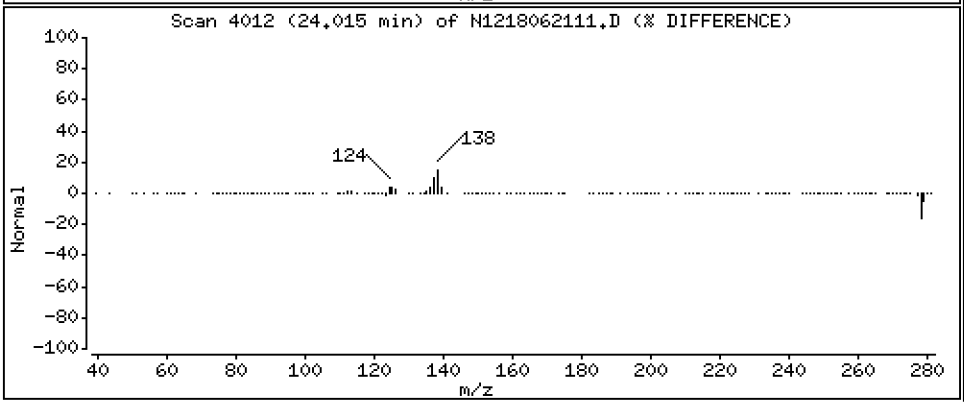
78 Indeno(1,2,3-cd)pyrene

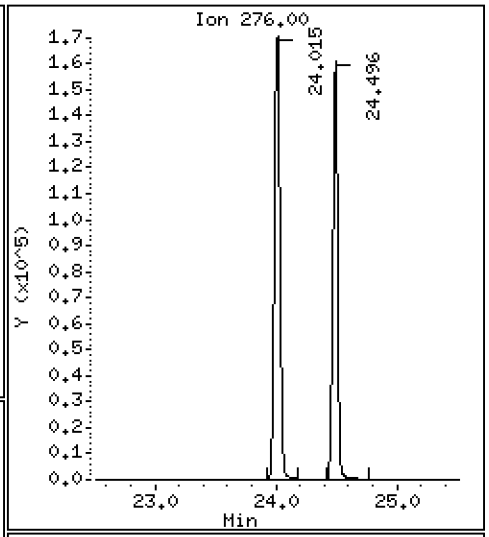
Concentration: 19.08 ug/mL

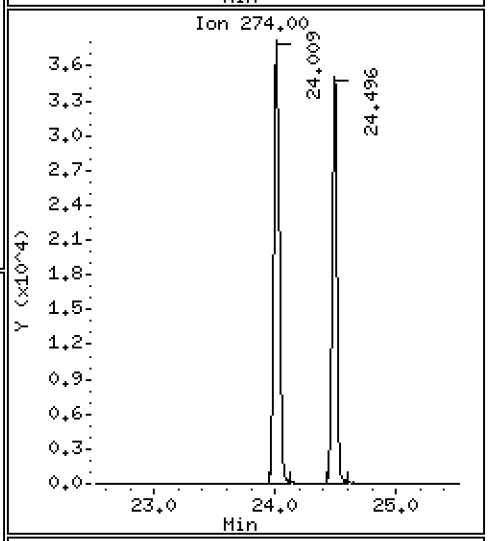


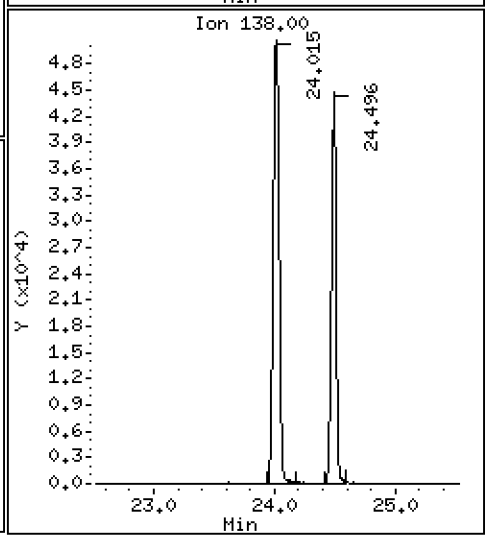












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

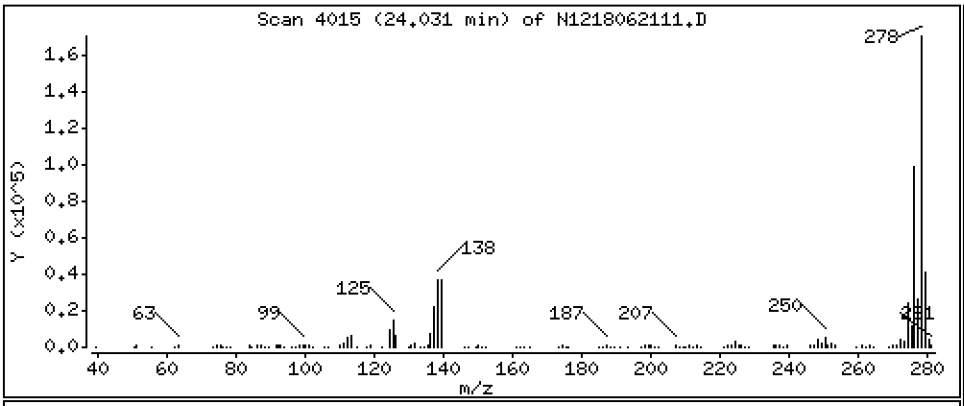
Operator: JZ

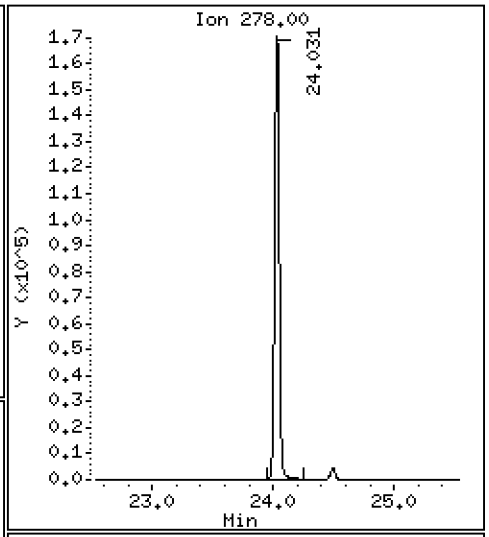
Column phase: ZB-5msi

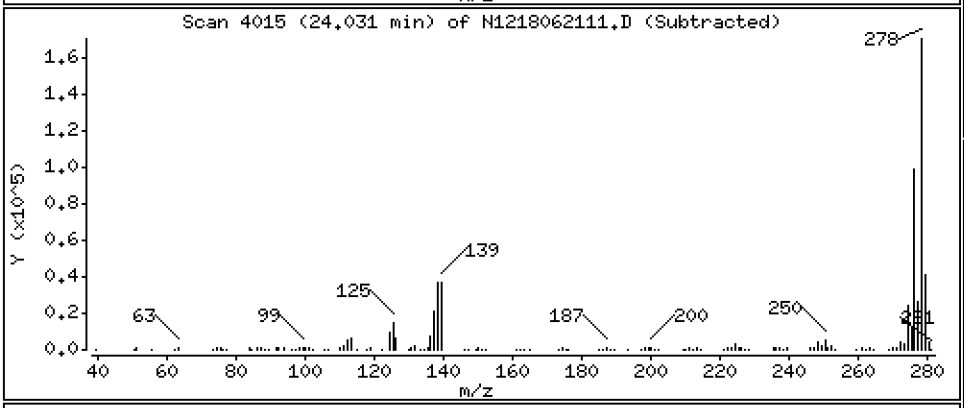
Column diameter: 0.32

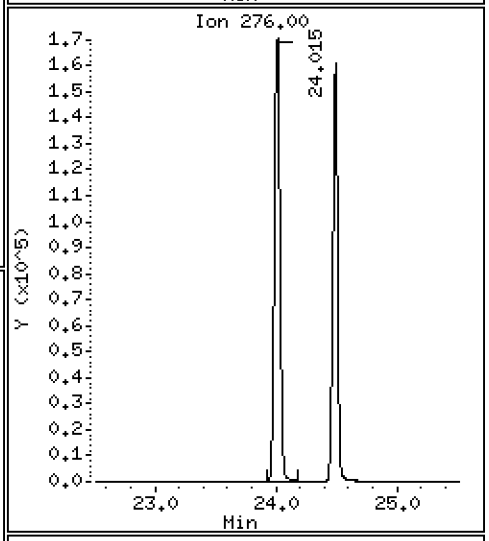
79 Dibenzo(a,h)anthracene

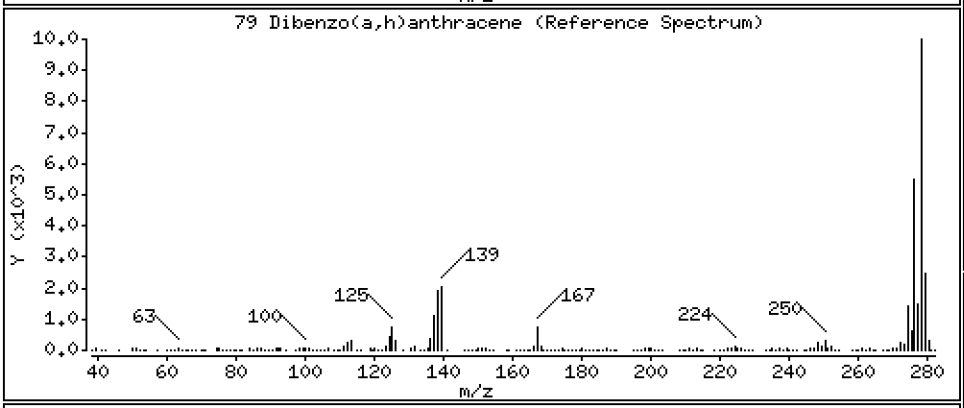
Concentration: 19.06 ug/mL

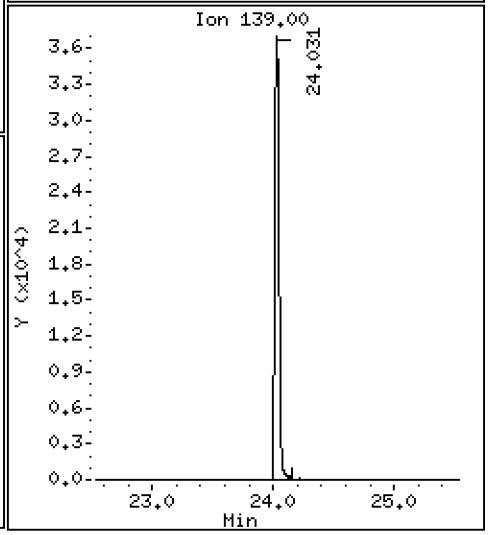


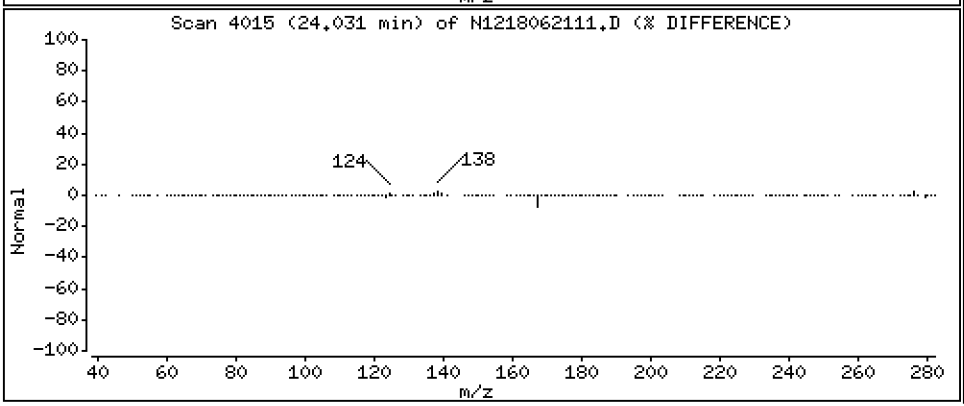












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

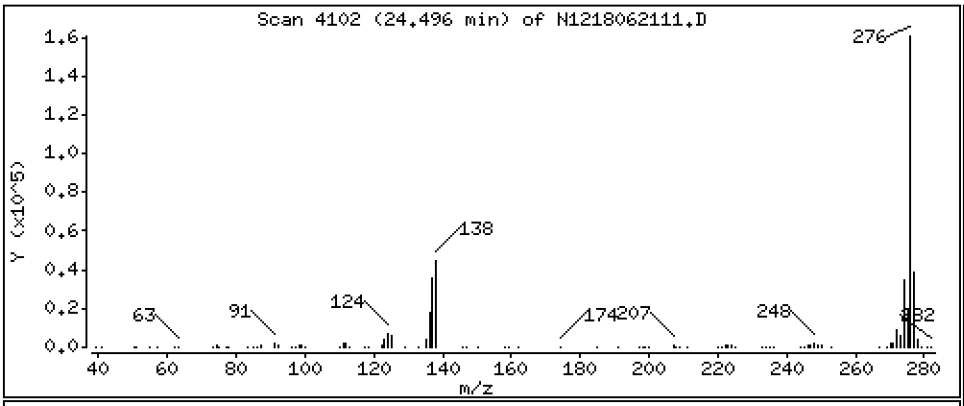
Operator: JZ

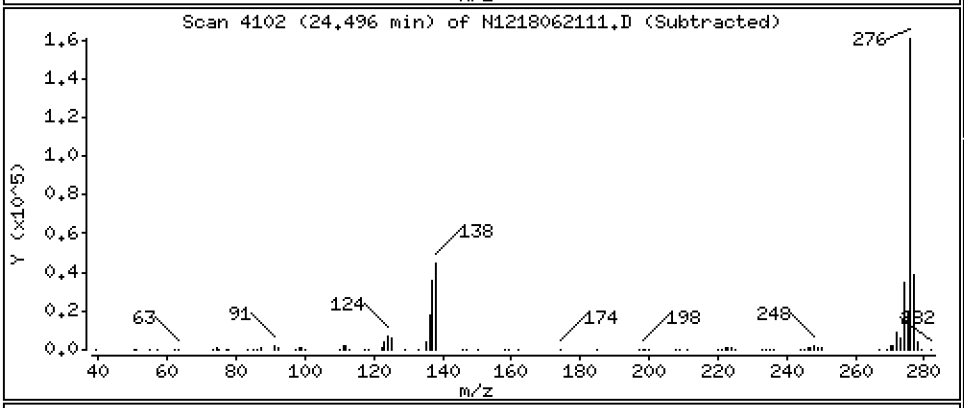
Column phase: ZB-5msi

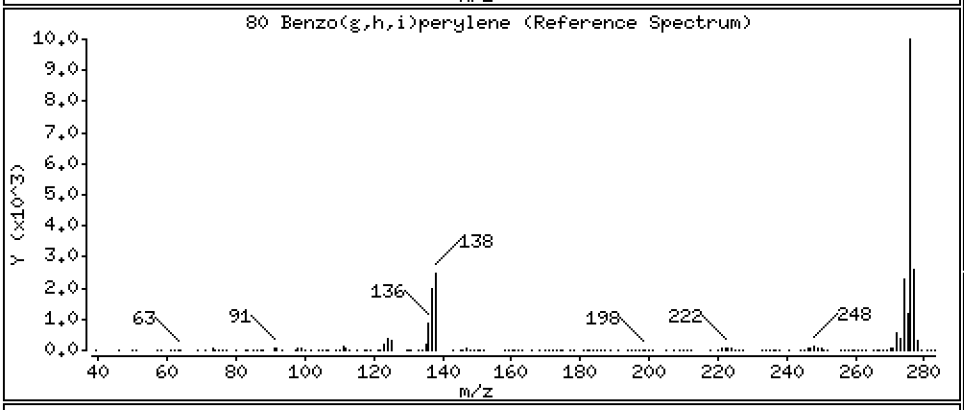
Column diameter: 0.32

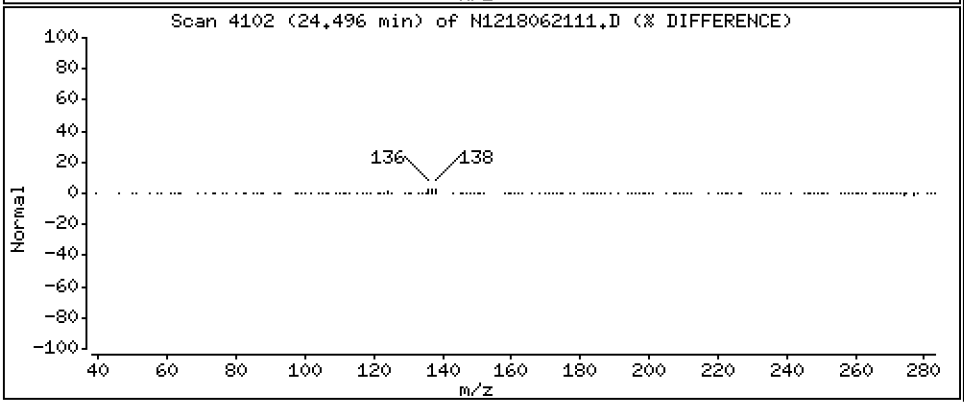
80 Benzo(g,h,i)perylene

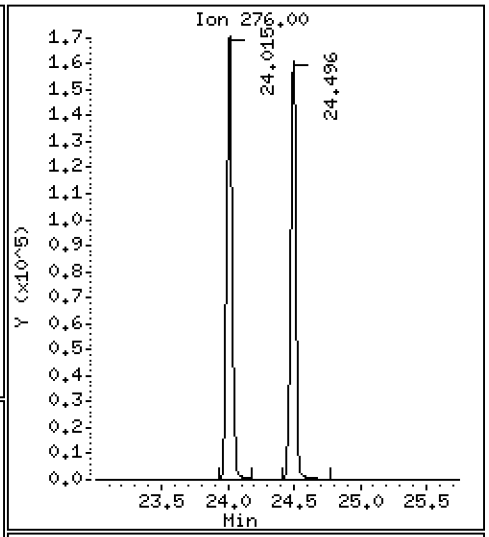
Concentration: 20.02 ug/mL

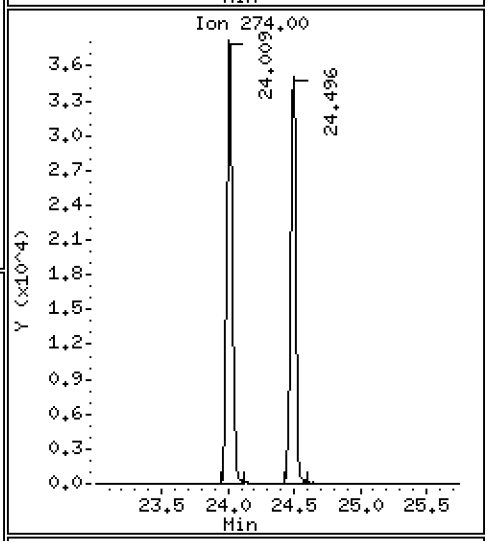


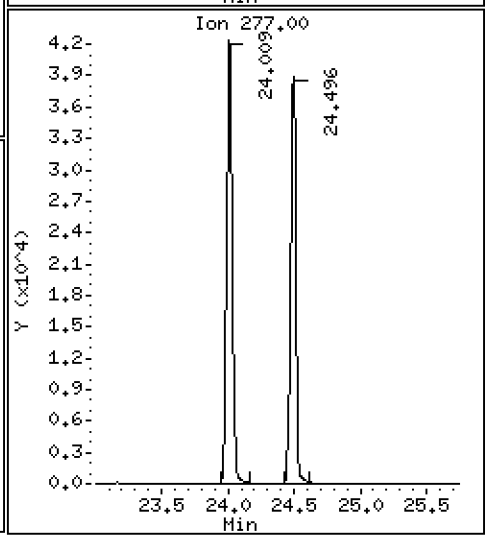












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

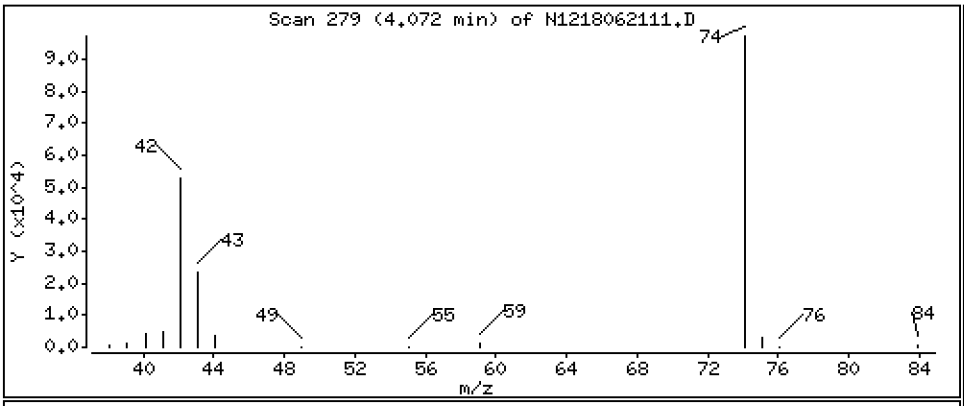
Operator: JZ

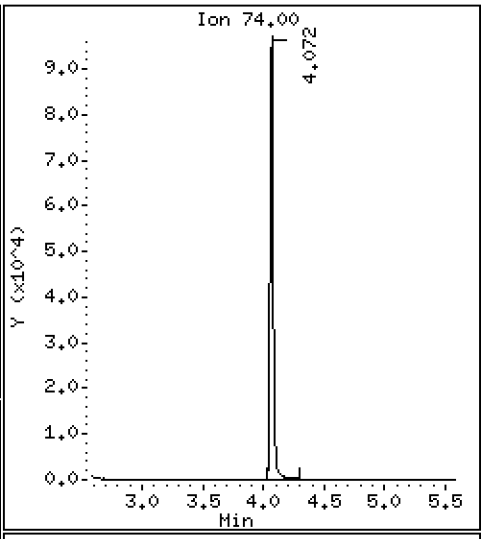
Column phase: ZB-5msi

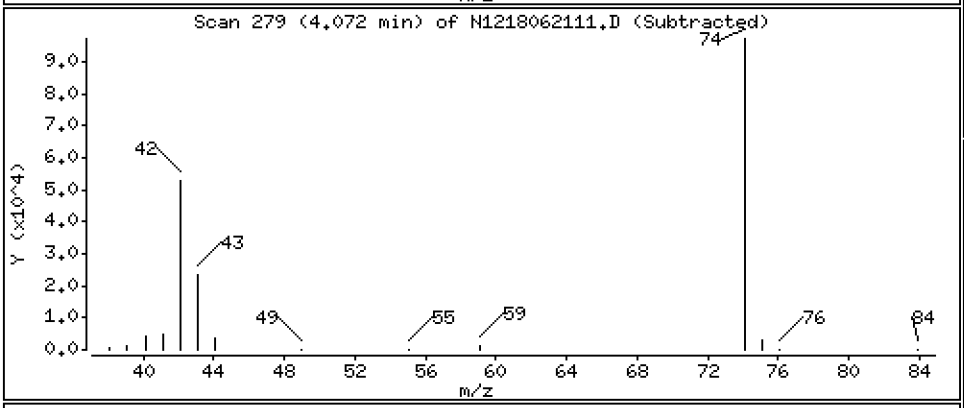
Column diameter: 0.32

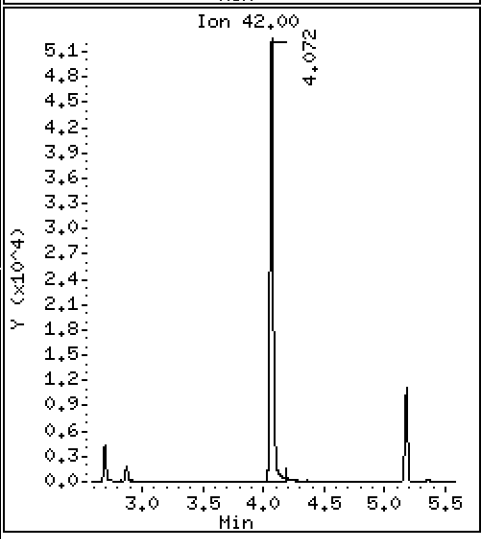
90 N-Nitrosodimethylamine

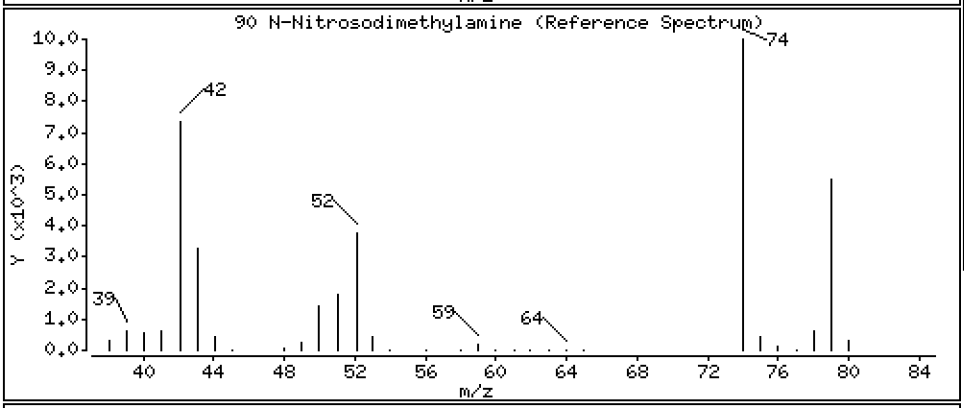
Concentration: 25.13 ug/mL

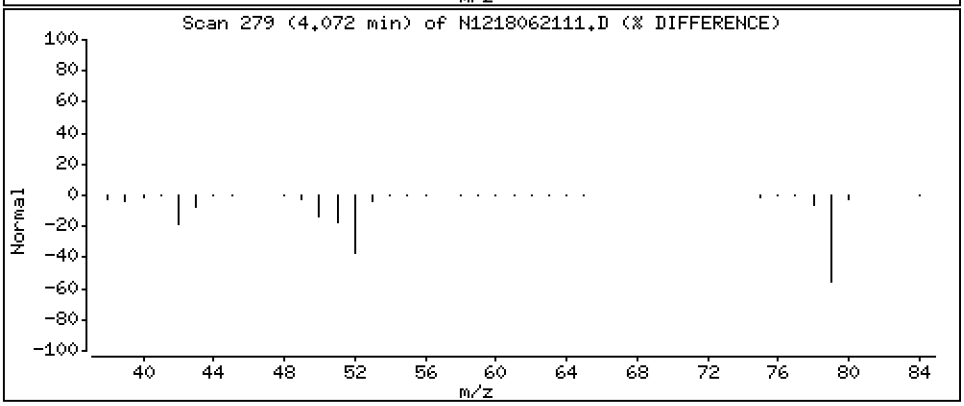












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

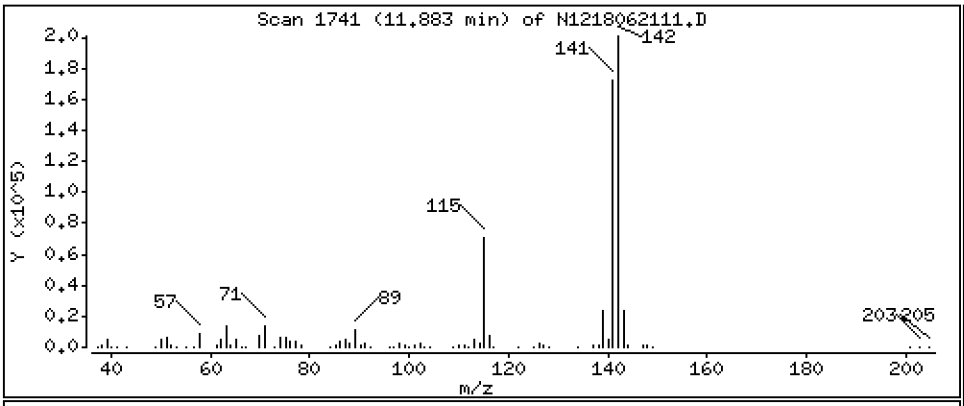
Operator: JZ

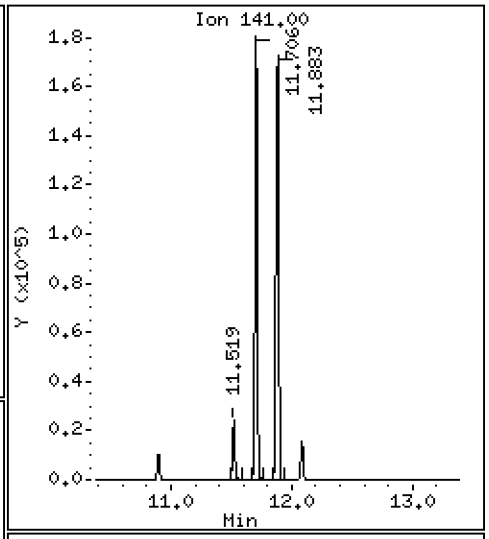
Column phase: ZB-5msi

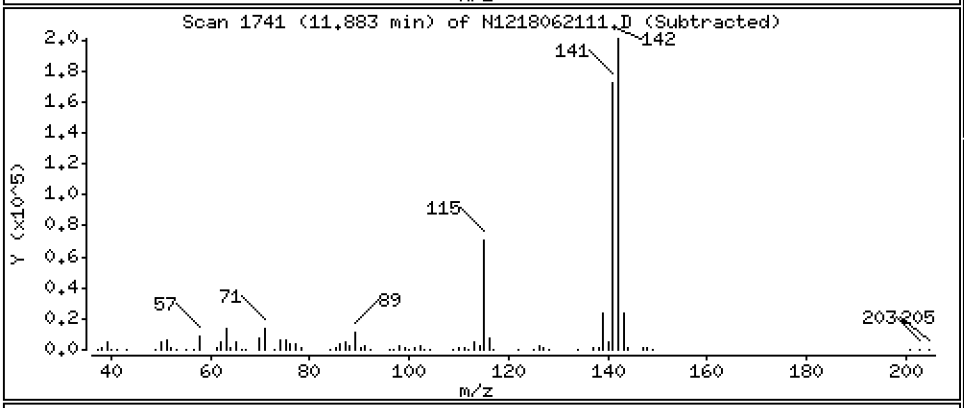
Column diameter: 0.32

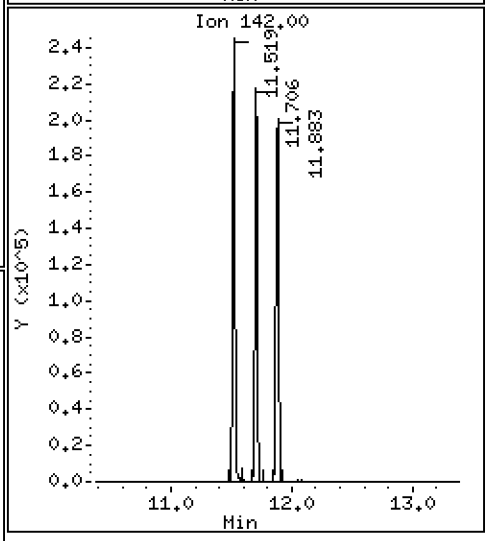
105 1-methylnaphthalene

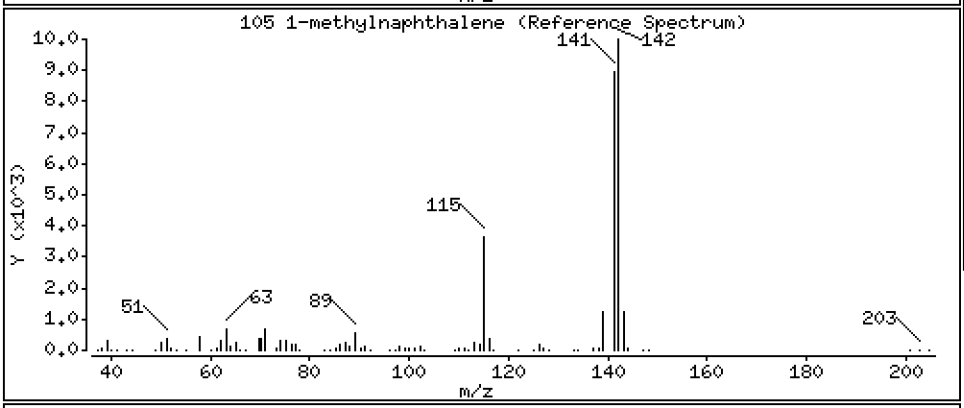
Concentration: 15.70 ug/mL

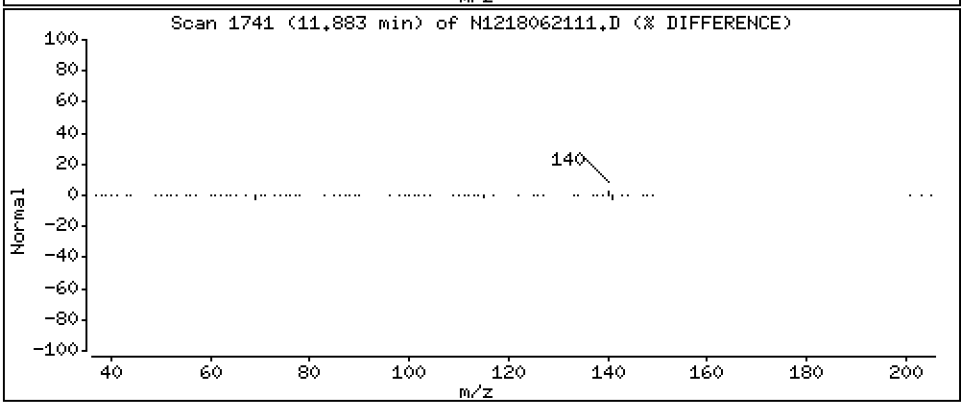












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

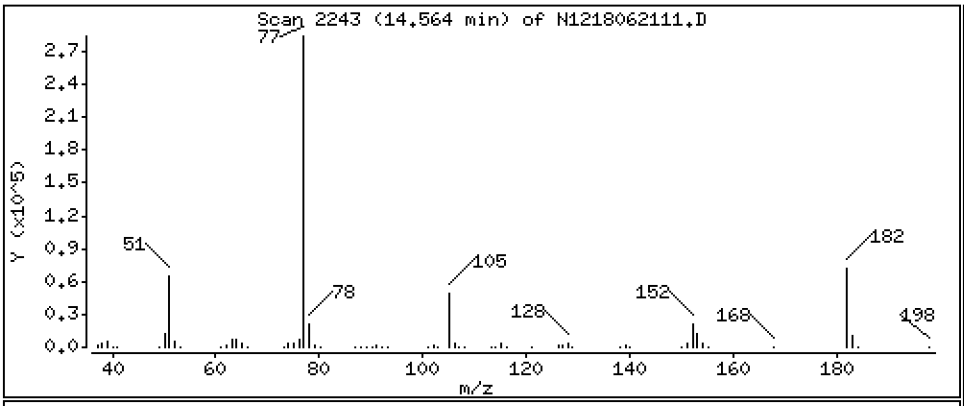
Operator: JZ

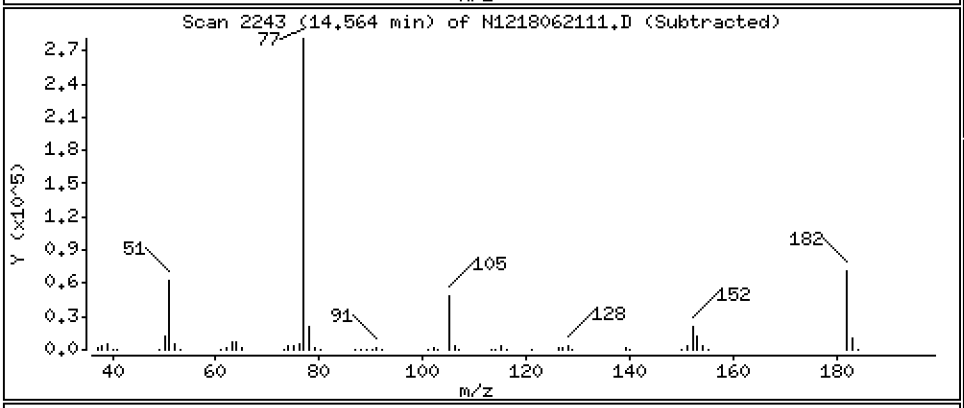
Column phase: ZB-5msi

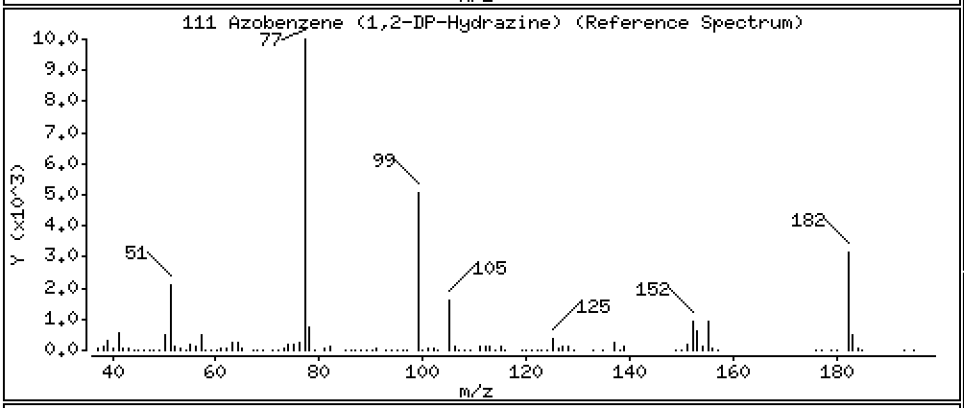
Column diameter: 0.32

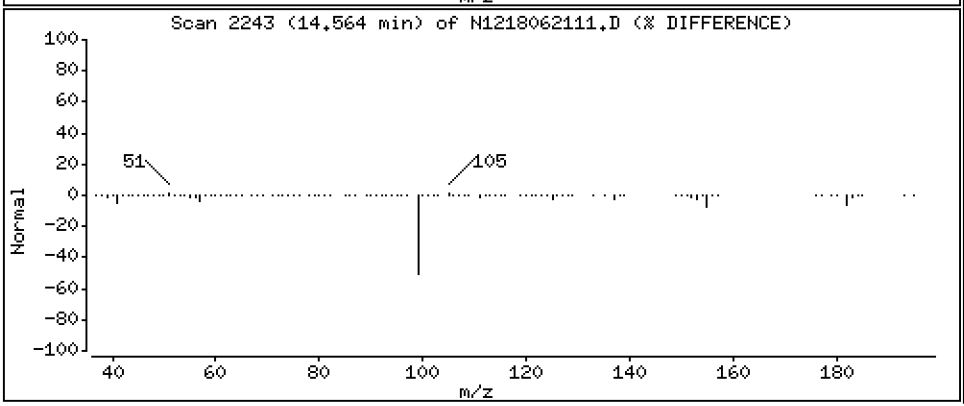
111 Azobenzene (1,2-DP-Hydrazine)

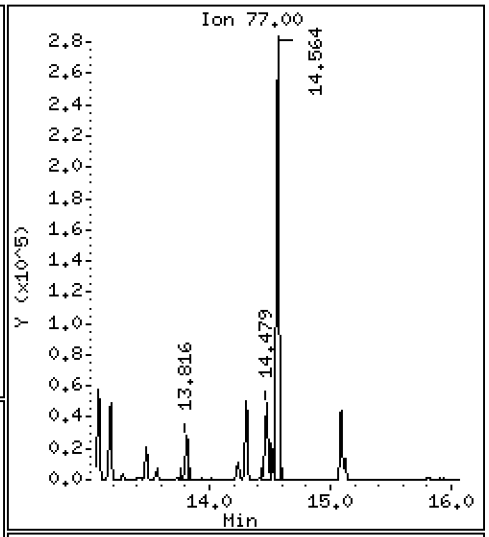
Concentration: 16.73 ug/mL

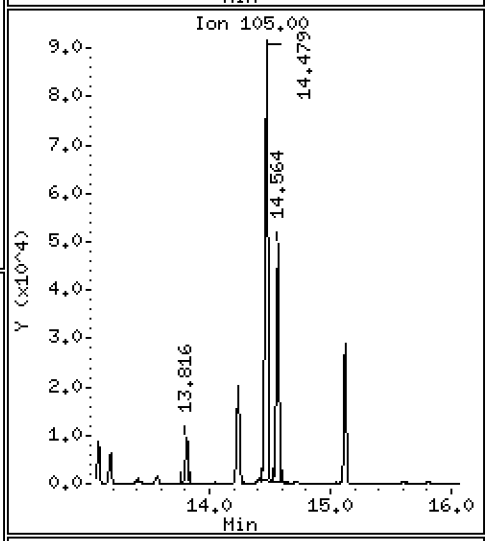


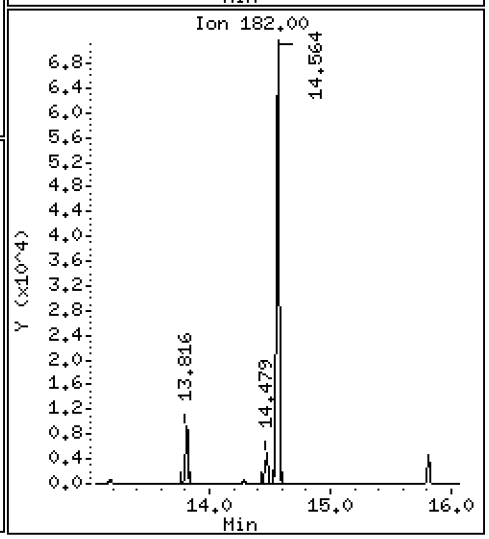












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Date : 21-JUN-2018 17:04

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MS1,

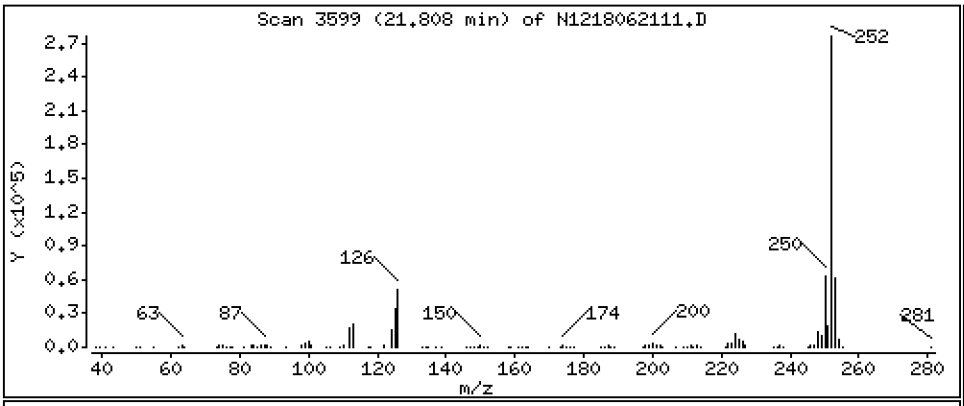
Operator: JZ

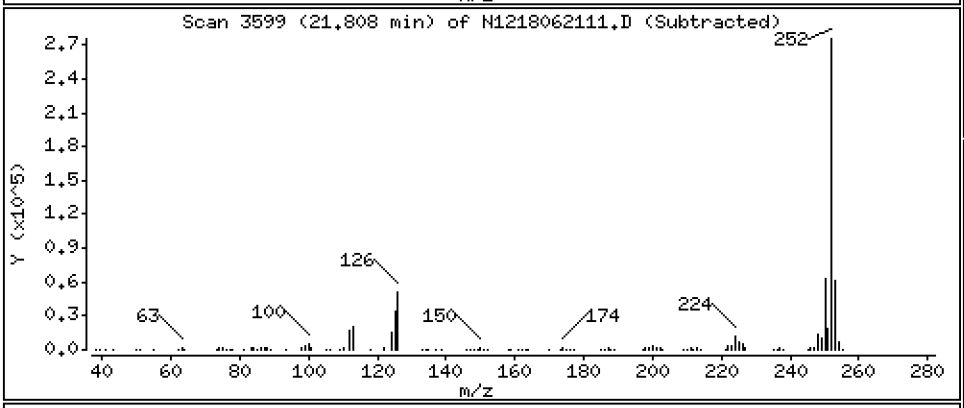
Column phase: ZB-5msi

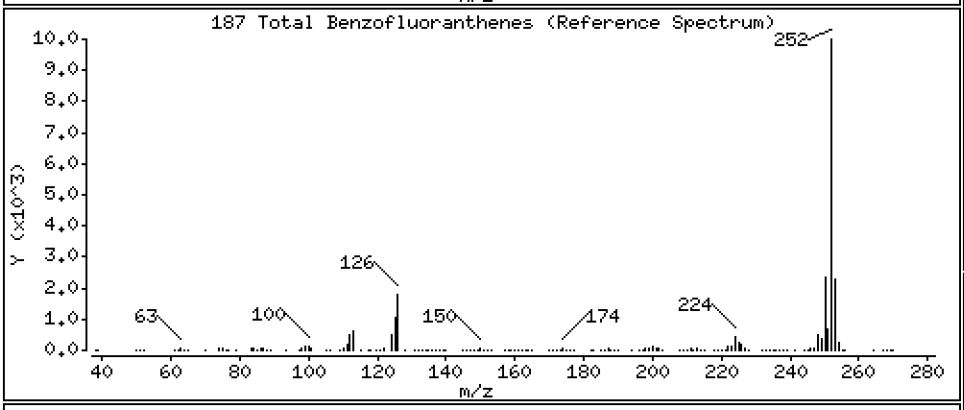
Column diameter: 0.32

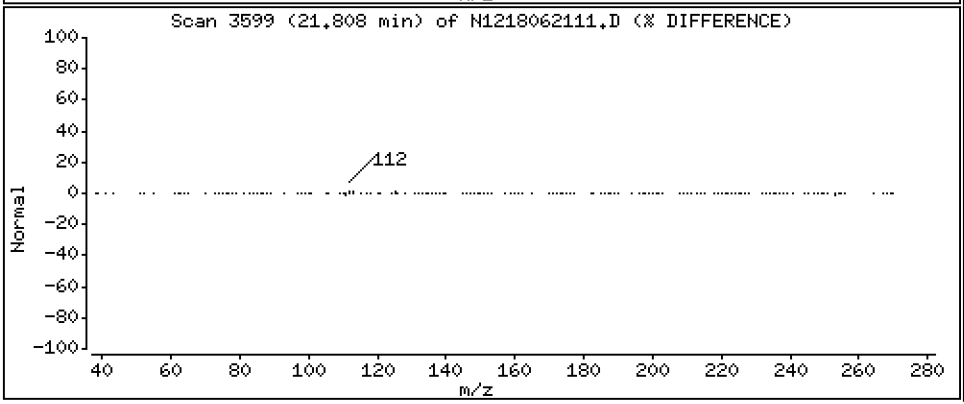
187 Total Benzofluoranthenes

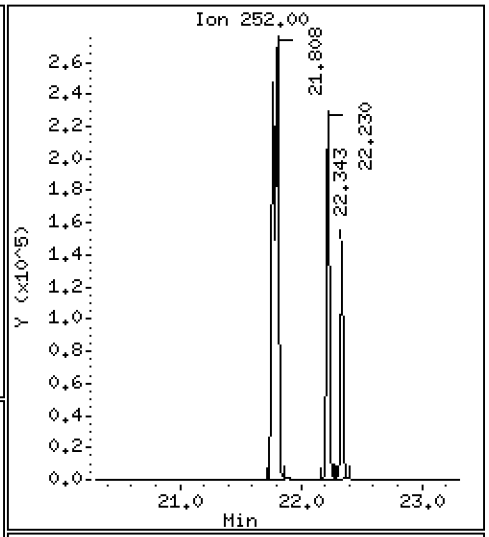
Concentration: 34.13 ug/mL

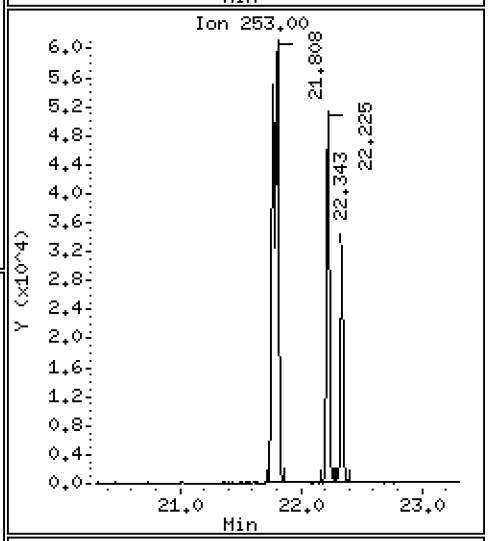


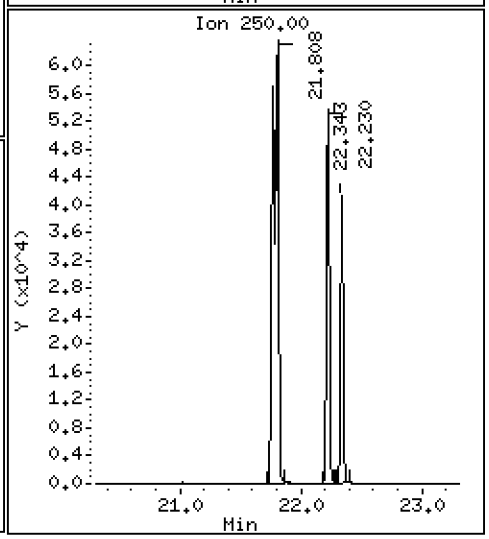












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

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Lab Smp Id: BGF0417-MS1
Inj Date : 21-JUN-2018 17:04
Operator : JZ Inst ID: nt12.i
Smp Info : BGF0417-MS1,
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Meth Date : 22-Jun-2018 10:46 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 11
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.567	6.567	(0.771)	191337	18.5974	18.60(R)
$	2 Phenol-d5	99	8.057	8.062	(0.946)	191323	14.8012	14.80(R)
	3 Phenol	94	8.073	8.084	(0.948)	124061	9.58314	9.583
$	5 2-Chlorophenol-d4	132	8.212	8.217	(0.964)	241470	24.3130	24.31(R)
	4 Bis(2-Chloroethyl)ether	93	8.175	8.180	(0.960)	165985	14.8555	14.86
	6 2-Chlorophenol	128	8.239	8.239	(0.967)	148603	13.4790	13.48
	7 1,3-Dichlorobenzene	146	8.452	8.458	(0.992)	140460	12.0694	12.07
*	8 1,4-Dichlorobenzene-d4	152	8.516	8.516	(1.000)	143334	20.0000	
	9 1,4-Dichlorobenzene	146	8.538	8.543	(1.002)	144904	12.5585	12.56
$	10 1,2-Dichlorobenzene-d4	152	8.816	8.816	(1.035)	92643	13.8782	13.88(R)
	12 1,2-Dichlorobenzene	146	8.837	8.837	(1.038)	139814	12.9065	12.91
	11 Benzyl alcohol	108	8.784	8.789	(1.031)	95648	11.8535	11.85
	14 2,2'-oxybis(1-Chloropropane)	45	9.035	9.040	(1.061)	171494	15.0495	15.05
	13 2-Methylphenol	108	9.003	9.008	(1.057)	142189	13.4153	13.42
	17 Hexachloroethane	117	9.323	9.323	(1.095)	52341	11.5077	11.51
	16 N-Nitroso-di-n-propylamine	70	9.254	9.259	(1.087)	121550	15.1223	15.12
	15 4-Methylphenol	108	9.238	9.238	(1.085)	146692	13.7253	13.73
$	18 Nitrobenzene-d5	82	9.435	9.441	(0.894)	192182	17.1515	17.15(R)
	19 Nitrobenzene	77	9.467	9.473	(0.897)	185621	15.2115	15.21
	20 Isophorone	82	9.852	9.847	(0.933)	322277	17.4975	17.50
	21 2-Nitrophenol	139	9.980	9.980	(0.945)	85599	15.0534	15.05
	22 2,4-Dimethylphenol	107	10.076	10.071	(0.954)	421819	37.0914	37.09
	23 Bis(2-Chloroethoxy)methane	93	10.226	10.226	(0.969)	199535	16.0896	16.09
	24 Benzoic acid	105	10.327	10.354	(0.978)	423018	54.2262	54.23
	25 2,4-Dichlorophenol	162	10.365	10.365	(0.982)	384478	43.5820	43.58
	26 1,2,4-Trichlorobenzene	180	10.493	10.498	(0.994)	120117	13.1365	13.14
*	27 Naphthalene-d8	136	10.557	10.557	(1.000)	547800	20.0000	
	28 Naphthalene	128	10.589	10.589	(1.003)	418549	13.6861	13.69
	29 4-Chloroaniline	127	10.717	10.723	(1.015)	55600	4.26250	4.263
	30 Hexachlorobutadiene	225	10.894	10.899	(1.032)	59150	11.8921	11.89
	31 4-Chloro-3-methylphenol	107	11.519	11.519	(1.091)	421325	45.4315	45.43
	32 2-Methylnaphthalene	141	11.706	11.706	(1.109)	237186	14.2310	14.23
	33 Hexachlorocyclopentadiene	237	12.085	12.085	(0.900)	168535	40.0598	40.06

		QUANT SIG					CONCENTRATIONS	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34 2,4,6-Trichlorophenol	196	12.219	12.219	(0.910)	279758	43.0879	43.09
	35 2,4,5-Trichlorophenol	196	12.277	12.272	(0.914)	299666	44.8380	44.84
$	36 2-Fluorobiphenyl	172	12.342	12.347	(0.919)	325163	16.0318	16.03(R)
	37 2-Chloronaphthalene	162	12.491	12.491	(0.930)	277282	14.9086	14.91
	38 2-Nitroaniline	65	12.726	12.721	(0.948)	275645	46.7835	46.78
	39 Dimethylphthalate	163	13.084	13.079	(0.975)	339815	16.8682	16.87
	40 Acenaphthylene	152	13.170	13.175	(0.981)	397890	14.9604	14.96
	41 2,6-Dinitrotoluene	165	13.186	13.180	(0.982)	228692	51.6237	51.62
*	42 Acenaphthene-d10	164	13.426	13.426	(1.000)	285179	20.0000	
	43 3-Nitroaniline	138	13.405	13.399	(0.998)	199703	36.9540	36.95
	44 Acenaphthene	153	13.479	13.474	(1.004)	278309	15.7657	15.77
	45 2,4-Dinitrophenol	184	13.570	13.565	(1.011)	263938	95.7993	95.80
	46 Dibenzofuran	168	13.736	13.736	(1.023)	403205	15.0209	15.02
	47 4-Nitrophenol	109	13.688	13.693	(1.019)	78860	27.6681	27.67
	48 2,4-Dinitrotoluene	165	13.816	13.811	(1.029)	314393	50.0680	50.07
	50 Diethylphthalate	149	14.238	14.233	(1.060)	331155	17.2639	17.26
	49 Fluorene	166	14.297	14.297	(1.065)	327744	16.1649	16.16
	51 4-Chlorophenyl-phenylether	204	14.307	14.307	(1.066)	149511	15.8174	15.82
	52 4-Nitroaniline	138	14.414	14.404	(1.074)	244721	46.2669	46.27
	53 4,6-Dinitro-2-methylphenol	198	14.478	14.473	(0.916)	353687	101.941	101.9
	54 N-Nitrosodiphenylamine	169	14.516	14.516	(0.918)	241693	16.4979	16.50
$	55 2,4,6-Tribromophenol	330	14.719	14.719	(1.096)	68272	28.5962	28.60(R)
	56 4-Bromophenyl-phenylether	248	15.093	15.093	(0.955)	89805	16.1302	16.13
	57 Hexachlorobenzene	284	15.322	15.322	(0.969)	88647	15.3888	15.39
	58 Pentachlorophenol	266	15.616	15.622	(0.988)	184106	48.3453	48.35
*	59 Phenanthrene-d10	188	15.809	15.809	(1.000)	483511	20.0000	
	60 Phenanthrene	178	15.846	15.846	(1.002)	462938	19.3133	19.31
	61 Anthracene	178	15.921	15.921	(1.007)	430711	15.7542	15.75
	62 Carbazole	167	16.193	16.193	(1.024)	418345	15.8626	15.86
	63 Di-n-butylphthalate	149	16.882	16.888	(1.068)	527543	17.4859	17.49
	64 Fluoranthene	202	17.791	17.791	(1.125)	496781	16.5668	16.57
	65 Pyrene	202	18.149	18.149	(0.901)	506484	19.3023	19.30
$	66 Terphenyl-d14	244	18.442	18.448	(0.916)	372714	22.8637	22.86(R)
	67 Butylbenzylphthalate	149	19.313	19.313	(0.959)	222451	18.9488	18.95
	68 Benzo(a)anthracene	228	20.109	20.114	(0.998)	394235	20.5278	20.53
*	69 Chrysene-d12	240	20.141	20.141	(1.000)	423177	20.0000	
	70 3,3'-Dichlorobenzidine	252	20.109	20.114	(0.998)	327201	45.6357	45.64
	71 Chrysene	228	20.179	20.179	(1.002)	406473	18.9669	18.97
	72 bis(2-Ethylhexyl)phthalate	149	20.296	20.296	(0.956)	308280	18.6883	18.69
*	134 Di-n-octylphthalate-d4	153	21.231	21.231	(1.000)	555224	20.0000	
	73 Di-n-octylphthalate	149	21.242	21.242	(1.000)	496803	16.7530	16.75
	74 Benzo(b)fluoranthene	252	21.771	21.776	(0.976)	422919	15.9684	15.97
	75 Benzo(k)fluoranthene	252	21.808	21.808	(0.977)	472898	17.2419	17.24
	76 Benzo(a)pyrene	252	22.230	22.230	(0.996)	392372	17.4310	17.43
*	77 Perylene-d12	264	22.310	22.310	(1.000)	430207	20.0000	
	78 Indeno(1,2,3-cd)pyrene	276	24.014	24.014	(1.076)	502111	19.0788	19.08
	79 Dibenzo(a,h)anthracene	278	24.030	24.036	(1.077)	410322	19.0575	19.06
	80 Benzo(g,h,i)perylene	276	24.495	24.506	(1.098)	439727	20.0245	20.02
	90 N-Nitrosodimethylamine	74	4.072	4.077	(0.478)	176835	25.1275	25.13
	91 Aniline	93	Compound Not Detected.					
	93 Benzidine	184	Compound Not Detected.					
	103 Pyridine	79	Compound Not Detected.					
	105 1-methylnaphthalene	141	11.882	11.882	(1.125)	233786	15.6973	15.70
	111 Azobenzene (1,2-DP-Hydrazine)	77	14.564	14.564	(0.921)	377145	16.7306	16.73

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
187 Total Benzofluoranthenes	252	21.808	21.808	(0.977)	847728	34.1292	34.13

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062111.D
Lab Smp Id: BGF0417-MS1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Misc Info: 18-

Calibration Date: 21-JUN-2018
Calibration Time: 22:08
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	143334	12.88
27 Naphthalene-d8	478458	239229	956916	547800	14.49
42 Acenaphthene-d10	247659	123830	495318	285179	15.15
59 Phenanthrene-d10	421930	210965	843860	483511	14.60
69 Chrysene-d12	450836	225418	901672	423177	-6.14
134 Di-n-octylphthala	583434	291717	1166868	555224	-4.84
77 Perylene-d12	453093	226547	906186	430207	-5.05

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.52	8.02	9.02	8.52	0.00
27 Naphthalene-d8	10.56	10.06	11.06	10.56	0.00
42 Acenaphthene-d10	13.43	12.93	13.93	13.43	0.00
59 Phenanthrene-d10	15.81	15.31	16.31	15.81	0.00
69 Chrysene-d12	20.14	19.64	20.64	20.14	0.00
134 Di-n-octylphthala	21.23	20.73	21.73	21.23	0.00
77 Perylene-d12	22.31	21.81	22.81	22.31	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062111.D

Lab ID: BGF0417-MS1
nt12.i, SW846180516.m, 21-JUN-2018 17:04

RT	CO-ELUTION COMPOUNDS
20.110	3,3′-Dichlorobenzidine and Benzo(a)anthracene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

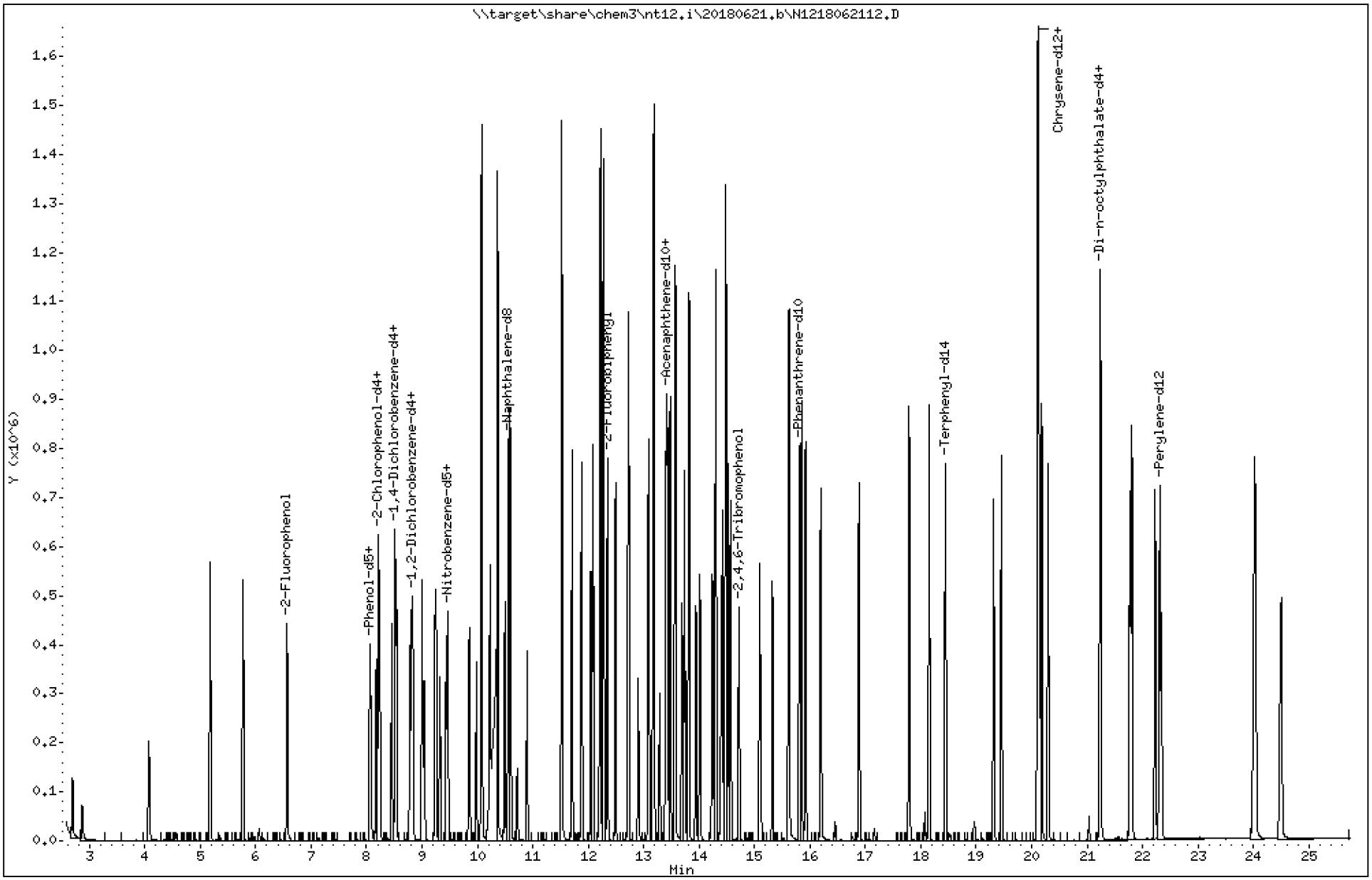
On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt12.i\20180621.b\N1218062112.D
Date : 21-JUN-2018 17:38
Client ID:
Sample Info: BGF0417-MSD1,

Instrument: nt12.i
Operator: JZ
Column diameter: 0.32

Column phase: ZB-5msi



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 792 of 6523

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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

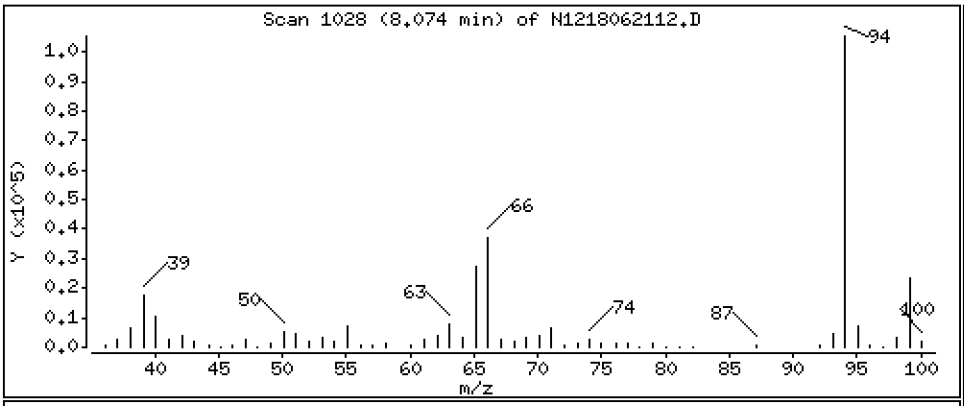
Operator: JZ

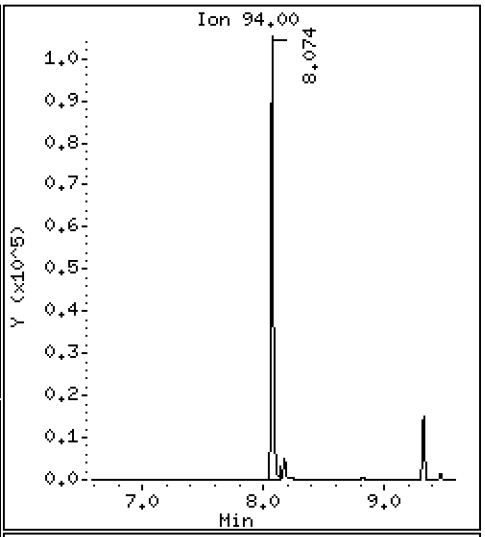
Column phase: ZB-5msi

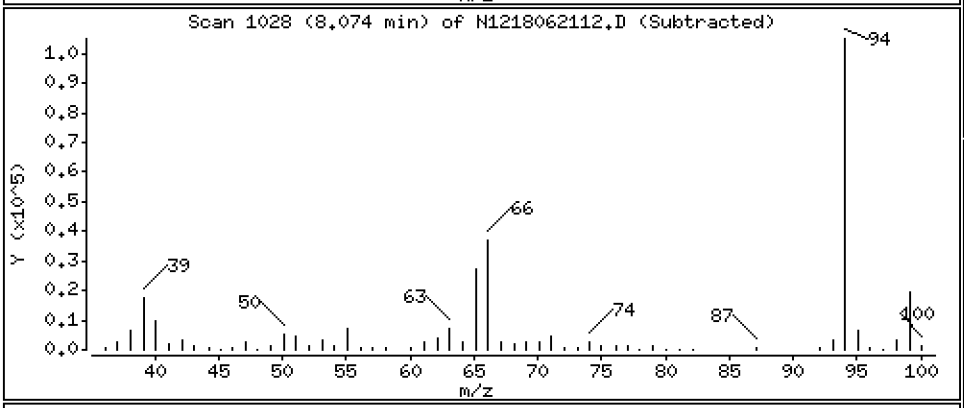
Column diameter: 0.32

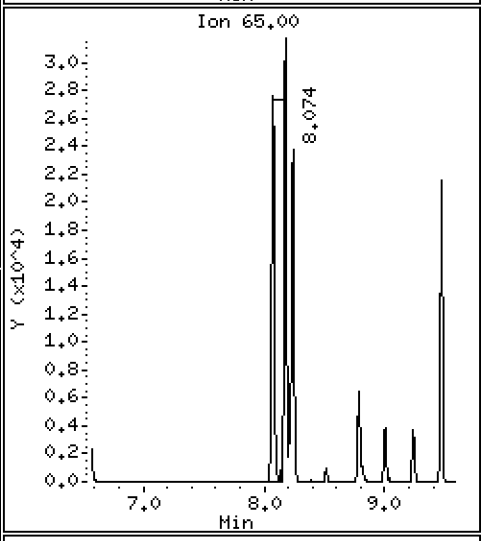
3 Phenol

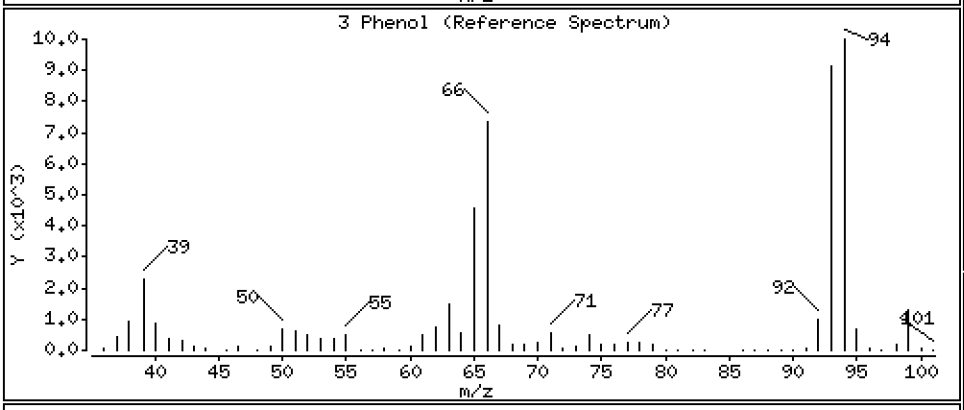
Concentration: 10.02 ug/mL

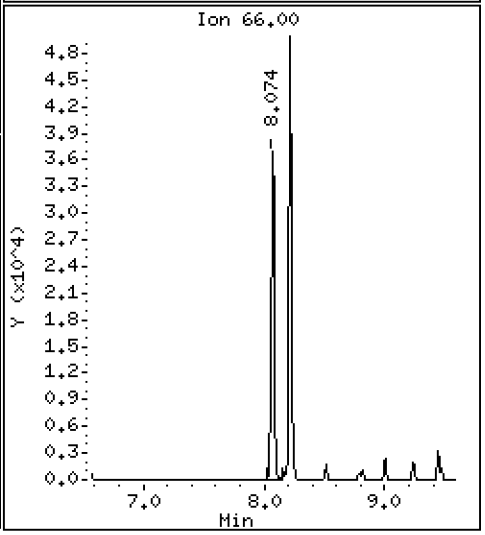


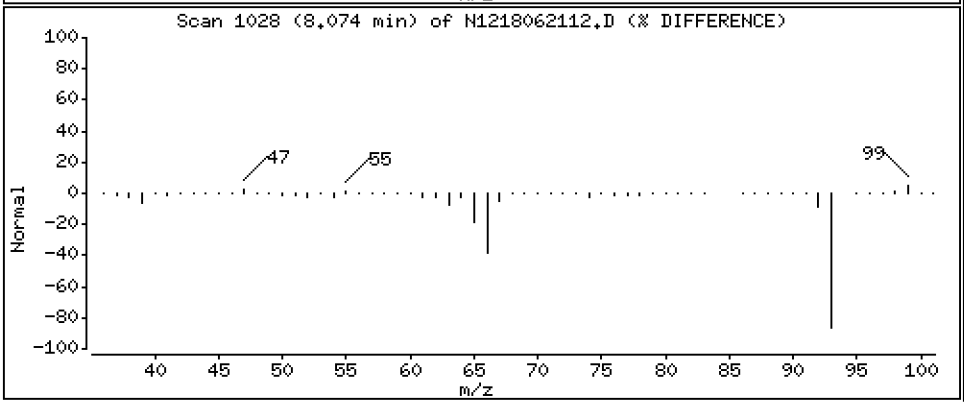












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

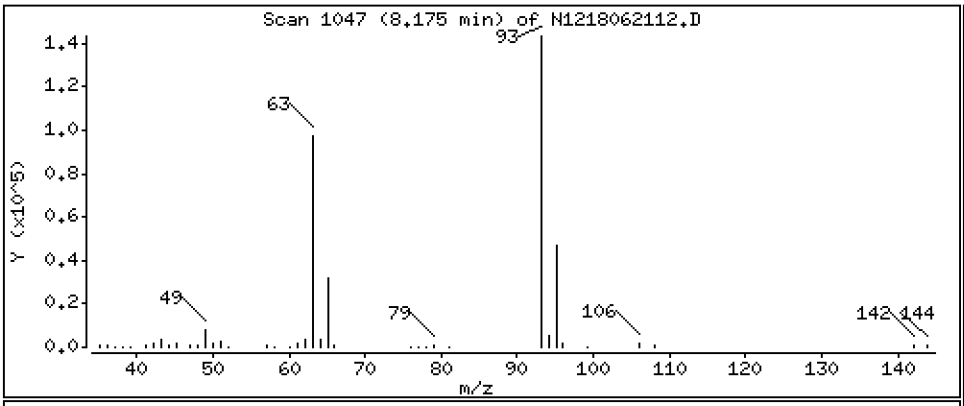
Operator: JZ

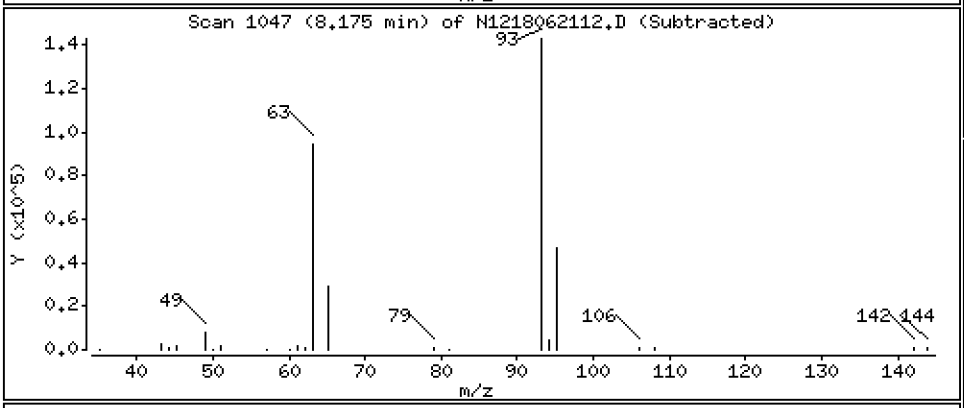
Column phase: ZB-5msi

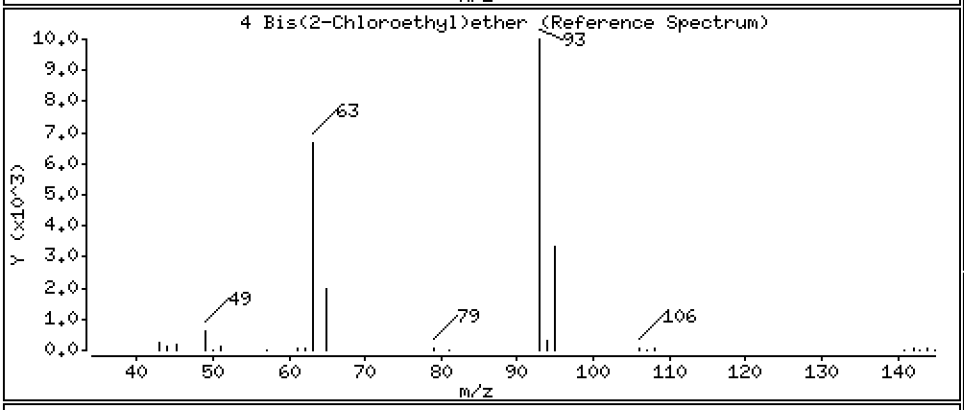
Column diameter: 0.32

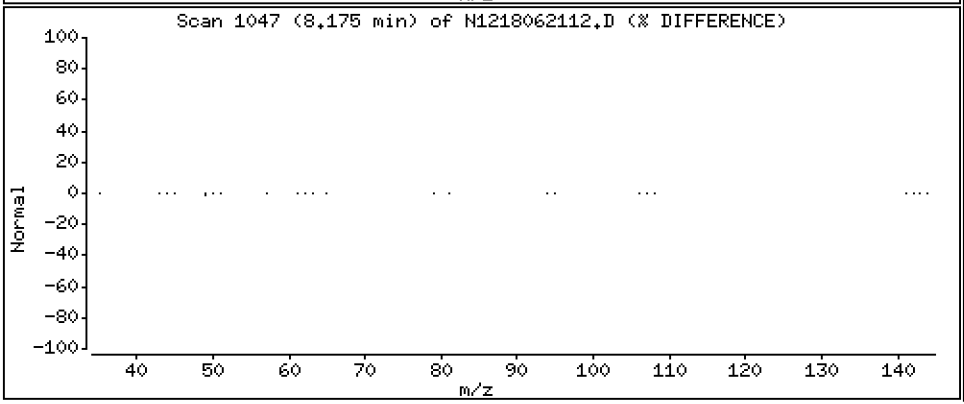
4 Bis(2-Chloroethyl)ether

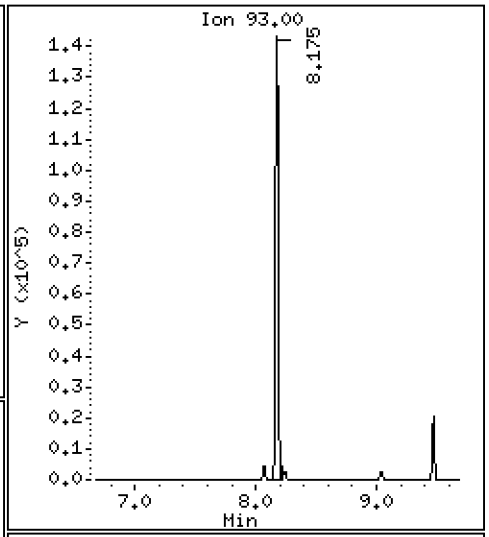
Concentration: 16.45 ug/mL

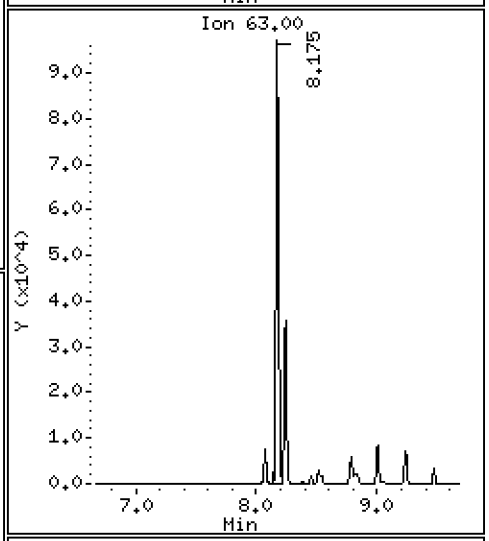


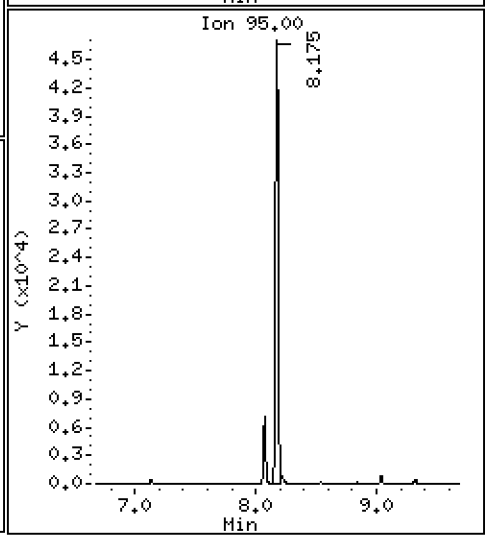












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

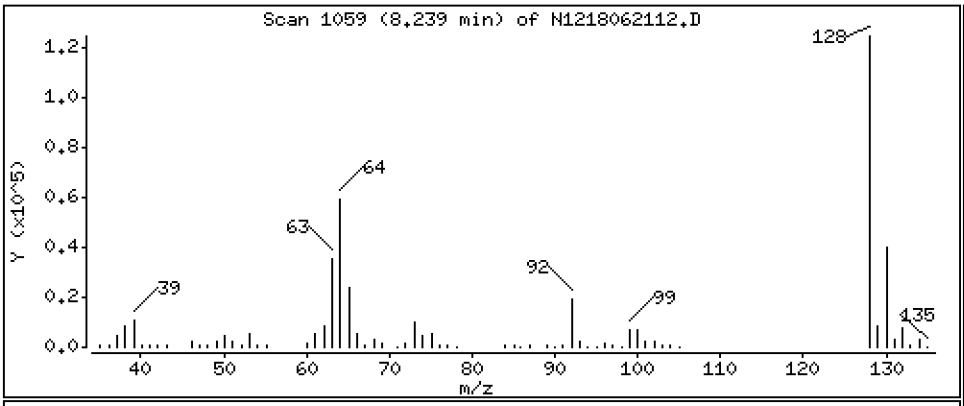
Operator: JZ

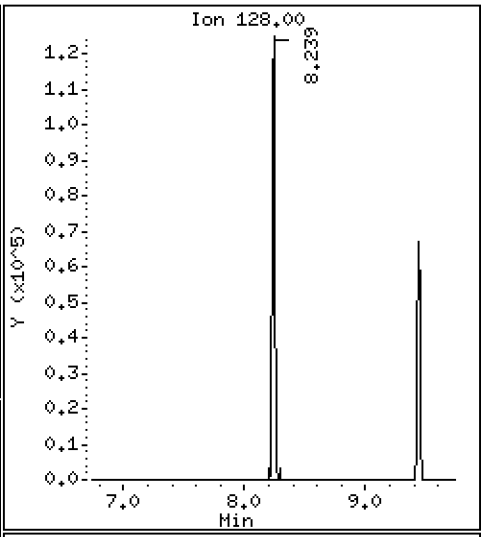
Column phase: ZB-5msi

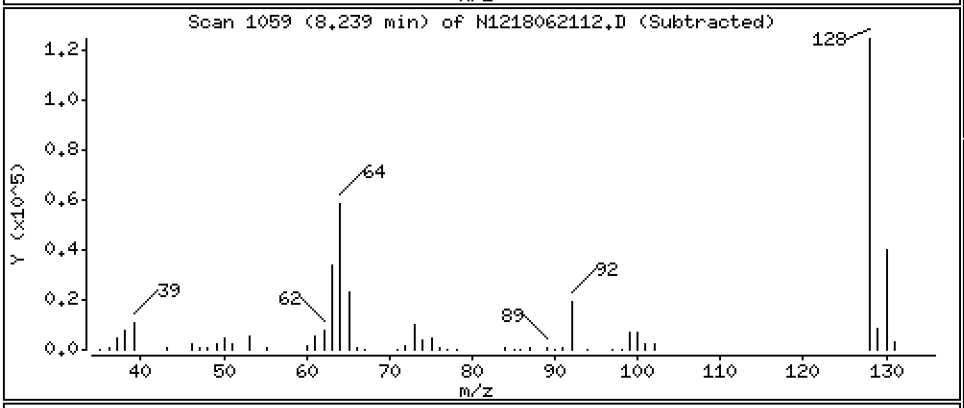
Column diameter: 0.32

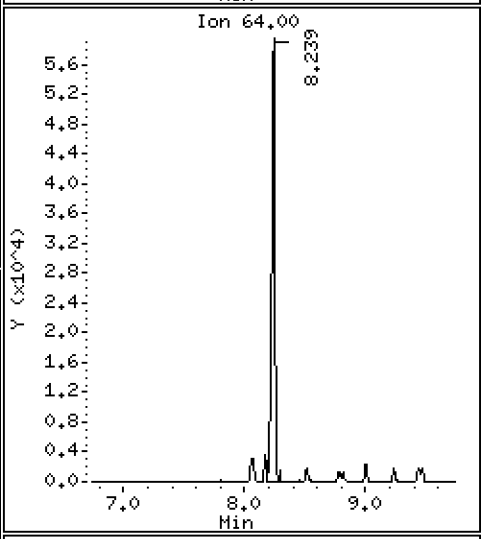
6 2-Chlorophenol

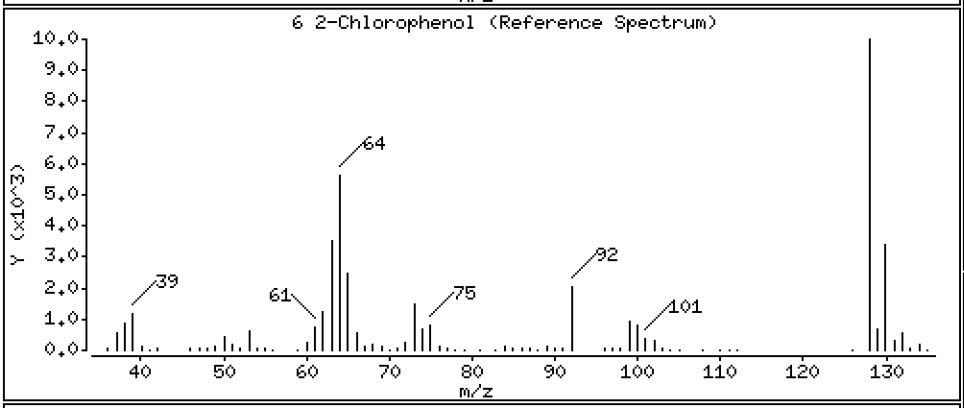
Concentration: 15.01 ug/mL

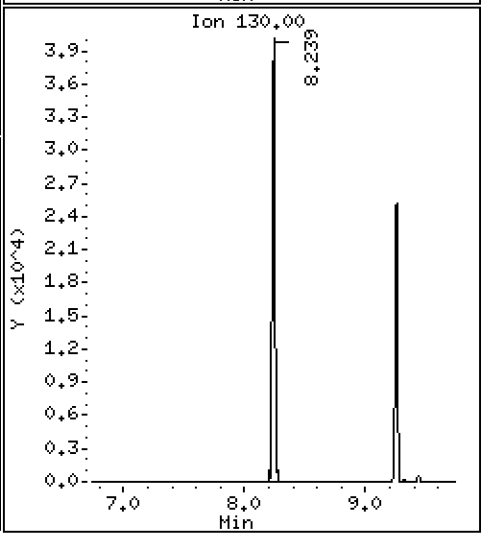


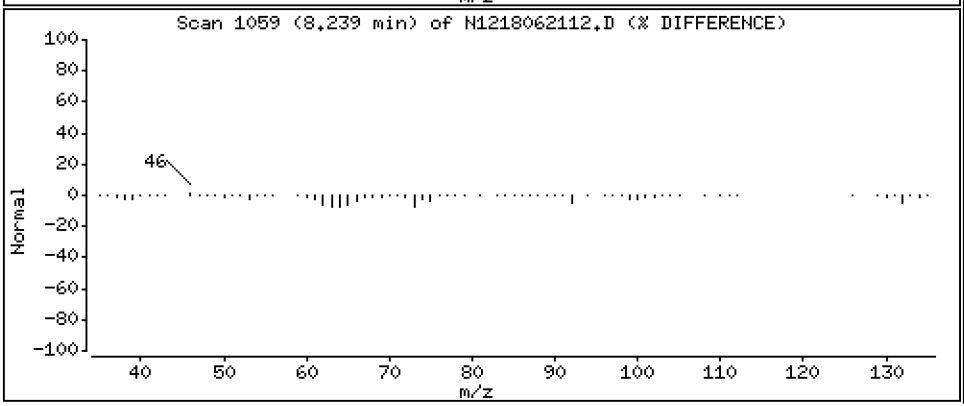












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

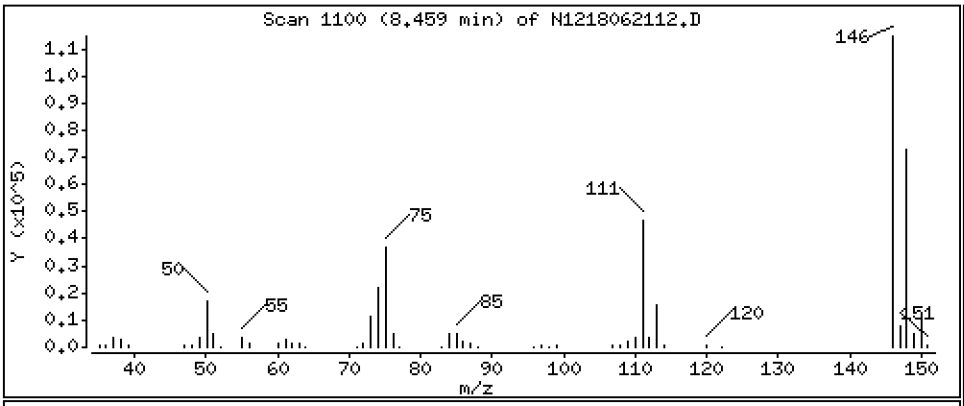
Operator: JZ

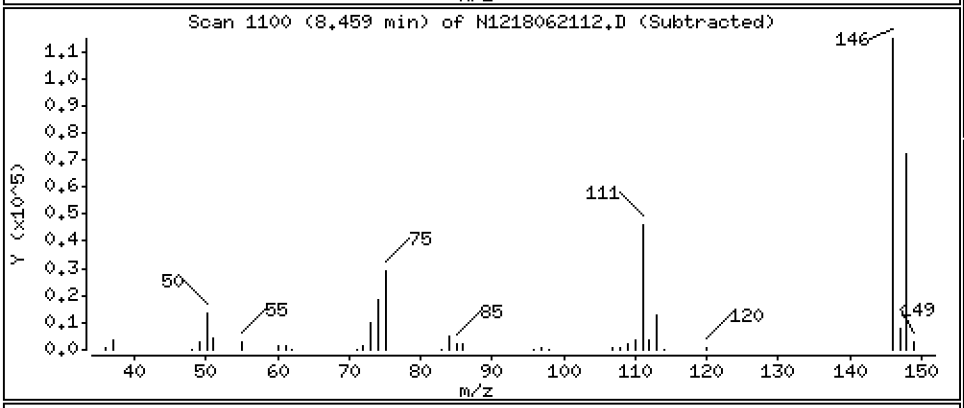
Column phase: ZB-5msi

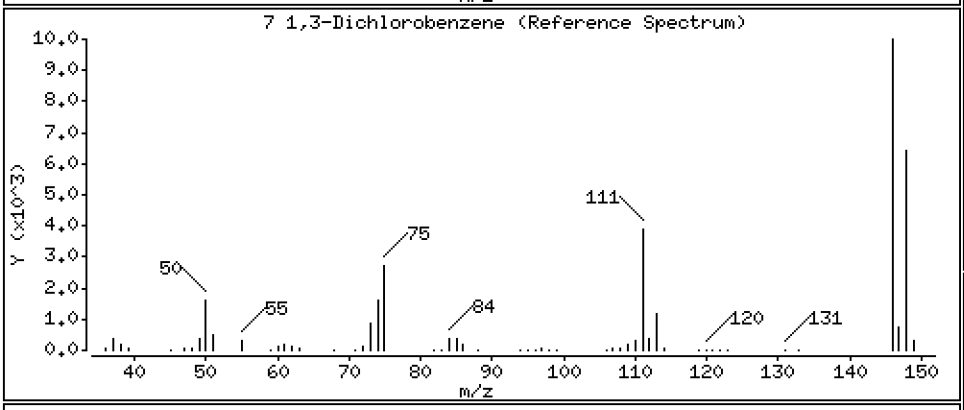
Column diameter: 0.32

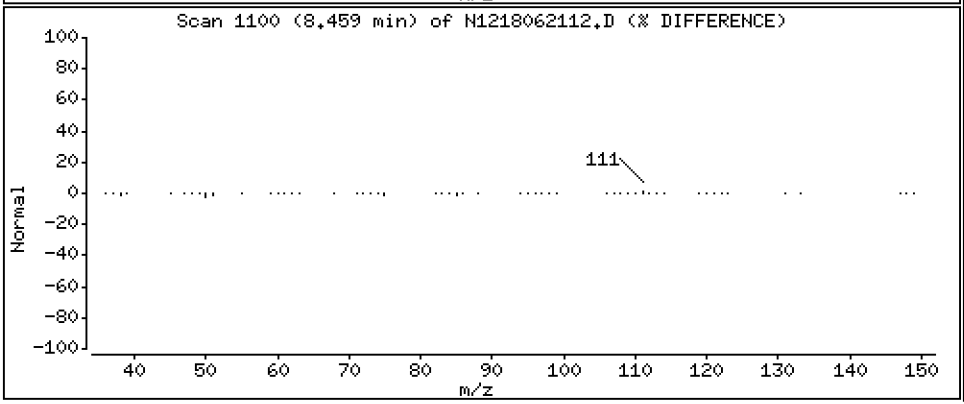
7 1,3-Dichlorobenzene

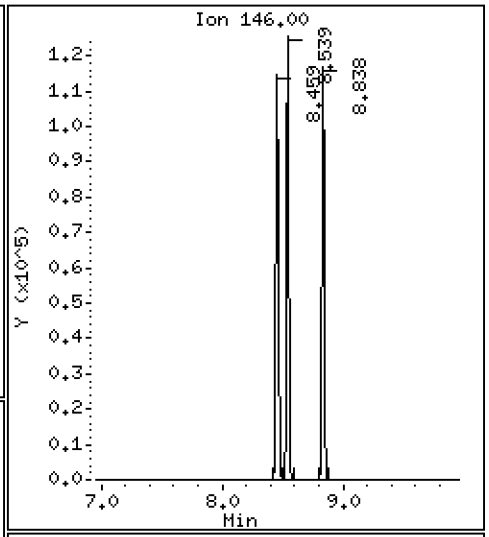
Concentration: 13.50 ug/mL

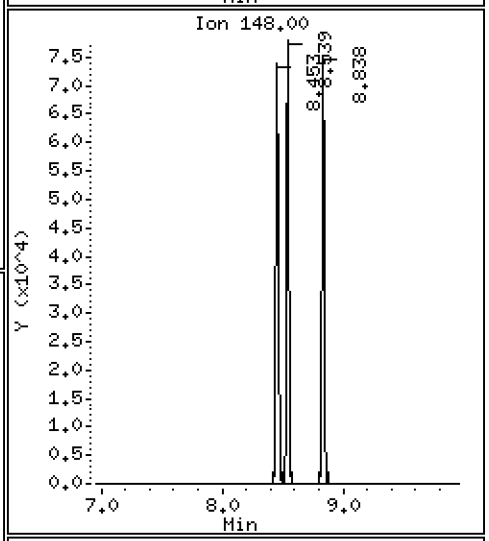


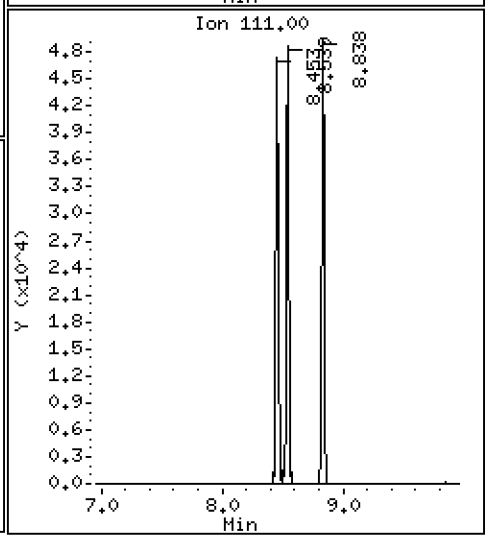












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

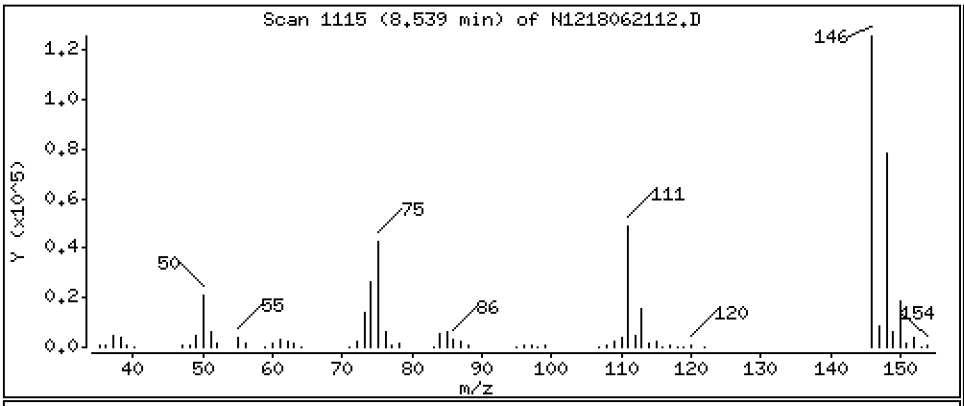
Operator: JZ

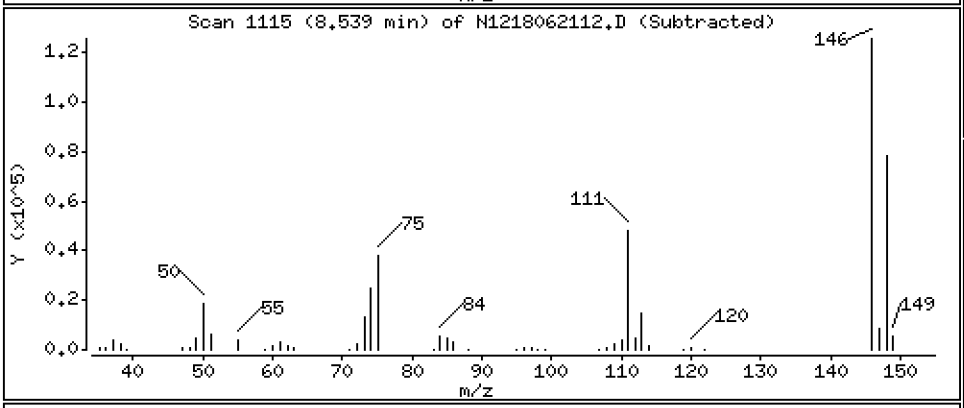
Column phase: ZB-5msi

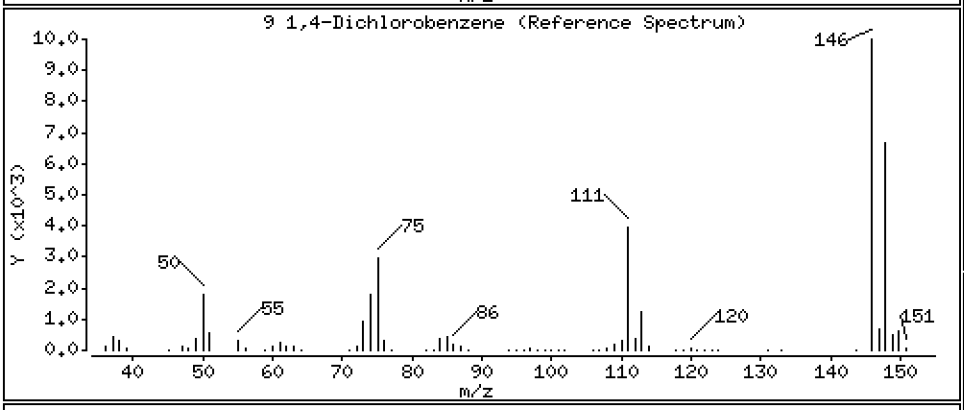
Column diameter: 0.32

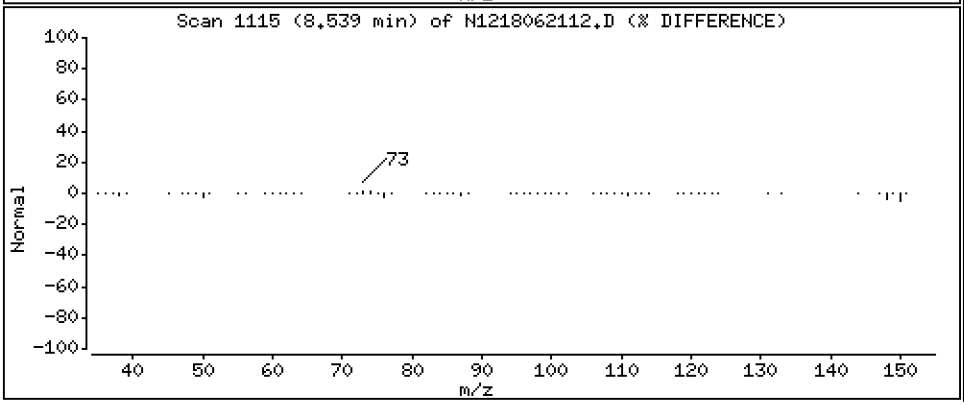
9 1,4-Dichlorobenzene

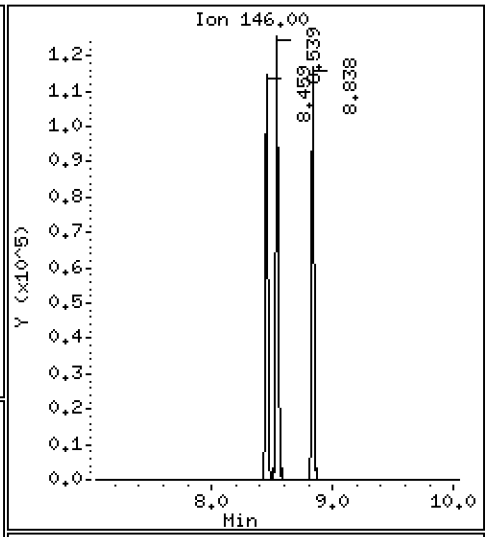
Concentration: 13.75 ug/mL

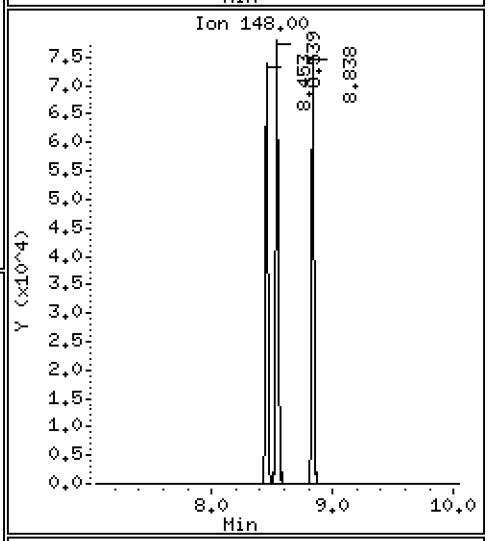


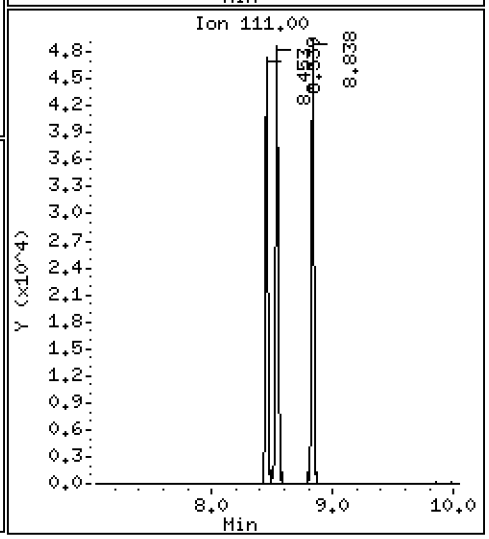












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

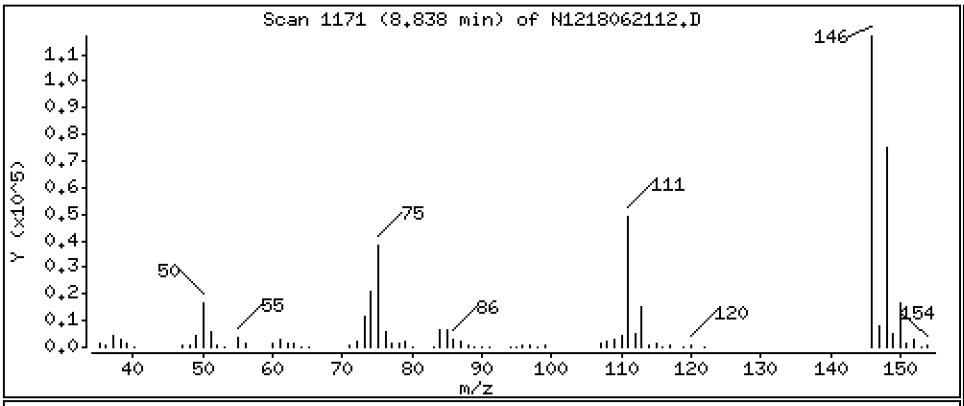
Operator: JZ

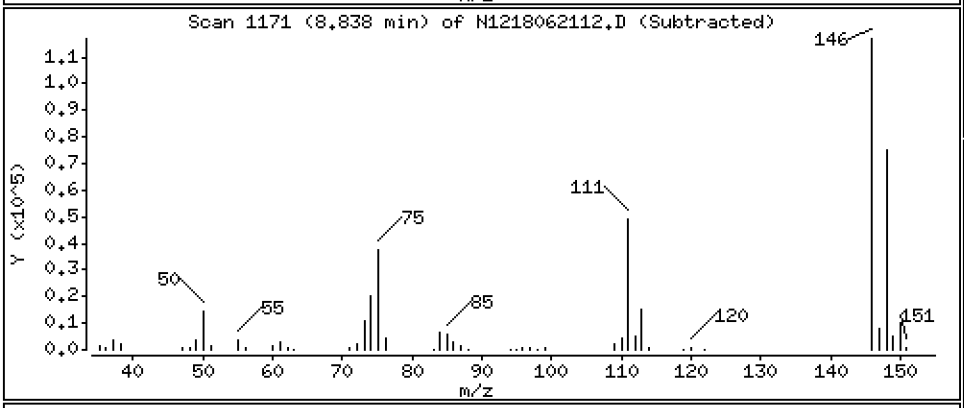
Column phase: ZB-5msi

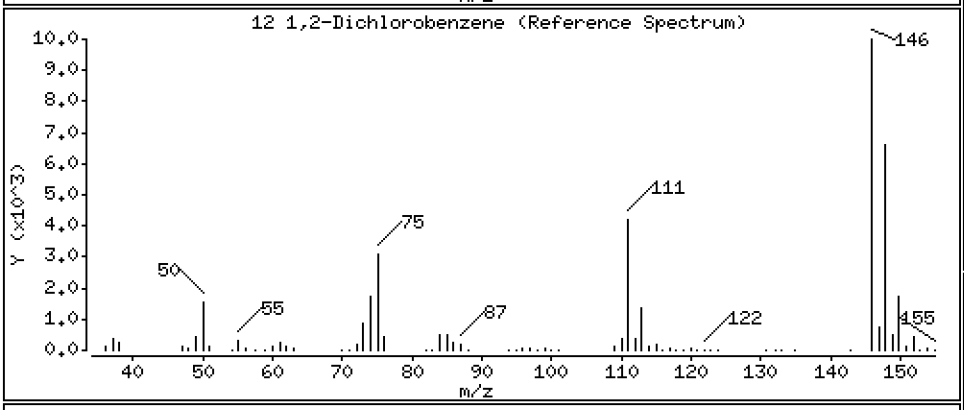
Column diameter: 0.32

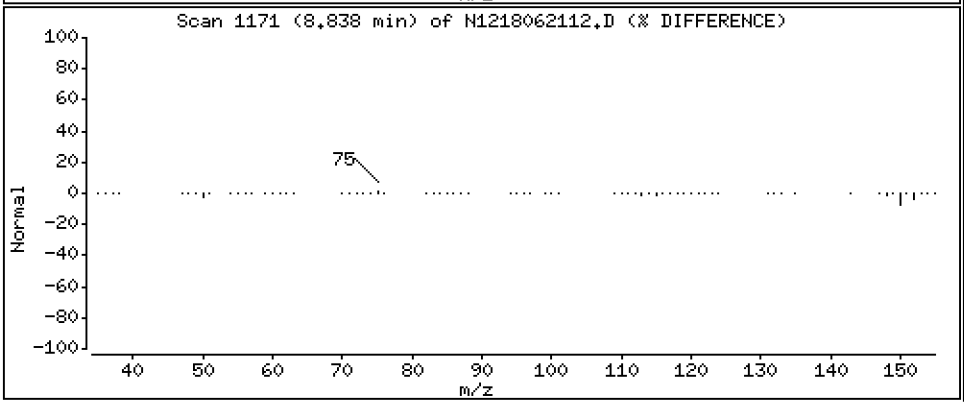
12 1,2-Dichlorobenzene

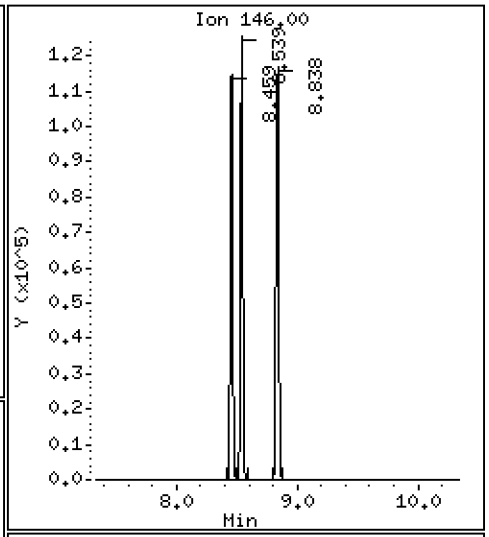
Concentration: 14.28 ug/mL

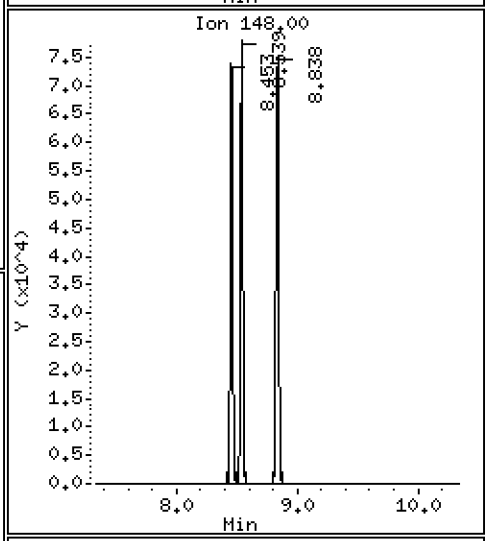


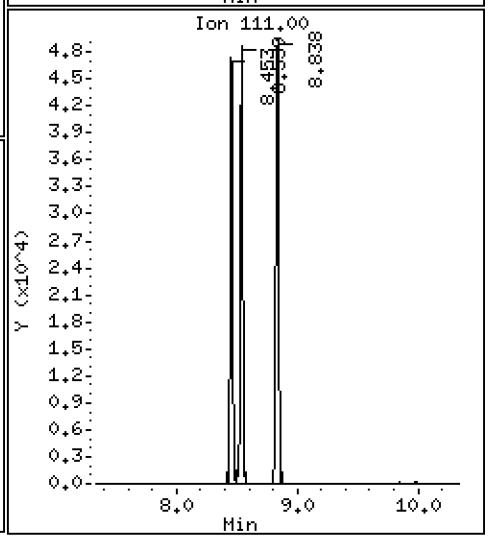












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

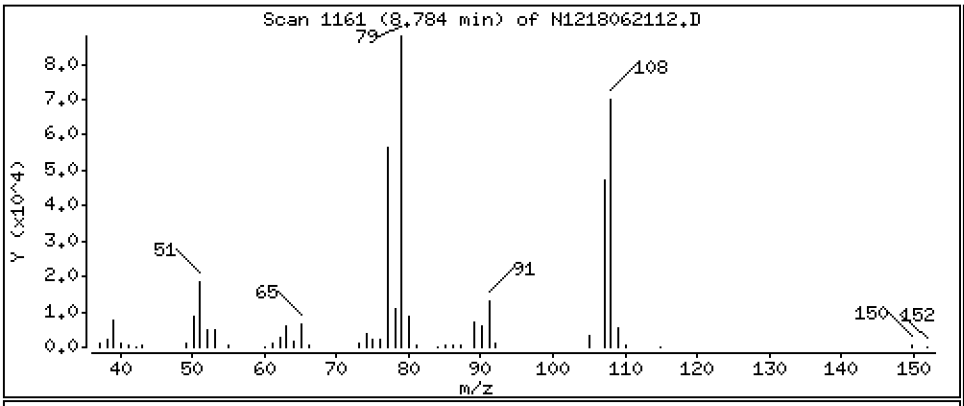
Operator: JZ

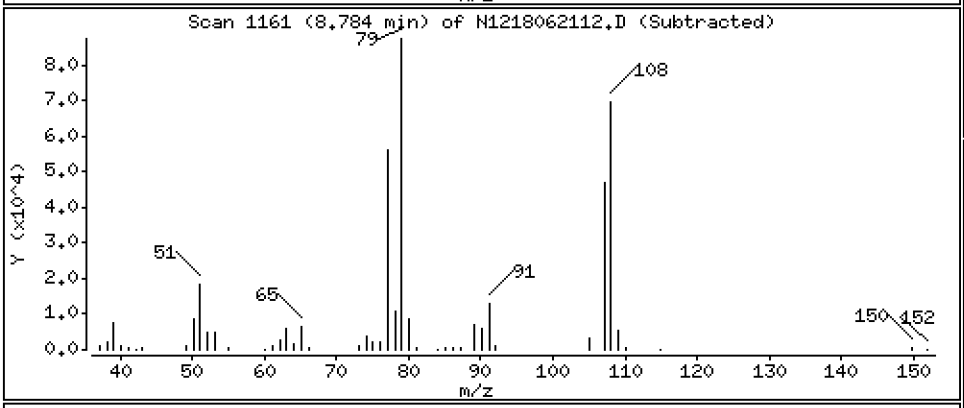
Column phase: ZB-5msi

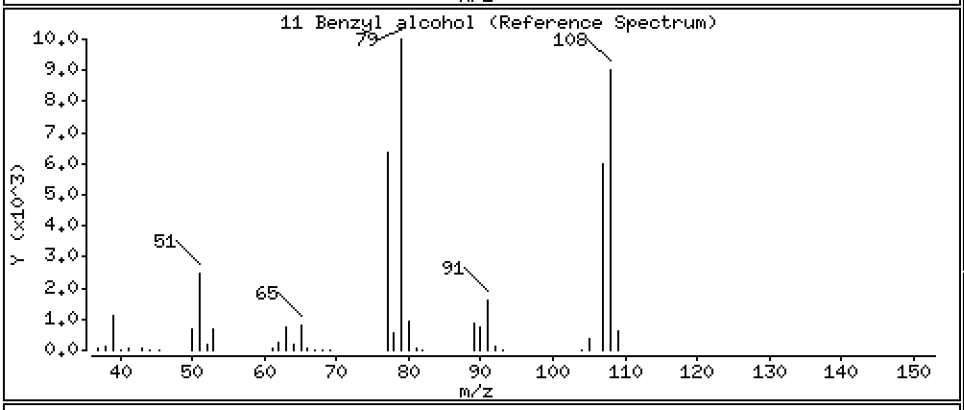
Column diameter: 0.32

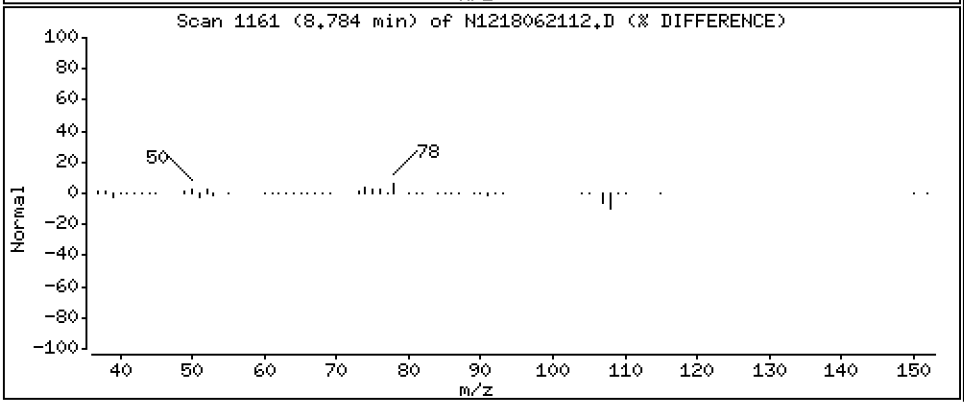
11 Benzyl alcohol

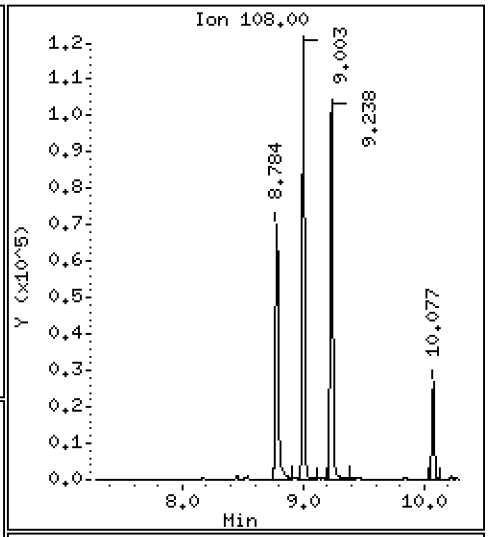
Concentration: 12.82 ug/mL

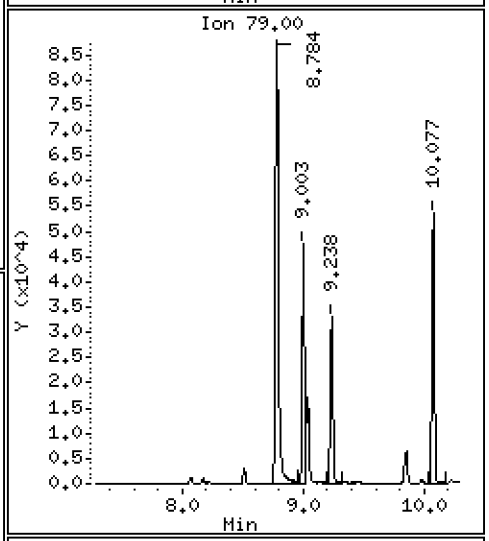


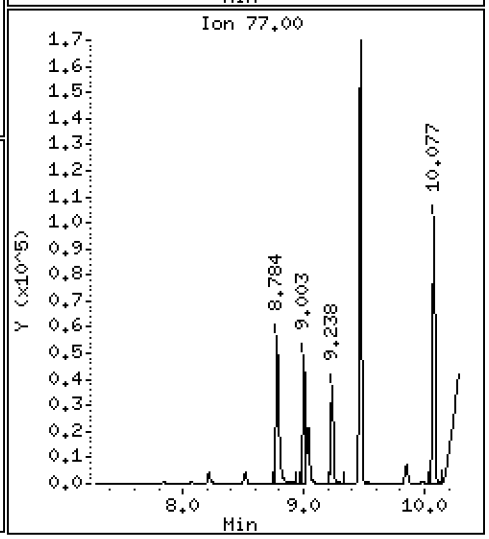












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

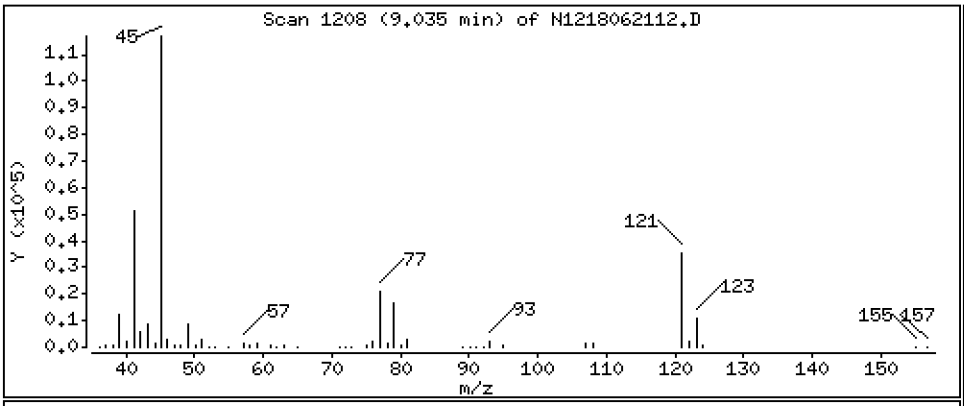
Operator: JZ

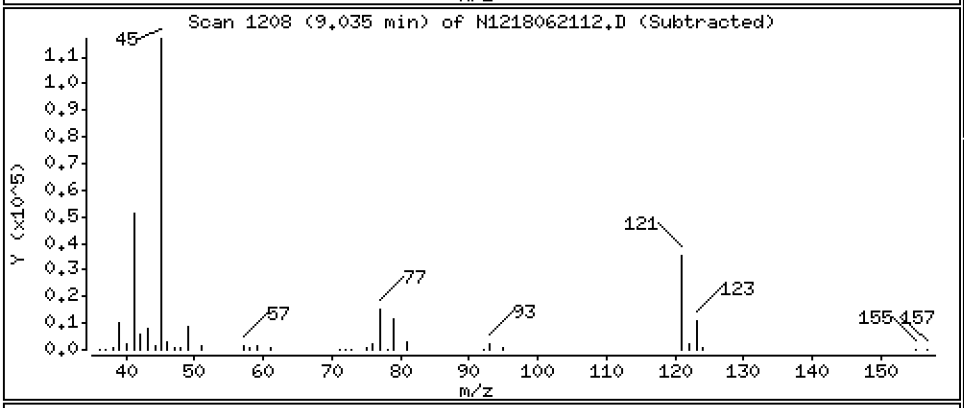
Column phase: ZB-5msi

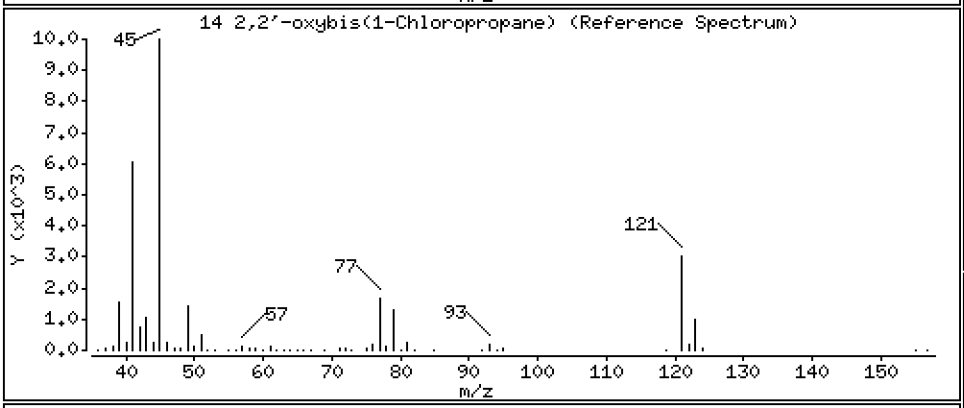
Column diameter: 0.32

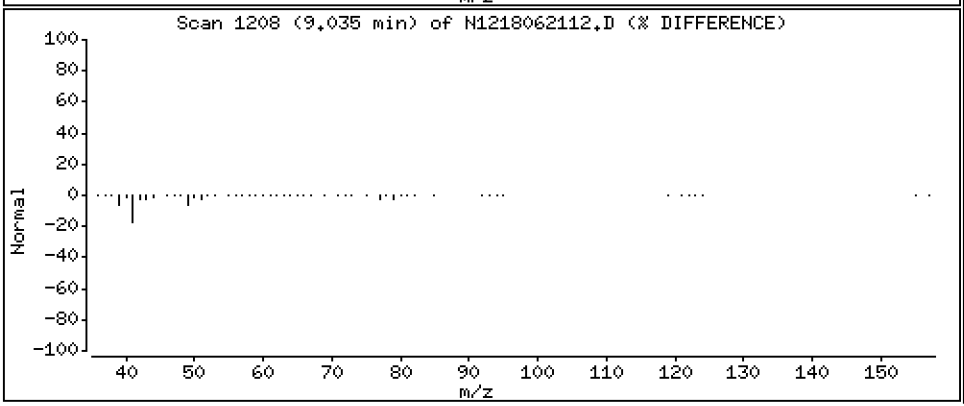
14 2,2'-oxybis(1-Chloropropane)

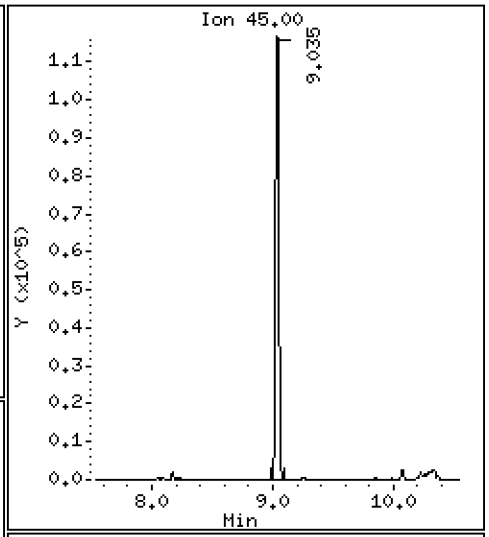
Concentration: 16.65 ug/mL

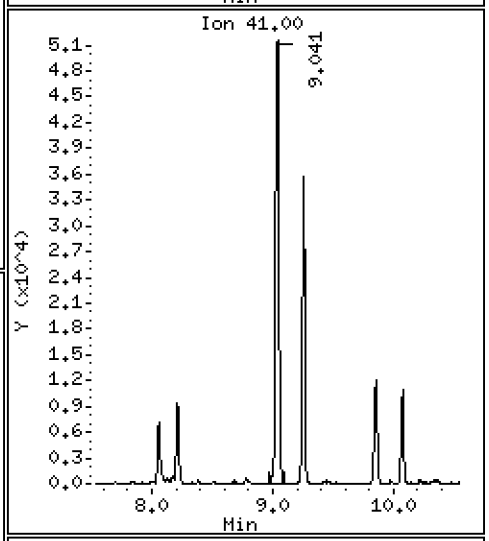


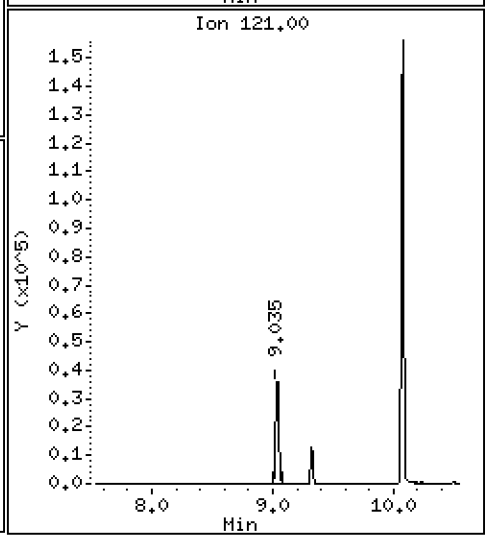












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

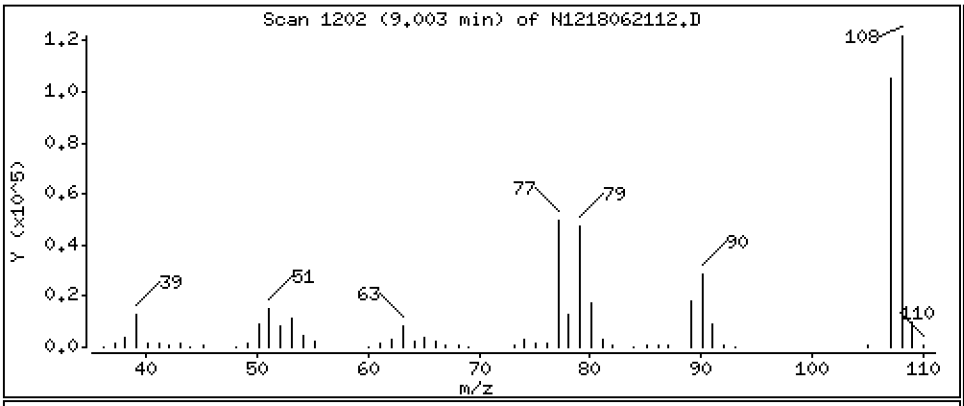
Operator: JZ

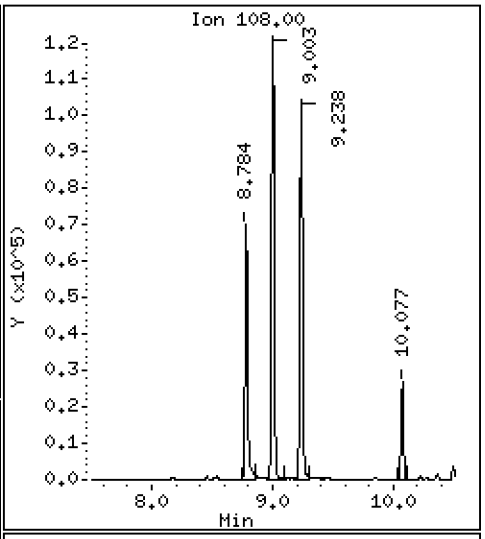
Column phase: ZB-5msi

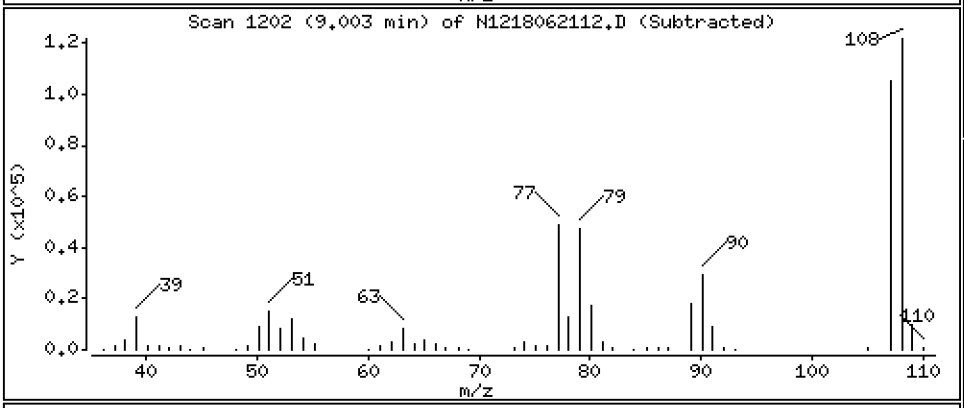
Column diameter: 0.32

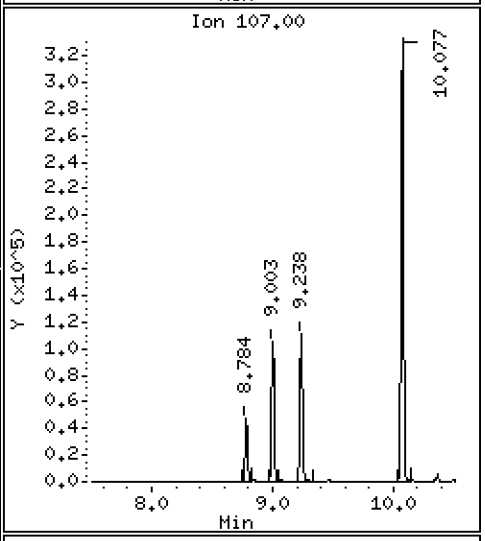
13 2-Methylphenol

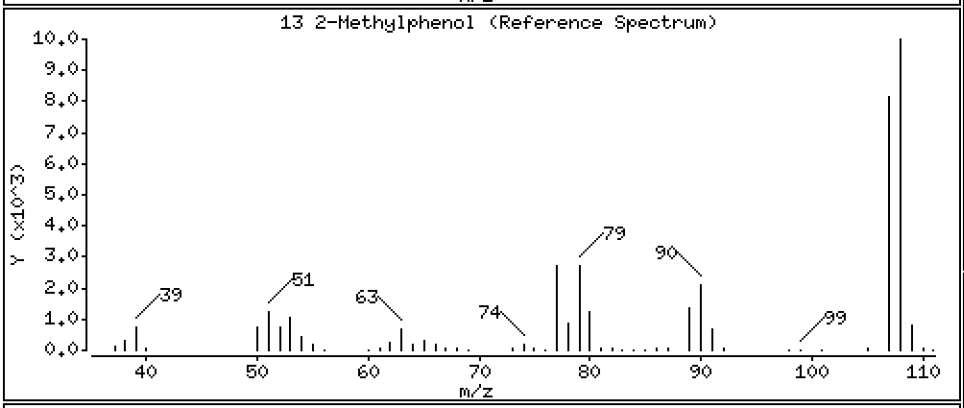
Concentration: 14.75 ug/mL

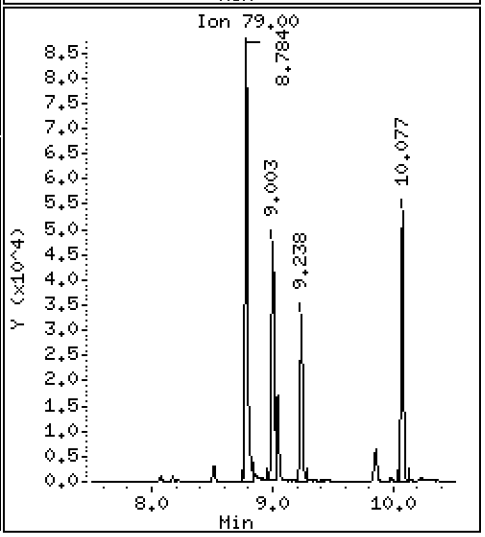


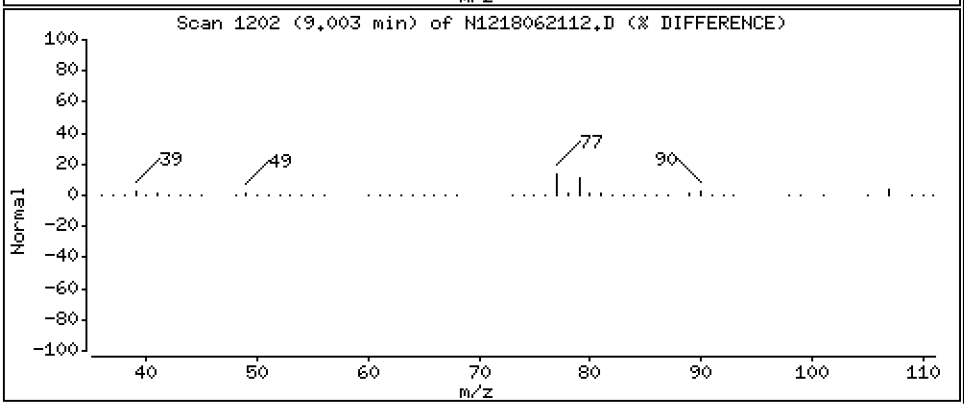












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

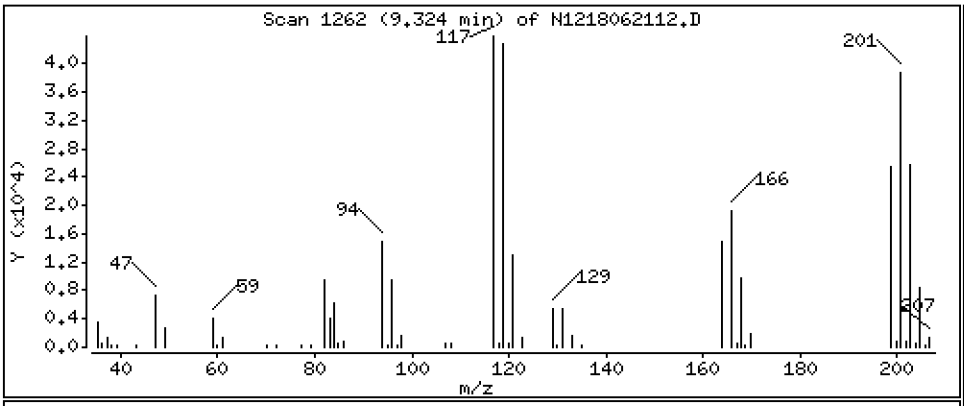
Operator: JZ

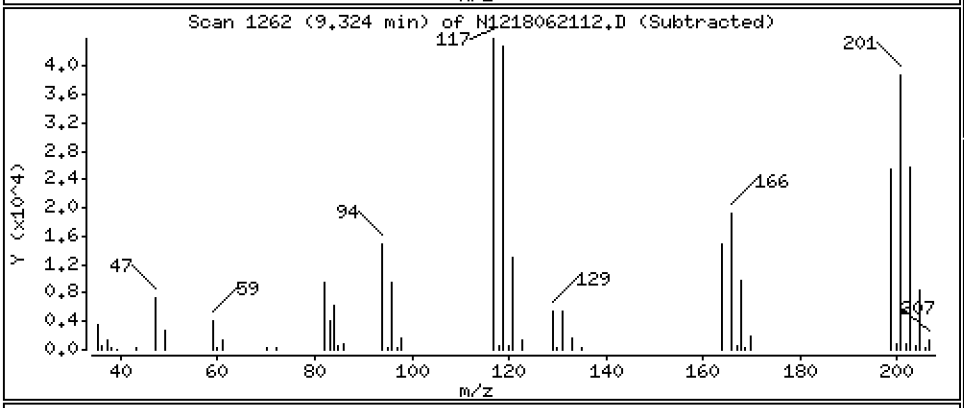
Column phase: ZB-5msi

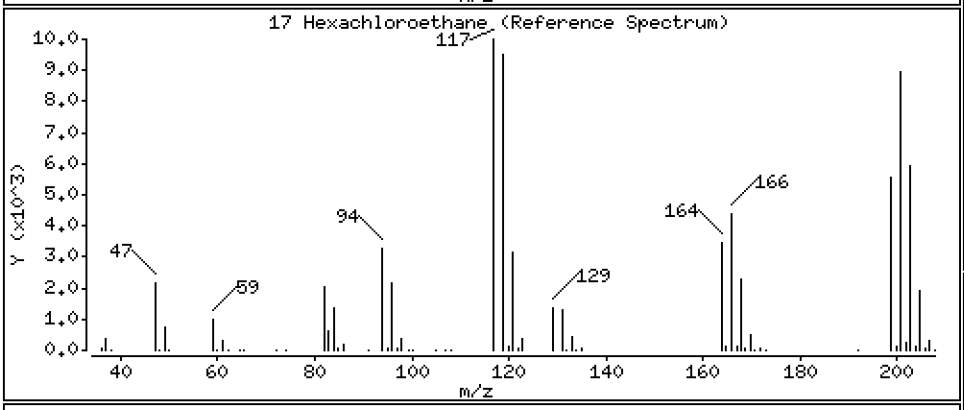
Column diameter: 0.32

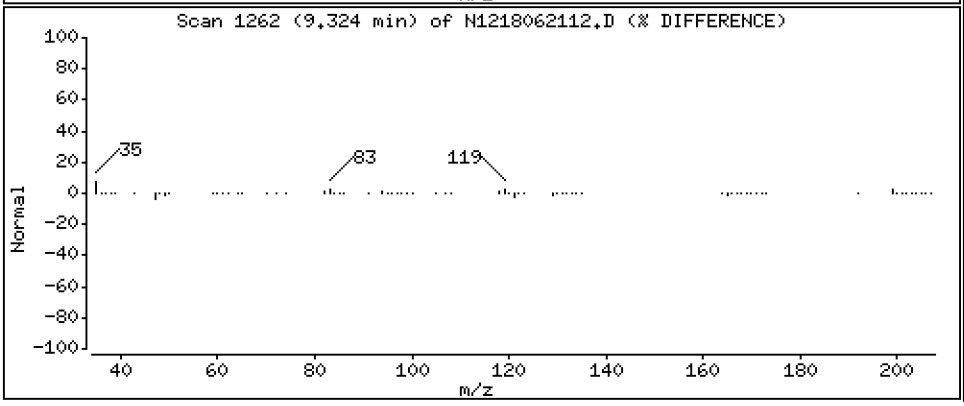
17 Hexachloroethane

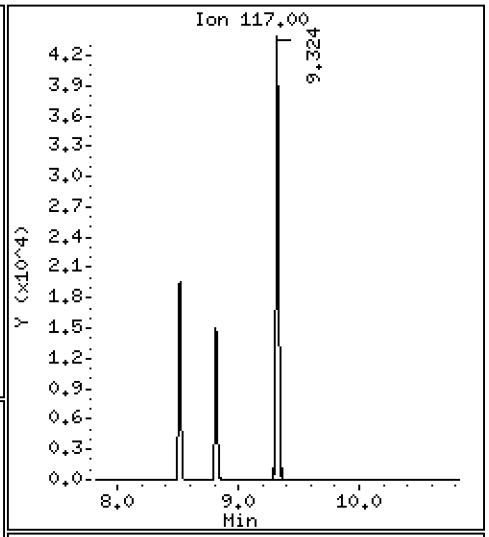
Concentration: 12.71 ug/mL

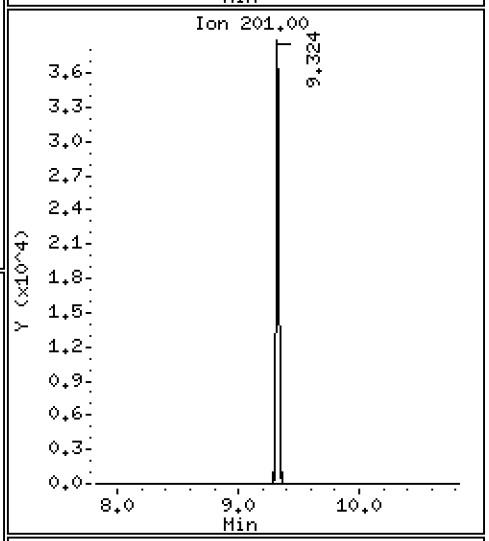


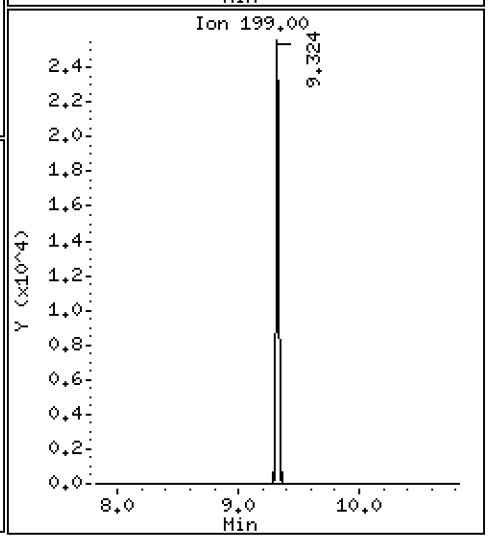












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

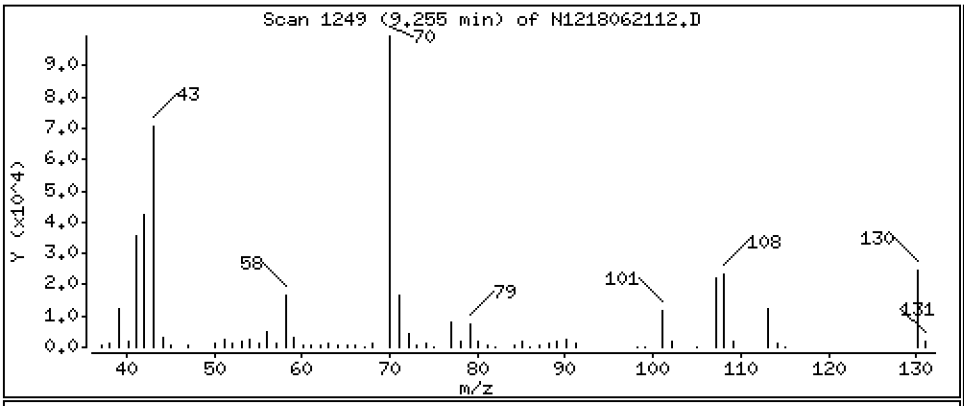
Operator: JZ

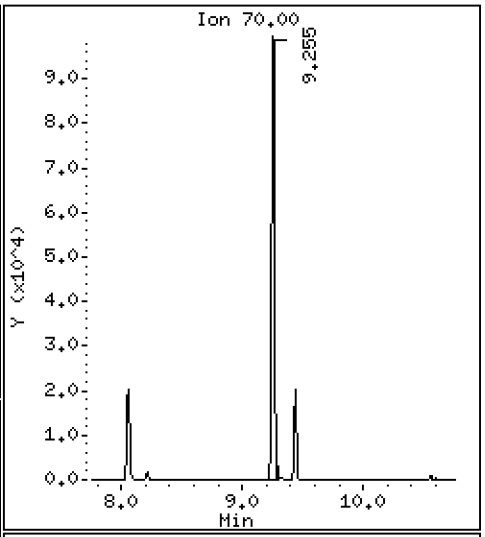
Column phase: ZB-5msi

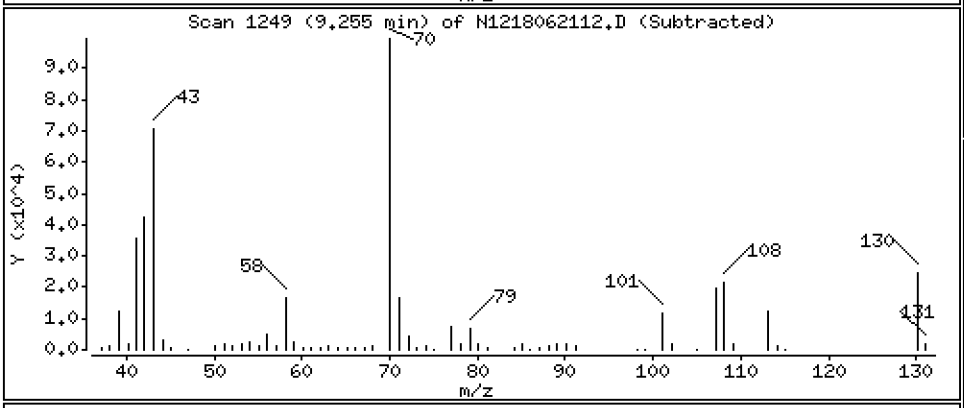
Column diameter: 0.32

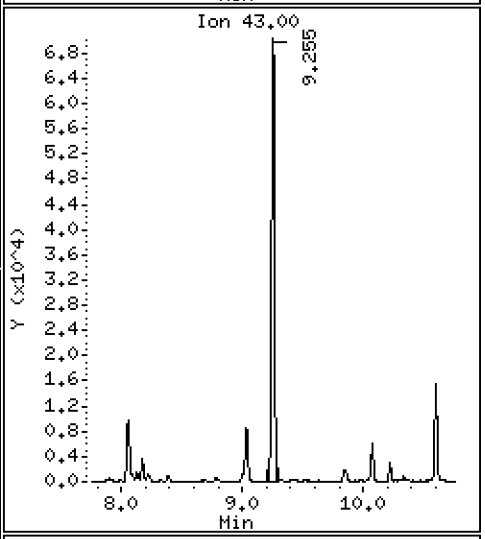
16 N-Nitroso-di-n-propylamine

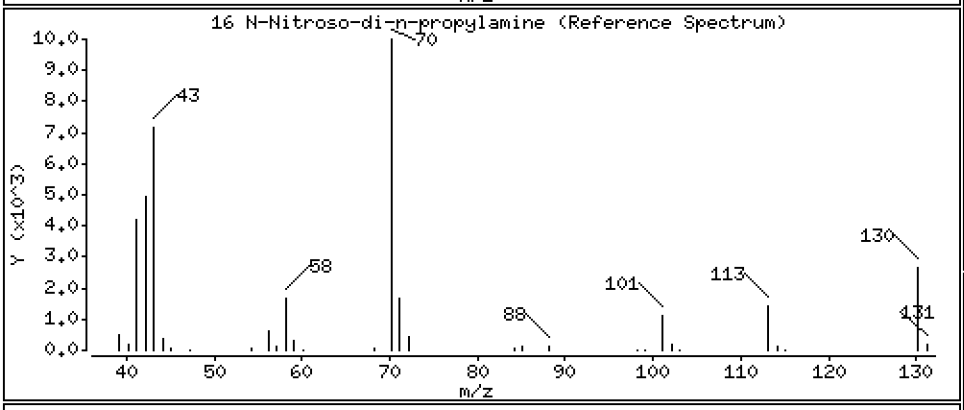
Concentration: 16.87 ug/mL

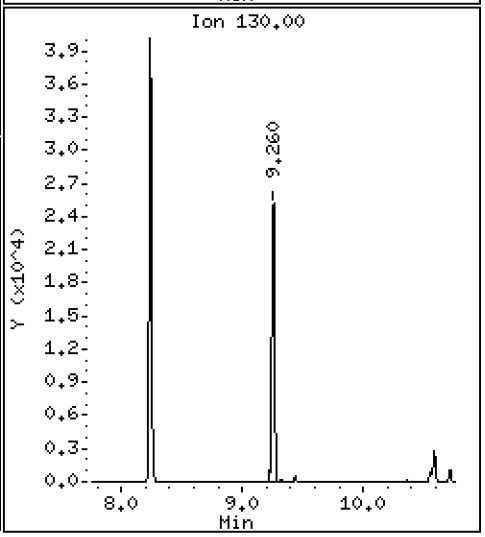


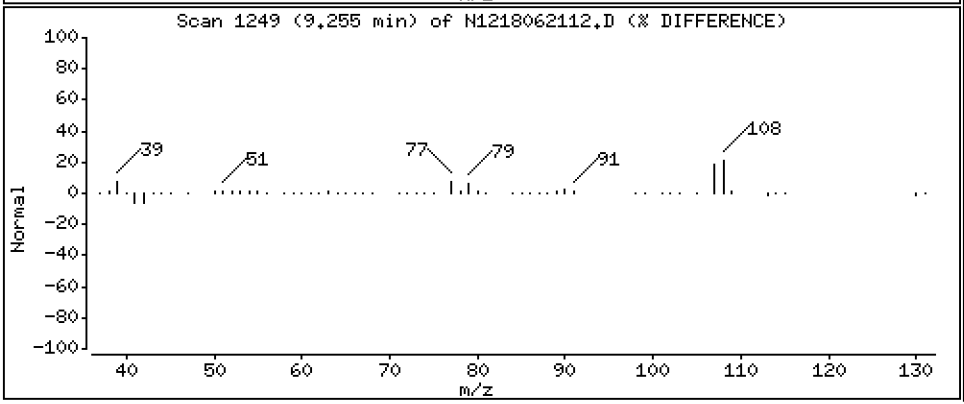












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

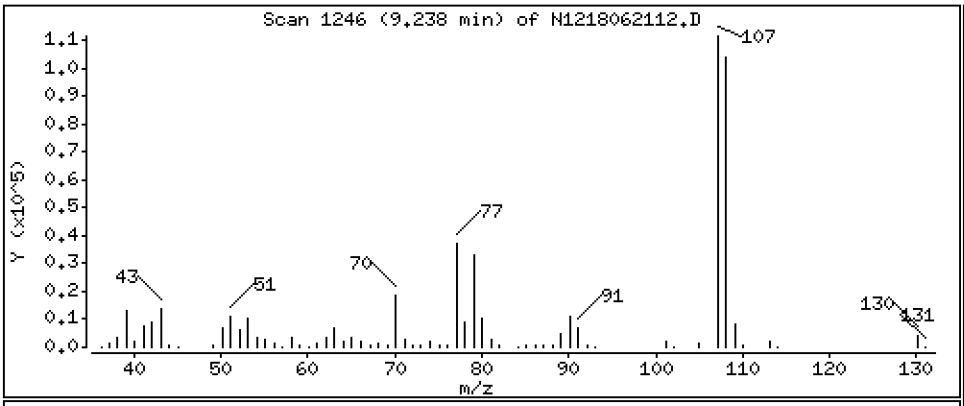
Operator: JZ

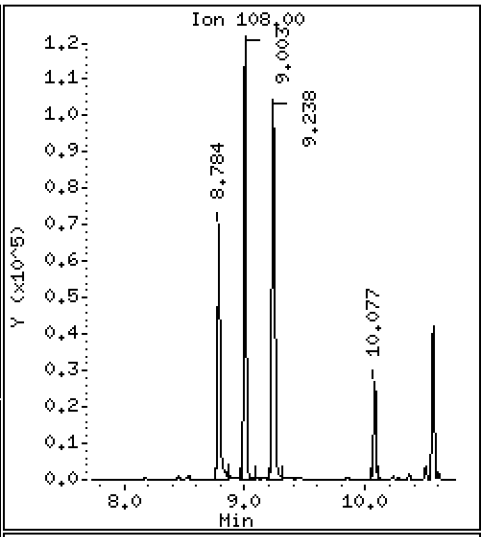
Column phase: ZB-5msi

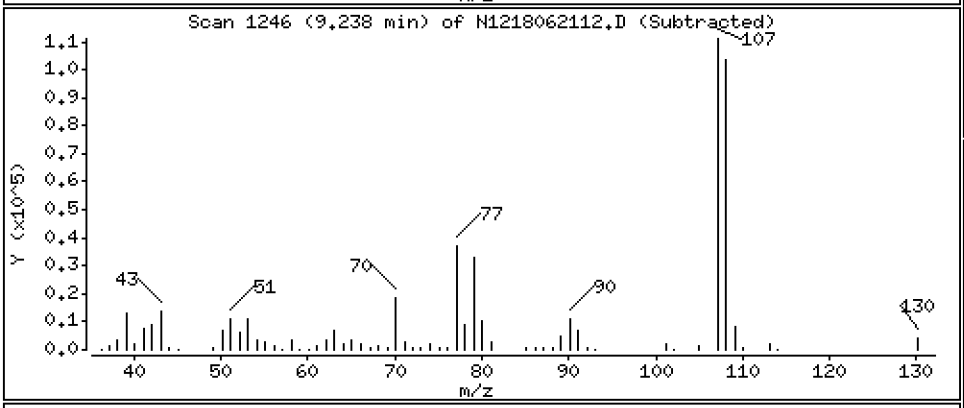
Column diameter: 0.32

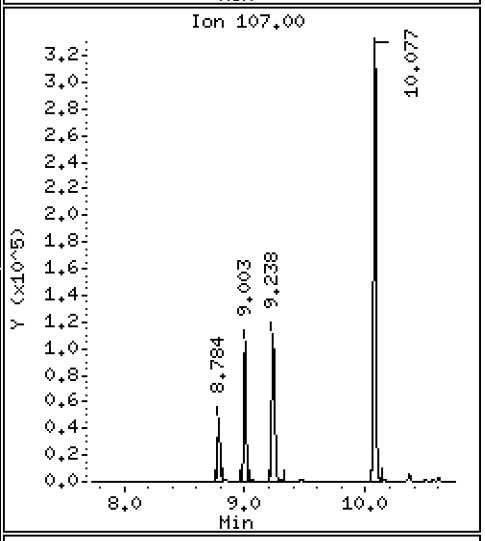
15 4-Methylphenol

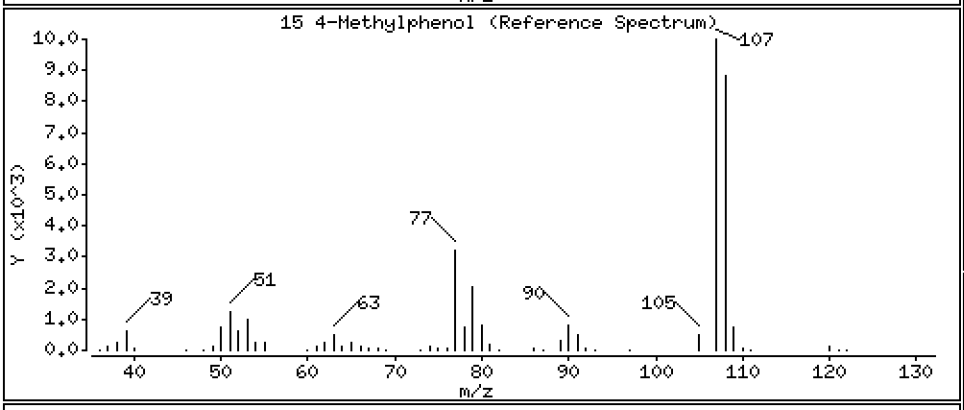
Concentration: 15.04 ug/mL

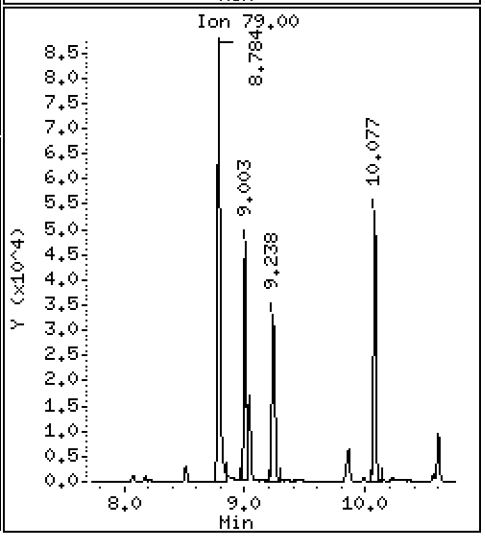


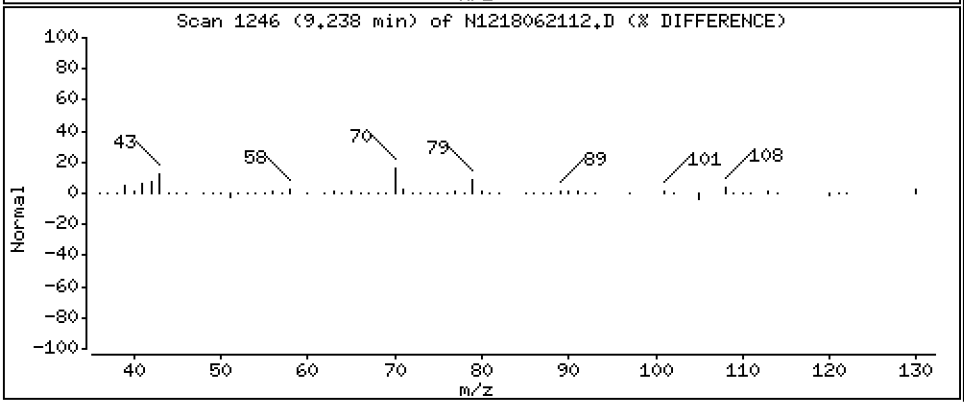












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

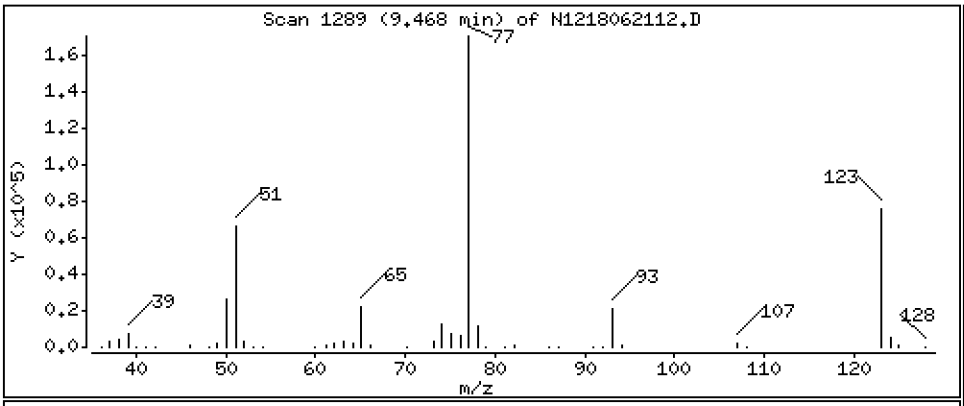
Operator: JZ

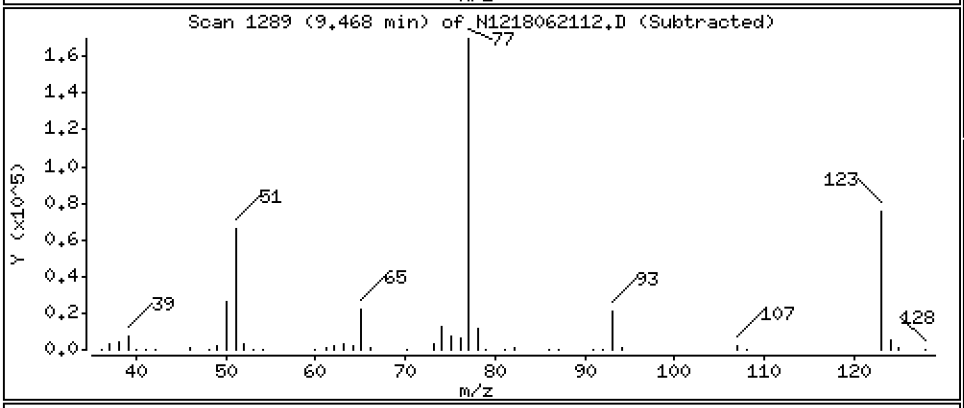
Column phase: ZB-5msi

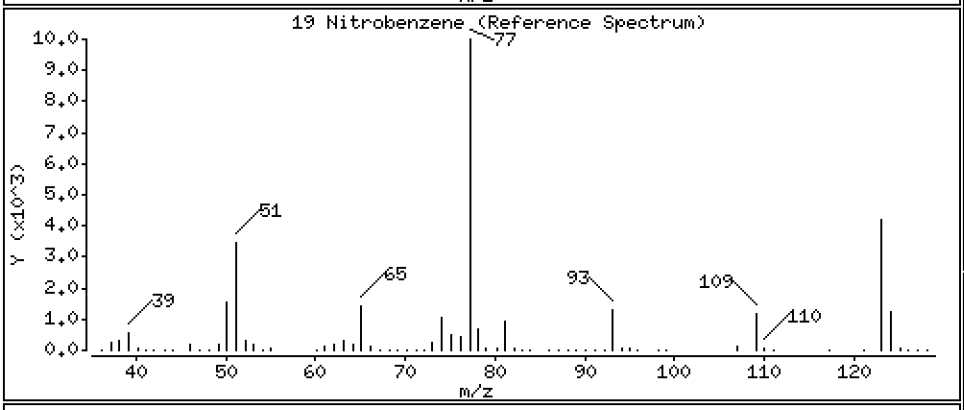
Column diameter: 0.32

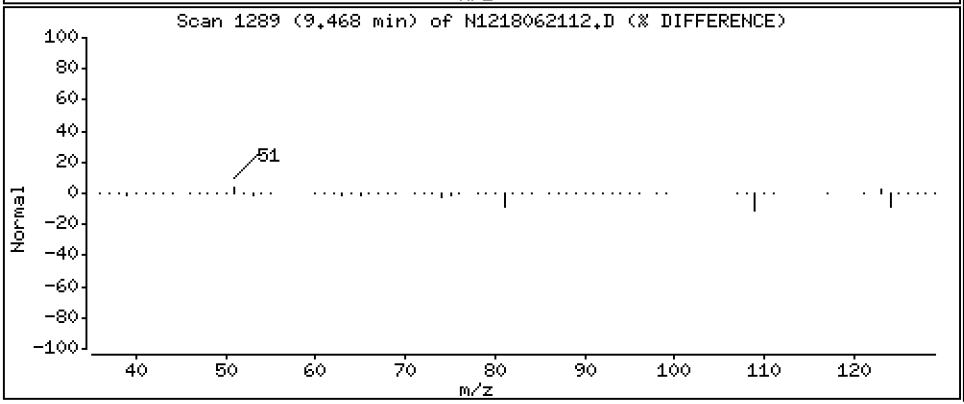
19 Nitrobenzene

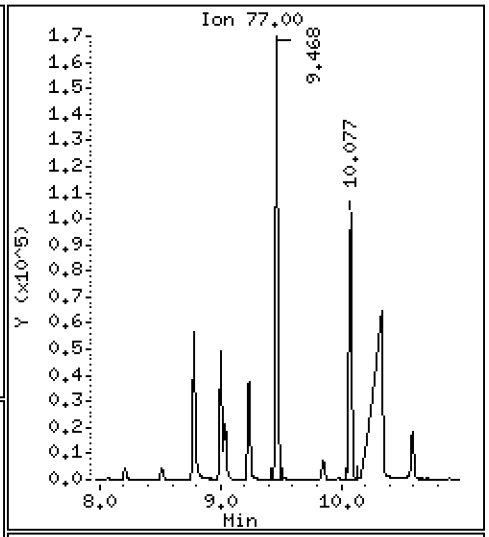
Concentration: 17.02 ug/mL

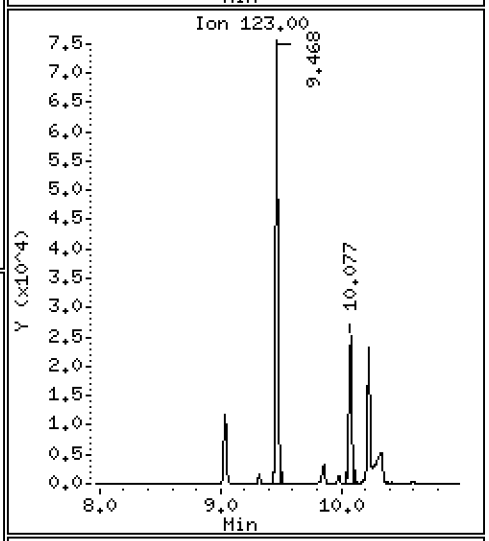


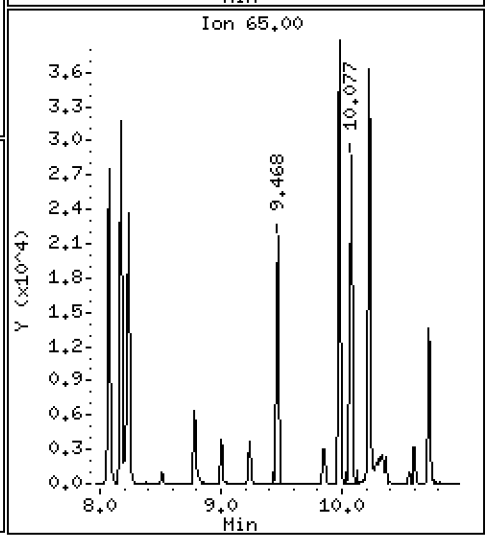












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

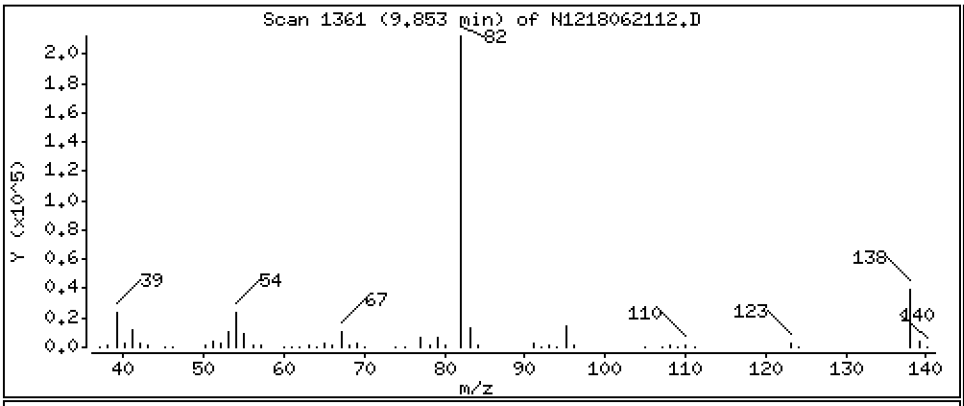
Operator: JZ

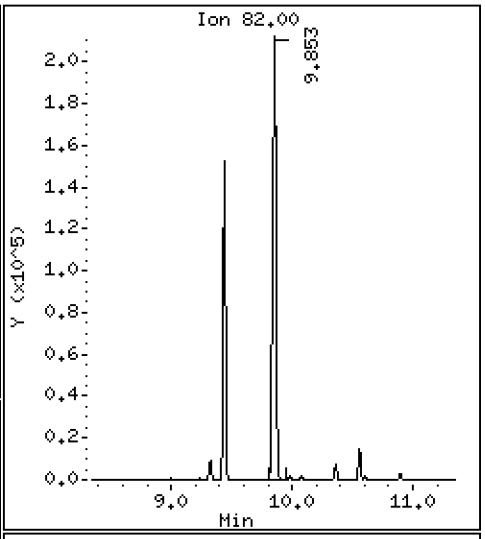
Column phase: ZB-5msi

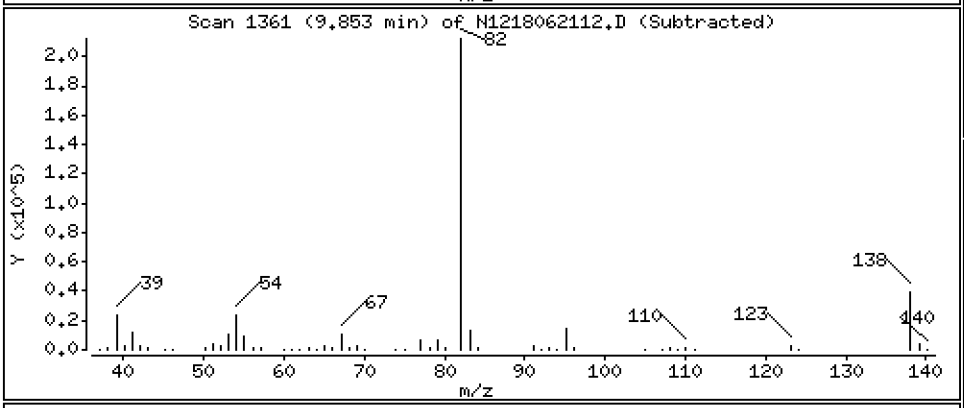
Column diameter: 0.32

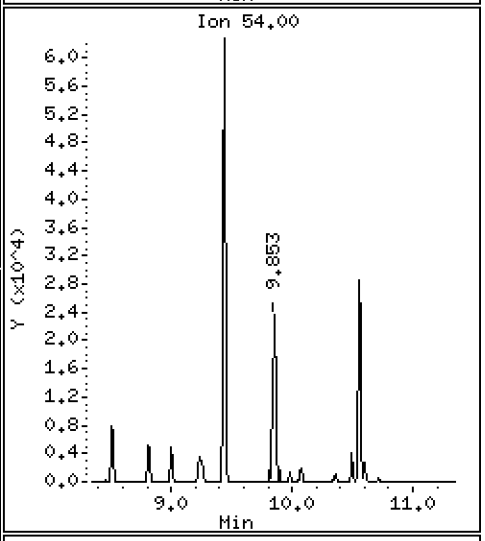
20 Isophorone

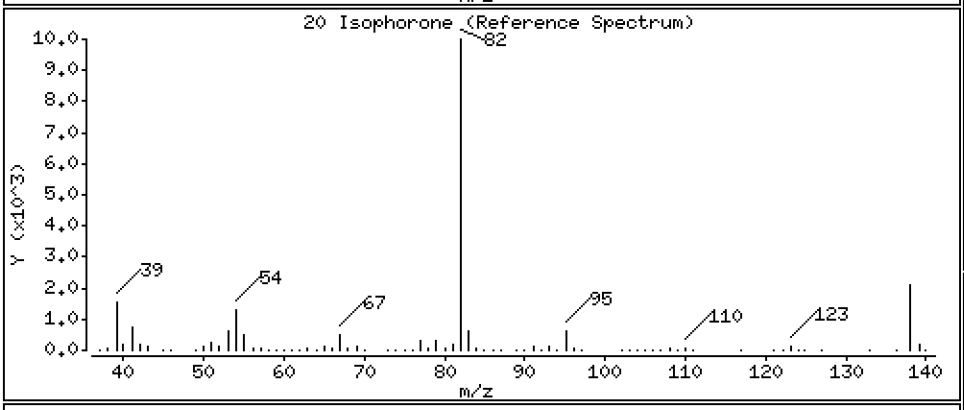
Concentration: 19.99 ug/mL

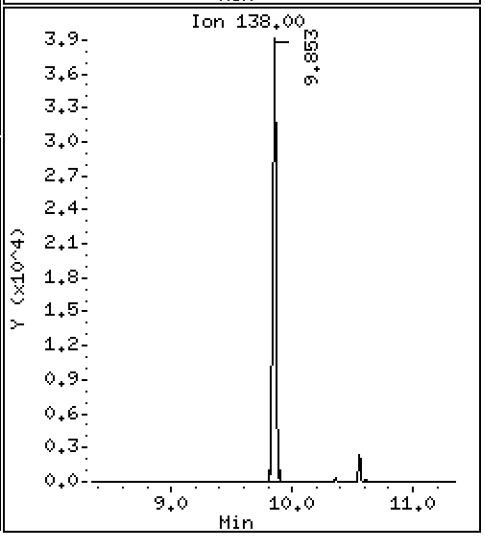


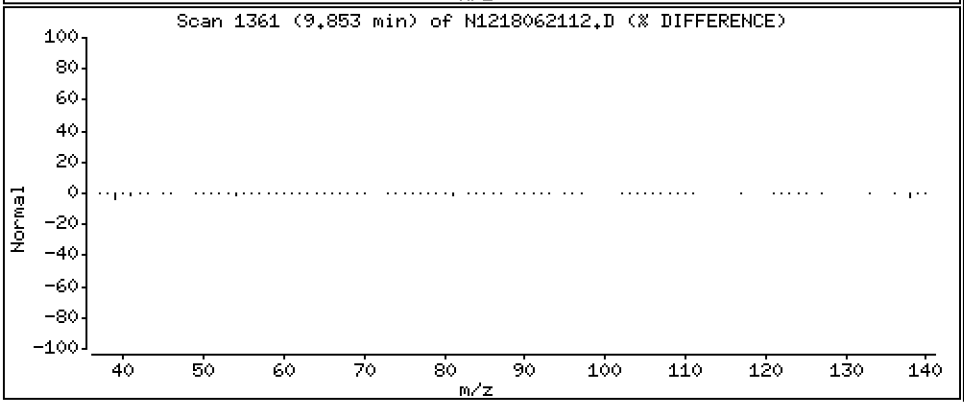












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

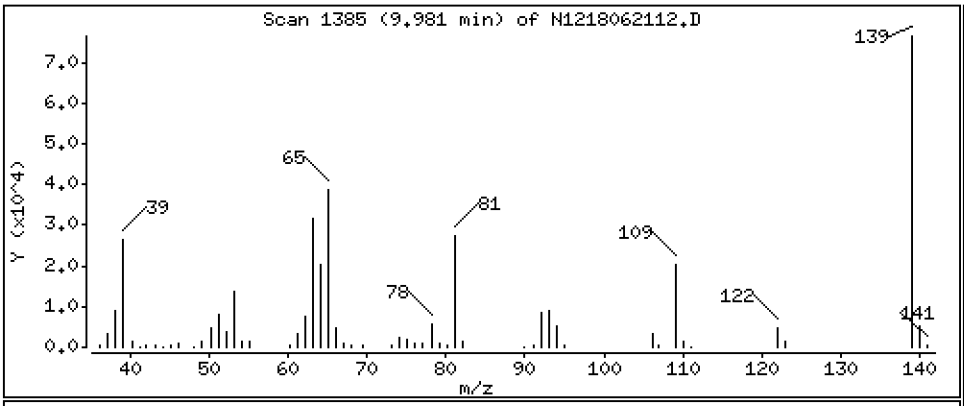
Operator: JZ

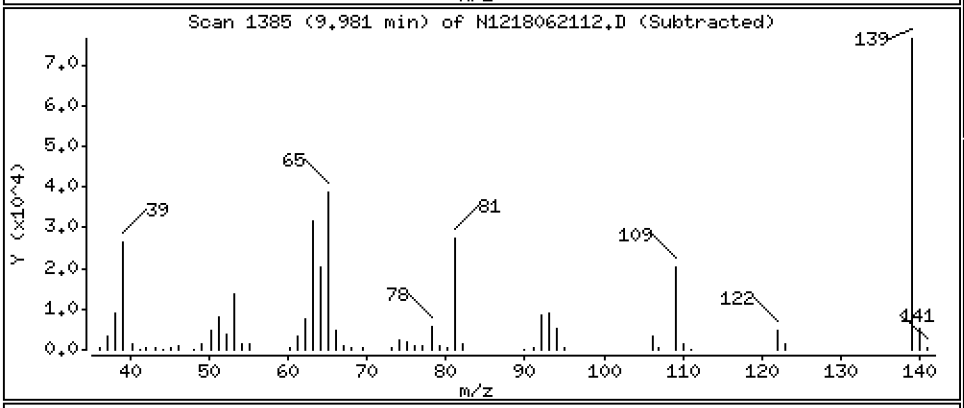
Column phase: ZB-5msi

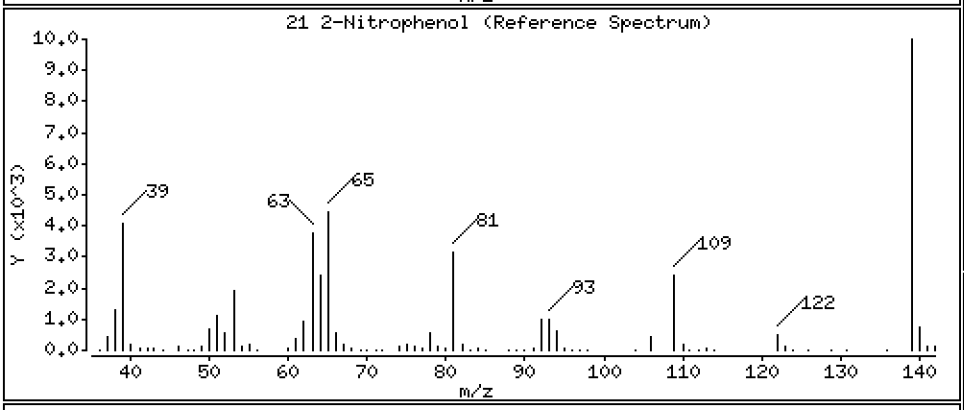
Column diameter: 0.32

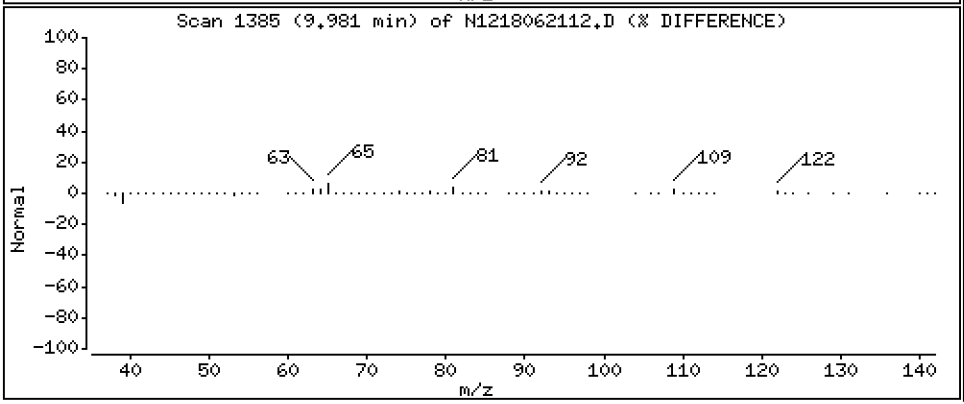
21 2-Nitrophenol

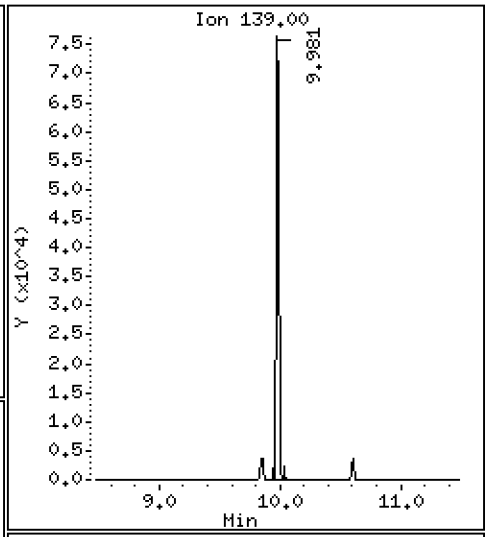
Concentration: 17.12 ug/mL

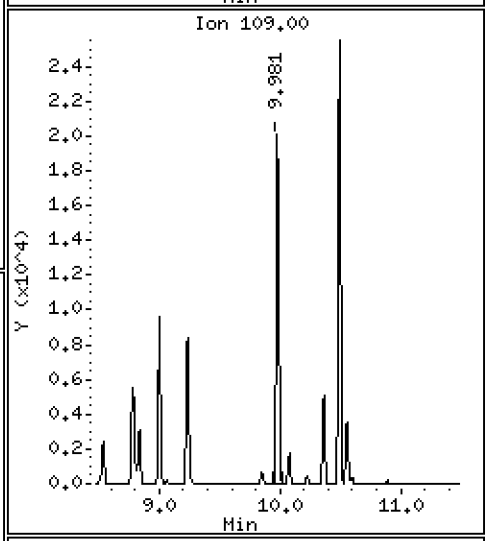


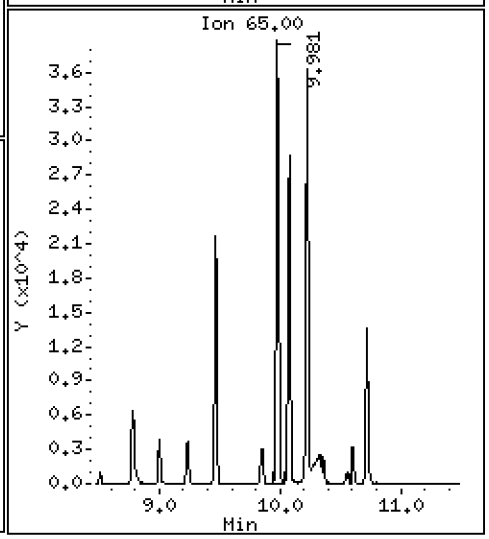












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

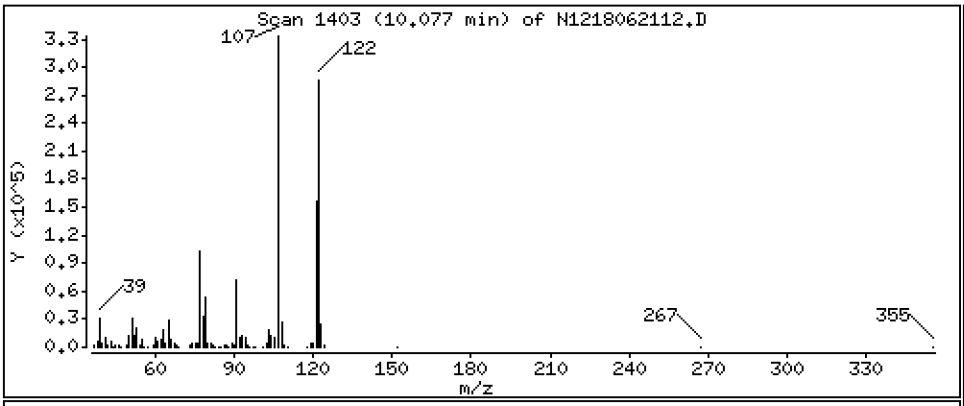
Operator: JZ

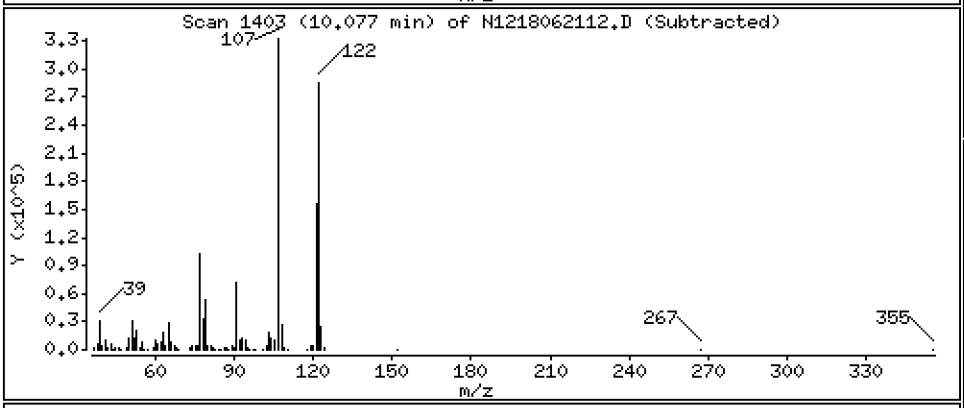
Column phase: ZB-5msi

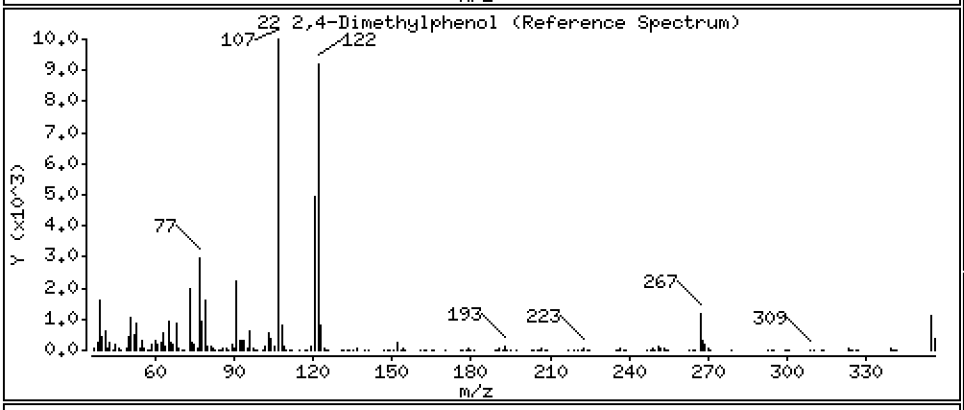
Column diameter: 0.32

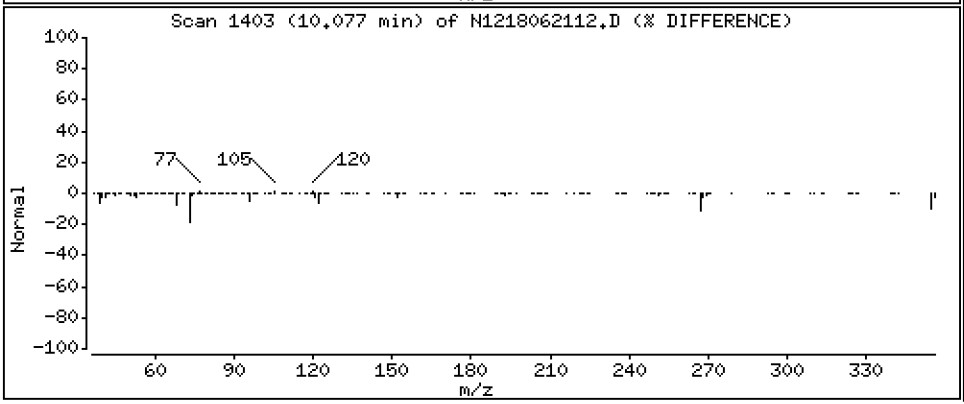
22 2,4-Dimethylphenol

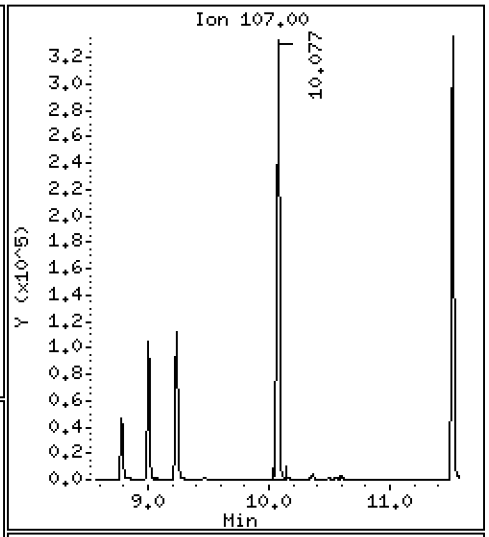
Concentration: 40.92 ug/mL

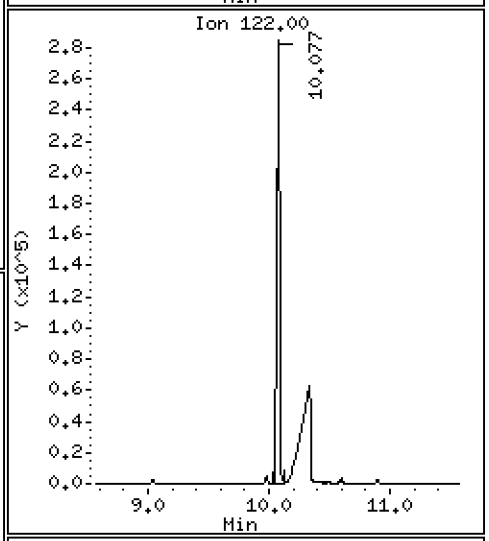


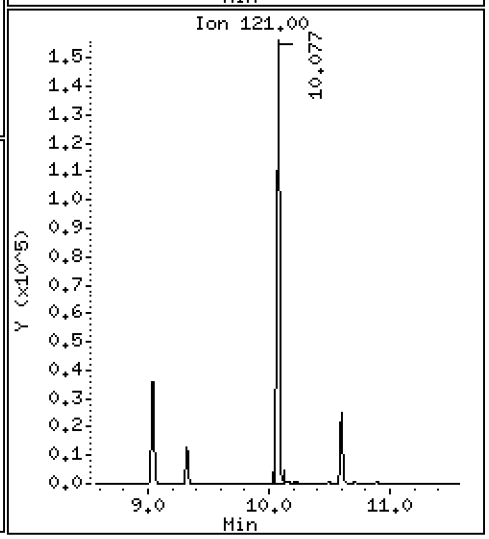












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

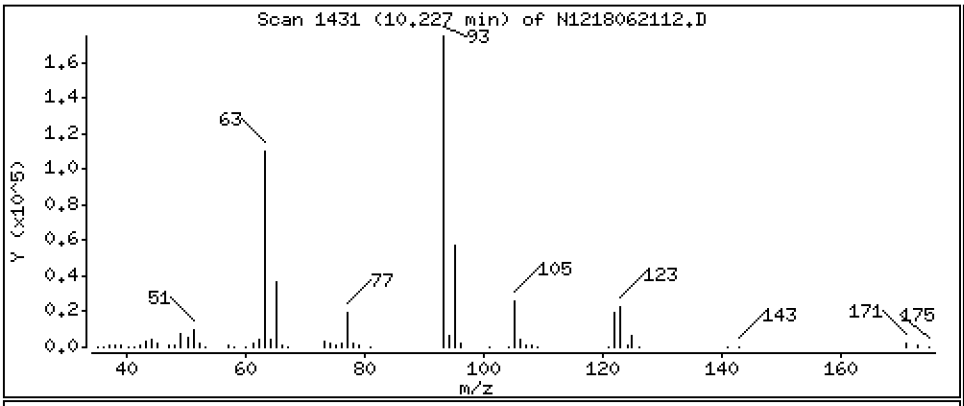
Operator: JZ

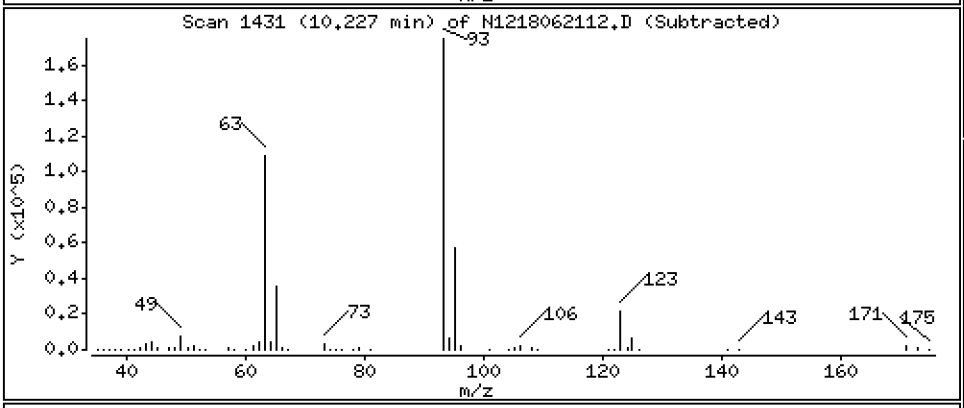
Column phase: ZB-5msi

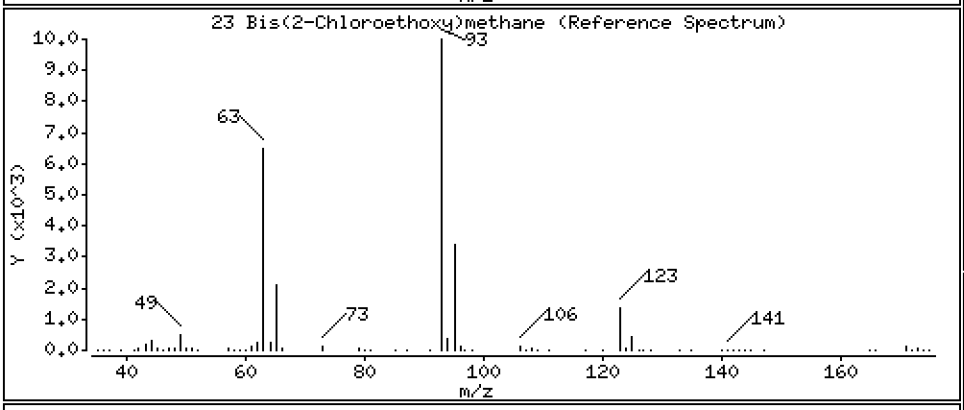
Column diameter: 0.32

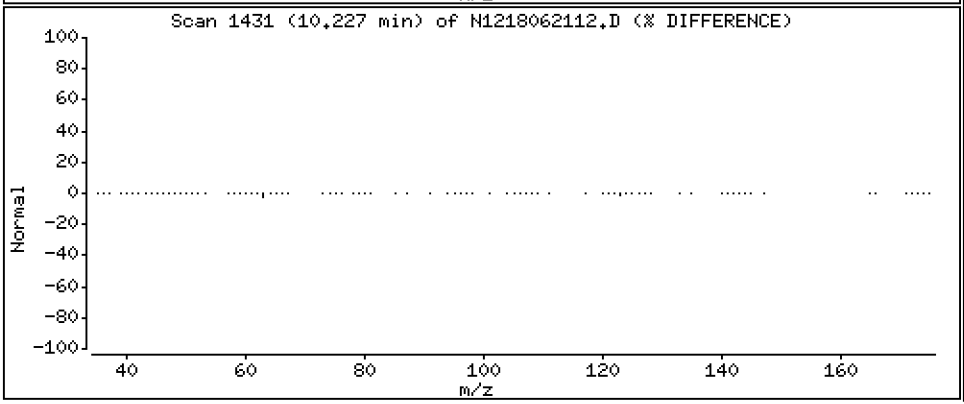
23 Bis(2-Chloroethoxy)methane

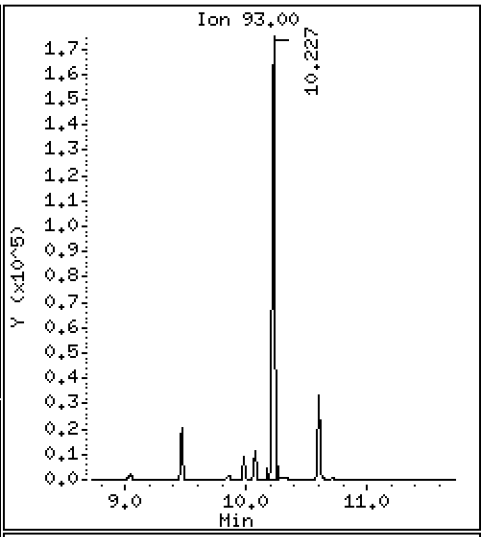
Concentration: 18.09 ug/mL

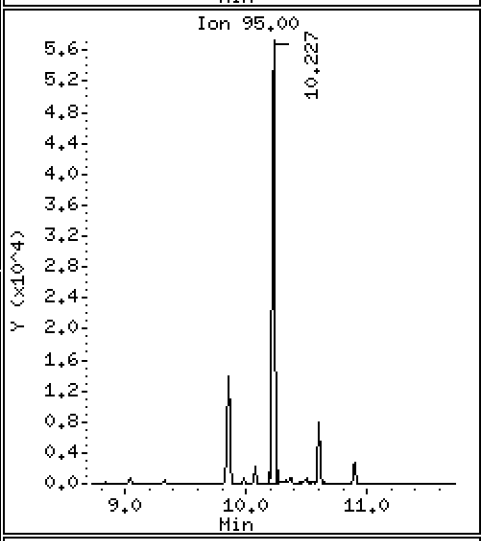


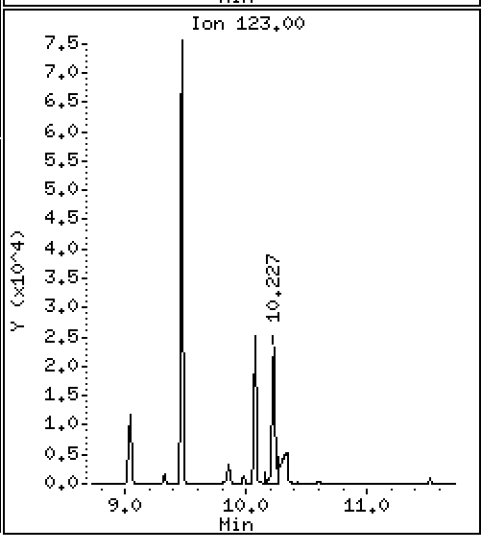












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

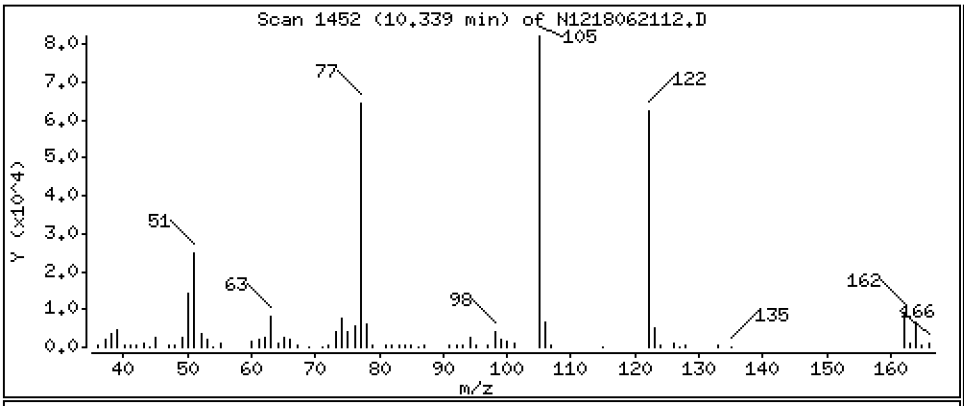
Operator: JZ

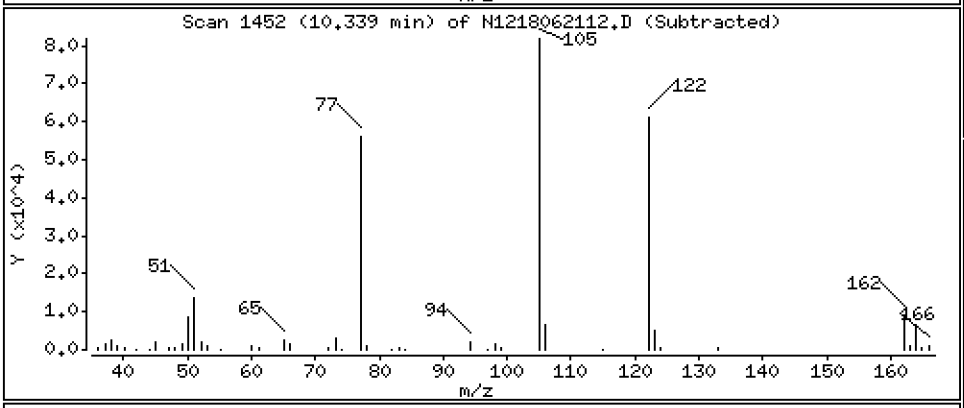
Column phase: ZB-5msi

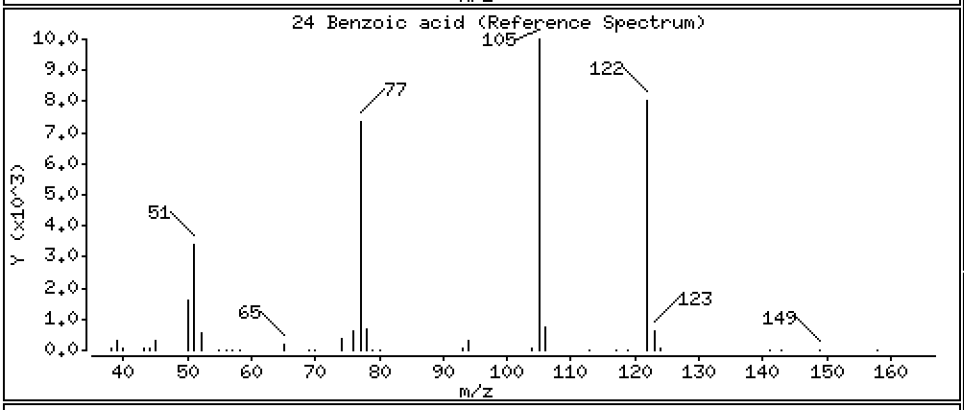
Column diameter: 0.32

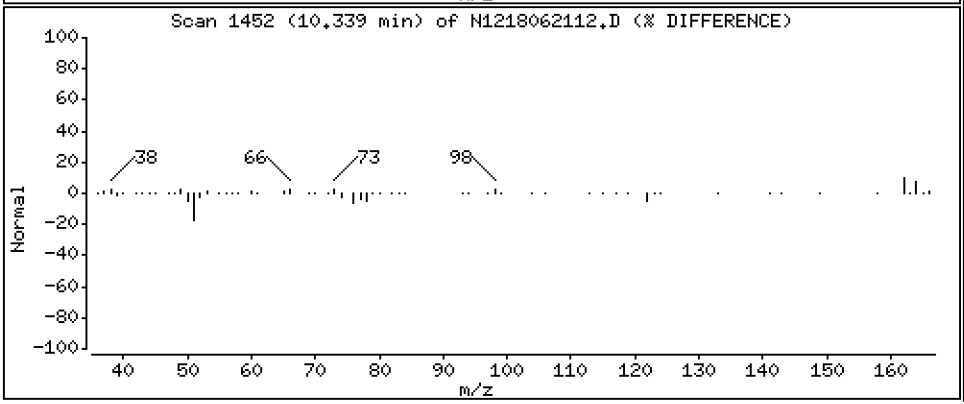
24 Benzoic acid

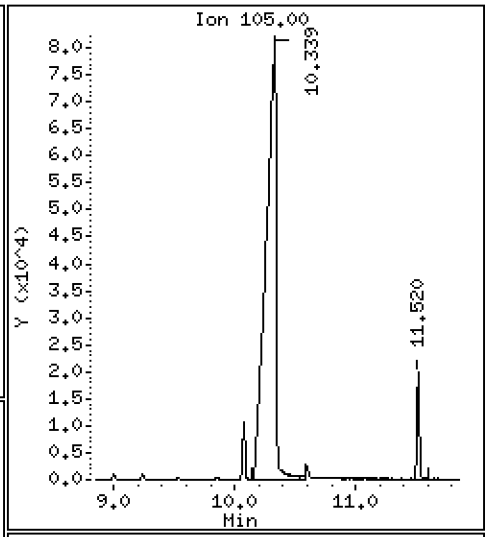
Concentration: 59.17 ug/mL

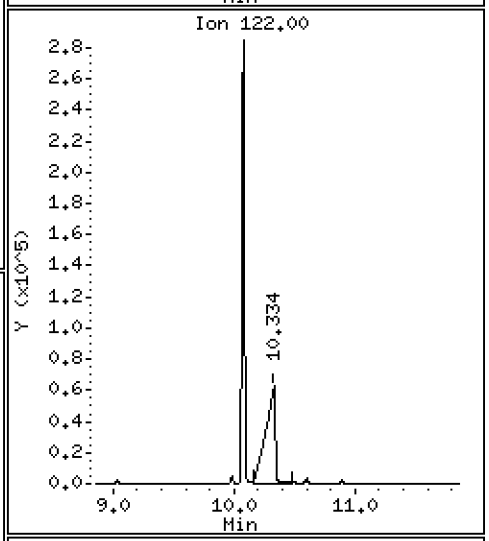


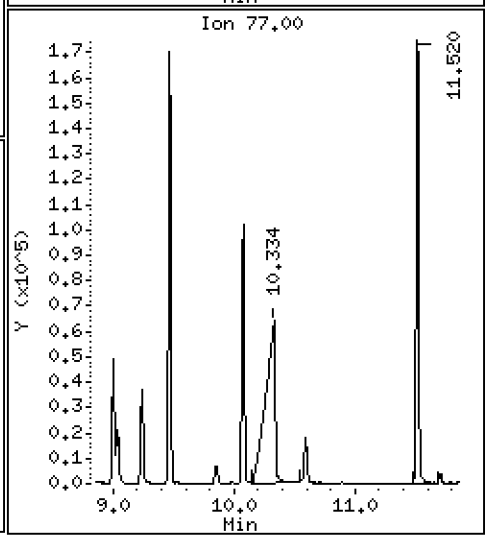












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

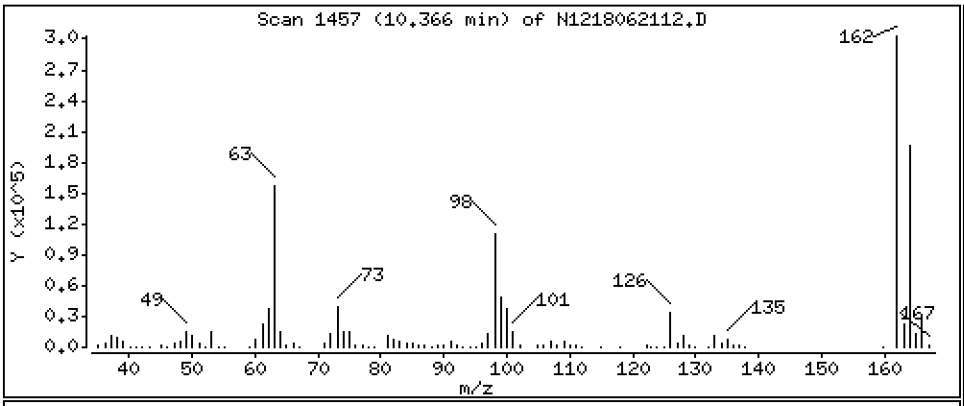
Operator: JZ

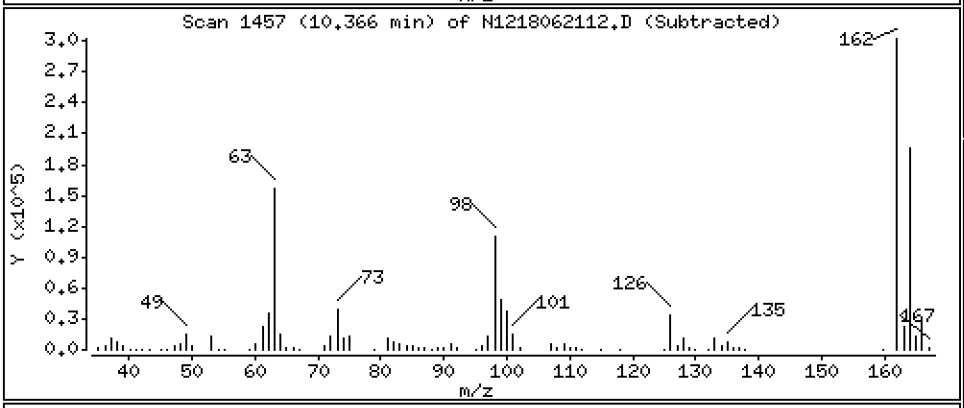
Column phase: ZB-5msi

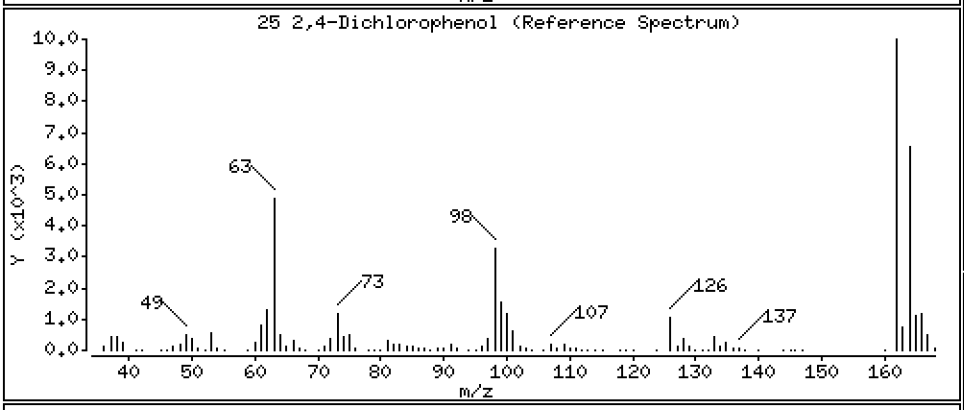
Column diameter: 0.32

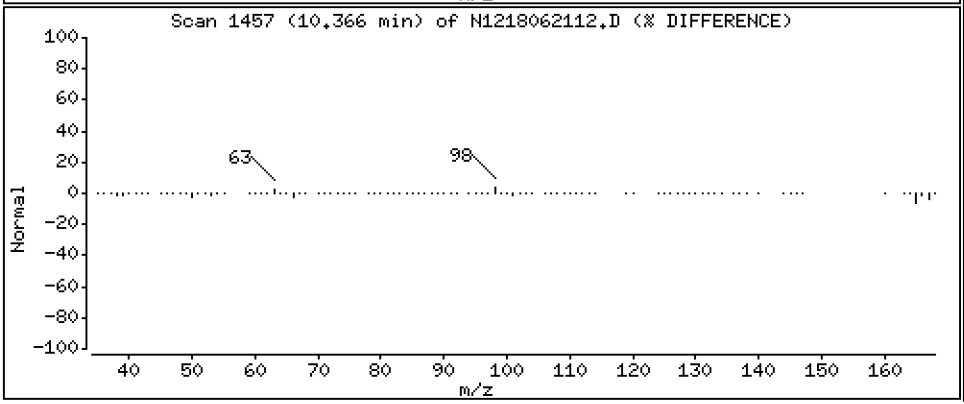
25 2,4-Dichlorophenol

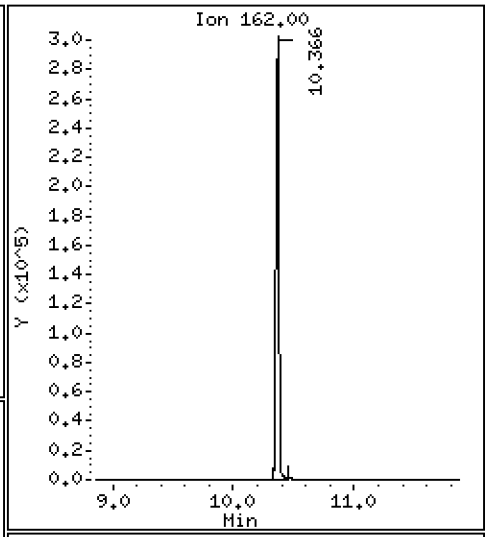
Concentration: 48.83 ug/mL

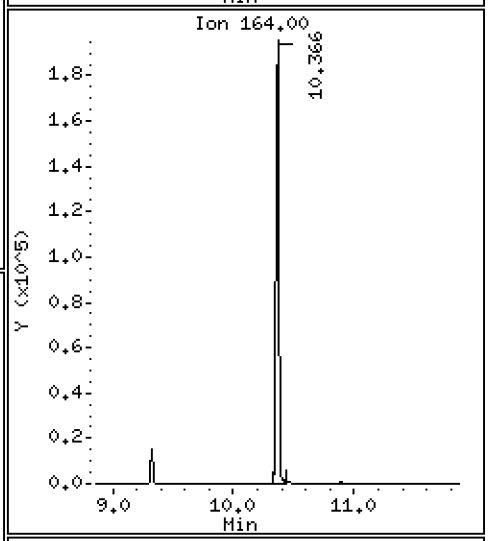


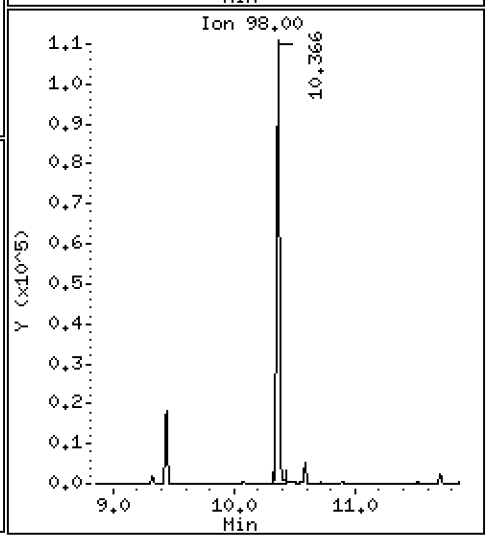












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

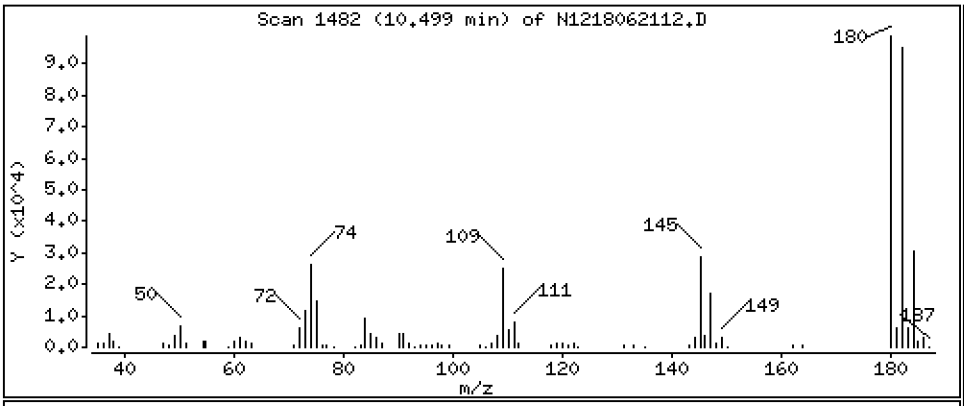
Operator: JZ

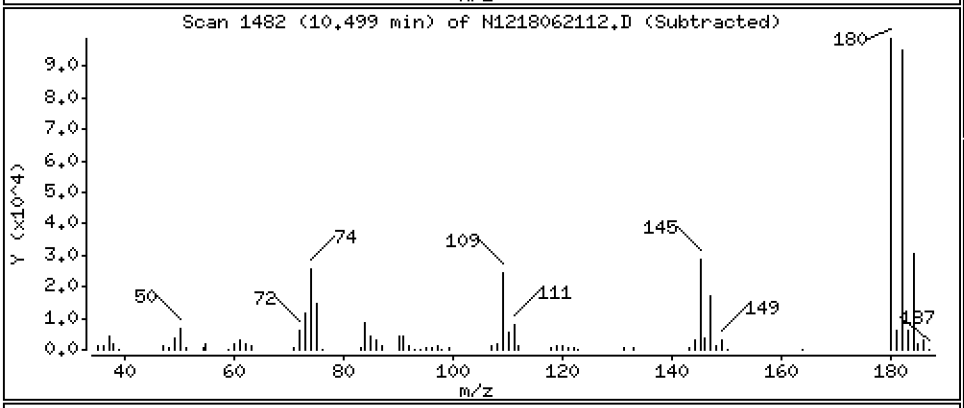
Column phase: ZB-5msi

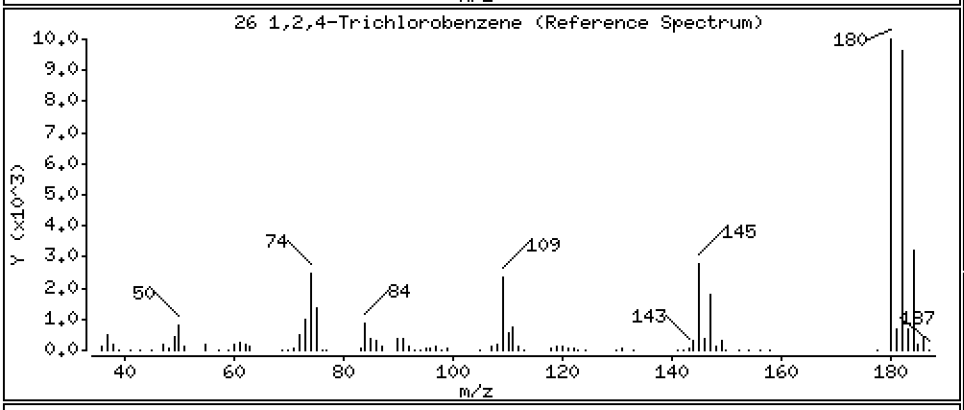
Column diameter: 0.32

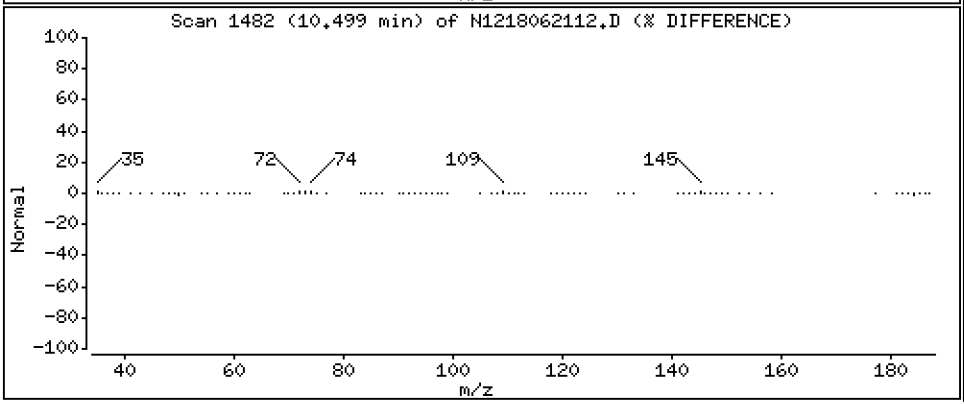
26 1,2,4-Trichlorobenzene

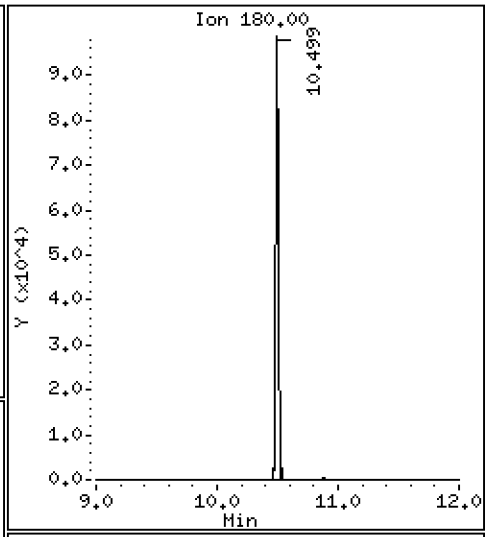
Concentration: 14.74 ug/mL

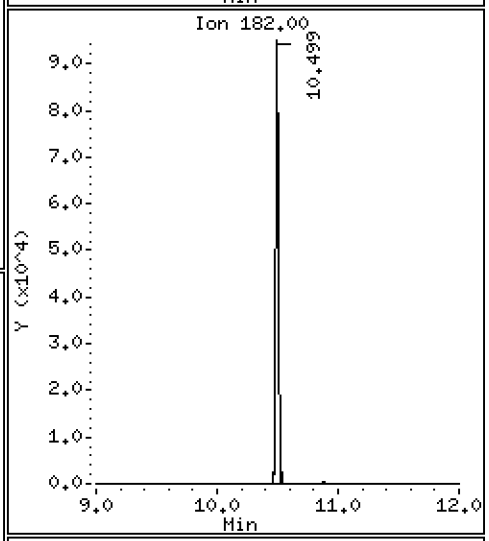


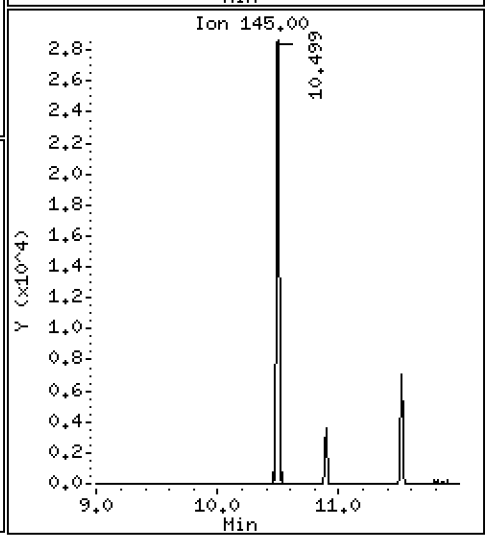












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

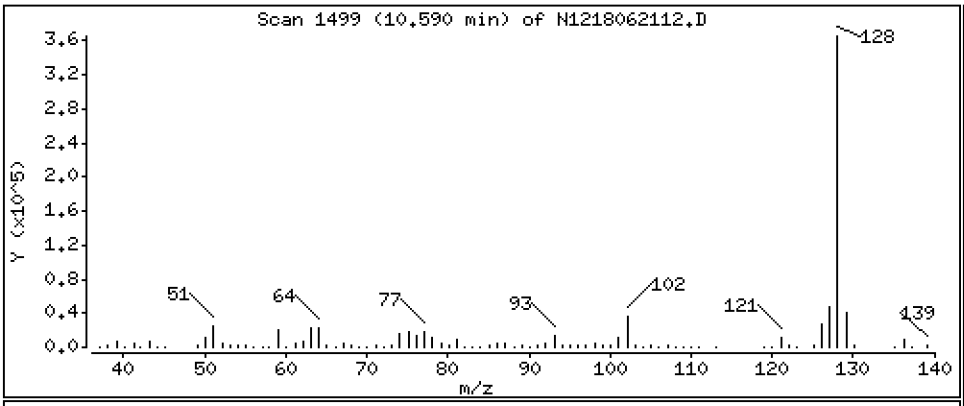
Operator: JZ

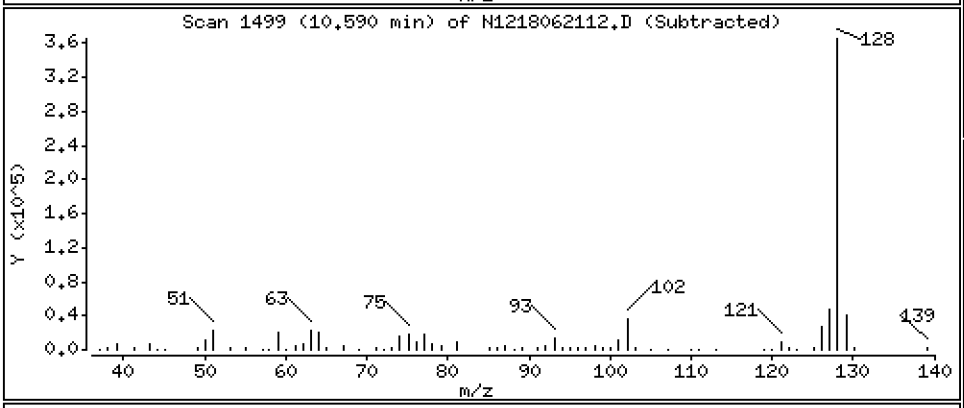
Column phase: ZB-5msi

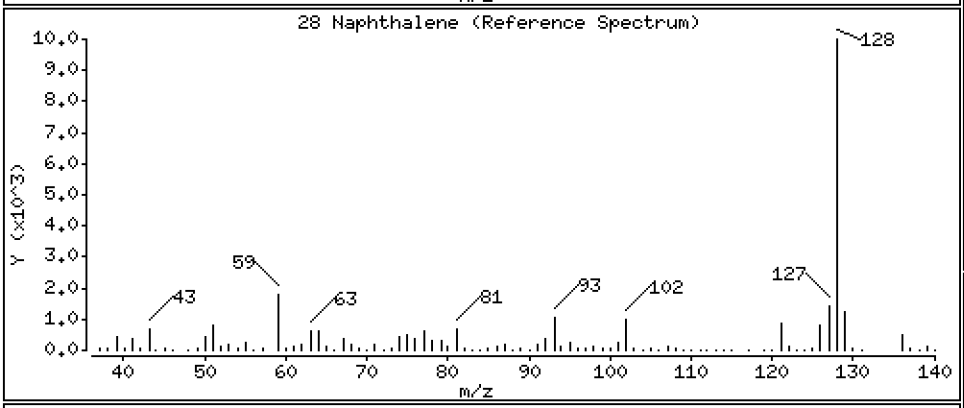
Column diameter: 0.32

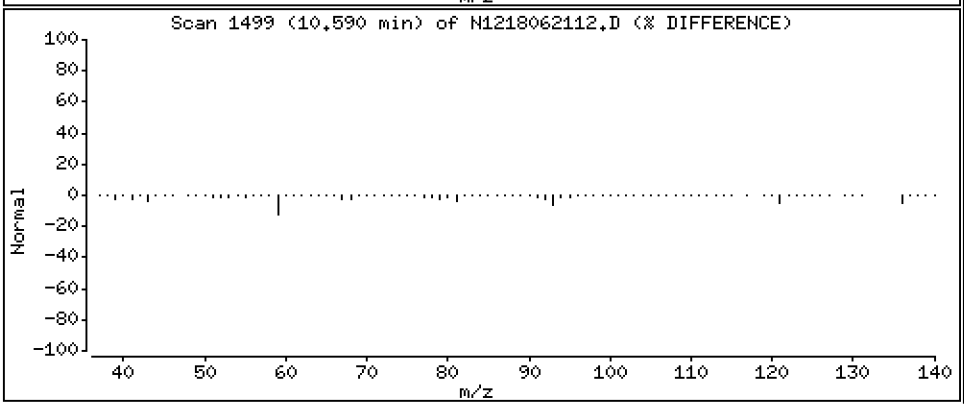
28 Naphthalene

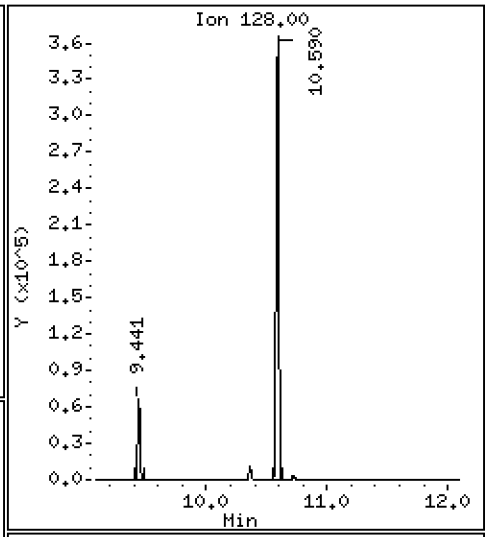
Concentration: 15.50 ug/mL

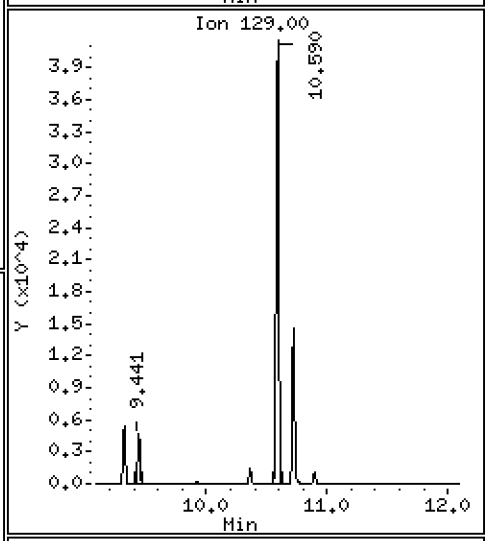


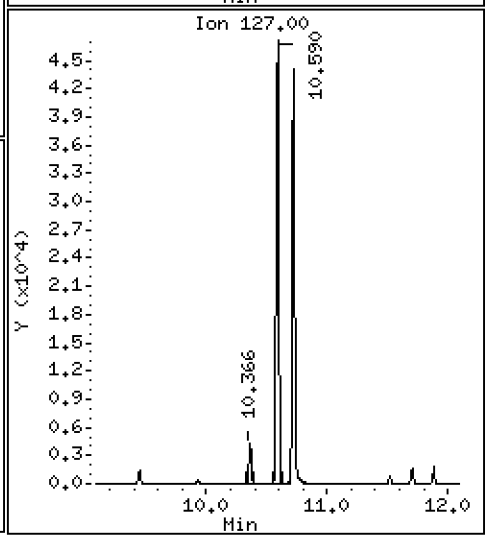












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

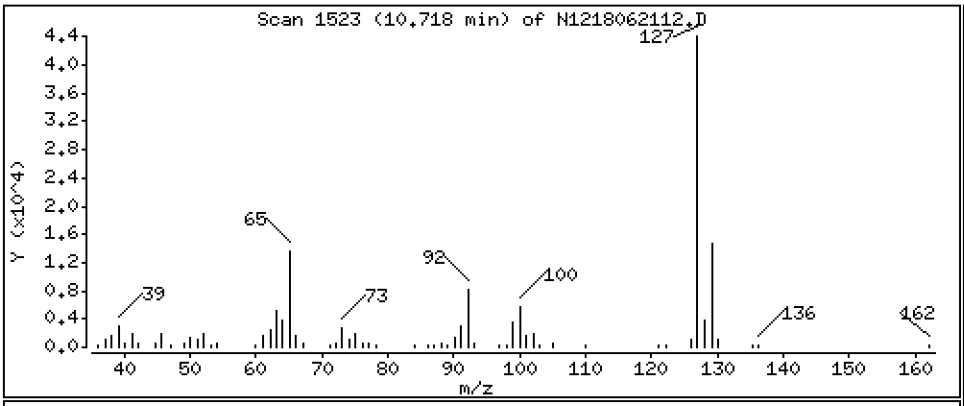
Operator: JZ

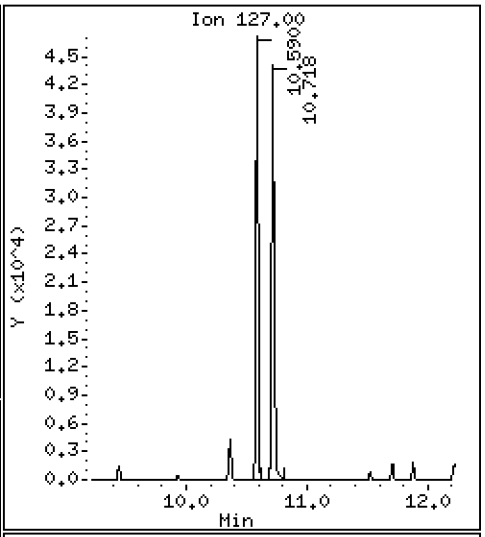
Column phase: ZB-5msi

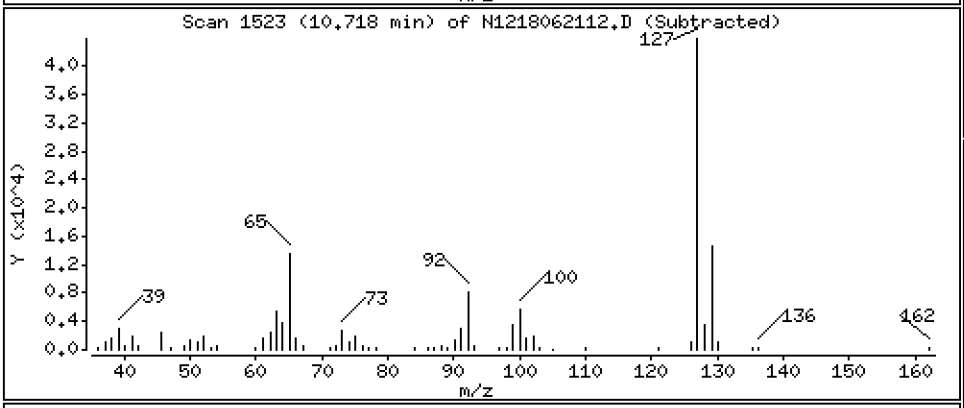
Column diameter: 0.32

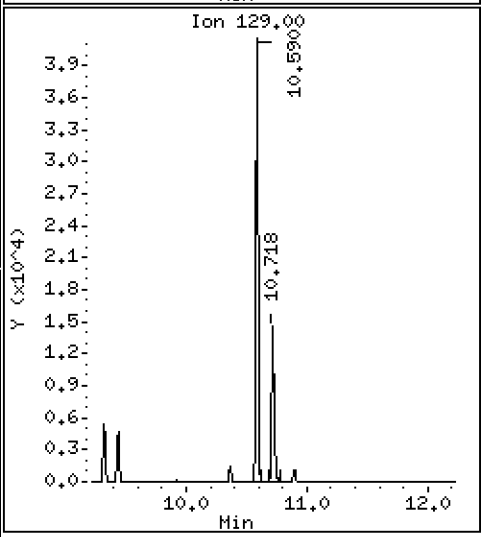
29 4-Chloroaniline

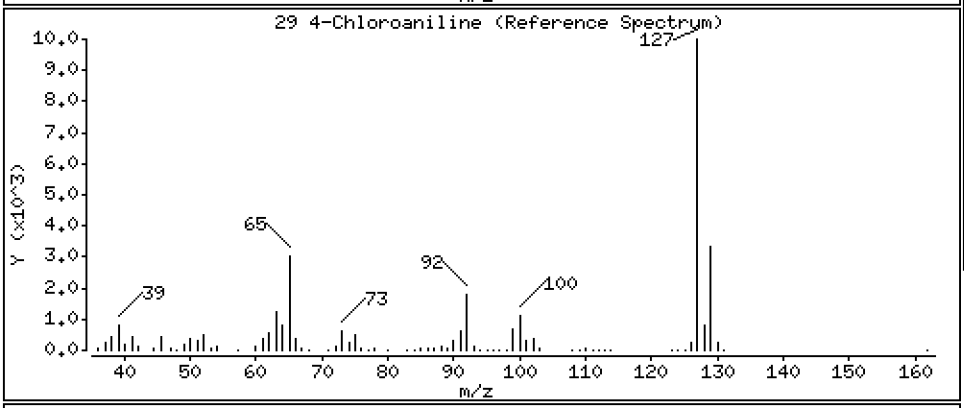
Concentration: 4.527 ug/mL

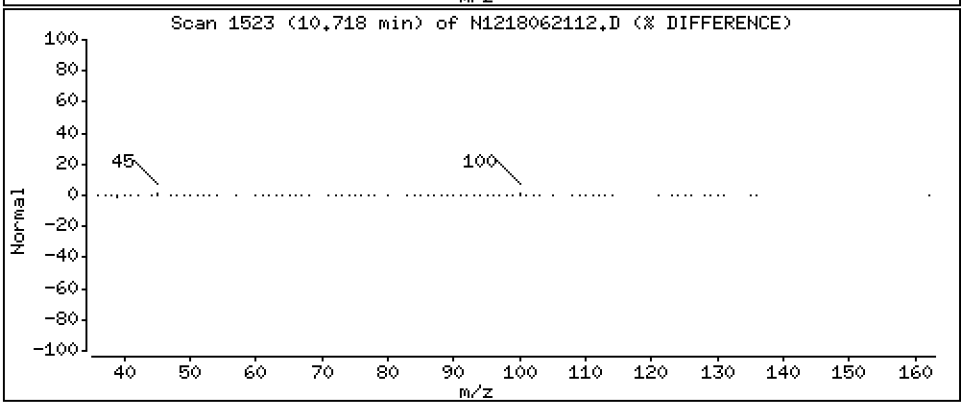












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

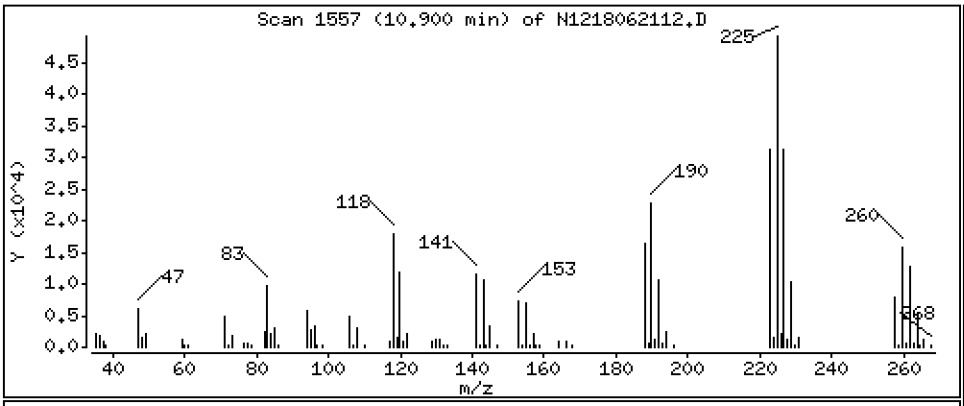
Operator: JZ

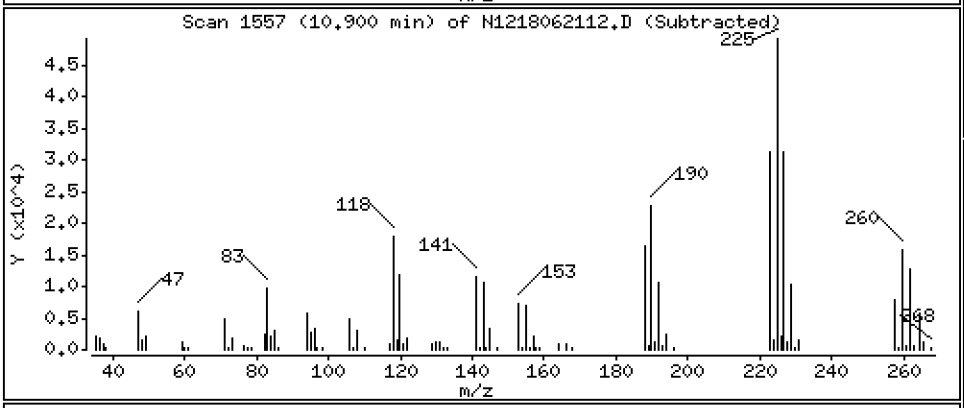
Column phase: ZB-5msi

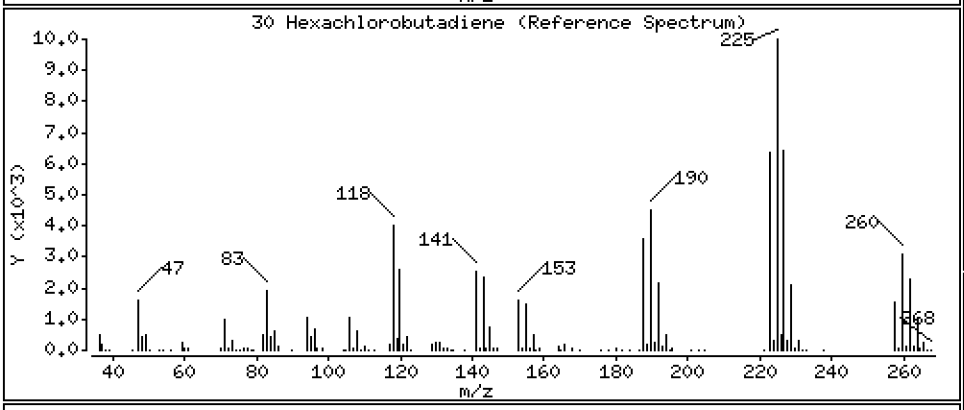
Column diameter: 0.32

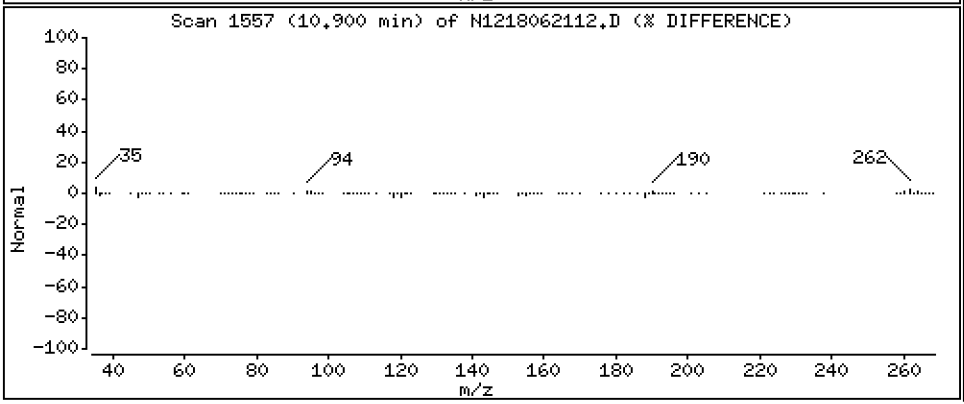
30 Hexachlorobutadiene

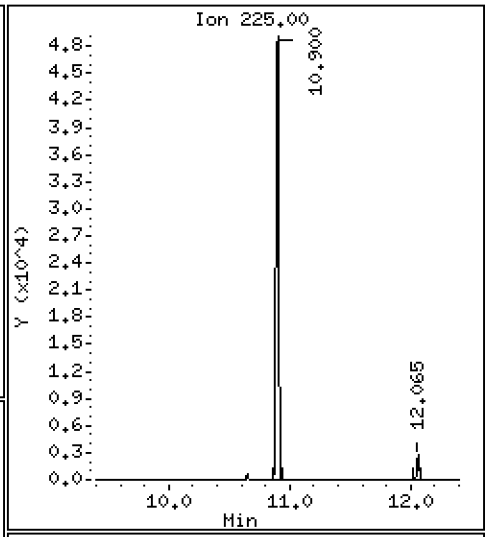
Concentration: 13.09 ug/mL

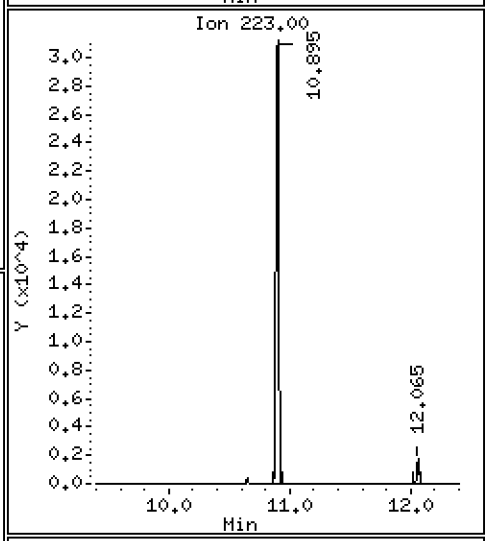


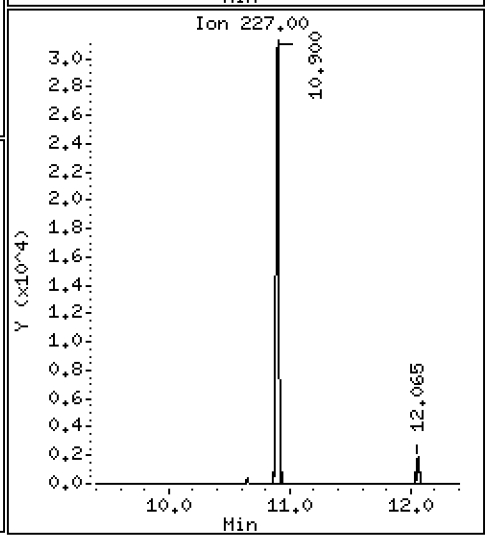












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

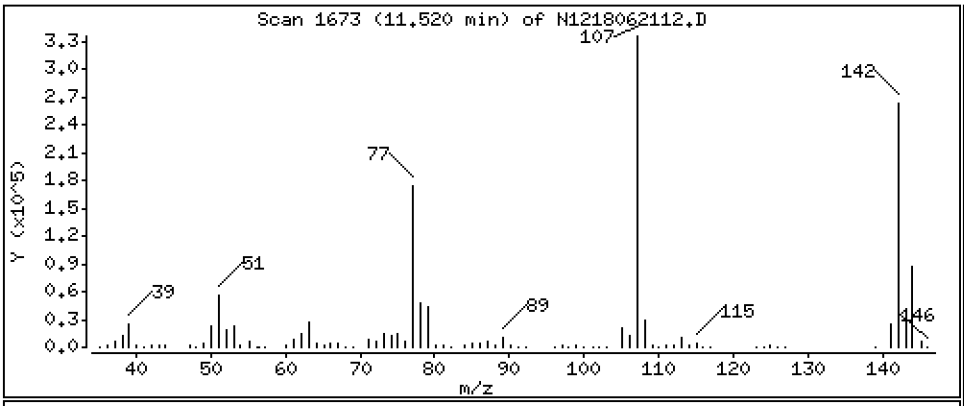
Operator: JZ

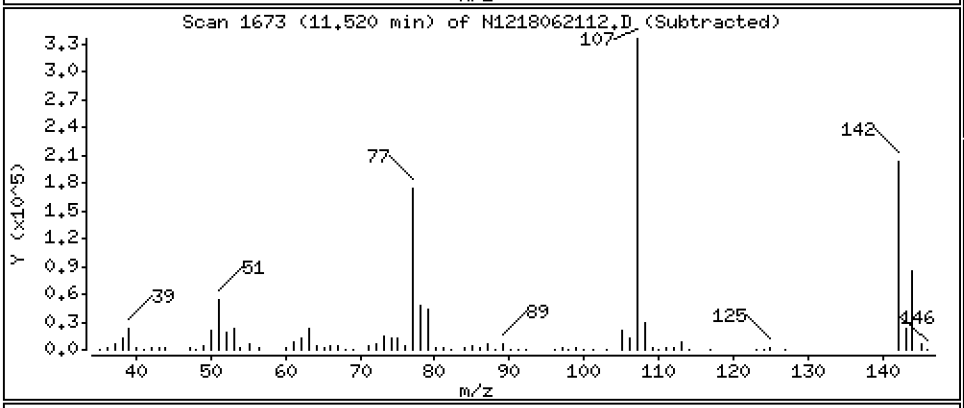
Column phase: ZB-5msi

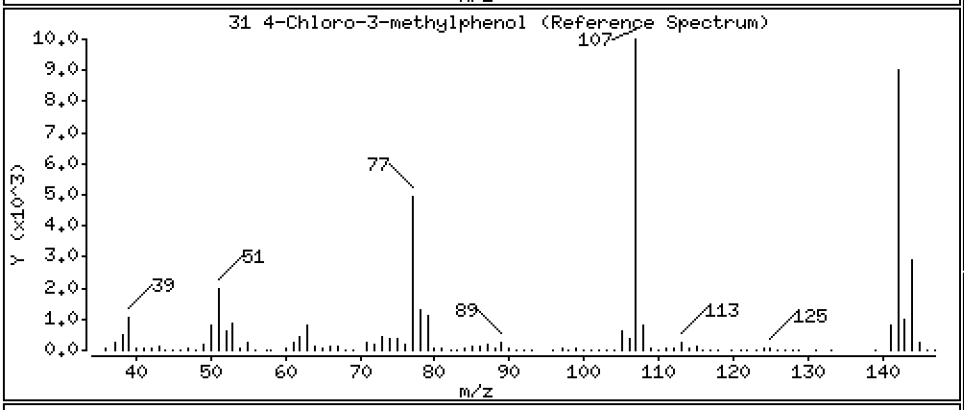
Column diameter: 0.32

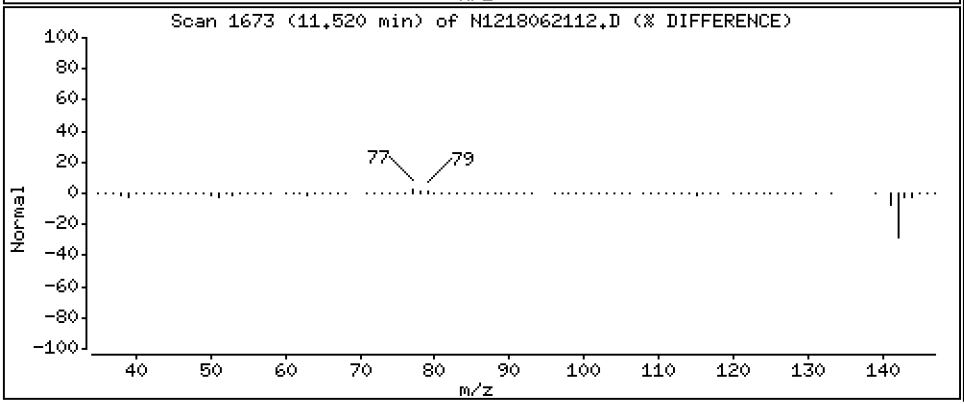
31 4-Chloro-3-methylphenol

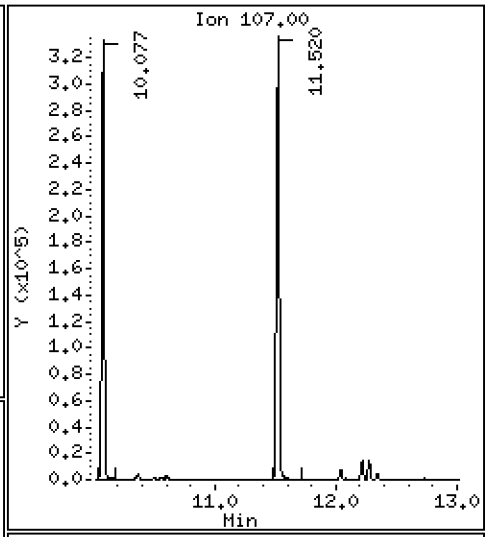
Concentration: 51.35 ug/mL

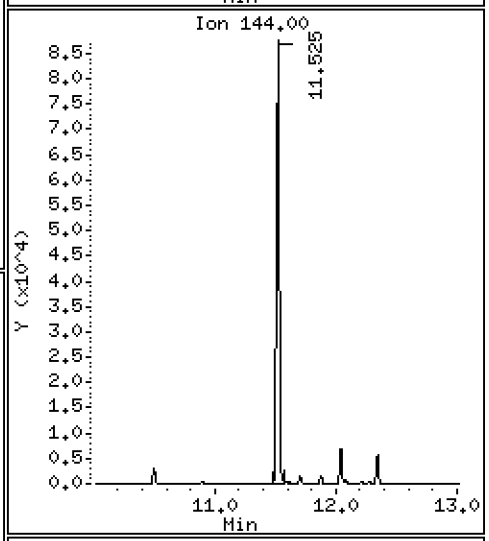


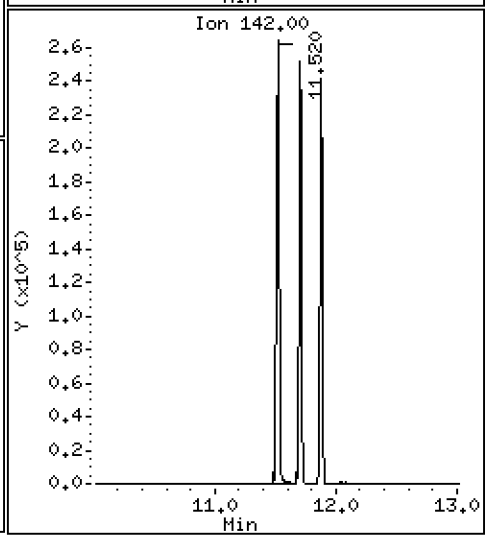












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

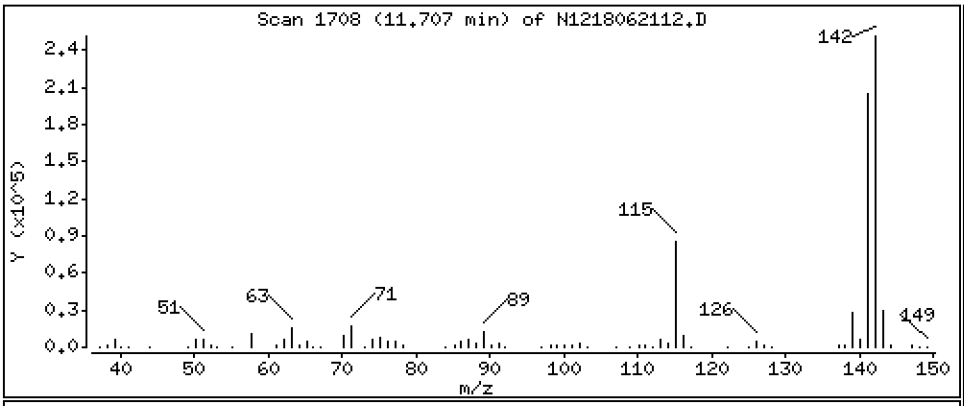
Operator: JZ

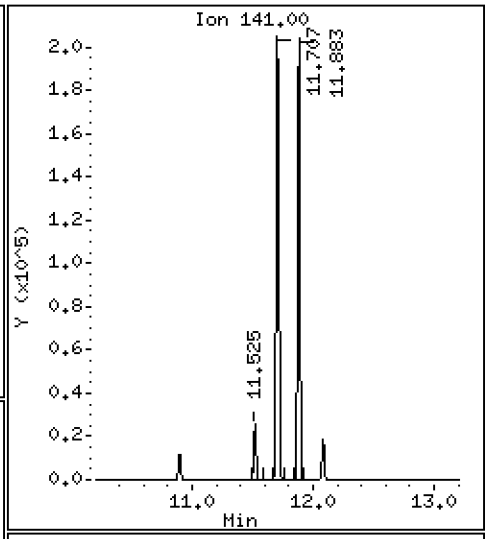
Column phase: ZB-5msi

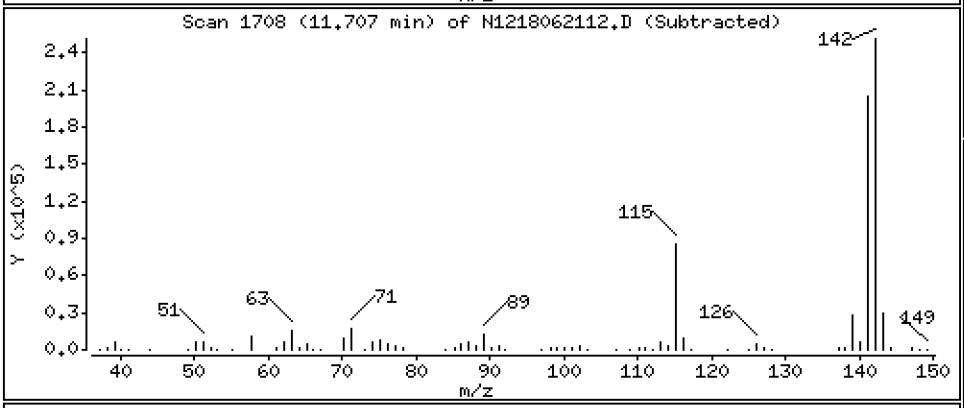
Column diameter: 0.32

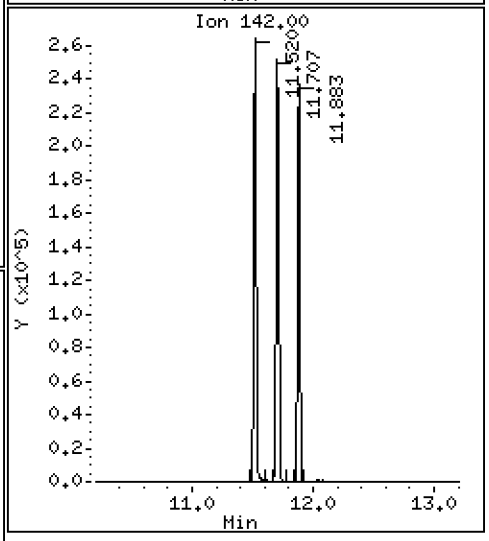
32 2-Methylnaphthalene

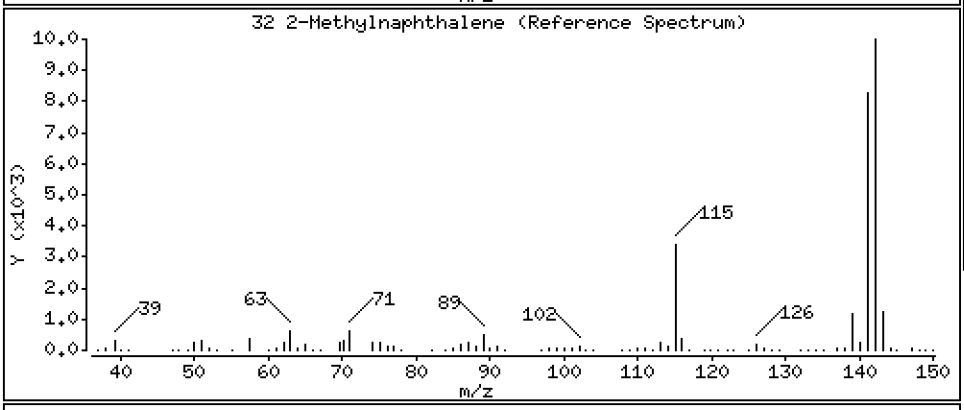
Concentration: 16.14 ug/mL

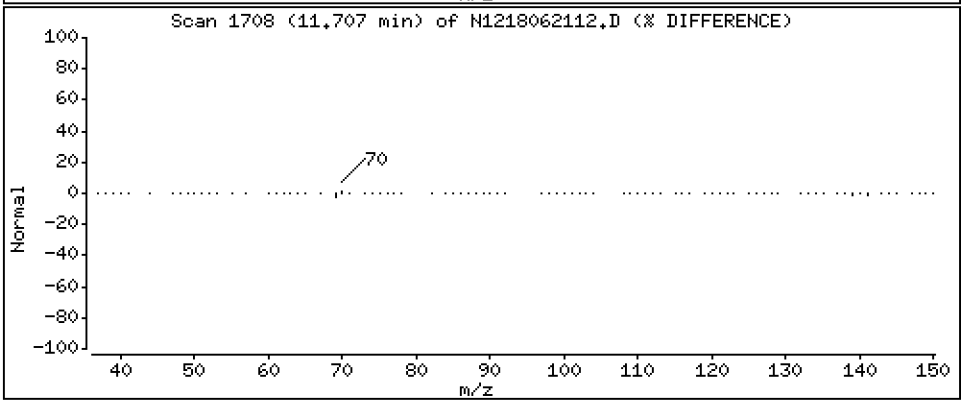












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

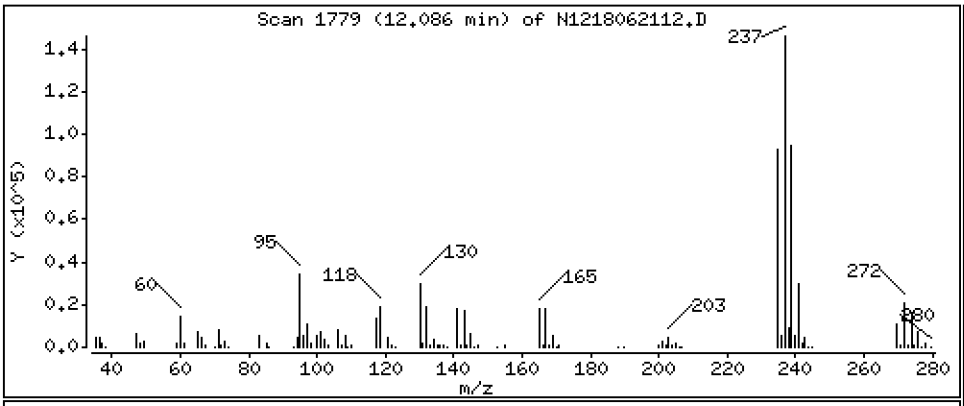
Operator: JZ

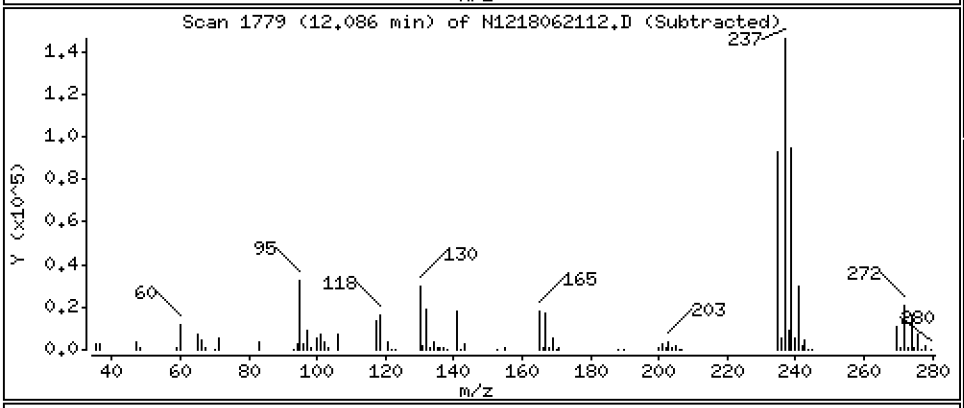
Column phase: ZB-5msi

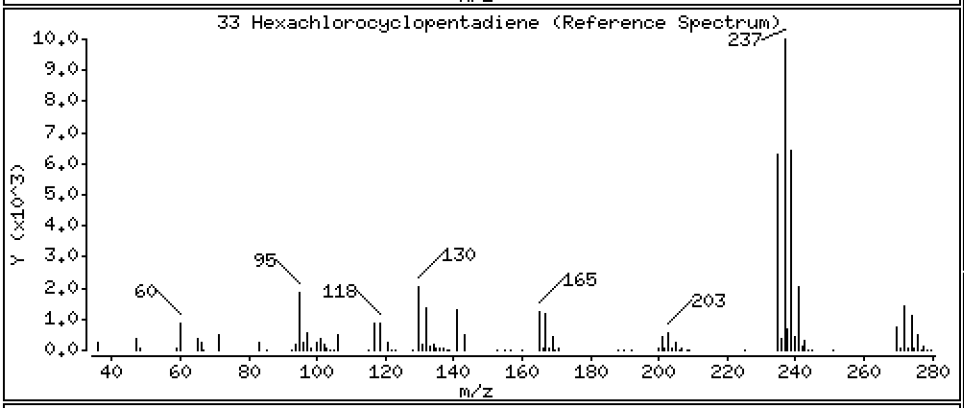
Column diameter: 0.32

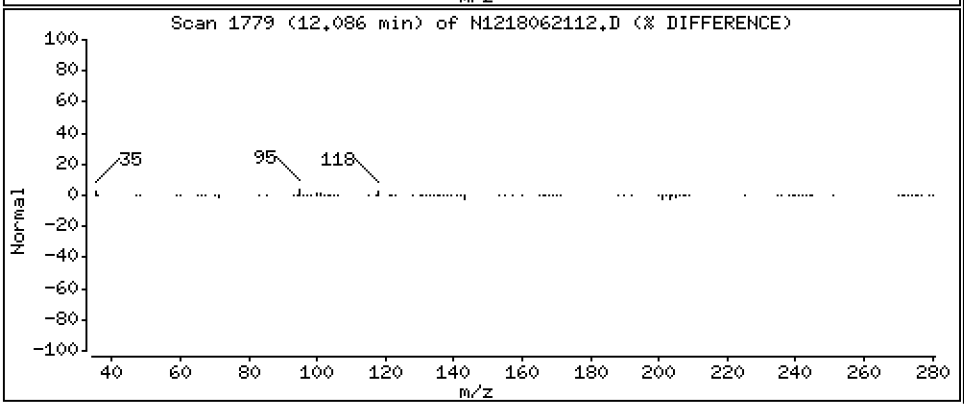
33 Hexachlorocyclopentadiene

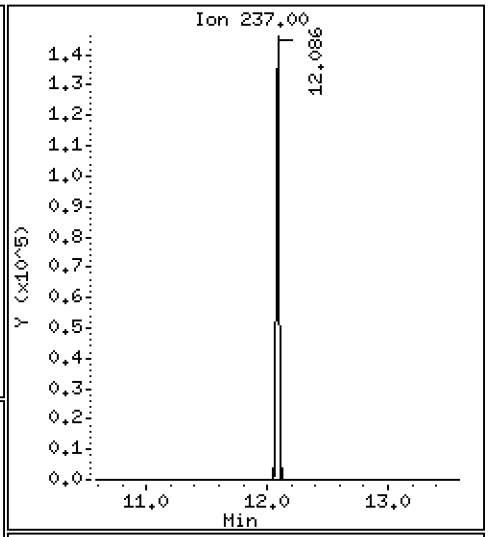
Concentration: 46.83 ug/mL

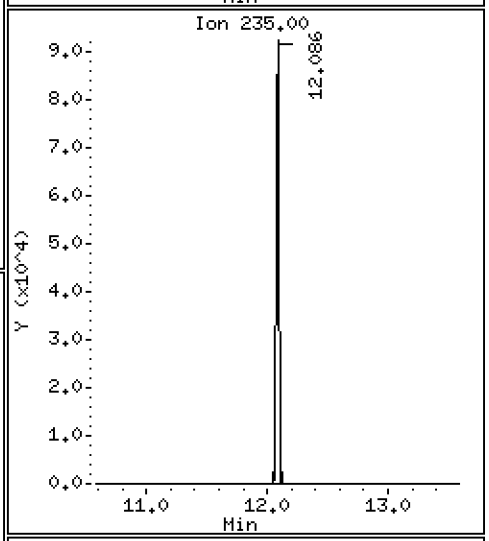


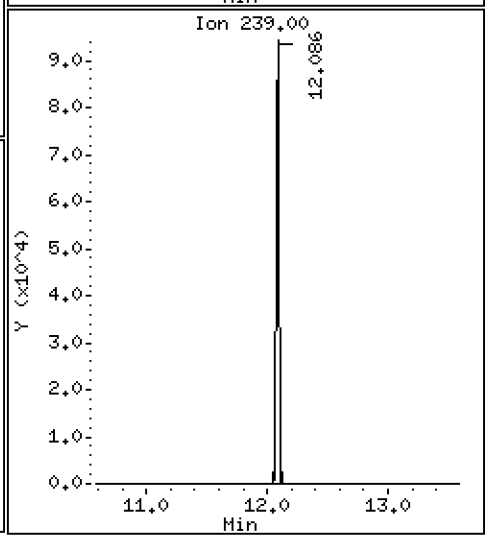












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

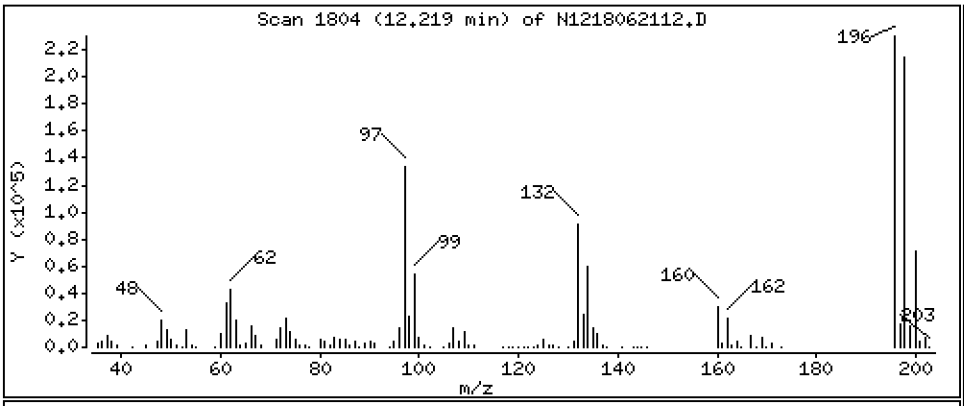
Operator: JZ

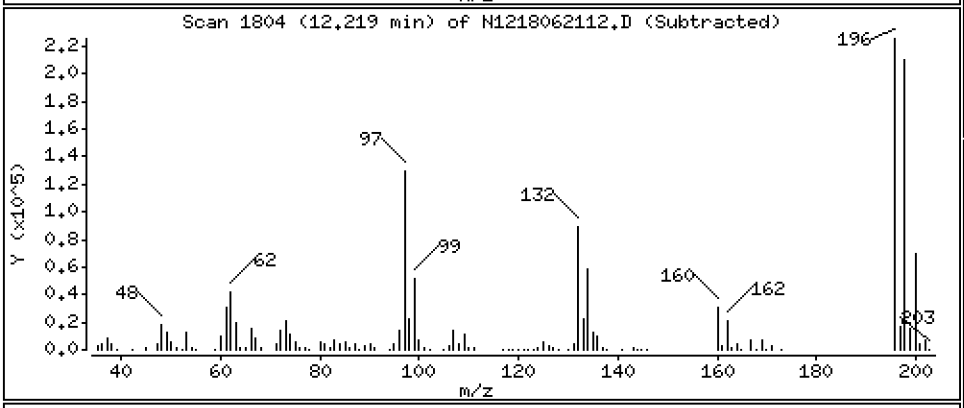
Column phase: ZB-5msi

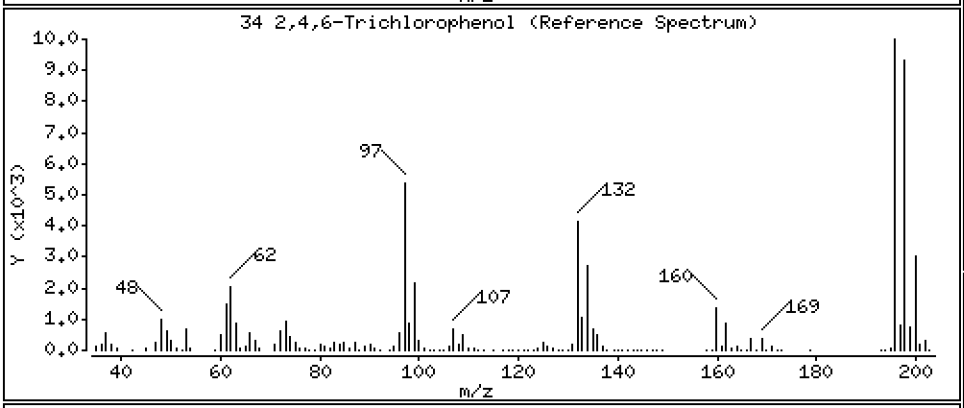
Column diameter: 0.32

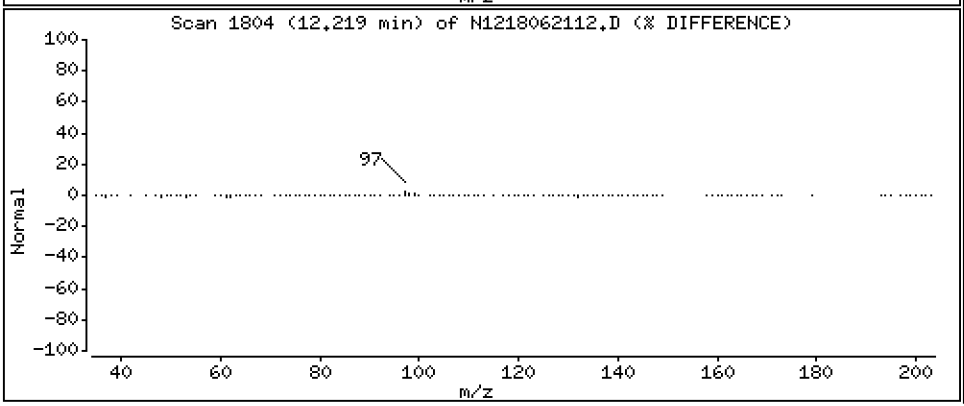
34 2,4,6-Trichlorophenol

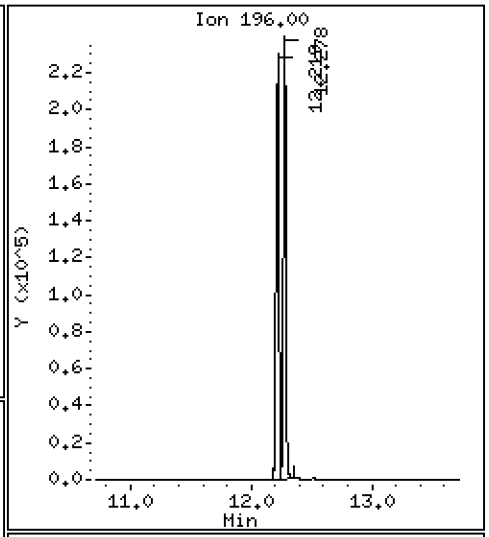
Concentration: 49.24 ug/mL

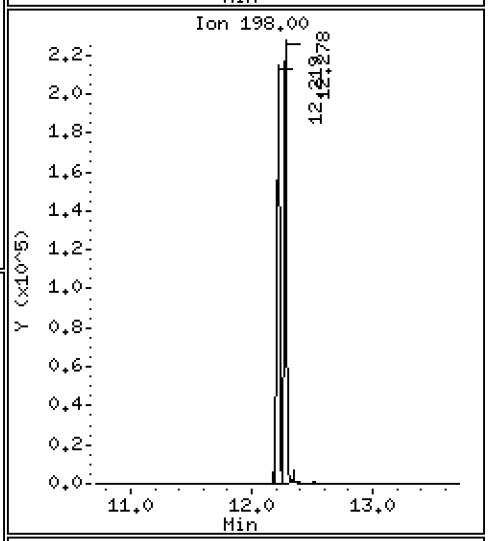


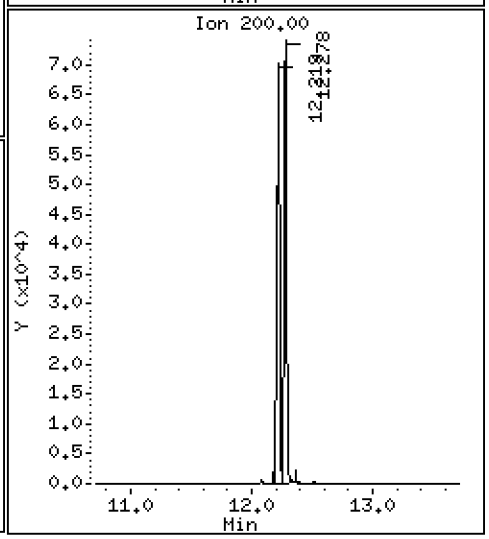












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

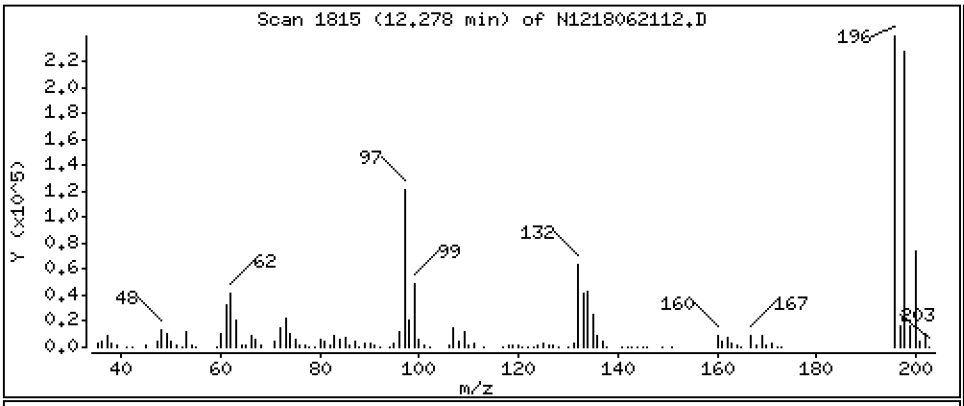
Operator: JZ

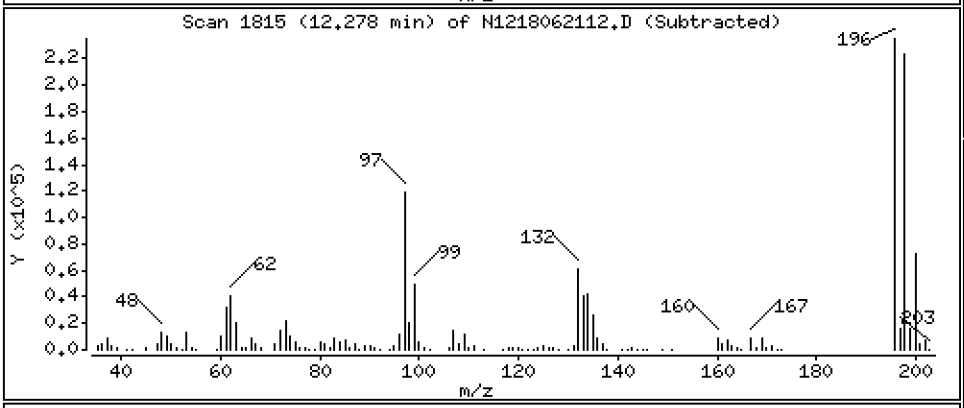
Column phase: ZB-5msi

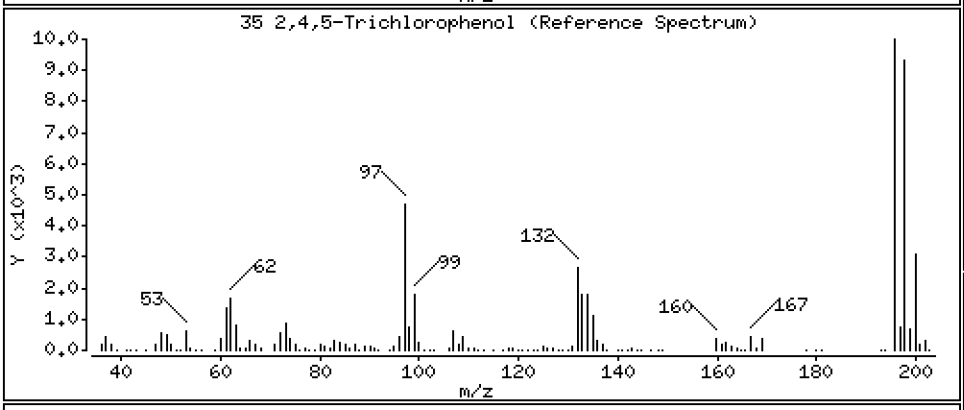
Column diameter: 0.32

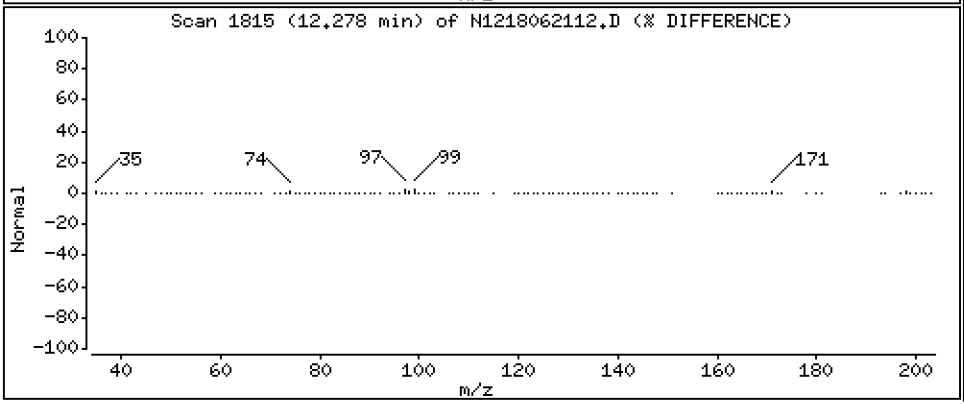
35 2,4,5-Trichlorophenol

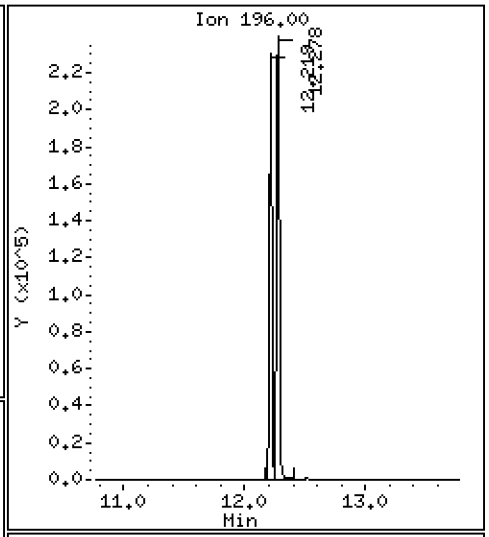
Concentration: 51.56 ug/mL

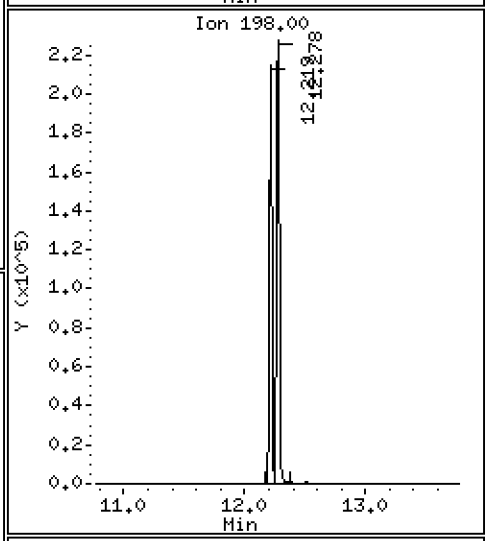


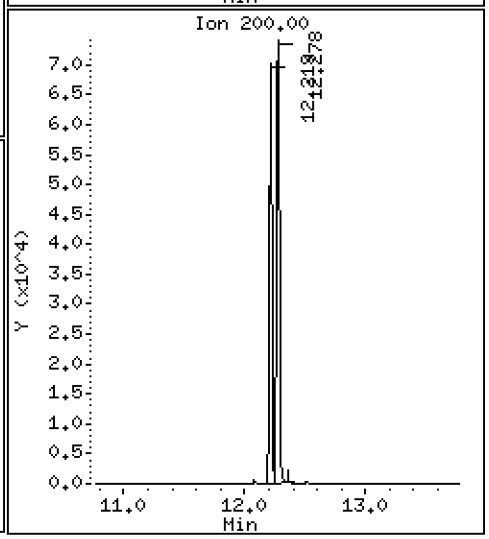












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

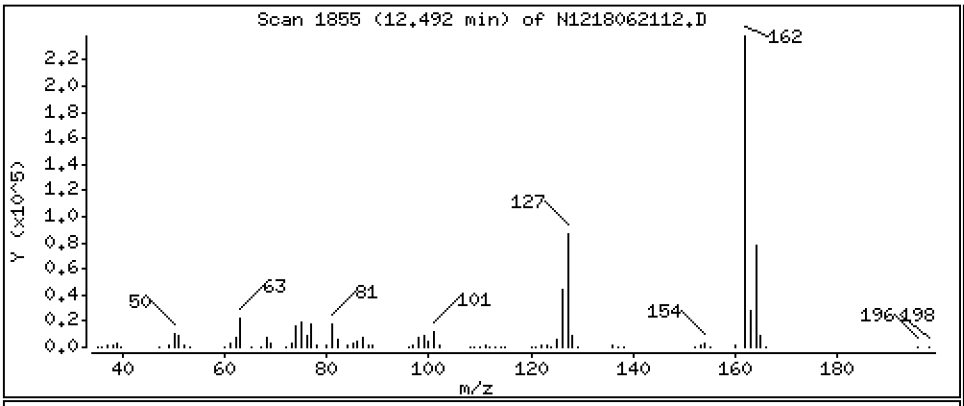
Operator: JZ

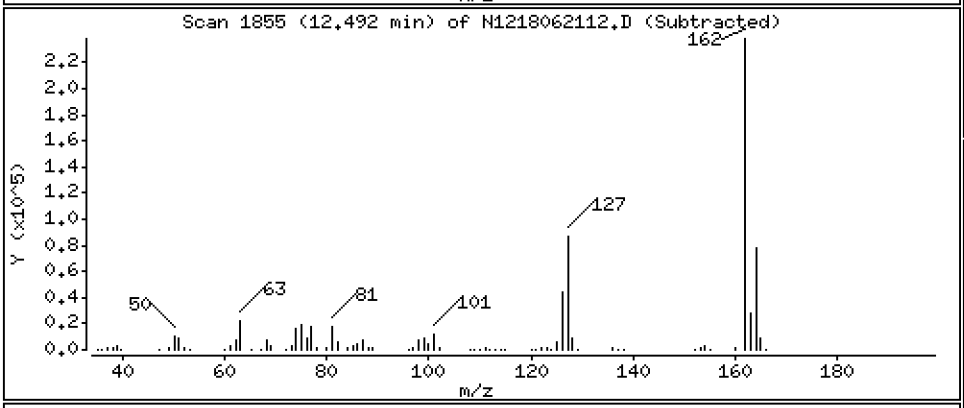
Column phase: ZB-5msi

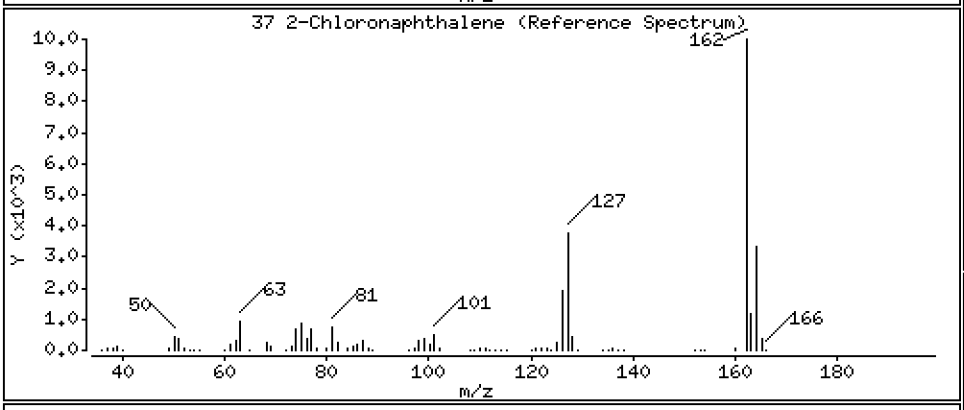
Column diameter: 0.32

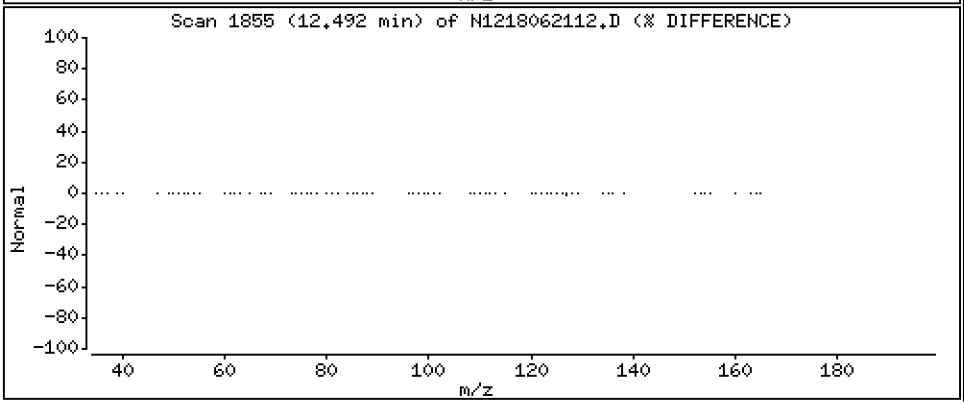
37 2-Chloronaphthalene

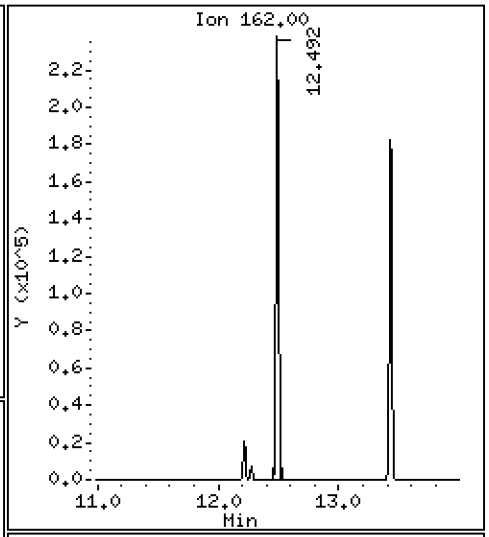
Concentration: 17.00 ug/mL

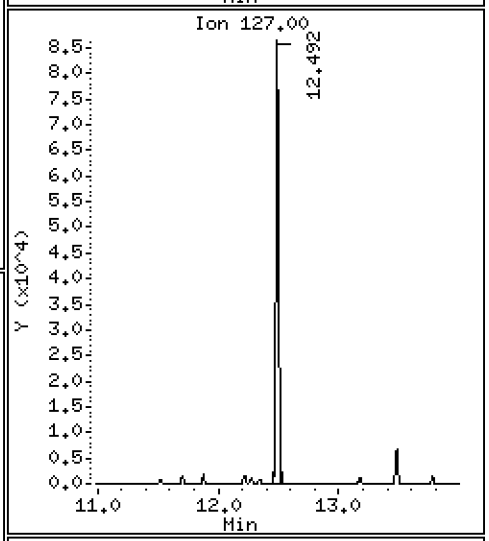


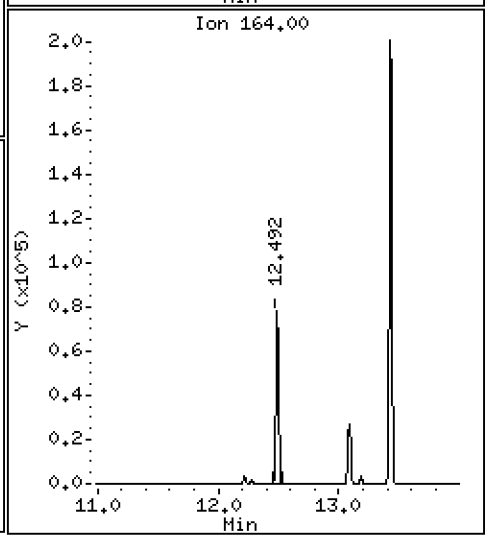












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

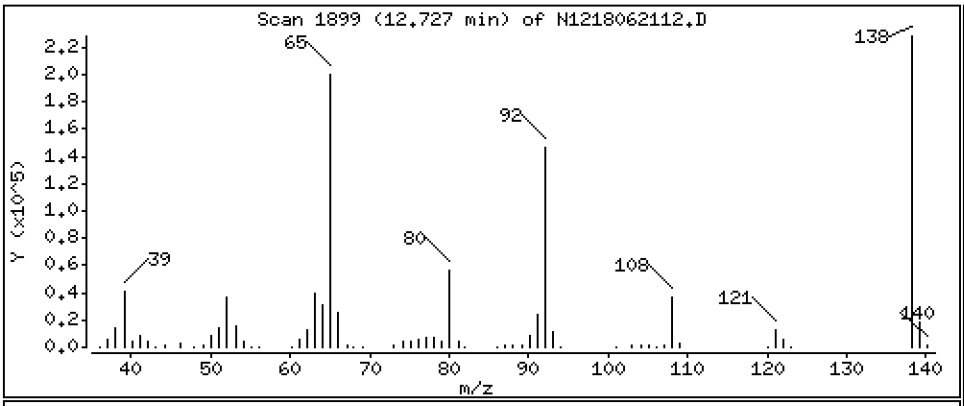
Operator: JZ

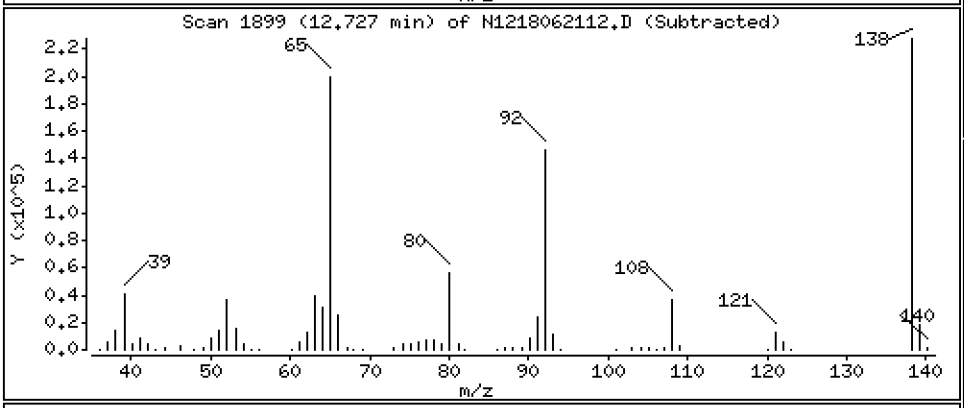
Column phase: ZB-5msi

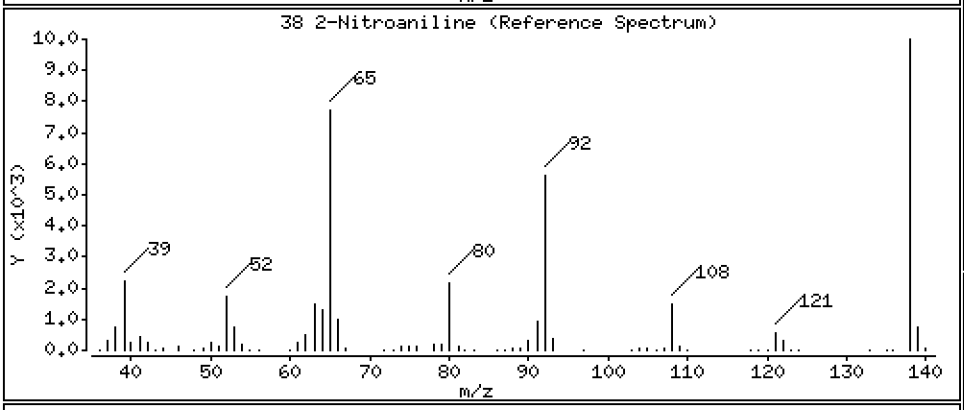
Column diameter: 0.32

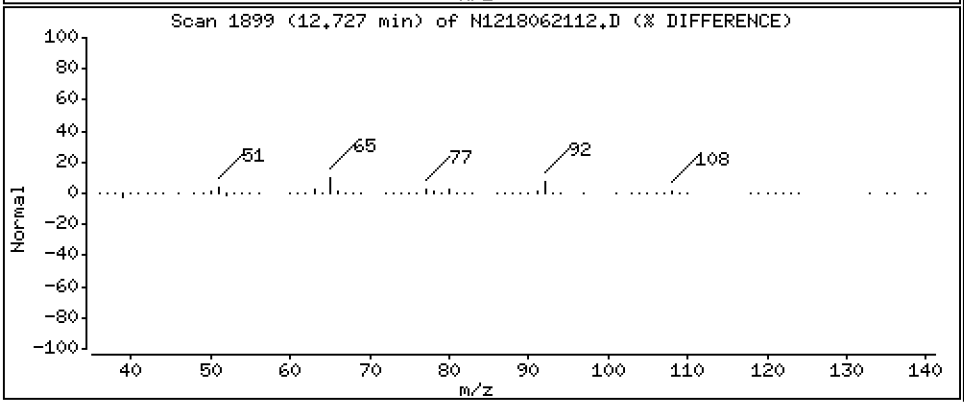
38 2-Nitroaniline

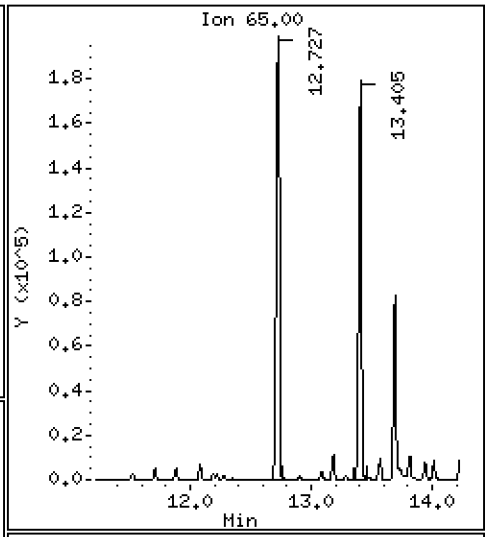
Concentration: 53.18 ug/mL

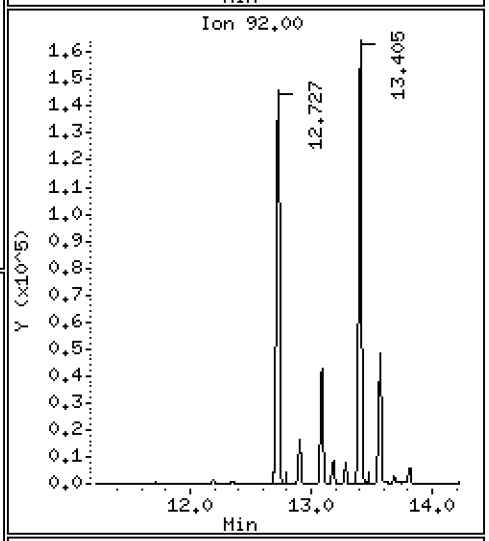


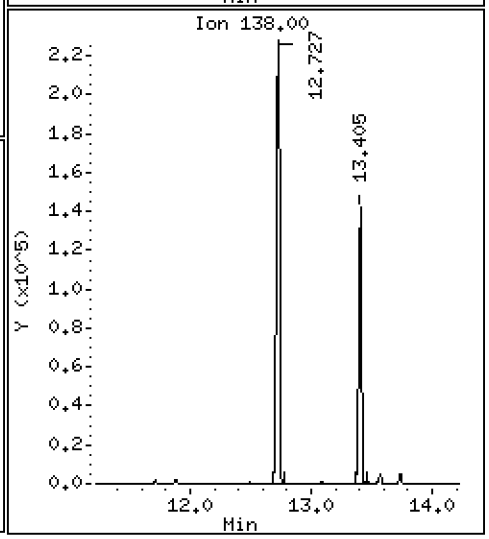












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

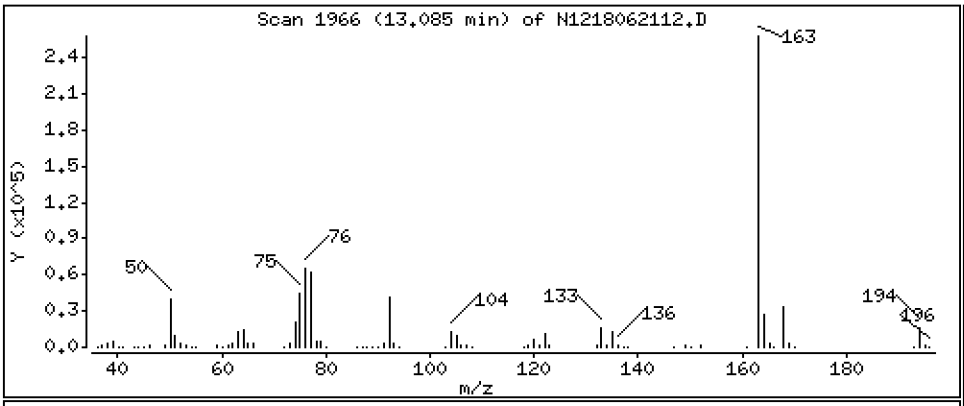
Operator: JZ

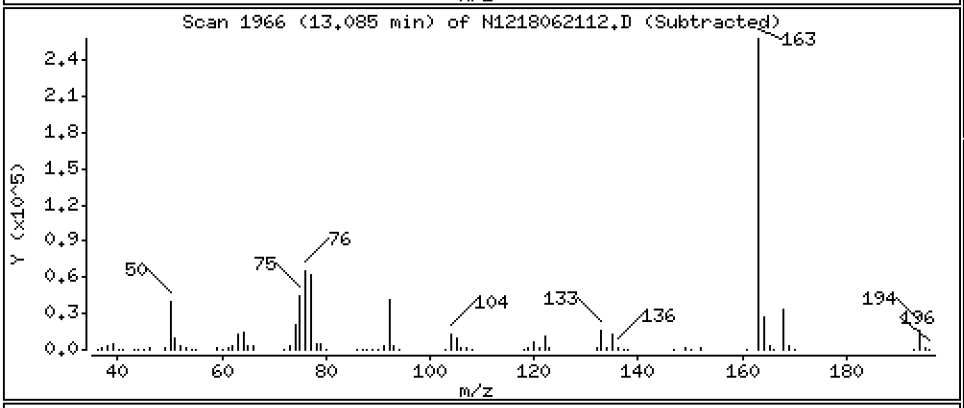
Column phase: ZB-5msi

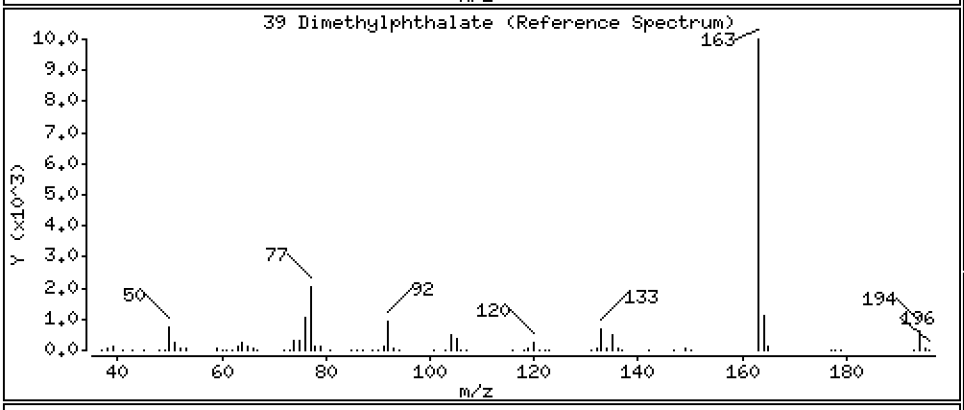
Column diameter: 0.32

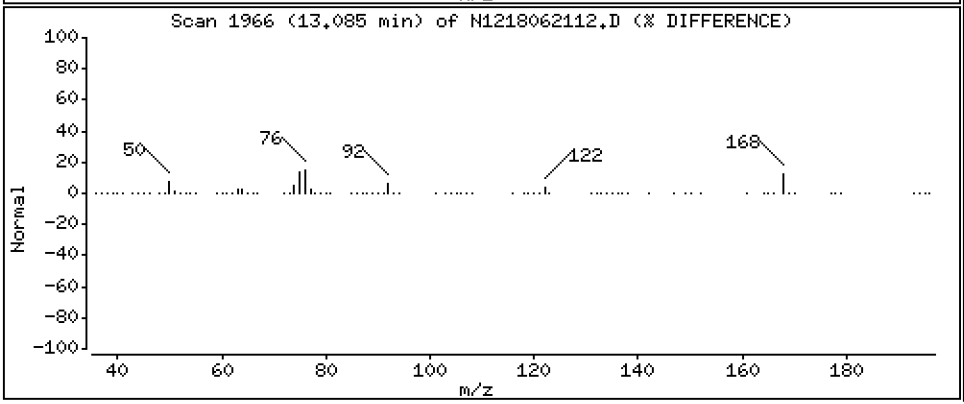
39 Dimethylphthalate

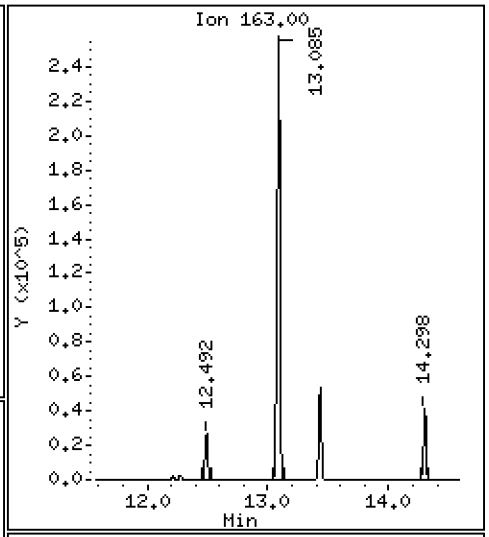
Concentration: 19.18 ug/mL

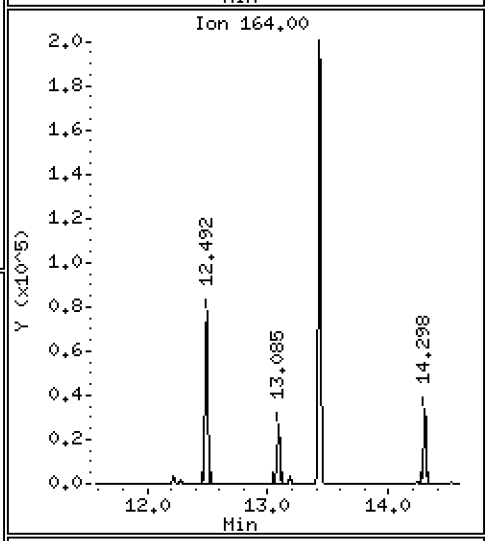


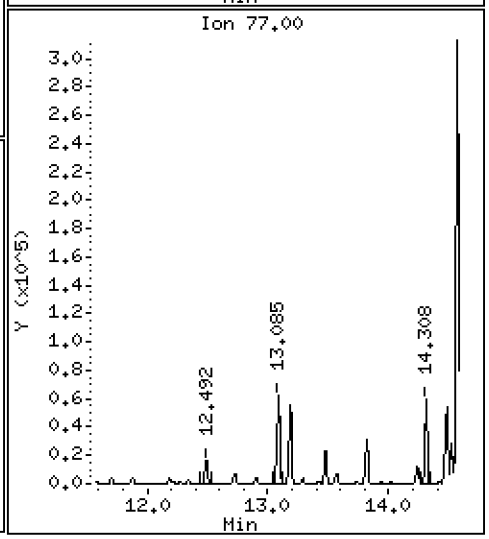












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

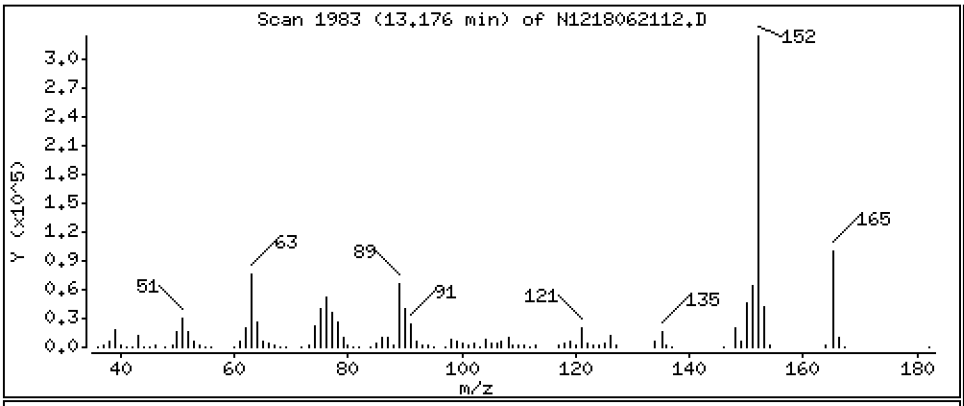
Operator: JZ

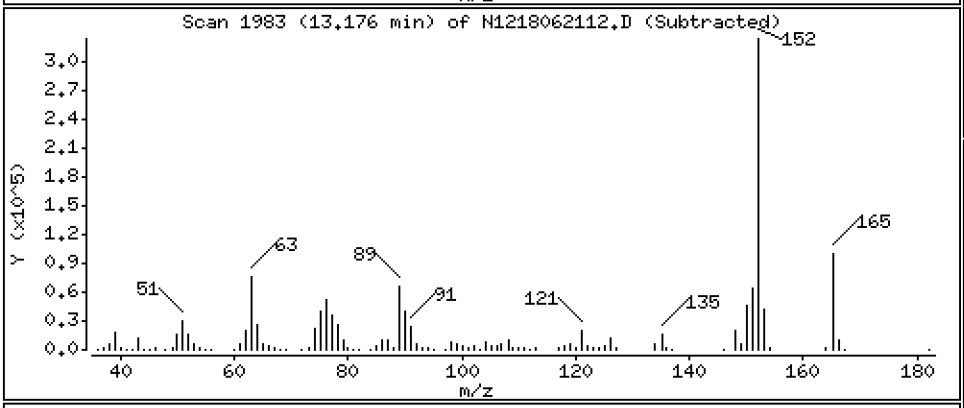
Column phase: ZB-5msi

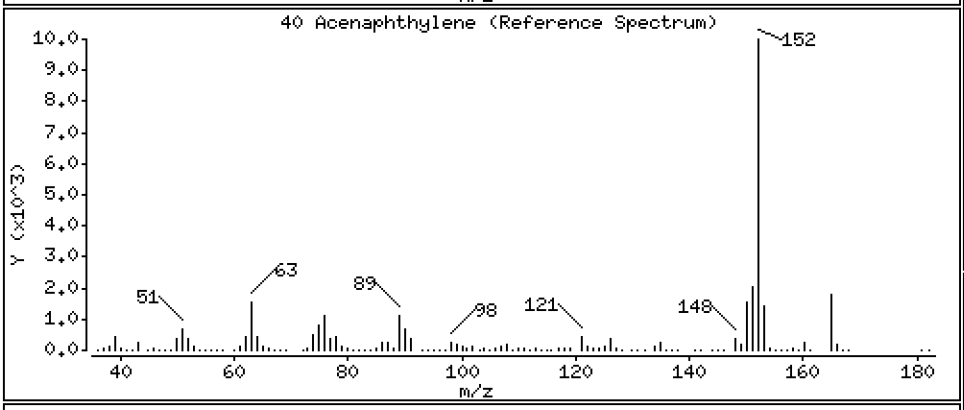
Column diameter: 0.32

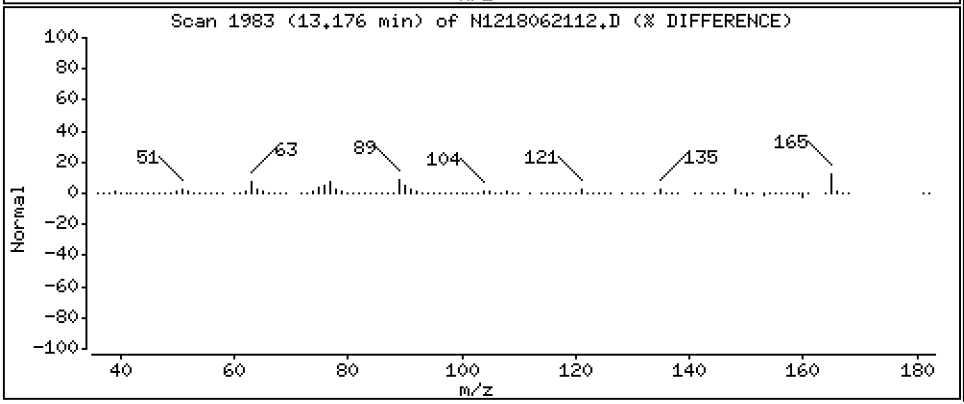
40 Acenaphthylene

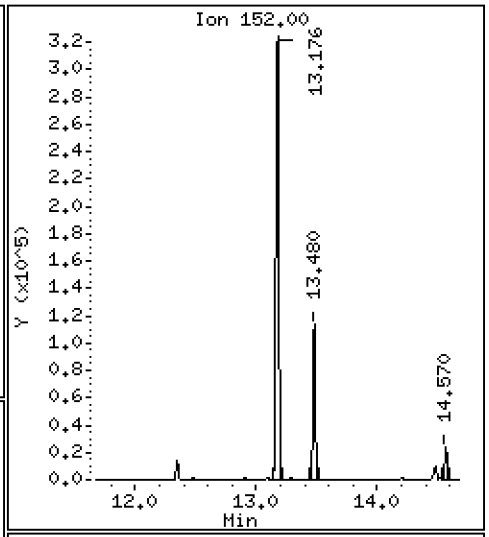
Concentration: 17.05 ug/mL

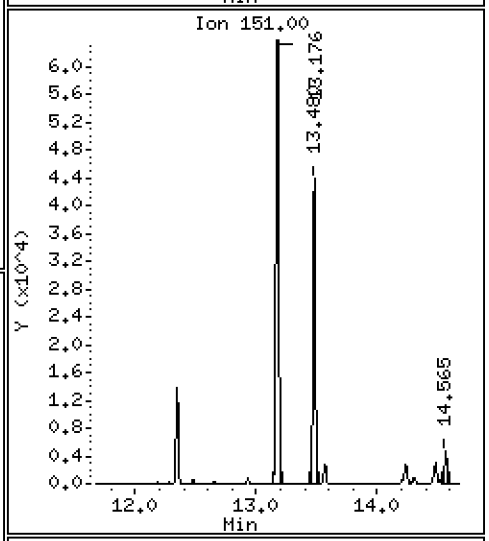


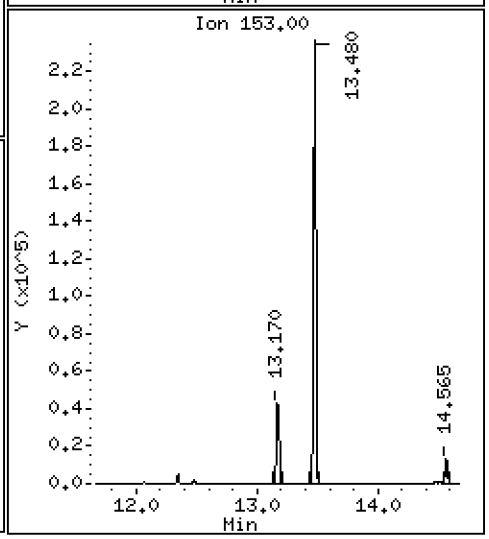












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

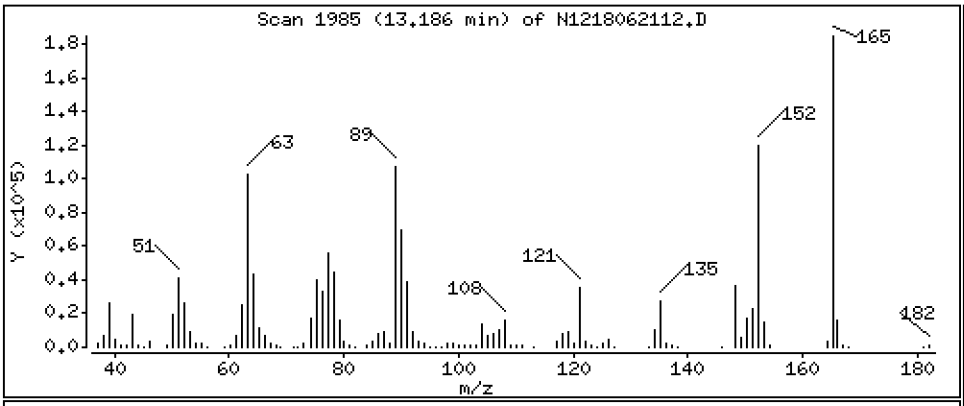
Operator: JZ

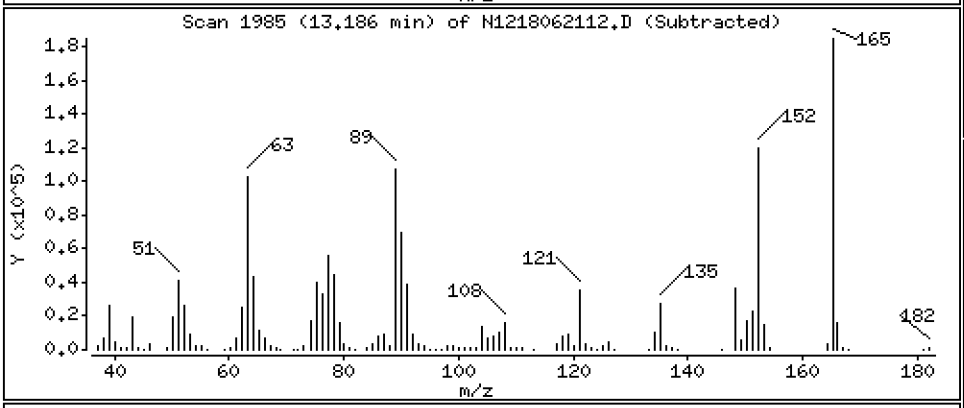
Column phase: ZB-5msi

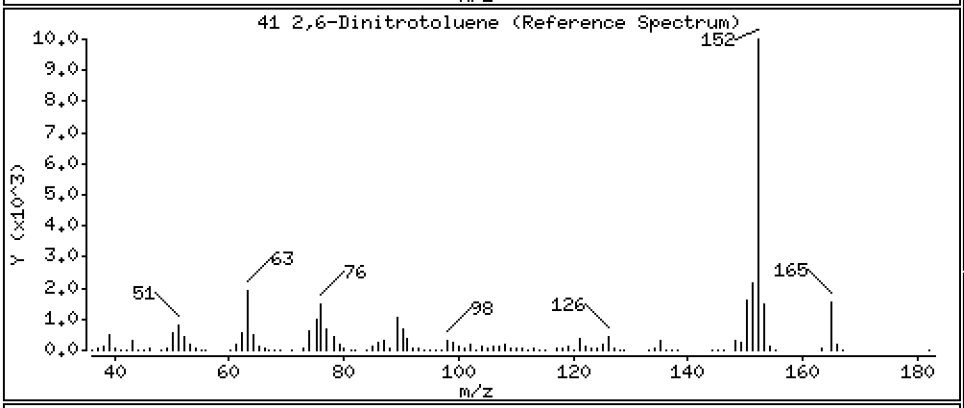
Column diameter: 0.32

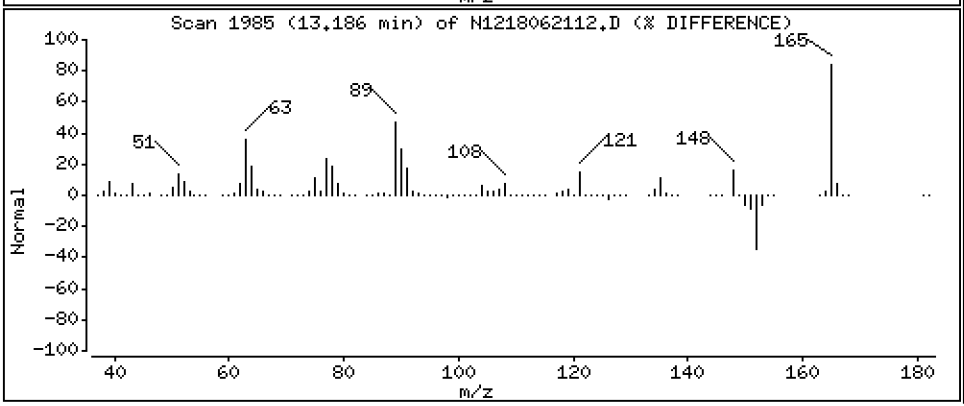
41 2,6-Dinitrotoluene

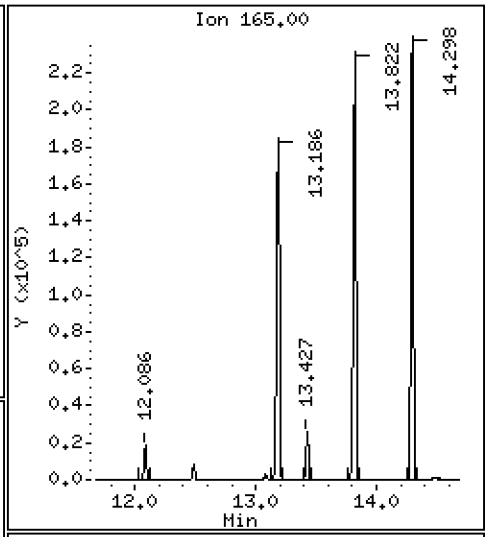
Concentration: 58.47 ug/mL

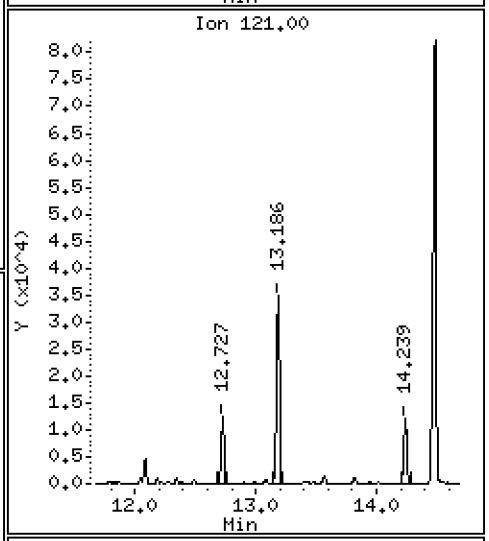


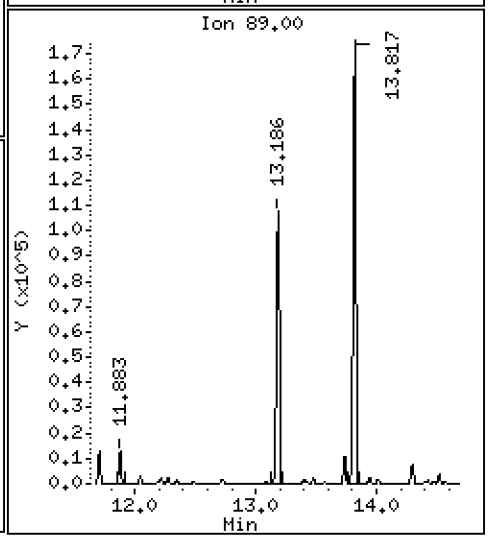












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

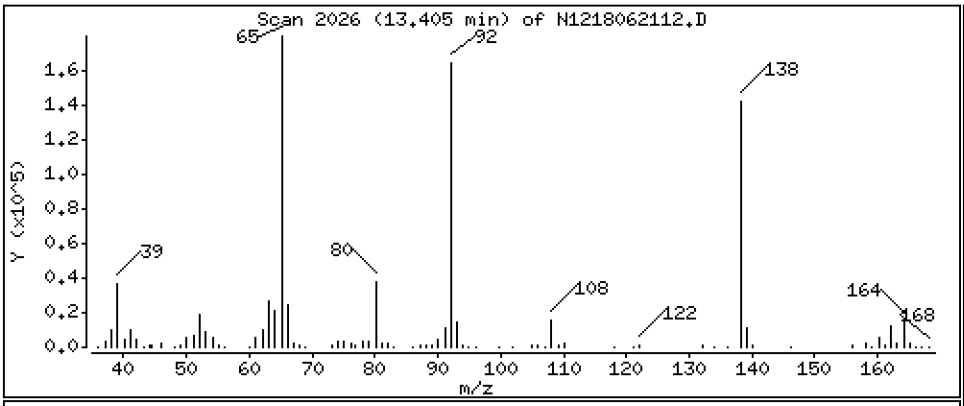
Operator: JZ

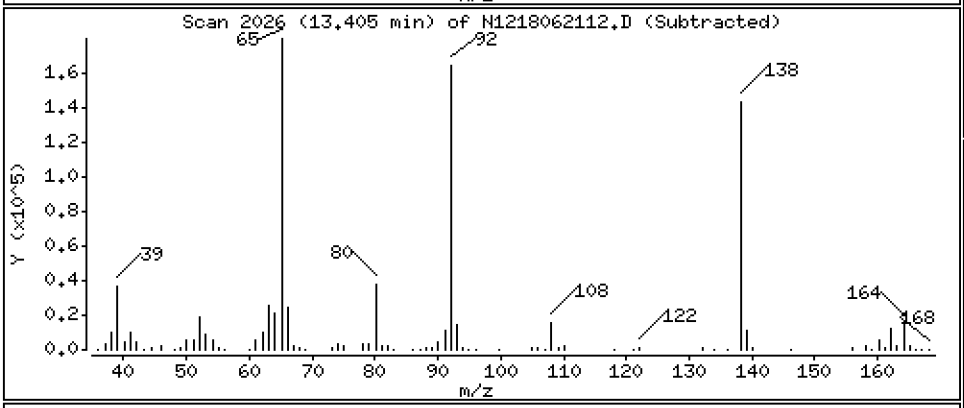
Column phase: ZB-5msi

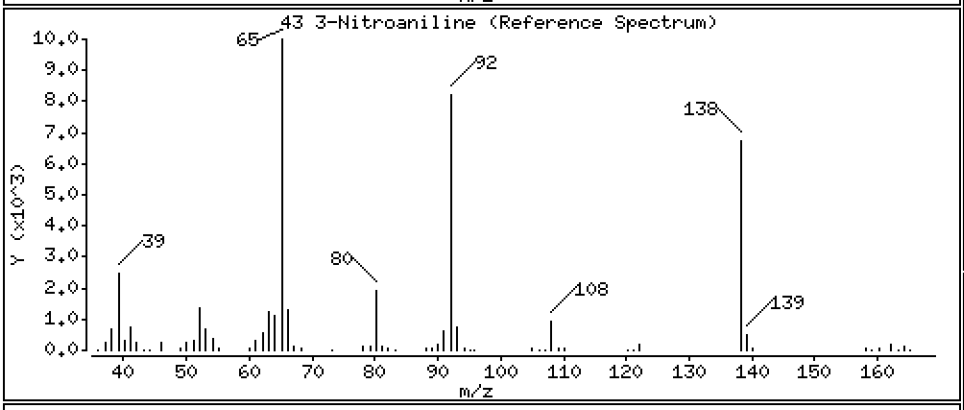
Column diameter: 0.32

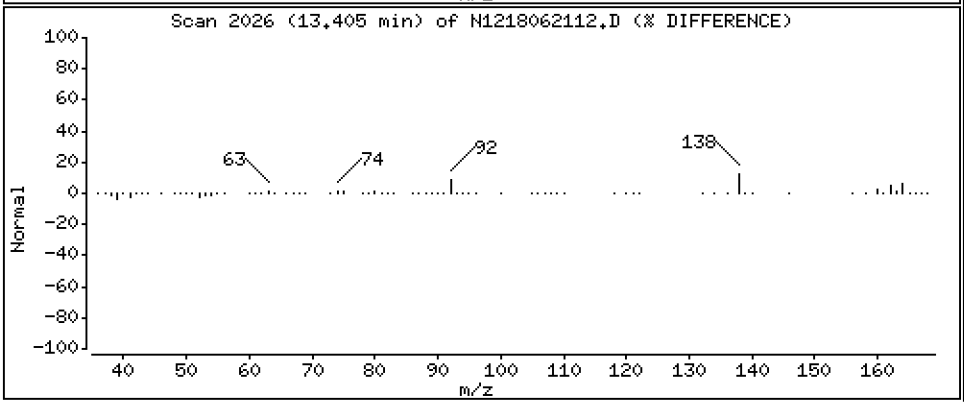
43 3-Nitroaniline

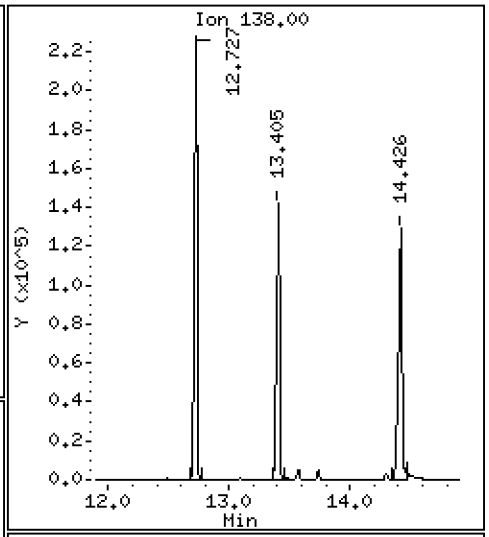
Concentration: 41.71 ug/mL

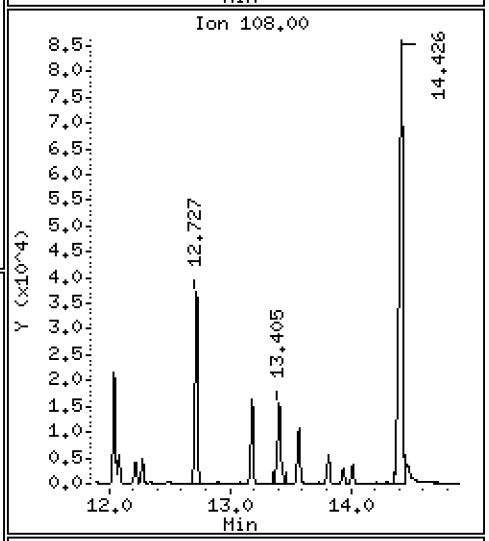


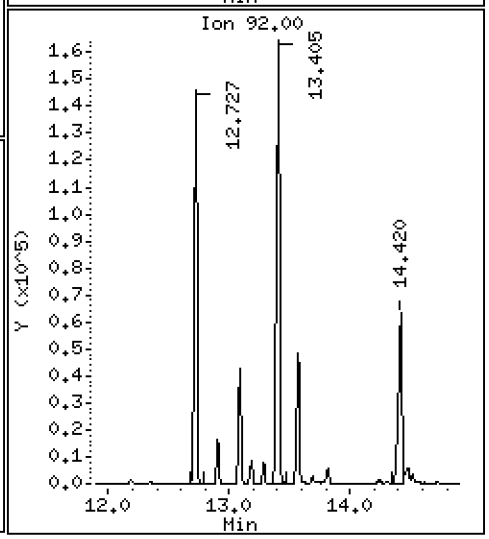












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

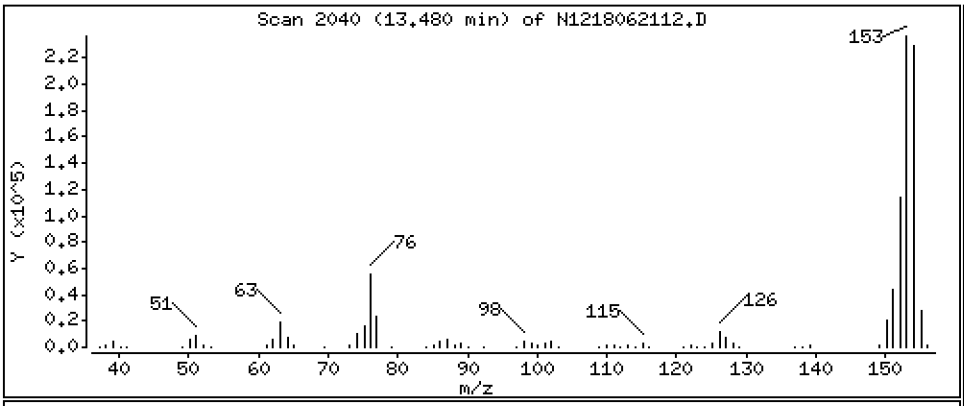
Operator: JZ

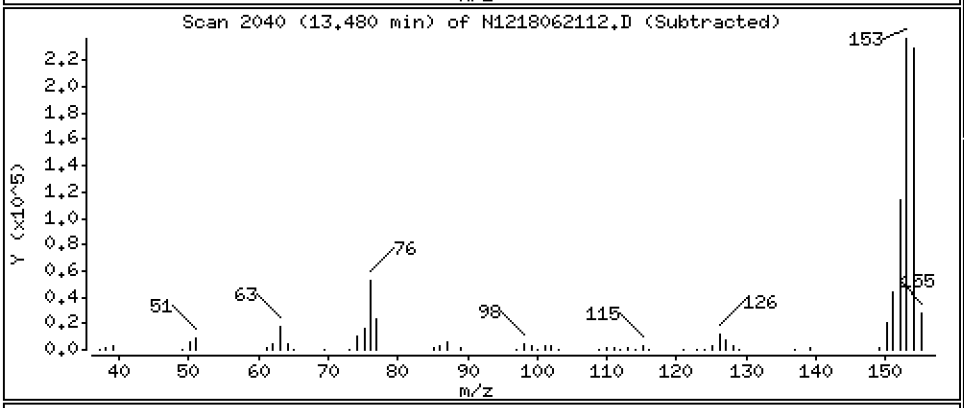
Column phase: ZB-5msi

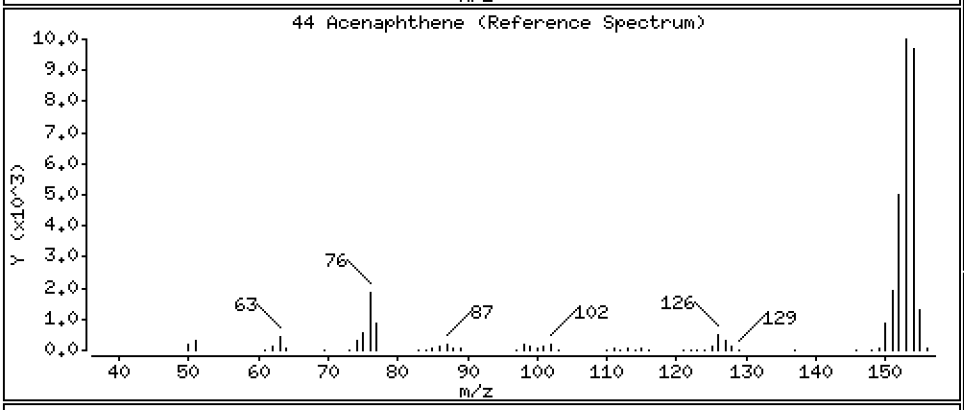
Column diameter: 0.32

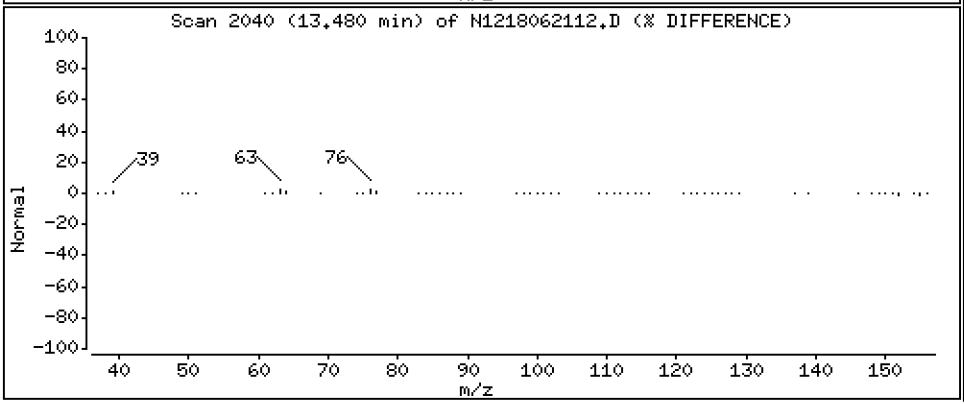
44 Acenaphthene

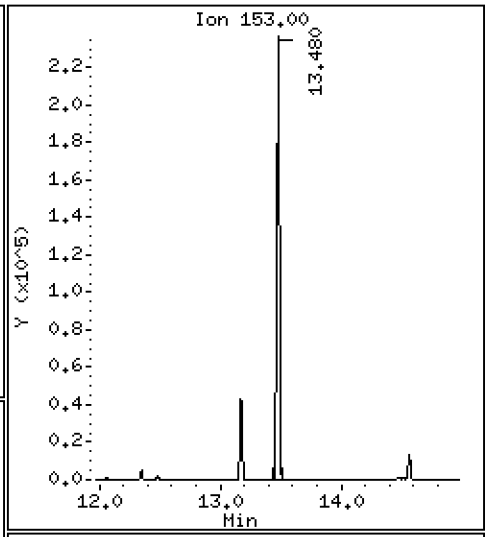
Concentration: 17.99 ug/mL

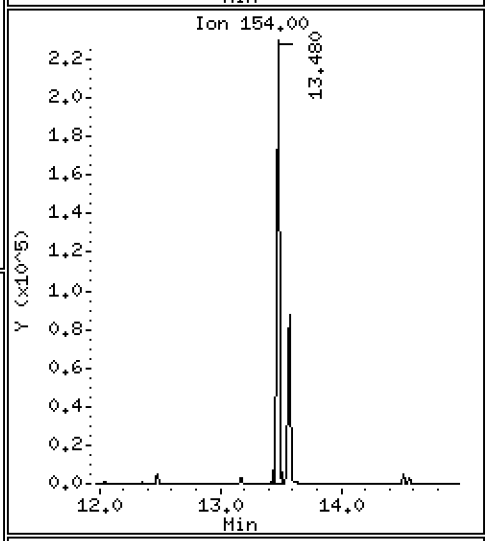


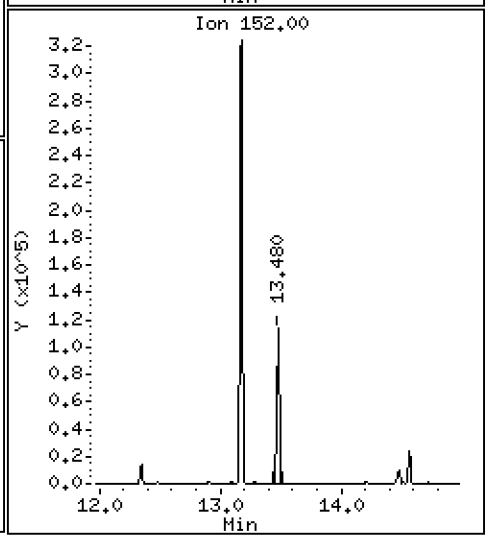












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

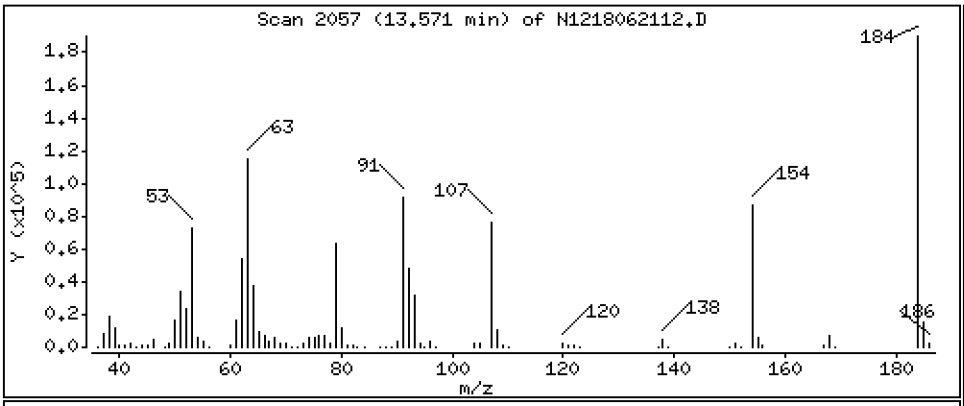
Operator: JZ

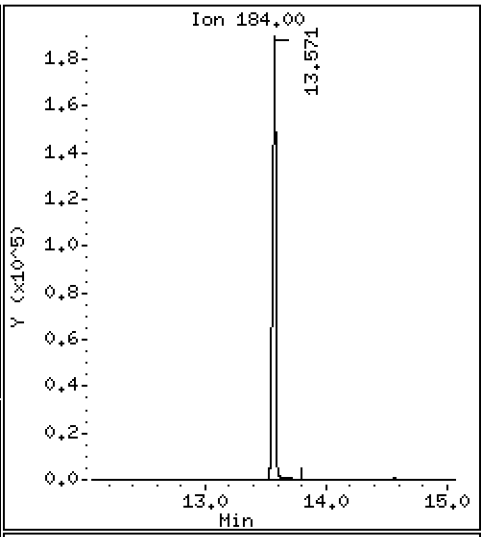
Column phase: ZB-5msi

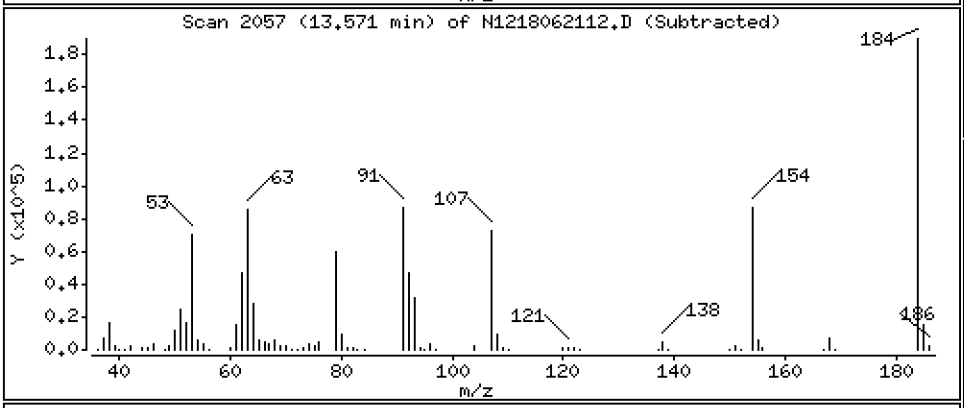
Column diameter: 0.32

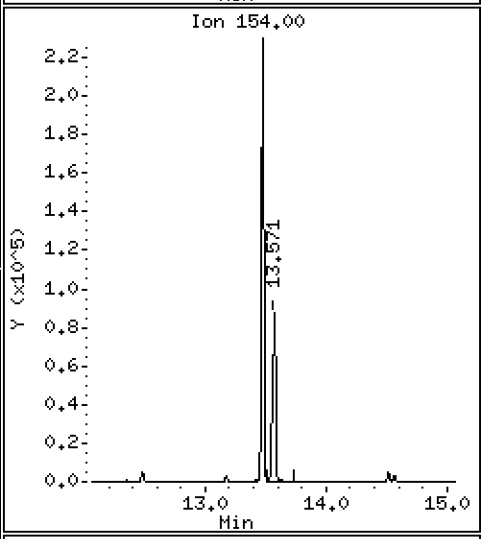
45 2,4-Dinitrophenol

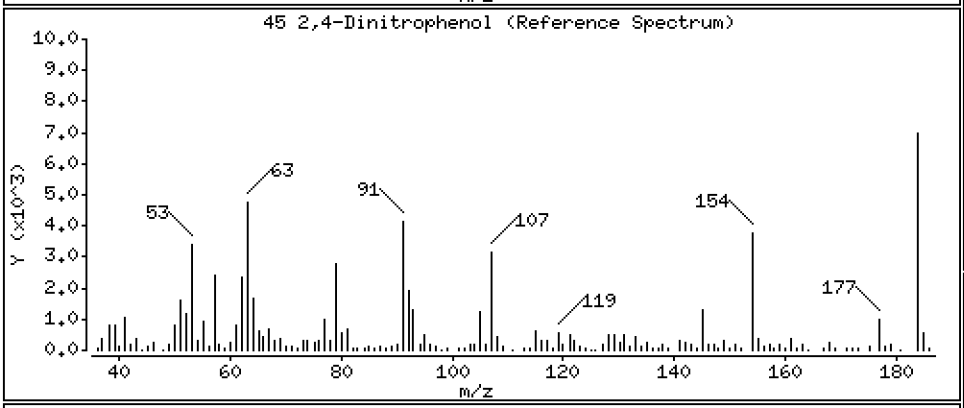
Concentration: 114.6 ug/mL

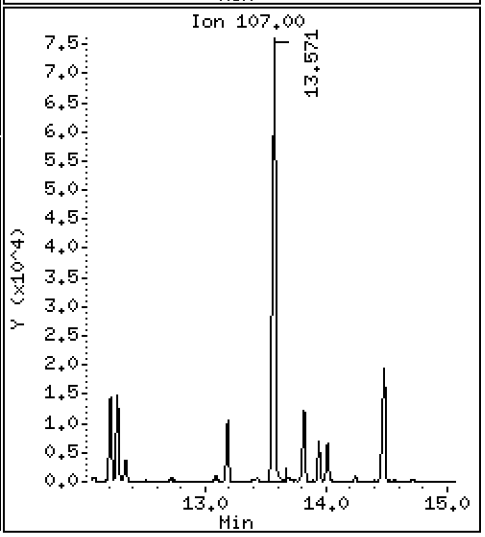


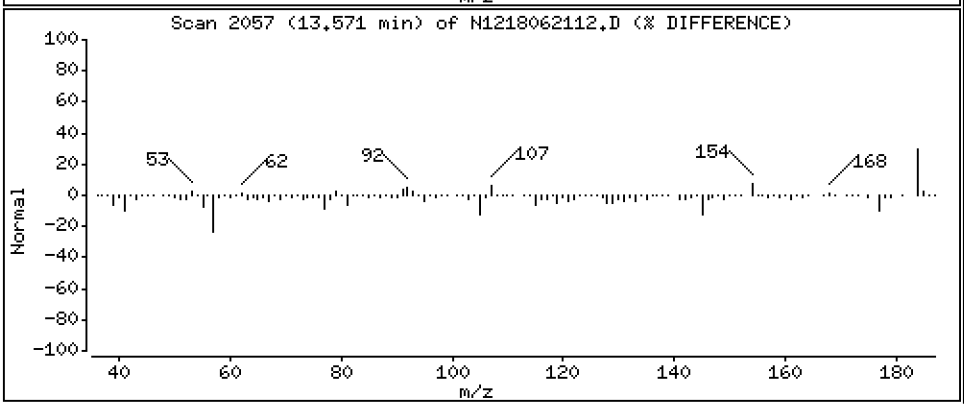












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

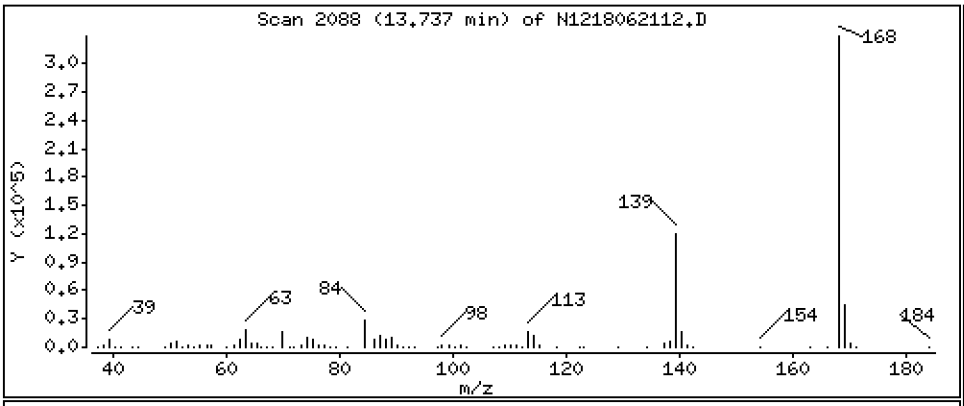
Operator: JZ

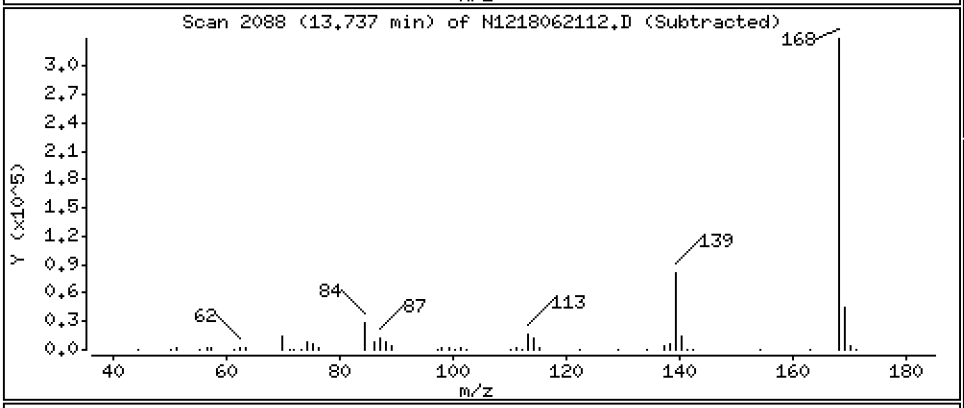
Column phase: ZB-5msi

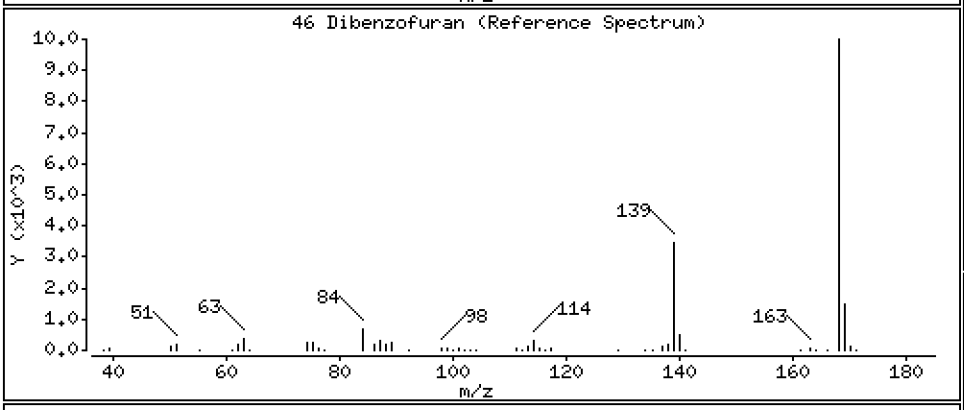
Column diameter: 0.32

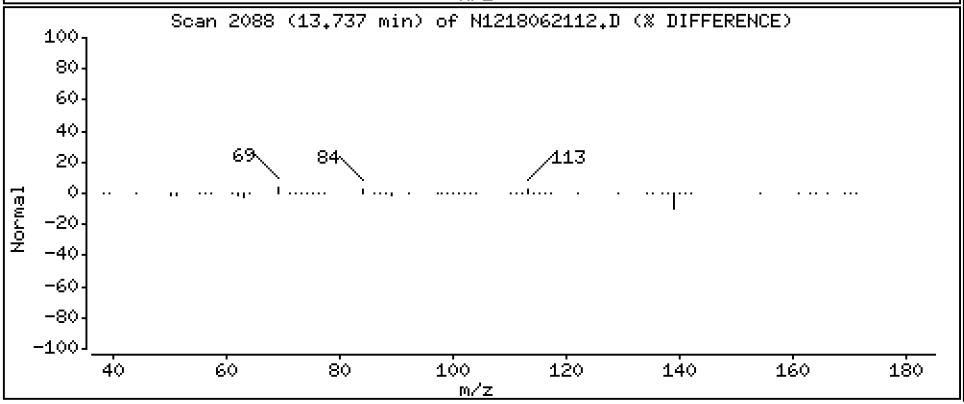
46 Dibenzofuran

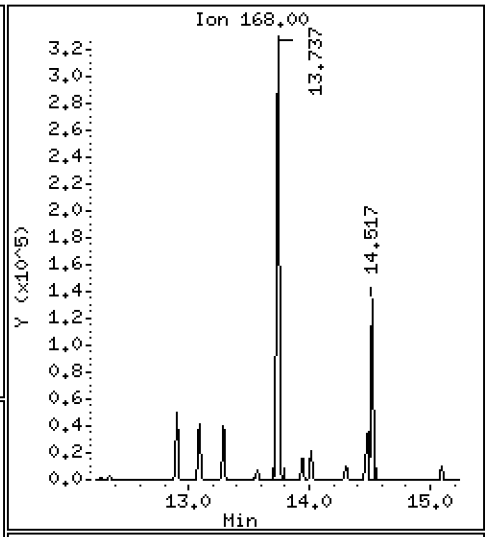
Concentration: 17.12 ug/mL

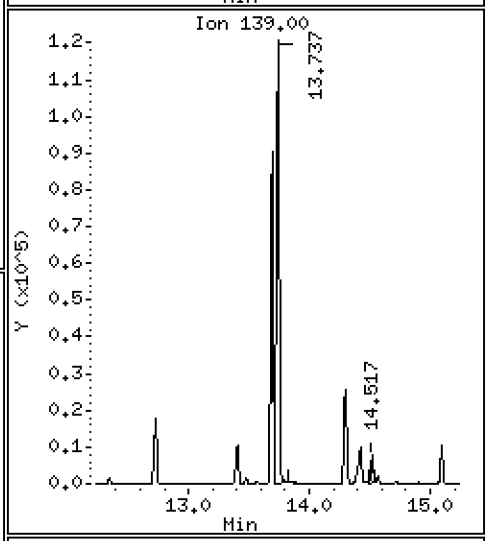


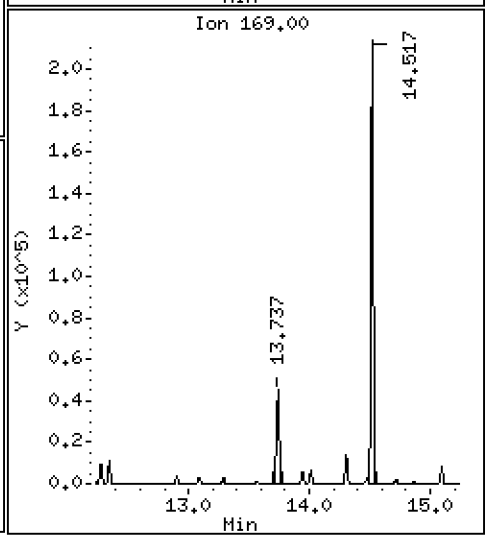












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

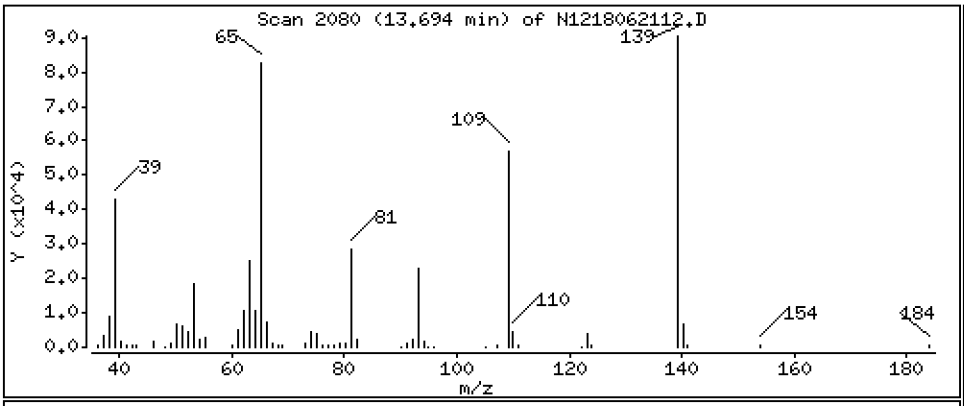
Operator: JZ

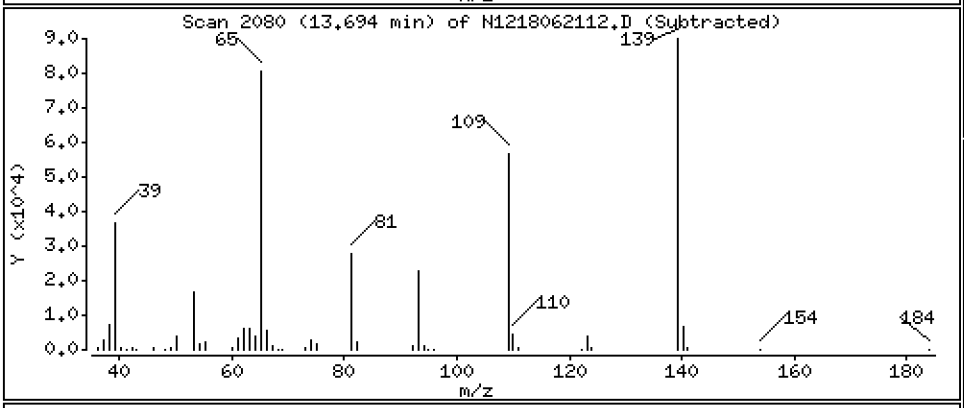
Column phase: ZB-5msi

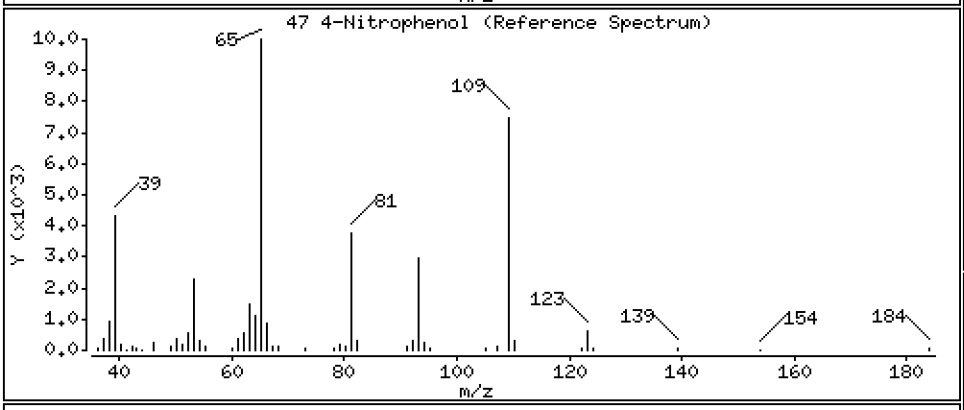
Column diameter: 0.32

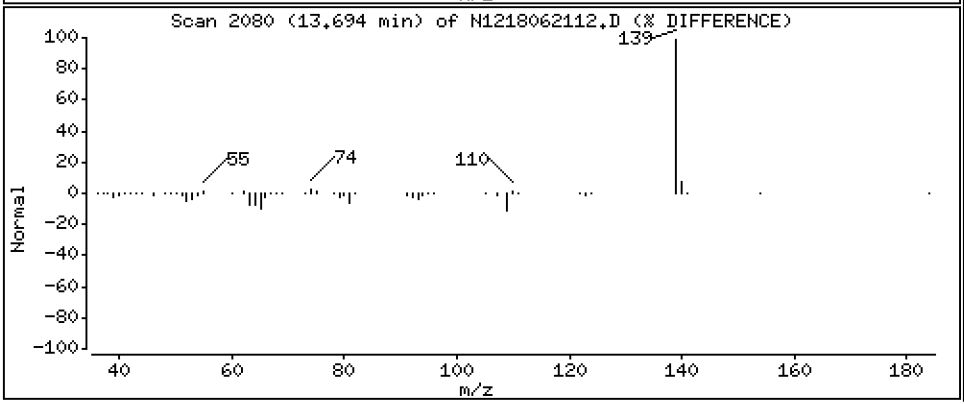
47 4-Nitrophenol

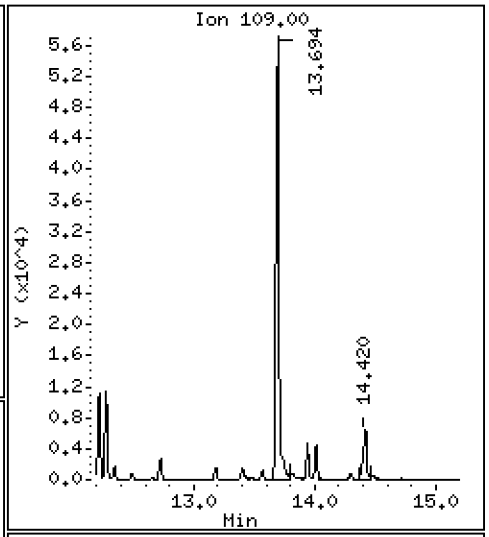
Concentration: 30.08 ug/mL

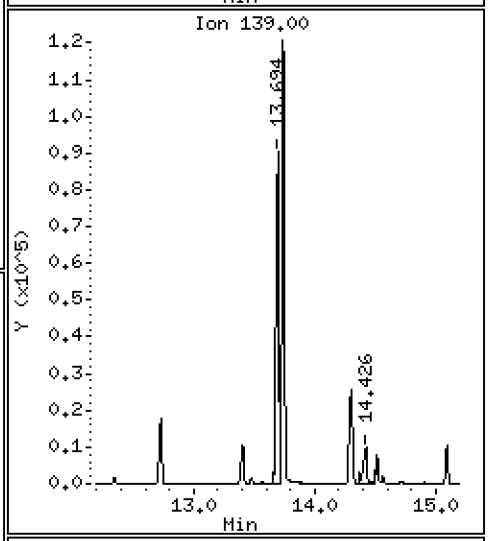


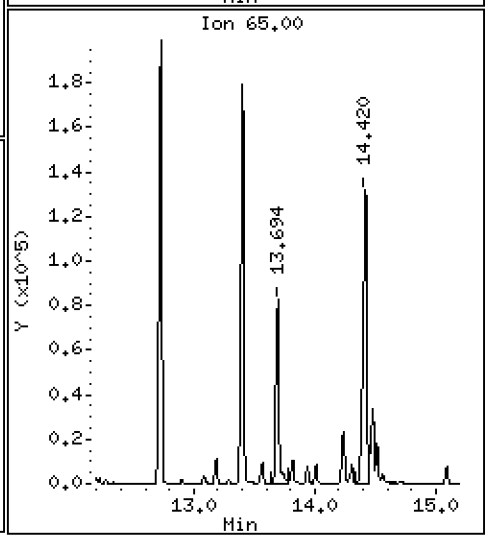












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

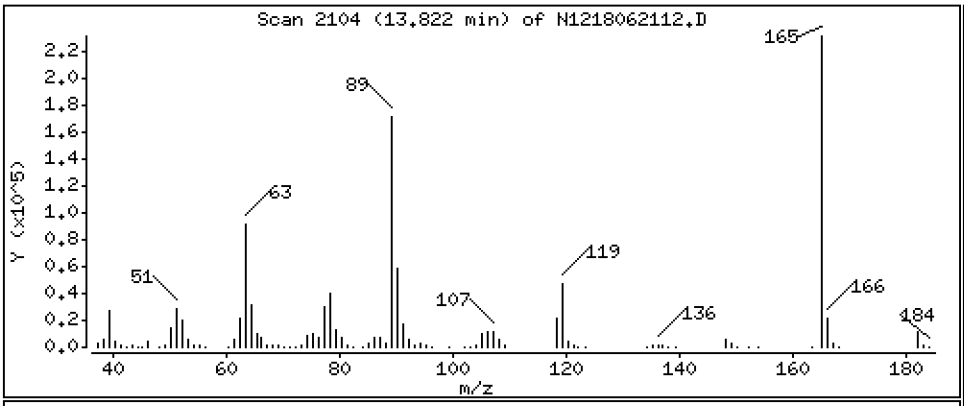
Operator: JZ

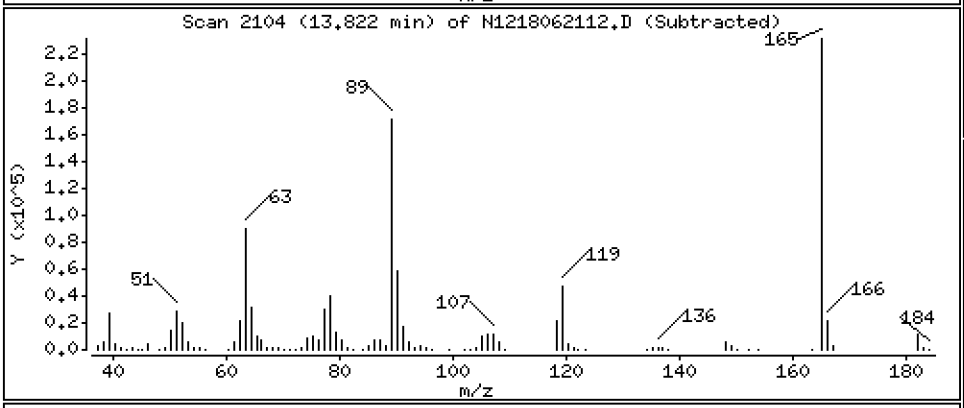
Column phase: ZB-5msi

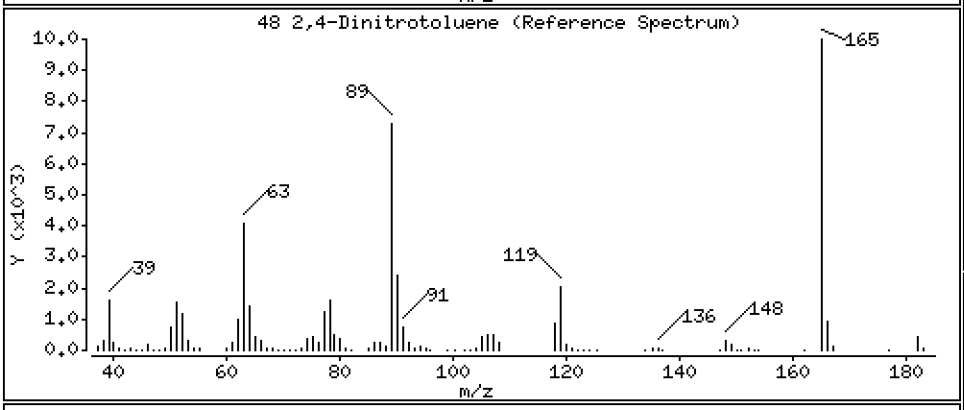
Column diameter: 0.32

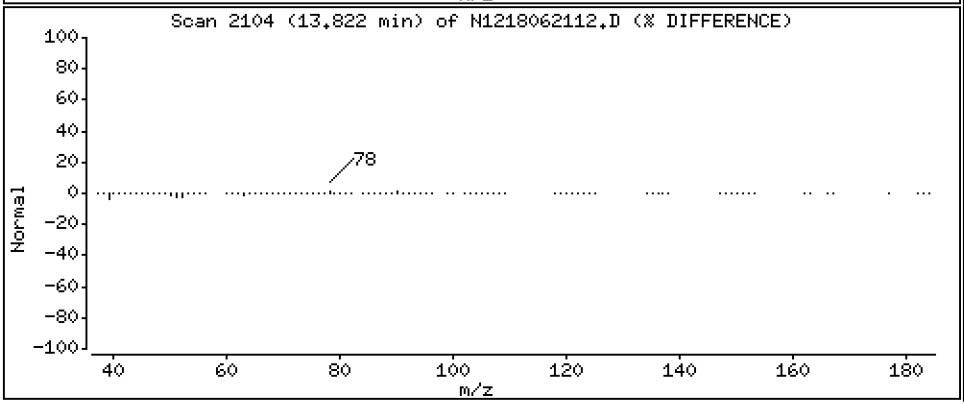
48 2,4-Dinitrotoluene

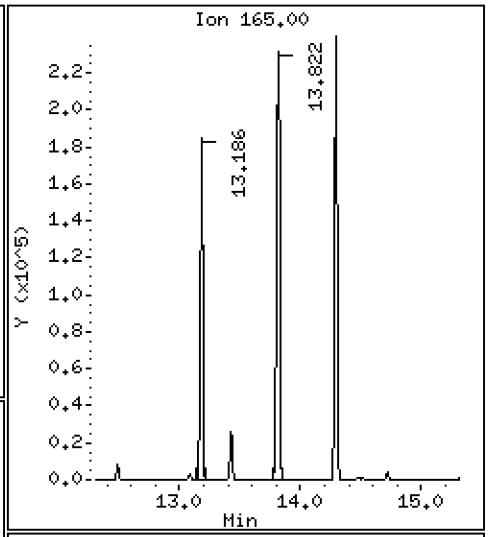
Concentration: 57.64 ug/mL

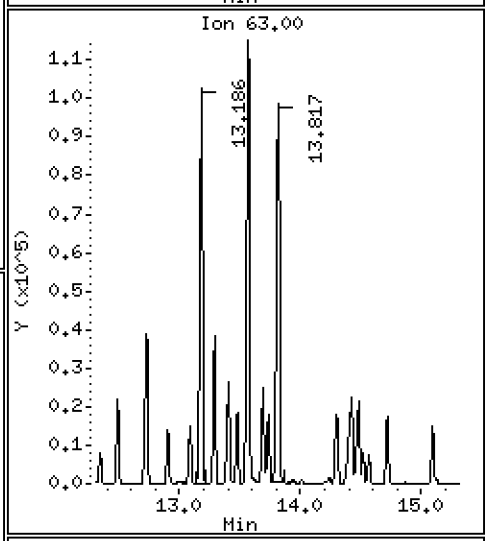


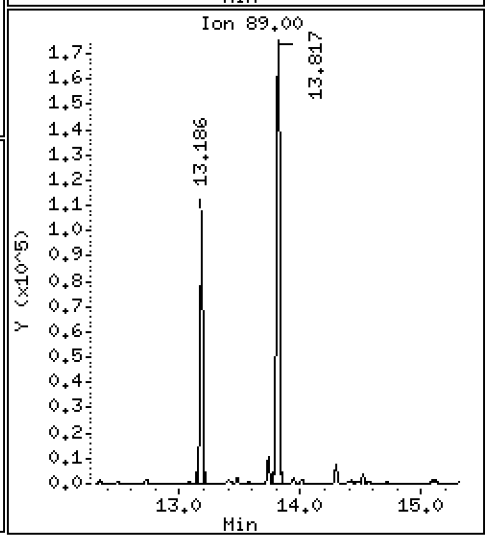












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

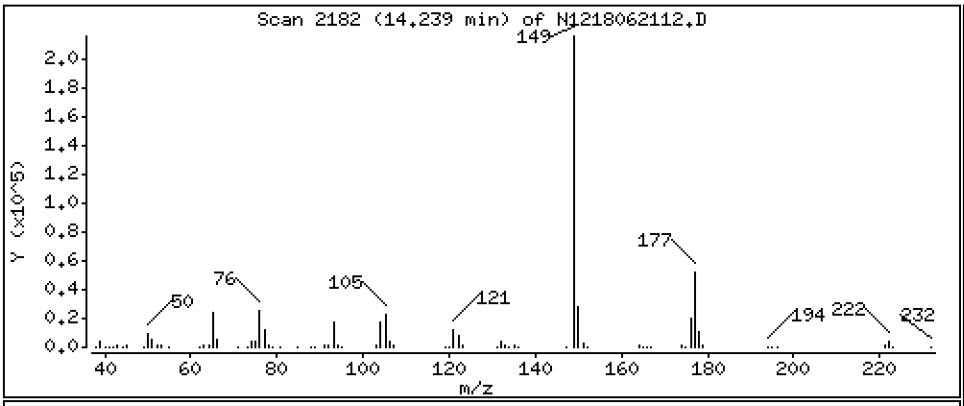
Operator: JZ

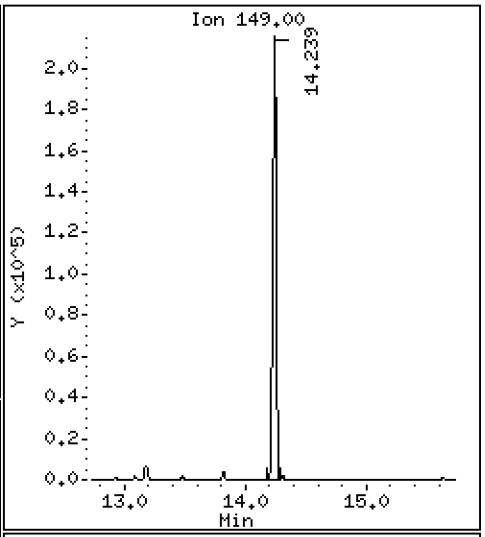
Column phase: ZB-5msi

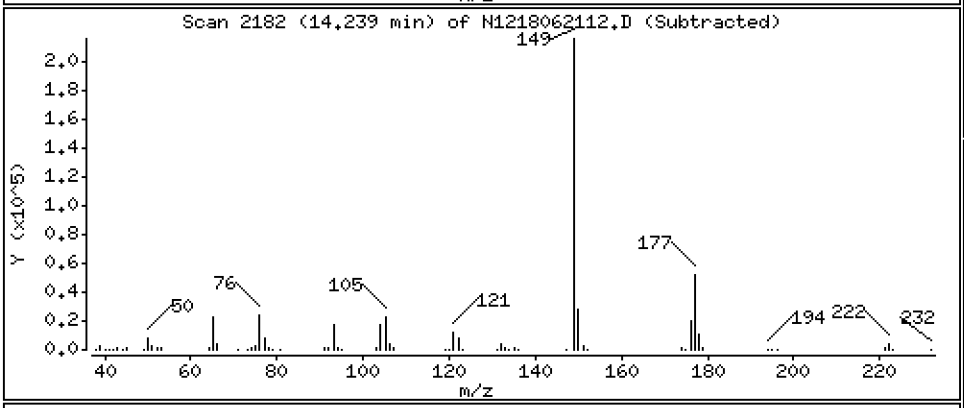
Column diameter: 0.32

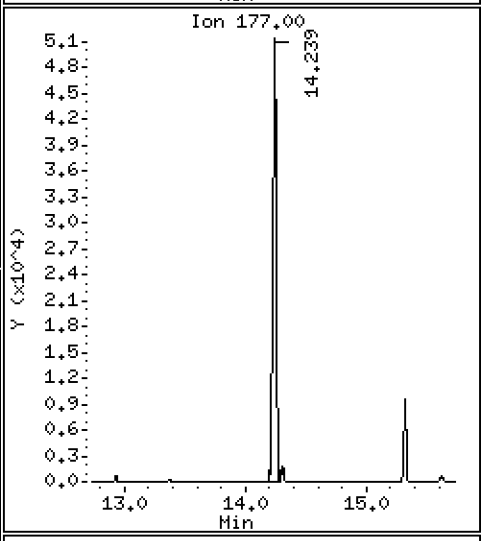
50 Diethylphthalate

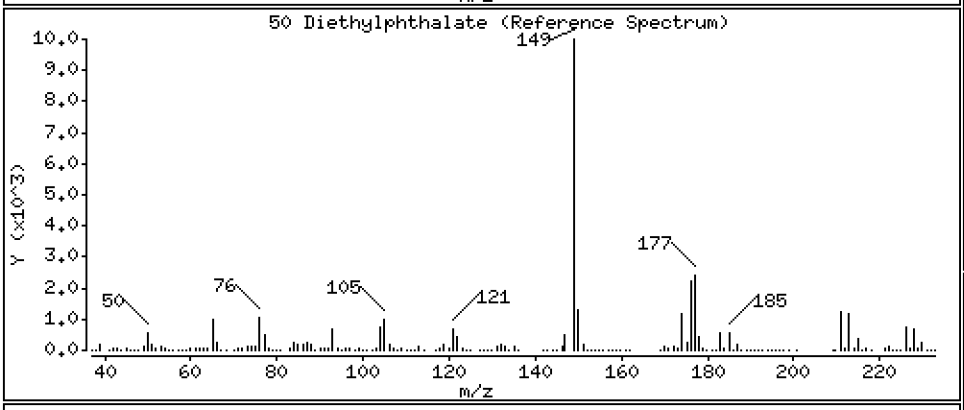
Concentration: 19.98 ug/mL

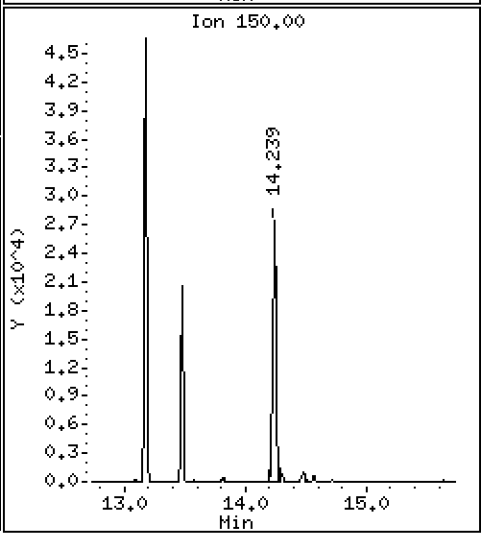


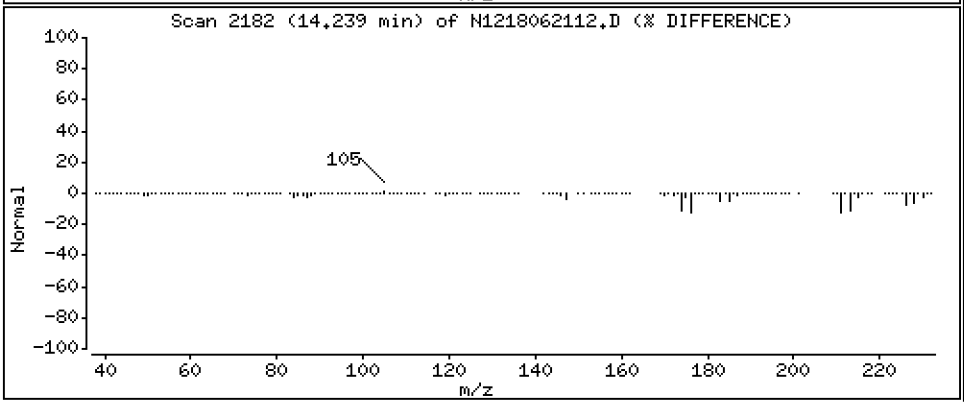












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

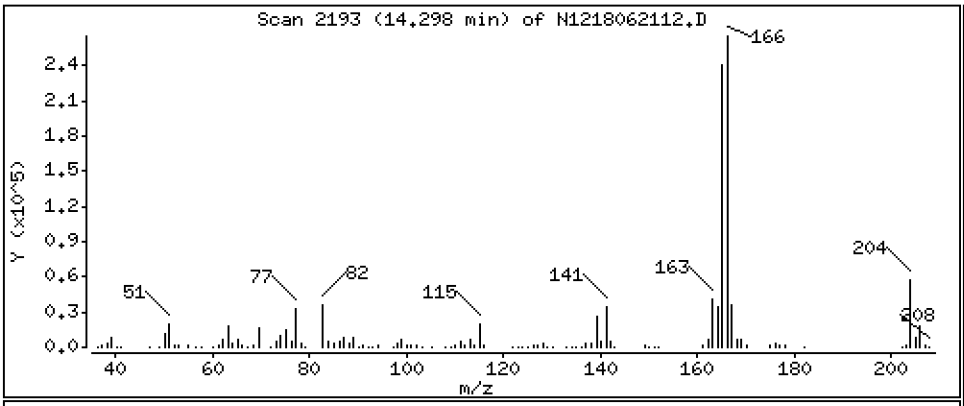
Operator: JZ

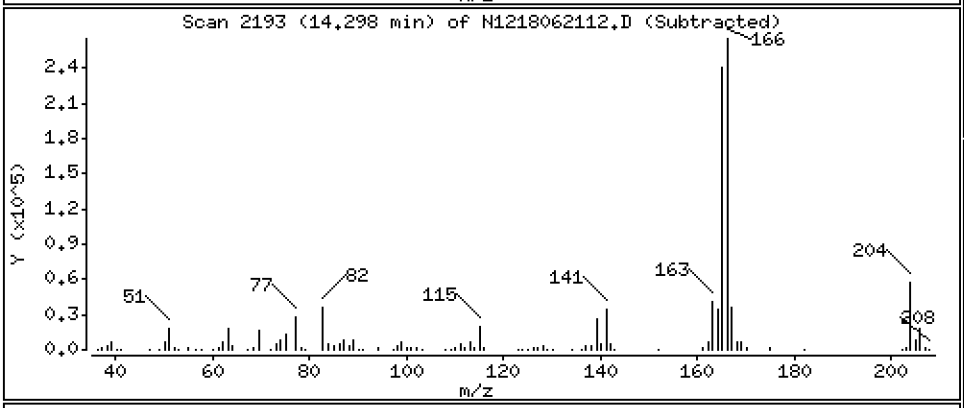
Column phase: ZB-5msi

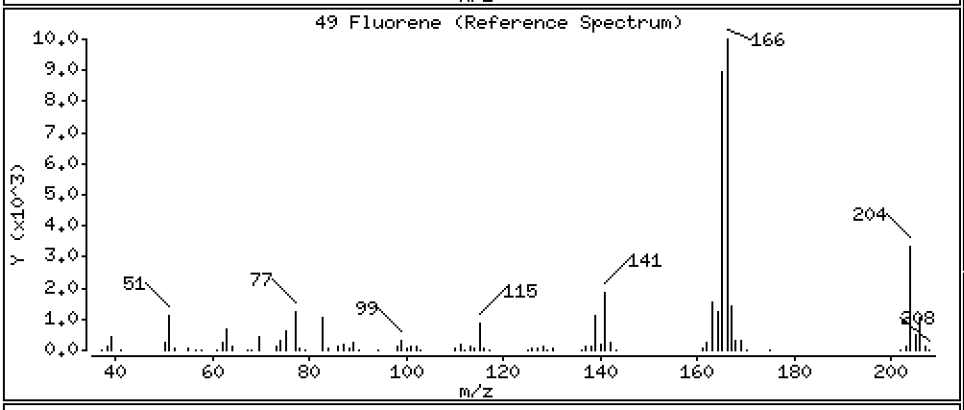
Column diameter: 0.32

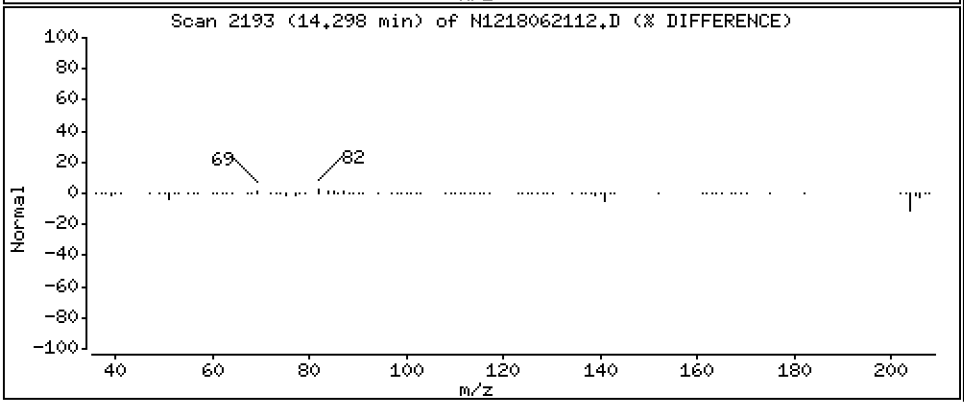
49 Fluorene

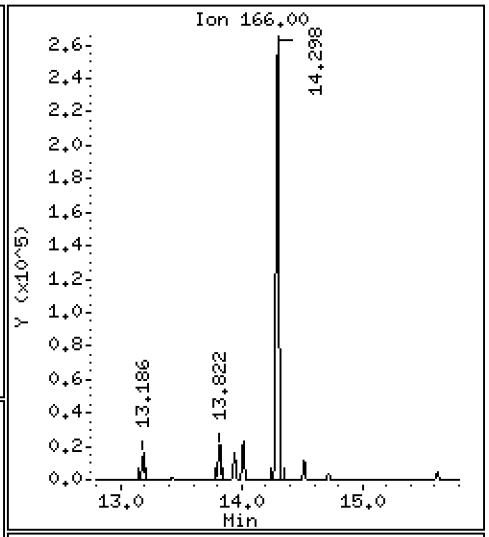
Concentration: 18.71 ug/mL

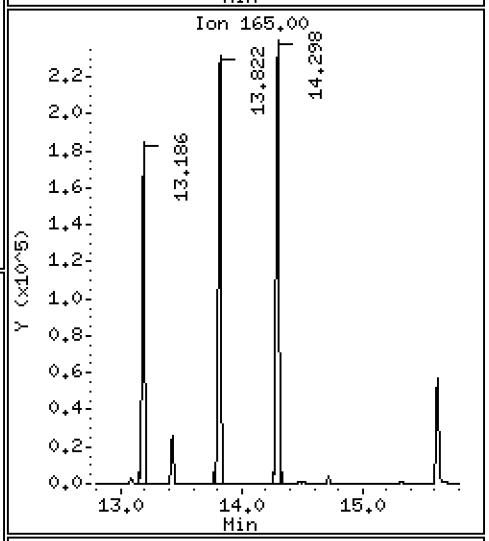


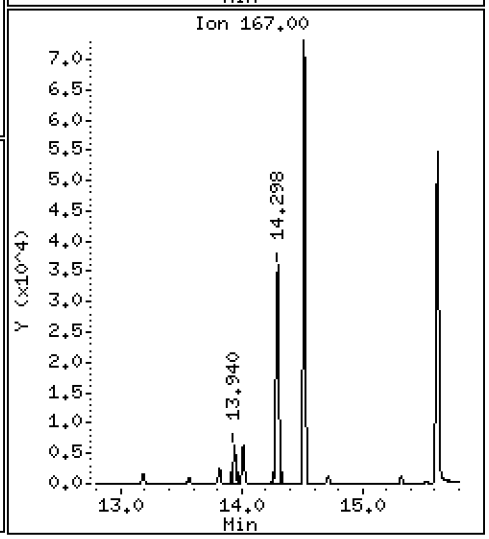












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

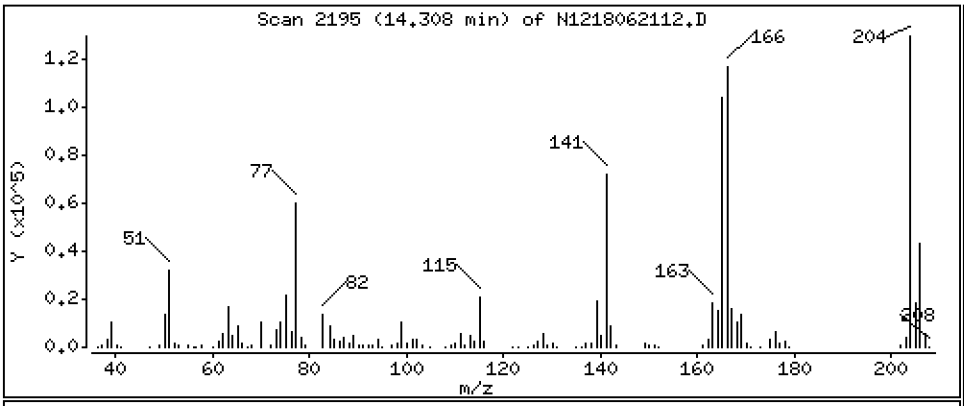
Operator: JZ

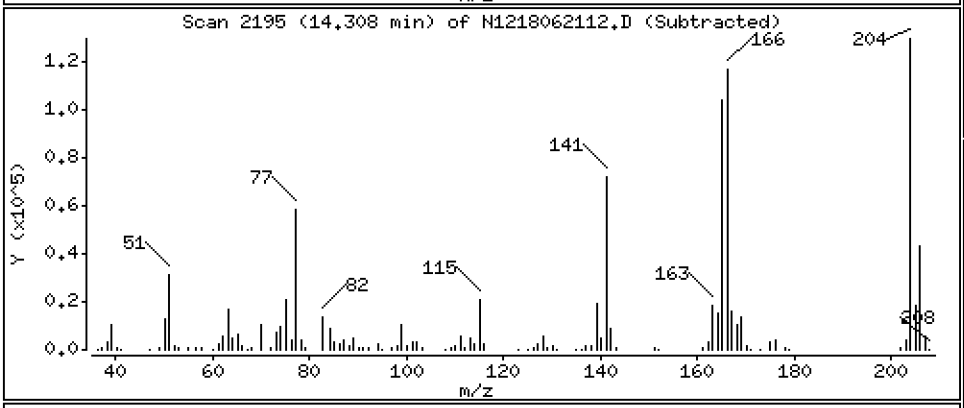
Column phase: ZB-5msi

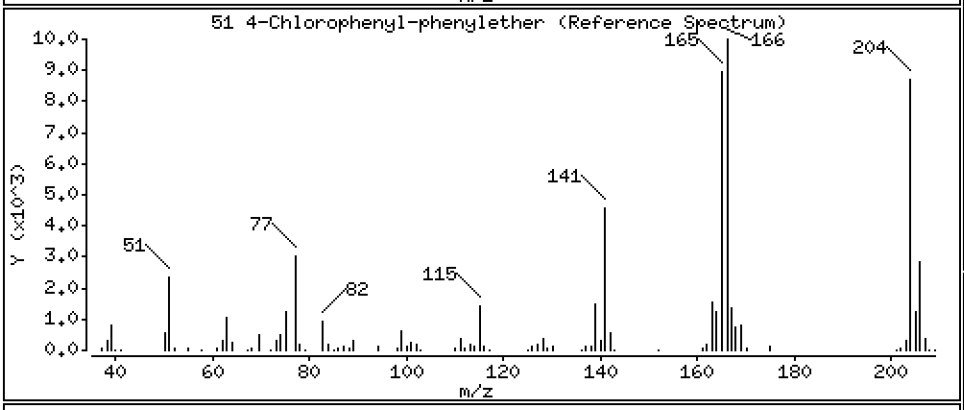
Column diameter: 0.32

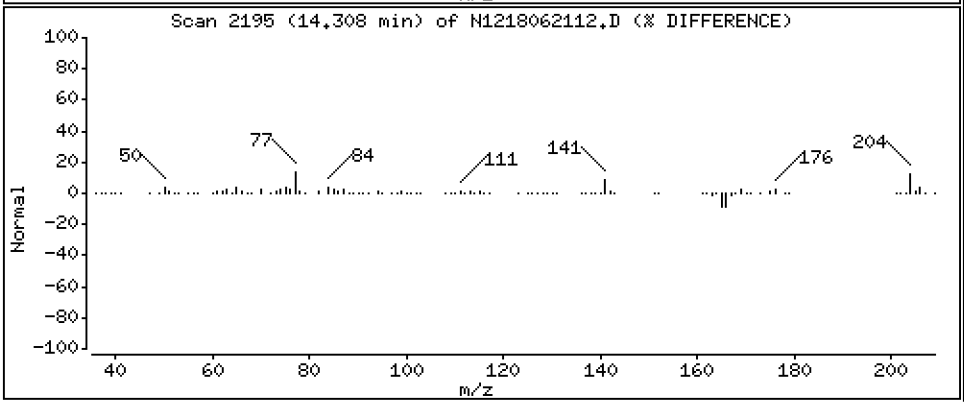
51 4-Chlorophenyl-phenylether

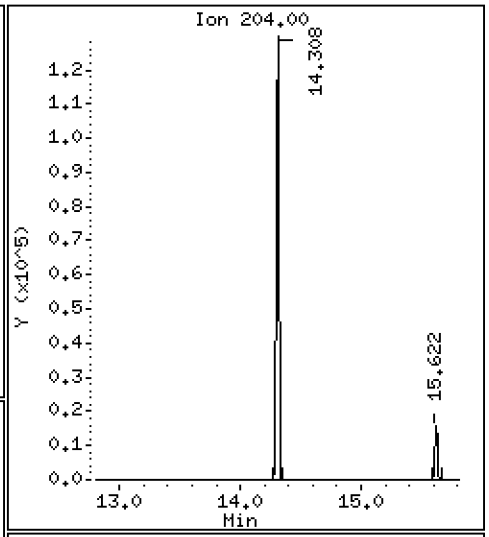
Concentration: 18.45 ug/mL

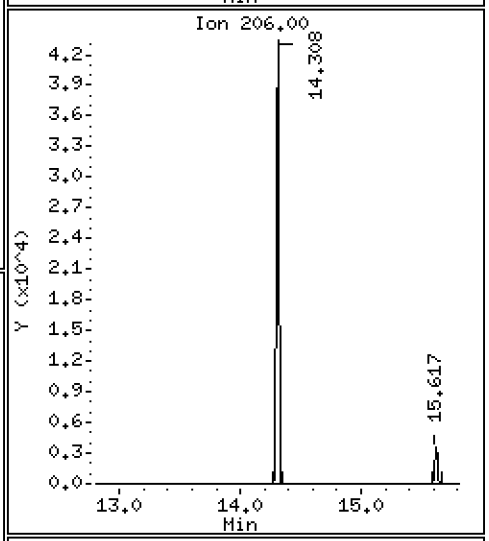


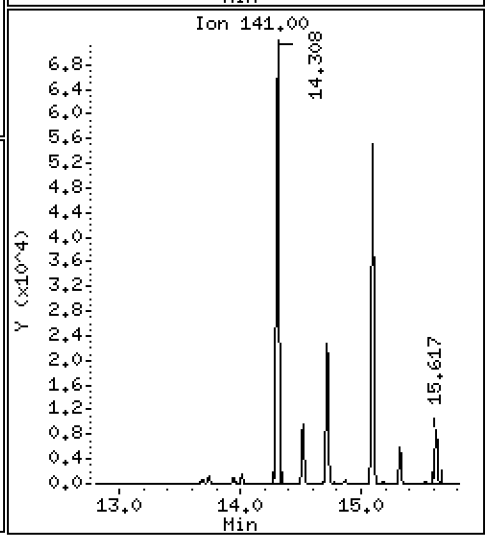












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

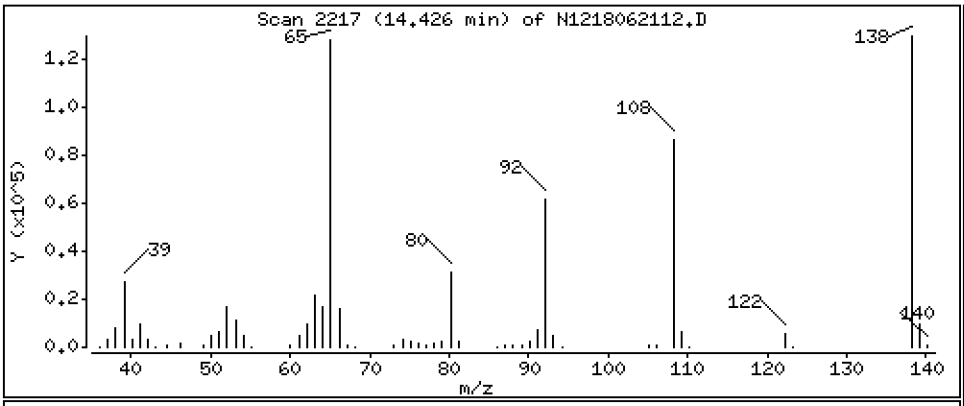
Operator: JZ

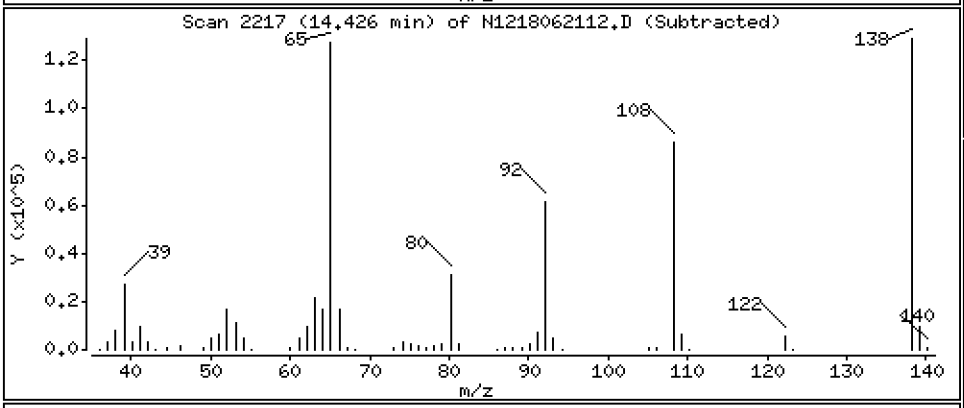
Column phase: ZB-5msi

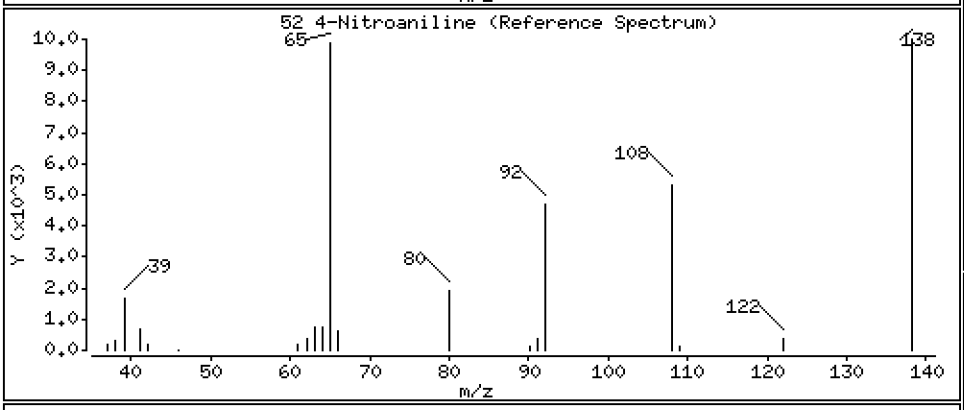
Column diameter: 0.32

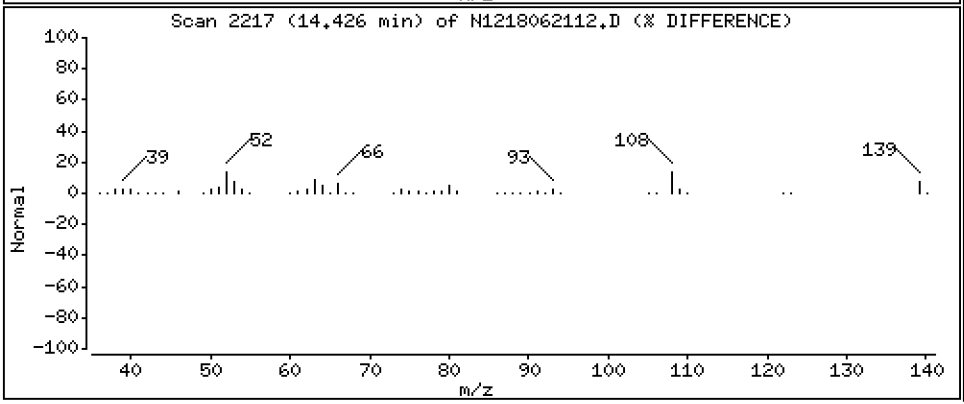
52 4-Nitroaniline

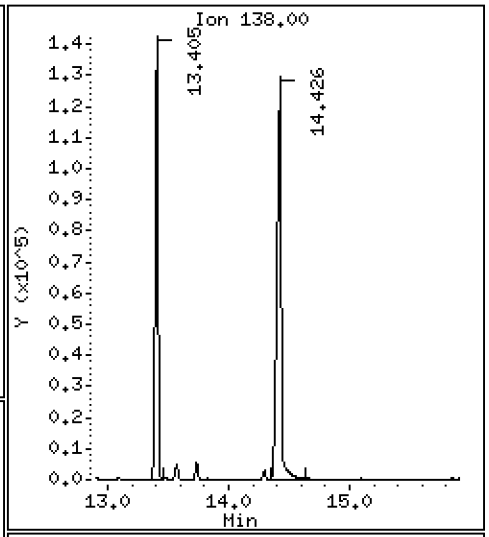
Concentration: 53.84 ug/mL

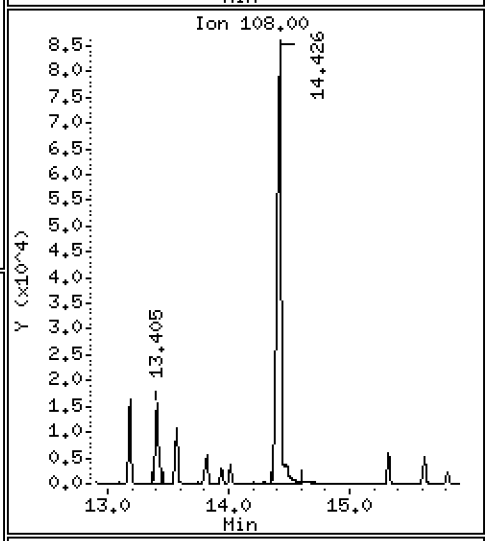


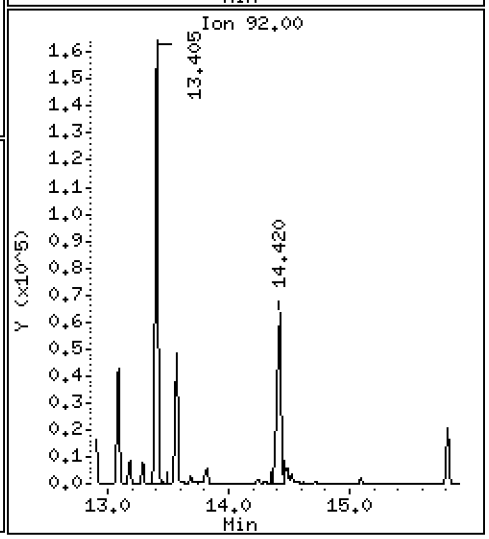












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

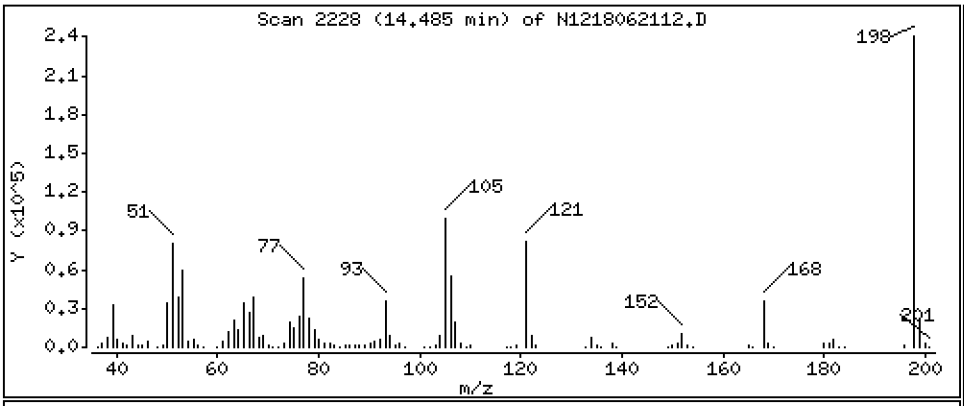
Operator: JZ

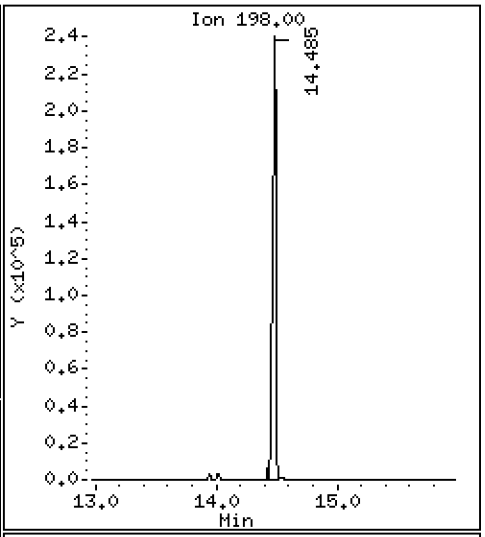
Column phase: ZB-5msi

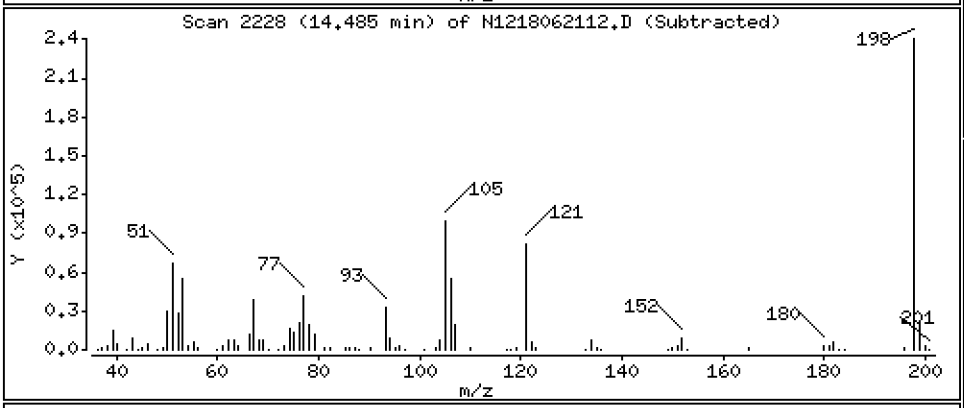
Column diameter: 0.32

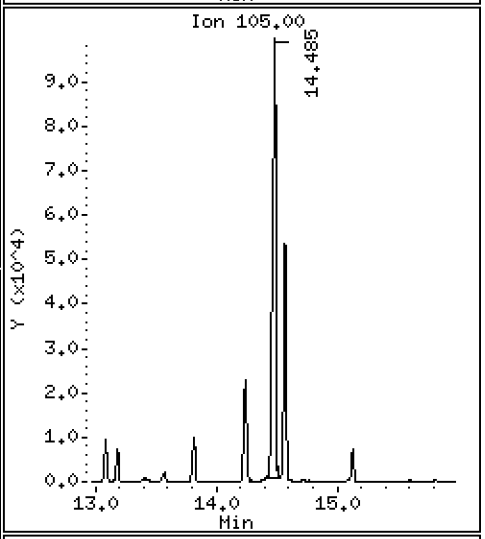
53 4,6-Dinitro-2-methylphenol

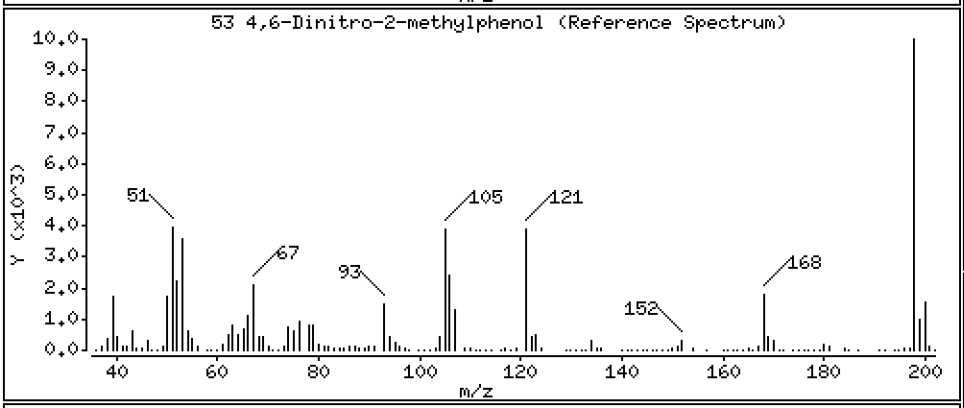
Concentration: 117.3 ug/mL

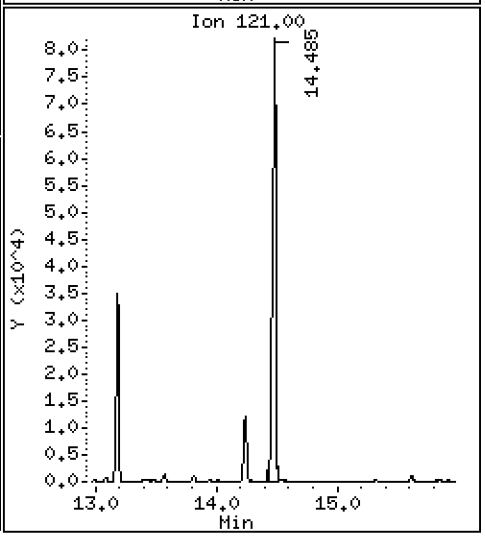


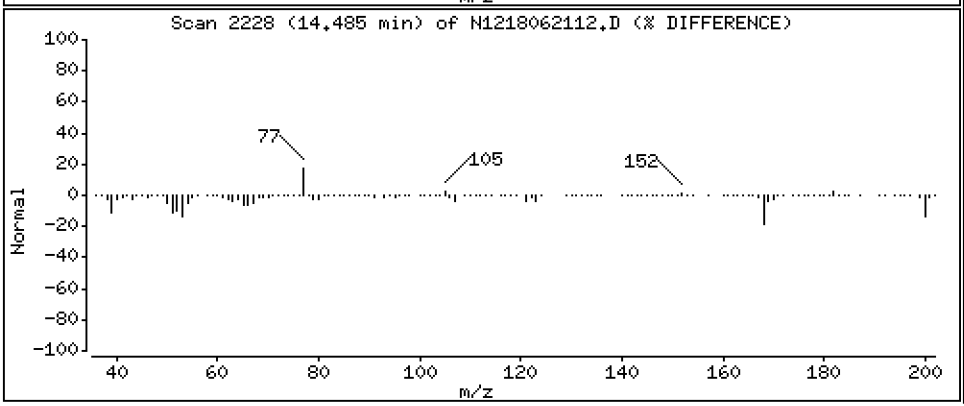












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

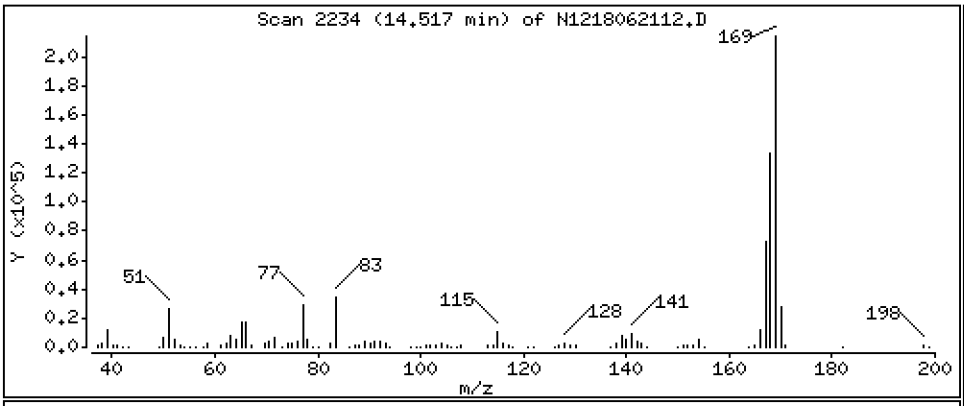
Operator: JZ

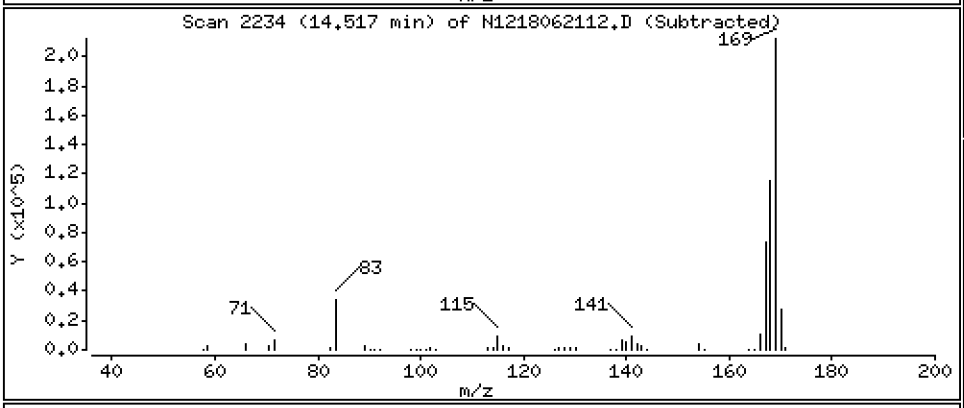
Column phase: ZB-5msi

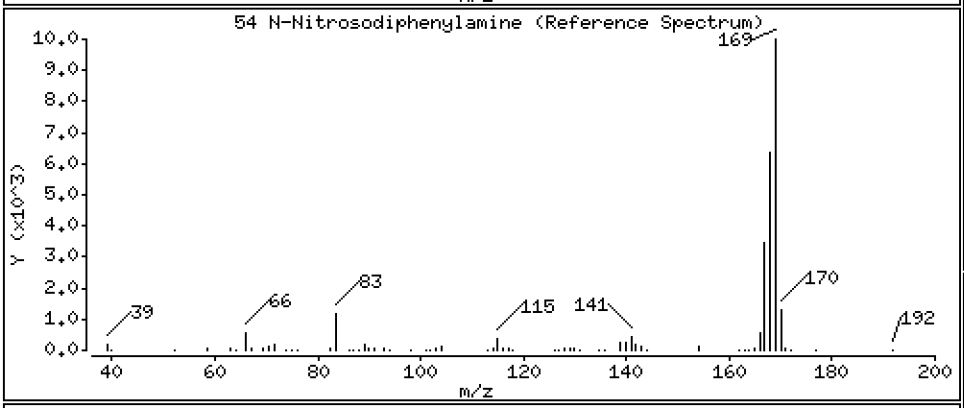
Column diameter: 0.32

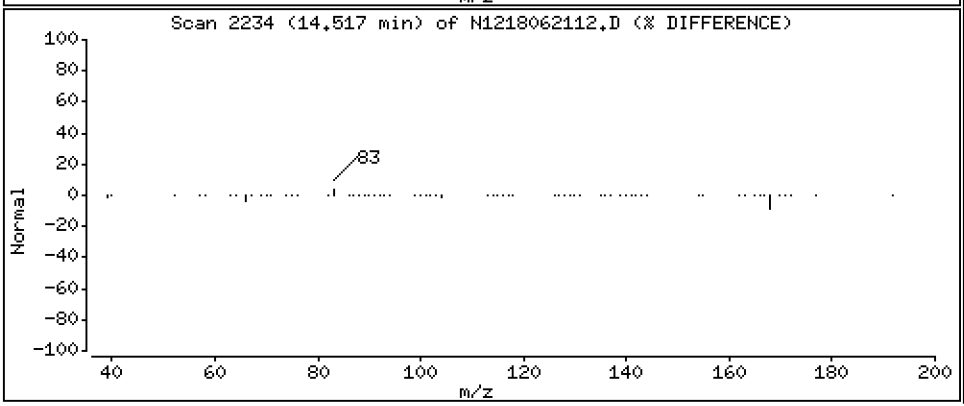
54 N-Nitrosodiphenylamine

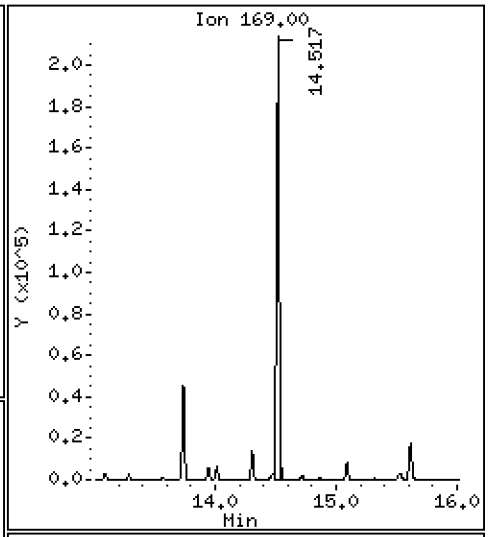
Concentration: 18.48 ug/mL

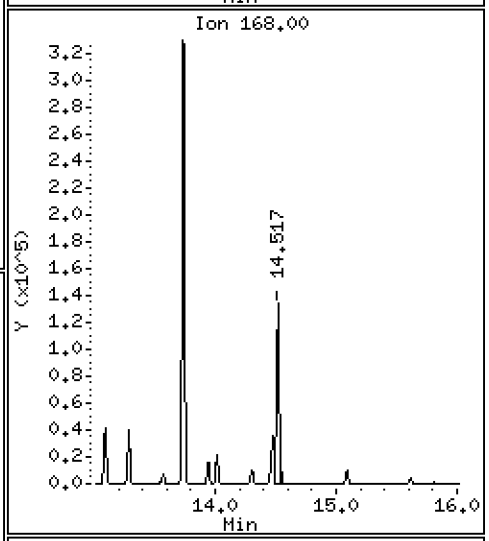


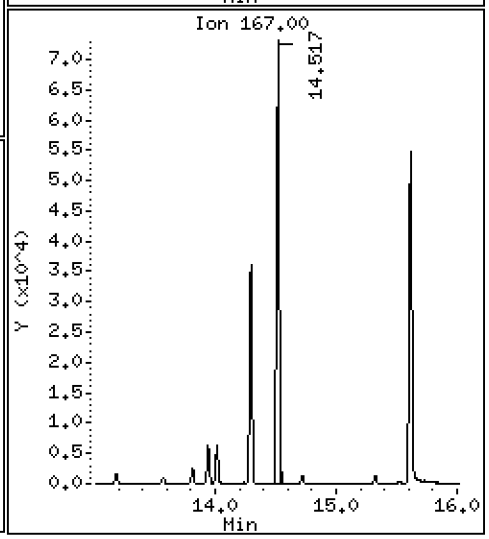












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

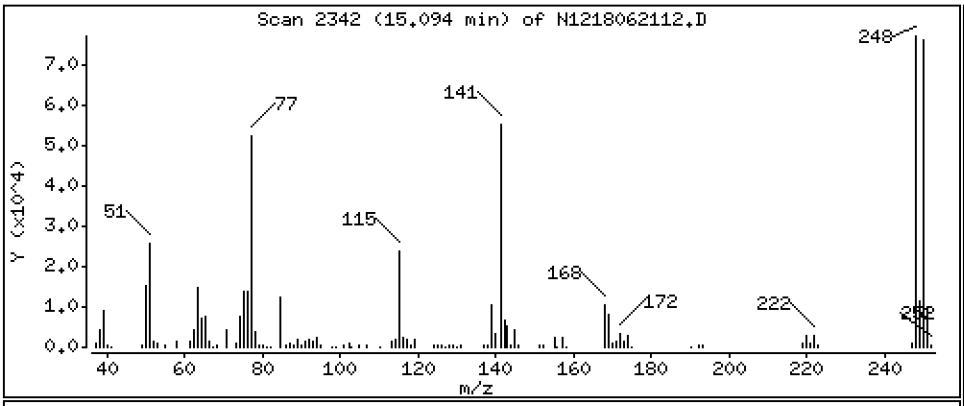
Operator: JZ

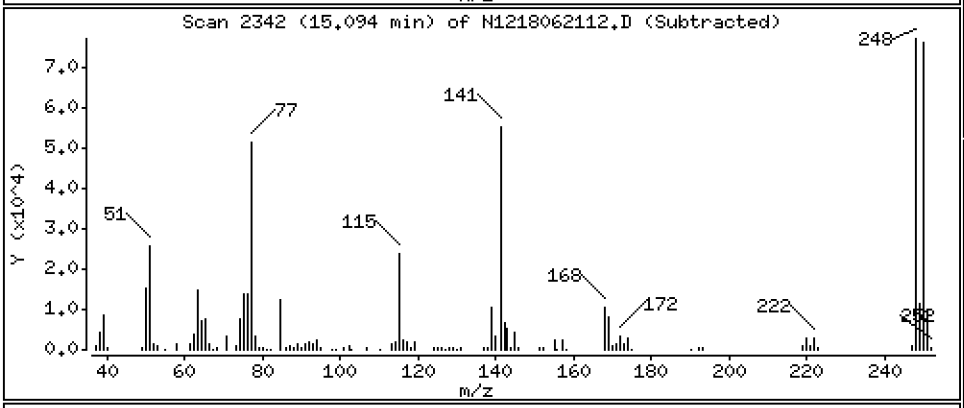
Column phase: ZB-5msi

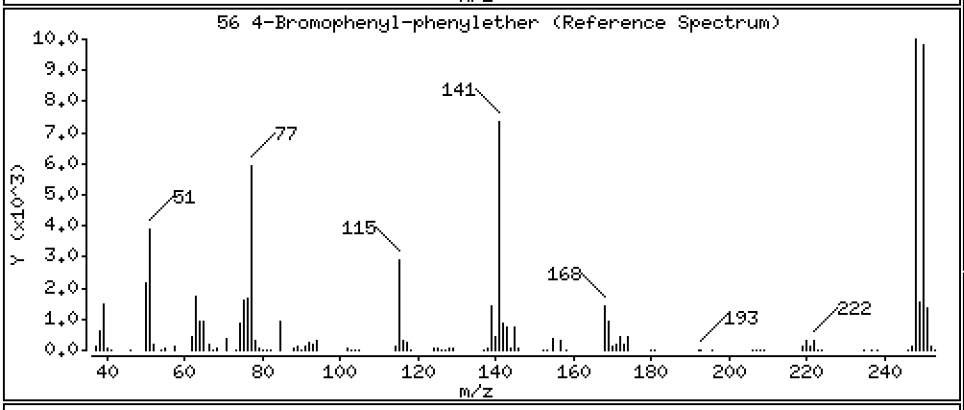
Column diameter: 0.32

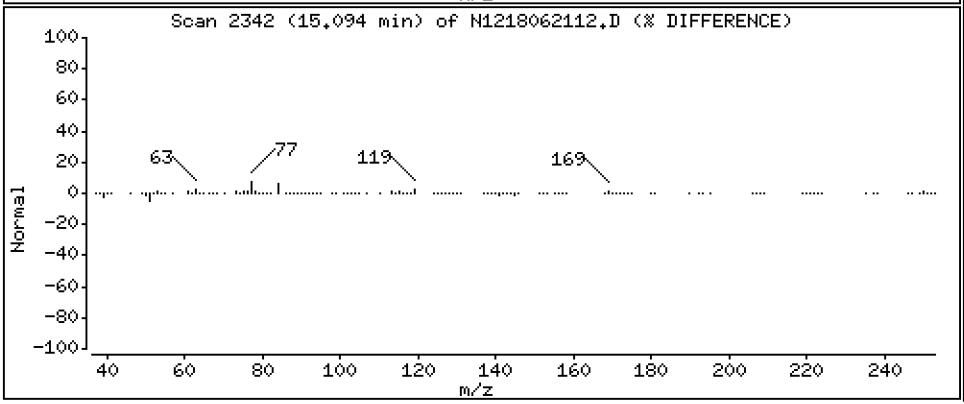
56 4-Bromophenyl-phenylether

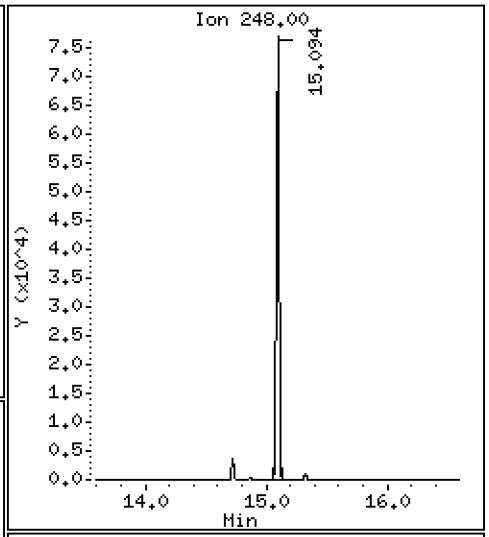
Concentration: 18.27 ug/mL

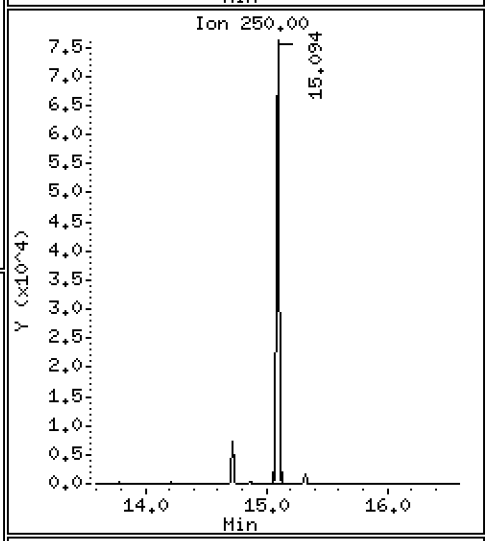


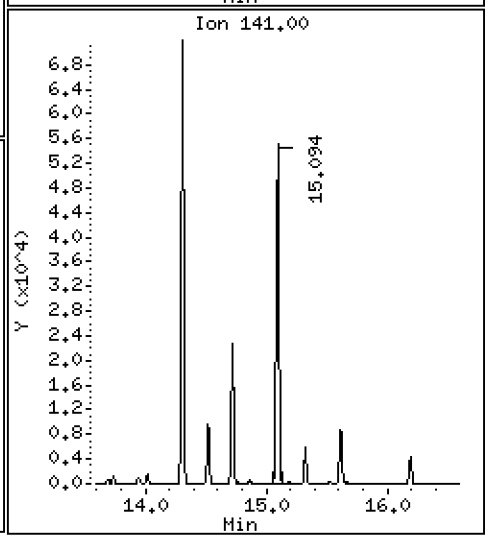












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

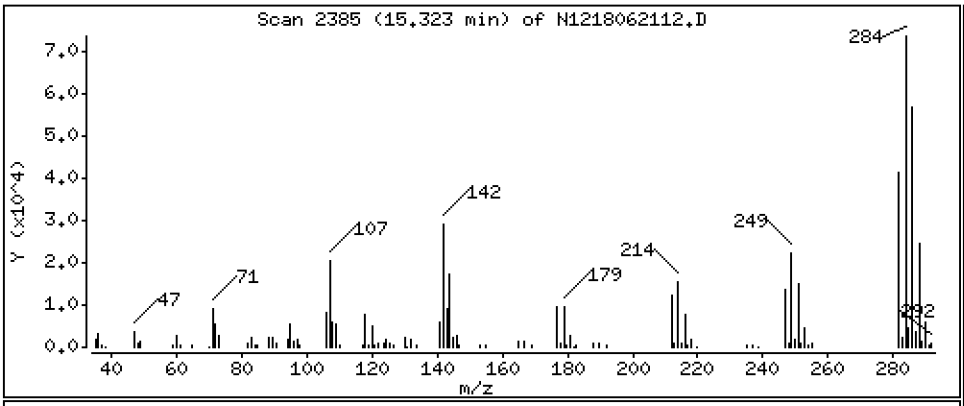
Operator: JZ

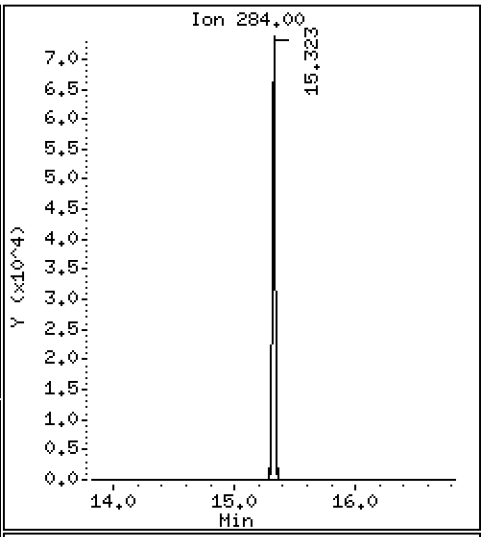
Column phase: ZB-5msi

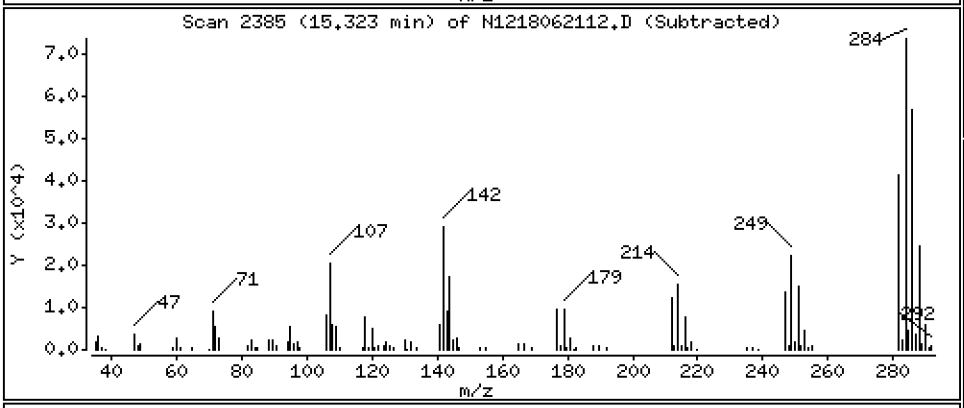
Column diameter: 0.32

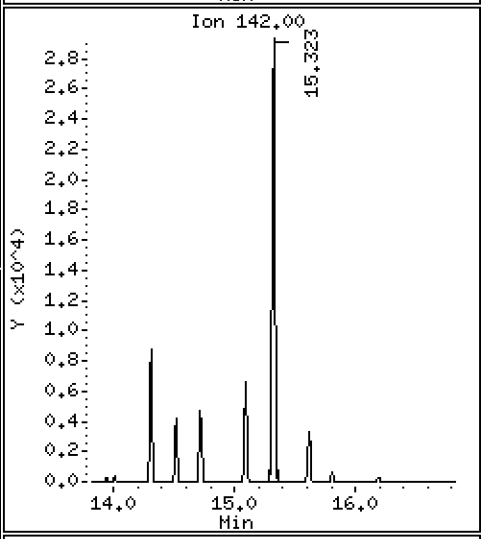
57 Hexachlorobenzene

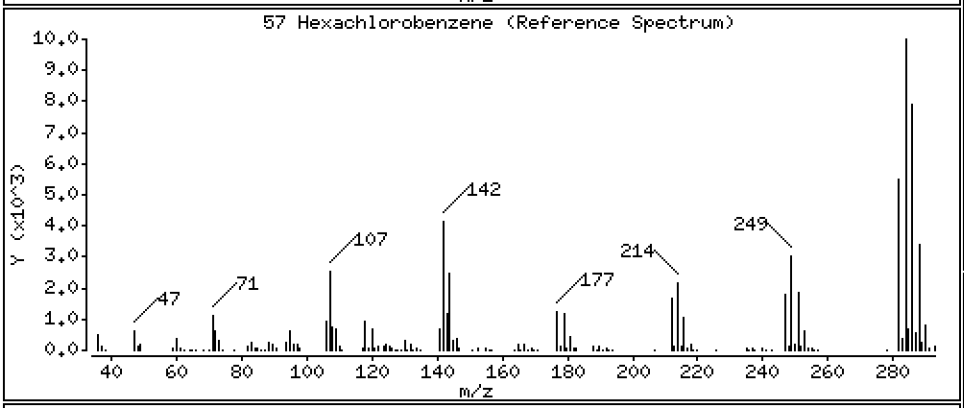
Concentration: 17.49 ug/mL

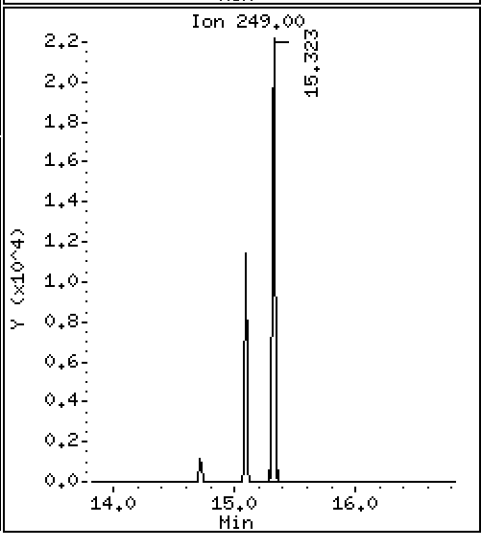


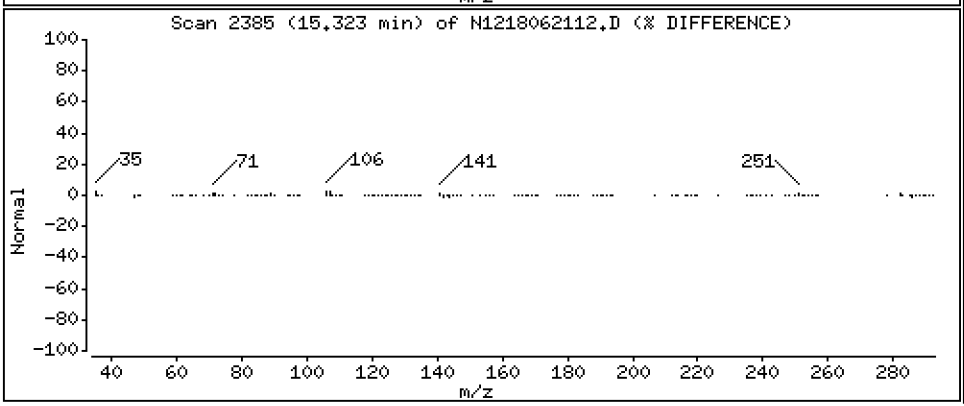












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

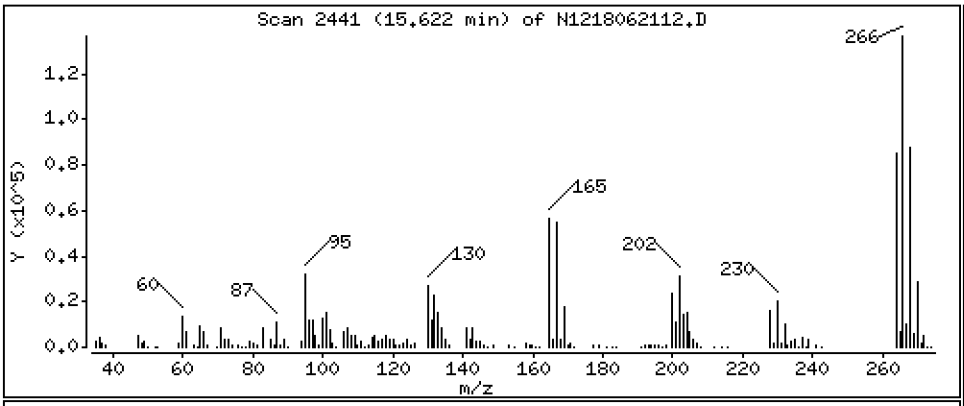
Operator: JZ

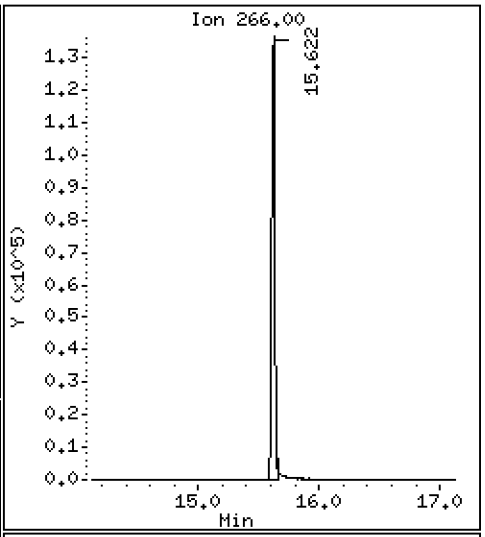
Column phase: ZB-5msi

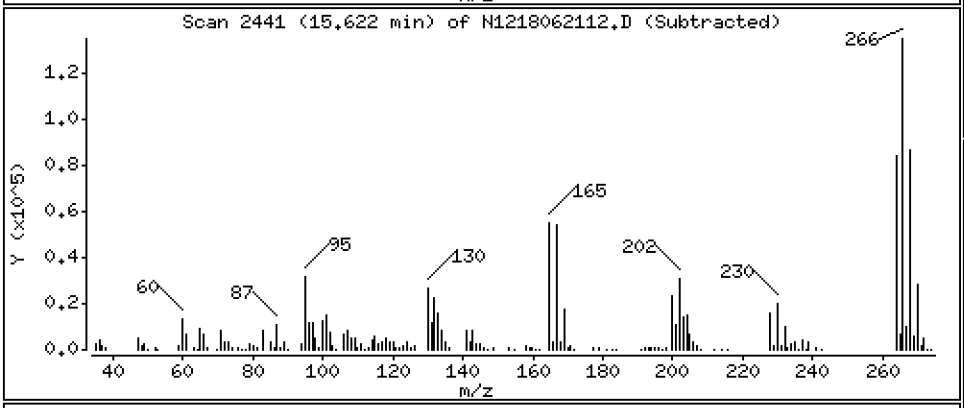
Column diameter: 0.32

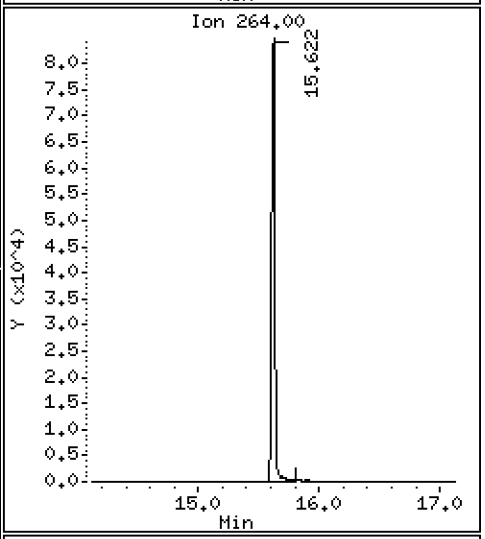
58 Pentachlorophenol

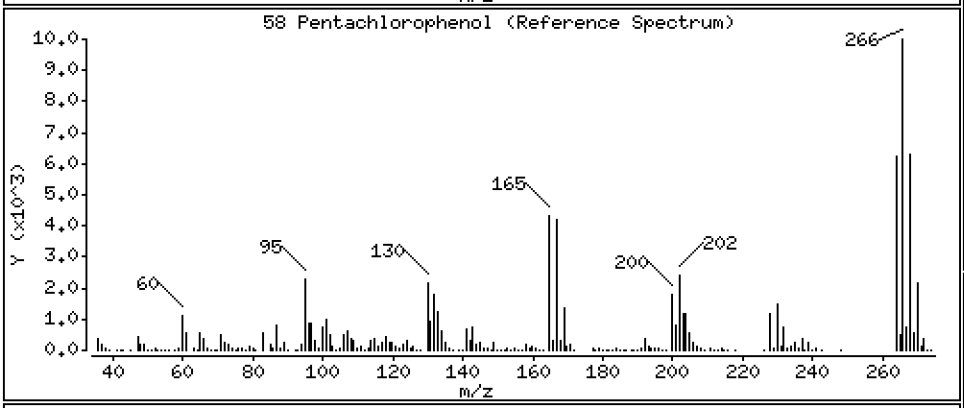
Concentration: 54.20 ug/mL

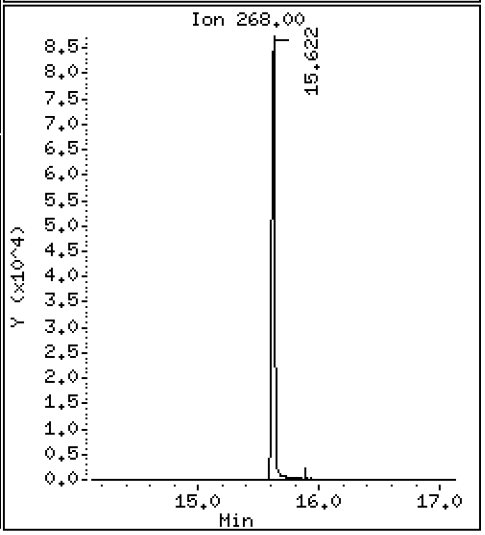


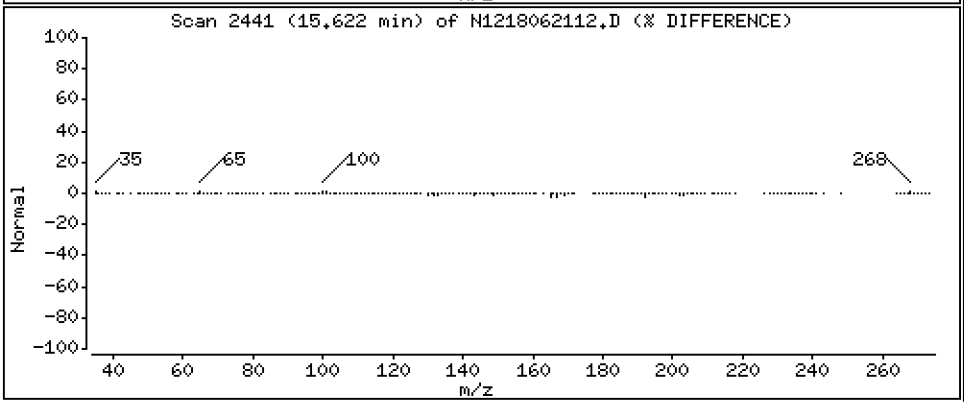












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

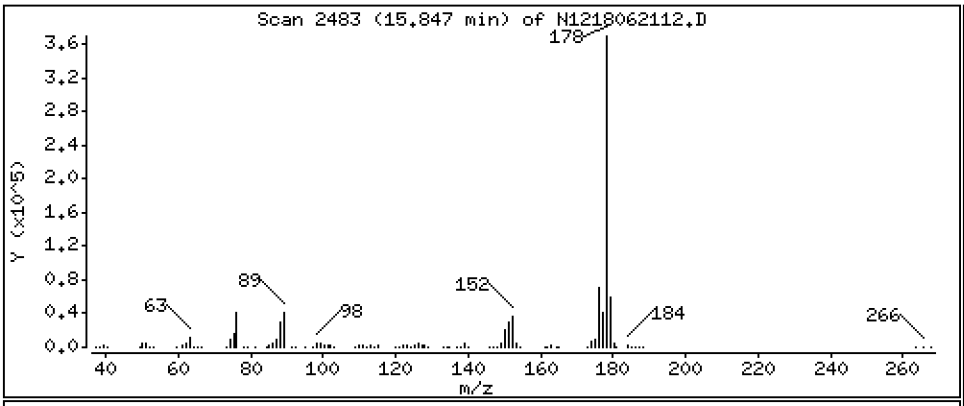
Operator: JZ

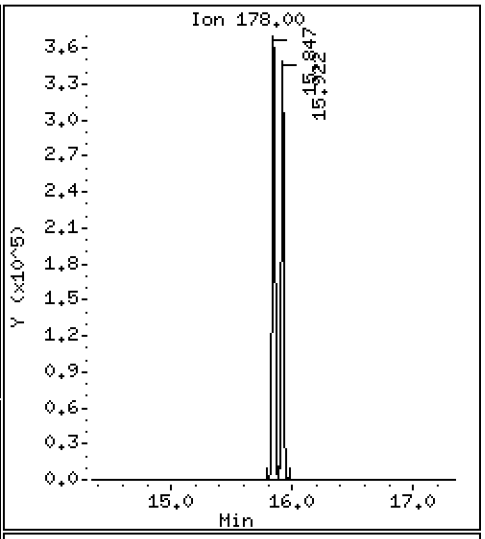
Column phase: ZB-5msi

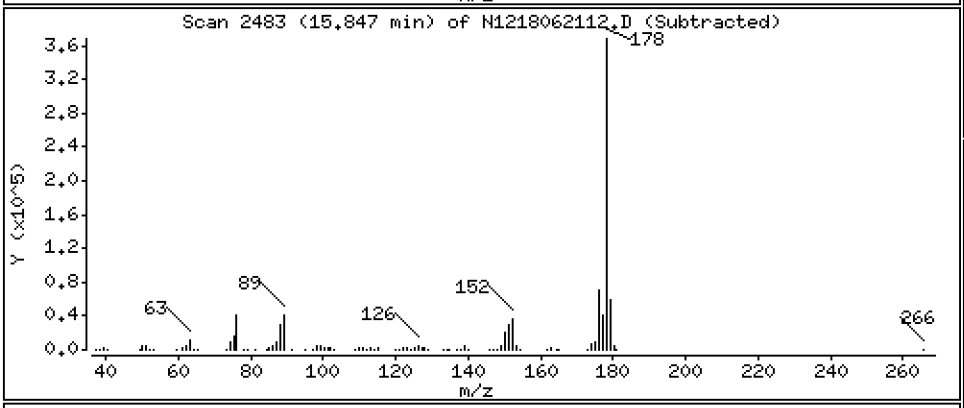
Column diameter: 0.32

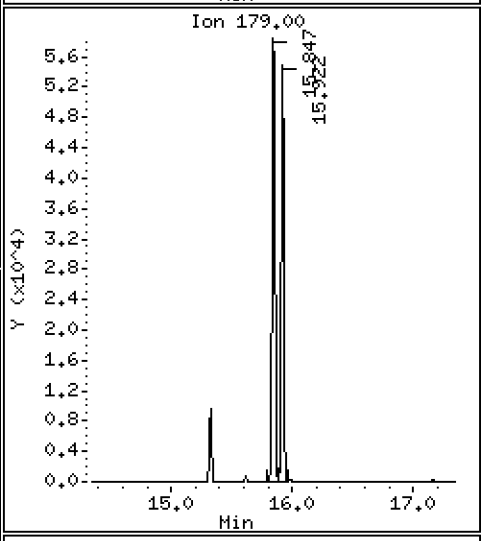
60 Phenanthrene

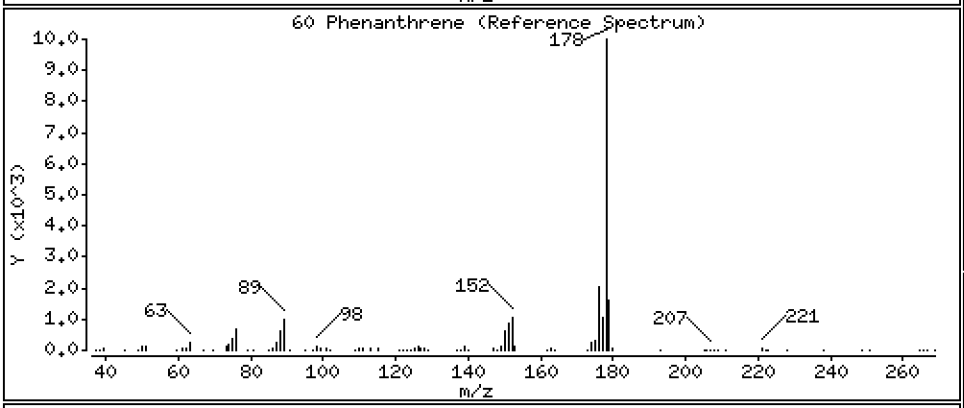
Concentration: 21.74 ug/mL

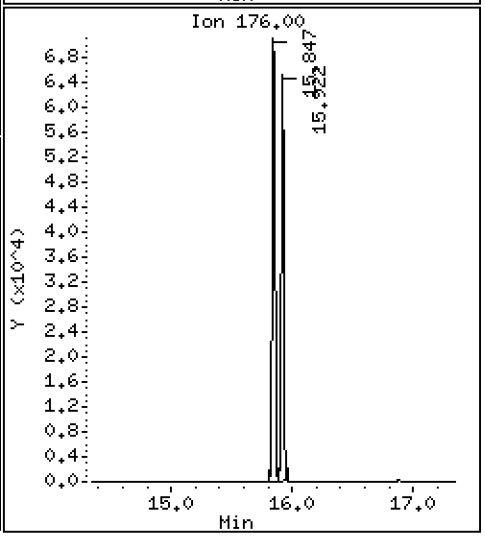


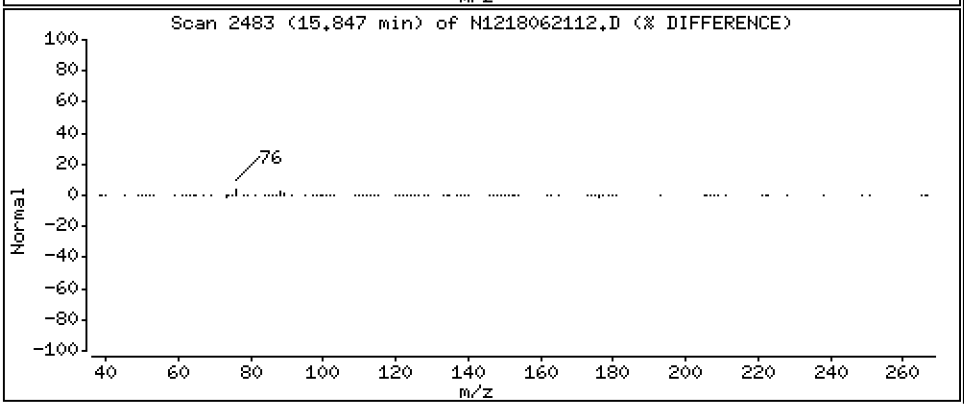












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

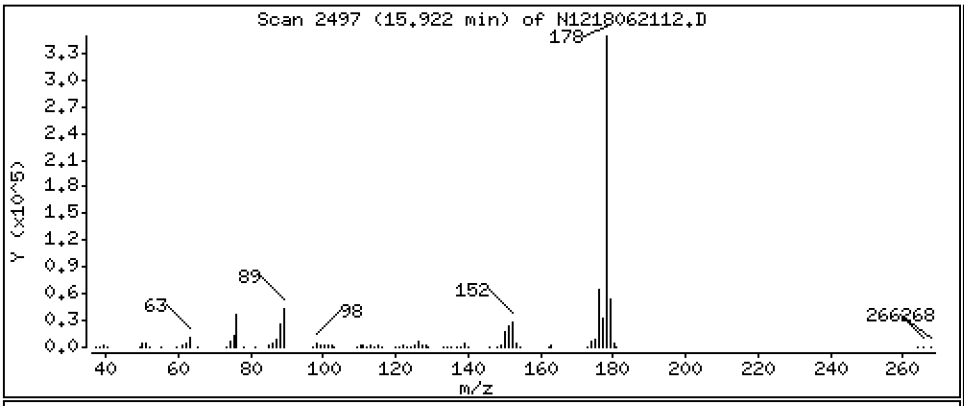
Operator: JZ

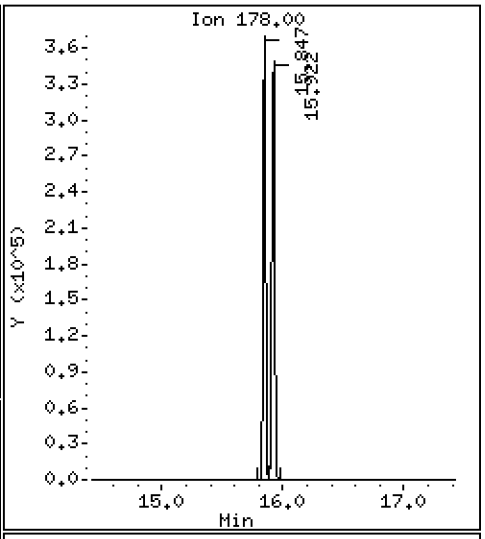
Column phase: ZB-5msi

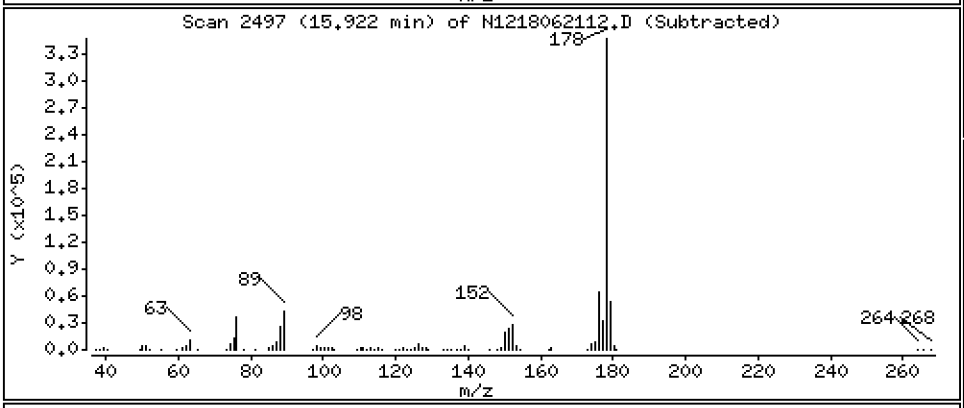
Column diameter: 0.32

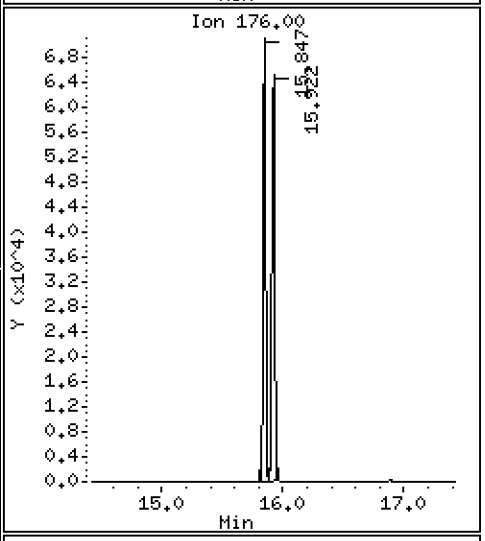
61 Anthracene

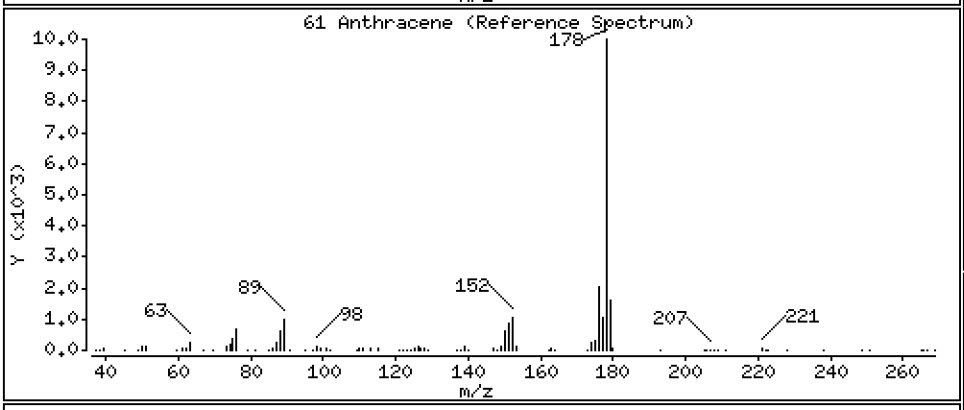
Concentration: 17.91 ug/mL

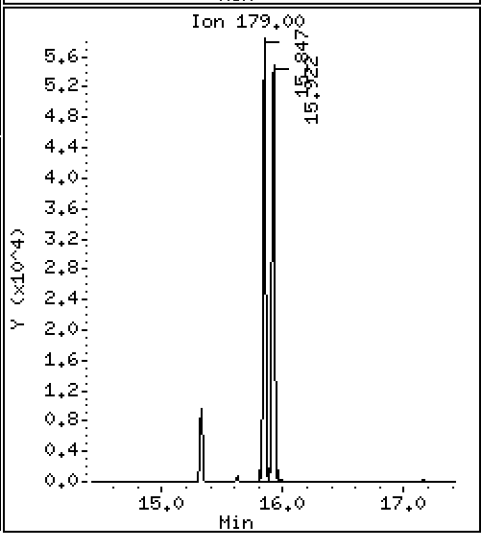


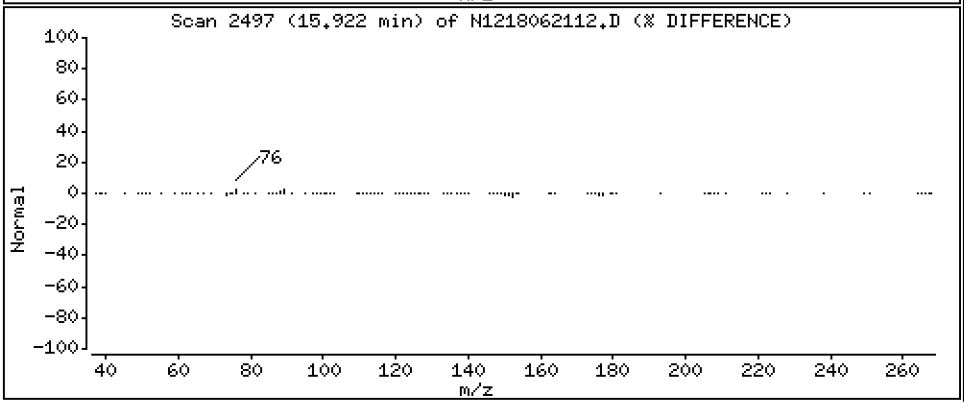












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

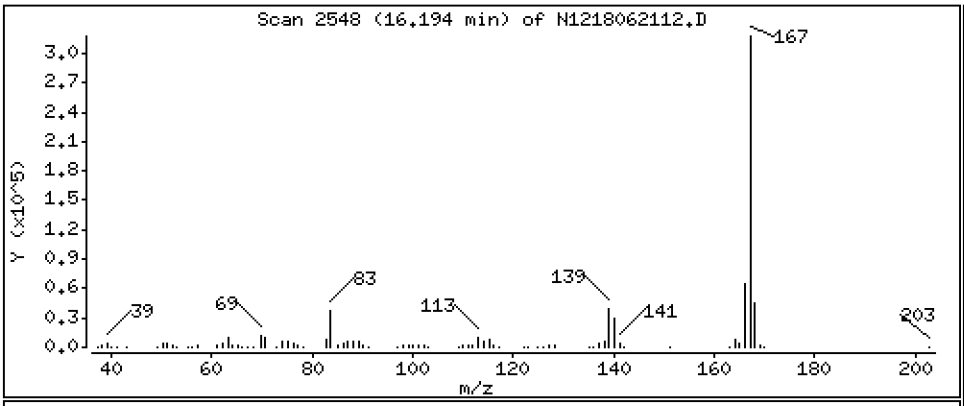
Operator: JZ

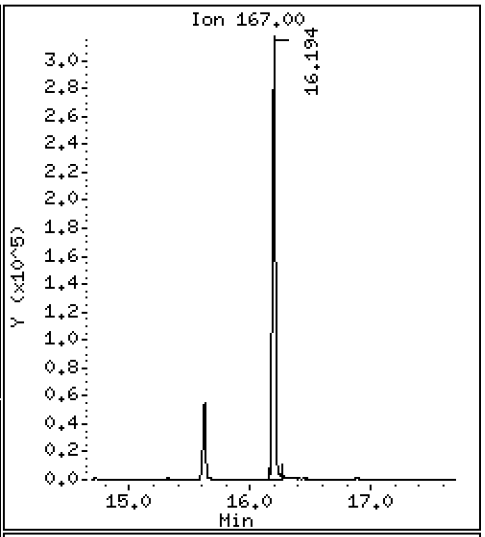
Column phase: ZB-5msi

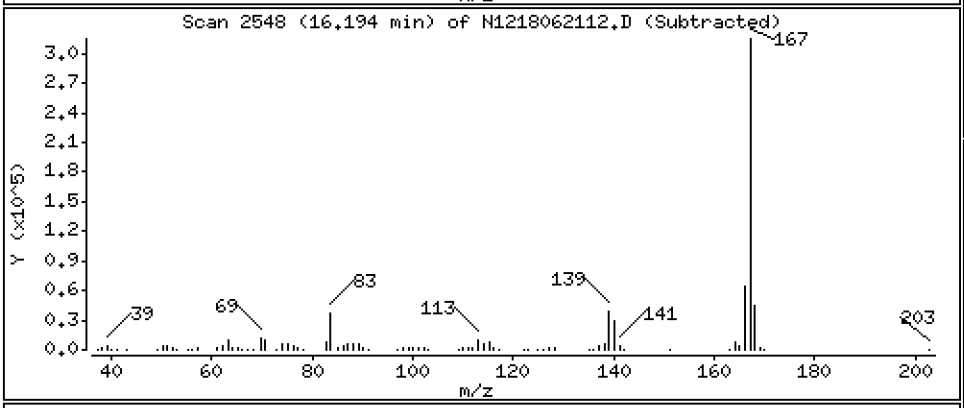
Column diameter: 0.32

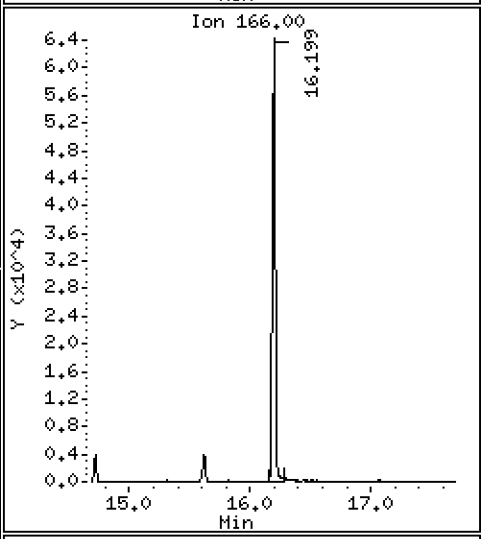
62 Carbazole

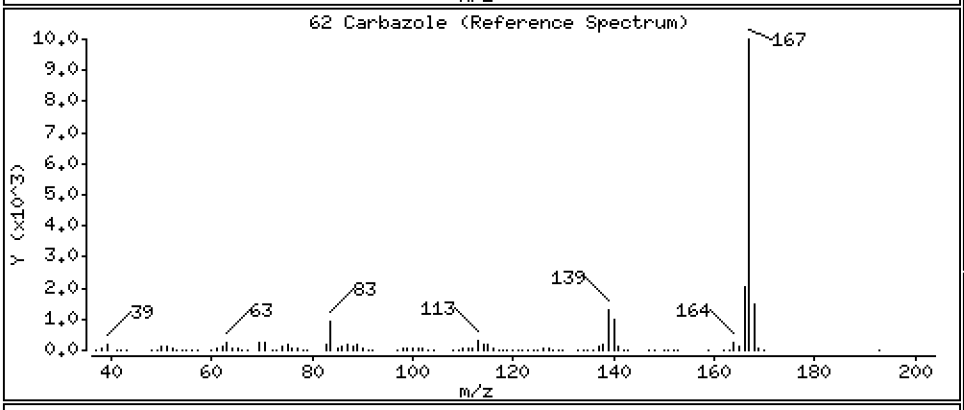
Concentration: 17.91 ug/mL

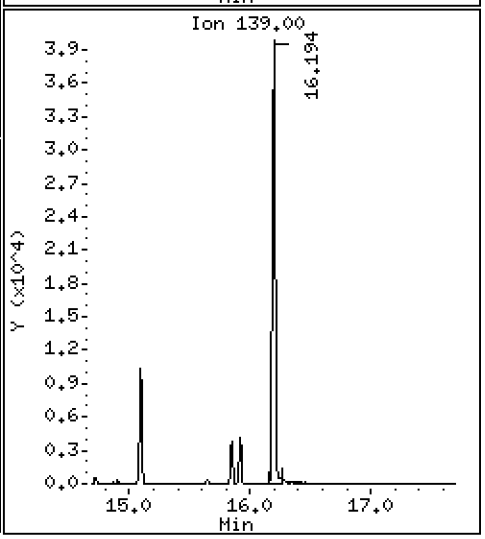


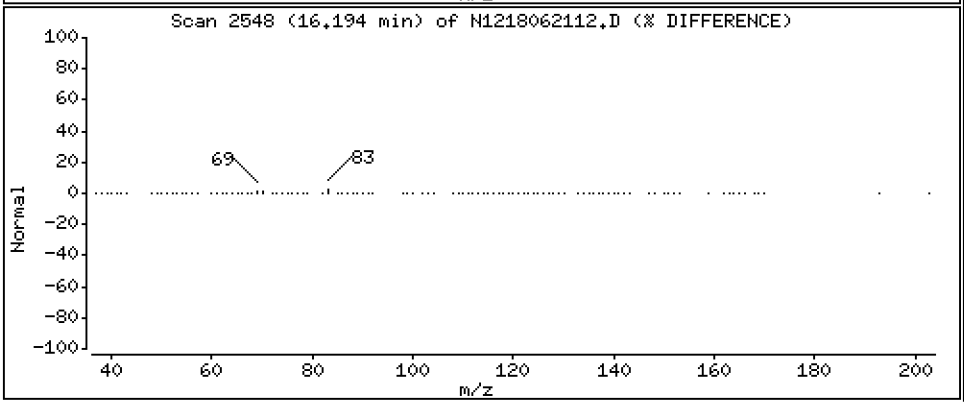












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

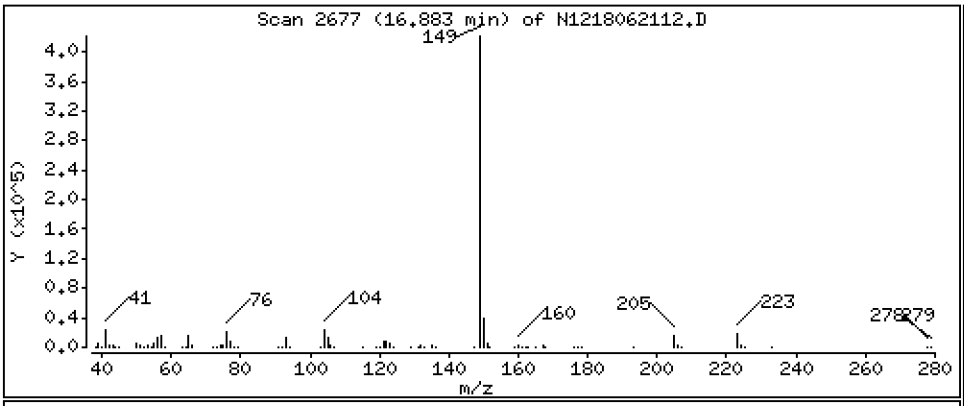
Operator: JZ

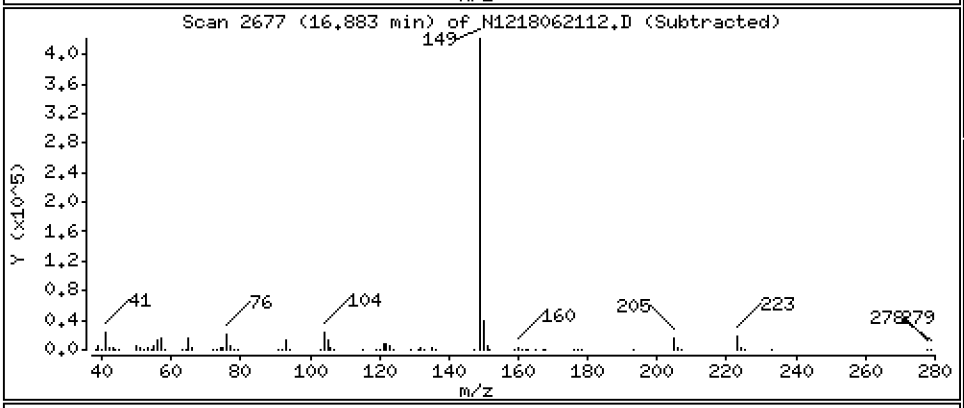
Column phase: ZB-5msi

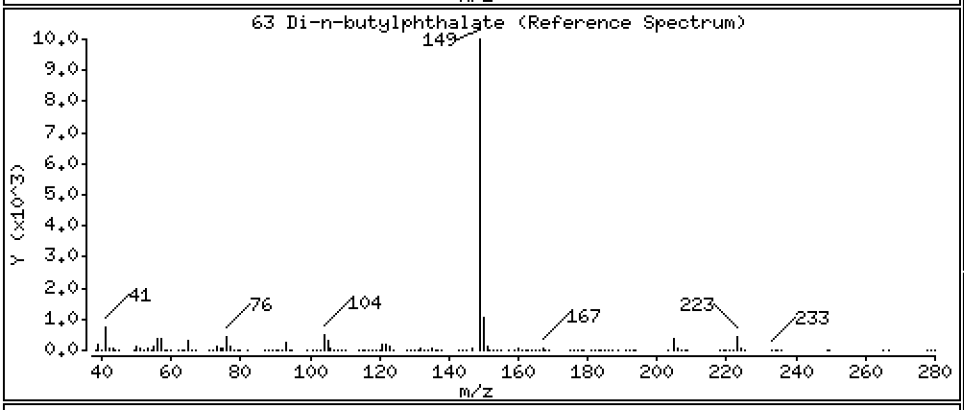
Column diameter: 0.32

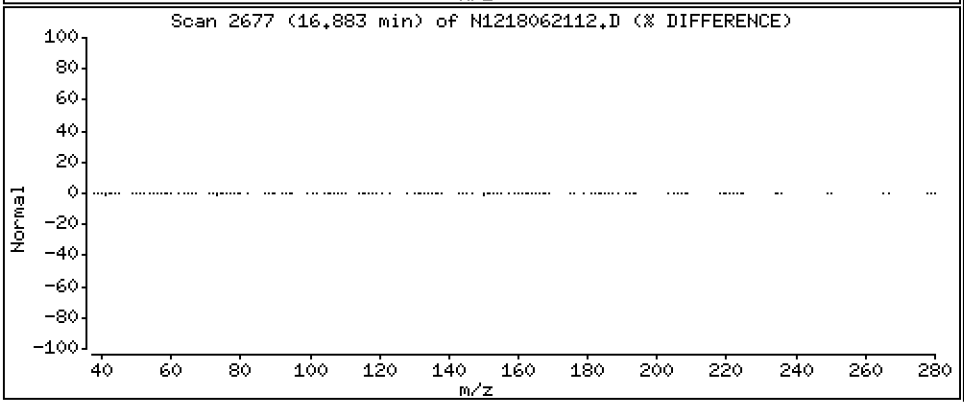
63 Di-n-butylphthalate

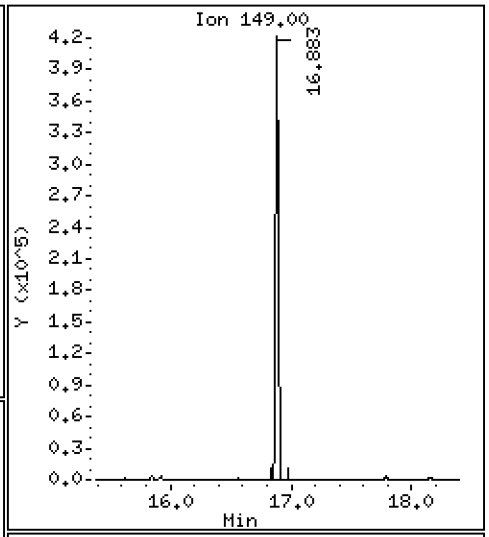
Concentration: 19.96 ug/mL

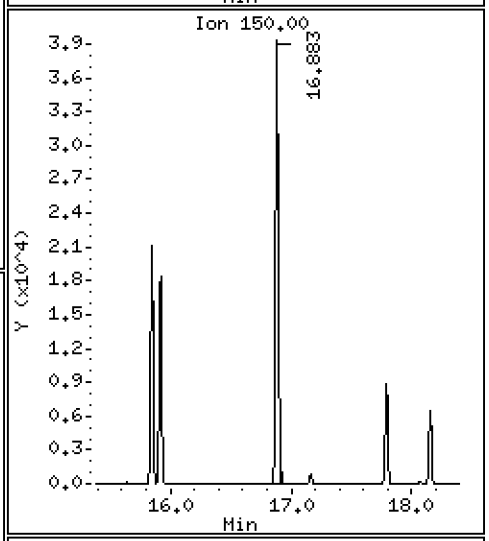


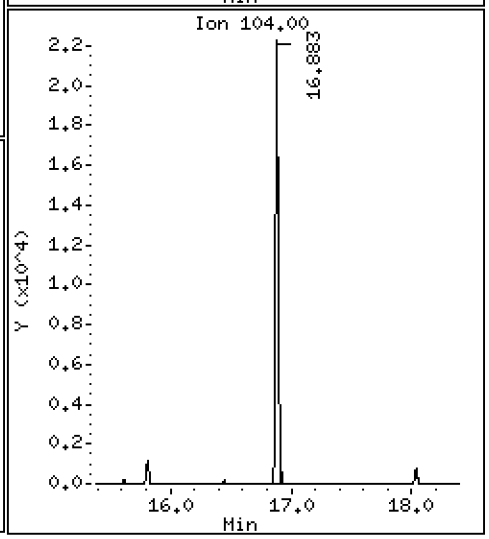












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

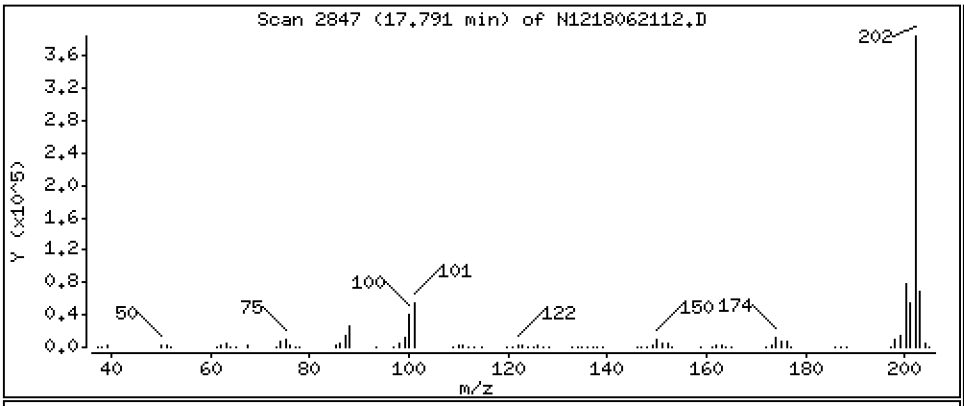
Operator: JZ

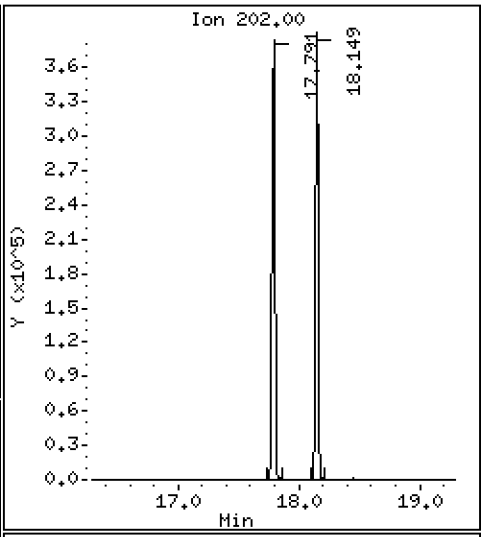
Column phase: ZB-5msi

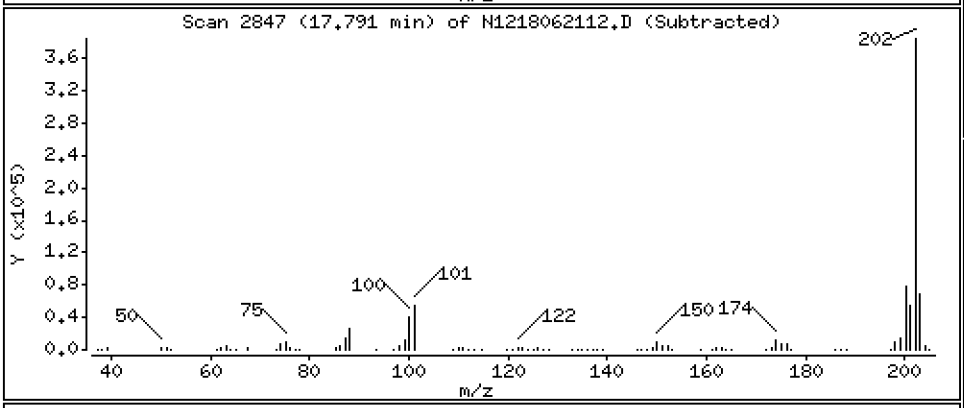
Column diameter: 0.32

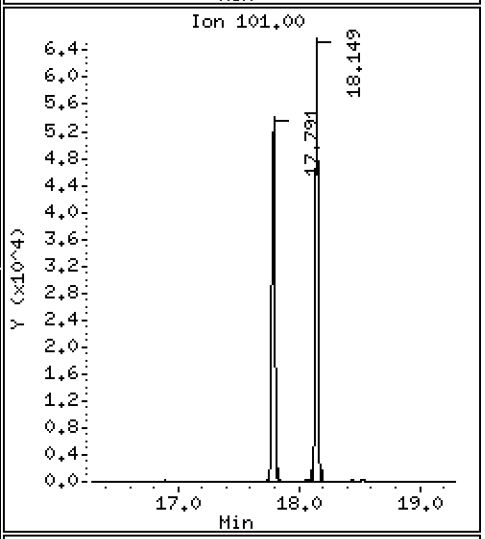
64 Fluoranthene

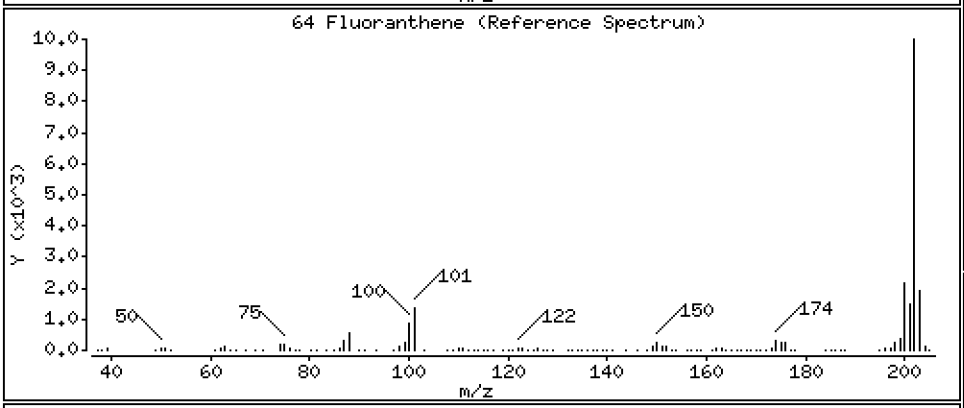
Concentration: 19.02 ug/mL

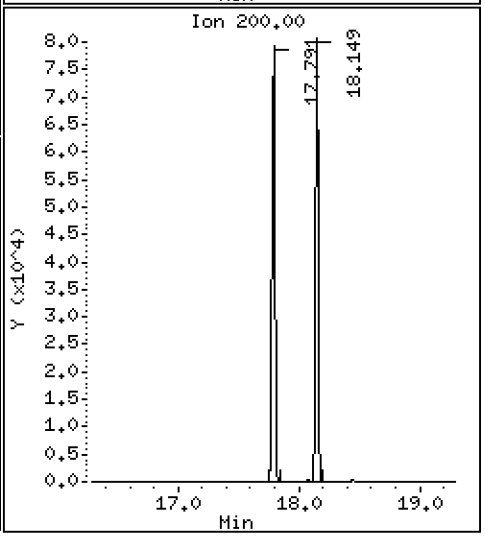


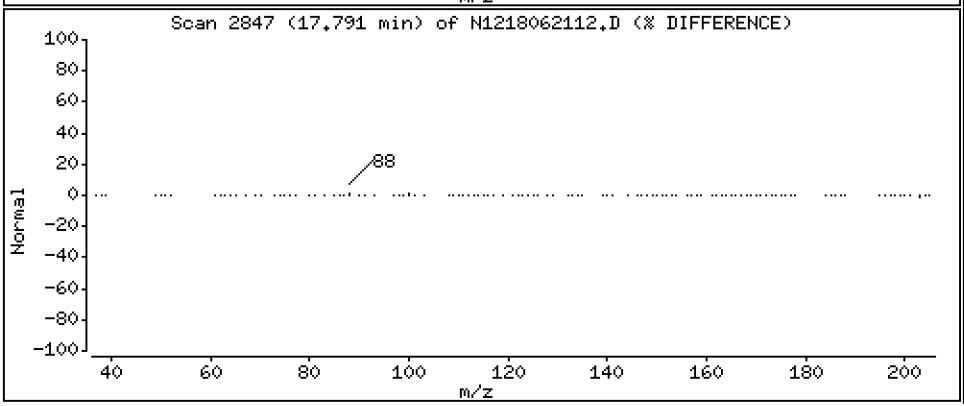












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

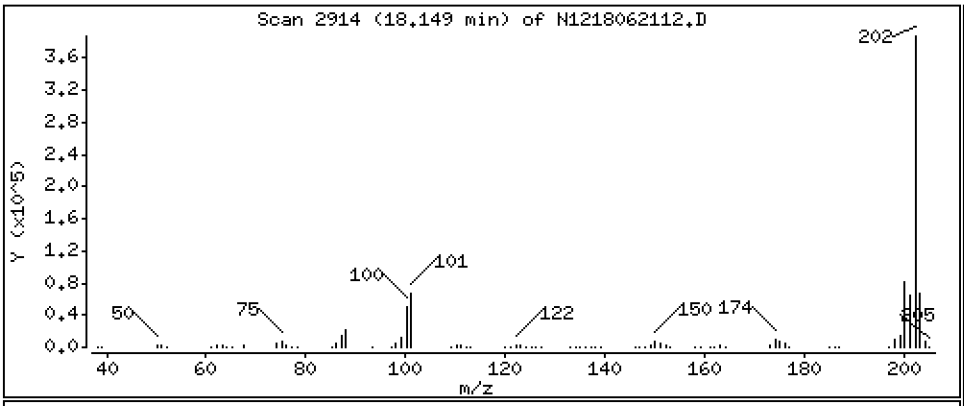
Operator: JZ

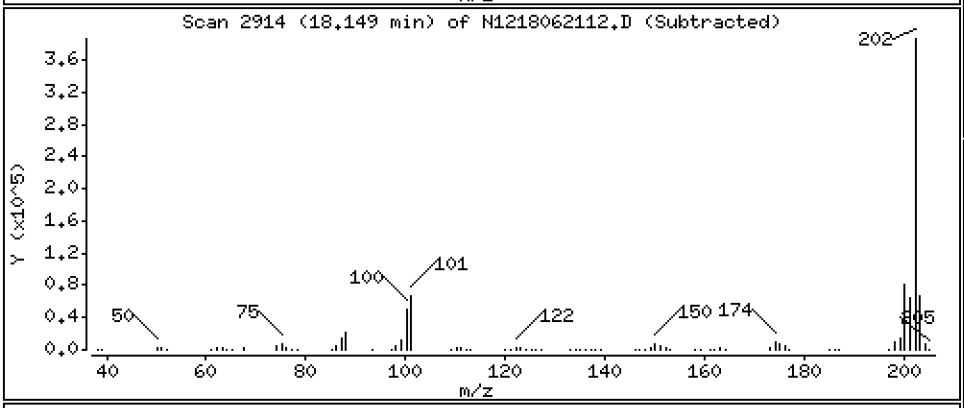
Column phase: ZB-5msi

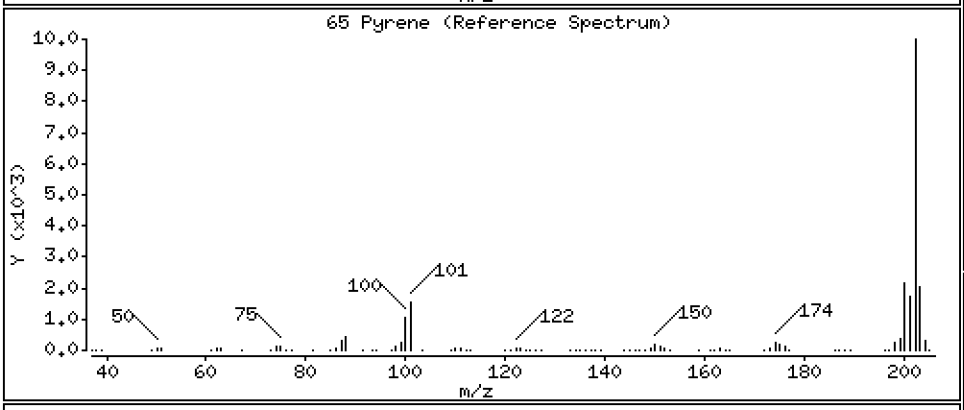
Column diameter: 0.32

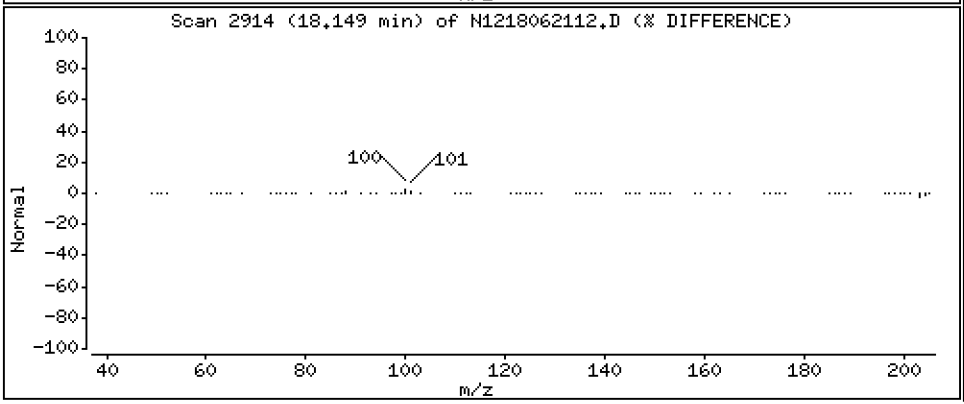
65 Pyrene

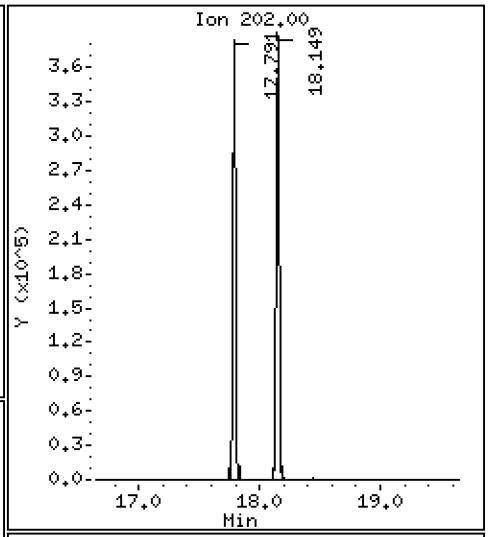
Concentration: 22.01 ug/mL

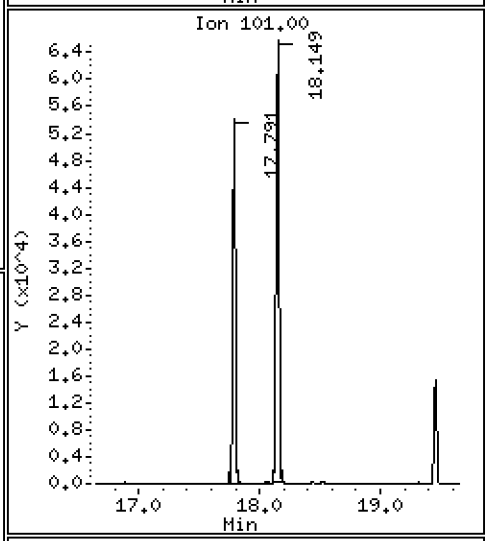


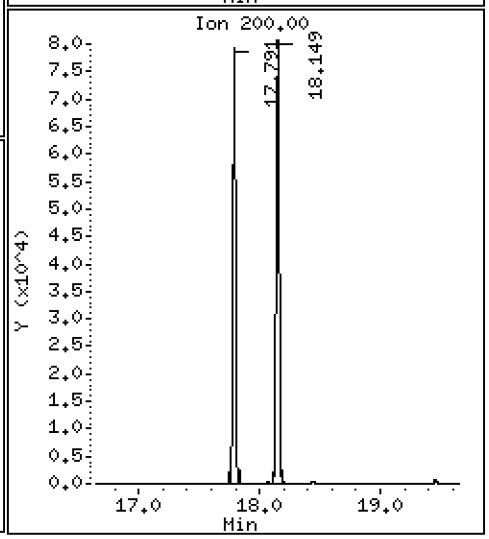












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

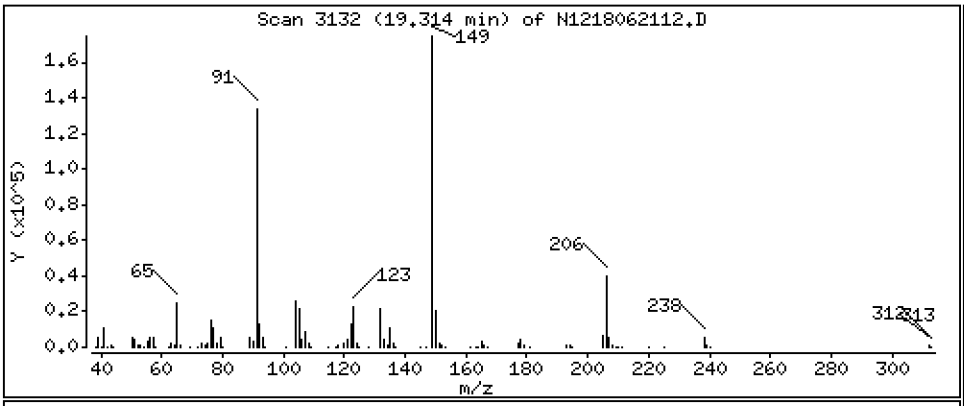
Operator: JZ

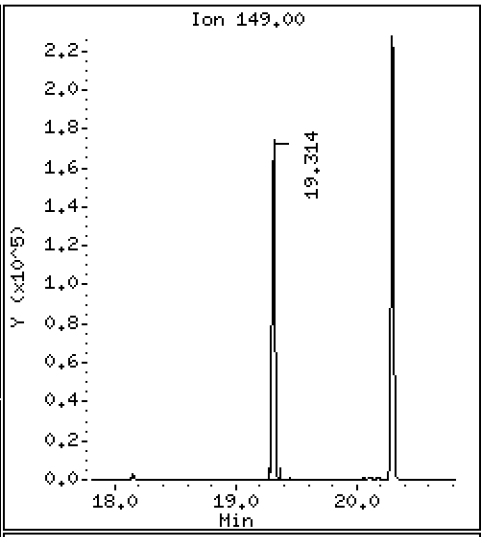
Column phase: ZB-5msi

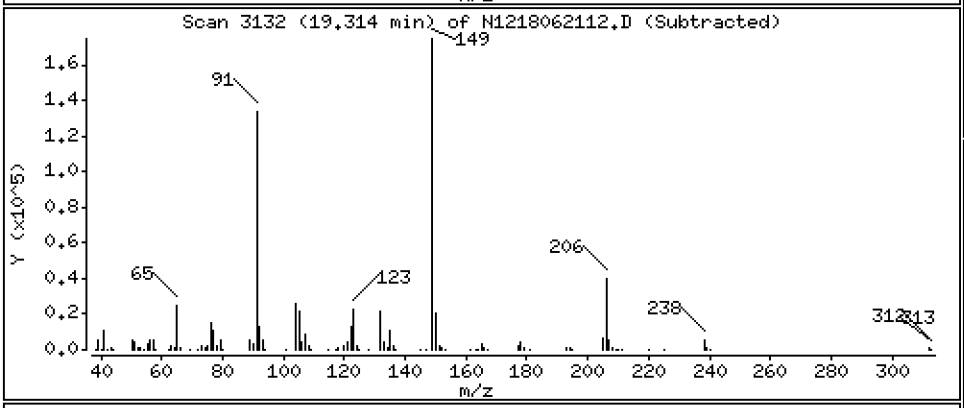
Column diameter: 0.32

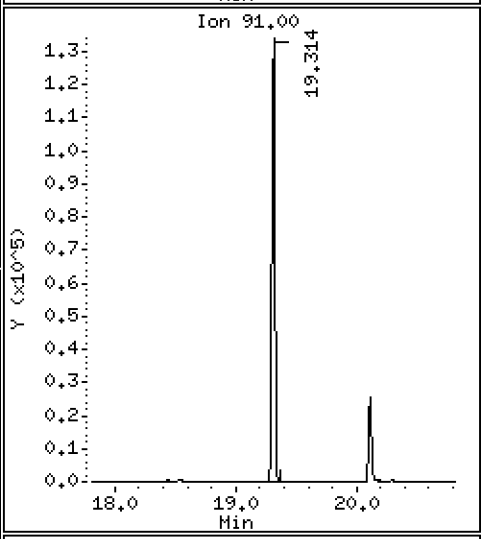
67 Butylbenzylphthalate

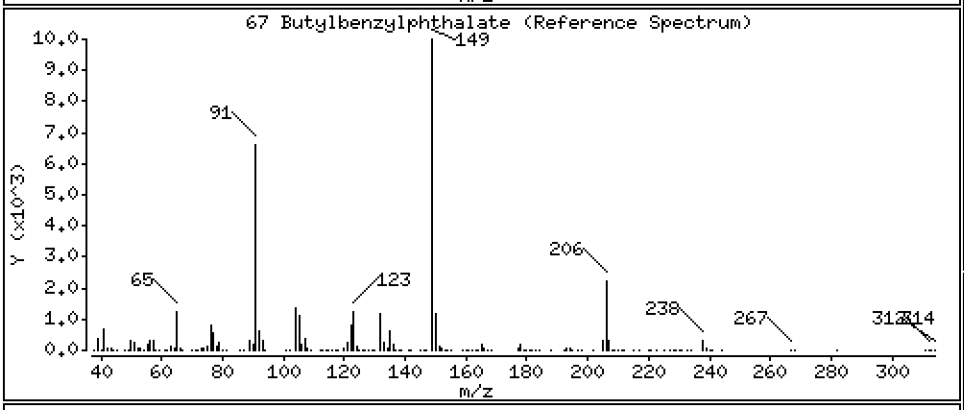
Concentration: 21.82 ug/mL

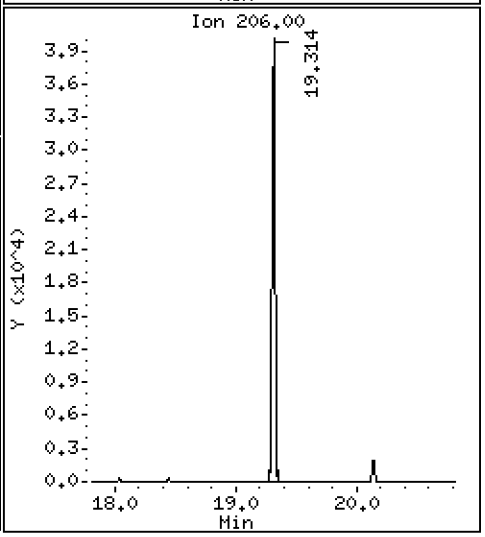


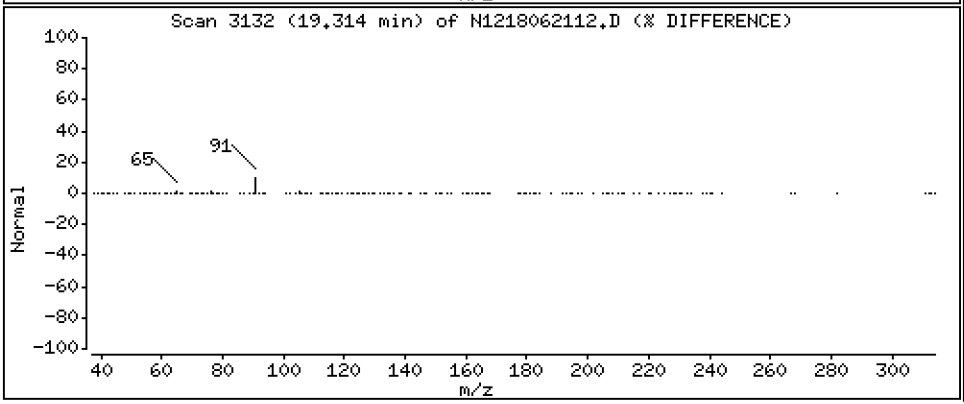












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

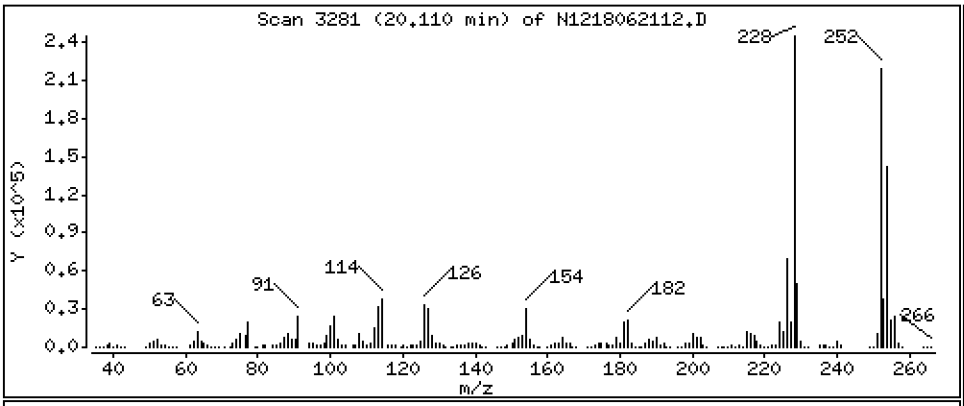
Operator: JZ

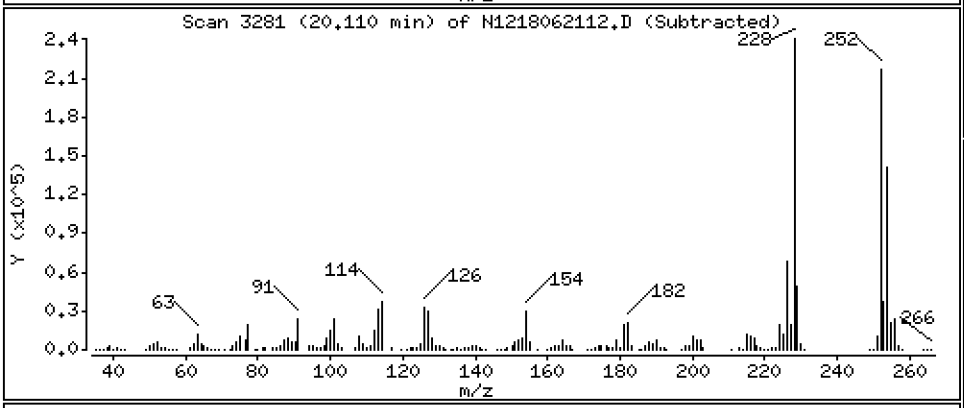
Column phase: ZB-5msi

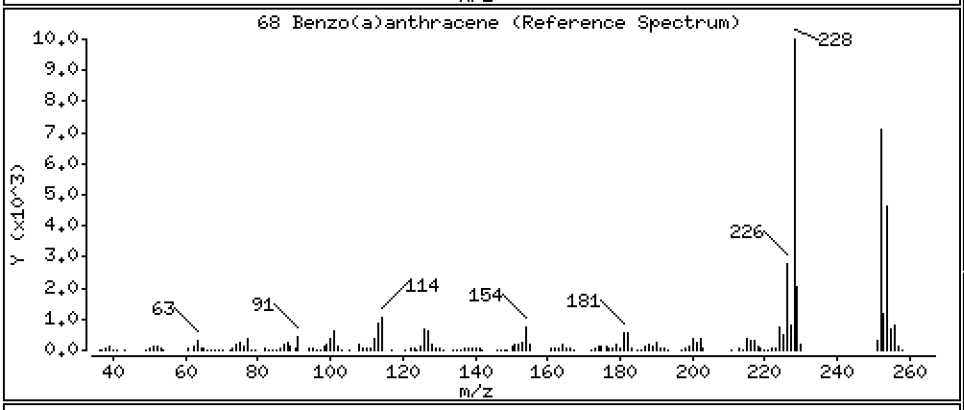
Column diameter: 0.32

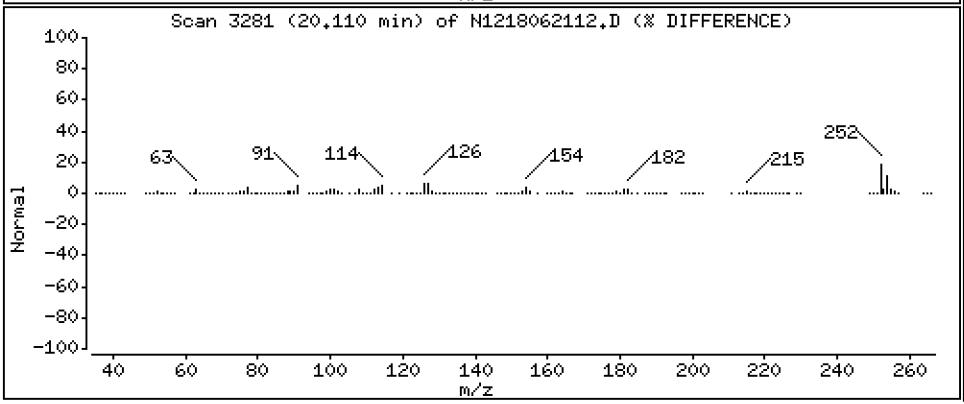
68 Benzo(a)anthracene

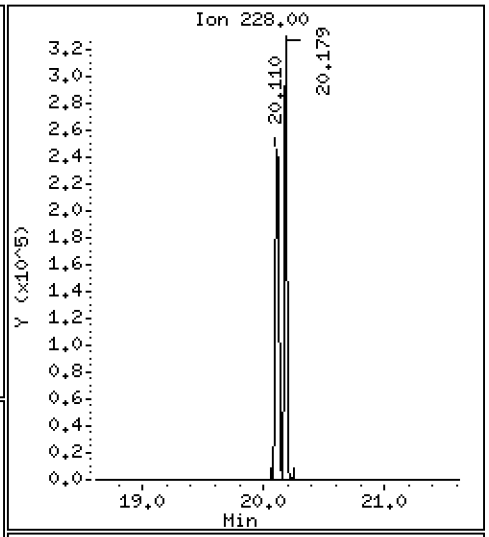
Concentration: 23.16 ug/mL

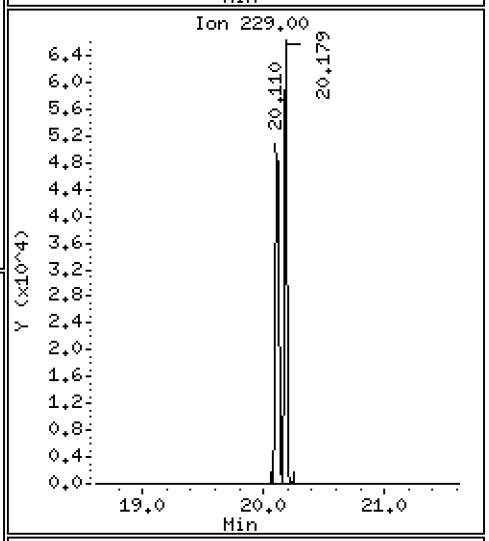


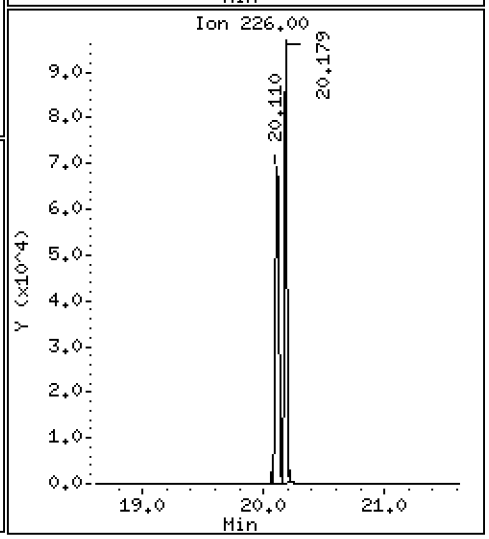












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

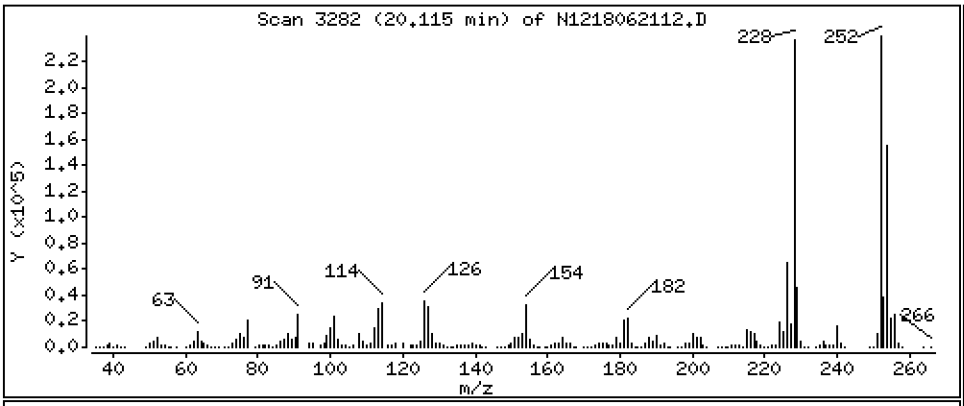
Operator: JZ

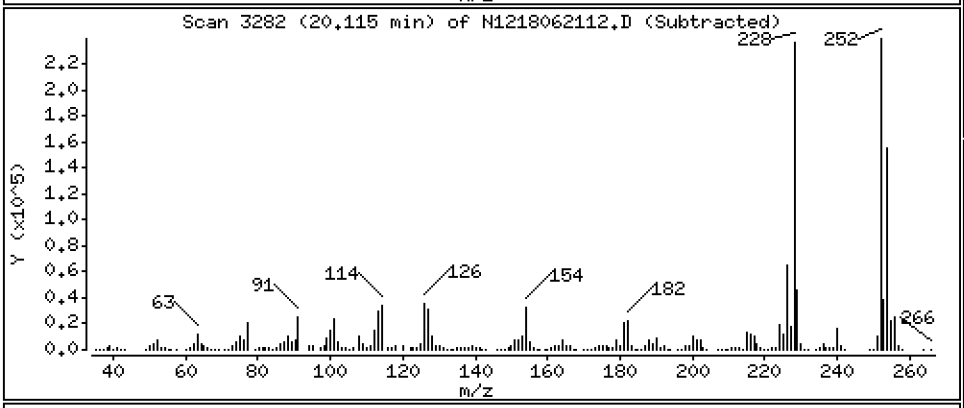
Column phase: ZB-5msi

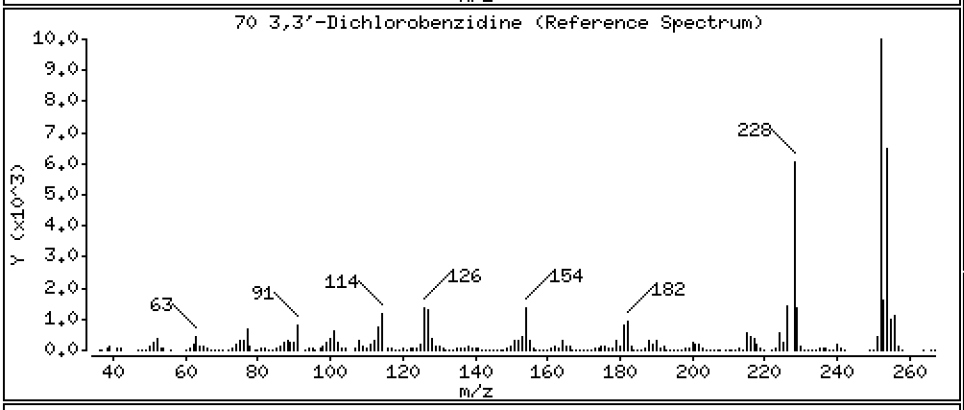
Column diameter: 0.32

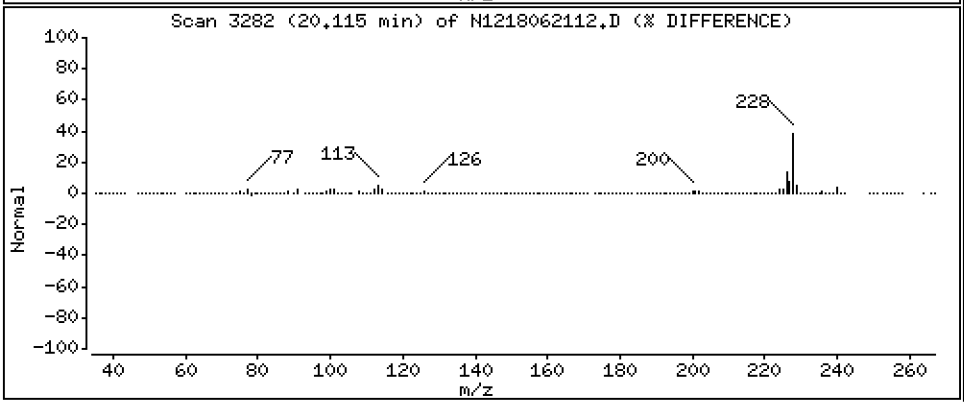
70 3,3'-Dichlorobenzidine

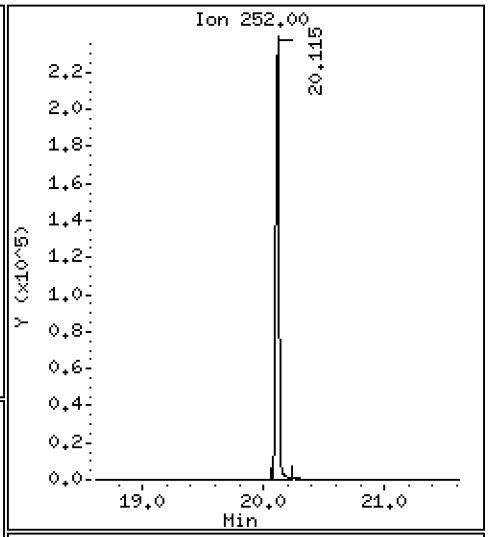
Concentration: 53.65 ug/mL

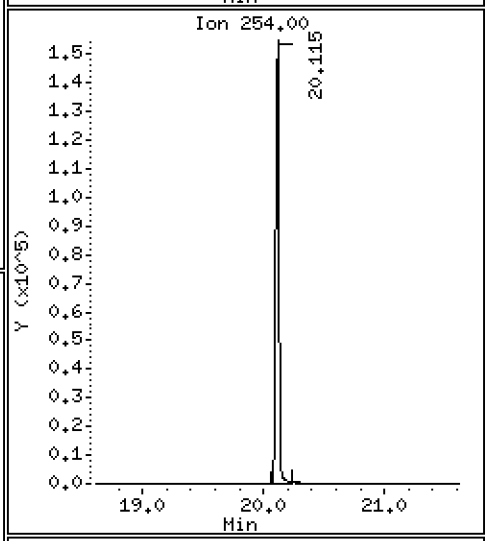


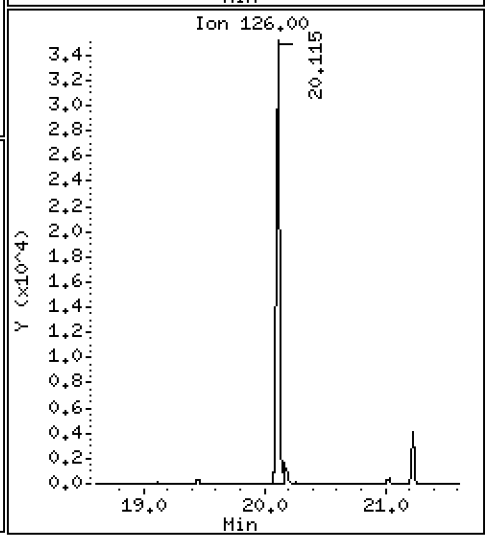












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

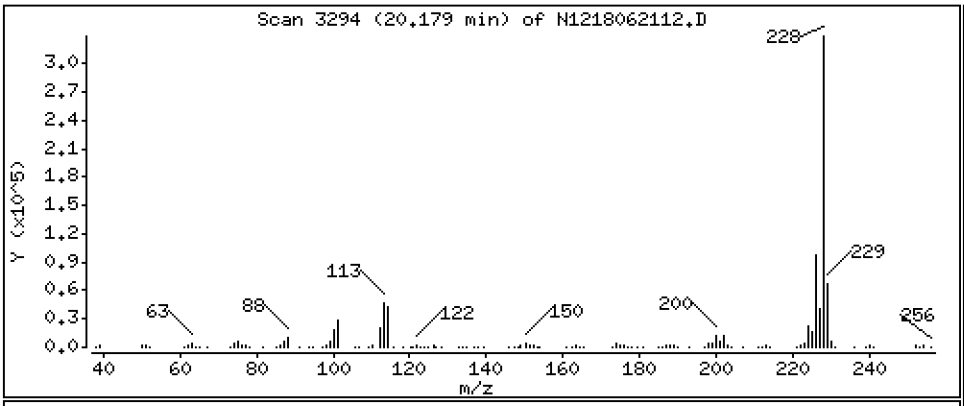
Operator: JZ

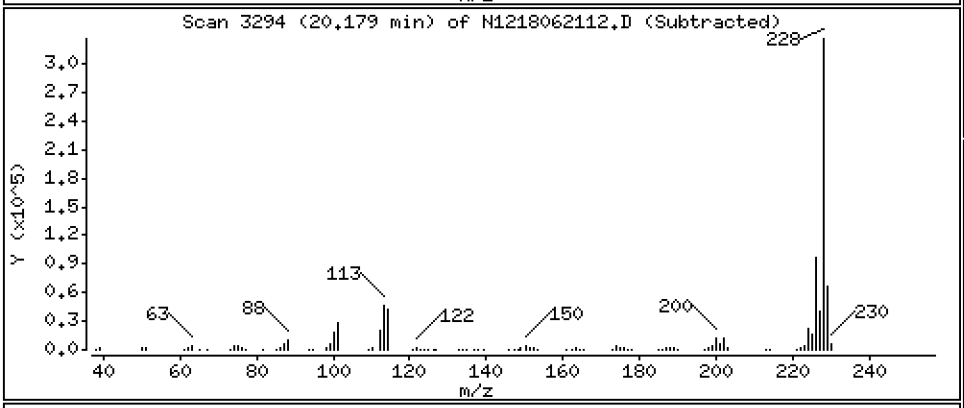
Column phase: ZB-5msi

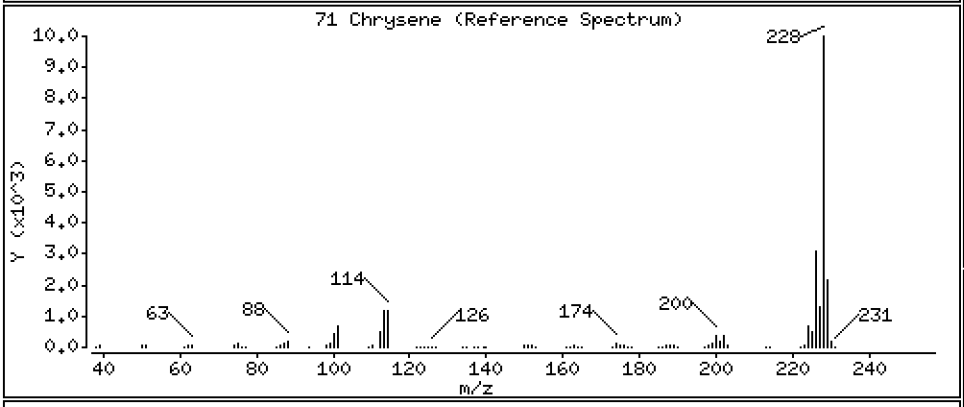
Column diameter: 0.32

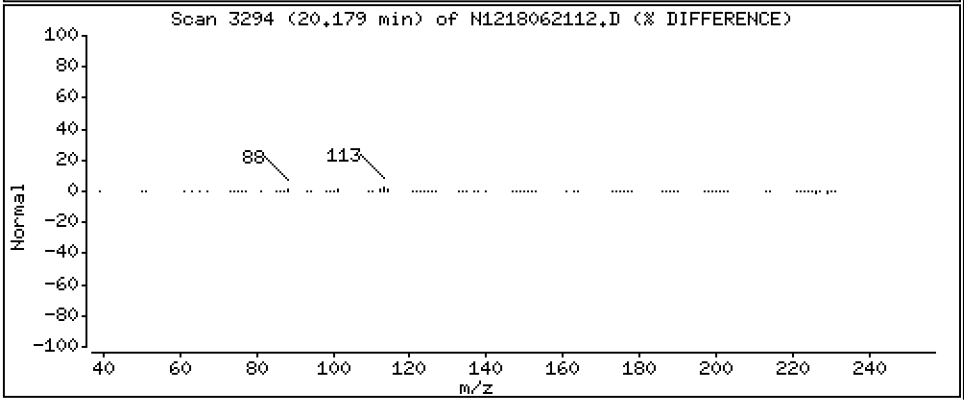
71 Chrysene

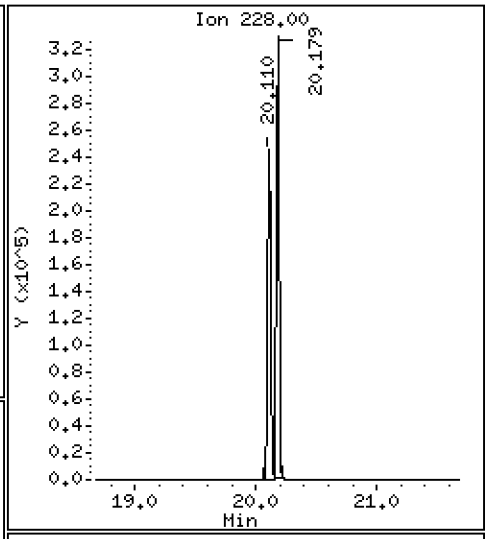
Concentration: 21.55 ug/mL

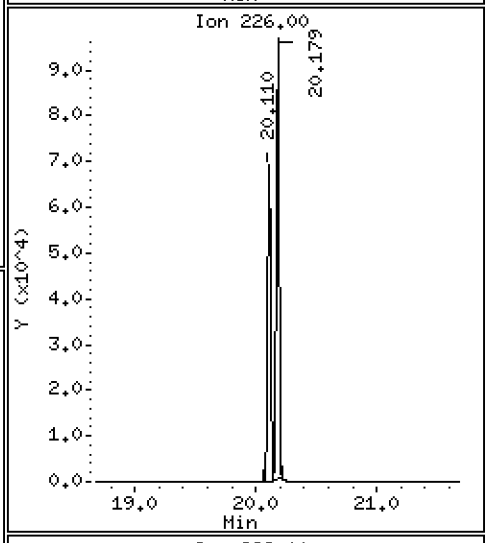


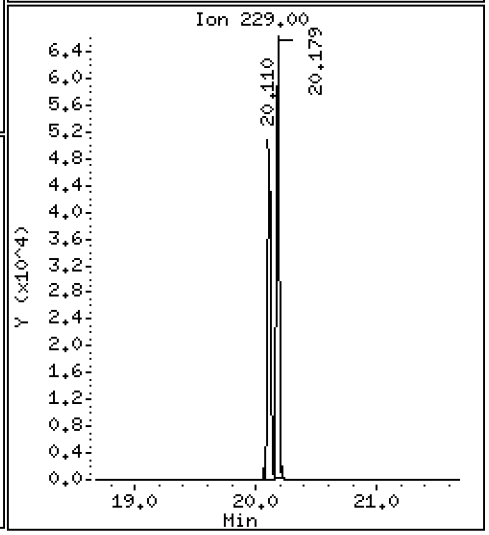












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

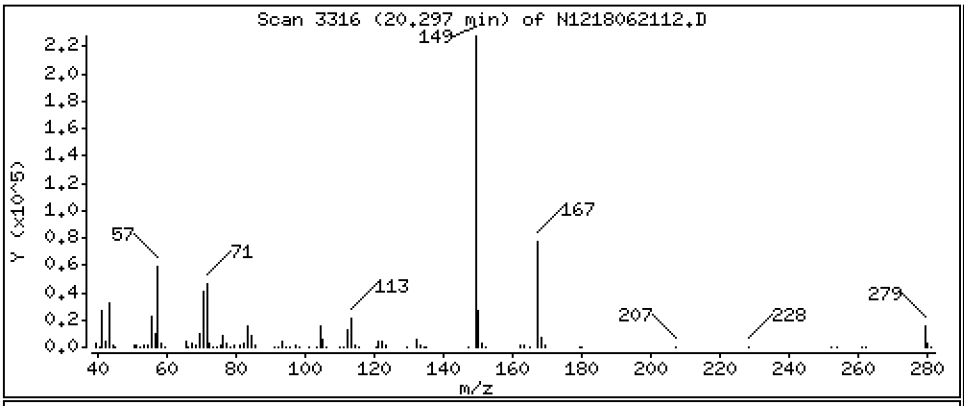
Operator: JZ

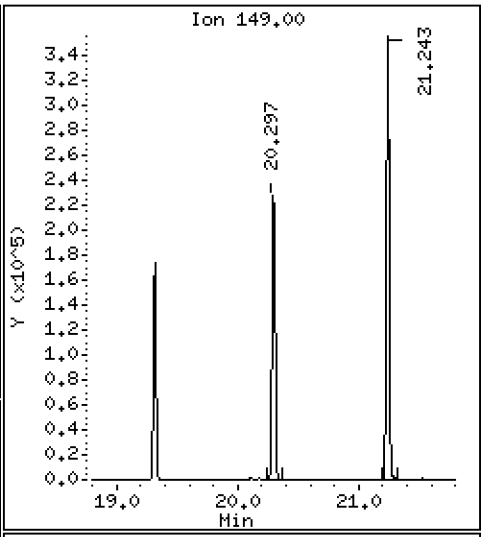
Column phase: ZB-5msi

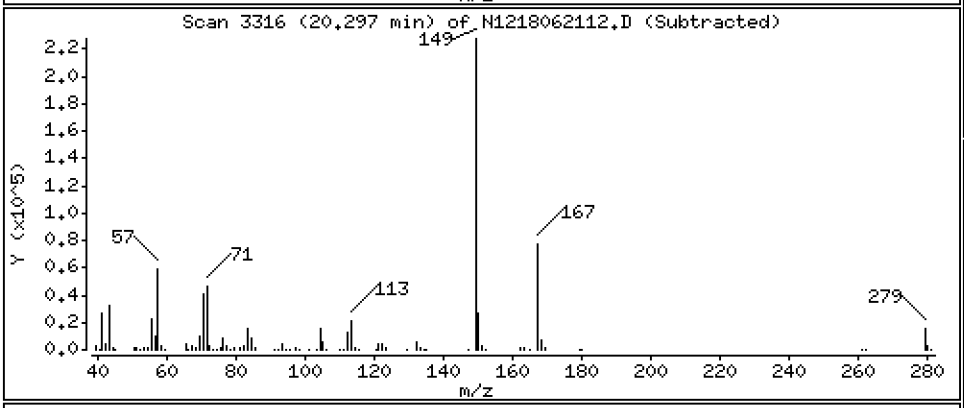
Column diameter: 0.32

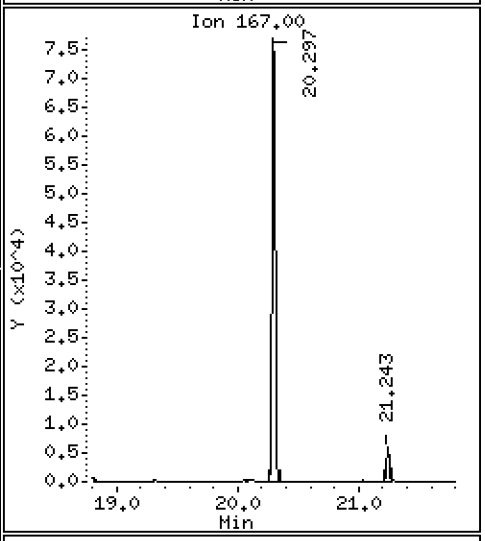
72 bis(2-Ethylhexyl)phthalate

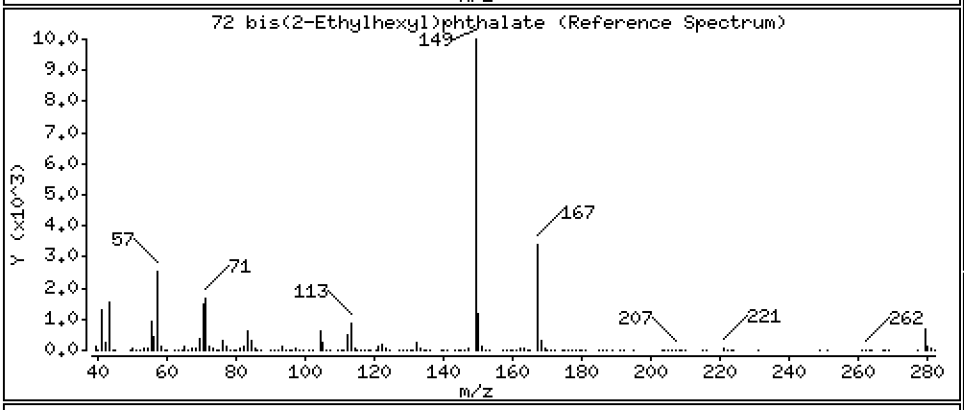
Concentration: 21.21 ug/mL

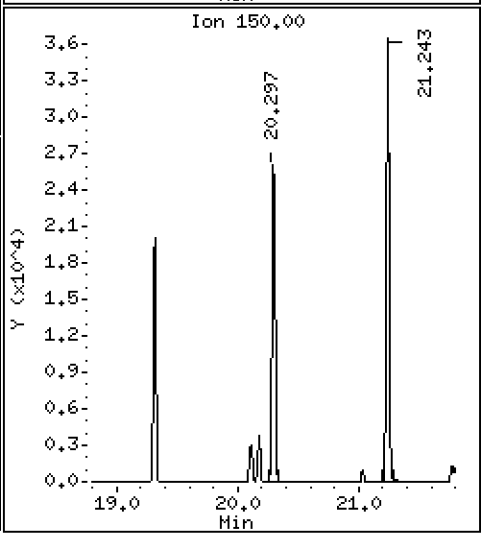


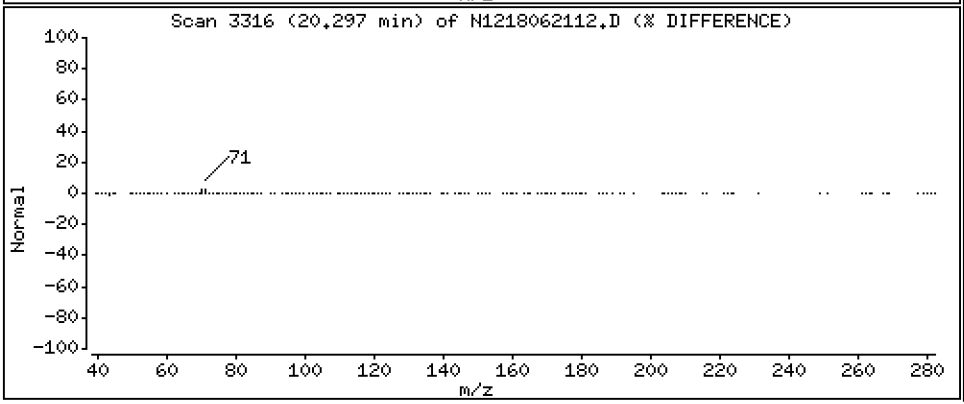












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

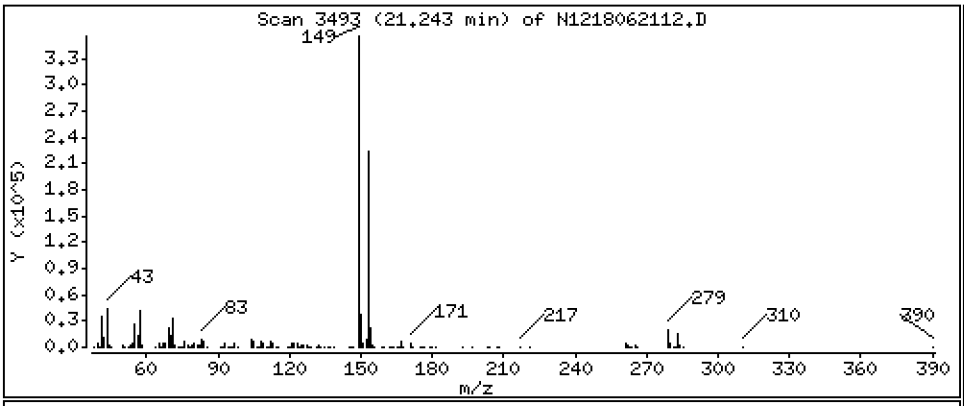
Operator: JZ

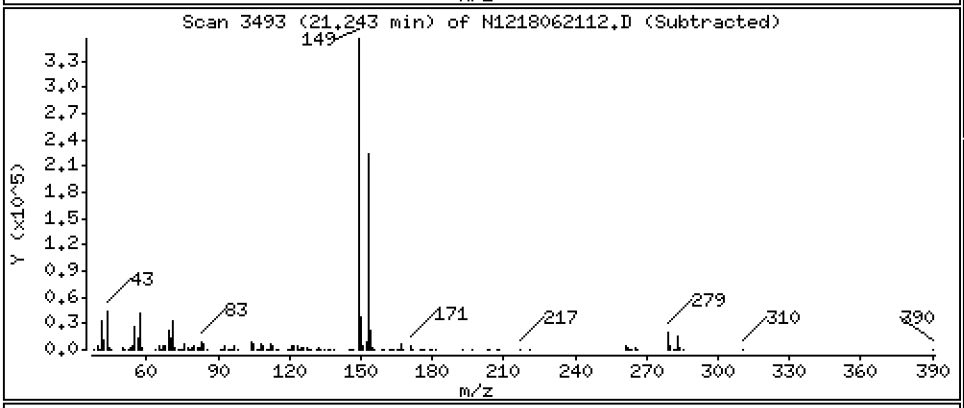
Column phase: ZB-5msi

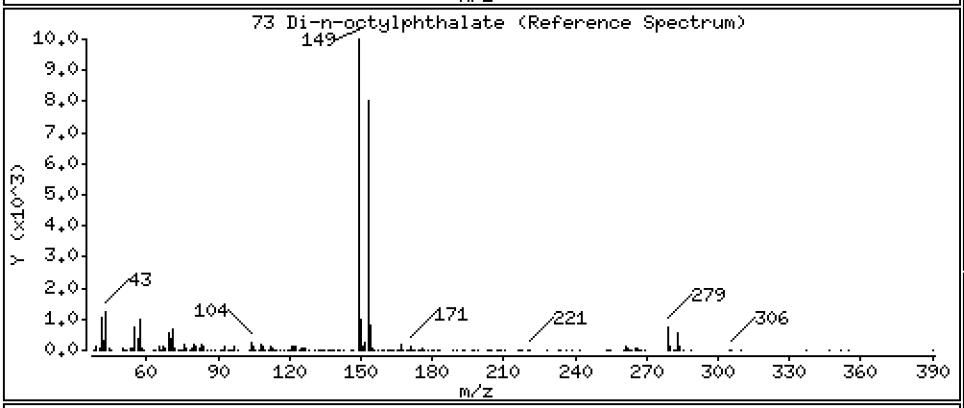
Column diameter: 0.32

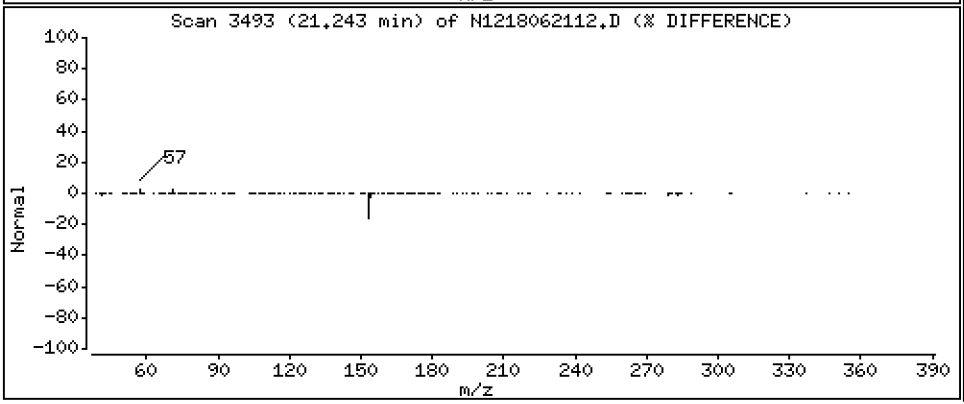
73 Di-n-octylphthalate

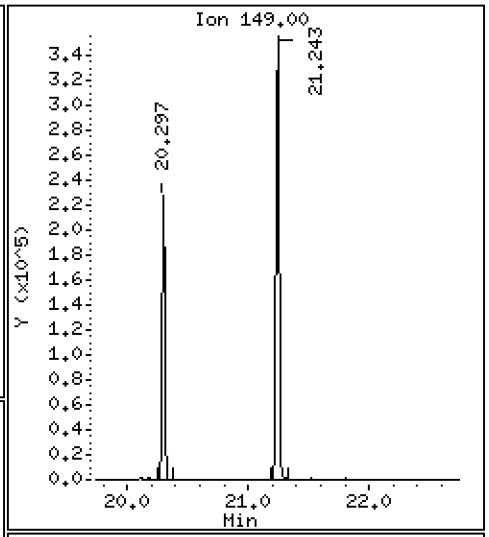
Concentration: 19.07 ug/mL

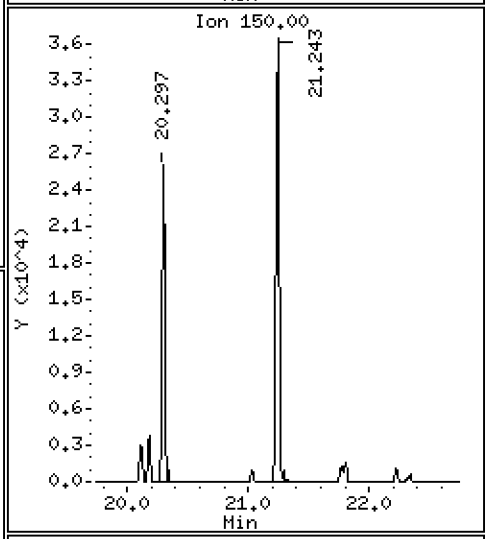


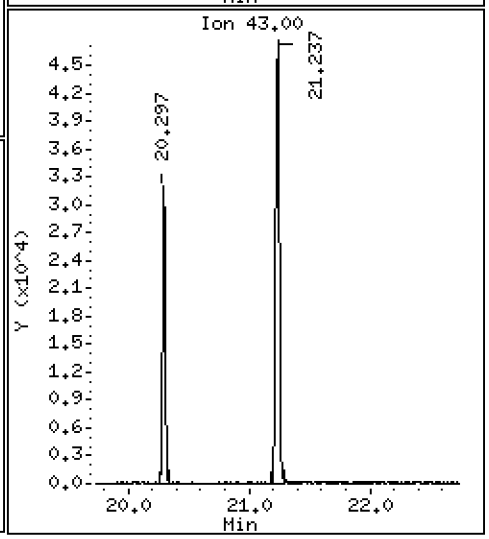












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

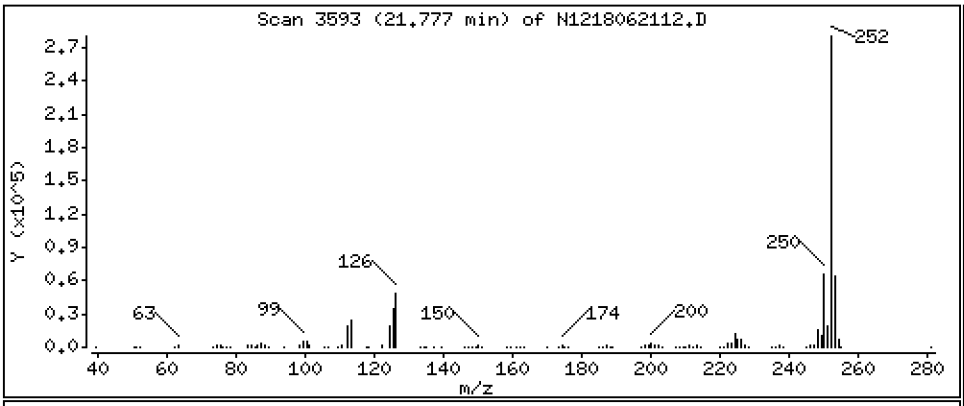
Operator: JZ

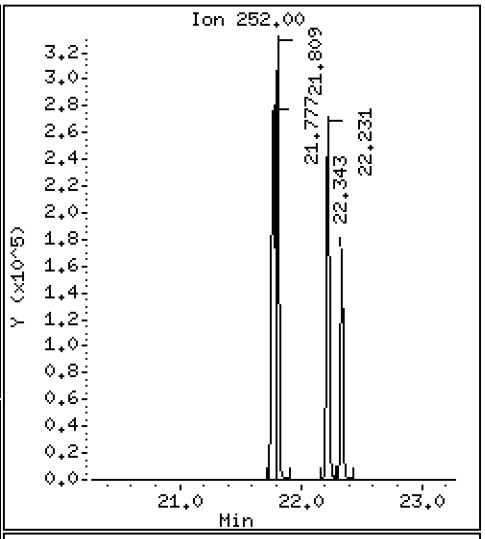
Column phase: ZB-5msi

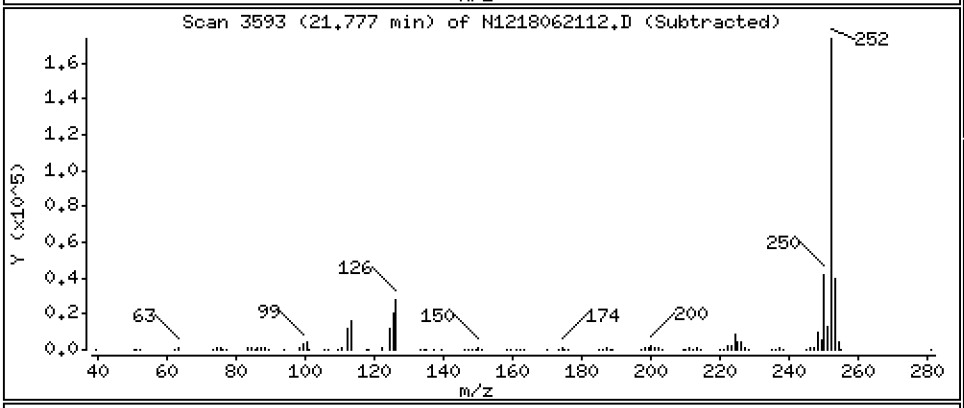
Column diameter: 0.32

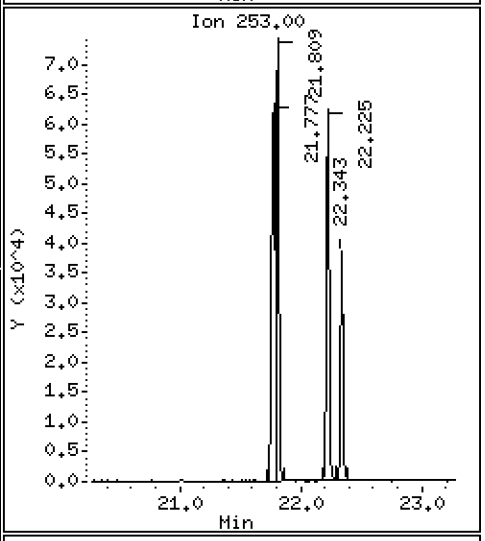
74 Benzo(b)fluoranthene

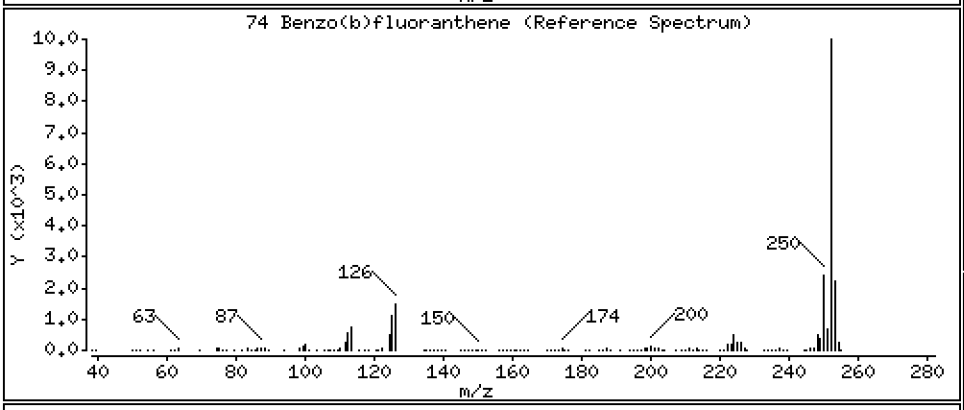
Concentration: 19.74 ug/mL

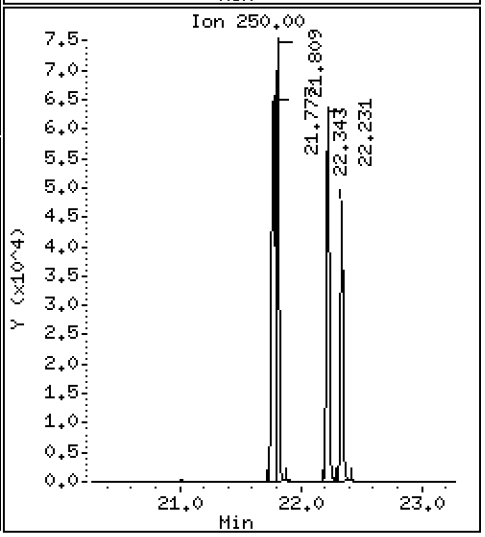


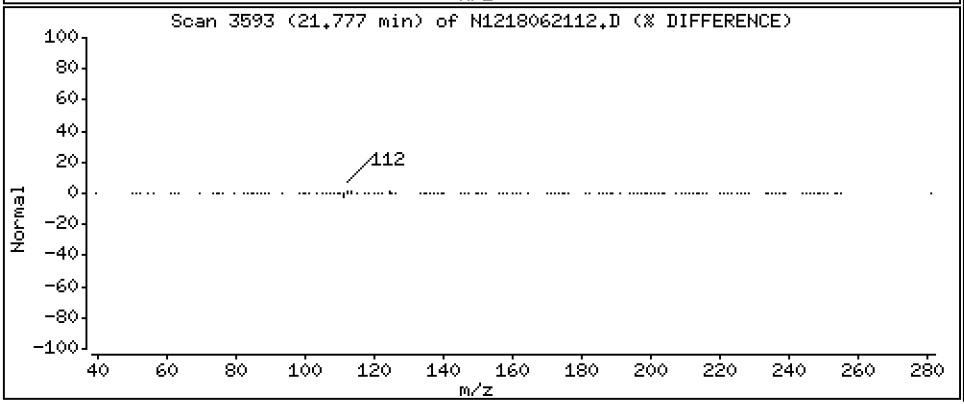












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

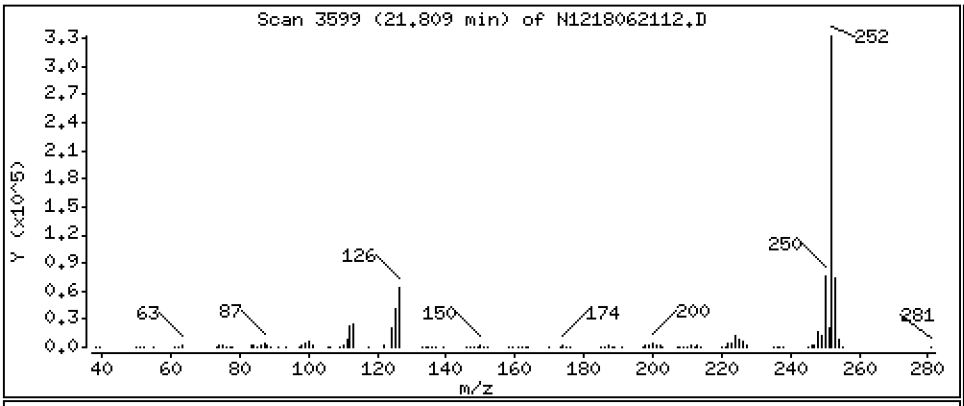
Operator: JZ

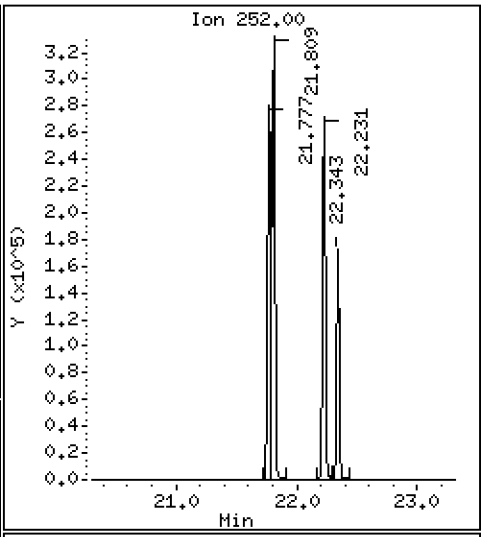
Column phase: ZB-5msi

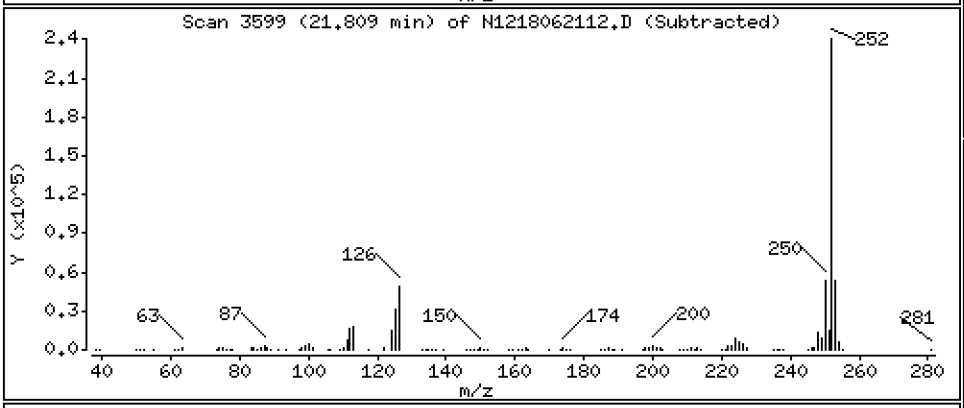
Column diameter: 0.32

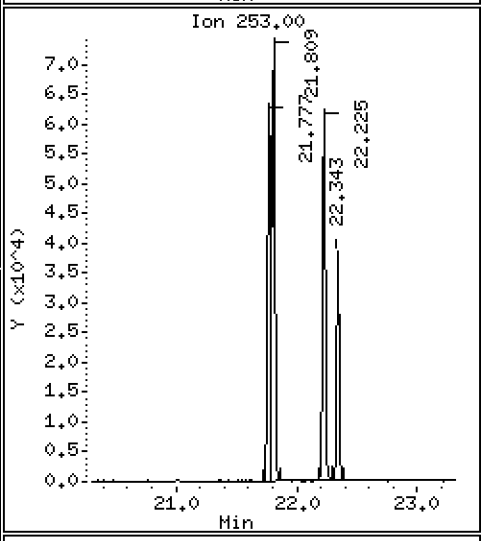
75 Benzo(k)fluoranthene

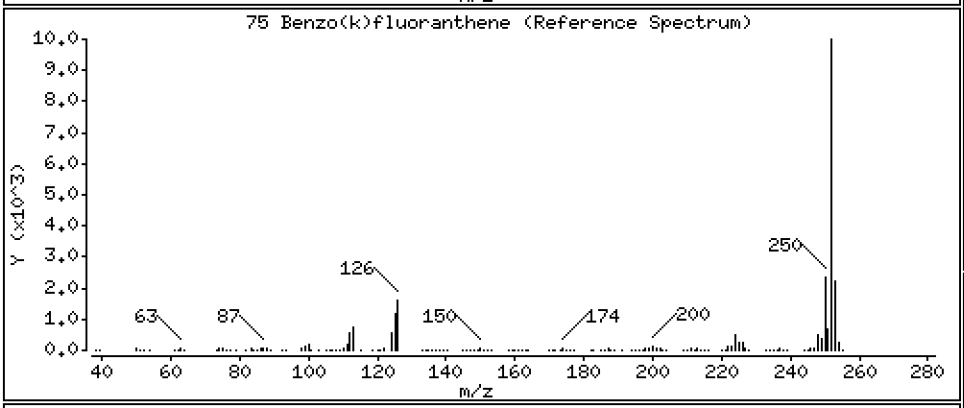
Concentration: 18.52 ug/mL

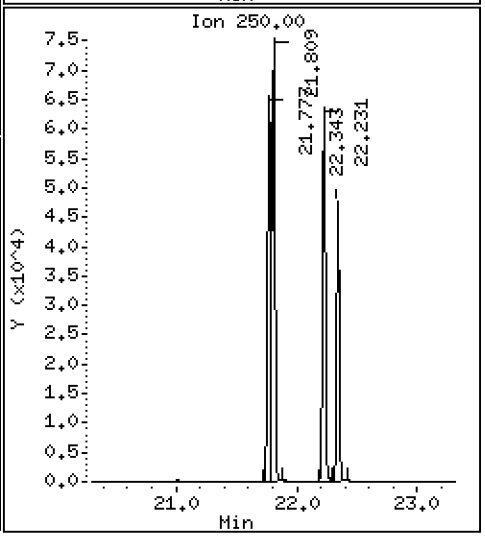


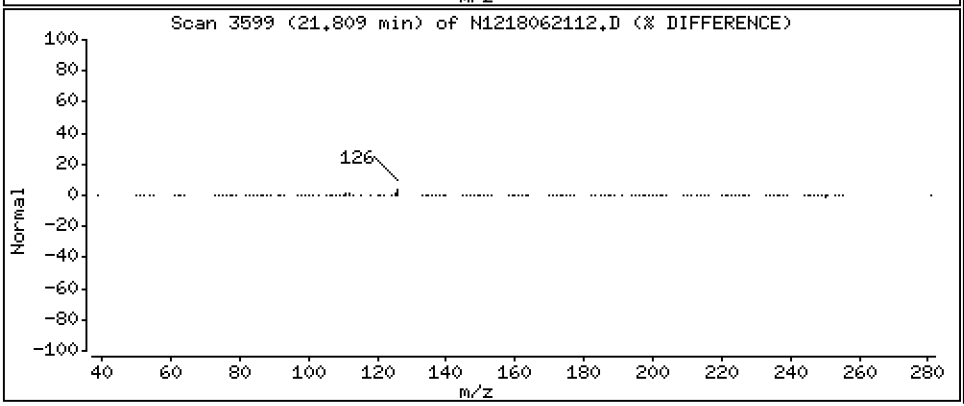












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

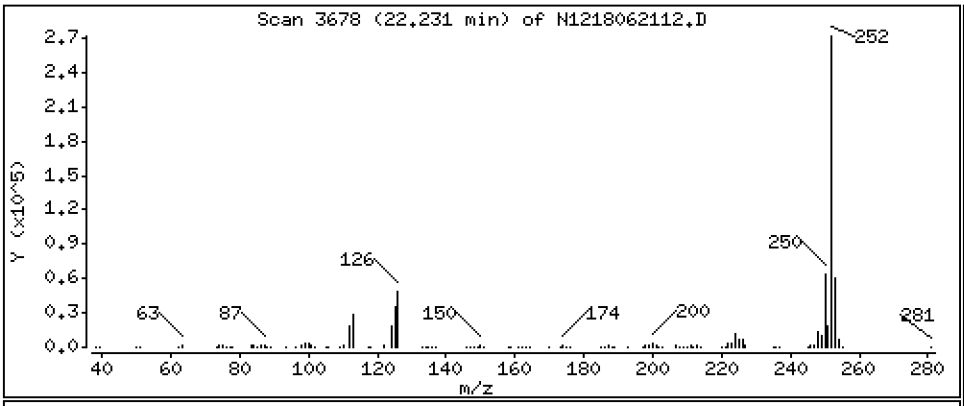
Operator: JZ

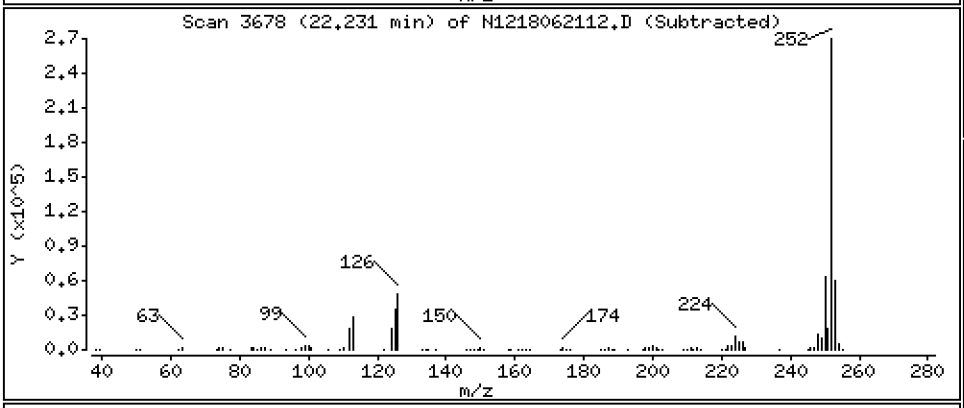
Column phase: ZB-5msi

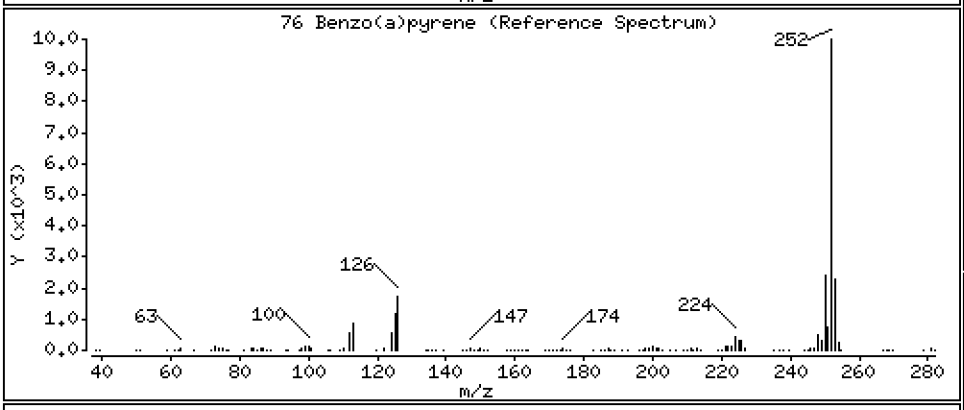
Column diameter: 0.32

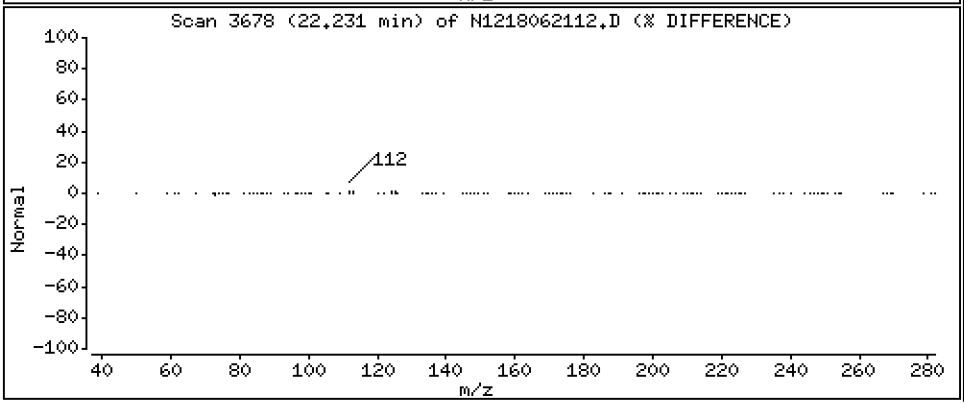
76 Benzo(a)pyrene

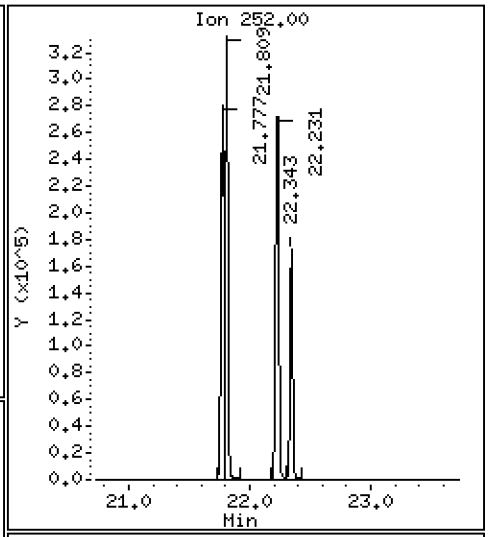
Concentration: 20.26 ug/mL

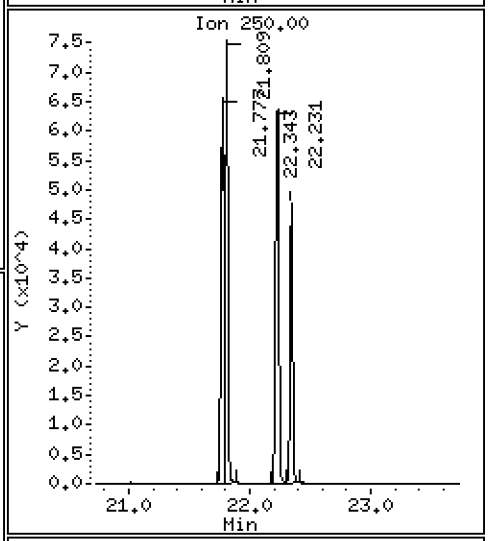


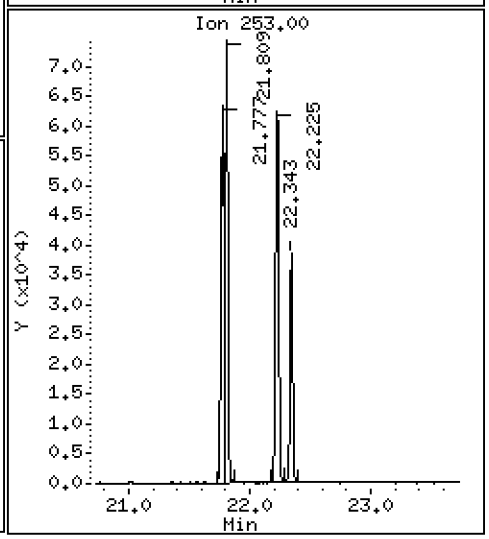












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

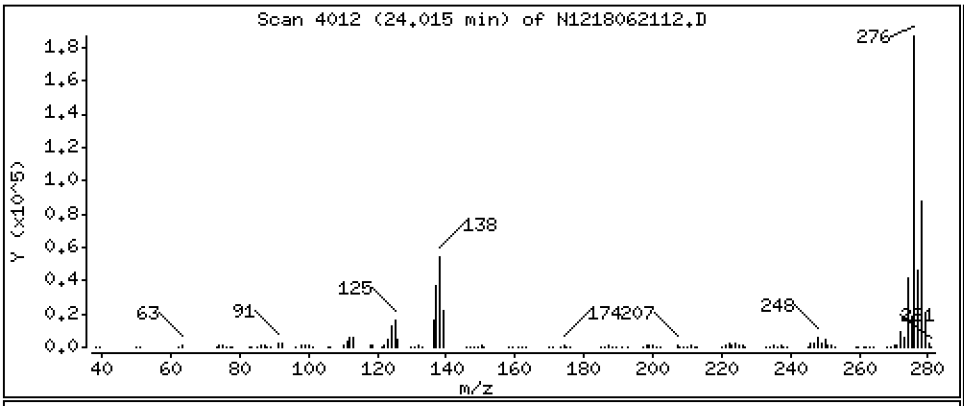
Operator: JZ

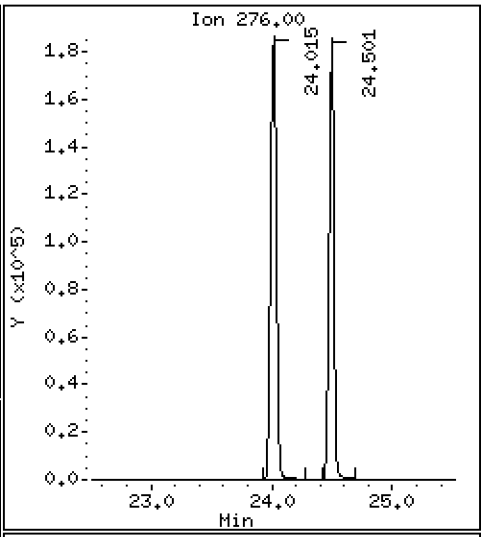
Column phase: ZB-5msi

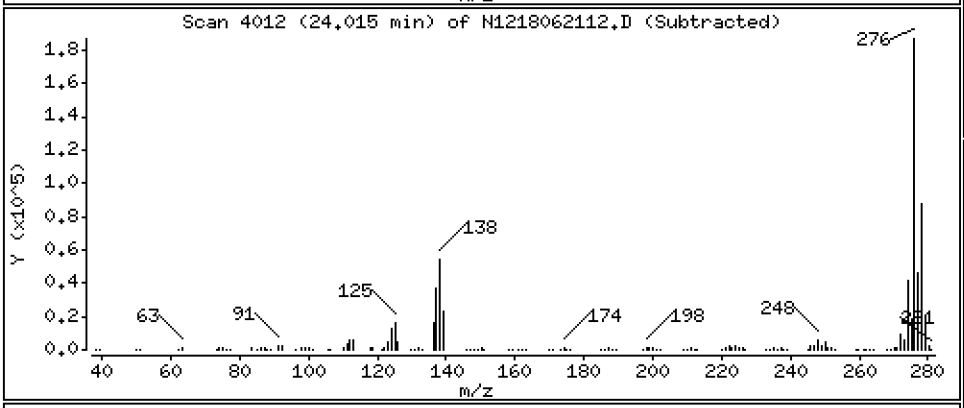
Column diameter: 0.32

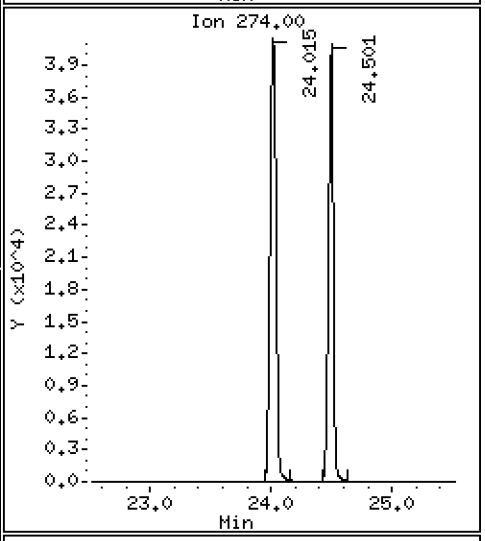
78 Indeno(1,2,3-cd)pyrene

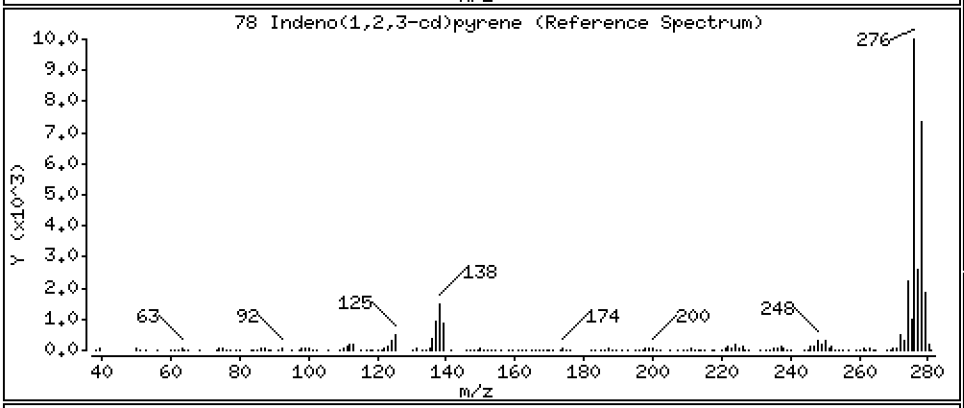
Concentration: 21.88 ug/mL

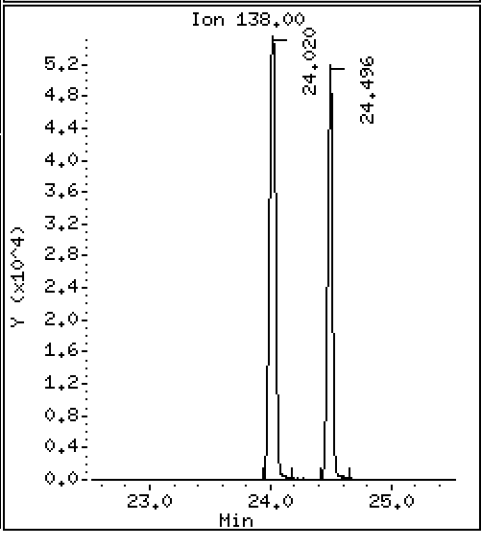


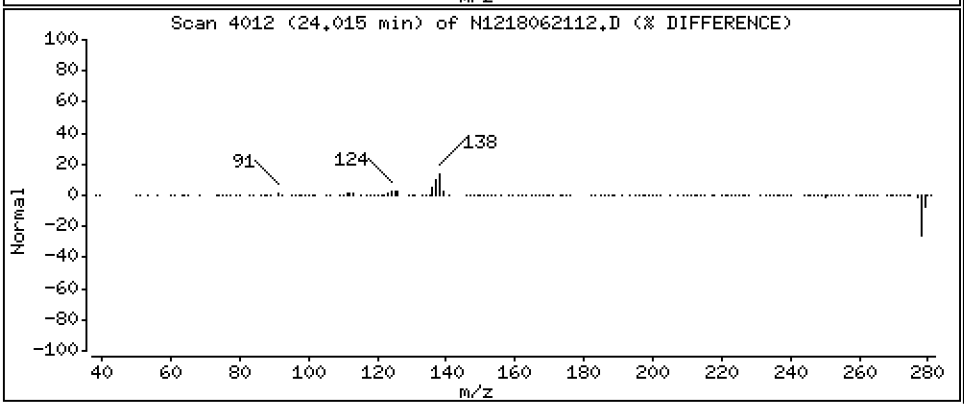












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

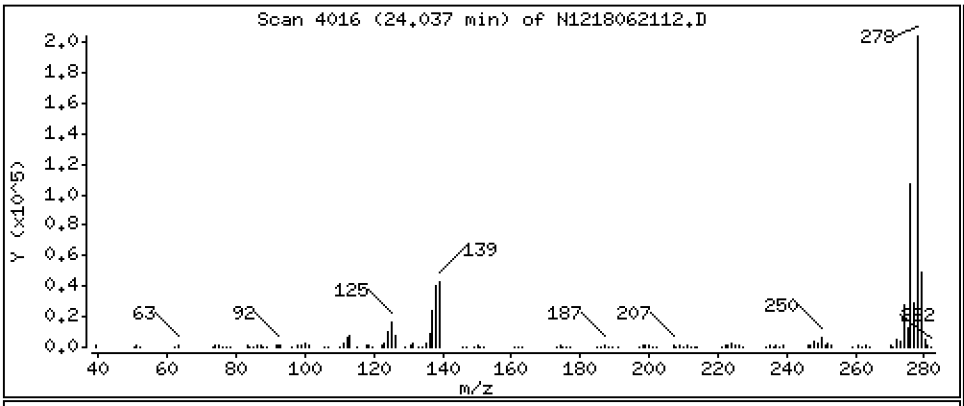
Operator: JZ

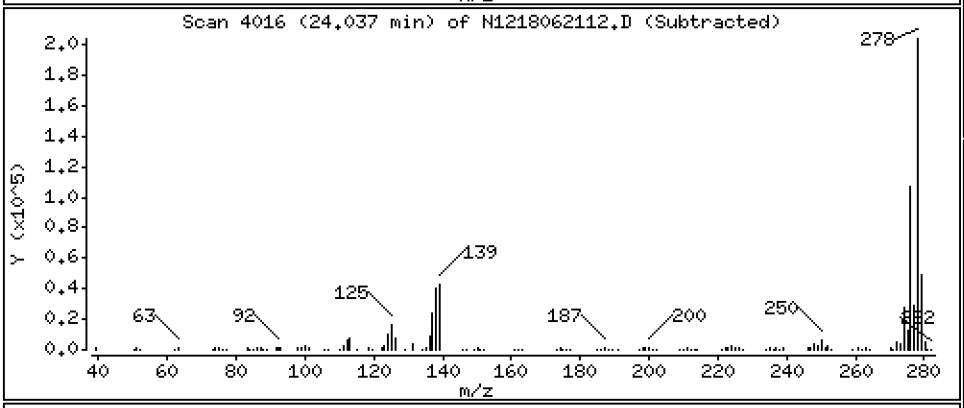
Column phase: ZB-5msi

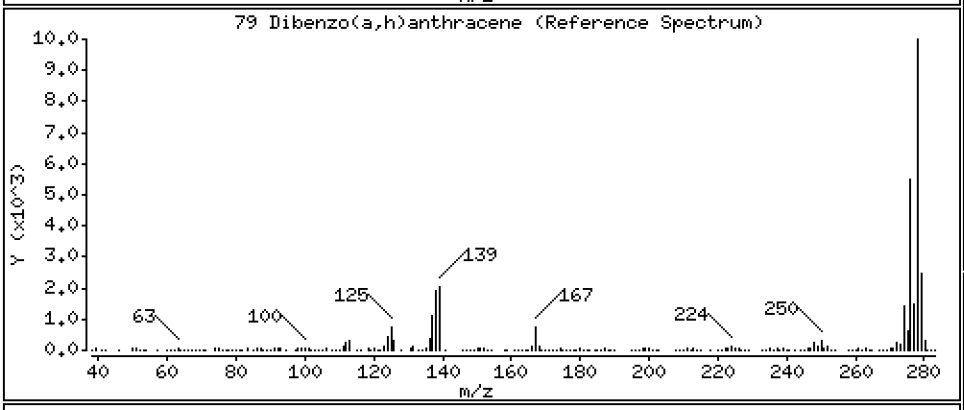
Column diameter: 0.32

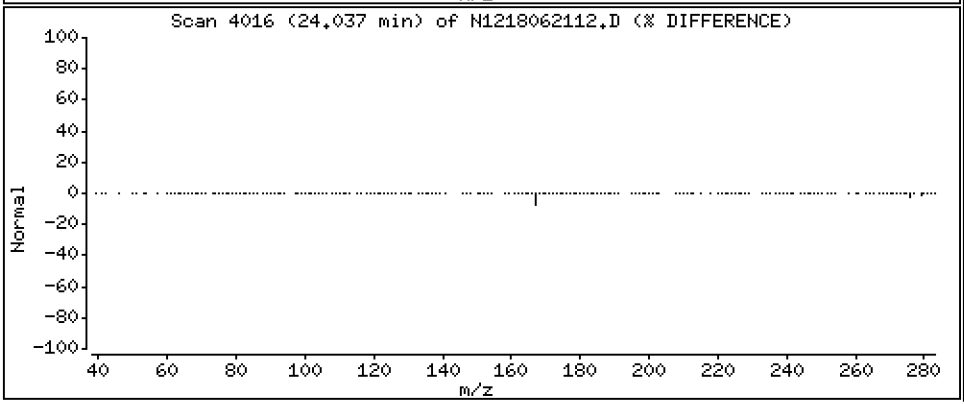
79 Dibenzo(a,h)anthracene

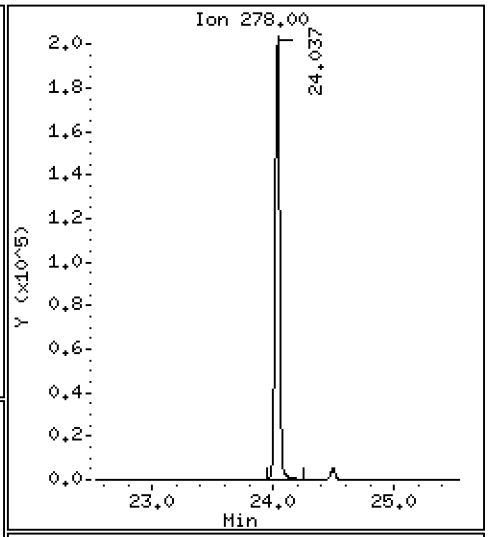
Concentration: 21.84 ug/mL

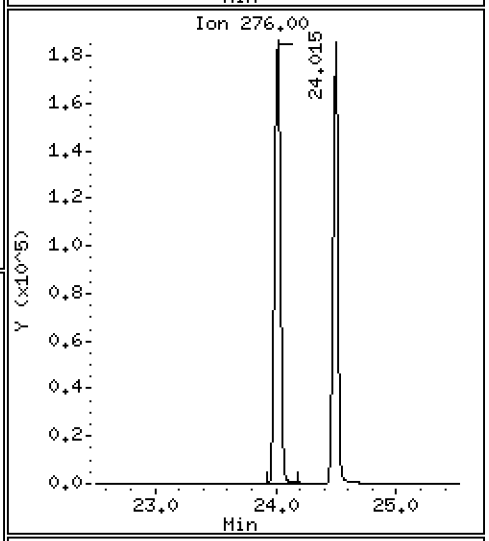


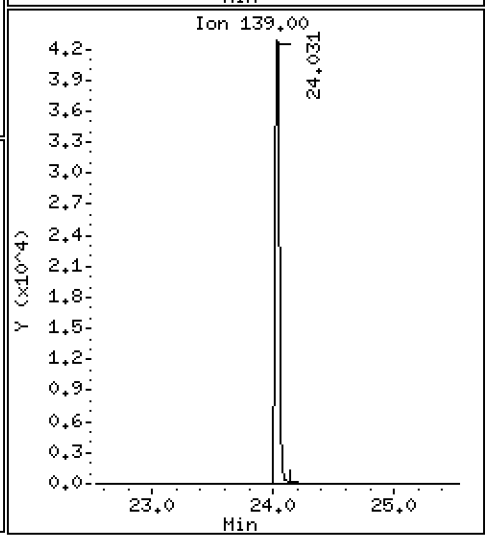












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

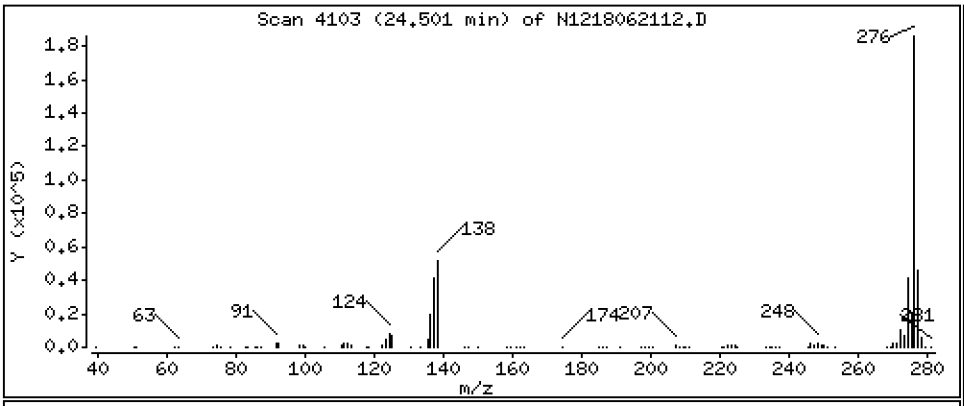
Operator: JZ

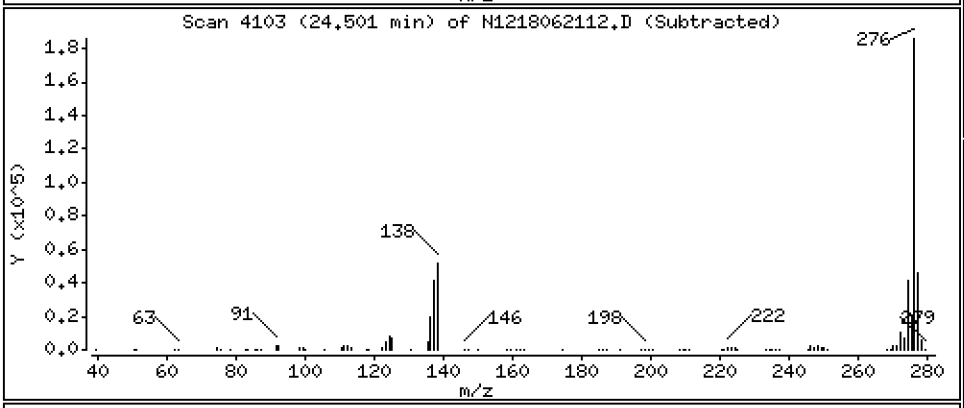
Column phase: ZB-5msi

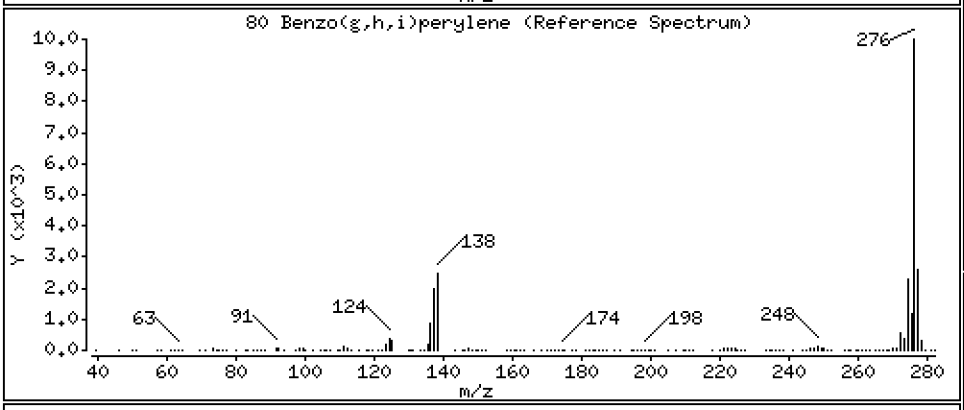
Column diameter: 0.32

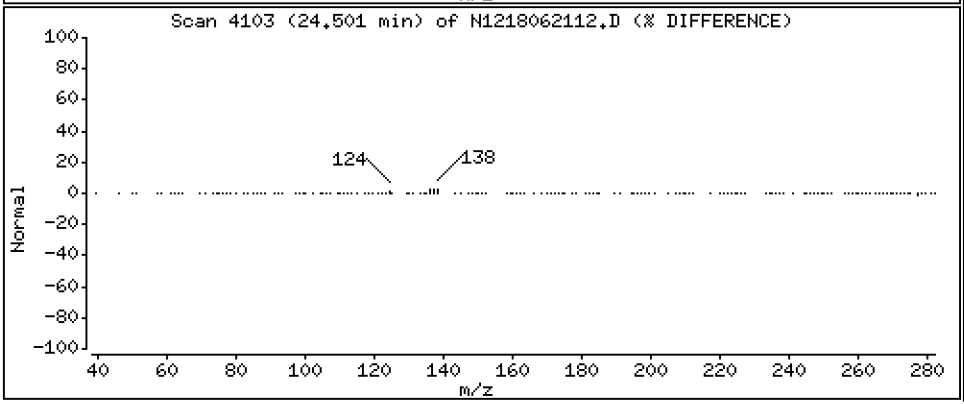
80 Benzo(g,h,i)perylene

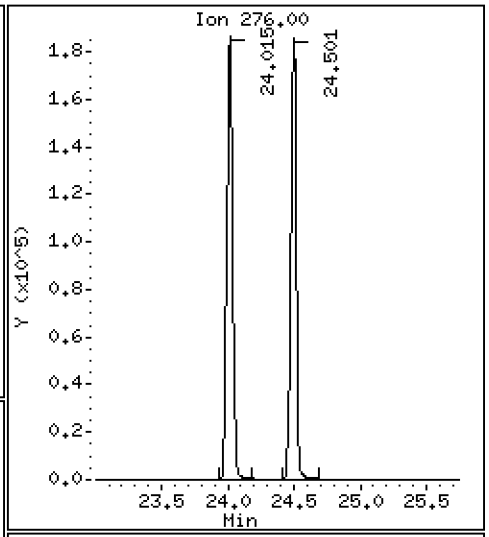
Concentration: 23.28 ug/mL

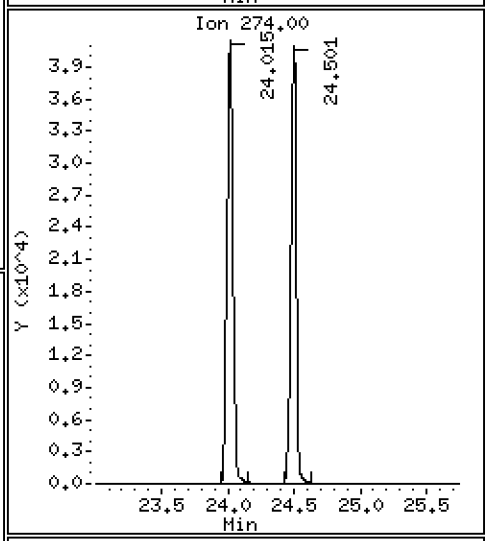


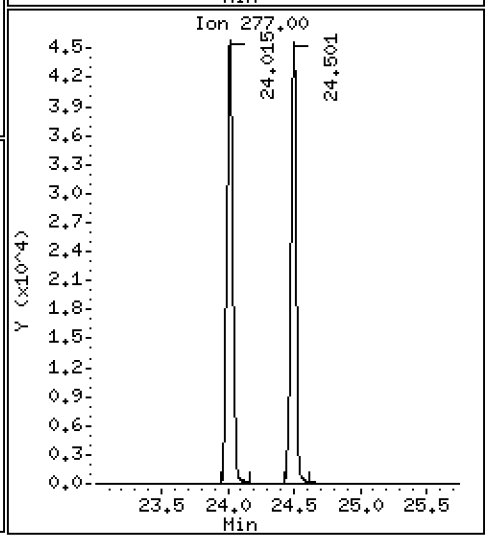












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

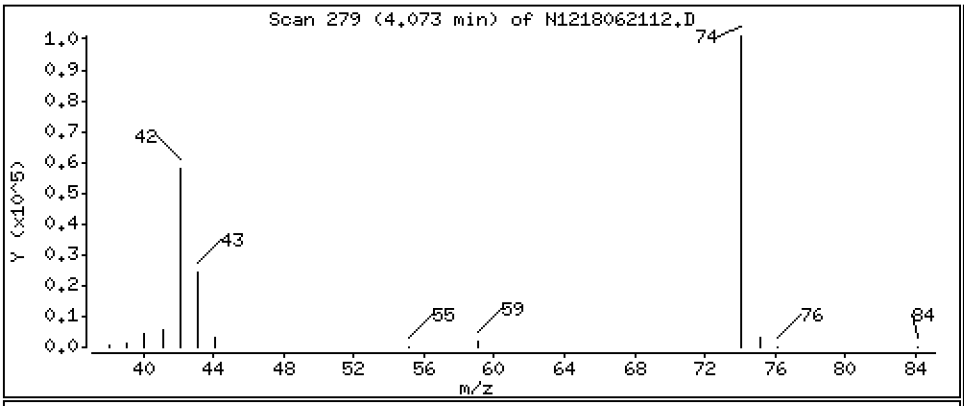
Operator: JZ

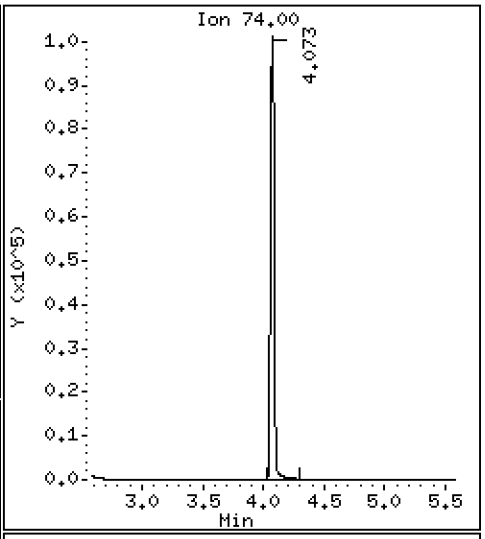
Column phase: ZB-5msi

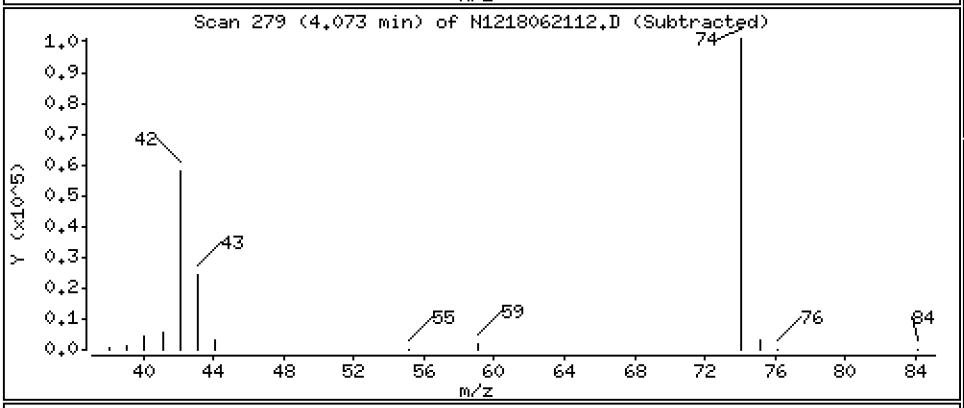
Column diameter: 0.32

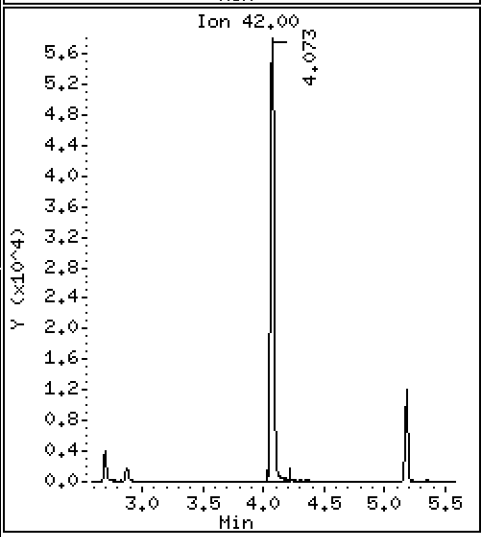
90 N-Nitrosodimethylamine

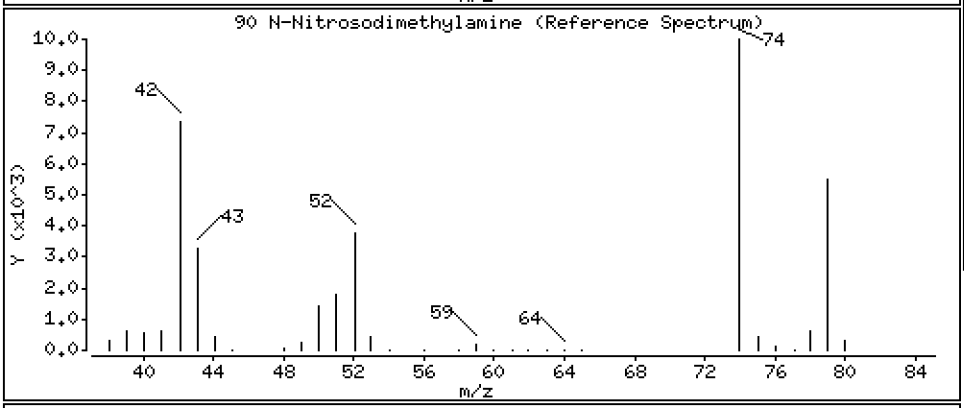
Concentration: 26.54 ug/mL

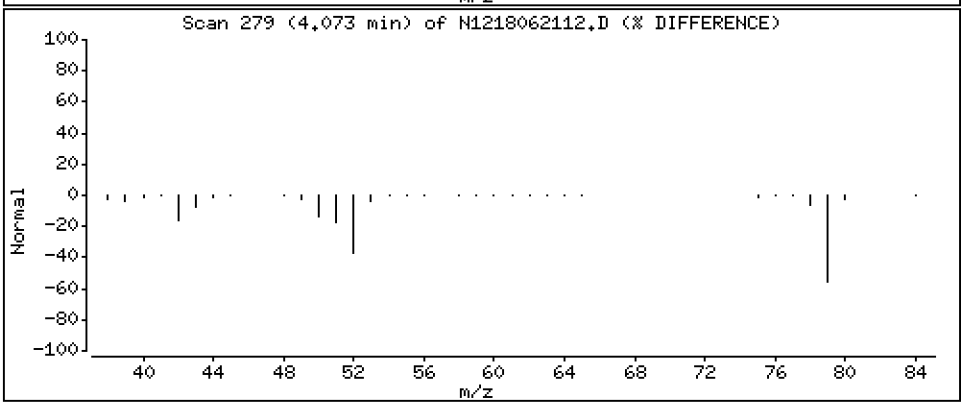












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

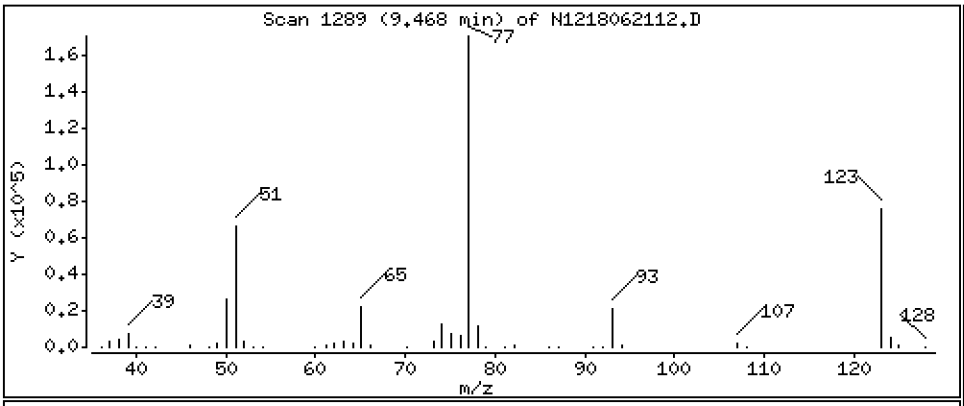
Operator: JZ

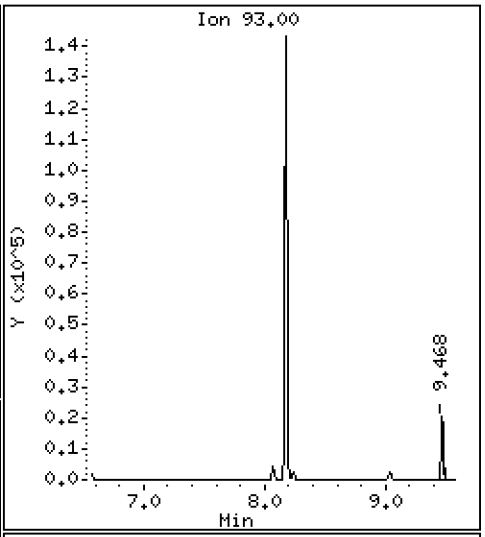
Column phase: ZB-5msi

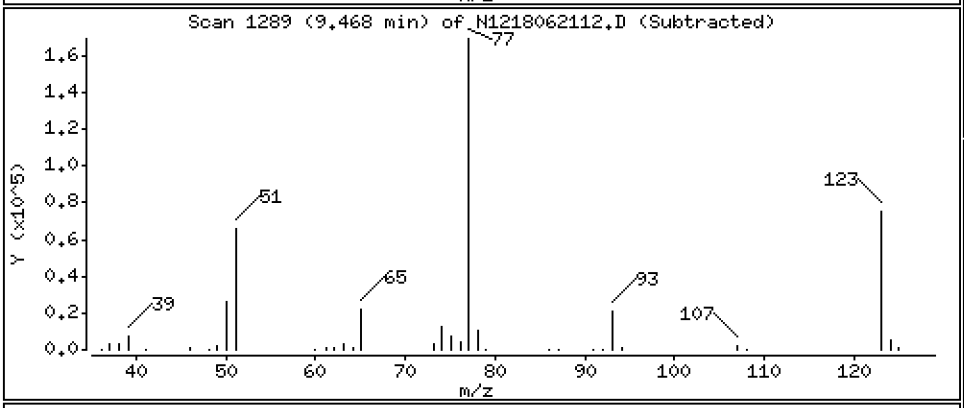
Column diameter: 0.32

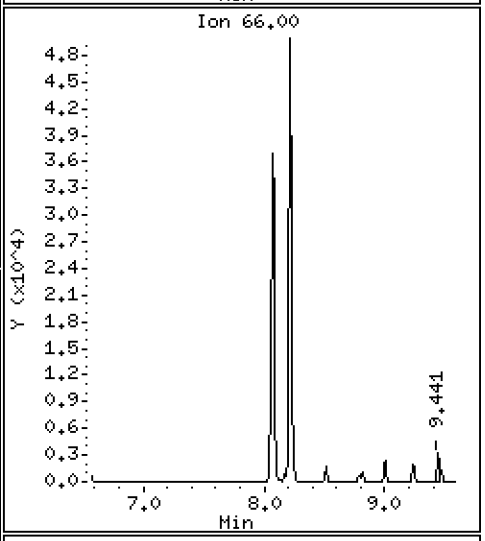
91 Aniline

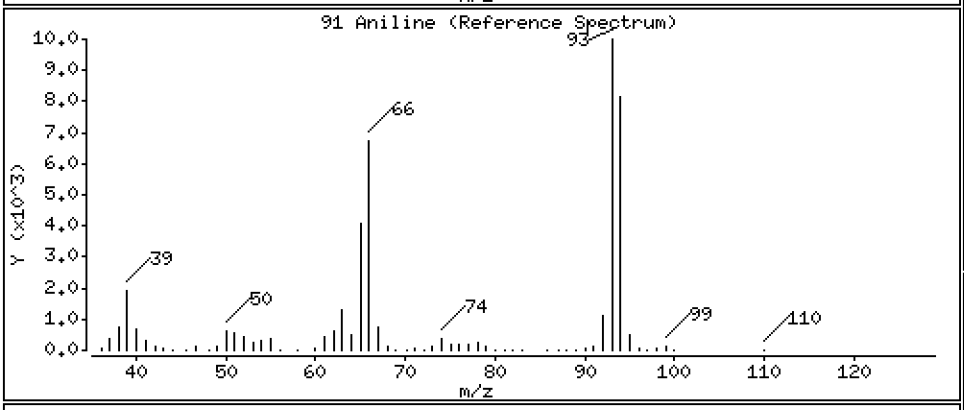
Concentration: 1.505 ug/mL

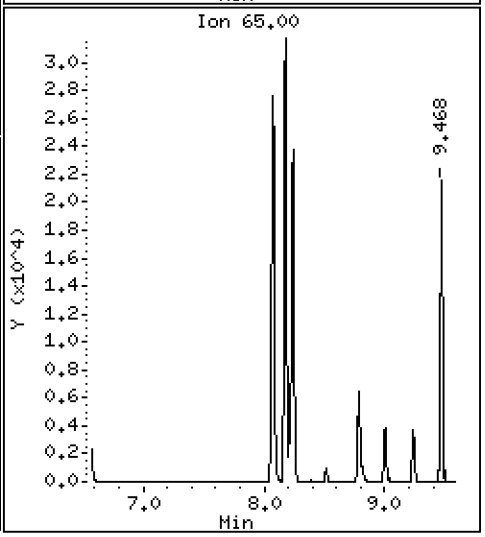


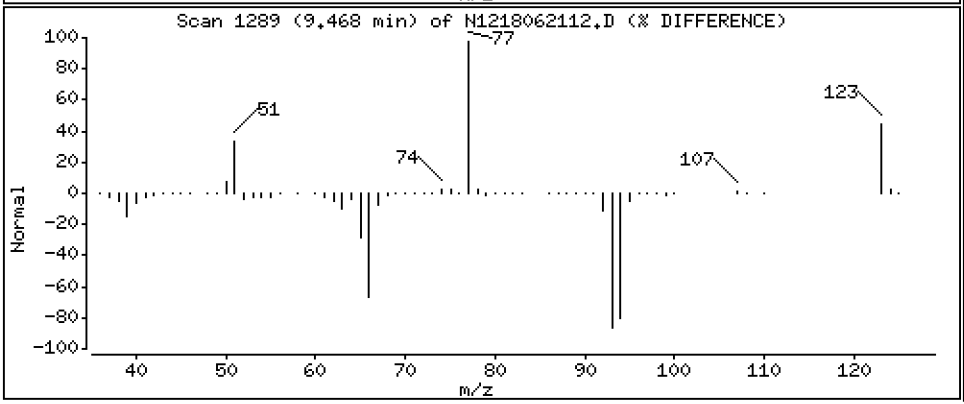












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

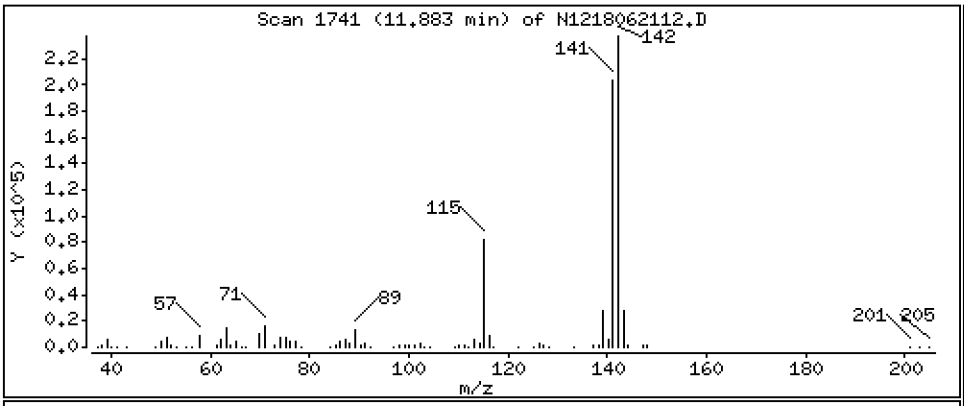
Operator: JZ

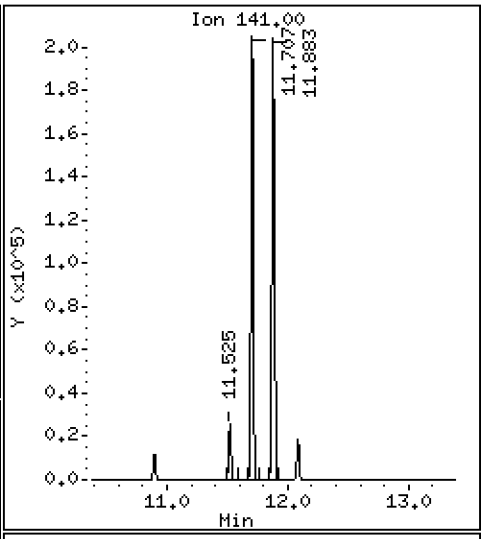
Column phase: ZB-5msi

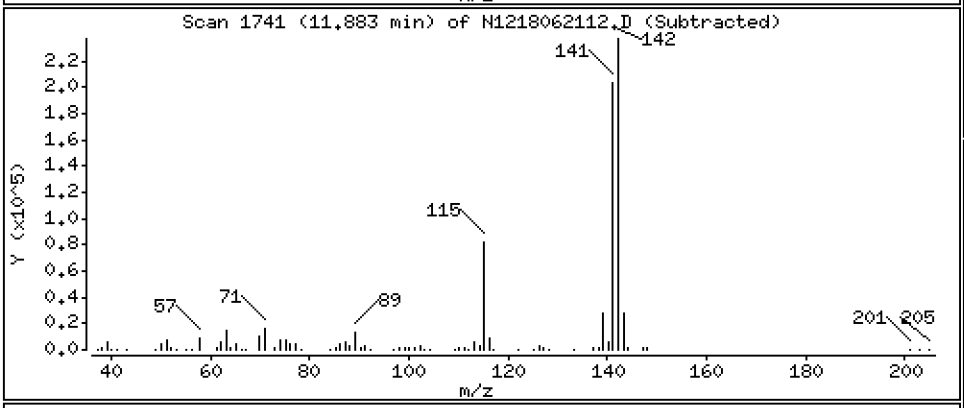
Column diameter: 0.32

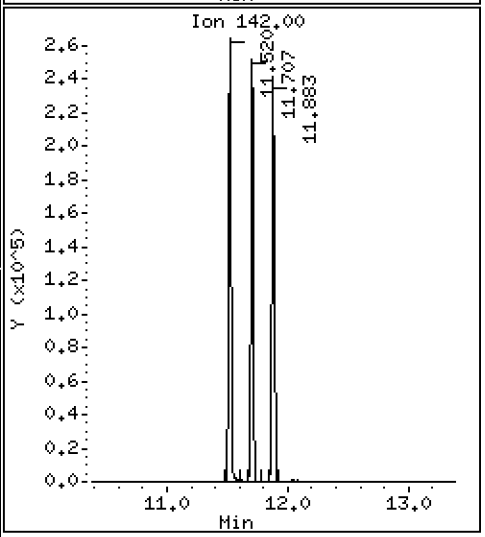
105 1-methylnaphthalene

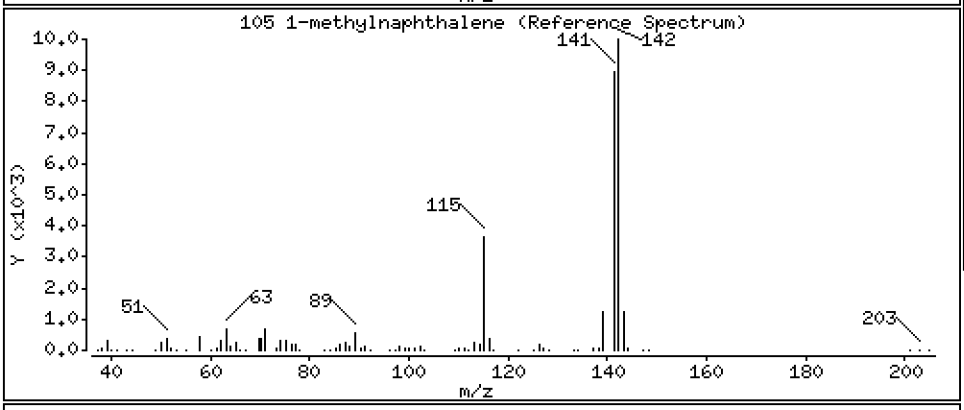
Concentration: 17.67 ug/mL

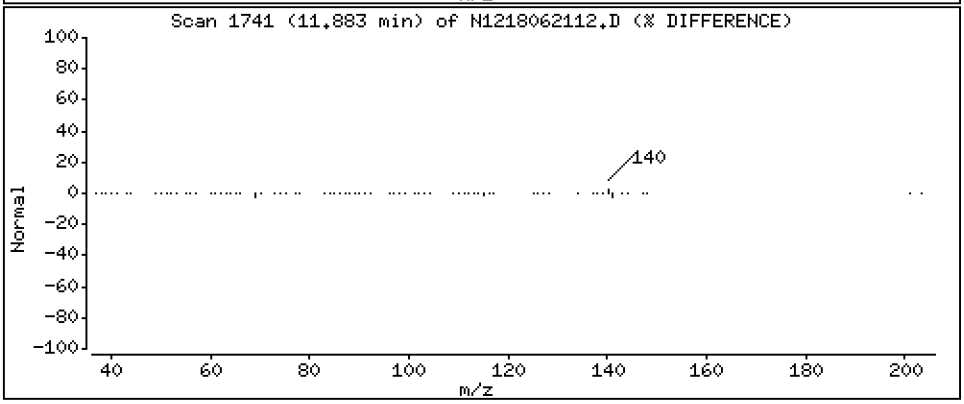












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

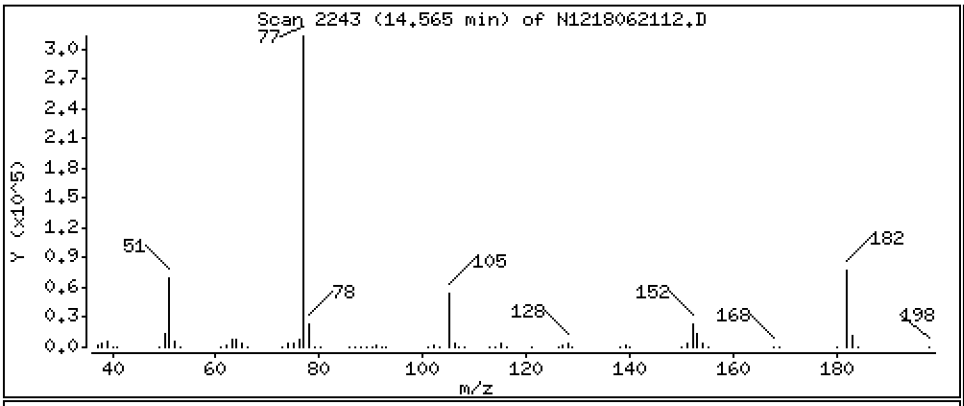
Operator: JZ

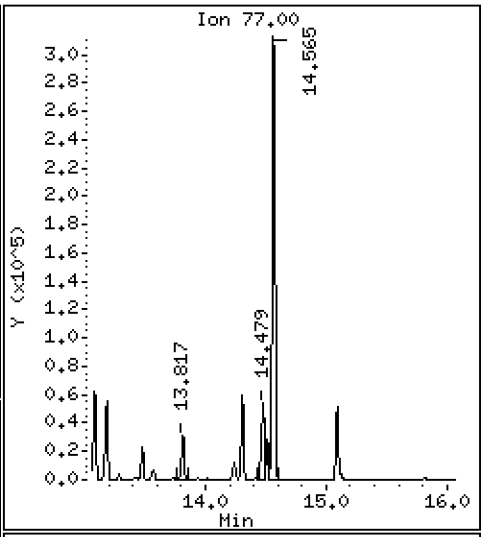
Column phase: ZB-5msi

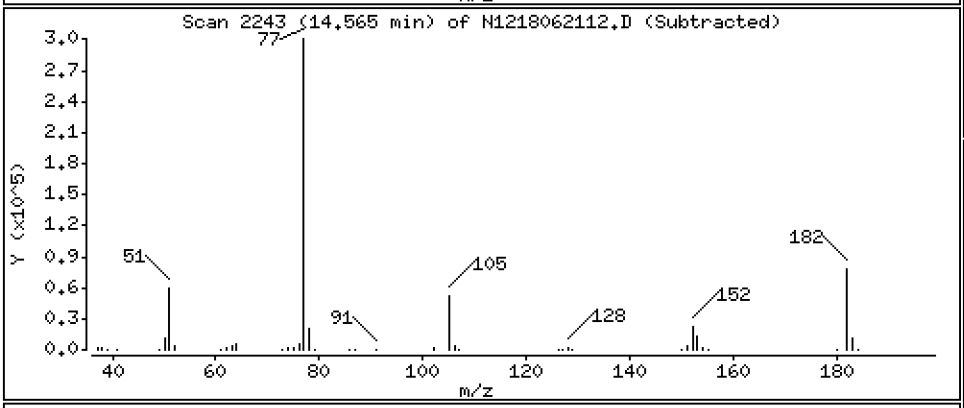
Column diameter: 0.32

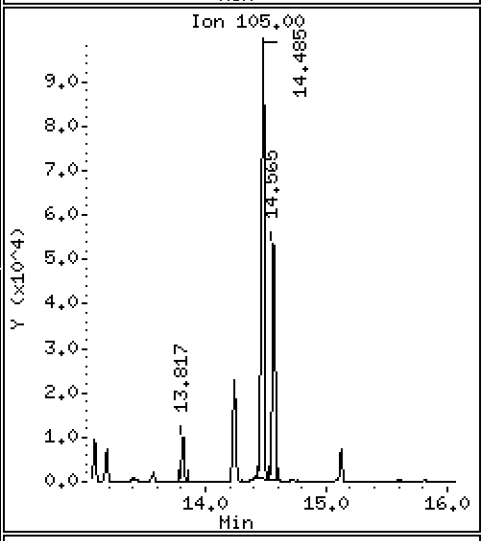
111 Azobenzene (1,2-DP-Hydrazine)

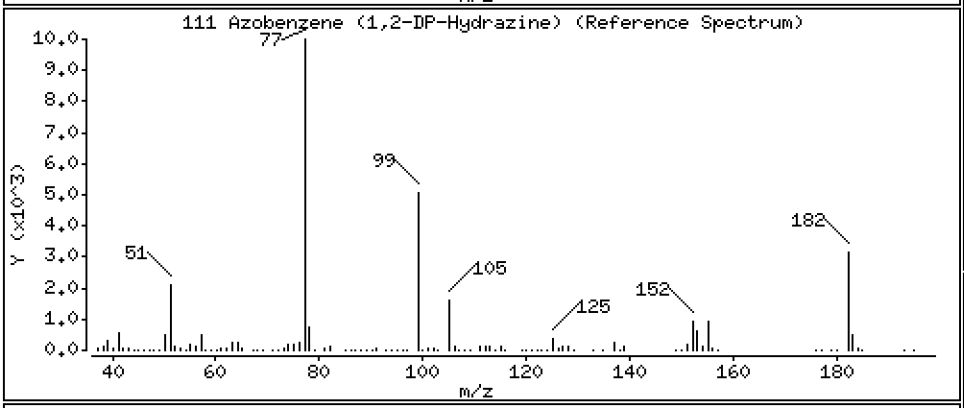
Concentration: 19.19 ug/mL

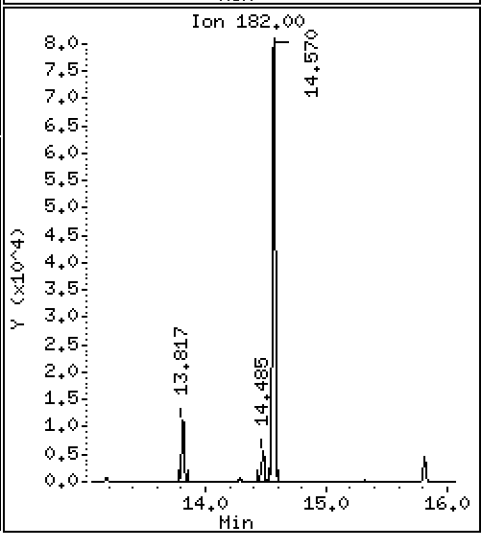


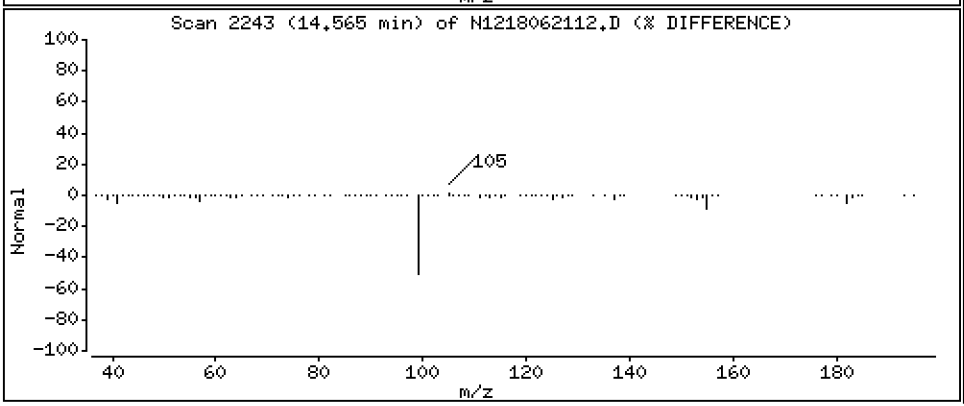












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Date : 21-JUN-2018 17:38

Client ID:

Instrument: nt12.i

Sample Info: BGF0417-MSD1,

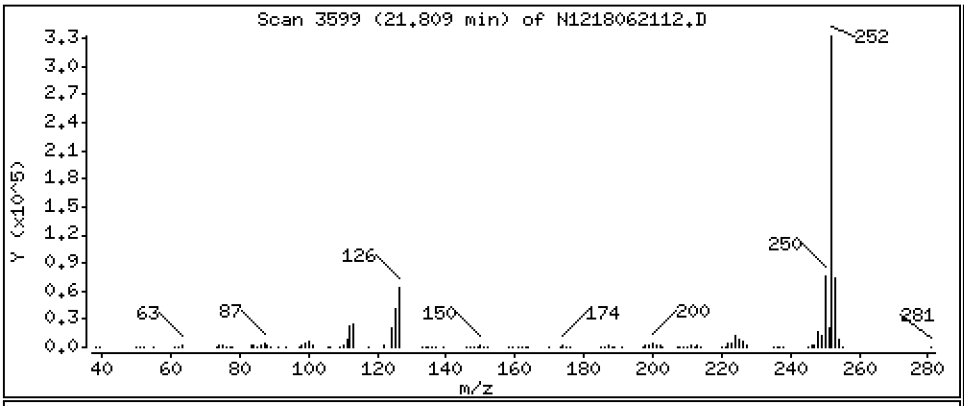
Operator: JZ

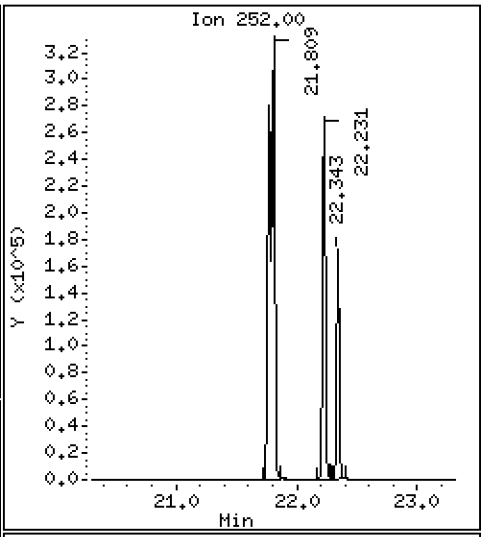
Column phase: ZB-5msi

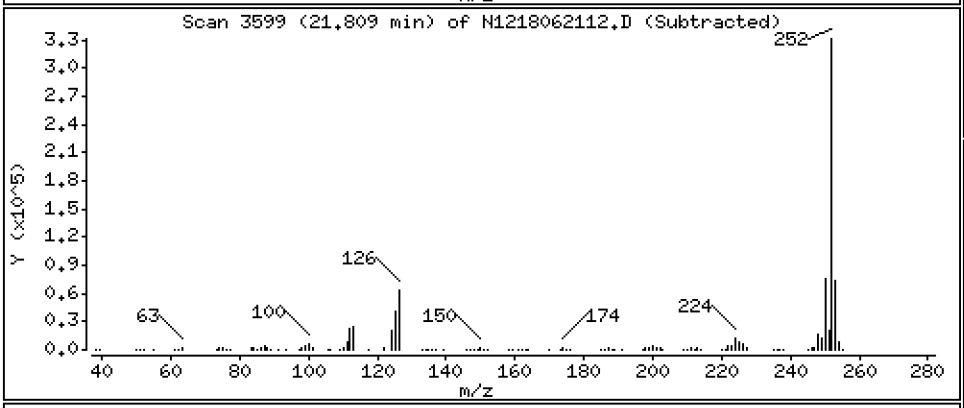
Column diameter: 0.32

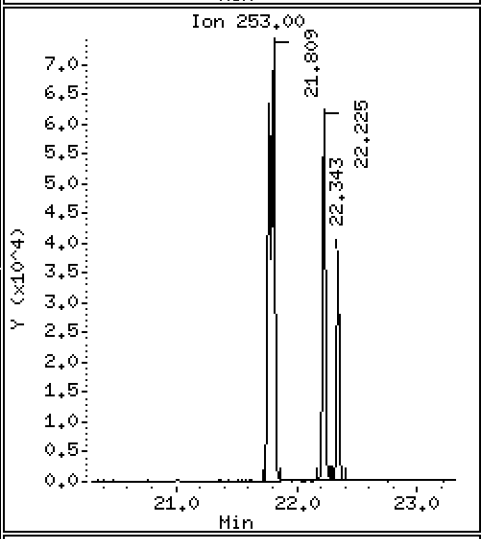
187 Total Benzofluoranthenes

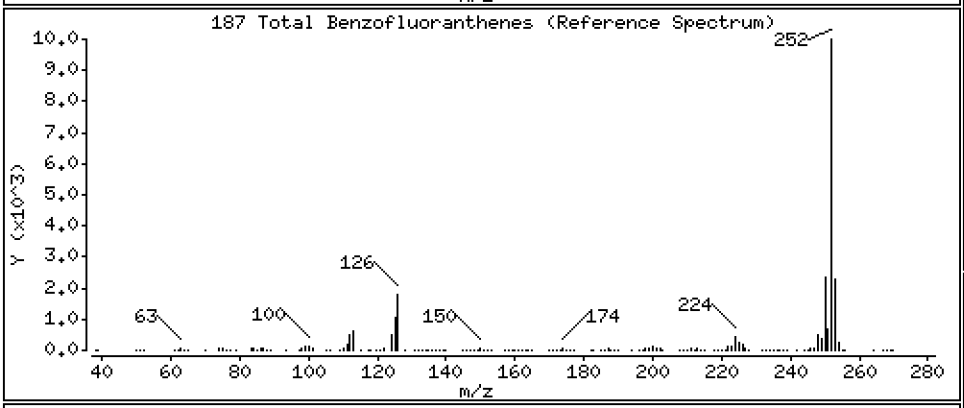
Concentration: 39.23 ug/mL

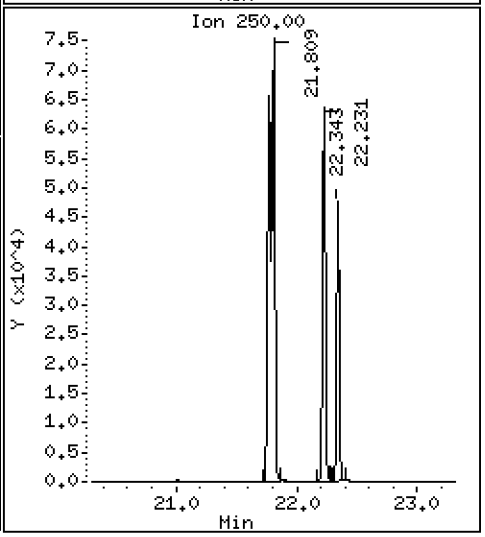


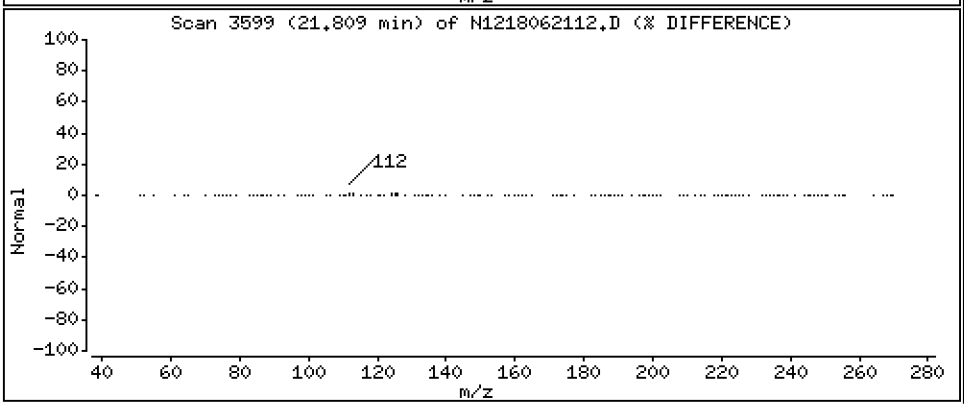












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

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Inj Date : 21-JUN-2018 17:38
Operator : JZ Inst ID: nt12.i
Smp Info : BGF0417-MSD1,
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Meth Date : 22-Jun-2018 10:46 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 12
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.567	6.567	(0.771)	199855	19.0812	19.08(R)
$	2 Phenol-d5	99	8.057	8.062	(0.946)	201036	15.2771	15.28(R)
	3 Phenol	94	8.073	8.084	(0.948)	132074	10.0214	10.02
$	5 2-Chlorophenol-d4	132	8.212	8.217	(0.964)	261675	25.8806	25.88(R)
	4 Bis(2-Chloroethyl)ether	93	8.175	8.180	(0.960)	187128	16.4511	16.45
	6 2-Chlorophenol	128	8.239	8.239	(0.967)	168442	15.0079	15.01
	7 1,3-Dichlorobenzene	146	8.458	8.458	(0.993)	159899	13.4963	13.50
*	8 1,4-Dichlorobenzene-d4	152	8.517	8.516	(1.000)	145919	20.0000	
	9 1,4-Dichlorobenzene	146	8.538	8.543	(1.002)	161550	13.7531	13.75
$	10 1,2-Dichlorobenzene-d4	152	8.816	8.816	(1.035)	100215	14.7466	14.75(R)
	12 1,2-Dichlorobenzene	146	8.837	8.837	(1.038)	157479	14.2796	14.28
	11 Benzyl alcohol	108	8.784	8.789	(1.031)	105294	12.8178	12.82
	14 2,2'-oxybis(1-Chloropropane)	45	9.035	9.040	(1.061)	193100	16.6453	16.65
	13 2-Methylphenol	108	9.003	9.008	(1.057)	159190	14.7532	14.75
	17 Hexachloroethane	117	9.323	9.323	(1.095)	58872	12.7143	12.71
	16 N-Nitroso-di-n-propylamine	70	9.254	9.259	(1.087)	138011	16.8661	16.87
	15 4-Methylphenol	108	9.238	9.238	(1.085)	163617	15.0377	15.04
$	18 Nitrobenzene-d5	82	9.441	9.441	(0.894)	209512	18.3916	18.39(R)
	19 Nitrobenzene	77	9.468	9.473	(0.897)	211177	17.0220	17.02
	20 Isophorone	82	9.852	9.847	(0.933)	374367	19.9923	19.99
	21 2-Nitrophenol	139	9.981	9.980	(0.945)	98962	17.1180	17.12
	22 2,4-Dimethylphenol	107	10.077	10.071	(0.954)	473142	40.9221	40.92
	23 Bis(2-Chloroethoxy)methane	93	10.226	10.226	(0.969)	228113	18.0923	18.09
	24 Benzoic acid	105	10.338	10.354	(0.979)	469301	59.1727	59.17
	25 2,4-Dichlorophenol	162	10.365	10.365	(0.982)	437991	48.8338	48.83
	26 1,2,4-Trichlorobenzene	180	10.499	10.498	(0.994)	137012	14.7385	14.74
*	27 Naphthalene-d8	136	10.558	10.557	(1.000)	556932	20.0000	
	28 Naphthalene	128	10.590	10.589	(1.003)	475066	15.5046	15.50
	29 4-Chloroaniline	127	10.718	10.723	(1.015)	60040	4.52742	4.527
	30 Hexachlorobutadiene	225	10.899	10.899	(1.032)	66189	13.0891	13.09
	31 4-Chloro-3-methylphenol	107	11.519	11.519	(1.091)	484141	51.3490	51.35
	32 2-Methylnaphthalene	141	11.706	11.706	(1.109)	273481	16.1396	16.14
	33 Hexachlorocyclopentadiene	237	12.085	12.085	(0.900)	199397	46.8312	46.83

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	12.219	12.219	(0.910)	323533	49.2369	49.24
	35	2,4,5-Trichlorophenol	196	12.278	12.272	(0.914)	348749	51.5609	51.56
$	36	2-Fluorobiphenyl	172	12.347	12.347	(0.920)	362552	17.6624	17.66(R)
	37	2-Chloronaphthalene	162	12.491	12.491	(0.930)	320080	17.0048	17.00
	38	2-Nitroaniline	65	12.726	12.721	(0.948)	317116	53.1814	53.18
	39	Dimethylphthalate	163	13.084	13.079	(0.975)	391123	19.1839	19.18
	40	Acenaphthylene	152	13.175	13.175	(0.981)	458798	17.0451	17.05
	41	2,6-Dinitrotoluene	165	13.186	13.180	(0.982)	262147	58.4712	58.47
*	42	Acenaphthene-d10	164	13.426	13.426	(1.000)	288615	20.0000	
	43	3-Nitroaniline	138	13.405	13.399	(0.998)	228133	41.7123	41.71
	44	Acenaphthene	153	13.480	13.474	(1.004)	321399	17.9899	17.99
	45	2,4-Dinitrophenol	184	13.571	13.565	(1.011)	319522	114.593	114.6
	46	Dibenzofuran	168	13.736	13.736	(1.023)	465177	17.1232	17.12
	47	4-Nitrophenol	109	13.693	13.693	(1.020)	86767	30.0798	30.08
	48	2,4-Dinitrotoluene	165	13.822	13.811	(1.029)	366314	57.6421	57.64
	50	Diethylphthalate	149	14.238	14.233	(1.060)	387912	19.9820	19.98
	49	Fluorene	166	14.297	14.297	(1.065)	378570	18.7107	18.71
	51	4-Chlorophenyl-phenylether	204	14.308	14.307	(1.066)	173973	18.4511	18.45
	52	4-Nitroaniline	138	14.425	14.404	(1.074)	288221	53.8423	53.84
	53	4,6-Dinitro-2-methylphenol	198	14.484	14.473	(0.916)	415651	117.305	117.3
	54	N-Nitrosodiphenylamine	169	14.516	14.516	(0.918)	276512	18.4814	18.48
$	55	2,4,6-Tribromophenol	330	14.719	14.719	(1.096)	77296	31.9905	31.99(R)
	56	4-Bromophenyl-phenylether	248	15.093	15.093	(0.954)	103878	18.2691	18.27
	57	Hexachlorobenzene	284	15.323	15.322	(0.969)	102911	17.4928	17.49
	58	Pentachlorophenol	266	15.622	15.622	(0.988)	210782	54.1970	54.20
*	59	Phenanthrene-d10	188	15.814	15.809	(1.000)	493800	20.0000	
	60	Phenanthrene	178	15.846	15.846	(1.002)	532172	21.7390	21.74
	61	Anthracene	178	15.921	15.921	(1.007)	500158	17.9132	17.91
	62	Carbazole	167	16.194	16.193	(1.024)	482406	17.9104	17.91
	63	Di-n-butylphthalate	149	16.883	16.888	(1.068)	614987	19.9596	19.96
	64	Fluoranthene	202	17.791	17.791	(1.125)	582497	19.0205	19.02
	65	Pyrene	202	18.149	18.149	(0.901)	588881	22.0059	22.01
$	66	Terphenyl-d14	244	18.443	18.448	(0.916)	423809	25.4923	25.49(R)
	67	Butylbenzylphthalate	149	19.313	19.313	(0.959)	261249	21.8208	21.82
	68	Benzo(a)anthracene	228	20.109	20.114	(0.998)	453633	23.1611	23.16
*	69	Chrysene-d12	240	20.142	20.141	(1.000)	431573	20.0000	
	70	3,3'-Dichlorobenzidine	252	20.115	20.114	(0.999)	392280	53.6480	53.65
	71	Chrysene	228	20.179	20.179	(1.002)	471052	21.5527	21.55
	72	bis(2-Ethylhexyl)phthalate	149	20.296	20.296	(0.956)	357913	21.2106	21.21
*	134	Di-n-octylphthalate-d4	153	21.231	21.231	(1.000)	567960	20.0000	
	73	Di-n-octylphthalate	149	21.242	21.242	(1.000)	578398	19.0672	19.07
	74	Benzo(b)fluoranthene	252	21.776	21.776	(0.976)	530292	19.7359	19.74
	75	Benzo(k)fluoranthene	252	21.808	21.808	(0.977)	510283	18.5166	18.52
	76	Benzo(a)pyrene	252	22.230	22.230	(0.996)	462617	20.2574	20.26
*	77	Perylene-d12	264	22.310	22.310	(1.000)	436455	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	24.015	24.014	(1.076)	584140	21.8779	21.88
	79	Dibenzo(a,h)anthracene	278	24.036	24.036	(1.077)	477102	21.8420	21.84
	80	Benzo(g,h,i)perylene	276	24.501	24.506	(1.098)	518588	23.2777	23.28
	90	N-Nitrosodimethylamine	74	4.072	4.077	(0.478)	190131	26.5382	26.54
	91	Aniline	93	9.468	8.073	(1.112)	25766	1.50504	1.505
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	11.882	11.882	(1.125)	267611	17.6738	17.67
	111	Azobenzene (1,2-DP-Hydrazine)	77	14.564	14.564	(0.921)	441873	19.1936	19.19

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
187 Total Benzofluoranthenes	252	21.808	21.808	(0.977)	988494	39.2267	39.23

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062112.D
Lab Smp Id: BGF0417-MSD1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Misc Info: 18-

Calibration Date: 21-JUN-2018
Calibration Time: 22:08
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	145919	14.91
27 Naphthalene-d8	478458	239229	956916	556932	16.40
42 Acenaphthene-d10	247659	123830	495318	288615	16.54
59 Phenanthrene-d10	421930	210965	843860	493800	17.03
69 Chrysene-d12	450836	225418	901672	431573	-4.27
134 Di-n-octylphthala	583434	291717	1166868	567960	-2.65
77 Perylene-d12	453093	226547	906186	436455	-3.67

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.52	8.02	9.02	8.52	0.00
27 Naphthalene-d8	10.56	10.06	11.06	10.56	0.00
42 Acenaphthene-d10	13.43	12.93	13.93	13.43	0.00
59 Phenanthrene-d10	15.81	15.31	16.31	15.81	0.04
69 Chrysene-d12	20.14	19.64	20.64	20.14	0.00
134 Di-n-octylphthala	21.23	20.73	21.73	21.23	0.00
77 Perylene-d12	22.31	21.81	22.81	22.31	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062112.D

Lab ID: BGF0417-MSD1
nt12.i, SW846180516.m, 21-JUN-2018 17:38

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

MS / MS DUPLICATE RECOVERY
EPA 8270D

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/26/18 15:32
Batch:	BGF0515	Laboratory ID:	BGF0515-MS1
Preparation:	EPA 3510C SepF	Sequence Name:	Matrix Spike
Initial/Final:	500 mL / 0.5 mL	Source Sample:	LDW18-SP-57

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	Q	MS CONCENTRATION (ug/L)	Q	MS % REC. #	QC LIMITS REC.
Phenol	25.0	ND	U	12.0		47.9	10 - 160
1,4-Dichlorobenzene	25.0	ND	U	15.7		62.7	10 - 160
1,2-Dichlorobenzene	25.0	ND	U	16.4		65.5	10 - 160
Benzyl alcohol	25.0	ND	U	15.2		60.9	10 - 160
4-Methylphenol	25.0	ND	U	17.5		69.8	10 - 160
2,4-Dimethylphenol	75.0	ND	U	47.2		62.9	10 - 160
1,2,4-Trichlorobenzene	25.0	ND	U	16.5		66.0	10 - 160
Benzoic acid	138	ND	U	74.2		53.9	10 - 160
Dimethylphthalate	25.0	ND	U	21.1		84.3	10 - 160
Dibenzofuran	25.0	ND	U	19.2		76.9	10 - 160
N-Nitrosodiphenylamine	25.0	ND	U	20.5		82.1	10 - 160
Hexachlorobenzene	25.0	ND	U	19.3		77.4	10 - 160
Pentachlorophenol	75.0	ND	U	61.2		81.6	10 - 160
Butylbenzylphthalate	25.0	ND	U	23.7		94.6	10 - 160
bis(2-Ethylhexyl)phthalate	25.0	ND	U	23.1		92.3	10 - 160

* Values outside of QC limits

MS / MS DUPLICATE RECOVERY
EPA 8270D

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/26/18 16:07
Batch:	BGF0515	Laboratory ID:	BGF0515-MSD1
Preparation:	EPA 3510C SepF	Sequence Name:	Matrix Spike Dup
Initial/Final:	500 mL / 0.5 mL	Source Sample:	LDW18-SP-57

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	Q	MSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	25.0	11.6		46.3	3.30	30	10 - 160
1,4-Dichlorobenzene	25.0	14.6		58.6	6.80	30	10 - 160
1,2-Dichlorobenzene	25.0	15.5		61.9	5.63	30	10 - 160
Benzyl alcohol	25.0	14.9		59.8	1.92	30	10 - 160
4-Methylphenol	25.0	17.2		68.7	1.68	30	10 - 160
2,4-Dimethylphenol	75.0	47.8		63.7	1.26	30	10 - 160
1,2,4-Trichlorobenzene	25.0	15.9		63.6	3.69	30	10 - 160
Benzoic acid	138	75.9		55.2	2.36	30	10 - 160
Dimethylphthalate	25.0	21.9		87.5	3.72	30	10 - 160
Dibenzofuran	25.0	19.9		79.6	3.41	30	10 - 160
N-Nitrosodiphenylamine	25.0	21.2		84.7	3.08	30	10 - 160
Hexachlorobenzene	25.0	19.9		79.8	3.05	30	10 - 160
Pentachlorophenol	75.0	61.7		82.2	0.836	30	10 - 160
Butylbenzylphthalate	25.0	24.8		99.4	4.86	30	10 - 160
bis(2-Ethylhexyl)phthalate	25.0	23.8		95.3	3.25	30	10 - 160

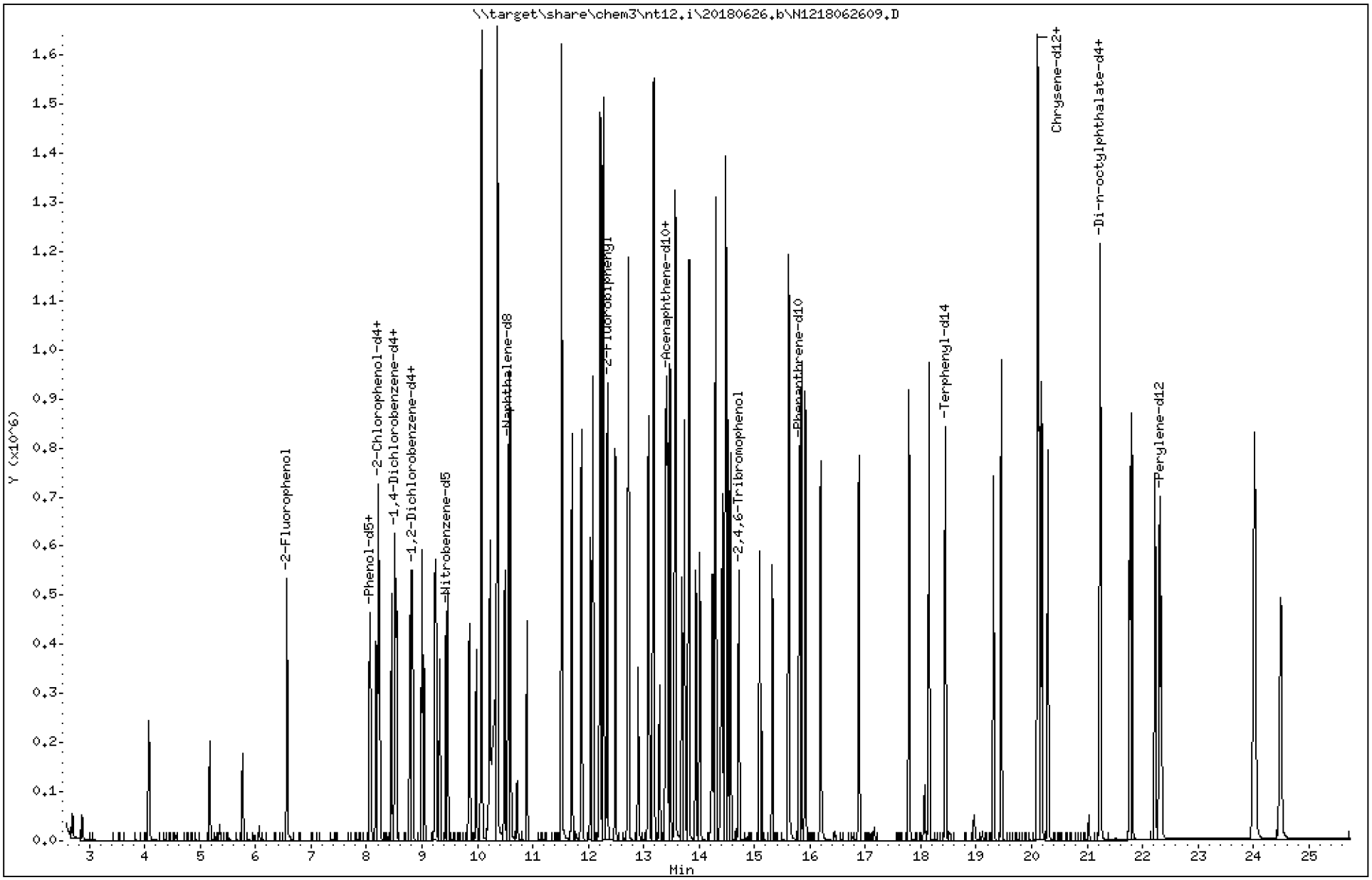
* Values outside of QC limits

Data File: \\target\share\chem3\nt12.i\20180626.b\N1218062609.D
Date : 26-JUN-2018 15:32
Client ID:
Sample Info: BGF0515-MS1,

Column phase: ZB-5msi

Instrument: nt12.i

Operator: JZ
Column diameter: 0.32



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 871 of 6523

Data File: \\target\share\chem3\nt12.i\20180626.b\N1218062609.D

Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

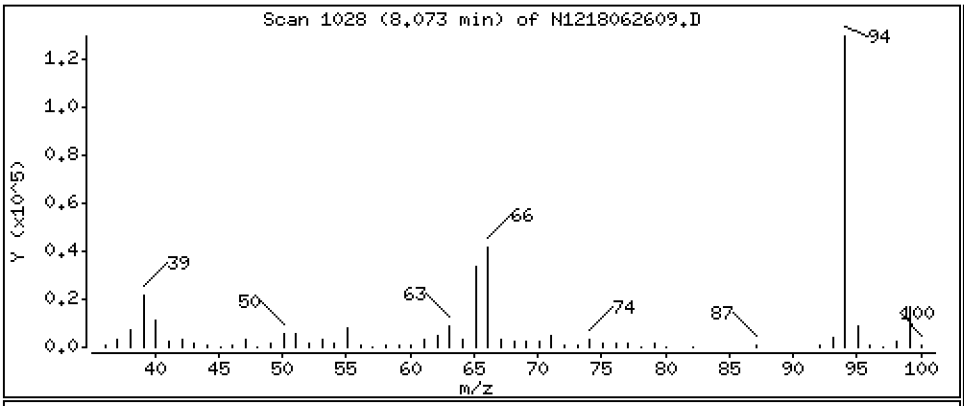
Operator: JZ

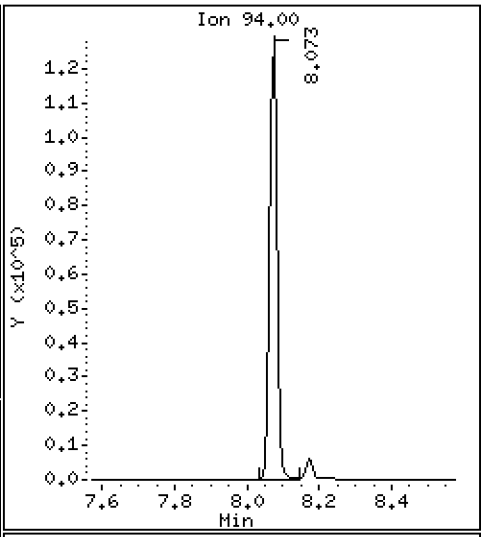
Column phase: ZB-5msi

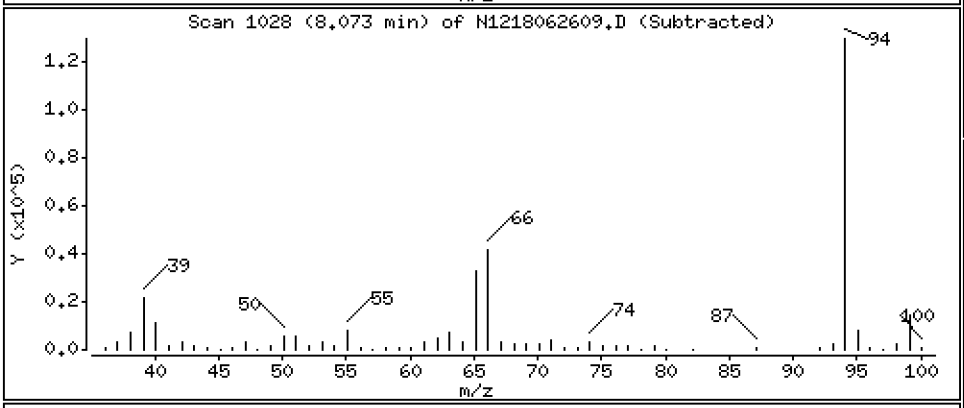
Column diameter: 0.32

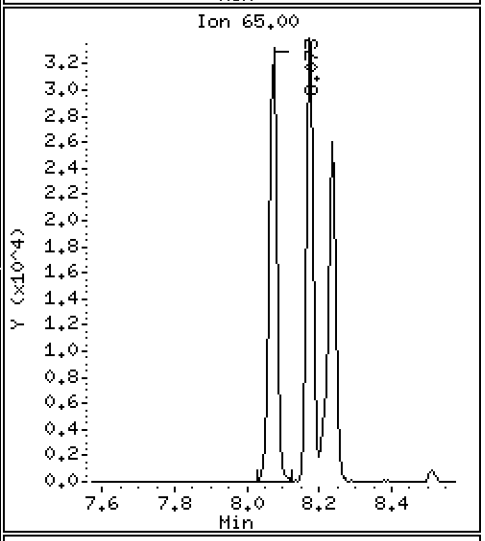
3 Phenol

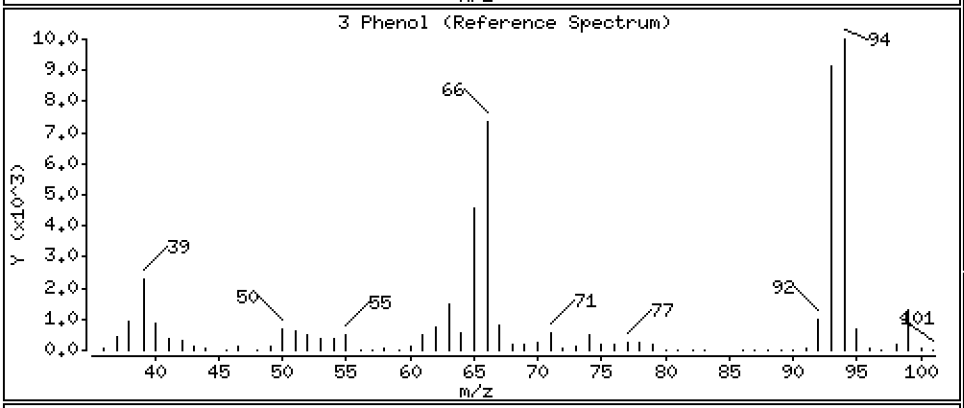
Concentration: 11.98 ug/mL

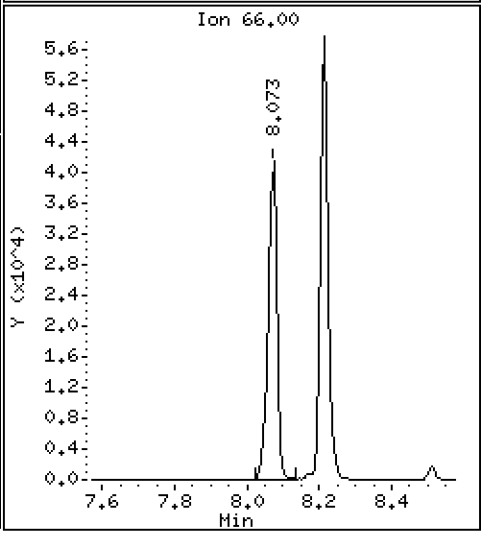


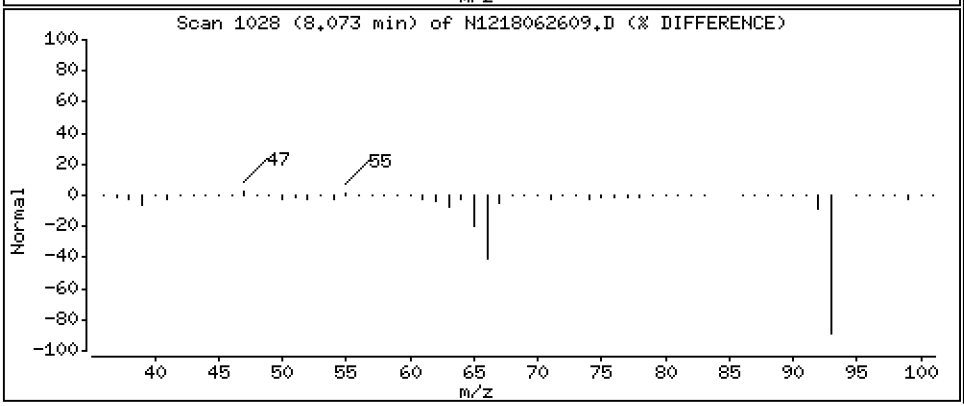












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

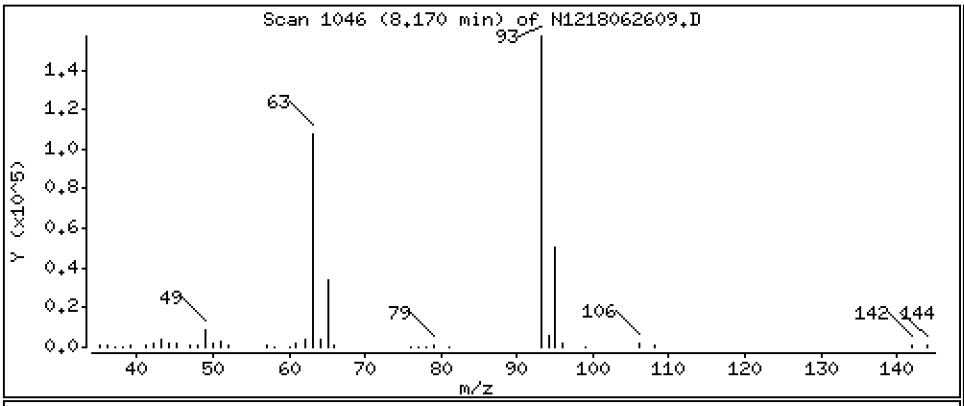
Operator: JZ

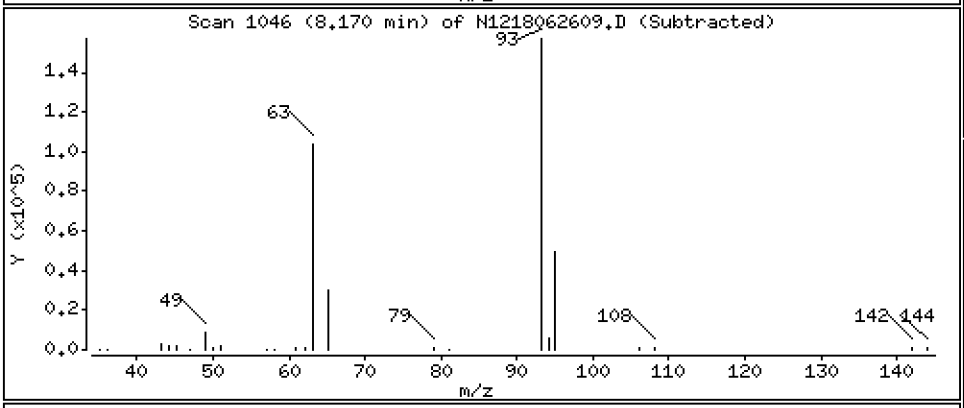
Column phase: ZB-5msi

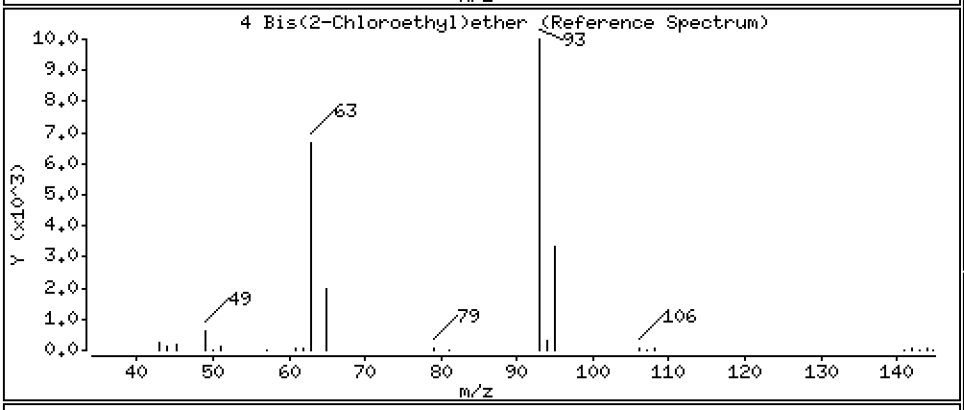
Column diameter: 0.32

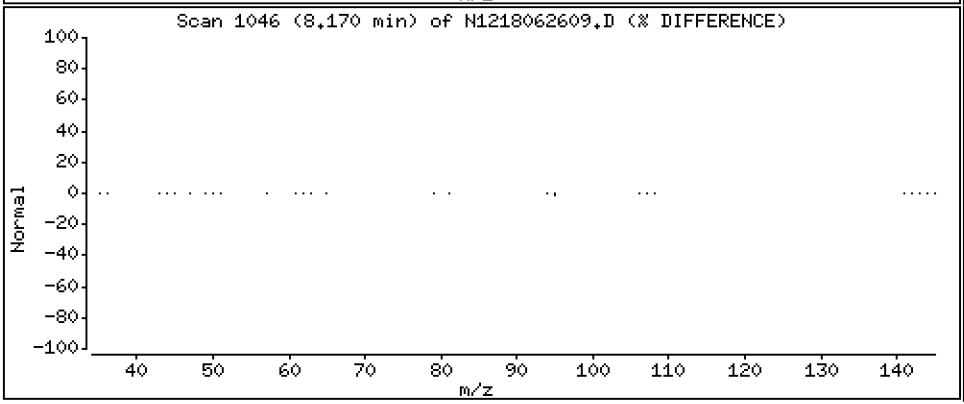
4 Bis(2-Chloroethyl)ether

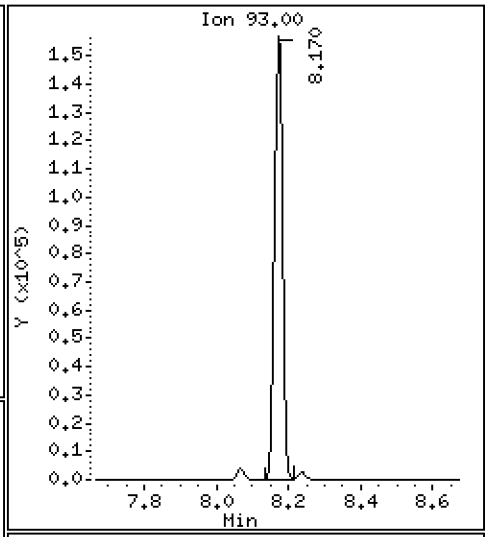
Concentration: 18.84 ug/mL

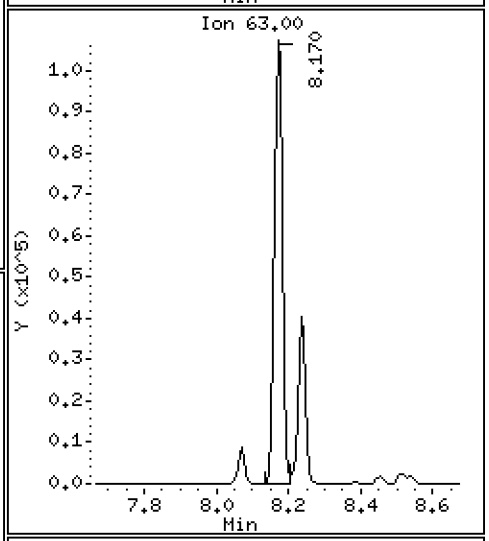


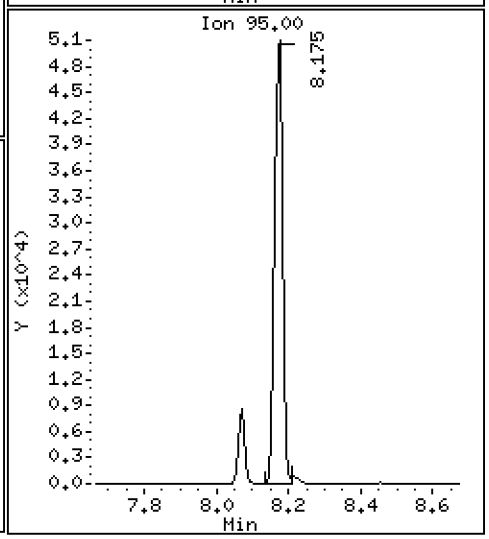












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

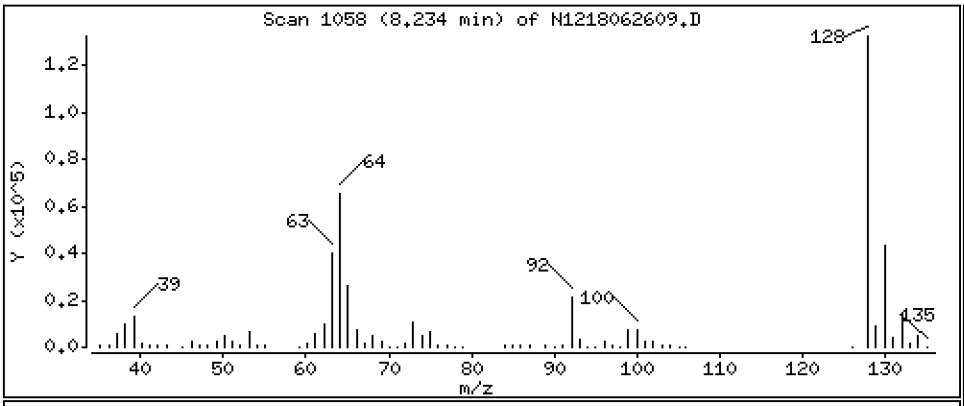
Operator: JZ

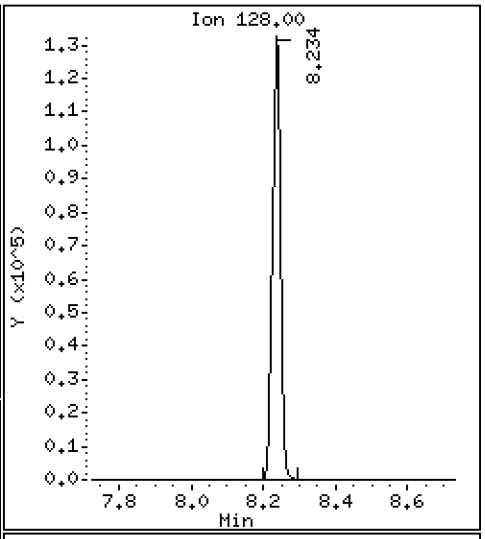
Column phase: ZB-5msi

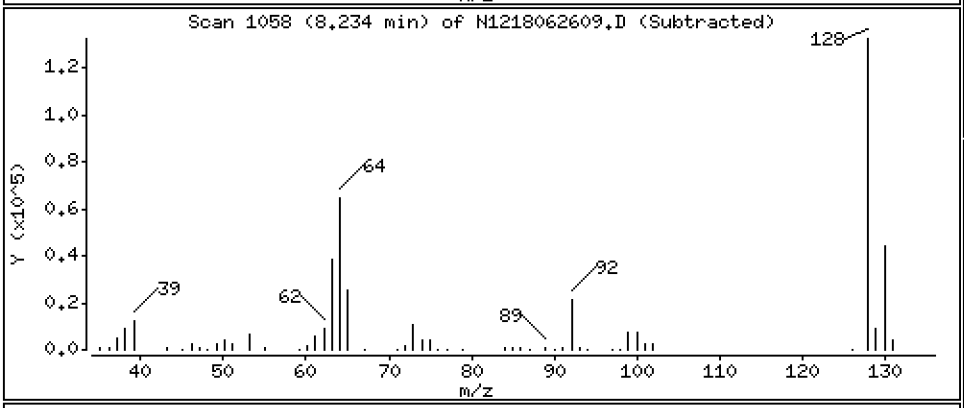
Column diameter: 0.32

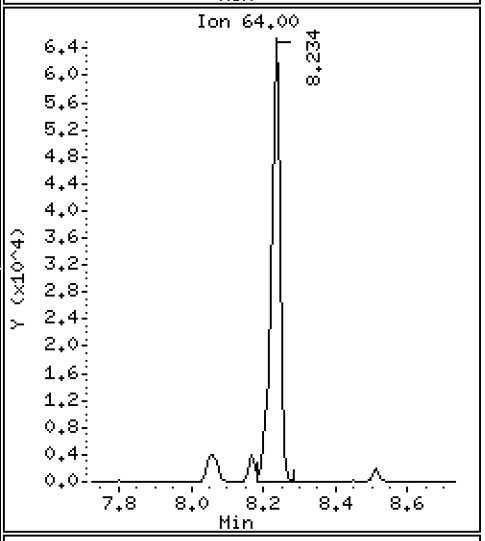
6 2-Chlorophenol

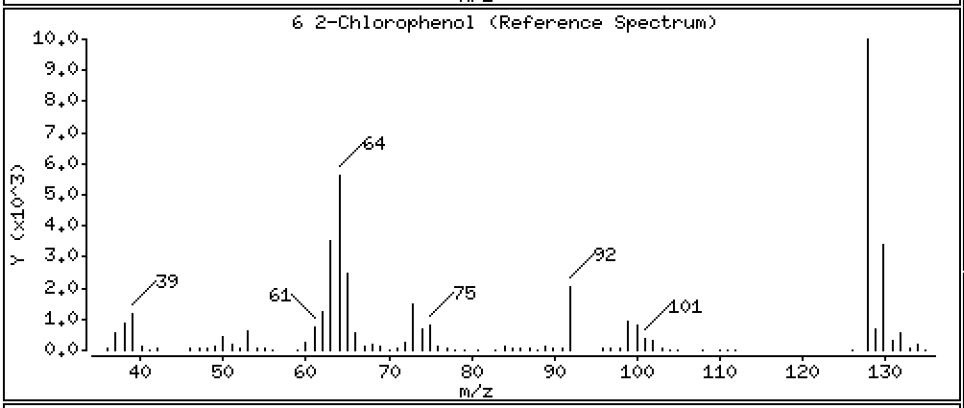
Concentration: 16.94 ug/mL

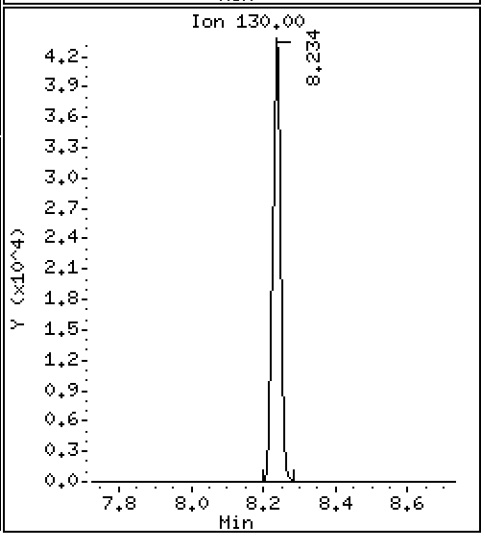


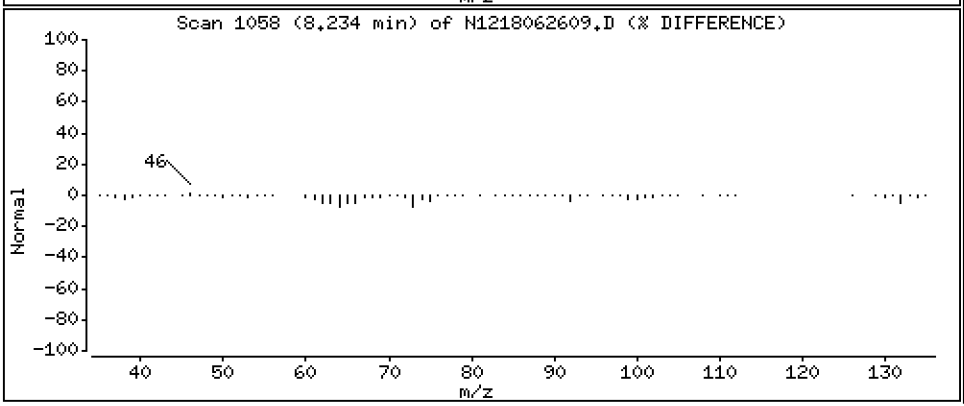












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

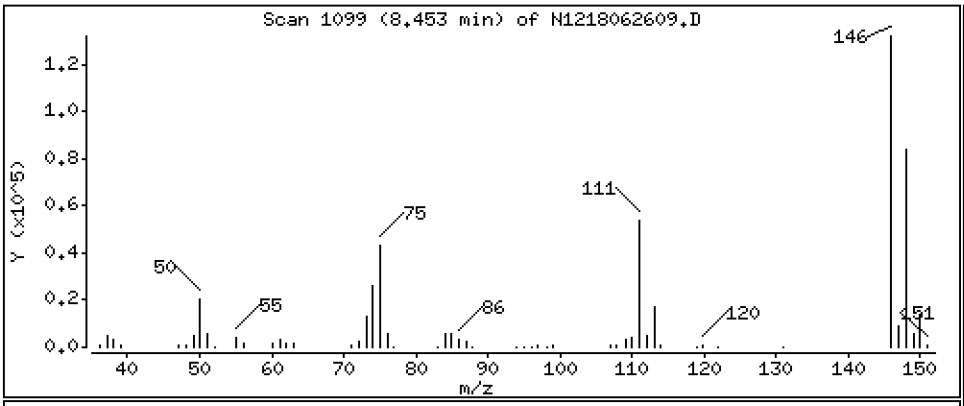
Operator: JZ

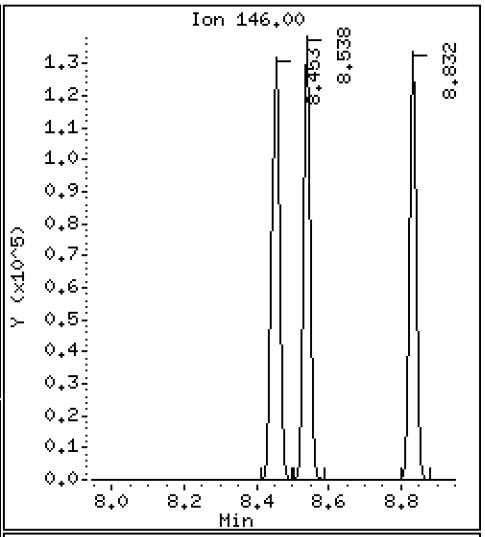
Column phase: ZB-5msi

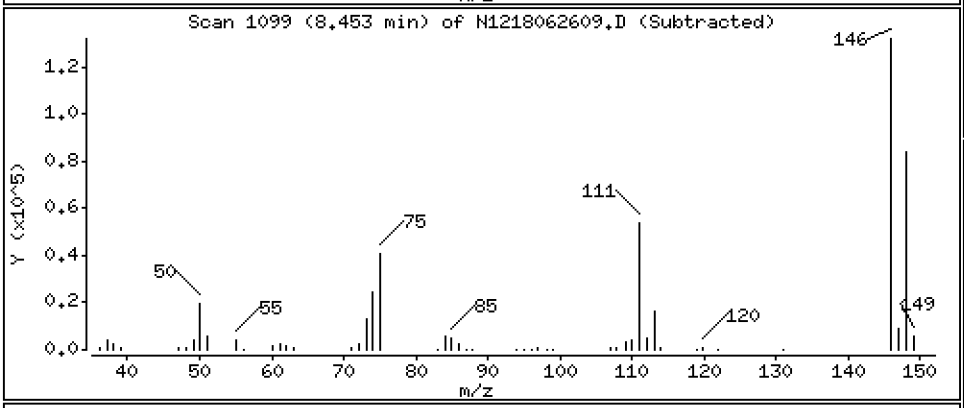
Column diameter: 0.32

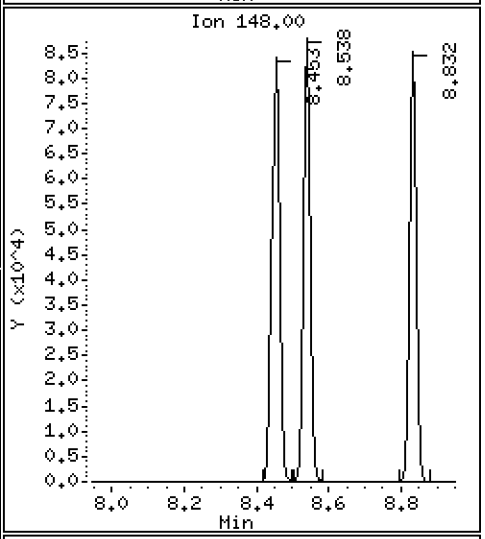
7 1,3-Dichlorobenzene

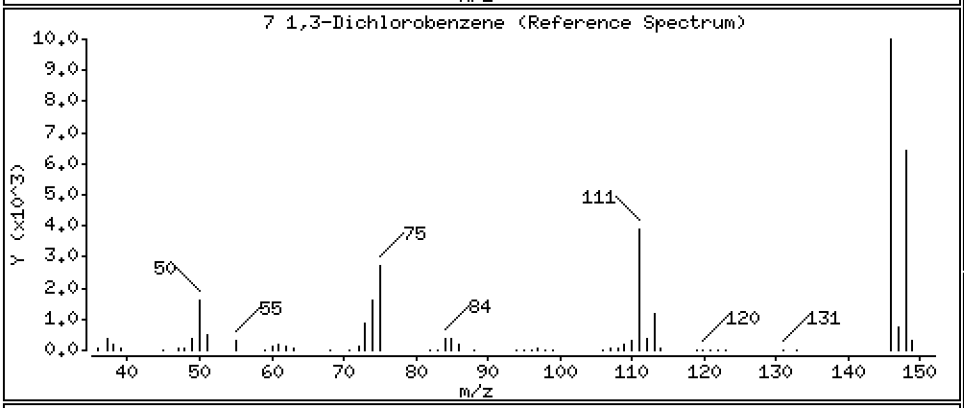
Concentration: 15.54 ug/mL

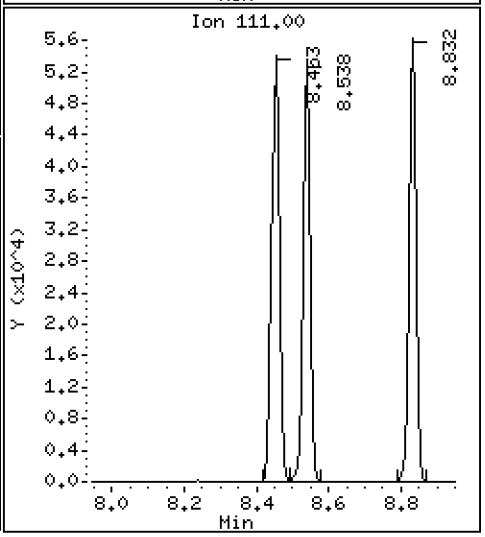


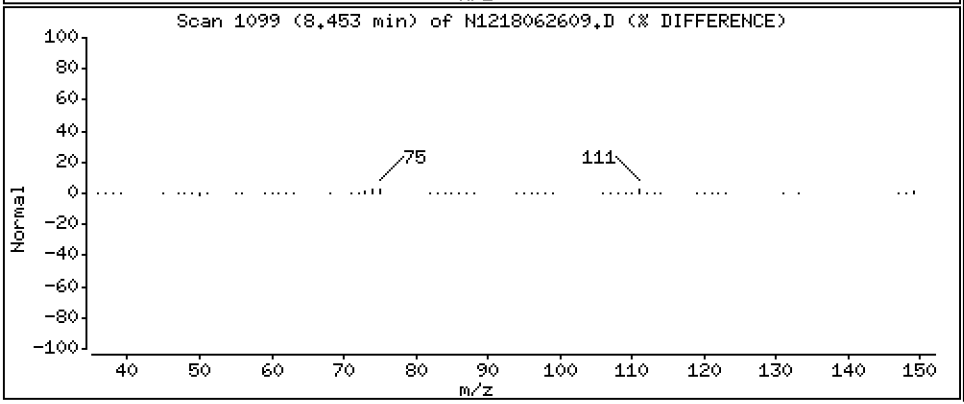












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

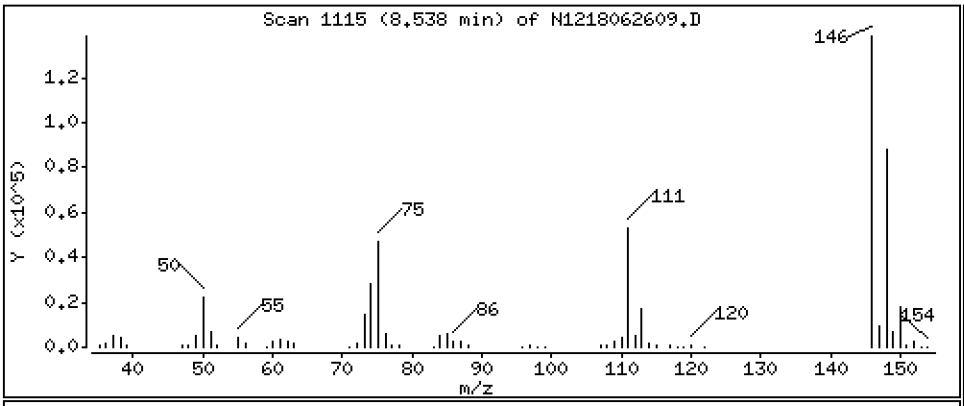
Operator: JZ

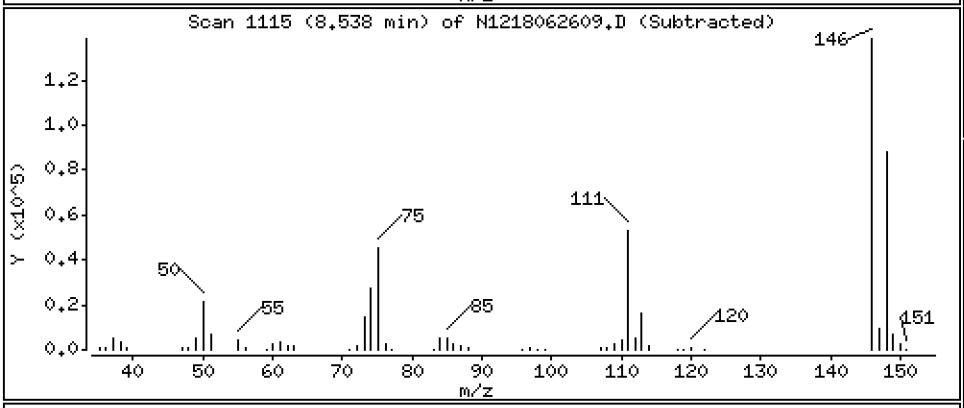
Column phase: ZB-5msi

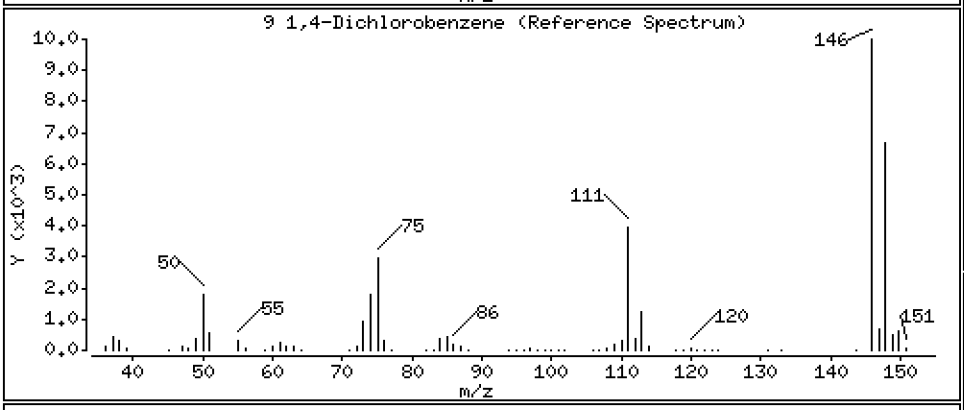
Column diameter: 0.32

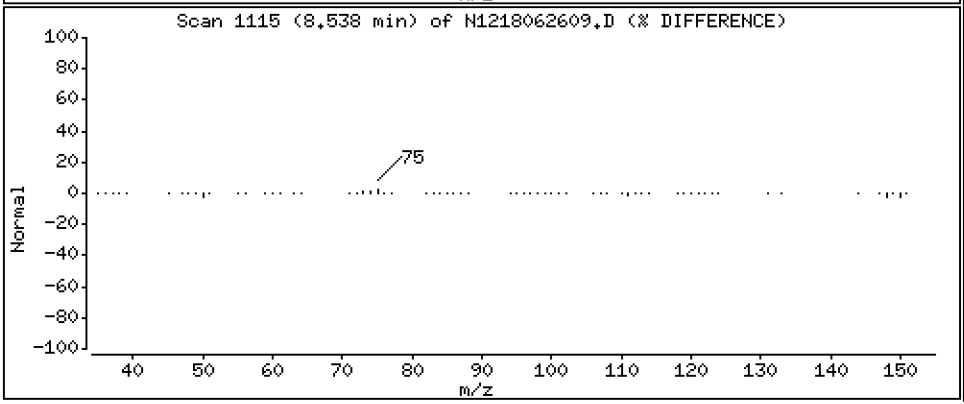
9 1,4-Dichlorobenzene

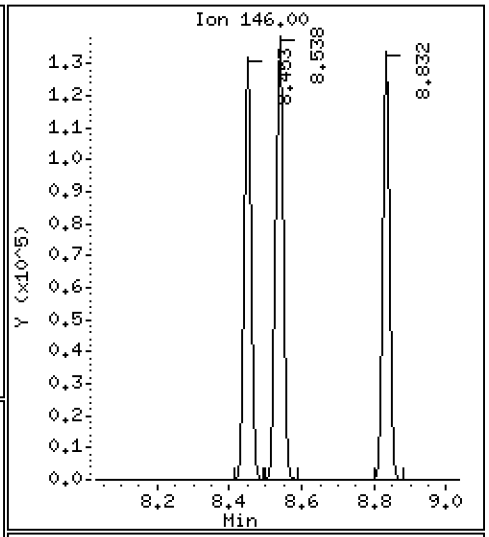
Concentration: 15.68 ug/mL

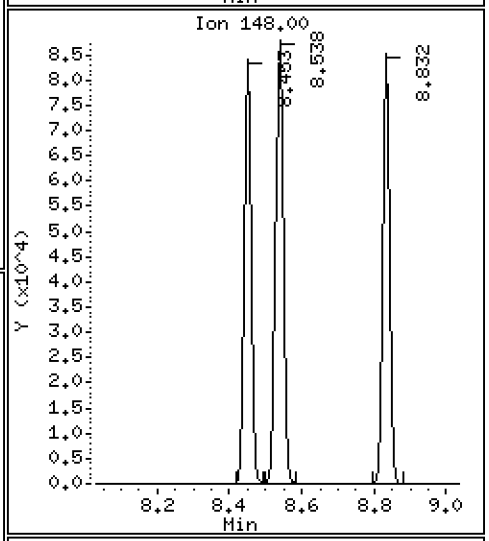


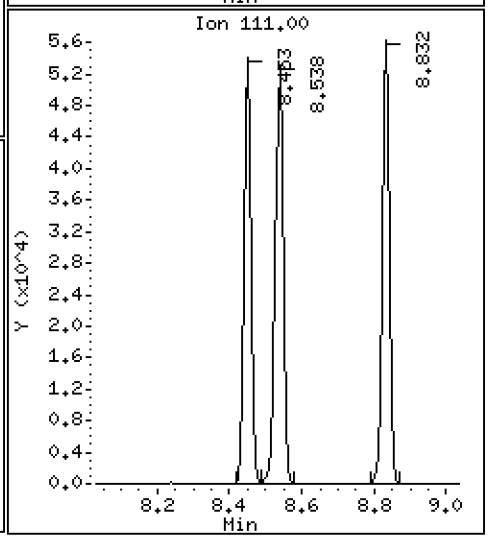












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

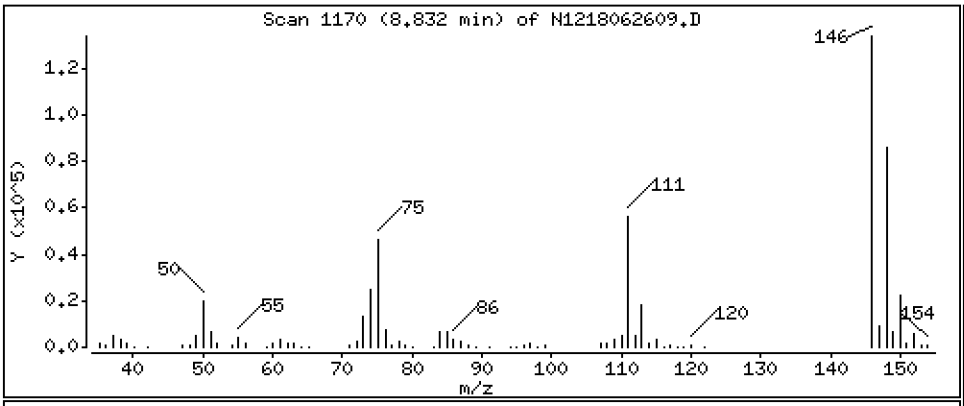
Operator: JZ

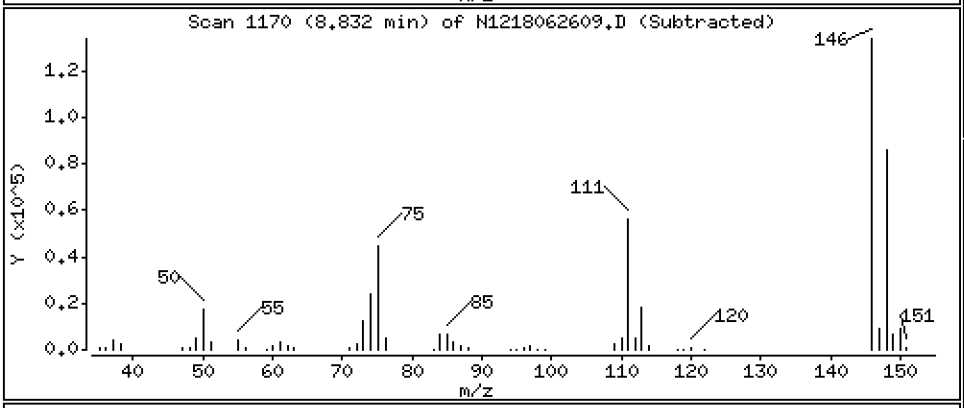
Column phase: ZB-5msi

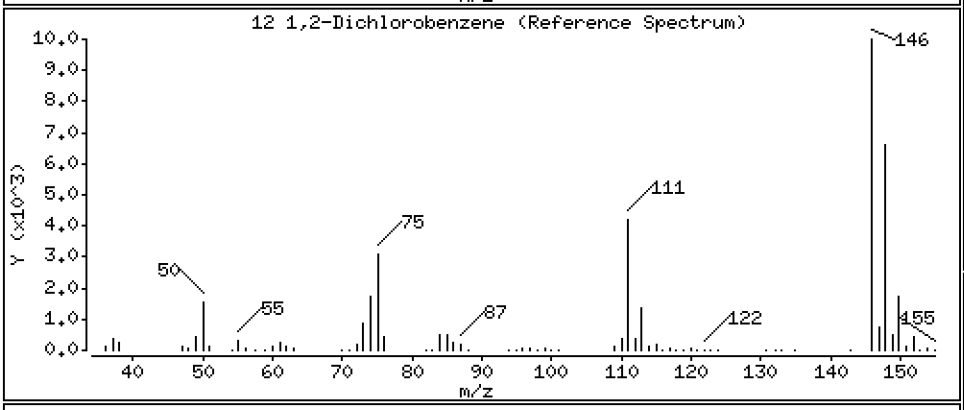
Column diameter: 0.32

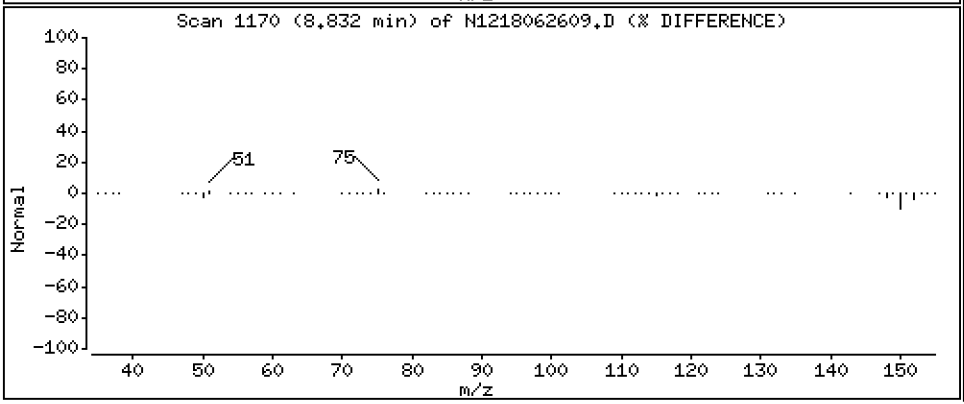
12 1,2-Dichlorobenzene

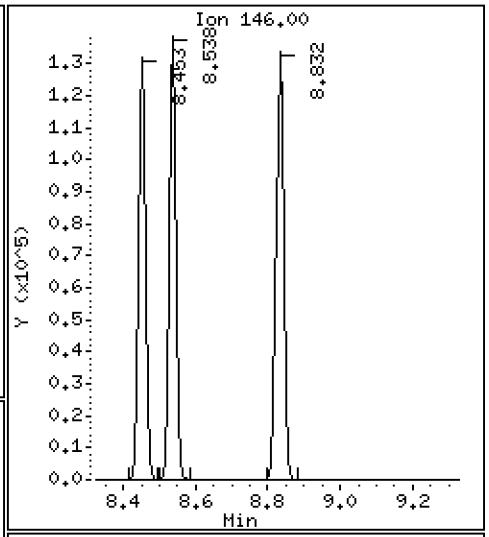
Concentration: 16.38 ug/mL

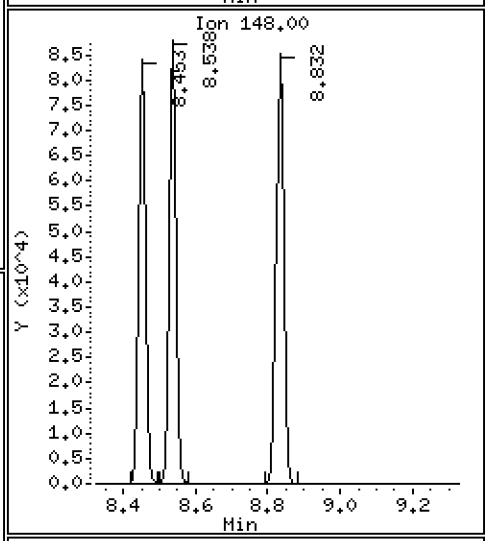


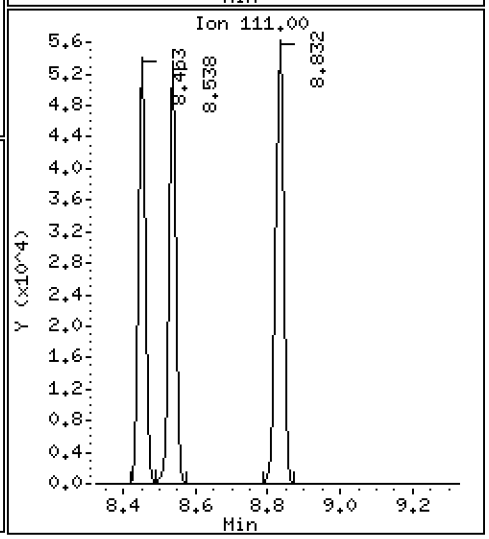












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

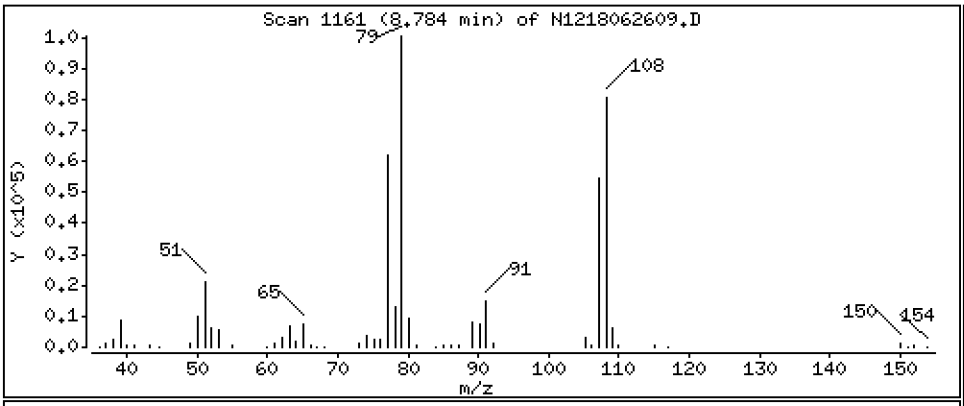
Operator: JZ

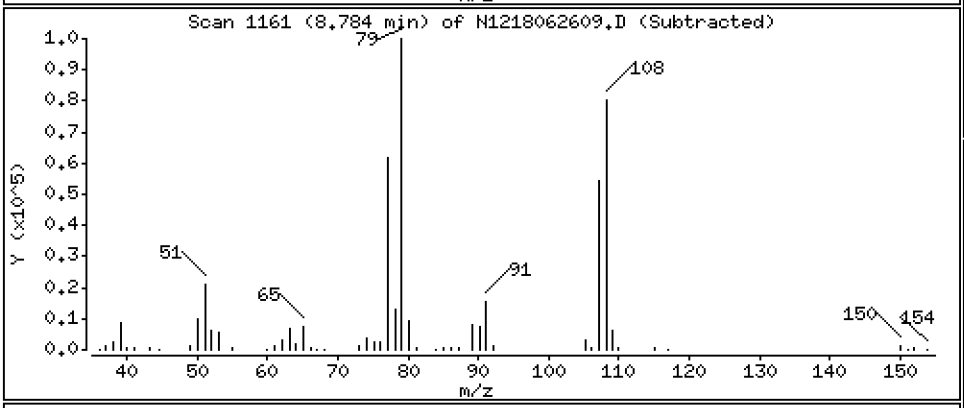
Column phase: ZB-5msi

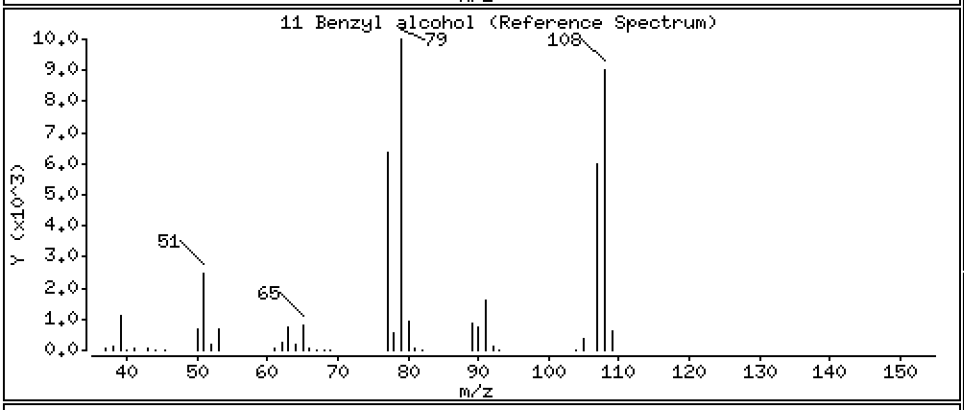
Column diameter: 0.32

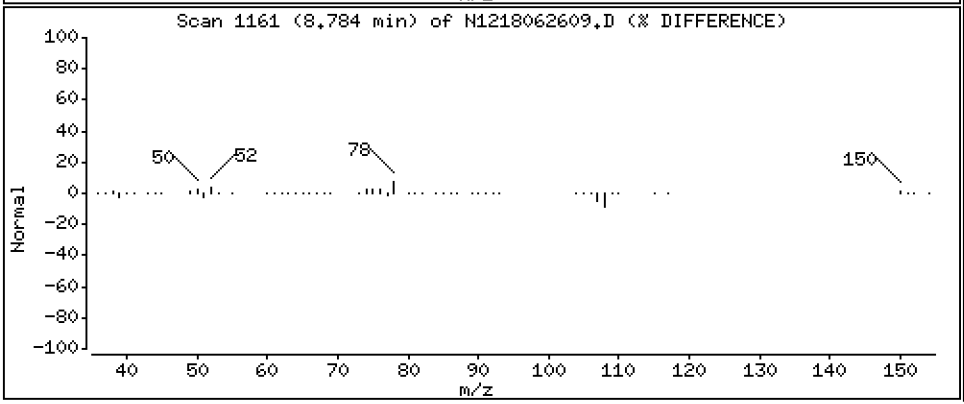
11 Benzyl alcohol

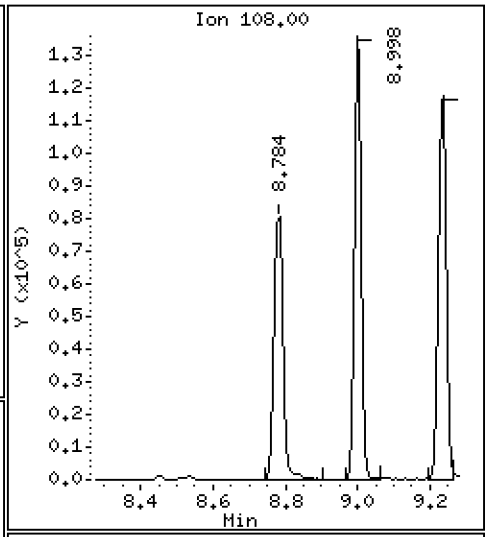
Concentration: 15.23 ug/mL

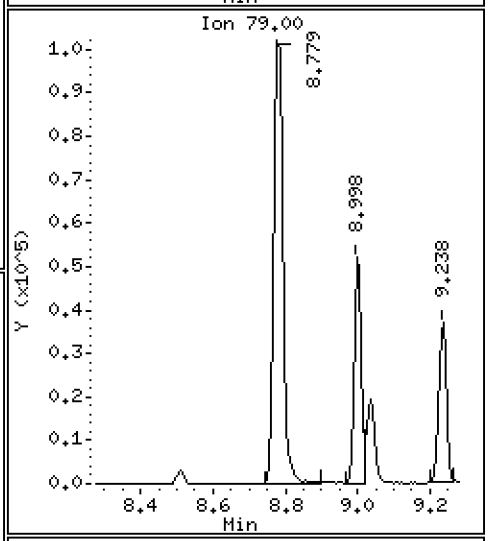


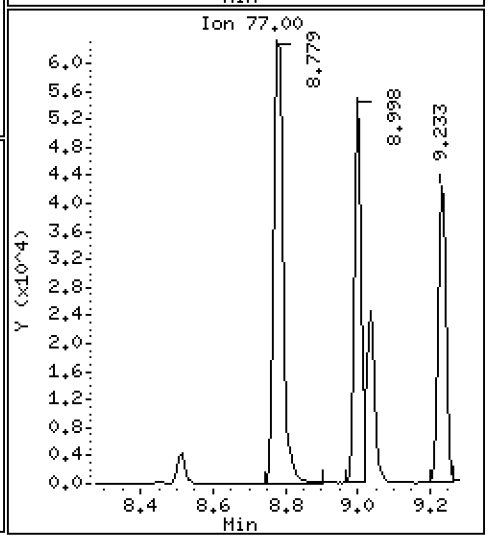












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

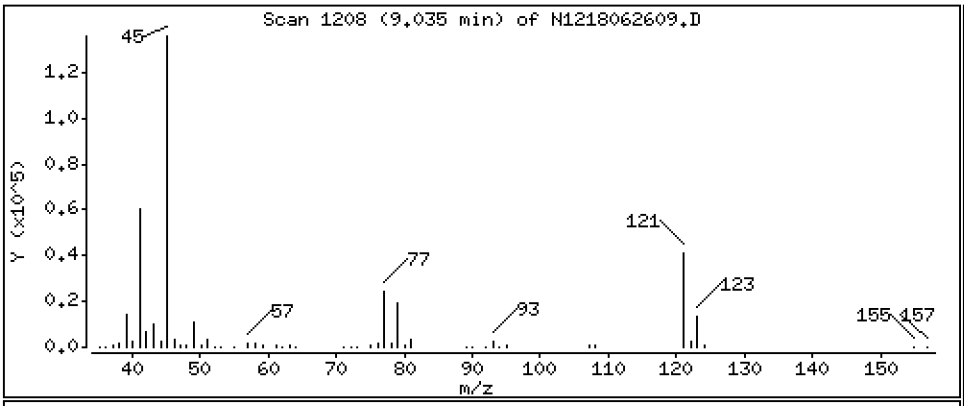
Operator: JZ

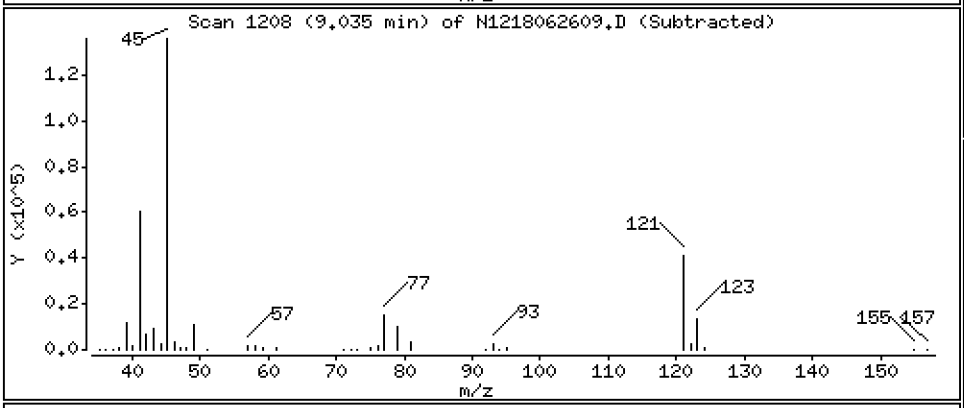
Column phase: ZB-5msi

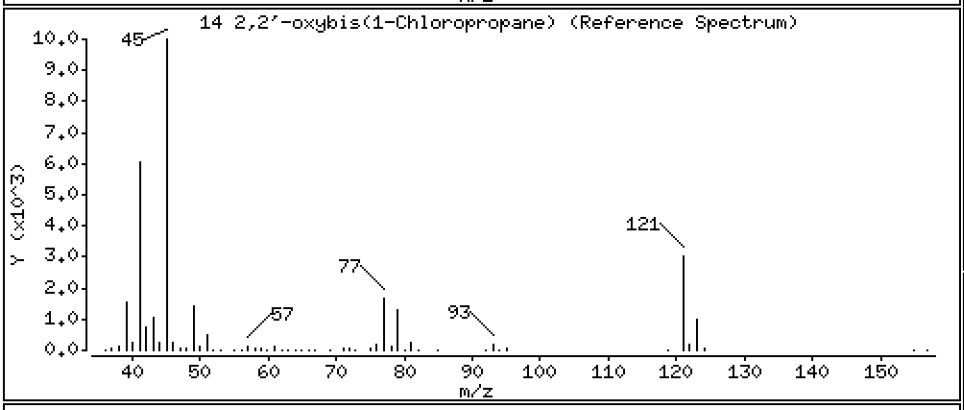
Column diameter: 0.32

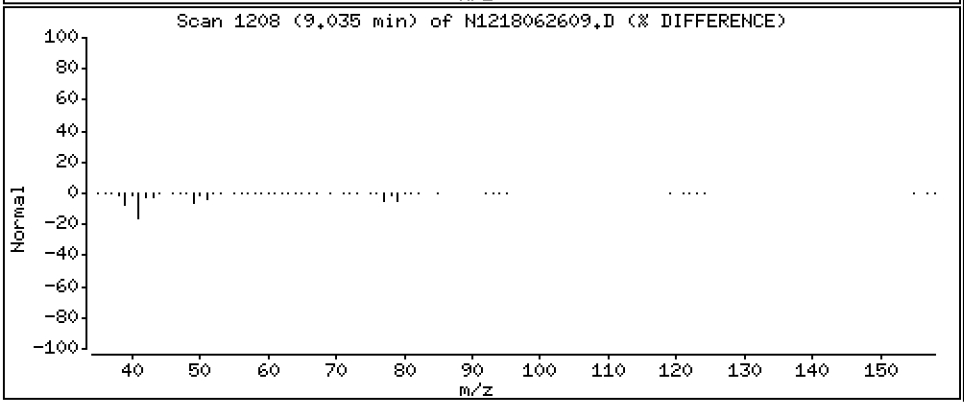
14 2,2'-oxybis(1-Chloropropane)

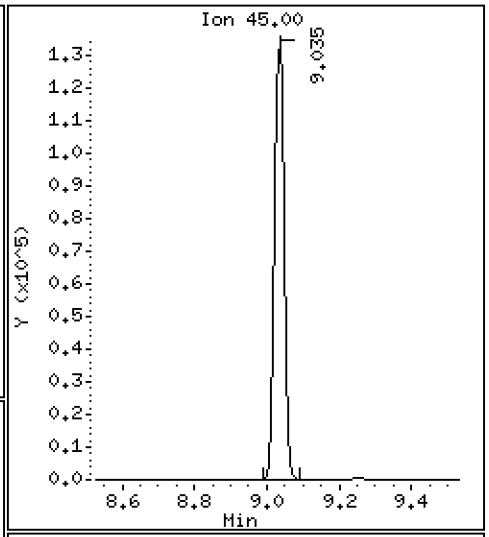
Concentration: 19.13 ug/mL

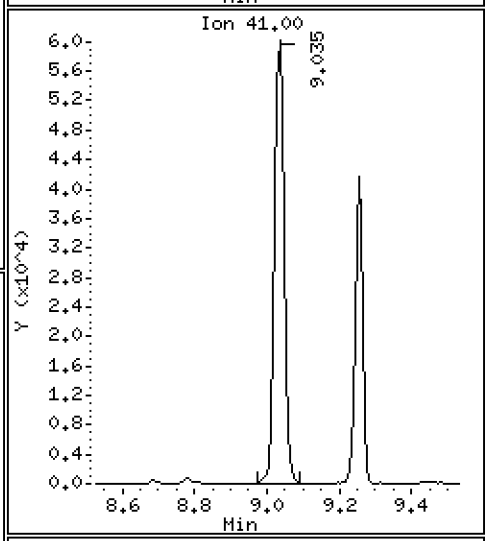


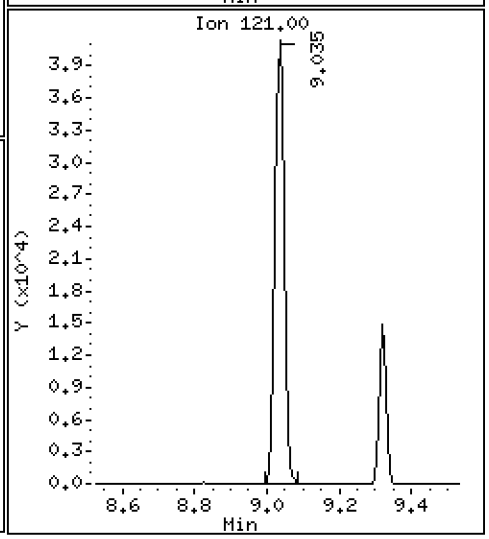












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

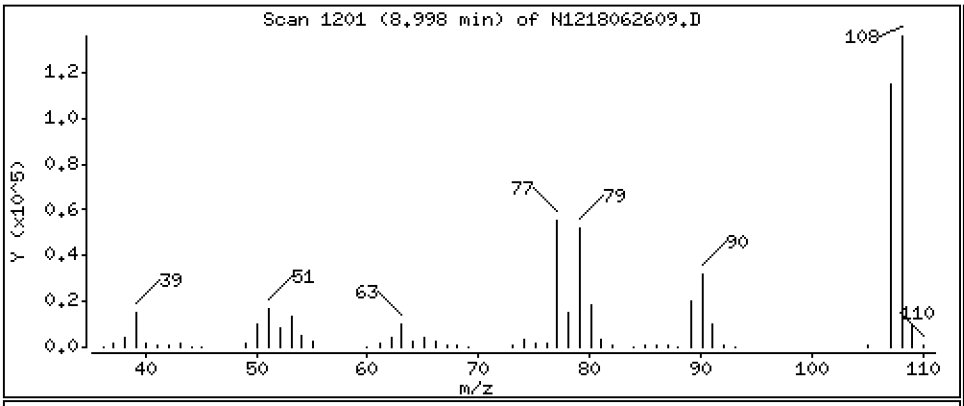
Operator: JZ

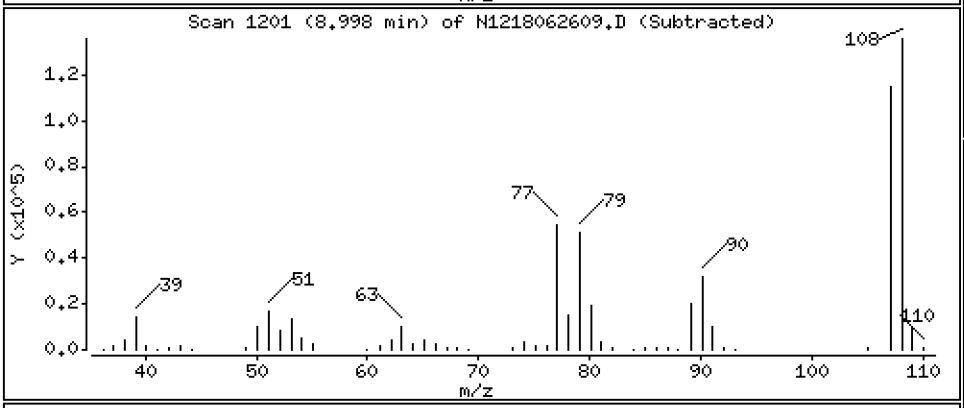
Column phase: ZB-5msi

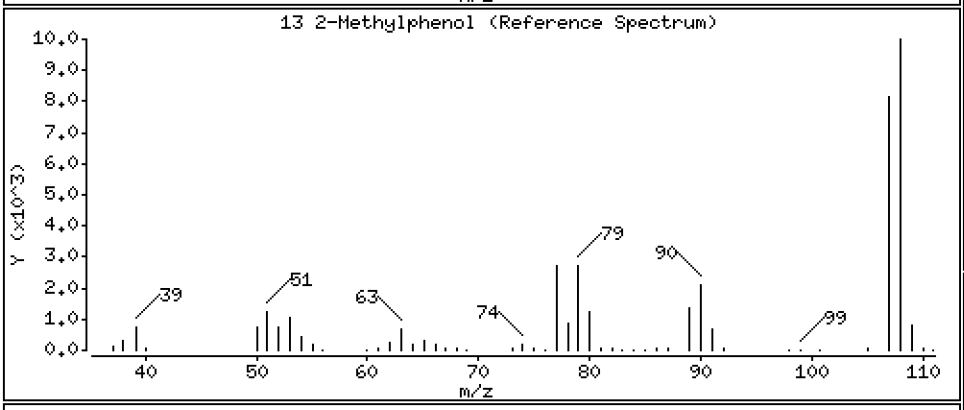
Column diameter: 0.32

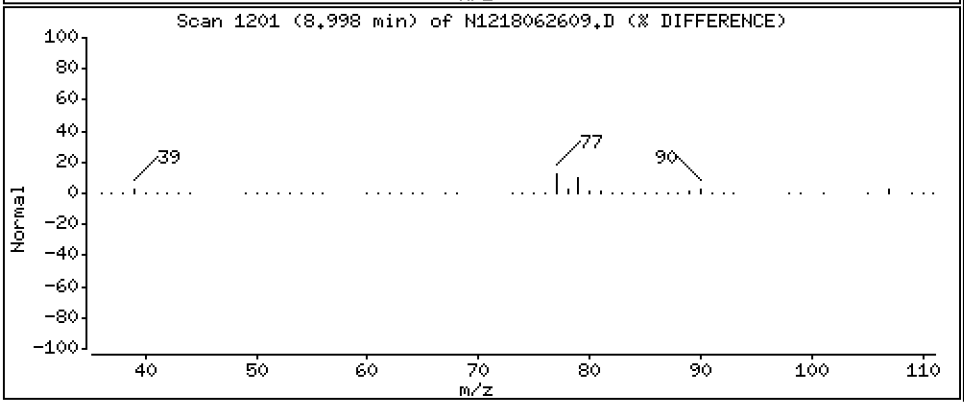
13 2-Methylphenol

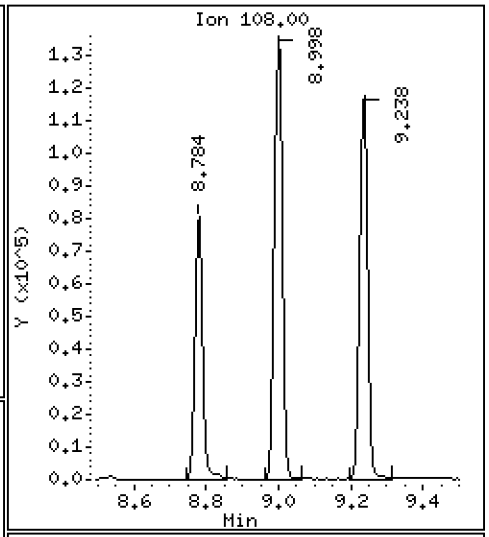
Concentration: 16.97 ug/mL

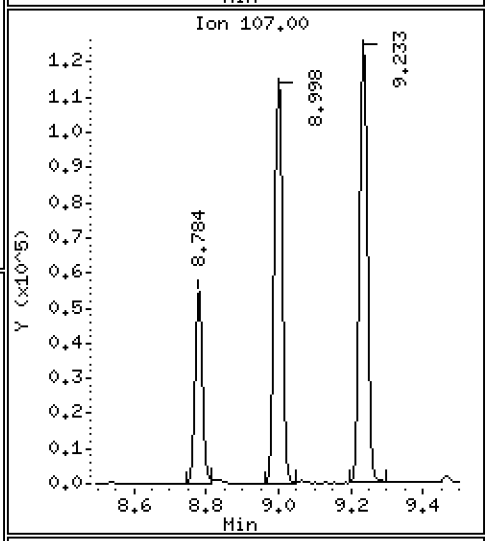


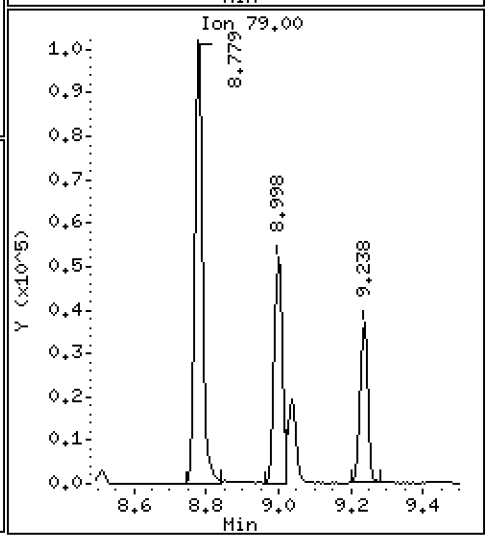












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

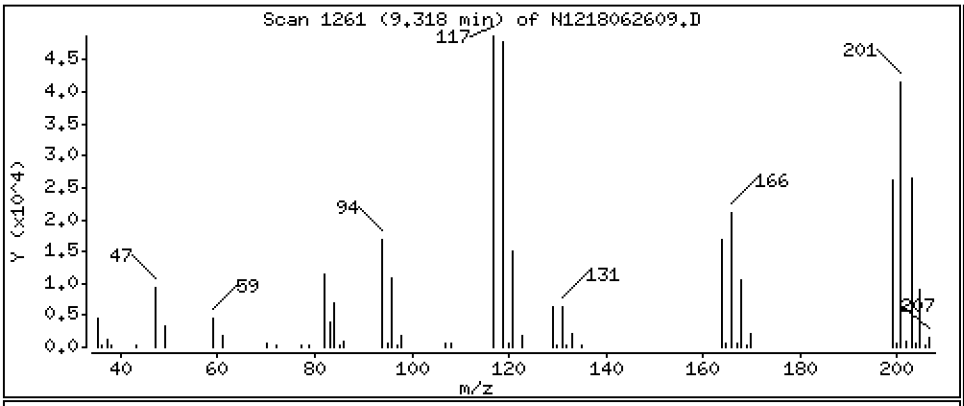
Operator: JZ

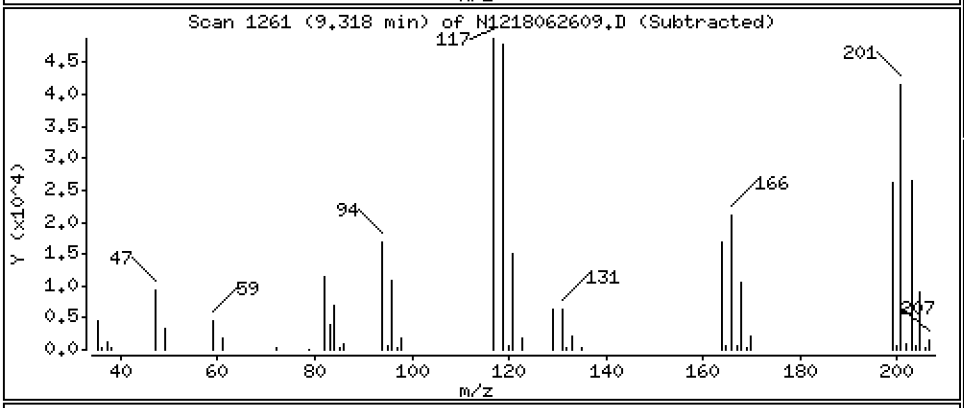
Column phase: ZB-5msi

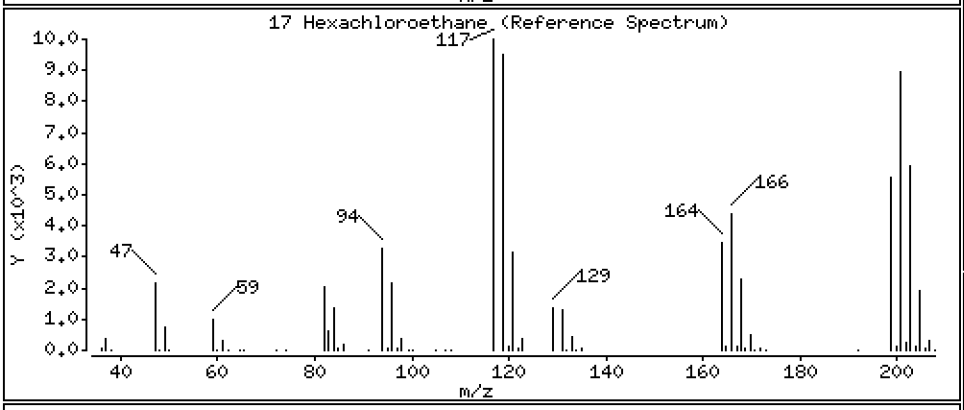
Column diameter: 0.32

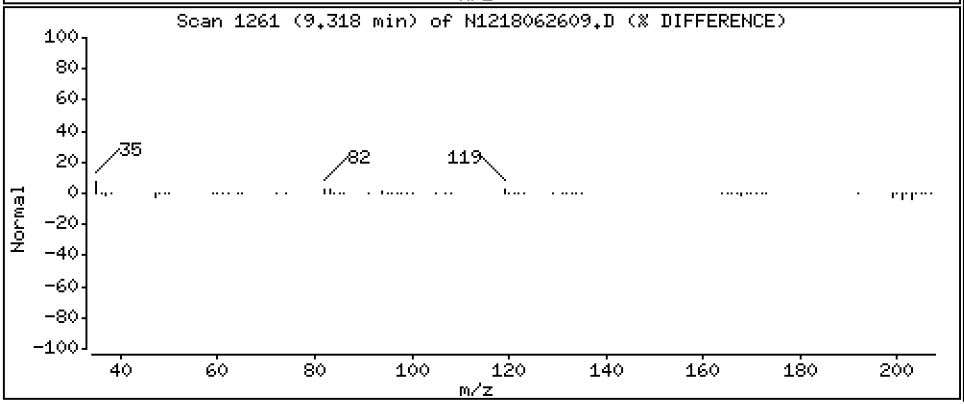
17 Hexachloroethane

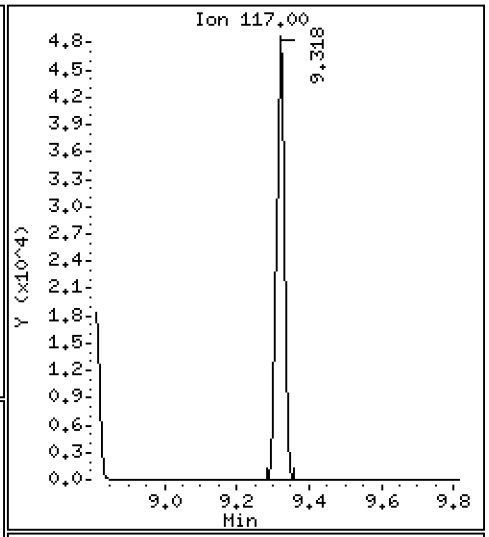
Concentration: 14.85 ug/mL

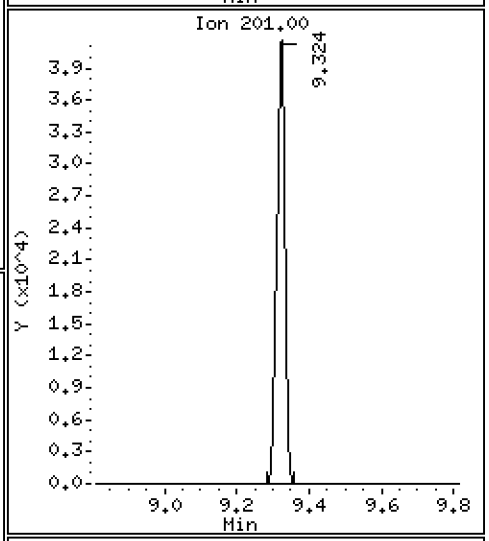


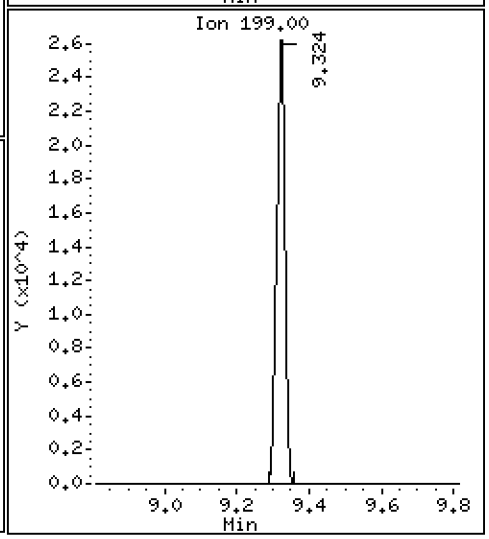












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

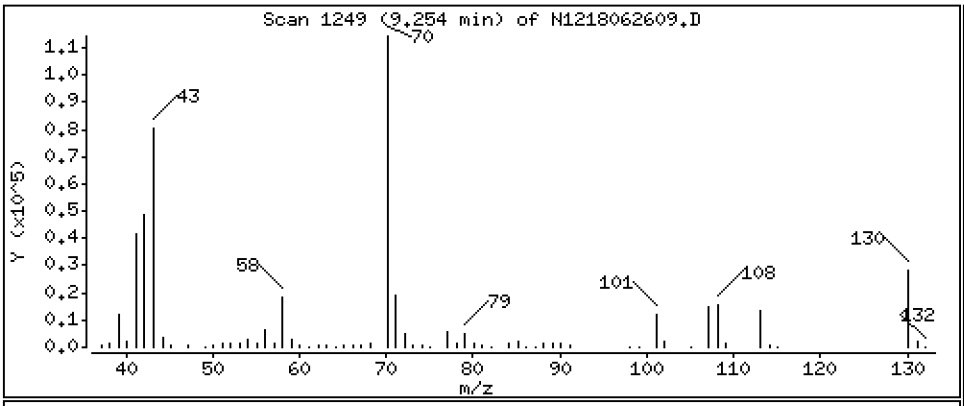
Operator: JZ

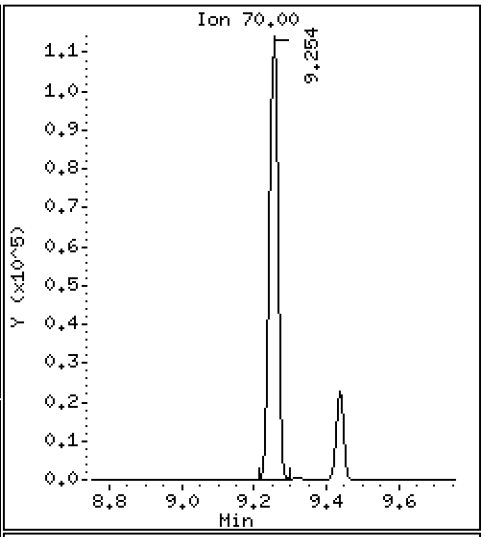
Column phase: ZB-5msi

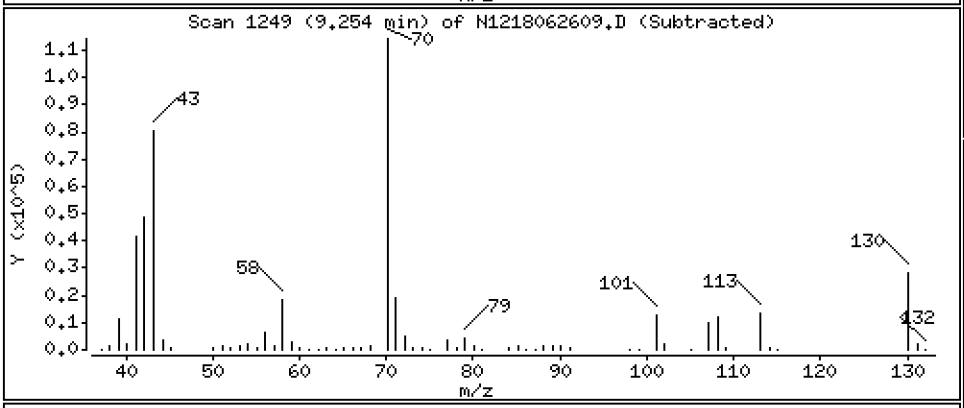
Column diameter: 0.32

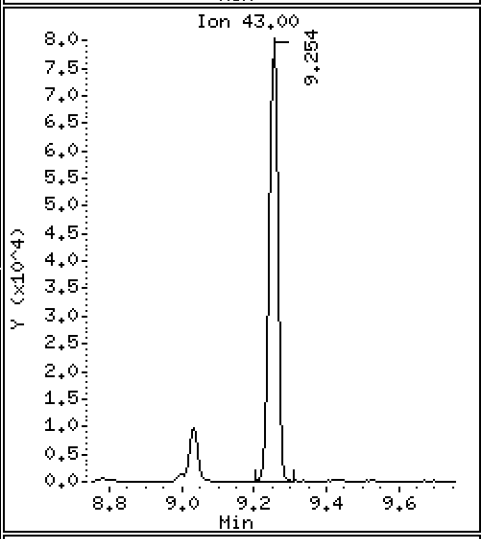
16 N-Nitroso-di-n-propylamine

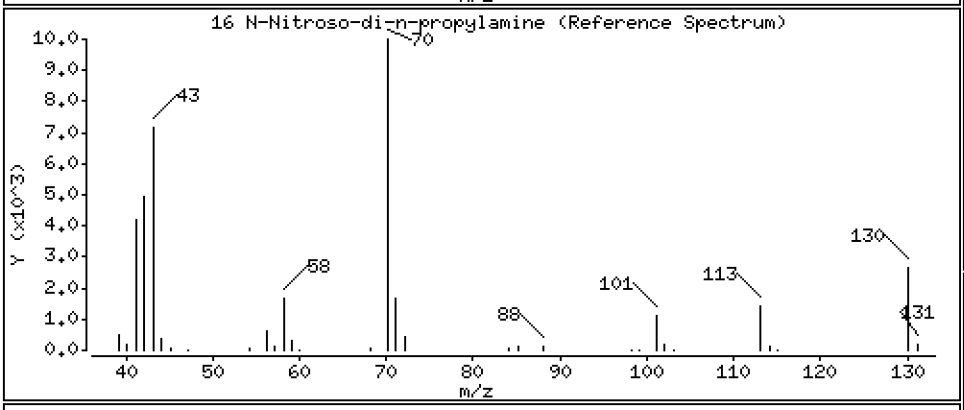
Concentration: 20.38 ug/mL

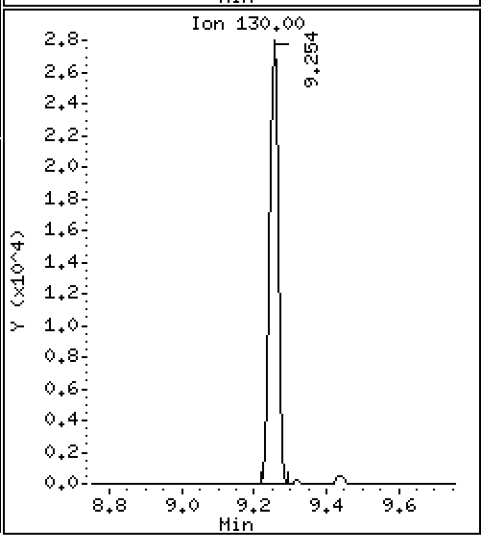


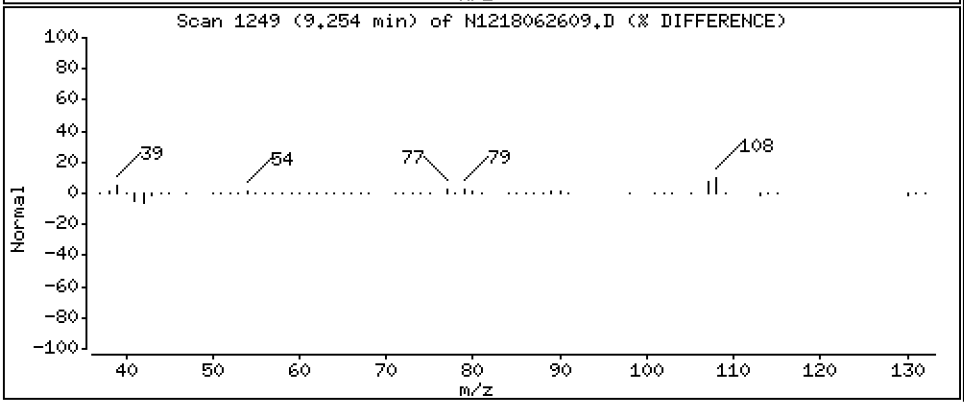












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

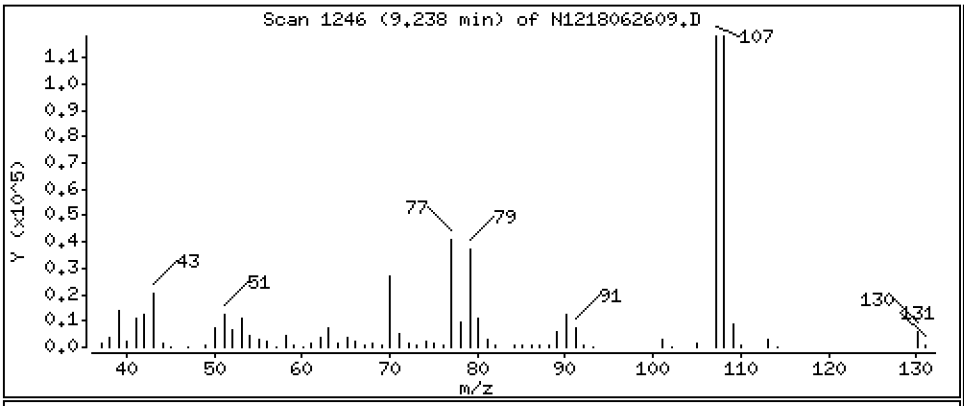
Operator: JZ

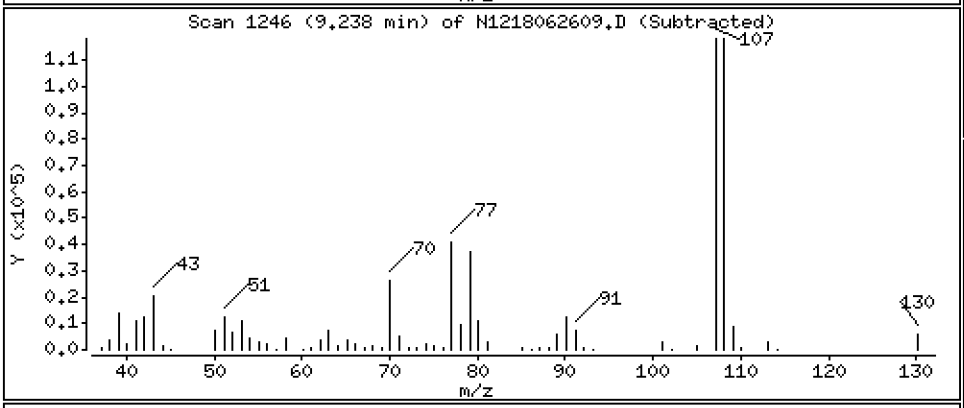
Column phase: ZB-5msi

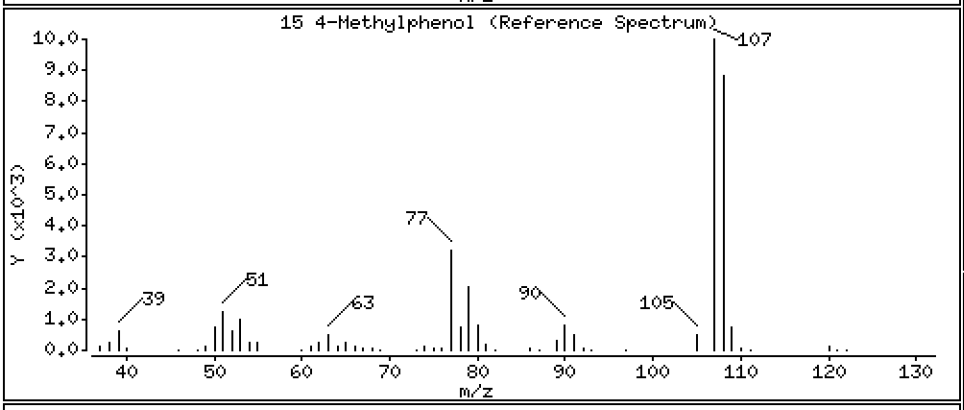
Column diameter: 0.32

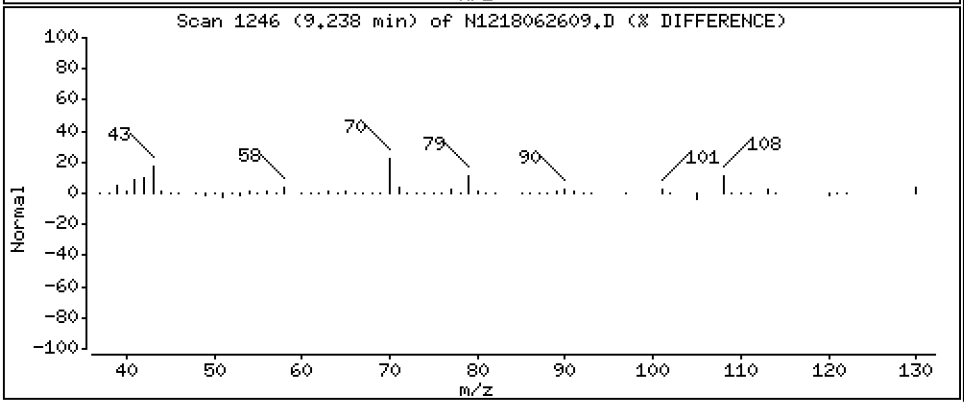
15 4-Methylphenol

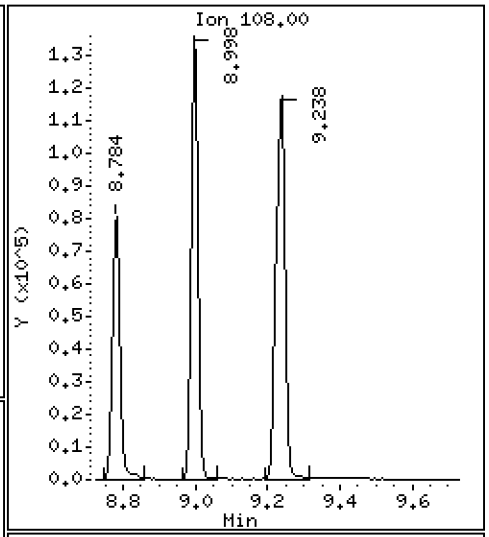
Concentration: 17.46 ug/mL

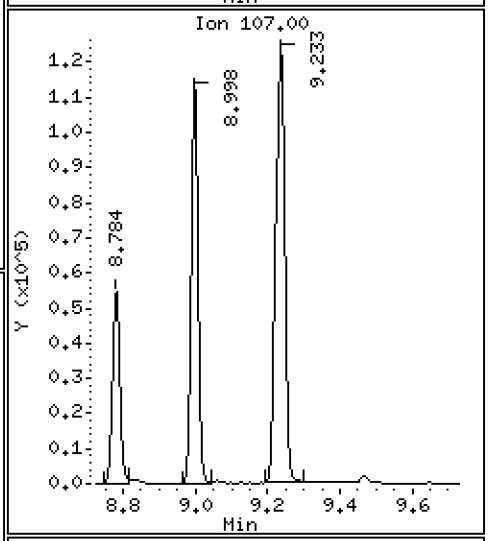


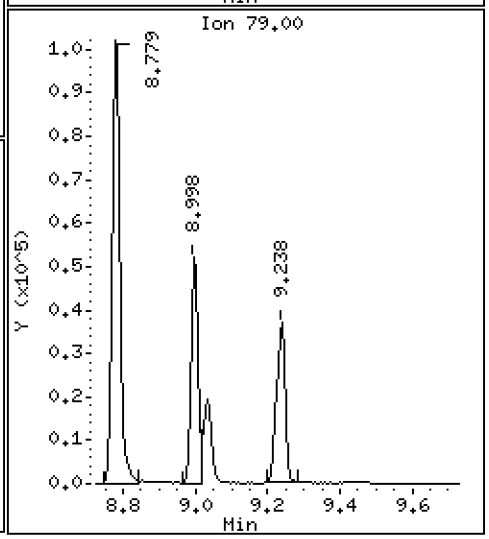












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

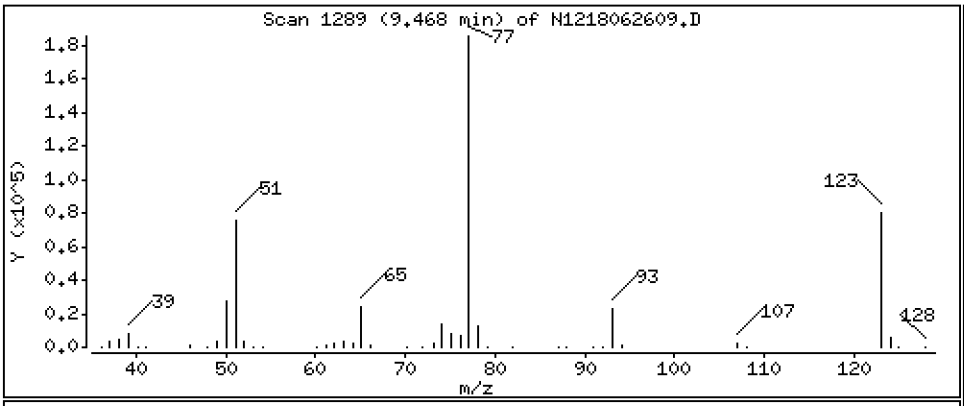
Operator: JZ

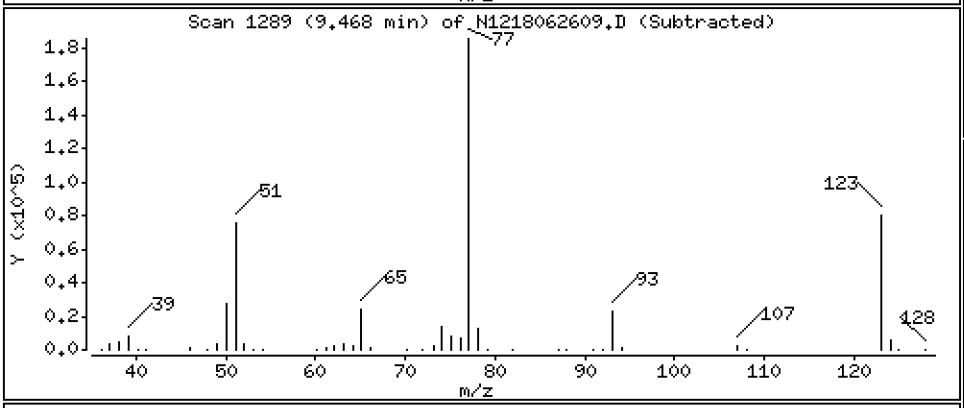
Column phase: ZB-5msi

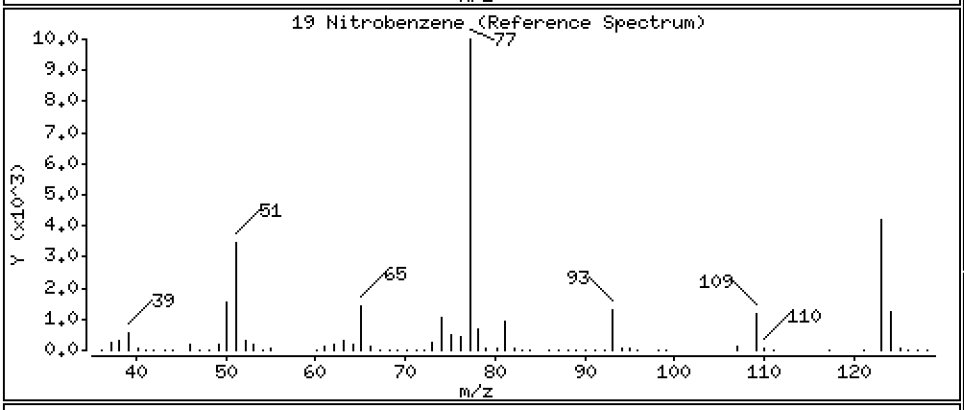
Column diameter: 0.32

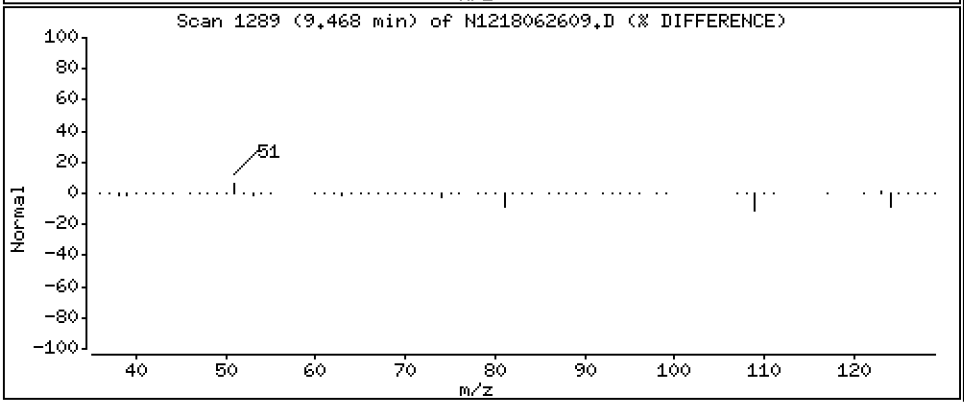
19 Nitrobenzene

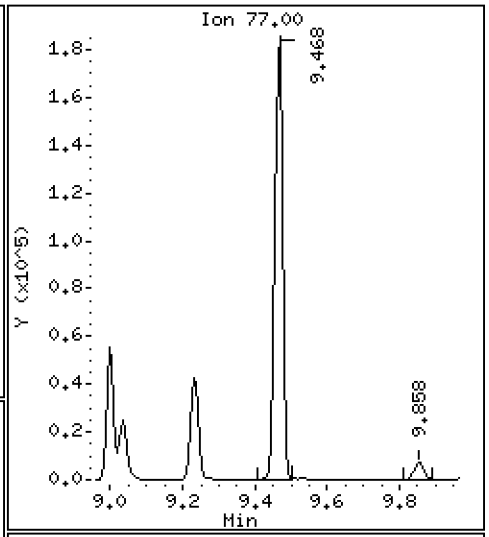
Concentration: 19.35 ug/mL

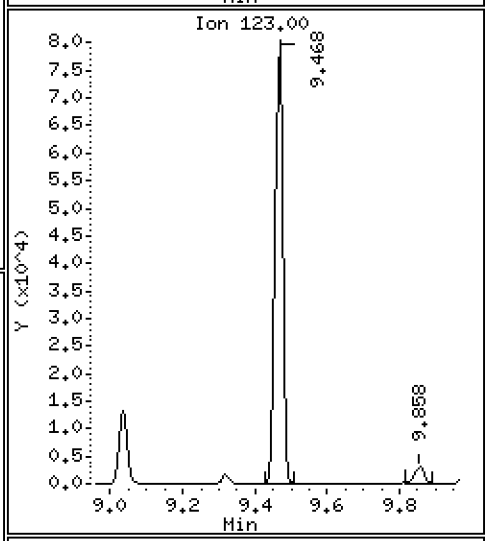


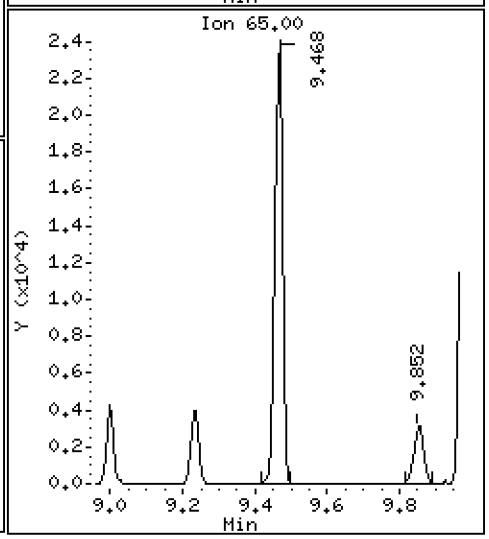












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

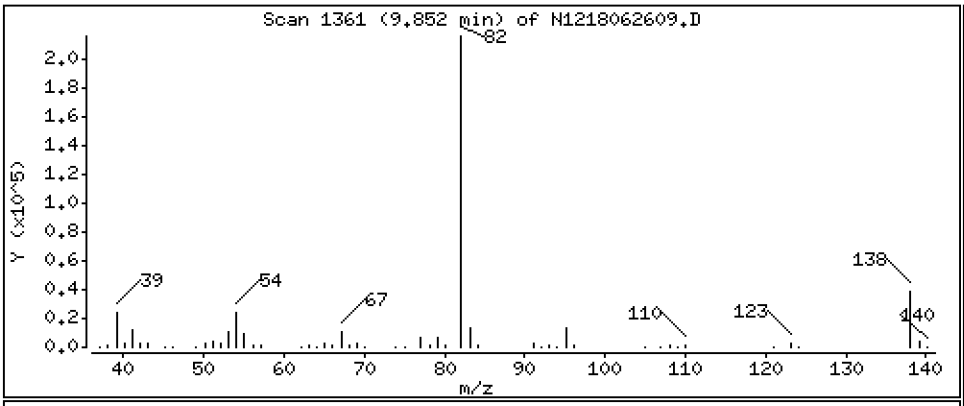
Operator: JZ

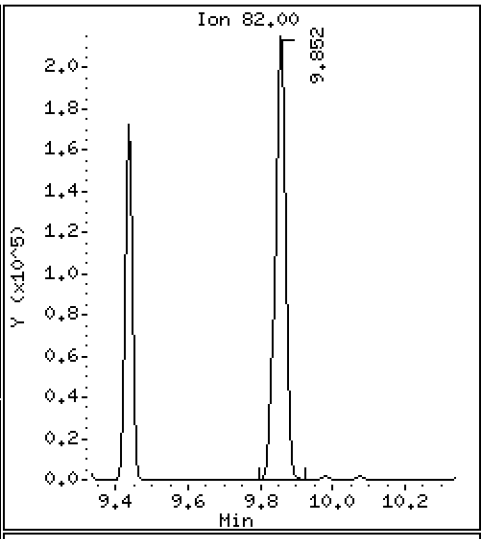
Column phase: ZB-5msi

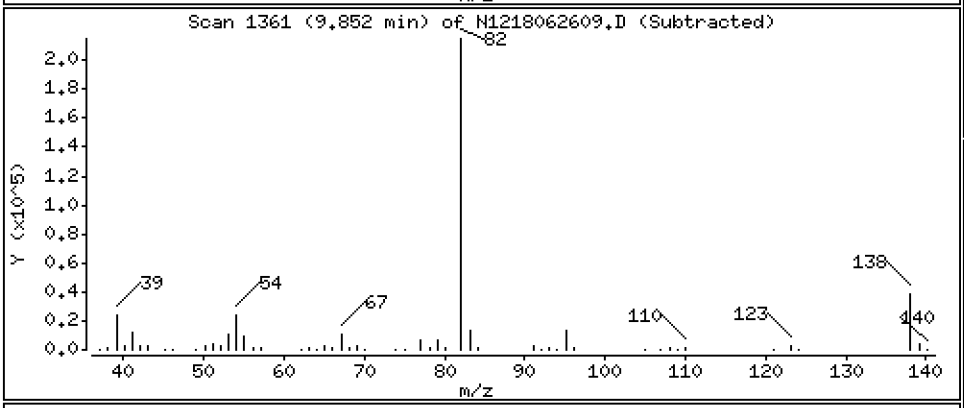
Column diameter: 0.32

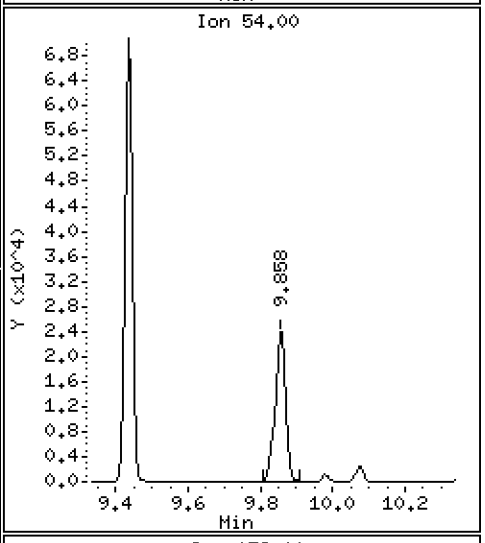
20 Isophorone

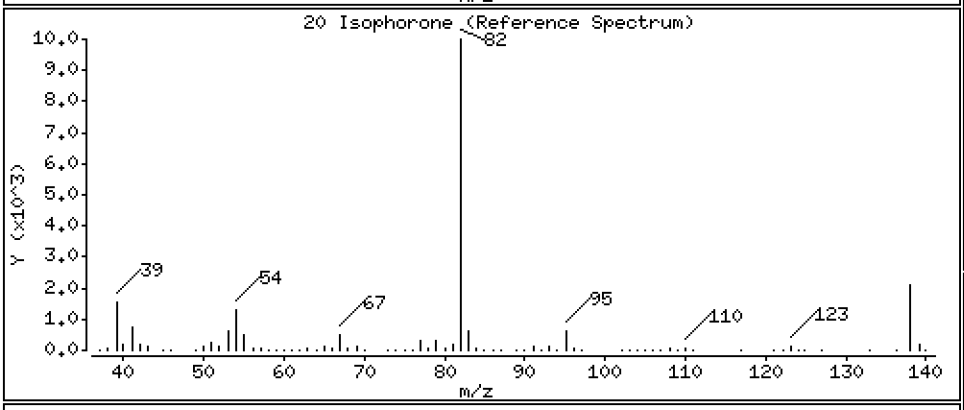
Concentration: 22.41 ug/mL

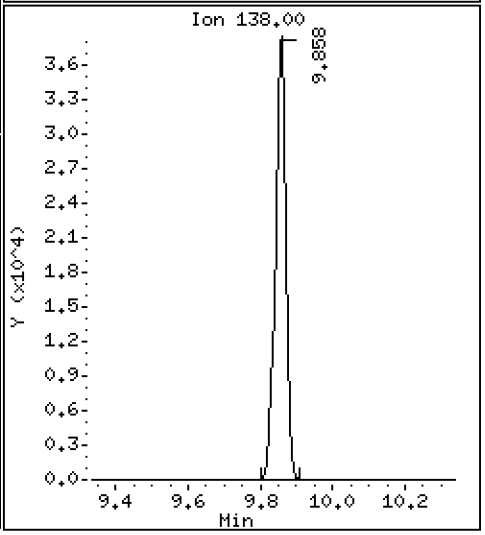


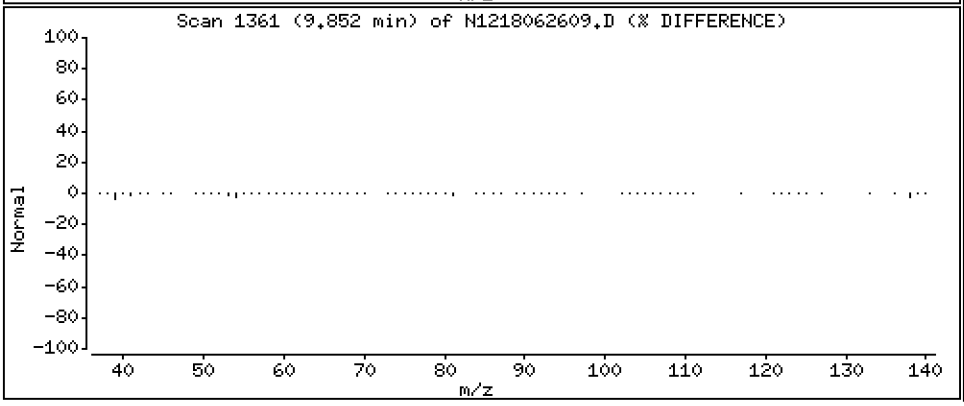












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

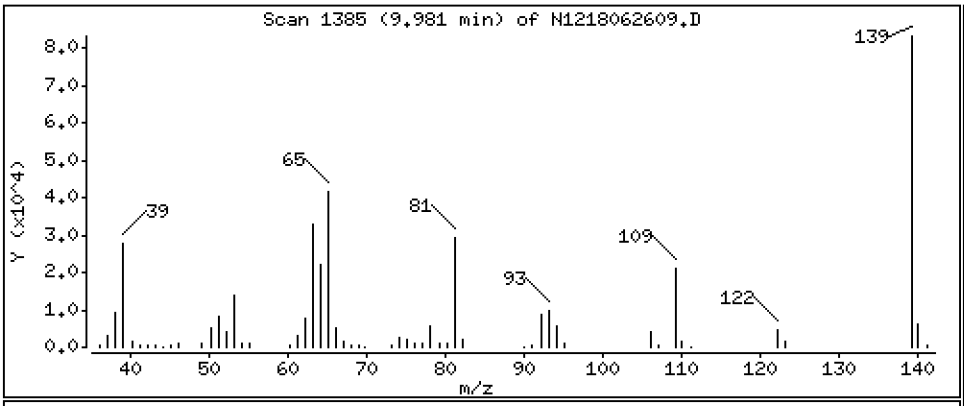
Operator: JZ

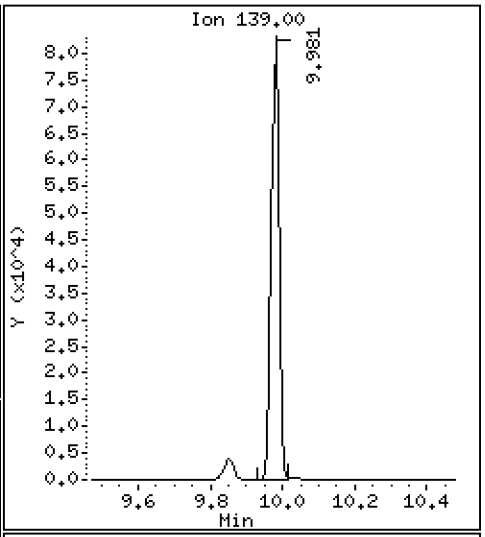
Column phase: ZB-5msi

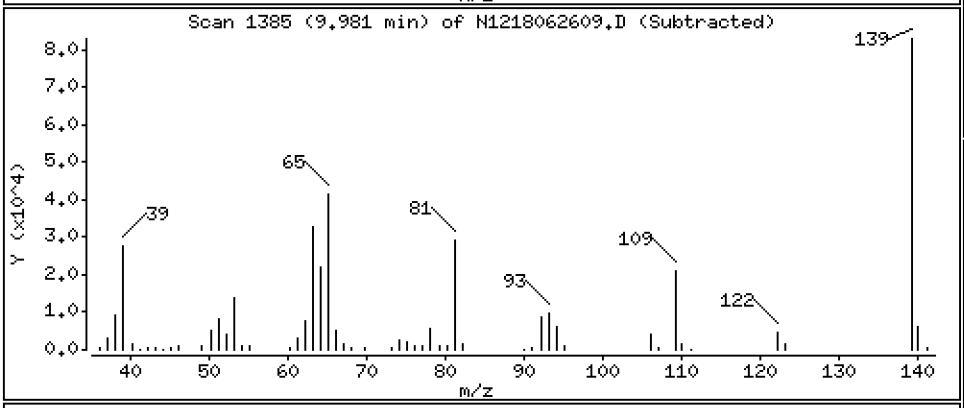
Column diameter: 0.32

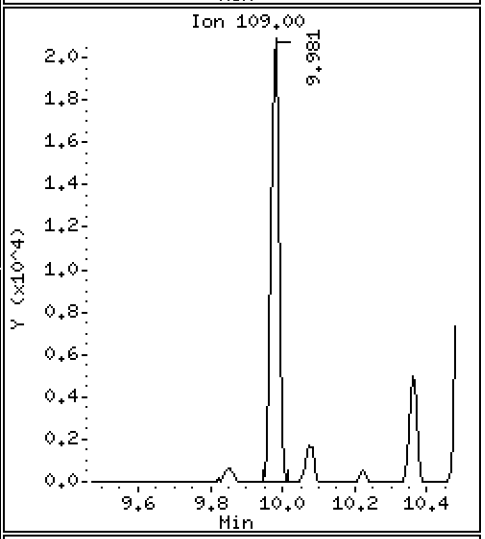
21 2-Nitrophenol

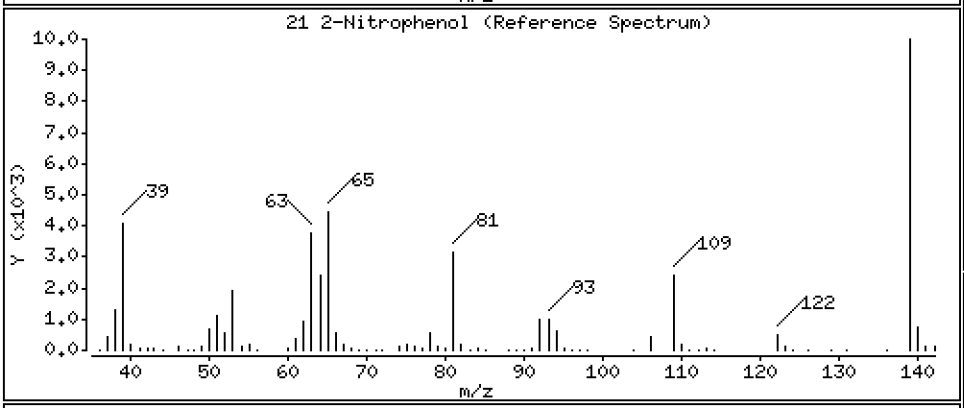
Concentration: 19.05 ug/mL

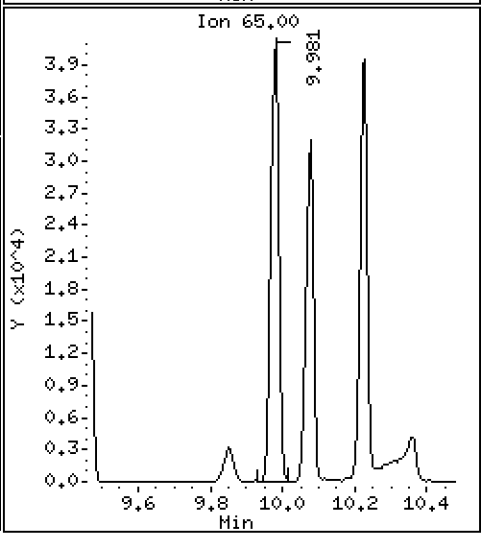


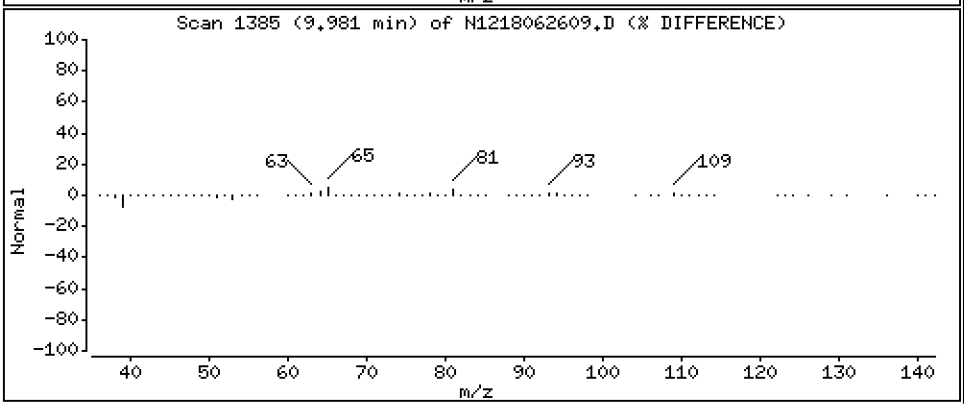












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

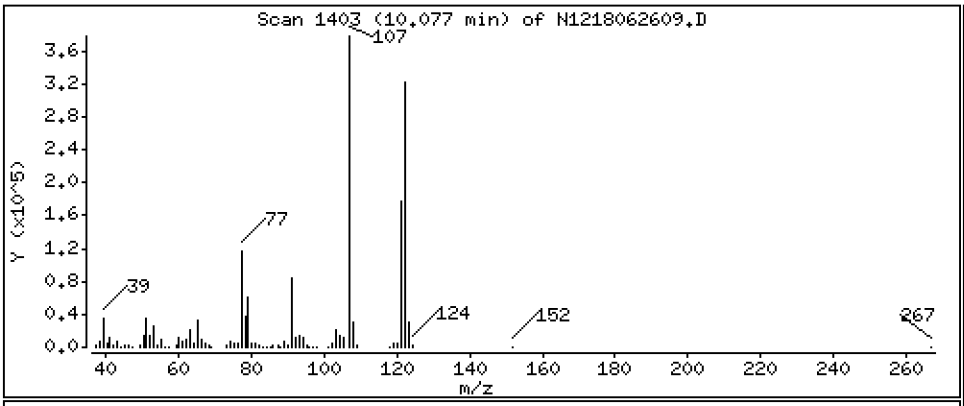
Operator: JZ

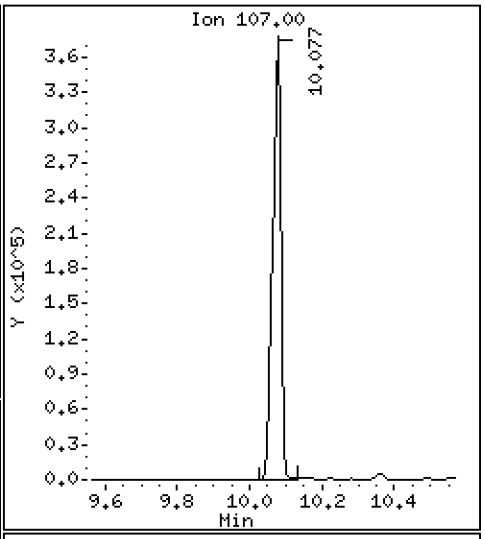
Column phase: ZB-5msi

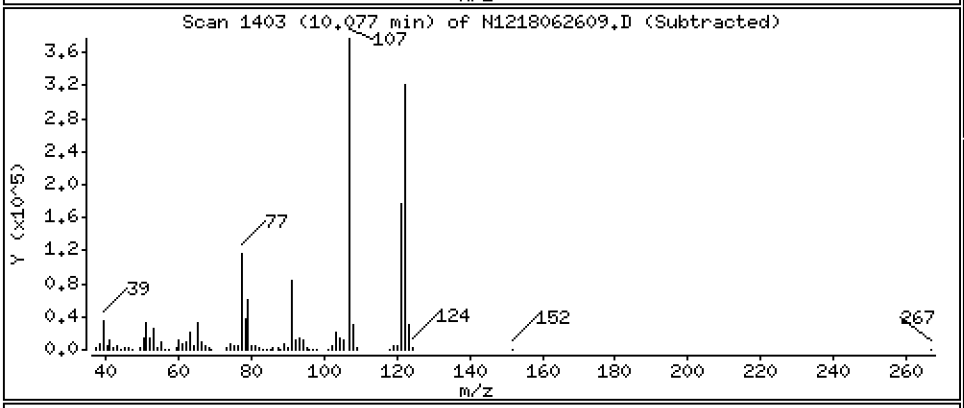
Column diameter: 0.32

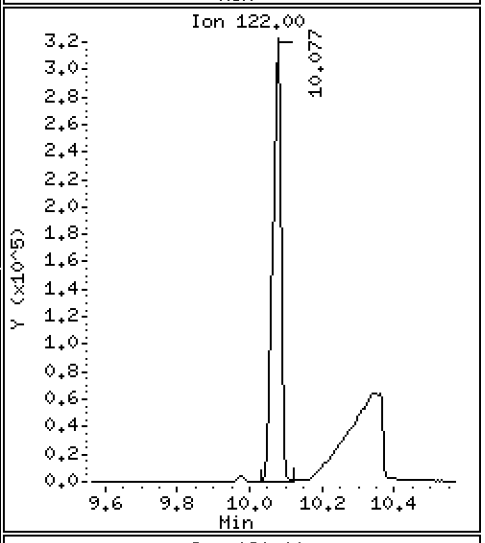
22 2,4-Dimethylphenol

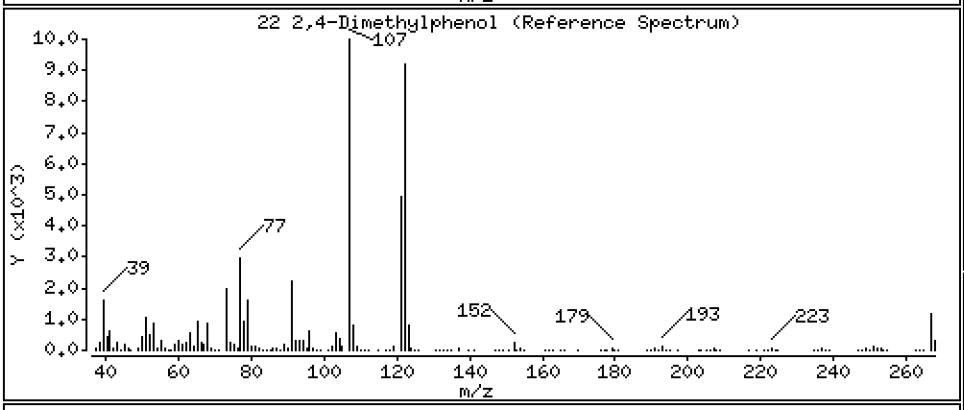
Concentration: 47.21 ug/mL

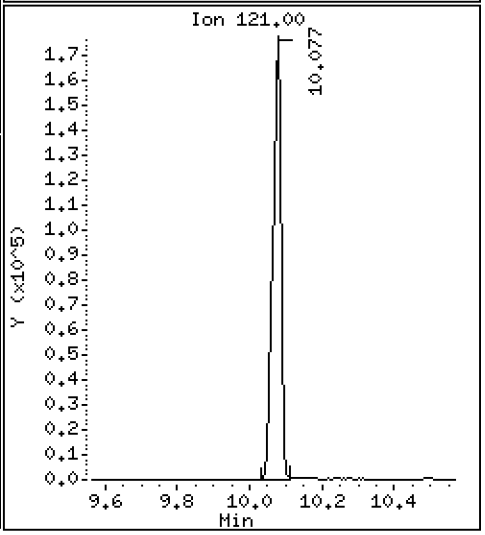


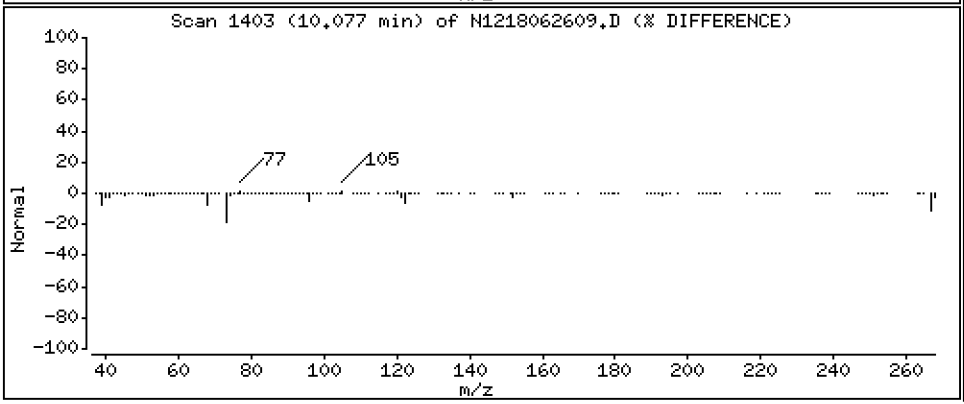












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

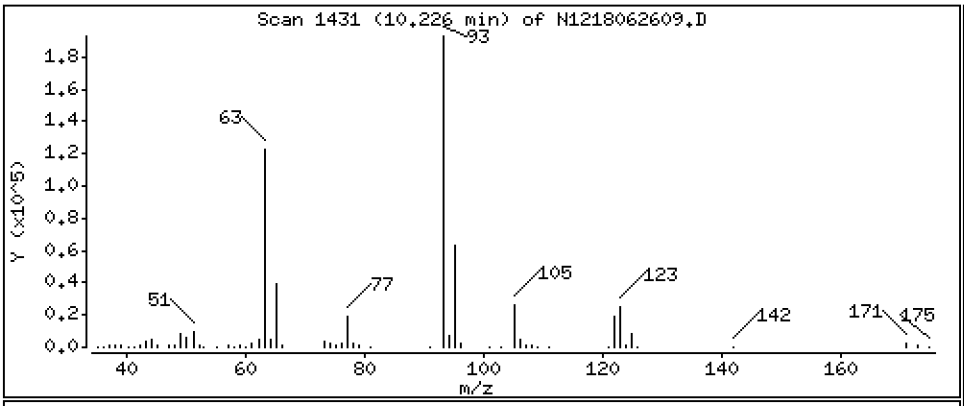
Operator: JZ

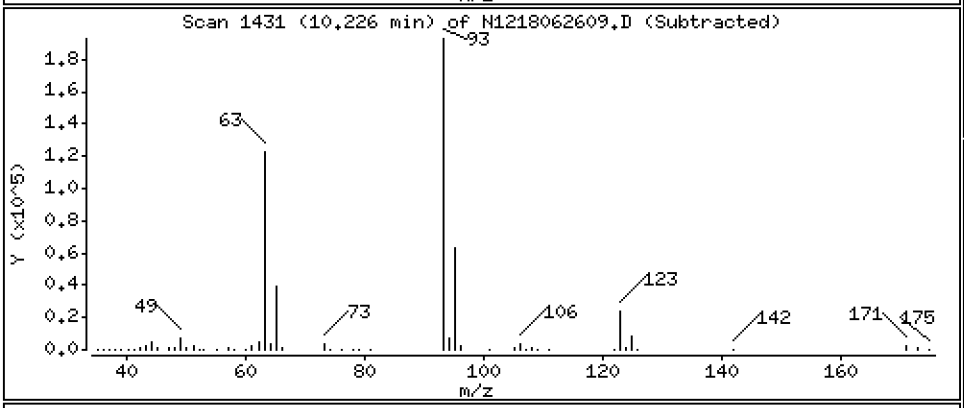
Column phase: ZB-5msi

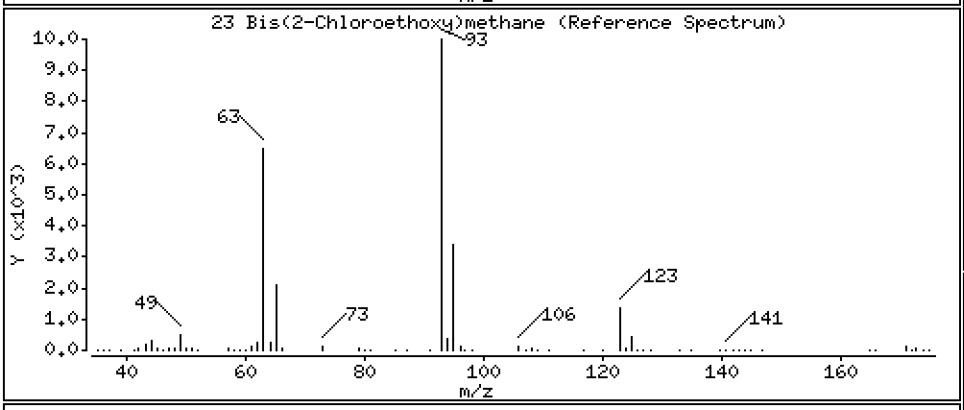
Column diameter: 0.32

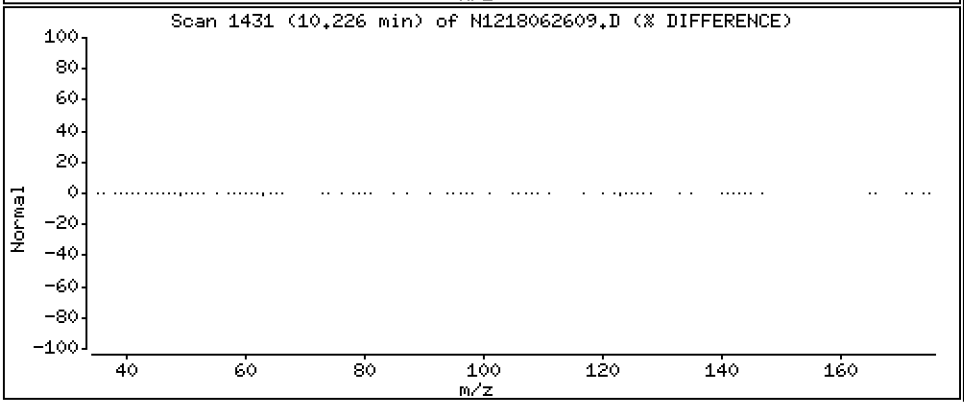
23 Bis(2-Chloroethoxy)methane

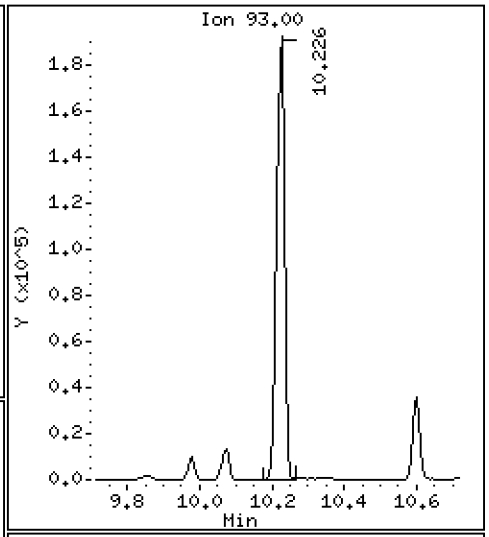
Concentration: 20.25 ug/mL

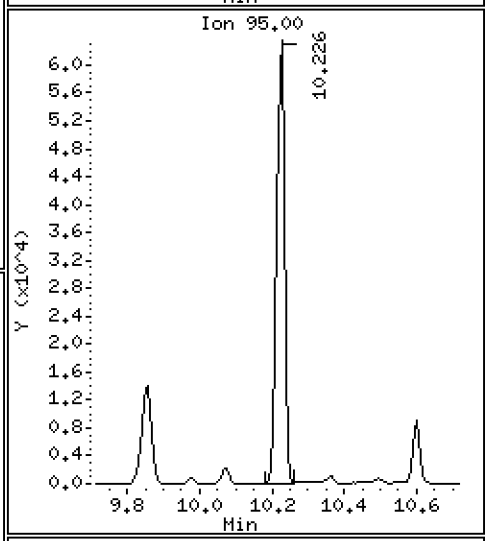


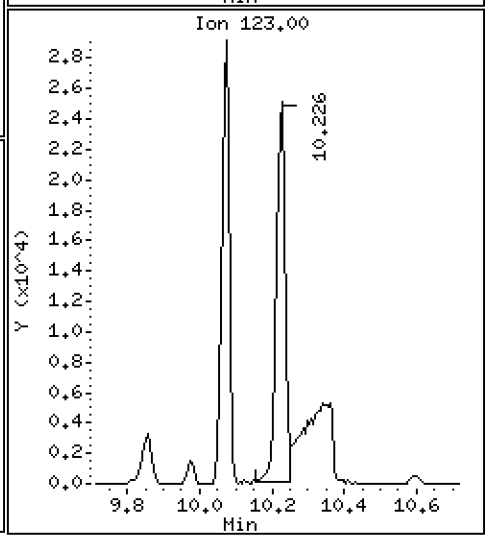












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

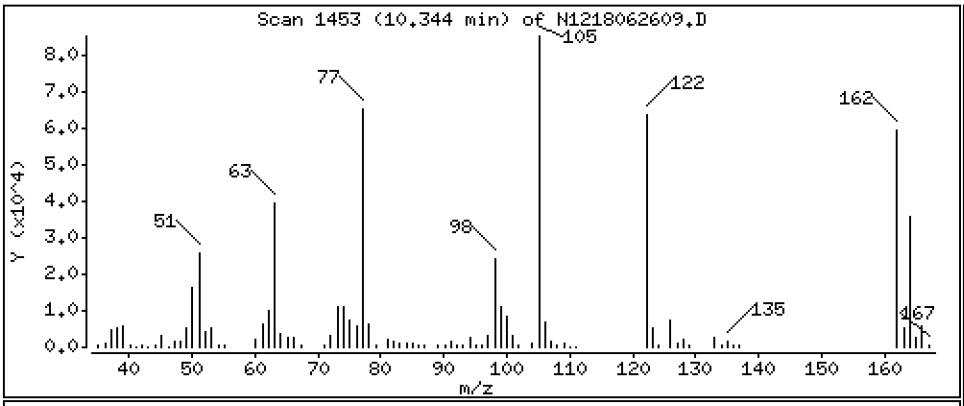
Operator: JZ

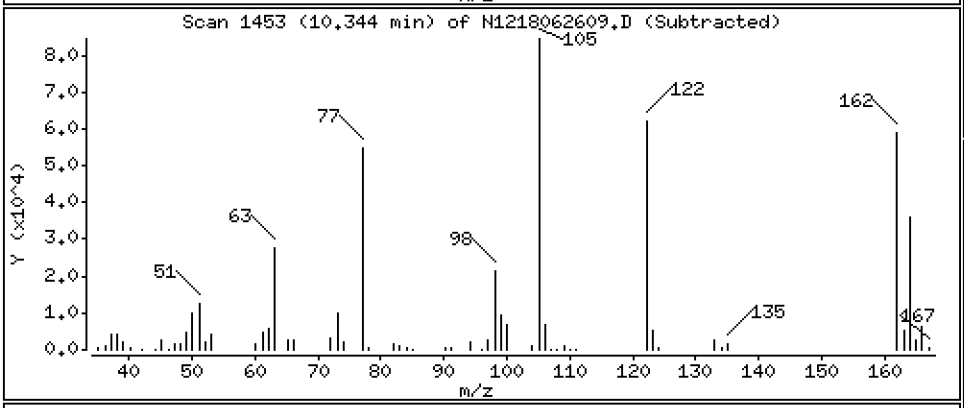
Column phase: ZB-5msi

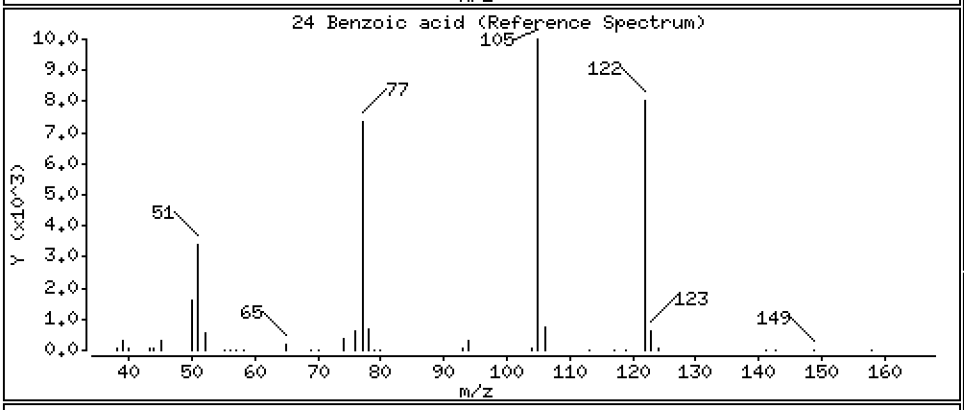
Column diameter: 0.32

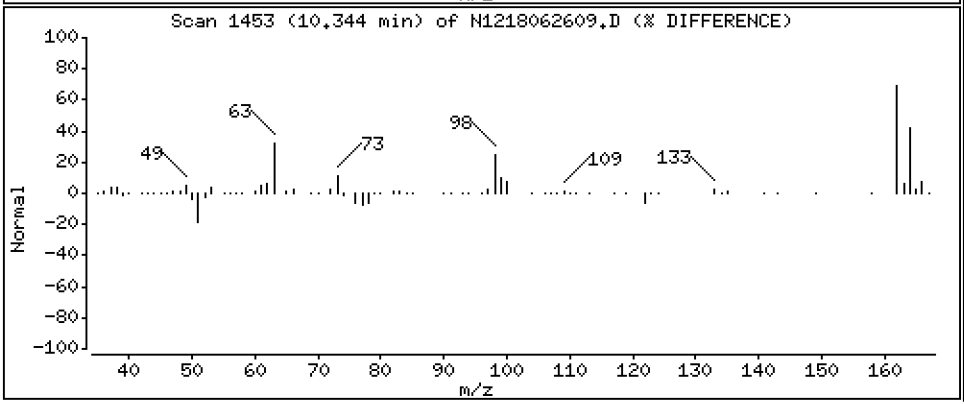
24 Benzoic acid

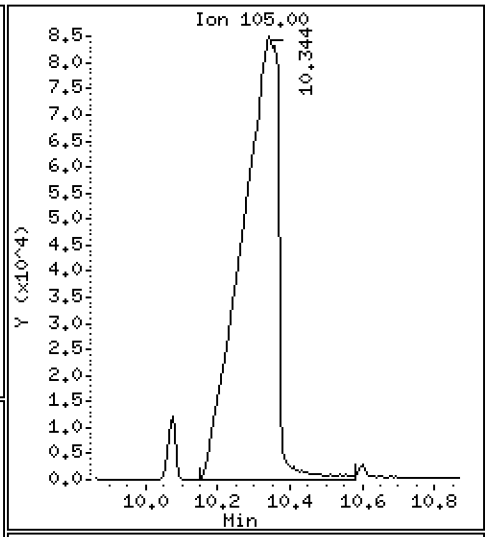
Concentration: 74.16 ug/mL

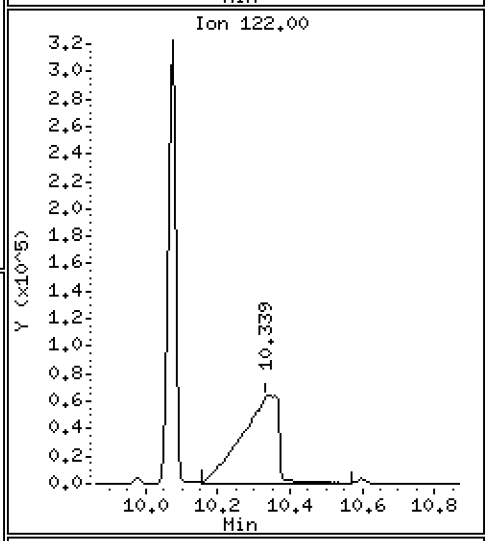


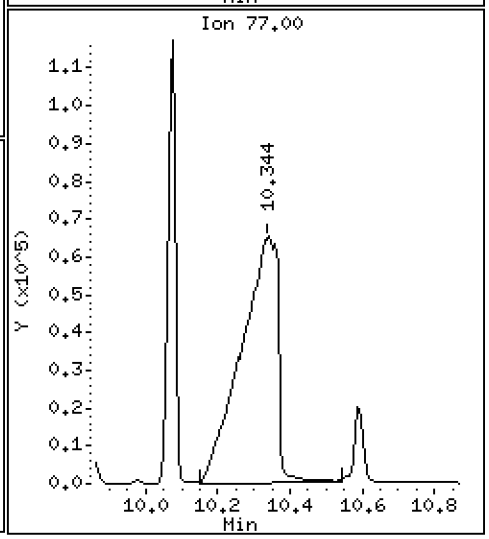












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

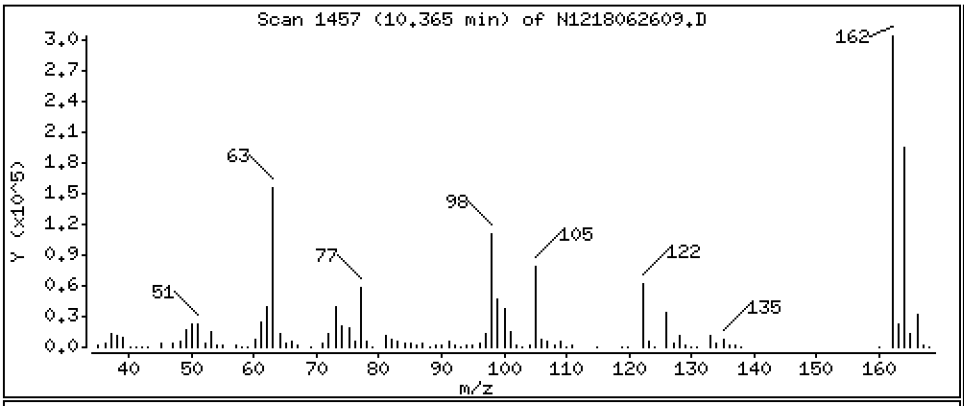
Operator: JZ

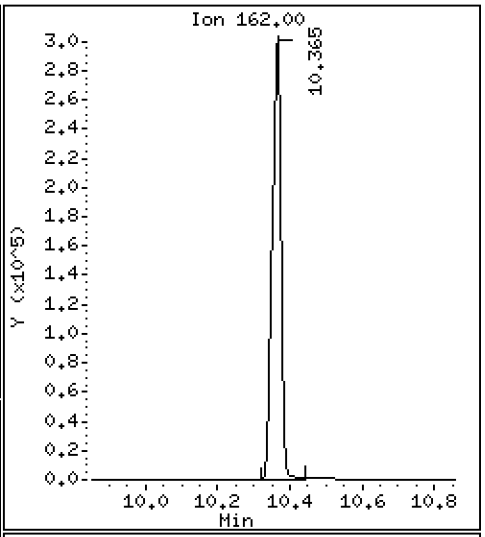
Column phase: ZB-5msi

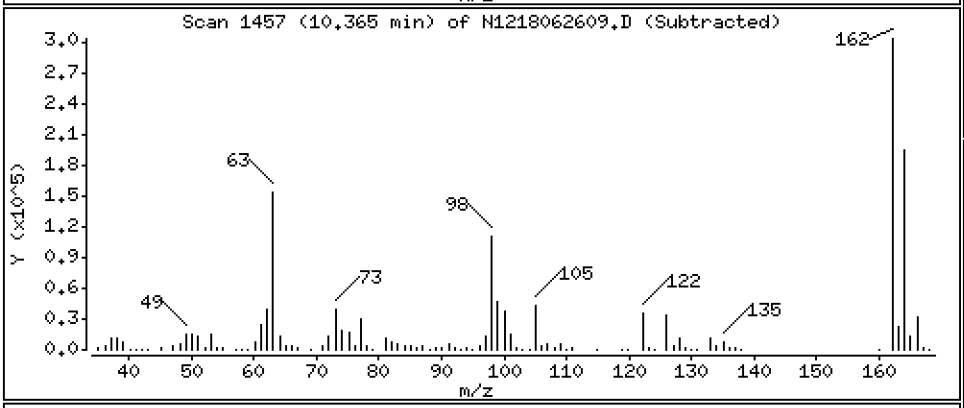
Column diameter: 0.32

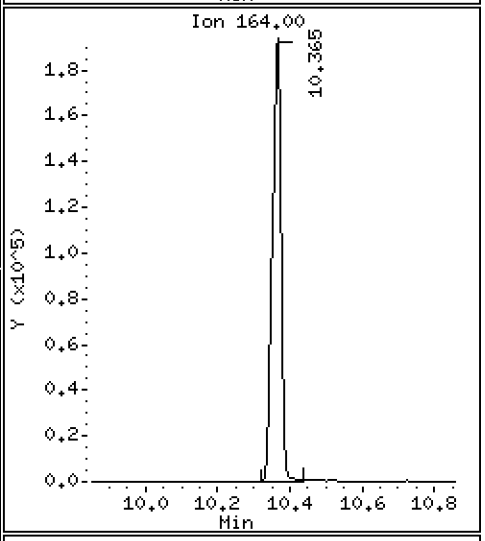
25 2,4-Dichlorophenol

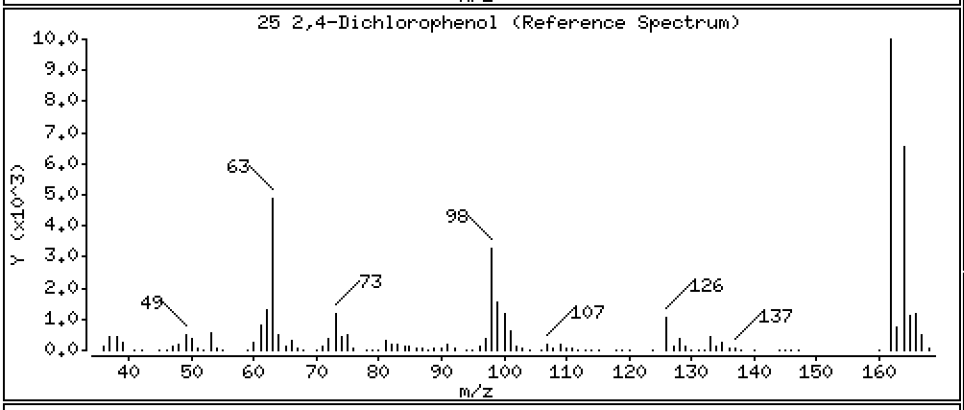
Concentration: 51.45 ug/mL

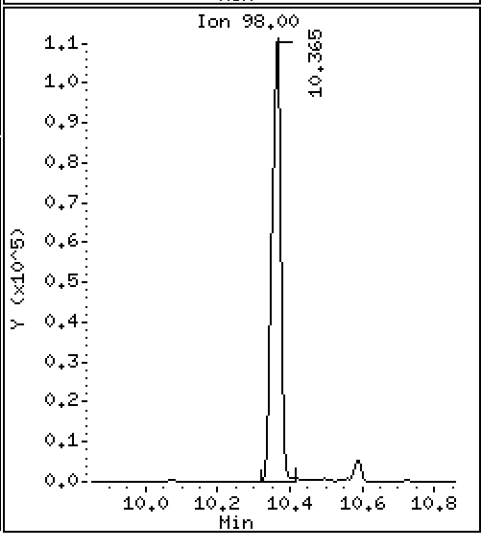


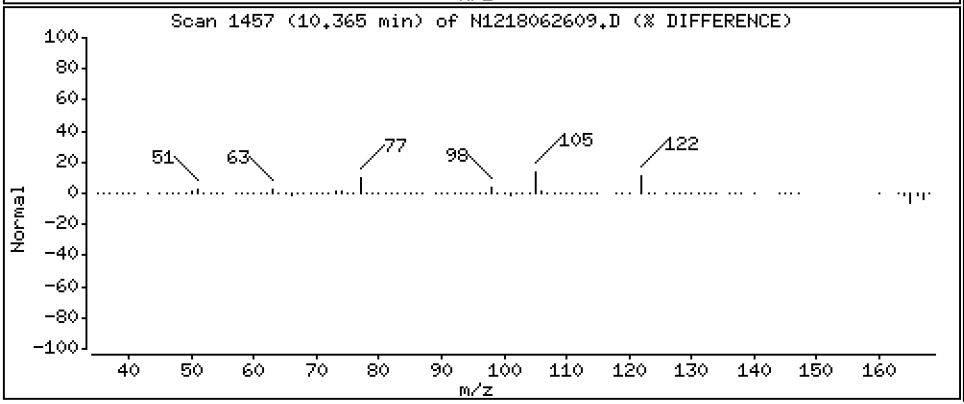












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

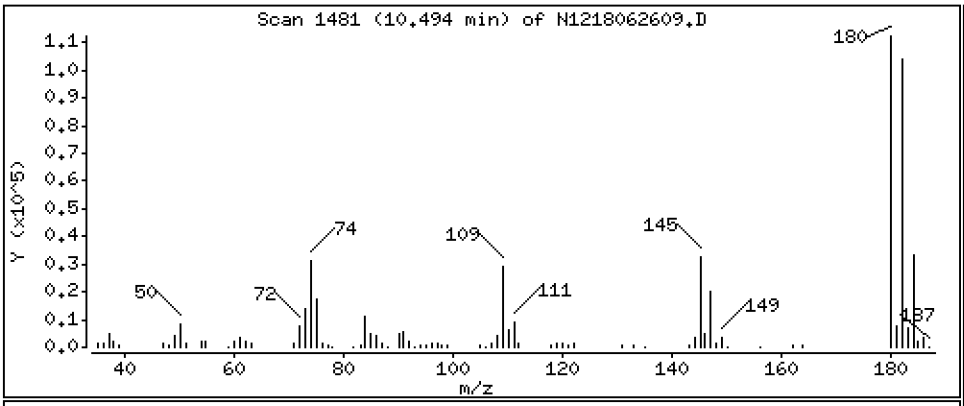
Operator: JZ

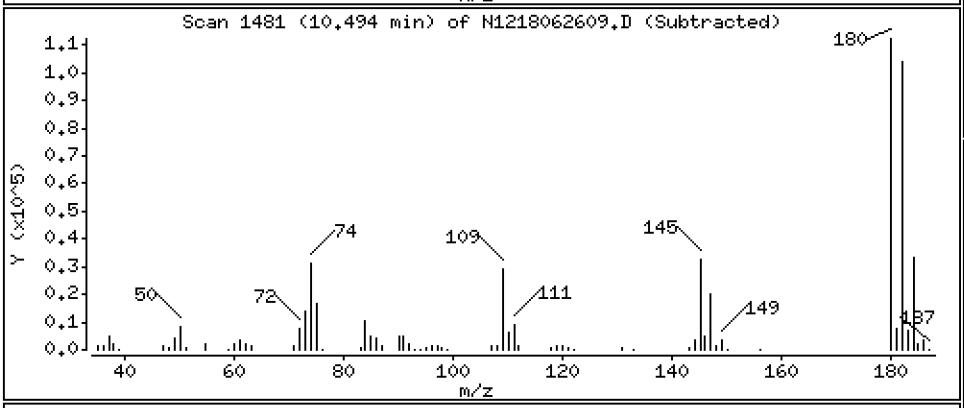
Column phase: ZB-5msi

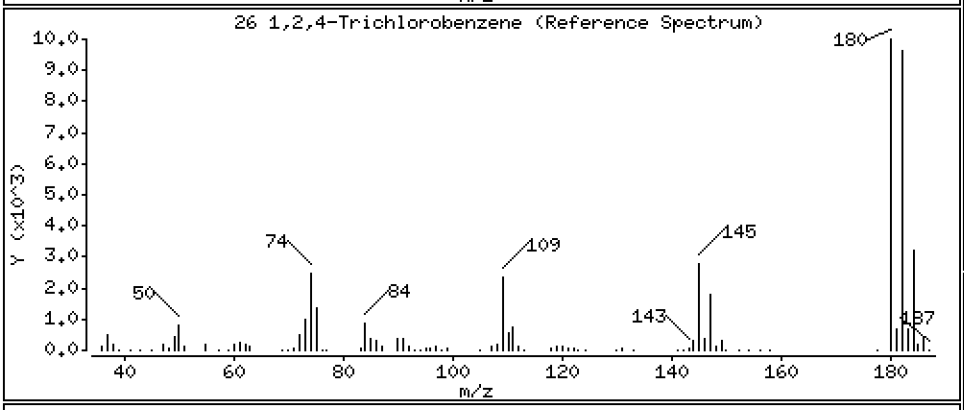
Column diameter: 0.32

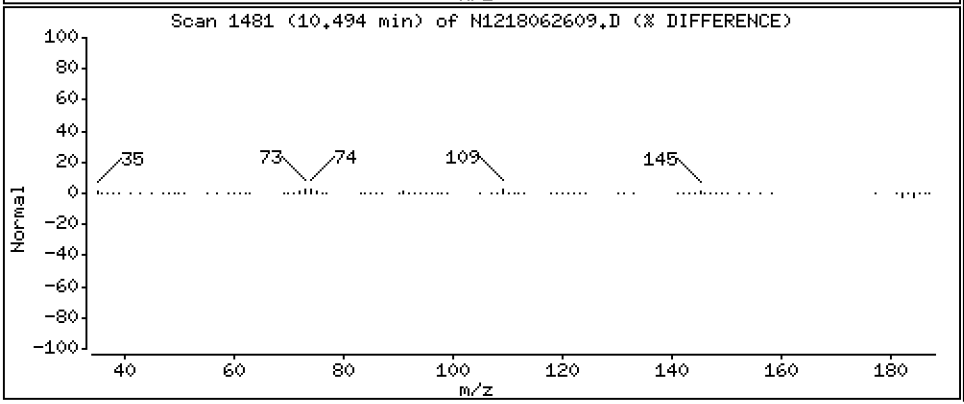
26 1,2,4-Trichlorobenzene

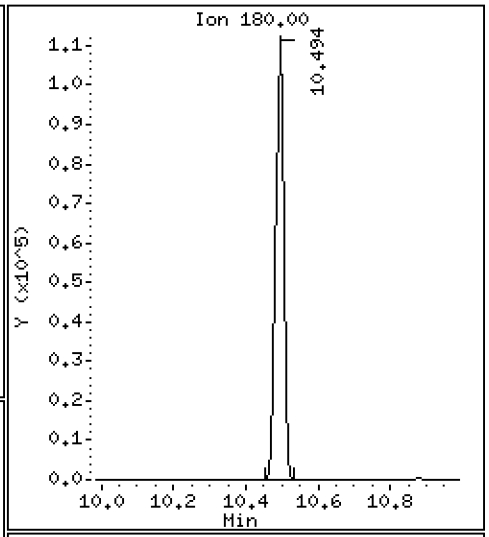
Concentration: 16.50 ug/mL

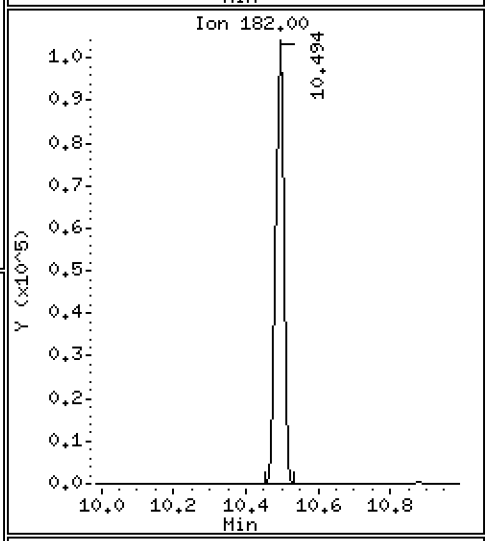


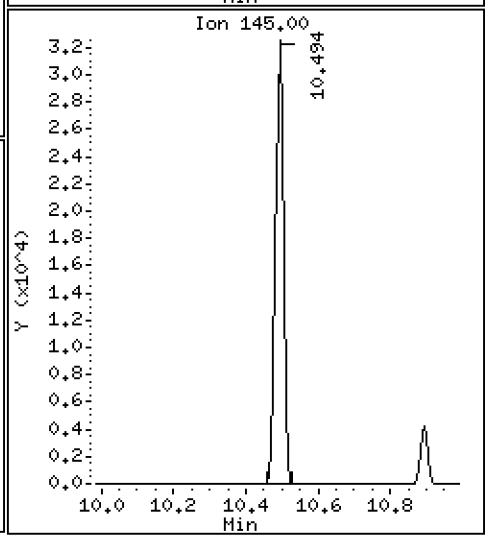












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

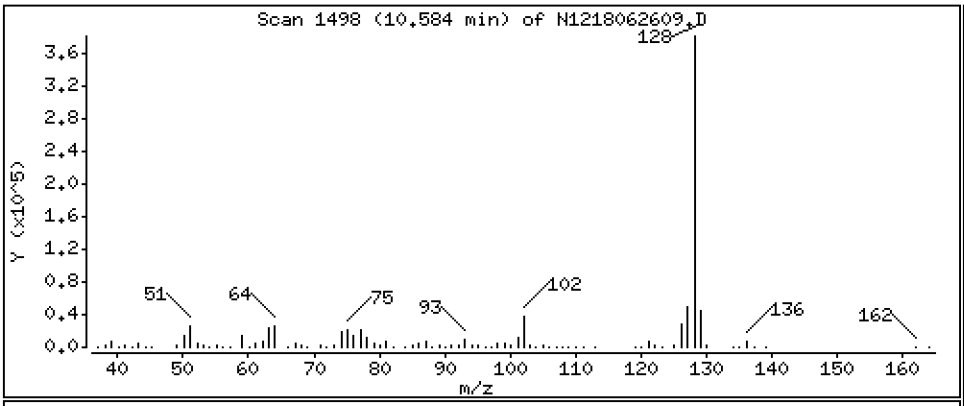
Operator: JZ

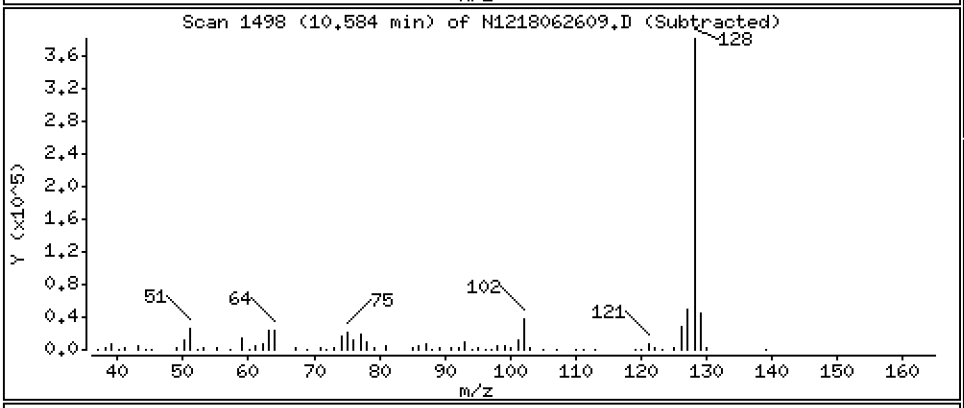
Column phase: ZB-5msi

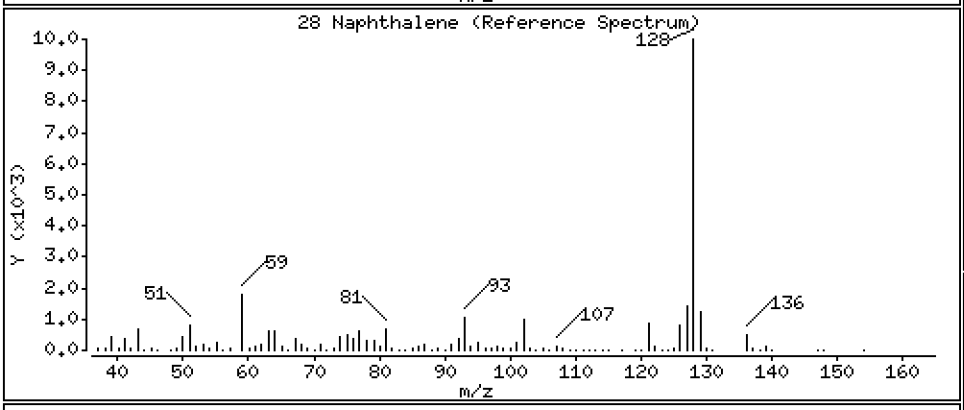
Column diameter: 0.32

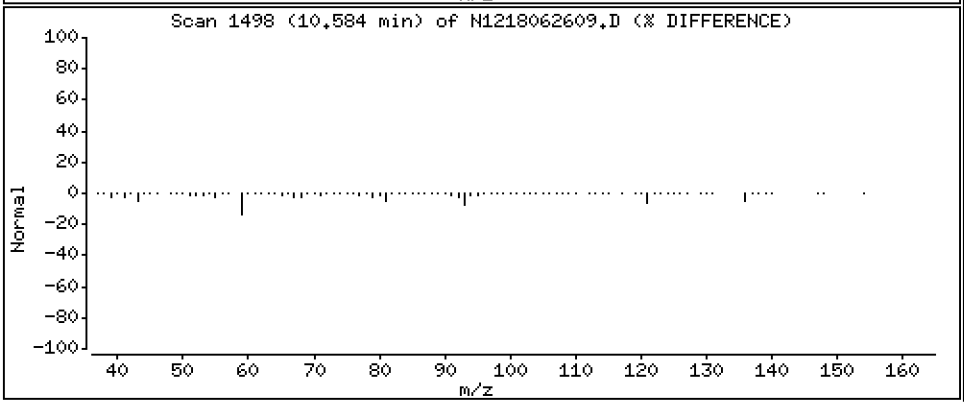
28 Naphthalene

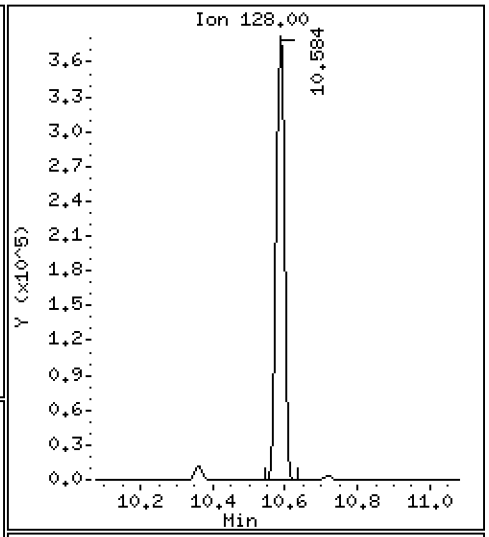
Concentration: 17.23 ug/mL

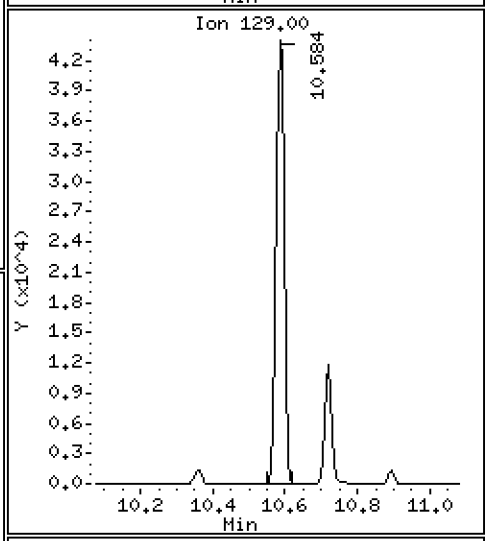


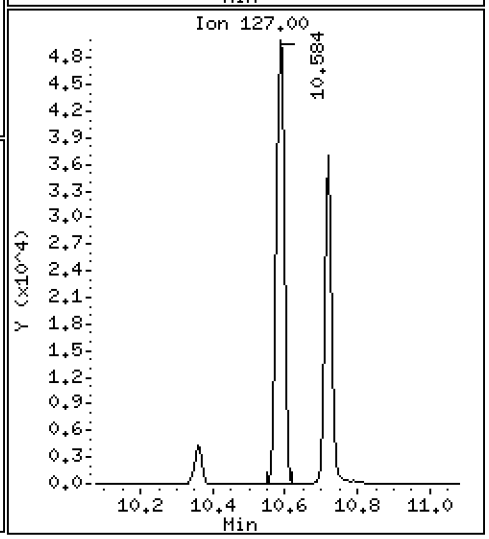












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

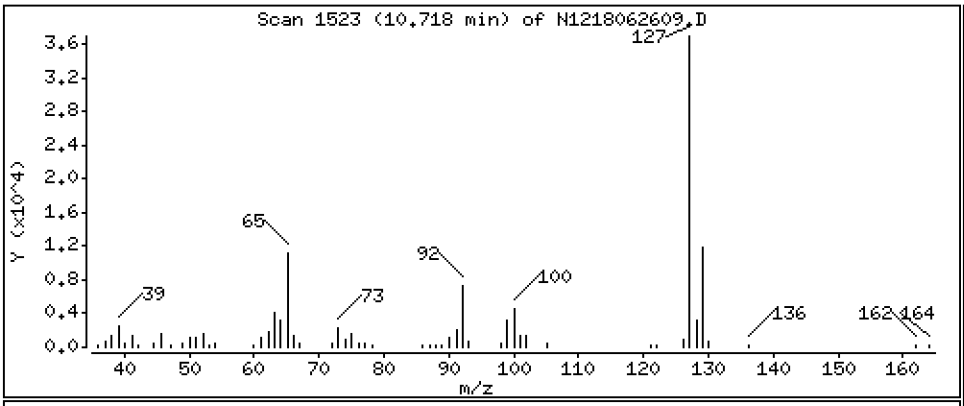
Operator: JZ

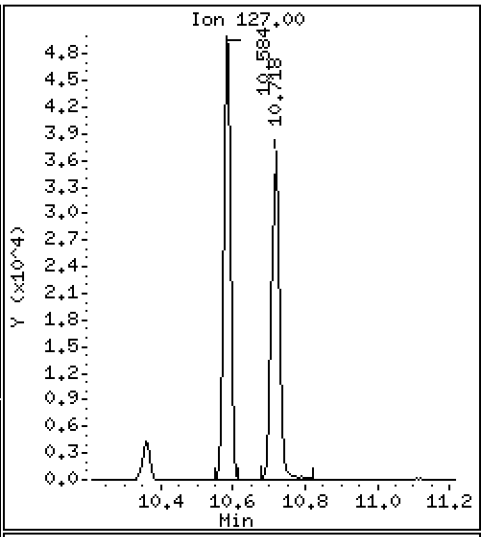
Column phase: ZB-5msi

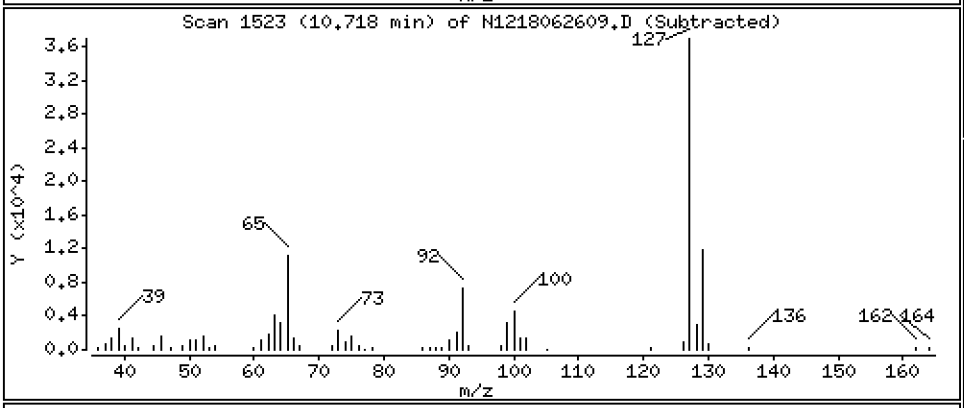
Column diameter: 0.32

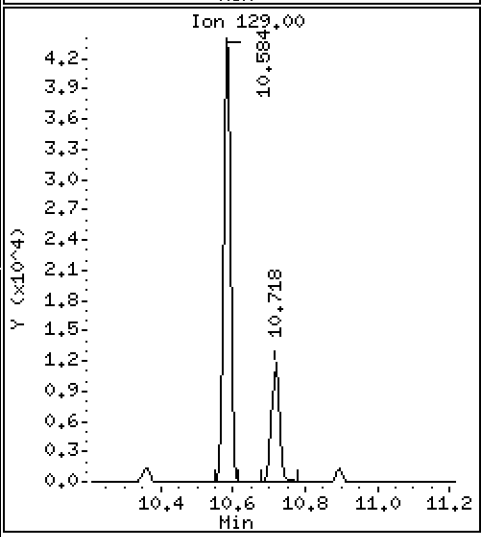
29 4-Chloroaniline

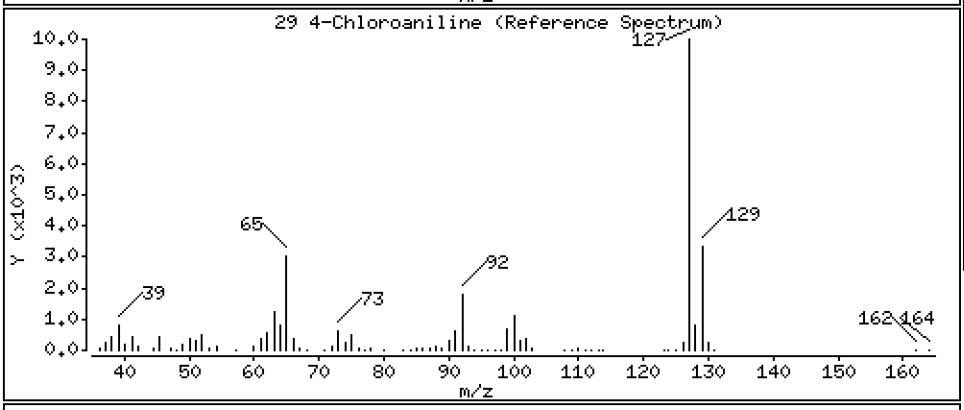
Concentration: 3.828 ug/mL

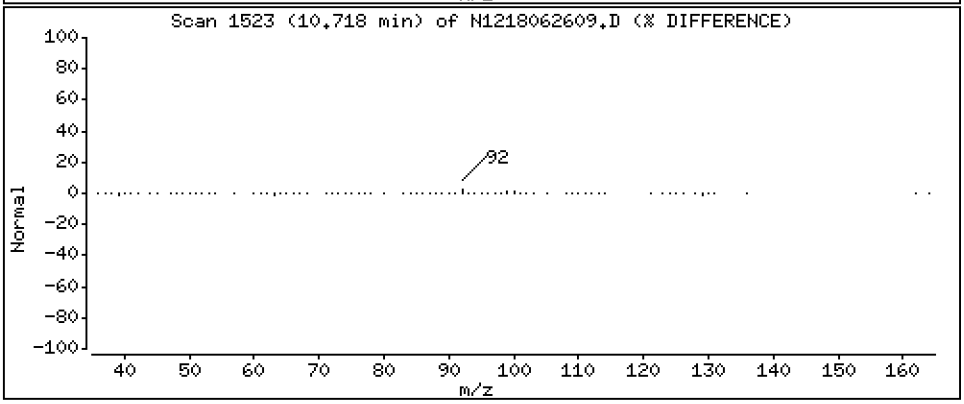












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

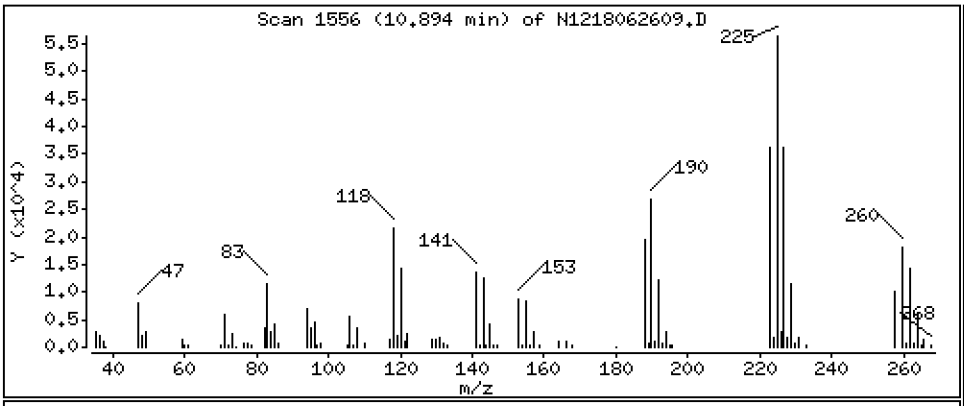
Operator: JZ

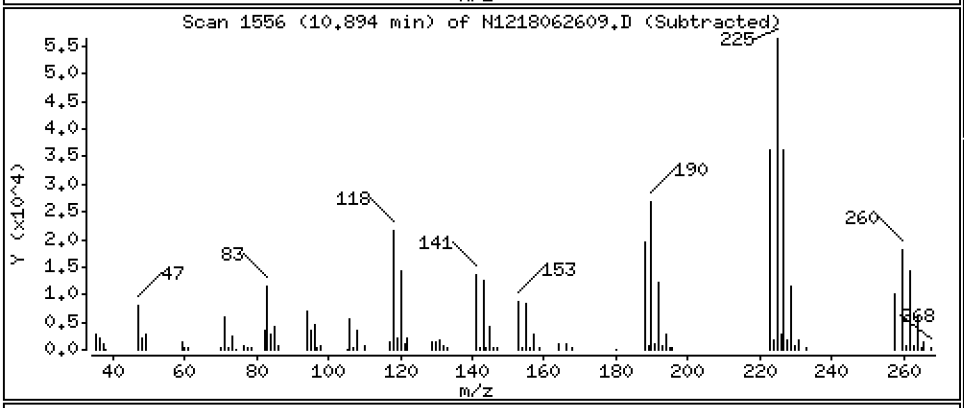
Column phase: ZB-5msi

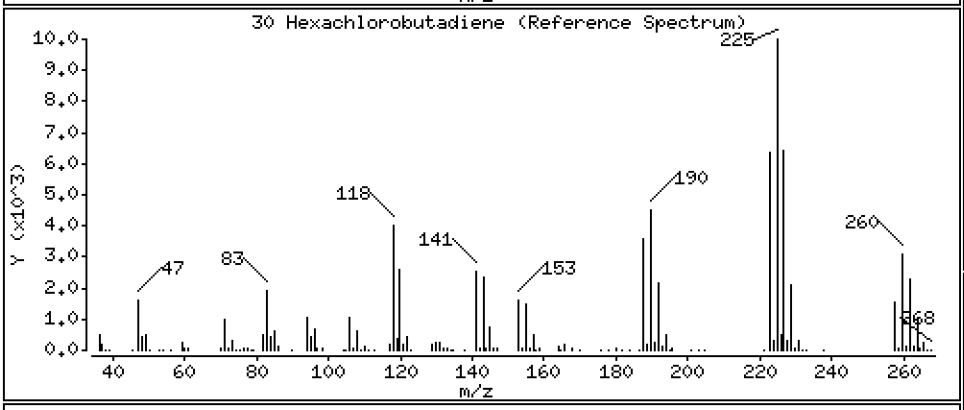
Column diameter: 0.32

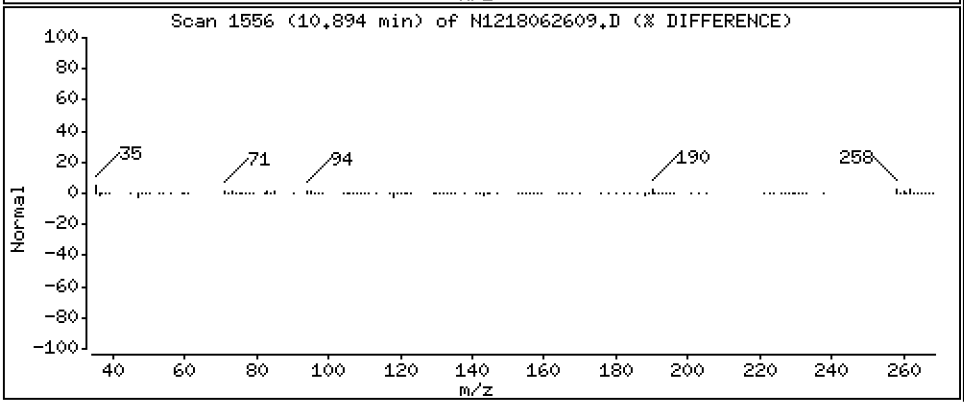
30 Hexachlorobutadiene

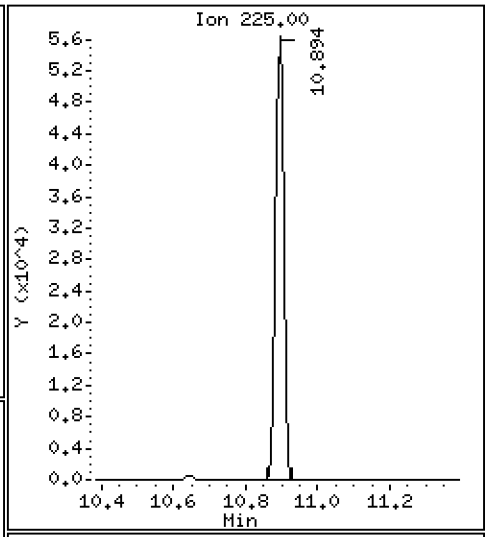
Concentration: 15.03 ug/mL

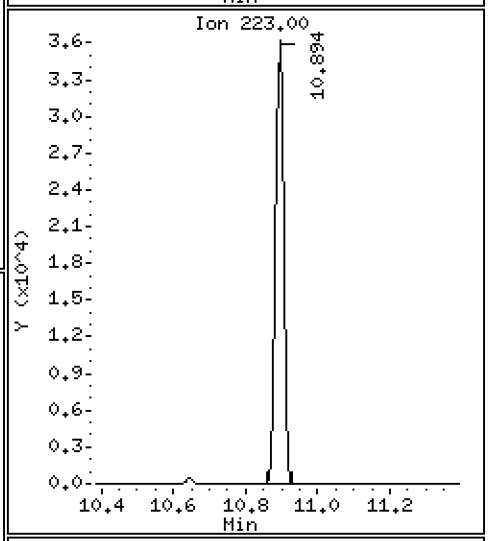


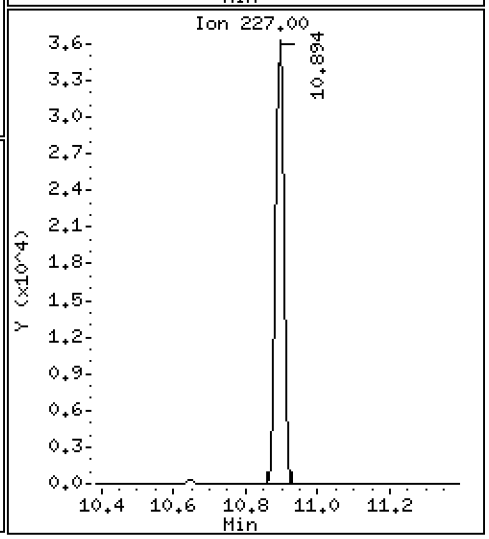












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

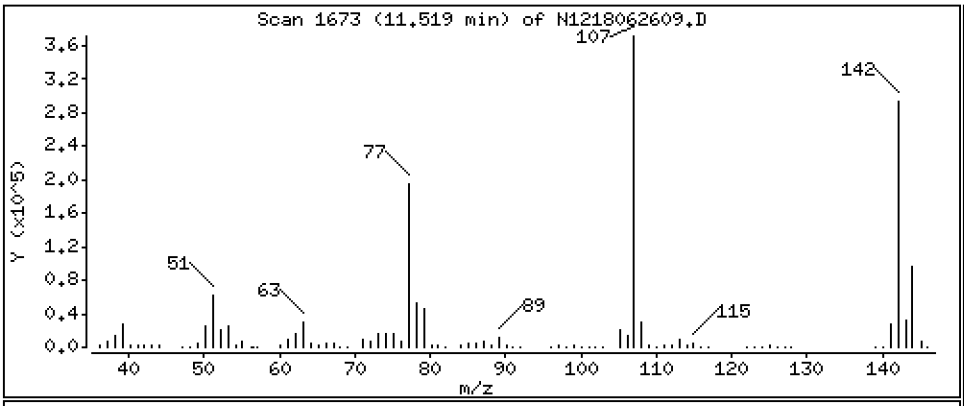
Operator: JZ

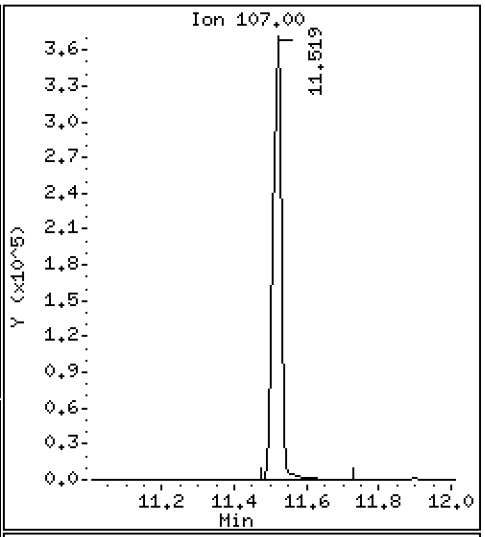
Column phase: ZB-5msi

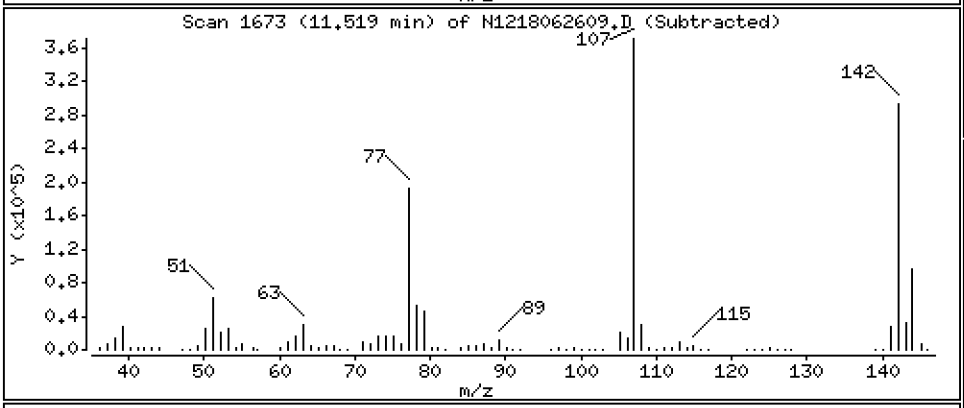
Column diameter: 0.32

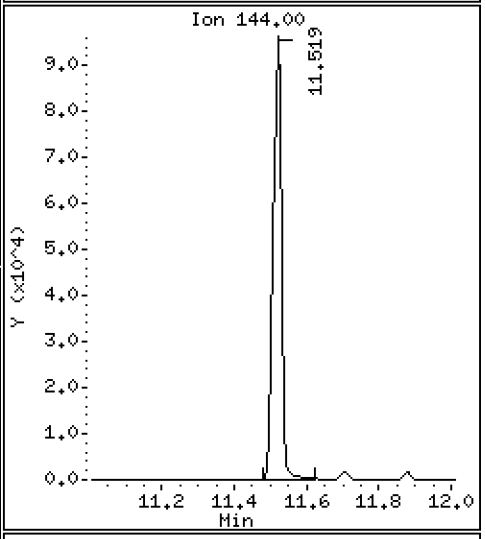
31 4-Chloro-3-methylphenol

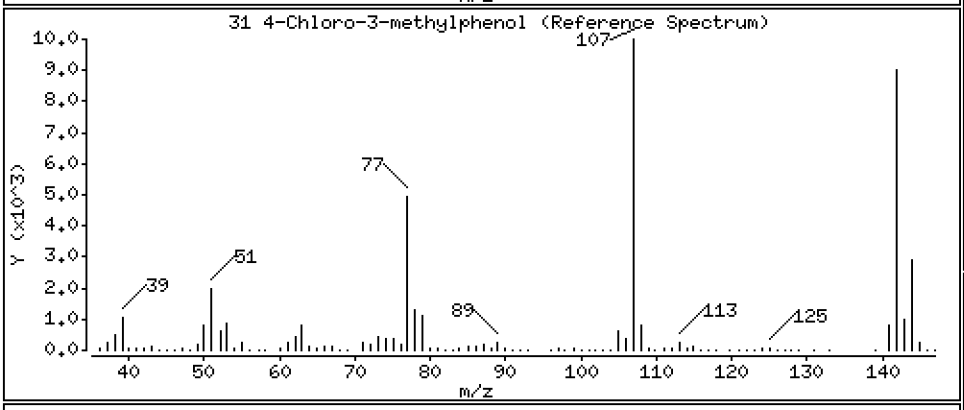
Concentration: 56.45 ug/mL

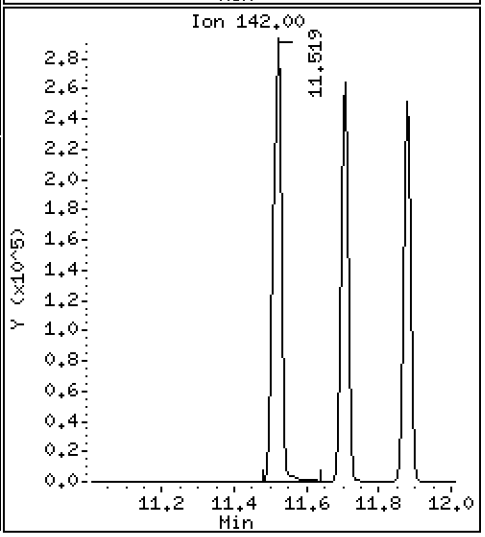


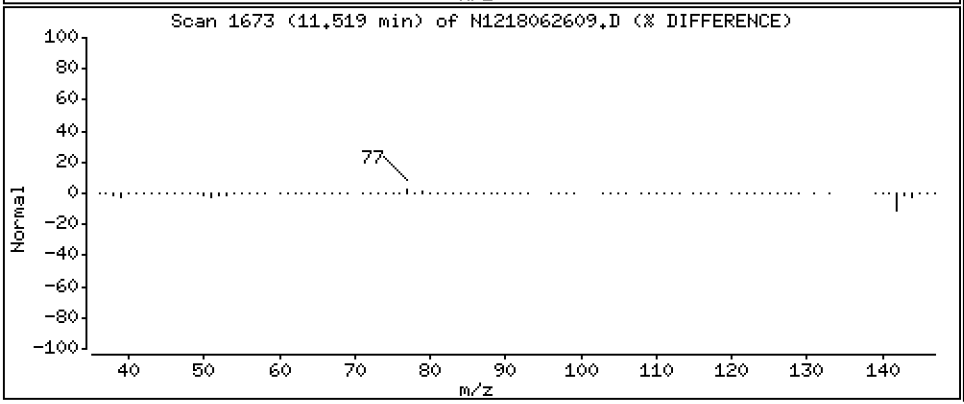












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

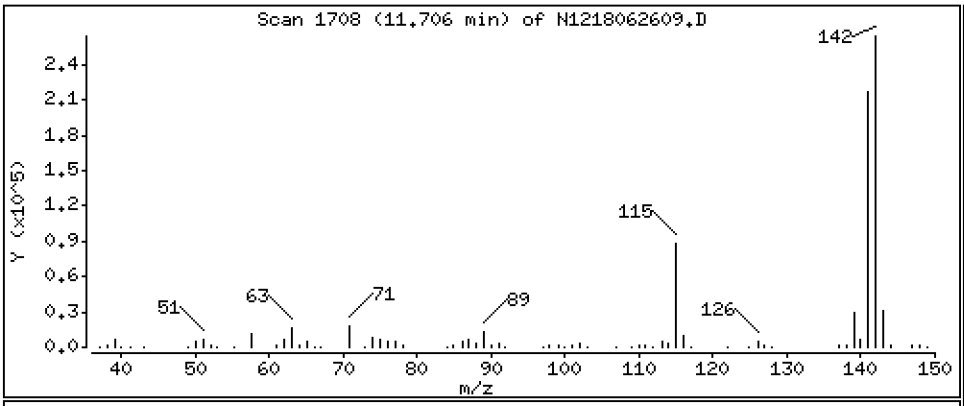
Operator: JZ

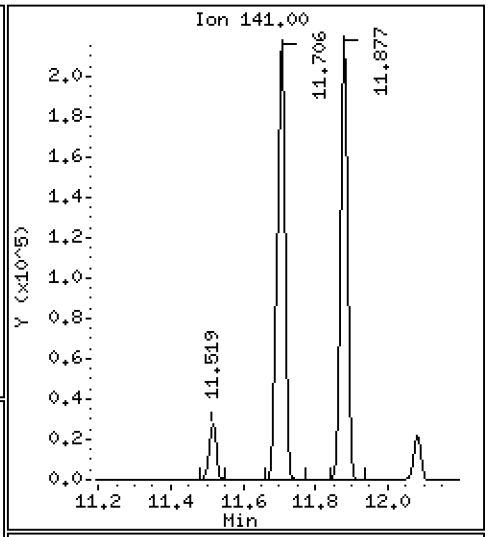
Column phase: ZB-5msi

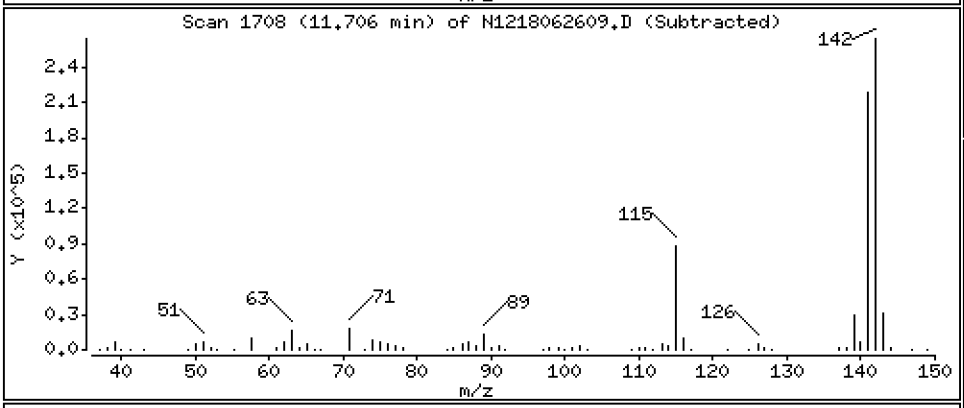
Column diameter: 0.32

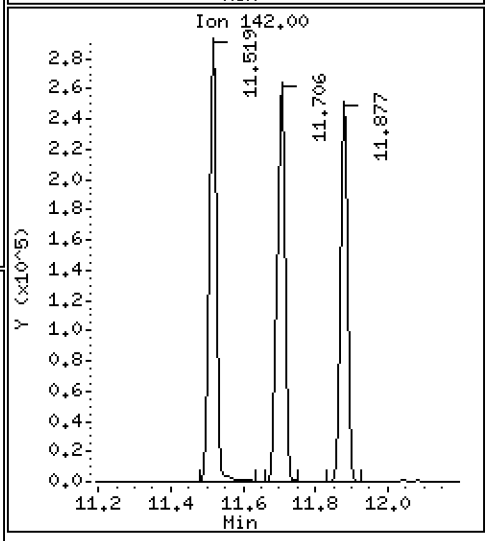
32 2-Methylnaphthalene

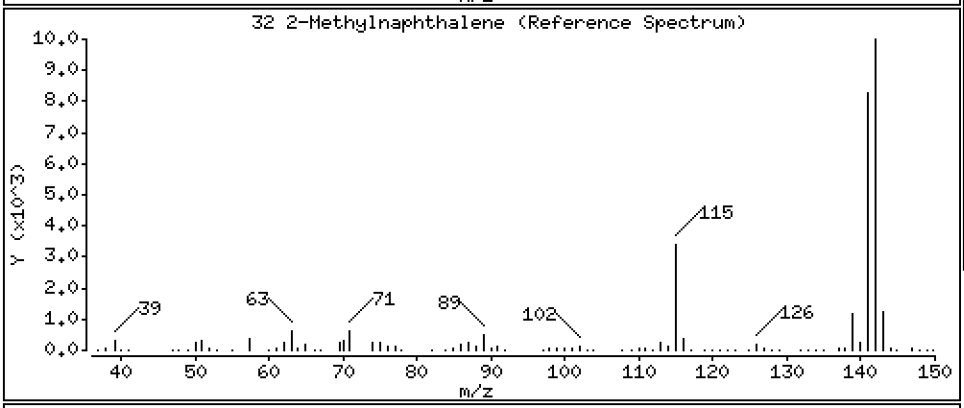
Concentration: 17.98 ug/mL

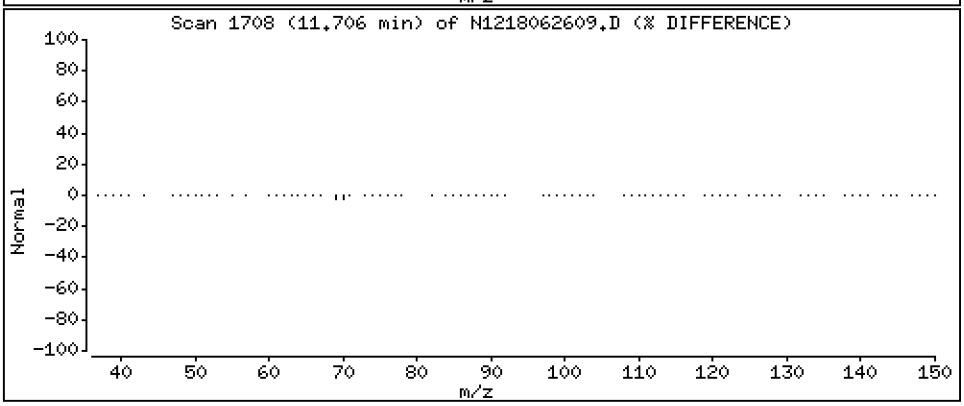












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

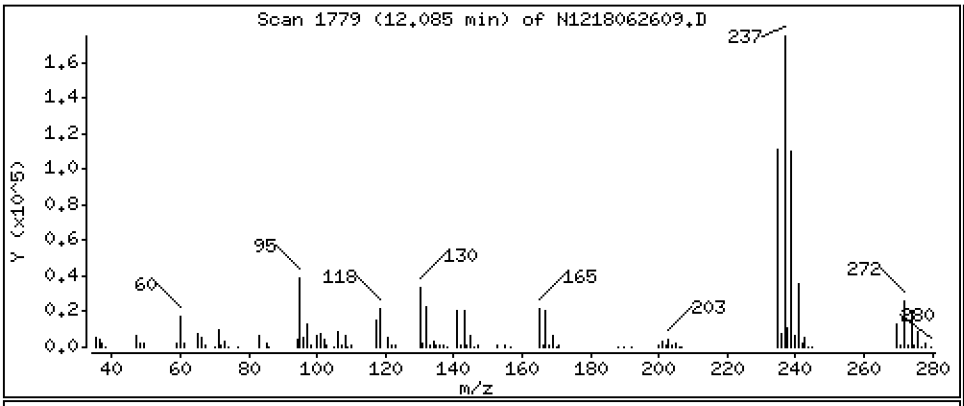
Operator: JZ

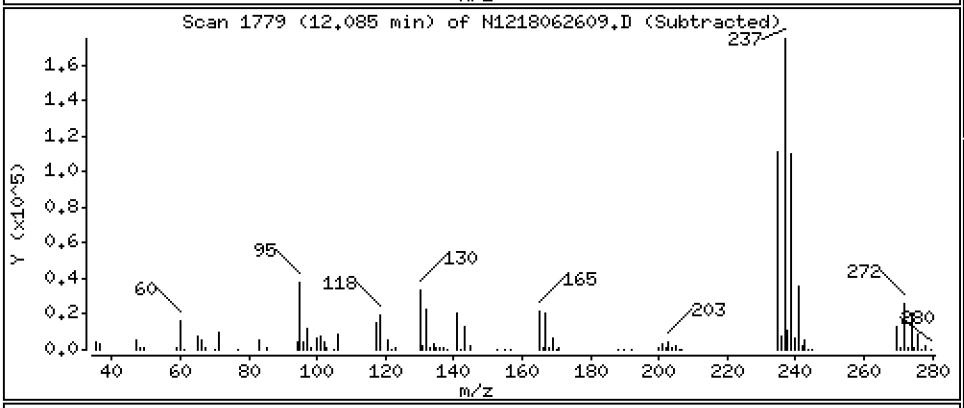
Column phase: ZB-5msi

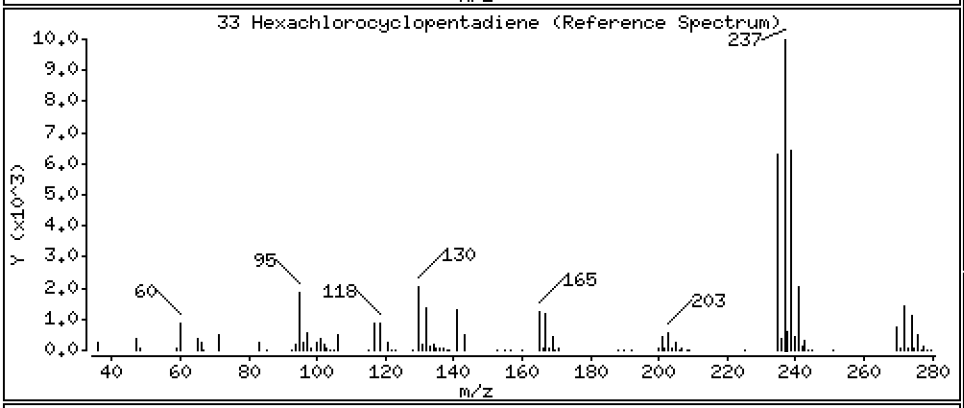
Column diameter: 0.32

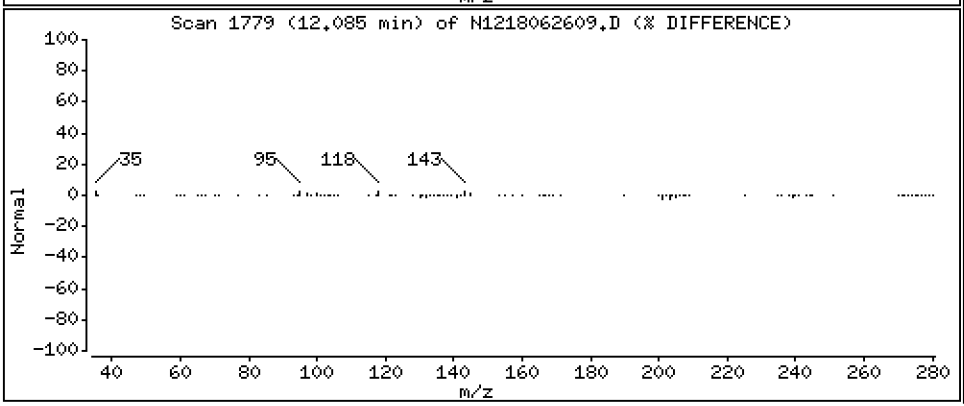
33 Hexachlorocyclopentadiene

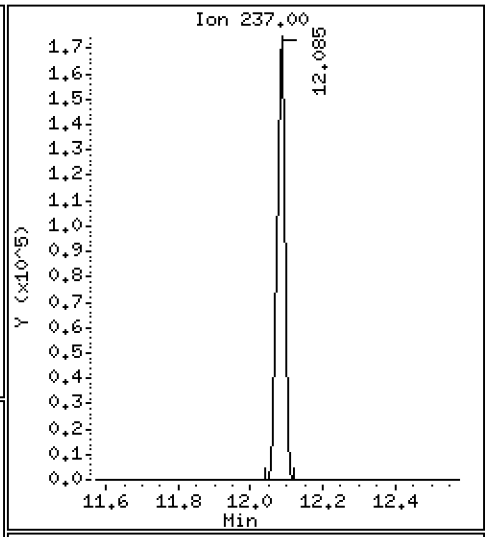
Concentration: 57.64 ug/mL

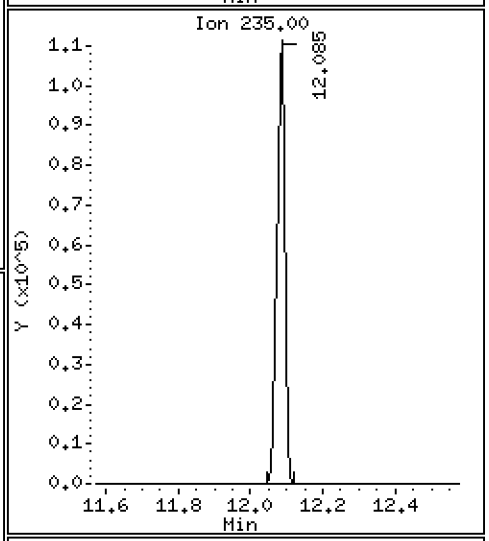


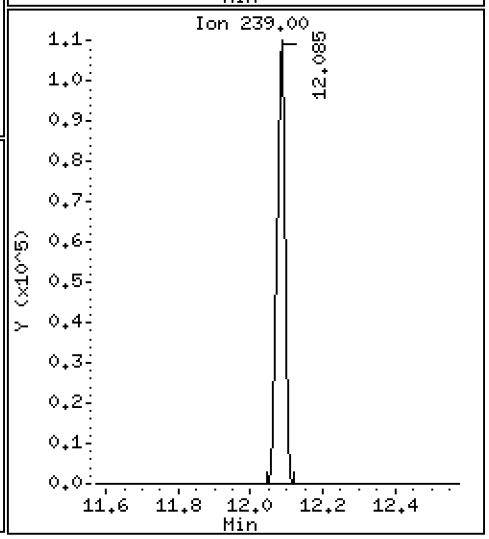












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

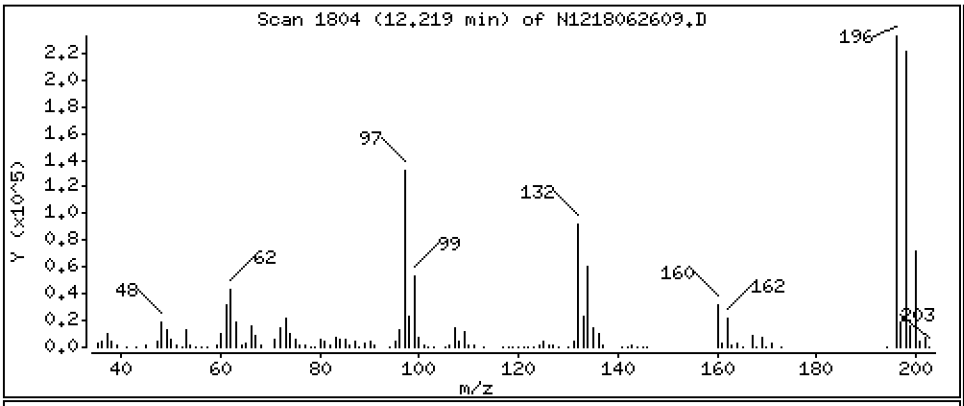
Operator: JZ

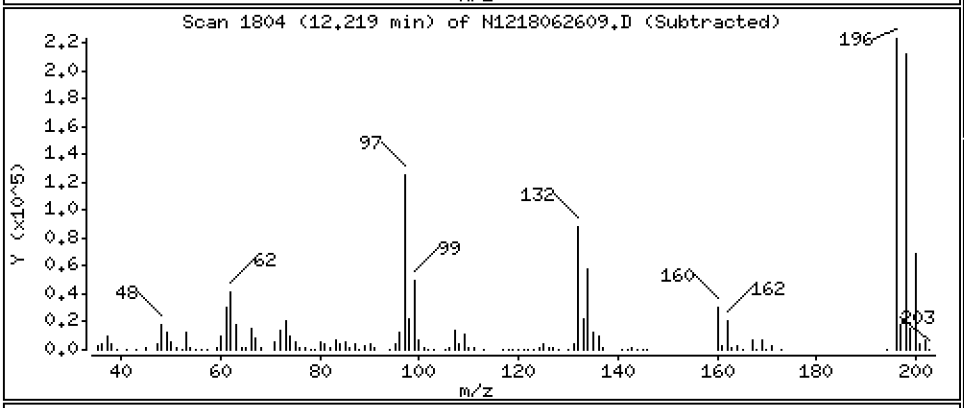
Column phase: ZB-5msi

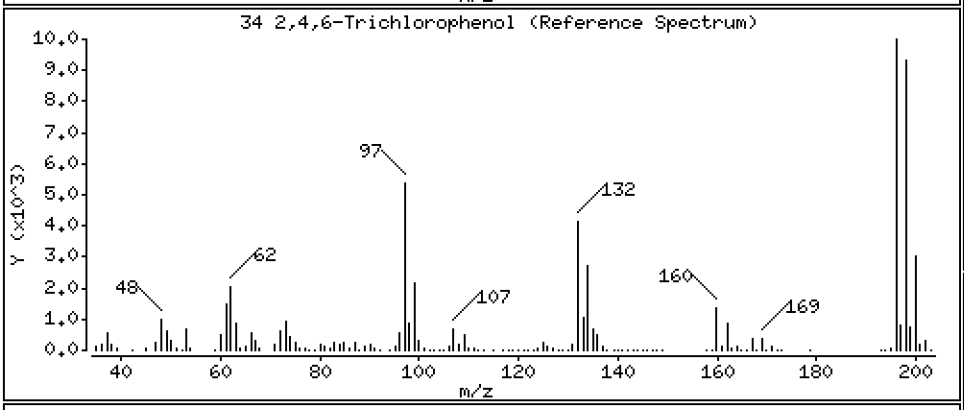
Column diameter: 0.32

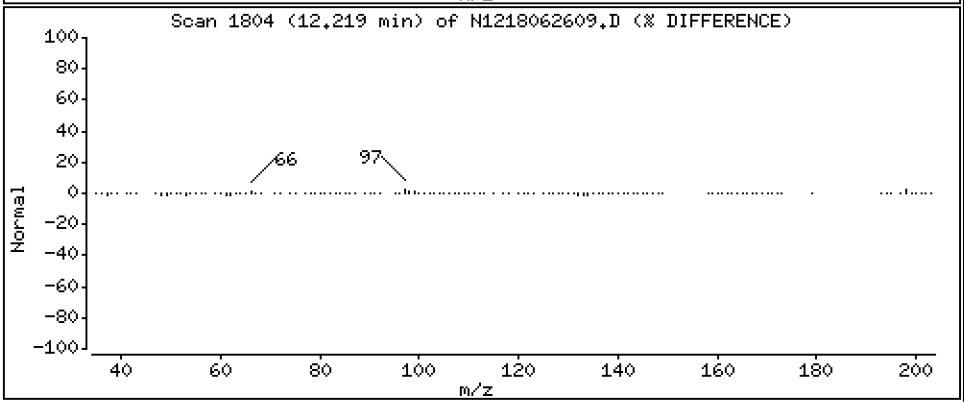
34 2,4,6-Trichlorophenol

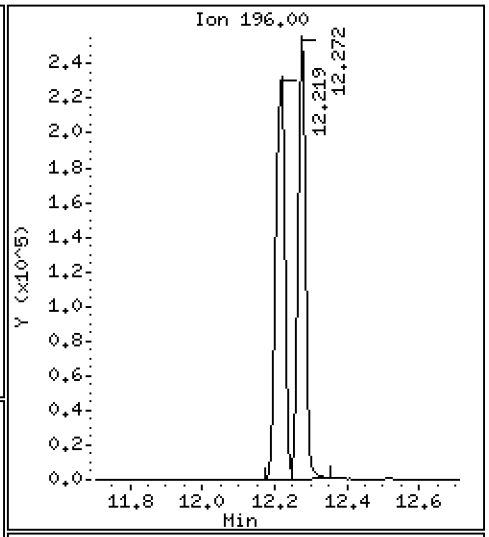
Concentration: 54.19 ug/mL

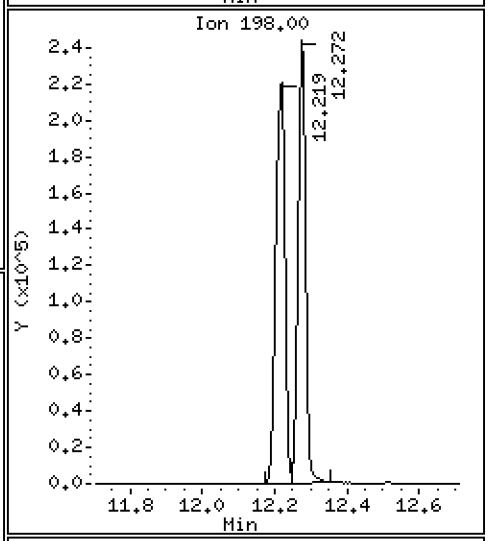


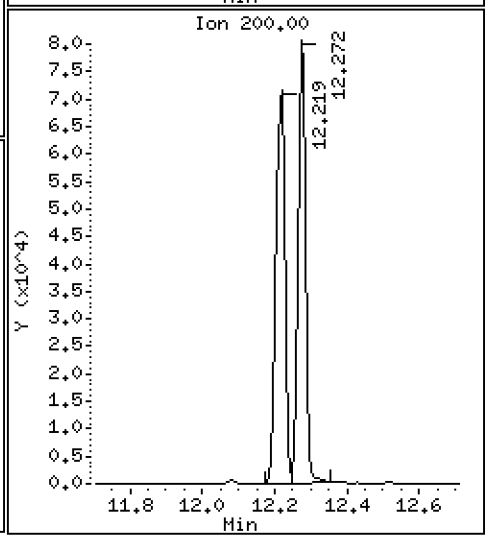












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

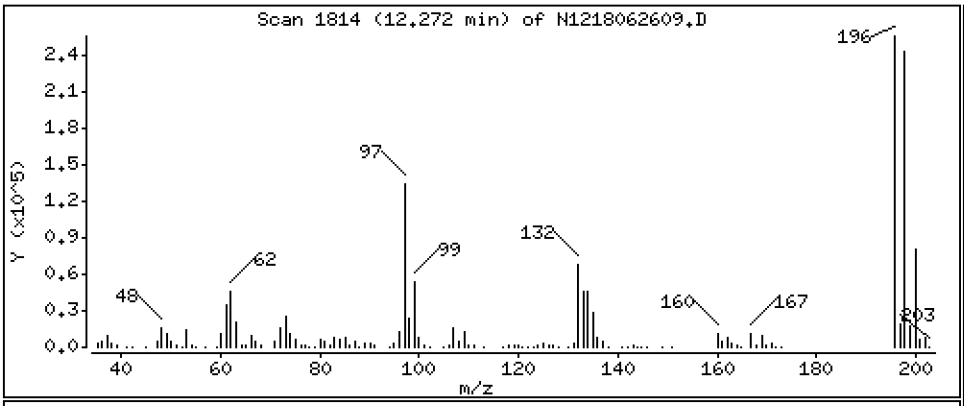
Operator: JZ

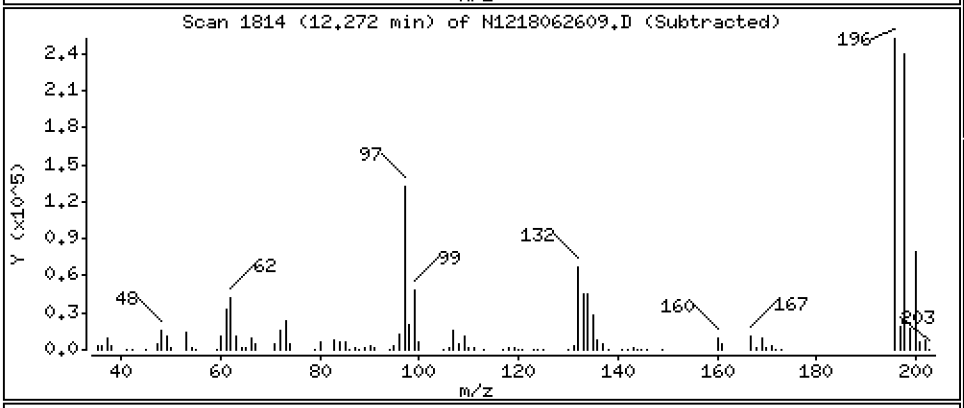
Column phase: ZB-5msi

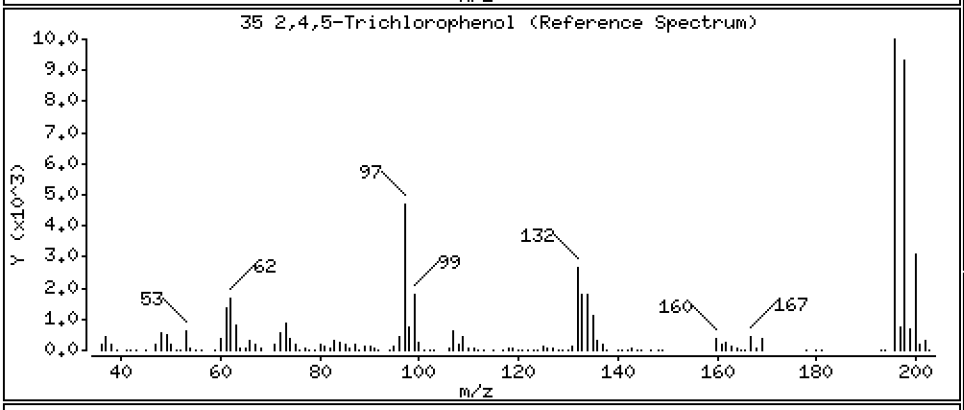
Column diameter: 0.32

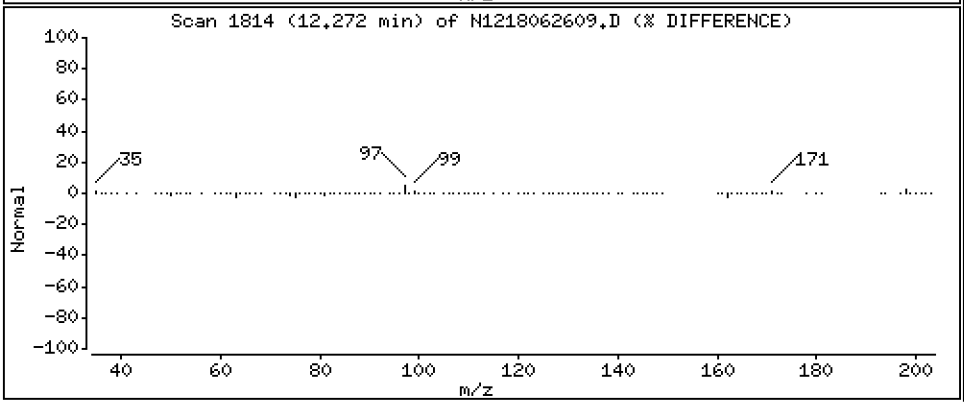
35 2,4,5-Trichlorophenol

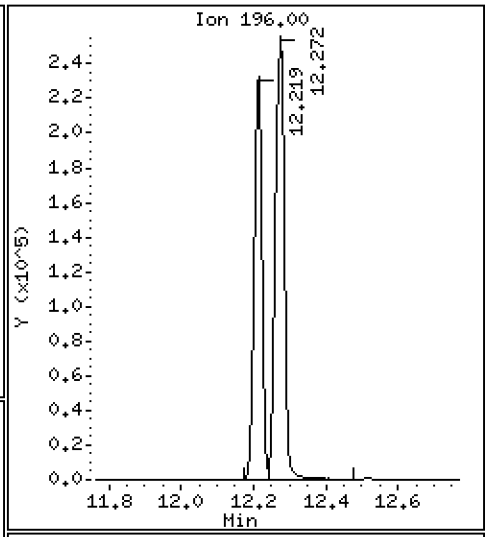
Concentration: 56.97 ug/mL

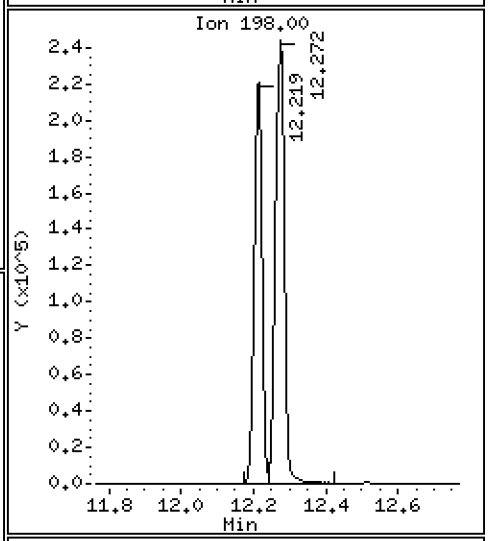


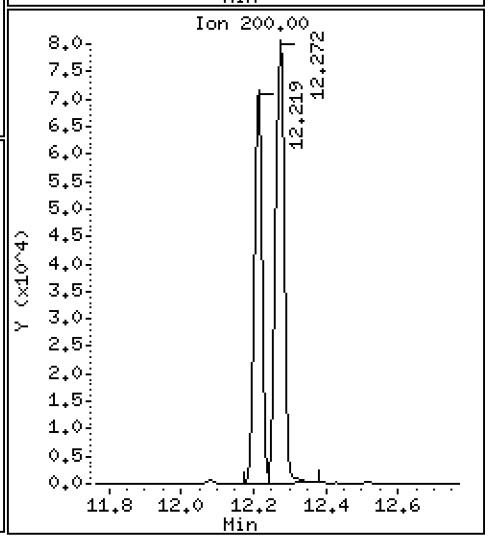












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

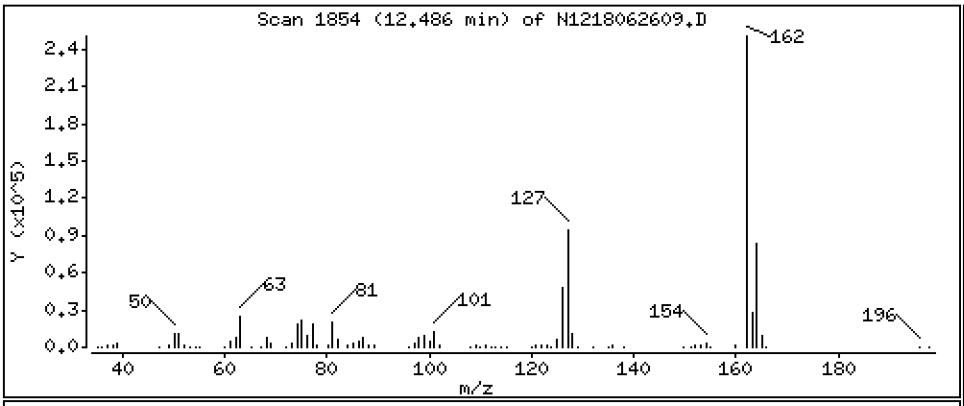
Operator: JZ

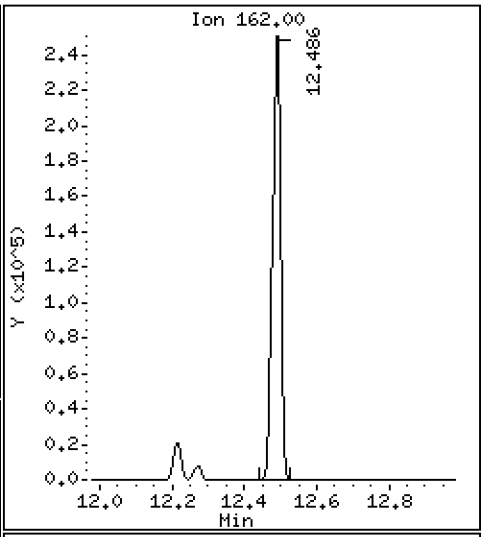
Column phase: ZB-5msi

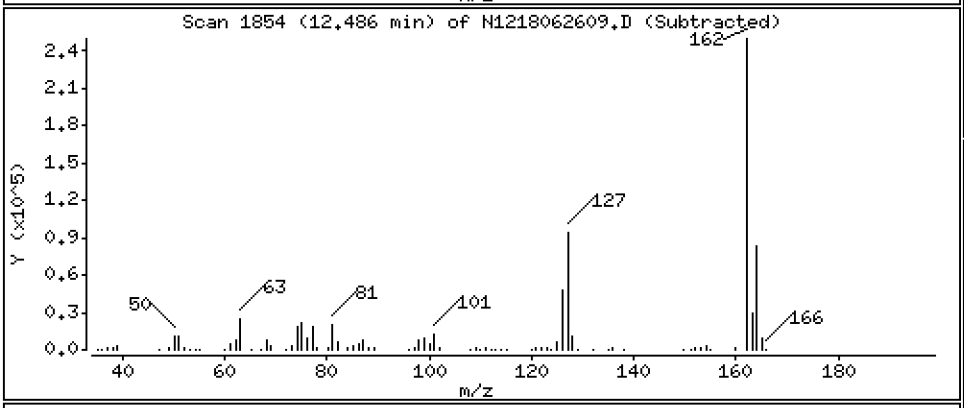
Column diameter: 0.32

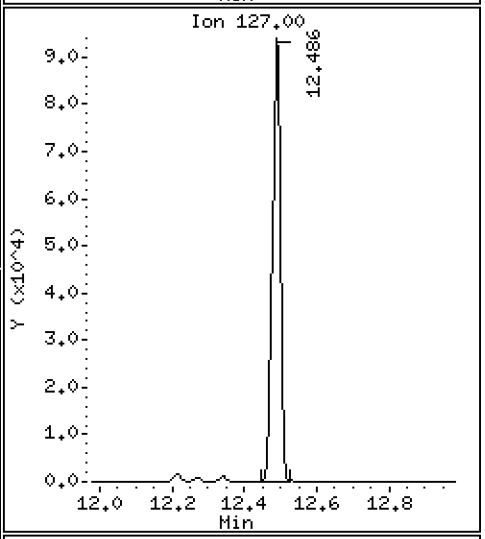
37 2-Chloronaphthalene

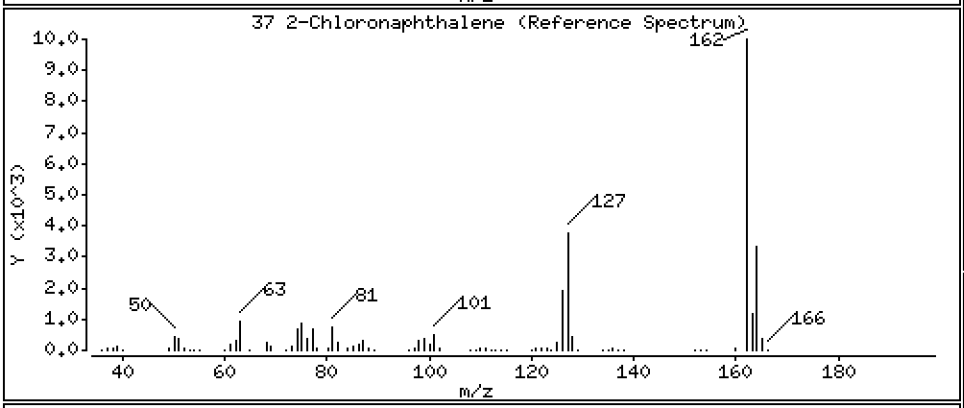
Concentration: 19.05 ug/mL

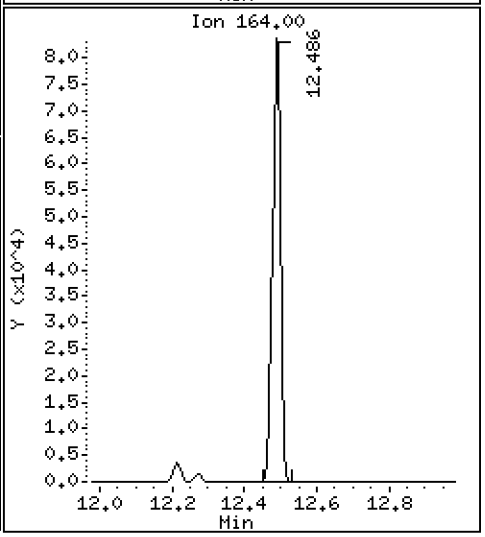


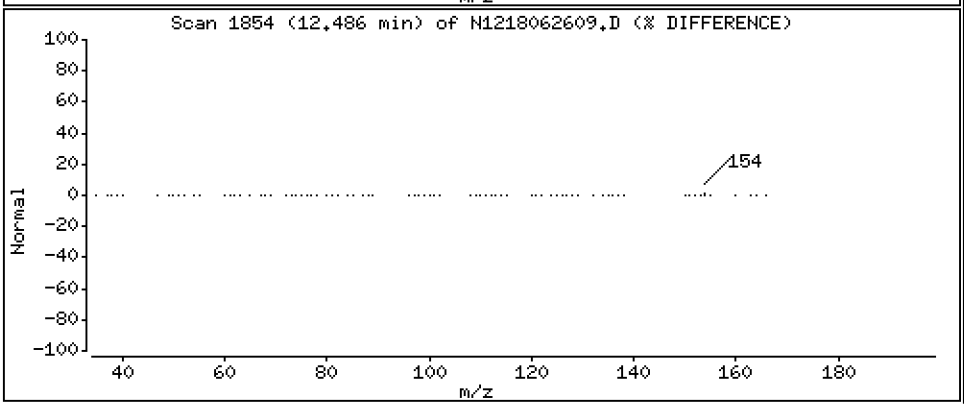












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

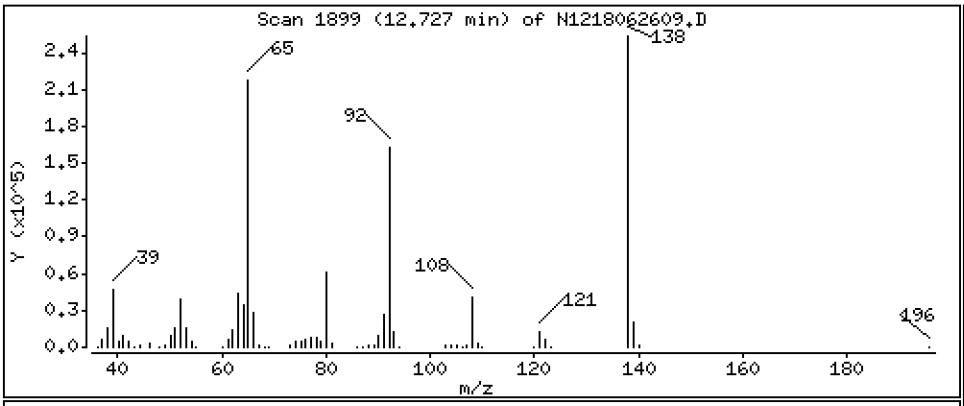
Operator: JZ

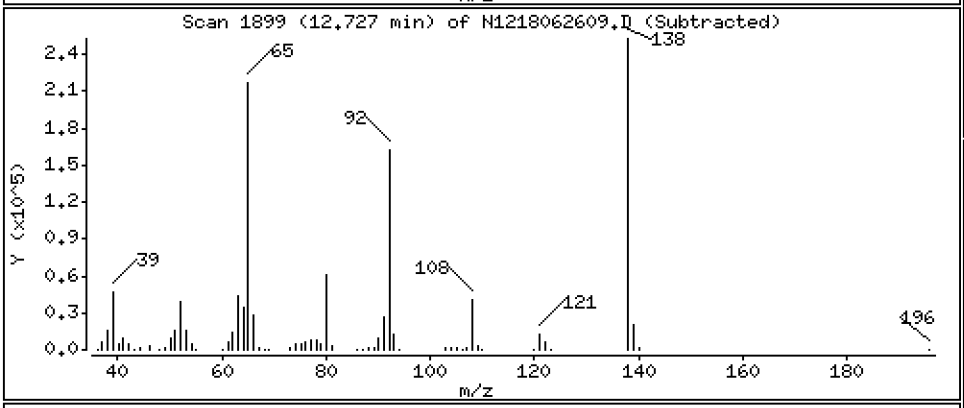
Column phase: ZB-5msi

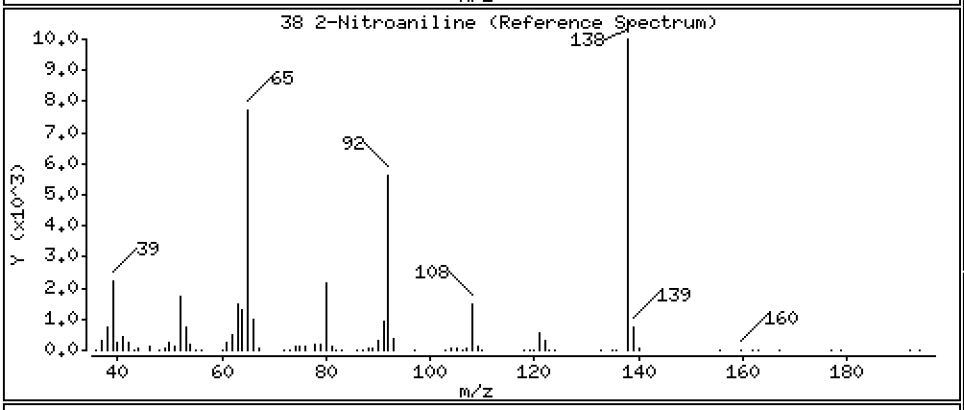
Column diameter: 0.32

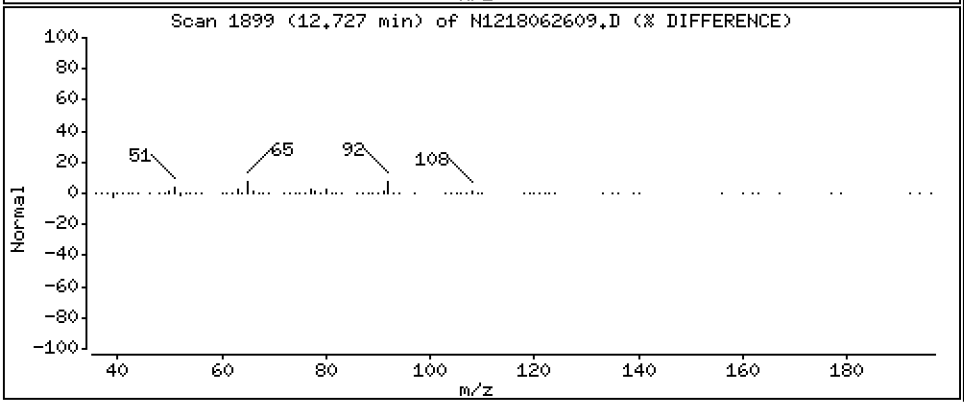
38 2-Nitroaniline

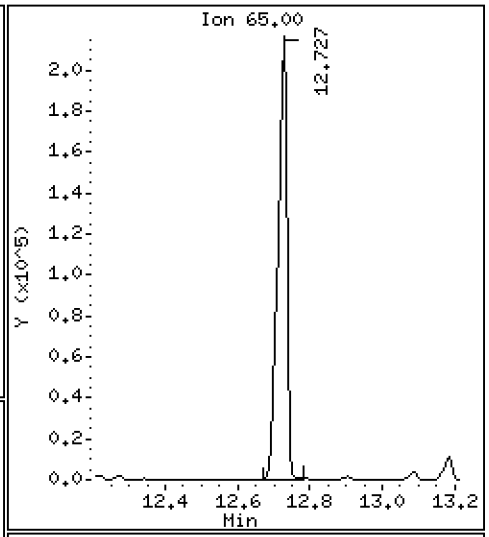
Concentration: 59.50 ug/mL

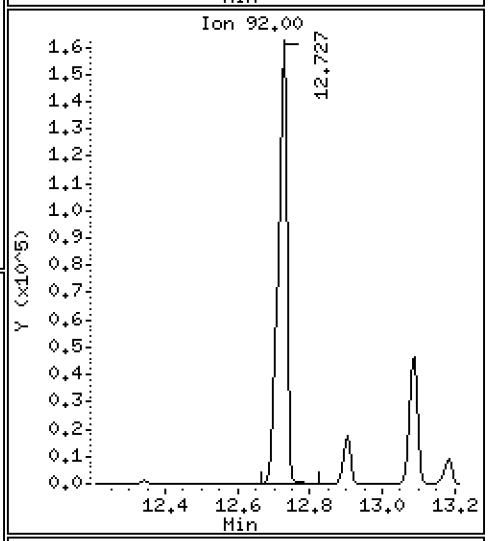


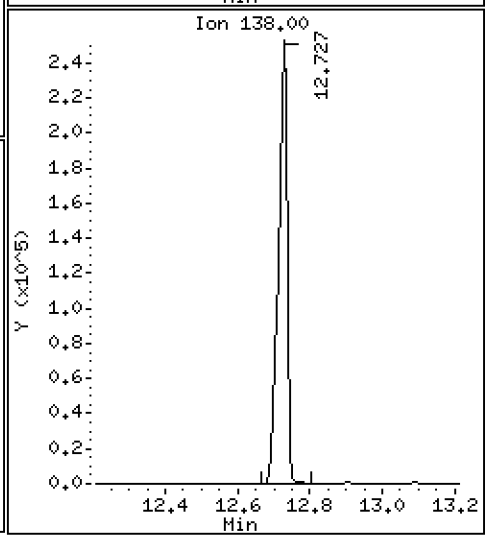












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

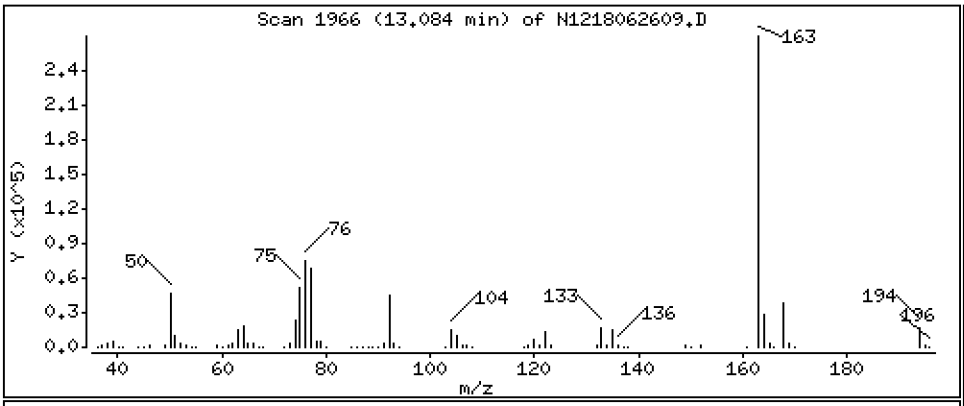
Operator: JZ

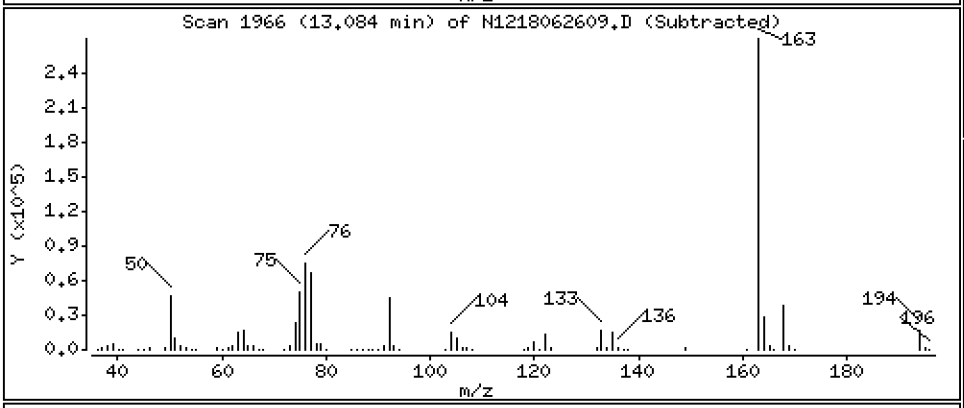
Column phase: ZB-5msi

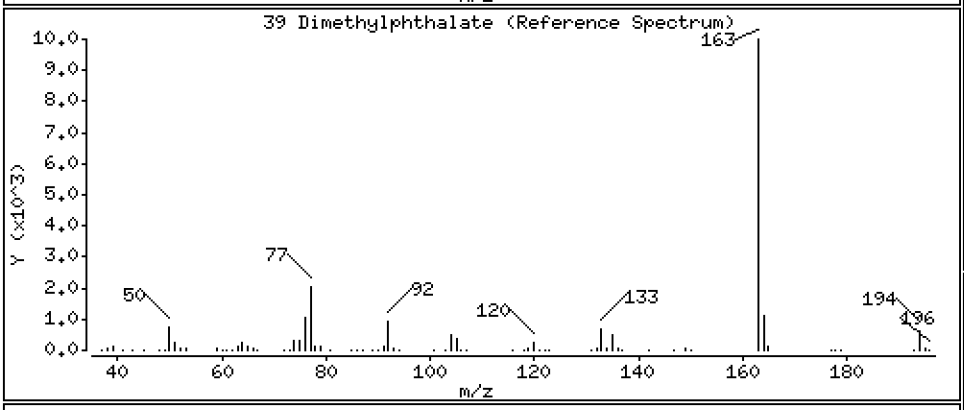
Column diameter: 0.32

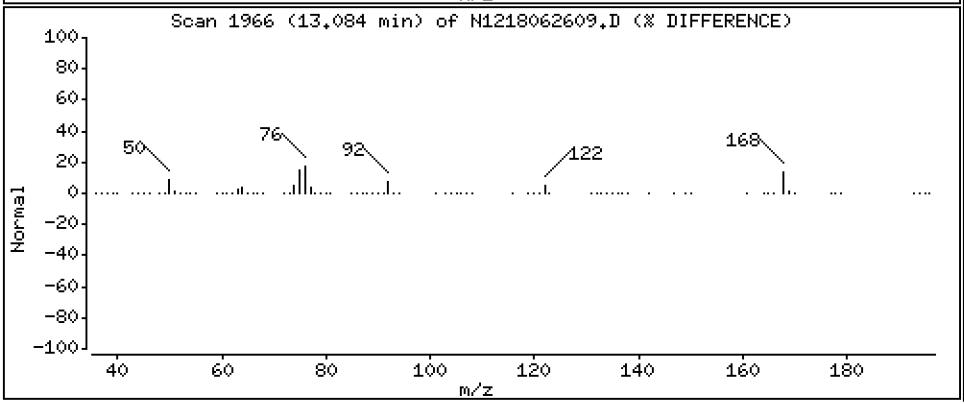
39 Dimethylphthalate

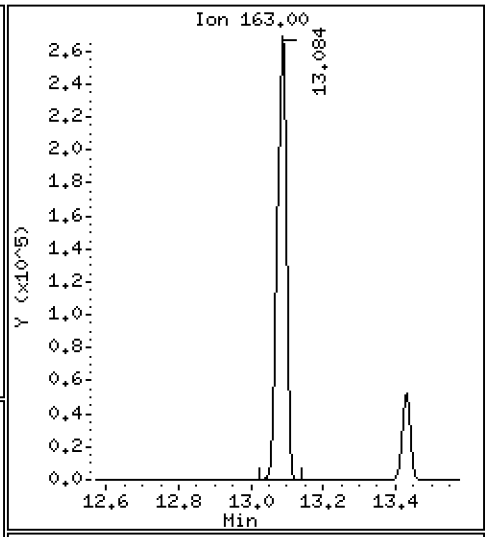
Concentration: 21.08 ug/mL

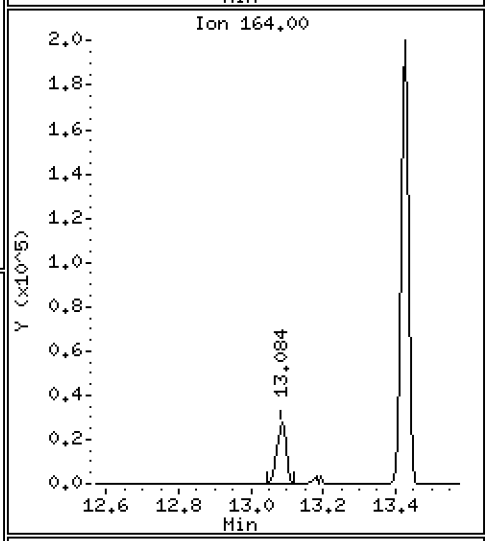


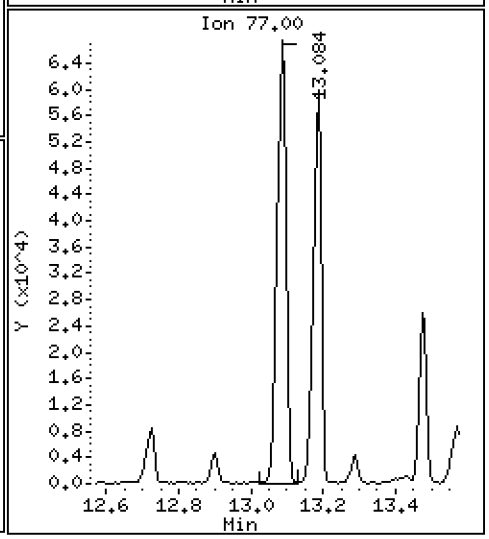












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

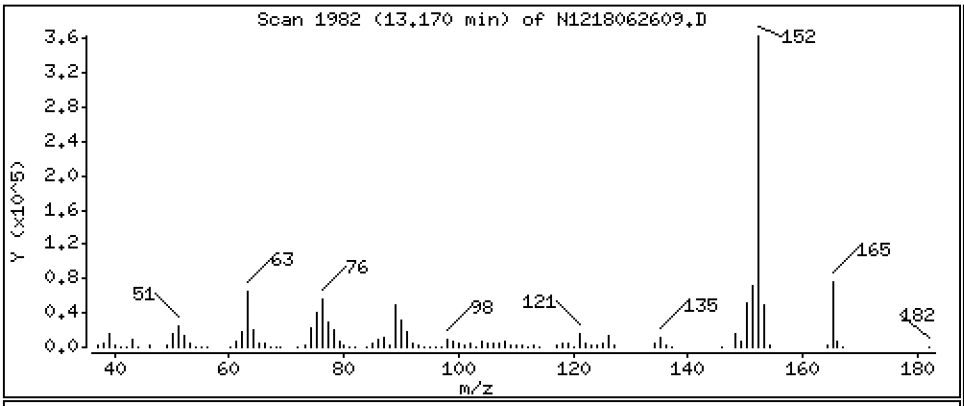
Operator: JZ

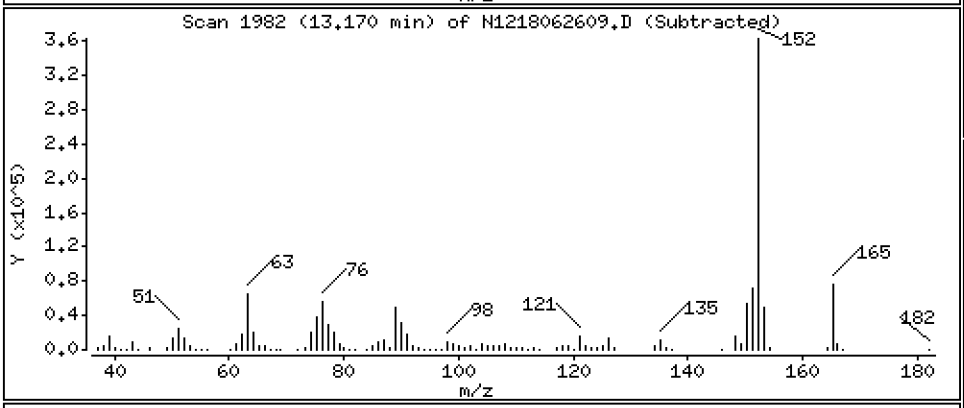
Column phase: ZB-5msi

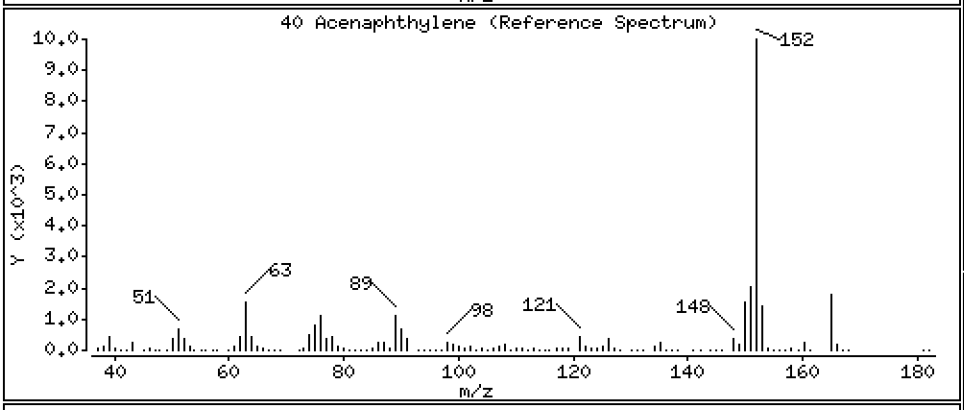
Column diameter: 0.32

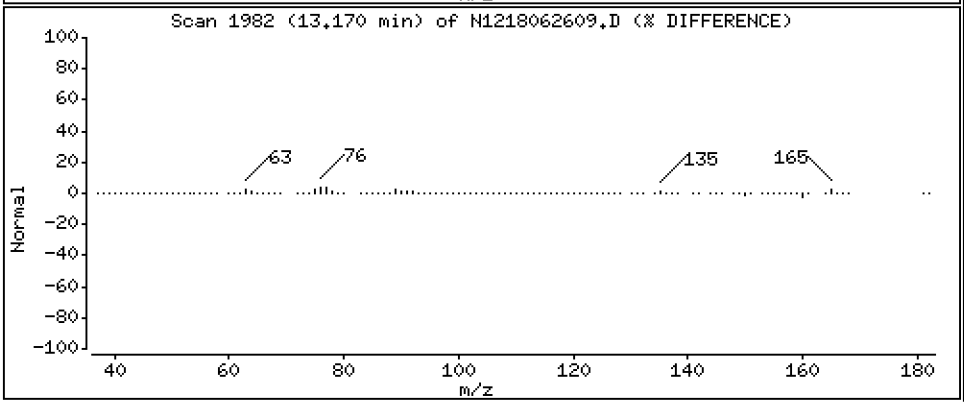
40 Acenaphthylene

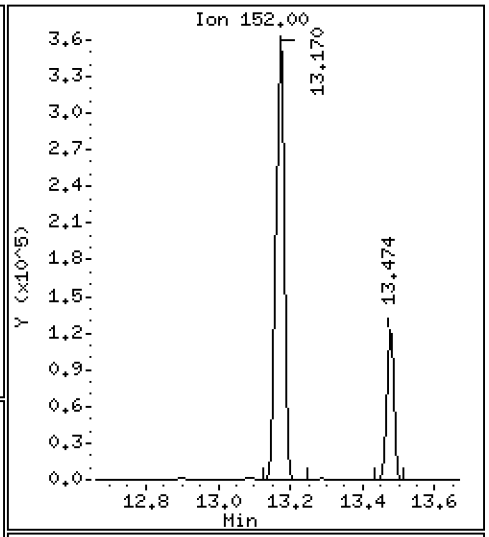
Concentration: 19.37 ug/mL

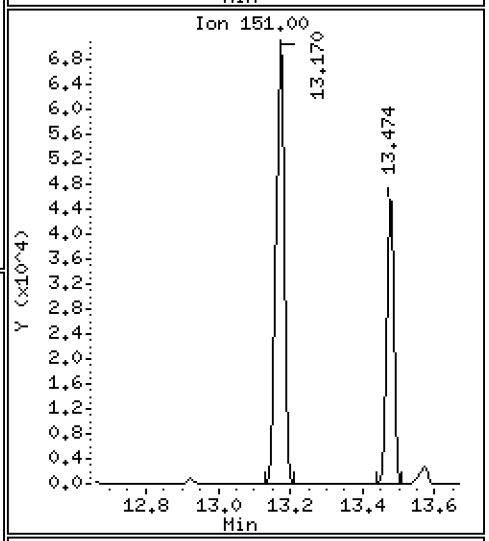


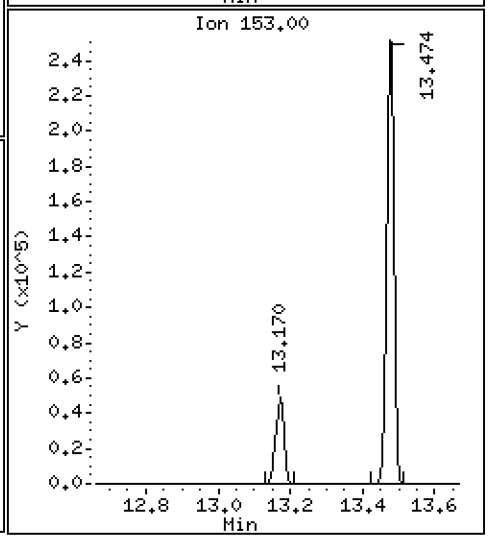












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

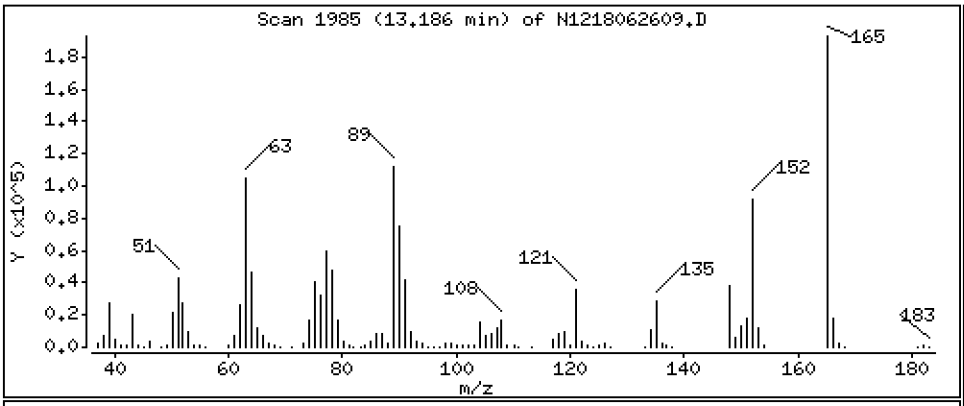
Operator: JZ

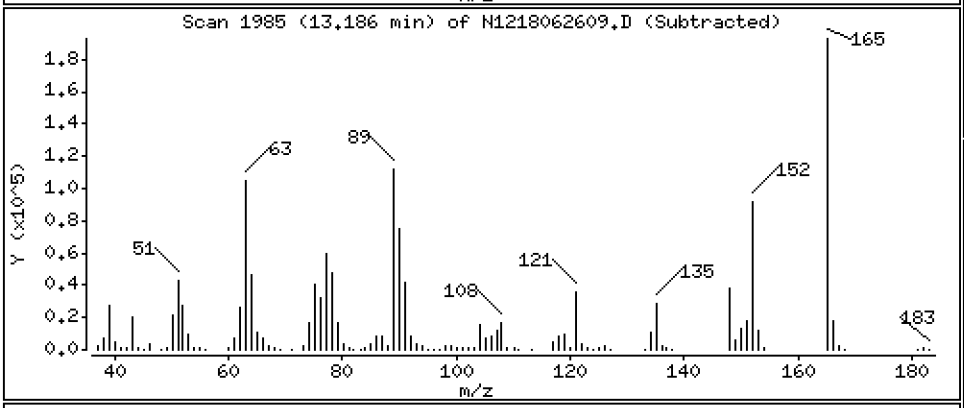
Column phase: ZB-5msi

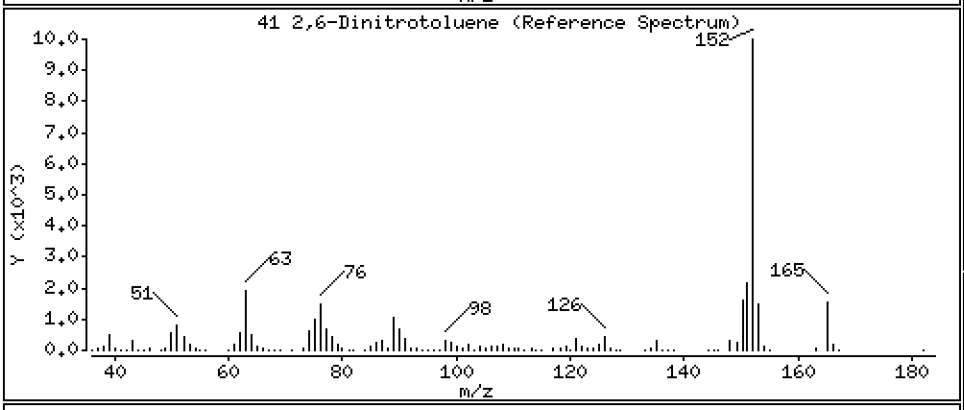
Column diameter: 0.32

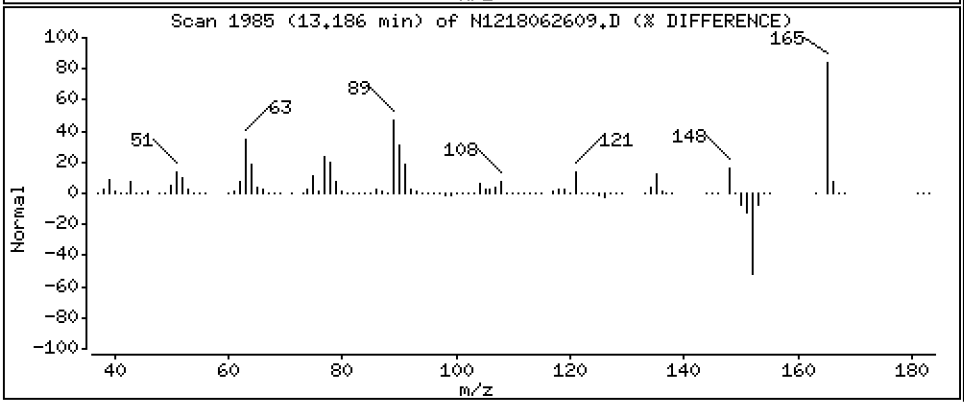
41 2,6-Dinitrotoluene

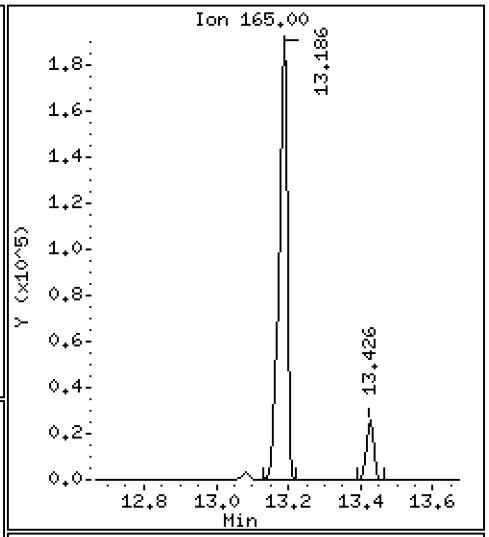
Concentration: 65.12 ug/mL

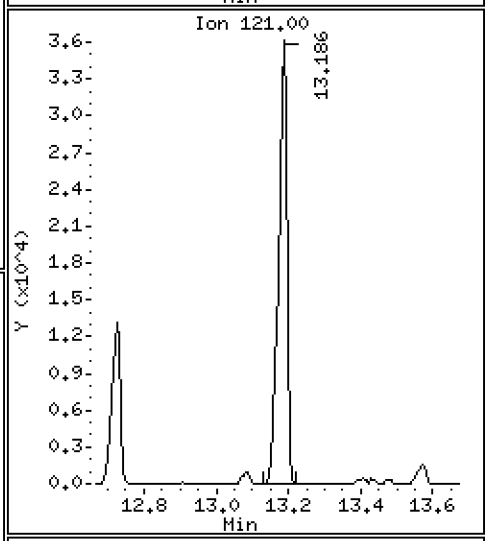


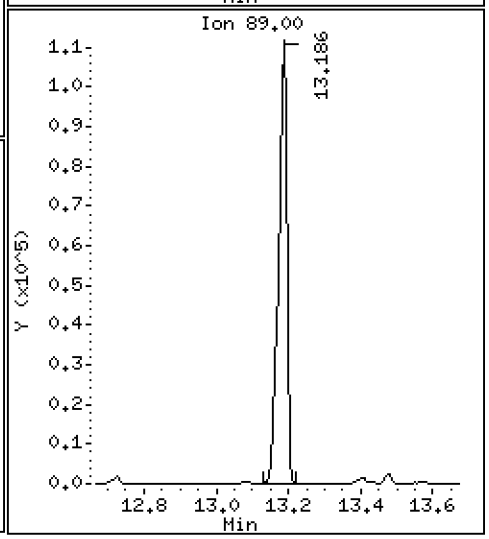












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

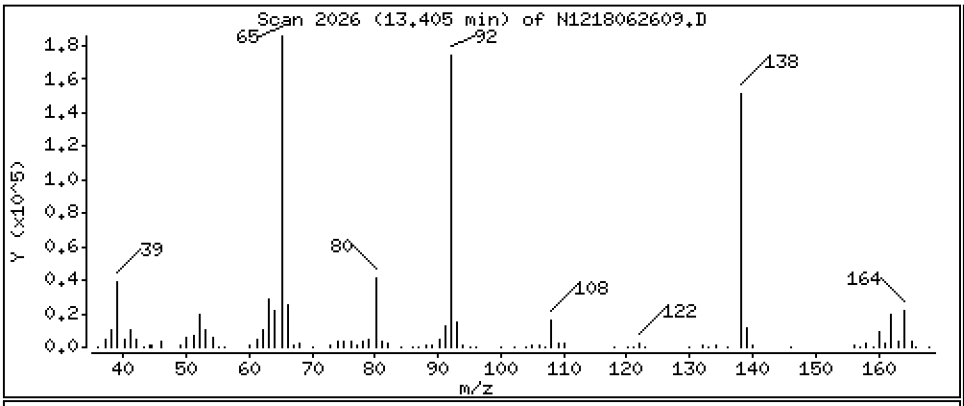
Operator: JZ

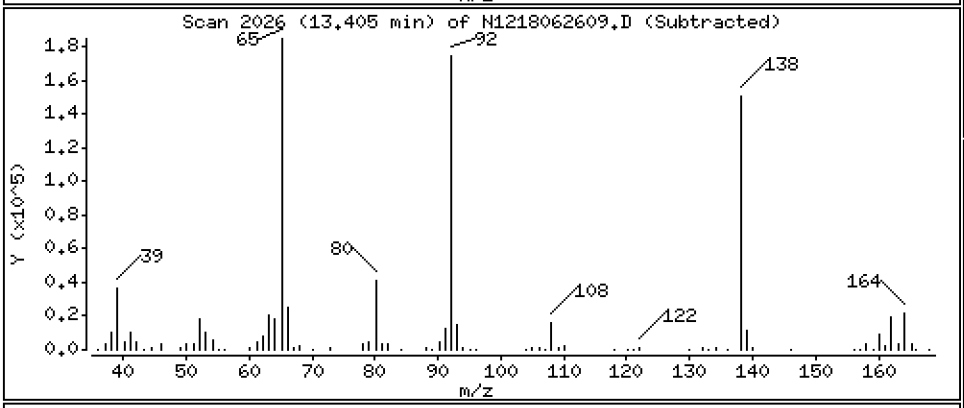
Column phase: ZB-5msi

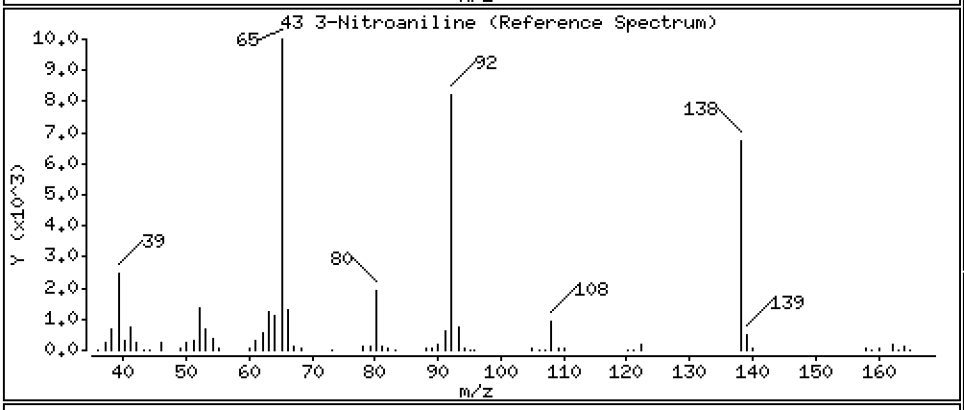
Column diameter: 0.32

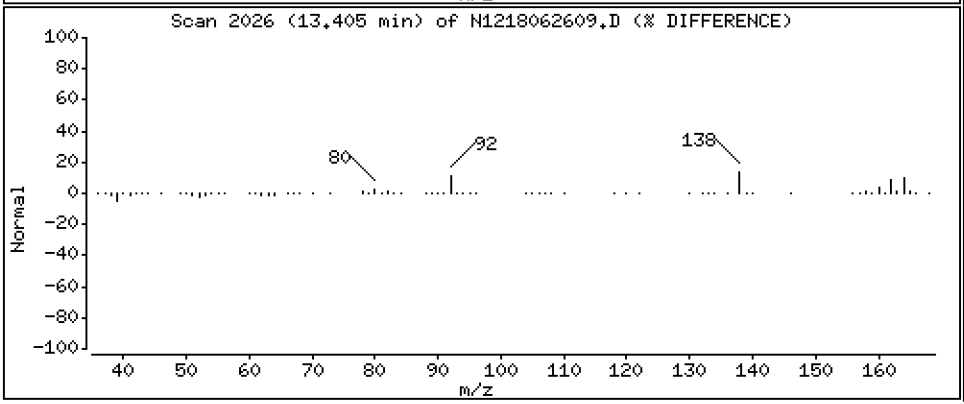
43 3-Nitroaniline

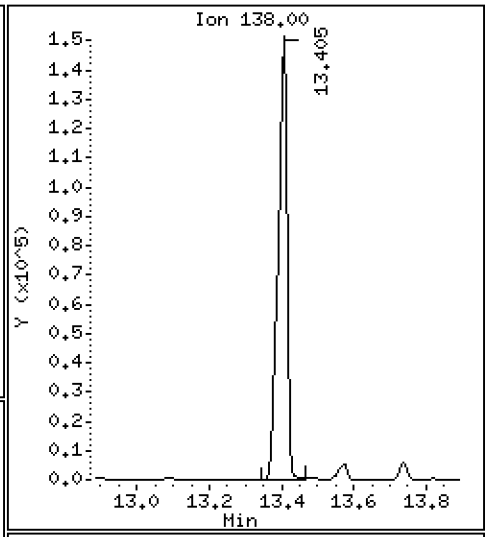
Concentration: 45.18 ug/mL

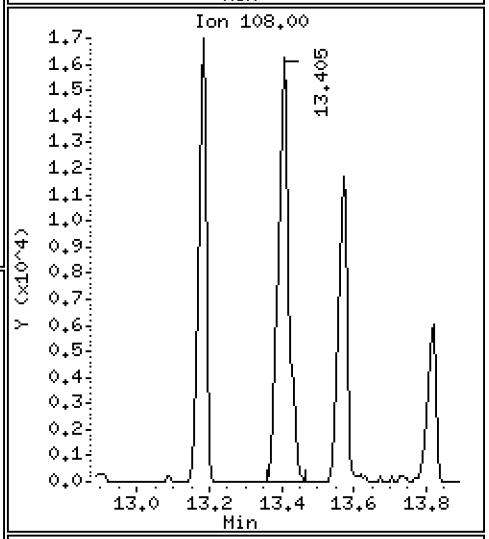


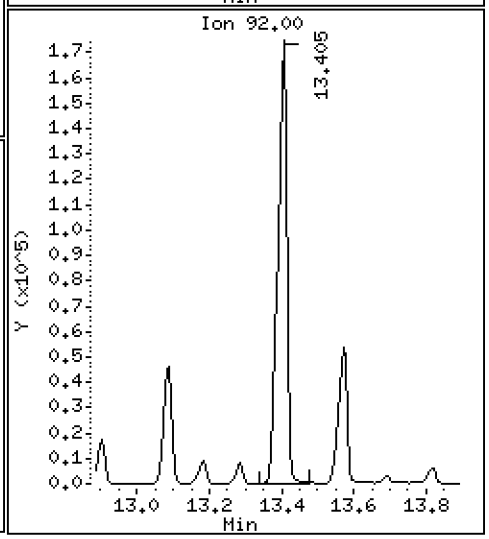












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

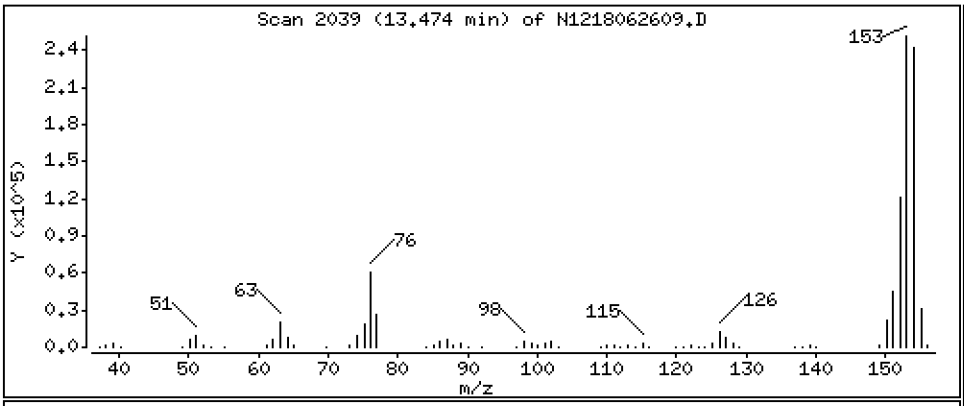
Operator: JZ

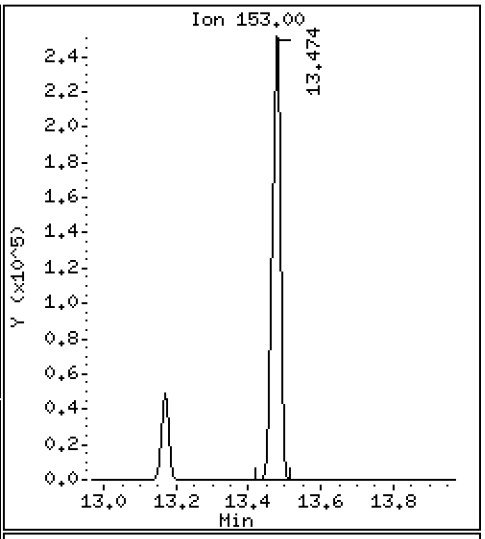
Column phase: ZB-5msi

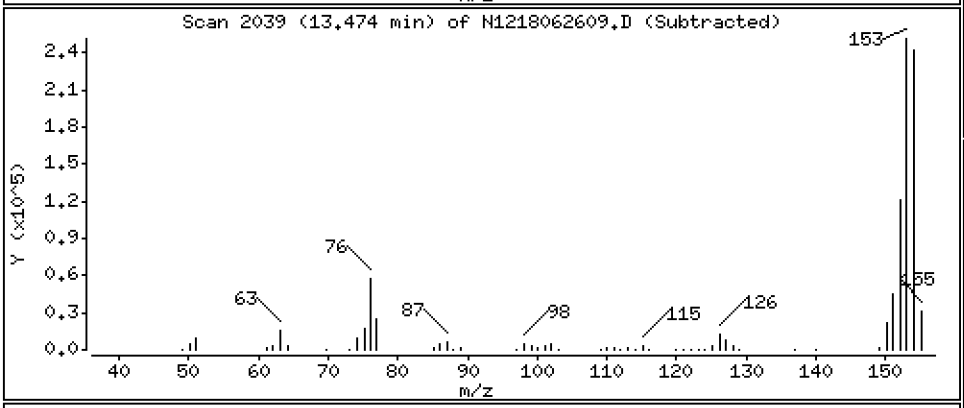
Column diameter: 0.32

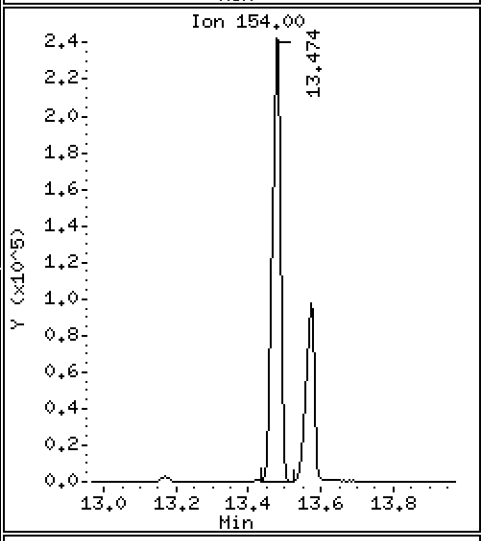
44 Acenaphthene

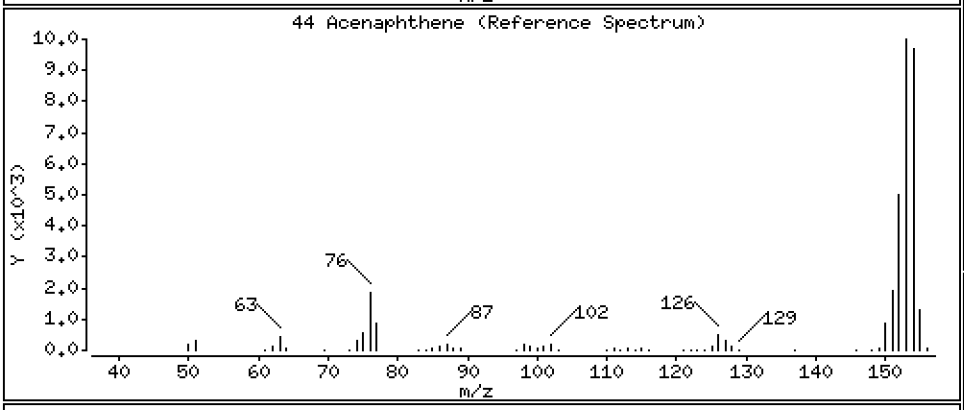
Concentration: 20.23 ug/mL

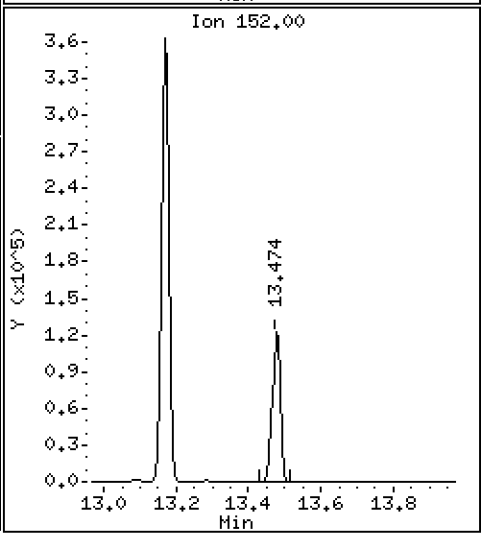


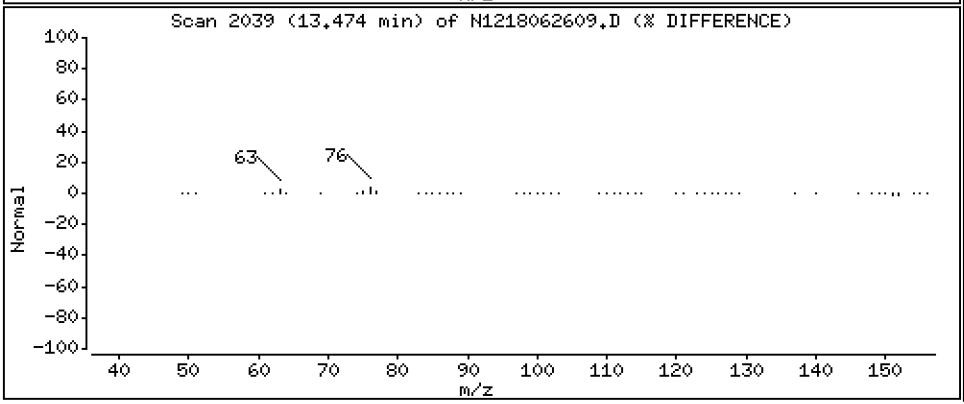












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

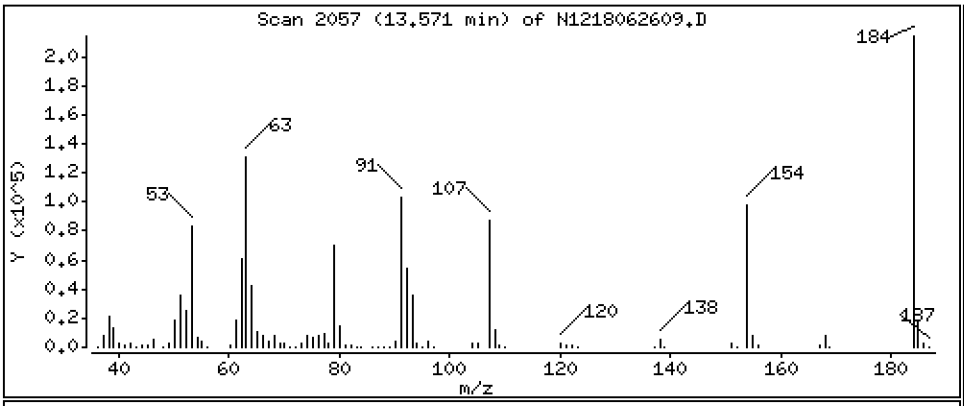
Operator: JZ

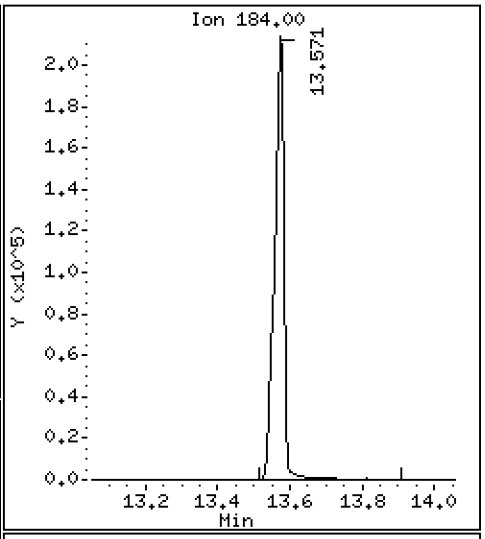
Column phase: ZB-5msi

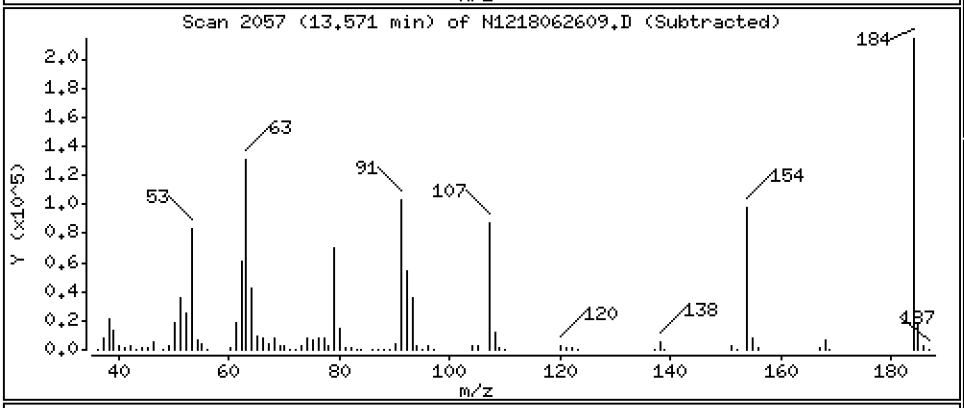
Column diameter: 0.32

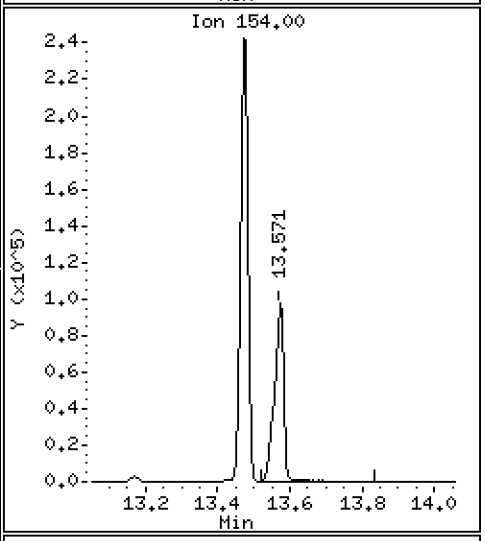
45 2,4-Dinitrophenol

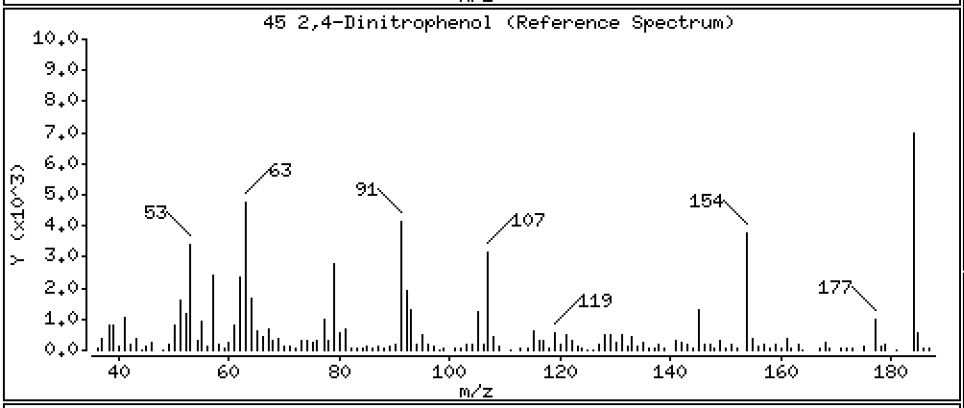
Concentration: 133.9 ug/mL

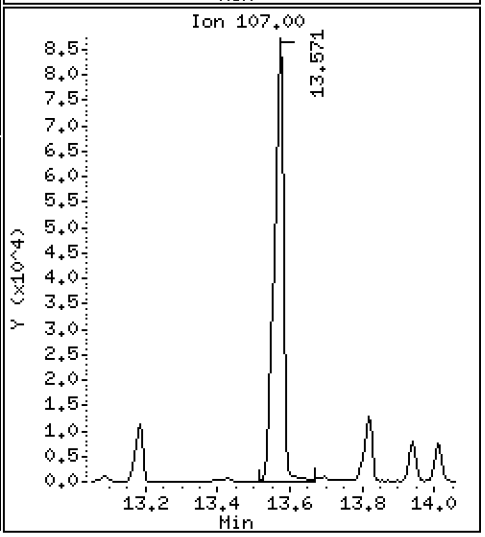


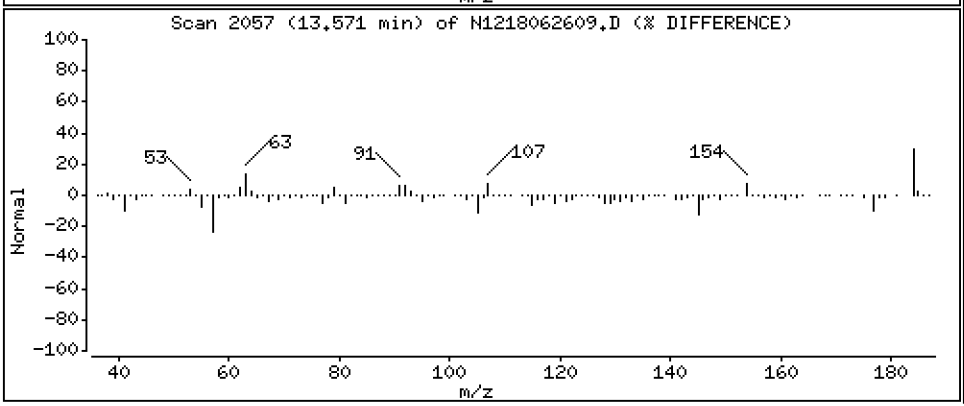












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

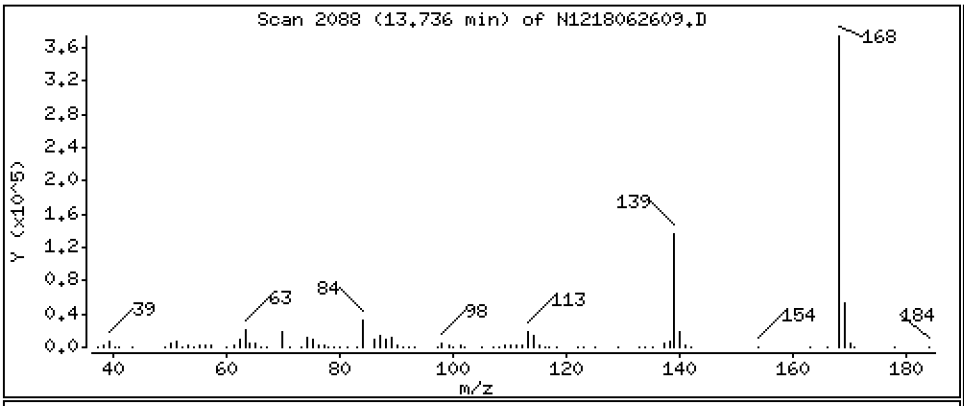
Operator: JZ

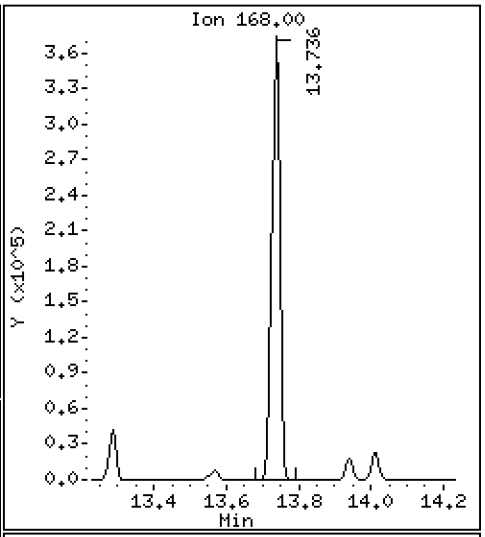
Column phase: ZB-5msi

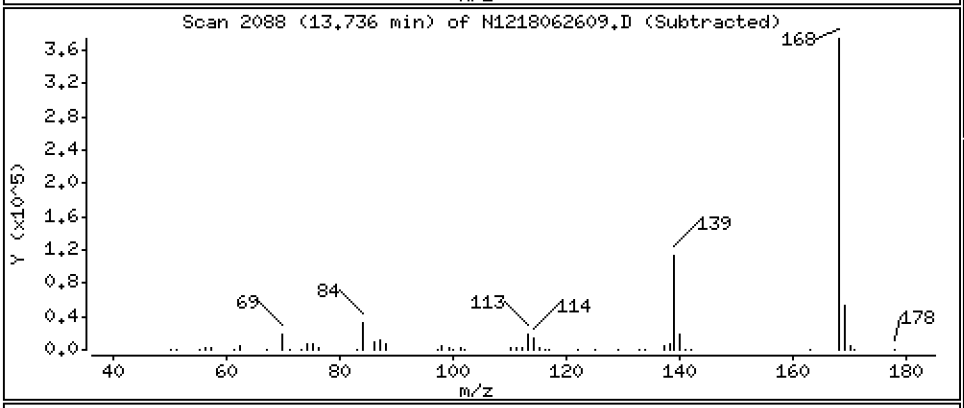
Column diameter: 0.32

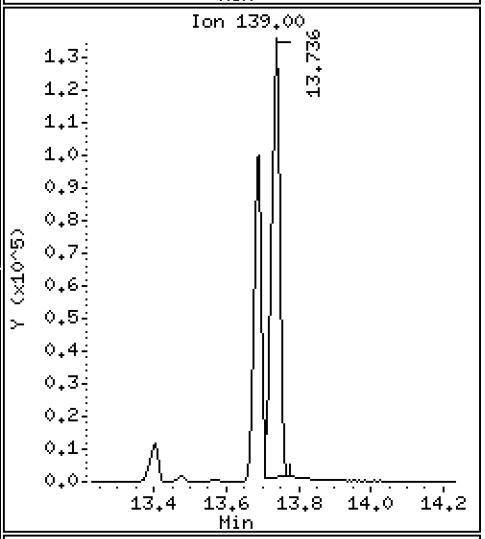
46 Dibenzofuran

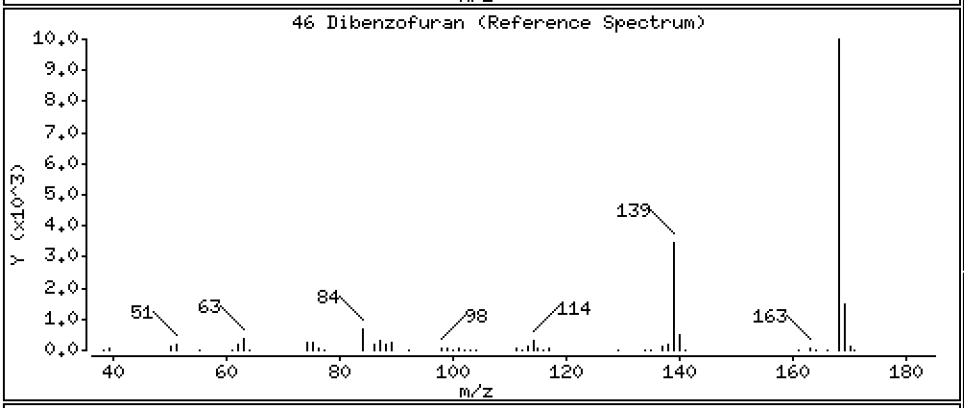
Concentration: 19.23 ug/mL

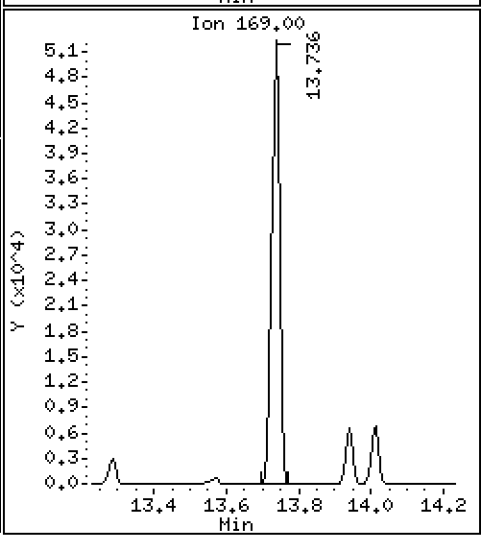


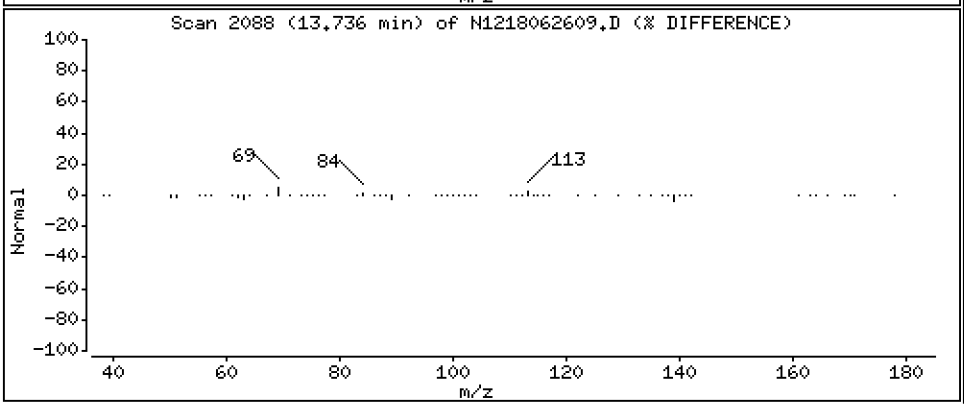












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

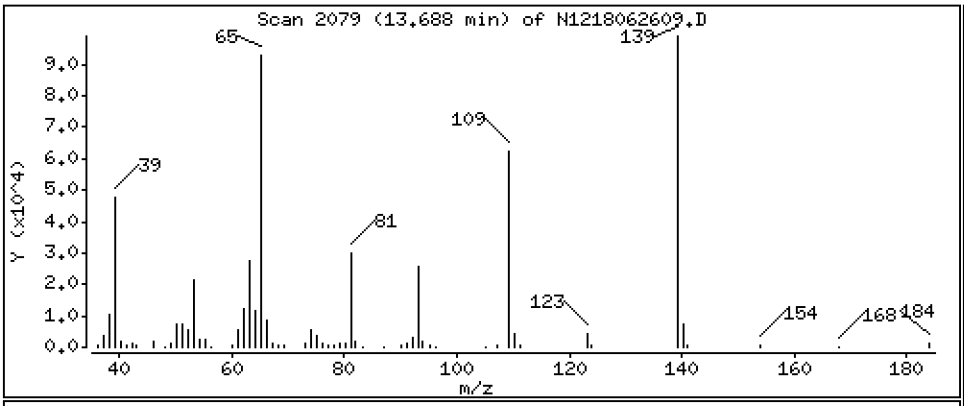
Operator: JZ

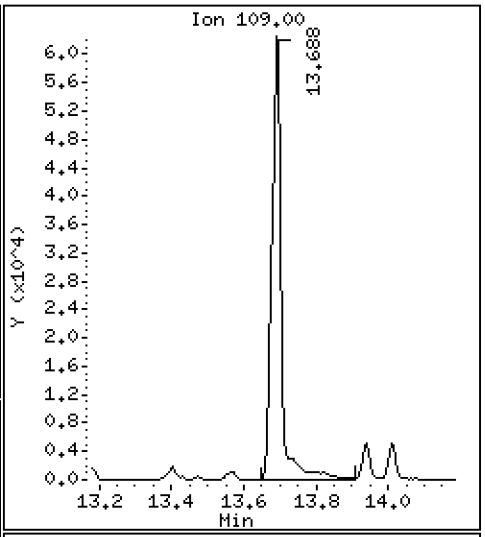
Column phase: ZB-5msi

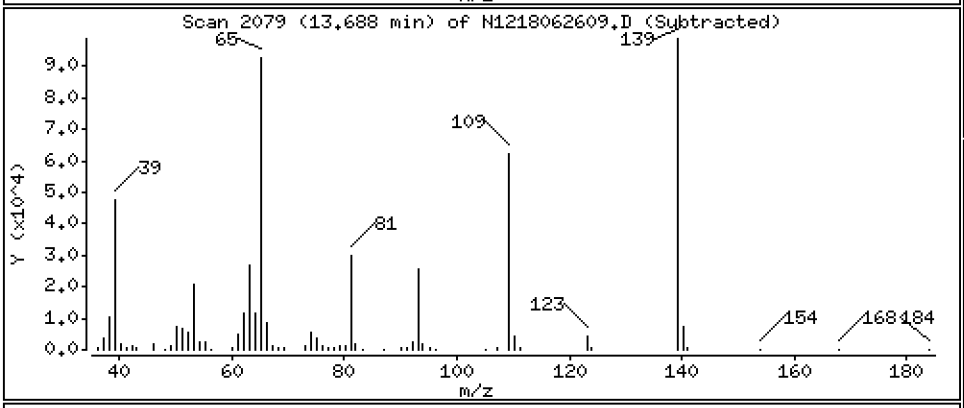
Column diameter: 0.32

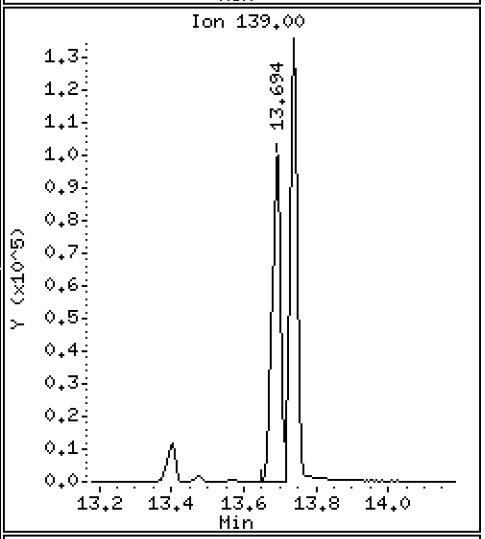
47 4-Nitrophenol

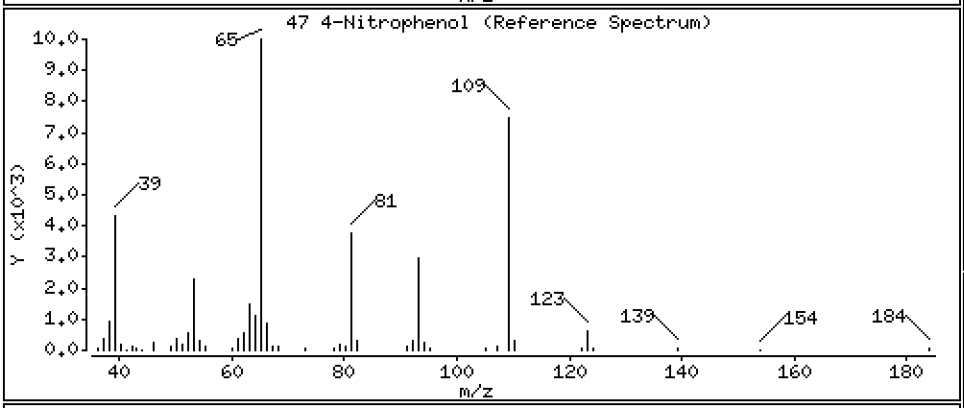
Concentration: 36.39 ug/mL

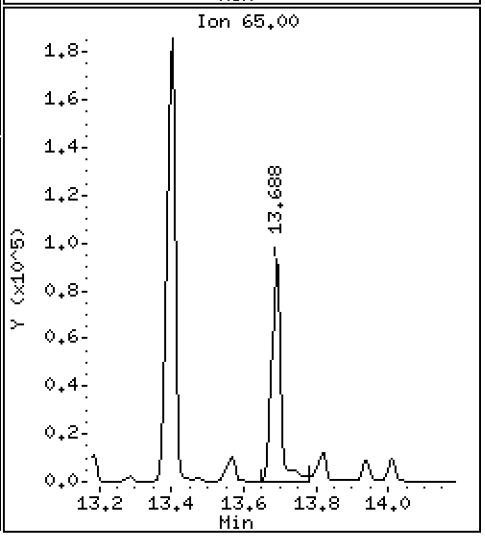


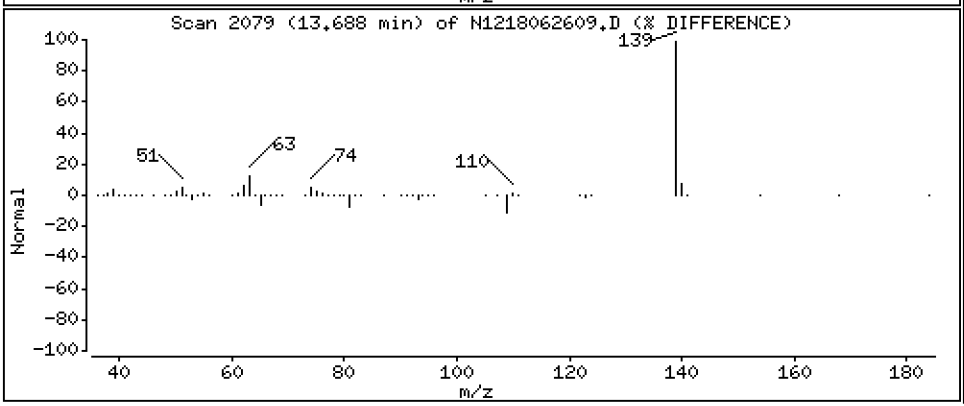












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

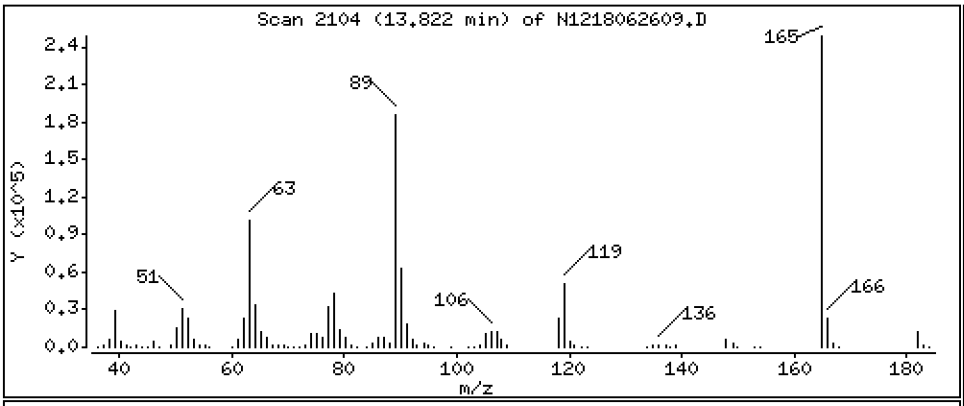
Operator: JZ

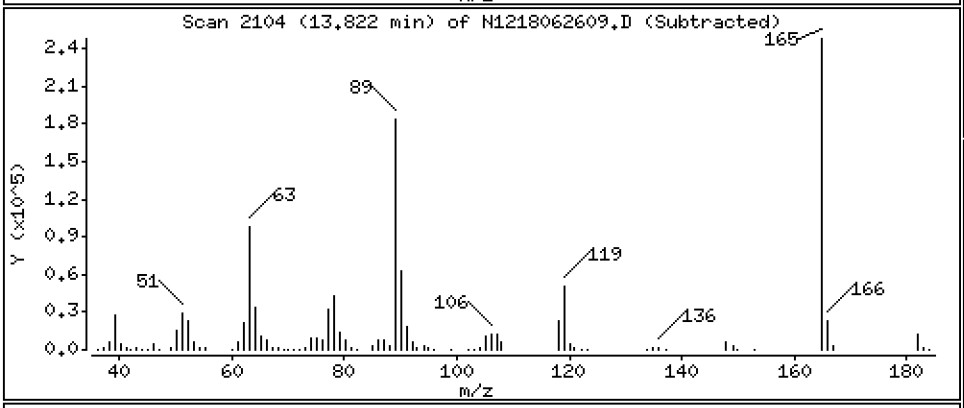
Column phase: ZB-5msi

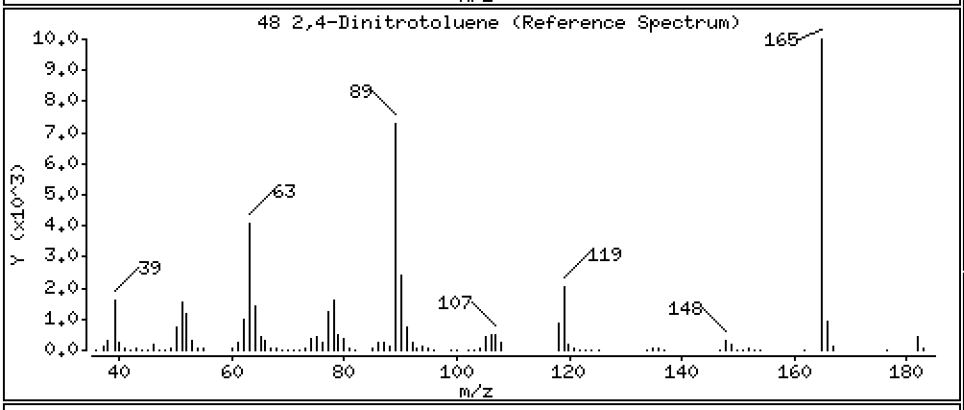
Column diameter: 0.32

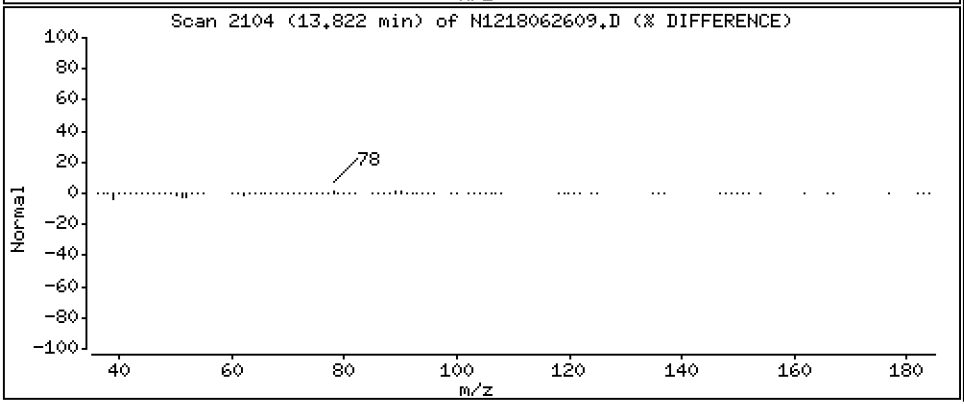
48 2,4-Dinitrotoluene

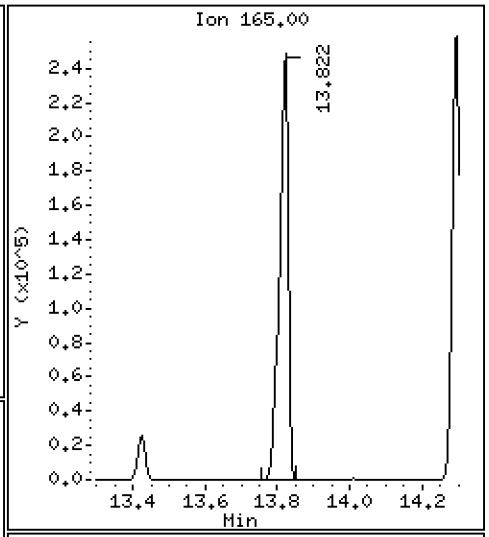
Concentration: 63.70 ug/mL

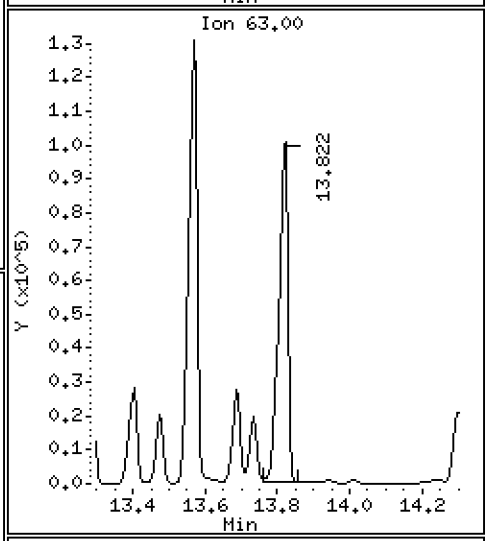


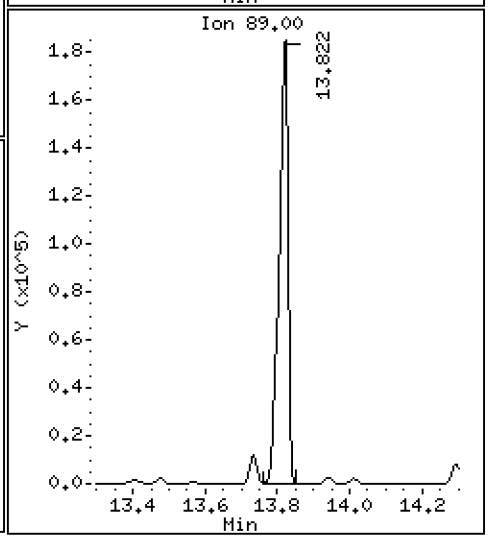












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

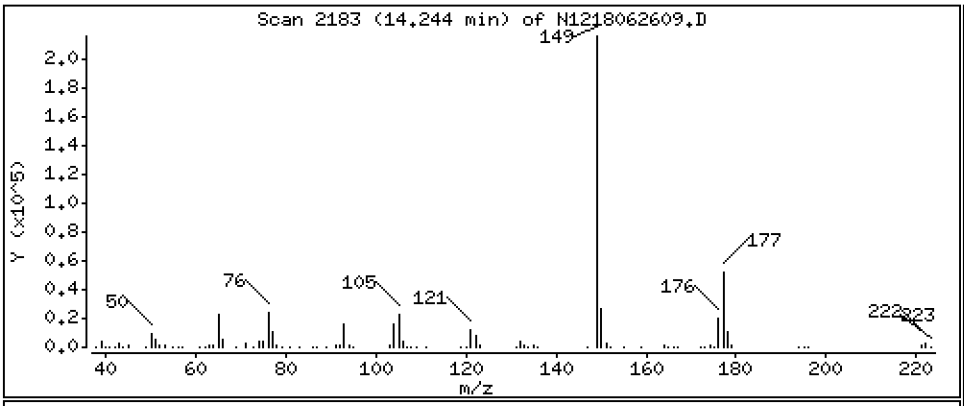
Operator: JZ

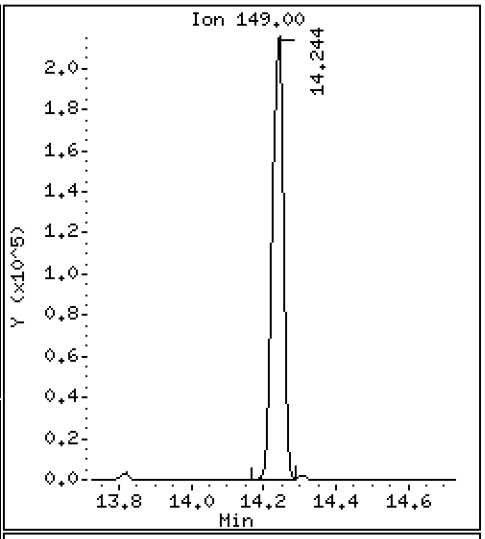
Column phase: ZB-5msi

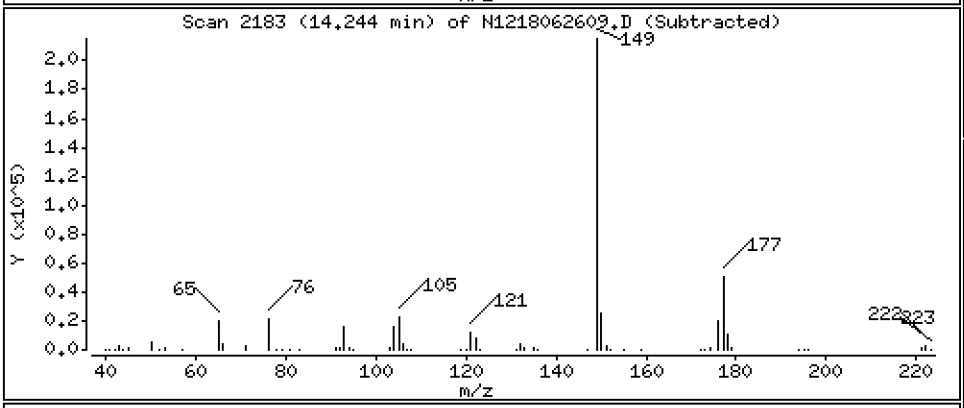
Column diameter: 0.32

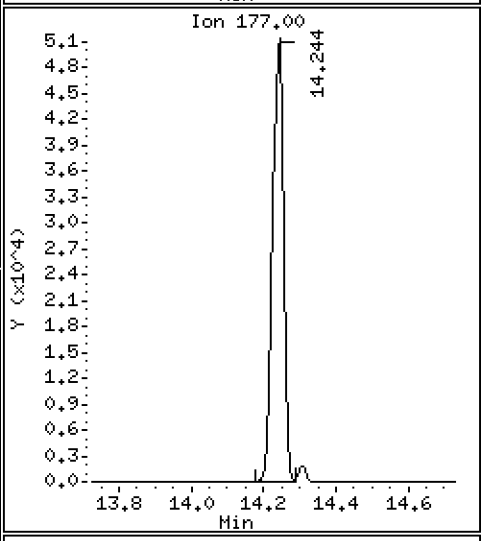
50 Diethylphthalate

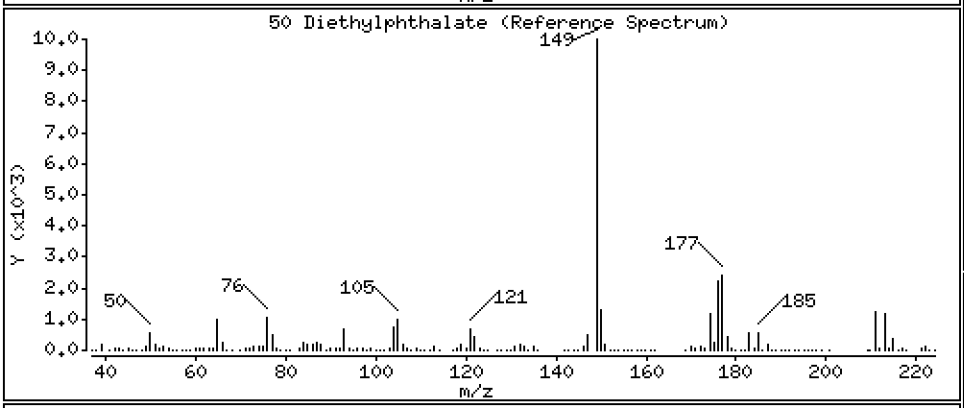
Concentration: 21.71 ug/mL

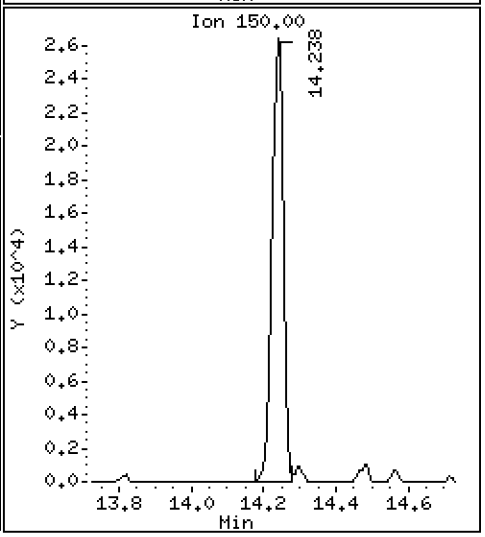


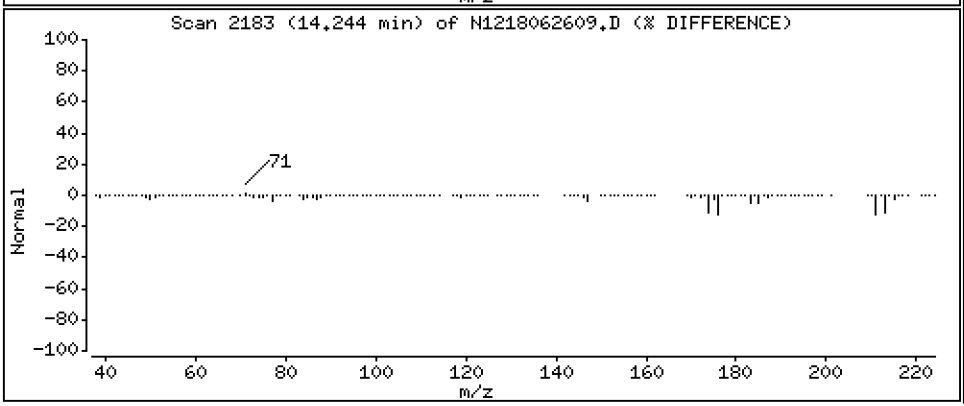












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

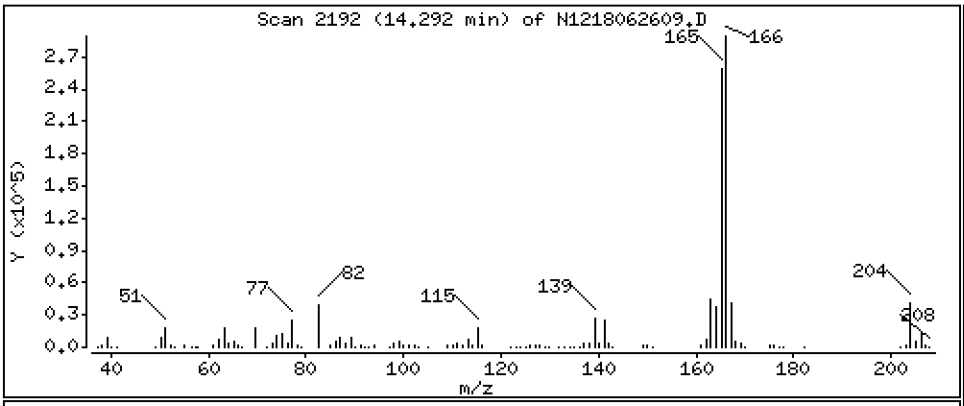
Operator: JZ

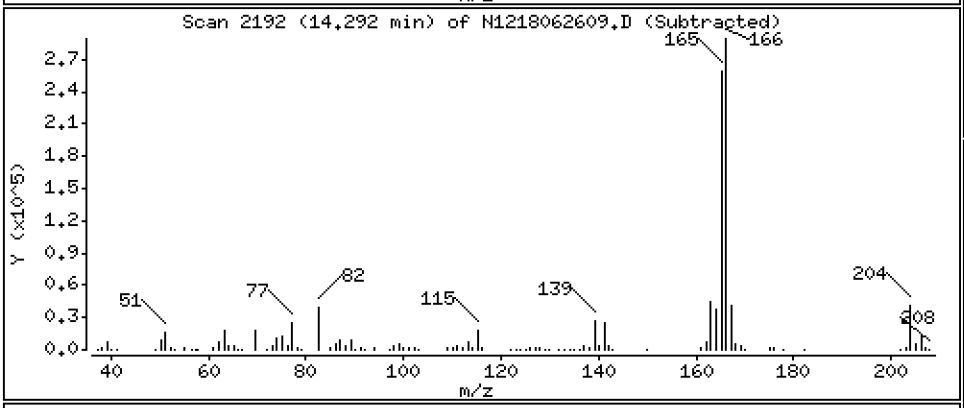
Column phase: ZB-5msi

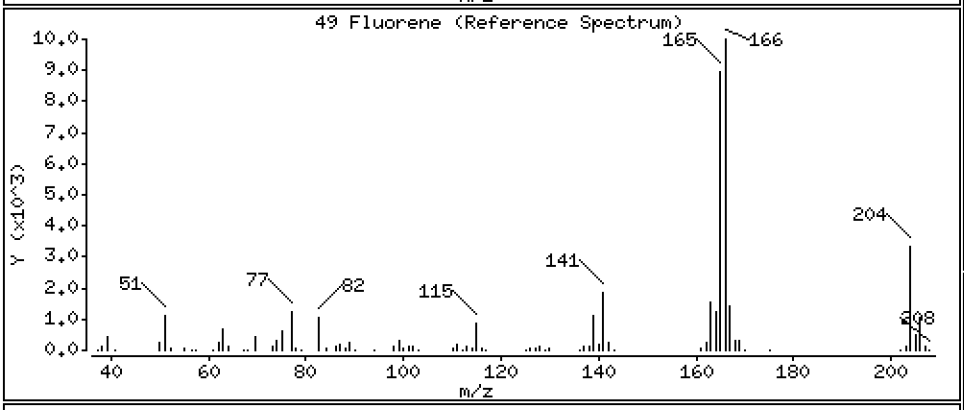
Column diameter: 0.32

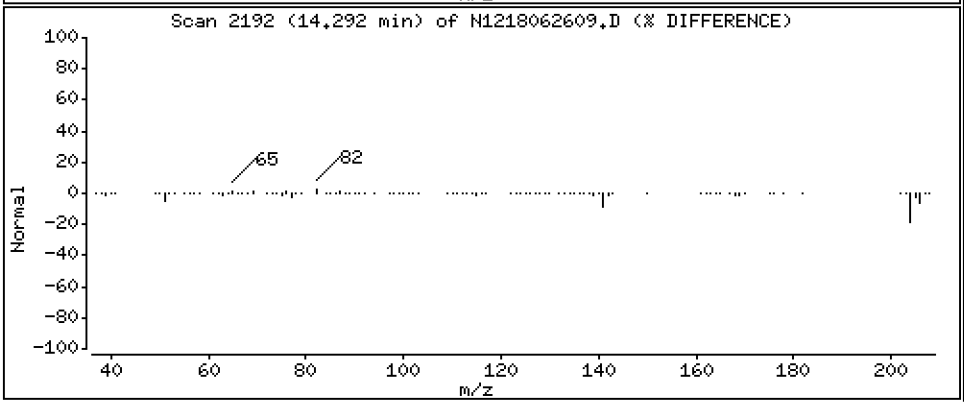
49 Fluorene

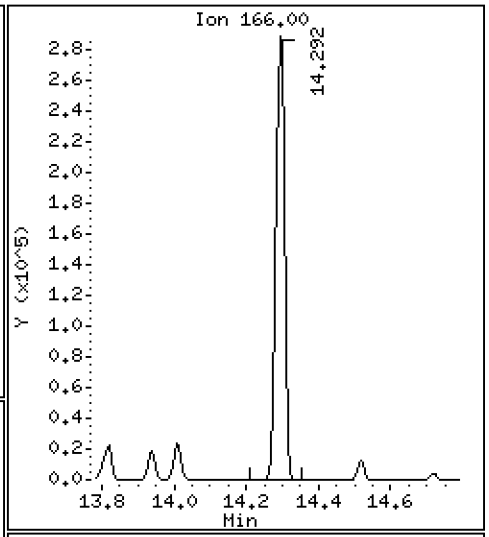
Concentration: 21.15 ug/mL

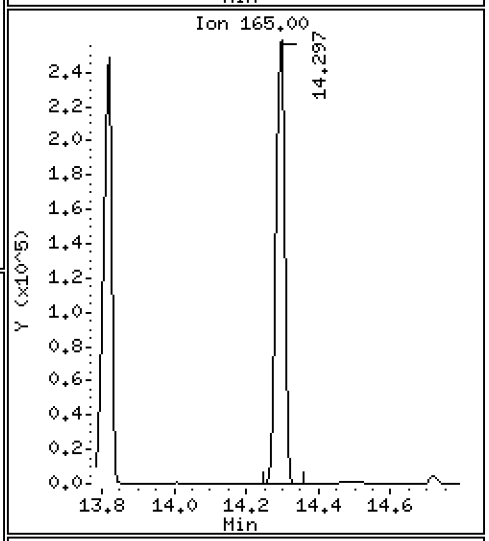


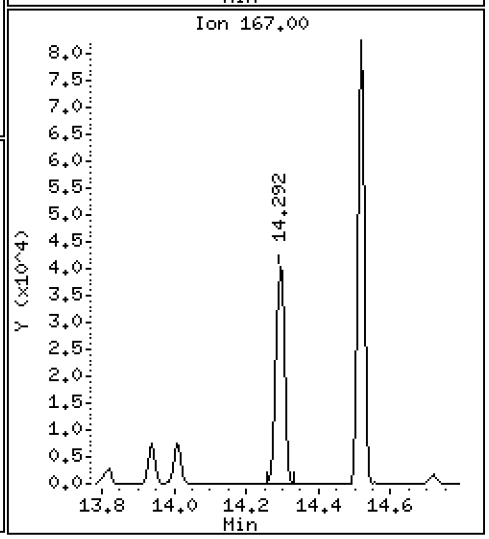












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

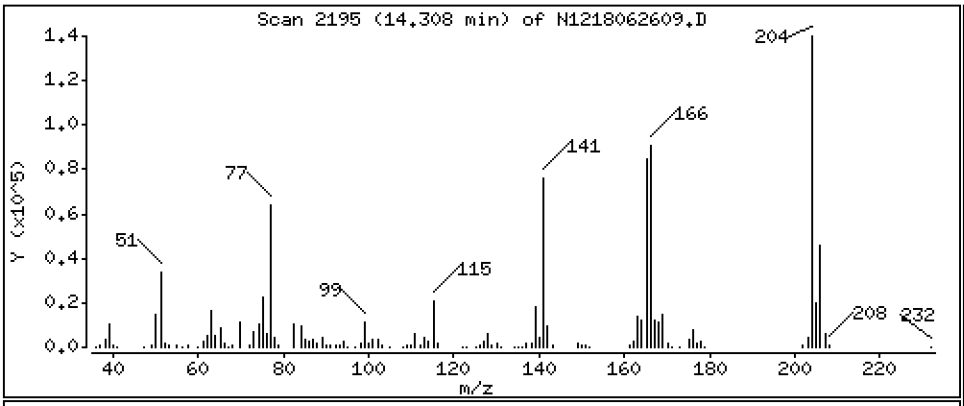
Operator: JZ

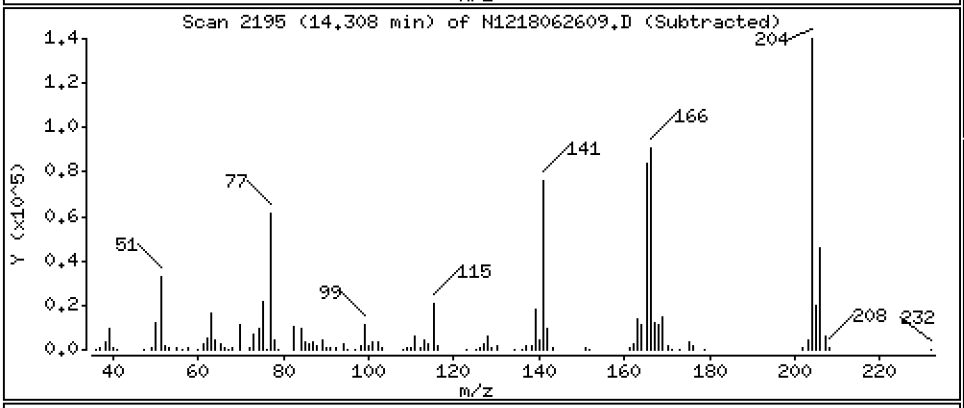
Column phase: ZB-5msi

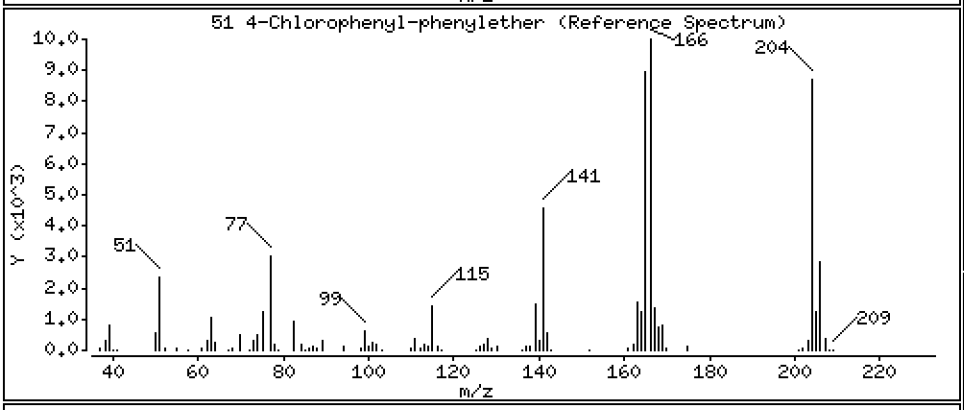
Column diameter: 0.32

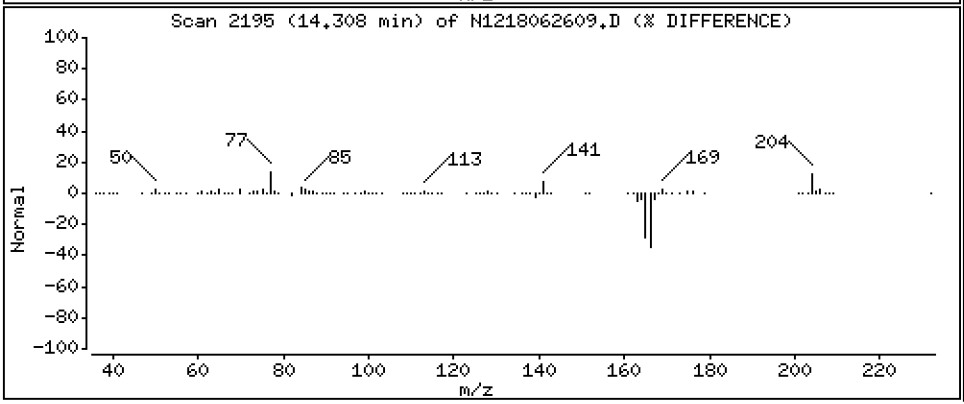
51 4-Chlorophenyl-phenylether

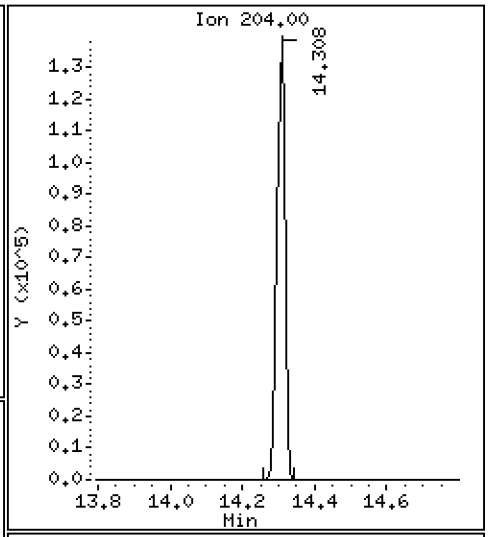
Concentration: 20.58 ug/mL

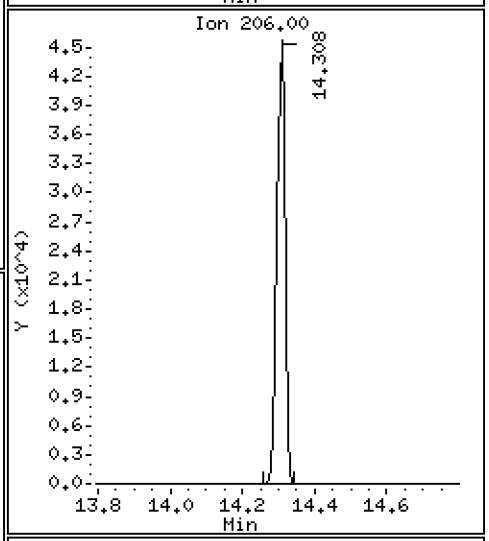


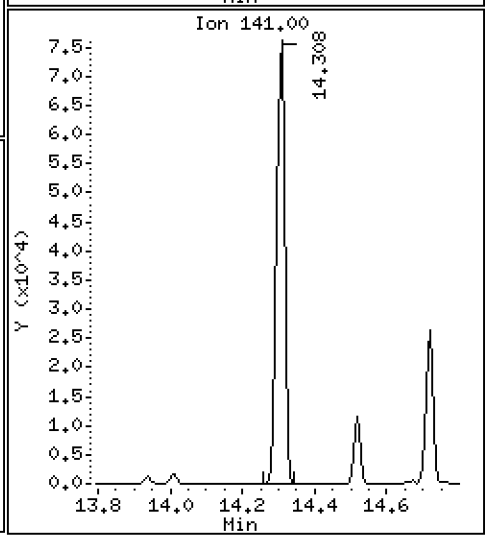












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

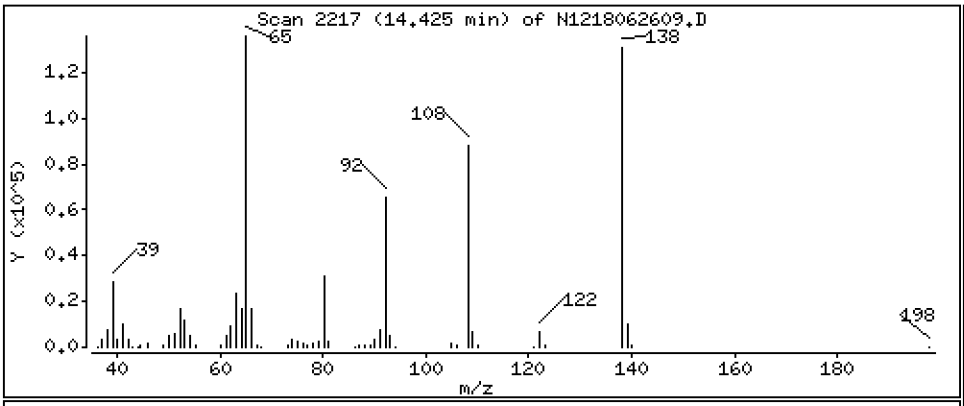
Operator: JZ

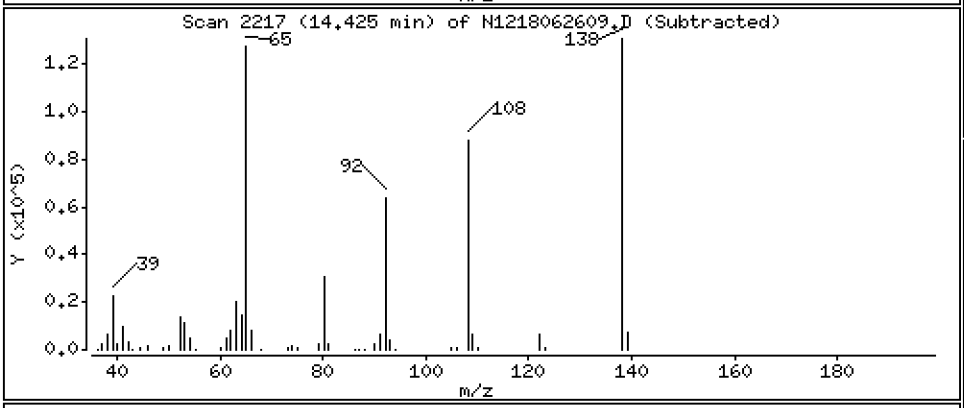
Column phase: ZB-5msi

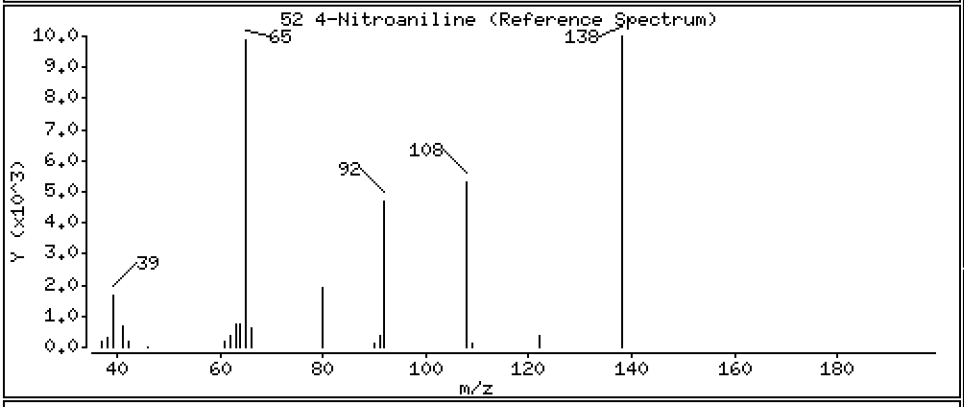
Column diameter: 0.32

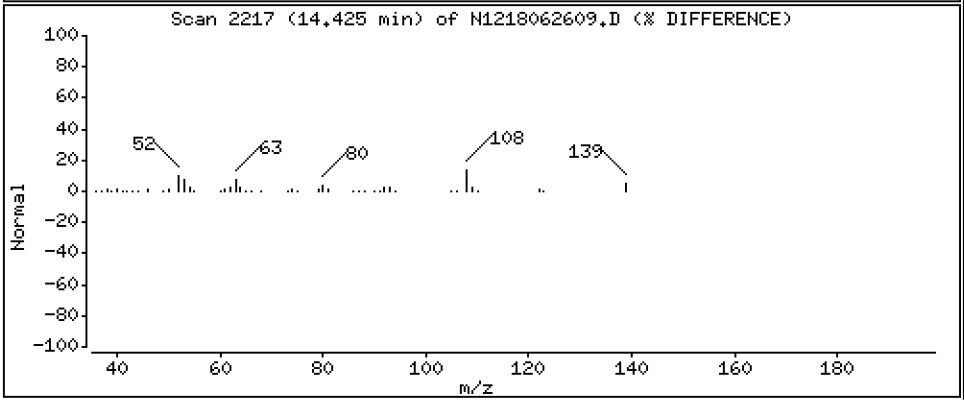
52 4-Nitroaniline

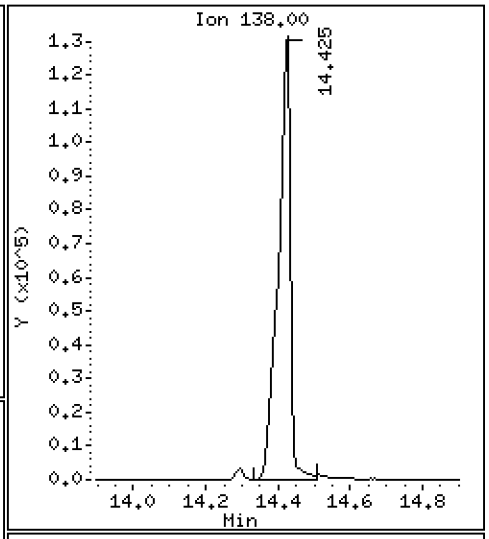
Concentration: 55.08 ug/mL

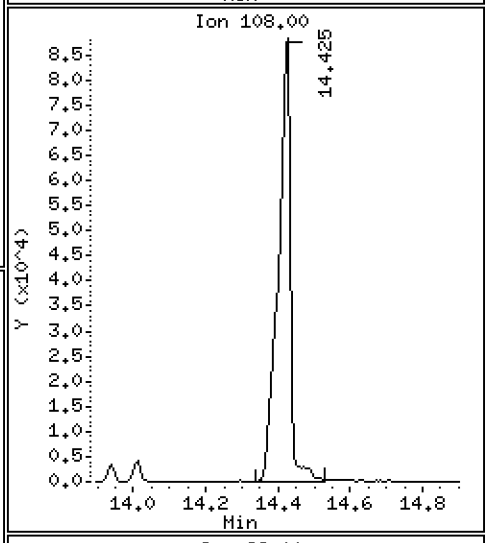


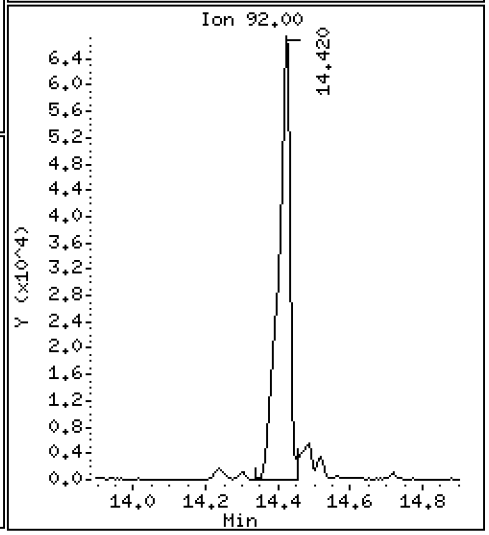












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

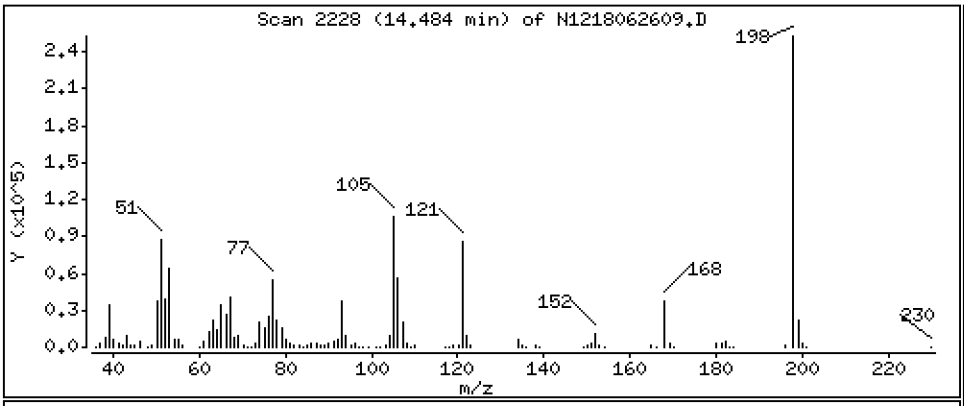
Operator: JZ

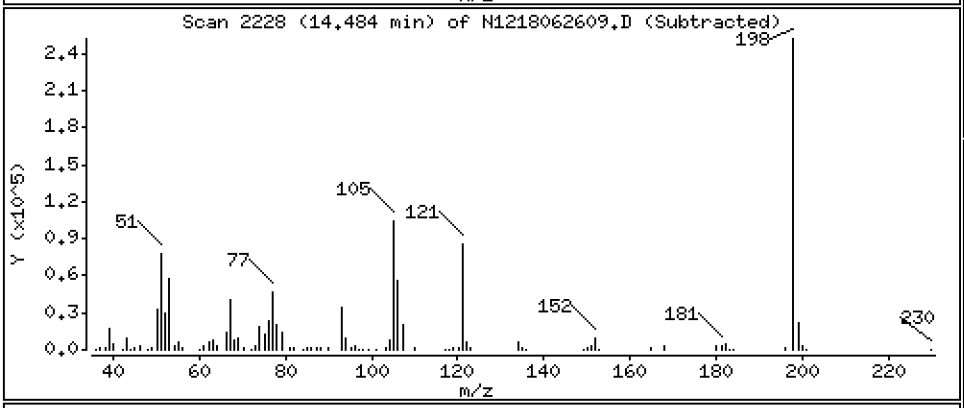
Column phase: ZB-5msi

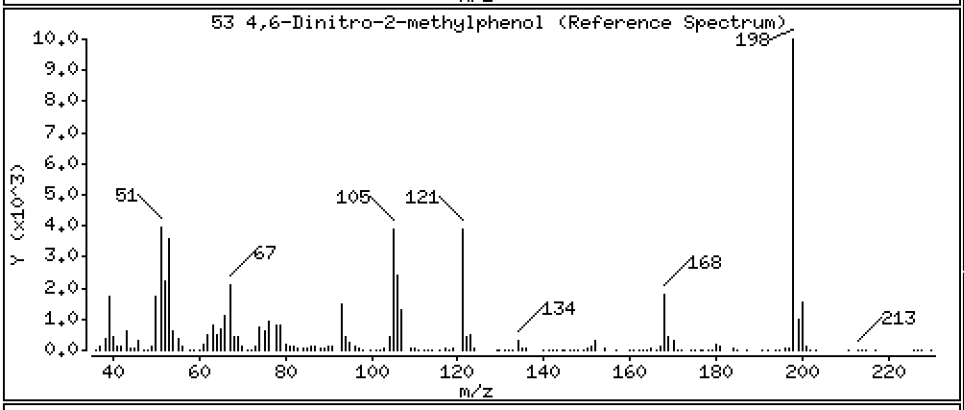
Column diameter: 0.32

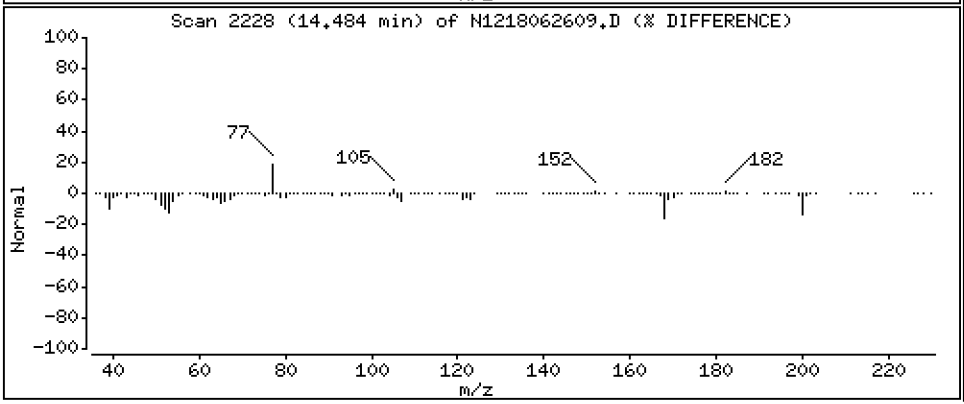
53 4,6-Dinitro-2-methylphenol

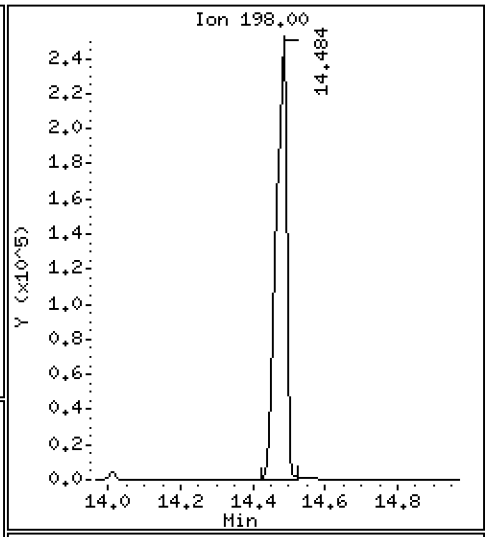
Concentration: 130.6 ug/mL

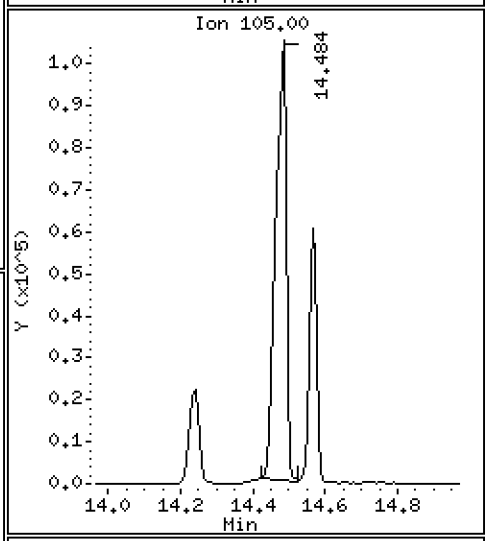


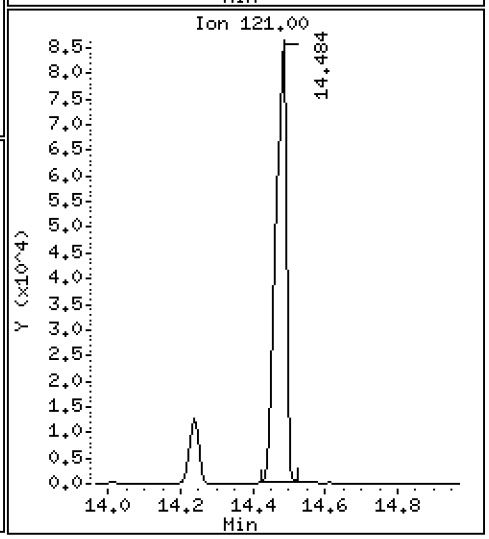












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

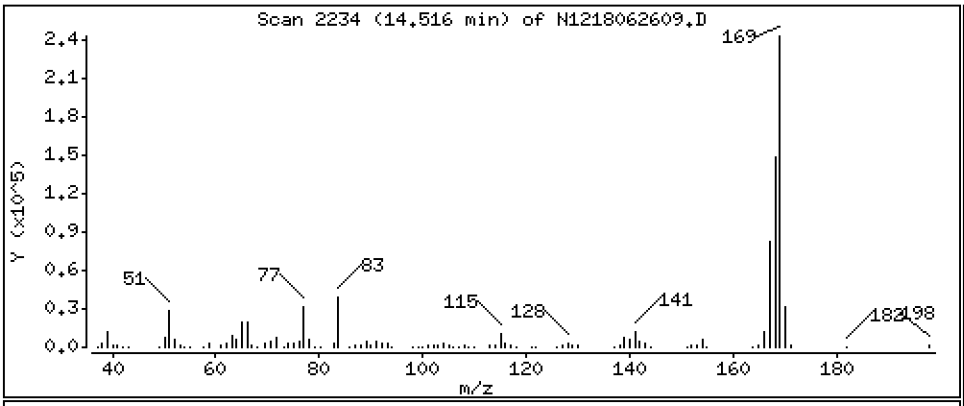
Operator: JZ

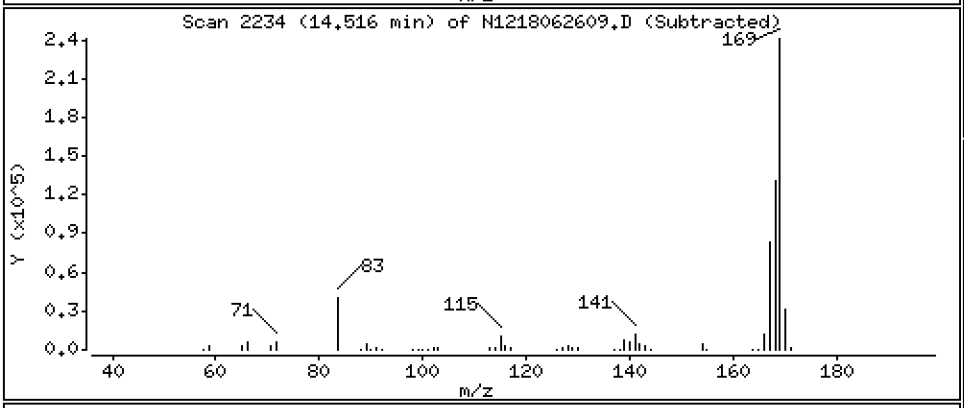
Column phase: ZB-5msi

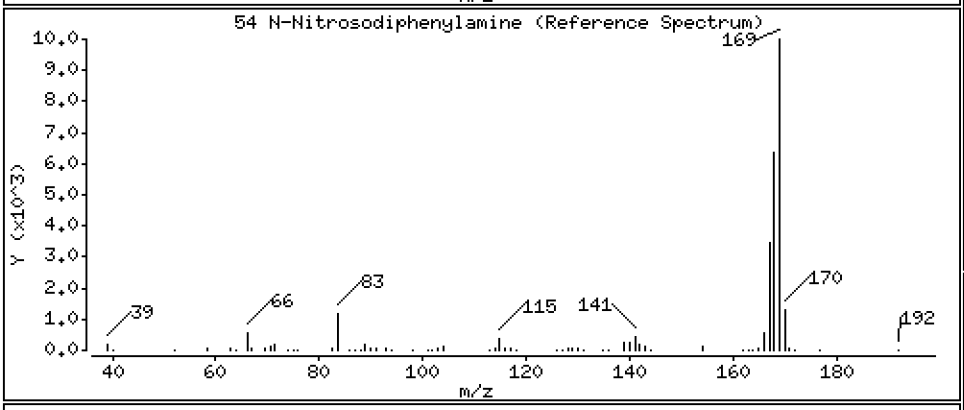
Column diameter: 0.32

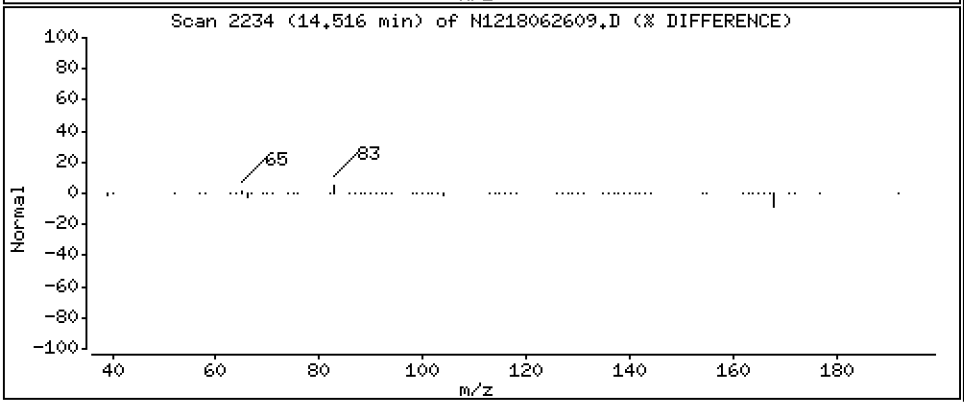
54 N-Nitrosodiphenylamine

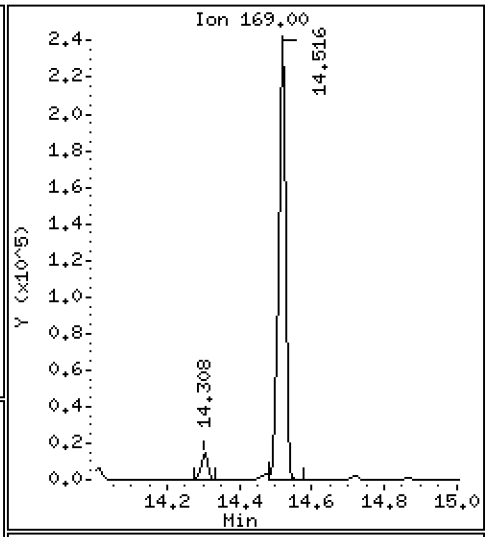
Concentration: 20.53 ug/mL

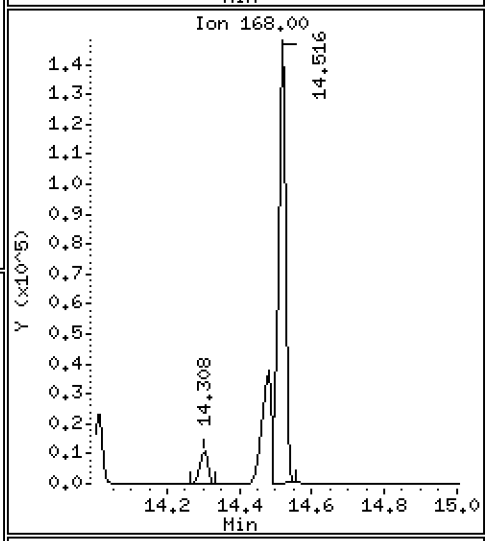


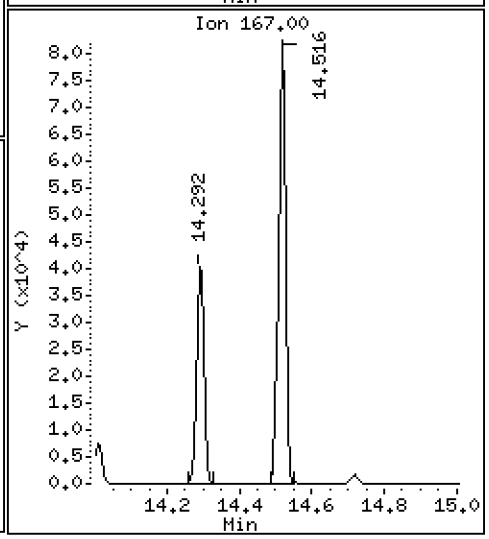












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

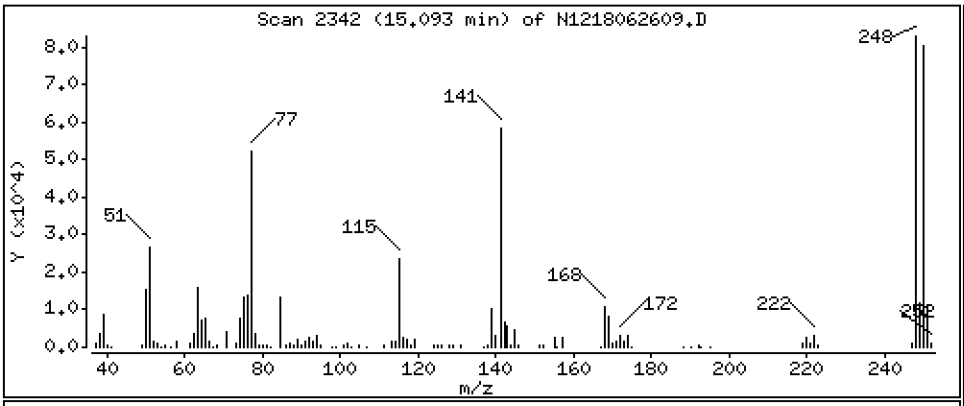
Operator: JZ

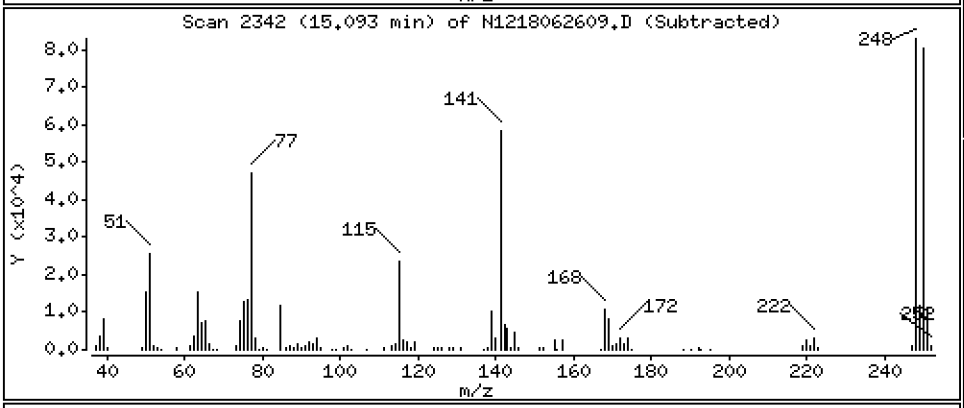
Column phase: ZB-5msi

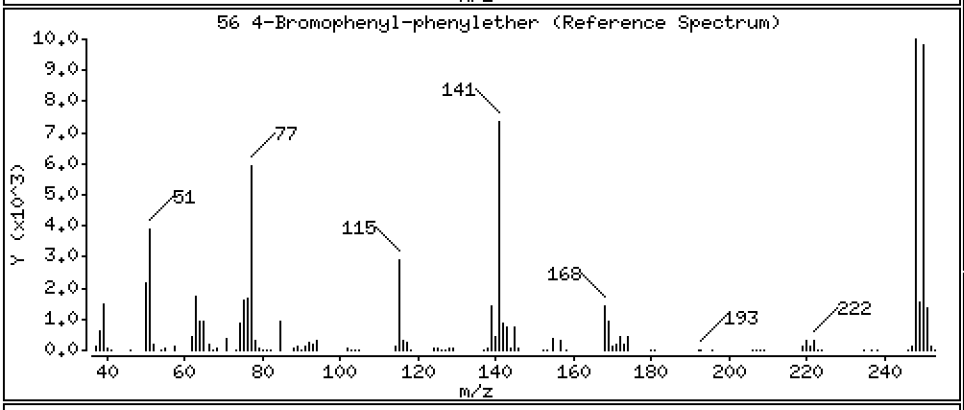
Column diameter: 0.32

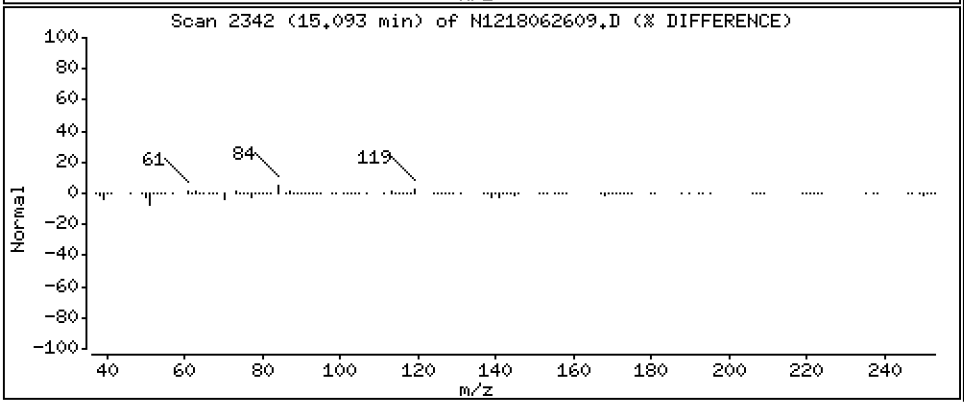
56 4-Bromophenyl-phenylether

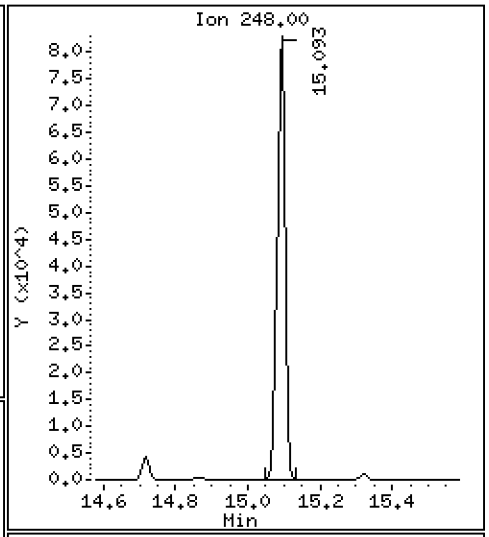
Concentration: 20.27 ug/mL

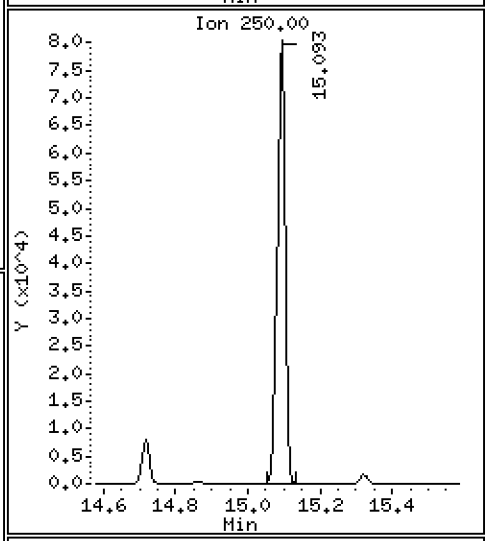


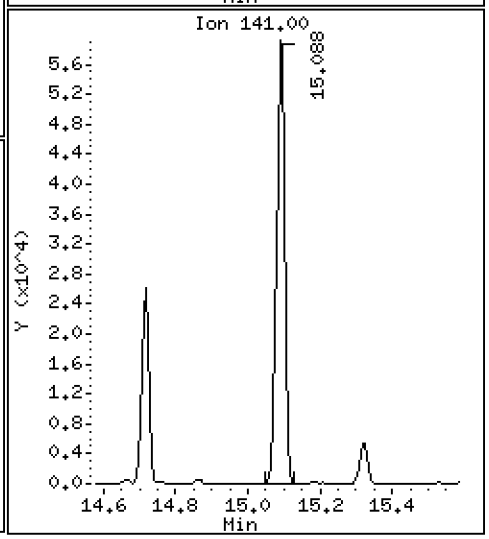












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

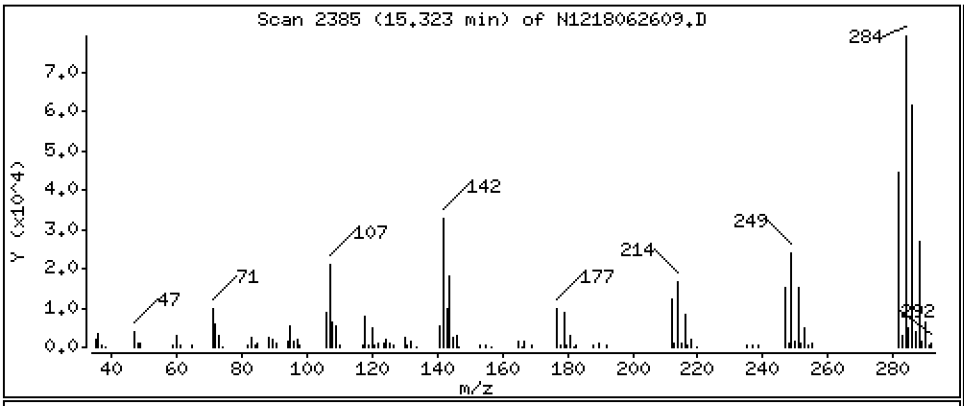
Operator: JZ

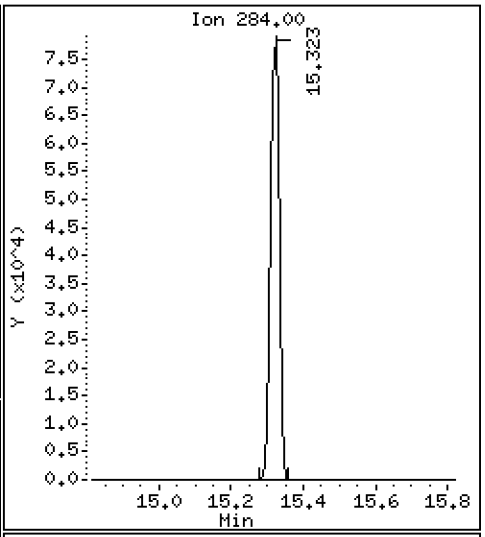
Column phase: ZB-5msi

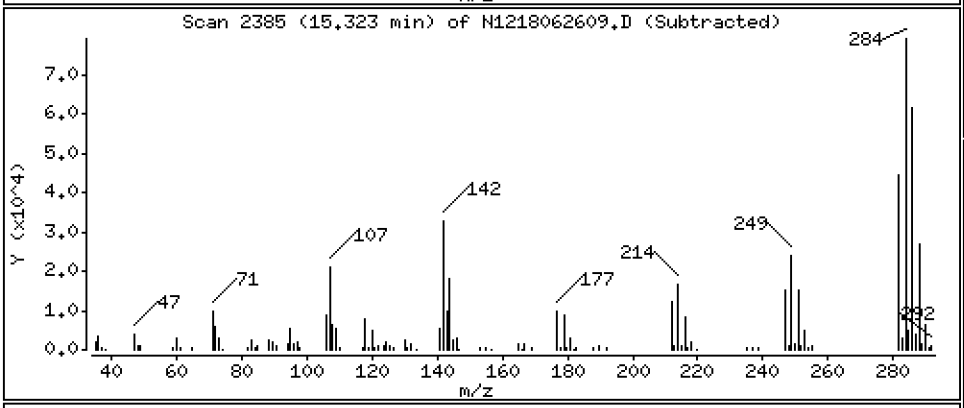
Column diameter: 0.32

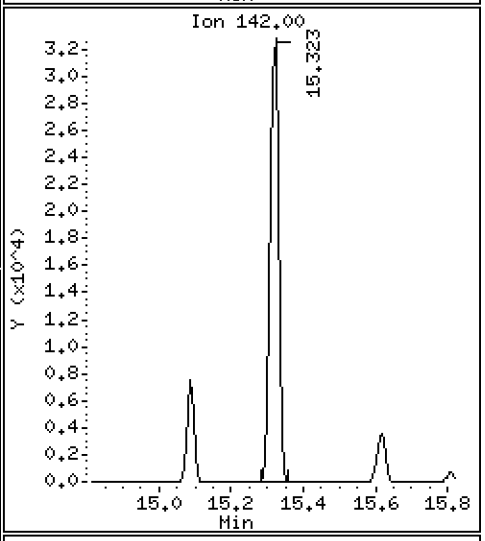
57 Hexachlorobenzene

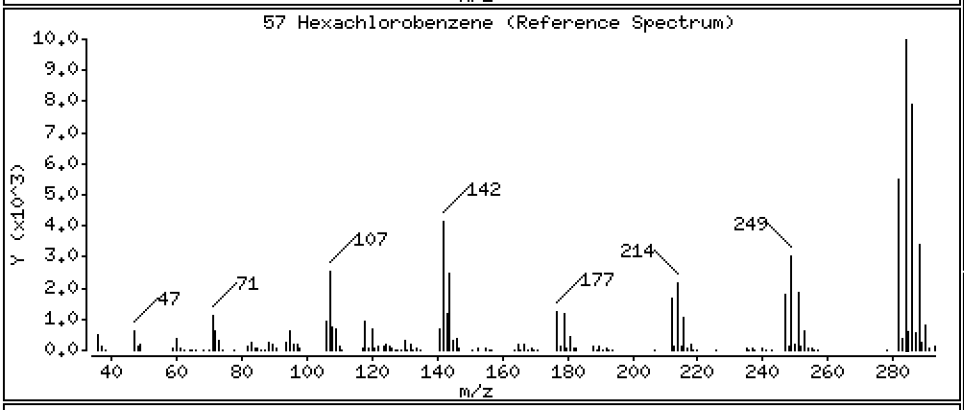
Concentration: 19.34 ug/mL

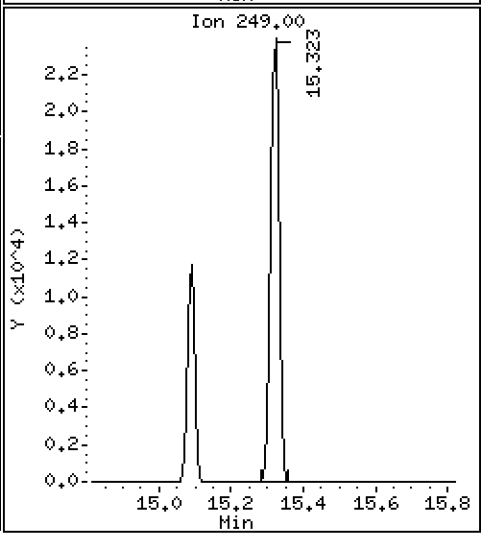


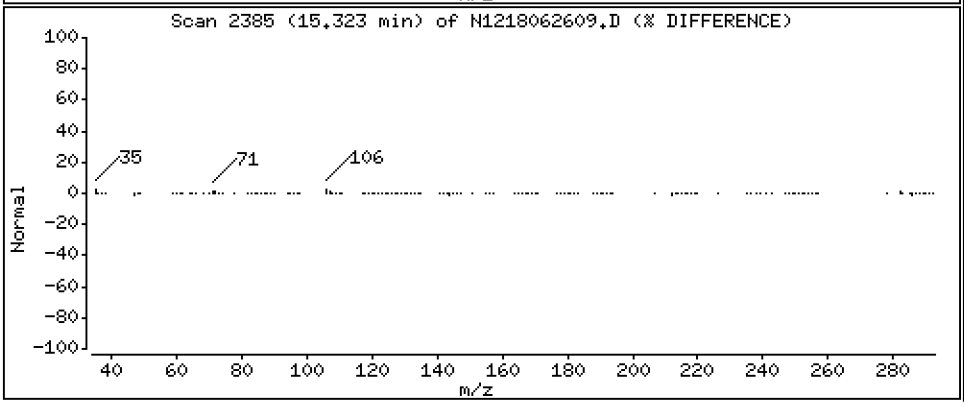












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

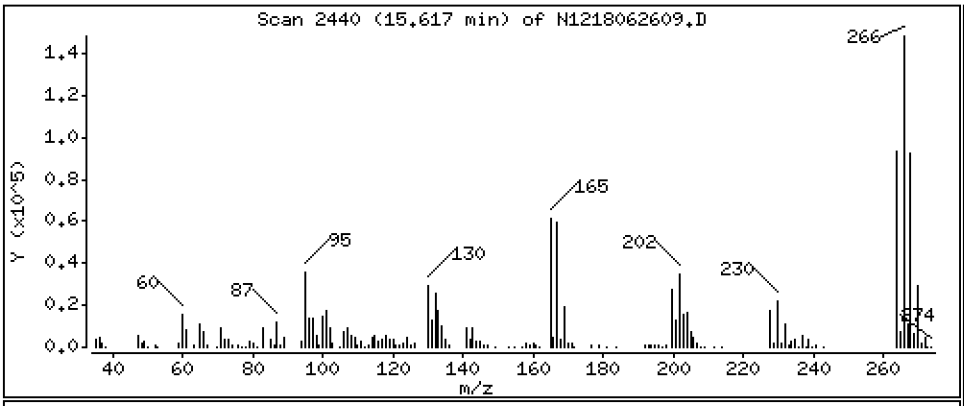
Operator: JZ

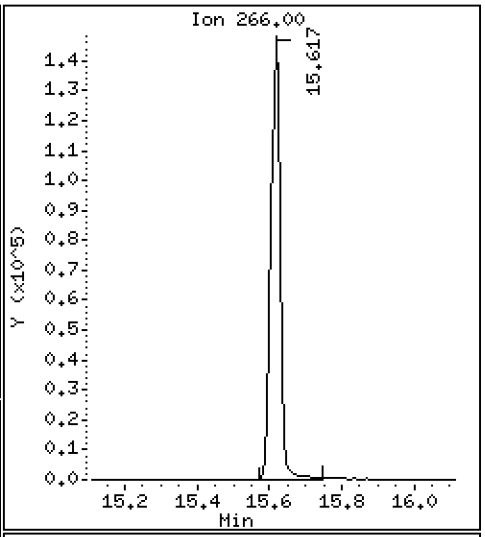
Column phase: ZB-5msi

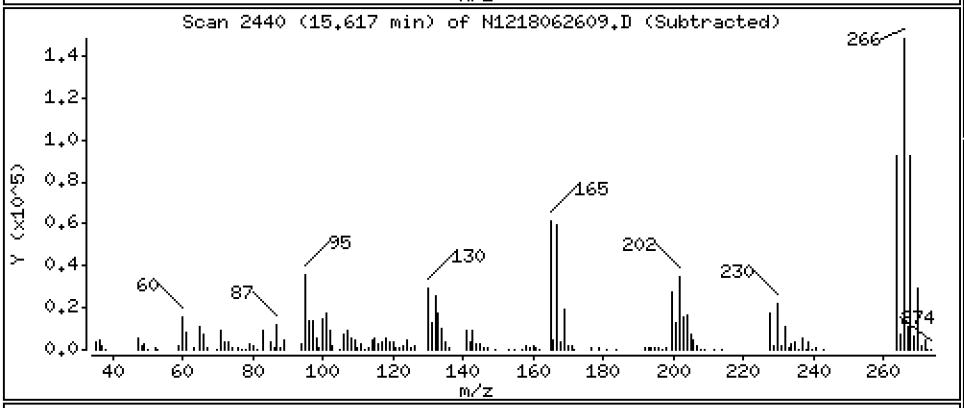
Column diameter: 0.32

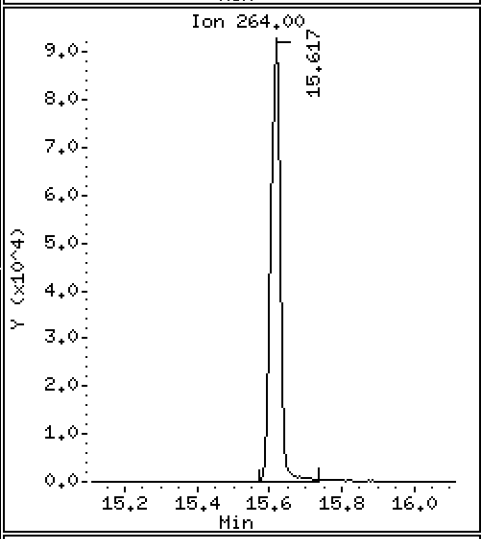
58 Pentachlorophenol

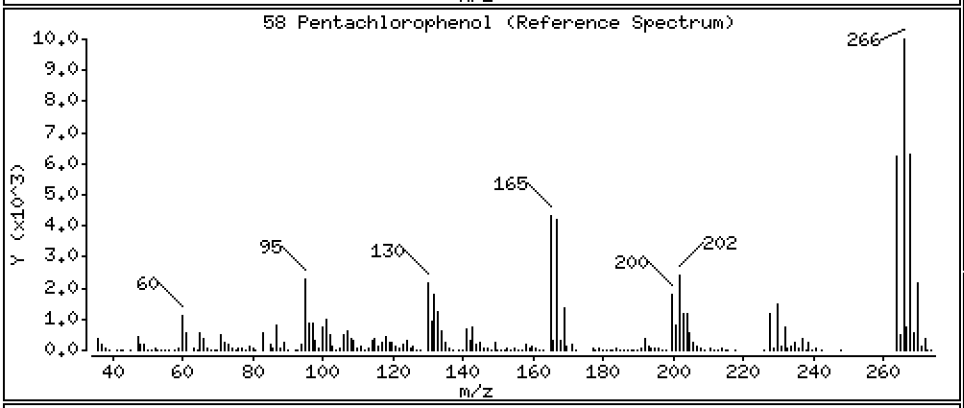
Concentration: 61.17 ug/mL

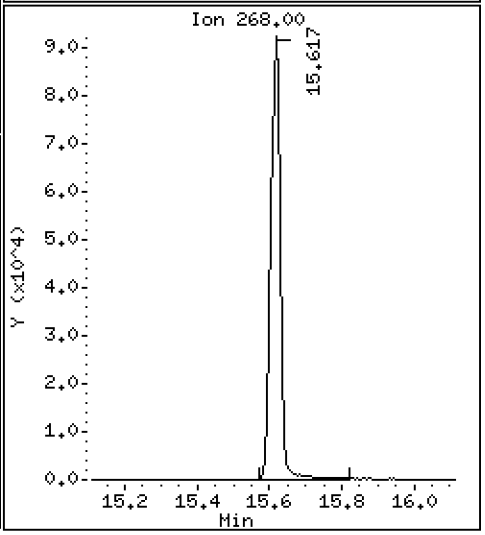


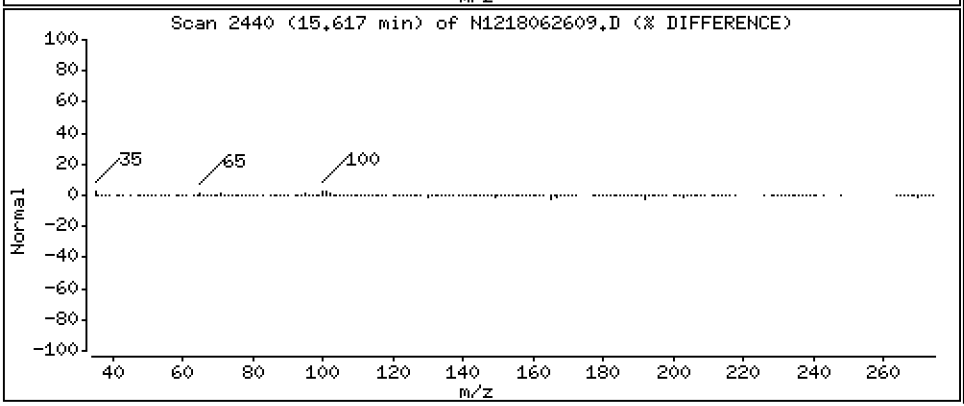












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

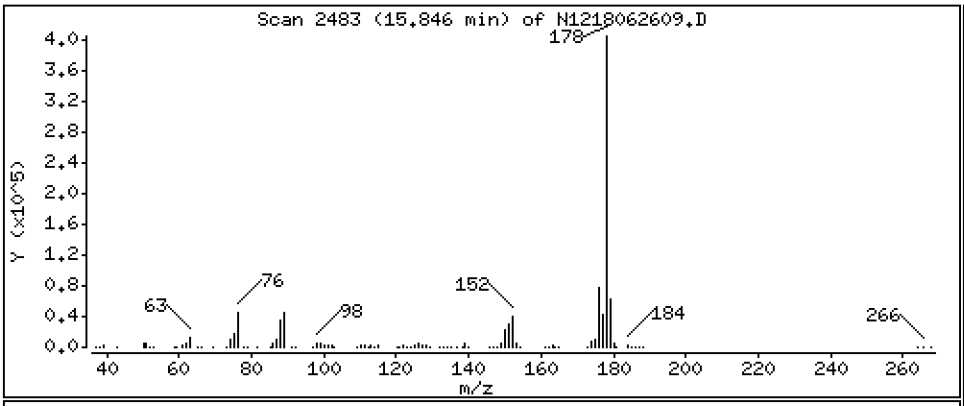
Operator: JZ

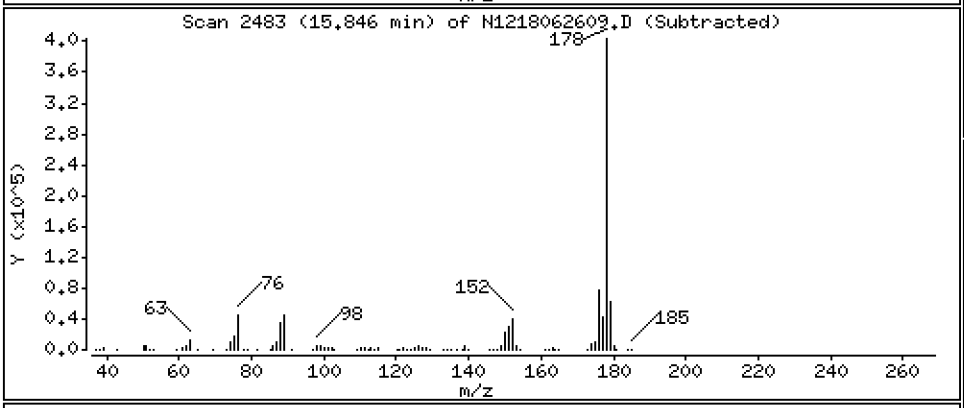
Column phase: ZB-5msi

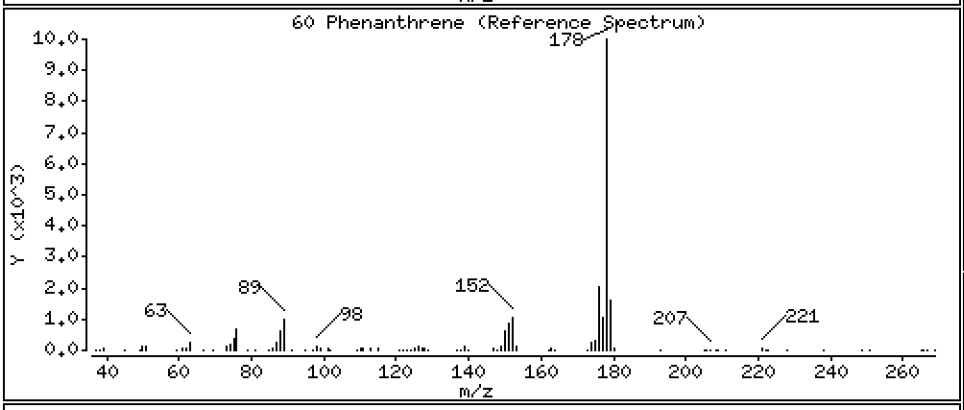
Column diameter: 0.32

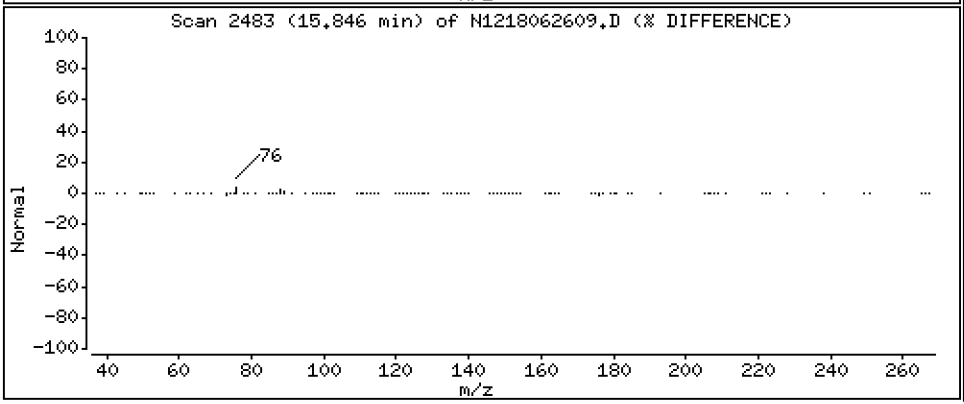
60 Phenanthrene

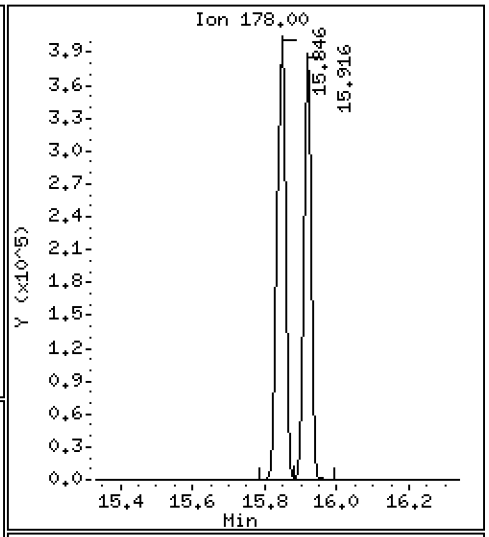
Concentration: 23.68 ug/mL

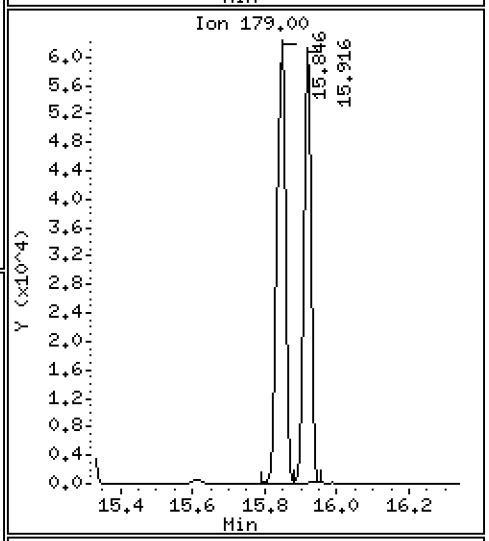


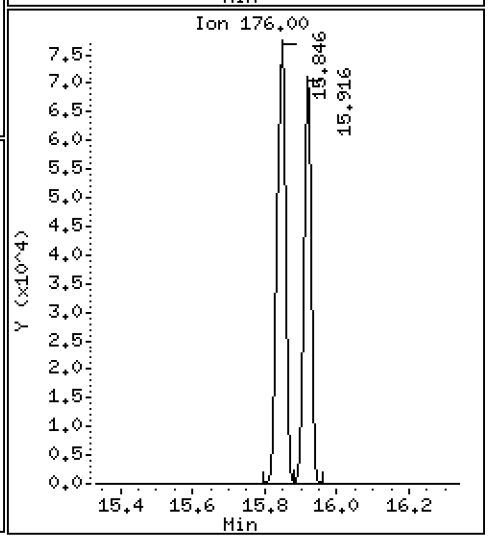












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

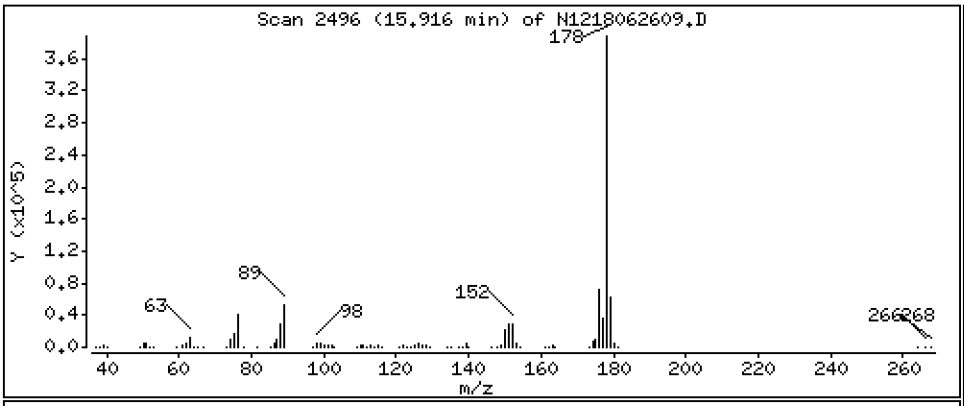
Operator: JZ

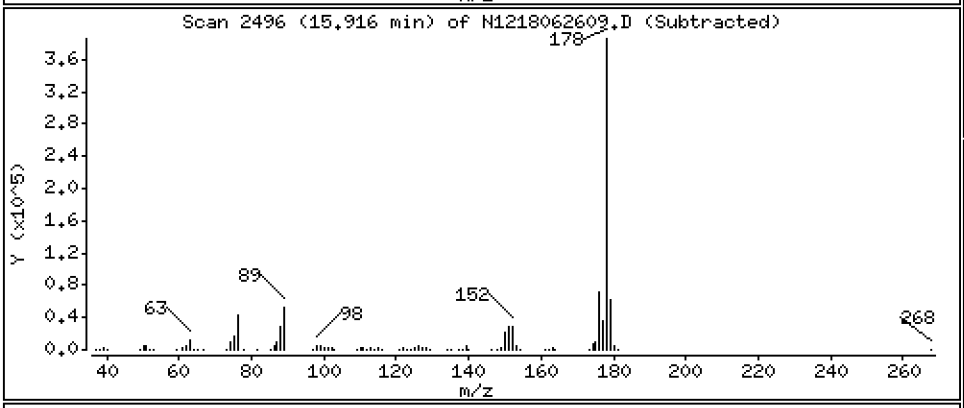
Column phase: ZB-5msi

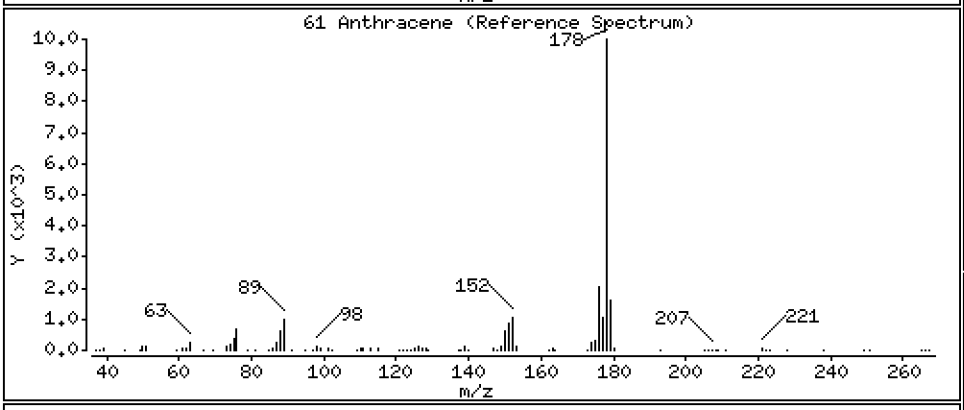
Column diameter: 0.32

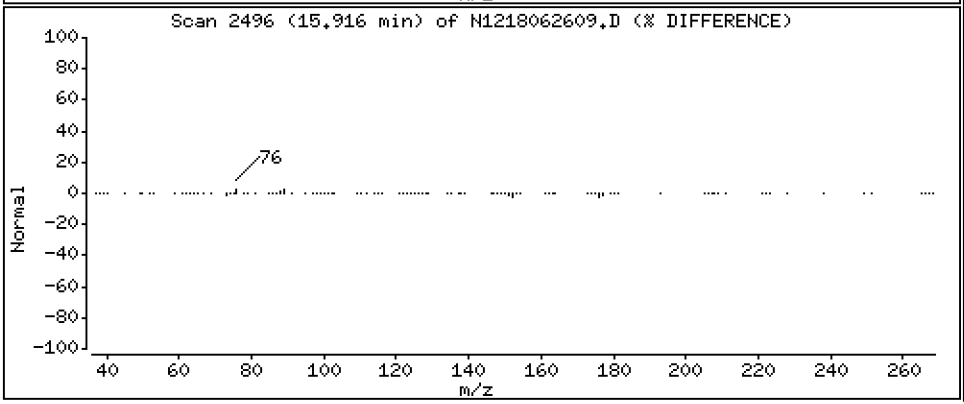
61 Anthracene

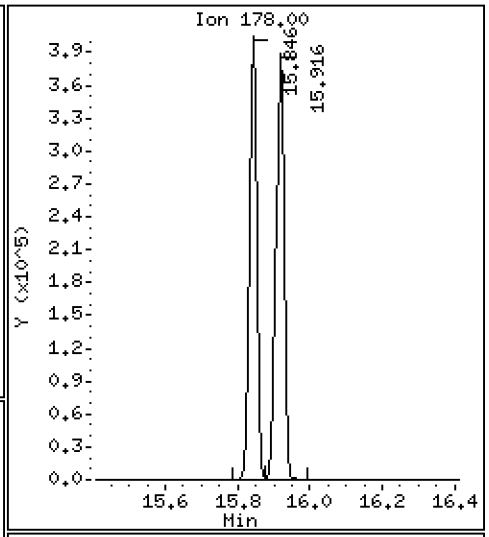
Concentration: 19.61 ug/mL

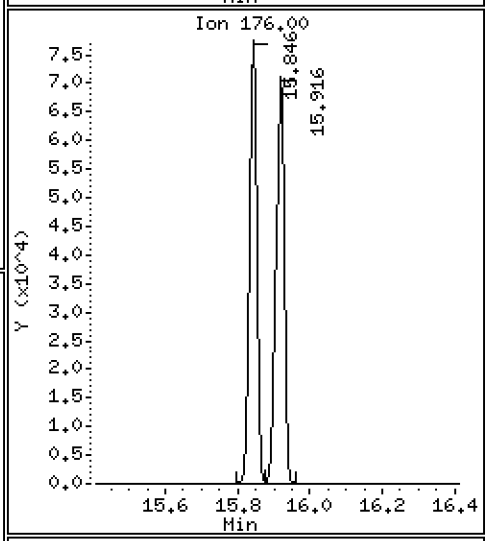


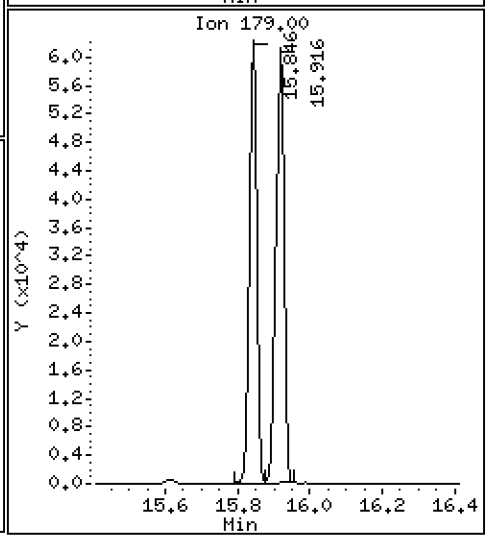












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

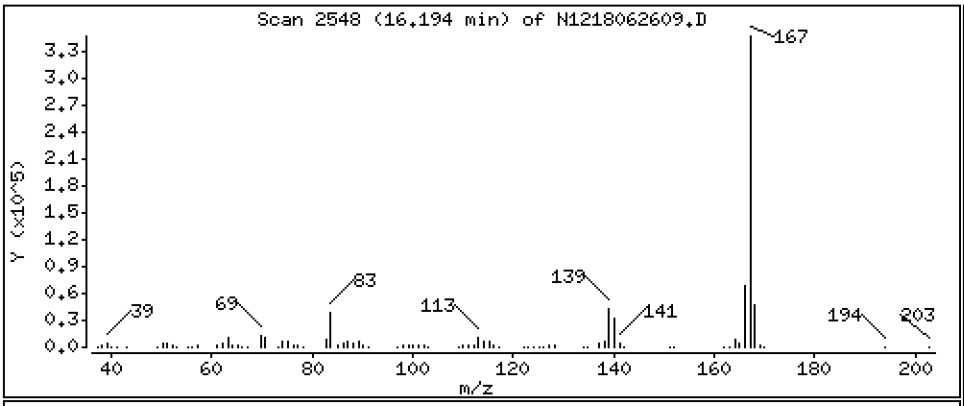
Operator: JZ

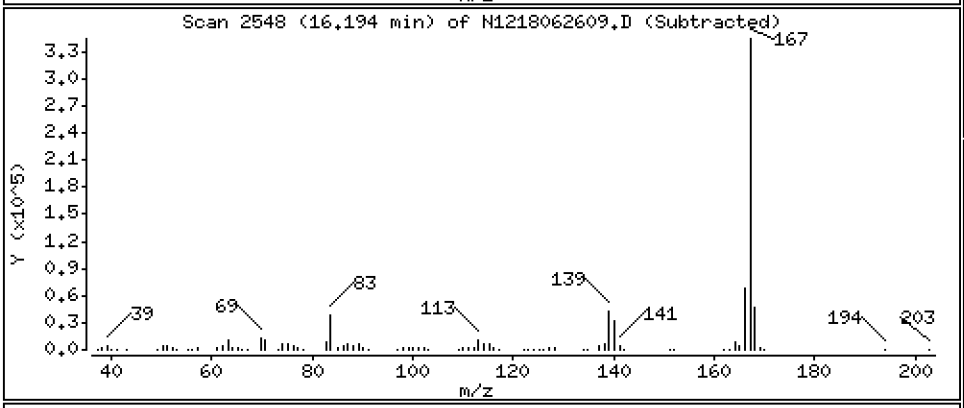
Column phase: ZB-5msi

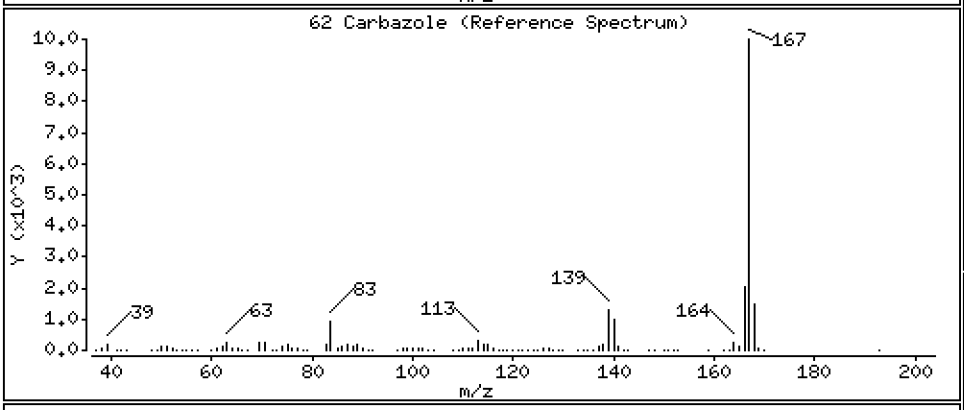
Column diameter: 0.32

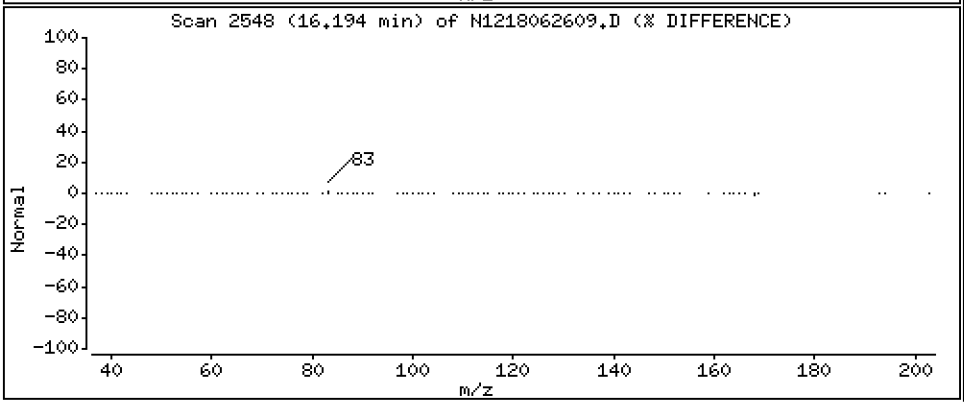
62 Carbazole

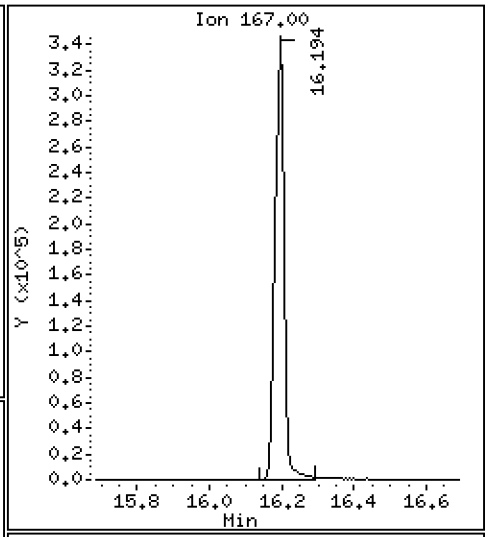
Concentration: 19.76 ug/mL

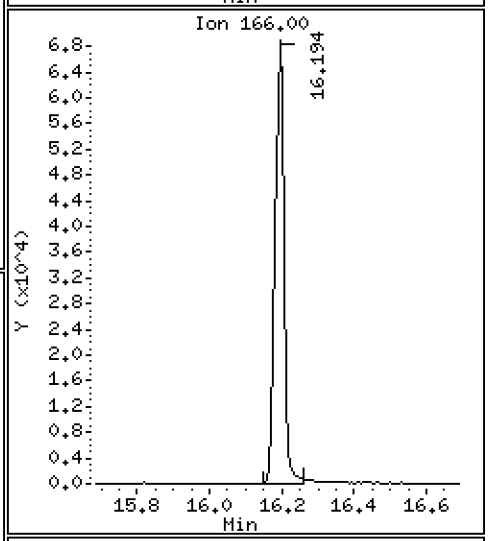


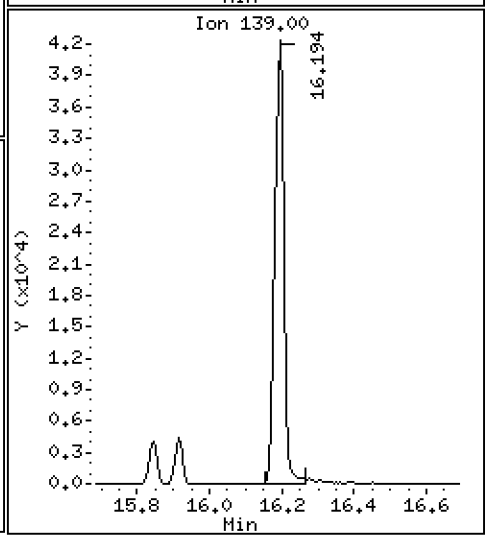












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

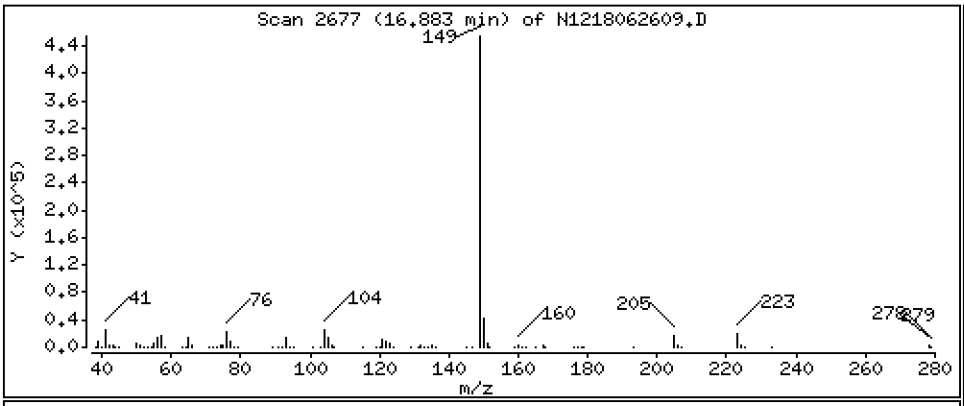
Operator: JZ

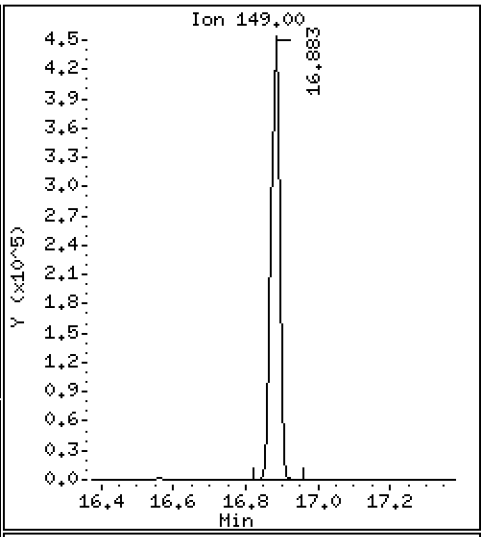
Column phase: ZB-5msi

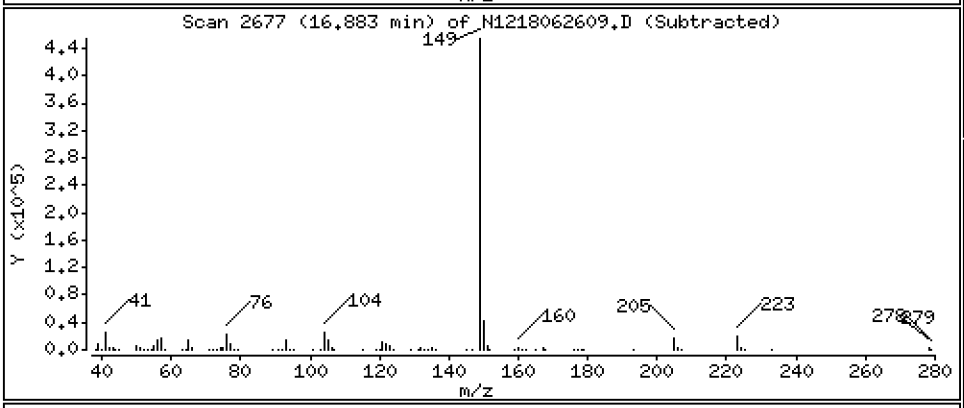
Column diameter: 0.32

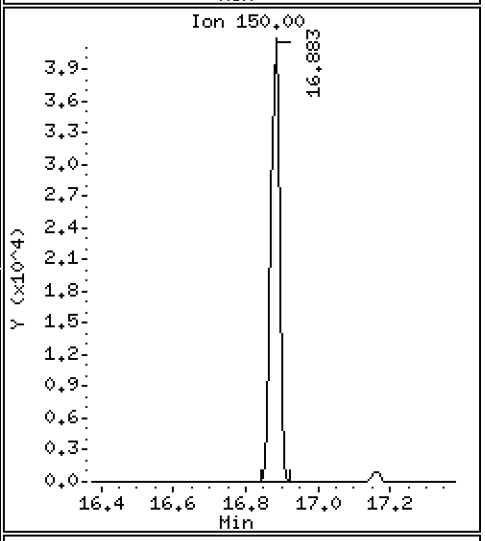
63 Di-n-butylphthalate

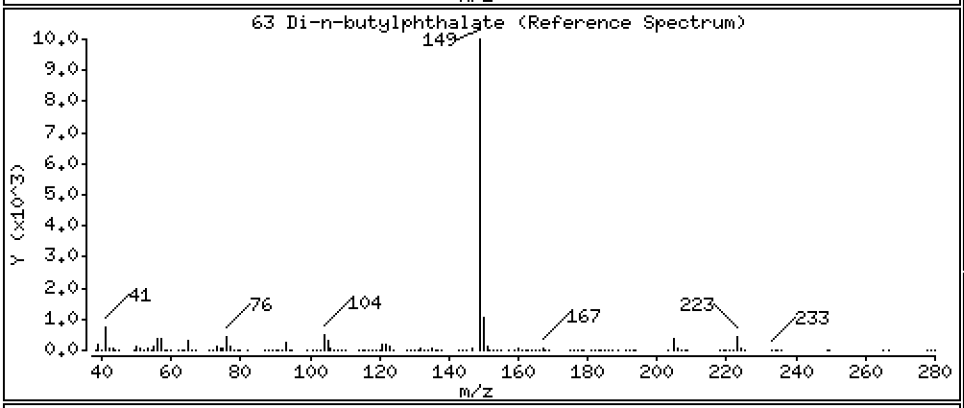
Concentration: 21.59 ug/mL

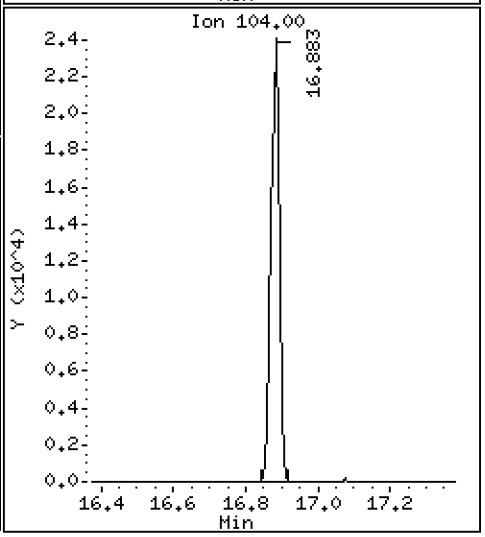


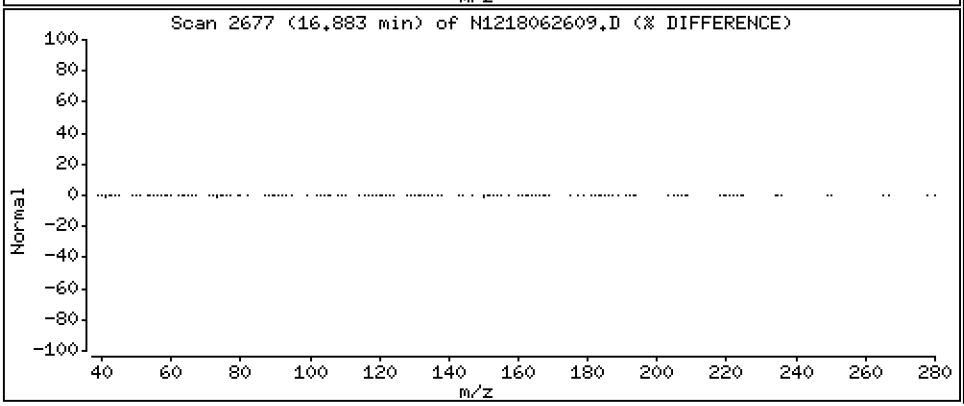












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

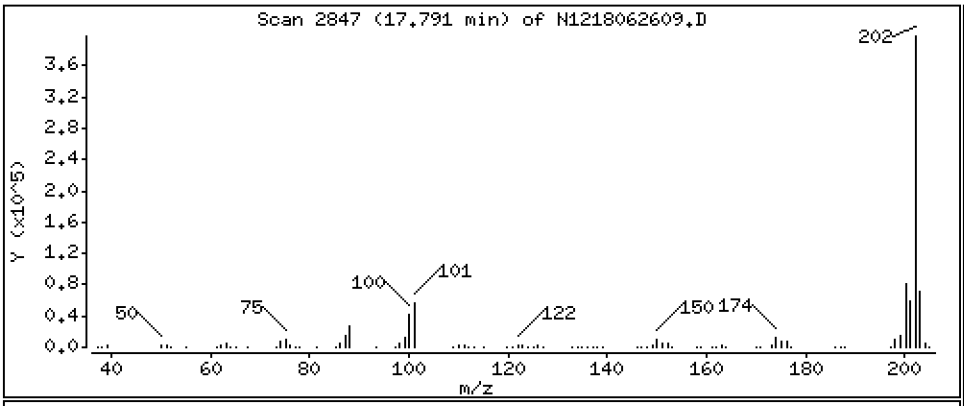
Operator: JZ

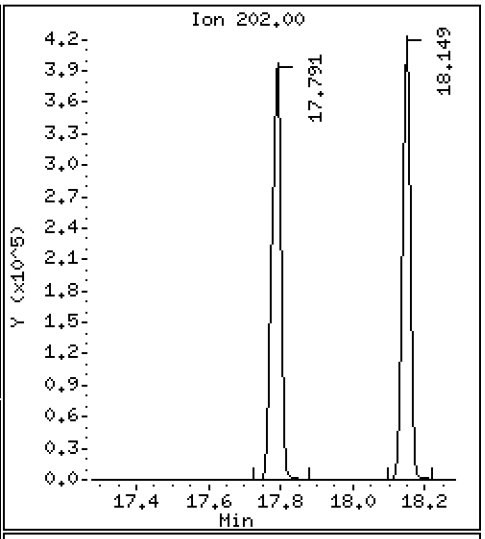
Column phase: ZB-5msi

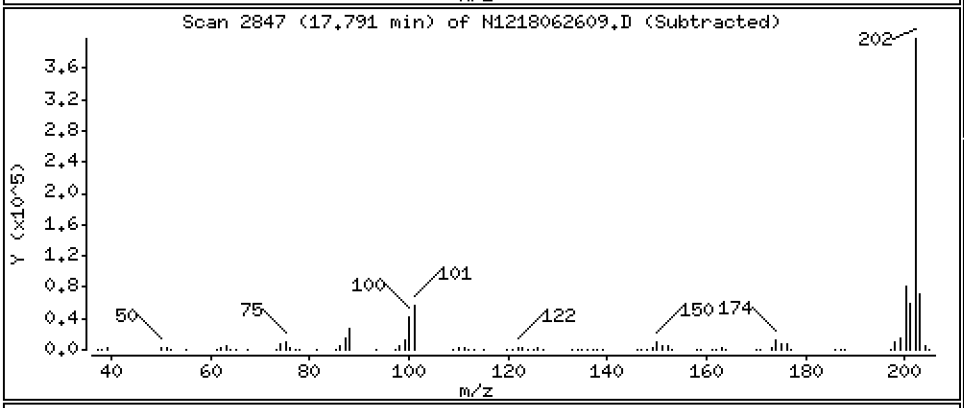
Column diameter: 0.32

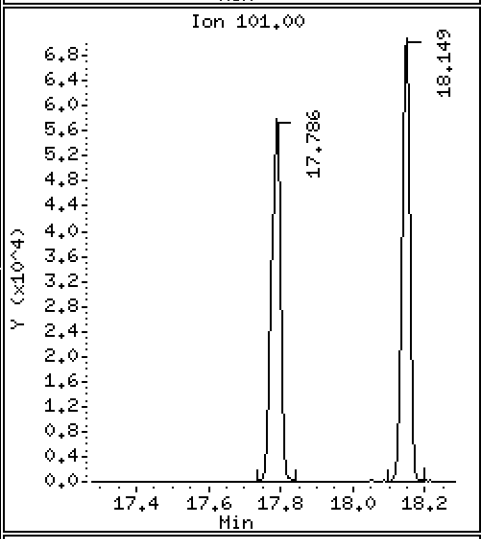
64 Fluoranthene

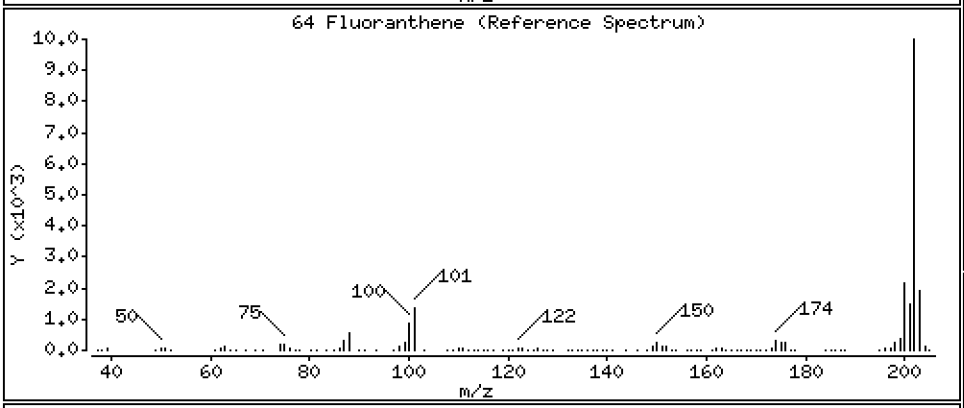
Concentration: 20.56 ug/mL

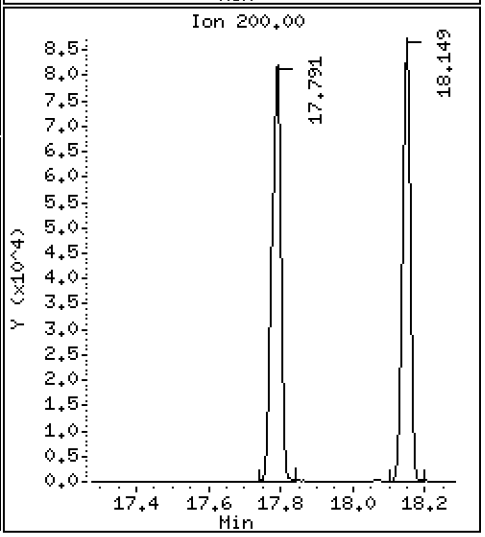


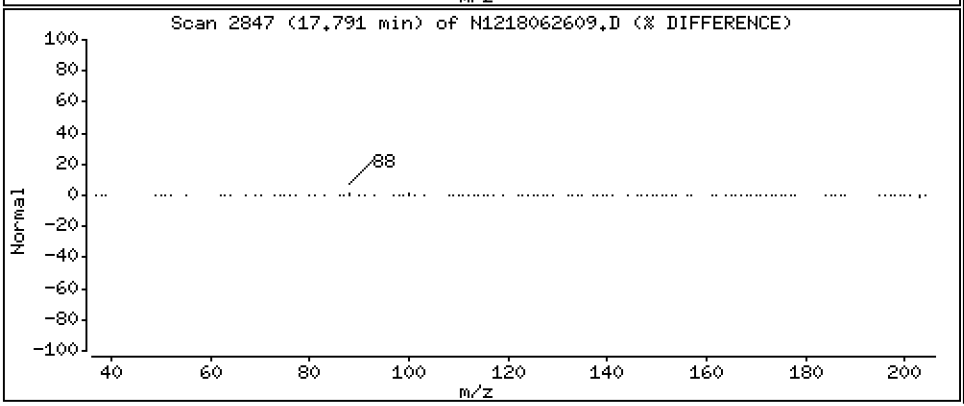












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

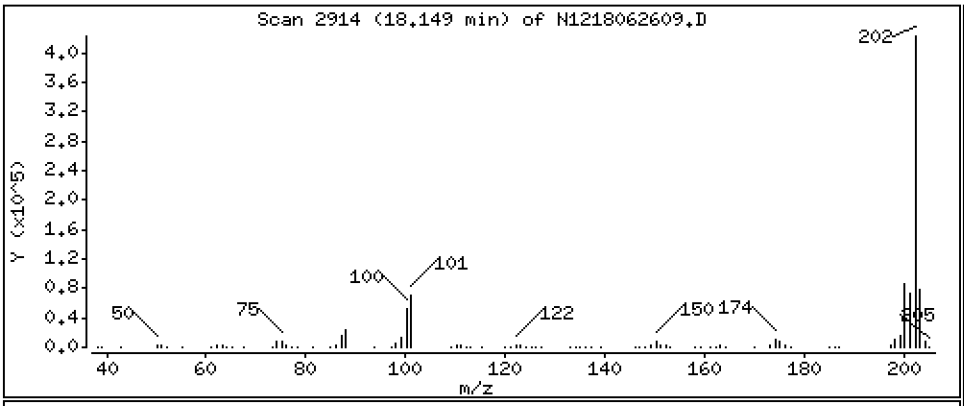
Operator: JZ

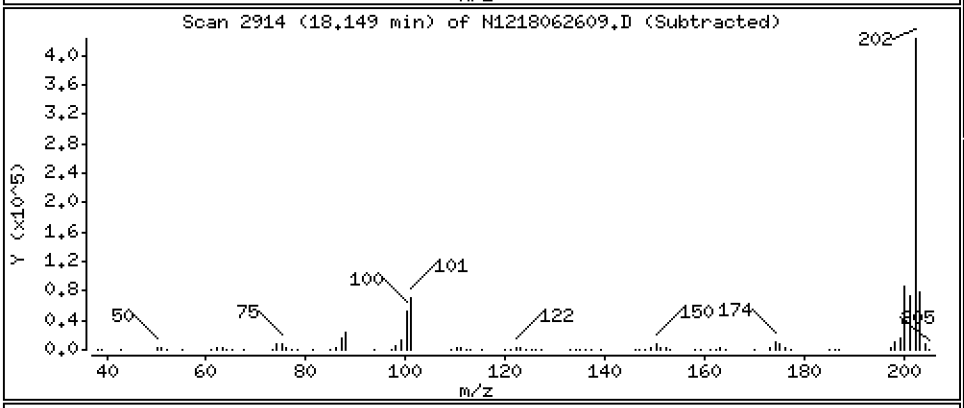
Column phase: ZB-5msi

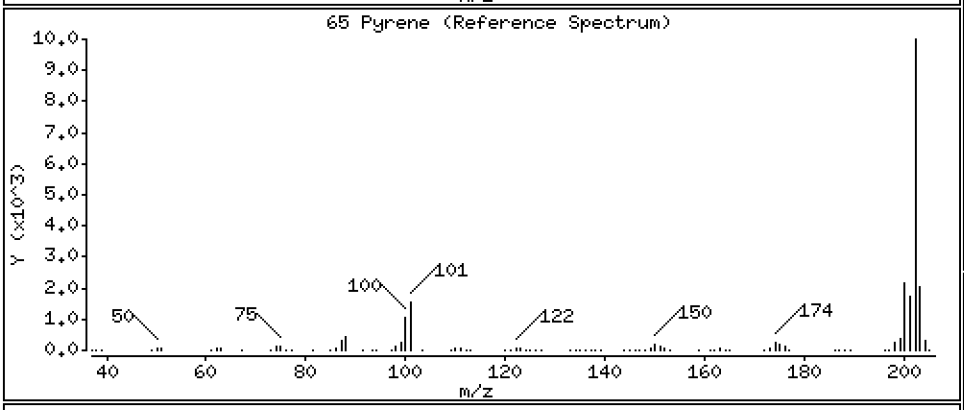
Column diameter: 0.32

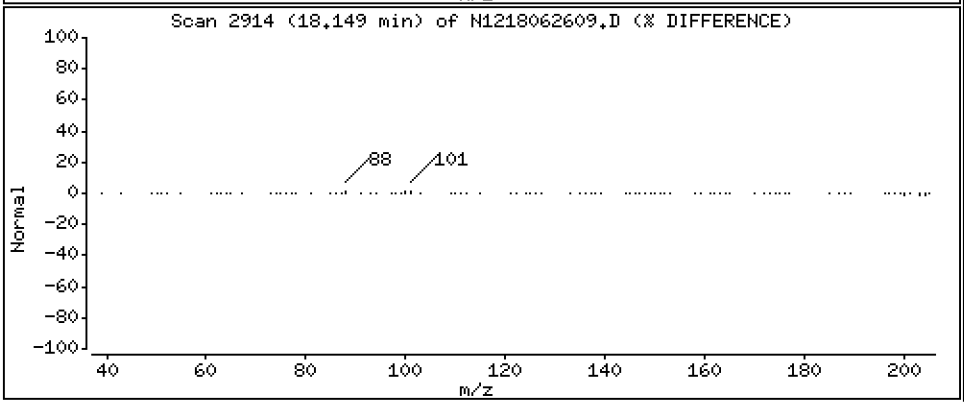
65 Pyrene

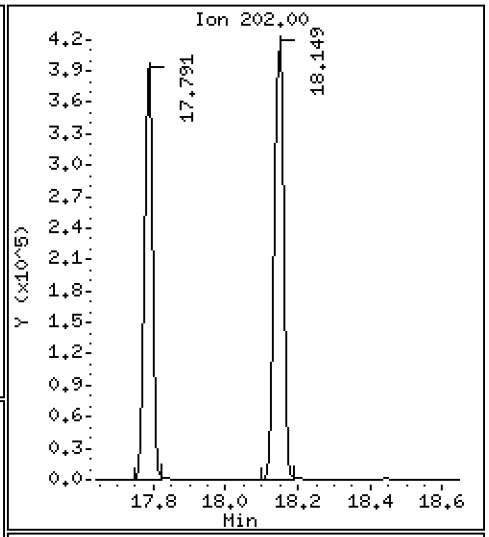
Concentration: 23.92 ug/mL

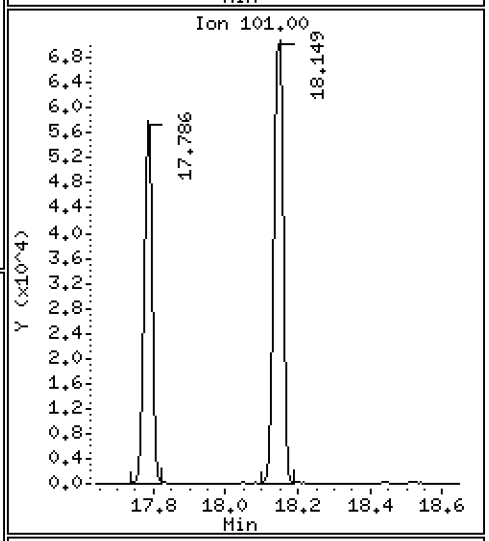


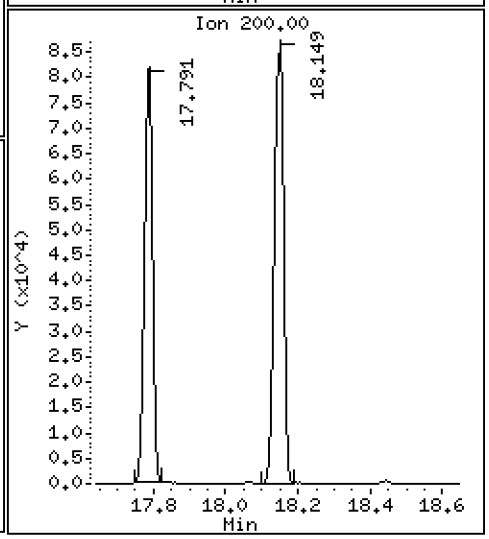












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

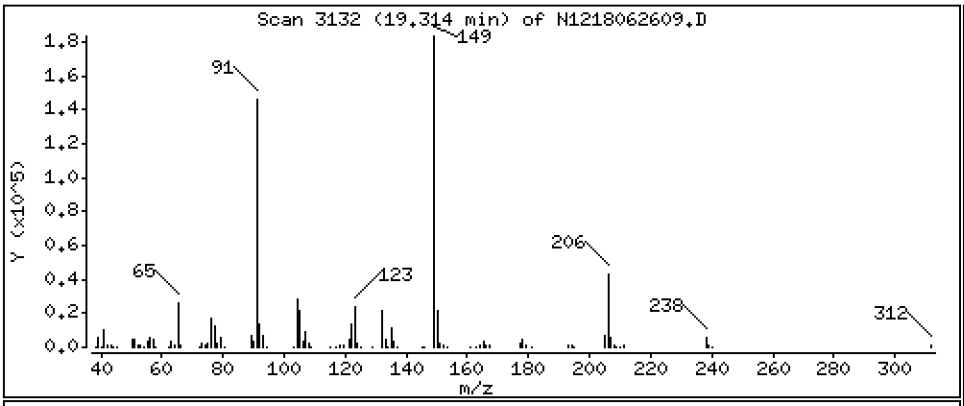
Operator: JZ

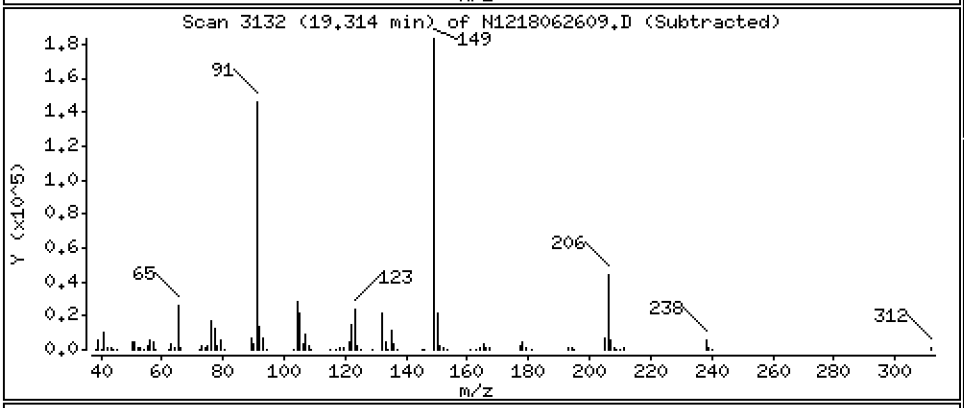
Column phase: ZB-5msi

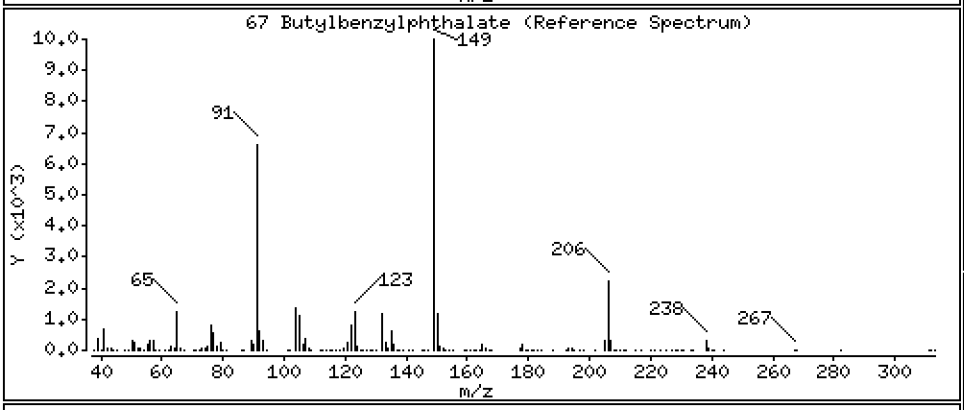
Column diameter: 0.32

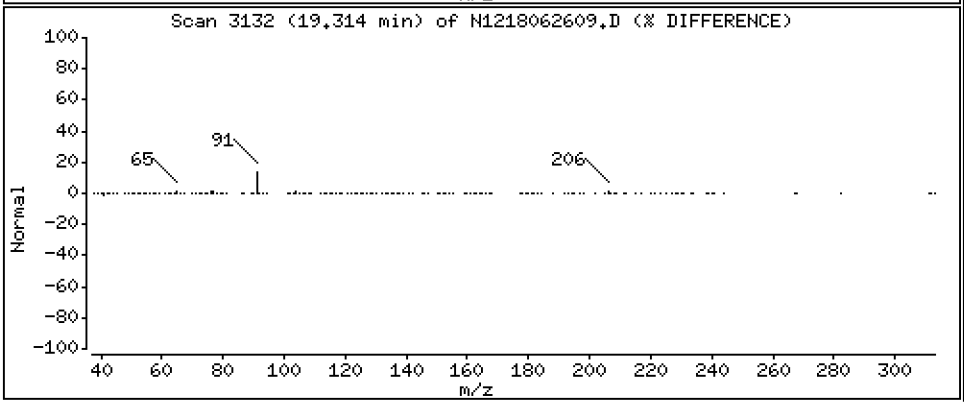
67 Butylbenzylphthalate

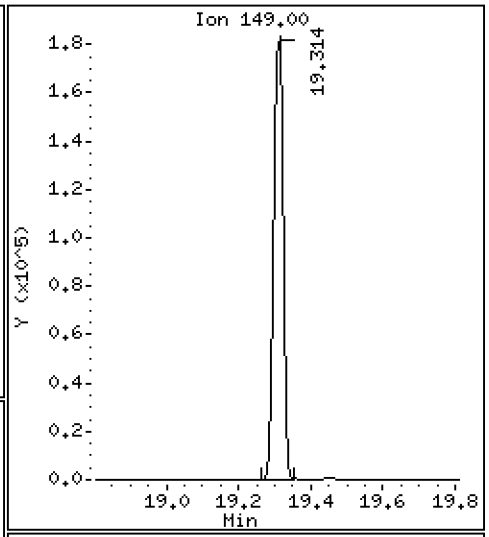
Concentration: 23.66 ug/mL

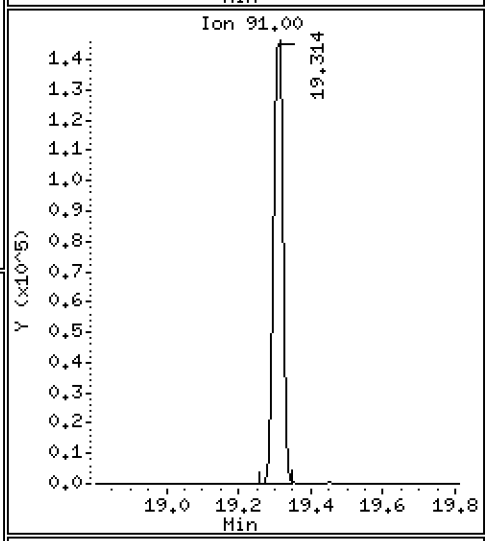


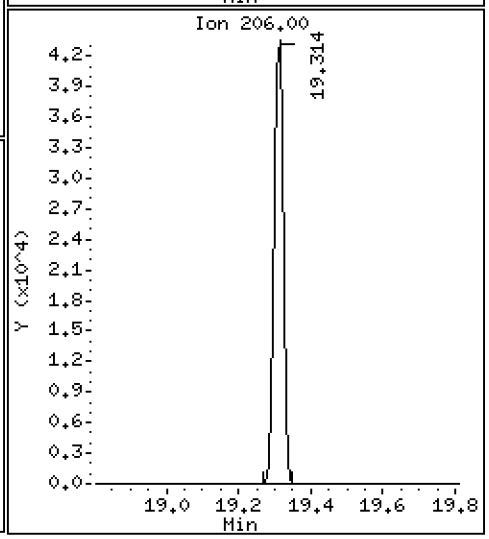












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

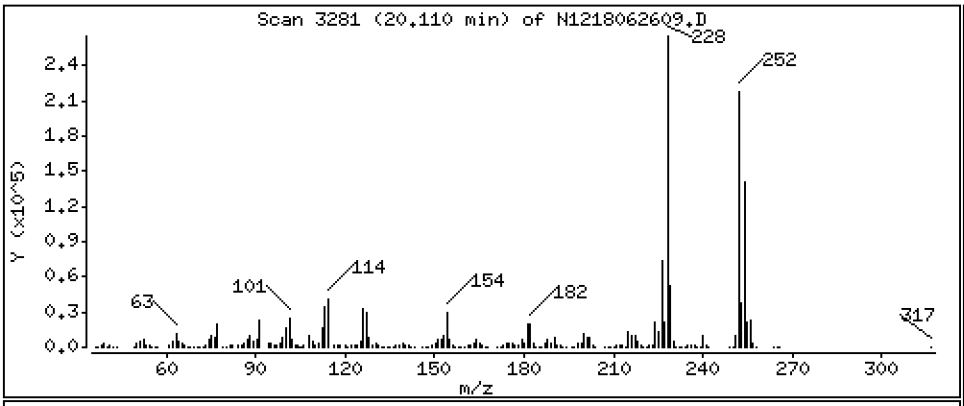
Operator: JZ

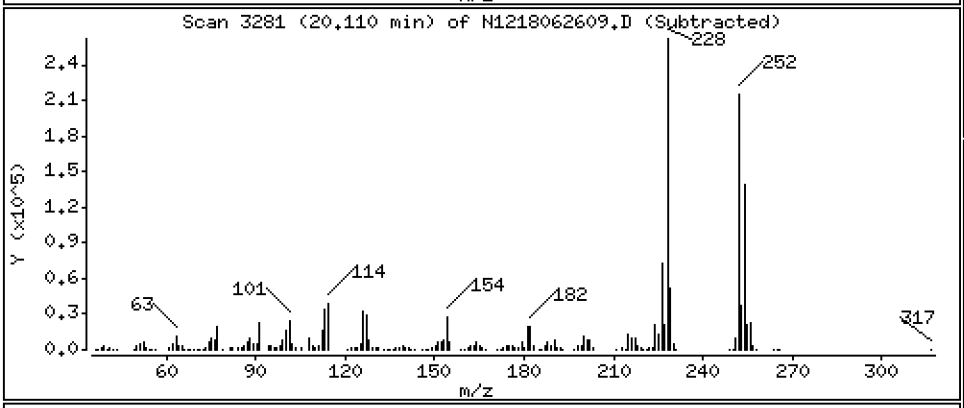
Column phase: ZB-5msi

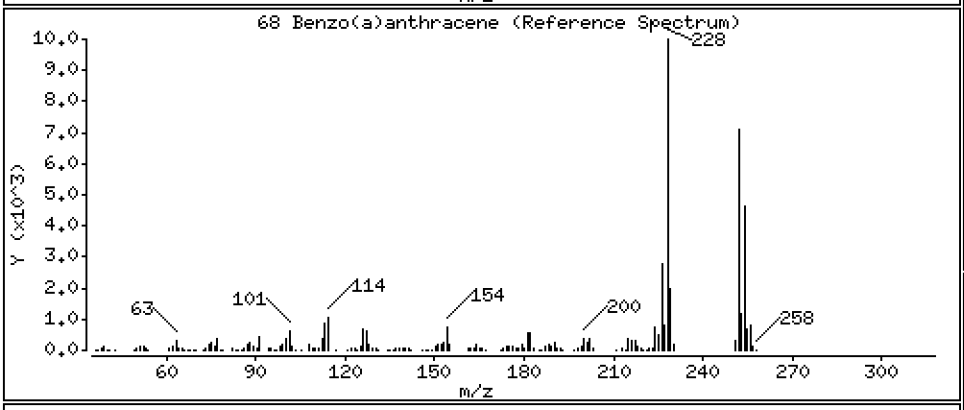
Column diameter: 0.32

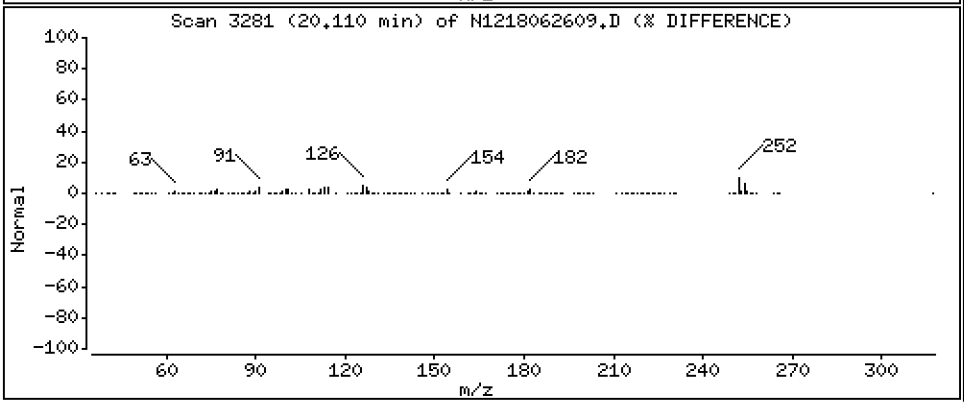
68 Benzo(a)anthracene

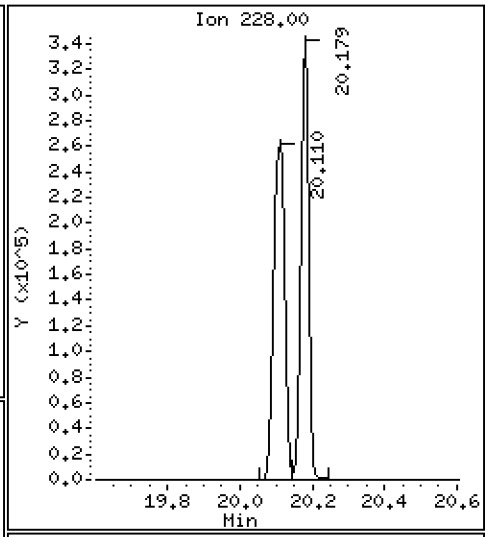
Concentration: 25.18 ug/mL

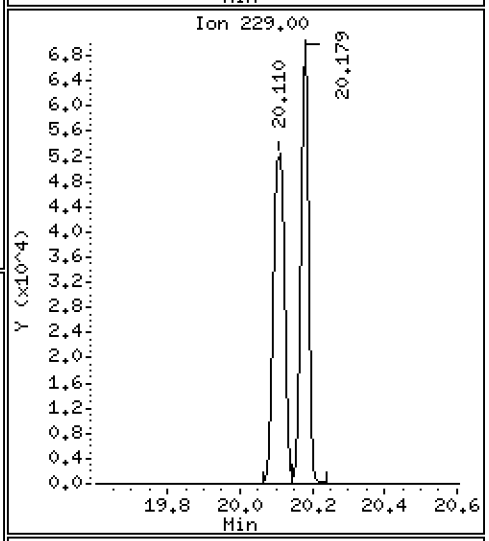


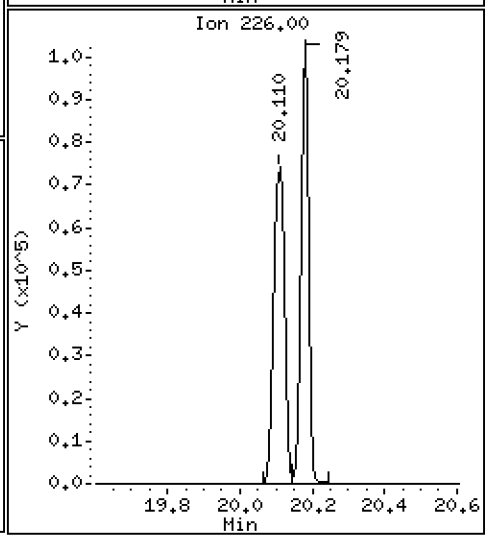












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

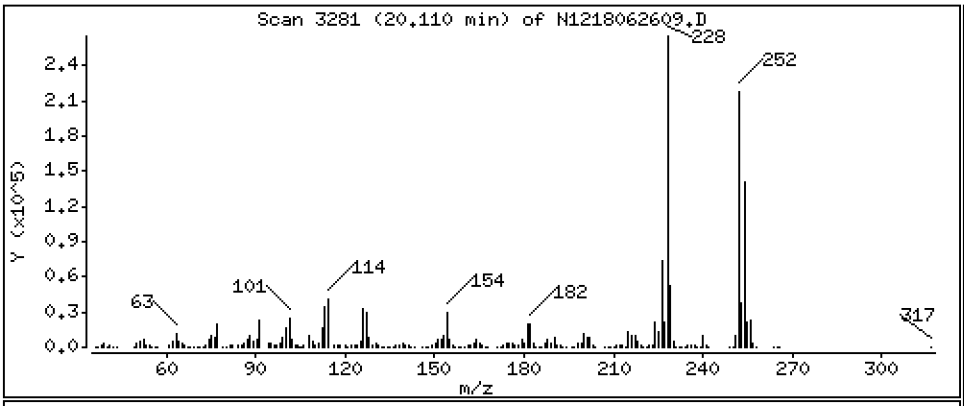
Operator: JZ

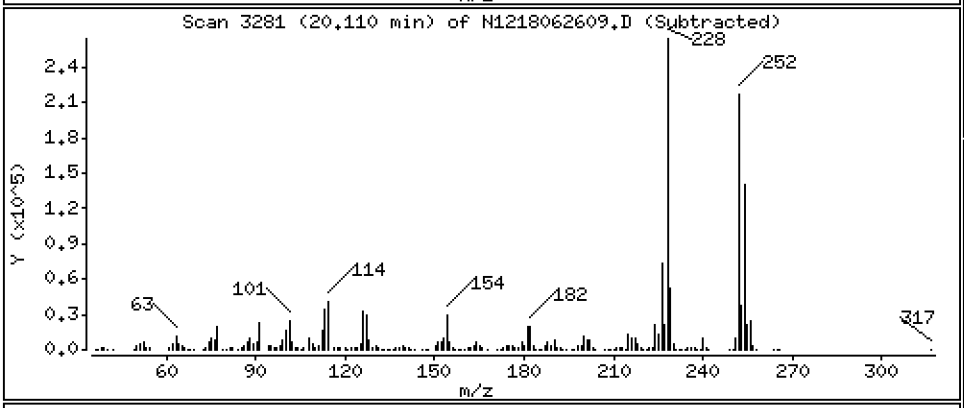
Column phase: ZB-5msi

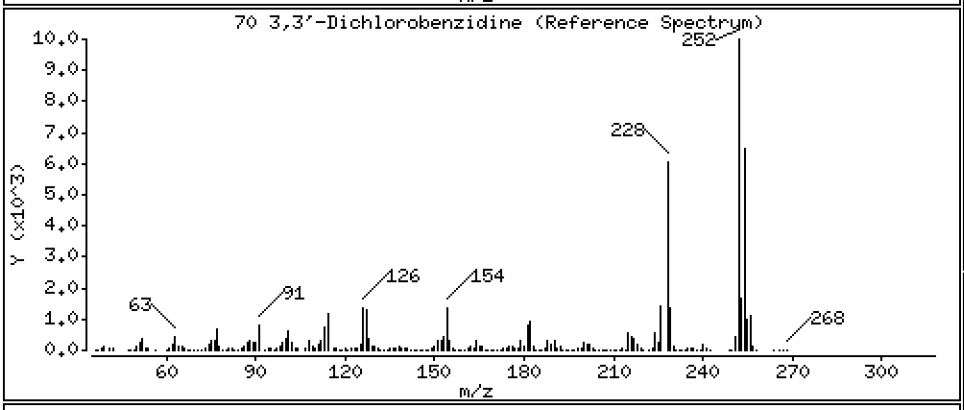
Column diameter: 0.32

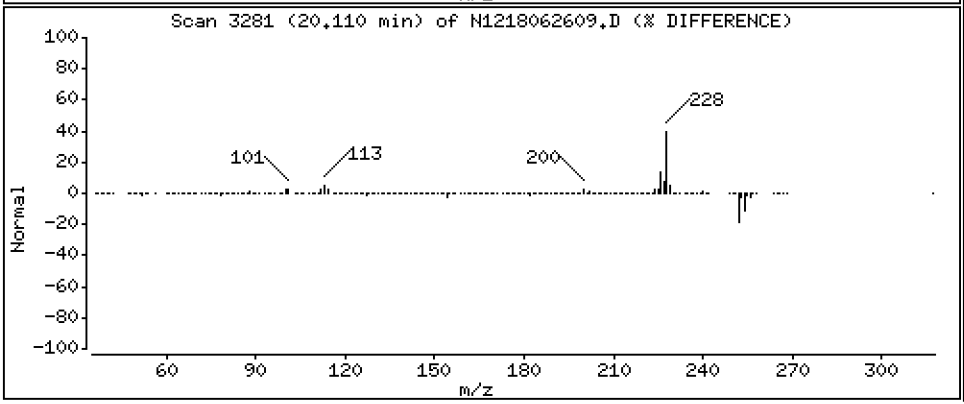
70 3,3'-Dichlorobenzidine

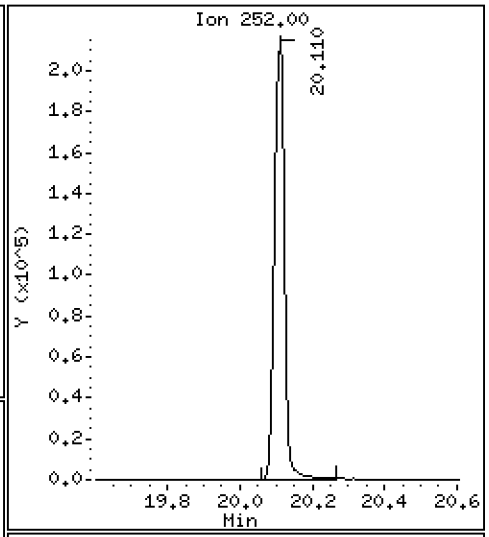
Concentration: 49.18 ug/mL

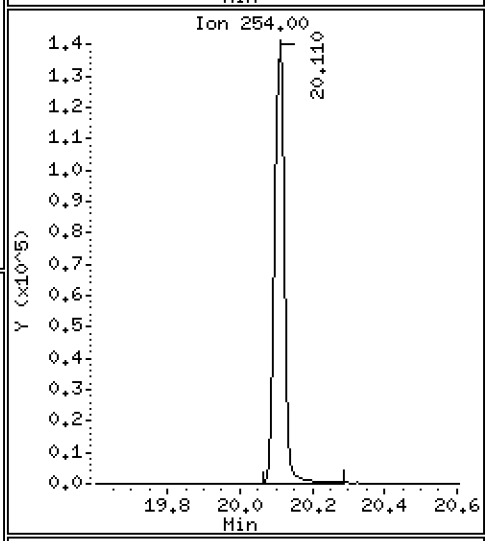


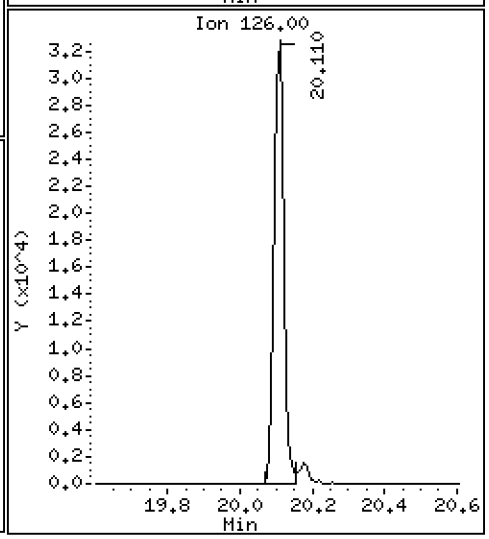












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

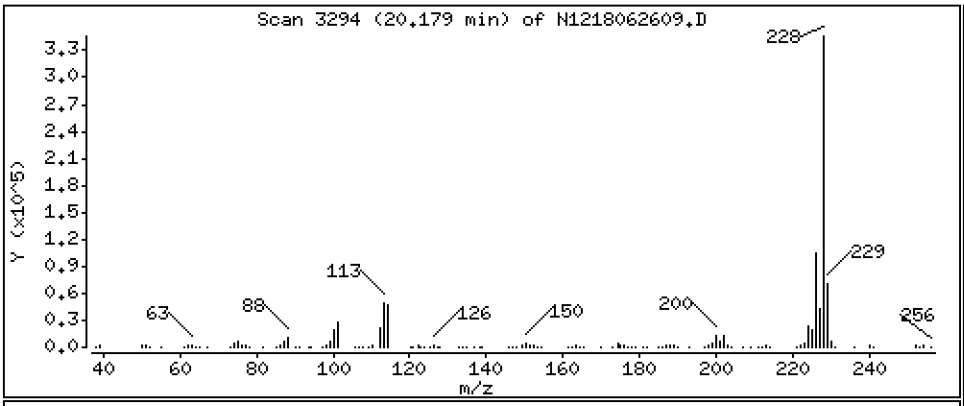
Operator: JZ

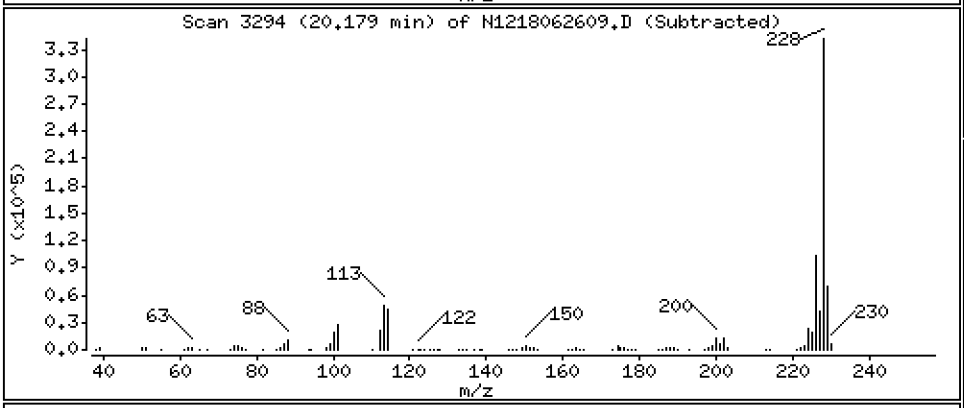
Column phase: ZB-5msi

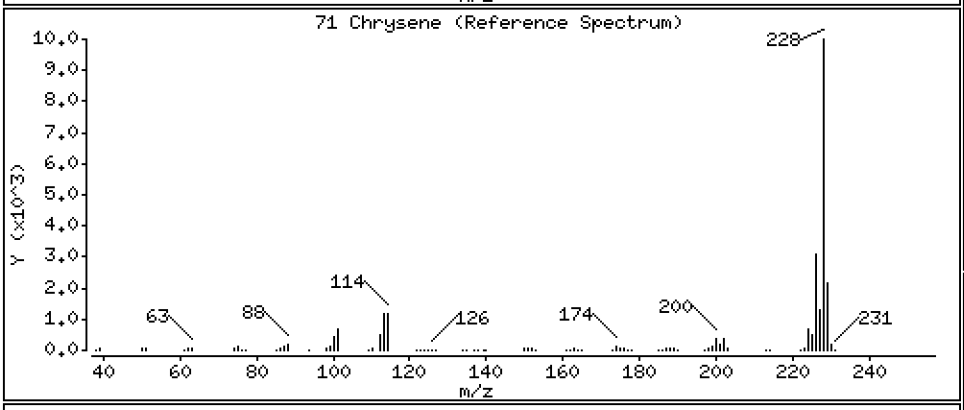
Column diameter: 0.32

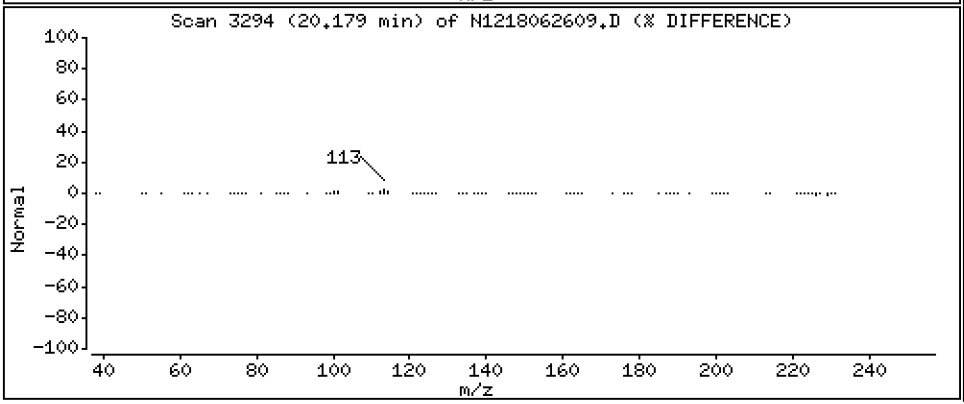
71 Chrysene

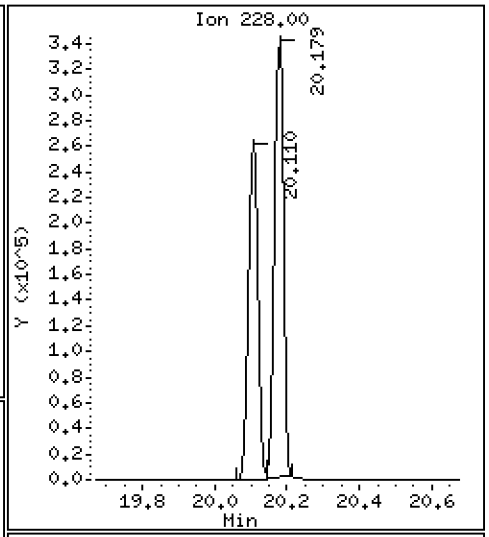
Concentration: 23.18 ug/mL

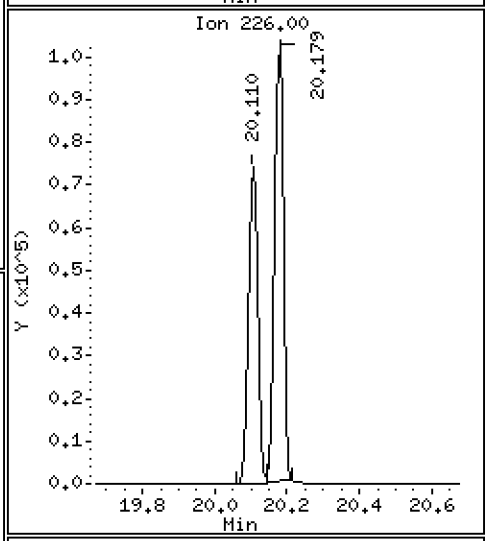


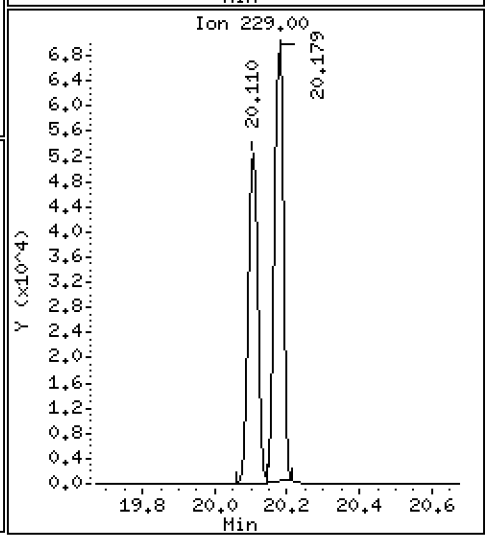












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

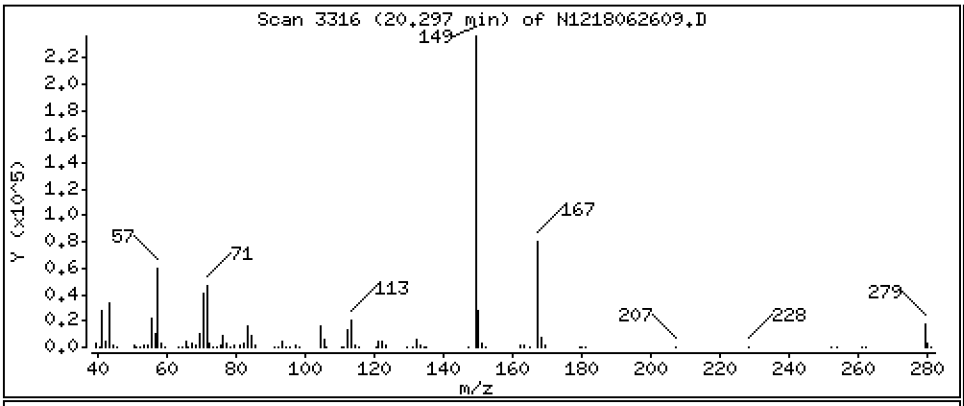
Operator: JZ

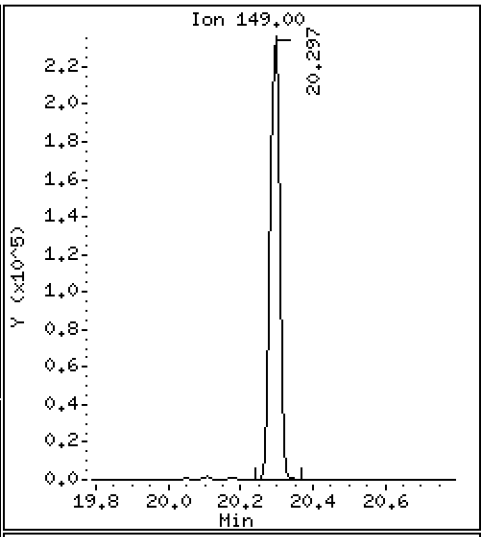
Column phase: ZB-5msi

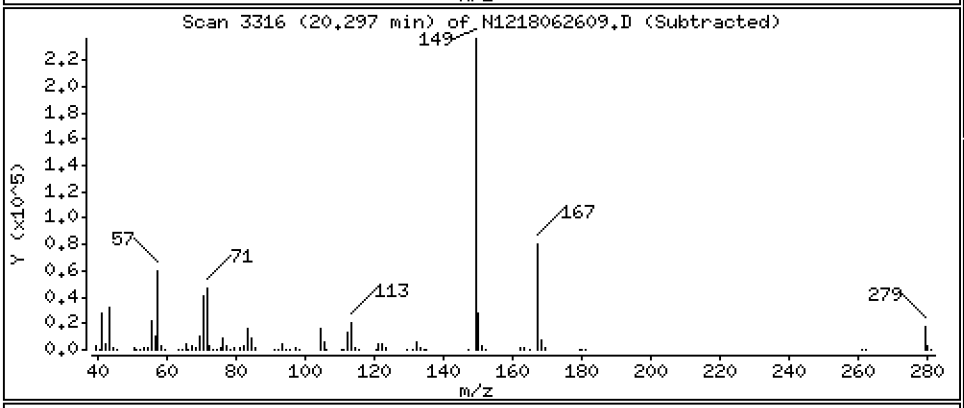
Column diameter: 0.32

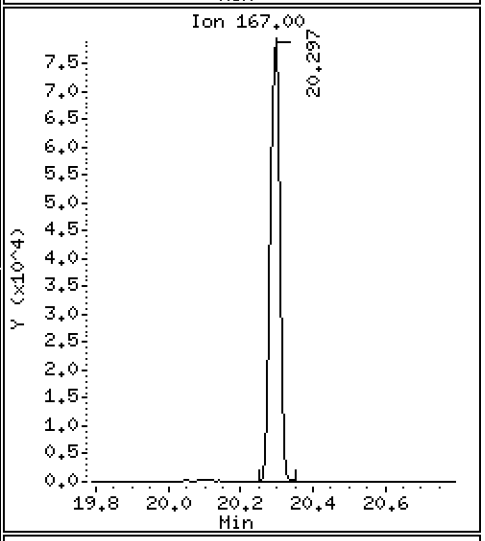
72 bis(2-Ethylhexyl)phthalate

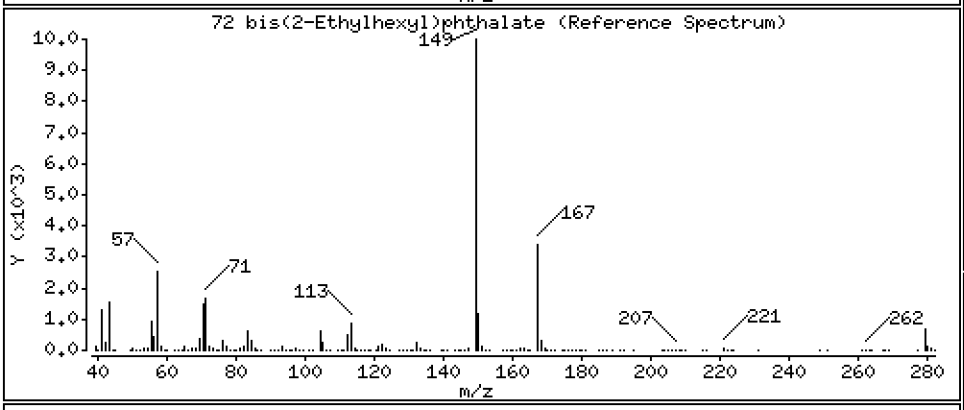
Concentration: 23.07 ug/mL

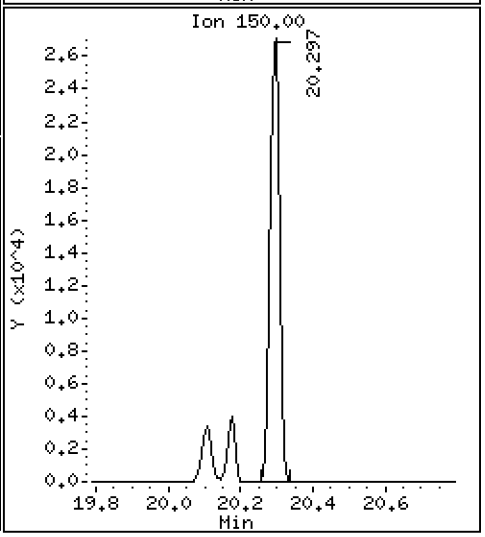


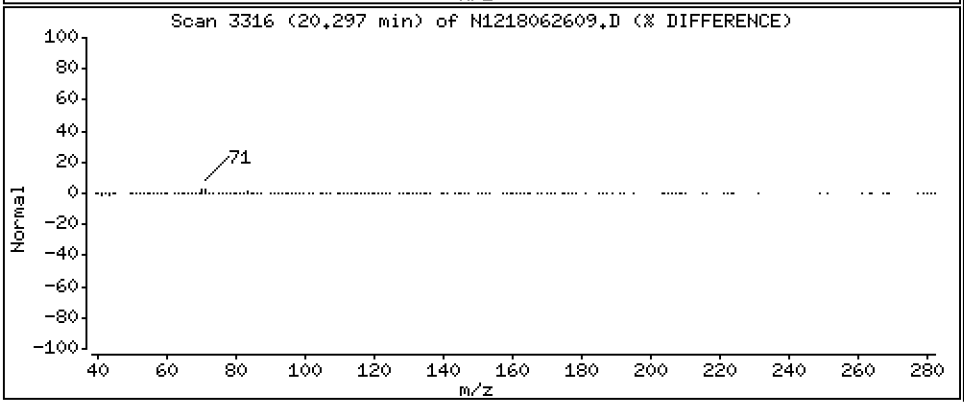












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

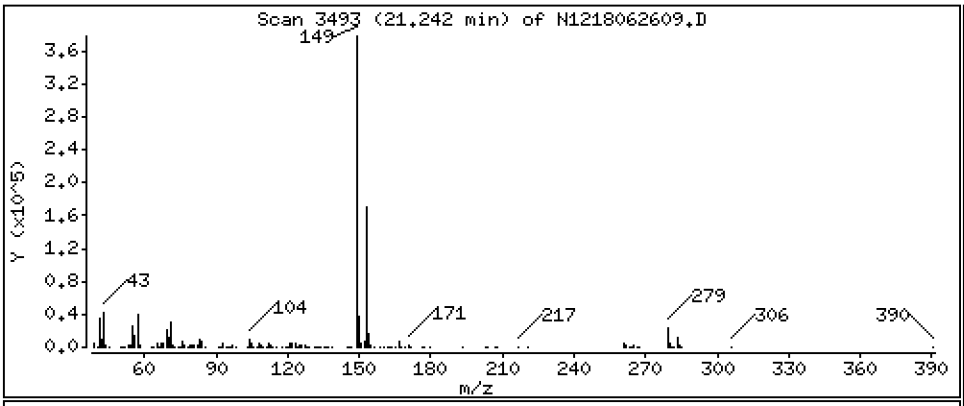
Operator: JZ

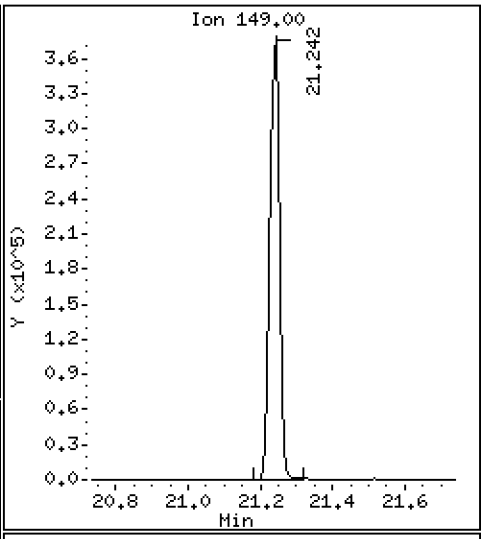
Column phase: ZB-5msi

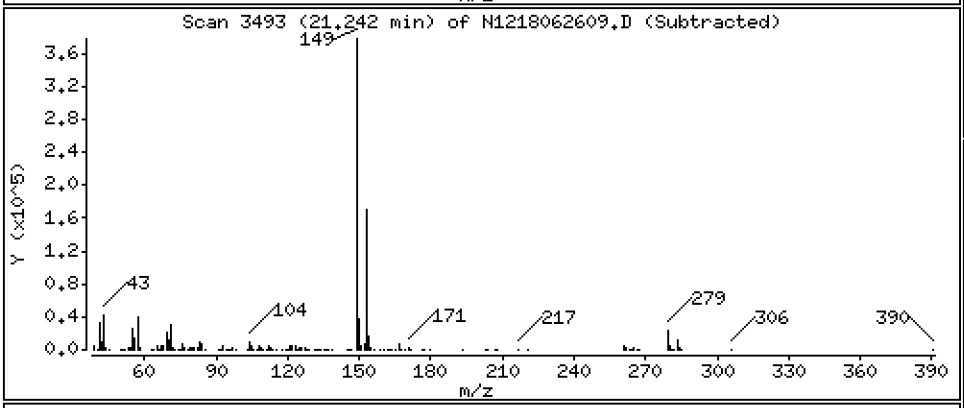
Column diameter: 0.32

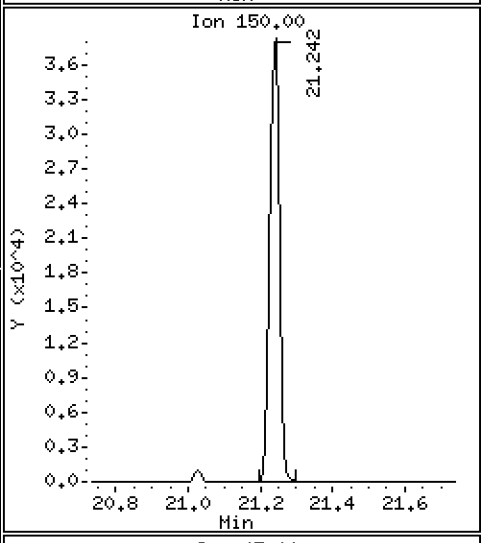
73 Di-n-octylphthalate

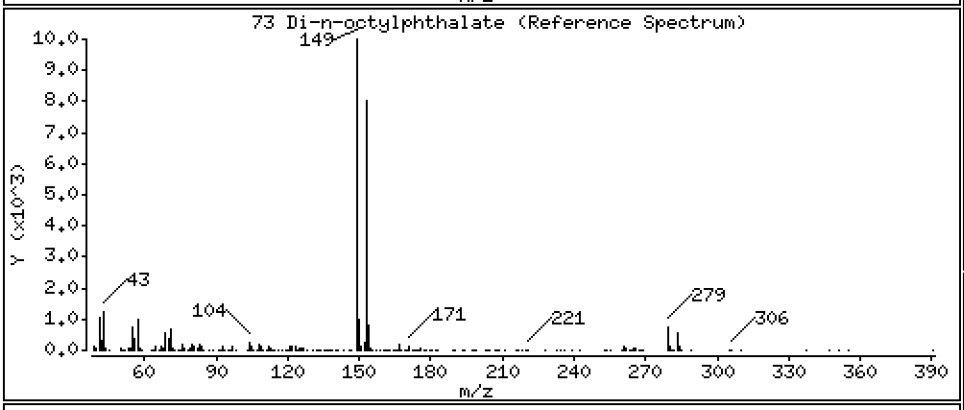
Concentration: 20.81 ug/mL

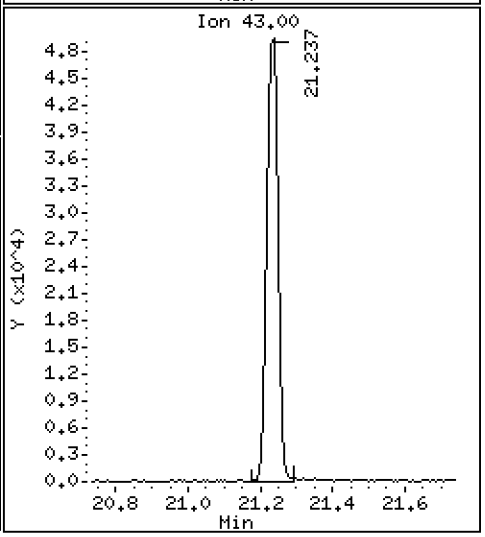


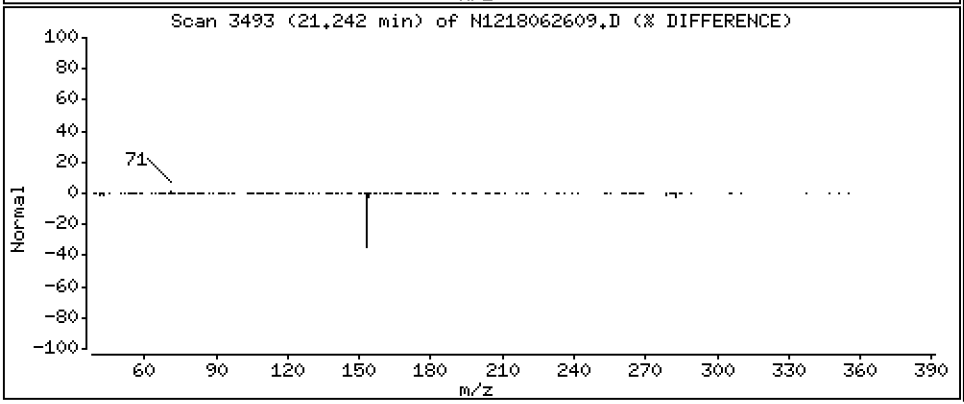












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

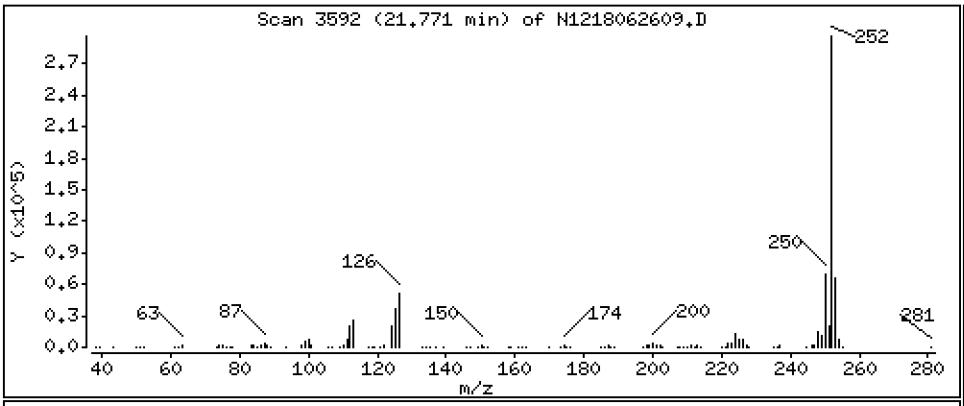
Operator: JZ

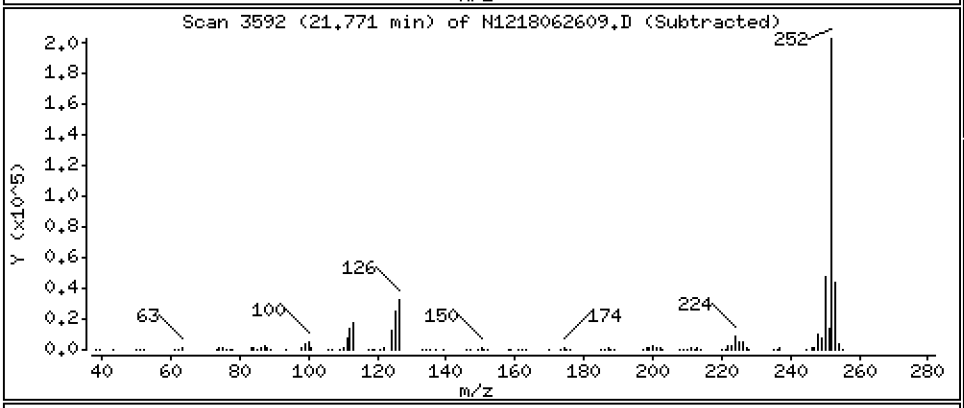
Column phase: ZB-5msi

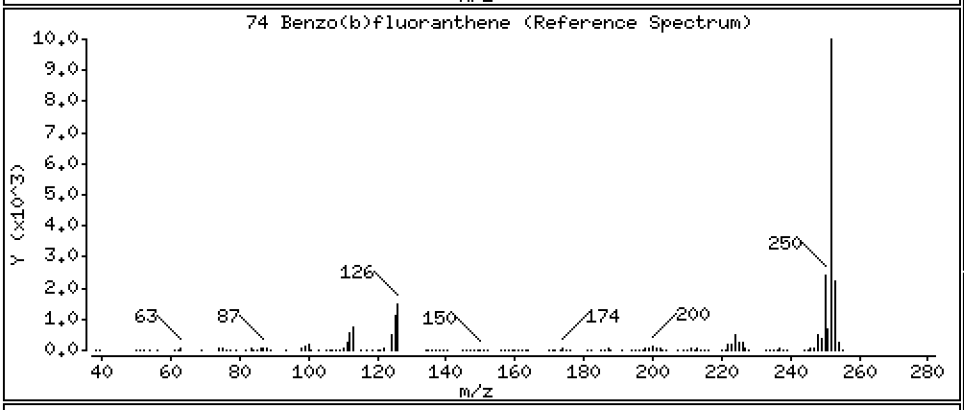
Column diameter: 0.32

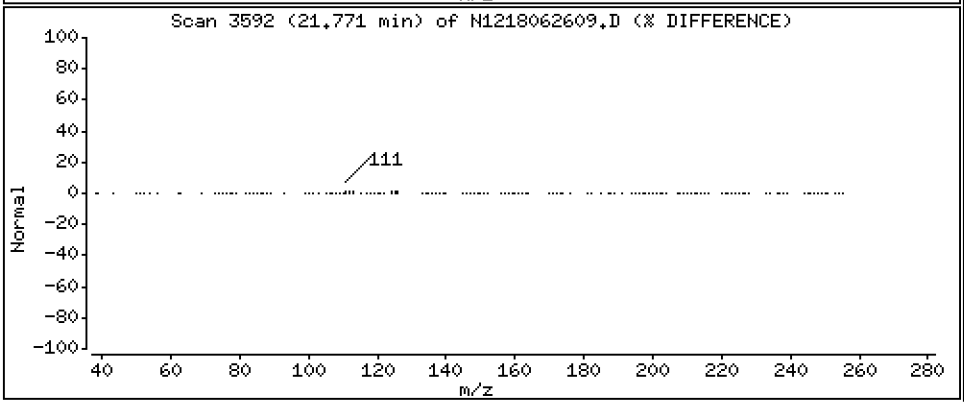
74 Benzo(b)fluoranthene

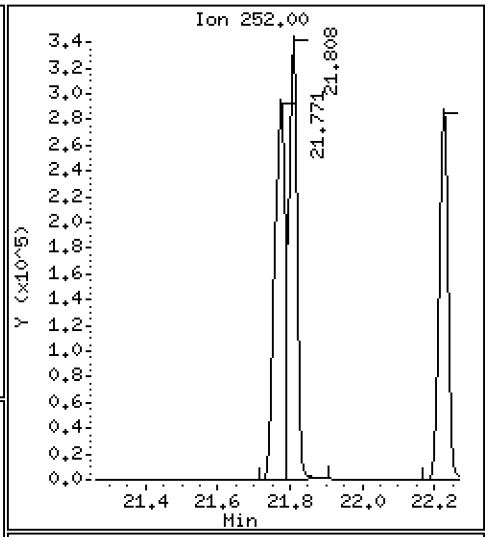
Concentration: 19.64 ug/mL

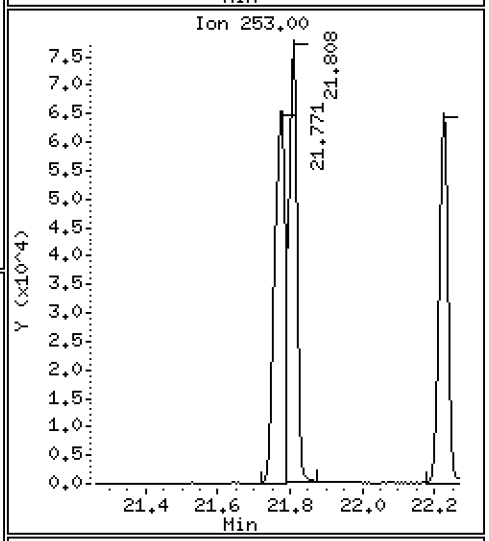


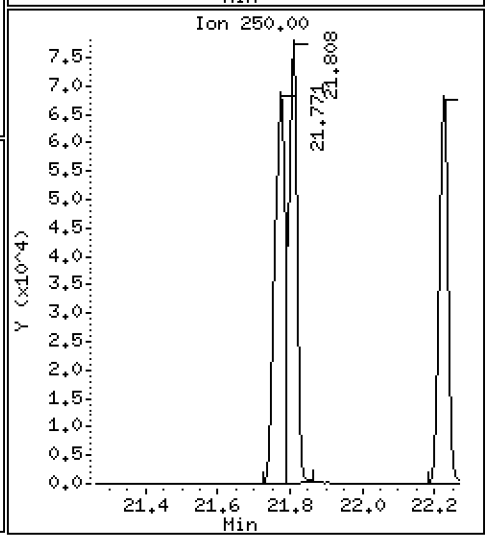












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

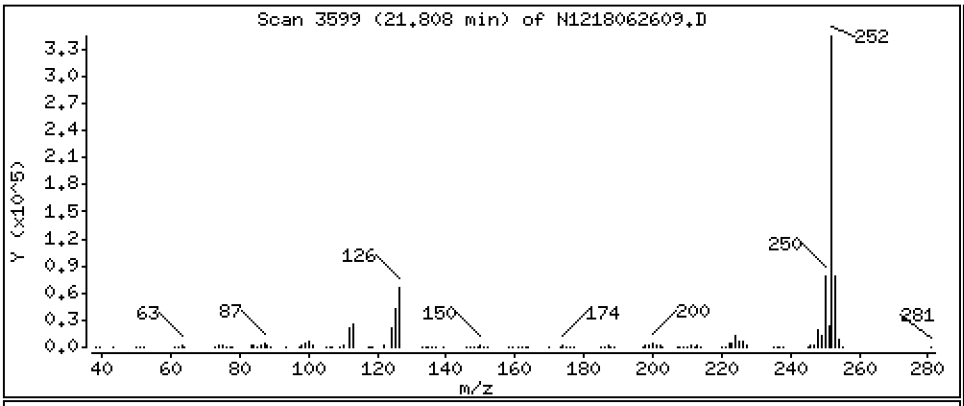
Operator: JZ

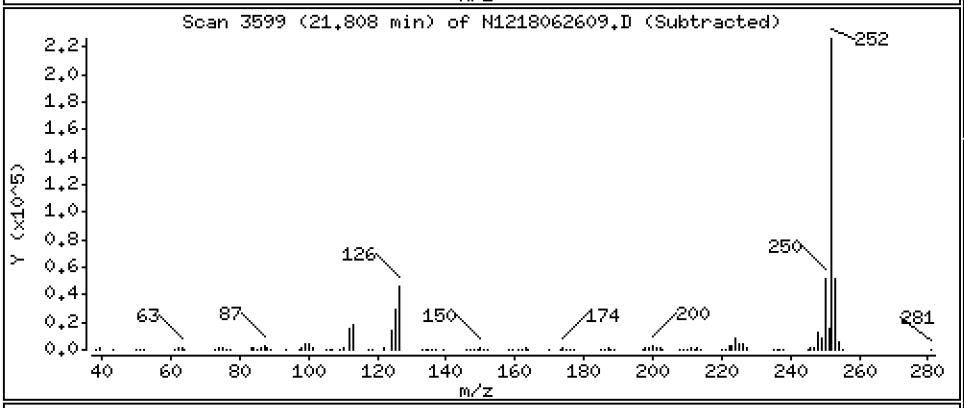
Column phase: ZB-5msi

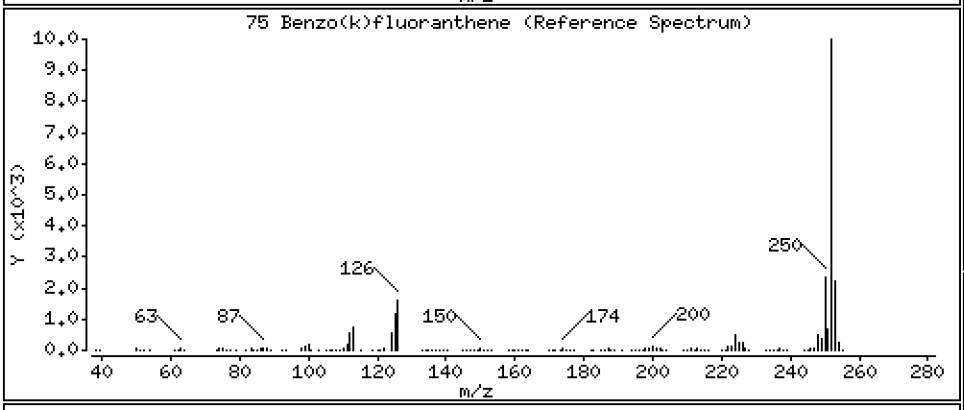
Column diameter: 0.32

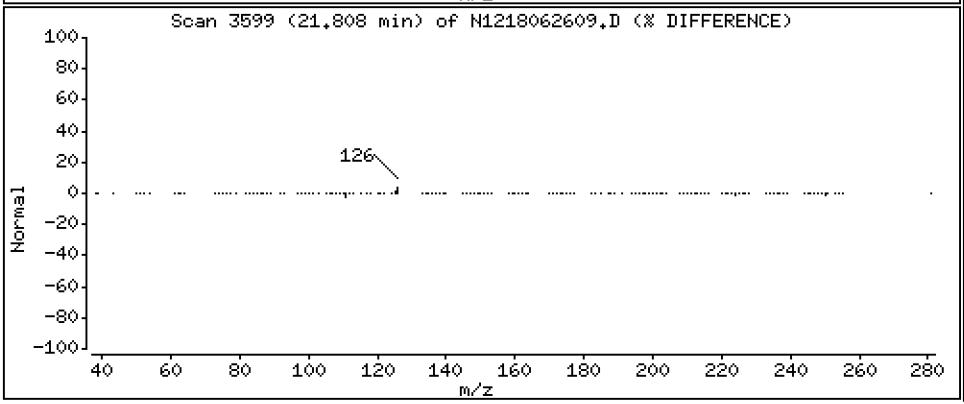
75 Benzo(k)fluoranthene

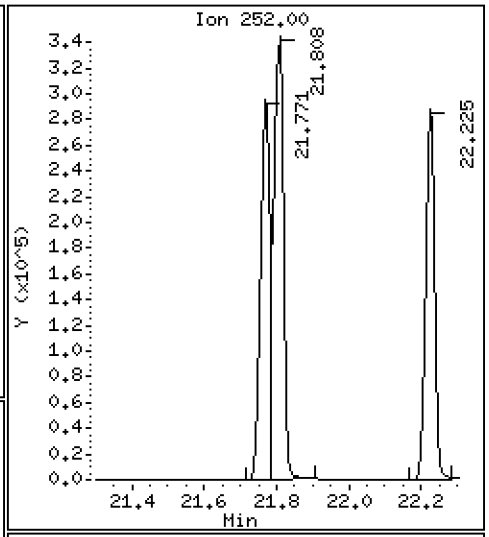
Concentration: 21.40 ug/mL

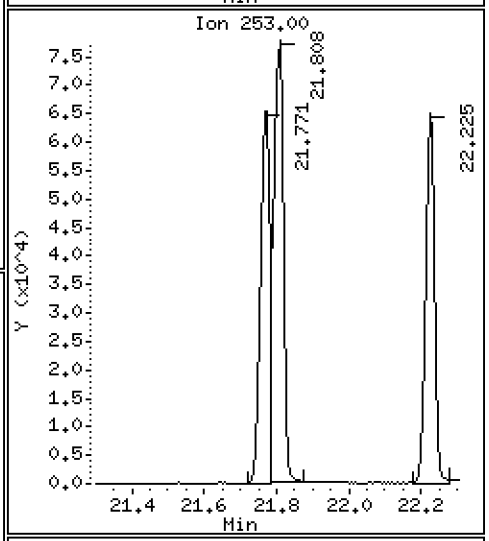


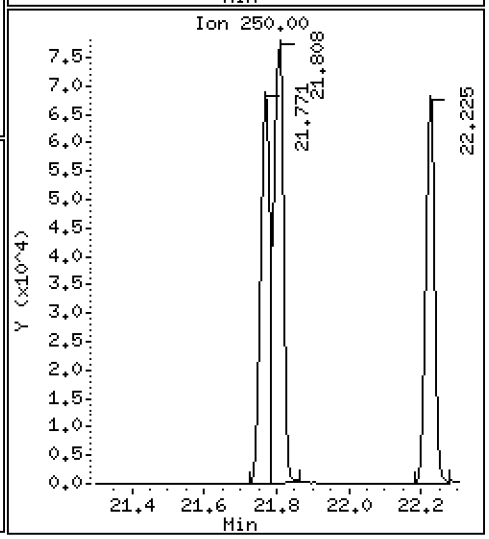












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

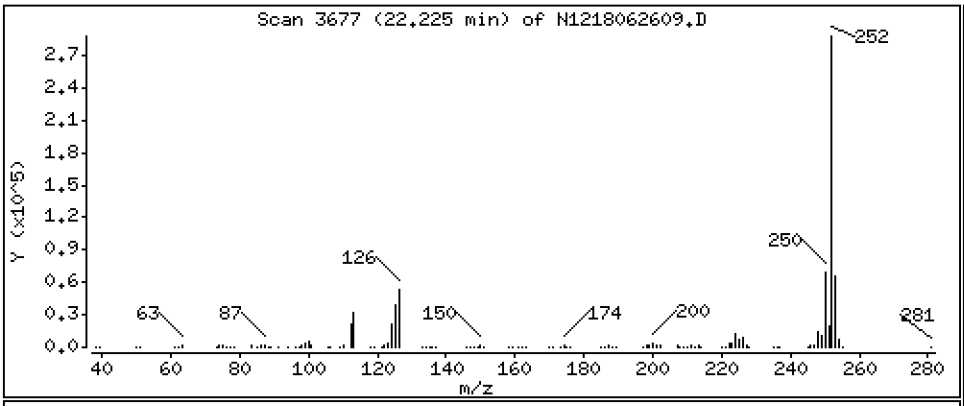
Operator: JZ

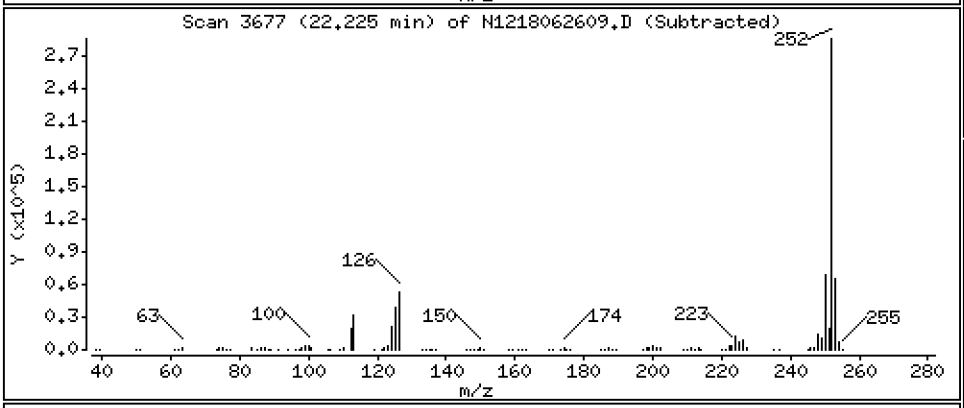
Column phase: ZB-5msi

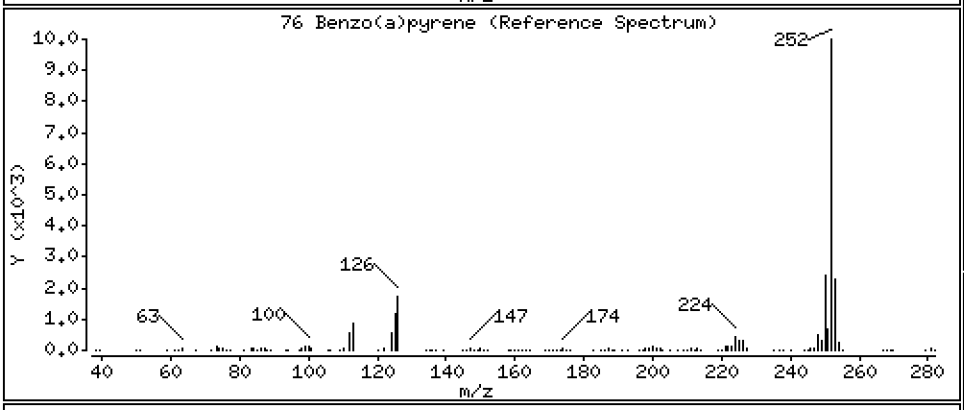
Column diameter: 0.32

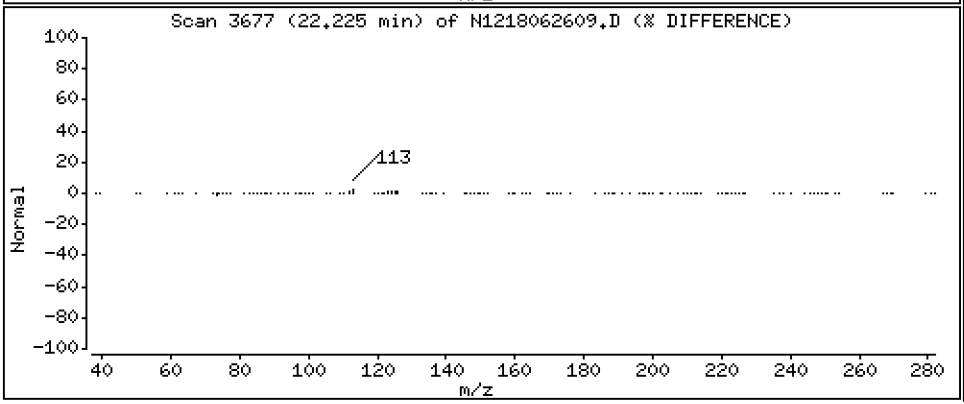
76 Benzo(a)pyrene

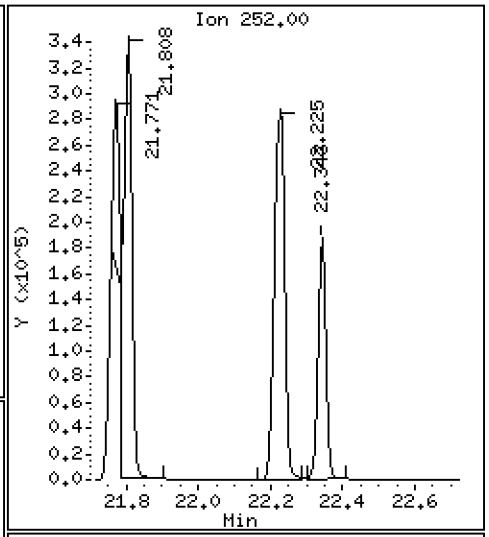
Concentration: 21.56 ug/mL

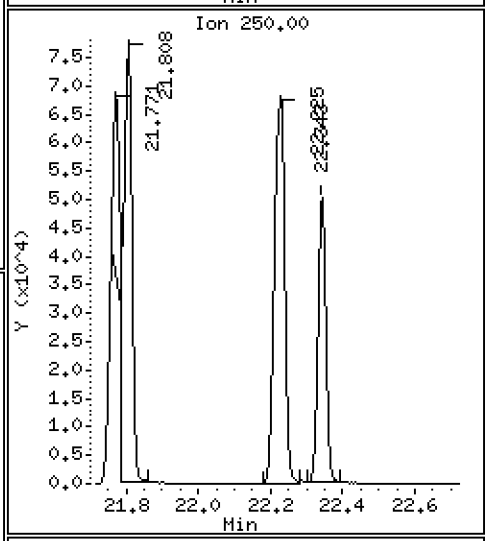


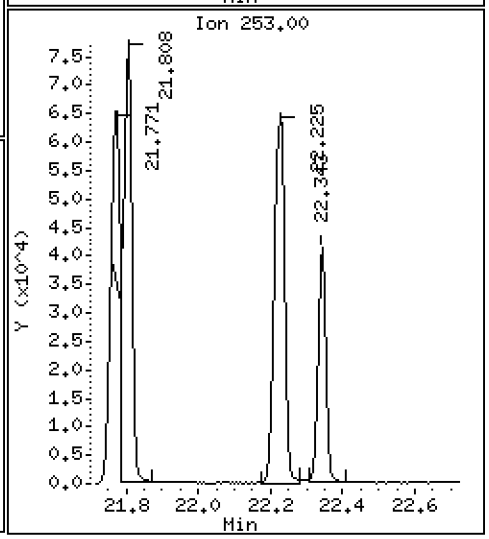












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

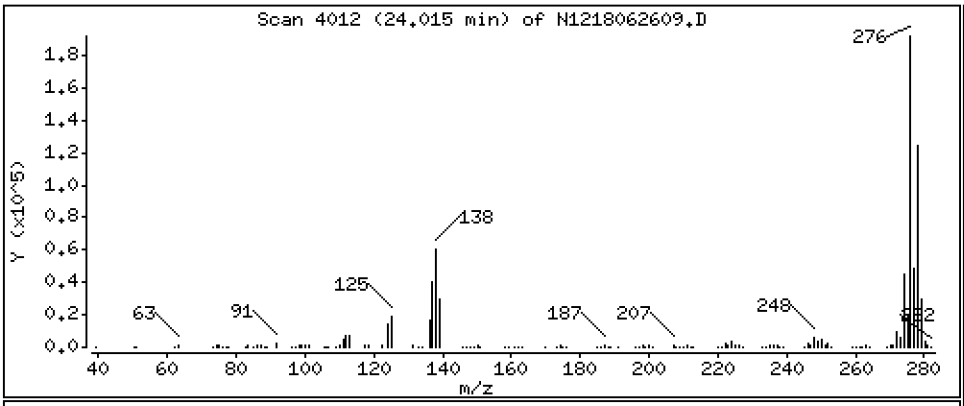
Operator: JZ

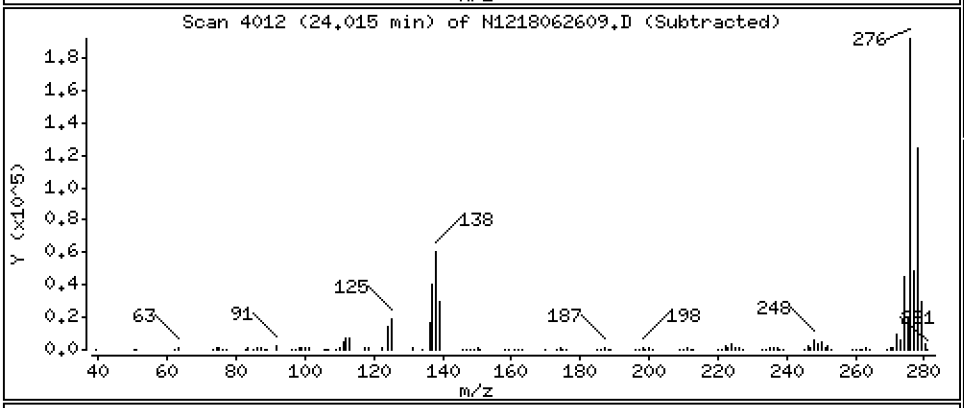
Column phase: ZB-5msi

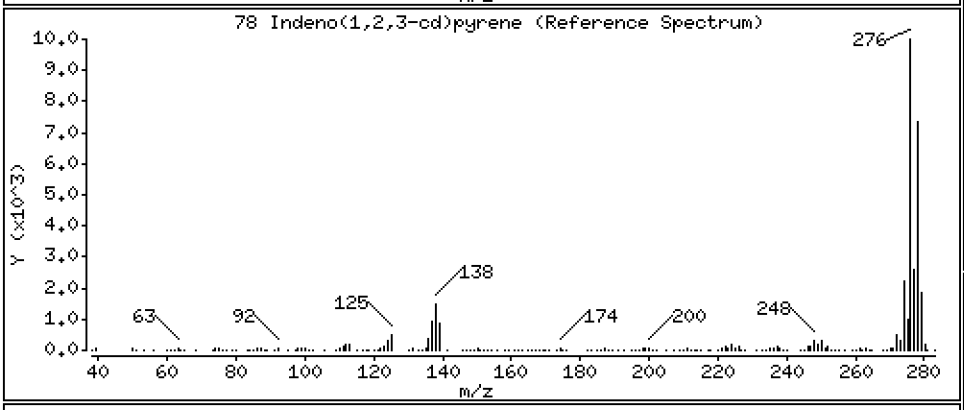
Column diameter: 0.32

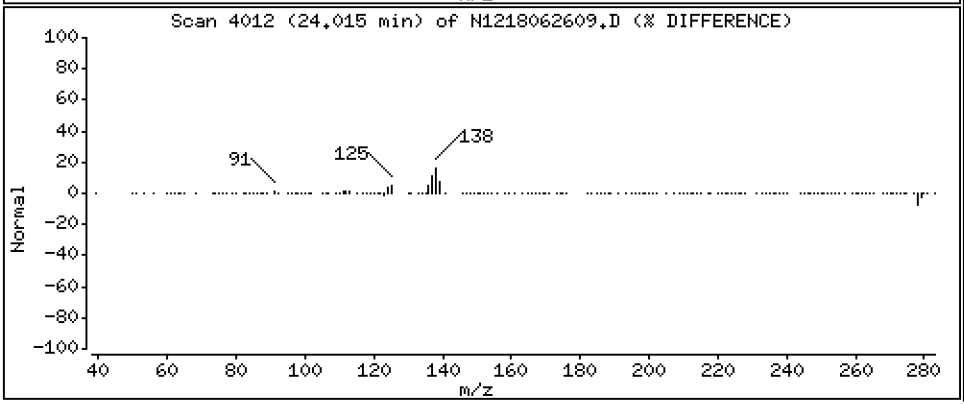
78 Indeno(1,2,3-cd)pyrene

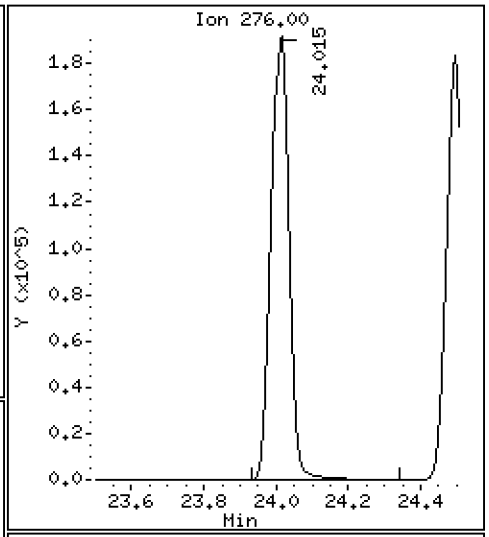
Concentration: 23.22 ug/mL

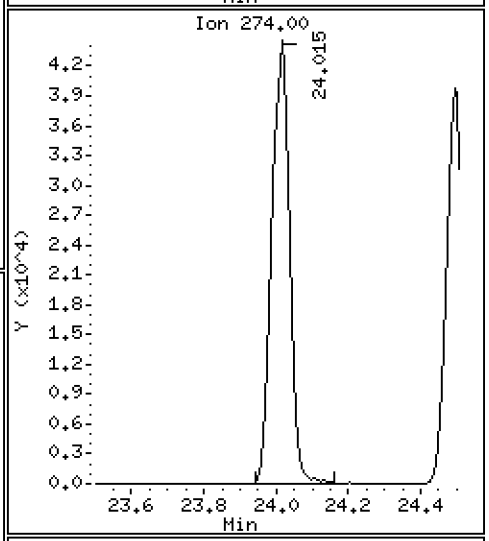


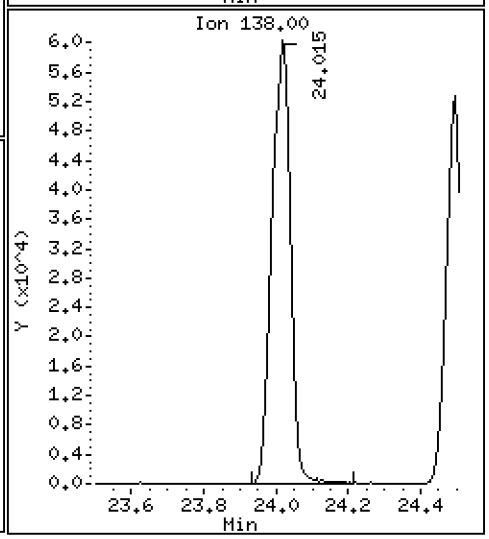












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

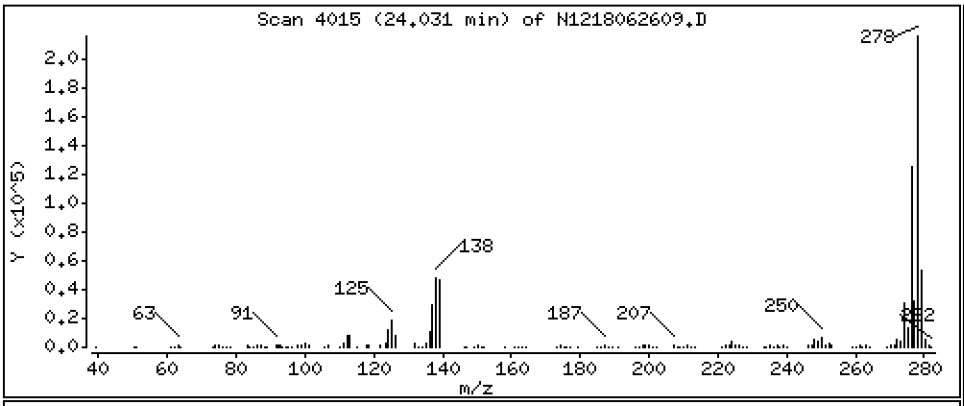
Operator: JZ

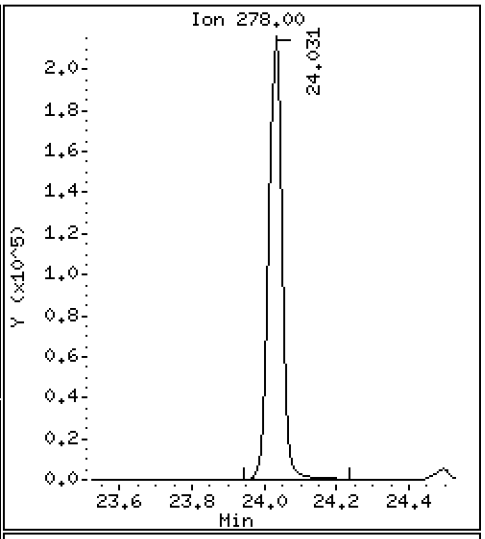
Column phase: ZB-5msi

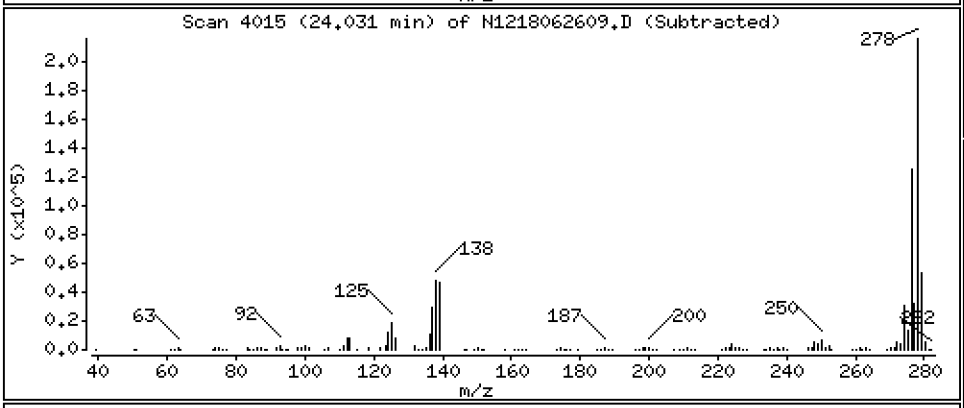
Column diameter: 0.32

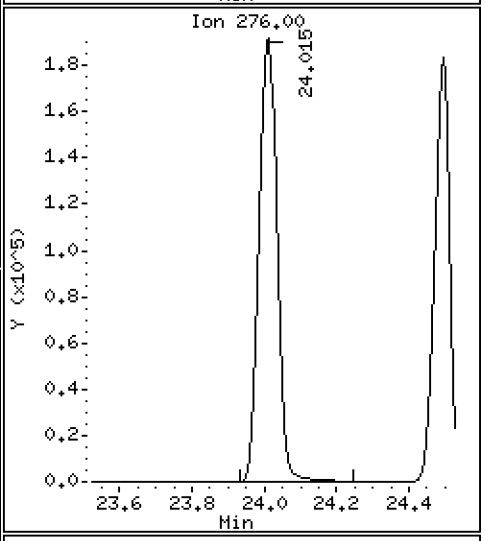
79 Dibenzo(a,h)anthracene

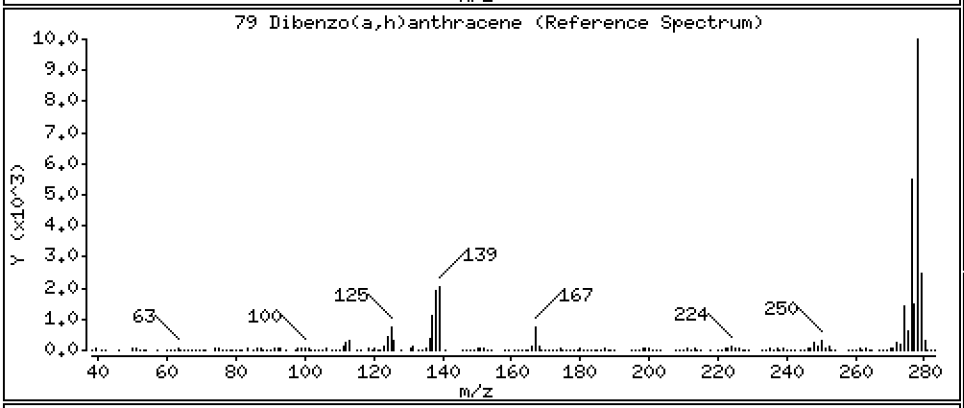
Concentration: 23.14 ug/mL

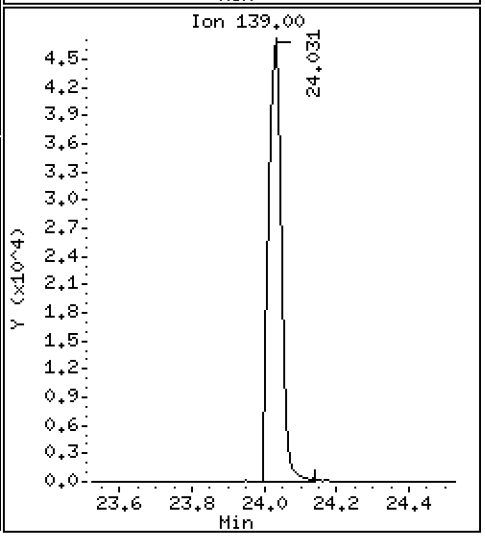


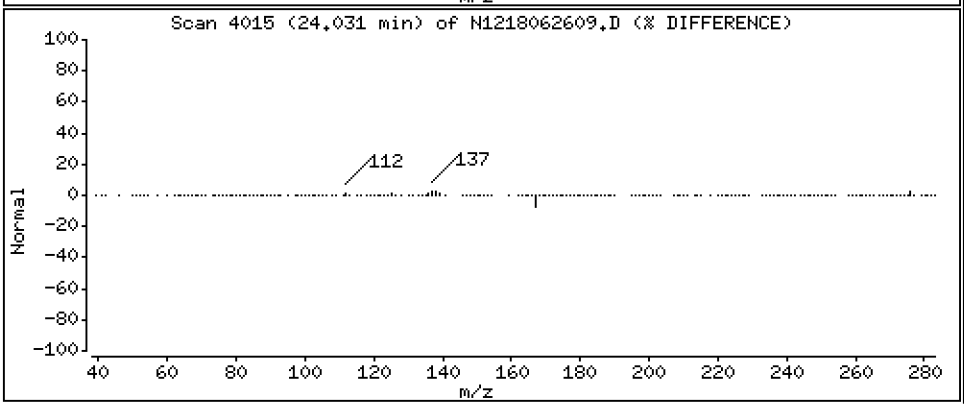












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

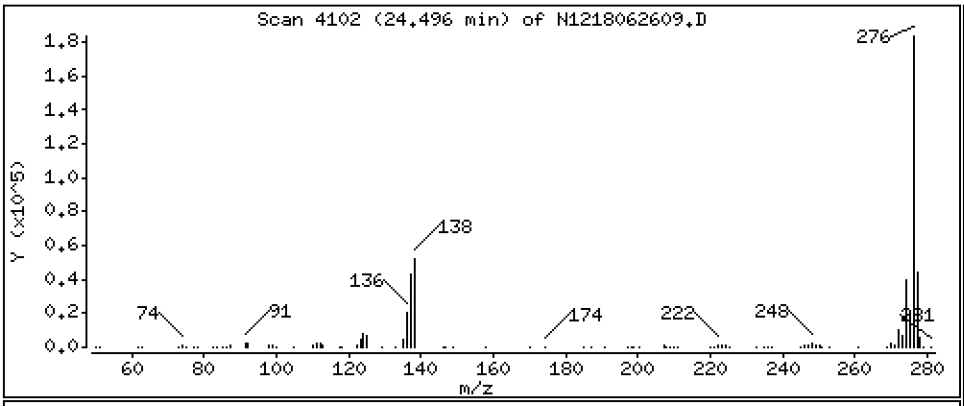
Operator: JZ

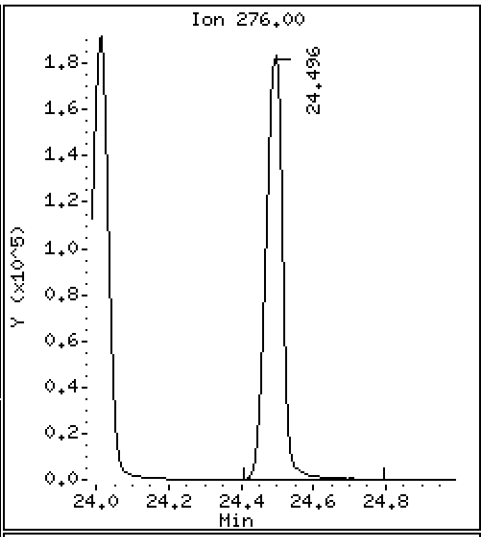
Column phase: ZB-5msi

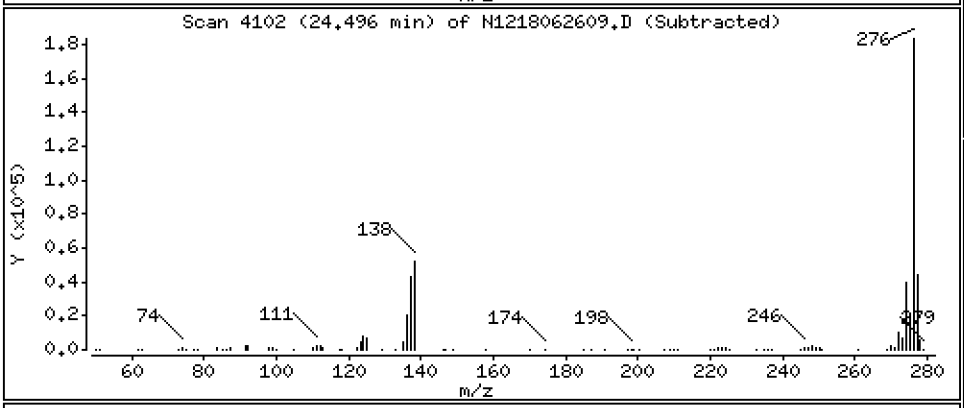
Column diameter: 0.32

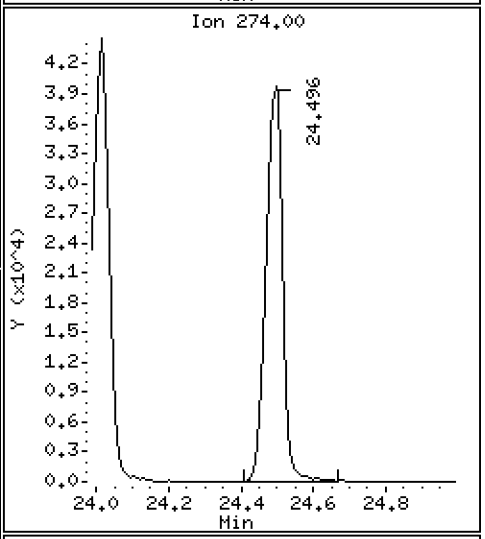
80 Benzo(g,h,i)perylene

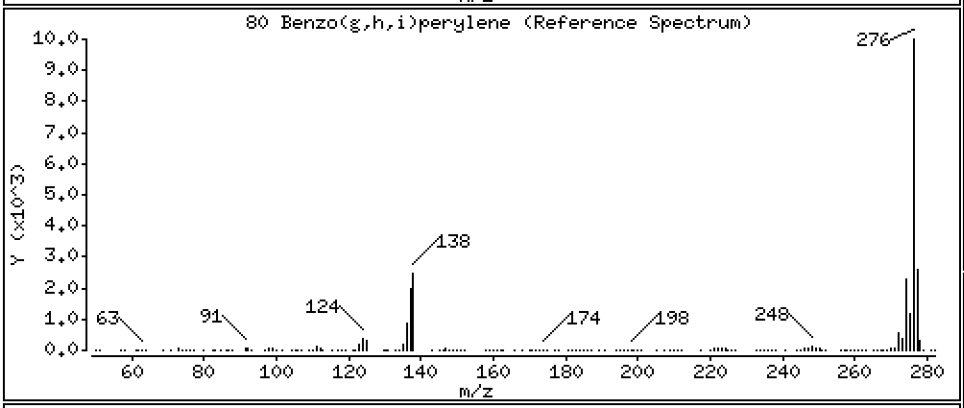
Concentration: 24.20 ug/mL

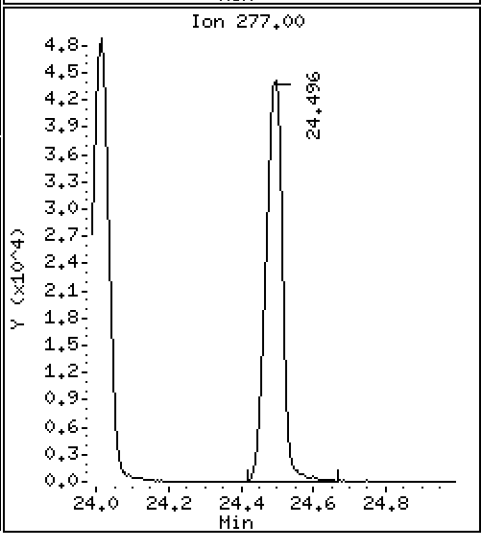


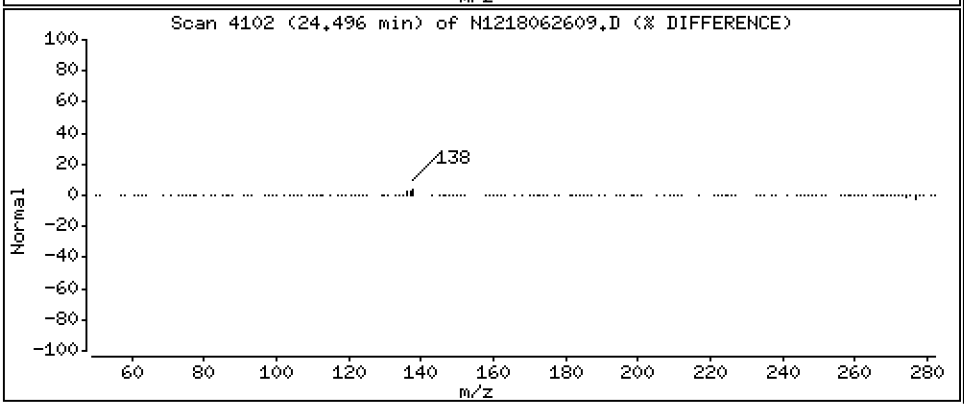












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

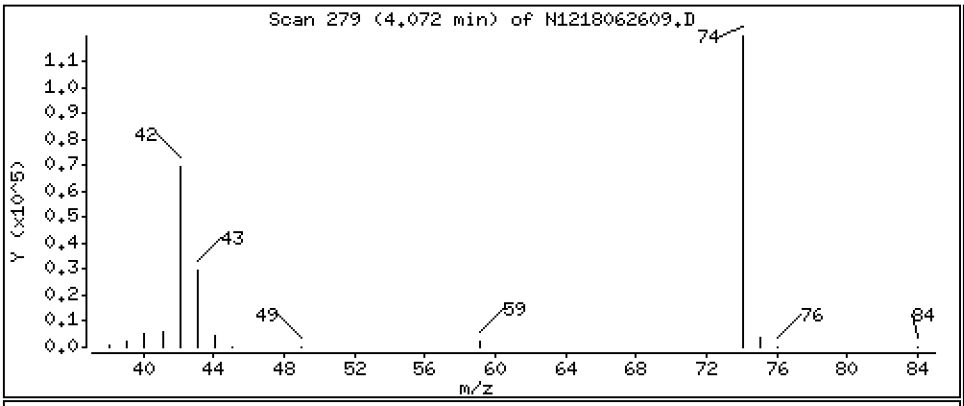
Operator: JZ

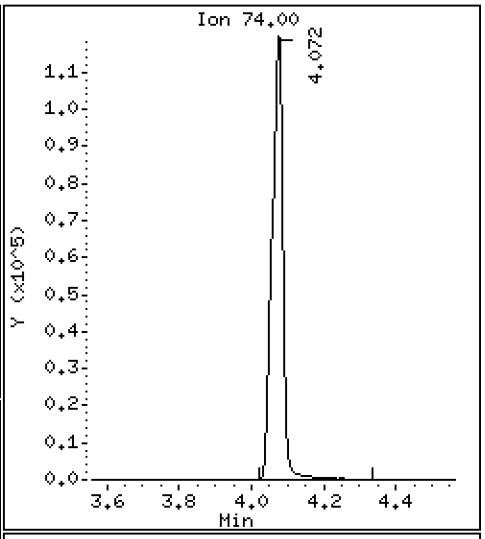
Column phase: ZB-5msi

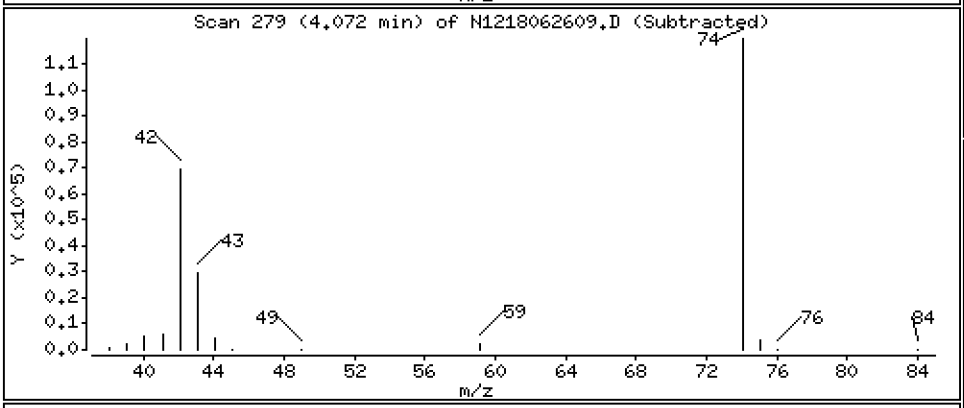
Column diameter: 0.32

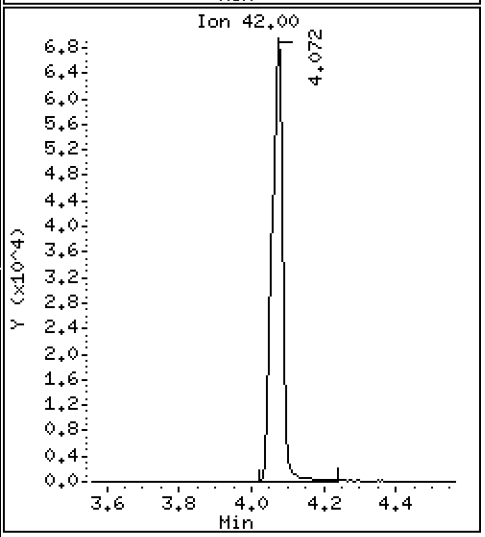
90 N-Nitrosodimethylamine

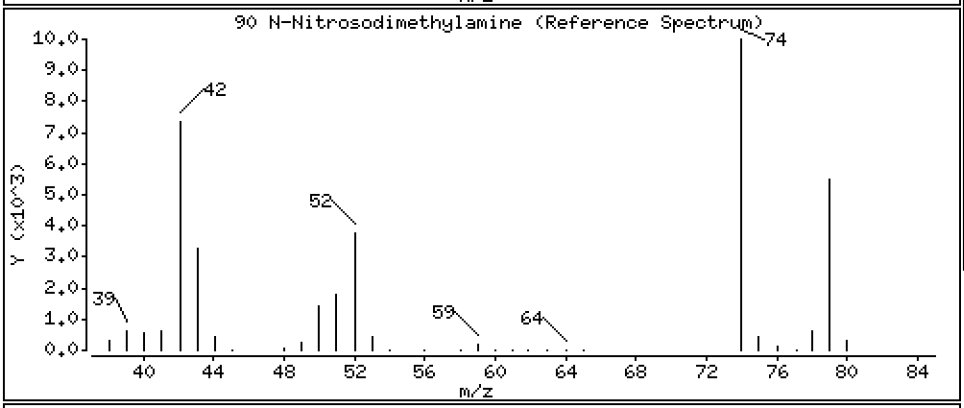
Concentration: 33.70 ug/mL

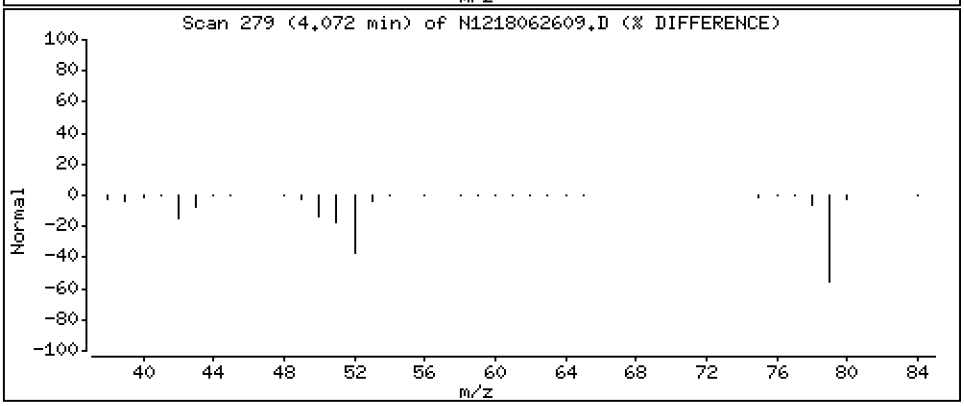












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

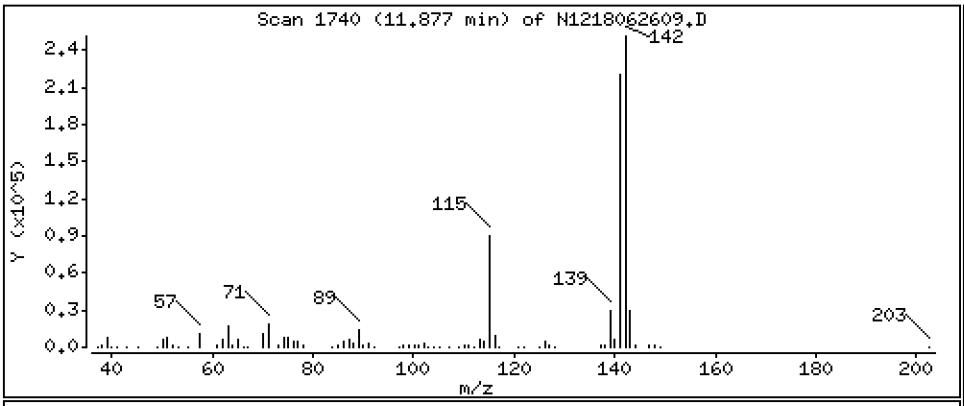
Operator: JZ

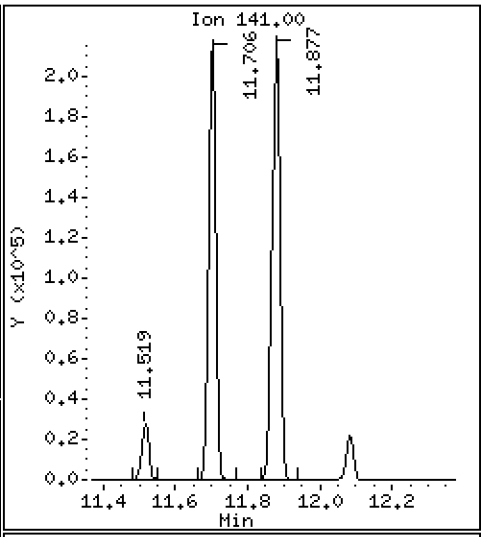
Column phase: ZB-5msi

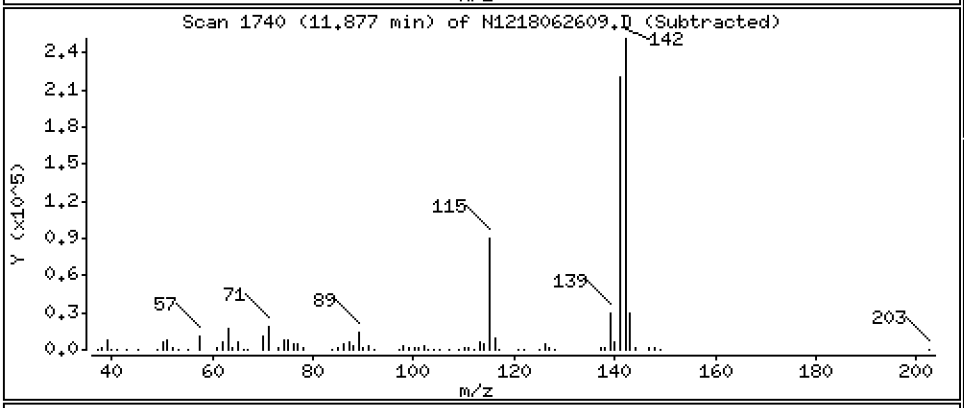
Column diameter: 0.32

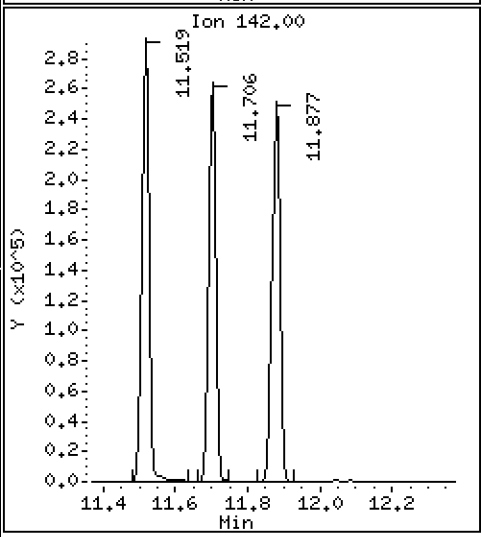
105 1-methylnaphthalene

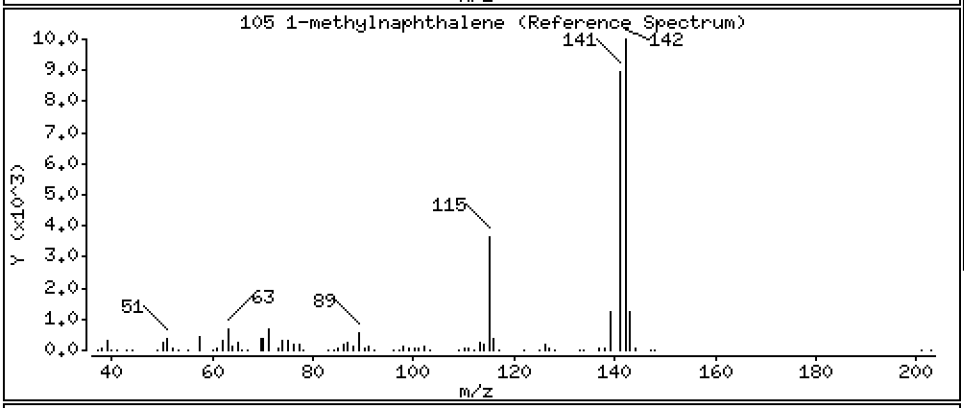
Concentration: 19.76 ug/mL

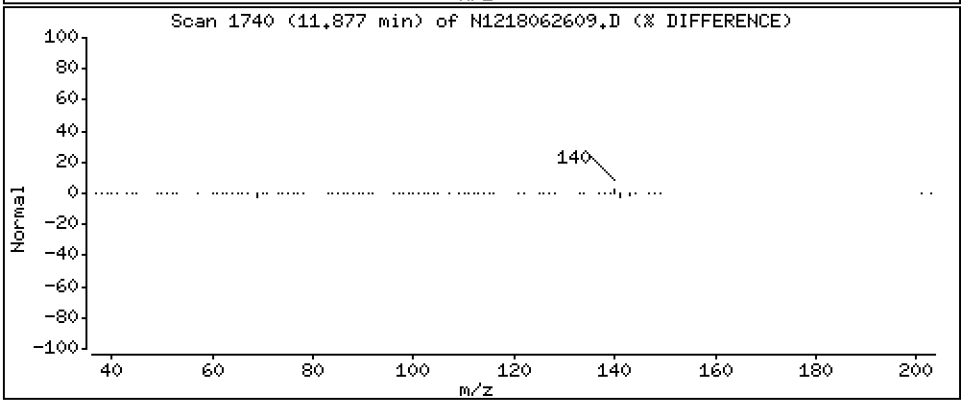












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

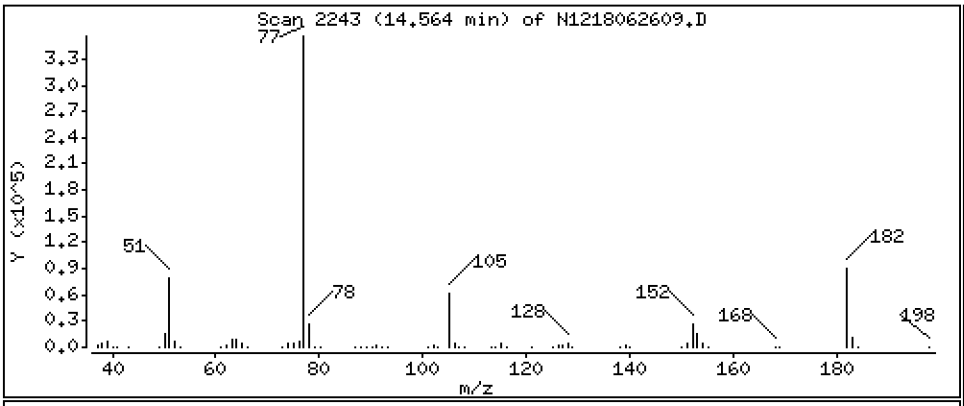
Operator: JZ

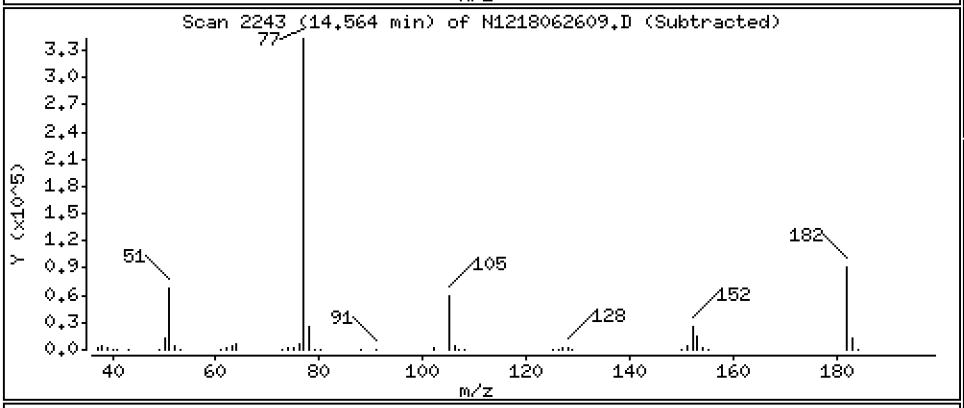
Column phase: ZB-5msi

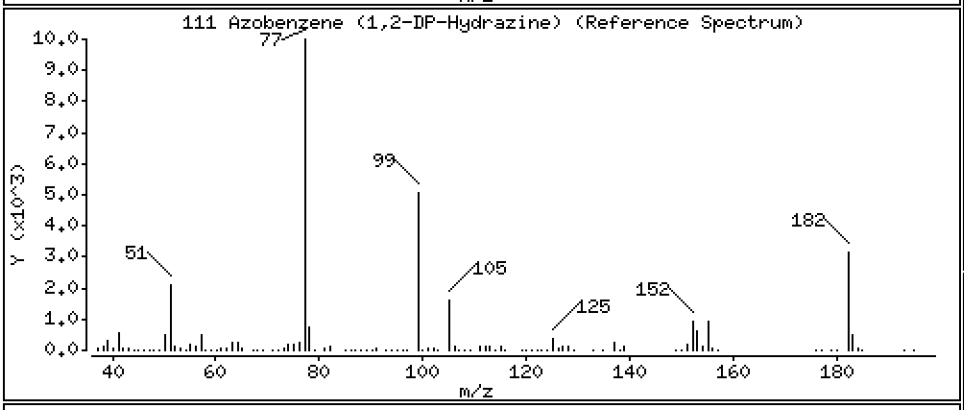
Column diameter: 0.32

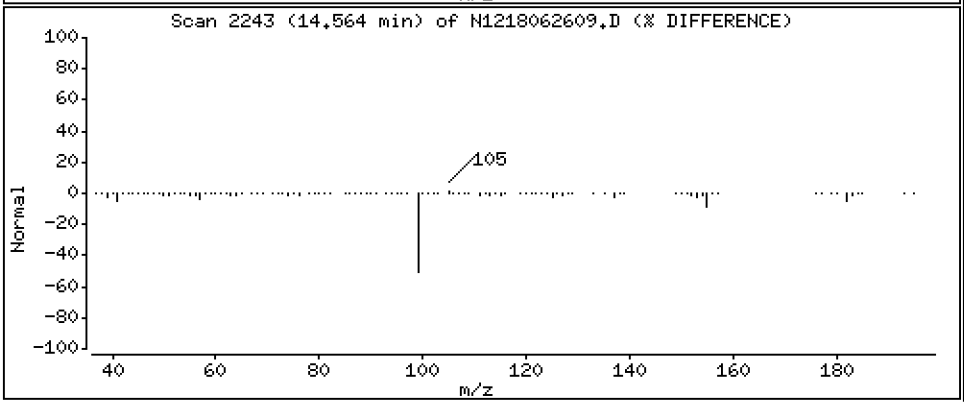
111 Azobenzene (1,2-DP-Hydrazine)

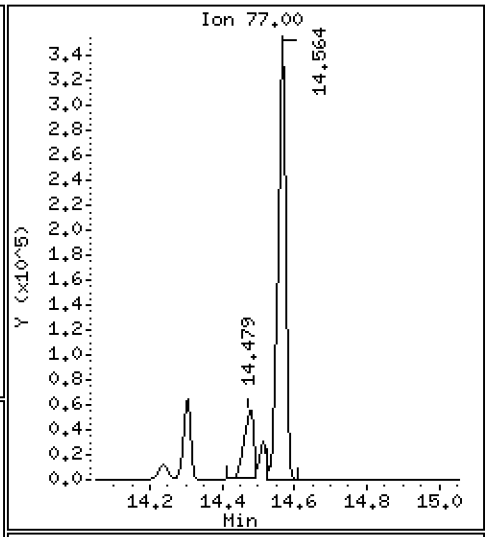
Concentration: 21.36 ug/mL

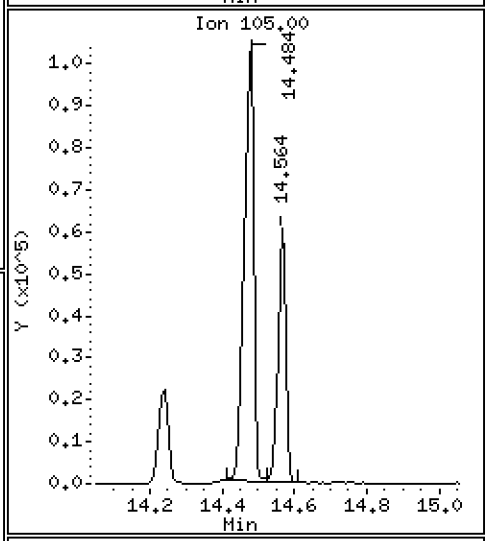


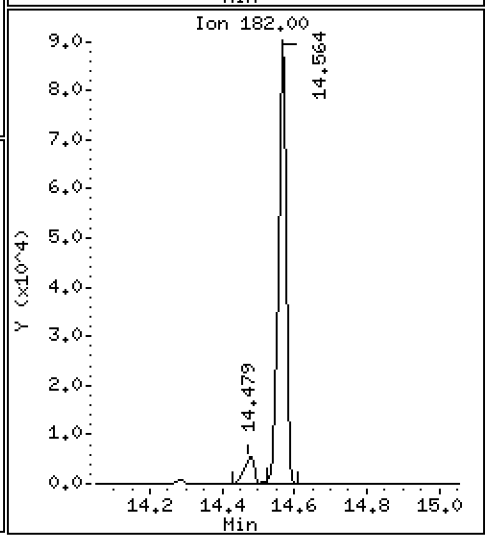












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Date : 26-JUN-2018 15:32

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MS1,

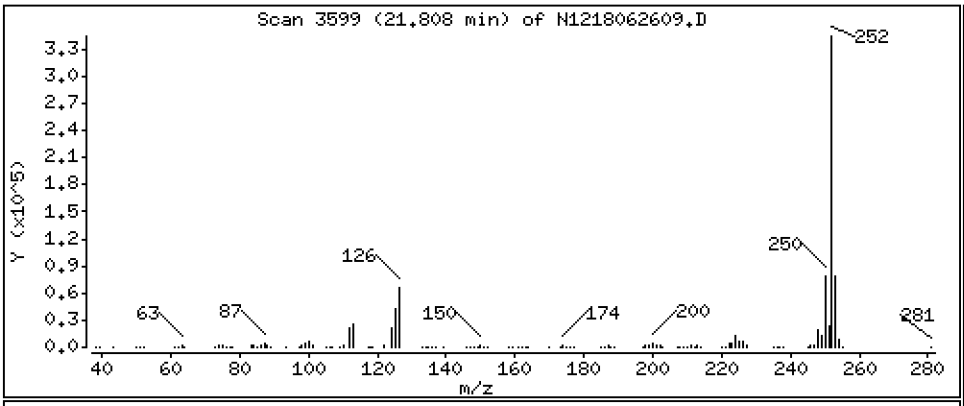
Operator: JZ

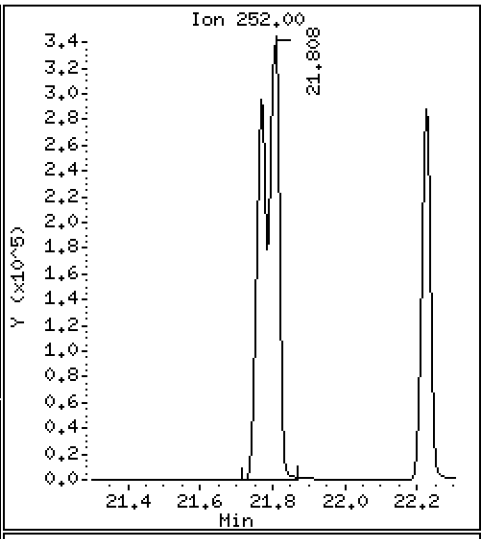
Column phase: ZB-5msi

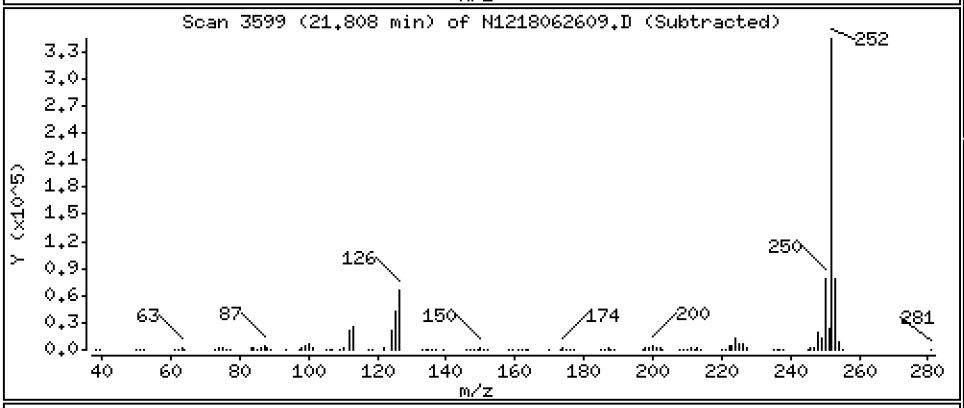
Column diameter: 0.32

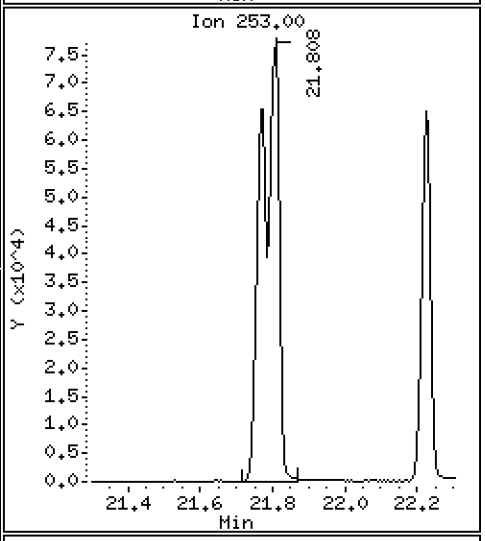
187 Total Benzofluoranthenes

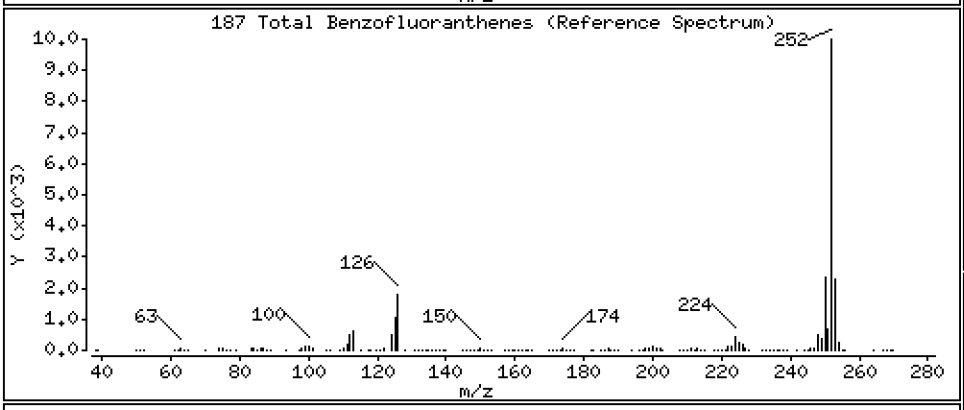
Concentration: 41.66 ug/mL

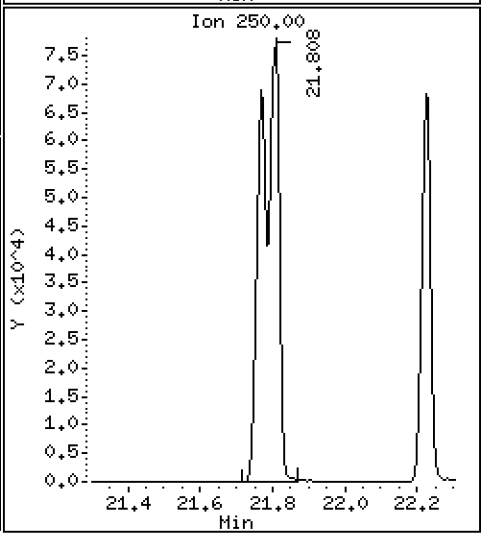


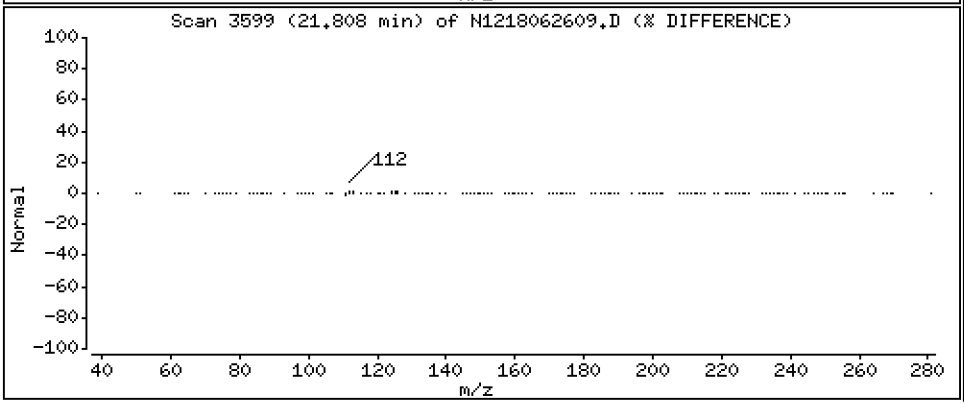












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180626.b\N1218062609.D
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Inj Date : 26-JUN-2018 15:32
Operator : JZ Inst ID: nt12.i
Smp Info : BGF0515-MS1,
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180626.b\SW846180516.m
Meth Date : 27-Jun-2018 13:26 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.561	6.556	(0.771)	234598	23.2080	23.21(R)
$	2 Phenol-d5	99	8.052	8.057	(0.946)	235237	18.5223	18.52(R)
	3 Phenol	94	8.073	8.073	(0.949)	152321	11.9755	11.98
$	5 2-Chlorophenol-d4	132	8.212	8.207	(0.965)	293801	30.1084	30.11(R)
	4 Bis(2-Chloroethyl)ether	93	8.169	8.169	(0.960)	206850	18.8423	18.84
	6 2-Chlorophenol	128	8.233	8.228	(0.967)	183482	16.9389	16.94
	7 1,3-Dichlorobenzene	146	8.452	8.447	(0.993)	177670	15.5384	15.54
*	8 1,4-Dichlorobenzene-d4	152	8.511	8.506	(1.000)	140828	20.0000	
	9 1,4-Dichlorobenzene	146	8.538	8.532	(1.003)	177734	15.6779	15.68
$	10 1,2-Dichlorobenzene-d4	152	8.810	8.805	(1.035)	118735	18.1034	18.10(R)
	12 1,2-Dichlorobenzene	146	8.832	8.826	(1.038)	174372	16.3830	16.38
	11 Benzyl alcohol	108	8.783	8.778	(1.032)	120770	15.2332	15.23
	14 2,2'-oxybis(1-Chloropropane)	45	9.035	9.029	(1.062)	214185	19.1303	19.13
	13 2-Methylphenol	108	8.997	8.997	(1.057)	176710	16.9689	16.97
	17 Hexachloroethane	117	9.318	9.312	(1.095)	66371	14.8520	14.85
	16 N-Nitroso-di-n-propylamine	70	9.254	9.254	(1.087)	160908	20.3752	20.38
	15 4-Methylphenol	108	9.238	9.227	(1.085)	183339	17.4594	17.46
$	18 Nitrobenzene-d5	82	9.435	9.435	(0.894)	241506	21.3507	21.35(R)
	19 Nitrobenzene	77	9.467	9.462	(0.897)	238368	19.3503	19.35
	20 Isophorone	82	9.852	9.836	(0.933)	416640	22.4079	22.41
	21 2-Nitrophenol	139	9.980	9.975	(0.945)	109364	19.0517	19.05
	22 2,4-Dimethylphenol	107	10.076	10.066	(0.954)	542002	47.2109	47.21
	23 Bis(2-Chloroethoxy)methane	93	10.226	10.215	(0.969)	253510	20.2495	20.25
	24 Benzoic acid	105	10.343	10.365	(0.980)	584016	74.1599	74.16
	25 2,4-Dichlorophenol	162	10.365	10.354	(0.982)	458157	51.4452	51.45
	26 1,2,4-Trichlorobenzene	180	10.493	10.488	(0.994)	152332	16.5030	16.50
*	27 Naphthalene-d8	136	10.557	10.546	(1.000)	553003	20.0000	
	28 Naphthalene	128	10.584	10.579	(1.003)	517362	17.2342	17.23
	29 4-Chloroaniline	127	10.717	10.712	(1.015)	50411	3.82833	3.828
	30 Hexachlorobutadiene	225	10.894	10.888	(1.032)	75458	15.0281	15.03
	31 4-Chloro-3-methylphenol	107	11.519	11.508	(1.091)	528479	56.4498	56.45
	32 2-Methylnaphthalene	141	11.706	11.695	(1.109)	302443	17.9756	17.98
	33 Hexachlorocyclopentadiene	237	12.085	12.074	(0.900)	242559	57.6385	57.64

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	12.219	12.208	(0.910)	351970	54.1945	54.19
	35	2,4,5-Trichlorophenol	196	12.272	12.267	(0.914)	380835	56.9669	56.97
$	36	2-Fluorobiphenyl	172	12.341	12.336	(0.919)	428858	21.1383	21.14(R)
	37	2-Chloronaphthalene	162	12.486	12.480	(0.930)	354403	19.0498	19.05
	38	2-Nitroaniline	65	12.726	12.710	(0.948)	350646	59.4961	59.50
	39	Dimethylphthalate	163	13.084	13.073	(0.975)	424853	21.0834	21.08
	40	Acenaphthylene	152	13.169	13.164	(0.981)	515435	19.3745	19.37
	41	2,6-Dinitrotoluene	165	13.185	13.170	(0.982)	288542	65.1154	65.12
*	42	Acenaphthene-d10	164	13.426	13.415	(1.000)	285260	20.0000	
	43	3-Nitroaniline	138	13.405	13.389	(0.998)	244218	45.1785	45.18
	44	Acenaphthene	153	13.474	13.469	(1.004)	357212	20.2296	20.23
	45	2,4-Dinitrophenol	184	13.570	13.554	(1.011)	369129	133.942	133.9
	46	Dibenzofuran	168	13.736	13.730	(1.023)	516346	19.2303	19.23
	47	4-Nitrophenol	109	13.688	13.682	(1.019)	103742	36.3876	36.39
	48	2,4-Dinitrotoluene	165	13.821	13.800	(1.029)	400094	63.6981	63.70
	50	Diethylphthalate	149	14.243	14.227	(1.061)	416600	21.7122	21.71
	49	Fluorene	166	14.291	14.286	(1.064)	417581	21.1546	21.15
	51	4-Chlorophenyl-phenylether	204	14.307	14.297	(1.066)	189607	20.5760	20.58
	52	4-Nitroaniline	138	14.425	14.398	(1.074)	291407	55.0777	55.08
	53	4,6-Dinitro-2-methylphenol	198	14.484	14.468	(0.916)	462450	130.550	130.6
	54	N-Nitrosodiphenylamine	169	14.516	14.505	(0.918)	307064	20.5294	20.53
$	55	2,4,6-Tribromophenol	330	14.719	14.713	(1.096)	85760	35.9110	35.91(R)
	56	4-Bromophenyl-phenylether	248	15.093	15.082	(0.955)	115201	20.2664	20.27
	57	Hexachlorobenzene	284	15.322	15.317	(0.969)	113744	19.3398	19.34
	58	Pentachlorophenol	266	15.616	15.611	(0.988)	237842	61.1726	61.17
*	59	Phenanthrene-d10	188	15.809	15.798	(1.000)	493656	20.0000	
	60	Phenanthrene	178	15.846	15.835	(1.002)	579497	23.6792	23.68
	61	Anthracene	178	15.915	15.910	(1.007)	547243	19.6053	19.61
	62	Carbazole	167	16.193	16.188	(1.024)	532153	19.7632	19.76
	63	Di-n-butylphthalate	149	16.882	16.877	(1.068)	664929	21.5868	21.59
	64	Fluoranthene	202	17.791	17.780	(1.125)	629577	20.5639	20.56
	65	Pyrene	202	18.148	18.143	(0.901)	638521	23.9198	23.92
$	66	Terphenyl-d14	244	18.442	18.437	(0.916)	471456	28.4283	28.43(R)
	67	Butylbenzylphthalate	149	19.313	19.308	(0.959)	282569	23.6598	23.66
	68	Benzo(a)anthracene	228	20.109	20.104	(0.999)	491916	25.1777	25.18
*	69	Chrysene-d12	240	20.136	20.130	(1.000)	430510	20.0000	
	70	3,3'-Dichlorobenzidine	252	20.109	20.104	(0.999)	358751	49.1838	49.18
	71	Chrysene	228	20.178	20.173	(1.002)	505436	23.1830	23.18
	72	bis(2-Ethylhexyl)phthalate	149	20.296	20.291	(0.956)	380515	23.0689	23.07
*	134	Di-n-octylphthalate-d4	153	21.231	21.226	(1.000)	555187	20.0000	
	73	Di-n-octylphthalate	149	21.242	21.236	(1.000)	616941	20.8057	20.81
	74	Benzo(b)fluoranthene	252	21.770	21.765	(0.976)	532785	19.6406	19.64
	75	Benzo(k)fluoranthene	252	21.808	21.803	(0.977)	583115	21.4031	21.40
	76	Benzo(a)pyrene	252	22.225	22.219	(0.996)	497055	21.5591	21.56
*	77	Perylene-d12	264	22.310	22.299	(1.000)	440633	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	24.014	24.004	(1.076)	625793	23.2157	23.22
	79	Dibenzo(a,h)anthracene	278	24.030	24.025	(1.077)	510188	23.1352	23.14
	80	Benzo(g,h,i)perylene	276	24.495	24.490	(1.098)	544367	24.2031	24.20
	90	N-Nitrosodimethylamine	74	4.072	4.061	(0.478)	232986	33.6955	33.70
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	11.877	11.871	(1.125)	297109	19.7613	19.76
	111	Azobenzene (1,2-DP-Hydrazine)	77	14.564	14.553	(0.921)	491551	21.3577	21.36

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
187 Total Benzofluoranthenes	252	21.808	21.803	(0.977)	1059868	41.6602	41.66

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062609.D
Lab Smp Id: BGF0515-MS1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180626.b\SW846180516.m
Misc Info: 18-

Calibration Date: 26-JUN-2018
Calibration Time: 22:20
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	140828	10.90
27 Naphthalene-d8	478458	239229	956916	553003	15.58
42 Acenaphthene-d10	247659	123830	495318	285260	15.18
59 Phenanthrene-d10	421930	210965	843860	493656	17.00
69 Chrysene-d12	450836	225418	901672	430510	-4.51
134 Di-n-octylphthala	583434	291717	1166868	555187	-4.84
77 Perylene-d12	453093	226547	906186	440633	-2.75

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.51	8.01	9.01	8.51	0.06
27 Naphthalene-d8	10.55	10.05	11.05	10.56	0.10
42 Acenaphthene-d10	13.42	12.92	13.92	13.43	0.08
59 Phenanthrene-d10	15.80	15.30	16.30	15.81	0.07
69 Chrysene-d12	20.13	19.63	20.63	20.14	0.03
134 Di-n-octylphthala	21.23	20.73	21.73	21.23	0.02
77 Perylene-d12	22.30	21.80	22.80	22.31	0.05

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062609.D

Lab ID: BGF0515-MS1
nt12.i, SW846180516.m, 26-JUN-2018 15:32

RT	CO-ELUTION COMPOUNDS
20.110	3,3′-Dichlorobenzidine and Benzo(a)anthracene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

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Date : 26-JUN-2018 16:07

Client ID:

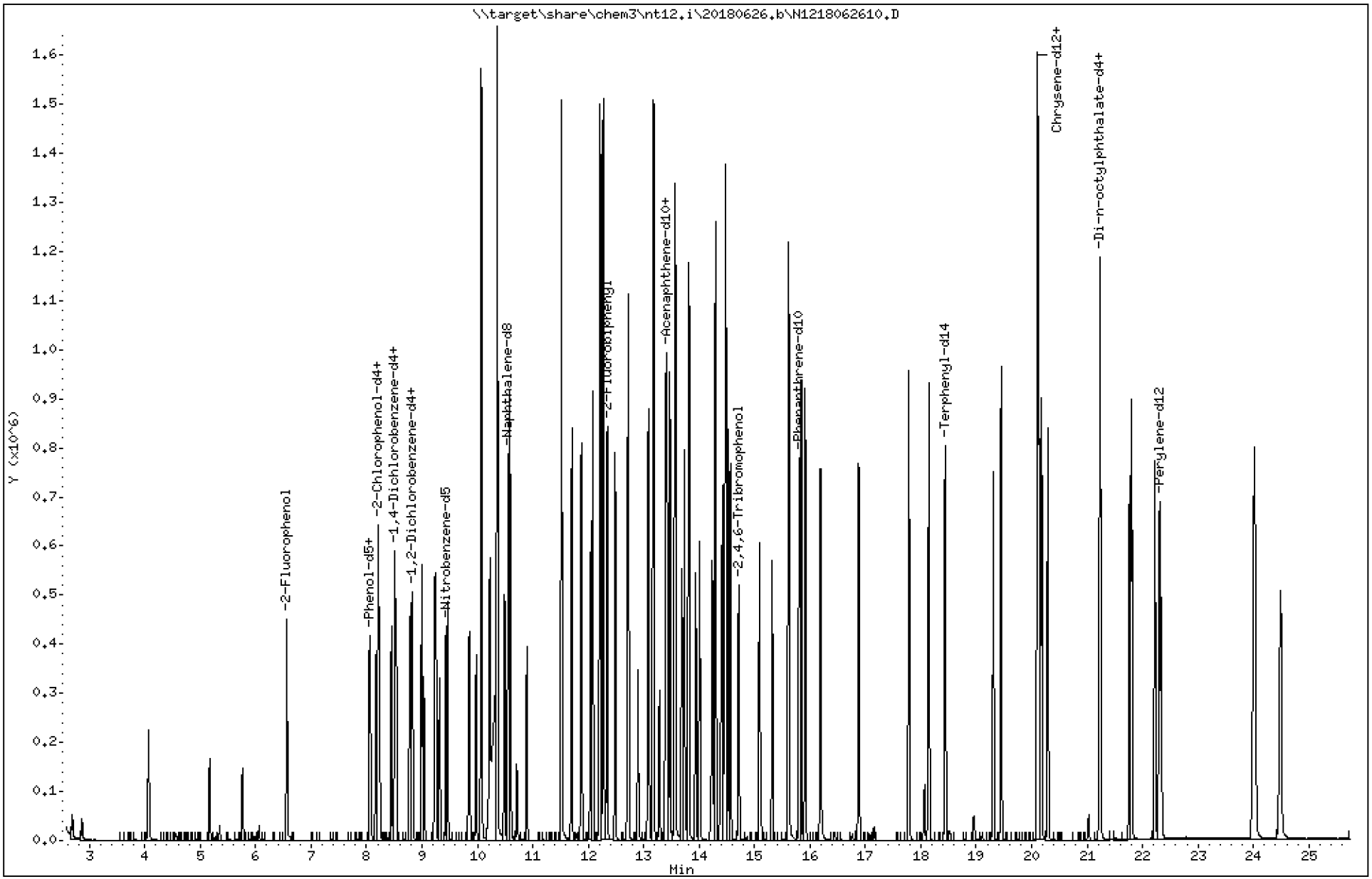
Instrument: nt12.i

Sample Info: BGF0515-MSD1,

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

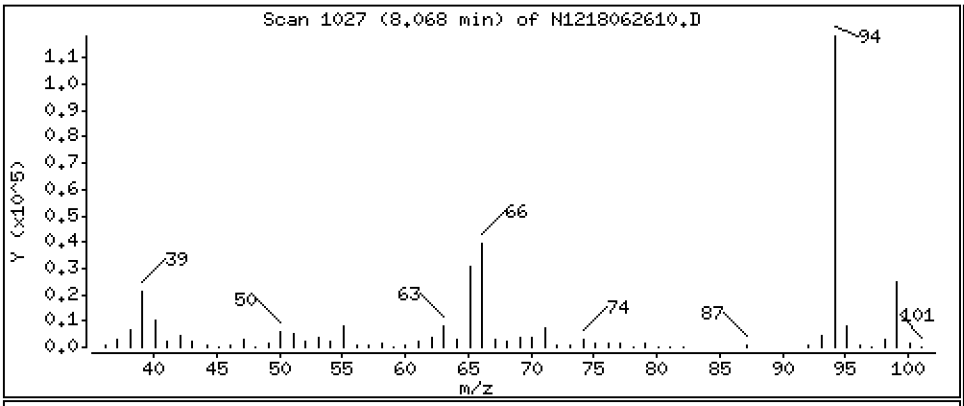
Operator: JZ

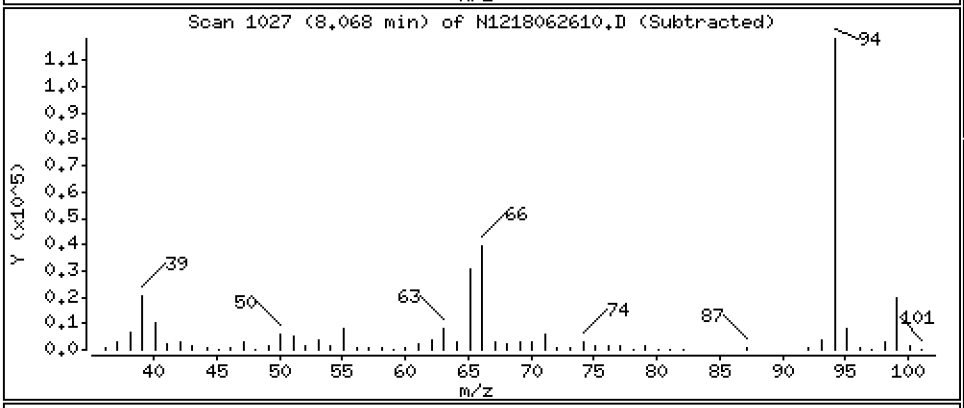
Column phase: ZB-5msi

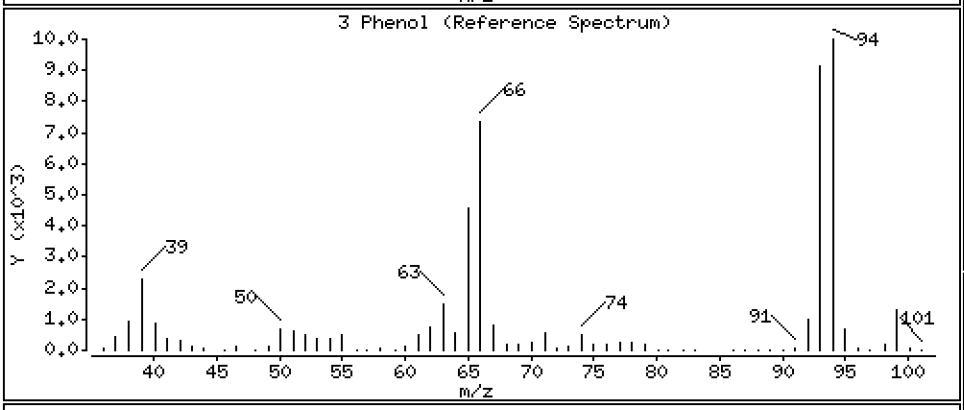
Column diameter: 0.32

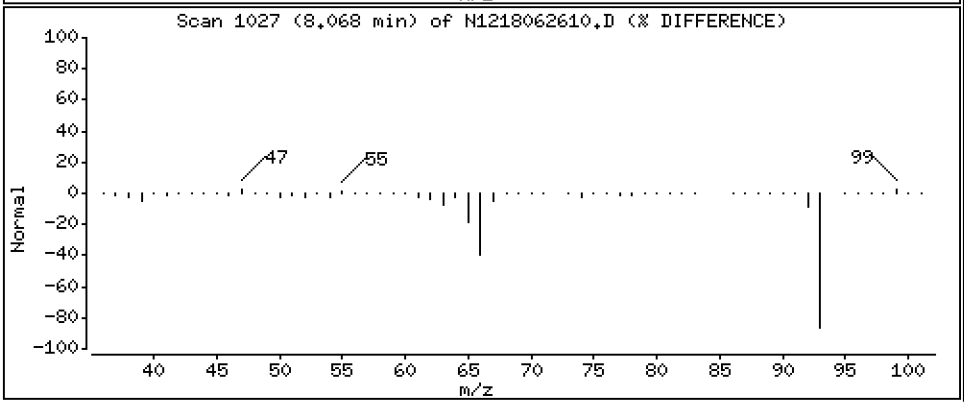
3 Phenol

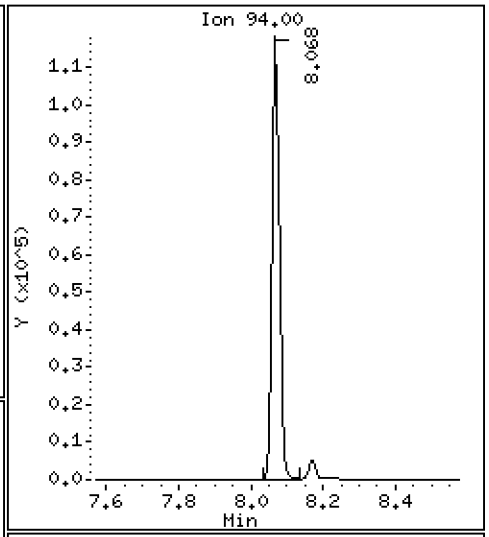
Concentration: 11.59 ug/mL

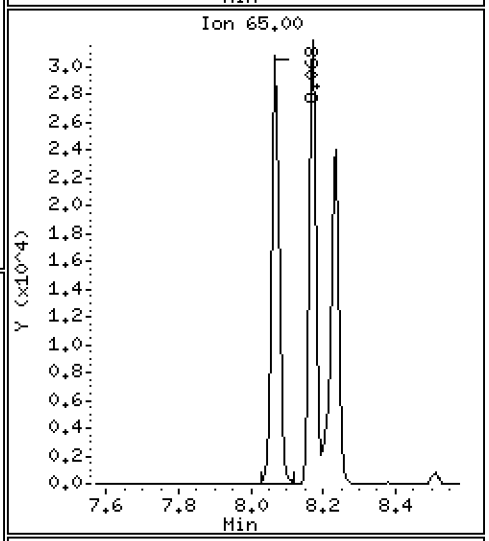


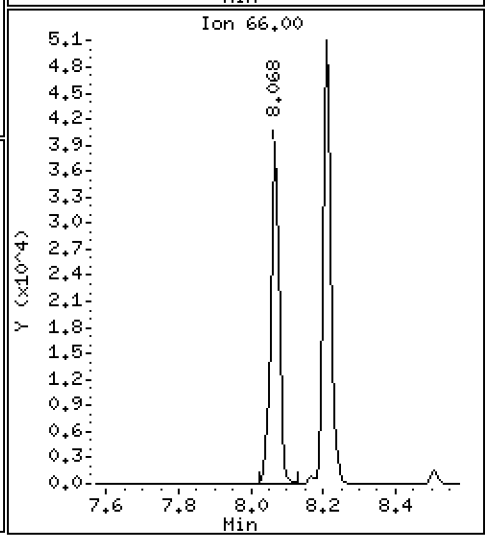












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

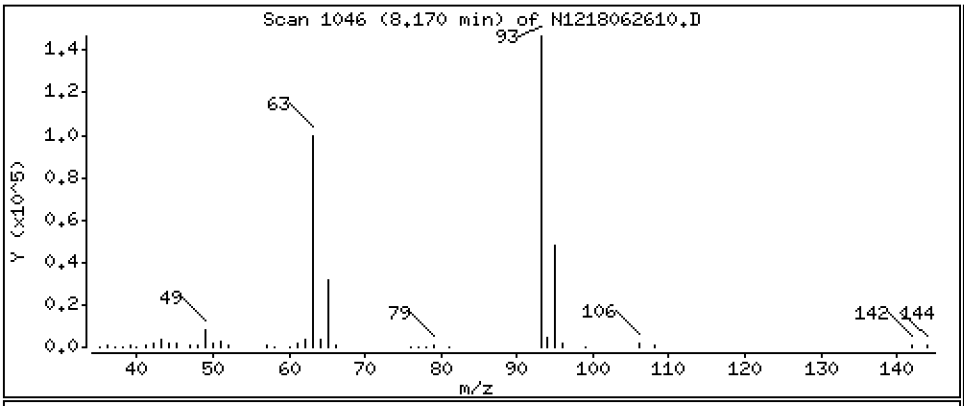
Operator: JZ

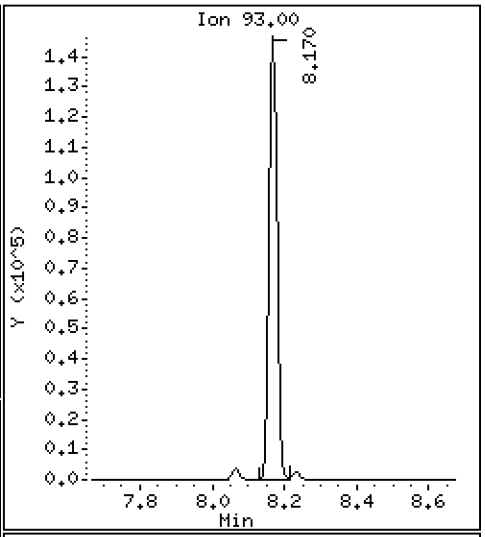
Column phase: ZB-5msi

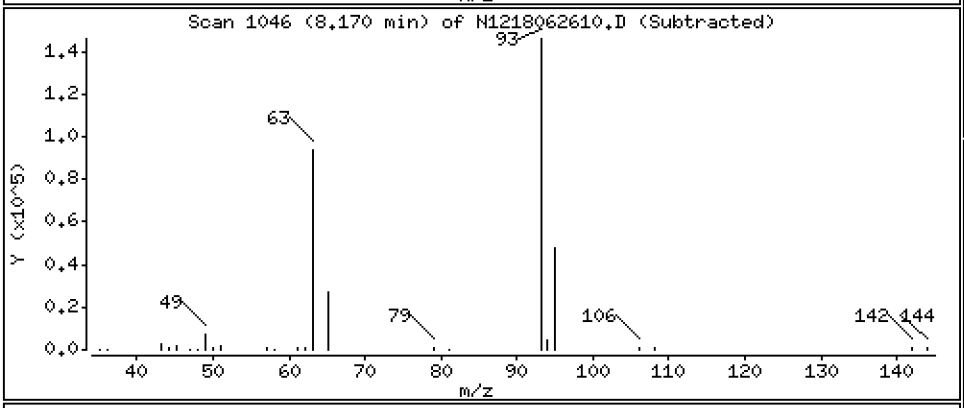
Column diameter: 0.32

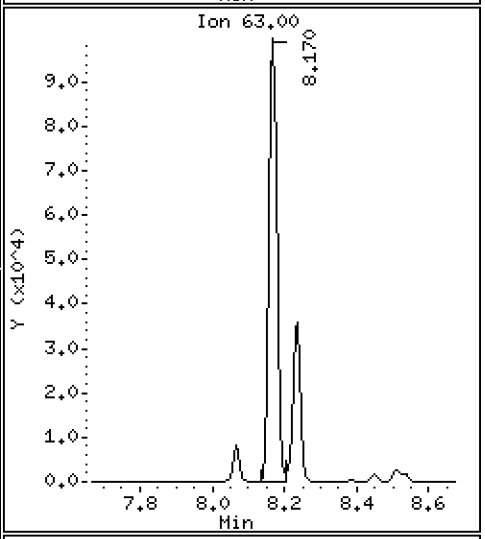
4 Bis(2-Chloroethyl)ether

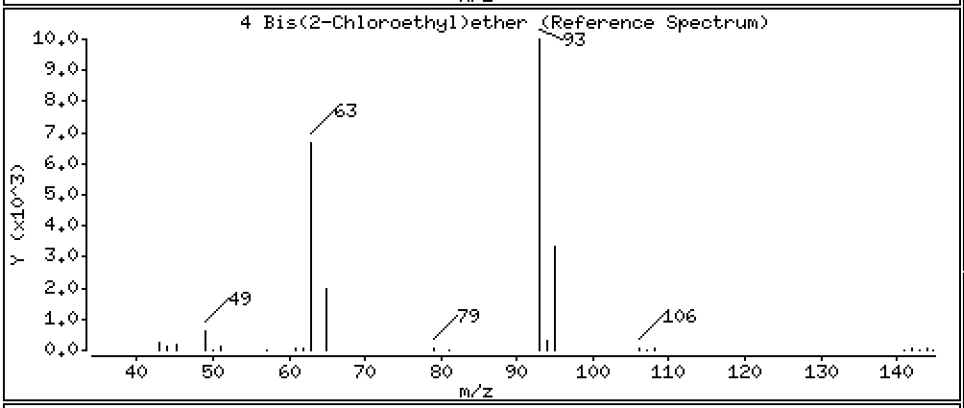
Concentration: 18.00 ug/mL

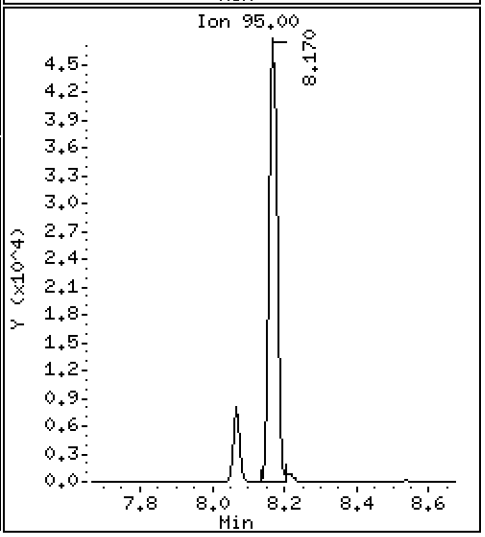


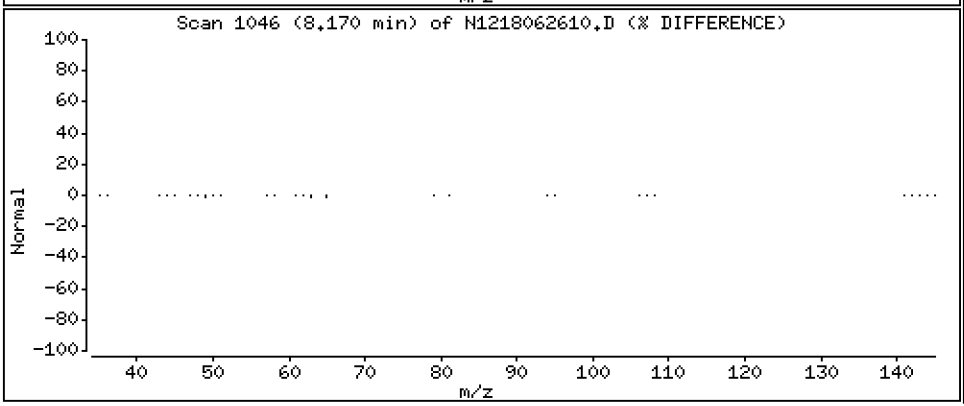












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

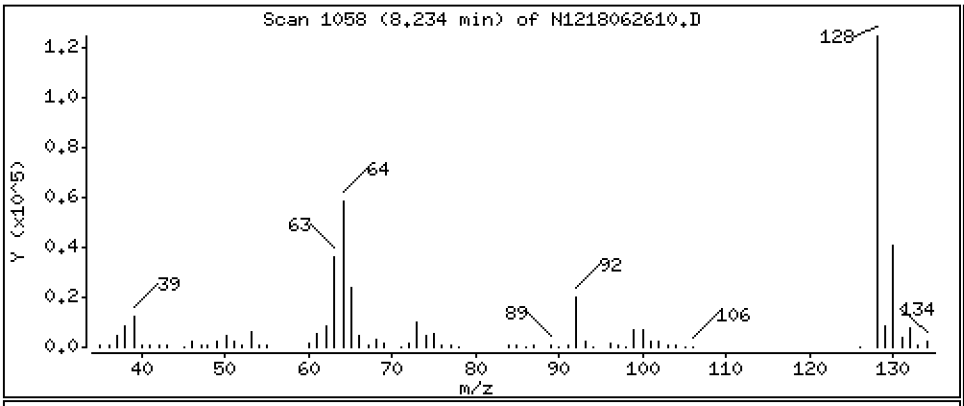
Operator: JZ

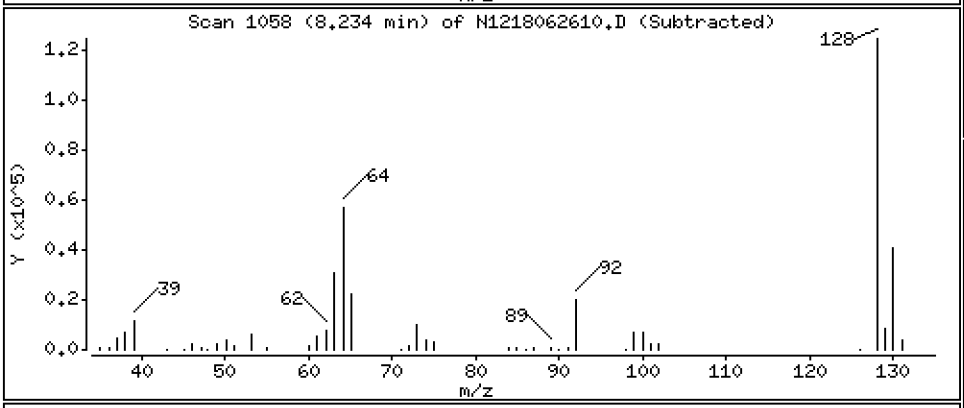
Column phase: ZB-5msi

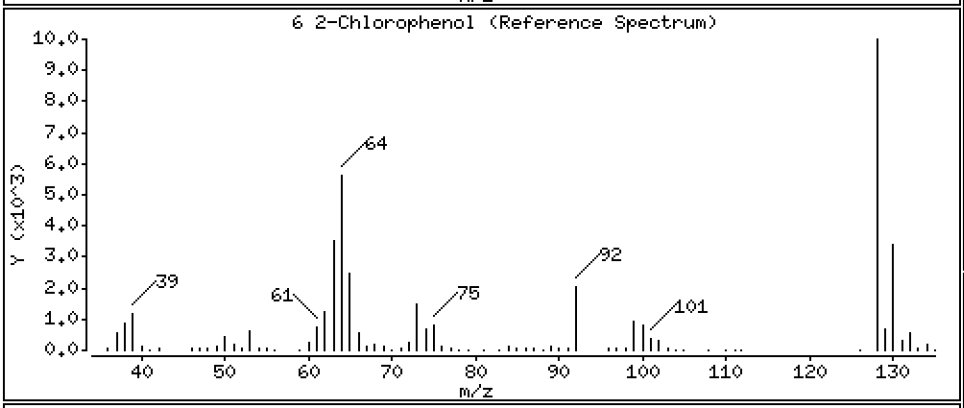
Column diameter: 0.32

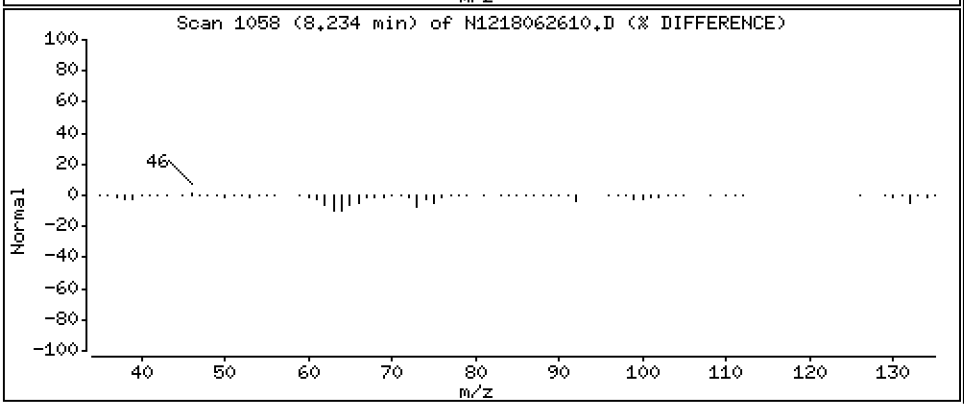
6 2-Chlorophenol

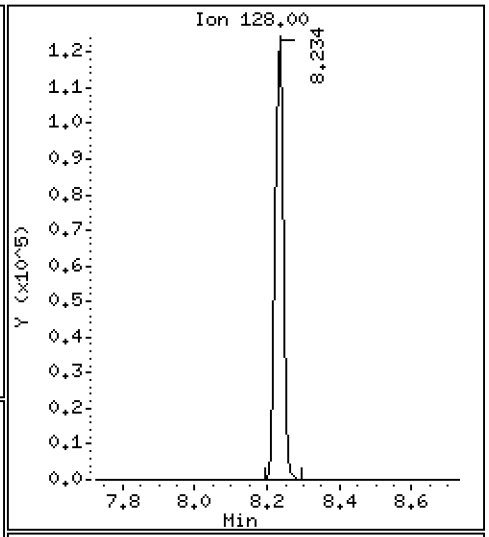
Concentration: 16.21 ug/mL

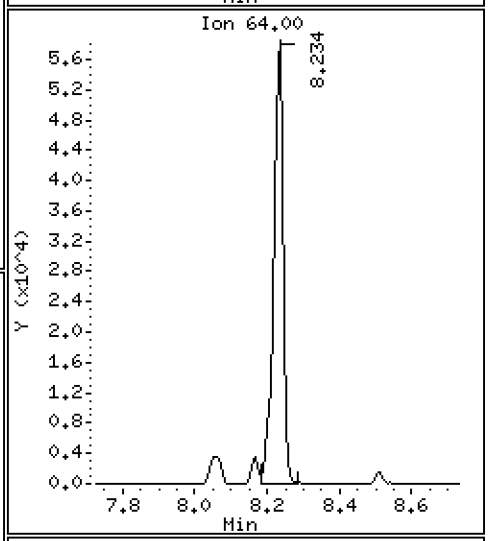


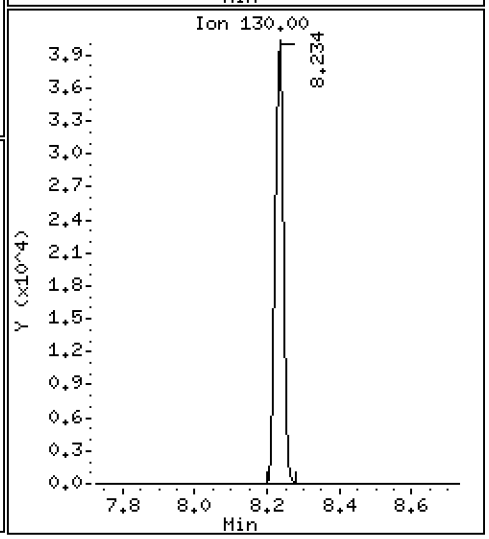












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

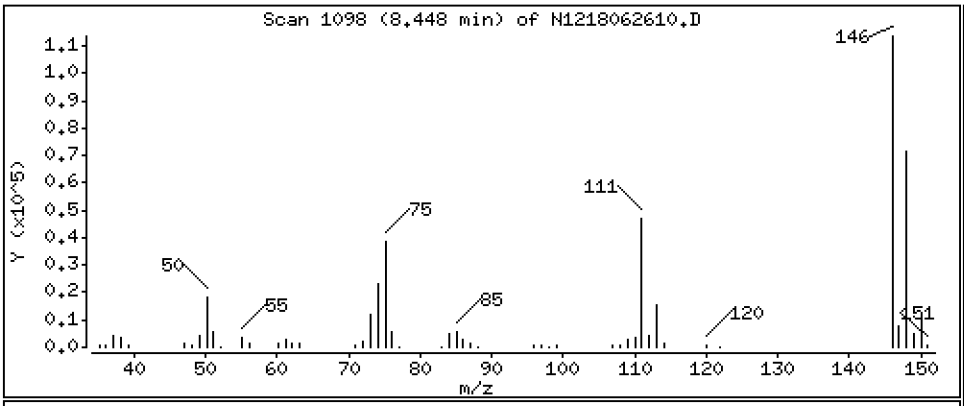
Operator: JZ

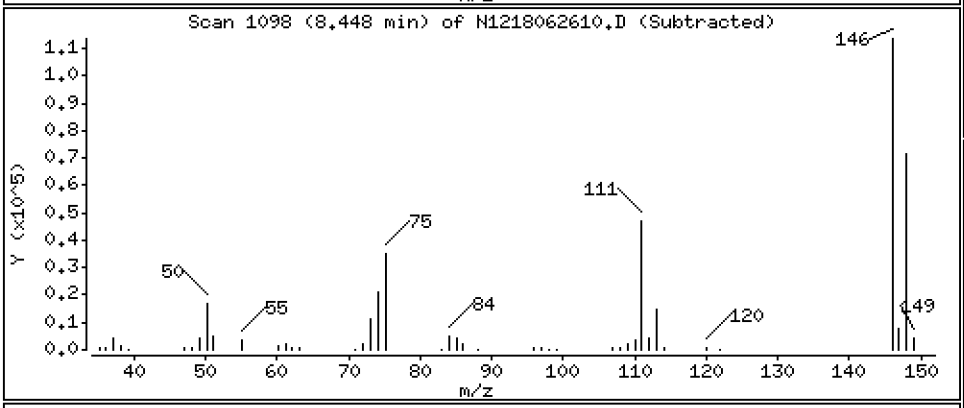
Column phase: ZB-5msi

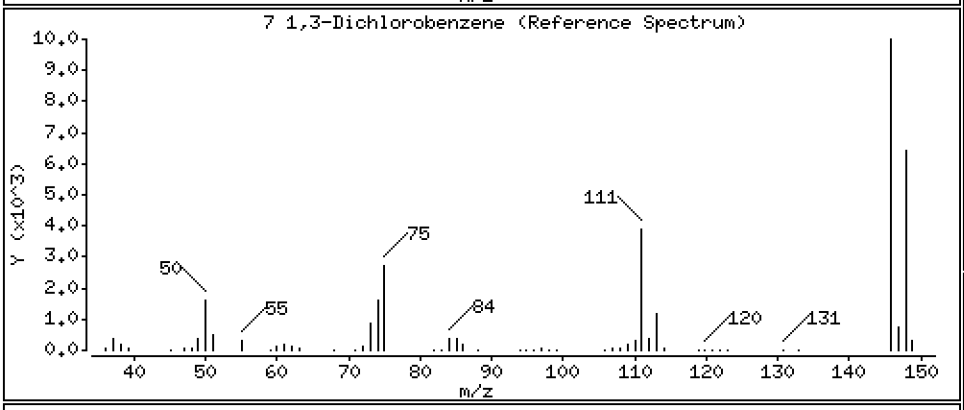
Column diameter: 0.32

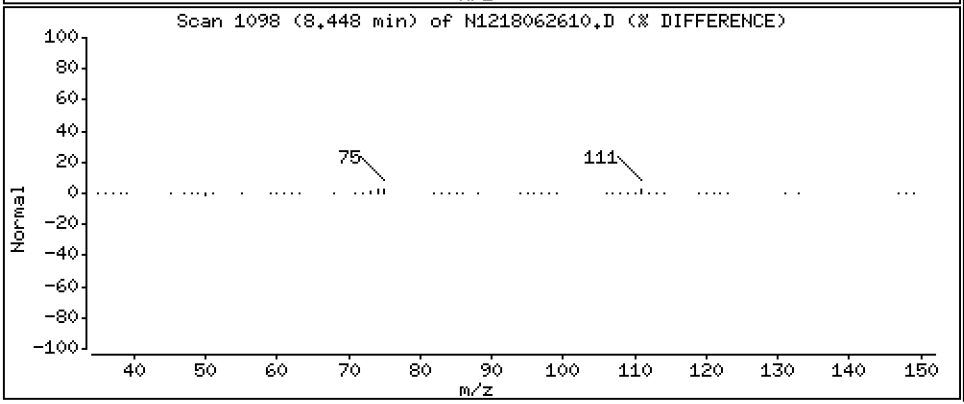
7 1,3-Dichlorobenzene

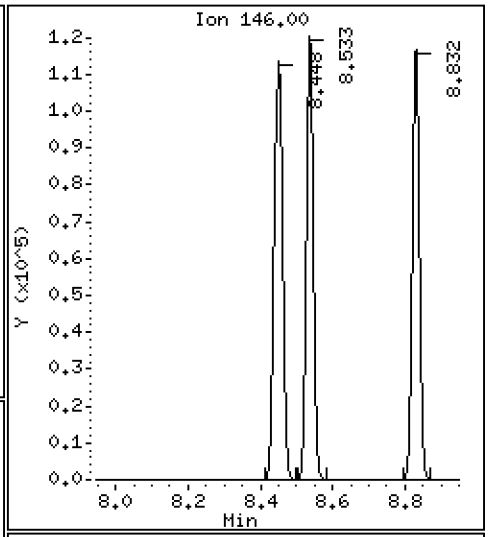
Concentration: 14.31 ug/mL

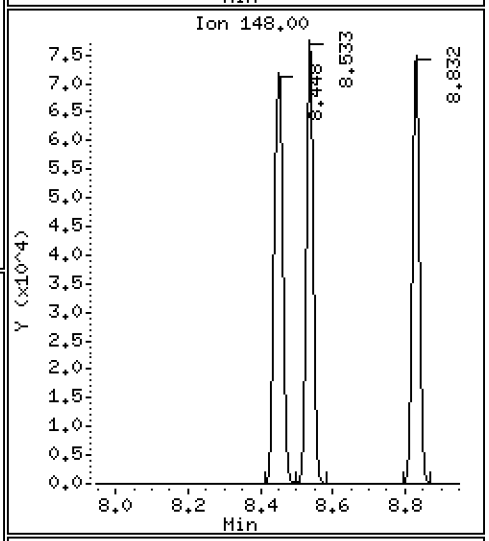


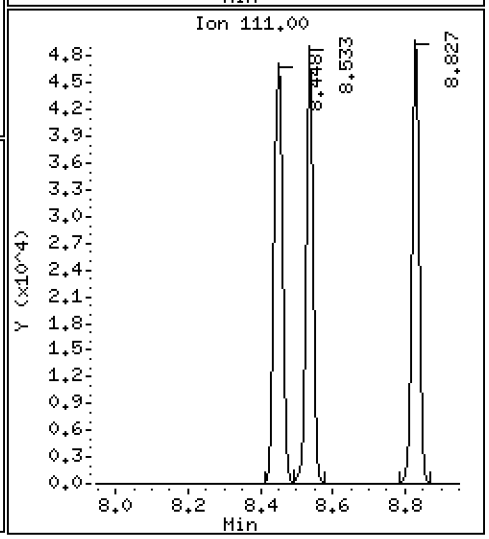












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

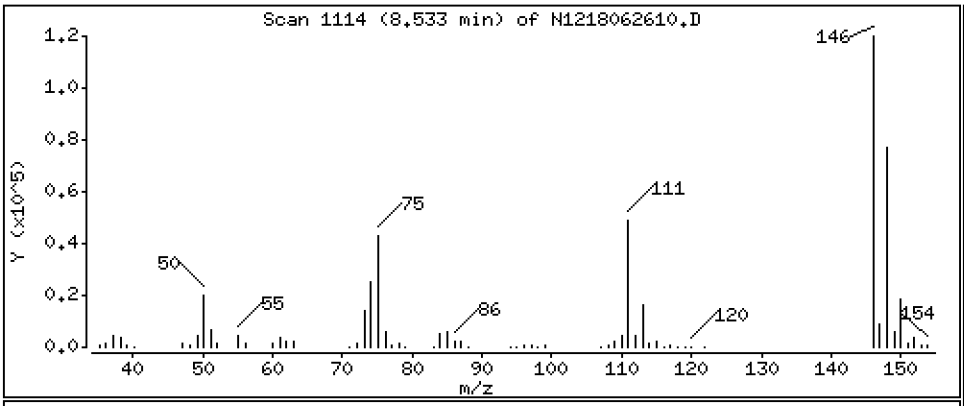
Operator: JZ

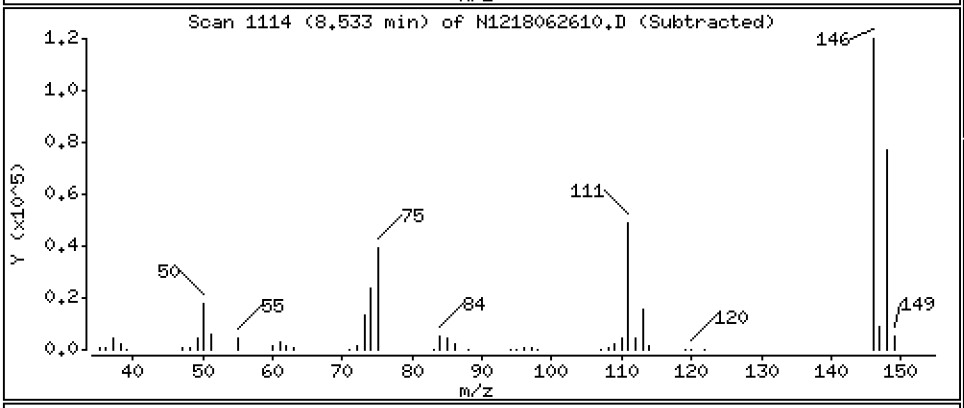
Column phase: ZB-5msi

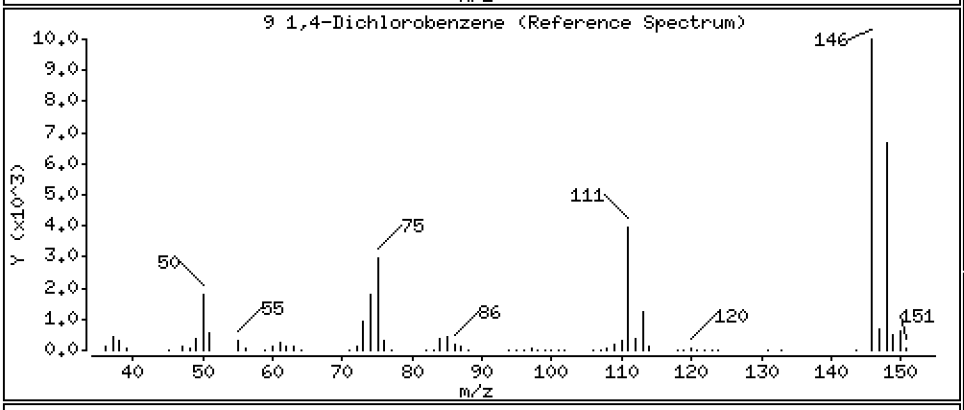
Column diameter: 0.32

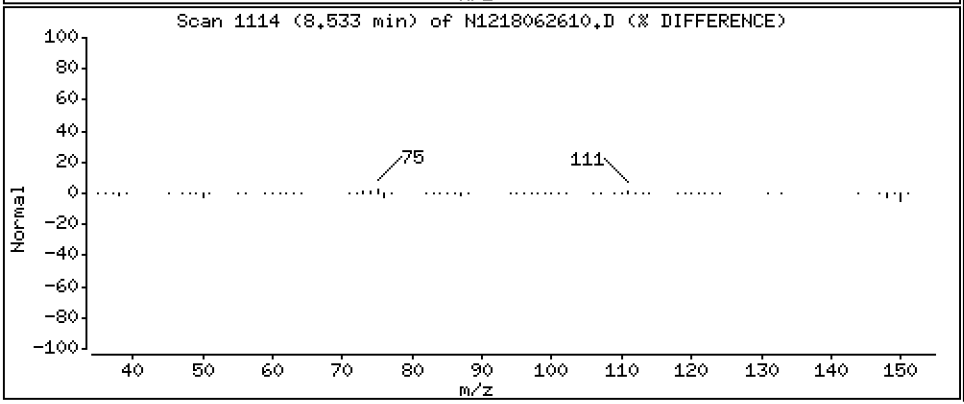
9 1,4-Dichlorobenzene

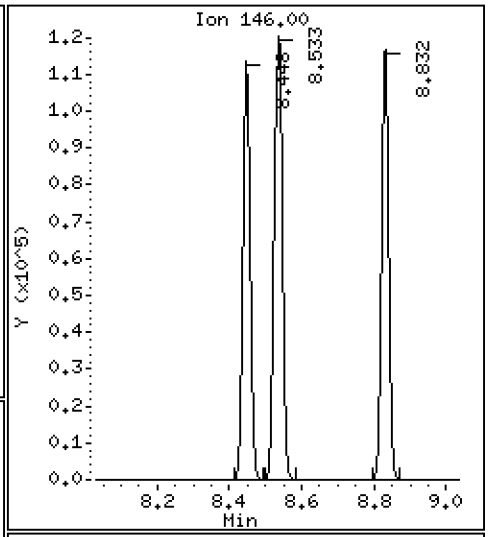
Concentration: 14.65 ug/mL

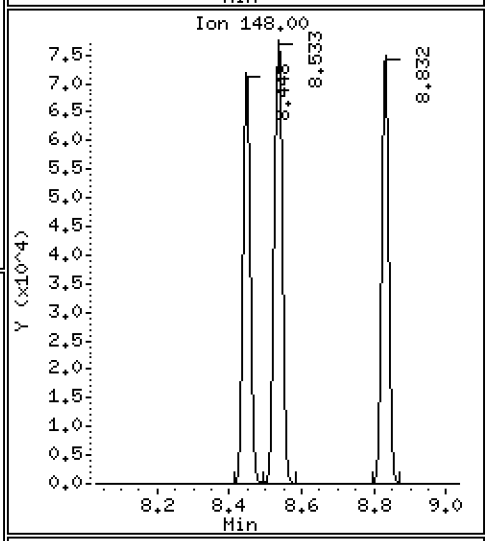


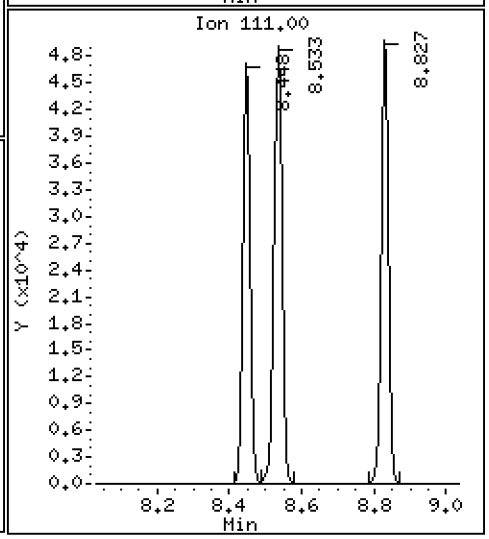












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

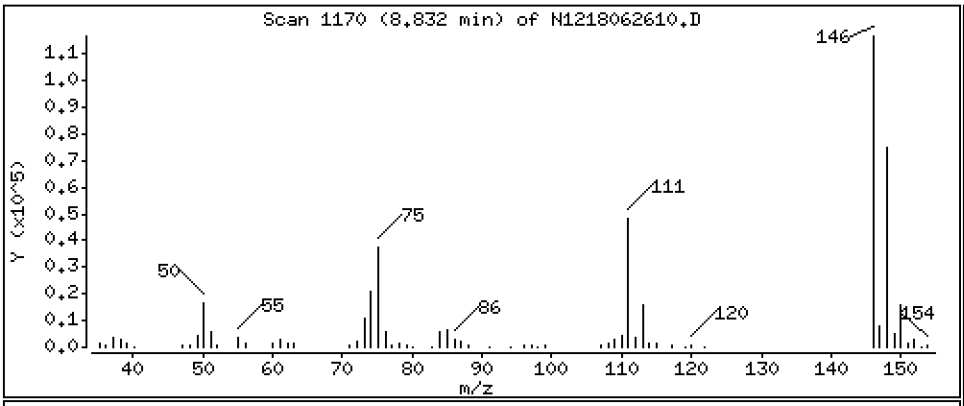
Operator: JZ

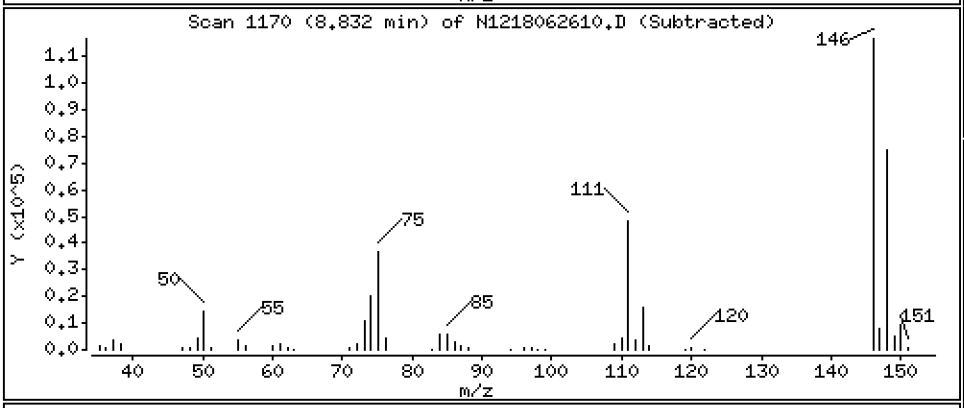
Column phase: ZB-5msi

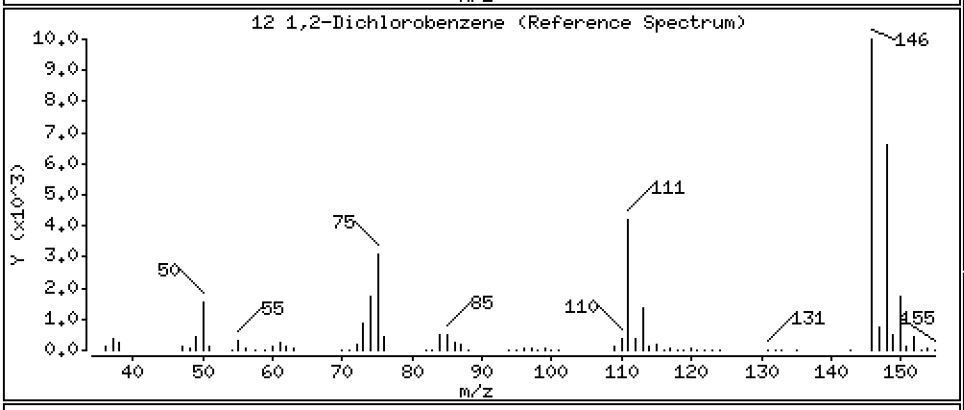
Column diameter: 0.32

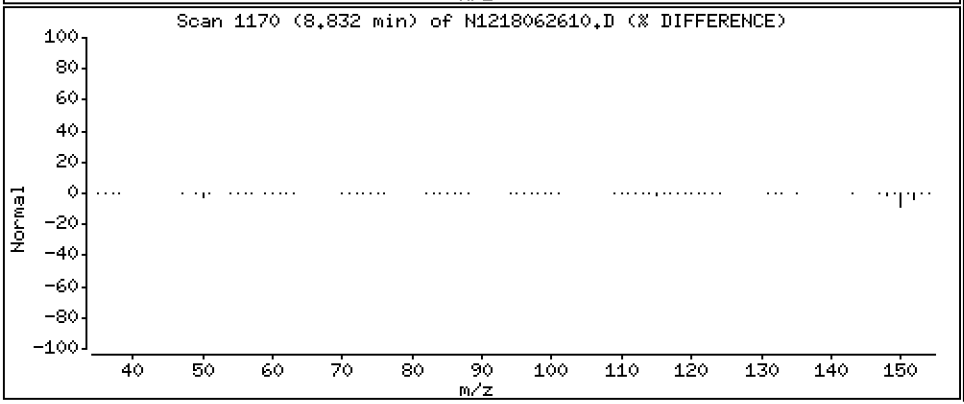
12 1,2-Dichlorobenzene

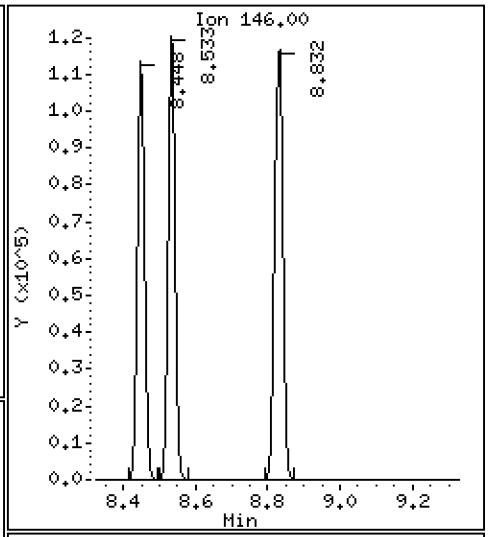
Concentration: 15.49 ug/mL

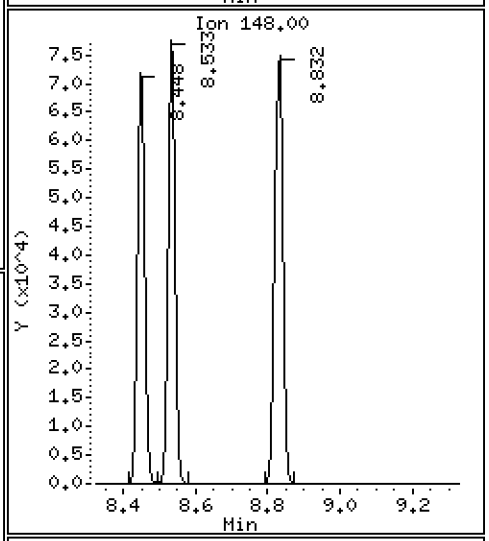


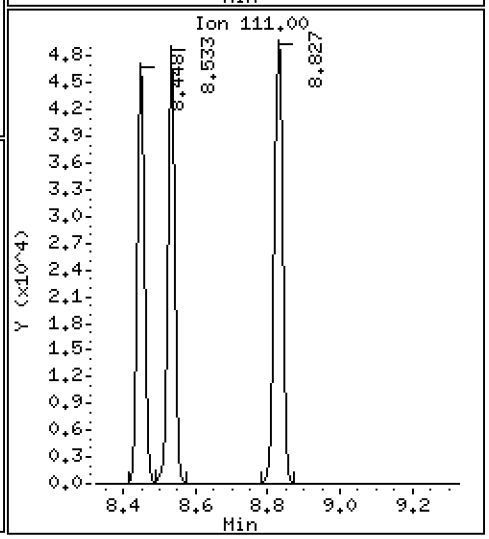












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

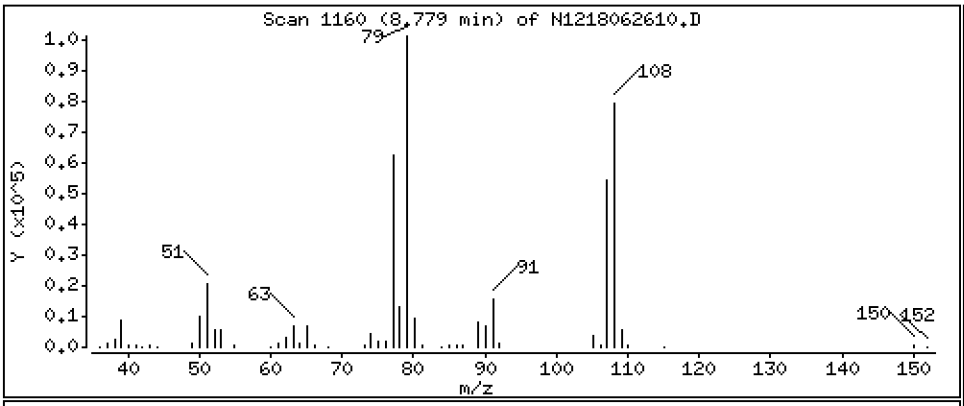
Operator: JZ

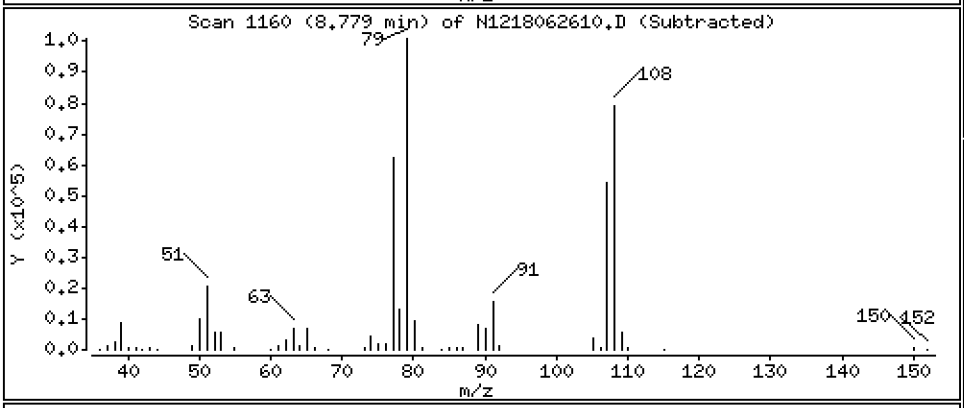
Column phase: ZB-5msi

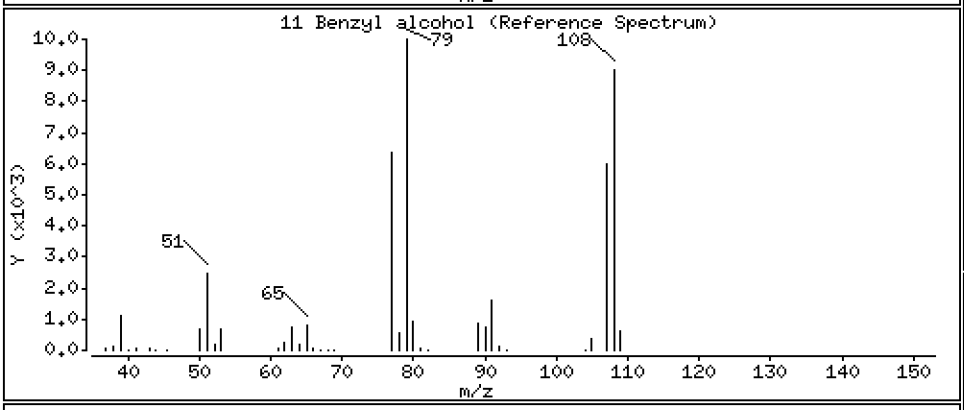
Column diameter: 0.32

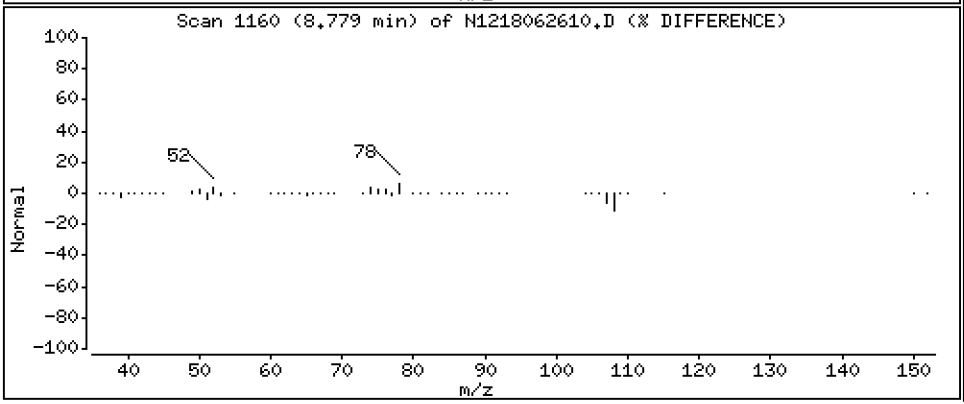
11 Benzyl alcohol

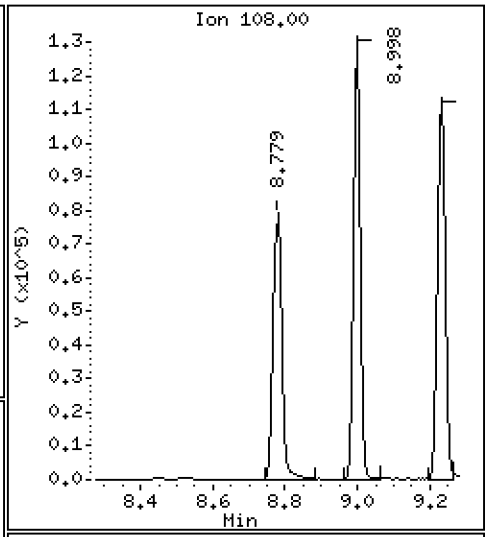
Concentration: 14.94 ug/mL

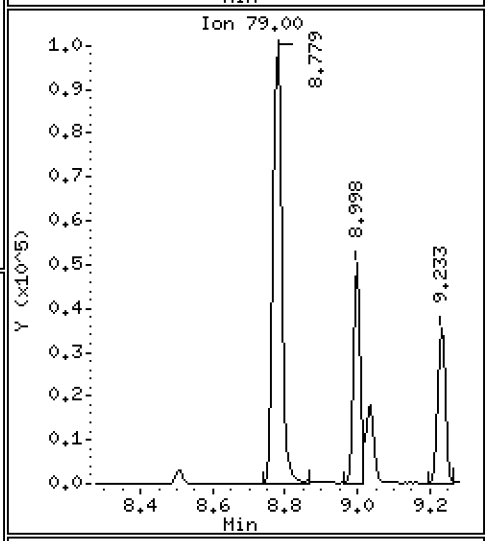


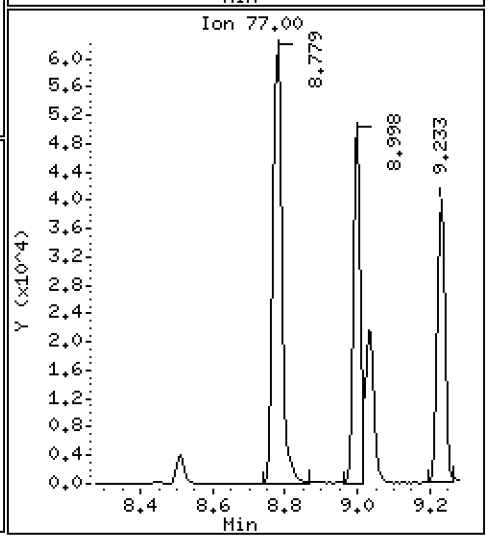












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

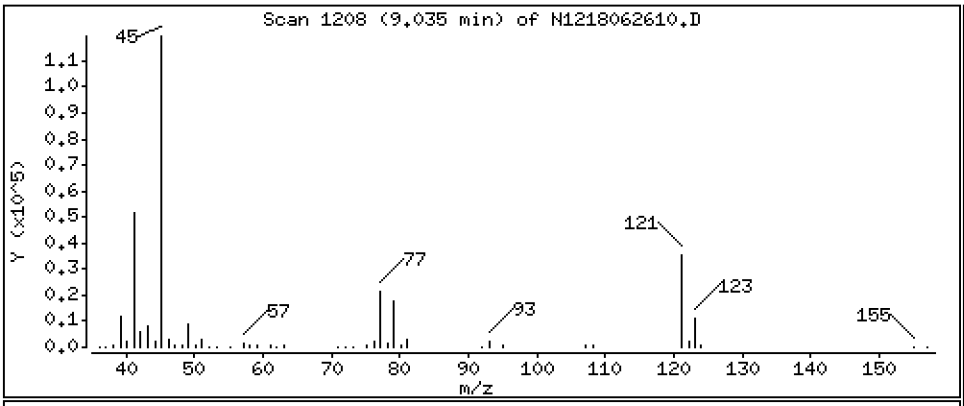
Operator: JZ

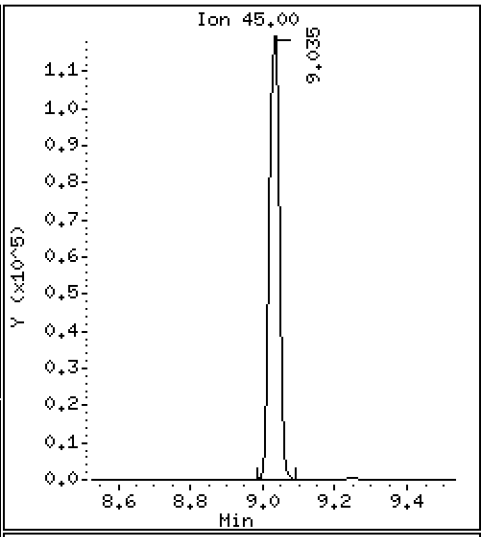
Column phase: ZB-5msi

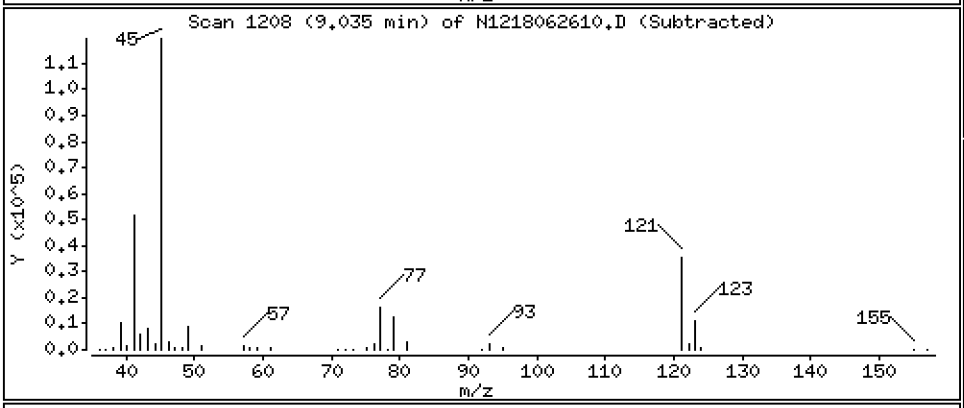
Column diameter: 0.32

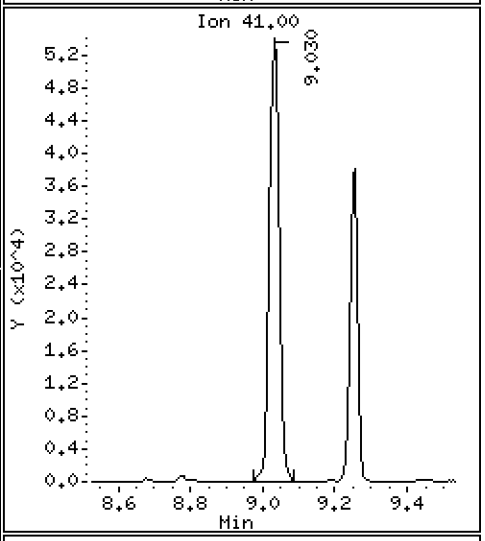
14 2,2'-oxybis(1-Chloropropane)

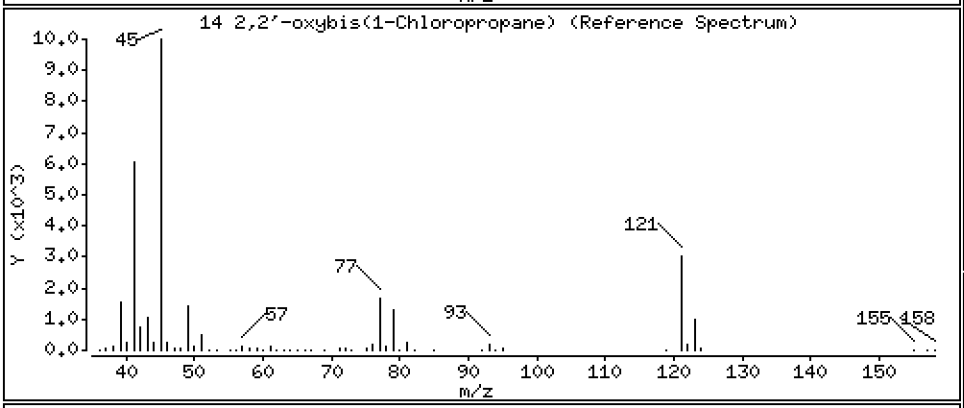
Concentration: 18.69 ug/mL

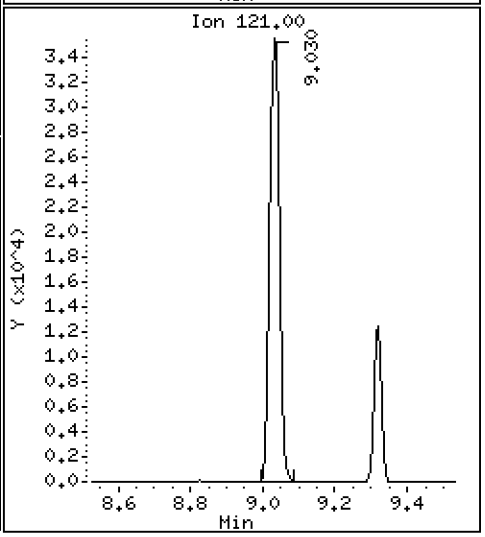


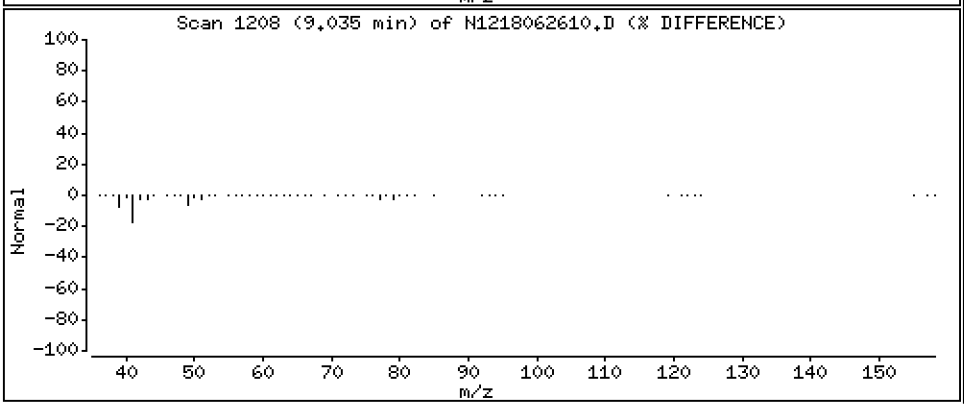












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

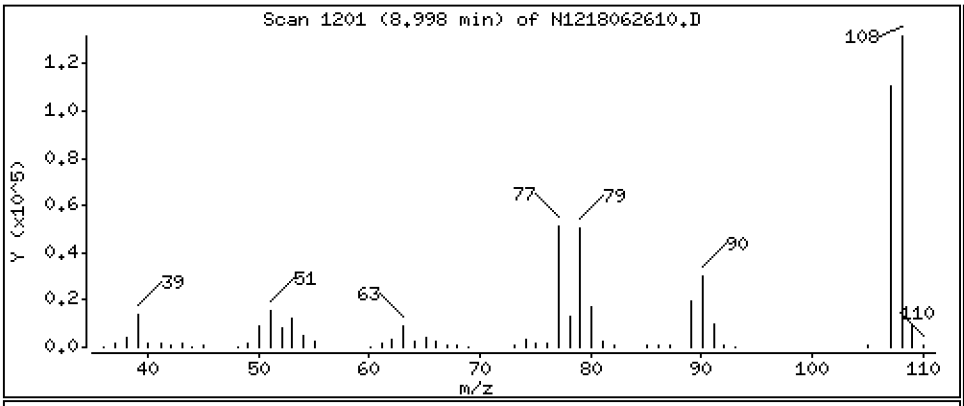
Operator: JZ

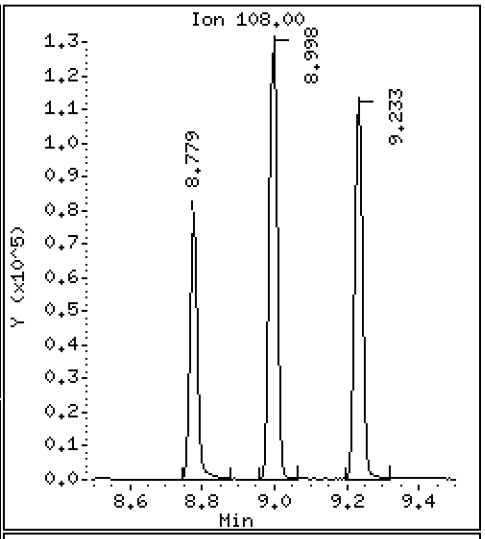
Column phase: ZB-5msi

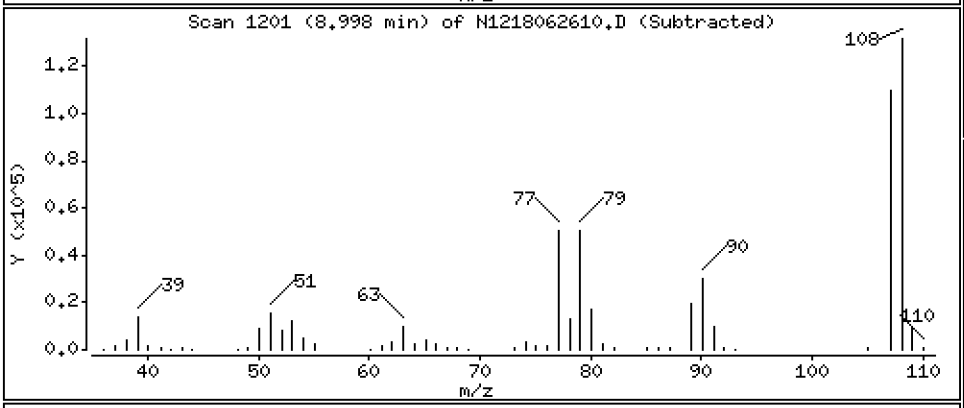
Column diameter: 0.32

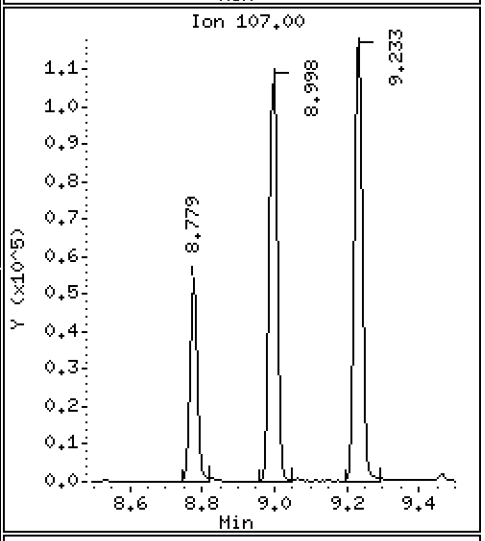
13 2-Methylphenol

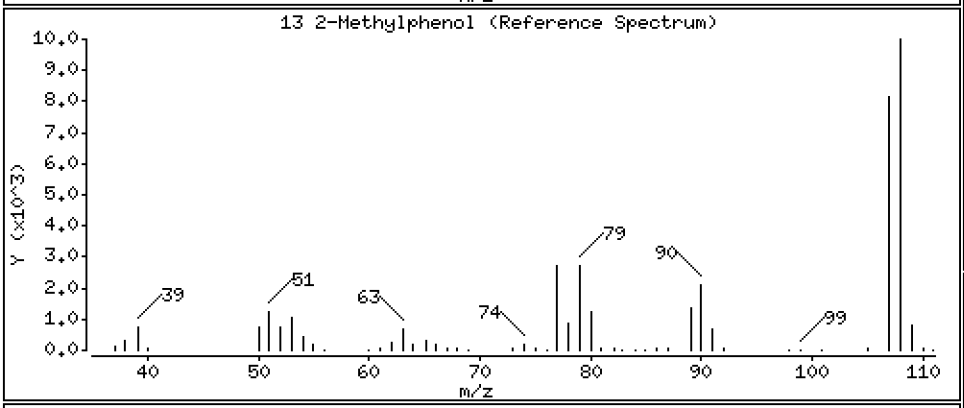
Concentration: 16.66 ug/mL

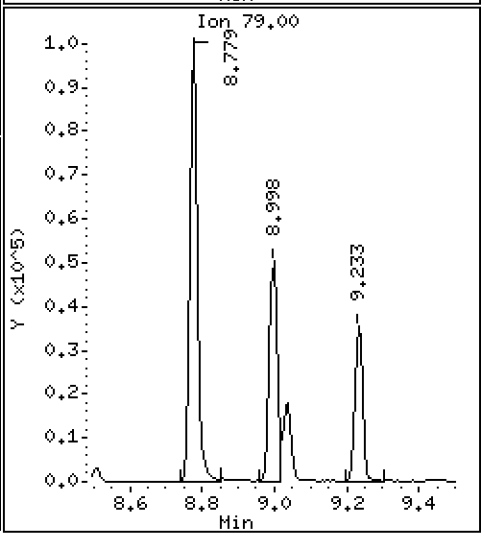


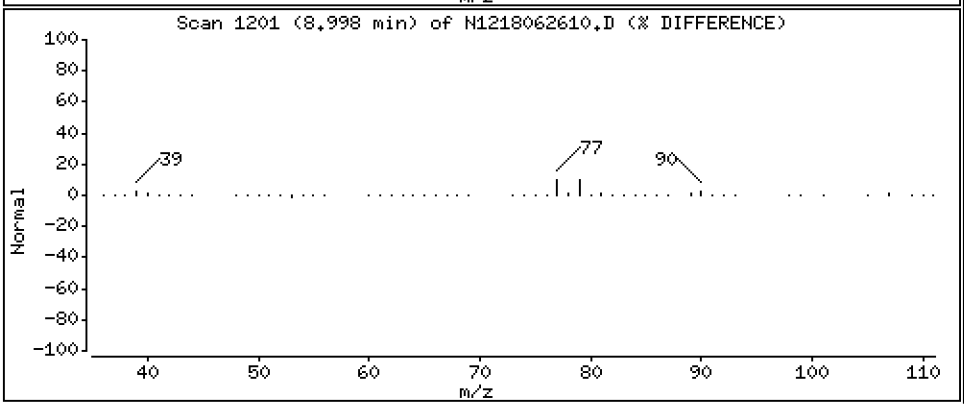












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

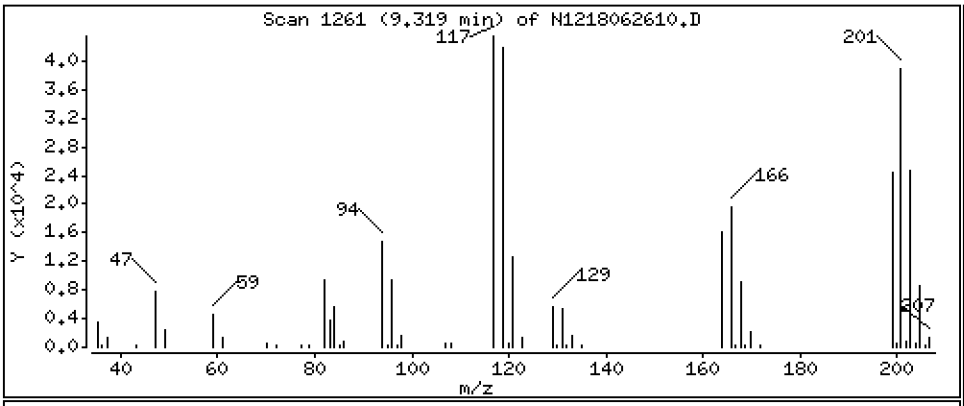
Operator: JZ

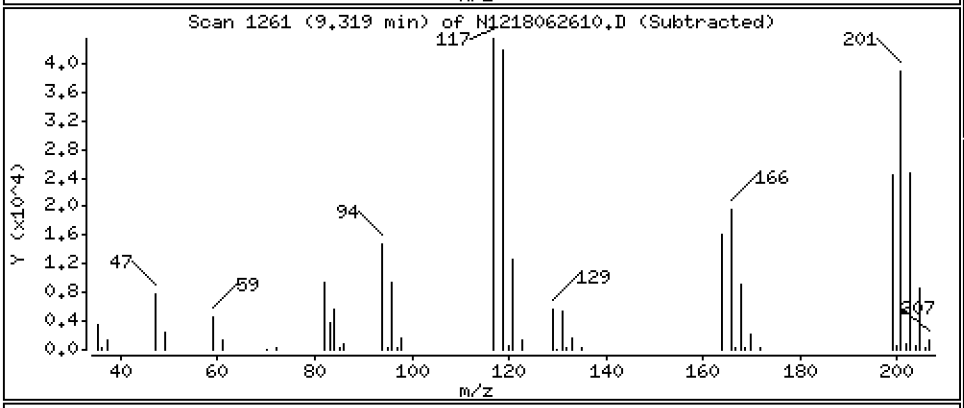
Column phase: ZB-5msi

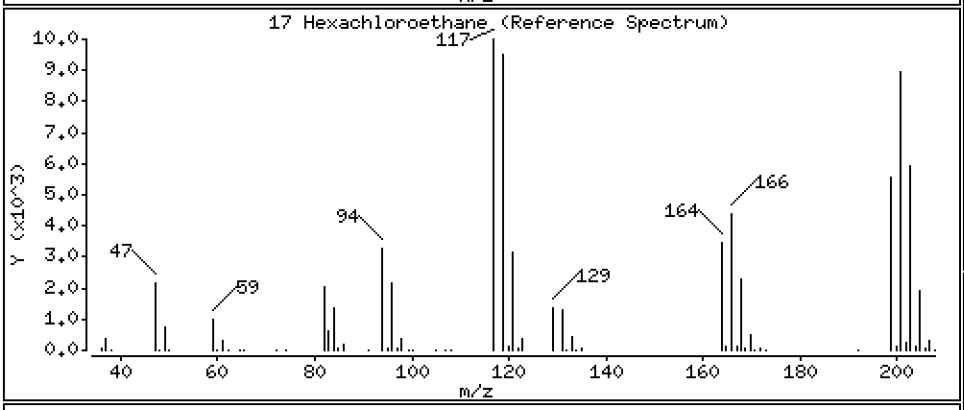
Column diameter: 0.32

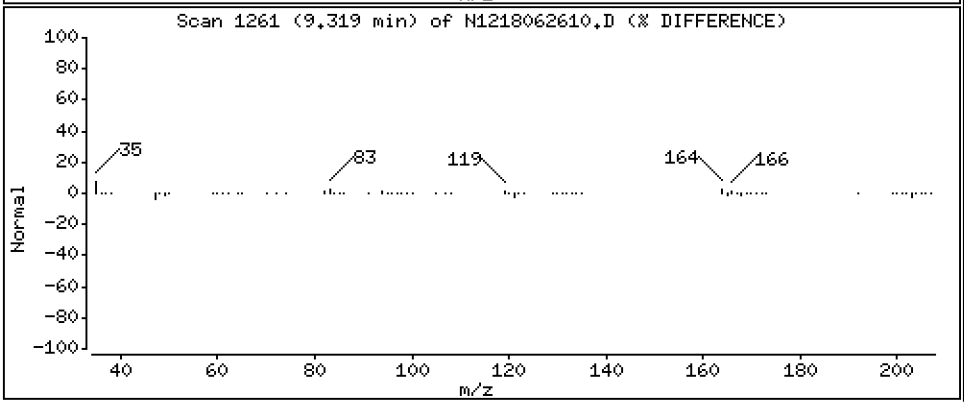
17 Hexachloroethane

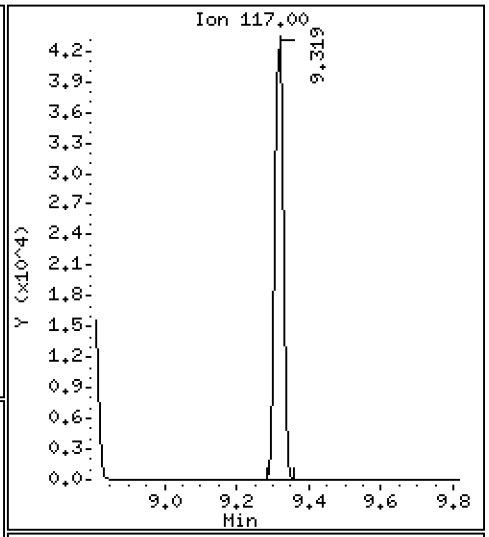
Concentration: 13.81 ug/mL

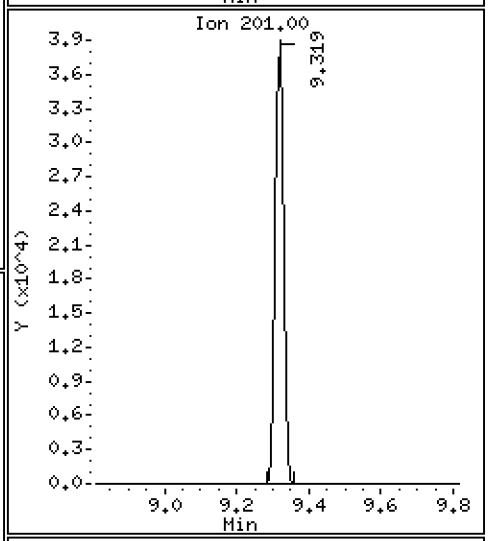


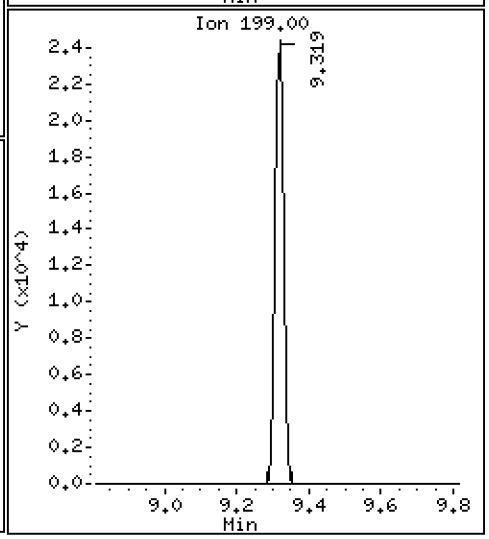












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

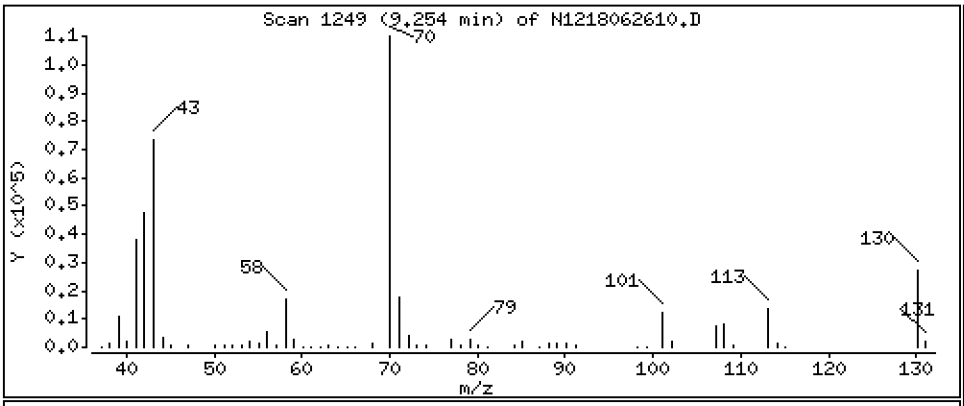
Operator: JZ

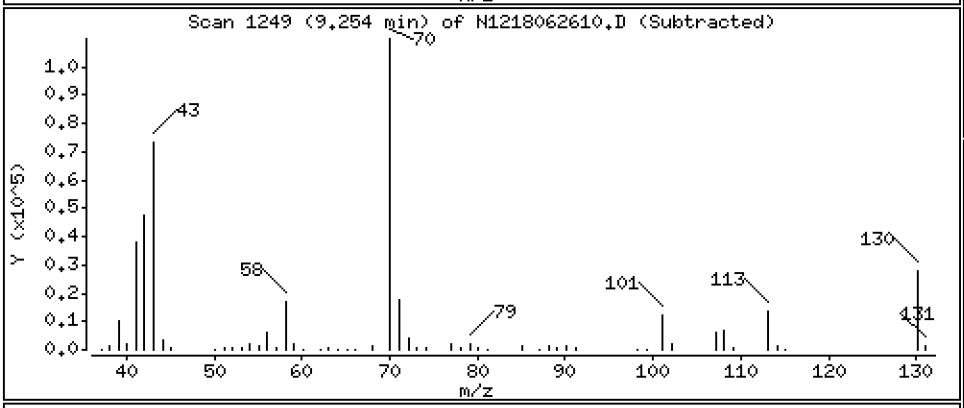
Column phase: ZB-5msi

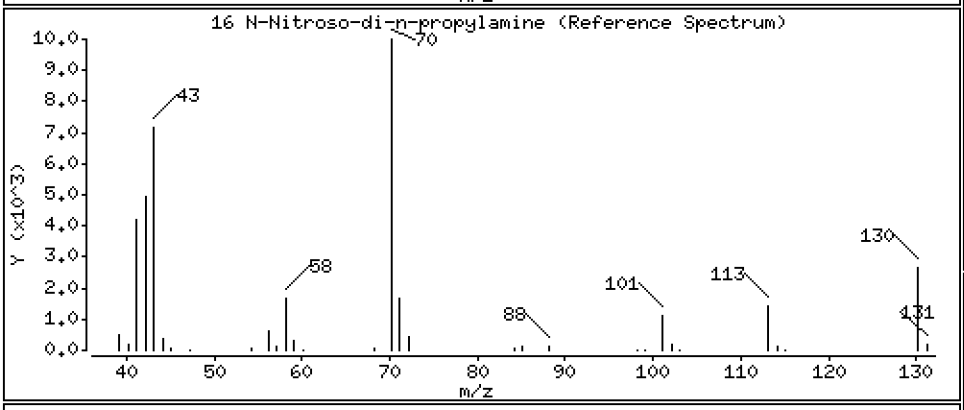
Column diameter: 0.32

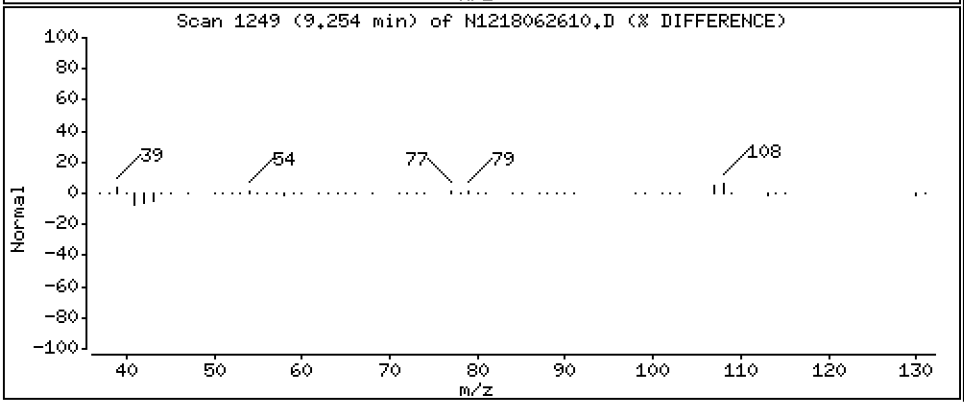
16 N-Nitroso-di-n-propylamine

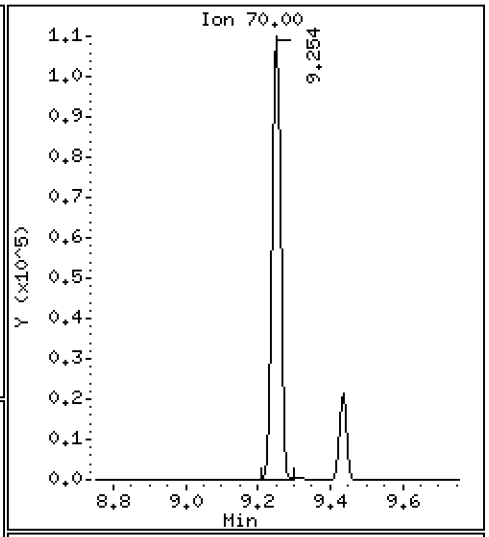
Concentration: 20.22 ug/mL

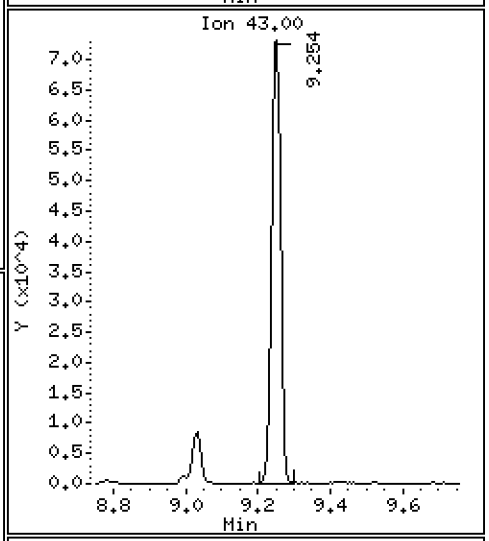


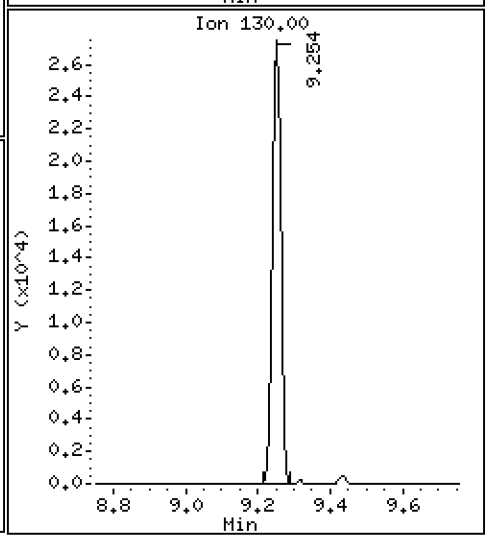












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

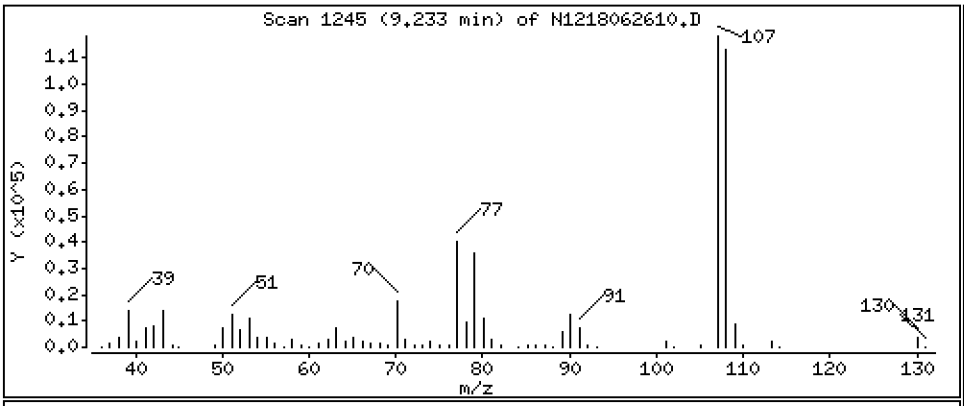
Operator: JZ

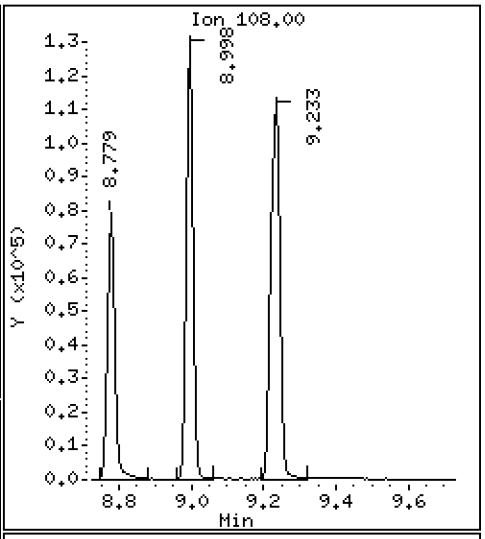
Column phase: ZB-5msi

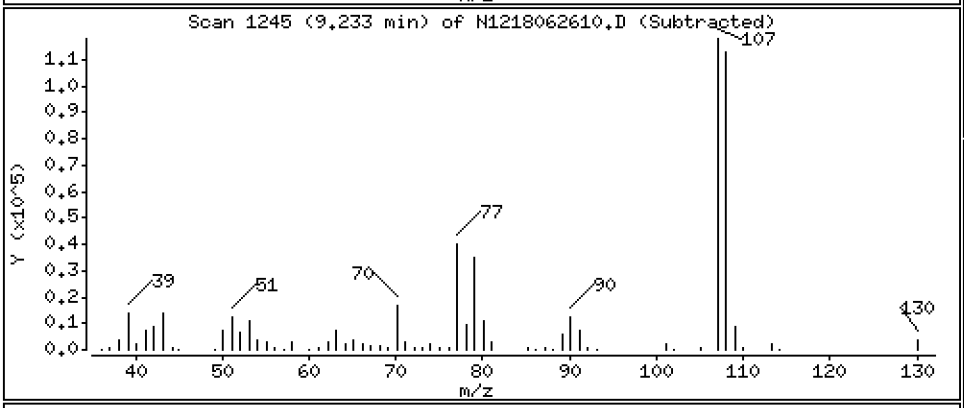
Column diameter: 0.32

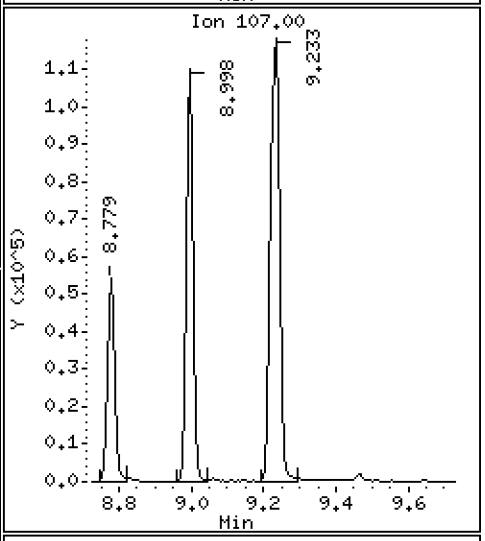
15 4-Methylphenol

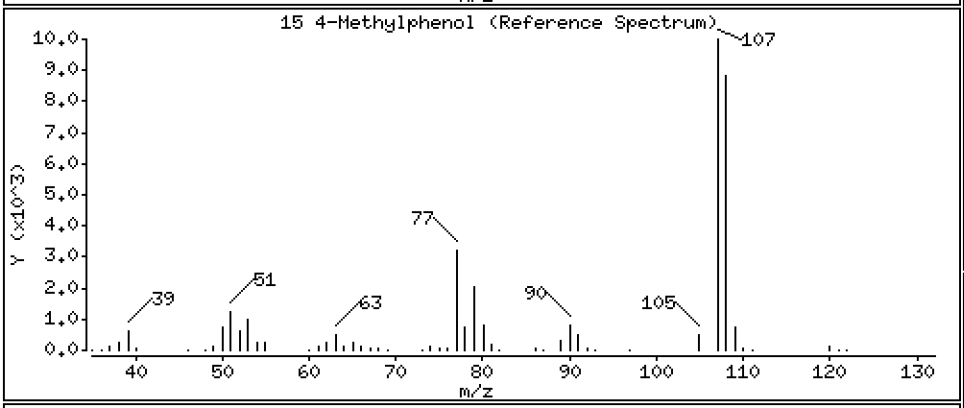
Concentration: 17.17 ug/mL

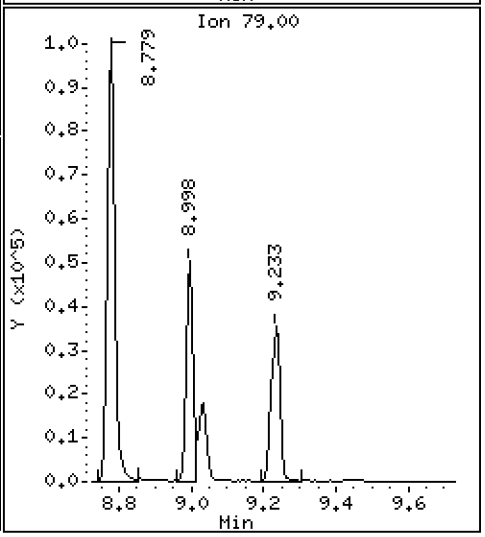


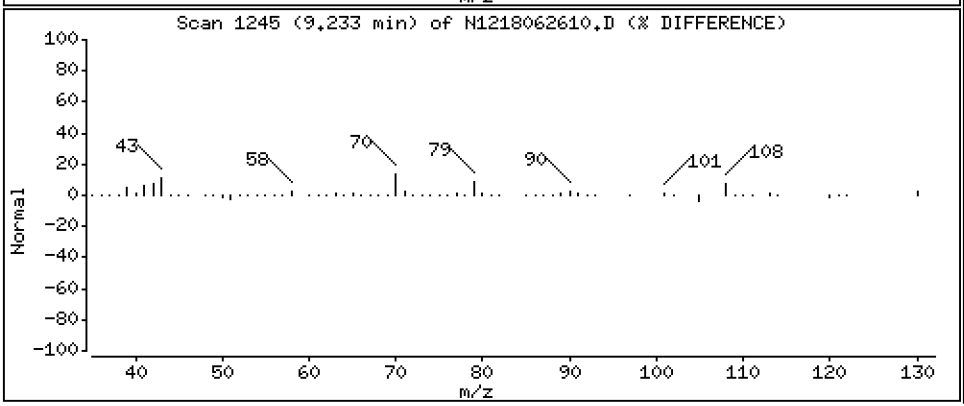












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

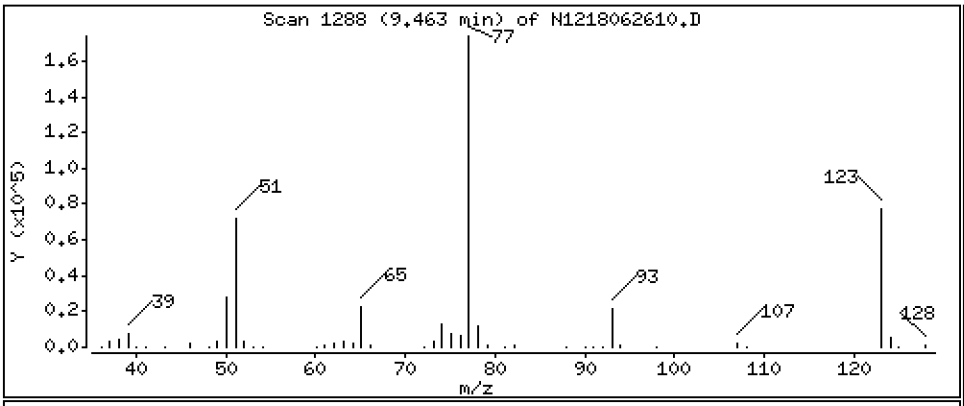
Operator: JZ

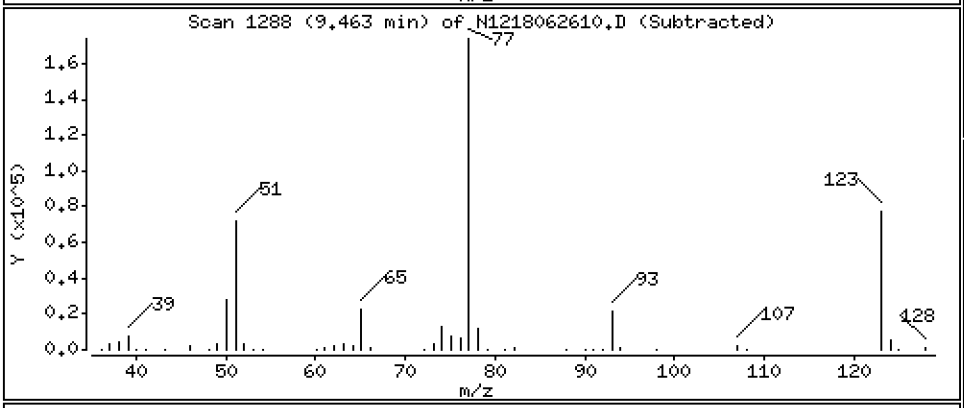
Column phase: ZB-5msi

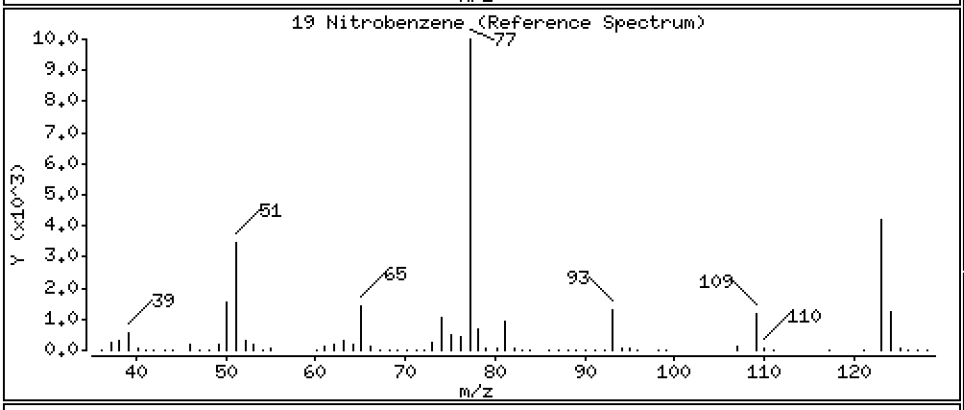
Column diameter: 0.32

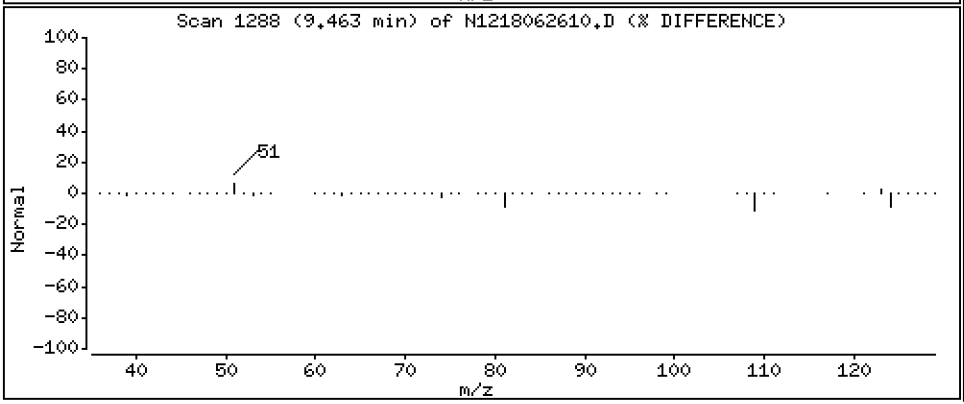
19 Nitrobenzene

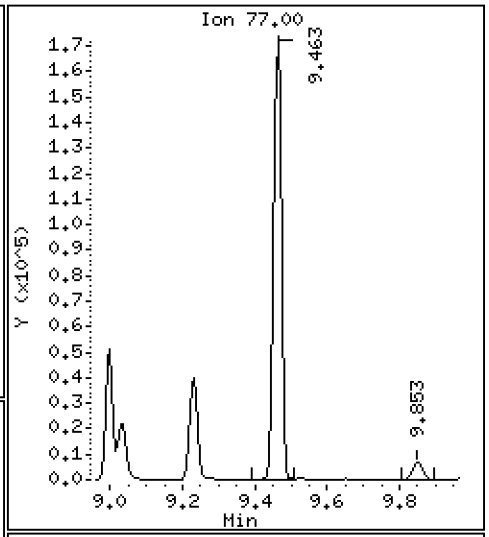
Concentration: 18.61 ug/mL

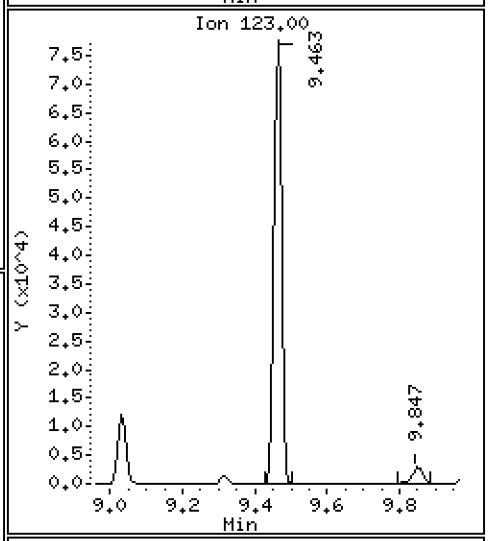


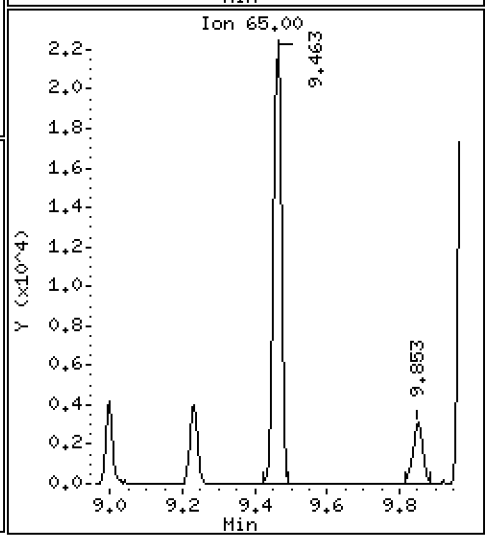












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

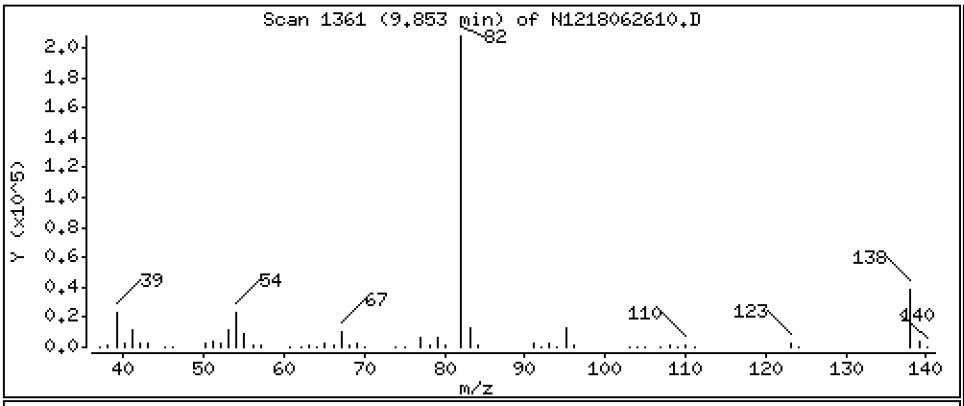
Operator: JZ

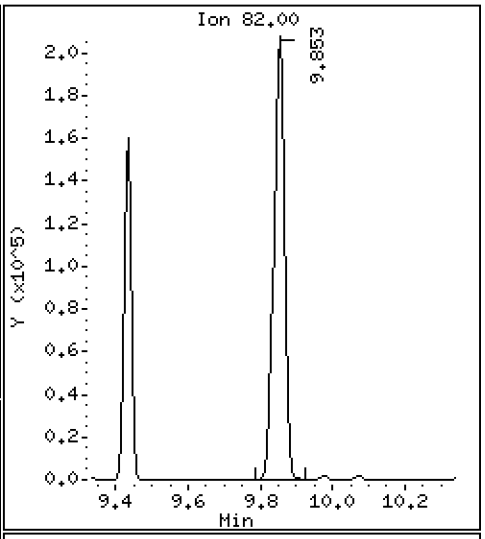
Column phase: ZB-5msi

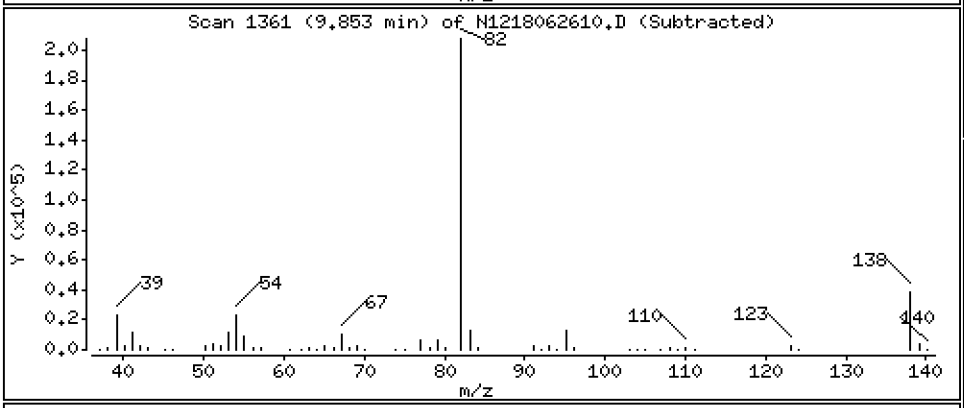
Column diameter: 0.32

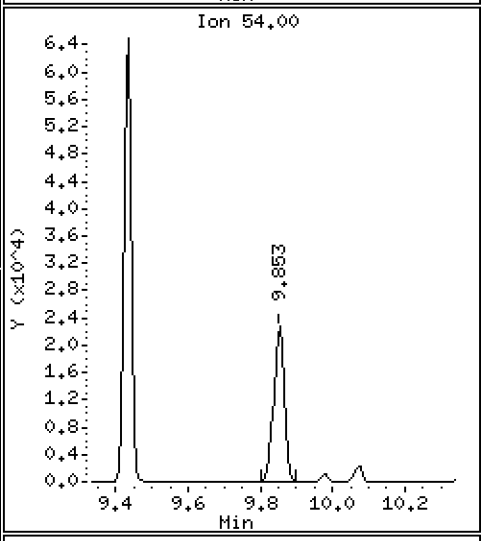
20 Isophorone

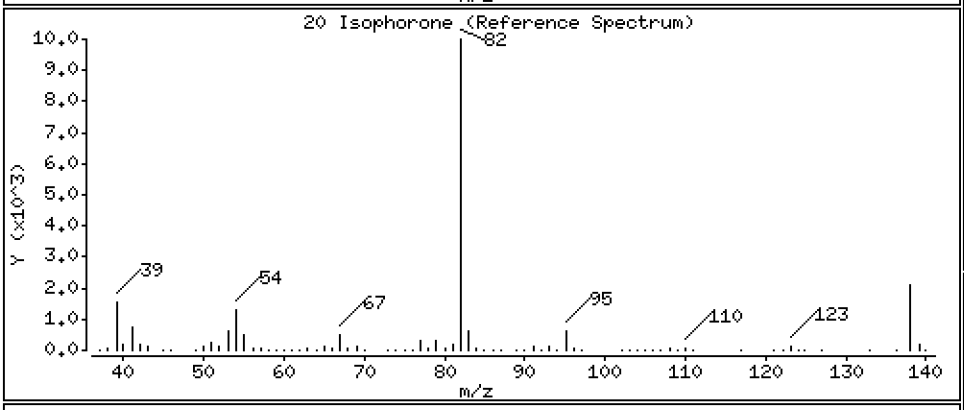
Concentration: 22.70 ug/mL

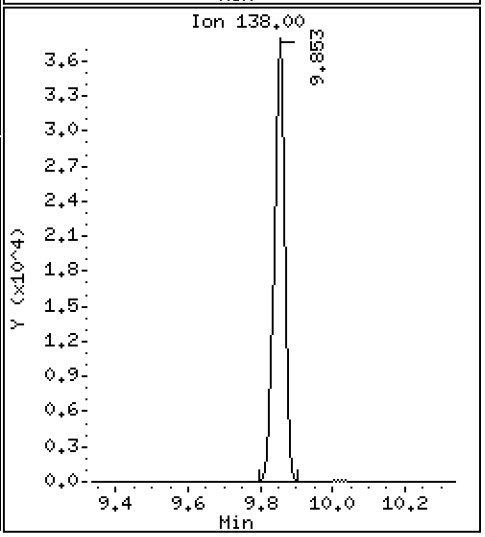


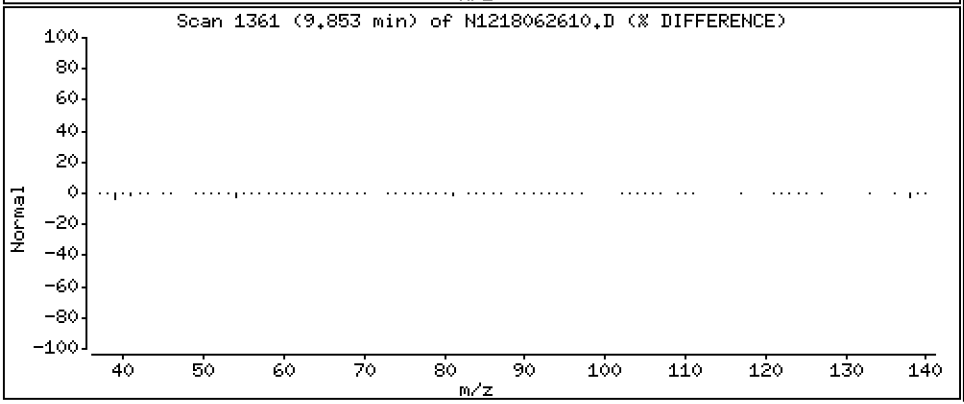












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

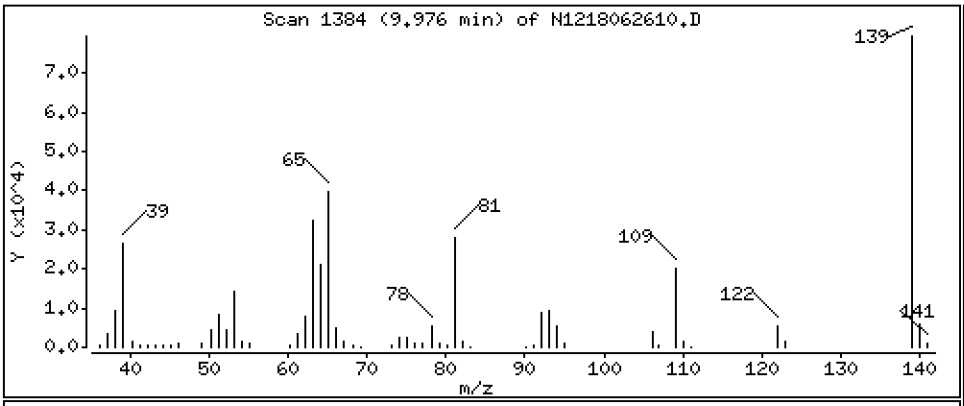
Operator: JZ

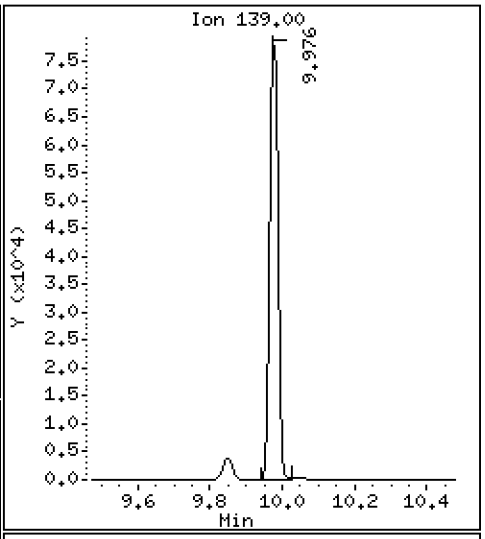
Column phase: ZB-5msi

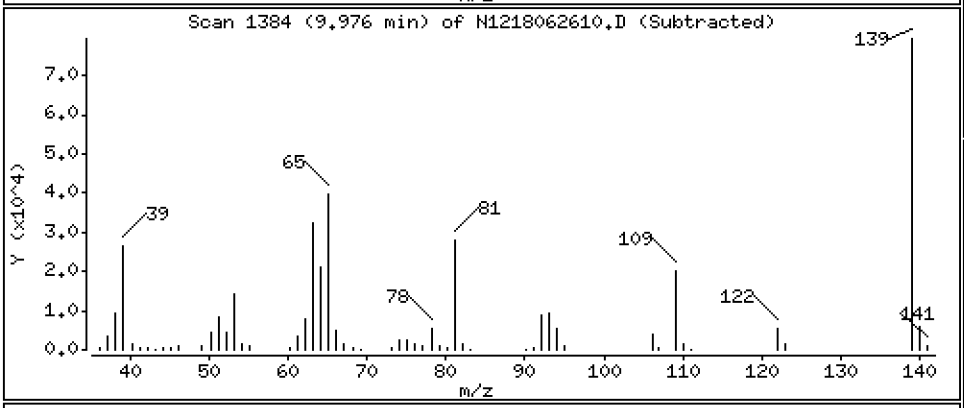
Column diameter: 0.32

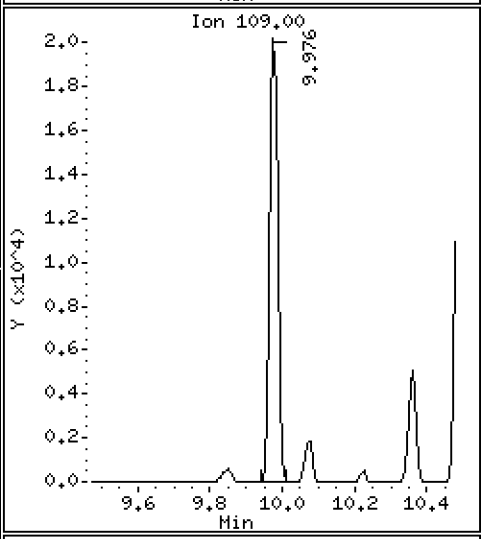
21 2-Nitrophenol

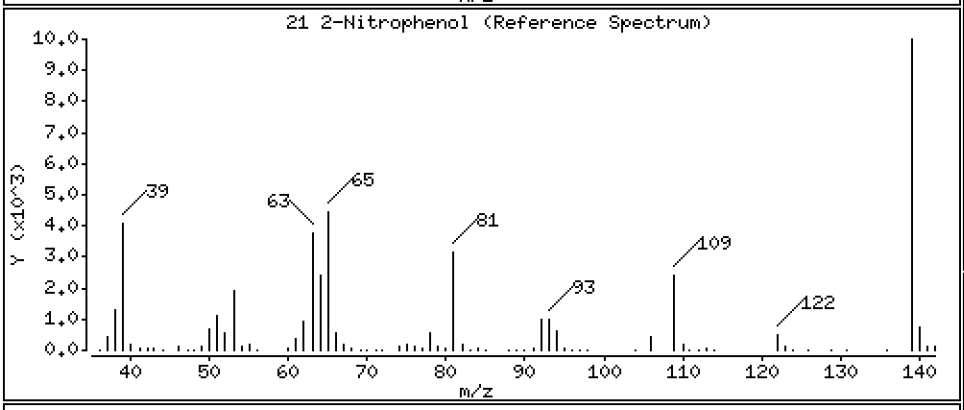
Concentration: 19.13 ug/mL

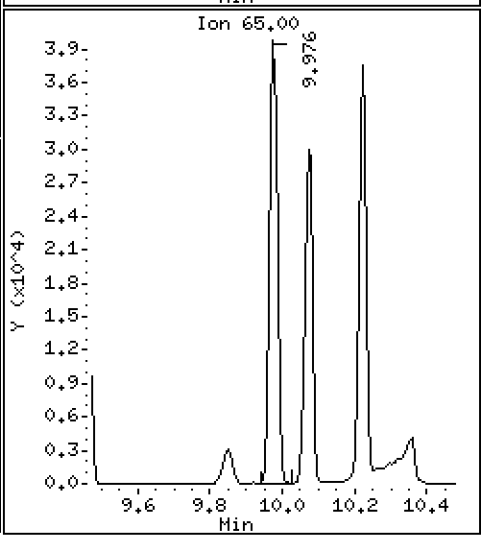


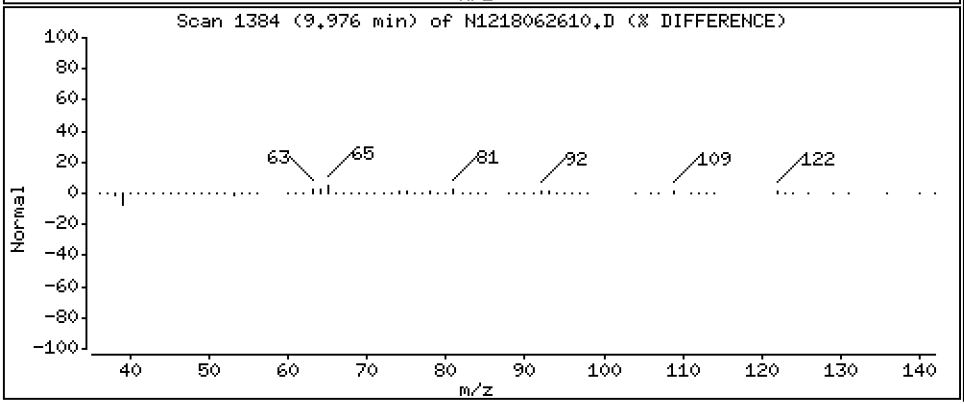












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

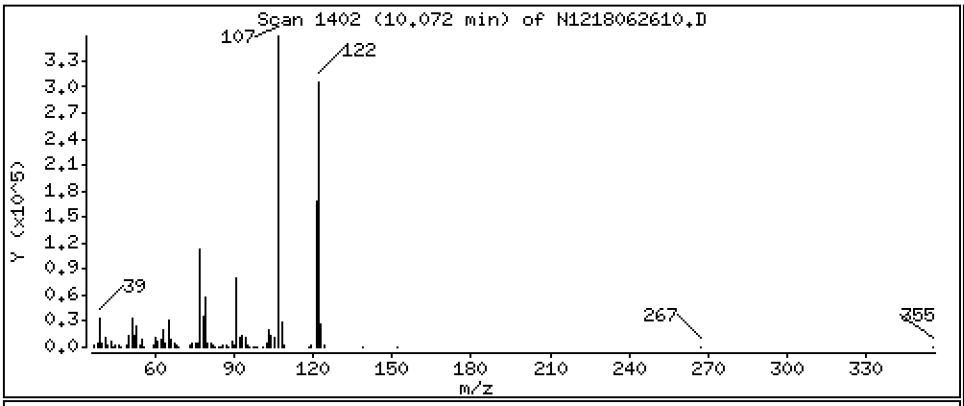
Operator: JZ

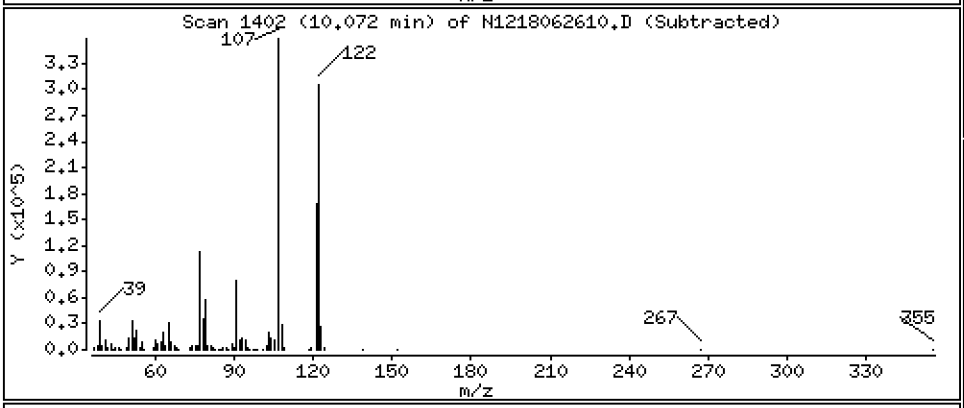
Column phase: ZB-5msi

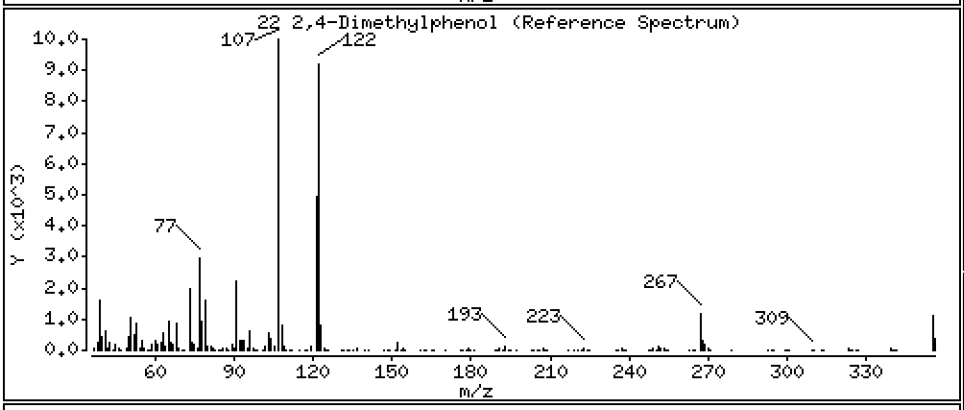
Column diameter: 0.32

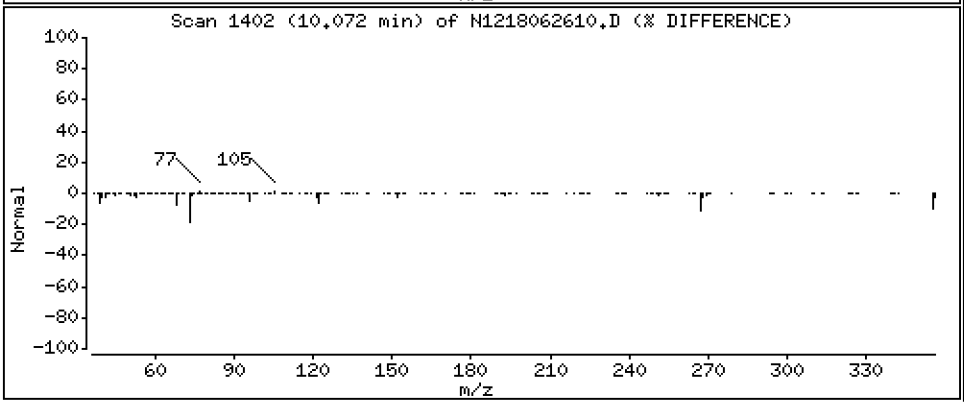
22 2,4-Dimethylphenol

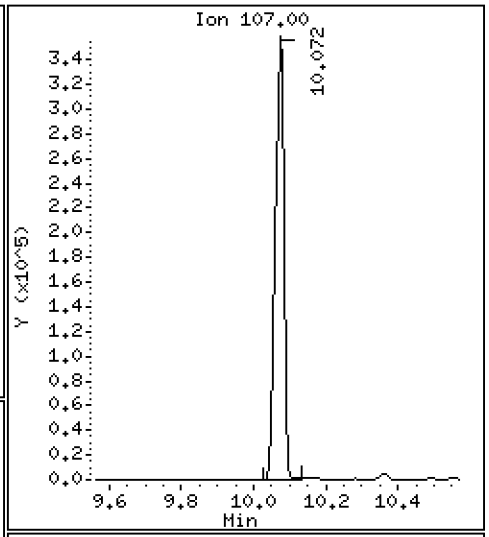
Concentration: 47.81 ug/mL

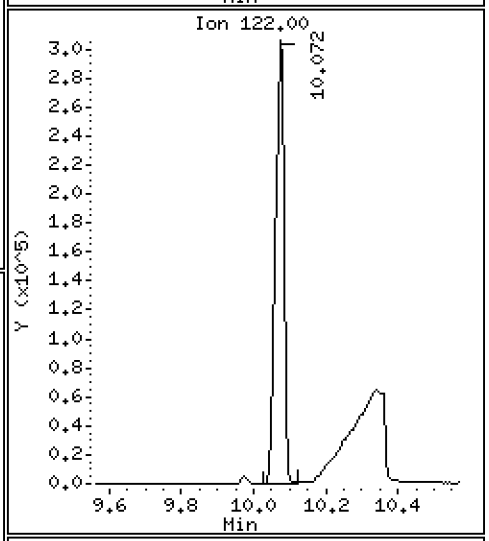


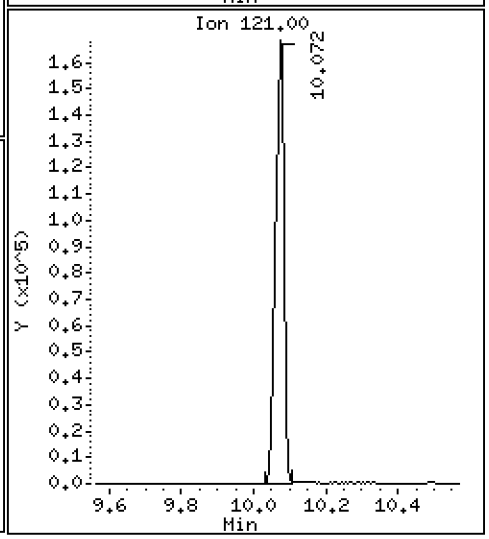












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

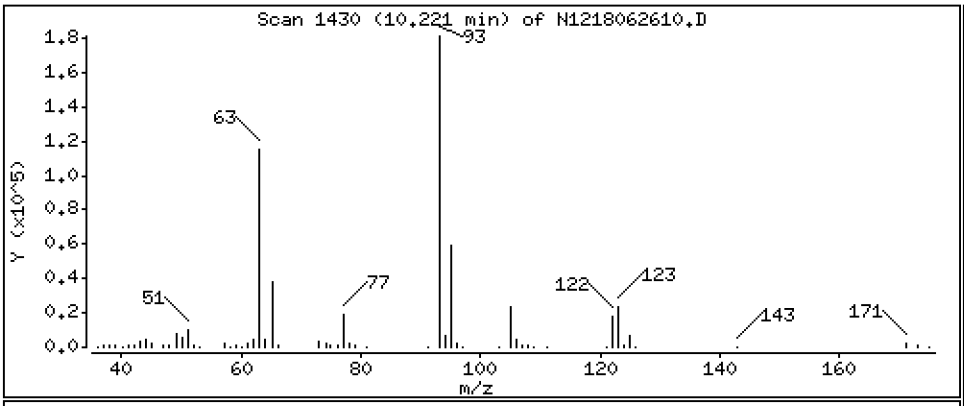
Operator: JZ

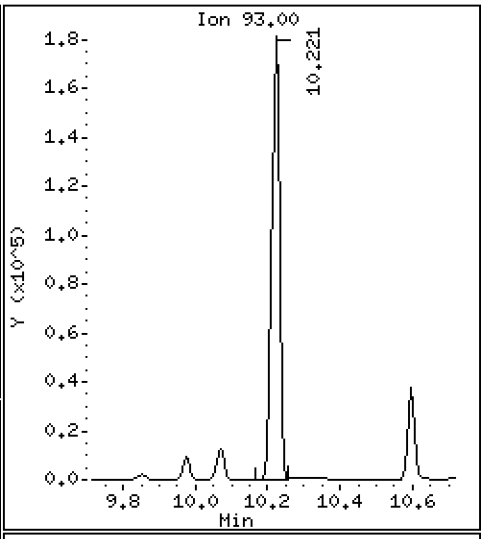
Column phase: ZB-5msi

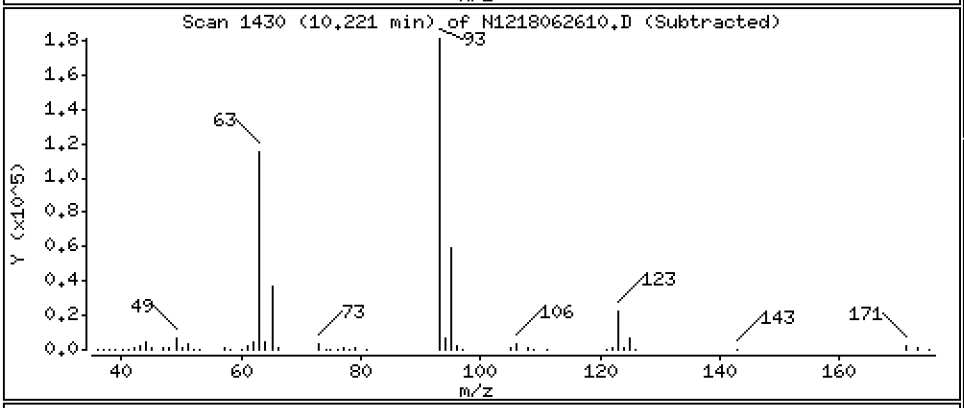
Column diameter: 0.32

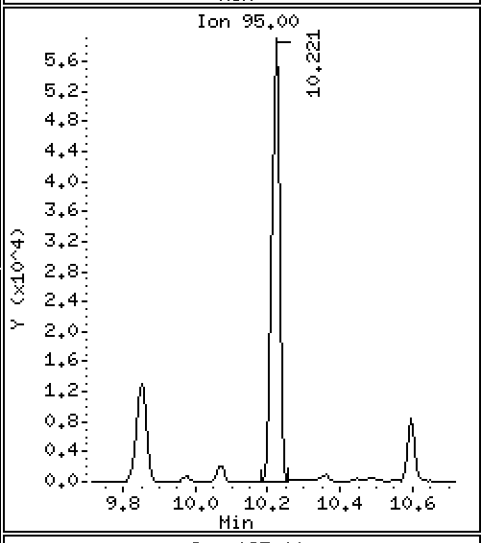
23 Bis(2-Chloroethoxy)methane

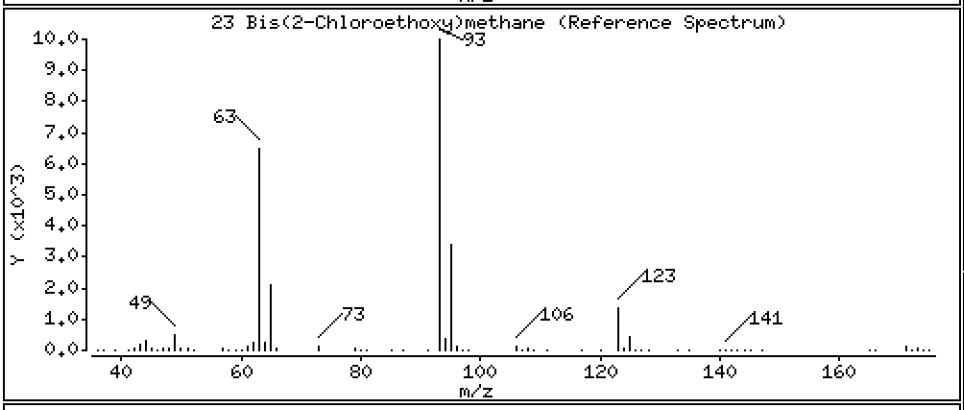
Concentration: 20.05 ug/mL

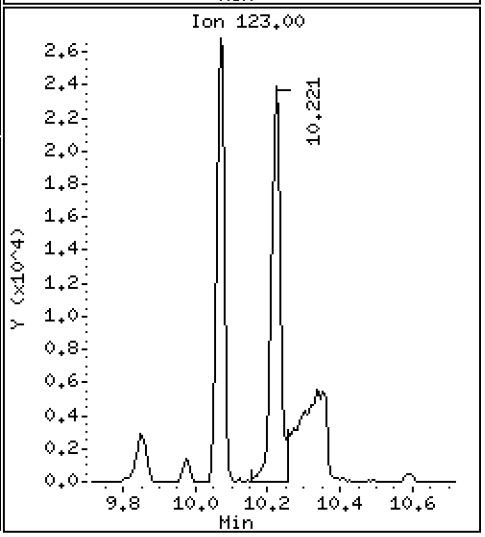


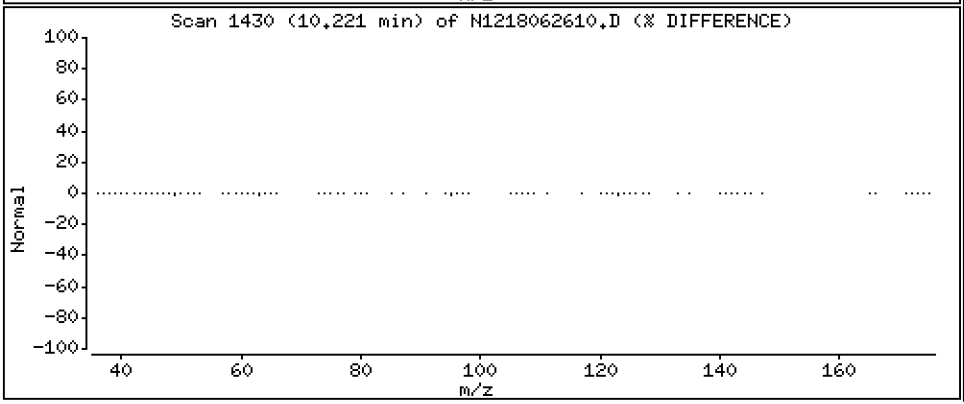












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

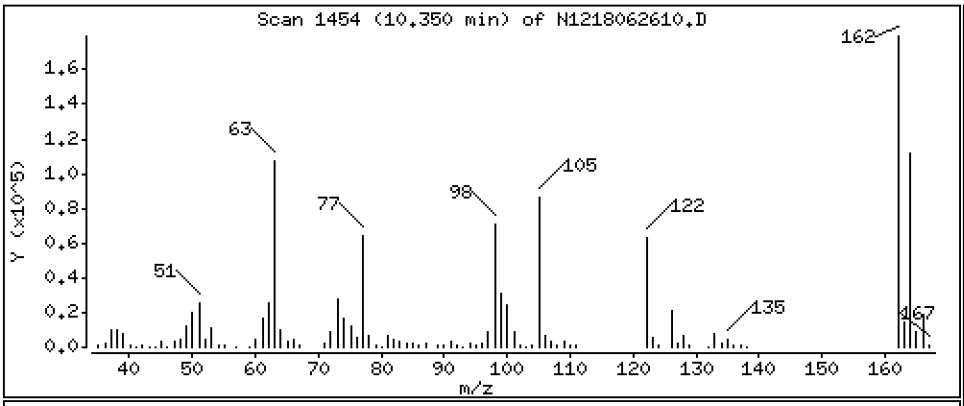
Operator: JZ

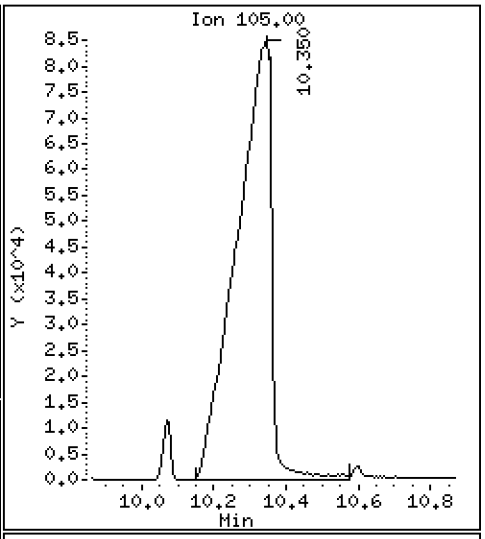
Column phase: ZB-5msi

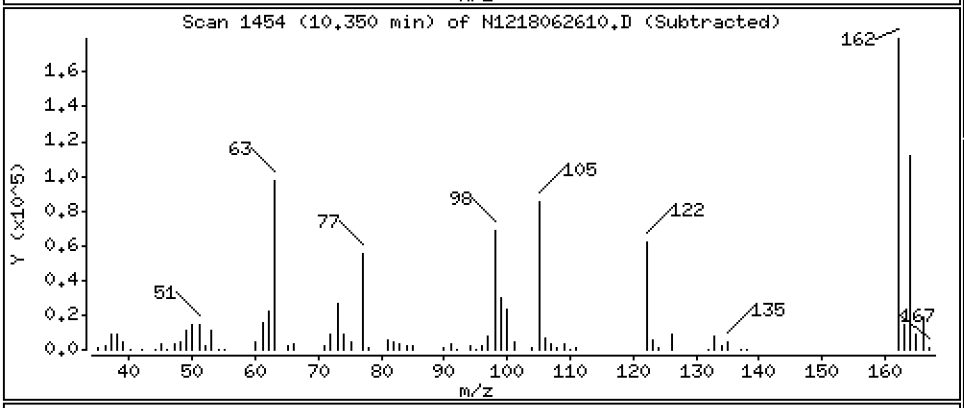
Column diameter: 0.32

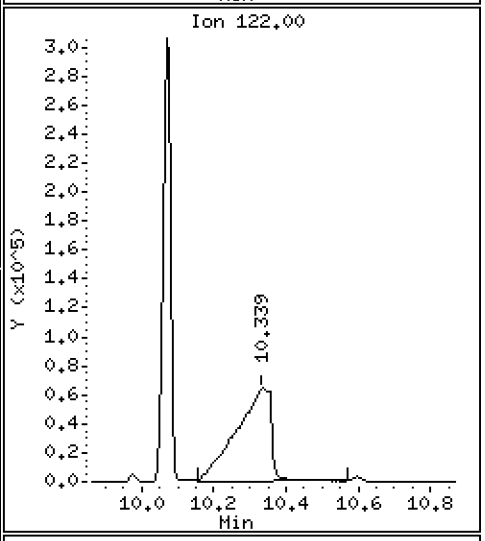
24 Benzoic acid

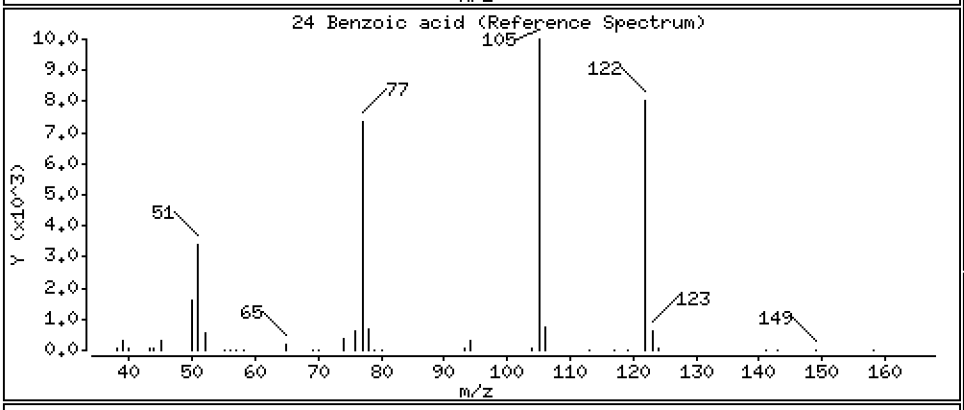
Concentration: 75.93 ug/mL

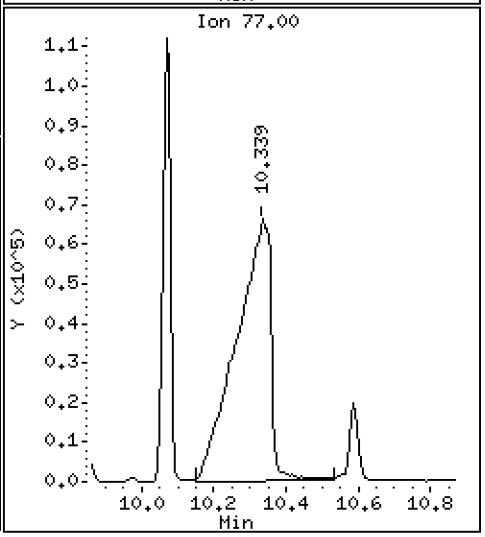


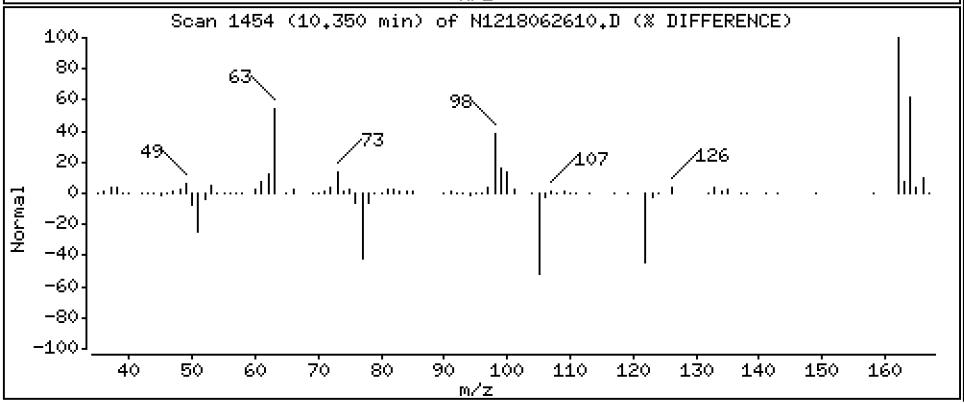












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

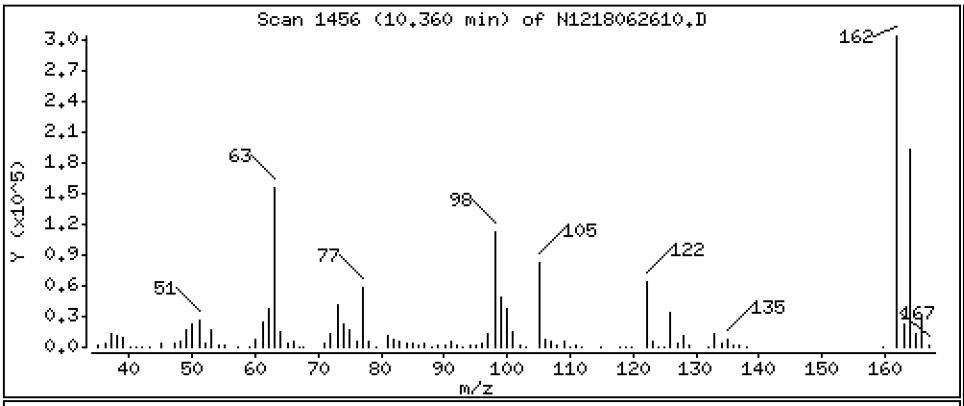
Operator: JZ

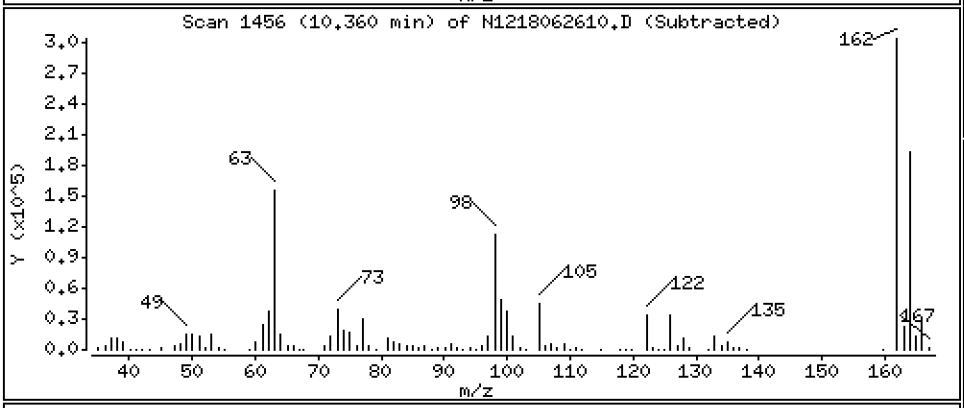
Column phase: ZB-5msi

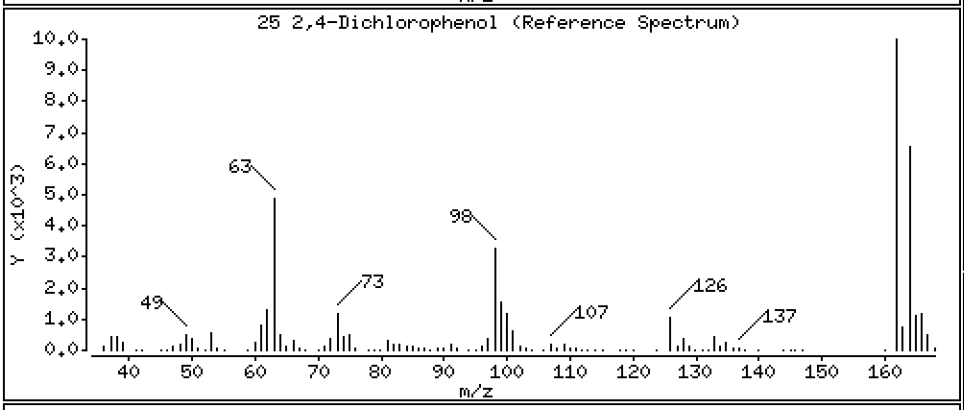
Column diameter: 0.32

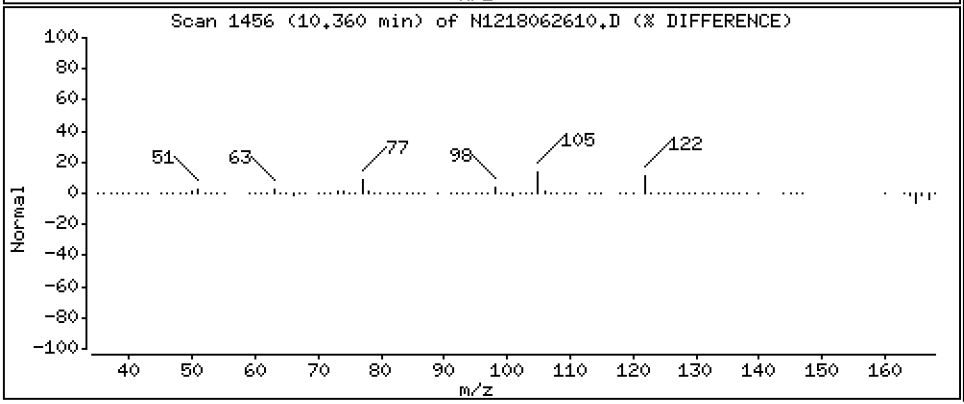
25 2,4-Dichlorophenol

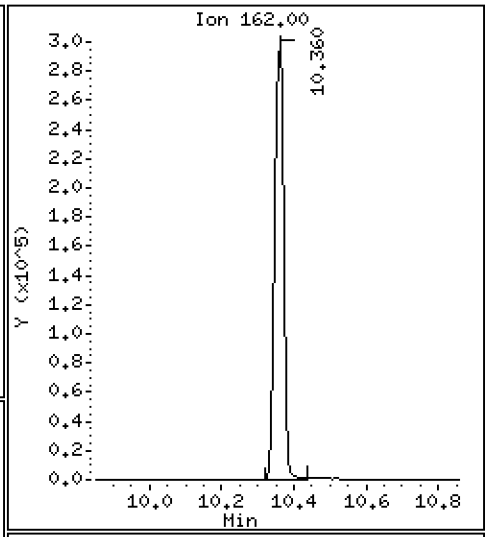
Concentration: 51.61 ug/mL

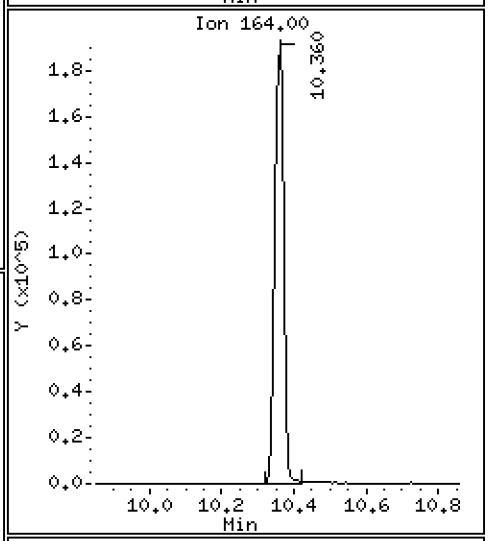


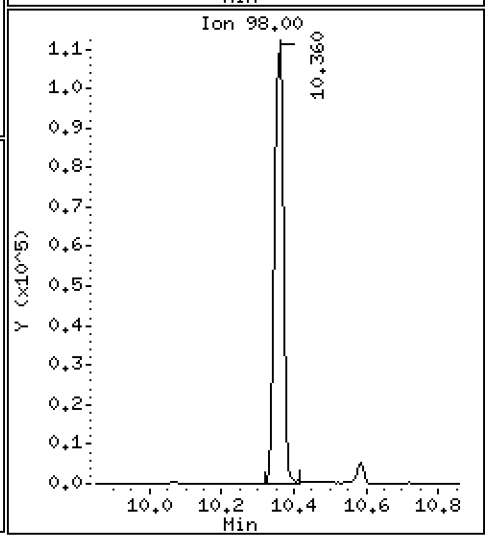












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

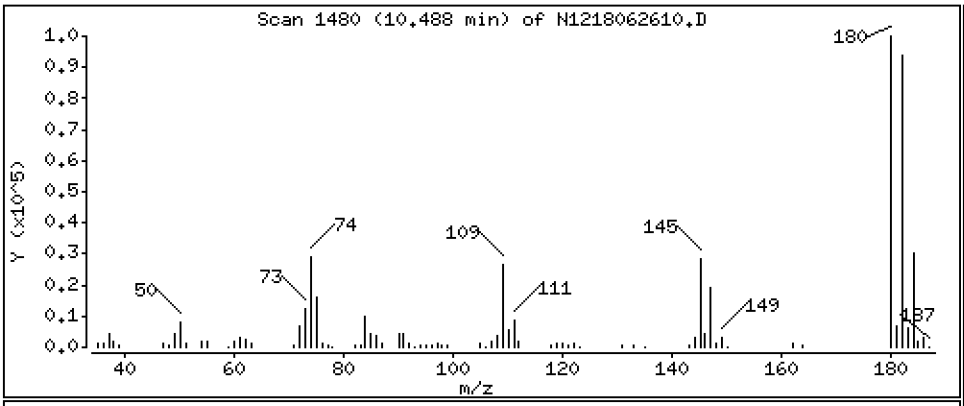
Operator: JZ

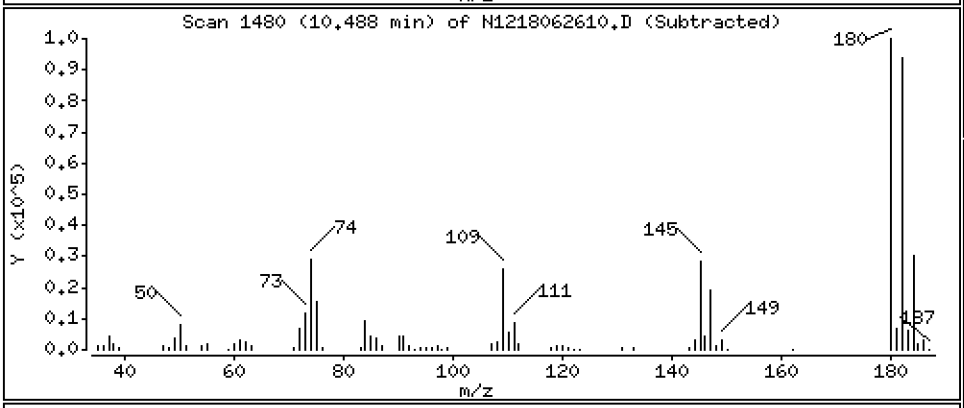
Column phase: ZB-5msi

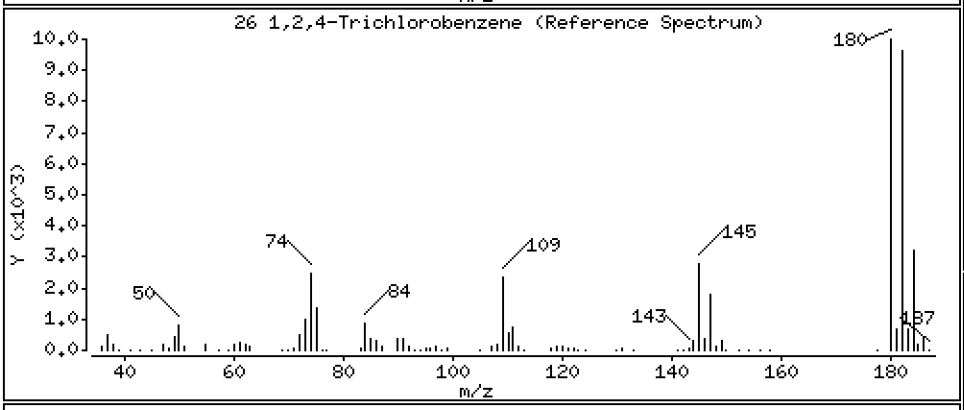
Column diameter: 0.32

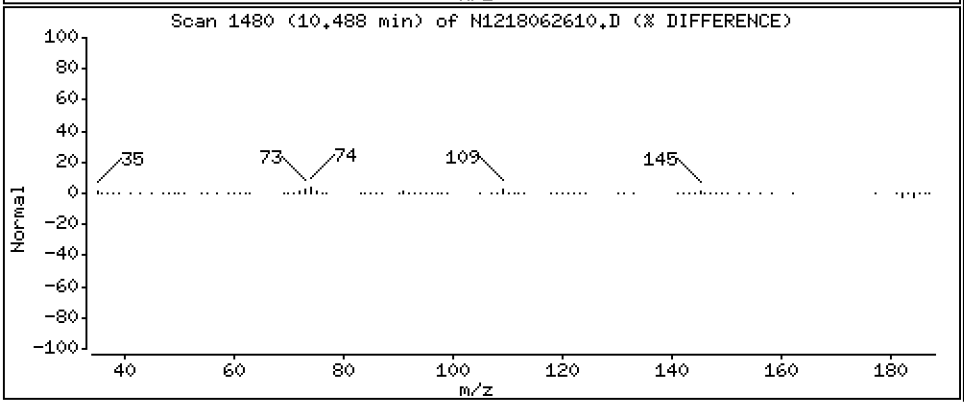
26 1,2,4-Trichlorobenzene

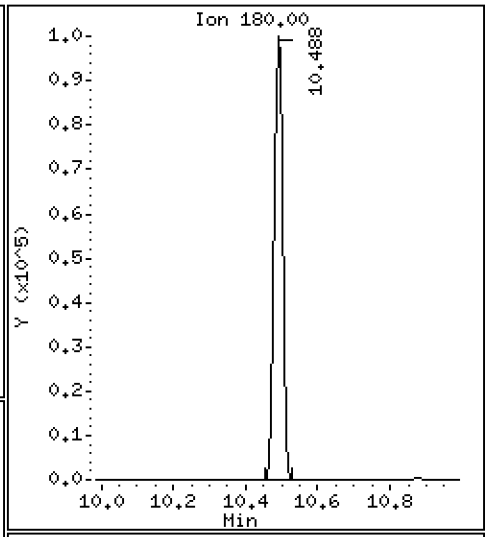
Concentration: 15.90 ug/mL

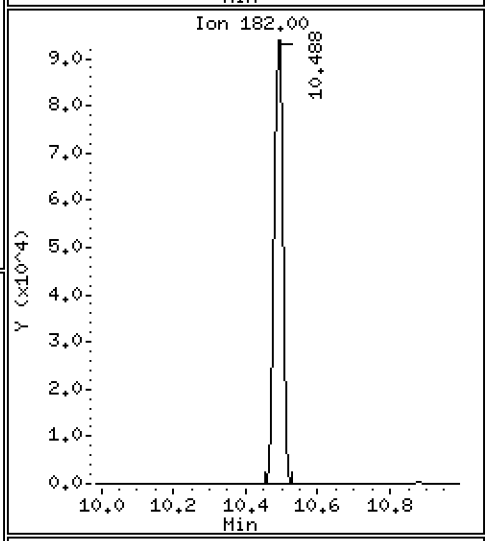


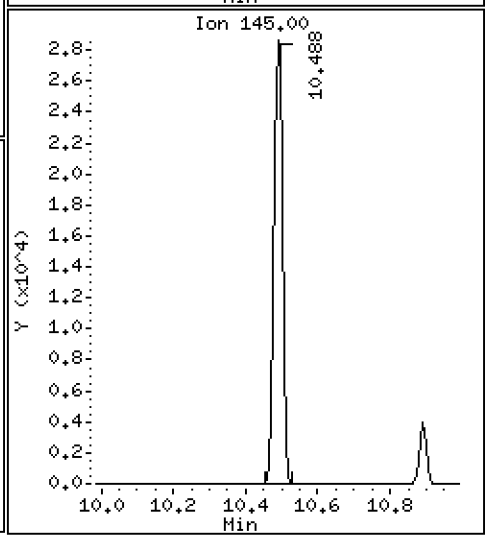












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

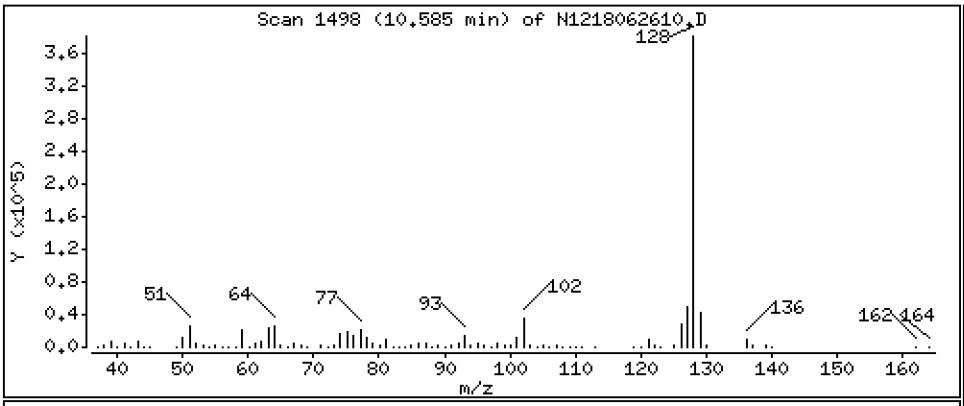
Operator: JZ

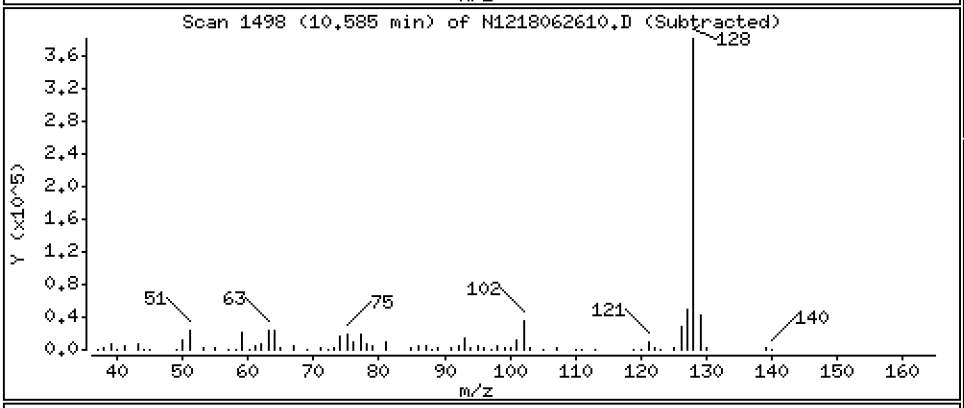
Column phase: ZB-5msi

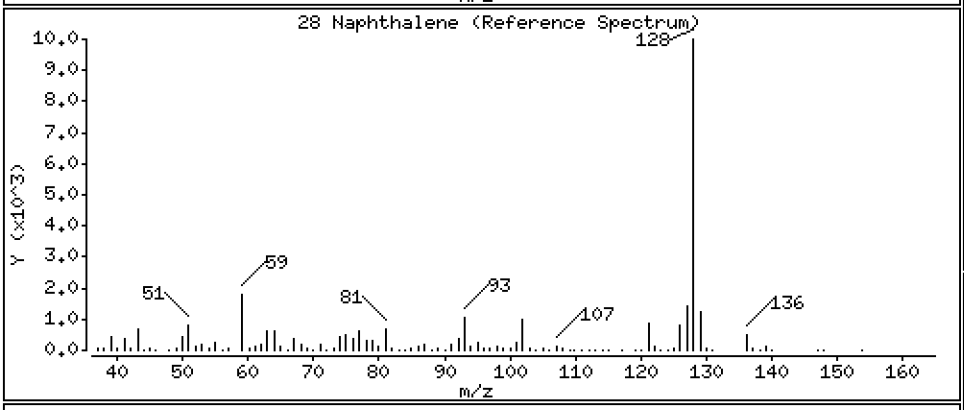
Column diameter: 0.32

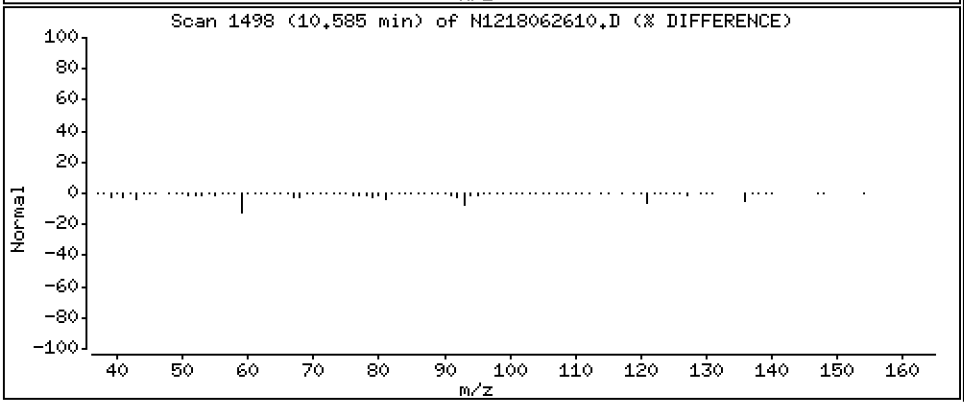
28 Naphthalene

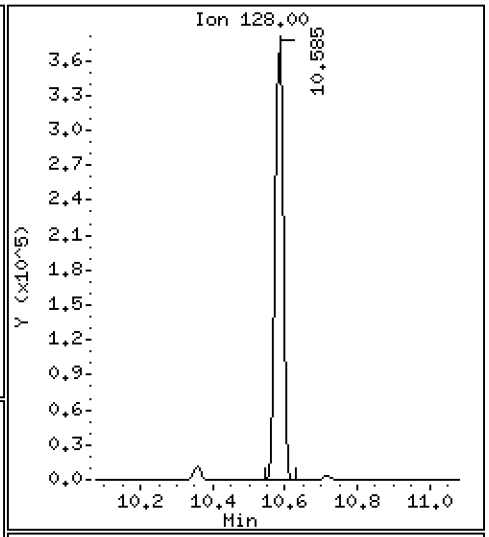
Concentration: 17.06 ug/mL

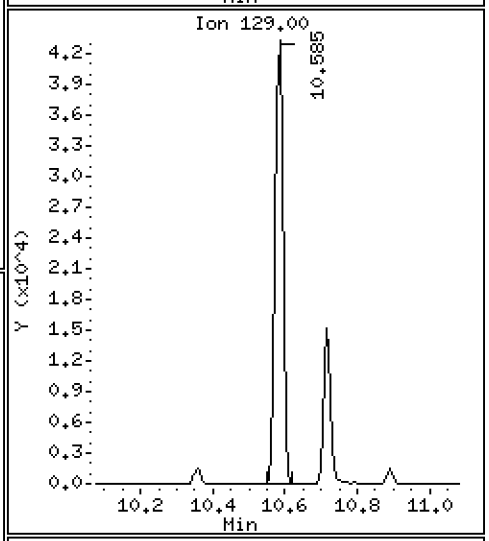


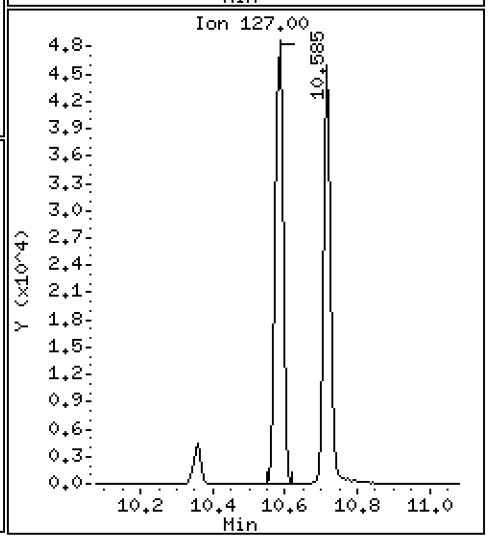












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

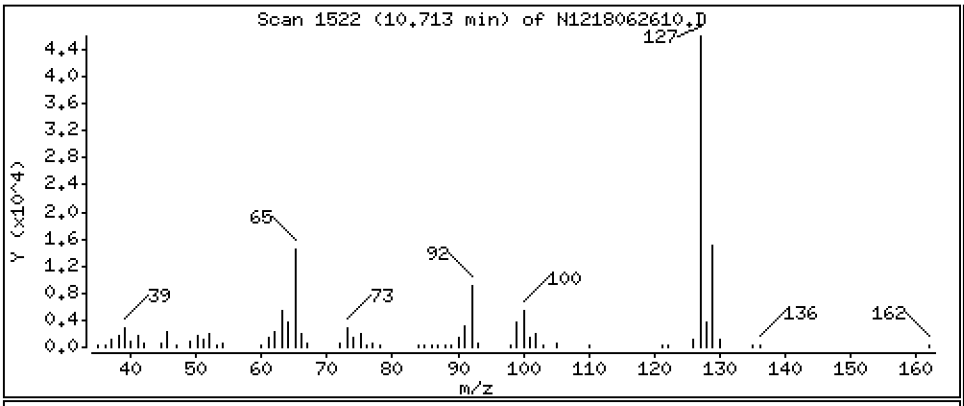
Operator: JZ

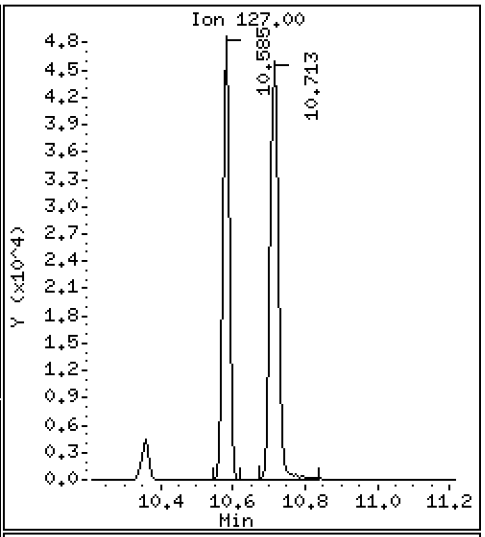
Column phase: ZB-5msi

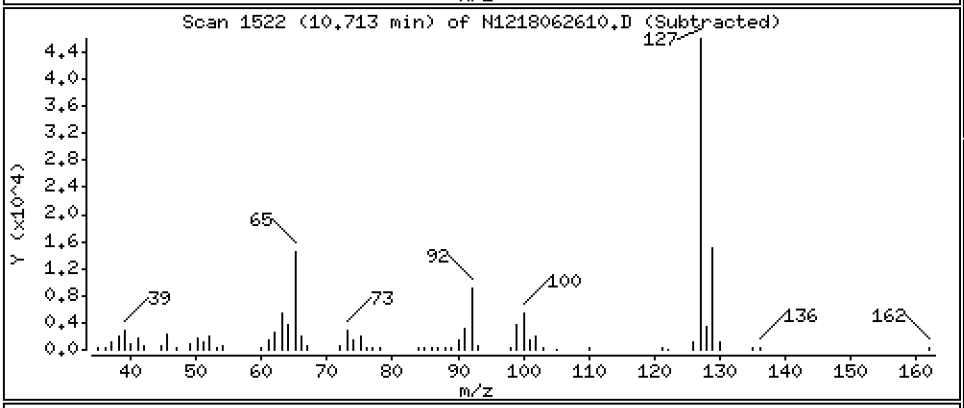
Column diameter: 0.32

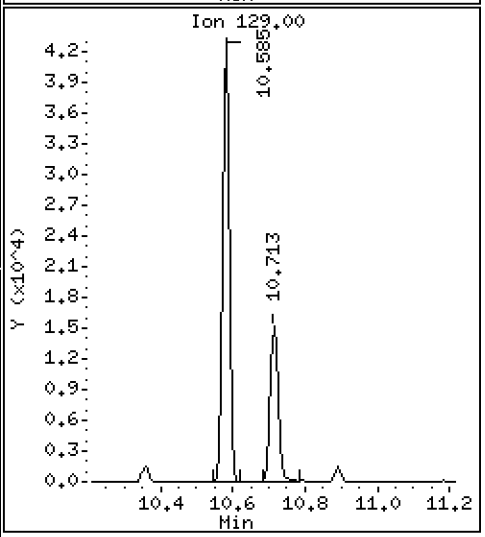
29 4-Chloroaniline

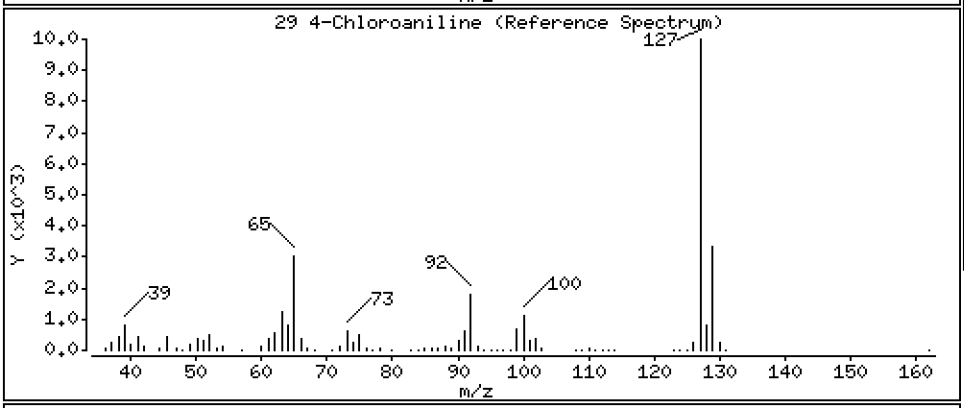
Concentration: 5.035 ug/mL

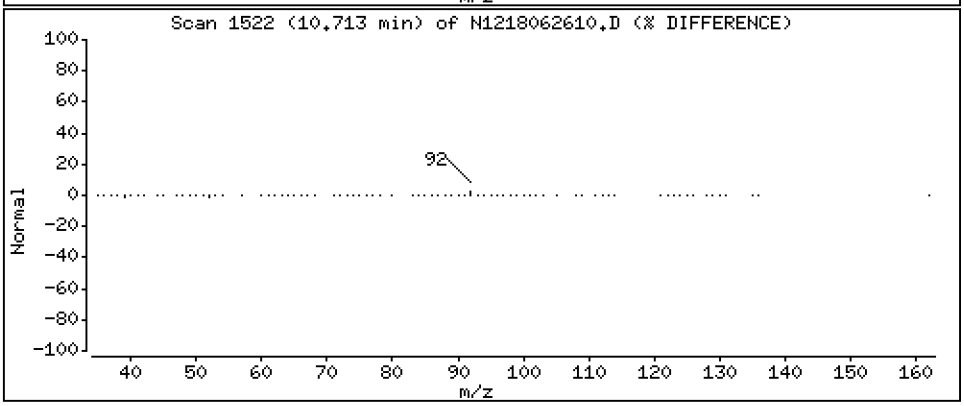












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

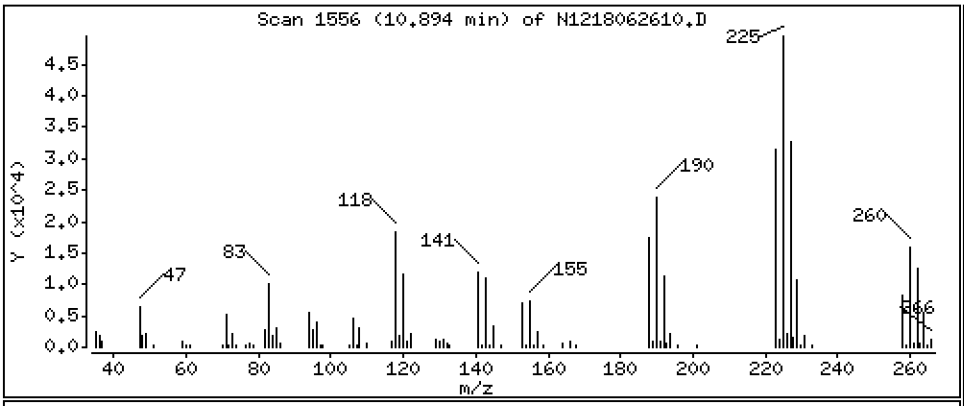
Operator: JZ

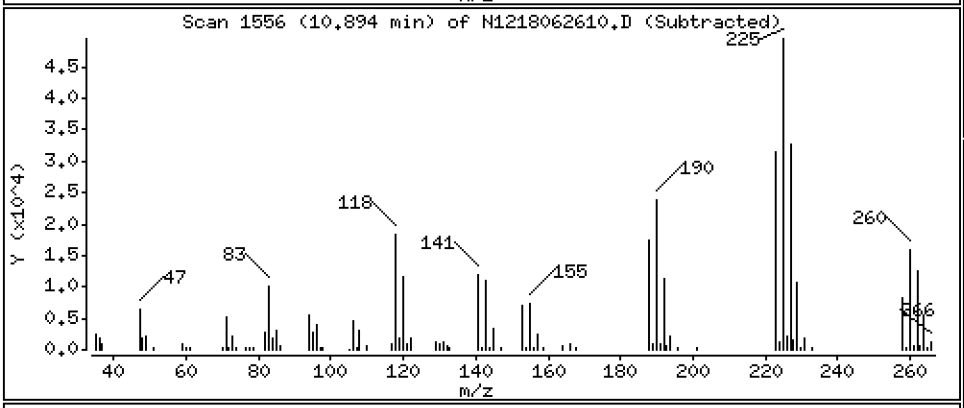
Column phase: ZB-5msi

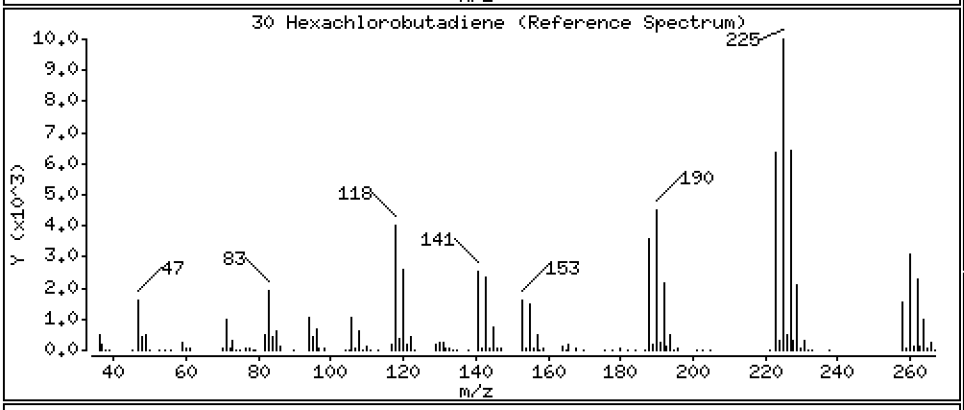
Column diameter: 0.32

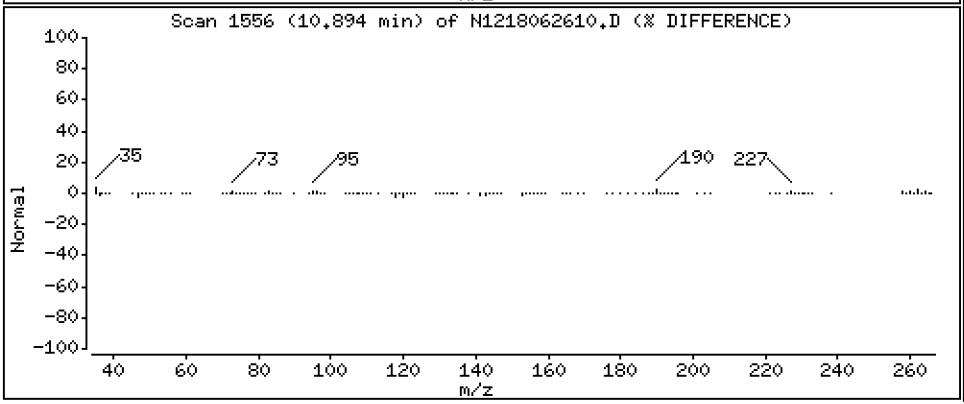
30 Hexachlorobutadiene

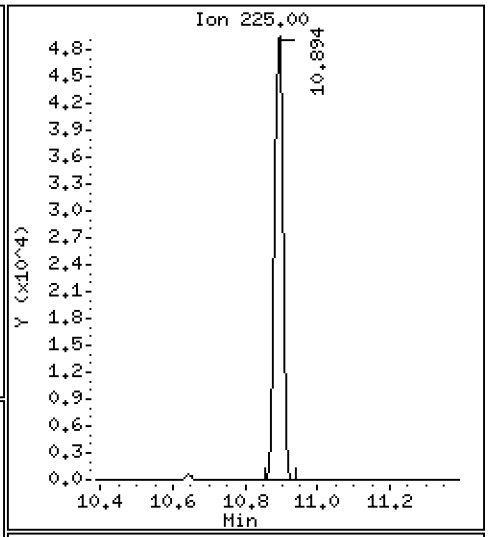
Concentration: 14.45 ug/mL

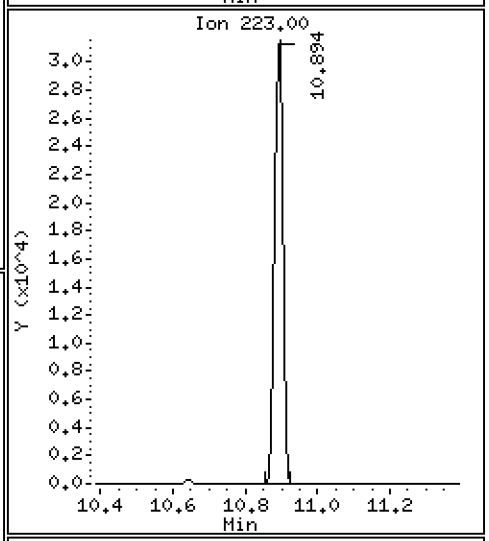


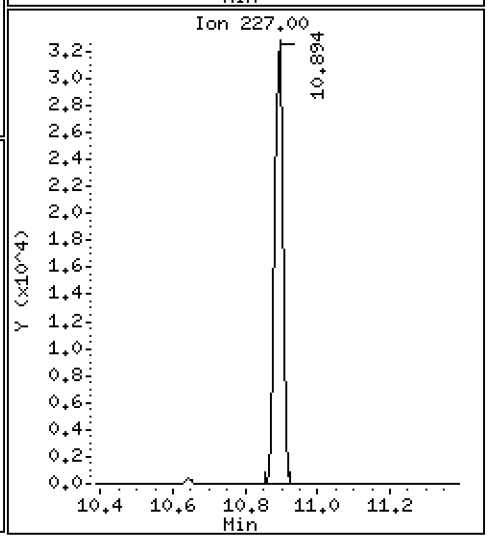












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

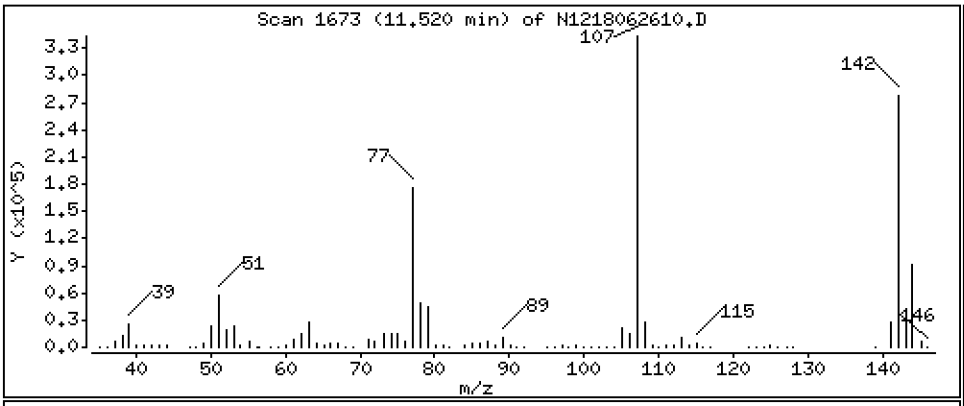
Operator: JZ

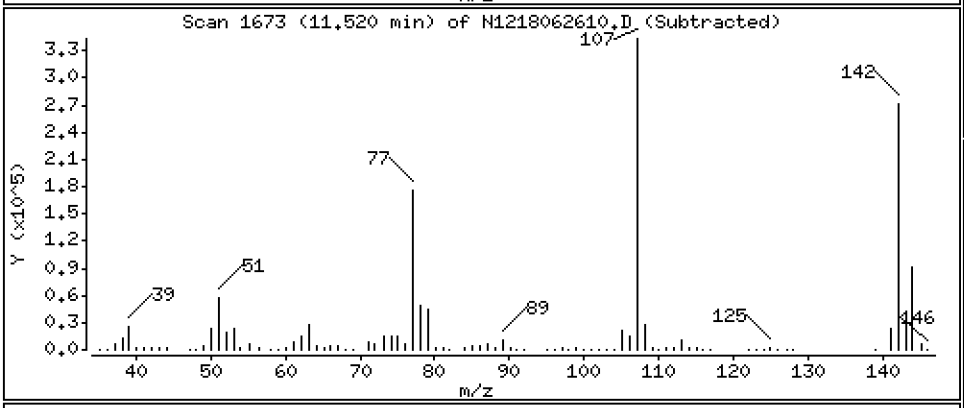
Column phase: ZB-5msi

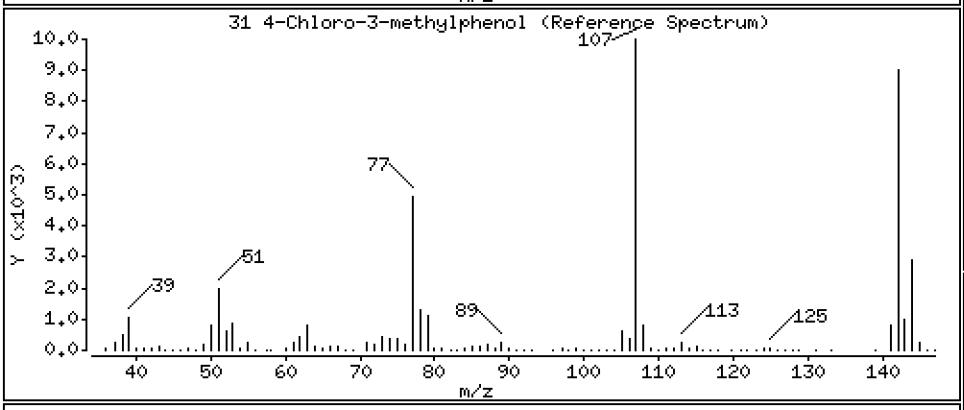
Column diameter: 0.32

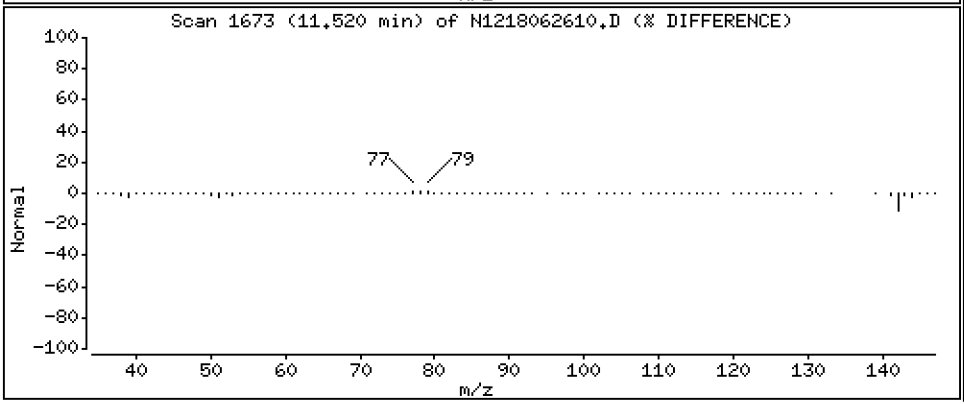
31 4-Chloro-3-methylphenol

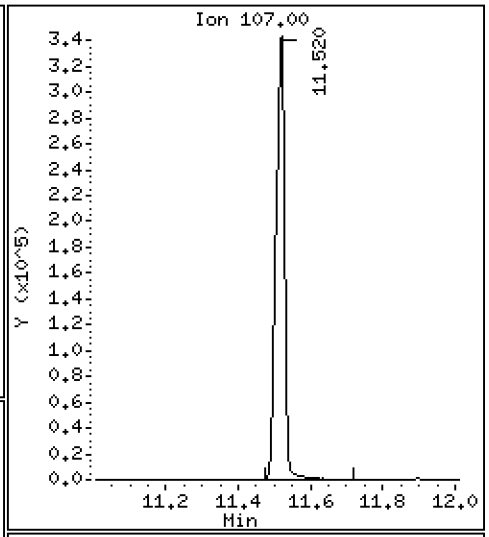
Concentration: 57.28 ug/mL

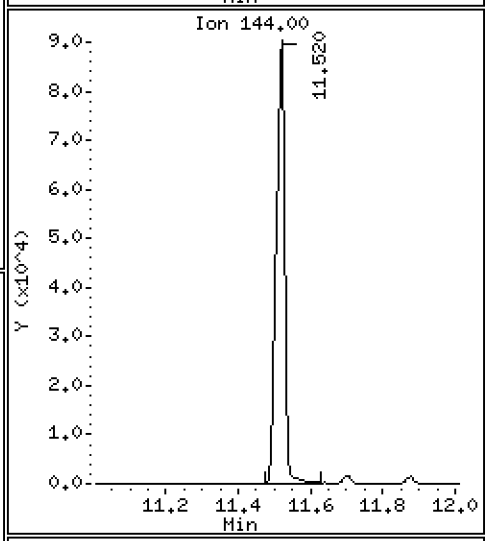


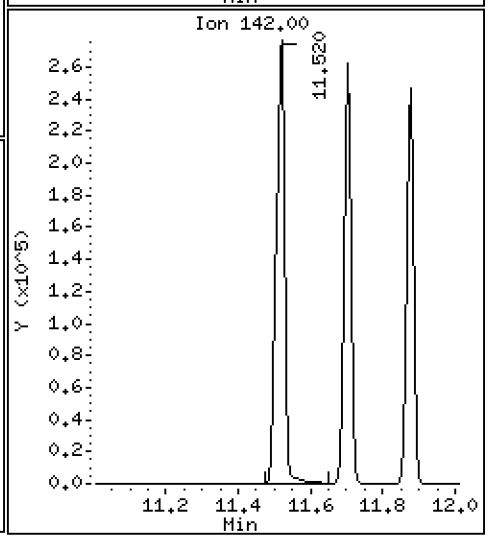












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

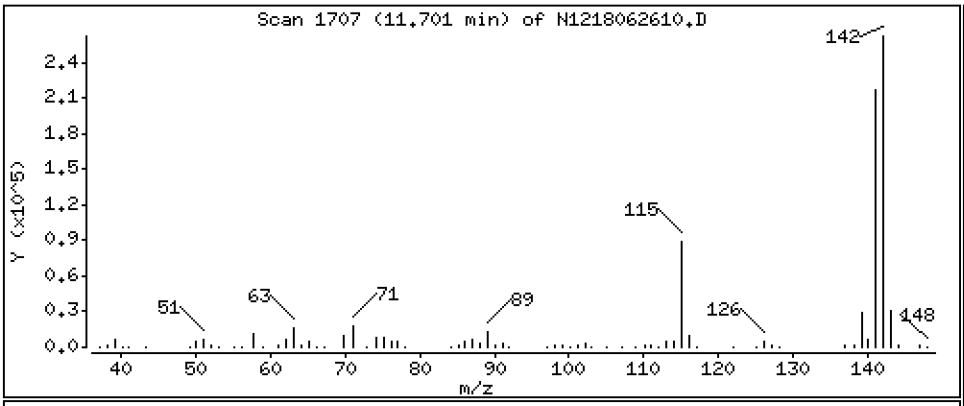
Operator: JZ

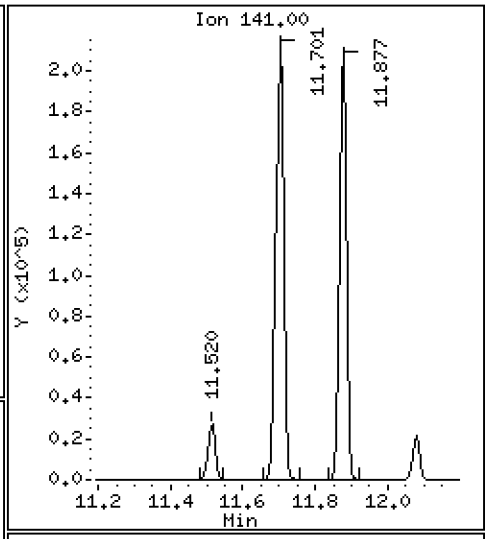
Column phase: ZB-5msi

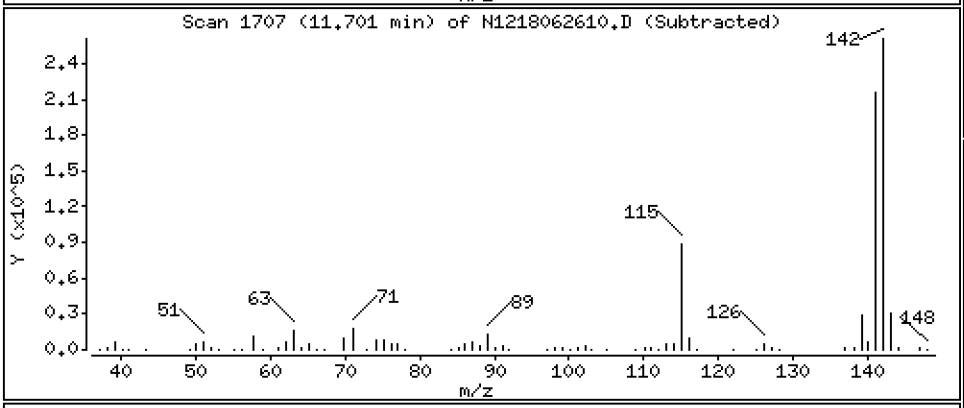
Column diameter: 0.32

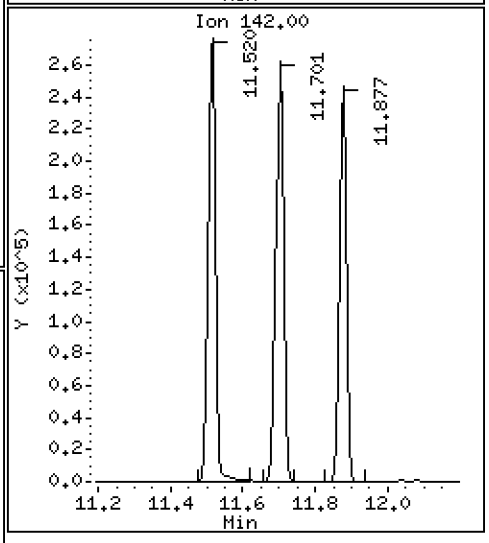
32 2-Methylnaphthalene

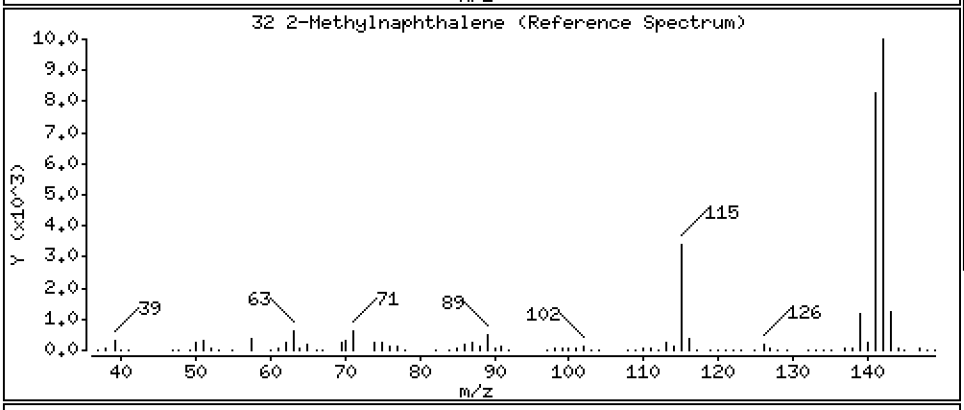
Concentration: 17.86 ug/mL

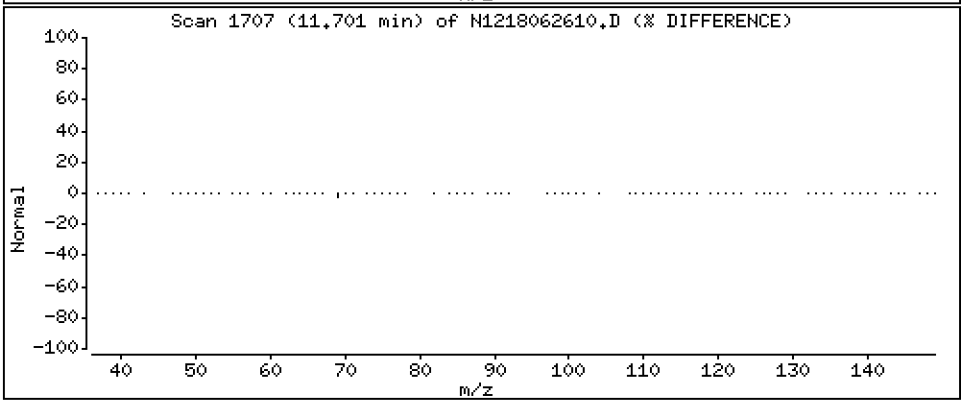












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

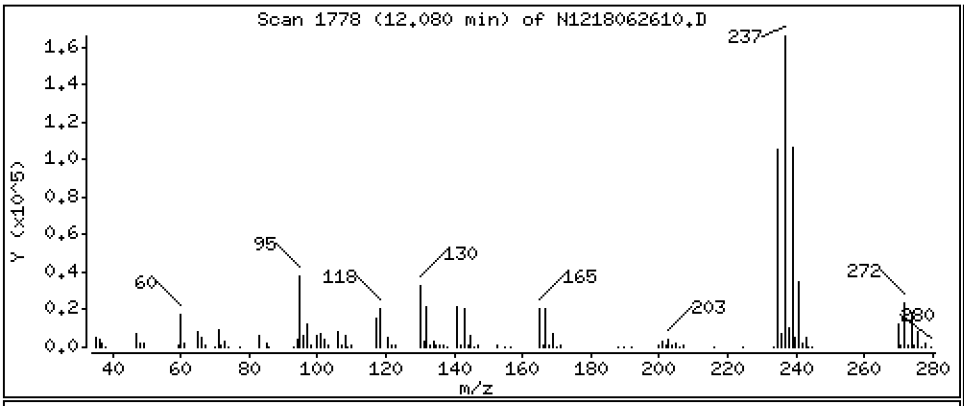
Operator: JZ

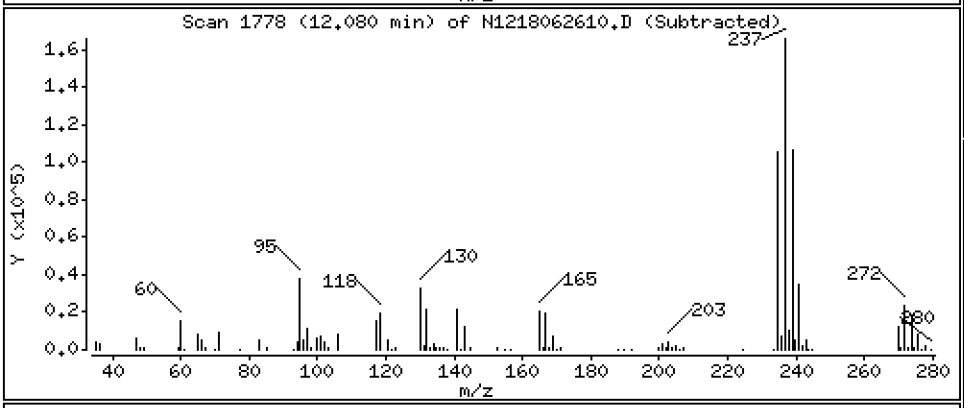
Column phase: ZB-5msi

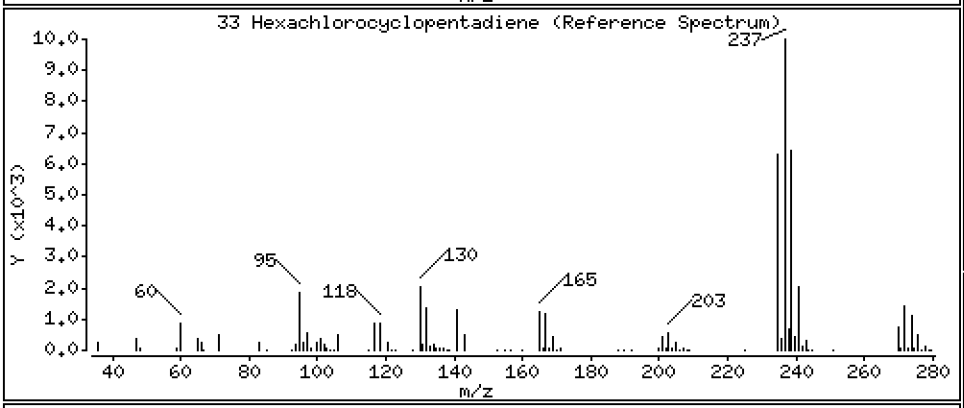
Column diameter: 0.32

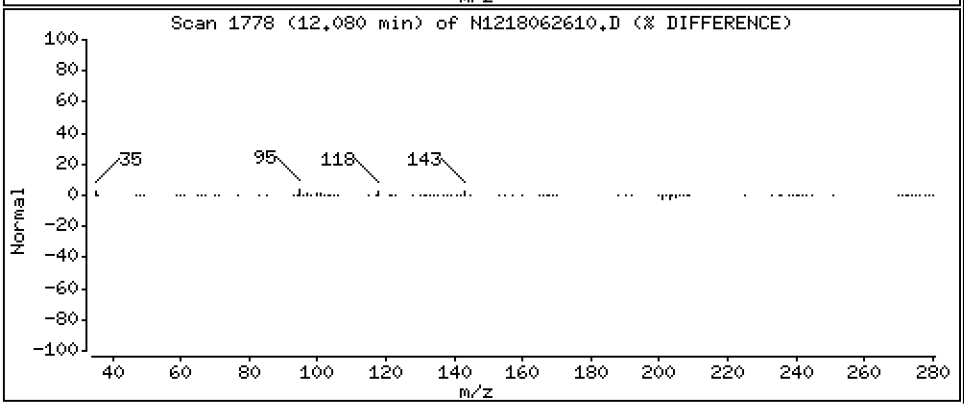
33 Hexachlorocyclopentadiene

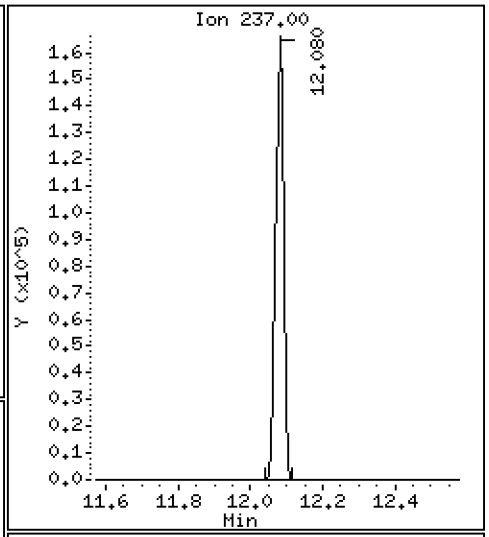
Concentration: 55.73 ug/mL

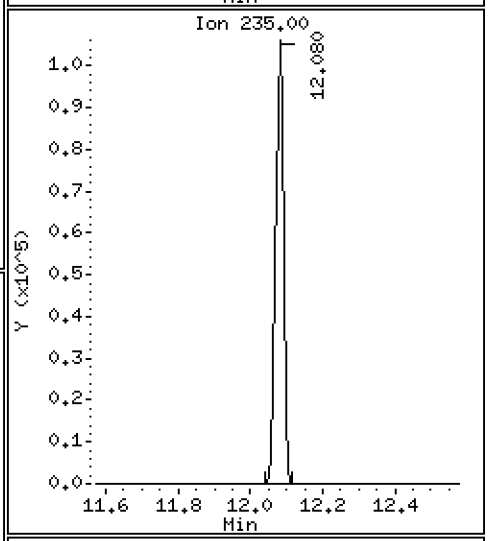


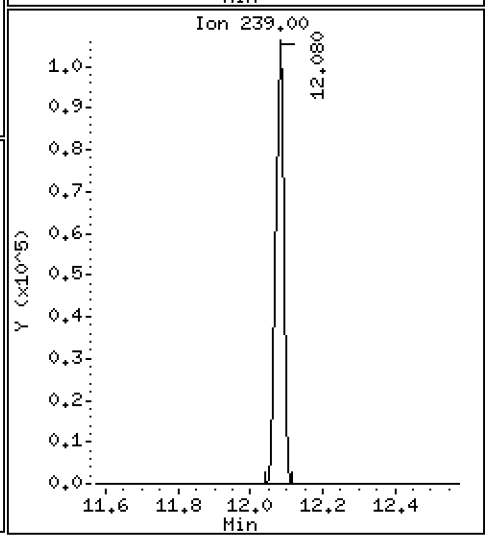












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

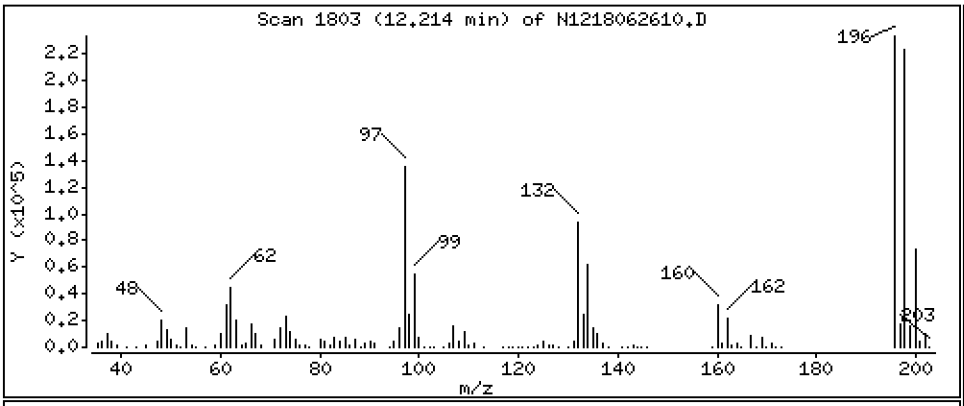
Operator: JZ

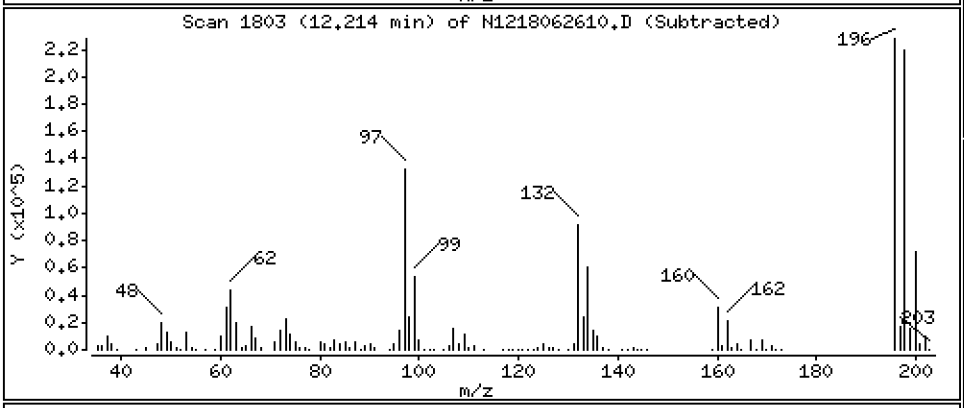
Column phase: ZB-5msi

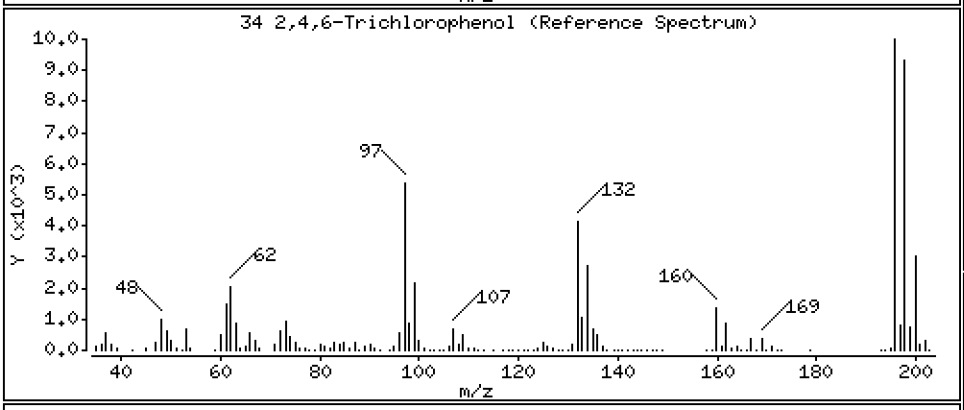
Column diameter: 0.32

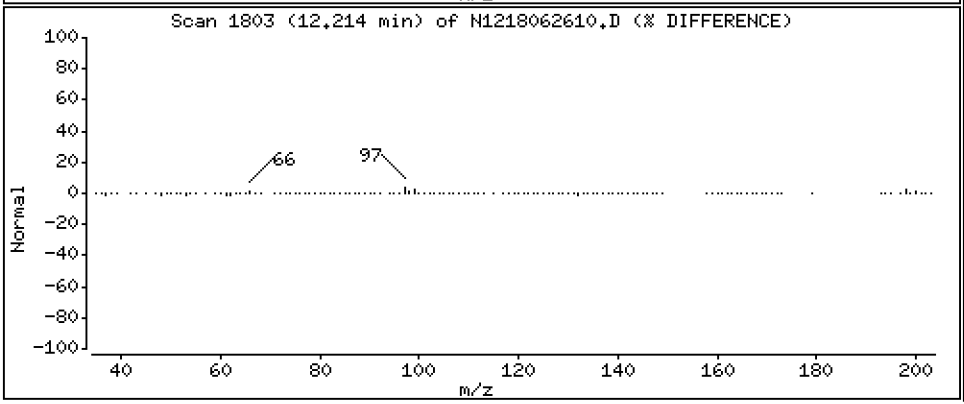
34 2,4,6-Trichlorophenol

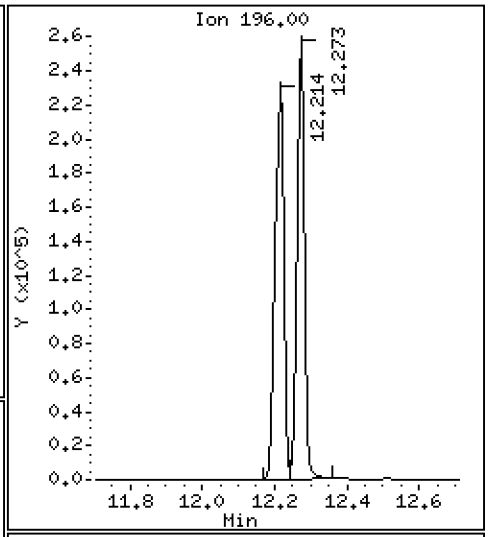
Concentration: 55.40 ug/mL

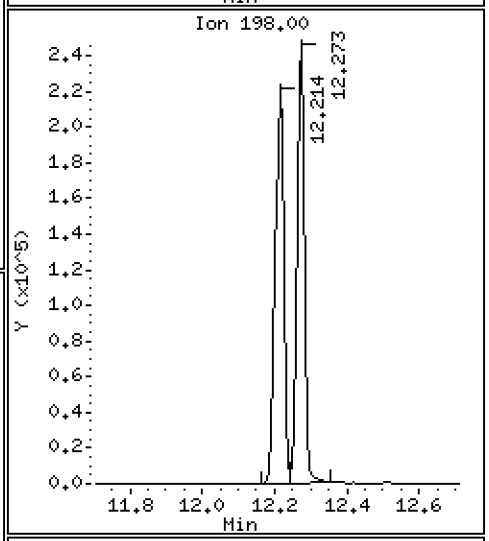


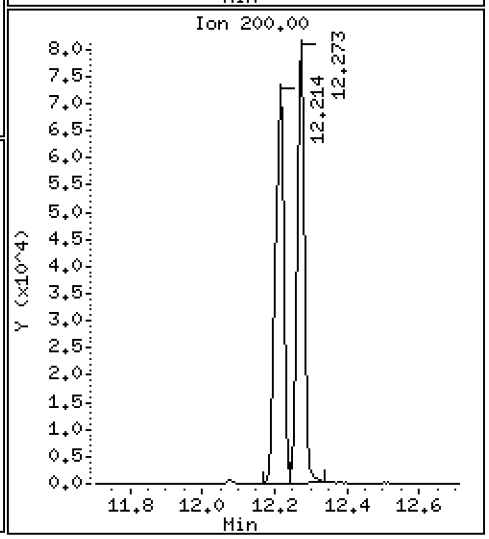












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

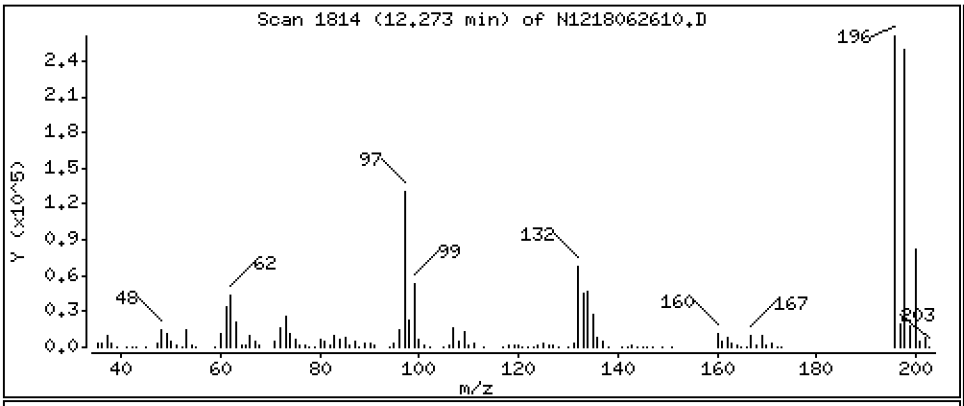
Operator: JZ

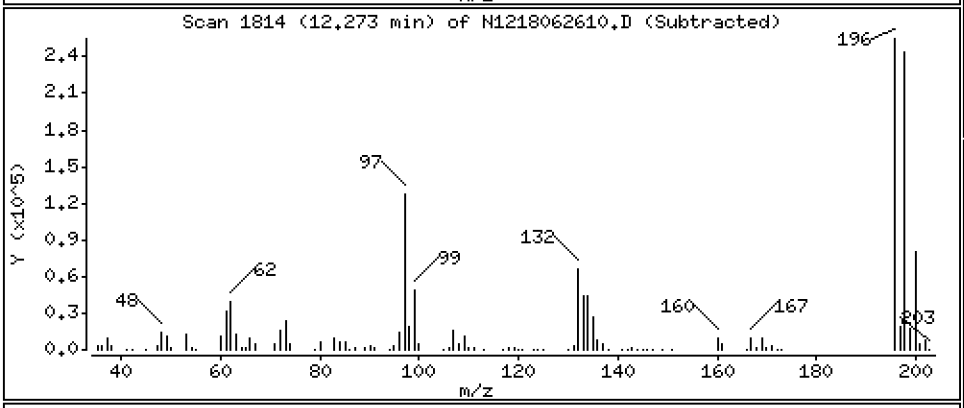
Column phase: ZB-5msi

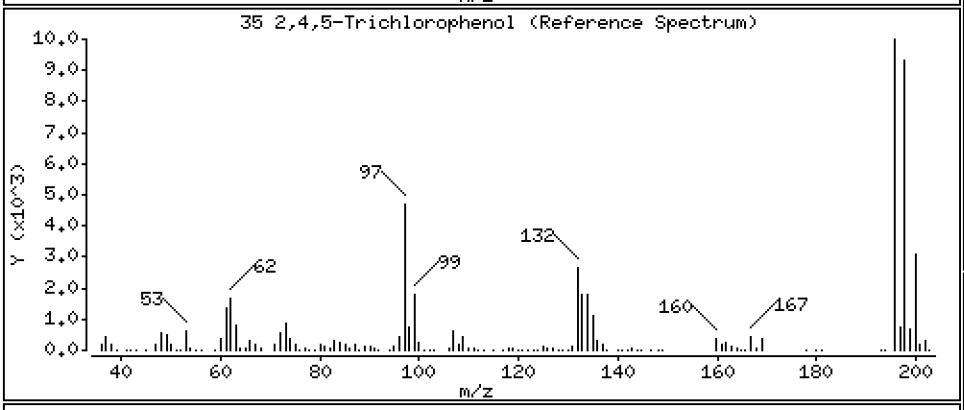
Column diameter: 0.32

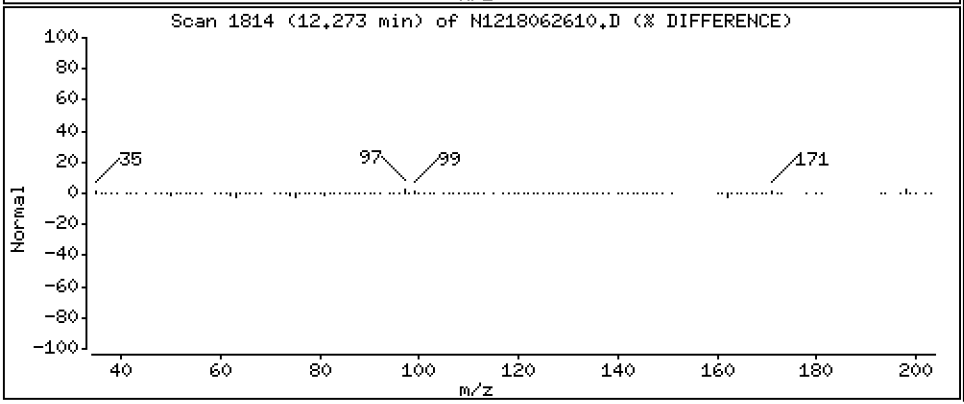
35 2,4,5-Trichlorophenol

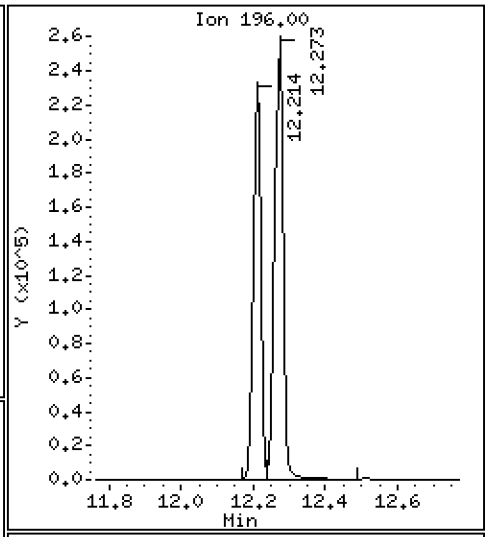
Concentration: 58.43 ug/mL

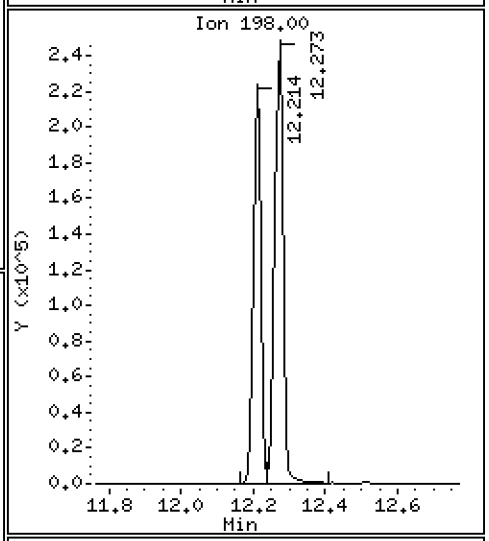


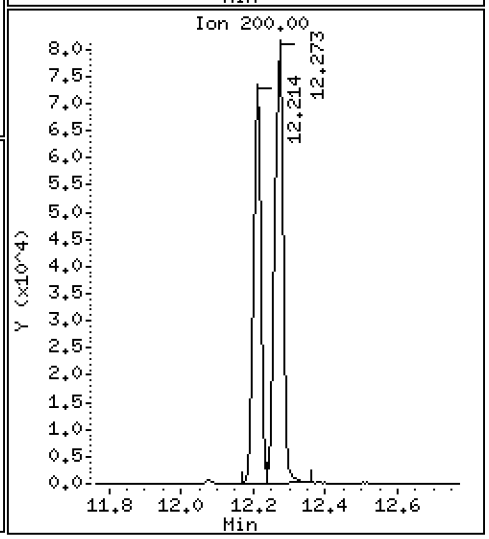












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

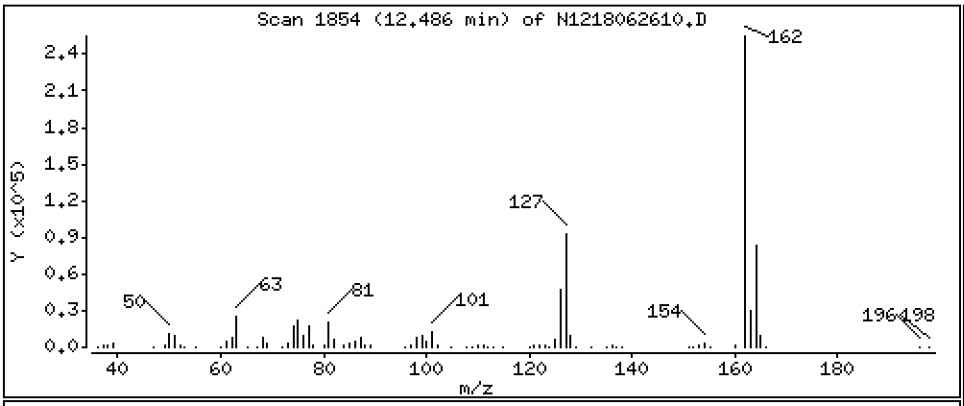
Operator: JZ

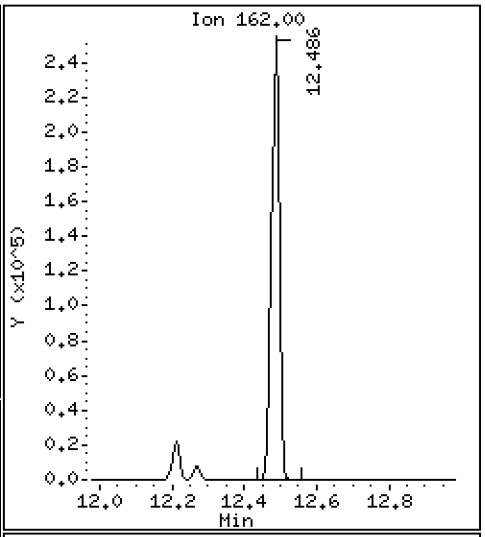
Column phase: ZB-5msi

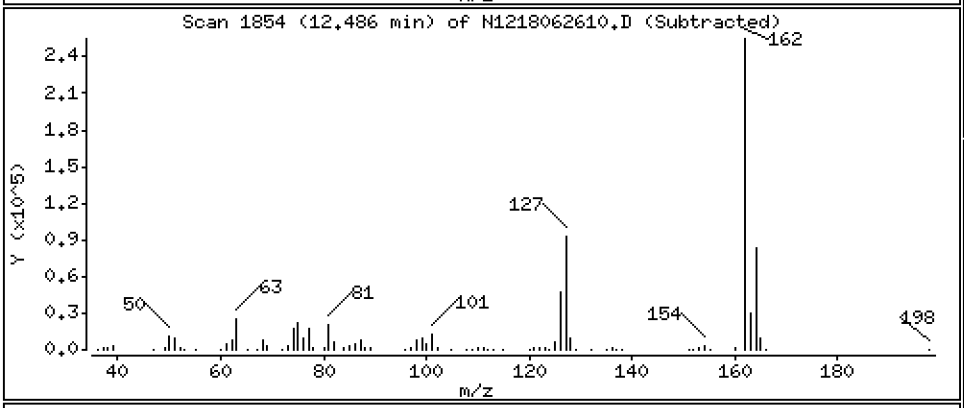
Column diameter: 0.32

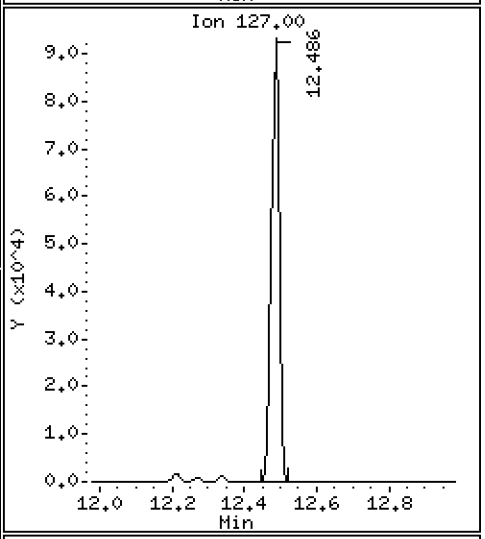
37 2-Chloronaphthalene

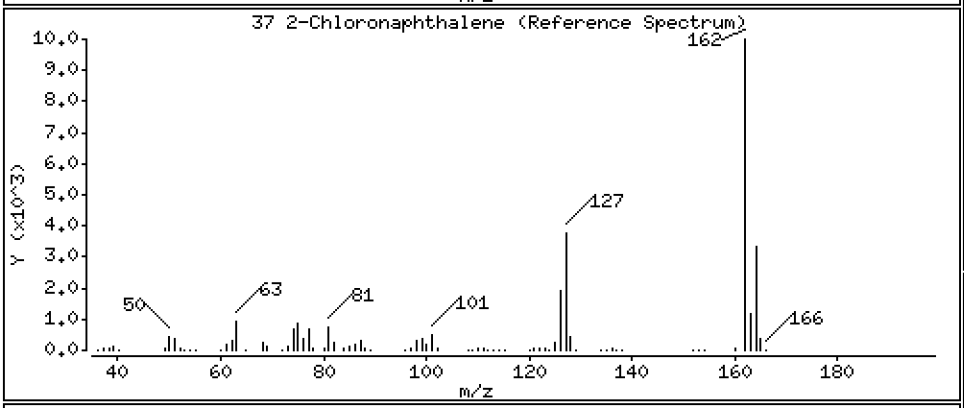
Concentration: 19.16 ug/mL

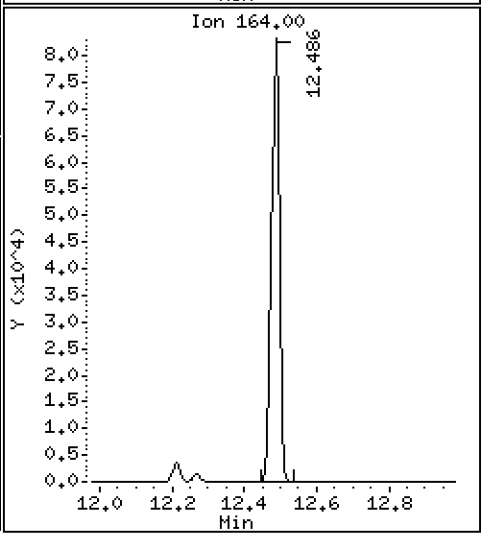


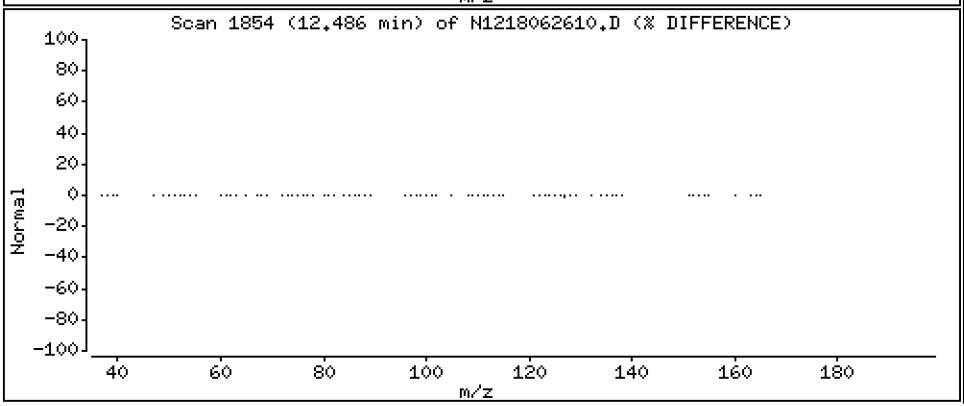












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

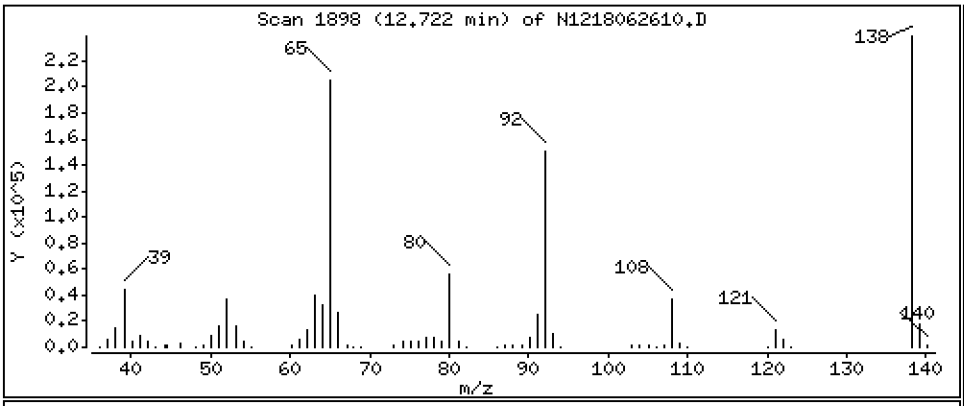
Operator: JZ

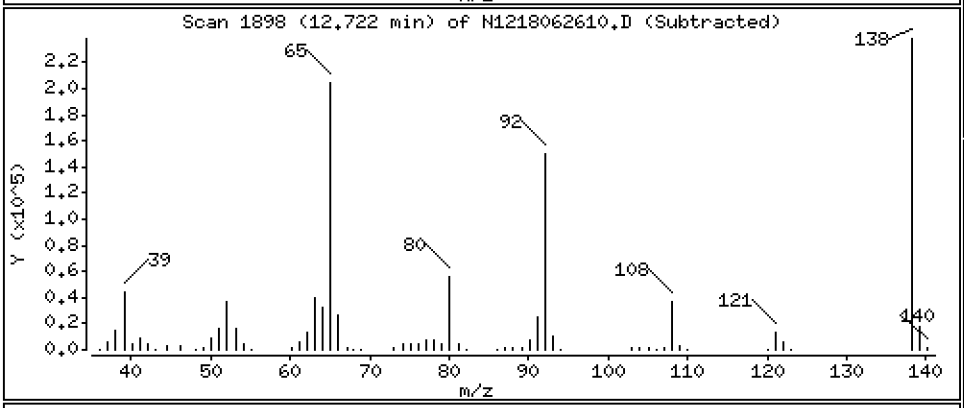
Column phase: ZB-5msi

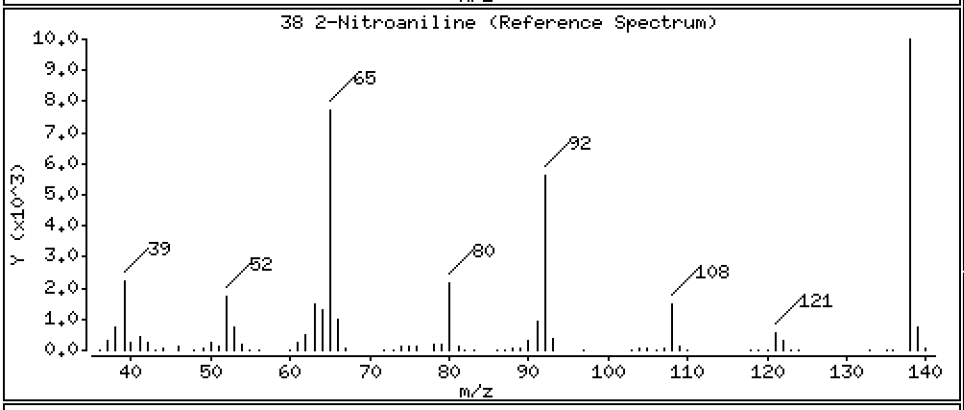
Column diameter: 0.32

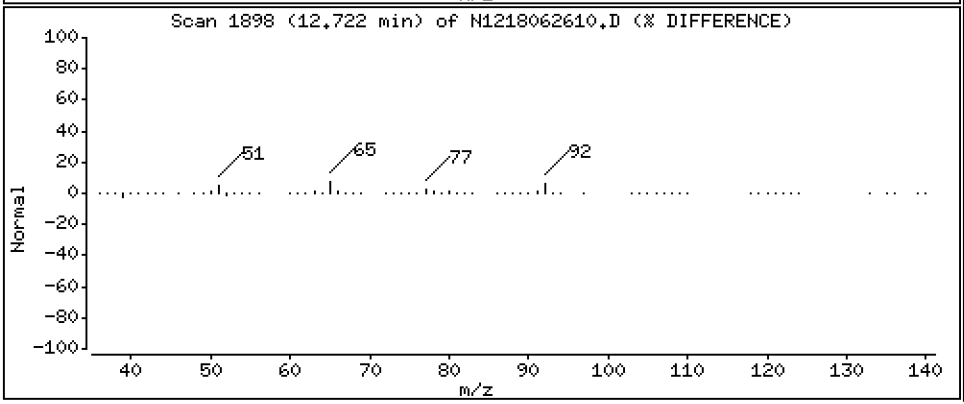
38 2-Nitroaniline

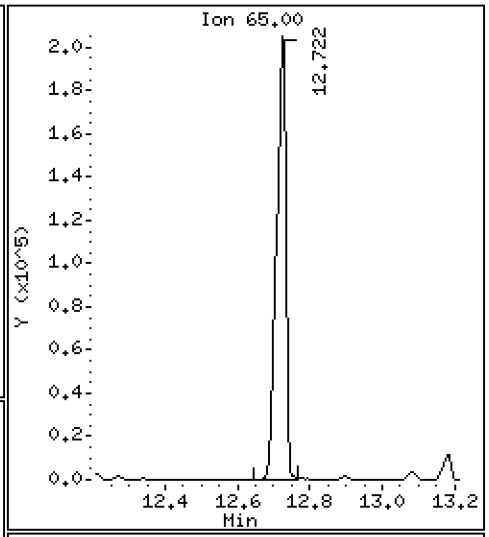
Concentration: 61.05 ug/mL

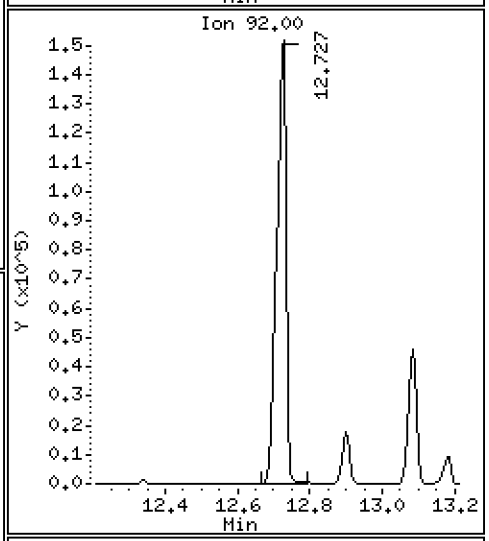


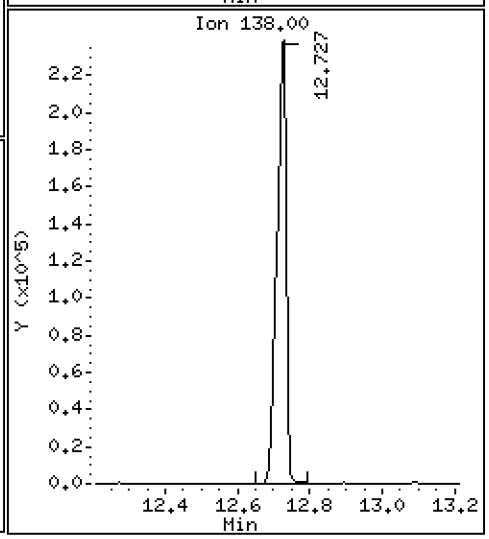












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

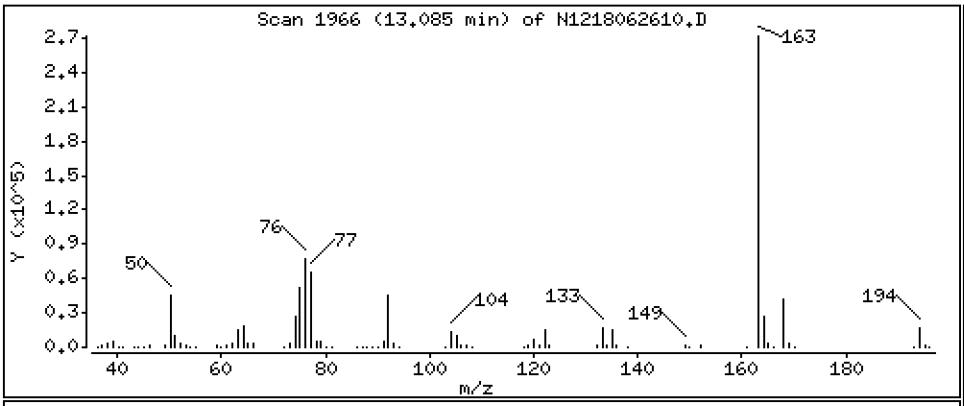
Operator: JZ

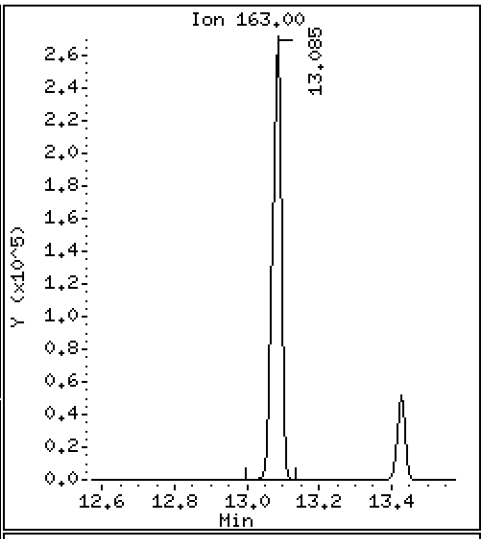
Column phase: ZB-5msi

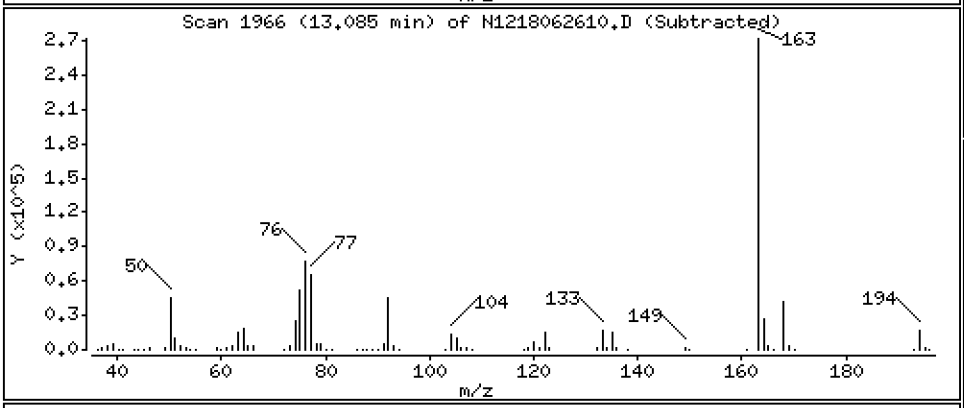
Column diameter: 0.32

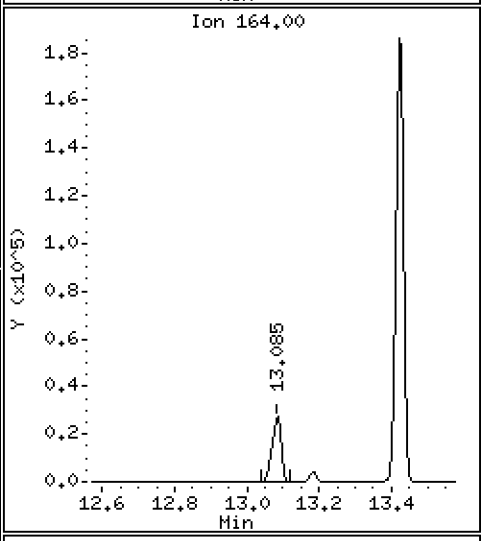
39 Dimethylphthalate

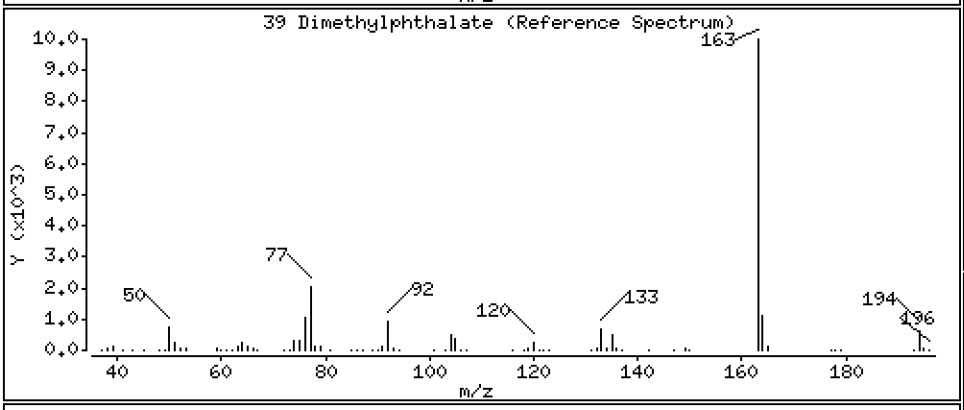
Concentration: 21.88 ug/mL

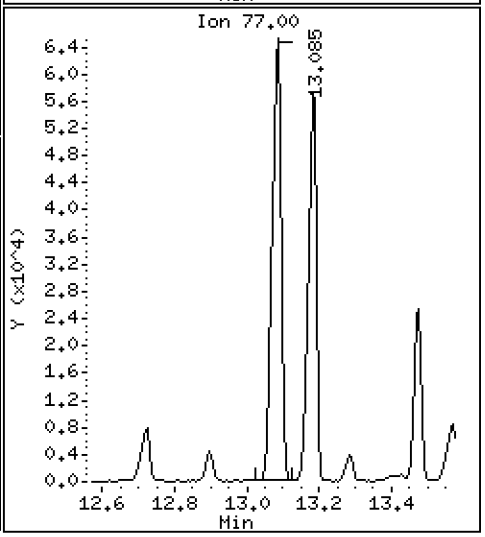


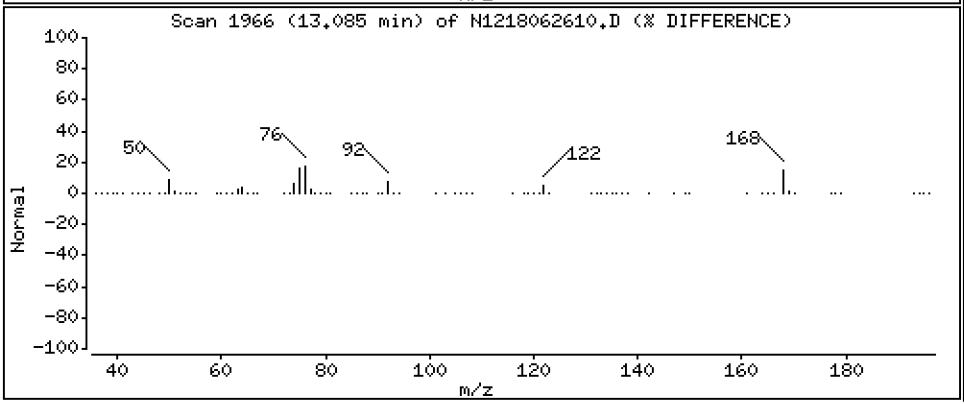












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

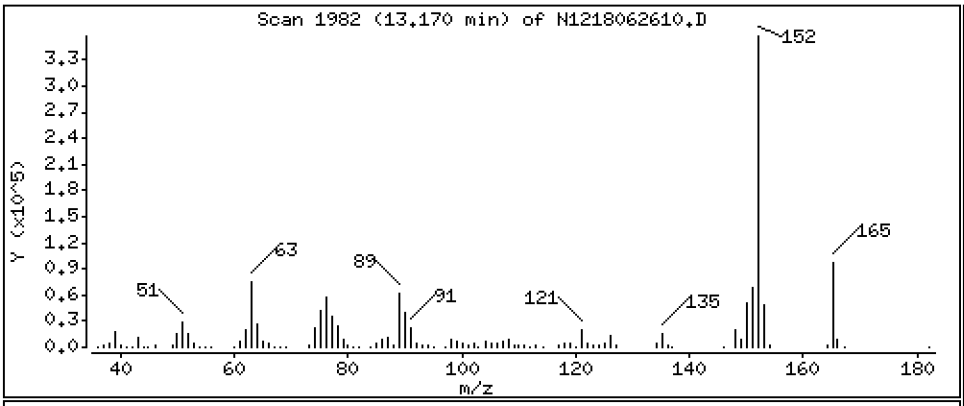
Operator: JZ

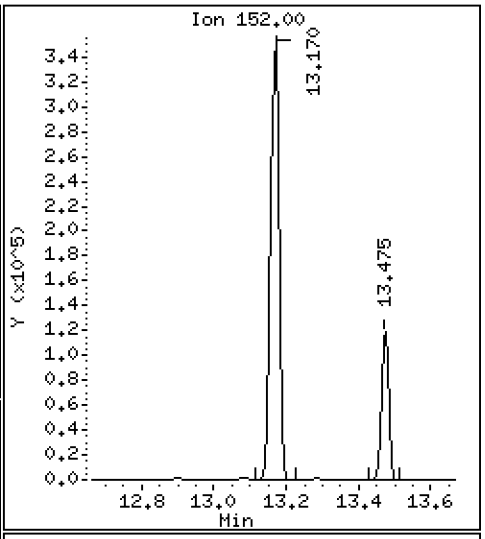
Column phase: ZB-5msi

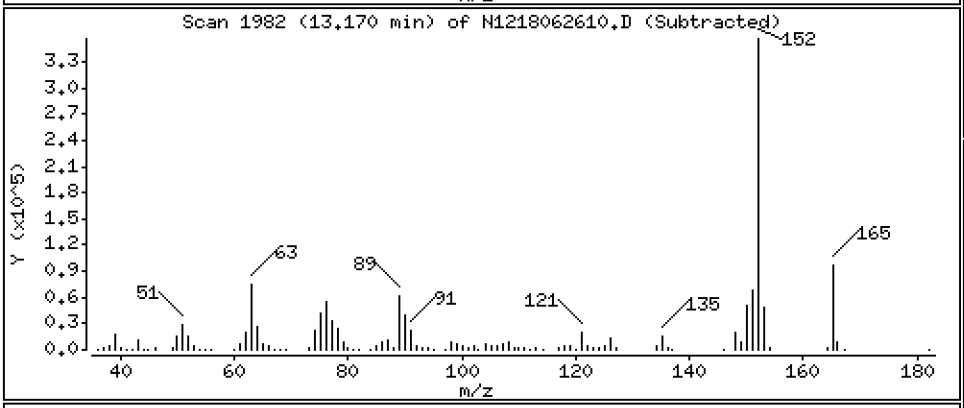
Column diameter: 0.32

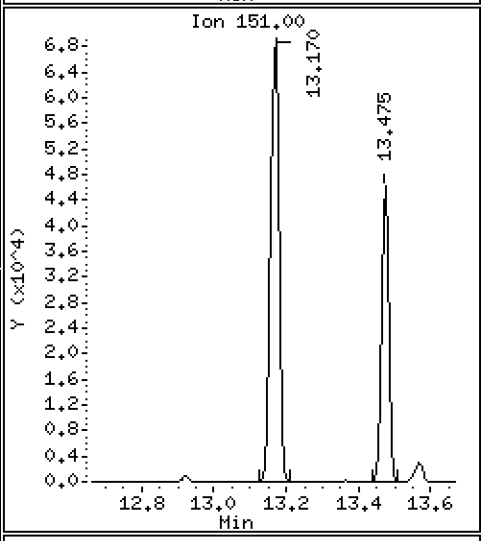
40 Acenaphthylene

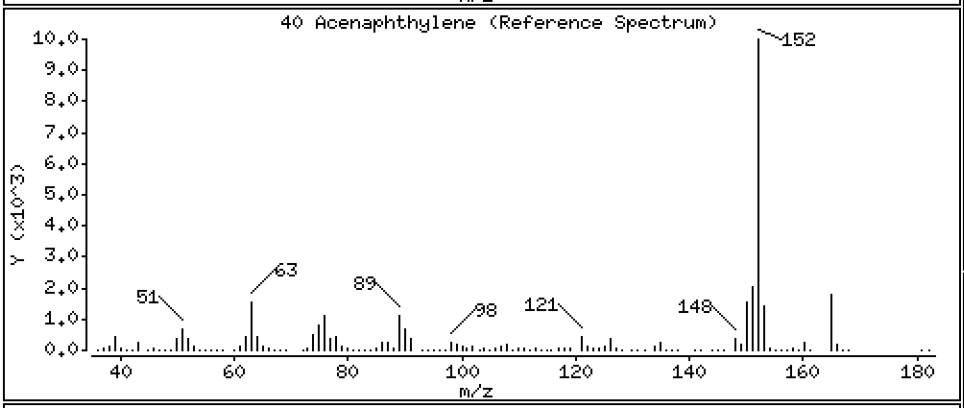
Concentration: 19.88 ug/mL

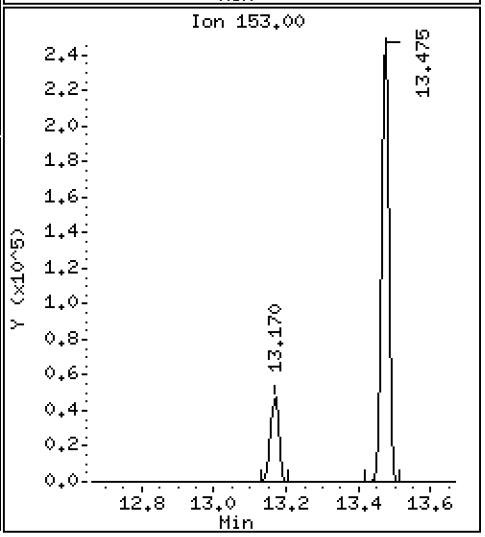


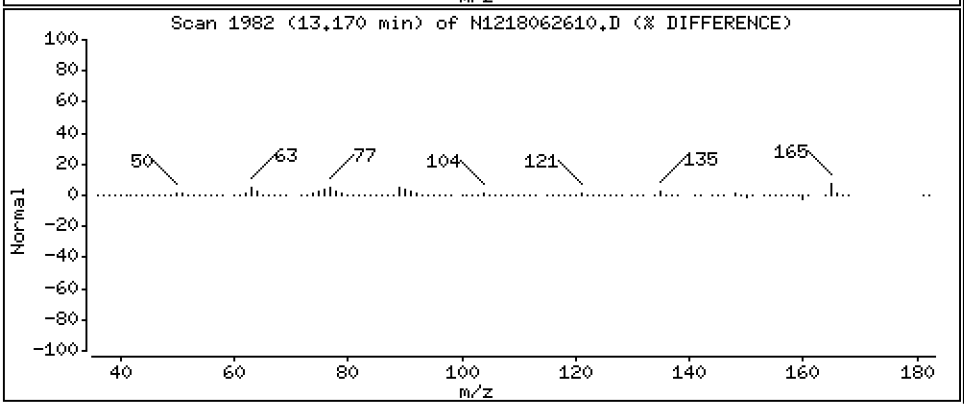












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

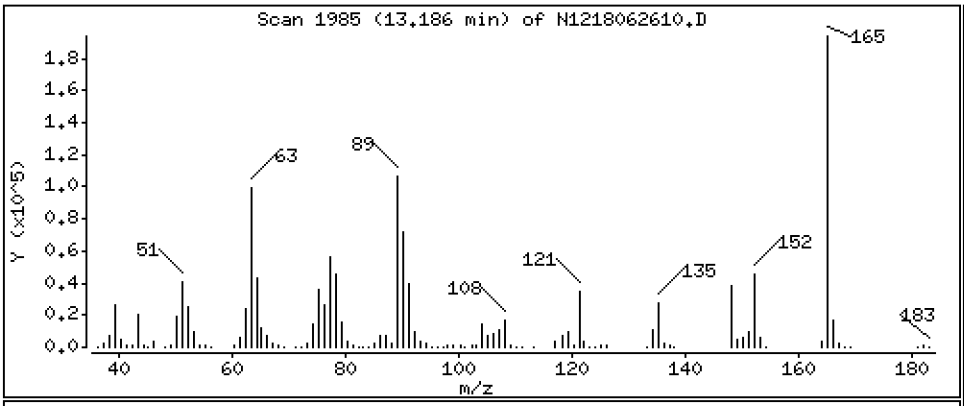
Operator: JZ

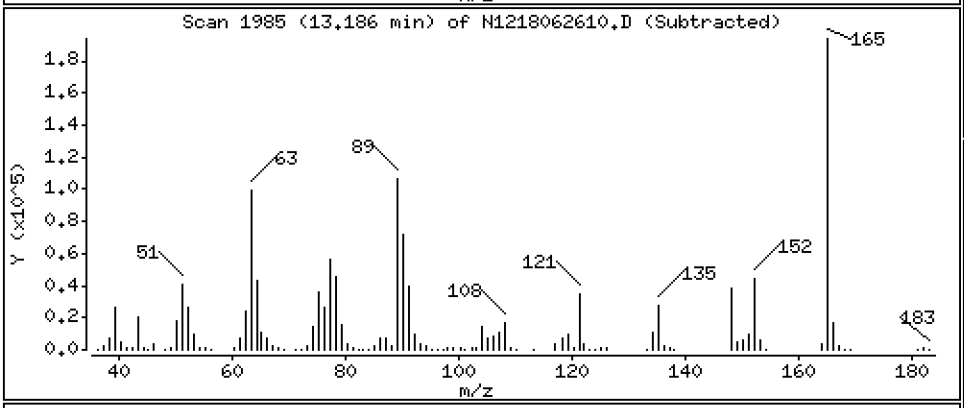
Column phase: ZB-5msi

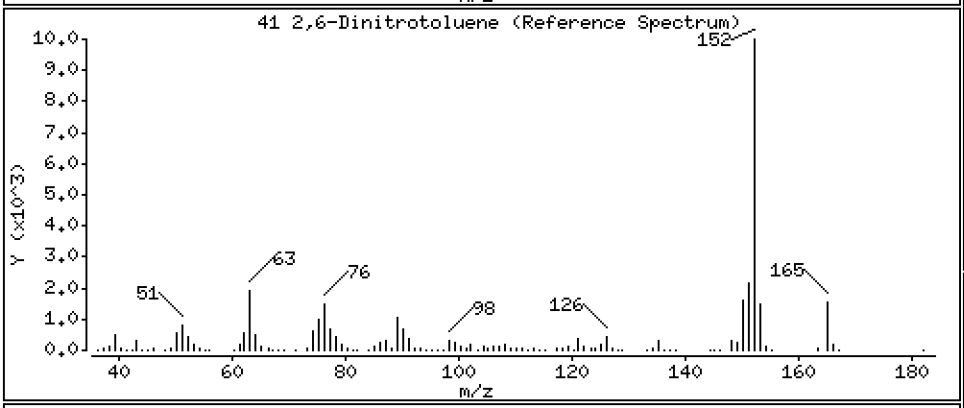
Column diameter: 0.32

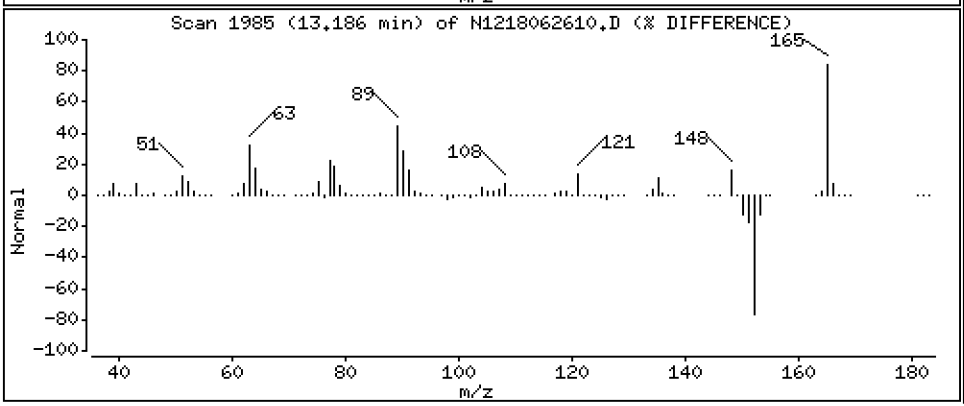
41 2,6-Dinitrotoluene

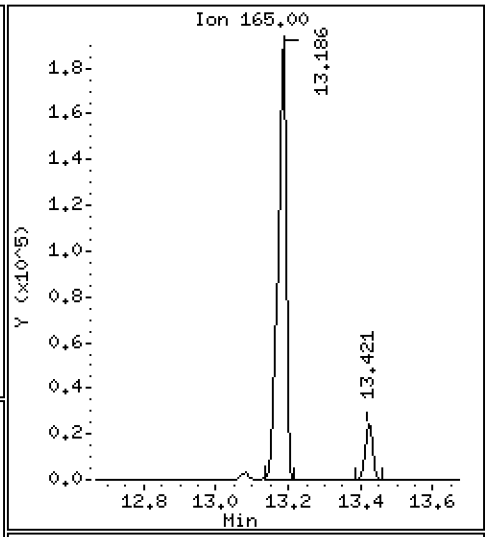
Concentration: 66.84 ug/mL

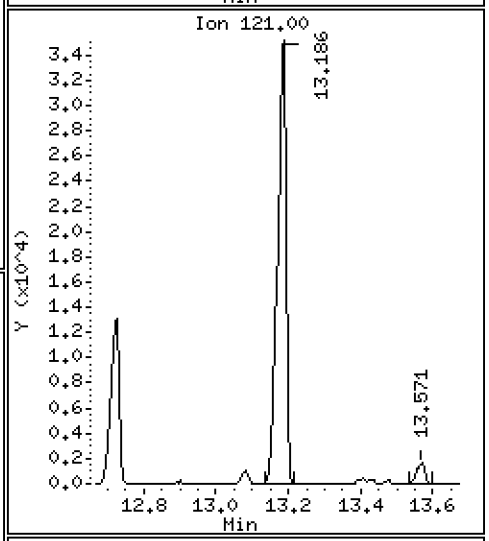


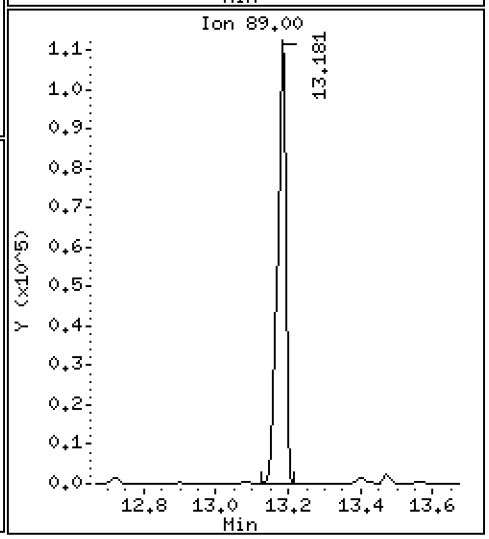












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

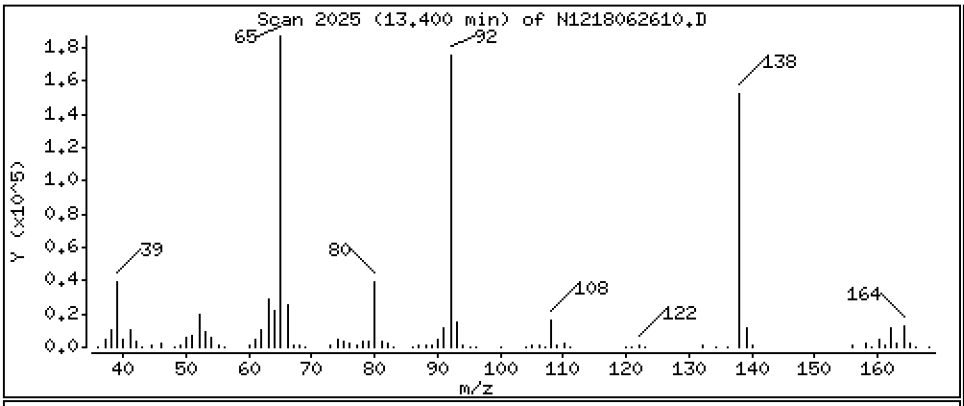
Operator: JZ

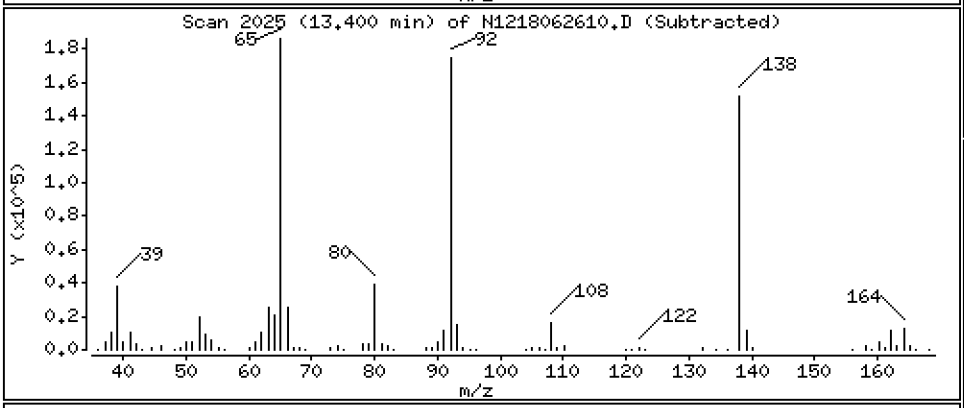
Column phase: ZB-5msi

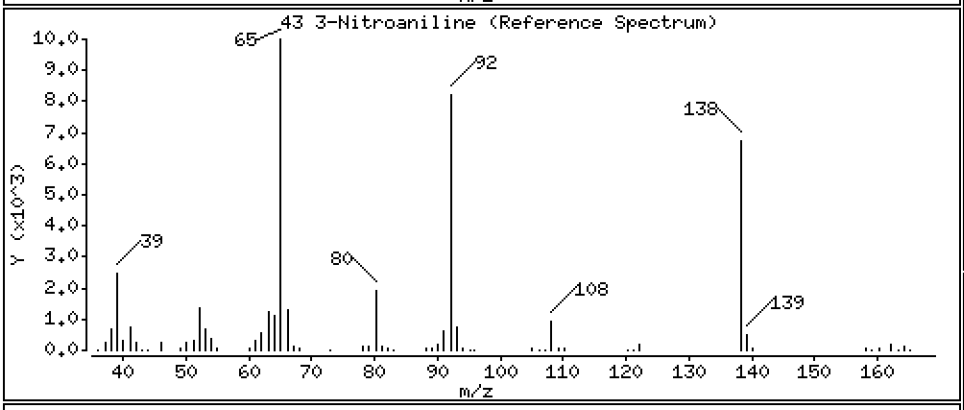
Column diameter: 0.32

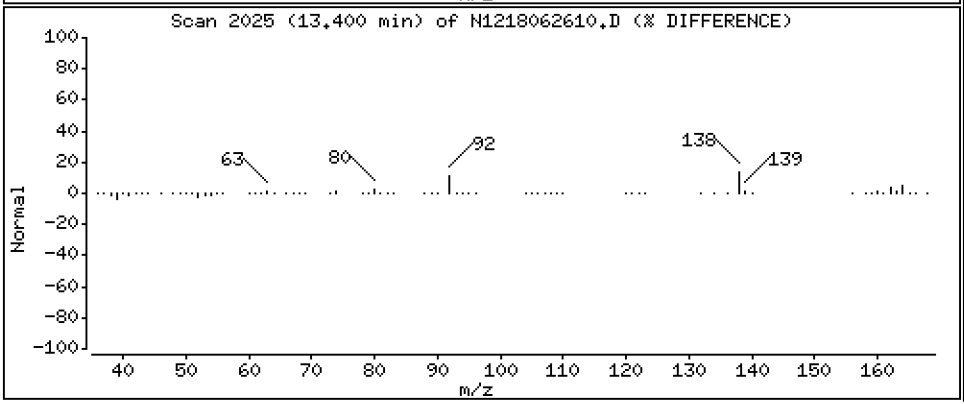
43 3-Nitroaniline

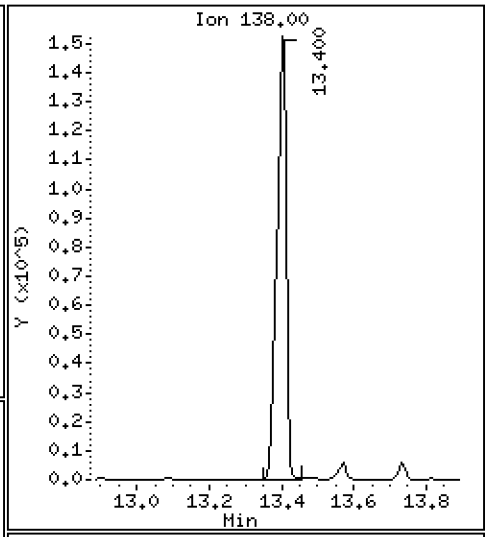
Concentration: 49.34 ug/mL

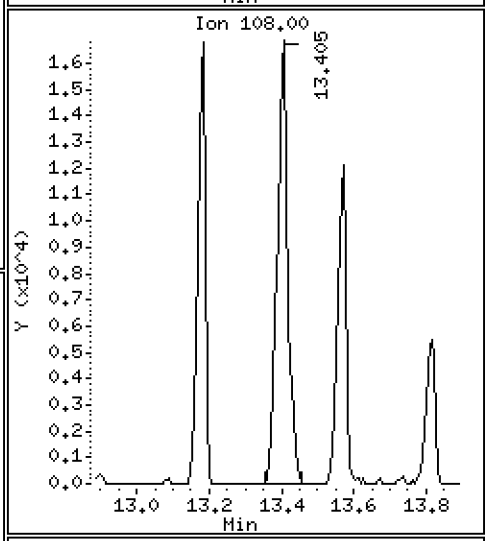


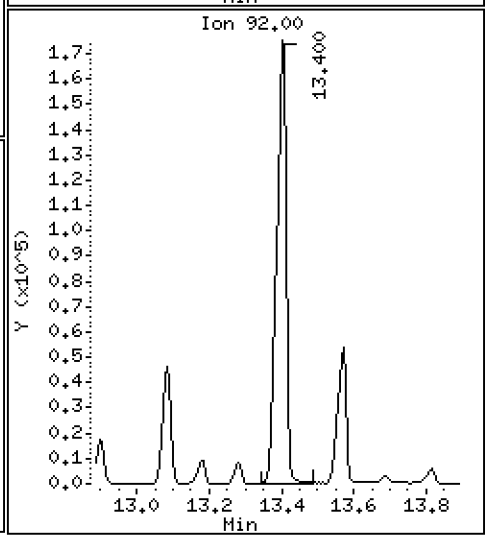












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

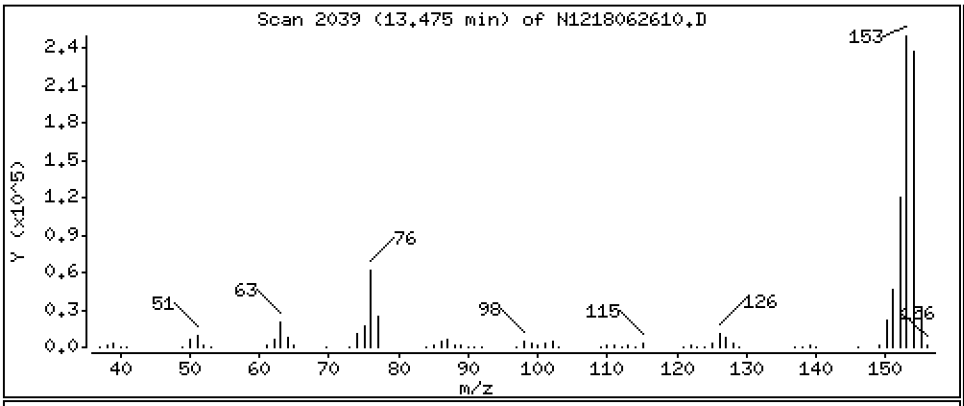
Operator: JZ

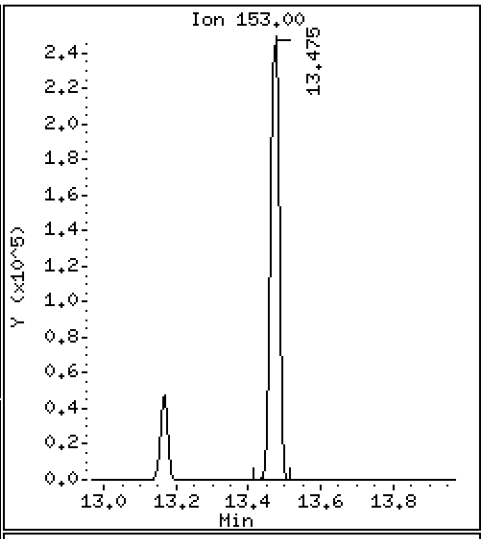
Column phase: ZB-5msi

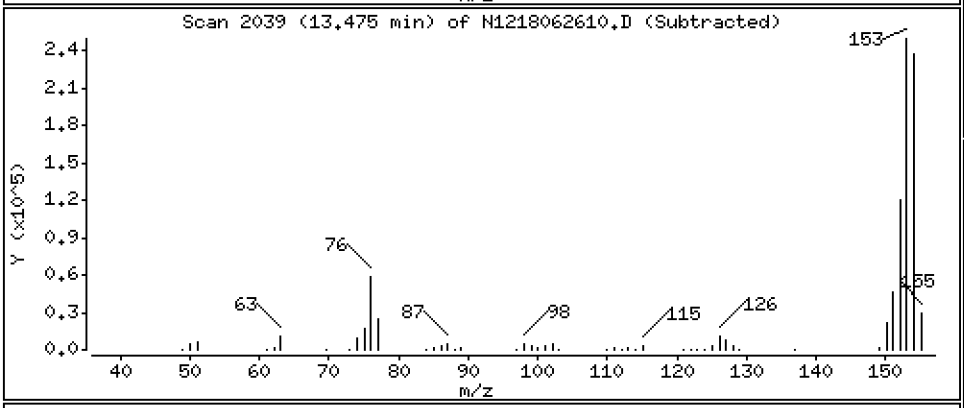
Column diameter: 0.32

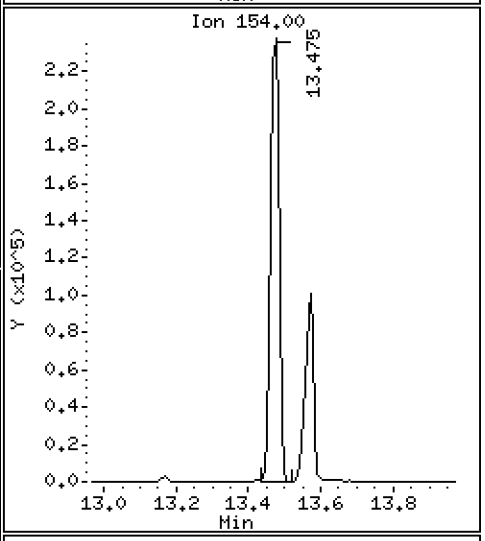
44 Acenaphthene

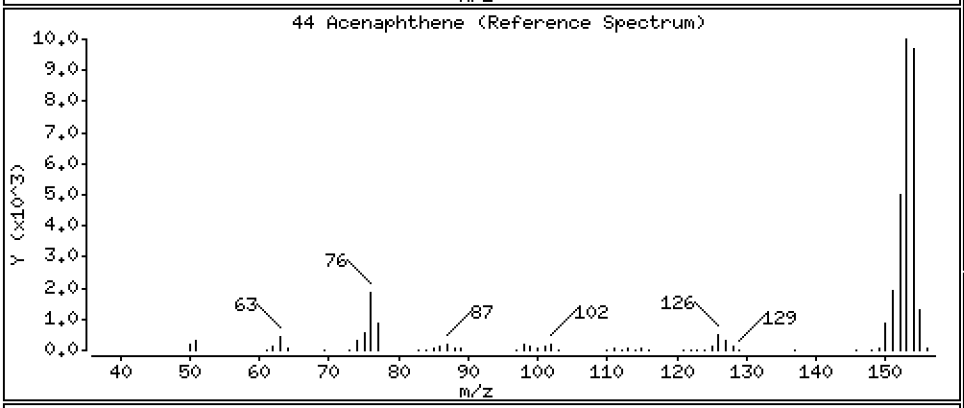
Concentration: 20.83 ug/mL

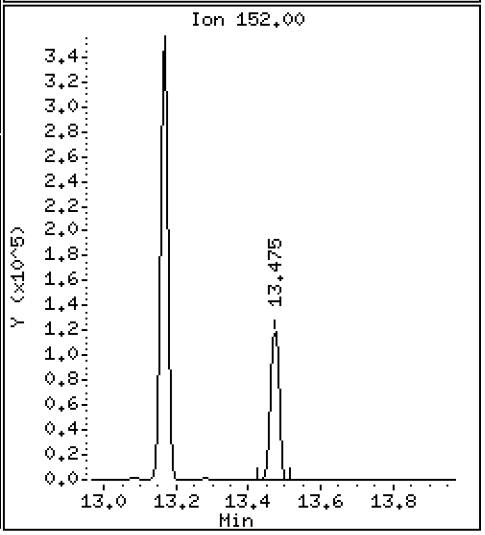


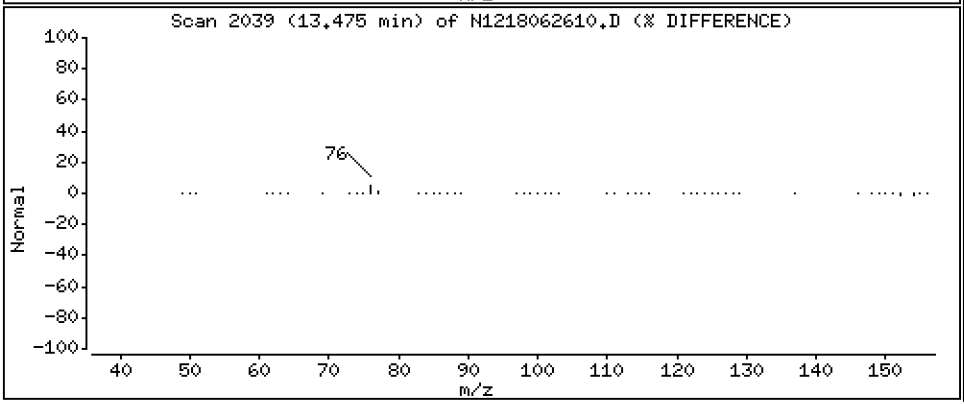












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

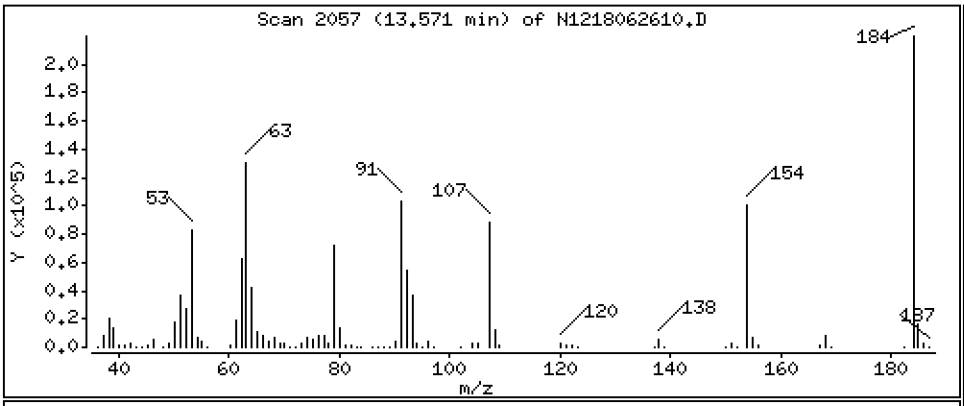
Operator: JZ

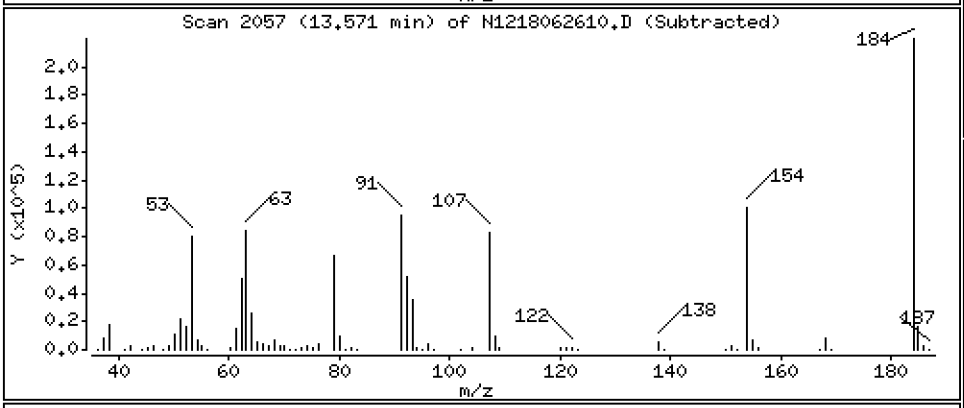
Column phase: ZB-5msi

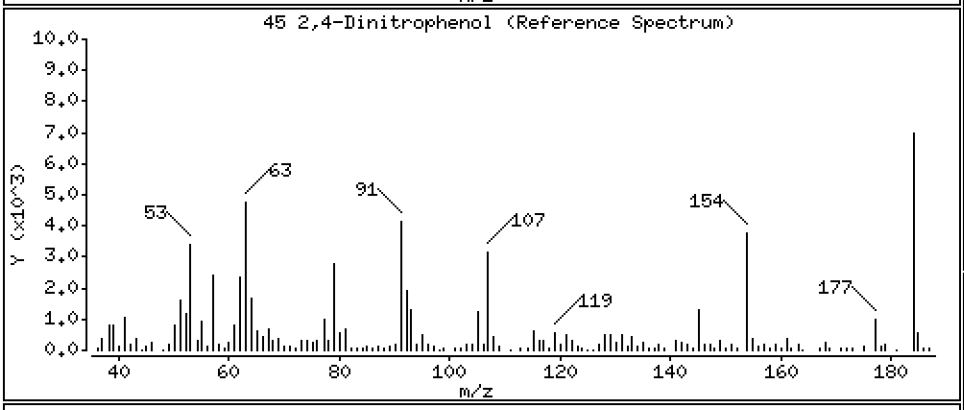
Column diameter: 0.32

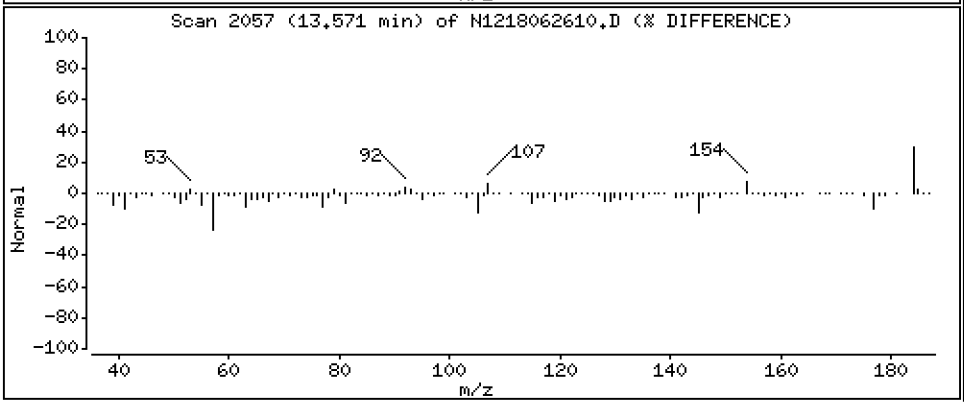
45 2,4-Dinitrophenol

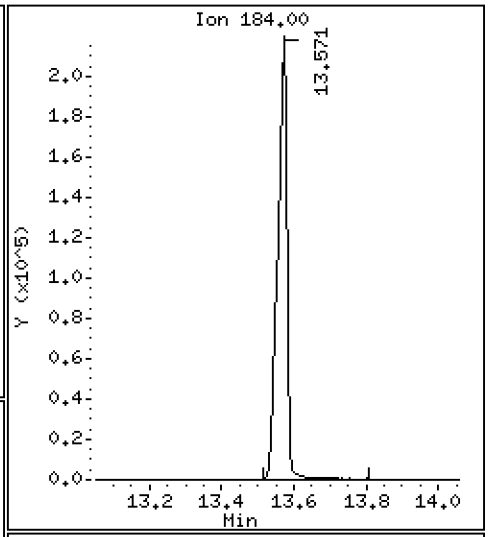
Concentration: 140.4 ug/mL

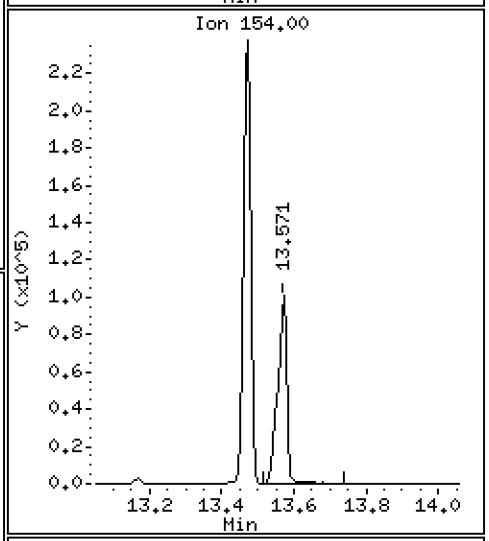


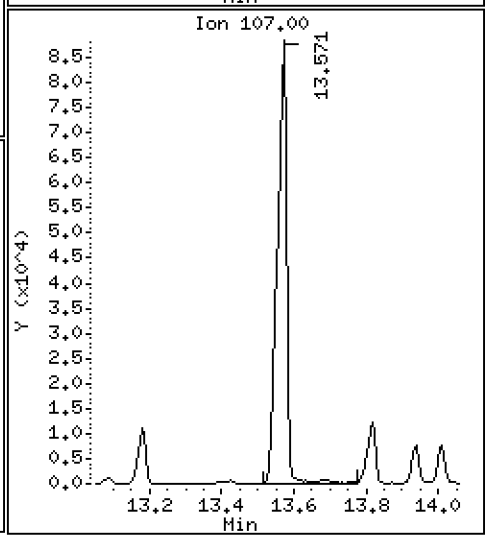












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

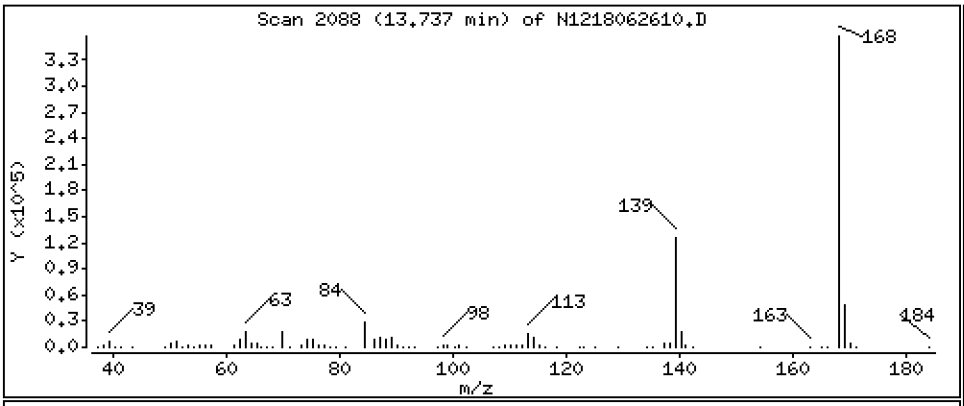
Operator: JZ

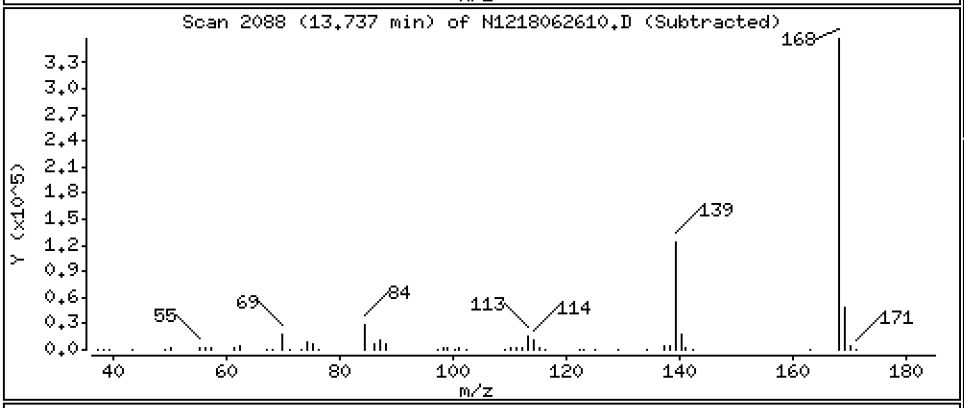
Column phase: ZB-5msi

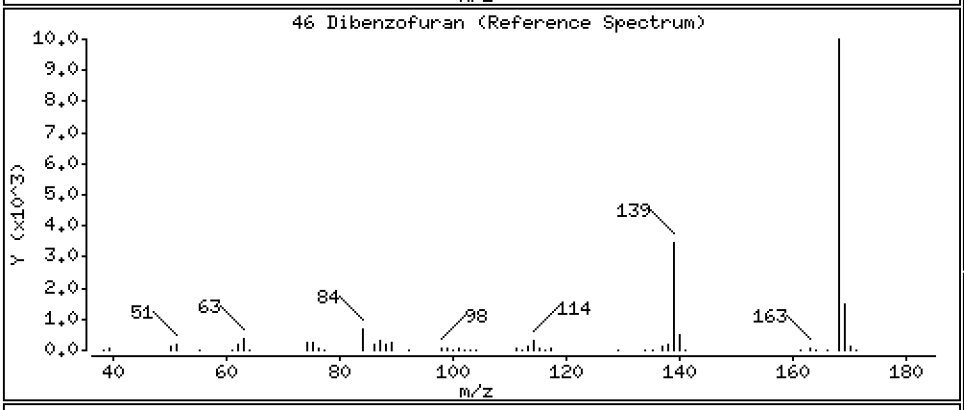
Column diameter: 0.32

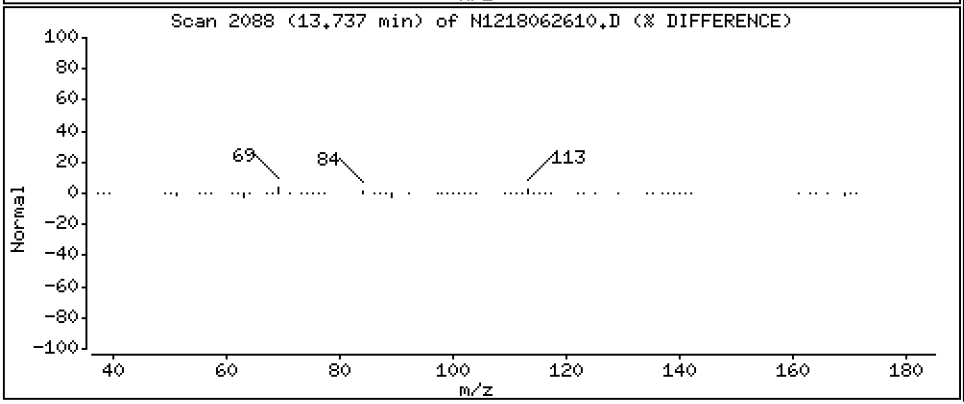
46 Dibenzofuran

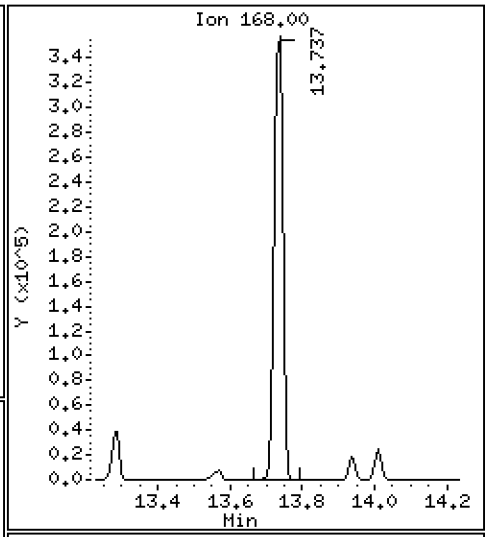
Concentration: 19.90 ug/mL

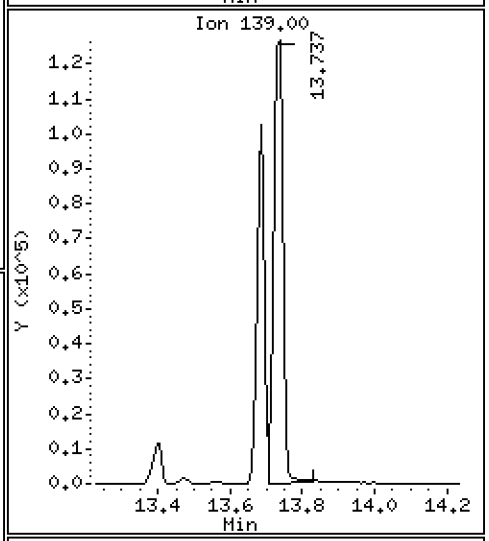


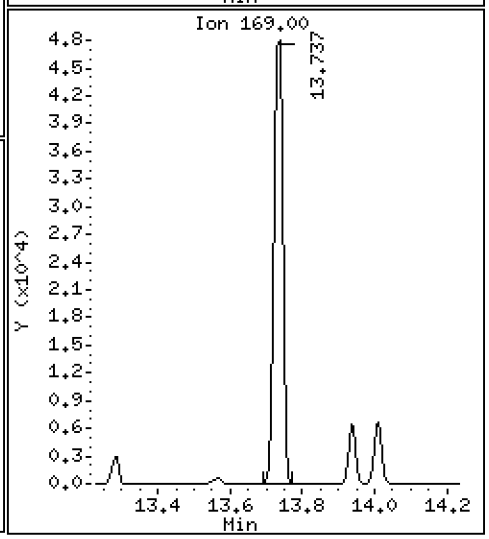












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

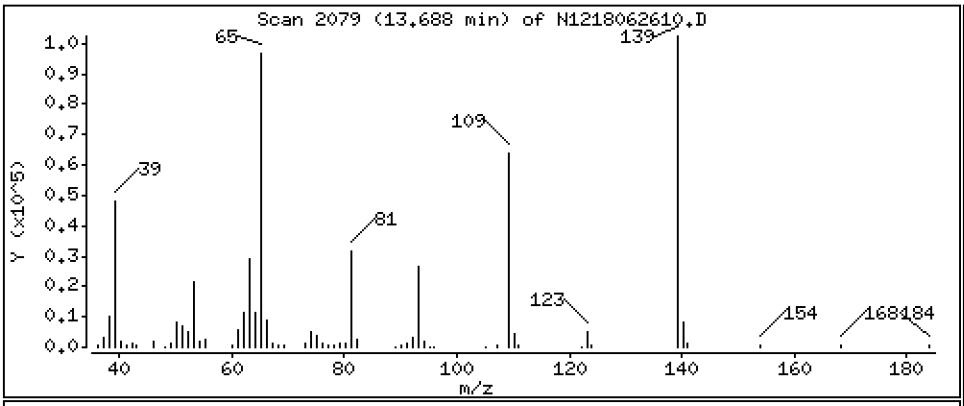
Operator: JZ

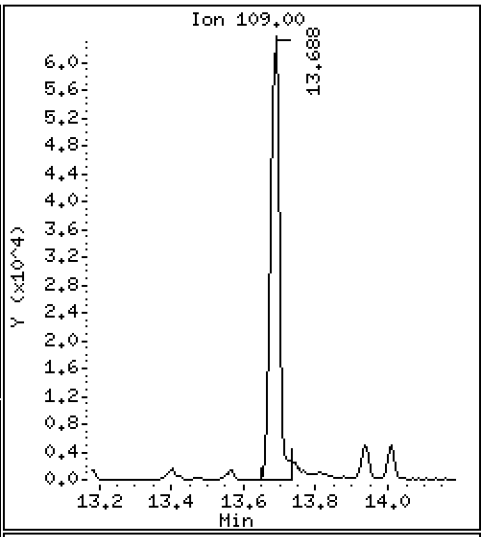
Column phase: ZB-5msi

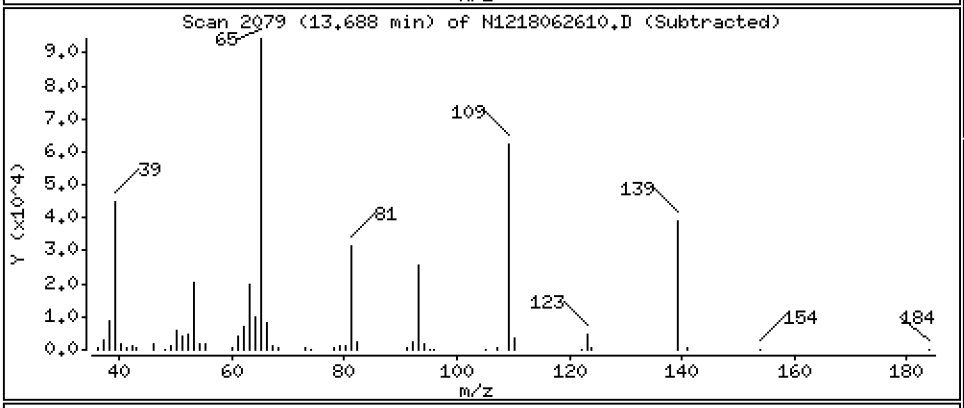
Column diameter: 0.32

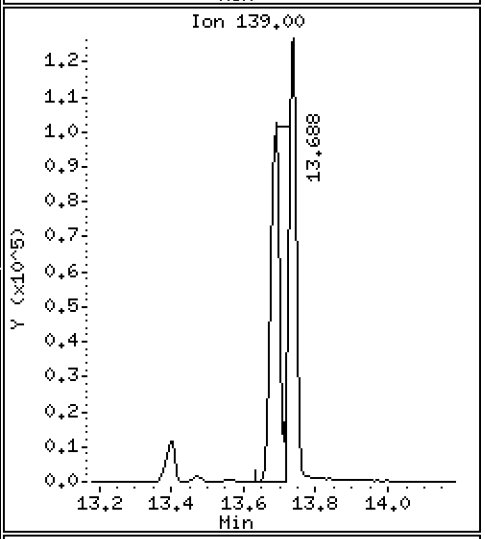
47 4-Nitrophenol

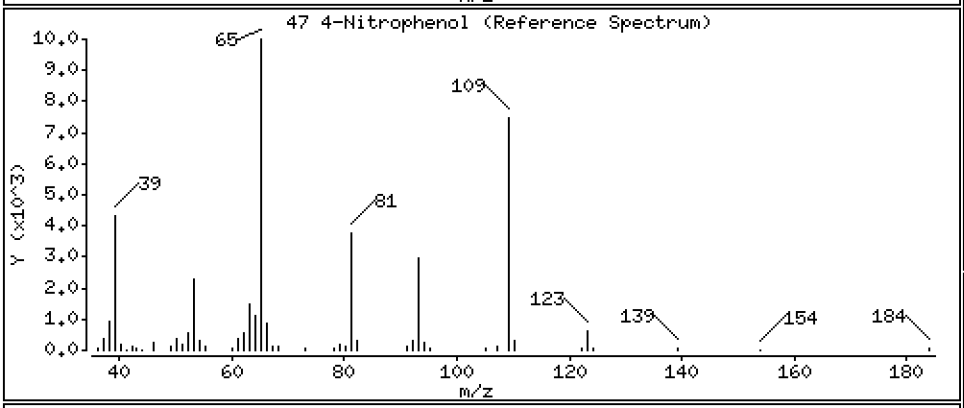
Concentration: 34.49 ug/mL

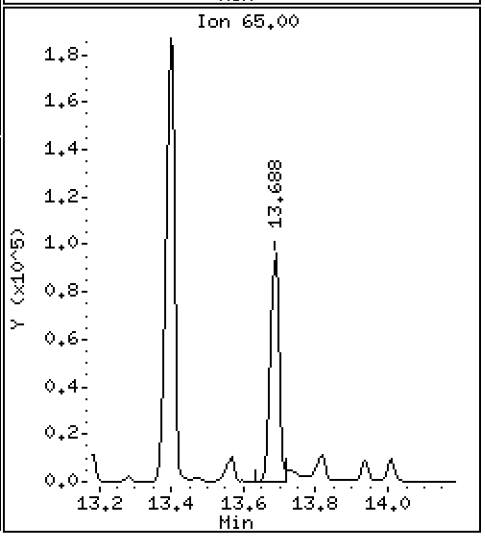


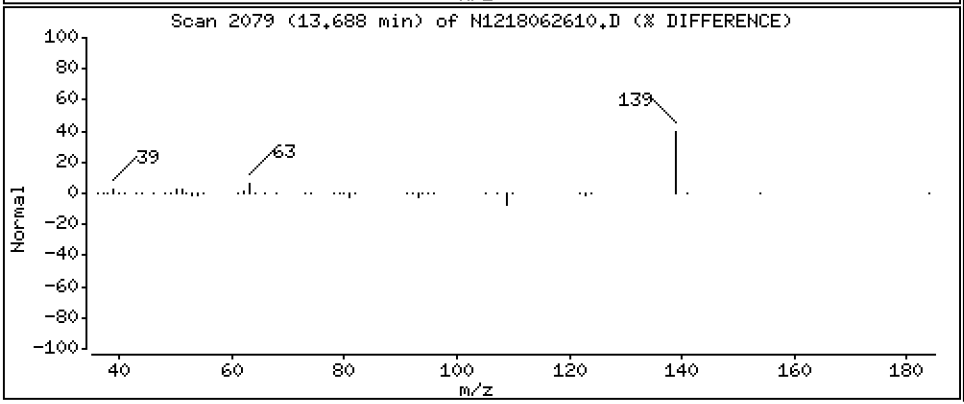












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

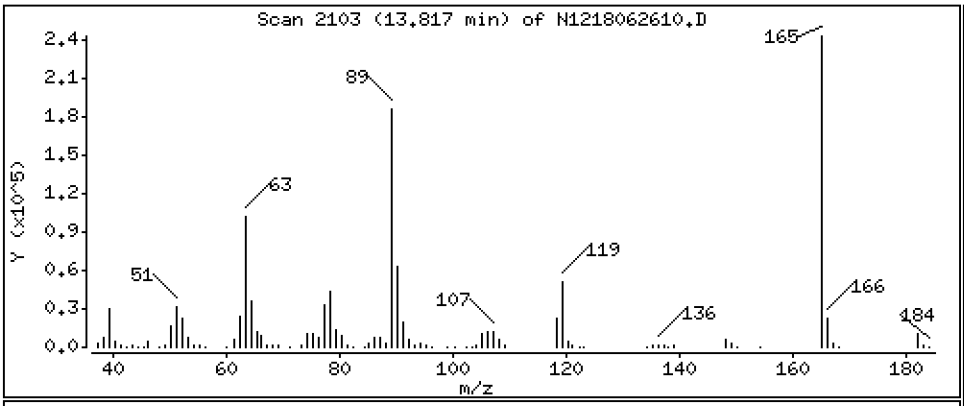
Operator: JZ

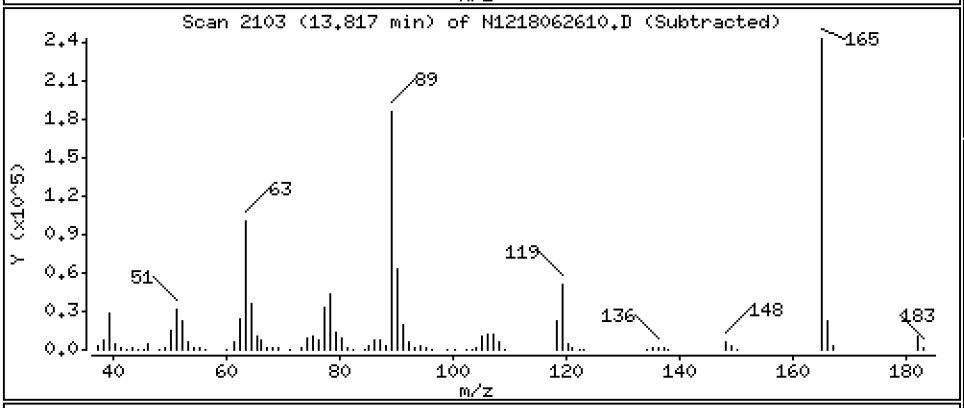
Column phase: ZB-5msi

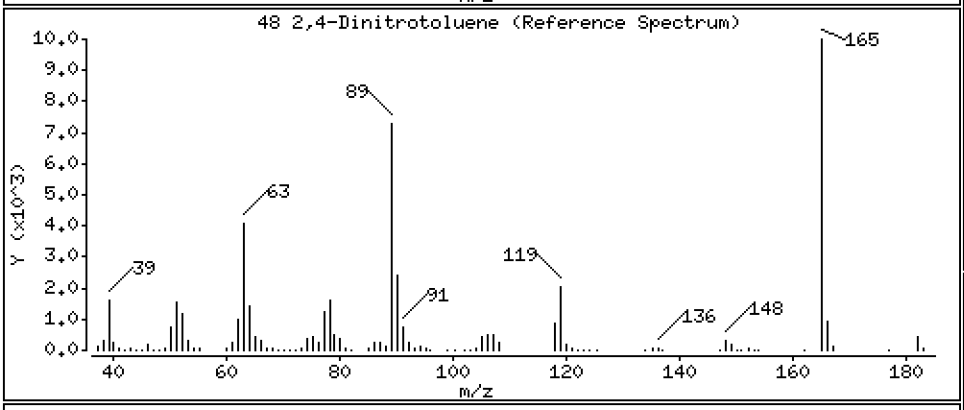
Column diameter: 0.32

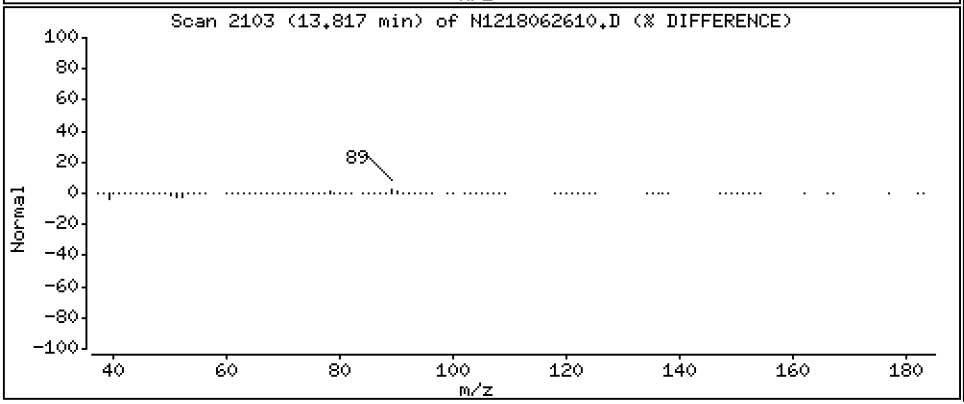
48 2,4-Dinitrotoluene

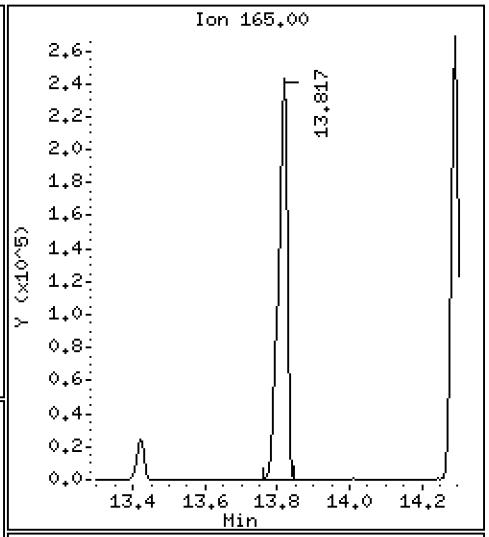
Concentration: 65.51 ug/mL

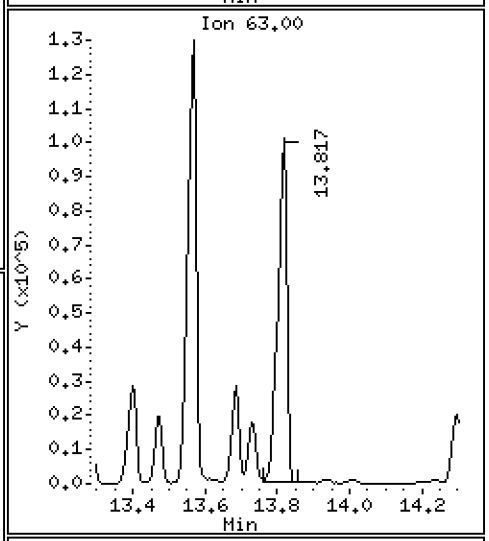


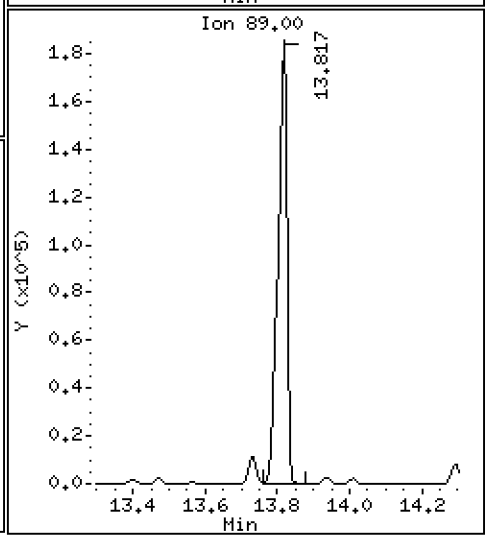












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

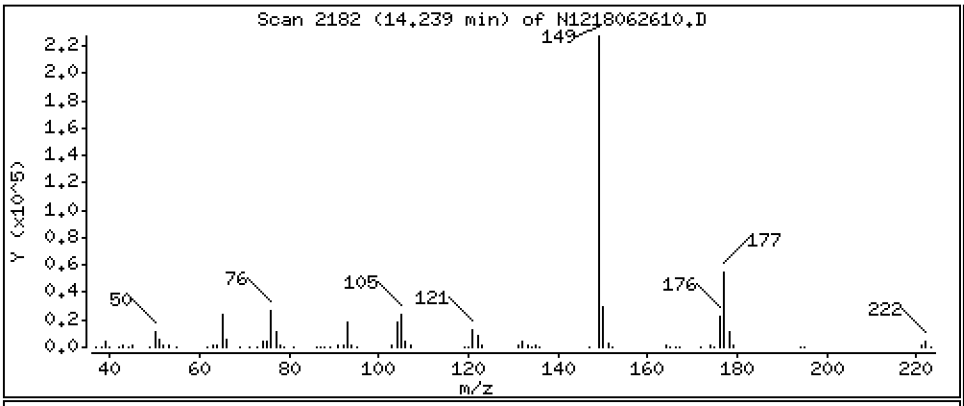
Operator: JZ

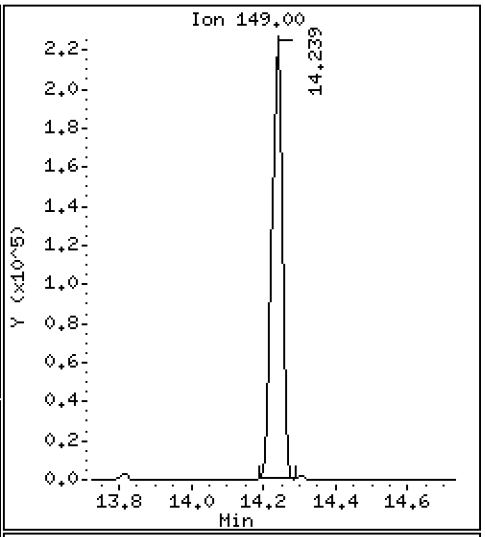
Column phase: ZB-5msi

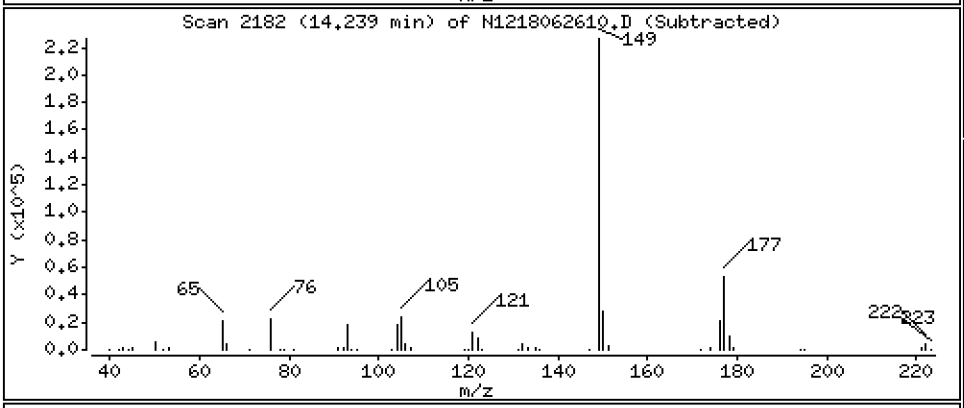
Column diameter: 0.32

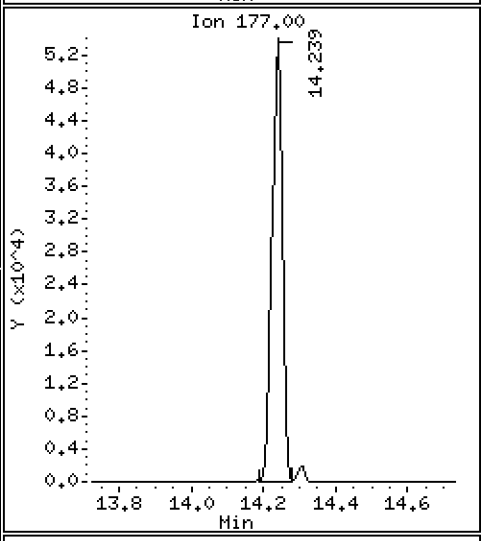
50 Diethylphthalate

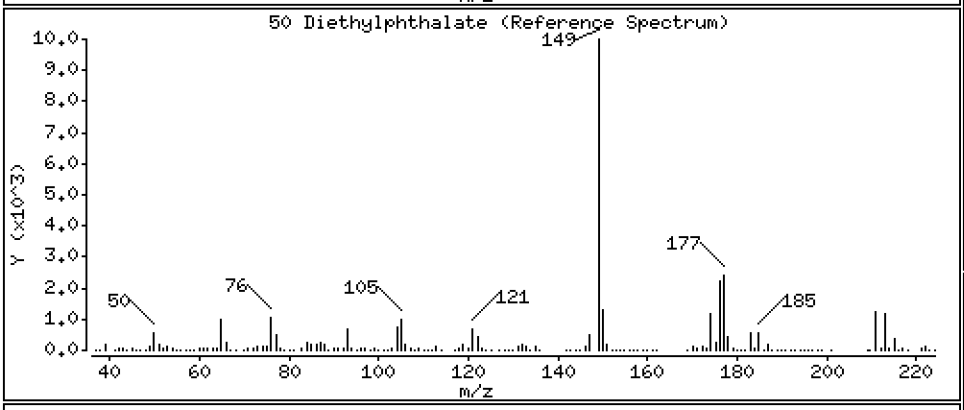
Concentration: 22.57 ug/mL

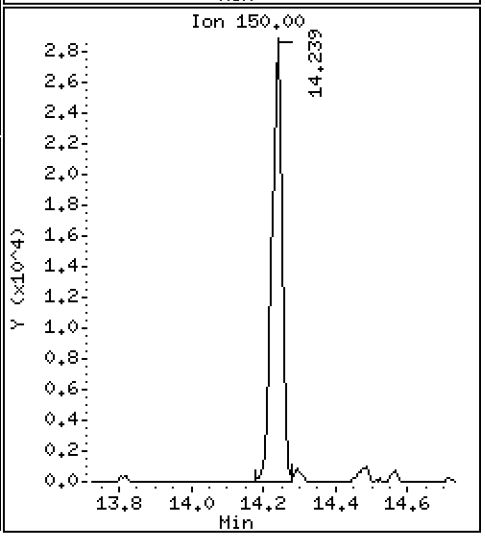


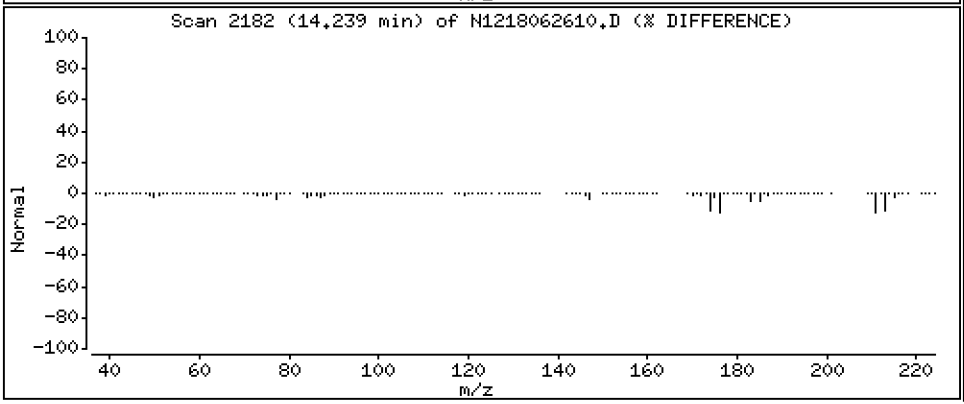












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

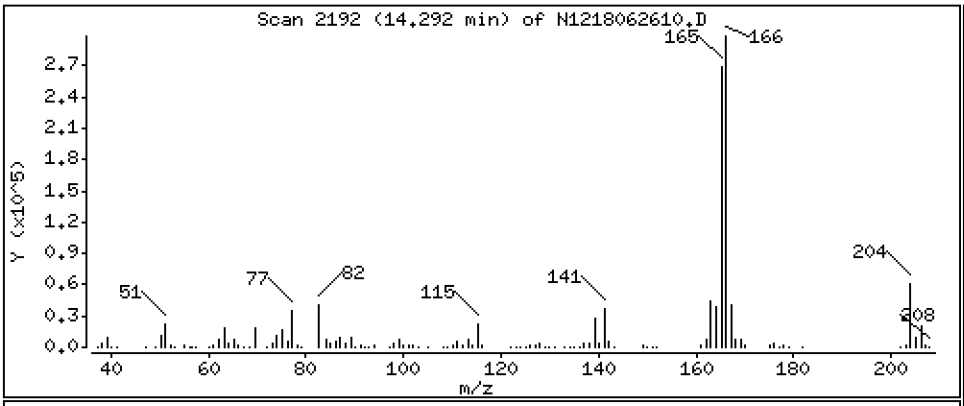
Operator: JZ

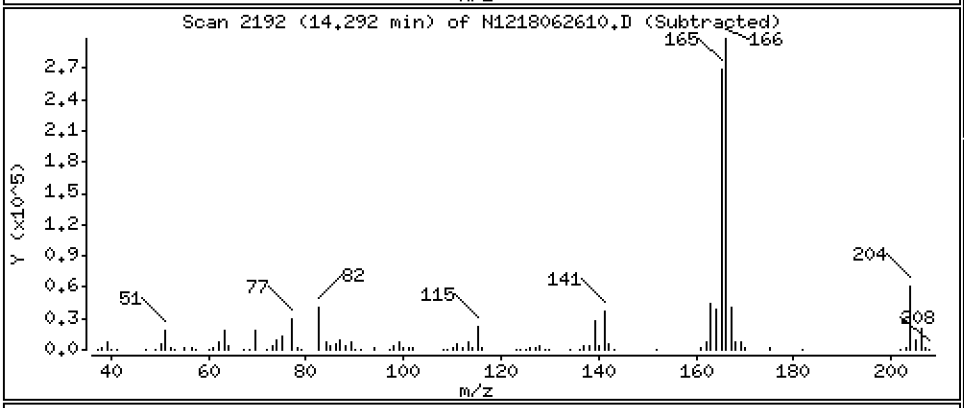
Column phase: ZB-5msi

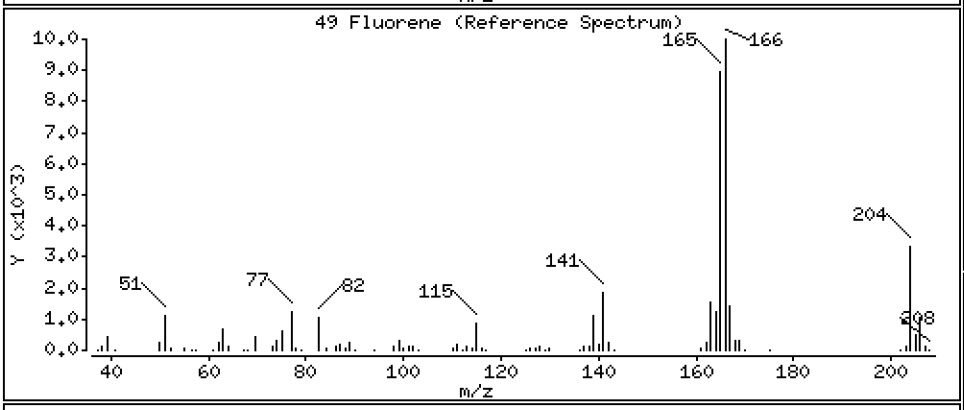
Column diameter: 0.32

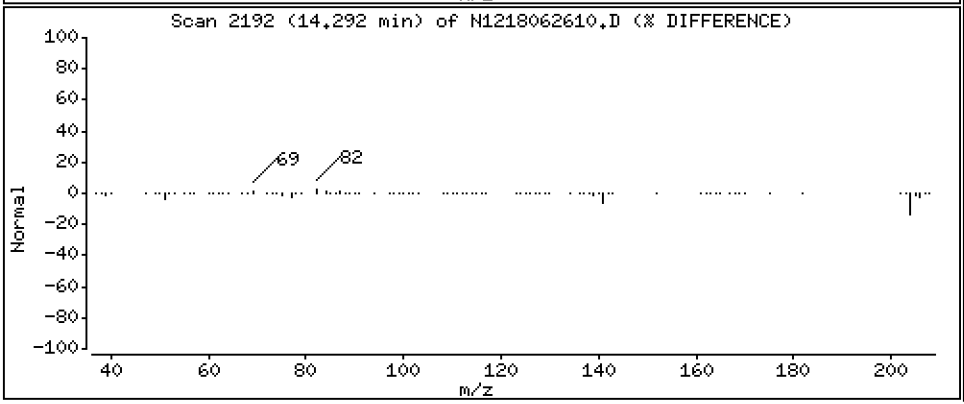
49 Fluorene

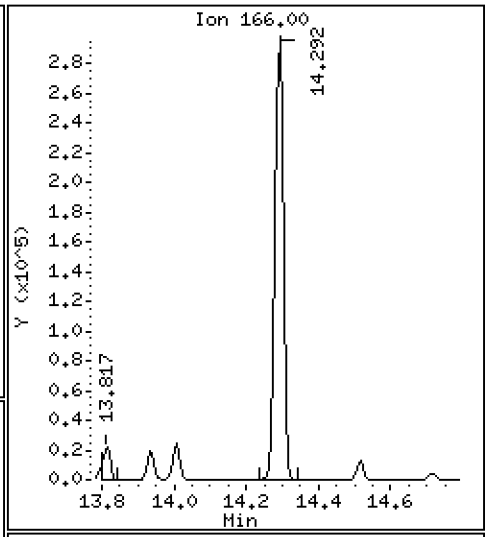
Concentration: 21.73 ug/mL

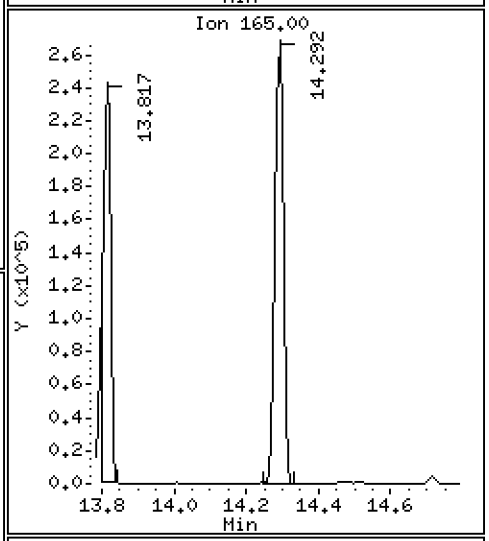


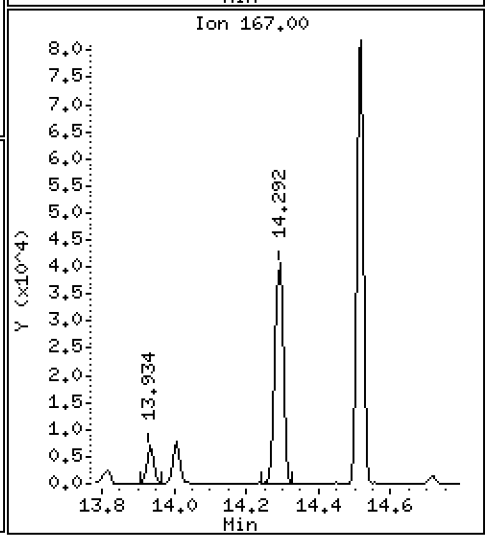












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

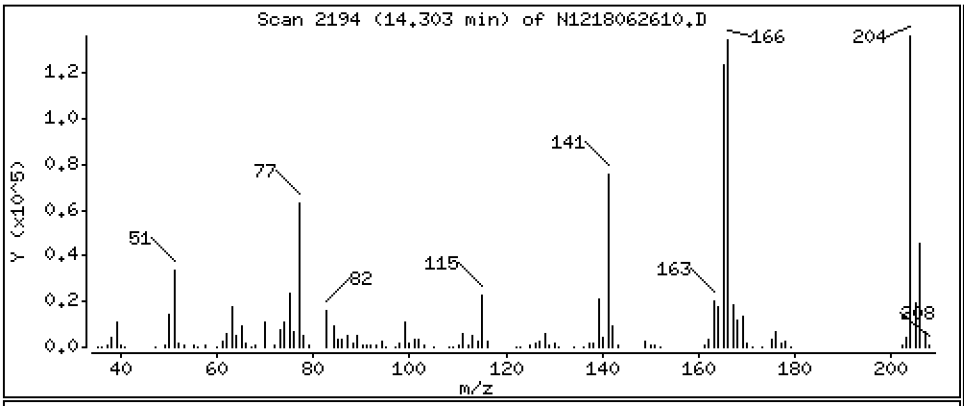
Operator: JZ

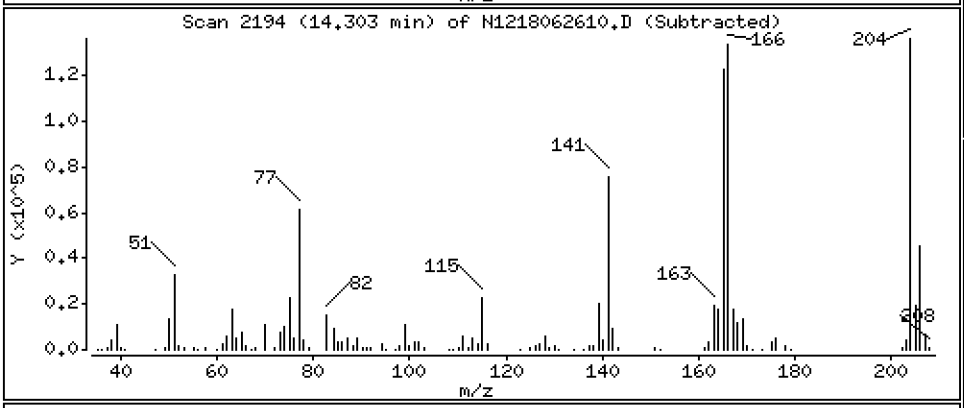
Column phase: ZB-5msi

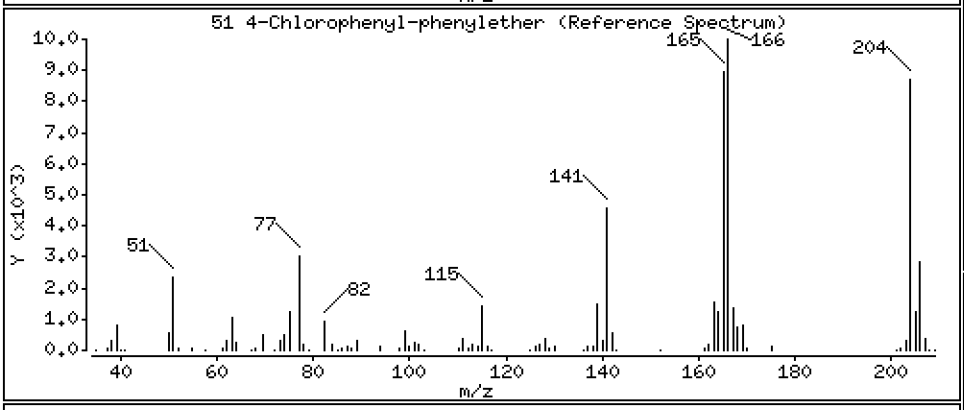
Column diameter: 0.32

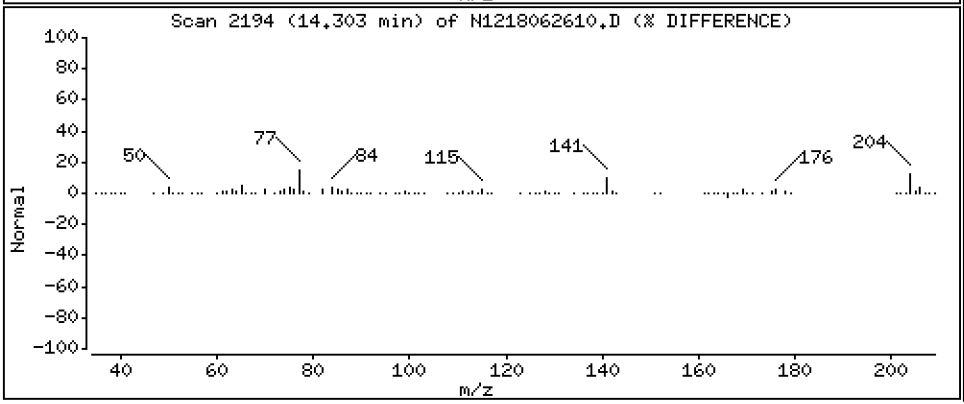
51 4-Chlorophenyl-phenylether

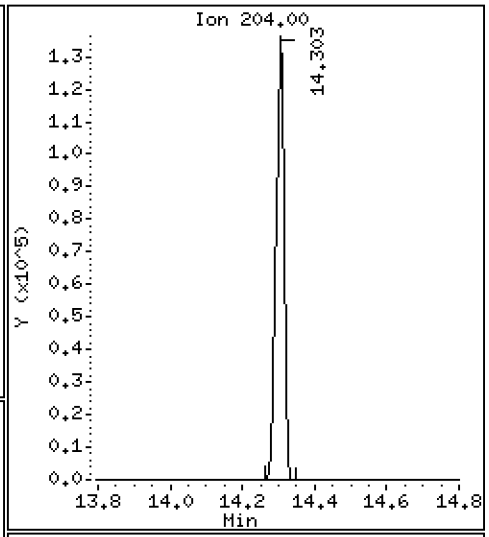
Concentration: 21.29 ug/mL

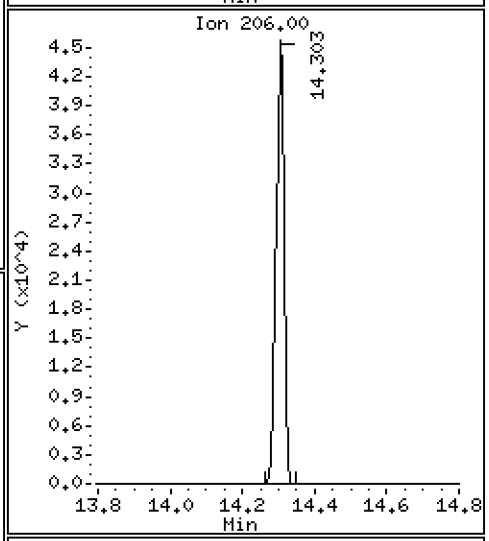


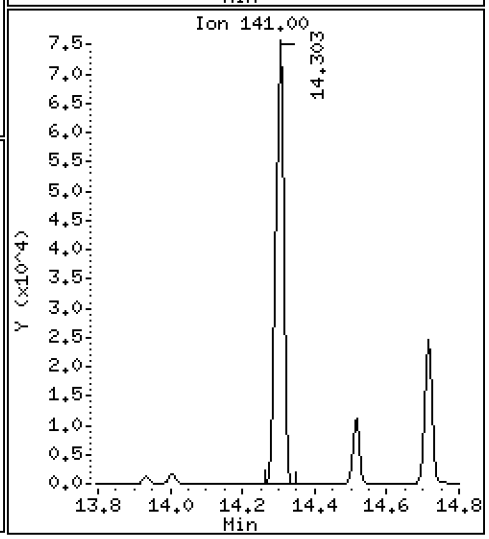












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

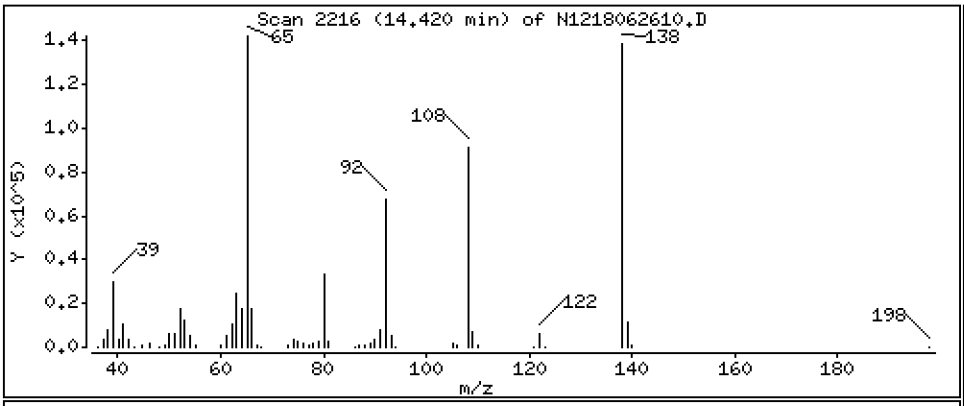
Operator: JZ

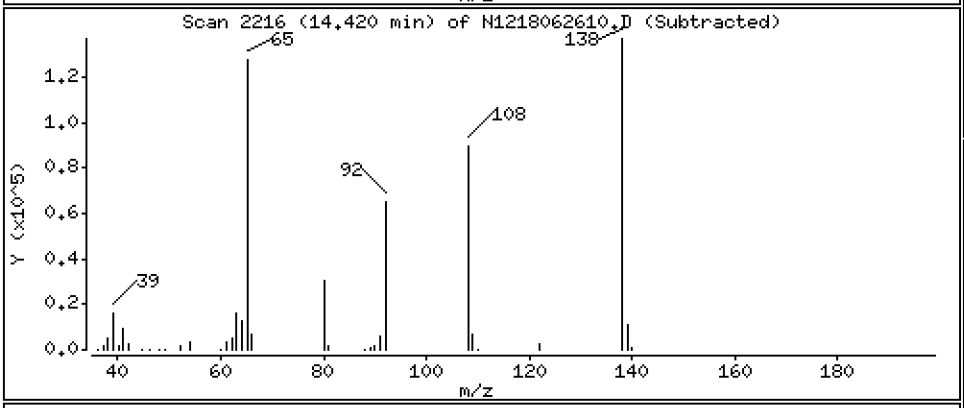
Column phase: ZB-5msi

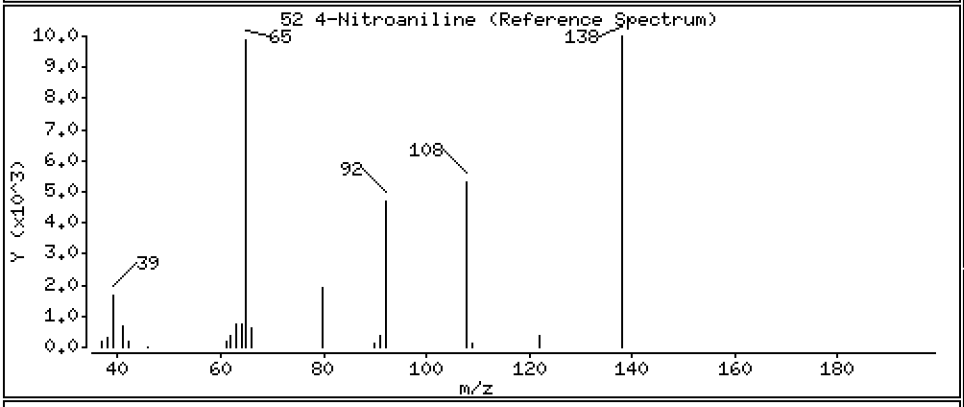
Column diameter: 0.32

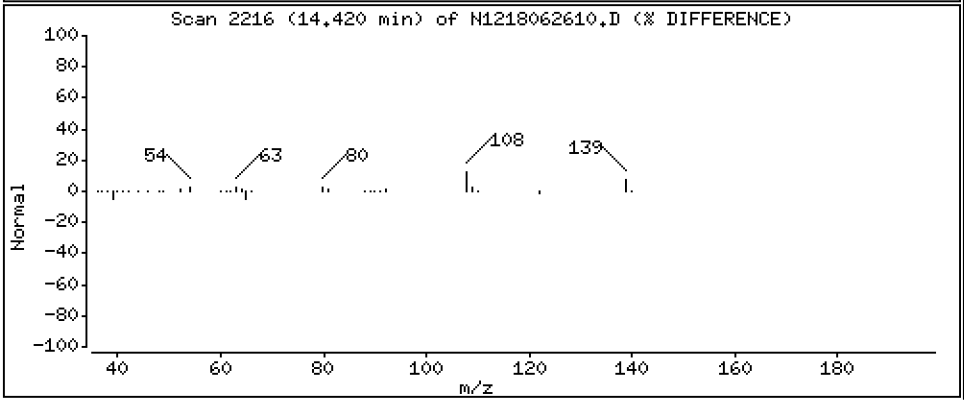
52 4-Nitroaniline

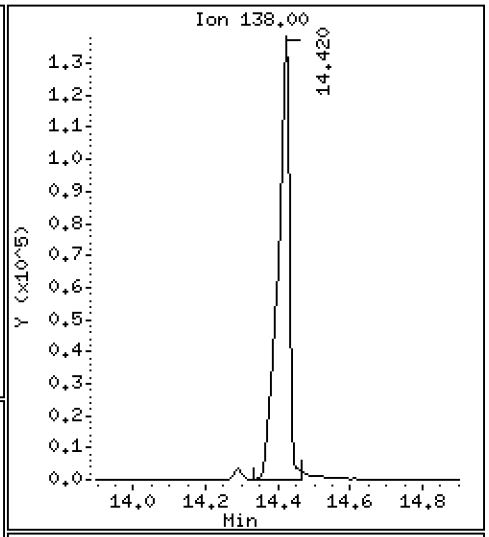
Concentration: 57.40 ug/mL

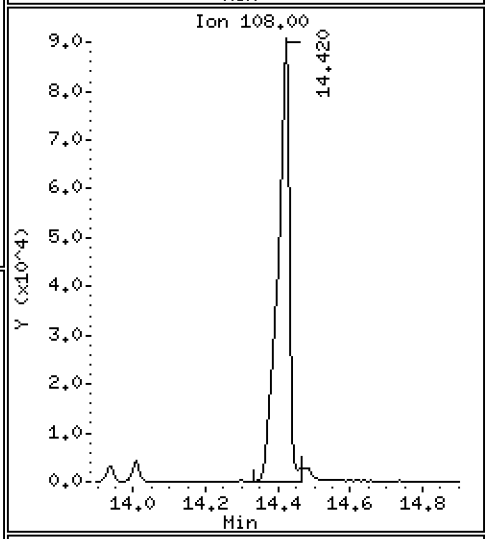


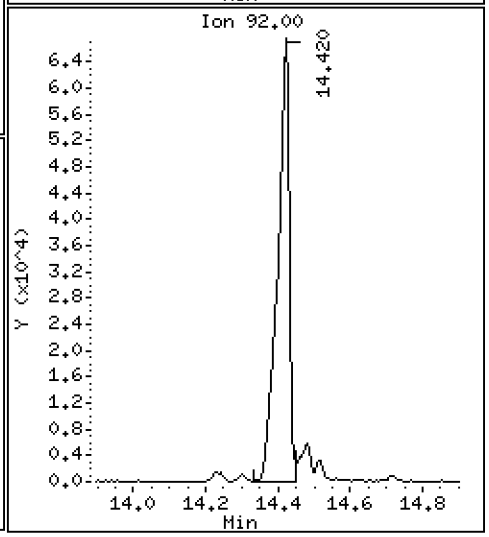












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

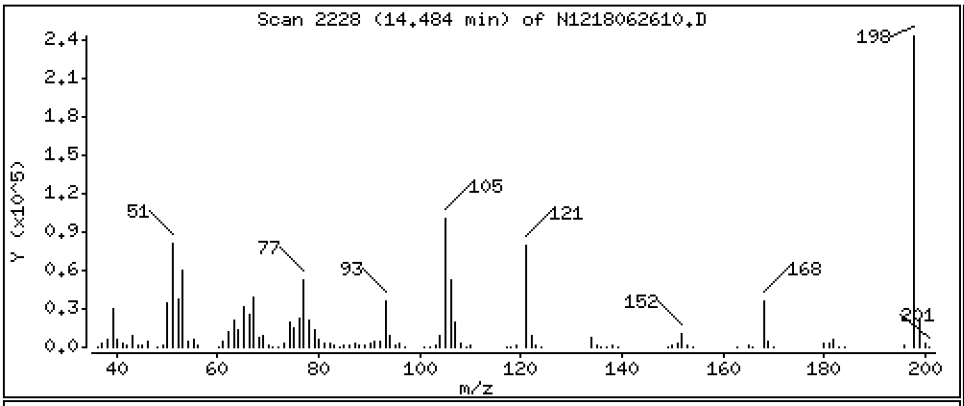
Operator: JZ

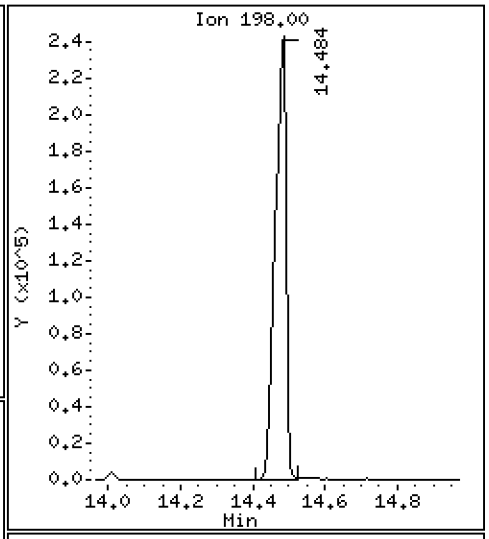
Column phase: ZB-5msi

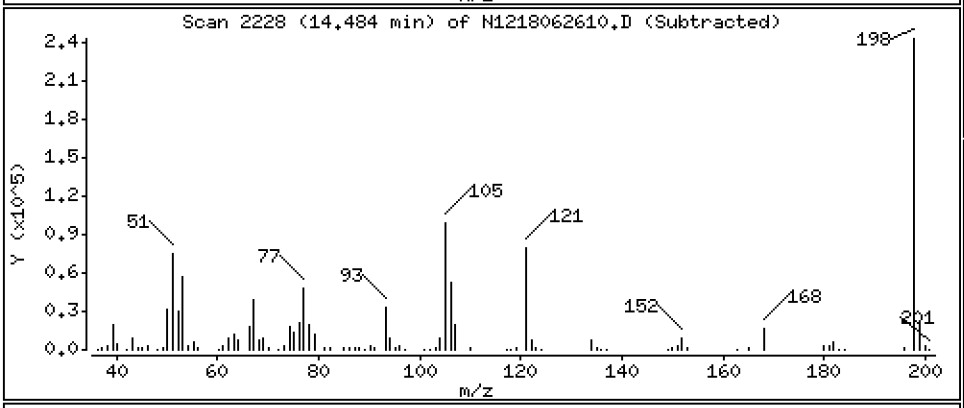
Column diameter: 0.32

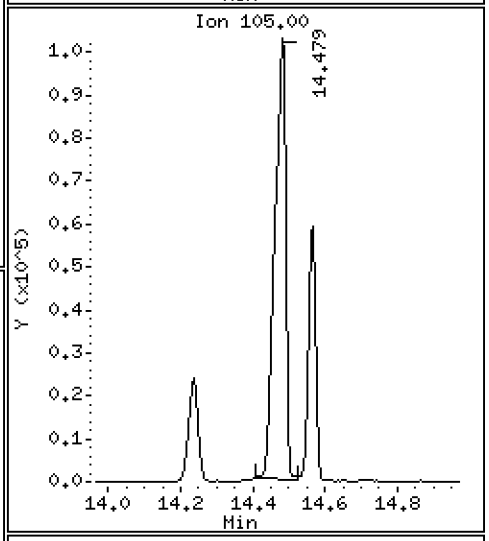
53 4,6-Dinitro-2-methylphenol

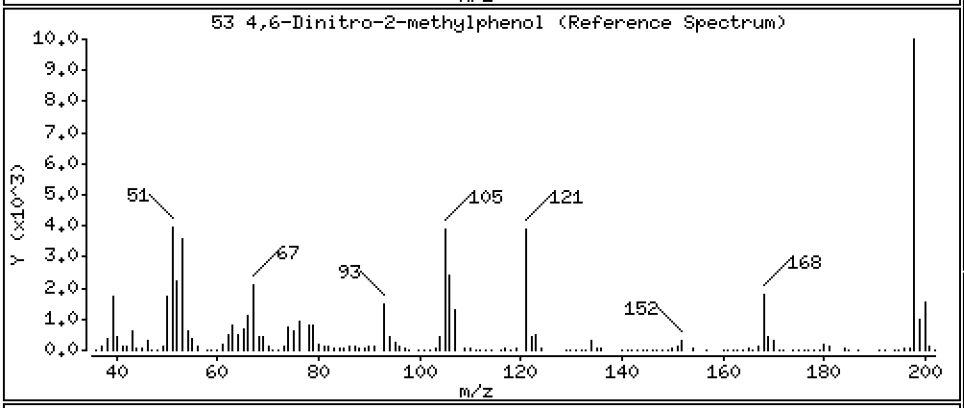
Concentration: 137.2 ug/mL

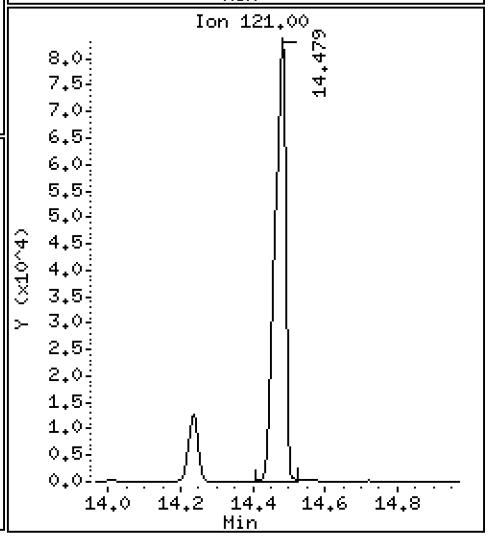


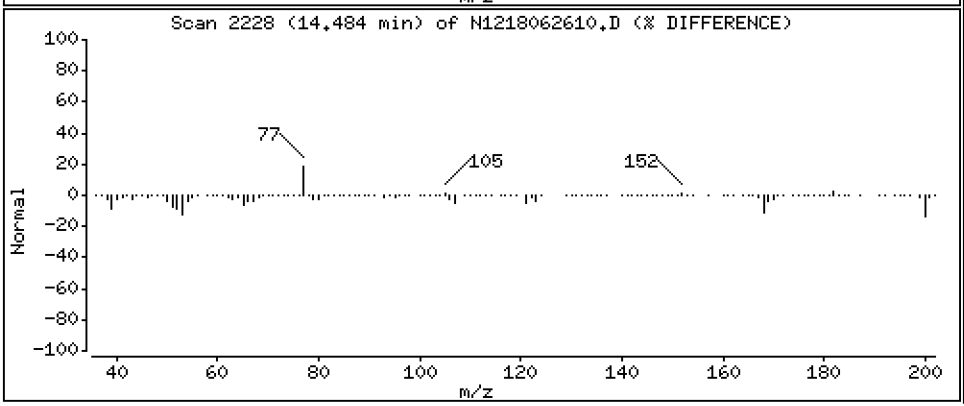












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

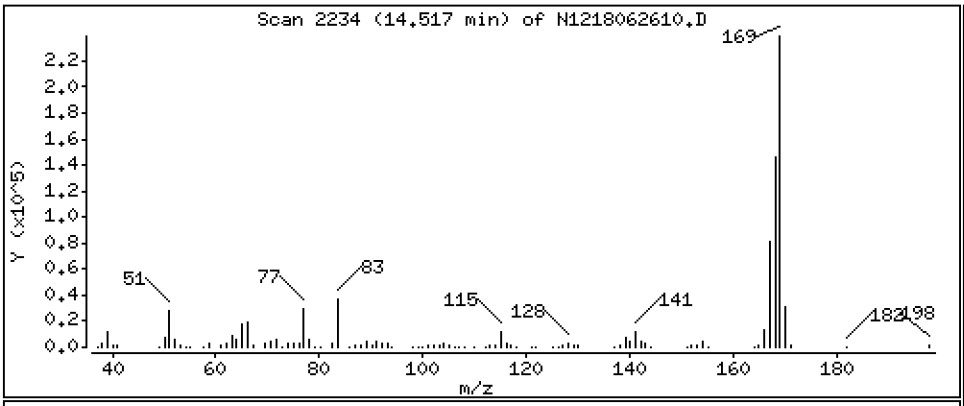
Operator: JZ

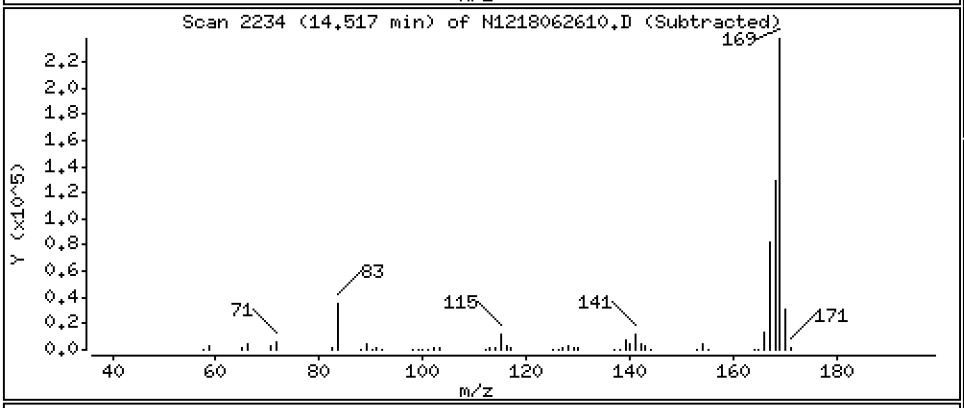
Column phase: ZB-5msi

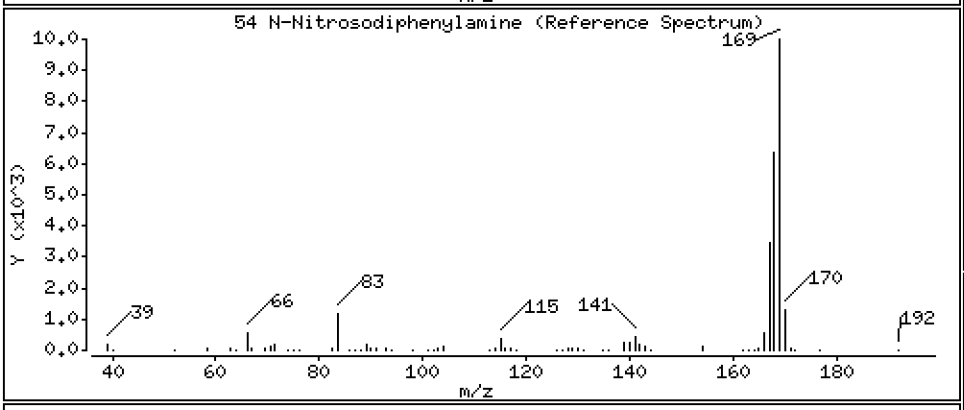
Column diameter: 0.32

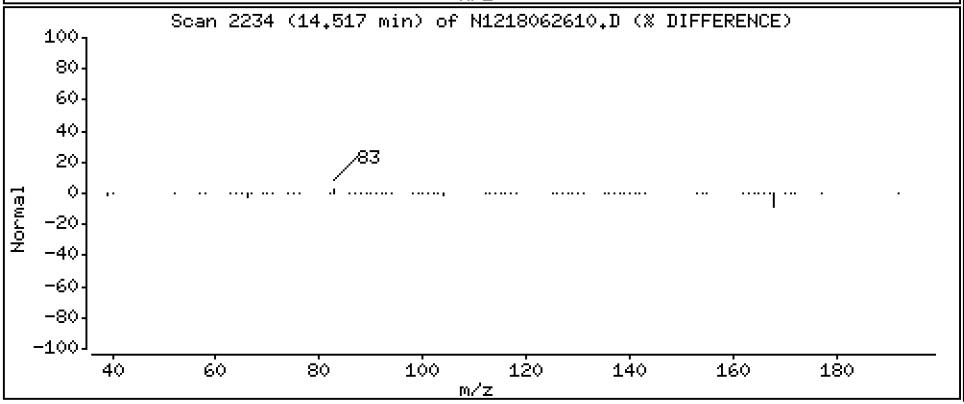
54 N-Nitrosodiphenylamine

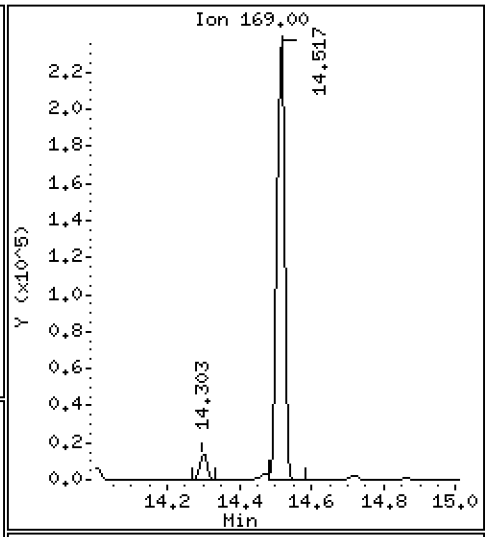
Concentration: 21.17 ug/mL

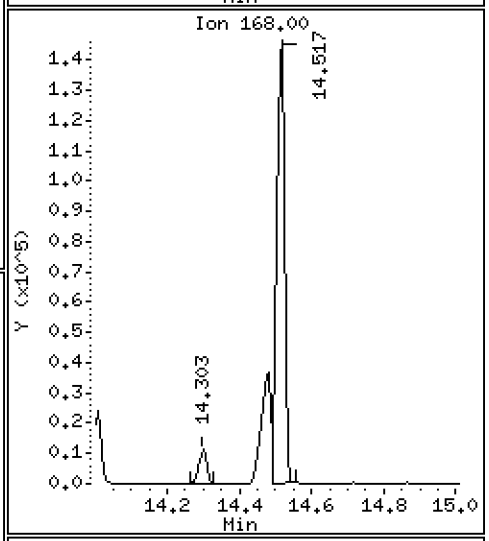


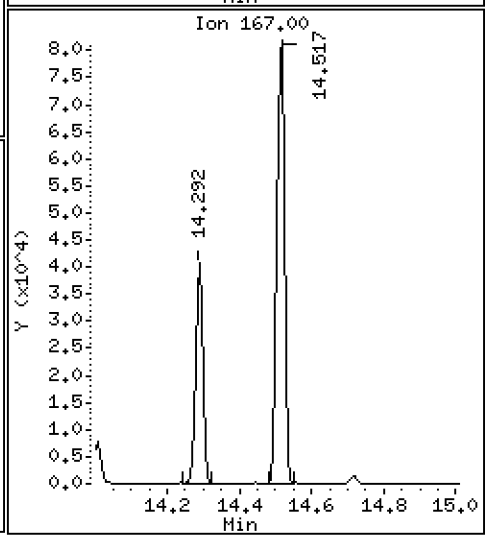












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

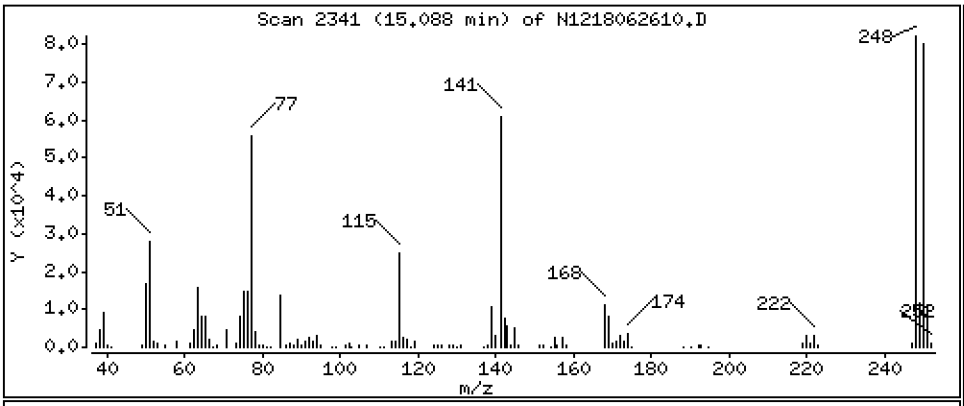
Operator: JZ

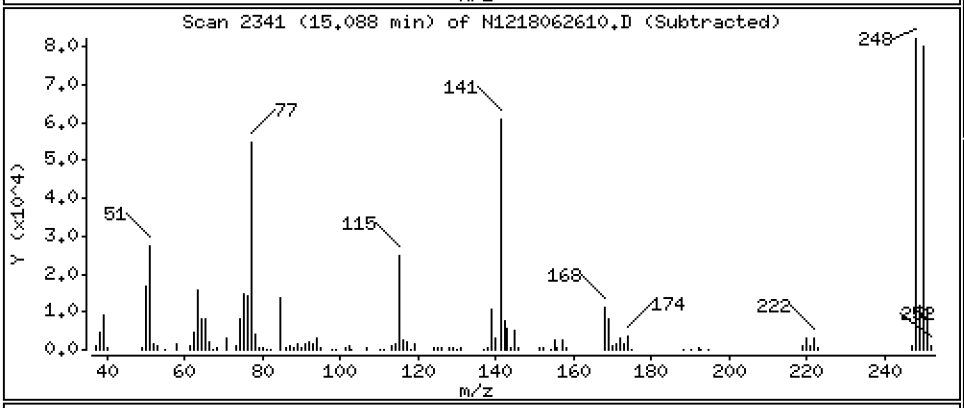
Column phase: ZB-5msi

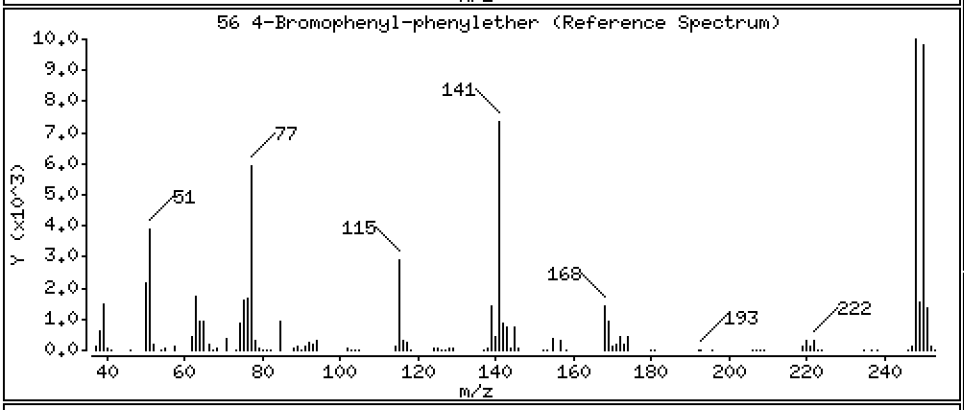
Column diameter: 0.32

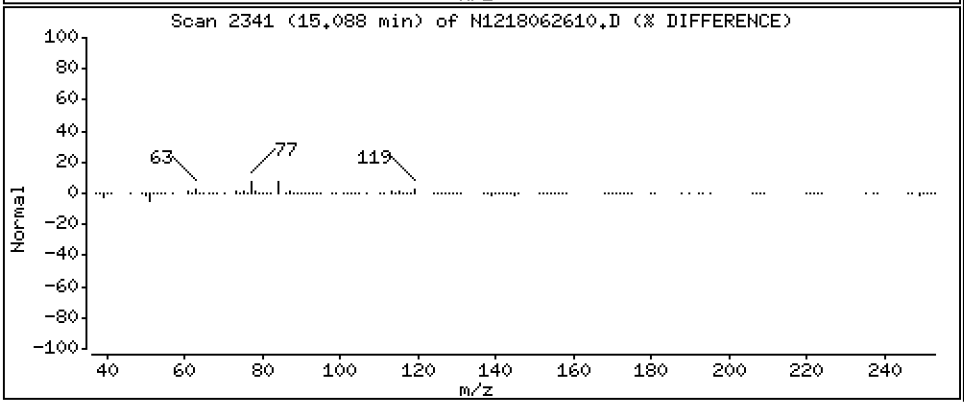
56 4-Bromophenyl-phenylether

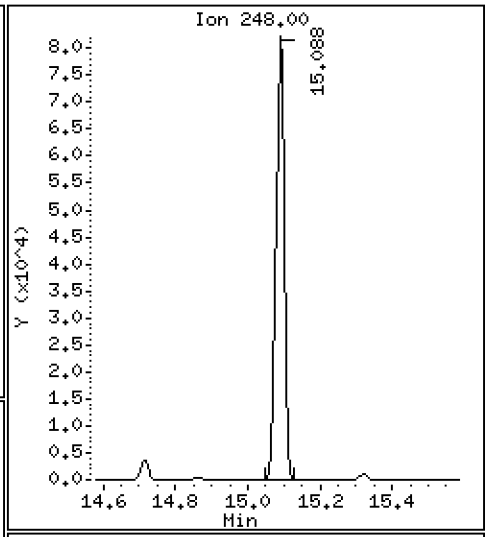
Concentration: 21.15 ug/mL

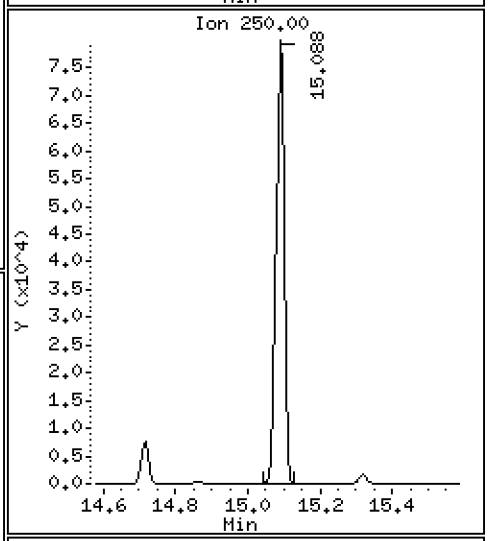


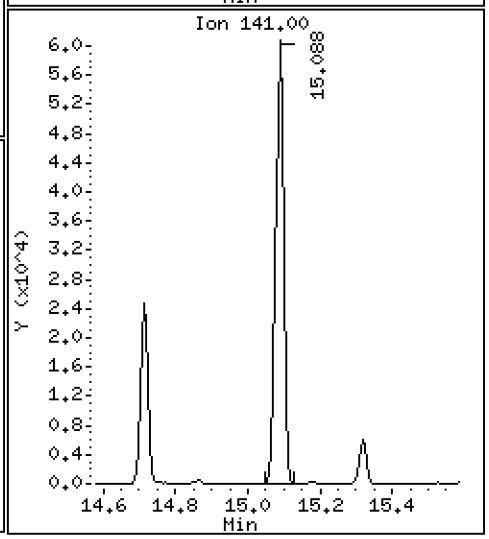












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

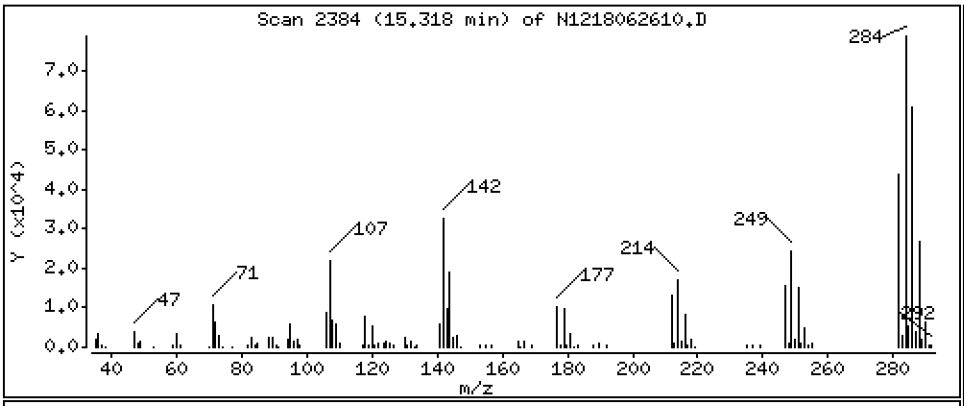
Operator: JZ

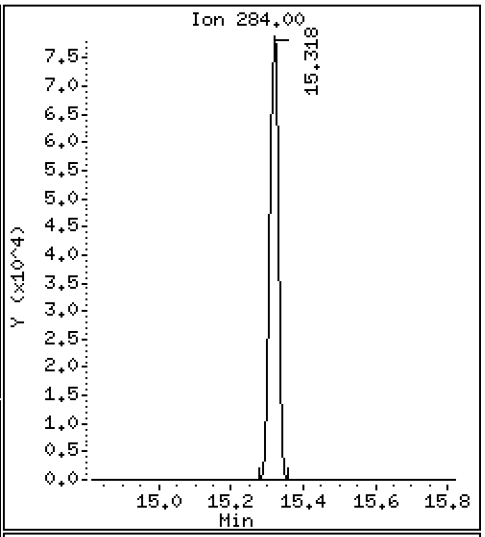
Column phase: ZB-5msi

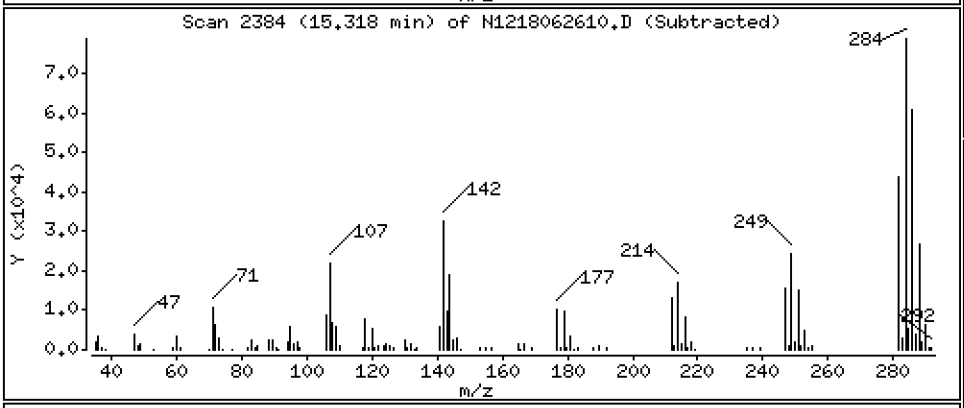
Column diameter: 0.32

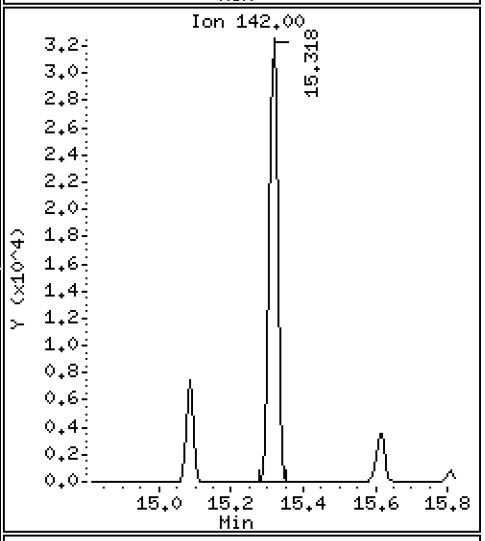
57 Hexachlorobenzene

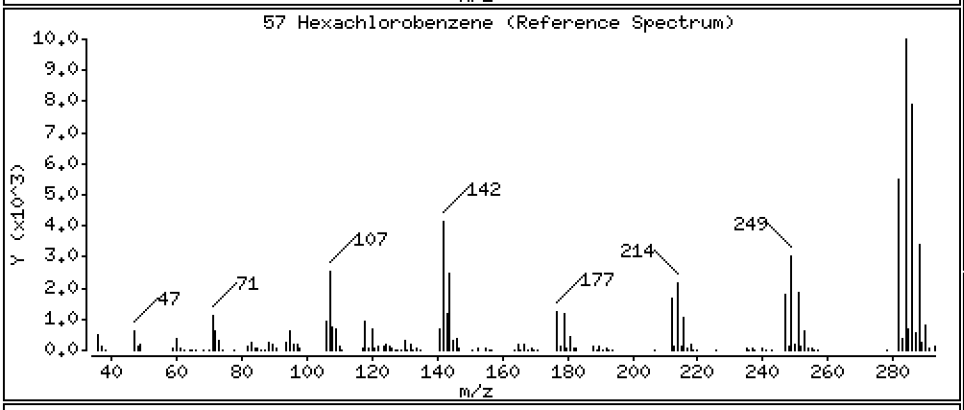
Concentration: 19.94 ug/mL

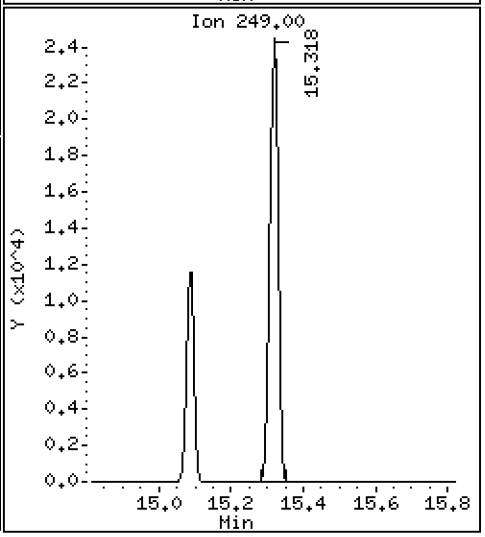


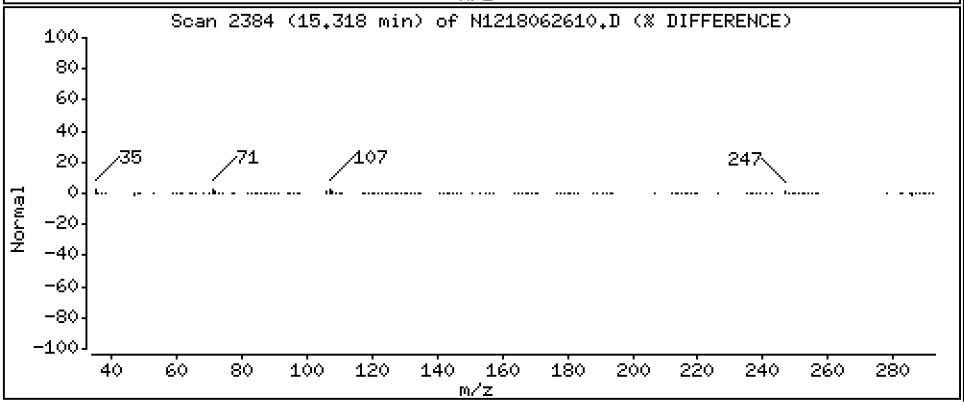












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

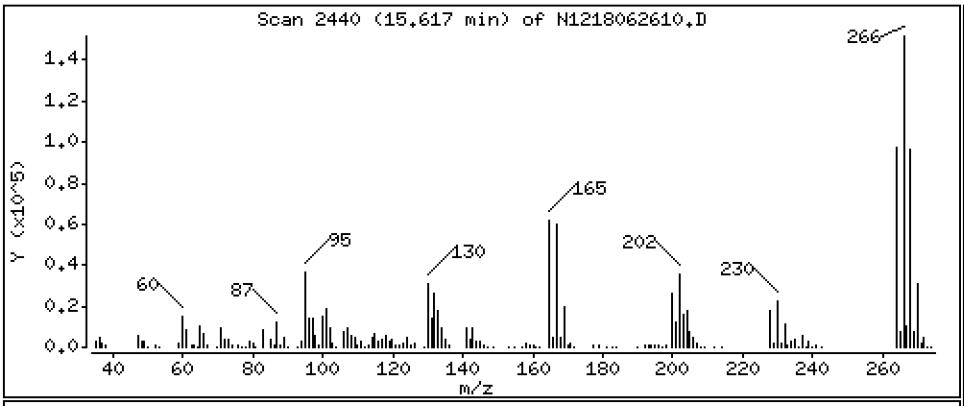
Operator: JZ

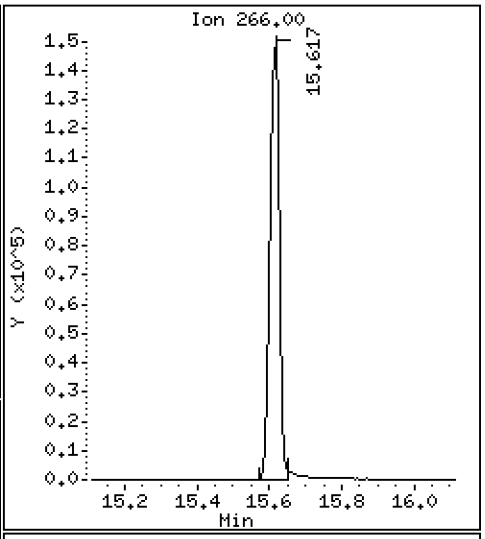
Column phase: ZB-5msi

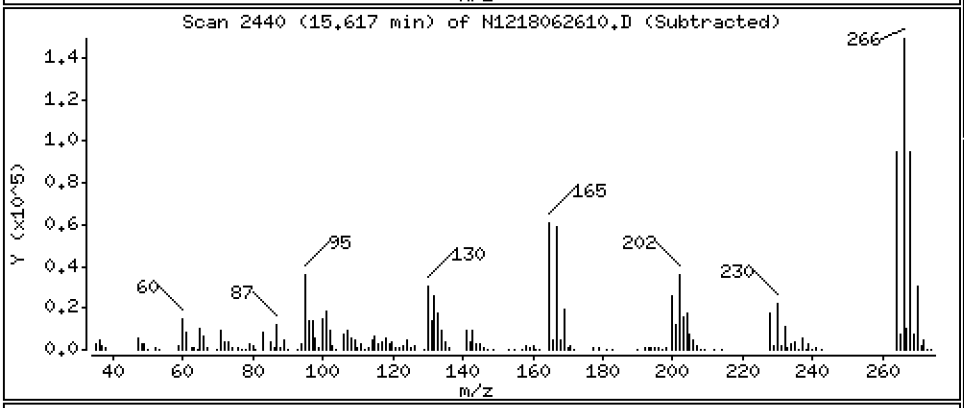
Column diameter: 0.32

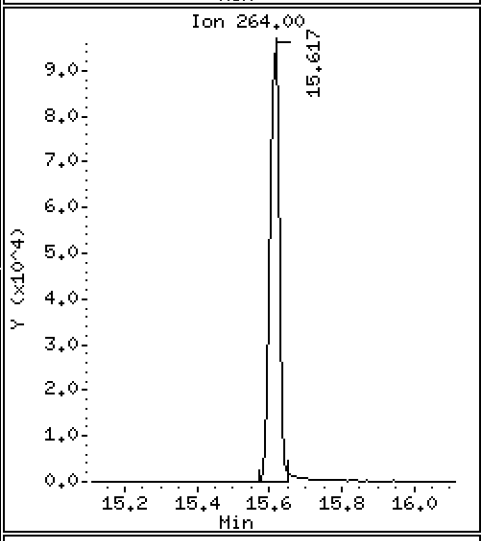
58 Pentachlorophenol

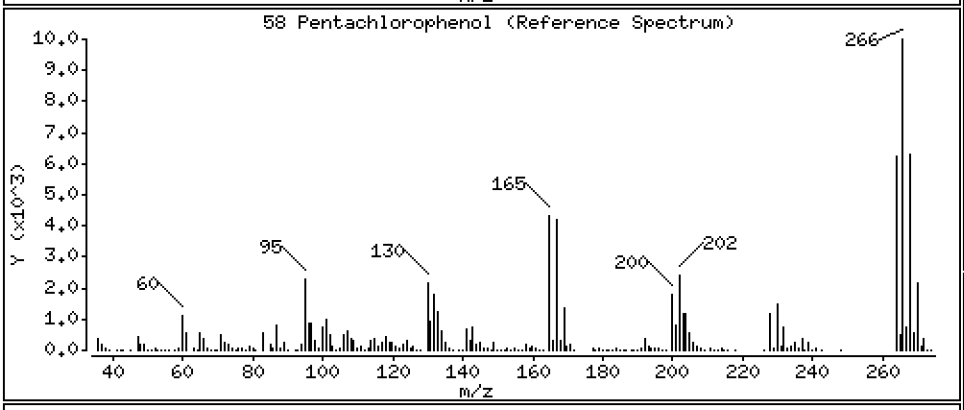
Concentration: 61.69 ug/mL

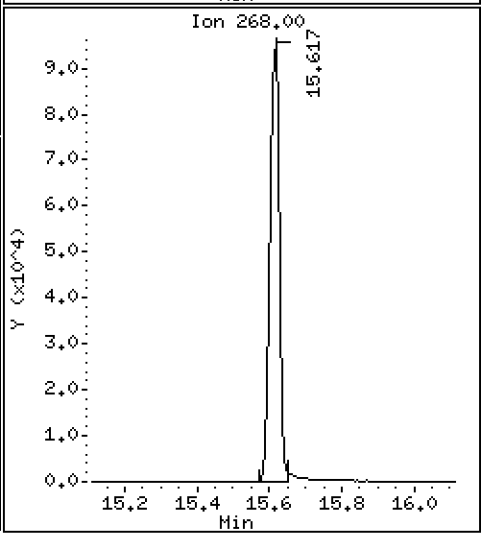


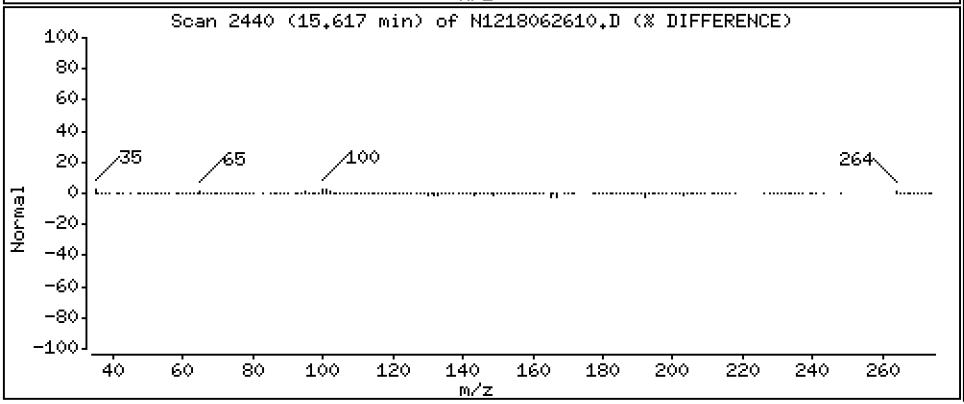












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

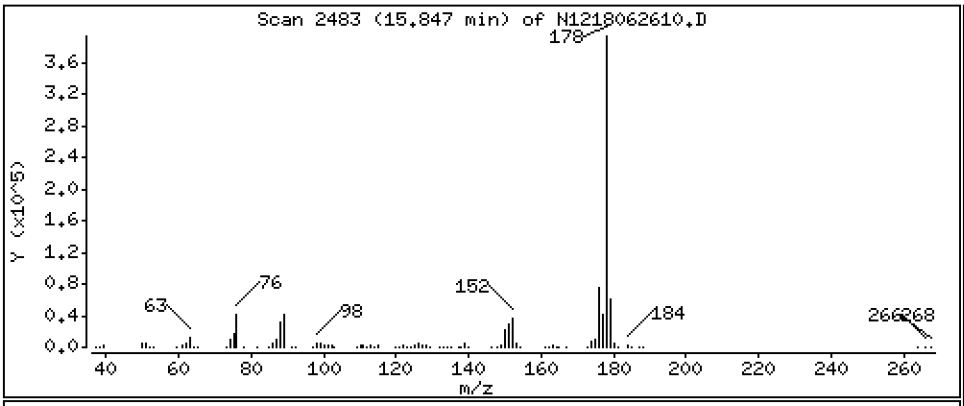
Operator: JZ

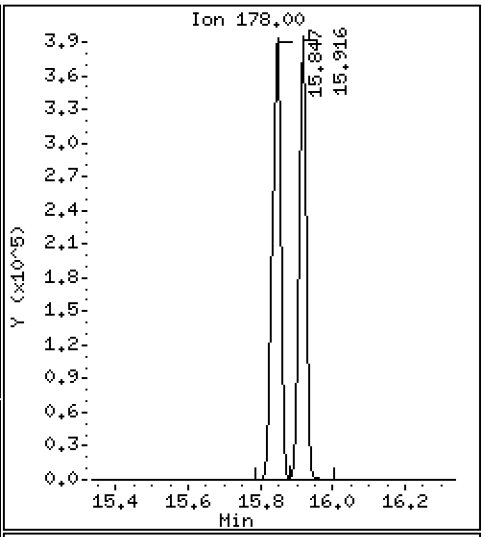
Column phase: ZB-5msi

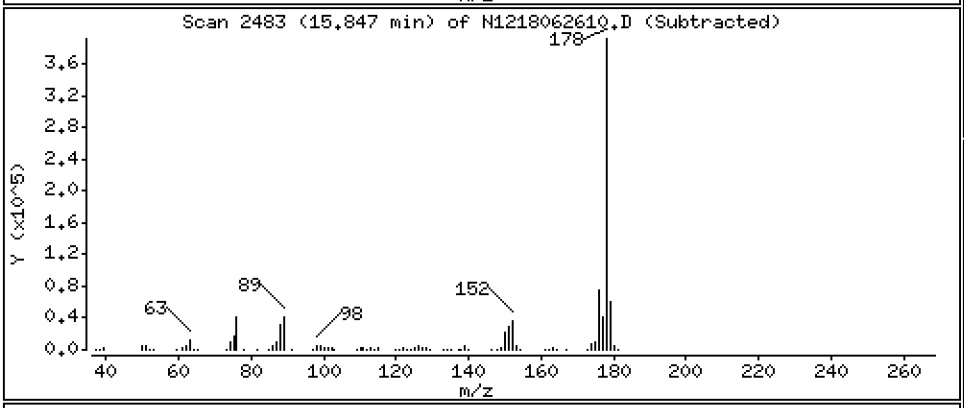
Column diameter: 0.32

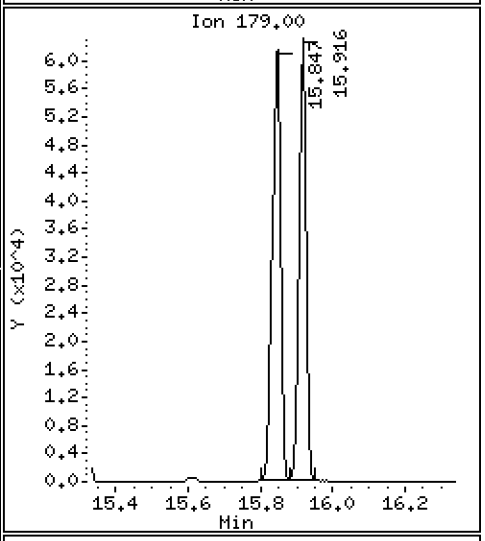
60 Phenanthrene

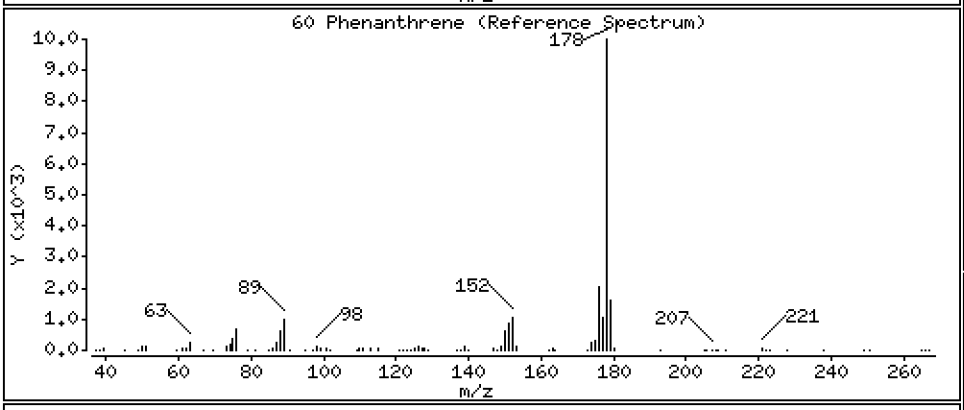
Concentration: 24.66 ug/mL

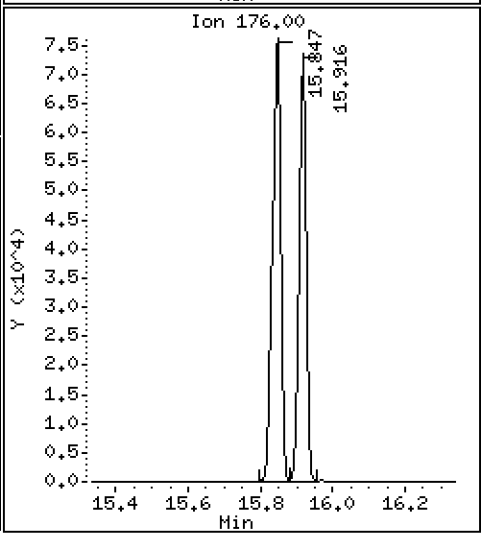


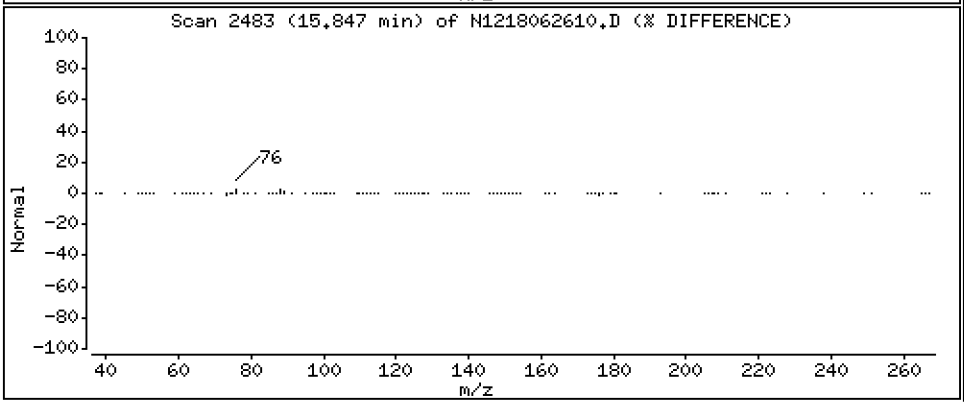












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

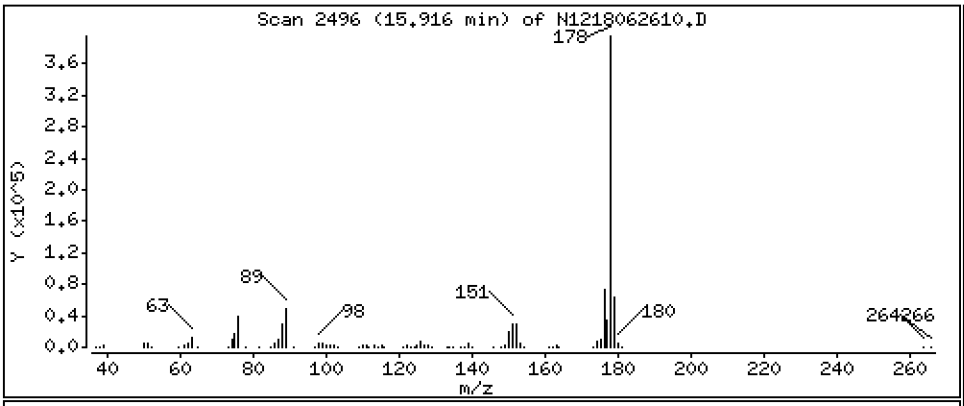
Operator: JZ

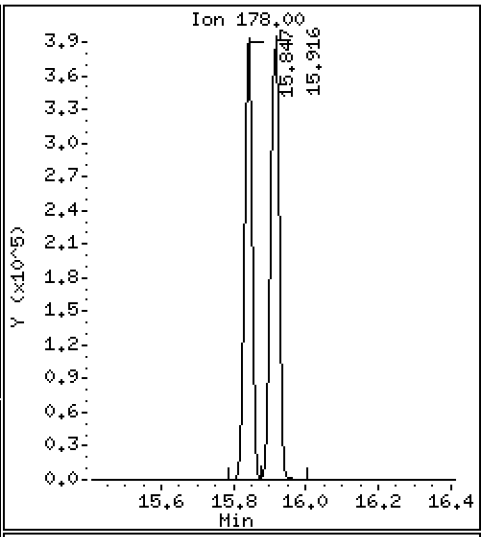
Column phase: ZB-5msi

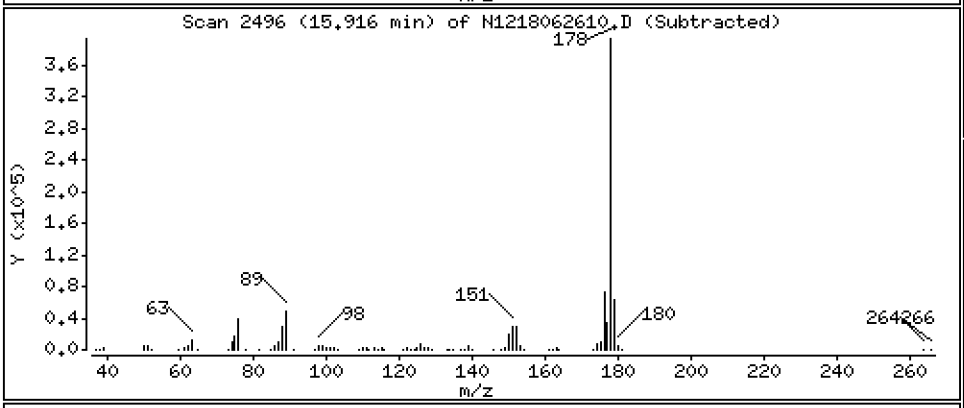
Column diameter: 0.32

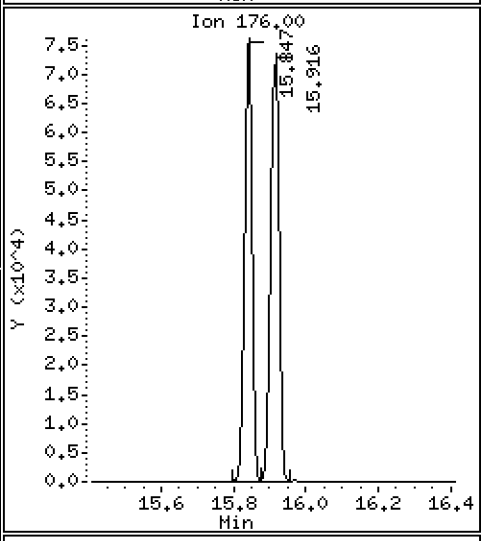
61 Anthracene

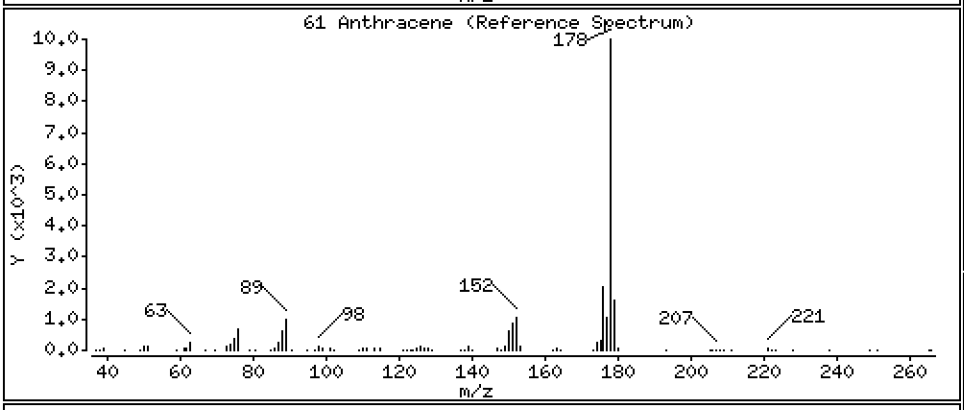
Concentration: 20.44 ug/mL

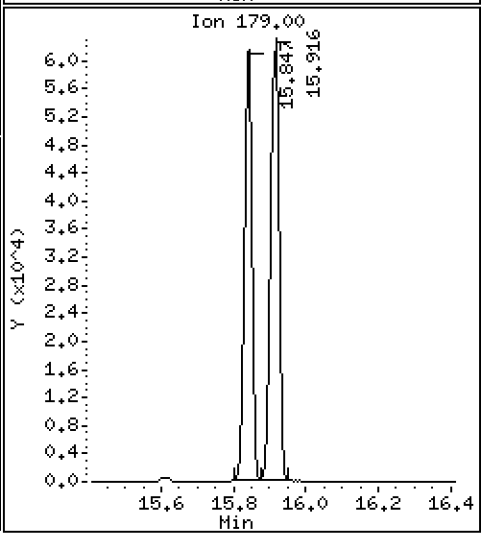


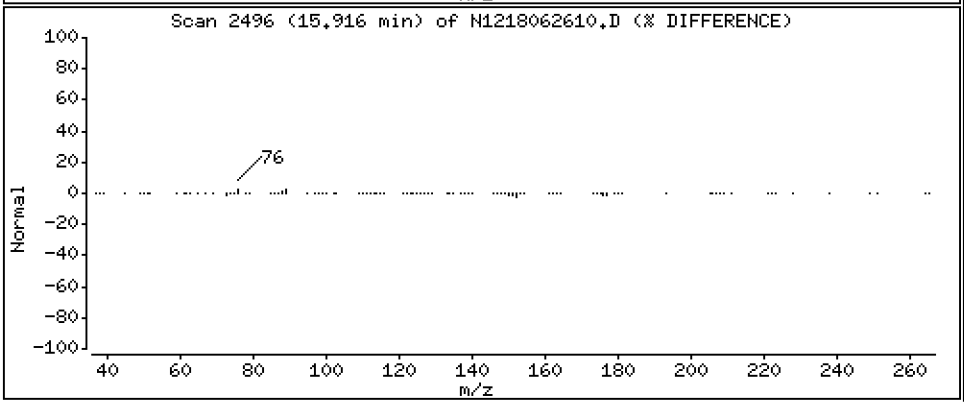












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

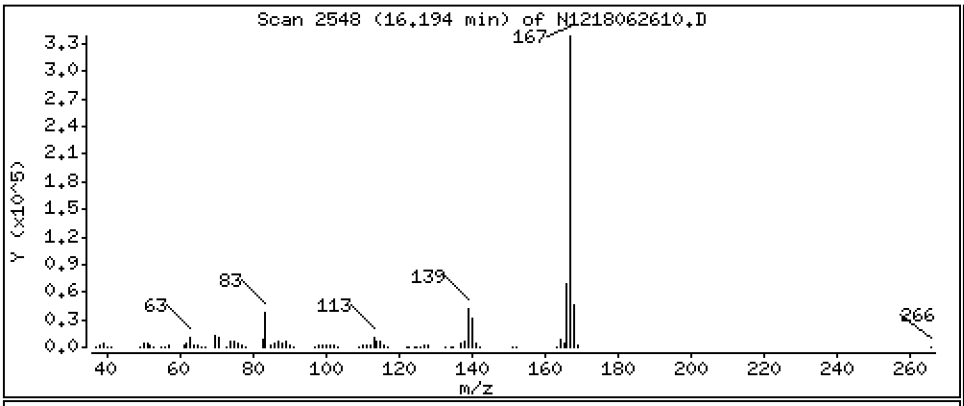
Operator: JZ

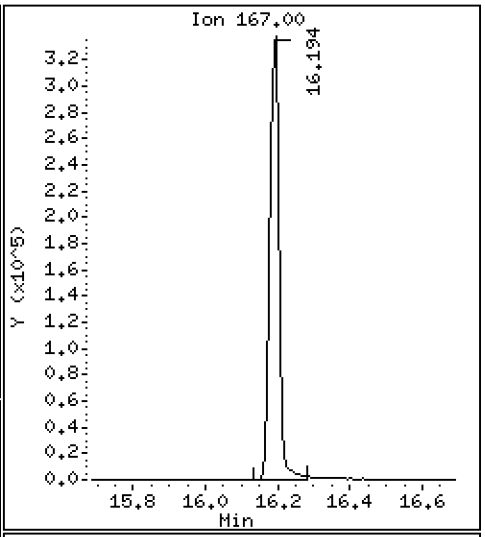
Column phase: ZB-5msi

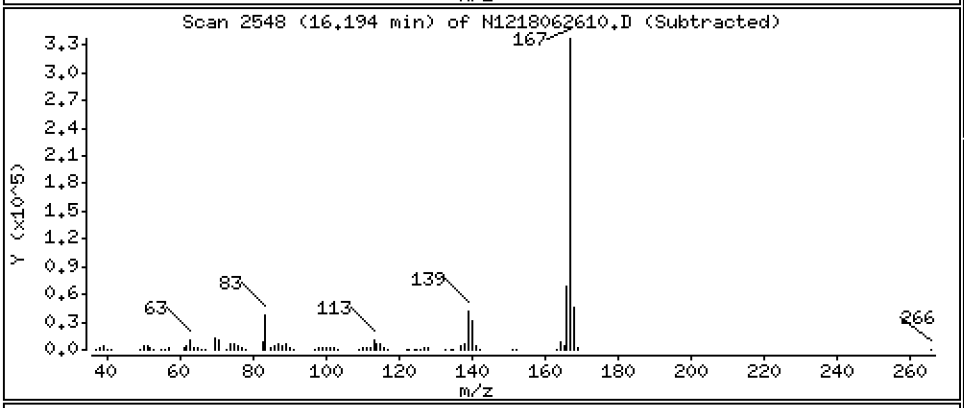
Column diameter: 0.32

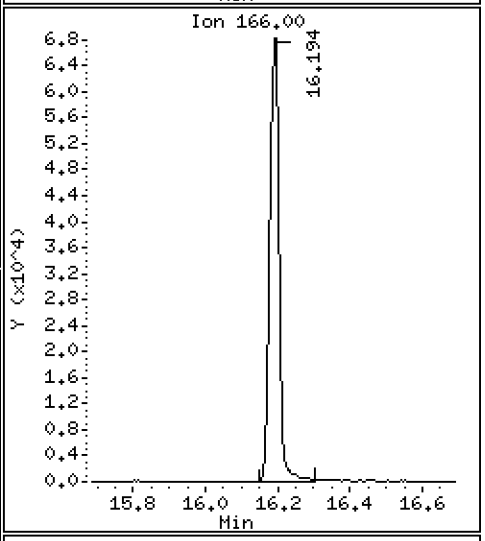
62 Carbazole

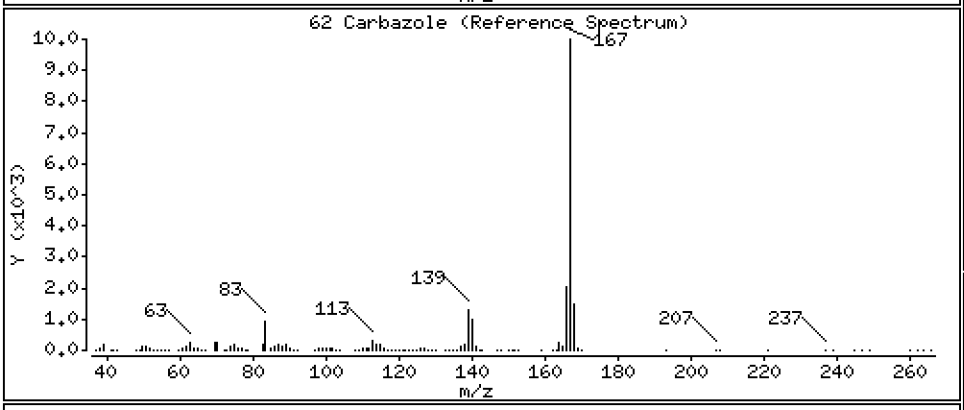
Concentration: 20.36 ug/mL

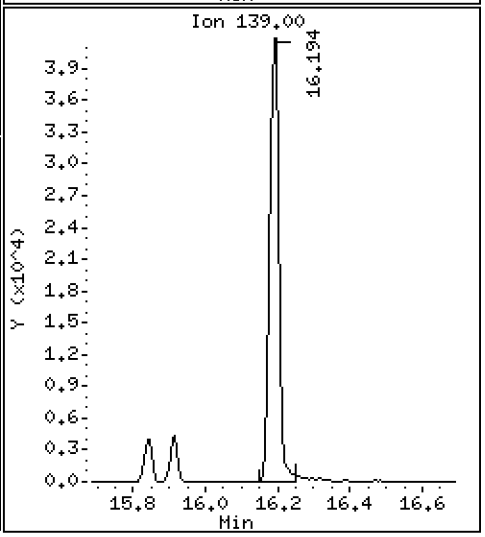


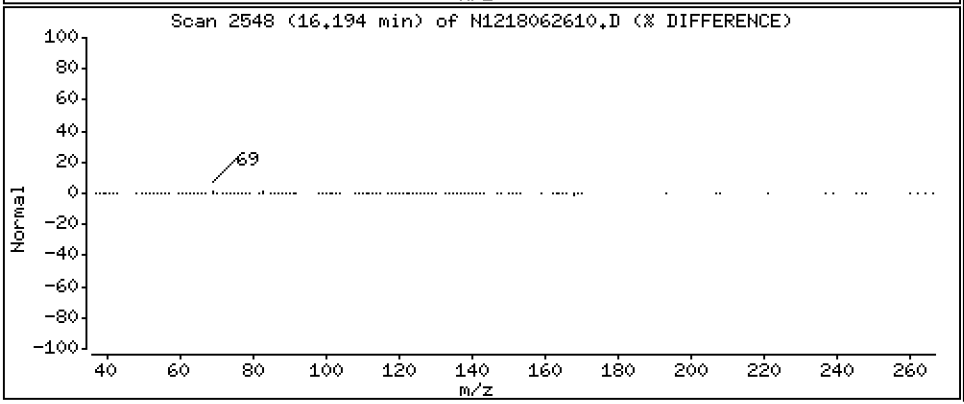












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

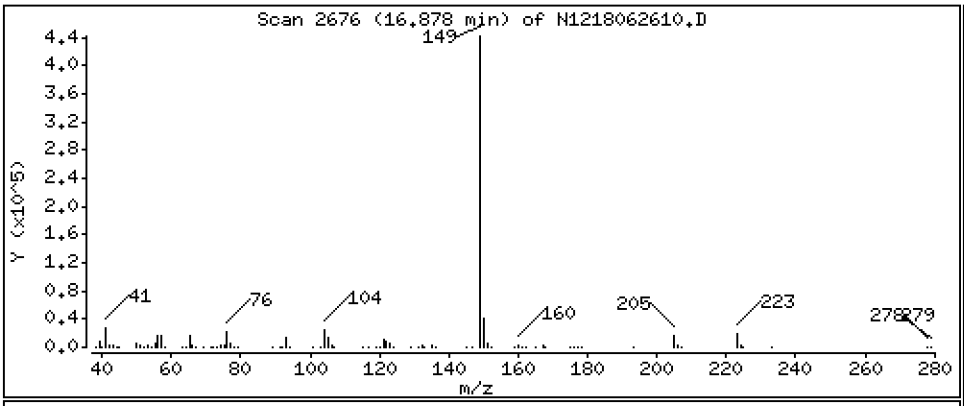
Operator: JZ

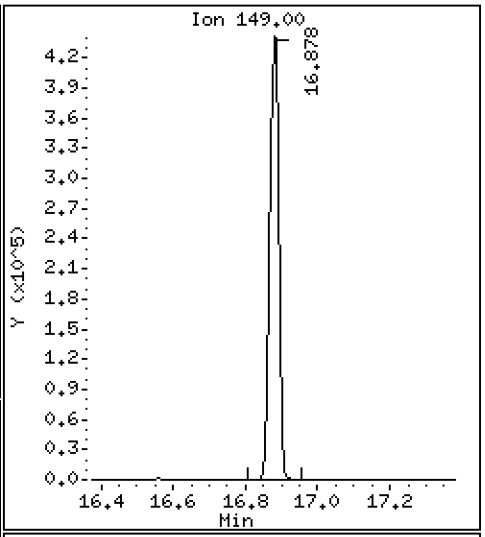
Column phase: ZB-5msi

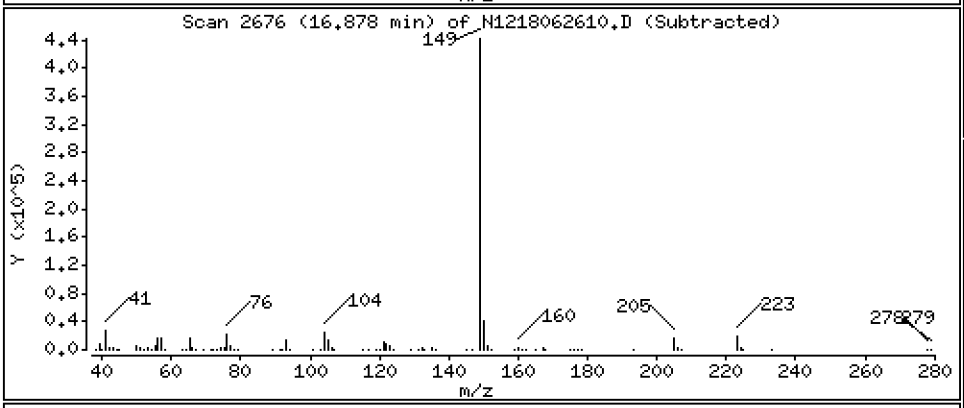
Column diameter: 0.32

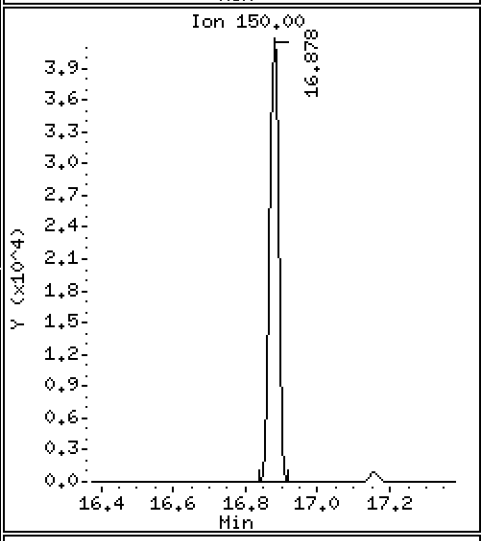
63 Di-n-butylphthalate

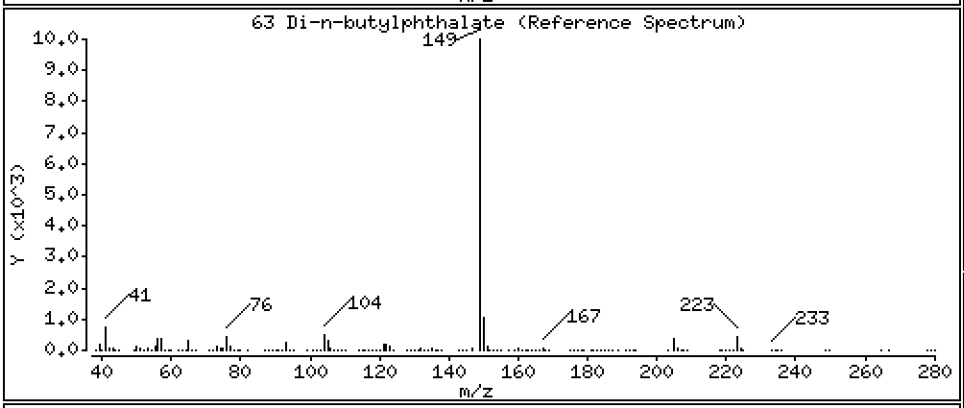
Concentration: 22.54 ug/mL

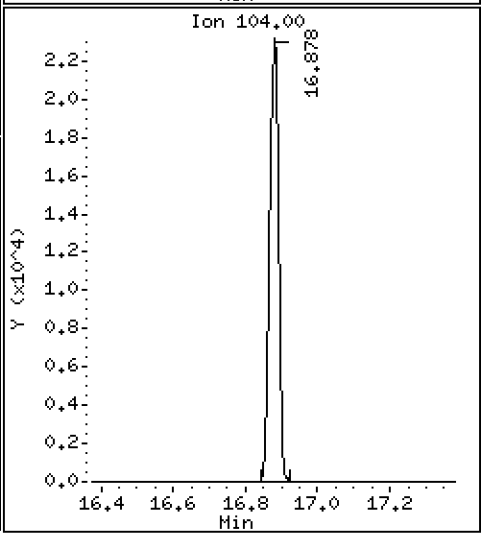


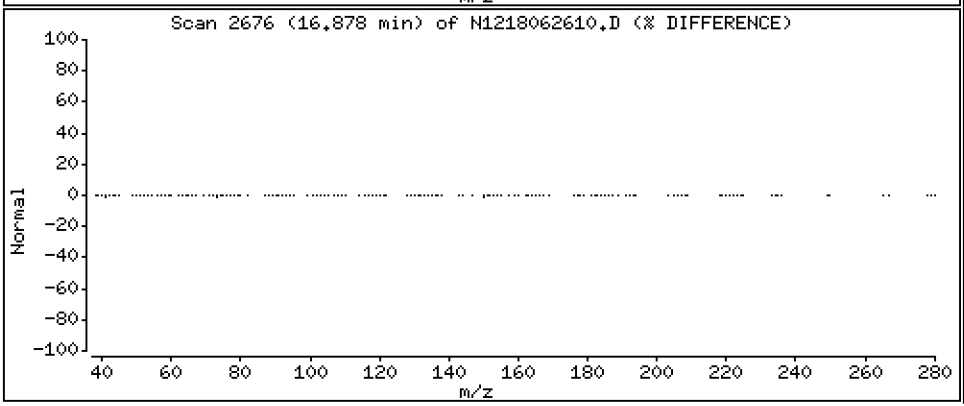












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

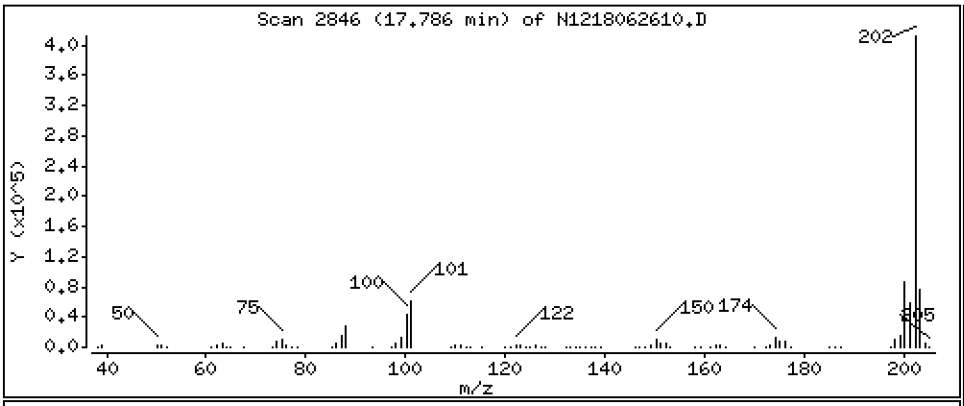
Operator: JZ

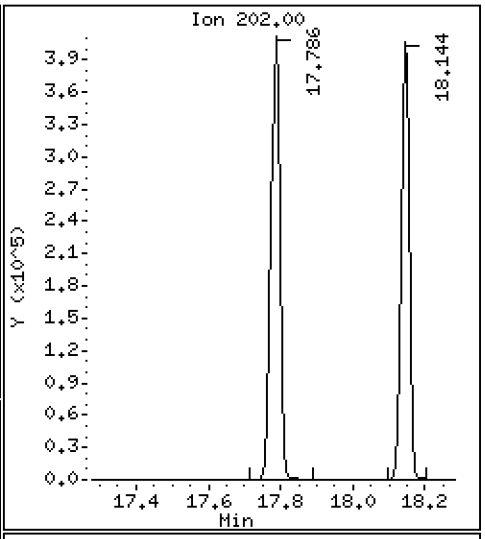
Column phase: ZB-5msi

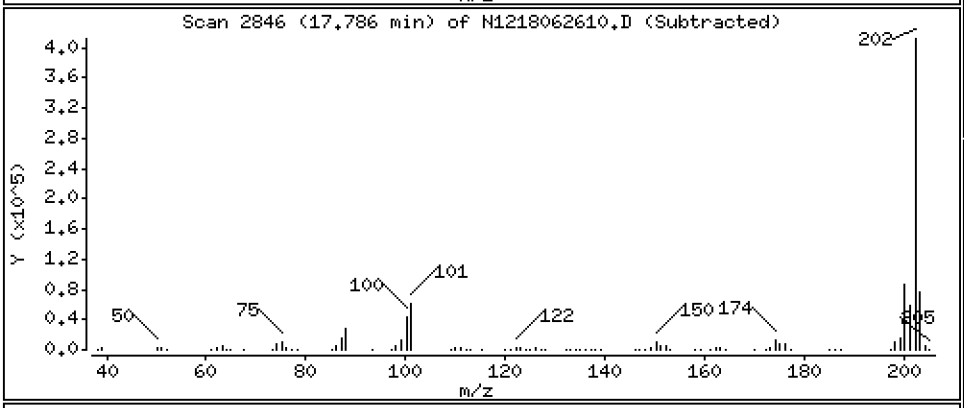
Column diameter: 0.32

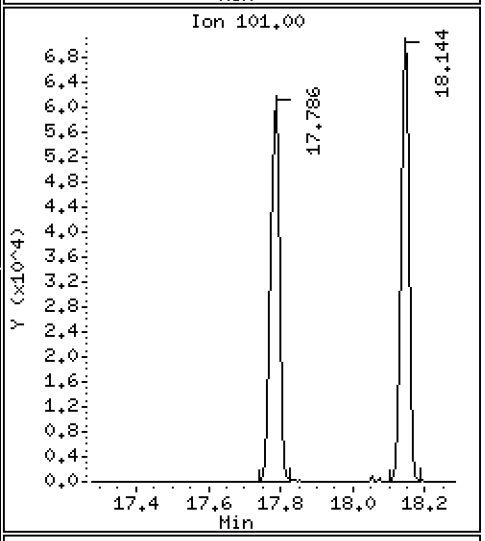
64 Fluoranthene

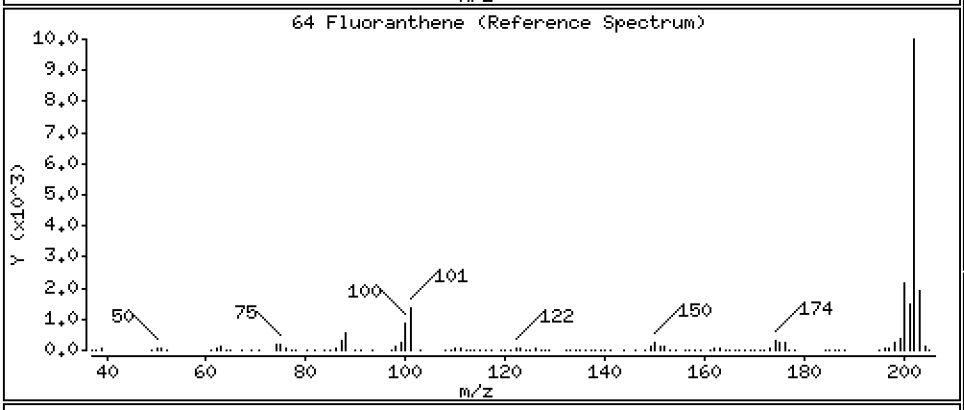
Concentration: 21.62 ug/mL

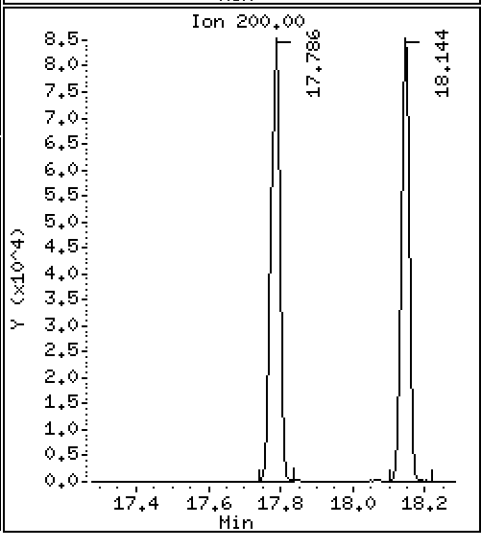


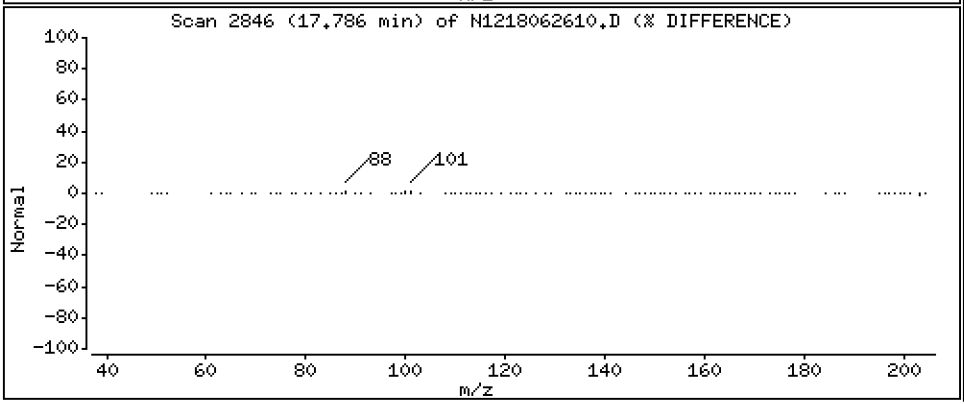












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

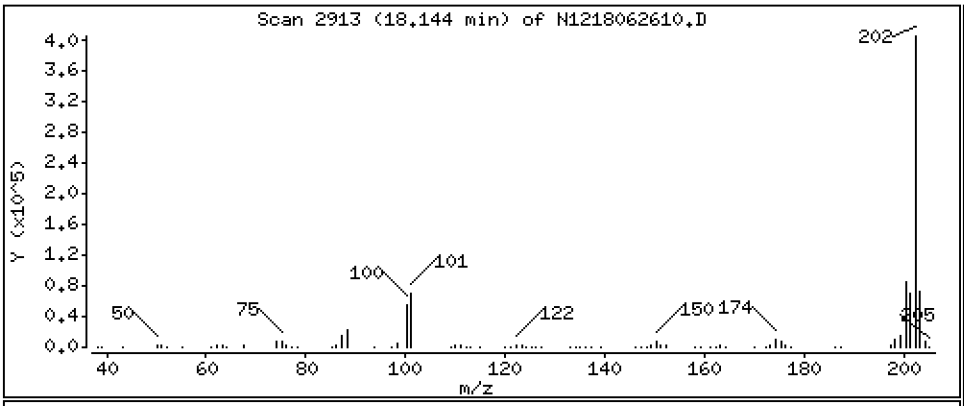
Operator: JZ

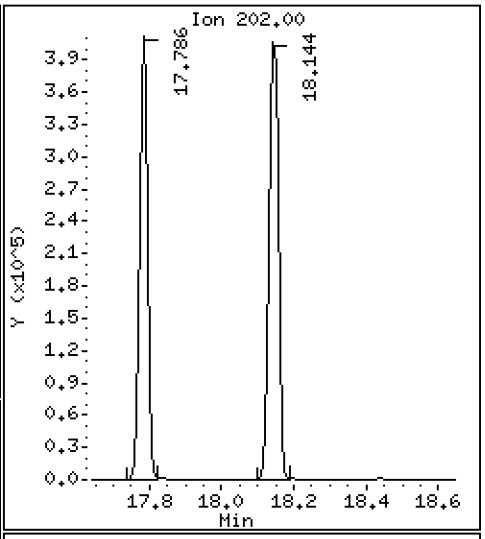
Column phase: ZB-5msi

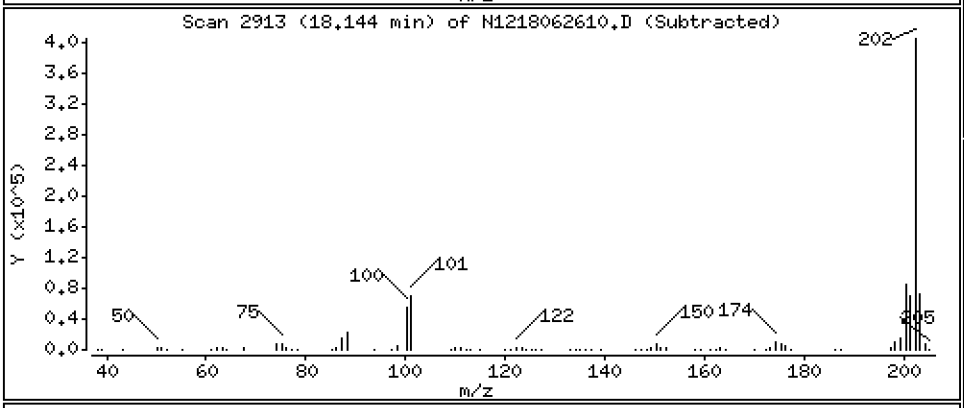
Column diameter: 0.32

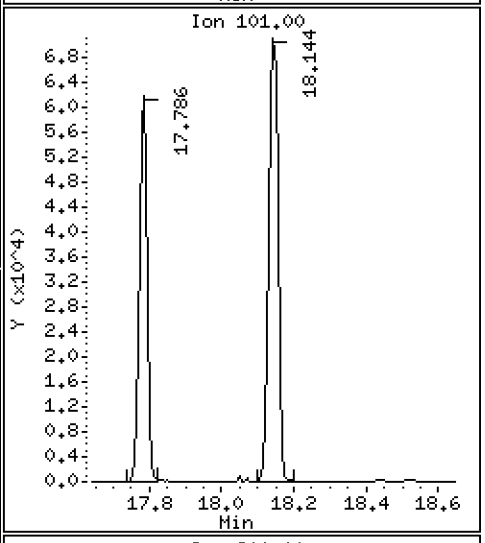
65 Pyrene

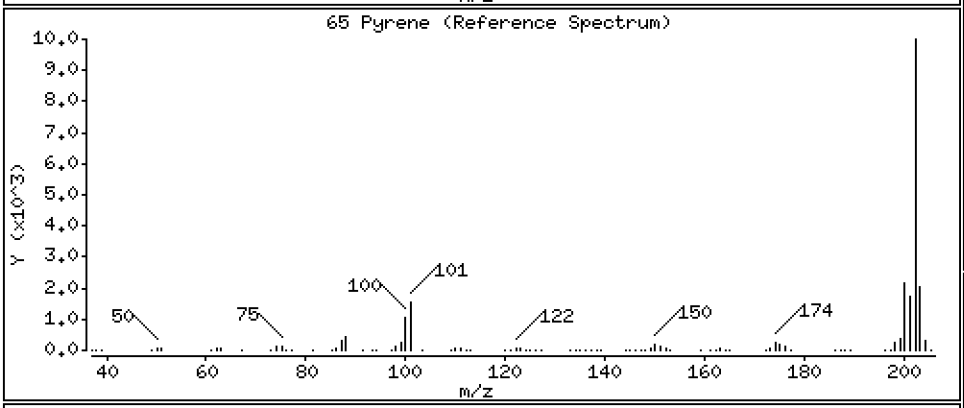
Concentration: 24.75 ug/mL

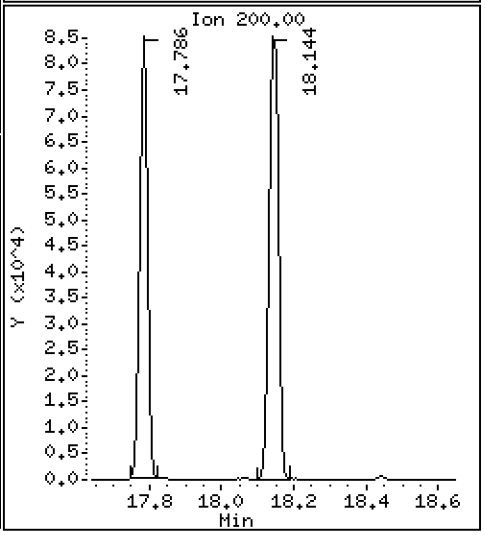


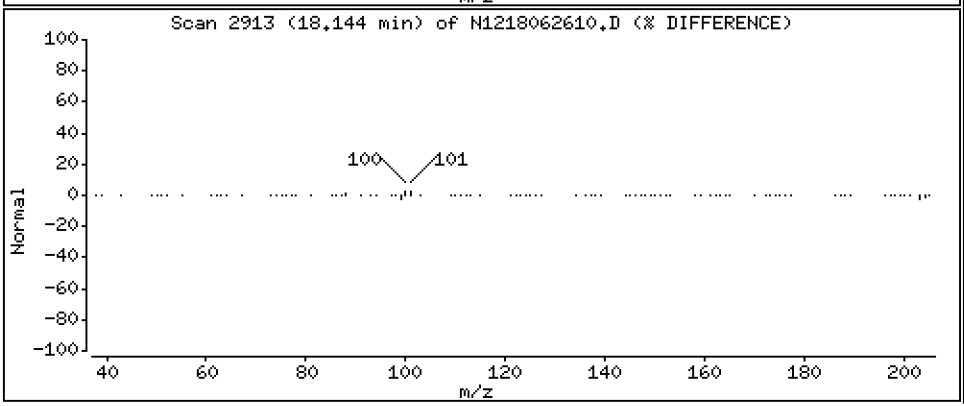












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

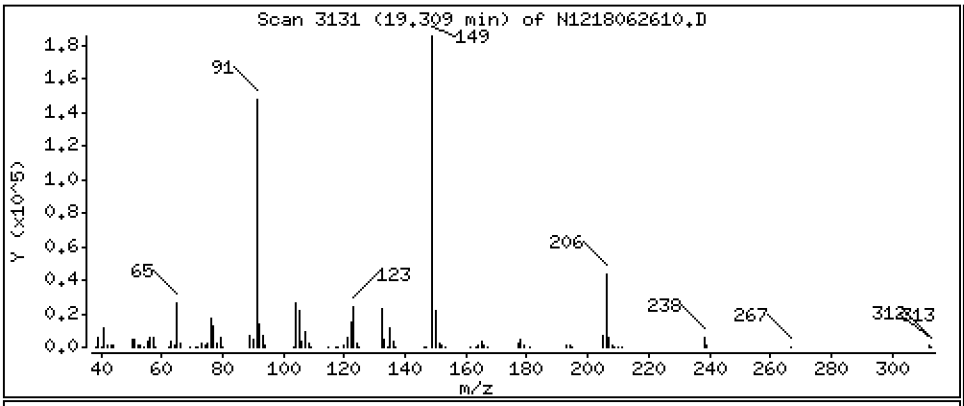
Operator: JZ

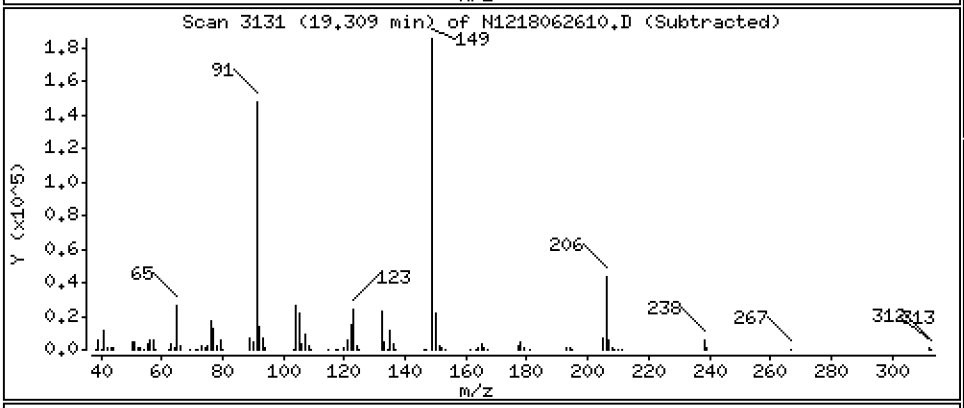
Column phase: ZB-5msi

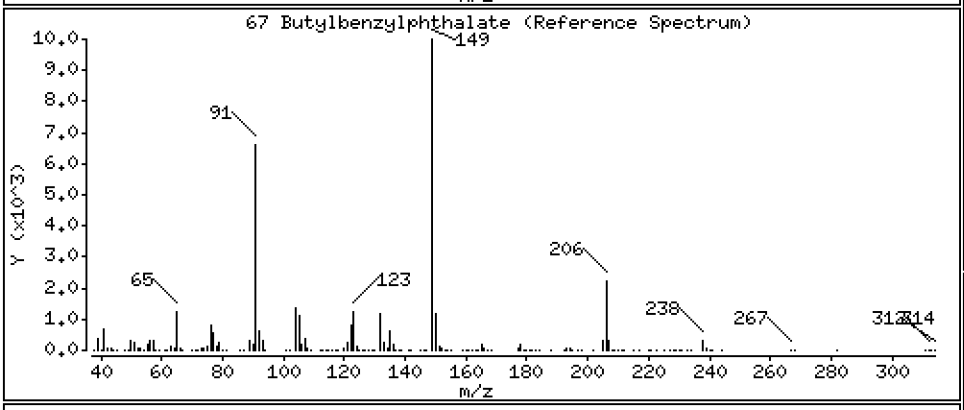
Column diameter: 0.32

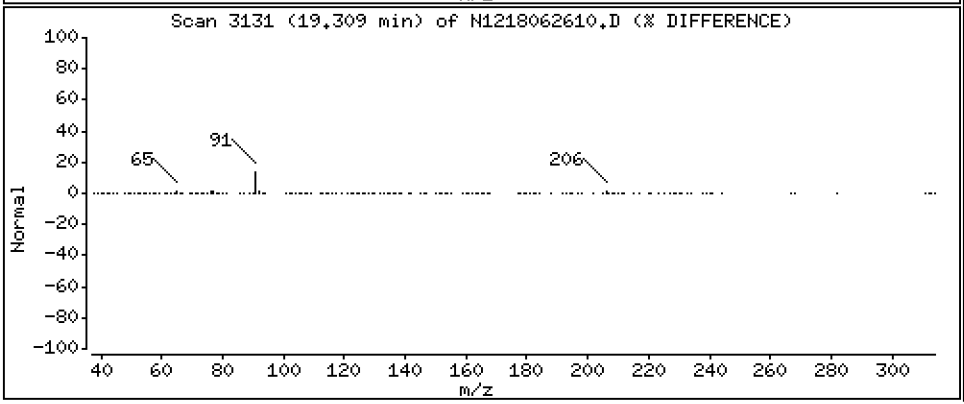
67 Butylbenzylphthalate

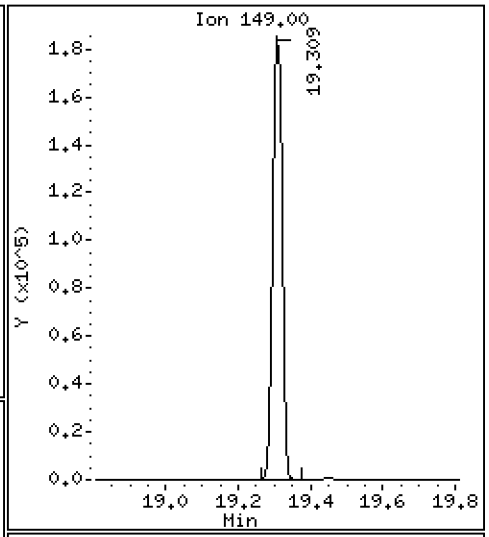
Concentration: 24.84 ug/mL

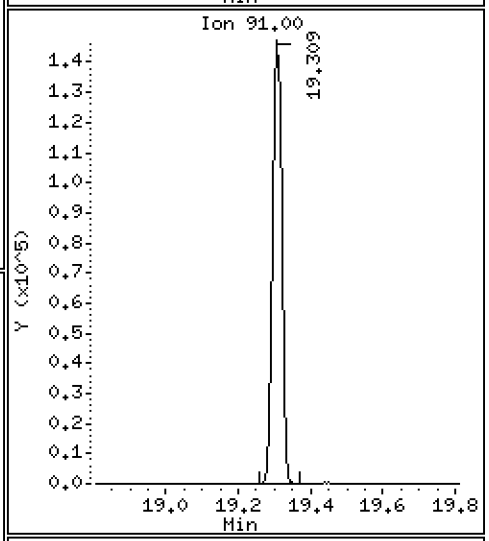


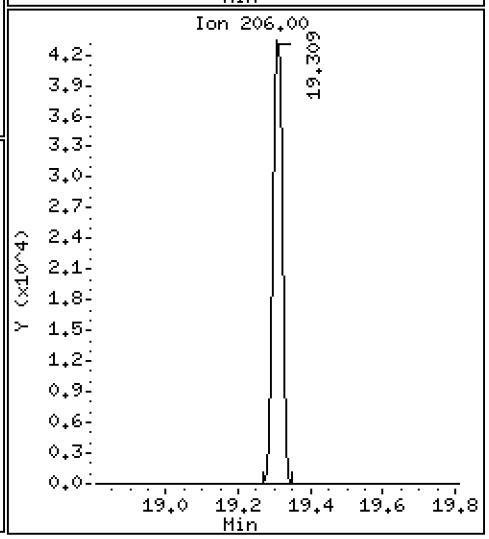












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

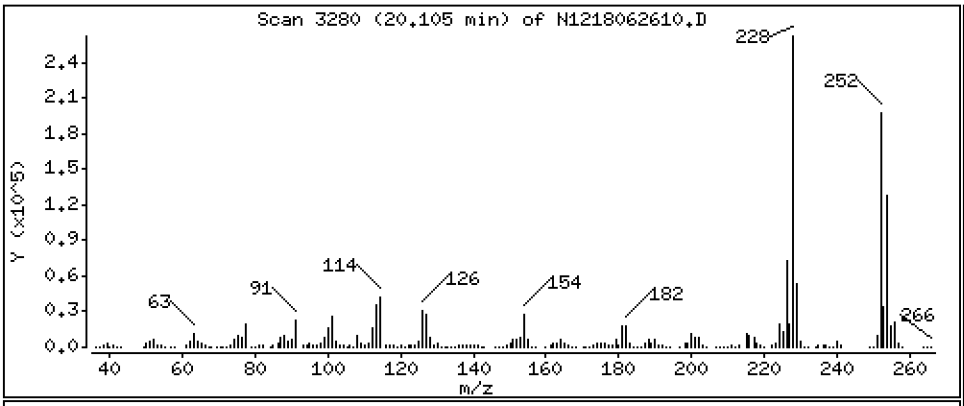
Operator: JZ

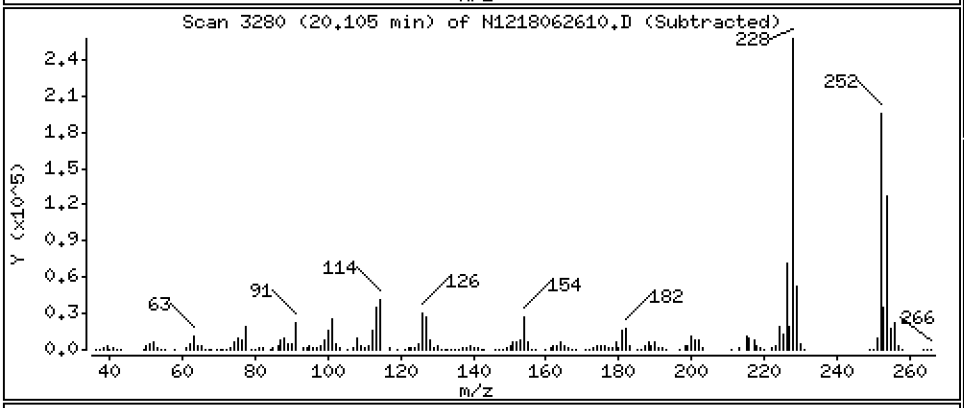
Column phase: ZB-5msi

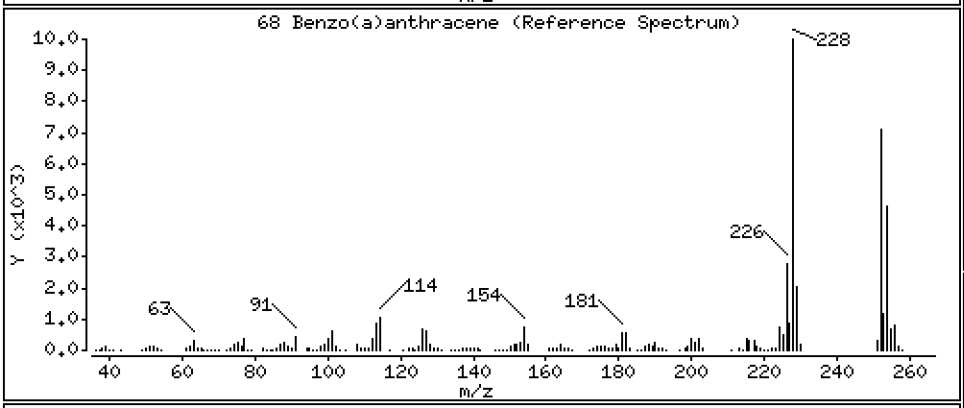
Column diameter: 0.32

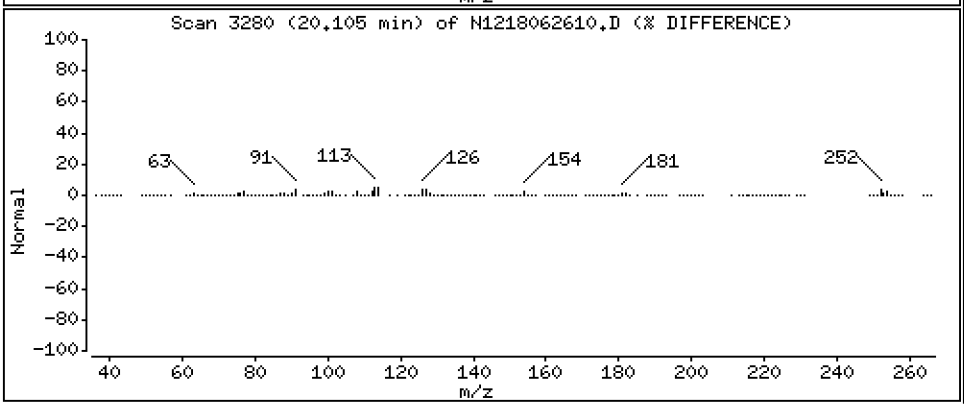
68 Benzo(a)anthracene

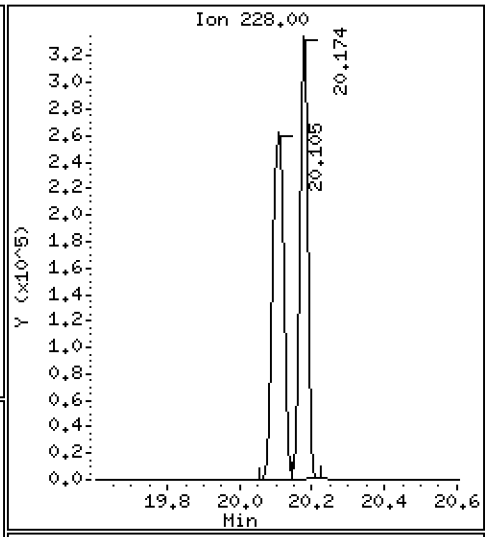
Concentration: 26.51 ug/mL

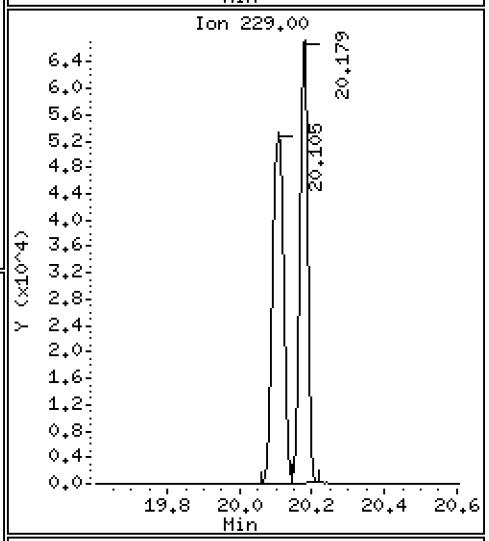


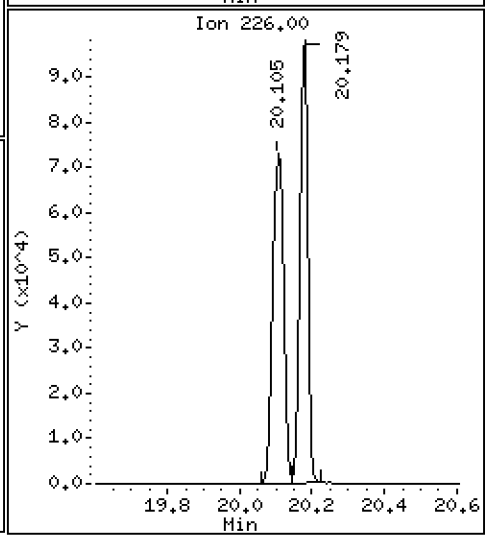












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

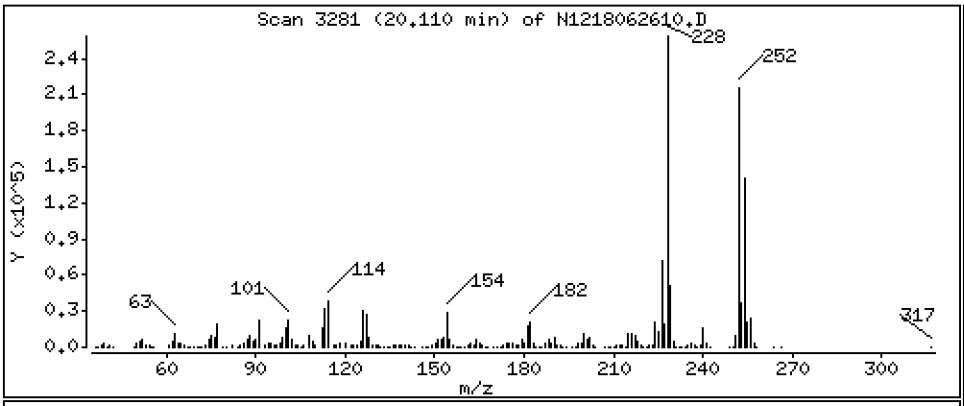
Operator: JZ

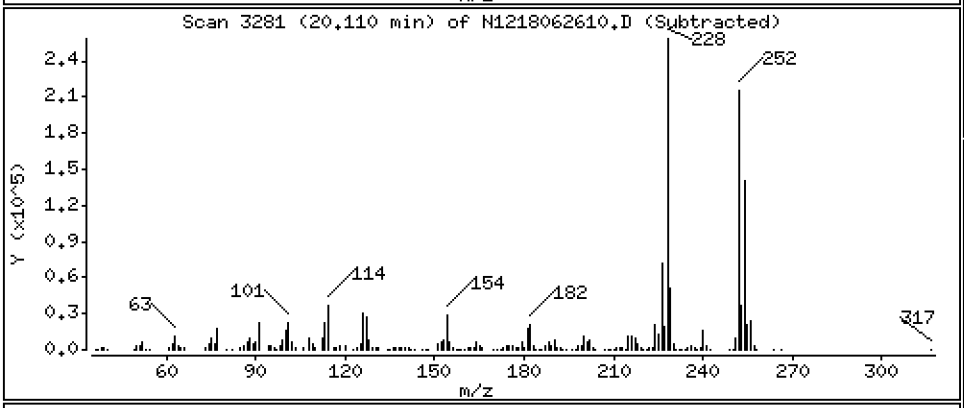
Column phase: ZB-5msi

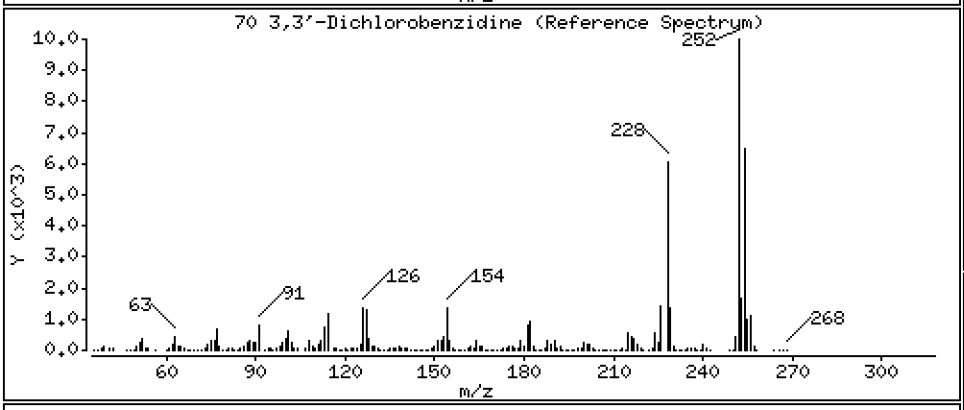
Column diameter: 0.32

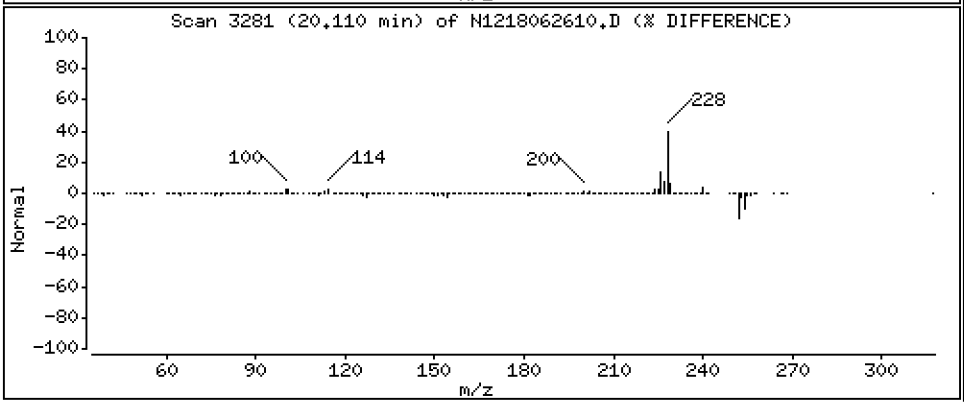
70 3,3'-Dichlorobenzidine

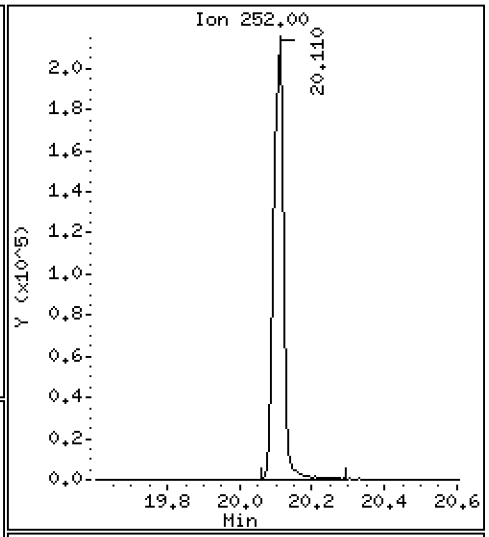
Concentration: 51.31 ug/mL

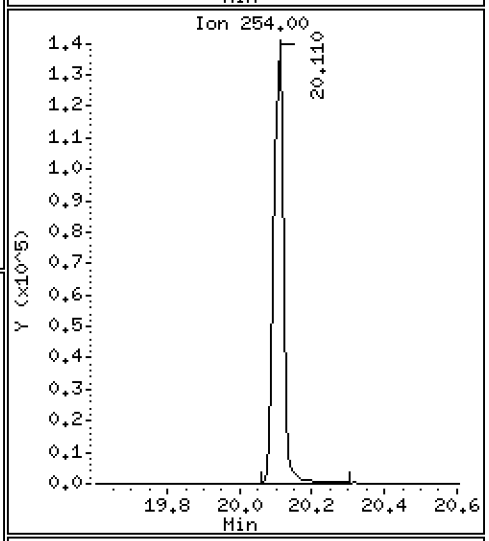


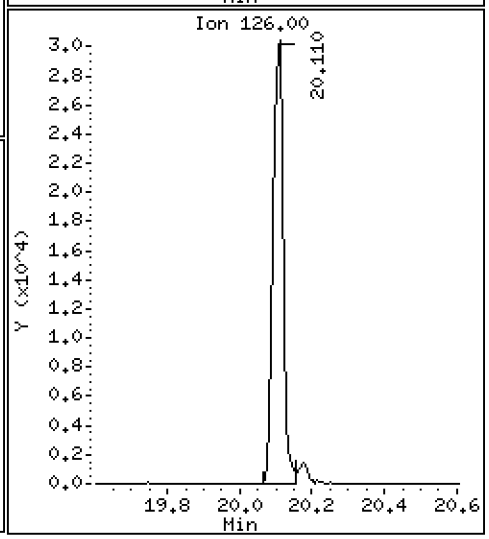












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

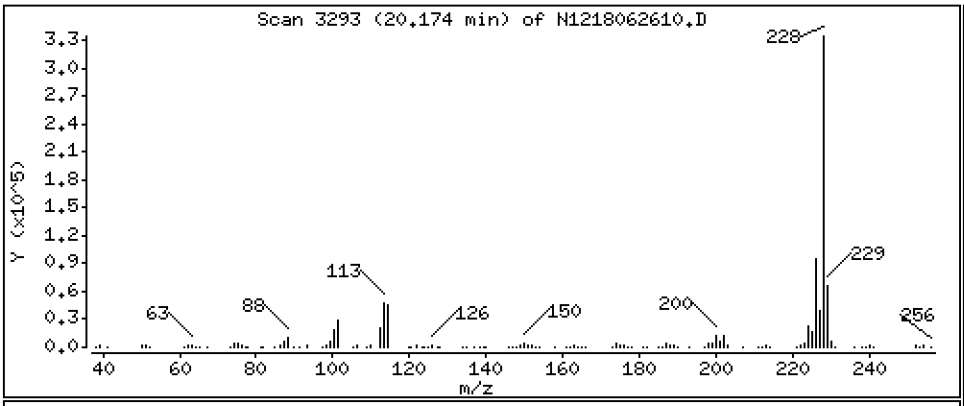
Operator: JZ

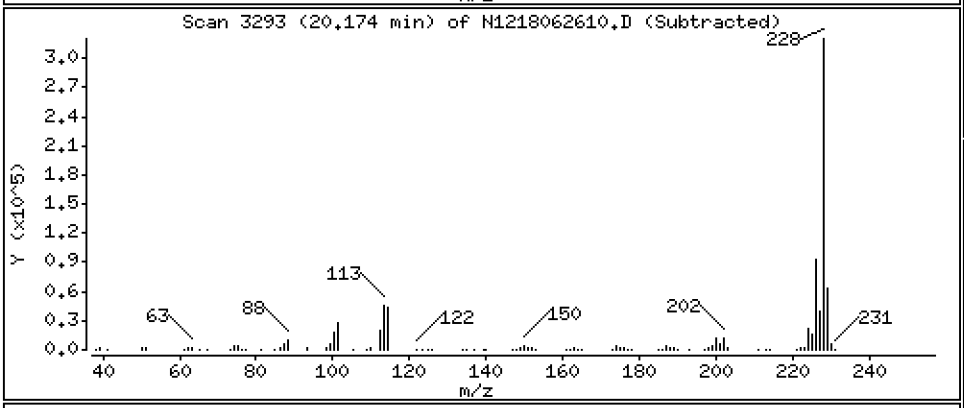
Column phase: ZB-5msi

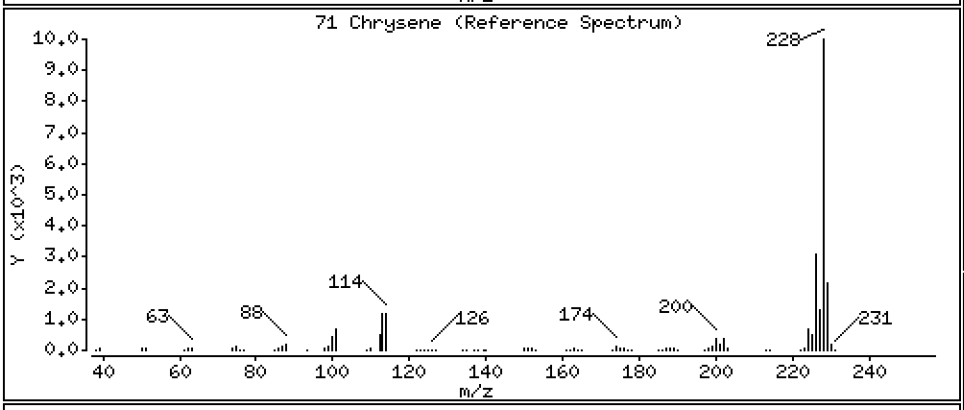
Column diameter: 0.32

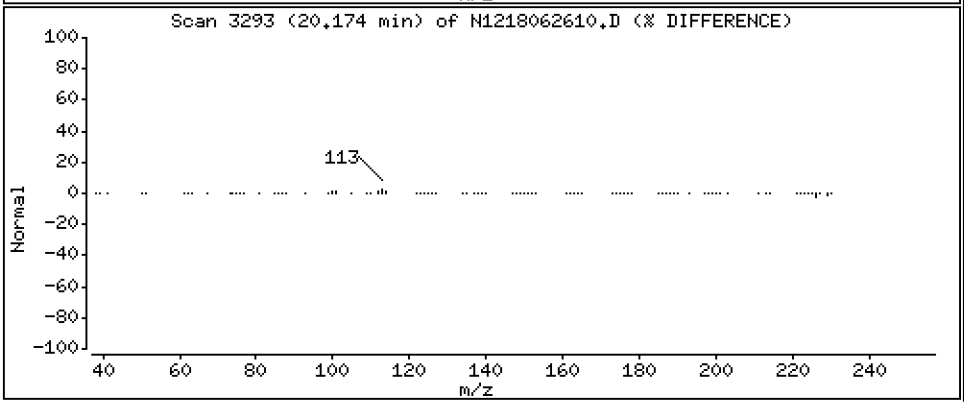
71 Chrysene

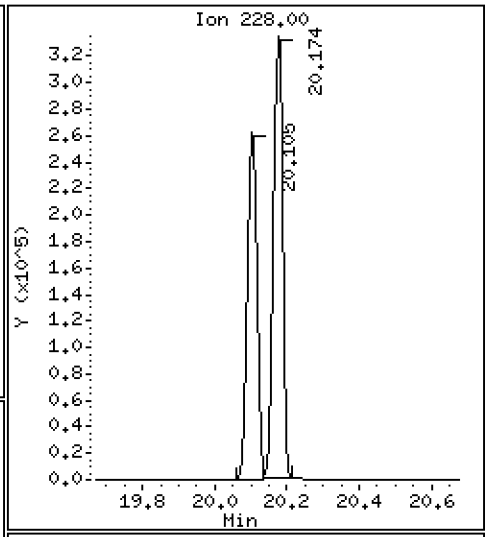
Concentration: 24.46 ug/mL

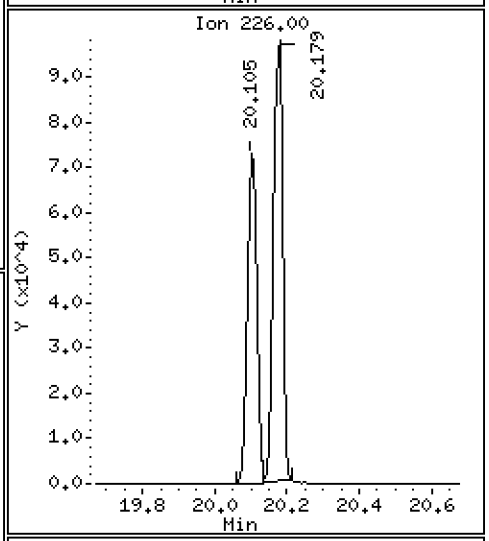


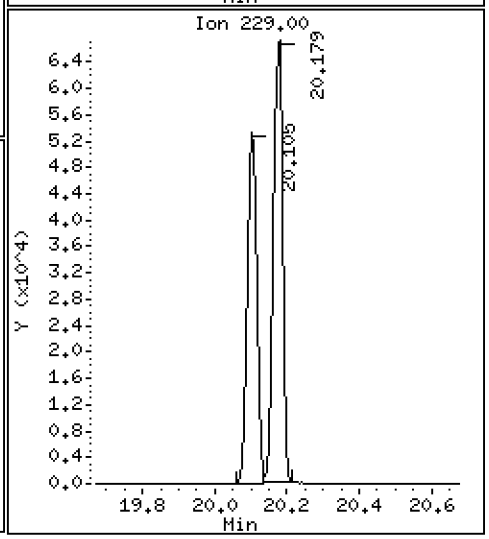












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

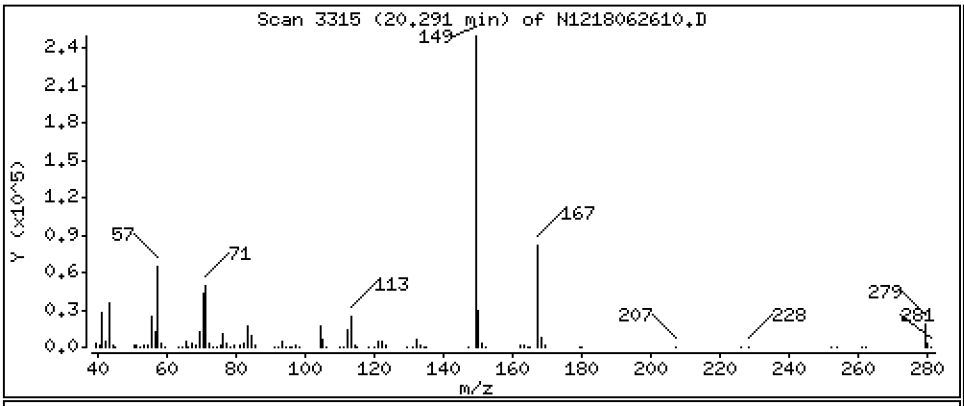
Operator: JZ

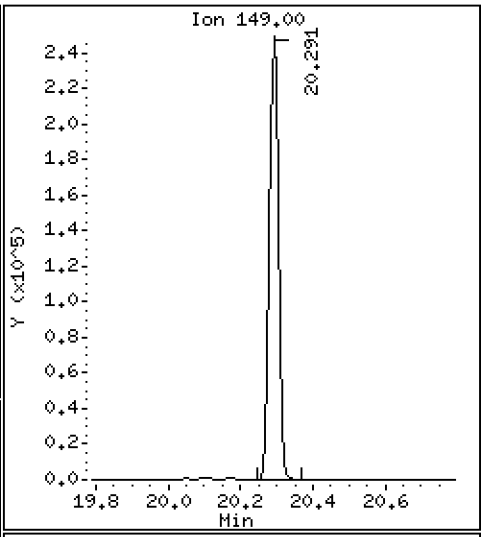
Column phase: ZB-5msi

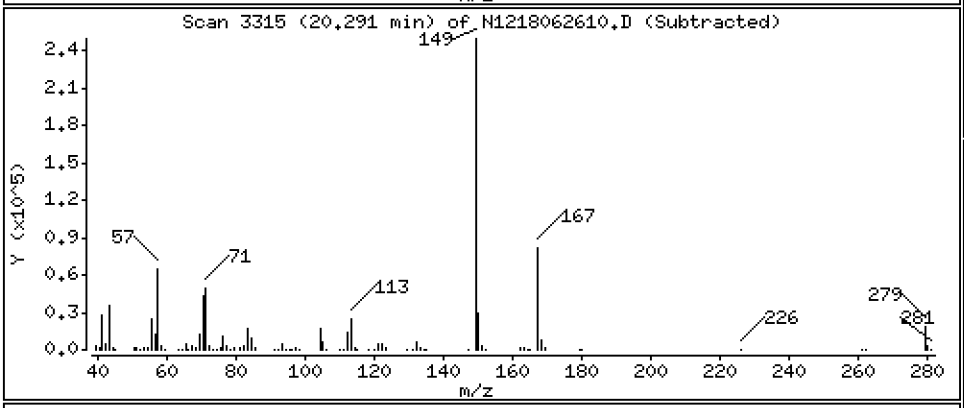
Column diameter: 0.32

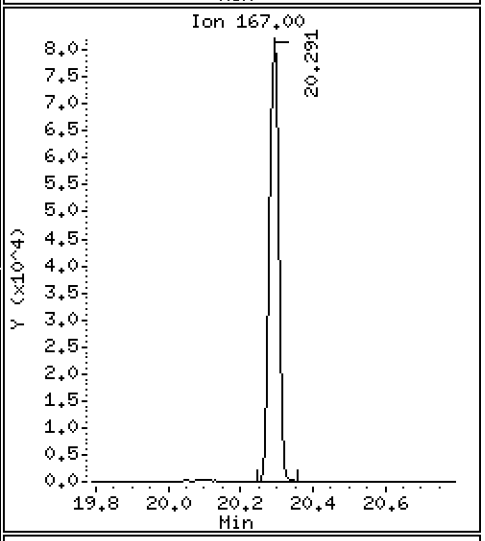
72 bis(2-Ethylhexyl)phthalate

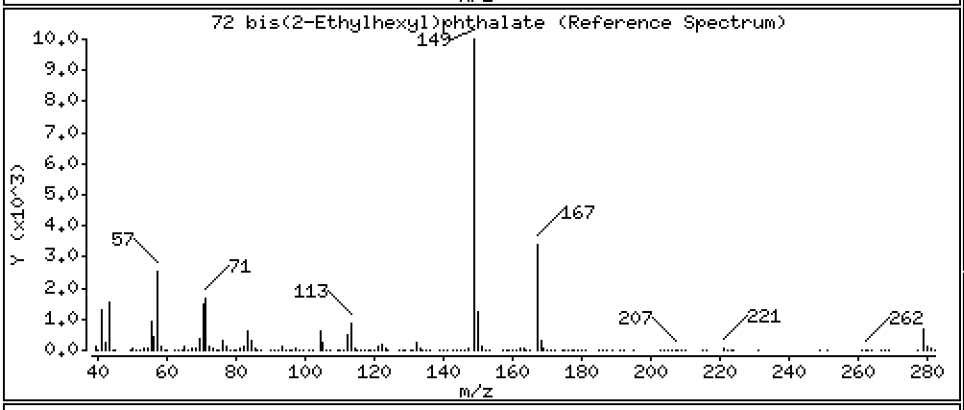
Concentration: 23.83 ug/mL

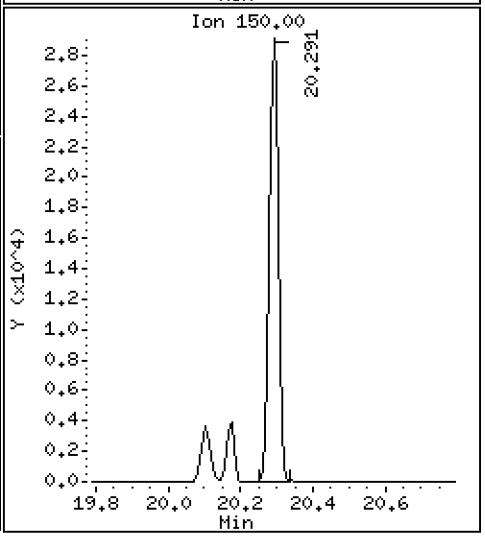


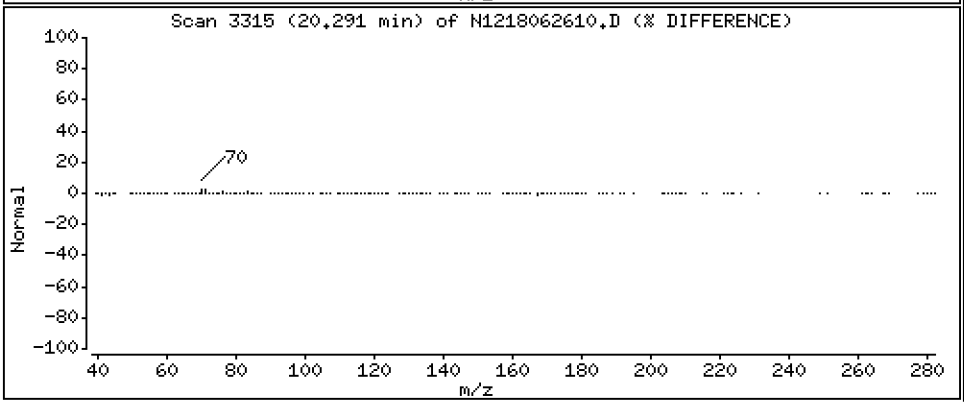












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

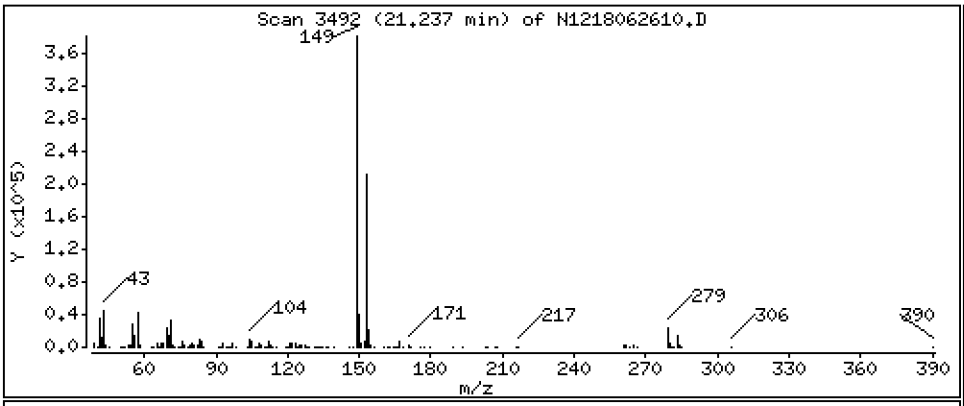
Operator: JZ

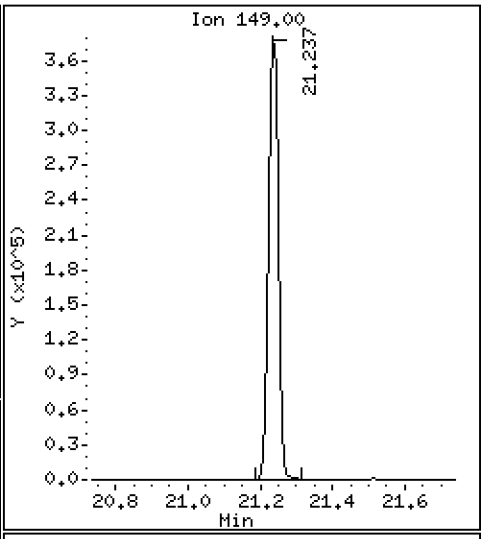
Column phase: ZB-5msi

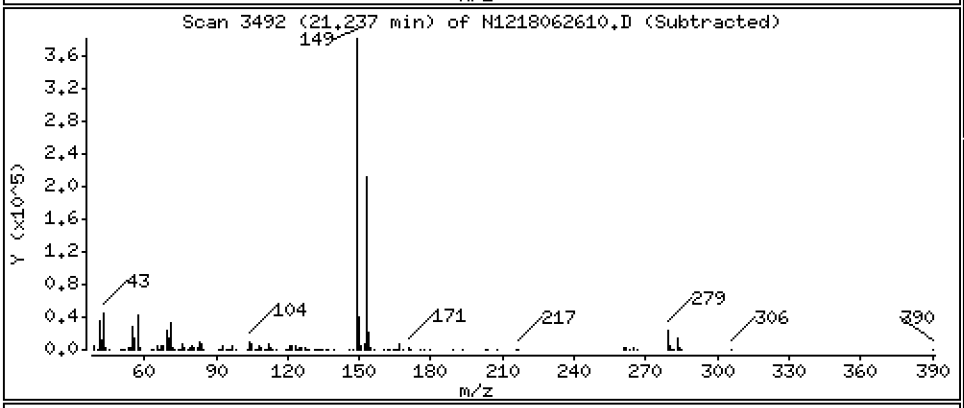
Column diameter: 0.32

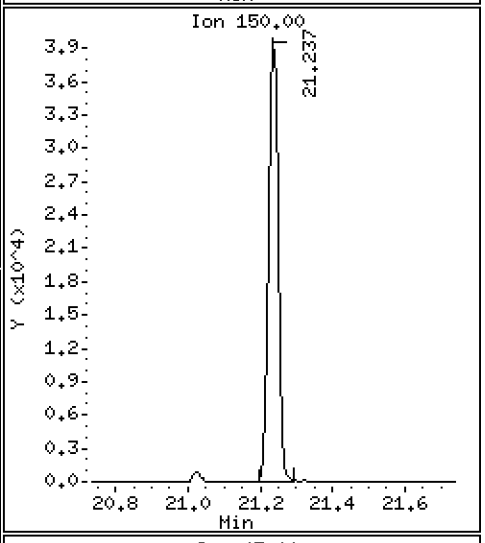
73 Di-n-octylphthalate

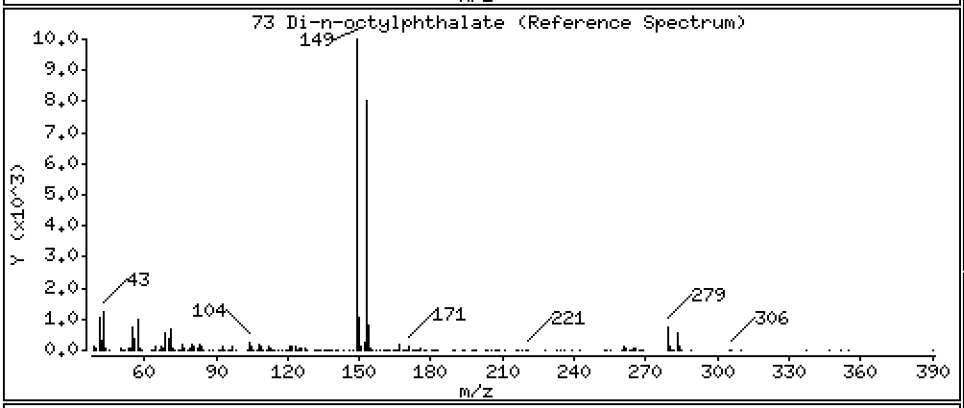
Concentration: 21.52 ug/mL

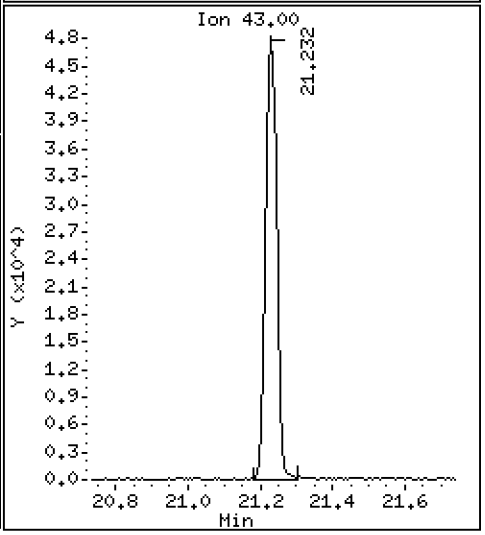


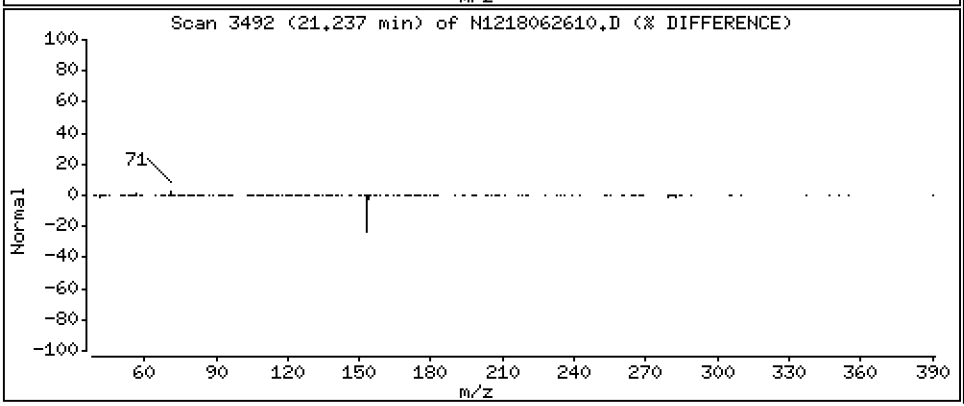












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

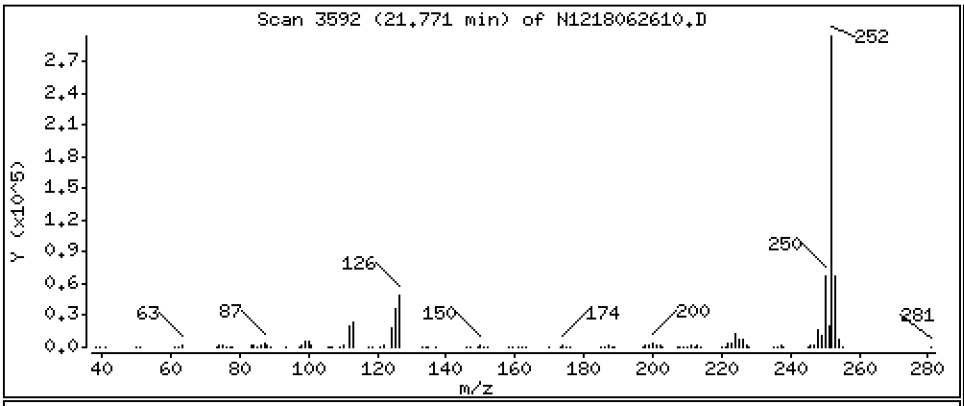
Operator: JZ

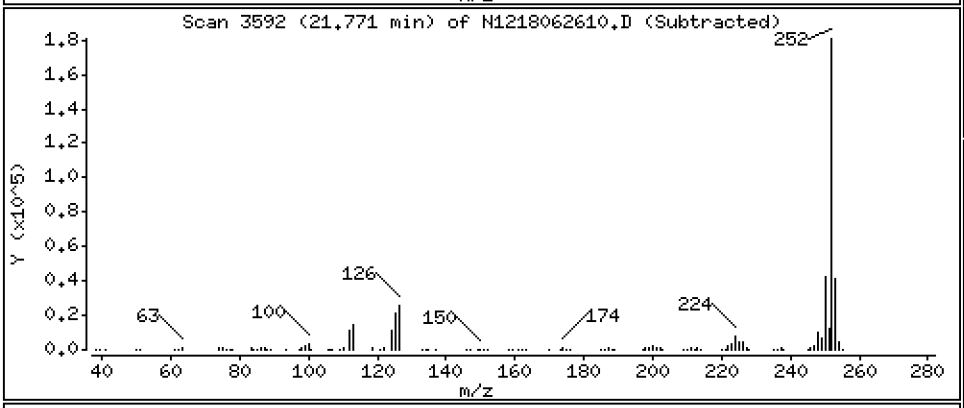
Column phase: ZB-5msi

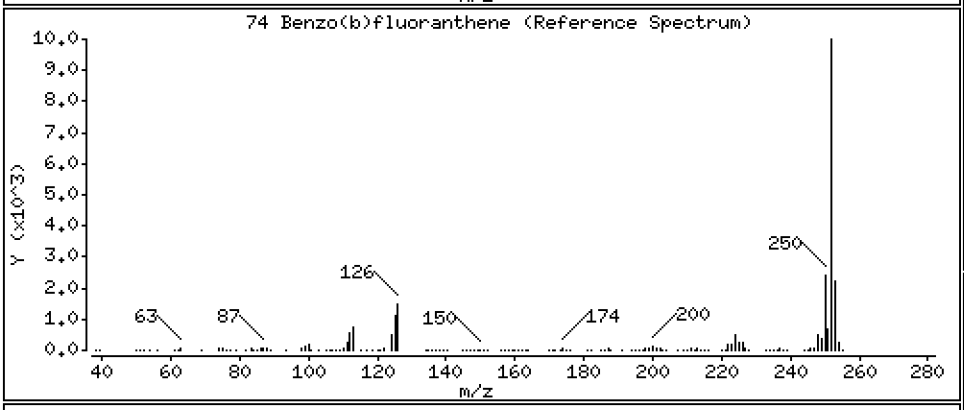
Column diameter: 0.32

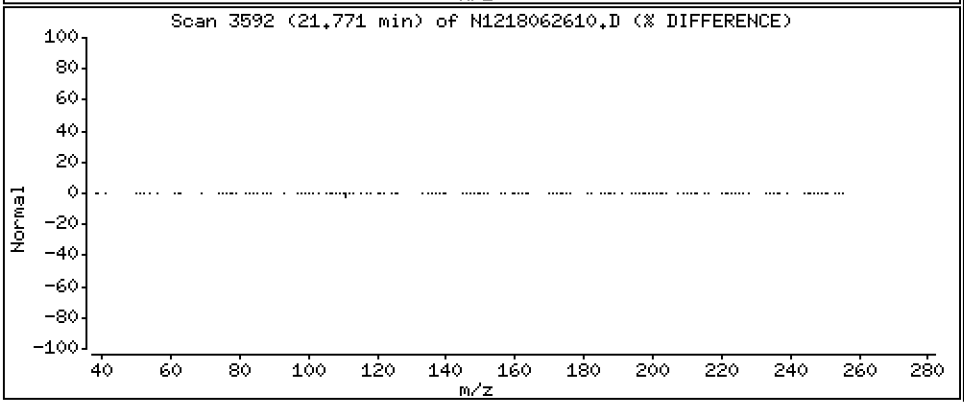
74 Benzo(b)fluoranthene

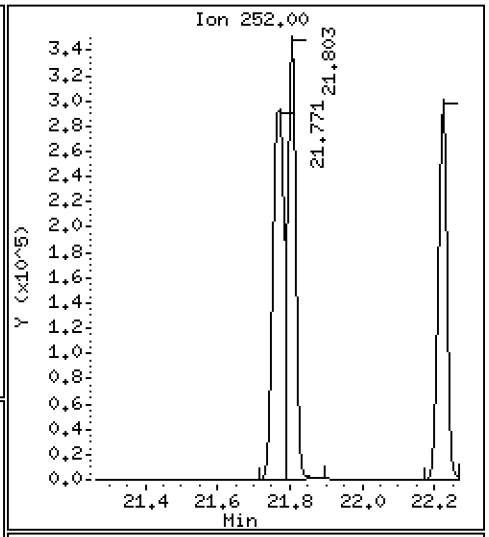
Concentration: 21.85 ug/mL

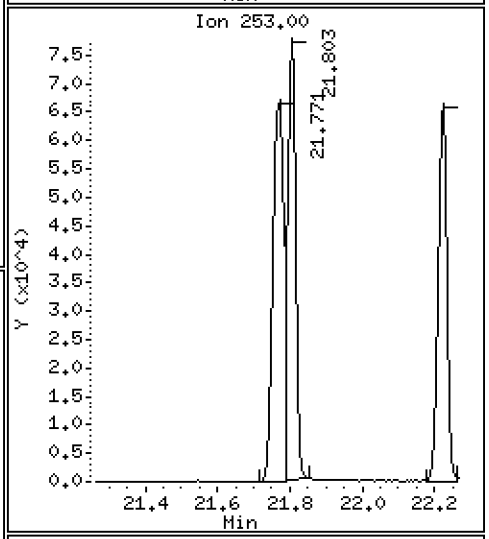


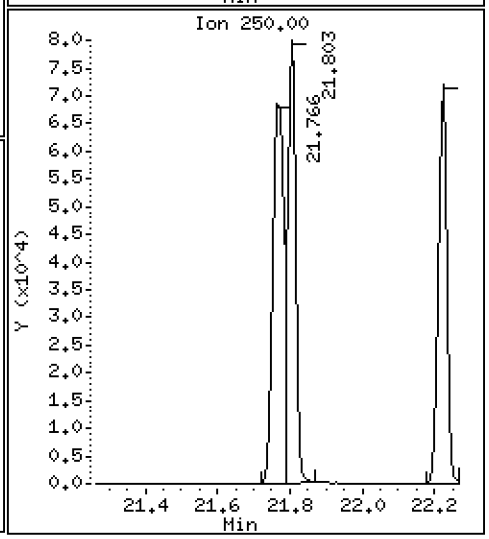












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

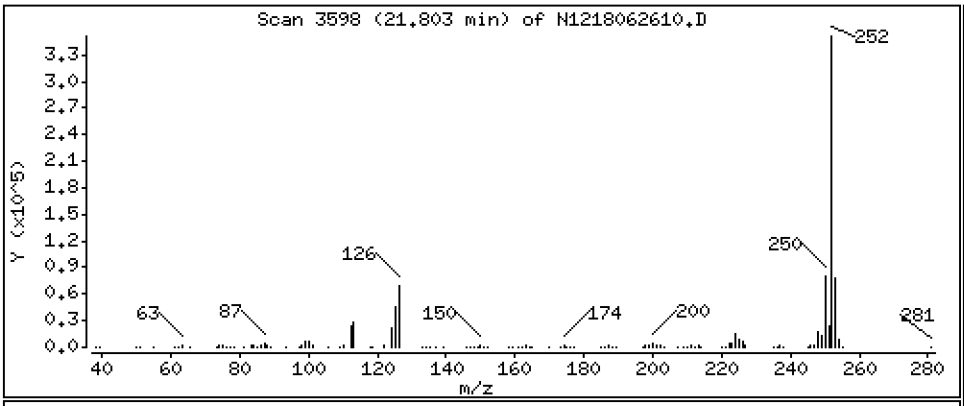
Operator: JZ

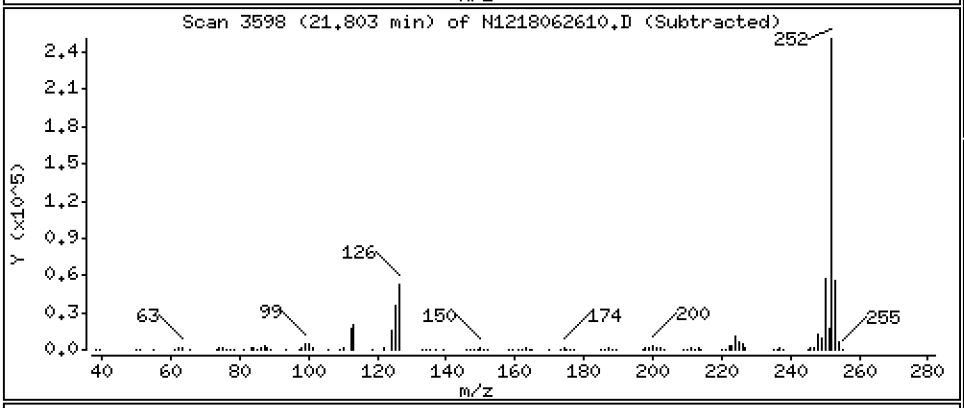
Column phase: ZB-5msi

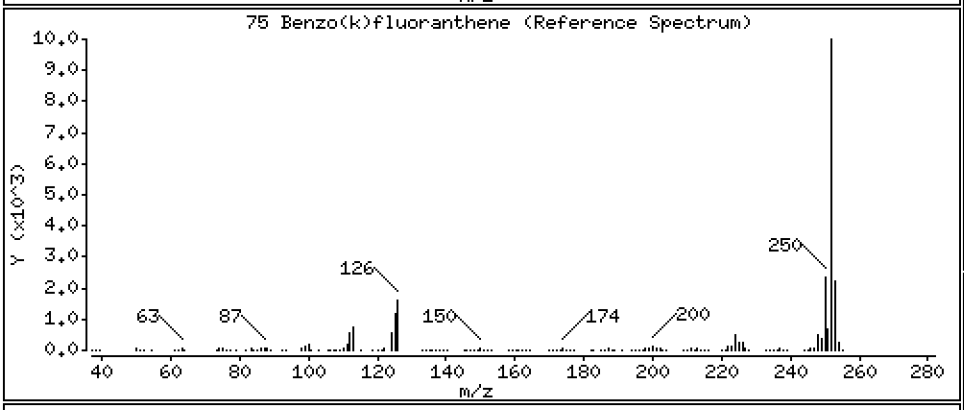
Column diameter: 0.32

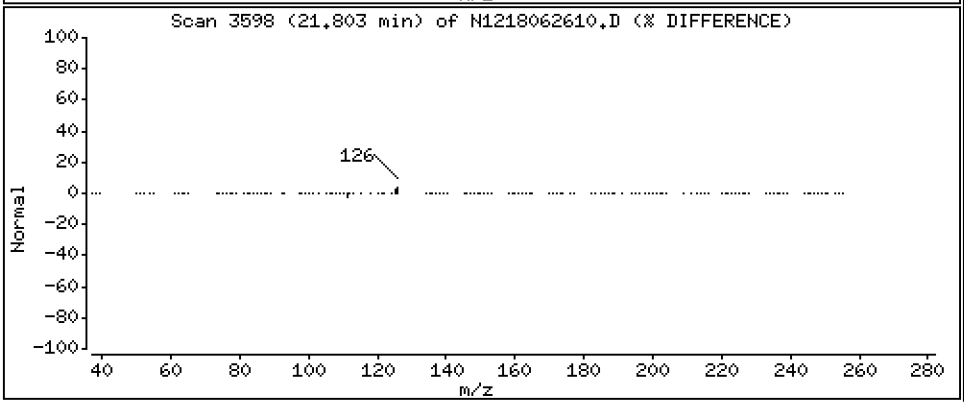
75 Benzo(k)fluoranthene

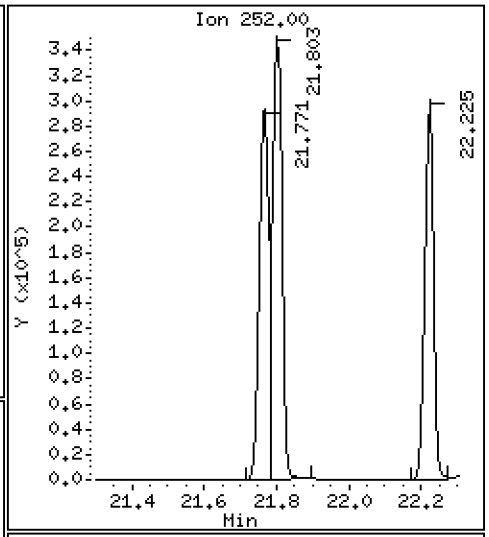
Concentration: 21.02 ug/mL

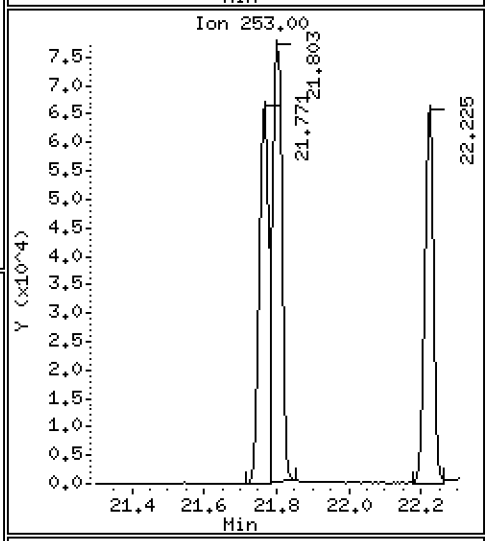


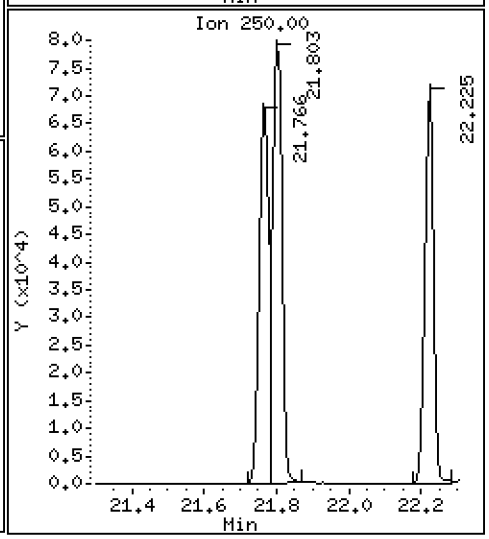












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

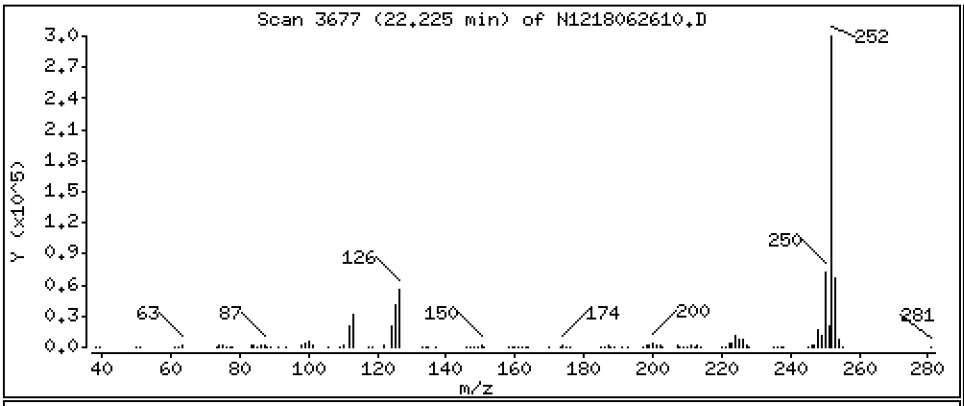
Operator: JZ

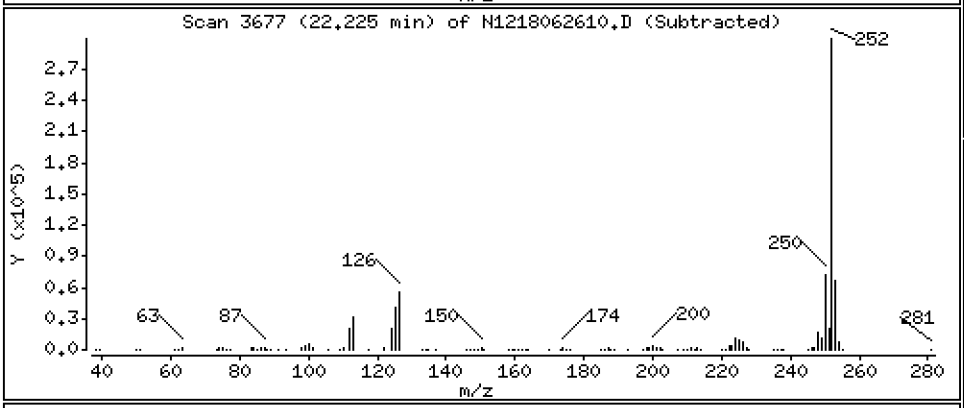
Column phase: ZB-5msi

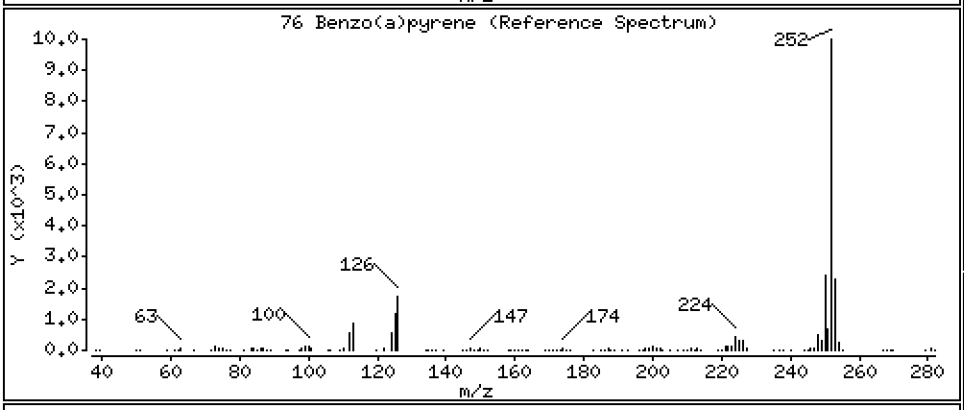
Column diameter: 0.32

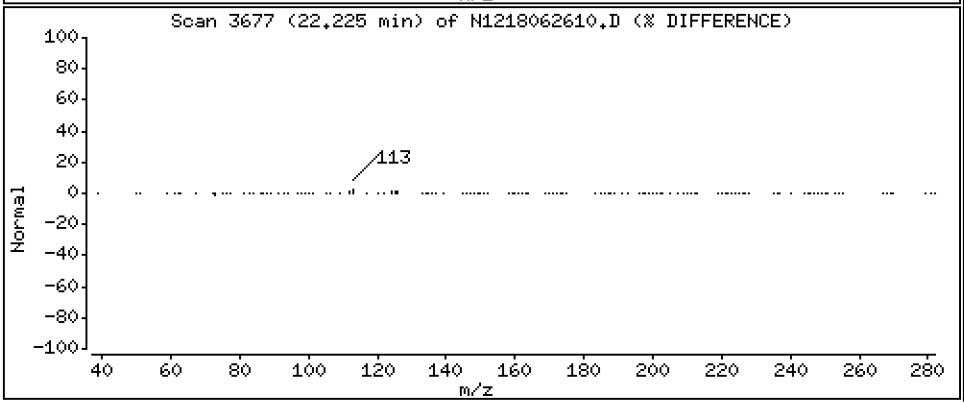
76 Benzo(a)pyrene

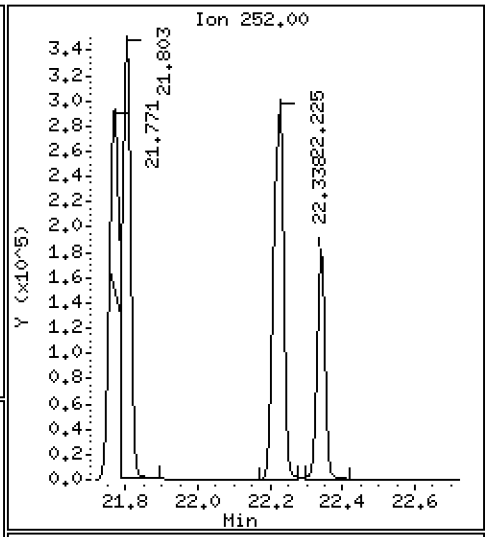
Concentration: 22.68 ug/mL

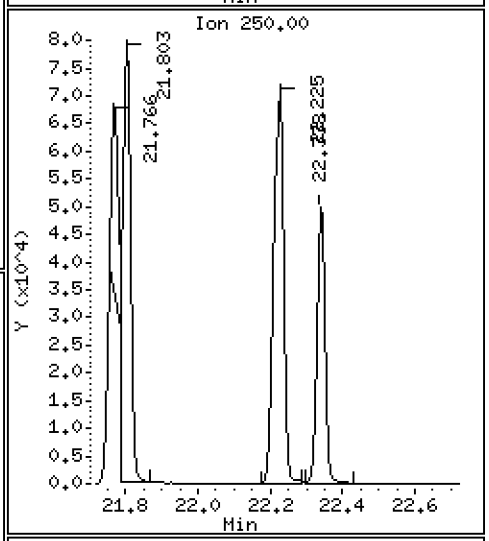


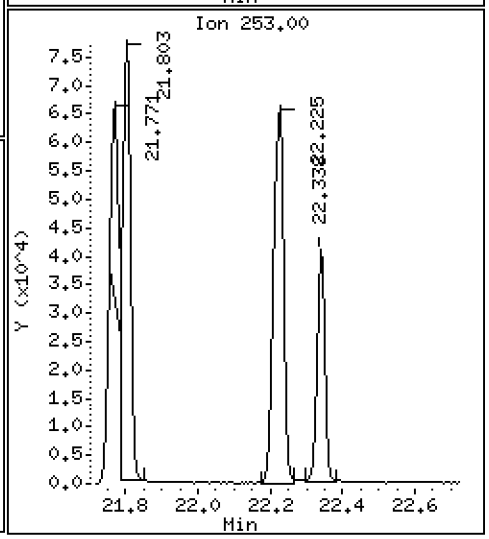












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

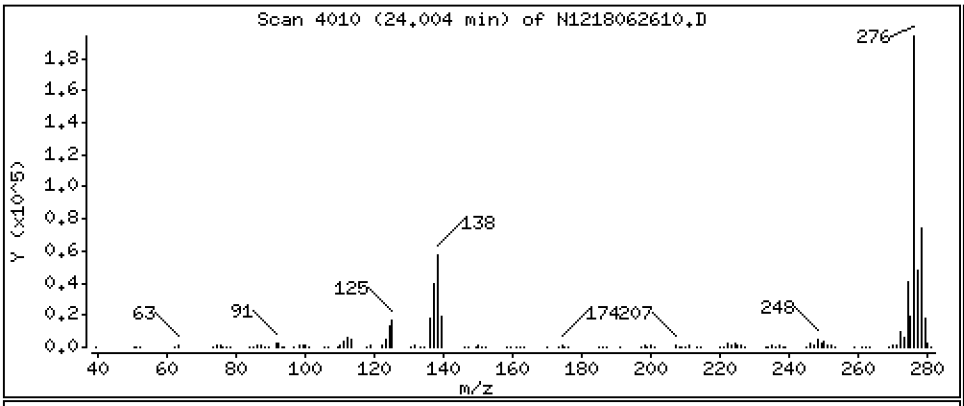
Operator: JZ

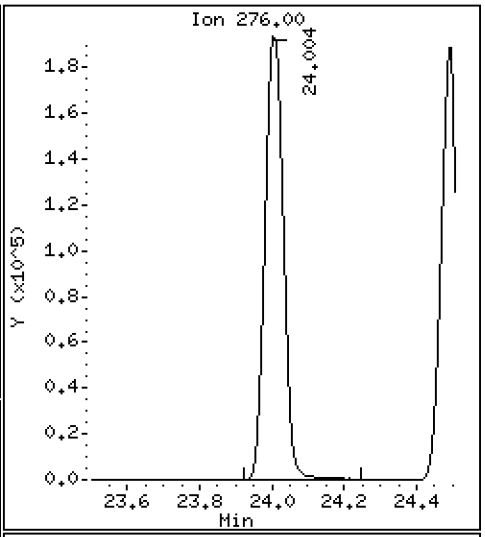
Column phase: ZB-5msi

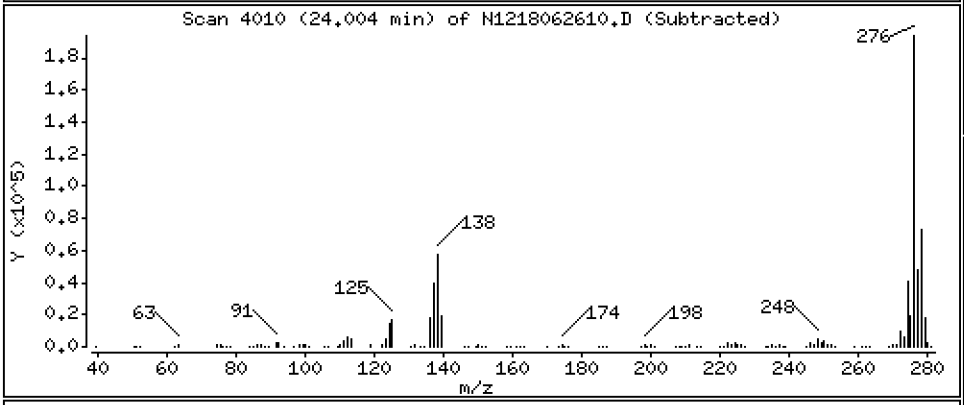
Column diameter: 0.32

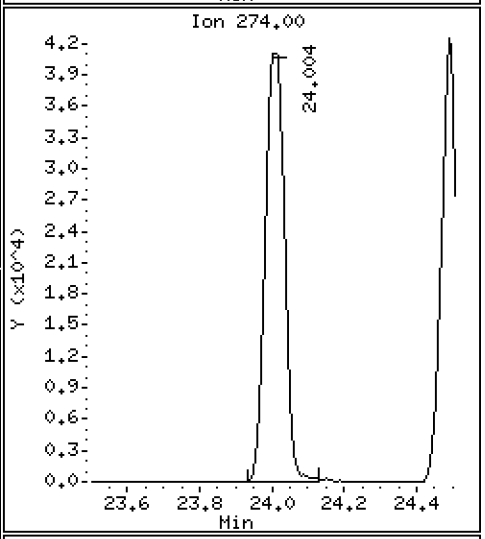
78 Indeno(1,2,3-cd)pyrene

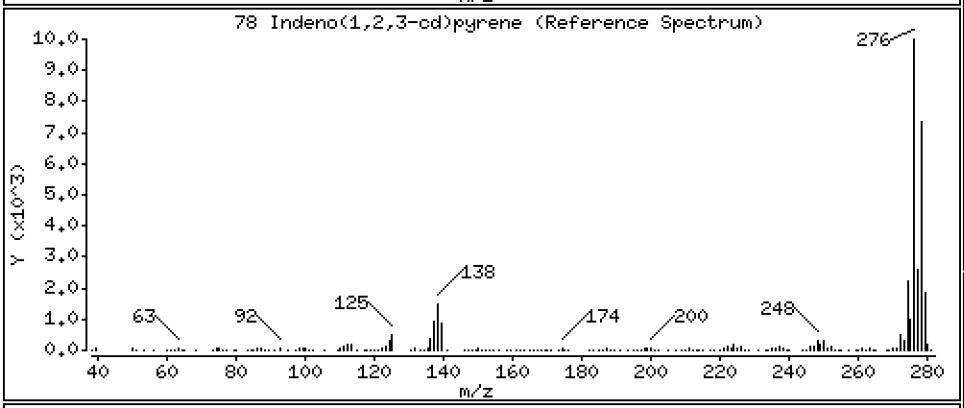
Concentration: 24.33 ug/mL

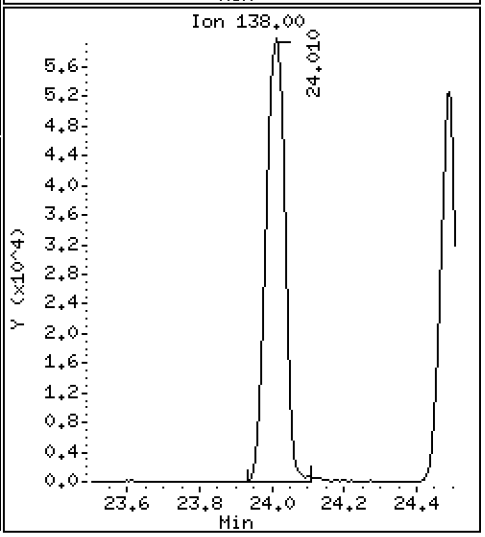


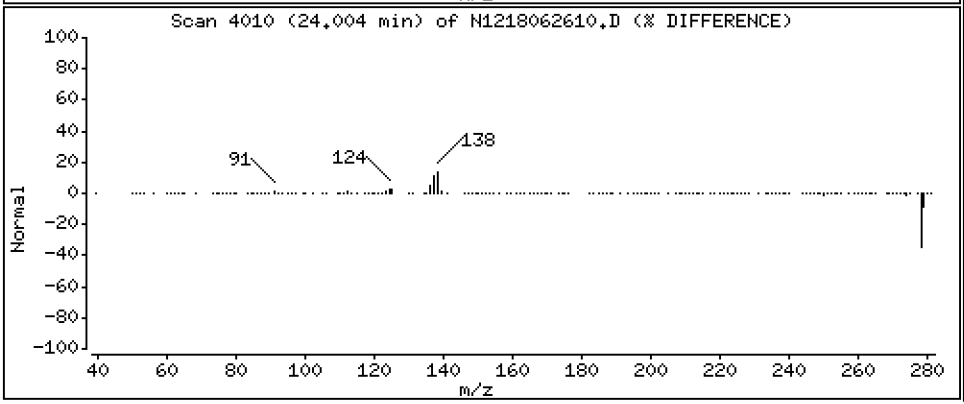












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

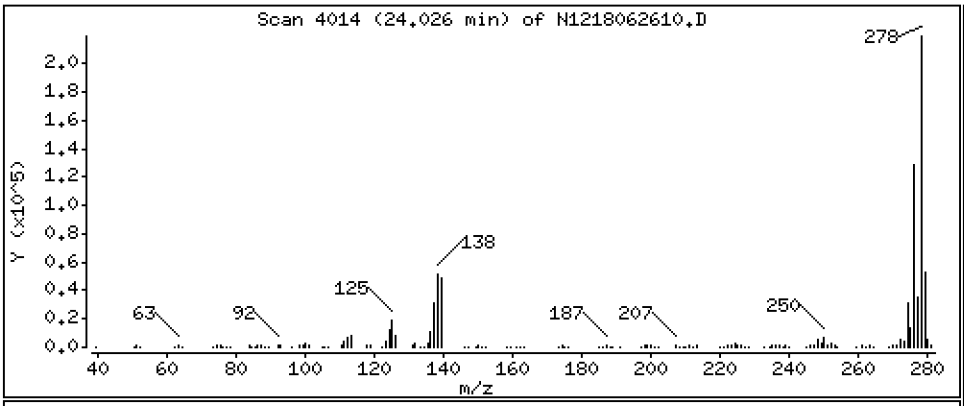
Operator: JZ

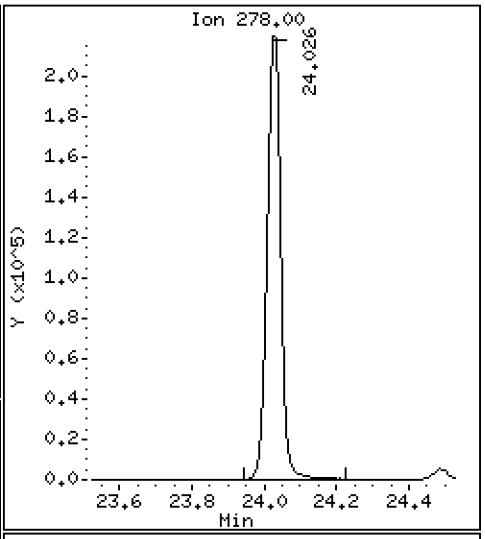
Column phase: ZB-5msi

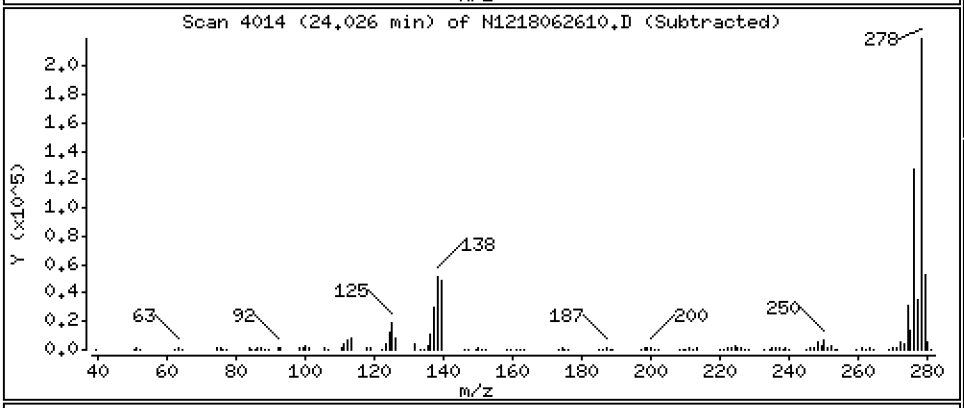
Column diameter: 0.32

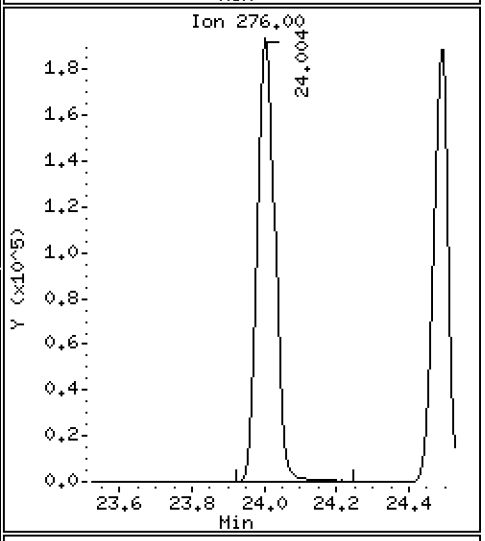
79 Dibenzo(a,h)anthracene

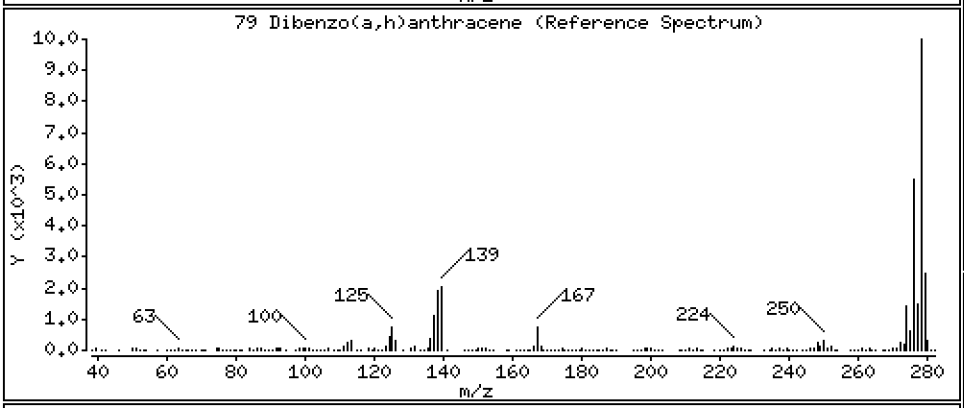
Concentration: 24.27 ug/mL

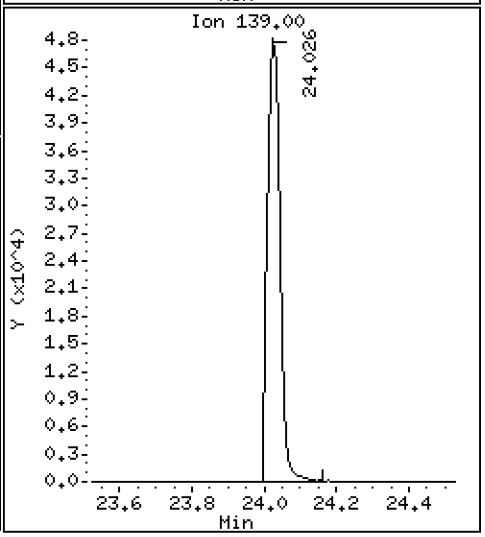


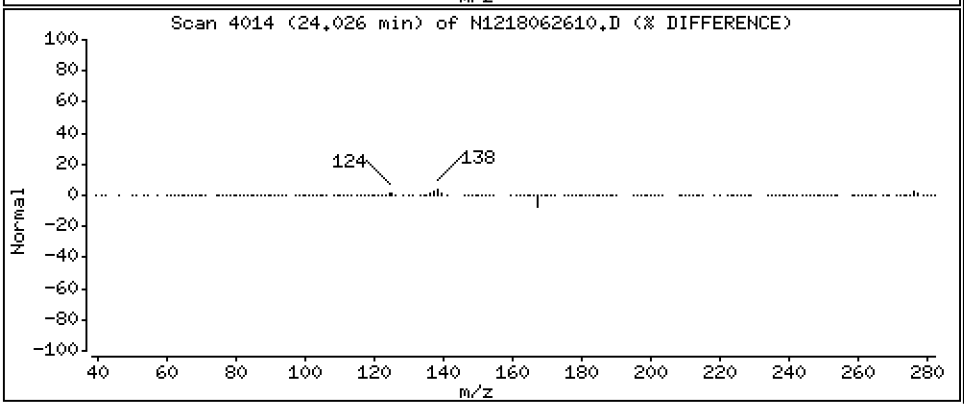












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

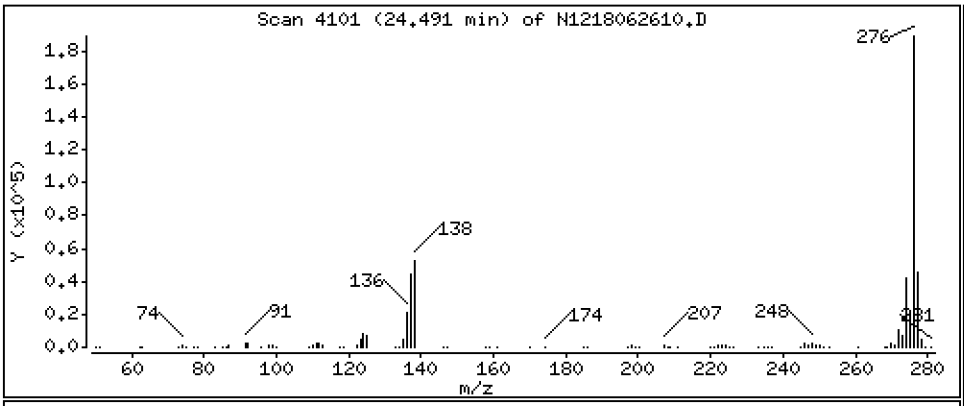
Operator: JZ

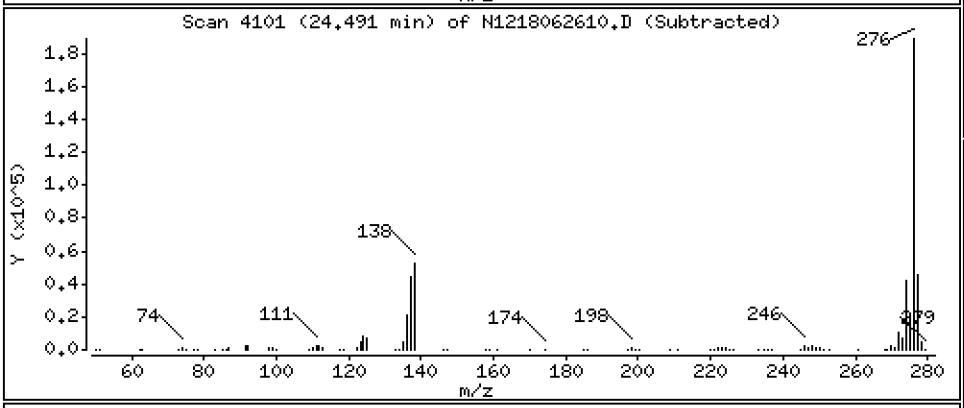
Column phase: ZB-5msi

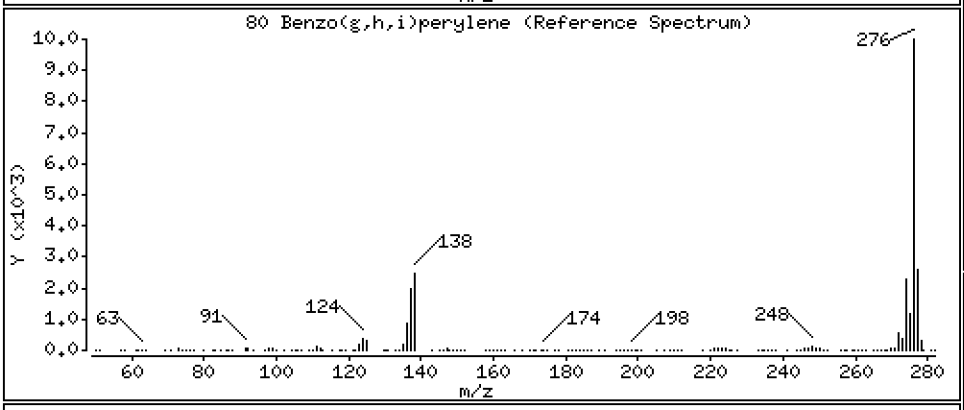
Column diameter: 0.32

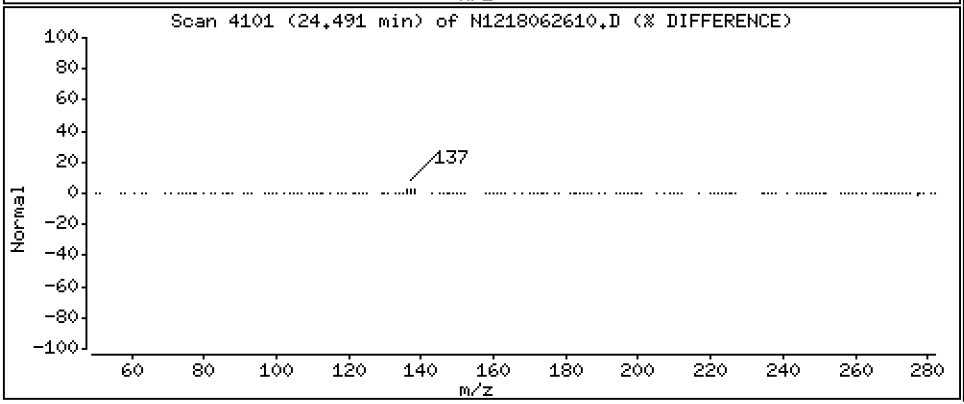
80 Benzo(g,h,i)perylene

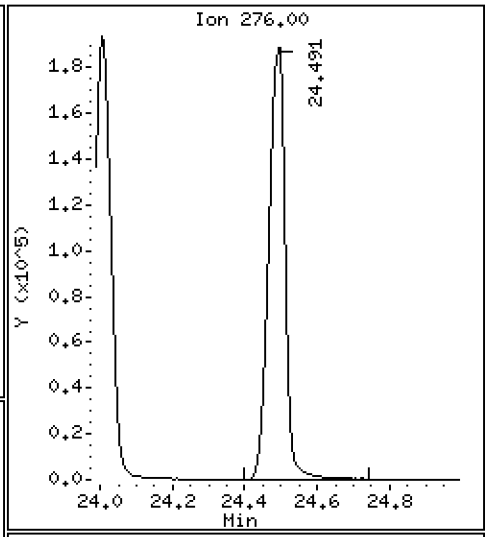
Concentration: 25.24 ug/mL

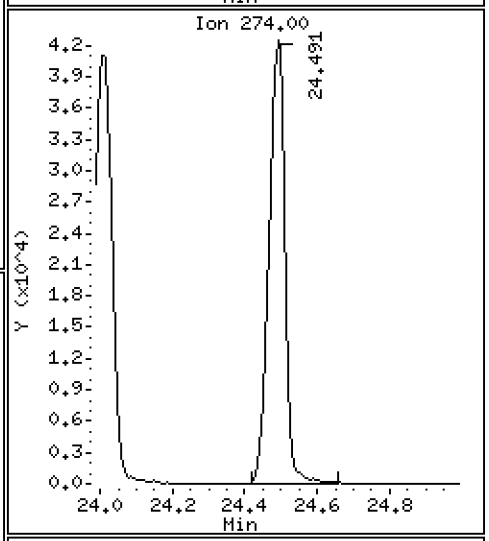


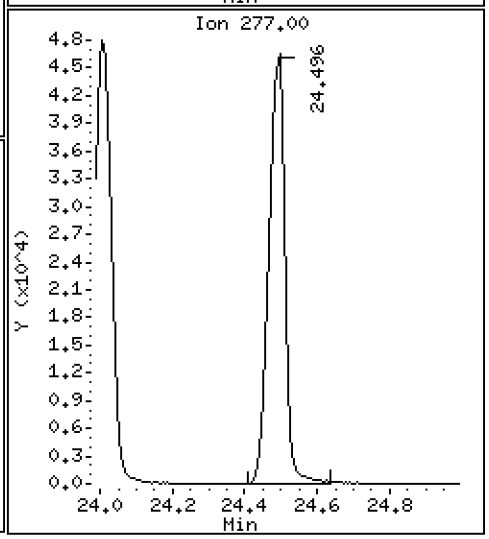












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

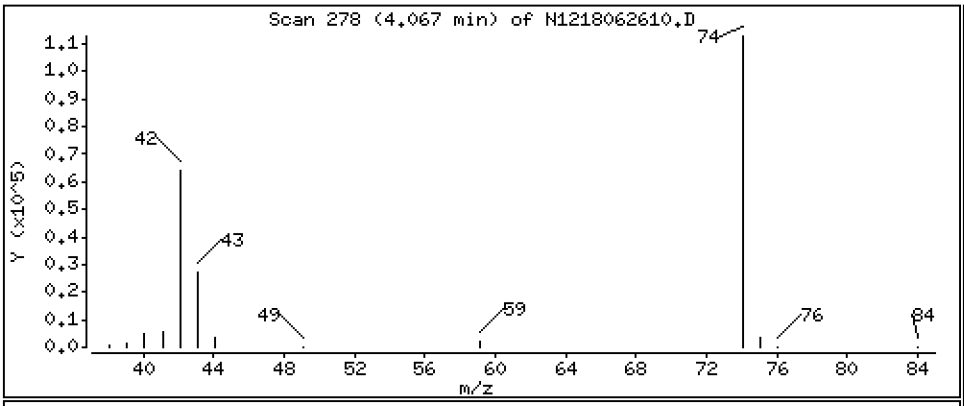
Operator: JZ

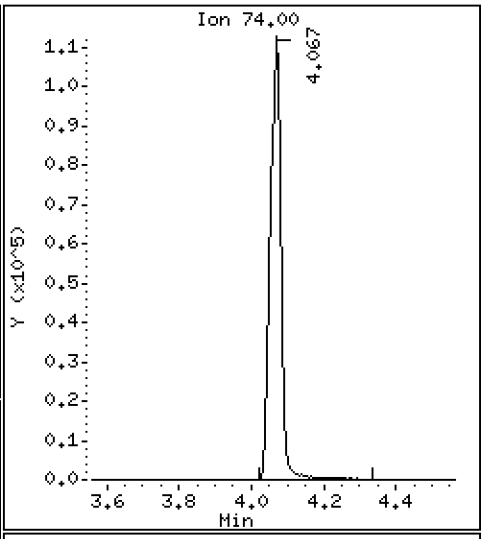
Column phase: ZB-5msi

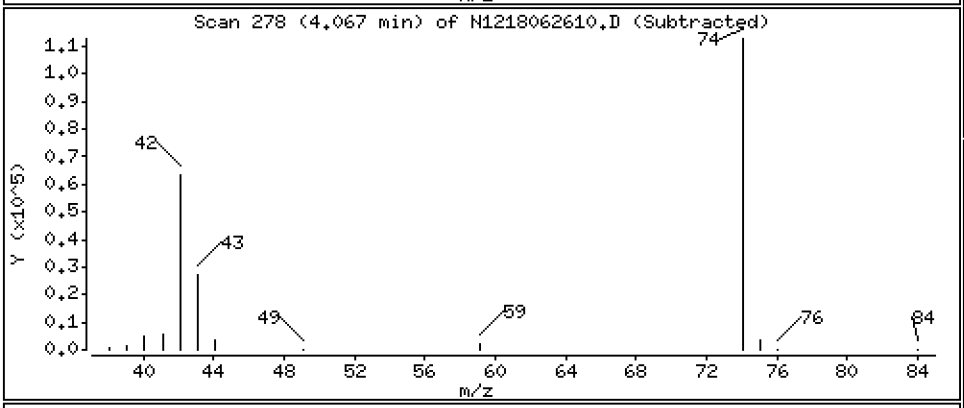
Column diameter: 0.32

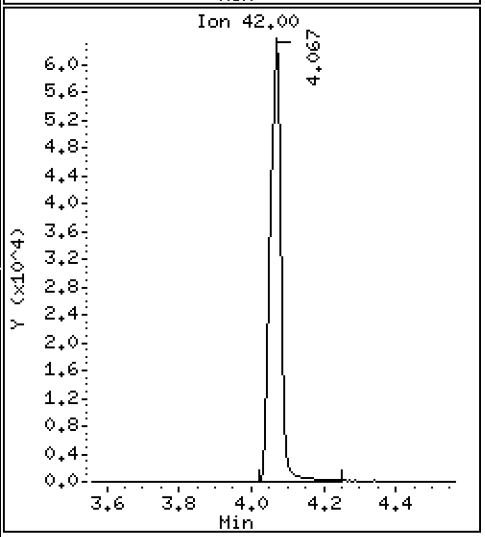
90 N-Nitrosodimethylamine

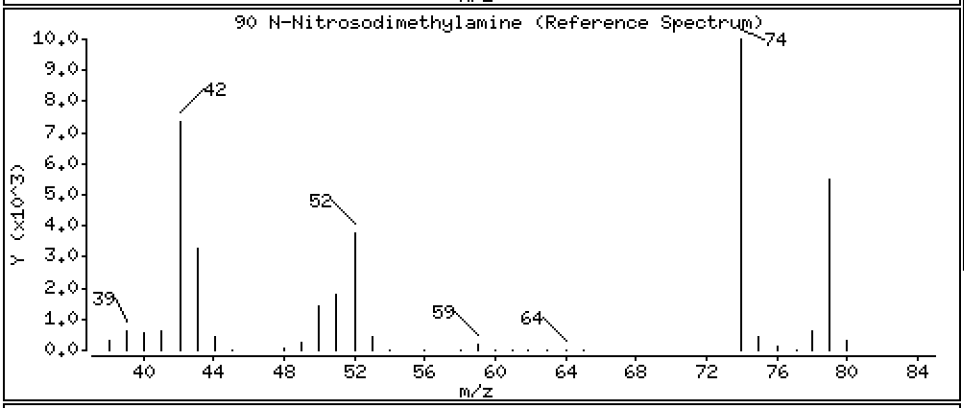
Concentration: 31.51 ug/mL

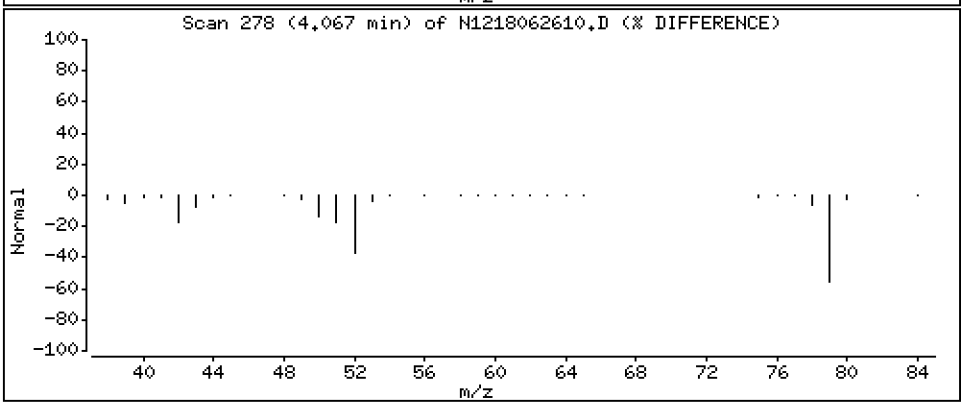












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

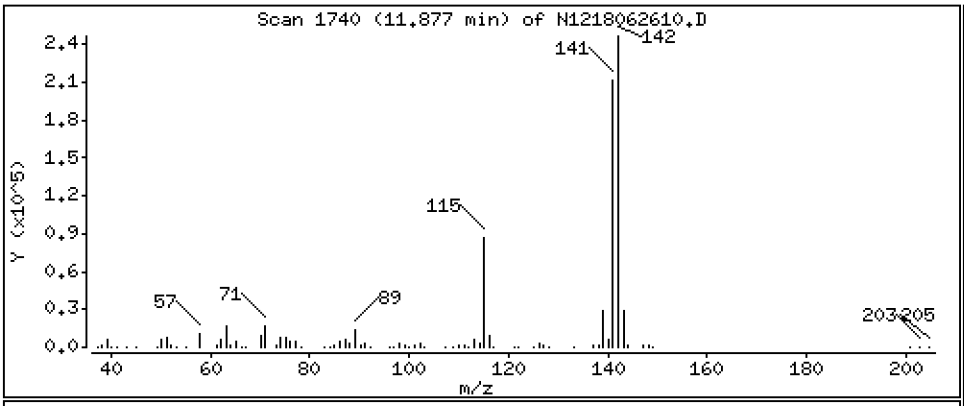
Operator: JZ

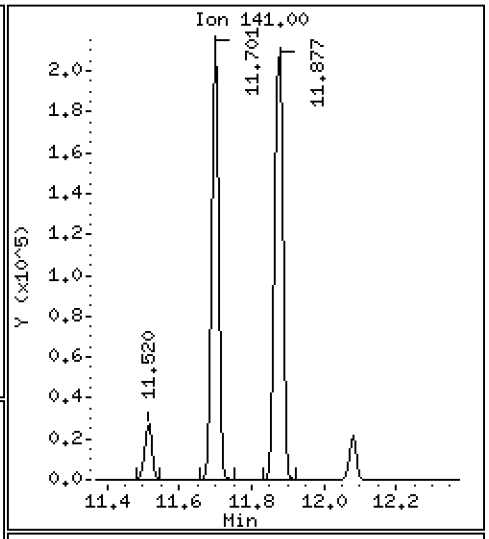
Column phase: ZB-5msi

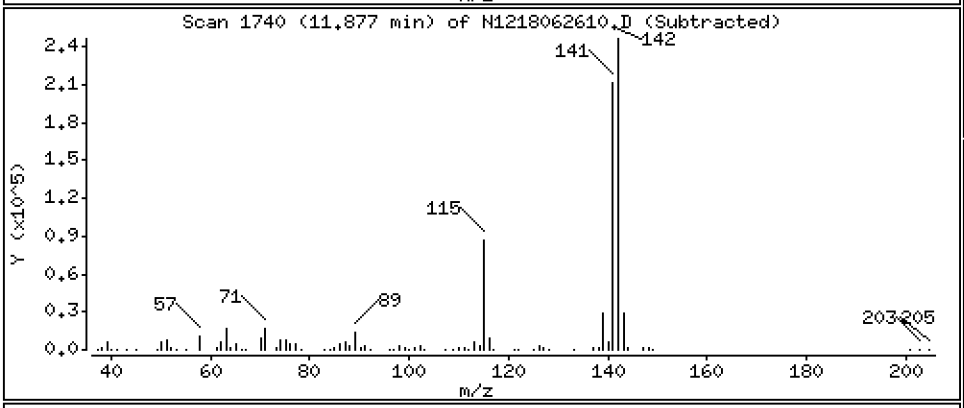
Column diameter: 0.32

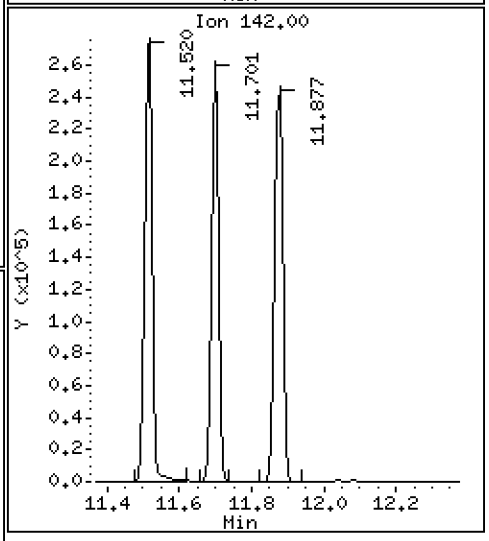
105 1-methylnaphthalene

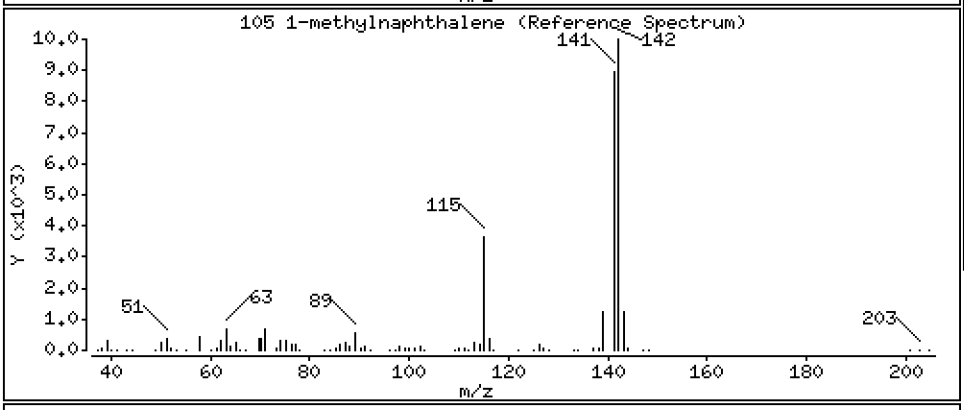
Concentration: 19.75 ug/mL

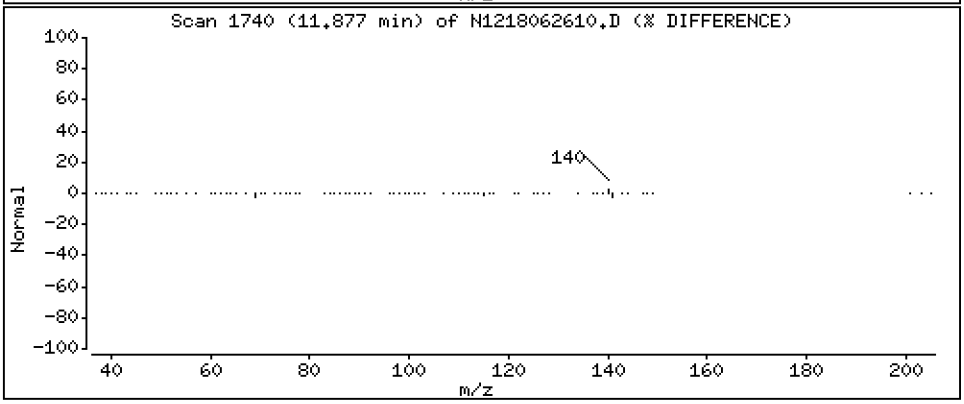












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Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

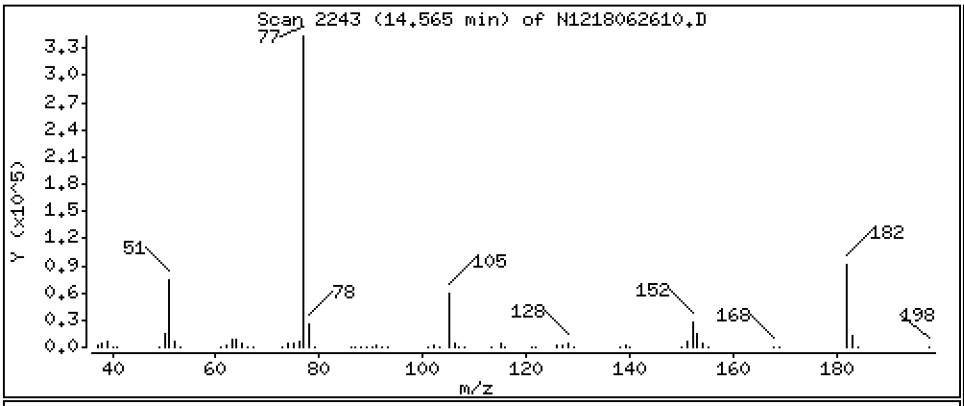
Operator: JZ

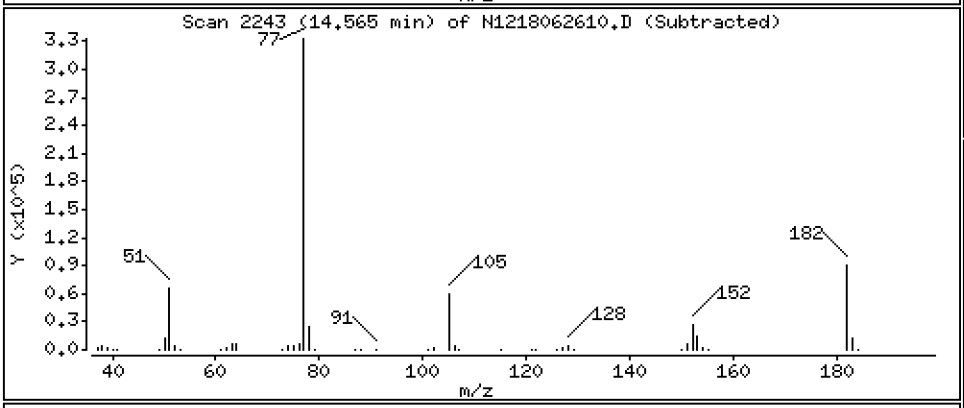
Column phase: ZB-5msi

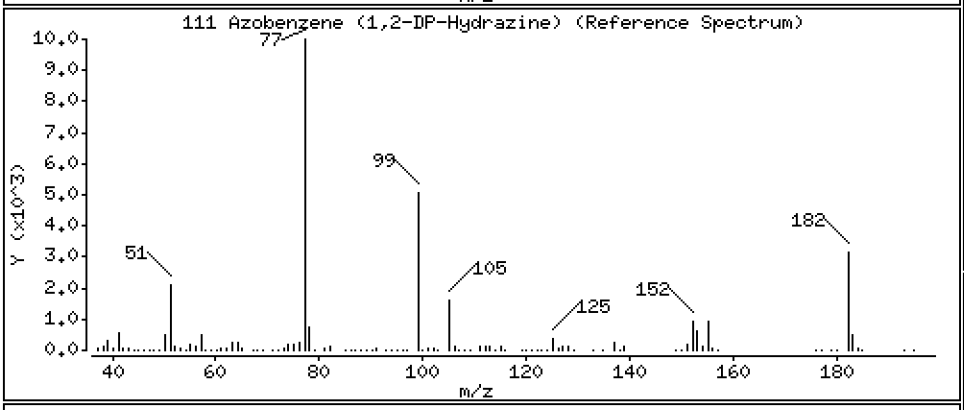
Column diameter: 0.32

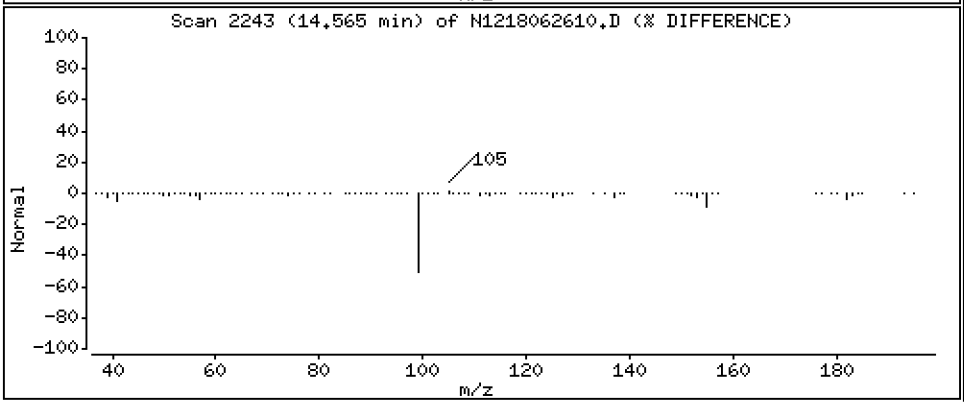
111 Azobenzene (1,2-DP-Hydrazine)

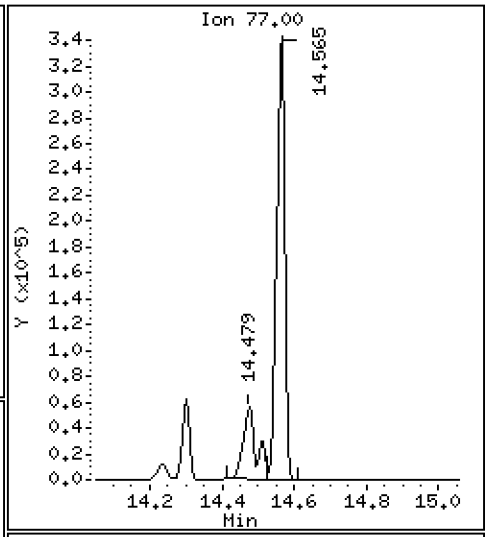
Concentration: 21.82 ug/mL

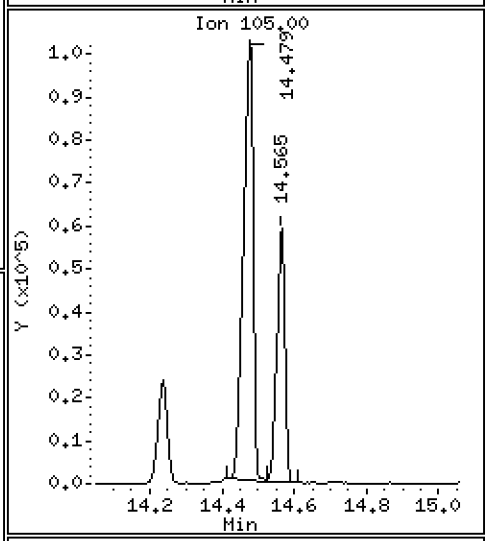


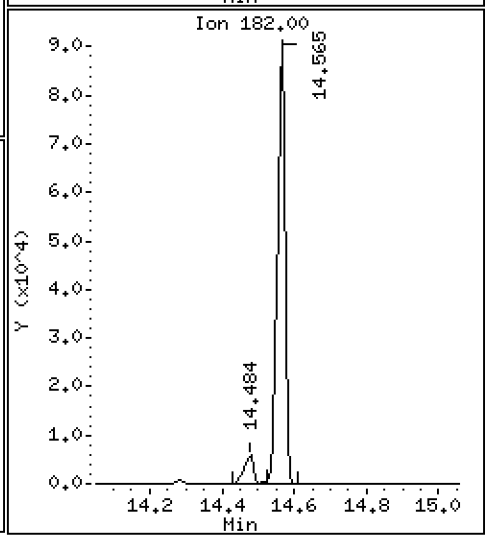












Data File: \\target\share\chem3\nt12.i\20180626.b\N1218062610.D

Date : 26-JUN-2018 16:07

Client ID:

Instrument: nt12.i

Sample Info: BGF0515-MSD1,

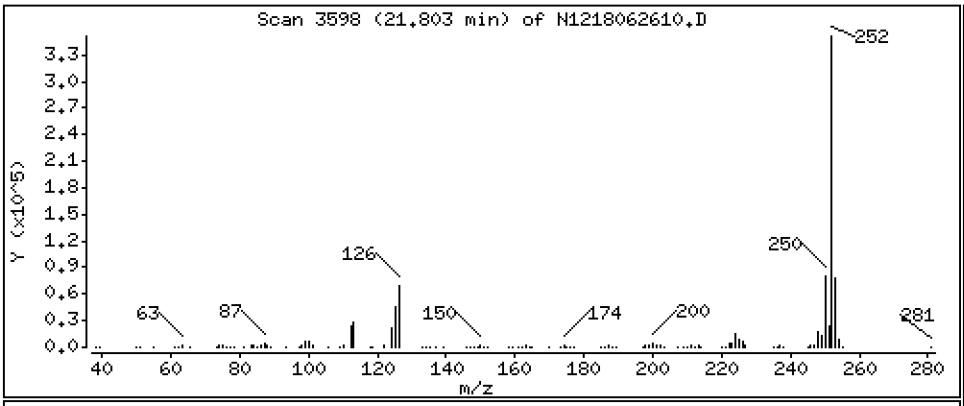
Operator: JZ

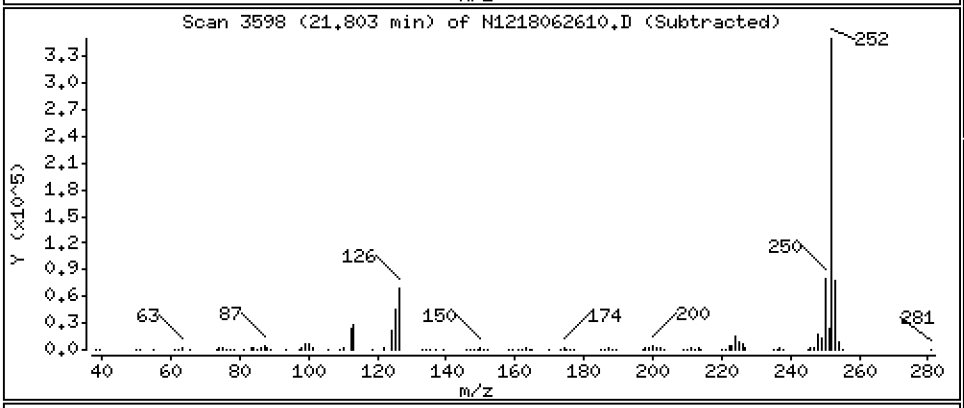
Column phase: ZB-5msi

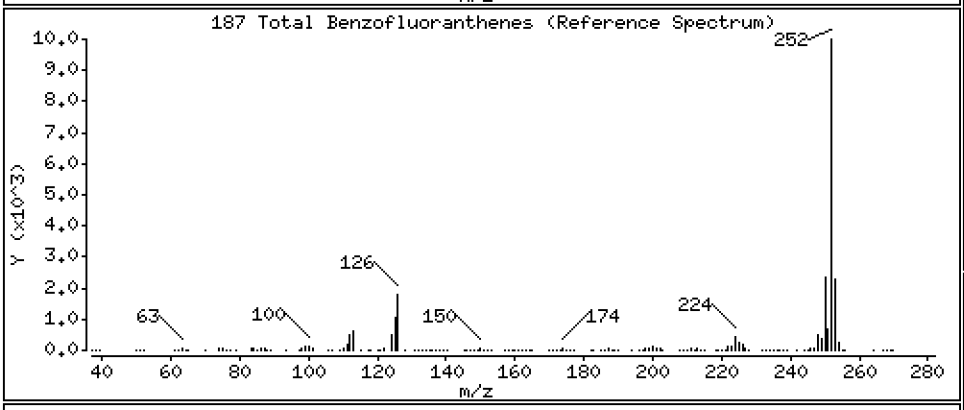
Column diameter: 0.32

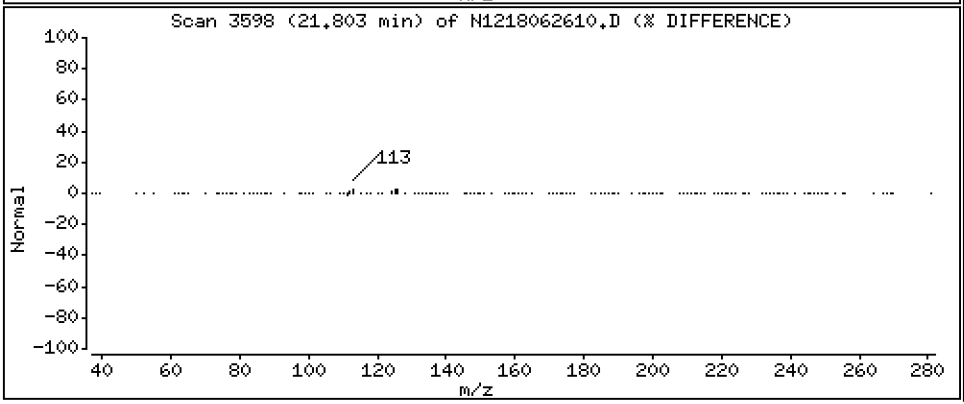
187 Total Benzofluoranthenes

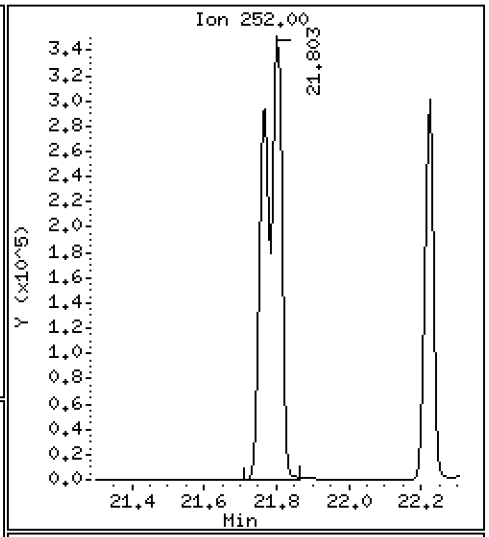
Concentration: 43.60 ug/mL

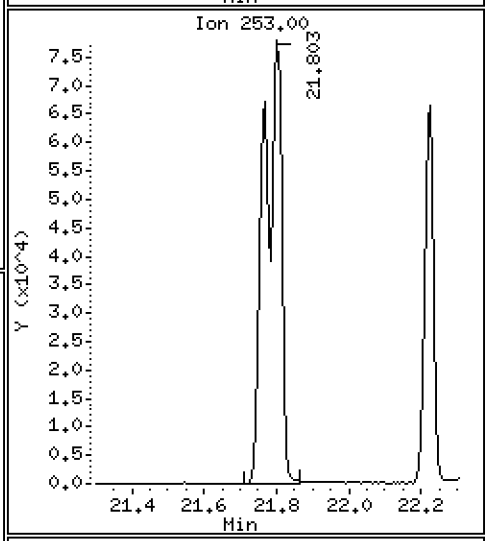


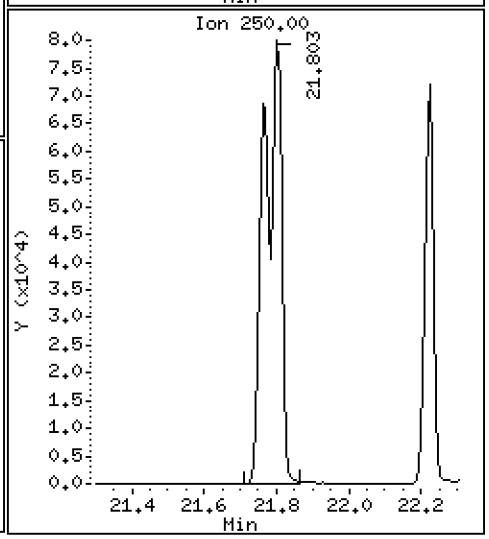












ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

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Inj Date : 26-JUN-2018 16:07
Operator : JZ Inst ID: nt12.i
Smp Info : BGF0515-MSD1,
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180626.b\SW846180516.m
Meth Date : 27-Jun-2018 13:26 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: SEP.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.561	6.556	(0.771)	206972	21.1731	21.17(R)
$	2 Phenol-d5	99	8.052	8.057	(0.946)	214186	17.4398	17.44(R)
	3 Phenol	94	8.068	8.073	(0.948)	142521	11.5870	11.59
$	5 2-Chlorophenol-d4	132	8.207	8.207	(0.964)	268247	28.4269	28.43(R)
	4 Bis(2-Chloroethyl)ether	93	8.169	8.169	(0.960)	191097	18.0008	18.00
	6 2-Chlorophenol	128	8.234	8.228	(0.967)	169756	16.2060	16.21
	7 1,3-Dichlorobenzene	146	8.447	8.447	(0.992)	158177	14.3052	14.31
*	8 1,4-Dichlorobenzene-d4	152	8.511	8.506	(1.000)	136185	20.0000	
	9 1,4-Dichlorobenzene	146	8.533	8.532	(1.002)	160565	14.6463	14.65
$	10 1,2-Dichlorobenzene-d4	152	8.805	8.805	(1.035)	104071	16.4086	16.41(R)
	12 1,2-Dichlorobenzene	146	8.832	8.826	(1.038)	159391	15.4860	15.49
	11 Benzyl alcohol	108	8.778	8.778	(1.031)	114567	14.9434	14.94
	14 2,2'-oxybis(1-Chloropropane)	45	9.035	9.029	(1.062)	202318	18.6864	18.69
	13 2-Methylphenol	108	8.998	8.997	(1.057)	167732	16.6559	16.66
	17 Hexachloroethane	117	9.318	9.312	(1.095)	59681	13.8103	13.81
	16 N-Nitroso-di-n-propylamine	70	9.254	9.254	(1.087)	154432	20.2218	20.22
	15 4-Methylphenol	108	9.233	9.227	(1.085)	174340	17.1685	17.17
$	18 Nitrobenzene-d5	82	9.436	9.435	(0.894)	222115	20.5265	20.53(R)
	19 Nitrobenzene	77	9.462	9.462	(0.897)	219308	18.6100	18.61
	20 Isophorone	82	9.852	9.836	(0.934)	403715	22.6970	22.70
	21 2-Nitrophenol	139	9.975	9.975	(0.945)	105076	19.1345	19.13
	22 2,4-Dimethylphenol	107	10.071	10.066	(0.954)	525066	47.8088	47.81
	23 Bis(2-Chloroethoxy)methane	93	10.221	10.215	(0.969)	240165	20.0531	20.05
	24 Benzoic acid	105	10.349	10.365	(0.981)	572033	75.9309	75.93
	25 2,4-Dichlorophenol	162	10.360	10.354	(0.982)	439671	51.6073	51.61
	26 1,2,4-Trichlorobenzene	180	10.488	10.488	(0.994)	140443	15.9046	15.90
*	27 Naphthalene-d8	136	10.552	10.546	(1.000)	529023	20.0000	
	28 Naphthalene	128	10.584	10.579	(1.003)	490520	17.0578	17.06
	29 4-Chloroaniline	127	10.712	10.712	(1.015)	63421	5.03466	5.035
	30 Hexachlorobutadiene	225	10.894	10.888	(1.032)	69391	14.4462	14.45
	31 4-Chloro-3-methylphenol	107	11.519	11.508	(1.092)	513028	57.2834	57.28
	32 2-Methylnaphthalene	141	11.701	11.695	(1.109)	287412	17.8566	17.86
	33 Hexachlorocyclopentadiene	237	12.080	12.074	(0.900)	223506	55.7284	55.73

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	12.214	12.208	(0.910)	342929	55.4047	55.40
	35	2,4,5-Trichlorophenol	196	12.272	12.267	(0.914)	372249	58.4267	58.43
$	36	2-Fluorobiphenyl	172	12.342	12.336	(0.920)	401525	20.7664	20.77(R)
	37	2-Chloronaphthalene	162	12.486	12.480	(0.930)	339763	19.1629	19.16
	38	2-Nitroaniline	65	12.721	12.710	(0.948)	342902	61.0495	61.05
	39	Dimethylphthalate	163	13.084	13.073	(0.975)	420242	21.8824	21.88
	40	Acenaphthylene	152	13.170	13.164	(0.981)	504011	19.8787	19.88
	41	2,6-Dinitrotoluene	165	13.186	13.170	(0.982)	282287	66.8434	66.84
*	42	Acenaphthene-d10	164	13.421	13.415	(1.000)	271862	20.0000	
	43	3-Nitroaniline	138	13.400	13.389	(0.998)	254184	49.3395	49.34
	44	Acenaphthene	153	13.474	13.469	(1.004)	350549	20.8307	20.83
	45	2,4-Dinitrophenol	184	13.570	13.554	(1.011)	368757	140.401	140.4
	46	Dibenzofuran	168	13.736	13.730	(1.023)	509163	19.8973	19.90
	47	4-Nitrophenol	109	13.688	13.682	(1.020)	93710	34.4887	34.49
	48	2,4-Dinitrotoluene	165	13.816	13.800	(1.029)	392152	65.5105	65.51
	50	Diethylphthalate	149	14.238	14.227	(1.061)	412763	22.5724	22.57
	49	Fluorene	166	14.292	14.286	(1.065)	407587	21.7310	21.73
	51	4-Chlorophenyl-phenylether	204	14.302	14.297	(1.066)	186311	21.2939	21.29
	52	4-Nitroaniline	138	14.420	14.398	(1.074)	289422	57.3984	57.40
	53	4,6-Dinitro-2-methylphenol	198	14.484	14.468	(0.916)	466292	137.178	137.2
	54	N-Nitrosodiphenylamine	169	14.516	14.505	(0.918)	303883	21.1722	21.17
$	55	2,4,6-Tribromophenol	330	14.719	14.713	(1.097)	83978	36.8978	36.90(R)
	56	4-Bromophenyl-phenylether	248	15.088	15.082	(0.954)	115345	21.1462	21.15
	57	Hexachlorobenzene	284	15.317	15.317	(0.969)	112534	19.9397	19.94
	58	Pentachlorophenol	266	15.617	15.611	(0.988)	230147	61.6860	61.69
*	59	Phenanthrene-d10	188	15.809	15.798	(1.000)	473709	20.0000	
	60	Phenanthrene	178	15.846	15.835	(1.002)	579114	24.6599	24.66
	61	Anthracene	178	15.916	15.910	(1.007)	547379	20.4359	20.44
	62	Carbazole	167	16.194	16.188	(1.024)	526130	20.3623	20.36
	63	Di-n-butylphthalate	149	16.877	16.877	(1.068)	666319	22.5428	22.54
	64	Fluoranthene	202	17.785	17.780	(1.125)	635049	21.6160	21.62
	65	Pyrene	202	18.143	18.143	(0.901)	637505	24.7506	24.75
$	66	Terphenyl-d14	244	18.437	18.437	(0.916)	459409	28.7098	28.71(R)
	67	Butylbenzylphthalate	149	19.308	19.308	(0.959)	286239	24.8391	24.84
	68	Benzo(a)anthracene	228	20.104	20.104	(0.998)	499790	26.5115	26.51
*	69	Chrysene-d12	240	20.136	20.130	(1.000)	415396	20.0000	
	70	3,3'-Dichlorobenzidine	252	20.109	20.104	(0.999)	361147	51.3137	51.31
	71	Chrysene	228	20.173	20.173	(1.002)	514457	24.4554	24.46
	72	bis(2-Ethylhexyl)phthalate	149	20.291	20.291	(0.956)	380415	23.8311	23.83
*	134	Di-n-octylphthalate-d4	153	21.226	21.226	(1.000)	537289	20.0000	
	73	Di-n-octylphthalate	149	21.237	21.236	(1.000)	617622	21.5225	21.52
	74	Benzo(b)fluoranthene	252	21.771	21.765	(0.976)	573303	21.8545	21.85
	75	Benzo(k)fluoranthene	252	21.803	21.803	(0.977)	555340	21.0214	21.02
	76	Benzo(a)pyrene	252	22.225	22.219	(0.996)	505611	22.6776	22.68
*	77	Perylene-d12	264	22.305	22.299	(1.000)	426111	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	24.004	24.004	(1.076)	634098	24.3255	24.33
	79	Dibenzo(a,h)anthracene	278	24.025	24.025	(1.077)	517523	24.2676	24.27
	80	Benzo(g,h,i)perylene	276	24.490	24.490	(1.098)	549040	25.2428	25.24
	90	N-Nitrosodimethylamine	74	4.067	4.061	(0.478)	210712	31.5131	31.51
	91	Aniline	93	Compound Not Detected.					
	93	Benzidine	184	Compound Not Detected.					
	103	Pyridine	79	Compound Not Detected.					
	105	1-methylnaphthalene	141	11.877	11.871	(1.126)	284097	19.7524	19.75
	111	Azobenzene (1,2-DP-Hydrazine)	77	14.564	14.553	(0.921)	481969	21.8231	21.82

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
187 Total Benzofluoranthenes	252	21.803	21.803	(0.977)	1072606	43.5978	43.60

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062610.D
Lab Smp Id: BGF0515-MSD1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180626.b\SW846180516.m
Misc Info: 18-

Calibration Date: 26-JUN-2018
Calibration Time: 22:20
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	136185	7.25
27 Naphthalene-d8	478458	239229	956916	529023	10.57
42 Acenaphthene-d10	247659	123830	495318	271862	9.77
59 Phenanthrene-d10	421930	210965	843860	473709	12.27
69 Chrysene-d12	450836	225418	901672	415396	-7.86
134 Di-n-octylphthala	583434	291717	1166868	537289	-7.91
77 Perylene-d12	453093	226547	906186	426111	-5.96

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.51	8.01	9.01	8.51	0.07
27 Naphthalene-d8	10.55	10.05	11.05	10.55	0.05
42 Acenaphthene-d10	13.42	12.92	13.92	13.42	0.04
59 Phenanthrene-d10	15.80	15.30	16.30	15.81	0.07
69 Chrysene-d12	20.13	19.63	20.63	20.14	0.03
134 Di-n-octylphthala	21.23	20.73	21.73	21.23	0.00
77 Perylene-d12	22.30	21.80	22.80	22.31	0.03

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062610.D

Lab ID: BGF0515-MSD1
nt12.i, SW846180516.m, 26-JUN-2018 16:07

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, SEP.sub = 0.5000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270D

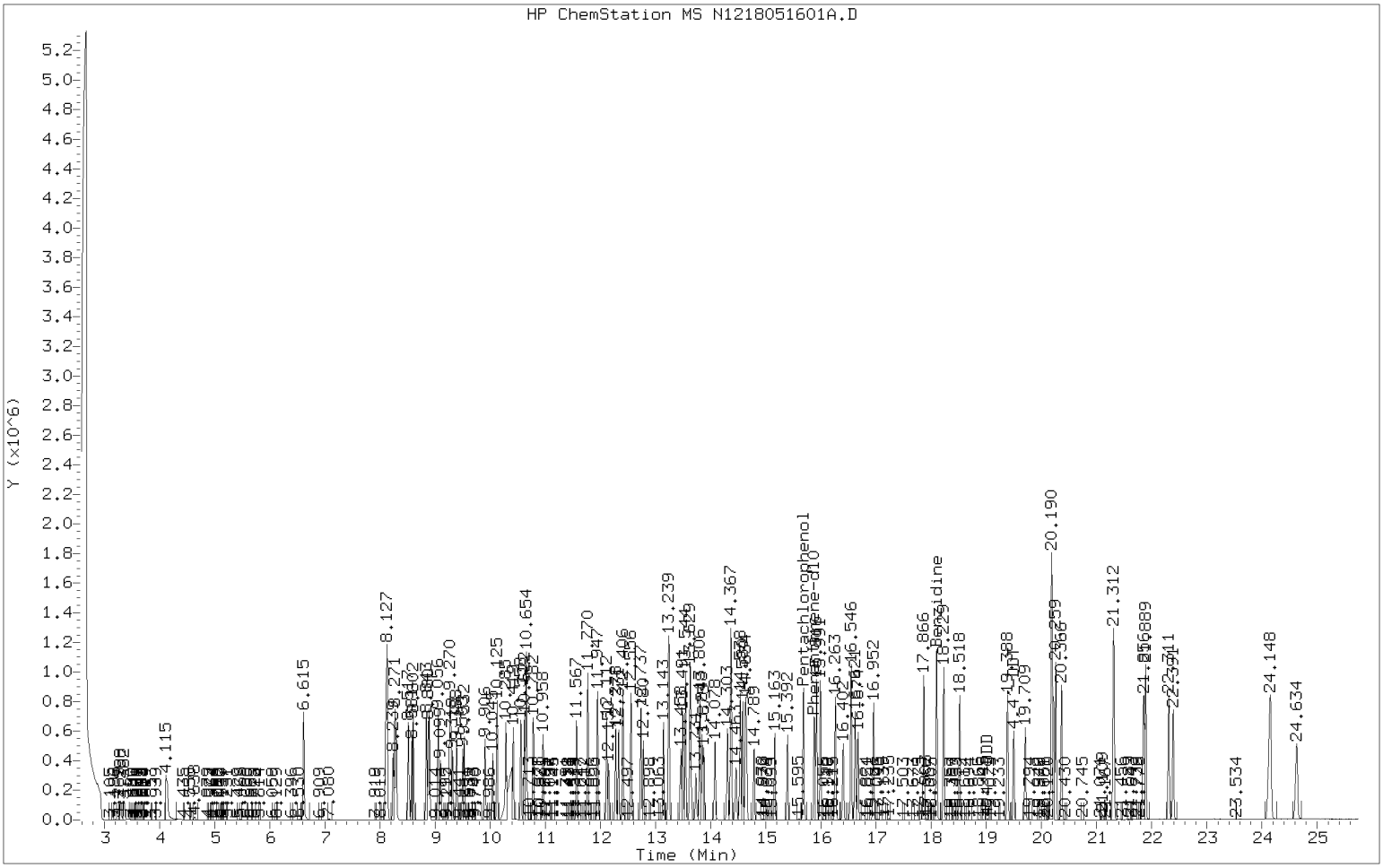
Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Lab File ID:	N1218051601A.D	Injection Date:	05/16/18
Instrument ID:	NT12	Injection Time:	12:39
Sequence:	SGE0274	Lab Sample ID:	SGE0274-TUN1

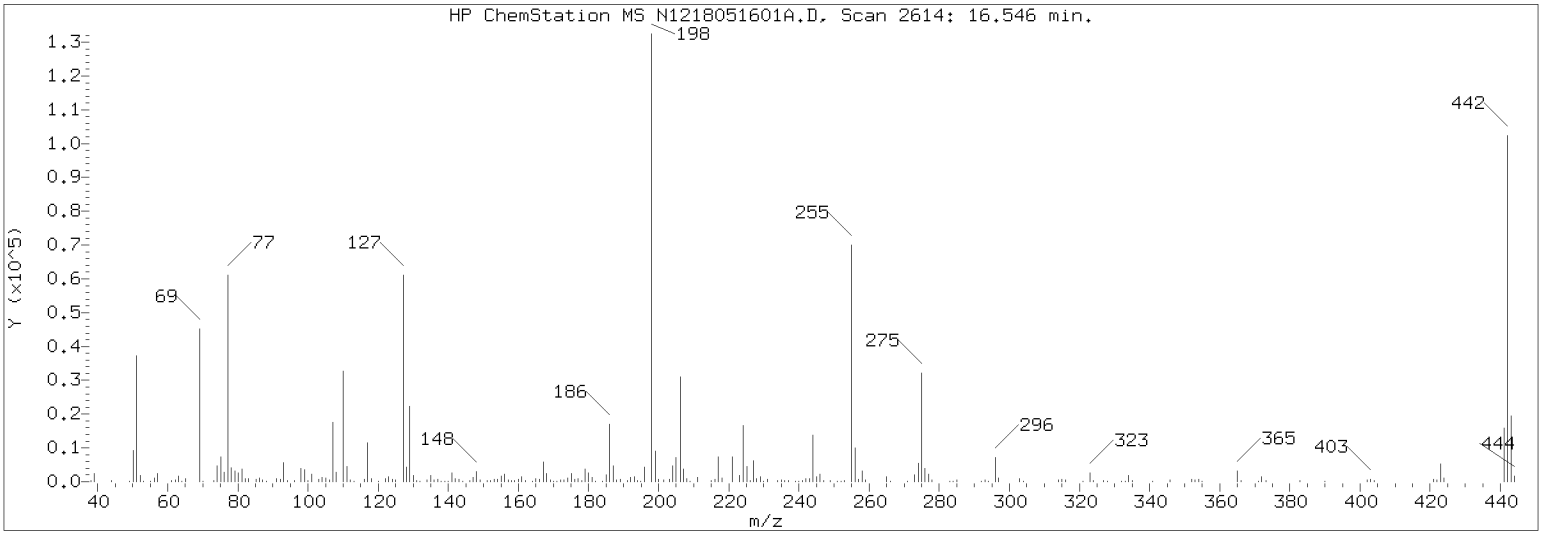
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10 - 80% of 198	27.8	PASS
68	Less than 2% of 69	0.497	PASS
69	Less than 100% of 198	34.7	PASS
70	Less than 2% of 69	0.473	PASS
127	10 - 80% of 198	46.1	PASS
197	Less than 2% of 198	0	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.73	PASS
275	10 - 60% of 198	23.6	PASS
365	1 - 100% of 198	2.38	PASS
441	0.1 - 24% of 442	15.4	PASS
442	50 - 200% of 198	75.7	PASS
443	15 - 24% of 442	19.1	PASS

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SGE0274-TUN1	N1218051601A.D	05/16/2018	12:39
Cal Standard	SGE0274-CAL4	N1218051601.D	05/16/2018	12:39
Cal Standard	SGE0274-CAL1	N1218051603.D	05/16/2018	13:46
Cal Standard	SGE0274-CAL2	N1218051604.D	05/16/2018	14:20
Cal Standard	SGE0274-CAL3	N1218051605.D	05/16/2018	14:54
Cal Standard	SGE0274-CAL5	N1218051606.D	05/16/2018	15:28
Cal Standard	SGE0274-CAL6	N1218051607.D	05/16/2018	16:02
Cal Standard	SGE0274-CAL7	N1218051608.D	05/16/2018	16:36
Secondary Cal Check	SGE0274-SCV1	N1218051610.D	05/16/2018	18:47

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20180516.b/tune.b/N1218051601A.D/N1218051601A.D
Method Used: \20180516.b\tune.b\DFTPP.m Inst: nt12
Injection Date: 16-MAY-2018 12:39 Operator: JZ
Sample Info: SGE0274-TUN1 DFTPP180516
Report Date: 05/17/2018 13:32





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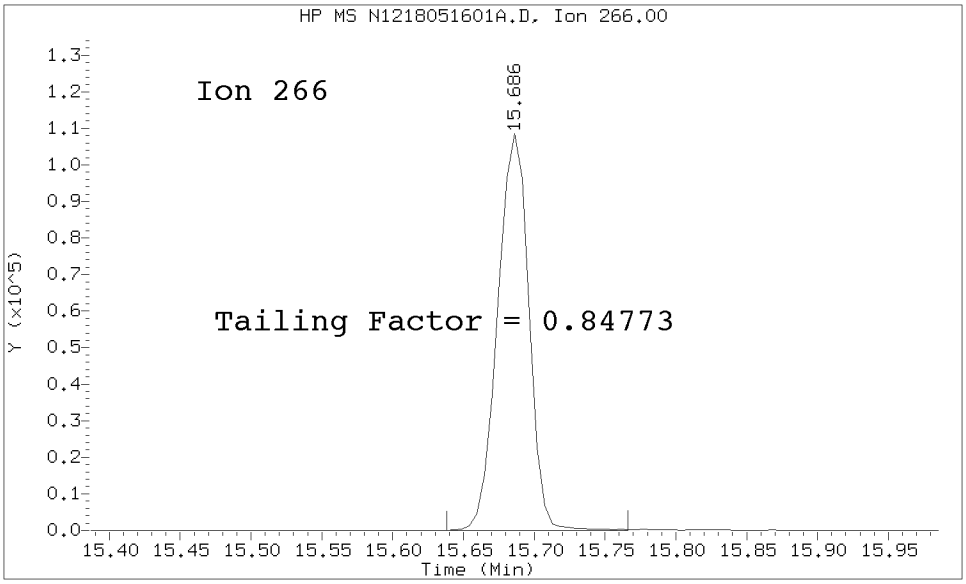
Method Used: \20180516.b\tune.b\DFTPP.m\sw846ddt.m Inst: nt12
Injection Date: 16-MAY-2018 12:39 Operator: JZ
Sample Info: IC25180516,
Report Date: 05/17/2018 13:32



Pentachlorophenol
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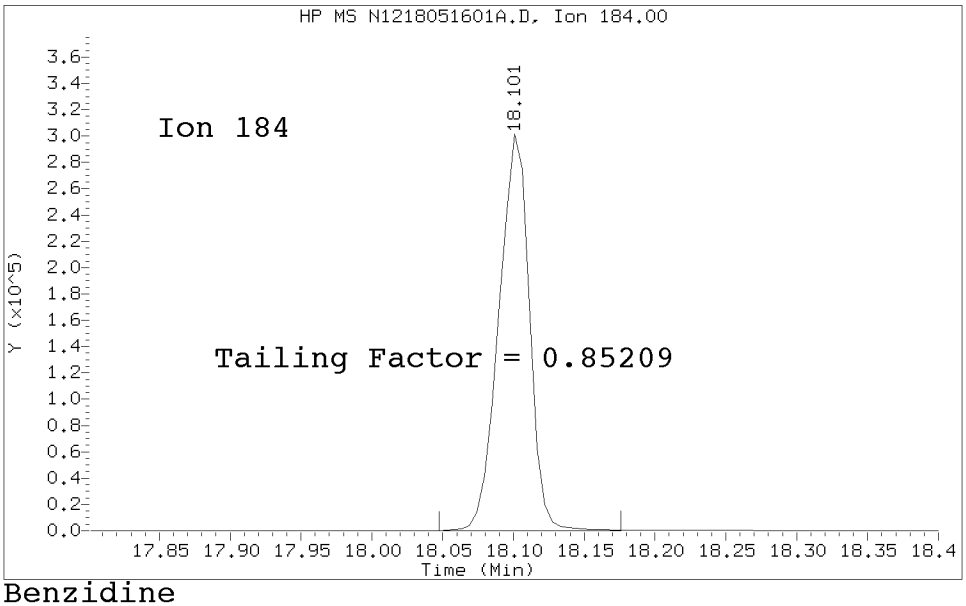
Exp. RT = 15.686
Found RT = 15.686

Tail Factor = 0.848 Maximum Allowed = 2.0



Benzidine
==========
Exp. RT = 18.101
Found RT = 18.101

Tail Factor = 0.852 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	0.8477337	2.000	PASS
Benzidine	0.8520878	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	185216			N/A
4,4-DDE	0	0.0	20.0	PASS
4,4-DDD	3859	2.0	20.0	PASS
4,4-DDD + DDE	3859	2.0	20.0	PASS

Tuning Sample, nt12.i/20180516.b/tune.b/N1218051601A.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	27.84
68	Less than 2.00% of mass 69	0.17 (0.50)
69	Mass 69 relative abundance	34.74
70	Less than 2.00% of mass 69	0.16 (0.47)
127	10.00 - 80.00% of mass 198	46.05
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.73
275	10.00 - 60.00% of mass 198	23.63
365	Greater than 1.00% of mass 198	2.38
441	0.01 - 24.00% of mass 442	11.68 (15.43)
442	50.00 - 200.00% of mass 198	75.70
443	15.00 - 24.00% of mass 442	14.49 (19.14)

Data File: N1218051601A.D
Spectrum: Avg. Scans 2613-2615 (16.55), Background Scan 2604
Location of Maximum: 198.00
Number of points: 237

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	367	124.00	640	188.00	474	265.00	1279
39.00	2280	125.00	610	189.00	774	266.00	218
49.00	206	127.00	56000	191.00	414	271.00	54
50.00	8514	128.00	4141	192.00	1251	272.00	57
51.00	33848	129.00	20312	193.00	1512	273.00	1901
52.00	1740	130.00	1758	194.00	287	274.00	4981
53.00	55	131.00	354	195.00	186	275.00	28736
55.00	167	132.00	244	196.00	3656	276.00	3813
56.00	992	134.00	497	198.00	121600	277.00	2052
57.00	2397	135.00	1614	199.00	8180	278.00	389
61.00	437	136.00	574	200.00	657	283.00	257
62.00	464	137.00	802	201.00	613	284.00	180
63.00	1629	138.00	226	203.00	660	285.00	415
64.00	238	139.00	61	204.00	3963	292.00	56
65.00	868	140.00	248	205.00	6512	293.00	518
68.00	210	141.00	2412	206.00	28600	294.00	116
69.00	42240	142.00	824	207.00	3662	296.00	6694
70.00	200	143.00	614	208.00	896	297.00	935
73.00	335	144.00	50	209.00	284	302.00	119
74.00	4317	145.00	118	210.00	283	303.00	914
75.00	7079	146.00	478	211.00	1147	304.00	232
76.00	2452	147.00	1217	215.00	300	314.00	392
77.00	55576	148.00	2657	216.00	607	315.00	773
78.00	3916	149.00	581	217.00	6839	316.00	403
79.00	2910	150.00	117	218.00	1023	321.00	239
80.00	2404	151.00	307	219.00	53	323.00	2470
81.00	3526	152.00	231	221.00	6892	324.00	455
82.00	917	153.00	813	223.00	1634	327.00	374
83.00	942	154.00	630	224.00	15315	328.00	246
85.00	694	155.00	1439	225.00	3897	332.00	192
86.00	879	156.00	2119	226.00	411	333.00	231
87.00	433	157.00	420	227.00	5687	334.00	1564
88.00	115	158.00	430	228.00	844	335.00	368
91.00	782	159.00	320	229.00	1326	341.00	273
92.00	838	160.00	680	230.00	180	346.00	490
93.00	5025	161.00	1212	231.00	564	352.00	762
94.00	390	162.00	347	234.00	405	353.00	542
96.00	367	164.00	62	235.00	488	354.00	758
98.00	3710	165.00	878	236.00	353	355.00	54
99.00	3245	166.00	842	237.00	476	365.00	2892
100.00	294	167.00	4917	239.00	220	366.00	429
101.00	1991	168.00	2429	240.00	164	371.00	129
103.00	602	169.00	450	241.00	377	372.00	1338
104.00	1258	170.00	161	242.00	855	373.00	308
105.00	1155	171.00	203	243.00	891	383.00	331
106.00	429	172.00	448	244.00	12461	390.00	198
107.00	15924	173.00	580	245.00	1616	402.00	560
108.00	2588	174.00	1079	246.00	2092	403.00	715
109.00	114	175.00	2099	247.00	441	404.00	236

110.00	29992	176.00	654	248.00	75	421.00	679
111.00	4193	177.00	870	249.00	454	422.00	570
112.00	514	178.00	351	251.00	56	423.00	4751
113.00	140	179.00	3745	252.00	50	424.00	956
116.00	763	180.00	2697	253.00	282	441.00	14208
117.00	10519	181.00	1282	254.00	93	442.00	92056
118.00	778	182.00	204	255.00	63048	443.00	17624
119.00	55	184.00	259	256.00	9067	444.00	1647
120.00	206	185.00	1752	257.00	647		
122.00	877	186.00	15324	258.00	3236		
123.00	1361	187.00	4377	259.00	559		

Analytical Resources, Incorporated
Analytical Chemists and Consultants

MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270D

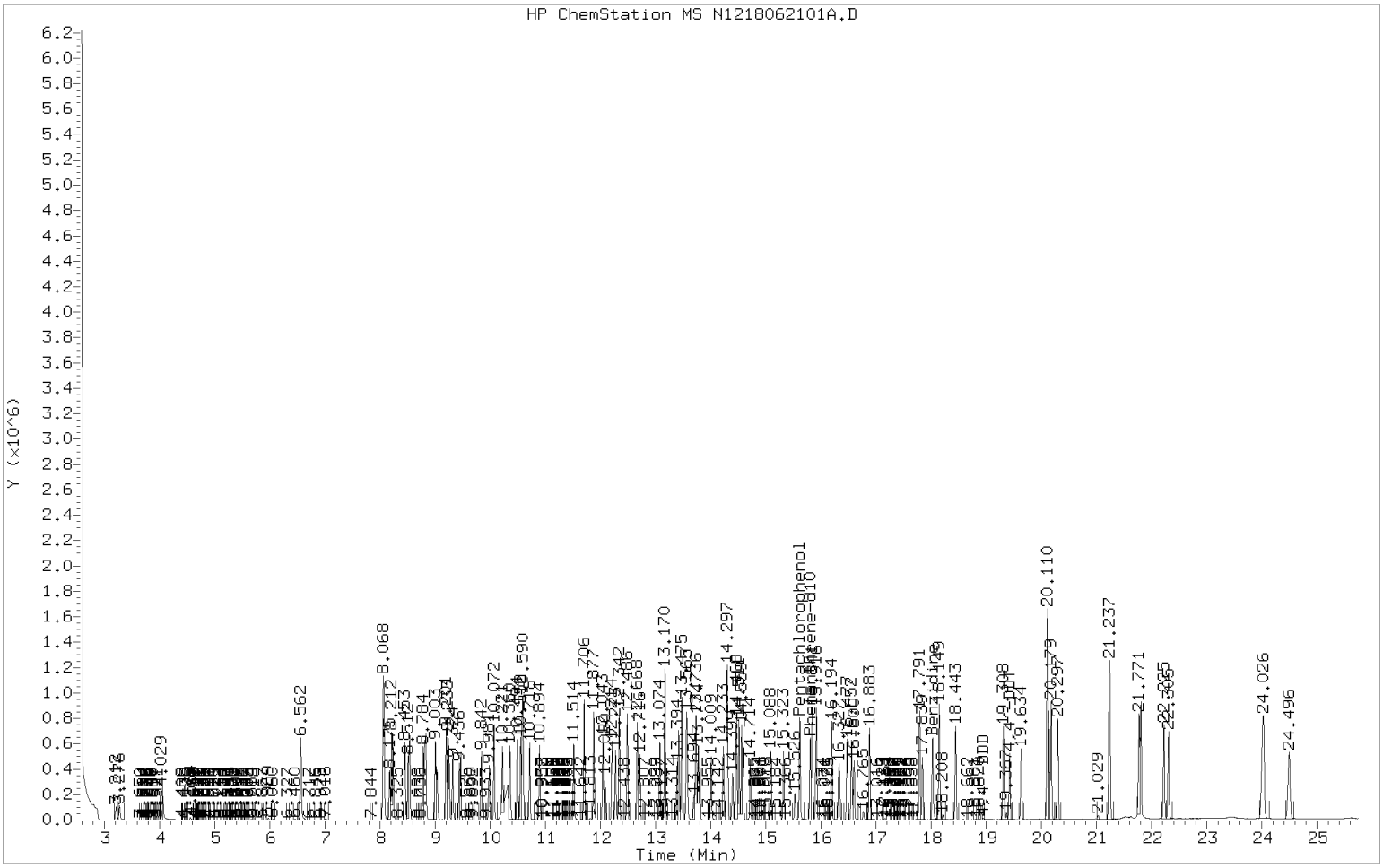
Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Lab File ID:	N1218062101A.D	Injection Date:	06/21/18
Instrument ID:	NT12	Injection Time:	11:24
Sequence:	SGF0272	Lab Sample ID:	SGF0272-TUN1

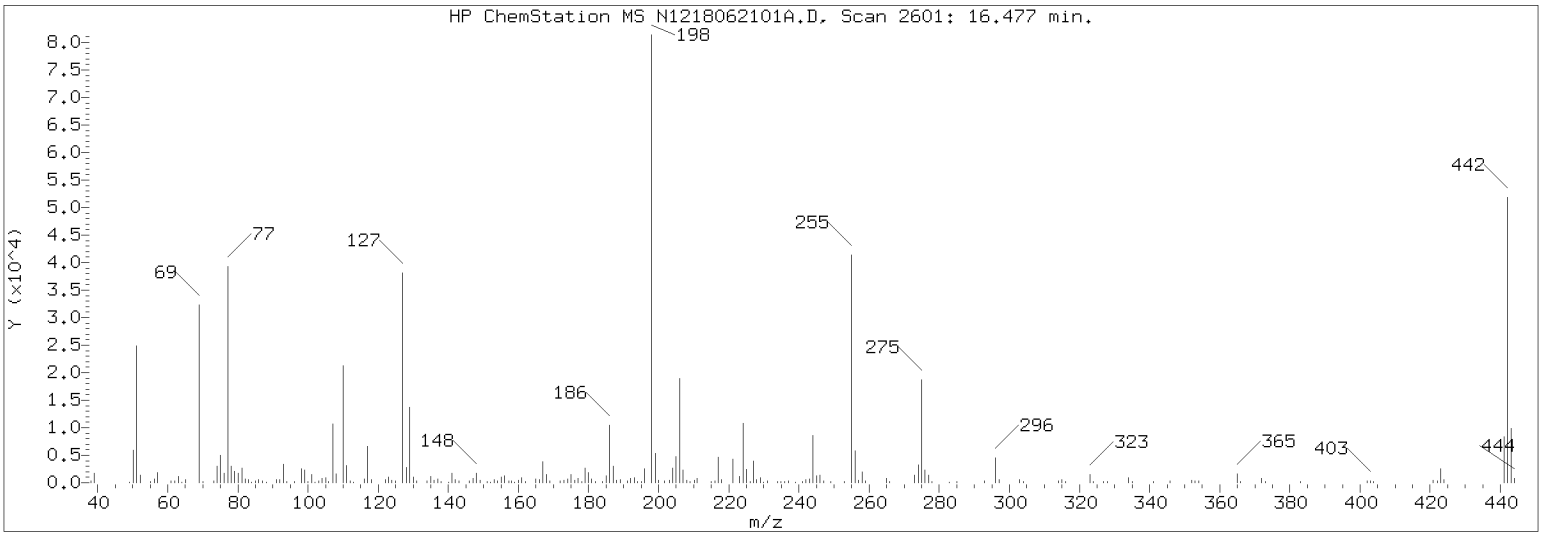
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10 - 80% of 198	30.8	PASS
68	Less than 2% of 69	0.467	PASS
69	Less than 100% of 198	39.2	PASS
70	Less than 2% of 69	0.467	PASS
127	10 - 80% of 198	46.8	PASS
197	Less than 2% of 198	0	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.84	PASS
275	10 - 60% of 198	22.9	PASS
365	1 - 100% of 198	2.19	PASS
441	0.1 - 24% of 442	16.6	PASS
442	50 - 200% of 198	63.2	PASS
443	15 - 24% of 442	19.5	PASS

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SGF0272-TUN1	N1218062101A.D	06/21/2018	11:24
Initial Cal Check	SGF0272-ICV1	N1218062101.D	06/21/2018	11:24
Blank	BGF0417-BLK1	N1218062102.D	06/21/2018	11:59
LCS	BGF0417-BS1	N1218062103.D	06/21/2018	12:33
LDW18-SP-RB1	18F0185-01	N1218062104.D	06/21/2018	13:07
LDW18-SP-30	18F0185-03	N1218062105.D	06/21/2018	13:41
LDW18-SP-32	18F0185-04	N1218062106.D	06/21/2018	14:15
LDW18-SP-35	18F0185-05	N1218062107.D	06/21/2018	14:49
LDW18-SP-38	18F0185-06	N1218062108.D	06/21/2018	15:23
LDW18-SP-42	18F0185-07	N1218062109.D	06/21/2018	15:57
LDW18-SP-43	18F0185-08	N1218062110.D	06/21/2018	16:31
Matrix Spike	BGF0417-MS1	N1218062111.D	06/21/2018	17:04
Matrix Spike Dup	BGF0417-MSD1	N1218062112.D	06/21/2018	17:38
Blank	BGF0434-BLK1	N1218062113.D	06/21/2018	18:12
LCS	BGF0434-BS1	N1218062114.D	06/21/2018	18:46
LDW18-SP-06	18F0208-01	N1218062115.D	06/21/2018	19:20
LDW18-SP-33	18F0208-02	N1218062116.D	06/21/2018	19:53
LDW18-SP-24	18F0208-03	N1218062117.D	06/21/2018	20:27
LDW18-SP-24-FD	18F0208-04	N1218062118.D	06/21/2018	21:01
Calibration Check	SGF0272-CCV1	N1218062120.D	06/21/2018	22:08

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20180621.b/tune.b/N1218062101A.D/N1218062101A.D
Method Used: \20180621.b\tune.b\DFTPP.m Inst: nt12
Injection Date: 21-JUN-2018 11:24 Operator: JZ
Sample Info: SGF0272-TUN1 DFTPP180621
Report Date: 06/21/2018 13:49





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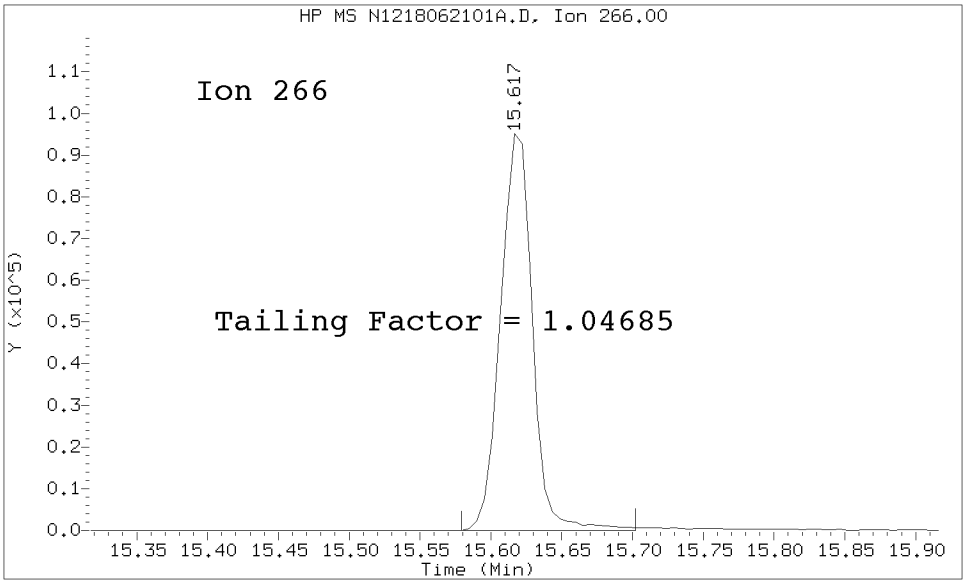
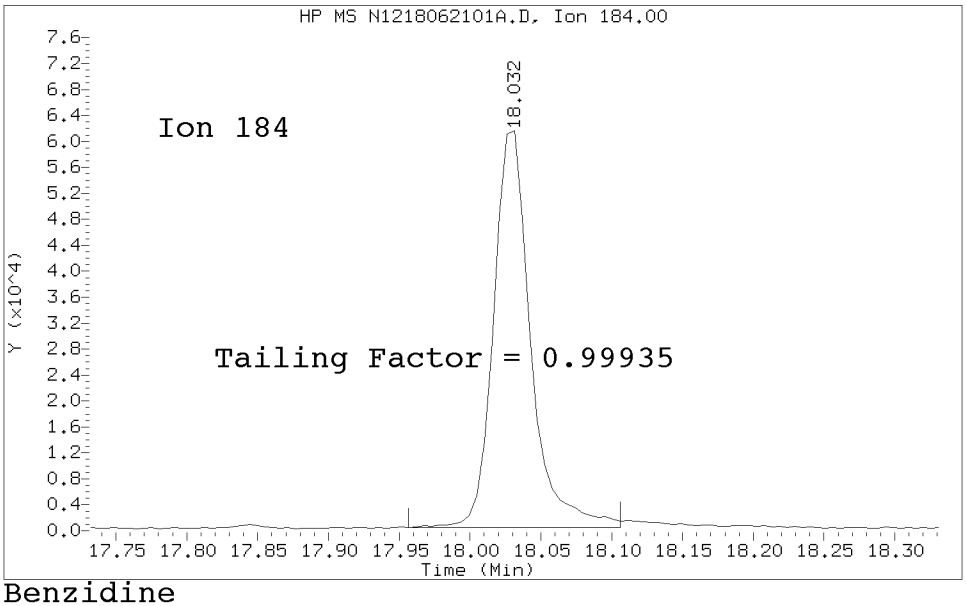
Method Used: \20180621.b\tune.b\DFTPP.m\sw846ddt.m Inst: nt12
Injection Date: 21-JUN-2018 11:24 Operator: JZ
Sample Info: ICV180621
Report Date: 06/21/2018 13:49



Pentachlorophenol
==========
Exp. RT = 15.617
Found RT = 15.617

Tail Factor = 1.047 Maximum Allowed = 2.0



Benzidine
==========
Exp. RT = 18.032
Found RT = 18.032

Tail Factor = 0.999 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.0468498	2.000	PASS
Benzidine	0.9993502	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	149135			N/A
4,4-DDE	0	0.0	20.0	PASS
4,4-DDD	4438	2.9	20.0	PASS
4,4-DDD + DDE	4438	2.9	20.0	PASS

Tuning Sample, nt12.i/20180621.b/tune.b/N1218062101A.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	30.78
68	Less than 2.00% of mass 69	0.18 (0.47)
69	Mass 69 relative abundance	39.25
70	Less than 2.00% of mass 69	0.18 (0.47)
127	10.00 - 80.00% of mass 198	46.79
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.84
275	10.00 - 60.00% of mass 198	22.85
365	Greater than 1.00% of mass 198	2.19
441	0.01 - 24.00% of mass 442	10.49 (16.59)
442	50.00 - 200.00% of mass 198	63.23
443	15.00 - 24.00% of mass 442	12.33 (19.51)

Data File: N1218062101A.D
Spectrum: Avg. Scans 2600-2602 (16.48), Background Scan 2592
Location of Maximum: 198.00
Number of points: 221

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	273	118.00	472	182.00	60	255.00	37096
39.00	1663	120.00	50	184.00	223	256.00	5397
49.00	188	122.00	553	185.00	1092	257.00	431
50.00	5495	123.00	905	186.00	9162	258.00	1883
51.00	22488	124.00	402	187.00	2509	259.00	293
52.00	1200	125.00	356	188.00	359	265.00	740
55.00	10	127.00	34184	189.00	512	266.00	163
56.00	646	128.00	2521	191.00	258	272.00	53
57.00	1778	129.00	12544	192.00	746	273.00	1179
61.00	292	130.00	1004	193.00	909	274.00	2882
62.00	356	131.00	217	194.00	124	275.00	16696
63.00	1106	134.00	352	195.00	60	276.00	2164
64.00	54	135.00	1054	196.00	2309	277.00	1300
65.00	571	136.00	390	198.00	73056	278.00	213
68.00	134	137.00	587	199.00	4997	283.00	104
69.00	28672	138.00	125	200.00	389	285.00	239
70.00	134	139.00	51	201.00	205	293.00	352
73.00	266	140.00	161	202.00	172	296.00	3944
74.00	2663	141.00	1428	203.00	457	297.00	518
75.00	4423	142.00	446	204.00	2421	303.00	548
76.00	1495	143.00	357	205.00	4118	304.00	73
77.00	35520	144.00	52	206.00	17552	314.00	260
78.00	2550	146.00	279	207.00	2185	315.00	497
79.00	1875	147.00	733	208.00	491	316.00	261
80.00	1573	148.00	1507	209.00	236	321.00	52
81.00	2329	149.00	365	210.00	231	323.00	1454
82.00	596	150.00	52	211.00	716	324.00	271
83.00	567	151.00	209	215.00	199	327.00	246
84.00	109	152.00	101	216.00	337	328.00	66
85.00	380	153.00	501	217.00	4221	334.00	896
86.00	569	154.00	383	218.00	578	335.00	199
87.00	299	155.00	894	221.00	3877	341.00	195
88.00	53	156.00	1249	223.00	987	346.00	262
91.00	491	157.00	335	224.00	9530	352.00	417
92.00	523	158.00	319	225.00	2279	353.00	334
93.00	3124	159.00	195	226.00	209	354.00	388
94.00	242	160.00	441	227.00	3455	365.00	1600
96.00	129	161.00	800	228.00	562	366.00	236
98.00	2350	162.00	243	229.00	789	371.00	52
99.00	2052	165.00	570	230.00	52	372.00	708
100.00	208	166.00	507	231.00	316	373.00	122
101.00	1366	167.00	2966	234.00	147	383.00	213
102.00	51	168.00	1456	235.00	278	402.00	312
103.00	345	169.00	314	236.00	129	403.00	366
104.00	762	170.00	53	237.00	326	404.00	64
105.00	779	171.00	50	239.00	104	421.00	338
106.00	192	172.00	281	241.00	161	422.00	326
107.00	9710	173.00	381	242.00	517	423.00	2343
108.00	1620	174.00	687	243.00	513	424.00	424

109.00	109	175.00	1341	244.00	7453	441.00	7661
110.00	18928	176.00	451	245.00	1049	442.00	46192
111.00	2716	177.00	630	246.00	1265	443.00	9011
112.00	344	178.00	140	247.00	307	444.00	841
113.00	51	179.00	2361	249.00	236		
116.00	555	180.00	1444	253.00	177		
117.00	6148	181.00	770	254.00	55		

Analytical Resources, Incorporated
Analytical Chemists and Consultants

MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270D

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Lab File ID:	N1218062601A.D	Injection Date:	06/26/18
Instrument ID:	NT12	Injection Time:	10:31
Sequence:	SGF0333	Lab Sample ID:	SGF0333-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10 - 80% of 198	30.5	PASS
68	Less than 2% of 69	1.13	PASS
69	Less than 100% of 198	38.3	PASS
70	Less than 2% of 69	0.389	PASS
127	10 - 80% of 198	47.1	PASS
197	Less than 2% of 198	0	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.79	PASS
275	10 - 60% of 198	23.1	PASS
365	1 - 100% of 198	2.35	PASS
441	0.1 - 24% of 442	15.8	PASS
442	50 - 200% of 198	71	PASS
443	15 - 24% of 442	19.3	PASS

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SGF0333-TUN1	N1218062601A.D	06/26/2018	10:31
Initial Cal Check	SGF0333-ICV1	N1218062601.D	06/26/2018	10:31
ZZZZZ	18F0324-01	N1218062604.D	06/26/2018	12:43
Blank	BGF0515-BLK1	N1218062605.D	06/26/2018	13:17
LCS	BGF0515-BS1	N1218062606.D	06/26/2018	13:50
LDW18-SP-05	18F0226-01	N1218062607.D	06/26/2018	14:24
LDW18-SP-57	18F0226-02	N1218062608.D	06/26/2018	14:58
Matrix Spike	BGF0515-MS1	N1218062609.D	06/26/2018	15:32
Matrix Spike Dup	BGF0515-MSD1	N1218062610.D	06/26/2018	16:07
LDW18-SP-73	18F0226-03	N1218062611.D	06/26/2018	16:41
LDW18-SP-74	18F0226-04	N1218062612.D	06/26/2018	17:15
LDW18-SP-77	18F0226-05	N1218062613.D	06/26/2018	17:49
LDW18-SP-78	18F0226-06	N1218062614.D	06/26/2018	18:23
LDW18-SP-79	18F0226-07	N1218062615.D	06/26/2018	18:57
LDW18-SP-84	18F0226-08	N1218062616.D	06/26/2018	19:31
LDW18-SP-87	18F0226-09	N1218062617.D	06/26/2018	20:05
Blank	BGF0584-BLK1	N1218062618.D	06/26/2018	20:39
LCS	BGF0584-BS1	N1218062619.D	06/26/2018	21:13
ZZZZZ	18F0271-01	N1218062620.D	06/26/2018	21:46
Calibration Check	SGF0333-CCV1	N1218062621.D	06/26/2018	22:20

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

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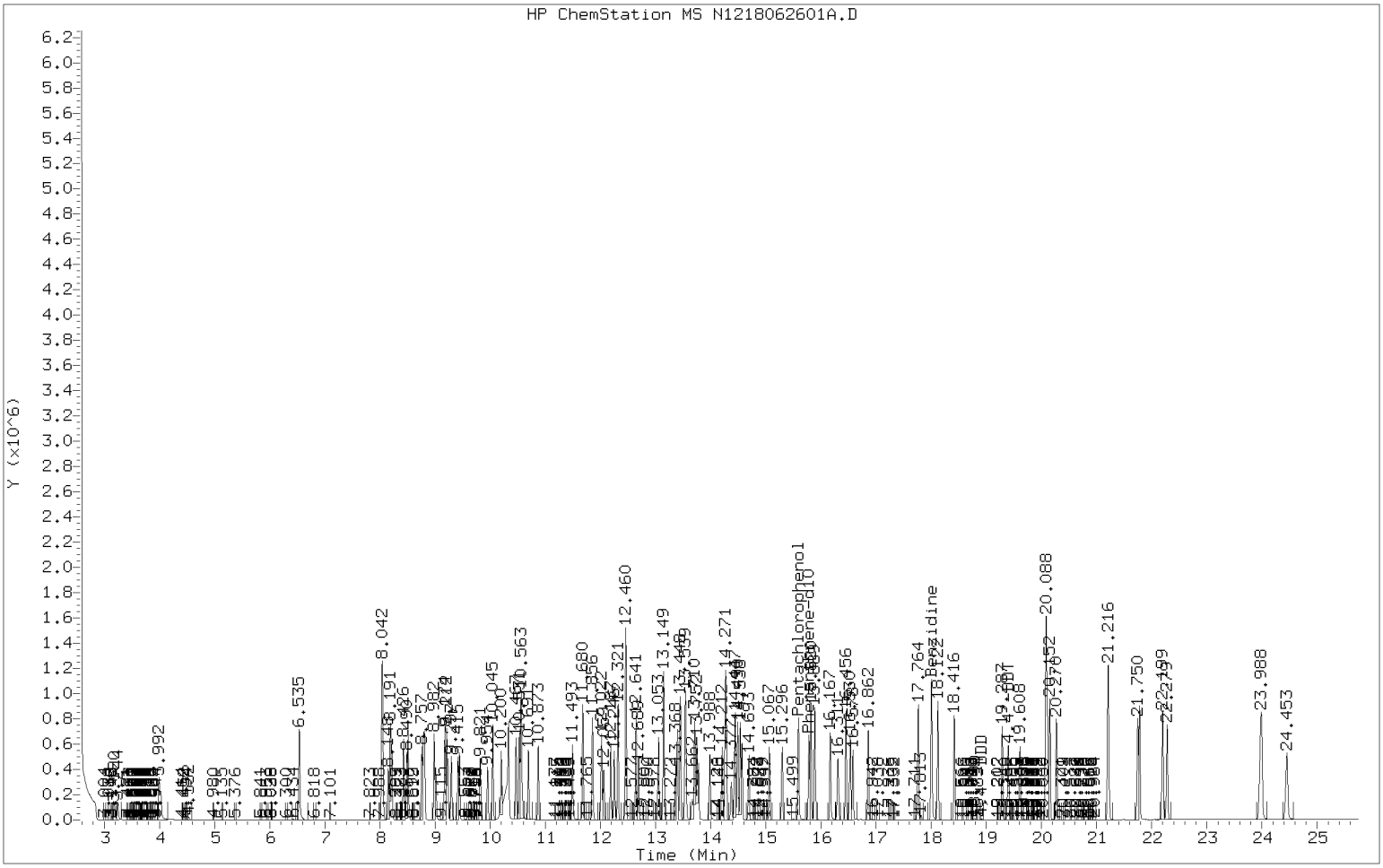
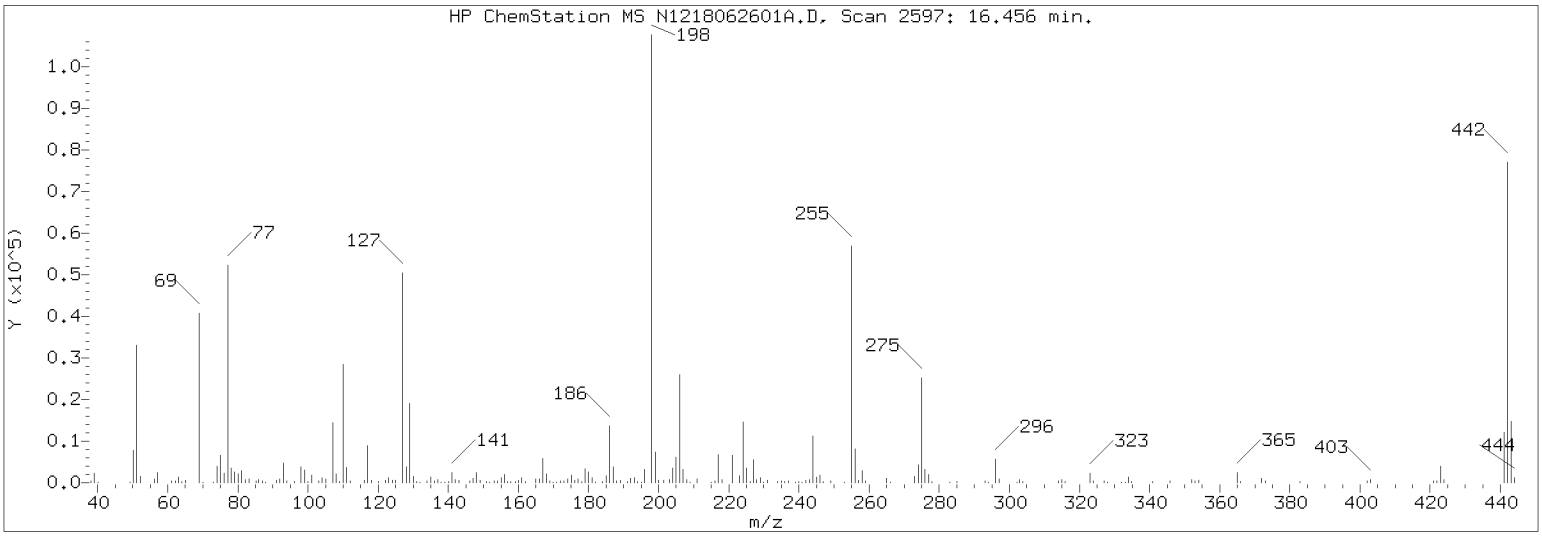
Method Used: \20180626.b\tune.b\DFTPP.m Inst: nt12
Injection Date: 26-JUN-2018 10:31 Operator: JZ
Sample Info: SGF0333-TUN1 DFTPP180626
Report Date: 06/26/2018 13:47





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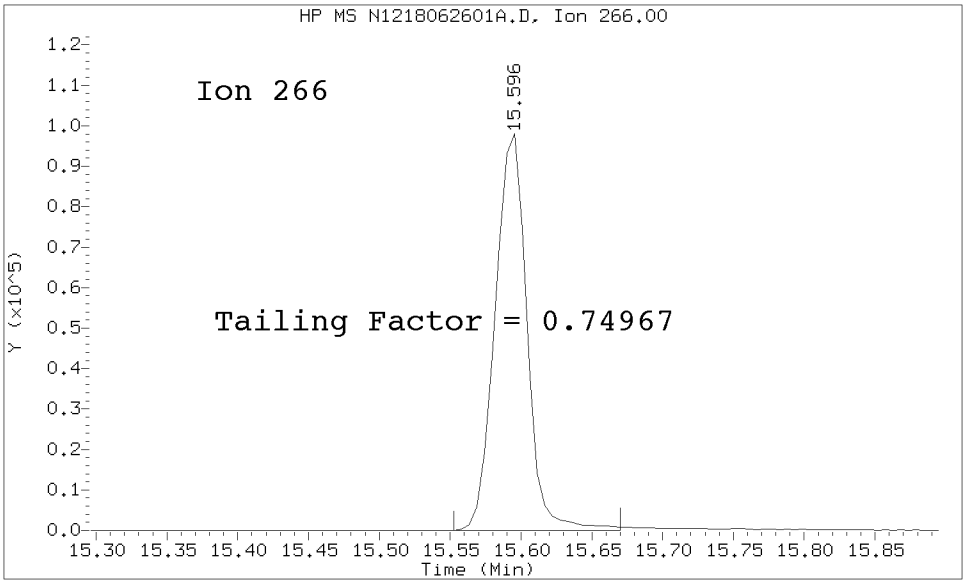
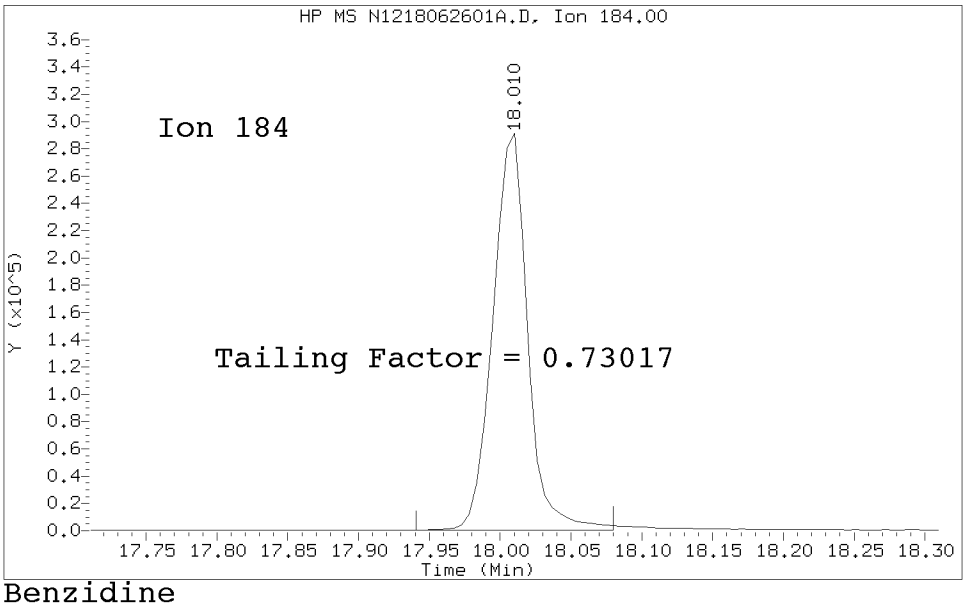
Injection Date: 26-JUN-2018 10:31 Operator: JZ
Sample Info: ICV180626
Report Date: 06/26/2018 13:47



Pentachlorophenol
==========
Exp. RT = 15.596
Found RT = 15.596

Tail Factor = 0.750 Maximum Allowed = 2.0



Benzidine
==========
Exp. RT = 18.010
Found RT = 18.010

Tail Factor = 0.730 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	0.7496671	2.000	PASS
Benzidine	0.7301683	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	175522			N/A
4,4-DDE	0	0.0	20.0	PASS
4,4-DDD	3255	1.8	20.0	PASS
4,4-DDD + DDE	3255	1.8	20.0	PASS

Tuning Sample, nt12.i/20180626.b/tune.b/N1218062601A.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	30.55
68	Less than 2.00% of mass 69	0.43 (1.13)
69	Mass 69 relative abundance	38.29
70	Less than 2.00% of mass 69	0.15 (0.39)
127	10.00 - 80.00% of mass 198	47.11
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.79
275	10.00 - 60.00% of mass 198	23.13
365	Greater than 1.00% of mass 198	2.35
441	0.01 - 24.00% of mass 442	11.22 (15.80)
442	50.00 - 200.00% of mass 198	71.02
443	15.00 - 24.00% of mass 442	13.71 (19.30)

Data File: N1218062601A.D
Spectrum: Avg. Scans 2596-2598 (16.46), Background Scan 2588
Location of Maximum: 198.00
Number of points: 227

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	366	122.00	715	185.00	1455	259.00	416
39.00	2103	123.00	1169	186.00	12315	265.00	990
40.00	58	124.00	524	187.00	3440	266.00	178
49.00	205	125.00	522	188.00	311	271.00	60
50.00	7231	127.00	45840	189.00	659	273.00	1549
51.00	29728	128.00	3484	191.00	334	274.00	3895
52.00	1410	129.00	17168	192.00	993	275.00	22512
55.00	51	130.00	1428	193.00	1151	276.00	3007
56.00	877	131.00	248	194.00	191	277.00	1763
57.00	2167	132.00	110	195.00	184	278.00	303
61.00	387	134.00	509	196.00	3140	283.00	195
62.00	476	135.00	1253	198.00	97312	284.00	51
63.00	1338	136.00	503	199.00	6605	285.00	276
64.00	189	137.00	701	200.00	525	293.00	406
65.00	748	138.00	140	201.00	503	294.00	52
68.00	422	139.00	184	203.00	679	296.00	5204
69.00	37264	140.00	240	204.00	3231	297.00	797
70.00	145	141.00	2125	205.00	5479	302.00	50
73.00	237	142.00	709	206.00	23536	303.00	716
74.00	3492	143.00	517	207.00	3031	304.00	231
75.00	5877	146.00	366	208.00	639	314.00	311
76.00	2230	147.00	963	209.00	154	315.00	594
77.00	47312	148.00	2180	211.00	898	316.00	348
78.00	3252	149.00	462	212.00	88	321.00	139
79.00	2426	150.00	51	215.00	190	323.00	2067
80.00	1939	151.00	276	216.00	436	324.00	401
81.00	2838	152.00	184	217.00	5835	327.00	350
82.00	688	153.00	555	218.00	693	328.00	118
83.00	795	154.00	570	221.00	5804	332.00	170
85.00	491	155.00	1191	223.00	1386	333.00	159
86.00	745	156.00	1771	224.00	12953	334.00	1277
87.00	380	157.00	399	225.00	3195	335.00	309
88.00	140	158.00	323	226.00	261	341.00	251
91.00	657	159.00	279	227.00	4906	346.00	411
92.00	705	160.00	637	228.00	773	352.00	560
93.00	4167	161.00	1095	229.00	1110	353.00	479
94.00	323	162.00	307	230.00	115	354.00	582
96.00	173	164.00	57	231.00	486	365.00	2282
98.00	3259	165.00	831	234.00	299	366.00	338
99.00	2705	166.00	660	235.00	340	371.00	50
100.00	241	167.00	4233	236.00	302	372.00	1019
101.00	1696	168.00	1954	237.00	432	373.00	282
103.00	450	169.00	405	239.00	206	383.00	268
104.00	1034	170.00	76	240.00	77	384.00	51
105.00	933	171.00	133	241.00	215	390.00	51
106.00	188	172.00	367	242.00	612	402.00	386
107.00	13020	173.00	481	243.00	705	403.00	553
108.00	1991	174.00	929	244.00	10055	404.00	126
109.00	116	175.00	1725	245.00	1373	421.00	492

110.00	25864	176.00	530	246.00	1635	422.00	511
111.00	3512	177.00	722	247.00	355	423.00	3451
112.00	452	178.00	282	249.00	385	424.00	722
113.00	123	179.00	3059	253.00	182	441.00	10921
116.00	609	180.00	2258	255.00	50672	442.00	69112
117.00	8492	181.00	1123	256.00	7537	443.00	13338
118.00	572	182.00	156	257.00	563	444.00	1181
120.00	147	184.00	302	258.00	2658		

Analytical Resources, Incorporated
Analytical Chemists and Consultants

MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270D

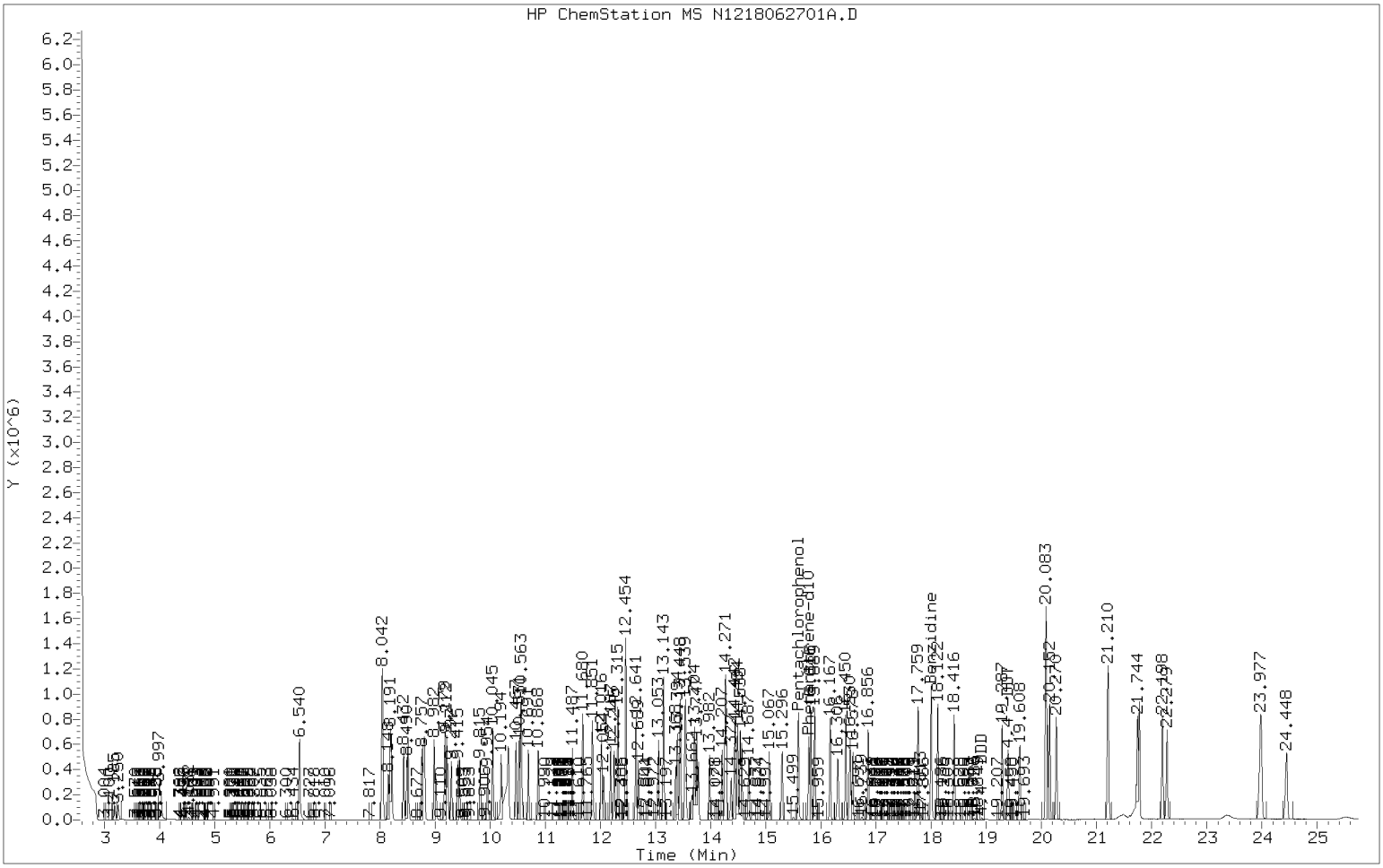
Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Lab File ID:	N1218062701A.D	Injection Date:	06/27/18
Instrument ID:	NT12	Injection Time:	11:13
Sequence:	SGF0348	Lab Sample ID:	SGF0348-TUN1

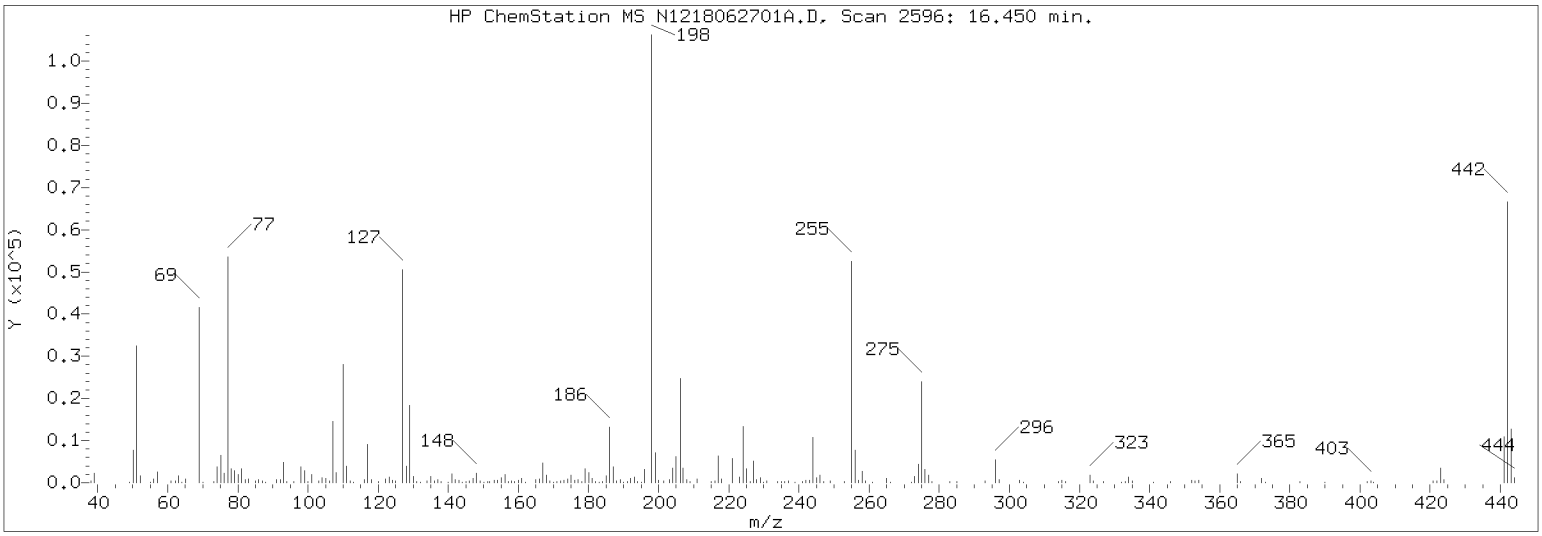
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10 - 80% of 198	31.8	PASS
68	Less than 2% of 69	1.02	PASS
69	Less than 100% of 198	38.9	PASS
70	Less than 2% of 69	0.553	PASS
127	10 - 80% of 198	47.5	PASS
197	Less than 2% of 198	0	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.77	PASS
275	10 - 60% of 198	22.5	PASS
365	1 - 100% of 198	2.08	PASS
441	0.1 - 24% of 442	16.2	PASS
442	50 - 200% of 198	63.6	PASS
443	15 - 24% of 442	19.4	PASS

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SGF0348-TUN1	N1218062701A.D	06/27/2018	11:13
Initial Cal Check	SGF0348-ICV1	N1218062701.D	06/27/2018	11:13
Blank	BGF0648-BLK1	N1218062702.D	06/27/2018	11:52
LCS	BGF0648-BS1	N1218062703.D	06/27/2018	12:26
ZZZZZ	18F0379-01	N1218062704.D	06/27/2018	13:00
ZZZZZ	18F0380-01	N1218062705.D	06/27/2018	13:34
Blank	BGF0552-BLK1	N1218062706.D	06/27/2018	15:38
LCS	BGF0552-BS1	N1218062707.D	06/27/2018	16:12
LDW18-SP-01	18F0248-01	N1218062708.D	06/27/2018	16:46
LDW18-SP-45	18F0248-02	N1218062709.D	06/27/2018	17:20
LDW18-SP-47	18F0248-03	N1218062710.D	06/27/2018	17:54
LDW18-SP-66	18F0248-04	N1218062711.D	06/27/2018	18:28
LDW18-SP-70	18F0248-05	N1218062712.D	06/27/2018	19:01
LDW18-SP-83	18F0248-06	N1218062713.D	06/27/2018	19:35
LDW18-SP-86	18F0248-07	N1218062714.D	06/27/2018	20:09
LDW18-SP-88	18F0248-08	N1218062715.D	06/27/2018	20:42
Calibration Check	SGF0348-CCV1	N1218062716.D	06/27/2018	21:16

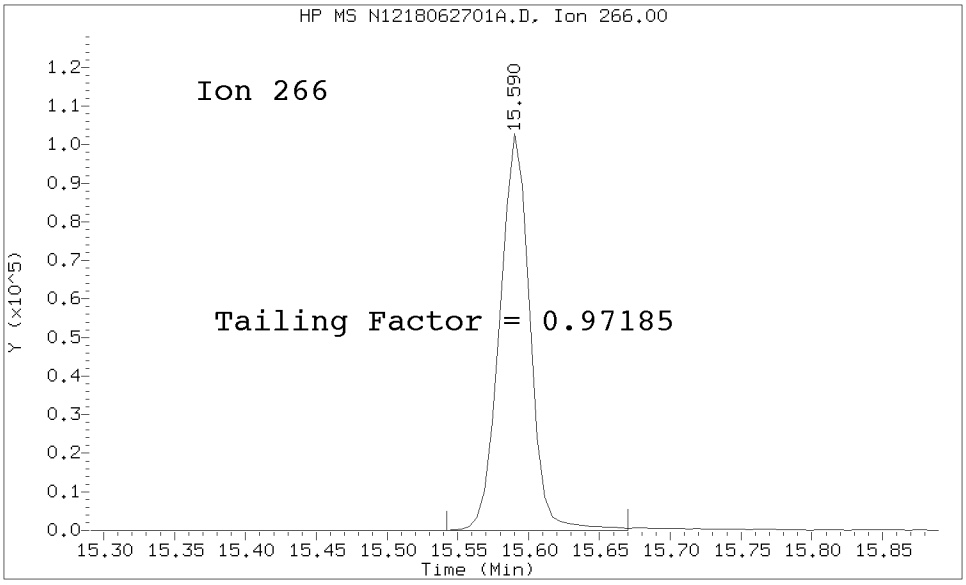
DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20180627.b/tune.b/N1218062701A.D/N1218062701A.D
Method Used: \20180627.b\tune.b\DFTPP.m Inst: nt12
Injection Date: 27-JUN-2018 11:13 Operator: JZ
Sample Info: SGF0348-TUN1 DFTPP180627
Report Date: 06/27/2018 13:05



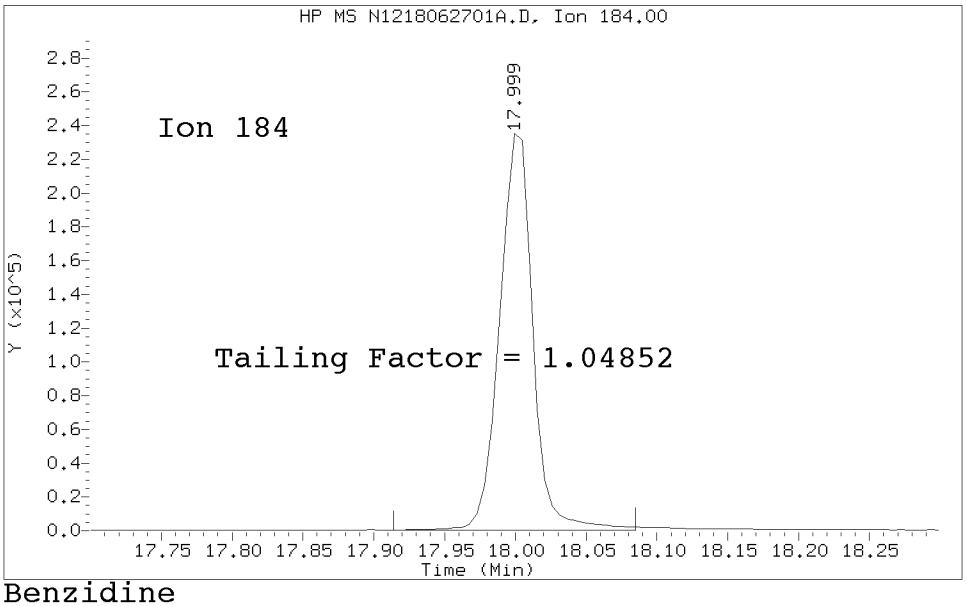


Datafile Analyzed: /20180627.b/tune.b/N1218062701A.D/N1218062701A.D
Method Used: \20180627.b\tune.b\DFTPP.m\sw846ddt.m Inst: nt12
Injection Date: 27-JUN-2018 11:13 Operator: JZ
Sample Info: ICV180627
Report Date: 06/27/2018 13:05



Pentachlorophenol
==========
Exp. RT = 15.590
Found RT = 15.590

Tail Factor = 0.972 Maximum Allowed = 2.0



Benzidine
==========
Exp. RT = 17.999
Found RT = 17.999

Tail Factor = 1.049 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	0.9718530	2.000	PASS
Benzidine	1.0485216	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	169960			N/A
4,4-DDE	0	0.0	20.0	PASS
4,4-DDD	4114	2.4	20.0	PASS
4,4-DDD + DDE	4114	2.4	20.0	PASS

Tuning Sample, nt12.i/20180627.b/tune.b/N1218062701A.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	31.84
68	Less than 2.00% of mass 69	0.40 (1.02)
69	Mass 69 relative abundance	38.93
70	Less than 2.00% of mass 69	0.22 (0.55)
127	10.00 - 80.00% of mass 198	47.45
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.77
275	10.00 - 60.00% of mass 198	22.46
365	Greater than 1.00% of mass 198	2.08
441	0.01 - 24.00% of mass 442	10.30 (16.21)
442	50.00 - 200.00% of mass 198	63.55
443	15.00 - 24.00% of mass 442	12.32 (19.39)

Data File: N1218062701A.D
Spectrum: Avg. Scans 2595-2597 (16.45), Background Scan 2588
Location of Maximum: 198.00
Number of points: 228

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	353	124.00	575	185.00	1422	261.00	61
39.00	2130	125.00	507	186.00	12187	265.00	1034
41.00	64	127.00	45632	187.00	3291	266.00	174
49.00	181	128.00	3561	188.00	350	272.00	110
50.00	7332	129.00	16424	189.00	645	273.00	1434
51.00	30616	130.00	1434	190.00	53	274.00	3847
52.00	1476	131.00	306	191.00	307	275.00	21600
55.00	64	132.00	126	192.00	964	276.00	2789
56.00	905	134.00	455	193.00	1175	277.00	1597
57.00	2345	135.00	1298	194.00	272	278.00	292
61.00	414	136.00	503	195.00	139	283.00	233
62.00	482	137.00	736	196.00	2778	284.00	57
63.00	1519	138.00	193	198.00	96160	285.00	257
64.00	199	140.00	195	199.00	6511	293.00	380
65.00	808	141.00	1936	200.00	545	296.00	5040
68.00	383	142.00	708	201.00	524	297.00	761
69.00	37432	143.00	486	203.00	633	303.00	661
70.00	207	144.00	103	204.00	3107	304.00	212
73.00	257	145.00	197	205.00	5490	314.00	267
74.00	3573	146.00	367	206.00	22816	315.00	543
75.00	6098	147.00	1002	207.00	3002	316.00	306
76.00	2108	148.00	2130	208.00	644	321.00	57
77.00	48920	149.00	464	209.00	220	323.00	1763
78.00	3175	150.00	167	210.00	286	324.00	365
79.00	2631	151.00	318	211.00	872	327.00	304
80.00	1966	152.00	143	215.00	230	328.00	62
81.00	2994	153.00	629	216.00	434	332.00	50
82.00	733	154.00	493	217.00	5566	333.00	195
83.00	802	155.00	1187	218.00	751	334.00	1208
85.00	484	156.00	1782	221.00	5398	335.00	308
86.00	749	157.00	383	223.00	1301	341.00	182
87.00	371	158.00	334	224.00	12023	346.00	353
88.00	114	159.00	297	225.00	3089	352.00	474
91.00	665	160.00	648	226.00	356	353.00	379
92.00	717	161.00	980	227.00	4657	354.00	596
93.00	4232	162.00	273	228.00	651	355.00	52
94.00	308	163.00	52	229.00	1008	365.00	2002
96.00	243	164.00	50	230.00	182	366.00	312
98.00	3378	165.00	739	231.00	477	371.00	69
99.00	2736	166.00	681	234.00	268	372.00	958
100.00	278	167.00	3975	235.00	363	373.00	253
101.00	1672	168.00	1784	236.00	226	383.00	232
103.00	540	169.00	411	237.00	409	390.00	106
104.00	990	170.00	50	239.00	126	402.00	348
105.00	956	171.00	214	241.00	319	403.00	494
106.00	212	172.00	322	242.00	646	404.00	220
107.00	13191	173.00	456	243.00	637	421.00	438
108.00	2172	174.00	821	244.00	9799	422.00	439
110.00	25192	175.00	1677	245.00	1165	423.00	3199

111.00	3640	176.00	556	246.00	1702	424.00	706
112.00	471	177.00	724	247.00	325	441.00	9905
113.00	180	178.00	272	249.00	368	442.00	61112
116.00	629	179.00	2988	253.00	154	443.00	11851
117.00	8263	180.00	2181	255.00	48032	444.00	1017
118.00	600	181.00	943	256.00	7215		
120.00	204	182.00	227	257.00	551		
122.00	778	183.00	55	258.00	2446		
123.00	1175	184.00	317	259.00	429		

INITIAL CALIBRATION DATA

EPA 8270D

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BE00052	Instrument:	NT12
Calibration Date:	05/16/2018 12:00	Column (1):	ZB-5MS

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Phenol	1	2.633996	5	2.422915	10	2.32302	25	2.018699	40	1.962245	60	1.822229
1,4-Dichlorobenzene	1	1.903686	5	1.780371	10	1.676182	25	1.5363	40	1.549342	60	1.452335
1,2-Dichlorobenzene	1	1.770448	5	1.717706	10	1.592136	25	1.447109	40	1.443154	60	1.345438
Benzyl alcohol	1	1.240829	5	1.195416	10	1.068064	25	1.096766	40	1.125052	60	1.093791
4-Methylphenol	1	1.67662	5	1.619382	10	1.612595	25	1.439089	40	1.445303	60	1.356101
2,4-Dimethylphenol	1	0.4792514	5	0.4571067	10	0.4446441	25	0.3974134	40	0.3988036	60	0.3718422
1,2,4-Trichlorobenzene	1	0.4083896	5	0.375957	10	0.3437501	25	0.3172742	40	0.3183011	60	0.2996151
Benzoic acid	4	0.2108787	15	0.2609451	30	0.2826964	75	0.2961999	120	0.3128258	180	0.3188486
Dimethylphthalate	1	1.629882	5	1.505146	10	1.423405	25	1.340398	40	1.355117	60	1.318072
Dibenzofuran	1	2.337321	5	2.080413	10	1.847427	25	1.789225	40	1.780997	60	1.693699
N-Nitrosodiphenylamine	1	0.7272906	5	0.6780293	10	0.6321916	25	0.5719357	40	0.5837505	60	0.5473835
Hexachlorobenzene	1	0.2914966	5	0.2628023	10	0.246473	25	0.2223231	40	0.2263628	60	0.2153849
Pentachlorophenol	3	0.1545927	10	0.1611601	20	0.1617268	50	0.1585239	80	0.1599163	120	0.1569138
Butylbenzylphthalate	1	0.5456405	5	0.5794885	10	0.5738449	25	0.5622142	40	0.5638392	60	0.5381874
bis(2-Ethylhexyl)phthalate	1	0.573776	5	0.6200281	10	0.6021286	25	0.589788	40	0.6070713	60	0.5954748
2-Fluorophenol	1.5	1.588957	7.5	1.569495	15	1.423338	37.5	1.463221	60	1.424308	90	1.330572
Phenol-d5	1.5	2.138584	7.5	2.040395	15	1.826313	37.5	1.82706	60	1.739987	90	1.580003
2-Chlorophenol-d4	1.5	1.622001	7.5	1.546924	15	1.390101	37.5	1.387073	60	1.335682	90	1.250767
1,2-Dichlorobenzene-d4	1	1.135633	5	1.041546	10	0.9309373	25	0.9365485	40	0.8971197	60	0.8185033
Nitrobenzene-d5	1	0.4433329	5	0.4380824	10	0.3994838	25	0.4158141	40	0.4090917	60	0.3899588
2-Fluorobiphenyl	1	1.722438	5	1.598939	10	1.43127	25	1.381335	40	1.342331	60	1.261291
2,4,6-Tribromophenol	1.5	0.1702295	7.5	0.1710436	15	0.1637779	37.5	0.1716812	60	0.1664728	90	0.1638733
p-Terphenyl-d14	1	0.9135151	5	0.8309967	10	0.7601316	25	0.7692731	40	0.7348219	60	0.7063007

INITIAL CALIBRATION DATA

EPA 8270D

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BE00052	Instrument:	NT12
Calibration Date:	05/16/2018 12:00	Column (1):	ZB-5MS

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
		RF		RF		RF		RF		RF		RF
Phenol	80	1.713283										
1,4-Dichlorobenzene	80	1.371744										
1,2-Dichlorobenzene	80	1.26491										
Benzyl alcohol	80	1.061557										
4-Methylphenol	80	1.290036										
2,4-Dimethylphenol	80	0.3573646										
1,2,4-Trichlorobenzene	80	0.2735578										
Benzoic acid	240	0.3112879										
Dimethylphthalate	80	1.317712										
Dibenzofuran	80	1.64867										
N-Nitrosodiphenylamine	80	0.501283										
Hexachlorobenzene	80	0.2030981										
Pentachlorophenol	160	0.1498103										
Butylbenzylphthalate	80	0.5206001										
bis(2-Ethylhexyl)phthalate	80	0.5711676										
2-Fluorophenol	120	1.249165										
Phenol-d5	120	1.473159										
2-Chlorophenol-d4	120	1.168176										
1,2-Dichlorobenzene-d4	80	0.7598629										
Nitrobenzene-d5	80	0.367857										
2-Fluorobiphenyl	80	1.219442										
2,4,6-Tribromophenol	120	0.1649678										
p-Terphenyl-d14	80	0.6780127										

INITIAL CALIBRATION DATA

EPA 8270D

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BE00052	Instrument:	NT12
Calibration Date:	05/16/2018 12:00	Column (1):	ZB-5MS

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Phenol	2.128055	15.9	0.9909		LCOD (0.99)	
1,4-Dichlorobenzene	1.609994	11.6			RSD (15)	
1,2-Dichlorobenzene	1.511557	12.5			RSD (15)	
Benzyl alcohol	1.125925	6.0			RSD (15)	
4-Methylphenol	1.491304	9.8			RSD (15)	
2,4-Dimethylphenol	0.4152037	11.0			RSD (15)	
1,2,4-Trichlorobenzene	0.333835	13.8			RSD (15)	
Benzoic acid	0.2848118	13.5			RSD (15)	
Dimethylphthalate	1.412819	8.3			RSD (15)	
Dibenzofuran	1.882536	12.9			RSD (15)	
N-Nitrosodiphenylamine	0.6059806	12.9			RSD (15)	
Hexachlorobenzene	0.2382773	12.9			RSD (15)	
Pentachlorophenol	0.1575206	2.7			RSD (15)	
Butylbenzylphthalate	0.5548307	3.8			RSD (15)	
bis(2-Ethylhexyl)phthalate	0.5942049	3.0			RSD (15)	
2-Fluorophenol	1.435579	8.4			RSD (15)	
Phenol-d5	1.803643	13.1			RSD (15)	
2-Chlorophenol-d4	1.385818	11.4			RSD (15)	
1,2-Dichlorobenzene-d4	0.9314501	13.7			RSD (15)	
Nitrobenzene-d5	0.4090887	6.5			RSD (15)	
2-Fluorobiphenyl	1.422435	12.7			RSD (15)	
2,4,6-Tribromophenol	0.1674352	2.1			RSD (15)	
p-Terphenyl-d14	0.770436	10.4			RSD (15)	

Printed: 5/17/2018 4:40:57PM

ANALYSIS SEQUENCE

SGE0274

Instrument: NT12 Element Column ID: F011930
Calibration ID: BE00052 Tune File: 180419.U
EM Voltage: 1235

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SGE0274-TUN1	MS Tune	QC		1	G002650		
SGE0274-CAL1	Cal Standard	QC		2	G003427	G003191	
SGE0274-CAL2	Cal Standard	QC		3	G003428	G003191	
SGE0274-CAL3	Cal Standard	QC		4	G003429	G003191	
SGE0274-CAL4	Cal Standard	QC		5	G003430	G003191	
SGE0274-CAL5	Cal Standard	QC		6	G003431	G003191	
SGE0274-CAL6	Cal Standard	QC		7	G003432	G003191	
SGE0274-CAL7	Cal Standard	QC		8	G003433	G003191	
SGE0274-CAL8	Cal Standard	QC		9	F009427	G003191	
SGE0274-SCV1	Secondary Cal Check	QC		10	G004494	G003191	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt12.i\20180516.b

	Time	Filename	LabID	ClientId	DF											
1	1239	N1218051601.D	SGE0274-CAL4		1	8.58	126982	10.62	478458	13.49	247659	15.88	421930	20.22	450836	21.30	583434	22.39	453093
2	1239	N1218051601A.D	SGE0274-TUN1		1	NO ISTDS FOUND													
3	1312	N1218051602.D	SGE0274-CAL8		1	8.58	130895												
4	1346	N1218051603.D	SGE0274-CAL1		1	8.55	131944	10.60	492226	13.47	250877	15.86	406660	20.20	439117	21.28	581063	22.37	456090
5	1420	N1218051604.D	SGE0274-CAL2		1	8.59	133152	10.63	495578	13.50	254859	15.89	412112	20.22	447222	21.31	588941	22.40	454381
6	1454	N1218051605.D	SGE0274-CAL3		1	8.59	130215	10.63	489722	13.50	249468	15.89	409765	20.22	438453	21.31	581889	22.40	454600
7	1528	N1218051606.D	SGE0274-CAL5		1	8.59	127731	10.63	483960	13.50	244204	15.89	408720	20.23	427128	21.31	538823	22.41	443807
8	1602	N1218051607.D	SGE0274-CAL6		1	8.57	127141	10.62	484841	13.49	242164	15.88	411810	20.22	419370	21.30	516604	22.39	438986
9	1636	N1218051608.D	SGE0274-CAL7		1	8.63	138600	10.67	536245	13.54	253693	15.94	450504	20.28	448263	21.35	544496	22.45	481354
10	1723	N1218051609.D	G001045		1	8.62	139341	10.66	526853	13.53	267688	15.92	443059	20.26	452804	21.34	585987	22.44	482898
11	1847	N1218051610.D	SGE0274-SCV1		1	8.62	130483	10.66	488782	13.53	245643	15.93	414123	20.26	432711	21.34	564243	22.44	451445

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt12.i\20180516.b

ARI Job No.: SGE0 Method: SW846180516.m Instrument: nt12.i Date: 16-MAY-2018

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1239	N1218051601.D	SGE0274-CAL4		1	NO MANUAL INTEGRATION
1312	N1218051602.D	SGE0274-CAL8		1	NO MANUAL INTEGRATION
1346	N1218051603.D	SGE0274-CAL1		1	Total Benzofluoranthenes, Pyridine,
1420	N1218051604.D	SGE0274-CAL2		1	NO MANUAL INTEGRATION
1454	N1218051605.D	SGE0274-CAL3		1	NO MANUAL INTEGRATION
1528	N1218051606.D	SGE0274-CAL5		1	NO MANUAL INTEGRATION
1602	N1218051607.D	SGE0274-CAL6		1	NO MANUAL INTEGRATION
1636	N1218051608.D	SGE0274-CAL7		1	Benzoic acid,
1847	N1218051610.D	SGE0274-SCV1		1	NO MANUAL INTEGRATION

Security Status Report

Date: 17-May-2018 17:03

N1218051601.D	Data Locked	jianqing, 17-May-2018 17:03
N1218051601A.D	Data Locked	jianqing, 17-May-2018 17:03
N1218051602.D	Data Locked	jianqing, 17-May-2018 17:03
N1218051603.D	Data Locked	jianqing, 17-May-2018 17:03
N1218051604.D	Data Locked	jianqing, 17-May-2018 17:03
N1218051605.D	Data Locked	jianqing, 17-May-2018 17:03
N1218051606.D	Data Locked	jianqing, 17-May-2018 17:03
N1218051607.D	Data Locked	jianqing, 17-May-2018 17:03
N1218051608.D	Data Locked	jianqing, 17-May-2018 17:03
N1218051610.D	Data Locked	jianqing, 17-May-2018 17:03

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-MAY-2018 12:39
End Cal Date : 16-MAY-2018 16:36
Quant Method : ISTD
Origin : Force
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Last Edit : 17-May-2018 14:02 jianqing

Calibration File Names:
Level 1: \\target\share\chem3\nt12.i\20180516.b\N1218051603.D
Level 2: \\target\share\chem3\nt12.i\20180516.b\N1218051604.D
Level 3: \\target\share\chem3\nt12.i\20180516.b\N1218051605.D
Level 4: \\target\share\chem3\nt12.i\20180516.b\N1218051601.D
Level 5: \\target\share\chem3\nt12.i\20180516.b\N1218051606.D
Level 6: \\target\share\chem3\nt12.i\20180516.b\N1218051607.D
Level 7: \\target\share\chem3\nt12.i\20180516.b\N1218051608.D
Level 8: \\target\share\chem3\nt12.i\20180516.b\N1218051602.D

JZ 05/17/18

Compound	1.0000 Level 1	5.0000 Level 2	10.0000 Level 3	25.0000 Level 4	40.0000 Level 5	60.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80.0000 Level 7	0.2000000 Level 8									
186 Carbaryl	0.51502	0.55400	0.58860	0.60032	0.59044	0.57181					
	0.55365	+++++					AVRG		0.56769		5.18307
168 Pentachlorobenzene	0.57989	0.51815	0.49326	0.45425	0.45003	0.42958					
	0.41882	+++++					AVRG		0.47771		11.90880
133 Butylatedhydroxytoluene	13612	59492	104938	247363	359583	482846					
	648733	+++++					QUAD	0.000e+000	1.09133	0.18979	0.99947

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Compound	1.0000 Level 1	5.0000 Level 2	10.0000 Level 3	25.0000 Level 4	40.0000 Level 5	60.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80.0000 Level 7	0.2000000 Level 8									
144 alpha-Terpineol	3566	16412	30621	68489	106561	148863					
	194701	+++++					QUAD	0.000e+000	6.70695	11.24261	0.99809
123 Acetophenone	2.56897	2.43944	2.30568	2.14523	2.13324	2.03423					
	1.93655	+++++					AVRG		2.22333		10.14349
143 1,4-Dioxane	0.71076	0.71272	0.66167	0.63353	0.68072	0.63100					
	0.62004	0.57069					AVRG		0.65264		7.43229
120 2,3,4,6-Tetrachlorophenol	0.31490	0.32881	0.34507	0.32430	0.33642	0.32508					
	0.32585	+++++					AVRG		0.32863		2.93613
178 2-Benzyl-4-Chlorophenol	0.23789	0.23153	0.22568	0.23967	0.23358	0.22474					
	0.22051	+++++					AVRG		0.23051		3.09562
118 Triphenyl Phosphate	0.17704	0.17919	0.17548	0.18520	0.18903	0.18460					
	0.18842	+++++					AVRG		0.18271		2.99145
117 Butyl Diphenyl Phosphate	0.19872	0.19559	0.18769	0.19567	0.18451	0.17094					
	0.16119	+++++					AVRG		0.18490		7.60364

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Compound	1.0000 Level 1	5.0000 Level 2	10.0000 Level 3	25.0000 Level 4	40.0000 Level 5	60.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80.0000 Level 7	0.2000000 Level 8									
116 Dibutyl Phenyl Phosphate	0.47425	0.48770	0.47414	0.50842	0.50506	0.49298					
	0.48960	+++++					AVRG		0.49031		2.73532
115 Tributyl Phosphate	0.93941	0.90519	0.86126	0.87181	0.84930	0.79521					
	0.74167	+++++					AVRG		0.85198		7.77880
113 Diphenyl Oxide	1.15571	0.95959	0.88280	0.86422	0.86338	0.81980					
	0.81520	+++++					AVRG		0.90867		13.09479
112 Biphenyl	1.50281	1.33085	1.23492	1.12434	1.12787	1.05896					
	1.03982	+++++					AVRG		1.20280		13.84790
111 Azobenzene (1,2-DP-Hydrazine)	1.13746	1.05310	0.98576	0.89100	0.88862	0.80034					
	0.77079	+++++					AVRG		0.93244		14.29859
105 1-methylnaphthalene	0.65880	0.61268	0.53537	0.53099	0.52099	0.49024					
	0.45721	+++++					AVRG		0.54375		12.80622
151 1,2,4,5-Tetrachlorobenzene	0.78341	0.71359	0.66512	0.60384	0.60544	0.57992					
	0.56720	+++++					AVRG		0.64550		12.29835

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Compound	1.0000 Level 1	5.0000 Level 2	10.0000 Level 3	25.0000 Level 4	40.0000 Level 5	60.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80.0000 Level 7	0.2000000 Level 8									
3 Phenol	17377	80654	151246	320423	501279	695040					
	949844	+++++					LINR	0.000e+000	1.80638		0.99086
4 Bis(2-Chloroethyl)ether	1.81668	1.69779	1.58679	1.50057	1.52450	1.42865					
	1.35845	+++++					AVRG		1.55906		10.08227
6 2-Chlorophenol	1.74877	1.65913	1.66373	1.47015	1.49326	1.39455					
	1.33873	+++++					AVRG		1.53833		9.99325
7 1,3-Dichlorobenzene	1.89687	1.78130	1.67394	1.55566	1.57439	1.47817					
	1.40670	+++++					AVRG		1.62386		10.58627
9 1,4-Dichlorobenzene	1.90369	1.78037	1.67618	1.53630	1.54934	1.45234					
	1.37174	+++++					AVRG		1.60999		11.63097
11 Benzyl alcohol	1.24083	1.19542	1.06806	1.09677	1.12505	1.09379					
	1.06156	+++++					AVRG		1.12593		6.00266
12 1,2-Dichlorobenzene	1.77045	1.71771	1.59214	1.44711	1.44315	1.34544					
	1.26491	+++++					AVRG		1.51156		12.47305

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Compound	1.0000 Level 1	5.0000 Level 2	10.0000 Level 3	25.0000 Level 4	40.0000 Level 5	60.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80.0000 Level 7	0.2000000 Level 8									
13 2-Methylphenol	1.63009	1.58502	1.55363	1.41400	1.44315	1.37862					
	1.34802	+++++					AVRG		1.47893		7.42646
14 2,2'-oxybis(1-Chloropropane)	1.85548	1.75844	1.64081	1.53951	1.54884	1.43759					
	1.34963	+++++					AVRG		1.59004		11.09358
15 4-Methylphenol	1.67662	1.61938	1.61259	1.43909	1.44530	1.35610					
	1.29004	+++++					AVRG		1.49130		9.83564
16 N-Nitroso-di-n-propylamine	1.26038	1.20199	1.13508	1.07439	1.09261	1.05287					
	1.03350	+++++					AVRG		1.12155		7.41171
17 Hexachloroethane	0.69272	0.68541	0.64985	0.62354	0.63047	0.59634					
	0.56422	+++++					AVRG		0.63465		7.26324
19 Nitrobenzene	0.50631	0.49800	0.45845	0.43023	0.43662	0.40785					
	0.38115	+++++					AVRG		0.44552		10.24225
20 Isophorone	0.73869	0.71740	0.67977	0.64714	0.65454	0.63807					
	0.63156	+++++					AVRG		0.67245		6.15429

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Compound	1.0000 Level 1	5.0000 Level 2	10.0000 Level 3	25.0000 Level 4	40.0000 Level 5	60.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80.0000 Level 7	0.2000000 Level 8									
21 2-Nitrophenol	0.19552	0.21563	0.21990	0.20577	0.21319	0.20411					
	0.19912	+++++					AVRG		0.20761		4.30991
22 2,4-Dimethylphenol	0.47925	0.45711	0.44464	0.39741	0.39880	0.37184					
	0.35736	+++++					AVRG		0.41520		11.00875
23 Bis(2-Chloroethoxy)methane	0.53337	0.49650	0.46272	0.42990	0.43656	0.41379					
	0.39658	+++++					AVRG		0.45278		10.65763
24 Benzoic acid	0.21088	0.26095	0.28270	0.29620	0.31283	0.31885					
	0.31129	+++++					AVRG		0.28481		13.45726
25 2,4-Dichlorophenol	0.35045	0.35677	0.34946	0.31738	0.30752	0.29255					
	0.28047	+++++					AVRG		0.32209		9.48164
26 1,2,4-Trichlorobenzene	0.40839	0.37596	0.34375	0.31727	0.31830	0.29962					
	0.27356	+++++					AVRG		0.33383		13.80901
28 Naphthalene	32646	148299	265266	588513	924107	1275226					
	1690043	+++++					QUAD	0.000e+000	0.78224	0.14840	0.99877

ARI Labs, Inc.

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Last Edit : 17-May-2018 14:02 jianqing

Compound	1.0000 Level 1	5.0000 Level 2	10.0000 Level 3	25.0000 Level 4	40.0000 Level 5	60.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80.0000 Level 7	0.2000000 Level 8									
29 4-Chloroaniline	0.55991	0.52080	0.46434	0.46200	0.46331	0.44368					
	0.41958	+++++					AVRG		0.47623		10.05829
30 Hexachlorobutadiene	0.21153	0.20664	0.19108	0.17454	0.17398	0.16254					
	0.15086	+++++					AVRG		0.18160		12.37226
31 4-Chloro-3-methylphenol	0.35866	0.36190	0.36243	0.33346	0.33621	0.31717					
	0.30028	+++++					AVRG		0.33859		7.10494
32 2-Methylnaphthalene	0.74957	0.68539	0.60589	0.59057	0.58076	0.54401					
	0.50332	+++++					AVRG		0.60850		13.77126
33 Hexachlorocyclopentadiene	0.24267	0.28709	0.30084	0.29143	0.32081	0.31364					
	0.30886	+++++					AVRG		0.29505		8.80951
34 2,4,6-Trichlorophenol	0.46844	0.46634	0.48130	0.44028	0.45433	0.43555					
	0.44117	+++++					AVRG		0.45534		3.79033
35 2,4,5-Trichlorophenol	0.46772	0.49748	0.49962	0.45812	0.46690	0.44393					
	0.44718	+++++					AVRG		0.46871		4.75248

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Compound	1.0000 Level 1	5.0000 Level 2	10.0000 Level 3	25.0000 Level 4	40.0000 Level 5	60.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80.0000 Level 7	0.2000000 Level 8									
37 2-Chloronaphthalene	1.57400	1.44714	1.34699	1.22391	1.23383	1.16314					
	1.14151	+++++					AVRG		1.30436		12.23538
38 2-Nitroaniline	0.39757	0.42775	0.40095	0.41664	0.42691	0.41017					
	0.41247	+++++					AVRG		0.41321		2.82182
39 Dimethylphthalate	1.62988	1.50515	1.42341	1.34040	1.35512	1.31807					
	1.31771	+++++					AVRG		1.41282		8.29217
40 Acenaphthylene	2.29427	2.12204	1.98518	1.75947	1.72257	1.62147					
	1.55164	+++++					AVRG		1.86523		14.74278
41 2,6-Dinitrotoluene	0.31800	0.34025	0.32348	0.30383	0.30080	0.29490					
	0.29350	+++++					AVRG		0.31068		5.54508
43 3-Nitroaniline	0.34949	0.38390	0.35881	0.38334	0.39436	0.38613					
	0.39694	+++++					AVRG		0.37900		4.73188
44 Acenaphthene	1.53502	1.37106	1.26316	1.16931	1.16569	1.09152					
	1.07037	+++++					AVRG		1.23802		13.43783

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Compound	1.0000 Level 1	5.0000 Level 2	10.0000 Level 3	25.0000 Level 4	40.0000 Level 5	60.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80.0000 Level 7	0.2000000 Level 8									
45 2,4-Dinitrophenol	3589	26514	64036	173434	276399	414084					
	600115	+++++					LINR	0.000e+000	0.19322		0.99828
46 Dibenzofuran	2.33732	2.08041	1.84743	1.78922	1.78100	1.69370					
	1.64867	+++++					AVRG		1.88254		12.94982
47 4-Nitrophenol	1540	10994	23510	60345	101423	152201					
	195532	+++++					LINR	0.000e+000	0.19989		0.99621
48 2,4-Dinitrotoluene	0.43169	0.45266	0.44261	0.43606	0.44435	0.43614					
	0.43914	+++++					AVRG		0.44038		1.56570
49 Fluorene	22374	100748	183966	406812	626081	860341					
	1118879	+++++					QUAD	0.000e+000	0.63283	0.06130	0.99973
50 Diethylphthalate	1.54331	1.43603	1.36511	1.29489	1.29141	1.24719					
	1.23887	+++++					AVRG		1.34526		8.26818
51 4-Chlorophenyl-phenylether	10565	47420	86487	190937	291327	398831					
	522886	+++++					QUAD	0.000e+000	1.36180	0.27984	0.99986

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-MAY-2018 12:39
End Cal Date : 16-MAY-2018 16:36
Quant Method : ISTD
Origin : Force
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Last Edit : 17-May-2018 14:02 jianqing

Compound	1.0000 Level 1	5.0000 Level 2	10.0000 Level 3	25.0000 Level 4	40.0000 Level 5	60.0000 Level 6	Curve	Coefficients b	Coefficients m1	Coefficients m2	%RSD or R^2
	80.0000 Level 7	0.2000000 Level 8									
52 4-Nitroaniline	0.33140	0.35741	0.34157	0.38395	0.39055	0.38836					
	0.40340	+++++					AVRG		0.37095		7.39989
53 4,6-Dinitro-2-methylphenol	0.11451	0.14191	0.15154	0.14841	0.15250	0.15061					
	0.14513	+++++					AVRG		0.14351		9.28766
54 N-Nitrosodiphenylamine	0.72729	0.67803	0.63219	0.57194	0.58375	0.54738					
	0.50128	+++++					AVRG		0.60598		12.89611
56 4-Bromophenyl-phenylether	0.27497	0.25098	0.23858	0.21907	0.22006	0.20865					
	0.19977	+++++					AVRG		0.23030		11.38391
57 Hexachlorobenzene	0.29150	0.26280	0.24647	0.22232	0.22636	0.21538					
	0.20310	+++++					AVRG		0.23828		12.88885
58 Pentachlorophenol	0.15459	0.16116	0.16173	0.15852	0.15992	0.15691					
	0.14981	+++++					AVRG		0.15752		2.66927
60 Phenanthrene	29451	134274	247875	578510	879560	1245890					
	1691744	+++++					LINR	0.000e+000	0.99149		0.99156

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-MAY-2018 12:39
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Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Last Edit : 17-May-2018 14:02 jianqing

Compound	1.0000 Level 1	5.0000 Level 2	10.0000 Level 3	25.0000 Level 4	40.0000 Level 5	60.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80.0000 Level 7	0.2000000 Level 8									
61 Anthracene	1.37083	1.27103	1.19764	1.09507	1.07063	1.00106					
	0.90984	+++++					AVRG		1.13087		14.08824
62 Carbazole	1.33728	1.19886	1.10463	1.05961	1.03815	0.97732					
	0.92044	+++++					AVRG		1.09090		12.86971
63 Di-n-butylphthalate	1.41622	1.40620	1.31748	1.25108	1.20258	1.11655					
	1.02547	+++++					AVRG		1.24794		11.65934
64 Fluoranthene	1.43683	1.38460	1.29070	1.23457	1.18899	1.11236					
	1.03452	+++++					AVRG		1.24037		11.56044
65 Pyrene	1.49833	1.34247	1.26655	1.18724	1.18040	1.12598					
	1.07990	+++++					AVRG		1.24012		11.54110
67 Butylbenzylphthalate	0.54564	0.57949	0.57384	0.56221	0.56384	0.53819					
	0.52060	+++++					AVRG		0.55483		3.77950
68 Benzo(a)anthracene	31861	141309	255758	570345	837366	1144013					
	1553917	+++++					LINR	0.000e+000	0.90766		0.99182

ARI Labs, Inc.

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Method file : \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Last Edit : 17-May-2018 14:02 jianqing

Compound	1.0000 Level 1	5.0000 Level 2	10.0000 Level 3	25.0000 Level 4	40.0000 Level 5	60.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80.0000 Level 7	0.2000000 Level 8									
70 3,3'-Dichlorobenzidine	32745	96232	168406	400639	622754	865265					
	1167411	+++++					LINR	0.000e+000	0.33886		0.99524
71 Chrysene	32469	140108	260715	598537	913846	1276201					
	1769259	+++++					LINR	0.000e+000	1.01284		0.99713
72 bis(2-Ethylhexyl)phthalate	0.57378	0.62003	0.60213	0.58979	0.60707	0.59547					
	0.57117	+++++					AVRG		0.59420		2.96655
73 Di-n-octylphthalate	1.29208	1.14632	1.06559	1.00070	1.04049	0.99271					
	0.93951	+++++					AVRG		1.06820		11.06457
74 Benzo(b)fluoranthene	1.34943	1.38937	1.24190	1.18845	1.17074	1.15083					
	1.12810	+++++					AVRG		1.23126		8.23481
75 Benzo(k)fluoranthene	35022	156025	294974	633803	1005877	1360122					
	1770518	+++++					QUAD	0.000e+000	0.66459	0.10887	0.99752
76 Benzo(a)pyrene	1.22055	1.14952	1.07617	0.99671	1.00739	0.96410					
	0.91086	+++++					AVRG		1.04647		10.39370

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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Method file : \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Last Edit : 17-May-2018 14:02 jianqing

Compound	1.0000 Level 1	5.0000 Level 2	10.0000 Level 3	25.0000 Level 4	40.0000 Level 5	60.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80.0000 Level 7	0.2000000 Level 8									
78 Indeno(1,2,3-cd)pyrene	1.31145	1.30857	1.24071	1.16555	1.21793	1.17787					
	1.14238	+++++					AVRG		1.22349		5.51524
79 Dibenzo(a,h)anthracene	1.07128	1.08650	1.03380	0.96926	0.99296	0.94827					
	0.90455	+++++					AVRG		1.00095		6.63695
80 Benzo(g,h,i)perylene	1.06510	1.07161	1.02654	0.98666	1.02980	1.00294					
	0.96350	+++++					AVRG		1.02088		3.88242
90 N-Nitrosodimethylamine	1.01210	1.03419	1.00432	0.94975	1.01154	0.95547					
	0.90643	+++++					AVRG		0.98197		4.63973
91 Aniline	2.87046	2.67283	2.35509	2.29088	2.23094	2.04773					
	1.95742	+++++					AVRG		2.34648		13.89905
93 Benzidine	0.56990	0.47361	0.43161	0.40539	0.44611	0.42563					
	0.40252	+++++					AVRG		0.45068		12.84963
103 Pyridine	1.65328	1.80092	1.63373	1.64249	1.77619	1.71611					
	1.73523	+++++					AVRG		1.70828		3.91914

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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Method file : \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Last Edit : 17-May-2018 14:02 jianqing

Compound	1.0000 Level 1	5.0000 Level 2	10.0000 Level 3	25.0000 Level 4	40.0000 Level 5	60.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80.0000 Level 7	0.2000000 Level 8									
187 Total Benzofluoranthenes	1.38400	1.31553	1.20849	1.09443	1.08911	1.02796					
	0.96364	+++++					AVRG		1.15474		13.31502
$ 137 d8-1,4-Dioxane	0.44261	0.41057	0.39685	0.37935	0.40424	0.38139					
	0.37483	+++++					AVRG		0.39855		5.92581
$ 1 2-Fluorophenol	1.58896	1.56949	1.42334	1.46322	1.42431	1.33057					
	1.24917	+++++					AVRG		1.43558		8.44924
$ 2 Phenol-d5	2.13858	2.04039	1.82631	1.82706	1.73999	1.58000					
	1.47316	+++++					AVRG		1.80364		13.05346
$ 5 2-Chlorophenol-d4	1.62200	1.54692	1.39010	1.38707	1.33568	1.25077					
	1.16818	+++++					AVRG		1.38582		11.40479
$ 10 1,2-Dichlorobenzene-d4	1.13563	1.04155	0.93094	0.93655	0.89712	0.81850					
	0.75986	+++++					AVRG		0.93145		13.66575
$ 18 Nitrobenzene-d5	0.44333	0.43808	0.39948	0.41581	0.40909	0.38996					
	0.36786	+++++					AVRG		0.40909		6.48034

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 16-MAY-2018 12:39
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Origin : Force
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Last Edit : 17-May-2018 14:02 jianqing

Compound	1.0000 Level 1	5.0000 Level 2	10.0000 Level 3	25.0000 Level 4	40.0000 Level 5	60.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
	80.0000 Level 7	0.2000000 Level 8									
$ 36 2-Fluorobiphenyl	1.72244	1.59894	1.43127	1.38133	1.34233	1.26129					
	1.21944	+++++					AVRG		1.42244		12.72293
$ 55 2,4,6-Tribromophenol	0.17023	0.17104	0.16378	0.17168	0.16647	0.16387					
	0.16497	+++++					AVRG		0.16744		2.06798
$ 66 Terphenyl-d14	0.91352	0.83100	0.76013	0.76927	0.73482	0.70630					
	0.67801	+++++					AVRG		0.77044		10.35266

ARI Labs, Inc.

INITIAL CALIBRATION DATA

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Last Edit : 17-May-2018 14:02 jianqing

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Linear	Amt = b + Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Batch File: \\target\share\chem3\nt12.i\20180516.b
Inst ID: nt12.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08
FILENAME:	N1218051601	N1218051602	N1218051603	N1218051604	N1218051605	N1218051606	N1218051607	N1218051608
INJ.DATE:	16-MAY-2018	16-MAY-2018	16-MAY-2018	16-MAY-2018	16-MAY-2018	16-MAY-2018	16-MAY-2018	16-MAY-2018
INJ.TIME:	12:39	13:12	13:46	14:20	14:54	15:28	16:02	16:36

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
186 Carbaryl	16.674	+++++	16.648	16.675	16.675	16.691	16.680	16.744	16.674	13.674-19.674	16.684	0.030
168 Pentachlorobenzene	13.848	+++++	13.827	13.849	13.854	13.860	13.848	13.907	13.848	10.848-16.848	13.856	0.025
133 Butylatedhydroxytoluen	13.640	+++++	13.624	13.646	13.645	13.651	13.640	13.699	13.640	10.640-16.640	13.649	0.024
144 alpha-Terpineol	10.659	+++++	10.638	10.670	10.670	10.676	10.659	10.718	10.659	7.659-13.659	10.670	0.025
123 Acetophenone	9.265	+++++	9.238	9.270	9.270	9.281	9.270	9.329	9.265	6.265-12.265	9.275	0.027
$ 137 d8-1,4-Dioxane	3.298	+++++	3.276	3.319	3.319	3.319	3.298	3.383	3.298	0.298-6.298	3.316	0.034
143 1,4-Dioxane	3.362	3.388	3.346	3.383	3.383	3.383	3.362	3.453	3.362	0.362-6.362	3.382	0.032
120 2,3,4,6-Tetrachlorophe	14.078	+++++	14.062	14.084	14.084	14.089	14.078	14.132	14.078	11.078-17.078	14.087	0.022
178 2-Benzyl-4-Chloropheno	16.621	+++++	16.594	16.621	16.621	16.638	16.626	16.691	16.621	13.621-19.621	16.630	0.030
118 Triphenyl Phosphate	19.709	+++++	19.688	19.714	19.714	19.720	19.709	19.763	19.709	16.709-22.709	19.717	0.023
117 Butyl Diphenyl Phospha	18.090	+++++	18.074	18.101	18.101	18.107	18.090	18.144	18.090	15.090-21.090	18.101	0.022
116 Dibutyl Phenyl Phospha	16.402	+++++	16.375	16.402	16.407	16.419	16.407	16.466	16.402	13.402-19.402	16.411	0.028
115 Tributyl Phosphate	14.650	+++++	14.628	14.650	14.655	14.672	14.660	14.719	14.650	11.650-17.650	14.662	0.028
113 Diphenyl Oxide	12.737	+++++	12.721	12.743	12.743	12.748	12.732	12.786	12.737	9.737-15.737	12.744	0.020
112 Biphenyl	13.544	+++++	13.523	13.549	13.549	13.560	13.544	13.603	13.544	10.544-16.544	13.553	0.025
111 Azobenzene (1,2-DP-Hyd	14.628	+++++	14.612	14.634	14.634	14.645	14.634	14.693	14.628	11.628-17.628	14.640	0.025
105 1-methylnaphthalene	11.947	+++++	11.931	11.952	11.952	11.958	11.941	12.000	11.947	8.947-14.947	11.954	0.022

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Batch File: \\target\share\chem3\nt12.i\20180516.b
Inst ID: nt12.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
151	1,2,4,5-Tetrachloroben	12.112	+++++	12.096	12.118	12.118	12.123	12.107	12.161	12.112	9.112-15.112	12.119	0.020
$ 1	2-Fluorophenol	6.615	+++++	6.588	6.626	6.626	6.632	6.615	6.679	6.615	3.615-9.615	6.626	0.028
$ 2	Phenol-d5	8.106	+++++	8.068	8.106	8.111	8.127	8.116	8.181	8.106	5.106-11.106	8.116	0.034
3	Phenol	8.127	+++++	8.084	8.127	8.127	8.149	8.138	8.202	8.127	5.127-11.127	8.136	0.035
4	Bis(2-Chloroethyl)ethe	8.239	+++++	8.202	8.245	8.244	8.256	8.244	8.303	8.239	5.239-11.239	8.248	0.030
$ 5	2-Chlorophenol-d4	8.271	+++++	8.239	8.282	8.282	8.288	8.271	8.330	8.271	5.271-11.271	8.280	0.027
6	2-Chlorophenol	8.298	+++++	8.266	8.303	8.303	8.314	8.298	8.357	8.298	5.298-11.298	8.306	0.027
7	1,3-Dichlorobenzene	8.517	+++++	8.490	8.528	8.528	8.533	8.517	8.571	8.517	5.517-11.517	8.526	0.024
* 8	1,4-Dichlorobenzene-d4	8.576	8.576	8.549	8.586	8.586	8.592	8.570	8.629	8.576	5.576-11.576	8.583	0.023
9	1,4-Dichlorobenzene	8.602	+++++	8.576	8.613	8.613	8.619	8.597	8.656	8.602	5.602-11.602	8.611	0.025
$ 10	1,2-Dichlorobenzene-d4	8.880	+++++	8.853	8.886	8.886	8.891	8.875	8.928	8.880	5.880-11.880	8.886	0.023
11	Benzyl alcohol	8.843	+++++	8.811	8.848	8.848	8.859	8.848	8.907	8.843	5.843-11.843	8.852	0.029
12	1,2-Dichlorobenzene	8.902	+++++	8.875	8.907	8.907	8.913	8.896	8.955	8.902	5.902-11.902	8.908	0.024
13	2-Methylphenol	9.056	+++++	9.030	9.062	9.062	9.073	9.062	9.121	9.056	6.056-12.056	9.066	0.027
14	2,2'-oxybis(1-Chloropr	9.099	+++++	9.078	9.105	9.105	9.110	9.094	9.153	9.099	6.099-12.099	9.106	0.023
15	4-Methylphenol	9.286	+++++	9.254	9.286	9.286	9.303	9.292	9.350	9.286	6.286-12.286	9.294	0.029
16	N-Nitroso-di-n-propyla	9.318	+++++	9.286	9.318	9.318	9.340	9.329	9.393	9.318	6.318-12.318	9.329	0.033
17	Hexachloroethane	9.388	+++++	9.366	9.398	9.398	9.399	9.382	9.436	9.388	6.388-12.388	9.395	0.021
$ 18	Nitrobenzene-d5	9.505	+++++	9.478	9.505	9.511	9.516	9.505	9.564	9.505	6.505-12.505	9.512	0.026
19	Nitrobenzene	9.532	+++++	9.505	9.537	9.537	9.548	9.537	9.596	9.532	6.532-12.532	9.542	0.027
20	Isophorone	9.906	+++++	9.884	9.911	9.911	9.928	9.917	9.981	9.906	6.906-12.906	9.920	0.030
21	2-Nitrophenol	10.045	+++++	10.023	10.056	10.050	10.061	10.045	10.098	10.045	7.045-13.045	10.054	0.023

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Batch File: \\target\share\chem3\nt12.i\20180516.b
Inst ID: nt12.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	22 2,4-Dimethylphenol	10.125	+++++	10.104	10.130	10.130	10.141	10.130	10.189	10.125	7.125-13.125	10.136	0.026
	23 Bis(2-Chloroethoxy)met	10.285	+++++	10.264	10.291	10.291	10.296	10.285	10.344	10.285	7.285-13.285	10.294	0.025
	24 Benzoic acid	10.392	+++++	10.210	10.285	10.328	10.457	10.488	10.579	10.392	7.392-13.392	10.391	0.127
	25 2,4-Dichlorophenol	10.419	+++++	10.397	10.424	10.424	10.430	10.419	10.478	10.419	7.419-13.419	10.427	0.025
	26 1,2,4-Trichlorobenzene	10.558	+++++	10.536	10.568	10.568	10.574	10.558	10.611	10.558	7.558-13.558	10.568	0.023
*	27 Naphthalene-d8	10.622	10.616	10.600	10.627	10.627	10.633	10.616	10.670	10.622	7.622-13.622	10.627	0.020
	28 Naphthalene	10.654	+++++	10.632	10.659	10.659	10.665	10.654	10.707	10.654	7.654-13.654	10.662	0.023
	29 4-Chloroaniline	10.782	+++++	10.761	10.787	10.787	10.793	10.782	10.841	10.782	7.782-13.782	10.791	0.025
	30 Hexachlorobutadiene	10.964	+++++	10.948	10.969	10.969	10.975	10.953	11.007	10.964	7.964-13.964	10.969	0.019
	31 4-Chloro-3-methylpheno	11.567	+++++	11.551	11.573	11.573	11.584	11.567	11.621	11.567	8.567-14.567	11.577	0.022
	32 2-Methylnaphthalene	11.770	+++++	11.754	11.781	11.781	11.787	11.770	11.824	11.770	8.770-14.770	11.781	0.022
	33 Hexachlorocyclopentadi	12.150	+++++	12.139	12.160	12.155	12.161	12.144	12.198	12.150	9.150-15.150	12.158	0.019
	34 2,4,6-Trichlorophenol	12.278	+++++	12.262	12.283	12.283	12.289	12.273	12.331	12.278	9.278-15.278	12.286	0.022
	35 2,4,5-Trichlorophenol	12.331	+++++	12.315	12.337	12.337	12.342	12.331	12.385	12.331	9.331-15.331	12.340	0.022
$	36 2-Fluorobiphenyl	12.411	+++++	12.390	12.417	12.417	12.423	12.406	12.465	12.411	9.411-15.411	12.418	0.023
	37 2-Chloronaphthalene	12.556	+++++	12.540	12.561	12.561	12.572	12.556	12.615	12.556	9.556-15.556	12.566	0.024
	38 2-Nitroaniline	12.780	+++++	12.759	12.785	12.785	12.796	12.785	12.844	12.780	9.780-15.780	12.791	0.026
	39 Dimethylphthalate	13.143	+++++	13.122	13.149	13.149	13.160	13.149	13.208	13.143	10.143-16.143	13.154	0.026
	40 Acenaphthylene	13.239	+++++	13.223	13.245	13.245	13.251	13.239	13.293	13.239	10.239-16.239	13.248	0.022
	41 2,6-Dinitrotoluene	13.245	+++++	13.223	13.245	13.250	13.261	13.250	13.309	13.245	10.245-16.245	13.255	0.027
*	42 Acenaphthene-d10	13.491	13.485	13.474	13.501	13.501	13.502	13.485	13.544	13.491	10.491-16.491	13.498	0.021
	43 3-Nitroaniline	13.458	+++++	13.437	13.459	13.459	13.475	13.469	13.528	13.458	10.458-16.458	13.469	0.029
	44 Acenaphthene	13.544	+++++	13.523	13.549	13.549	13.560	13.544	13.603	13.544	10.544-16.544	13.553	0.025
	45 2,4-Dinitrophenol	13.629	+++++	13.603	13.624	13.629	13.651	13.645	13.710	13.629	10.629-16.629	13.642	0.034

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Batch File: \\target\share\chem3\nt12.i\20180516.b
Inst ID: nt12.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
	46 Dibenzofuran	13.806	+++++	13.784	13.811	13.811	13.822	13.806	13.865	13.806	10.806-16.806	13.815	0.025
	47 4-Nitrophenol	13.731	+++++	13.704	13.731	13.731	13.747	13.742	13.801	13.731	10.731-16.731	13.741	0.030
	48 2,4-Dinitrotoluene	13.875	+++++	13.854	13.875	13.881	13.892	13.881	13.945	13.875	10.875-16.875	13.886	0.028
	49 Fluorene	14.361	+++++	14.345	14.367	14.372	14.378	14.367	14.420	14.361	11.361-17.361	14.373	0.023
	50 Diethylphthalate	14.303	+++++	14.276	14.303	14.303	14.319	14.308	14.362	14.303	11.303-17.303	14.310	0.026
	51 4-Chlorophenyl-phenyle	14.377	+++++	14.356	14.383	14.383	14.388	14.377	14.431	14.377	11.377-17.377	14.385	0.023
	52 4-Nitroaniline	14.463	+++++	14.431	14.458	14.463	14.490	14.490	14.565	14.463	11.463-17.463	14.480	0.043
	53 4,6-Dinitro-2-methylph	14.538	+++++	14.506	14.532	14.538	14.565	14.559	14.629	14.538	11.538-17.538	14.552	0.039
	54 N-Nitrosodiphenylamine	14.580	+++++	14.559	14.580	14.586	14.597	14.591	14.650	14.580	11.580-17.580	14.592	0.028
$	55 2,4,6-Tribromophenol	14.789	+++++	14.767	14.789	14.794	14.805	14.789	14.853	14.789	11.789-17.789	14.798	0.027
	56 4-Bromophenyl-phenylet	15.163	+++++	15.147	15.168	15.173	15.174	15.163	15.216	15.163	12.163-18.163	15.172	0.022
	57 Hexachlorobenzene	15.392	+++++	15.376	15.403	15.403	15.409	15.392	15.451	15.392	12.392-18.392	15.404	0.023
	58 Pentachlorophenol	15.686	+++++	15.665	15.692	15.692	15.703	15.692	15.745	15.686	12.686-18.686	15.696	0.024
*	59 Phenanthrene-d10	15.879	15.873	15.862	15.889	15.889	15.895	15.879	15.937	15.879	12.879-18.879	15.888	0.023
	60 Phenanthrene	15.916	+++++	15.900	15.921	15.927	15.932	15.921	15.980	15.916	12.916-18.916	15.928	0.025
	61 Anthracene	15.991	+++++	15.969	15.996	15.996	16.007	15.991	16.055	15.991	12.991-18.991	16.001	0.027
	62 Carbazole	16.263	+++++	16.242	16.269	16.269	16.280	16.269	16.327	16.263	13.263-19.263	16.274	0.026
	63 Di-n-butylphthalate	16.952	+++++	16.936	16.958	16.958	16.969	16.952	17.006	16.952	13.952-19.952	16.962	0.022
	64 Fluoranthene	17.866	+++++	17.844	17.871	17.871	17.882	17.866	17.925	17.866	14.866-20.866	17.875	0.025
	65 Pyrene	18.229	+++++	18.202	18.229	18.234	18.240	18.229	18.288	18.229	15.229-21.229	18.236	0.026
$	66 Terphenyl-d14	18.518	+++++	18.496	18.523	18.523	18.529	18.518	18.571	18.518	15.518-21.518	18.525	0.023
	67 Butylbenzylphthalate	19.388	+++++	19.367	19.394	19.394	19.400	19.388	19.442	19.388	16.388-22.388	19.396	0.023
	68 Benzo(a)anthracene	20.190	+++++	20.163	20.195	20.195	20.206	20.190	20.249	20.190	17.190-23.190	20.198	0.026

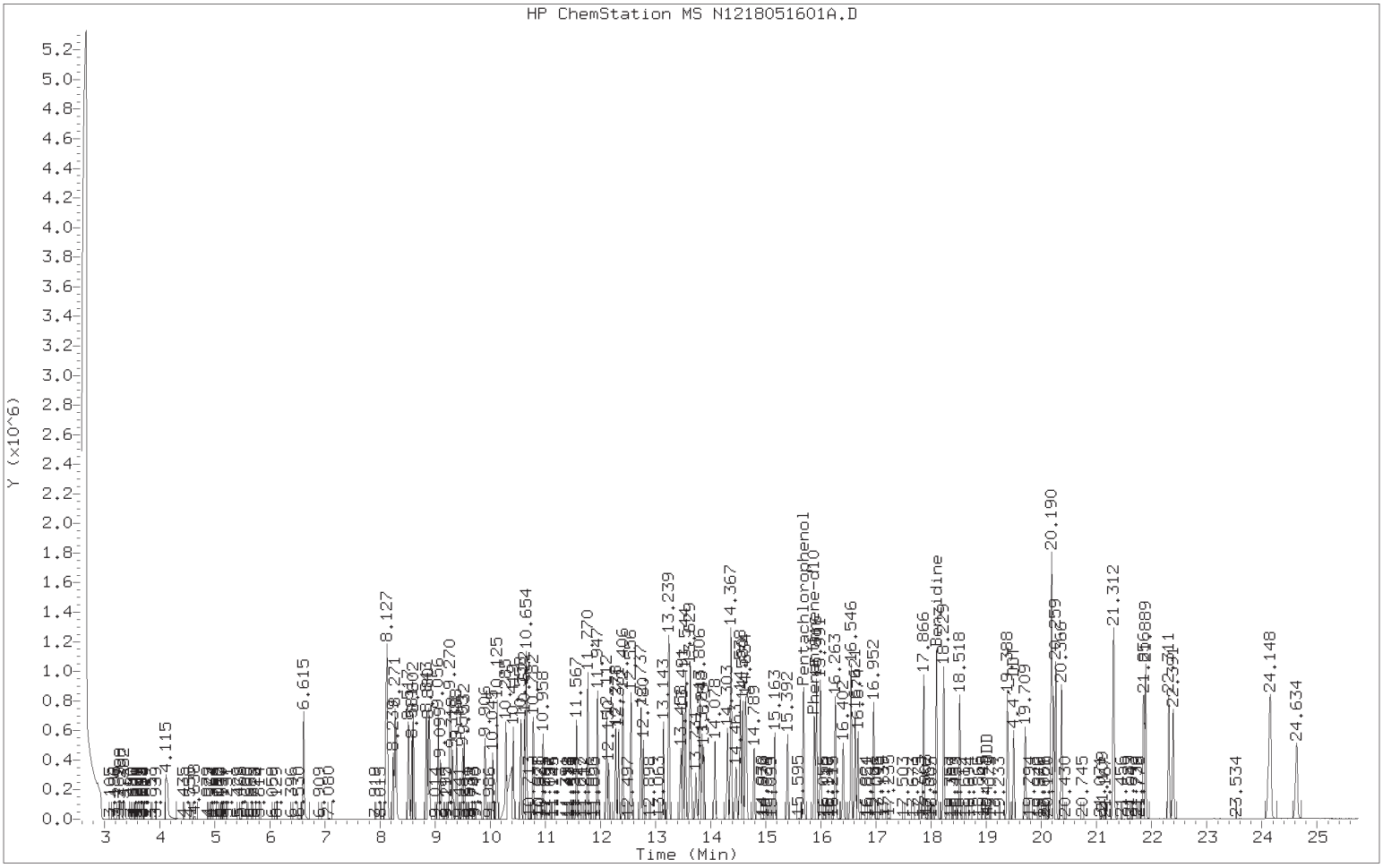
ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

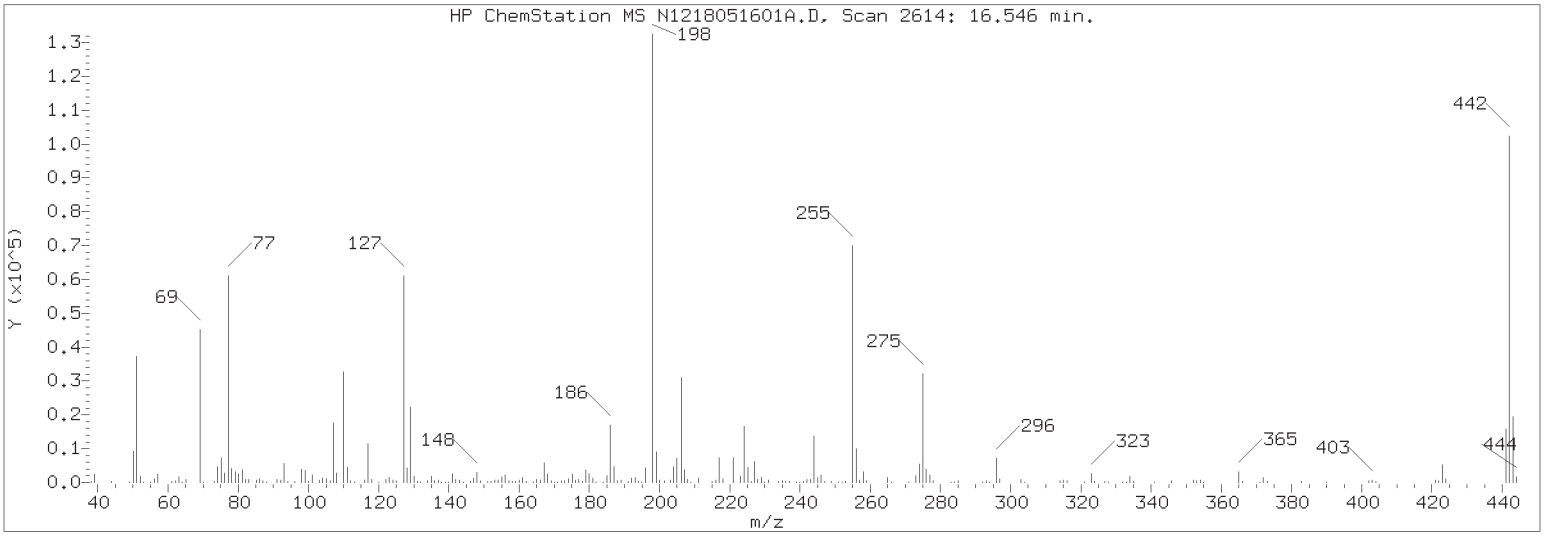
Method File: \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Batch File: \\target\share\chem3\nt12.i\20180516.b
Inst ID: nt12.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	RT07	RT08	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 69 Chrysene-d12	20.216	20.206	20.195	20.222	20.222	20.233	20.222	20.281	20.216	17.216-23.216	20.225	0.025
70 3,3'-Dichlorobenzidine	20.190	+++++	20.158	20.190	20.190	20.206	20.195	20.259	20.190	17.190-23.190	20.198	0.031
71 Chrysene	20.259	+++++	20.232	20.259	20.265	20.276	20.265	20.329	20.259	17.259-23.259	20.269	0.029
72 bis(2-Ethylhexyl)phtha	20.366	+++++	20.350	20.377	20.377	20.377	20.366	20.414	20.366	17.366-23.366	20.375	0.020
* 134 Di-n-octylphthalate-d4	21.301	21.296	21.279	21.306	21.306	21.312	21.301	21.349	21.301	18.301-24.301	21.306	0.020
73 Di-n-octylphthalate	21.312	+++++	21.290	21.317	21.317	21.328	21.312	21.365	21.312	18.312-24.312	21.320	0.023
74 Benzo(b)fluoranthene	21.856	+++++	21.819	21.857	21.857	21.873	21.862	21.931	21.856	18.856-24.856	21.865	0.034
75 Benzo(k)fluoranthene	21.889	+++++	21.856	21.889	21.889	21.910	21.899	21.964	21.889	18.889-24.889	21.899	0.033
76 Benzo(a)pyrene	22.311	+++++	22.278	22.311	22.311	22.327	22.316	22.386	22.311	19.311-25.311	22.320	0.033
* 77 Perylene-d12	22.391	22.385	22.369	22.396	22.396	22.407	22.385	22.450	22.391	19.391-25.391	22.397	0.024
78 Indeno(1,2,3-cd)pyrene	24.138	+++++	24.106	24.132	24.138	24.165	24.148	24.245	24.138	21.138-27.138	24.153	0.044
79 Dibenzo(a,h)anthracene	24.159	+++++	24.132	24.159	24.159	24.186	24.175	24.277	24.159	21.159-27.159	24.178	0.047
80 Benzo(g,h,i)perylene	24.634	+++++	24.602	24.629	24.634	24.667	24.656	24.768	24.634	21.634-27.634	24.656	0.054
90 N-Nitrosodimethylamine	4.147	+++++	4.115	4.158	4.158	4.174	4.158	4.249	4.147	1.147-7.147	4.165	0.041
91 Aniline	8.132	+++++	8.095	8.138	8.138	8.149	8.132	8.197	8.132	5.132-11.132	8.140	0.030
93 Benzidine	18.101	+++++	18.079	18.106	18.106	18.117	18.106	18.165	18.101	15.101-21.101	18.112	0.026
103 Pyridine	4.115	+++++	4.131	4.147	4.142	4.131	4.110	4.185	4.115	1.115-7.115	4.137	0.025
187 Total Benzofluoranthen	21.889	+++++	21.819	21.889	21.889	21.910	21.899	21.964	21.889	18.889-24.889	21.894	0.042

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20180516.b/tune.b/N1218051601A.D/N1218051601A.D
Method Used: \20180516.b\tune.b\DFTPP.m Inst: nt12
Injection Date: 16-MAY-2018 12:39 Operator: JZ
Sample Info: SGE0274-TUN1 DFTPP180516
Report Date: 05/17/2018 13:32





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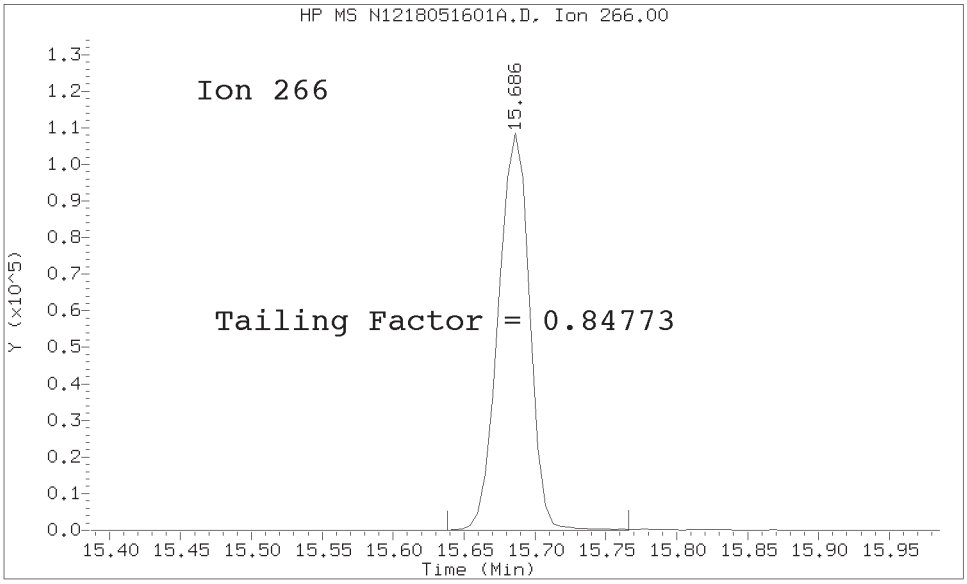
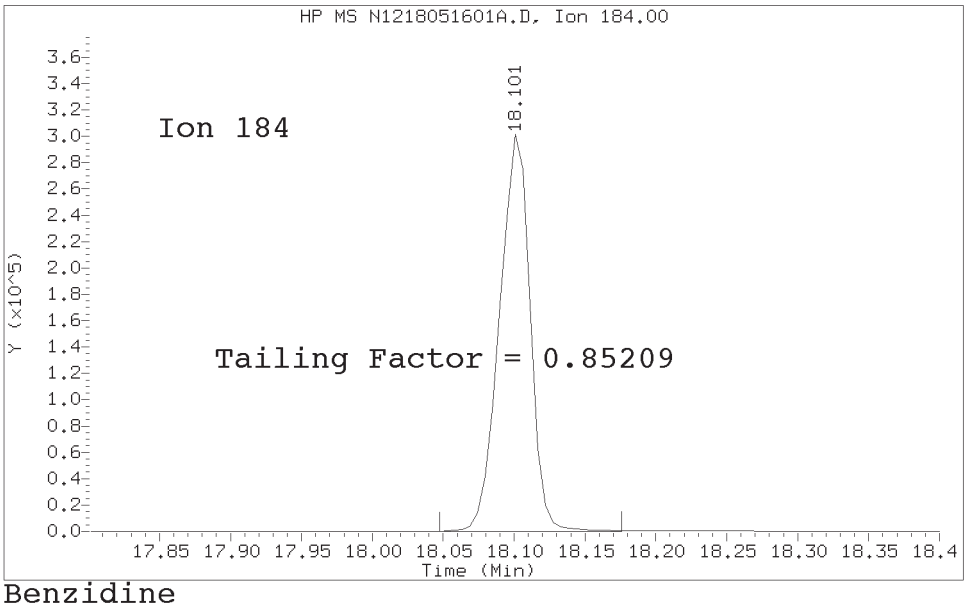
Method Used: \20180516.b\tune.b\DFTPP.m\sw846ddt.m Inst: nt12
Injection Date: 16-MAY-2018 12:39 Operator: JZ
Sample Info: IC25180516,
Report Date: 05/17/2018 13:32



Pentachlorophenol
==========
Exp. RT = 15.686
Found RT = 15.686

Tail Factor = 0.848 Maximum Allowed = 2.0



Benzidine
==========
Exp. RT = 18.101
Found RT = 18.101

Tail Factor = 0.852 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	0.8477337	2.000	PASS
Benzidine	0.8520878	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	185216			N/A
4,4-DDE	0	0.0	20.0	PASS
4,4-DDD	3859	2.0	20.0	PASS
4,4-DDD + DDE	3859	2.0	20.0	PASS

Tuning Sample, nt12.i/20180516.b/tune.b/N1218051601A.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	27.84
68	Less than 2.00% of mass 69	0.17 (0.50)
69	Mass 69 relative abundance	34.74
70	Less than 2.00% of mass 69	0.16 (0.47)
127	10.00 - 80.00% of mass 198	46.05
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.73
275	10.00 - 60.00% of mass 198	23.63
365	Greater than 1.00% of mass 198	2.38
441	0.01 - 24.00% of mass 442	11.68 (15.43)
442	50.00 - 200.00% of mass 198	75.70
443	15.00 - 24.00% of mass 442	14.49 (19.14)

Data File: N1218051601A.D
Spectrum: Avg. Scans 2613-2615 (16.55), Background Scan 2604
Location of Maximum: 198.00
Number of points: 237

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	367	124.00	640	188.00	474	265.00	1279
39.00	2280	125.00	610	189.00	774	266.00	218
49.00	206	127.00	56000	191.00	414	271.00	54
50.00	8514	128.00	4141	192.00	1251	272.00	57
51.00	33848	129.00	20312	193.00	1512	273.00	1901
52.00	1740	130.00	1758	194.00	287	274.00	4981
53.00	55	131.00	354	195.00	186	275.00	28736
55.00	167	132.00	244	196.00	3656	276.00	3813
56.00	992	134.00	497	198.00	121600	277.00	2052
57.00	2397	135.00	1614	199.00	8180	278.00	389
61.00	437	136.00	574	200.00	657	283.00	257
62.00	464	137.00	802	201.00	613	284.00	180
63.00	1629	138.00	226	203.00	660	285.00	415
64.00	238	139.00	61	204.00	3963	292.00	56
65.00	868	140.00	248	205.00	6512	293.00	518
68.00	210	141.00	2412	206.00	28600	294.00	116
69.00	42240	142.00	824	207.00	3662	296.00	6694
70.00	200	143.00	614	208.00	896	297.00	935
73.00	335	144.00	50	209.00	284	302.00	119
74.00	4317	145.00	118	210.00	283	303.00	914
75.00	7079	146.00	478	211.00	1147	304.00	232
76.00	2452	147.00	1217	215.00	300	314.00	392
77.00	55576	148.00	2657	216.00	607	315.00	773
78.00	3916	149.00	581	217.00	6839	316.00	403
79.00	2910	150.00	117	218.00	1023	321.00	239
80.00	2404	151.00	307	219.00	53	323.00	2470
81.00	3526	152.00	231	221.00	6892	324.00	455
82.00	917	153.00	813	223.00	1634	327.00	374
83.00	942	154.00	630	224.00	15315	328.00	246
85.00	694	155.00	1439	225.00	3897	332.00	192
86.00	879	156.00	2119	226.00	411	333.00	231
87.00	433	157.00	420	227.00	5687	334.00	1564
88.00	115	158.00	430	228.00	844	335.00	368
91.00	782	159.00	320	229.00	1326	341.00	273
92.00	838	160.00	680	230.00	180	346.00	490
93.00	5025	161.00	1212	231.00	564	352.00	762
94.00	390	162.00	347	234.00	405	353.00	542
96.00	367	164.00	62	235.00	488	354.00	758
98.00	3710	165.00	878	236.00	353	355.00	54
99.00	3245	166.00	842	237.00	476	365.00	2892
100.00	294	167.00	4917	239.00	220	366.00	429
101.00	1991	168.00	2429	240.00	164	371.00	129
103.00	602	169.00	450	241.00	377	372.00	1338
104.00	1258	170.00	161	242.00	855	373.00	308
105.00	1155	171.00	203	243.00	891	383.00	331
106.00	429	172.00	448	244.00	12461	390.00	198
107.00	15924	173.00	580	245.00	1616	402.00	560
108.00	2588	174.00	1079	246.00	2092	403.00	715
109.00	114	175.00	2099	247.00	441	404.00	236

110.00	29992	176.00	654	248.00	75	421.00	679
111.00	4193	177.00	870	249.00	454	422.00	570
112.00	514	178.00	351	251.00	56	423.00	4751
113.00	140	179.00	3745	252.00	50	424.00	956
116.00	763	180.00	2697	253.00	282	441.00	14208
117.00	10519	181.00	1282	254.00	93	442.00	92056
118.00	778	182.00	204	255.00	63048	443.00	17624
119.00	55	184.00	259	256.00	9067	444.00	1647
120.00	206	185.00	1752	257.00	647		
122.00	877	186.00	15324	258.00	3236		
123.00	1361	187.00	4377	259.00	559		

Data File: \\target\share\chem3\nt12.i\20180516.b\N1218051610.D

Date : 16-MAY-2018 18:47

Client ID:

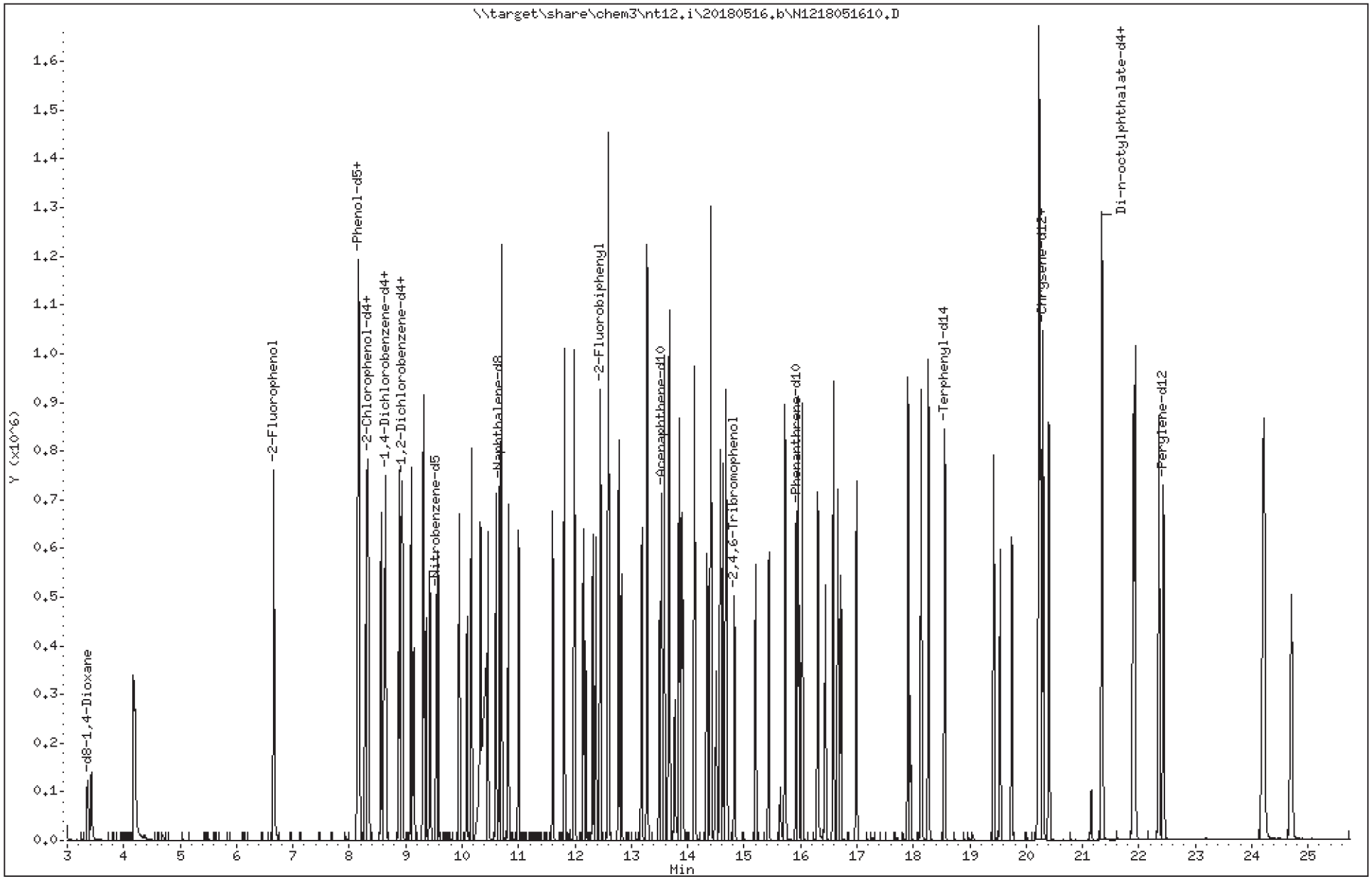
Instrument: nt12.i

Sample Info: SGE0274-SCV1

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180516.b\N1218051610.D
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Inj Date : 16-MAY-2018 18:47
Operator : JZ Inst ID: nt12.i
Smp Info : SGE0274-SCV1
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Meth Date : 17-May-2018 15:39 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.663	6.679	(0.773)	370668	39.5762	39.58(R)
$	2 Phenol-d5	99	8.148	8.180	(0.945)	459507	39.0497	39.05(R)
	3 Phenol	94	8.169	8.202	(0.947)	329277	27.9402	27.94
$	5 2-Chlorophenol-d4	132	8.319	8.330	(0.965)	350580	38.7755	38.78(R)
	4 Bis(2-Chloroethyl)ether	93	8.281	8.303	(0.960)	237962	23.3949	23.39
	6 2-Chlorophenol	128	8.340	8.356	(0.967)	238420	23.7558	23.76
	7 1,3-Dichlorobenzene	146	8.564	8.570	(0.993)	259819	24.5244	24.52
*	8 1,4-Dichlorobenzene-d4	152	8.623	8.629	(1.000)	130483	20.0000	
	9 1,4-Dichlorobenzene	146	8.645	8.656	(1.002)	262843	25.0235	25.02
$	10 1,2-Dichlorobenzene-d4	152	8.922	8.928	(1.035)	156206	25.7048	25.70(R)
	12 1,2-Dichlorobenzene	146	8.944	8.955	(1.037)	242898	24.6306	24.63
	11 Benzyl alcohol	108	8.885	8.907	(1.030)	191117	26.0175	26.02
	14 2,2'-oxybis(1-Chloropropane)	45	9.141	9.152	(1.060)	239061	23.0450	23.04
	13 2-Methylphenol	108	9.099	9.120	(1.055)	240830	24.9597	24.96
	17 Hexachloroethane	117	9.430	9.435	(1.094)	103230	24.9315	24.93
	16 N-Nitroso-di-n-propylamine	70	9.360	9.393	(1.085)	167776	22.9292	22.93
	15 4-Methylphenol	108	9.323	9.350	(1.081)	243621	25.0394	25.04
$	18 Nitrobenzene-d5	82	9.547	9.564	(0.895)	262419	26.2478	26.25(R)
	19 Nitrobenzene	77	9.574	9.596	(0.898)	273712	25.1388	25.14
	20 Isophorone	82	9.948	9.980	(0.933)	482357	29.3509	29.35
	21 2-Nitrophenol	139	10.087	10.098	(0.946)	128901	25.4056	25.41
	22 2,4-Dimethylphenol	107	10.167	10.189	(0.953)	243514	23.9981	24.00
	23 Bis(2-Chloroethoxy)methane	93	10.322	10.344	(0.968)	258825	23.3904	23.39
	24 Benzoic acid	105	10.434	10.579	(0.978)	574514	82.5387	82.54
	25 2,4-Dichlorophenol	162	10.461	10.478	(0.981)	194075	24.6554	24.66
	26 1,2,4-Trichlorobenzene	180	10.600	10.611	(0.994)	201960	24.7542	24.75
*	27 Naphthalene-d8	136	10.664	10.670	(1.000)	488782	20.0000	
	28 Naphthalene	128	10.696	10.707	(1.003)	592288	23.3158	23.32
	29 4-Chloroaniline	127	10.824	10.840	(1.015)	290968	25.0001	25.00
	30 Hexachlorobutadiene	225	11.000	11.006	(1.032)	109138	24.5915	24.59
	31 4-Chloro-3-methylphenol	107	11.610	11.620	(1.089)	202705	24.4969	24.50
	32 2-Methylnaphthalene	141	11.813	11.823	(1.108)	370837	24.9365	24.94
	33 Hexachlorocyclopentadiene	237	12.192	12.197	(0.901)	97997	27.0423	27.04

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	12.315	12.331	(0.910)	138268	24.7234	24.72
	35	2,4,5-Trichlorophenol	196	12.373	12.384	(0.914)	146718	25.4862	25.49
$	36	2-Fluorobiphenyl	172	12.448	12.465	(0.920)	454510	26.0158	26.02(R)
	37	2-Chloronaphthalene	162	12.598	12.614	(0.931)	373496	23.3139	23.31
	38	2-Nitroaniline	65	12.822	12.844	(0.947)	132947	26.1960	26.20
	39	Dimethylphthalate	163	13.185	13.207	(0.974)	411207	23.6973	23.70
	40	Acenaphthylene	152	13.282	13.293	(0.981)	518866	22.6489	22.65
	41	2,6-Dinitrotoluene	165	13.287	13.309	(0.982)	98827	25.8992	25.90
*	42	Acenaphthene-d10	164	13.533	13.544	(1.000)	245643	20.0000	
	43	3-Nitroaniline	138	13.501	13.528	(0.998)	122315	26.2767	26.28
	44	Acenaphthene	153	13.586	13.602	(1.004)	352982	23.2141	23.21
	45	2,4-Dinitrophenol	184	13.672	13.710	(1.010)	171289	72.1777	72.18
	46	Dibenzofuran	168	13.848	13.864	(1.023)	583830	25.2504	25.25
	47	4-Nitrophenol	109	13.773	13.801	(1.018)	57367	23.3667	23.37
	48	2,4-Dinitrotoluene	165	13.917	13.944	(1.028)	138117	25.5357	25.54
	50	Diethylphthalate	149	14.345	14.361	(1.060)	388069	23.4871	23.49
	49	Fluorene	166	14.409	14.420	(1.065)	403684	24.1105	24.11
	51	4-Chlorophenyl-phenylether	204	14.420	14.431	(1.066)	182963	23.3913	23.39
	52	4-Nitroaniline	138	14.510	14.564	(1.072)	119757	26.2853	26.29
	53	4,6-Dinitro-2-methylphenol	198	14.580	14.628	(0.915)	227567	76.5804	76.58
	54	N-Nitrosodiphenylamine	169	14.623	14.650	(0.918)	297883	23.7404	23.74
$	55	2,4,6-Tribromophenol	330	14.831	14.853	(1.096)	83950	40.8225	40.82(R)
	56	4-Bromophenyl-phenylether	248	15.205	15.216	(0.955)	110704	23.2155	23.22
	57	Hexachlorobenzene	284	15.440	15.451	(0.969)	119937	24.3092	24.31
	58	Pentachlorophenol	266	15.728	15.745	(0.988)	161207	49.4251	49.43
*	59	Phenanthrene-d10	188	15.926	15.937	(1.000)	414123	20.0000	
	60	Phenanthrene	178	15.963	15.980	(1.002)	539621	26.2845	26.28
	61	Anthracene	178	16.033	16.055	(1.007)	556390	23.7611	23.76
	62	Carbazole	167	16.305	16.327	(1.024)	500118	22.1405	22.14
	63	Di-n-butylphthalate	149	16.994	17.005	(1.067)	630014	24.3813	24.38
	64	Fluoranthene	202	17.908	17.924	(1.124)	618368	24.0767	24.08
	65	Pyrene	202	18.271	18.288	(0.902)	648035	24.1527	24.15
$	66	Terphenyl-d14	244	18.560	18.571	(0.916)	437760	26.2622	26.26(R)
	67	Butylbenzylphthalate	149	19.425	19.441	(0.959)	291581	24.2902	24.29
	68	Benzo(a)anthracene	228	20.237	20.249	(0.999)	561051	28.5702	28.57
*	69	Chrysene-d12	240	20.264	20.280	(1.000)	432711	20.0000	
	70	3,3'-Dichlorobenzidine	252	20.227	20.259	(0.998)	383666	52.3320	52.33
	71	Chrysene	228	20.301	20.329	(1.002)	570813	26.0485	26.05
	72	bis(2-Ethylhexyl)phthalate	149	20.408	20.414	(0.956)	413508	24.6667	24.67
*	134	Di-n-octylphthalate-d4	153	21.338	21.349	(1.000)	564243	20.0000	
	73	Di-n-octylphthalate	149	21.354	21.365	(1.001)	700608	23.2480	23.25
	74	Benzo(b)fluoranthene	252	21.899	21.931	(0.976)	657656	23.6632	23.66(H)
	75	Benzo(k)fluoranthene	252	21.931	21.964	(0.977)	661167	24.1371	24.14
	187	Total Benzofluoranthenes	252	21.931	21.963	(0.977)	1251759	48.0245	48.02
	76	Benzo(a)pyrene	252	22.358	22.385	(0.996)	607119	25.7023	25.70
*	77	Perylene-d12	264	22.438	22.449	(1.000)	451445	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	24.207	24.244	(1.079)	675472	24.4586	24.46
	79	Dibenzo(a,h)anthracene	278	24.223	24.276	(1.080)	557090	24.6570	24.66
	80	Benzo(g,h,i)perylene	276	24.709	24.768	(1.101)	555436	24.1038	24.10
	90	N-Nitrosodimethylamine	74	4.205	4.248	(0.488)	162704	25.3966	25.40
	103	Pyridine	79	4.173	4.184	(0.484)	307302	27.5729	27.57
	91	Aniline	93	8.174	8.196	(0.948)	394251	25.7533	25.75
	105	1-methylnaphthalene	141	11.989	12.000	(1.124)	357360	26.8917	26.89
	93	Benzidine	184	18.143	18.165	(0.895)	299756	30.7419	30.74

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
111	Azobenzene (1,2-DP-Hydrazine)	77	14.671	14.692	(0.921)	478035	24.7594	24.76
143	1,4-Dioxane	88	3.425	3.452	(0.397)	114540	26.9004	26.90
$ 137	d8-1,4-Dioxane	64	3.361	3.383	(0.390)	62675	24.1039	24.10(R)
144	alpha-Terpineol	59	10.701	10.718	(1.004)	83147	29.3251	29.33
133	Butylatedhydroxytoluene	205	13.682	13.699	(1.011)	232670	24.0793	24.08
115	Tributyl Phosphate	99	14.692	14.719	(0.923)	452484	25.6493	25.65
116	Dibutyl Phenyl Phosphate	175	16.444	16.466	(1.033)	275983	27.1840	27.18
117	Butyl Diphenyl Phosphate	94	18.132	18.143	(0.895)	109435	27.3556	27.36
118	Triphenyl Phosphate	326	19.751	19.762	(0.975)	106542	26.9525	26.95
123	Acetophenone	105	9.307	9.329	(1.079)	280475	19.3359	19.34
168	Pentachlorobenzene	250	13.891	13.907	(1.026)	157365	26.8206	26.82
113	Diphenyl Oxide	170	12.779	12.785	(0.944)	290235	26.0057	26.01
112	Biphenyl	154	13.586	13.602	(1.004)	340337	23.0379	23.04
120	2,3,4,6-Tetrachlorophenol	232	14.120	14.131	(1.043)	189251	46.8870	46.89
151	1,2,4,5-Tetrachlorobenzene	216	12.154	12.160	(0.898)	179659	22.6609	22.66
186	Carbaryl	144	16.717	16.744	(1.050)	301743	25.6700	25.67
178	2-Benzyl-4-Chlorophenol	218	16.663	16.690	(1.046)	118132	24.7497	24.75

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218051610.D
Lab Smp Id: SGE0274-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Misc Info: 18-

Calibration Date: 16-MAY-2018
Calibration Time: 12:39
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	130483	2.76
27 Naphthalene-d8	478458	239229	956916	488782	2.16
42 Acenaphthene-d10	247659	123830	495318	245643	-0.81
59 Phenanthrene-d10	421930	210965	843860	414123	-1.85
69 Chrysene-d12	450836	225418	901672	432711	-4.02
134 Di-n-octylphthala	583434	291717	1166868	564243	-3.29
77 Perylene-d12	453093	226547	906186	451445	-0.36

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.58	8.08	9.08	8.62	0.56
27 Naphthalene-d8	10.62	10.12	11.12	10.66	0.40
42 Acenaphthene-d10	13.49	12.99	13.99	13.53	0.32
59 Phenanthrene-d10	15.88	15.38	16.38	15.93	0.30
69 Chrysene-d12	20.22	19.72	20.72	20.26	0.24
134 Di-n-octylphthala	21.30	20.80	21.80	21.34	0.18
77 Perylene-d12	22.39	21.89	22.89	22.44	0.21

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218051610.D

Lab ID: SGE0274-SCV1
nt12.i, 20180516.b\SW846180516.m,   16-MAY-2018 18:47

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

On Column LOD for nt12.i, 20180516.b\SW846180516.m, ICALS.sub = 0.0100

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt12.i\20180516.b\N1218051601.D

Date : 16-MAY-2018 12:39

Client ID:

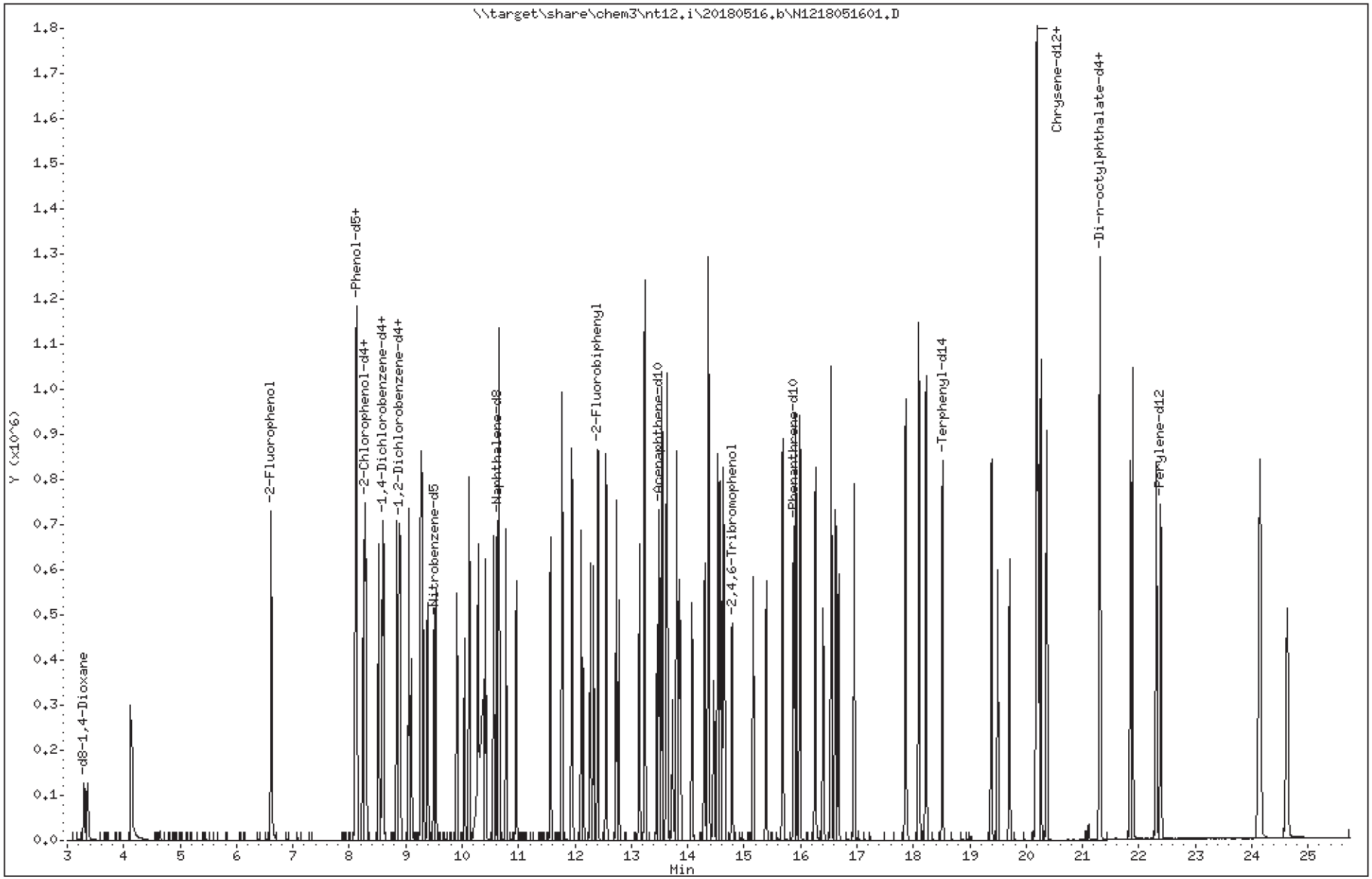
Instrument: nt12.i

Sample Info: IC25180516,

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180516.b\N1218051601.D
Lab Smp Id: SGE0274-CAL4
Inj Date : 16-MAY-2018 12:39
Operator : JZ Inst ID: nt12.i
Smp Info : IC25180516,
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Meth Date : 17-May-2018 13:27 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.615	6.679	(0.771)	348380	37.5000	38.22
$	2 Phenol-d5	99	8.105	8.180	(0.945)	435007	37.5000	37.99
	3 Phenol	94	8.126	8.202	(0.948)	320423	25.0000	27.94
$	5 2-Chlorophenol-d4	132	8.271	8.330	(0.964)	330250	37.5000	37.53
	4 Bis(2-Chloroethyl)ether	93	8.239	8.303	(0.961)	238181	25.0000	24.06
	6 2-Chlorophenol	128	8.297	8.356	(0.968)	233354	25.0000	23.89
	7 1,3-Dichlorobenzene	146	8.516	8.571	(0.993)	246926	25.0000	23.95
*	8 1,4-Dichlorobenzene-d4	152	8.575	8.629	(1.000)	126982	20.0000	
	9 1,4-Dichlorobenzene	146	8.602	8.656	(1.003)	243853	25.0000	23.86
$	10 1,2-Dichlorobenzene-d4	152	8.880	8.928	(1.036)	148656	25.0000	25.14
	12 1,2-Dichlorobenzene	146	8.901	8.955	(1.038)	229696	25.0000	23.93
	11 Benzyl alcohol	108	8.842	8.907	(1.031)	174087	25.0000	24.35
	14 2,2'-oxybis(1-Chloropropane)	45	9.099	9.153	(1.061)	244362	25.0000	24.21
	13 2-Methylphenol	108	9.056	9.121	(1.056)	224441	25.0000	23.90
	17 Hexachloroethane	117	9.387	9.436	(1.095)	98973	25.0000	24.56
	16 N-Nitroso-di-n-propylamine	70	9.318	9.393	(1.087)	170535	25.0000	23.95
	15 4-Methylphenol	108	9.286	9.350	(1.083)	228423	25.0000	24.12
$	18 Nitrobenzene-d5	82	9.505	9.564	(0.895)	248687	25.0000	25.41
	19 Nitrobenzene	77	9.531	9.596	(0.897)	257311	25.0000	24.14
	20 Isophorone	82	9.905	9.981	(0.933)	387035	25.0000	24.06
	21 2-Nitrophenol	139	10.044	10.098	(0.946)	123068	25.0000	24.78
	22 2,4-Dimethylphenol	107	10.124	10.189	(0.953)	237682	25.0000	23.93
	23 Bis(2-Chloroethoxy)methane	93	10.285	10.344	(0.968)	257113	25.0000	23.74
	24 Benzoic acid	105	10.392	10.579	(0.978)	531447	75.0000	78.04
	25 2,4-Dichlorophenol	162	10.418	10.478	(0.981)	189819	25.0000	24.64
	26 1,2,4-Trichlorobenzene	180	10.557	10.611	(0.994)	189753	25.0000	23.76
*	27 Naphthalene-d8	136	10.621	10.670	(1.000)	478458	20.0000	
	28 Naphthalene	128	10.653	10.707	(1.003)	588513	25.0000	23.73
	29 4-Chloroaniline	127	10.782	10.841	(1.015)	276311	25.0000	24.25
	30 Hexachlorobutadiene	225	10.963	11.007	(1.032)	104389	25.0000	24.03
	31 4-Chloro-3-methylphenol	107	11.567	11.621	(1.089)	199431	25.0000	24.62
	32 2-Methylnaphthalene	141	11.770	11.824	(1.108)	353201	25.0000	24.26
	33 Hexachlorocyclopentadiene	237	12.149	12.198	(0.901)	90220	25.0000	24.69

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
	34	2,4,6-Trichlorophenol	196	12.277	12.331	(0.910)	136298	25.0000	24.17
	35	2,4,5-Trichlorophenol	196	12.331	12.385	(0.914)	141823	25.0000	24.44
$	36	2-Fluorobiphenyl	172	12.411	12.465	(0.920)	427625	25.0000	24.28
	37	2-Chloronaphthalene	162	12.555	12.615	(0.931)	378890	25.0000	23.46
	38	2-Nitroaniline	65	12.780	12.844	(0.947)	128980	25.0000	25.21
	39	Dimethylphthalate	163	13.143	13.208	(0.974)	414952	25.0000	23.72
	40	Acenaphthylene	152	13.239	13.293	(0.981)	544685	25.0000	23.58
	41	2,6-Dinitrotoluene	165	13.244	13.309	(0.982)	94059	25.0000	24.45
*	42	Acenaphthene-d10	164	13.490	13.544	(1.000)	247659	20.0000	
	43	3-Nitroaniline	138	13.458	13.528	(0.998)	118671	25.0000	25.29
	44	Acenaphthene	153	13.543	13.603	(1.004)	361987	25.0000	23.61
	45	2,4-Dinitrophenol	184	13.629	13.710	(1.010)	173434	75.0000	72.49
	46	Dibenzofuran	168	13.805	13.865	(1.023)	553897	25.0000	23.76
	47	4-Nitrophenol	109	13.730	13.801	(1.018)	60345	25.0000	24.38
	48	2,4-Dinitrotoluene	165	13.875	13.945	(1.029)	134992	25.0000	24.75
	50	Diethylphthalate	149	14.302	14.362	(1.060)	400863	25.0000	24.06
	49	Fluorene	166	14.361	14.420	(1.065)	406812	25.0000	24.10
	51	4-Chlorophenyl-phenylether	204	14.377	14.431	(1.066)	190937	25.0000	24.32
	52	4-Nitroaniline	138	14.462	14.565	(1.072)	118861	25.0000	25.88
	53	4,6-Dinitro-2-methylphenol	198	14.537	14.629	(0.916)	234821	75.0000	77.56
	54	N-Nitrosodiphenylamine	169	14.580	14.650	(0.918)	301646	25.0000	23.60
$	55	2,4,6-Tribromophenol	330	14.788	14.853	(1.096)	79722	37.5000	38.45
	56	4-Bromophenyl-phenylether	248	15.162	15.216	(0.955)	115540	25.0000	23.78
	57	Hexachlorobenzene	284	15.392	15.451	(0.969)	117256	25.0000	23.33
	58	Pentachlorophenol	266	15.686	15.745	(0.988)	167215	50.0000	50.32
*	59	Phenanthrene-d10	188	15.878	15.937	(1.000)	421930	20.0000	
	60	Phenanthrene	178	15.915	15.980	(1.002)	578510	25.0000	27.66
	61	Anthracene	178	15.990	16.055	(1.007)	577552	25.0000	24.21
	62	Carbazole	167	16.263	16.327	(1.024)	558853	25.0000	24.28
	63	Di-n-butylphthalate	149	16.952	17.006	(1.068)	659836	25.0000	25.06
	64	Fluoranthene	202	17.865	17.925	(1.125)	651128	25.0000	24.88
	65	Pyrene	202	18.229	18.288	(0.902)	669062	25.0000	23.93
$	66	Terphenyl-d14	244	18.517	18.571	(0.916)	433520	25.0000	24.96
	67	Butylbenzylphthalate	149	19.388	19.442	(0.959)	316833	25.0000	25.33
	68	Benzo(a)anthracene	228	20.189	20.249	(0.999)	570345	25.0000	27.88
*	69	Chrysene-d12	240	20.216	20.281	(1.000)	450836	20.0000	
	70	3,3'-Dichlorobenzidine	252	20.189	20.259	(0.999)	400639	50.0000	52.45
	71	Chrysene	228	20.259	20.329	(1.002)	598537	25.0000	26.22
	72	bis(2-Ethylhexyl)phthalate	149	20.365	20.414	(0.956)	430128	25.0000	24.81
*	134	Di-n-octylphthalate-d4	153	21.300	21.349	(1.000)	583434	20.0000	
	73	Di-n-octylphthalate	149	21.311	21.365	(1.000)	729801	25.0000	23.42
	74	Benzo(b)fluoranthene	252	21.856	21.931	(0.976)	673098	25.0000	24.13
	75	Benzo(k)fluoranthene	252	21.888	21.964	(0.978)	633803	25.0000	22.85
	187	Total Benzofluoranthenes	252	21.888	21.964	(0.978)	1239702	50.0000	47.39
	76	Benzo(a)pyrene	252	22.310	22.386	(0.996)	564502	25.0000	23.81
*	77	Perylene-d12	264	22.390	22.450	(1.000)	453093	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	24.137	24.245	(1.078)	660127	25.0000	23.82
	79	Dibenzo(a,h)anthracene	278	24.158	24.277	(1.079)	548956	25.0000	24.21
	80	Benzo(g,h,i)perylene	276	24.634	24.768	(1.100)	558811	25.0000	24.16
	90	N-Nitrosodimethylamine	74	4.146	4.248	(0.484)	150751	25.0000	24.18
	103	Pyridine	79	4.114	4.184	(0.480)	260708	25.0000	24.04
	91	Aniline	93	8.132	8.196	(0.948)	363625	25.0000	24.41
	105	1-methylnaphthalene	141	11.946	12.000	(1.125)	317568	25.0000	24.41
	93	Benzidine	184	18.100	18.165	(0.895)	456908	50.0000	44.97

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
111	Azobenzene (1,2-DP-Hydrazine)	77	14.628	14.693	(0.921)	469926	25.0000	23.89
143	1,4-Dioxane	88	3.361	3.453	(0.392)	100558	25.0000	24.27
$ 137	d8-1,4-Dioxane	64	3.297	3.383	(0.385)	60214	25.0000	23.80
144	alpha-Terpineol	59	10.659	10.718	(1.004)	68489	25.0000	23.81
133	Butylatedhydroxytoluene	205	13.640	13.699	(1.011)	247363	25.0000	25.59
115	Tributyl Phosphate	99	14.649	14.719	(0.923)	459803	25.0000	25.58
116	Dibutyl Phenyl Phosphate	175	16.402	16.466	(1.033)	268148	25.0000	25.92
117	Butyl Diphenyl Phosphate	94	18.090	18.144	(0.895)	110270	25.0000	26.46
118	Triphenyl Phosphate	326	19.708	19.763	(0.975)	104368	25.0000	25.34
123	Acetophenone	105	9.264	9.329	(1.080)	340507	25.0000	24.12
168	Pentachlorobenzene	250	13.848	13.907	(1.027)	140624	25.0000	23.77
113	Diphenyl Oxide	170	12.737	12.786	(0.944)	267540	25.0000	23.78
112	Biphenyl	154	13.543	13.603	(1.004)	348067	25.0000	23.37
120	2,3,4,6-Tetrachlorophenol	232	14.078	14.132	(1.044)	100395	25.0000	24.67
151	1,2,4,5-Tetrachlorobenzene	216	12.112	12.161	(0.898)	186932	25.0000	23.39
186	Carbaryl	144	16.674	16.744	(1.050)	316615	25.0000	26.44
178	2-Benzyl-4-Chlorophenol	218	16.621	16.690	(1.047)	126407	25.0000	25.99

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218051601.D
Lab Smp Id: SGE0274-CAL4
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Misc Info: 18-

Calibration Date: 16-MAY-2018
Calibration Time: 12:39
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	126982	0.00
27 Naphthalene-d8	478458	239229	956916	478458	0.00
42 Acenaphthene-d10	247659	123830	495318	247659	0.00
59 Phenanthrene-d10	421930	210965	843860	421930	0.00
69 Chrysene-d12	450836	225418	901672	450836	0.00
134 Di-n-octylphthala	583434	291717	1166868	583434	0.00
77 Perylene-d12	453093	226547	906186	453093	0.00

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.58	8.08	9.08	8.58	0.00
27 Naphthalene-d8	10.62	10.12	11.12	10.62	0.00
42 Acenaphthene-d10	13.49	12.99	13.99	13.49	0.00
59 Phenanthrene-d10	15.88	15.38	16.38	15.88	0.00
69 Chrysene-d12	20.22	19.72	20.72	20.22	0.00
134 Di-n-octylphthala	21.30	20.80	21.80	21.30	0.00
77 Perylene-d12	22.39	21.89	22.89	22.39	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218051601.D

Lab ID: SGE0274-CAL4
nt12.i, SW846180516.m, 16-MAY-2018 12:39

RT	CO-ELUTION COMPOUNDS
20.190	3,3′-Dichlorobenzidine and Benzo(a)anthracene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

On Column LOD for nt12.i, SW846180516.m, ICALS.sub = 0.0100

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt12.i\20180516.b\N1218051602.D

Date : 16-MAY-2018 13:12

Client ID:

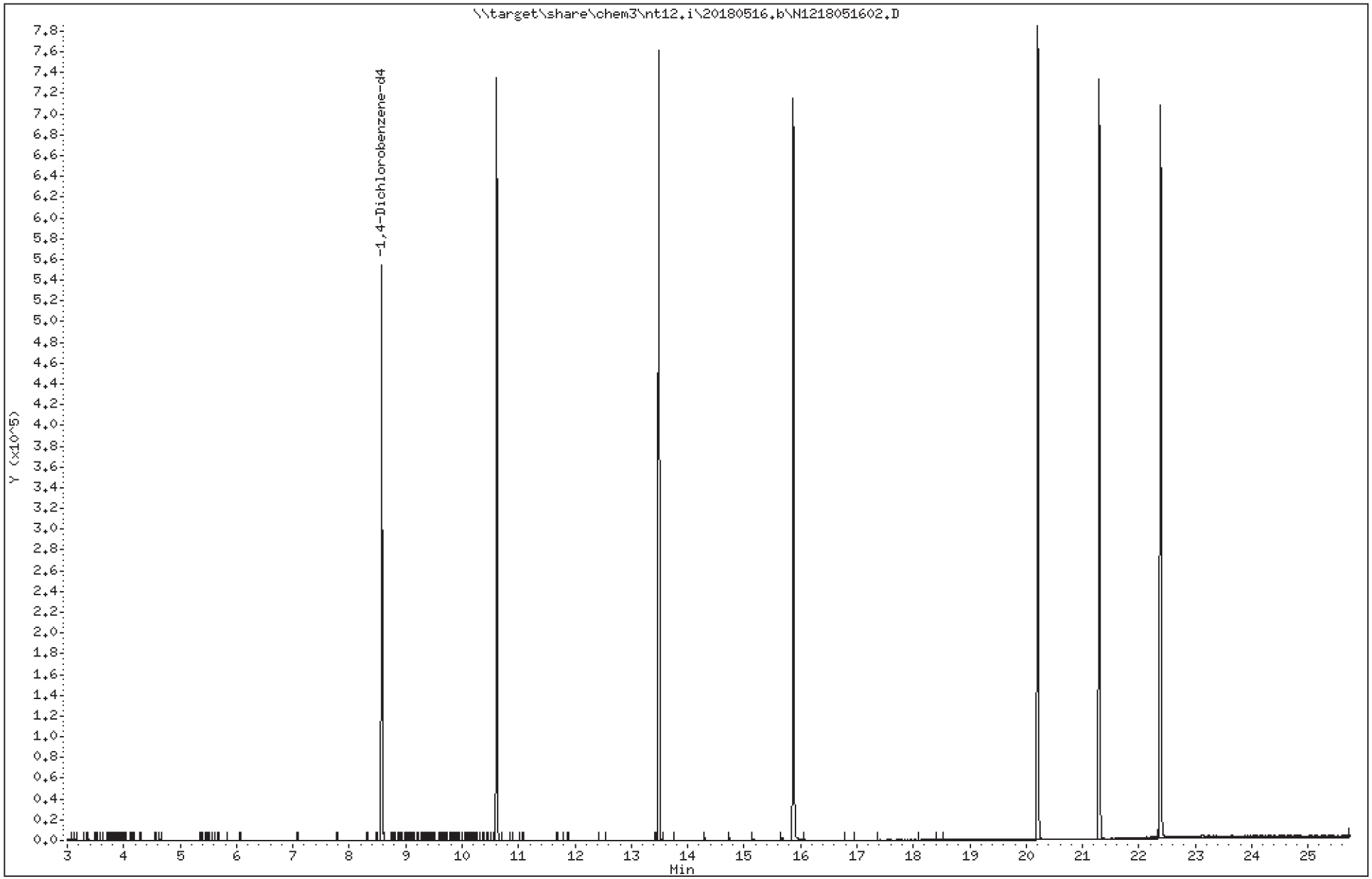
Sample Info: IC02180516,

Column phase: ZB-5msi

Instrument: nt12.i

Operator: JZ

Column diameter: 0.32



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 1097 of 6523

ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180516.b\N1218051602.D
Lab Smp Id: SGE0274-CAL8
Inj Date : 16-MAY-2018 13:12
Operator : JZ   Inst ID: nt12.i
Smp Info : IC02180516,
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Meth Date : 17-May-2018 15:39 jianqing   Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36   Cal File: N1218051608.D
Als bottle: 2   Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: DIOX.sub
Target Version: 4.14
Processing Host: ORGDATA22

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
* 8 1,4-Dichlorobenzene-d4	152	8.575	8.629	(1.000)	130895	20.0000	
$ 137 d8-1,4-Dioxane	64	Compound Not Detected.					
143 1,4-Dioxane	88	3.388	3.452	(0.395)	747	0.20000	0.1749

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218051602.D
Lab Smp Id: SGE0274-CAL8
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Misc Info: 18-

Calibration Date: 16-MAY-2018
Calibration Time: 12:39
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	130895	3.08

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.58	8.08	9.08	8.58	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218051602.D

Lab ID: SGE0274-CAL8
nt12.i, 20180516.b\SW846180516.m,   16-MAY-2018 13:12

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, 20180516.b\SW846180516.m, DIOX.sub = 0.0000

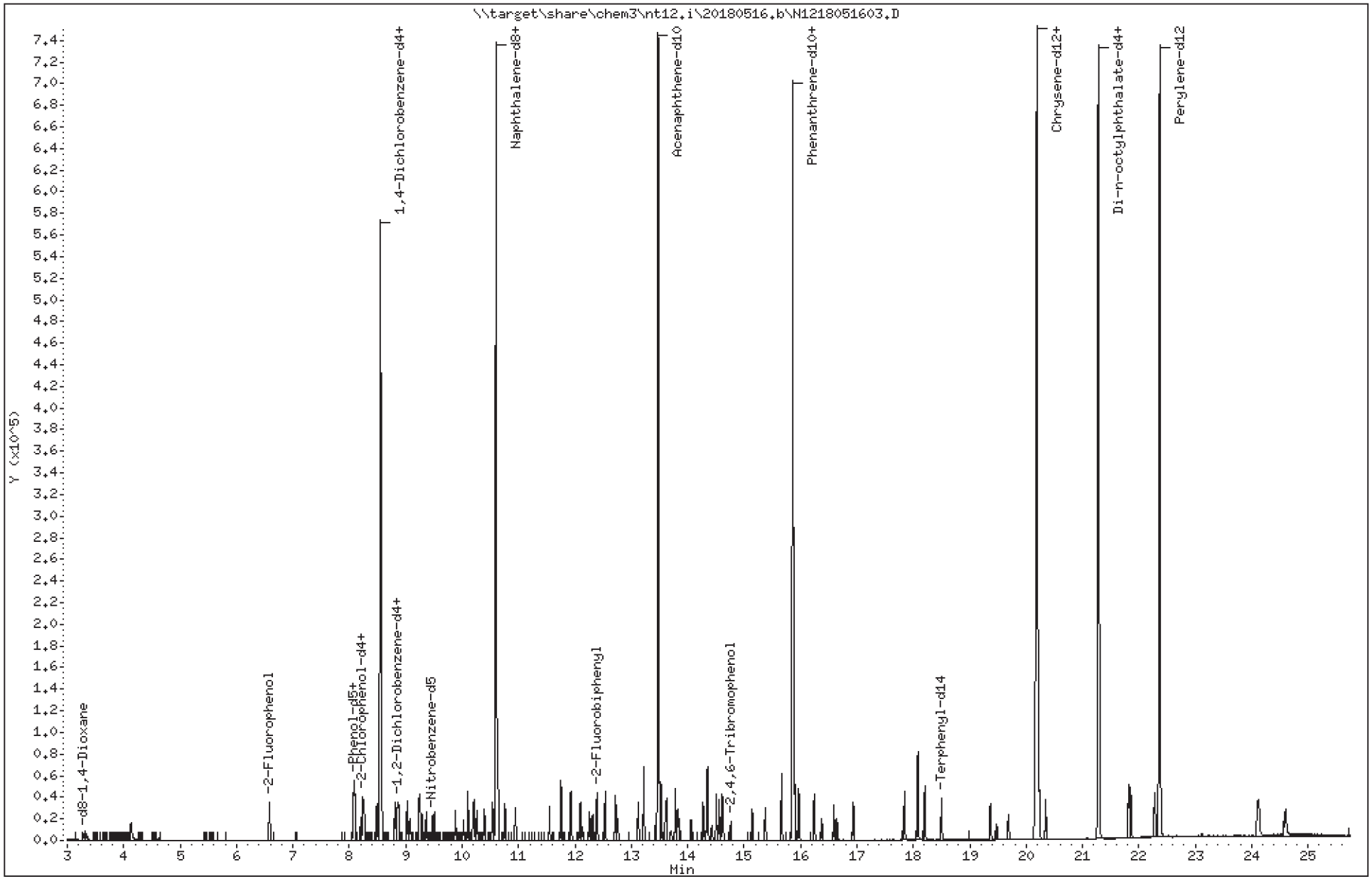
Exception: d8-1,4-Dioxane (Surr) 0.5000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt12.i\20180516.b\N1218051603.D
Date : 16-MAY-2018 13:46
Client ID:
Sample Info: IC1180516,

Instrument: nt12.i
Operator: JZ
Column diameter: 0.32

Column phase: ZB-5msi



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 1101 of 6523

ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180516.b\N1218051603.D
Lab Smp Id: SGE0274-CAL1
Inj Date : 16-MAY-2018 13:46
Operator : JZ Inst ID: nt12.i
Smp Info : IC1180516,
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Meth Date : 17-May-2018 13:27 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 3 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.588	6.679	(0.771)	15724	1.50000	1.660
$	2 Phenol-d5	99	8.068	8.180	(0.944)	21163	1.50000	1.779
	3 Phenol	94	8.084	8.202	(0.946)	17377	1.00000	1.458
$	5 2-Chlorophenol-d4	132	8.239	8.330	(0.964)	16051	1.50000	1.756
	4 Bis(2-Chloroethyl)ether	93	8.201	8.303	(0.959)	11985	1.00000	1.165
	6 2-Chlorophenol	128	8.265	8.356	(0.967)	11537	1.00000	1.137
	7 1,3-Dichlorobenzene	146	8.490	8.571	(0.993)	12514	1.00000	1.168
*	8 1,4-Dichlorobenzene-d4	152	8.548	8.629	(1.000)	131944	20.0000	
	9 1,4-Dichlorobenzene	146	8.575	8.656	(1.003)	12559	1.00000	1.182
$	10 1,2-Dichlorobenzene-d4	152	8.853	8.928	(1.036)	7492	1.00000	1.219
	12 1,2-Dichlorobenzene	146	8.874	8.955	(1.038)	11680	1.00000	1.171
	11 Benzyl alcohol	108	8.810	8.907	(1.031)	8186	1.00000	1.102
	14 2,2'-oxybis(1-Chloropropane)	45	9.077	9.153	(1.062)	12241	1.00000	1.167
	13 2-Methylphenol	108	9.029	9.121	(1.056)	10754	1.00000	1.102
	17 Hexachloroethane	117	9.366	9.436	(1.096)	4570	1.00000	1.091
	16 N-Nitroso-di-n-propylamine	70	9.286	9.393	(1.086)	8315	1.00000	1.124
	15 4-Methylphenol	108	9.254	9.350	(1.082)	11061	1.00000	1.124
$	18 Nitrobenzene-d5	82	9.478	9.564	(0.894)	10911	1.00000	1.084
	19 Nitrobenzene	77	9.505	9.596	(0.897)	12461	1.00000	1.136
	20 Isophorone	82	9.884	9.981	(0.932)	18180	1.00000	1.098
	21 2-Nitrophenol	139	10.023	10.098	(0.946)	4812	1.00000	0.9418
	22 2,4-Dimethylphenol	107	10.103	10.189	(0.953)	11795	1.00000	1.154
	23 Bis(2-Chloroethoxy)methane	93	10.263	10.344	(0.968)	13127	1.00000	1.178
	24 Benzoic acid	105	10.210	10.579	(0.963)	20760	4.00000	2.963
	25 2,4-Dichlorophenol	162	10.397	10.478	(0.981)	8625	1.00000	1.088
	26 1,2,4-Trichlorobenzene	180	10.536	10.611	(0.994)	10051	1.00000	1.223
*	27 Naphthalene-d8	136	10.600	10.670	(1.000)	492226	20.0000	
	28 Naphthalene	128	10.632	10.707	(1.003)	32646	1.00000	1.051
	29 4-Chloroaniline	127	10.760	10.841	(1.015)	13780	1.00000	1.176
	30 Hexachlorobutadiene	225	10.947	11.007	(1.033)	5206	1.00000	1.165
	31 4-Chloro-3-methylphenol	107	11.551	11.621	(1.090)	8827	1.00000	1.059
	32 2-Methylnaphthalene	141	11.754	11.824	(1.109)	18448	1.00000	1.232
	33 Hexachlorocyclopentadiene	237	12.138	12.198	(0.901)	3044	1.00000	0.8225

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
	34	2,4,6-Trichlorophenol	196	12.261	12.331	(0.910)	5876	1.00000	1.029
	35	2,4,5-Trichlorophenol	196	12.315	12.385	(0.914)	5867	1.00000	0.9979
$	36	2-Fluorobiphenyl	172	12.389	12.465	(0.920)	21606	1.00000	1.211
	37	2-Chloronaphthalene	162	12.539	12.615	(0.931)	19744	1.00000	1.207
	38	2-Nitroaniline	65	12.758	12.844	(0.947)	4987	1.00000	0.9621
	39	Dimethylphthalate	163	13.121	13.208	(0.974)	20445	1.00000	1.154
	40	Acenaphthylene	152	13.223	13.293	(0.981)	28779	1.00000	1.230
	41	2,6-Dinitrotoluene	165	13.223	13.309	(0.981)	3989	1.00000	1.024
*	42	Acenaphthene-d10	164	13.474	13.544	(1.000)	250877	20.0000	
	43	3-Nitroaniline	138	13.437	13.528	(0.997)	4384	1.00000	0.9222
	44	Acenaphthene	153	13.522	13.603	(1.004)	19255	1.00000	1.240
	45	2,4-Dinitrophenol	184	13.602	13.710	(1.010)	3589	4.00000	1.481
	46	Dibenzofuran	168	13.784	13.865	(1.023)	29319	1.00000	1.242
	47	4-Nitrophenol	109	13.704	13.801	(1.017)	1540	1.00000	0.6142
	48	2,4-Dinitrotoluene	165	13.853	13.945	(1.028)	5415	1.00000	0.9803
	50	Diethylphthalate	149	14.275	14.362	(1.059)	19359	1.00000	1.147
	49	Fluorene	166	14.345	14.420	(1.065)	22374	1.00000	1.139
	51	4-Chlorophenyl-phenylether	204	14.355	14.431	(1.065)	10565	1.00000	1.157
	52	4-Nitroaniline	138	14.430	14.565	(1.071)	4157	1.00000	0.8934
	53	4,6-Dinitro-2-methylphenol	198	14.505	14.629	(0.914)	9313	4.00000	3.192
	54	N-Nitrosodiphenylamine	169	14.558	14.650	(0.918)	14788	1.00000	1.200
$	55	2,4,6-Tribromophenol	330	14.767	14.853	(1.096)	3203	1.50000	1.525
	56	4-Bromophenyl-phenylether	248	15.146	15.216	(0.955)	5591	1.00000	1.194
	57	Hexachlorobenzene	284	15.376	15.451	(0.969)	5927	1.00000	1.223
	58	Pentachlorophenol	266	15.664	15.745	(0.988)	9430	3.00000	2.944
*	59	Phenanthrene-d10	188	15.862	15.937	(1.000)	406660	20.0000	
	60	Phenanthrene	178	15.899	15.980	(1.002)	29451	1.00000	1.461
	61	Anthracene	178	15.969	16.055	(1.007)	27873	1.00000	1.212
	62	Carbazole	167	16.241	16.327	(1.024)	27191	1.00000	1.226
	63	Di-n-butylphthalate	149	16.936	17.006	(1.068)	28796	1.00000	1.135
	64	Fluoranthene	202	17.844	17.925	(1.125)	29215	1.00000	1.158
	65	Pyrene	202	18.202	18.288	(0.901)	32897	1.00000	1.208
$	66	Terphenyl-d14	244	18.496	18.571	(0.916)	20057	1.00000	1.186
	67	Butylbenzylphthalate	149	19.366	19.442	(0.959)	11980	1.00000	0.9834
	68	Benzo(a)anthracene	228	20.162	20.249	(0.998)	31861	1.00000	1.599
*	69	Chrysene-d12	240	20.195	20.281	(1.000)	439117	20.0000	
	70	3,3'-Dichlorobenzidine	252	20.157	20.259	(0.998)	32745	3.00000	4.401
	71	Chrysene	228	20.232	20.329	(1.002)	32469	1.00000	1.460
	72	bis(2-Ethylhexyl)phthalate	149	20.349	20.414	(0.956)	16670	1.00000	0.9656
*	134	Di-n-octylphthalate-d4	153	21.279	21.349	(1.000)	581063	20.0000	
	73	Di-n-octylphthalate	149	21.290	21.365	(1.000)	37539	1.00000	1.210
	74	Benzo(b)fluoranthene	252	21.819	21.931	(0.975)	30773	1.00000	1.096
	75	Benzo(k)fluoranthene	252	21.856	21.964	(0.977)	35022	1.00000	1.033
	187	Total Benzofluoranthenes	252	21.819	21.964	(0.975)	63123	2.00000	2.397(M)
	76	Benzo(a)pyrene	252	22.278	22.386	(0.996)	27834	1.00000	1.166
*	77	Perylene-d12	264	22.369	22.450	(1.000)	456090	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	24.105	24.245	(1.078)	29907	1.00000	1.072
	79	Dibenzo(a,h)anthracene	278	24.132	24.277	(1.079)	24430	1.00000	1.070
	80	Benzo(g,h,i)perylene	276	24.602	24.768	(1.100)	24289	1.00000	1.043
	90	N-Nitrosodimethylamine	74	4.114	4.248	(0.481)	6677	1.00000	1.031
	103	Pyridine	79	4.130	4.184	(0.483)	10907	1.00000	0.9678(M)
	91	Aniline	93	8.094	8.196	(0.947)	18937	1.00000	1.223
	105	1-methylnaphthalene	141	11.930	12.000	(1.125)	16214	1.00000	1.212
	93	Benzidine	184	18.079	18.165	(0.895)	37538	3.00000	3.794

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
111	Azobenzene (1,2-DP-Hydrazine)	77	14.612	14.693	(0.921)	23128	1.00000	1.220
143	1,4-Dioxane	88	3.345	3.453	(0.391)	4689	1.00000	1.089
$ 137	d8-1,4-Dioxane	64	3.276	3.383	(0.383)	2920	1.00000	1.111
144	alpha-Terpineol	59	10.637	10.718	(1.004)	3566	1.00000	0.9836
133	Butylatedhydroxytoluene	205	13.624	13.699	(1.011)	13612	1.00000	1.195
115	Tributyl Phosphate	99	14.628	14.719	(0.922)	19101	1.00000	1.103
116	Dibutyl Phenyl Phosphate	175	16.375	16.466	(1.032)	9643	1.00000	0.9673
117	Butyl Diphenyl Phosphate	94	18.074	18.144	(0.895)	4363	1.00000	1.075
118	Triphenyl Phosphate	326	19.687	19.763	(0.975)	3887	1.00000	0.9690
123	Acetophenone	105	9.238	9.329	(1.081)	16948	1.00000	1.155
168	Pentachlorobenzene	250	13.827	13.907	(1.026)	7274	1.00000	1.214
113	Diphenyl Oxide	170	12.721	12.786	(0.944)	14497	1.00000	1.272
112	Biphenyl	154	13.522	13.603	(1.004)	18851	1.00000	1.249
120	2,3,4,6-Tetrachlorophenol	232	14.062	14.132	(1.044)	3950	1.00000	0.9582
151	1,2,4,5-Tetrachlorobenzene	216	12.096	12.161	(0.898)	9827	1.00000	1.214
186	Carbaryl	144	16.647	16.744	(1.050)	10472	1.00000	0.9072
178	2-Benzyl-4-Chlorophenol	218	16.594	16.690	(1.046)	4837	1.00000	1.032

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218051603.D
Lab Smp Id: SGE0274-CAL1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Misc Info: 18-

Calibration Date: 16-MAY-2018
Calibration Time: 12:39
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	131944	3.91
27 Naphthalene-d8	478458	239229	956916	492226	2.88
42 Acenaphthene-d10	247659	123830	495318	250877	1.30
59 Phenanthrene-d10	421930	210965	843860	406660	-3.62
69 Chrysene-d12	450836	225418	901672	439117	-2.60
134 Di-n-octylphthala	583434	291717	1166868	581063	-0.41
77 Perylene-d12	453093	226547	906186	456090	0.66

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.58	8.08	9.08	8.55	-0.31
27 Naphthalene-d8	10.62	10.12	11.12	10.60	-0.20
42 Acenaphthene-d10	13.49	12.99	13.99	13.47	-0.12
59 Phenanthrene-d10	15.88	15.38	16.38	15.86	-0.10
69 Chrysene-d12	20.22	19.72	20.72	20.20	-0.11
134 Di-n-octylphthala	21.30	20.80	21.80	21.28	-0.10
77 Perylene-d12	22.39	21.89	22.89	22.37	-0.10

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218051603.D

Lab ID: SGE0274-CAL1
nt12.i, SW846180516.m, 16-MAY-2018 13:46

RT	CO-ELUTION COMPOUNDS
13.223	Acenaphthylene and 2,6-Dinitrotoluene

Quant Method: ICAL

RRT CHECK

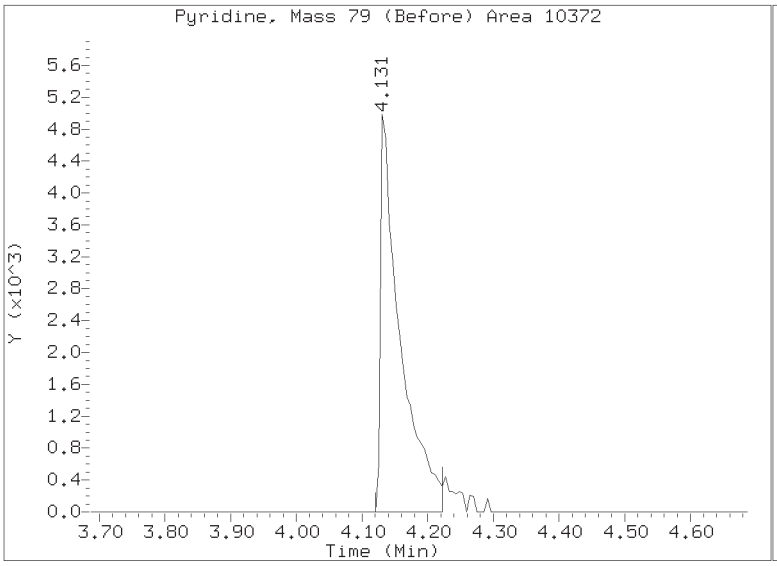
RRT	CCV RRT	DELTA	COMPOUND
NONE			

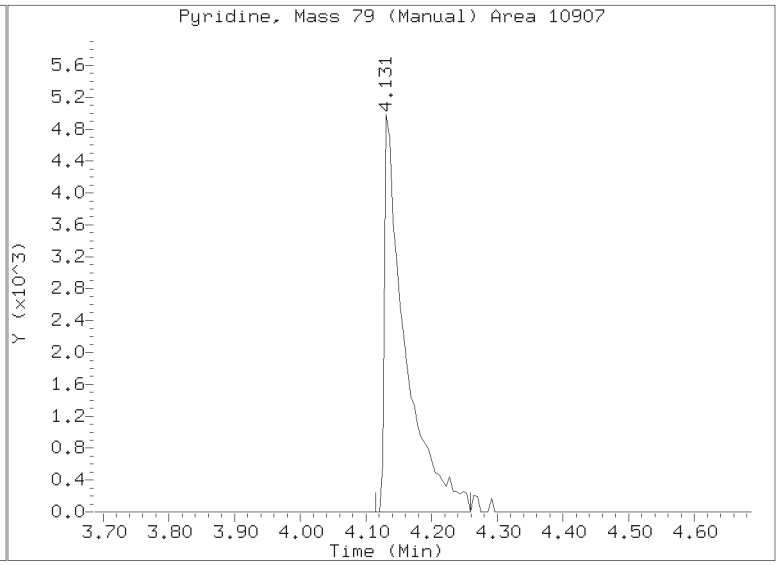
On Column LOD for nt12.i, SW846180516.m, ICALS.sub = 0.0100

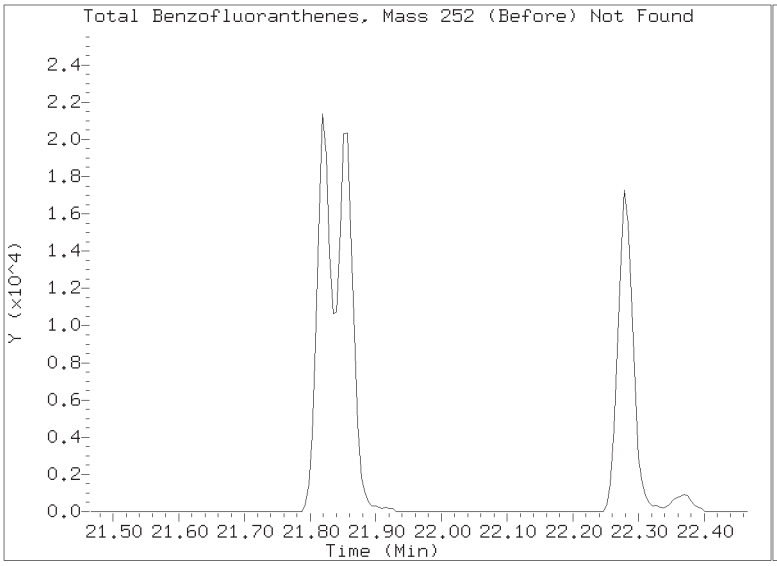
* Only compounds listed in the work order have been verified by the analyst *

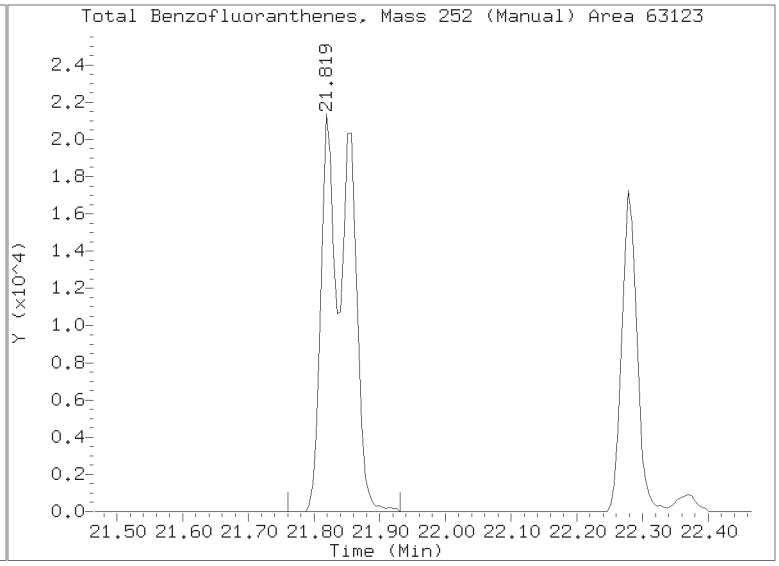
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt12.i/20180516.b/N1218051603.D
Injection Date: 16-MAY-2018 13:46
Lab ID:SGE0274-CAL1 Client ID:
Report Date: 05/17/2018 13:27



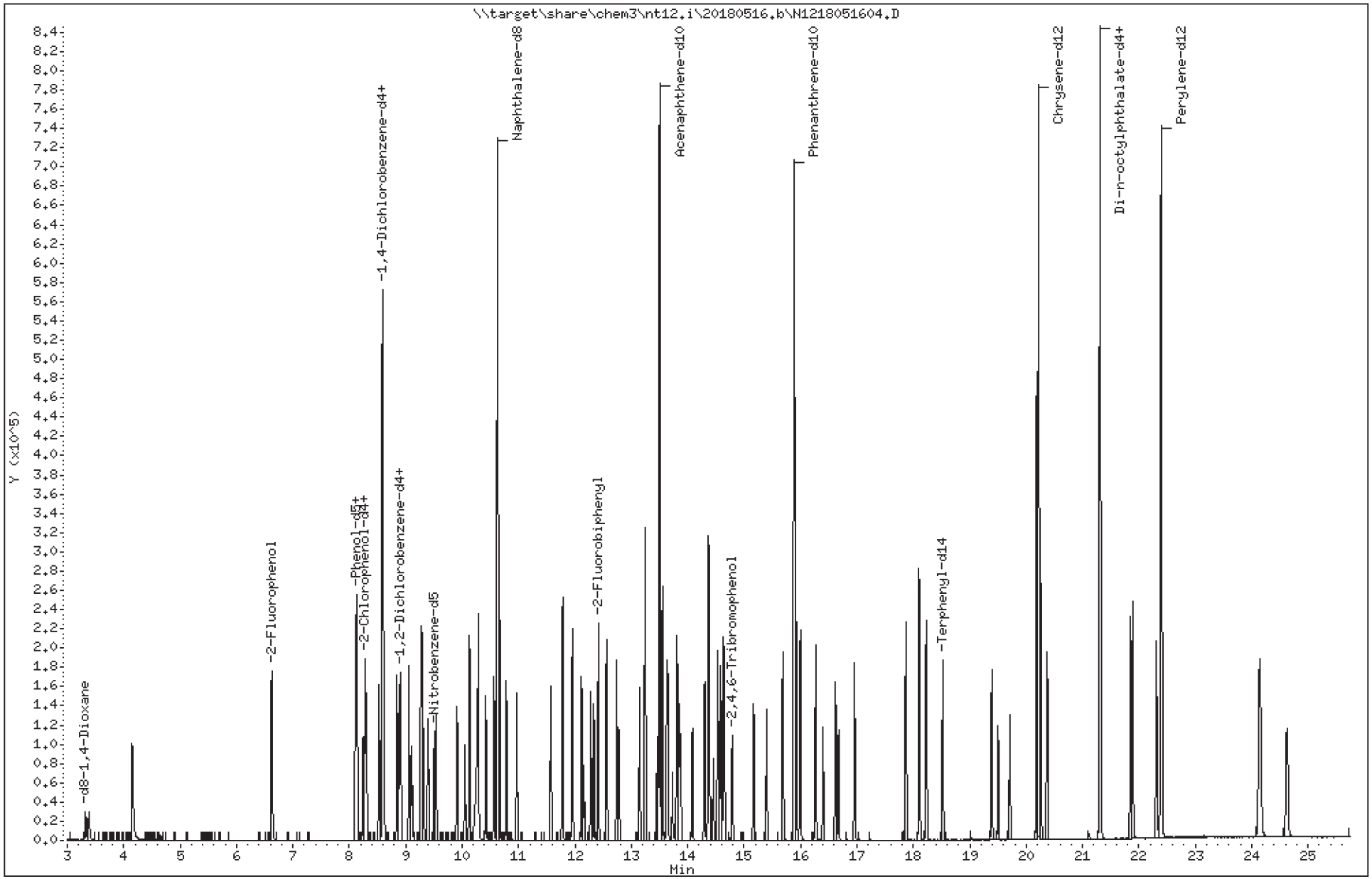






Data File: \\target\share\chem3\nt12.i\20180516.b\N1218051604.D
Date : 16-MAY-2018 14:20
Client ID:
Sample Info: IC5180516,

Instrument: nt12.i
Operator: JZ
Column phase: ZB-5msi
Column diameter: 0.32



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 1108 of 6523

ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180516.b\N1218051604.D
Lab Smp Id: SGE0274-CAL2
Inj Date : 16-MAY-2018 14:20
Operator : JZ Inst ID: nt12.i
Smp Info : IC5180516,
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Meth Date : 17-May-2018 13:27 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 4 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.625	6.679	(0.772)	78368	7.50000	8.200
$	2 Phenol-d5	99	8.105	8.180	(0.944)	101881	7.50000	8.484
	3 Phenol	94	8.126	8.202	(0.946)	80654	5.00000	6.707
$	5 2-Chlorophenol-d4	132	8.281	8.330	(0.965)	77241	7.50000	8.372
	4 Bis(2-Chloroethyl)ether	93	8.244	8.303	(0.960)	56516	5.00000	5.445
	6 2-Chlorophenol	128	8.303	8.356	(0.967)	55229	5.00000	5.393
	7 1,3-Dichlorobenzene	146	8.527	8.571	(0.993)	59296	5.00000	5.485
*	8 1,4-Dichlorobenzene-d4	152	8.586	8.629	(1.000)	133152	20.0000	
	9 1,4-Dichlorobenzene	146	8.613	8.656	(1.003)	59265	5.00000	5.529
$	10 1,2-Dichlorobenzene-d4	152	8.885	8.928	(1.035)	34671	5.00000	5.591
	12 1,2-Dichlorobenzene	146	8.906	8.955	(1.037)	57179	5.00000	5.682
	11 Benzyl alcohol	108	8.848	8.907	(1.030)	39793	5.00000	5.309
	14 2,2'-oxybis(1-Chloropropane)	45	9.104	9.153	(1.060)	58535	5.00000	5.530
	13 2-Methylphenol	108	9.061	9.121	(1.055)	52762	5.00000	5.359
	17 Hexachloroethane	117	9.398	9.436	(1.095)	22816	5.00000	5.400
	16 N-Nitroso-di-n-propylamine	70	9.318	9.393	(1.085)	40012	5.00000	5.359
	15 4-Methylphenol	108	9.286	9.350	(1.082)	53906	5.00000	5.429
$	18 Nitrobenzene-d5	82	9.505	9.564	(0.894)	54276	5.00000	5.354
	19 Nitrobenzene	77	9.537	9.596	(0.897)	61700	5.00000	5.589
	20 Isophorone	82	9.911	9.981	(0.933)	88882	5.00000	5.334
	21 2-Nitrophenol	139	10.055	10.098	(0.946)	26715	5.00000	5.193
	22 2,4-Dimethylphenol	107	10.130	10.189	(0.953)	56633	5.00000	5.505
	23 Bis(2-Chloroethoxy)methane	93	10.290	10.344	(0.968)	61514	5.00000	5.483
	24 Benzoic acid	105	10.285	10.579	(0.968)	96989	15.0000	13.75
	25 2,4-Dichlorophenol	162	10.424	10.478	(0.981)	44202	5.00000	5.538
	26 1,2,4-Trichlorobenzene	180	10.568	10.611	(0.994)	46579	5.00000	5.631
*	27 Naphthalene-d8	136	10.627	10.670	(1.000)	495578	20.0000	
	28 Naphthalene	128	10.659	10.707	(1.003)	148299	5.00000	4.947
	29 4-Chloroaniline	127	10.787	10.841	(1.015)	64524	5.00000	5.468
	30 Hexachlorobutadiene	225	10.969	11.007	(1.032)	25601	5.00000	5.689
	31 4-Chloro-3-methylphenol	107	11.572	11.621	(1.089)	44837	5.00000	5.344
	32 2-Methylnaphthalene	141	11.781	11.824	(1.109)	84916	5.00000	5.632
	33 Hexachlorocyclopentadiene	237	12.160	12.198	(0.901)	18292	5.00000	4.865

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
	34	2,4,6-Trichlorophenol	196	12.283	12.331	(0.910)	29713	5.00000	5.121
	35	2,4,5-Trichlorophenol	196	12.336	12.385	(0.914)	31697	5.00000	5.307
$	36	2-Fluorobiphenyl	172	12.416	12.465	(0.920)	101876	5.00000	5.620
	37	2-Chloronaphthalene	162	12.561	12.615	(0.930)	92204	5.00000	5.547
	38	2-Nitroaniline	65	12.785	12.844	(0.947)	27254	5.00000	5.176
	39	Dimethylphthalate	163	13.148	13.208	(0.974)	95900	5.00000	5.327
	40	Acenaphthylene	152	13.244	13.293	(0.981)	135205	5.00000	5.688
	41	2,6-Dinitrotoluene	165	13.244	13.309	(0.981)	21679	5.00000	5.476
*	42	Acenaphthene-d10	164	13.501	13.544	(1.000)	254859	20.0000	
	43	3-Nitroaniline	138	13.458	13.528	(0.997)	24460	5.00000	5.065
	44	Acenaphthene	153	13.549	13.603	(1.004)	87357	5.00000	5.537
	45	2,4-Dinitrophenol	184	13.624	13.710	(1.009)	26514	15.0000	10.77
	46	Dibenzofuran	168	13.811	13.865	(1.023)	132553	5.00000	5.526
	47	4-Nitrophenol	109	13.730	13.801	(1.017)	10994	5.00000	4.316
	48	2,4-Dinitrotoluene	165	13.875	13.945	(1.028)	28841	5.00000	5.139
	50	Diethylphthalate	149	14.302	14.362	(1.059)	91496	5.00000	5.337
	49	Fluorene	166	14.366	14.420	(1.064)	100748	5.00000	5.195
	51	4-Chlorophenyl-phenylether	204	14.382	14.431	(1.065)	47420	5.00000	5.261
	52	4-Nitroaniline	138	14.457	14.565	(1.071)	22772	5.00000	4.817
	53	4,6-Dinitro-2-methylphenol	198	14.532	14.629	(0.915)	43862	15.0000	14.83
	54	N-Nitrosodiphenylamine	169	14.580	14.650	(0.918)	69856	5.00000	5.594
$	55	2,4,6-Tribromophenol	330	14.788	14.853	(1.095)	16347	7.50000	7.662
	56	4-Bromophenyl-phenylether	248	15.168	15.216	(0.955)	25858	5.00000	5.449
	57	Hexachlorobenzene	284	15.403	15.451	(0.969)	27076	5.00000	5.515
	58	Pentachlorophenol	266	15.691	15.745	(0.988)	33208	10.0000	10.23
*	59	Phenanthrene-d10	188	15.889	15.937	(1.000)	412112	20.0000	
	60	Phenanthrene	178	15.921	15.980	(1.002)	134274	5.00000	6.572
	61	Anthracene	178	15.996	16.055	(1.007)	130952	5.00000	5.620
	62	Carbazole	167	16.268	16.327	(1.024)	123516	5.00000	5.495
	63	Di-n-butylphthalate	149	16.957	17.006	(1.067)	144878	5.00000	5.634
	64	Fluoranthene	202	17.871	17.925	(1.125)	142653	5.00000	5.581
	65	Pyrene	202	18.229	18.288	(0.901)	150096	5.00000	5.413
$	66	Terphenyl-d14	244	18.522	18.571	(0.916)	92910	5.00000	5.393
	67	Butylbenzylphthalate	149	19.393	19.442	(0.959)	64790	5.00000	5.222
	68	Benzo(a)anthracene	228	20.195	20.249	(0.999)	141309	5.00000	6.962
*	69	Chrysene-d12	240	20.221	20.281	(1.000)	447222	20.0000	
	70	3,3'-Dichlorobenzidine	252	20.189	20.259	(0.998)	96232	10.0000	12.70
	71	Chrysene	228	20.259	20.329	(1.002)	140108	5.00000	6.186
	72	bis(2-Ethylhexyl)phthalate	149	20.376	20.414	(0.956)	91290	5.00000	5.217
*	134	Di-n-octylphthalate-d4	153	21.306	21.349	(1.000)	588941	20.0000	
	73	Di-n-octylphthalate	149	21.316	21.365	(1.000)	168779	5.00000	5.366
	74	Benzo(b)fluoranthene	252	21.856	21.931	(0.976)	157826	5.00000	5.642
	75	Benzo(k)fluoranthene	252	21.888	21.964	(0.977)	156025	5.00000	4.821
	187	Total Benzofluoranthenes	252	21.888	21.964	(0.977)	298875	10.0000	11.39
	76	Benzo(a)pyrene	252	22.310	22.386	(0.996)	130580	5.00000	5.492
*	77	Perylene-d12	264	22.396	22.450	(1.000)	454381	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	24.132	24.245	(1.078)	148647	5.00000	5.348
	79	Dibenzo(a,h)anthracene	278	24.159	24.277	(1.079)	123421	5.00000	5.427
	80	Benzo(g,h,i)perylene	276	24.629	24.768	(1.100)	121730	5.00000	5.248
	90	N-Nitrosodimethylamine	74	4.157	4.248	(0.484)	34426	5.00000	5.266
	103	Pyridine	79	4.147	4.184	(0.483)	59949	5.00000	5.271
	91	Aniline	93	8.137	8.196	(0.948)	88973	5.00000	5.695
	105	1-methylnaphthalene	141	11.952	12.000	(1.125)	75908	5.00000	5.634
	93	Benzidine	184	18.106	18.165	(0.895)	105904	10.0000	10.51

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
111 Azobenzene (1,2-DP-Hydrazine)	77	14.633	14.693	(0.921)	108499	5.00000	5.647
143 1,4-Dioxane	88	3.383	3.453	(0.394)	23725	5.00000	5.460
$ 137 d8-1,4-Dioxane	64	3.318	3.383	(0.387)	13667	5.00000	5.151
144 alpha-Terpineol	59	10.669	10.718	(1.004)	16412	5.00000	4.689
133 Butylatedhydroxytoluene	205	13.645	13.699	(1.011)	59492	5.00000	5.302
115 Tributyl Phosphate	99	14.649	14.719	(0.922)	93260	5.00000	5.312
116 Dibutyl Phenyl Phosphate	175	16.402	16.466	(1.032)	50247	5.00000	4.973
117 Butyl Diphenyl Phosphate	94	18.100	18.144	(0.895)	21868	5.00000	5.289
118 Triphenyl Phosphate	326	19.714	19.763	(0.975)	20034	5.00000	4.904
123 Acetophenone	105	9.270	9.329	(1.080)	81204	5.00000	5.486
168 Pentachlorobenzene	250	13.848	13.907	(1.026)	33014	5.00000	5.423
113 Diphenyl Oxide	170	12.742	12.786	(0.944)	61140	5.00000	5.280
112 Biphenyl	154	13.549	13.603	(1.004)	84795	5.00000	5.532
120 2,3,4,6-Tetrachlorophenol	232	14.083	14.132	(1.043)	20950	5.00000	5.003
151 1,2,4,5-Tetrachlorobenzene	216	12.117	12.161	(0.898)	45466	5.00000	5.527
186 Carbaryl	144	16.674	16.744	(1.049)	57077	5.00000	4.879
178 2-Benzyl-4-Chlorophenol	218	16.621	16.690	(1.046)	23854	5.00000	5.022

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218051604.D
Lab Smp Id: SGE0274-CAL2
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Misc Info: 18-

Calibration Date: 16-MAY-2018
Calibration Time: 12:39
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	133152	4.86
27 Naphthalene-d8	478458	239229	956916	495578	3.58
42 Acenaphthene-d10	247659	123830	495318	254859	2.91
59 Phenanthrene-d10	421930	210965	843860	412112	-2.33
69 Chrysene-d12	450836	225418	901672	447222	-0.80
134 Di-n-octylphthala	583434	291717	1166868	588941	0.94
77 Perylene-d12	453093	226547	906186	454381	0.28

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.58	8.08	9.08	8.59	0.13
27 Naphthalene-d8	10.62	10.12	11.12	10.63	0.05
42 Acenaphthene-d10	13.49	12.99	13.99	13.50	0.08
59 Phenanthrene-d10	15.88	15.38	16.38	15.89	0.07
69 Chrysene-d12	20.22	19.72	20.72	20.22	0.03
134 Di-n-octylphthala	21.30	20.80	21.80	21.31	0.03
77 Perylene-d12	22.39	21.89	22.89	22.40	0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218051604.D

Lab ID: SGE0274-CAL2
nt12.i, SW846180516.m, 16-MAY-2018 14:20

RT	CO-ELUTION COMPOUNDS
13.245	Acenaphthylene and 2,6-Dinitrotoluene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

On Column LOD for nt12.i, SW846180516.m, ICALS.sub = 0.0100

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt12.i\20180516.b\N1218051605.D

Page 1

Date : 16-MAY-2018 14:54

Client ID:

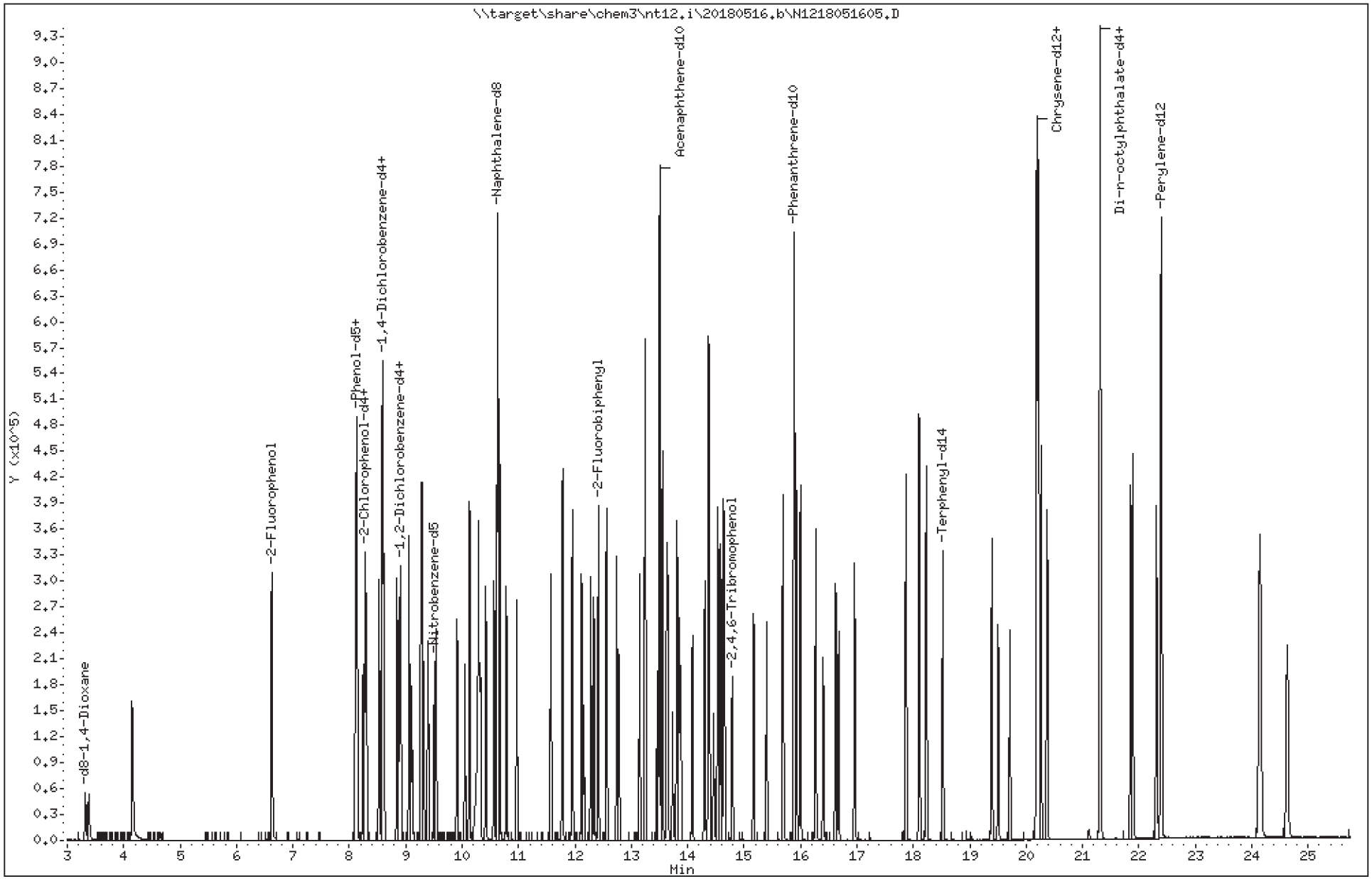
Instrument: nt12.i

Sample Info: IC10180516,

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 1114 of 6523

ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180516.b\N1218051605.D
Lab Smp Id: SGE0274-CAL3
Inj Date : 16-MAY-2018 14:54
Operator : JZ Inst ID: nt12.i
Smp Info : IC10180516,
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Meth Date : 17-May-2018 13:27 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 5 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.625	6.679	(0.772)	139005	15.0000	14.87
$	2 Phenol-d5	99	8.110	8.180	(0.945)	178360	15.0000	15.19
	3 Phenol	94	8.126	8.202	(0.946)	151246	10.0000	12.86
$	5 2-Chlorophenol-d4	132	8.281	8.330	(0.965)	135759	15.0000	15.05
	4 Bis(2-Chloroethyl)ether	93	8.244	8.303	(0.960)	103312	10.0000	10.18
	6 2-Chlorophenol	128	8.303	8.356	(0.967)	108321	10.0000	10.82
	7 1,3-Dichlorobenzene	146	8.527	8.571	(0.993)	108986	10.0000	10.31
*	8 1,4-Dichlorobenzene-d4	152	8.586	8.629	(1.000)	130215	20.0000	
	9 1,4-Dichlorobenzene	146	8.613	8.656	(1.003)	109132	10.0000	10.41
$	10 1,2-Dichlorobenzene-d4	152	8.885	8.928	(1.035)	60611	10.0000	9.994
	12 1,2-Dichlorobenzene	146	8.906	8.955	(1.037)	103660	10.0000	10.53
	11 Benzyl alcohol	108	8.848	8.907	(1.030)	69539	10.0000	9.486
	14 2,2'-oxybis(1-Chloropropane)	45	9.104	9.153	(1.060)	106829	10.0000	10.32
	13 2-Methylphenol	108	9.061	9.121	(1.055)	101153	10.0000	10.51
	17 Hexachloroethane	117	9.398	9.436	(1.095)	42310	10.0000	10.24
	16 N-Nitroso-di-n-propylamine	70	9.318	9.393	(1.085)	73902	10.0000	10.12
	15 4-Methylphenol	108	9.286	9.350	(1.082)	104992	10.0000	10.81
$	18 Nitrobenzene-d5	82	9.510	9.564	(0.895)	97818	10.0000	9.765
	19 Nitrobenzene	77	9.537	9.596	(0.897)	112256	10.0000	10.29
	20 Isophorone	82	9.911	9.981	(0.933)	166450	10.0000	10.11
	21 2-Nitrophenol	139	10.050	10.098	(0.946)	53846	10.0000	10.59
	22 2,4-Dimethylphenol	107	10.130	10.189	(0.953)	108876	10.0000	10.71
	23 Bis(2-Chloroethoxy)methane	93	10.290	10.344	(0.968)	113303	10.0000	10.22
	24 Benzoic acid	105	10.327	10.579	(0.972)	207664	30.0000	29.79
	25 2,4-Dichlorophenol	162	10.424	10.478	(0.981)	85570	10.0000	10.85
	26 1,2,4-Trichlorobenzene	180	10.568	10.611	(0.994)	84171	10.0000	10.30
*	27 Naphthalene-d8	136	10.627	10.670	(1.000)	489722	20.0000	
	28 Naphthalene	128	10.659	10.707	(1.003)	265266	10.0000	9.345
	29 4-Chloroaniline	127	10.787	10.841	(1.015)	113698	10.0000	9.750
	30 Hexachlorobutadiene	225	10.969	11.007	(1.032)	46789	10.0000	10.52
	31 4-Chloro-3-methylphenol	107	11.572	11.621	(1.089)	88744	10.0000	10.70
	32 2-Methylnaphthalene	141	11.781	11.824	(1.109)	148360	10.0000	9.957
	33 Hexachlorocyclopentadiene	237	12.154	12.198	(0.900)	37525	10.0000	10.20

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
	34	2,4,6-Trichlorophenol	196	12.283	12.331	(0.910)	60035	10.0000	10.57
	35	2,4,5-Trichlorophenol	196	12.336	12.385	(0.914)	62320	10.0000	10.66
$	36	2-Fluorobiphenyl	172	12.416	12.465	(0.920)	178528	10.0000	10.06
	37	2-Chloronaphthalene	162	12.561	12.615	(0.930)	168016	10.0000	10.33
	38	2-Nitroaniline	65	12.785	12.844	(0.947)	50012	10.0000	9.703
	39	Dimethylphthalate	163	13.148	13.208	(0.974)	177547	10.0000	10.07
	40	Acenaphthylene	152	13.244	13.293	(0.981)	247620	10.0000	10.64
	41	2,6-Dinitrotoluene	165	13.250	13.309	(0.981)	40349	10.0000	10.41
*	42	Acenaphthene-d10	164	13.501	13.544	(1.000)	249468	20.0000	
	43	3-Nitroaniline	138	13.458	13.528	(0.997)	44756	10.0000	9.467
	44	Acenaphthene	153	13.549	13.603	(1.004)	157559	10.0000	10.20
	45	2,4-Dinitrophenol	184	13.629	13.710	(1.009)	64036	30.0000	26.57
	46	Dibenzofuran	168	13.811	13.865	(1.023)	230437	10.0000	9.814
	47	4-Nitrophenol	109	13.730	13.801	(1.017)	23510	10.0000	9.429
	48	2,4-Dinitrotoluene	165	13.880	13.945	(1.028)	55209	10.0000	10.05
	50	Diethylphthalate	149	14.302	14.362	(1.059)	170276	10.0000	10.15
	49	Fluorene	166	14.372	14.420	(1.064)	183966	10.0000	10.00
	51	4-Chlorophenyl-phenylether	204	14.382	14.431	(1.065)	86487	10.0000	10.12
	52	4-Nitroaniline	138	14.462	14.565	(1.071)	42605	10.0000	9.208
	53	4,6-Dinitro-2-methylphenol	198	14.537	14.629	(0.915)	93141	30.0000	31.68
	54	N-Nitrosodiphenylamine	169	14.585	14.650	(0.918)	129525	10.0000	10.43
$	55	2,4,6-Tribromophenol	330	14.794	14.853	(1.096)	30643	15.0000	14.67
	56	4-Bromophenyl-phenylether	248	15.173	15.216	(0.955)	48880	10.0000	10.36
	57	Hexachlorobenzene	284	15.403	15.451	(0.969)	50498	10.0000	10.34
	58	Pentachlorophenol	266	15.691	15.745	(0.988)	66270	20.0000	20.53
*	59	Phenanthrene-d10	188	15.889	15.937	(1.000)	409765	20.0000	
	60	Phenanthrene	178	15.926	15.980	(1.002)	247875	10.0000	12.20
	61	Anthracene	178	15.996	16.055	(1.007)	245376	10.0000	10.59
	62	Carbazole	167	16.268	16.327	(1.024)	226320	10.0000	10.13
	63	Di-n-butylphthalate	149	16.957	17.006	(1.067)	269928	10.0000	10.56
	64	Fluoranthene	202	17.871	17.925	(1.125)	264441	10.0000	10.41
	65	Pyrene	202	18.234	18.288	(0.902)	277661	10.0000	10.21
$	66	Terphenyl-d14	244	18.522	18.571	(0.916)	166641	10.0000	9.866
	67	Butylbenzylphthalate	149	19.393	19.442	(0.959)	125802	10.0000	10.34
	68	Benzo(a)anthracene	228	20.195	20.249	(0.999)	255758	10.0000	12.85
*	69	Chrysene-d12	240	20.221	20.281	(1.000)	438453	20.0000	
	70	3,3'-Dichlorobenzidine	252	20.189	20.259	(0.998)	168406	20.0000	22.67
	71	Chrysene	228	20.264	20.329	(1.002)	260715	10.0000	11.74
	72	bis(2-Ethylhexyl)phthalate	149	20.376	20.414	(0.956)	175186	10.0000	10.13
*	134	Di-n-octylphthalate-d4	153	21.306	21.349	(1.000)	581889	20.0000	
	73	Di-n-octylphthalate	149	21.316	21.365	(1.000)	310028	10.0000	9.976
	74	Benzo(b)fluoranthene	252	21.856	21.931	(0.976)	282283	10.0000	10.09
	75	Benzo(k)fluoranthene	252	21.888	21.964	(0.977)	294974	10.0000	9.541
	187	Total Benzofluoranthenes	252	21.888	21.964	(0.977)	549381	20.0000	20.93
	76	Benzo(a)pyrene	252	22.310	22.386	(0.996)	244613	10.0000	10.28
*	77	Perylene-d12	264	22.396	22.450	(1.000)	454600	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	24.137	24.245	(1.078)	282013	10.0000	10.14
	79	Dibenzo(a,h)anthracene	278	24.159	24.277	(1.079)	234982	10.0000	10.33
	80	Benzo(g,h,i)perylene	276	24.634	24.768	(1.100)	233332	10.0000	10.06
	90	N-Nitrosodimethylamine	74	4.157	4.248	(0.484)	65389	10.0000	10.23
	103	Pyridine	79	4.141	4.184	(0.482)	106368	10.0000	9.564
	91	Aniline	93	8.137	8.196	(0.948)	153334	10.0000	10.04
	105	1-methylnaphthalene	141	11.951	12.000	(1.125)	131092	10.0000	9.846
	93	Benzidine	184	18.106	18.165	(0.895)	189242	20.0000	19.15

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
111	Azobenzene (1,2-DP-Hydrazine)	77	14.633	14.693	(0.921)	201964	10.0000	10.57
143	1,4-Dioxane	88	3.383	3.453	(0.394)	43080	10.0000	10.14
$ 137	d8-1,4-Dioxane	64	3.318	3.383	(0.387)	25838	10.0000	9.957
144	alpha-Terpineol	59	10.669	10.718	(1.004)	30621	10.0000	9.266
133	Butylatedhydroxytoluene	205	13.645	13.699	(1.011)	104938	10.0000	9.853
115	Tributyl Phosphate	99	14.655	14.719	(0.922)	176458	10.0000	10.11
116	Dibutyl Phenyl Phosphate	175	16.407	16.466	(1.033)	97144	10.0000	9.670
117	Butyl Diphenyl Phosphate	94	18.100	18.144	(0.895)	41146	10.0000	10.15
118	Triphenyl Phosphate	326	19.714	19.763	(0.975)	38469	10.0000	9.604
123	Acetophenone	105	9.270	9.329	(1.080)	150117	10.0000	10.37
168	Pentachlorobenzene	250	13.853	13.907	(1.026)	61526	10.0000	10.33
113	Diphenyl Oxide	170	12.742	12.786	(0.944)	110115	10.0000	9.715
112	Biphenyl	154	13.549	13.603	(1.004)	154037	10.0000	10.27
120	2,3,4,6-Tetrachlorophenol	232	14.083	14.132	(1.043)	43042	10.0000	10.50
151	1,2,4,5-Tetrachlorobenzene	216	12.117	12.161	(0.898)	82963	10.0000	10.30
186	Carbaryl	144	16.674	16.744	(1.049)	120593	10.0000	10.37
178	2-Benzyl-4-Chlorophenol	218	16.621	16.690	(1.046)	46237	10.0000	9.790

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218051605.D
Lab Smp Id: SGE0274-CAL3
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Misc Info: 18-

Calibration Date: 16-MAY-2018
Calibration Time: 12:39
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	130215	2.55
27 Naphthalene-d8	478458	239229	956916	489722	2.35
42 Acenaphthene-d10	247659	123830	495318	249468	0.73
59 Phenanthrene-d10	421930	210965	843860	409765	-2.88
69 Chrysene-d12	450836	225418	901672	438453	-2.75
134 Di-n-octylphthala	583434	291717	1166868	581889	-0.26
77 Perylene-d12	453093	226547	906186	454600	0.33

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.58	8.08	9.08	8.59	0.12
27 Naphthalene-d8	10.62	10.12	11.12	10.63	0.05
42 Acenaphthene-d10	13.49	12.99	13.99	13.50	0.08
59 Phenanthrene-d10	15.88	15.38	16.38	15.89	0.07
69 Chrysene-d12	20.22	19.72	20.72	20.22	0.03
134 Di-n-octylphthala	21.30	20.80	21.80	21.31	0.03
77 Perylene-d12	22.39	21.89	22.89	22.40	0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218051605.D

Lab ID: SGE0274-CAL3
nt12.i, SW846180516.m, 16-MAY-2018 14:54

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

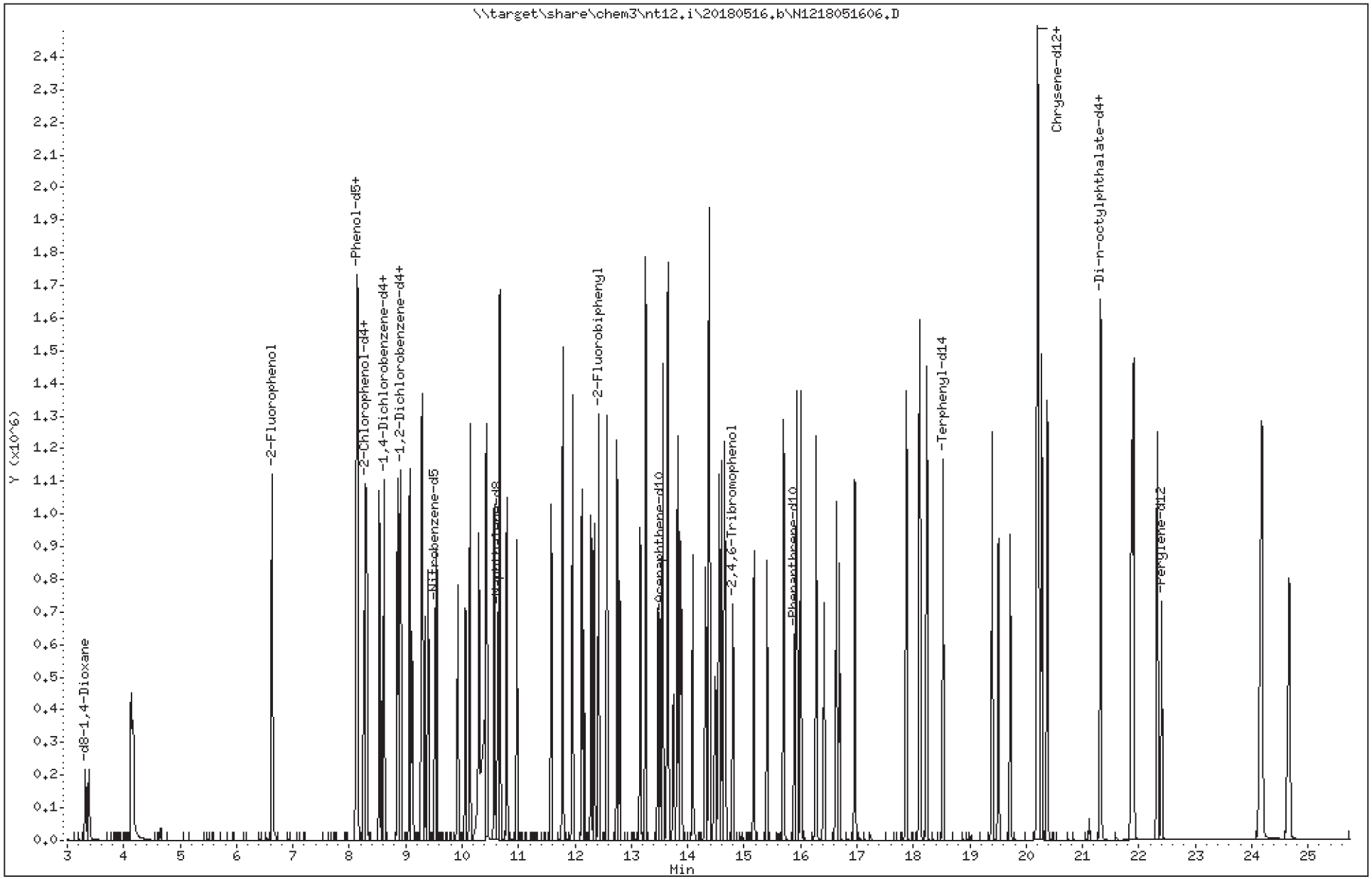
On Column LOD for nt12.i, SW846180516.m, ICALS.sub = 0.0100

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt12.i\20180516.b\N1218051606.D
Date : 16-MAY-2018 15:28
Client ID:
Sample Info: IC40180516,

Instrument: nt12.i
Operator: JZ
Column diameter: 0.32

Column phase: ZB-5msi



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 1120 of 6523

ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180516.b\N1218051606.D
Lab Smp Id: SGE0274-CAL5
Inj Date : 16-MAY-2018 15:28
Operator : JZ Inst ID: nt12.i
Smp Info : IC40180516,
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Meth Date : 17-May-2018 13:27 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.631	6.679	(0.772)	545785	60.0000	59.53
$	2 Phenol-d5	99	8.127	8.180	(0.946)	666751	60.0000	57.88
	3 Phenol	94	8.148	8.202	(0.948)	501279	40.0000	43.45
$	5 2-Chlorophenol-d4	132	8.287	8.330	(0.965)	511824	60.0000	57.83
	4 Bis(2-Chloroethyl)ether	93	8.255	8.303	(0.961)	389453	40.0000	39.11
	6 2-Chlorophenol	128	8.314	8.356	(0.968)	381470	40.0000	38.83
	7 1,3-Dichlorobenzene	146	8.533	8.571	(0.993)	402196	40.0000	38.78
*	8 1,4-Dichlorobenzene-d4	152	8.592	8.629	(1.000)	127731	20.0000	
	9 1,4-Dichlorobenzene	146	8.618	8.656	(1.003)	395798	40.0000	38.49
$	10 1,2-Dichlorobenzene-d4	152	8.891	8.928	(1.035)	229180	40.0000	38.53
	12 1,2-Dichlorobenzene	146	8.912	8.955	(1.037)	368671	40.0000	38.19
	11 Benzyl alcohol	108	8.859	8.907	(1.031)	287408	40.0000	39.97
	14 2,2'-oxybis(1-Chloropropane)	45	9.110	9.153	(1.060)	395671	40.0000	38.96
	13 2-Methylphenol	108	9.072	9.121	(1.056)	368669	40.0000	39.03
	17 Hexachloroethane	117	9.398	9.436	(1.094)	161062	40.0000	39.74
	16 N-Nitroso-di-n-propylamine	70	9.340	9.393	(1.087)	279121	40.0000	38.97
	15 4-Methylphenol	108	9.302	9.350	(1.083)	369220	40.0000	38.77
$	18 Nitrobenzene-d5	82	9.516	9.564	(0.895)	395968	40.0000	40.00
	19 Nitrobenzene	77	9.548	9.596	(0.898)	422609	40.0000	39.20
	20 Isophorone	82	9.927	9.981	(0.934)	633545	40.0000	38.93
	21 2-Nitrophenol	139	10.061	10.098	(0.946)	206351	40.0000	41.08
	22 2,4-Dimethylphenol	107	10.141	10.189	(0.954)	386010	40.0000	38.42
	23 Bis(2-Chloroethoxy)methane	93	10.296	10.344	(0.968)	422557	40.0000	38.57
	24 Benzoic acid	105	10.456	10.579	(0.983)	908371	120.000	131.9
	25 2,4-Dichlorophenol	162	10.429	10.478	(0.981)	297650	40.0000	38.19
	26 1,2,4-Trichlorobenzene	180	10.574	10.611	(0.994)	308090	40.0000	38.14
*	27 Naphthalene-d8	136	10.632	10.670	(1.000)	483960	20.0000	
	28 Naphthalene	128	10.664	10.707	(1.003)	924107	40.0000	40.69
	29 4-Chloroaniline	127	10.793	10.841	(1.015)	448450	40.0000	38.91
	30 Hexachlorobutadiene	225	10.974	11.007	(1.032)	168398	40.0000	38.32
	31 4-Chloro-3-methylphenol	107	11.583	11.621	(1.089)	325422	40.0000	39.72
	32 2-Methylnaphthalene	141	11.786	11.824	(1.109)	562129	40.0000	38.18
	33 Hexachlorocyclopentadiene	237	12.160	12.198	(0.901)	156688	40.0000	43.49

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
	34	2,4,6-Trichlorophenol	196	12.288	12.331	(0.910)	221897	40.0000	39.91
	35	2,4,5-Trichlorophenol	196	12.342	12.385	(0.914)	228038	40.0000	39.85
$	36	2-Fluorobiphenyl	172	12.422	12.465	(0.920)	655605	40.0000	37.75
	37	2-Chloronaphthalene	162	12.572	12.615	(0.931)	602611	40.0000	37.84
	38	2-Nitroaniline	65	12.796	12.844	(0.948)	208507	40.0000	41.33
	39	Dimethylphthalate	163	13.159	13.208	(0.975)	661850	40.0000	38.37
	40	Acenaphthylene	152	13.250	13.293	(0.981)	841318	40.0000	36.94
	41	2,6-Dinitrotoluene	165	13.261	13.309	(0.982)	146912	40.0000	38.73
*	42	Acenaphthene-d10	164	13.501	13.544	(1.000)	244204	20.0000	
	43	3-Nitroaniline	138	13.474	13.528	(0.998)	192610	40.0000	41.62
	44	Acenaphthene	153	13.560	13.603	(1.004)	569333	40.0000	37.66
	45	2,4-Dinitrophenol	184	13.651	13.710	(1.011)	276399	120.000	117.2
	46	Dibenzofuran	168	13.822	13.865	(1.024)	869853	40.0000	37.84
	47	4-Nitrophenol	109	13.747	13.801	(1.018)	101423	40.0000	41.55
	48	2,4-Dinitrotoluene	165	13.891	13.945	(1.029)	217022	40.0000	40.36
	50	Diethylphthalate	149	14.319	14.362	(1.061)	630736	40.0000	38.40
	49	Fluorene	166	14.377	14.420	(1.065)	626081	40.0000	40.51
	51	4-Chlorophenyl-phenylether	204	14.388	14.431	(1.066)	291327	40.0000	40.46
	52	4-Nitroaniline	138	14.489	14.565	(1.073)	190750	40.0000	42.11
	53	4,6-Dinitro-2-methylphenol	198	14.564	14.629	(0.916)	373971	120.000	127.5
	54	N-Nitrosodiphenylamine	169	14.596	14.650	(0.918)	477181	40.0000	38.53
$	55	2,4,6-Tribromophenol	330	14.805	14.853	(1.097)	121960	60.0000	59.66
	56	4-Bromophenyl-phenylether	248	15.173	15.216	(0.955)	179884	40.0000	38.22
	57	Hexachlorobenzene	284	15.408	15.451	(0.969)	185038	40.0000	38.00
	58	Pentachlorophenol	266	15.702	15.745	(0.988)	261444	80.0000	81.22
*	59	Phenanthrene-d10	188	15.894	15.937	(1.000)	408720	20.0000	
	60	Phenanthrene	178	15.932	15.980	(1.002)	879560	40.0000	43.41
	61	Anthracene	178	16.007	16.055	(1.007)	875177	40.0000	37.87
	62	Carbazole	167	16.279	16.327	(1.024)	848627	40.0000	38.07
	63	Di-n-butylphthalate	149	16.968	17.006	(1.068)	983035	40.0000	38.55
	64	Fluoranthene	202	17.882	17.925	(1.125)	971926	40.0000	38.34
	65	Pyrene	202	18.240	18.288	(0.902)	1008361	40.0000	38.07
$	66	Terphenyl-d14	244	18.528	18.571	(0.916)	627726	40.0000	38.15
	67	Butylbenzylphthalate	149	19.399	19.442	(0.959)	481663	40.0000	40.65
	68	Benzo(a)anthracene	228	20.206	20.249	(0.999)	837366	40.0000	43.20
*	69	Chrysene-d12	240	20.232	20.281	(1.000)	427128	20.0000	
	70	3,3'-Dichlorobenzidine	252	20.206	20.259	(0.999)	622754	80.0000	86.05
	71	Chrysene	228	20.275	20.329	(1.002)	913846	40.0000	42.25
	72	bis(2-Ethylhexyl)phthalate	149	20.377	20.414	(0.956)	654208	40.0000	40.87
*	134	Di-n-octylphthalate-d4	153	21.312	21.349	(1.000)	538823	20.0000	
	73	Di-n-octylphthalate	149	21.328	21.365	(1.001)	1121280	40.0000	38.96
	74	Benzo(b)fluoranthene	252	21.872	21.931	(0.976)	1039169	40.0000	38.03
	75	Benzo(k)fluoranthene	252	21.910	21.964	(0.978)	1005877	40.0000	41.31
	187	Total Benzofluoranthenes	252	21.910	21.964	(0.978)	1933418	80.0000	75.45
	76	Benzo(a)pyrene	252	22.327	22.386	(0.996)	894175	40.0000	38.51
*	77	Perylene-d12	264	22.407	22.450	(1.000)	443807	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	24.164	24.245	(1.078)	1081051	40.0000	39.82
	79	Dibenzo(a,h)anthracene	278	24.186	24.277	(1.079)	881364	40.0000	39.68
	80	Benzo(g,h,i)perylene	276	24.666	24.768	(1.101)	914063	40.0000	40.35
	90	N-Nitrosodimethylamine	74	4.174	4.248	(0.486)	258411	40.0000	41.20
	103	Pyridine	79	4.131	4.184	(0.481)	453750	40.0000	41.59
	91	Aniline	93	8.148	8.196	(0.948)	569920	40.0000	38.03
	105	1-methylnaphthalene	141	11.957	12.000	(1.125)	504276	40.0000	38.33
	93	Benzidine	184	18.117	18.165	(0.895)	762179	80.0000	79.19

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
111 Azobenzene (1,2-DP-Hydrazine)	77	14.644	14.693	(0.921)	726392	40.0000	38.12
143 1,4-Dioxane	88	3.383	3.453	(0.394)	173898	40.0000	41.72
$ 137 d8-1,4-Dioxane	64	3.319	3.383	(0.386)	103269	40.0000	40.57
144 alpha-Terpineol	59	10.675	10.718	(1.004)	106561	40.0000	40.44
133 Butylatedhydroxytoluene	205	13.651	13.699	(1.011)	359583	40.0000	40.37
115 Tributyl Phosphate	99	14.671	14.719	(0.923)	694250	40.0000	39.87
116 Dibutyl Phenyl Phosphate	175	16.418	16.466	(1.033)	412858	40.0000	41.20
117 Butyl Diphenyl Phosphate	94	18.106	18.144	(0.895)	157623	40.0000	39.92
118 Triphenyl Phosphate	326	19.720	19.763	(0.975)	161482	40.0000	41.38
123 Acetophenone	105	9.281	9.329	(1.080)	544962	40.0000	38.38
168 Pentachlorobenzene	250	13.859	13.907	(1.027)	219797	40.0000	37.68
113 Diphenyl Oxide	170	12.748	12.786	(0.944)	421683	40.0000	38.01
112 Biphenyl	154	13.560	13.603	(1.004)	550861	40.0000	37.51
120 2,3,4,6-Tetrachlorophenol	232	14.089	14.132	(1.044)	164309	40.0000	40.95
151 1,2,4,5-Tetrachlorobenzene	216	12.123	12.161	(0.898)	295702	40.0000	37.52
186 Carbaryl	144	16.690	16.744	(1.050)	482651	40.0000	41.60
178 2-Benzyl-4-Chlorophenol	218	16.637	16.690	(1.047)	190936	40.0000	40.53

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218051606.D
Lab Smp Id: SGE0274-CAL5
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Misc Info: 18-

Calibration Date: 16-MAY-2018
Calibration Time: 12:39
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	127731	0.59
27 Naphthalene-d8	478458	239229	956916	483960	1.15
42 Acenaphthene-d10	247659	123830	495318	244204	-1.40
59 Phenanthrene-d10	421930	210965	843860	408720	-3.13
69 Chrysene-d12	450836	225418	901672	427128	-5.26
134 Di-n-octylphthala	583434	291717	1166868	538823	-7.65
77 Perylene-d12	453093	226547	906186	443807	-2.05

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.58	8.08	9.08	8.59	0.19
27 Naphthalene-d8	10.62	10.12	11.12	10.63	0.10
42 Acenaphthene-d10	13.49	12.99	13.99	13.50	0.08
59 Phenanthrene-d10	15.88	15.38	16.38	15.89	0.10
69 Chrysene-d12	20.22	19.72	20.72	20.23	0.08
134 Di-n-octylphthala	21.30	20.80	21.80	21.31	0.05
77 Perylene-d12	22.39	21.89	22.89	22.41	0.07

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218051606.D

Lab ID: SGE0274-CAL5
nt12.i, SW846180516.m, 16-MAY-2018 15:28

RT	CO-ELUTION COMPOUNDS
13.651	Butylatedhydroxytoluene and 2,4-Dinitrophenol
20.206	3,3′-Dichlorobenzidine and Benzo(a)anthracene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

On Column LOD for nt12.i, SW846180516.m, ICALS.sub = 0.0100

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt12.i\20180516.b\N1218051607.D

Date : 16-MAY-2018 16:02

Client ID:

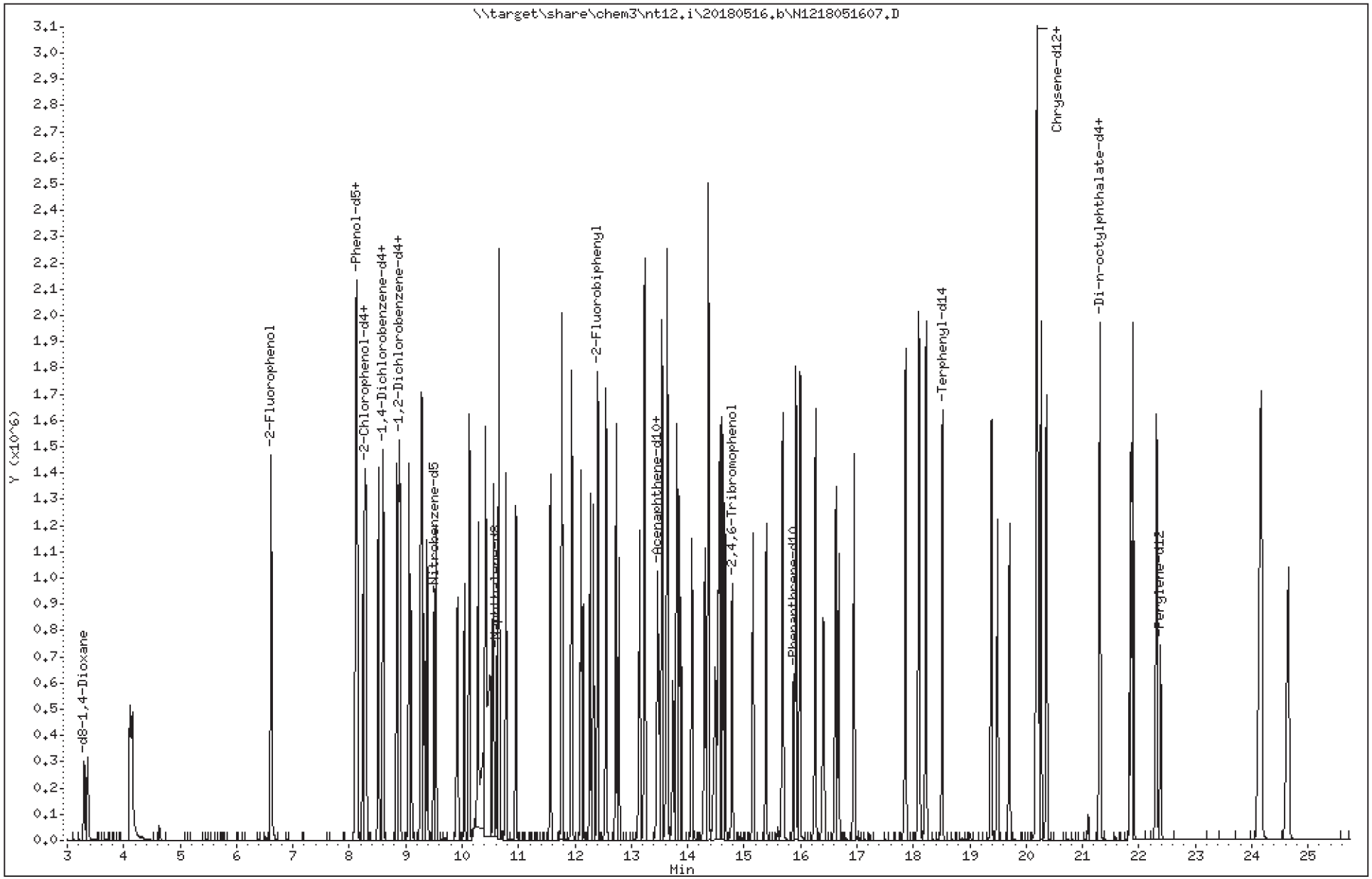
Instrument: nt12.i

Sample Info: IC60180516,

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180516.b\N1218051607.D
Lab Smp Id: SGE0274-CAL6
Inj Date : 16-MAY-2018 16:02
Operator : JZ Inst ID: nt12.i
Smp Info : IC60180516,
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Meth Date : 17-May-2018 13:27 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 7 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 4.14
Processing Host: ORGDATA22

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
$	1	2-Fluorophenol	112	6.615	6.679	(0.772)	761266	90.0000	83.42
$	2	Phenol-d5	99	8.116	8.180	(0.947)	903974	90.0000	78.84
	3	Phenol	94	8.137	8.202	(0.950)	695040	60.0000	60.53
$	5	2-Chlorophenol-d4	132	8.271	8.330	(0.965)	715607	90.0000	81.23
	4	Bis(2-Chloroethyl)ether	93	8.244	8.303	(0.962)	544919	60.0000	54.98
	6	2-Chlorophenol	128	8.297	8.356	(0.968)	531913	60.0000	54.39
	7	1,3-Dichlorobenzene	146	8.516	8.571	(0.994)	563809	60.0000	54.62
*	8	1,4-Dichlorobenzene-d4	152	8.570	8.629	(1.000)	127141	20.0000	
	9	1,4-Dichlorobenzene	146	8.597	8.656	(1.003)	553954	60.0000	54.12
$	10	1,2-Dichlorobenzene-d4	152	8.874	8.928	(1.036)	312196	60.0000	52.72
	12	1,2-Dichlorobenzene	146	8.896	8.955	(1.038)	513181	60.0000	53.41
	11	Benzyl alcohol	108	8.848	8.907	(1.032)	417197	60.0000	58.29
	14	2,2'-oxybis(1-Chloropropane)	45	9.093	9.153	(1.061)	548329	60.0000	54.25
	13	2-Methylphenol	108	9.061	9.121	(1.057)	525838	60.0000	55.93
	17	Hexachloroethane	117	9.382	9.436	(1.095)	227456	60.0000	56.38
	16	N-Nitroso-di-n-propylamine	70	9.328	9.393	(1.089)	401589	60.0000	56.33
	15	4-Methylphenol	108	9.291	9.350	(1.084)	517248	60.0000	54.56
$	18	Nitrobenzene-d5	82	9.505	9.564	(0.895)	567204	60.0000	57.19
	19	Nitrobenzene	77	9.537	9.596	(0.898)	593231	60.0000	54.93
	20	Isophorone	82	9.916	9.981	(0.934)	928094	60.0000	56.93
	21	2-Nitrophenol	139	10.044	10.098	(0.946)	296882	60.0000	58.99
	22	2,4-Dimethylphenol	107	10.130	10.189	(0.954)	540853	60.0000	53.73
	23	Bis(2-Chloroethoxy)methane	93	10.285	10.344	(0.969)	601862	60.0000	54.83
	24	Benzoic acid	105	10.488	10.579	(0.988)	1391318	180.000	201.6
	25	2,4-Dichlorophenol	162	10.418	10.478	(0.981)	425527	60.0000	54.50
	26	1,2,4-Trichlorobenzene	180	10.557	10.611	(0.994)	435797	60.0000	53.85
*	27	Naphthalene-d8	136	10.616	10.670	(1.000)	484841	20.0000	
	28	Naphthalene	128	10.653	10.707	(1.004)	1275226	60.0000	61.68
	29	4-Chloroaniline	127	10.782	10.841	(1.016)	645346	60.0000	55.90
	30	Hexachlorobutadiene	225	10.952	11.007	(1.032)	236422	60.0000	53.70
	31	4-Chloro-3-methylphenol	107	11.567	11.621	(1.090)	461332	60.0000	56.21
	32	2-Methylnaphthalene	141	11.770	11.824	(1.109)	791272	60.0000	53.64
	33	Hexachlorocyclopentadiene	237	12.144	12.198	(0.901)	227854	60.0000	63.78

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
	34	2,4,6-Trichlorophenol	196	12.272	12.331	(0.910)	316421	60.0000	57.39
	35	2,4,5-Trichlorophenol	196	12.331	12.385	(0.914)	322515	60.0000	56.83
$	36	2-Fluorobiphenyl	172	12.406	12.465	(0.920)	916318	60.0000	53.20
	37	2-Chloronaphthalene	162	12.555	12.615	(0.931)	845011	60.0000	53.50
	38	2-Nitroaniline	65	12.785	12.844	(0.948)	297988	60.0000	59.56
	39	Dimethylphthalate	163	13.148	13.208	(0.975)	957569	60.0000	55.98
	40	Acenaphthylene	152	13.239	13.293	(0.982)	1177983	60.0000	52.16
	41	2,6-Dinitrotoluene	165	13.250	13.309	(0.983)	214240	60.0000	56.95
*	42	Acenaphthene-d10	164	13.485	13.544	(1.000)	242164	20.0000	
	43	3-Nitroaniline	138	13.469	13.528	(0.999)	280522	60.0000	61.13
	44	Acenaphthene	153	13.543	13.603	(1.004)	792982	60.0000	52.90
	45	2,4-Dinitrophenol	184	13.645	13.710	(1.012)	414084	180.000	177.0
	46	Dibenzofuran	168	13.805	13.865	(1.024)	1230459	60.0000	53.98
	47	4-Nitrophenol	109	13.741	13.801	(1.019)	152201	60.0000	62.89
	48	2,4-Dinitrotoluene	165	13.880	13.945	(1.029)	316854	60.0000	59.42
	50	Diethylphthalate	149	14.307	14.362	(1.061)	906070	60.0000	55.63
	49	Fluorene	166	14.366	14.420	(1.065)	860341	60.0000	60.44
	51	4-Chlorophenyl-phenylether	204	14.377	14.431	(1.066)	398831	60.0000	60.04
	52	4-Nitroaniline	138	14.489	14.565	(1.074)	282139	60.0000	62.82
	53	4,6-Dinitro-2-methylphenol	198	14.558	14.629	(0.917)	558196	180.000	188.9
	54	N-Nitrosodiphenylamine	169	14.591	14.650	(0.919)	676254	60.0000	54.20
$	55	2,4,6-Tribromophenol	330	14.788	14.853	(1.097)	178579	90.0000	88.09
	56	4-Bromophenyl-phenylether	248	15.162	15.216	(0.955)	257769	60.0000	54.36
	57	Hexachlorobenzene	284	15.392	15.451	(0.969)	266093	60.0000	54.24
	58	Pentachlorophenol	266	15.691	15.745	(0.988)	387712	120.000	119.5
*	59	Phenanthrene-d10	188	15.878	15.937	(1.000)	411810	20.0000	
	60	Phenanthrene	178	15.921	15.980	(1.003)	1245890	60.0000	61.03
	61	Anthracene	178	15.990	16.055	(1.007)	1236738	60.0000	53.11
	62	Carbazole	167	16.268	16.327	(1.025)	1207410	60.0000	53.75
	63	Di-n-butylphthalate	149	16.952	17.006	(1.068)	1379419	60.0000	53.68
	64	Fluoranthene	202	17.865	17.925	(1.125)	1374247	60.0000	53.81
	65	Pyrene	202	18.229	18.288	(0.901)	1416605	60.0000	54.48
$	66	Terphenyl-d14	244	18.517	18.571	(0.916)	888604	60.0000	55.01
	67	Butylbenzylphthalate	149	19.388	19.442	(0.959)	677099	60.0000	58.20
	68	Benzo(a)anthracene	228	20.189	20.249	(0.998)	1144013	60.0000	60.11
*	69	Chrysene-d12	240	20.221	20.281	(1.000)	419370	20.0000	
	70	3,3'-Dichlorobenzidine	252	20.195	20.259	(0.999)	865265	120.000	121.8
	71	Chrysene	228	20.264	20.329	(1.002)	1276201	60.0000	60.09
	72	bis(2-Ethylhexyl)phthalate	149	20.366	20.414	(0.956)	922874	60.0000	60.13
*	134	Di-n-octylphthalate-d4	153	21.300	21.349	(1.000)	516604	20.0000	
	73	Di-n-octylphthalate	149	21.311	21.365	(1.000)	1538509	60.0000	55.76
	74	Benzo(b)fluoranthene	252	21.861	21.931	(0.977)	1515594	60.0000	56.08
	75	Benzo(k)fluoranthene	252	21.899	21.964	(0.978)	1360122	60.0000	62.09
	187	Total Benzofluoranthenes	252	21.899	21.964	(0.978)	2707553	120.000	106.8
	76	Benzo(a)pyrene	252	22.315	22.386	(0.997)	1269682	60.0000	55.28
*	77	Perylene-d12	264	22.385	22.450	(1.000)	438986	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	24.148	24.245	(1.079)	1551205	60.0000	57.76
	79	Dibenzo(a,h)anthracene	278	24.175	24.277	(1.080)	1248836	60.0000	56.84
	80	Benzo(g,h,i)perylene	276	24.655	24.768	(1.101)	1320829	60.0000	58.95
	90	N-Nitrosodimethylamine	74	4.157	4.248	(0.485)	364438	60.0000	58.38
	103	Pyridine	79	4.109	4.184	(0.480)	654563	60.0000	60.28
	91	Aniline	93	8.132	8.196	(0.949)	781051	60.0000	52.36
	105	1-methylnaphthalene	141	11.941	12.000	(1.125)	713060	60.0000	54.09
	93	Benzidine	184	18.106	18.165	(0.895)	1070980	120.000	113.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
111 Azobenzene (1,2-DP-Hydrazine)	77	14.633	14.693	(0.922)	988765	60.0000	51.50
143 1,4-Dioxane	88	3.361	3.453	(0.392)	240678	60.0000	58.01
$ 137 d8-1,4-Dioxane	64	3.297	3.383	(0.385)	145470	60.0000	57.42
144 alpha-Terpineol	59	10.659	10.718	(1.004)	148863	60.0000	62.38
133 Butylatedhydroxytoluene	205	13.640	13.699	(1.011)	482846	60.0000	58.61
115 Tributyl Phosphate	99	14.660	14.719	(0.923)	982432	60.0000	56.00
116 Dibutyl Phenyl Phosphate	175	16.407	16.466	(1.033)	609044	60.0000	60.33
117 Butyl Diphenyl Phosphate	94	18.090	18.144	(0.895)	215063	60.0000	55.47
118 Triphenyl Phosphate	326	19.708	19.763	(0.975)	232245	60.0000	60.62
123 Acetophenone	105	9.270	9.329	(1.082)	775904	60.0000	54.90
168 Pentachlorobenzene	250	13.848	13.907	(1.027)	312084	60.0000	53.95
113 Diphenyl Oxide	170	12.731	12.786	(0.944)	595577	60.0000	54.13
112 Biphenyl	154	13.543	13.603	(1.004)	769323	60.0000	52.82
120 2,3,4,6-Tetrachlorophenol	232	14.078	14.132	(1.044)	236170	60.0000	59.35
151 1,2,4,5-Tetrachlorobenzene	216	12.106	12.161	(0.898)	421307	60.0000	53.90
186 Carbaryl	144	16.679	16.744	(1.050)	706427	60.0000	60.44
178 2-Benzyl-4-Chlorophenol	218	16.626	16.690	(1.047)	277656	60.0000	58.50

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218051607.D
Lab Smp Id: SGE0274-CAL6
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Misc Info: 18-

Calibration Date: 16-MAY-2018
Calibration Time: 12:39
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	127141	0.13
27 Naphthalene-d8	478458	239229	956916	484841	1.33
42 Acenaphthene-d10	247659	123830	495318	242164	-2.22
59 Phenanthrene-d10	421930	210965	843860	411810	-2.40
69 Chrysene-d12	450836	225418	901672	419370	-6.98
134 Di-n-octylphthala	583434	291717	1166868	516604	-11.45
77 Perylene-d12	453093	226547	906186	438986	-3.11

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.58	8.08	9.08	8.57	-0.06
27 Naphthalene-d8	10.62	10.12	11.12	10.62	-0.05
42 Acenaphthene-d10	13.49	12.99	13.99	13.49	-0.04
59 Phenanthrene-d10	15.88	15.38	16.38	15.88	0.00
69 Chrysene-d12	20.22	19.72	20.72	20.22	0.03
134 Di-n-octylphthala	21.30	20.80	21.80	21.30	0.00
77 Perylene-d12	22.39	21.89	22.89	22.39	-0.02

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218051607.D

Lab ID: SGE0274-CAL6
nt12.i, SW846180516.m, 16-MAY-2018 16:02

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt12.i, SW846180516.m, ICALS.sub = 0.0100

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt12.i\20180516.b\N1218051608.D

Date : 16-MAY-2018 16:36

Client ID:

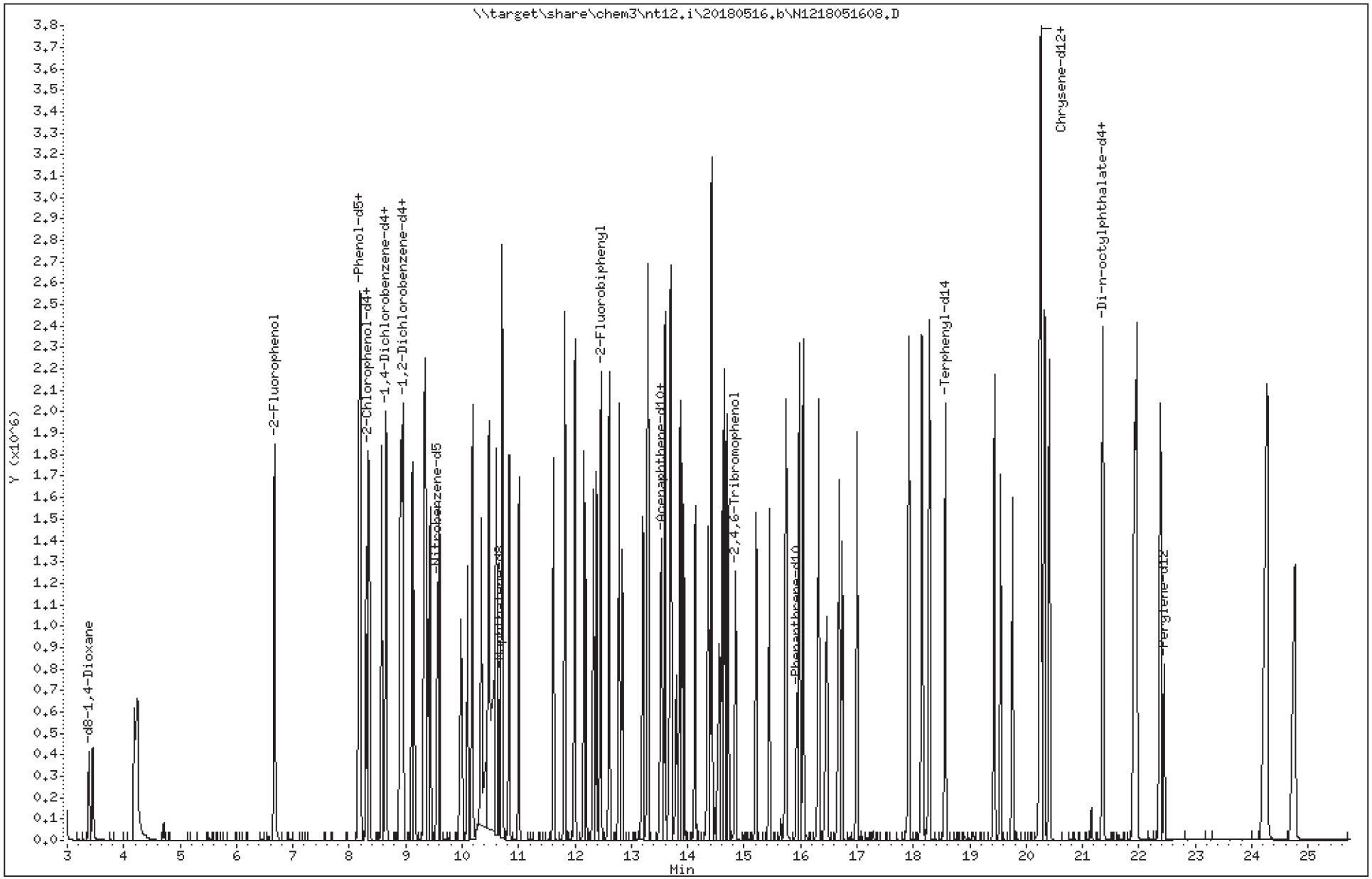
Instrument: nt12.i

Sample Info: IC80180516,

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180516.b\N1218051608.D
Lab Smp Id: SGE0274-CAL7
Inj Date : 16-MAY-2018 16:36
Operator : JZ Inst ID: nt12.i
Smp Info : IC80180516,
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Meth Date : 17-May-2018 14:02 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 8 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 4.14
Processing Host: ORGDATA22

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1	2-Fluorophenol	112	6.679	6.679	(0.774)	1038806	120.000	104.4
$	2	Phenol-d5	99	8.180	8.180	(0.948)	1225079	120.000	98.01
	3	Phenol	94	8.201	8.201	(0.950)	949844	80.0000	75.88
$	5	2-Chlorophenol-d4	132	8.330	8.330	(0.965)	971455	120.000	101.2
	4	Bis(2-Chloroethyl)ether	93	8.303	8.303	(0.962)	753125	80.0000	69.71
	6	2-Chlorophenol	128	8.356	8.356	(0.968)	742190	80.0000	69.62
	7	1,3-Dichlorobenzene	146	8.570	8.570	(0.993)	779874	80.0000	69.30
*	8	1,4-Dichlorobenzene-d4	152	8.629	8.629	(1.000)	138600	20.0000	
	9	1,4-Dichlorobenzene	146	8.656	8.656	(1.003)	760495	80.0000	68.16
$	10	1,2-Dichlorobenzene-d4	152	8.928	8.928	(1.035)	421268	80.0000	65.26
	12	1,2-Dichlorobenzene	146	8.955	8.955	(1.038)	701266	80.0000	66.95
	11	Benzyl alcohol	108	8.907	8.907	(1.032)	588527	80.0000	75.43
	14	2,2'-oxybis(1-Chloropropane)	45	9.152	9.152	(1.061)	748235	80.0000	67.90
	13	2-Methylphenol	108	9.120	9.120	(1.057)	747340	80.0000	72.92
	17	Hexachloroethane	117	9.435	9.435	(1.093)	312803	80.0000	71.12
	16	N-Nitroso-di-n-propylamine	70	9.393	9.393	(1.089)	572975	80.0000	73.72
	15	4-Methylphenol	108	9.350	9.350	(1.084)	715196	80.0000	69.20
$	18	Nitrobenzene-d5	82	9.564	9.564	(0.896)	789046	80.0000	71.94
	19	Nitrobenzene	77	9.596	9.596	(0.899)	817553	80.0000	68.44
	20	Isophorone	82	9.980	9.980	(0.935)	1354688	80.0000	75.14
	21	2-Nitrophenol	139	10.098	10.098	(0.946)	427117	80.0000	76.73
	22	2,4-Dimethylphenol	107	10.189	10.189	(0.955)	766540	80.0000	68.86
	23	Bis(2-Chloroethoxy)methane	93	10.344	10.344	(0.969)	850652	80.0000	70.07
	24	Benzoic acid	105	10.579	10.579	(0.991)	2003119	240.000	262.3(M)
	25	2,4-Dichlorophenol	162	10.477	10.477	(0.982)	601594	80.0000	69.66
	26	1,2,4-Trichlorobenzene	180	10.611	10.611	(0.994)	586776	80.0000	65.56
*	27	Naphthalene-d8	136	10.670	10.670	(1.000)	536245	20.0000	
	28	Naphthalene	128	10.707	10.707	(1.004)	1690043	80.0000	78.79
	29	4-Chloroaniline	127	10.840	10.840	(1.016)	899996	80.0000	70.48
	30	Hexachlorobutadiene	225	11.006	11.006	(1.032)	323583	80.0000	66.46
	31	4-Chloro-3-methylphenol	107	11.620	11.620	(1.089)	644102	80.0000	70.95
	32	2-Methylnaphthalene	141	11.823	11.823	(1.108)	1079621	80.0000	66.17
	33	Hexachlorocyclopentadiene	237	12.197	12.197	(0.901)	313421	80.0000	83.74

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
	34	2,4,6-Trichlorophenol	196	12.331	12.331	(0.910)	447688	80.0000	77.51
	35	2,4,5-Trichlorophenol	196	12.384	12.384	(0.914)	453787	80.0000	76.33
$	36	2-Fluorobiphenyl	172	12.465	12.465	(0.920)	1237456	80.0000	68.58
	37	2-Chloronaphthalene	162	12.614	12.614	(0.931)	1158369	80.0000	70.01
	38	2-Nitroaniline	65	12.844	12.844	(0.948)	418568	80.0000	79.86
	39	Dimethylphthalate	163	13.207	13.207	(0.975)	1337177	80.0000	74.61
	40	Acenaphthylene	152	13.293	13.293	(0.981)	1574565	80.0000	66.55
	41	2,6-Dinitrotoluene	165	13.309	13.309	(0.983)	297836	80.0000	75.58
*	42	Acenaphthene-d10	164	13.544	13.544	(1.000)	253693	20.0000	
	43	3-Nitroaniline	138	13.528	13.528	(0.999)	402803	80.0000	83.79
	44	Acenaphthene	153	13.602	13.602	(1.004)	1086182	80.0000	69.17
	45	2,4-Dinitrophenol	184	13.709	13.709	(1.012)	600115	240.000	244.9
	46	Dibenzofuran	168	13.864	13.864	(1.024)	1673024	80.0000	70.06
	47	4-Nitrophenol	109	13.800	13.800	(1.019)	195532	80.0000	77.12
	48	2,4-Dinitrotoluene	165	13.944	13.944	(1.030)	445625	80.0000	79.77
	50	Diethylphthalate	149	14.361	14.361	(1.060)	1257166	80.0000	73.67
	49	Fluorene	166	14.420	14.420	(1.065)	1118879	80.0000	79.67
	51	4-Chlorophenyl-phenylether	204	14.430	14.430	(1.065)	522886	80.0000	79.91
	52	4-Nitroaniline	138	14.564	14.564	(1.075)	409364	80.0000	87.00
	53	4,6-Dinitro-2-methylphenol	198	14.628	14.628	(0.918)	784564	240.000	242.7
	54	N-Nitrosodiphenylamine	169	14.650	14.650	(0.919)	903320	80.0000	66.18
$	55	2,4,6-Tribromophenol	330	14.853	14.853	(1.097)	251107	120.000	118.2
	56	4-Bromophenyl-phenylether	248	15.216	15.216	(0.955)	359983	80.0000	69.39
	57	Hexachlorobenzene	284	15.451	15.451	(0.969)	365986	80.0000	68.19
	58	Pentachlorophenol	266	15.745	15.745	(0.988)	539921	160.000	152.2
*	59	Phenanthrene-d10	188	15.937	15.937	(1.000)	450504	20.0000	
	60	Phenanthrene	178	15.980	15.980	(1.003)	1691744	80.0000	75.75
	61	Anthracene	178	16.055	16.055	(1.007)	1639553	80.0000	64.36
	62	Carbazole	167	16.327	16.327	(1.024)	1658655	80.0000	67.50
	63	Di-n-butylphthalate	149	17.005	17.005	(1.067)	1847912	80.0000	65.74
	64	Fluoranthene	202	17.924	17.924	(1.125)	1864213	80.0000	66.72
	65	Pyrene	202	18.288	18.288	(0.902)	1936318	80.0000	69.66
$	66	Terphenyl-d14	244	18.571	18.571	(0.916)	1215712	80.0000	70.40
	67	Butylbenzylphthalate	149	19.441	19.441	(0.959)	933463	80.0000	75.06
	68	Benzo(a)anthracene	228	20.248	20.248	(0.998)	1553917	80.0000	76.38
*	69	Chrysene-d12	240	20.280	20.280	(1.000)	448263	20.0000	
	70	3,3'-Dichlorobenzidine	252	20.259	20.259	(0.999)	1167411	160.000	153.7
	71	Chrysene	228	20.328	20.328	(1.002)	1769259	80.0000	77.94
	72	bis(2-Ethylhexyl)phthalate	149	20.414	20.414	(0.956)	1243994	80.0000	76.90
*	134	Di-n-octylphthalate-d4	153	21.349	21.349	(1.000)	544496	20.0000	
	73	Di-n-octylphthalate	149	21.365	21.365	(1.001)	2046248	80.0000	70.36
	74	Benzo(b)fluoranthene	252	21.931	21.931	(0.977)	2172059	80.0000	73.30
	75	Benzo(k)fluoranthene	252	21.963	21.963	(0.978)	1770518	80.0000	78.35
	187	Total Benzofluoranthenes	252	21.963	21.963	(0.978)	3710810	160.000	133.5
	76	Benzo(a)pyrene	252	22.385	22.385	(0.997)	1753790	80.0000	69.63
*	77	Perylene-d12	264	22.449	22.449	(1.000)	481354	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	24.244	24.244	(1.080)	2199556	80.0000	74.70
	79	Dibenzo(a,h)anthracene	278	24.276	24.276	(1.081)	1741636	80.0000	72.30
	80	Benzo(g,h,i)perylene	276	24.768	24.768	(1.103)	1855142	80.0000	75.50
	90	N-Nitrosodimethylamine	74	4.248	4.248	(0.492)	502527	80.0000	73.85
	103	Pyridine	79	4.184	4.184	(0.485)	962012	80.0000	81.26
	91	Aniline	93	8.196	8.196	(0.950)	1085191	80.0000	66.74
	105	1-methylnaphthalene	141	12.000	12.000	(1.125)	980698	80.0000	67.27
	93	Benzidine	184	18.165	18.165	(0.896)	1443484	160.000	142.9

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
111	Azobenzene (1,2-DP-Hydrazine)	77	14.692	14.692	(0.922)	1388974	80.0000	66.13
143	1,4-Dioxane	88	3.452	3.452	(0.400)	343750	80.0000	76.00
$ 137	d8-1,4-Dioxane	64	3.383	3.383	(0.392)	207808	80.0000	75.24
144	alpha-Terpineol	59	10.718	10.718	(1.004)	194701	80.0000	78.35
133	Butylatedhydroxytoluene	205	13.699	13.699	(1.011)	648733	80.0000	80.63
115	Tributyl Phosphate	99	14.719	14.719	(0.924)	1336494	80.0000	69.64
116	Dibutyl Phenyl Phosphate	175	16.466	16.466	(1.033)	882268	80.0000	79.88
117	Butyl Diphenyl Phosphate	94	18.143	18.143	(0.895)	289028	80.0000	69.74
118	Triphenyl Phosphate	326	19.762	19.762	(0.974)	337842	80.0000	82.50
123	Acetophenone	105	9.329	9.329	(1.081)	1073623	80.0000	69.68
168	Pentachlorobenzene	250	13.907	13.907	(1.027)	425009	80.0000	70.14
113	Diphenyl Oxide	170	12.785	12.785	(0.944)	827245	80.0000	71.77
112	Biphenyl	154	13.602	13.602	(1.004)	1055182	80.0000	69.16
120	2,3,4,6-Tetrachlorophenol	232	14.131	14.131	(1.043)	330668	80.0000	79.32
151	1,2,4,5-Tetrachlorobenzene	216	12.160	12.160	(0.898)	575577	80.0000	70.30
186	Carbaryl	144	16.744	16.744	(1.051)	997684	80.0000	78.02
178	2-Benzyl-4-Chlorophenol	218	16.690	16.690	(1.047)	397360	80.0000	76.53

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218051608.D
Lab Smp Id: SGE0274-CAL7
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Misc Info: 18-

Calibration Date: 16-MAY-2018
Calibration Time: 12:39
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	138600	9.15
27 Naphthalene-d8	478458	239229	956916	536245	12.08
42 Acenaphthene-d10	247659	123830	495318	253693	2.44
59 Phenanthrene-d10	421930	210965	843860	450504	6.77
69 Chrysene-d12	450836	225418	901672	448263	-0.57
134 Di-n-octylphthala	583434	291717	1166868	544496	-6.67
77 Perylene-d12	453093	226547	906186	481354	6.24

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.58	8.08	9.08	8.63	0.63
27 Naphthalene-d8	10.62	10.12	11.12	10.67	0.45
42 Acenaphthene-d10	13.49	12.99	13.99	13.54	0.40
59 Phenanthrene-d10	15.88	15.38	16.38	15.94	0.37
69 Chrysene-d12	20.22	19.72	20.72	20.28	0.32
134 Di-n-octylphthala	21.30	20.80	21.80	21.35	0.23
77 Perylene-d12	22.39	21.89	22.89	22.45	0.26

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218051608.D

Lab ID: SGE0274-CAL7
nt12.i, SW846180516.m, 16-MAY-2018 16:36

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

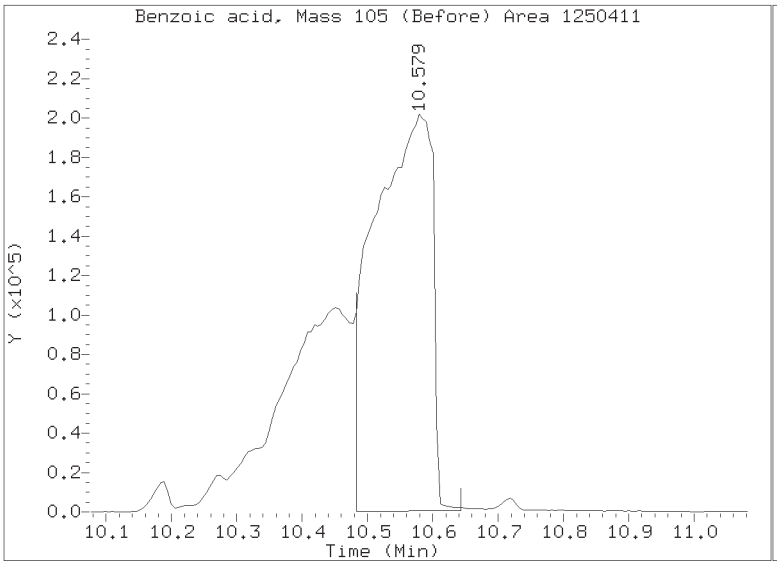
NONE

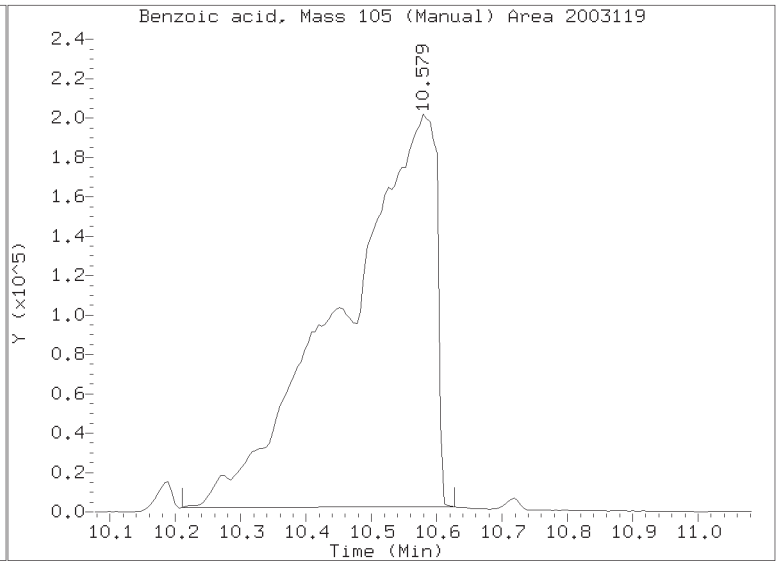
On Column LOD for nt12.i, SW846180516.m, ICALS.sub = 0.0100

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt12.i/20180516.b/N1218051608.D
Injection Date: 16-MAY-2018 16:36
Lab ID:SGE0274-CAL7 Client ID:
Report Date: 05/17/2018 14:02





SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BE00052
Laboratory ID: SGE0274-SCV1
Sequence: SGE0274
Sequence Name: Secondary Cal Check
Standard ID: G004494

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Phenol	25.000	27.9	11.8	20.00
1,4-Dichlorobenzene	25.000	25.0	0.09	20.00
1,2-Dichlorobenzene	25.000	24.6	-1.5	20.00
Benzyl alcohol	25.000	26.0	4.1	20.00
4-Methylphenol	25.000	25.0	0.2	20.00
2,4-Dimethylphenol	25.000	24.0	-4.0	20.00
1,2,4-Trichlorobenzene	25.000	24.8	-1.0	20.00
Benzoic acid	75.000	82.5	10.1	20.00
Dimethylphthalate	25.000	23.7	-5.2	20.00
Dibenzofuran	25.000	25.3	1.0	20.00
N-Nitrosodiphenylamine	25.000	23.7	-5.0	20.00
Hexachlorobenzene	25.000	24.3	-2.8	20.00
Pentachlorophenol	50.000	49.4	-1.1	20.00
Butylbenzylphthalate	25.000	24.3	-2.8	20.00
bis(2-Ethylhexyl)phthalate	25.000	24.7	-1.3	20.00
2-Fluorophenol	37.500	39.6	5.5	20.00
Phenol-d5	37.500	39.0	4.1	20.00
2-Chlorophenol-d4	37.500	38.8	3.4	20.00
1,2-Dichlorobenzene-d4	25.000	25.7	2.8	20.00
Nitrobenzene-d5	25.000	26.2	5.0	20.00
2-Fluorobiphenyl	25.000	26.0	4.1	20.00
2,4,6-Tribromophenol	37.500	40.8	8.9	20.00
p-Terphenyl-d14	25.000	26.3	5.0	20.00

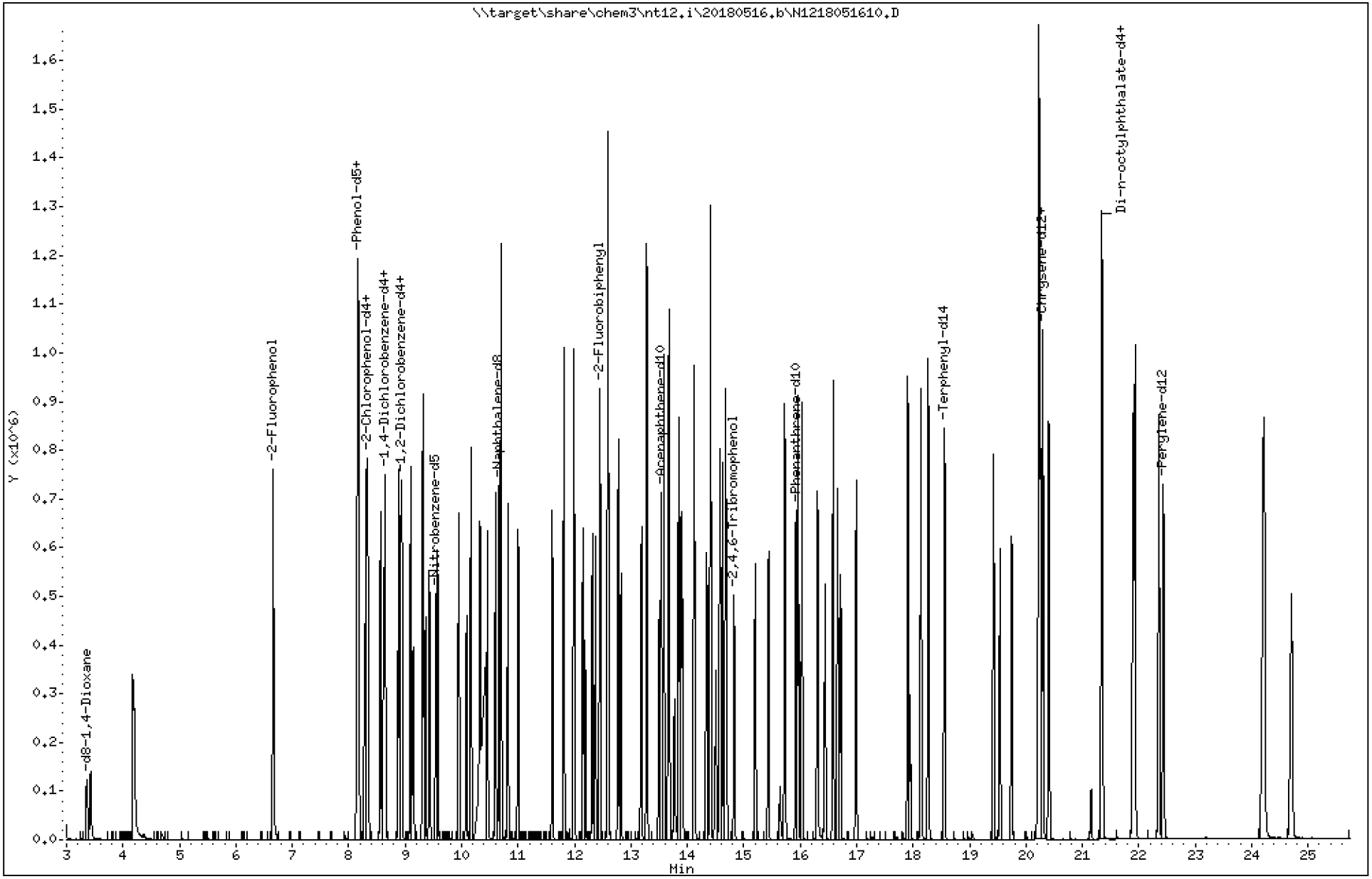
* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt12.i\20180516.b\N1218051610.D
Date : 16-MAY-2018 18:47
Client ID:
Sample Info: SGE0274-SCV1

Column phase: ZB-5msi

Instrument: nt12.i

Operator: JZ
Column diameter: 0.32



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 1140 of 6523

ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180516.b\N1218051610.D
Lab Smp Id: SGE0274-SCV1
Inj Date : 16-MAY-2018 18:47
Operator : JZ Inst ID: nt12.i
Smp Info : SGE0274-SCV1
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Meth Date : 17-May-2018 15:39 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.663	6.679	(0.773)	370668	39.5762	39.58(R)
$	2 Phenol-d5	99	8.148	8.180	(0.945)	459507	39.0497	39.05(R)
	3 Phenol	94	8.169	8.202	(0.947)	329277	27.9402	27.94
$	5 2-Chlorophenol-d4	132	8.319	8.330	(0.965)	350580	38.7755	38.78(R)
	4 Bis(2-Chloroethyl)ether	93	8.281	8.303	(0.960)	237962	23.3949	23.39
	6 2-Chlorophenol	128	8.340	8.356	(0.967)	238420	23.7558	23.76
	7 1,3-Dichlorobenzene	146	8.564	8.570	(0.993)	259819	24.5244	24.52
*	8 1,4-Dichlorobenzene-d4	152	8.623	8.629	(1.000)	130483	20.0000	
	9 1,4-Dichlorobenzene	146	8.645	8.656	(1.002)	262843	25.0235	25.02
$	10 1,2-Dichlorobenzene-d4	152	8.922	8.928	(1.035)	156206	25.7048	25.70(R)
	12 1,2-Dichlorobenzene	146	8.944	8.955	(1.037)	242898	24.6306	24.63
	11 Benzyl alcohol	108	8.885	8.907	(1.030)	191117	26.0175	26.02
	14 2,2'-oxybis(1-Chloropropane)	45	9.141	9.152	(1.060)	239061	23.0450	23.04
	13 2-Methylphenol	108	9.099	9.120	(1.055)	240830	24.9597	24.96
	17 Hexachloroethane	117	9.430	9.435	(1.094)	103230	24.9315	24.93
	16 N-Nitroso-di-n-propylamine	70	9.360	9.393	(1.085)	167776	22.9292	22.93
	15 4-Methylphenol	108	9.323	9.350	(1.081)	243621	25.0394	25.04
$	18 Nitrobenzene-d5	82	9.547	9.564	(0.895)	262419	26.2478	26.25(R)
	19 Nitrobenzene	77	9.574	9.596	(0.898)	273712	25.1388	25.14
	20 Isophorone	82	9.948	9.980	(0.933)	482357	29.3509	29.35
	21 2-Nitrophenol	139	10.087	10.098	(0.946)	128901	25.4056	25.41
	22 2,4-Dimethylphenol	107	10.167	10.189	(0.953)	243514	23.9981	24.00
	23 Bis(2-Chloroethoxy)methane	93	10.322	10.344	(0.968)	258825	23.3904	23.39
	24 Benzoic acid	105	10.434	10.579	(0.978)	574514	82.5387	82.54
	25 2,4-Dichlorophenol	162	10.461	10.478	(0.981)	194075	24.6554	24.66
	26 1,2,4-Trichlorobenzene	180	10.600	10.611	(0.994)	201960	24.7542	24.75
*	27 Naphthalene-d8	136	10.664	10.670	(1.000)	488782	20.0000	
	28 Naphthalene	128	10.696	10.707	(1.003)	592288	23.3158	23.32
	29 4-Chloroaniline	127	10.824	10.840	(1.015)	290968	25.0001	25.00
	30 Hexachlorobutadiene	225	11.000	11.006	(1.032)	109138	24.5915	24.59
	31 4-Chloro-3-methylphenol	107	11.610	11.620	(1.089)	202705	24.4969	24.50
	32 2-Methylnaphthalene	141	11.813	11.823	(1.108)	370837	24.9365	24.94
	33 Hexachlorocyclopentadiene	237	12.192	12.197	(0.901)	97997	27.0423	27.04

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	12.315	12.331	(0.910)	138268	24.7234	24.72
	35	2,4,5-Trichlorophenol	196	12.373	12.384	(0.914)	146718	25.4862	25.49
$	36	2-Fluorobiphenyl	172	12.448	12.465	(0.920)	454510	26.0158	26.02(R)
	37	2-Chloronaphthalene	162	12.598	12.614	(0.931)	373496	23.3139	23.31
	38	2-Nitroaniline	65	12.822	12.844	(0.947)	132947	26.1960	26.20
	39	Dimethylphthalate	163	13.185	13.207	(0.974)	411207	23.6973	23.70
	40	Acenaphthylene	152	13.282	13.293	(0.981)	518866	22.6489	22.65
	41	2,6-Dinitrotoluene	165	13.287	13.309	(0.982)	98827	25.8992	25.90
*	42	Acenaphthene-d10	164	13.533	13.544	(1.000)	245643	20.0000	
	43	3-Nitroaniline	138	13.501	13.528	(0.998)	122315	26.2767	26.28
	44	Acenaphthene	153	13.586	13.602	(1.004)	352982	23.2141	23.21
	45	2,4-Dinitrophenol	184	13.672	13.710	(1.010)	171289	72.1777	72.18
	46	Dibenzofuran	168	13.848	13.864	(1.023)	583830	25.2504	25.25
	47	4-Nitrophenol	109	13.773	13.801	(1.018)	57367	23.3667	23.37
	48	2,4-Dinitrotoluene	165	13.917	13.944	(1.028)	138117	25.5357	25.54
	50	Diethylphthalate	149	14.345	14.361	(1.060)	388069	23.4871	23.49
	49	Fluorene	166	14.409	14.420	(1.065)	403684	24.1105	24.11
	51	4-Chlorophenyl-phenylether	204	14.420	14.431	(1.066)	182963	23.3913	23.39
	52	4-Nitroaniline	138	14.510	14.564	(1.072)	119757	26.2853	26.29
	53	4,6-Dinitro-2-methylphenol	198	14.580	14.628	(0.915)	227567	76.5804	76.58
	54	N-Nitrosodiphenylamine	169	14.623	14.650	(0.918)	297883	23.7404	23.74
$	55	2,4,6-Tribromophenol	330	14.831	14.853	(1.096)	83950	40.8225	40.82(R)
	56	4-Bromophenyl-phenylether	248	15.205	15.216	(0.955)	110704	23.2155	23.22
	57	Hexachlorobenzene	284	15.440	15.451	(0.969)	119937	24.3092	24.31
	58	Pentachlorophenol	266	15.728	15.745	(0.988)	161207	49.4251	49.43
*	59	Phenanthrene-d10	188	15.926	15.937	(1.000)	414123	20.0000	
	60	Phenanthrene	178	15.963	15.980	(1.002)	539621	26.2845	26.28
	61	Anthracene	178	16.033	16.055	(1.007)	556390	23.7611	23.76
	62	Carbazole	167	16.305	16.327	(1.024)	500118	22.1405	22.14
	63	Di-n-butylphthalate	149	16.994	17.005	(1.067)	630014	24.3813	24.38
	64	Fluoranthene	202	17.908	17.924	(1.124)	618368	24.0767	24.08
	65	Pyrene	202	18.271	18.288	(0.902)	648035	24.1527	24.15
$	66	Terphenyl-d14	244	18.560	18.571	(0.916)	437760	26.2622	26.26(R)
	67	Butylbenzylphthalate	149	19.425	19.441	(0.959)	291581	24.2902	24.29
	68	Benzo(a)anthracene	228	20.237	20.249	(0.999)	561051	28.5702	28.57
*	69	Chrysene-d12	240	20.264	20.280	(1.000)	432711	20.0000	
	70	3,3'-Dichlorobenzidine	252	20.227	20.259	(0.998)	383666	52.3320	52.33
	71	Chrysene	228	20.301	20.329	(1.002)	570813	26.0485	26.05
	72	bis(2-Ethylhexyl)phthalate	149	20.408	20.414	(0.956)	413508	24.6667	24.67
*	134	Di-n-octylphthalate-d4	153	21.338	21.349	(1.000)	564243	20.0000	
	73	Di-n-octylphthalate	149	21.354	21.365	(1.001)	700608	23.2480	23.25
	74	Benzo(b)fluoranthene	252	21.899	21.931	(0.976)	657656	23.6632	23.66(H)
	75	Benzo(k)fluoranthene	252	21.931	21.964	(0.977)	661167	24.1371	24.14
	187	Total Benzofluoranthenes	252	21.931	21.963	(0.977)	1251759	48.0245	48.02
	76	Benzo(a)pyrene	252	22.358	22.385	(0.996)	607119	25.7023	25.70
*	77	Perylene-d12	264	22.438	22.449	(1.000)	451445	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	24.207	24.244	(1.079)	675472	24.4586	24.46
	79	Dibenzo(a,h)anthracene	278	24.223	24.276	(1.080)	557090	24.6570	24.66
	80	Benzo(g,h,i)perylene	276	24.709	24.768	(1.101)	555436	24.1038	24.10
	90	N-Nitrosodimethylamine	74	4.205	4.248	(0.488)	162704	25.3966	25.40
	103	Pyridine	79	4.173	4.184	(0.484)	307302	27.5729	27.57
	91	Aniline	93	8.174	8.196	(0.948)	394251	25.7533	25.75
	105	1-methylnaphthalene	141	11.989	12.000	(1.124)	357360	26.8917	26.89
	93	Benzidine	184	18.143	18.165	(0.895)	299756	30.7419	30.74

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
111	Azobenzene (1,2-DP-Hydrazine)	77	14.671	14.692	(0.921)	478035	24.7594	24.76
143	1,4-Dioxane	88	3.425	3.452	(0.397)	114540	26.9004	26.90
$ 137	d8-1,4-Dioxane	64	3.361	3.383	(0.390)	62675	24.1039	24.10(R)
144	alpha-Terpineol	59	10.701	10.718	(1.004)	83147	29.3251	29.33
133	Butylatedhydroxytoluene	205	13.682	13.699	(1.011)	232670	24.0793	24.08
115	Tributyl Phosphate	99	14.692	14.719	(0.923)	452484	25.6493	25.65
116	Dibutyl Phenyl Phosphate	175	16.444	16.466	(1.033)	275983	27.1840	27.18
117	Butyl Diphenyl Phosphate	94	18.132	18.143	(0.895)	109435	27.3556	27.36
118	Triphenyl Phosphate	326	19.751	19.762	(0.975)	106542	26.9525	26.95
123	Acetophenone	105	9.307	9.329	(1.079)	280475	19.3359	19.34
168	Pentachlorobenzene	250	13.891	13.907	(1.026)	157365	26.8206	26.82
113	Diphenyl Oxide	170	12.779	12.785	(0.944)	290235	26.0057	26.01
112	Biphenyl	154	13.586	13.602	(1.004)	340337	23.0379	23.04
120	2,3,4,6-Tetrachlorophenol	232	14.120	14.131	(1.043)	189251	46.8870	46.89
151	1,2,4,5-Tetrachlorobenzene	216	12.154	12.160	(0.898)	179659	22.6609	22.66
186	Carbaryl	144	16.717	16.744	(1.050)	301743	25.6700	25.67
178	2-Benzyl-4-Chlorophenol	218	16.663	16.690	(1.046)	118132	24.7497	24.75

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218051610.D
Lab Smp Id: SGE0274-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Misc Info: 18-

Calibration Date: 16-MAY-2018
Calibration Time: 12:39
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	130483	2.76
27 Naphthalene-d8	478458	239229	956916	488782	2.16
42 Acenaphthene-d10	247659	123830	495318	245643	-0.81
59 Phenanthrene-d10	421930	210965	843860	414123	-1.85
69 Chrysene-d12	450836	225418	901672	432711	-4.02
134 Di-n-octylphthala	583434	291717	1166868	564243	-3.29
77 Perylene-d12	453093	226547	906186	451445	-0.36

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.58	8.08	9.08	8.62	0.56
27 Naphthalene-d8	10.62	10.12	11.12	10.66	0.40
42 Acenaphthene-d10	13.49	12.99	13.99	13.53	0.32
59 Phenanthrene-d10	15.88	15.38	16.38	15.93	0.30
69 Chrysene-d12	20.22	19.72	20.72	20.26	0.24
134 Di-n-octylphthala	21.30	20.80	21.80	21.34	0.18
77 Perylene-d12	22.39	21.89	22.89	22.44	0.21

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218051610.D

Lab ID: SGE0274-SCV1
nt12.i, 20180516.b\SW846180516.m,   16-MAY-2018 18:47

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

On Column LOD for nt12.i, 20180516.b\SW846180516.m, ICALS.sub = 0.0100

* Only compounds listed in the work order have been verified by the analyst *

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BE00052
Laboratory ID: SGE0274-SCV1
Sequence: SGE0274
Standard ID: G004494

ANALYTE	EXPECTED (ug/mL)	FOUND (ug/mL)	% DRIFT	QC LIMIT
Phenol	25.000	27.9	11.8	20.00
1,4-Dichlorobenzene	25.000	25.0	0.09	20.00
1,2-Dichlorobenzene	25.000	24.6	-1.5	20.00
Benzyl alcohol	25.000	26.0	4.1	20.00
4-Methylphenol	25.000	25.0	0.2	20.00
2,4-Dimethylphenol	25.000	24.0	-4.0	20.00
1,2,4-Trichlorobenzene	25.000	24.8	-1.0	20.00
Benzoic acid	75.000	82.5	10.1	20.00
Dimethylphthalate	25.000	23.7	-5.2	20.00
Dibenzofuran	25.000	25.3	1.0	20.00
N-Nitrosodiphenylamine	25.000	23.7	-5.0	20.00
Hexachlorobenzene	25.000	24.3	-2.8	20.00
Pentachlorophenol	50.000	49.4	-1.1	20.00
Butylbenzylphthalate	25.000	24.3	-2.8	20.00
bis(2-Ethylhexyl)phthalate	25.000	24.7	-1.3	20.00
2-Fluorophenol	37.500	39.6	5.5	20.00
Phenol-d5	37.500	39.0	4.1	20.00
2-Chlorophenol-d4	37.500	38.8	3.4	20.00
1,2-Dichlorobenzene-d4	25.000	25.7	2.8	20.00
Nitrobenzene-d5	25.000	26.2	5.0	20.00
2-Fluorobiphenyl	25.000	26.0	4.1	20.00
2,4,6-Tribromophenol	37.500	40.8	8.9	20.00
p-Terphenyl-d14	25.000	26.3	5.0	20.00

* Values outside of QC limits

Data File: \\target\share\chem3\nt12.i\20180516.b\N1218051610.D

Page 1

Date : 16-MAY-2018 18:47

Client ID:

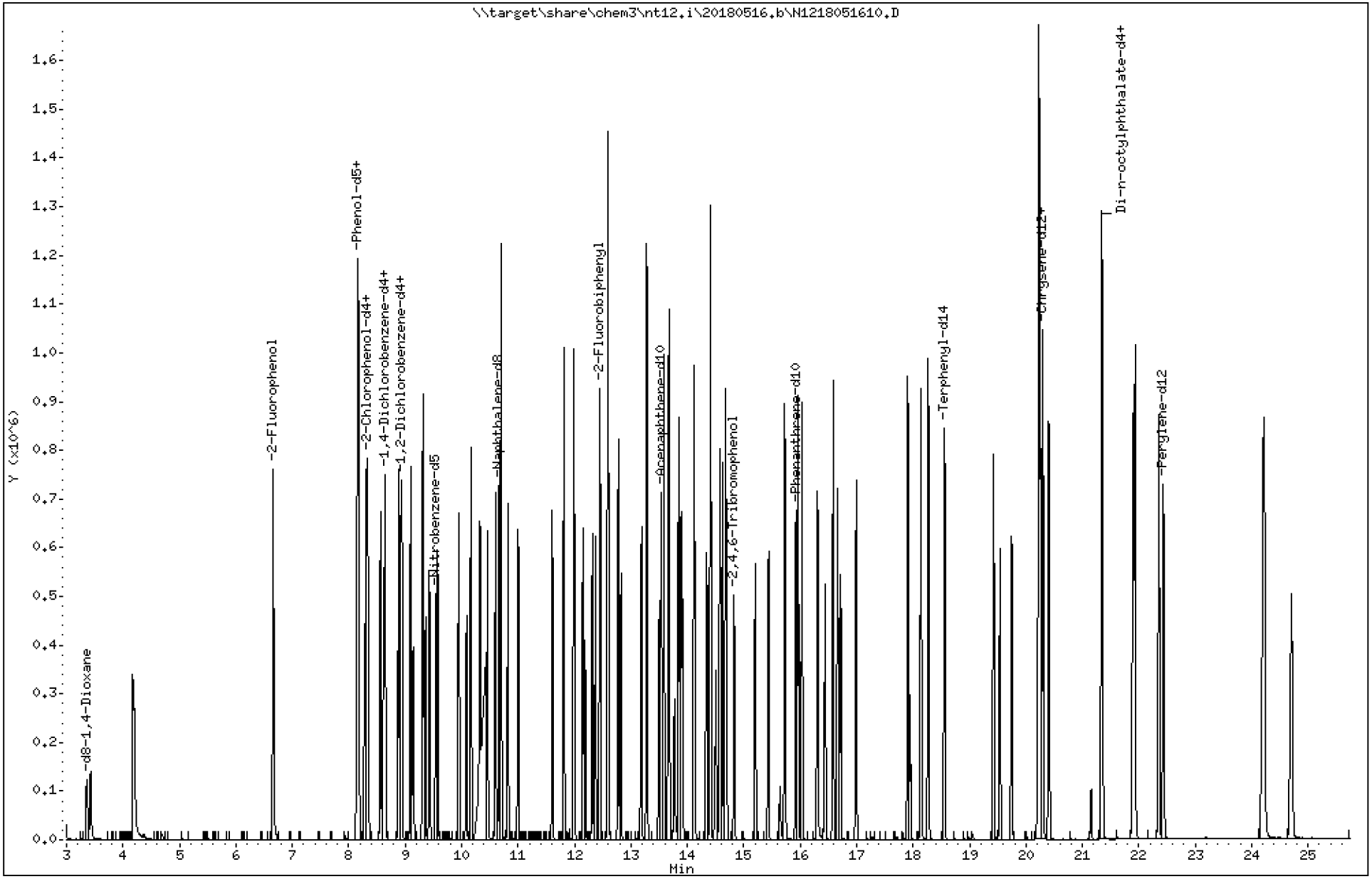
Instrument: nt12.i

Sample Info: SGE0274-SCV1

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 1147 of 6523

ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180516.b\N1218051610.D
Lab Smp Id: SGE0274-SCV1
Inj Date : 16-MAY-2018 18:47
Operator : JZ Inst ID: nt12.i
Smp Info : SGE0274-SCV1
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Meth Date : 17-May-2018 15:39 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.663	6.679	(0.773)	370668	39.5762	39.58(R)
$	2 Phenol-d5	99	8.148	8.180	(0.945)	459507	39.0497	39.05(R)
	3 Phenol	94	8.169	8.202	(0.947)	329277	27.9402	27.94
$	5 2-Chlorophenol-d4	132	8.319	8.330	(0.965)	350580	38.7755	38.78(R)
	4 Bis(2-Chloroethyl)ether	93	8.281	8.303	(0.960)	237962	23.3949	23.39
	6 2-Chlorophenol	128	8.340	8.356	(0.967)	238420	23.7558	23.76
	7 1,3-Dichlorobenzene	146	8.564	8.570	(0.993)	259819	24.5244	24.52
*	8 1,4-Dichlorobenzene-d4	152	8.623	8.629	(1.000)	130483	20.0000	
	9 1,4-Dichlorobenzene	146	8.645	8.656	(1.002)	262843	25.0235	25.02
$	10 1,2-Dichlorobenzene-d4	152	8.922	8.928	(1.035)	156206	25.7048	25.70(R)
	12 1,2-Dichlorobenzene	146	8.944	8.955	(1.037)	242898	24.6306	24.63
	11 Benzyl alcohol	108	8.885	8.907	(1.030)	191117	26.0175	26.02
	14 2,2'-oxybis(1-Chloropropane)	45	9.141	9.152	(1.060)	239061	23.0450	23.04
	13 2-Methylphenol	108	9.099	9.120	(1.055)	240830	24.9597	24.96
	17 Hexachloroethane	117	9.430	9.435	(1.094)	103230	24.9315	24.93
	16 N-Nitroso-di-n-propylamine	70	9.360	9.393	(1.085)	167776	22.9292	22.93
	15 4-Methylphenol	108	9.323	9.350	(1.081)	243621	25.0394	25.04
$	18 Nitrobenzene-d5	82	9.547	9.564	(0.895)	262419	26.2478	26.25(R)
	19 Nitrobenzene	77	9.574	9.596	(0.898)	273712	25.1388	25.14
	20 Isophorone	82	9.948	9.980	(0.933)	482357	29.3509	29.35
	21 2-Nitrophenol	139	10.087	10.098	(0.946)	128901	25.4056	25.41
	22 2,4-Dimethylphenol	107	10.167	10.189	(0.953)	243514	23.9981	24.00
	23 Bis(2-Chloroethoxy)methane	93	10.322	10.344	(0.968)	258825	23.3904	23.39
	24 Benzoic acid	105	10.434	10.579	(0.978)	574514	82.5387	82.54
	25 2,4-Dichlorophenol	162	10.461	10.478	(0.981)	194075	24.6554	24.66
	26 1,2,4-Trichlorobenzene	180	10.600	10.611	(0.994)	201960	24.7542	24.75
*	27 Naphthalene-d8	136	10.664	10.670	(1.000)	488782	20.0000	
	28 Naphthalene	128	10.696	10.707	(1.003)	592288	23.3158	23.32
	29 4-Chloroaniline	127	10.824	10.840	(1.015)	290968	25.0001	25.00
	30 Hexachlorobutadiene	225	11.000	11.006	(1.032)	109138	24.5915	24.59
	31 4-Chloro-3-methylphenol	107	11.610	11.620	(1.089)	202705	24.4969	24.50
	32 2-Methylnaphthalene	141	11.813	11.823	(1.108)	370837	24.9365	24.94
	33 Hexachlorocyclopentadiene	237	12.192	12.197	(0.901)	97997	27.0423	27.04

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	12.315	12.331	(0.910)	138268	24.7234	24.72
	35	2,4,5-Trichlorophenol	196	12.373	12.384	(0.914)	146718	25.4862	25.49
$	36	2-Fluorobiphenyl	172	12.448	12.465	(0.920)	454510	26.0158	26.02(R)
	37	2-Chloronaphthalene	162	12.598	12.614	(0.931)	373496	23.3139	23.31
	38	2-Nitroaniline	65	12.822	12.844	(0.947)	132947	26.1960	26.20
	39	Dimethylphthalate	163	13.185	13.207	(0.974)	411207	23.6973	23.70
	40	Acenaphthylene	152	13.282	13.293	(0.981)	518866	22.6489	22.65
	41	2,6-Dinitrotoluene	165	13.287	13.309	(0.982)	98827	25.8992	25.90
*	42	Acenaphthene-d10	164	13.533	13.544	(1.000)	245643	20.0000	
	43	3-Nitroaniline	138	13.501	13.528	(0.998)	122315	26.2767	26.28
	44	Acenaphthene	153	13.586	13.602	(1.004)	352982	23.2141	23.21
	45	2,4-Dinitrophenol	184	13.672	13.710	(1.010)	171289	72.1777	72.18
	46	Dibenzofuran	168	13.848	13.864	(1.023)	583830	25.2504	25.25
	47	4-Nitrophenol	109	13.773	13.801	(1.018)	57367	23.3667	23.37
	48	2,4-Dinitrotoluene	165	13.917	13.944	(1.028)	138117	25.5357	25.54
	50	Diethylphthalate	149	14.345	14.361	(1.060)	388069	23.4871	23.49
	49	Fluorene	166	14.409	14.420	(1.065)	403684	24.1105	24.11
	51	4-Chlorophenyl-phenylether	204	14.420	14.431	(1.066)	182963	23.3913	23.39
	52	4-Nitroaniline	138	14.510	14.564	(1.072)	119757	26.2853	26.29
	53	4,6-Dinitro-2-methylphenol	198	14.580	14.628	(0.915)	227567	76.5804	76.58
	54	N-Nitrosodiphenylamine	169	14.623	14.650	(0.918)	297883	23.7404	23.74
$	55	2,4,6-Tribromophenol	330	14.831	14.853	(1.096)	83950	40.8225	40.82(R)
	56	4-Bromophenyl-phenylether	248	15.205	15.216	(0.955)	110704	23.2155	23.22
	57	Hexachlorobenzene	284	15.440	15.451	(0.969)	119937	24.3092	24.31
	58	Pentachlorophenol	266	15.728	15.745	(0.988)	161207	49.4251	49.43
*	59	Phenanthrene-d10	188	15.926	15.937	(1.000)	414123	20.0000	
	60	Phenanthrene	178	15.963	15.980	(1.002)	539621	26.2845	26.28
	61	Anthracene	178	16.033	16.055	(1.007)	556390	23.7611	23.76
	62	Carbazole	167	16.305	16.327	(1.024)	500118	22.1405	22.14
	63	Di-n-butylphthalate	149	16.994	17.005	(1.067)	630014	24.3813	24.38
	64	Fluoranthene	202	17.908	17.924	(1.124)	618368	24.0767	24.08
	65	Pyrene	202	18.271	18.288	(0.902)	648035	24.1527	24.15
$	66	Terphenyl-d14	244	18.560	18.571	(0.916)	437760	26.2622	26.26(R)
	67	Butylbenzylphthalate	149	19.425	19.441	(0.959)	291581	24.2902	24.29
	68	Benzo(a)anthracene	228	20.237	20.249	(0.999)	561051	28.5702	28.57
*	69	Chrysene-d12	240	20.264	20.280	(1.000)	432711	20.0000	
	70	3,3'-Dichlorobenzidine	252	20.227	20.259	(0.998)	383666	52.3320	52.33
	71	Chrysene	228	20.301	20.329	(1.002)	570813	26.0485	26.05
	72	bis(2-Ethylhexyl)phthalate	149	20.408	20.414	(0.956)	413508	24.6667	24.67
*	134	Di-n-octylphthalate-d4	153	21.338	21.349	(1.000)	564243	20.0000	
	73	Di-n-octylphthalate	149	21.354	21.365	(1.001)	700608	23.2480	23.25
	74	Benzo(b)fluoranthene	252	21.899	21.931	(0.976)	657656	23.6632	23.66(H)
	75	Benzo(k)fluoranthene	252	21.931	21.964	(0.977)	661167	24.1371	24.14
	187	Total Benzofluoranthenes	252	21.931	21.963	(0.977)	1251759	48.0245	48.02
	76	Benzo(a)pyrene	252	22.358	22.385	(0.996)	607119	25.7023	25.70
*	77	Perylene-d12	264	22.438	22.449	(1.000)	451445	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	24.207	24.244	(1.079)	675472	24.4586	24.46
	79	Dibenzo(a,h)anthracene	278	24.223	24.276	(1.080)	557090	24.6570	24.66
	80	Benzo(g,h,i)perylene	276	24.709	24.768	(1.101)	555436	24.1038	24.10
	90	N-Nitrosodimethylamine	74	4.205	4.248	(0.488)	162704	25.3966	25.40
	103	Pyridine	79	4.173	4.184	(0.484)	307302	27.5729	27.57
	91	Aniline	93	8.174	8.196	(0.948)	394251	25.7533	25.75
	105	1-methylnaphthalene	141	11.989	12.000	(1.124)	357360	26.8917	26.89
	93	Benzidine	184	18.143	18.165	(0.895)	299756	30.7419	30.74

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
111	Azobenzene (1,2-DP-Hydrazine)	77	14.671	14.692	(0.921)	478035	24.7594	24.76
143	1,4-Dioxane	88	3.425	3.452	(0.397)	114540	26.9004	26.90
$ 137	d8-1,4-Dioxane	64	3.361	3.383	(0.390)	62675	24.1039	24.10(R)
144	alpha-Terpineol	59	10.701	10.718	(1.004)	83147	29.3251	29.33
133	Butylatedhydroxytoluene	205	13.682	13.699	(1.011)	232670	24.0793	24.08
115	Tributyl Phosphate	99	14.692	14.719	(0.923)	452484	25.6493	25.65
116	Dibutyl Phenyl Phosphate	175	16.444	16.466	(1.033)	275983	27.1840	27.18
117	Butyl Diphenyl Phosphate	94	18.132	18.143	(0.895)	109435	27.3556	27.36
118	Triphenyl Phosphate	326	19.751	19.762	(0.975)	106542	26.9525	26.95
123	Acetophenone	105	9.307	9.329	(1.079)	280475	19.3359	19.34
168	Pentachlorobenzene	250	13.891	13.907	(1.026)	157365	26.8206	26.82
113	Diphenyl Oxide	170	12.779	12.785	(0.944)	290235	26.0057	26.01
112	Biphenyl	154	13.586	13.602	(1.004)	340337	23.0379	23.04
120	2,3,4,6-Tetrachlorophenol	232	14.120	14.131	(1.043)	189251	46.8870	46.89
151	1,2,4,5-Tetrachlorobenzene	216	12.154	12.160	(0.898)	179659	22.6609	22.66
186	Carbaryl	144	16.717	16.744	(1.050)	301743	25.6700	25.67
178	2-Benzyl-4-Chlorophenol	218	16.663	16.690	(1.046)	118132	24.7497	24.75

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218051610.D
Lab Smp Id: SGE0274-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Misc Info: 18-

Calibration Date: 16-MAY-2018
Calibration Time: 12:39
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	130483	2.76
27 Naphthalene-d8	478458	239229	956916	488782	2.16
42 Acenaphthene-d10	247659	123830	495318	245643	-0.81
59 Phenanthrene-d10	421930	210965	843860	414123	-1.85
69 Chrysene-d12	450836	225418	901672	432711	-4.02
134 Di-n-octylphthala	583434	291717	1166868	564243	-3.29
77 Perylene-d12	453093	226547	906186	451445	-0.36

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.58	8.08	9.08	8.62	0.56
27 Naphthalene-d8	10.62	10.12	11.12	10.66	0.40
42 Acenaphthene-d10	13.49	12.99	13.99	13.53	0.32
59 Phenanthrene-d10	15.88	15.38	16.38	15.93	0.30
69 Chrysene-d12	20.22	19.72	20.72	20.26	0.24
134 Di-n-octylphthala	21.30	20.80	21.80	21.34	0.18
77 Perylene-d12	22.39	21.89	22.89	22.44	0.21

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218051610.D

Lab ID: SGE0274-SCV1
nt12.i, 20180516.b\SW846180516.m,   16-MAY-2018 18:47

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

On Column LOD for nt12.i, 20180516.b\SW846180516.m, ICALS.sub = 0.0100

* Only compounds listed in the work order have been verified by the analyst *

INITIAL CALIBRATION CHECK

EPA 8270D

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	NT12	Calibration:	BE00052
Lab File ID:	N1218062101.D	Calibration Date:	05/16/18 12:00
Sequence:	SGF0272	Injection Date:	06/21/18
Lab Sample ID:	SGF0272-ICV1	Injection Time:	11:24
Sequence Name:	Initial Cal Verification		

		CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Phenol	A	25.000	28.3	2.1280550	2.0453940		13.2	20
1,4-Dichlorobenzene	A	25.000	24.1	1.6099940	1.5547100		-3.4	20
1,2-Dichlorobenzene	A	25.000	24.0	1.5115570	1.4483630		-4.2	20
Benzyl alcohol	A	25.000	23.6	1.1259250	1.0631270		-5.6	20
4-Methylphenol	A	25.000	23.9	1.4913040	1.4262060		-4.4	20
2,4-Dimethylphenol	A	25.000	23.4	0.4152037	0.3881089		-6.5	20
1,2,4-Trichlorobenzene	A	25.000	23.8	0.3338350	0.3171384		-5.0	20
Benzoic acid	A	75.000	61.6	0.2848118	0.2337664		-17.9	20
Dimethylphthalate	A	25.000	23.8	1.4128190	1.3474730		-4.6	20
Dibenzofuran	A	25.000	24.1	1.8825360	1.8167750		-3.5	20
N-Nitrosodiphenylamine	A	25.000	24.0	0.6059806	0.5821955		-3.9	20
Hexachlorobenzene	A	25.000	23.3	0.2382773	0.2222861		-6.7	20
Pentachlorophenol	A	50.000	49.0	0.1575206	0.1542993		-2.0	20
Butylbenzylphthalate	A	25.000	26.3	0.5548307	0.5845796		5.4	20
bis(2-Ethylhexyl)phthalate	A	25.000	24.3	0.5942049	0.5764500		-3.0	20
2-Fluorophenol	A	37.500	36.9	1.4355790	1.4116930		-1.7	20
Phenol-d5	A	37.500	37.3	1.8036430	1.7921920		-0.6	20
2-Chlorophenol-d4	A	37.500	37.4	1.3858180	1.3833410		-0.2	20
1,2-Dichlorobenzene-d4	A	25.000	24.8	0.9314501	0.9226968		-0.9	20
Nitrobenzene-d5	A	25.000	25.8	0.4090887	0.4219498		3.2	20
2-Fluorobiphenyl	A	25.000	24.6	1.4224350	1.4019820		-1.4	20
2,4,6-Tribromophenol	A	37.500	38.4	0.1674352	0.1714114		2.4	20
p-Terphenyl-d14	A	25.000	25.6	0.7704360	0.7896586		2.5	20

* Values outside of QC limits

Data File: \\target\share\chem3\nt12.i\20180621.b\N1218062101.D

Date : 21-JUN-2018 11:24

Client ID:

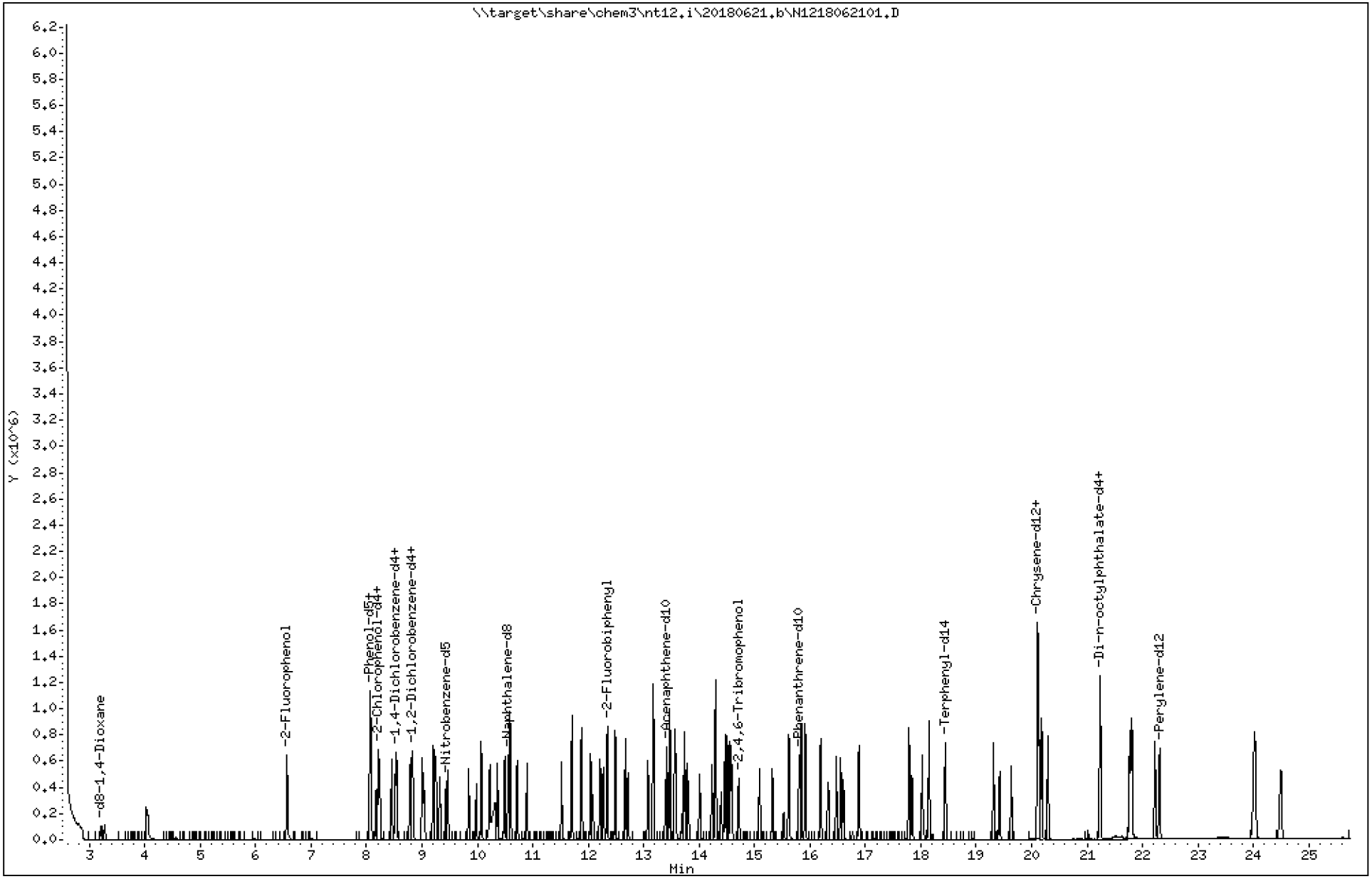
Instrument: nt12.i

Sample Info: ICV180621

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180621.b\N1218062101.D
Lab Smp Id: SGF0272-ICV1
Inj Date : 21-JUN-2018 11:24
Operator : JZ Inst ID: nt12.i
Smp Info : ICV180621
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Meth Date : 21-Jun-2018 13:49 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALA.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.561	6.561	(0.771)	305921	37.5000	36.88
$	2 Phenol-d5	99	8.057	8.057	(0.947)	388377	37.5000	37.26
	3 Phenol	94	8.078	8.078	(0.949)	295498	25.0000	28.31
$	5 2-Chlorophenol-d4	132	8.212	8.212	(0.965)	299777	37.5000	37.43
	4 Bis(2-Chloroethyl)ether	93	8.175	8.175	(0.960)	210150	25.0000	23.33
	6 2-Chlorophenol	128	8.239	8.239	(0.968)	211459	25.0000	23.79
	7 1,3-Dichlorobenzene	146	8.452	8.452	(0.993)	222871	25.0000	23.75
*	8 1,4-Dichlorobenzene-d4	152	8.511	8.511	(1.000)	115576	20.0000	
	9 1,4-Dichlorobenzene	146	8.538	8.538	(1.003)	224609	25.0000	24.14
$	10 1,2-Dichlorobenzene-d4	152	8.810	8.810	(1.035)	133302	25.0000	24.77
	12 1,2-Dichlorobenzene	146	8.832	8.832	(1.038)	209245	25.0000	23.95
	11 Benzyl alcohol	108	8.784	8.784	(1.032)	153590	25.0000	23.61
	14 2,2'-oxybis(1-Chloropropane)	45	9.035	9.035	(1.062)	226632	25.0000	24.66
	13 2-Methylphenol	108	9.003	9.003	(1.058)	195730	25.0000	22.90
	17 Hexachloroethane	117	9.323	9.323	(1.095)	89618	25.0000	24.44
	16 N-Nitroso-di-n-propylamine	70	9.254	9.254	(1.087)	158210	25.0000	24.41
	15 4-Methylphenol	108	9.232	9.232	(1.085)	206044	25.0000	23.91
$	18 Nitrobenzene-d5	82	9.435	9.435	(0.894)	232353	25.0000	25.79
	19 Nitrobenzene	77	9.467	9.467	(0.897)	238737	25.0000	24.33
	20 Isophorone	82	9.841	9.841	(0.933)	356161	25.0000	24.05
	21 2-Nitrophenol	139	9.980	9.980	(0.946)	113646	25.0000	24.85
	22 2,4-Dimethylphenol	107	10.071	10.071	(0.954)	213718	25.0000	23.37
	23 Bis(2-Chloroethoxy)methane	93	10.221	10.221	(0.969)	234691	25.0000	23.53
	24 Benzoic acid	105	10.317	10.317	(0.978)	386181	75.0000	61.56
	25 2,4-Dichlorophenol	162	10.360	10.360	(0.982)	173419	25.0000	24.44
	26 1,2,4-Trichlorobenzene	180	10.493	10.493	(0.994)	174637	25.0000	23.75
*	27 Naphthalene-d8	136	10.552	10.552	(1.000)	440532	20.0000	
	28 Naphthalene	128	10.584	10.584	(1.003)	548756	25.0000	24.09
	29 4-Chloroaniline	127	10.717	10.717	(1.016)	245025	25.0000	23.36
	30 Hexachlorobutadiene	225	10.894	10.894	(1.032)	98042	25.0000	24.51
	31 4-Chloro-3-methylphenol	107	11.513	11.513	(1.091)	185872	25.0000	24.92
	32 2-Methylnaphthalene	141	11.706	11.706	(1.109)	334432	25.0000	24.95
	33 Hexachlorocyclopentadiene	237	12.080	12.080	(0.900)	80625	25.0000	23.90

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
	34	2,4,6-Trichlorophenol	196	12.213	12.213	(0.910)	127368	25.0000	24.47
	35	2,4,5-Trichlorophenol	196	12.272	12.272	(0.914)	128906	25.0000	24.06
$	36	2-Fluorobiphenyl	172	12.342	12.342	(0.920)	400697	25.0000	24.64
	37	2-Chloronaphthalene	162	12.486	12.486	(0.930)	358448	25.0000	24.04
	38	2-Nitroaniline	65	12.715	12.715	(0.947)	125318	25.0000	26.53
	39	Dimethylphthalate	163	13.079	13.079	(0.975)	385118	25.0000	23.84
	40	Acenaphthylene	152	13.170	13.170	(0.981)	523410	25.0000	24.55
	41	2,6-Dinitrotoluene	165	13.175	13.175	(0.982)	91290	25.0000	25.70
*	42	Acenaphthene-d10	164	13.421	13.421	(1.000)	228646	20.0000	
	43	3-Nitroaniline	138	13.394	13.394	(0.998)	107093	25.0000	24.72
	44	Acenaphthene	153	13.474	13.474	(1.004)	340954	25.0000	24.09
	45	2,4-Dinitrophenol	184	13.560	13.560	(1.010)	141793	75.0000	64.19
	46	Dibenzofuran	168	13.736	13.736	(1.023)	519248	25.0000	24.13
	47	4-Nitrophenol	109	13.693	13.693	(1.020)	51544	25.0000	22.56
	48	2,4-Dinitrotoluene	165	13.805	13.805	(1.029)	125108	25.0000	24.85
	50	Diethylphthalate	149	14.233	14.233	(1.061)	373088	25.0000	24.26
	49	Fluorene	166	14.291	14.291	(1.065)	397443	25.0000	25.70
	51	4-Chlorophenyl-phenylether	204	14.307	14.307	(1.066)	182672	25.0000	25.33
	52	4-Nitroaniline	138	14.398	14.398	(1.073)	102053	25.0000	24.06
	53	4,6-Dinitro-2-methylphenol	198	14.468	14.468	(0.915)	206102	75.0000	73.30
	54	N-Nitrosodiphenylamine	169	14.510	14.510	(0.918)	285147	25.0000	24.02
$	55	2,4,6-Tribromophenol	330	14.719	14.719	(1.097)	73486	37.5000	38.39
	56	4-Bromophenyl-phenylether	248	15.093	15.093	(0.955)	105796	25.0000	23.45
	57	Hexachlorobenzene	284	15.323	15.323	(0.969)	108871	25.0000	23.32
	58	Pentachlorophenol	266	15.616	15.616	(0.988)	151145	50.0000	48.98
*	59	Phenanthrene-d10	188	15.809	15.809	(1.000)	391823	20.0000	
	60	Phenanthrene	178	15.846	15.846	(1.002)	536345	25.0000	27.61
	61	Anthracene	178	15.915	15.915	(1.007)	531760	25.0000	24.00
	62	Carbazole	167	16.193	16.193	(1.024)	499730	25.0000	23.38
	63	Di-n-butylphthalate	149	16.882	16.882	(1.068)	598955	25.0000	24.50
	64	Fluoranthene	202	17.791	17.791	(1.125)	570350	25.0000	23.47
	65	Pyrene	202	18.149	18.149	(0.901)	594141	25.0000	25.40
$	66	Terphenyl-d14	244	18.442	18.442	(0.916)	372402	25.0000	25.62
	67	Butylbenzylphthalate	149	19.308	19.308	(0.959)	275687	25.0000	26.34
	68	Benzo(a)anthracene	228	20.109	20.109	(0.999)	499882	25.0000	29.20
*	69	Chrysene-d12	240	20.136	20.136	(1.000)	377279	20.0000	
	70	3,3'-Dichlorobenzidine	252	20.109	20.109	(0.999)	353417	50.0000	55.29
	71	Chrysene	228	20.179	20.179	(1.002)	506986	25.0000	26.54
	72	bis(2-Ethylhexyl)phthalate	149	20.296	20.296	(0.956)	377685	25.0000	24.25
*	134	Di-n-octylphthalate-d4	153	21.226	21.226	(1.000)	524153	20.0000	
	73	Di-n-octylphthalate	149	21.242	21.242	(1.001)	647375	25.0000	23.12
	74	Benzo(b)fluoranthene	252	21.771	21.771	(0.976)	536032	25.0000	22.31
	75	Benzo(k)fluoranthene	252	21.808	21.808	(0.978)	578247	25.0000	24.47
	187	Total Benzofluoranthenes	252	21.808	21.808	(0.978)	1059191	50.0000	47.00
	76	Benzo(a)pyrene	252	22.225	22.225	(0.996)	478560	25.0000	23.43
*	77	Perylene-d12	264	22.305	22.305	(1.000)	390293	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	24.009	24.009	(1.076)	627993	25.0000	26.30
	79	Dibenzo(a,h)anthracene	278	24.030	24.030	(1.077)	513333	25.0000	26.28
	80	Benzo(g,h,i)perylene	276	24.500	24.500	(1.098)	546885	25.0000	27.45
	90	N-Nitrosodimethylamine	74	4.061	4.061	(0.477)	129987	25.0000	22.91
	103	Pyridine	79	4.029	4.029	(0.473)	201180	25.0000	20.38
	91	Aniline	93	8.068	8.068	(0.948)	293482	25.0000	21.64
	105	1-methylnaphthalene	141	11.877	11.877	(1.126)	296402	25.0000	24.75
	111	Azobenzene (1,2-DP-Hydrazine)	77	14.559	14.559	(0.921)	454378	25.0000	24.87

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
143 1,4-Dioxane	88	3.276	3.276	(0.385)	81309	25.0000	21.56
$ 137 d8-1,4-Dioxane	64	3.212	3.212	(0.377)	48771	25.0000	21.18
144 alpha-Terpineol	59	10.600	10.600	(1.005)	67476	25.0000	25.82
115 Tributyl Phosphate	99	14.591	14.591	(0.923)	436143	25.0000	26.13

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062101.D
Lab Smp Id: SGF0272-ICV1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Misc Info: 18-

Calibration Date: 20-JUN-2018
Calibration Time: 17:24
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	115576	-8.98
27 Naphthalene-d8	478458	239229	956916	440532	-7.93
42 Acenaphthene-d10	247659	123830	495318	228646	-7.68
59 Phenanthrene-d10	421930	210965	843860	391823	-7.14
69 Chrysene-d12	450836	225418	901672	377279	-16.32
134 Di-n-octylphthala	583434	291717	1166868	524153	-10.16
77 Perylene-d12	453093	226547	906186	390293	-13.86

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.51	8.01	9.01	8.51	0.00
27 Naphthalene-d8	10.55	10.05	11.05	10.55	0.00
42 Acenaphthene-d10	13.42	12.92	13.92	13.42	0.00
59 Phenanthrene-d10	15.81	15.31	16.31	15.81	0.00
69 Chrysene-d12	20.14	19.64	20.64	20.14	0.00
134 Di-n-octylphthala	21.23	20.73	21.73	21.23	0.00
77 Perylene-d12	22.31	21.81	22.81	22.31	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062101.D

Lab ID: SGF0272-ICV1
nt12.i, SW846180516.m, 21-JUN-2018 11:24

RT	CO-ELUTION COMPOUNDS
20.110	3,3′-Dichlorobenzidine and Benzo(a)anthracene

Quant Method: ICAL

On Column LOD for nt12.i, SW846180516.m, ICALA.sub = 0.0100

* Only compounds listed in the work order have been verified by the analyst *

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt12.i\20180621.b

Instrument: nt12.i Date: 21-JUN-2018 Method: SW846180516.m

INITIAL CAL: 16-MAY-2018

Compound	%RSD or R^2
NO Q-FLAGS	

ICV CAL: N1218062101.D 21-JUN-2018 11:24

Compound	%D
NO Q-FLAGS	

INITIAL CALIBRATION CHECK

EPA 8270D

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	NT12	Calibration:	BE00052
Lab File ID:	N1218062601.D	Calibration Date:	05/16/18 12:00
Sequence:	SGF0333	Injection Date:	06/26/18
Lab Sample ID:	SGF0333-ICV1	Injection Time:	10:31
Sequence Name:	Initial Cal Verification		

		CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Phenol	A	25.000	27.1	2.1280550	1.9589660		8.4	20
1,4-Dichlorobenzene	A	25.000	23.4	1.6099940	1.5057940		-6.5	20
1,2-Dichlorobenzene	A	25.000	24.2	1.5115570	1.4607360		-3.4	20
Benzyl alcohol	A	25.000	21.3	1.1259250	0.9595082		-14.8	20
4-Methylphenol	A	25.000	22.9	1.4913040	1.3676220		-8.3	20
2,4-Dimethylphenol	A	25.000	22.3	0.4152037	0.3707248		-10.7	20
1,2,4-Trichlorobenzene	A	25.000	23.4	0.3338350	0.3124289		-6.4	20
Benzoic acid	A	75.000	75.3	0.2848118	0.2860923		0.5	20
Dimethylphthalate	A	25.000	23.7	1.4128190	1.3383		-5.3	20
Dibenzofuran	A	25.000	21.4	1.8825360	1.6113		-14.4	20
N-Nitrosodiphenylamine	A	25.000	23.3	0.6059806	0.5638449		-7.0	20
Hexachlorobenzene	A	25.000	23.1	0.2382773	0.2201869		-7.6	20
Pentachlorophenol	A	50.000	48.5	0.1575206	0.1528630		-3.0	20
Butylbenzylphthalate	A	25.000	25.0	0.5548307	0.5551617		0.04	20
bis(2-Ethylhexyl)phthalate	A	25.000	24.0	0.5942049	0.5702021		-4.0	20
2-Fluorophenol	A	37.500	39.2	1.4355790	1.4985660		4.4	20
Phenol-d5	A	37.500	38.6	1.8036430	1.8552090		2.9	20
2-Chlorophenol-d4	A	37.500	39.5	1.3858180	1.4595330		5.3	20
1,2-Dichlorobenzene-d4	A	25.000	26.4	0.9314501	0.9831123		5.6	20
Nitrobenzene-d5	A	25.000	27.1	0.4090887	0.4441698		8.6	20
2-Fluorobiphenyl	A	25.000	26.1	1.4224350	1.4819040		4.2	20
2,4,6-Tribromophenol	A	37.500	40.8	0.1674352	0.1822669		8.9	20
p-Terphenyl-d14	A	25.000	28.0	0.7704360	0.8640304		12.2	20

* Values outside of QC limits

Data File: \\target\share\chem3\nt12.i\20180626.b\N1218062601.D

Date : 26-JUN-2018 10:31

Client ID:

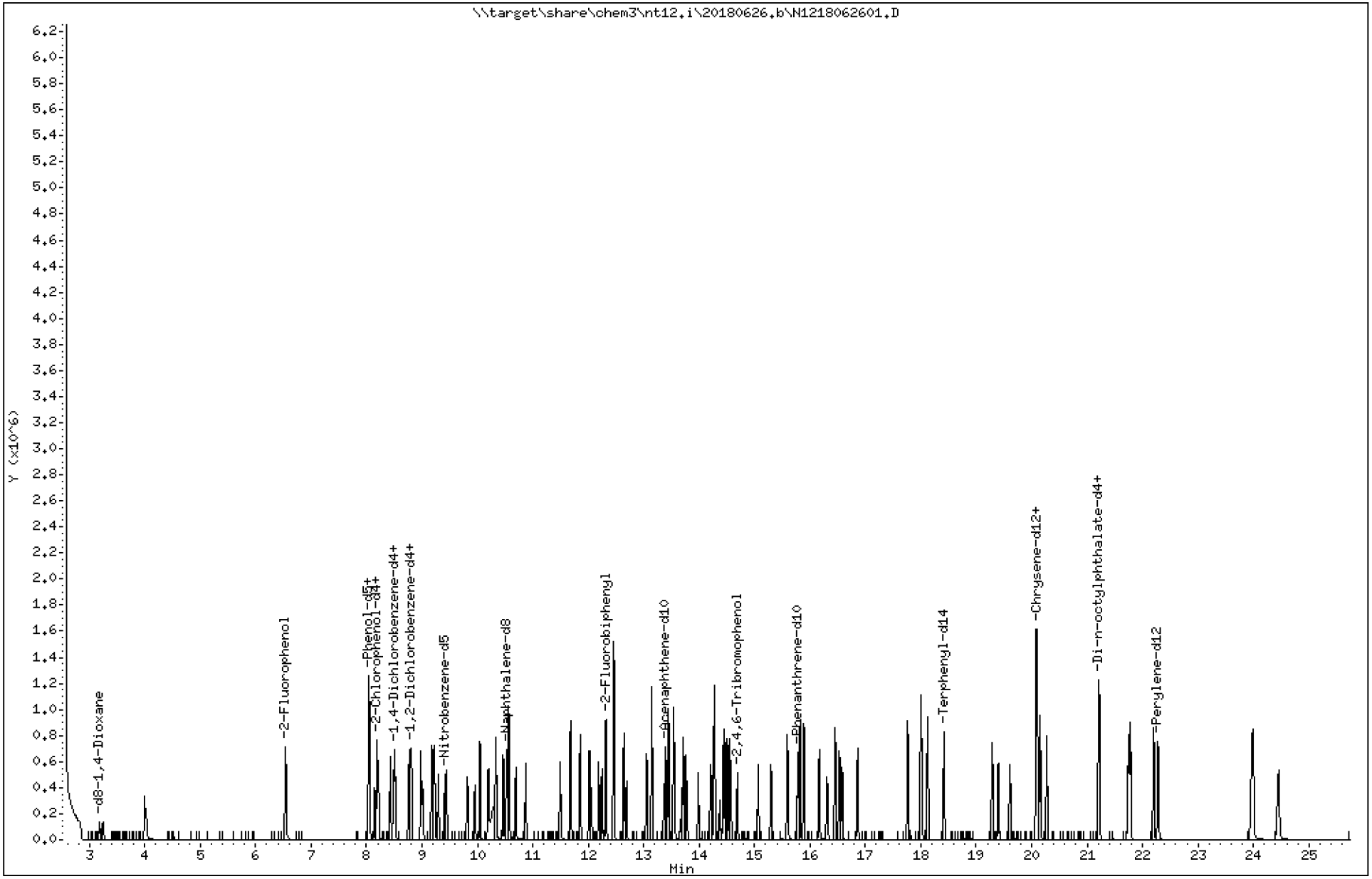
Instrument: nt12.i

Sample Info: ICV180626

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180626.b\N1218062601.D
Lab Smp Id: SGF0333-ICV1
Inj Date : 26-JUN-2018 10:31
Operator : JZ Inst ID: nt12.i
Smp Info : ICV180626
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180626.b\SW846180516.m
Meth Date : 26-Jun-2018 13:44 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 4.14
Processing Host: ORGDATA22

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1	2-Fluorophenol	112	6.535	6.535	(0.770)	341881	37.5000	39.15
$	2	Phenol-d5	99	8.036	8.036	(0.947)	423245	37.5000	38.57
	3	Phenol	94	8.052	8.052	(0.948)	297944	25.0000	27.11
$	5	2-Chlorophenol-d4	132	8.191	8.191	(0.965)	332976	37.5000	39.49
	4	Bis(2-Chloroethyl)ether	93	8.148	8.148	(0.960)	216443	25.0000	22.82
	6	2-Chlorophenol	128	8.212	8.212	(0.967)	213320	25.0000	22.79
	7	1,3-Dichlorobenzene	146	8.426	8.426	(0.992)	237196	25.0000	24.01
*	8	1,4-Dichlorobenzene-d4	152	8.490	8.490	(1.000)	121674	20.0000	
	9	1,4-Dichlorobenzene	146	8.511	8.511	(1.002)	229020	25.0000	23.38
$	10	1,2-Dichlorobenzene-d4	152	8.789	8.789	(1.035)	149524	25.0000	26.39
	12	1,2-Dichlorobenzene	146	8.810	8.810	(1.038)	222167	25.0000	24.16
	11	Benzyl alcohol	108	8.757	8.757	(1.031)	145934	25.0000	21.30
	14	2,2'-oxybis(1-Chloropropane)	45	9.013	9.013	(1.062)	233033	25.0000	24.09
	13	2-Methylphenol	108	8.981	8.981	(1.058)	201671	25.0000	22.41
	17	Hexachloroethane	117	9.297	9.297	(1.095)	92604	25.0000	23.98
	16	N-Nitroso-di-n-propylamine	70	9.232	9.232	(1.087)	166362	25.0000	24.38
	15	4-Methylphenol	108	9.211	9.211	(1.085)	208005	25.0000	22.93
$	18	Nitrobenzene-d5	82	9.414	9.414	(0.894)	256608	25.0000	27.14
	19	Nitrobenzene	77	9.441	9.441	(0.897)	243679	25.0000	23.67
	20	Isophorone	82	9.820	9.820	(0.933)	346824	25.0000	22.32
	21	2-Nitrophenol	139	9.954	9.954	(0.945)	112942	25.0000	23.54
	22	2,4-Dimethylphenol	107	10.050	10.050	(0.954)	214177	25.0000	22.32
	23	Bis(2-Chloroethoxy)methane	93	10.199	10.199	(0.969)	233606	25.0000	22.33
	24	Benzoic acid	105	10.322	10.322	(0.980)	495848	75.0000	75.34
	25	2,4-Dichlorophenol	162	10.338	10.338	(0.982)	170708	25.0000	22.94
	26	1,2,4-Trichlorobenzene	180	10.466	10.466	(0.994)	180498	25.0000	23.40
*	27	Naphthalene-d8	136	10.531	10.531	(1.000)	462180	20.0000	
	28	Naphthalene	128	10.563	10.563	(1.003)	563850	25.0000	23.50
	29	4-Chloroaniline	127	10.691	10.691	(1.015)	228913	25.0000	20.80
	30	Hexachlorobutadiene	225	10.872	10.872	(1.032)	101063	25.0000	24.08
	31	4-Chloro-3-methylphenol	107	11.492	11.492	(1.091)	180793	25.0000	23.11
	32	2-Methylnaphthalene	141	11.679	11.679	(1.109)	313227	25.0000	22.27
	33	Hexachlorocyclopentadiene	237	12.058	12.058	(0.900)	94190	25.0000	26.63

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
	34	2,4,6-Trichlorophenol	196	12.187	12.187	(0.910)	122973	25.0000	22.53
	35	2,4,5-Trichlorophenol	196	12.245	12.245	(0.914)	133901	25.0000	23.83
$	36	2-Fluorobiphenyl	172	12.320	12.320	(0.919)	444186	25.0000	26.05
	37	2-Chloronaphthalene	162	12.464	12.464	(0.930)	344485	25.0000	22.03
	38	2-Nitroaniline	65	12.689	12.689	(0.947)	113275	25.0000	22.86
	39	Dimethylphthalate	163	13.052	13.052	(0.974)	401142	25.0000	23.68
	40	Acenaphthylene	152	13.143	13.143	(0.981)	545208	25.0000	24.38
	41	2,6-Dinitrotoluene	165	13.154	13.154	(0.982)	90802	25.0000	24.38
*	42	Acenaphthene-d10	164	13.399	13.399	(1.000)	239792	20.0000	
	43	3-Nitroaniline	138	13.367	13.367	(0.998)	100861	25.0000	22.20
	44	Acenaphthene	153	13.447	13.447	(1.004)	351503	25.0000	23.68
	45	2,4-Dinitrophenol	184	13.538	13.538	(1.010)	168252	75.0000	72.63
	46	Dibenzofuran	168	13.709	13.709	(1.023)	482971	25.0000	21.40
	47	4-Nitrophenol	109	13.666	13.666	(1.020)	49764	25.0000	20.76
	48	2,4-Dinitrotoluene	165	13.784	13.784	(1.029)	130248	25.0000	24.67
	50	Diethylphthalate	149	14.211	14.211	(1.061)	375791	25.0000	23.30
	49	Fluorene	166	14.265	14.265	(1.065)	399000	25.0000	24.45
	51	4-Chlorophenyl-phenylether	204	14.281	14.281	(1.066)	182286	25.0000	23.94
	52	4-Nitroaniline	138	14.377	14.377	(1.073)	98286	25.0000	22.10
	53	4,6-Dinitro-2-methylphenol	198	14.446	14.446	(0.915)	225031	75.0000	76.76
	54	N-Nitrosodiphenylamine	169	14.489	14.489	(0.918)	287957	25.0000	23.26
$	55	2,4,6-Tribromophenol	330	14.692	14.692	(1.096)	81949	37.5000	40.82
	56	4-Bromophenyl-phenylether	248	15.066	15.066	(0.955)	106699	25.0000	22.68
	57	Hexachlorobenzene	284	15.296	15.296	(0.969)	112450	25.0000	23.10
	58	Pentachlorophenol	266	15.595	15.595	(0.988)	156135	50.0000	48.52
*	59	Phenanthrene-d10	188	15.782	15.782	(1.000)	408562	20.0000	
	60	Phenanthrene	178	15.819	15.819	(1.002)	538715	25.0000	26.60
	61	Anthracene	178	15.889	15.889	(1.007)	552692	25.0000	23.92
	62	Carbazole	167	16.167	16.167	(1.024)	493065	25.0000	22.13
	63	Di-n-butylphthalate	149	16.861	16.861	(1.068)	608064	25.0000	23.85
	64	Fluoranthene	202	17.764	17.764	(1.126)	590541	25.0000	23.31
	65	Pyrene	202	18.122	18.122	(0.901)	614214	25.0000	24.57
$	66	Terphenyl-d14	244	18.416	18.416	(0.916)	435413	25.0000	28.04
	67	Butylbenzylphthalate	149	19.287	19.287	(0.959)	279764	25.0000	25.01
	68	Benzo(a)anthracene	228	20.083	20.083	(0.998)	517079	25.0000	28.26
*	69	Chrysene-d12	240	20.115	20.115	(1.000)	403146	20.0000	
	70	3,3'-Dichlorobenzidine	252	20.088	20.088	(0.999)	372023	50.0000	54.47
	71	Chrysene	228	20.152	20.152	(1.002)	514630	25.0000	25.21
	72	bis(2-Ethylhexyl)phthalate	149	20.269	20.269	(0.956)	382674	25.0000	23.99
*	134	Di-n-octylphthalate-d4	153	21.204	21.204	(1.000)	536896	20.0000	
	73	Di-n-octylphthalate	149	21.215	21.215	(1.000)	664565	25.0000	23.18
	74	Benzo(b)fluoranthene	252	21.749	21.749	(0.976)	619978	25.0000	23.30
	75	Benzo(k)fluoranthene	252	21.781	21.781	(0.978)	581000	25.0000	21.80
	187	Total Benzofluoranthenes	252	21.781	21.781	(0.978)	1137961	50.0000	45.59
	76	Benzo(a)pyrene	252	22.203	22.203	(0.997)	571507	25.0000	25.27
*	77	Perylene-d12	264	22.278	22.278	(1.000)	432277	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	23.972	23.972	(1.076)	663335	25.0000	25.08
	79	Dibenzo(a,h)anthracene	278	23.993	23.993	(1.077)	548816	25.0000	25.37
	80	Benzo(g,h,i)perylene	276	24.452	24.452	(1.098)	573219	25.0000	25.98
	90	N-Nitrosodimethylamine	74	4.029	4.029	(0.475)	134045	25.0000	22.44
	103	Pyridine	79	3.992	3.992	(0.470)	263613	25.0000	25.37
	91	Aniline	93	8.041	8.041	(0.947)	330285	25.0000	23.14
	105	1-methylnaphthalene	141	11.855	11.855	(1.126)	291632	25.0000	23.21
	93	Benzidine	184	18.010	18.010	(0.895)	507463	50.0000	55.86

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
111	Azobenzene (1,2-DP-Hydrazine)	77	14.537	14.537	(0.921)	454409	25.0000	23.86
143	1,4-Dioxane	88	3.244	3.244	(0.382)	99308	25.0000	25.01
$ 137	d8-1,4-Dioxane	64	3.180	3.180	(0.375)	60806	25.0000	25.08
144	alpha-Terpineol	59	10.573	10.573	(1.004)	74695	25.0000	27.55
133	Butylatedhydroxytoluene	205	13.549	13.549	(1.011)	243340	25.0000	26.06
115	Tributyl Phosphate	99	14.569	14.569	(0.923)	459831	25.0000	26.42
116	Dibutyl Phenyl Phosphate	175	16.311	16.311	(1.034)	271316	25.0000	27.09
117	Butyl Diphenyl Phosphate	94	17.999	17.999	(0.895)	103822	25.0000	27.86
118	Triphenyl Phosphate	326	19.612	19.612	(0.975)	95330	25.0000	25.88
123	Acetophenone	105	9.174	9.174	(1.081)	335154	25.0000	24.78
168	Pentachlorobenzene	250	13.752	13.752	(1.026)	152583	25.0000	26.64
113	Diphenyl Oxide	170	12.646	12.646	(0.944)	279046	25.0000	25.61
112	Biphenyl	154	13.447	13.447	(1.004)	337552	25.0000	23.41
120	2,3,4,6-Tetrachlorophenol	232	13.987	13.987	(1.044)	98516	25.0000	25.00
151	1,2,4,5-Tetrachlorobenzene	216	12.021	12.021	(0.897)	187249	25.0000	24.19
186	Carbaryl	144	16.578	16.578	(1.050)	292874	25.0000	25.25
178	2-Benzyl-4-Chlorophenol	218	16.530	16.530	(1.047)	109847	25.0000	23.33

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062601.D
Lab Smp Id: SGF0333-ICV1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180626.b\SW846180516.m
Misc Info: 18-

Calibration Date: 25-JUN-2018
Calibration Time: 14:09
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	121674	-4.18
27 Naphthalene-d8	478458	239229	956916	462180	-3.40
42 Acenaphthene-d10	247659	123830	495318	239792	-3.18
59 Phenanthrene-d10	421930	210965	843860	408562	-3.17
69 Chrysene-d12	450836	225418	901672	403146	-10.58
134 Di-n-octylphthala	583434	291717	1166868	536896	-7.98
77 Perylene-d12	453093	226547	906186	432277	-4.59

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.49	7.99	8.99	8.49	0.00
27 Naphthalene-d8	10.53	10.03	11.03	10.53	0.00
42 Acenaphthene-d10	13.40	12.90	13.90	13.40	0.00
59 Phenanthrene-d10	15.78	15.28	16.28	15.78	0.00
69 Chrysene-d12	20.12	19.62	20.62	20.12	0.00
134 Di-n-octylphthala	21.20	20.70	21.70	21.20	0.00
77 Perylene-d12	22.28	21.78	22.78	22.28	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062601.D

Lab ID: SGF0333-ICV1
nt12.i, SW846180516.m, 26-JUN-2018 10:31

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

On Column LOD for nt12.i, SW846180516.m, ICALS.sub = 0.0100

* Only compounds listed in the work order have been verified by the analyst *

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt12.i\20180626.b

Instrument: nt12.i Date: 26-JUN-2018 Method: SW846180516.m

INITIAL CAL: 16-MAY-2018

Compound	%RSD or R^2
NO Q-FLAGS	

ICV CAL: N1218062601.D 26-JUN-2018 10:31

Compound	%D
NO Q-FLAGS	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

INITIAL CALIBRATION CHECK

EPA 8270D

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	NT12	Calibration:	BE00052
Lab File ID:	N1218062701.D	Calibration Date:	05/16/18 12:00
Sequence:	SGF0348	Injection Date:	06/27/18
Lab Sample ID:	SGF0348-ICV1	Injection Time:	11:13
Sequence Name:	Initial Cal Verification		

		CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Phenol	A	25.000	27.6	2.1280550	1.9954770		10.5	20
1,4-Dichlorobenzene	A	25.000	23.7	1.6099940	1.5249180		-5.3	20
1,2-Dichlorobenzene	A	25.000	24.1	1.5115570	1.4555980		-3.7	20
Benzyl alcohol	A	25.000	21.9	1.1259250	0.9847495		-12.5	20
4-Methylphenol	A	25.000	23.4	1.4913040	1.3972160		-6.3	20
2,4-Dimethylphenol	A	25.000	22.4	0.4152037	0.3723828		-10.3	20
1,2,4-Trichlorobenzene	A	25.000	23.4	0.3338350	0.3122531		-6.5	20
Benzoic acid	A	75.000	74.4	0.2848118	0.2823266		-0.9	20
Dimethylphthalate	A	25.000	23.9	1.4128190	1.3496780		-4.5	20
Dibenzofuran	A	25.000	21.5	1.8825360	1.6212320		-13.9	20
N-Nitrosodiphenylamine	A	25.000	23.3	0.6059806	0.5648158		-6.8	20
Hexachlorobenzene	A	25.000	22.9	0.2382773	0.2177479		-8.6	20
Pentachlorophenol	A	50.000	47.0	0.1575206	0.1482111		-5.9	20
Butylbenzylphthalate	A	25.000	25.6	0.5548307	0.5669630		2.2	20
bis(2-Ethylhexyl)phthalate	A	25.000	23.7	0.5942049	0.5637336		-5.1	20
2-Fluorophenol	A	37.500	39.6	1.4355790	1.5160610		5.6	20
Phenol-d5	A	37.500	39.6	1.8036430	1.9054440		5.7	20
2-Chlorophenol-d4	A	37.500	40.1	1.3858180	1.4815600		6.9	20
1,2-Dichlorobenzene-d4	A	25.000	26.5	0.9314501	0.9887886		6.2	20
Nitrobenzene-d5	A	25.000	27.0	0.4090887	0.4418457		8.0	20
2-Fluorobiphenyl	A	25.000	25.9	1.4224350	1.4745290		3.7	20
2,4,6-Tribromophenol	A	37.500	41.5	0.1674352	0.1850629		10.5	20
p-Terphenyl-d14	A	25.000	28.3	0.7704360	0.8724721		13.2	20

* Values outside of QC limits

Data File: \\target\share\chem3\nt12.i\20180627.b\N1218062701.D

Date : 27-JUN-2018 11:13

Client ID:

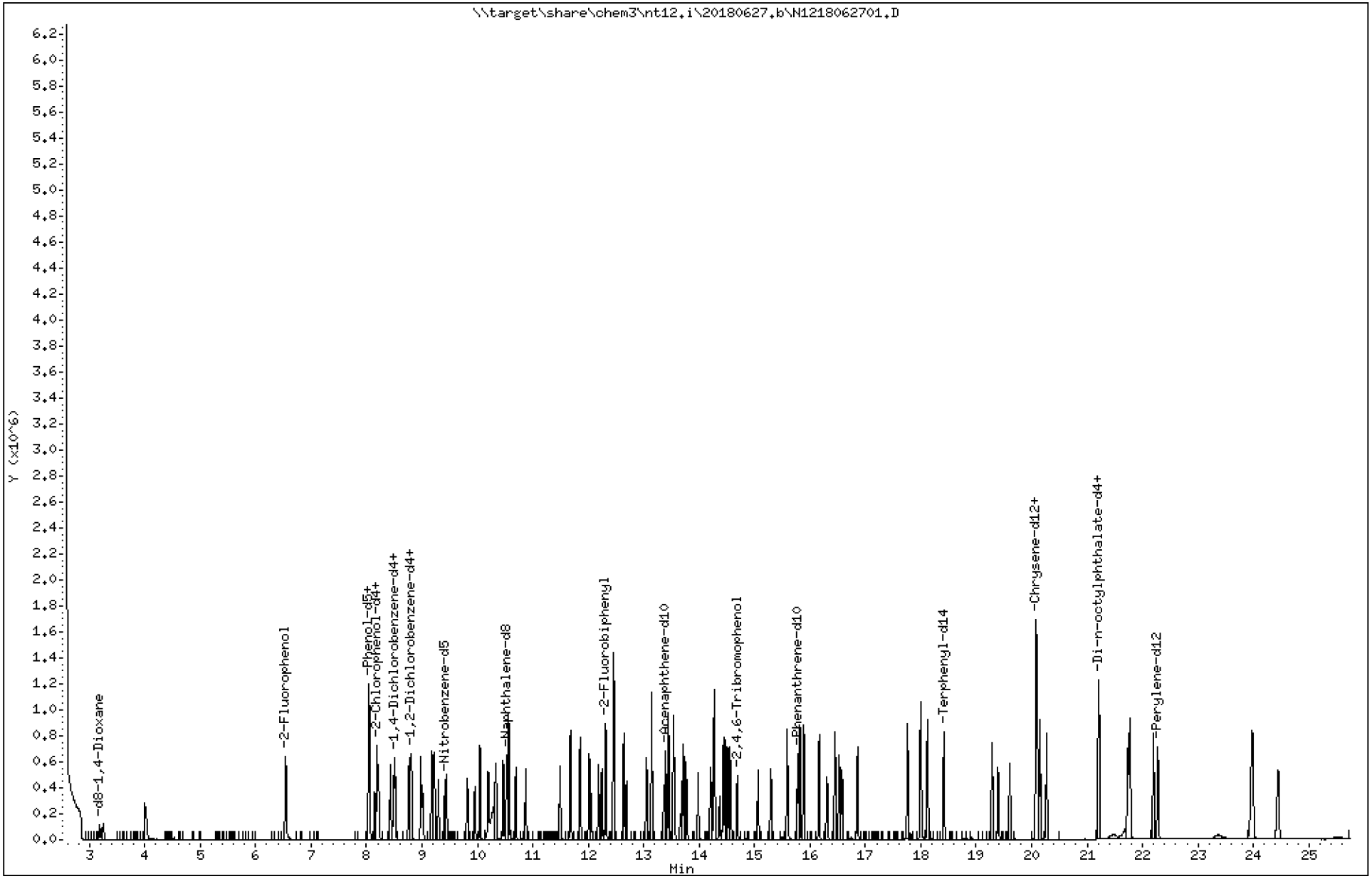
Instrument: nt12.i

Sample Info: ICV180627

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180627.b\N1218062701.D
Lab Smp Id: SGF0348-ICV1
Inj Date : 27-JUN-2018 11:13
Operator : JZ   Inst ID: nt12.i
Smp Info : ICV180627
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180627.b\SW846180516.m
Meth Date : 27-Jun-2018 13:04 jianqing   Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36   Cal File: N1218051608.D
Als bottle: 1   Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE   Compound Sublist: ICALA.sub
Target Version: 4.14
Processing Host: ORGDATA22

								AMOUNTS	
		QUANT SIG						CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE		(ug/mL)	(ug/mL)
$	1 2-Fluorophenol	112	6.540	6.540	(0.770)	322054		37.5000	39.60
$	2 Phenol-d5	99	8.036	8.036	(0.947)	404770		37.5000	39.62
	3 Phenol	94	8.057	8.057	(0.949)	282597		25.0000	27.62
$	5 2-Chlorophenol-d4	132	8.191	8.191	(0.965)	314725		37.5000	40.09
	4 Bis(2-Chloroethyl)ether	93	8.148	8.148	(0.960)	203577		25.0000	23.05
	6 2-Chlorophenol	128	8.212	8.212	(0.967)	198774		25.0000	22.81
	7 1,3-Dichlorobenzene	146	8.431	8.431	(0.993)	221426		25.0000	24.07
*	8 1,4-Dichlorobenzene-d4	152	8.490	8.490	(1.000)	113295		20.0000	
	9 1,4-Dichlorobenzene	146	8.511	8.511	(1.002)	215957		25.0000	23.68
$	10 1,2-Dichlorobenzene-d4	152	8.789	8.789	(1.035)	140031		25.0000	26.54
	12 1,2-Dichlorobenzene	146	8.810	8.810	(1.038)	206140		25.0000	24.07
	11 Benzyl alcohol	108	8.757	8.757	(1.031)	139459		25.0000	21.87
	14 2,2'-oxybis(1-Chloropropane)	45	9.013	9.013	(1.062)	211979		25.0000	23.53
	13 2-Methylphenol	108	8.981	8.981	(1.058)	190170		25.0000	22.70
	17 Hexachloroethane	117	9.296	9.296	(1.095)	86563		25.0000	24.08
	16 N-Nitroso-di-n-propylamine	70	9.232	9.232	(1.087)	154951		25.0000	24.39
	15 4-Methylphenol	108	9.211	9.211	(1.085)	197872		25.0000	23.42
$	18 Nitrobenzene-d5	82	9.414	9.414	(0.894)	240448		25.0000	27.00
	19 Nitrobenzene	77	9.441	9.441	(0.897)	227716		25.0000	23.48
	20 Isophorone	82	9.815	9.815	(0.932)	325077		25.0000	22.21
	21 2-Nitrophenol	139	9.954	9.954	(0.945)	106232		25.0000	23.51
	22 2,4-Dimethylphenol	107	10.044	10.044	(0.954)	202647		25.0000	22.42
	23 Bis(2-Chloroethoxy)methane	93	10.194	10.194	(0.968)	219140		25.0000	22.23
	24 Benzoic acid	105	10.322	10.322	(0.980)	460918		75.0000	74.35
	25 2,4-Dichlorophenol	162	10.333	10.333	(0.981)	162874		25.0000	23.23
	26 1,2,4-Trichlorobenzene	180	10.466	10.466	(0.994)	169925		25.0000	23.38
*	27 Naphthalene-d8	136	10.531	10.531	(1.000)	435352		20.0000	
	28 Naphthalene	128	10.563	10.563	(1.003)	528958		25.0000	23.39
	29 4-Chloroaniline	127	10.691	10.691	(1.015)	218353		25.0000	21.06
	30 Hexachlorobutadiene	225	10.872	10.872	(1.032)	95550		25.0000	24.17
	31 4-Chloro-3-methylphenol	107	11.492	11.492	(1.091)	175595		25.0000	23.83
	32 2-Methylnaphthalene	141	11.679	11.679	(1.109)	297366		25.0000	22.45
	33 Hexachlorocyclopentadiene	237	12.053	12.053	(0.900)	84391		25.0000	24.94

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
	34	2,4,6-Trichlorophenol	196	12.187	12.187	(0.910)	120664	25.0000	23.10
	35	2,4,5-Trichlorophenol	196	12.245	12.245	(0.914)	128432	25.0000	23.89
$	36	2-Fluorobiphenyl	172	12.315	12.315	(0.919)	422799	25.0000	25.92
	37	2-Chloronaphthalene	162	12.464	12.464	(0.931)	329632	25.0000	22.03
	38	2-Nitroaniline	65	12.689	12.689	(0.947)	109897	25.0000	23.19
	39	Dimethylphthalate	163	13.052	13.052	(0.974)	387000	25.0000	23.88
	40	Acenaphthylene	152	13.143	13.143	(0.981)	524702	25.0000	24.53
	41	2,6-Dinitrotoluene	165	13.148	13.148	(0.982)	88213	25.0000	24.76
*	42	Acenaphthene-d10	164	13.394	13.394	(1.000)	229388	20.0000	
	43	3-Nitroaniline	138	13.367	13.367	(0.998)	98055	25.0000	22.56
	44	Acenaphthene	153	13.447	13.447	(1.004)	335301	25.0000	23.61
	45	2,4-Dinitrophenol	184	13.533	13.533	(1.010)	156369	75.0000	70.56
	46	Dibenzofuran	168	13.704	13.704	(1.023)	464864	25.0000	21.53
	47	4-Nitrophenol	109	13.661	13.661	(1.020)	52290	25.0000	22.81
	48	2,4-Dinitrotoluene	165	13.779	13.779	(1.029)	125607	25.0000	24.87
	50	Diethylphthalate	149	14.206	14.206	(1.061)	366358	25.0000	23.74
	49	Fluorene	166	14.265	14.265	(1.065)	386046	25.0000	24.77
	51	4-Chlorophenyl-phenylether	204	14.281	14.281	(1.066)	175658	25.0000	24.14
	52	4-Nitroaniline	138	14.372	14.372	(1.073)	97962	25.0000	23.03
	53	4,6-Dinitro-2-methylphenol	198	14.441	14.441	(0.915)	211935	75.0000	73.88
	54	N-Nitrosodiphenylamine	169	14.484	14.484	(0.918)	282242	25.0000	23.30
$	55	2,4,6-Tribromophenol	330	14.692	14.692	(1.097)	79596	37.5000	41.45
	56	4-Bromophenyl-phenylether	248	15.066	15.066	(0.955)	104909	25.0000	22.79
	57	Hexachlorobenzene	284	15.296	15.296	(0.970)	108810	25.0000	22.85
	58	Pentachlorophenol	266	15.590	15.590	(0.988)	148124	50.0000	47.04
*	59	Phenanthrene-d10	188	15.777	15.777	(1.000)	399765	20.0000	
	60	Phenanthrene	178	15.814	15.814	(1.002)	531866	25.0000	26.84
	61	Anthracene	178	15.889	15.889	(1.007)	538374	25.0000	23.82
	62	Carbazole	167	16.167	16.167	(1.025)	520596	25.0000	23.87
	63	Di-n-butylphthalate	149	16.856	16.856	(1.068)	599874	25.0000	24.05
	64	Fluoranthene	202	17.759	17.759	(1.126)	590591	25.0000	23.82
	65	Pyrene	202	18.122	18.122	(0.901)	600221	25.0000	24.15
$	66	Terphenyl-d14	244	18.416	18.416	(0.916)	437114	25.0000	28.31
	67	Butylbenzylphthalate	149	19.286	19.286	(0.959)	284052	25.0000	25.55
	68	Benzo(a)anthracene	228	20.082	20.082	(0.999)	514446	25.0000	28.28
*	69	Chrysene-d12	240	20.109	20.109	(1.000)	400805	20.0000	
	70	3,3'-Dichlorobenzidine	252	20.082	20.082	(0.999)	364911	50.0000	53.74
	71	Chrysene	228	20.152	20.152	(1.002)	510500	25.0000	25.15
	72	bis(2-Ethylhexyl)phthalate	149	20.269	20.269	(0.956)	382544	25.0000	23.72
*	134	Di-n-octylphthalate-d4	153	21.204	21.204	(1.000)	542872	20.0000	
	73	Di-n-octylphthalate	149	21.215	21.215	(1.000)	667280	25.0000	23.01
	74	Benzo(b)fluoranthene	252	21.744	21.744	(0.976)	561747	25.0000	22.46
	75	Benzo(k)fluoranthene	252	21.776	21.776	(0.977)	552199	25.0000	22.09
	187	Total Benzofluoranthenes	252	21.776	21.776	(0.977)	1055515	50.0000	44.99
	76	Benzo(a)pyrene	252	22.198	22.198	(0.996)	541855	25.0000	25.49
*	77	Perylene-d12	264	22.278	22.278	(1.000)	406314	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	23.966	23.966	(1.076)	623123	25.0000	25.07
	79	Dibenzo(a,h)anthracene	278	23.988	23.988	(1.077)	518612	25.0000	25.50
	80	Benzo(g,h,i)perylene	276	24.452	24.452	(1.098)	539618	25.0000	26.02
	90	N-Nitrosodimethylamine	74	4.029	4.029	(0.475)	122638	25.0000	22.05
	103	Pyridine	79	3.997	3.997	(0.471)	236968	25.0000	24.49
	91	Aniline	93	8.041	8.041	(0.947)	311133	25.0000	23.41
	105	1-methylnaphthalene	141	11.850	11.850	(1.125)	276161	25.0000	23.33
	111	Azobenzene (1,2-DP-Hydrazine)	77	14.532	14.532	(0.921)	448553	25.0000	24.07

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
143 1,4-Dioxane	88	3.249	3.249	(0.383)	86980	25.0000	23.53
$ 137 d8-1,4-Dioxane	64	3.185	3.185	(0.375)	52927	25.0000	23.44
144 alpha-Terpineol	59	10.573	10.573	(1.004)	70921	25.0000	27.82
133 Butylatedhydroxytoluene	205	13.549	13.549	(1.012)	233809	25.0000	26.19
115 Tributyl Phosphate	99	14.564	14.564	(0.923)	448865	25.0000	26.36
116 Dibutyl Phenyl Phosphate	175	16.306	16.306	(1.034)	268852	25.0000	27.43
117 Butyl Diphenyl Phosphate	94	17.994	17.994	(0.895)	103940	25.0000	28.05
118 Triphenyl Phosphate	326	19.607	19.607	(0.975)	93035	25.0000	25.41

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062701.D
Lab Smp Id: SGF0348-ICV1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180627.b\SW846180516.m
Misc Info: 18-

Calibration Date: 26-JUN-2018
Calibration Time: 22:20
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	113295	-10.78
27 Naphthalene-d8	478458	239229	956916	435352	-9.01
42 Acenaphthene-d10	247659	123830	495318	229388	-7.38
59 Phenanthrene-d10	421930	210965	843860	399765	-5.25
69 Chrysene-d12	450836	225418	901672	400805	-11.10
134 Di-n-octylphthala	583434	291717	1166868	542872	-6.95
77 Perylene-d12	453093	226547	906186	406314	-10.32

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.49	7.99	8.99	8.49	0.00
27 Naphthalene-d8	10.53	10.03	11.03	10.53	0.00
42 Acenaphthene-d10	13.39	12.89	13.89	13.39	0.00
59 Phenanthrene-d10	15.78	15.28	16.28	15.78	0.00
69 Chrysene-d12	20.11	19.61	20.61	20.11	0.00
134 Di-n-octylphthala	21.20	20.70	21.70	21.20	0.00
77 Perylene-d12	22.28	21.78	22.78	22.28	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062701.D

Lab ID: SGF0348-ICV1
nt12.i, SW846180516.m, 27-JUN-2018 11:13

RT	CO-ELUTION COMPOUNDS
20.083	3,3′-Dichlorobenzidine and Benzo(a)anthracene

Quant Method: ICAL

On Column LOD for nt12.i, SW846180516.m, ICALA.sub = 0.0100

* Only compounds listed in the work order have been verified by the analyst *

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt12.i\20180627.b

Instrument: nt12.i Date: 27-JUN-2018 Method: SW846180516.m

INITIAL CAL: 16-MAY-2018

Compound	%RSD or R^2
NO Q-FLAGS	

ICV CAL: N1218062701.D 27-JUN-2018 11:13

Compound	%D
NO Q-FLAGS	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8270D

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	NT12	Calibration:	BE00052
Lab File ID:	N1218051610.D	Calibration Date:	05/16/18 12:00
Sequence:	SGE0274	Injection Date:	05/16/18
Lab Sample ID:	SGE0274-SCV1	Injection Time:	18:47
Sequence Name:	Secondary Cal Check		

		CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenol	A	25.000	27.9	2.1280550	2.0188190		11.8	20
1,4-Dichlorobenzene	A	25.000	25.0	1.6099940	1.6115080		0.09	20
1,2-Dichlorobenzene	A	25.000	24.6	1.5115570	1.4892240		-1.5	20
Benzyl alcohol	A	25.000	26.0	1.1259250	1.1717510		4.1	20
4-Methylphenol	A	25.000	25.0	1.4913040	1.4936570		0.2	20
2,4-Dimethylphenol	A	25.000	24.0	0.4152037	0.3985646		-4.0	20
1,2,4-Trichlorobenzene	A	25.000	24.8	0.3338350	0.3305523		-1.0	20
Benzoic acid	A	75.000	82.5	0.2848118	0.3134398		10.1	20
Dimethylphthalate	A	25.000	23.7	1.4128190	1.3392020		-5.2	20
Dibenzofuran	A	25.000	25.3	1.8825360	1.9013930		1.0	20
N-Nitrosodiphenylamine	A	25.000	23.7	0.6059806	0.5754484		-5.0	20
Hexachlorobenzene	A	25.000	24.3	0.2382773	0.2316935		-2.8	20
Pentachlorophenol	A	50.000	49.4	0.1575206	0.1557093		-1.1	20
Butylbenzylphthalate	A	25.000	24.3	0.5548307	0.5390776		-2.8	20
bis(2-Ethylhexyl)phthalate	A	25.000	24.7	0.5942049	0.5862836		-1.3	20
2-Fluorophenol	A	37.500	39.6	1.4355790	1.5150600		5.5	20
Phenol-d5	A	37.500	39.0	1.8036430	1.8781790		4.1	20
2-Chlorophenol-d4	A	37.500	38.8	1.3858180	1.4329530		3.4	20
1,2-Dichlorobenzene-d4	A	25.000	25.7	0.9314501	0.9577094		2.8	20
Nitrobenzene-d5	A	25.000	26.2	0.4090887	0.4295068		5.0	20
2-Fluorobiphenyl	A	25.000	26.0	1.4224350	1.4802290		4.1	20
2,4,6-Tribromophenol	A	37.500	40.8	0.1674352	0.1822699		8.9	20
p-Terphenyl-d14	A	25.000	26.3	0.7704360	0.8093346		5.0	20

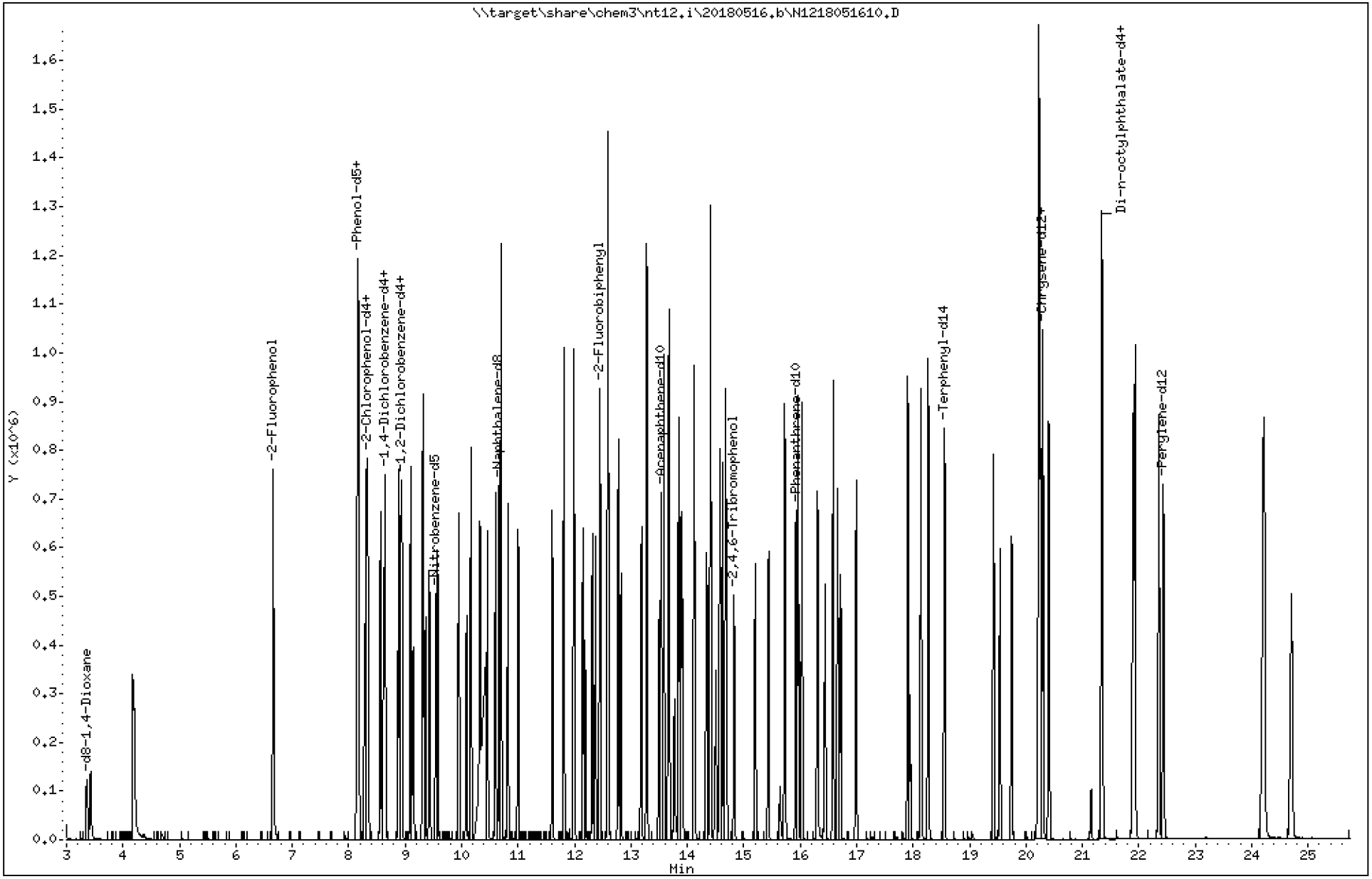
* Values outside of QC limits

Data File: \\target\share\chem3\nt12.i\20180516.b\N1218051610.D
Date : 16-MAY-2018 18:47
Client ID:
Sample Info: SGE0274-SCV1

Column phase: ZB-5msi

Instrument: nt12.i

Operator: JZ
Column diameter: 0.32



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 1178 of 6523

ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180516.b\N1218051610.D
Lab Smp Id: SGE0274-SCV1
Inj Date : 16-MAY-2018 18:47
Operator : JZ Inst ID: nt12.i
Smp Info : SGE0274-SCV1
Misc Info : 18-
Comment   : 1ul Injection
Method   : \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Meth Date : 17-May-2018 15:39 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 10
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	FINAL (ug/mL)
$	1 2-Fluorophenol	112	6.663	6.679	(0.773)	370668	39.5762	39.58(R)
$	2 Phenol-d5	99	8.148	8.180	(0.945)	459507	39.0497	39.05(R)
	3 Phenol	94	8.169	8.202	(0.947)	329277	27.9402	27.94
$	5 2-Chlorophenol-d4	132	8.319	8.330	(0.965)	350580	38.7755	38.78(R)
	4 Bis(2-Chloroethyl)ether	93	8.281	8.303	(0.960)	237962	23.3949	23.39
	6 2-Chlorophenol	128	8.340	8.356	(0.967)	238420	23.7558	23.76
	7 1,3-Dichlorobenzene	146	8.564	8.570	(0.993)	259819	24.5244	24.52
*	8 1,4-Dichlorobenzene-d4	152	8.623	8.629	(1.000)	130483	20.0000	
	9 1,4-Dichlorobenzene	146	8.645	8.656	(1.002)	262843	25.0235	25.02
$	10 1,2-Dichlorobenzene-d4	152	8.922	8.928	(1.035)	156206	25.7048	25.70(R)
	12 1,2-Dichlorobenzene	146	8.944	8.955	(1.037)	242898	24.6306	24.63
	11 Benzyl alcohol	108	8.885	8.907	(1.030)	191117	26.0175	26.02
	14 2,2'-oxybis(1-Chloropropane)	45	9.141	9.152	(1.060)	239061	23.0450	23.04
	13 2-Methylphenol	108	9.099	9.120	(1.055)	240830	24.9597	24.96
	17 Hexachloroethane	117	9.430	9.435	(1.094)	103230	24.9315	24.93
	16 N-Nitroso-di-n-propylamine	70	9.360	9.393	(1.085)	167776	22.9292	22.93
	15 4-Methylphenol	108	9.323	9.350	(1.081)	243621	25.0394	25.04
$	18 Nitrobenzene-d5	82	9.547	9.564	(0.895)	262419	26.2478	26.25(R)
	19 Nitrobenzene	77	9.574	9.596	(0.898)	273712	25.1388	25.14
	20 Isophorone	82	9.948	9.980	(0.933)	482357	29.3509	29.35
	21 2-Nitrophenol	139	10.087	10.098	(0.946)	128901	25.4056	25.41
	22 2,4-Dimethylphenol	107	10.167	10.189	(0.953)	243514	23.9981	24.00
	23 Bis(2-Chloroethoxy)methane	93	10.322	10.344	(0.968)	258825	23.3904	23.39
	24 Benzoic acid	105	10.434	10.579	(0.978)	574514	82.5387	82.54
	25 2,4-Dichlorophenol	162	10.461	10.478	(0.981)	194075	24.6554	24.66
	26 1,2,4-Trichlorobenzene	180	10.600	10.611	(0.994)	201960	24.7542	24.75
*	27 Naphthalene-d8	136	10.664	10.670	(1.000)	488782	20.0000	
	28 Naphthalene	128	10.696	10.707	(1.003)	592288	23.3158	23.32
	29 4-Chloroaniline	127	10.824	10.840	(1.015)	290968	25.0001	25.00
	30 Hexachlorobutadiene	225	11.000	11.006	(1.032)	109138	24.5915	24.59
	31 4-Chloro-3-methylphenol	107	11.610	11.620	(1.089)	202705	24.4969	24.50
	32 2-Methylnaphthalene	141	11.813	11.823	(1.108)	370837	24.9365	24.94
	33 Hexachlorocyclopentadiene	237	12.192	12.197	(0.901)	97997	27.0423	27.04

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/mL)	FINAL (ug/mL)
	34	2,4,6-Trichlorophenol	196	12.315	12.331	(0.910)	138268	24.7234	24.72
	35	2,4,5-Trichlorophenol	196	12.373	12.384	(0.914)	146718	25.4862	25.49
$	36	2-Fluorobiphenyl	172	12.448	12.465	(0.920)	454510	26.0158	26.02(R)
	37	2-Chloronaphthalene	162	12.598	12.614	(0.931)	373496	23.3139	23.31
	38	2-Nitroaniline	65	12.822	12.844	(0.947)	132947	26.1960	26.20
	39	Dimethylphthalate	163	13.185	13.207	(0.974)	411207	23.6973	23.70
	40	Acenaphthylene	152	13.282	13.293	(0.981)	518866	22.6489	22.65
	41	2,6-Dinitrotoluene	165	13.287	13.309	(0.982)	98827	25.8992	25.90
*	42	Acenaphthene-d10	164	13.533	13.544	(1.000)	245643	20.0000	
	43	3-Nitroaniline	138	13.501	13.528	(0.998)	122315	26.2767	26.28
	44	Acenaphthene	153	13.586	13.602	(1.004)	352982	23.2141	23.21
	45	2,4-Dinitrophenol	184	13.672	13.710	(1.010)	171289	72.1777	72.18
	46	Dibenzofuran	168	13.848	13.864	(1.023)	583830	25.2504	25.25
	47	4-Nitrophenol	109	13.773	13.801	(1.018)	57367	23.3667	23.37
	48	2,4-Dinitrotoluene	165	13.917	13.944	(1.028)	138117	25.5357	25.54
	50	Diethylphthalate	149	14.345	14.361	(1.060)	388069	23.4871	23.49
	49	Fluorene	166	14.409	14.420	(1.065)	403684	24.1105	24.11
	51	4-Chlorophenyl-phenylether	204	14.420	14.431	(1.066)	182963	23.3913	23.39
	52	4-Nitroaniline	138	14.510	14.564	(1.072)	119757	26.2853	26.29
	53	4,6-Dinitro-2-methylphenol	198	14.580	14.628	(0.915)	227567	76.5804	76.58
	54	N-Nitrosodiphenylamine	169	14.623	14.650	(0.918)	297883	23.7404	23.74
$	55	2,4,6-Tribromophenol	330	14.831	14.853	(1.096)	83950	40.8225	40.82(R)
	56	4-Bromophenyl-phenylether	248	15.205	15.216	(0.955)	110704	23.2155	23.22
	57	Hexachlorobenzene	284	15.440	15.451	(0.969)	119937	24.3092	24.31
	58	Pentachlorophenol	266	15.728	15.745	(0.988)	161207	49.4251	49.43
*	59	Phenanthrene-d10	188	15.926	15.937	(1.000)	414123	20.0000	
	60	Phenanthrene	178	15.963	15.980	(1.002)	539621	26.2845	26.28
	61	Anthracene	178	16.033	16.055	(1.007)	556390	23.7611	23.76
	62	Carbazole	167	16.305	16.327	(1.024)	500118	22.1405	22.14
	63	Di-n-butylphthalate	149	16.994	17.005	(1.067)	630014	24.3813	24.38
	64	Fluoranthene	202	17.908	17.924	(1.124)	618368	24.0767	24.08
	65	Pyrene	202	18.271	18.288	(0.902)	648035	24.1527	24.15
$	66	Terphenyl-d14	244	18.560	18.571	(0.916)	437760	26.2622	26.26(R)
	67	Butylbenzylphthalate	149	19.425	19.441	(0.959)	291581	24.2902	24.29
	68	Benzo(a)anthracene	228	20.237	20.249	(0.999)	561051	28.5702	28.57
*	69	Chrysene-d12	240	20.264	20.280	(1.000)	432711	20.0000	
	70	3,3'-Dichlorobenzidine	252	20.227	20.259	(0.998)	383666	52.3320	52.33
	71	Chrysene	228	20.301	20.329	(1.002)	570813	26.0485	26.05
	72	bis(2-Ethylhexyl)phthalate	149	20.408	20.414	(0.956)	413508	24.6667	24.67
*	134	Di-n-octylphthalate-d4	153	21.338	21.349	(1.000)	564243	20.0000	
	73	Di-n-octylphthalate	149	21.354	21.365	(1.001)	700608	23.2480	23.25
	74	Benzo(b)fluoranthene	252	21.899	21.931	(0.976)	657656	23.6632	23.66(H)
	75	Benzo(k)fluoranthene	252	21.931	21.964	(0.977)	661167	24.1371	24.14
	187	Total Benzofluoranthenes	252	21.931	21.963	(0.977)	1251759	48.0245	48.02
	76	Benzo(a)pyrene	252	22.358	22.385	(0.996)	607119	25.7023	25.70
*	77	Perylene-d12	264	22.438	22.449	(1.000)	451445	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	24.207	24.244	(1.079)	675472	24.4586	24.46
	79	Dibenzo(a,h)anthracene	278	24.223	24.276	(1.080)	557090	24.6570	24.66
	80	Benzo(g,h,i)perylene	276	24.709	24.768	(1.101)	555436	24.1038	24.10
	90	N-Nitrosodimethylamine	74	4.205	4.248	(0.488)	162704	25.3966	25.40
	103	Pyridine	79	4.173	4.184	(0.484)	307302	27.5729	27.57
	91	Aniline	93	8.174	8.196	(0.948)	394251	25.7533	25.75
	105	1-methylnaphthalene	141	11.989	12.000	(1.124)	357360	26.8917	26.89
	93	Benzidine	184	18.143	18.165	(0.895)	299756	30.7419	30.74

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/mL)	CONCENTRATIONS FINAL (ug/mL)
111 Azobenzene (1,2-DP-Hydrazine)	77	14.671	14.692	(0.921)	478035	24.7594	24.76
143 1,4-Dioxane	88	3.425	3.452	(0.397)	114540	26.9004	26.90
$ 137 d8-1,4-Dioxane	64	3.361	3.383	(0.390)	62675	24.1039	24.10(R)
144 alpha-Terpineol	59	10.701	10.718	(1.004)	83147	29.3251	29.33
133 Butylatedhydroxytoluene	205	13.682	13.699	(1.011)	232670	24.0793	24.08
115 Tributyl Phosphate	99	14.692	14.719	(0.923)	452484	25.6493	25.65
116 Dibutyl Phenyl Phosphate	175	16.444	16.466	(1.033)	275983	27.1840	27.18
117 Butyl Diphenyl Phosphate	94	18.132	18.143	(0.895)	109435	27.3556	27.36
118 Triphenyl Phosphate	326	19.751	19.762	(0.975)	106542	26.9525	26.95
123 Acetophenone	105	9.307	9.329	(1.079)	280475	19.3359	19.34
168 Pentachlorobenzene	250	13.891	13.907	(1.026)	157365	26.8206	26.82
113 Diphenyl Oxide	170	12.779	12.785	(0.944)	290235	26.0057	26.01
112 Biphenyl	154	13.586	13.602	(1.004)	340337	23.0379	23.04
120 2,3,4,6-Tetrachlorophenol	232	14.120	14.131	(1.043)	189251	46.8870	46.89
151 1,2,4,5-Tetrachlorobenzene	216	12.154	12.160	(0.898)	179659	22.6609	22.66
186 Carbaryl	144	16.717	16.744	(1.050)	301743	25.6700	25.67
178 2-Benzyl-4-Chlorophenol	218	16.663	16.690	(1.046)	118132	24.7497	24.75

QC Flag Legend

R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218051610.D
Lab Smp Id: SGE0274-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180516.b\SW846180516.m
Misc Info: 18-

Calibration Date: 16-MAY-2018
Calibration Time: 12:39
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	130483	2.76
27 Naphthalene-d8	478458	239229	956916	488782	2.16
42 Acenaphthene-d10	247659	123830	495318	245643	-0.81
59 Phenanthrene-d10	421930	210965	843860	414123	-1.85
69 Chrysene-d12	450836	225418	901672	432711	-4.02
134 Di-n-octylphthala	583434	291717	1166868	564243	-3.29
77 Perylene-d12	453093	226547	906186	451445	-0.36

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.58	8.08	9.08	8.62	0.56
27 Naphthalene-d8	10.62	10.12	11.12	10.66	0.40
42 Acenaphthene-d10	13.49	12.99	13.99	13.53	0.32
59 Phenanthrene-d10	15.88	15.38	16.38	15.93	0.30
69 Chrysene-d12	20.22	19.72	20.72	20.26	0.24
134 Di-n-octylphthala	21.30	20.80	21.80	21.34	0.18
77 Perylene-d12	22.39	21.89	22.89	22.44	0.21

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218051610.D

Lab ID: SGE0274-SCV1
nt12.i, 20180516.b\SW846180516.m,   16-MAY-2018 18:47

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

On Column LOD for nt12.i, 20180516.b\SW846180516.m, ICALS.sub = 0.0100

* Only compounds listed in the work order have been verified by the analyst *

CONTINUING CALIBRATION CHECK
EPA 8270D

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	NT12	Calibration:	BE00052
Lab File ID:	N1218062120.D	Calibration Date:	05/16/18 12:00
Sequence:	SGF0272	Injection Date:	06/21/18
Lab Sample ID:	SGF0272-CCV1	Injection Time:	22:08
Sequence Name:	Calibration Check		

		CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenol	A	25.000	28.2	2.1280550	2.0404730		13.0	50
1,4-Dichlorobenzene	A	25.000	23.8	1.6099940	1.5293360		-5.0	50
1,2-Dichlorobenzene	A	25.000	23.8	1.5115570	1.4376070		-4.9	50
Benzyl alcohol	A	25.000	24.7	1.1259250	1.1107490		-1.4	50
4-Methylphenol	A	25.000	24.5	1.4913040	1.4637650		-1.8	50
2,4-Dimethylphenol	A	25.000	23.1	0.4152037	0.3842004		-7.5	50
1,2,4-Trichlorobenzene	A	25.000	23.8	0.3338350	0.3180156		-4.7	50
Benzoic acid	A	75.000	77.5	0.2848118	0.2944197		3.4	50
Dimethylphthalate	A	25.000	24.0	1.4128190	1.3563630		-4.0	50
Dibenzofuran	A	25.000	24.0	1.8825360	1.8084280		-3.9	50
N-Nitrosodiphenylamine	A	25.000	24.2	0.6059806	0.5874202		-3.1	50
Hexachlorobenzene	A	25.000	23.6	0.2382773	0.2245991		-5.8	50
Pentachlorophenol	A	50.000	50.6	0.1575206	0.1593541		1.2	50
Butylbenzylphthalate	A	25.000	26.4	0.5548307	0.5860722		5.6	50
bis(2-Ethylhexyl)phthalate	A	25.000	25.0	0.5942049	0.5946322		0.08	50
2-Fluorophenol	A	37.500	36.5	1.4355790	1.3962640		-2.7	50
Phenol-d5	A	37.500	36.8	1.8036430	1.7697150		-1.9	50
2-Chlorophenol-d4	A	37.500	37.4	1.3858180	1.3832290		-0.2	50
1,2-Dichlorobenzene-d4	A	25.000	24.7	0.9314501	0.9189982		-1.3	50
Nitrobenzene-d5	A	25.000	25.7	0.4090887	0.4197831		2.6	50
2-Fluorobiphenyl	A	25.000	24.7	1.4224350	1.4059840		-1.2	50
2,4,6-Tribromophenol	A	37.500	39.6	0.1674352	0.1767431		5.5	50
p-Terphenyl-d14	A	25.000	26.9	0.7704360	0.8296179		7.7	50

* Values outside of QC limits

Data File: \\target\share\chem3\nt12.i\20180621.b\ccv.b\N1218062120.D

Date : 21-JUN-2018 22:08

Client ID:

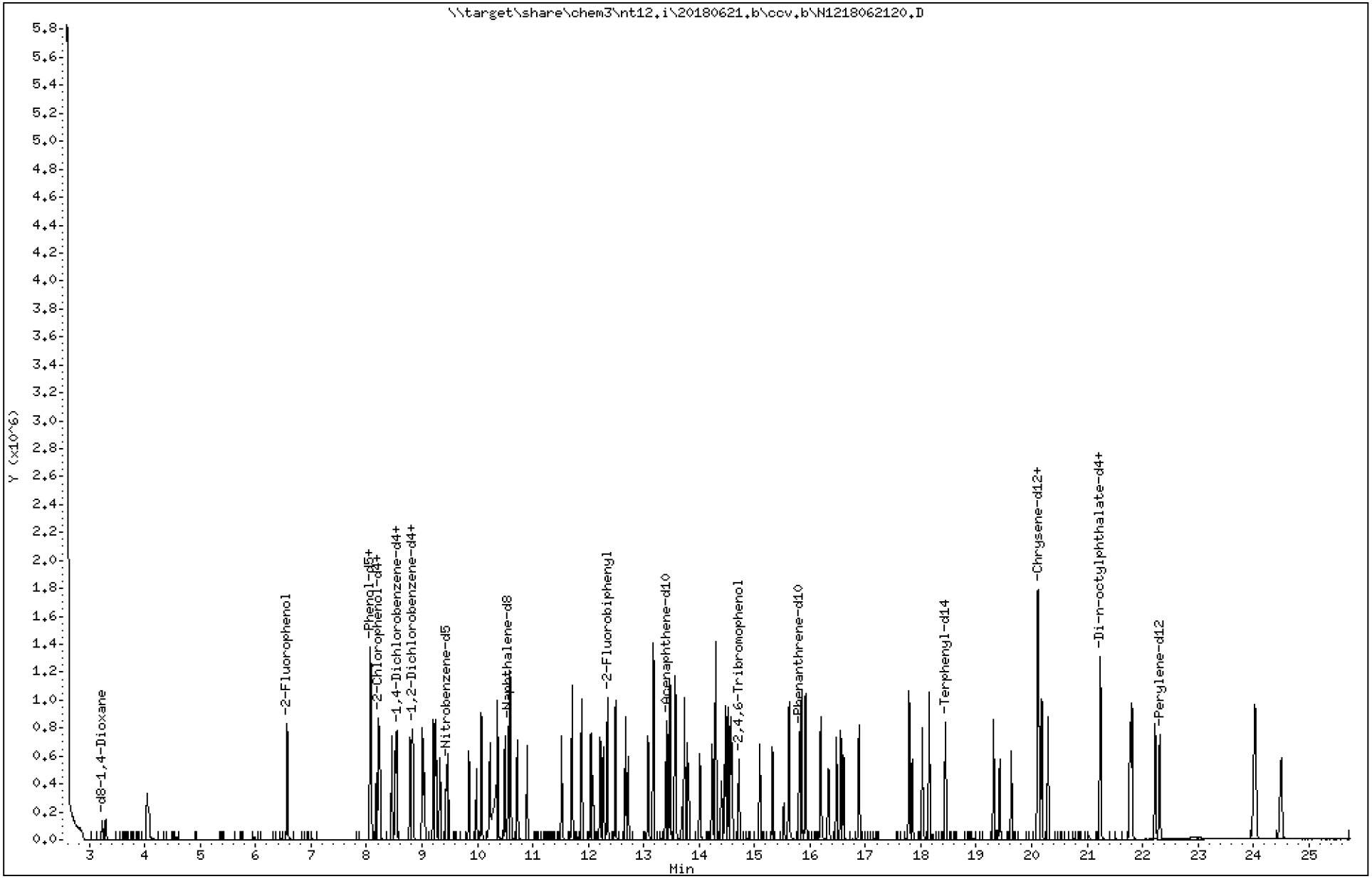
Instrument: nt12.i

Sample Info: CCV0621,

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180621.b\ccv.b\N1218062120.D
Lab Smp Id: SGF0272-CCV1
Inj Date : 21-JUN-2018 22:08
Operator : JZ Inst ID: nt12.i
Smp Info : CCV0621,
Misc Info : CCV
Comment : 1ul Injection
Method : \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Meth Date : 22-Jun-2018 12:06 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 20 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALA.sub
Target Version: 4.14
Processing Host: ORGDATA22

							AMOUNTS	
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.567	6.567	(0.771)	368056	37.5000	36.47
$	2 Phenol-d5	99	8.062	8.062	(0.947)	466498	37.5000	36.79
	3 Phenol	94	8.084	8.084	(0.949)	358580	25.0000	28.24
$	5 2-Chlorophenol-d4	132	8.217	8.217	(0.965)	364620	37.5000	37.43
	4 Bis(2-Chloroethyl)ether	93	8.180	8.180	(0.960)	261222	25.0000	23.84
	6 2-Chlorophenol	128	8.239	8.239	(0.967)	258628	25.0000	23.92
	7 1,3-Dichlorobenzene	146	8.458	8.458	(0.993)	269722	25.0000	23.63
*	8 1,4-Dichlorobenzene-d4	152	8.516	8.516	(1.000)	140587	20.0000	
	9 1,4-Dichlorobenzene	146	8.543	8.543	(1.003)	268756	25.0000	23.75
$	10 1,2-Dichlorobenzene-d4	152	8.816	8.816	(1.035)	161499	25.0000	24.67
	12 1,2-Dichlorobenzene	146	8.837	8.837	(1.038)	252636	25.0000	23.78
	11 Benzyl alcohol	108	8.789	8.789	(1.032)	195196	25.0000	24.66
	14 2,2'-oxybis(1-Chloropropane)	45	9.040	9.040	(1.061)	283539	25.0000	25.37
	13 2-Methylphenol	108	9.008	9.008	(1.058)	245835	25.0000	23.65
	17 Hexachloroethane	117	9.323	9.323	(1.095)	107498	25.0000	24.10
	16 N-Nitroso-di-n-propylamine	70	9.259	9.259	(1.087)	194448	25.0000	24.66
	15 4-Methylphenol	108	9.238	9.238	(1.085)	257233	25.0000	24.54
$	18 Nitrobenzene-d5	82	9.441	9.441	(0.891)	284529	25.0000	25.65
	19 Nitrobenzene	77	9.473	9.473	(0.894)	293812	25.0000	24.32
	20 Isophorone	82	9.847	9.847	(0.929)	442410	25.0000	24.27
	21 2-Nitrophenol	139	9.980	9.980	(0.942)	142704	25.0000	25.35
	22 2,4-Dimethylphenol	107	10.071	10.071	(0.950)	260411	25.0000	23.13
	23 Bis(2-Chloroethoxy)methane	93	10.226	10.226	(0.965)	295093	25.0000	24.04
	24 Benzoic acid	105	10.354	10.354	(0.977)	598673	75.0000	77.53
	25 2,4-Dichlorophenol	162	10.365	10.365	(0.978)	209436	25.0000	23.98
	26 1,2,4-Trichlorobenzene	180	10.498	10.498	(0.990)	215551	25.0000	23.82
*	27 Naphthalene-d8	136	10.557	10.557	(1.000)	542240	20.0000	(H)
	28 Naphthalene	128	10.589	10.589	(0.999)	669987	25.0000	23.86
	29 4-Chloroaniline	127	10.723	10.723	(1.012)	306927	25.0000	23.77
	30 Hexachlorobutadiene	225	10.899	10.899	(1.028)	117340	25.0000	23.83
	31 4-Chloro-3-methylphenol	107	11.519	11.519	(1.087)	229987	25.0000	25.05
	32 2-Methylnaphthalene	141	11.706	11.706	(1.104)	407659	25.0000	24.71
	33 Hexachlorocyclopentadiene	237	12.085	12.085	(0.900)	109330	25.0000	26.19

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
	34	2,4,6-Trichlorophenol	196	12.219	12.219	(0.910)	157343	25.0000	24.42
	35	2,4,5-Trichlorophenol	196	12.272	12.272	(0.914)	164980	25.0000	24.88
$	36	2-Fluorobiphenyl	172	12.347	12.347	(0.920)	497323	25.0000	24.71
	37	2-Chloronaphthalene	162	12.491	12.491	(0.930)	439592	25.0000	23.82
	38	2-Nitroaniline	65	12.721	12.721	(0.947)	152811	25.0000	26.14
	39	Dimethylphthalate	163	13.079	13.079	(0.974)	479771	25.0000	24.00
	40	Acenaphthylene	152	13.175	13.175	(0.981)	636297	25.0000	24.11
	41	2,6-Dinitrotoluene	165	13.180	13.180	(0.982)	111875	25.0000	25.45
*	42	Acenaphthene-d10	164	13.426	13.426	(1.000)	282975	20.0000	
	43	3-Nitroaniline	138	13.399	13.399	(0.998)	137154	25.0000	25.58
	44	Acenaphthene	153	13.474	13.474	(1.004)	415343	25.0000	23.71
	45	2,4-Dinitrophenol	184	13.565	13.565	(1.010)	206413	75.0000	75.50
	46	Dibenzofuran	168	13.736	13.736	(1.023)	639675	25.0000	24.02
	47	4-Nitrophenol	109	13.693	13.693	(1.020)	62620	25.0000	22.14
	48	2,4-Dinitrotoluene	165	13.811	13.811	(1.029)	157322	25.0000	25.25
	50	Diethylphthalate	149	14.233	14.233	(1.060)	455271	25.0000	23.92
	49	Fluorene	166	14.297	14.297	(1.065)	478906	25.0000	24.93
	51	4-Chlorophenyl-phenylether	204	14.307	14.307	(1.066)	220874	25.0000	24.67
	52	4-Nitroaniline	138	14.404	14.404	(1.073)	133354	25.0000	25.41
	53	4,6-Dinitro-2-methylphenol	198	14.473	14.473	(0.916)	271363	75.0000	78.74
	54	N-Nitrosodiphenylamine	169	14.516	14.516	(0.918)	352668	25.0000	24.23
$	55	2,4,6-Tribromophenol	330	14.719	14.719	(1.096)	93776	37.5000	39.58
	56	4-Bromophenyl-phenylether	248	15.093	15.093	(0.955)	130573	25.0000	23.61
	57	Hexachlorobenzene	284	15.322	15.322	(0.969)	134842	25.0000	23.56
	58	Pentachlorophenol	266	15.622	15.622	(0.988)	191342	50.0000	50.58
*	59	Phenanthrene-d10	188	15.809	15.809	(1.000)	480294	20.0000	
	60	Phenanthrene	178	15.846	15.846	(1.002)	650645	25.0000	27.33
	61	Anthracene	178	15.921	15.921	(1.007)	647329	25.0000	23.84
	62	Carbazole	167	16.193	16.193	(1.024)	608784	25.0000	23.24
	63	Di-n-butylphthalate	149	16.888	16.888	(1.068)	718833	25.0000	23.99
	64	Fluoranthene	202	17.791	17.791	(1.125)	689080	25.0000	23.13
	65	Pyrene	202	18.149	18.149	(0.901)	707618	25.0000	26.66
$	66	Terphenyl-d14	244	18.448	18.448	(0.916)	443941	25.0000	26.92
	67	Butylbenzylphthalate	149	19.313	19.313	(0.959)	313616	25.0000	26.41
	68	Benzo(a)anthracene	228	20.114	20.114	(0.999)	554201	25.0000	28.53
*	69	Chrysene-d12	240	20.141	20.141	(1.000)	428092	20.0000	
	70	3,3'-Dichlorobenzidine	252	20.114	20.114	(0.999)	390914	50.0000	53.90
	71	Chrysene	228	20.179	20.179	(1.002)	565539	25.0000	26.09
	72	bis(2-Ethylhexyl)phthalate	149	20.296	20.296	(0.956)	413230	25.0000	25.02
*	134	Di-n-octylphthalate-d4	153	21.231	21.231	(1.000)	555947	20.0000	
	73	Di-n-octylphthalate	149	21.242	21.242	(1.000)	696781	25.0000	23.47
	74	Benzo(b)fluoranthene	252	21.776	21.776	(0.976)	635140	25.0000	23.25
	75	Benzo(k)fluoranthene	252	21.808	21.808	(0.977)	632338	25.0000	23.37
	187	Total Benzofluoranthenes	252	21.808	21.808	(0.977)	1200373	50.0000	46.86
	76	Benzo(a)pyrene	252	22.230	22.230	(0.996)	539611	25.0000	23.24
*	77	Perylene-d12	264	22.310	22.310	(1.000)	443685	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	24.014	24.014	(1.076)	730649	25.0000	26.92
	79	Dibenzo(a,h)anthracene	278	24.036	24.036	(1.077)	596702	25.0000	26.87
	80	Benzo(g,h,i)perylene	276	24.506	24.506	(1.098)	639791	25.0000	28.25
	90	N-Nitrosodimethylamine	74	4.077	4.077	(0.479)	163628	25.0000	23.71
	103	Pyridine	79	4.040	4.040	(0.474)	236180	25.0000	19.67
	91	Aniline	93	8.073	8.073	(0.948)	355355	25.0000	21.54
	105	1-methylnaphthalene	141	11.882	11.882	(1.121)	365524	25.0000	24.79
	111	Azobenzene (1,2-DP-Hydrazine)	77	14.564	14.564	(0.921)	545446	25.0000	24.36

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
143 1,4-Dioxane	88	3.292	3.292	(0.387)	101771	25.0000	22.18
$ 137 d8-1,4-Dioxane	64	3.228	3.228	(0.379)	62603	25.0000	22.35
144 alpha-Terpineol	59	10.600	10.600	(1.000)	82807	25.0000	25.73
115 Tributyl Phosphate	99	14.591	14.591	(0.923)	530774	25.0000	25.94

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062120.D
Lab Smp Id: SGF0272-CCV1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180621.b\SW846180516.m
Misc Info: CCV

Calibration Date: 21-JUN-2018
Calibration Time: 22:08
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	140587	10.71
27 Naphthalene-d8	478458	239229	956916	542240	13.33
42 Acenaphthene-d10	247659	123830	495318	282975	14.26
59 Phenanthrene-d10	421930	210965	843860	480294	13.83
69 Chrysene-d12	450836	225418	901672	428092	-5.04
134 Di-n-octylphthala	583434	291717	1166868	555947	-4.71
77 Perylene-d12	453093	226547	906186	443685	-2.08

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.52	8.02	9.02	8.52	0.00
27 Naphthalene-d8	10.56	10.06	11.06	10.56	0.00
42 Acenaphthene-d10	13.43	12.93	13.93	13.43	0.00
59 Phenanthrene-d10	15.81	15.31	16.31	15.81	0.00
69 Chrysene-d12	20.14	19.64	20.64	20.14	0.00
134 Di-n-octylphthala	21.23	20.73	21.73	21.23	0.00
77 Perylene-d12	22.31	21.81	22.81	22.31	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062120.D

Lab ID: SGF0272-CCV1
nt12.i, SW846180516.m, 21-JUN-2018 22:08

RT	CO-ELUTION COMPOUNDS
20.115	3,3′-Dichlorobenzidine and Benzo(a)anthracene

Quant Method: ICAL

On Column LOD for nt12.i, SW846180516.m, ICALA.sub = 0.0100

* Only compounds listed in the work order have been verified by the analyst *

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt12.i\20180621.b\ccv.b

Instrument: nt12.i Date: 21-JUN-2018 Method: SW846180516.m

INITIAL CAL: 16-MAY-2018

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: N1218062120.D 21-JUN-2018 22:08

Compound	%D
NO Q-FLAGS	

CONTINUING CALIBRATION CHECK
EPA 8270D

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	NT12	Calibration:	BE00052
Lab File ID:	N1218062621.D	Calibration Date:	05/16/18 12:00
Sequence:	SGF0333	Injection Date:	06/26/18
Lab Sample ID:	SGF0333-CCV1	Injection Time:	22:20
Sequence Name:	Calibration Check		

		CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenol	A	25.000	28.0	2.1280550	2.0263650		12.2	50
1,4-Dichlorobenzene	A	25.000	23.9	1.6099940	1.5370490		-4.5	50
1,2-Dichlorobenzene	A	25.000	24.1	1.5115570	1.4579910		-3.6	50
Benzyl alcohol	A	25.000	24.6	1.1259250	1.1096050		-1.4	50
4-Methylphenol	A	25.000	24.5	1.4913040	1.4587340		-2.2	50
2,4-Dimethylphenol	A	25.000	23.0	0.4152037	0.3818701		-8.0	50
1,2,4-Trichlorobenzene	A	25.000	23.7	0.3338350	0.3166183		-5.2	50
Benzoic acid	A	75.000	79.4	0.2848118	0.3013901		5.8	50
Dimethylphthalate	A	25.000	24.1	1.4128190	1.3628430		-3.5	50
Dibenzofuran	A	25.000	24.3	1.8825360	1.8273400		-2.9	50
N-Nitrosodiphenylamine	A	25.000	24.3	0.6059806	0.5896485		-2.7	50
Hexachlorobenzene	A	25.000	23.7	0.2382773	0.2257963		-5.2	50
Pentachlorophenol	A	50.000	51.1	0.1575206	0.1611117		2.3	50
Butylbenzylphthalate	A	25.000	25.8	0.5548307	0.5732253		3.3	50
bis(2-Ethylhexyl)phthalate	A	25.000	24.6	0.5942049	0.5840639		-1.7	50
2-Fluorophenol	A	37.500	36.6	1.4355790	1.3995250		-2.5	50
Phenol-d5	A	37.500	36.8	1.8036430	1.7693330		-1.9	50
2-Chlorophenol-d4	A	37.500	37.4	1.3858180	1.3818420		-0.3	50
1,2-Dichlorobenzene-d4	A	25.000	24.9	0.9314501	0.9270950		-0.5	50
Nitrobenzene-d5	A	25.000	25.7	0.4090887	0.4200034		2.7	50
2-Fluorobiphenyl	A	25.000	24.8	1.4224350	1.4094170		-0.9	50
2,4,6-Tribromophenol	A	37.500	39.8	0.1674352	0.1777129		6.1	50
p-Terphenyl-d14	A	25.000	25.9	0.7704360	0.7981245		3.6	50

* Values outside of QC limits

Data File: \\target\share\chem3\nt12.i\20180626.b\ccv.b\N1218062621.D

Date : 26-JUN-2018 22:20

Client ID:

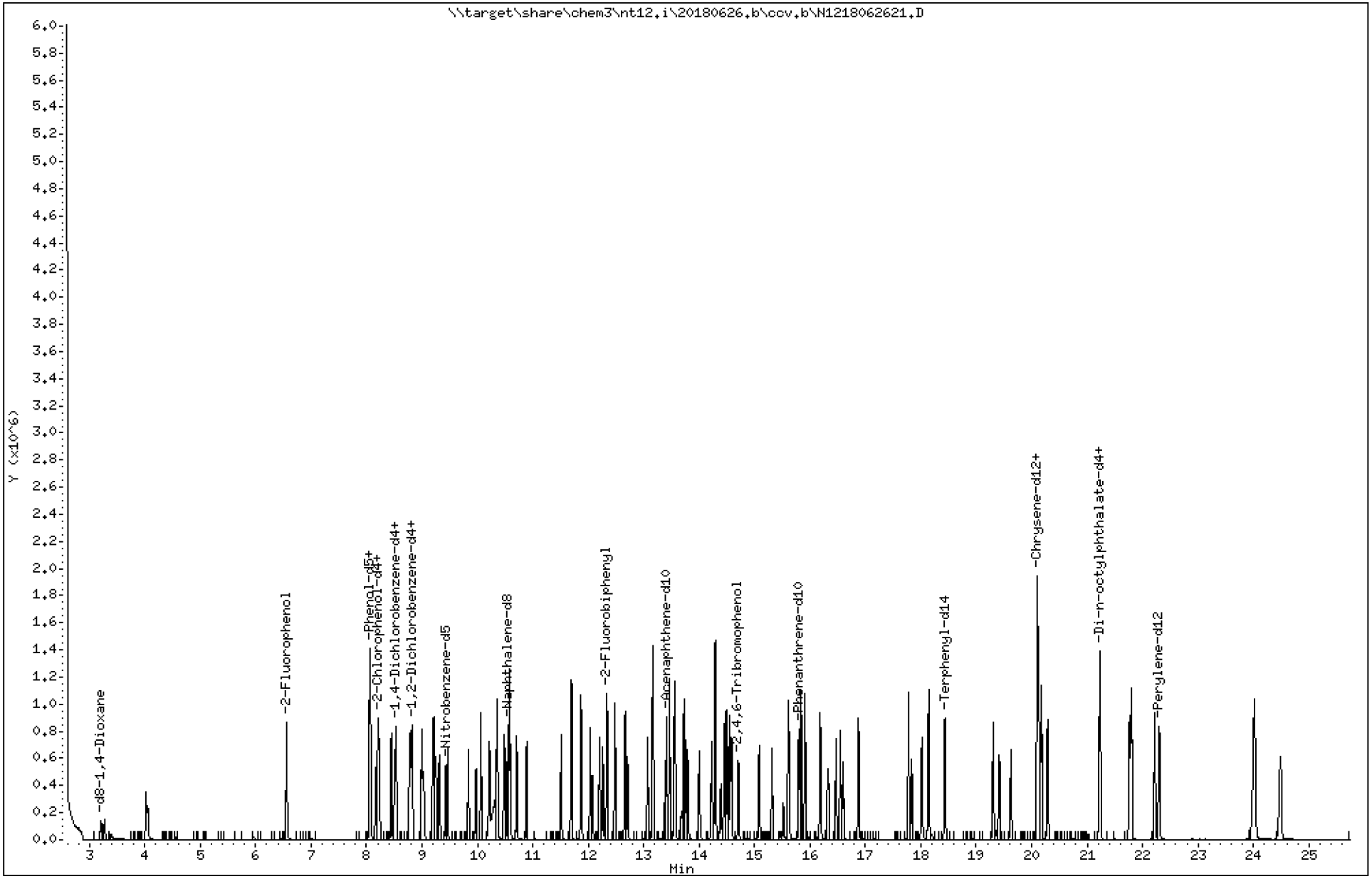
Instrument: nt12.i

Sample Info: CCV180626,

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180626.b\ccv.b\N1218062621.D
Lab Smp Id: SGF0333-CCV1
Inj Date : 26-JUN-2018 22:20
Operator : JZ Inst ID: nt12.i
Smp Info : CCV180626,
Misc Info : CCV
Comment : 1ul Injection
Method : \\target\share\chem3\nt12.i\20180626.b\ccv.b\SW846180516C.m
Meth Date : 27-Jun-2018 11:44 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 21 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALA.sub
Target Version: 4.14
Processing Host: ORGDATA22

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1	2-Fluorophenol	112	6.556	6.556	(0.771)	386938	37.5000	36.56
$	2	Phenol-d5	99	8.057	8.057	(0.947)	489182	37.5000	36.79
	3	Phenol	94	8.073	8.073	(0.949)	373497	25.0000	28.04
$	5	2-Chlorophenol-d4	132	8.207	8.207	(0.965)	382049	37.5000	37.39
	4	Bis(2-Chloroethyl)ether	93	8.169	8.169	(0.960)	277756	25.0000	24.16
	6	2-Chlorophenol	128	8.228	8.228	(0.967)	269932	25.0000	23.80
	7	1,3-Dichlorobenzene	146	8.447	8.447	(0.993)	287343	25.0000	24.00
*	8	1,4-Dichlorobenzene-d4	152	8.506	8.506	(1.000)	147455	20.0000	
	9	1,4-Dichlorobenzene	146	8.532	8.532	(1.003)	283307	25.0000	23.87
$	10	1,2-Dichlorobenzene-d4	152	8.805	8.805	(1.035)	170881	25.0000	24.88
	12	1,2-Dichlorobenzene	146	8.826	8.826	(1.038)	268735	25.0000	24.11
	11	Benzyl alcohol	108	8.778	8.778	(1.032)	204521	25.0000	24.64
	14	2,2'-oxybis(1-Chloropropane)	45	9.029	9.029	(1.062)	302447	25.0000	25.80
	13	2-Methylphenol	108	8.997	8.997	(1.058)	256681	25.0000	23.54
	17	Hexachloroethane	117	9.312	9.312	(1.095)	114580	25.0000	24.49
	16	N-Nitroso-di-n-propylamine	70	9.254	9.254	(1.088)	207105	25.0000	25.05
	15	4-Methylphenol	108	9.227	9.227	(1.085)	268872	25.0000	24.45
$	18	Nitrobenzene-d5	82	9.435	9.435	(0.895)	299517	25.0000	25.67
	19	Nitrobenzene	77	9.462	9.462	(0.897)	309135	25.0000	24.33
	20	Isophorone	82	9.836	9.836	(0.933)	468074	25.0000	24.40
	21	2-Nitrophenol	139	9.975	9.975	(0.946)	152232	25.0000	25.71
	22	2,4-Dimethylphenol	107	10.066	10.066	(0.954)	272323	25.0000	22.99
	23	Bis(2-Chloroethoxy)methane	93	10.215	10.215	(0.969)	312665	25.0000	24.21
	24	Benzoic acid	105	10.365	10.365	(0.983)	644791	75.0000	79.37
	25	2,4-Dichlorophenol	162	10.354	10.354	(0.982)	214564	25.0000	23.35
	26	1,2,4-Trichlorobenzene	180	10.488	10.488	(0.994)	225790	25.0000	23.71
*	27	Naphthalene-d8	136	10.546	10.546	(1.000)	570504	20.0000	
	28	Naphthalene	128	10.579	10.579	(1.003)	702692	25.0000	23.77
	29	4-Chloroaniline	127	10.712	10.712	(1.016)	314600	25.0000	23.16
	30	Hexachlorobutadiene	225	10.888	10.888	(1.032)	124324	25.0000	24.00
	31	4-Chloro-3-methylphenol	107	11.508	11.508	(1.091)	236625	25.0000	24.50
	32	2-Methylnaphthalene	141	11.695	11.695	(1.109)	430347	25.0000	24.79
	33	Hexachlorocyclopentadiene	237	12.074	12.074	(0.900)	114046	25.0000	26.11

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
	34	2,4,6-Trichlorophenol	196	12.208	12.208	(0.910)	163877	25.0000	24.31
	35	2,4,5-Trichlorophenol	196	12.267	12.267	(0.914)	170133	25.0000	24.52
$	36	2-Fluorobiphenyl	172	12.336	12.336	(0.920)	521597	25.0000	24.77
	37	2-Chloronaphthalene	162	12.480	12.480	(0.930)	461716	25.0000	23.91
	38	2-Nitroaniline	65	12.710	12.710	(0.947)	162033	25.0000	26.49
	39	Dimethylphthalate	163	13.073	13.073	(0.975)	504361	25.0000	24.12
	40	Acenaphthylene	152	13.164	13.164	(0.981)	669649	25.0000	24.25
	41	2,6-Dinitrotoluene	165	13.170	13.170	(0.982)	116211	25.0000	25.27
*	42	Acenaphthene-d10	164	13.415	13.415	(1.000)	296064	20.0000	
	43	3-Nitroaniline	138	13.389	13.389	(0.998)	142576	25.0000	25.41
	44	Acenaphthene	153	13.469	13.469	(1.004)	436951	25.0000	23.84
	45	2,4-Dinitrophenol	184	13.554	13.554	(1.010)	200603	75.0000	70.13
	46	Dibenzofuran	168	13.730	13.730	(1.023)	676262	25.0000	24.27
	47	4-Nitrophenol	109	13.682	13.682	(1.020)	60849	25.0000	20.56
	48	2,4-Dinitrotoluene	165	13.800	13.800	(1.029)	165676	25.0000	25.41
	50	Diethylphthalate	149	14.227	14.227	(1.061)	483103	25.0000	24.26
	49	Fluorene	166	14.286	14.286	(1.065)	505995	25.0000	25.21
	51	4-Chlorophenyl-phenylether	204	14.297	14.297	(1.066)	231808	25.0000	24.76
	52	4-Nitroaniline	138	14.398	14.398	(1.073)	134766	25.0000	24.54
	53	4,6-Dinitro-2-methylphenol	198	14.468	14.468	(0.916)	271842	75.0000	75.35
	54	N-Nitrosodiphenylamine	169	14.505	14.505	(0.918)	370555	25.0000	24.33
$	55	2,4,6-Tribromophenol	330	14.713	14.713	(1.097)	98652	37.5000	39.80
	56	4-Bromophenyl-phenylether	248	15.082	15.082	(0.955)	138351	25.0000	23.90
	57	Hexachlorobenzene	284	15.317	15.317	(0.970)	141898	25.0000	23.69
	58	Pentachlorophenol	266	15.611	15.611	(0.988)	202496	50.0000	51.14
*	59	Phenanthrene-d10	188	15.798	15.798	(1.000)	502747	20.0000	
	60	Phenanthrene	178	15.835	15.835	(1.002)	688890	25.0000	27.64
	61	Anthracene	178	15.910	15.910	(1.007)	677477	25.0000	23.83
	62	Carbazole	167	16.188	16.188	(1.025)	649536	25.0000	23.69
	63	Di-n-butylphthalate	149	16.877	16.877	(1.068)	753835	25.0000	24.03
	64	Fluoranthene	202	17.780	17.780	(1.125)	728318	25.0000	23.36
	65	Pyrene	202	18.143	18.143	(0.901)	745535	25.0000	25.58
$	66	Terphenyl-d14	244	18.437	18.437	(0.916)	468954	25.0000	25.90
	67	Butylbenzylphthalate	149	19.308	19.308	(0.959)	336810	25.0000	25.83
	68	Benzo(a)anthracene	228	20.104	20.104	(0.999)	607476	25.0000	28.48
*	69	Chrysene-d12	240	20.130	20.130	(1.000)	470056	20.0000	
	70	3,3'-Dichlorobenzidine	252	20.104	20.104	(0.999)	442836	50.0000	55.60
	71	Chrysene	228	20.173	20.173	(1.002)	622273	25.0000	26.14
	72	bis(2-Ethylhexyl)phthalate	149	20.291	20.291	(0.956)	447720	25.0000	24.57
*	134	Di-n-octylphthalate-d4	153	21.226	21.226	(1.000)	613248	20.0000	
	73	Di-n-octylphthalate	149	21.236	21.236	(1.000)	758834	25.0000	23.17
	74	Benzo(b)fluoranthene	252	21.765	21.765	(0.976)	680024	25.0000	21.93
	75	Benzo(k)fluoranthene	252	21.803	21.803	(0.978)	755527	25.0000	24.83
	187	Total Benzofluoranthenes	252	21.803	21.803	(0.978)	1359293	50.0000	46.73
	76	Benzo(a)pyrene	252	22.219	22.219	(0.996)	613219	25.0000	23.26
*	77	Perylene-d12	264	22.299	22.299	(1.000)	503794	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	24.004	24.004	(1.076)	796711	25.0000	25.85
	79	Dibenzo(a,h)anthracene	278	24.025	24.025	(1.077)	651153	25.0000	25.83
	80	Benzo(g,h,i)perylene	276	24.490	24.490	(1.098)	682537	25.0000	26.54
	90	N-Nitrosodimethylamine	74	4.061	4.061	(0.477)	174892	25.0000	24.16
	103	Pyridine	79	4.018	4.018	(0.472)	263565	25.0000	20.93
	91	Aniline	93	8.062	8.062	(0.948)	374944	25.0000	21.67
	105	1-methylnaphthalene	141	11.871	11.871	(1.126)	384590	25.0000	24.80
	111	Azobenzene (1,2-DP-Hydrazine)	77	14.553	14.553	(0.921)	585909	25.0000	25.00

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
143 1,4-Dioxane	88	3.270	3.270	(0.385)	107624	25.0000	22.37
$ 137 d8-1,4-Dioxane	64	3.206	3.206	(0.377)	66659	25.0000	22.69
144 alpha-Terpineol	59	10.589	10.589	(1.004)	85159	25.0000	25.03
133 Butylatedhydroxytoluene	205	13.565	13.565	(1.011)	222674	25.0000	18.56
115 Tributyl Phosphate	99	14.585	14.585	(0.923)	567126	25.0000	26.48
116 Dibutyl Phenyl Phosphate	175	16.327	16.327	(1.033)	319349	25.0000	25.91
117 Butyl Diphenyl Phosphate	94	18.015	18.015	(0.895)	131282	25.0000	30.21
118 Triphenyl Phosphate	326	19.628	19.628	(0.975)	110790	25.0000	25.80

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062621.D
Lab Smp Id: SGF0333-CCV1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180626.b\ccv.b\SW846180516C.m
Misc Info: CCV

Calibration Date: 26-JUN-2018
Calibration Time: 10:31
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	147455	16.12
27 Naphthalene-d8	478458	239229	956916	570504	19.24
42 Acenaphthene-d10	247659	123830	495318	296064	19.55
59 Phenanthrene-d10	421930	210965	843860	502747	19.15
69 Chrysene-d12	450836	225418	901672	470056	4.26
134 Di-n-octylphthala	583434	291717	1166868	613248	5.11
77 Perylene-d12	453093	226547	906186	503794	11.19

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.51	8.01	9.01	8.51	0.00
27 Naphthalene-d8	10.55	10.05	11.05	10.55	0.00
42 Acenaphthene-d10	13.42	12.92	13.92	13.42	0.00
59 Phenanthrene-d10	15.80	15.30	16.30	15.80	0.00
69 Chrysene-d12	20.13	19.63	20.63	20.13	0.00
134 Di-n-octylphthala	21.23	20.73	21.73	21.23	0.00
77 Perylene-d12	22.30	21.80	22.80	22.30	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062621.D

Lab ID: SGF0333-CCV1
nt12.i, 20180626.b\ccv.b\SW846180516C.m,   26-JUN-2018 22:20

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

On Column LOD for nt12.i, 20180626.b\ccv.b\SW846180516C.m, ICALA.sub = 0.0100

* Only compounds listed in the work order have been verified by the analyst *

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt12.i\20180626.b\ccv.b

Instrument: nt12.i Date: 26-JUN-2018 Method: 20180626.b\ccv.b\SW846180516C.m

INITIAL CAL: 16-MAY-2018

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: N1218062621.D 26-JUN-2018 22:20

Compound	%D
NO Q-FLAGS	

CONTINUING CALIBRATION CHECK
EPA 8270D

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	NT12	Calibration:	BE00052
Lab File ID:	N1218062716.D	Calibration Date:	05/16/18 12:00
Sequence:	SGF0348	Injection Date:	06/27/18
Lab Sample ID:	SGF0348-CCV1	Injection Time:	21:16
Sequence Name:	Calibration Check		

		CONC. (ug/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Phenol	A	25.000	26.1	2.1280550	1.8881840		4.5	50
1,4-Dichlorobenzene	A	25.000	23.0	1.6099940	1.4781340		-8.2	50
1,2-Dichlorobenzene	A	25.000	23.5	1.5115570	1.4201130		-6.0	50
Benzyl alcohol	A	25.000	19.8	1.1259250	0.8899435		-21.0	50
4-Methylphenol	A	25.000	22.5	1.4913040	1.3391250		-10.2	50
2,4-Dimethylphenol	A	25.000	21.8	0.4152037	0.3621413		-12.8	50
1,2,4-Trichlorobenzene	A	25.000	23.2	0.3338350	0.3103943		-7.0	50
Benzoic acid	A	75.000	72.5	0.2848118	0.2753160		-3.3	50
Dimethylphthalate	A	25.000	23.0	1.4128190	1.2972350		-8.2	50
Dibenzofuran	A	25.000	19.7	1.8825360	1.4805460		-21.4	50
N-Nitrosodiphenylamine	A	25.000	23.1	0.6059806	0.5607966		-7.4	50
Hexachlorobenzene	A	25.000	22.4	0.2382773	0.2136557		-10.3	50
Pentachlorophenol	A	50.000	48.2	0.1575206	0.1516912		-3.7	50
Butylbenzylphthalate	A	25.000	23.7	0.5548307	0.5259107		-5.2	50
bis(2-Ethylhexyl)phthalate	A	25.000	22.7	0.5942049	0.5398995		-9.1	50
2-Fluorophenol	A	37.500	37.7	1.4355790	1.4432220		0.5	50
Phenol-d5	A	37.500	36.6	1.8036430	1.7624120		-2.3	50
2-Chlorophenol-d4	A	37.500	37.4	1.3858180	1.3824410		-0.2	50
1,2-Dichlorobenzene-d4	A	25.000	25.2	0.9314501	0.9373323		0.6	50
Nitrobenzene-d5	A	25.000	25.9	0.4090887	0.4231100		3.4	50
2-Fluorobiphenyl	A	25.000	24.8	1.4224350	1.4104210		-0.8	50
2,4,6-Tribromophenol	A	37.500	38.5	0.1674352	0.1718194		2.6	50
p-Terphenyl-d14	A	25.000	25.6	0.7704360	0.7891016		2.4	50

* Values outside of QC limits

Data File: \\target\share\chem3\nt12.i\20180627.b\ccv.b\N1218062716.D

Date : 27-JUN-2018 21:16

Client ID:

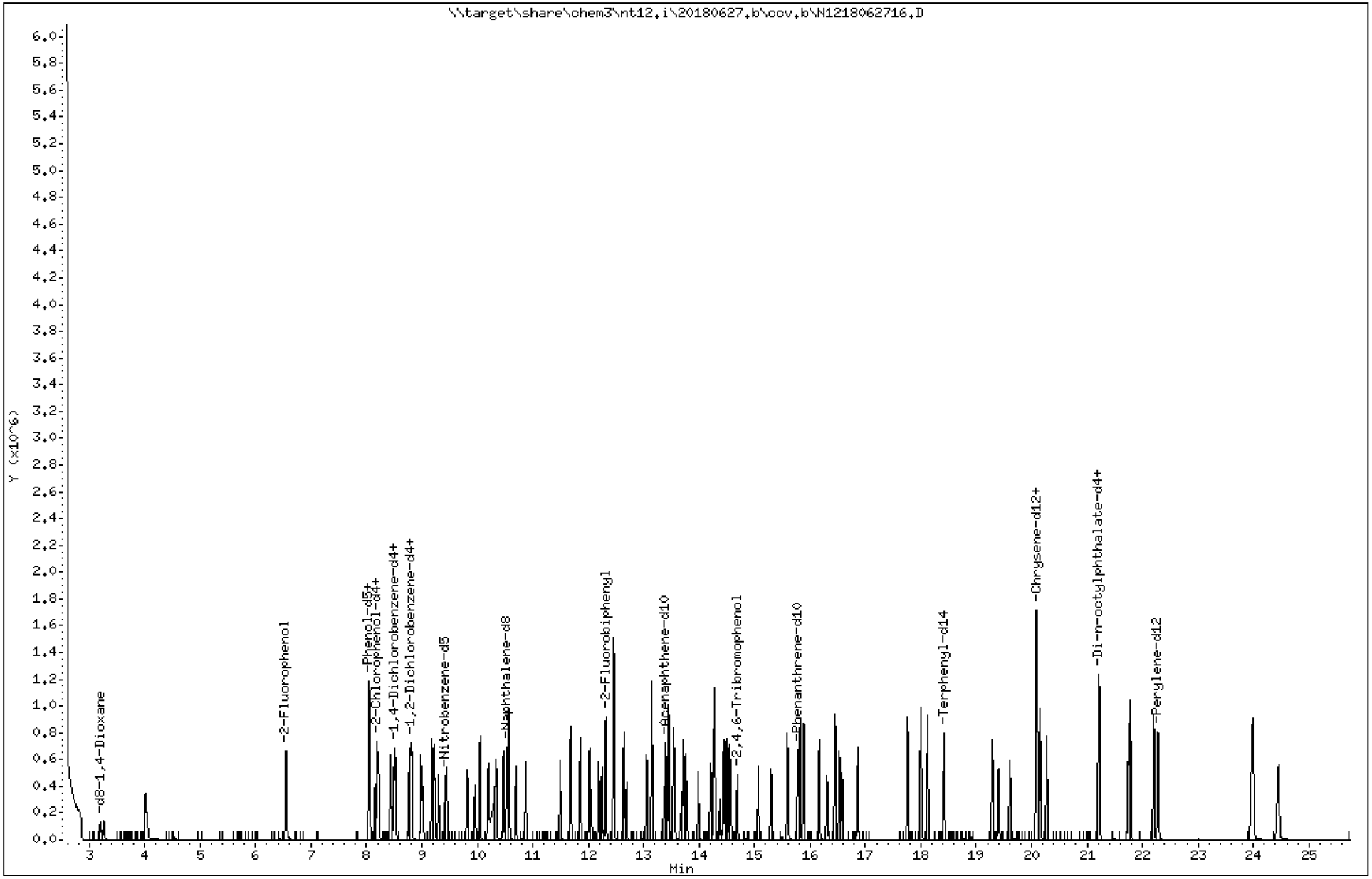
Instrument: nt12.i

Sample Info: CCV180627,

Operator: JZ

Column phase: ZB-5msi

Column diameter: 0.32



ARI Labs, Inc.

Semivolatile Report SW846 Method 8270D

Data file : \\target\share\chem3\nt12.i\20180627.b\ccv.b\N1218062716.D
Lab Smp Id: SGF0348-CCV1
Inj Date : 27-JUN-2018 21:16
Operator : JZ Inst ID: nt12.i
Smp Info : CCV180627,
Misc Info : CCV
Comment : 1ul Injection
Method : \\target\share\chem3\nt12.i\20180627.b\ccv.b\SW846180516C.m
Meth Date : 28-Jun-2018 14:21 jianqing Quant Type: ISTD
Cal Date : 16-MAY-2018 16:36 Cal File: N1218051608.D
Als bottle: 16 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: ICALS.sub
Target Version: 4.14
Processing Host: ORGDATA22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	ON-COL (ug/mL)
$	1 2-Fluorophenol	112	6.545	6.545	(0.771)	343486	37.5000	37.70
$	2 Phenol-d5	99	8.041	8.041	(0.947)	419453	37.5000	36.64
	3 Phenol	94	8.057	8.057	(0.949)	299591	25.0000	26.13
$	5 2-Chlorophenol-d4	132	8.190	8.190	(0.965)	329020	37.5000	37.41
	4 Bis(2-Chloroethyl)ether	93	8.153	8.153	(0.960)	223409	25.0000	22.58
	6 2-Chlorophenol	128	8.217	8.217	(0.968)	215860	25.0000	22.11
	7 1,3-Dichlorobenzene	146	8.431	8.431	(0.993)	241976	25.0000	23.48
*	8 1,4-Dichlorobenzene-d4	152	8.490	8.490	(1.000)	126933	20.0000	
	9 1,4-Dichlorobenzene	146	8.516	8.516	(1.003)	234530	25.0000	22.95
$	10 1,2-Dichlorobenzene-d4	152	8.789	8.789	(1.035)	148723	25.0000	25.16
	12 1,2-Dichlorobenzene	146	8.810	8.810	(1.038)	225324	25.0000	23.49
	11 Benzyl alcohol	108	8.762	8.762	(1.032)	141204	25.0000	19.76
	14 2,2'-oxybis(1-Chloropropane)	45	9.013	9.013	(1.062)	232260	25.0000	23.02
	13 2-Methylphenol	108	8.986	8.986	(1.059)	204214	25.0000	21.76
	17 Hexachloroethane	117	9.302	9.302	(1.096)	93512	25.0000	23.22
	16 N-Nitroso-di-n-propylamine	70	9.232	9.232	(1.087)	166272	25.0000	23.36
	15 4-Methylphenol	108	9.211	9.211	(1.085)	212474	25.0000	22.45
$	18 Nitrobenzene-d5	82	9.414	9.414	(0.894)	250332	25.0000	25.86
	19 Nitrobenzene	77	9.446	9.446	(0.897)	244843	25.0000	23.22
	20 Isophorone	82	9.820	9.820	(0.933)	349247	25.0000	21.95
	21 2-Nitrophenol	139	9.959	9.959	(0.946)	113321	25.0000	23.06
	22 2,4-Dimethylphenol	107	10.050	10.050	(0.954)	214260	25.0000	21.81
	23 Bis(2-Chloroethoxy)methane	93	10.199	10.199	(0.969)	235874	25.0000	22.01
	24 Benzoic acid	105	10.327	10.327	(0.981)	488670	75.0000	72.50
	25 2,4-Dichlorophenol	162	10.338	10.338	(0.982)	170003	25.0000	22.30
	26 1,2,4-Trichlorobenzene	180	10.472	10.472	(0.994)	183644	25.0000	23.24
*	27 Naphthalene-d8	136	10.530	10.530	(1.000)	473318	20.0000	
	28 Naphthalene	128	10.562	10.562	(1.003)	567504	25.0000	23.02
	29 4-Chloroaniline	127	10.696	10.696	(1.016)	215253	25.0000	19.10
	30 Hexachlorobutadiene	225	10.872	10.872	(1.032)	101217	25.0000	23.55
	31 4-Chloro-3-methylphenol	107	11.492	11.492	(1.091)	180050	25.0000	22.47
	32 2-Methylnaphthalene	141	11.679	11.679	(1.109)	298920	25.0000	20.76
	33 Hexachlorocyclopentadiene	237	12.058	12.058	(0.900)	83612	25.0000	23.04

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/mL)	ON-COL (ug/mL)
	34	2,4,6-Trichlorophenol	196	12.186	12.186	(0.910)	122497	25.0000	21.87
	35	2,4,5-Trichlorophenol	196	12.245	12.245	(0.914)	129001	25.0000	22.38
$	36	2-Fluorobiphenyl	172	12.320	12.320	(0.920)	433657	25.0000	24.79
	37	2-Chloronaphthalene	162	12.464	12.464	(0.931)	342749	25.0000	21.37
	38	2-Nitroaniline	65	12.689	12.689	(0.947)	105920	25.0000	20.84
	39	Dimethylphthalate	163	13.052	13.052	(0.974)	398856	25.0000	22.95
	40	Acenaphthylene	152	13.143	13.143	(0.981)	541538	25.0000	23.61
	41	2,6-Dinitrotoluene	165	13.153	13.153	(0.982)	89969	25.0000	23.55
*	42	Acenaphthene-d10	164	13.394	13.394	(1.000)	245973	20.0000	
	43	3-Nitroaniline	138	13.367	13.367	(0.998)	94306	25.0000	20.23
	44	Acenaphthene	153	13.447	13.447	(1.004)	347109	25.0000	22.80
	45	2,4-Dinitrophenol	184	13.533	13.533	(1.010)	139668	75.0000	58.77
	46	Dibenzofuran	168	13.709	13.709	(1.024)	455218	25.0000	19.66
	47	4-Nitrophenol	109	13.661	13.661	(1.020)	49221	25.0000	20.02
	48	2,4-Dinitrotoluene	165	13.784	13.784	(1.029)	127104	25.0000	23.47
	50	Diethylphthalate	149	14.211	14.211	(1.061)	366560	25.0000	22.16
	49	Fluorene	166	14.265	14.265	(1.065)	393192	25.0000	23.36
	51	4-Chlorophenyl-phenylether	204	14.281	14.281	(1.066)	178523	25.0000	22.72
	52	4-Nitroaniline	138	14.371	14.371	(1.073)	91751	25.0000	20.11
	53	4,6-Dinitro-2-methylphenol	198	14.446	14.446	(0.915)	200398	75.0000	68.03
	54	N-Nitrosodiphenylamine	169	14.489	14.489	(0.918)	287777	25.0000	23.14
$	55	2,4,6-Tribromophenol	330	14.692	14.692	(1.097)	79243	37.5000	38.48
	56	4-Bromophenyl-phenylether	248	15.066	15.066	(0.955)	105332	25.0000	22.28
	57	Hexachlorobenzene	284	15.296	15.296	(0.969)	109639	25.0000	22.42
	58	Pentachlorophenol	266	15.595	15.595	(0.988)	155683	50.0000	48.15
*	59	Phenanthrene-d10	188	15.782	15.782	(1.000)	410526	20.0000	
	60	Phenanthrene	178	15.819	15.819	(1.002)	532903	25.0000	26.18
	61	Anthracene	178	15.894	15.894	(1.007)	543953	25.0000	23.43
	62	Carbazole	167	16.166	16.166	(1.024)	512335	25.0000	22.88
	63	Di-n-butylphthalate	149	16.861	16.861	(1.068)	585529	25.0000	22.86
	64	Fluoranthene	202	17.764	17.764	(1.126)	583772	25.0000	22.93
	65	Pyrene	202	18.122	18.122	(0.901)	604815	25.0000	22.79
$	66	Terphenyl-d14	244	18.416	18.416	(0.916)	422121	25.0000	25.61
	67	Butylbenzylphthalate	149	19.286	19.286	(0.959)	281330	25.0000	23.70
	68	Benzo(a)anthracene	228	20.082	20.082	(0.998)	531868	25.0000	27.39
*	69	Chrysene-d12	240	20.114	20.114	(1.000)	427951	20.0000	
	70	3,3'-Dichlorobenzidine	252	20.088	20.088	(0.999)	384939	50.0000	53.09
	71	Chrysene	228	20.152	20.152	(1.002)	544338	25.0000	25.12
	72	bis(2-Ethylhexyl)phthalate	149	20.275	20.275	(0.956)	373794	25.0000	22.72
*	134	Di-n-octylphthalate-d4	153	21.204	21.204	(1.000)	553872	20.0000	
	73	Di-n-octylphthalate	149	21.220	21.220	(1.001)	674029	25.0000	22.78
	74	Benzo(b)fluoranthene	252	21.749	21.749	(0.976)	661854	25.0000	22.69
	75	Benzo(k)fluoranthene	252	21.781	21.781	(0.977)	630798	25.0000	21.55
	187	Total Benzofluoranthenes	252	21.781	21.781	(0.977)	1228025	50.0000	44.88
	76	Benzo(a)pyrene	252	22.203	22.203	(0.996)	616042	25.0000	24.85
*	77	Perylene-d12	264	22.283	22.283	(1.000)	473882	20.0000	
	78	Indeno(1,2,3-cd)pyrene	276	23.971	23.971	(1.076)	693609	25.0000	23.93
	79	Dibenzo(a,h)anthracene	278	23.993	23.993	(1.077)	571020	25.0000	24.08
	80	Benzo(g,h,i)perylene	276	24.458	24.458	(1.098)	595460	25.0000	24.62
	90	N-Nitrosodimethylamine	74	4.040	4.040	(0.476)	139051	25.0000	22.31
	103	Pyridine	79	4.007	4.007	(0.472)	277322	25.0000	25.58
	91	Aniline	93	8.046	8.046	(0.948)	311714	25.0000	20.93
	105	1-methylnaphthalene	141	11.855	11.855	(1.126)	270091	25.0000	20.99
	93	Benzidine	184	18.004	18.004	(0.895)	366078	50.0000	37.96

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/mL)	AMOUNTS ON-COL (ug/mL)
111	Azobenzene (1,2-DP-Hydrazine)	77	14.537	14.537	(0.921)	447690	25.0000	23.39
143	1,4-Dioxane	88	3.260	3.260	(0.384)	102160	25.0000	24.66
$ 137	d8-1,4-Dioxane	64	3.195	3.195	(0.376)	63355	25.0000	25.05
144	alpha-Terpineol	59	10.578	10.578	(1.005)	76305	25.0000	27.47
133	Butylatedhydroxytoluene	205	13.549	13.549	(1.012)	240577	25.0000	24.98
115	Tributyl Phosphate	99	14.564	14.564	(0.923)	445347	25.0000	25.47
116	Dibutyl Phenyl Phosphate	175	16.311	16.311	(1.034)	262857	25.0000	26.12
117	Butyl Diphenyl Phosphate	94	17.999	17.999	(0.895)	102361	25.0000	25.87
118	Triphenyl Phosphate	326	19.612	19.612	(0.975)	97710	25.0000	24.99
123	Acetophenone	105	9.179	9.179	(1.081)	340495	25.0000	24.13
168	Pentachlorobenzene	250	13.752	13.752	(1.027)	151909	25.0000	25.86
113	Diphenyl Oxide	170	12.646	12.646	(0.944)	276602	25.0000	24.75
112	Biphenyl	154	13.447	13.447	(1.004)	334566	25.0000	22.62
120	2,3,4,6-Tetrachlorophenol	232	13.987	13.987	(1.044)	97918	25.0000	24.23
151	1,2,4,5-Tetrachlorobenzene	216	12.021	12.021	(0.897)	185260	25.0000	23.34
186	Carbaryl	144	16.578	16.578	(1.050)	272324	25.0000	23.37
178	2-Benzyl-4-Chlorophenol	218	16.530	16.530	(1.047)	110928	25.0000	23.44

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt12.i
Lab File ID: N1218062716.D
Lab Smp Id: SGF0348-CCV1
Analysis Type: SV
Quant Type: ISTD
Operator: JZ
Method File: \\target\share\chem3\nt12.i\20180627.b\ccv.b\SW846180516C.m
Misc Info: CCV

Calibration Date: 26-JUN-2018
Calibration Time: 22:20
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	126982	63491	253964	126933	-0.04
27 Naphthalene-d8	478458	239229	956916	473318	-1.07
42 Acenaphthene-d10	247659	123830	495318	245973	-0.68
59 Phenanthrene-d10	421930	210965	843860	410526	-2.70
69 Chrysene-d12	450836	225418	901672	427951	-5.08
134 Di-n-octylphthala	583434	291717	1166868	553872	-5.07
77 Perylene-d12	453093	226547	906186	473882	4.59

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
8 1,4-Dichlorobenze	8.49	7.99	8.99	8.49	0.00
27 Naphthalene-d8	10.53	10.03	11.03	10.53	0.00
42 Acenaphthene-d10	13.39	12.89	13.89	13.39	0.00
59 Phenanthrene-d10	15.78	15.28	16.28	15.78	0.00
69 Chrysene-d12	20.11	19.61	20.61	20.11	0.00
134 Di-n-octylphthala	21.20	20.70	21.70	21.20	0.00
77 Perylene-d12	22.28	21.78	22.78	22.28	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - N1218062716.D

Lab ID: SGF0348-CCV1
nt12.i, ccv.b\SW846180516C.m, 27-JUN-2018 21:16

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

On Column LOD for nt12.i, ccv.b\SW846180516C.m, ICALS.sub = 0.0100

* Only compounds listed in the work order have been verified by the analyst *

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt12.i\20180627.b\ccv.b

Instrument: nt12.i Date: 27-JUN-2018 Method: ccv.b\SW846180516C.m

INITIAL CAL: 16-MAY-2018

Compound	%RSD or R^2
NO Q-FLAGS	

CONTINUING CAL: N1218062716.D 27-JUN-2018 21:16

Compound	%D
NO Q-FLAGS	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270D

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGE0274	Instrument:	NT12
		Calibration:	BE00052

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SGE0274-TUN1	N1218051601A.D	NA	05/16/18 12:39
Cal Standard	SGE0274-CAL4	N1218051601.D	NA	05/16/18 12:39
Cal Standard	SGE0274-CAL1	N1218051603.D	NA	05/16/18 13:46
Cal Standard	SGE0274-CAL2	N1218051604.D	NA	05/16/18 14:20
Cal Standard	SGE0274-CAL3	N1218051605.D	NA	05/16/18 14:54
Cal Standard	SGE0274-CAL5	N1218051606.D	NA	05/16/18 15:28
Cal Standard	SGE0274-CAL6	N1218051607.D	NA	05/16/18 16:02
Cal Standard	SGE0274-CAL7	N1218051608.D	NA	05/16/18 16:36
Secondary Cal Check	SGE0274-SCV1	N1218051610.D	NA	05/16/18 18:47

Printed: 5/17/2018 4:40:57PM

ANALYSIS SEQUENCE

SGE0274

Instrument: NT12 Element Column ID: F011930
Calibration ID: BE00052 Tune File: 180419.U
EM Voltage: 1235

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SGE0274-TUN1	MS Tune	QC		1	G002650		
SGE0274-CAL1	Cal Standard	QC		2	G003427	G003191	
SGE0274-CAL2	Cal Standard	QC		3	G003428	G003191	
SGE0274-CAL3	Cal Standard	QC		4	G003429	G003191	
SGE0274-CAL4	Cal Standard	QC		5	G003430	G003191	
SGE0274-CAL5	Cal Standard	QC		6	G003431	G003191	
SGE0274-CAL6	Cal Standard	QC		7	G003432	G003191	
SGE0274-CAL7	Cal Standard	QC		8	G003433	G003191	
SGE0274-CAL8	Cal Standard	QC		9	F009427	G003191	
SGE0274-SCV1	Secondary Cal Check	QC		10	G004494	G003191	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt12.i\20180516.b

	Time	Filename	LabID	ClientId	DF																			
1	1239	N1218051601.D	SGE0274-CAL4		1	8.58	126982	10.62	478458	13.49	247659	15.88	421930	20.22	450836	21.30	583434	22.39	453093					
2	1239	N1218051601A.D	SGE0274-TUN1		1	NO ISTDS FOUND																		
3	1312	N1218051602.D	SGE0274-CAL8		1	8.58	130895																	
4	1346	N1218051603.D	SGE0274-CAL1		1	8.55	131944	10.60	492226	13.47	250877	15.86	406660	20.20	439117	21.28	581063	22.37	456090					
5	1420	N1218051604.D	SGE0274-CAL2		1	8.59	133152	10.63	495578	13.50	254859	15.89	412112	20.22	447222	21.31	588941	22.40	454381					
6	1454	N1218051605.D	SGE0274-CAL3		1	8.59	130215	10.63	489722	13.50	249468	15.89	409765	20.22	438453	21.31	581889	22.40	454600					
7	1528	N1218051606.D	SGE0274-CAL5		1	8.59	127731	10.63	483960	13.50	244204	15.89	408720	20.23	427128	21.31	538823	22.41	443807					
8	1602	N1218051607.D	SGE0274-CAL6		1	8.57	127141	10.62	484841	13.49	242164	15.88	411810	20.22	419370	21.30	516604	22.39	438986					
9	1636	N1218051608.D	SGE0274-CAL7		1	8.63	138600	10.67	536245	13.54	253693	15.94	450504	20.28	448263	21.35	544496	22.45	481354					
10	1723	N1218051609.D	G001045		1	8.62	139341	10.66	526853	13.53	267688	15.92	443059	20.26	452804	21.34	585987	22.44	482898					
11	1847	N1218051610.D	SGE0274-SCV1		1	8.62	130483	10.66	488782	13.53	245643	15.93	414123	20.26	432711	21.34	564243	22.44	451445					

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt12.i\20180516.b

ARI Job No.: SGE0 Method: SW846180516.m Instrument: nt12.i Date: 16-MAY-2018

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1239	N1218051601.D	SGE0274-CAL4		1	NO MANUAL INTEGRATION
1312	N1218051602.D	SGE0274-CAL8		1	NO MANUAL INTEGRATION
1346	N1218051603.D	SGE0274-CAL1		1	Total Benzofluoranthenes, Pyridine,
1420	N1218051604.D	SGE0274-CAL2		1	NO MANUAL INTEGRATION
1454	N1218051605.D	SGE0274-CAL3		1	NO MANUAL INTEGRATION
1528	N1218051606.D	SGE0274-CAL5		1	NO MANUAL INTEGRATION
1602	N1218051607.D	SGE0274-CAL6		1	NO MANUAL INTEGRATION
1636	N1218051608.D	SGE0274-CAL7		1	Benzoic acid,
1847	N1218051610.D	SGE0274-SCV1		1	NO MANUAL INTEGRATION

Security Status Report

Date: 17-May-2018 17:03

N1218051601.D	Data Locked	jianqing, 17-May-2018 17:03
N1218051601A.D	Data Locked	jianqing, 17-May-2018 17:03
N1218051602.D	Data Locked	jianqing, 17-May-2018 17:03
N1218051603.D	Data Locked	jianqing, 17-May-2018 17:03
N1218051604.D	Data Locked	jianqing, 17-May-2018 17:03
N1218051605.D	Data Locked	jianqing, 17-May-2018 17:03
N1218051606.D	Data Locked	jianqing, 17-May-2018 17:03
N1218051607.D	Data Locked	jianqing, 17-May-2018 17:03
N1218051608.D	Data Locked	jianqing, 17-May-2018 17:03
N1218051610.D	Data Locked	jianqing, 17-May-2018 17:03

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270D

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGF0272	Instrument:	NT12
		Calibration:	BE00052

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SGF0272-TUN1	N1218062101A.D	NA	06/21/18 11:24
Initial Cal Verification	SGF0272-ICV1	N1218062101.D	NA	06/21/18 11:24
Blank	BGF0417-BLK1	N1218062102.D	Water	06/21/18 11:59
LCS	BGF0417-BS1	N1218062103.D	Water	06/21/18 12:33
LDW18-SP-RB1	18F0185-01	N1218062104.D	Water	06/21/18 13:07
LDW18-SP-30	18F0185-03	N1218062105.D	Water	06/21/18 13:41
LDW18-SP-32	18F0185-04	N1218062106.D	Water	06/21/18 14:15
LDW18-SP-35	18F0185-05	N1218062107.D	Water	06/21/18 14:49
LDW18-SP-38	18F0185-06	N1218062108.D	Water	06/21/18 15:23
LDW18-SP-42	18F0185-07	N1218062109.D	Water	06/21/18 15:57
LDW18-SP-43	18F0185-08	N1218062110.D	Water	06/21/18 16:31
LDW18-SP-43	BGF0417-MS1	N1218062111.D	Water	06/21/18 17:04
LDW18-SP-43	BGF0417-MSD1	N1218062112.D	Water	06/21/18 17:38
Blank	BGF0434-BLK1	N1218062113.D	Water	06/21/18 18:12
LCS	BGF0434-BS1	N1218062114.D	Water	06/21/18 18:46
LDW18-SP-06	18F0208-01	N1218062115.D	Water	06/21/18 19:20
LDW18-SP-33	18F0208-02	N1218062116.D	Water	06/21/18 19:53
LDW18-SP-24	18F0208-03	N1218062117.D	Water	06/21/18 20:27
LDW18-SP-24-FD	18F0208-04	N1218062118.D	Water	06/21/18 21:01
Calibration Check	SGF0272-CCV1	N1218062120.D	NA	06/21/18 22:08

Printed: 6/25/2018 12:59:02PM

ANALYSIS SEQUENCE

SGF0272

Instrument: NT12 Element Column ID: F011930
Calibration ID: BE00052 Tune File: 180419.U
EM Voltage: 1247

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SGF0272-TUN1	MS Tune	QC		1	G002650		
SGF0272-ICV1	Initial Cal Verification	QC		2	G005190	G003191	
BGF0417-BLK1	Blank	QC		3		G003191	
BGF0417-BS1	LCS	QC		4		G003191	
18F0185-01	LDW18-SP-RB1	8270D SVOC (1-20 ug/L SepF)	E 01	5		G003191	
18F0185-03	LDW18-SP-30	8270D SVOC (1-20 ug/L SepF)	E 01	6		G003191	
18F0185-04	LDW18-SP-32	8270D SVOC (1-20 ug/L SepF)	E 01	7		G003191	
18F0185-05	LDW18-SP-35	8270D SVOC (1-20 ug/L SepF)	E 01	8		G003191	
18F0185-06	LDW18-SP-38	8270D SVOC (1-20 ug/L SepF)	E 01	9		G003191	
18F0185-07	LDW18-SP-42	8270D SVOC (1-20 ug/L SepF)	E 01	10		G003191	
18F0185-08	LDW18-SP-43	8270D SVOC (1-20 ug/L SepF)	H 01	11		G003191	
BGF0417-MS1	Matrix Spike	QC		12		G003191	
BGF0417-MSD1	Matrix Spike Dup	QC		13		G003191	
BGF0434-BLK1	Blank	QC		14		G003191	
BGF0434-BS1	LCS	QC		15		G003191	
18F0208-01	LDW18-SP-06	8270D SVOC (1-20 ug/L SepF)	D 01	16		G003191	
18F0208-02	LDW18-SP-33	8270D SVOC (1-20 ug/L SepF)	D 01	17		G003191	
18F0208-03	LDW18-SP-24	8270D SVOC (1-20 ug/L SepF)	E 01	18		G003191	
18F0208-04	LDW18-SP-24-FD	8270D SVOC (1-20 ug/L SepF)	E 01	19		G003191	
SGF0272-CCV1	Calibration Check	QC		20	G005190	G003191	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt12.i\20180621.b

	Time	Filename	LabID	ClientId	DF																				
1	1124	N1218062101.D	SGF0272-ICV1		1	8.51	115576	10.55	440532	13.42	228646	15.81	391823	20.14	377279	21.23	524153	22.31	390293						
2	1124	N1218062101A.D	SGF0272-TUN1		1	NO ISTDS FOUND																			
3	1159	N1218062102.D	BGF0417-BLK1		1	8.51	118809	10.55	445557	13.42	234947	15.80	392932	20.13	354769	21.22	482937	22.30	349218						
4	1233	N1218062103.D	BGF0417-BS1		1	8.49	126876	10.53	485753	13.40	247541	15.78	421523	20.11	373347	21.20	506880	22.28	392763						
5	1307	N1218062104.D	18F0185-01		1	8.49	129295	10.53	492917	13.39	261398	15.78	444843	20.09	379665	21.20	535834	22.28	373192						
6	1341	N1218062105.D	18F0185-03		1	8.51	147593	10.55	554240	13.42	294155	15.80	498395	20.13	437924	21.23	583073	22.31	410191						
7	1415	N1218062106.D	18F0185-04		1	8.51	150726	10.55	569024	13.42	304328	15.81	513782	20.14	449083	21.23	588321	22.31	427951						
8	1449	N1218062107.D	18F0185-05		1	8.51	145864	10.55	552390	13.42	294810	15.80	500473	20.14	436992	21.23	579044	22.31	412817						
9	1523	N1218062108.D	18F0185-06		1	8.51	148765	10.55	555791	13.42	299978	15.80	510258	20.14	454219	21.23	615391	22.31	432637						
10	1557	N1218062109.D	18F0185-07		1	8.51	134451	10.55	513875	13.42	276593	15.80	472411	20.13	408417	21.23	548721	22.31	385619						
11	1631	N1218062110.D	18F0185-08		1	8.51	151690	10.55	575900	13.42	307973	15.81	526049	20.14	458187	21.23	605828	22.31	432017						
12	1704	N1218062111.D	BGF0417-MS1		1	8.52	143334	10.56	547800	13.43	285179	15.81	483511	20.14	423177	21.23	555224	22.31	430207						
13	1738	N1218062112.D	BGF0417-MSD1		1	8.52	145919	10.56	556932	13.43	288615	15.81	493800	20.14	431573	21.23	567960	22.31	436455						
14	1812	N1218062113.D	BGF0434-BLK1		1	8.51	134445	10.55	507276	13.42	274839	15.80	470889	20.13	412891	21.23	543317	22.31	399948						
15	1846	N1218062114.D	BGF0434-BS1		1	8.52	141385	10.56	550416	13.43	277267	15.81	484294	20.14	418146	21.23	540935	22.31	436005						
16	1920	N1218062115.D	18F0208-01		1	8.51	149774	10.55	564799	13.42	303843	15.80	516825	20.14	455126	21.23	603873	22.31	437109						
17	1953	N1218062116.D	18F0208-02		1	8.51	149335	10.55	565714	13.42	298217	15.81	505584	20.13	444696	21.23	599580	22.31	436319						
18	2027	N1218062117.D	18F0208-03		1	8.51	138608	10.55	522735	13.42	281402	15.80	475663	20.14	415494	21.23	561948	22.31	404392						
19	2101	N1218062118.D	18F0208-04		1	8.52	145310	10.55	542164	13.42	287320	15.80	475217	20.14	420756	21.23	567488	22.31	424533						
20	2135	N1218062119.D	18F0206-03		1	8.51	143348	10.55	532876	13.42	281662	15.80	464820	20.13	416774	21.23	585954	22.31	431167						

Benzidine out NR

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt12.i\20180621.b

	Time	Filename	LabID	ClientId	DF											
21	2208	N1218062120.D	SGF0272-CCV1		1	8.52	140587	10.56	542240	13.43	282975	15.81	480294	20.14	428092	21.23	555947	22.31	443685

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt12.i\20180621.b

ARI Job No.: SGF0 Method: SW846180516.m Instrument: nt12.i Date: 21-JUN-2018

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1124	N1218062101.D	SGF0272-ICV1		1	NO MANUAL INTEGRATION
1159	N1218062102.D	BGF0417-BLK1		1	NO MANUAL INTEGRATION
1233	N1218062103.D	BGF0417-BS1		1	NO MANUAL INTEGRATION
1307	N1218062104.D	18F0185-01		1	NO MANUAL INTEGRATION
1341	N1218062105.D	18F0185-03		1	NO MANUAL INTEGRATION
1415	N1218062106.D	18F0185-04		1	NO MANUAL INTEGRATION
1449	N1218062107.D	18F0185-05		1	NO MANUAL INTEGRATION
1523	N1218062108.D	18F0185-06		1	NO MANUAL INTEGRATION
1557	N1218062109.D	18F0185-07		1	NO MANUAL INTEGRATION
1631	N1218062110.D	18F0185-08		1	NO MANUAL INTEGRATION
1704	N1218062111.D	BGF0417-MS1		1	NO MANUAL INTEGRATION
1738	N1218062112.D	BGF0417-MSD1		1	NO MANUAL INTEGRATION
1812	N1218062113.D	BGF0434-BLK1		1	NO MANUAL INTEGRATION
1846	N1218062114.D	BGF0434-BS1		1	NO MANUAL INTEGRATION
1920	N1218062115.D	18F0208-01		1	NO MANUAL INTEGRATION
1953	N1218062116.D	18F0208-02		1	NO MANUAL INTEGRATION
2027	N1218062117.D	18F0208-03		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt12.i\20180621.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2101	N1218062118.D	18F0208-04		1	NO MANUAL INTEGRATION
2208	N1218062120.D	SGF0272-CCV1		1	NO MANUAL INTEGRATION

Security Status Report

Date: 25-Jun-2018 13:02

N1218062101.D	Data Locked	jianqing, 25-Jun-2018 13:02
N1218062102.D	Data Locked	jianqing, 25-Jun-2018 13:02
N1218062103.D	Data Locked	jianqing, 25-Jun-2018 13:02
N1218062104.D	Data Locked	jianqing, 25-Jun-2018 13:02
N1218062105.D	Data Locked	jianqing, 25-Jun-2018 13:02
N1218062106.D	Data Locked	jianqing, 25-Jun-2018 13:02
N1218062107.D	Data Locked	jianqing, 25-Jun-2018 13:02
N1218062108.D	Data Locked	jianqing, 25-Jun-2018 13:02
N1218062109.D	Data Locked	jianqing, 25-Jun-2018 13:02
N1218062110.D	Data Locked	jianqing, 25-Jun-2018 13:02
N1218062111.D	Data Locked	jianqing, 25-Jun-2018 13:02
N1218062112.D	Data Locked	jianqing, 25-Jun-2018 13:02
N1218062113.D	Data Locked	jianqing, 25-Jun-2018 13:02
N1218062114.D	Data Locked	jianqing, 25-Jun-2018 13:02
N1218062115.D	Data Locked	jianqing, 25-Jun-2018 13:02
N1218062116.D	Data Locked	jianqing, 25-Jun-2018 13:02
N1218062117.D	Data Locked	jianqing, 25-Jun-2018 13:02
N1218062118.D	Data Locked	jianqing, 25-Jun-2018 13:02
N1218062120.D	Data Locked	jianqing, 25-Jun-2018 13:02

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270D

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGF0333	Instrument:	NT12
		Calibration:	BE00052

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SGF0333-TUN1	N1218062601A.D	NA	06/26/18 10:31
Initial Cal Verification	SGF0333-ICV1	N1218062601.D	NA	06/26/18 10:31
ZZZZZ	18F0324-01	N1218062604.D	Solid	06/26/18 12:43
Blank	BGF0515-BLK1	N1218062605.D	Water	06/26/18 13:17
LCS	BGF0515-BS1	N1218062606.D	Water	06/26/18 13:50
LDW18-SP-05	18F0226-01	N1218062607.D	Water	06/26/18 14:24
LDW18-SP-57	18F0226-02	N1218062608.D	Water	06/26/18 14:58
LDW18-SP-57	BGF0515-MS1	N1218062609.D	Water	06/26/18 15:32
LDW18-SP-57	BGF0515-MSD1	N1218062610.D	Water	06/26/18 16:07
LDW18-SP-73	18F0226-03	N1218062611.D	Water	06/26/18 16:41
LDW18-SP-74	18F0226-04	N1218062612.D	Water	06/26/18 17:15
LDW18-SP-77	18F0226-05	N1218062613.D	Water	06/26/18 17:49
LDW18-SP-78	18F0226-06	N1218062614.D	Water	06/26/18 18:23
LDW18-SP-79	18F0226-07	N1218062615.D	Water	06/26/18 18:57
LDW18-SP-84	18F0226-08	N1218062616.D	Water	06/26/18 19:31
LDW18-SP-87	18F0226-09	N1218062617.D	Water	06/26/18 20:05
ZZZZZ	BGF0584-BLK1	N1218062618.D	Water	06/26/18 20:39
ZZZZZ	BGF0584-BS1	N1218062619.D	Water	06/26/18 21:13
ZZZZZ	18F0271-01	N1218062620.D	Water	06/26/18 21:46
Calibration Check	SGF0333-CCV1	N1218062621.D	NA	06/26/18 22:20

Printed: 6/27/2018 2:41:18PM

ANALYSIS SEQUENCE

SGF0333

Instrument: NT12 Element Column ID: F011930
Calibration ID: BE00052 Tune File: 180419.U
EM Voltage: 1247

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SGF0333-TUN1	MS Tune	QC		1	G002650		
SGF0333-ICV1	Initial Cal Verification	QC		2	G005740	G003191	
BGF0553-BLK1	Blank	QC		3		G003191	
BGF0553-BS1	LCS	QC		4		G003191	
18F0324-01	EVT 45-06 WWTP	8270D SVOC (67 ug/kg or 1 ug/L Liq-Liq)	C 01	5		G003191	
BGF0515-BLK1	Blank	QC		6		G003191	
BGF0515-BS1	LCS	QC		7		G003191	
18F0226-01	LDW18-SP-05	8270D SVOC (1-20 ug/L SepF)	C 01	8		G003191	
18F0226-02	LDW18-SP-57	8270D SVOC (1-20 ug/L SepF)	F 01	9		G003191	
BGF0515-MS1	Matrix Spike	QC		10		G003191	
BGF0515-MSD1	Matrix Spike Dup	QC		11		G003191	
18F0226-03	LDW18-SP-73	8270D SVOC (1-20 ug/L SepF)	C 01	12		G003191	
18F0226-04	LDW18-SP-74	8270D SVOC (1-20 ug/L SepF)	C 01	13		G003191	
18F0226-05	LDW18-SP-77	8270D SVOC (1-20 ug/L SepF)	D 01	14		G003191	
18F0226-06	LDW18-SP-78	8270D SVOC (1-20 ug/L SepF)	D 01	15		G003191	
18F0226-07	LDW18-SP-79	8270D SVOC (1-20 ug/L SepF)	D 01	16		G003191	
18F0226-08	LDW18-SP-84	8270D SVOC (1-20 ug/L SepF)	C 01	17		G003191	
18F0226-09	LDW18-SP-87	8270D SVOC (1-20 ug/L SepF)	D 01	18		G003191	
BGF0584-BLK1	Blank	QC		19		G003191	
BGF0584-BS1	LCS	QC		20		G003191	
18F0271-01	3F WWTP Batch 18-23U Untrea	8270D SVOC (1-20 ug/L SepF)	F 01	21		G003191	
SGF0333-CCV1	Calibration Check	QC		22	G005740	G003191	

Printed: 6/27/2018 2:41:18PM

ANALYSIS SEQUENCE

SGF0333

Instrument: NT12 Element Column ID: F011930
Calibration ID: BE00052 Tune File: 180419.U
EM Voltage: 1247

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt12.i\20180626.b

	Time	Filename	LabID	ClientId	DF																			
1	1031	N1218062601.D	SGF0333-ICV1		1	8.49	121674	10.53	462180	13.40	239792	15.78	408562	20.12	403146	21.20	536896	22.28	432277
2	1031	N1218062601A.D	SGF0333-TUN1		1	NO ISTDS FOUND																		
3	1135	N1218062602.D	BGF0553-BLK1		1	8.48	103326	10.53	389081	13.39	200685	15.78	334983	20.11	332935	21.20	427507	22.28	331124
4	1209	N1218062603.D	BGF0553-BS1		1	8.48	118804	10.53	454088	13.40	230206	15.78	387638	20.11	369368	21.20	491118	22.28	389258
5	1243	N1218062604.D	18F0324-01		1	8.49	118226	10.53	445242	13.39	222126	15.78	369661	20.12	342057	21.22	506992	22.29	369686
6	1317	N1218062605.D	BGF0515-BLK1		1	8.50	118996	10.54	439612	13.40	227428	15.79	384571	20.11	342595	21.21	459085	22.28	341530
7	1350	N1218062606.D	BGF0515-BS1		1	8.50	139253	10.54	540317	13.41	274881	15.79	469943	20.12	406057	21.21	543388	22.29	432599
8	1424	N1218062607.D	18F0226-01		1	8.51	139450	10.55	516563	13.42	278244	15.80	472695	20.13	419805	21.23	551992	22.30	420590
9	1458	N1218062608.D	18F0226-02		1	8.51	145444	10.55	549917	13.42	290778	15.80	498626	20.13	447989	21.23	584098	22.30	440396
10	1532	N1218062609.D	BGF0515-MS1		1	8.51	140828	10.56	553003	13.43	285260	15.81	493656	20.14	430510	21.23	555187	22.31	440633
11	1607	N1218062610.D	BGF0515-MSD1		1	8.51	136185	10.55	529023	13.42	271862	15.81	473709	20.14	415396	21.23	537289	22.31	426111
12	1641	N1218062611.D	18F0226-03		1	8.51	131126	10.54	486729	13.41	257218	15.80	436754	20.13	392827	21.22	522389	22.29	379485
13	1715	N1218062612.D	18F0226-04		1	8.51	146953	10.55	546548	13.41	292015	15.80	501215	20.13	452044	21.22	601243	22.29	436027
14	1749	N1218062613.D	18F0226-05		1	8.51	150184	10.55	572624	13.42	303563	15.80	521181	20.13	469210	21.22	624220	22.30	450871
15	1823	N1218062614.D	18F0226-06		1	8.51	148552	10.55	554325	13.42	294310	15.80	506939	20.13	453939	21.22	594565	22.29	439590
16	1857	N1218062615.D	18F0226-07		1	8.51	136475	10.55	513554	13.41	272727	15.80	462324	20.13	408520	21.22	542558	22.30	399310
17	1931	N1218062616.D	18F0226-08		1	8.51	146500	10.55	550249	13.41	292087	15.80	501768	20.13	453073	21.22	582604	22.29	439535
18	2005	N1218062617.D	18F0226-09		1	8.51	144803	10.55	539826	13.41	285119	15.80	489362	20.13	444434	21.22	568298	22.29	440987
19	2039	N1218062618.D	BGF0584-BLK1		1	13.41	232003	15.79	394366	20.12	365274									
20	2113	N1218062619.D	BGF0584-BS1		1	13.41	257823	15.79	437226	20.13	396387									

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt12.i\20180626.b

	Time	Filename	LabID	ClientId	DF	
21	2146	N1218062620.D	18F0271-01		10	|13.41 256072||15.79 428145||20.13 408965|
22	2220	N1218062621.D	SGF0333-CCV1		1	| 8.51 147455||10.55 570504||13.42 296064||15.80 502747||20.13 470056||21.23 613248||22.30 503794|

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt12.i\20180626.b

ARI Job No.: SGF0 Method: SW846180516.m Instrument: nt12.i Date: 26-JUN-2018

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1031	N1218062601.D	SGF0333-ICV1		1	NO MANUAL INTEGRATION
1135	N1218062602.D	BGF0553-BLK1		1	NO MANUAL INTEGRATION
1209	N1218062603.D	BGF0553-BS1		1	NO MANUAL INTEGRATION
1243	N1218062604.D	18F0324-01		1	NO MANUAL INTEGRATION
1317	N1218062605.D	BGF0515-BLK1		1	NO MANUAL INTEGRATION
1350	N1218062606.D	BGF0515-BS1		1	NO MANUAL INTEGRATION
1424	N1218062607.D	18F0226-01		1	NO MANUAL INTEGRATION
1458	N1218062608.D	18F0226-02		1	NO MANUAL INTEGRATION
1532	N1218062609.D	BGF0515-MS1		1	NO MANUAL INTEGRATION
1607	N1218062610.D	BGF0515-MSD1		1	NO MANUAL INTEGRATION
1641	N1218062611.D	18F0226-03		1	NO MANUAL INTEGRATION
1715	N1218062612.D	18F0226-04		1	NO MANUAL INTEGRATION
1749	N1218062613.D	18F0226-05		1	NO MANUAL INTEGRATION
1823	N1218062614.D	18F0226-06		1	NO MANUAL INTEGRATION
1857	N1218062615.D	18F0226-07		1	NO MANUAL INTEGRATION
1931	N1218062616.D	18F0226-08		1	NO MANUAL INTEGRATION
2005	N1218062617.D	18F0226-09		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt12.i\20180626.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2039	N1218062618.D	BGF0584-BLK1		1	NO MANUAL INTEGRATION
2113	N1218062619.D	BGF0584-BS1		1	NO MANUAL INTEGRATION
2146	N1218062620.D	18F0271-01		10	NO MANUAL INTEGRATION
2220	N1218062621.D	SGF0333-CCV1		1	NO MANUAL INTEGRATION

Security Status Report

Date: 27-Jun-2018 14:43

N1218062601.D	Data Locked	jianqing, 27-Jun-2018 14:43
N1218062601A.D	Data Locked	jianqing, 27-Jun-2018 14:43
N1218062602.D	Data Locked	jianqing, 27-Jun-2018 14:43
N1218062603.D	Data Locked	jianqing, 27-Jun-2018 14:43
N1218062604.D	Data Locked	jianqing, 27-Jun-2018 14:43
N1218062605.D	Data Locked	jianqing, 27-Jun-2018 14:43
N1218062606.D	Data Locked	jianqing, 27-Jun-2018 14:43
N1218062607.D	Data Locked	jianqing, 27-Jun-2018 14:43
N1218062608.D	Data Locked	jianqing, 27-Jun-2018 14:43
N1218062609.D	Data Locked	jianqing, 27-Jun-2018 14:43
N1218062610.D	Data Locked	jianqing, 27-Jun-2018 14:43
N1218062611.D	Data Locked	jianqing, 27-Jun-2018 14:43
N1218062612.D	Data Locked	jianqing, 27-Jun-2018 14:43
N1218062613.D	Data Locked	jianqing, 27-Jun-2018 14:43
N1218062614.D	Data Locked	jianqing, 27-Jun-2018 14:43
N1218062615.D	Data Locked	jianqing, 27-Jun-2018 14:43
N1218062616.D	Data Locked	jianqing, 27-Jun-2018 14:43
N1218062617.D	Data Locked	jianqing, 27-Jun-2018 14:43
N1218062618.D	Data Locked	jianqing, 27-Jun-2018 14:43
N1218062619.D	Data Locked	jianqing, 27-Jun-2018 14:43
N1218062620.D	Data Locked	jianqing, 27-Jun-2018 14:43
N1218062621.D	Data Locked	jianqing, 27-Jun-2018 14:43

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Extract Dilution Bench Sheet

Sequence: SG70333
Analyst: [signature] Date: 6/26/18

Sample ID	Primary Dilution				Secondary Dilution			
	Extract Volume (uL)	Diluent ID	Diluent Volume (uL)	Dilution Factor	Extract Volume (uL)	Diluent ID	Diluent Volume (uL)	Dilution Factor
18F0271	30	G004967	270	10				

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270D

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGF0348	Instrument:	NT12
		Calibration:	BE00052

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
MS Tune	SGF0348-TUN1	N1218062701A.D	NA	06/27/18 11:13
Initial Cal Verification	SGF0348-ICV1	N1218062701.D	NA	06/27/18 11:13
ZZZZZ	BGF0648-BLK1	N1218062702.D	Water	06/27/18 11:52
ZZZZZ	BGF0648-BS1	N1218062703.D	Water	06/27/18 12:26
ZZZZZ	18F0379-01	N1218062704.D	Water	06/27/18 13:00
ZZZZZ	18F0380-01	N1218062705.D	Water	06/27/18 13:34
Blank	BGF0552-BLK1	N1218062706.D	Water	06/27/18 15:38
LCS	BGF0552-BS1	N1218062707.D	Water	06/27/18 16:12
LDW18-SP-01	18F0248-01	N1218062708.D	Water	06/27/18 16:46
LDW18-SP-45	18F0248-02	N1218062709.D	Water	06/27/18 17:20
LDW18-SP-47	18F0248-03	N1218062710.D	Water	06/27/18 17:54
LDW18-SP-66	18F0248-04	N1218062711.D	Water	06/27/18 18:28
LDW18-SP-70	18F0248-05	N1218062712.D	Water	06/27/18 19:01
LDW18-SP-83	18F0248-06	N1218062713.D	Water	06/27/18 19:35
LDW18-SP-86	18F0248-07	N1218062714.D	Water	06/27/18 20:09
LDW18-SP-88	18F0248-08	N1218062715.D	Water	06/27/18 20:42
Calibration Check	SGF0348-CCV1	N1218062716.D	NA	06/27/18 21:16

Printed: 6/28/2018 2:45:22PM

ANALYSIS SEQUENCE

SGF0348

Instrument: NT12 Element Column ID: F011930
Calibration ID: BE00052 Tune File: 180419.U
EM Voltage: 1247

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SGF0348-TUN1	MS Tune	QC		1	G002650		
SGF0348-ICV1	Initial Cal Verification	QC		2	G005740	G003191	
BGF0648-BLK1	Blank	QC		3		G003191	
BGF0648-BS1	LCS	QC		4		G003191	
18F0379-01	on WWTP Batch 18-073-R, Go/M	8270D SVOC (1-20 ug/L SepF)	F 01	5		G003191	50 mL Prep for Phenol only
18F0380-01	on WWTP Batch 18-072-R, Go/M	8270D SVOC (1-20 ug/L SepF)	F 01	6		G003191	50 mL Prep for Phenol only
BGF0552-BLK1	Blank	QC		7		G003191	
BGF0552-BS1	LCS	QC		8		G003191	
18F0248-01	LDW18-SP-01	8270D SVOC (1-20 ug/L SepF)	E 01	9		G003191	
18F0248-02	LDW18-SP-45	8270D SVOC (1-20 ug/L SepF)	E 01	10		G003191	
18F0248-03	LDW18-SP-47	8270D SVOC (1-20 ug/L SepF)	E 01	11		G003191	
18F0248-04	LDW18-SP-66	8270D SVOC (1-20 ug/L SepF)	E 01	12		G003191	
18F0248-05	LDW18-SP-70	8270D SVOC (1-20 ug/L SepF)	E 01	13		G003191	
18F0248-06	LDW18-SP-83	8270D SVOC (1-20 ug/L SepF)	D 01	14		G003191	
18F0248-07	LDW18-SP-86	8270D SVOC (1-20 ug/L SepF)	E 01	15		G003191	
18F0248-08	LDW18-SP-88	8270D SVOC (1-20 ug/L SepF)	E 01	16		G003191	
SGF0348-CCV1	Calibration Check	QC		17	G005740	G003191	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt12.i\20180627.b

	Time	Filename	LabID	ClientId	DF															
1	1113	N1218062701.D	SGF0348-ICV1		1	8.49	113295	10.53	435352	13.39	229388	15.78	399765	20.11	400805	21.20	542872	22.28	406314	
2	1113	N1218062701A.D	SGF0348-TUN1		1	NO ISTDS FOUND														
3	1152	N1218062702.D	BGF0648-BLK1		1	8.49	111463	10.53	421759	13.39	216856	15.77	364980	20.10	367867	21.20	507986	22.27	375540	
4	1226	N1218062703.D	BGF0648-BS1		1	8.48	121567	10.53	460878	13.39	234653	15.78	395246	20.11	389181	21.20	527404	22.27	429155	
5	1300	N1218062704.D	18F0379-01		1	8.52	117836	10.55	260244	13.42	234190	15.78	406698	20.10	435924	21.20	617220	22.27	436199	
6	1334	N1218062705.D	18F0380-01		1	8.50	118845	10.55	229197	13.42	224778	15.78	392268	20.10	427361	21.20	595186	22.27	430517	
7	1538	N1218062706.D	BGF0552-BLK1		1	8.49	102368	10.53	391763	13.39	204080	15.78	358178	20.10	382680	21.20	527372	22.28	384108	
8	1612	N1218062707.D	BGF0552-BS1		1	8.49	115324	10.53	439421	13.40	226681	15.78	389611	20.11	417619	21.20	558908	22.28	454033	
9	1646	N1218062708.D	18F0248-01		1	8.49	117196	10.53	434605	13.39	222669	15.78	370270	20.10	392268	21.20	533947	22.27	413211	
10	1720	N1218062709.D	18F0248-02		1	8.49	127314	10.53	472092	13.39	242346	15.78	403958	20.10	414980	21.20	553579	22.28	432619	
11	1754	N1218062710.D	18F0248-03		1	8.49	134740	10.53	499863	13.39	256346	15.78	426887	20.10	423617	21.20	566676	22.27	452888	
12	1828	N1218062711.D	18F0248-04		1	8.49	141047	10.53	531518	13.39	274623	15.78	459236	20.10	432652	21.20	579890	22.28	462209	
13	1901	N1218062712.D	18F0248-05		1	8.49	126065	10.53	472405	13.39	245323	15.78	402564	20.10	405163	21.20	544600	22.28	435833	
14	1935	N1218062713.D	18F0248-06		1	8.49	129818	10.53	483587	13.39	248451	15.78	413567	20.10	428534	21.20	565227	22.28	455268	
15	2009	N1218062714.D	18F0248-07		1	8.49	129819	10.53	485574	13.39	251155	15.78	411978	20.10	421958	21.20	562067	22.28	448313	
16	2042	N1218062715.D	18F0248-08		1	8.49	135442	10.53	499489	13.39	255855	15.78	424055	20.10	431794	21.20	573511	22.28	458271	
17	2116	N1218062716.D	SGF0348-CCV1		1	8.49	126933	10.53	473318	13.39	245973	15.78	410526	20.11	427951	21.20	553872	22.28	473882	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt12.i\20180627.b

ARI Job No.: SGF0 Method: SW846180516.m Instrument: nt12.i Date: 27-JUN-2018

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1113	N1218062701.D	SGF0348-ICV1		1	NO MANUAL INTEGRATION
1152	N1218062702.D	BGF0648-BLK1		1	NO MANUAL INTEGRATION
1226	N1218062703.D	BGF0648-BS1		1	NO MANUAL INTEGRATION
1300	N1218062704.D	18F0379-01		1	Phenol, Benzoic acid, 2-Fluorophenol, Phenol-d5, 2-Chlorophenol-d4,
1334	N1218062705.D	18F0380-01		1	Phenol, Benzoic acid, 2-Fluorophenol, Phenol-d5, 2-Chlorophenol-d4,
1538	N1218062706.D	BGF0552-BLK1		1	NO MANUAL INTEGRATION
1612	N1218062707.D	BGF0552-BS1		1	NO MANUAL INTEGRATION
1646	N1218062708.D	18F0248-01		1	NO MANUAL INTEGRATION
1720	N1218062709.D	18F0248-02		1	NO MANUAL INTEGRATION
1754	N1218062710.D	18F0248-03		1	NO MANUAL INTEGRATION
1828	N1218062711.D	18F0248-04		1	NO MANUAL INTEGRATION
1901	N1218062712.D	18F0248-05		1	NO MANUAL INTEGRATION
1935	N1218062713.D	18F0248-06		1	NO MANUAL INTEGRATION
2009	N1218062714.D	18F0248-07		1	NO MANUAL INTEGRATION
2042	N1218062715.D	18F0248-08		1	NO MANUAL INTEGRATION
2116	N1218062716.D	SGF0348-CCV1		1	NO MANUAL INTEGRATION

Security Status Report

Date: 28-Jun-2018 14:47

N1218062701.D	Data Locked	jianqing, 28-Jun-2018 14:47
N1218062701A.D	Data Locked	jianqing, 28-Jun-2018 14:47
N1218062702.D	Data Locked	jianqing, 28-Jun-2018 14:47
N1218062703.D	Data Locked	jianqing, 28-Jun-2018 14:47
N1218062704.D	Data Locked	jianqing, 28-Jun-2018 14:47
N1218062705.D	Data Locked	jianqing, 28-Jun-2018 14:47
N1218062706.D	Data Locked	jianqing, 28-Jun-2018 14:47
N1218062707.D	Data Locked	jianqing, 28-Jun-2018 14:47
N1218062708.D	Data Locked	jianqing, 28-Jun-2018 14:47
N1218062709.D	Data Locked	jianqing, 28-Jun-2018 14:47
N1218062710.D	Data Locked	jianqing, 28-Jun-2018 14:47
N1218062711.D	Data Locked	jianqing, 28-Jun-2018 14:47
N1218062712.D	Data Locked	jianqing, 28-Jun-2018 14:47
N1218062713.D	Data Locked	jianqing, 28-Jun-2018 14:47
N1218062714.D	Data Locked	jianqing, 28-Jun-2018 14:47
N1218062715.D	Data Locked	jianqing, 28-Jun-2018 14:47
N1218062716.D	Data Locked	jianqing, 28-Jun-2018 14:47

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory:	Analytical Resources, Inc.	SDG/WO:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGE0274	Instrument:	NT12
Calibration:	BE00052	Calibration Date:	05/16/2018

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SGE0274-SCV1 (Water)			Lab File ID: N1218051610.D			Analyzed: 05/16/18 18:47		
2-Fluorophenol	37.500	106	80 - 120	6.663	6.625428	0.0376	N/A	
Phenol-d5	37.500	104	80 - 120	8.148	8.115857	0.0321	N/A	
2-Chlorophenol-d4	37.500	103	80 - 120	8.319	8.28	0.0390	N/A	
1,2-Dichlorobenzene-d4	25.000	103	80 - 120	8.922	8.885143	0.0369	N/A	
Nitrobenzene-d5	25.000	105	80 - 120	9.547	9.511857	0.0351	N/A	
2-Fluorobiphenyl	25.000	104	80 - 120	12.448	12.41786	0.0301	N/A	
2,4,6-Tribromophenol	37.500	109	80 - 120	14.831	14.79757	0.0334	N/A	
p-Terphenyl-d14	25.000	105	80 - 120	18.56	18.52471	0.0353	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0272
Instrument: NT12
Calibration: BE00052
Calibration Date: 05/16/2018

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SGF0272-ICV1 (Water)			Lab File ID: N1218062101.D			Analyzed: 06/21/18 11:24		
2-Fluorophenol	37.500	98.3	80 - 120	6.561	6.625428	-0.0644	N/A	
2-Fluorophenol	37.500	98.3	80 - 120	6.561	6.625428	-0.0644	N/A	
Phenol-d5	37.500	99.4	80 - 120	8.057	8.115857	-0.0589	N/A	
Phenol-d5	37.500	99.4	80 - 120	8.057	8.115857	-0.0589	N/A	
2-Chlorophenol-d4	37.500	99.8	80 - 120	8.212	8.28	-0.0680	N/A	
2-Chlorophenol-d4	37.500	99.8	80 - 120	8.212	8.28	-0.0680	N/A	
1,2-Dichlorobenzene-d4	25.000	99.1	80 - 120	8.81	8.885143	-0.0751	N/A	
1,2-Dichlorobenzene-d4	25.000	99.1	80 - 120	8.81	8.885143	-0.0751	N/A	
Nitrobenzene-d5	25.000	103	80 - 120	9.435	9.511857	-0.0769	N/A	
Nitrobenzene-d5	25.000	103	80 - 120	9.435	9.511857	-0.0769	N/A	
2-Fluorobiphenyl	25.000	98.6	80 - 120	12.342	12.41786	-0.0759	N/A	
2-Fluorobiphenyl	25.000	98.6	80 - 120	12.342	12.41786	-0.0759	N/A	
2,4,6-Tribromophenol	37.500	102	80 - 120	14.719	14.79757	-0.0786	N/A	
2,4,6-Tribromophenol	37.500	102	80 - 120	14.719	14.79757	-0.0786	N/A	
p-Terphenyl-d14	25.000	102	80 - 120	18.442	18.52471	-0.0827	N/A	
p-Terphenyl-d14	25.000	102	80 - 120	18.442	18.52471	-0.0827	N/A	
BGF0417-BLK1 (Water)			Lab File ID: N1218062102.D			Analyzed: 06/21/18 11:59		
2-Fluorophenol	37.500	58.7	32.5 - 120	6.562	6.625428	-0.0634	N/A	
2-Fluorophenol	37.500	58.7	32.5 - 120	6.562	6.625428	-0.0634	N/A	
Phenol-d5	37.500	43.0	17.8 - 120	8.052	8.115857	-0.0639	N/A	
Phenol-d5	37.500	43.0	17.8 - 120	8.052	8.115857	-0.0639	N/A	
2-Chlorophenol-d4	37.500	79.3	55 - 120	8.207	8.28	-0.0730	N/A	
2-Chlorophenol-d4	37.500	79.3	55 - 120	8.207	8.28	-0.0730	N/A	
1,2-Dichlorobenzene-d4	25.000	71.7	49.3 - 120	8.811	8.885143	-0.0741	N/A	
1,2-Dichlorobenzene-d4	25.000	71.7	49.3 - 120	8.811	8.885143	-0.0741	N/A	
Nitrobenzene-d5	25.000	82.7	56.1 - 120	9.43	9.511857	-0.0819	N/A	
Nitrobenzene-d5	25.000	82.7	56.1 - 120	9.43	9.511857	-0.0819	N/A	
2-Fluorobiphenyl	25.000	77.4	54.4 - 120	12.337	12.41786	-0.0809	N/A	
2-Fluorobiphenyl	25.000	77.4	54.4 - 120	12.337	12.41786	-0.0809	N/A	
2,4,6-Tribromophenol	37.500	82.9	49.3 - 128	14.714	14.79757	-0.0836	N/A	
2,4,6-Tribromophenol	37.500	82.9	49.3 - 128	14.714	14.79757	-0.0836	N/A	
p-Terphenyl-d14	25.000	109	60 - 120	18.437	18.52471	-0.0877	N/A	
p-Terphenyl-d14	25.000	109	60 - 120	18.437	18.52471	-0.0877	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0272
Instrument: NT12
Calibration: BE00052
Calibration Date: 05/16/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
BGF0417-BS1 (Water)			Lab File ID: N1218062103.D			Analyzed: 06/21/18 12:33		
2-Fluorophenol	37.500	57.5	32.5 - 120	6.535	6.625428	-0.0904	N/A	
2-Fluorophenol	37.500	57.5	32.5 - 120	6.535	6.625428	-0.0904	N/A	
Phenol-d5	37.500	44.8	17.8 - 120	8.03	8.115857	-0.0859	N/A	
Phenol-d5	37.500	44.8	17.8 - 120	8.03	8.115857	-0.0859	N/A	
2-Chlorophenol-d4	37.500	76.9	55 - 120	8.185	8.28	-0.0950	N/A	
2-Chlorophenol-d4	37.500	76.9	55 - 120	8.185	8.28	-0.0950	N/A	
1,2-Dichlorobenzene-d4	25.000	68.1	49.3 - 120	8.789	8.885143	-0.0961	N/A	
1,2-Dichlorobenzene-d4	25.000	68.1	49.3 - 120	8.789	8.885143	-0.0961	N/A	
Nitrobenzene-d5	25.000	81.0	56.1 - 120	9.414	9.511857	-0.0979	N/A	
Nitrobenzene-d5	25.000	81.0	56.1 - 120	9.414	9.511857	-0.0979	N/A	
2-Fluorobiphenyl	25.000	81.2	54.4 - 120	12.32	12.41786	-0.0979	N/A	
2-Fluorobiphenyl	25.000	81.2	54.4 - 120	12.32	12.41786	-0.0979	N/A	
2,4,6-Tribromophenol	37.500	88.5	49.3 - 128	14.698	14.79757	-0.0996	N/A	
2,4,6-Tribromophenol	37.500	88.5	49.3 - 128	14.698	14.79757	-0.0996	N/A	
p-Terphenyl-d14	25.000	106	60 - 120	18.416	18.52471	-0.1087	N/A	
p-Terphenyl-d14	25.000	106	60 - 120	18.416	18.52471	-0.1087	N/A	
18F0185-01 (Water)			Lab File ID: N1218062104.D			Analyzed: 06/21/18 13:07		
2-Fluorophenol	37.500	56.5	32.5 - 120	6.535	6.625428	-0.0904	N/A	
2-Fluorophenol	37.500	56.5	32.5 - 120	6.535	6.625428	-0.0904	N/A	
Phenol-d5	37.500	42.0	17.8 - 120	8.025	8.115857	-0.0909	N/A	
Phenol-d5	37.500	42.0	17.8 - 120	8.025	8.115857	-0.0909	N/A	
2-Chlorophenol-d4	37.500	76.1	55 - 120	8.185	8.28	-0.0950	N/A	
2-Chlorophenol-d4	37.500	76.1	55 - 120	8.185	8.28	-0.0950	N/A	
1,2-Dichlorobenzene-d4	25.000	74.2	49.3 - 120	8.784	8.885143	-0.1011	N/A	
1,2-Dichlorobenzene-d4	25.000	74.2	49.3 - 120	8.784	8.885143	-0.1011	N/A	
Nitrobenzene-d5	25.000	78.8	56.1 - 120	9.409	9.511857	-0.1029	N/A	
Nitrobenzene-d5	25.000	78.8	56.1 - 120	9.409	9.511857	-0.1029	N/A	
2-Fluorobiphenyl	25.000	76.2	54.4 - 120	12.315	12.41786	-0.1029	N/A	
2-Fluorobiphenyl	25.000	76.2	54.4 - 120	12.315	12.41786	-0.1029	N/A	
2,4,6-Tribromophenol	37.500	79.7	49.3 - 128	14.687	14.79757	-0.1106	N/A	
2,4,6-Tribromophenol	37.500	79.7	49.3 - 128	14.687	14.79757	-0.1106	N/A	
p-Terphenyl-d14	25.000	107	60 - 120	18.41	18.52471	-0.1147	N/A	
p-Terphenyl-d14	25.000	107	60 - 120	18.41	18.52471	-0.1147	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0272
Instrument: NT12
Calibration: BE00052
Calibration Date: 05/16/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
18F0185-03 (Water)			Lab File ID: N1218062105.D			Analyzed: 06/21/18 13:41		
2-Fluorophenol	37.500	55.3	32.5 - 120	6.561	6.625428	-0.0644	N/A	
2-Fluorophenol	37.500	55.3	32.5 - 120	6.561	6.625428	-0.0644	N/A	
Phenol-d5	37.500	43.0	17.8 - 120	8.052	8.115857	-0.0639	N/A	
Phenol-d5	37.500	43.0	17.8 - 120	8.052	8.115857	-0.0639	N/A	
2-Chlorophenol-d4	37.500	71.5	55 - 120	8.212	8.28	-0.0680	N/A	
2-Chlorophenol-d4	37.500	71.5	55 - 120	8.212	8.28	-0.0680	N/A	
1,2-Dichlorobenzene-d4	25.000	66.9	49.3 - 120	8.81	8.885143	-0.0751	N/A	
1,2-Dichlorobenzene-d4	25.000	66.9	49.3 - 120	8.81	8.885143	-0.0751	N/A	
Nitrobenzene-d5	25.000	75.2	56.1 - 120	9.435	9.511857	-0.0769	N/A	
Nitrobenzene-d5	25.000	75.2	56.1 - 120	9.435	9.511857	-0.0769	N/A	
2-Fluorobiphenyl	25.000	73.4	54.4 - 120	12.342	12.41786	-0.0759	N/A	
2-Fluorobiphenyl	25.000	73.4	54.4 - 120	12.342	12.41786	-0.0759	N/A	
2,4,6-Tribromophenol	37.500	77.9	49.3 - 128	14.714	14.79757	-0.0836	N/A	
2,4,6-Tribromophenol	37.500	77.9	49.3 - 128	14.714	14.79757	-0.0836	N/A	
p-Terphenyl-d14	25.000	102	60 - 120	18.442	18.52471	-0.0827	N/A	
p-Terphenyl-d14	25.000	102	60 - 120	18.442	18.52471	-0.0827	N/A	
18F0185-04 (Water)			Lab File ID: N1218062106.D			Analyzed: 06/21/18 14:15		
2-Fluorophenol	37.500	53.8	32.5 - 120	6.561	6.625428	-0.0644	N/A	
2-Fluorophenol	37.500	53.8	32.5 - 120	6.561	6.625428	-0.0644	N/A	
Phenol-d5	37.500	41.3	17.8 - 120	8.051	8.115857	-0.0649	N/A	
Phenol-d5	37.500	41.3	17.8 - 120	8.051	8.115857	-0.0649	N/A	
2-Chlorophenol-d4	37.500	70.5	55 - 120	8.212	8.28	-0.0680	N/A	
2-Chlorophenol-d4	37.500	70.5	55 - 120	8.212	8.28	-0.0680	N/A	
1,2-Dichlorobenzene-d4	25.000	67.1	49.3 - 120	8.81	8.885143	-0.0751	N/A	
1,2-Dichlorobenzene-d4	25.000	67.1	49.3 - 120	8.81	8.885143	-0.0751	N/A	
Nitrobenzene-d5	25.000	74.6	56.1 - 120	9.435	9.511857	-0.0769	N/A	
Nitrobenzene-d5	25.000	74.6	56.1 - 120	9.435	9.511857	-0.0769	N/A	
2-Fluorobiphenyl	25.000	72.1	54.4 - 120	12.341	12.41786	-0.0769	N/A	
2-Fluorobiphenyl	25.000	72.1	54.4 - 120	12.341	12.41786	-0.0769	N/A	
2,4,6-Tribromophenol	37.500	76.2	49.3 - 128	14.719	14.79757	-0.0786	N/A	
2,4,6-Tribromophenol	37.500	76.2	49.3 - 128	14.719	14.79757	-0.0786	N/A	
p-Terphenyl-d14	25.000	101	60 - 120	18.442	18.52471	-0.0827	N/A	
p-Terphenyl-d14	25.000	101	60 - 120	18.442	18.52471	-0.0827	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0272
Instrument: NT12
Calibration: BE00052
Calibration Date: 05/16/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
18F0185-05 (Water)			Lab File ID: N1218062107.D			Analyzed: 06/21/18 14:49		
2-Fluorophenol	37.500	53.7	32.5 - 120	6.566	6.625428	-0.0594	N/A	
2-Fluorophenol	37.500	53.7	32.5 - 120	6.566	6.625428	-0.0594	N/A	
Phenol-d5	37.500	41.8	17.8 - 120	8.052	8.115857	-0.0639	N/A	
Phenol-d5	37.500	41.8	17.8 - 120	8.052	8.115857	-0.0639	N/A	
2-Chlorophenol-d4	37.500	70.1	55 - 120	8.212	8.28	-0.0680	N/A	
2-Chlorophenol-d4	37.500	70.1	55 - 120	8.212	8.28	-0.0680	N/A	
1,2-Dichlorobenzene-d4	25.000	65.8	49.3 - 120	8.81	8.885143	-0.0751	N/A	
1,2-Dichlorobenzene-d4	25.000	65.8	49.3 - 120	8.81	8.885143	-0.0751	N/A	
Nitrobenzene-d5	25.000	73.5	56.1 - 120	9.435	9.511857	-0.0769	N/A	
Nitrobenzene-d5	25.000	73.5	56.1 - 120	9.435	9.511857	-0.0769	N/A	
2-Fluorobiphenyl	25.000	72.0	54.4 - 120	12.341	12.41786	-0.0769	N/A	
2-Fluorobiphenyl	25.000	72.0	54.4 - 120	12.341	12.41786	-0.0769	N/A	
2,4,6-Tribromophenol	37.500	77.4	49.3 - 128	14.713	14.79757	-0.0846	N/A	
2,4,6-Tribromophenol	37.500	77.4	49.3 - 128	14.713	14.79757	-0.0846	N/A	
p-Terphenyl-d14	25.000	99.5	60 - 120	18.442	18.52471	-0.0827	N/A	
p-Terphenyl-d14	25.000	99.5	60 - 120	18.442	18.52471	-0.0827	N/A	
18F0185-06 (Water)			Lab File ID: N1218062108.D			Analyzed: 06/21/18 15:23		
2-Fluorophenol	37.500	51.2	32.5 - 120	6.567	6.625428	-0.0584	N/A	
2-Fluorophenol	37.500	51.2	32.5 - 120	6.567	6.625428	-0.0584	N/A	
Phenol-d5	37.500	39.4	17.8 - 120	8.052	8.115857	-0.0639	N/A	
Phenol-d5	37.500	39.4	17.8 - 120	8.052	8.115857	-0.0639	N/A	
2-Chlorophenol-d4	37.500	68.5	55 - 120	8.212	8.28	-0.0680	N/A	
2-Chlorophenol-d4	37.500	68.5	55 - 120	8.212	8.28	-0.0680	N/A	
1,2-Dichlorobenzene-d4	25.000	64.7	49.3 - 120	8.81	8.885143	-0.0751	N/A	
1,2-Dichlorobenzene-d4	25.000	64.7	49.3 - 120	8.81	8.885143	-0.0751	N/A	
Nitrobenzene-d5	25.000	72.2	56.1 - 120	9.435	9.511857	-0.0769	N/A	
Nitrobenzene-d5	25.000	72.2	56.1 - 120	9.435	9.511857	-0.0769	N/A	
2-Fluorobiphenyl	25.000	71.9	54.4 - 120	12.342	12.41786	-0.0759	N/A	
2-Fluorobiphenyl	25.000	71.9	54.4 - 120	12.342	12.41786	-0.0759	N/A	
2,4,6-Tribromophenol	37.500	80.4	49.3 - 128	14.714	14.79757	-0.0836	N/A	
2,4,6-Tribromophenol	37.500	80.4	49.3 - 128	14.714	14.79757	-0.0836	N/A	
p-Terphenyl-d14	25.000	103	60 - 120	18.443	18.52471	-0.0817	N/A	
p-Terphenyl-d14	25.000	103	60 - 120	18.443	18.52471	-0.0817	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0272
Instrument: NT12
Calibration: BE00052
Calibration Date: 05/16/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
18F0185-07 (Water)			Lab File ID: N1218062109.D			Analyzed: 06/21/18 15:57		
2-Fluorophenol	37.500	55.0	32.5 - 120	6.562	6.625428	-0.0634	N/A	
2-Fluorophenol	37.500	55.0	32.5 - 120	6.562	6.625428	-0.0634	N/A	
Phenol-d5	37.500	40.7	17.8 - 120	8.052	8.115857	-0.0639	N/A	
Phenol-d5	37.500	40.7	17.8 - 120	8.052	8.115857	-0.0639	N/A	
2-Chlorophenol-d4	37.500	76.5	55 - 120	8.212	8.28	-0.0680	N/A	
2-Chlorophenol-d4	37.500	76.5	55 - 120	8.212	8.28	-0.0680	N/A	
1,2-Dichlorobenzene-d4	25.000	74.0	49.3 - 120	8.811	8.885143	-0.0741	N/A	
1,2-Dichlorobenzene-d4	25.000	74.0	49.3 - 120	8.811	8.885143	-0.0741	N/A	
Nitrobenzene-d5	25.000	80.8	56.1 - 120	9.436	9.511857	-0.0759	N/A	
Nitrobenzene-d5	25.000	80.8	56.1 - 120	9.436	9.511857	-0.0759	N/A	
2-Fluorobiphenyl	25.000	77.4	54.4 - 120	12.342	12.41786	-0.0759	N/A	
2-Fluorobiphenyl	25.000	77.4	54.4 - 120	12.342	12.41786	-0.0759	N/A	
2,4,6-Tribromophenol	37.500	82.6	49.3 - 128	14.714	14.79757	-0.0836	N/A	
2,4,6-Tribromophenol	37.500	82.6	49.3 - 128	14.714	14.79757	-0.0836	N/A	
p-Terphenyl-d14	25.000	109	60 - 120	18.443	18.52471	-0.0817	N/A	
p-Terphenyl-d14	25.000	109	60 - 120	18.443	18.52471	-0.0817	N/A	
18F0185-08 (Water)			Lab File ID: N1218062110.D			Analyzed: 06/21/18 16:31		
2-Fluorophenol	37.500	50.0	32.5 - 120	6.566	6.625428	-0.0594	N/A	
2-Fluorophenol	37.500	50.0	32.5 - 120	6.566	6.625428	-0.0594	N/A	
Phenol-d5	37.500	36.8	17.8 - 120	8.052	8.115857	-0.0639	N/A	
Phenol-d5	37.500	36.8	17.8 - 120	8.052	8.115857	-0.0639	N/A	
2-Chlorophenol-d4	37.500	68.0	55 - 120	8.212	8.28	-0.0680	N/A	
2-Chlorophenol-d4	37.500	68.0	55 - 120	8.212	8.28	-0.0680	N/A	
1,2-Dichlorobenzene-d4	25.000	63.5	49.3 - 120	8.81	8.885143	-0.0751	N/A	
1,2-Dichlorobenzene-d4	25.000	63.5	49.3 - 120	8.81	8.885143	-0.0751	N/A	
Nitrobenzene-d5	25.000	70.7	56.1 - 120	9.435	9.511857	-0.0769	N/A	
Nitrobenzene-d5	25.000	70.7	56.1 - 120	9.435	9.511857	-0.0769	N/A	
2-Fluorobiphenyl	25.000	67.4	54.4 - 120	12.341	12.41786	-0.0769	N/A	
2-Fluorobiphenyl	25.000	67.4	54.4 - 120	12.341	12.41786	-0.0769	N/A	
2,4,6-Tribromophenol	37.500	72.3	49.3 - 128	14.713	14.79757	-0.0846	N/A	
2,4,6-Tribromophenol	37.500	72.3	49.3 - 128	14.713	14.79757	-0.0846	N/A	
p-Terphenyl-d14	25.000	95.1	60 - 120	18.442	18.52471	-0.0827	N/A	
p-Terphenyl-d14	25.000	95.1	60 - 120	18.442	18.52471	-0.0827	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0272
Instrument: NT12
Calibration: BE00052
Calibration Date: 05/16/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
BGF0417-MS1 (Water)			Lab File ID: N1218062111.D				Analyzed: 06/21/18 17:04	
2-Fluorophenol	37.500	49.6	32.5 - 120	6.567	6.625428	-0.0584	N/A	
2-Fluorophenol	37.500	49.6	32.5 - 120	6.567	6.625428	-0.0584	N/A	
Phenol-d5	37.500	39.5	17.8 - 120	8.057	8.115857	-0.0589	N/A	
Phenol-d5	37.500	39.5	17.8 - 120	8.057	8.115857	-0.0589	N/A	
2-Chlorophenol-d4	37.500	64.8	55 - 120	8.212	8.28	-0.0680	N/A	
2-Chlorophenol-d4	37.500	64.8	55 - 120	8.212	8.28	-0.0680	N/A	
1,2-Dichlorobenzene-d4	25.000	55.5	49.3 - 120	8.816	8.885143	-0.0691	N/A	
1,2-Dichlorobenzene-d4	25.000	55.5	49.3 - 120	8.816	8.885143	-0.0691	N/A	
Nitrobenzene-d5	25.000	68.6	56.1 - 120	9.435	9.511857	-0.0769	N/A	
Nitrobenzene-d5	25.000	68.6	56.1 - 120	9.435	9.511857	-0.0769	N/A	
2-Fluorobiphenyl	25.000	64.1	54.4 - 120	12.342	12.41786	-0.0759	N/A	
2-Fluorobiphenyl	25.000	64.1	54.4 - 120	12.342	12.41786	-0.0759	N/A	
2,4,6-Tribromophenol	37.500	76.3	49.3 - 128	14.719	14.79757	-0.0786	N/A	
2,4,6-Tribromophenol	37.500	76.3	49.3 - 128	14.719	14.79757	-0.0786	N/A	
p-Terphenyl-d14	25.000	91.5	60 - 120	18.442	18.52471	-0.0827	N/A	
p-Terphenyl-d14	25.000	91.5	60 - 120	18.442	18.52471	-0.0827	N/A	
BGF0417-MSD1 (Water)			Lab File ID: N1218062112.D				Analyzed: 06/21/18 17:38	
2-Fluorophenol	37.500	50.9	32.5 - 120	6.567	6.625428	-0.0584	N/A	
2-Fluorophenol	37.500	50.9	32.5 - 120	6.567	6.625428	-0.0584	N/A	
Phenol-d5	37.500	40.7	17.8 - 120	8.057	8.115857	-0.0589	N/A	
Phenol-d5	37.500	40.7	17.8 - 120	8.057	8.115857	-0.0589	N/A	
2-Chlorophenol-d4	37.500	69.0	55 - 120	8.212	8.28	-0.0680	N/A	
2-Chlorophenol-d4	37.500	69.0	55 - 120	8.212	8.28	-0.0680	N/A	
1,2-Dichlorobenzene-d4	25.000	59.0	49.3 - 120	8.816	8.885143	-0.0691	N/A	
1,2-Dichlorobenzene-d4	25.000	59.0	49.3 - 120	8.816	8.885143	-0.0691	N/A	
Nitrobenzene-d5	25.000	73.6	56.1 - 120	9.441	9.511857	-0.0709	N/A	
Nitrobenzene-d5	25.000	73.6	56.1 - 120	9.441	9.511857	-0.0709	N/A	
2-Fluorobiphenyl	25.000	70.6	54.4 - 120	12.347	12.41786	-0.0709	N/A	
2-Fluorobiphenyl	25.000	70.6	54.4 - 120	12.347	12.41786	-0.0709	N/A	
2,4,6-Tribromophenol	37.500	85.3	49.3 - 128	14.719	14.79757	-0.0786	N/A	
2,4,6-Tribromophenol	37.500	85.3	49.3 - 128	14.719	14.79757	-0.0786	N/A	
p-Terphenyl-d14	25.000	102	60 - 120	18.443	18.52471	-0.0817	N/A	
p-Terphenyl-d14	25.000	102	60 - 120	18.443	18.52471	-0.0817	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0272
Instrument: NT12
Calibration: BE00052
Calibration Date: 05/16/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
BGF0434-BLK1 (Water)			Lab File ID: N1218062113.D			Analyzed: 06/21/18 18:12		
2-Fluorophenol	37.500	55.6	32.5 - 120	6.562	6.625428	-0.0634	N/A	
2-Fluorophenol	37.500	55.6	32.5 - 120	6.562	6.625428	-0.0634	N/A	
Phenol-d5	37.500	41.0	17.8 - 120	8.052	8.115857	-0.0639	N/A	
Phenol-d5	37.500	41.0	17.8 - 120	8.052	8.115857	-0.0639	N/A	
2-Chlorophenol-d4	37.500	76.6	55 - 120	8.212	8.28	-0.0680	N/A	
2-Chlorophenol-d4	37.500	76.6	55 - 120	8.212	8.28	-0.0680	N/A	
1,2-Dichlorobenzene-d4	25.000	72.9	49.3 - 120	8.811	8.885143	-0.0741	N/A	
1,2-Dichlorobenzene-d4	25.000	72.9	49.3 - 120	8.811	8.885143	-0.0741	N/A	
Nitrobenzene-d5	25.000	80.7	56.1 - 120	9.436	9.511857	-0.0759	N/A	
Nitrobenzene-d5	25.000	80.7	56.1 - 120	9.436	9.511857	-0.0759	N/A	
2-Fluorobiphenyl	25.000	77.4	54.4 - 120	12.342	12.41786	-0.0759	N/A	
2-Fluorobiphenyl	25.000	77.4	54.4 - 120	12.342	12.41786	-0.0759	N/A	
2,4,6-Tribromophenol	37.500	81.6	49.3 - 128	14.714	14.79757	-0.0836	N/A	
2,4,6-Tribromophenol	37.500	81.6	49.3 - 128	14.714	14.79757	-0.0836	N/A	
p-Terphenyl-d14	25.000	105	60 - 120	18.443	18.52471	-0.0817	N/A	
p-Terphenyl-d14	25.000	105	60 - 120	18.443	18.52471	-0.0817	N/A	
BGF0434-BS1 (Water)			Lab File ID: N1218062114.D			Analyzed: 06/21/18 18:46		
2-Fluorophenol	37.500	61.0	32.5 - 120	6.567	6.625428	-0.0584	N/A	
2-Fluorophenol	37.500	61.0	32.5 - 120	6.567	6.625428	-0.0584	N/A	
Phenol-d5	37.500	44.0	17.8 - 120	8.057	8.115857	-0.0589	N/A	
Phenol-d5	37.500	44.0	17.8 - 120	8.057	8.115857	-0.0589	N/A	
2-Chlorophenol-d4	37.500	85.4	55 - 120	8.217	8.28	-0.0630	N/A	
2-Chlorophenol-d4	37.500	85.4	55 - 120	8.217	8.28	-0.0630	N/A	
1,2-Dichlorobenzene-d4	25.000	78.7	49.3 - 120	8.816	8.885143	-0.0691	N/A	
1,2-Dichlorobenzene-d4	25.000	78.7	49.3 - 120	8.816	8.885143	-0.0691	N/A	
Nitrobenzene-d5	25.000	90.3	56.1 - 120	9.441	9.511857	-0.0709	N/A	
Nitrobenzene-d5	25.000	90.3	56.1 - 120	9.441	9.511857	-0.0709	N/A	
2-Fluorobiphenyl	25.000	91.6	54.4 - 120	12.347	12.41786	-0.0709	N/A	
2-Fluorobiphenyl	25.000	91.6	54.4 - 120	12.347	12.41786	-0.0709	N/A	
2,4,6-Tribromophenol	37.500	102	49.3 - 128	14.719	14.79757	-0.0786	N/A	
2,4,6-Tribromophenol	37.500	102	49.3 - 128	14.719	14.79757	-0.0786	N/A	
p-Terphenyl-d14	25.000	116	60 - 120	18.442	18.52471	-0.0827	N/A	
p-Terphenyl-d14	25.000	116	60 - 120	18.442	18.52471	-0.0827	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0272
Instrument: NT12
Calibration: BE00052
Calibration Date: 05/16/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
18F0208-01 (Water)			Lab File ID: N1218062115.D			Analyzed: 06/21/18 19:20		
2-Fluorophenol	37.500	55.1	32.5 - 120	6.561	6.625428	-0.0644	N/A	
2-Fluorophenol	37.500	55.1	32.5 - 120	6.561	6.625428	-0.0644	N/A	
Phenol-d5	37.500	48.0	17.8 - 120	8.052	8.115857	-0.0639	N/A	
Phenol-d5	37.500	48.0	17.8 - 120	8.052	8.115857	-0.0639	N/A	
2-Chlorophenol-d4	37.500	75.1	55 - 120	8.212	8.28	-0.0680	N/A	
2-Chlorophenol-d4	37.500	75.1	55 - 120	8.212	8.28	-0.0680	N/A	
1,2-Dichlorobenzene-d4	25.000	73.8	49.3 - 120	8.81	8.885143	-0.0751	N/A	
1,2-Dichlorobenzene-d4	25.000	73.8	49.3 - 120	8.81	8.885143	-0.0751	N/A	
Nitrobenzene-d5	25.000	79.1	56.1 - 120	9.435	9.511857	-0.0769	N/A	
Nitrobenzene-d5	25.000	79.1	56.1 - 120	9.435	9.511857	-0.0769	N/A	
2-Fluorobiphenyl	25.000	77.2	54.4 - 120	12.342	12.41786	-0.0759	N/A	
2-Fluorobiphenyl	25.000	77.2	54.4 - 120	12.342	12.41786	-0.0759	N/A	
2,4,6-Tribromophenol	37.500	83.9	49.3 - 128	14.714	14.79757	-0.0836	N/A	
2,4,6-Tribromophenol	37.500	83.9	49.3 - 128	14.714	14.79757	-0.0836	N/A	
p-Terphenyl-d14	25.000	102	60 - 120	18.442	18.52471	-0.0827	N/A	
p-Terphenyl-d14	25.000	102	60 - 120	18.442	18.52471	-0.0827	N/A	
18F0208-02 (Water)			Lab File ID: N1218062116.D			Analyzed: 06/21/18 19:53		
2-Fluorophenol	37.500	53.5	32.5 - 120	6.567	6.625428	-0.0584	N/A	
2-Fluorophenol	37.500	53.5	32.5 - 120	6.567	6.625428	-0.0584	N/A	
Phenol-d5	37.500	45.3	17.8 - 120	8.057	8.115857	-0.0589	N/A	
Phenol-d5	37.500	45.3	17.8 - 120	8.057	8.115857	-0.0589	N/A	
2-Chlorophenol-d4	37.500	73.2	55 - 120	8.212	8.28	-0.0680	N/A	
2-Chlorophenol-d4	37.500	73.2	55 - 120	8.212	8.28	-0.0680	N/A	
1,2-Dichlorobenzene-d4	25.000	71.0	49.3 - 120	8.81	8.885143	-0.0751	N/A	
1,2-Dichlorobenzene-d4	25.000	71.0	49.3 - 120	8.81	8.885143	-0.0751	N/A	
Nitrobenzene-d5	25.000	78.1	56.1 - 120	9.435	9.511857	-0.0769	N/A	
Nitrobenzene-d5	25.000	78.1	56.1 - 120	9.435	9.511857	-0.0769	N/A	
2-Fluorobiphenyl	25.000	77.1	54.4 - 120	12.342	12.41786	-0.0759	N/A	
2-Fluorobiphenyl	25.000	77.1	54.4 - 120	12.342	12.41786	-0.0759	N/A	
2,4,6-Tribromophenol	37.500	83.2	49.3 - 128	14.713	14.79757	-0.0846	N/A	
2,4,6-Tribromophenol	37.500	83.2	49.3 - 128	14.713	14.79757	-0.0846	N/A	
p-Terphenyl-d14	25.000	101	60 - 120	18.442	18.52471	-0.0827	N/A	
p-Terphenyl-d14	25.000	101	60 - 120	18.442	18.52471	-0.0827	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0272
Instrument: NT12
Calibration: BE00052
Calibration Date: 05/16/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
18F0208-03 (Water)			Lab File ID: N1218062117.D			Analyzed: 06/21/18 20:27		
2-Fluorophenol	37.500	59.0	32.5 - 120	6.567	6.625428	-0.0584	N/A	
2-Fluorophenol	37.500	59.0	32.5 - 120	6.567	6.625428	-0.0584	N/A	
Phenol-d5	37.500	50.4	17.8 - 120	8.052	8.115857	-0.0639	N/A	
Phenol-d5	37.500	50.4	17.8 - 120	8.052	8.115857	-0.0639	N/A	
2-Chlorophenol-d4	37.500	81.1	55 - 120	8.212	8.28	-0.0680	N/A	
2-Chlorophenol-d4	37.500	81.1	55 - 120	8.212	8.28	-0.0680	N/A	
1,2-Dichlorobenzene-d4	25.000	79.2	49.3 - 120	8.81	8.885143	-0.0751	N/A	
1,2-Dichlorobenzene-d4	25.000	79.2	49.3 - 120	8.81	8.885143	-0.0751	N/A	
Nitrobenzene-d5	25.000	85.8	56.1 - 120	9.435	9.511857	-0.0769	N/A	
Nitrobenzene-d5	25.000	85.8	56.1 - 120	9.435	9.511857	-0.0769	N/A	
2-Fluorobiphenyl	25.000	85.8	54.4 - 120	12.342	12.41786	-0.0759	N/A	
2-Fluorobiphenyl	25.000	85.8	54.4 - 120	12.342	12.41786	-0.0759	N/A	
2,4,6-Tribromophenol	37.500	94.7	49.3 - 128	14.714	14.79757	-0.0836	N/A	
2,4,6-Tribromophenol	37.500	94.7	49.3 - 128	14.714	14.79757	-0.0836	N/A	
p-Terphenyl-d14	25.000	117	60 - 120	18.442	18.52471	-0.0827	N/A	
p-Terphenyl-d14	25.000	117	60 - 120	18.442	18.52471	-0.0827	N/A	
18F0208-04 (Water)			Lab File ID: N1218062118.D			Analyzed: 06/21/18 21:01		
2-Fluorophenol	37.500	44.7	32.5 - 120	6.566	6.625428	-0.0594	N/A	
2-Fluorophenol	37.500	44.7	32.5 - 120	6.566	6.625428	-0.0594	N/A	
Phenol-d5	37.500	39.9	17.8 - 120	8.052	8.115857	-0.0639	N/A	
Phenol-d5	37.500	39.9	17.8 - 120	8.052	8.115857	-0.0639	N/A	
2-Chlorophenol-d4	37.500	61.9	55 - 120	8.212	8.28	-0.0680	N/A	
2-Chlorophenol-d4	37.500	61.9	55 - 120	8.212	8.28	-0.0680	N/A	
1,2-Dichlorobenzene-d4	25.000	60.1	49.3 - 120	8.81	8.885143	-0.0751	N/A	
1,2-Dichlorobenzene-d4	25.000	60.1	49.3 - 120	8.81	8.885143	-0.0751	N/A	
Nitrobenzene-d5	25.000	66.3	56.1 - 120	9.435	9.511857	-0.0769	N/A	
Nitrobenzene-d5	25.000	66.3	56.1 - 120	9.435	9.511857	-0.0769	N/A	
2-Fluorobiphenyl	25.000	66.9	54.4 - 120	12.341	12.41786	-0.0769	N/A	
2-Fluorobiphenyl	25.000	66.9	54.4 - 120	12.341	12.41786	-0.0769	N/A	
2,4,6-Tribromophenol	37.500	68.7	49.3 - 128	14.713	14.79757	-0.0846	N/A	
2,4,6-Tribromophenol	37.500	68.7	49.3 - 128	14.713	14.79757	-0.0846	N/A	
p-Terphenyl-d14	25.000	85.0	60 - 120	18.442	18.52471	-0.0827	N/A	
p-Terphenyl-d14	25.000	85.0	60 - 120	18.442	18.52471	-0.0827	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0333
Instrument: NT12
Calibration: BE00052
Calibration Date: 05/16/2018

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SGF0333-ICV1 (Water)			Lab File ID: N1218062601.D			Analyzed: 06/26/18 10:31		
2-Fluorophenol	37.500	104	80 - 120	6.535	6.625428	-0.0904	N/A	
Phenol-d5	37.500	103	80 - 120	8.036	8.115857	-0.0799	N/A	
2-Chlorophenol-d4	37.500	105	80 - 120	8.191	8.28	-0.0890	N/A	
1,2-Dichlorobenzene-d4	25.000	106	80 - 120	8.789	8.885143	-0.0961	N/A	
Nitrobenzene-d5	25.000	109	80 - 120	9.414	9.511857	-0.0979	N/A	
2-Fluorobiphenyl	25.000	104	80 - 120	12.32	12.41786	-0.0979	N/A	
2,4,6-Tribromophenol	37.500	109	80 - 120	14.692	14.79757	-0.1056	N/A	
p-Terphenyl-d14	25.000	112	80 - 120	18.416	18.52471	-0.1087	N/A	
BGF0515-BLK1 (Water)			Lab File ID: N1218062605.D			Analyzed: 06/26/18 13:17		
2-Fluorophenol	37.500	53.7	32.5 - 120	6.545	6.625428	-0.0804	N/A	
Phenol-d5	37.500	40.4	17.8 - 120	8.036	8.115857	-0.0799	N/A	
2-Chlorophenol-d4	37.500	72.7	55 - 120	8.196	8.28	-0.0840	N/A	
1,2-Dichlorobenzene-d4	25.000	55.1	49.3 - 120	8.794	8.885143	-0.0911	N/A	
Nitrobenzene-d5	25.000	80.8	56.1 - 120	9.419	9.511857	-0.0929	N/A	
2-Fluorobiphenyl	25.000	71.5	54.4 - 120	12.325	12.41786	-0.0929	N/A	
2,4,6-Tribromophenol	37.500	84.5	49.3 - 128	14.697	14.79757	-0.1006	N/A	
p-Terphenyl-d14	25.000	110	60 - 120	18.426	18.52471	-0.0987	N/A	
BGF0515-BS1 (Water)			Lab File ID: N1218062606.D			Analyzed: 06/26/18 13:50		
2-Fluorophenol	37.500	58.9	32.5 - 120	6.545	6.625428	-0.0804	N/A	
Phenol-d5	37.500	46.6	17.8 - 120	8.041	8.115857	-0.0749	N/A	
2-Chlorophenol-d4	37.500	80.8	55 - 120	8.196	8.28	-0.0840	N/A	
1,2-Dichlorobenzene-d4	25.000	67.7	49.3 - 120	8.794	8.885143	-0.0911	N/A	
Nitrobenzene-d5	25.000	88.2	56.1 - 120	9.419	9.511857	-0.0929	N/A	
2-Fluorobiphenyl	25.000	86.6	54.4 - 120	12.325	12.41786	-0.0929	N/A	
2,4,6-Tribromophenol	37.500	99.9	49.3 - 128	14.703	14.79757	-0.0946	N/A	
p-Terphenyl-d14	25.000	115	60 - 120	18.426	18.52471	-0.0987	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0333
Instrument: NT12
Calibration: BE00052
Calibration Date: 05/16/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
18F0226-01 (Water)			Lab File ID: N1218062607.D			Analyzed: 06/26/18 14:24		
2-Fluorophenol	37.500	57.8	32.5 - 120	6.561	6.625428	-0.0644	N/A	
Phenol-d5	37.500	45.8	17.8 - 120	8.052	8.115857	-0.0639	N/A	
2-Chlorophenol-d4	37.500	73.8	55 - 120	8.207	8.28	-0.0730	N/A	
1,2-Dichlorobenzene-d4	25.000	66.2	49.3 - 120	8.811	8.885143	-0.0741	N/A	
Nitrobenzene-d5	25.000	79.7	56.1 - 120	9.436	9.511857	-0.0759	N/A	
2-Fluorobiphenyl	25.000	73.6	54.4 - 120	12.336	12.41786	-0.0819	N/A	
2,4,6-Tribromophenol	37.500	82.1	49.3 - 128	14.714	14.79757	-0.0836	N/A	
p-Terphenyl-d14	25.000	106	60 - 120	18.443	18.52471	-0.0817	N/A	
18F0226-02 (Water)			Lab File ID: N1218062608.D			Analyzed: 06/26/18 14:58		
2-Fluorophenol	37.500	61.6	32.5 - 120	6.561	6.625428	-0.0644	N/A	
Phenol-d5	37.500	46.9	17.8 - 120	8.052	8.115857	-0.0639	N/A	
2-Chlorophenol-d4	37.500	79.3	55 - 120	8.212	8.28	-0.0680	N/A	
1,2-Dichlorobenzene-d4	25.000	71.2	49.3 - 120	8.81	8.885143	-0.0751	N/A	
Nitrobenzene-d5	25.000	83.7	56.1 - 120	9.43	9.511857	-0.0819	N/A	
2-Fluorobiphenyl	25.000	77.2	54.4 - 120	12.336	12.41786	-0.0819	N/A	
2,4,6-Tribromophenol	37.500	89.2	49.3 - 128	14.714	14.79757	-0.0836	N/A	
p-Terphenyl-d14	25.000	110	60 - 120	18.442	18.52471	-0.0827	N/A	
BGF0515-MS1 (Water)			Lab File ID: N1218062609.D			Analyzed: 06/26/18 15:32		
2-Fluorophenol	37.500	61.9	32.5 - 120	6.561	6.625428	-0.0644	N/A	
Phenol-d5	37.500	49.4	17.8 - 120	8.052	8.115857	-0.0639	N/A	
2-Chlorophenol-d4	37.500	80.3	55 - 120	8.212	8.28	-0.0680	N/A	
1,2-Dichlorobenzene-d4	25.000	72.4	49.3 - 120	8.81	8.885143	-0.0751	N/A	
Nitrobenzene-d5	25.000	85.4	56.1 - 120	9.435	9.511857	-0.0769	N/A	
2-Fluorobiphenyl	25.000	84.6	54.4 - 120	12.341	12.41786	-0.0769	N/A	
2,4,6-Tribromophenol	37.500	95.8	49.3 - 128	14.719	14.79757	-0.0786	N/A	
p-Terphenyl-d14	25.000	114	60 - 120	18.442	18.52471	-0.0827	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0333
Instrument: NT12
Calibration: BE00052
Calibration Date: 05/16/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
BGF0515-MSD1 (Water)			Lab File ID: N1218062610.D			Analyzed: 06/26/18 16:07		
2-Fluorophenol	37.500	56.5	32.5 - 120	6.561	6.625428	-0.0644	N/A	
Phenol-d5	37.500	46.5	17.8 - 120	8.052	8.115857	-0.0639	N/A	
2-Chlorophenol-d4	37.500	75.8	55 - 120	8.207	8.28	-0.0730	N/A	
1,2-Dichlorobenzene-d4	25.000	65.6	49.3 - 120	8.805	8.885143	-0.0801	N/A	
Nitrobenzene-d5	25.000	82.1	56.1 - 120	9.436	9.511857	-0.0759	N/A	
2-Fluorobiphenyl	25.000	83.1	54.4 - 120	12.342	12.41786	-0.0759	N/A	
2,4,6-Tribromophenol	37.500	98.4	49.3 - 128	14.719	14.79757	-0.0786	N/A	
p-Terphenyl-d14	25.000	115	60 - 120	18.437	18.52471	-0.0877	N/A	
18F0226-03 (Water)			Lab File ID: N1218062611.D			Analyzed: 06/26/18 16:41		
2-Fluorophenol	37.500	70.6	32.5 - 120	6.556	6.625428	-0.0694	N/A	
Phenol-d5	37.500	53.6	17.8 - 120	8.047	8.115857	-0.0689	N/A	
2-Chlorophenol-d4	37.500	88.7	55 - 120	8.207	8.28	-0.0730	N/A	
1,2-Dichlorobenzene-d4	25.000	81.1	49.3 - 120	8.805	8.885143	-0.0801	N/A	
Nitrobenzene-d5	25.000	95.3	56.1 - 120	9.425	9.511857	-0.0869	N/A	
2-Fluorobiphenyl	25.000	89.2	54.4 - 120	12.331	12.41786	-0.0869	N/A	
2,4,6-Tribromophenol	37.500	102	49.3 - 128	14.703	14.79757	-0.0946	N/A	
p-Terphenyl-d14	25.000	121	60 - 120	18.437	18.52471	-0.0877	N/A	*
18F0226-04 (Water)			Lab File ID: N1218062612.D			Analyzed: 06/26/18 17:15		
2-Fluorophenol	37.500	59.6	32.5 - 120	6.556	6.625428	-0.0694	N/A	
Phenol-d5	37.500	45.9	17.8 - 120	8.047	8.115857	-0.0689	N/A	
2-Chlorophenol-d4	37.500	78.0	55 - 120	8.202	8.28	-0.0780	N/A	
1,2-Dichlorobenzene-d4	25.000	71.6	49.3 - 120	8.805	8.885143	-0.0801	N/A	
Nitrobenzene-d5	25.000	83.9	56.1 - 120	9.425	9.511857	-0.0869	N/A	
2-Fluorobiphenyl	25.000	80.0	54.4 - 120	12.331	12.41786	-0.0869	N/A	
2,4,6-Tribromophenol	37.500	92.6	49.3 - 128	14.708	14.79757	-0.0896	N/A	
p-Terphenyl-d14	25.000	111	60 - 120	18.437	18.52471	-0.0877	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0333
Instrument: NT12
Calibration: BE00052
Calibration Date: 05/16/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
18F0226-05 (Water)			Lab File ID: N1218062613.D			Analyzed: 06/26/18 17:49		
2-Fluorophenol	37.500	62.0	32.5 - 120	6.556	6.625428	-0.0694	N/A	
Phenol-d5	37.500	47.9	17.8 - 120	8.046	8.115857	-0.0699	N/A	
2-Chlorophenol-d4	37.500	78.6	55 - 120	8.207	8.28	-0.0730	N/A	
1,2-Dichlorobenzene-d4	25.000	72.2	49.3 - 120	8.805	8.885143	-0.0801	N/A	
Nitrobenzene-d5	25.000	82.5	56.1 - 120	9.425	9.511857	-0.0869	N/A	
2-Fluorobiphenyl	25.000	77.3	54.4 - 120	12.331	12.41786	-0.0869	N/A	
2,4,6-Tribromophenol	37.500	89.9	49.3 - 128	14.708	14.79757	-0.0896	N/A	
p-Terphenyl-d14	25.000	107	60 - 120	18.437	18.52471	-0.0877	N/A	
18F0226-06 (Water)			Lab File ID: N1218062614.D			Analyzed: 06/26/18 18:23		
2-Fluorophenol	37.500	59.3	32.5 - 120	6.556	6.625428	-0.0694	N/A	
Phenol-d5	37.500	45.5	17.8 - 120	8.046	8.115857	-0.0699	N/A	
2-Chlorophenol-d4	37.500	74.9	55 - 120	8.207	8.28	-0.0730	N/A	
1,2-Dichlorobenzene-d4	25.000	66.0	49.3 - 120	8.805	8.885143	-0.0801	N/A	
Nitrobenzene-d5	25.000	80.1	56.1 - 120	9.43	9.511857	-0.0819	N/A	
2-Fluorobiphenyl	25.000	72.7	54.4 - 120	12.336	12.41786	-0.0819	N/A	
2,4,6-Tribromophenol	37.500	86.4	49.3 - 128	14.708	14.79757	-0.0896	N/A	
p-Terphenyl-d14	25.000	106	60 - 120	18.437	18.52471	-0.0877	N/A	
18F0226-07 (Water)			Lab File ID: N1218062615.D			Analyzed: 06/26/18 18:57		
2-Fluorophenol	37.500	63.7	32.5 - 120	6.556	6.625428	-0.0694	N/A	
Phenol-d5	37.500	51.9	17.8 - 120	8.046	8.115857	-0.0699	N/A	
2-Chlorophenol-d4	37.500	78.8	55 - 120	8.207	8.28	-0.0730	N/A	
1,2-Dichlorobenzene-d4	25.000	68.3	49.3 - 120	8.805	8.885143	-0.0801	N/A	
Nitrobenzene-d5	25.000	81.6	56.1 - 120	9.43	9.511857	-0.0819	N/A	
2-Fluorobiphenyl	25.000	74.8	54.4 - 120	12.331	12.41786	-0.0869	N/A	
2,4,6-Tribromophenol	37.500	90.0	49.3 - 128	14.708	14.79757	-0.0896	N/A	
p-Terphenyl-d14	25.000	110	60 - 120	18.437	18.52471	-0.0877	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0333
Instrument: NT12
Calibration: BE00052
Calibration Date: 05/16/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
18F0226-08 (Water)			Lab File ID: N1218062616.D			Analyzed: 06/26/18 19:31		
2-Fluorophenol	37.500	51.1	32.5 - 120	6.556	6.625428	-0.0694	N/A	
Phenol-d5	37.500	39.7	17.8 - 120	8.046	8.115857	-0.0699	N/A	
2-Chlorophenol-d4	37.500	66.0	55 - 120	8.201	8.28	-0.0790	N/A	
1,2-Dichlorobenzene-d4	25.000	62.7	49.3 - 120	8.805	8.885143	-0.0801	N/A	
Nitrobenzene-d5	25.000	70.9	56.1 - 120	9.425	9.511857	-0.0869	N/A	
2-Fluorobiphenyl	25.000	70.4	54.4 - 120	12.336	12.41786	-0.0819	N/A	
2,4,6-Tribromophenol	37.500	82.0	49.3 - 128	14.708	14.79757	-0.0896	N/A	
p-Terphenyl-d14	25.000	104	60 - 120	18.437	18.52471	-0.0877	N/A	
18F0226-09 (Water)			Lab File ID: N1218062617.D			Analyzed: 06/26/18 20:05		
2-Fluorophenol	37.500	62.8	32.5 - 120	6.556	6.625428	-0.0694	N/A	
Phenol-d5	37.500	47.7	17.8 - 120	8.046	8.115857	-0.0699	N/A	
2-Chlorophenol-d4	37.500	78.9	55 - 120	8.201	8.28	-0.0790	N/A	
1,2-Dichlorobenzene-d4	25.000	75.8	49.3 - 120	8.805	8.885143	-0.0801	N/A	
Nitrobenzene-d5	25.000	83.3	56.1 - 120	9.425	9.511857	-0.0869	N/A	
2-Fluorobiphenyl	25.000	79.8	54.4 - 120	12.331	12.41786	-0.0869	N/A	
2,4,6-Tribromophenol	37.500	85.8	49.3 - 128	14.708	14.79757	-0.0896	N/A	
p-Terphenyl-d14	25.000	104	60 - 120	18.437	18.52471	-0.0877	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0348
Instrument: NT12
Calibration: BE00052
Calibration Date: 05/16/2018

Surrogate Compound	Spike Level ug/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SGF0348-ICV1 (Water)			Lab File ID: N1218062701.D				Analyzed: 06/27/18 11:13	
2-Fluorophenol	37.500	106	80 - 120	6.54	6.625428	-0.0854	N/A	
Phenol-d5	37.500	106	80 - 120	8.036	8.115857	-0.0799	N/A	
2-Chlorophenol-d4	37.500	107	80 - 120	8.191	8.28	-0.0890	N/A	
1,2-Dichlorobenzene-d4	25.000	106	80 - 120	8.789	8.885143	-0.0961	N/A	
Nitrobenzene-d5	25.000	108	80 - 120	9.414	9.511857	-0.0979	N/A	
2-Fluorobiphenyl	25.000	104	80 - 120	12.315	12.41786	-0.1029	N/A	
2,4,6-Tribromophenol	37.500	111	80 - 120	14.692	14.79757	-0.1056	N/A	
p-Terphenyl-d14	25.000	113	80 - 120	18.416	18.52471	-0.1087	N/A	
BGF0552-BLK1 (Water)			Lab File ID: N1218062706.D				Analyzed: 06/27/18 15:38	
2-Fluorophenol	37.500	58.7	32.5 - 120	6.54	6.625428	-0.0854	N/A	
Phenol-d5	37.500	41.5	17.8 - 120	8.03	8.115857	-0.0859	N/A	
2-Chlorophenol-d4	37.500	80.0	55 - 120	8.191	8.28	-0.0890	N/A	
1,2-Dichlorobenzene-d4	25.000	75.8	49.3 - 120	8.789	8.885143	-0.0961	N/A	
Nitrobenzene-d5	25.000	81.7	56.1 - 120	9.414	9.511857	-0.0979	N/A	
2-Fluorobiphenyl	25.000	79.3	54.4 - 120	12.315	12.41786	-0.1029	N/A	
2,4,6-Tribromophenol	37.500	90.0	49.3 - 128	14.687	14.79757	-0.1106	N/A	
p-Terphenyl-d14	25.000	93.4	60 - 120	18.416	18.52471	-0.1087	N/A	
BGF0552-BS1 (Water)			Lab File ID: N1218062707.D				Analyzed: 06/27/18 16:12	
2-Fluorophenol	37.500	55.0	32.5 - 120	6.54	6.625428	-0.0854	N/A	
Phenol-d5	37.500	40.2	17.8 - 120	8.03	8.115857	-0.0859	N/A	
2-Chlorophenol-d4	37.500	73.8	55 - 120	8.191	8.28	-0.0890	N/A	
1,2-Dichlorobenzene-d4	25.000	69.5	49.3 - 120	8.789	8.885143	-0.0961	N/A	
Nitrobenzene-d5	25.000	76.7	56.1 - 120	9.414	9.511857	-0.0979	N/A	
2-Fluorobiphenyl	25.000	75.1	54.4 - 120	12.315	12.41786	-0.1029	N/A	
2,4,6-Tribromophenol	37.500	83.2	49.3 - 128	14.692	14.79757	-0.1056	N/A	
p-Terphenyl-d14	25.000	85.7	60 - 120	18.416	18.52471	-0.1087	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0348
Instrument: NT12
Calibration: BE00052
Calibration Date: 05/16/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
18F0248-01 (Water)			Lab File ID: N1218062708.D				Analyzed: 06/27/18 16:46	
2-Fluorophenol	37.500	56.9	32.5 - 120	6.54	6.625428	-0.0854	N/A	
Phenol-d5	37.500	39.9	17.8 - 120	8.03	8.115857	-0.0859	N/A	
2-Chlorophenol-d4	37.500	73.7	55 - 120	8.185	8.28	-0.0950	N/A	
1,2-Dichlorobenzene-d4	25.000	73.0	49.3 - 120	8.789	8.885143	-0.0961	N/A	
Nitrobenzene-d5	25.000	78.8	56.1 - 120	9.409	9.511857	-0.1029	N/A	
2-Fluorobiphenyl	25.000	78.2	54.4 - 120	12.315	12.41786	-0.1029	N/A	
2,4,6-Tribromophenol	37.500	79.6	49.3 - 128	14.687	14.79757	-0.1106	N/A	
p-Terphenyl-d14	25.000	87.0	60 - 120	18.416	18.52471	-0.1087	N/A	
18F0248-02 (Water)			Lab File ID: N1218062709.D				Analyzed: 06/27/18 17:20	
2-Fluorophenol	37.500	57.7	32.5 - 120	6.54	6.625428	-0.0854	N/A	
Phenol-d5	37.500	41.7	17.8 - 120	8.03	8.115857	-0.0859	N/A	
2-Chlorophenol-d4	37.500	75.0	55 - 120	8.191	8.28	-0.0890	N/A	
1,2-Dichlorobenzene-d4	25.000	74.2	49.3 - 120	8.789	8.885143	-0.0961	N/A	
Nitrobenzene-d5	25.000	79.9	56.1 - 120	9.409	9.511857	-0.1029	N/A	
2-Fluorobiphenyl	25.000	79.4	54.4 - 120	12.315	12.41786	-0.1029	N/A	
2,4,6-Tribromophenol	37.500	80.9	49.3 - 128	14.687	14.79757	-0.1106	N/A	
p-Terphenyl-d14	25.000	89.1	60 - 120	18.416	18.52471	-0.1087	N/A	
18F0248-03 (Water)			Lab File ID: N1218062710.D				Analyzed: 06/27/18 17:54	
2-Fluorophenol	37.500	42.7	32.5 - 120	6.54	6.625428	-0.0854	N/A	
Phenol-d5	37.500	31.1	17.8 - 120	8.03	8.115857	-0.0859	N/A	
2-Chlorophenol-d4	37.500	57.9	55 - 120	8.185	8.28	-0.0950	N/A	
1,2-Dichlorobenzene-d4	25.000	55.9	49.3 - 120	8.789	8.885143	-0.0961	N/A	
Nitrobenzene-d5	25.000	61.3	56.1 - 120	9.409	9.511857	-0.1029	N/A	
2-Fluorobiphenyl	25.000	62.3	54.4 - 120	12.315	12.41786	-0.1029	N/A	
2,4,6-Tribromophenol	37.500	63.3	49.3 - 128	14.687	14.79757	-0.1106	N/A	
p-Terphenyl-d14	25.000	73.2	60 - 120	18.416	18.52471	-0.1087	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0348
Instrument: NT12
Calibration: BE00052
Calibration Date: 05/16/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
18F0248-04 (Water)			Lab File ID: N1218062711.D				Analyzed: 06/27/18 18:28	
2-Fluorophenol	37.500	57.8	32.5 - 120	6.54	6.625428	-0.0854	N/A	
Phenol-d5	37.500	41.8	17.8 - 120	8.03	8.115857	-0.0859	N/A	
2-Chlorophenol-d4	37.500	77.5	55 - 120	8.185	8.28	-0.0950	N/A	
1,2-Dichlorobenzene-d4	25.000	76.7	49.3 - 120	8.789	8.885143	-0.0961	N/A	
Nitrobenzene-d5	25.000	81.9	56.1 - 120	9.409	9.511857	-0.1029	N/A	
2-Fluorobiphenyl	25.000	81.3	54.4 - 120	12.315	12.41786	-0.1029	N/A	
2,4,6-Tribromophenol	37.500	87.0	49.3 - 128	14.687	14.79757	-0.1106	N/A	
p-Terphenyl-d14	25.000	102	60 - 120	18.416	18.52471	-0.1087	N/A	
18F0248-05 (Water)			Lab File ID: N1218062712.D				Analyzed: 06/27/18 19:01	
2-Fluorophenol	37.500	62.4	32.5 - 120	6.54	6.625428	-0.0854	N/A	
Phenol-d5	37.500	44.5	17.8 - 120	8.03	8.115857	-0.0859	N/A	
2-Chlorophenol-d4	37.500	82.1	55 - 120	8.185	8.28	-0.0950	N/A	
1,2-Dichlorobenzene-d4	25.000	82.2	49.3 - 120	8.789	8.885143	-0.0961	N/A	
Nitrobenzene-d5	25.000	87.4	56.1 - 120	9.409	9.511857	-0.1029	N/A	
2-Fluorobiphenyl	25.000	85.1	54.4 - 120	12.315	12.41786	-0.1029	N/A	
2,4,6-Tribromophenol	37.500	87.1	49.3 - 128	14.687	14.79757	-0.1106	N/A	
p-Terphenyl-d14	25.000	98.4	60 - 120	18.416	18.52471	-0.1087	N/A	
18F0248-06 (Water)			Lab File ID: N1218062713.D				Analyzed: 06/27/18 19:35	
2-Fluorophenol	37.500	56.2	32.5 - 120	6.54	6.625428	-0.0854	N/A	
Phenol-d5	37.500	39.4	17.8 - 120	8.031	8.115857	-0.0849	N/A	
2-Chlorophenol-d4	37.500	76.2	55 - 120	8.186	8.28	-0.0940	N/A	
1,2-Dichlorobenzene-d4	25.000	75.7	49.3 - 120	8.789	8.885143	-0.0961	N/A	
Nitrobenzene-d5	25.000	80.8	56.1 - 120	9.409	9.511857	-0.1029	N/A	
2-Fluorobiphenyl	25.000	80.4	54.4 - 120	12.315	12.41786	-0.1029	N/A	
2,4,6-Tribromophenol	37.500	79.4	49.3 - 128	14.687	14.79757	-0.1106	N/A	
p-Terphenyl-d14	25.000	89.8	60 - 120	18.416	18.52471	-0.1087	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0348
Instrument: NT12
Calibration: BE00052
Calibration Date: 05/16/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
18F0248-07 (Water)			Lab File ID: N1218062714.D				Analyzed: 06/27/18 20:09	
2-Fluorophenol	37.500	57.1	32.5 - 120	6.54	6.625428	-0.0854	N/A	
Phenol-d5	37.500	40.2	17.8 - 120	8.03	8.115857	-0.0859	N/A	
2-Chlorophenol-d4	37.500	76.8	55 - 120	8.185	8.28	-0.0950	N/A	
1,2-Dichlorobenzene-d4	25.000	75.8	49.3 - 120	8.789	8.885143	-0.0961	N/A	
Nitrobenzene-d5	25.000	81.0	56.1 - 120	9.409	9.511857	-0.1029	N/A	
2-Fluorobiphenyl	25.000	80.3	54.4 - 120	12.315	12.41786	-0.1029	N/A	
2,4,6-Tribromophenol	37.500	80.0	49.3 - 128	14.687	14.79757	-0.1106	N/A	
p-Terphenyl-d14	25.000	90.9	60 - 120	18.416	18.52471	-0.1087	N/A	
18F0248-08 (Water)			Lab File ID: N1218062715.D				Analyzed: 06/27/18 20:42	
2-Fluorophenol	37.500	56.1	32.5 - 120	6.54	6.625428	-0.0854	N/A	
Phenol-d5	37.500	40.2	17.8 - 120	8.03	8.115857	-0.0859	N/A	
2-Chlorophenol-d4	37.500	74.6	55 - 120	8.185	8.28	-0.0950	N/A	
1,2-Dichlorobenzene-d4	25.000	72.8	49.3 - 120	8.789	8.885143	-0.0961	N/A	
Nitrobenzene-d5	25.000	80.5	56.1 - 120	9.409	9.511857	-0.1029	N/A	
2-Fluorobiphenyl	25.000	79.1	54.4 - 120	12.315	12.41786	-0.1029	N/A	
2,4,6-Tribromophenol	37.500	82.1	49.3 - 128	14.687	14.79757	-0.1106	N/A	
p-Terphenyl-d14	25.000	93.6	60 - 120	18.416	18.52471	-0.1087	N/A	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270D

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGE0274	Instrument:	NT12
		Calibration:	BE00052

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Secondary Cal Check (SGE0274-SCV1)		(Water)		Lab File ID: N1218051610.D				Analyzed: 05/16/18 18:47	
1,4-Dichlorobenzene-d4	130483	8.623	126982	8.575	103	50 - 200	-0.0480	+/-0.50	
Naphthalene-d8	488782	10.664	478458	10.621	102	50 - 200	-0.0430	+/-0.50	
Acenaphthene-d10	245643	13.533	247659	13.49	99	50 - 200	-0.0430	+/-0.50	
Phenanthrene-d10	414123	15.926	421930	15.878	98	50 - 200	-0.0480	+/-0.50	
Chrysene-d12	432711	20.264	450836	20.216	96	50 - 200	-0.0480	+/-0.50	
Di-n-Octylphthalate-d4	564243	21.338	583434	21.3	97	50 - 200	-0.0380	+/-0.50	
Perylene-d12	451445	22.438	453093	22.39	100	50 - 200	-0.0480	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0272
Instrument: NT12
Calibration: BE00052

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SGF0272-ICV1)		(Water)		Lab File ID: N1218062101.D				Analyzed: 06/21/18 11:24	
1,4-Dichlorobenzene-d4	115576	8.511	126982	8.511	91	50 - 200	0.0000	+/-0.50	
Naphthalene-d8	440532	10.552	478458	10.552	92	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	228646	13.421	247659	13.421	92	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	391823	15.809	421930	15.809	93	50 - 200	0.0000	+/-0.50	
Chrysene-d12	377279	20.136	450836	20.136	84	50 - 200	0.0000	+/-0.50	
Di-n-Octylphthalate-d4	524153	21.226	583434	21.226	90	50 - 200	0.0000	+/-0.50	
Perylene-d12	390293	22.305	453093	22.305	86	50 - 200	0.0000	+/-0.50	
Blank (BGF0417-BLK1)		(Water)		Lab File ID: N1218062102.D				Analyzed: 06/21/18 11:59	
1,4-Dichlorobenzene-d4	118809	8.512	126982	8.511	94	50 - 200	-0.0010	+/-0.50	
Naphthalene-d8	445557	10.547	478458	10.552	93	50 - 200	0.0050	+/-0.50	
Acenaphthene-d10	234947	13.416	247659	13.421	95	50 - 200	0.0050	+/-0.50	
Phenanthrene-d10	392932	15.804	421930	15.809	93	50 - 200	0.0050	+/-0.50	
Chrysene-d12	354769	20.131	450836	20.136	79	50 - 200	0.0050	+/-0.50	
Di-n-Octylphthalate-d4	482937	21.221	583434	21.226	83	50 - 200	0.0050	+/-0.50	
Perylene-d12	349218	22.3	453093	22.305	77	50 - 200	0.0050	+/-0.50	
LCS (BGF0417-BS1)		(Water)		Lab File ID: N1218062103.D				Analyzed: 06/21/18 12:33	
1,4-Dichlorobenzene-d4	126876	8.485	126982	8.511	100	50 - 200	0.0260	+/-0.50	
Naphthalene-d8	485753	10.531	478458	10.552	102	50 - 200	0.0210	+/-0.50	
Acenaphthene-d10	247541	13.399	247659	13.421	100	50 - 200	0.0220	+/-0.50	
Phenanthrene-d10	421523	15.782	421930	15.809	100	50 - 200	0.0270	+/-0.50	
Chrysene-d12	373347	20.109	450836	20.136	83	50 - 200	0.0270	+/-0.50	
Di-n-Octylphthalate-d4	506880	21.204	583434	21.226	87	50 - 200	0.0220	+/-0.50	
Perylene-d12	392763	22.278	453093	22.305	87	50 - 200	0.0270	+/-0.50	
LDW18-SP-RB1 (18F0185-01)		(Water)		Lab File ID: N1218062104.D				Analyzed: 06/21/18 13:07	
1,4-Dichlorobenzene-d4	129295	8.485	126982	8.511	102	50 - 200	0.0260	+/-0.50	
Naphthalene-d8	492917	10.525	478458	10.552	103	50 - 200	0.0270	+/-0.50	
Acenaphthene-d10	261398	13.394	247659	13.421	106	50 - 200	0.0270	+/-0.50	
Phenanthrene-d10	444843	15.777	421930	15.809	105	50 - 200	0.0320	+/-0.50	
Chrysene-d12	379665	20.093	450836	20.136	84	50 - 200	0.0430	+/-0.50	
Di-n-Octylphthalate-d4	535834	21.199	583434	21.226	92	50 - 200	0.0270	+/-0.50	
Perylene-d12	373192	22.284	453093	22.305	82	50 - 200	0.0210	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0272
Instrument: NT12
Calibration: BE00052

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW18-SP-30 (18F0185-03)		(Water)		Lab File ID: N1218062105.D				Analyzed: 06/21/18 13:41	
1,4-Dichlorobenzene-d4	147593	8.511	126982	8.511	116	50 - 200	0.0000	+/-0.50	
Naphthalene-d8	554240	10.552	478458	10.552	116	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	294155	13.421	247659	13.421	119	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	498395	15.803	421930	15.809	118	50 - 200	0.0060	+/-0.50	
Chrysene-d12	437924	20.131	450836	20.136	97	50 - 200	0.0050	+/-0.50	
Di-n-Octylphthalate-d4	583073	21.231	583434	21.226	100	50 - 200	-0.0050	+/-0.50	
Perylene-d12	410191	22.305	453093	22.305	91	50 - 200	0.0000	+/-0.50	
LDW18-SP-32 (18F0185-04)		(Water)		Lab File ID: N1218062106.D				Analyzed: 06/21/18 14:15	
1,4-Dichlorobenzene-d4	150726	8.511	126982	8.511	119	50 - 200	0.0000	+/-0.50	
Naphthalene-d8	569024	10.552	478458	10.552	119	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	304328	13.42	247659	13.421	123	50 - 200	0.0010	+/-0.50	
Phenanthrene-d10	513782	15.808	421930	15.809	122	50 - 200	0.0010	+/-0.50	
Chrysene-d12	449083	20.136	450836	20.136	100	50 - 200	0.0000	+/-0.50	
Di-n-Octylphthalate-d4	588321	21.225	583434	21.226	101	50 - 200	0.0010	+/-0.50	
Perylene-d12	427951	22.305	453093	22.305	94	50 - 200	0.0000	+/-0.50	
LDW18-SP-35 (18F0185-05)		(Water)		Lab File ID: N1218062107.D				Analyzed: 06/21/18 14:49	
1,4-Dichlorobenzene-d4	145864	8.511	126982	8.511	115	50 - 200	0.0000	+/-0.50	
Naphthalene-d8	552390	10.552	478458	10.552	115	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	294810	13.421	247659	13.421	119	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	500473	15.803	421930	15.809	119	50 - 200	0.0060	+/-0.50	
Chrysene-d12	436992	20.136	450836	20.136	97	50 - 200	0.0000	+/-0.50	
Di-n-Octylphthalate-d4	579044	21.226	583434	21.226	99	50 - 200	0.0000	+/-0.50	
Perylene-d12	412817	22.305	453093	22.305	91	50 - 200	0.0000	+/-0.50	
LDW18-SP-38 (18F0185-06)		(Water)		Lab File ID: N1218062108.D				Analyzed: 06/21/18 15:23	
1,4-Dichlorobenzene-d4	148765	8.511	126982	8.511	117	50 - 200	0.0000	+/-0.50	
Naphthalene-d8	555791	10.552	478458	10.552	116	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	299978	13.421	247659	13.421	121	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	510258	15.803	421930	15.809	121	50 - 200	0.0060	+/-0.50	
Chrysene-d12	454219	20.136	450836	20.136	101	50 - 200	0.0000	+/-0.50	
Di-n-Octylphthalate-d4	615391	21.226	583434	21.226	105	50 - 200	0.0000	+/-0.50	
Perylene-d12	432637	22.305	453093	22.305	95	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0272
Instrument: NT12
Calibration: BE00052

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW18-SP-42 (18F0185-07)		(Water)		Lab File ID: N1218062109.D			Analyzed: 06/21/18 15:57		
1,4-Dichlorobenzene-d4	134451	8.512	126982	8.511	106	50 - 200	-0.0010	+/-0.50	
Naphthalene-d8	513875	10.552	478458	10.552	107	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	276593	13.421	247659	13.421	112	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	472411	15.804	421930	15.809	112	50 - 200	0.0050	+/-0.50	
Chrysene-d12	408417	20.131	450836	20.136	91	50 - 200	0.0050	+/-0.50	
Di-n-Octylphthalate-d4	548721	21.226	583434	21.226	94	50 - 200	0.0000	+/-0.50	
Perylene-d12	385619	22.305	453093	22.305	85	50 - 200	0.0000	+/-0.50	
LDW18-SP-43 (18F0185-08)		(Water)		Lab File ID: N1218062110.D			Analyzed: 06/21/18 16:31		
1,4-Dichlorobenzene-d4	151690	8.511	126982	8.511	119	50 - 200	0.0000	+/-0.50	
Naphthalene-d8	575900	10.552	478458	10.552	120	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	307973	13.421	247659	13.421	124	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	526049	15.809	421930	15.809	125	50 - 200	0.0000	+/-0.50	
Chrysene-d12	458187	20.136	450836	20.136	102	50 - 200	0.0000	+/-0.50	
Di-n-Octylphthalate-d4	605828	21.226	583434	21.226	104	50 - 200	0.0000	+/-0.50	
Perylene-d12	432017	22.305	453093	22.305	95	50 - 200	0.0000	+/-0.50	
Matrix Spike (BGF0417-MS1)		(Water)		Lab File ID: N1218062111.D			Analyzed: 06/21/18 17:04		
1,4-Dichlorobenzene-d4	143334	8.516	126982	8.511	113	50 - 200	-0.0050	+/-0.50	
Naphthalene-d8	547800	10.557	478458	10.552	114	50 - 200	-0.0050	+/-0.50	
Acenaphthene-d10	285179	13.426	247659	13.421	115	50 - 200	-0.0050	+/-0.50	
Phenanthrene-d10	483511	15.809	421930	15.809	115	50 - 200	0.0000	+/-0.50	
Chrysene-d12	423177	20.141	450836	20.136	94	50 - 200	-0.0050	+/-0.50	
Di-n-Octylphthalate-d4	555224	21.231	583434	21.226	95	50 - 200	-0.0050	+/-0.50	
Perylene-d12	430207	22.31	453093	22.305	95	50 - 200	-0.0050	+/-0.50	
Matrix Spike Dup (BGF0417-MSD1)		(Water)		Lab File ID: N1218062112.D			Analyzed: 06/21/18 17:38		
1,4-Dichlorobenzene-d4	145919	8.517	126982	8.511	115	50 - 200	-0.0060	+/-0.50	
Naphthalene-d8	556932	10.558	478458	10.552	116	50 - 200	-0.0060	+/-0.50	
Acenaphthene-d10	288615	13.426	247659	13.421	117	50 - 200	-0.0050	+/-0.50	
Phenanthrene-d10	493800	15.814	421930	15.809	117	50 - 200	-0.0050	+/-0.50	
Chrysene-d12	431573	20.142	450836	20.136	96	50 - 200	-0.0060	+/-0.50	
Di-n-Octylphthalate-d4	567960	21.231	583434	21.226	97	50 - 200	-0.0050	+/-0.50	
Perylene-d12	436455	22.31	453093	22.305	96	50 - 200	-0.0050	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0272
Instrument: NT12
Calibration: BE00052

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Blank (BGF0434-BLK1)		(Water)		Lab File ID: N1218062113.D				Analyzed: 06/21/18 18:12	
1,4-Dichlorobenzene-d4	134445	8.511	126982	8.511	106	50 - 200	0.0000	+/-0.50	
Naphthalene-d8	507276	10.552	478458	10.552	106	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	274839	13.421	247659	13.421	111	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	470889	15.804	421930	15.809	112	50 - 200	0.0050	+/-0.50	
Chrysene-d12	412891	20.131	450836	20.136	92	50 - 200	0.0050	+/-0.50	
Di-n-Octylphthalate-d4	543317	21.226	583434	21.226	93	50 - 200	0.0000	+/-0.50	
Perylene-d12	399948	22.305	453093	22.305	88	50 - 200	0.0000	+/-0.50	
LCS (BGF0434-BS1)		(Water)		Lab File ID: N1218062114.D				Analyzed: 06/21/18 18:46	
1,4-Dichlorobenzene-d4	141385	8.517	126982	8.511	111	50 - 200	-0.0060	+/-0.50	
Naphthalene-d8	550416	10.557	478458	10.552	115	50 - 200	-0.0050	+/-0.50	
Acenaphthene-d10	277267	13.426	247659	13.421	112	50 - 200	-0.0050	+/-0.50	
Phenanthrene-d10	484294	15.814	421930	15.809	115	50 - 200	-0.0050	+/-0.50	
Chrysene-d12	418146	20.141	450836	20.136	93	50 - 200	-0.0050	+/-0.50	
Di-n-Octylphthalate-d4	540935	21.231	583434	21.226	93	50 - 200	-0.0050	+/-0.50	
Perylene-d12	436005	22.31	453093	22.305	96	50 - 200	-0.0050	+/-0.50	
LDW18-SP-06 (18F0208-01)		(Water)		Lab File ID: N1218062115.D				Analyzed: 06/21/18 19:20	
1,4-Dichlorobenzene-d4	149774	8.511	126982	8.511	118	50 - 200	0.0000	+/-0.50	
Naphthalene-d8	564799	10.552	478458	10.552	118	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	303843	13.421	247659	13.421	123	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	516825	15.803	421930	15.809	122	50 - 200	0.0060	+/-0.50	
Chrysene-d12	455126	20.136	450836	20.136	101	50 - 200	0.0000	+/-0.50	
Di-n-Octylphthalate-d4	603873	21.226	583434	21.226	104	50 - 200	0.0000	+/-0.50	
Perylene-d12	437109	22.305	453093	22.305	96	50 - 200	0.0000	+/-0.50	
LDW18-SP-33 (18F0208-02)		(Water)		Lab File ID: N1218062116.D				Analyzed: 06/21/18 19:53	
1,4-Dichlorobenzene-d4	149335	8.511	126982	8.511	118	50 - 200	0.0000	+/-0.50	
Naphthalene-d8	565714	10.552	478458	10.552	118	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	298217	13.421	247659	13.421	120	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	505584	15.809	421930	15.809	120	50 - 200	0.0000	+/-0.50	
Chrysene-d12	444696	20.131	450836	20.136	99	50 - 200	0.0050	+/-0.50	
Di-n-Octylphthalate-d4	599580	21.226	583434	21.226	103	50 - 200	0.0000	+/-0.50	
Perylene-d12	436319	22.305	453093	22.305	96	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0272
Instrument: NT12
Calibration: BE00052

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW18-SP-24 (18F0208-03)		(Water)		Lab File ID: N1218062117.D				Analyzed: 06/21/18 20:27	
1,4-Dichlorobenzene-d4	138608	8.511	126982	8.511	109	50 - 200	0.0000	+/-0.50	
Naphthalene-d8	522735	10.552	478458	10.552	109	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	281402	13.421	247659	13.421	114	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	475663	15.803	421930	15.809	113	50 - 200	0.0060	+/-0.50	
Chrysene-d12	415494	20.136	450836	20.136	92	50 - 200	0.0000	+/-0.50	
Di-n-Octylphthalate-d4	561948	21.226	583434	21.226	96	50 - 200	0.0000	+/-0.50	
Perylene-d12	404392	22.305	453093	22.305	89	50 - 200	0.0000	+/-0.50	
LDW18-SP-24-FD (18F0208-04)		(Water)		Lab File ID: N1218062118.D				Analyzed: 06/21/18 21:01	
1,4-Dichlorobenzene-d4	145310	8.516	126982	8.511	114	50 - 200	-0.0050	+/-0.50	
Naphthalene-d8	542164	10.552	478458	10.552	113	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	287320	13.421	247659	13.421	116	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	475217	15.803	421930	15.809	113	50 - 200	0.0060	+/-0.50	
Chrysene-d12	420756	20.136	450836	20.136	93	50 - 200	0.0000	+/-0.50	
Di-n-Octylphthalate-d4	567488	21.226	583434	21.226	97	50 - 200	0.0000	+/-0.50	
Perylene-d12	424533	22.305	453093	22.305	94	50 - 200	0.0000	+/-0.50	
Calibration Check (SGF0272-CCV1)		(Water)		Lab File ID: N1218062120.D				Analyzed: 06/21/18 22:08	
1,4-Dichlorobenzene-d4	140587	8.516	126982	8.511	111	50 - 200	-0.0050	+/-0.50	
Naphthalene-d8	542240	10.557	478458	10.552	113	50 - 200	-0.0050	+/-0.50	
Acenaphthene-d10	282975	13.426	247659	13.421	114	50 - 200	-0.0050	+/-0.50	
Phenanthrene-d10	480294	15.809	421930	15.809	114	50 - 200	0.0000	+/-0.50	
Chrysene-d12	428092	20.141	450836	20.136	95	50 - 200	-0.0050	+/-0.50	
Di-n-Octylphthalate-d4	555947	21.231	583434	21.226	95	50 - 200	-0.0050	+/-0.50	
Perylene-d12	443685	22.31	453093	22.305	98	50 - 200	-0.0050	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0333
Instrument: NT12
Calibration: BE00052

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SGF0333-ICV1)		(Water)	Lab File ID: N1218062601.D				Analyzed: 06/26/18 10:31		
1,4-Dichlorobenzene-d4	121674	8.49	126982	8.49	96	50 - 200	0.0000	+/-0.50	
Naphthalene-d8	462180	10.531	478458	10.531	97	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	239792	13.399	247659	13.399	97	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	408562	15.782	421930	15.782	97	50 - 200	0.0000	+/-0.50	
Chrysene-d12	403146	20.115	450836	20.115	89	50 - 200	0.0000	+/-0.50	
Di-n-Octylphthalate-d4	536896	21.204	583434	21.204	92	50 - 200	0.0000	+/-0.50	
Perylene-d12	432277	22.278	453093	22.278	95	50 - 200	0.0000	+/-0.50	
Blank (BGF0515-BLK1)		(Water)	Lab File ID: N1218062605.D				Analyzed: 06/26/18 13:17		
1,4-Dichlorobenzene-d4	118996	8.495	126982	8.49	94	50 - 200	-0.0050	+/-0.50	
Naphthalene-d8	439612	10.536	478458	10.531	92	50 - 200	-0.0050	+/-0.50	
Acenaphthene-d10	227428	13.404	247659	13.399	92	50 - 200	-0.0050	+/-0.50	
Phenanthrene-d10	384571	15.787	421930	15.782	91	50 - 200	-0.0050	+/-0.50	
Chrysene-d12	342595	20.114	450836	20.115	76	50 - 200	0.0010	+/-0.50	
Di-n-Octylphthalate-d4	459085	21.21	583434	21.204	79	50 - 200	-0.0060	+/-0.50	
Perylene-d12	341530	22.283	453093	22.278	75	50 - 200	-0.0050	+/-0.50	
LCS (BGF0515-BS1)		(Water)	Lab File ID: N1218062606.D				Analyzed: 06/26/18 13:50		
1,4-Dichlorobenzene-d4	139253	8.495	126982	8.49	110	50 - 200	-0.0050	+/-0.50	
Naphthalene-d8	540317	10.541	478458	10.531	113	50 - 200	-0.0100	+/-0.50	
Acenaphthene-d10	274881	13.41	247659	13.399	111	50 - 200	-0.0110	+/-0.50	
Phenanthrene-d10	469943	15.793	421930	15.782	111	50 - 200	-0.0110	+/-0.50	
Chrysene-d12	406057	20.12	450836	20.115	90	50 - 200	-0.0050	+/-0.50	
Di-n-Octylphthalate-d4	543388	21.21	583434	21.204	93	50 - 200	-0.0060	+/-0.50	
Perylene-d12	432599	22.289	453093	22.278	95	50 - 200	-0.0110	+/-0.50	
LDW18-SP-05 (18F0226-01)		(Water)	Lab File ID: N1218062607.D				Analyzed: 06/26/18 14:24		
1,4-Dichlorobenzene-d4	139450	8.511	126982	8.49	110	50 - 200	-0.0210	+/-0.50	
Naphthalene-d8	516563	10.552	478458	10.531	108	50 - 200	-0.0210	+/-0.50	
Acenaphthene-d10	278244	13.416	247659	13.399	112	50 - 200	-0.0170	+/-0.50	
Phenanthrene-d10	472695	15.804	421930	15.782	112	50 - 200	-0.0220	+/-0.50	
Chrysene-d12	419805	20.131	450836	20.115	93	50 - 200	-0.0160	+/-0.50	
Di-n-Octylphthalate-d4	551992	21.226	583434	21.204	95	50 - 200	-0.0220	+/-0.50	
Perylene-d12	420590	22.3	453093	22.278	93	50 - 200	-0.0220	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0333
Instrument: NT12
Calibration: BE00052

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW18-SP-57 (18F0226-02)		(Water)		Lab File ID: N1218062608.D				Analyzed: 06/26/18 14:58	
1,4-Dichlorobenzene-d4	145444	8.511	126982	8.49	115	50 - 200	-0.0210	+/-0.50	
Naphthalene-d8	549917	10.552	478458	10.531	115	50 - 200	-0.0210	+/-0.50	
Acenaphthene-d10	290778	13.415	247659	13.399	117	50 - 200	-0.0160	+/-0.50	
Phenanthrene-d10	498626	15.803	421930	15.782	118	50 - 200	-0.0210	+/-0.50	
Chrysene-d12	447989	20.131	450836	20.115	99	50 - 200	-0.0160	+/-0.50	
Di-n-Octylphthalate-d4	584098	21.226	583434	21.204	100	50 - 200	-0.0220	+/-0.50	
Perylene-d12	440396	22.299	453093	22.278	97	50 - 200	-0.0210	+/-0.50	
Matrix Spike (BGF0515-MS1)		(Water)		Lab File ID: N1218062609.D				Analyzed: 06/26/18 15:32	
1,4-Dichlorobenzene-d4	140828	8.511	126982	8.49	111	50 - 200	-0.0210	+/-0.50	
Naphthalene-d8	553003	10.557	478458	10.531	116	50 - 200	-0.0260	+/-0.50	
Acenaphthene-d10	285260	13.426	247659	13.399	115	50 - 200	-0.0270	+/-0.50	
Phenanthrene-d10	493656	15.809	421930	15.782	117	50 - 200	-0.0270	+/-0.50	
Chrysene-d12	430510	20.136	450836	20.115	95	50 - 200	-0.0210	+/-0.50	
Di-n-Octylphthalate-d4	555187	21.231	583434	21.204	95	50 - 200	-0.0270	+/-0.50	
Perylene-d12	440633	22.31	453093	22.278	97	50 - 200	-0.0320	+/-0.50	
Matrix Spike Dup (BGF0515-MSD1)		(Water)		Lab File ID: N1218062610.D				Analyzed: 06/26/18 16:07	
1,4-Dichlorobenzene-d4	136185	8.511	126982	8.49	107	50 - 200	-0.0210	+/-0.50	
Naphthalene-d8	529023	10.552	478458	10.531	111	50 - 200	-0.0210	+/-0.50	
Acenaphthene-d10	271862	13.421	247659	13.399	110	50 - 200	-0.0220	+/-0.50	
Phenanthrene-d10	473709	15.809	421930	15.782	112	50 - 200	-0.0270	+/-0.50	
Chrysene-d12	415396	20.136	450836	20.115	92	50 - 200	-0.0210	+/-0.50	
Di-n-Octylphthalate-d4	537289	21.226	583434	21.204	92	50 - 200	-0.0220	+/-0.50	
Perylene-d12	426111	22.305	453093	22.278	94	50 - 200	-0.0270	+/-0.50	
LDW18-SP-73 (18F0226-03)		(Water)		Lab File ID: N1218062611.D				Analyzed: 06/26/18 16:41	
1,4-Dichlorobenzene-d4	131126	8.506	126982	8.49	103	50 - 200	-0.0160	+/-0.50	
Naphthalene-d8	486729	10.541	478458	10.531	102	50 - 200	-0.0100	+/-0.50	
Acenaphthene-d10	257218	13.41	247659	13.399	104	50 - 200	-0.0110	+/-0.50	
Phenanthrene-d10	436754	15.798	421930	15.782	104	50 - 200	-0.0160	+/-0.50	
Chrysene-d12	392827	20.125	450836	20.115	87	50 - 200	-0.0100	+/-0.50	
Di-n-Octylphthalate-d4	522389	21.22	583434	21.204	90	50 - 200	-0.0160	+/-0.50	
Perylene-d12	379485	22.294	453093	22.278	84	50 - 200	-0.0160	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0333
Instrument: NT12
Calibration: BE00052

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW18-SP-74 (18F0226-04)		(Water)		Lab File ID: N1218062612.D				Analyzed: 06/26/18 17:15	
1,4-Dichlorobenzene-d4	146953	8.506	126982	8.49	116	50 - 200	-0.0160	+/-0.50	
Naphthalene-d8	546548	10.547	478458	10.531	114	50 - 200	-0.0160	+/-0.50	
Acenaphthene-d10	292015	13.41	247659	13.399	118	50 - 200	-0.0110	+/-0.50	
Phenanthrene-d10	501215	15.798	421930	15.782	119	50 - 200	-0.0160	+/-0.50	
Chrysene-d12	452044	20.125	450836	20.115	100	50 - 200	-0.0100	+/-0.50	
Di-n-Octylphthalate-d4	601243	21.221	583434	21.204	103	50 - 200	-0.0170	+/-0.50	
Perylene-d12	436027	22.294	453093	22.278	96	50 - 200	-0.0160	+/-0.50	
LDW18-SP-77 (18F0226-05)		(Water)		Lab File ID: N1218062613.D				Analyzed: 06/26/18 17:49	
1,4-Dichlorobenzene-d4	150184	8.506	126982	8.49	118	50 - 200	-0.0160	+/-0.50	
Naphthalene-d8	572624	10.547	478458	10.531	120	50 - 200	-0.0160	+/-0.50	
Acenaphthene-d10	303563	13.415	247659	13.399	123	50 - 200	-0.0160	+/-0.50	
Phenanthrene-d10	521181	15.798	421930	15.782	124	50 - 200	-0.0160	+/-0.50	
Chrysene-d12	469210	20.125	450836	20.115	104	50 - 200	-0.0100	+/-0.50	
Di-n-Octylphthalate-d4	624220	21.22	583434	21.204	107	50 - 200	-0.0160	+/-0.50	
Perylene-d12	450871	22.3	453093	22.278	100	50 - 200	-0.0220	+/-0.50	
LDW18-SP-78 (18F0226-06)		(Water)		Lab File ID: N1218062614.D				Analyzed: 06/26/18 18:23	
1,4-Dichlorobenzene-d4	148552	8.506	126982	8.49	117	50 - 200	-0.0160	+/-0.50	
Naphthalene-d8	554325	10.547	478458	10.531	116	50 - 200	-0.0160	+/-0.50	
Acenaphthene-d10	294310	13.415	247659	13.399	119	50 - 200	-0.0160	+/-0.50	
Phenanthrene-d10	506939	15.798	421930	15.782	120	50 - 200	-0.0160	+/-0.50	
Chrysene-d12	453939	20.125	450836	20.115	101	50 - 200	-0.0100	+/-0.50	
Di-n-Octylphthalate-d4	594565	21.22	583434	21.204	102	50 - 200	-0.0160	+/-0.50	
Perylene-d12	439590	22.294	453093	22.278	97	50 - 200	-0.0160	+/-0.50	
LDW18-SP-79 (18F0226-07)		(Water)		Lab File ID: N1218062615.D				Analyzed: 06/26/18 18:57	
1,4-Dichlorobenzene-d4	136475	8.506	126982	8.49	107	50 - 200	-0.0160	+/-0.50	
Naphthalene-d8	513554	10.546	478458	10.531	107	50 - 200	-0.0150	+/-0.50	
Acenaphthene-d10	272727	13.41	247659	13.399	110	50 - 200	-0.0110	+/-0.50	
Phenanthrene-d10	462324	15.798	421930	15.782	110	50 - 200	-0.0160	+/-0.50	
Chrysene-d12	408520	20.125	450836	20.115	91	50 - 200	-0.0100	+/-0.50	
Di-n-Octylphthalate-d4	542558	21.22	583434	21.204	93	50 - 200	-0.0160	+/-0.50	
Perylene-d12	399310	22.299	453093	22.278	88	50 - 200	-0.0210	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0333
Instrument: NT12
Calibration: BE00052

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW18-SP-84 (18F0226-08)		(Water)		Lab File ID: N1218062616.D				Analyzed: 06/26/18 19:31	
1,4-Dichlorobenzene-d4	146500	8.506	126982	8.49	115	50 - 200	-0.0160	+/-0.50	
Naphthalene-d8	550249	10.546	478458	10.531	115	50 - 200	-0.0150	+/-0.50	
Acenaphthene-d10	292087	13.41	247659	13.399	118	50 - 200	-0.0110	+/-0.50	
Phenanthrene-d10	501768	15.798	421930	15.782	119	50 - 200	-0.0160	+/-0.50	
Chrysene-d12	453073	20.125	450836	20.115	100	50 - 200	-0.0100	+/-0.50	
Di-n-Octylphthalate-d4	582604	21.22	583434	21.204	100	50 - 200	-0.0160	+/-0.50	
Perylene-d12	439535	22.294	453093	22.278	97	50 - 200	-0.0160	+/-0.50	
LDW18-SP-87 (18F0226-09)		(Water)		Lab File ID: N1218062617.D				Analyzed: 06/26/18 20:05	
1,4-Dichlorobenzene-d4	144803	8.506	126982	8.49	114	50 - 200	-0.0160	+/-0.50	
Naphthalene-d8	539826	10.547	478458	10.531	113	50 - 200	-0.0160	+/-0.50	
Acenaphthene-d10	285119	13.41	247659	13.399	115	50 - 200	-0.0110	+/-0.50	
Phenanthrene-d10	489362	15.798	421930	15.782	116	50 - 200	-0.0160	+/-0.50	
Chrysene-d12	444434	20.125	450836	20.115	99	50 - 200	-0.0100	+/-0.50	
Di-n-Octylphthalate-d4	568298	21.22	583434	21.204	97	50 - 200	-0.0160	+/-0.50	
Perylene-d12	440987	22.294	453093	22.278	97	50 - 200	-0.0160	+/-0.50	
Calibration Check (SGF0333-CCV1)		(Water)		Lab File ID: N1218062621.D				Analyzed: 06/26/18 22:20	
1,4-Dichlorobenzene-d4	147455	8.506	126982	8.49	116	50 - 200	-0.0160	+/-0.50	
Naphthalene-d8	570504	10.546	478458	10.531	119	50 - 200	-0.0150	+/-0.50	
Acenaphthene-d10	296064	13.415	247659	13.399	120	50 - 200	-0.0160	+/-0.50	
Phenanthrene-d10	502747	15.798	421930	15.782	119	50 - 200	-0.0160	+/-0.50	
Chrysene-d12	470056	20.13	450836	20.115	104	50 - 200	-0.0150	+/-0.50	
Di-n-Octylphthalate-d4	613248	21.226	583434	21.204	105	50 - 200	-0.0220	+/-0.50	
Perylene-d12	503794	22.299	453093	22.278	111	50 - 200	-0.0210	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0348
Instrument: NT12
Calibration: BE00052

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SGF0348-ICV1)		(Water)		Lab File ID: N1218062701.D				Analyzed: 06/27/18 11:13	
1,4-Dichlorobenzene-d4	113295	8.49	126982	8.49	89	50 - 200	0.0000	+/-0.50	
Naphthalene-d8	435352	10.531	478458	10.531	91	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	229388	13.394	247659	13.394	93	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	399765	15.777	421930	15.777	95	50 - 200	0.0000	+/-0.50	
Chrysene-d12	400805	20.109	450836	20.109	89	50 - 200	0.0000	+/-0.50	
Di-n-Octylphthalate-d4	542872	21.204	583434	21.204	93	50 - 200	0.0000	+/-0.50	
Perylene-d12	406314	22.278	453093	22.278	90	50 - 200	0.0000	+/-0.50	
Blank (BGF0552-BLK1)		(Water)		Lab File ID: N1218062706.D				Analyzed: 06/27/18 15:38	
1,4-Dichlorobenzene-d4	102368	8.49	126982	8.49	81	50 - 200	0.0000	+/-0.50	
Naphthalene-d8	391763	10.53	478458	10.531	82	50 - 200	0.0010	+/-0.50	
Acenaphthene-d10	204080	13.394	247659	13.394	82	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	358178	15.777	421930	15.777	85	50 - 200	0.0000	+/-0.50	
Chrysene-d12	382680	20.104	450836	20.109	85	50 - 200	0.0050	+/-0.50	
Di-n-Octylphthalate-d4	527372	21.204	583434	21.204	90	50 - 200	0.0000	+/-0.50	
Perylene-d12	384108	22.278	453093	22.278	85	50 - 200	0.0000	+/-0.50	
LCS (BGF0552-BS1)		(Water)		Lab File ID: N1218062707.D				Analyzed: 06/27/18 16:12	
1,4-Dichlorobenzene-d4	115324	8.49	126982	8.49	91	50 - 200	0.0000	+/-0.50	
Naphthalene-d8	439421	10.531	478458	10.531	92	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	226681	13.399	247659	13.394	92	50 - 200	-0.0050	+/-0.50	
Phenanthrene-d10	389611	15.782	421930	15.777	92	50 - 200	-0.0050	+/-0.50	
Chrysene-d12	417619	20.109	450836	20.109	93	50 - 200	0.0000	+/-0.50	
Di-n-Octylphthalate-d4	558908	21.204	583434	21.204	96	50 - 200	0.0000	+/-0.50	
Perylene-d12	454033	22.278	453093	22.278	100	50 - 200	0.0000	+/-0.50	
LDW18-SP-01 (18F0248-01)		(Water)		Lab File ID: N1218062708.D				Analyzed: 06/27/18 16:46	
1,4-Dichlorobenzene-d4	117196	8.49	126982	8.49	92	50 - 200	0.0000	+/-0.50	
Naphthalene-d8	434605	10.525	478458	10.531	91	50 - 200	0.0060	+/-0.50	
Acenaphthene-d10	222669	13.394	247659	13.394	90	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	370270	15.777	421930	15.777	88	50 - 200	0.0000	+/-0.50	
Chrysene-d12	392268	20.104	450836	20.109	87	50 - 200	0.0050	+/-0.50	
Di-n-Octylphthalate-d4	533947	21.199	583434	21.204	92	50 - 200	0.0050	+/-0.50	
Perylene-d12	413211	22.273	453093	22.278	91	50 - 200	0.0050	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0348
Instrument: NT12
Calibration: BE00052

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW18-SP-45 (18F0248-02)		(Water)		Lab File ID: N1218062709.D				Analyzed: 06/27/18 17:20	
1,4-Dichlorobenzene-d4	127314	8.49	126982	8.49	100	50 - 200	0.0000	+/-0.50	
Naphthalene-d8	472092	10.525	478458	10.531	99	50 - 200	0.0060	+/-0.50	
Acenaphthene-d10	242346	13.394	247659	13.394	98	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	403958	15.776	421930	15.777	96	50 - 200	0.0010	+/-0.50	
Chrysene-d12	414980	20.104	450836	20.109	92	50 - 200	0.0050	+/-0.50	
Di-n-Octylphthalate-d4	553579	21.204	583434	21.204	95	50 - 200	0.0000	+/-0.50	
Perylene-d12	432619	22.278	453093	22.278	95	50 - 200	0.0000	+/-0.50	
LDW18-SP-47 (18F0248-03)		(Water)		Lab File ID: N1218062710.D				Analyzed: 06/27/18 17:54	
1,4-Dichlorobenzene-d4	134740	8.49	126982	8.49	106	50 - 200	0.0000	+/-0.50	
Naphthalene-d8	499863	10.525	478458	10.531	104	50 - 200	0.0060	+/-0.50	
Acenaphthene-d10	256346	13.394	247659	13.394	104	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	426887	15.777	421930	15.777	101	50 - 200	0.0000	+/-0.50	
Chrysene-d12	423617	20.104	450836	20.109	94	50 - 200	0.0050	+/-0.50	
Di-n-Octylphthalate-d4	566676	21.204	583434	21.204	97	50 - 200	0.0000	+/-0.50	
Perylene-d12	452888	22.273	453093	22.278	100	50 - 200	0.0050	+/-0.50	
LDW18-SP-66 (18F0248-04)		(Water)		Lab File ID: N1218062711.D				Analyzed: 06/27/18 18:28	
1,4-Dichlorobenzene-d4	141047	8.49	126982	8.49	111	50 - 200	0.0000	+/-0.50	
Naphthalene-d8	531518	10.525	478458	10.531	111	50 - 200	0.0060	+/-0.50	
Acenaphthene-d10	274623	13.394	247659	13.394	111	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	459236	15.777	421930	15.777	109	50 - 200	0.0000	+/-0.50	
Chrysene-d12	432652	20.104	450836	20.109	96	50 - 200	0.0050	+/-0.50	
Di-n-Octylphthalate-d4	579890	21.204	583434	21.204	99	50 - 200	0.0000	+/-0.50	
Perylene-d12	462209	22.278	453093	22.278	102	50 - 200	0.0000	+/-0.50	
LDW18-SP-70 (18F0248-05)		(Water)		Lab File ID: N1218062712.D				Analyzed: 06/27/18 19:01	
1,4-Dichlorobenzene-d4	126065	8.49	126982	8.49	99	50 - 200	0.0000	+/-0.50	
Naphthalene-d8	472405	10.525	478458	10.531	99	50 - 200	0.0060	+/-0.50	
Acenaphthene-d10	245323	13.394	247659	13.394	99	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	402564	15.777	421930	15.777	95	50 - 200	0.0000	+/-0.50	
Chrysene-d12	405163	20.104	450836	20.109	90	50 - 200	0.0050	+/-0.50	
Di-n-Octylphthalate-d4	544600	21.204	583434	21.204	93	50 - 200	0.0000	+/-0.50	
Perylene-d12	435833	22.278	453093	22.278	96	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270D

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0348
Instrument: NT12
Calibration: BE00052

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW18-SP-83 (18F0248-06)		(Water)		Lab File ID: N1218062713.D				Analyzed: 06/27/18 19:35	
1,4-Dichlorobenzene-d4	129818	8.49	126982	8.49	102	50 - 200	0.0000	+/-0.50	
Naphthalene-d8	483587	10.525	478458	10.531	101	50 - 200	0.0060	+/-0.50	
Acenaphthene-d10	248451	13.394	247659	13.394	100	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	413567	15.777	421930	15.777	98	50 - 200	0.0000	+/-0.50	
Chrysene-d12	428534	20.104	450836	20.109	95	50 - 200	0.0050	+/-0.50	
Di-n-Octylphthalate-d4	565227	21.199	583434	21.204	97	50 - 200	0.0050	+/-0.50	
Perylene-d12	455268	22.278	453093	22.278	100	50 - 200	0.0000	+/-0.50	
LDW18-SP-86 (18F0248-07)		(Water)		Lab File ID: N1218062714.D				Analyzed: 06/27/18 20:09	
1,4-Dichlorobenzene-d4	129819	8.49	126982	8.49	102	50 - 200	0.0000	+/-0.50	
Naphthalene-d8	485574	10.525	478458	10.531	101	50 - 200	0.0060	+/-0.50	
Acenaphthene-d10	251155	13.394	247659	13.394	101	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	411978	15.777	421930	15.777	98	50 - 200	0.0000	+/-0.50	
Chrysene-d12	421958	20.104	450836	20.109	94	50 - 200	0.0050	+/-0.50	
Di-n-Octylphthalate-d4	562067	21.204	583434	21.204	96	50 - 200	0.0000	+/-0.50	
Perylene-d12	448313	22.278	453093	22.278	99	50 - 200	0.0000	+/-0.50	
LDW18-SP-88 (18F0248-08)		(Water)		Lab File ID: N1218062715.D				Analyzed: 06/27/18 20:42	
1,4-Dichlorobenzene-d4	135442	8.49	126982	8.49	107	50 - 200	0.0000	+/-0.50	
Naphthalene-d8	499489	10.525	478458	10.531	104	50 - 200	0.0060	+/-0.50	
Acenaphthene-d10	255855	13.394	247659	13.394	103	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	424055	15.777	421930	15.777	101	50 - 200	0.0000	+/-0.50	
Chrysene-d12	431794	20.104	450836	20.109	96	50 - 200	0.0050	+/-0.50	
Di-n-Octylphthalate-d4	573511	21.204	583434	21.204	98	50 - 200	0.0000	+/-0.50	
Perylene-d12	458271	22.278	453093	22.278	101	50 - 200	0.0000	+/-0.50	
Calibration Check (SGF0348-CCV1)		(Water)		Lab File ID: N1218062716.D				Analyzed: 06/27/18 21:16	
1,4-Dichlorobenzene-d4	126933	8.49	126982	8.49	100	50 - 200	0.0000	+/-0.50	
Naphthalene-d8	473318	10.53	478458	10.531	99	50 - 200	0.0010	+/-0.50	
Acenaphthene-d10	245973	13.394	247659	13.394	99	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	410526	15.782	421930	15.777	97	50 - 200	-0.0050	+/-0.50	
Chrysene-d12	427951	20.114	450836	20.109	95	50 - 200	-0.0050	+/-0.50	
Di-n-Octylphthalate-d4	553872	21.204	583434	21.204	95	50 - 200	0.0000	+/-0.50	
Perylene-d12	473882	22.283	453093	22.278	105	50 - 200	-0.0050	+/-0.50	

HOLDING TIME SUMMARY

Analysis: EPA 8270D

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW18-SP-RB1 18F0185-01	06/11/18 16:12	06/12/18 14:55	06/18/18 15:20	6	7	06/21/18 13:07	3	40	
LDW18-SP-30 18F0185-03	06/12/18 12:06	06/12/18 14:55	06/18/18 15:20	6	7	06/21/18 13:41	3	40	
LDW18-SP-32 18F0185-04	06/12/18 09:19	06/12/18 14:55	06/18/18 15:20	6	7	06/21/18 14:15	3	40	
LDW18-SP-35 18F0185-05	06/12/18 10:56	06/12/18 14:55	06/18/18 15:20	6	7	06/21/18 14:49	3	40	
LDW18-SP-38 18F0185-06	06/12/18 10:27	06/12/18 14:55	06/18/18 15:20	6	7	06/21/18 15:23	3	40	
LDW18-SP-42 18F0185-07	06/12/18 12:05	06/12/18 14:55	06/18/18 15:20	6	7	06/21/18 15:57	3	40	
LDW18-SP-43 18F0185-08	06/12/18 13:00	06/12/18 14:55	06/18/18 15:20	6	7	06/21/18 16:31	3	40	
LDW18-SP-06 18F0208-01	06/13/18 09:53	06/13/18 16:26	06/20/18 13:36	7	7	06/21/18 19:20	1	40	
LDW18-SP-33 18F0208-02	06/13/18 12:17	06/13/18 16:26	06/20/18 13:36	7	7	06/21/18 19:53	1	40	
LDW18-SP-24 18F0208-03	06/13/18 12:35	06/13/18 16:26	06/20/18 13:36	7	7	06/21/18 20:27	1	40	
LDW18-SP-24-FD 18F0208-04	06/13/18 12:42	06/13/18 16:26	06/20/18 13:36	7	7	06/21/18 21:01	1	40	
LDW18-SP-05 18F0226-01	06/14/18 14:08	06/14/18 15:45	06/21/18 15:35	7	7	06/26/18 14:24	5	40	
LDW18-SP-57 18F0226-02	06/14/18 10:41	06/14/18 15:45	06/21/18 15:35	7	7	06/26/18 14:58	5	40	
LDW18-SP-73 18F0226-03	06/14/18 13:08	06/14/18 15:45	06/21/18 15:35	7	7	06/26/18 16:41	5	40	
LDW18-SP-74 18F0226-04	06/14/18 13:14	06/14/18 15:45	06/21/18 15:35	7	7	06/26/18 17:15	5	40	
LDW18-SP-77 18F0226-05	06/14/18 12:10	06/14/18 15:45	06/21/18 15:35	7	7	06/26/18 17:49	5	40	
LDW18-SP-78 18F0226-06	06/14/18 12:04	06/14/18 15:45	06/21/18 15:35	7	7	06/26/18 18:23	5	40	
LDW18-SP-79 18F0226-07	06/14/18 09:50	06/14/18 15:45	06/21/18 15:35	7	7	06/26/18 18:57	5	40	
LDW18-SP-84 18F0226-08	06/14/18 09:53	06/14/18 15:45	06/21/18 15:35	7	7	06/26/18 19:31	5	40	
LDW18-SP-87 18F0226-09	06/14/18 11:11	06/14/18 15:45	06/21/18 15:35	7	7	06/26/18 20:05	5	40	
LDW18-SP-01 18F0248-01	06/15/18 11:33	06/15/18 16:10	06/22/18 12:06	7	7	06/27/18 16:46	5	40	
LDW18-SP-45 18F0248-02	06/15/18 13:45	06/15/18 16:10	06/22/18 12:06	6	7	06/27/18 17:20	5	40	

HOLDING TIME SUMMARY

Analysis: EPA 8270D

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW18-SP-47 18F0248-03	06/15/18 13:16	06/15/18 16:10	06/22/18 12:06	6	7	06/27/18 17:54	5	40	
LDW18-SP-66 18F0248-04	06/15/18 13:25	06/15/18 16:10	06/22/18 12:06	6	7	06/27/18 18:28	5	40	
LDW18-SP-70 18F0248-05	06/15/18 11:13	06/15/18 16:10	06/22/18 12:06	7	7	06/27/18 19:01	5	40	
LDW18-SP-83 18F0248-06	06/15/18 12:08	06/15/18 16:10	06/22/18 12:06	6	7	06/27/18 19:35	5	40	
LDW18-SP-86 18F0248-07	06/15/18 12:19	06/15/18 16:10	06/22/18 12:06	6	7	06/27/18 20:09	5	40	
LDW18-SP-88 18F0248-08	06/15/18 10:52	06/15/18 16:10	06/22/18 12:06	7	7	06/27/18 20:42	5	40	
Matrix Spike BGF0417-MS1	06/12/18 13:00	06/12/18 14:55	06/18/18 15:20	6	7	06/21/18 17:04	3	40	
Matrix Spike Dup BGF0417-MSD1	06/12/18 13:00	06/12/18 14:55	06/18/18 15:20	6	7	06/21/18 17:38	3	40	
Matrix Spike BGF0515-MS1	06/14/18 10:41	06/14/18 15:45	06/21/18 15:35	7	7	06/26/18 15:32	5	40	
Matrix Spike Dup BGF0515-MSD1	06/14/18 10:41	06/14/18 15:45	06/21/18 15:35	7	7	06/26/18 16:07	5	40	

* Indicates hold time exceedance.

METHOD DETECTION AND REPORTING LIMITS

EPA 8270D

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Matrix: Water Instrument: NT12

Analyte	MDL	RL	Units
Phenol	0.2	1.0	ug/L
1,4-Dichlorobenzene	0.2	1.0	ug/L
1,2-Dichlorobenzene	0.2	1.0	ug/L
Benzyl alcohol	0.6	2.0	ug/L
4-Methylphenol	0.4	2.0	ug/L
2,4-Dimethylphenol	0.4	3.0	ug/L
1,2,4-Trichlorobenzene	0.2	1.0	ug/L
Benzoic acid	3.0	20.0	ug/L
Dimethylphthalate	0.4	1.0	ug/L
Dibenzofuran	0.4	1.0	ug/L
N-Nitrosodiphenylamine	0.3	1.0	ug/L
Hexachlorobenzene	0.3	1.0	ug/L
Pentachlorophenol	1.6	10.0	ug/L
Butylbenzylphthalate	0.3	1.0	ug/L
bis(2-Ethylhexyl)phthalate	0.3	3.0	ug/L

I8227

Certificate of Analysis

SIGMA-ALDRICH

Product Name	Pentachlorophenol, 97%
Product Number	P2604
Product Brand	ALDRICH
CAS Number	87-86-5
Molecular Formula	C_6Cl_5OH
Molecular Weight	266.34

TEST	SPECIFICATION	LOT 07119HO RESULTS
APPEARANCE	WHITE TO OFF-WHITE OR LIGHT BLUE POWDER	OFF-WHITE POWDER
INFRARED SPECTRUM	CONFORMS TO STRUCTURE.	CONFORMS TO STRUCTURE AND STANDARD
TITRATION	97.5% - 102.5% (WITH AGNO3 AFTER OXYGEN	100.5 % (WITH AGNO3 AFTER OXYGEN COMBUSTION)
GAS LIQUID CHROMATOGRAPHY	97.5% (MINIMUM)	99.9 %
SOLUBILITY		100 MG/ML, 95% ETOH: VERY HAZY, FAINT YELLOW SOLUTION
QUALITY CONTROL ACCEPTANCE DATE		JUNE 2001

Barbara Rajzer, Supervisor
Quality Control
Milwaukee, Wisconsin USA

Certificate of Analysis

SIGMA-ALDRICH

Product Name	2,4,6-Tribromophenol, 99%
Product Number	137715
Product Brand	ALDRICH
CAS Number	118-79-6
Molecular Formula	$Br_3C_6H_2OH$
Molecular Weight	330.80

TEST	SPECIFICATION	LOT 03410KL RESULTS
APPEARANCE	WHITE TO OFF-WHITE TO PINK FLAKES, CHUNKS,	OFF-WHITE CHIPS
INFRARED SPECTRUM	CONFORMS TO STRUCTURE.	CONFORMS TO STRUCTURE
MELTING POINT		93 DEGREES CELSIUS
GAS LIQUID CHROMATOGRAPHY		99.4 %

Barbara Rajzer

Barbara Rajzer, Supervisor
Quality Control
Milwaukee, Wisconsin USA

Please wait...

I 8244

18F0248 18F0226 18F0208 18F0185 CLPLNKE (Rev0) - Page 1270 of 6523

Analytical Resources, Incorporated

Analytical Standard Record
Analytical Resources, Inc.
Standard ID: B001945

Printed: 9/25/2013 3:23:22PM

Description:	SVOC Benzoic Acid	Expires:	31-Dec-29
Standard Type:	Calibration Stan	Prepared:	31-Dec-12
Solvent:	NA	Prepared By:	Jianqing Zhou
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	25-Sep-13 15:23 by JZ
Vendor:	ACROS Organics	Lot #:	A0224339
Vendor Catalog #:			

Comments

Neat, Purity @ 98%.

Analyte	CAS Number	Concentration	Units
Benzoic acid	65-85-0	1000000	ug/mL

Reviewed By Date

Appendix 20.1

ALTERNATE CERTIFICATE OF ANALYSIS

The manufacturer of the below chemical was unable to provide a Certificate of Analysis at the time of request by ARI.

Date Requested from Manufacturer:_____

Chemical: Benzoic Acid

Manufacturer: Acros Organics

Product #: _____

Lot #: A0224339

Purity: 98%

Analyst: [signature]

Cambridge Isotope Laboratories, Inc.

Certificate of Analysis

Product Name: DI-N-OCTYL PHTHALATE
(Isotopic Label & Enrichment Specification) (RING-D4, 98%)

Lot Number: PR-14719

Catalog Number: DLM-1630-0

Product Information

Chemical Purity Specification: ≥ 98%



MW*: 394.58
** For isotopically labeled compounds, MW listed is for the fully enriched product.*

Labeled CAS Number: 93952-13-7

Unlabeled CAS Number: 117-84-0

Chemical Formula: C6D4-1,2-(CO2(CH2)7CH3)2

Storage: Store at room temperature away from light and moisture.

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible. Results are representative of QC testing at time of release from Quality Control unless otherwise stated.

The retest date for this chemical has been designated based on CIL's experience in working with chemical standards for over 30 years, and includes review of actual analytical results and relevant literature references. The retest date is valid only for unopened vials or ampoules that have been stored as recommended.

Approved by: Jeffrey O Neill

Jeffrey O'Neill, Quality Review

Quality Control Tests and Results

1H NMR for Chemical Purity	Pass
GC/MS for Chemical Purity	99.8%
GC/MS for Isotopic Enrichment	99.1%

Additional Testing Information:

Retest/Review Date: 01/17/23

CIL subscribes to the following standards for different products: ISO Guide 34, ISO/IEC 17025, ISO 13485 and cGMP as appropriate.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Analytical Reference Material ARM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 93462
Lot Number: 031416
Description: PAH Standard
30 components
Expiration Date: 031421
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 822-275872-11

Solvent(s): Methylene chloride **Lot#** 72062

E002162 JR
Recd. 06/08/16

5E-05 Balance Uncertainty
Volume(s) shown below were combined and diluted to (mL): 10.0 0.002 Flask Uncertainty

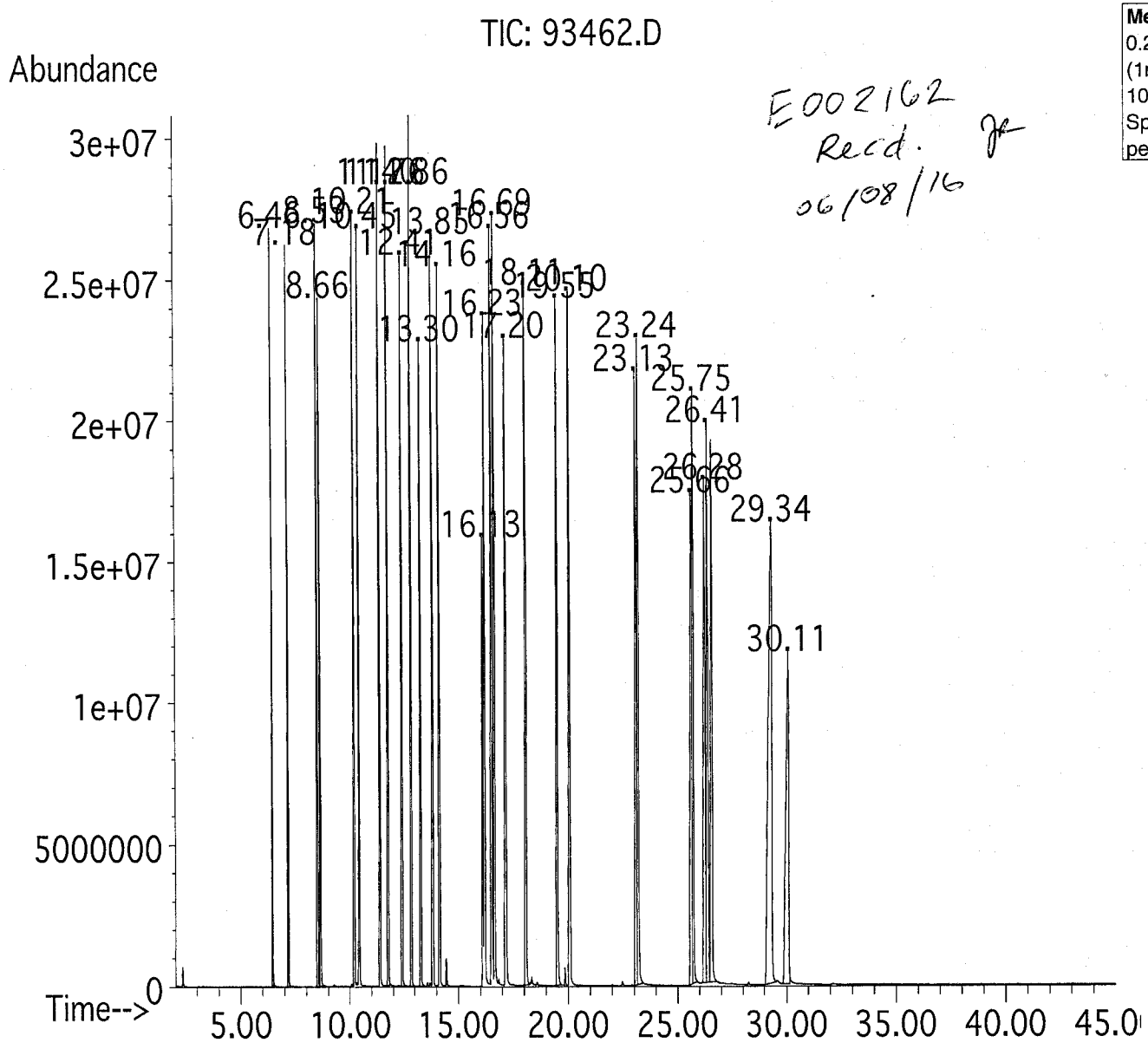
Paul Barron 031416
Formulated By: Paul Barron DATE

Pedro Rentas 031416
Reviewed By: Pedro L. Rentas DATE

Compound	Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Uncertainty Pipette	Initial Conc.(ug/mL)	Final Conc.(ug/mL)	Expanded Uncertainty (+/-) (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acenaphthene	10007	020515	0.50	5.00	0.025	2001.4	1000.9	4.1	83-32-9	N/A	ipr-rat 600mg/kg
2. Acenaphthylene	10007	020515	0.50	5.00	0.025	2001.3	1000.8	4.1	208-96-8	N/A	N/A
3. Anthracene	10007	020515	0.50	5.00	0.025	2001.3	1000.8	4.1	120-12-7	0.2mg/m3 (8H)	ipr-mus 430mg/kg
4. Benzo(a)anthracene	10007	020515	0.50	5.00	0.025	2000.7	1000.5	4.0	56-55-3	N/A	N/A
5. Benzo(a)pyrene	10007	020515	0.50	5.00	0.025	2000.8	1000.6	4.0	50-32-8	0.2mg/m3 (8H)	scu-rat 50mg/kg
6. Benzo(b)fluoranthene	10007	020515	0.50	5.00	0.025	2000.9	1000.6	4.0	205-99-2	N/A	N/A
7. Benzo(k)fluoranthene	10007	020515	0.50	5.00	0.025	2001.5	1000.9	4.1	207-08-9	N/A	N/A
8. Benzo(g,h,i)perylene	10007	020515	0.50	5.00	0.025	2000.6	1000.5	4.1	191-24-2	N/A	N/A
9. Carbazole	10007	020515	0.50	5.00	0.025	2000.7	1000.6	4.1	86-74-8	N/A	ipr-mus 200mg/kg
10. Chrysene	10007	020515	0.50	5.00	0.025	2000.7	1000.5	4.1	218-01-9	0.2mg/m3	N/A
11. Dibenzo(a,h)anthracene	10007	020515	0.50	5.00	0.025	2000.9	1000.6	4.0	53-70-3	0.2mg/m3	N/A
12. Fluoranthene	10007	020515	0.50	5.00	0.025	2001.5	1000.9	4.1	206-44-0	N/A	orl-rat 2000mg/kg
13. Fluorene	10007	020515	0.50	5.00	0.025	2000.8	1000.6	4.1	86-73-7	N/A	ipr-mus 2 g/kg
14. Indeno(1,2,3-cd)pyrene	10007	020515	0.50	5.00	0.025	2000.5	1000.4	4.0	193-39-5	N/A	N/A
15. Naphthalene	10007	020515	0.50	5.00	0.025	2001.3	1000.8	4.1	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
16. Phenanthrene	10007	020515	0.50	5.00	0.025	2000.4	1000.4	4.0	85-01-8	0.2mg/m3/8H	orl-mus 700mg/kg
17. Pyrene	10007	020515	0.50	5.00	0.025	2000.8	1000.6	4.1	129-00-0	0.2mg/m3/8H	orl-rat 2700mg/kg
18. Benzo(e)pyrene	94851	031416	0.50	5.00	0.025	2001.9	1001.1	4.1	192-97-2	N/A	N/A
19. Biphenyl	94851	031416	0.50	5.00	0.025	2000.7	1000.5	4.1	92-52-4	0.2 ppm(1mg/m3/8H)	orl-rat 2400mg/kg
20. Decalin (49% cis, 51% trans)	94851	031416	0.50	5.00	0.025	2002.1	1001.2	4.2	91-17-8	N/A	N/A
21. Dibenzofuran	94851	031416	0.50	5.00	0.025	2001.3	1000.8	4.2	132-64-9	N/A	N/A
22. Dibenzothiophene	94851	031416	0.50	5.00	0.025	2001.3	1000.8	4.2	132-65-0	N/A	orl-mus 470 mg/kg
23. 2,6-Dimethylnaphthalene	94851	031416	0.50	5.00	0.025	2004.9	1002.6	4.2	581-42-0	N/A	N/A
24. 1-Methylnaphthalene	94851	031416	0.50	5.00	0.025	2003.5	1001.9	4.2	90-12-0	N/A	orl-rat 1840mg/kg
25. 2-Methylnaphthalene	94851	031416	0.50	5.00	0.025	2006.1	1003.2	4.3	91-57-6	N/A	orl-rat 1630mg/kg
26. 1-Methylphenanthrene	94851	031416	0.50	5.00	0.025	2004.4	1002.4	10.2	832-69-9	N/A	N/A
27. Pentachlorophenol	94851	031416	0.50	5.00	0.025	2006.6	1003.5	4.2	87-86-5	0.5mg/m3/8H (skin)	orl-rat 27mg/kg
28. Perylene	94851	031416	0.50	5.00	0.025	2002.1	1001.2	4.2	198-55-0	N/A	N/A
29. Thianaphthene	94851	031416	0.50	5.00	0.025	2003.9	1002.1	4.2	95-15-8	N/A	N/A
30. 2,3,5-Trimethylnaphthalene	94851	031416	0.50	5.00	0.025	2002.9	1001.6	4.3	2245-38-7	N/A	N/A

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 1274 of 6223



E002162
Recd. JF
06/08/16

Method GC8MSD-2Long: Column:SPB-5 (30m X 0.25mm ID X 0.25μm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (14min.), Rate = 10°C/min., Injector B= 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Gina McLane.

Retention Time (min.)	
Decahydronaphthalene (Decalin) (isomer)	6.46
Decahydronaphthalene (Decalin) (isomer)	7.18
Naphthalene	8.53
Thianaphthene	8.66
2-Methylnaphthalene	10.21
1-Methylnaphthalene	10.45
Biphenyl	11.4
2,6-Dimethylnaphthalene	11.76
Acenaphthylene	12.41
Acenaphthene	12.86
Dibenzofuran	13.3
2,3,5-Trimethylnaphthalene	13.85
Fluorene	14.16
Pentachlorophenol	16.13
Dibenzothiophene	16.23
Phenanthrene	16.56
Anthracene	16.69
Carbazole	17.2
1-Methylphenanthrene	18.11
Fluoranthene	19.55
Pyrene	20.1
Benzo(a)anthracene	23.13
Chrysene	23.24
Benzo(b)fluoranthene	25.66
Benzo(k)fluoranthene	25.75
Perylene	26.28
Benzo(a)pyrene	26.41
Benzo(e)pyrene	26.61
Indeno(1,2,3-cd)pyrene	29.34
Dibenzo(a,h)anthracene	29.34
Benzo(g,h,i)perylene	30.11

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Cert #2495.01

ECS

Certificate of Analysis

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Chemical Testing
Cert #2495.02

Catalog Number: ECS-A-030 **Lot No.** TS150708004

Description: Base/Neutrals Mix 1

Matrix: Methylene Chloride

Manufactured Date: 7-8-2015
Expiration Date: 7-7-2018

This **SPEXOrganics®** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality control standard for organic chromatography instrumentation such as GC, GC-MS, LC, and LC-MS. It can be employed in USEPA, ASTM and other methods relevant to the certified properties listed below.

Certified Compounds:

Compound	CAS #	Labeled	Purity	Certified†	Uncertainty
Azobenzene	103-33-3	2000 µg/mL	98%	1990 µg/mL	± 52 µg/mL
4-Bromodiphenyl ether	101-55-3	2000 µg/mL	99%	2000 µg/mL	± 52 µg/mL
Butylbenzyl phthalate	85-68-7	2000 µg/mL	98%	2005 µg/mL	± 52 µg/mL
Carbazole	86-74-8	2000 µg/mL	95%	1999 µg/mL	± 52 µg/mL
bis(2-Chloroethoxy)methane	111-91-1	2000 µg/mL	97%	1998 µg/mL	± 52 µg/mL
bis(2-Chloroethyl)ether	111-44-4	2000 µg/mL	99%	1995 µg/mL	± 52 µg/mL
Bis(2-chloro-1-methylethyl) ether	108-60-1	2000 µg/mL	98.6%	2003 µg/mL	± 52 µg/mL
2-Chloronaphthalene	91-58-7	2000 µg/mL	98%	1986 µg/mL	± 52 µg/mL
4-Chlorophenyl-phenyl ether	7005-72-3	2000 µg/mL	99%	2006 µg/mL	± 52 µg/mL
1,2-Dichlorobenzene	95-50-1	2000 µg/mL	99%	2000 µg/mL	± 52 µg/mL
1,3-Dichlorobenzene	541-73-1	2000 µg/mL	98%	1992 µg/mL	± 52 µg/mL
1,4-Dichlorobenzene	106-46-7	2000 µg/mL	99%	1994 µg/mL	± 52 µg/mL
Diethyl phthalate	84-66-2	2000 µg/mL	99%	2004 µg/mL	± 52 µg/mL
Dimethyl phthalate	131-11-3	2000 µg/mL	99%	1990 µg/mL	± 52 µg/mL
Di-n-butyl phthalate	84-74-2	2000 µg/mL	99%	1997 µg/mL	± 52 µg/mL
Di-n-octyl phthalate	117-84-0	2000 µg/mL	98%	1994 µg/mL	± 52 µg/mL
2,4-Dinitrotoluene	121-14-2	2000 µg/mL	97%	1990 µg/mL	± 52 µg/mL
2,6-Dinitrotoluene	606-20-2	2000 µg/mL	98%	1998 µg/mL	± 52 µg/mL
Bis(2-Ethylhexyl)phthalate	117-81-7	2000 µg/mL	99%	1995 µg/mL	± 52 µg/mL
Hexachlorobenzene	118-74-1	2000 µg/mL	99%	1993 µg/mL	± 52 µg/mL
Hexachlorobutadiene	87-68-3	2000 µg/mL	97%	1989 µg/mL	± 52 µg/mL
Hexachlorocyclopentadiene	77-47-4	2000 µg/mL	98.6%	1993 µg/mL	± 52 µg/mL
Hexachloroethane	67-72-1	2000 µg/mL	98%	1999 µg/mL	± 52 µg/mL
Isophorone	78-59-1	2000 µg/mL	97%	2003 µg/mL	± 52 µg/mL
Nitrobenzene	98-95-3	2000 µg/mL	99%	2014 µg/mL	± 52 µg/mL
N-Nitrosodimethylamine	62-75-9	2000 µg/mL	97%	2004 µg/mL	± 52 µg/mL
N-Nitrosodiphenylamine	86-30-6	2000 µg/mL	97%	1994 µg/mL	± 52 µg/mL
N-Nitrosodi-n-propylamine	621-64-7	2000 µg/mL	98%	1992 µg/mL	± 52 µg/mL
Pyridine	110-86-1	2000 µg/mL	99%	2006 µg/mL	± 52 µg/mL
1,2,4-Trichlorobenzene	120-82-1	2000 µg/mL	99%	1993 µg/mL	± 52 µg/mL

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07/06/16

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Certificate of Reference Material

Catalog Number: ECS-A-030 **Lot No.** TS150708004

Description: Base/Neutrals Mix 1

Matrix: Methylene Chloride

Manufactured Date: 7-8-2015

Expiration Date: 7-7-2018

Final Solution Verification:

Final solution integrity verified by Gas Chromatography/Mass Spectrometry. The mass spectrum of each compound was confirmed against the NIST mass spectral database.

† Certified concentration based on gravimetric weights and corrected for the purity of the compound(s) used to prepare the standard. Analytical balance calibration is verified daily with C1 weight set #23-190006 which is registered with Atlantic Scale, and traceable to NIST and NJ Division of Weights and Measures.

This CRM is guaranteed stable and accurate to within the uncertainty listed for the certified value. This includes uncertainty components due to preparation, homogeneity, short term and long term stability. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further information, contact the Sales Support Department at crmsales@spexcsp.com.

Date of Certification: 7-8-2015 Certifying Officer: Julian Burton

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Reference Materials Producer
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Certificate of Analysis

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Chemical Testing
Cert #2495.02

Catalog Number: ECS-A-030 **Lot No.** TS150708004

Description: Base/Neutrals Mix 1

Matrix: Methylene Chloride

Manufactured Date: 7-8-2015
Expiration Date: 7-7-2018

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1,2,4-Trichlorobenzene	120-82-1	2000 µg/mL	99%	1993 µg/mL	± 52 µg/mL

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07/26/16

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Certificate of Reference Material

Catalog Number: ECS-A-030 **Lot No.** TS150708004

Description: Base/Neutrals Mix 1

Matrix: Methylene Chloride

Manufactured Date: 7-8-2015

Expiration Date: 7-7-2018

Final Solution Verification:

Final solution integrity verified by Gas Chromatography/Mass Spectrometry. The mass spectrum of each compound was confirmed against the NIST mass spectral database.

† Certified concentration based on gravimetric weights and corrected for the purity of the compound(s) used to prepare the standard. Analytical balance calibration is verified daily with C1 weight set #23-190006 which is registered with Atlantic Scale, and traceable to NIST and NJ Division of Weights and Measures.

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Date of Certification: 7-8-2015 Certifying Officer: Julian Burton

Certificate of Analysis

Phenova Certified Reference Materials are sold by Phenomenex.
411 Madrid Ave , Torrance CA 90501 USA ▪ Tel 310-212-0555 ▪ Fax 310-328-7768 ▪ info@phenomenex.com
Access your MSDS and digital C of A at **www.phenomenex.com/mysupport Re-order at www.phenomenex.com/standards**

Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101291
Description: GC/MS Tuning Mix
Storage: 4 °C
Provided As: 1 mL in 2 mL Ampoule in Methylene chloride

Lot Number: CL10999
Certification Date: May 9, 2014
Expiration Date: December 31, 2023
Revision Date: June 19, 2015

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty (%)
Benzidine	92-87-5	1000	± 4.575%
Decafluorotriphenylphosphine (DFTPP)	5074-71-5	1000	± 2.420%
4,4'-DDT	50-29-3	1000	± 2.772%
Pentachlorophenol	87-86-5	1000	± 2.616%

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Recd.
10/21/16

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Reference Material Producer
Certificate No 2427 02

phenova
Certified Reference Material

Manufactured by Phenova, Inc.
Phenova s testing and calibration results are internationally recognized through the ILAC MRA Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory

ilac-MRA ACCREDITED
Chemical Testing Laboratory
Certificate No 2427 03

IL111106i3 us

Certificate of Analysis

Phenova Certified Reference Materials are sold by Phenomenex.
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Access your MSDS and digital C of A at **www.phenomenex.com/mysupport. Re-order at www.phenomenex.com/standards**

1. Quality Document This Certificate of Analysis has been created in accordance with ISO Guide 31[1] and ISO Guide 35 [2]

2 Quality Standards. Phenova is accredited by A2LA to ISO Guide 34[3] and ISO/IEC 17025[4] as a producer of Certified Reference Materials and Reference Materials This ensures that our manufacturing processes have been accredited to and meet strict international standards

3. Intended Use The product is manufactured for use in the calibration and calibration verification of chromatographic instrumentation performed in routine laboratory analysis

4. Instruction: Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved Dilute as required, use only class A glassware and diluents compatible with all certified analytes in the mixture.

5. Hazardous Situation. The product is intended for use by experienced professional personnel. A Material Safety Data Sheet (MSDS) is available at www phenomenex.com/mysupport

6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.

7 Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware

8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials The purity of this material was verified using an ISO/IEC Guide 17025 methodology

9 Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98[5] and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS) The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO Guide 34. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC Guide 17025 methodology.

11. Values Obtained During Product Testing. This product is subjected to verification, homogeneity and stability testing using an ISO/IEC Guide 17025 chromatographic methodology All values obtained during testing meet criteria in accordance with ISO Guide 34

12 Period of Validity. The Certified Values and their uncertainties are guaranteed until the expiration date This product will be monitored during the period of validity and customers notified of any significant changes in stability

References:

[1] ISO Guide 31:2000(E) – Reference Materials – Contents of Certificates and Labels
[2] ISO Guide 35:2006(E) – Reference Material – General and Statistical Principles for Certification
[3] ISO Guide 34 2009(E) – General Requirements for the Competence of Reference Material Producers
[4] ISO/IEC Guide 17025 2005(E) – General Requirements for the Competence of Testing and Calibration Laboratories
[5] ISO/IEC Guide 98-3 2008(E) – Uncertainty of Measurement – Part 3 Guide to Expression of Uncertainty in Measurement (GUM 1995)

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Reference Material Producer
Certificate No 2427.02

Manufactured by Phenova, Inc.
Phenova's testing and calibration results are internationally recognized through the ILAC MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.

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Chemical Testing Laboratory
Certificate No 2427.03

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31206 **Lot No.:** A0121299

Description : SV Internal Standard Mix 2mg/ml

SV Internal Standard Mix 2mg/ml 2000 µg/ml, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2022 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive.

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12/13/16

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 (Lot PR-18488) **Purity** 99%	2,015.2 µg/mL	+/- 11.7165 µg/mL +/- 90.7658 µg/mL +/- 100.7159 µg/mL	Gravimetric Unstressed Stressed
2	Naphthalene-d8 **CAS #** 1146-65-2 (Lot M-1452) **Purity** 99%	2,018.8 µg/mL	+/- 11.7375 µg/mL +/- 90.9280 µg/mL +/- 100.8958 µg/mL	Gravimetric Unstressed Stressed
3	Acenaphthene-d10 **CAS #** 15067-26-2 (Lot PR-25444) **Purity** 99%	2,013.5 µg/mL	+/- 11.7067 µg/mL +/- 90.6892 µg/mL +/- 100.6309 µg/mL	Gravimetric Unstressed Stressed
4	Phenanthrene-d10 **CAS #** 1517-22-2 (Lot PR-23065) **Purity** 99%	2,019.9 µg/mL	+/- 11.7439 µg/mL +/- 90.9775 µg/mL +/- 100.9508 µg/mL	Gravimetric Unstressed Stressed
5	Chrysene-d12 **CAS #** 1719-03-5 (Lot PR-26994) **Purity** 98%	2,013.4 µg/mL	+/- 11.7061 µg/mL +/- 90.6852 µg/mL +/- 100.6264 µg/mL	Gravimetric Unstressed Stressed
6	Perylene-d12 **CAS #** 1520-96-3 (Lot PR-24113) **Purity** 99%	2,013.2 µg/mL	+/- 11.7049 µg/mL +/- 90.6757 µg/mL +/- 100.6159 µg/mL	Gravimetric Unstressed Stressed

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31493 **Lot No.:** A0120439

Description : CLP 04.1 BNA Surrogate Mix

CLP 04.1 BNA Surrogate Mix 1000-1500 µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2020 **Storage:** 10°C or colder

Handling: Sonicate prior to use.

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03/13/17

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	2-Fluorophenol **CAS #** 367-12-4 (Lot STBC5591V) **Purity** 99%	1,508.0 µg/mL	+/- 8.9571 µg/mL +/- 44.0466 µg/mL +/- 53.4340 µg/mL	Gravimetric Unstressed Stressed
2	Phenol-d6 **CAS #** 13127-88-3 (Lot PR-24670) **Purity** 99%	1,514.0 µg/mL	+/- 8.9927 µg/mL +/- 44.2219 µg/mL +/- 53.6466 µg/mL	Gravimetric Unstressed Stressed
3	2-Chlorophenol-d4 **CAS #** 93951-73-6 (Lot PR-20630) **Purity** 99%	1,500.0 µg/mL	+/- 8.9095 µg/mL +/- 43.8130 µg/mL +/- 53.1506 µg/mL	Gravimetric Unstressed Stressed
4	1,2-Dichlorobenzene-d4 **CAS #** 2199-69-1 (Lot PR-24738) **Purity** 99%	1,000.0 µg/mL	+/- 5.9397 µg/mL +/- 29.2086 µg/mL +/- 35.4337 µg/mL	Gravimetric Unstressed Stressed
5	Nitrobenzene-d5 **CAS #** 4165-60-0 (Lot PR-25462) **Purity** 99%	1,004.0 µg/mL	+/- 5.9635 µg/mL +/- 29.3255 µg/mL +/- 35.5754 µg/mL	Gravimetric Unstressed Stressed
6	2-Fluorobiphenyl **CAS #** 321-60-8 (Lot S26B003) **Purity** 99%	1,002.0 µg/mL	+/- 5.9516 µg/mL +/- 29.2671 µg/mL +/- 35.5046 µg/mL	Gravimetric Unstressed Stressed
7	2,4,6-Tribromophenol **CAS #** 118-79-6 (Lot 29699MJV) **Purity** 99%	1,510.0 µg/mL	+/- 8.9689 µg/mL +/- 44.1050 µg/mL +/- 53.5049 µg/mL	Gravimetric Unstressed Stressed

8	p-Terphenyl-d14		1,004.0 µg/mL	+/- 5.9635	µg/mL	Gravimetric
	CAS # 1718-51-0	(Lot PR-21037)		+/- 29.3255	µg/mL	Unstressed
	Purity 99%			+/- 35.5754	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

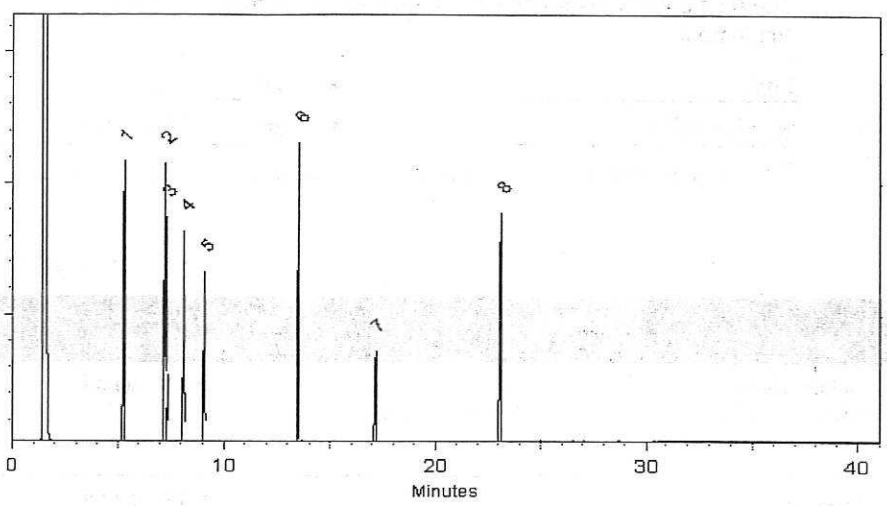
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bradley Meyer
Bradley Meyer - Mix Technician

Date Mixed: 14-Jul-2016 **Balance:** 1128353505

Jennifer L Pollino
Jennifer L. Pollino - QC Analyst

Date Passed: 18-Jul-2016

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Analytical Standard Record
Standard ID: F002250

Printed: 5/8/2017 3:13:19PM

Description:	CLP 04.1 BNA SURR MIX	Expires:	30-Apr-2020
Standard Type:	Surrogate Spike	Prepared:	13-Mar-2017
Solvent:	methylene chloride	Prepared By:	Joshua Rains
Final Volume (mls):	1	Department:	Organics
Vials:	20	Last Edit:	13-Mar-2017 14:17 by JGR
Vendor:	Restek	Lot #:	a0120439
Vendor Catalog #:			

Comments

Analyte	CAS Number	Concentration	Units
p-Terphenyl-d14	1718-51-0	1000	ug/mL
Nitrobenzene-d5	4165-60-0	1000	ug/mL
2-Fluorophenol	367-12-4	1500	ug/mL
2-Fluorobiphenyl	321-60-8	1000	ug/mL
2-Chlorophenol-d4	93951-73-6	1500	ug/mL
2,4,6-Tribromophenol	118-79-6	1500	ug/mL
1,2-Dichlorobenzene-d4	2199-69-1	1000	ug/mL

Please add phenol-d5 on
Thank you!

Sanjeev 05/08/17

change also affects F003589 JR 05/09/17

Reviewed By Date

RESTEK
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

F 102250
Recd.
03/13/17

Catalog No. : 31493 **Lot No.:** A0120439

Description : CLP 04.1 BNA Surrogate Mix

CLP 04.1 BNA Surrogate Mix 1000-1500 µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : April 30, 2020 **Storage:** 10°C or colder

Handling: Sonicate prior to use.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	2-Fluorophenol		1,508.0 µg/mL		+/- 8.9571	µg/mL	Gravimetric
	CAS # 367-12-4	(Lot STBC5591V)			+/- 44.0466	µg/mL	Unstressed
	Purity 99%				+/- 53.4340	µg/mL	Stressed
2	Phenol-d6		1,514.0 µg/mL		+/- 8.9927	µg/mL	Gravimetric
	CAS # 13127-88-3	(Lot PR-24670)			+/- 44.2219	µg/mL	Unstressed
	Purity 99%				+/- 53.6466	µg/mL	Stressed
3	2-Chlorophenol-d4		1,500.0 µg/mL		+/- 8.9095	µg/mL	Gravimetric
	CAS # 93951-73-6	(Lot PR-20630)			+/- 43.8130	µg/mL	Unstressed
	Purity 99%				+/- 53.1506	µg/mL	Stressed
4	1,2-Dichlorobenzene-d4		1,000.0 µg/mL		+/- 5.9397	µg/mL	Gravimetric
	CAS # 2199-69-1	(Lot PR-24738)			+/- 29.2086	µg/mL	Unstressed
	Purity 99%				+/- 35.4337	µg/mL	Stressed
5	Nitrobenzene-d5		1,004.0 µg/mL		+/- 5.9635	µg/mL	Gravimetric
	CAS # 4165-60-0	(Lot PR-25462)			+/- 29.3255	µg/mL	Unstressed
	Purity 99%				+/- 35.5754	µg/mL	Stressed
6	2-Fluorobiphenyl		1,002.0 µg/mL		+/- 5.9516	µg/mL	Gravimetric
	CAS # 321-60-8	(Lot S26B003)			+/- 29.2671	µg/mL	Unstressed
	Purity 99%				+/- 35.5046	µg/mL	Stressed
7	2,4,6-Tribromophenol		1,510.0 µg/mL		+/- 8.9689	µg/mL	Gravimetric
	CAS # 118-79-6	(Lot 29699MJV)			+/- 44.1050	µg/mL	Unstressed
	Purity 99%				+/- 53.5049	µg/mL	Stressed

8	p-Terphenyl-d14		1,004.0	µg/mL	+/-	5.9635	µg/mL	Gravimetric
	CAS # 1718-51-0	(Lot PR-21037)			+/-	29.3255	µg/mL	Unstressed
	Purity 99%				+/-	35.5754	µg/mL	Stressed

Solvent: Methylene Chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

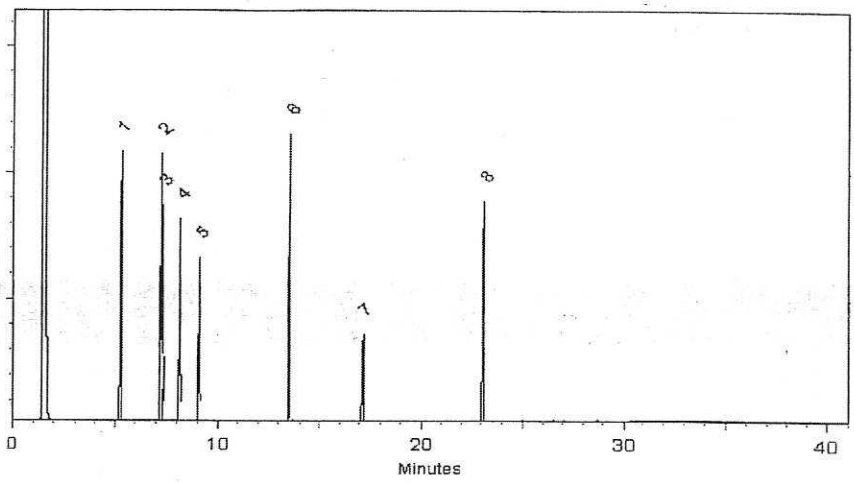
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Bradley Meyer
Bradley Meyer - Mix Technician

Date Mixed: 14-Jul-2016 **Balance:** 1128353505

Jennifer L. Pollino
Jennifer L. Pollino - QC Analyst

Date Passed: 18-Jul-2016

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

Certificate of Analysis

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Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.:	AL0-101246	**Lot Number:**	CL10927
Description:	Benzoic Acid	**Certification Date:**	July 11, 2014
Storage:	4 °C	**Expiration Date:**	August 31, 2023
Provided As:	1 mL in 2 mL Ampoule in Methylene Chloride	**Revision Date:**	February 8, 2017

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzoic acid	65-85-0	2000	± 0.503%

F002710
Recd. JR
03/29/17

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Reference Material Producer
Certificate No. 2427.02

Manufactured by Phenova, Inc.
Phenova's testing and calibration results are internationally recognized through the ILAC MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.

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1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31[1] and ISO Guide 35.[2]

2. Quality Standards: Phenova is accredited by A2LA to ISO Guide 34[3] and ISO/IEC 17025[4] as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.

3. Intended Use: The product is manufactured for use in the calibration and calibration verification of chromatographic instrumentation performed in routine laboratory analysis.

4. Instruction: Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all certified analytes in the mixture.

5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Material Safety Data Sheet (MSDS) is available at www.phenomenex.com/mysupport.

6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 25 µL.

7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.

8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.

9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98[5] and ISO Guide 35 incorporating Type A standard uncertainty at a95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

   $$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

   Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO Guide 34. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.

11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO Guide 34.

12. Period of Validity: The Certified Values and their uncertainties are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

[1] ISO Guide 31:2000(E) – Reference Materials – Contents of Certificates and Labels.
[2] ISO Guide 35:2006(E) – Reference Material – General and Statistical Principles for Certification.
[3] ISO Guide 34:2009(E) – General Requirements for the Competence of Reference Material Producers.
[4] ISO/IEC 17025:2005(E) – General Requirements for the Competence of Testing and Calibration Laboratories.
[5] ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)

ACCREDITED
Reference Material Producer
Certificate No. 2427.02

Manufactured by Phenova, Inc.
Phenova's testing and calibration results are internationally recognized through the ILAC MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.

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Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101444
Description: 8270 Calibration Standard
Storage: -18 °C
Provided As: 1 mL in 2 mL Ampoule in MeCl2/Methanol (97:3)

Lot Number: CL11699
Certification Date: December 13, 2016
Expiration Date: March 31, 2018

Andrea L Gill
Andrea Gill, Certified Reference Materials Manager

F002713 AR
Recd. 03/29/17

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Acenaphthene	83-32-9	1000	± 1.952%
Acenaphthylene	208-96-8	1000	± 0.222%
Anthracene	120-12-7	1000	± 1.954%
Azobenzene	103-33-3	1000	± 2.059%
Benzo(a)anthracene	56-55-3	1000	± 1.913%
Benzo(b)fluoranthene	205-99-2	1000	± 1.914%
Benzo(k)fluoranthene	207-08-9	1000	± 2.093%
Benzo(g,h,i)perylene	191-24-2	1000	± 2.449%
Benzo(a)pyrene	50-32-8	1000	± 2.017%
Benzyl alcohol	100-51-6	1000	± 2.091%
Benzyl butyl phthalate	85-68-7	1000	± 2.388%
4-Bromophenyl phenyl ether	101-55-3	1000	± 2.102%
Carbazole	86-74-8	1000	± 2.095%
4-Chloroaniline	106-47-8	1000	± 1.935%
bis(2-Chloroethyl) ether	111-44-4	1000	± 1.874%
bis(2-Chloroethoxy)methane	111-91-1	1000	± 0.386%
bis(2-Chloroisopropyl) ether	108-60-1	1000	± 2.556%
4-Chloro-3-methylphenol	59-50-7	1000	± 1.313%

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Chemical Testing Laboratory
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Catalog No.: AL0-101444
Lot Number: CL11699
Description: 8270 Calibration Standard
Certification Date: December 13, 2016
Storage: -18 °C
Expiration Date: March 31, 2018
Provided As: 1 mL in 2 mL Ampoule in MeCl2/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2-Chloronaphthalene	91-58-7	1000	± 2.040%
2-Chlorophenol	95-57-8	1000	± 1.794%
4-Chlorophenyl phenyl ether	7005-72-3	1000	± 2.769%
Chrysene	218-01-9	1000	± 1.760%
Dibenz(a,h)anthracene	53-70-3	1000	± 2.624%
Dibenzofuran	132-64-9	1000	± 1.209%
Di-n-butyl phthalate	84-74-2	1000	± 2.357%
1,2-Dichlorobenzene	95-50-1	1000	± 2.032%
1,3-Dichlorobenzene	541-73-1	1000	± 0.217%
1,4-Dichlorobenzene	106-46-7	1000	± 0.873%
2,4-Dichlorophenol	120-83-2	1000	± 2.249%
Diethyl phthalate	84-66-2	1000	± 2.181%
2,4-Dimethylphenol	105-67-9	1000	± 0.236%
Dimethyl phthalate	131-11-3	1000	± 2.339%
1,2-Dinitrobenzene	528-29-0	1000	± 0.295%
1,3-Dinitrobenzene	99-65-0	1000	± 0.217%
1,4-Dinitrobenzene	100-25-4	1000	± 2.670%
2,4-Dinitrophenol	51-28-5	1000	± 1.848%
2,4-Dinitrotoluene	121-14-2	1000	± 0.219%
2,6-Dinitrotoluene	606-20-2	1000	± 2.230%
Di-n-octyl phthalate	117-84-0	1000	± 1.803%

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Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101444
Description: 8270 Calibration Standard
Storage: -18 °C
Provided As: 1 mL in 2 mL Ampoule in MeCl2/Methanol (97:3)

Lot Number: CL11699
Certification Date: December 13, 2016
Expiration Date: March 31, 2018

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
bis(2-Ethylhexyl) adipate	103-23-1	1000	± 2.228%
bis(2-Ethylhexyl) phthalate	117-81-7	1000	± 1.937%
Fluoranthene	206-44-0	1000	± 2.052%
Fluorene	86-73-7	1000	± 3.234%
Hexachlorobenzene	118-74-1	1000	± 2.065%
Hexachlorobutadiene	87-68-3	1000	± 2.280%
Hexachlorocyclopentadiene	77-47-4	1000	± 1.896%
Hexachloroethane	67-72-1	1000	± 0.566%
Indeno(1,2,3-cd)pyrene	193-39-5	1000	± 2.431%
Isophorone	78-59-1	1000	± 1.468%
2-Methyl-4,6-dinitrophenol	534-52-1	1000	± 2.160%
1-Methylnaphthalene	90-12-0	1000	± 1.940%
2-Methylnaphthalene	91-57-6	1000	± 1.888%
2-Methylphenol	95-48-7	1000	± 2.054%
3-Methylphenol	108-39-4	500	± 0.573%
4-Methylphenol	106-44-5	500	± 0.573%
Naphthalene	91-20-3	1000	± 1.693%
2-Nitroaniline	88-74-4	1000	± 1.977%
3-Nitroaniline	99-09-2	1000	± 2.089%
4-Nitroaniline	100-01-6	1000	± 1.303%
Nitrobenzene	98-95-3	1000	± 2.254%

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Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101444
Description: 8270 Calibration Standard
Storage: -18 °C
Provided As: 1 mL in 2 mL Ampoule in MeCl2/Methanol (97:3)

Lot Number: CL11699
Certification Date: December 13, 2016
Expiration Date: March 31, 2018

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2-Nitrophenol	88-75-5	1000	± 0.994%
4-Nitrophenol	100-02-7	1000	± 2.305%
N-Nitrosodimethylamine	62-75-9	1000	± 0.448%
N-Nitrosodiphenylamine	86-30-6	1000	± 2.800%
N-Nitrosodi-n-propylamine	621-64-7	1000	± 0.400%
Pentachlorophenol	87-86-5	1000	± 2.242%
Phenanthrene	85-01-8	1000	± 2.173%
Phenol	108-95-2	1000	± 1.954%
Pyrene	129-00-0	1000	± 1.999%
Pyridine	110-86-1	1000	± 0.934%
1,2,4-Trichlorobenzene	120-82-1	1000	± 2.120%
2,3,4,6-Tetrachlorophenol	58-90-2	1000	± 2.630%
2,3,5,6-Tetrachlorophenol	935-95-5	1000	± 2.418%
2,4,5-Trichlorophenol	95-95-4	1000	± 1.978%
2,4,6-Trichlorophenol	88-06-2	1000	± 1.978%

Notes: The analytical uncertainty contribution to the expanded uncertainty for 3 and 4-Methylphenol is measured as the total of the two analytes. N-Nitrosodiphenylamine presents as Diphenylamine at 854 µg/mL.

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Reference Material Producer
Certificate No. 2427.02

phenova® Certified Reference Materials

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1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31[1] and ISO Guide 35.[2]

2. Quality Standards: Phenova is accredited by A2LA to ISO Guide 34[3] and ISO/IEC 17025[4] as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.

3. Intended Use: The product is manufactured for use in the calibration and calibration verification of chromatographic instrumentation performed in routine laboratory analysis.

4. Instruction: Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all certified analytes in the mixture.

5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Material Safety Data Sheet (MSDS) is available at www.phenomenex.com/mysupport.

6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.

7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.

8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.

9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98[5] and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

   $$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

   Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO Guide 34. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.

11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO Guide 34.

12. Period of Validity: The Certified Values and their uncertainties are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

[1] ISO Guide 31:2000(E) – Reference Materials – Contents of Certificates and Labels.
[2] ISO Guide 35:2006(E) – Reference Material – General and Statistical Principles for Certification.
[3] ISO Guide 34:2009(E) – General Requirements for the Competence of Reference Material Producers.
[4] ISO/IEC 17025:2005(E) – General Requirements for the Competence of Testing and Calibration Laboratories.
[5] ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)

ACCREDITED
Reference Material Producer
Certificate No. 2427.02

phenova® Certified Reference Materials
Manufactured by Phenova, Inc.
Phenova's testing and calibration results are internationally recognized through the ILAC MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.

ilac-MRA ACCREDITED
Chemical Testing Laboratory
Certificate No. 2427.03

IL11110613_us

Certificate of Composition

DESCRIPTION: ACID STOCK

QUOTE 22261940 LOT NO.: LC26159V MFG DATE: Apr-2017

SOLVENT: DICHLOROMETHANE

exp 2yrs. from rec.

ANALYTE (1)	CAS NUMBER	PERCENT PURITY (2)	WEIGHT CONCENTRATION (3)			SUPELCO LOT NO
BENZOIC ACID	65-85-0	99.9	1802	+/-	9.0	LB96892
PENTACHLOROPHENOL	87-86-5	97.5	802.4	+/-	4.01	LC17897
2-METHYL-4,6-DINITROPHENOL	534-52-1	99.9	1801	+/-	9.0	LB99844
2,4-DICHLOROPHENOL	120-83-2	99.9	802.0	+/-	4.01	LB83402
2,4-DIMETHYLPHENOL	105-67-9	99.9	801.0	+/-	4.01	LB88935
2,4-DINITROPHENOL	51-28-5	99.9	1800	+/-	9.0	LB92092
2,4,5-TRICHLOROPHENOL	95-95-4	99.7	801.0	+/-	4.01	LB35288
2,4,6-TRICHLOROPHENOL	88-06-2	99.9	801.0	+/-	4.01	LB65559
4-CHLORO-3-METHYLPHENOL	59-50-7	99.9	802.0	+/-	4.01	LC17531
4-NITROPHENOL	100-02-7	99.9	802.0	+/-	4.01	LC10889

F003203
Recd. JK
04/14/17

(1) Listed in alphabetical order.

(2) Determined by capillary GC-FID, unless otherwise noted.

(3) NIST traceable weights are used to verify balance calibration with the preparation of each lot. Concentration of analyte in solution is ug/ml +/- 0.5%, based upon balance and Class A volumetric glassware tolerances. Weights are corrected for analytes less than 98% pure.

Duane Funk

Duane Funk
Quality Manager

Supelco warrants that its products conform to the information contained in this publication. Purchaser must determine the suitability of the product for its particular use. Please see the latest catalog or order invoice and packing slip for additional terms and conditions of sale.
Supelco is a Sigma-Aldrich Company. Sigma-Aldrich Corp. is a subsidiary of Merck KGaA, Darmstadt, Germany.

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Phone (814) 359-3441

TraceCERT®
Traceable Certified Reference Materials

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16823-0048 USA · Phone(814)359-3441

Certificate of Analysis

Description: TCL Hazardous Substances Mix 1, 1x1ml, 2000µg/ml each in dichloromethane

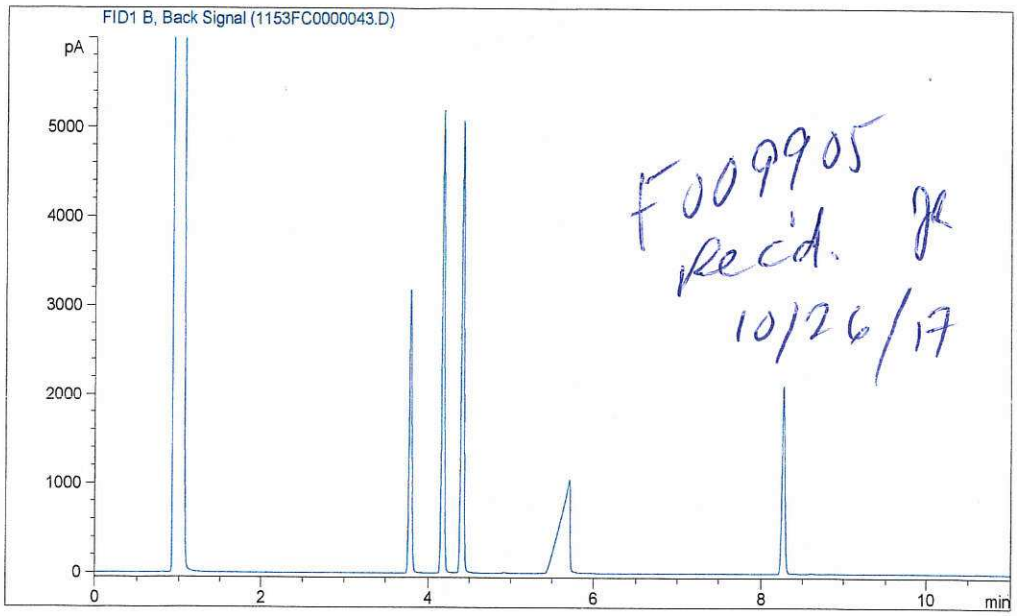
Part Number: 48907

Lot Number: XA14055V

Expiration Date: May 2018

Storage: Refrigerate

Analytical Method Parameters:
Column: SPB-5: 30m x 0.53mm, 1.5µm df
80°C to 190°C at 10°C/min
Detector: FID; 310°C
Injection Volume: 1 ul



Elution	Analyte	Lot Number	CAS Number	Chromatographic Purity %	Certified Gravimetric Conc. µg/ml	Expanded Uncertainty µg/ml	Analytical Conc. µg/ml
	Internal Standard	N/A	N/A	N/A	N/A	N/A	N/A
2.	2-Methylphenol	LB91878	95-48-7	99.9	1998.5	±130	1924.5
3.	p-Cresol (4-Methylphenol)	LB32518	106-44-5	99.8	1997.5	±160	1940.5
4.	Benzoic Acid	LB96892	65-85-0	99.9	1998.0	±300	1966.2
5.	2,4,5-Trichlorophenol	LB35288	95-95-4	99.4	1989.0	±340	1961.7

ACLASS ACCREDITED TESTING Cert# AT-1607

ACLASS ACCREDITED REFERENCE MATERIAL PRODUCER Cert# AR-1606

Produced in double accredited laboratory fulfulling
ISO/IEC 17025 and
ISO Guide 34

SIGMA-ALDRICH®

Notes:

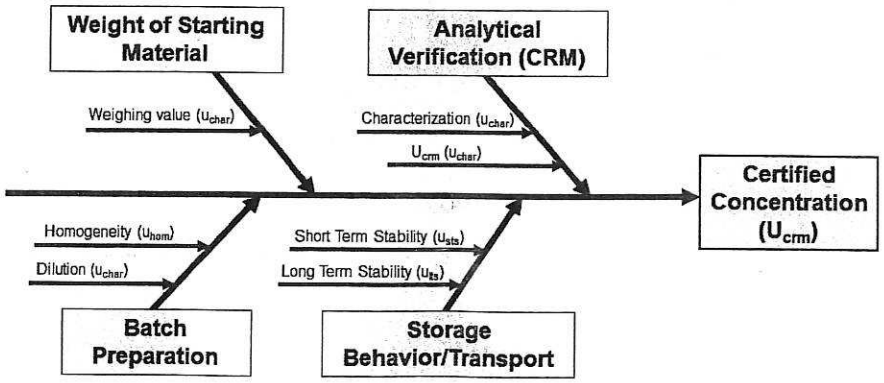
• NIST traceable weights are used to verify balance calibration with the preparation of each lot. Concentration of analyte in solution is µg/ml.

• Certified value is the gravimetric concentration weighed at room temperature and verified analytically by comparison to an independent Certified Reference Material. Uncertainty of the gravimetric concentration in this document is expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k = 2. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long-term stability and short-term stability. The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies.

• Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

• Product intended for laboratory use only. Supelco warrants that its products conform to the information contained in this publication. Purchaser must determine the suitability of the product for its particular use. Please see the latest catalog or order invoice and packing slip for additional terms and conditions of sale.

Cause-Effect Diagram for Uncertainty Contributions



$$U_{crm} = k\sqrt{u_{char}^2 + u_{hom}^2 + u_{sts}^2 + u_{lts}^2}$$

Test Date: May 04, 2017
Form: 44806

Duane Funk

Duane Funk
QC Manager

ANAB ACCREDITED TESTING LABORATORY Cert# AT-1607

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER Cert# AR-1606

Produced in double accredited laboratory fulfilling ISO/IEC 17025 and ISO Guide 34

SIGMA-ALDRICH®

Certificate of Analysis

Toxic Substances Mixture #2

Product Number US-104N **Page:** 1 of 1

Lot Number: CR-0659 **Lot Issue Date:** 20-Feb-2017 **Expiration Date:** 31-Mar-2020

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
aniline	000062-53-3	RM01326	2010 ± 10 µg/mL
benzyl alcohol	000100-51-6	RM10547	2009 ± 10 µg/mL
4-chloroaniline	000106-47-8	RM01886	1999 ± 10 µg/mL
dibenzofuran	000132-64-9	RM02077	2000 ± 10 µg/mL
2-methylnaphthalene	000091-57-6	RM01258	1994 ± 10 µg/mL
2-nitroaniline	000088-74-4	RM02402	2005 ± 10 µg/mL
3-nitroaniline	000099-09-2	RM00427	2008 ± 10 µg/mL
4-nitroaniline	000100-01-6	RM02425	2009 ± 10 µg/mL

Matrix: methylene chloride (dichloromethane)

Storage: Store at Room Temperature (15° to 30°C).

F010084
Rec'd
11/01/17

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO 9001 Registered TUV USA, Inc.

John Russo
President

Monica Bourgeois
Director of QA/RA

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

F010639
SVOA PAH STD-RMP-1000ug/ml
Solvent / Lot: DCM
Prep: 11/15/2017 by VS
Exp: 2/21/2022
Location:

RM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 934
Lot Number: 022117
Description: PAH Standard
30 components
Expiration Date: 022122
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 822-275872-11

Methylene chloride 76782

5E-05 Balance Uncertainty
0.002 Flask Uncertainty

Volume(s) shown below were combined and diluted to (mL): 20.0

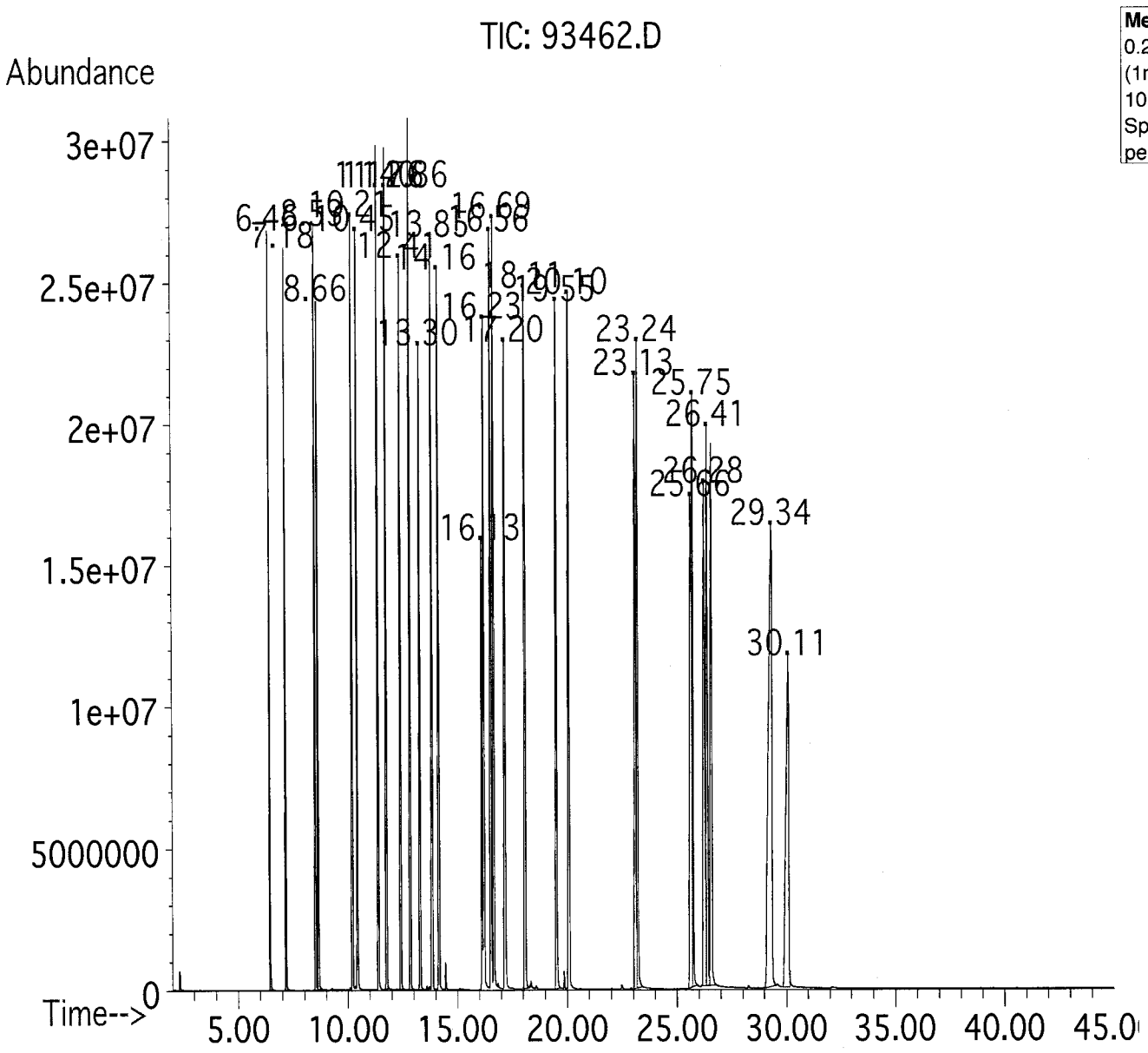
Gabriel Helland 022117
Formulated By: Gabriel Helland DATE

Pedro Rentas 022117
Reviewed By: Pedro L. Rentas DATE

Compound	Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Uncertainty Pipette	Initial Conc.(ug/mL)	Final Conc.(ug/mL)	Expanded Uncertainty (+/-) (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acenaphthene	10007	080116	0.50	10.00	0.006	2005.2	1003.3	4.2	83-32-9	N/A	ipr-rat 600mg/kg
2. Acenaphthylene	10007	080116	0.50	10.00	0.006	2001.2	1001.4	4.2	208-96-8	N/A	N/A
3. Anthracene	10007	080116	0.50	10.00	0.006	2001.6	1001.5	4.2	120-12-7	0.2mg/m3 (8H)	ipr-mus 430mg/kg
4. Benzo(a)anthracene	10007	080116	0.50	10.00	0.006	2001.2	1001.3	4.2	56-55-3	N/A	N/A
5. Benzo(a)pyrene	10007	080116	0.50	10.00	0.006	2001.9	1001.7	4.2	50-32-8	0.2mg/m3 (8H)	scu-rat 50mg/kg
6. Benzo(b)fluoranthene	10007	080116	0.50	10.00	0.006	2000.8	1001.1	4.2	205-99-2	N/A	N/A
7. Benzo(k)fluoranthene	10007	080116	0.50	10.00	0.006	2000.2	1000.8	4.2	207-08-9	N/A	N/A
8. Benzo(g,h,i)perylene	10007	080116	0.50	10.00	0.006	2001.8	1001.6	4.2	191-24-2	N/A	N/A
9. Carbazole	10007	080116	0.50	10.00	0.006	2020.8	1011.2	4.3	86-74-8	N/A	ipr-mus 200mg/kg
10. Chrysene	10007	080116	0.50	10.00	0.006	2000.8	1001.1	4.3	218-01-9	0.2mg/m3	N/A
11. Dibenzo(a,h)anthracene	10007	080116	0.50	10.00	0.006	2001.5	1001.5	4.2	53-70-3	0.2mg/m3	N/A
12. Fluoranthene	10007	080116	0.50	10.00	0.006	2001.3	1001.4	4.3	206-44-0	N/A	orl-rat 2000mg/kg
13. Fluorene	10007	080116	0.50	10.00	0.006	2001.7	1001.6	4.3	86-73-7	N/A	ipr-mus 2 g/kg
14. Indeno(1,2,3-cd)pyrene	10007	080116	0.50	10.00	0.006	2000.8	1001.1	4.2	193-39-5	N/A	N/A
15. Naphthalene	10007	080116	0.50	10.00	0.006	2001.6	1001.5	4.2	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
16. Phenanthrene	10007	080116	0.50	10.00	0.006	2001.4	1001.4	4.2	85-01-8	0.2mg/m3/8H	orl-mus 700mg/kg
17. Pyrene	10007	080116	0.50	10.00	0.006	2000.5	1001.0	4.3	129-00-0	0.2mg/m3/8H	orl-rat 2700mg/kg
18. Benzo(e)pyrene	94851	031416	0.50	10.00	0.006	2001.9	1001.7	4.3	192-97-2	N/A	N/A
19. Biphenyl	94851	031416	0.50	10.00	0.006	2000.7	1001.1	4.3	92-52-4	0.2 ppm(1mg/m3/8H)	orl-rat 2400mg/kg
20. Decalin (49% cis, 51% trans)	94851	031416	0.50	10.00	0.006	2002.1	1001.8	4.4	91-17-8	N/A	N/A
21. Dibenzofuran	94851	031416	0.50	10.00	0.006	2001.3	1001.4	4.4	132-64-9	N/A	N/A
22. Dibenzothiophene	94851	031416	0.50	10.00	0.006	2001.3	1001.4	4.4	132-65-0	N/A	orl-mus 470 mg/kg
23. 2,6-Dimethylnaphthalene	94851	031416	0.50	10.00	0.006	2004.9	1003.2	4.4	581-42-0	N/A	N/A
24. 1-Methylnaphthalene	94851	031416	0.50	10.00	0.006	2003.5	1002.5	4.4	90-12-0	N/A	orl-rat 1840mg/kg
25. 2-Methylnaphthalene	94851	031416	0.50	10.00	0.006	2006.1	1003.8	4.4	91-57-6	N/A	orl-rat 1630mg/kg
26. 1-Methylphenanthrene	94851	031416	0.50	10.00	0.006	2004.4	1002.9	10.2	832-69-9	N/A	N/A
27. Pentachlorophenol	94851	031416	0.50	10.00	0.006	2006.6	1004.0	4.4	87-86-5	0.5mg/m3/8H (skin)	orl-rat 27mg/kg
28. Perylene	94851	031416	0.50	10.00	0.006	2002.1	1001.8	4.4	198-55-0	N/A	N/A
29. Thianaphthene	94851	031416	0.50	10.00	0.006	2003.9	1002.7	4.4	95-15-8	N/A	N/A
30. 2,3,5-Trimethylnaphthalene	94851	031416	0.50	10.00	0.006	2002.9	1002.2	4.5	2245-38-7	N/A	N/A

- **The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.**
- **Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).**
- **Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.**
- **All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.**
- **Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).**

18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 1300 of 1322



Method GC8MSD-2Long: Column:SPB-5 (30m X 0.25mm ID X 0.25μm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (14min.), Rate = 10°C/min., Injector B= 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Gina McLane.

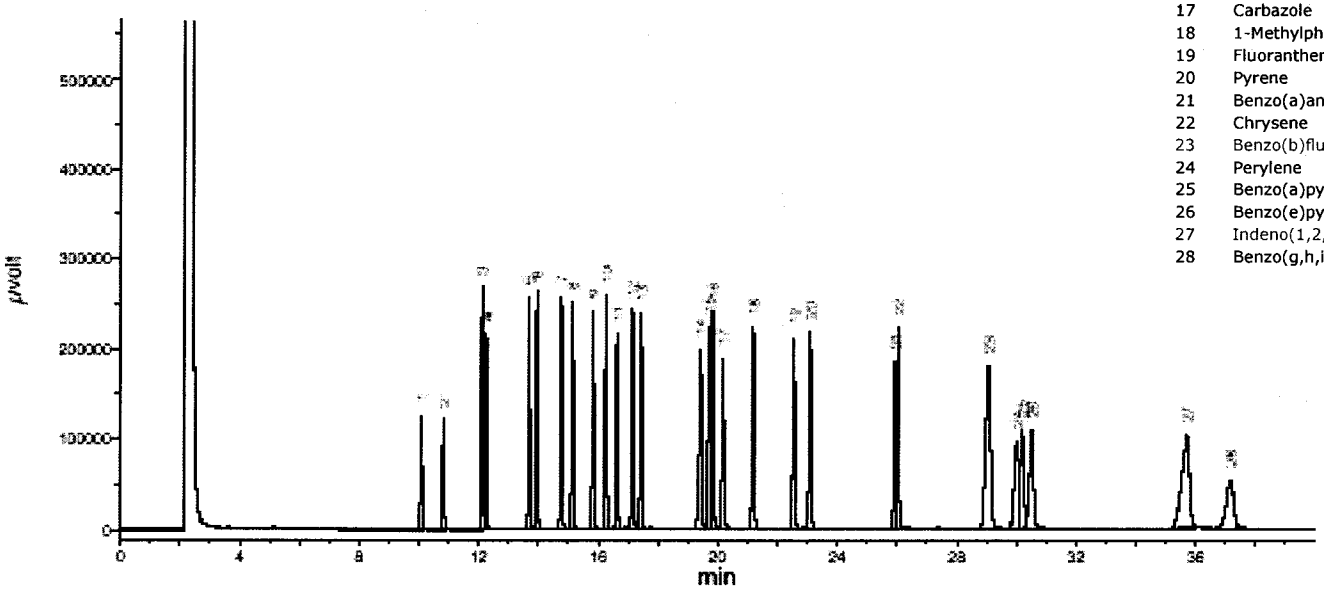
Retention Time (min.)	
Decahydronaphthalene (Decalin) (isomer)	6.46
Decahydronaphthalene (Decalin) (isomer)	7.18
Naphthalene	8.53
Thianaphthene	8.66
2-Methylnaphthalene	10.21
1-Methylnaphthalene	10.45
Biphenyl	11.4
2,6-Dimethylnaphthalene	11.76
Acenaphthylene	12.41
Acenaphthene	12.86
Dibenzofuran	13.3
2,3,5-Trimethylnaphthalene	13.85
Fluorene	14.16
Pentachlorophenol	16.13
Dibenzothiophene	16.23
Phenanthrene	16.56
Anthracene	16.69
Carbazole	17.2
1-Methylphenanthrene	18.11
Fluoranthene	19.55
Pyrene	20.1
Benzo(a)anthracene	23.13
Chrysene	23.24
Benzo(b)fluoranthene	25.66
Benzo(k)fluoranthene	25.75
Perylene	26.28
Benzo(a)pyrene	26.41
Benzo(e)pyrene	26.61
Indeno(1,2,3-cd)pyrene	29.34
Dibenzo(a,h)anthracene	29.34
Benzo(g,h,i)perylene	30.11

18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 1301 of 1553

Run 28, "P93462 L022117 [1000µg/mL in MeCl2]"

Run Length: 40.00 min, 23998 points at 10 points/second.
Created: Thu, Mar 16, 2017 at 10:15:46 AM.
Sampled: Sequence "031517-GC4M2", Method "GC4-M2".
Analyzed using Method "GC4-M2".

Comments
GC4-M2 Analysis by Melissa Stonier
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness.
Flow rates; Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL.
Hydrogen (detector) = 30 mL, Air (detector) =360 mLOven Temp 1 = 50°C (1 min).
Rate = 10°C/min, Oven Temp 2 = 300°C (14 min), Total Run Time = 40 Minutes. Injector Temp = 250°C.
FID Temp = 300°C, FID Signal = eDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 4



Peak No.	Name	FID RT (min.)
1	Decahydronaphthalene (Decalin) (isomer)	9.58
2	Decahydronaphthalene (Decalin) (isomer)	10.30
3	Naphthalene	11.58
4	Thianaphthene	11.71
5	2-Methylnaphthalene	13.14
6	1-Methylnaphthalene	13.39
7	Biphenyl	14.22
8	2,6-Dimethylnaphthalene	14.58
9	Acenaphthylene	15.24
10	Acenaphthene	15.67
11	Dibenzofuran	16.04
12	2,3,5-Trimethylnaphthalene	16.56
13	Fluorene	16.85
14	Pentachlorophenol/Dibenzothiophene	18.80
15	Phenanthrene	19.09
16	Anthracene	19.20
17	Carbazole	19.57
18	1-Methylphenanthrene	20.56
19	Fluoranthene	21.90
20	Pyrene	22.43
21	Benzo(a)anthracene	25.25
22	Chrysene	25.35
23	Benzo(b)fluoranthene/Benzo(k)fluoranthene	28.02
24	Perylene	28.82
25	Benzo(a)pyrene	28.99
26	Benzo(e)pyrene	29.26
27	Indeno(1,2,3-cd)pyrene/Dibenzo(a,h)anthracene	33.68
28	Benzo(g,h,i)perylene	34.92

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31493 **Lot No.:** A0131981

Description : CLP 04.1 BNA Surrogate Mix

CLP 04.1 BNA Surrogate Mix 1000-1500 µg/mL, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2021 **Storage:** 10°C or colder

Handling: Sonicate prior to use.

Read 4/30/12 JK

x 14

F010900

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Fluorophenol		1,498.0 µg/mL	+/- 8.8977	µg/mL	Gravimetric
	CAS # 367-12-4	(Lot STBD7945V)		+/- 43.7545	µg/mL	Unstressed
	Purity 99%			+/- 53.0797	µg/mL	Stressed
2	Phenol-d6		1,502.0 µg/mL	+/- 8.9214	µg/mL	Gravimetric
	CAS # 13127-88-3	(Lot PR-24670)		+/- 43.8714	µg/mL	Unstressed
	Purity 99%			+/- 53.2214	µg/mL	Stressed
3	2-Chlorophenol-d4		1,500.0 µg/mL	+/- 8.9095	µg/mL	Gravimetric
	CAS # 93951-73-6	(Lot PR-20630)		+/- 43.8130	µg/mL	Unstressed
	Purity 99%			+/- 53.1506	µg/mL	Stressed
4	1,2-Dichlorobenzene-d4		1,000.0 µg/mL	+/- 5.9397	µg/mL	Gravimetric
	CAS # 2199-69-1	(Lot M-1611)		+/- 29.2086	µg/mL	Unstressed
	Purity 99%			+/- 35.4337	µg/mL	Stressed
5	Nitrobenzene-d5		996.0 µg/mL	+/- 7.0625	µg/mL	Gravimetric
	CAS # 4165-60-0	(Lot PR-25462)		+/- 29.3464	µg/mL	Unstressed
	Purity 99%			+/- 35.5022	µg/mL	Stressed
6	2-Fluorobiphenyl		996.0 µg/mL	+/- 7.0625	µg/mL	Gravimetric
	CAS # 321-60-8	(Lot Z20C043)		+/- 29.3464	µg/mL	Unstressed
	Purity 99%			+/- 35.5022	µg/mL	Stressed
7	2,4,6-Tribromophenol		1,504.0 µg/mL	+/- 8.9333	µg/mL	Gravimetric
	CAS # 118-79-6	(Lot 29699MJV)		+/- 43.9298	µg/mL	Unstressed
	Purity 99%			+/- 53.2923	µg/mL	Stressed

8	p-Terphenyl-d14		1,002.0 µg/mL	+/- 5.9516	µg/mL	Gravimetric
	CAS # 1718-51-0	(Lot PR-27278)		+/- 29.2671	µg/mL	Unstressed
	Purity 99%			+/- 35.5046	µg/mL	Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

Tech Tips:
Due to the limited solubility of p-terphenyl-d14 in methanol, we do not recommend that this mixture be diluted in methanol.

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

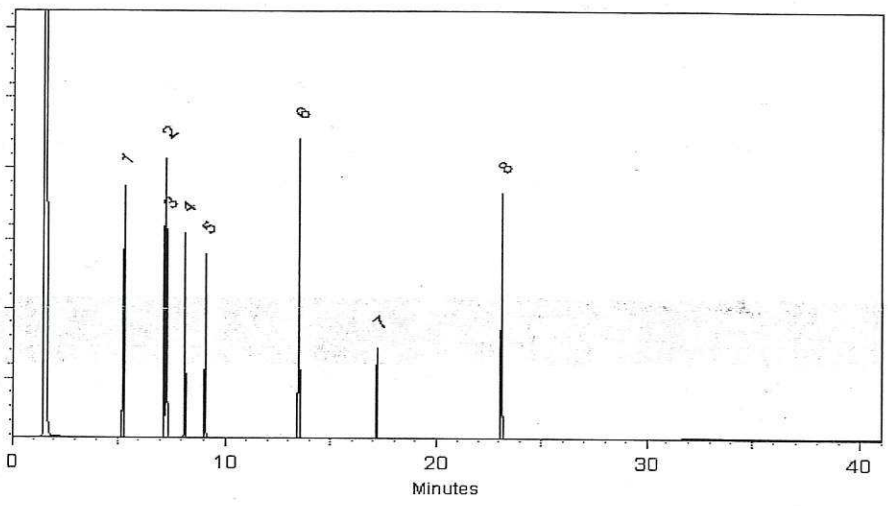
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Larry J. Moore - Mix Technician **Date Mixed:** 30-Oct-2017 **Balance:** 1128353505

Jennifer Pollino - Operations Tech-ARM QC **Date Passed:** 01-Nov-2017

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 80397

Certificate of Analysis

Phenova Certified Reference Materials are sold by Phenomenex.
411 Madrid Ave., Torrance, CA 90501 USA ▪ Tel: 310-212-0555 ▪ Fax: 310-328-7768 ▪ info@phenomenex.com
Access your MSDS and digital C of A at **www.phenomenex.com/mysupport. Re-order at www.phenomenex.com/standards**

Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101246
Description: Benzoic Acid
Storage: 4 °C
Provided As: 1 mL in 2 mL Ampoule in Methylene Chloride

Lot Number: CL11817
Certification Date: May 5, 2017
Expiration Date: April 30, 2027

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Benzoic acid	65-85-0	2000	± 2.953%

G001043
Rec'd. gf
02/02/18

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Reference Material Producer
Certificate No. 2427.02

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Phenova's testing and calibration results are internationally recognized through the ILAC MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.

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1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31[1] and ISO Guide 35.[2]

2. Quality Standards: Phenova is accredited by A2LA to ISO Guide 34[3] and ISO/IEC 17025[4] as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.

3. Intended Use: The product is manufactured for use in the calibration and calibration verification of chromatographic instrumentation performed in routine laboratory analysis.

4. Instruction: Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all certified analytes in the mixture.

5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Material Safety Data Sheet (MSDS) is available at www.phenomenex.com/mysupport.

6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 25 µL.

7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.

8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.

9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98[5] and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

$$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO Guide 34. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.

11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO Guide 34.

12. Period of Validity: The Certified Values and their uncertainties are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

[1] ISO Guide 31:2000(E) – Reference Materials – Contents of Certificates and Labels.
[2] ISO Guide 35:2006(E) – Reference Material – General and Statistical Principles for Certification.
[3] ISO Guide 34:2009(E) – General Requirements for the Competence of Reference Material Producers.
[4] ISO/IEC 17025:2005(E) – General Requirements for the Competence of Testing and Calibration Laboratories.
[5] ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)

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Certificate No. 2427.02

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ACCREDITED
Chemical Testing Laboratory
Certificate No. 2427.03

tL11110613 us

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Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101444
Description: 8270 Calibration Standard
Storage: -18 °C
Provided As: 1 mL in 2 mL Ampoule in MeCl2/Methanol (97:3)

Lot Number: CL12095
Certification Date: November 29, 2017
Expiration Date: February 28, 2019

Andrea L Gill
Andrea Gill, Certified Reference Materials Manager

G001045 Recd. JR 02/02/18

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Acenaphthene	83-32-9	1000	± 1.669%
Acenaphthylene	208-96-8	1000	± 0.410%
Anthracene	120-12-7	1000	± 4.619%
Azobenzene	103-33-3	1000	± 2.728%
Benzo(a)anthracene	56-55-3	1000	± 4.049%
Benzo(a)pyrene	50-32-8	1000	± 4.027%
Benzo(b)fluoranthene	205-99-2	1000	± 2.358%
Benzo(k)fluoranthene	207-08-9	1000	± 2.305%
Benzo(g,h,i)perylene	191-24-2	1000	± 5.955%
Benzyl alcohol	100-51-6	1000	± 2.599%
Benzyl butyl phthalate	85-68-7	1000	± 6.331%
bis(2-Chloroethoxy)methane	111-91-1	1000	± 1.443%
bis(2-Chloroethyl) ether	111-44-4	1000	± 2.590%
bis(2-Chloroisopropyl) ether	108-60-1	1000	± 2.536%
bis(2-Ethylhexyl) adipate	103-23-1	1000	± 5.547%
bis(2-Ethylhexyl) phthalate	117-81-7	1000	± 5.525%
4-Bromophenyl phenyl ether	101-55-3	1000	± 2.987%
Carbazole	86-74-8	1000	± 5.570%

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This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101444
Lot Number: CL12095
Description: 8270 Calibration Standard
Certification Date: November 29, 2017
Storage: -18 °C
Expiration Date: February 28, 2019
Provided As: 1 mL in 2 mL Ampoule in MeCl2/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
4-Chloroaniline	106-47-8	1000	± 1.342%
4-Chloro-3-methylphenol	59-50-7	1000	± 1.206%
2-Chloronaphthalene	91-58-7	1000	± 1.240%
2-Chlorophenol	95-57-8	1000	± 2.640%
4-Chlorophenyl phenyl ether	7005-72-3	1000	± 2.399%
Chrysene	218-01-9	1000	± 3.792%
Dibenz(a,h)anthracene	53-70-3	1000	± 6.364%
Dibenzofuran	132-64-9	1000	± 0.296%
Di-n-butyl phthalate	84-74-2	1000	± 5.220%
1,2-Dichlorobenzene	95-50-1	1000	± 2.311%
1,3-Dichlorobenzene	541-73-1	1000	± 2.604%
1,4-Dichlorobenzene	106-46-7	1000	± 2.587%
2,4-Dichlorophenol	120-83-2	1000	± 1.841%
Diethyl phthalate	84-66-2	1000	± 3.162%
2,4-Dimethylphenol	105-67-9	1000	± 3.444%
Dimethyl phthalate	131-11-3	1000	± 2.543%
1,2-Dinitrobenzene	528-29-0	1000	± 0.295%
1,3-Dinitrobenzene	99-65-0	1000	± 2.277%
1,4-Dinitrobenzene	100-25-4	1000	± 2.532%
2,4-Dinitrophenol	51-28-5	1000	± 3.741%
2,4-Dinitrotoluene	121-14-2	1000	± 3.798%

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Catalog No.: AL0-101444
Description: 8270 Calibration Standard
Storage: -18 °C
Provided As: 1 mL in 2 mL Ampoule in MeCl2/Methanol (97:3)

Lot Number: CL12095
Certification Date: November 29, 2017
Expiration Date: February 28, 2019

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2,6-Dinitrotoluene	606-20-2	1000	± 2.659%
Di-n-octyl phthalate	117-84-0	1000	± 3.976%
Fluoranthene	206-44-0	1000	± 6.133%
Fluorene	86-73-7	1000	± 0.239%
Hexachlorobenzene	118-74-1	1000	± 3.169%
Hexachlorobutadiene	87-68-3	1000	± 2.303%
Hexachlorocyclopentadiene	77-47-4	1000	± 2.394%
Hexachloroethane	67-72-1	1000	± 2.498%
Indeno(1,2,3-cd)pyrene	193-39-5	1000	± 6.236%
Isophorone	78-59-1	1000	± 1.697%
2-Methyl-4,6-dinitrophenol	534-52-1	1000	± 4.774%
1-Methylnaphthalene	90-12-0	1000	± 1.716%
2-Methylnaphthalene	91-57-6	1000	± 1.779%
2-Methylphenol	95-48-7	1000	± 2.628%
3-Methylphenol	108-39-4	500	± 3.497%
4-Methylphenol	106-44-5	500	± 3.497%
Naphthalene	91-20-3	1000	± 2.226%
2-Nitroaniline	88-74-4	1000	± 2.376%
3-Nitroaniline	99-09-2	1000	± 3.387%
4-Nitroaniline	100-01-6	1000	± 0.614%
Nitrobenzene	98-95-3	1000	± 2.608%

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Catalog No.: AL0-101444
Description: 8270 Calibration Standard
Storage: -18 °C
Provided As: 1 mL in 2 mL Ampoule in MeCl2/Methanol (97:3)

Lot Number: CL12095
Certification Date: November 29, 2017
Expiration Date: February 28, 2019

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2-Nitrophenol	88-75-5	1000	± 2.508%
4-Nitrophenol	100-02-7	1000	± 3.759%
N-Nitrosodimethylamine	62-75-9	1000	± 4.339%
N-Nitrosodiphenylamine	86-30-6	1000	± 3.937%
N-Nitrosodi-n-propylamine	621-64-7	1000	± 6.662%
Pentachlorophenol	87-86-5	1000	± 4.539%
Phenanthrene	85-01-8	1000	± 4.566%
Phenol	108-95-2	1000	± 2.905%
Pyrene	129-00-0	1000	± 6.164%
Pyridine	110-86-1	1000	± 1.952%
2,3,4,6-Tetrachlorophenol	58-90-2	1000	± 2.126%
2,3,5,6-Tetrachlorophenol	935-95-5	1000	± 2.361%
1,2,4-Trichlorobenzene	120-82-1	1000	± 1.390%
2,4,5-Trichlorophenol	95-95-4	1000	± 1.249%
2,4,6-Trichlorophenol	88-06-2	1000	± 1.342%

Notes: The proper chemical name for Bis(2-Chloroiospropyl) ether is 2,2'-oxybis(1-chloropropane). The analytical uncertainty contribution to the expanded uncertainty for 3 and 4-Methylphenol is measured as the total of the two analytes. N-Nitrosodiphenylamine presents as Diphenylamine at 854 µg/mL.

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3. Intended Use: The product is manufactured for use in the calibration and calibration verification of chromatographic instrumentation performed in routine laboratory analysis.

4. Instruction: Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all certified analytes in the mixture.

5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Material Safety Data Sheet (MSDS) is available at www.phenomenex.com/mysupport.

6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.

7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.

8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.

9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98[5] and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

   $$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

   Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO Guide 34. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.

11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO Guide 34.

12. Period of Validity: The Certified Values and their uncertainties are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

[1] ISO Guide 31:2000(E) – Reference Materials – Contents of Certificates and Labels.
[2] ISO Guide 35:2006(E) – Reference Material – General and Statistical Principles for Certification.
[3] ISO Guide 34:2009(E) – General Requirements for the Competence of Reference Material Producers.
[4] ISO/IEC 17025:2005(E) – General Requirements for the Competence of Testing and Calibration Laboratories.
[5] ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31206 **Lot No.:** A0134523

Description : SV Internal Standard Mix 2mg/ml

SV Internal Standard Mix 2mg/ml 2000 µg/ml, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2023 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive.

G002461
Reed 3/21/19

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dichlorobenzene-d4		2,001.4 µg/mL	+/- 11.6363 µg/mL		Gravimetric
	CAS # 3855-82-1	(Lot PR-18488)		+/- 90.1443 µg/mL		Unstressed
	Purity 99%			+/- 100.0262 µg/mL		Stressed
2	Naphthalene-d8		2,003.9 µg/mL	+/- 11.6508 µg/mL		Gravimetric
	CAS # 1146-65-2	(Lot M-1452)		+/- 90.2569 µg/mL		Unstressed
	Purity 99%			+/- 100.1511 µg/mL		Stressed
3	Acenaphthene-d10		2,005.7 µg/mL	+/- 11.6613 µg/mL		Gravimetric
	CAS # 15067-26-2	(Lot PR-25444)		+/- 90.3379 µg/mL		Unstressed
	Purity 99%			+/- 100.2411 µg/mL		Stressed
4	Phenanthrene-d10		2,018.9 µg/mL	+/- 11.7381 µg/mL		Gravimetric
	CAS # 1517-22-2	(Lot PR-23065)		+/- 90.9325 µg/mL		Unstressed
	Purity 99%			+/- 100.9008 µg/mL		Stressed
5	Chrysene-d12		2,013.3 µg/mL	+/- 11.7055 µg/mL		Gravimetric
	CAS # 1719-03-5	(Lot PR-27952)		+/- 90.6802 µg/mL		Unstressed
	Purity 99%			+/- 100.6209 µg/mL		Stressed
6	Perylene-d12		2,012.6 µg/mL	+/- 11.7014 µg/mL		Gravimetric
	CAS # 1520-96-3	(Lot PR-24113)		+/- 90.6487 µg/mL		Unstressed
	Purity 99%			+/- 100.5859 µg/mL		Stressed

Certificate of Analysis

Phenols Mixture

Product Number: US-107N **Page:** 1 of 1

Lot Number: CR-0007 **Lot Issue Date:** 12-Jan-2017 **Expiration Date:** 29-Feb-2020

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
4-chloro-3-methylphenol	000059-50-7	RM01885	2008 ± 10 µg/mL
2-chlorophenol	000095-57-8	RM01871	2010 ± 10 µg/mL
2,4-dichlorophenol	000120-83-2	RM02094	2009 ± 10 µg/mL
2,4-dimethylphenol	000105-67-9	RM02102	2007 ± 10 µg/mL
2,4-dinitrophenol	000051-28-5	RM02105	2009 ± 10 µg/mL
2-methyl-4,6-dinitrophenol	000534-52-1	RM02292	2006 ± 10 µg/mL
2-nitrophenol	000088-75-5	RM02390	2008 ± 10 µg/mL
4-nitrophenol	000100-02-7	RM02404	2010 ± 10 µg/mL
pentachlorophenol	000087-86-5	RM02473	2010 ± 10 µg/mL
phenol	000108-95-2	RM11471	2009 ± 10 µg/mL
2,4,6-trichlorophenol	000088-06-2	RM04481	2004 ± 10 µg/mL

Matrix: methylene chloride (dichloromethane)

Storage: Store at Room Temperature (15° to 30°C).

G002877
Recd. jr
04/03/18

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

ISO 9001
Registered
TUV USA, Inc.

John Russo
President

Monica Bourgeois
Director of QA/RA

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Chemical Testing
Cert #2495.02

Catalog Number: ECS-A-030 **Lot No.** EN180212005

Description: Base/Neutrals Mix 1

Matrix: Methylene Chloride

Manufactured Date: 2-12-2018
Expiration Date: 2-11-2021

This **SPEXOrganics®** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality contrc standard for organic chromatography instrumentation such as GC, GC-MS, LC, and LC-MS. It can be employed in USEPA, ASTI and other methods relevant to the certified properties listed below.

Certified Compounds:

Compound	CAS #	Labeled	Purity	Certified†	Uncertainty
Azobenzene	103-33-3	2000 µg/mL	98%	1990 µg/mL	± 52 µg/mL
4-Bromodiphenyl ether	101-55-3	2000 µg/mL	99%	1997 µg/mL	± 52 µg/mL
Butylbenzyl phthalate	85-68-7	2000 µg/mL	98%	1990 µg/mL	± 52 µg/mL
Carbazole	86-74-8	2000 µg/mL	95%	1998 µg/mL	± 52 µg/mL
bis(2-Chloroethoxy)methane	111-91-1	2000 µg/mL	97%	2008 µg/mL	± 52 µg/mL
bis(2-Chloroethyl)ether	111-44-4	2000 µg/mL	99%	1995 µg/mL	± 52 µg/mL
Bis(2-chloro-1-methylethyl) ether	108-60-1	2000 µg/mL	98.6%	1990 µg/mL	± 52 µg/mL
2-Chloronaphthalene	91-58-7	2000 µg/mL	98%	1997 µg/mL	± 52 µg/mL
4-Chlorophenyl-phenyl ether	7005-72-3	2000 µg/mL	99%	1997 µg/mL	± 52 µg/mL
1,2-Dichlorobenzene	95-50-1	2000 µg/mL	99%	1997 µg/mL	± 52 µg/mL
1,3-Dichlorobenzene	541-73-1	2000 µg/mL	98%	1992 µg/mL	± 52 µg/mL
1,4-Dichlorobenzene	106-46-7	2000 µg/mL	99%	1986 µg/mL	± 52 µg/mL
Diethyl phthalate	84-66-2	2000 µg/mL	99%	2010 µg/mL	± 52 µg/mL
Dimethyl phthalate	131-11-3	2000 µg/mL	99%	2004 µg/mL	± 52 µg/mL
Di-n-butyl phthalate	84-74-2	2000 µg/mL	99%	2007 µg/mL	± 52 µg/mL
Di-n-octyl phthalate	117-84-0	2000 µg/mL	98%	1993 µg/mL	± 52 µg/mL
2,4-Dinitrotoluene	121-14-2	2000 µg/mL	97%	2005 µg/mL	± 52 µg/mL
2,6-Dinitrotoluene	606-20-2	2000 µg/mL	98%	1989 µg/mL	± 52 µg/mL
Bis(2-Ethylhexyl)phthalate	117-81-7	2000 µg/mL	99%	1996 µg/mL	± 52 µg/mL
Hexachlorobenzene	118-74-1	2000 µg/mL	99%	1991 µg/mL	± 52 µg/mL
Hexachlorobutadiene	87-68-3	2000 µg/mL	97%	1999 µg/mL	± 52 µg/mL
Hexachlorocyclopentadiene	77-47-4	2000 µg/mL	98.6%	1996 µg/mL	± 52 µg/mL
Hexachloroethane	67-72-1	2000 µg/mL	98%	1978 µg/mL	± 51 µg/mL
Isophorone	78-59-1	2000 µg/mL	97%	2002 µg/mL	± 52 µg/mL
Nitrobenzene	98-95-3	2000 µg/mL	99%	1989 µg/mL	± 52 µg/mL
N-Nitrosodimethylamine	62-75-9	2000 µg/mL	99.5%	1998 µg/mL	± 52 µg/mL
N-Nitrosodiphenylamine	86-30-6	2000 µg/mL	97%	1997 µg/mL	± 52 µg/mL
N-Nitrosodi-n-propylamine	621-64-7	2000 µg/mL	98%	2005 µg/mL	± 52 µg/mL
Pyridine	110-86-1	2000 µg/mL	99%	2034 µg/mL	± 53 µg/mL
1,2,4-Trichlorobenzene	120-82-1	2000 µg/mL	99%	1991 µg/mL	± 52 µg/mL

G 005303

6/8/18

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Report of Certification

Catalog Number: ECS-A-030
Description: Base/Neutrals Mix 1
Matrix: Methylene Chloride

Lot No. EN180212005

Manufactured Date: 2-12-2018
Expiration Date: 2-11-2021

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 Quality System consistent with the following standards:

- ISO 9001:2008: Quality management systems - Requirements - Certified by UL-DQS
- ISO 17025:2005: General Requirements for the Competence of Testing and Calibration Laboratories - Accredited by A2LA
- ISO Guide 34:2009: General Requirements for the Competence of Reference Material Producers - Accredited by A2LA
- ISO Guide 31:2000: Reference Materials - Contents of Certificates and Labels
- ISO Guide 35:2006: Reference Materials - General and statistical principals for certification
- Guide to the Expression of Uncertainty in Measurement 1997
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurements - Second Edition
- ASTM Guide D6362-98
- NIST Technical Note 1297
- ILAC-G12-2000: Guidelines for the requirements for the competence of reference material producers
- ISO/REMCO N280

Storage Requirements:

To ensure the stability of the product once it arrives in your laboratory, please store this product in a refrigerator(2°C to 8°C). Note: Shipping conditic may differ from storage conditions. The EXPIRATION DATE is calculated from the MANUFACTURED DATE using our stability data and is applicab only if the product is unopened and stored under the prescribed conditions.

Instructions for Use:

Let material come to room temperature before use. Check for precipitate and if necessary sonicate for one minute. If compounds do not dissolve at one minute then sonicate further until the product is dissolved. A clear appearance is acceptable. The minimum recommended amount that should removed from this vial is 5µL with a 25µL gas tight syringe. All solutions should be thoroughly mixed, by shaking, prior to use. All surfaces that com in contact with the solution must be thoroughly cleaned prior to use. Dilutions should be performed only with Class A volumetric glassware.

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO guidelines. Vendor identificatic are proprietary, however sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For assistance, please contact sales support at crmsales@spexcsp.com.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, and analytical instrumentation h been qualified prior to use. The highest purity solvents and Class A / calibrated volumetrics have been been used in all preparations.

Homogeneity:

The homogeneity of this CRM has been confirmed by procedures consistent with ISO17025:2005, ISO Guide 34:2009, and ASTM D6362-98 Appen X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedur 4300-HOMOGEN-1A. This is consistent with the intended use of this CRM. The Degree of Homogeneity, as expressed as maximum between-bottle variation, is 1.2%

Statistical Estimator and Confidence Limits:

The Certified value 'X' as listed on the reverse of this document is at the95% level of confidence and can be expressed as:

- $X = x \pm U$ where X=certified value, U=expanded uncertainty, x=property value
- $U = ku_c$ where k=2 is the coverage factor at the 95% confidence level
- u_c = combined standard uncertainty obtained by combining the individual compound standard uncertainty components u_i where $u_c=\sqrt{\sum u_i^2}$

Legal Notice:

SPEX CertiPrep Certified Reference Materials are not for any cosmetic, drug, or household application and are to be used only by qualified individu who are trained in appropriate procedures. No claims against SPEX CertiPrep of any kind whatsoever, whether based on breech of warranty, allege negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep be liabl for any loss of profits or any incidental, special, or consequential damages.

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Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-RB1

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-01	SDG:	18F0185
Sampled:	06/11/18 16:12	Prepared:	06/18/18 13:48	File ID:	NT1118062305.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/23/18 12:23
Batch:	BGF0416	Sequence:	SGF0298	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.008	J	0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.005	J	0.001	0.010
208-96-8	Acenaphthylene	1	0.010	U	0.002	0.010
83-32-9	Acenaphthene	1	0.010	U	0.003	0.010
86-73-7	Fluorene	1	0.002	J	0.002	0.010
85-01-8	Phenanthrene	1	0.053		0.001	0.010
120-12-7	Anthracene	1	0.010	U	0.001	0.010
206-44-0	Fluoranthene	1	0.010	U	0.002	0.010
129-00-0	Pyrene	1	0.010	U	0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.010	U	0.0008	0.010
218-01-9	Chrysene	1	0.010	U	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.010	U	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.163	54.5	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.115	38.2	29 - 120	
Fluoranthene-d10	0.30000	0.183	60.9	57 - 120	

Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062305.D

Date : 23-JUN-2018 12:23

Client ID:

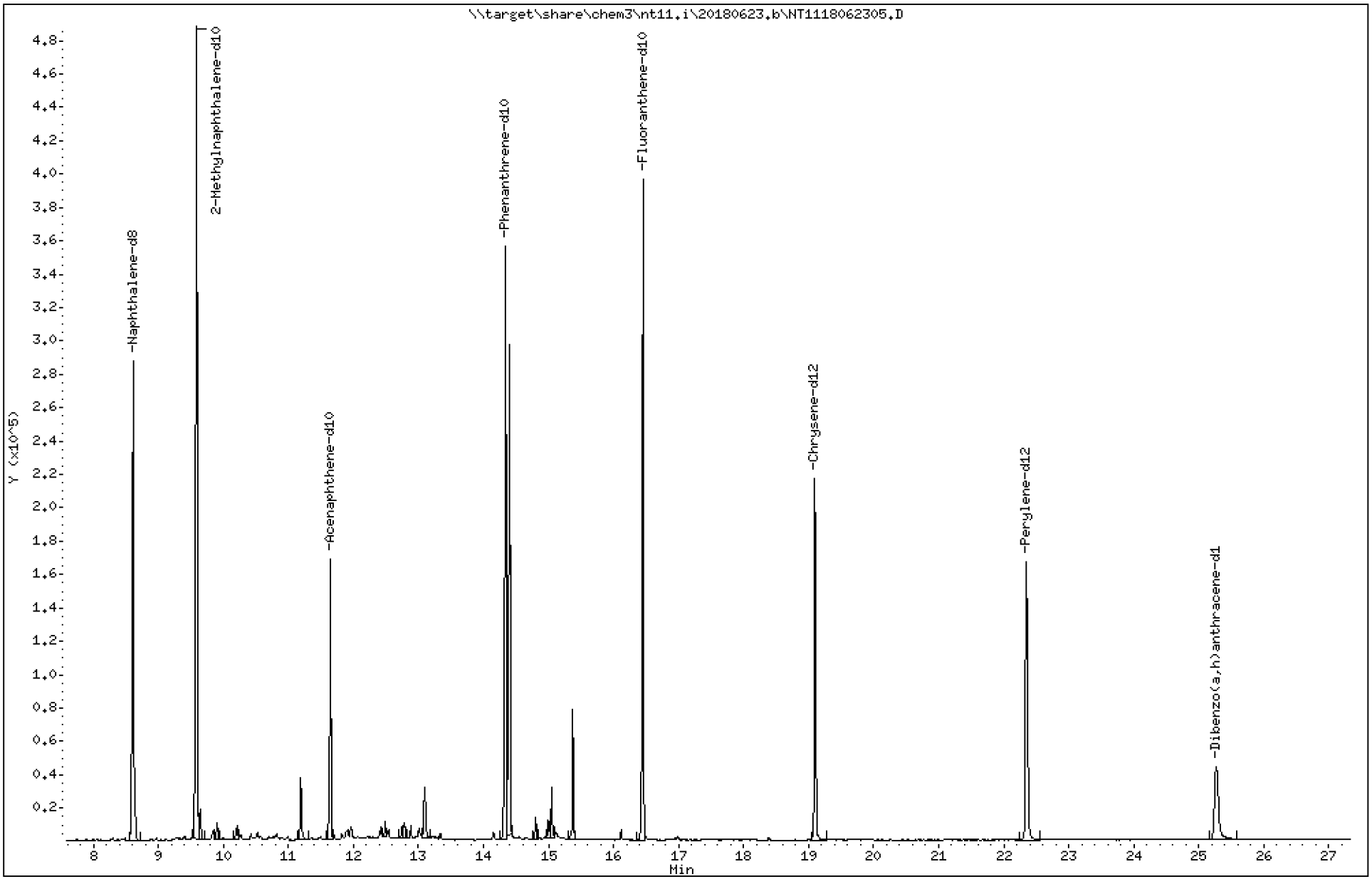
Instrument: nt11.i

Sample Info: 18F0185-01

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 23-JUN-2018 12:23

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-01

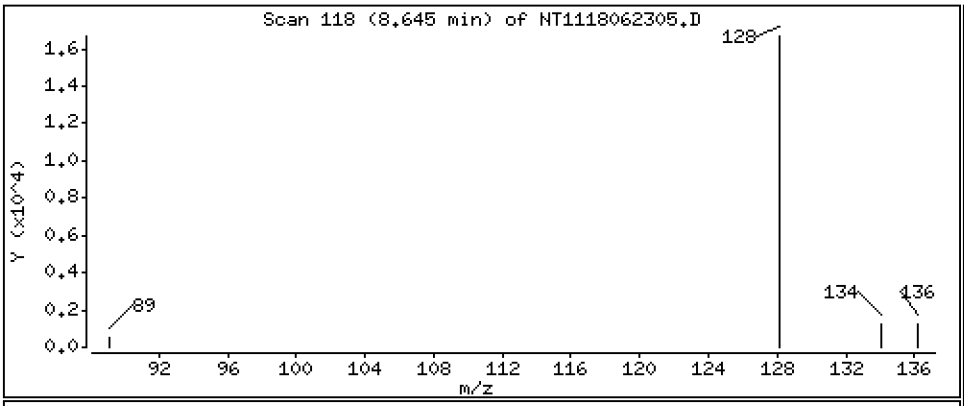
Operator: VTS

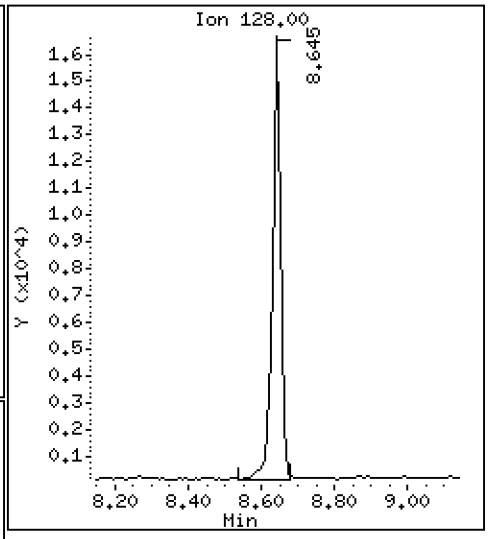
Column phase: Rxi-17Sil MS

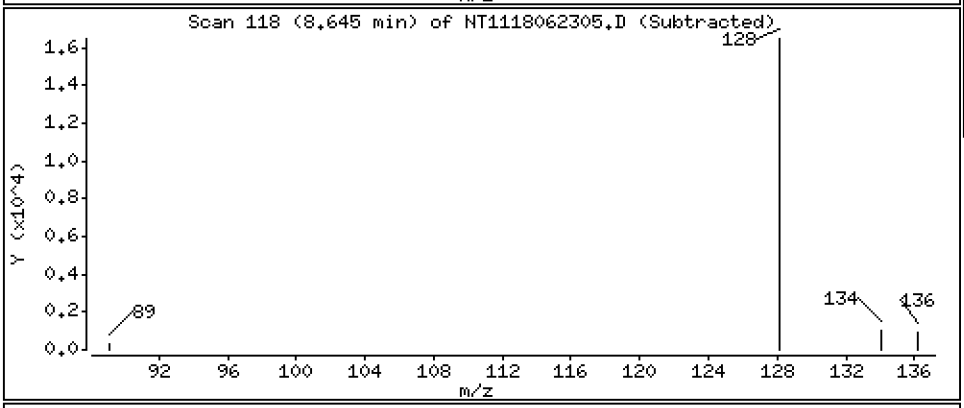
Column diameter: 0.25

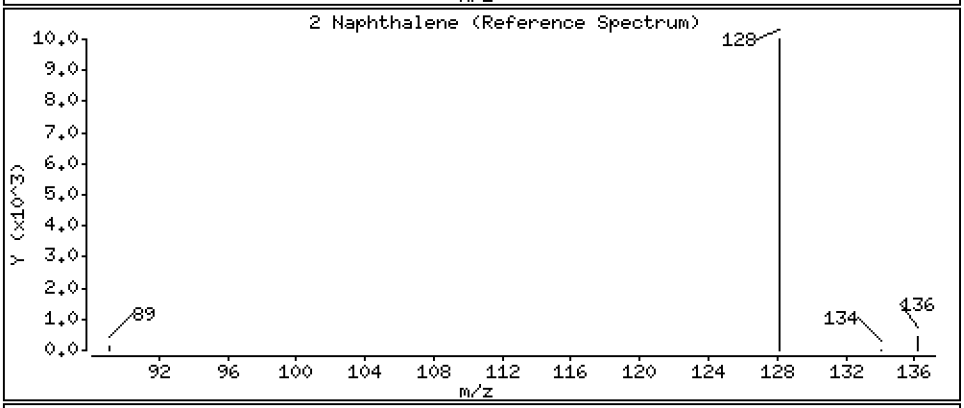
2 Naphthalene

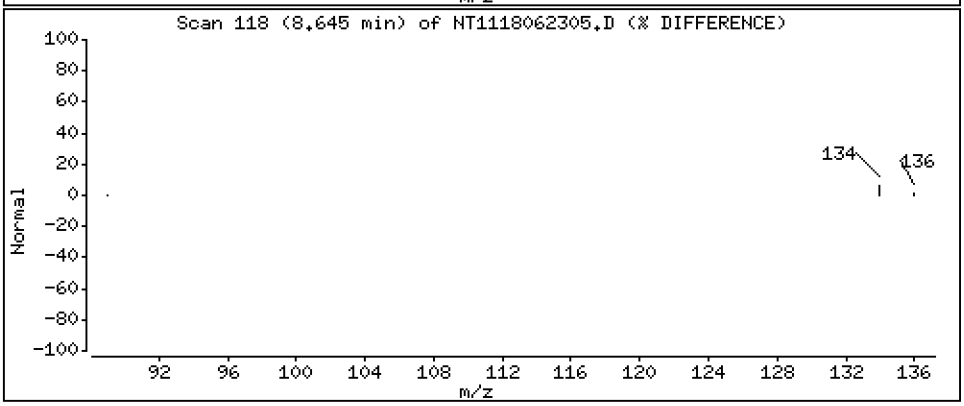
Concentration: 8.22 ng/mL











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Date : 23-JUN-2018 12:23

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-01

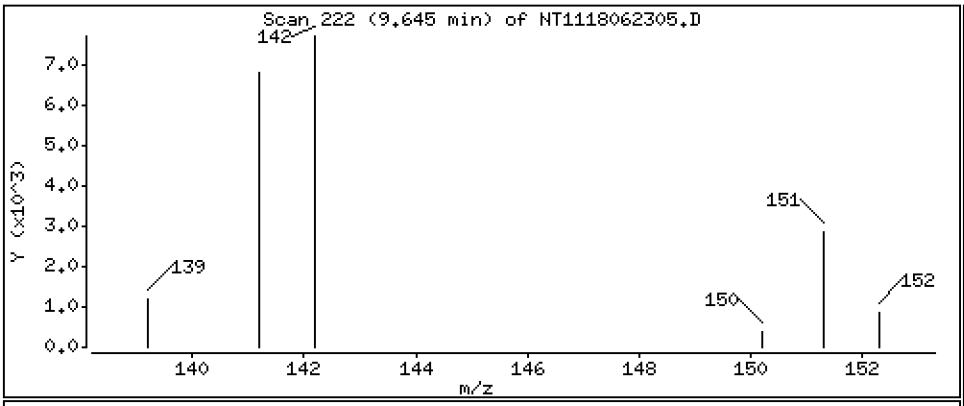
Operator: VTS

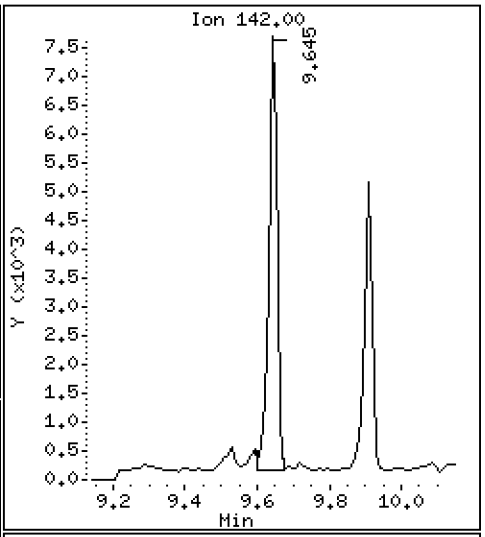
Column phase: Rxi-17Sil MS

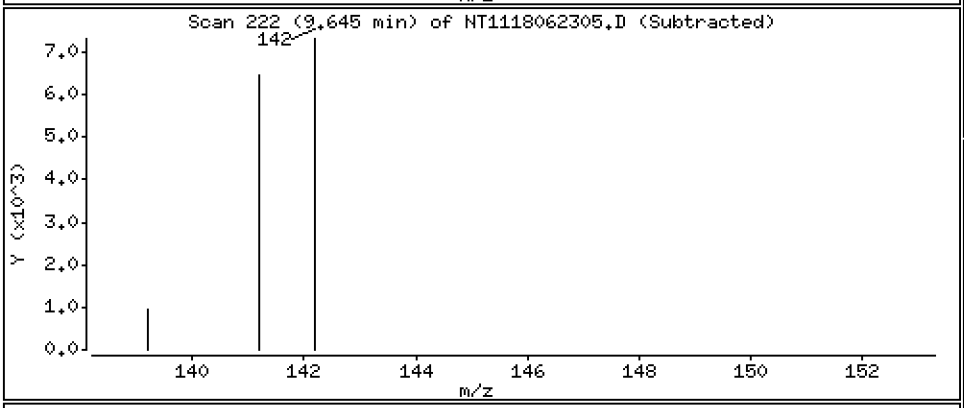
Column diameter: 0.25

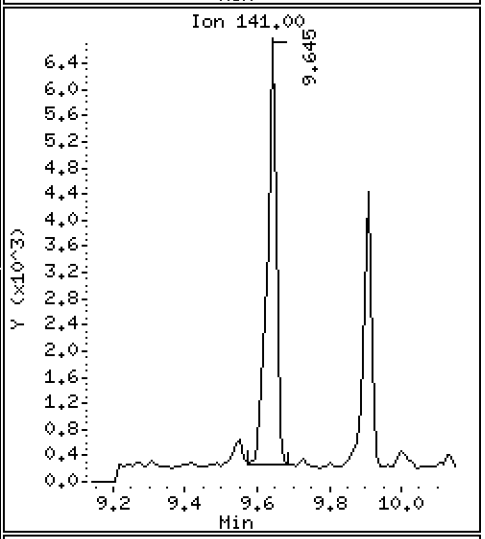
5 2-Methylnaphthalene

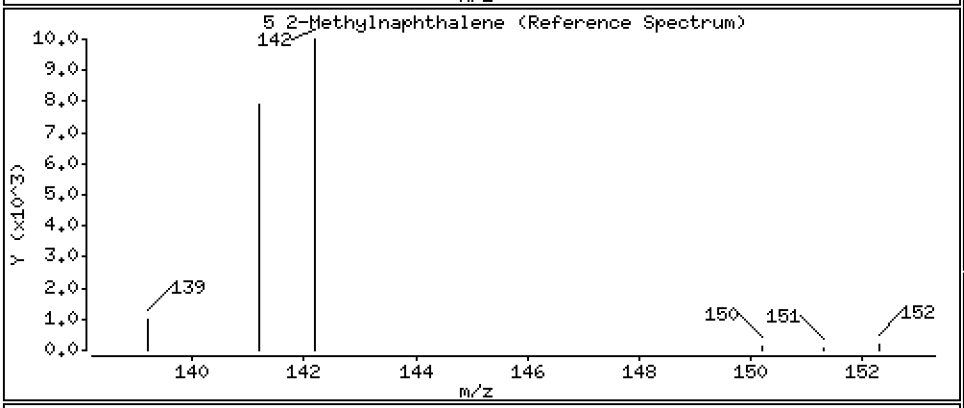
Concentration: 4.58 ng/mL

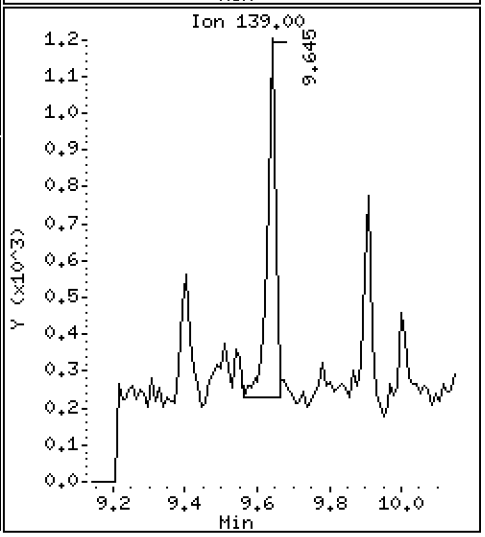


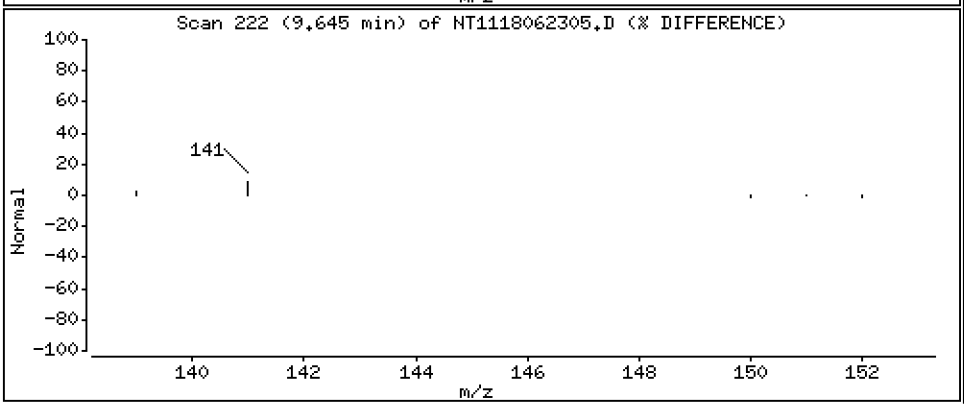












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Date : 23-JUN-2018 12:23

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-01

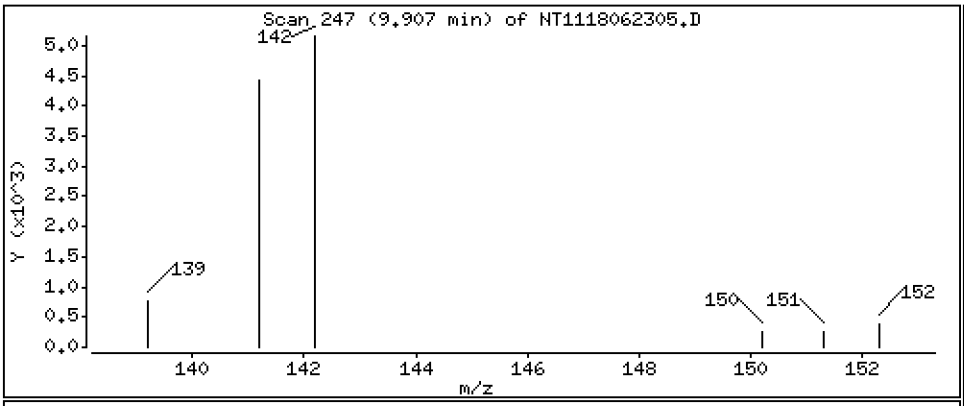
Operator: VTS

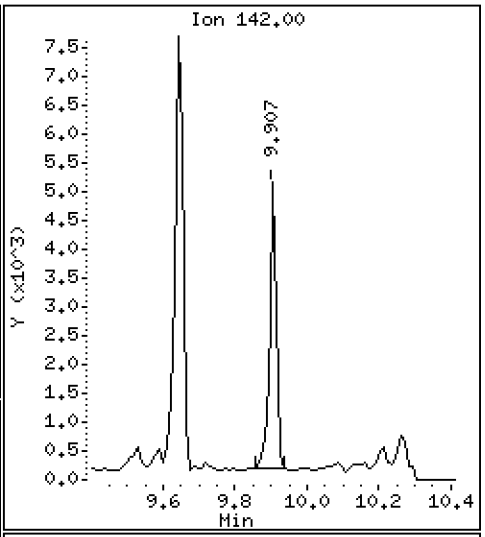
Column phase: Rxi-17Sil MS

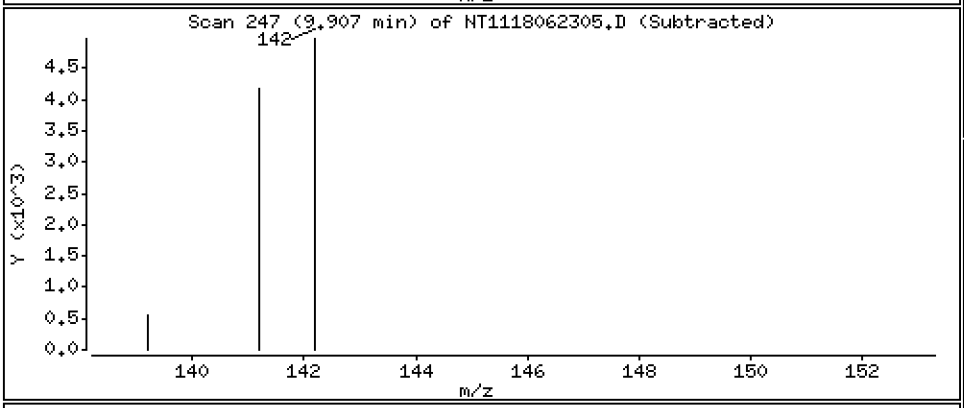
Column diameter: 0.25

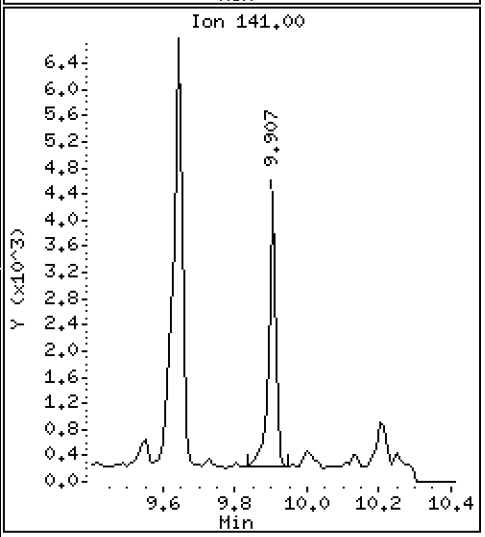
6 1-Methylnaphthalene

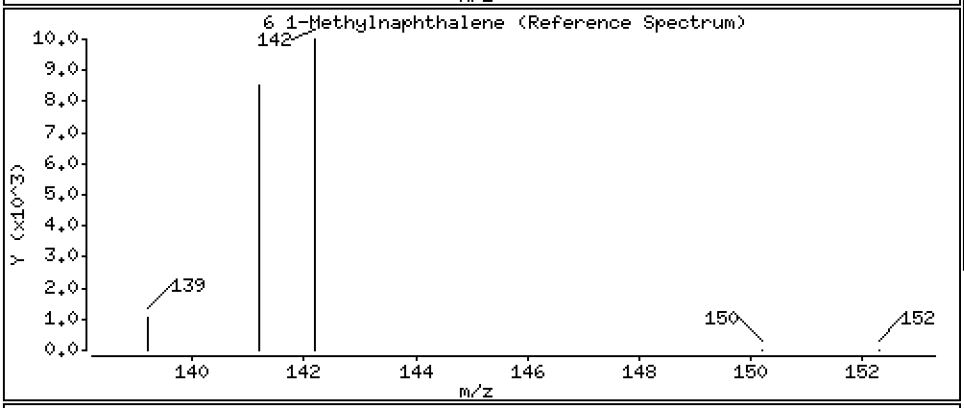
Concentration: 2.89 ng/mL

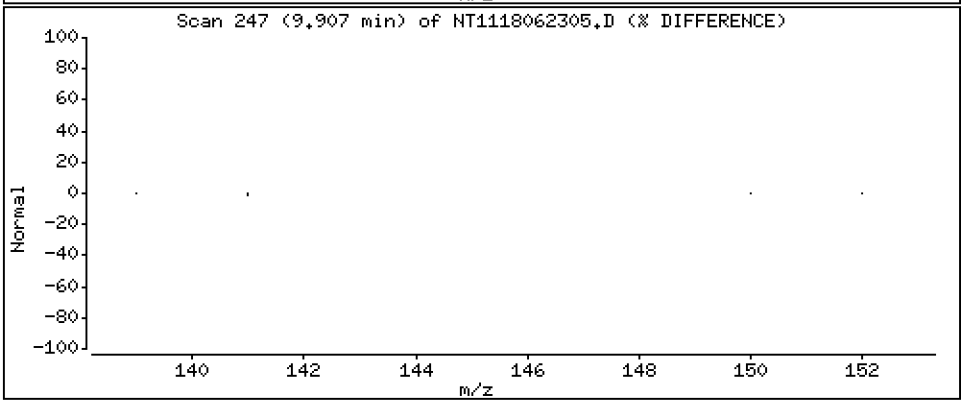












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Date : 23-JUN-2018 12:23

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-01

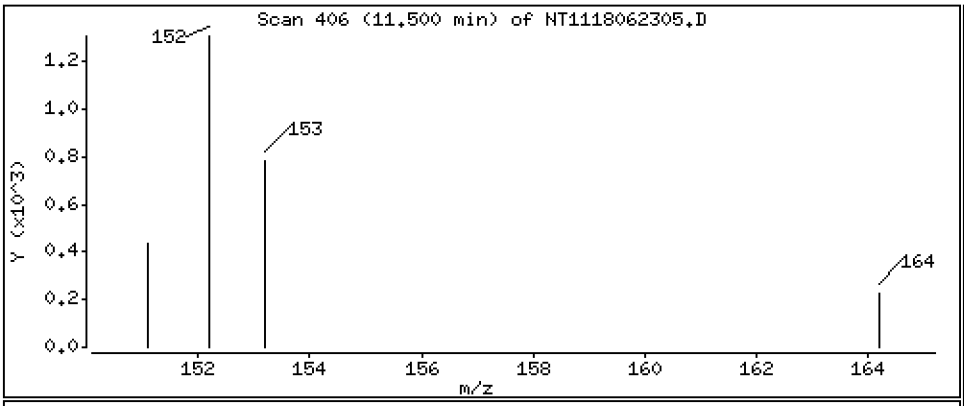
Operator: VTS

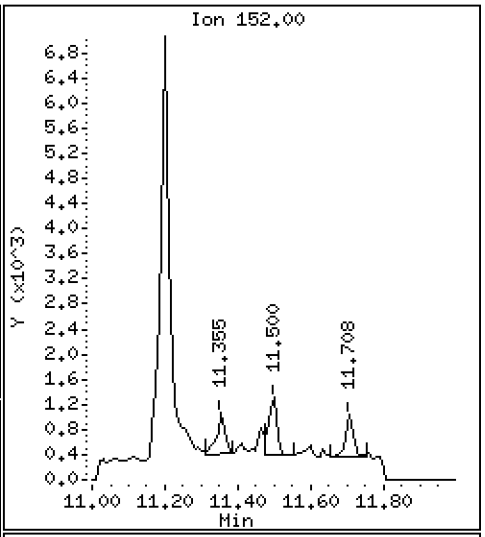
Column phase: Rxi-17Sil MS

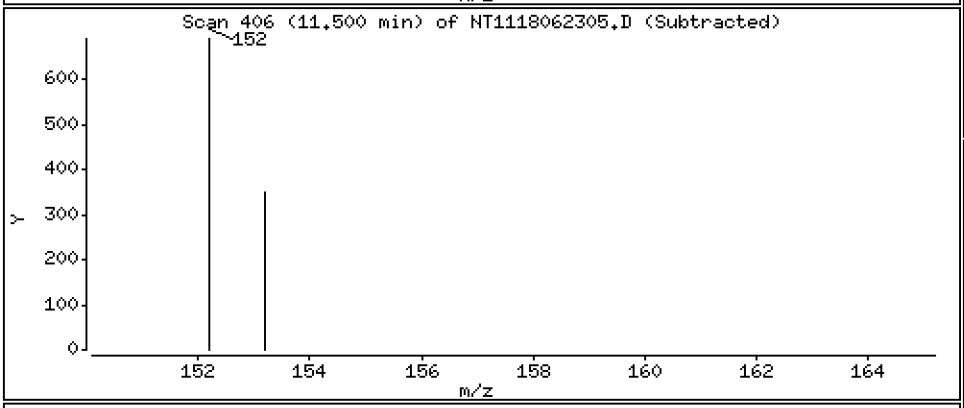
Column diameter: 0.25

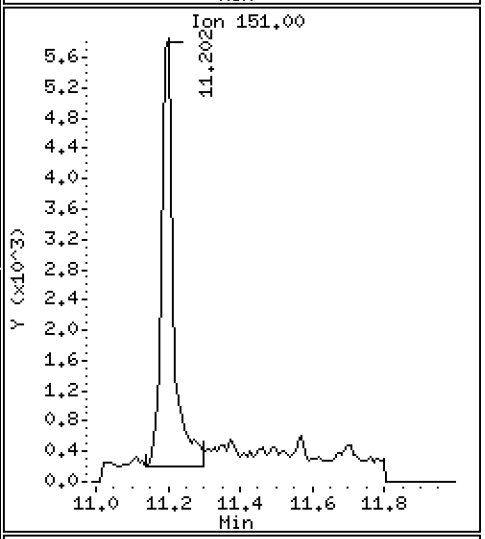
10 Acenaphthylene

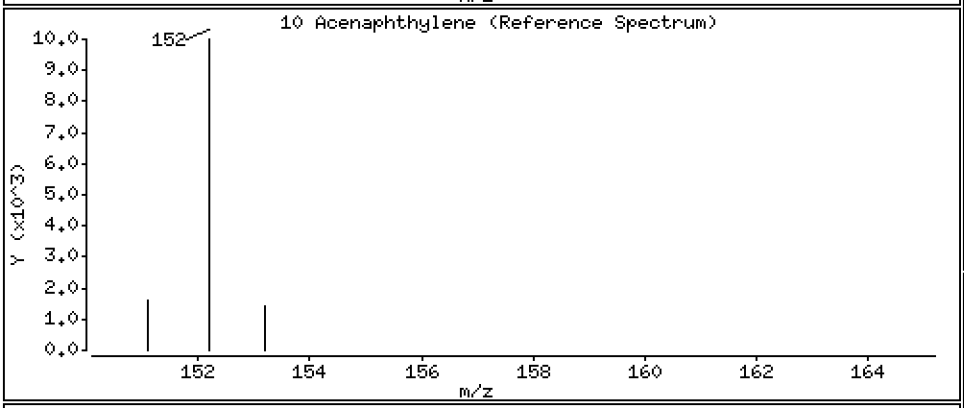
Concentration: 0.513 ng/mL

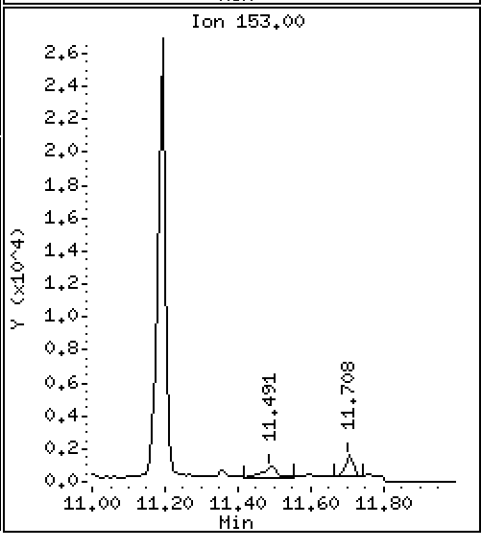


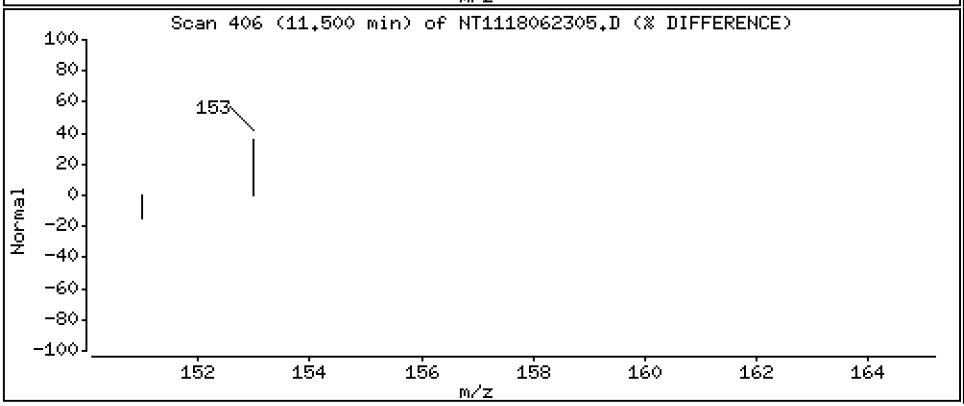












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Date : 23-JUN-2018 12:23

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-01

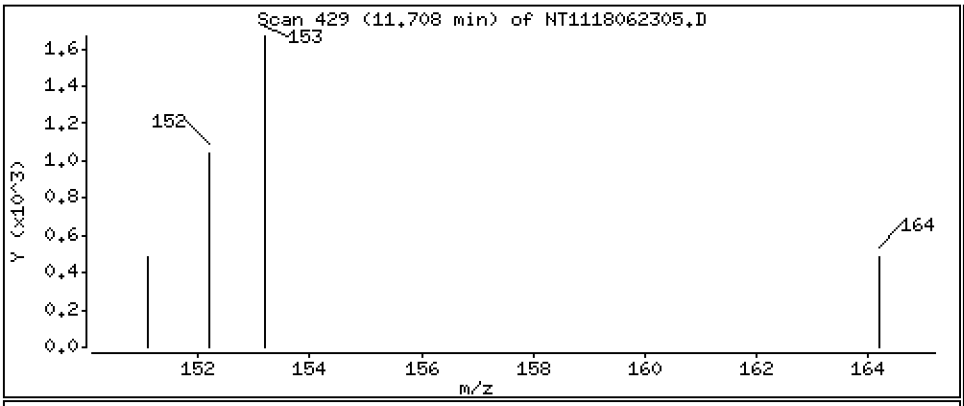
Operator: VTS

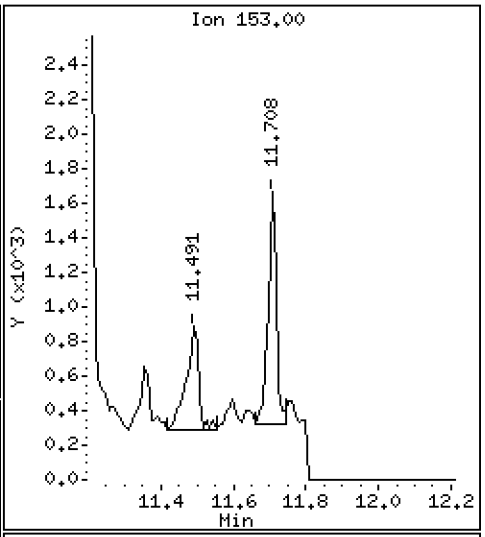
Column phase: Rxi-17Sil MS

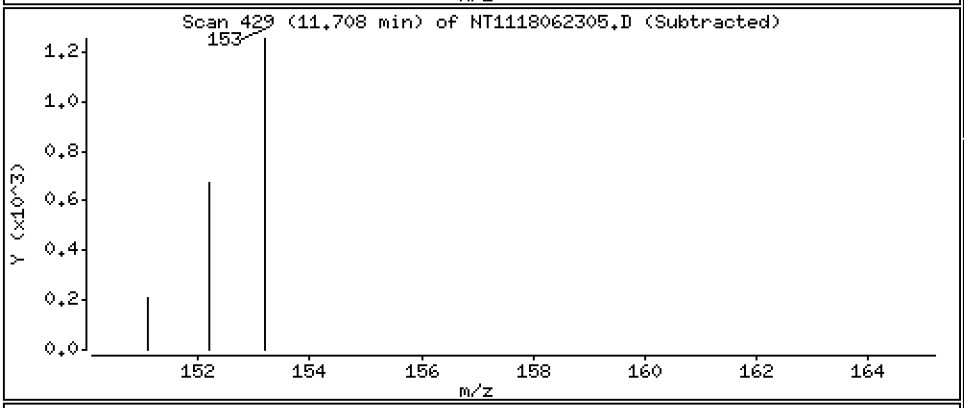
Column diameter: 0.25

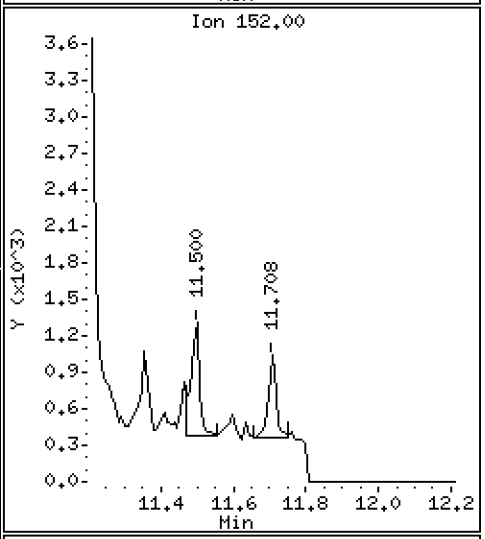
12 Acenaphthene

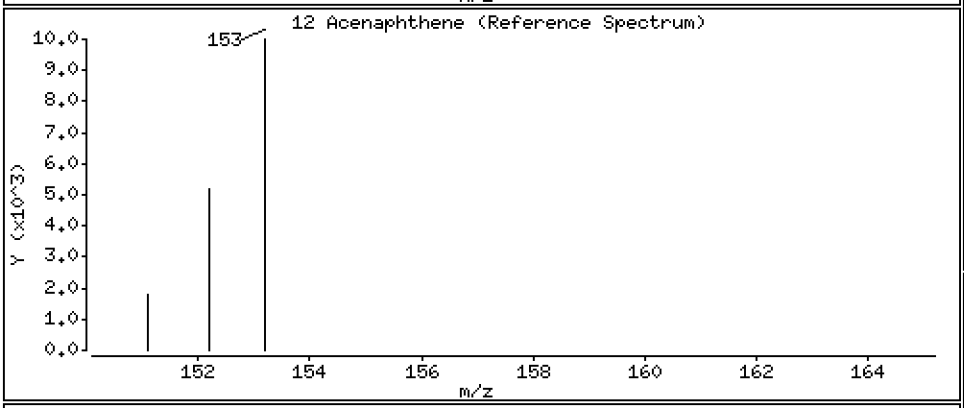
Concentration: 1.02 ng/mL

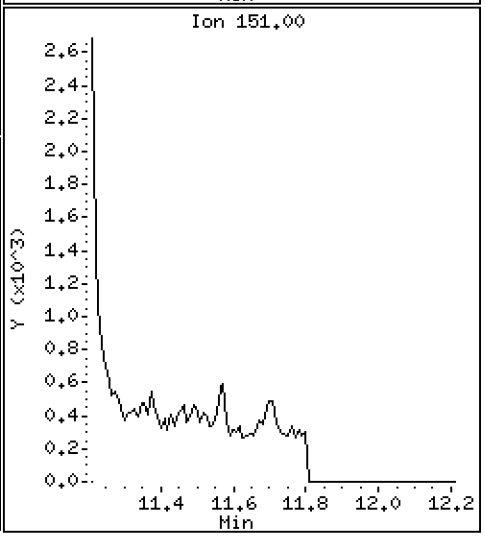


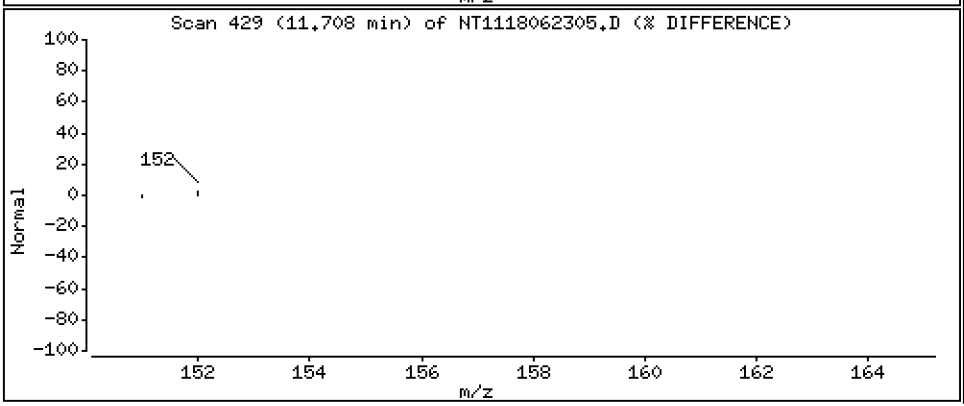












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Date : 23-JUN-2018 12:23

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-01

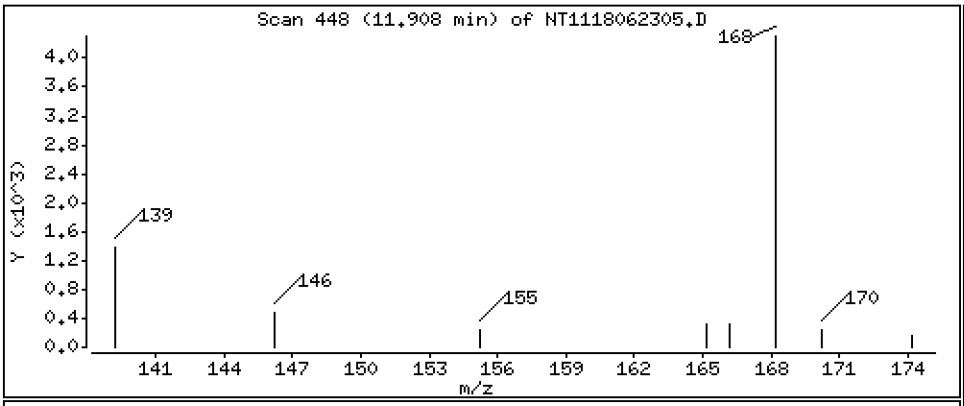
Operator: VTS

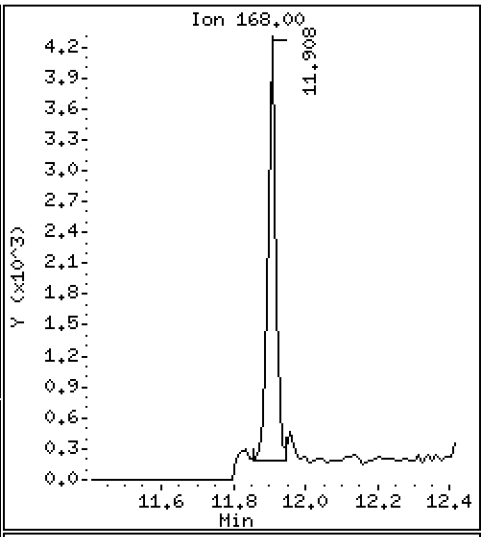
Column phase: Rxi-17Sil MS

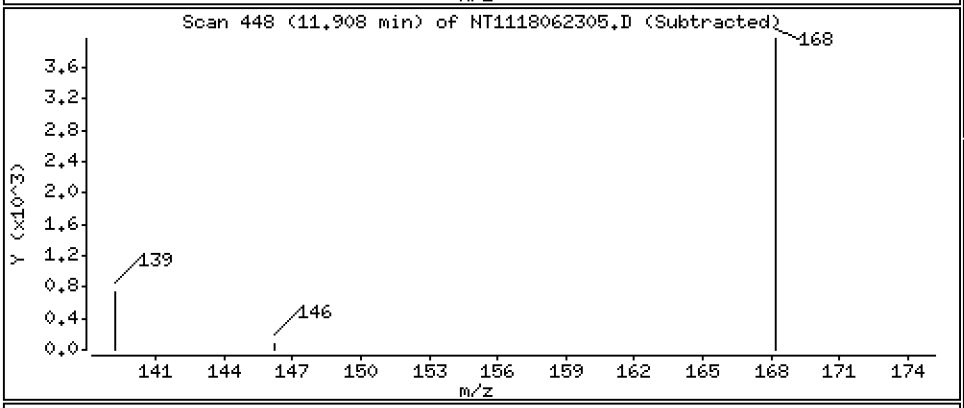
Column diameter: 0.25

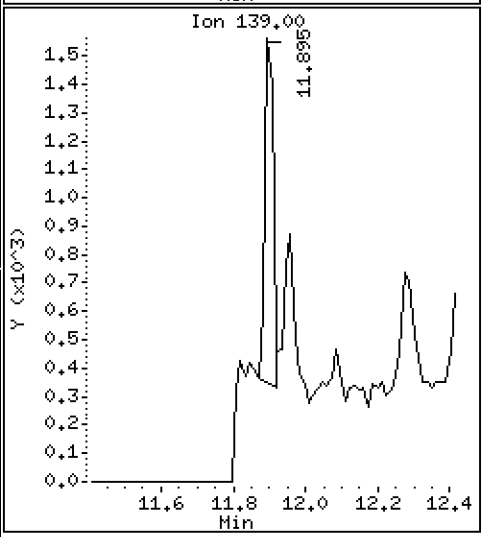
13 Dibenzofuran

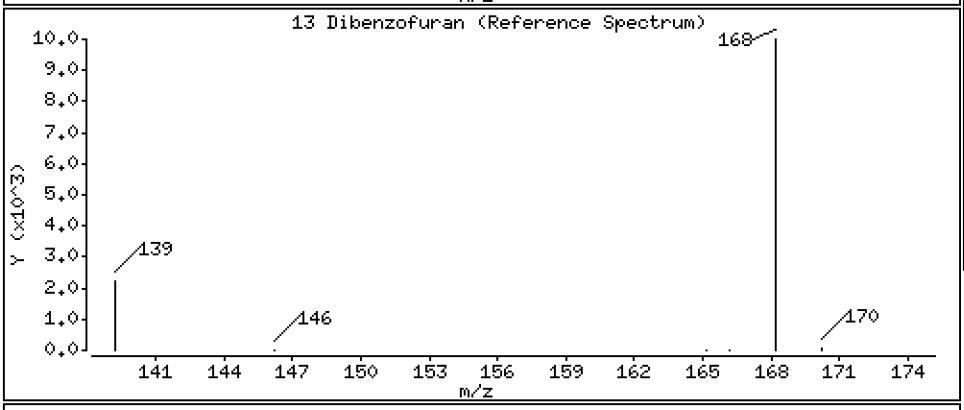
Concentration: 2.15 ng/mL

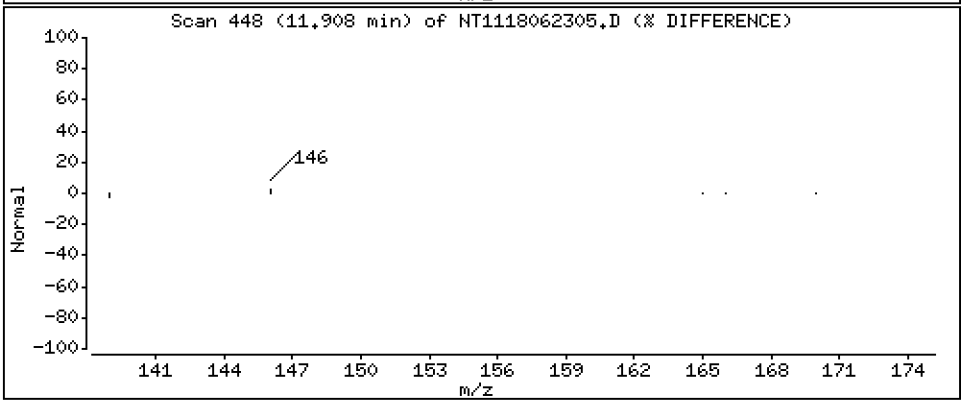












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Date : 23-JUN-2018 12:23

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-01

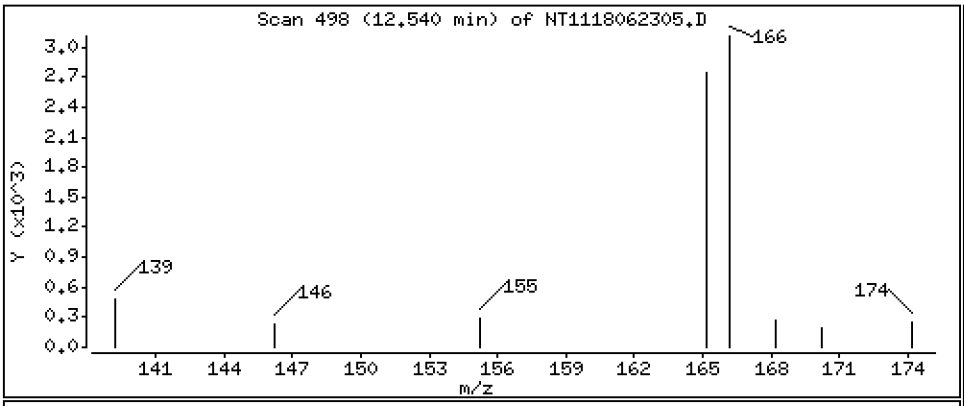
Operator: VTS

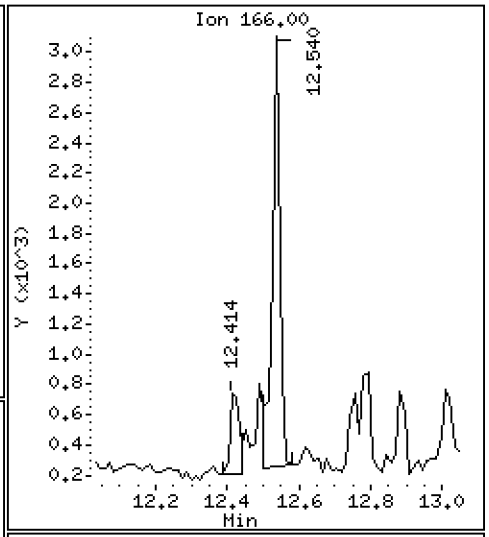
Column phase: Rxi-17Sil MS

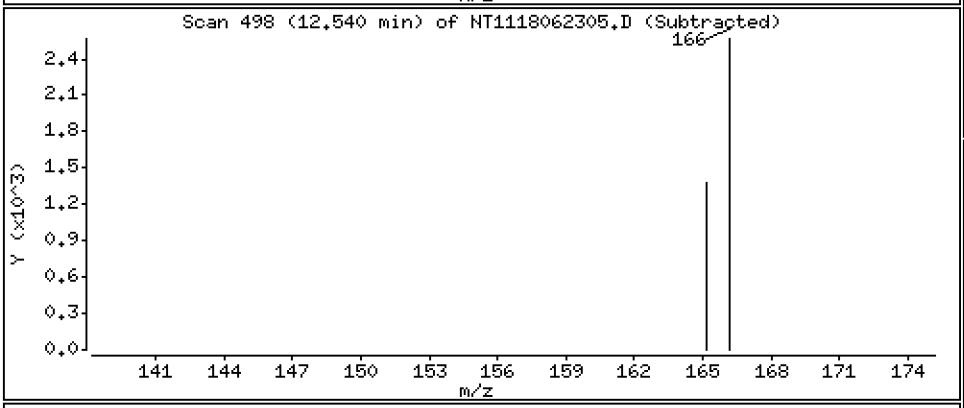
Column diameter: 0.25

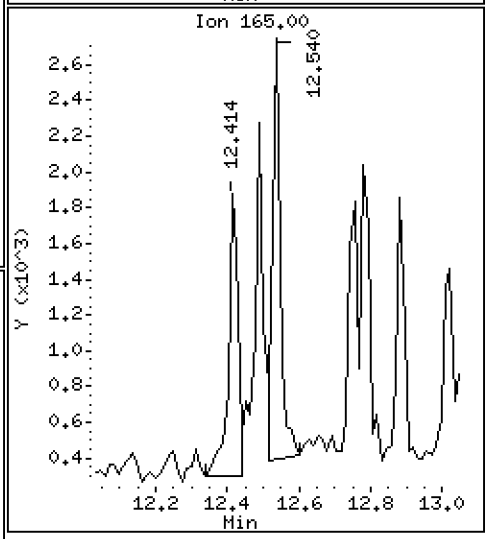
16 Fluorene

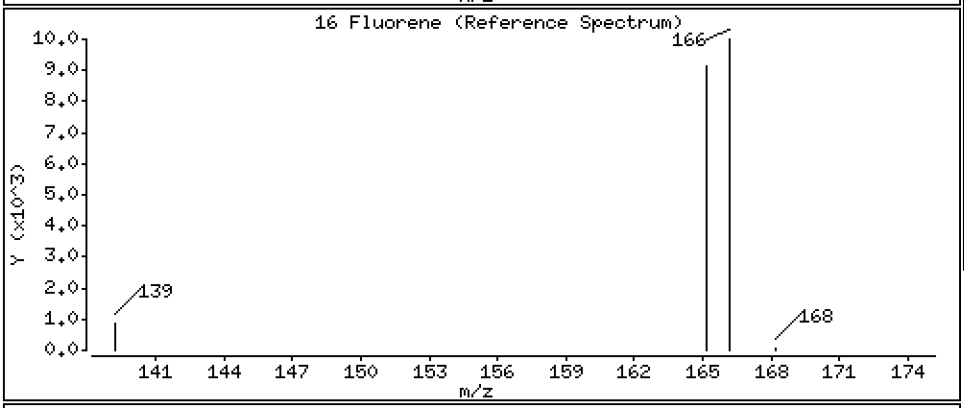
Concentration: 1.93 ng/mL

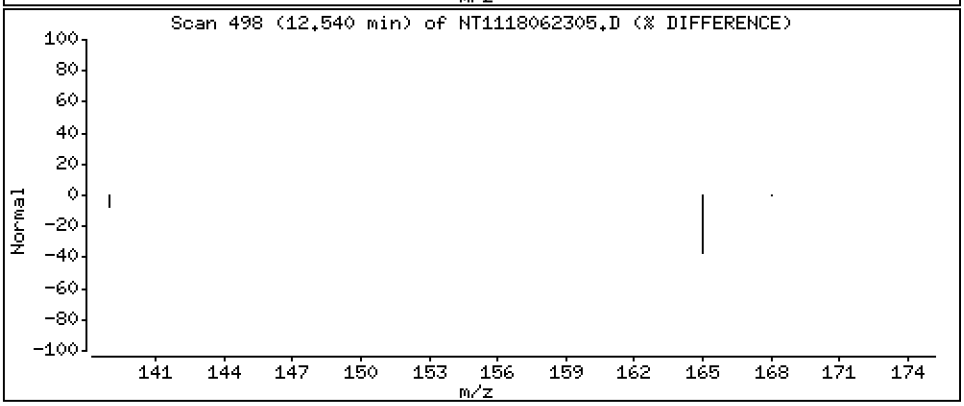












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062305.D

Date : 23-JUN-2018 12:23

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-01

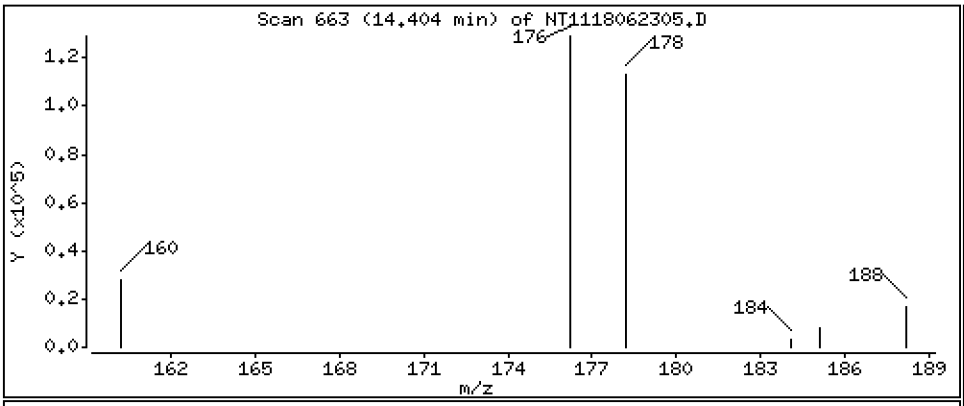
Operator: VTS

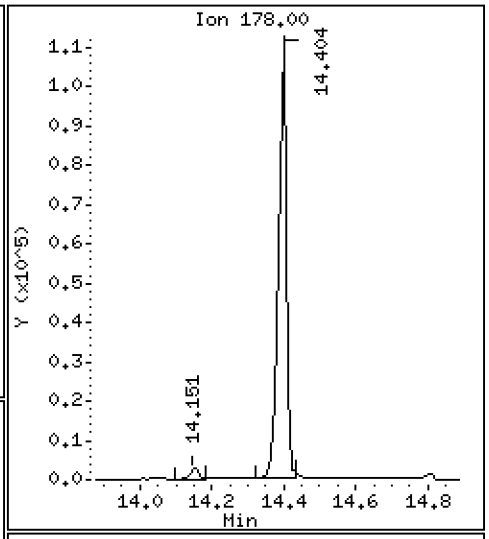
Column phase: Rxi-17Sil MS

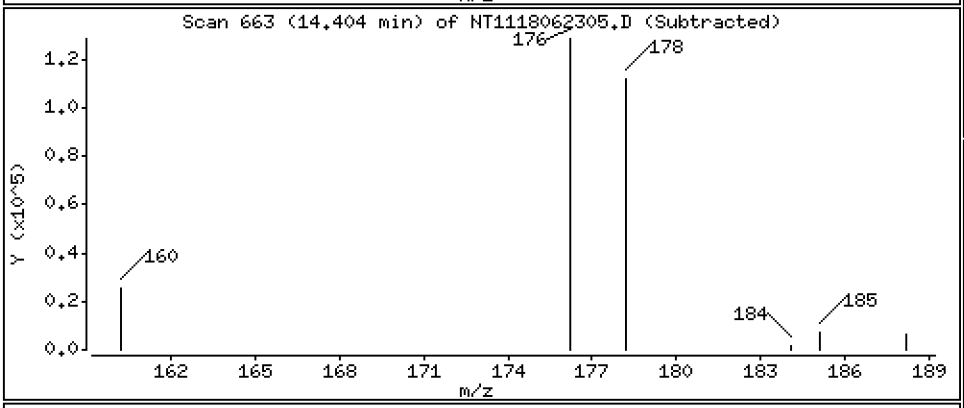
Column diameter: 0.25

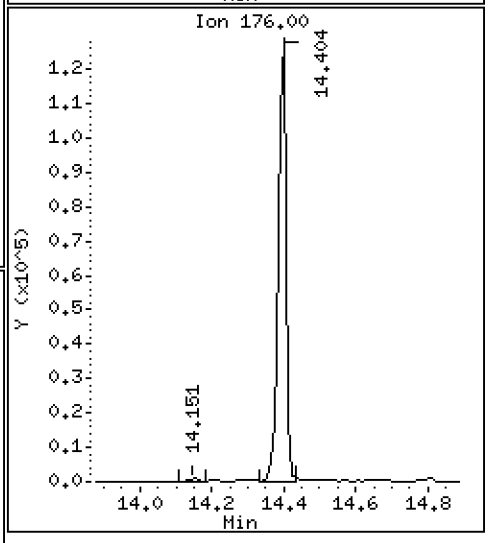
19 Phenanthrene

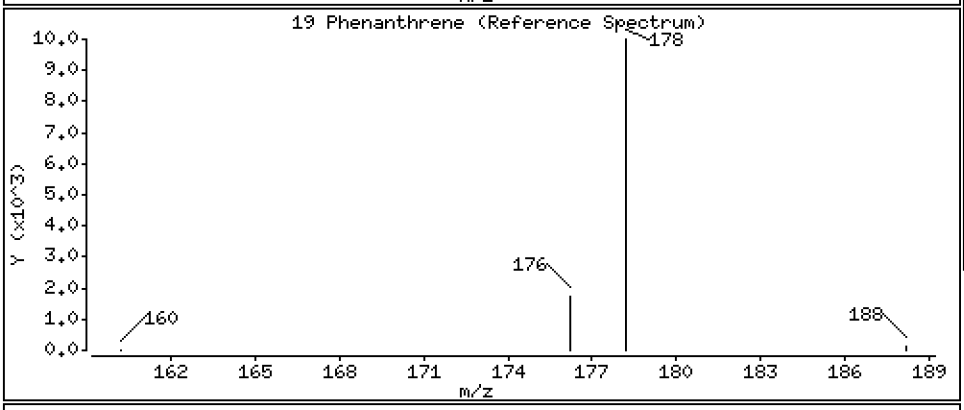
Concentration: 53.0 ng/mL

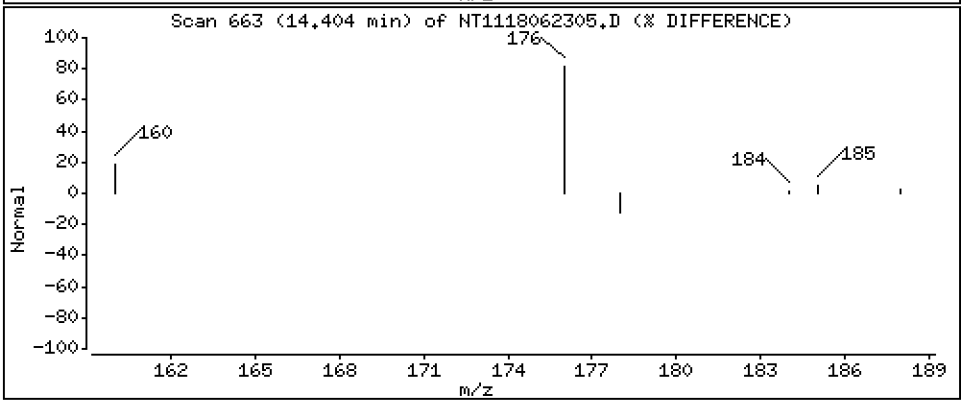












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062305.D

Date : 23-JUN-2018 12:23

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-01

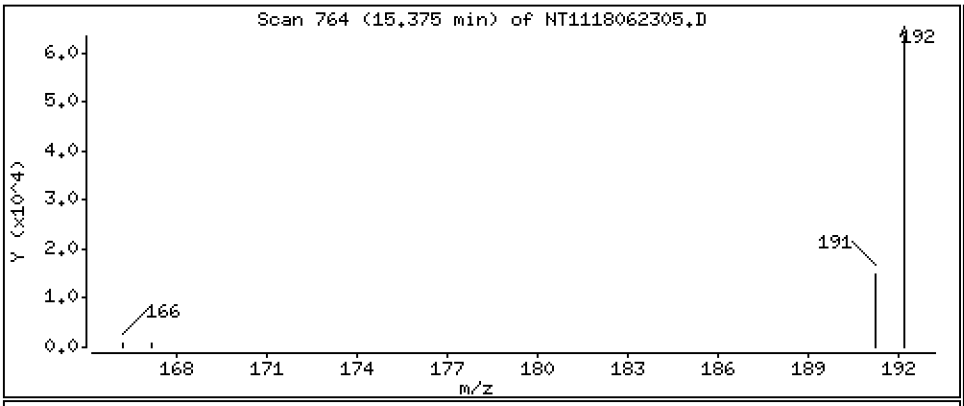
Operator: VTS

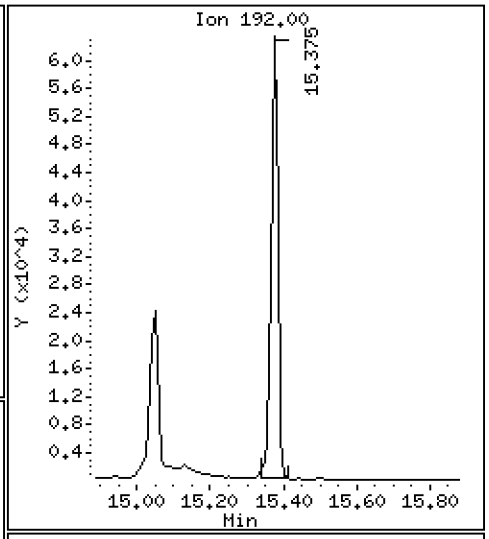
Column phase: Rxi-17Sil MS

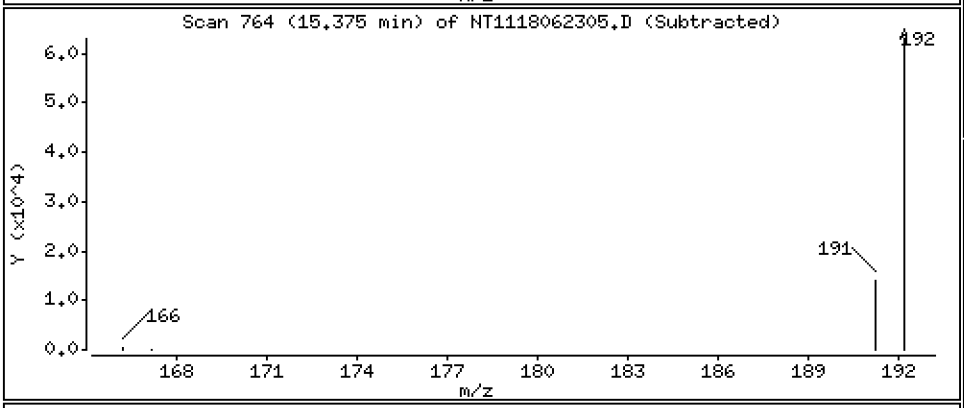
Column diameter: 0.25

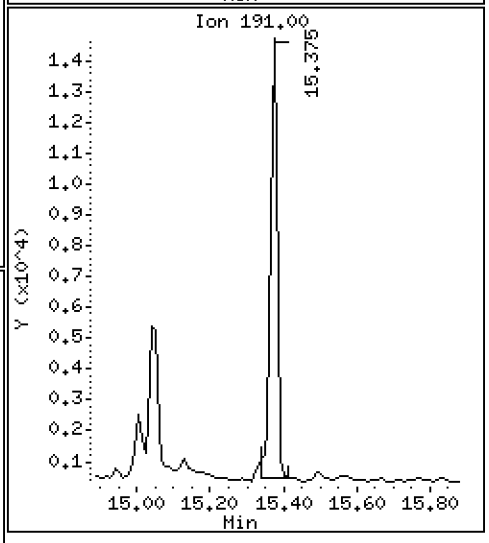
23 1-Methylphenanthrene

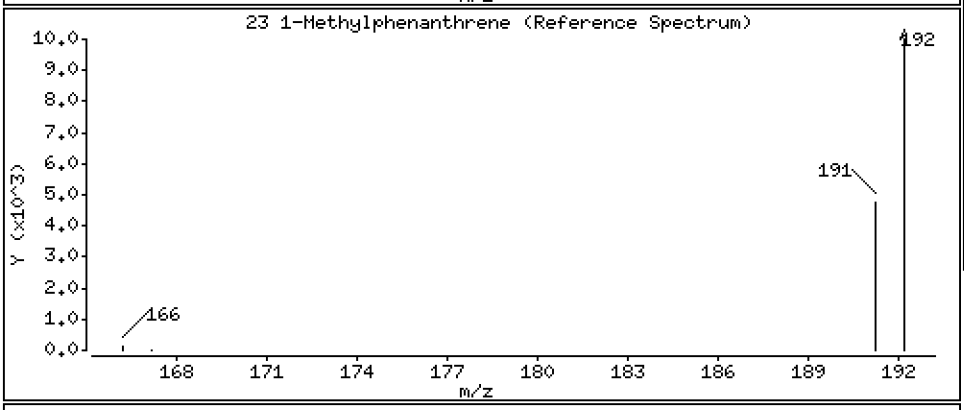
Concentration: 24.8 ng/mL

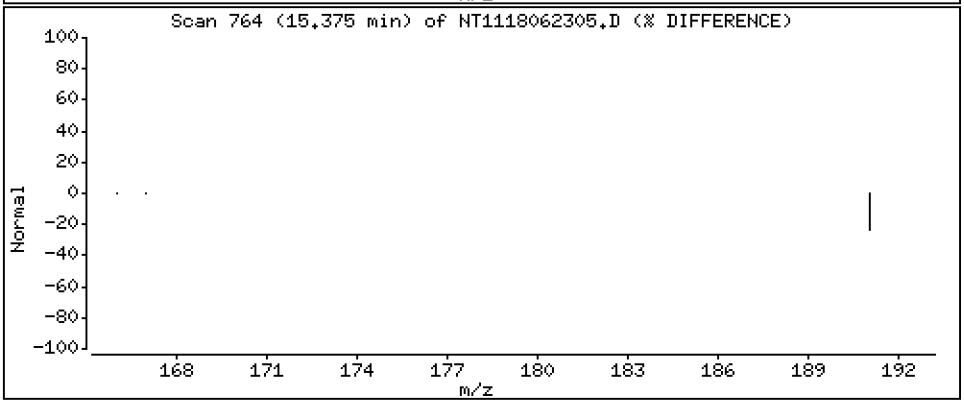












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Date : 23-JUN-2018 12:23

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-01

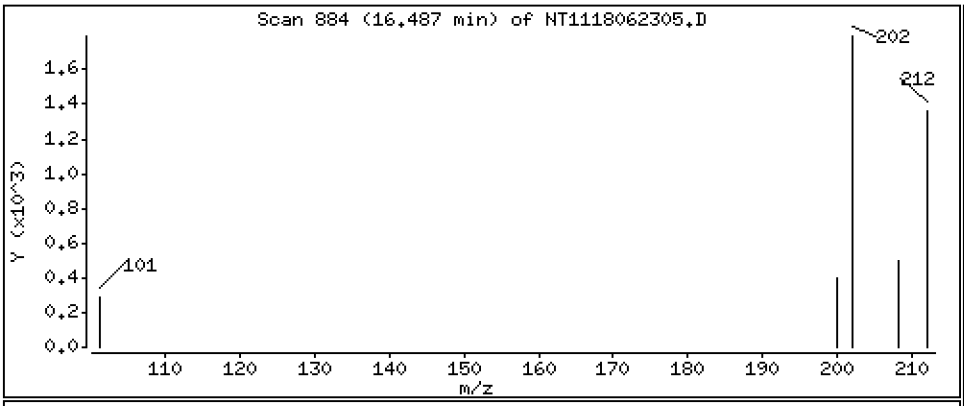
Operator: VTS

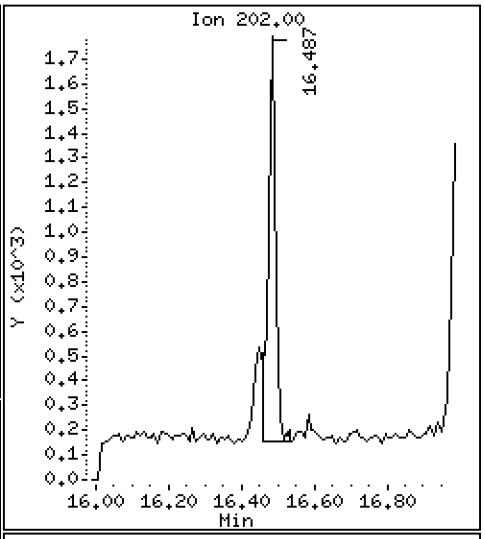
Column phase: Rxi-17Sil MS

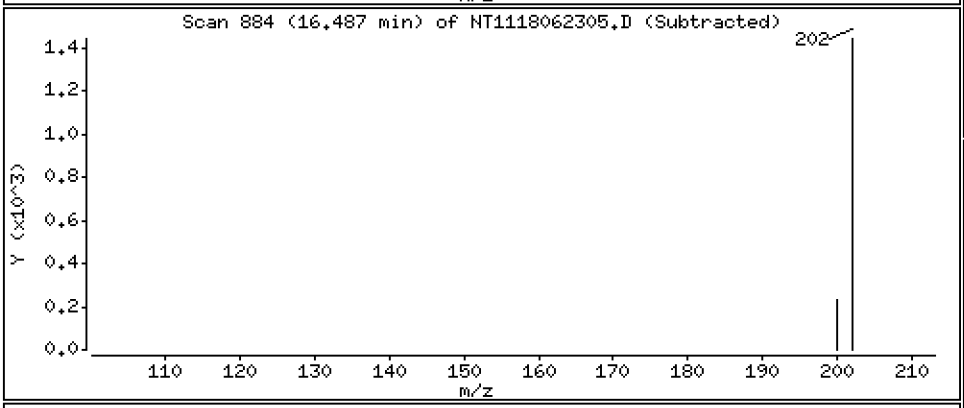
Column diameter: 0.25

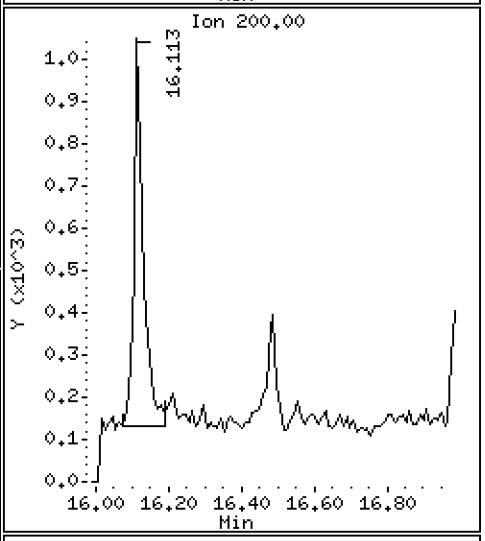
25 Fluoranthene

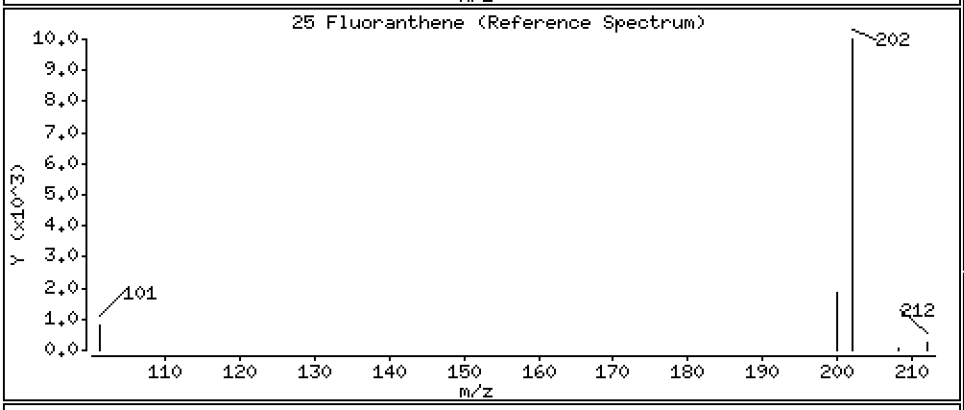
Concentration: 0.823 ng/mL

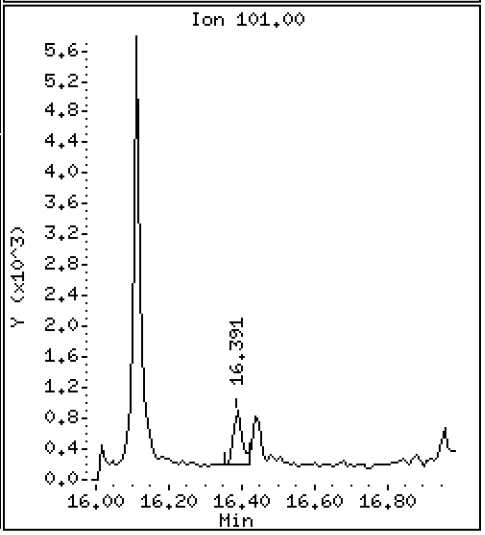


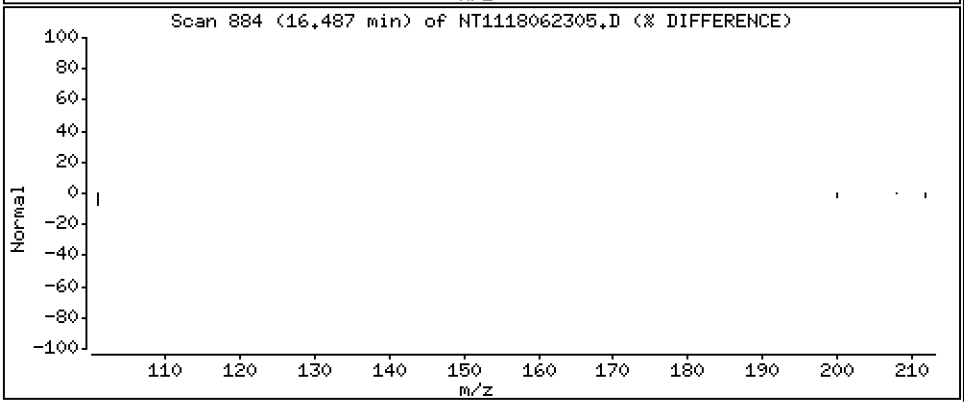












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062305.D

Date : 23-JUN-2018 12:23

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-01

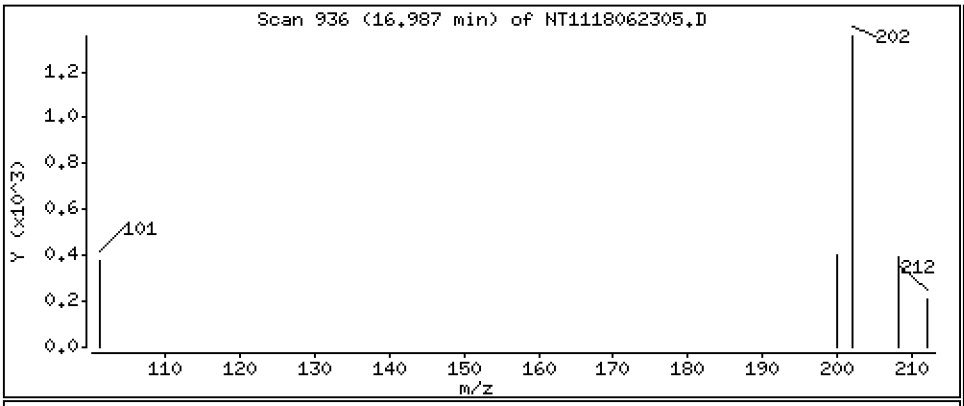
Operator: VTS

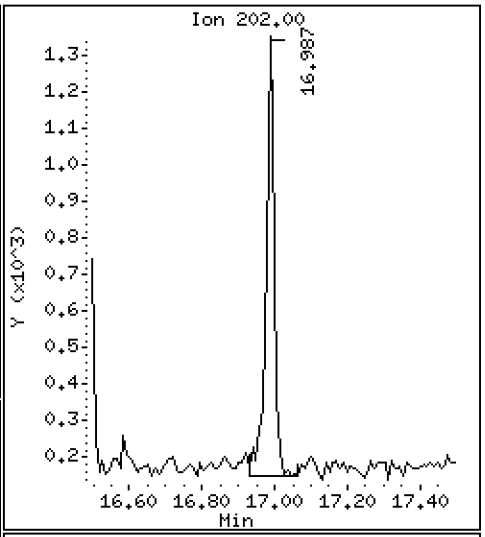
Column phase: Rxi-17Sil MS

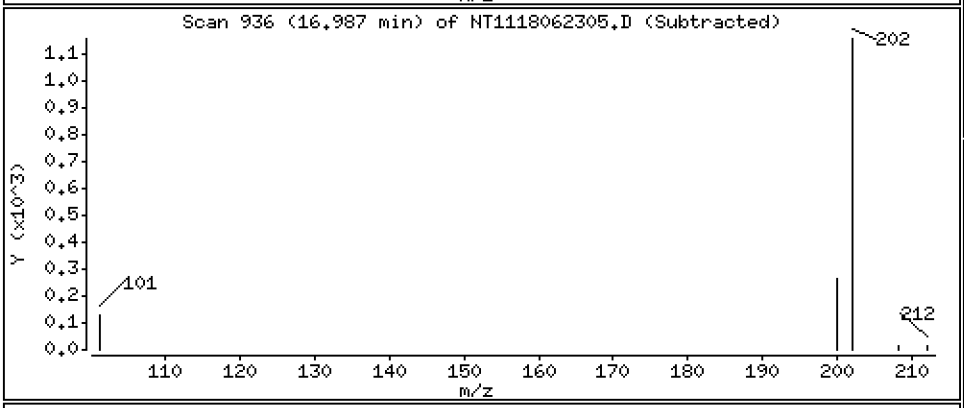
Column diameter: 0.25

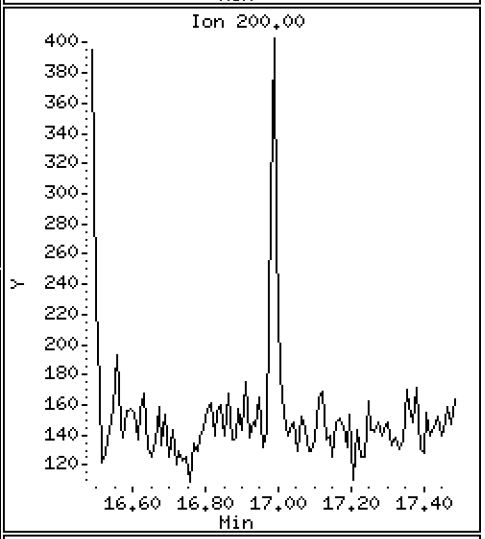
26 Pyrene

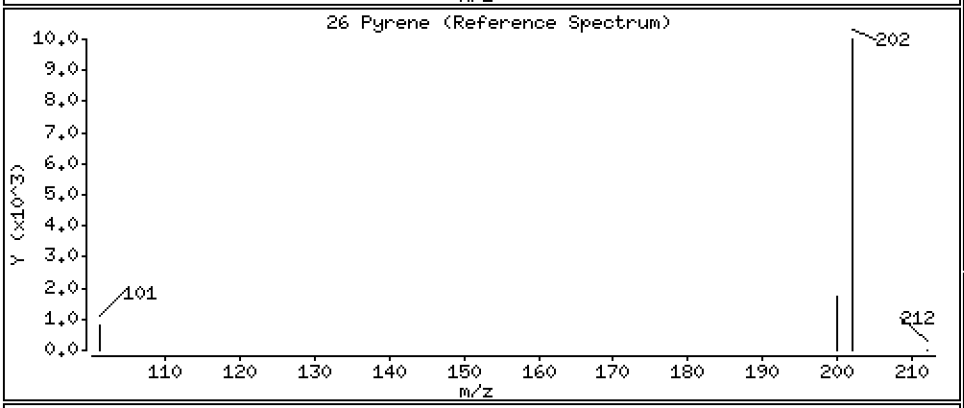
Concentration: 0.679 ng/mL

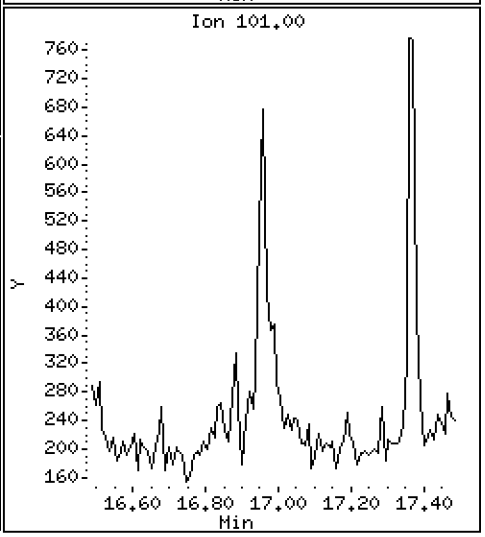


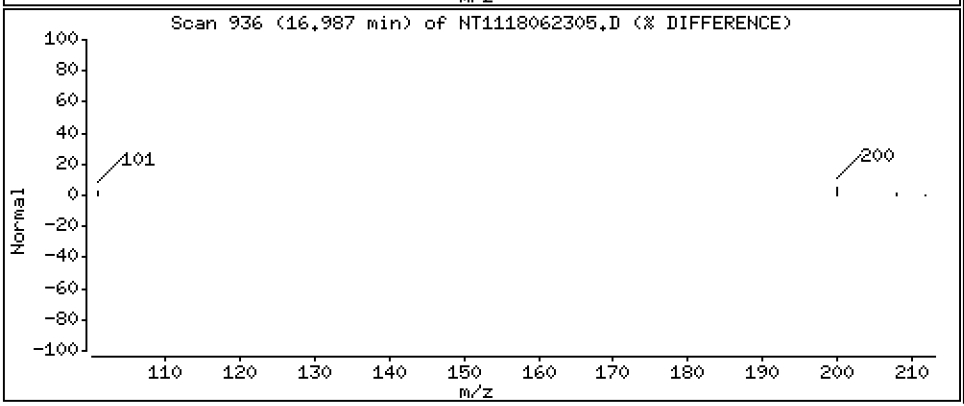












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Date : 23-JUN-2018 12:23

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-01

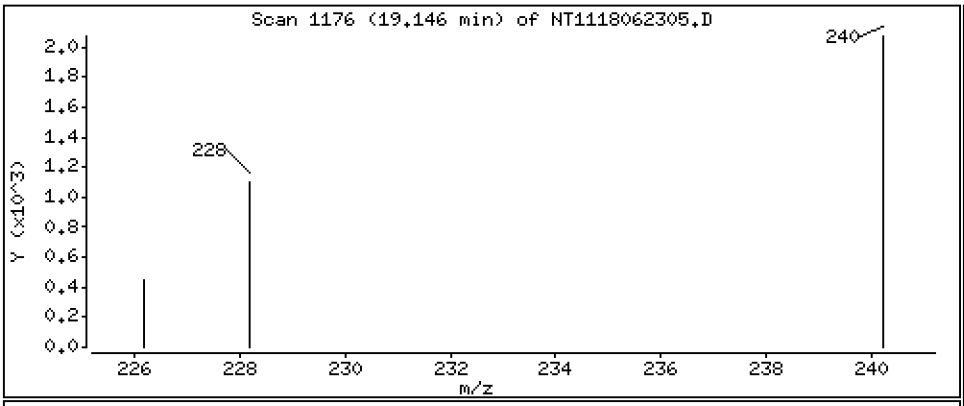
Operator: VTS

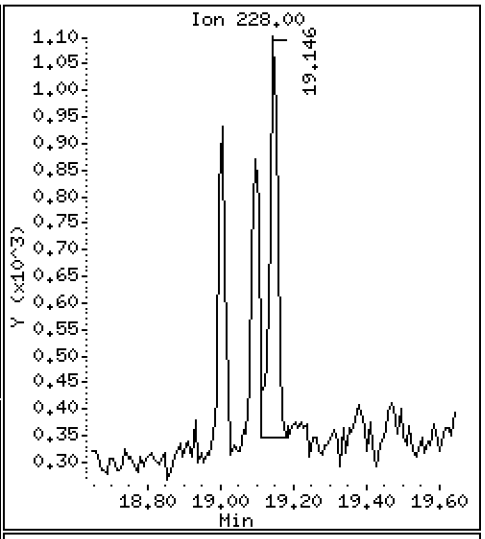
Column phase: Rxi-17Sil MS

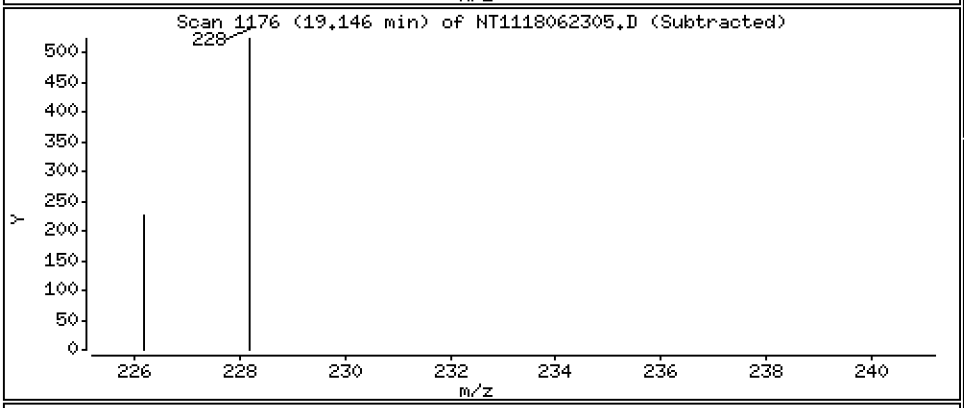
Column diameter: 0.25

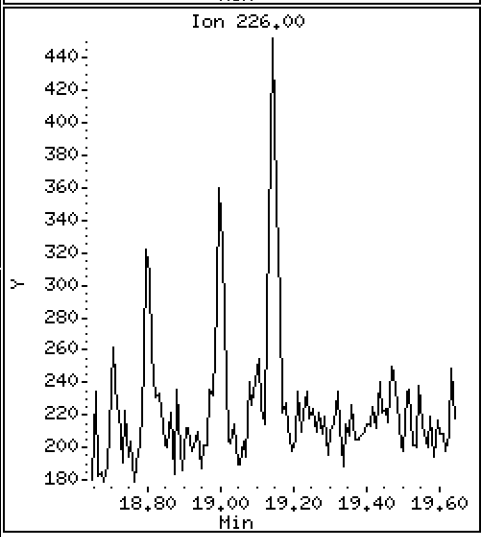
29 Chrysene

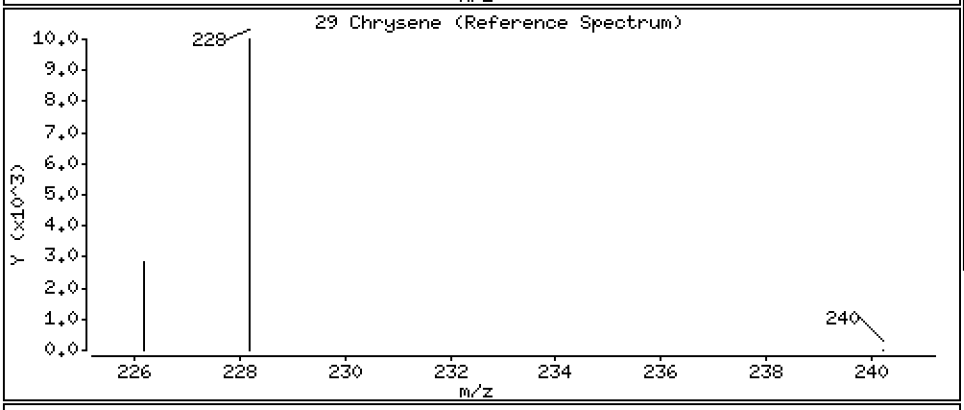
Concentration: 0.480 ng/mL

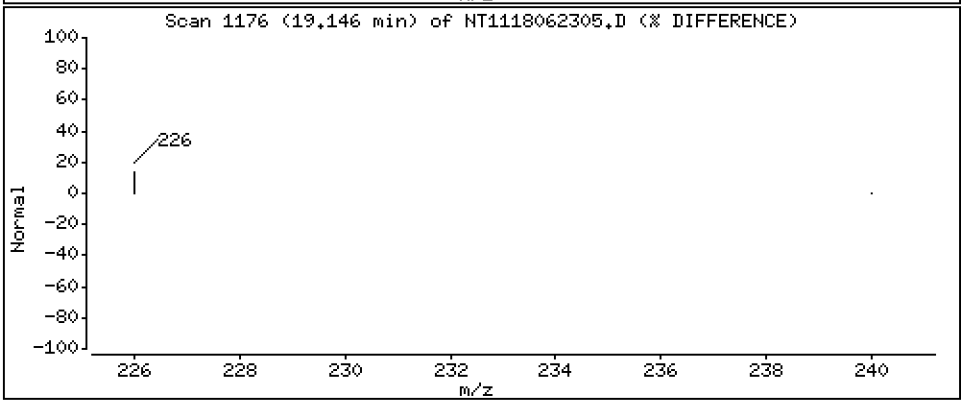












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062305.D

Date : 23-JUN-2018 12:23

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-01

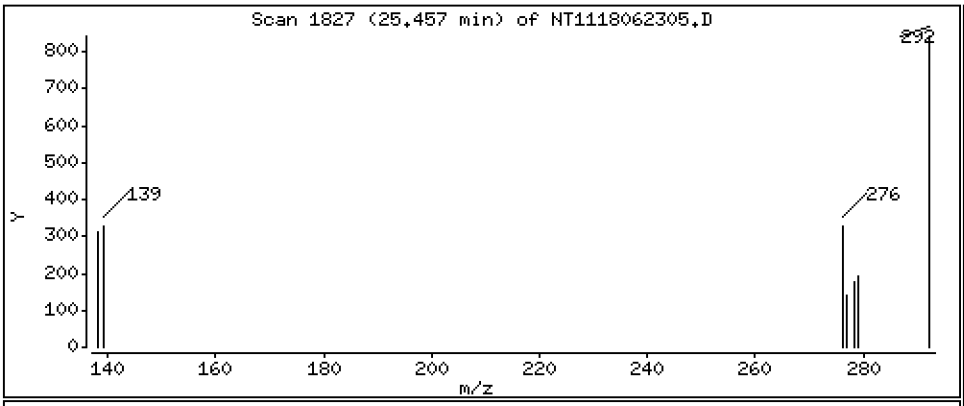
Operator: VTS

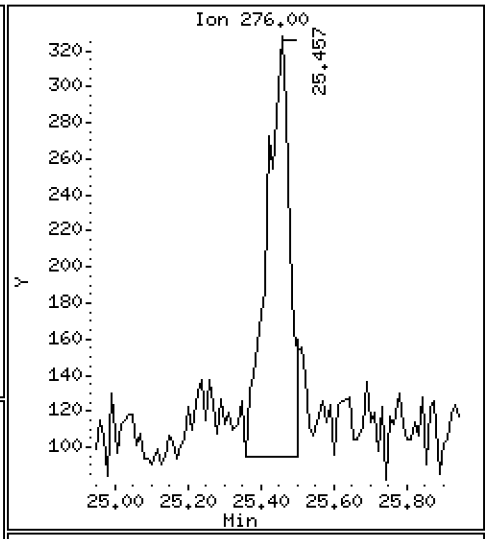
Column phase: Rxi-17Sil MS

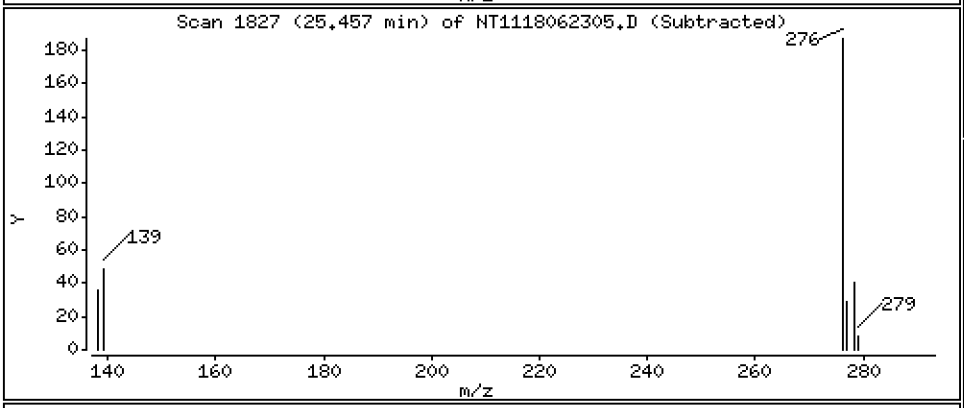
Column diameter: 0.25

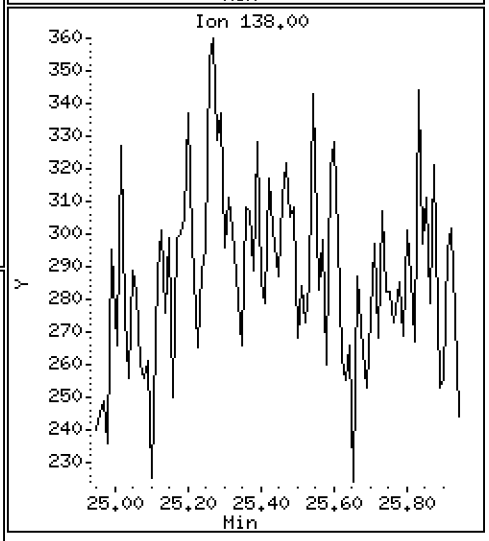
40 Indeno(1,2,3-cd)pyrene

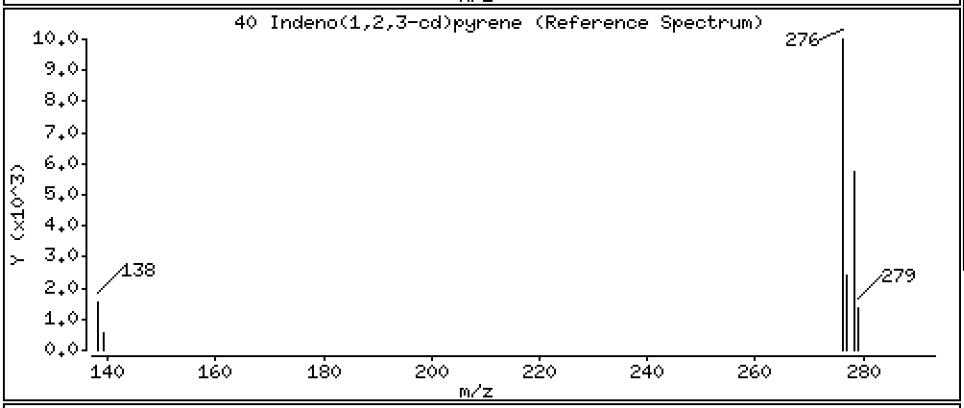
Concentration: 0.489 ng/mL

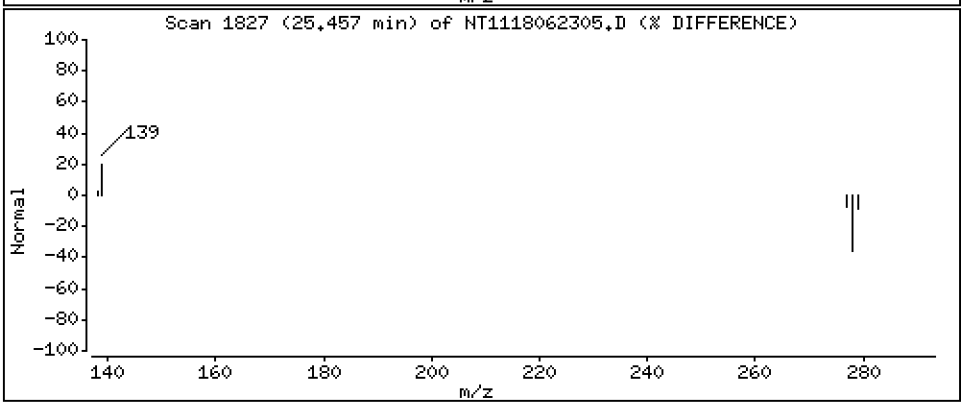












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062305.D

Date : 23-JUN-2018 12:23

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-01

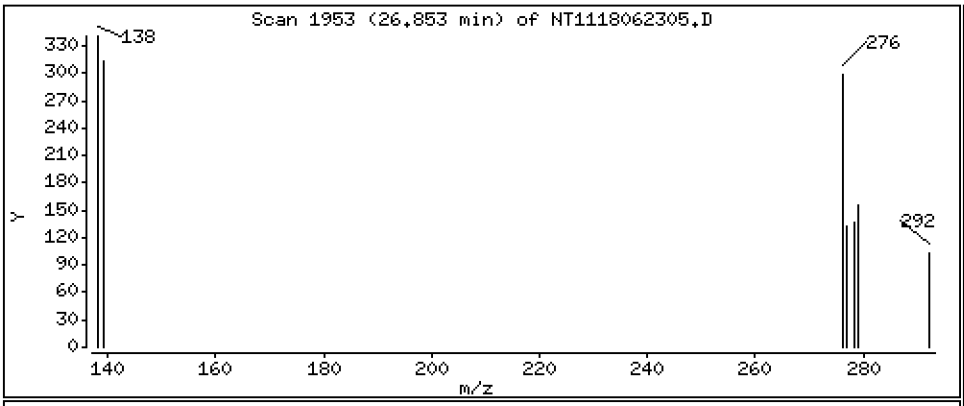
Operator: VTS

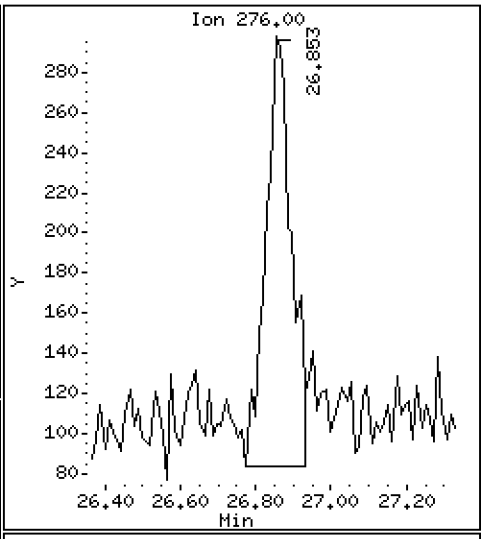
Column phase: Rxi-17Sil MS

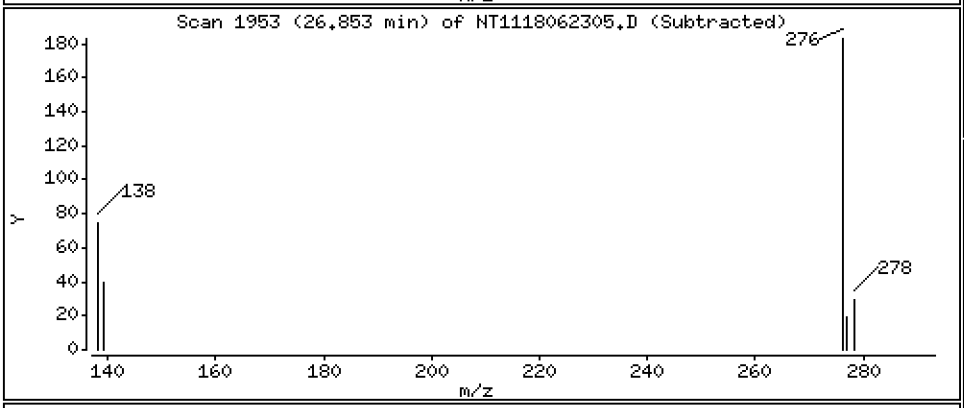
Column diameter: 0.25

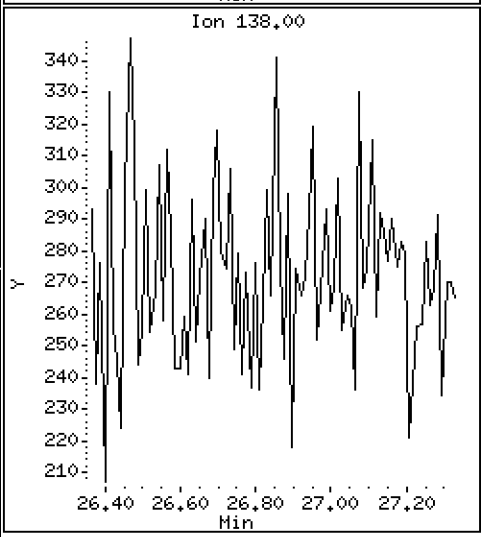
41 Benzo(g,h,i)perylene

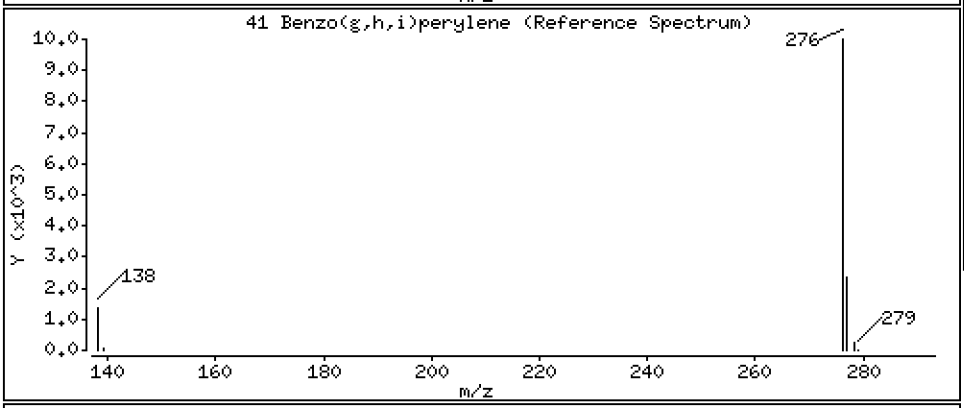
Concentration: 0.564 ng/mL

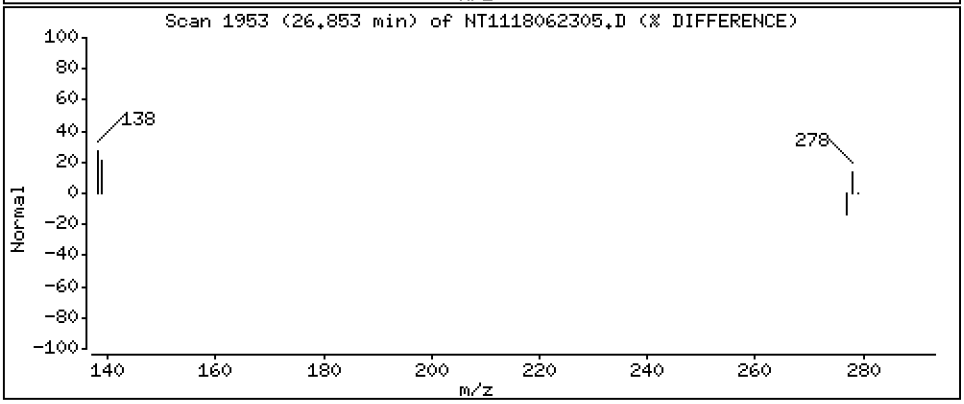












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180623.b\NT1118062305.D
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Inj Date : 23-JUN-2018 12:23 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0185-01
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180623.b\lowsim.m
Meth Date : 23-Jun-2018 13:20 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	424320	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	26145	8.21561	8.22
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	395503	163.363	163
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	11834	4.57844	4.58
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	7423	2.88766	2.89
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	11.499	11.499	(0.988)	1516	0.51327	0.513
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	248415	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	2058	1.01872	1.02
	13 Dibenzofuran	168	11.908	11.908	(1.023)	5940	2.14632	2.15
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.540	12.540	(1.077)	4308	1.93032	1.93
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	424349	200.000	
	19 Phenanthrene	178	14.403	14.382	(1.004)	176423	53.0092	53.0
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	Compound Not Detected.					
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	15.375	15.384	(1.072)	78100	24.8361	24.8
$	24 Fluoranthene-d10	212	16.449	16.449	(1.147)	470350	182.603	183
	25 Fluoranthene	202	16.487	16.487	(1.150)	2544	0.82311	0.823
	26 Pyrene	202	16.987	16.996	(0.890)	2062	0.67881	0.679
	27 Benzo(a)anthracene	228	Compound Not Detected.					
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	308989	200.000	
	29 Chrysene	228	19.145	19.145	(1.003)	1130	0.48017	0.480
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
34	Benzo(e)pyrene	252	Compound Not Detected.					
35	Benzo(a)pyrene	252	Compound Not Detected.					
* 36	Perylene-d12	264	22.353	22.353	(1.000)	321184	200.000	
37	Perylene	252	Compound Not Detected.					
$ 38	Dibenzo(a,h)anthracene-d14	292	25.268	25.268	(1.130)	176305	114.708	115
39	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
40	Indeno(1,2,3-cd)pyrene	276	25.457	25.446	(1.139)	1015	0.48892	0.489
41	Benzo(g,h,i)perylene	276	26.852	26.863	(1.201)	1012	0.56358	0.564

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118062305.D
Lab Smp Id: 18F0185-01
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180623.b\lowsim.m
Misc Info:

Calibration Date: 23-JUN-2018
Calibration Time: 10:32
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	424320	-1.62
11 Acenaphthene-d10	260137	130069	520274	248415	-4.51
18 Phenanthrene-d10	427391	213696	854782	424349	-0.71
28 Chrysene-d12	304596	152298	609192	308989	1.44
36 Perylene-d12	263091	131546	526182	321184	22.08

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118062305.D

Lab ID: 18F0185-01
nt11.i, 20180623.b\lowsim.m,   23-JUN-2018 12:23

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180623.b\lowsim.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-30

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-03	SDG:	18F0185
Sampled:	06/12/18 12:06	Prepared:	06/18/18 13:48	File ID:	NT1118062306.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/23/18 12:58
Batch:	BGF0416	Sequence:	SGF0298	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.003	J	0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.004	J	0.001	0.010
208-96-8	Acenaphthylene	1	0.010	U	0.002	0.010
83-32-9	Acenaphthene	1	0.010	U	0.003	0.010
86-73-7	Fluorene	1	0.008	J	0.002	0.010
85-01-8	Phenanthrene	1	0.037		0.001	0.010
120-12-7	Anthracene	1	0.010	U	0.001	0.010
206-44-0	Fluoranthene	1	0.009	J	0.002	0.010
129-00-0	Pyrene	1	0.002	J	0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.010	U	0.0008	0.010
218-01-9	Chrysene	1	0.010	U	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.010	U	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.164	54.6	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.193	64.4	29 - 120	
Fluoranthene-d10	0.30000	0.195	64.9	57 - 120	

Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062306.D

Page 1

Date : 23-JUN-2018 12:58

Client ID:

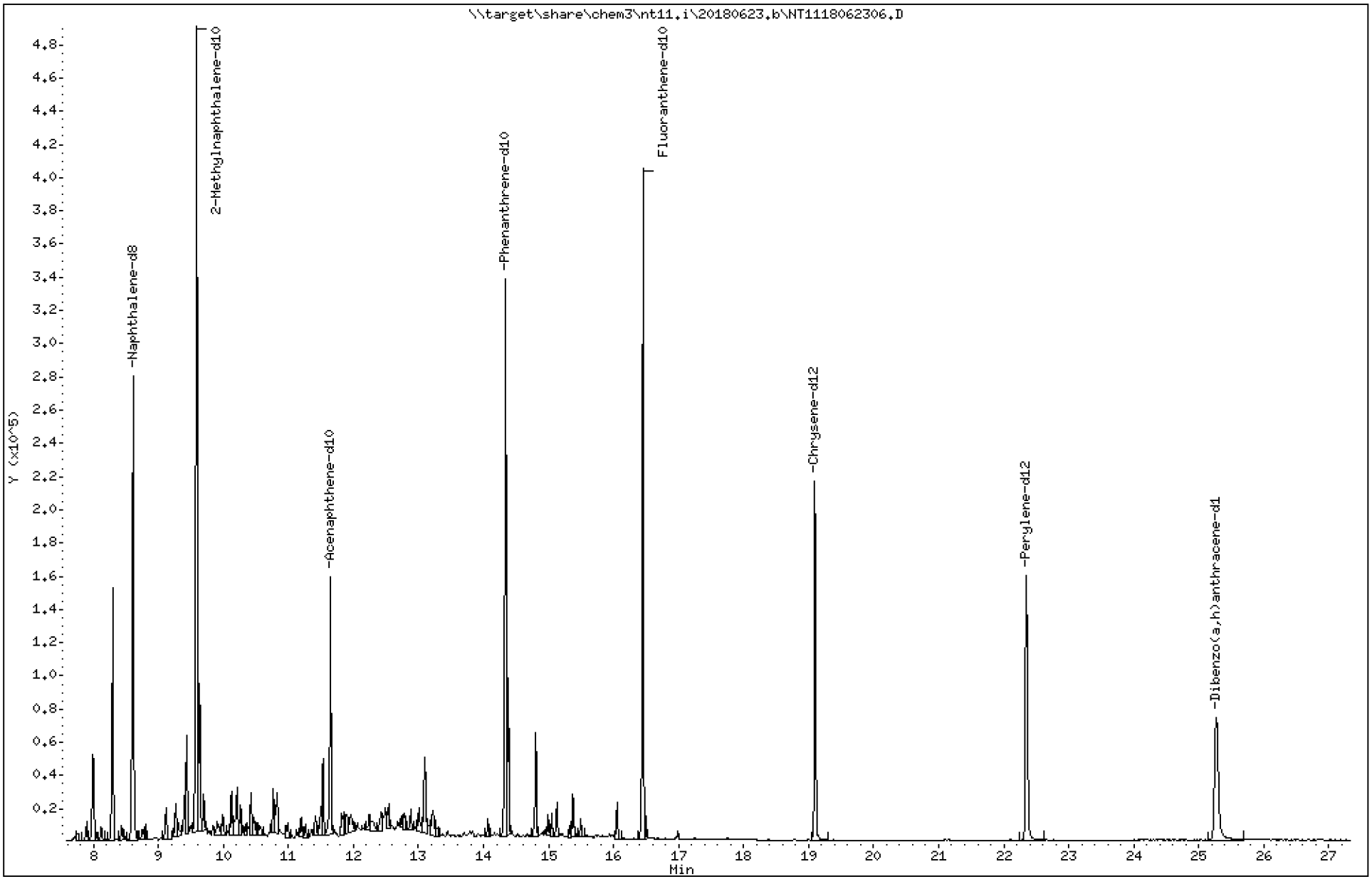
Instrument: nt11.i

Sample Info: 18F0185-03

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 1337 of 6523

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Date : 23-JUN-2018 12:58

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-03

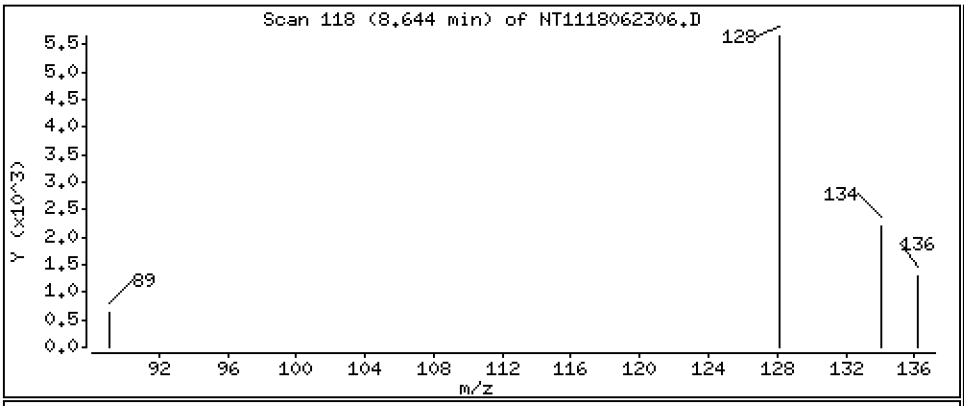
Operator: VTS

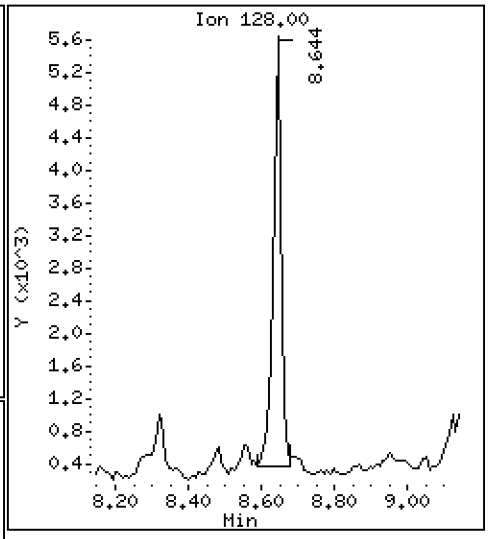
Column phase: Rxi-17Sil MS

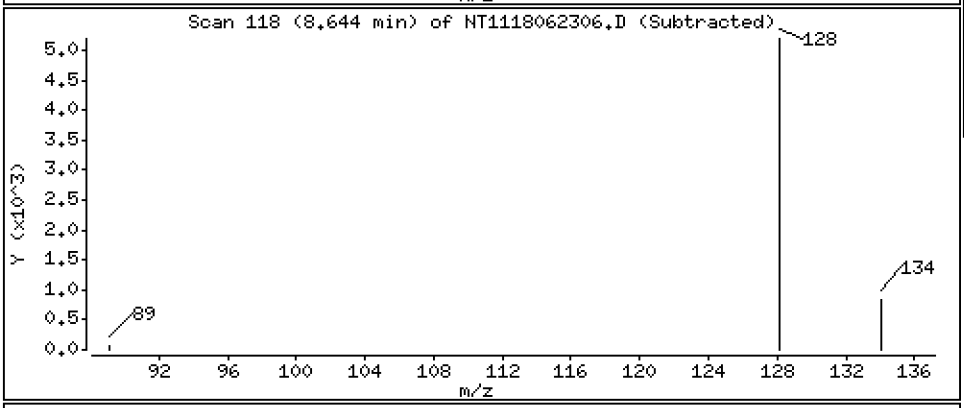
Column diameter: 0.25

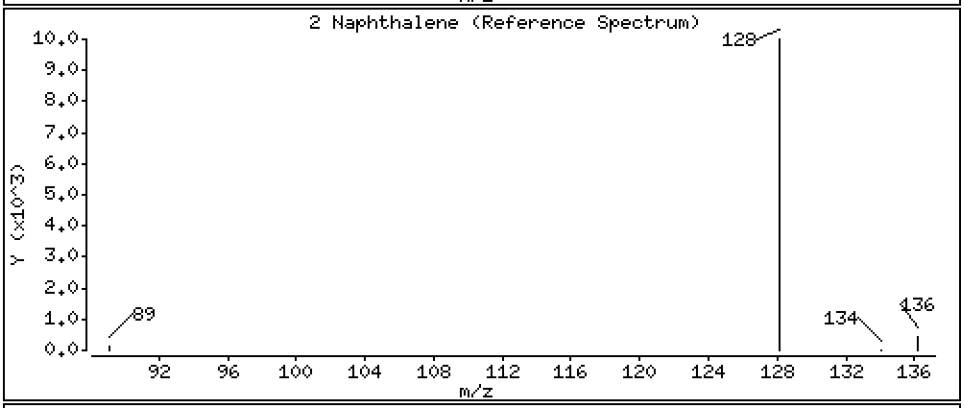
2 Naphthalene

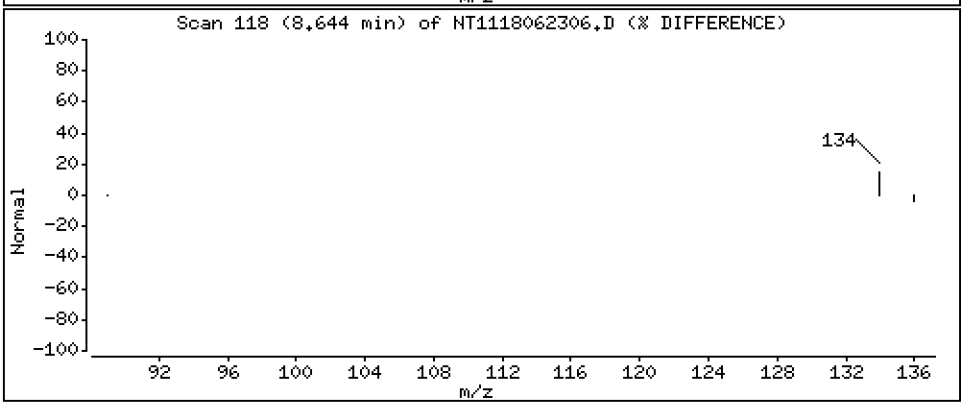
Concentration: 2.60 ng/mL











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Date : 23-JUN-2018 12:58

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-03

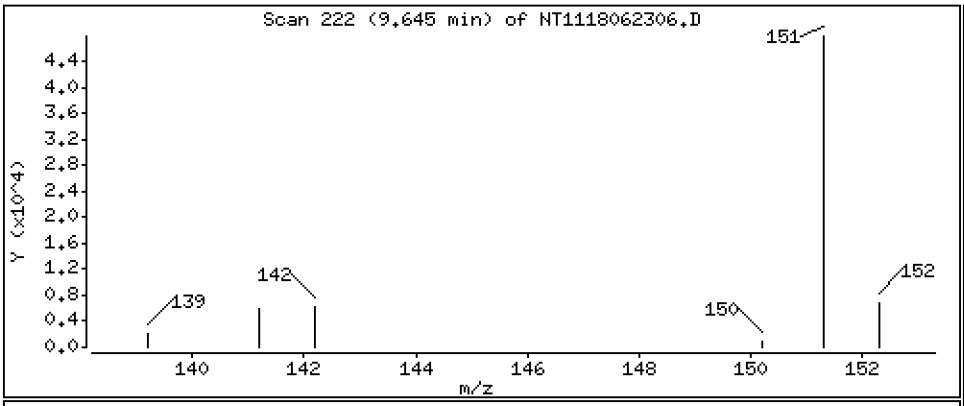
Operator: VTS

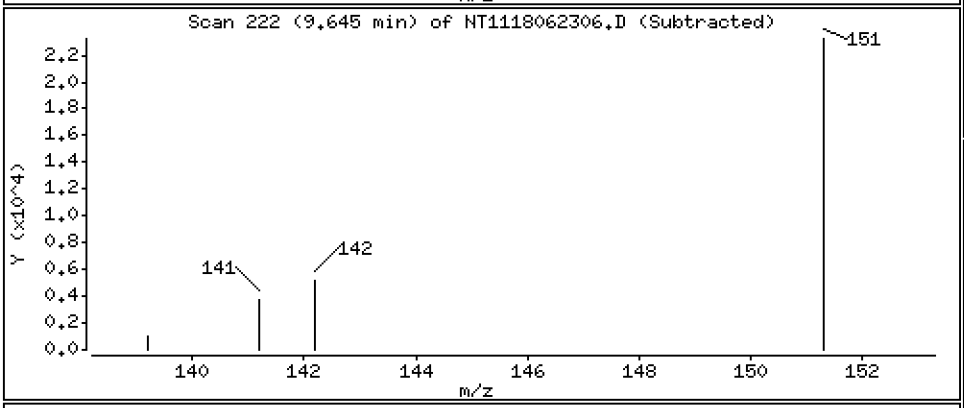
Column phase: Rxi-17Sil MS

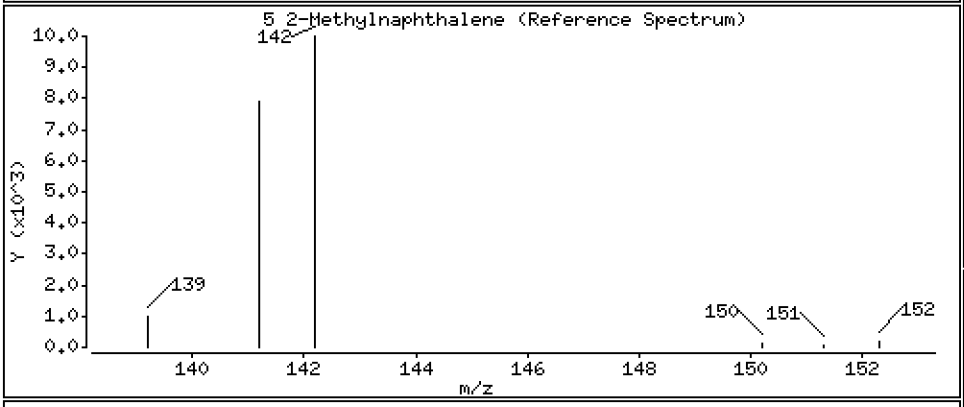
Column diameter: 0.25

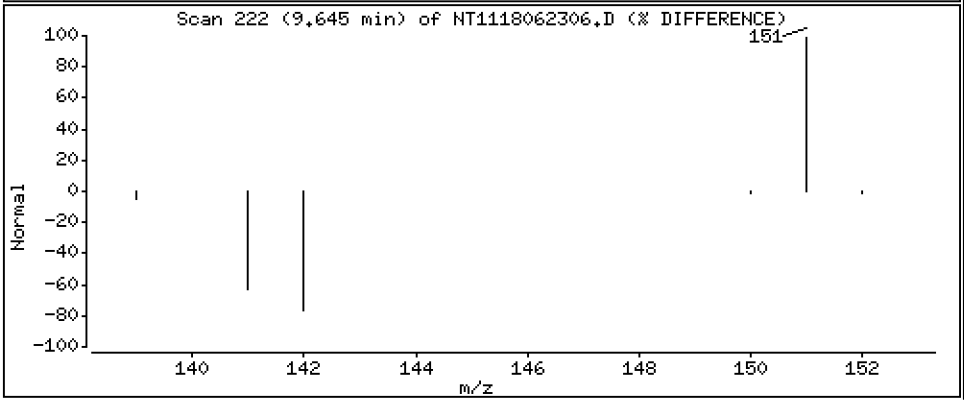
5 2-Methylnaphthalene

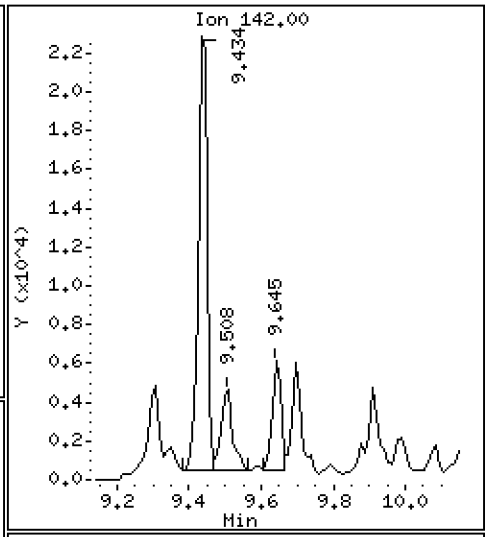
Concentration: 3.87 ng/mL

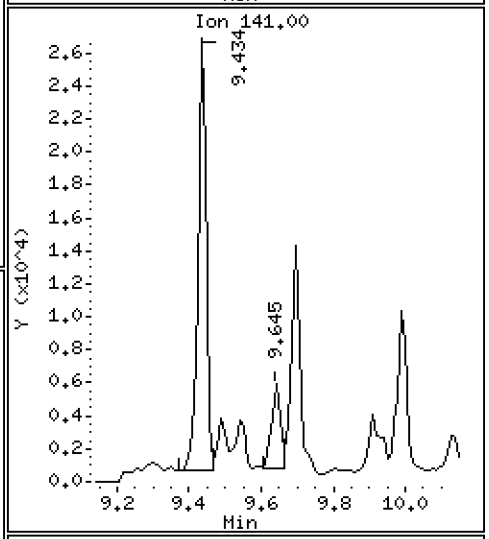


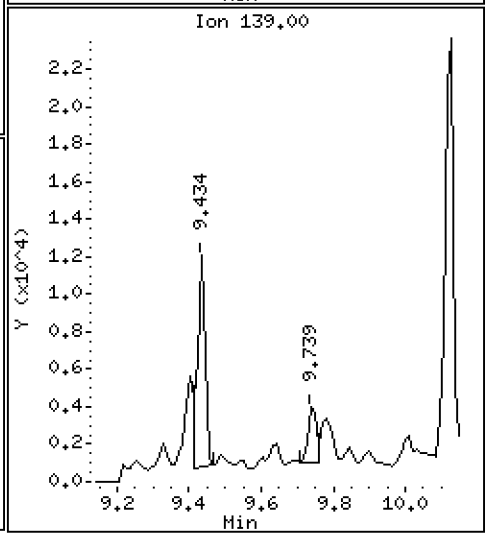












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Date : 23-JUN-2018 12:58

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-03

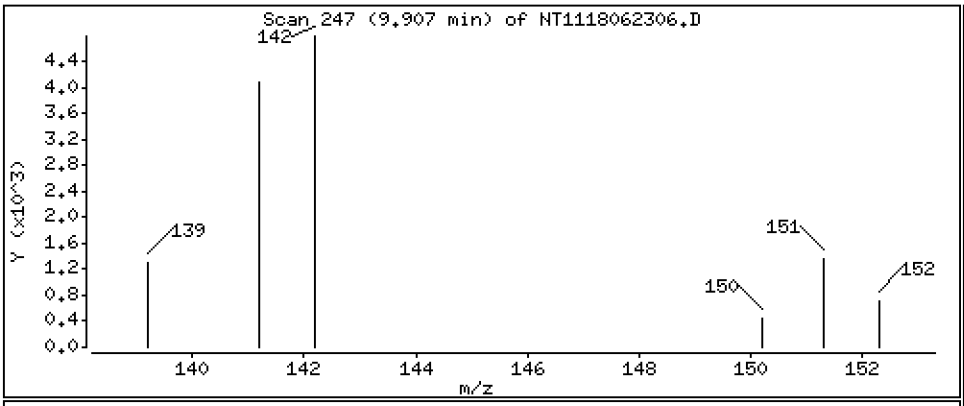
Operator: VTS

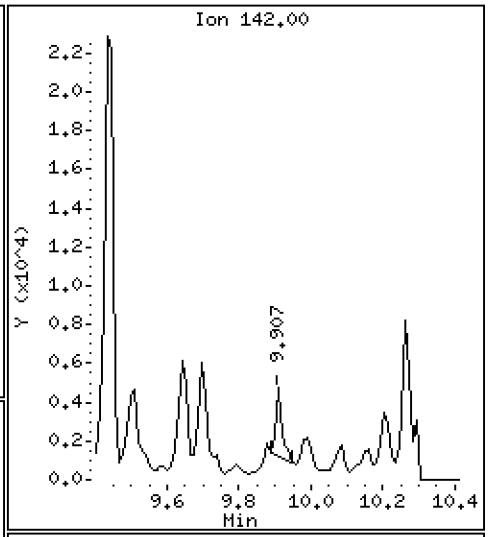
Column phase: Rxi-17Sil MS

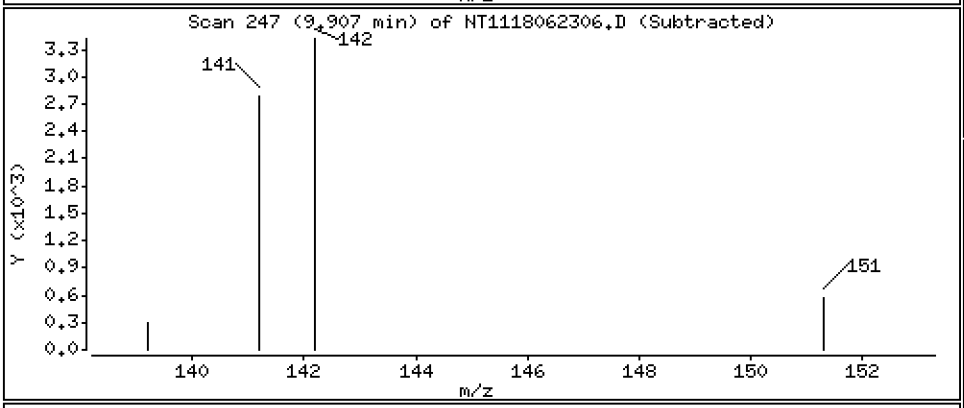
Column diameter: 0.25

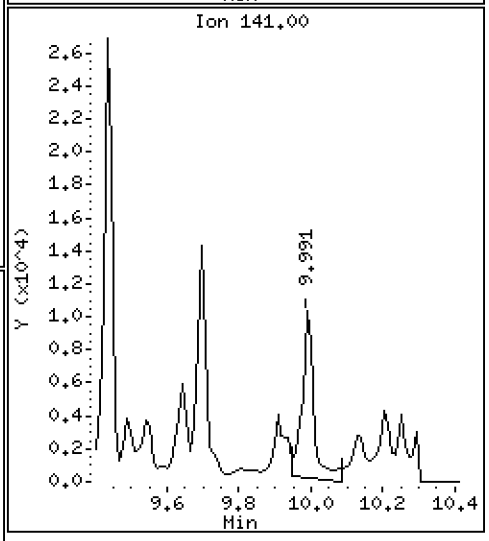
6 1-Methylnaphthalene

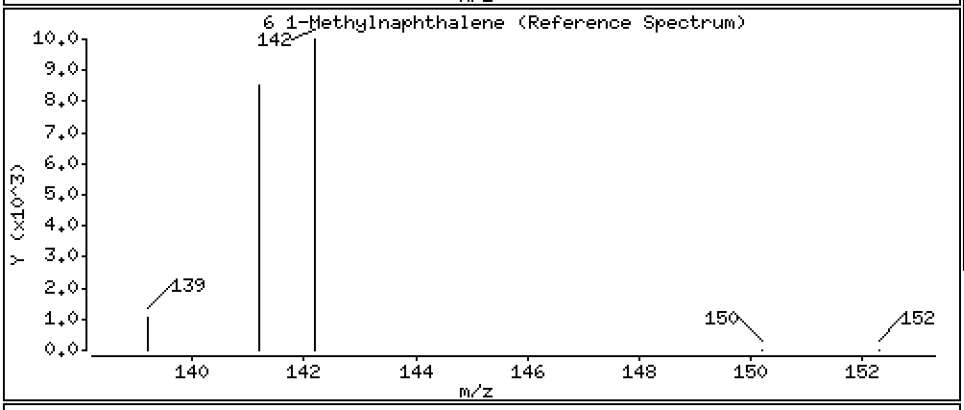
Concentration: 1.97 ng/mL

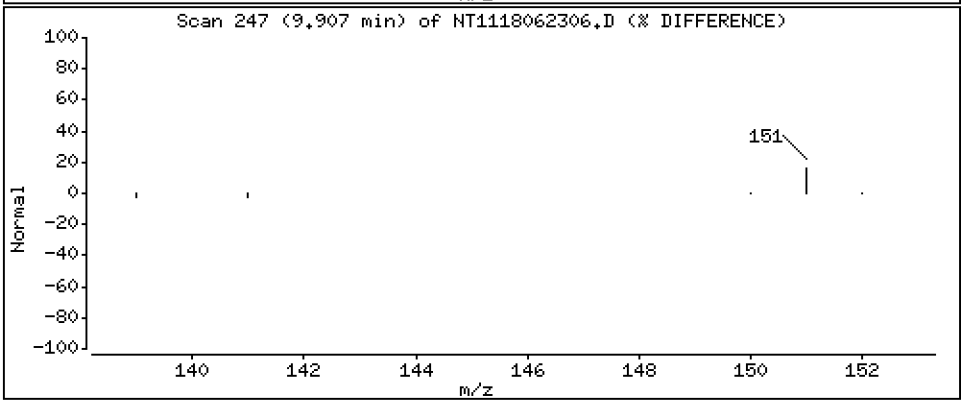












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Date : 23-JUN-2018 12:58

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-03

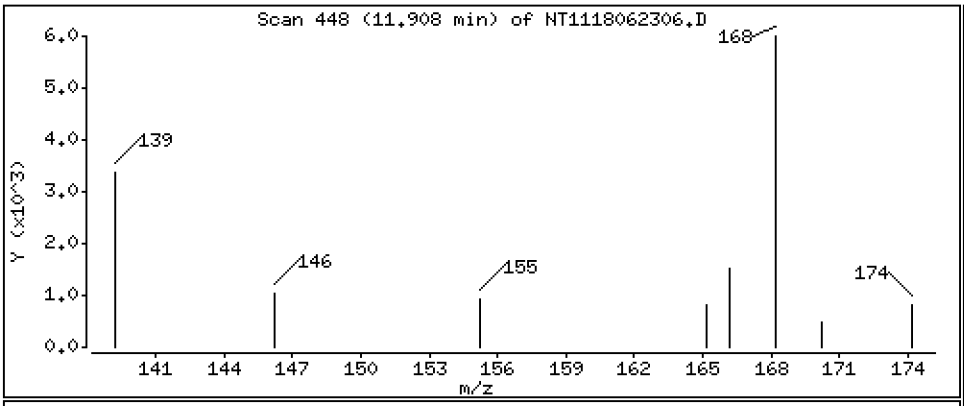
Operator: VTS

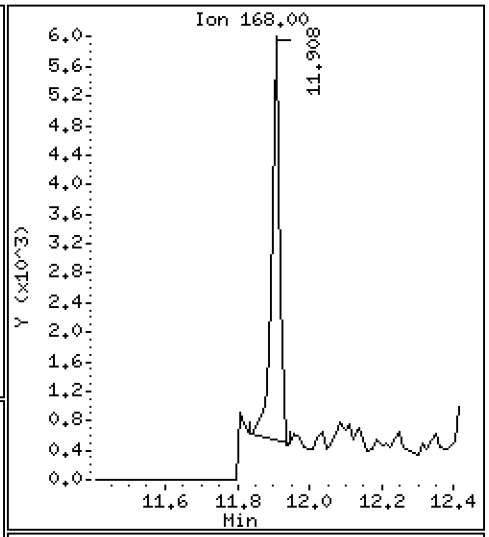
Column phase: Rxi-17Sil MS

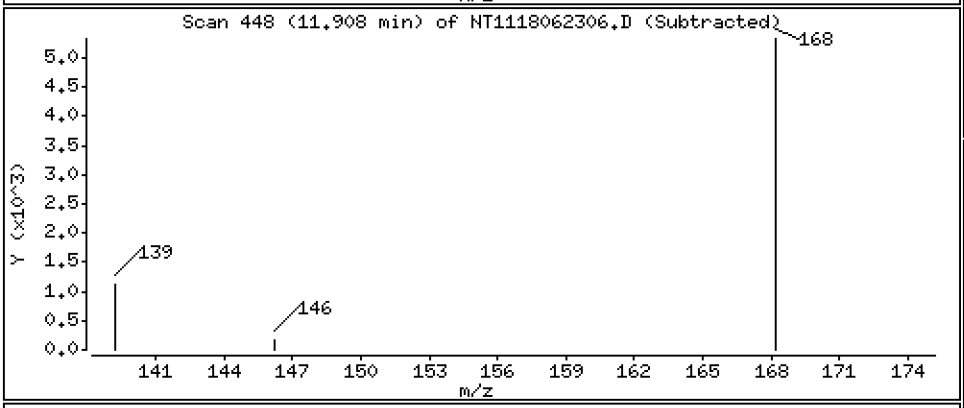
Column diameter: 0.25

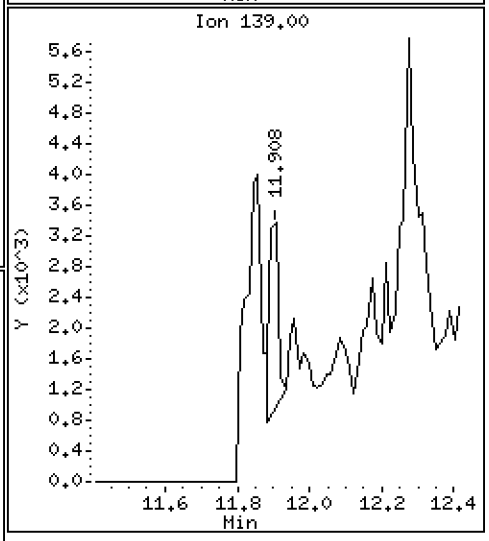
13 Dibenzofuran

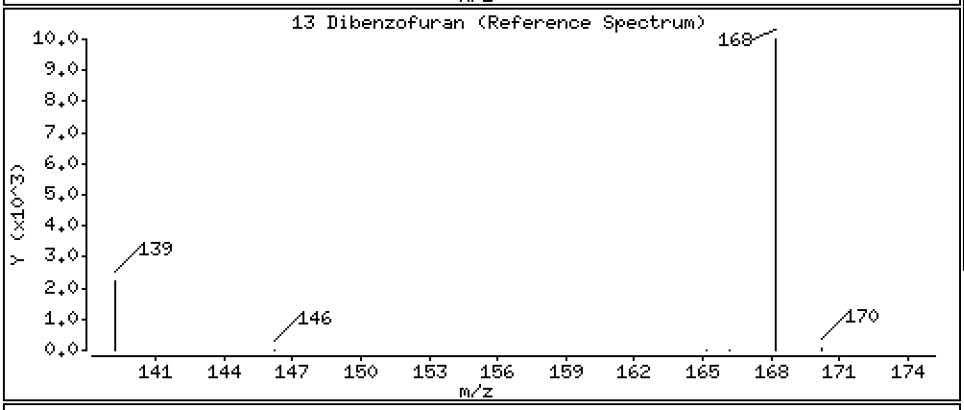
Concentration: 3.12 ng/mL

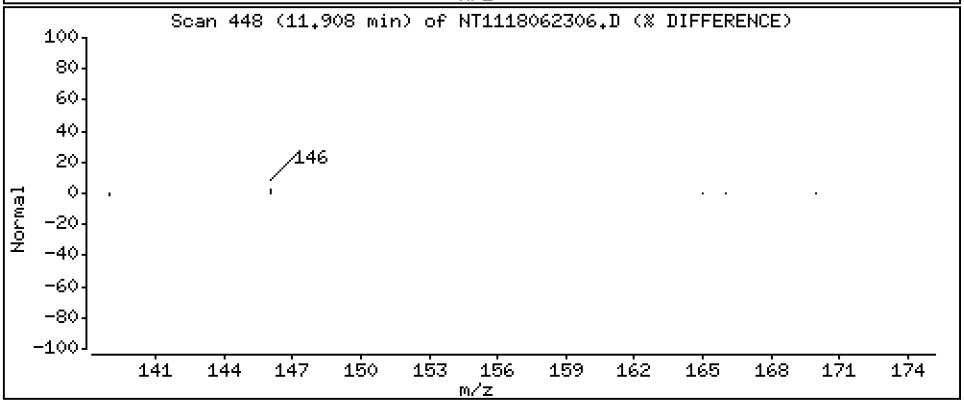












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Date : 23-JUN-2018 12:58

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-03

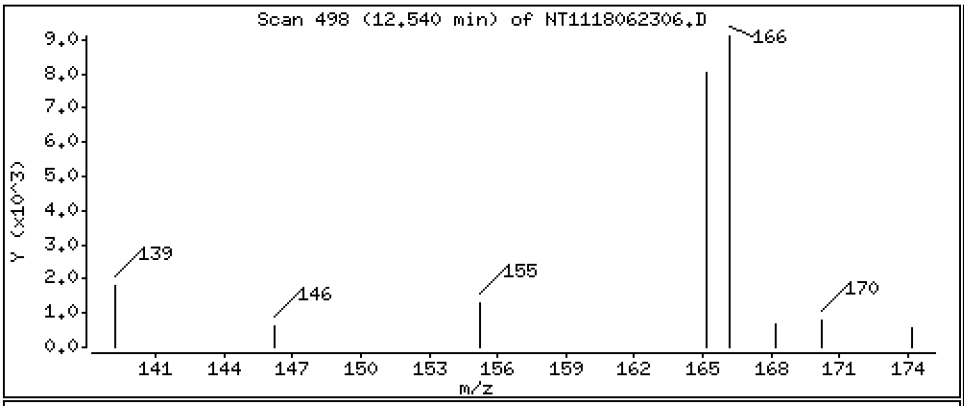
Operator: VTS

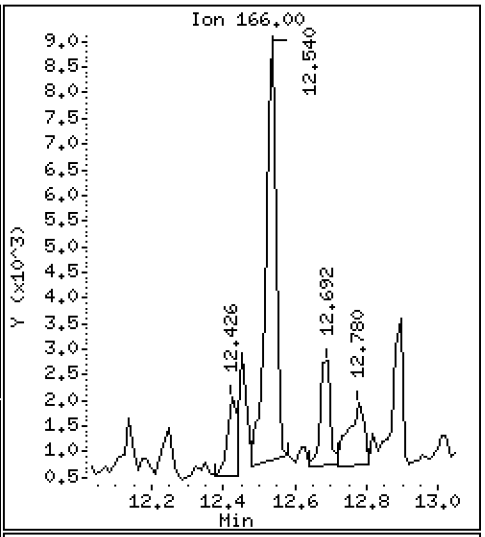
Column phase: Rxi-17Sil MS

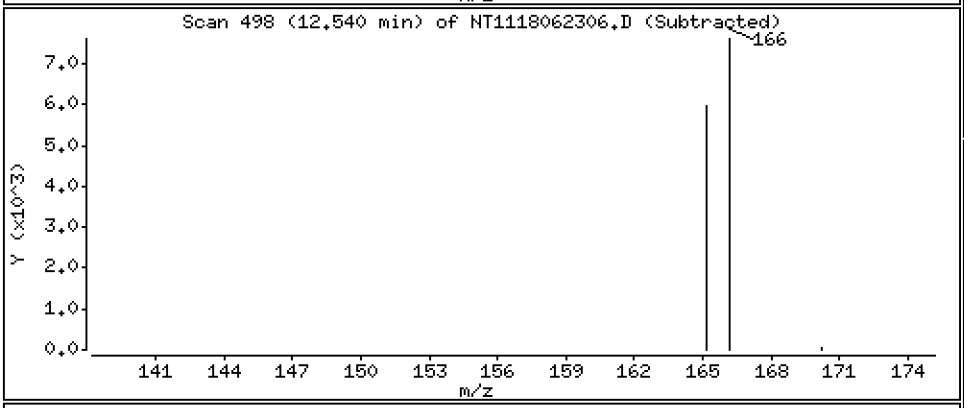
Column diameter: 0.25

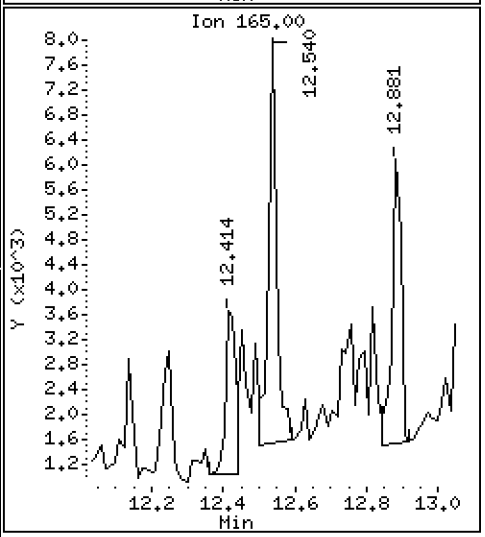
16 Fluorene

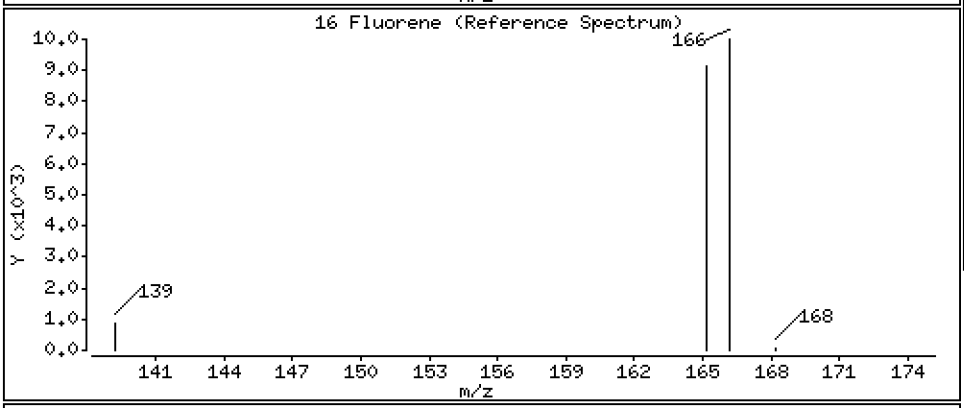
Concentration: 8.06 ng/mL

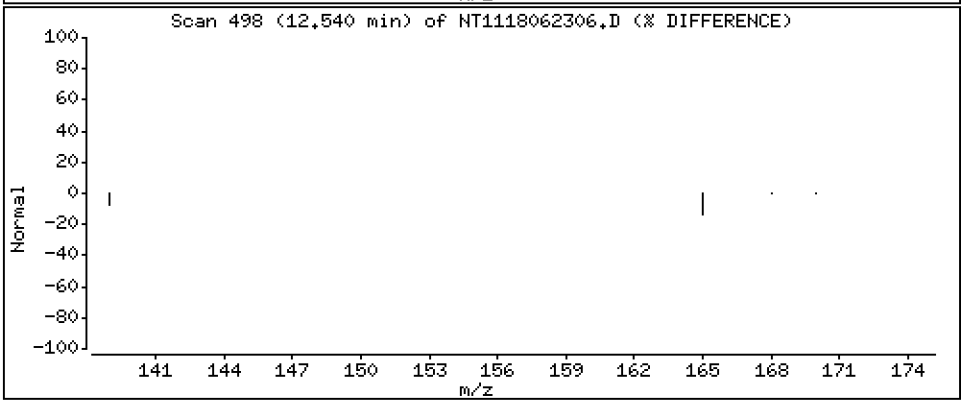












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Date : 23-JUN-2018 12:58

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-03

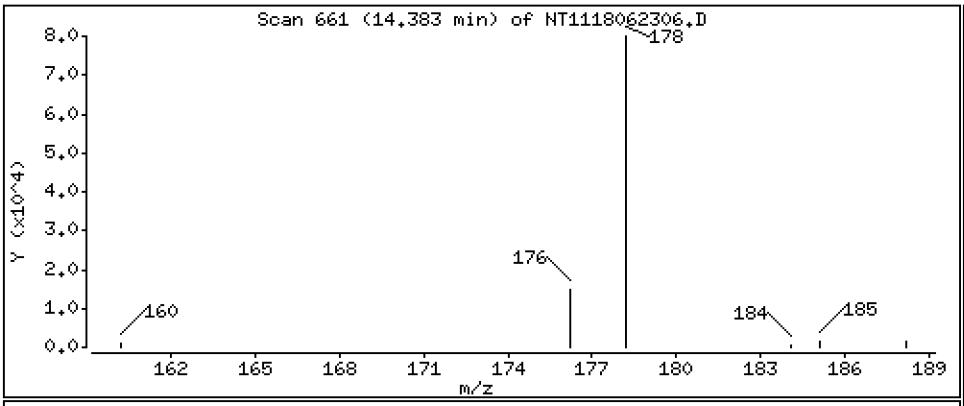
Operator: VTS

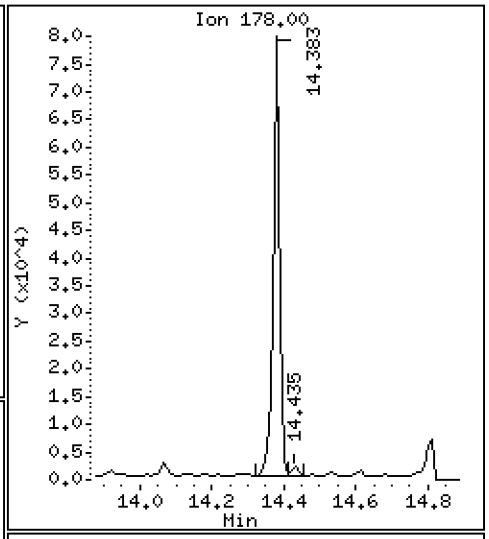
Column phase: Rxi-17Sil MS

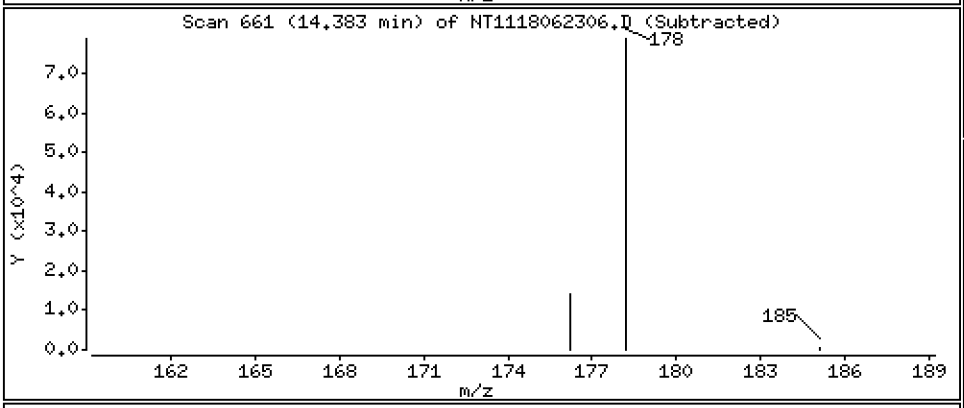
Column diameter: 0.25

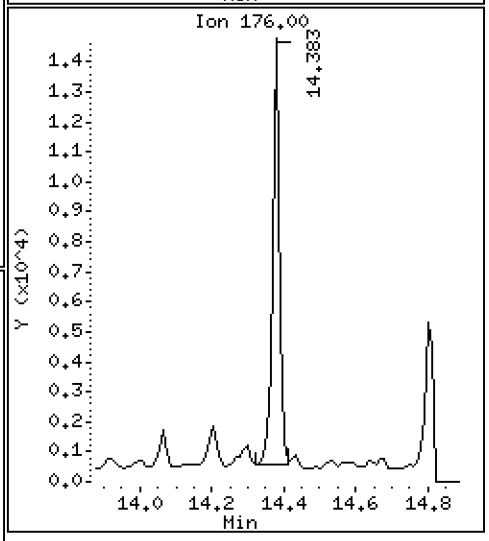
19 Phenanthrene

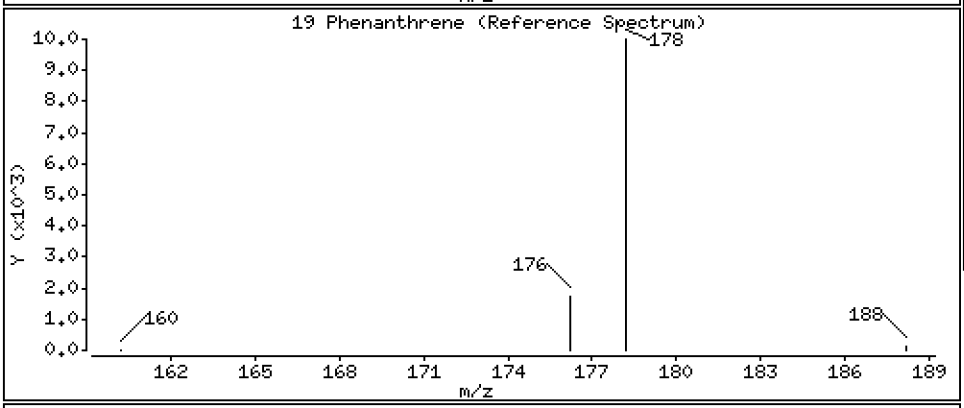
Concentration: 37.0 ng/mL

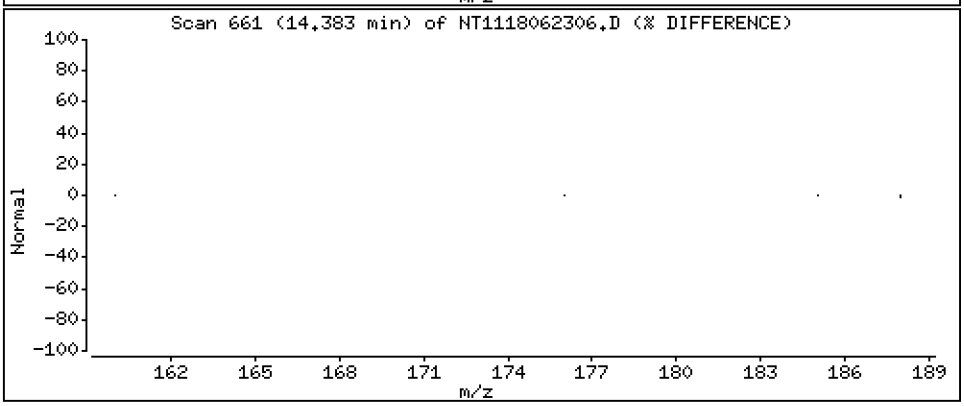












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Date : 23-JUN-2018 12:58

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-03

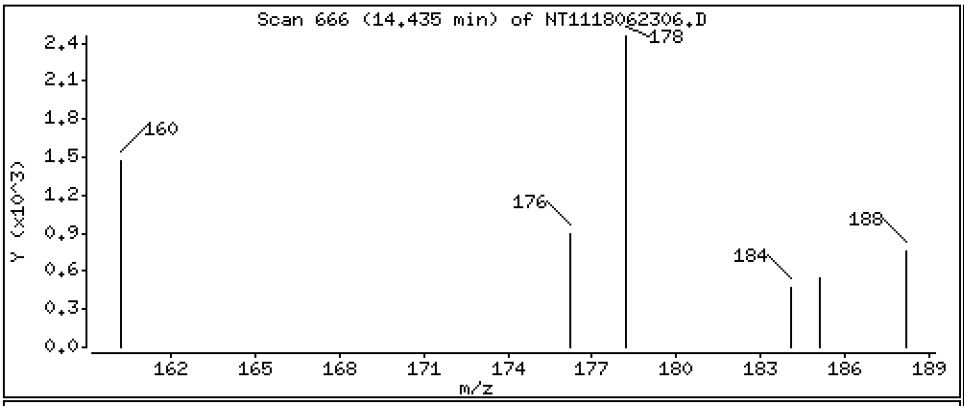
Operator: VTS

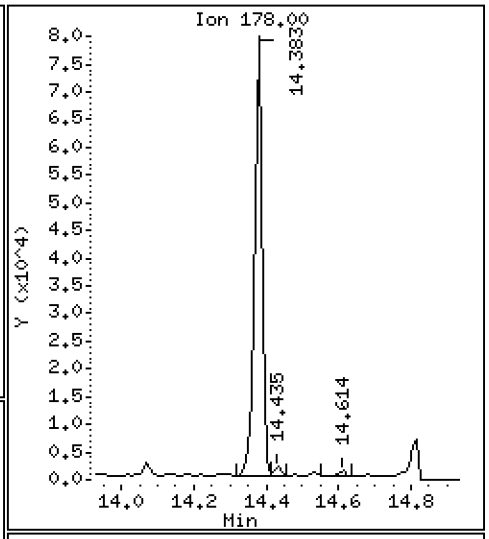
Column phase: Rxi-17Sil MS

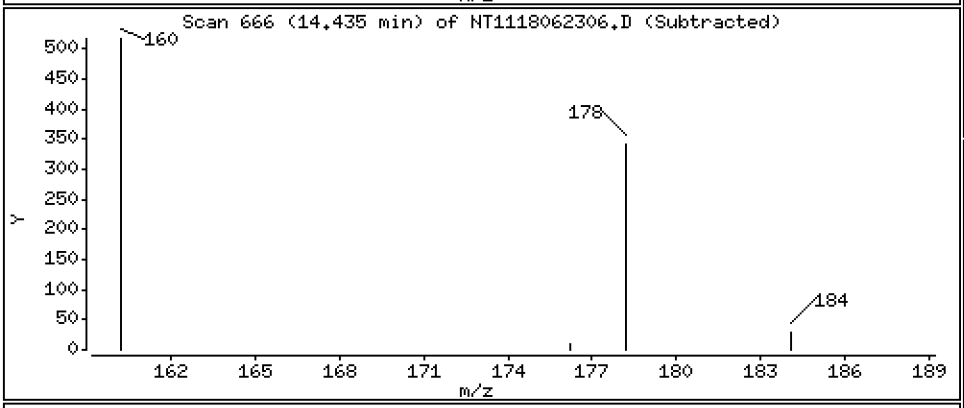
Column diameter: 0.25

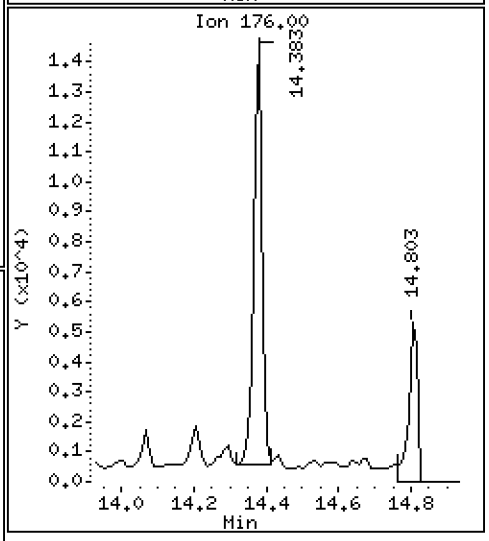
21 Anthracene

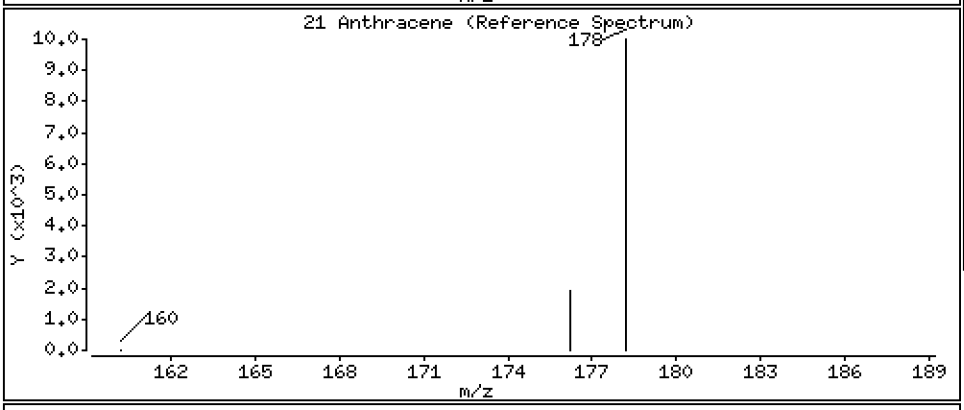
Concentration: 0.835 ng/mL

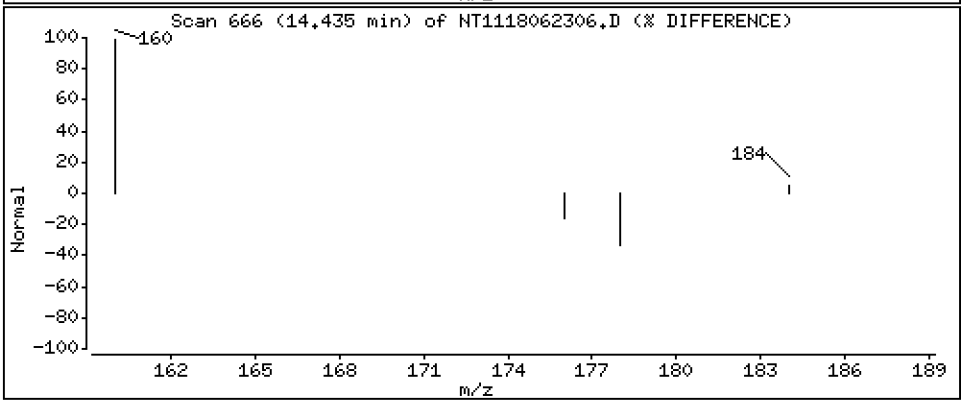












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Date : 23-JUN-2018 12:58

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-03

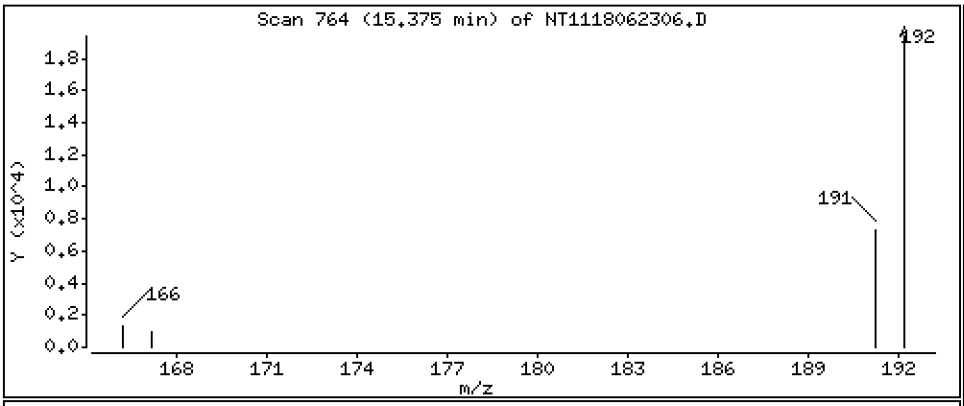
Operator: VTS

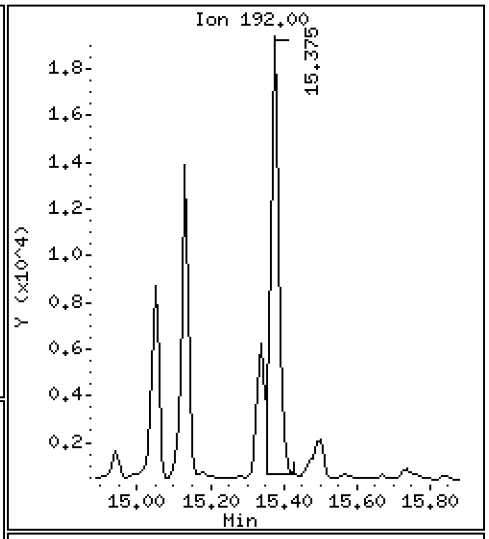
Column phase: Rxi-17Sil MS

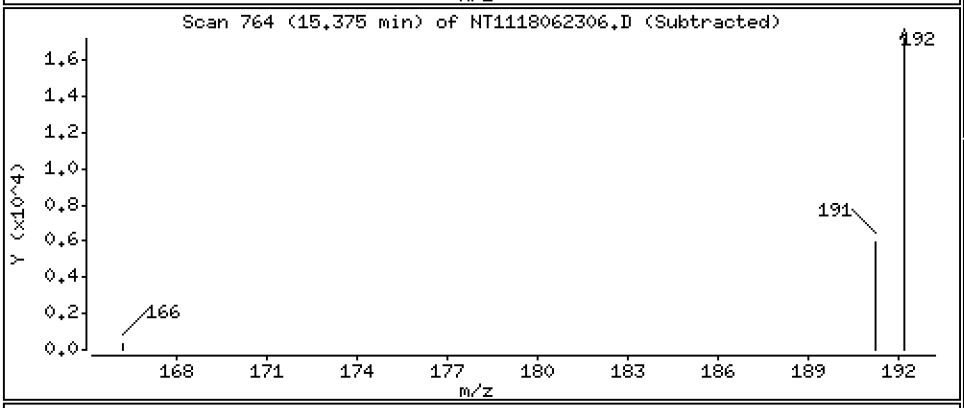
Column diameter: 0.25

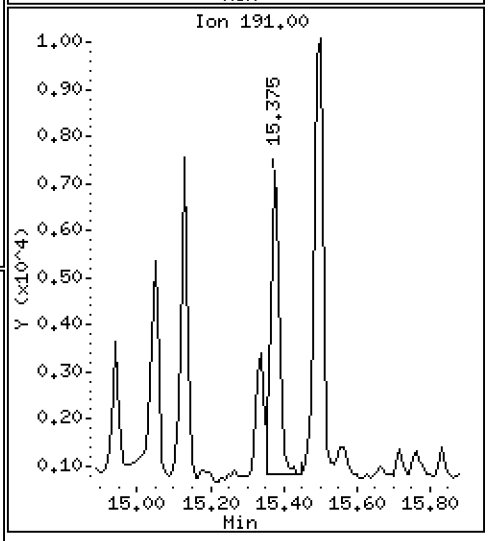
23 1-Methylphenanthrene

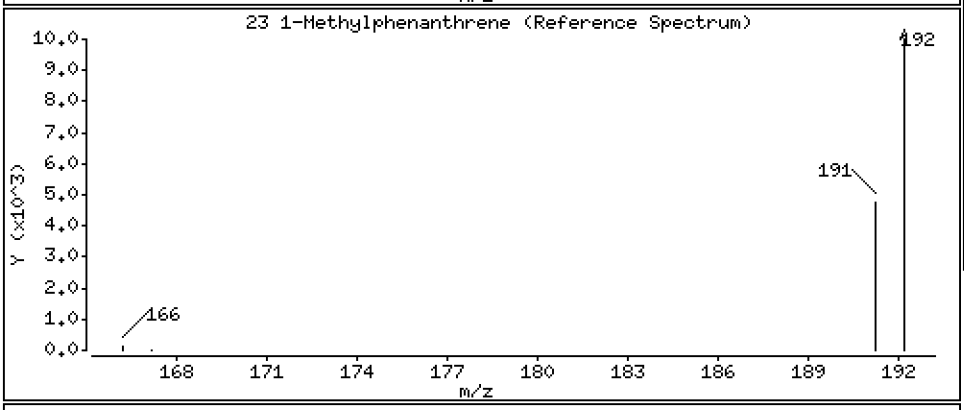
Concentration: 10.2 ng/mL

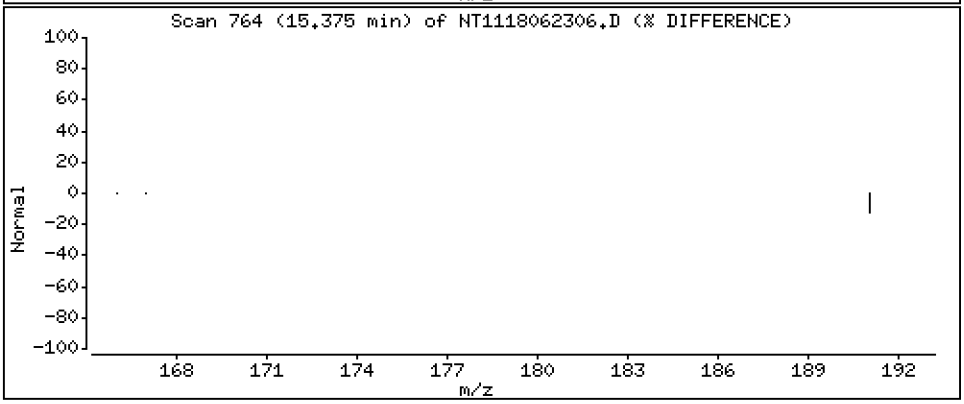












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Date : 23-JUN-2018 12:58

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-03

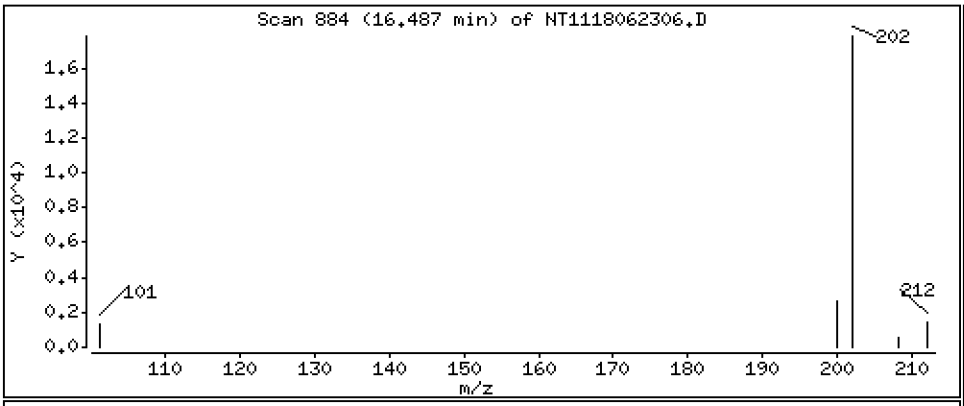
Operator: VTS

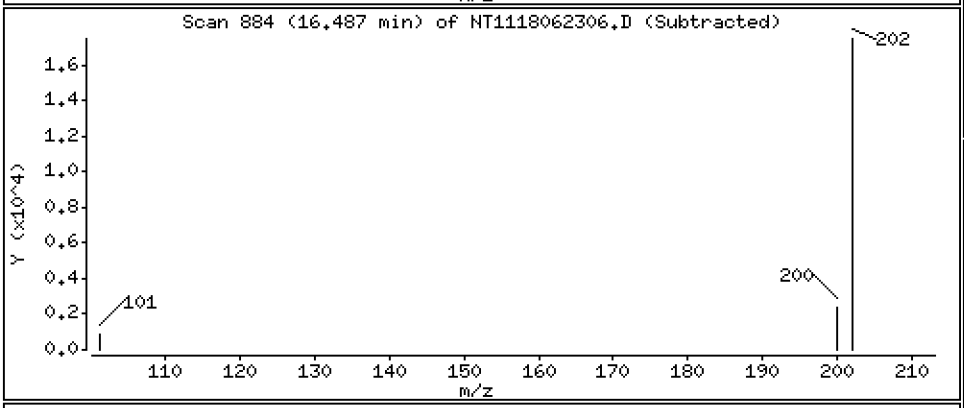
Column phase: Rxi-17Sil MS

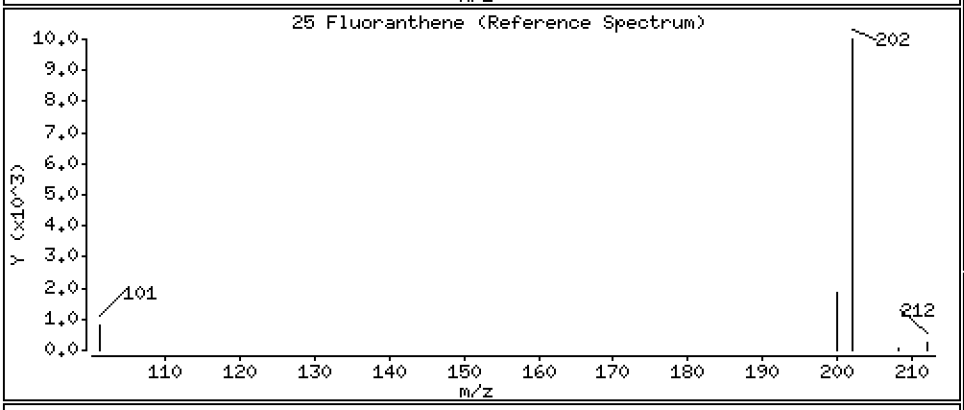
Column diameter: 0.25

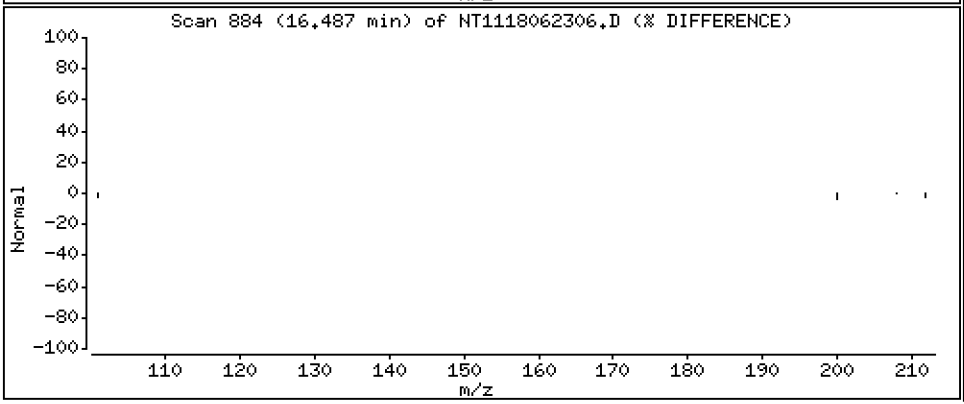
25 Fluoranthene

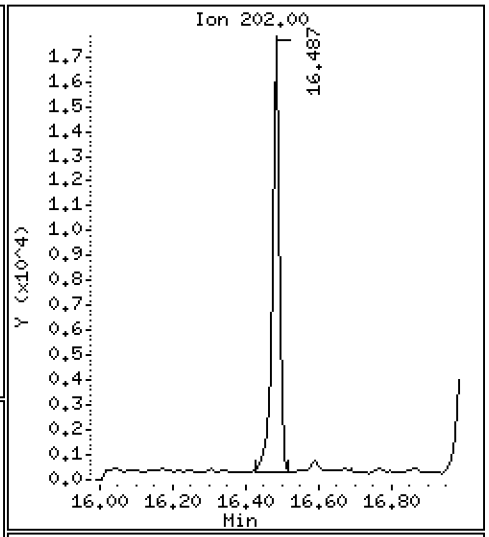
Concentration: 8.98 ng/mL

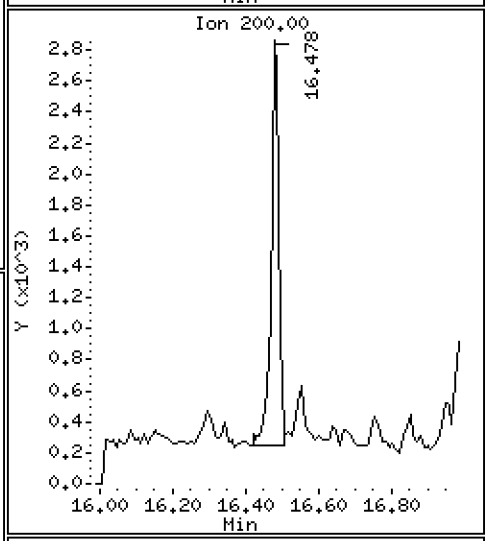


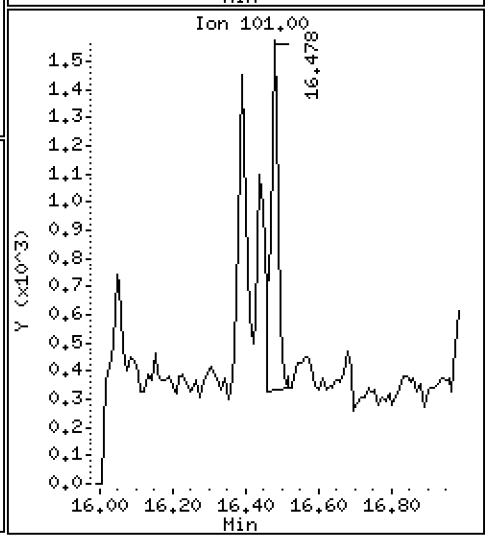












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Date : 23-JUN-2018 12:58

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-03

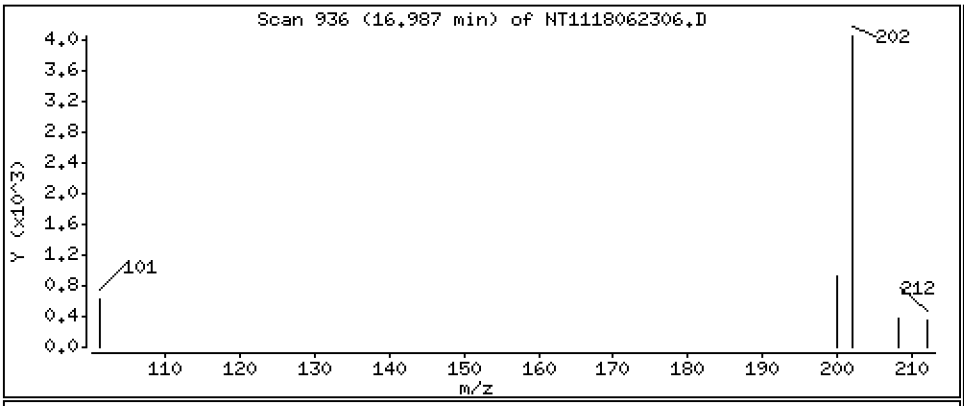
Operator: VTS

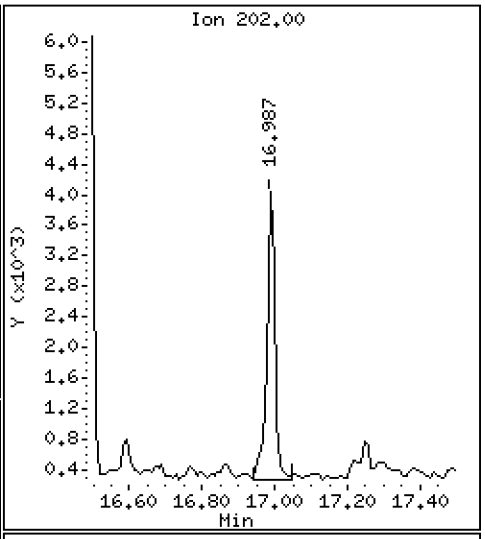
Column phase: Rxi-17Sil MS

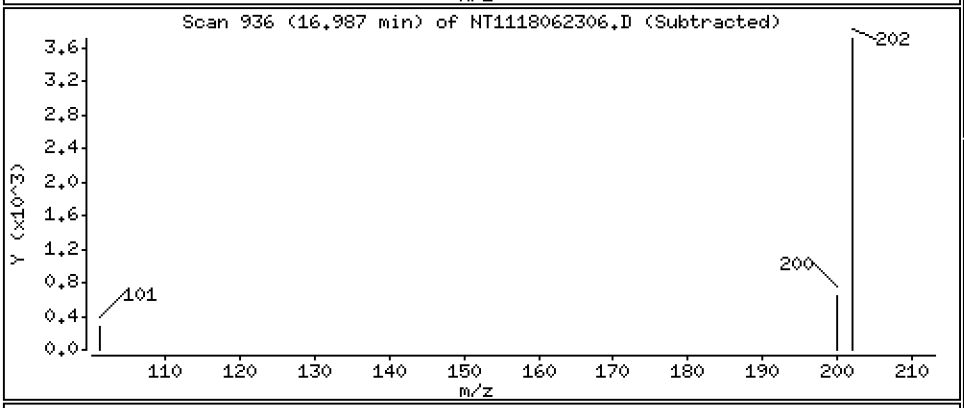
Column diameter: 0.25

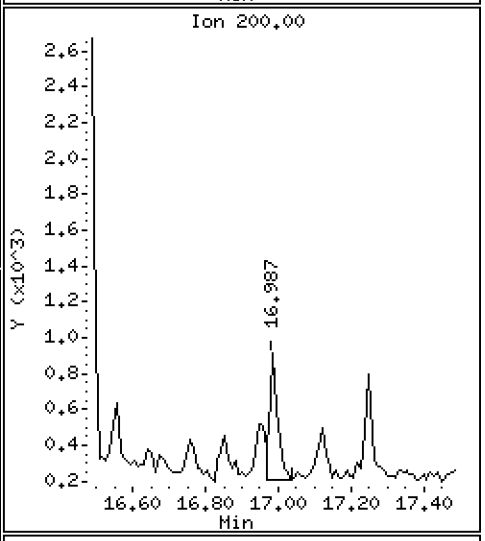
26 Pyrene

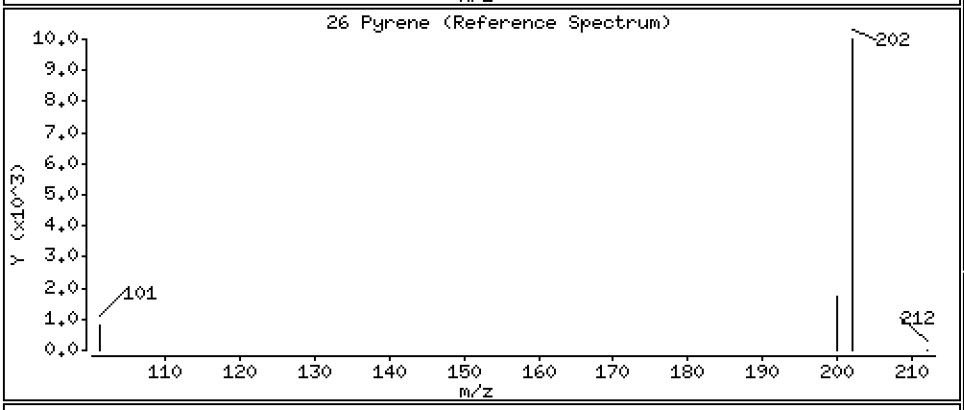
Concentration: 1.92 ng/mL

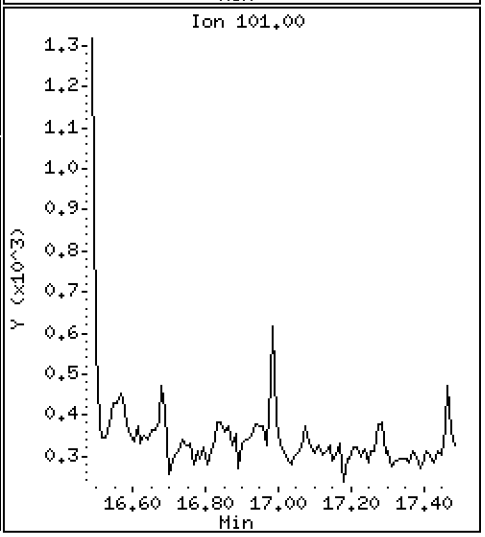


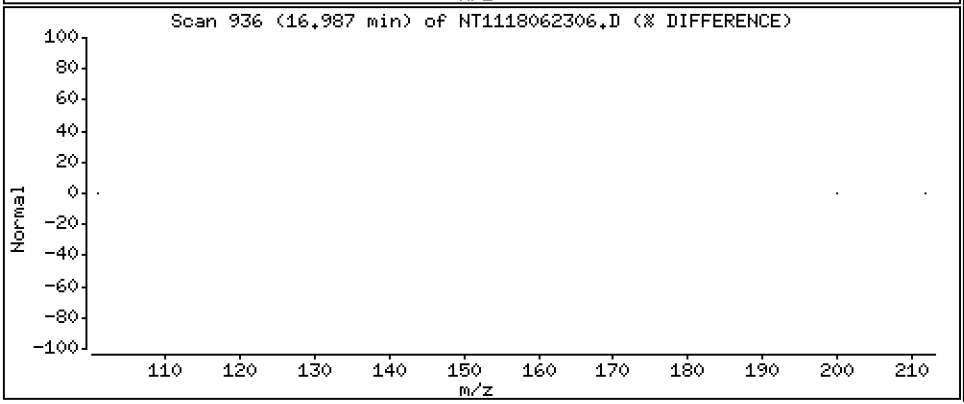












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Date : 23-JUN-2018 12:58

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-03

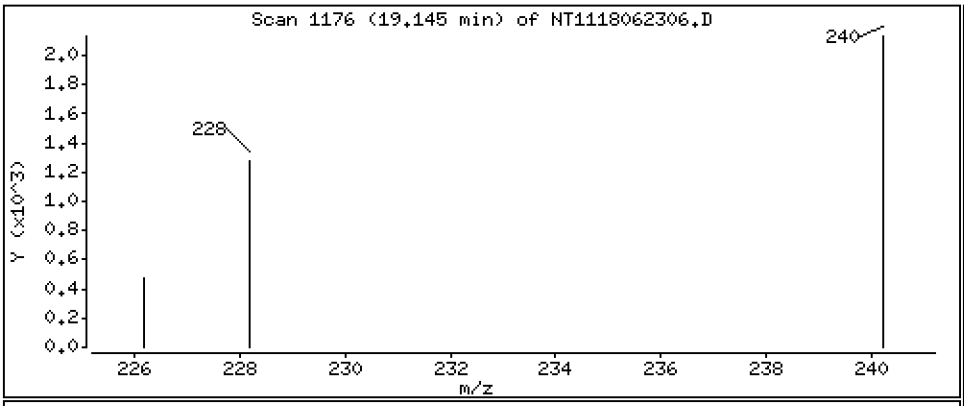
Operator: VTS

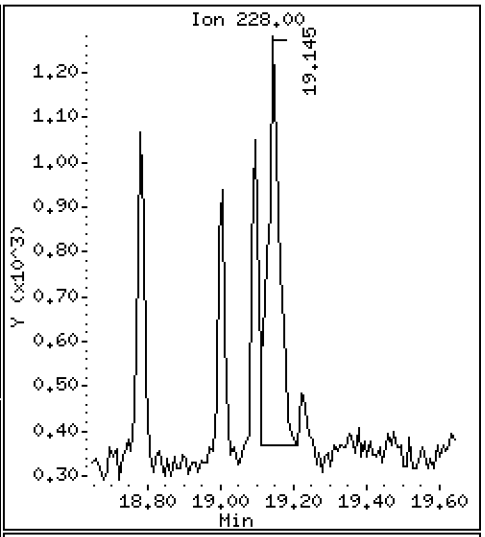
Column phase: Rxi-17Sil MS

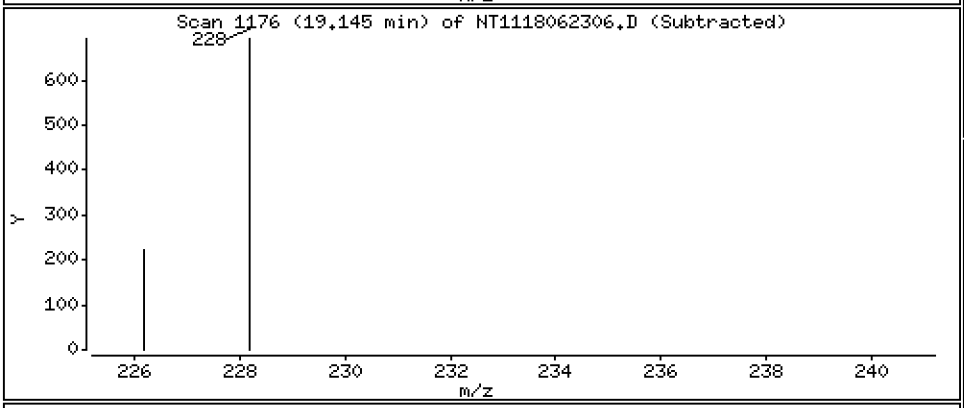
Column diameter: 0.25

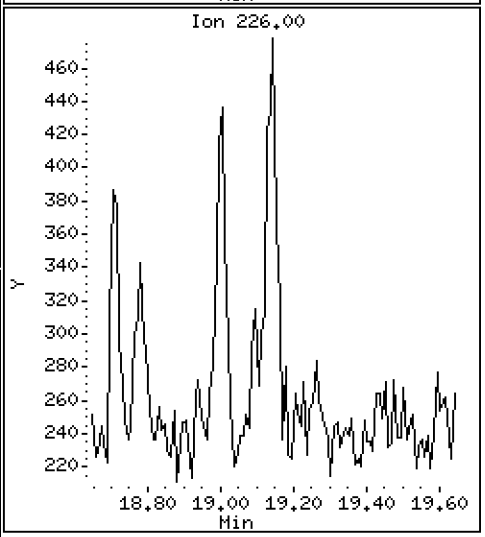
29 Chrysene

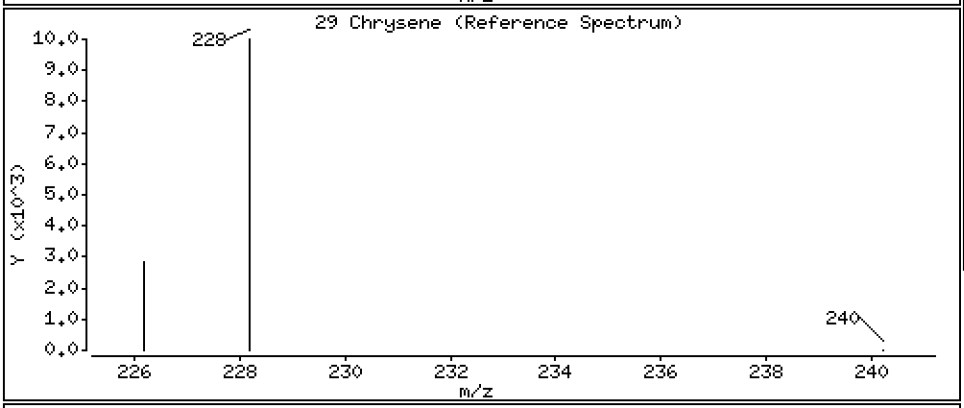
Concentration: 0.843 ng/mL

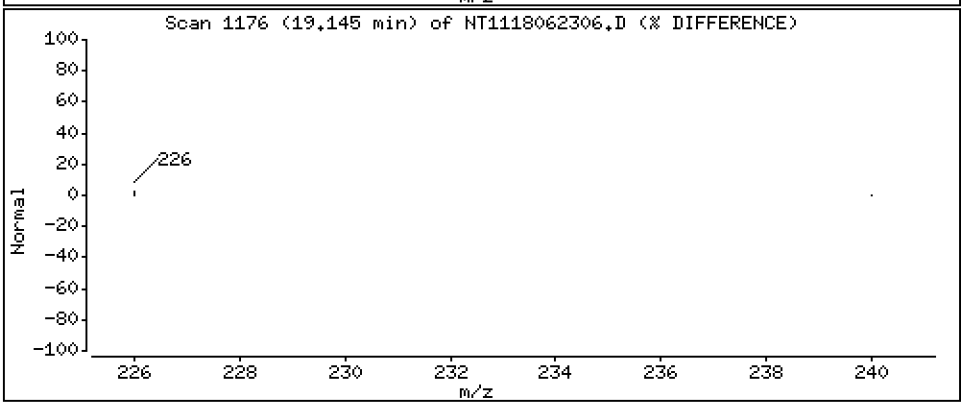












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180623.b\NT1118062306.D
Lab Smp Id: 18F0185-03
Inj Date : 23-JUN-2018 12:58 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0185-03
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180623.b\lowsim.m
Meth Date : 23-Jun-2018 13:20 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	413294	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	8103	2.60413	2.60
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	386457	163.885	164
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	9750	3.87280	3.87
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	4937	1.97181	1.97(M)
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	230773	200.000	
	12 Acenaphthene	153	Compound Not Detected.					
	13 Dibenzofuran	168	11.907	11.908	(1.023)	8010	3.11555	3.12(M)
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.539	12.540	(1.077)	16718	8.06361	8.06
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	390320	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	113402	37.0441	37.0
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.435	14.435	(1.007)	2391	0.83547	0.835
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	15.375	15.384	(1.072)	29586	10.2287	10.2
$	24 Fluoranthene-d10	212	16.448	16.449	(1.147)	461221	194.670	195
	25 Fluoranthene	202	16.487	16.487	(1.150)	25528	8.97969	8.98
	26 Pyrene	202	16.987	16.996	(0.890)	5860	1.91853	1.92
	27 Benzo(a)anthracene	228	Compound Not Detected.					
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	310693	200.000	
	29 Chrysene	228	19.145	19.145	(1.003)	1994	0.84267	0.843
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
34	Benzo(e)pyrene	252	Compound Not Detected.					
35	Benzo(a)pyrene	252	Compound Not Detected.					
* 36	Perylene-d12	264	22.353	22.353	(1.000)	314538	200.000	
37	Perylene	252	Compound Not Detected.					
$ 38	Dibenzo(a,h)anthracene-d14	292	25.268	25.268	(1.130)	290782	193.188	193
39	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
40	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
41	Benzo(g,h,i)perylene	276	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118062306.D
Lab Smp Id: 18F0185-03
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180623.b\lowsim.m
Misc Info:

Calibration Date: 23-JUN-2018
Calibration Time: 10:32
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	413294	-4.18
11 Acenaphthene-d10	260137	130069	520274	230773	-11.29
18 Phenanthrene-d10	427391	213696	854782	390320	-8.67
28 Chrysene-d12	304596	152298	609192	310693	2.00
36 Perylene-d12	263091	131546	526182	314538	19.55

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118062306.D

Lab ID: 18F0185-03
nt11.i, 20180623.b\lowsim.m,   23-JUN-2018 12:58

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

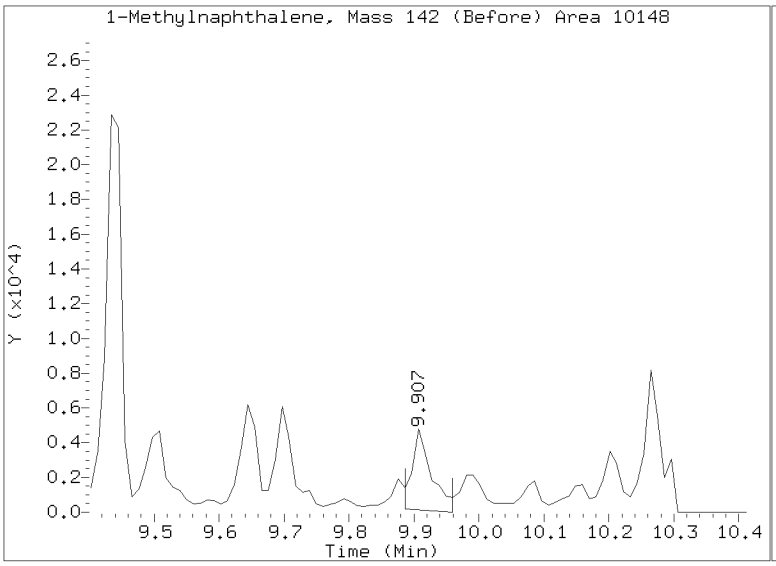
On Column LOD for nt11.i, 20180623.b\lowsim.m, allpna.sub = 0.0000

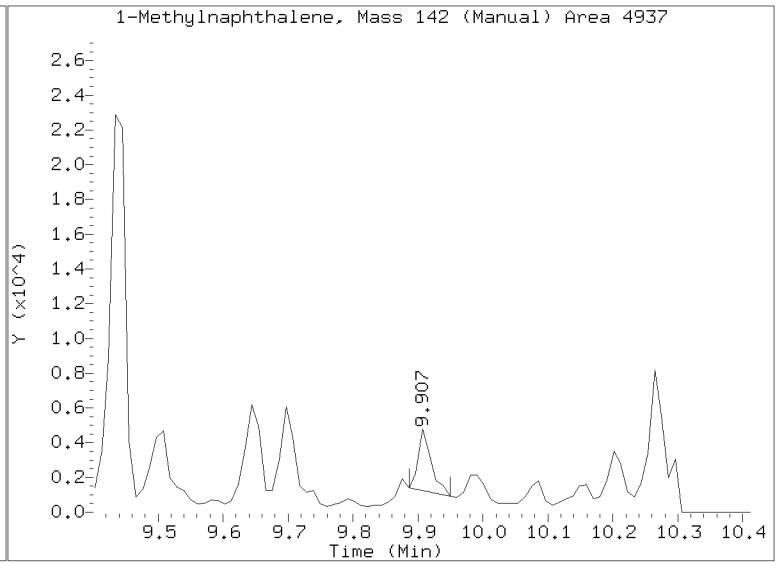
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

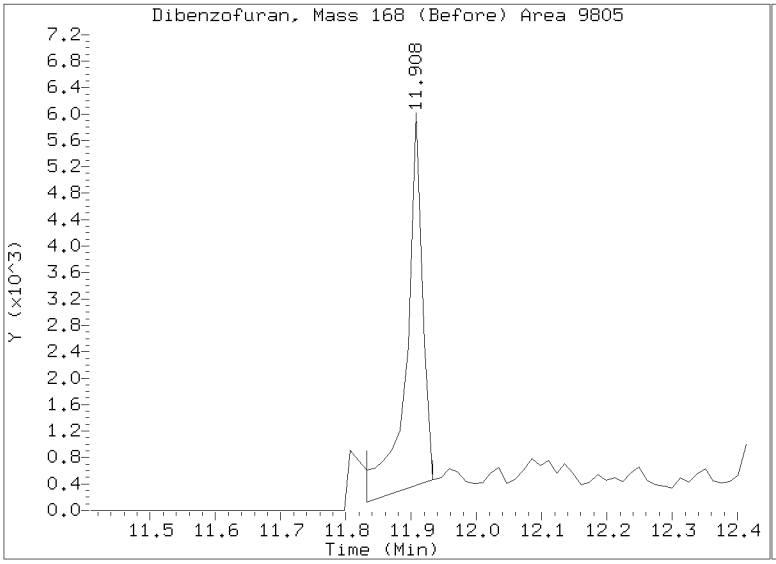
* Only compounds listed in the work order have been verified by the analyst *

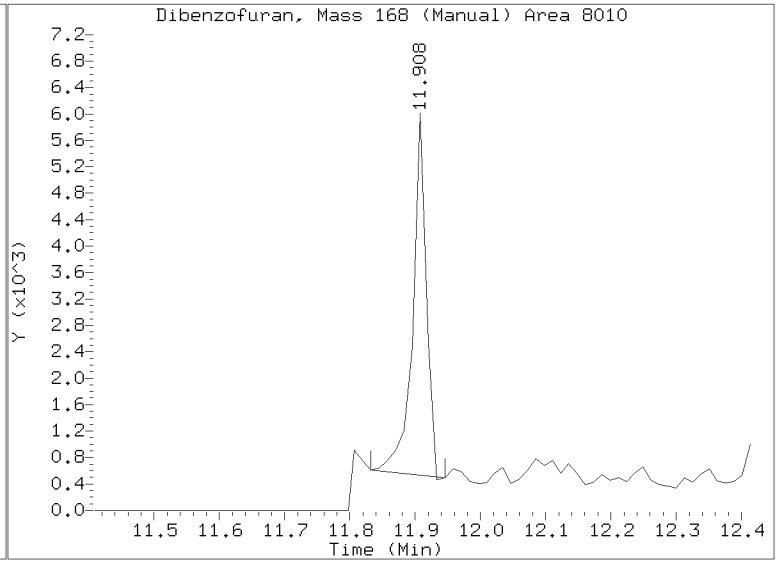
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20180623.b/NT1118062306.D
Injection Date: 23-JUN-2018 12:58
Lab ID:18F0185-03 Client ID:
Report Date: 06/26/2018 09:19









Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-32

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-04	SDG:	18F0185
Sampled:	06/12/18 09:19	Prepared:	06/18/18 13:48	File ID:	NT1118062307.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/23/18 13:35
Batch:	BGF0416	Sequence:	SGF0298	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.002	J	0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.002	J	0.001	0.010
208-96-8	Acenaphthylene	1	0.010	U	0.002	0.010
83-32-9	Acenaphthene	1	0.010	U	0.003	0.010
86-73-7	Fluorene	1	0.010	U	0.002	0.010
85-01-8	Phenanthrene	1	0.004	J	0.001	0.010
120-12-7	Anthracene	1	0.010	U	0.001	0.010
206-44-0	Fluoranthene	1	0.004	J	0.002	0.010
129-00-0	Pyrene	1	0.002	J	0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.010	U	0.0008	0.010
218-01-9	Chrysene	1	0.010	U	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.010	U	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.178	59.2	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.202	67.3	29 - 120	
Fluoranthene-d10	0.30000	0.208	69.3	57 - 120	

Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062307.D

Date : 23-JUN-2018 13:35

Client ID:

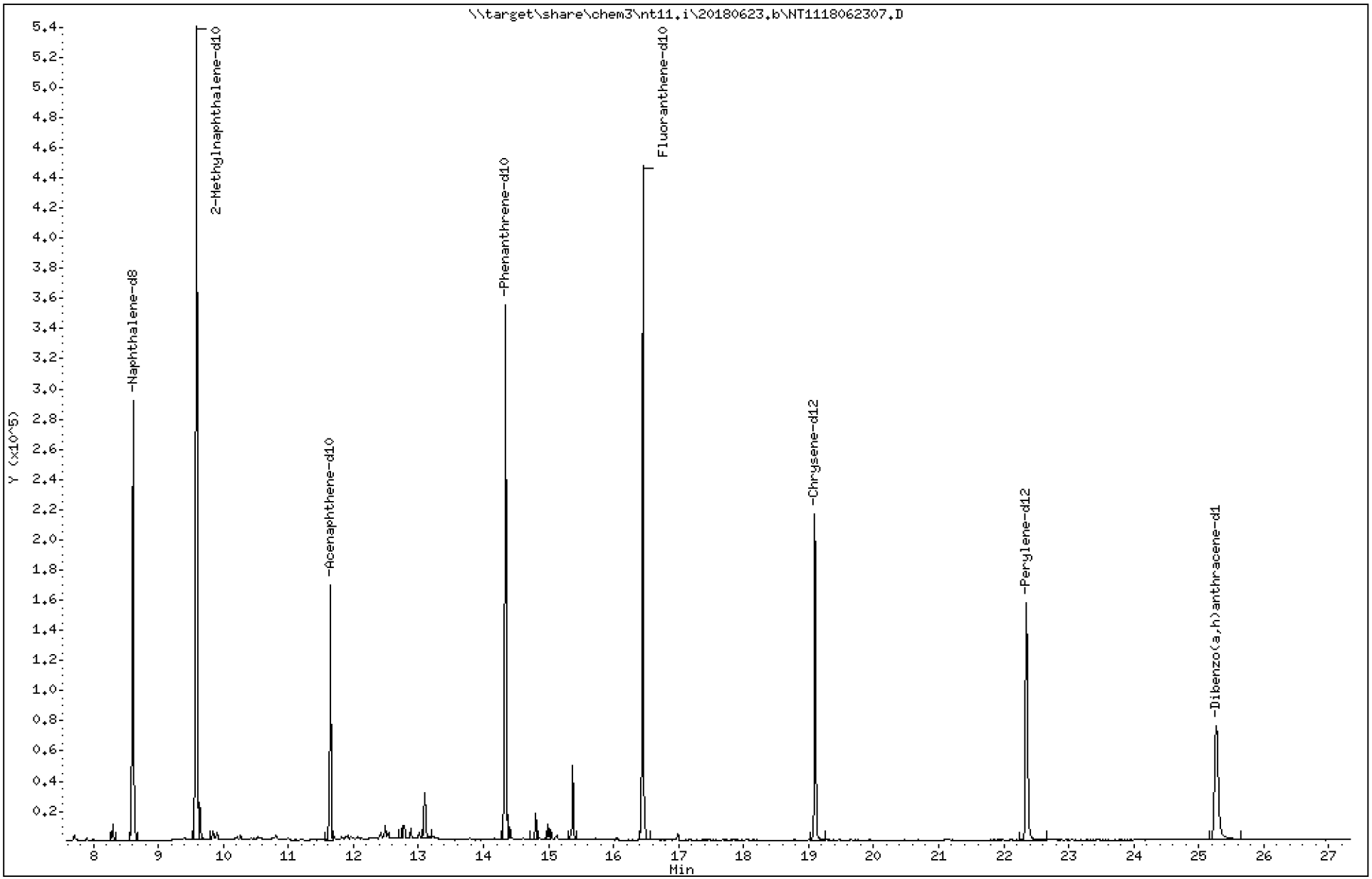
Instrument: nt11.i

Sample Info: 18F0185-04

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 23-JUN-2018 13:35

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-04

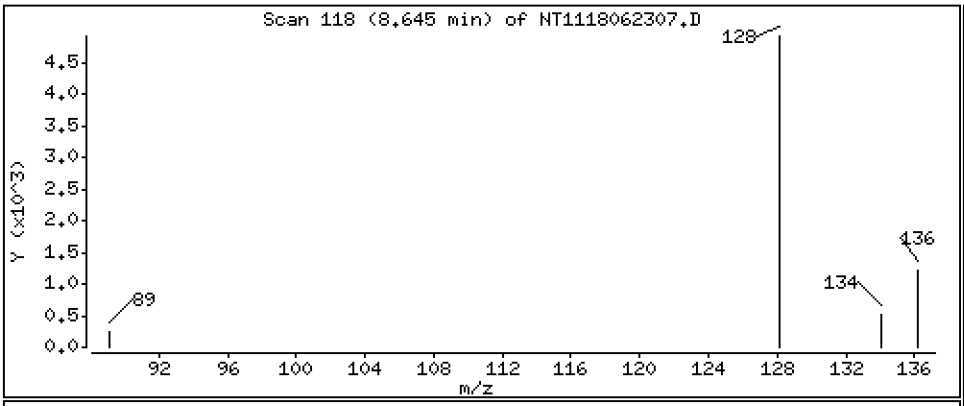
Operator: VTS

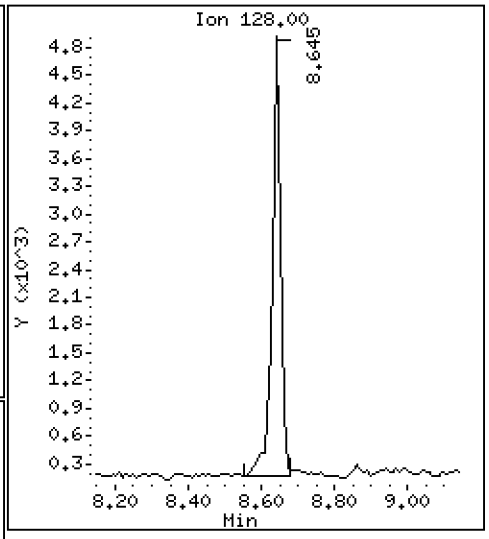
Column phase: Rxi-17Sil MS

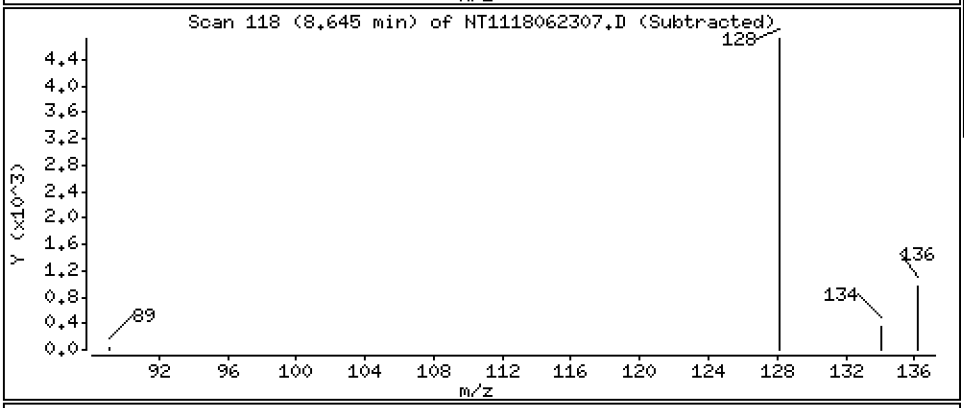
Column diameter: 0.25

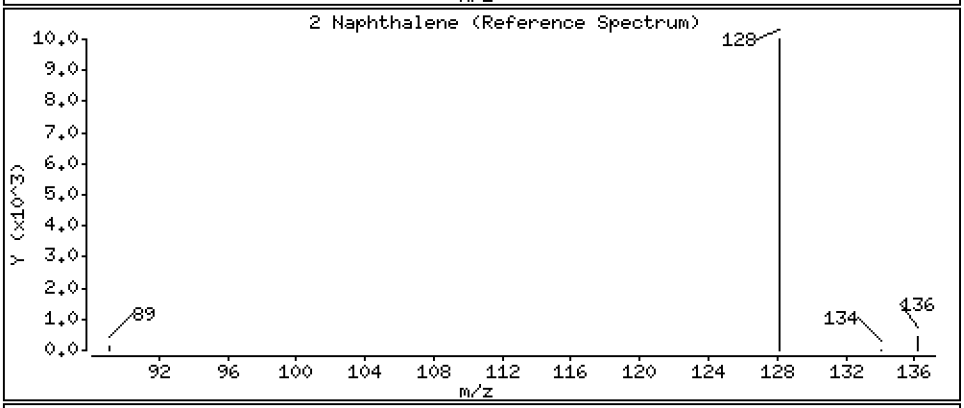
2 Naphthalene

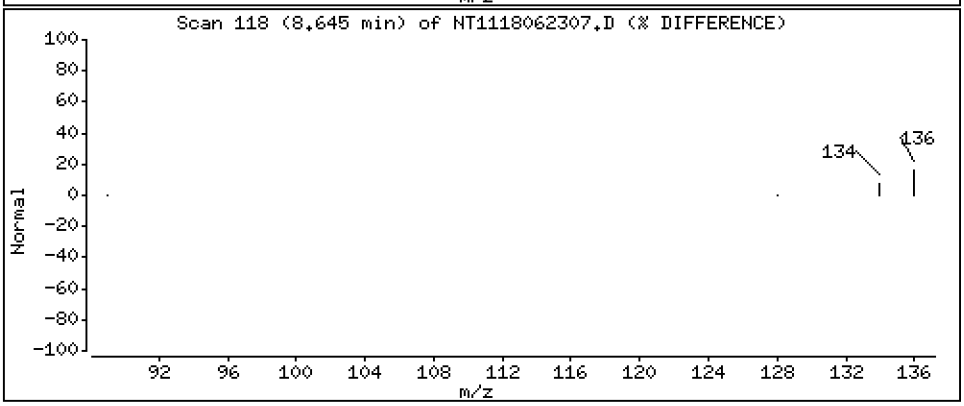
Concentration: 2.38 ng/mL











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Date : 23-JUN-2018 13:35

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-04

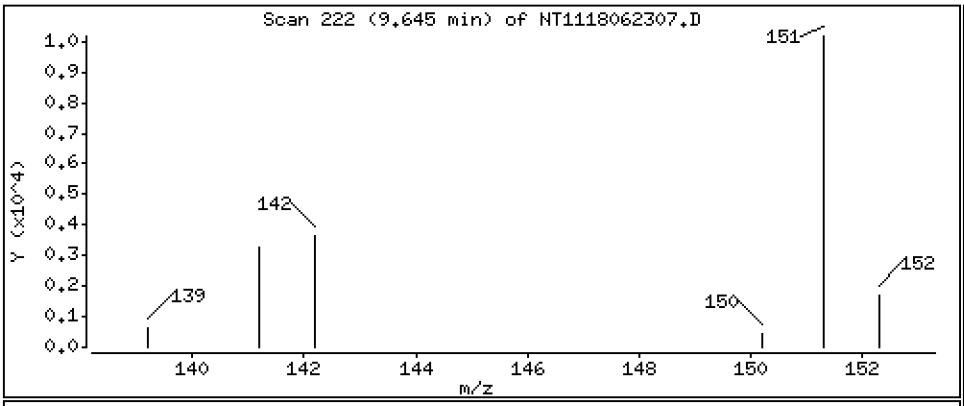
Operator: VTS

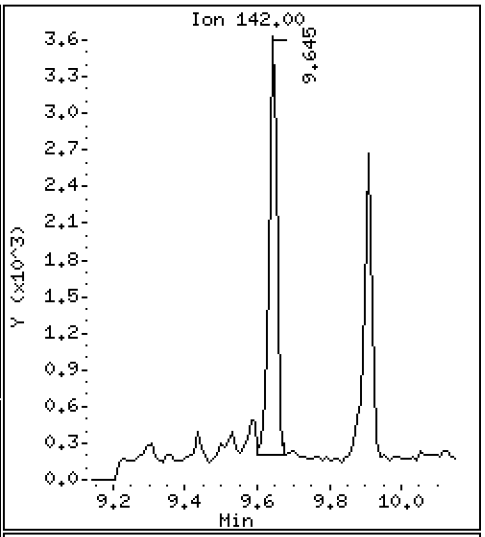
Column phase: Rxi-17Sil MS

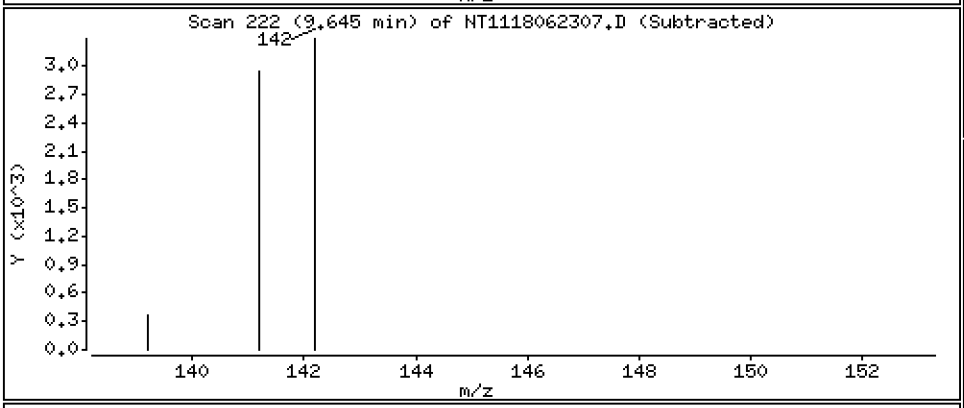
Column diameter: 0.25

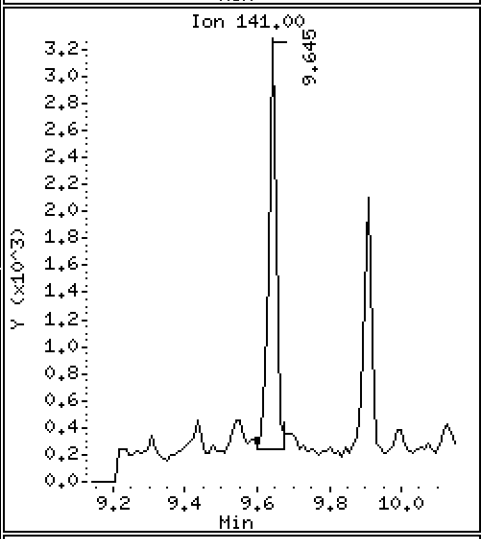
5 2-Methylnaphthalene

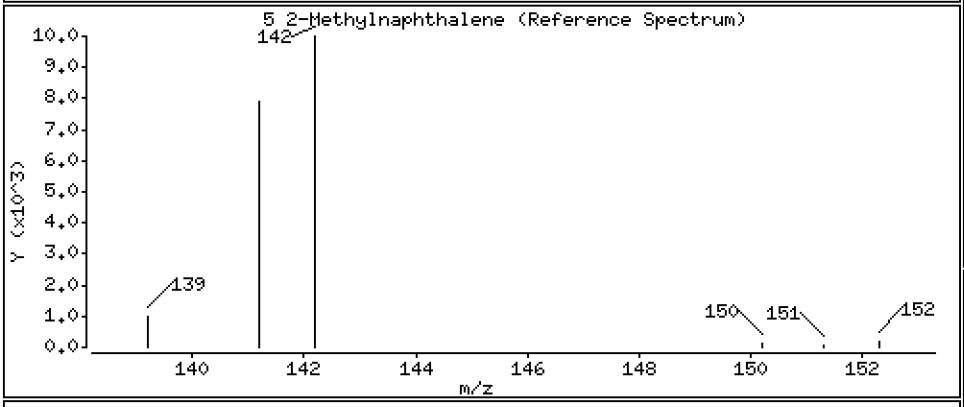
Concentration: 1.99 ng/mL

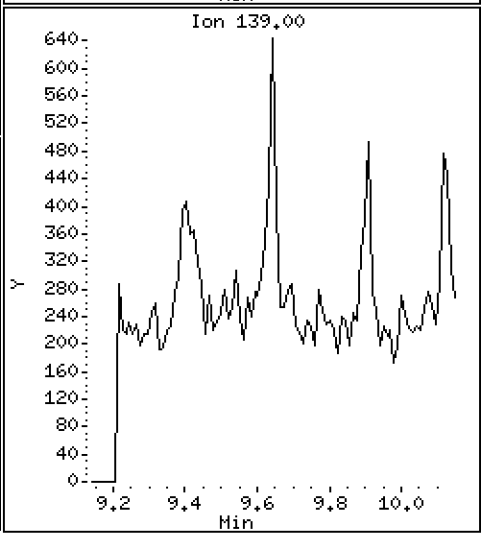


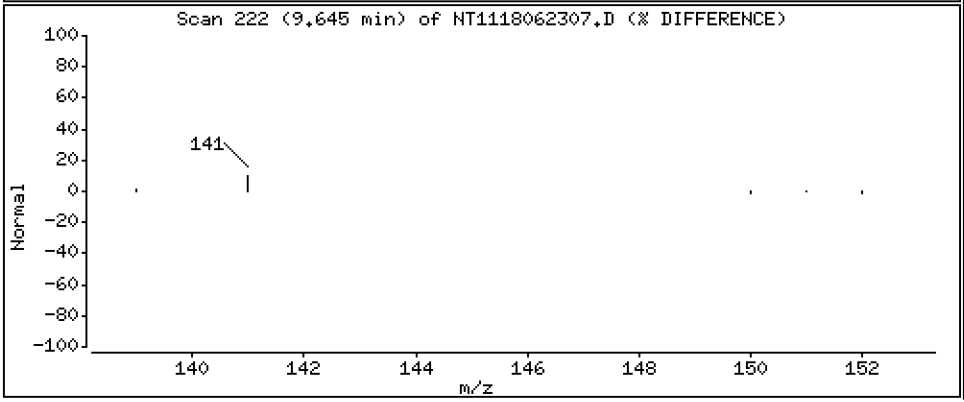












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Date : 23-JUN-2018 13:35

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-04

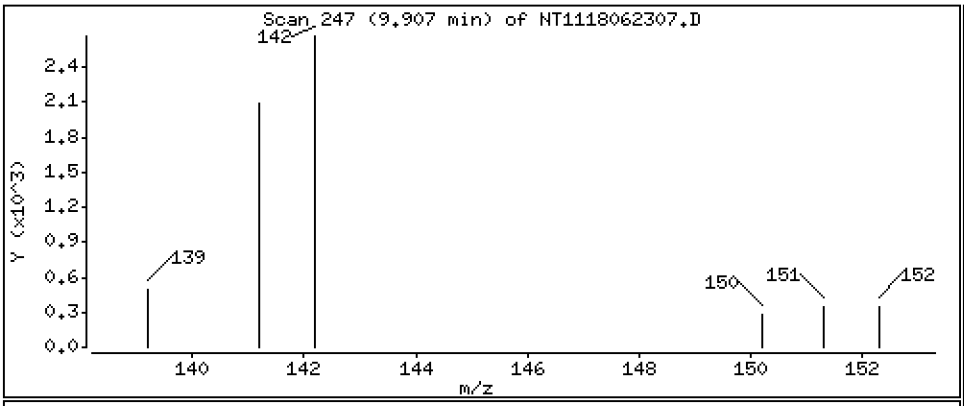
Operator: VTS

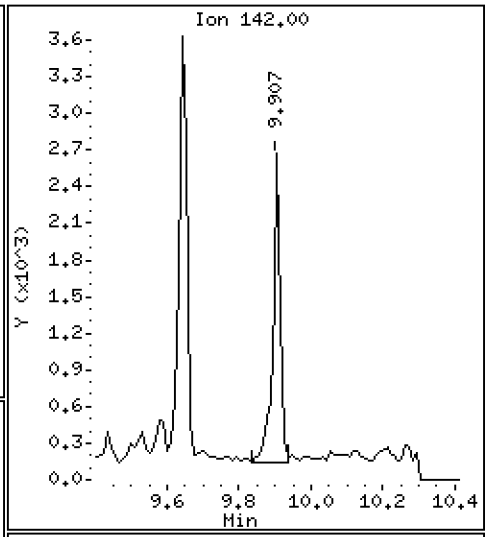
Column phase: Rxi-17Sil MS

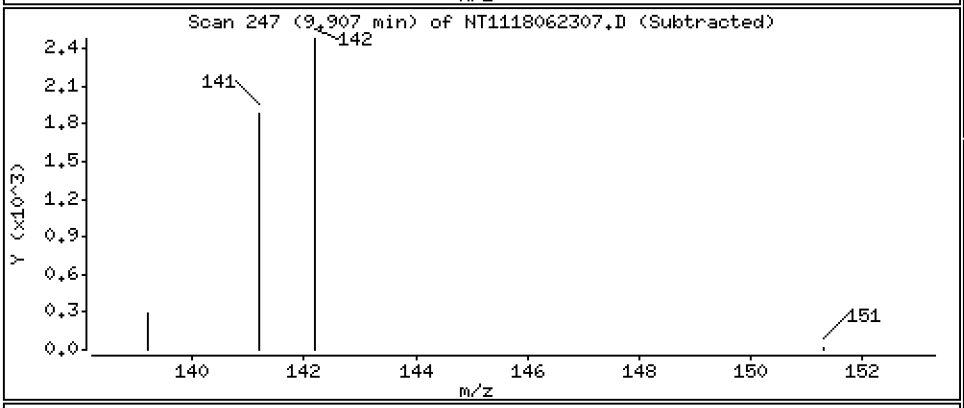
Column diameter: 0.25

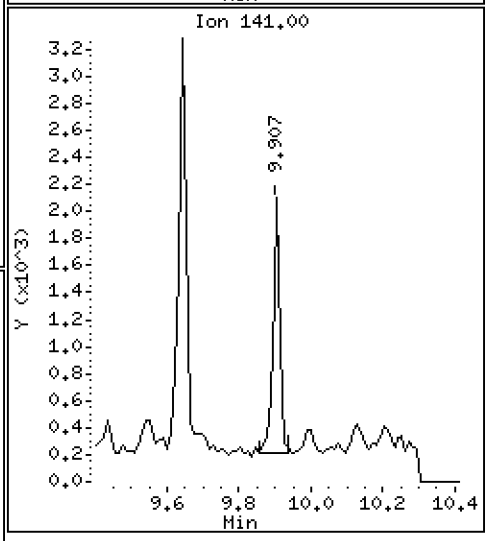
6 1-Methylnaphthalene

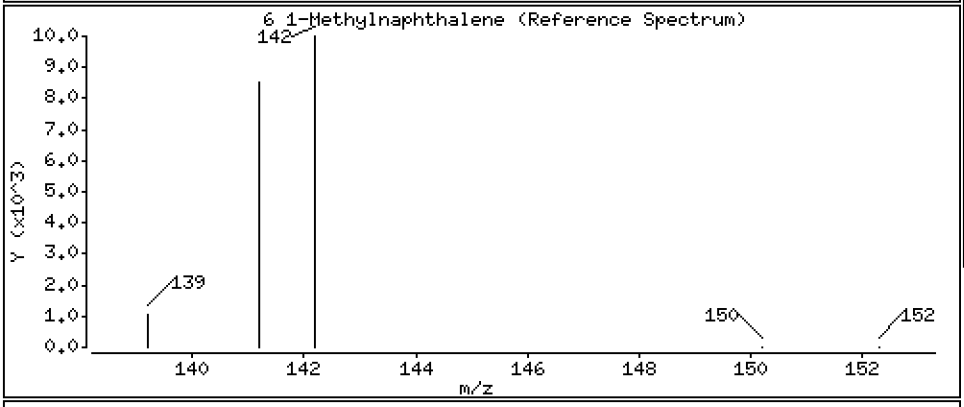
Concentration: 1.54 ng/mL

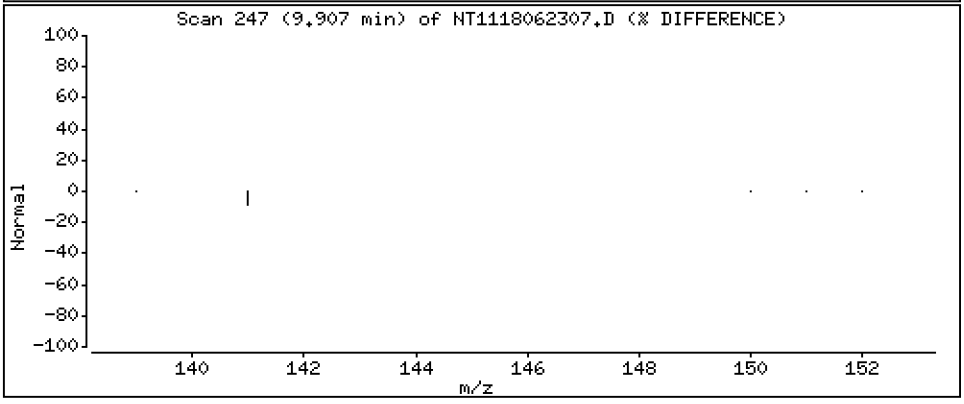












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Date : 23-JUN-2018 13:35

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-04

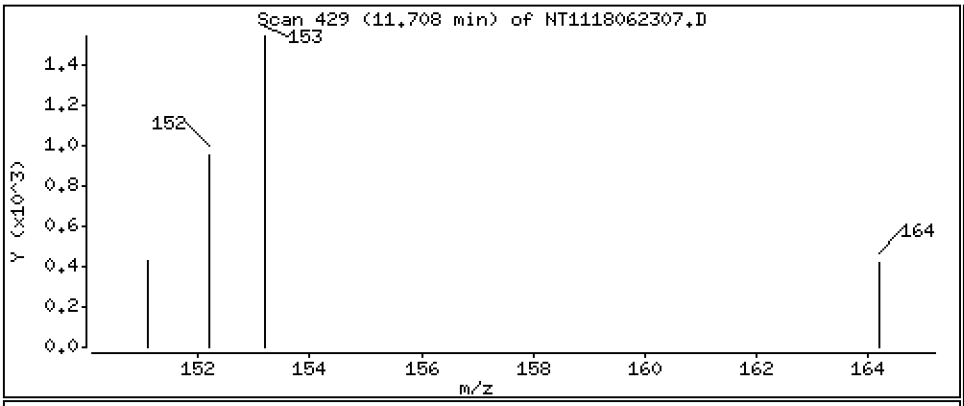
Operator: VTS

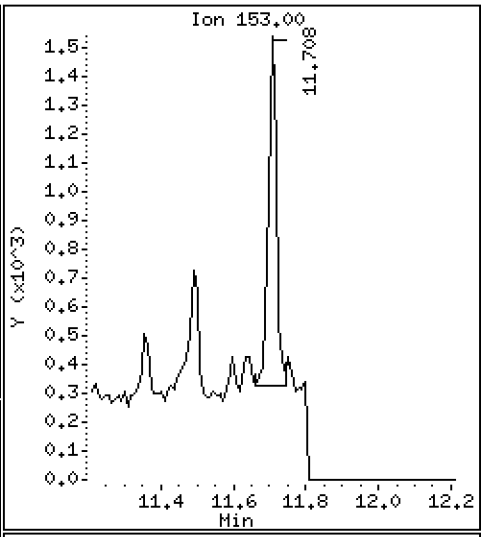
Column phase: Rxi-17Sil MS

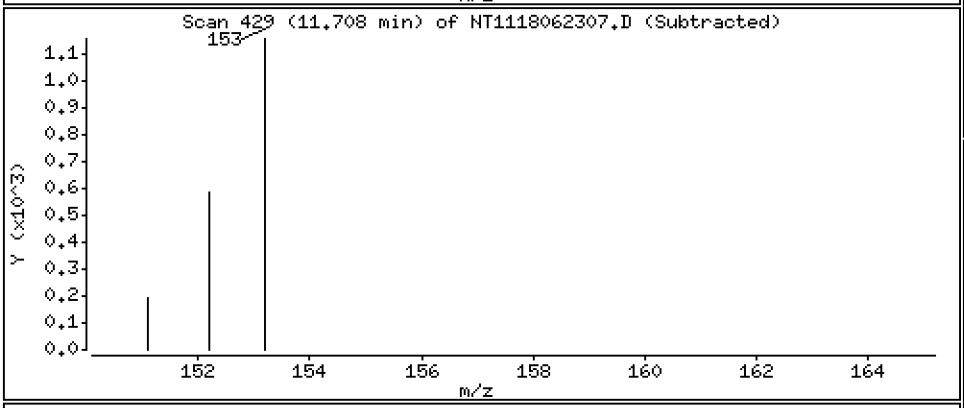
Column diameter: 0.25

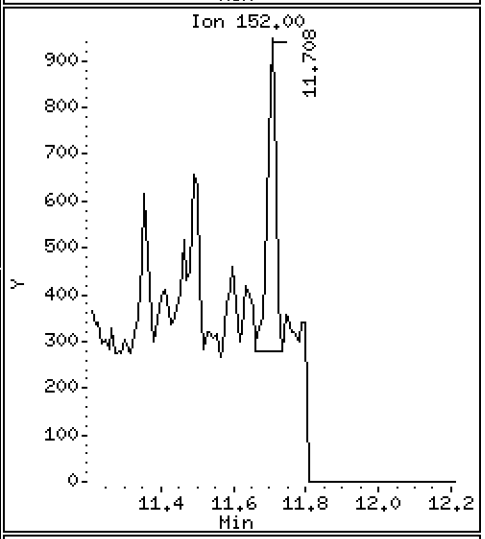
12 Acenaphthene

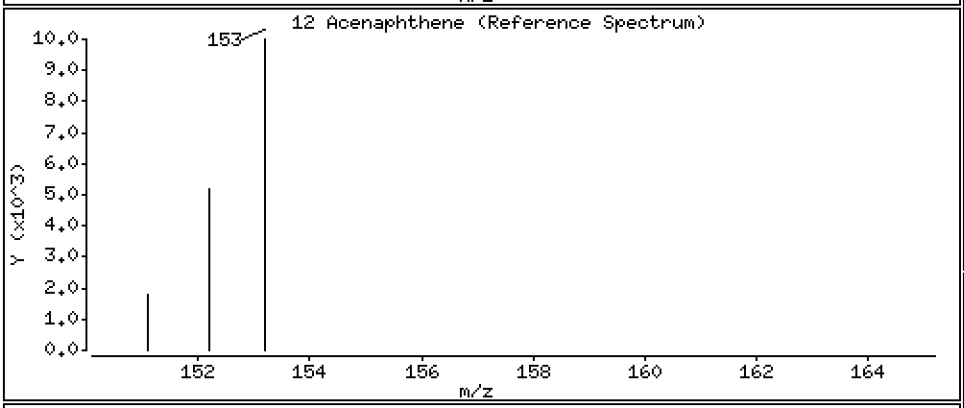
Concentration: 0.900 ng/mL

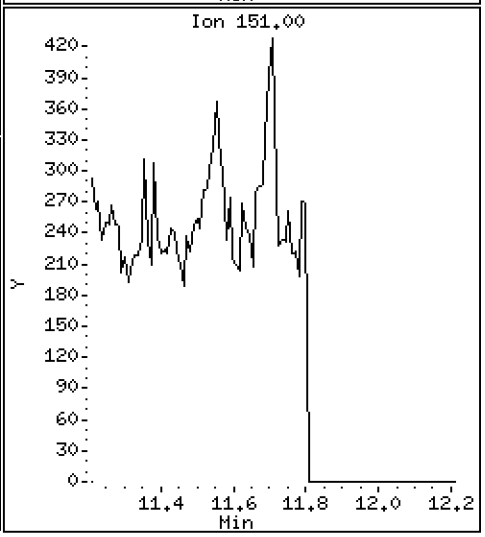


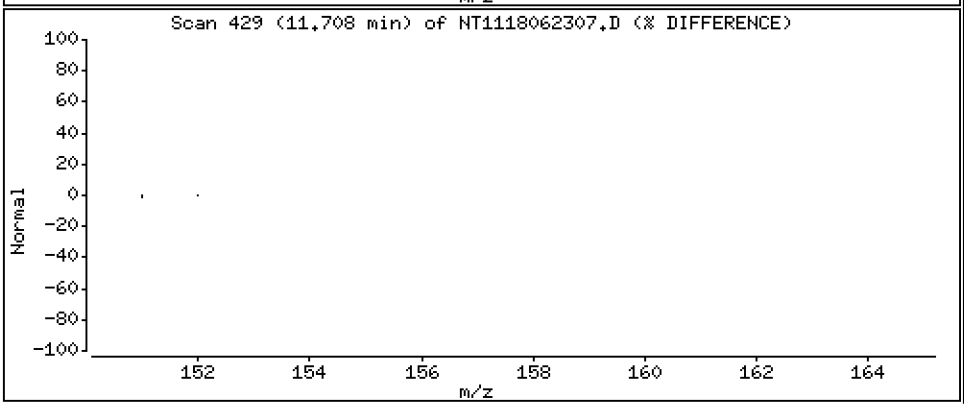












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Date : 23-JUN-2018 13:35

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-04

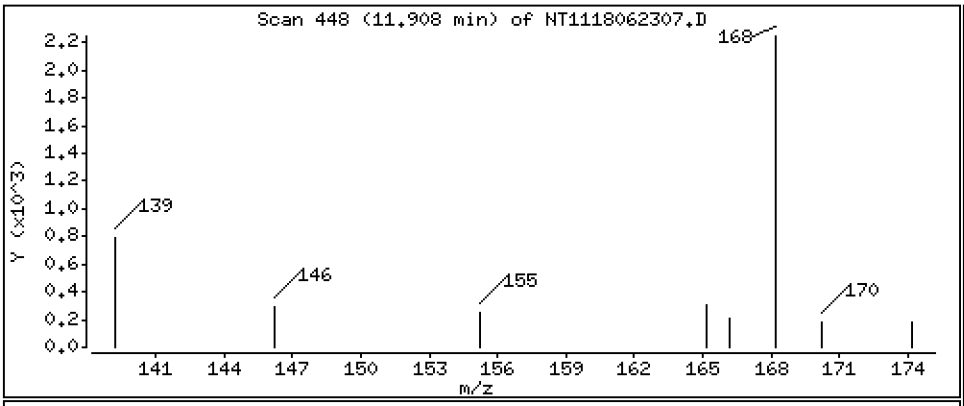
Operator: VTS

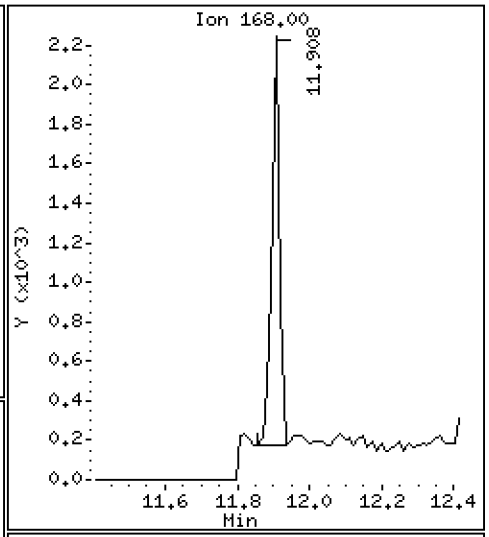
Column phase: Rxi-17Sil MS

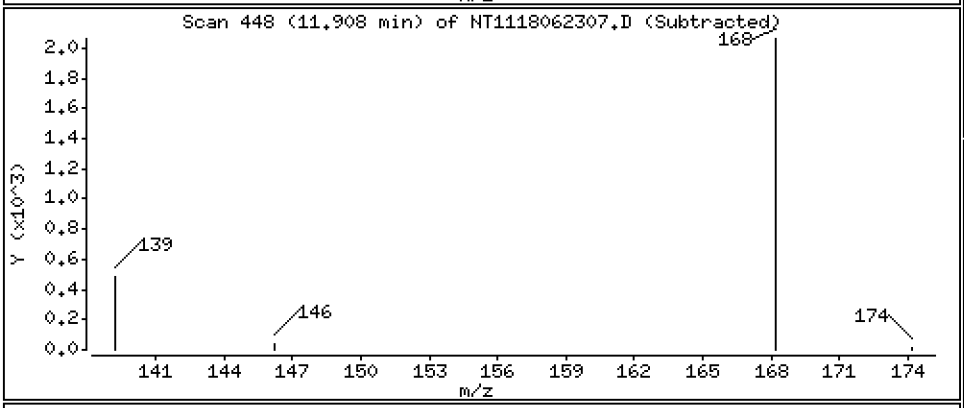
Column diameter: 0.25

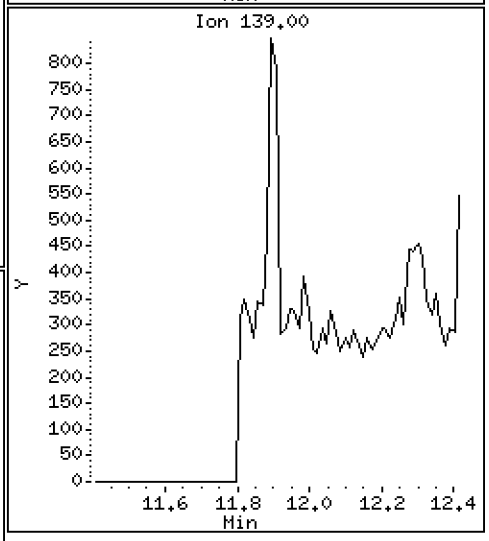
13 Dibenzofuran

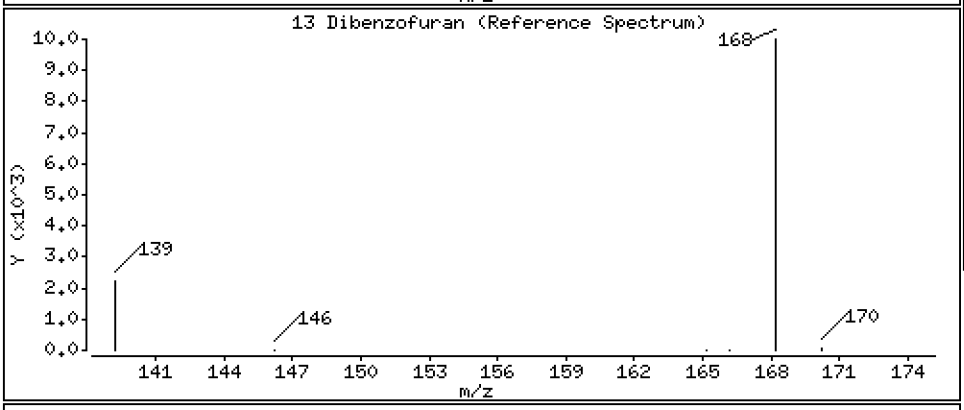
Concentration: 1.06 ng/mL

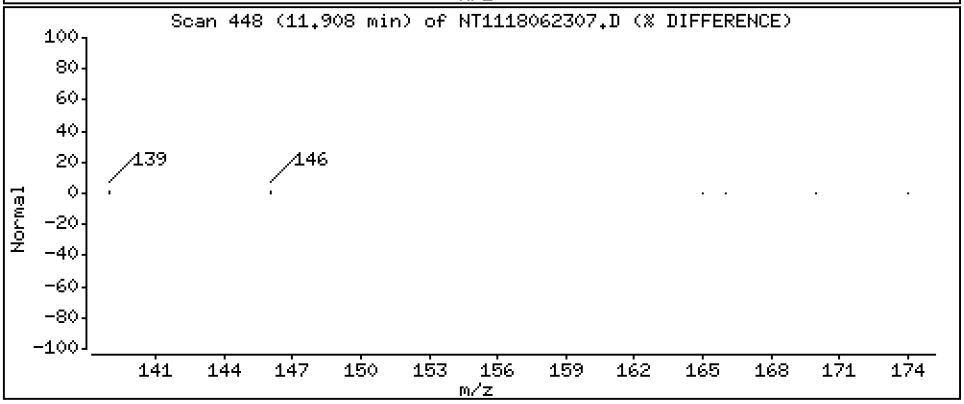












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062307.D

Date : 23-JUN-2018 13:35

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-04

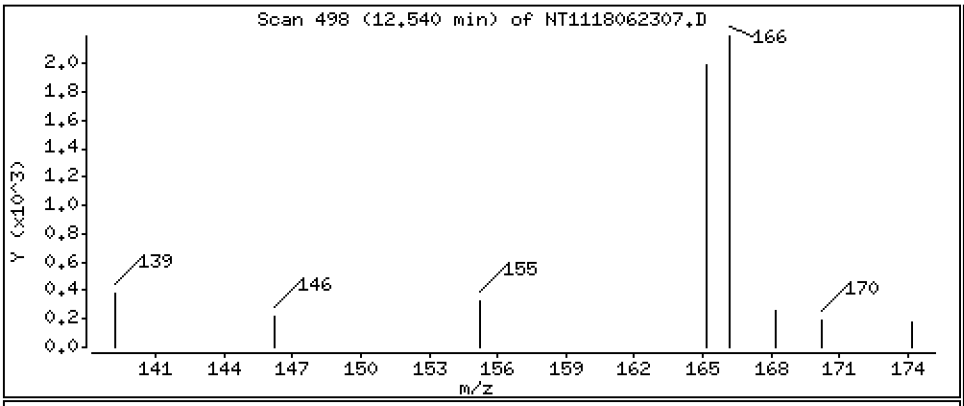
Operator: VTS

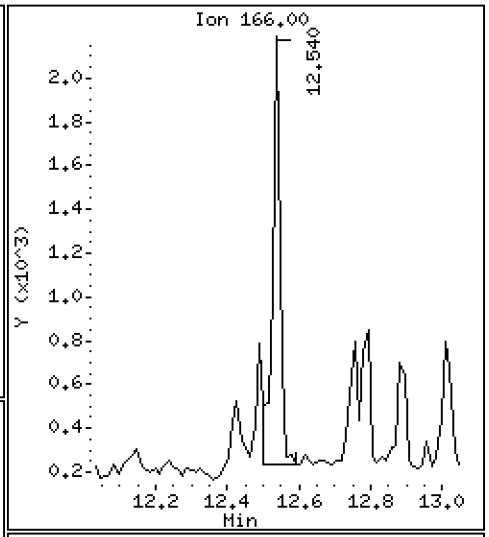
Column phase: Rxi-17Sil MS

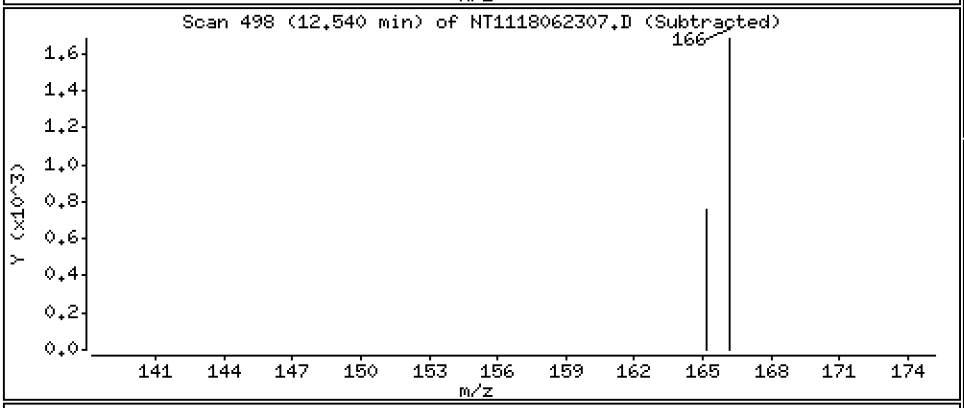
Column diameter: 0.25

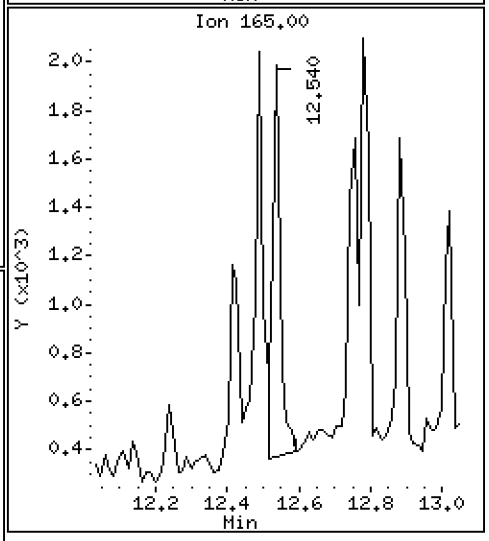
16 Fluorene

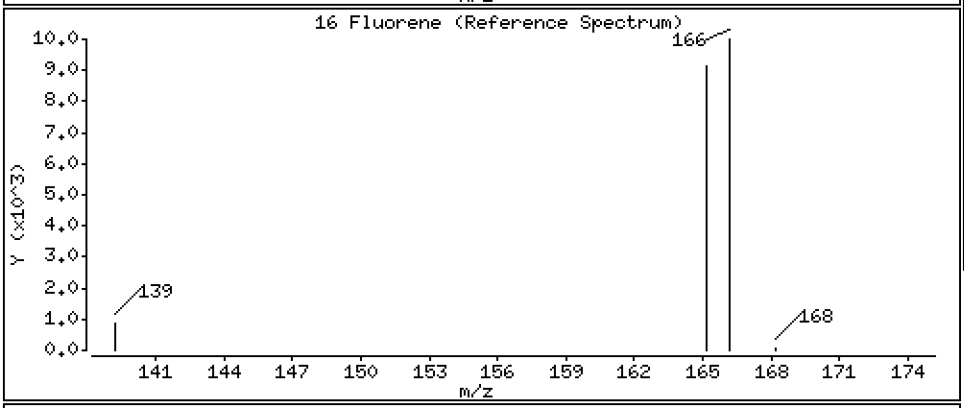
Concentration: 1.30 ng/mL

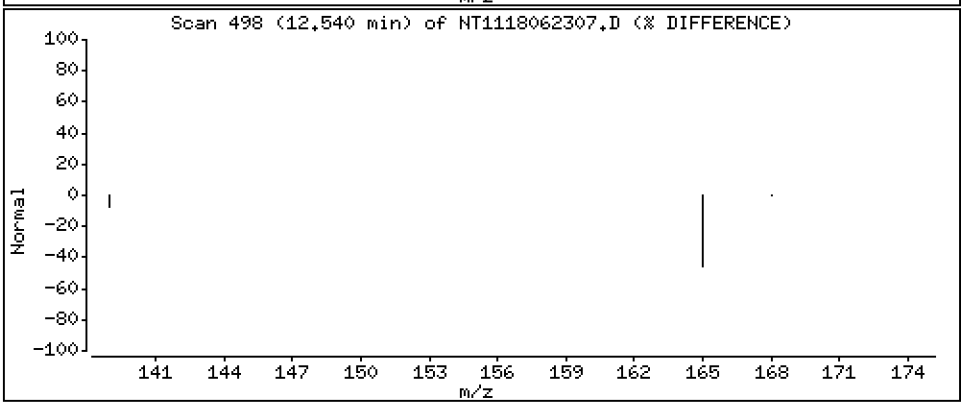












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Date : 23-JUN-2018 13:35

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-04

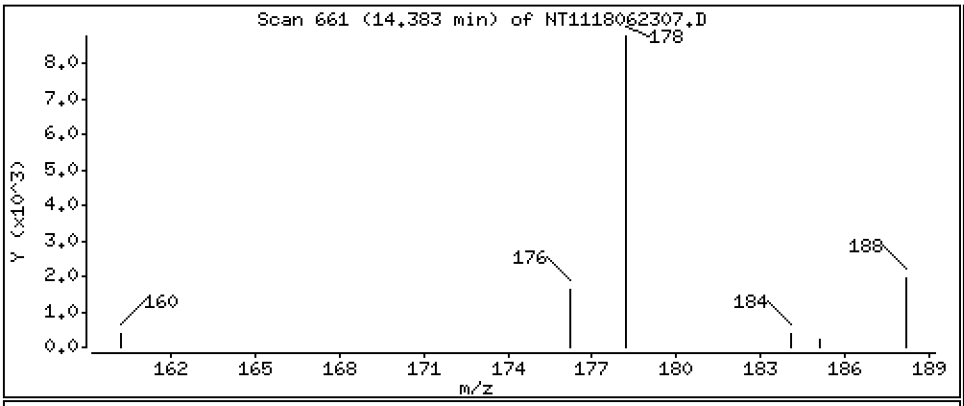
Operator: VTS

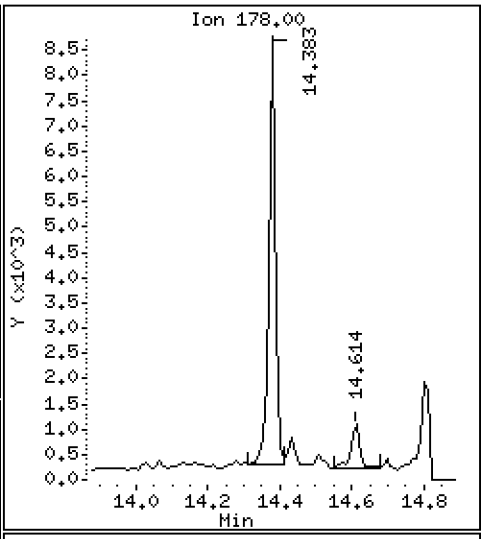
Column phase: Rxi-17Sil MS

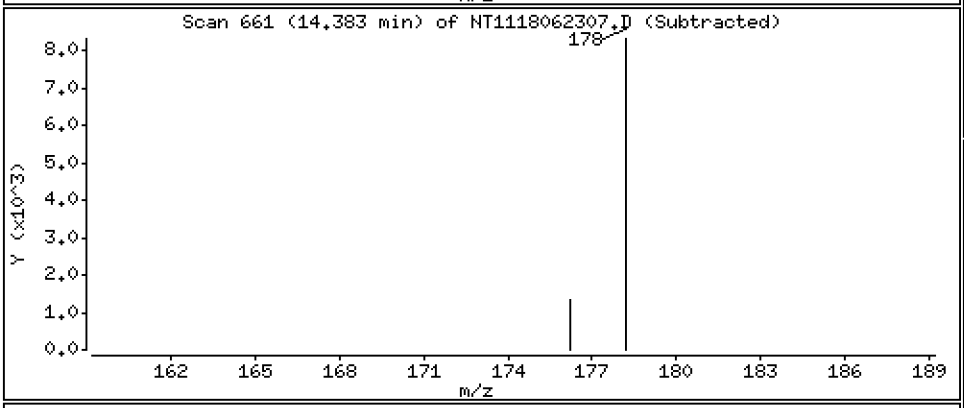
Column diameter: 0.25

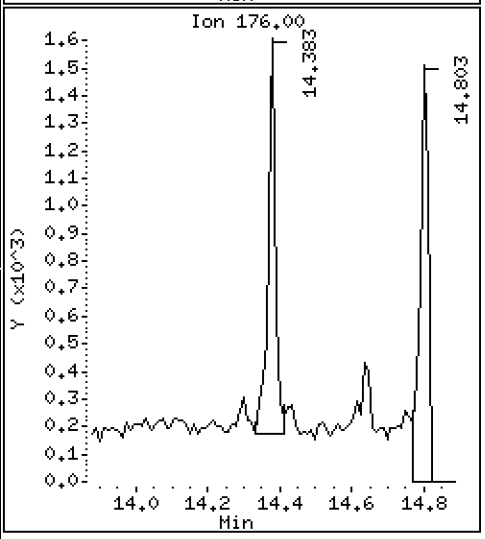
19 Phenanthrene

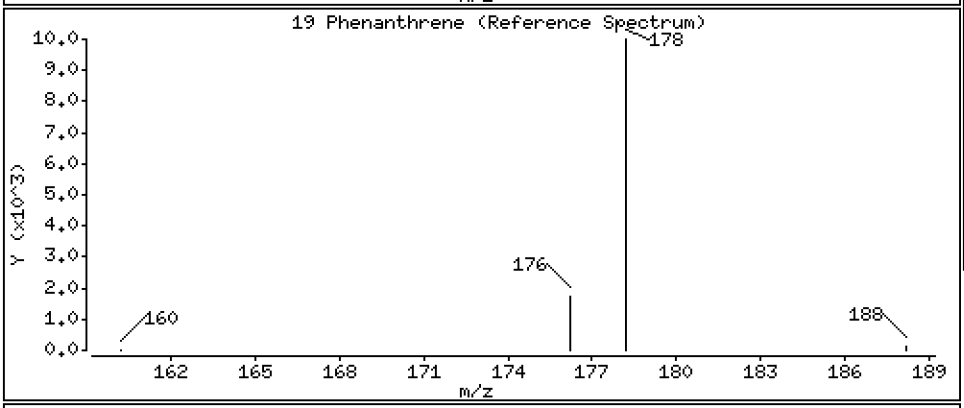
Concentration: 3.83 ng/mL

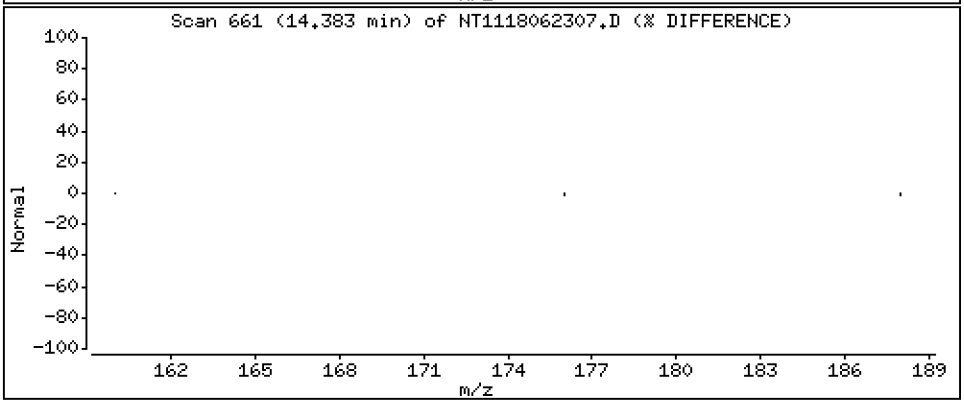












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062307.D

Date : 23-JUN-2018 13:35

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-04

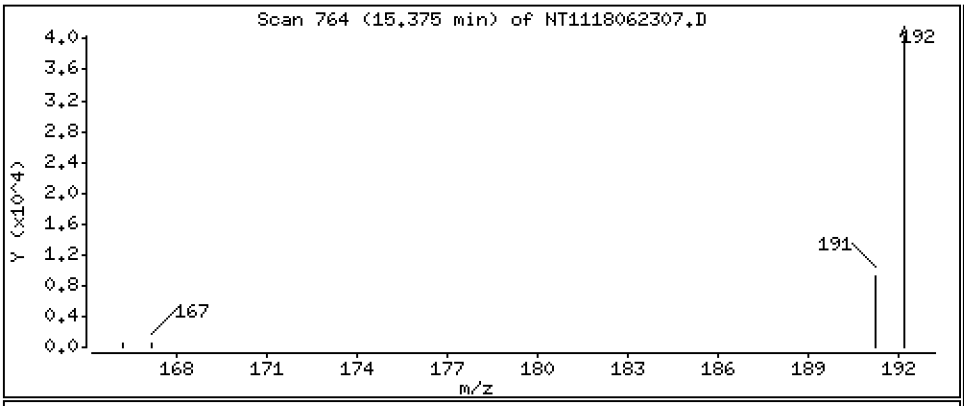
Operator: VTS

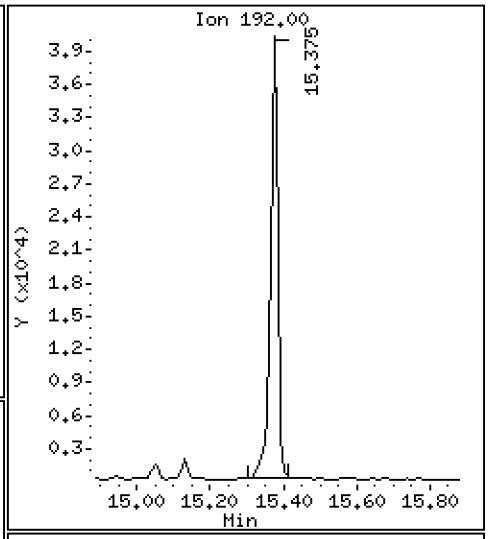
Column phase: Rxi-17Sil MS

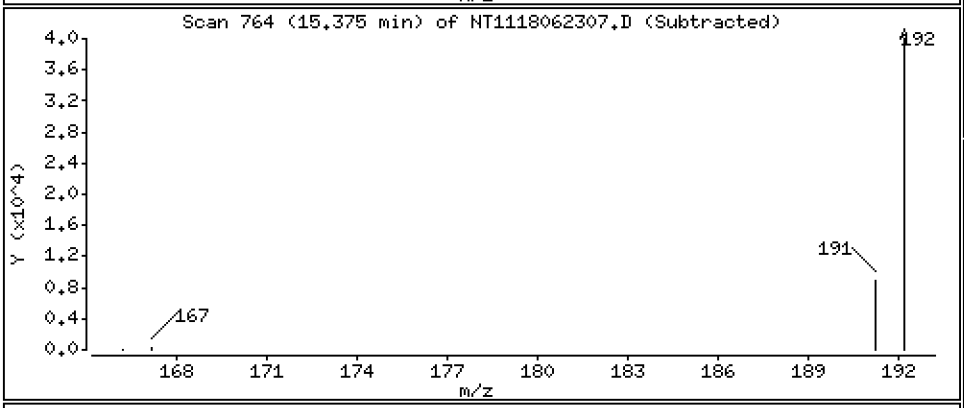
Column diameter: 0.25

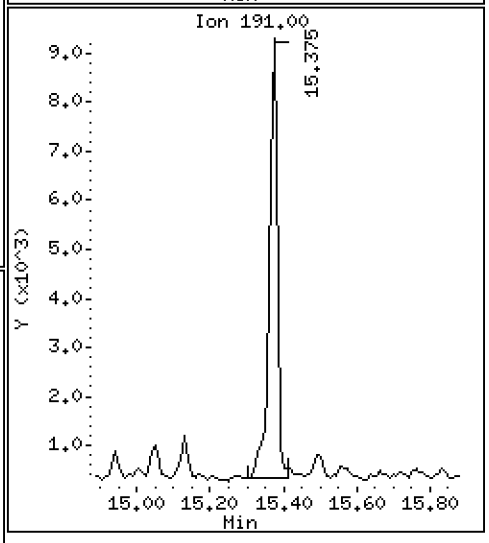
23 1-Methylphenanthrene

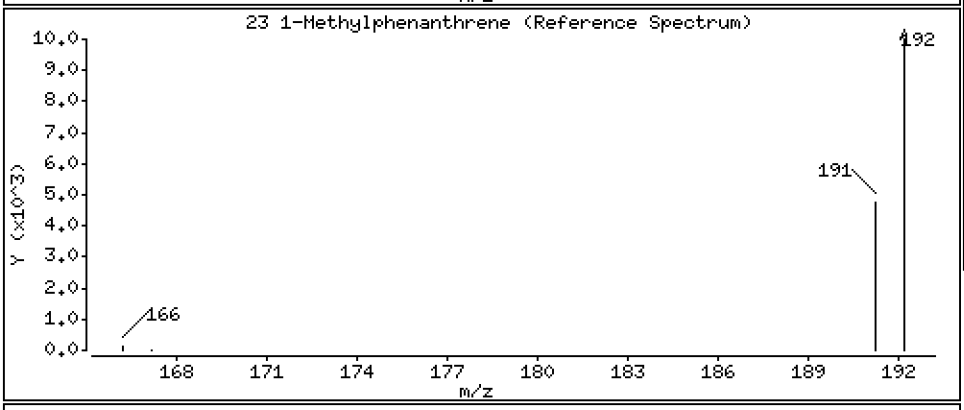
Concentration: 17.2 ng/mL

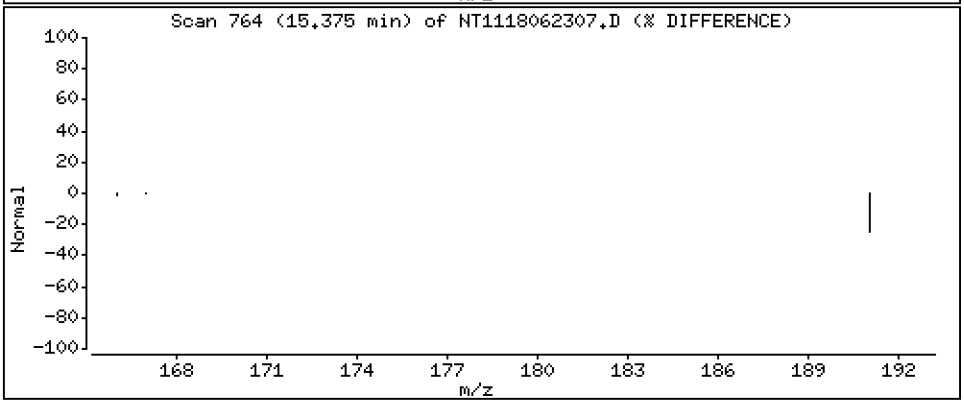












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Date : 23-JUN-2018 13:35

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-04

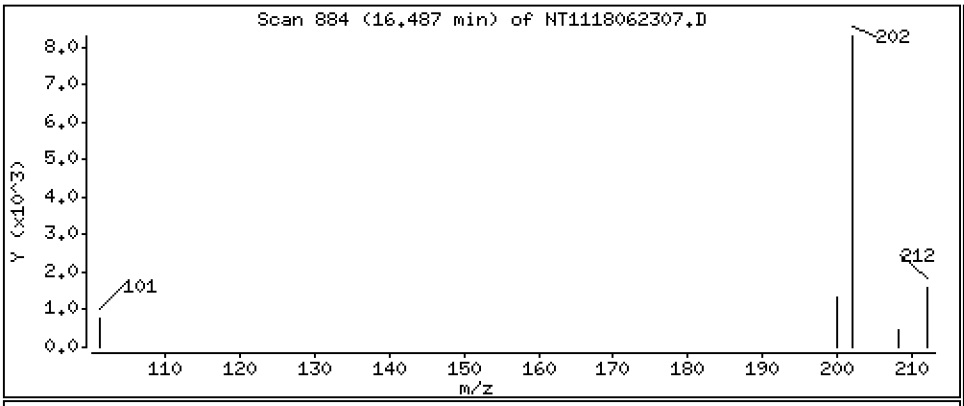
Operator: VTS

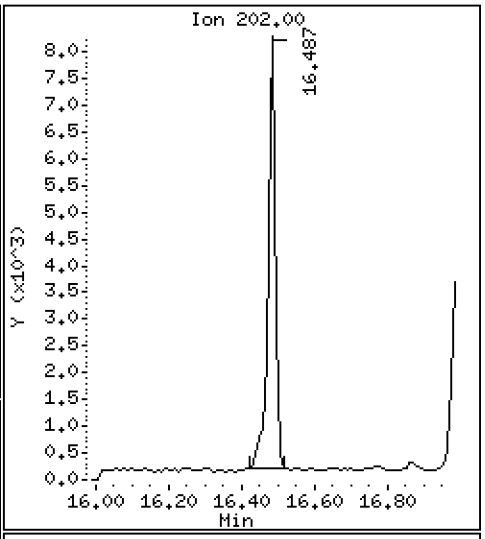
Column phase: Rxi-17Sil MS

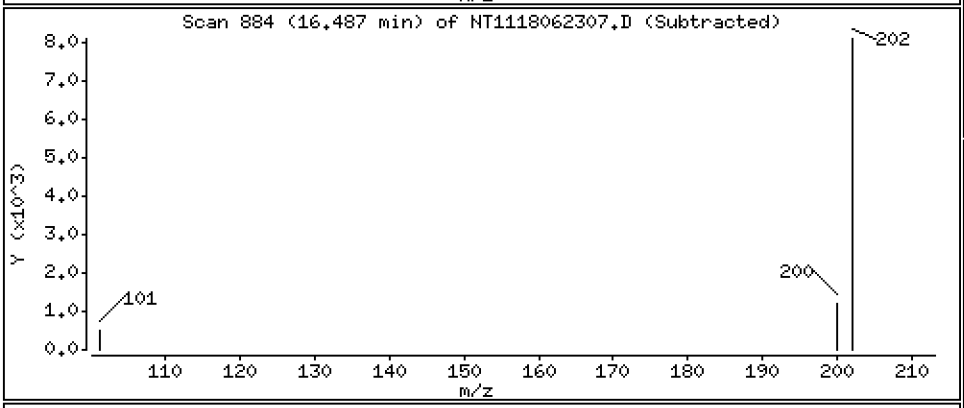
Column diameter: 0.25

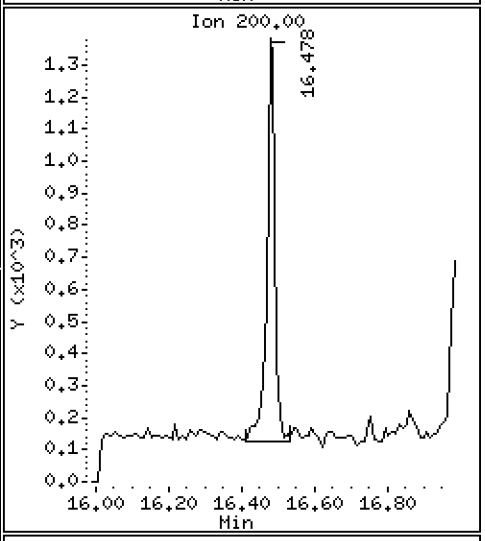
25 Fluoranthene

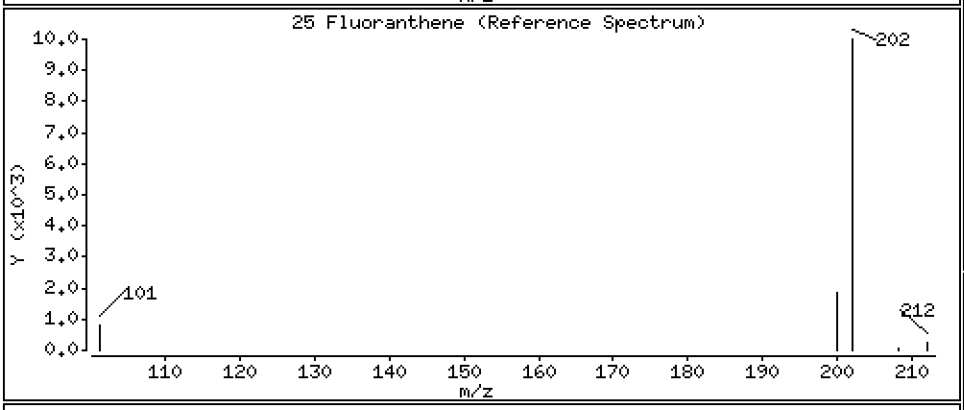
Concentration: 4.01 ng/mL

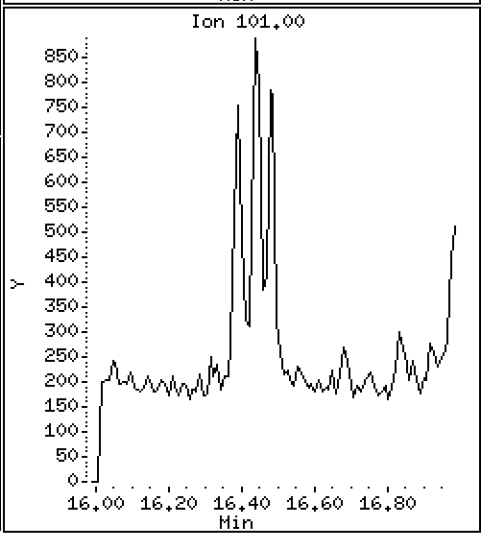


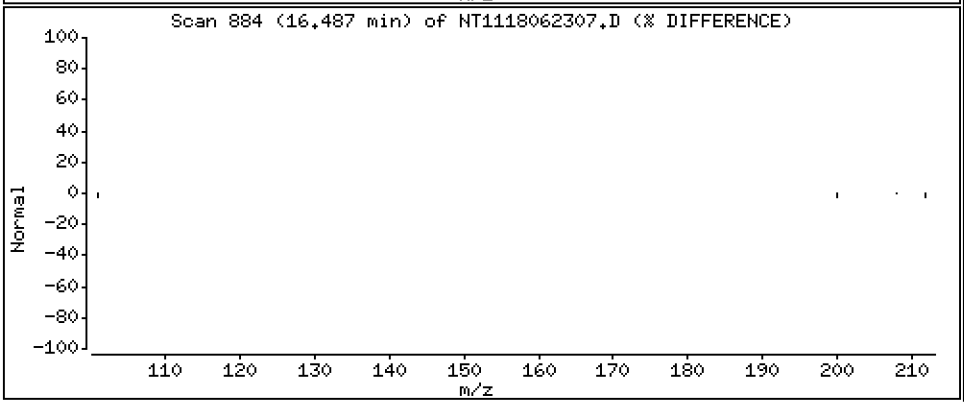












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062307.D

Date : 23-JUN-2018 13:35

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-04

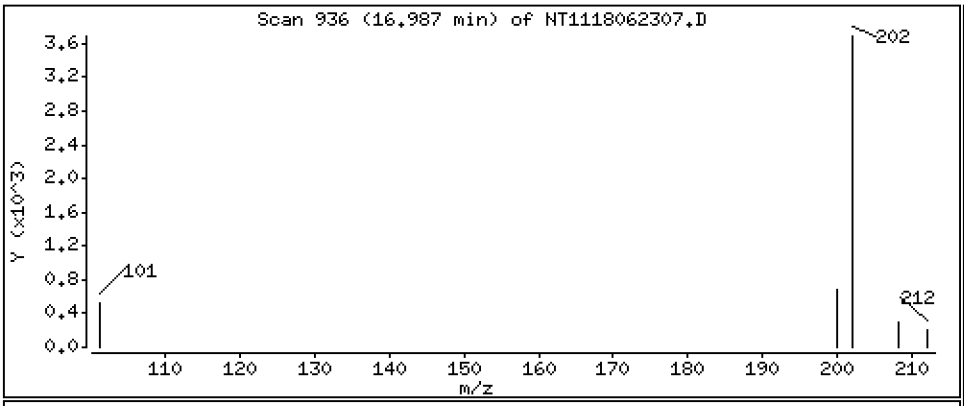
Operator: VTS

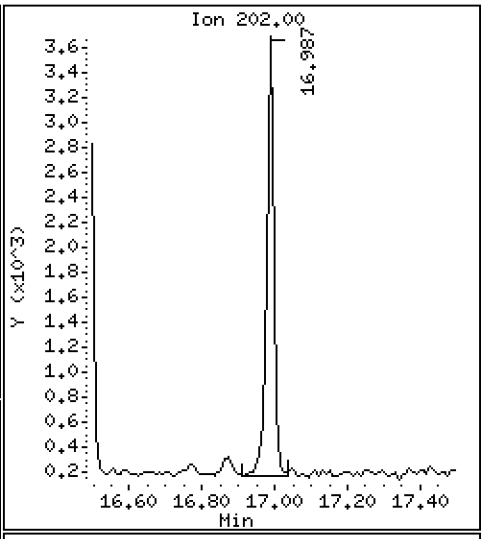
Column phase: Rxi-17Sil MS

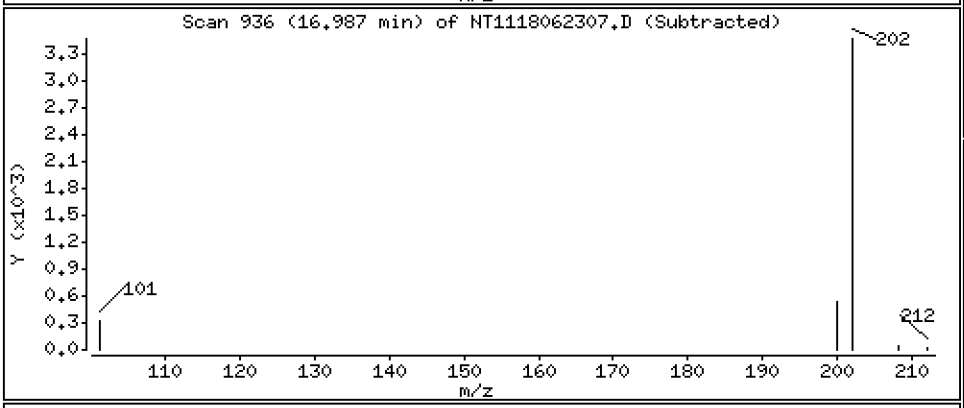
Column diameter: 0.25

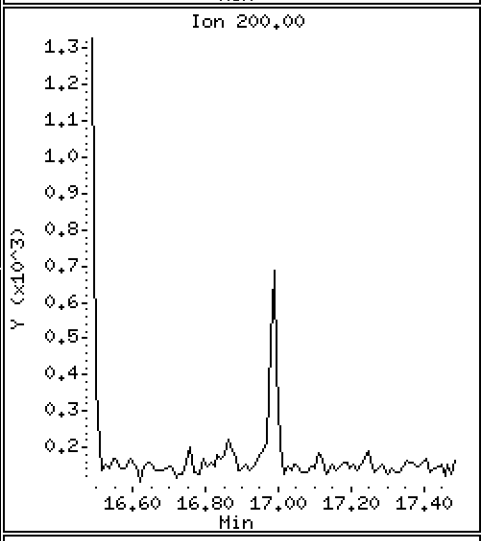
26 Pyrene

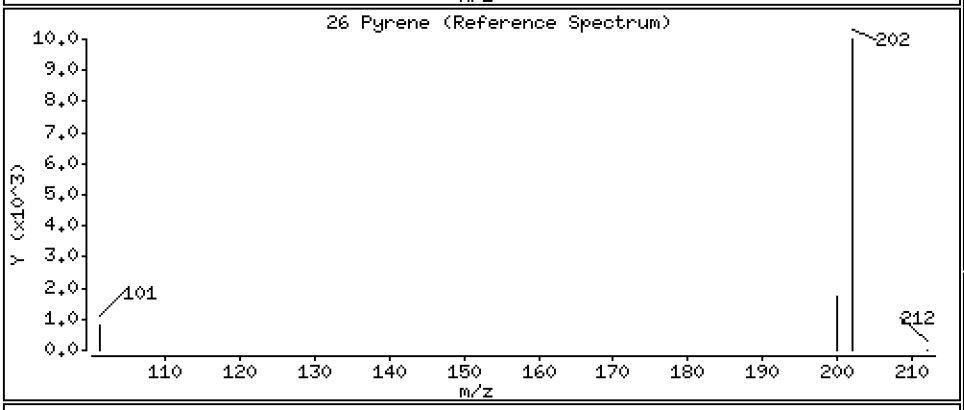
Concentration: 1.73 ng/mL

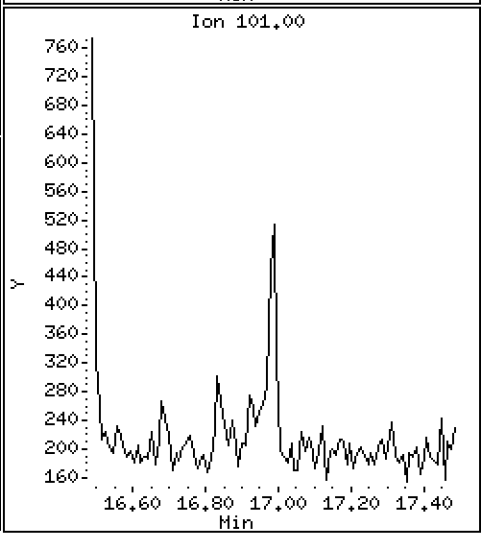


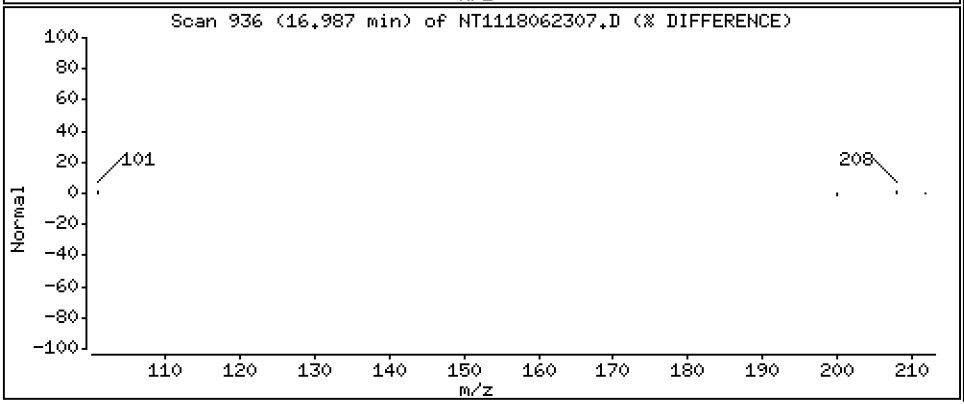












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Date : 23-JUN-2018 13:35

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-04

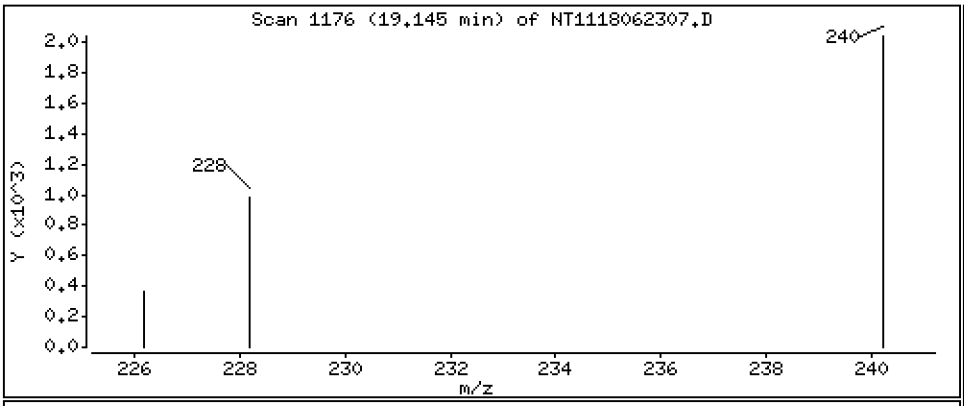
Operator: VTS

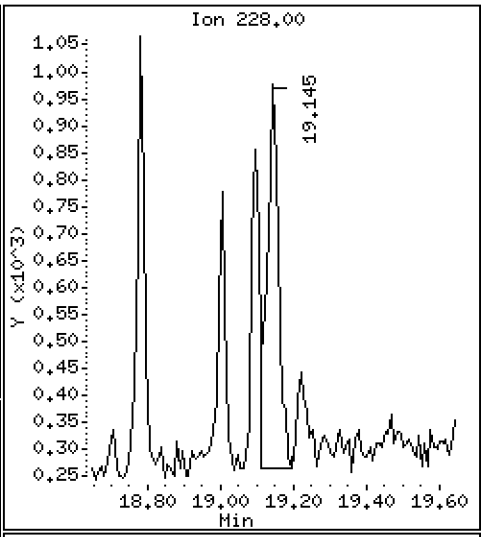
Column phase: Rxi-17Sil MS

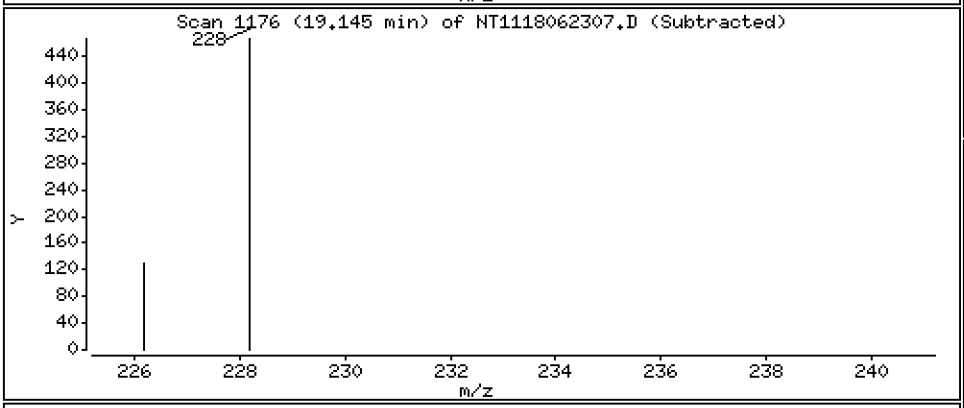
Column diameter: 0.25

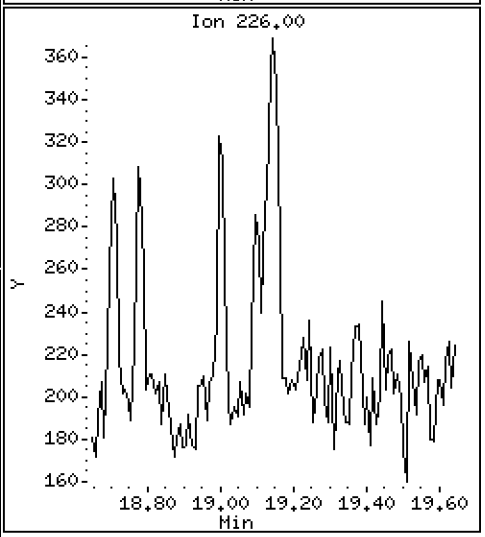
29 Chrysene

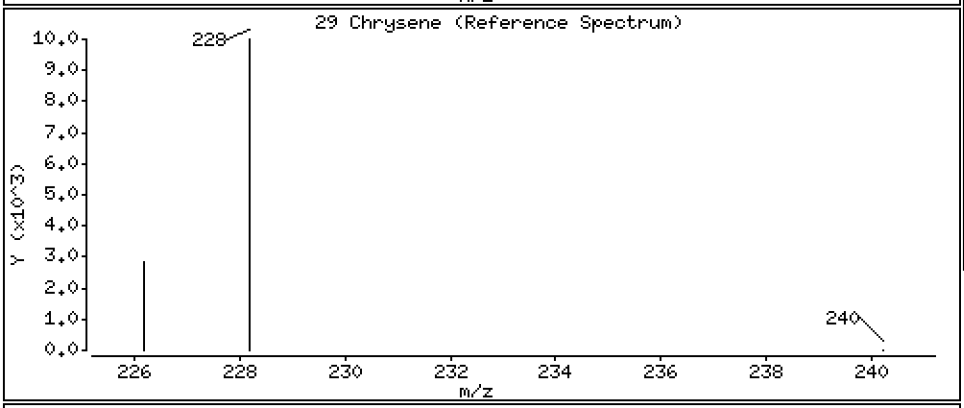
Concentration: 0.665 ng/mL

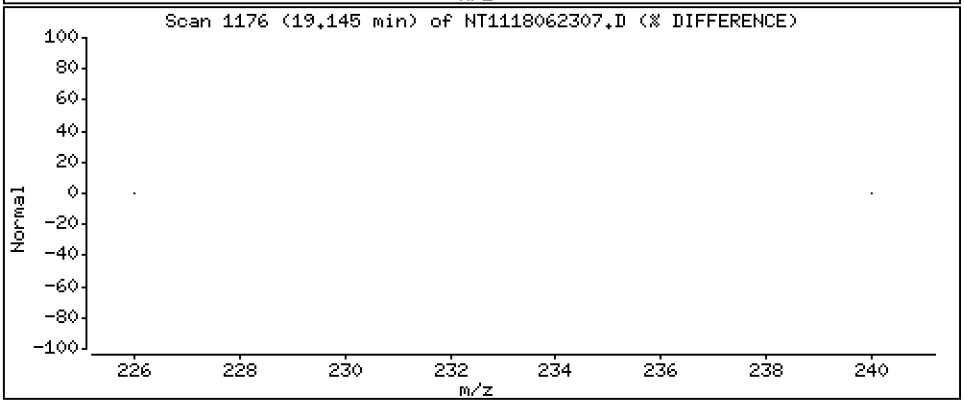












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180623.b\NT1118062307.D
Lab Smp Id: 18F0185-04
Inj Date : 23-JUN-2018 13:35 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0185-04
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180623.b\LOWSIM.m
Meth Date : 23-Jun-2018 13:20 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	430028	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	7697	2.37701	2.38
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	435545	177.514	178
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	5211	1.98932	1.99
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	4013	1.54040	1.54
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	250484	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	1833	0.89985	0.900
	13 Dibenzofuran	168	11.908	11.908	(1.023)	2969	1.06394	1.06
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.540	12.540	(1.077)	2926	1.30024	1.30
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	419449	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	12596	3.82889	3.83
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	Compound Not Detected.					
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	15.375	15.384	(1.072)	53414	17.1843	17.2
$	24 Fluoranthene-d10	212	16.449	16.449	(1.147)	528968	207.759	208
	25 Fluoranthene	202	16.487	16.487	(1.150)	12247	4.00881	4.01
	26 Pyrene	202	16.987	16.996	(0.890)	5317	1.73329	1.73
	27 Benzo(a)anthracene	228	Compound Not Detected.					
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	312031	200.000	
	29 Chrysene	228	19.145	19.145	(1.003)	1580	0.66485	0.665
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
35	Benzo(a)pyrene	252	Compound Not Detected.					
* 36	Perylene-d12	264	22.353	22.353	(1.000)	308243	200.000	
37	Perylene	252	Compound Not Detected.					
$ 38	Dibenzo(a,h)anthracene-d14	292	25.268	25.268	(1.130)	297895	201.955	202
39	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
40	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
41	Benzo(g,h,i)perylene	276	Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118062307.D
Lab Smp Id: 18F0185-04
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180623.b\LOWSIM.m
Misc Info:

Calibration Date: 23-JUN-2018
Calibration Time: 10:32
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	430028	-0.30
11 Acenaphthene-d10	260137	130069	520274	250484	-3.71
18 Phenanthrene-d10	427391	213696	854782	419449	-1.86
28 Chrysene-d12	304596	152298	609192	312031	2.44
36 Perylene-d12	263091	131546	526182	308243	17.16

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118062307.D

Lab ID: 18F0185-04
nt11.i, 20180623.b\LOWSIM.m,   23-JUN-2018 13:35

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180623.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

LDW18-SP-35

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270D-SIM

Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-05	SDG:	18F0185
Sampled:	06/12/18 10:56	Prepared:	06/18/18 13:48	File ID:	NT1118062308.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/23/18 15:12
Batch:	BGF0416	Sequence:	SGF0298	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.002	J	0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.002	J	0.001	0.010
208-96-8	Acenaphthylene	1	0.010	U	0.002	0.010
83-32-9	Acenaphthene	1	0.008	J	0.003	0.010
86-73-7	Fluorene	1	0.010	U	0.002	0.010
85-01-8	Phenanthrene	1	0.003	J	0.001	0.010
120-12-7	Anthracene	1	0.010	U	0.001	0.010
206-44-0	Fluoranthene	1	0.002	J	0.002	0.010
129-00-0	Pyrene	1	0.001	J	0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.010	U	0.0008	0.010
218-01-9	Chrysene	1	0.010	U	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.010	U	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.142	47.4	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.171	57.1	29 - 120	
Fluoranthene-d10	0.30000	0.171	57.1	57 - 120	

Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062308.D

Date : 23-JUN-2018 15:12

Client ID:

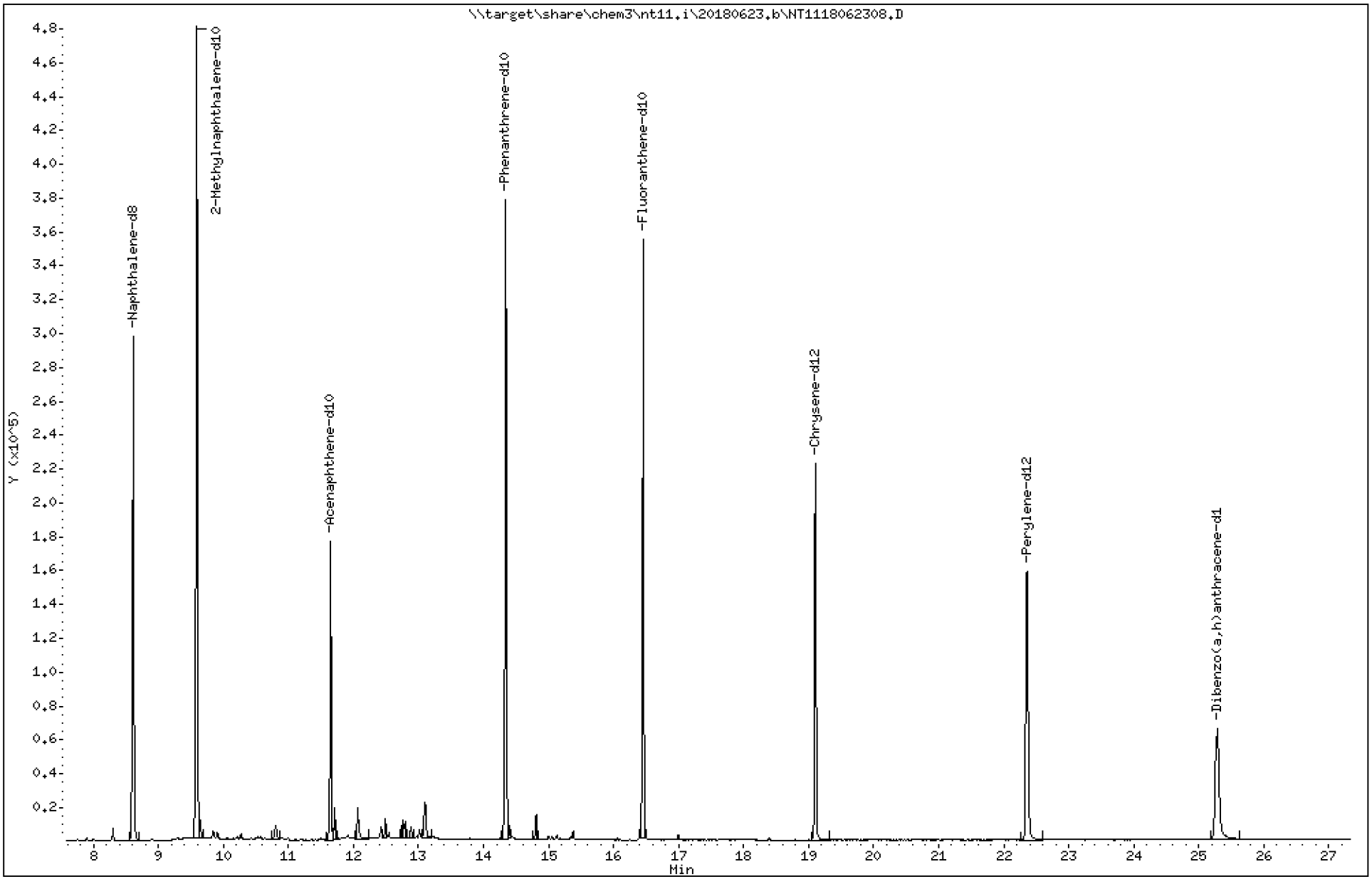
Instrument: nt11.i

Sample Info: 18F0185-05

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 23-JUN-2018 15:12

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-05

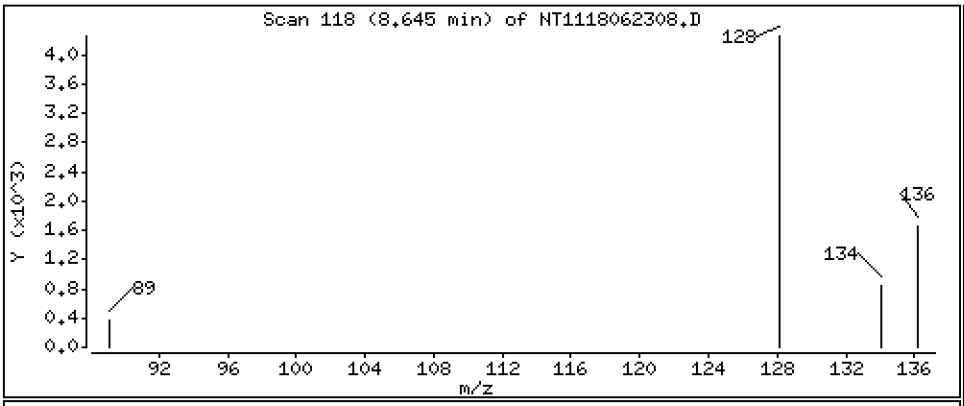
Operator: VTS

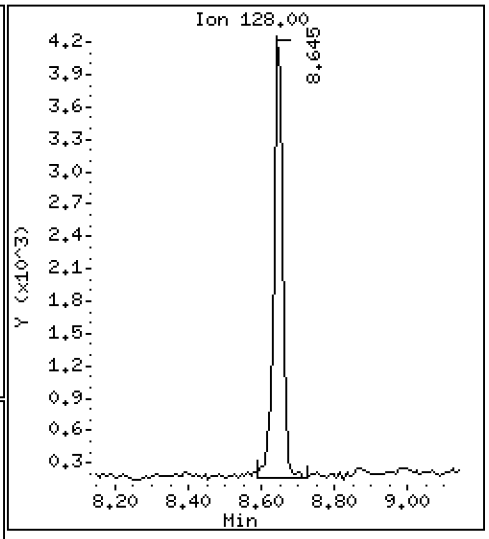
Column phase: Rxi-17Sil MS

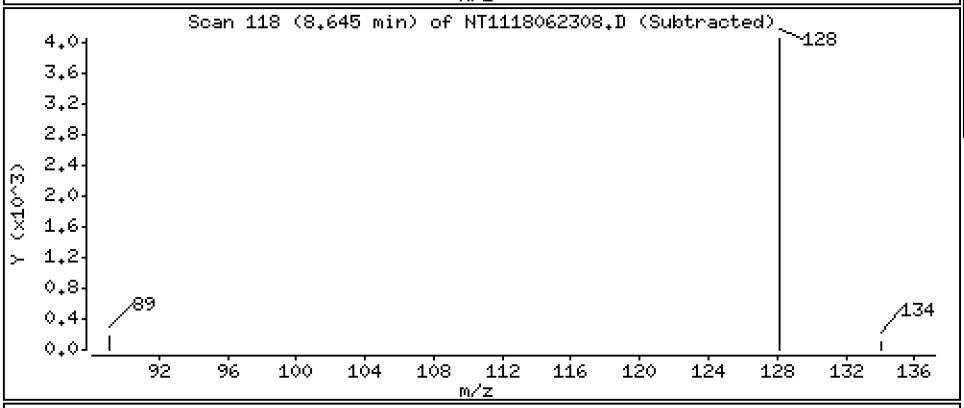
Column diameter: 0.25

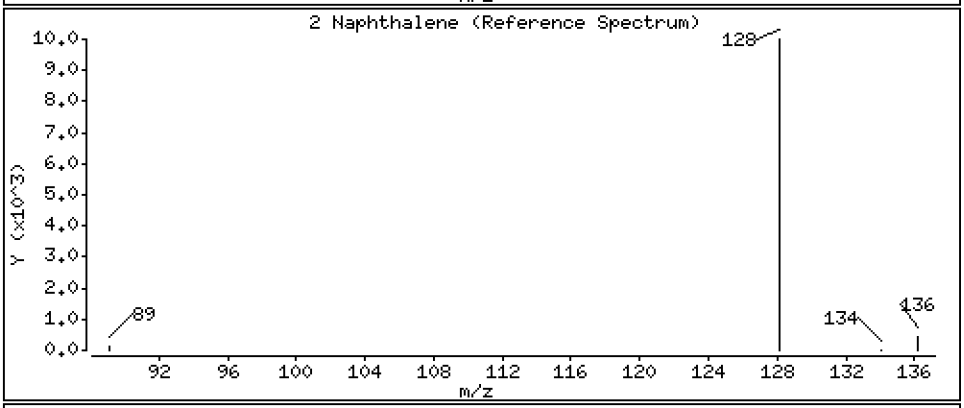
2 Naphthalene

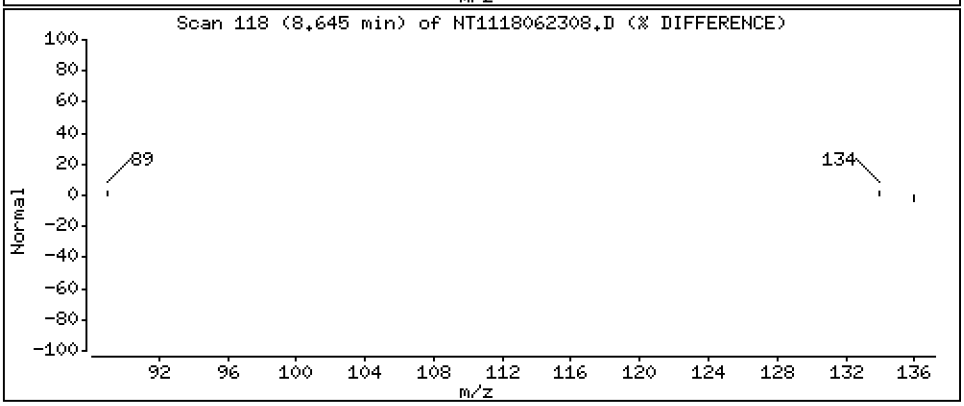
Concentration: 2.07 ng/mL











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Date : 23-JUN-2018 15:12

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-05

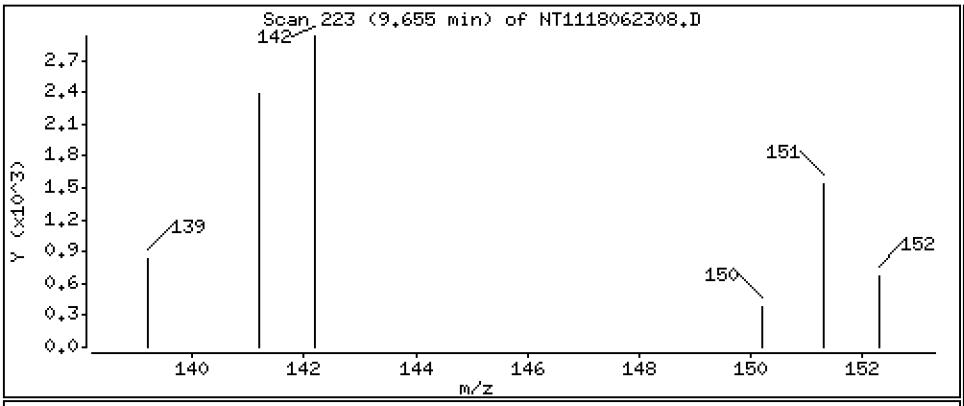
Operator: VTS

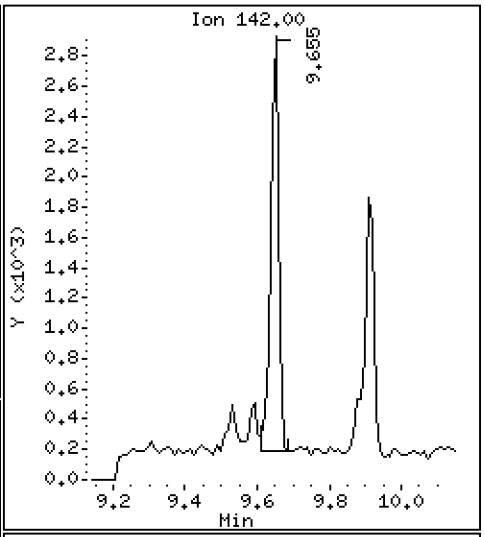
Column phase: Rxi-17Sil MS

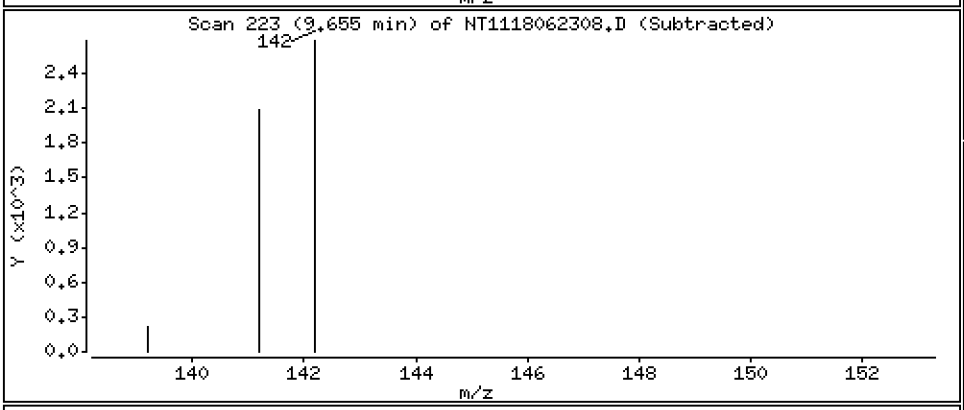
Column diameter: 0.25

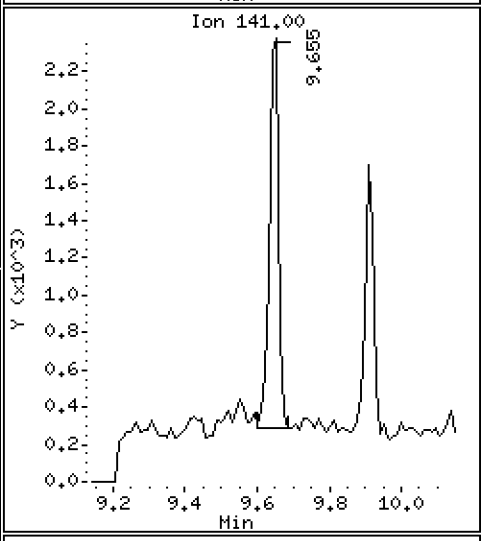
5 2-Methylnaphthalene

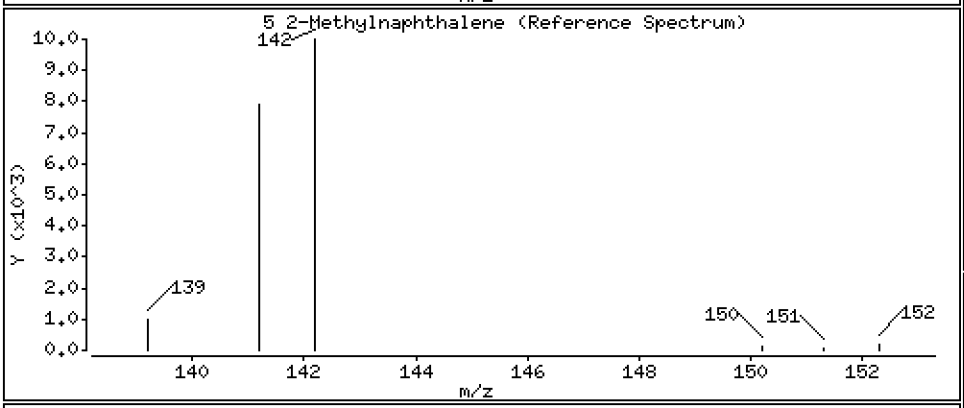
Concentration: 1.55 ng/mL

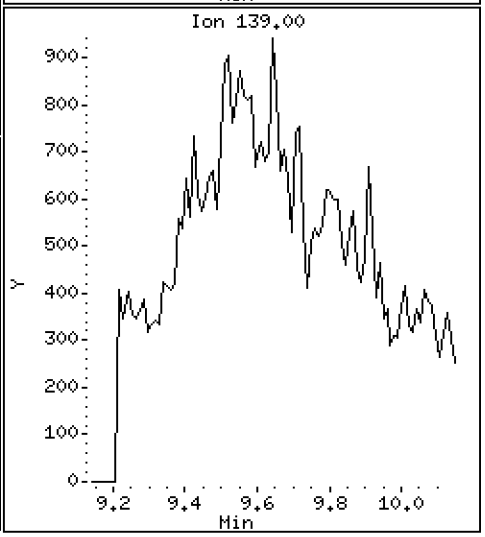


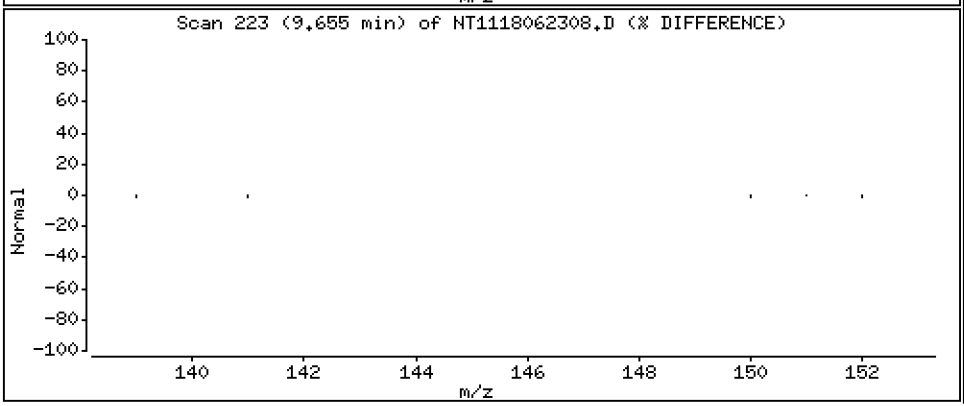












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Date : 23-JUN-2018 15:12

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-05

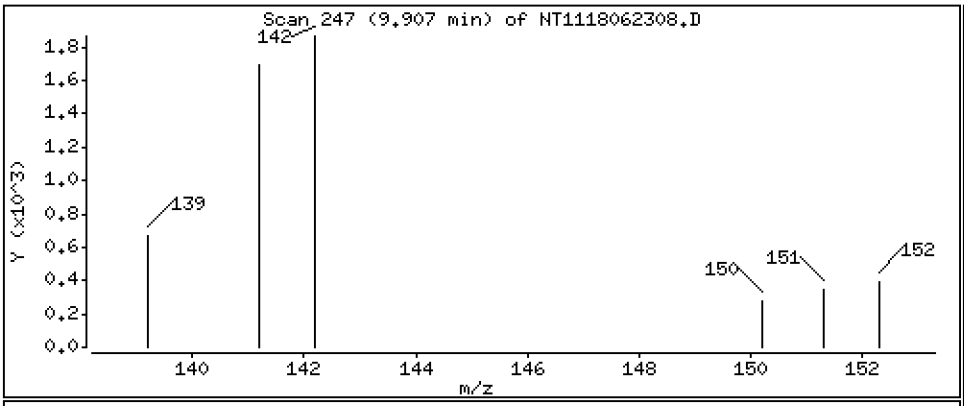
Operator: VTS

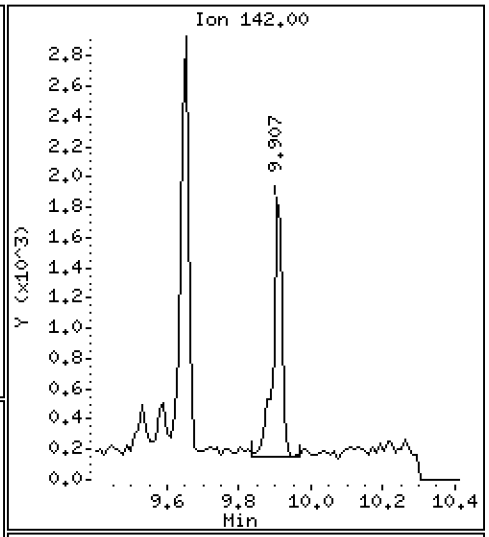
Column phase: Rxi-17Sil MS

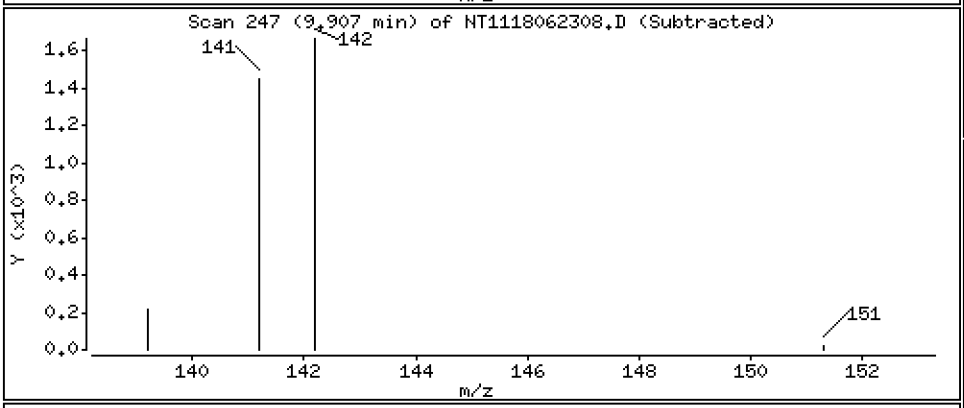
Column diameter: 0.25

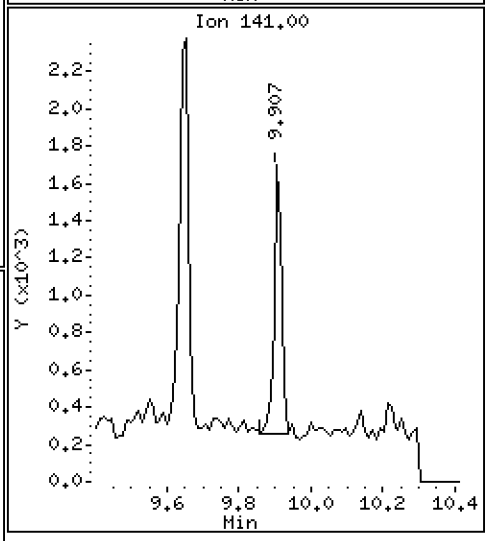
6 1-Methylnaphthalene

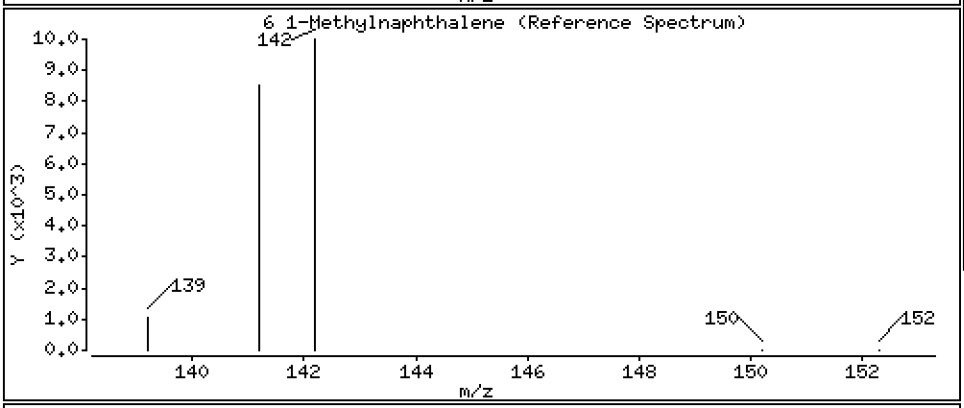
Concentration: 1.23 ng/mL

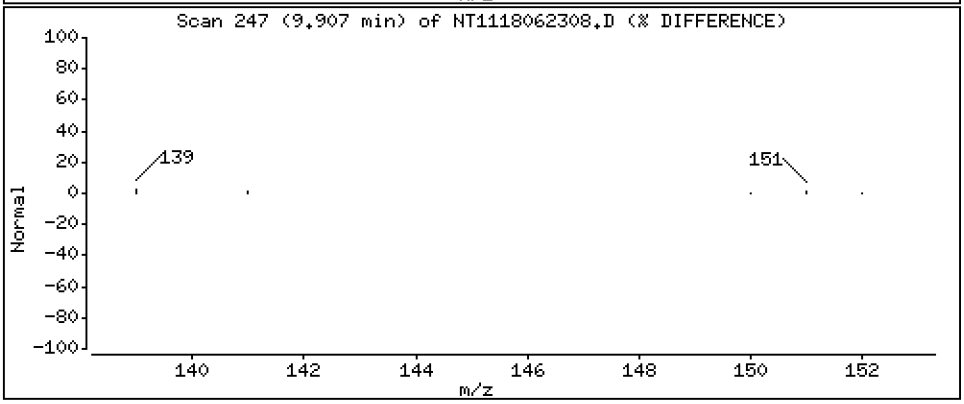












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Date : 23-JUN-2018 15:12

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-05

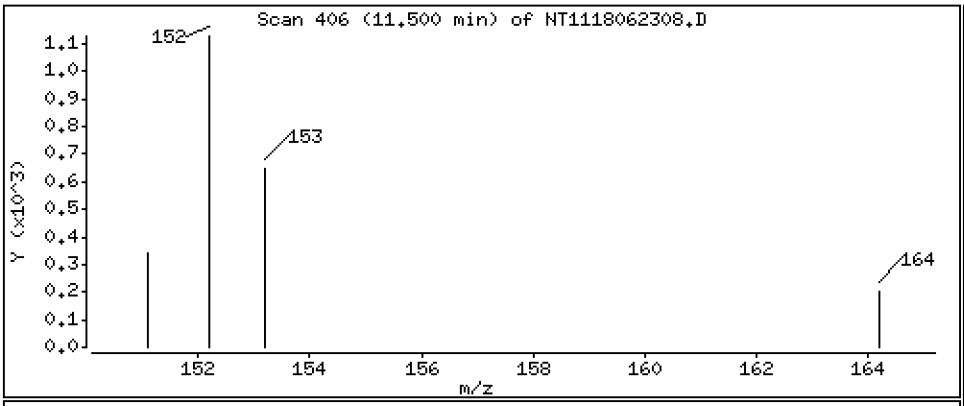
Operator: VTS

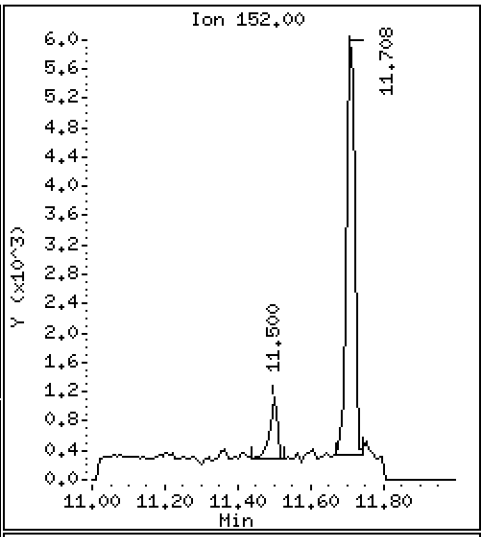
Column phase: Rxi-17Sil MS

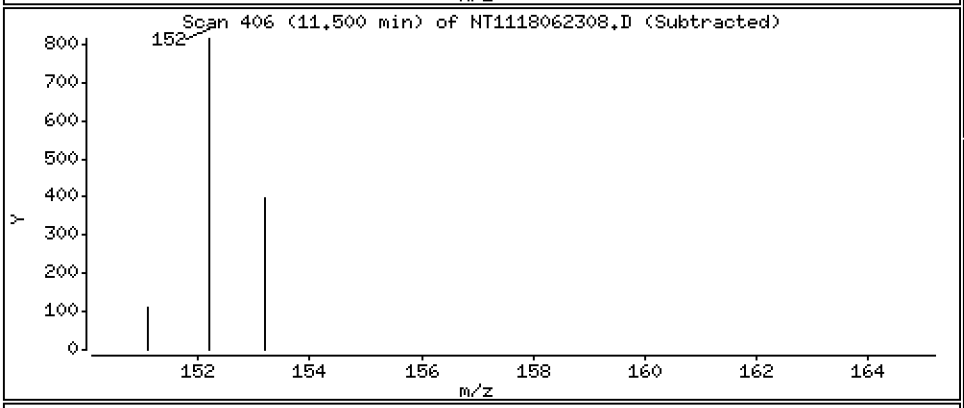
Column diameter: 0.25

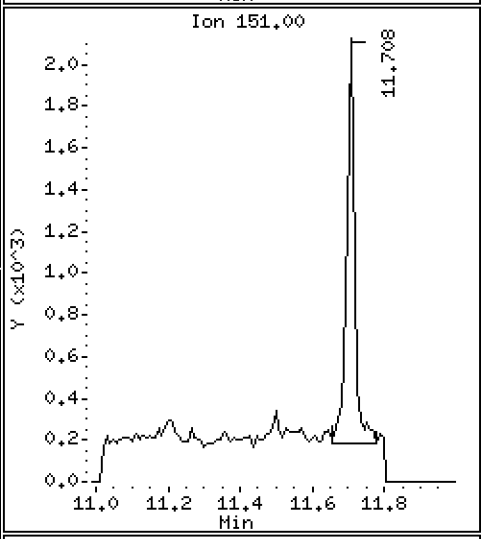
10 Acenaphthylene

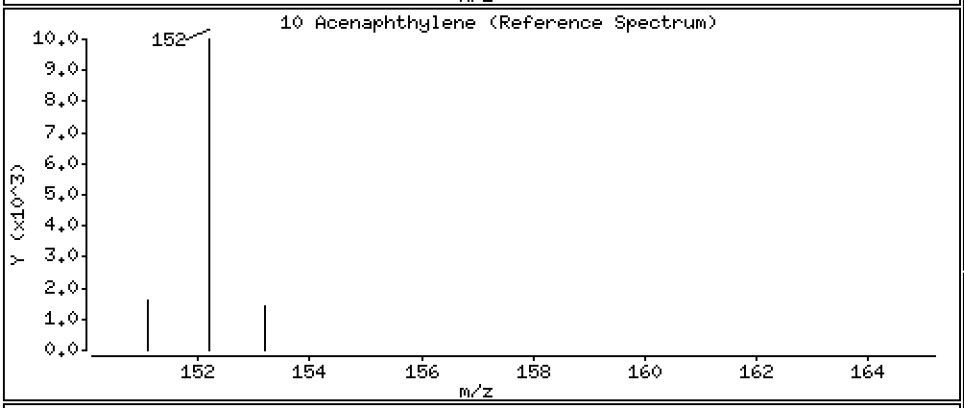
Concentration: 0.391 ng/mL

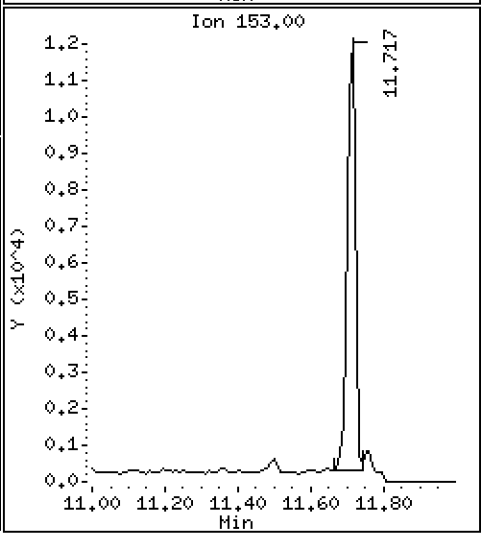


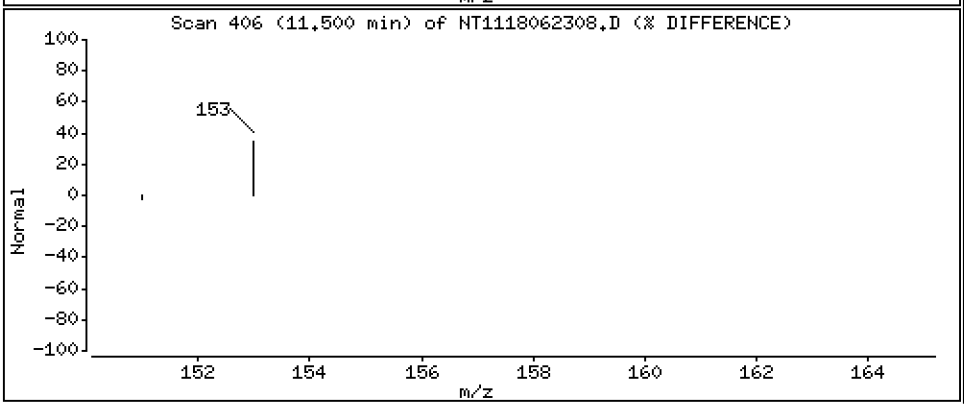












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Date : 23-JUN-2018 15:12

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-05

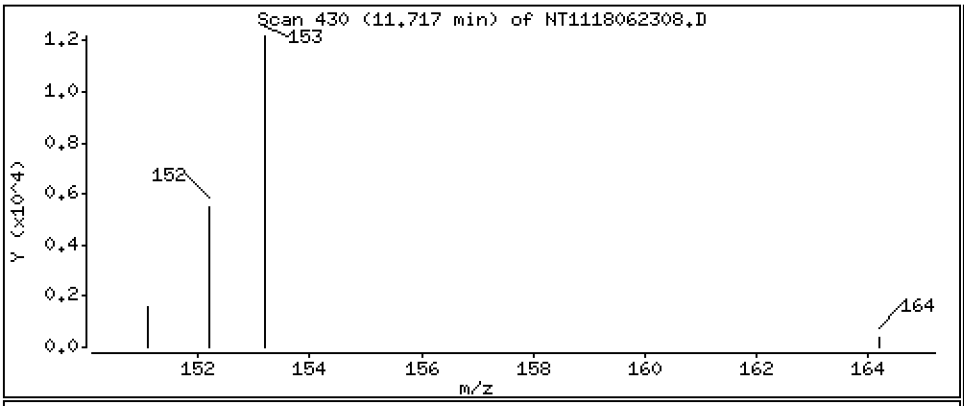
Operator: VTS

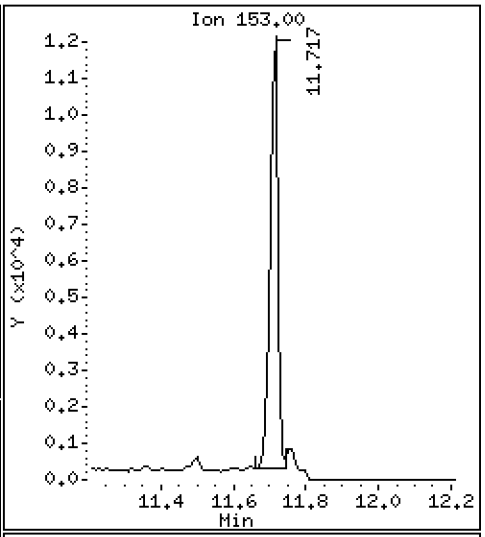
Column phase: Rxi-17Sil MS

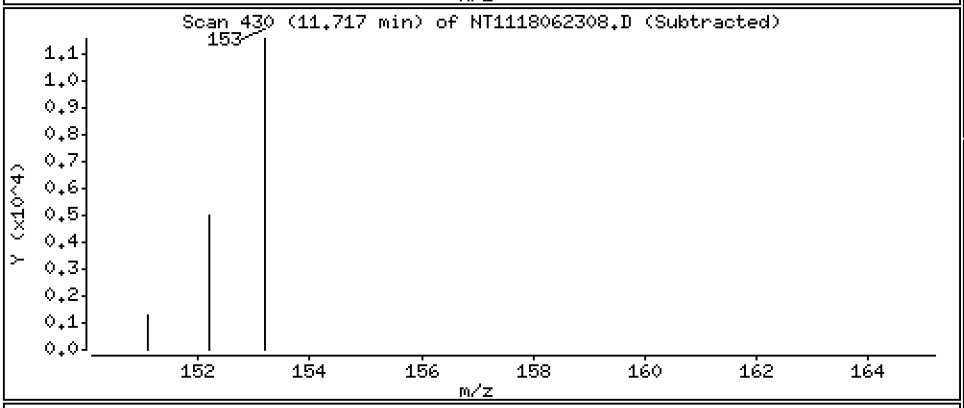
Column diameter: 0.25

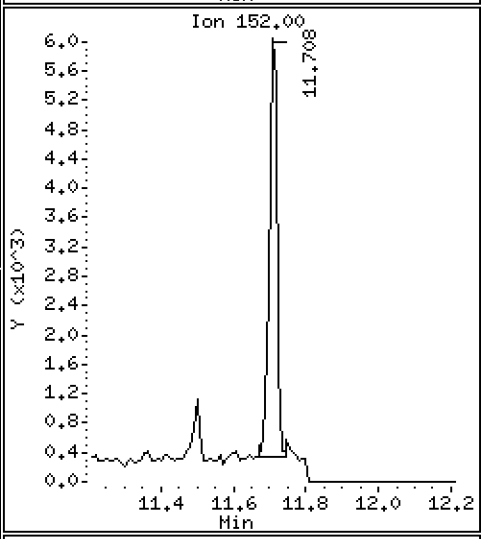
12 Acenaphthene

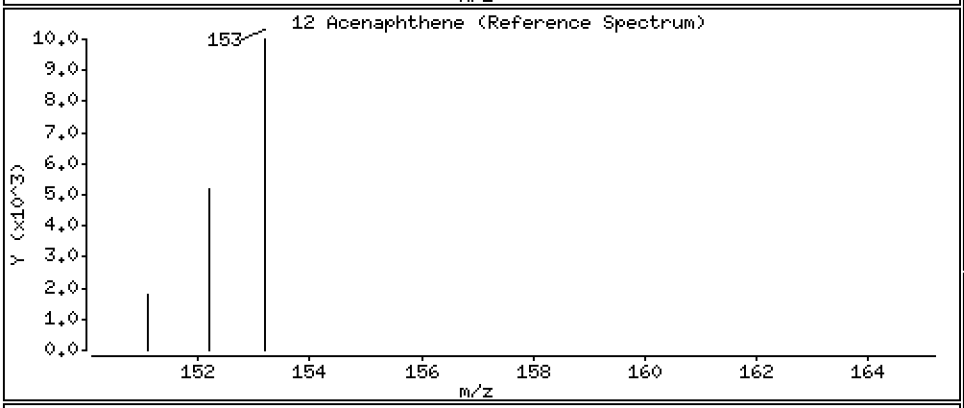
Concentration: 8.49 ng/mL

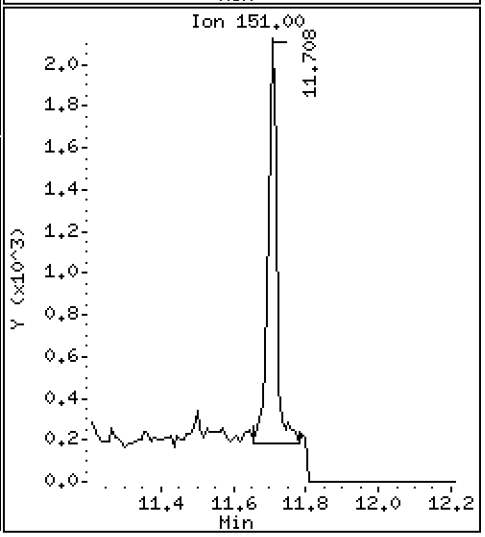


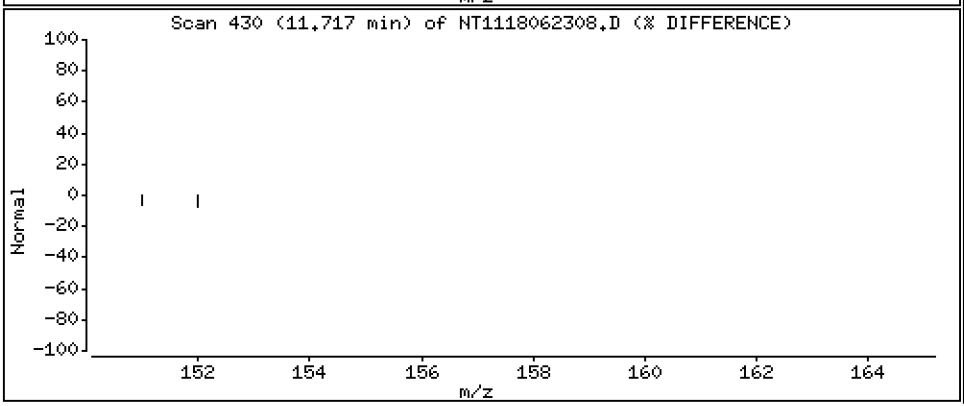












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Date : 23-JUN-2018 15:12

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-05

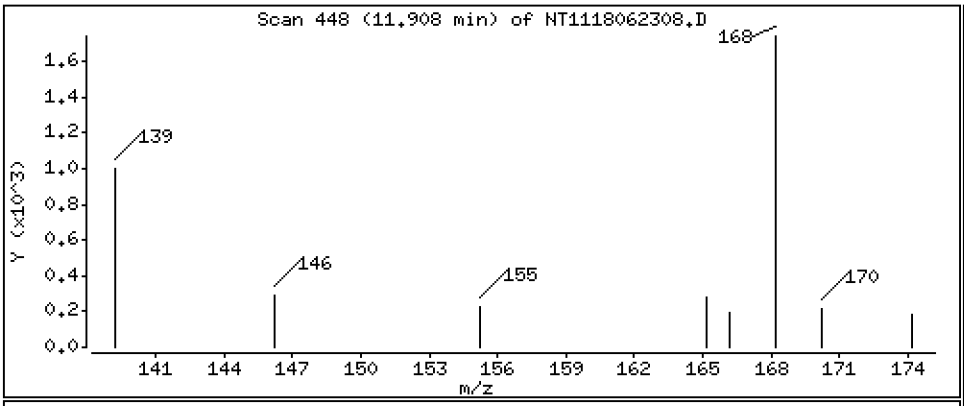
Operator: VTS

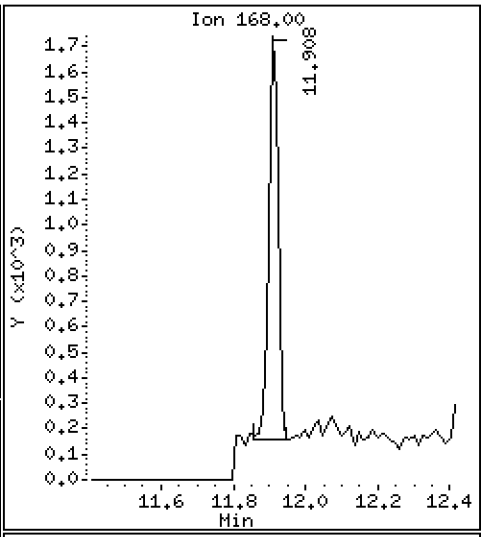
Column phase: Rxi-17Sil MS

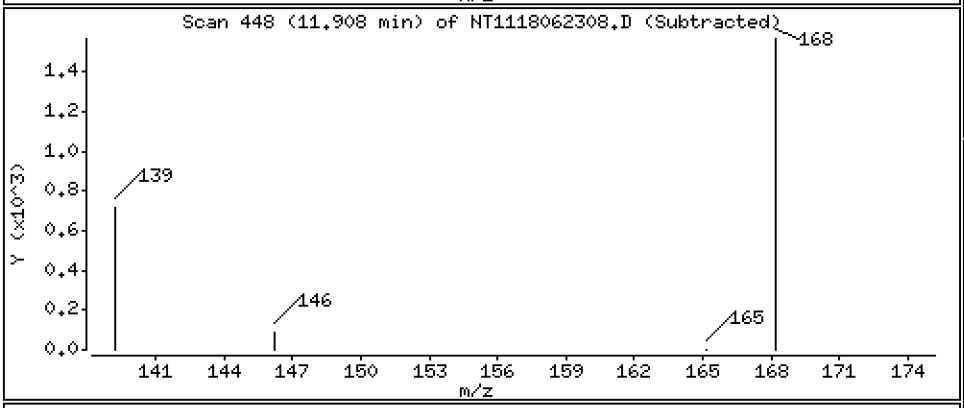
Column diameter: 0.25

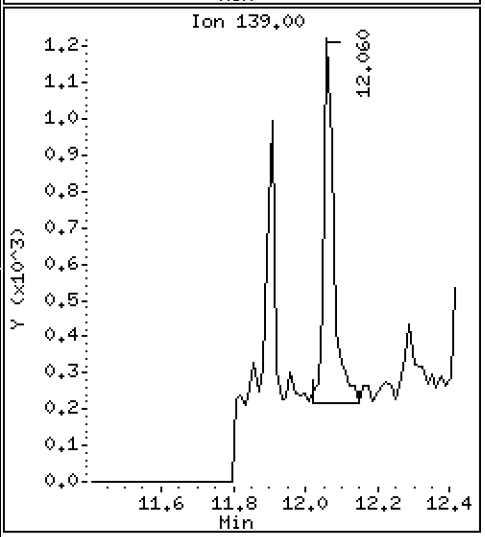
13 Dibenzofuran

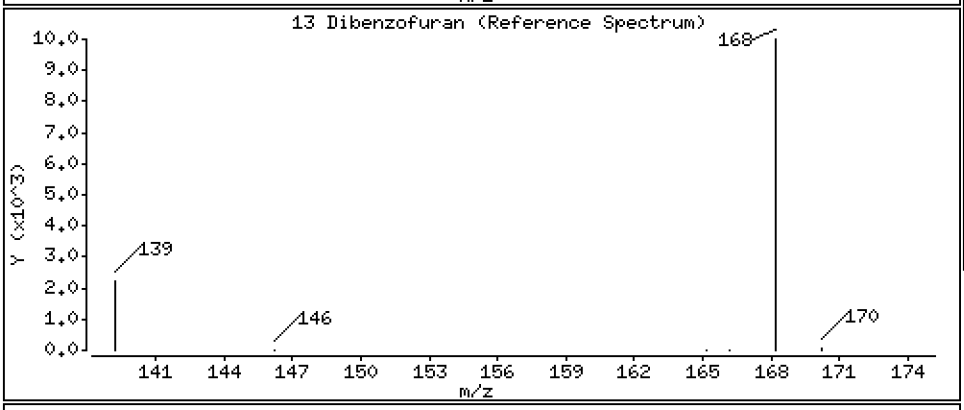
Concentration: 0.980 ng/mL

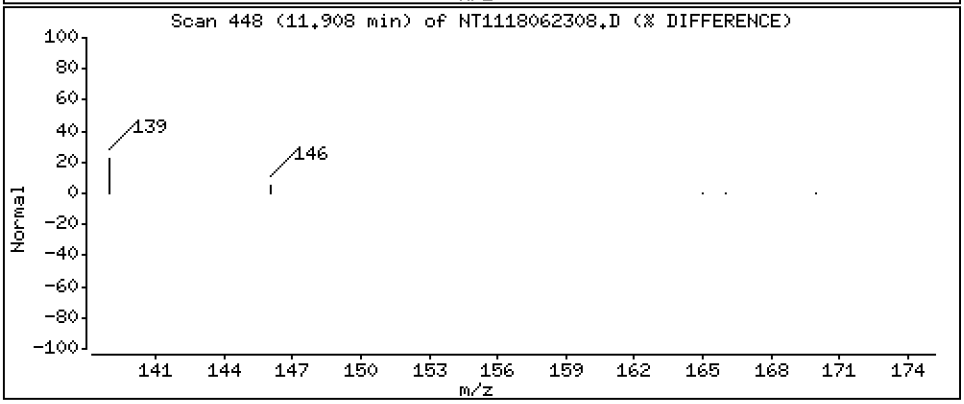












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Date : 23-JUN-2018 15:12

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-05

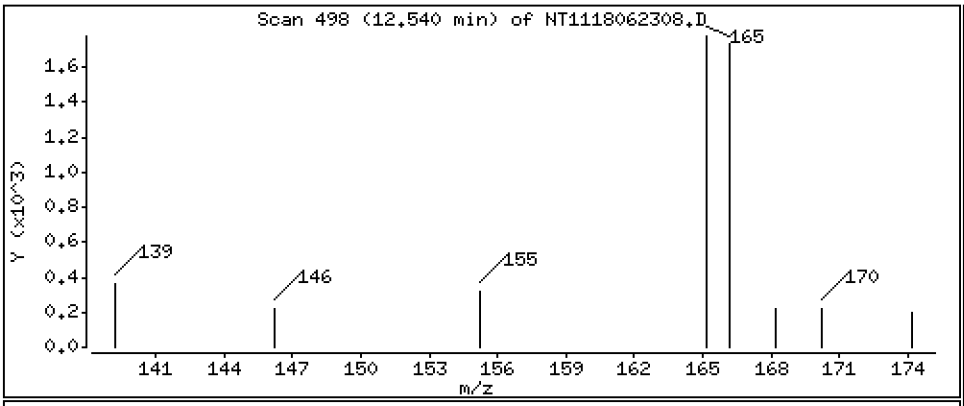
Operator: VTS

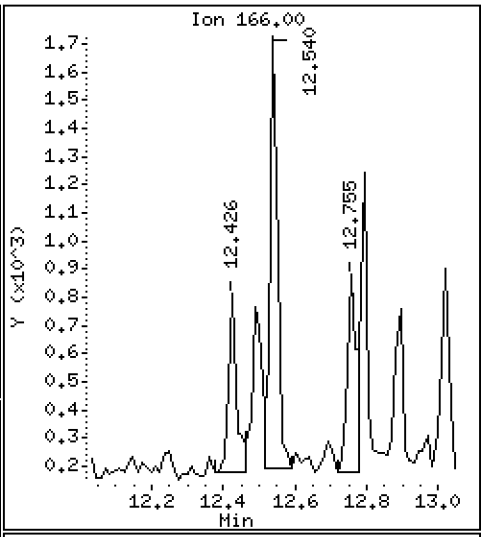
Column phase: Rxi-17Sil MS

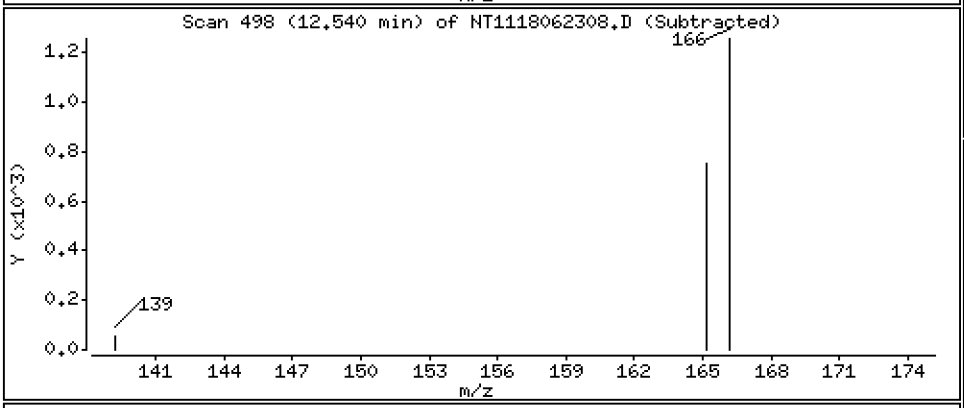
Column diameter: 0.25

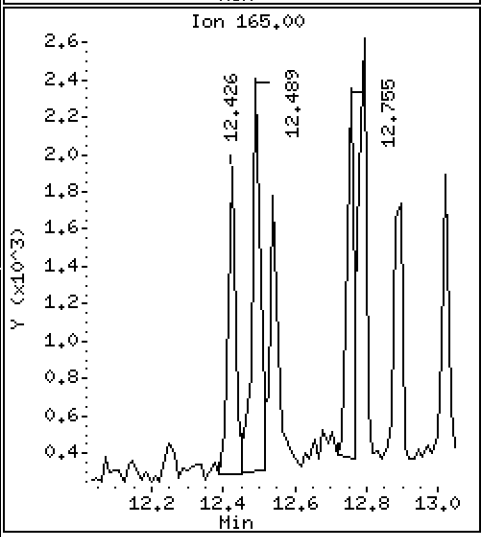
16 Fluorene

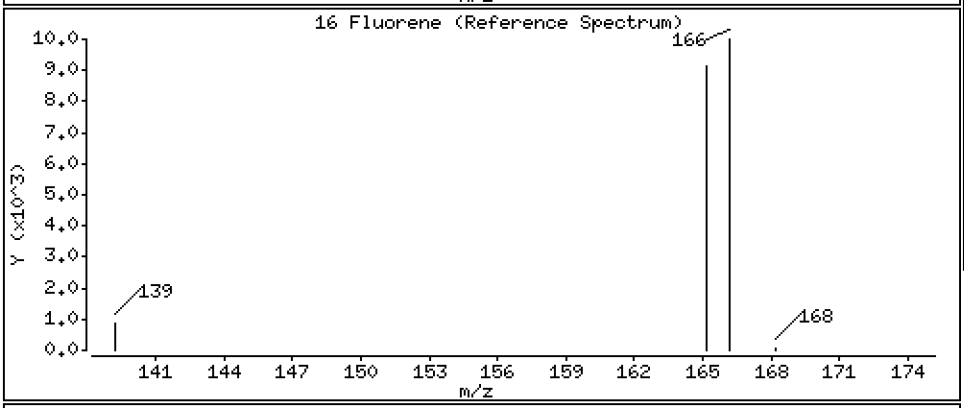
Concentration: 0.990 ng/mL

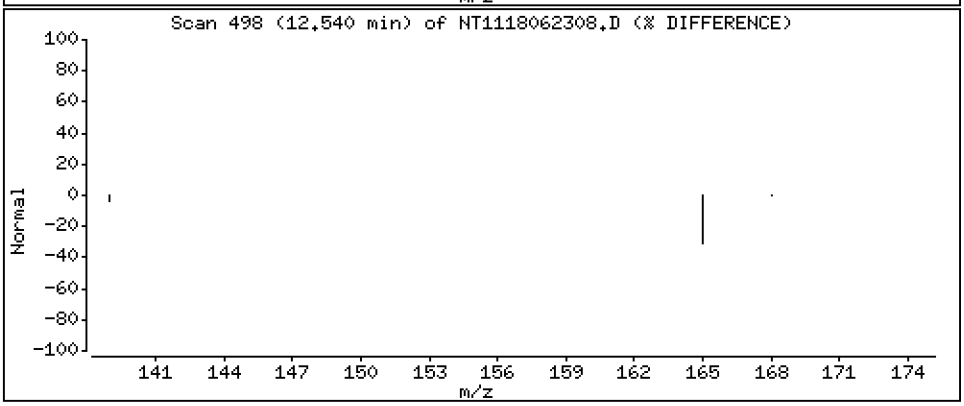












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062308.D

Date : 23-JUN-2018 15:12

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-05

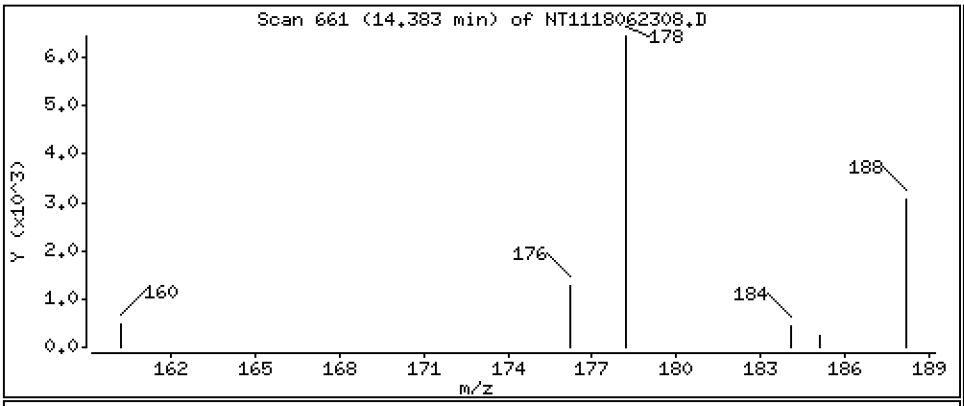
Operator: VTS

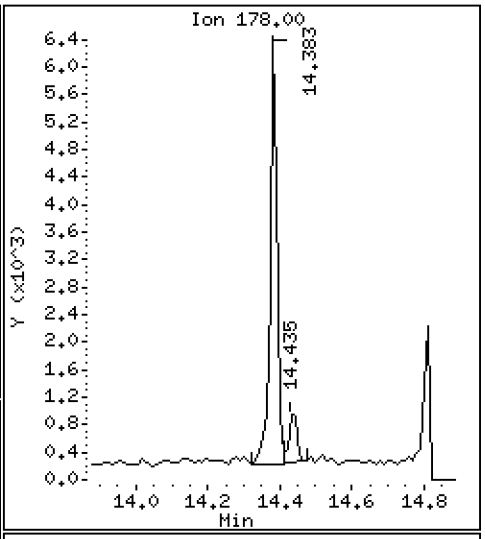
Column phase: Rxi-17Sil MS

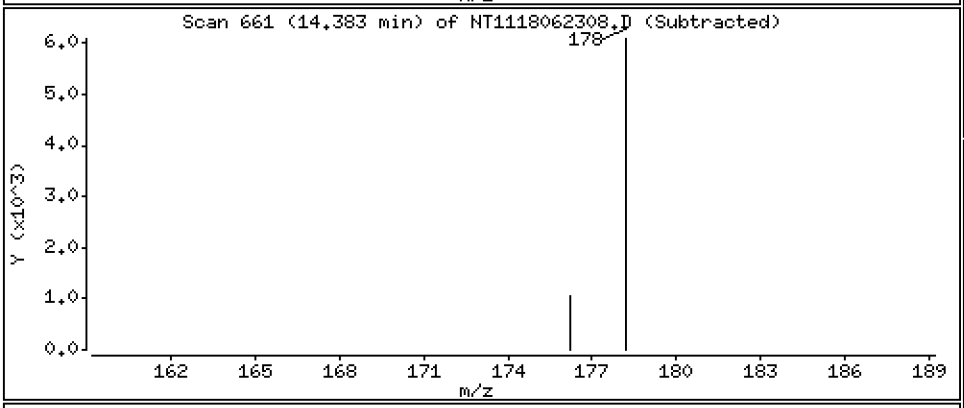
Column diameter: 0.25

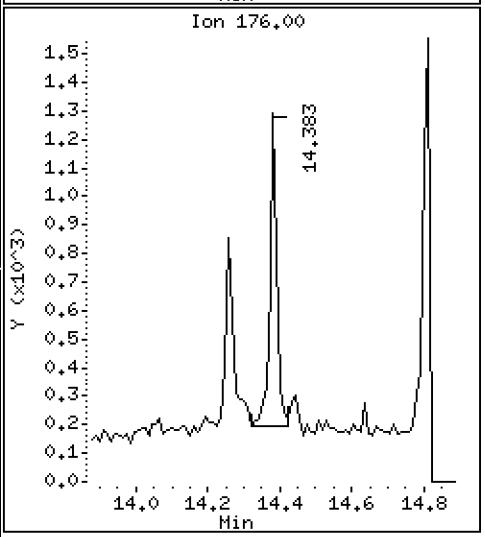
19 Phenanthrene

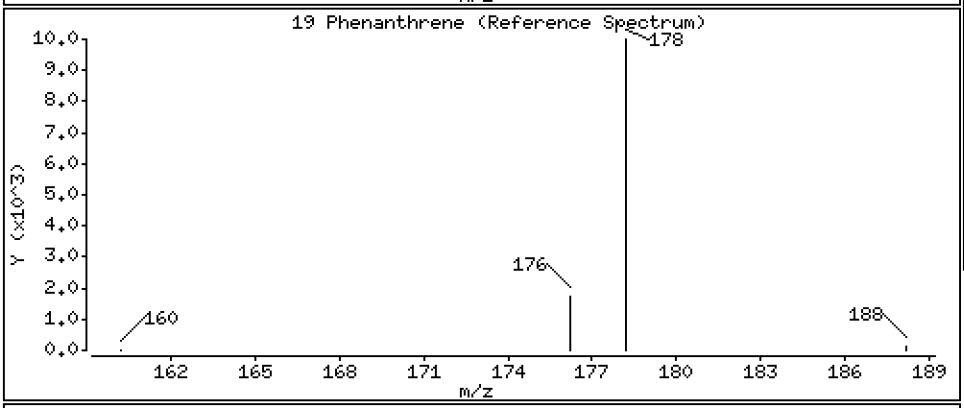
Concentration: 2.70 ng/mL

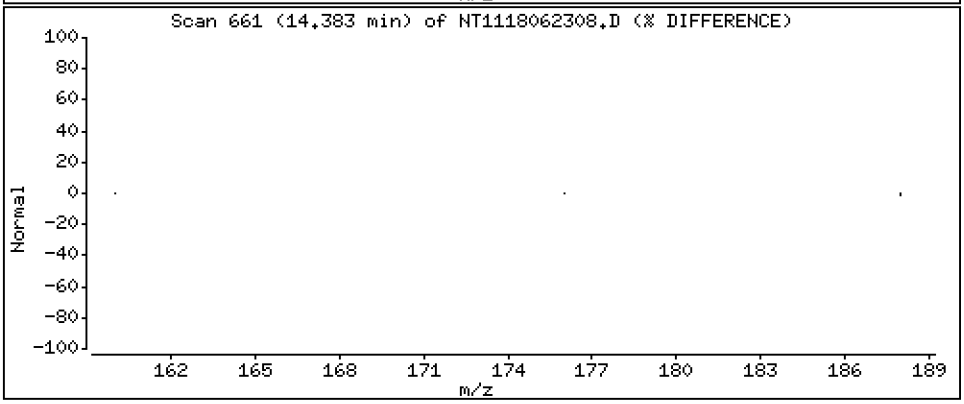












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062308.D

Date : 23-JUN-2018 15:12

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-05

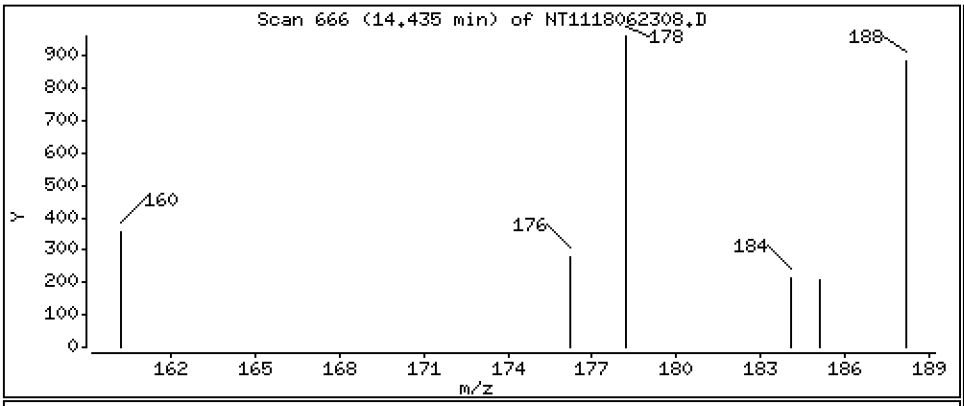
Operator: VTS

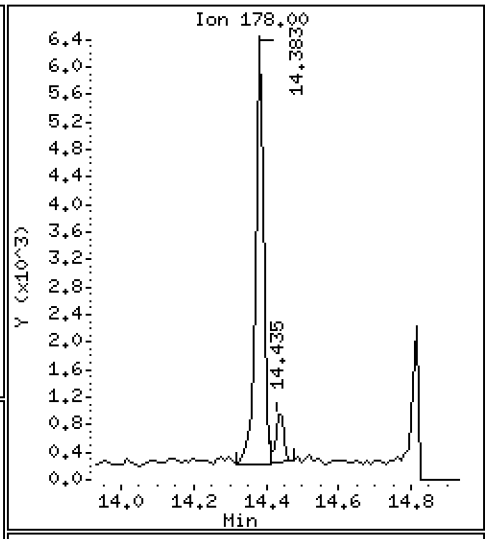
Column phase: Rxi-17Sil MS

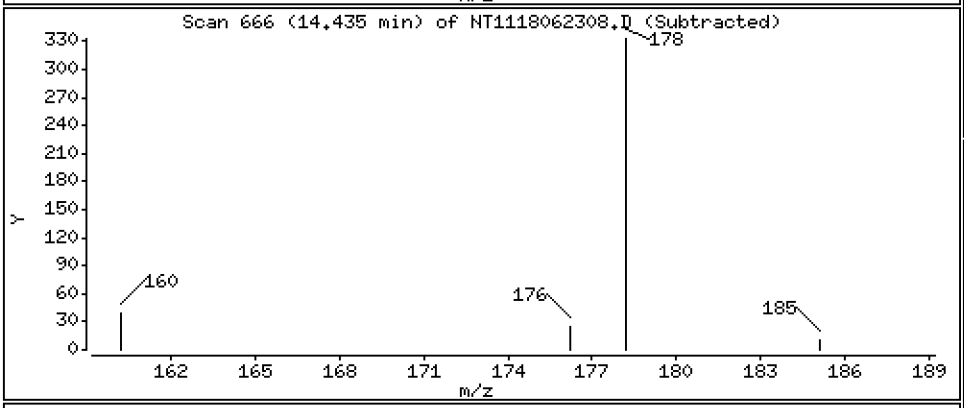
Column diameter: 0.25

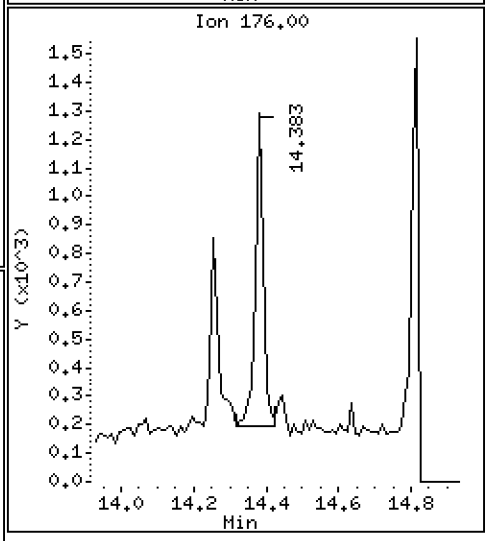
21 Anthracene

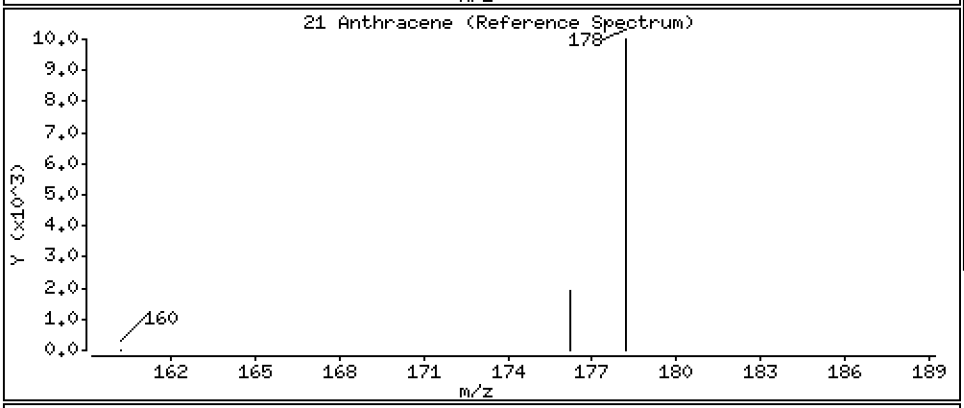
Concentration: 0.343 ng/mL

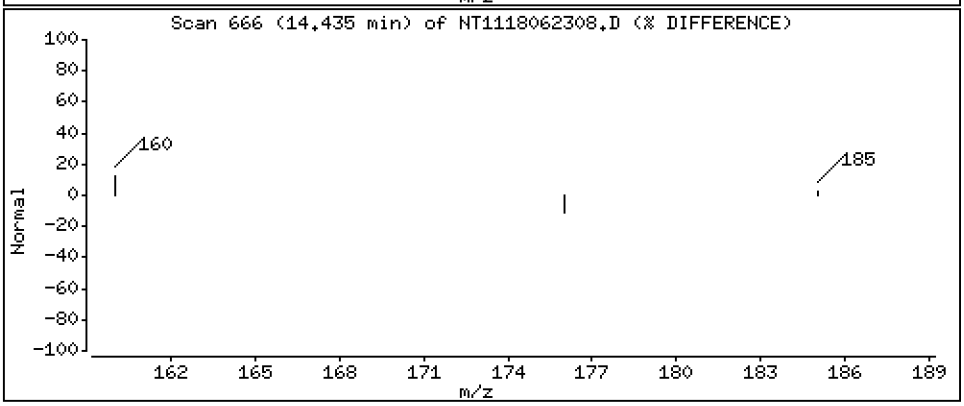












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062308.D

Date : 23-JUN-2018 15:12

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-05

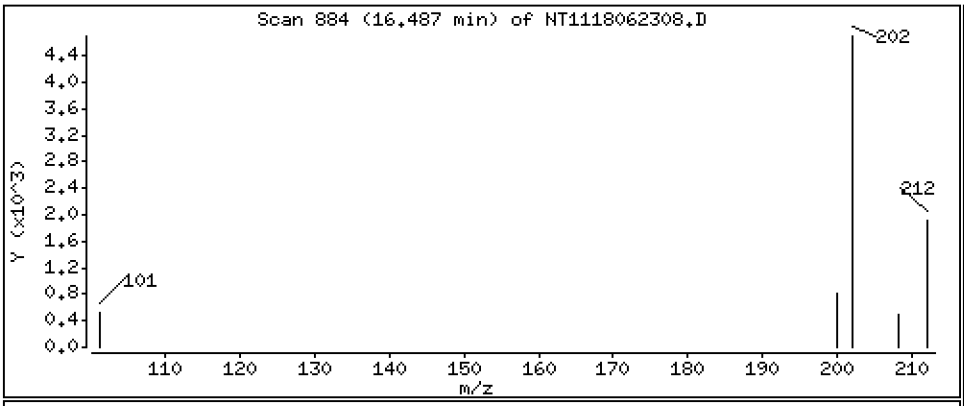
Operator: VTS

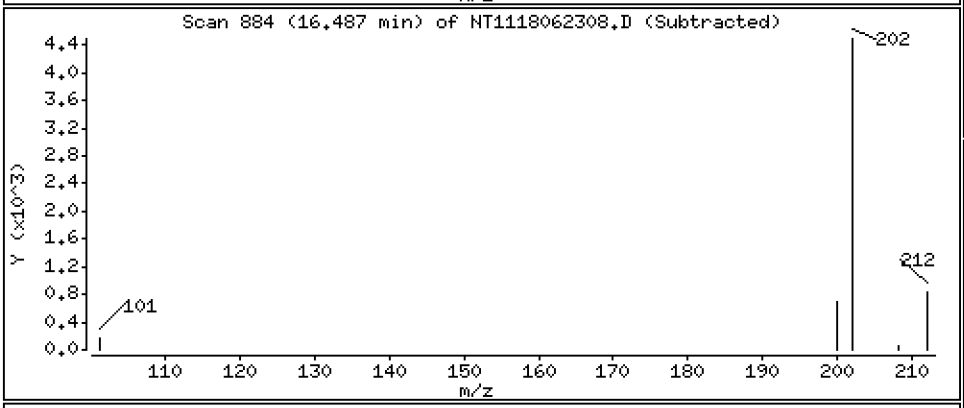
Column phase: Rxi-17Sil MS

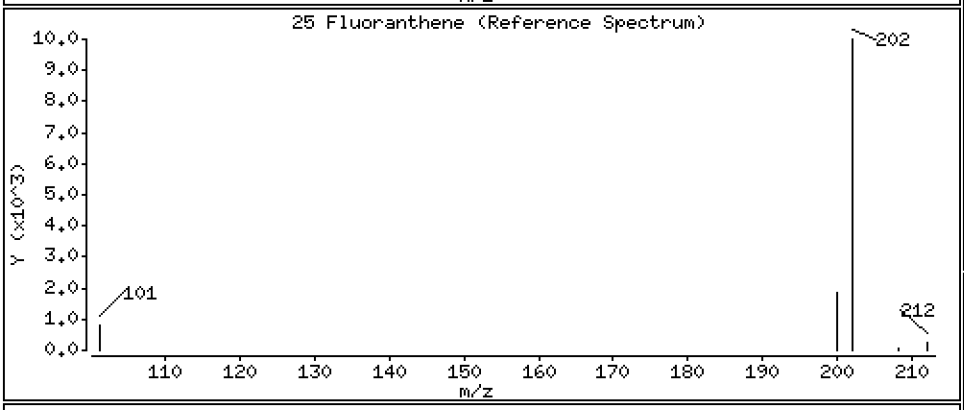
Column diameter: 0.25

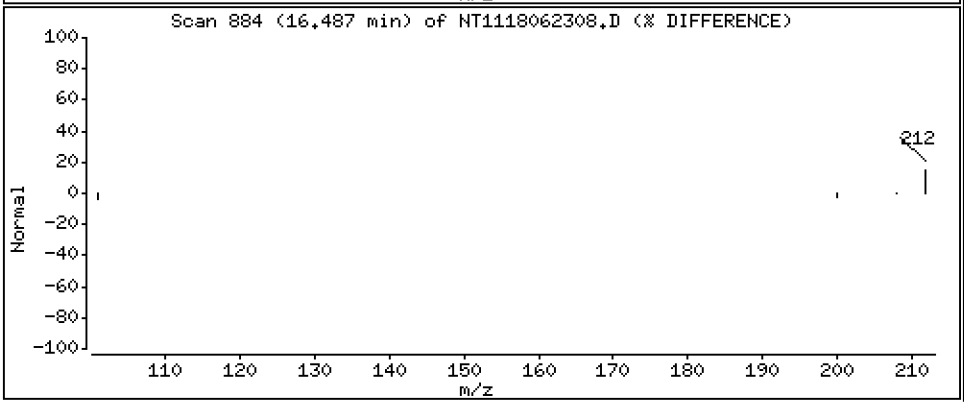
25 Fluoranthene

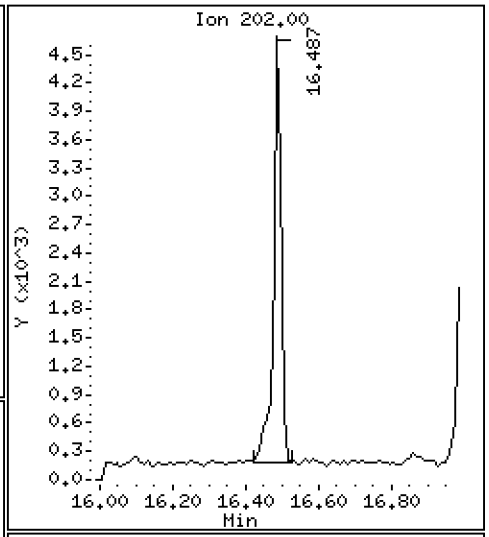
Concentration: 2.15 ng/mL

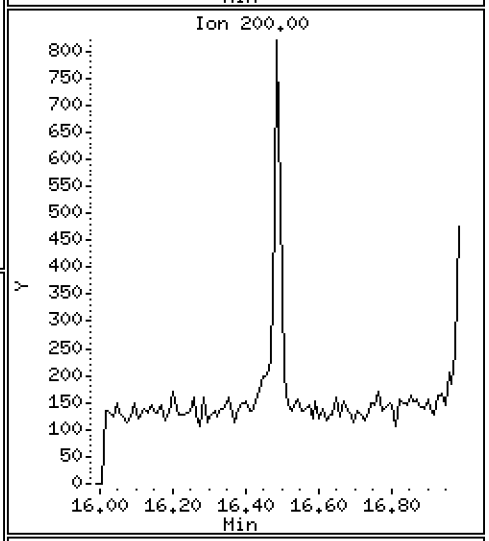


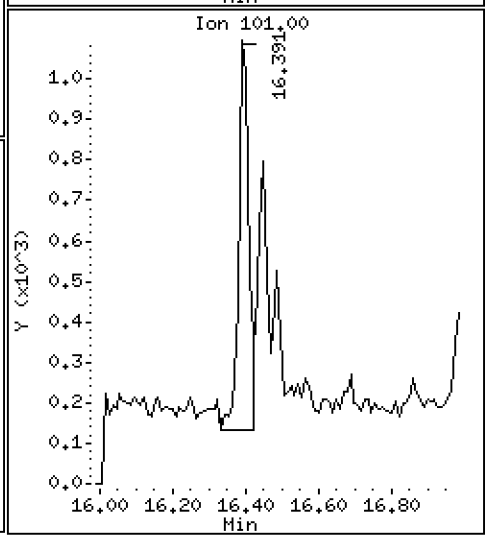












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062308.D

Date : 23-JUN-2018 15:12

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-05

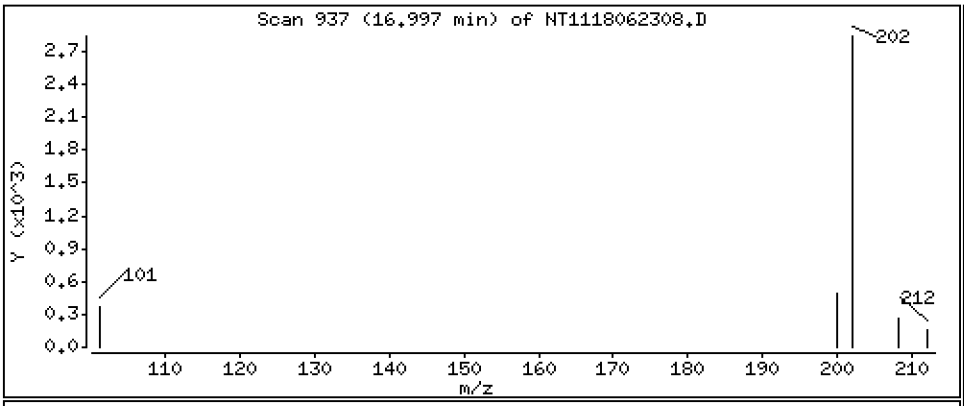
Operator: VTS

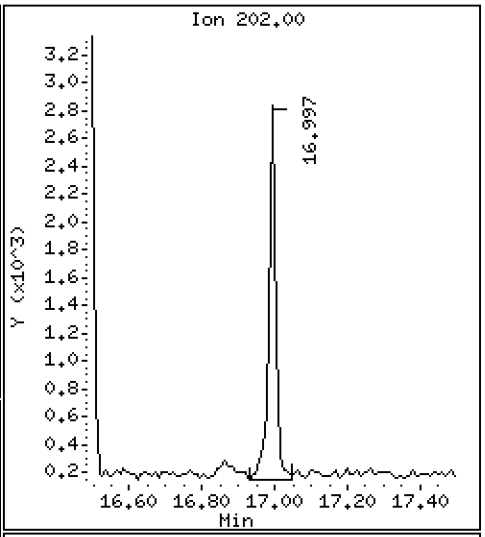
Column phase: Rxi-17Sil MS

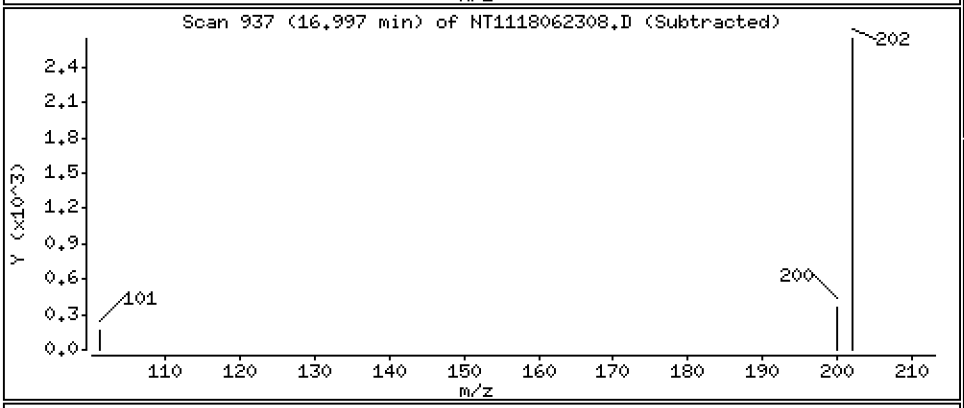
Column diameter: 0.25

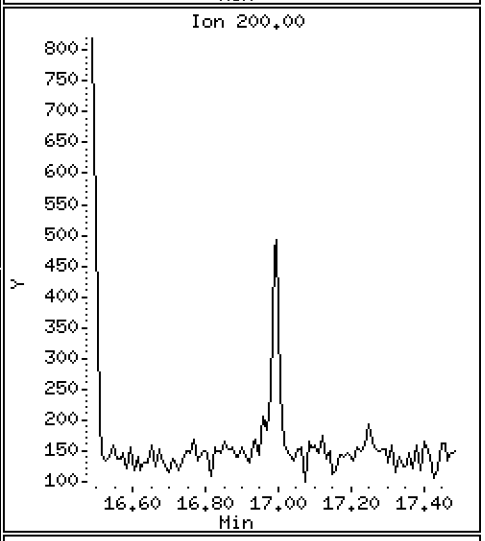
26 Pyrene

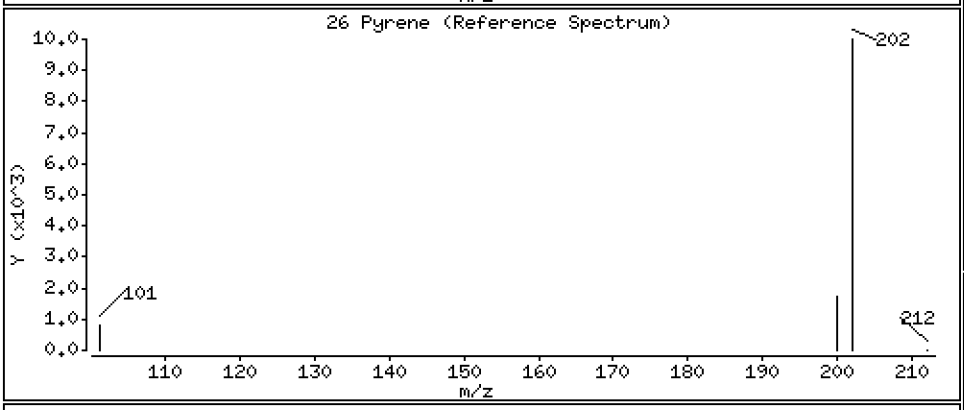
Concentration: 1.25 ng/mL

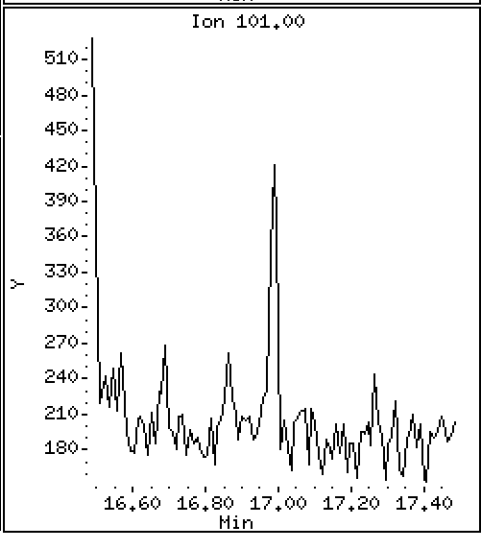


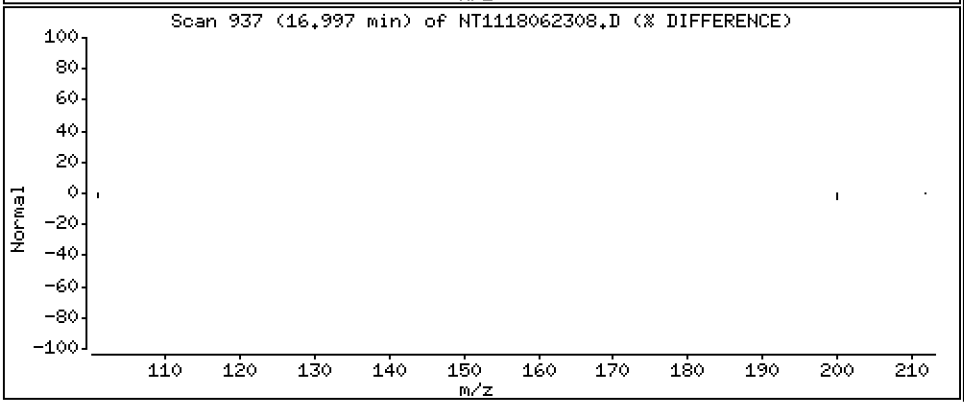












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180623.b\NT1118062308.D
Lab Smp Id: 18F0185-05
Inj Date : 23-JUN-2018 15:12 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0185-05
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180623.b\LOWSIM.m
Meth Date : 23-Jun-2018 13:20 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.617	8.608	(1.000)	445376	200.000	
	2 Naphthalene	128	8.644	8.644	(1.003)	6942	2.06954	2.07
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.113)	361631	142.310	142
	5 2-Methylnaphthalene	142	9.655	9.644	(1.120)	4204	1.54959	1.55
	6 1-Methylnaphthalene	142	9.907	9.907	(1.150)	3329	1.23381	1.23
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	11.499	11.499	(0.987)	1189	0.39055	0.391
*	11 Acenaphthene-d10	164	11.653	11.644	(1.000)	256055	200.000	
	12 Acenaphthene	153	11.716	11.707	(1.005)	17684	8.49252	8.49
	13 Dibenzofuran	168	11.908	11.908	(1.022)	2797	0.98050	0.980
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.540	12.540	(1.076)	2277	0.98983	0.990
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	443516	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	9408	2.70462	2.70
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.435	14.435	(1.007)	1115	0.34288	0.343
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	Compound Not Detected.					
$	24 Fluoranthene-d10	212	16.458	16.449	(1.148)	461254	171.333	171
	25 Fluoranthene	202	16.487	16.487	(1.150)	6938	2.14778	2.15
	26 Pyrene	202	16.996	16.996	(0.890)	3899	1.25081	1.25
	27 Benzo(a)anthracene	228	Compound Not Detected.					
*	28 Chrysene-d12	240	19.103	19.095	(1.000)	317075	200.000	
	29 Chrysene	228	Compound Not Detected.					
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
35	Benzo(a)pyrene	252	Compound Not Detected.					
* 36	Perylene-d12	264	22.363	22.353	(1.000)	323040	200.000	
37	Perylene	252	Compound Not Detected.					
$ 38	Dibenzo(a,h)anthracene-d14	292	25.279	25.268	(1.130)	264813	171.304	171
39	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
40	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
41	Benzo(g,h,i)perylene	276	Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118062308.D
Lab Smp Id: 18F0185-05
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180623.b\LOWSIM.m
Misc Info:

Calibration Date: 23-JUN-2018
Calibration Time: 10:32
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	445376	3.26
11 Acenaphthene-d10	260137	130069	520274	256055	-1.57
18 Phenanthrene-d10	427391	213696	854782	443516	3.77
28 Chrysene-d12	304596	152298	609192	317075	4.10
36 Perylene-d12	263091	131546	526182	323040	22.79

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.62	0.10
11 Acenaphthene-d10	11.64	11.14	12.14	11.65	0.08
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	0.04
36 Perylene-d12	22.35	21.85	22.85	22.36	0.04

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118062308.D

Lab ID: 18F0185-05
nt11.i, 20180623.b\LOWSIM.m,   23-JUN-2018 15:12

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180623.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-38

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-06	SDG:	18F0185
Sampled:	06/12/18 10:27	Prepared:	06/18/18 13:48	File ID:	NT1118062309.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/23/18 15:48
Batch:	BGF0416	Sequence:	SGF0298	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.003	J	0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.001	J	0.001	0.010
208-96-8	Acenaphthylene	1	0.010	U	0.002	0.010
83-32-9	Acenaphthene	1	0.011		0.003	0.010
86-73-7	Fluorene	1	0.002	J	0.002	0.010
85-01-8	Phenanthrene	1	0.010	J	0.001	0.010
120-12-7	Anthracene	1	0.001	J	0.001	0.010
206-44-0	Fluoranthene	1	0.009	J	0.002	0.010
129-00-0	Pyrene	1	0.002	J	0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.010	U	0.0008	0.010
218-01-9	Chrysene	1	0.010	U	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.010	U	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.111	37.2	42 - 120	*
Dibenzo[a,h]anthracene-d14	0.30000	0.127	42.3	29 - 120	
Fluoranthene-d10	0.30000	0.136	45.4	57 - 120	*

Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062309.D

Date : 23-JUN-2018 15:48

Client ID:

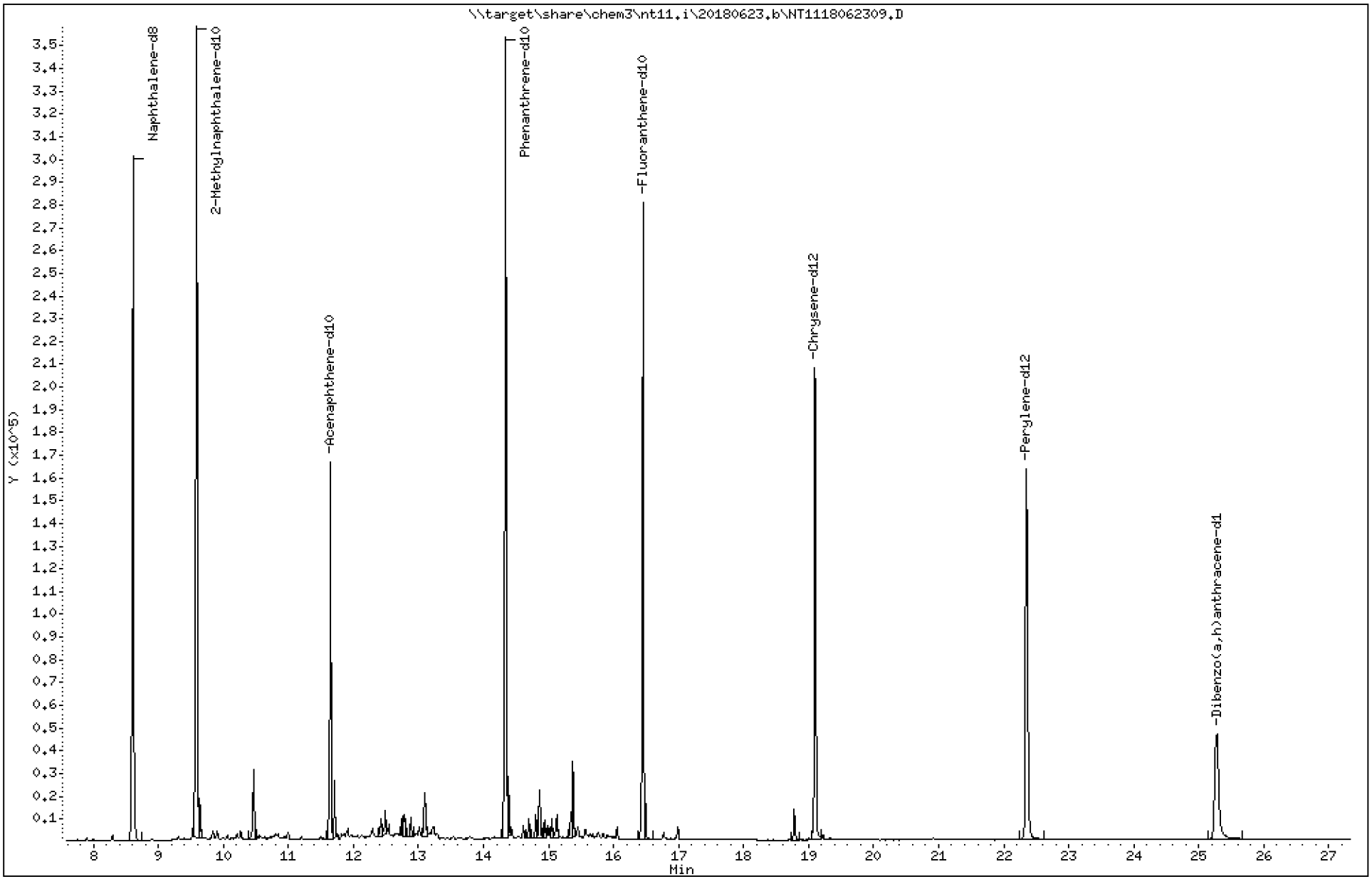
Instrument: nt11.i

Sample Info: 18F0185-06

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 23-JUN-2018 15:48

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-06

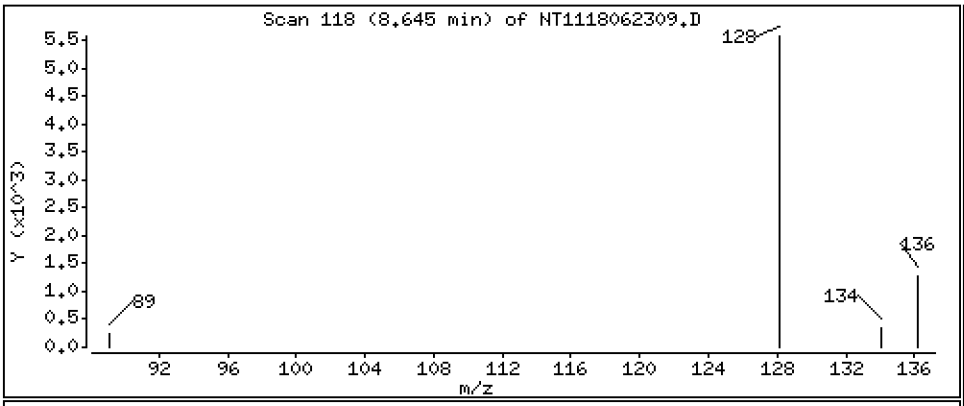
Operator: VTS

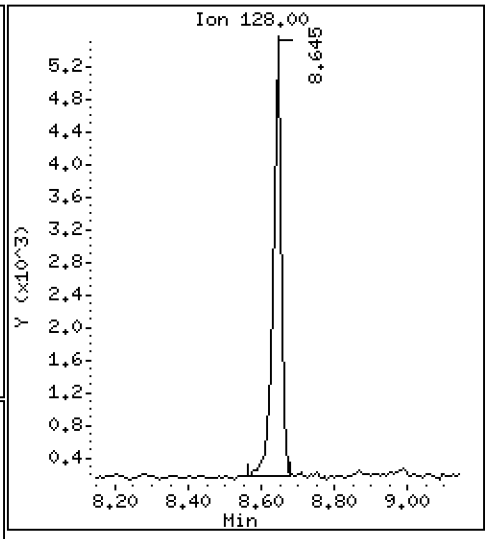
Column phase: Rxi-17Sil MS

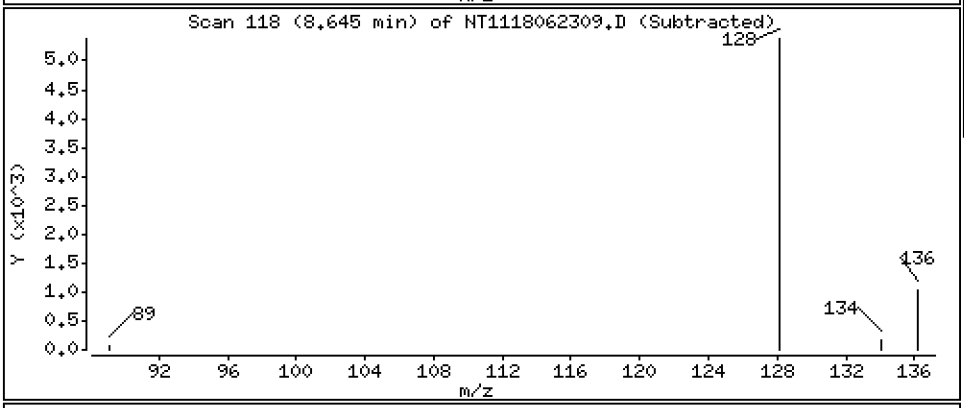
Column diameter: 0.25

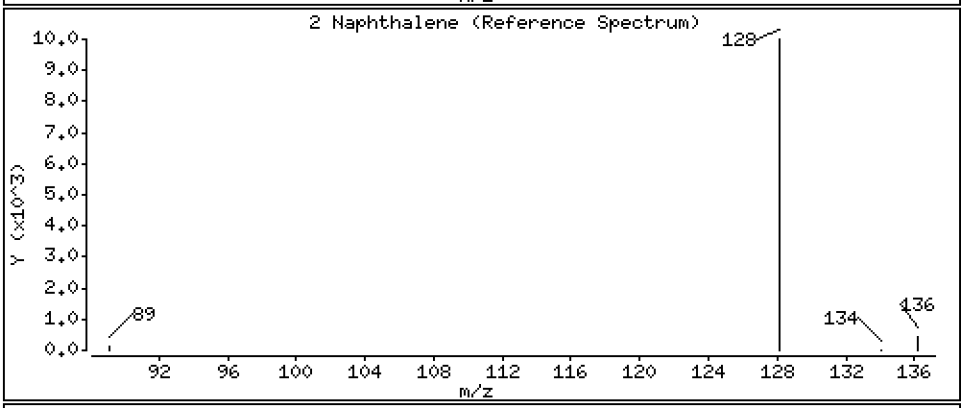
2 Naphthalene

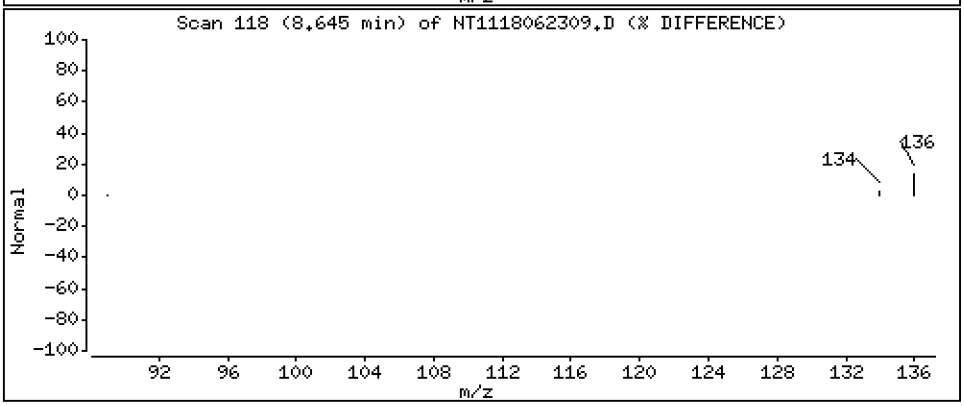
Concentration: 2.51 ng/mL











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Date : 23-JUN-2018 15:48

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-06

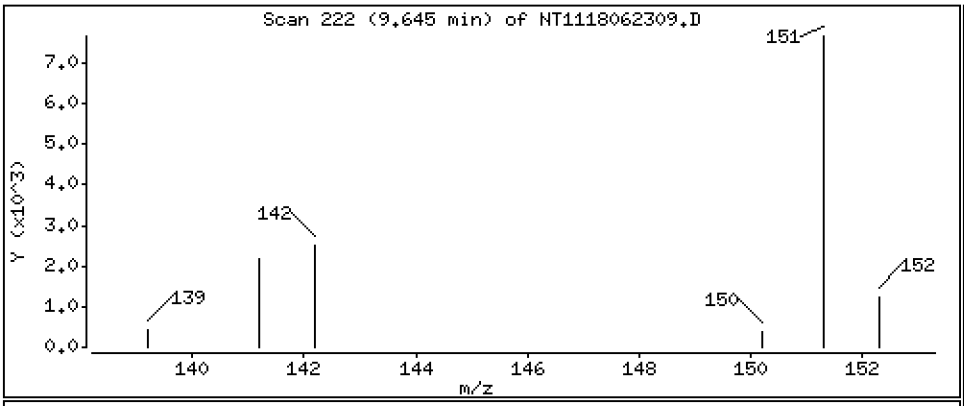
Operator: VTS

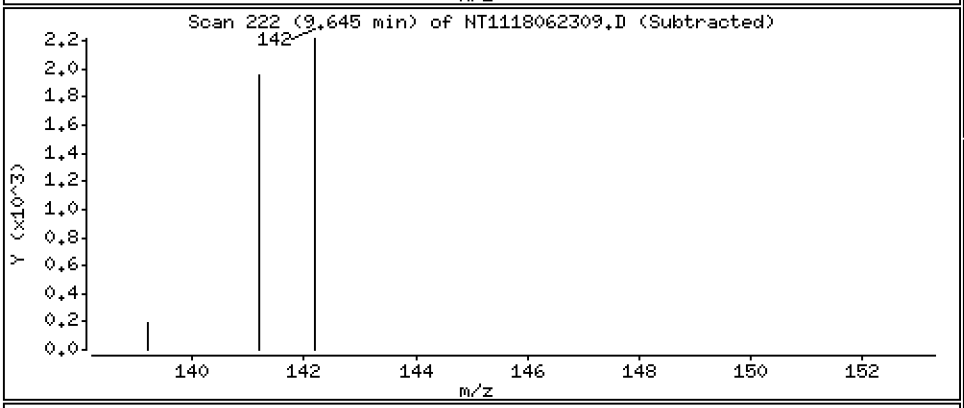
Column phase: Rxi-17Sil MS

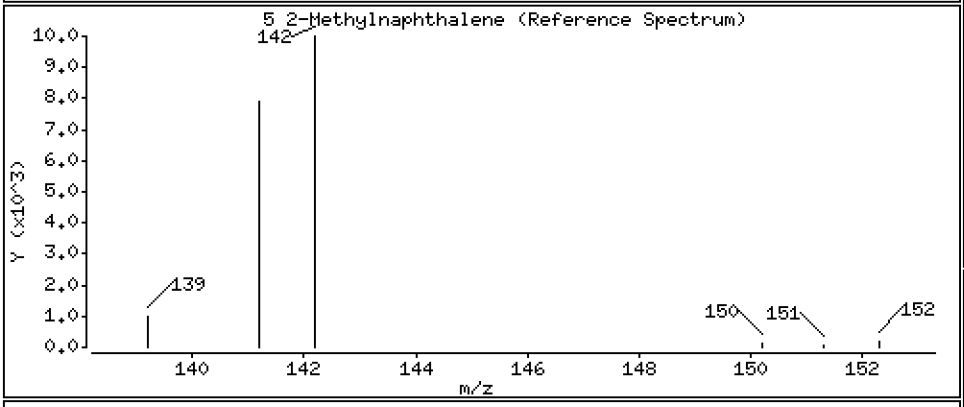
Column diameter: 0.25

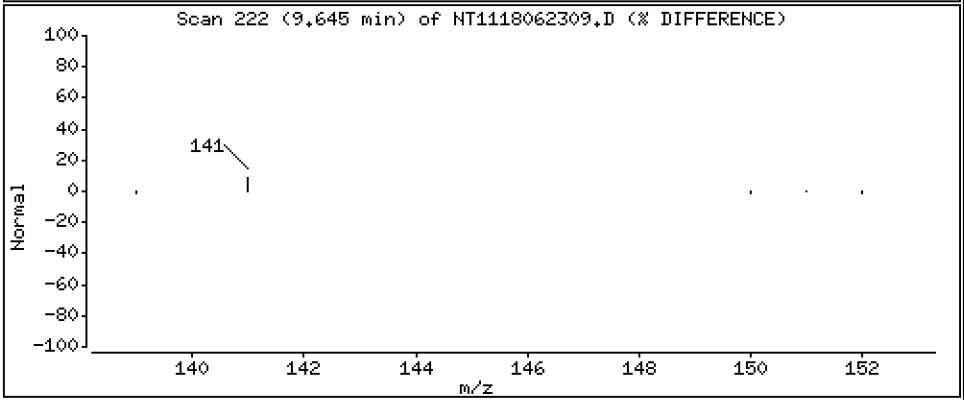
5 2-Methylnaphthalene

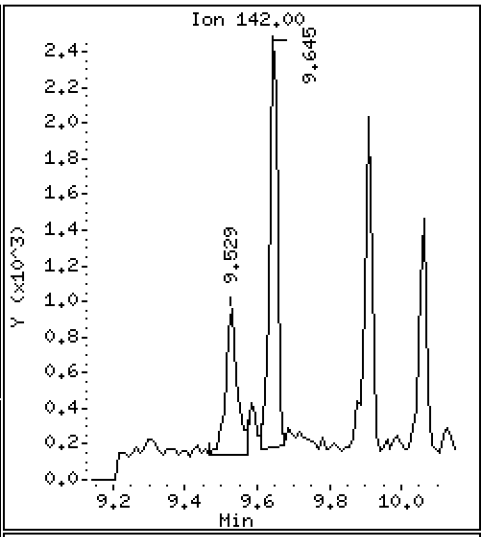
Concentration: 1.33 ng/mL

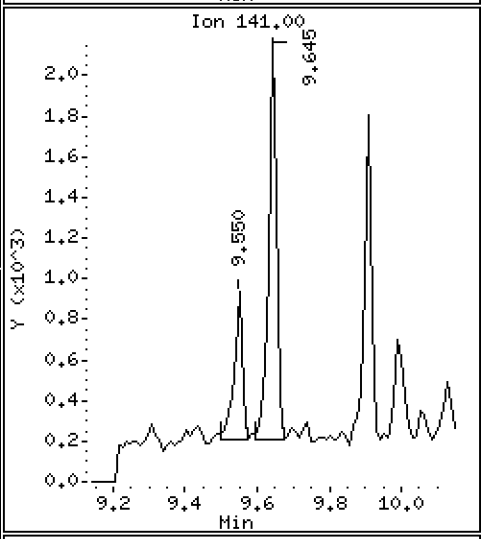


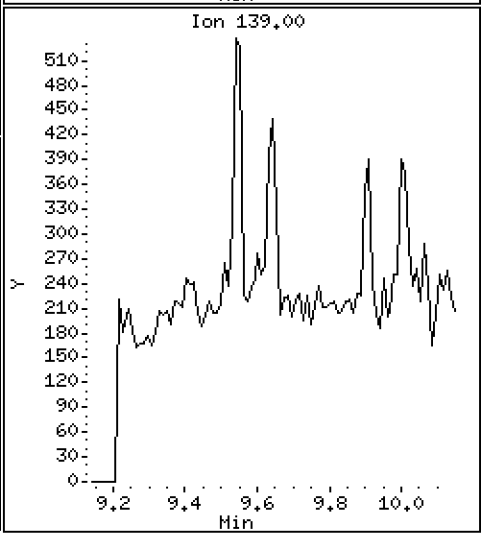












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Date : 23-JUN-2018 15:48

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-06

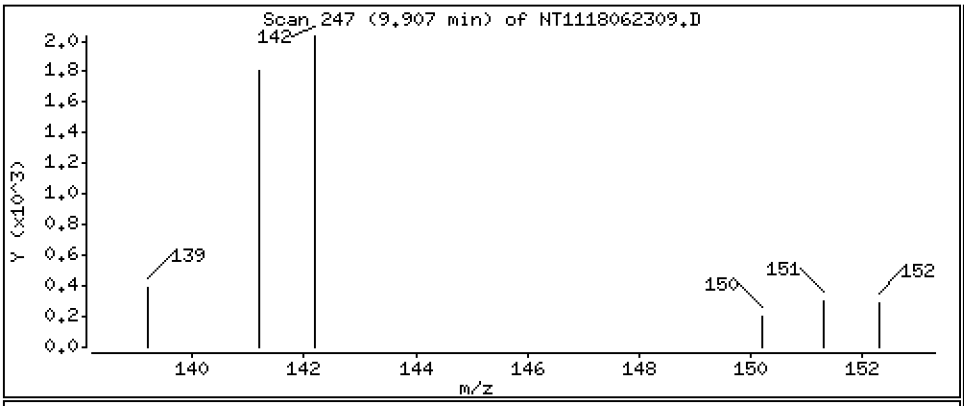
Operator: VTS

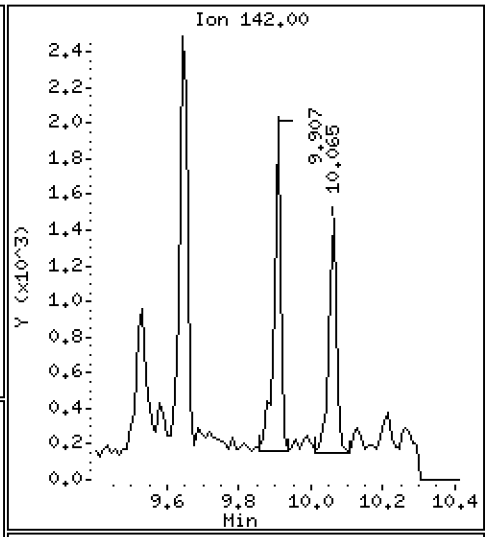
Column phase: Rxi-17Sil MS

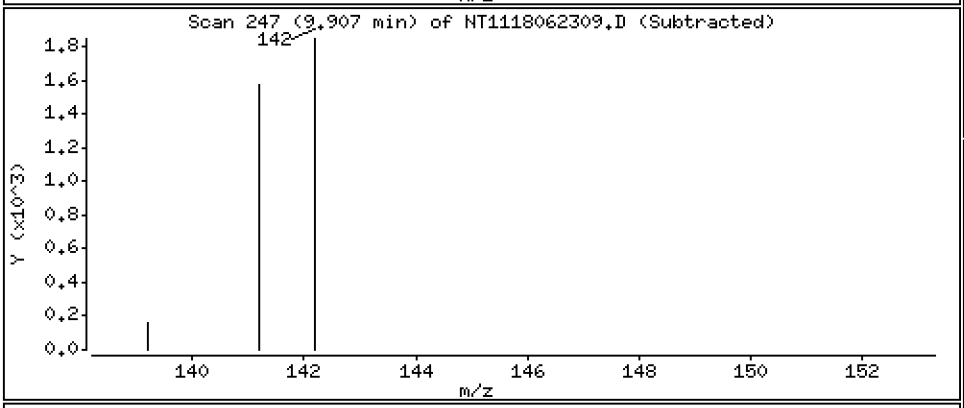
Column diameter: 0.25

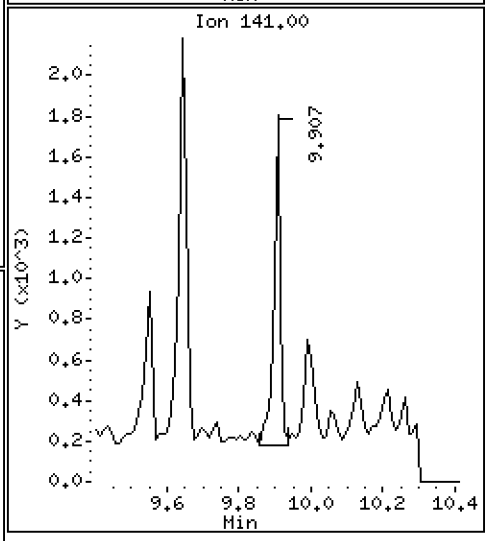
6 1-Methylnaphthalene

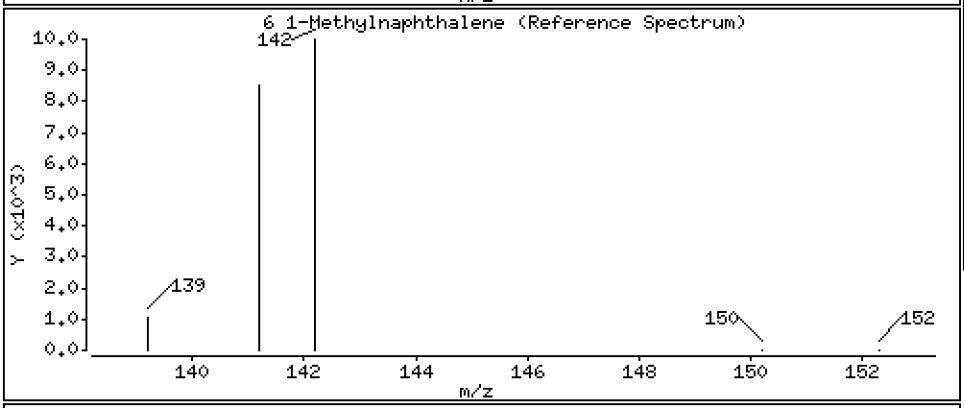
Concentration: 1.04 ng/mL

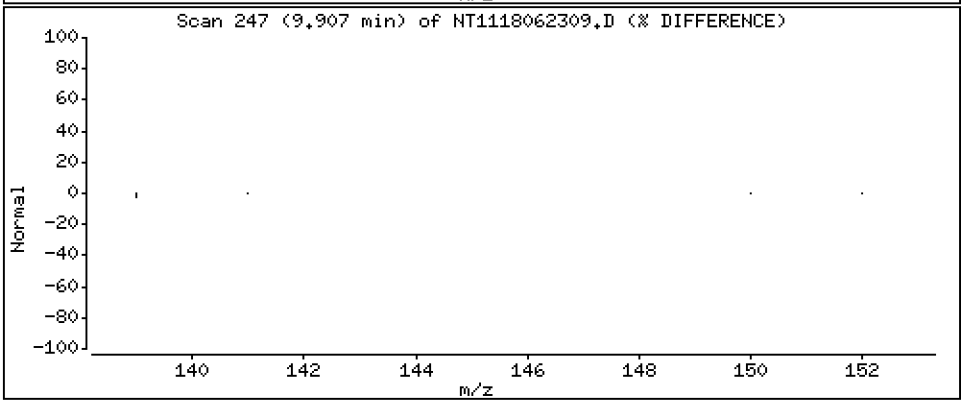












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Date : 23-JUN-2018 15:48

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-06

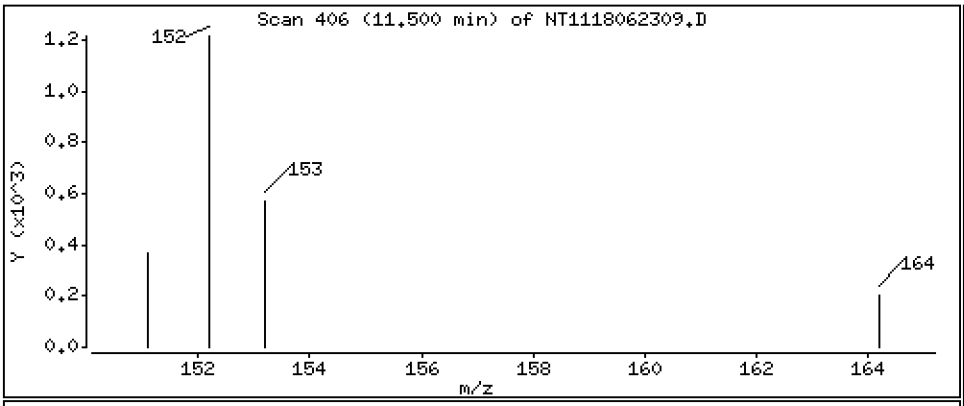
Operator: VTS

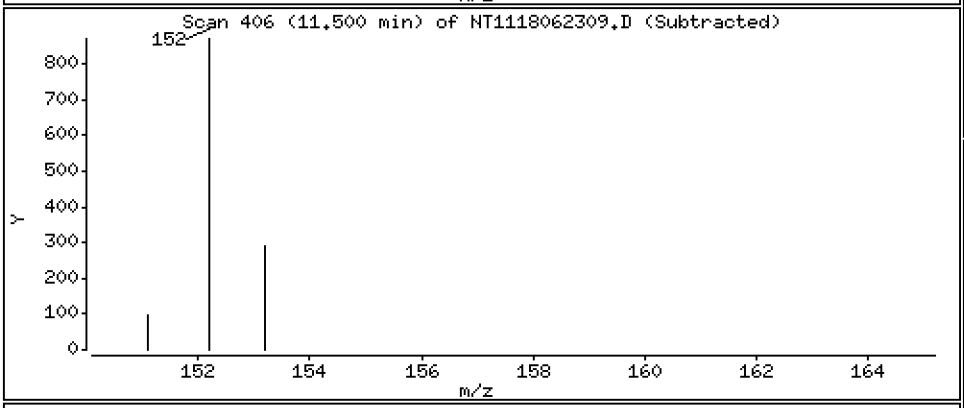
Column phase: Rxi-17Sil MS

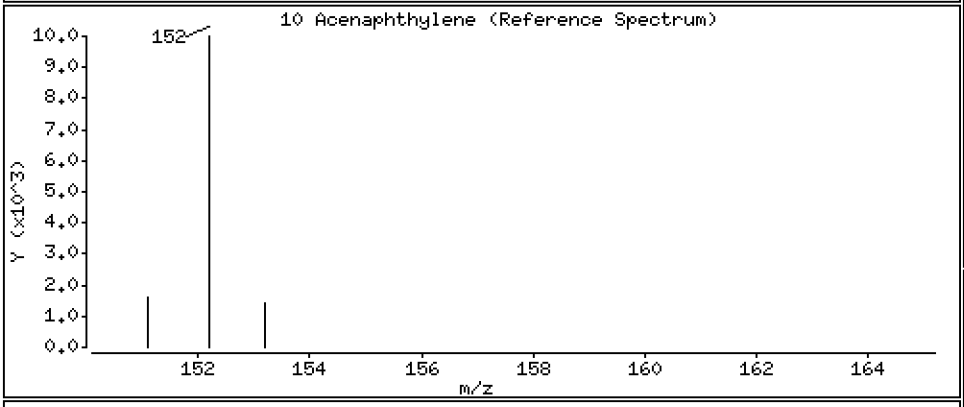
Column diameter: 0.25

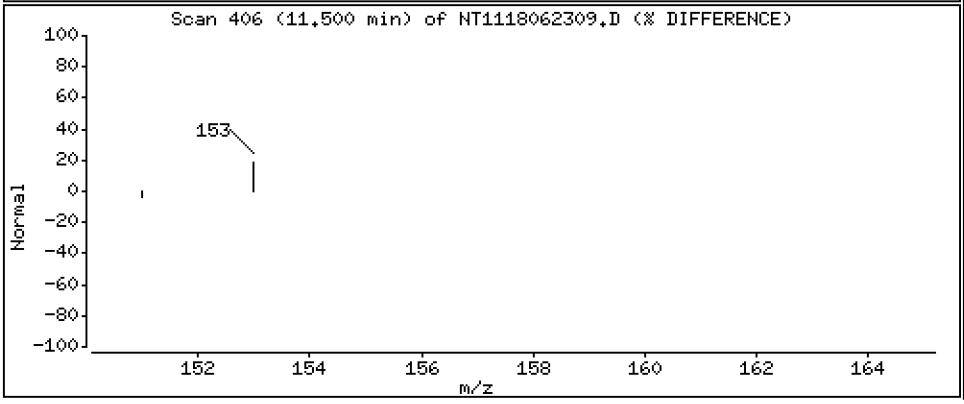
10 Acenaphthylene

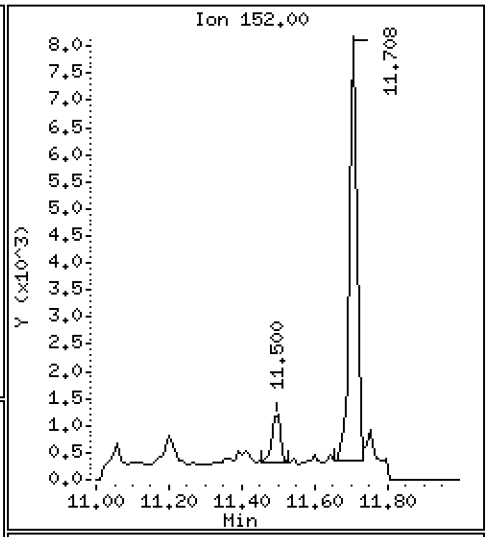
Concentration: 0.487 ng/mL

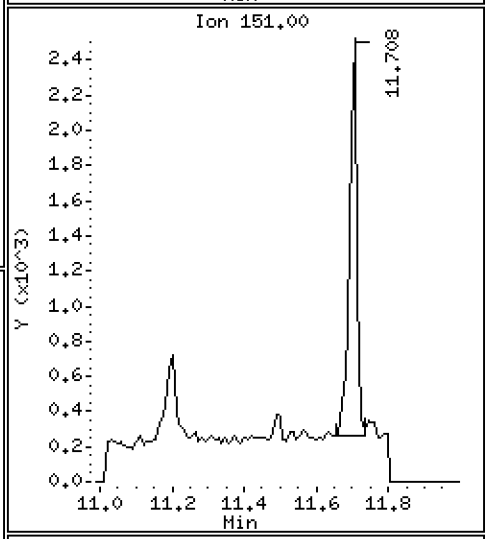


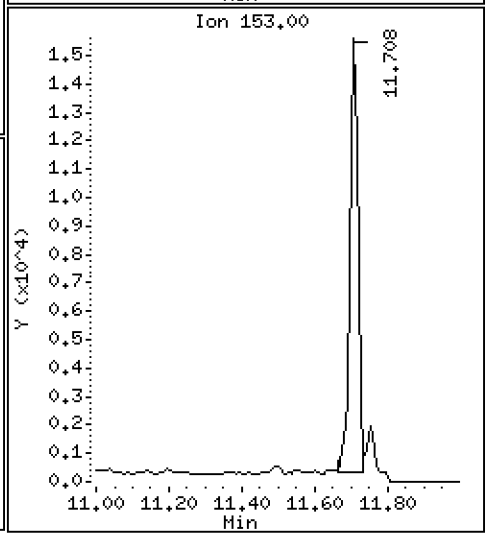












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Date : 23-JUN-2018 15:48

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-06

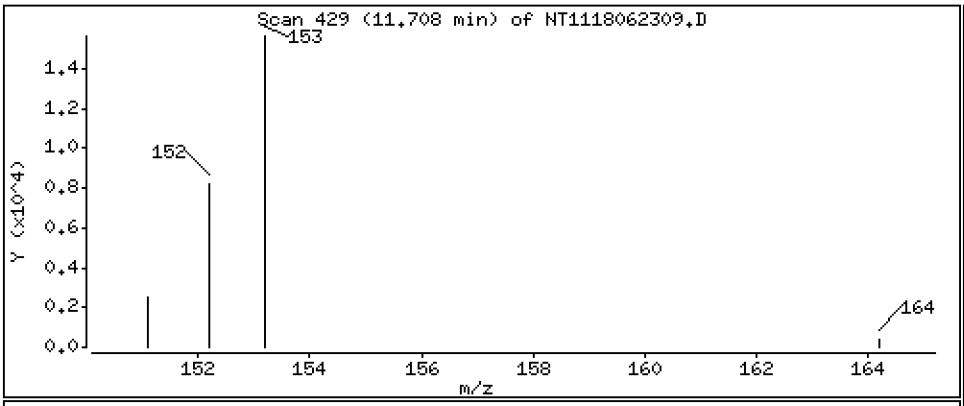
Operator: VTS

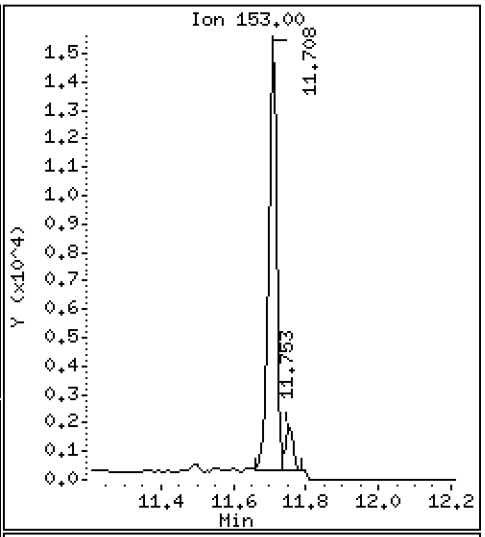
Column phase: Rxi-17Sil MS

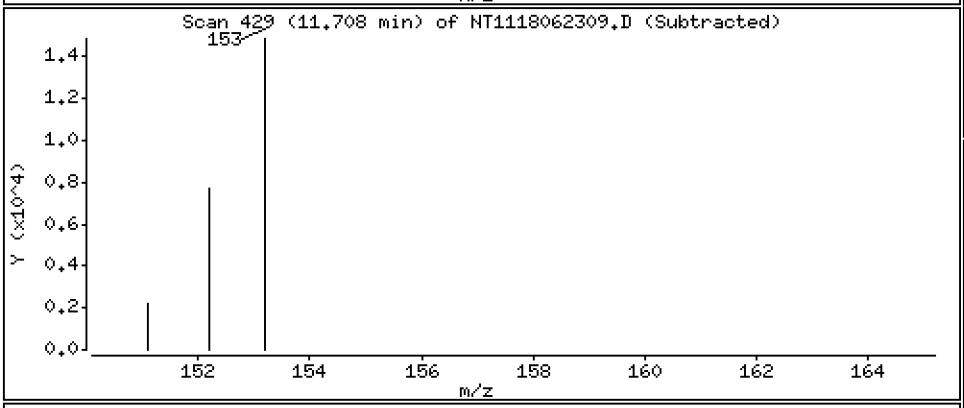
Column diameter: 0.25

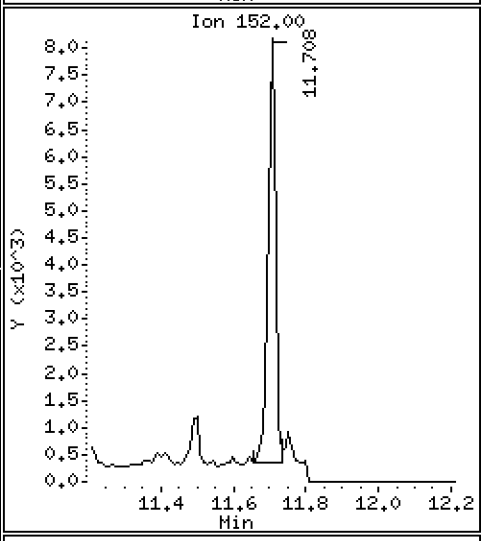
12 Acenaphthene

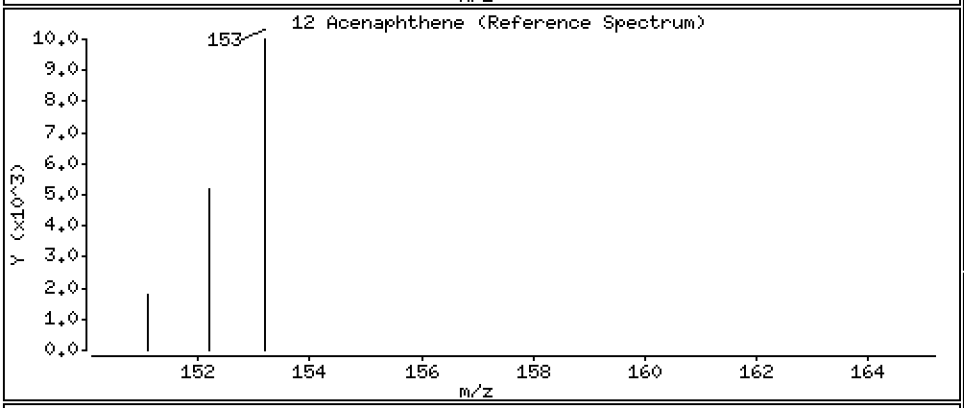
Concentration: 11.3 ng/mL

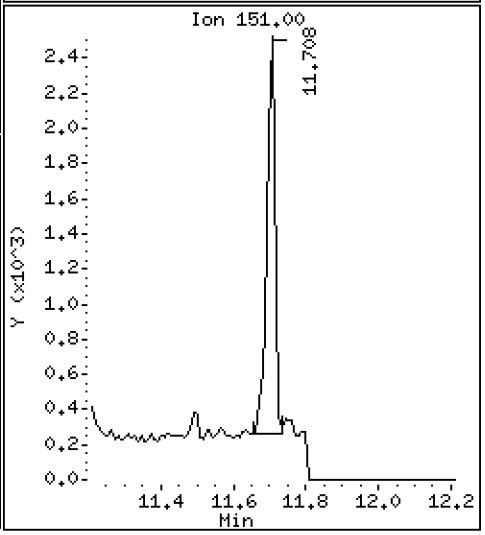


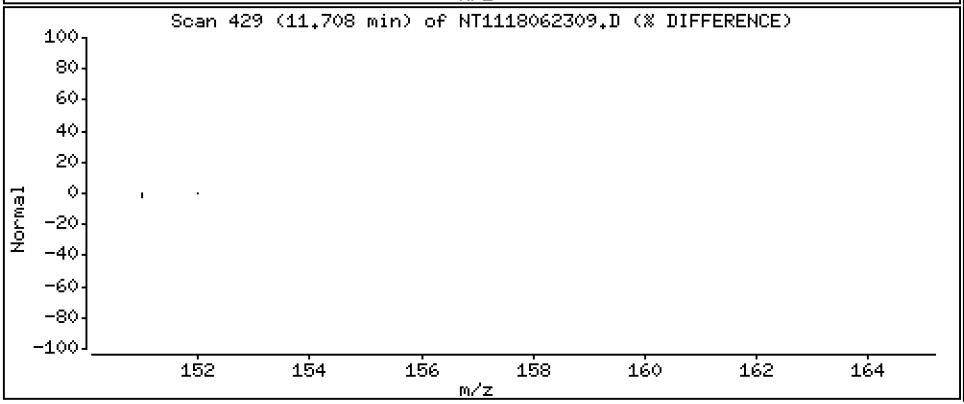












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Date : 23-JUN-2018 15:48

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-06

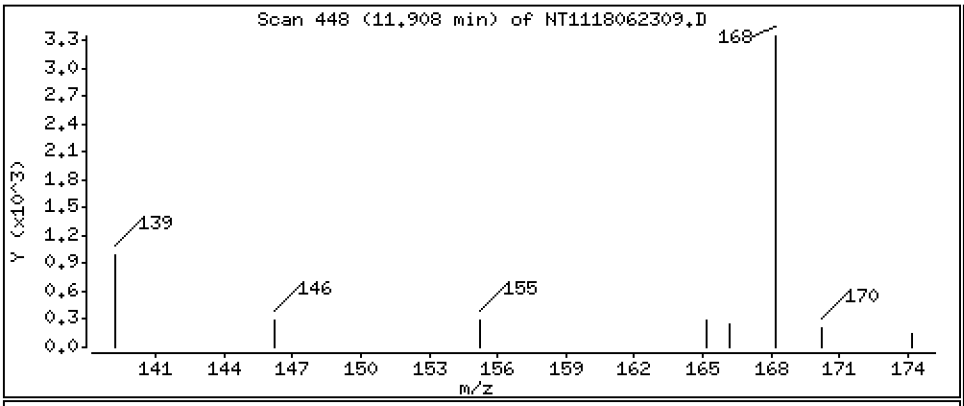
Operator: VTS

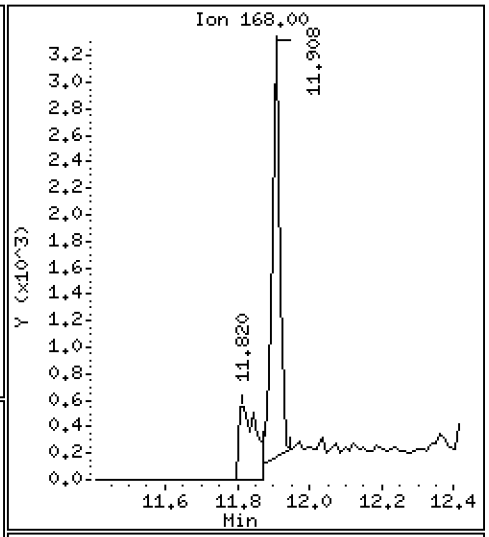
Column phase: Rxi-17Sil MS

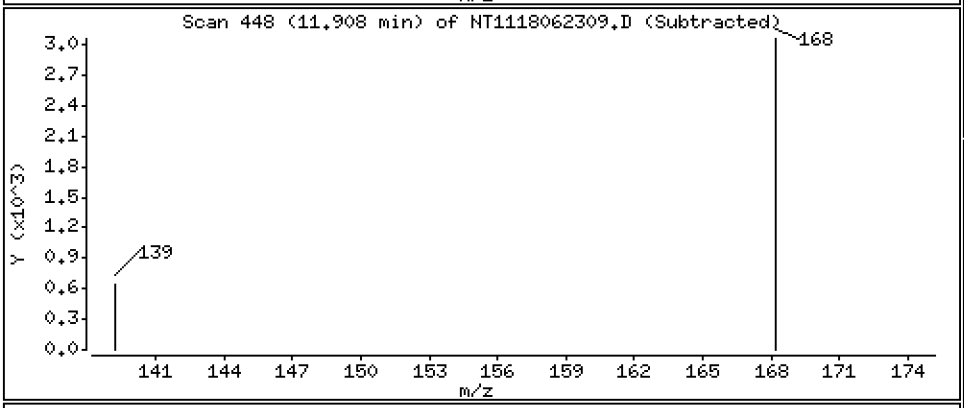
Column diameter: 0.25

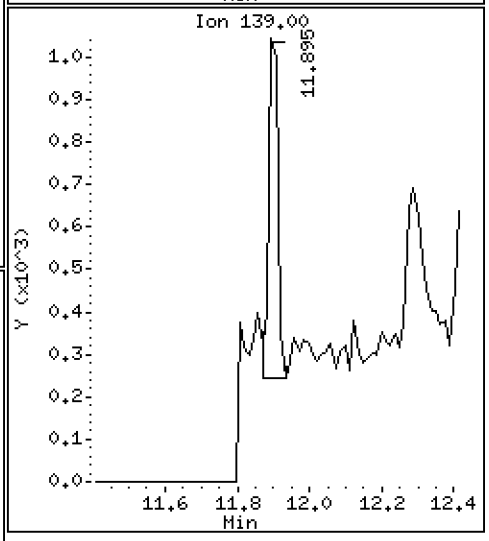
13 Dibenzofuran

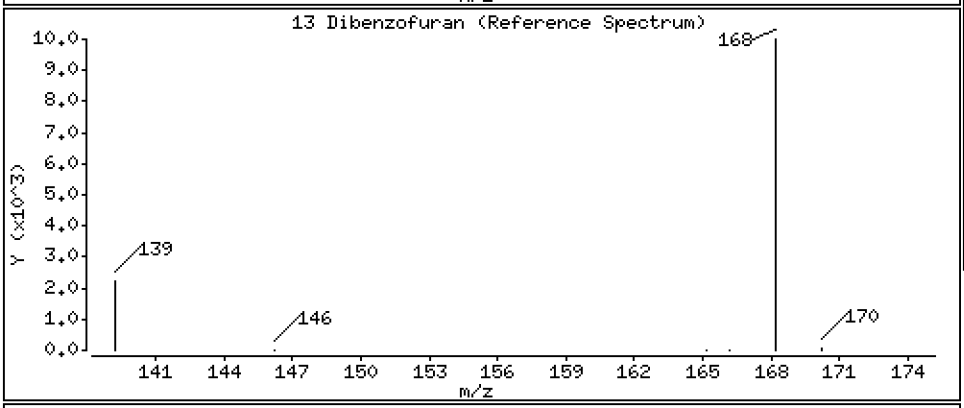
Concentration: 1.69 ng/mL

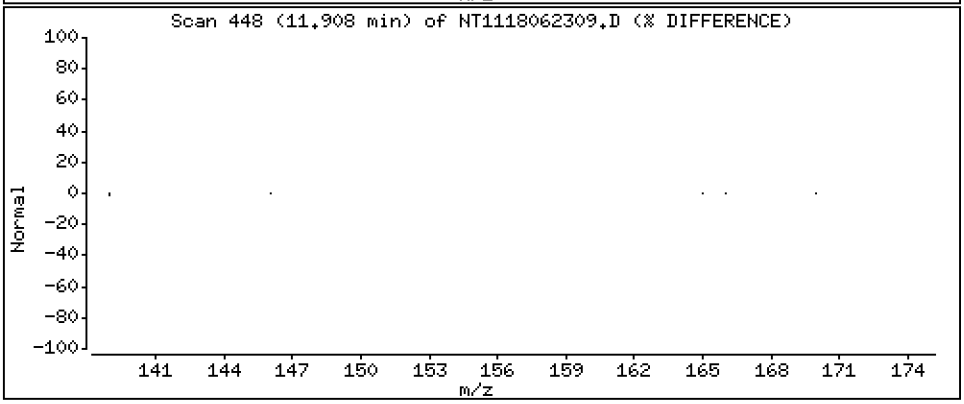












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Date : 23-JUN-2018 15:48

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-06

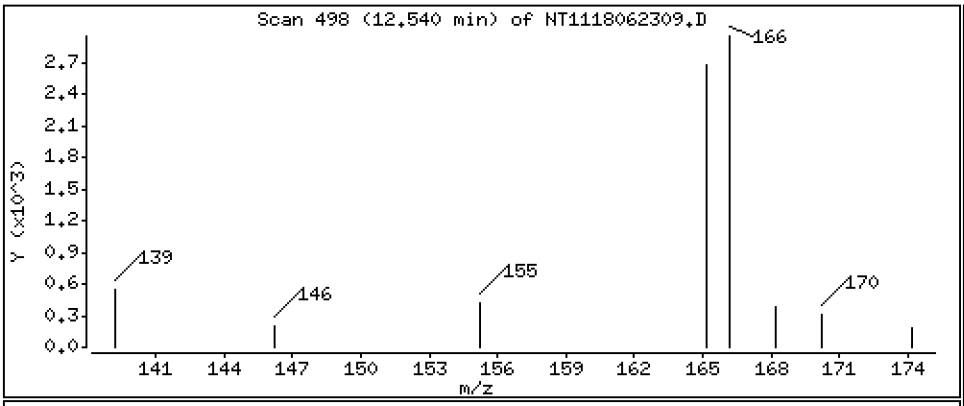
Operator: VTS

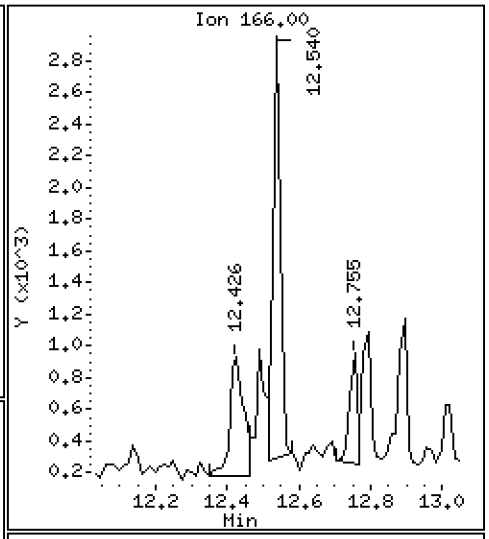
Column phase: Rxi-17Sil MS

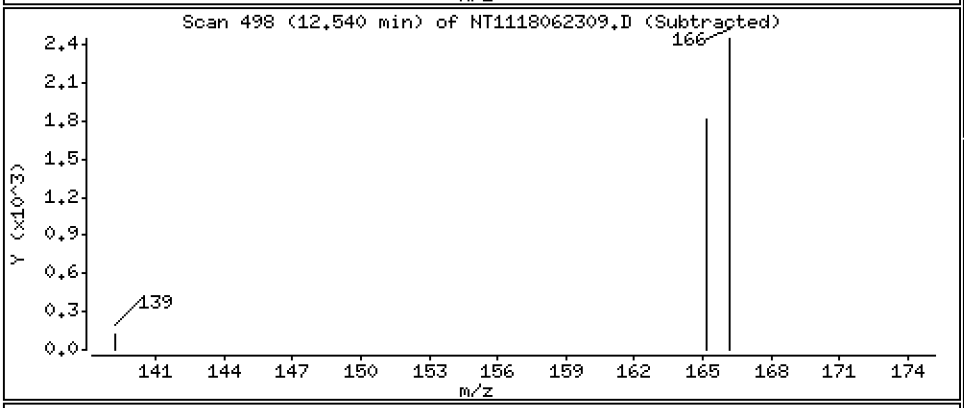
Column diameter: 0.25

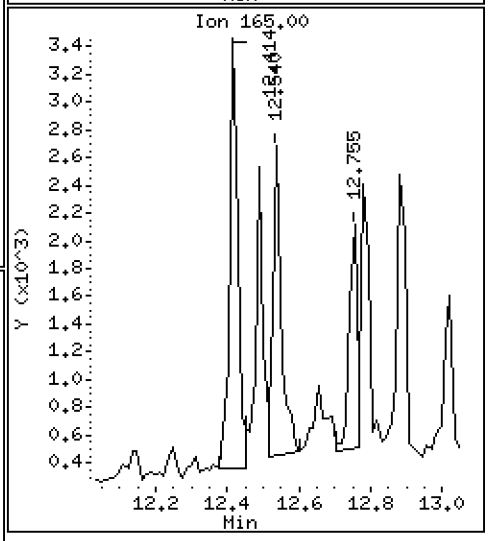
16 Fluorene

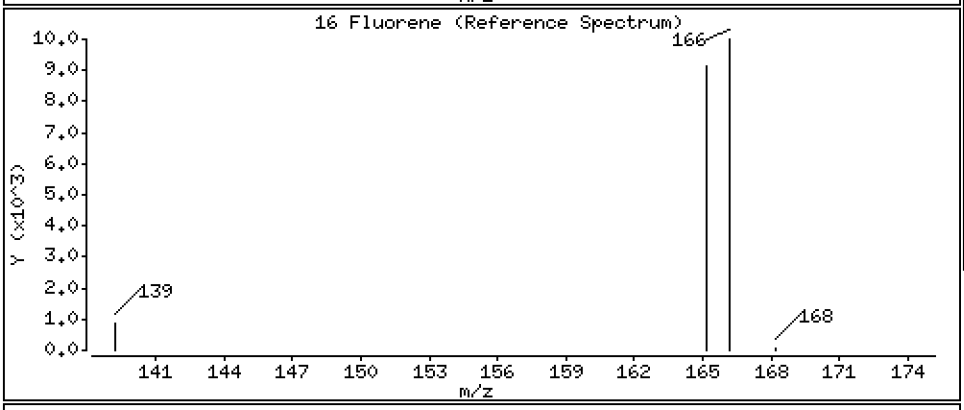
Concentration: 1.79 ng/mL

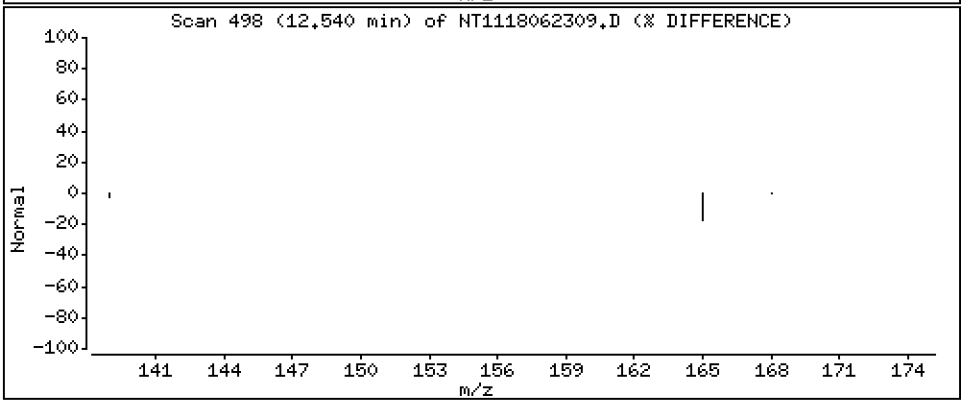












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Date : 23-JUN-2018 15:48

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-06

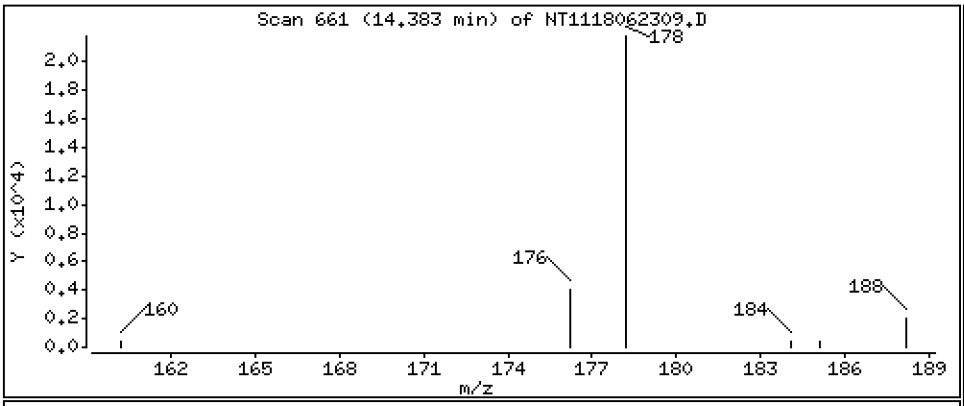
Operator: VTS

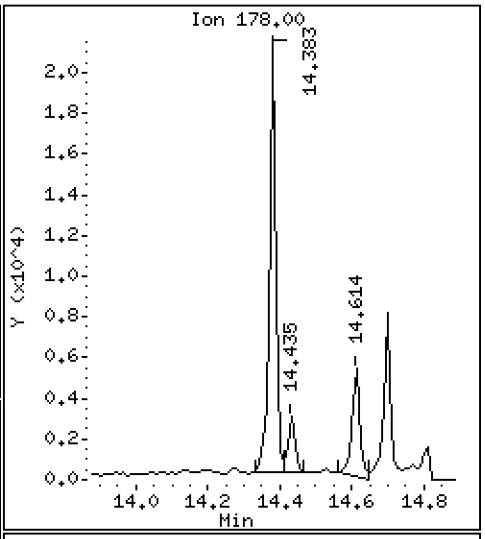
Column phase: Rxi-17Sil MS

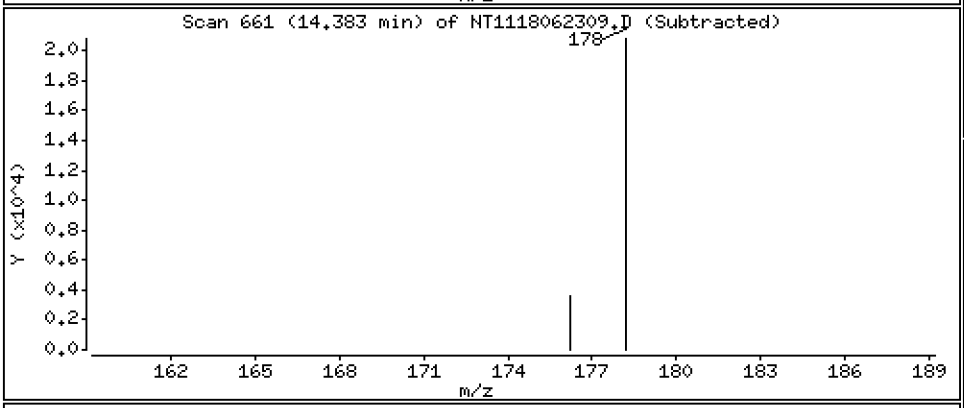
Column diameter: 0.25

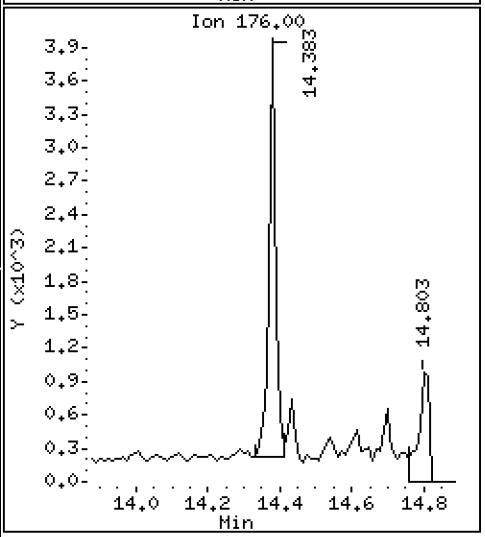
19 Phenanthrene

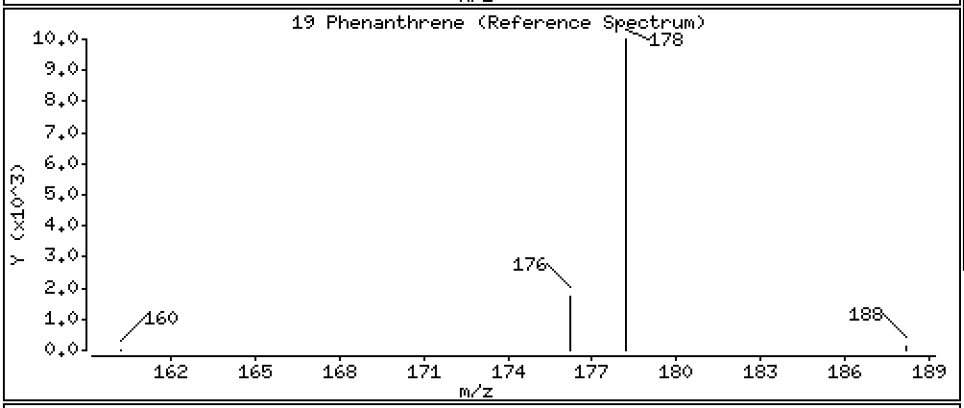
Concentration: 9.76 ng/mL

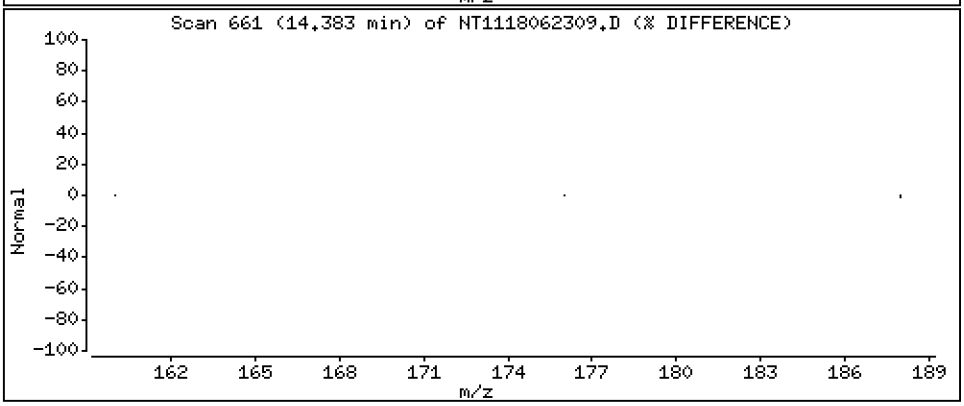












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Date : 23-JUN-2018 15:48

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-06

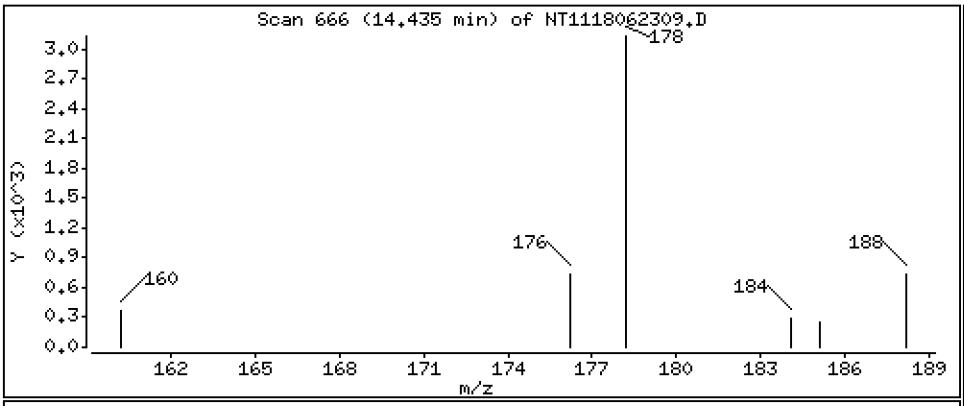
Operator: VTS

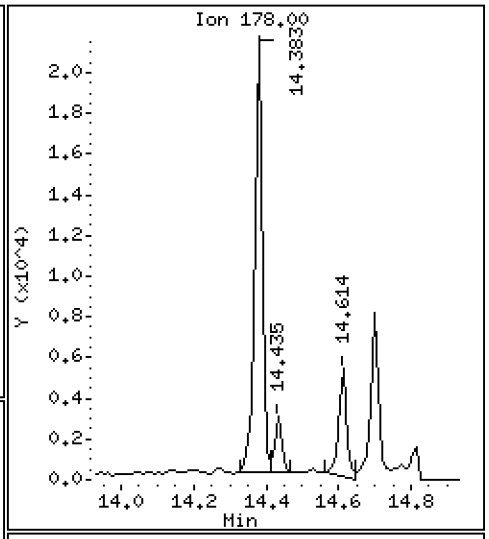
Column phase: Rxi-17Sil MS

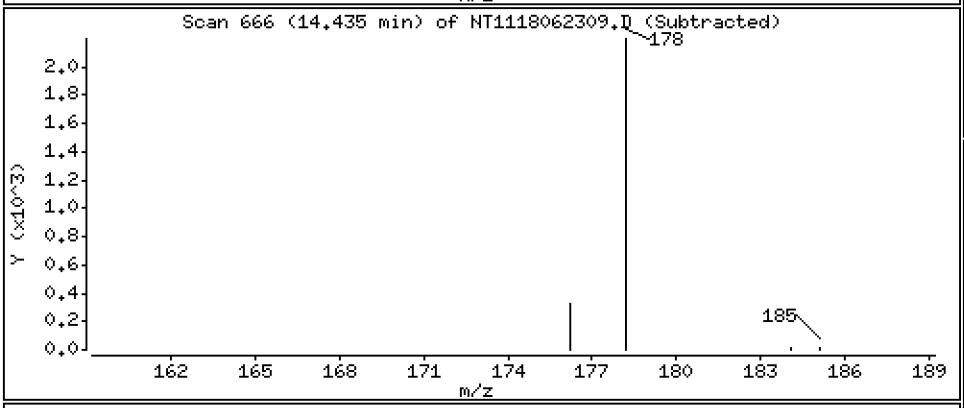
Column diameter: 0.25

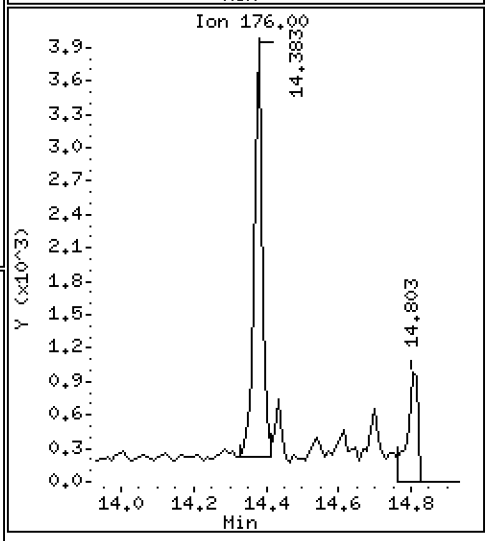
21 Anthracene

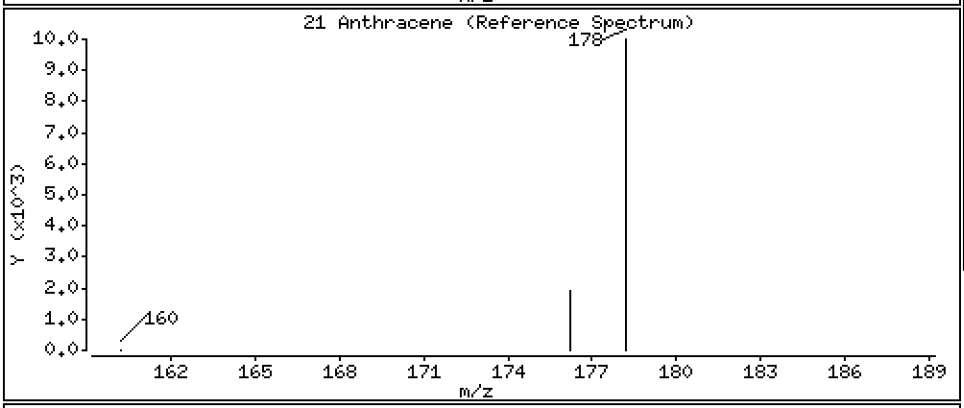
Concentration: 1.25 ng/mL

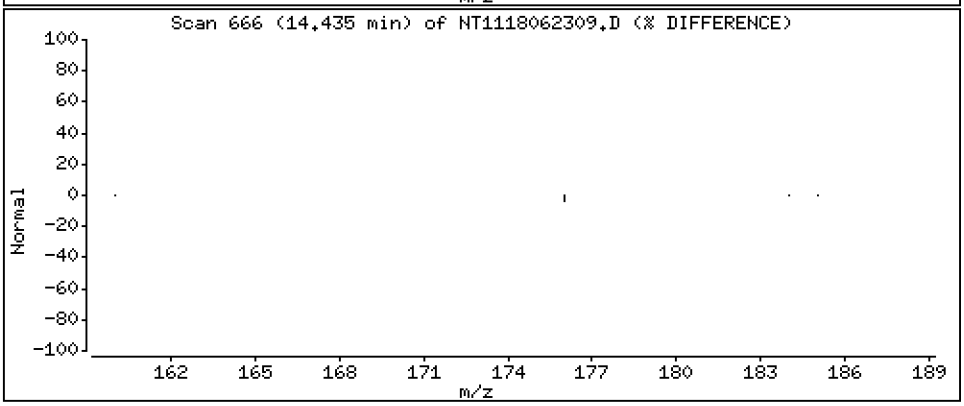












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Date : 23-JUN-2018 15:48

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-06

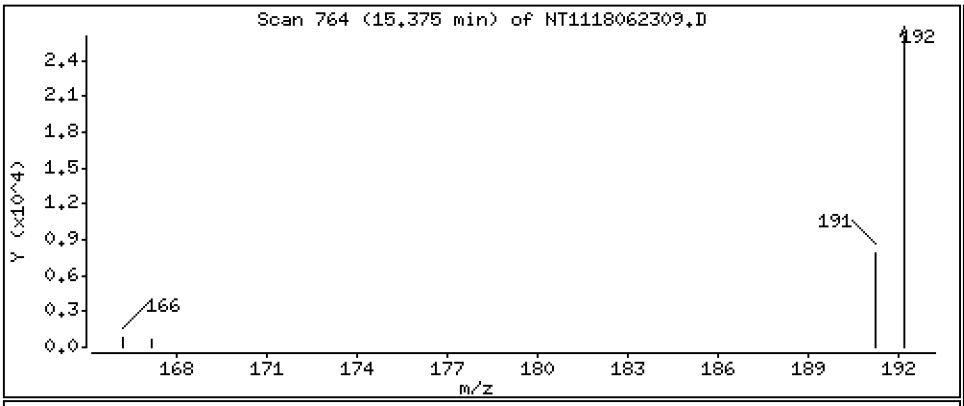
Operator: VTS

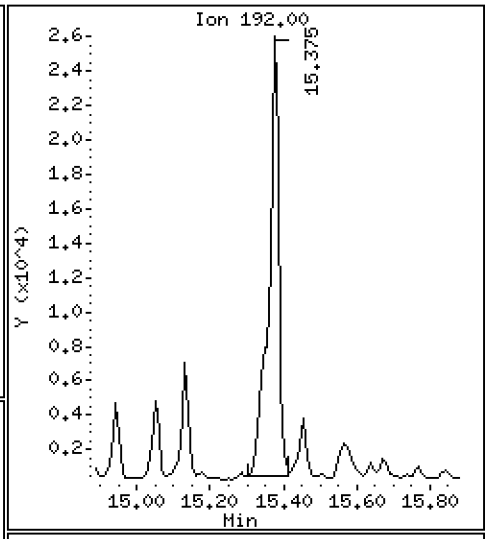
Column phase: Rxi-17Sil MS

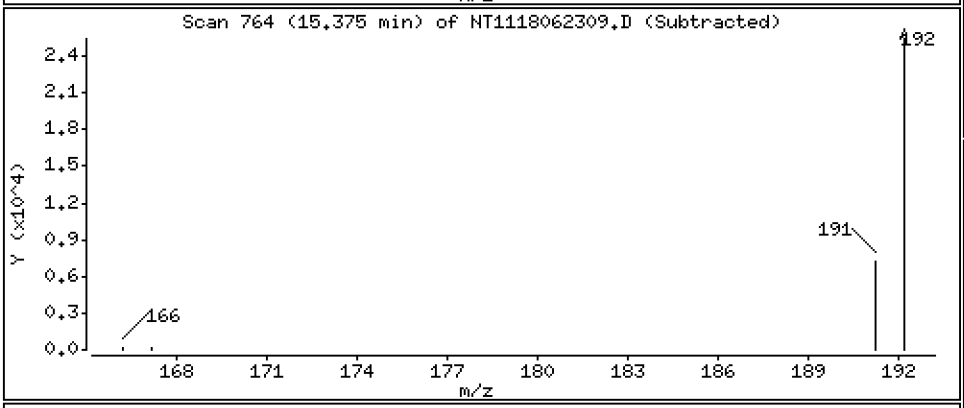
Column diameter: 0.25

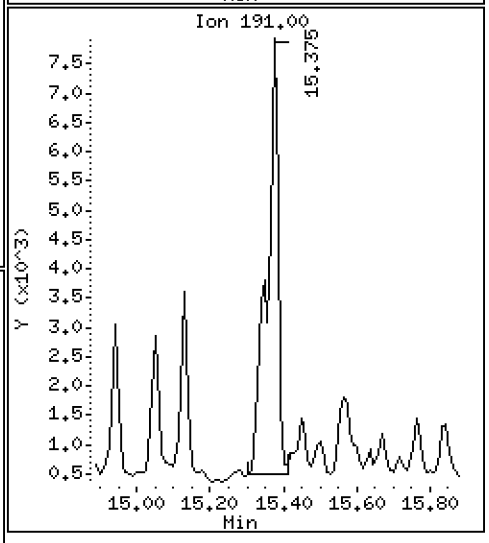
23 1-Methylphenanthrene

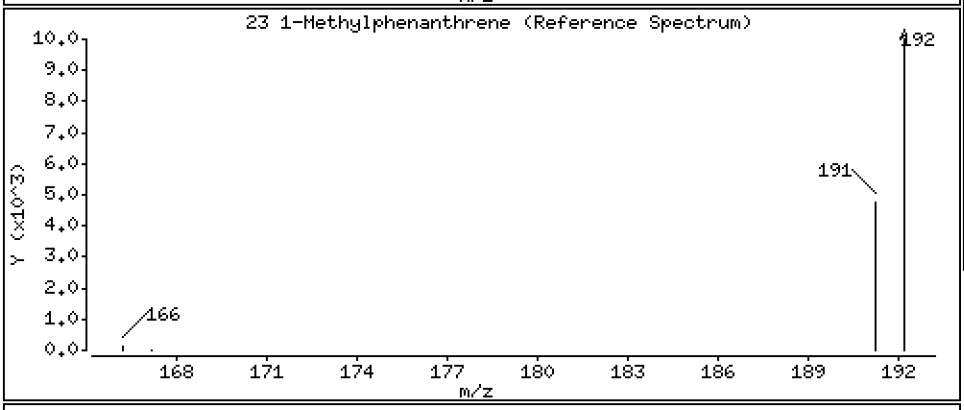
Concentration: 15.9 ng/mL

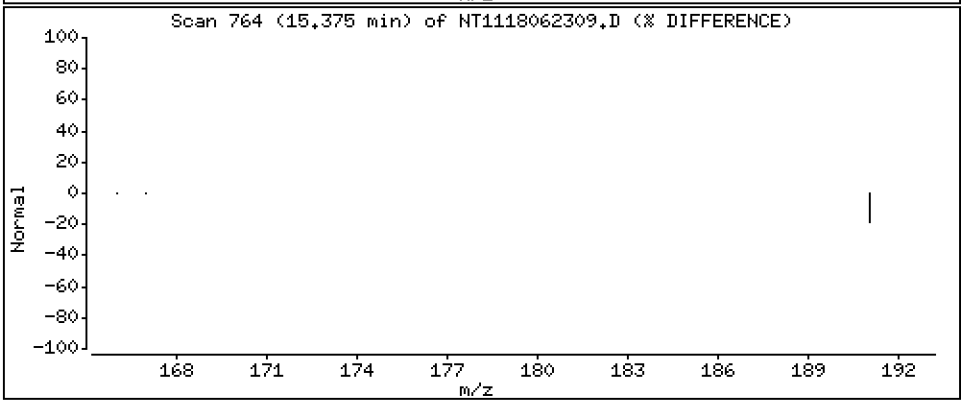












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Date : 23-JUN-2018 15:48

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-06

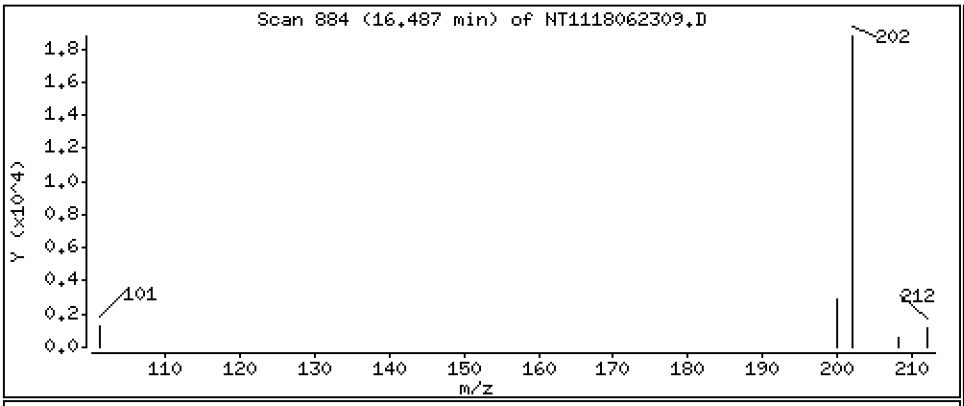
Operator: VTS

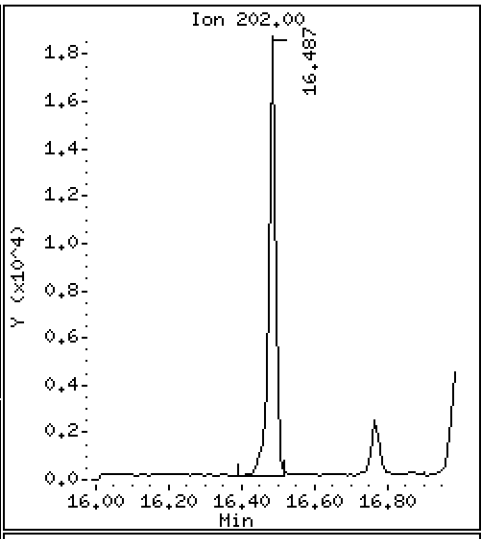
Column phase: Rxi-17Sil MS

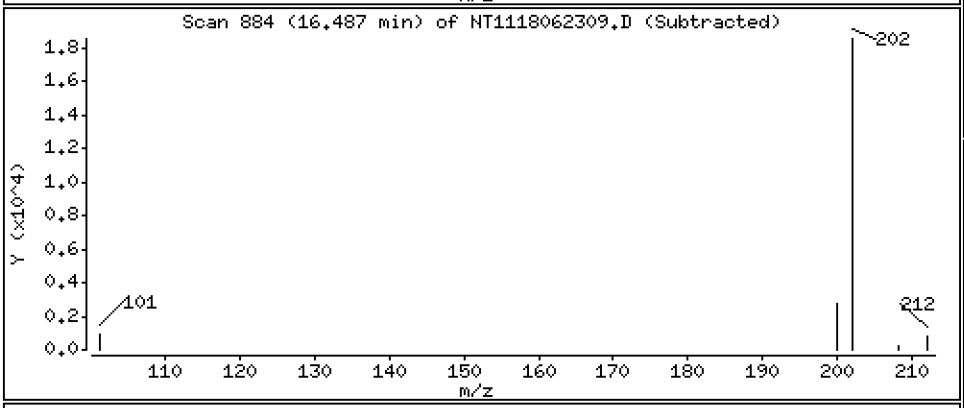
Column diameter: 0.25

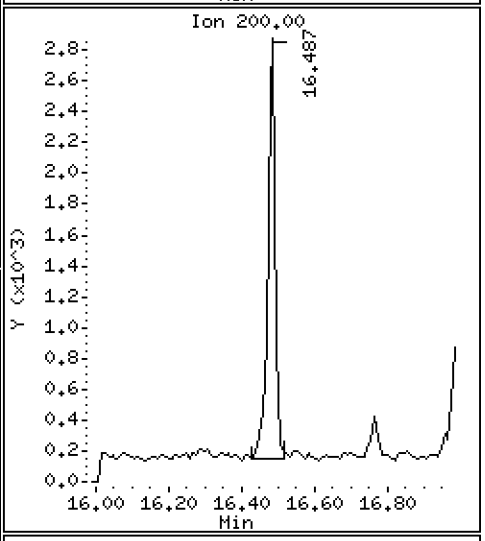
25 Fluoranthene

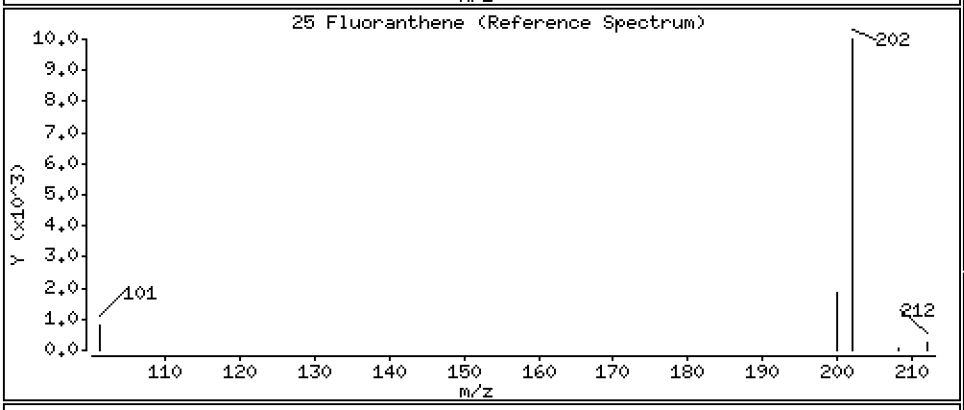
Concentration: 9.03 ng/mL

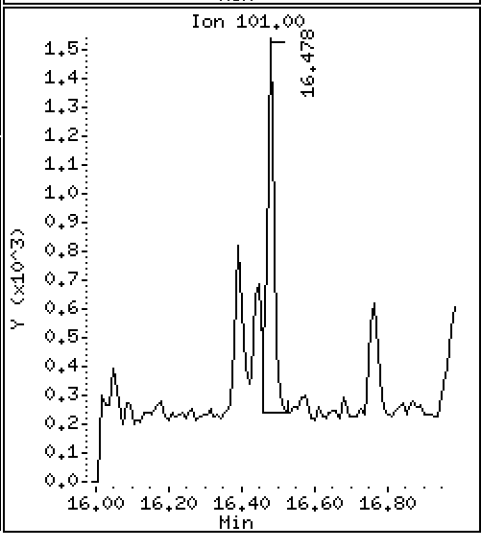


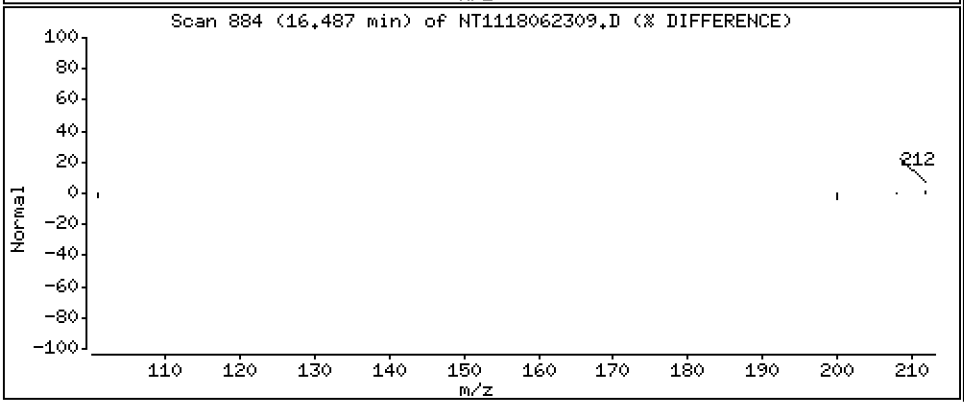












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062309.D

Date : 23-JUN-2018 15:48

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-06

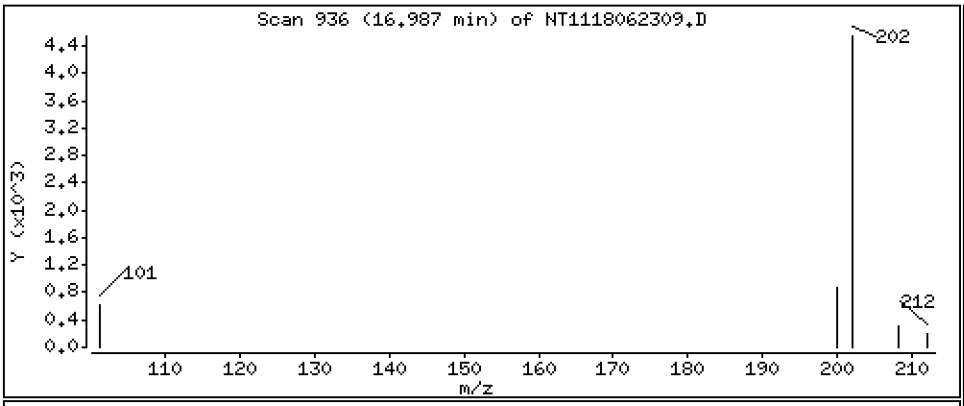
Operator: VTS

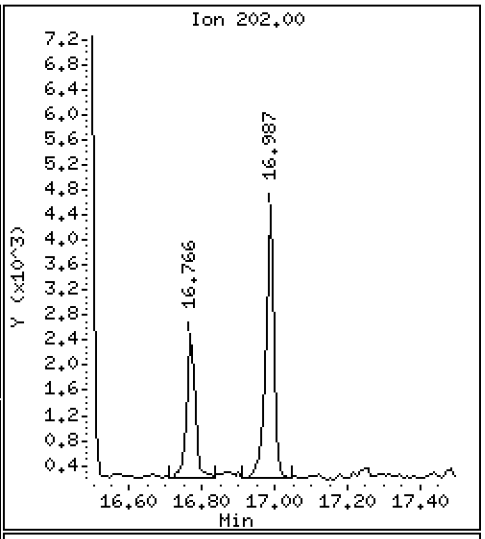
Column phase: Rxi-17Sil MS

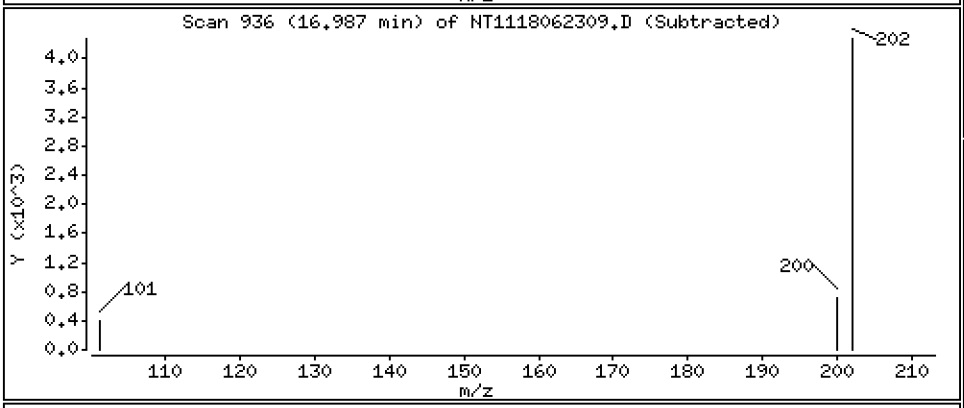
Column diameter: 0.25

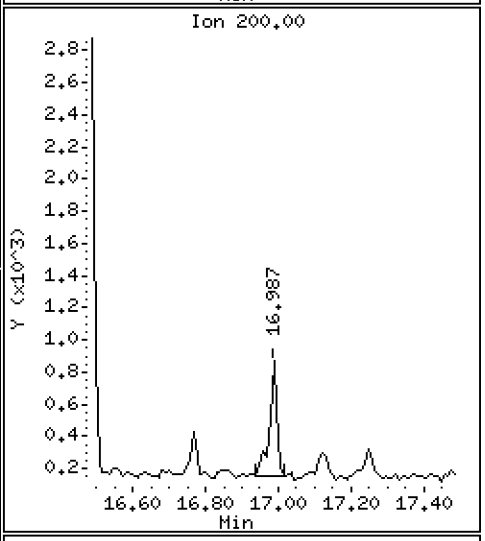
26 Pyrene

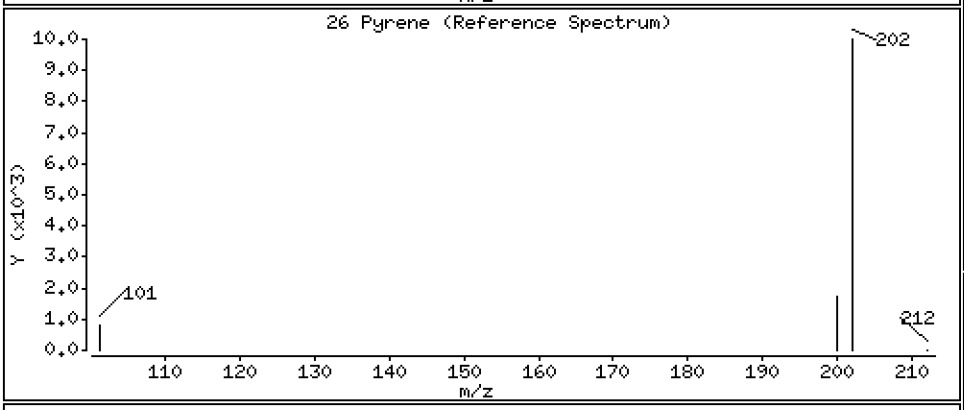
Concentration: 2.28 ng/mL

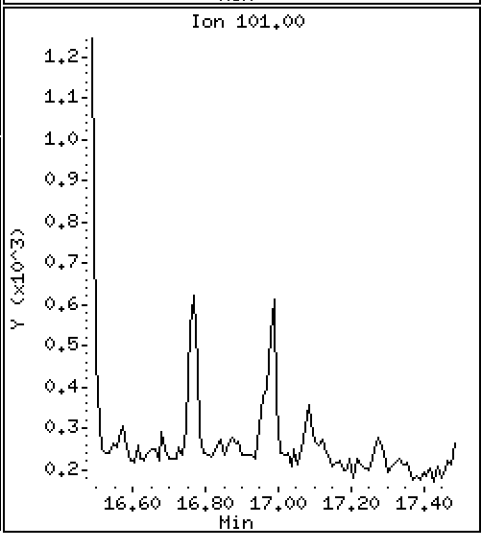


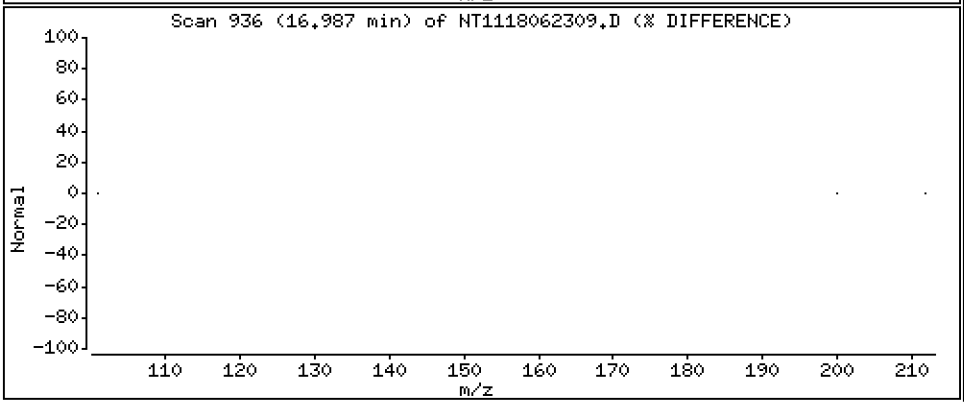












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180623.b\NT1118062309.D
Lab Smp Id: 18F0185-06
Inj Date : 23-JUN-2018 15:48 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0185-06
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180623.b\LOWSIM.m
Meth Date : 23-Jun-2018 13:20 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	438604	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	8290	2.51032	2.51
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	279021	111.496	111
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	3546	1.32723	1.33
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	2762	1.03947	1.04
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	11.499	11.499	(0.988)	1403	0.48662	0.487
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	242489	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	22298	11.3074	11.3
	13 Dibenzofuran	168	11.908	11.908	(1.023)	4557	1.68684	1.69
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.539	12.540	(1.077)	3907	1.79342	1.79
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	403904	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	30916	9.75942	9.76
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.435	14.435	(1.007)	3697	1.24837	1.25
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	15.375	15.384	(1.072)	47606	15.9052	15.9
$	24 Fluoranthene-d10	212	16.449	16.449	(1.147)	333800	136.150	136
	25 Fluoranthene	202	16.487	16.487	(1.150)	26560	9.02849	9.03
	26 Pyrene	202	16.987	16.996	(0.890)	7263	2.28023	2.28
	27 Benzo(a)anthracene	228	Compound Not Detected.					
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	323995	200.000	
	29 Chrysene	228	Compound Not Detected.					
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
35	Benzo(a)pyrene	252	Compound Not Detected.					
* 36	Perylene-d12	264	22.353	22.353	(1.000)	323445	200.000	
37	Perylene	252	Compound Not Detected.					
$ 38	Dibenzo(a,h)anthracene-d14	292	25.279	25.268	(1.131)	196632	127.039	127
39	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
40	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
41	Benzo(g,h,i)perylene	276	Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118062309.D
Lab Smp Id: 18F0185-06
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180623.b\LOWSIM.m
Misc Info:

Calibration Date: 23-JUN-2018
Calibration Time: 10:32
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	438604	1.69
11 Acenaphthene-d10	260137	130069	520274	242489	-6.78
18 Phenanthrene-d10	427391	213696	854782	403904	-5.50
28 Chrysene-d12	304596	152298	609192	323995	6.37
36 Perylene-d12	263091	131546	526182	323445	22.94

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118062309.D

Lab ID: 18F0185-06
nt11.i, 20180623.b\LOWSIM.m,   23-JUN-2018 15:48

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180623.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-42

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-07	SDG:	18F0185
Sampled:	06/12/18 12:05	Prepared:	06/18/18 13:48	File ID:	NT1118062310.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/23/18 16:24
Batch:	BGF0416	Sequence:	SGF0298	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.002	J	0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.001	J	0.001	0.010
208-96-8	Acenaphthylene	1	0.010	U	0.002	0.010
83-32-9	Acenaphthene	1	0.010	U	0.003	0.010
86-73-7	Fluorene	1	0.010	U	0.002	0.010
85-01-8	Phenanthrene	1	0.003	J	0.001	0.010
120-12-7	Anthracene	1	0.010	U	0.001	0.010
206-44-0	Fluoranthene	1	0.003	J	0.002	0.010
129-00-0	Pyrene	1	0.002	J	0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.010	U	0.0008	0.010
218-01-9	Chrysene	1	0.010	U	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.010	U	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.122	40.6	42 - 120	*
Dibenzo[a,h]anthracene-d14	0.30000	0.136	45.4	29 - 120	
Fluoranthene-d10	0.30000	0.141	47.1	57 - 120	*

Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062310.D

Date : 23-JUN-2018 16:24

Client ID:

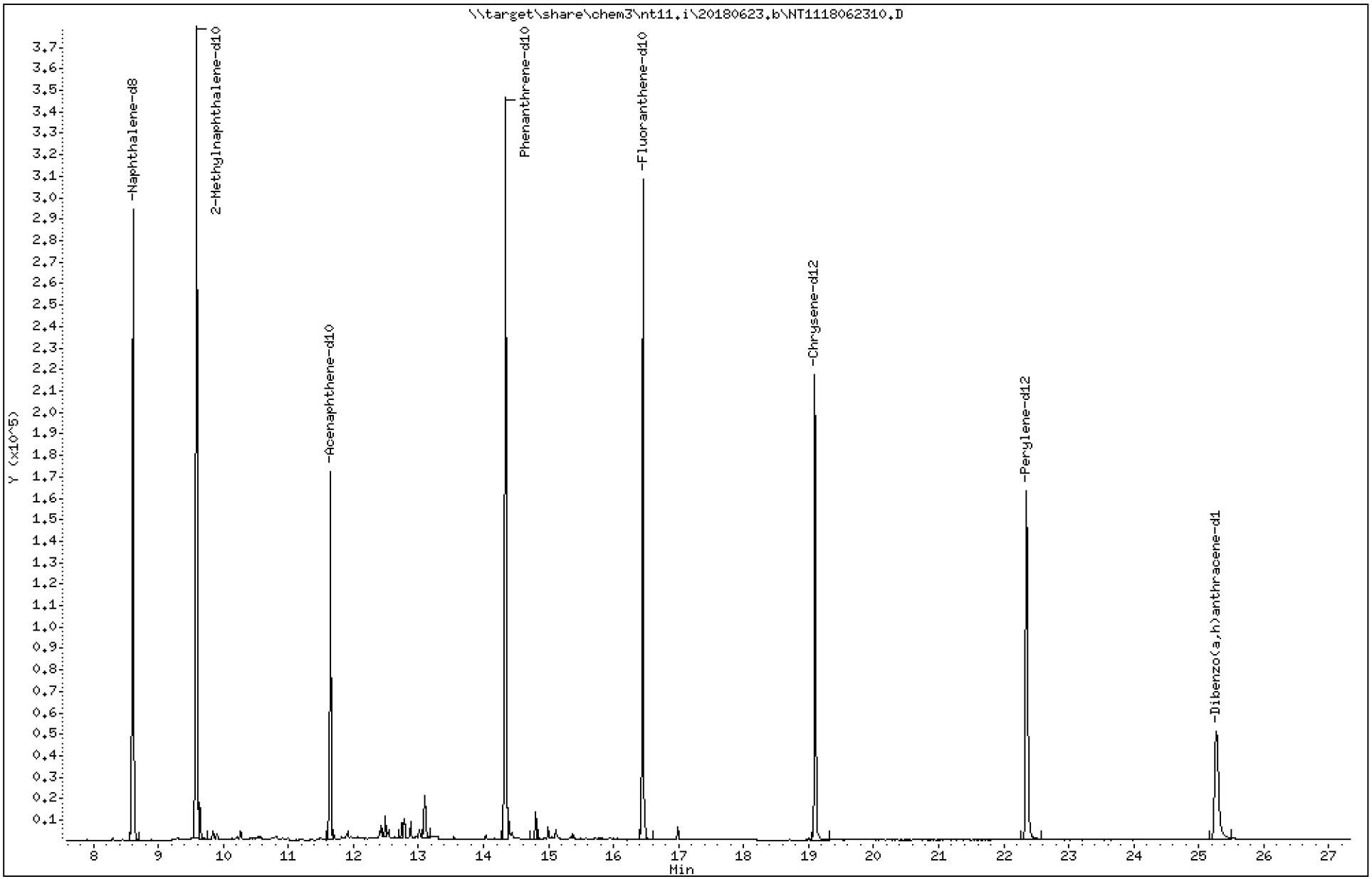
Instrument: nt11.i

Sample Info: 18F0185-07

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 23-JUN-2018 16:24

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-07

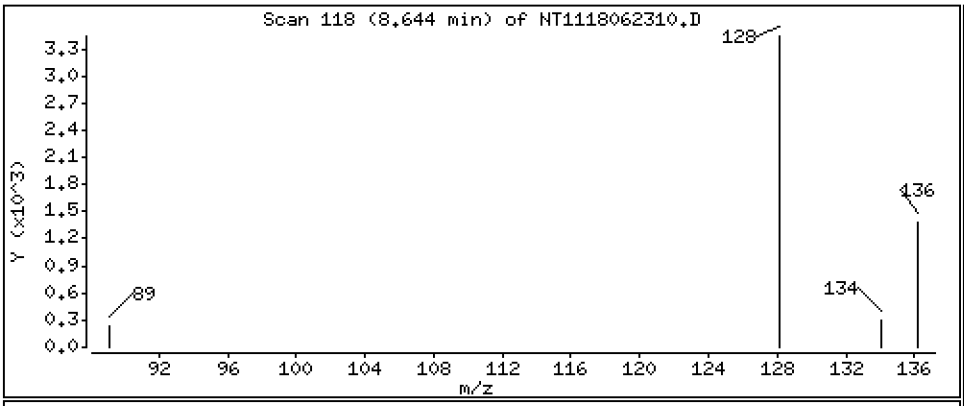
Operator: VTS

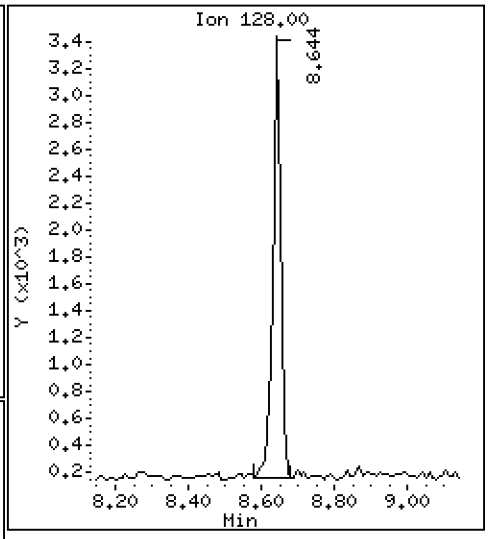
Column phase: Rxi-17Sil MS

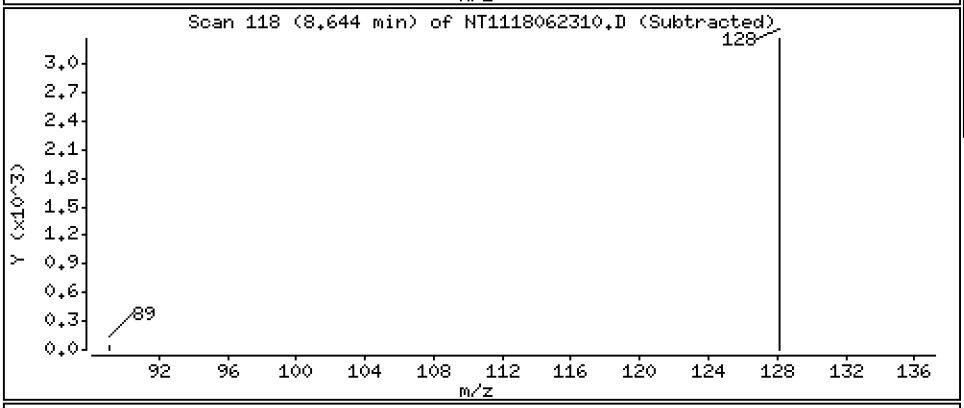
Column diameter: 0.25

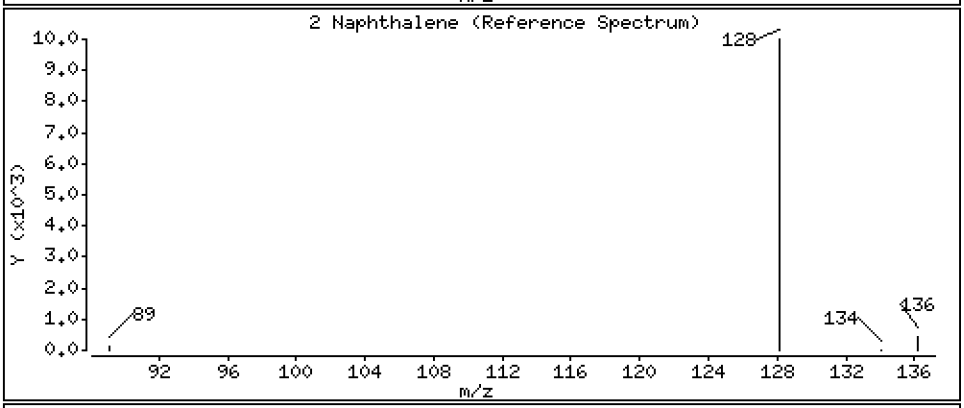
2 Naphthalene

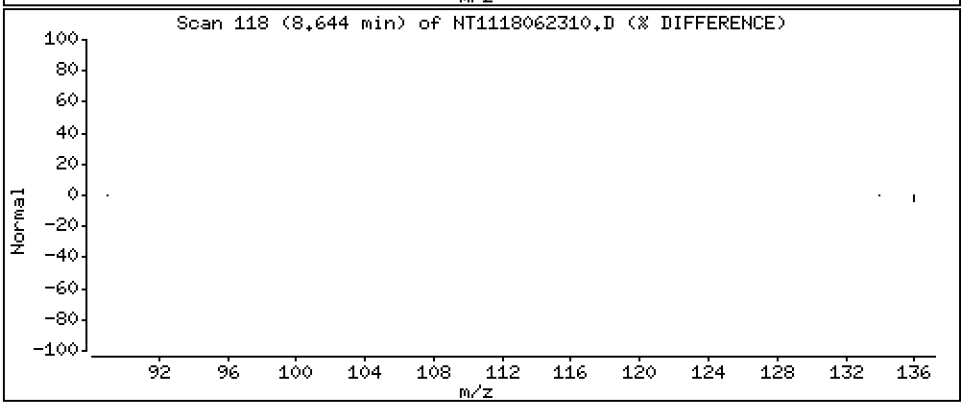
Concentration: 1.52 ng/mL











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Date : 23-JUN-2018 16:24

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-07

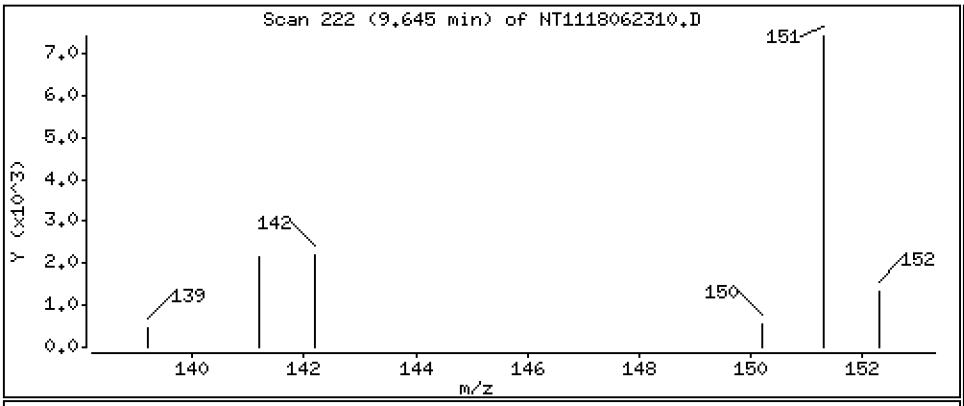
Operator: VTS

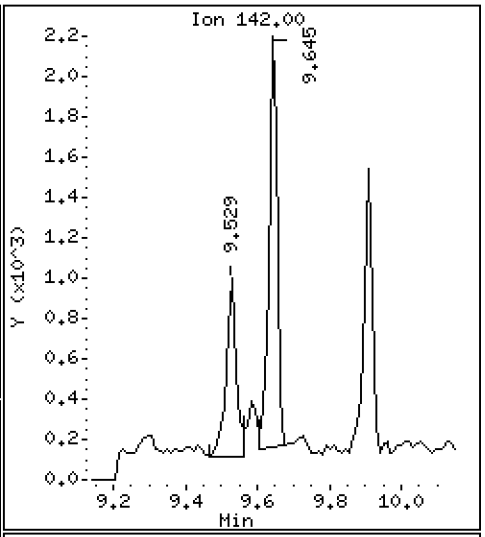
Column phase: Rxi-17Sil MS

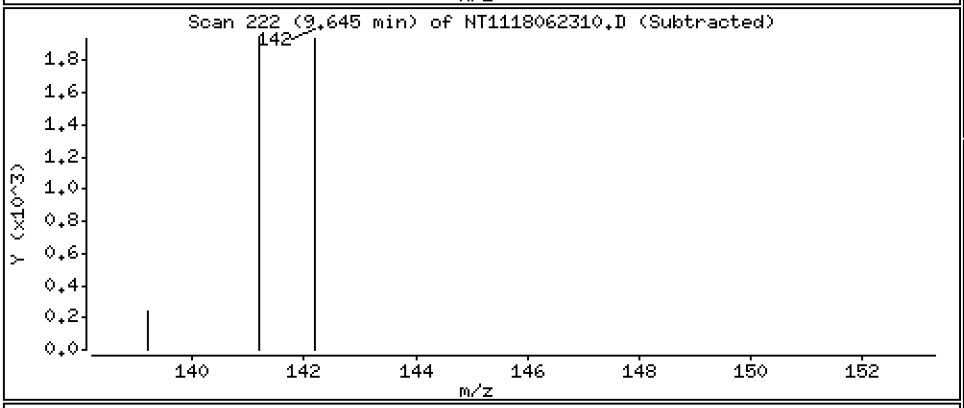
Column diameter: 0.25

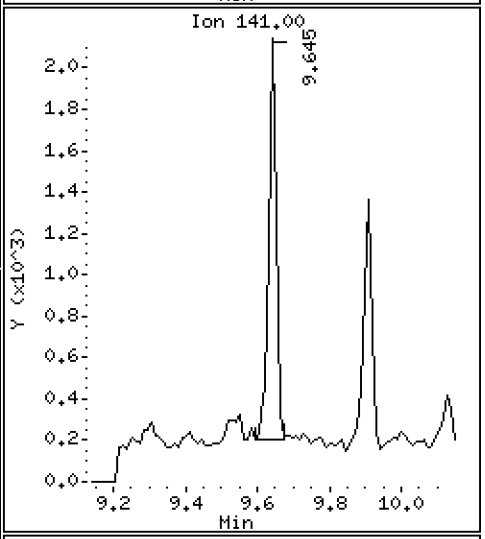
5 2-Methylnaphthalene

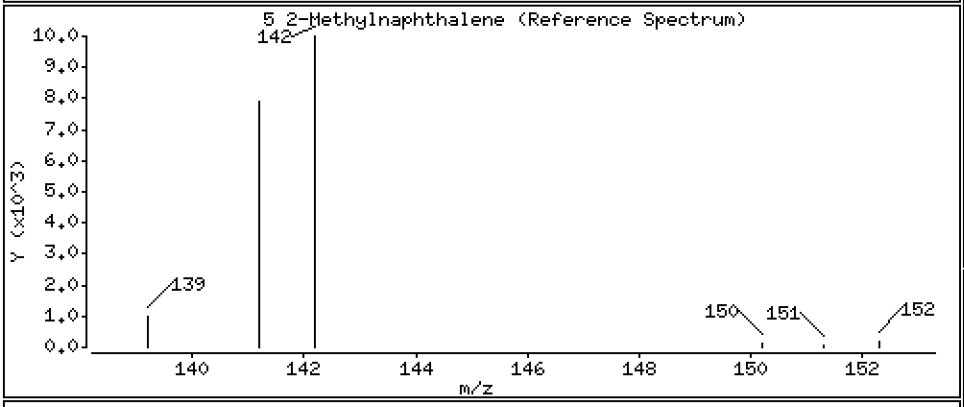
Concentration: 1.23 ng/mL

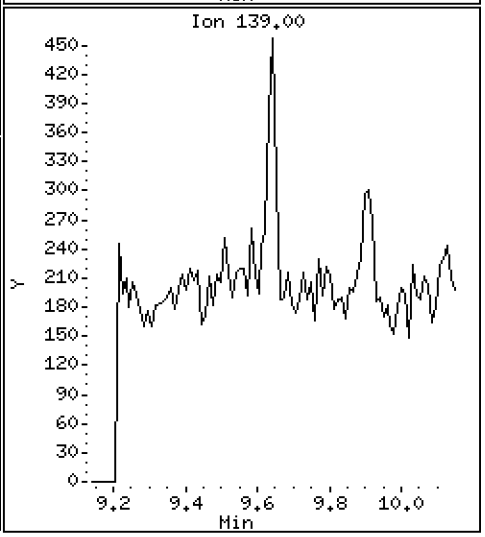


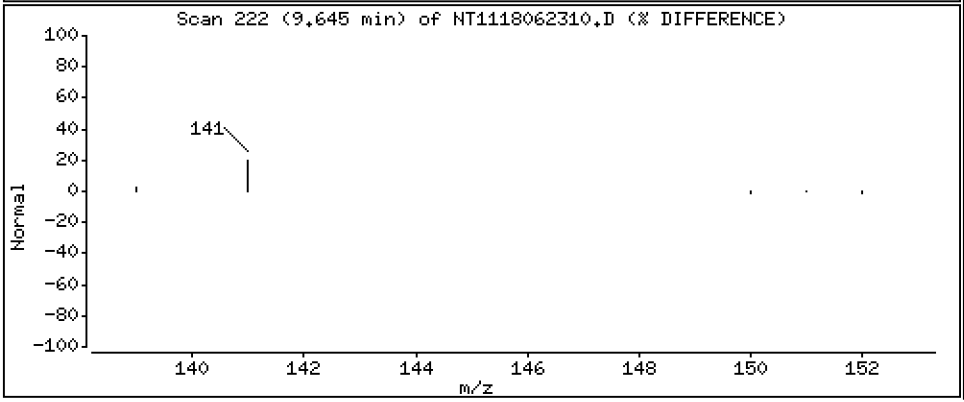












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Date : 23-JUN-2018 16:24

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-07

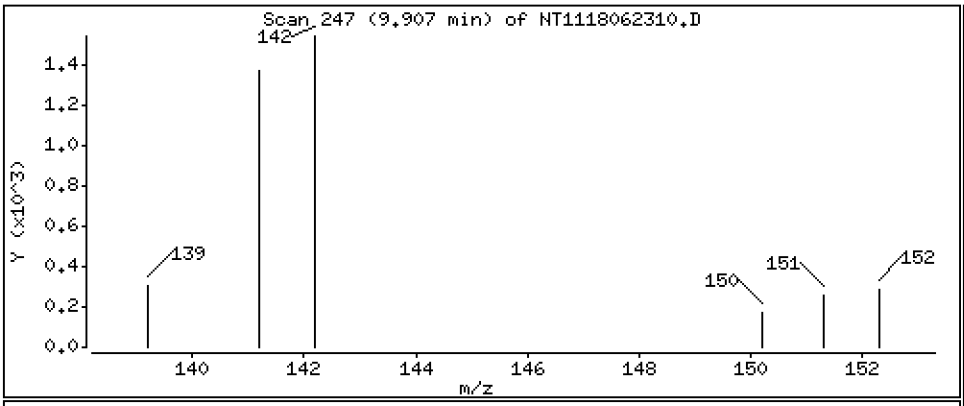
Operator: VTS

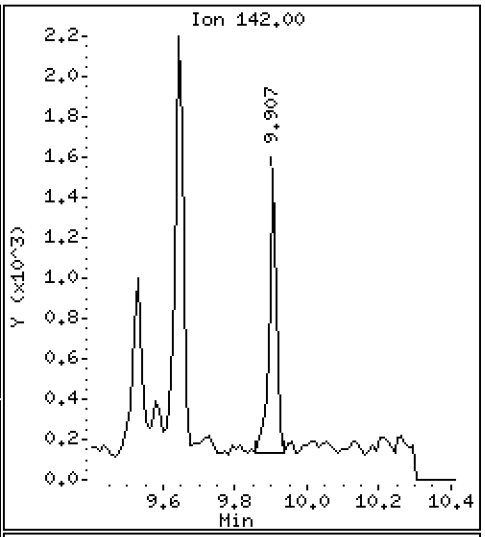
Column phase: Rxi-17Sil MS

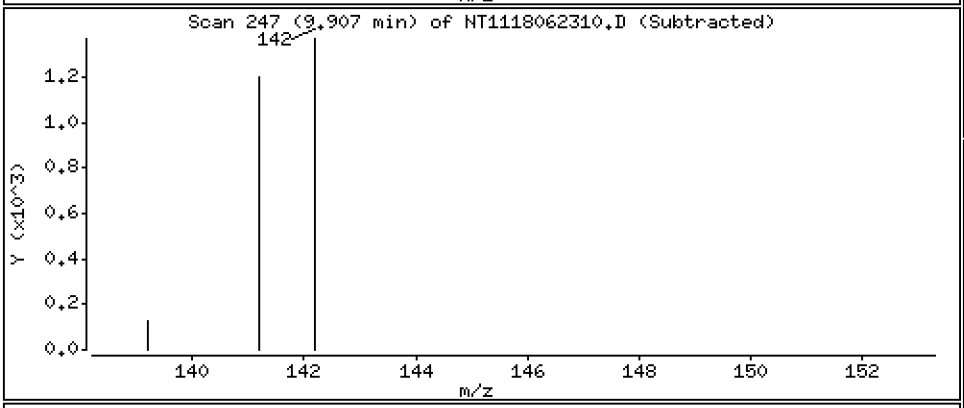
Column diameter: 0.25

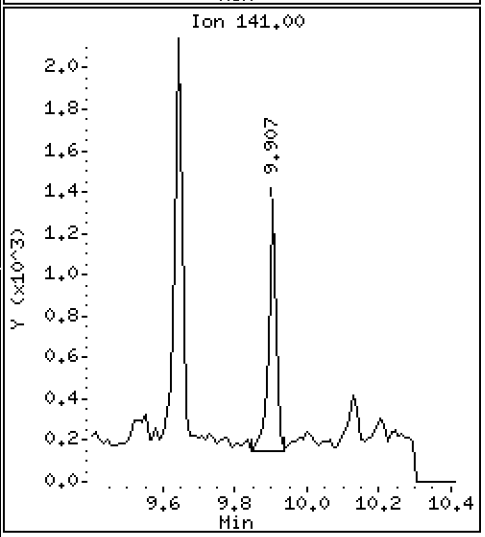
6 1-Methylnaphthalene

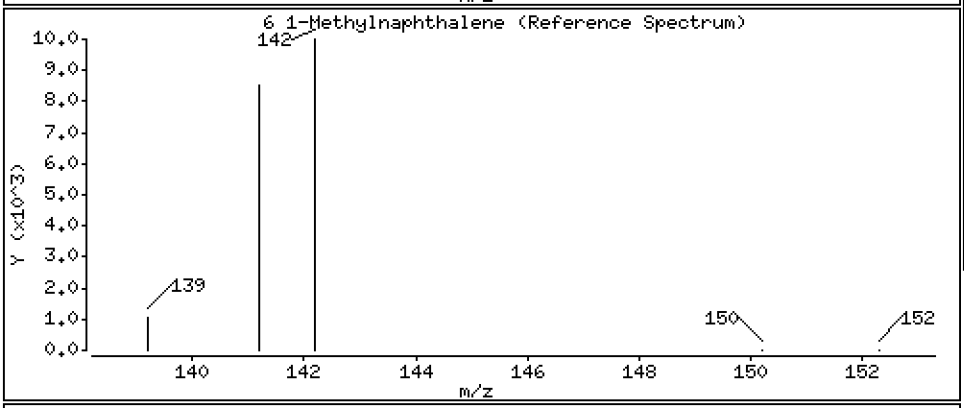
Concentration: 0.853 ng/mL

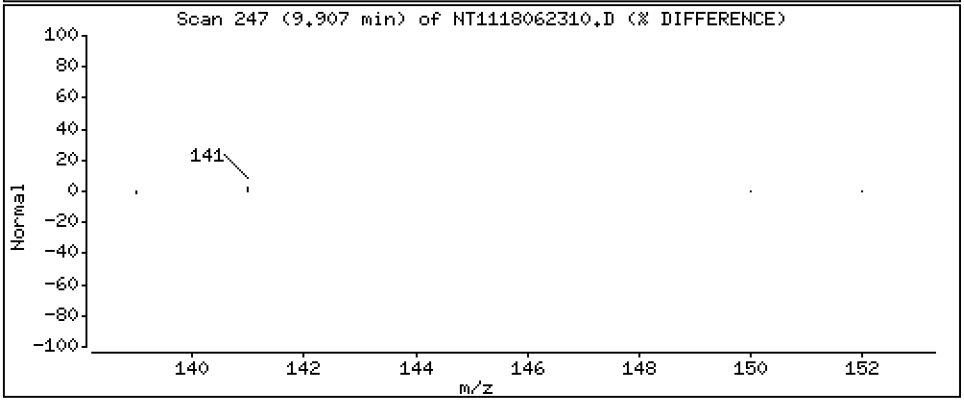












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Date : 23-JUN-2018 16:24

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-07

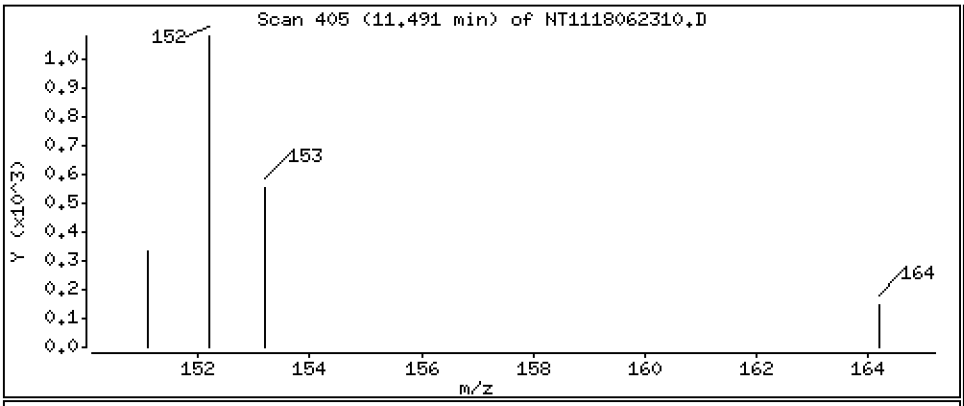
Operator: VTS

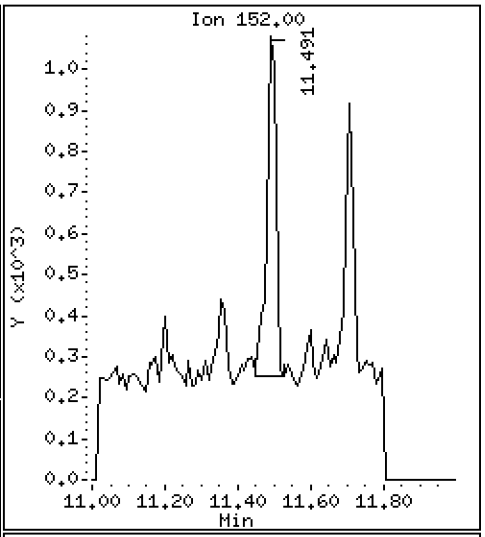
Column phase: Rxi-17Sil MS

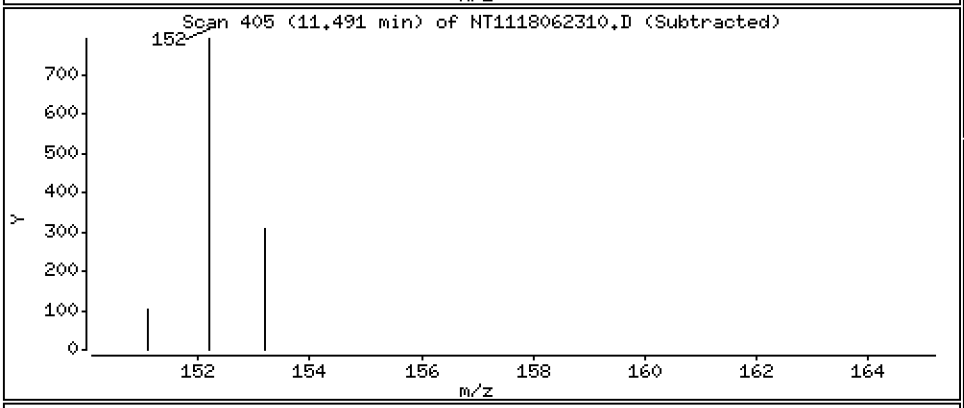
Column diameter: 0.25

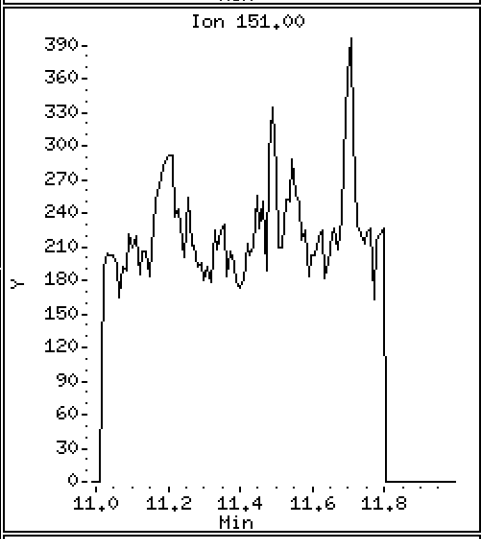
10 Acenaphthylene

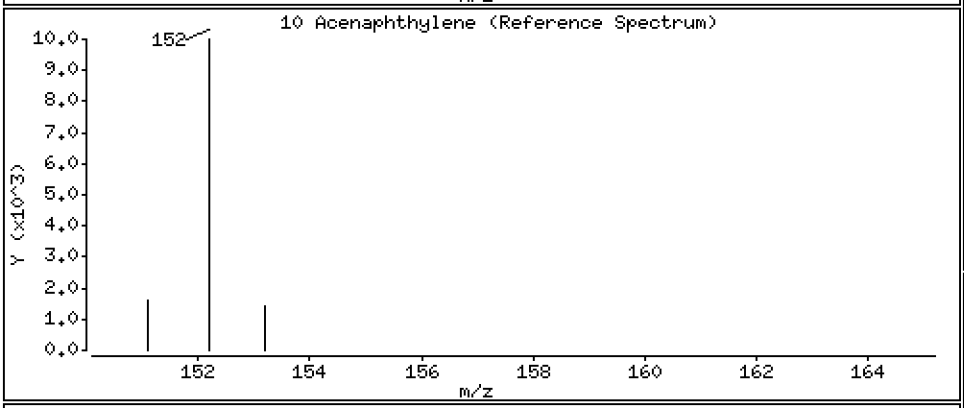
Concentration: 0.466 ng/mL

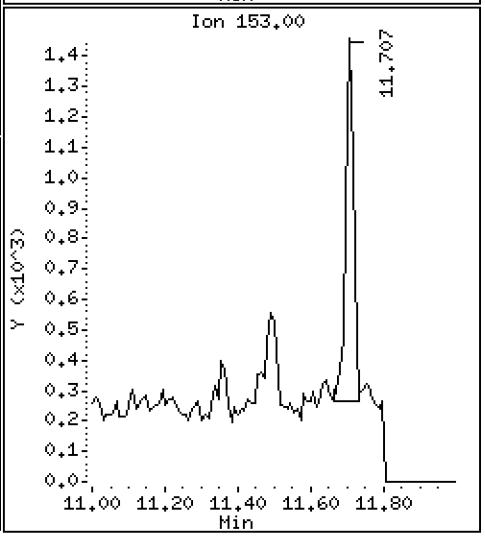


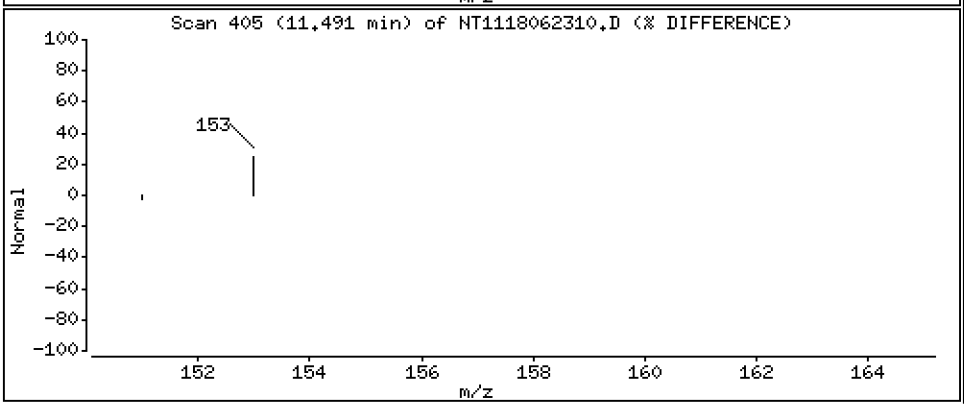












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Date : 23-JUN-2018 16:24

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-07

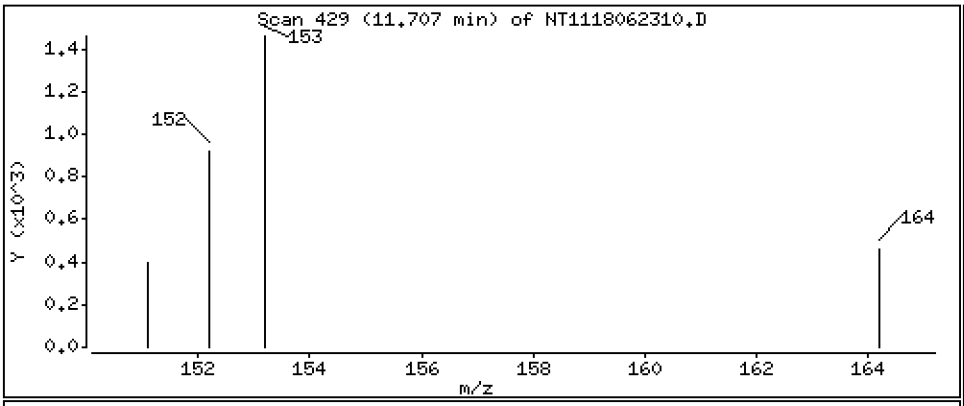
Operator: VTS

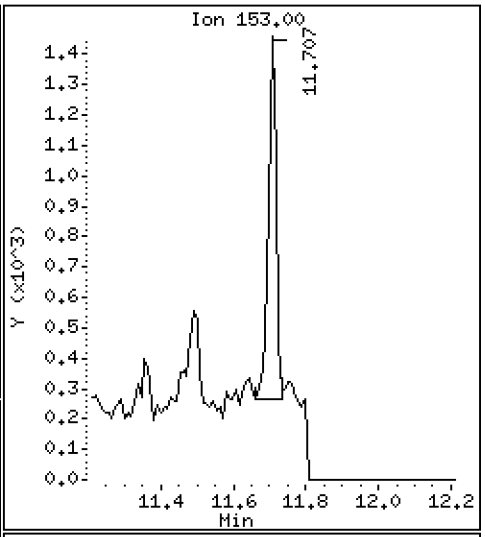
Column phase: Rxi-17Sil MS

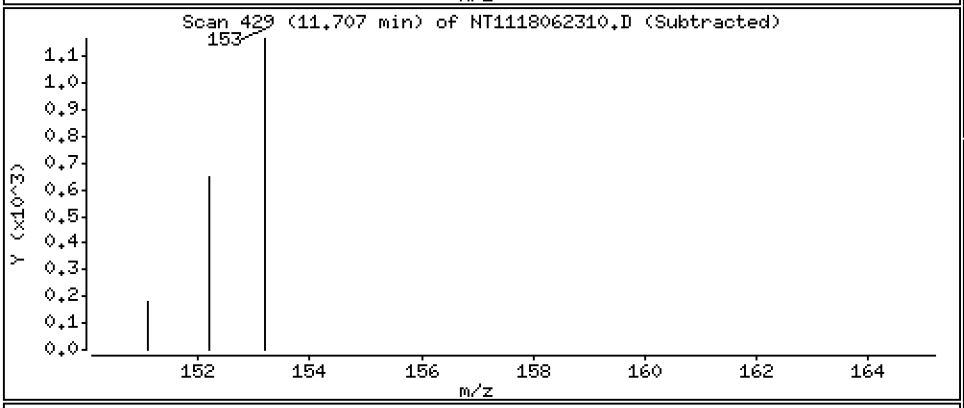
Column diameter: 0.25

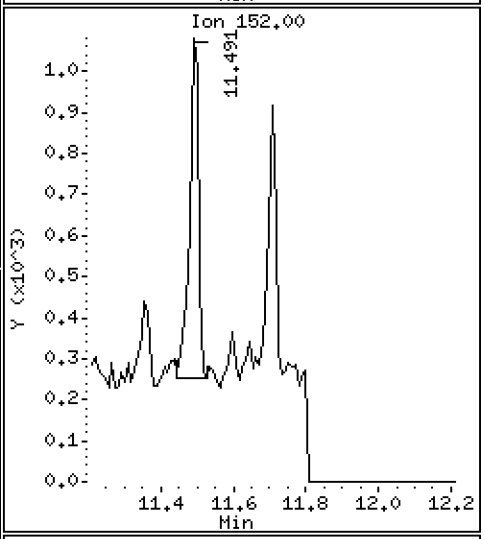
12 Acenaphthene

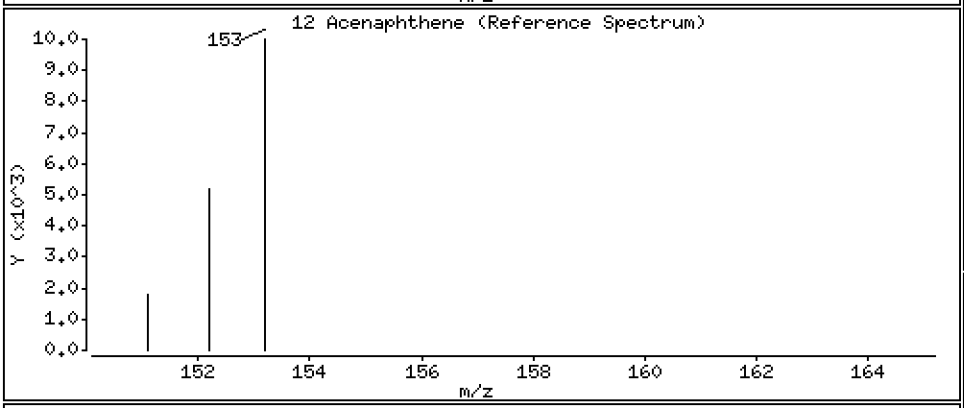
Concentration: 0.842 ng/mL

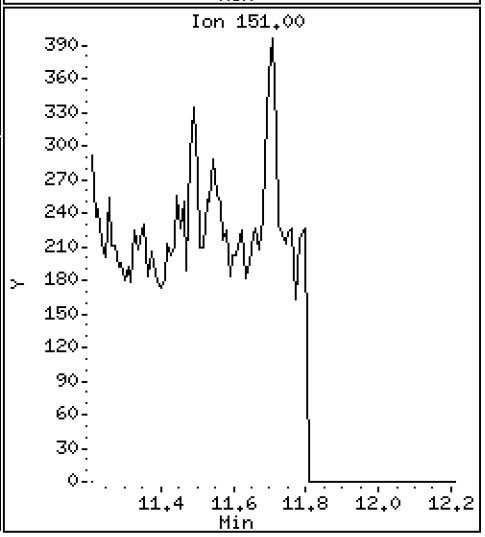


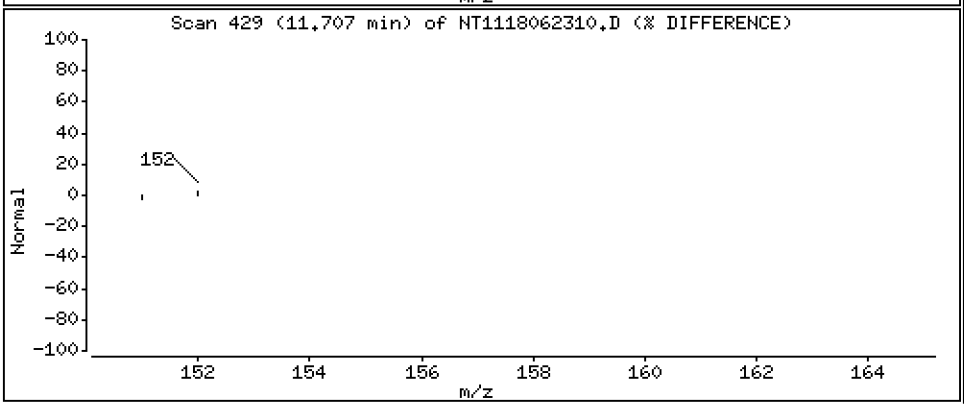












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Date : 23-JUN-2018 16:24

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-07

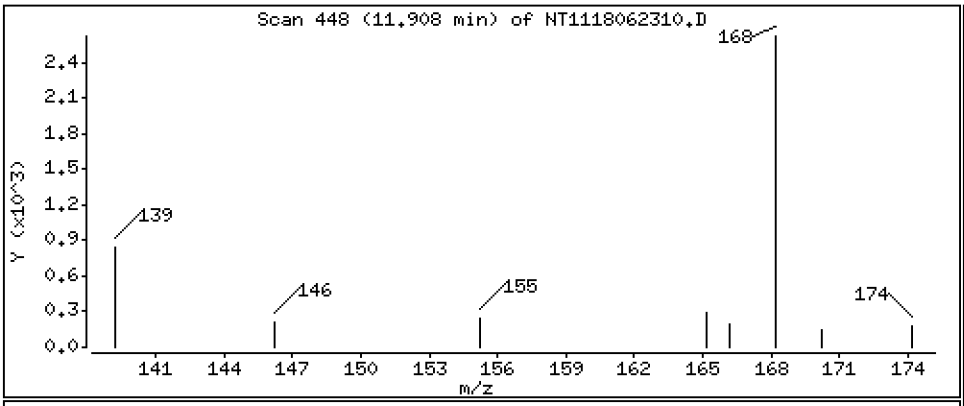
Operator: VTS

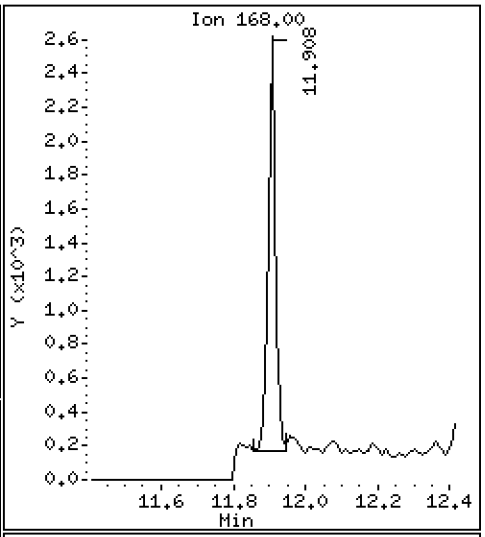
Column phase: Rxi-17Sil MS

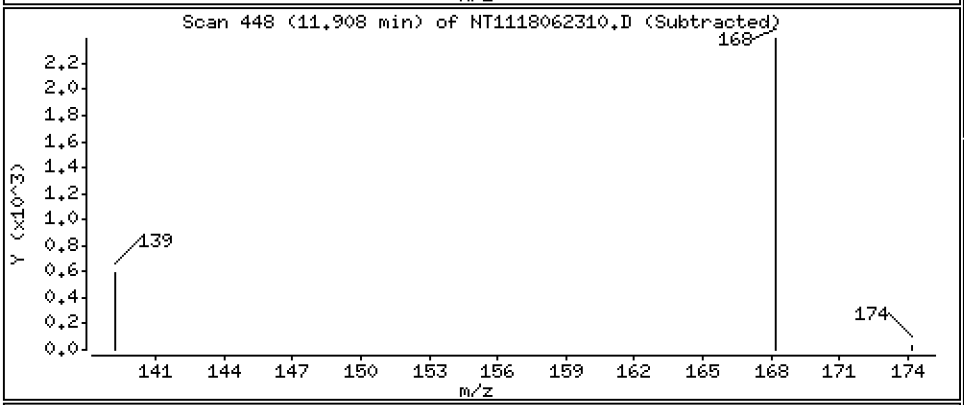
Column diameter: 0.25

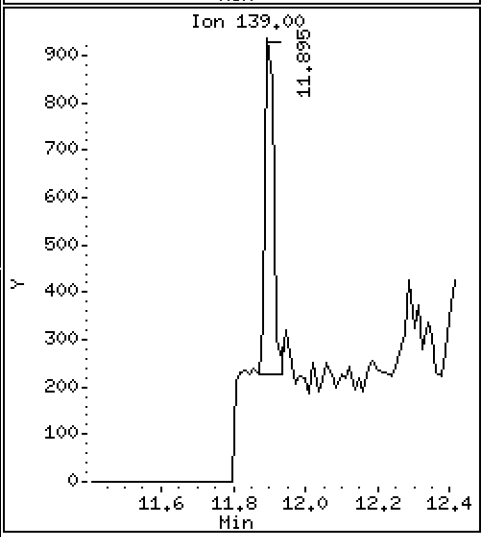
13 Dibenzofuran

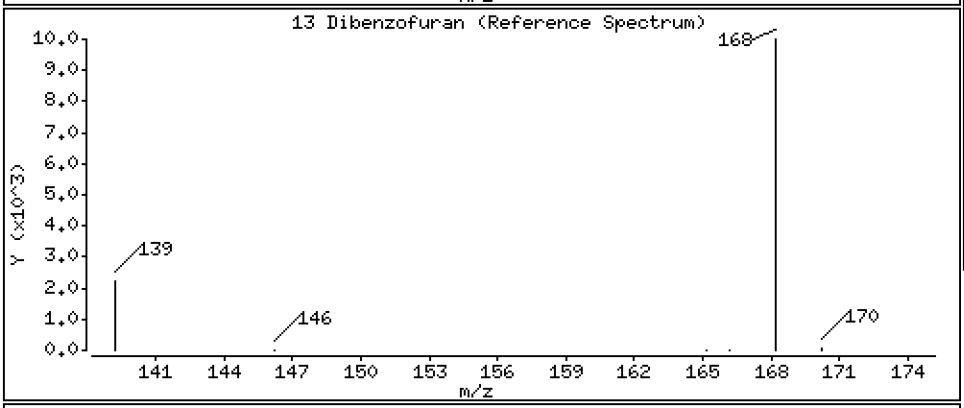
Concentration: 1.16 ng/mL

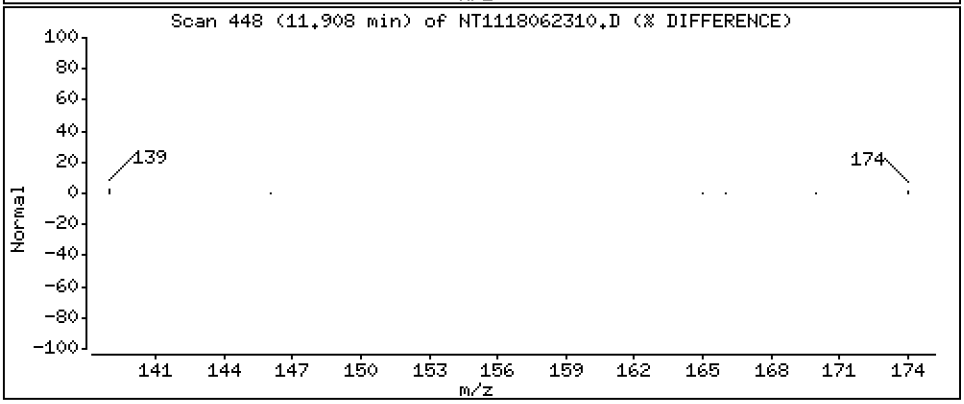












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Date : 23-JUN-2018 16:24

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-07

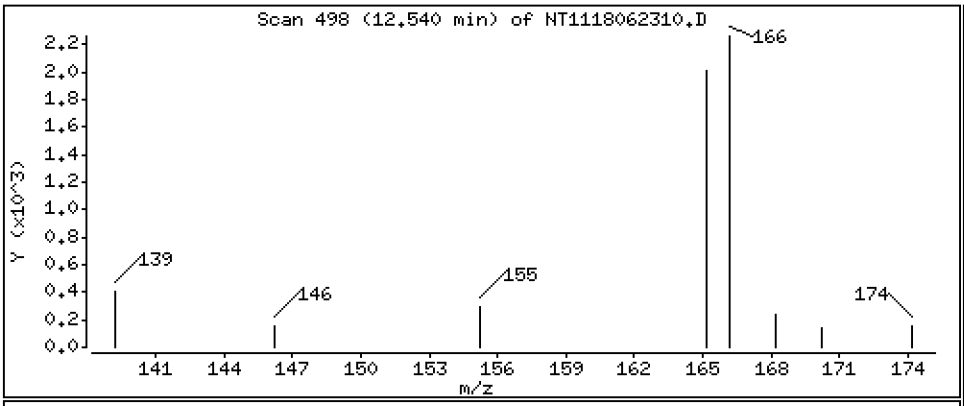
Operator: VTS

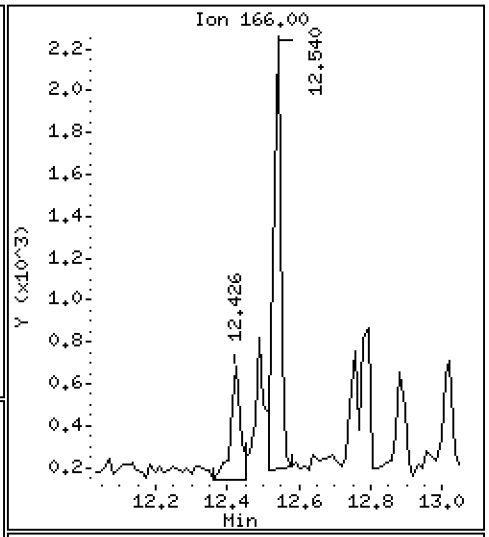
Column phase: Rxi-17Sil MS

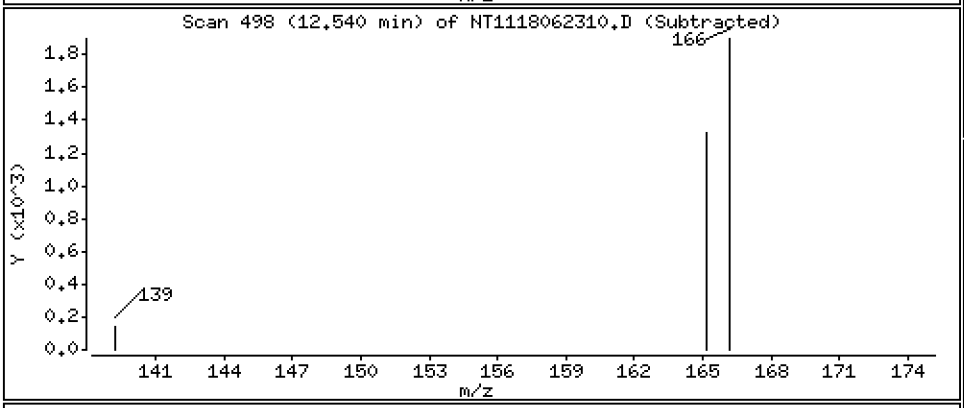
Column diameter: 0.25

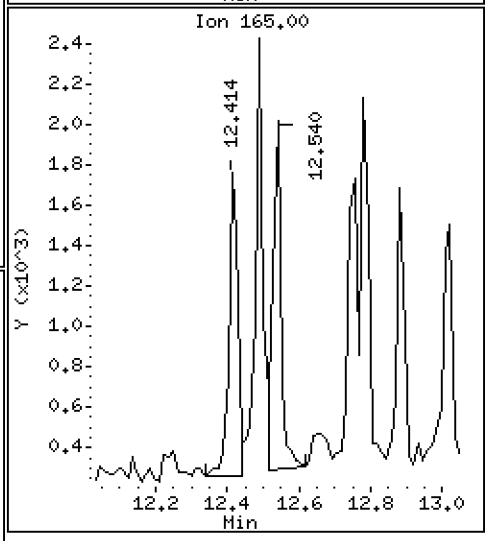
16 Fluorene

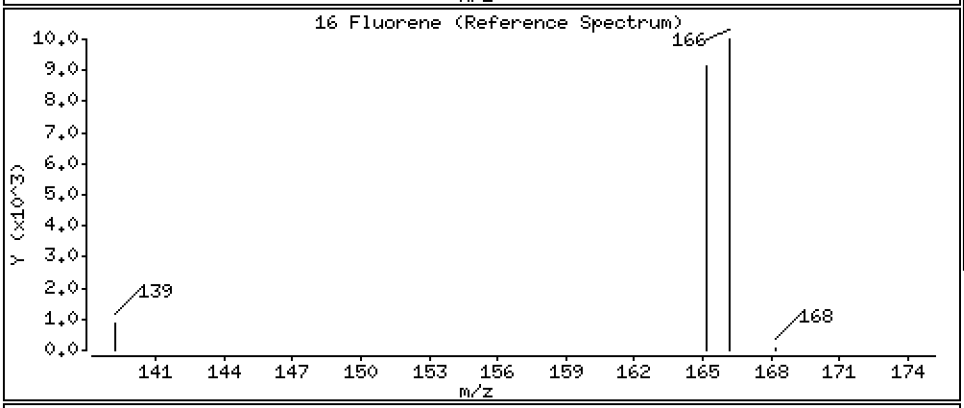
Concentration: 1.32 ng/mL

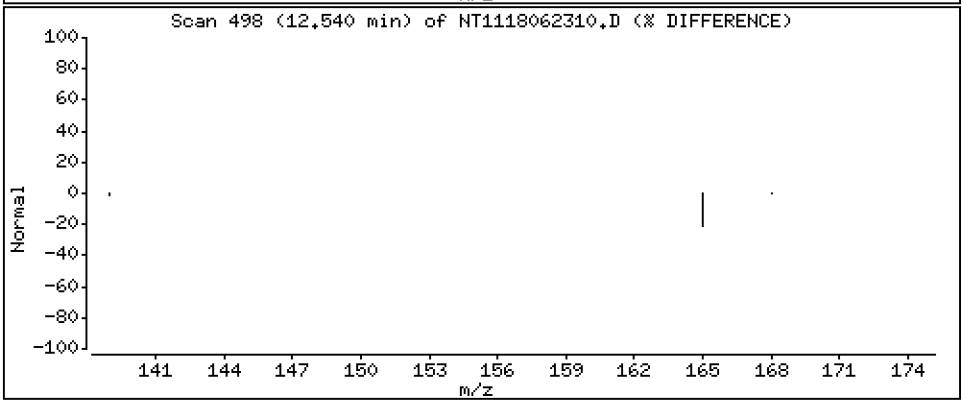












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062310.D

Date : 23-JUN-2018 16:24

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-07

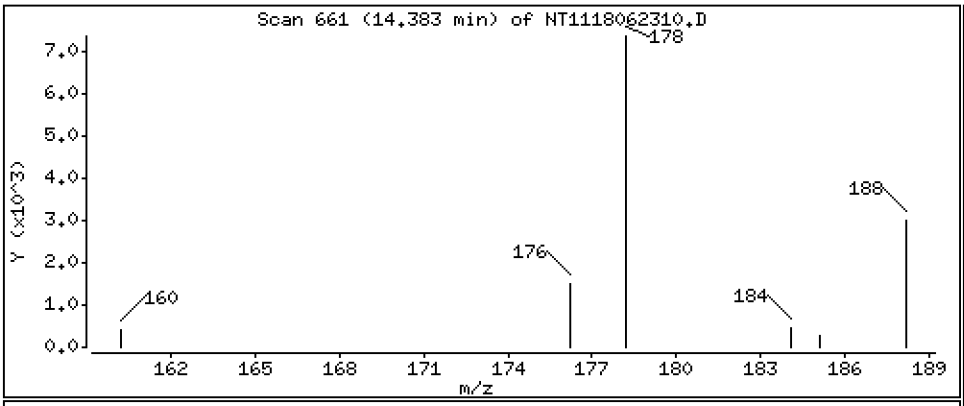
Operator: VTS

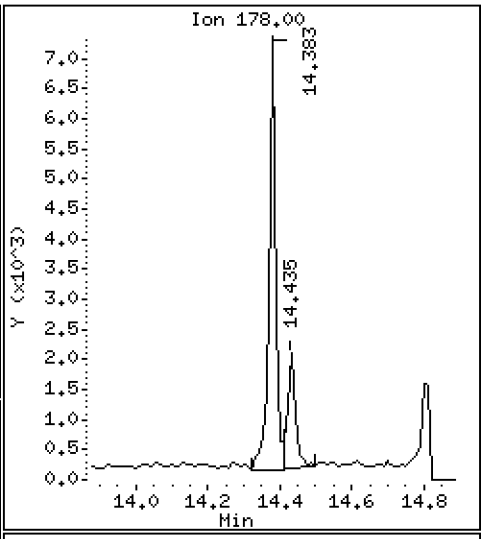
Column phase: Rxi-17Sil MS

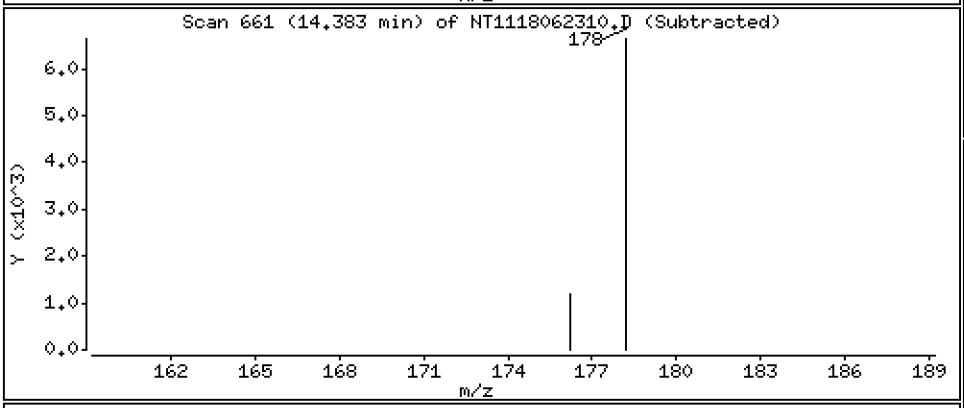
Column diameter: 0.25

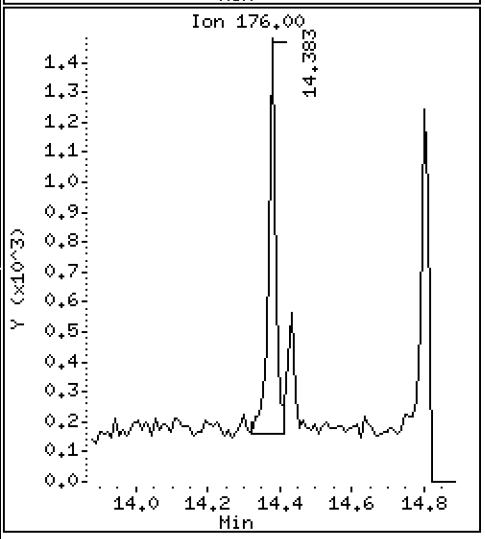
19 Phenanthrene

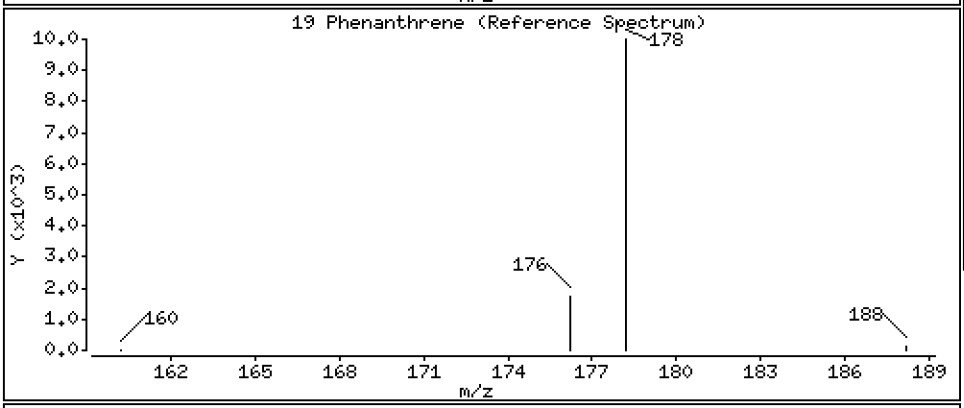
Concentration: 3.33 ng/mL

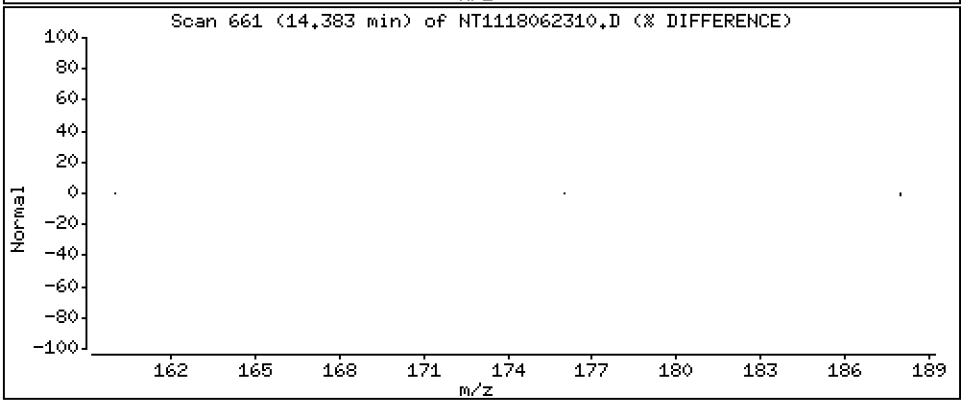












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Date : 23-JUN-2018 16:24

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-07

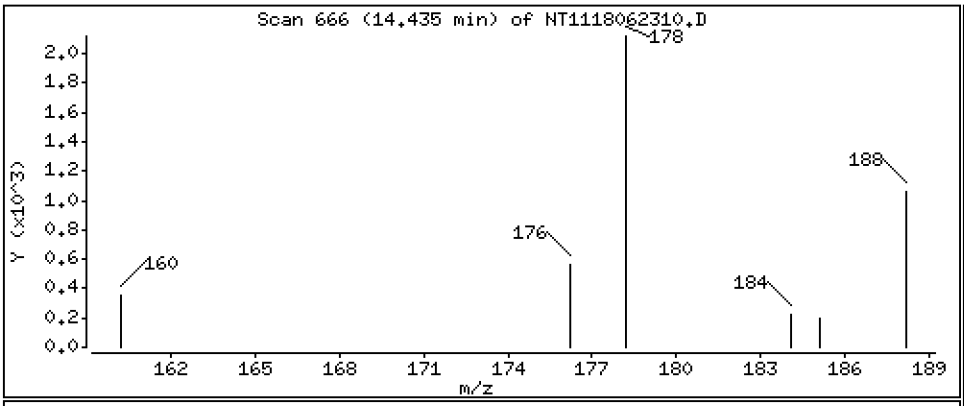
Operator: VTS

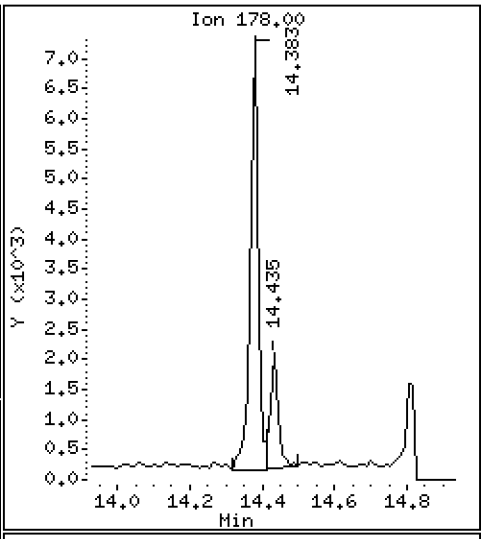
Column phase: Rxi-17Sil MS

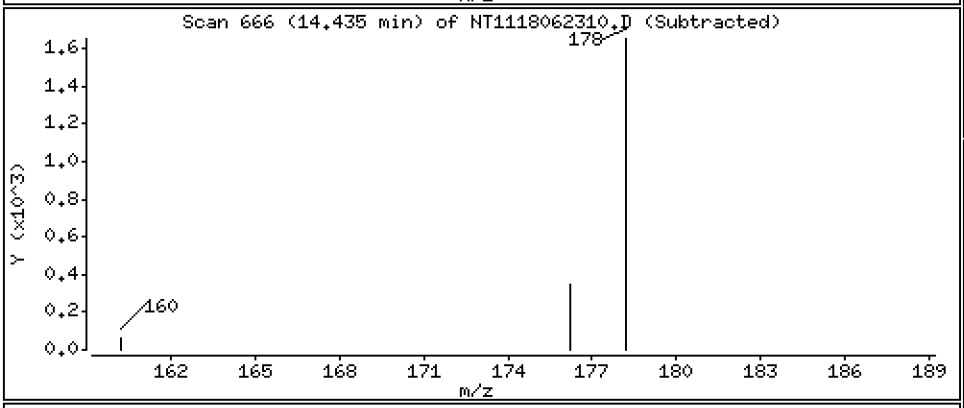
Column diameter: 0.25

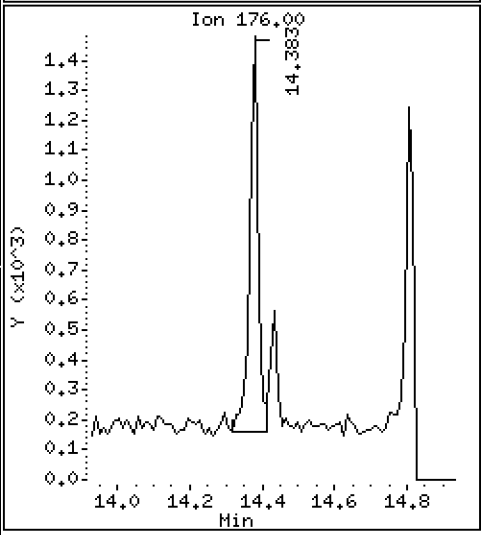
21 Anthracene

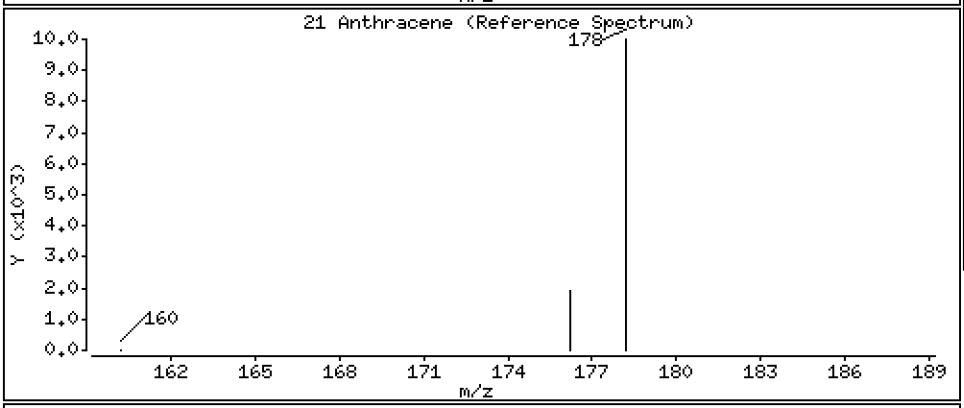
Concentration: 0.934 ng/mL

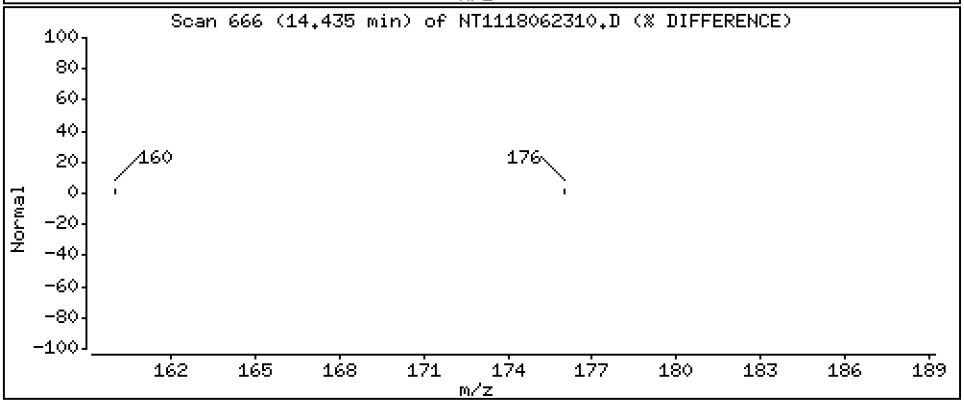












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062310.D

Date : 23-JUN-2018 16:24

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-07

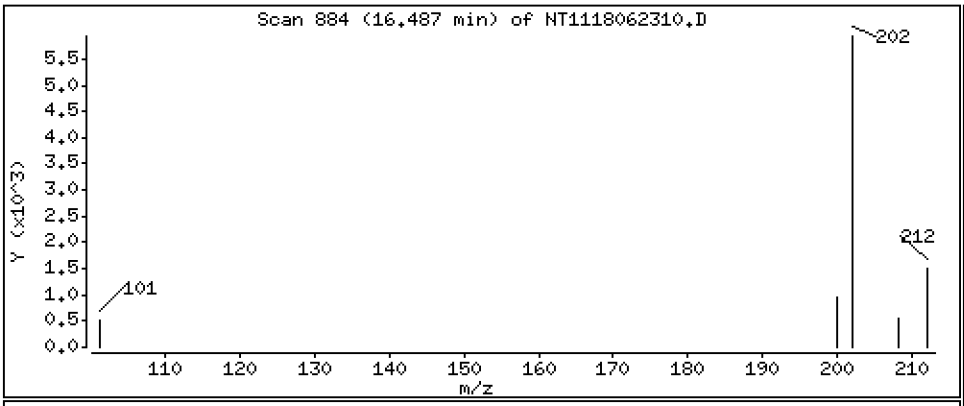
Operator: VTS

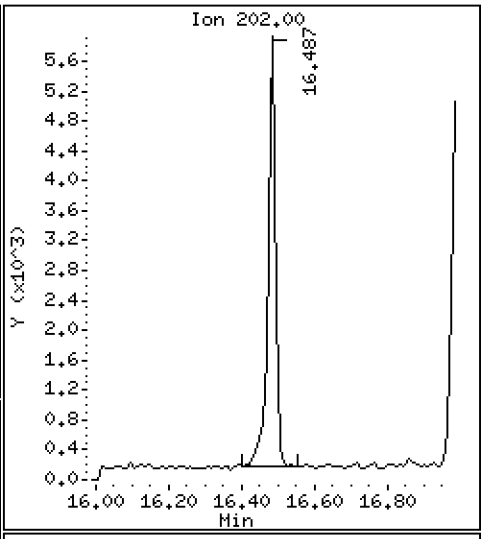
Column phase: Rxi-17Sil MS

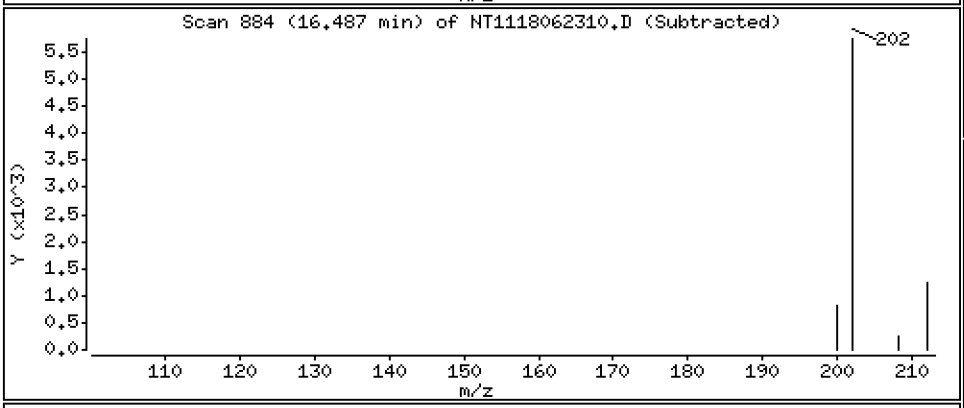
Column diameter: 0.25

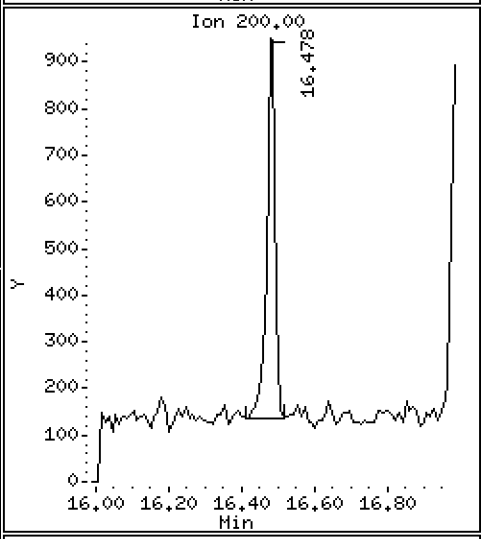
25 Fluoranthene

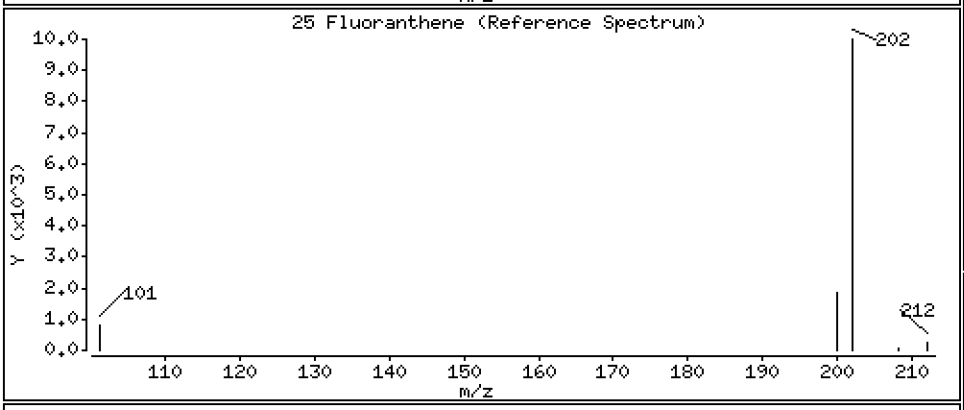
Concentration: 2.93 ng/mL

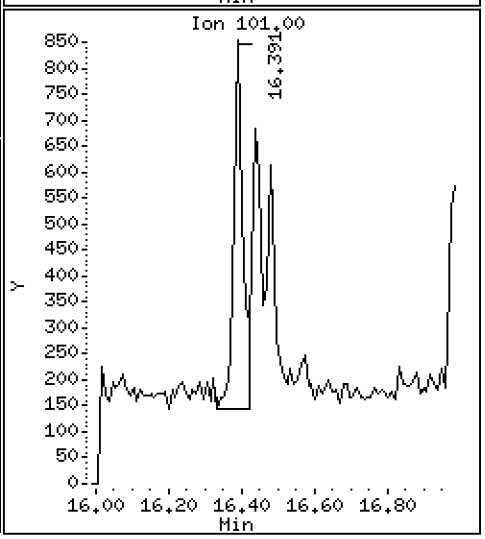


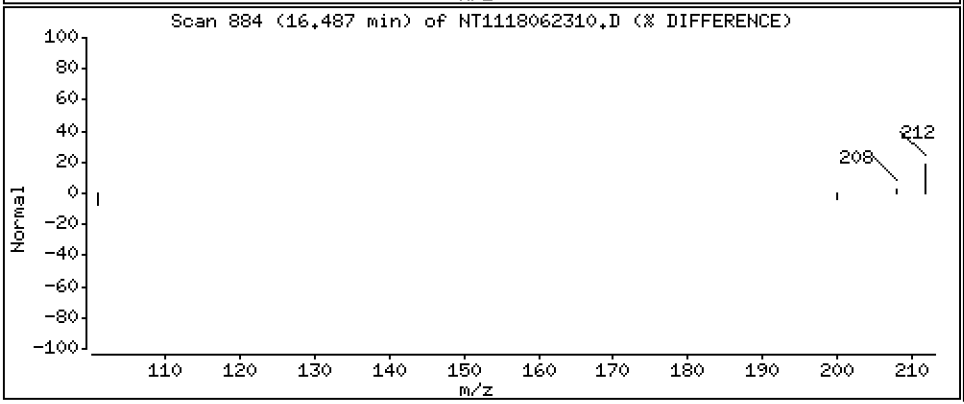












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Date : 23-JUN-2018 16:24

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-07

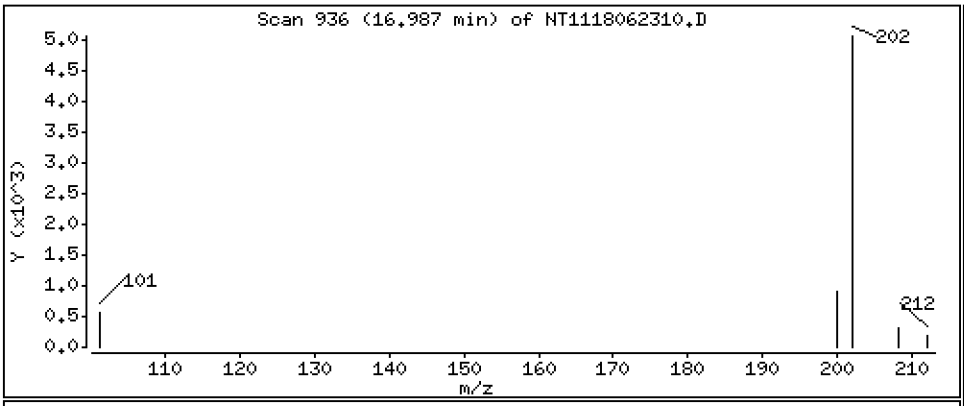
Operator: VTS

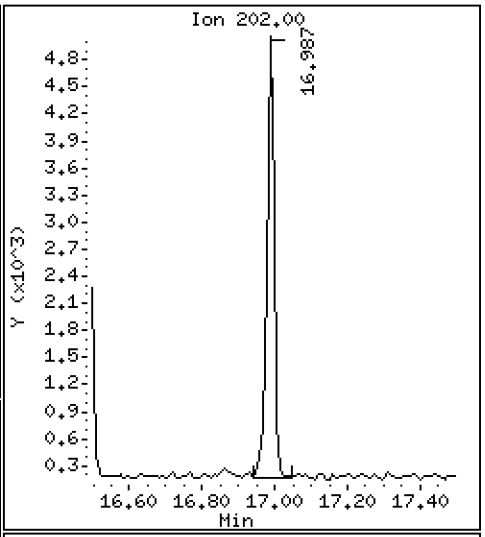
Column phase: Rxi-17Sil MS

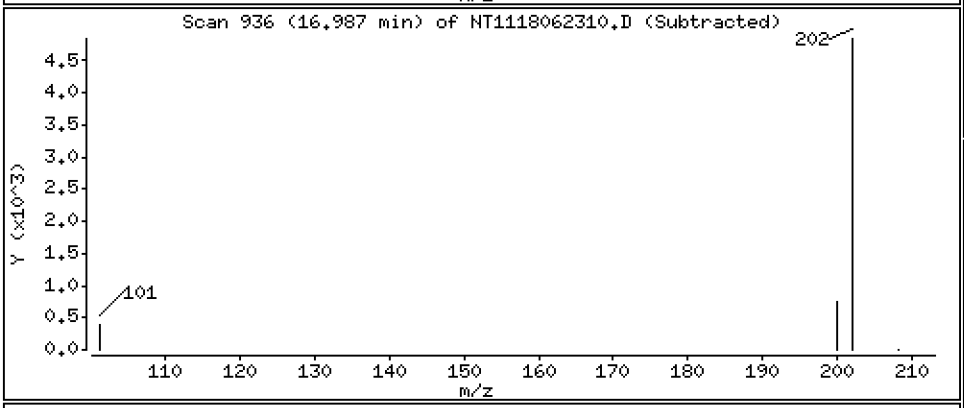
Column diameter: 0.25

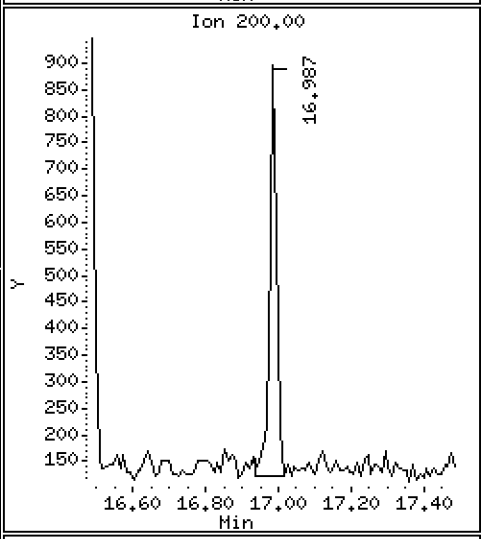
26 Pyrene

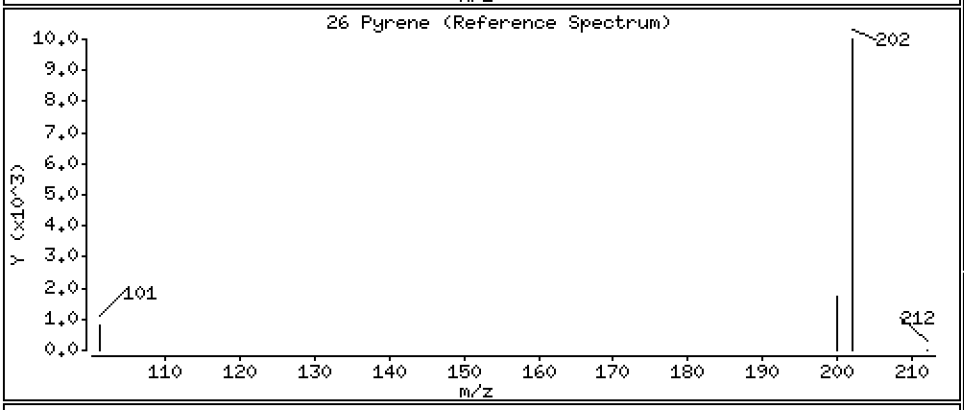
Concentration: 2.16 ng/mL

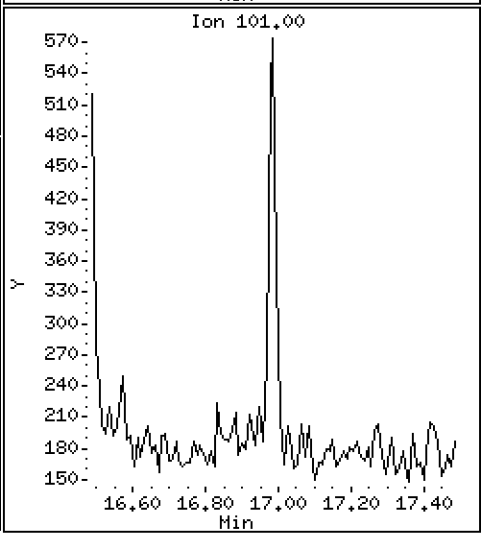


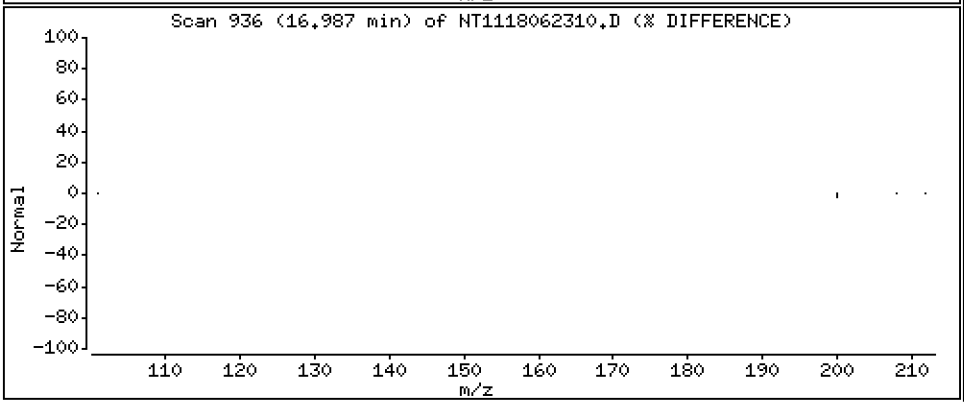












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062310.D

Date : 23-JUN-2018 16:24

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-07

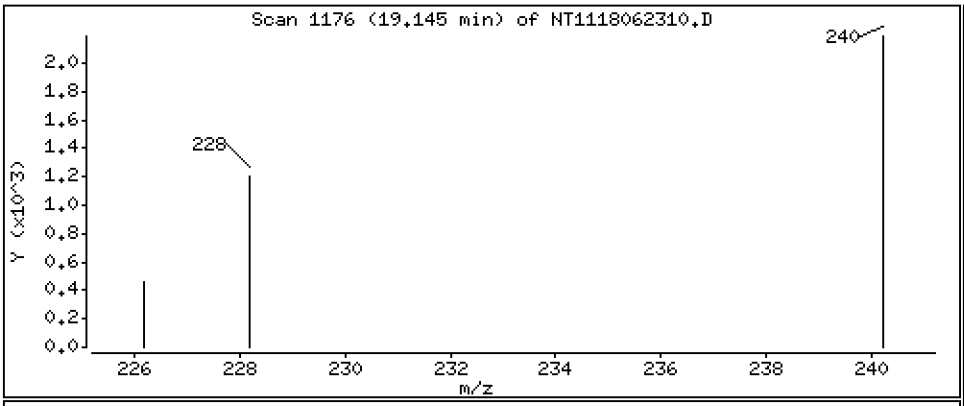
Operator: VTS

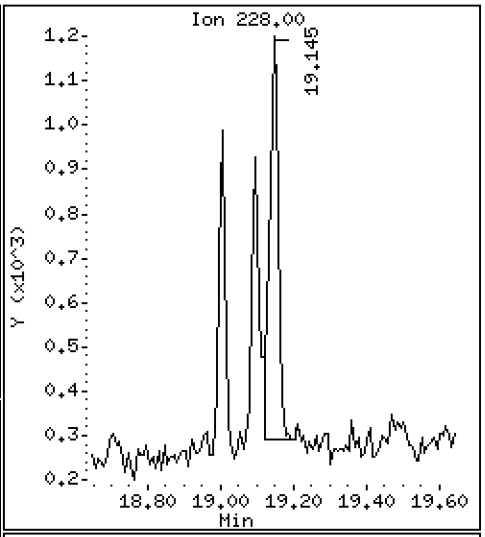
Column phase: Rxi-17Sil MS

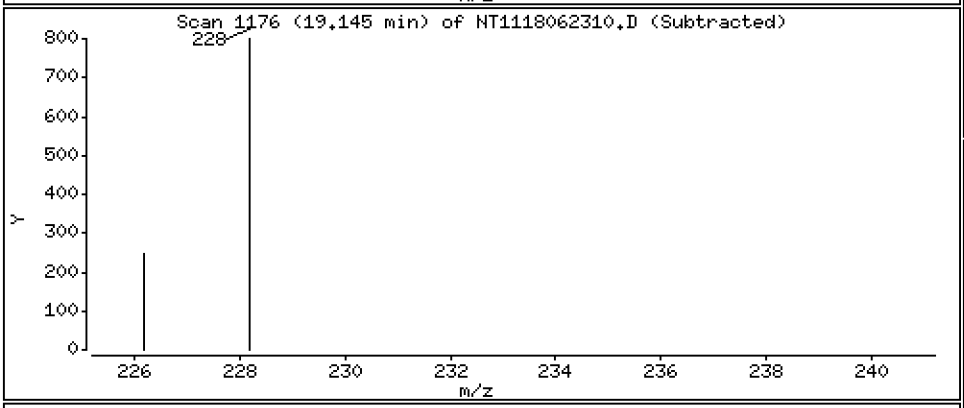
Column diameter: 0.25

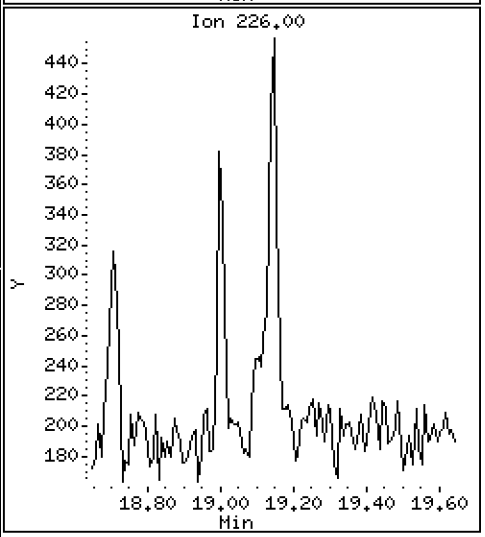
29 Chrysene

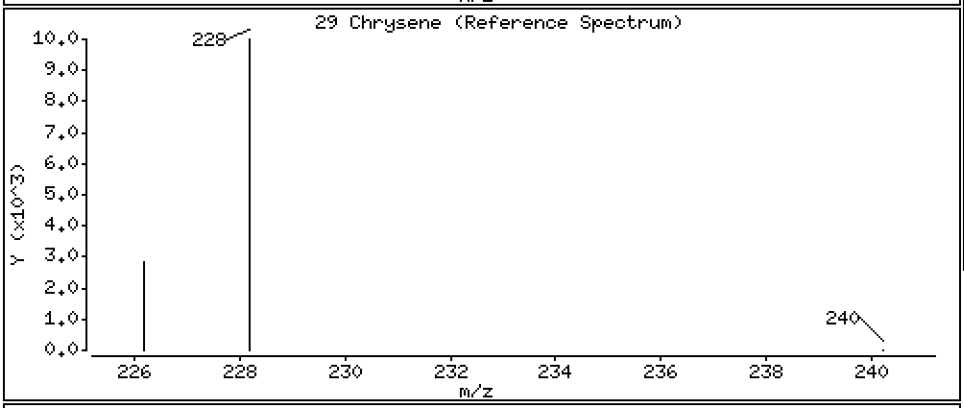
Concentration: 0.647 ng/mL

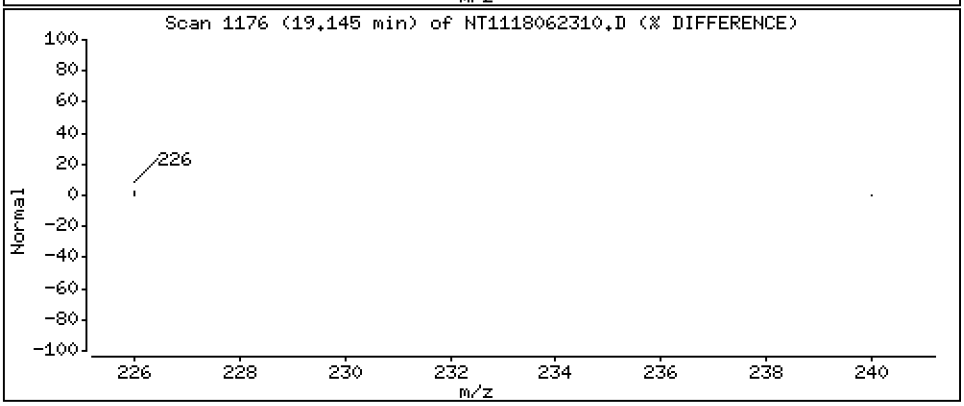












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180623.b\NT1118062310.D
Lab Smp Id: 18F0185-07
Inj Date : 23-JUN-2018 16:24 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0185-07
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180623.b\LOWSIM.m
Meth Date : 23-Jun-2018 13:20 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	433609	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	4966	1.52005	1.52
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	301340	121.802	122
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	3254	1.23197	1.23
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	2240	0.85273	0.853
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	11.490	11.499	(0.987)	1389	0.46600	0.466
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	250692	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	1716	0.84172	0.842
	13 Dibenzofuran	168	11.907	11.908	(1.023)	3228	1.15579	1.16
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.539	12.540	(1.077)	2973	1.32003	1.32
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	420792	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	10984	3.32822	3.33
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.435	14.435	(1.007)	2883	0.93444	0.934
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	Compound Not Detected.					
$	24 Fluoranthene-d10	212	16.448	16.449	(1.147)	360740	141.233	141
	25 Fluoranthene	202	16.487	16.487	(1.150)	8983	2.93102	2.93
	26 Pyrene	202	16.986	16.996	(0.890)	6678	2.16149	2.16
	27 Benzo(a)anthracene	228	Compound Not Detected.					
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	314264	200.000	
	29 Chrysene	228	19.145	19.145	(1.003)	1549	0.64717	0.647
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
35	Benzo(a)pyrene	252	Compound Not Detected.					
* 36	Perylene-d12	264	22.353	22.353	(1.000)	314498	200.000	
37	Perylene	252	Compound Not Detected.					
$ 38	Dibenzo(a,h)anthracene-d14	292	25.268	25.268	(1.130)	204910	136.154	136
39	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
40	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
41	Benzo(g,h,i)perylene	276	Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118062310.D
Lab Smp Id: 18F0185-07
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180623.b\LOWSIM.m
Misc Info:

Calibration Date: 23-JUN-2018
Calibration Time: 10:32
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	433609	0.53
11 Acenaphthene-d10	260137	130069	520274	250692	-3.63
18 Phenanthrene-d10	427391	213696	854782	420792	-1.54
28 Chrysene-d12	304596	152298	609192	314264	3.17
36 Perylene-d12	263091	131546	526182	314498	19.54

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118062310.D

Lab ID: 18F0185-07
nt11.i, 20180623.b\LOWSIM.m,   23-JUN-2018 16:24

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180623.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-43

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-08	SDG:	18F0185
Sampled:	06/12/18 13:00	Prepared:	06/18/18 13:48	File ID:	NT1118062311.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/23/18 17:00
Batch:	BGF0416	Sequence:	SGF0298	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.010	U	0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.001	J	0.001	0.010
208-96-8	Acenaphthylene	1	0.010	U	0.002	0.010
83-32-9	Acenaphthene	1	0.010	U	0.003	0.010
86-73-7	Fluorene	1	0.010	U	0.002	0.010
85-01-8	Phenanthrene	1	0.010	U	0.001	0.010
120-12-7	Anthracene	1	0.010	U	0.001	0.010
206-44-0	Fluoranthene	1	0.010	U	0.002	0.010
129-00-0	Pyrene	1	0.010	U	0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.010	U	0.0008	0.010
218-01-9	Chrysene	1	0.010	U	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.010	U	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.133	44.4	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.151	50.3	29 - 120	
Fluoranthene-d10	0.30000	0.153	51.0	57 - 120	*

Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062311.D

Date : 23-JUN-2018 17:00

Client ID:

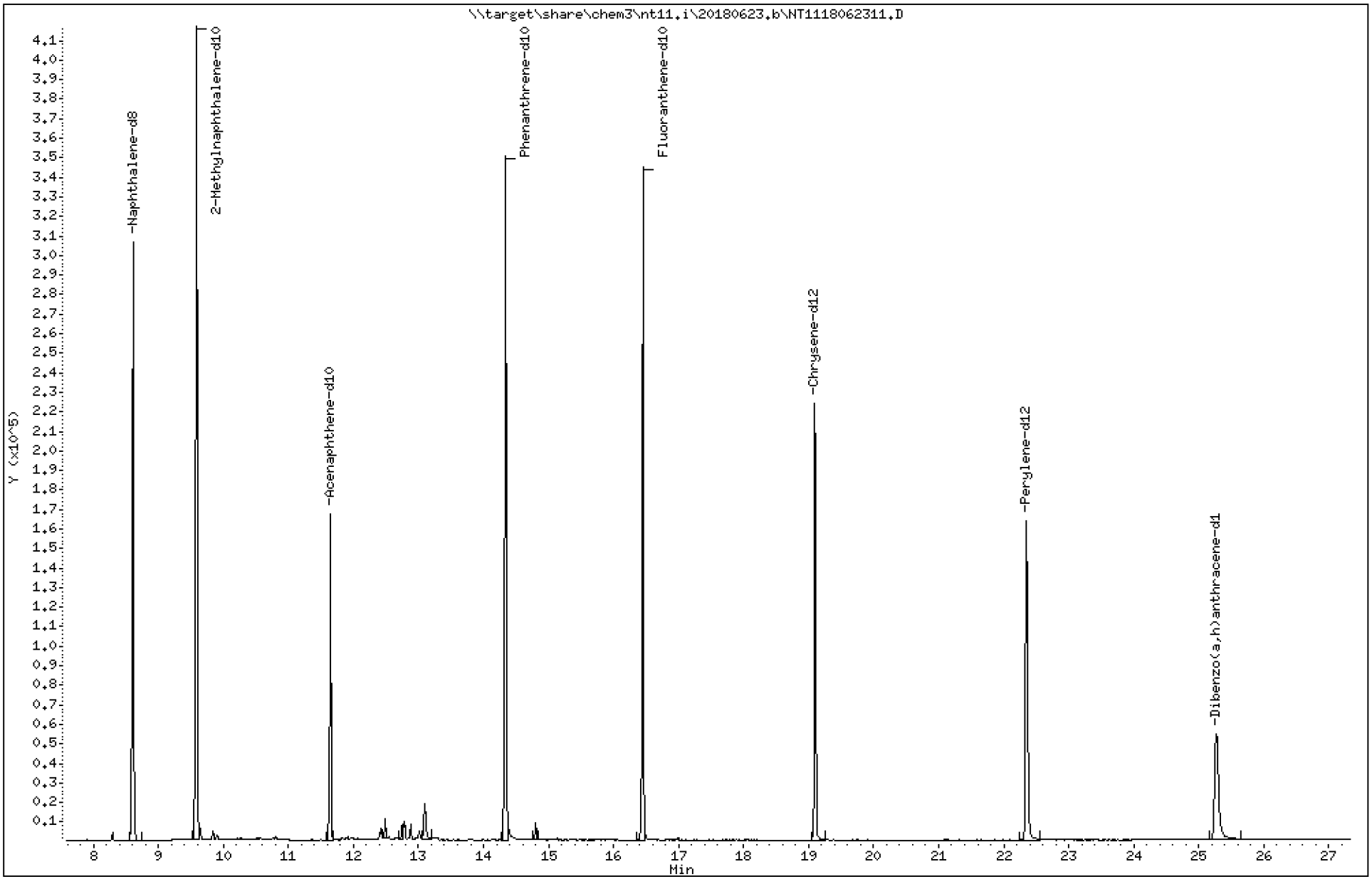
Instrument: nt11.i

Sample Info: 18F0185-08

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 23-JUN-2018 17:00

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-08

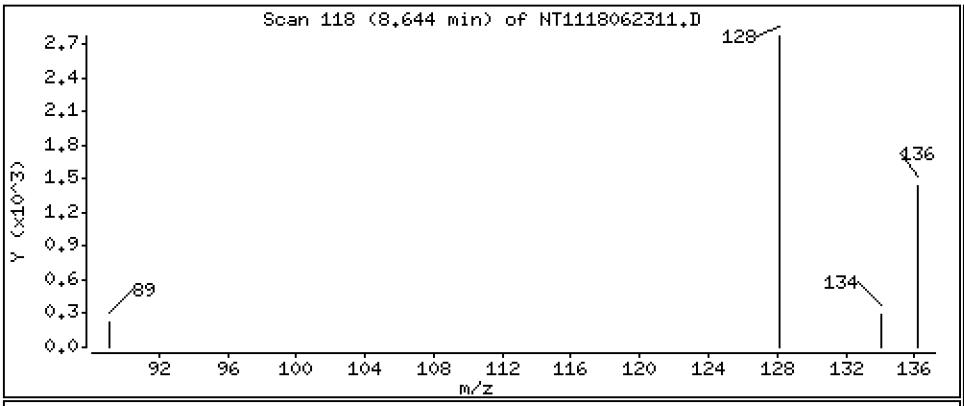
Operator: VTS

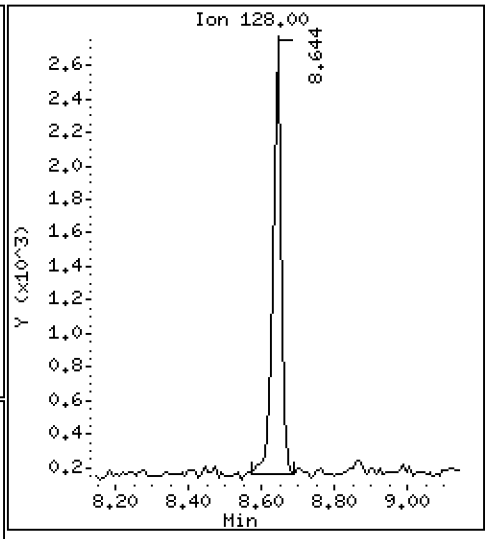
Column phase: Rxi-17Sil MS

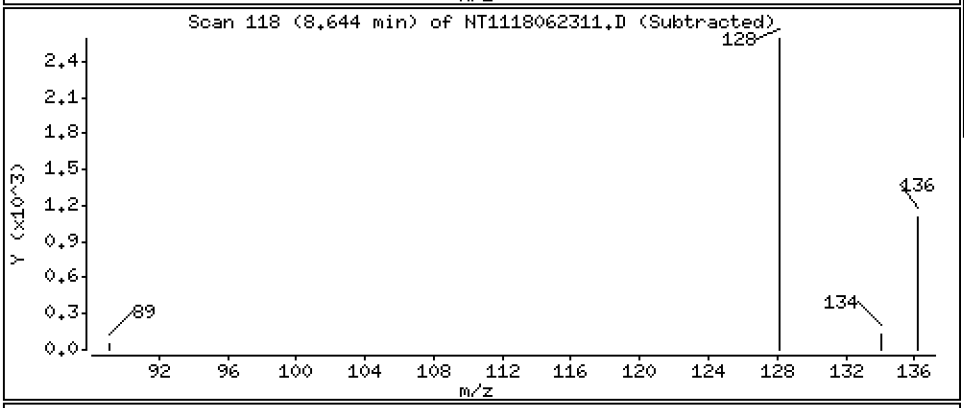
Column diameter: 0.25

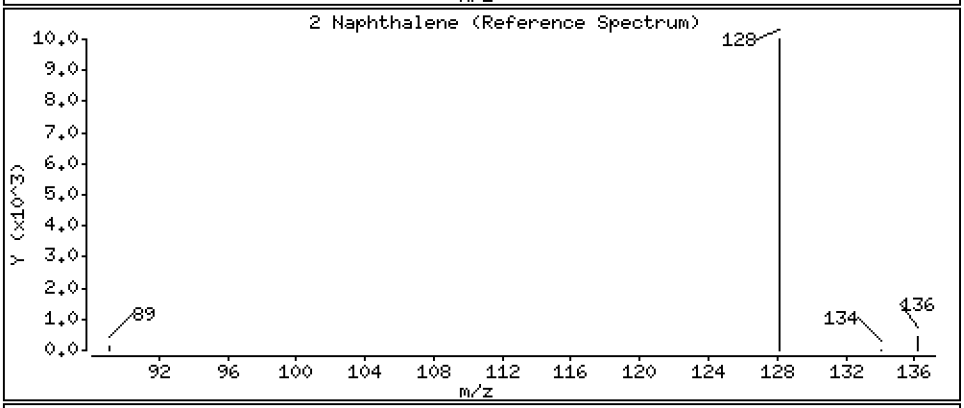
2 Naphthalene

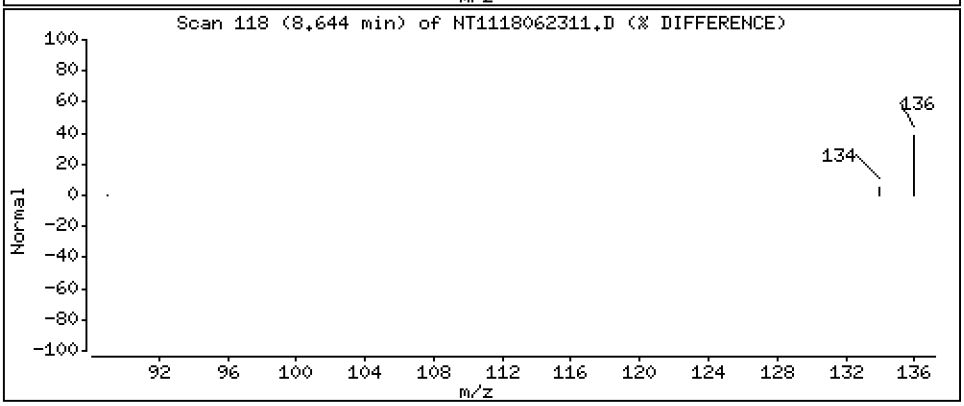
Concentration: 1.24 ng/mL











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Date : 23-JUN-2018 17:00

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-08

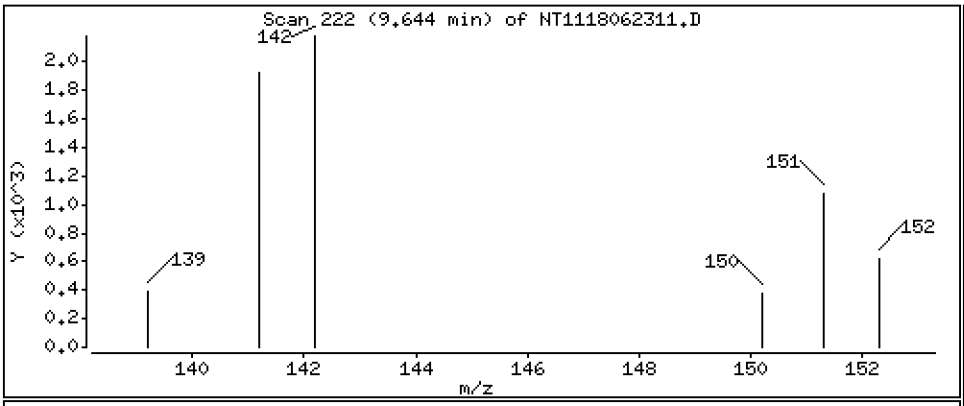
Operator: VTS

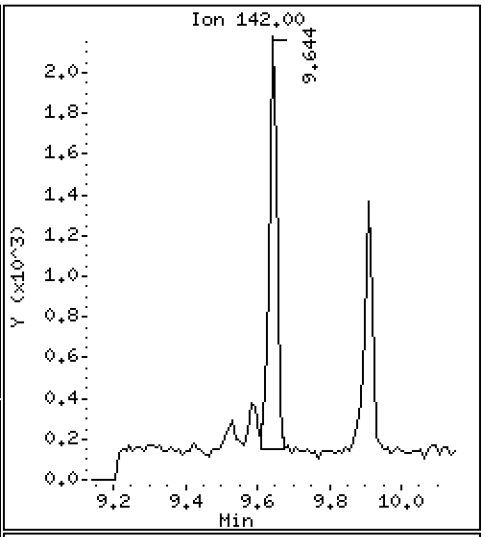
Column phase: Rxi-17Sil MS

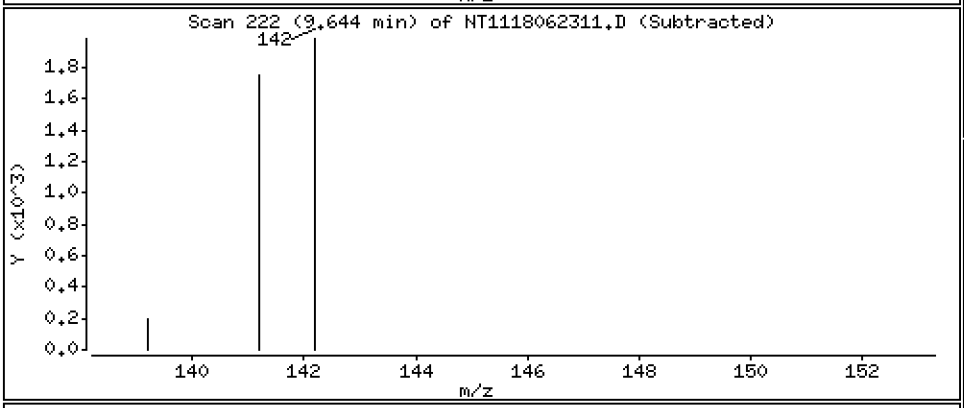
Column diameter: 0.25

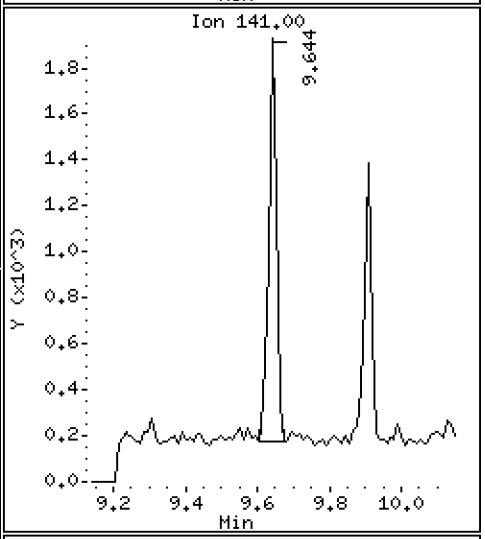
5 2-Methylnaphthalene

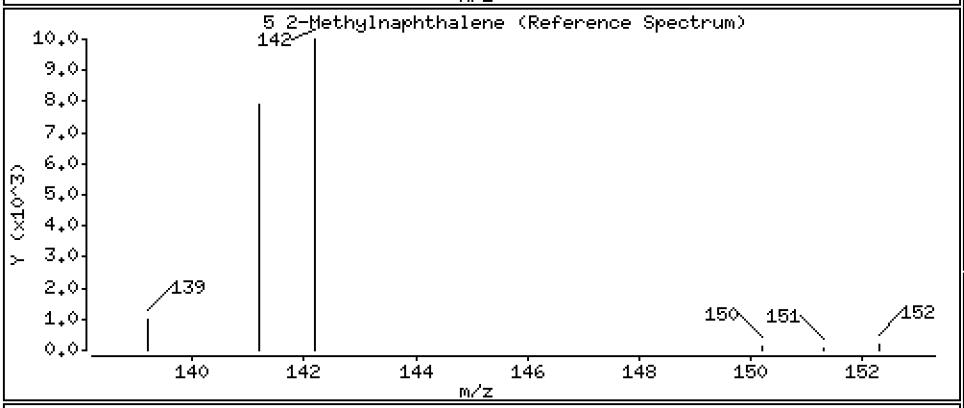
Concentration: 1.14 ng/mL

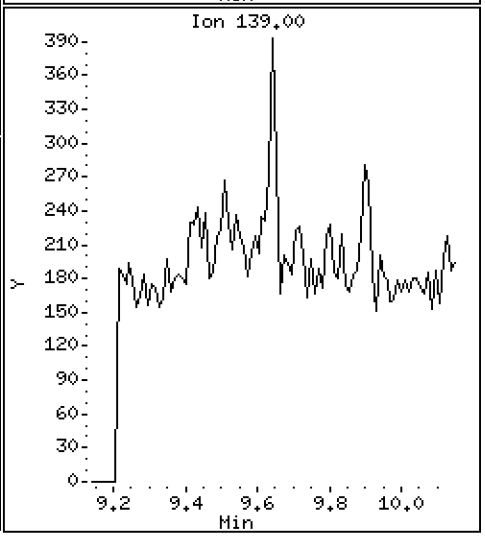


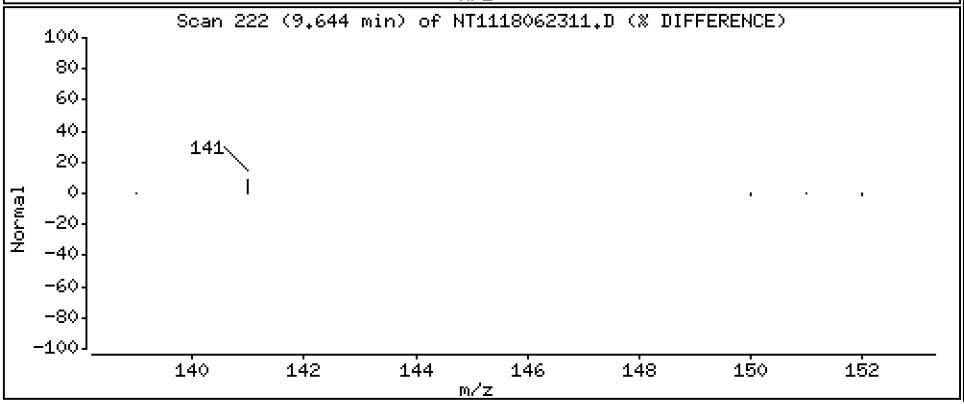












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Date : 23-JUN-2018 17:00

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-08

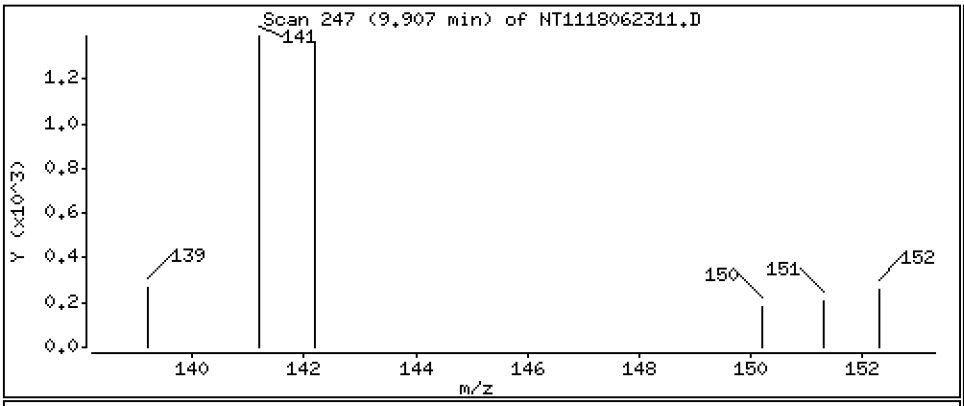
Operator: VTS

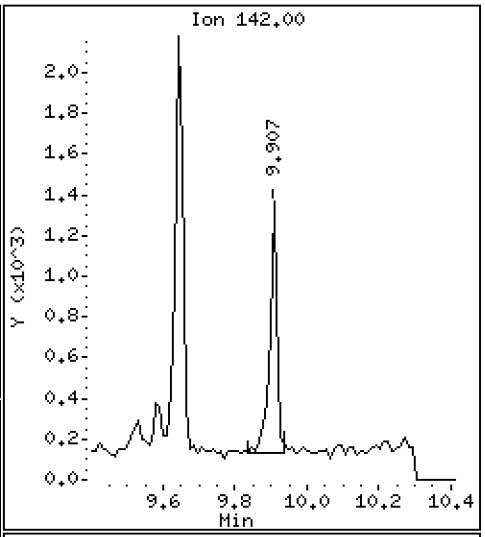
Column phase: Rxi-17Sil MS

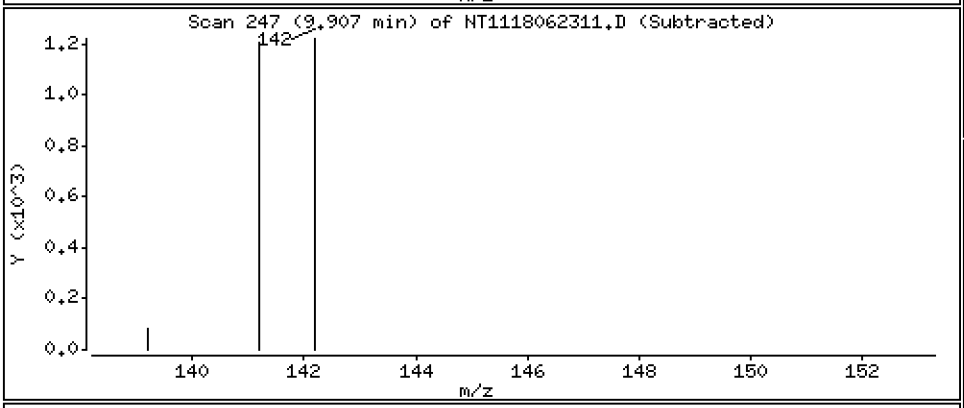
Column diameter: 0.25

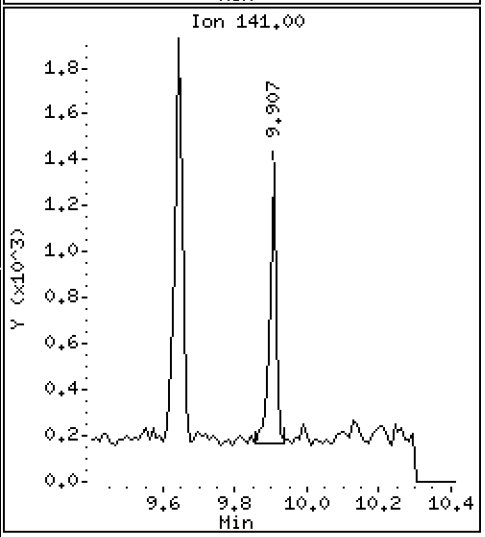
6 1-Methylnaphthalene

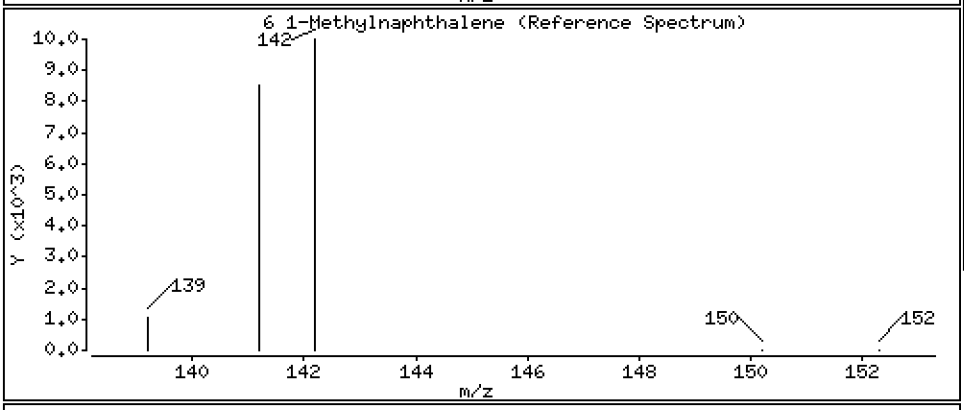
Concentration: 0.755 ng/mL

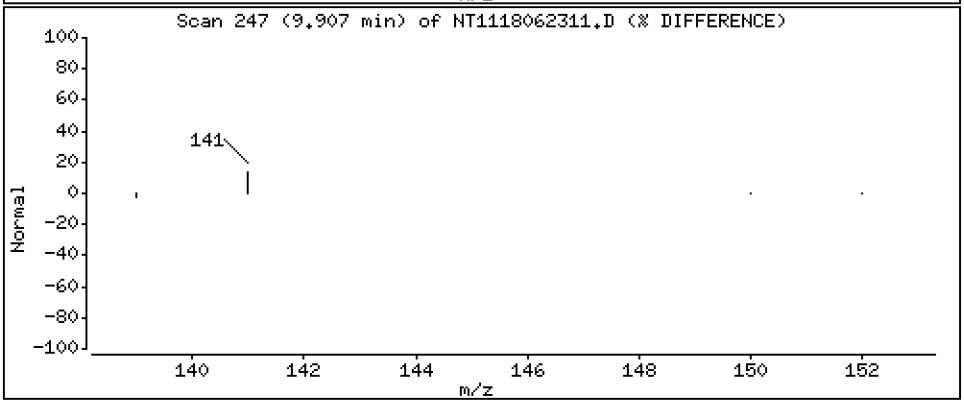












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Date : 23-JUN-2018 17:00

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-08

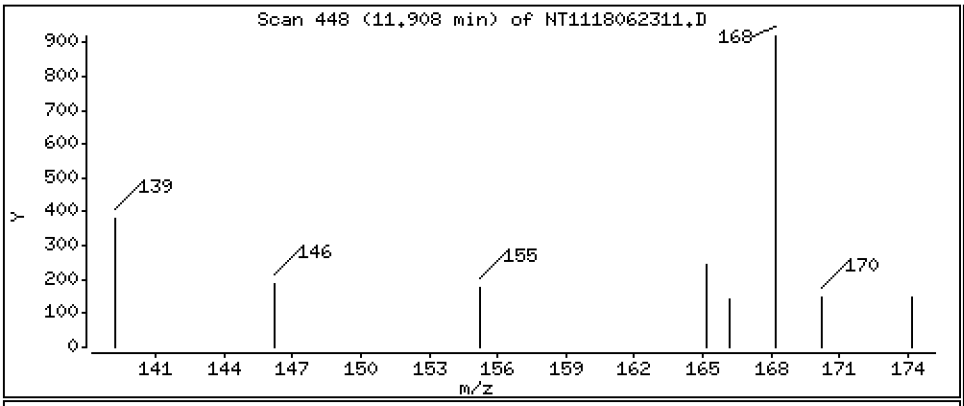
Operator: VTS

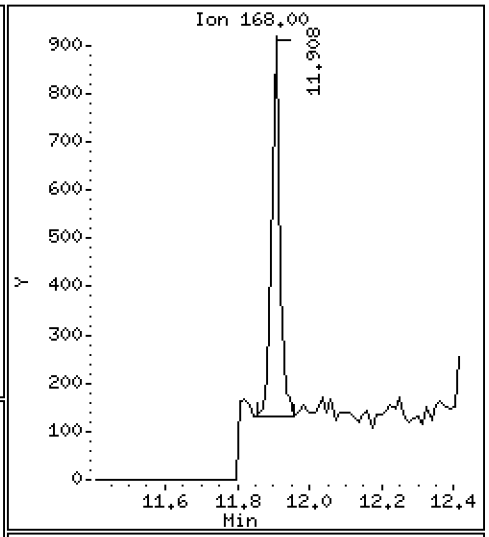
Column phase: Rxi-17Sil MS

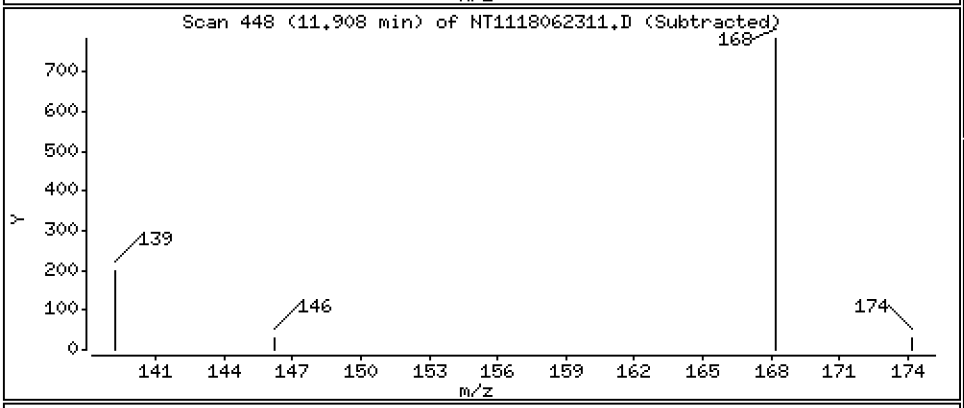
Column diameter: 0.25

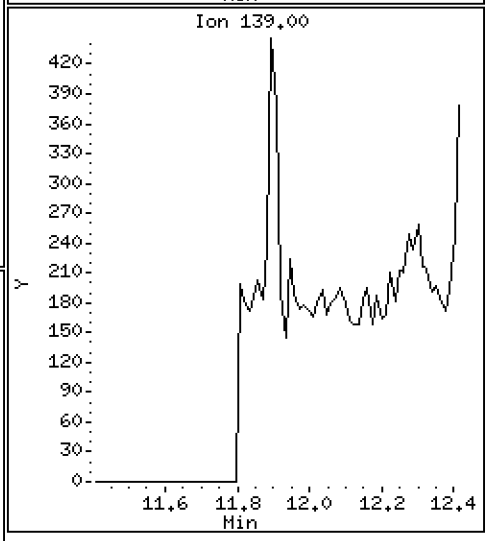
13 Dibenzofuran

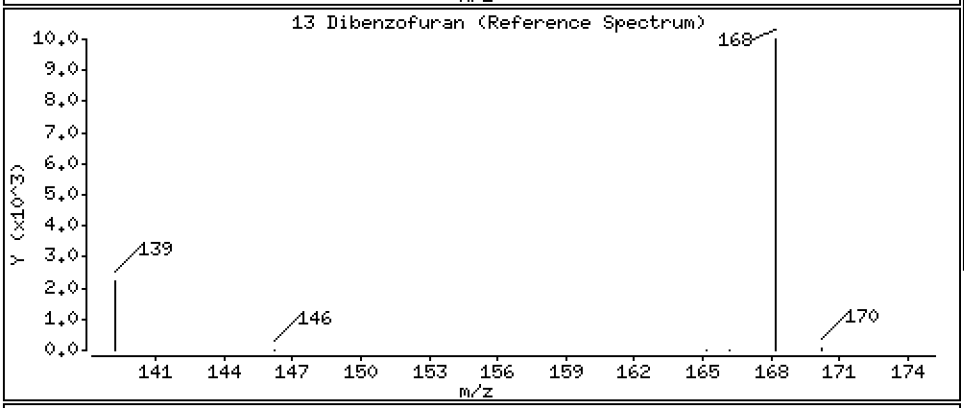
Concentration: 0.424 ng/mL

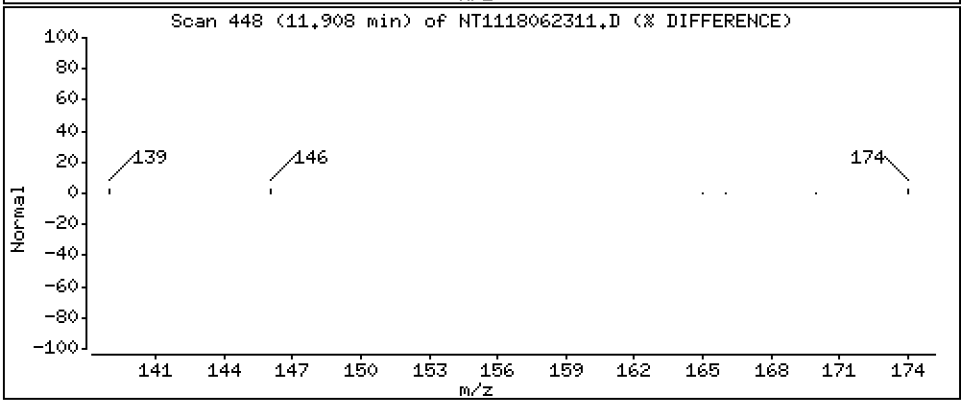












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Date : 23-JUN-2018 17:00

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-08

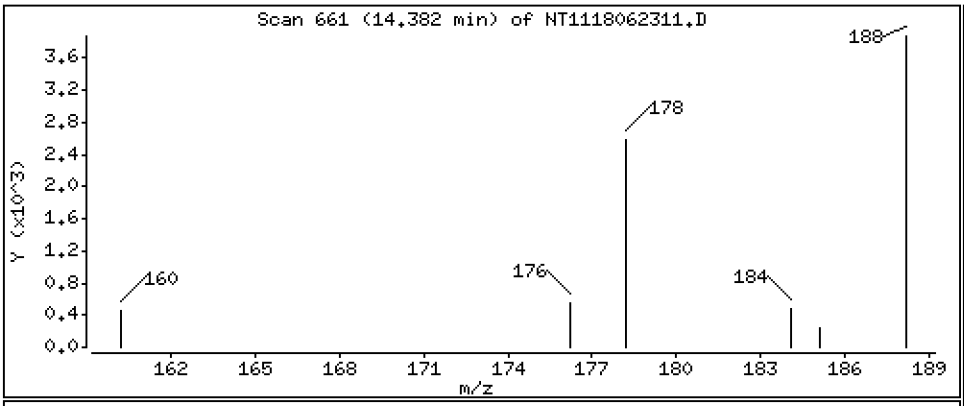
Operator: VTS

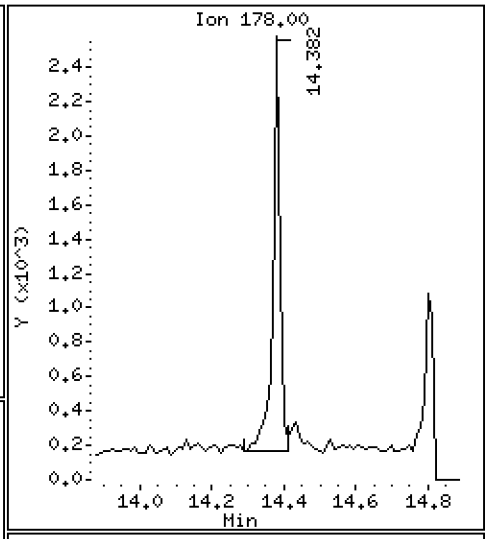
Column phase: Rxi-17Sil MS

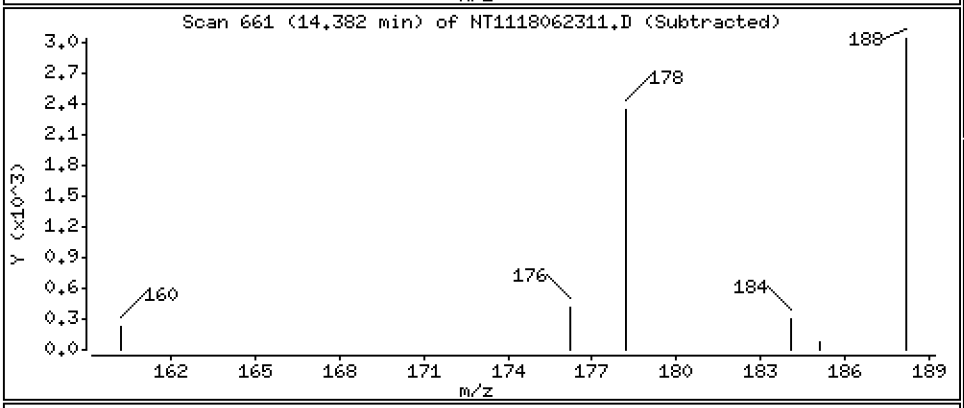
Column diameter: 0.25

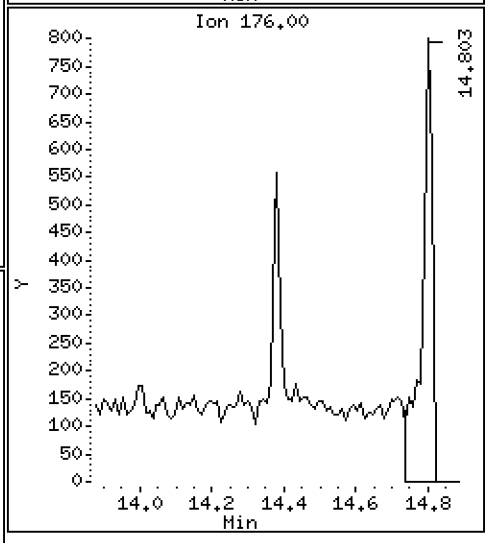
19 Phenanthrene

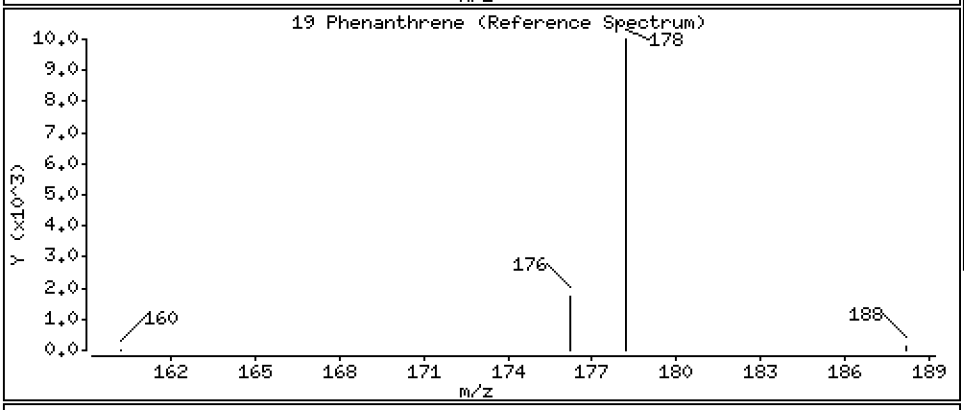
Concentration: 1.10 ng/mL

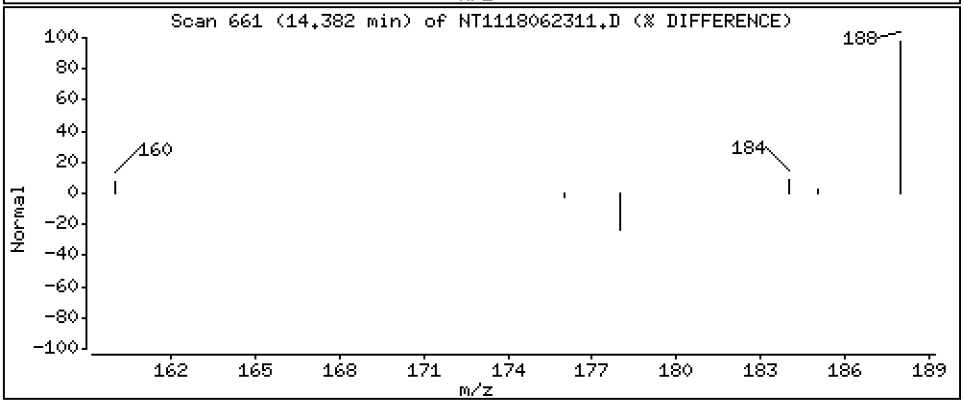












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Date : 23-JUN-2018 17:00

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-08

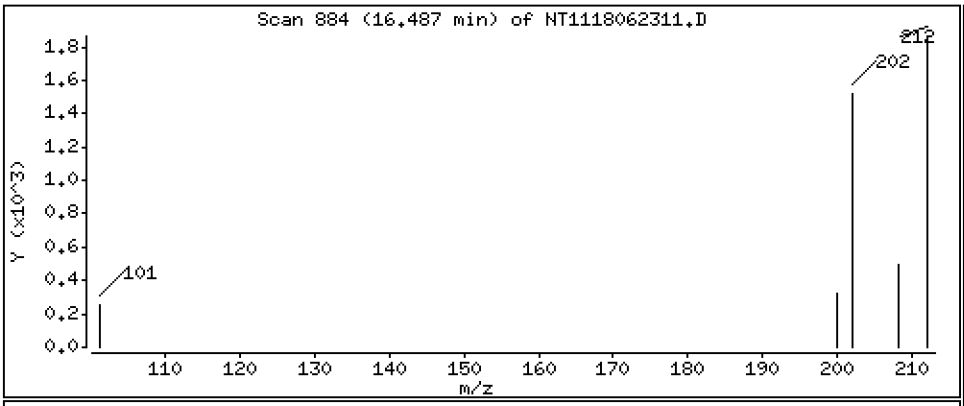
Operator: VTS

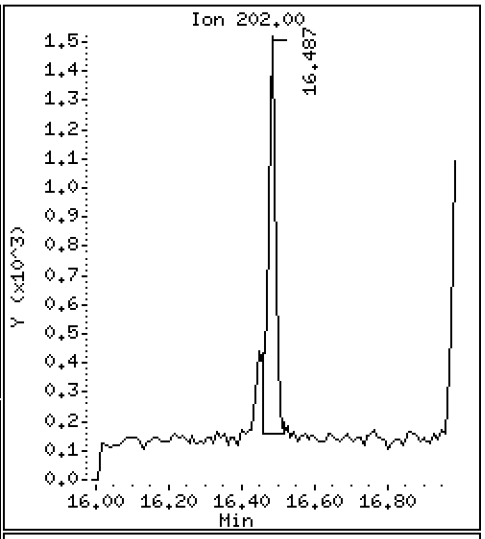
Column phase: Rxi-17Sil MS

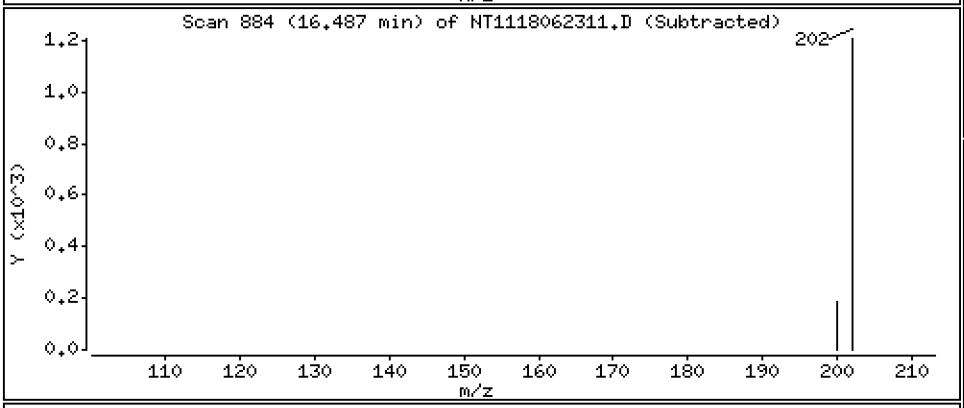
Column diameter: 0.25

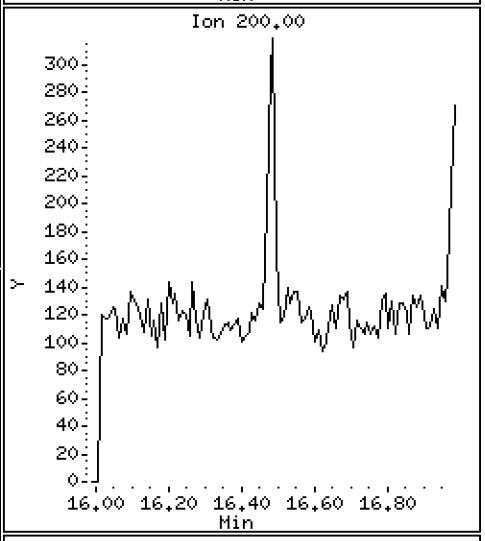
25 Fluoranthene

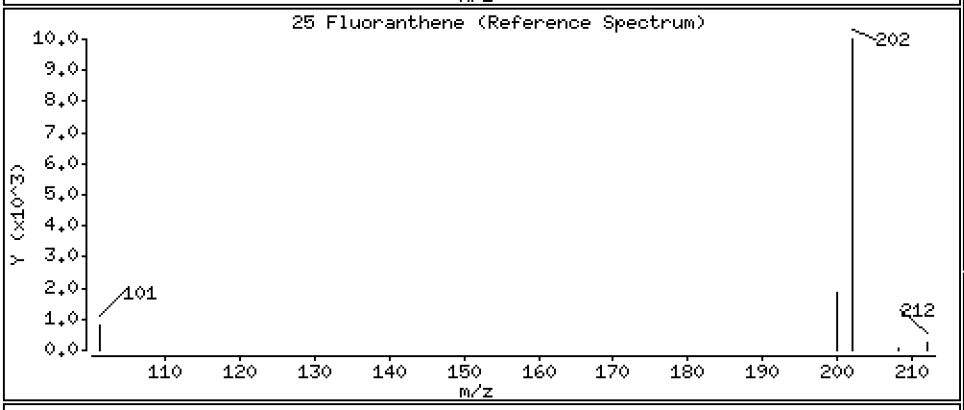
Concentration: 0.658 ng/mL

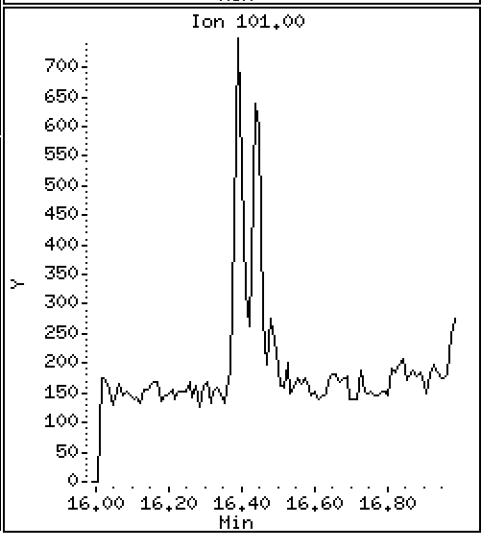


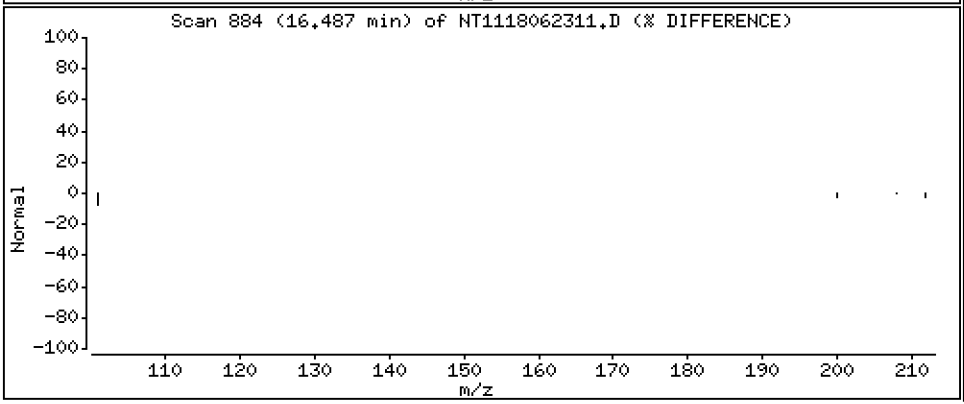












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062311.D

Date : 23-JUN-2018 17:00

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-08

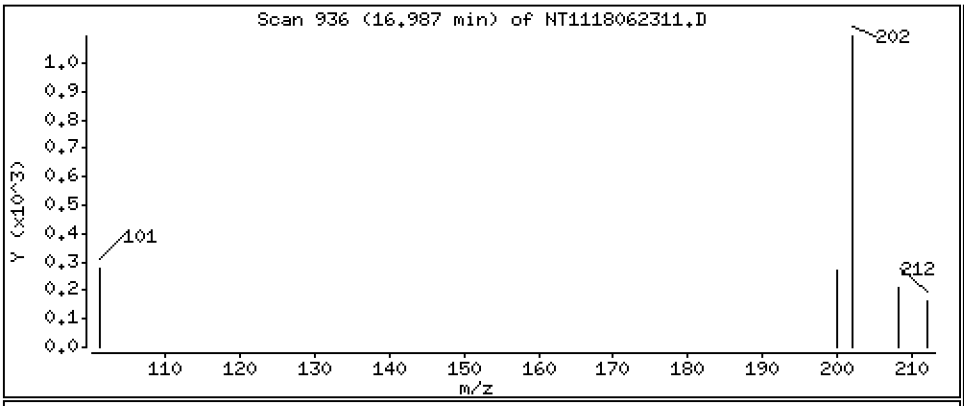
Operator: VTS

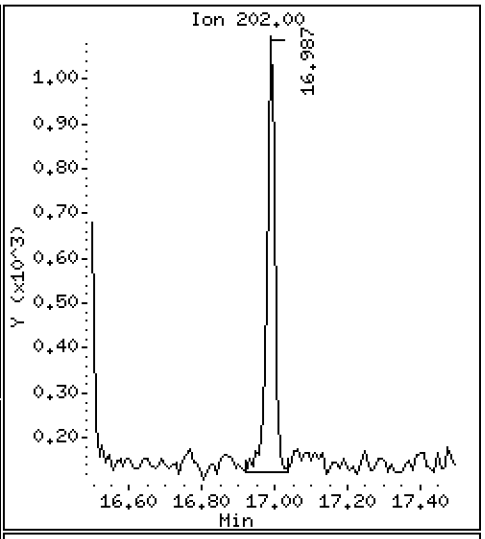
Column phase: Rxi-17Sil MS

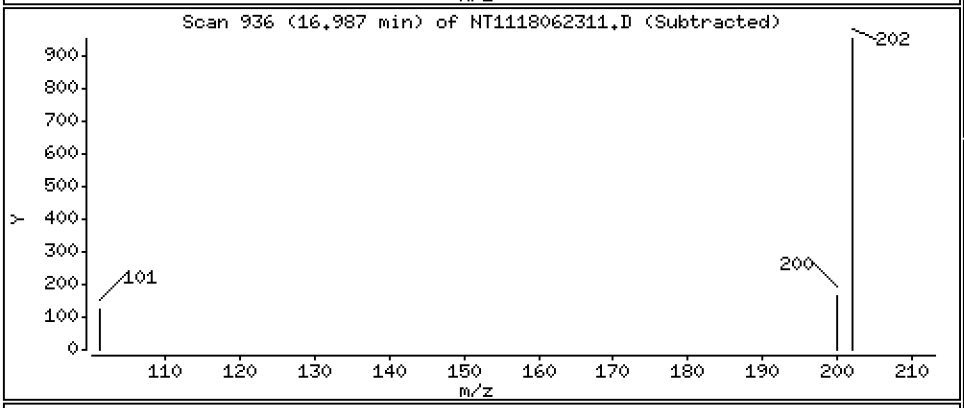
Column diameter: 0.25

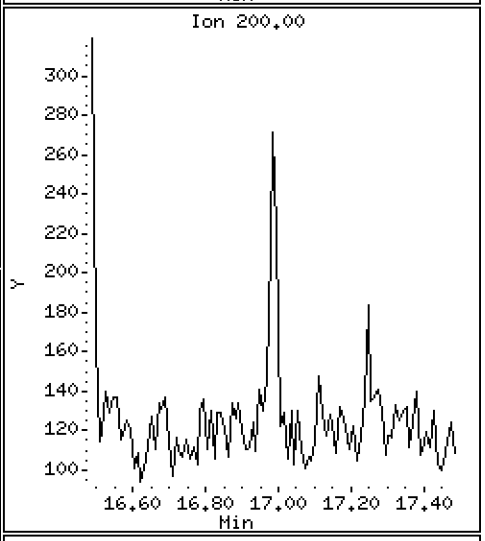
26 Pyrene

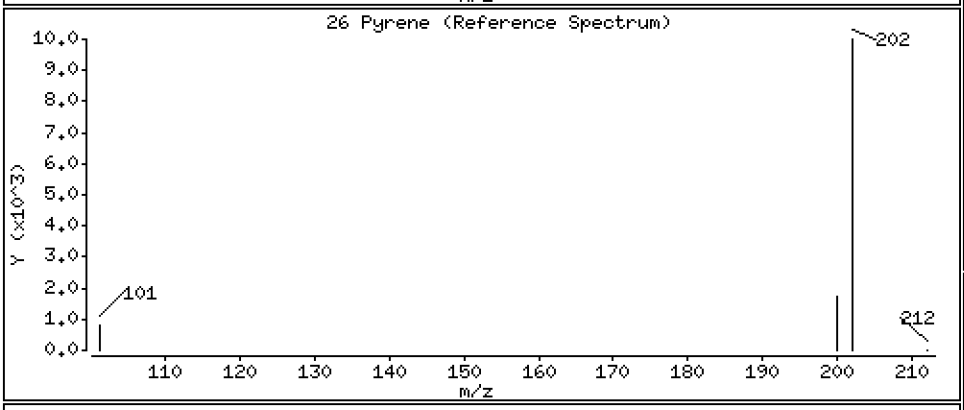
Concentration: 0.459 ng/mL

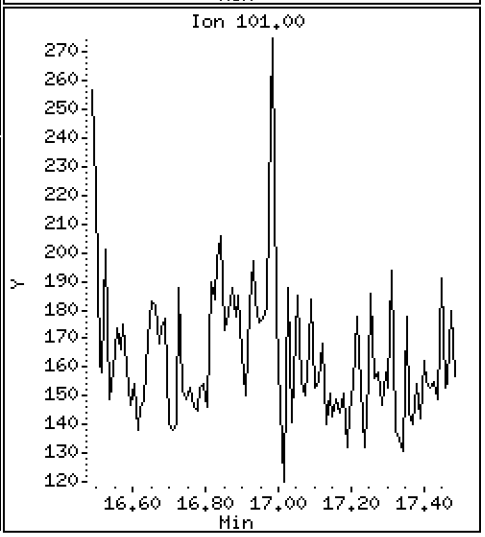


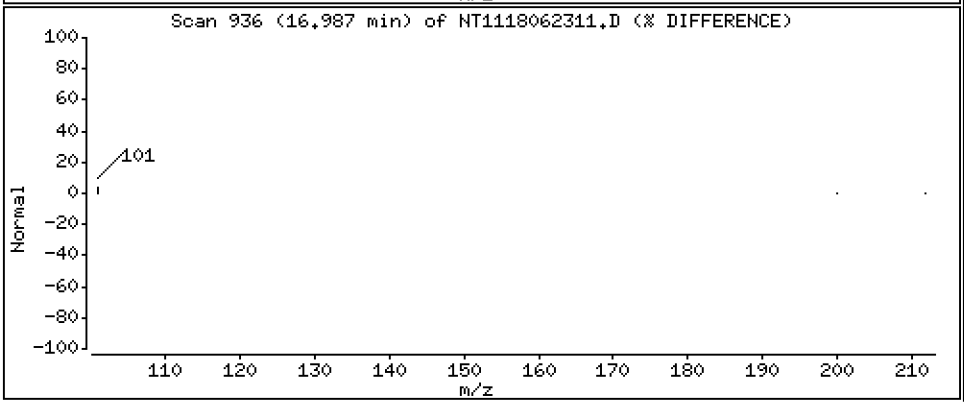












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180623.b\NT1118062311.D
Lab Smp Id: 18F0185-08
Inj Date : 23-JUN-2018 17:00 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0185-08
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180623.b\LOWSIM.m
Meth Date : 23-Jun-2018 13:20 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	440585	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	4101	1.23517	1.24
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.591	9.592	(1.114)	334783	133.177	133
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	3050	1.13645	1.14
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	2015	0.75493	0.755
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	251575	200.000	
	12 Acenaphthene	153	Compound Not Detected.					
	13 Dibenzofuran	168	11.907	11.908	(1.023)	1188	0.42387	0.424
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	Compound Not Detected.					
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	442232	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	3827	1.10339	1.10
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	Compound Not Detected.					
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	Compound Not Detected.					
$	24 Fluoranthene-d10	212	16.448	16.449	(1.147)	410891	153.069	153
	25 Fluoranthene	202	16.487	16.487	(1.150)	2118	0.65757	0.658
	26 Pyrene	202	16.986	16.996	(0.890)	1489	0.45915	0.459
	27 Benzo(a)anthracene	228	Compound Not Detected.					
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	329868	200.000	
	29 Chrysene	228	Compound Not Detected.					
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
35	Benzo(a)pyrene	252	Compound Not Detected.					
* 36	Perylene-d12	264	22.353	22.353	(1.000)	315043	200.000	
37	Perylene	252	Compound Not Detected.					
$ 38	Dibenzo(a,h)anthracene-d14	292	25.268	25.268	(1.130)	227597	150.967	151
39	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
40	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
41	Benzo(g,h,i)perylene	276	Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118062311.D
Lab Smp Id: 18F0185-08
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180623.b\LOWSIM.m
Misc Info:

Calibration Date: 23-JUN-2018
Calibration Time: 10:32
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	440585	2.15
11 Acenaphthene-d10	260137	130069	520274	251575	-3.29
18 Phenanthrene-d10	427391	213696	854782	442232	3.47
28 Chrysene-d12	304596	152298	609192	329868	8.30
36 Perylene-d12	263091	131546	526182	315043	19.75

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118062311.D

Lab ID: 18F0185-08
nt11.i, 20180623.b\LOWSIM.m,   23-JUN-2018 17:00

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180623.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

LDW18-SP-06

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270D-SIM

Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-01	SDG:	18F0185
Sampled:	06/13/18 09:53	Prepared:	06/19/18 17:20	File ID:	NT1118062318.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/23/18 21:14
Batch:	BGF0455	Sequence:	SGF0298	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.003	J	0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.002	J	0.001	0.010
208-96-8	Acenaphthylene	1	0.010	U	0.002	0.010
83-32-9	Acenaphthene	1	0.010	U	0.003	0.010
86-73-7	Fluorene	1	0.010	U	0.002	0.010
85-01-8	Phenanthrene	1	0.004	J	0.001	0.010
120-12-7	Anthracene	1	0.010	U	0.001	0.010
206-44-0	Fluoranthene	1	0.003	J	0.002	0.010
129-00-0	Pyrene	1	0.001	J	0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.010	U	0.0008	0.010
218-01-9	Chrysene	1	0.010	U	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.010	U	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.204	67.9	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.218	72.8	29 - 120	
Fluoranthene-d10	0.30000	0.223	74.2	57 - 120	

Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062318.D

Date : 23-JUN-2018 21:14

Client ID:

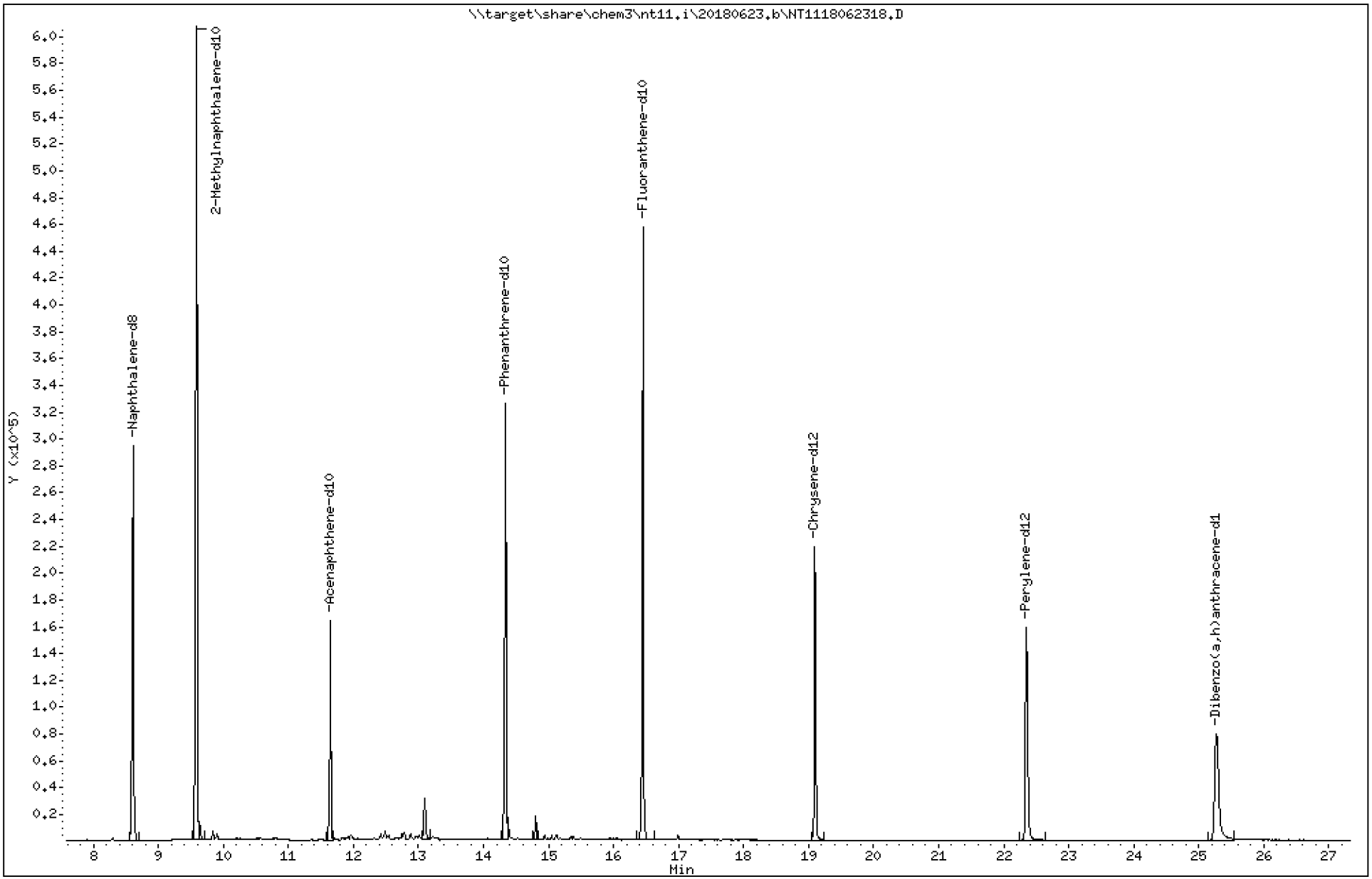
Instrument: nt11.i

Sample Info: 18F0208-01

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 23-JUN-2018 21:14

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-01

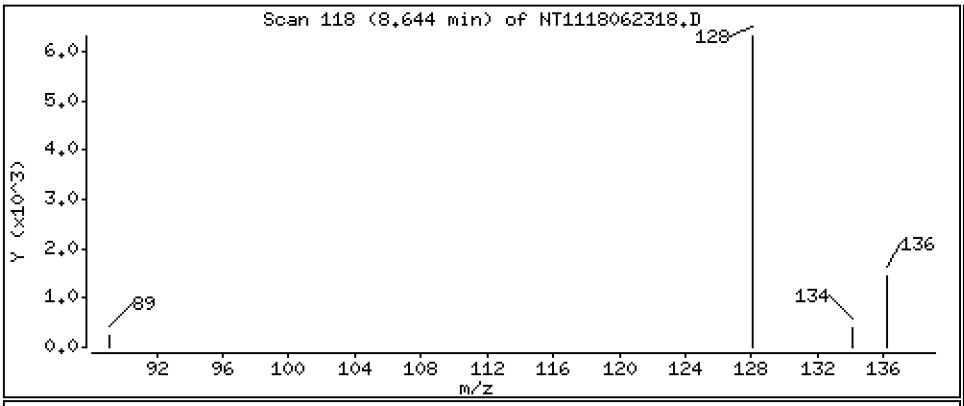
Operator: VTS

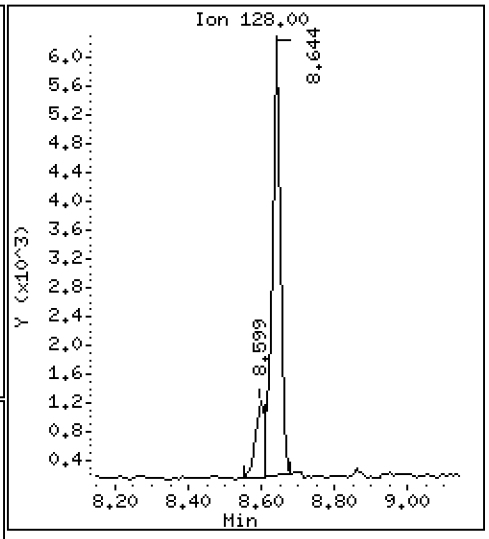
Column phase: Rxi-17Sil MS

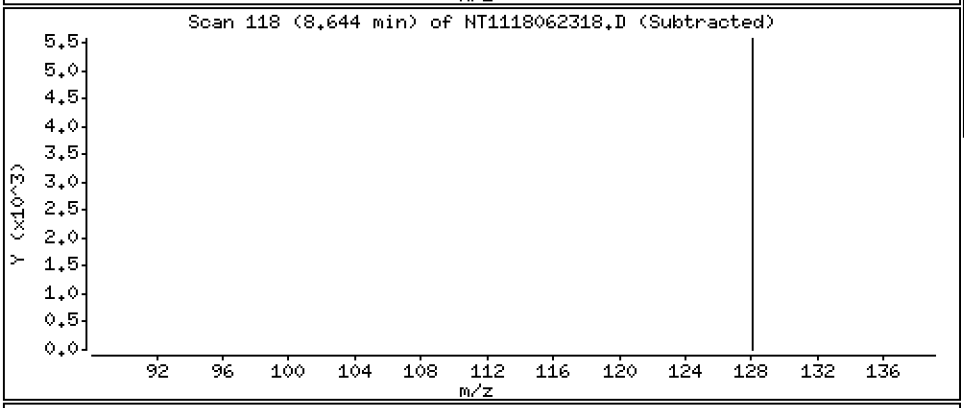
Column diameter: 0.25

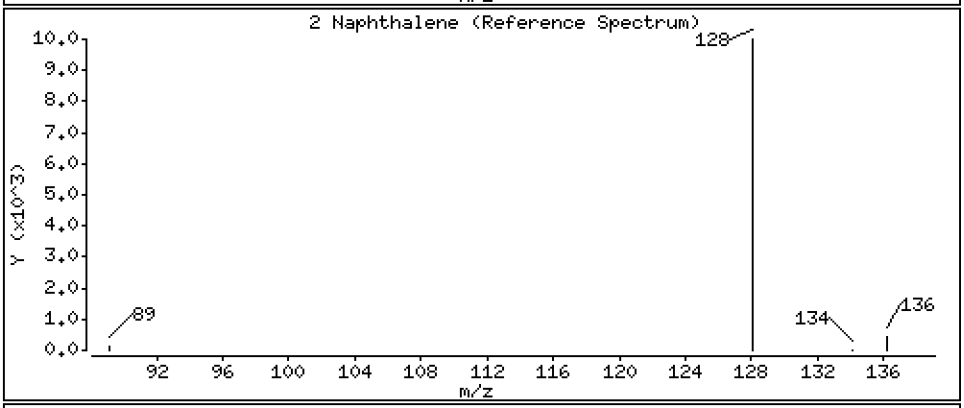
2 Naphthalene

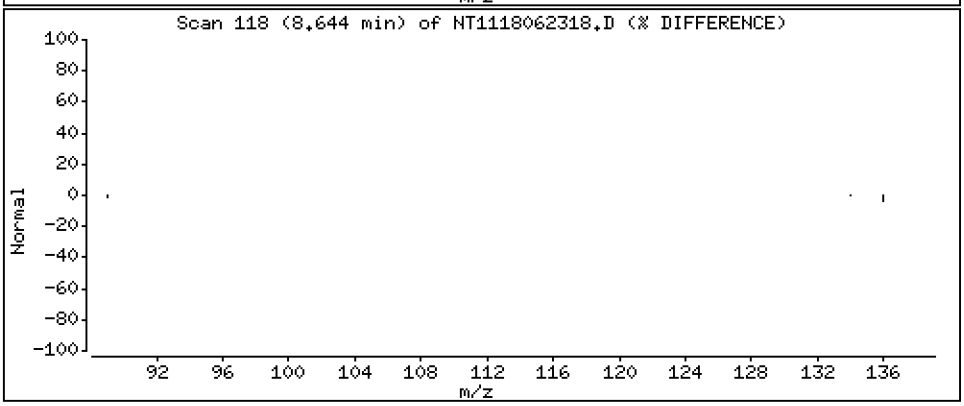
Concentration: 3.03 ng/mL











Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062318.D

Date : 23-JUN-2018 21:14

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-01

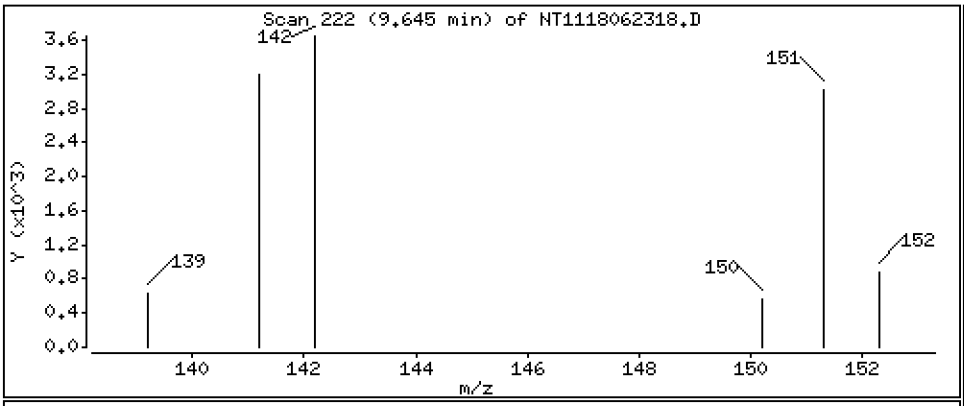
Operator: VTS

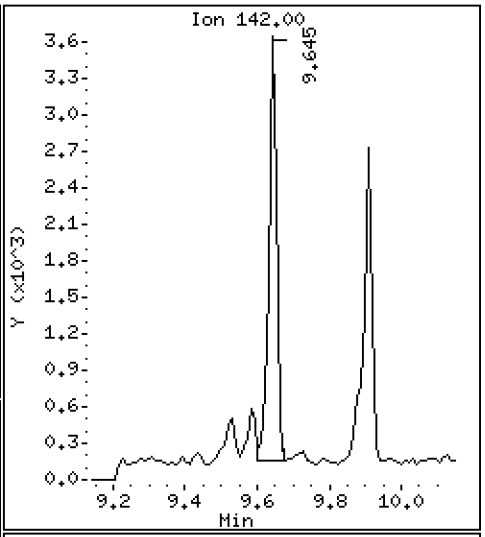
Column phase: Rxi-17Sil MS

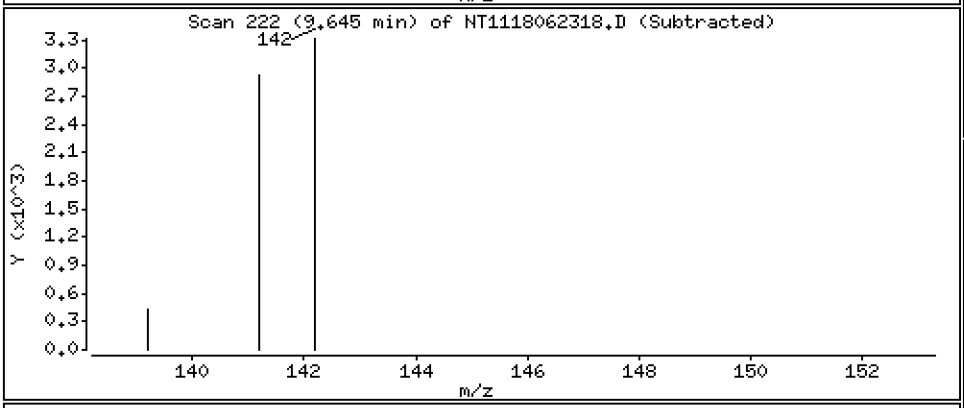
Column diameter: 0.25

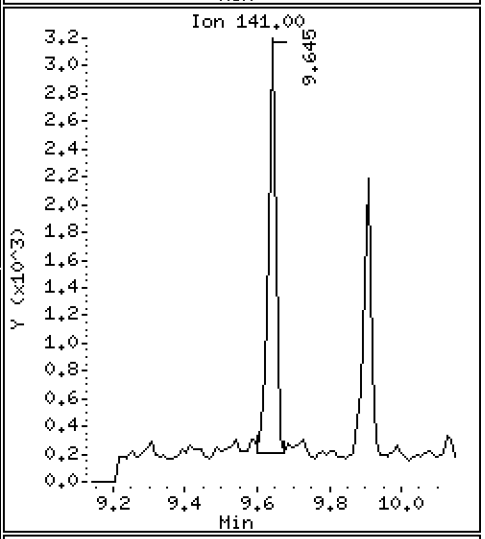
5 2-Methylnaphthalene

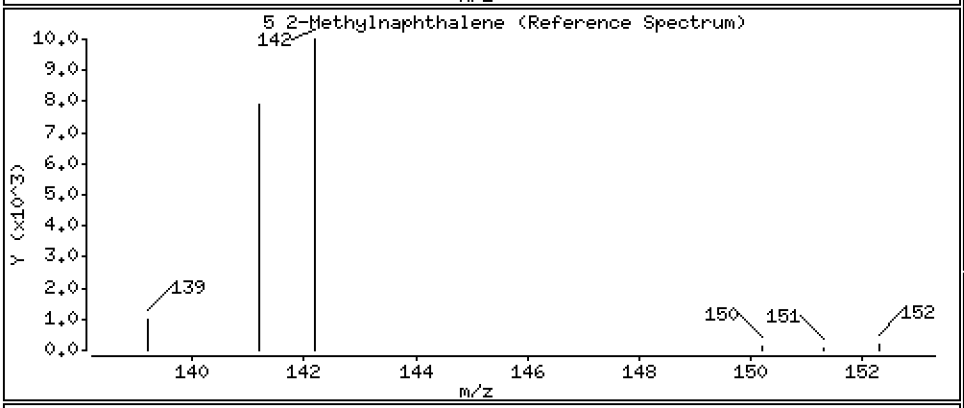
Concentration: 1.96 ng/mL

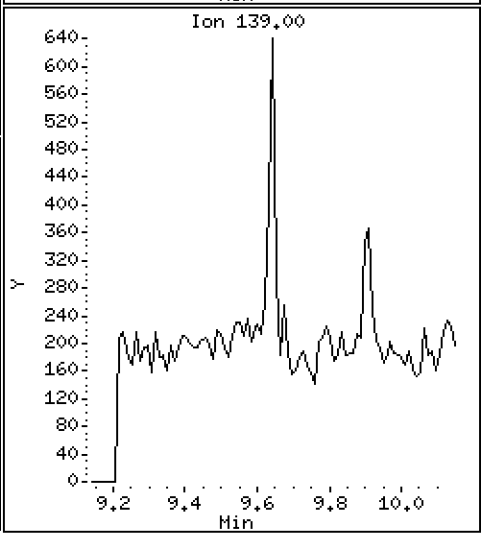


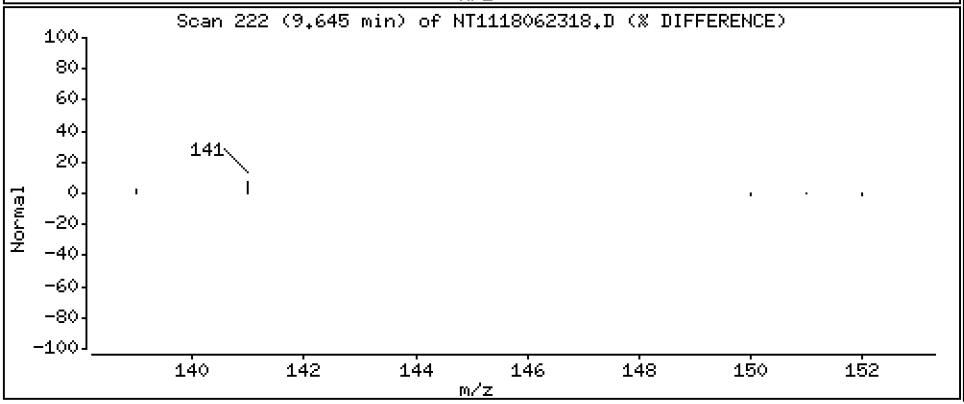












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Date : 23-JUN-2018 21:14

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-01

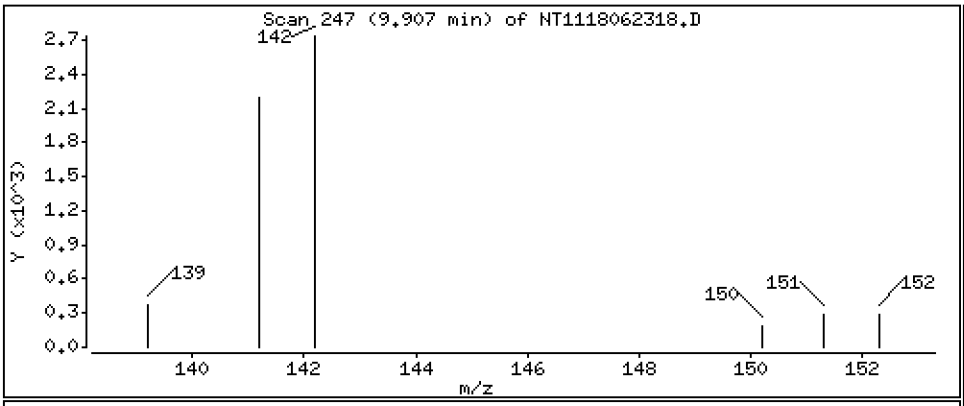
Operator: VTS

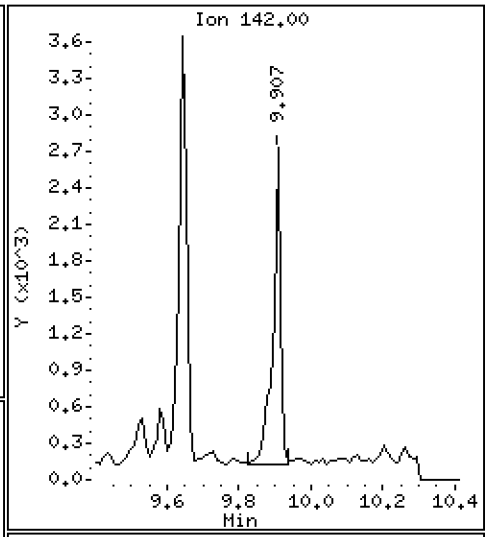
Column phase: Rxi-17Sil MS

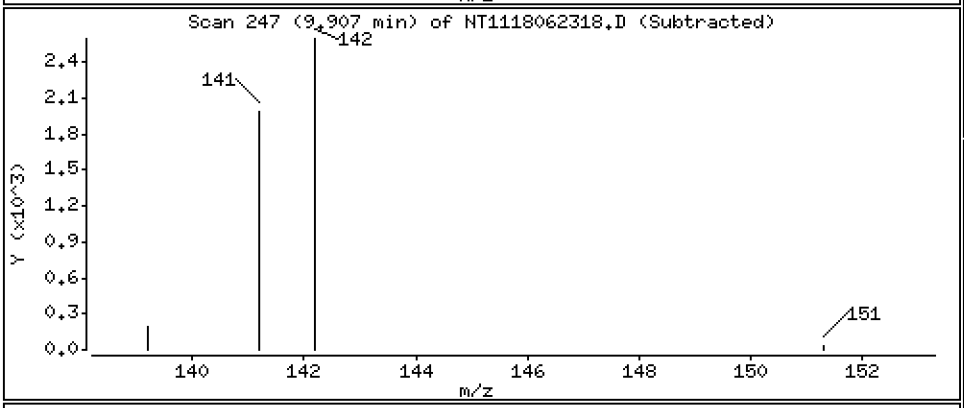
Column diameter: 0.25

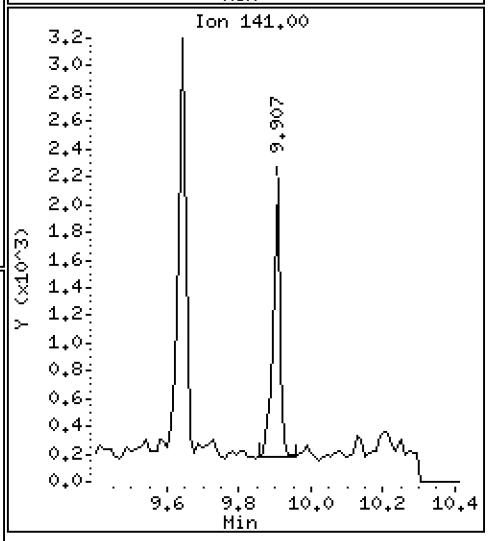
6 1-Methylnaphthalene

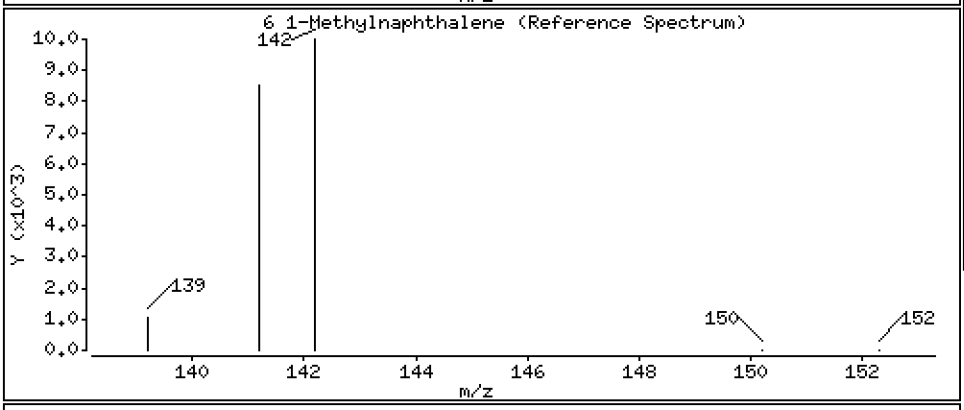
Concentration: 1.62 ng/mL

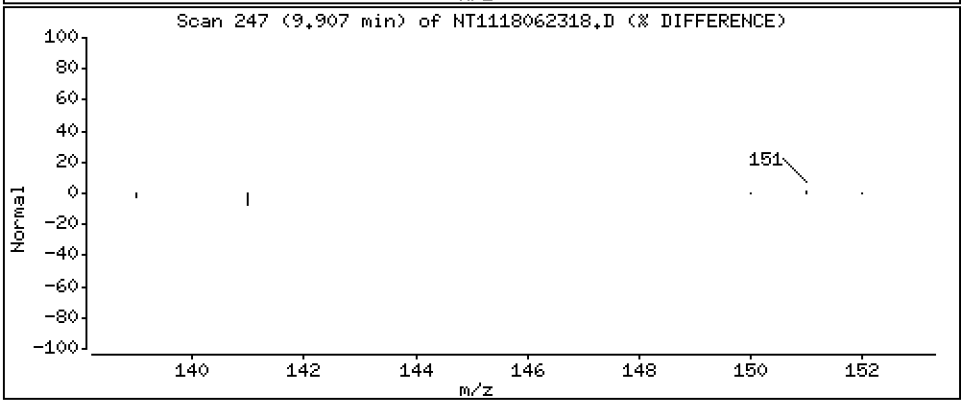












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Date : 23-JUN-2018 21:14

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-01

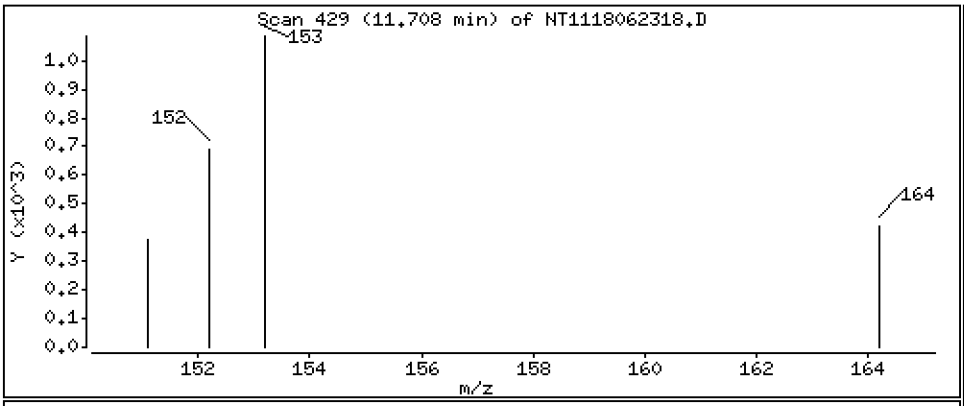
Operator: VTS

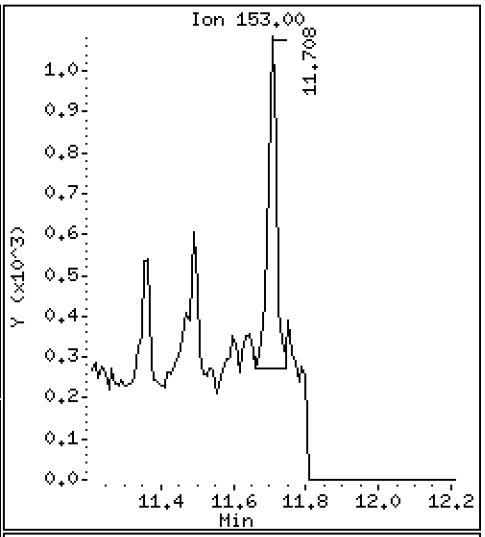
Column phase: Rxi-17Sil MS

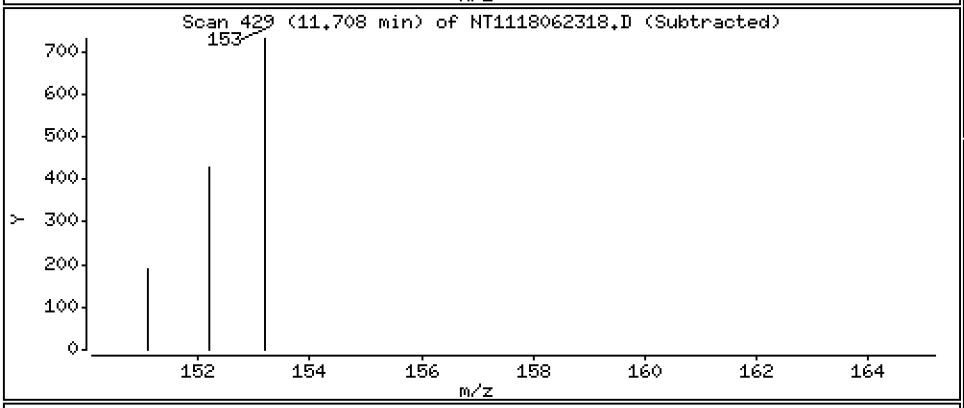
Column diameter: 0.25

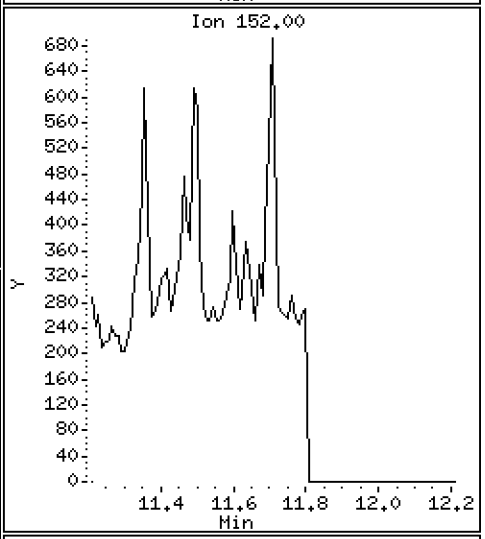
12 Acenaphthene

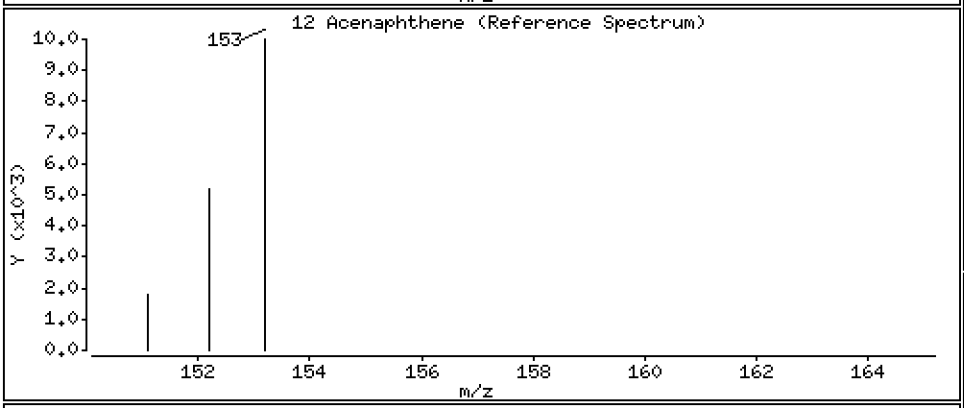
Concentration: 0.660 ng/mL

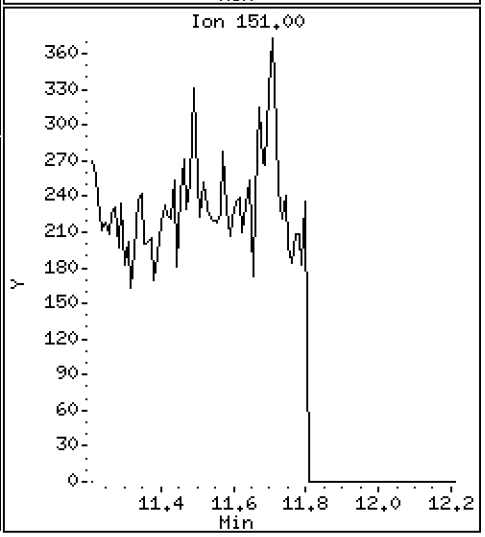


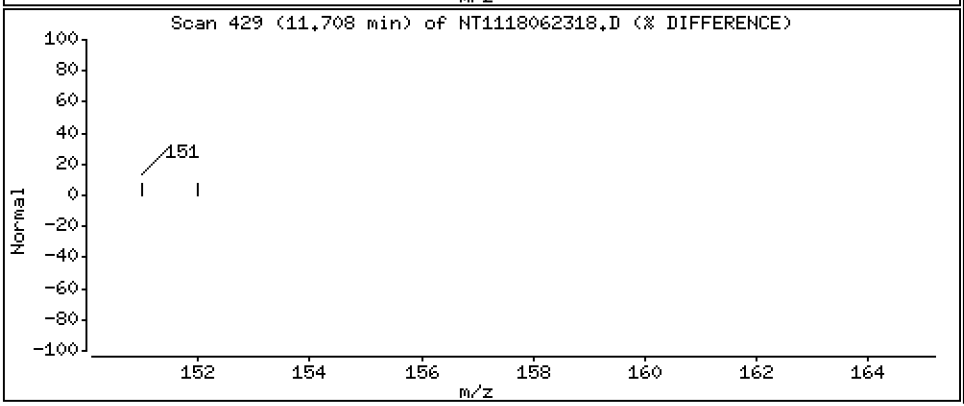












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Date : 23-JUN-2018 21:14

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-01

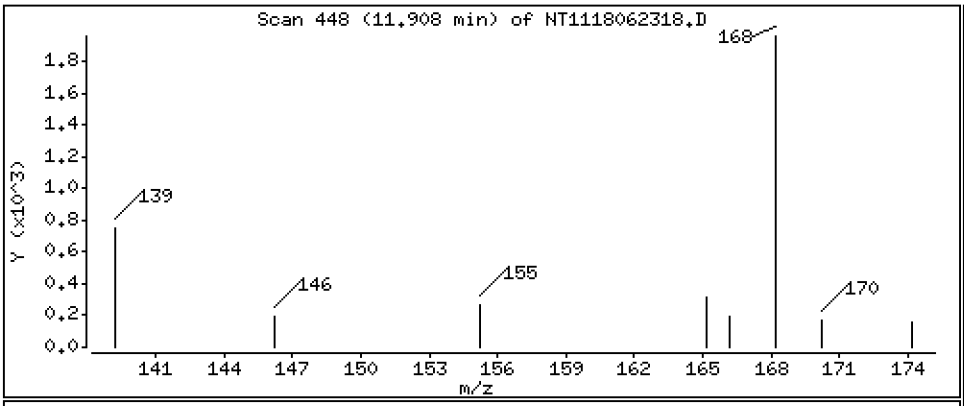
Operator: VTS

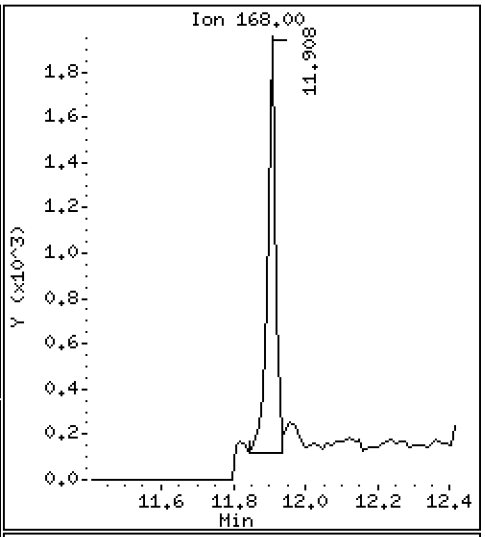
Column phase: Rxi-17Sil MS

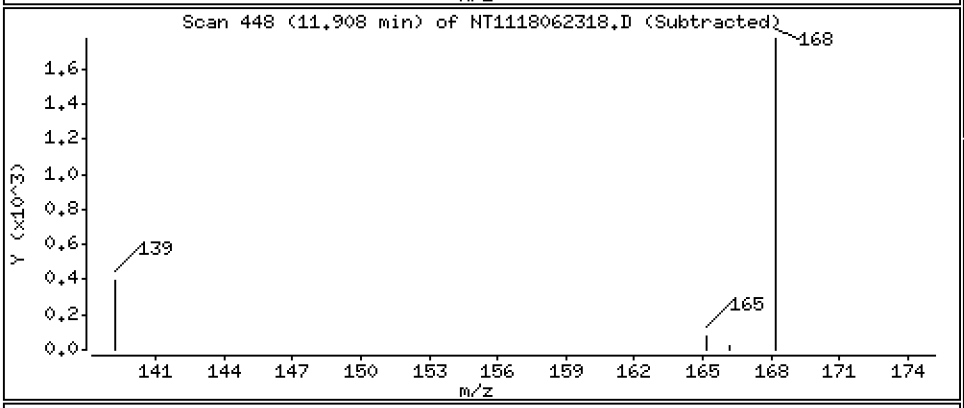
Column diameter: 0.25

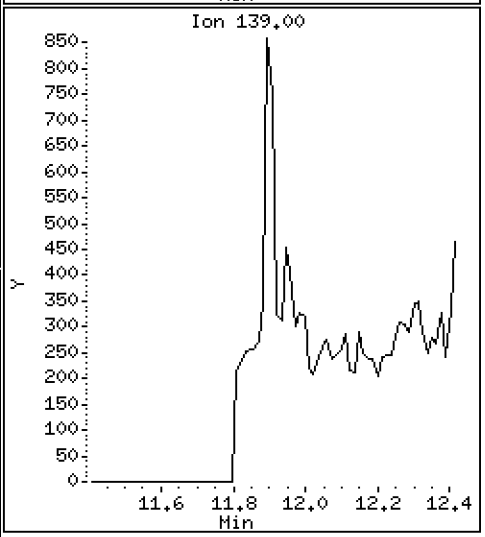
13 Dibenzofuran

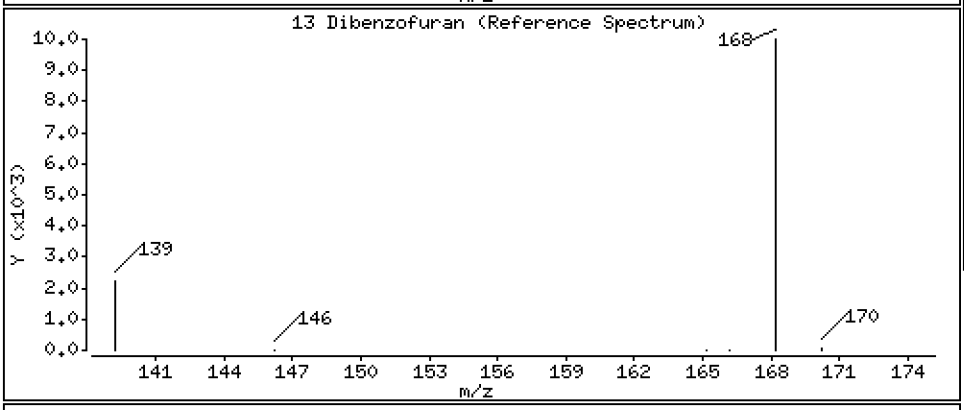
Concentration: 1.02 ng/mL

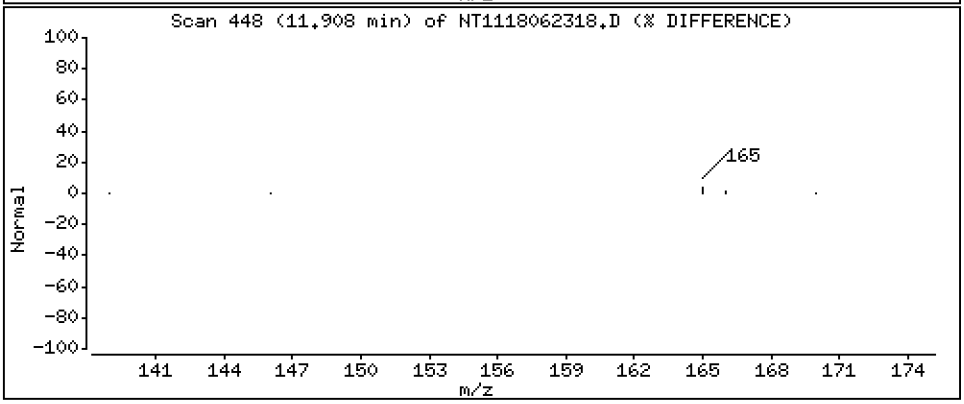












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Date : 23-JUN-2018 21:14

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-01

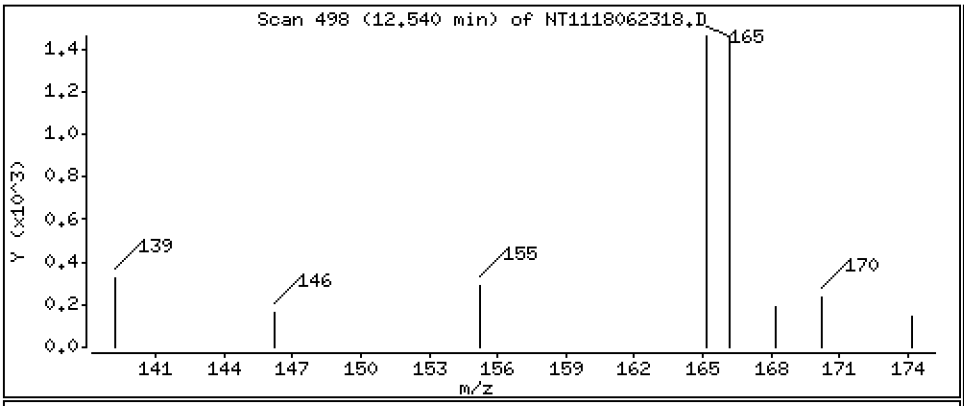
Operator: VTS

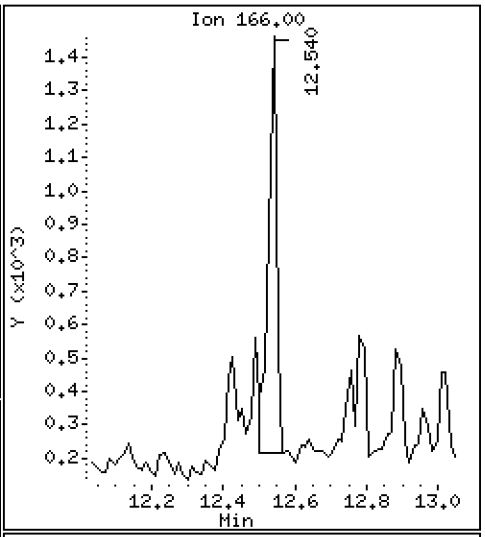
Column phase: Rxi-17Sil MS

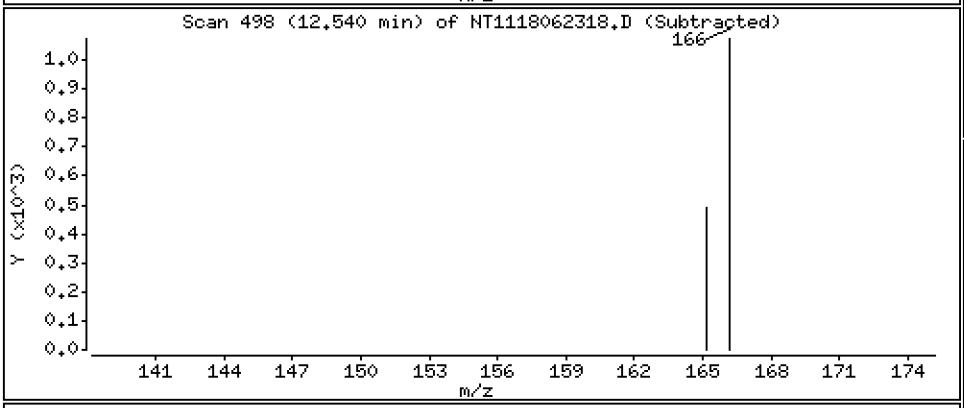
Column diameter: 0.25

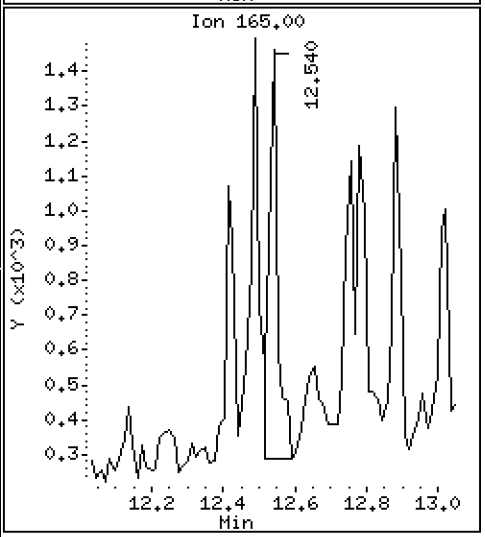
16 Fluorene

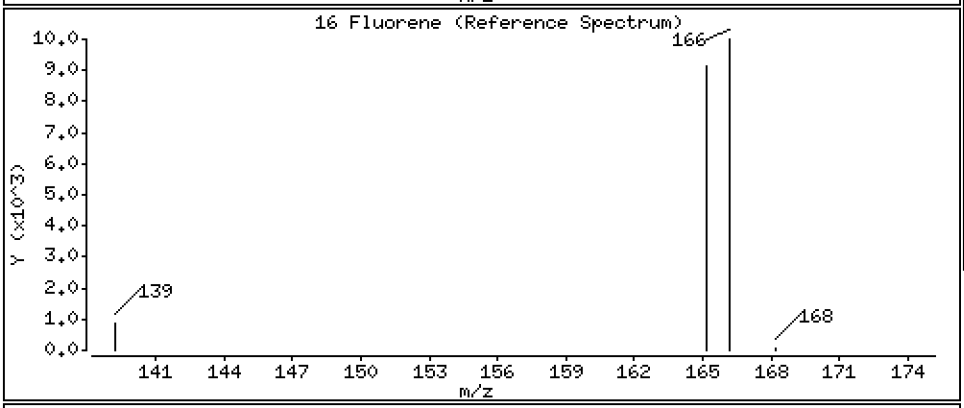
Concentration: 0.945 ng/mL

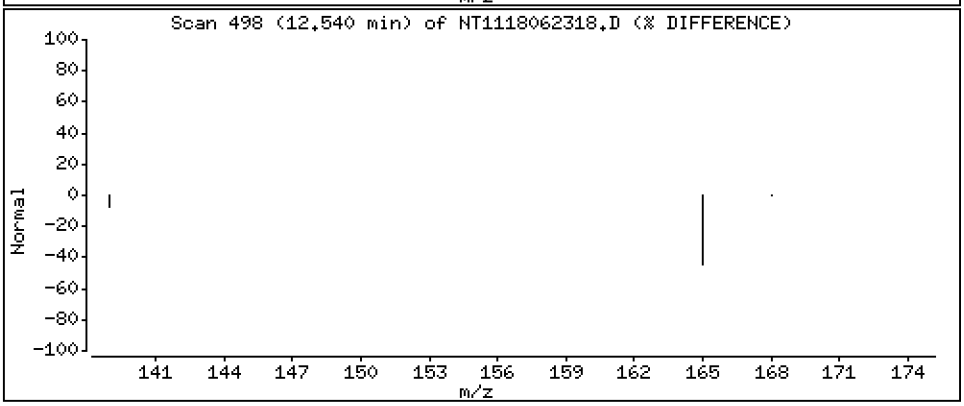












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062318.D

Date : 23-JUN-2018 21:14

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-01

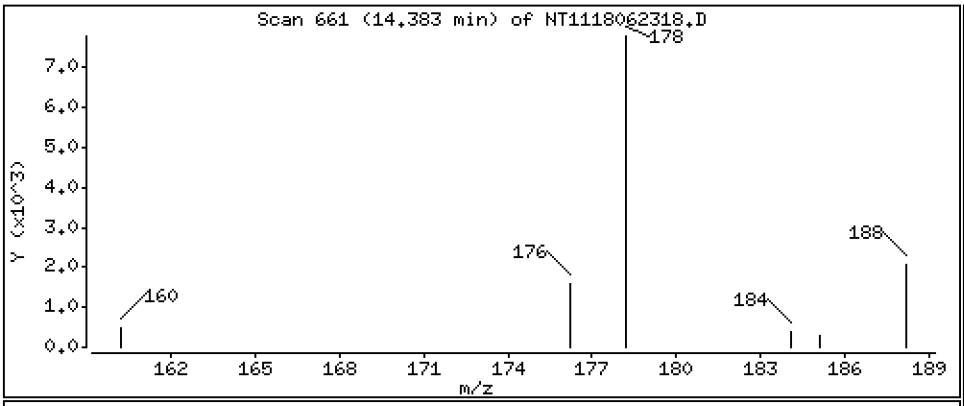
Operator: VTS

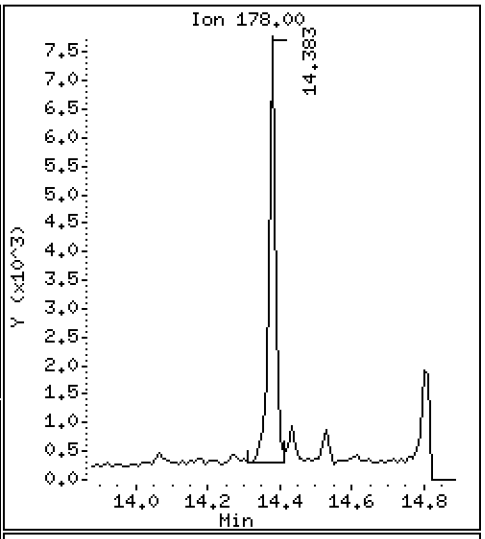
Column phase: Rxi-17Sil MS

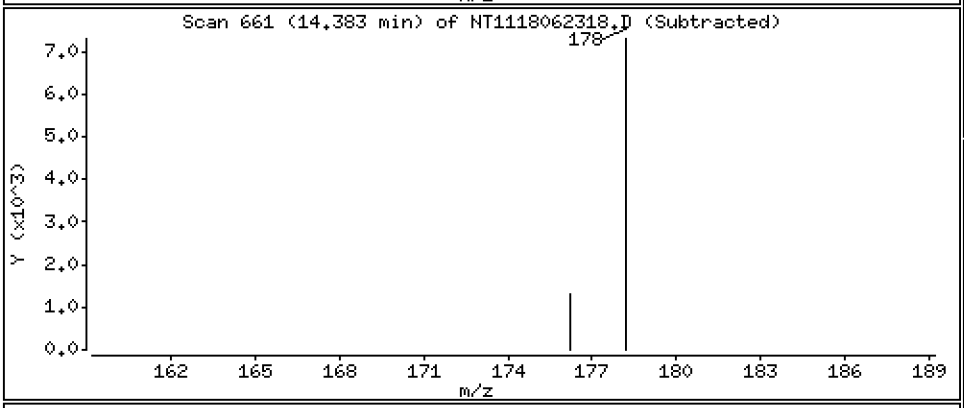
Column diameter: 0.25

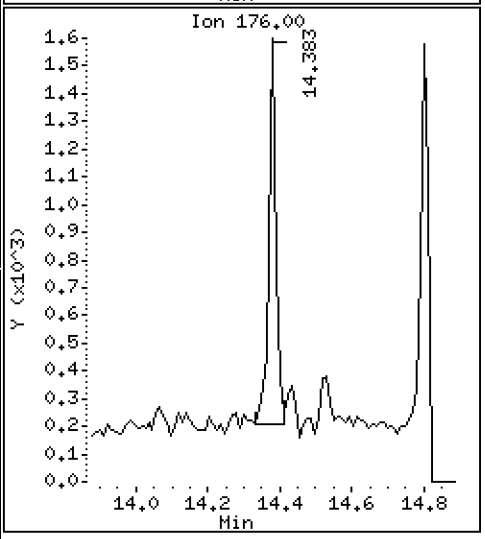
19 Phenanthrene

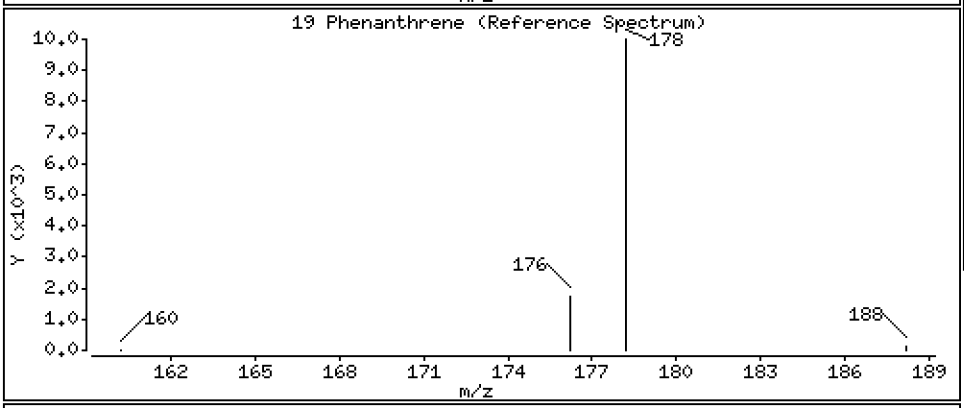
Concentration: 3.69 ng/mL

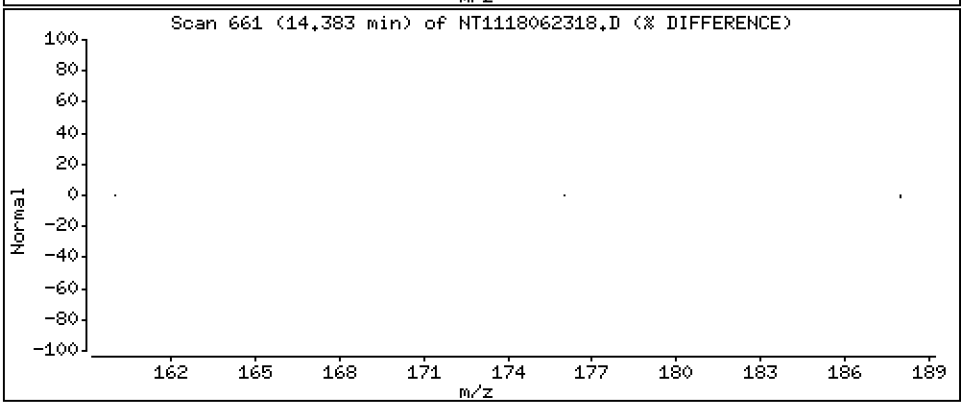












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Date : 23-JUN-2018 21:14

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-01

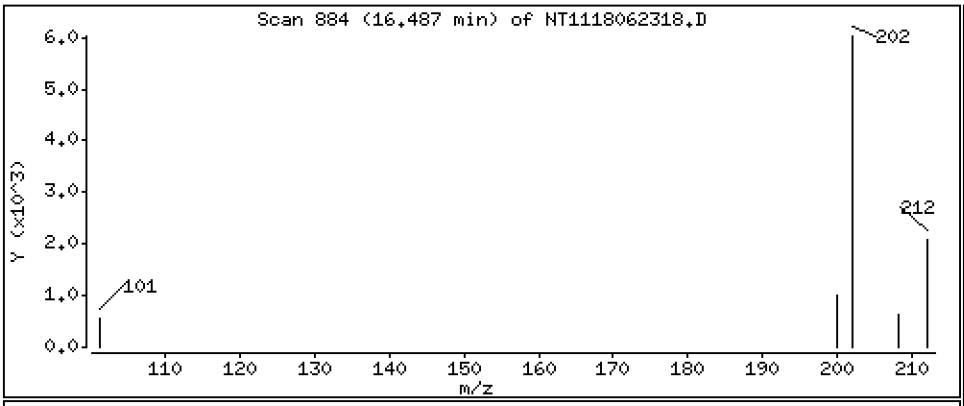
Operator: VTS

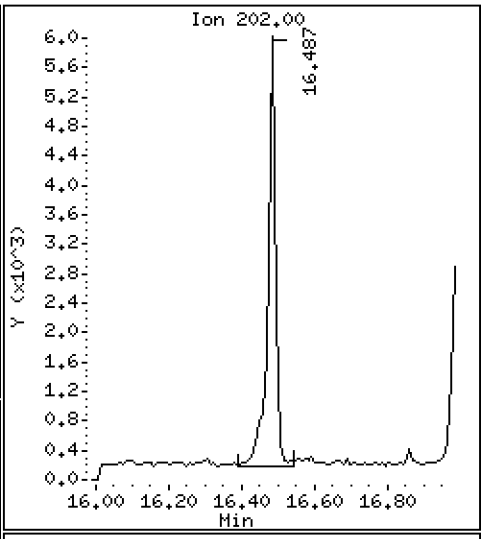
Column phase: Rxi-17Sil MS

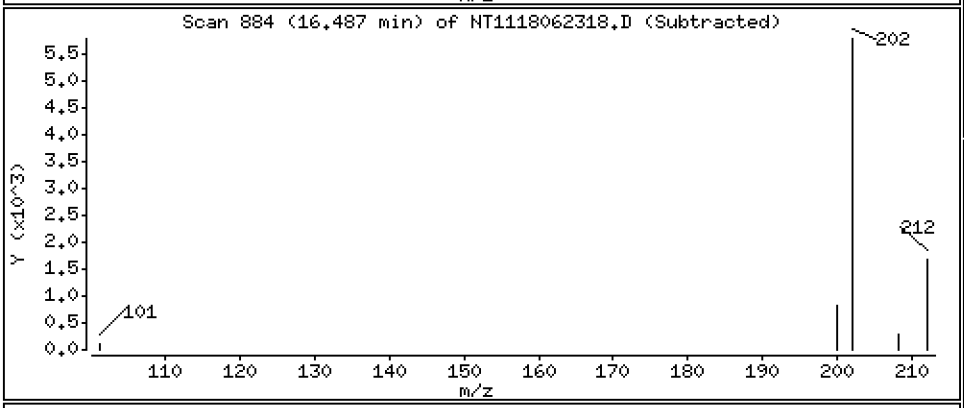
Column diameter: 0.25

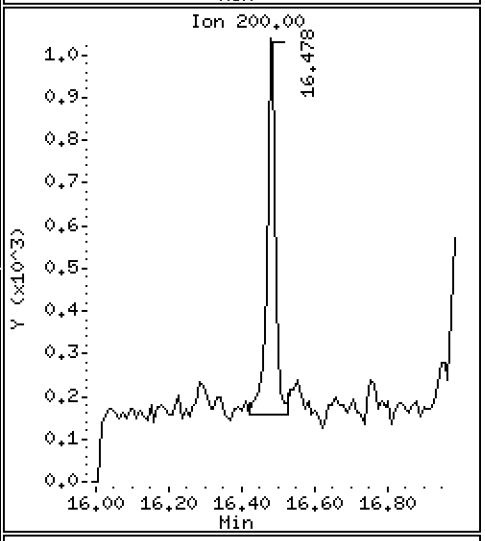
25 Fluoranthene

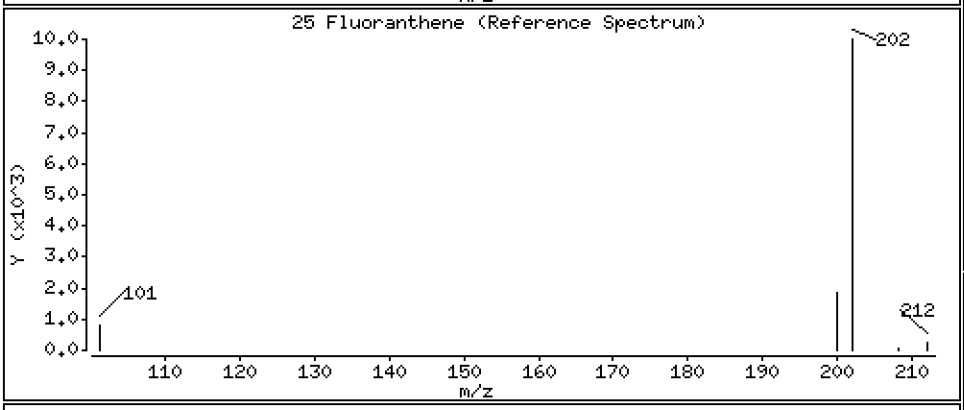
Concentration: 3.20 ng/mL

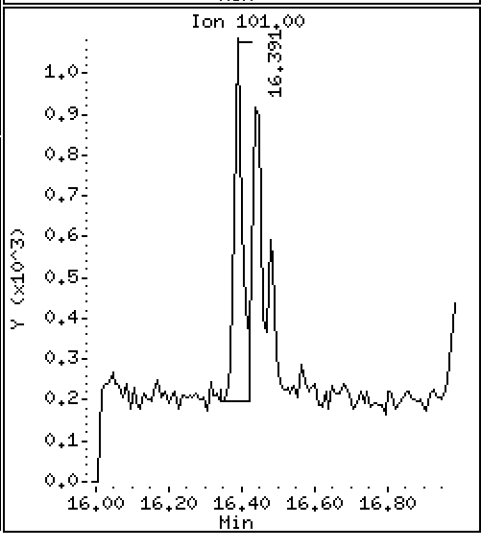


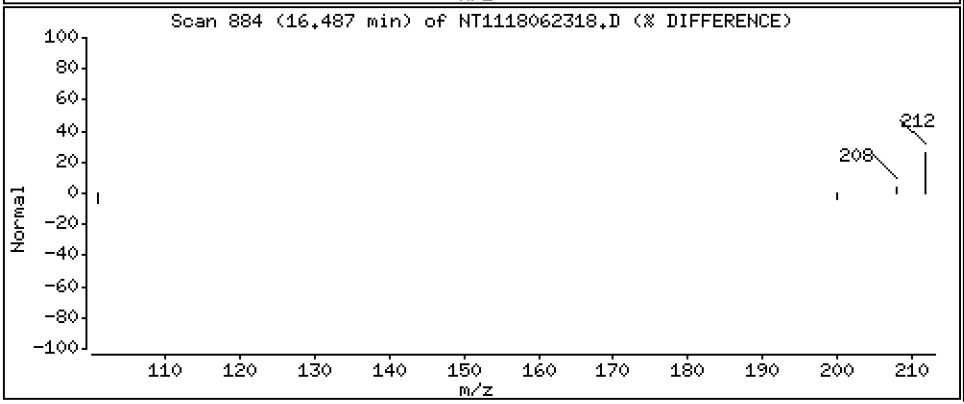












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Date : 23-JUN-2018 21:14

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-01

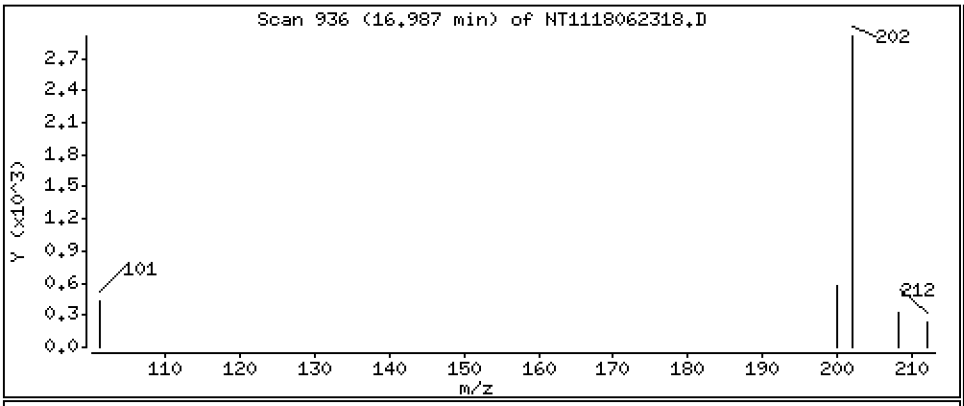
Operator: VTS

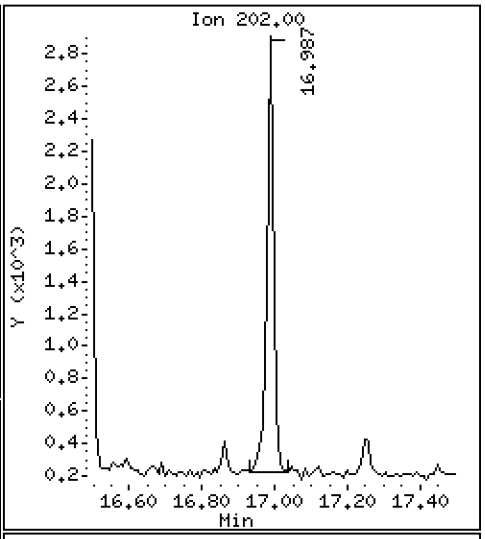
Column phase: Rxi-17Sil MS

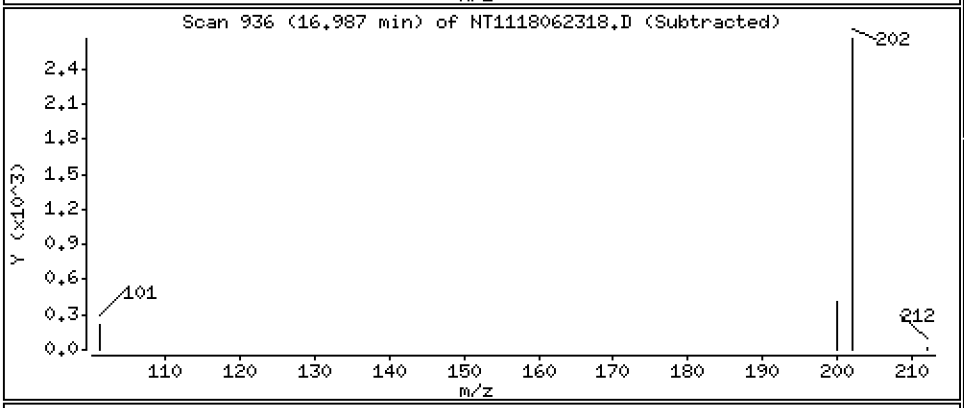
Column diameter: 0.25

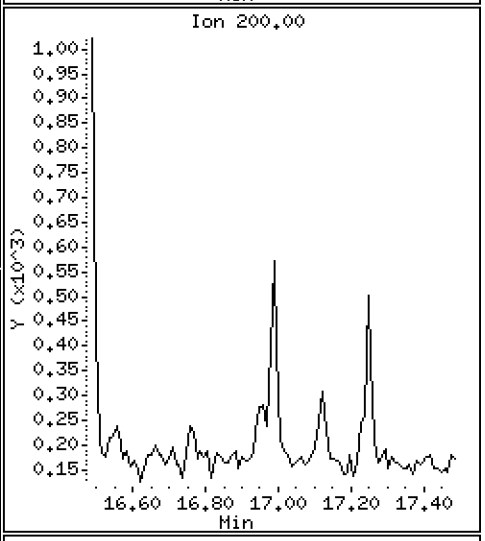
26 Pyrene

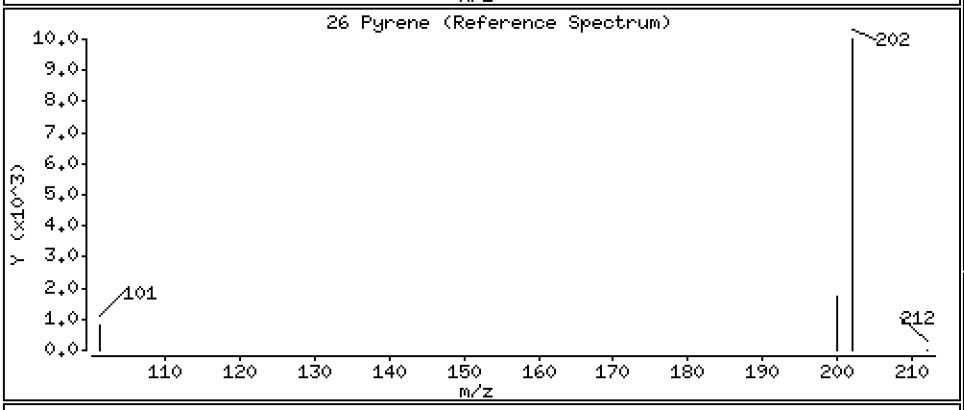
Concentration: 1.21 ng/mL

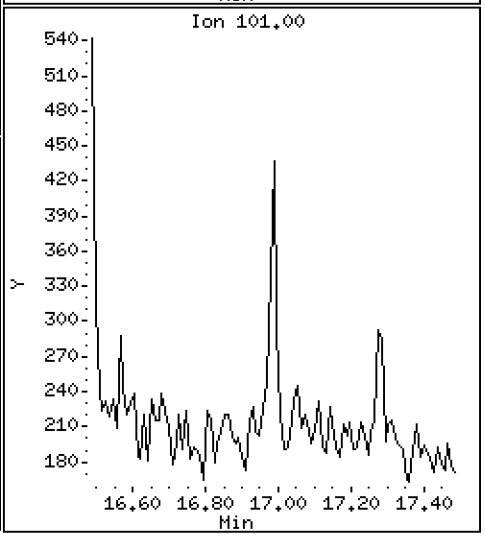


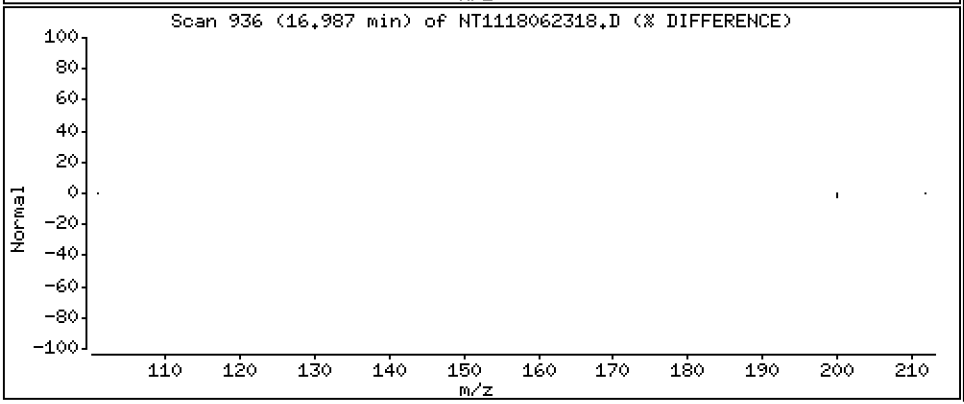












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180623.b\NT1118062318.D
Lab Smp Id: 18F0208-01
Inj Date : 23-JUN-2018 21:14 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0208-01
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180623.b\LOWSIM.m
Meth Date : 23-Jun-2018 13:20 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	437051	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	9978	3.03330	3.03
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	507713	203.602	204
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	5230	1.96449	1.96
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	4298	1.62328	1.62
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	238277	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	1278	0.65954	0.660
	13 Dibenzofuran	168	11.908	11.908	(1.023)	2711	1.02125	1.02
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.539	12.540	(1.077)	2022	0.94456	0.945
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	398736	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	11546	3.69203	3.69
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	Compound Not Detected.					
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	Compound Not Detected.					
$	24 Fluoranthene-d10	212	16.448	16.449	(1.147)	539106	222.740	223
	25 Fluoranthene	202	16.487	16.487	(1.150)	9291	3.19921	3.20
	26 Pyrene	202	16.987	16.996	(0.890)	3801	1.20721	1.21
	27 Benzo(a)anthracene	228	Compound Not Detected.					
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	320270	200.000	
	29 Chrysene	228	Compound Not Detected.					
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
35	Benzo(a)pyrene	252	Compound Not Detected.					
* 36	Perylene-d12	264	22.353	22.353	(1.000)	321609	200.000	
37	Perylene	252	Compound Not Detected.					
$ 38	Dibenzo(a,h)anthracene-d14	292	25.268	25.268	(1.130)	336190	218.445	218
39	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
40	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
41	Benzo(g,h,i)perylene	276	Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118062318.D
Lab Smp Id: 18F0208-01
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180623.b\LOWSIM.m
Misc Info:

Calibration Date: 23-JUN-2018
Calibration Time: 10:32
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	437051	1.33
11 Acenaphthene-d10	260137	130069	520274	238277	-8.40
18 Phenanthrene-d10	427391	213696	854782	398736	-6.70
28 Chrysene-d12	304596	152298	609192	320270	5.15
36 Perylene-d12	263091	131546	526182	321609	22.24

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118062318.D

Lab ID: 18F0208-01
nt11.i, 20180623.b\LOWSIM.m,   23-JUN-2018 21:14

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180623.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-33

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-02	SDG:	18F0185
Sampled:	06/13/18 12:17	Prepared:	06/19/18 17:20	File ID:	NT1118062319.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/23/18 21:50
Batch:	BGF0455	Sequence:	SGF0298	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.230		0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.040		0.001	0.010
208-96-8	Acenaphthylene	1	0.017		0.002	0.010
83-32-9	Acenaphthene	1	1.21	E	0.003	0.010
86-73-7	Fluorene	1	0.732		0.002	0.010
85-01-8	Phenanthrene	1	0.250		0.001	0.010
120-12-7	Anthracene	1	0.062		0.001	0.010
206-44-0	Fluoranthene	1	0.313		0.002	0.010
129-00-0	Pyrene	1	0.107		0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.005	J	0.0008	0.010
218-01-9	Chrysene	1	0.005	J	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.010	U	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.196	65.4	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.220	73.2	29 - 120	
Fluoranthene-d10	0.30000	0.223	74.3	57 - 120	

Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062319.D

Date : 23-JUN-2018 21:50

Client ID:

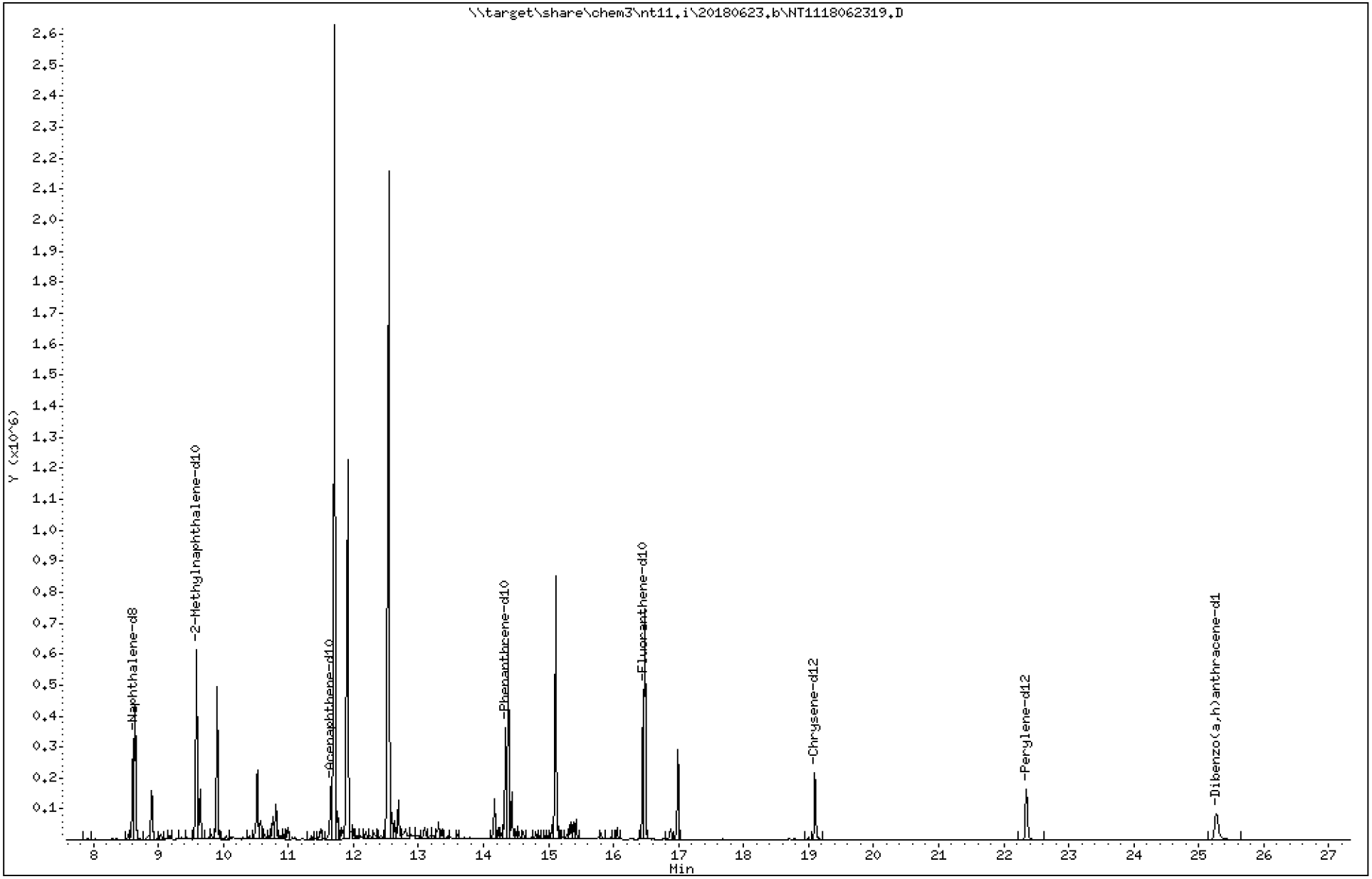
Instrument: nt11.i

Sample Info: 18F0208-02

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 23-JUN-2018 21:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02

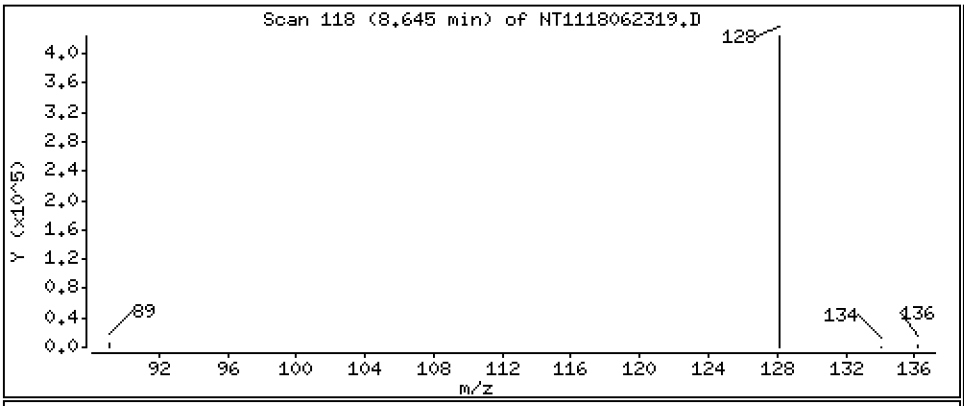
Operator: VTS

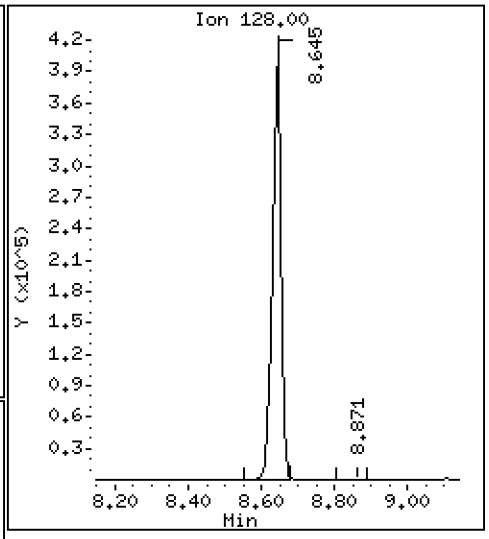
Column phase: Rxi-17Sil MS

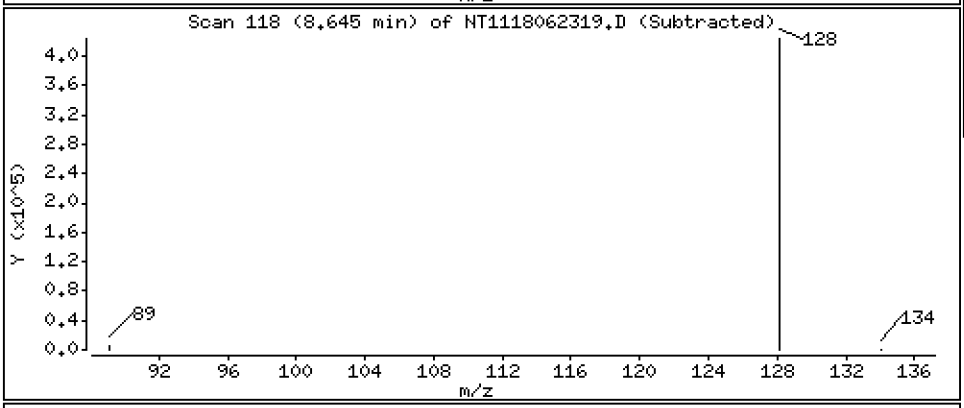
Column diameter: 0.25

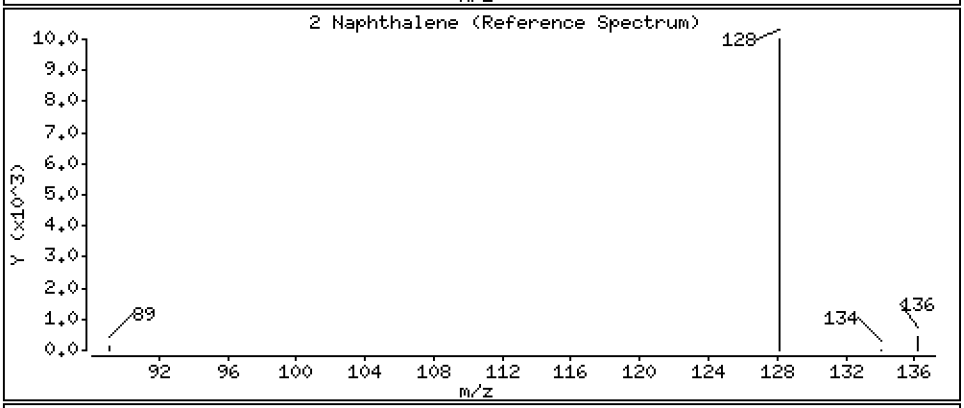
2 Naphthalene

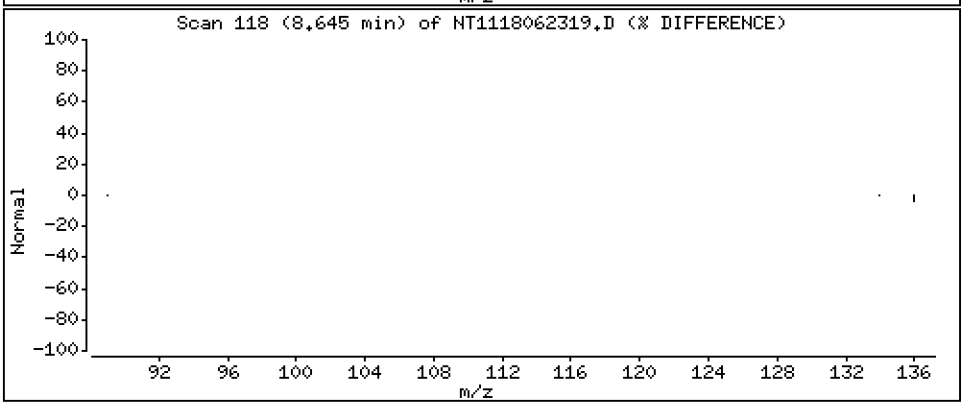
Concentration: 230 ng/mL











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Date : 23-JUN-2018 21:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02

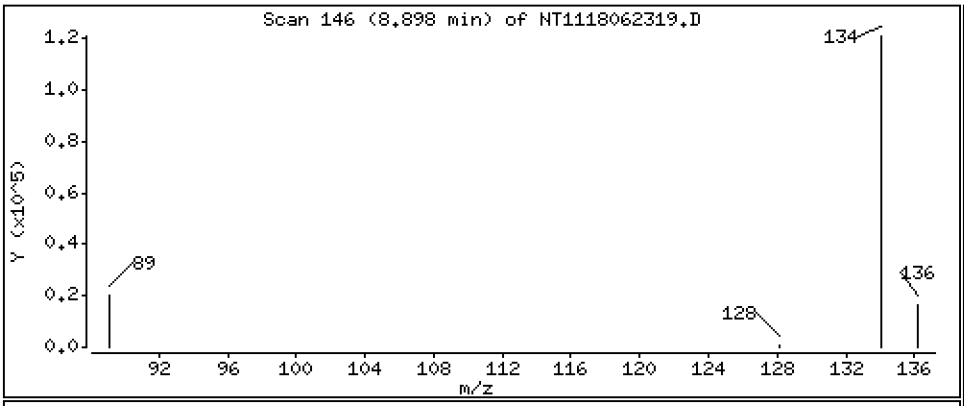
Operator: VTS

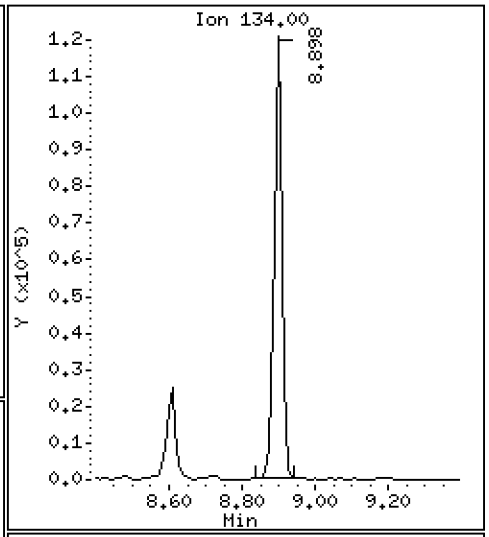
Column phase: Rxi-17Sil MS

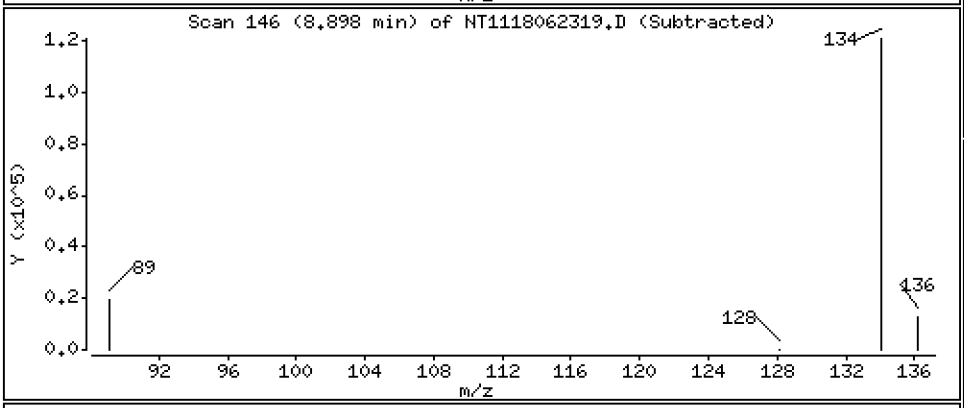
Column diameter: 0.25

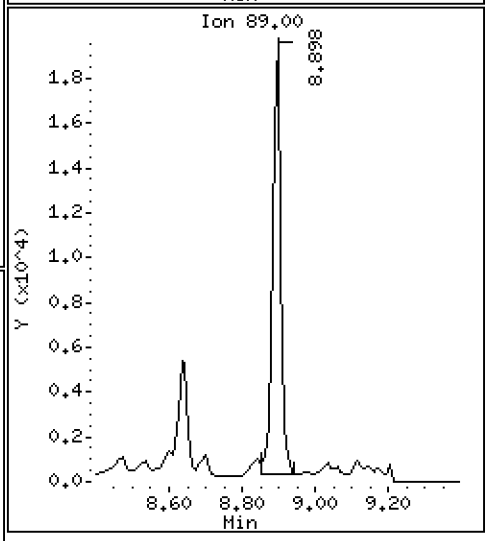
3 Benzo(b)thiophene

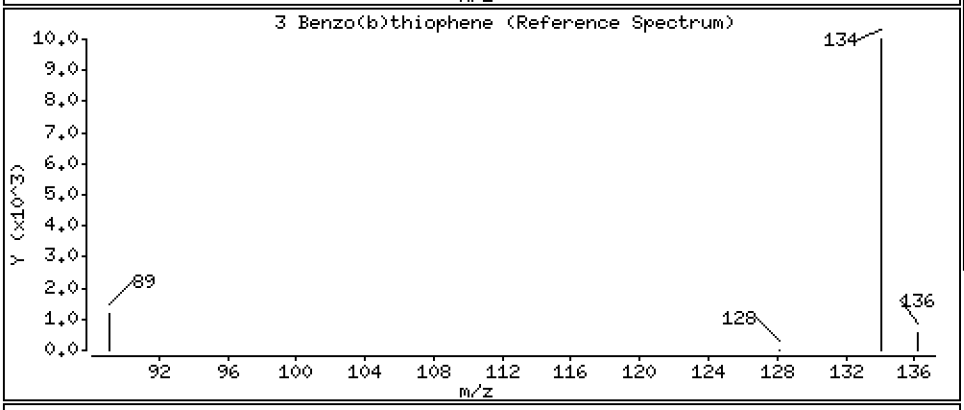
Concentration: 81.5 ng/mL

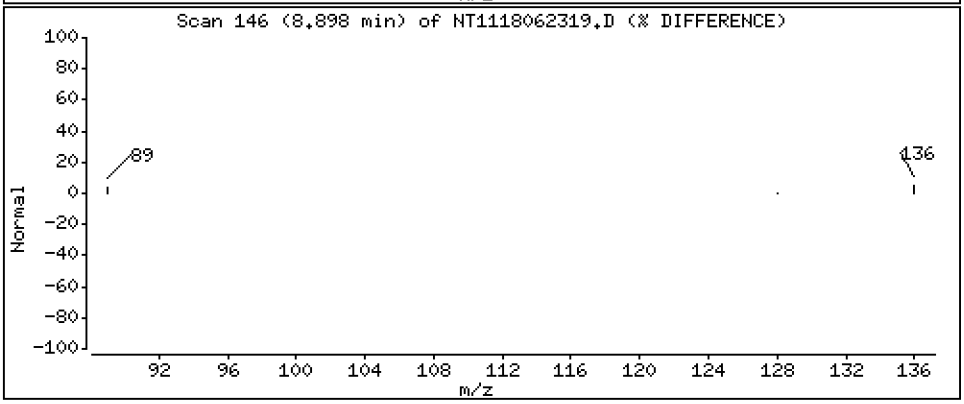












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062319.D

Date : 23-JUN-2018 21:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02

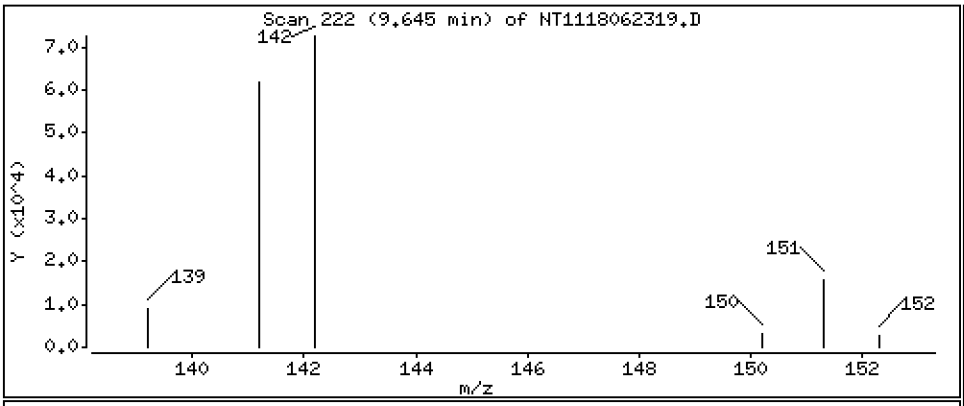
Operator: VTS

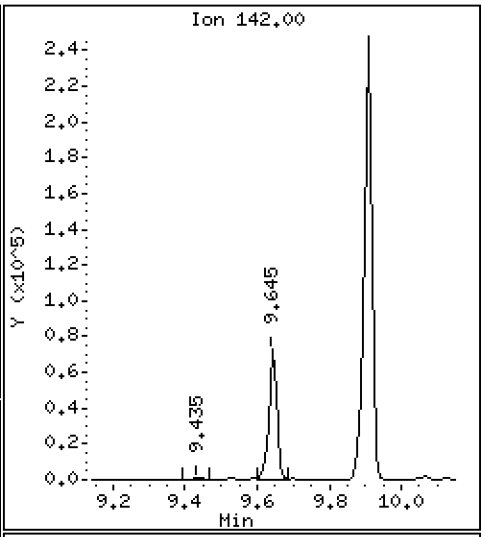
Column phase: Rxi-17Sil MS

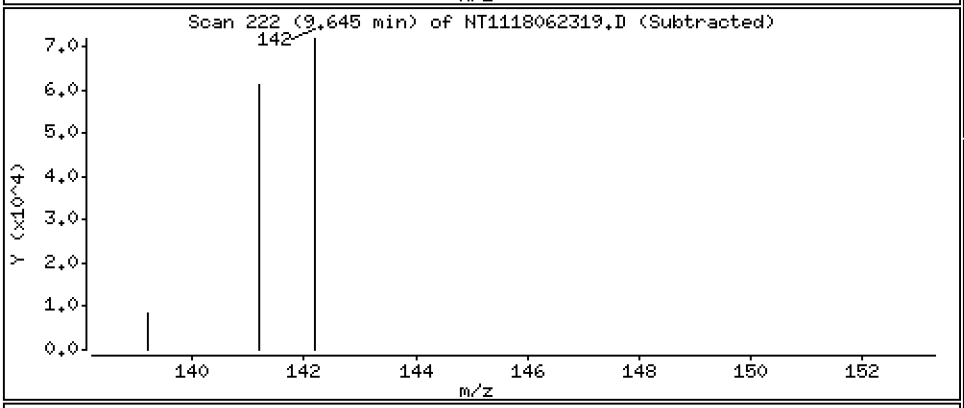
Column diameter: 0.25

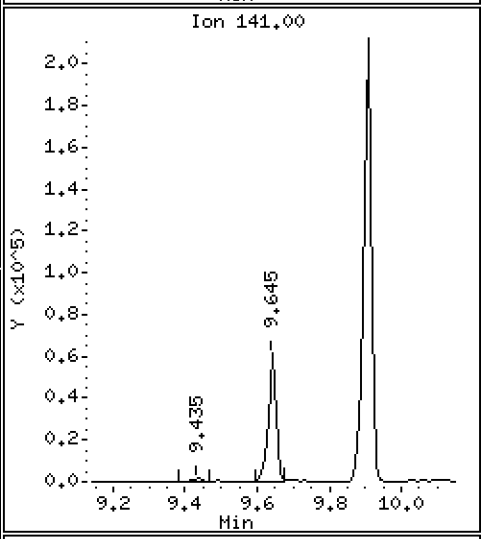
5 2-Methylnaphthalene

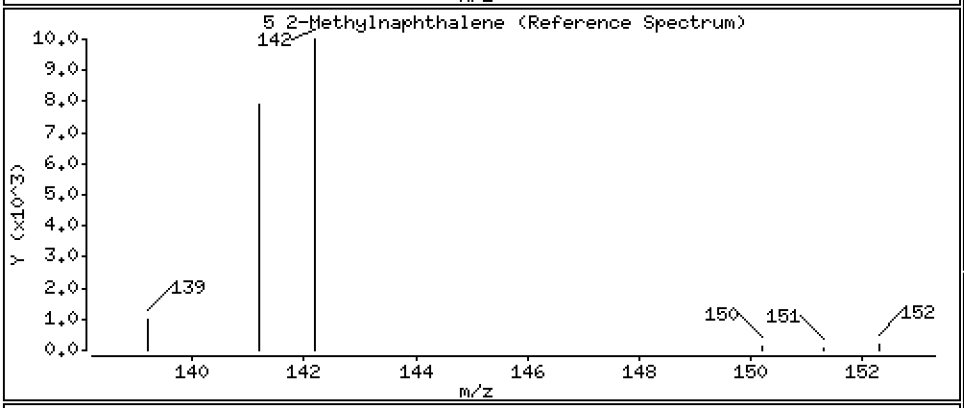
Concentration: 40.2 ng/mL

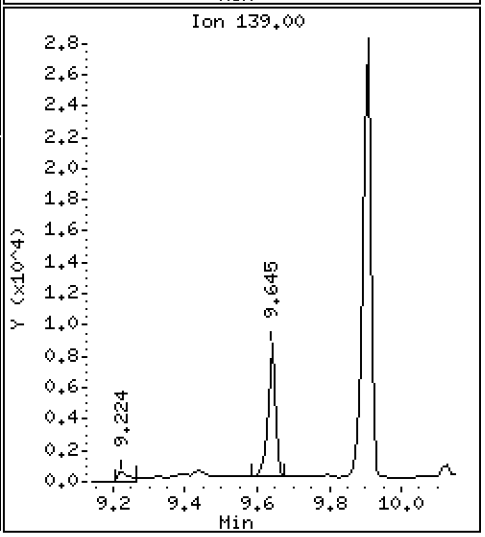


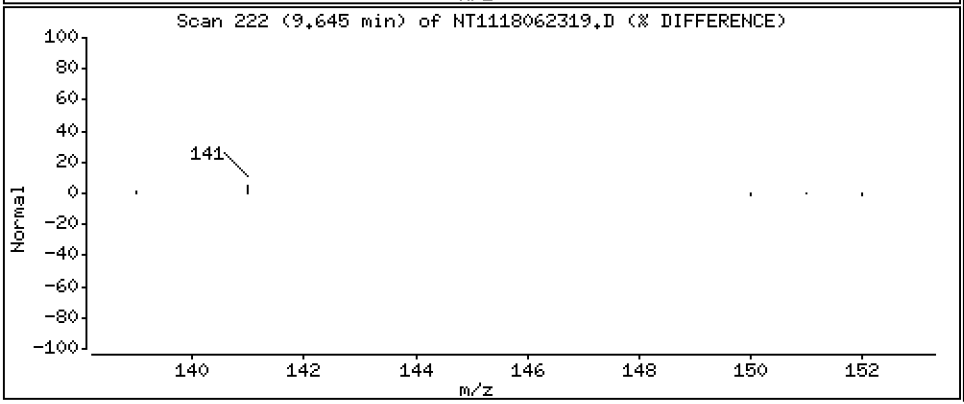












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Date : 23-JUN-2018 21:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02

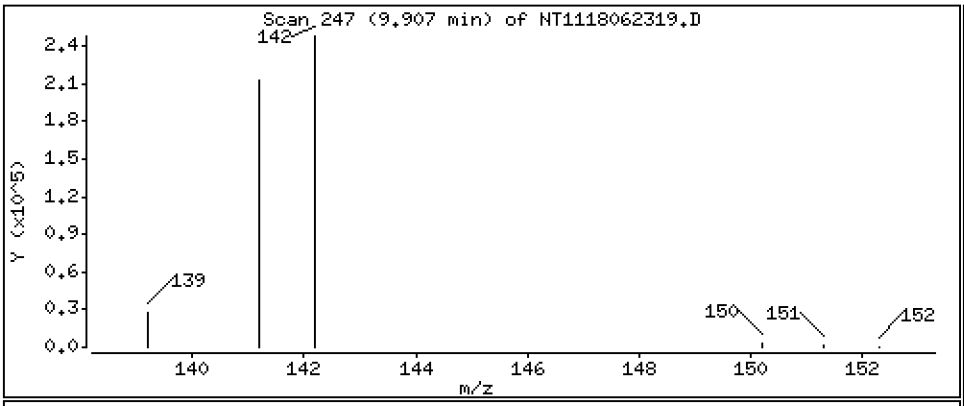
Operator: VTS

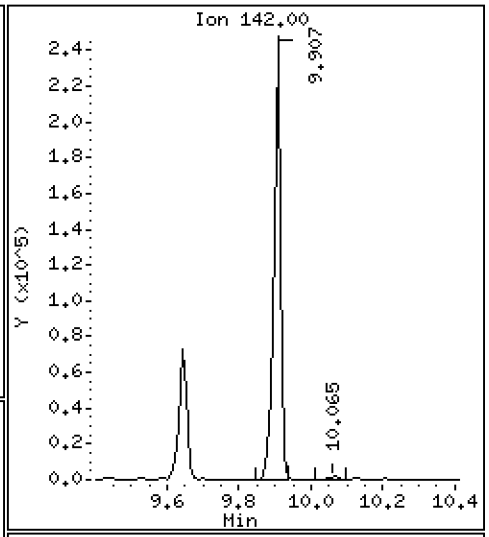
Column phase: Rxi-17Sil MS

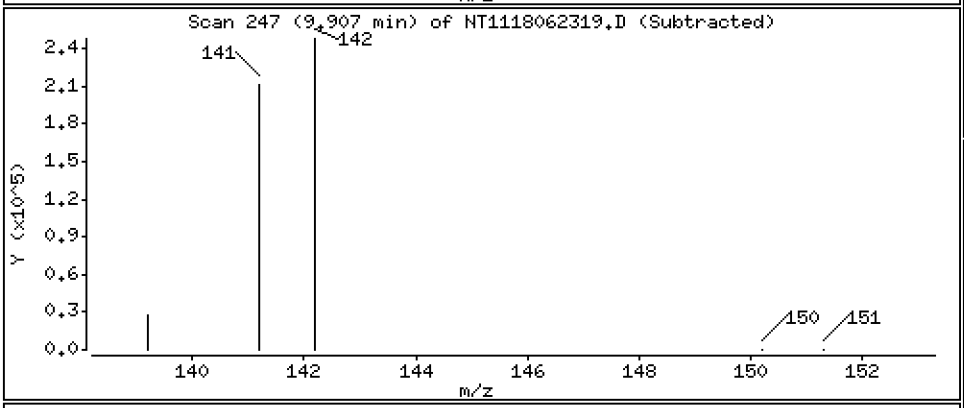
Column diameter: 0.25

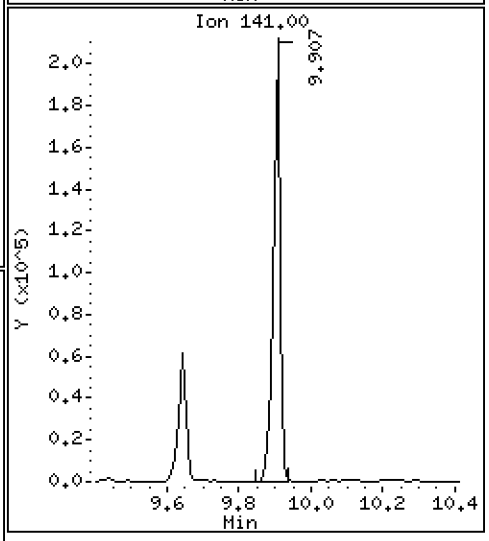
6 1-Methylnaphthalene

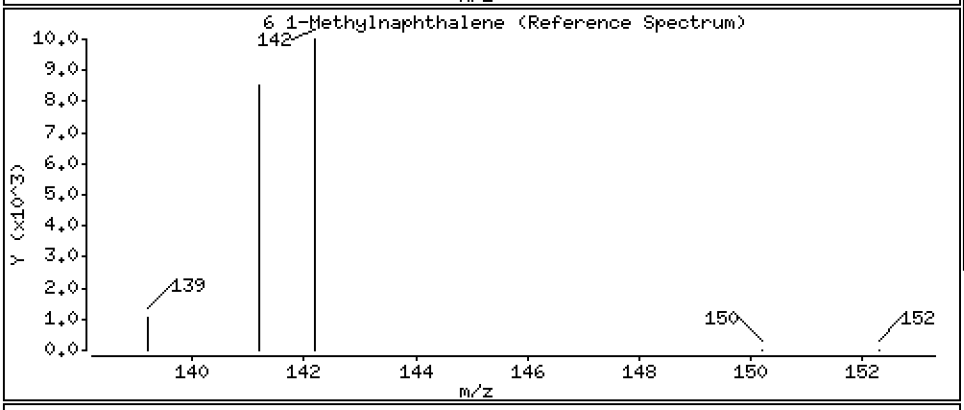
Concentration: 138 ng/mL

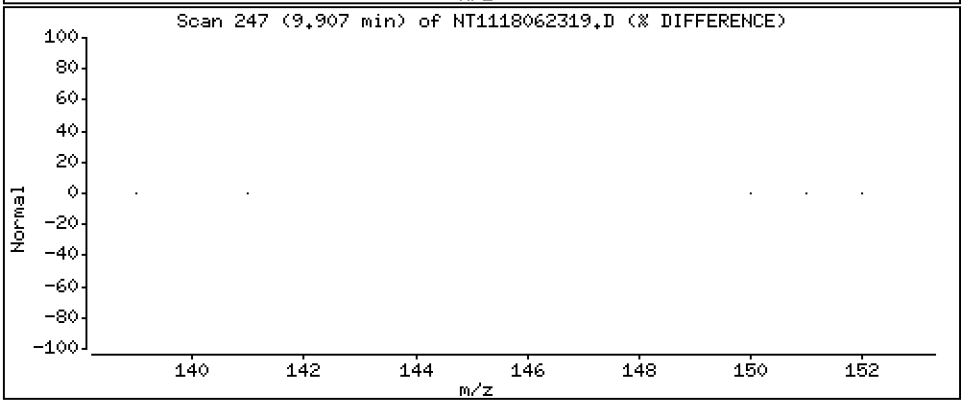












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Date : 23-JUN-2018 21:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02

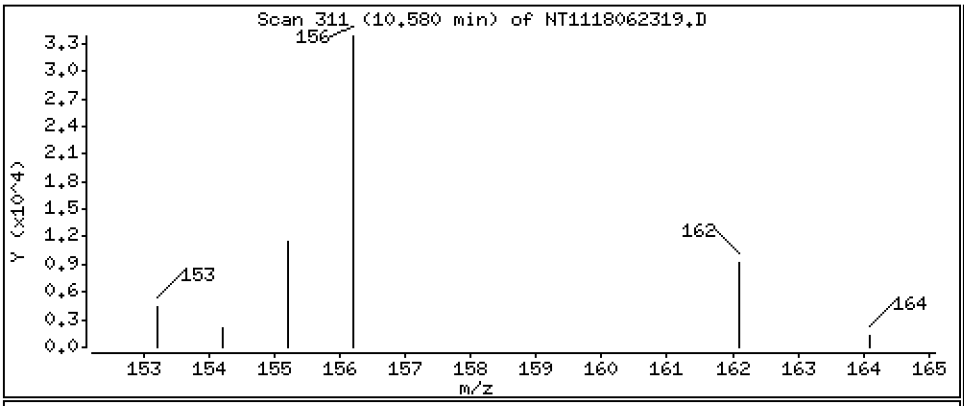
Operator: VTS

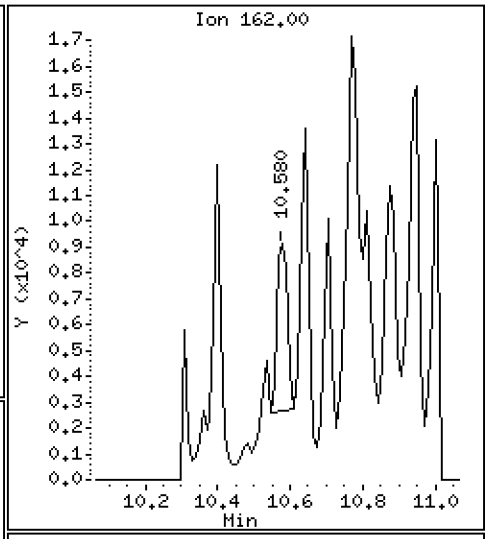
Column phase: Rxi-17Sil MS

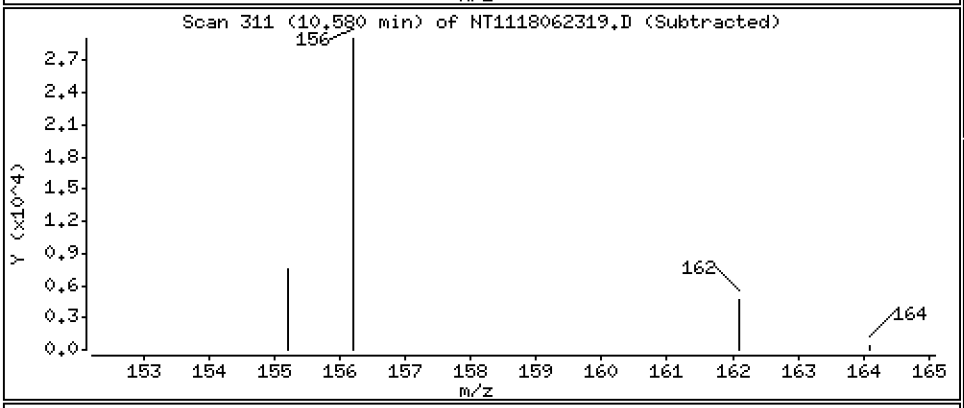
Column diameter: 0.25

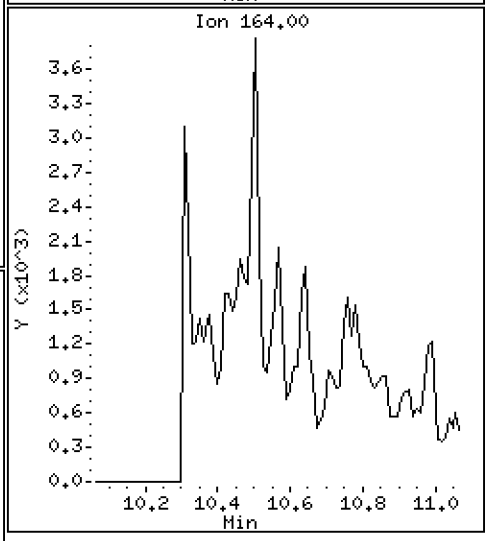
7 2-Chloronaphthalene

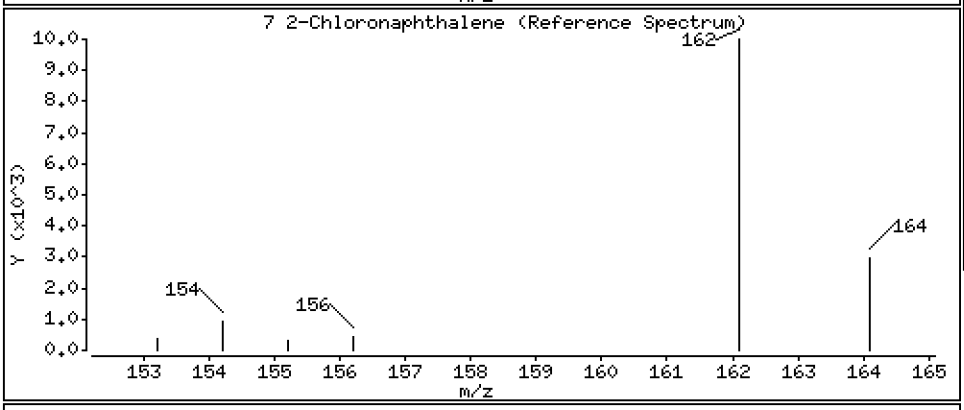
Concentration: 5.31 ng/mL

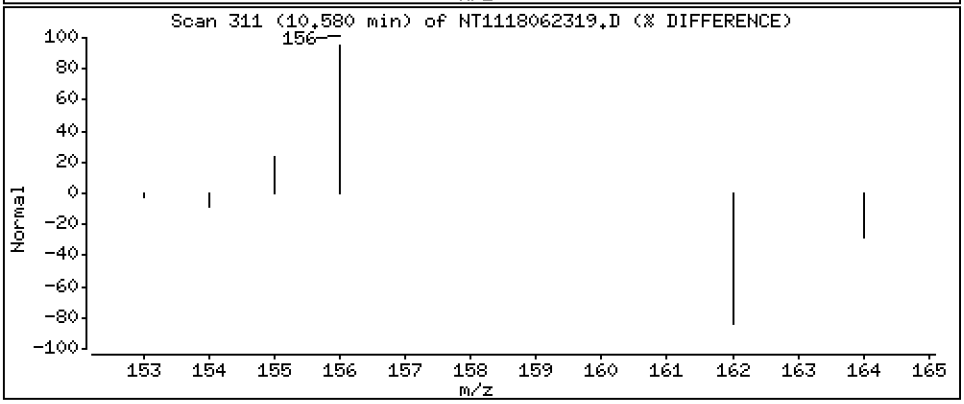












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Date : 23-JUN-2018 21:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02

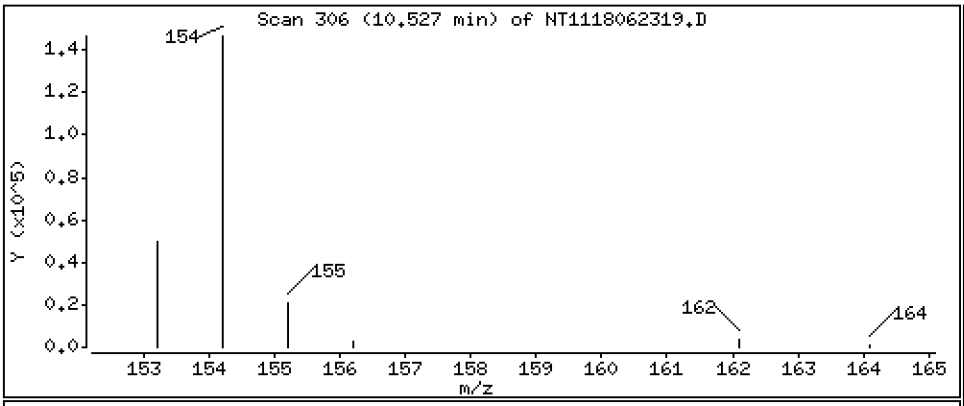
Operator: VTS

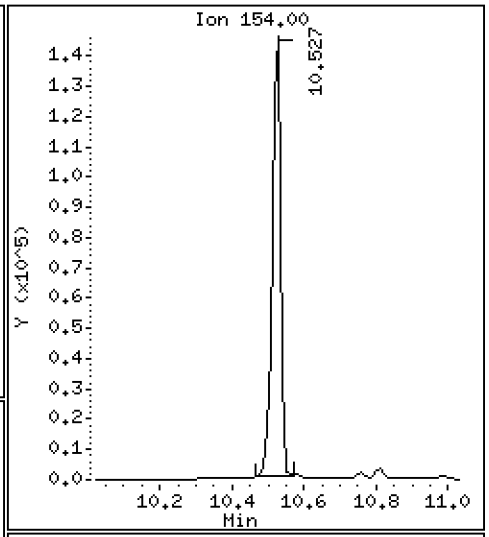
Column phase: Rxi-17Sil MS

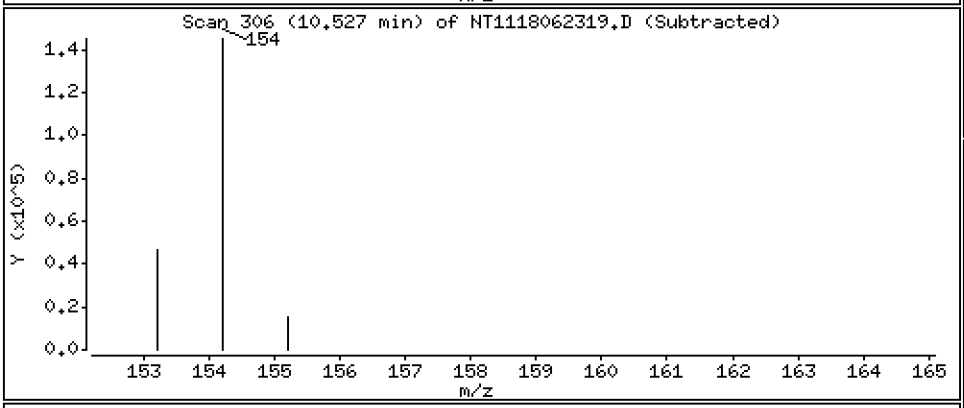
Column diameter: 0.25

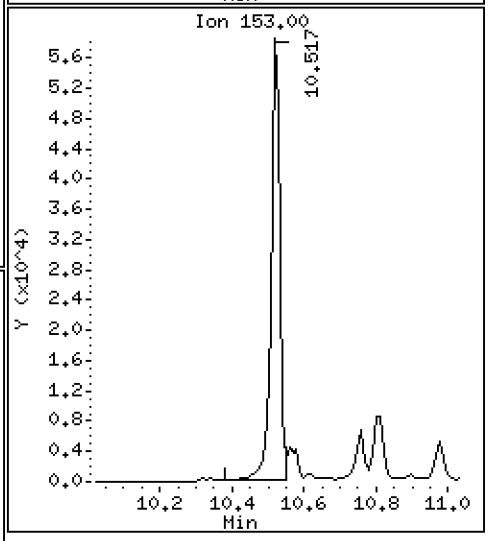
8 Biphenyl

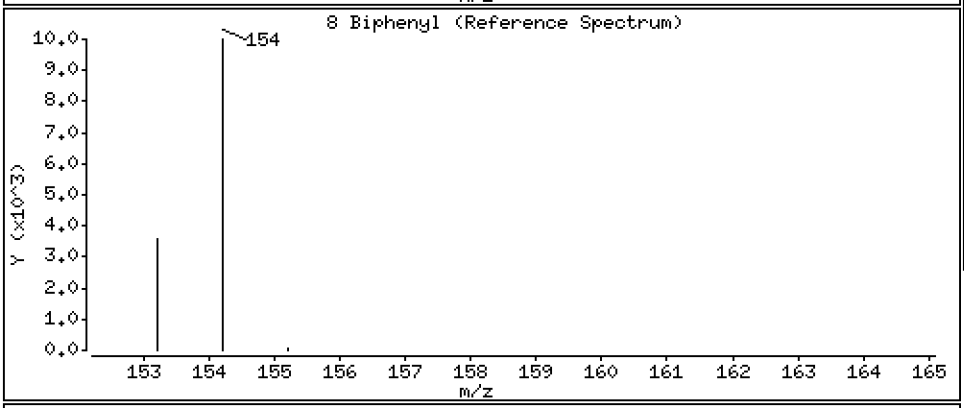
Concentration: 78.5 ng/mL

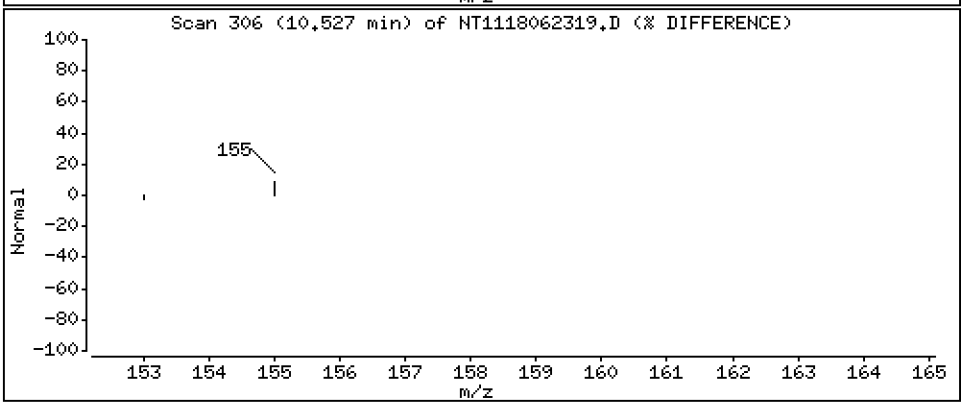












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Date : 23-JUN-2018 21:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02

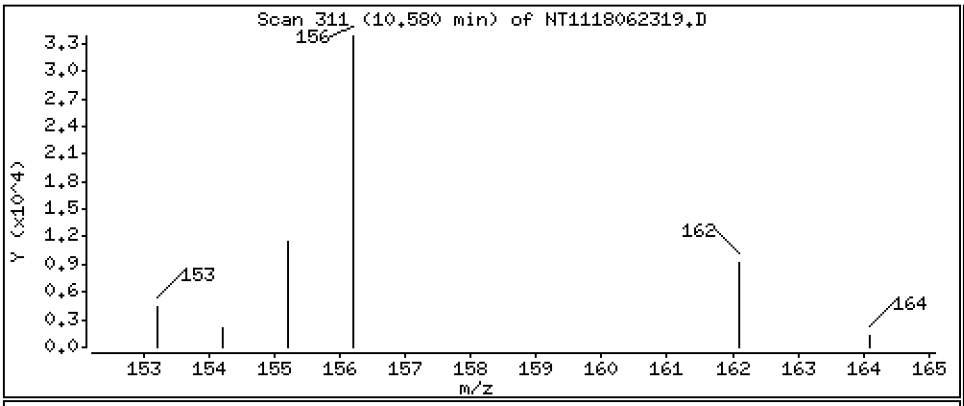
Operator: VTS

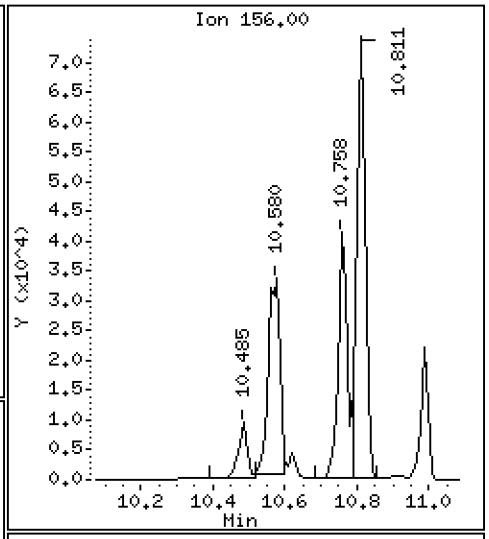
Column phase: Rxi-17Sil MS

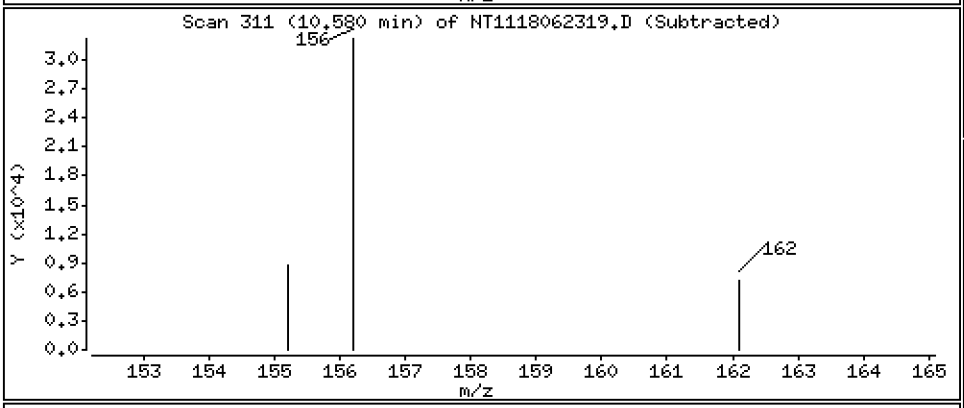
Column diameter: 0.25

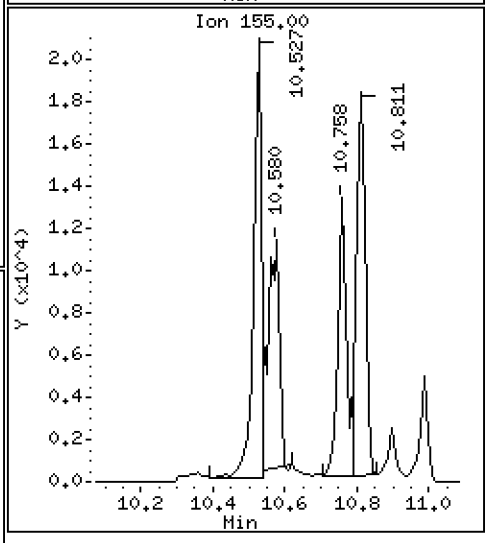
9 2,6-Dimethylnaphthalene

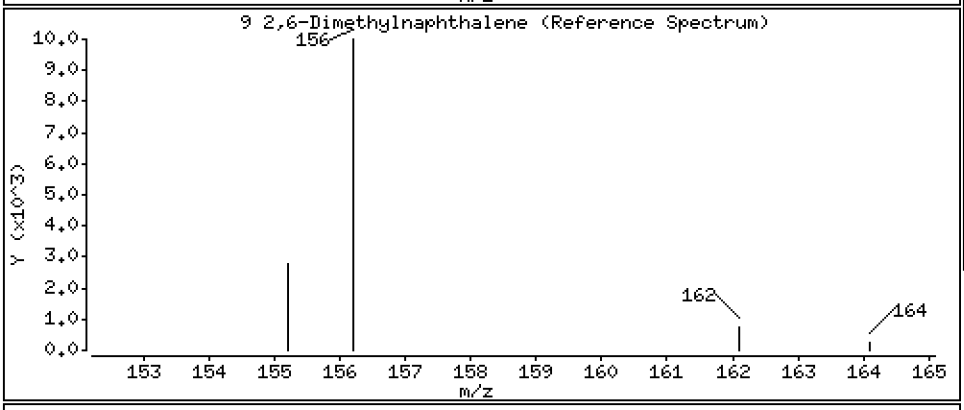
Concentration: 35.4 ng/mL

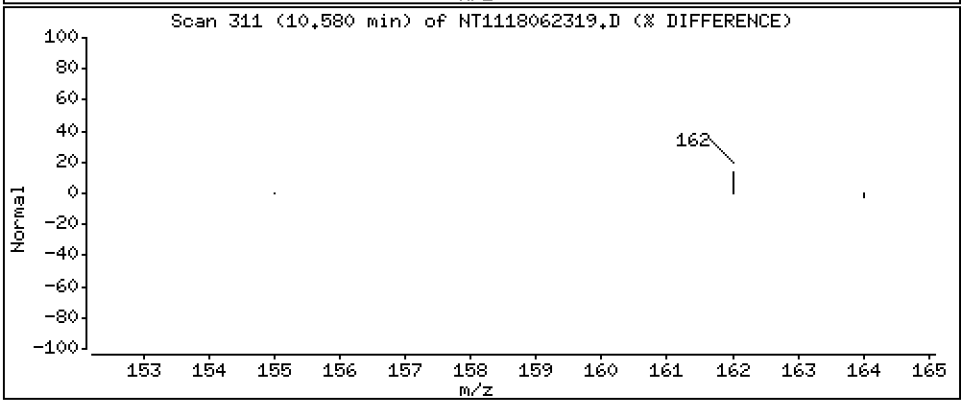












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Date : 23-JUN-2018 21:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02

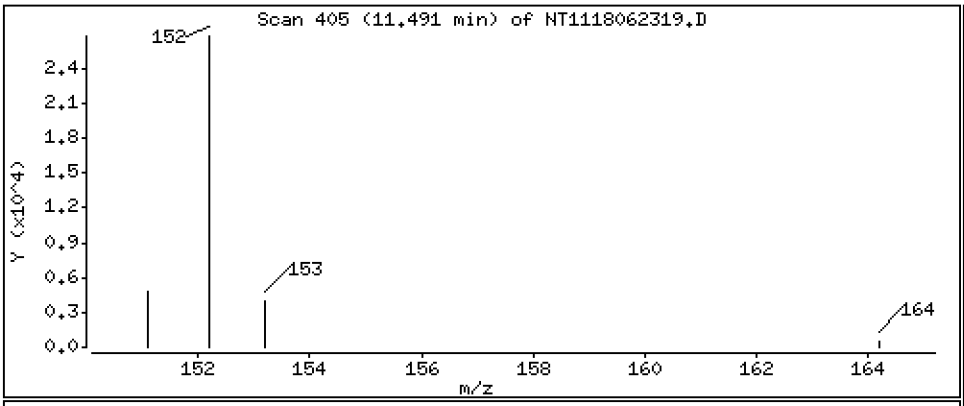
Operator: VTS

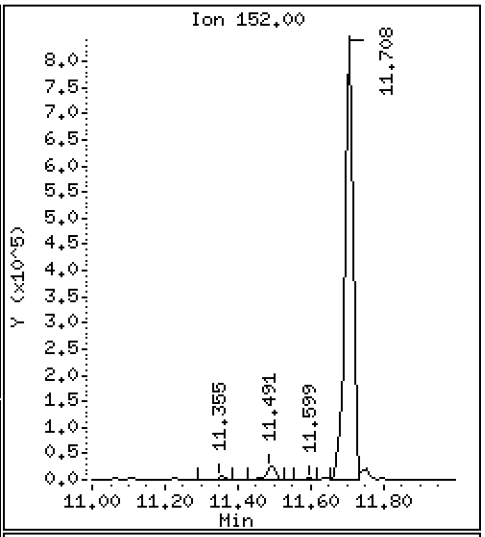
Column phase: Rxi-17Sil MS

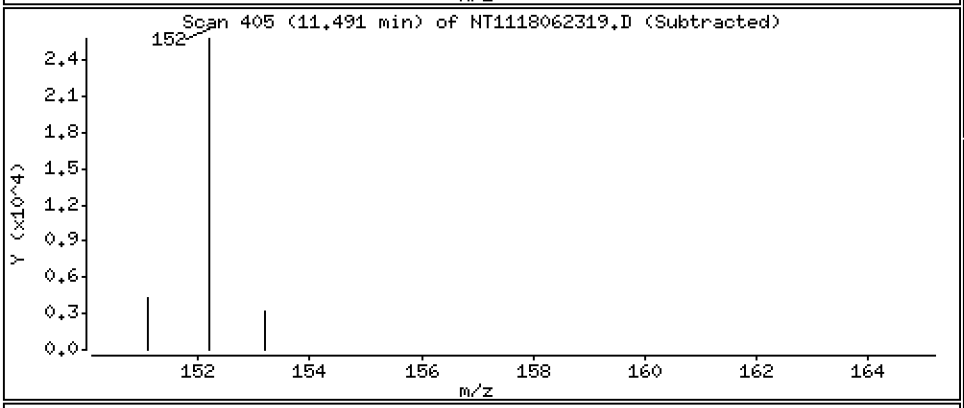
Column diameter: 0.25

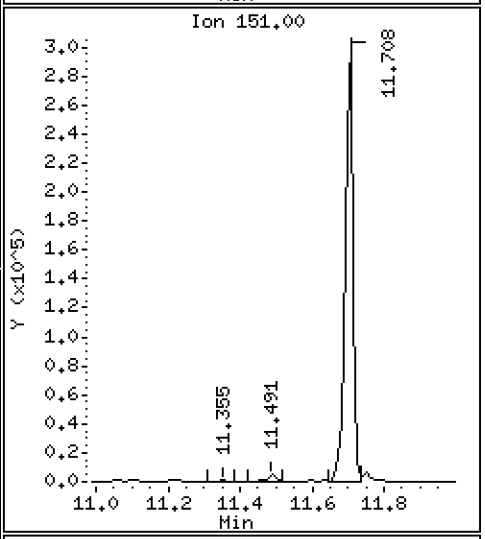
10 Acenaphthylene

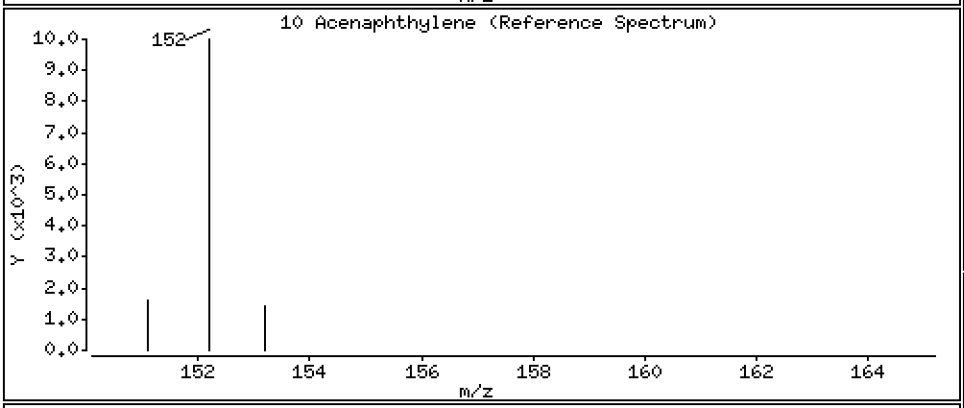
Concentration: 16.8 ng/mL

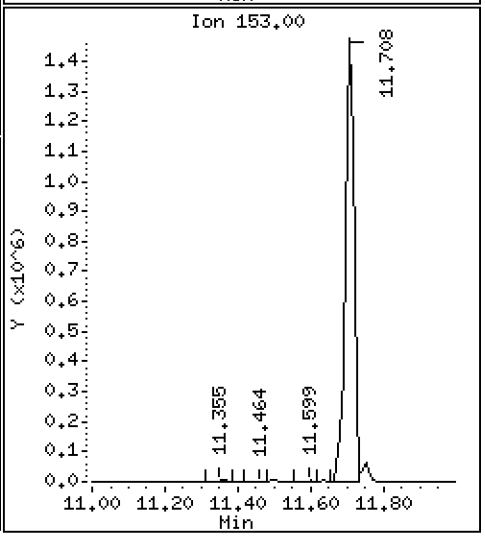


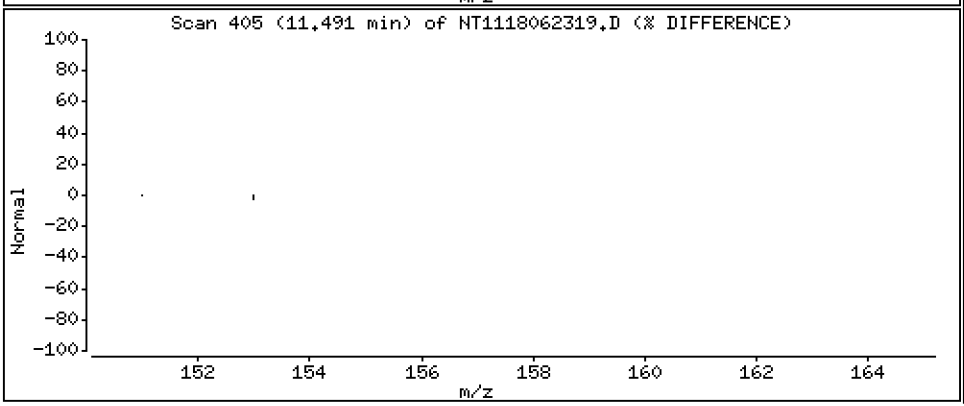












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Date : 23-JUN-2018 21:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02

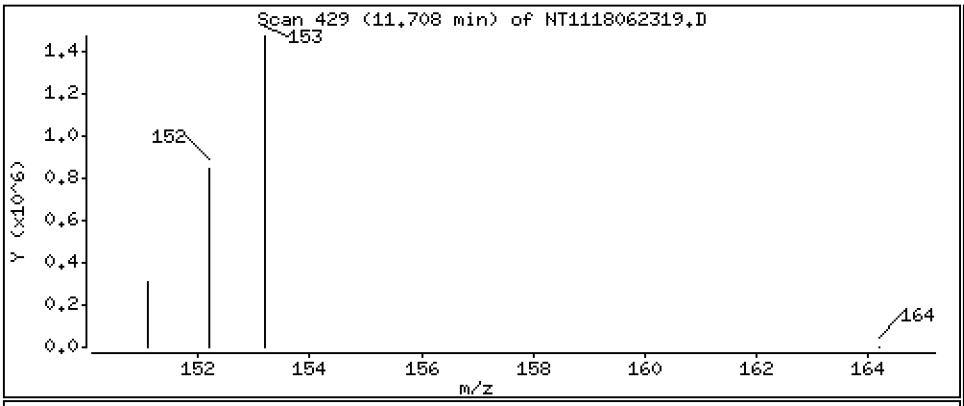
Operator: VTS

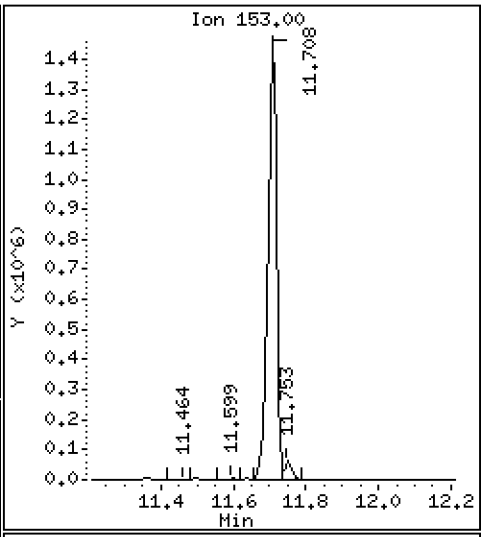
Column phase: Rxi-17Sil MS

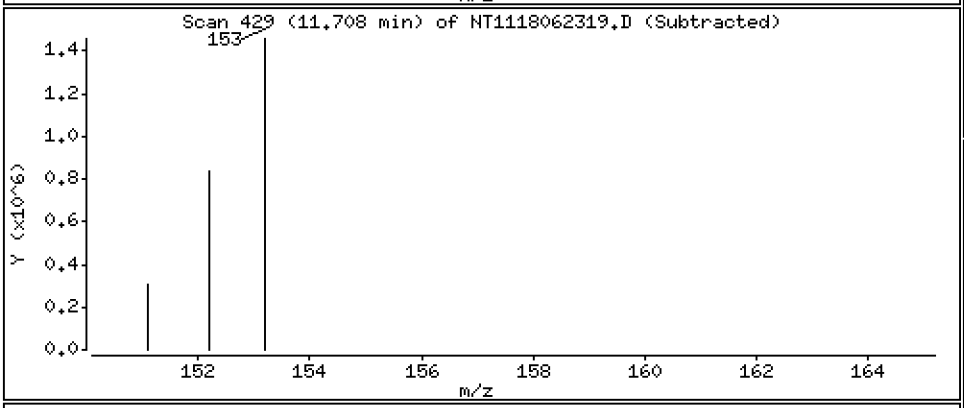
Column diameter: 0.25

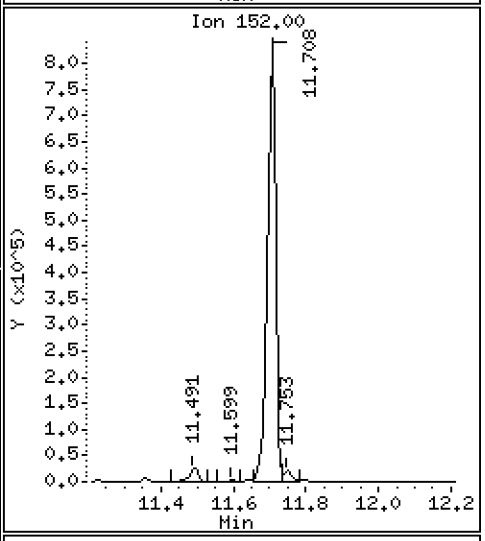
12 Acenaphthene

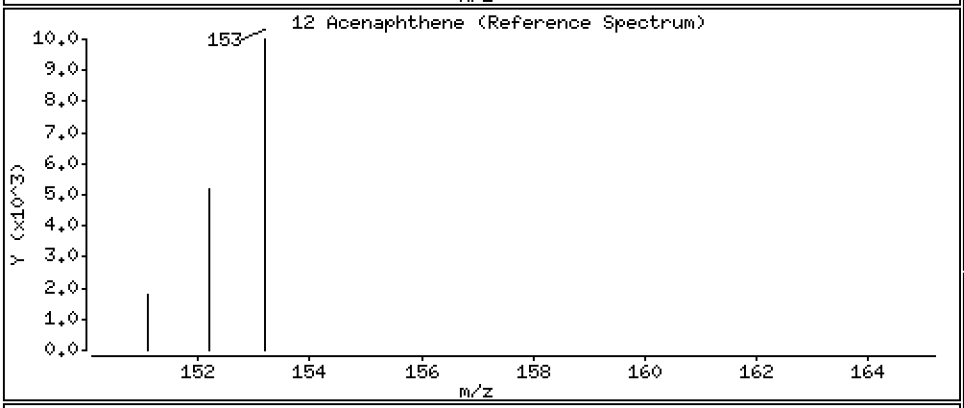
Concentration: 1210 ng/mL

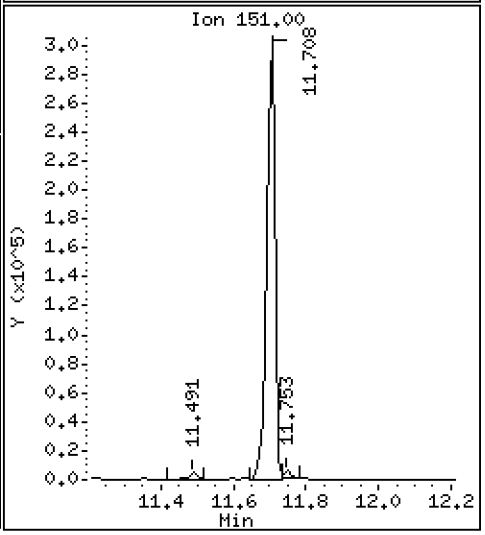


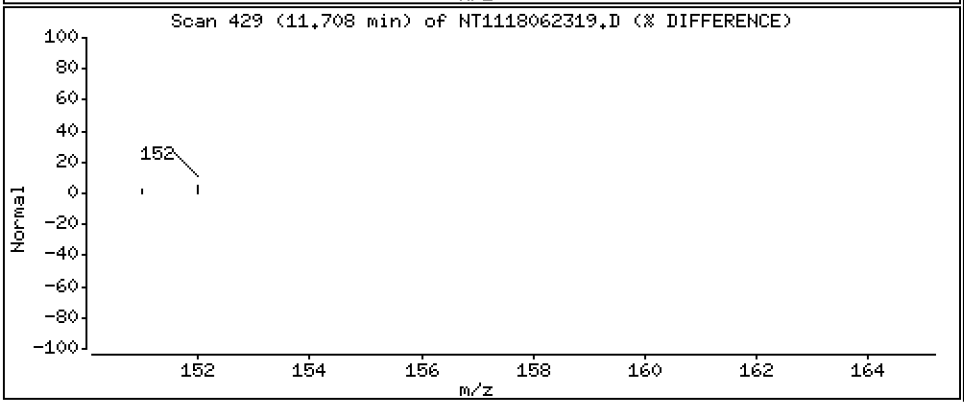












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Date : 23-JUN-2018 21:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02

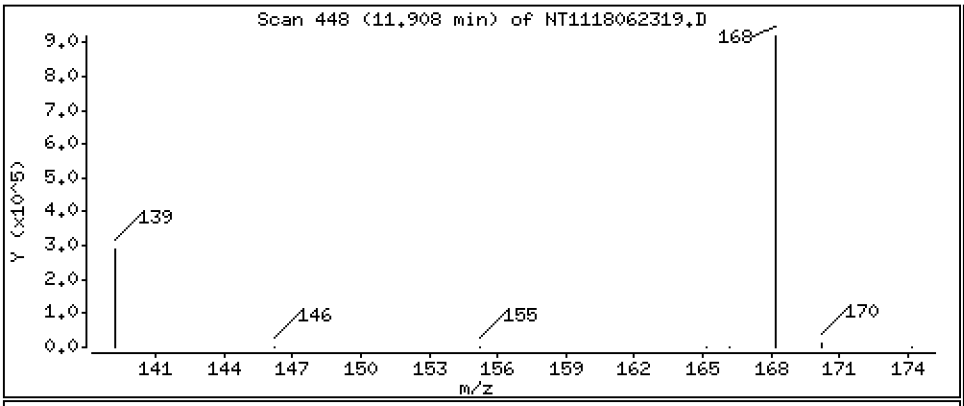
Operator: VTS

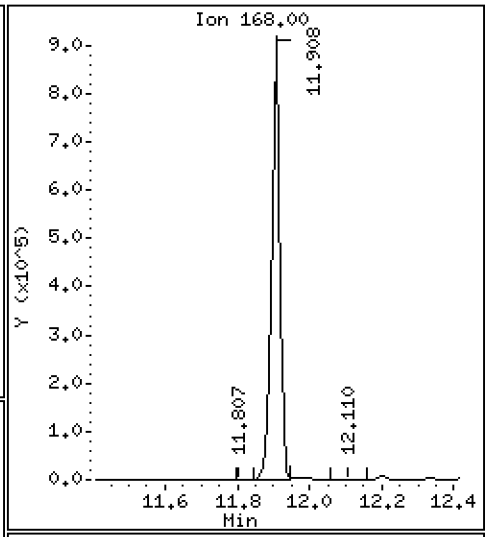
Column phase: Rxi-17Sil MS

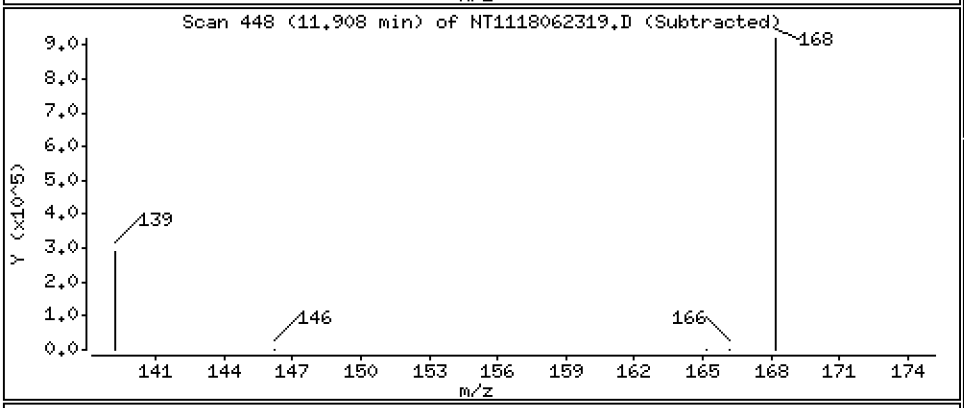
Column diameter: 0.25

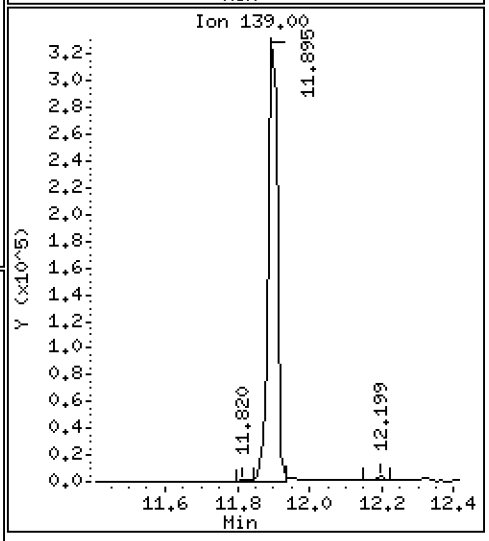
13 Dibenzofuran

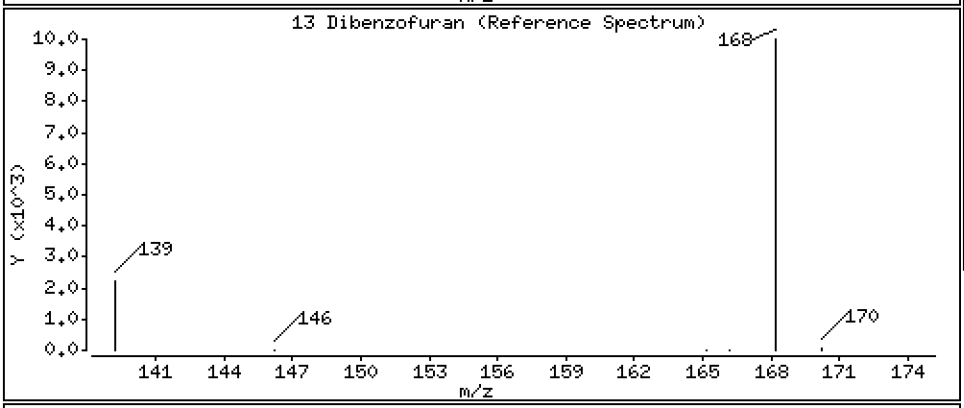
Concentration: 514 ng/mL

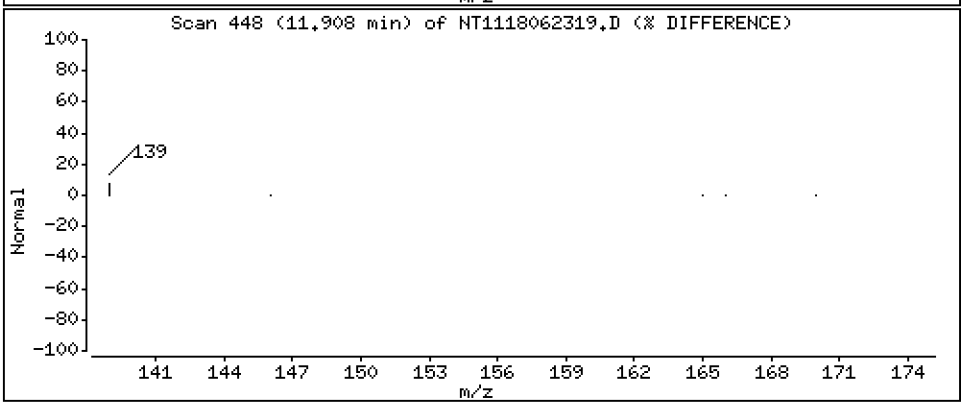












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Date : 23-JUN-2018 21:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02

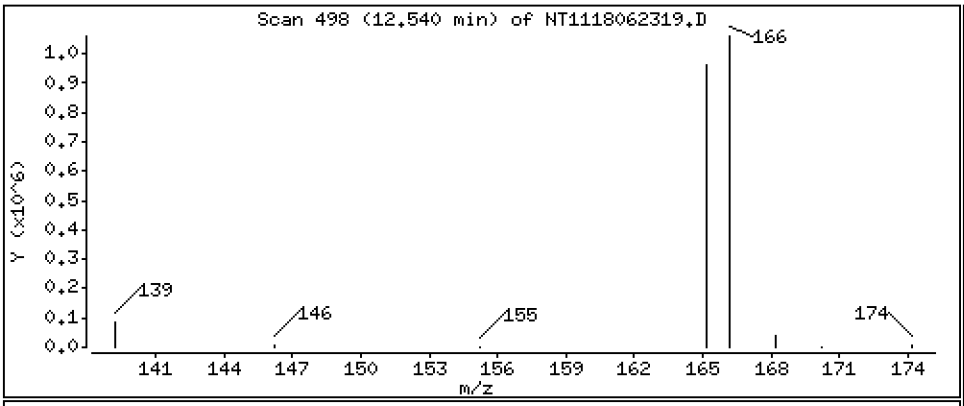
Operator: VTS

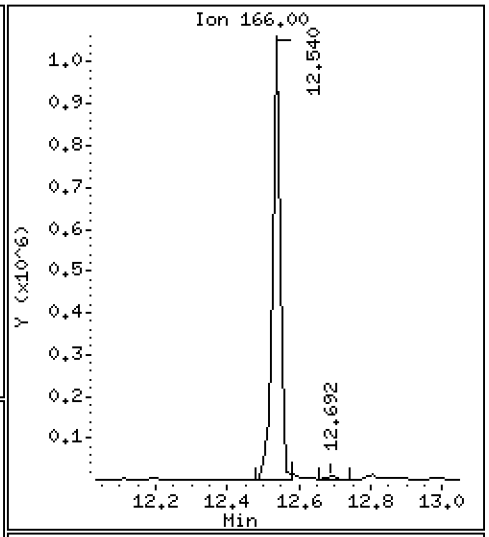
Column phase: Rxi-17Sil MS

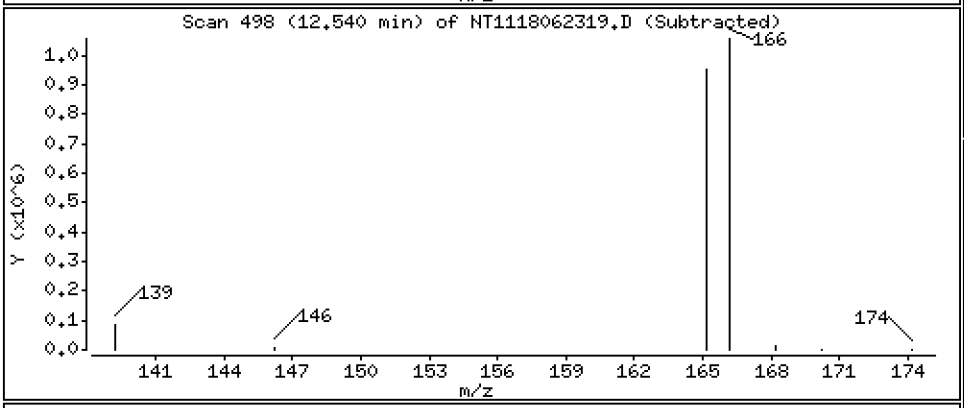
Column diameter: 0.25

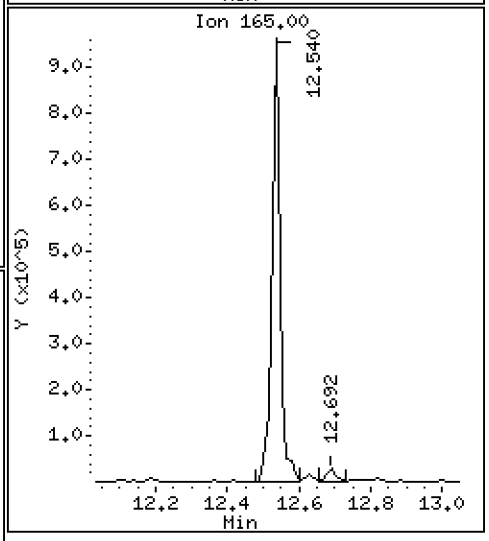
16 Fluorene

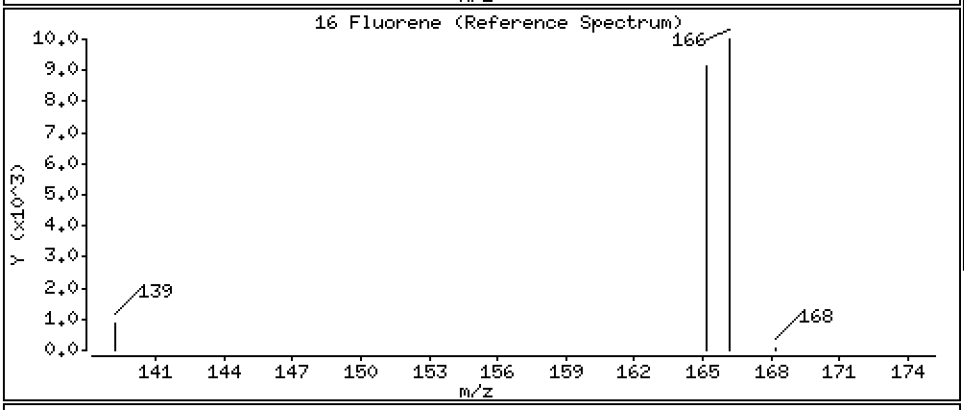
Concentration: 732 ng/mL

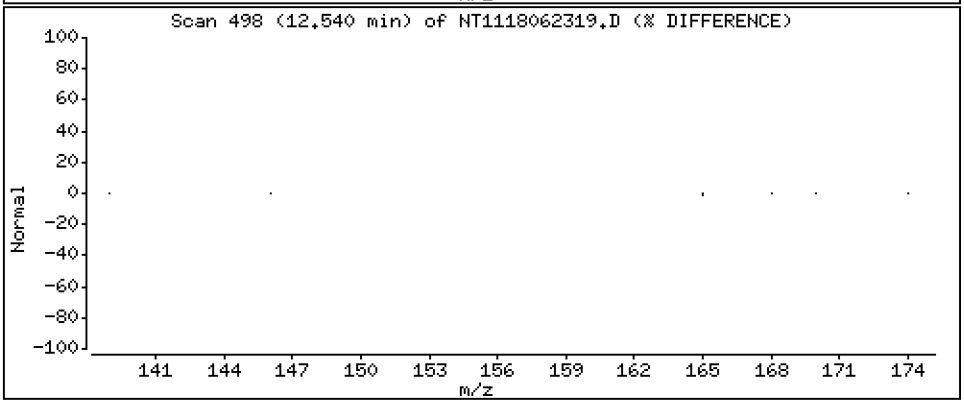












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Date : 23-JUN-2018 21:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02

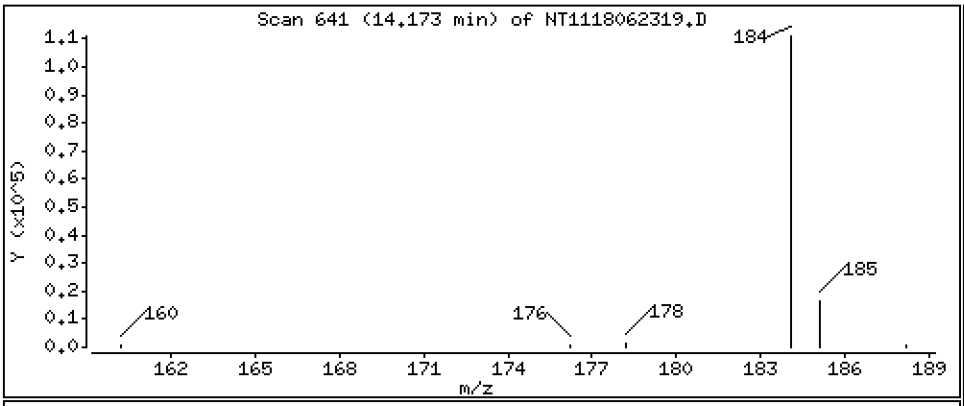
Operator: VTS

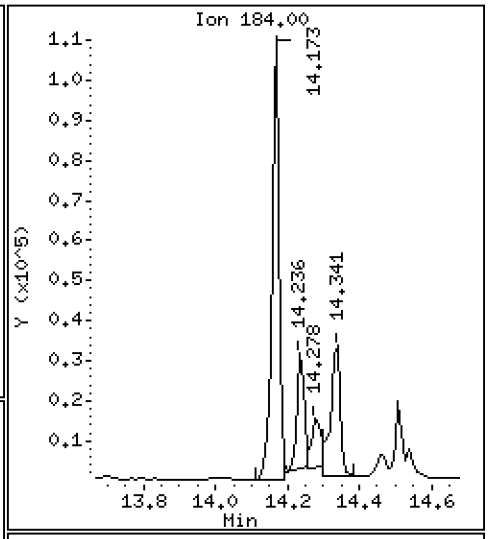
Column phase: Rxi-17Sil MS

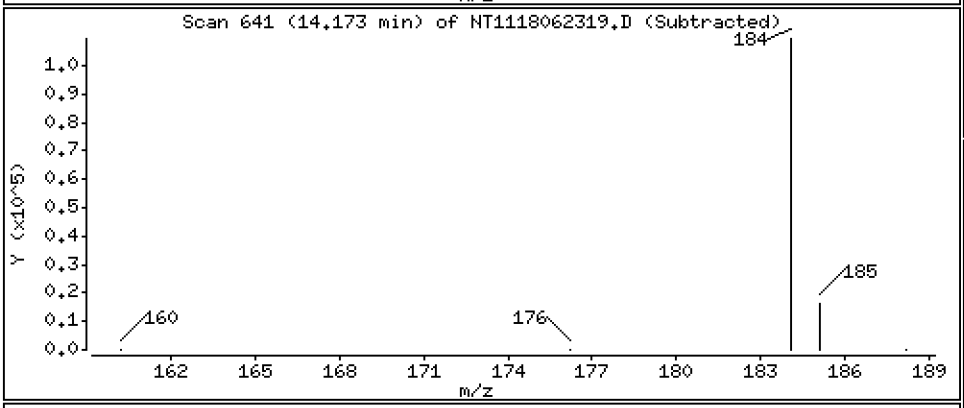
Column diameter: 0.25

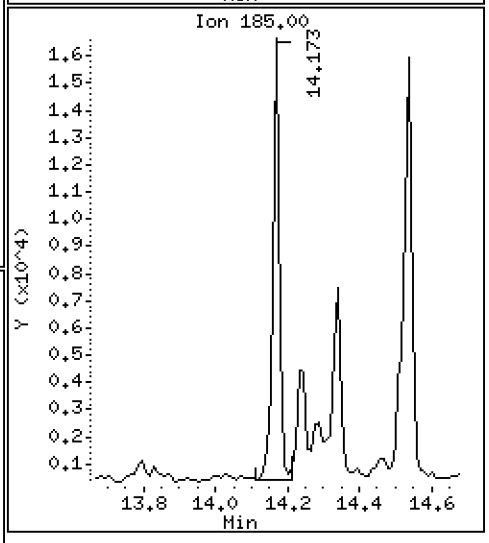
17 Dibenzothiophene

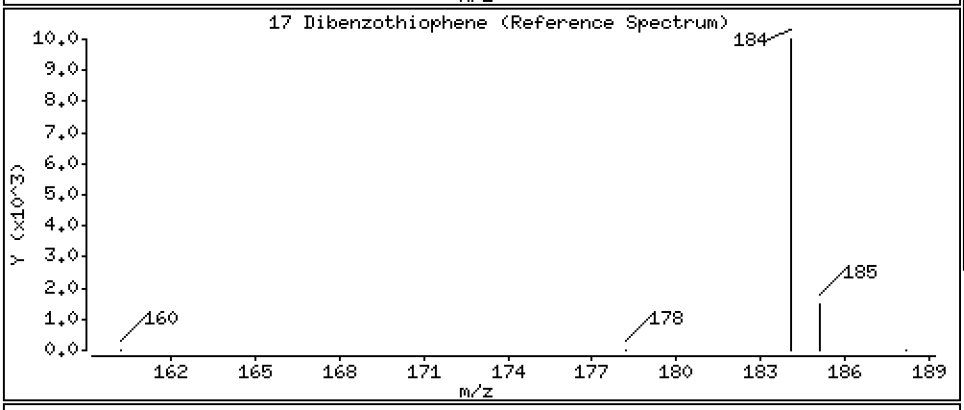
Concentration: 71.4 ng/mL

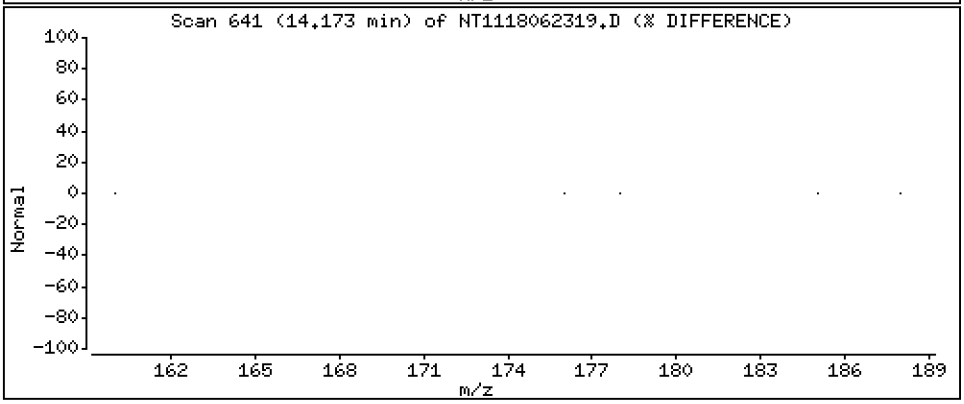












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Date : 23-JUN-2018 21:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02

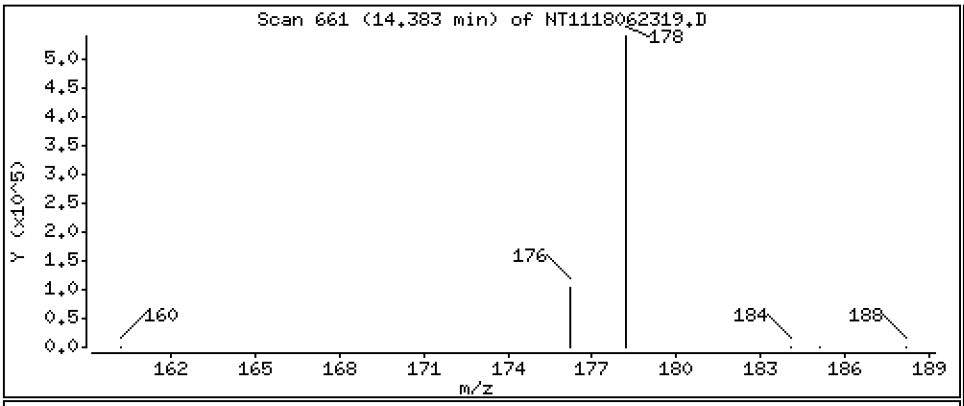
Operator: VTS

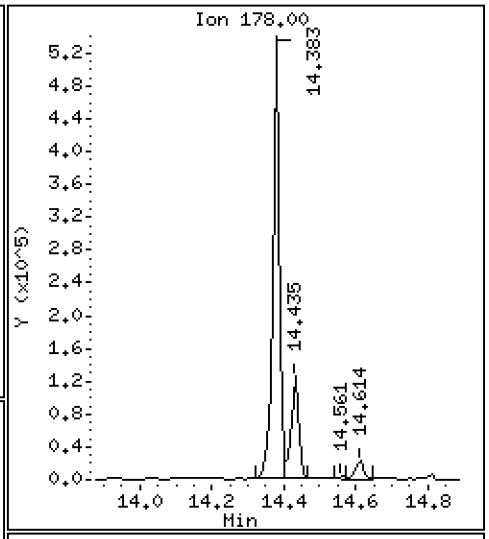
Column phase: Rxi-17Sil MS

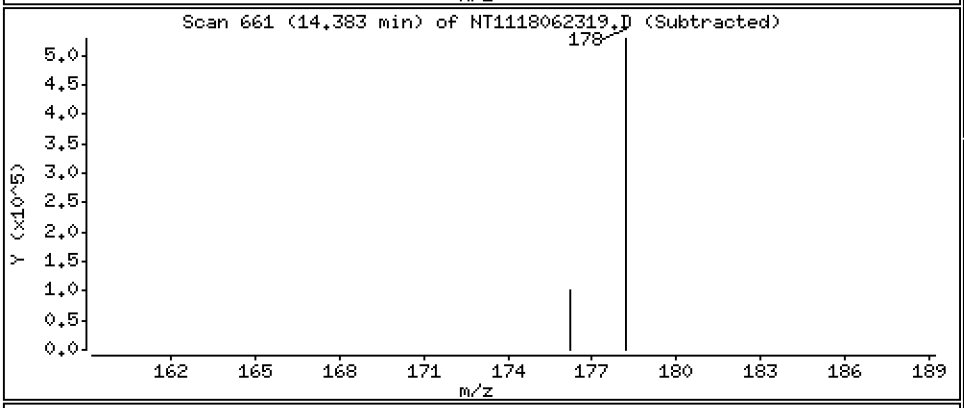
Column diameter: 0.25

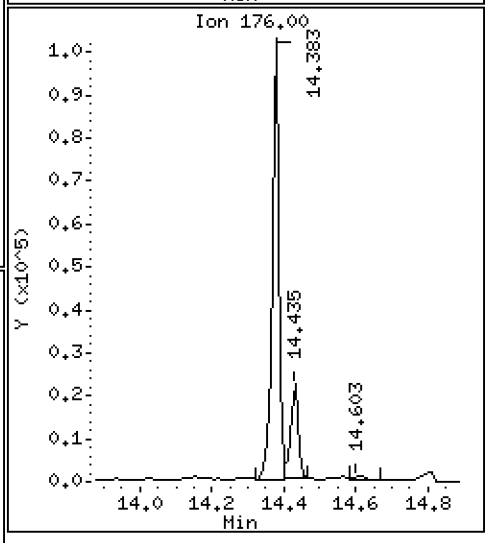
19 Phenanthrene

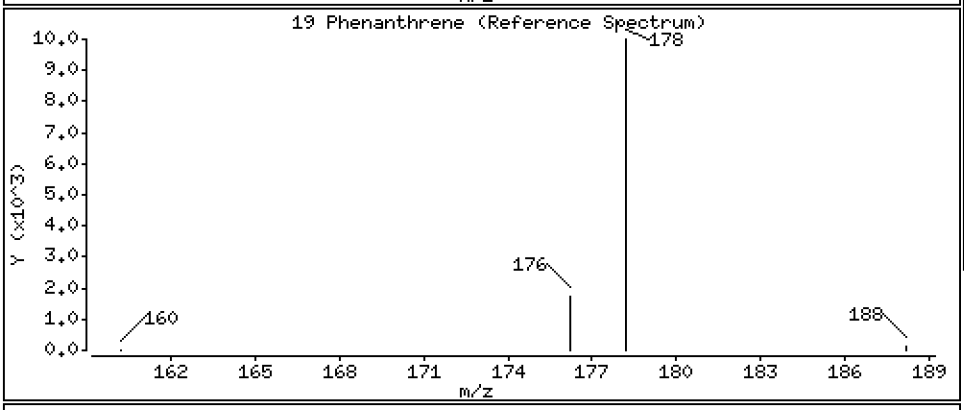
Concentration: 250 ng/mL

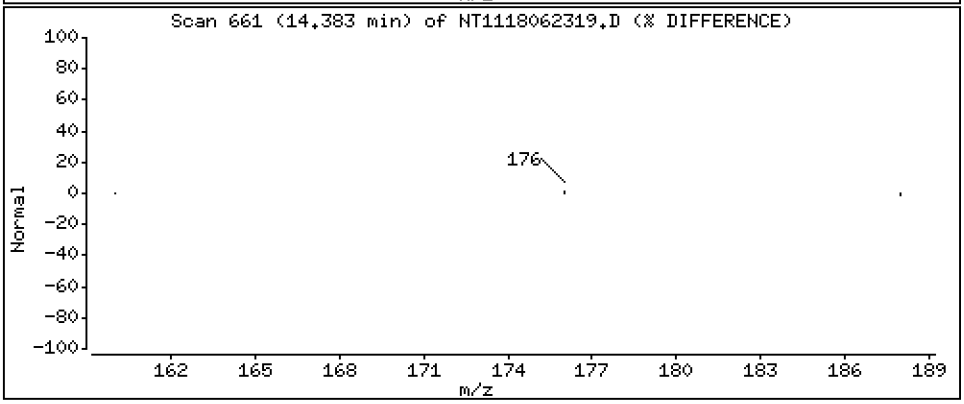












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Date : 23-JUN-2018 21:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02

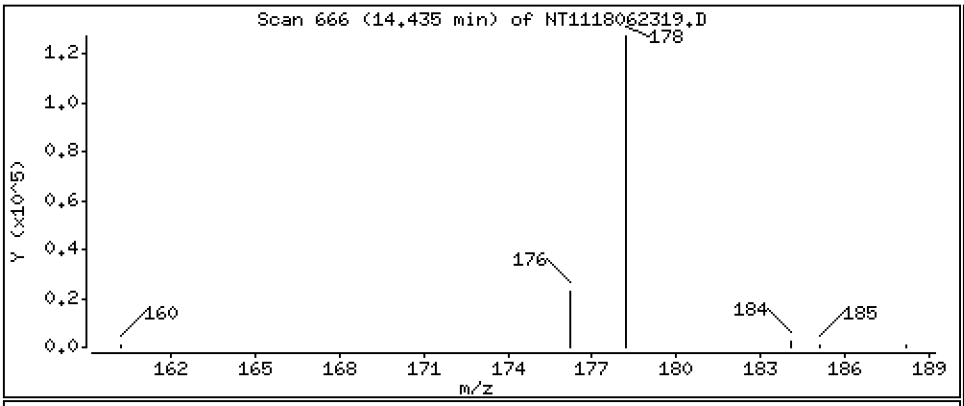
Operator: VTS

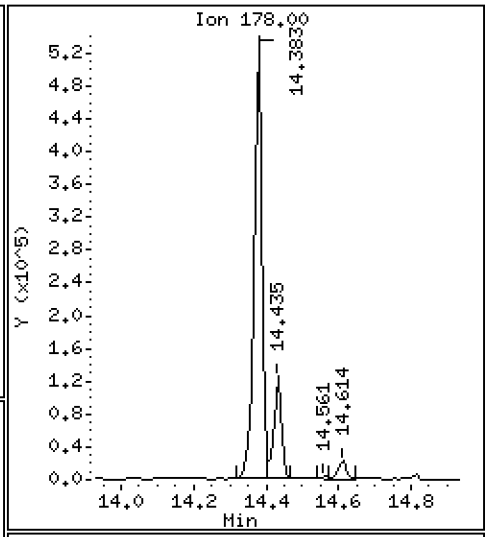
Column phase: Rxi-17Sil MS

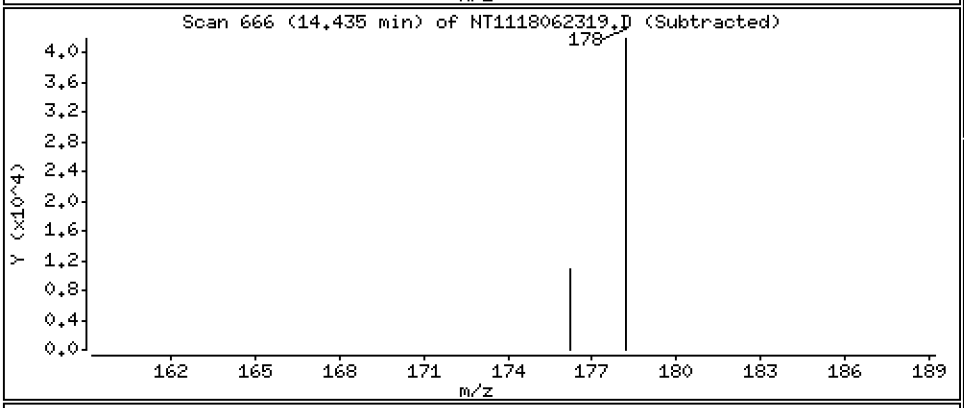
Column diameter: 0.25

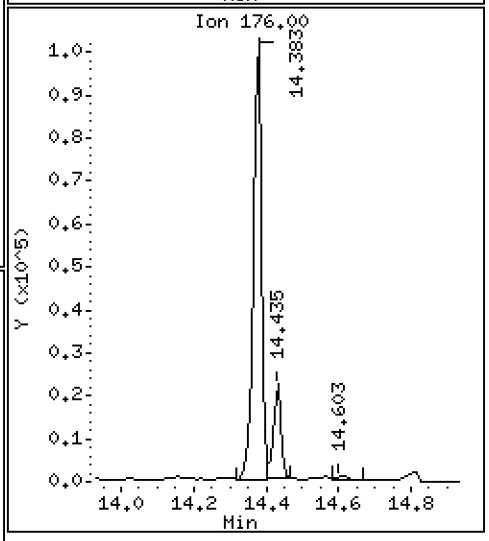
21 Anthracene

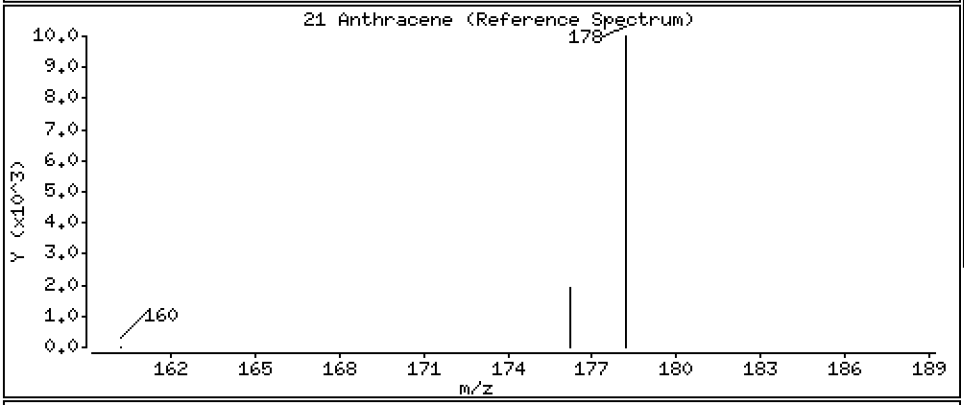
Concentration: 61.9 ng/mL

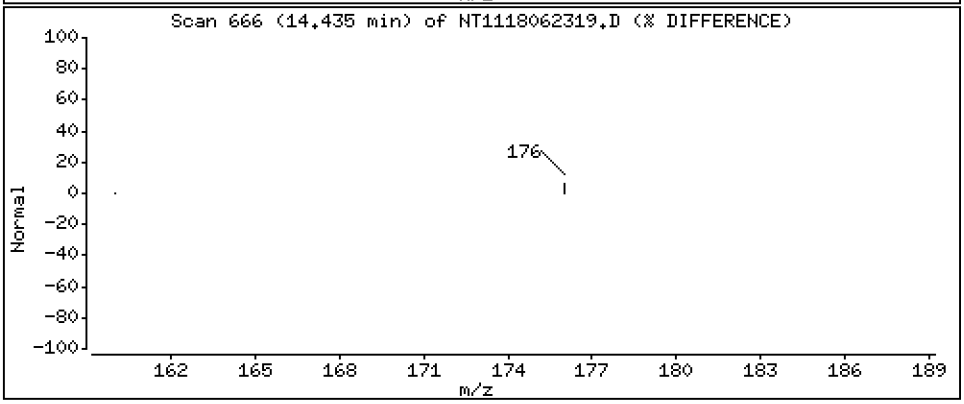












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Date : 23-JUN-2018 21:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02

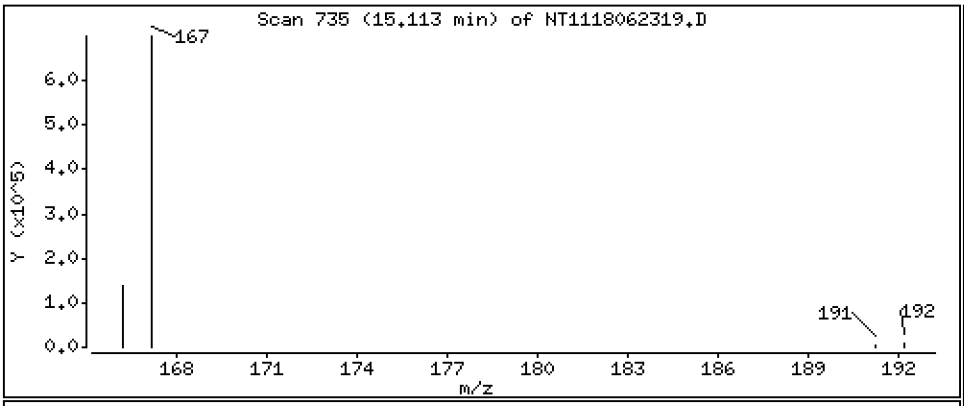
Operator: VTS

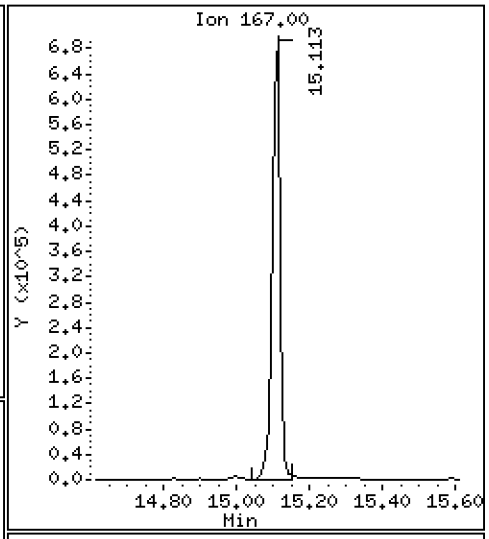
Column phase: Rxi-17Sil MS

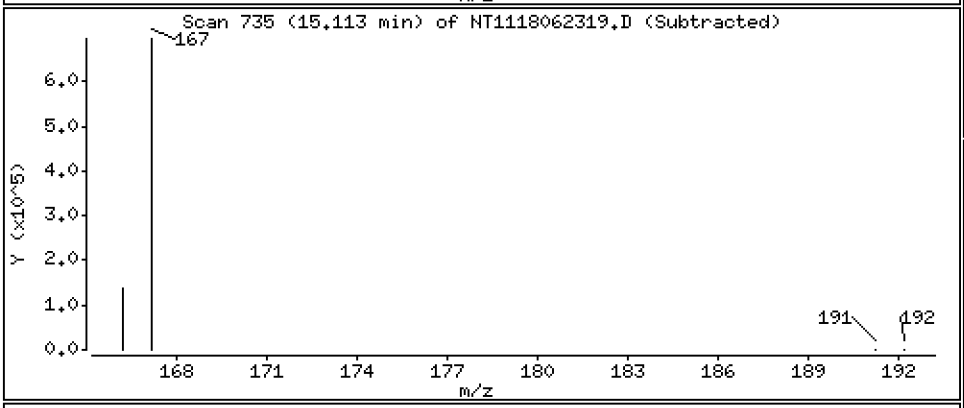
Column diameter: 0.25

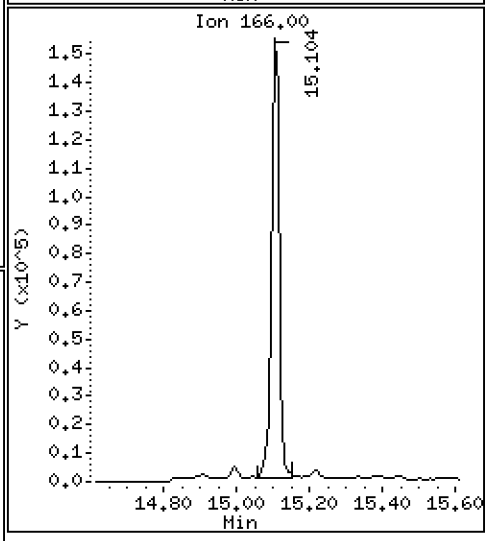
22 Carbazole

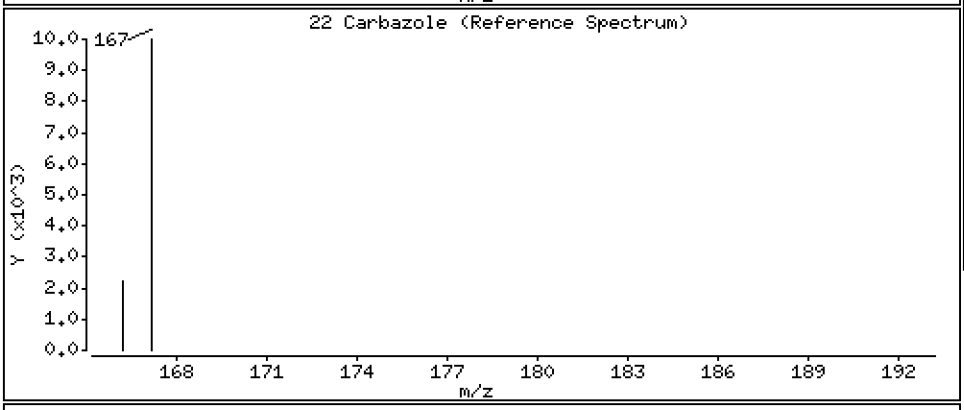
Concentration: 310 ng/mL

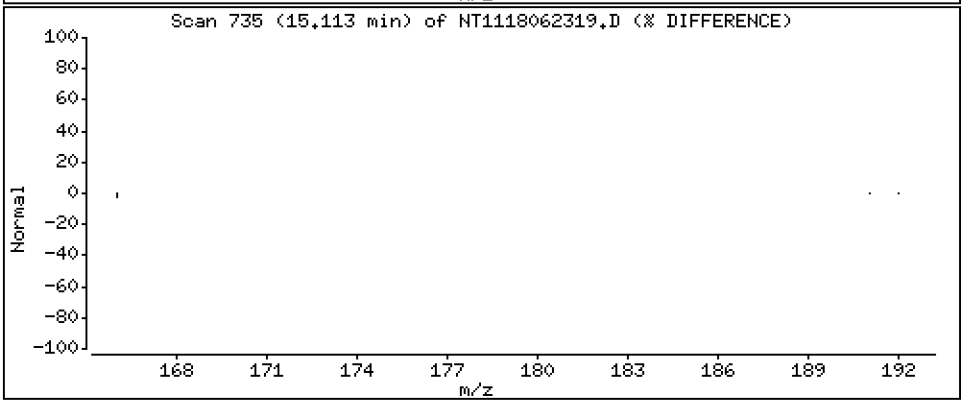












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Date : 23-JUN-2018 21:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02

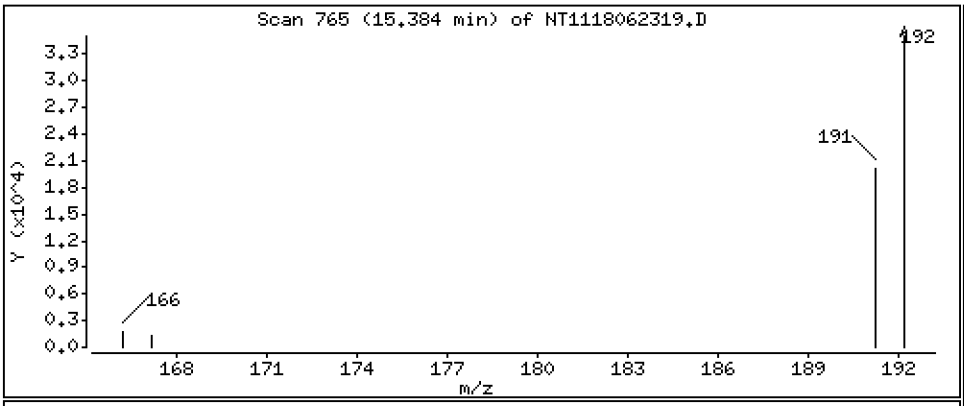
Operator: VTS

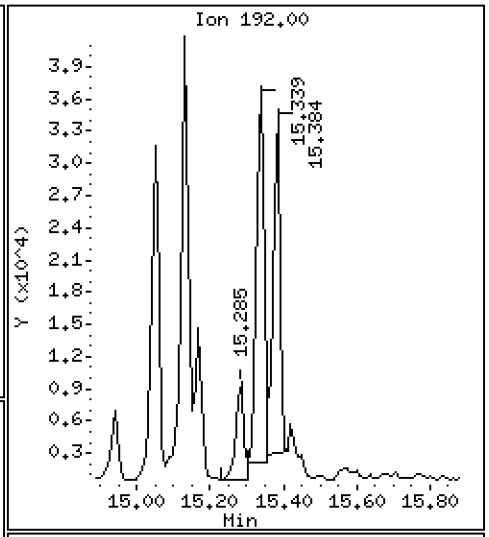
Column phase: Rxi-17Sil MS

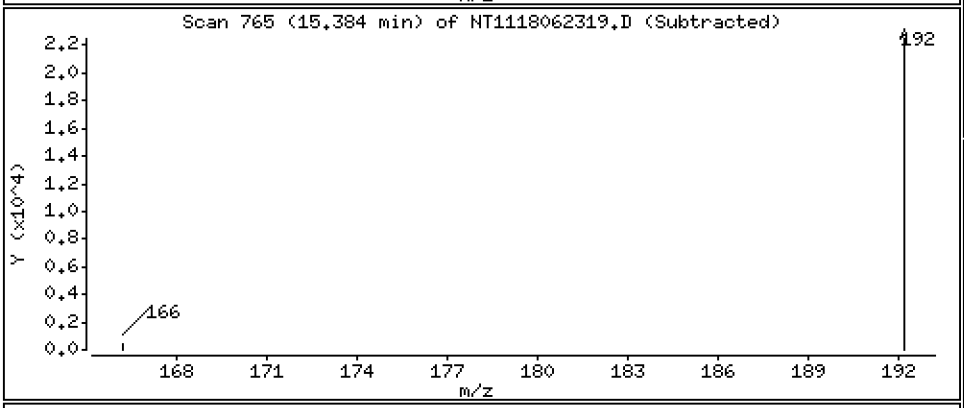
Column diameter: 0.25

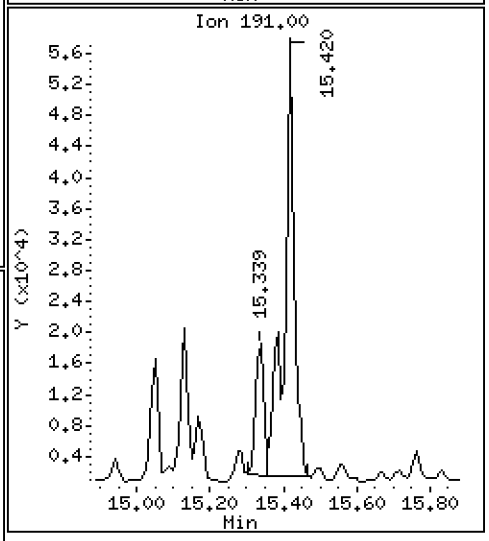
23 1-Methylphenanthrene

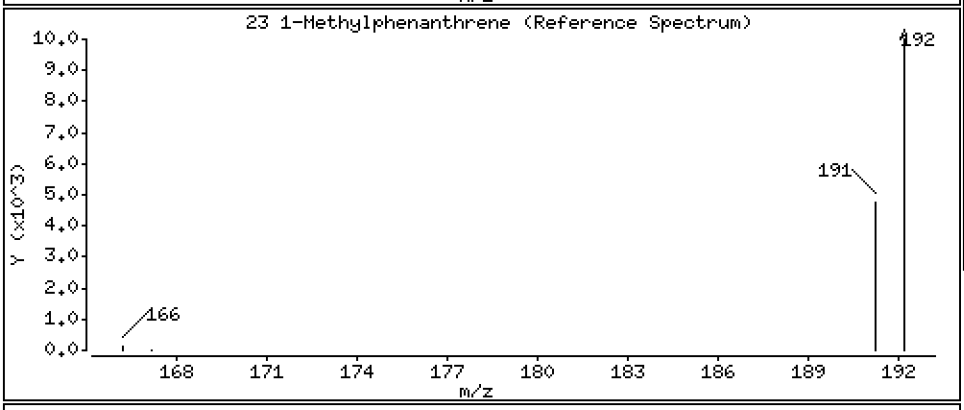
Concentration: 14.4 ng/mL

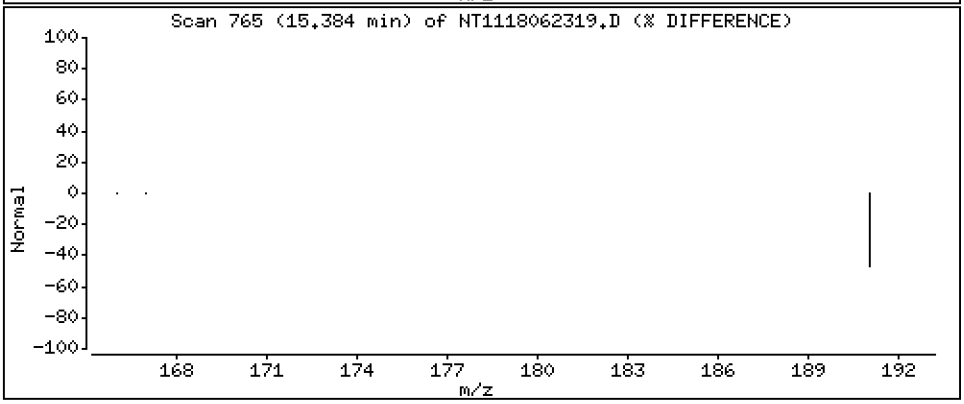












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Date : 23-JUN-2018 21:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02

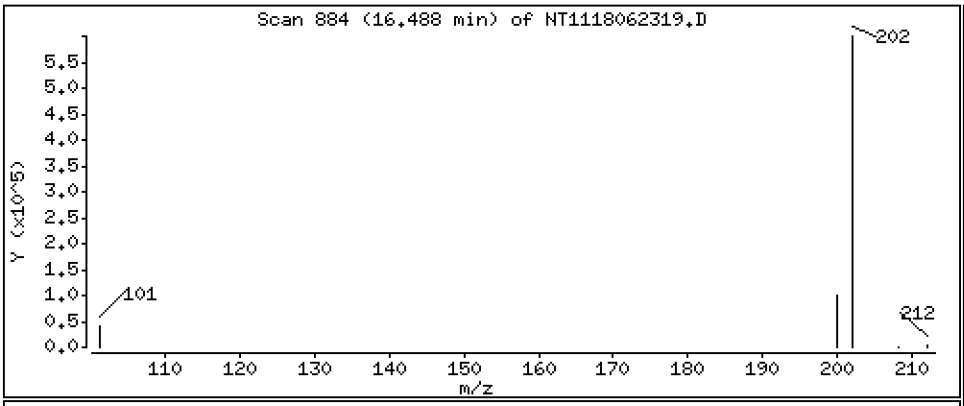
Operator: VTS

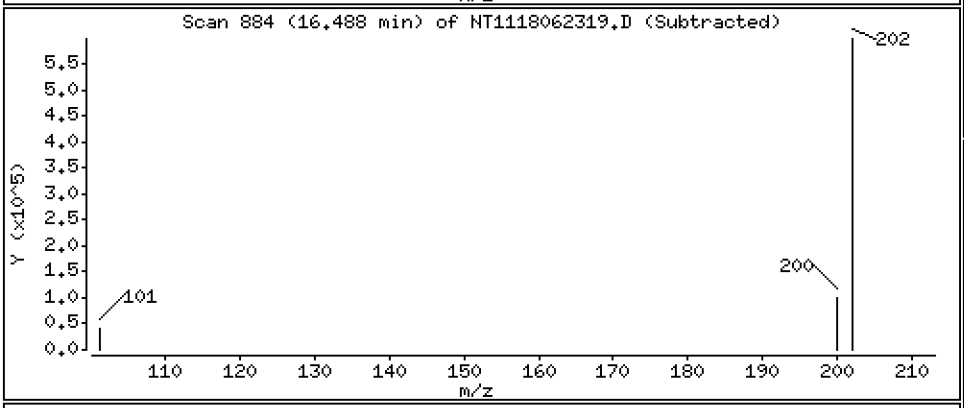
Column phase: Rxi-17Sil MS

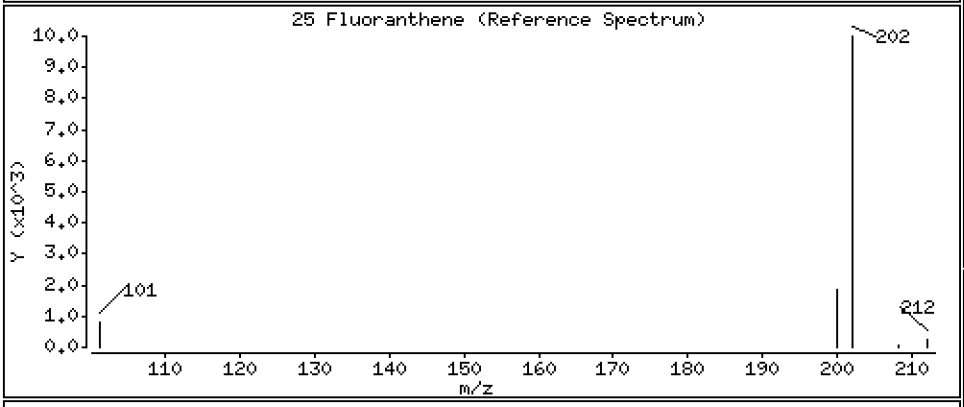
Column diameter: 0.25

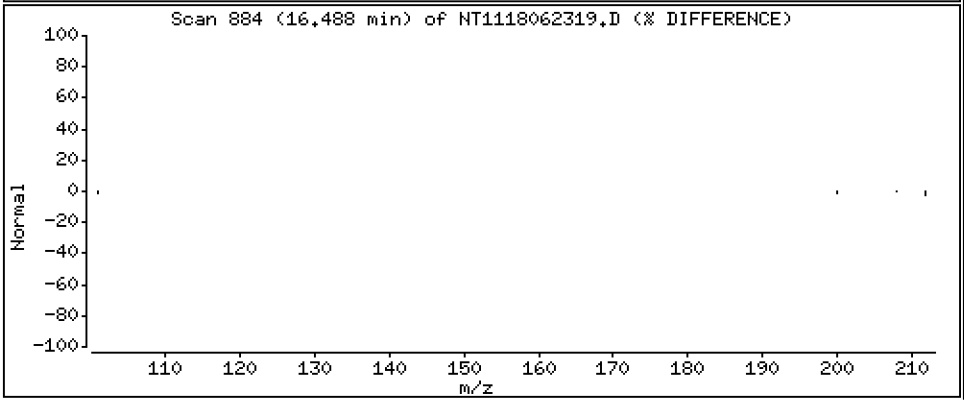
25 Fluoranthene

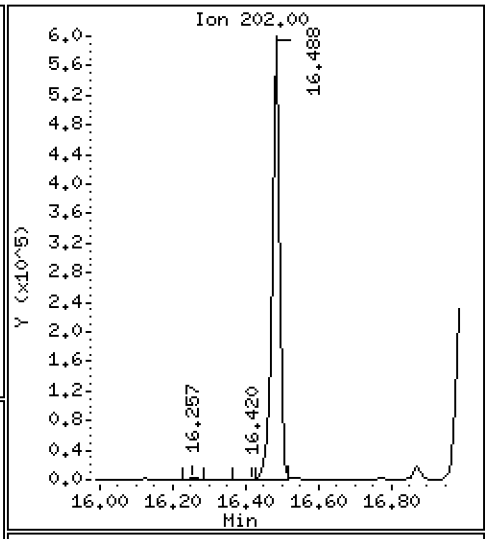
Concentration: 313 ng/mL

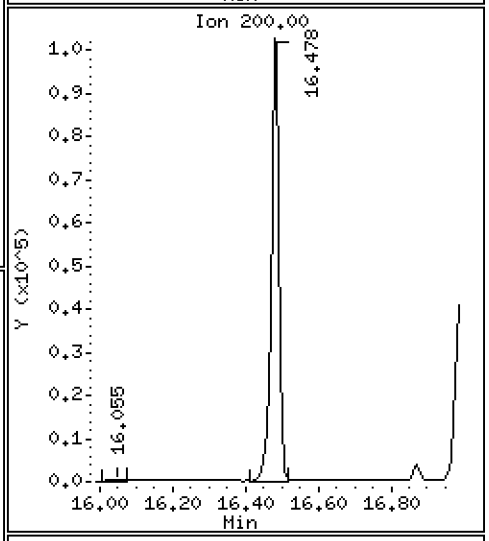


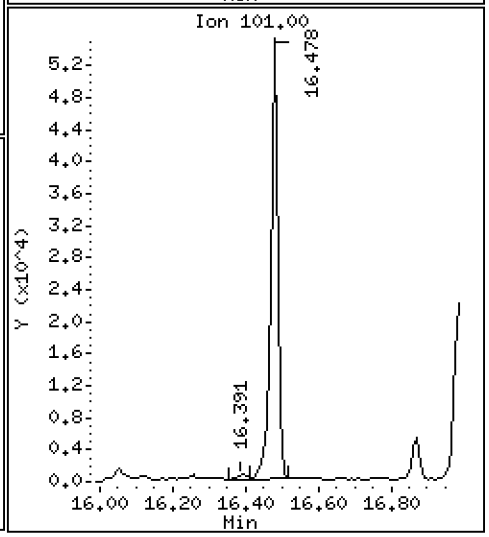












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Date : 23-JUN-2018 21:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02

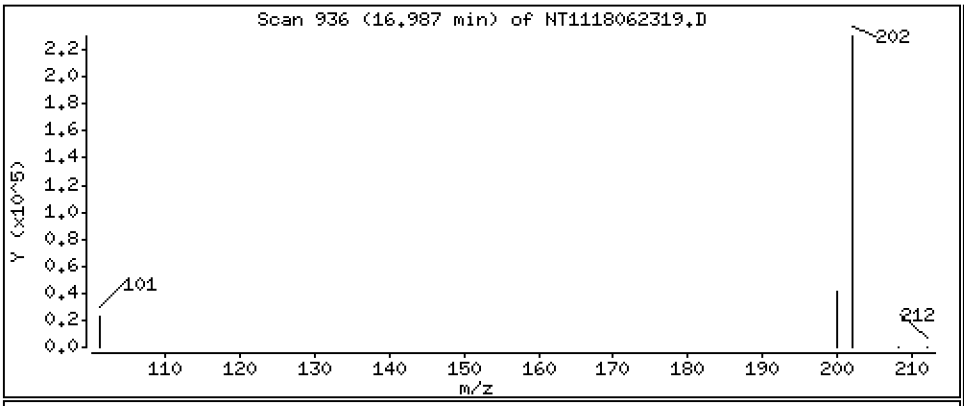
Operator: VTS

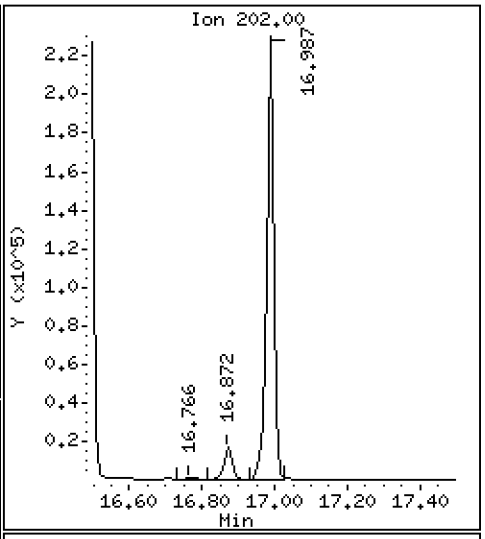
Column phase: Rxi-17Sil MS

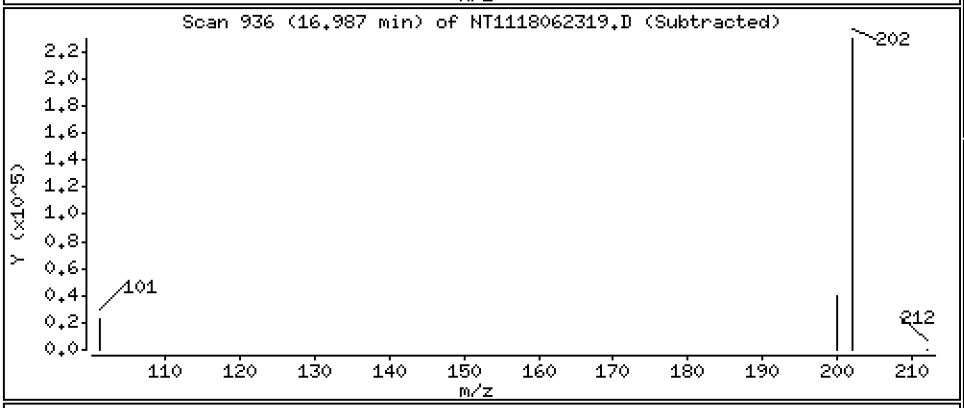
Column diameter: 0.25

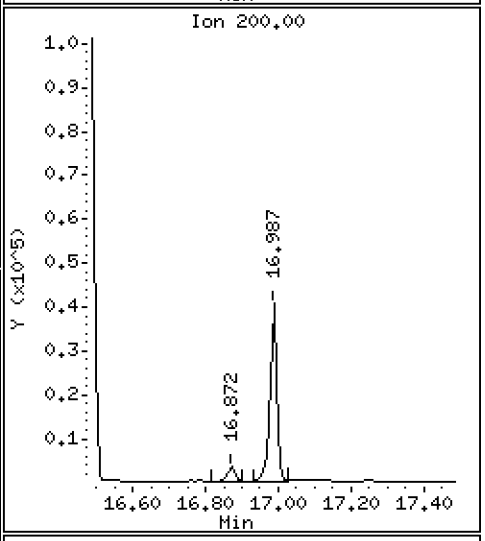
26 Pyrene

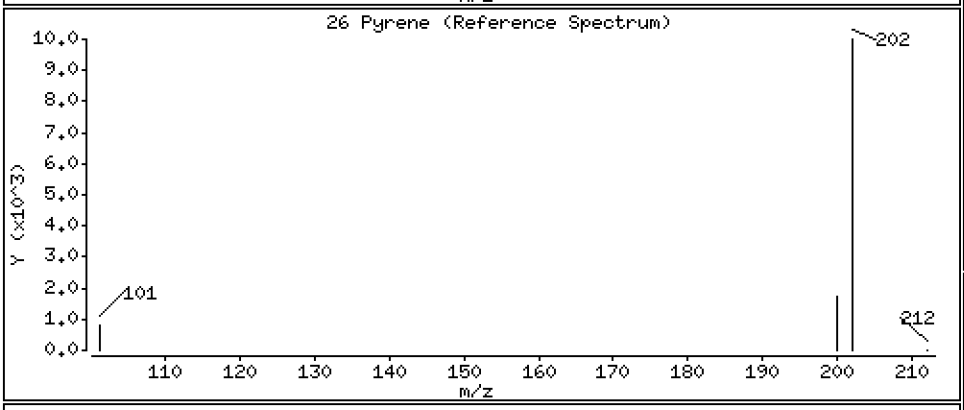
Concentration: 107 ng/mL

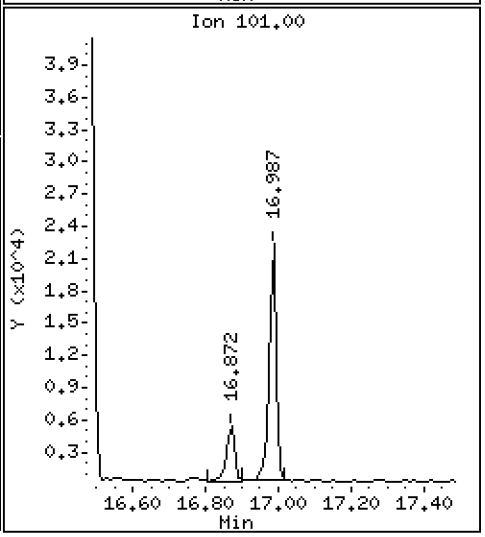


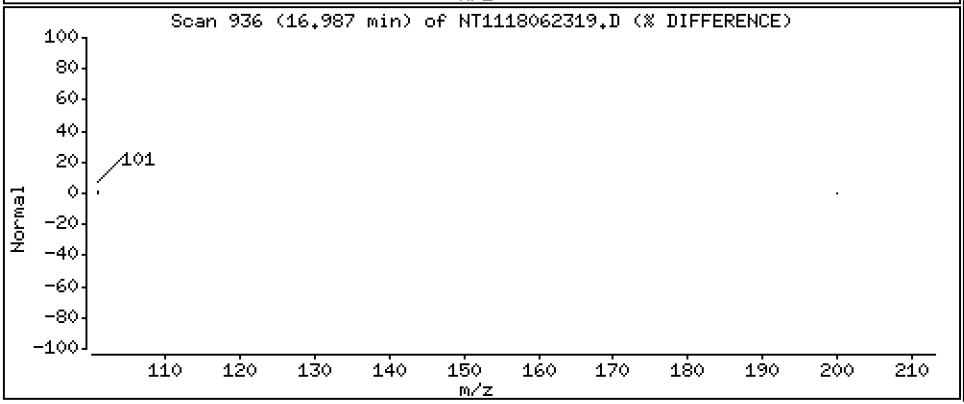












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Date : 23-JUN-2018 21:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02

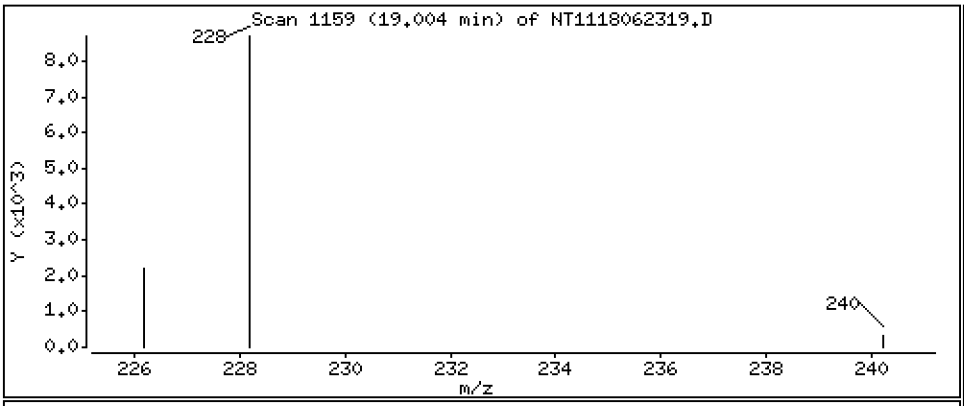
Operator: VTS

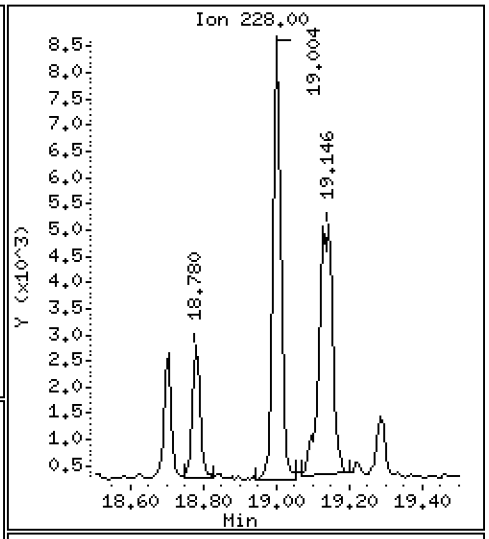
Column phase: Rxi-17Sil MS

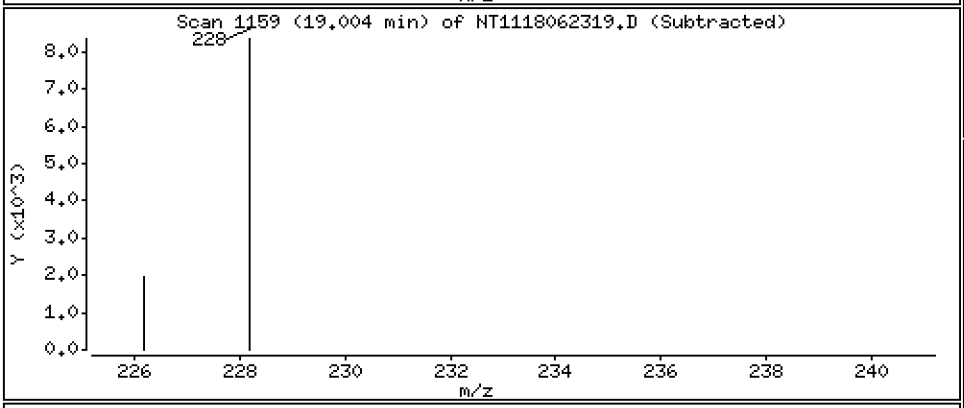
Column diameter: 0.25

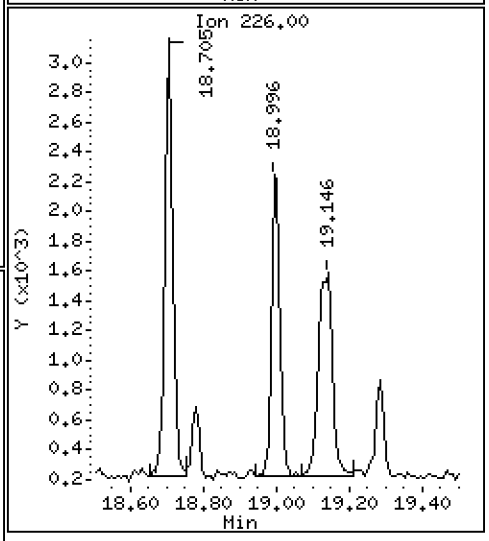
27 Benzo(a)anthracene

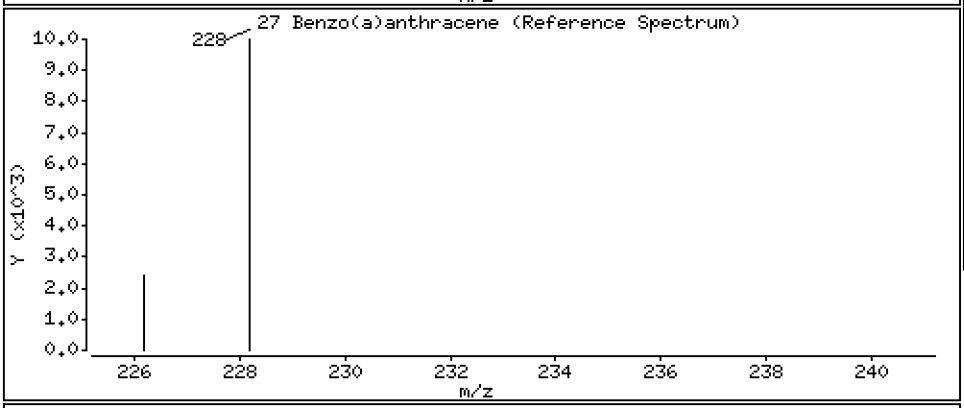
Concentration: 5.19 ng/mL

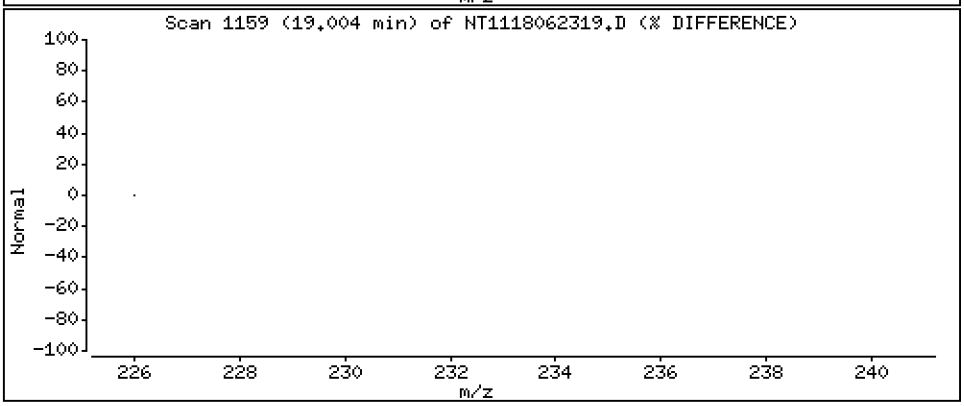












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062319.D

Date : 23-JUN-2018 21:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02

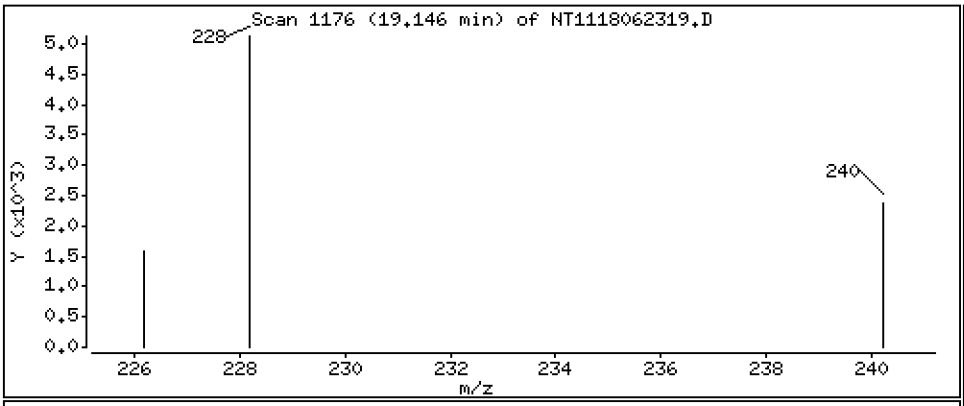
Operator: VTS

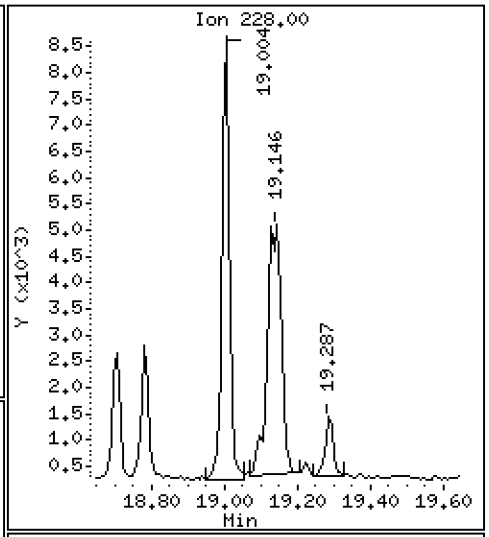
Column phase: Rxi-17Sil MS

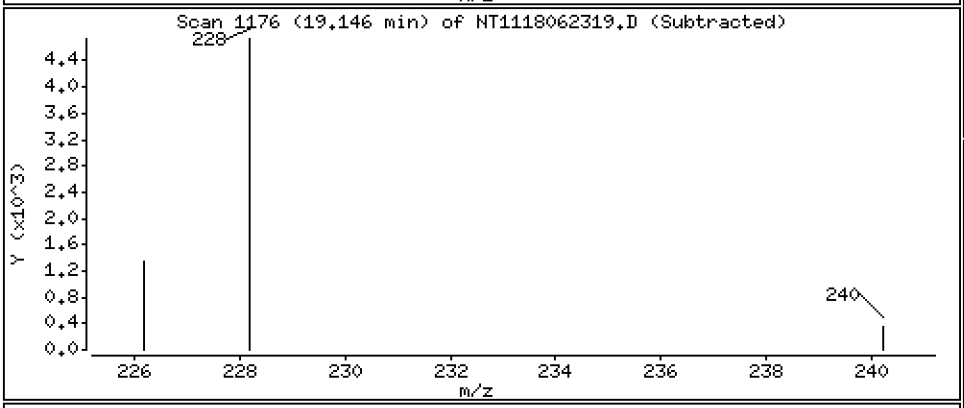
Column diameter: 0.25

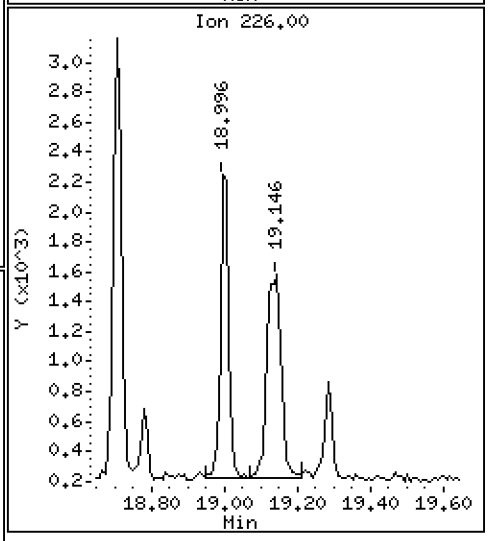
29 Chrysene

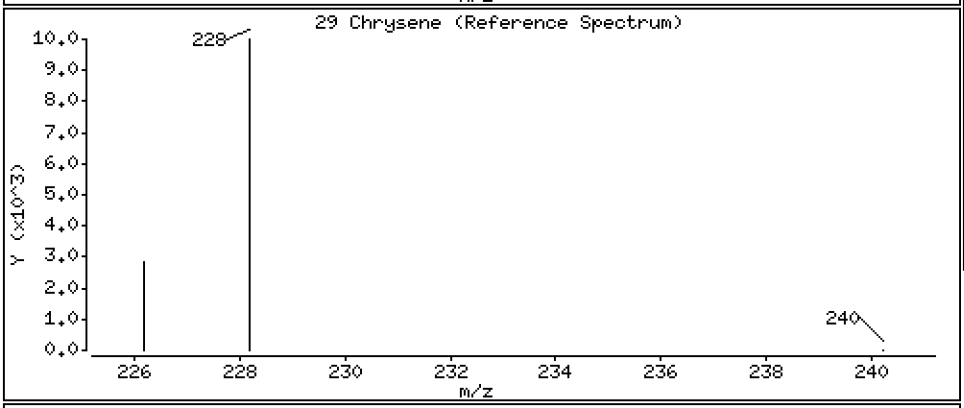
Concentration: 5.34 ng/mL

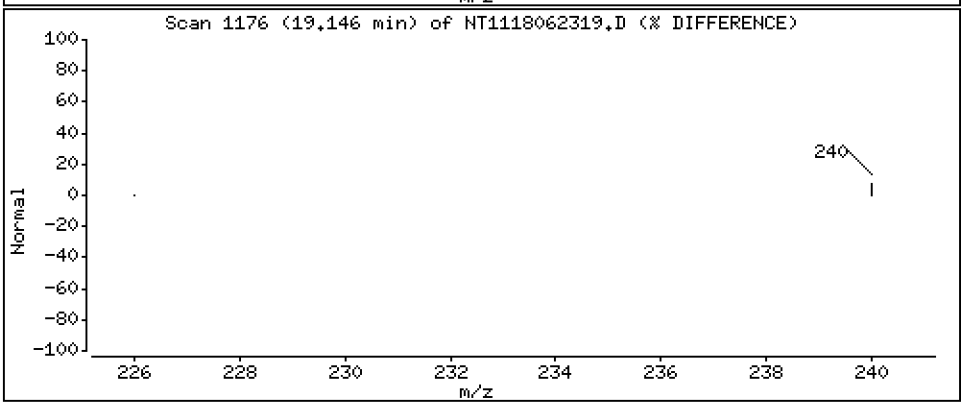












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180623.b\NT1118062319.D
Lab Smp Id: 18F0208-02
Inj Date : 23-JUN-2018 21:50 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0208-02
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180623.b\LOWSIM.m
Meth Date : 23-Jun-2018 13:20 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	439048	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	667776	229.825	230
	3 Benzo(b)thiophene	134	8.897	8.897	(1.034)	187535	81.4897	81.5
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	491538	196.219	196
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	107593	40.2302	40.2
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	367127	138.027	138
	7 2-Chloronaphthalene	162	10.579	10.569	(0.909)	13106	5.31023	5.31(M)
	8 Biphenyl	154	10.527	10.527	(0.904)	231837	78.5307	78.5
	9 2,6-Dimethylnaphthalene	156	10.579	10.579	(0.909)	82639	35.4197	35.4
	10 Acenaphthylene	152	11.490	11.499	(0.987)	47340	16.7698	16.8
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	237424	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	2342544	1213.26	1210
	13 Dibenzofuran	168	11.908	11.908	(1.023)	1359016	513.791	514
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.540	12.540	(1.077)	1561610	732.113	732
	17 Dibenzothiophene	184	14.172	14.172	(0.988)	178714	71.4149	71.4
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	401858	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	788411	250.149	250
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.435	14.435	(1.007)	182329	61.8809	61.9
	22 Carbazole	167	15.113	15.113	(1.054)	1062805	309.626	310
	23 1-Methylphenanthrene	192	15.384	15.384	(1.073)	42977	14.4317	14.4
$	24 Fluoranthene-d10	212	16.449	16.449	(1.147)	543847	222.953	223
	25 Fluoranthene	202	16.487	16.487	(1.150)	915906	312.927	313
	26 Pyrene	202	16.987	16.996	(0.890)	334932	106.931	107
	27 Benzo(a)anthracene	228	19.004	19.004	(0.995)	12681	5.19100	5.19
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	318605	200.000	
	29 Chrysene	228	19.145	19.145	(1.003)	12954	5.33843	5.34
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	35 Benzo(a)pyrene	252	Compound Not Detected.					
*	36 Perylene-d12	264	22.353	22.353	(1.000)	323377	200.000	
	37 Perylene	252	Compound Not Detected.					
$	38 Dibenzo(a,h)anthracene-d14	292	25.268	25.268	(1.130)	340007	219.717	220
	39 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	40 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	41 Benzo(g,h,i)perylene	276	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118062319.D
Lab Smp Id: 18F0208-02
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180623.b\LOWSIM.m
Misc Info:

Calibration Date: 23-JUN-2018
Calibration Time: 10:32
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	439048	1.79
11 Acenaphthene-d10	260137	130069	520274	237424	-8.73
18 Phenanthrene-d10	427391	213696	854782	401858	-5.97
28 Chrysene-d12	304596	152298	609192	318605	4.60
36 Perylene-d12	263091	131546	526182	323377	22.91

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118062319.D

Lab ID: 18F0208-02
nt11.i, 20180623.b\LOWSIM.m,   23-JUN-2018 21:50

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

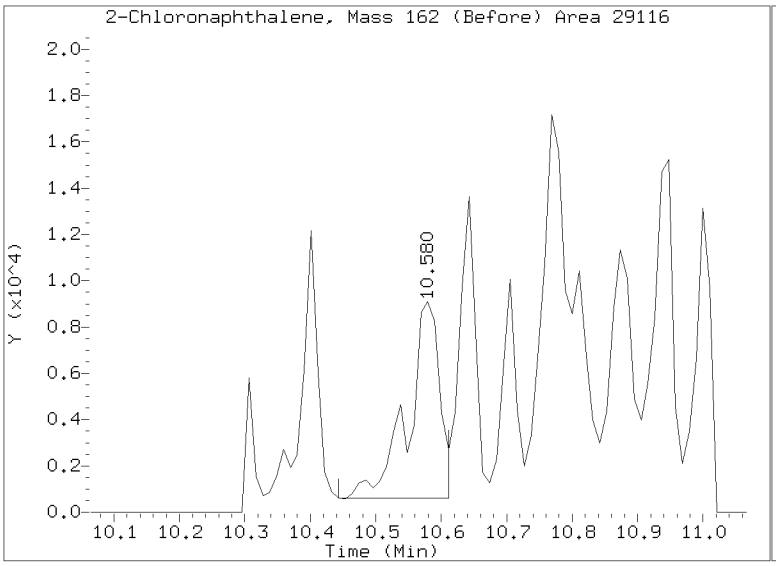
On Column LOD for nt11.i, 20180623.b\LOWSIM.m, allpna.sub = 0.0000

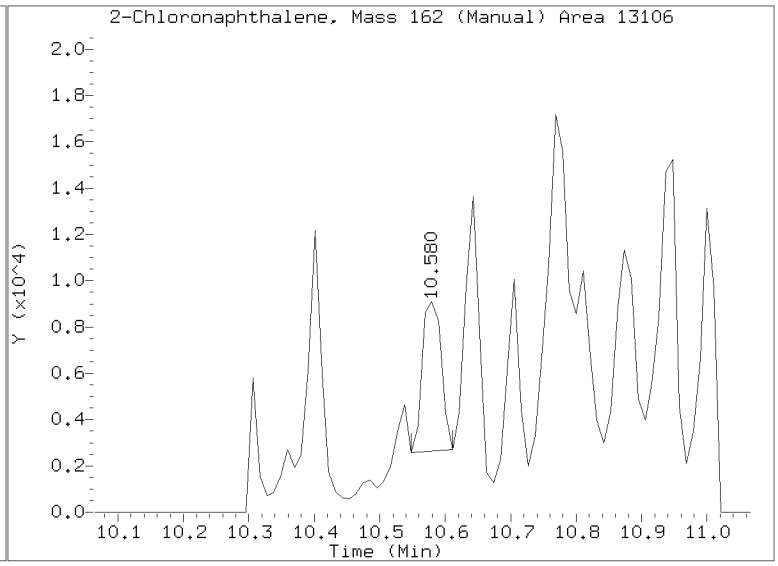
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20180623.b/NT1118062319.D
Injection Date: 23-JUN-2018 21:50
Lab ID:18F0208-02 Client ID:
Report Date: 06/26/2018 09:20





Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-33

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-02RE1	SDG:	18F0185
Sampled:	06/13/18 12:17	Prepared:	06/19/18 17:20	File ID:	NT1118062605.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/27/18 10:06
Batch:	BGF0455	Sequence:	SGF0327	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	2	0.226	D	0.003	0.020
91-57-6	2-Methylnaphthalene	2	0.041	D	0.002	0.020
208-96-8	Acenaphthylene	2	0.018	J, D	0.004	0.020
83-32-9	Acenaphthene	2	1.38	D	0.006	0.020
86-73-7	Fluorene	2	0.795	D	0.003	0.020
85-01-8	Phenanthrene	2	0.273	D	0.003	0.020
120-12-7	Anthracene	2	0.060	D	0.002	0.020
206-44-0	Fluoranthene	2	0.334	D	0.003	0.020
129-00-0	Pyrene	2	0.112	D	0.002	0.020
56-55-3	Benzo(a)anthracene	2	0.007	J, D	0.002	0.020
218-01-9	Chrysene	2	0.006	J, D	0.002	0.020
205-99-2	Benzo(b)fluoranthene	2	0.004	J, D	0.0009	0.020
207-08-9	Benzo(k)fluoranthene	2	0.020	U	0.006	0.020
205-82-3	Benzo(j)fluoranthene	2	0.020	U	0.004	0.020
50-32-8	Benzo(a)pyrene	2	0.020	U	0.005	0.020
193-39-5	Indeno(1,2,3-cd)pyrene	2	0.020	U	0.002	0.020
53-70-3	Dibenzo(a,h)anthracene	2	0.020	U	0.003	0.020
191-24-2	Benzo(g,h,i)perylene	2	0.020	U	0.003	0.020

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.202	67.4	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.211	70.2	29 - 120	
Fluoranthene-d10	0.30000	0.232	77.5	57 - 120	

Data File: \\target\share\chem3\nt11.i\20180627.b\NT1118062605.D

Date : 27-JUN-2018 10:06

Client ID:

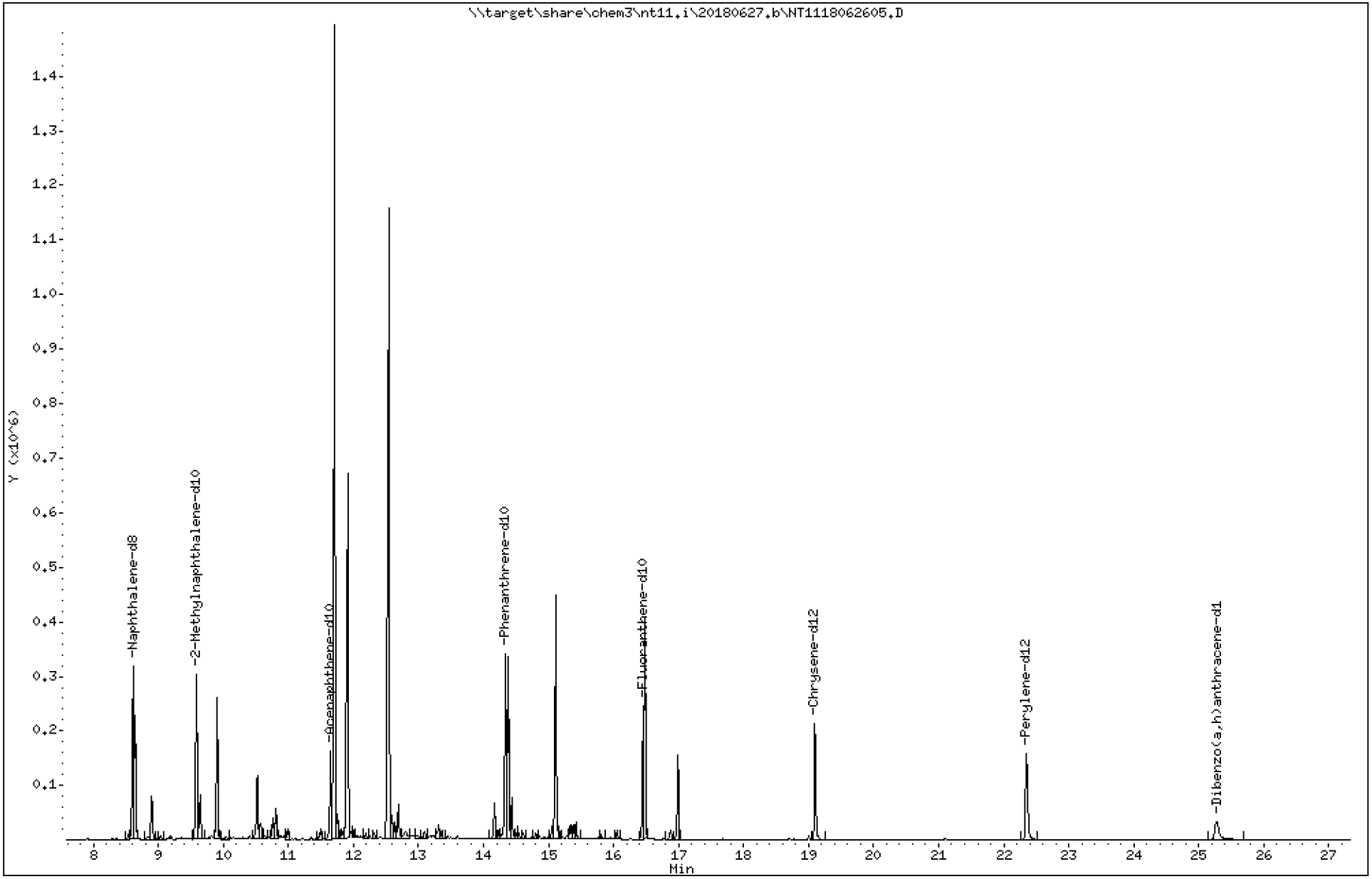
Instrument: nt11.i

Sample Info: 18F0208-02RE1,2

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 27-JUN-2018 10:06

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02RE1,2

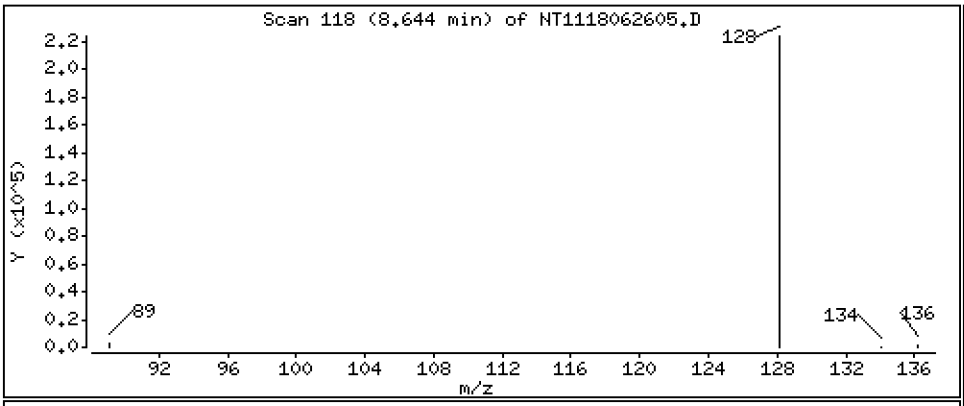
Operator: VTS

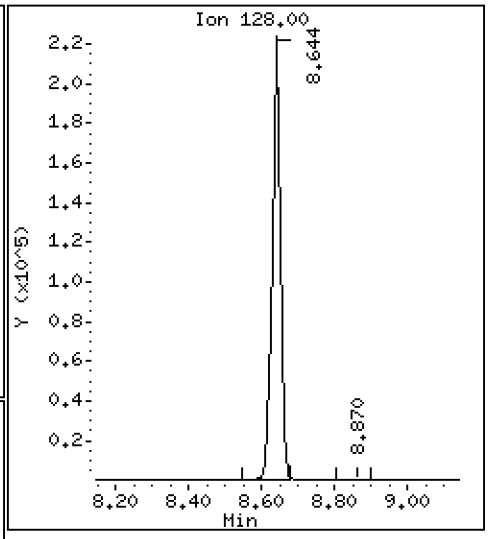
Column phase: Rxi-17Sil MS

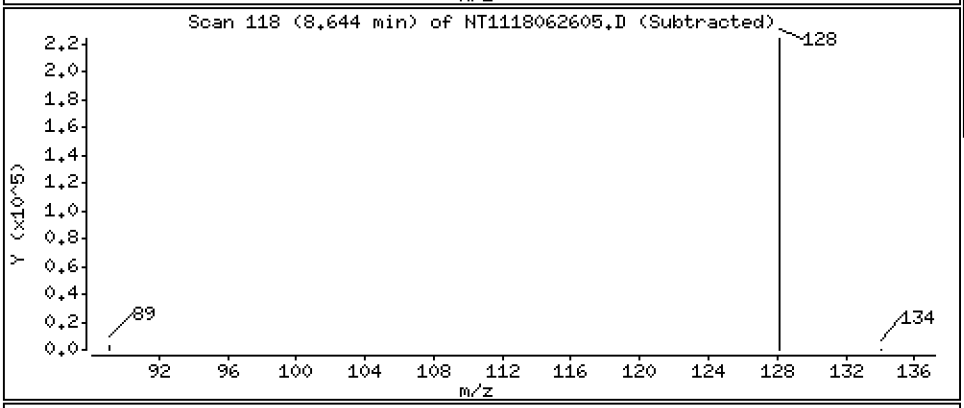
Column diameter: 0.25

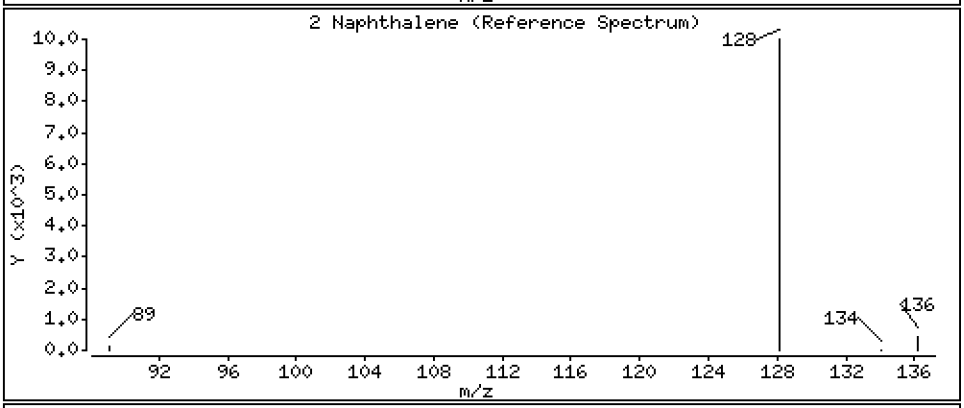
2 Naphthalene

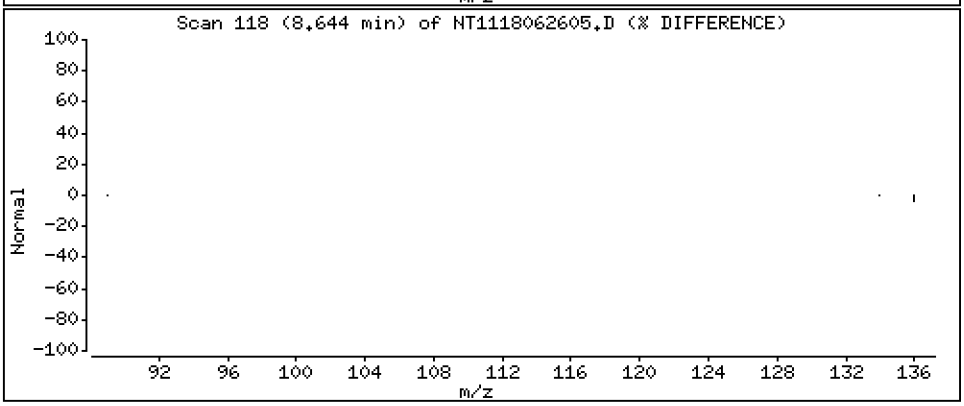
Concentration: 226 ng/mL











Data File: \\target\share\chem3\nt11.i\20180627.b\NT1118062605.D

Date : 27-JUN-2018 10:06

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02RE1,2

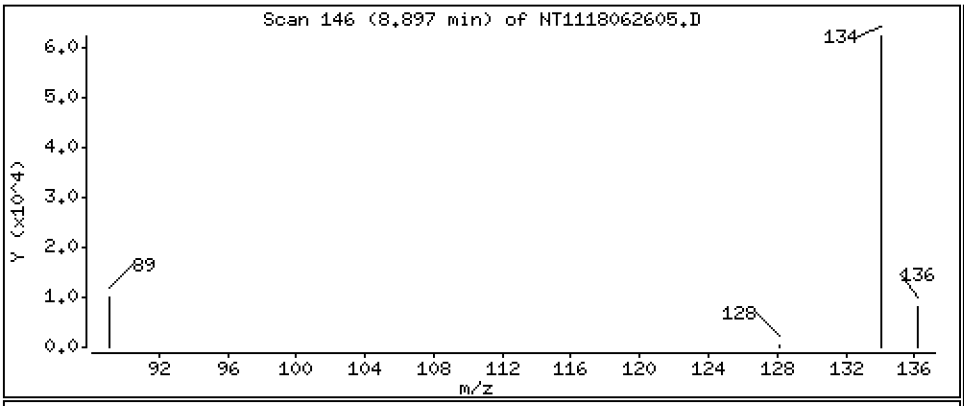
Operator: VTS

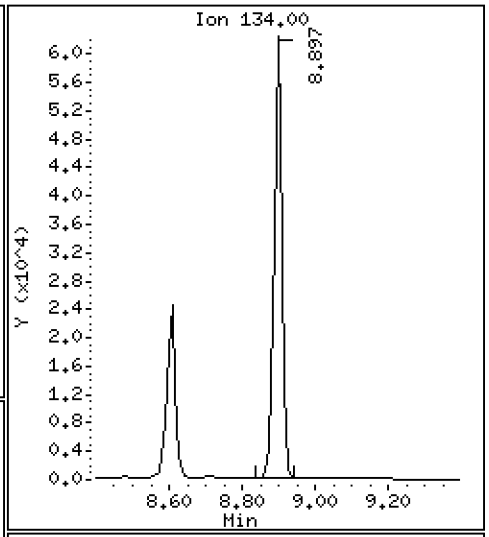
Column phase: Rxi-17Sil MS

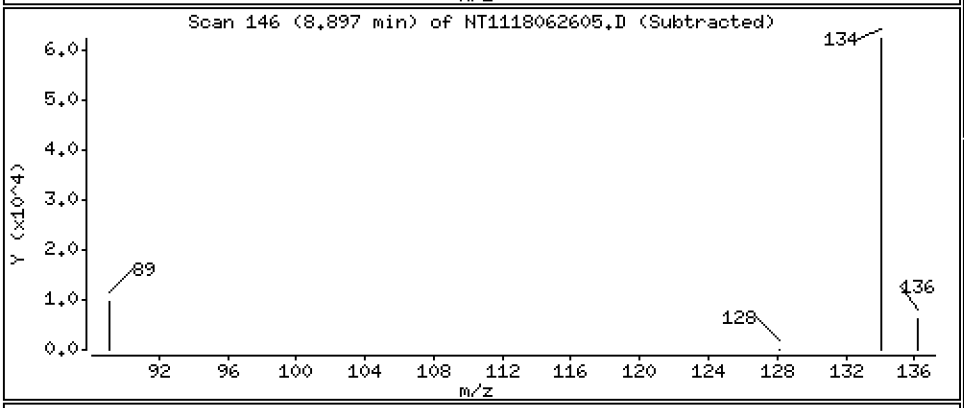
Column diameter: 0.25

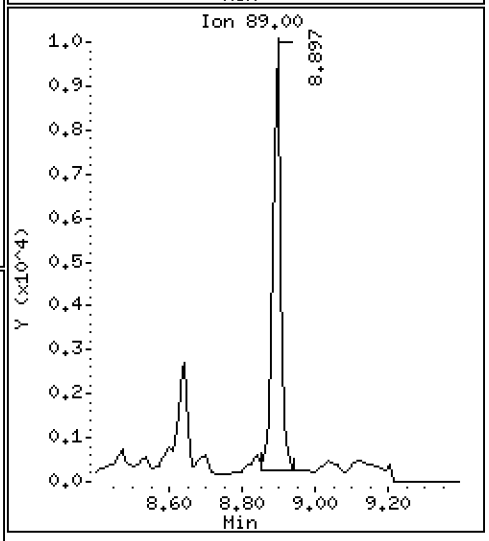
3 Benzo(b)thiophene

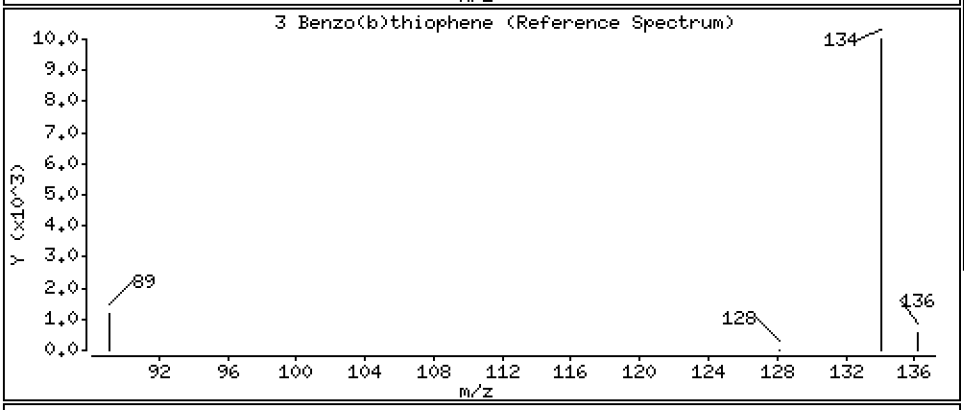
Concentration: 82.8 ng/mL

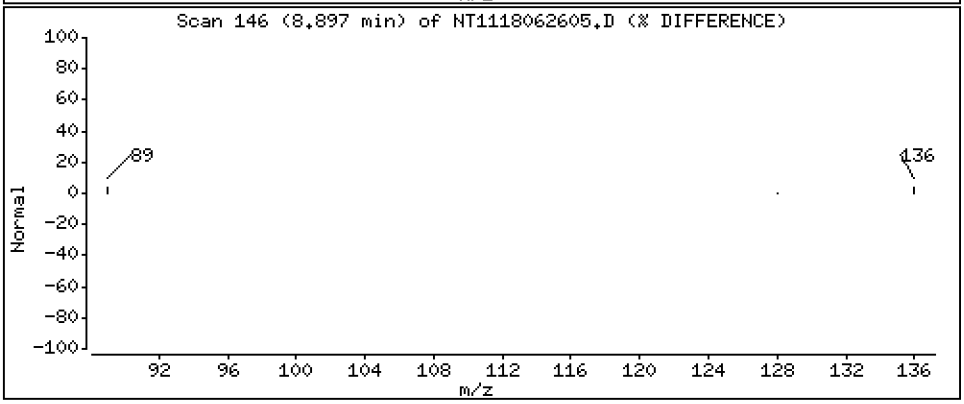












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Date : 27-JUN-2018 10:06

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02RE1,2

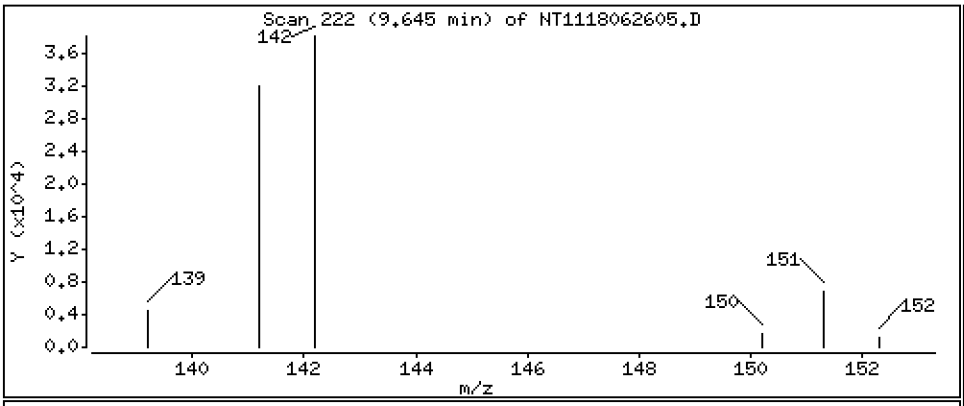
Operator: VTS

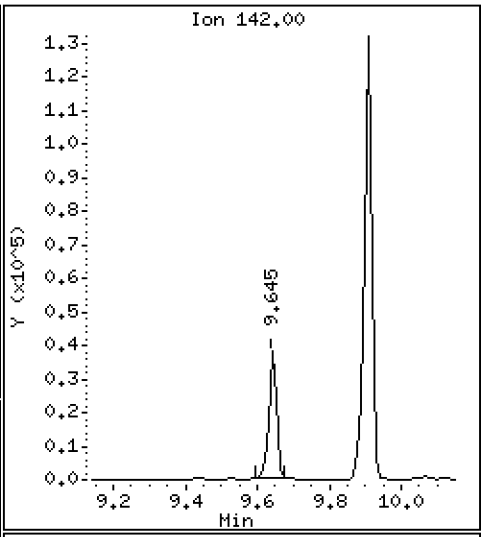
Column phase: Rxi-17Sil MS

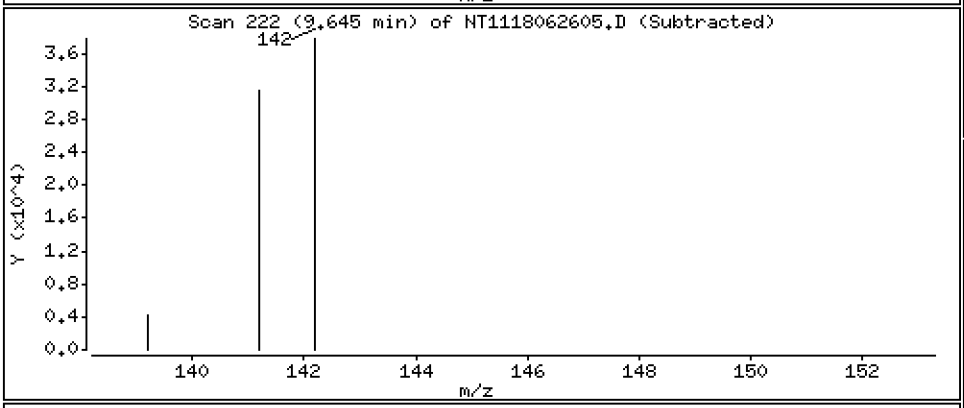
Column diameter: 0.25

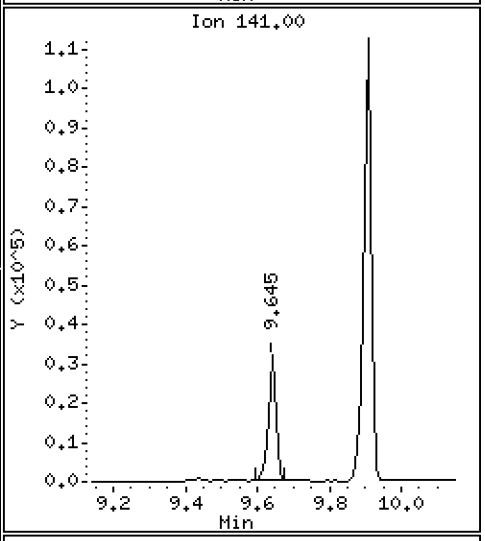
5 2-Methylnaphthalene

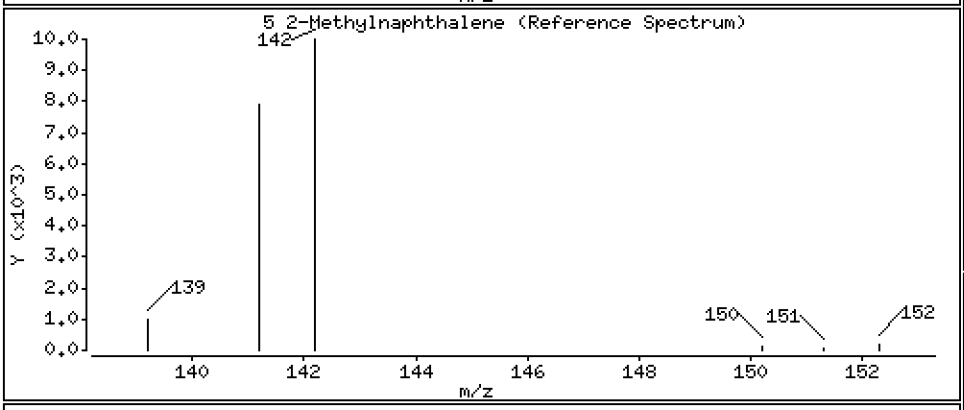
Concentration: 41.2 ng/mL

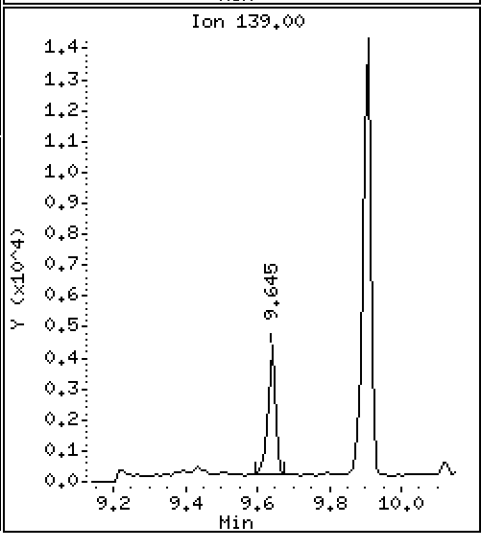


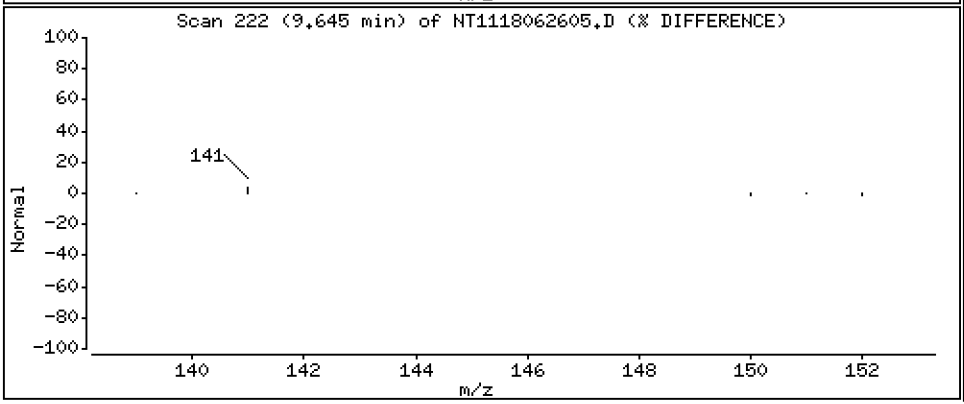












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Date : 27-JUN-2018 10:06

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02RE1,2

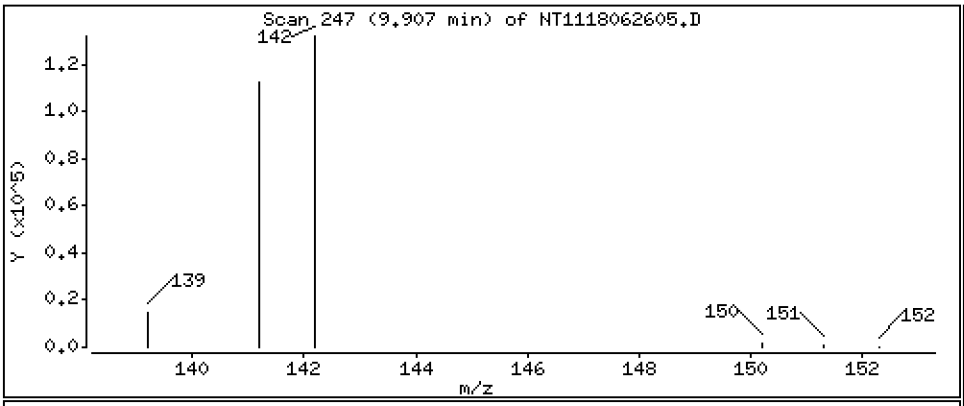
Operator: VTS

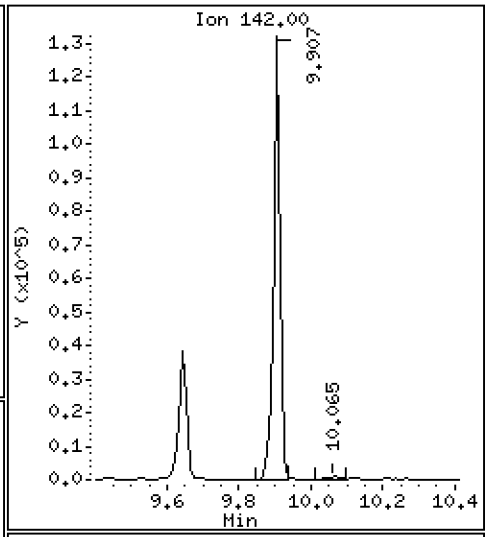
Column phase: Rxi-17Sil MS

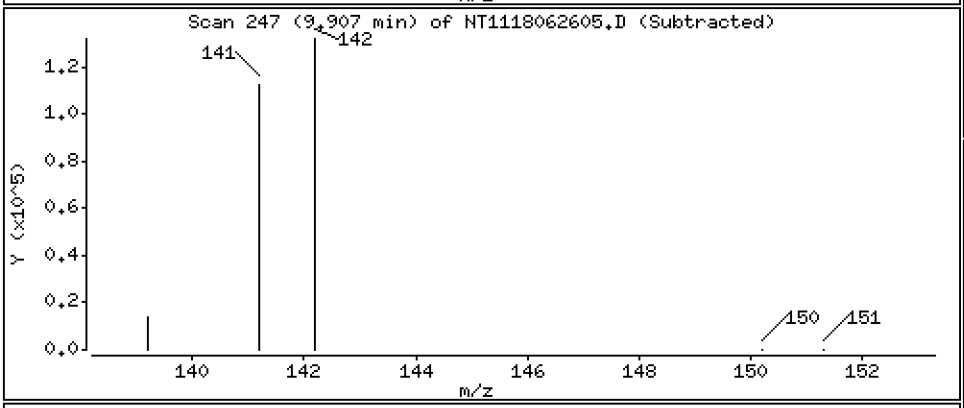
Column diameter: 0.25

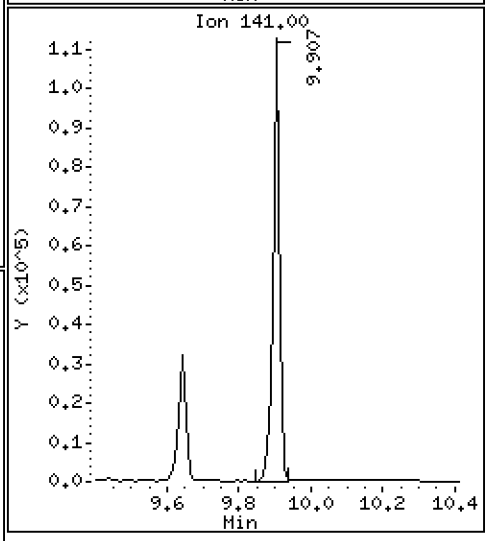
6 1-Methylnaphthalene

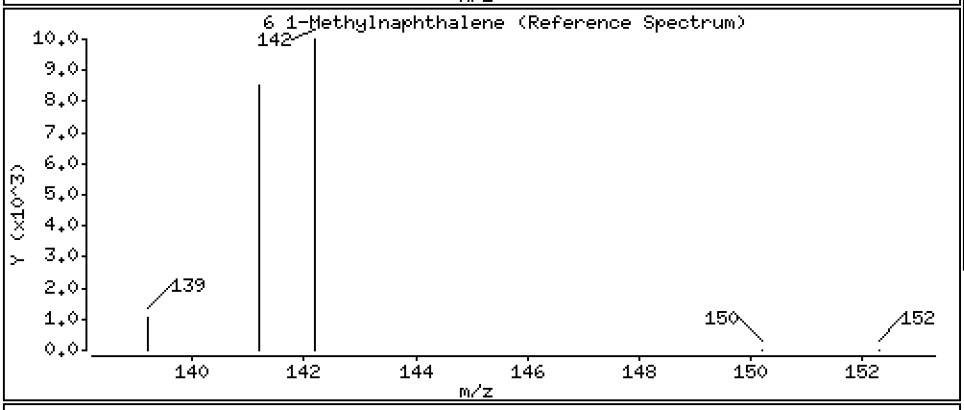
Concentration: 141 ng/mL

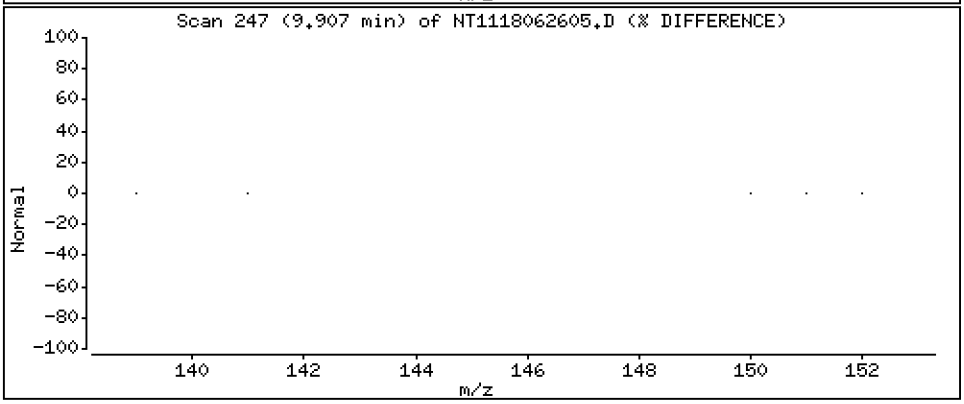












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Date : 27-JUN-2018 10:06

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02RE1,2

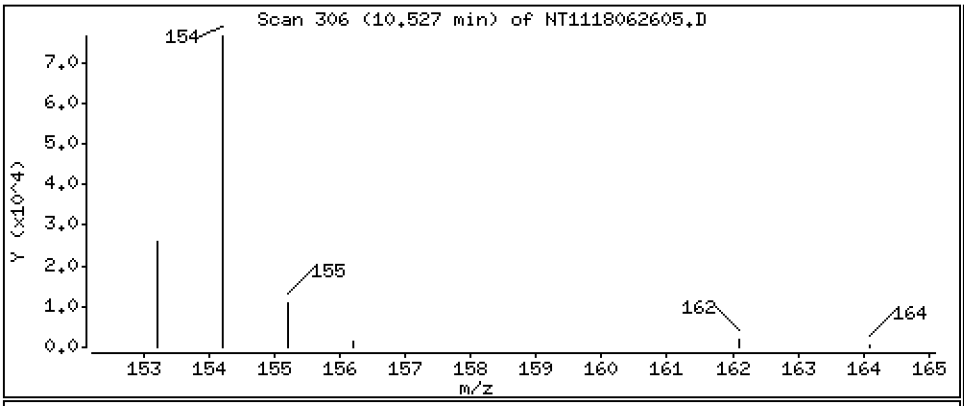
Operator: VTS

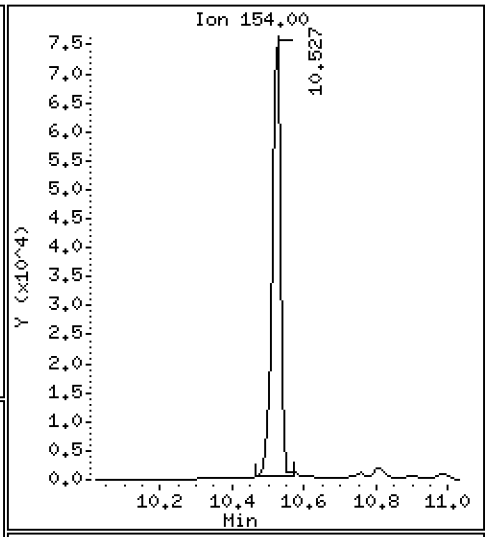
Column phase: Rxi-17Sil MS

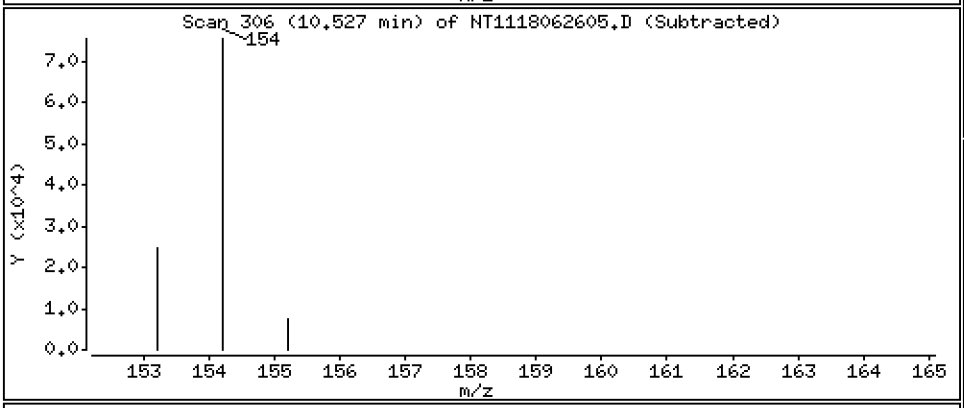
Column diameter: 0.25

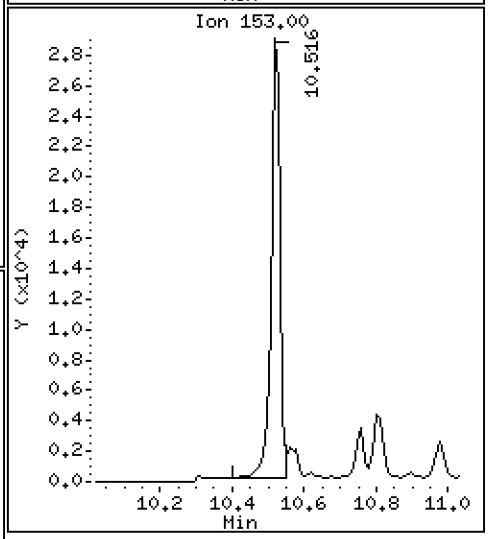
8 Biphenyl

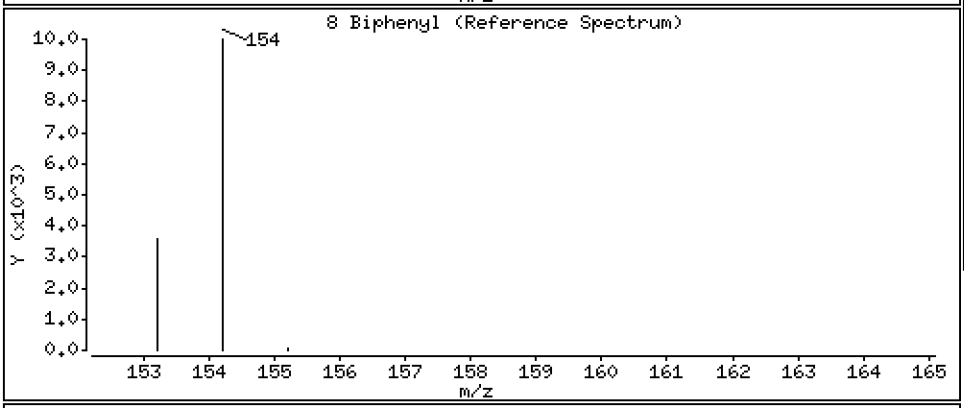
Concentration: 82.7 ng/mL

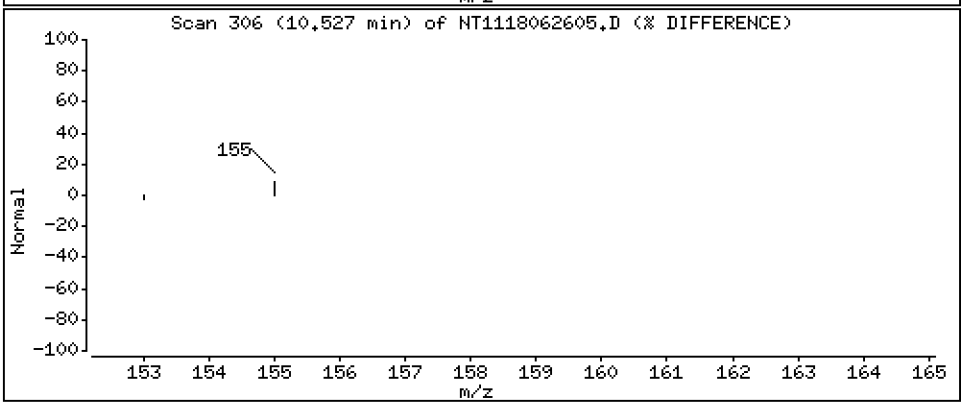












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Date : 27-JUN-2018 10:06

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02RE1,2

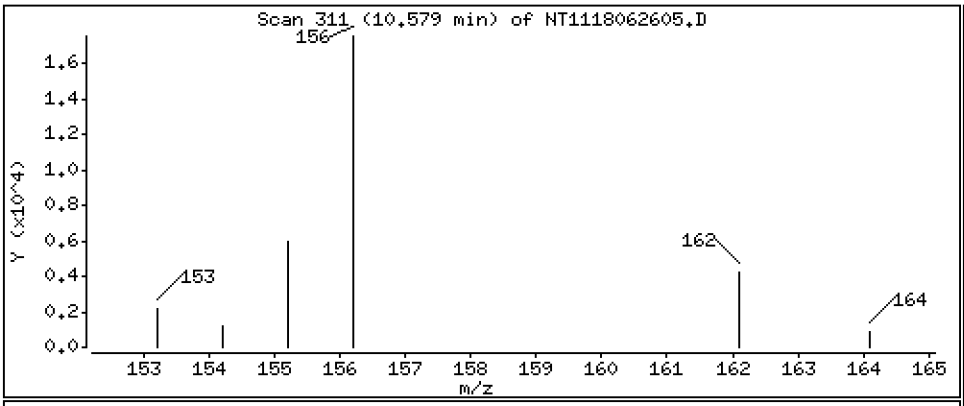
Operator: VTS

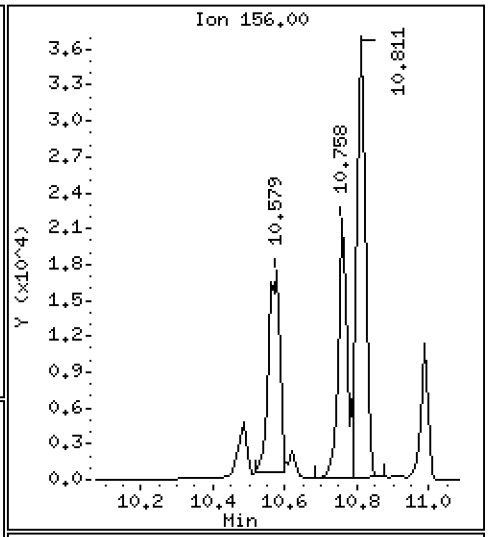
Column phase: Rxi-17Sil MS

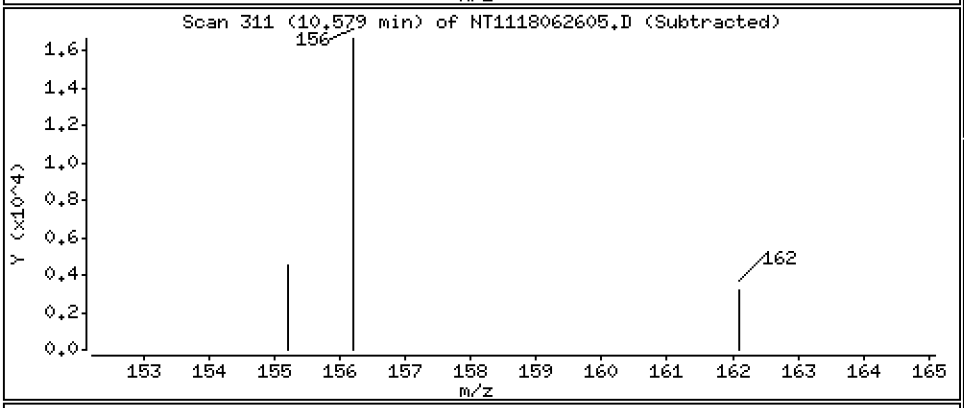
Column diameter: 0.25

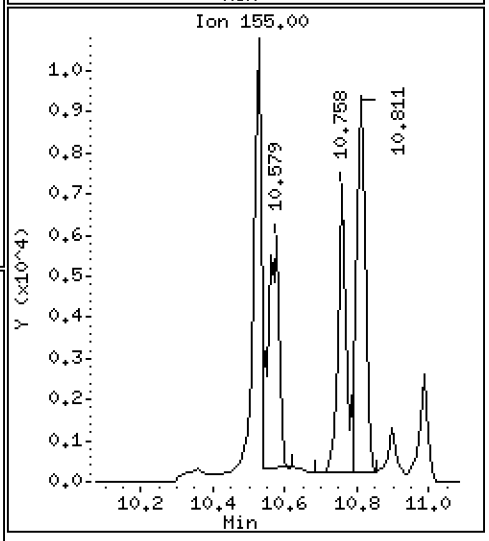
9 2,6-Dimethylnaphthalene

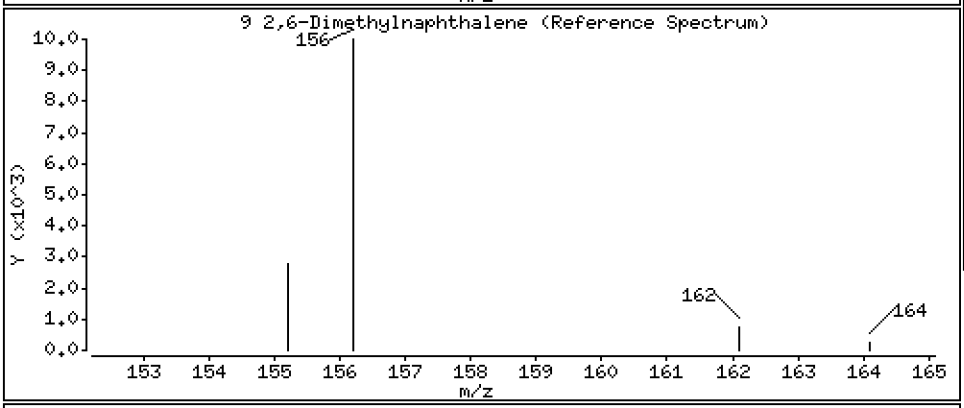
Concentration: 36.1 ng/mL

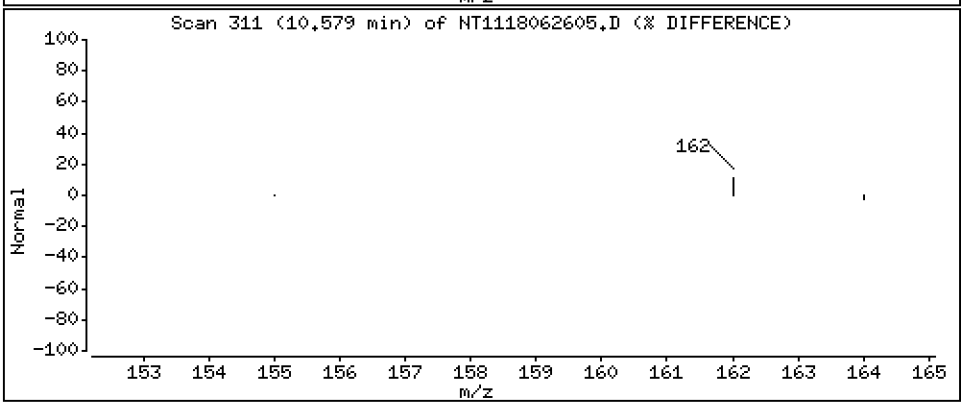












Data File: \\target\share\chem3\nt11.i\20180627.b\NT1118062605.D

Date : 27-JUN-2018 10:06

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02RE1,2

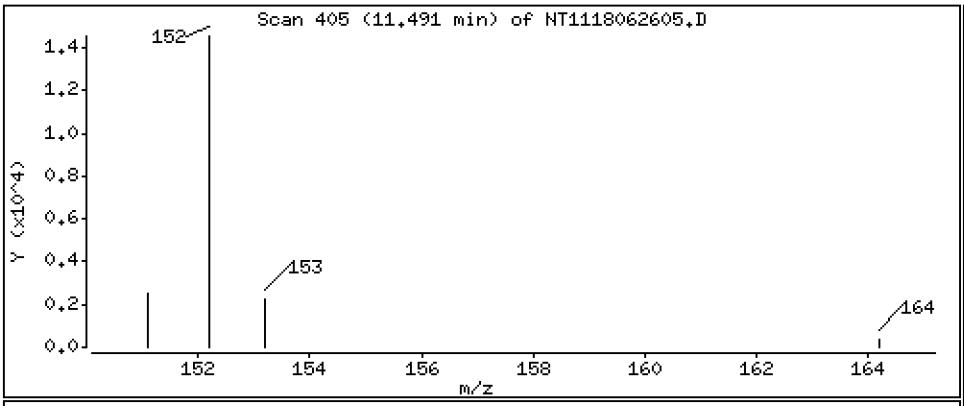
Operator: VTS

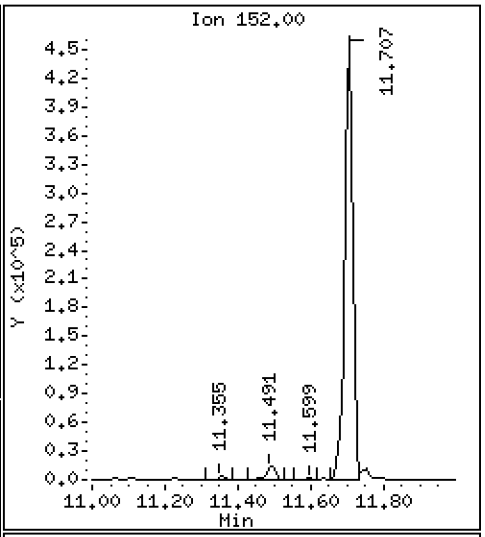
Column phase: Rxi-17Sil MS

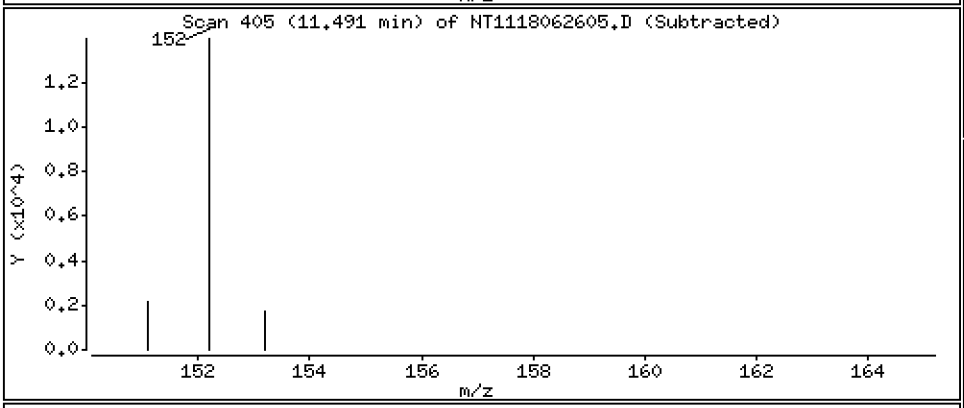
Column diameter: 0.25

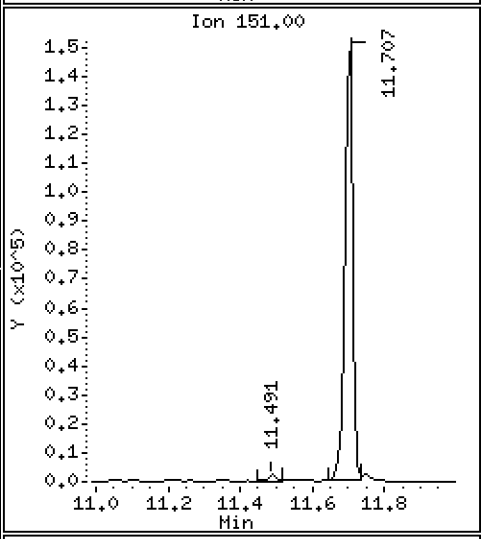
10 Acenaphthylene

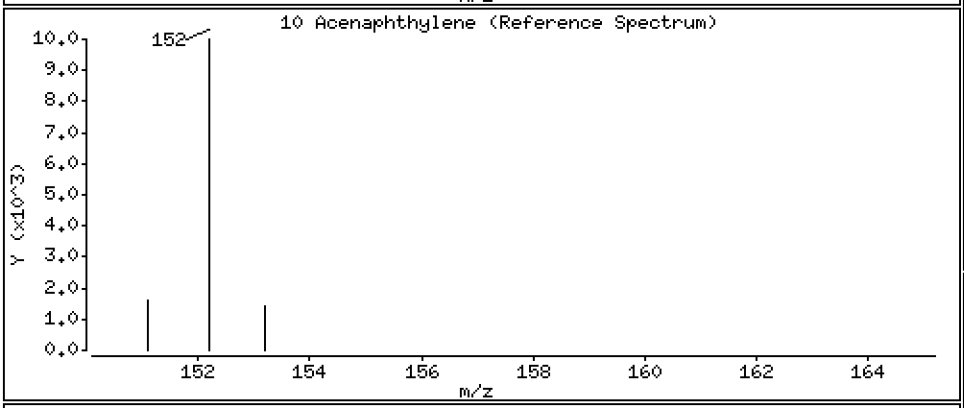
Concentration: 17.8 ng/mL

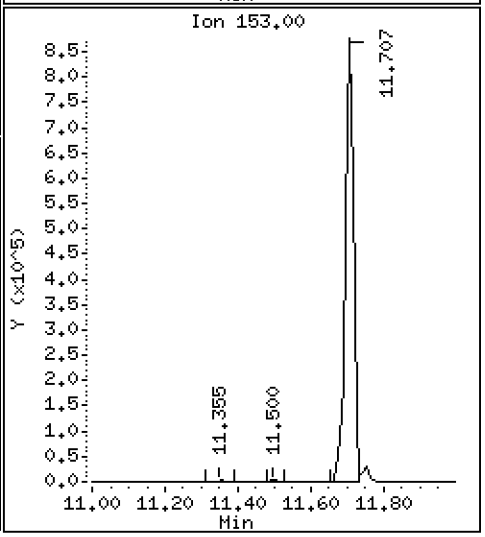


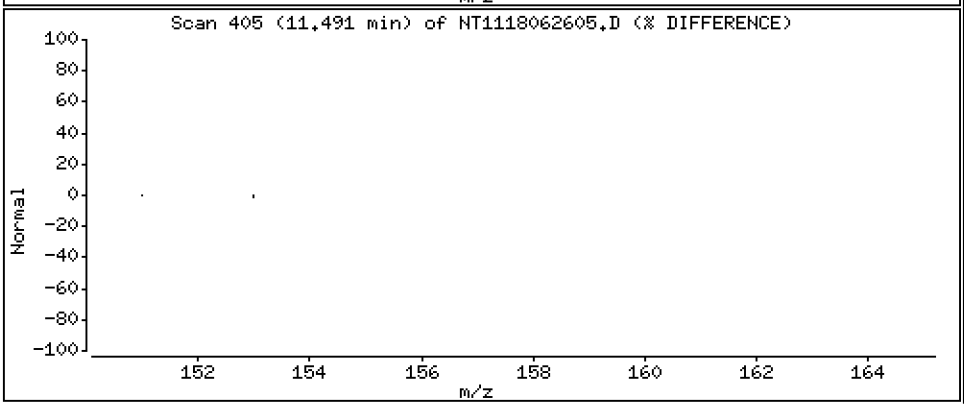












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Date : 27-JUN-2018 10:06

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02RE1,2

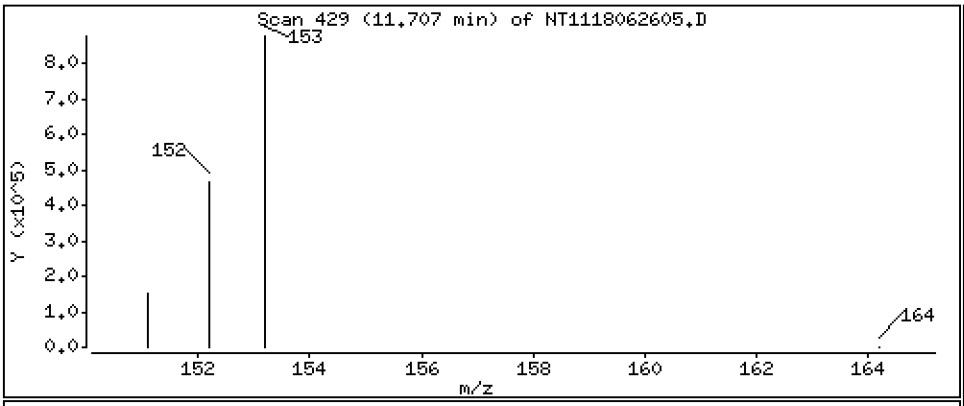
Operator: VTS

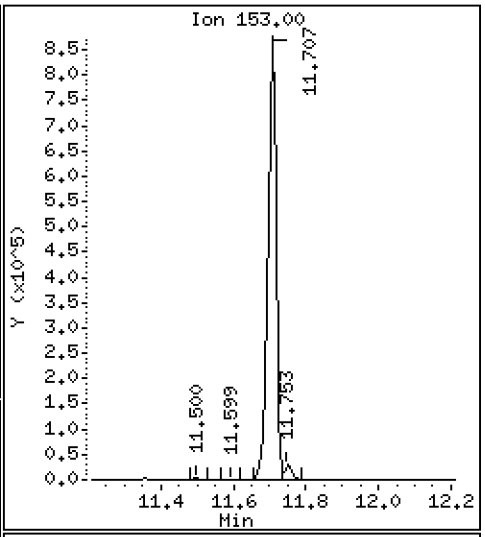
Column phase: Rxi-17Sil MS

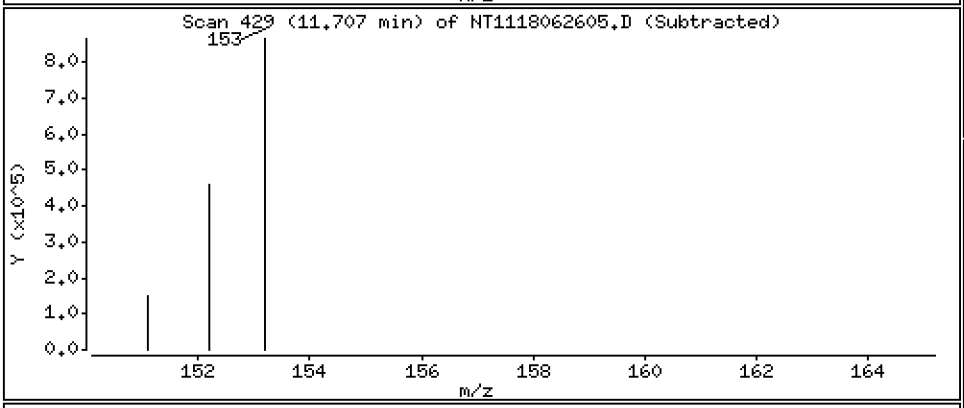
Column diameter: 0.25

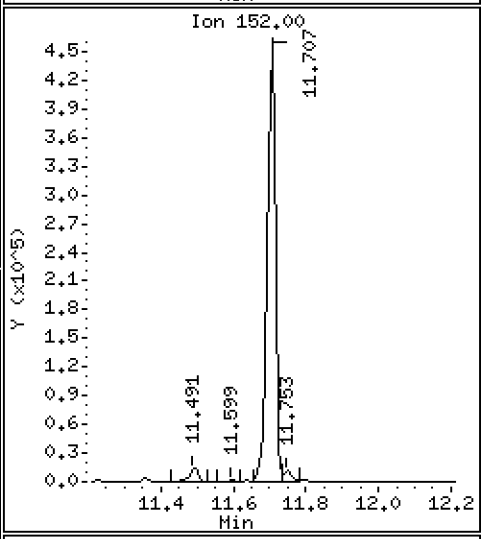
12 Acenaphthene

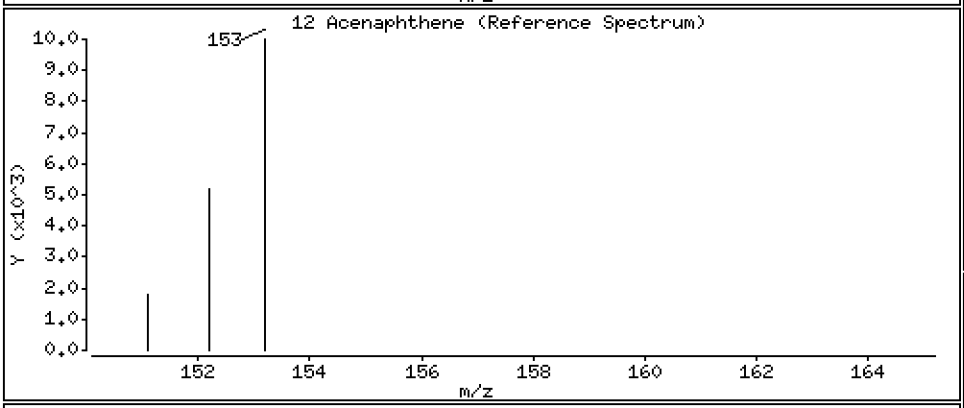
Concentration: 1380 ng/mL

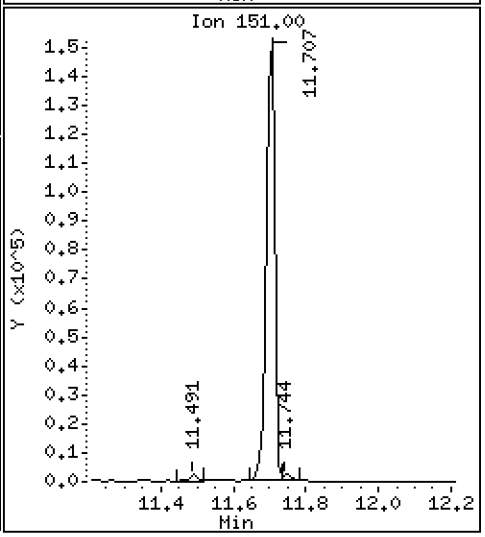


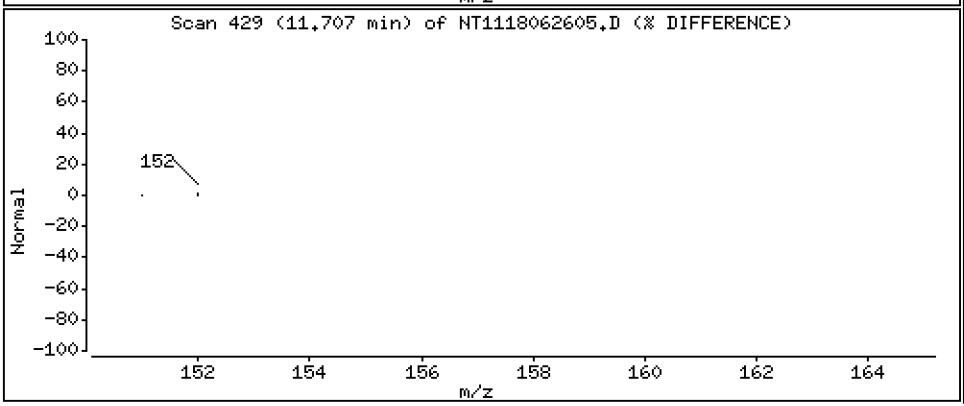












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Date : 27-JUN-2018 10:06

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02RE1,2

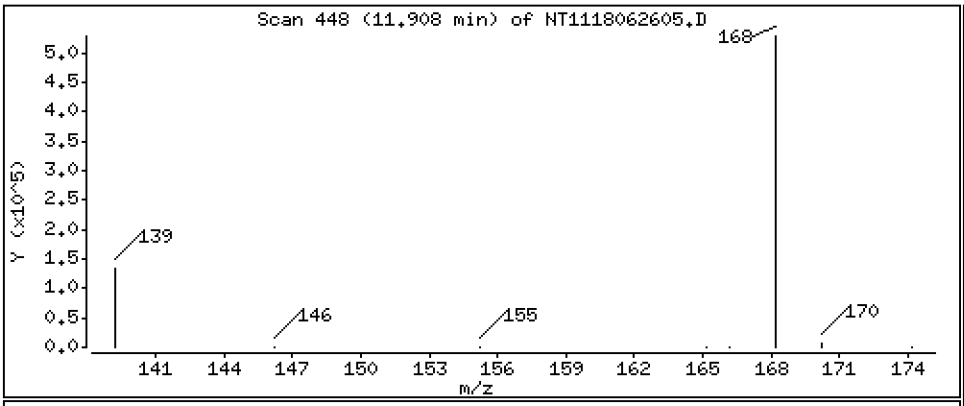
Operator: VTS

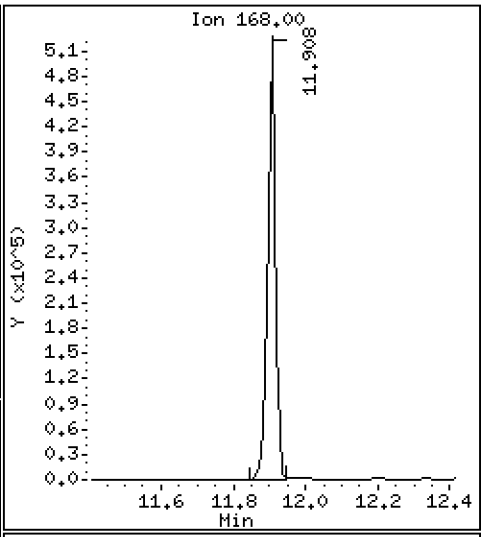
Column phase: Rxi-17Sil MS

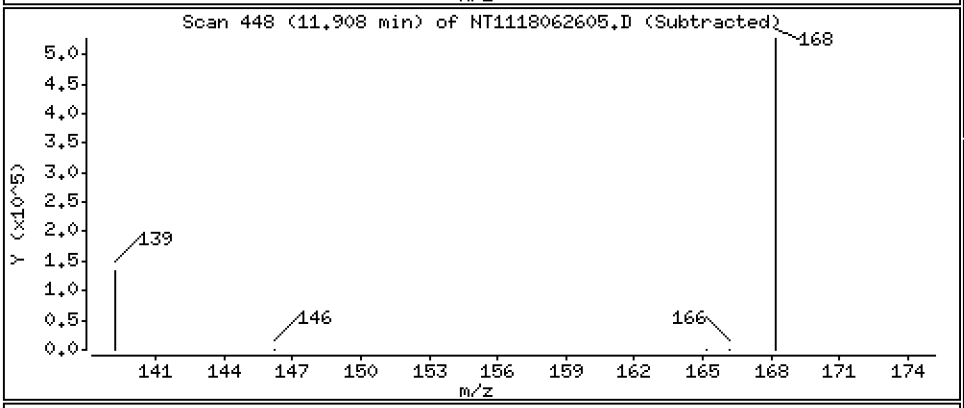
Column diameter: 0.25

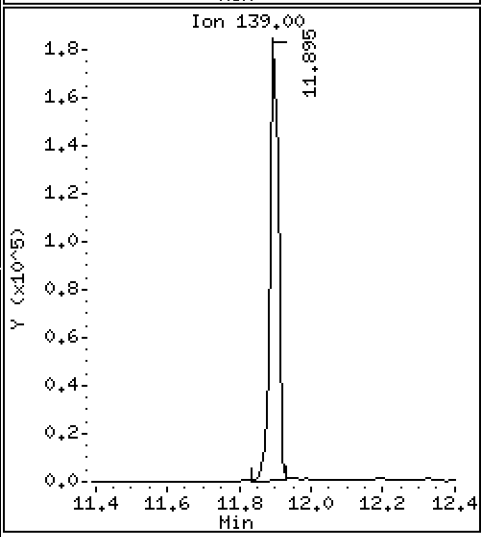
13 Dibenzofuran

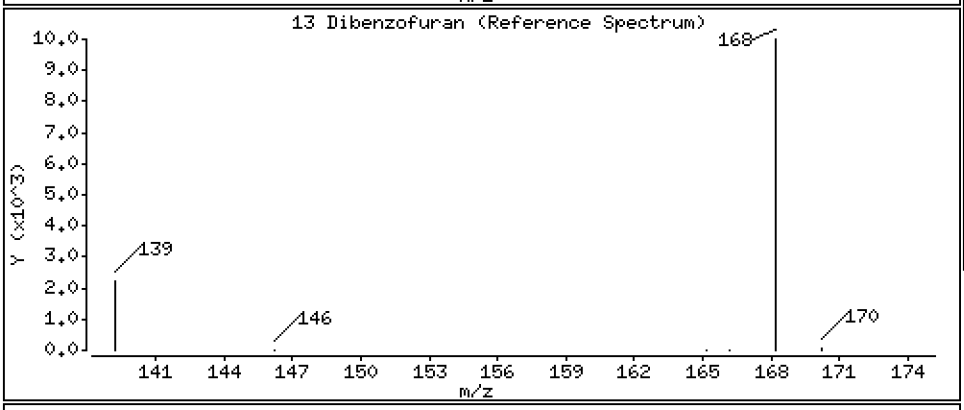
Concentration: 562 ng/mL

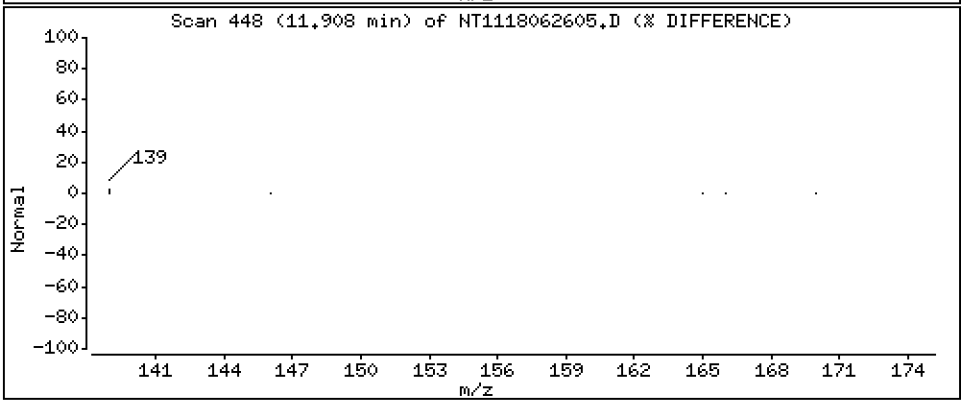












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Date : 27-JUN-2018 10:06

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02RE1,2

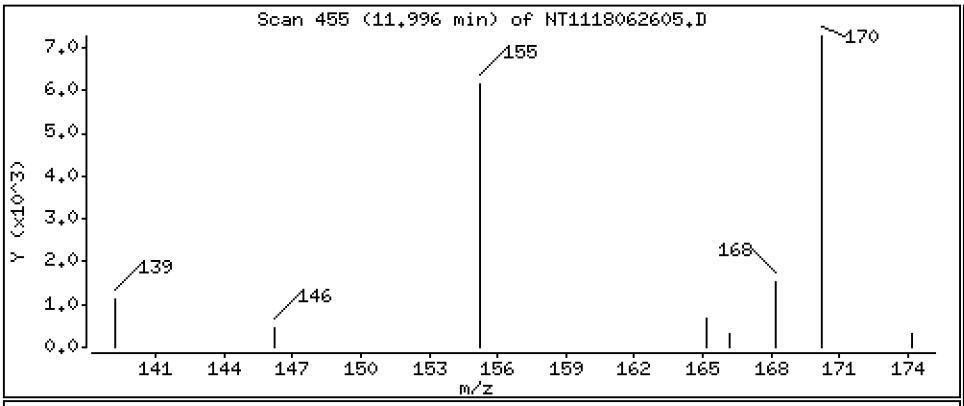
Operator: VTS

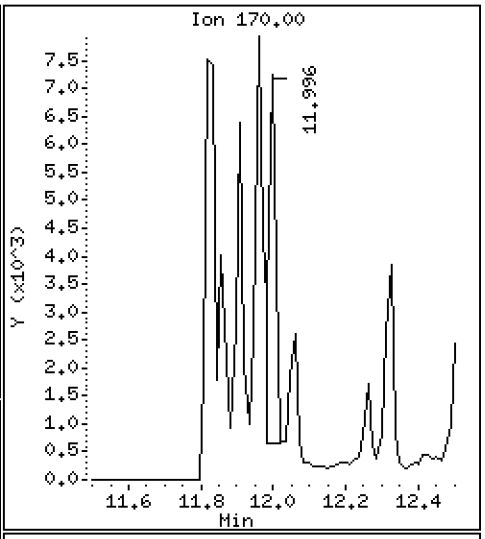
Column phase: Rxi-17Sil MS

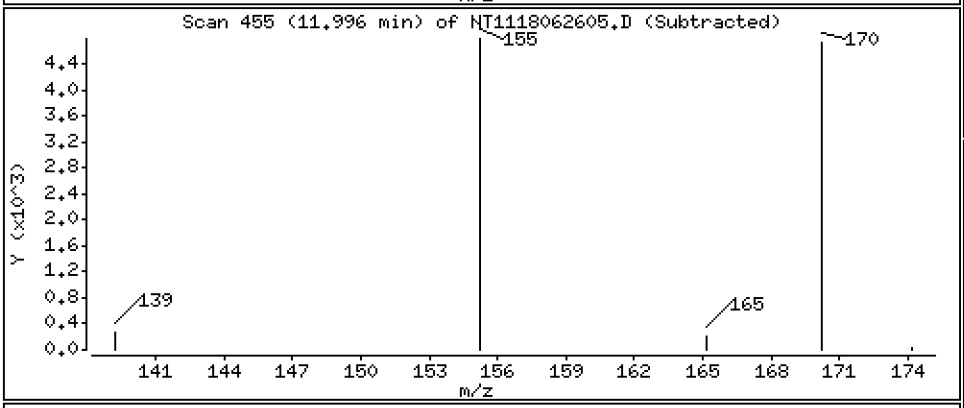
Column diameter: 0.25

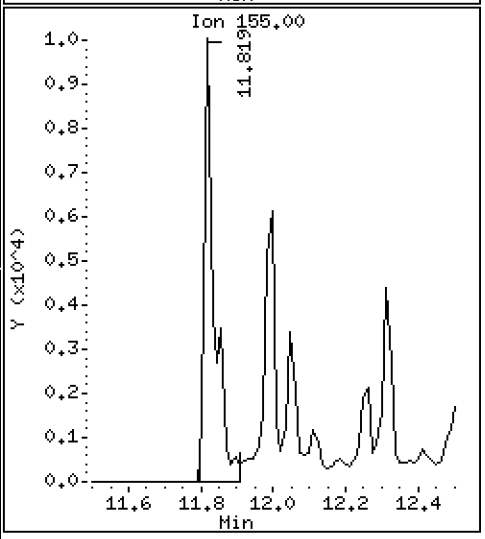
14 2,3,5-Trimethylnaphthalene

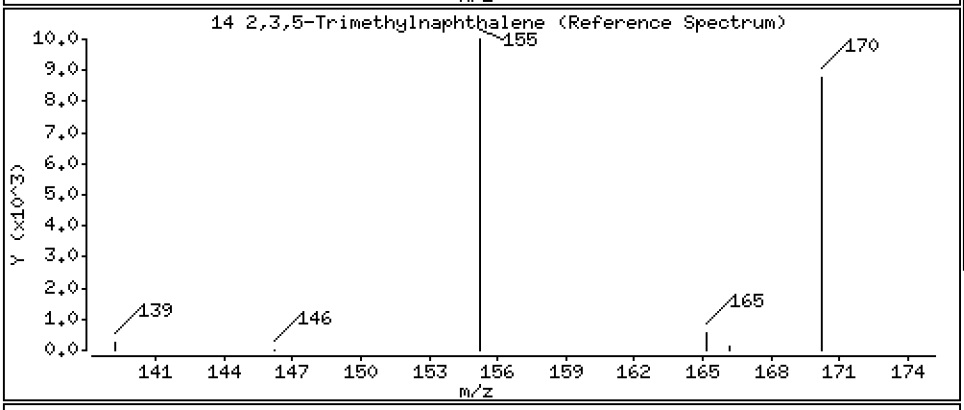
Concentration: 11.1 ng/mL

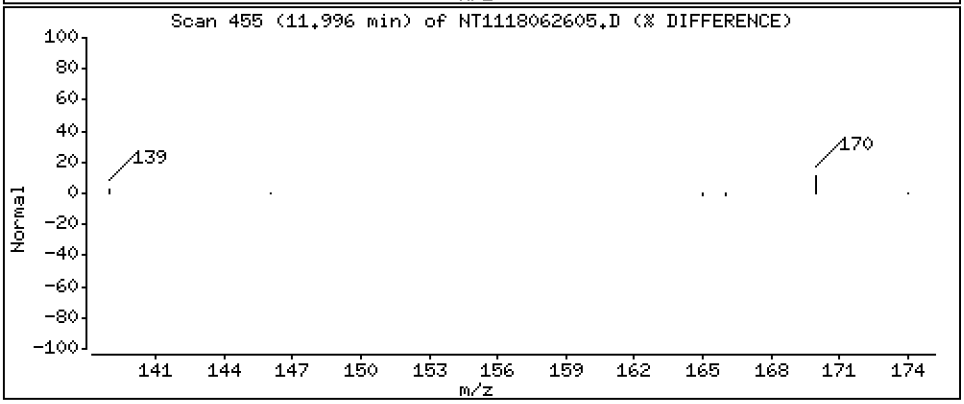












Data File: \\target\share\chem3\nt11.i\20180627.b\NT1118062605.D

Date : 27-JUN-2018 10:06

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02RE1,2

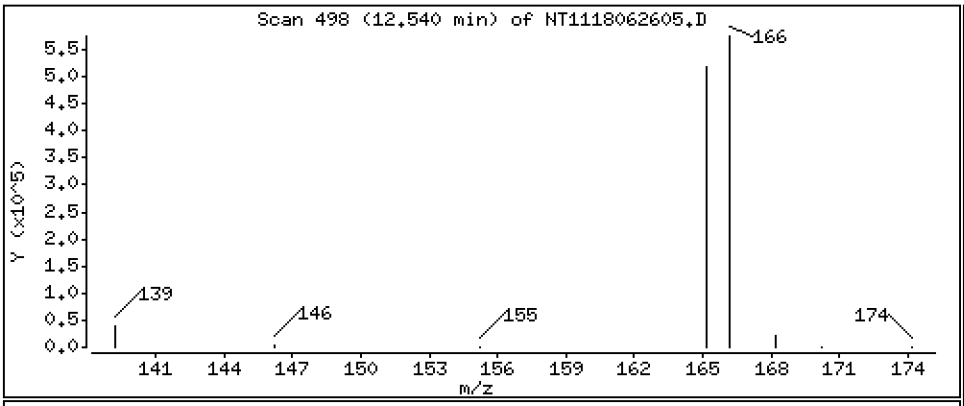
Operator: VTS

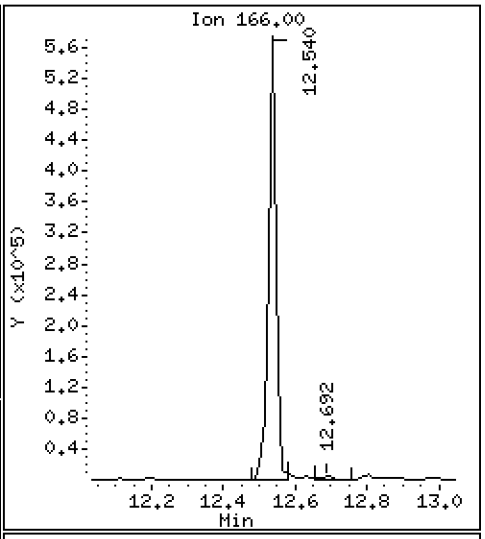
Column phase: Rxi-17Sil MS

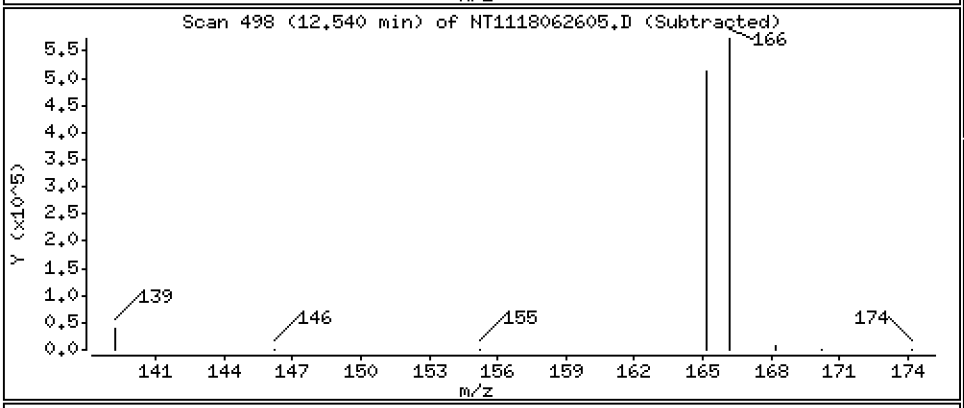
Column diameter: 0.25

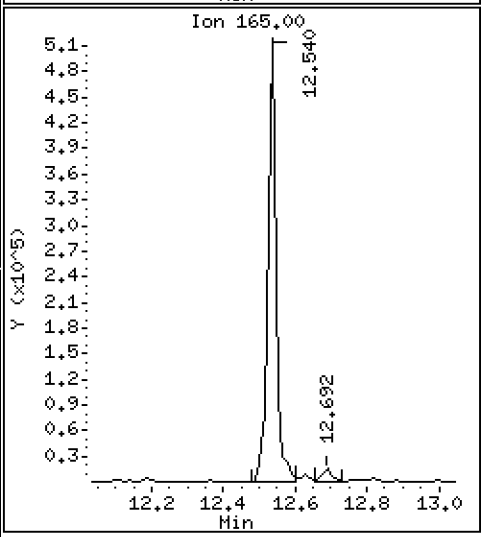
16 Fluorene

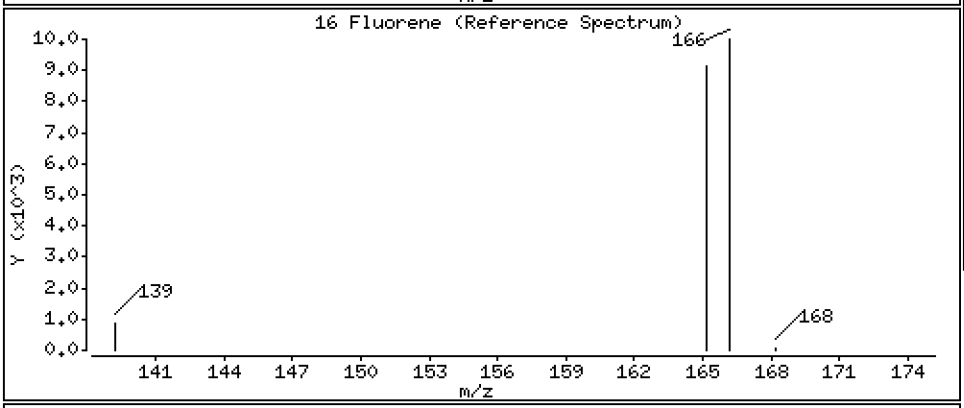
Concentration: 795 ng/mL

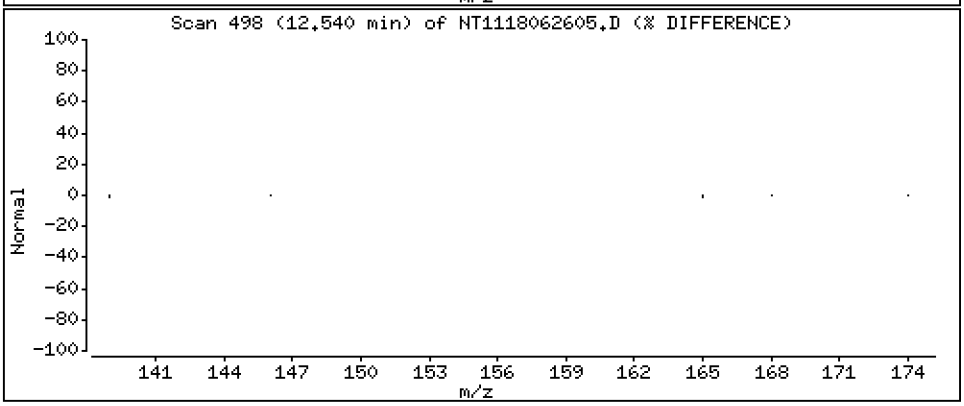












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Date : 27-JUN-2018 10:06

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02RE1,2

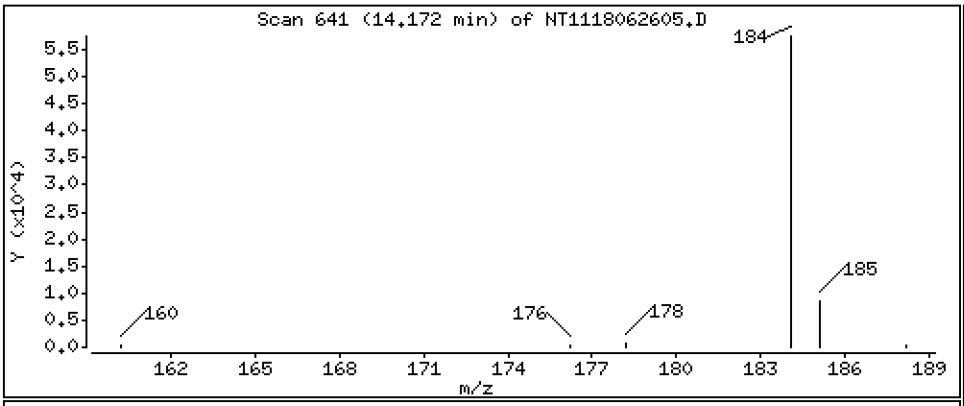
Operator: VTS

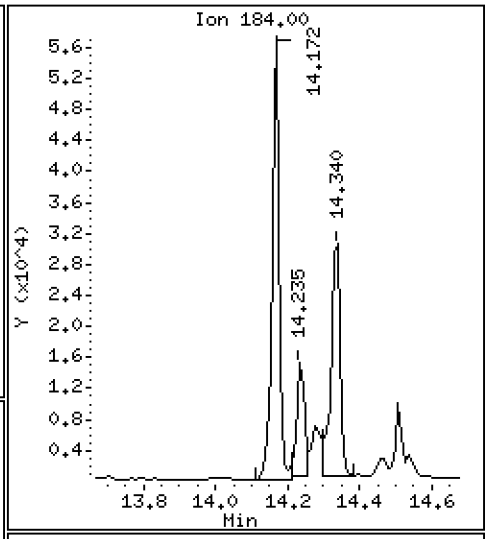
Column phase: Rxi-17Sil MS

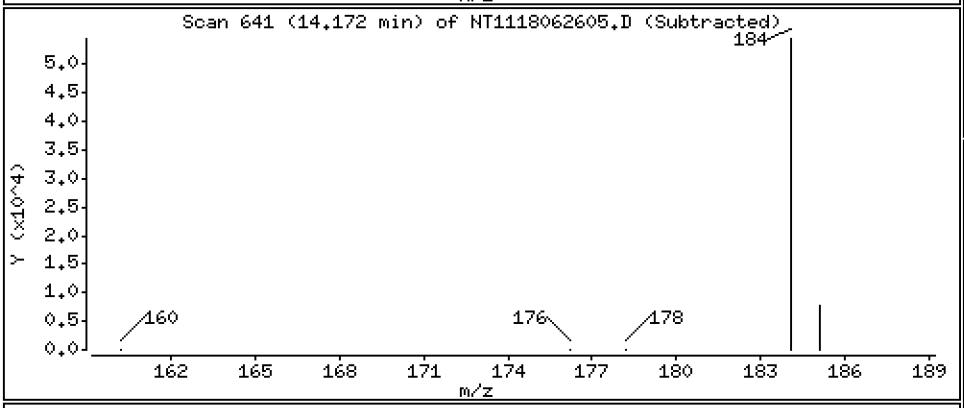
Column diameter: 0.25

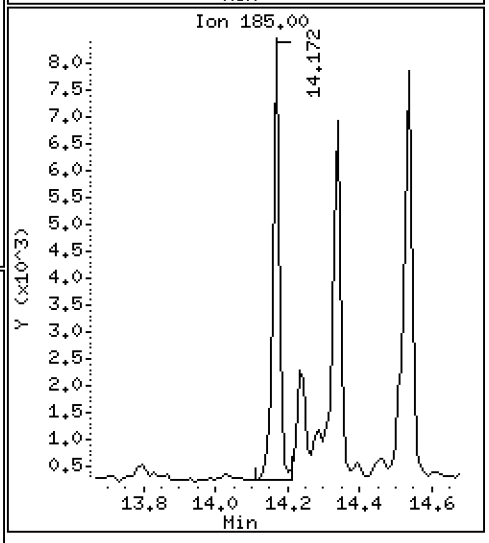
17 Dibenzothiophene

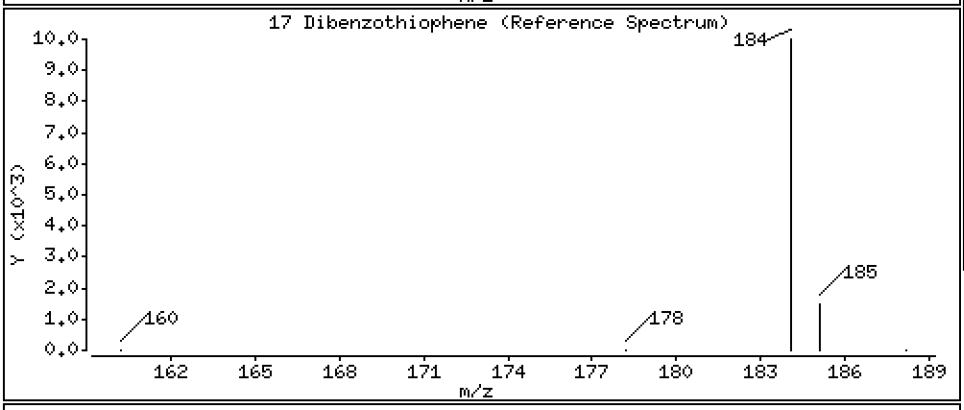
Concentration: 74.9 ng/mL

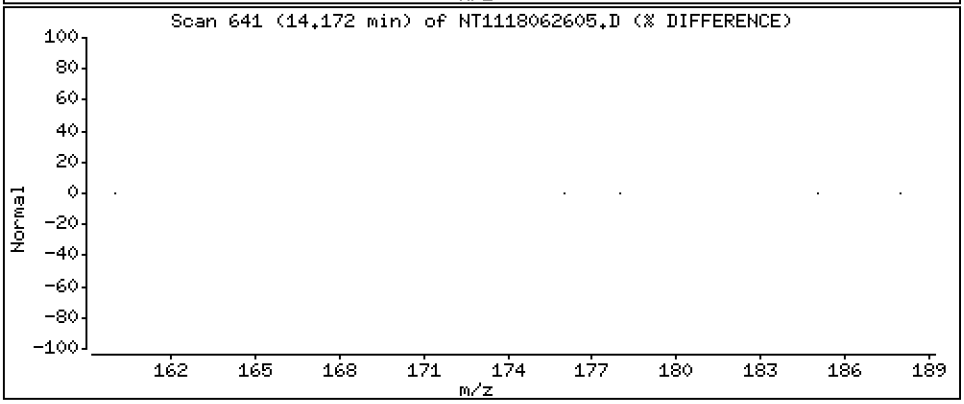












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Date : 27-JUN-2018 10:06

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02RE1,2

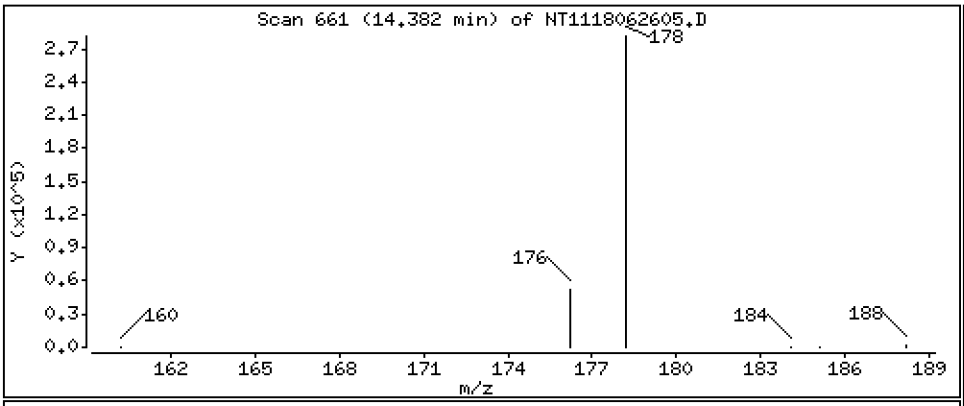
Operator: VTS

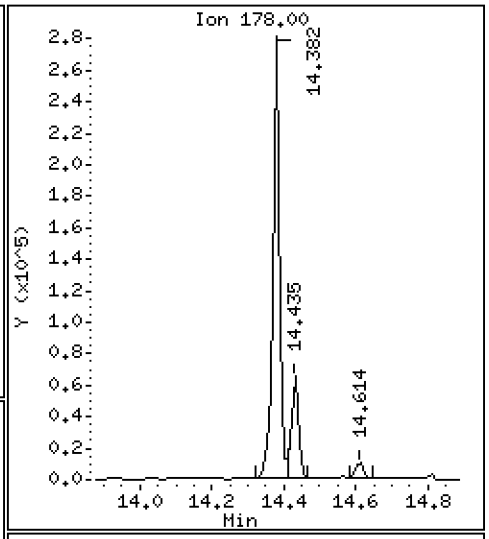
Column phase: Rxi-17Sil MS

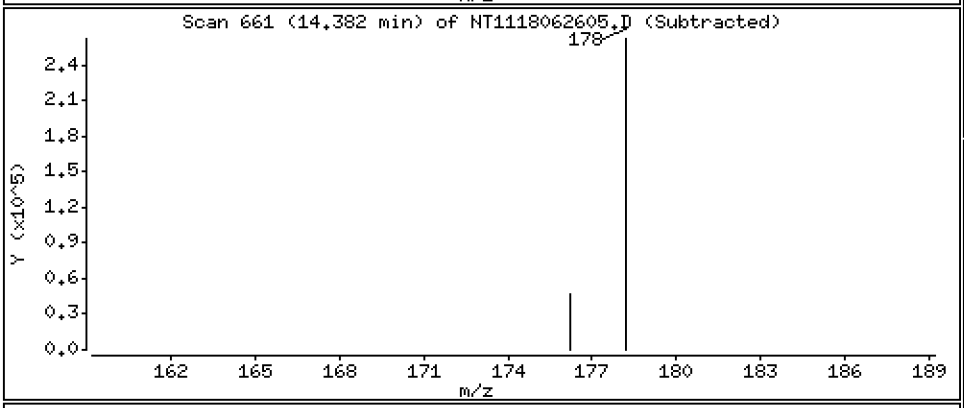
Column diameter: 0.25

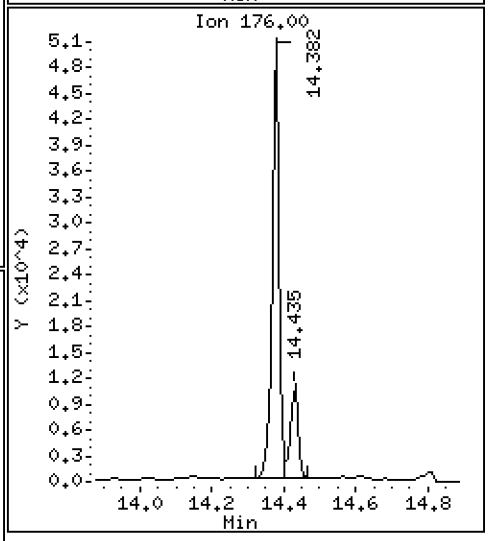
19 Phenanthrene

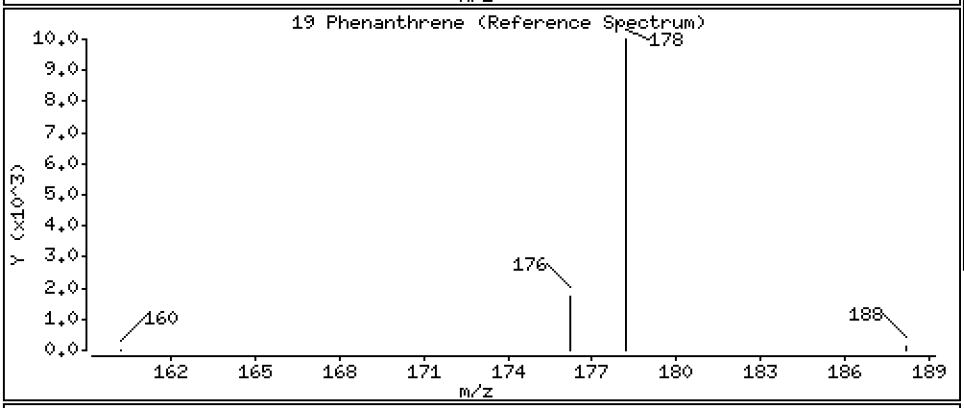
Concentration: 273 ng/mL

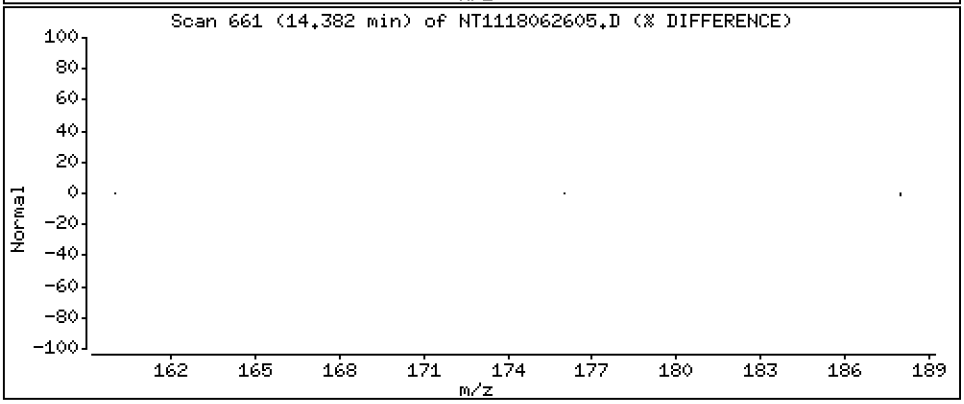












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Date : 27-JUN-2018 10:06

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02RE1,2

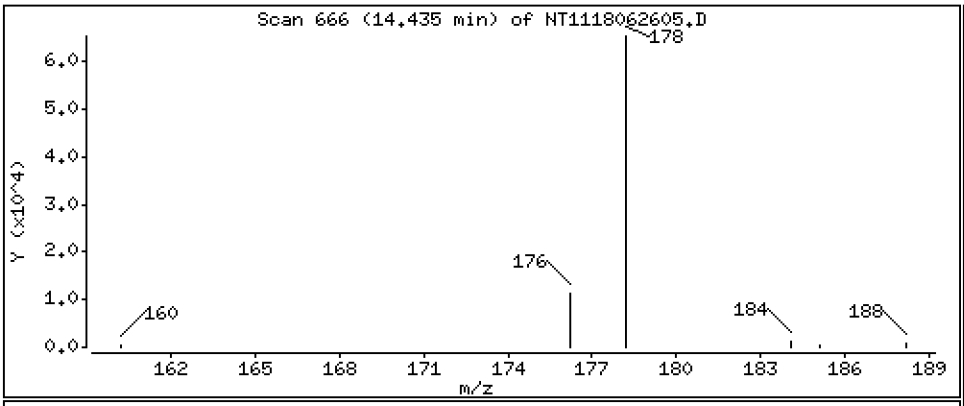
Operator: VTS

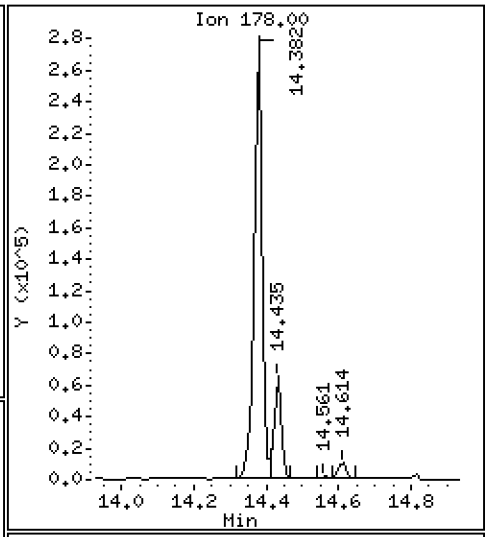
Column phase: Rxi-17Sil MS

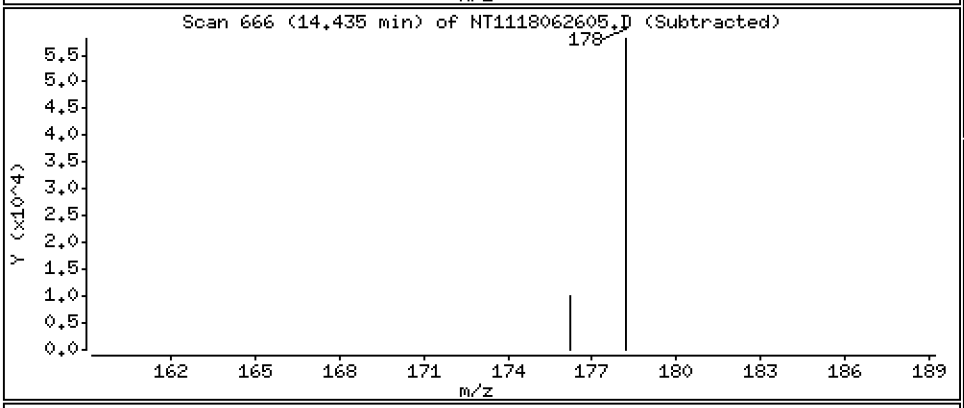
Column diameter: 0.25

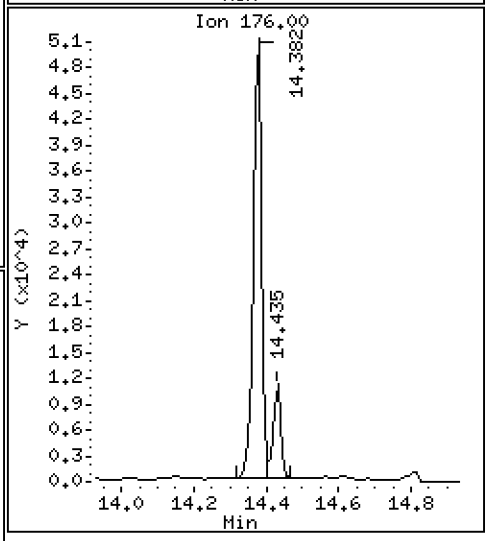
21 Anthracene

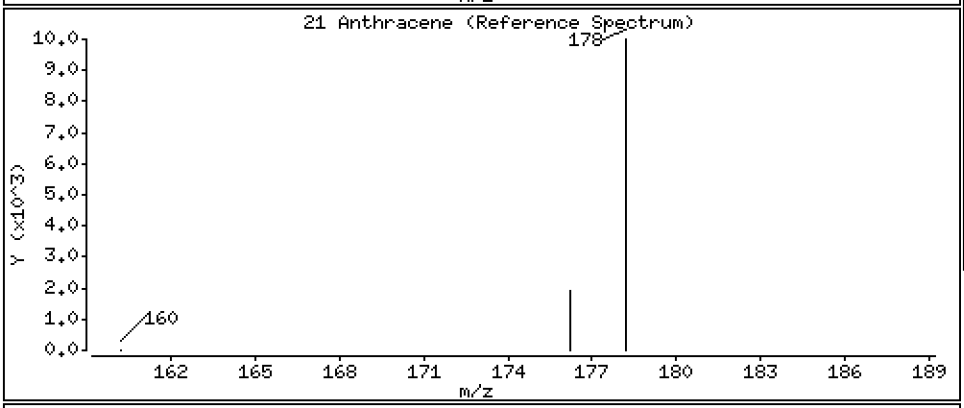
Concentration: 59.9 ng/mL

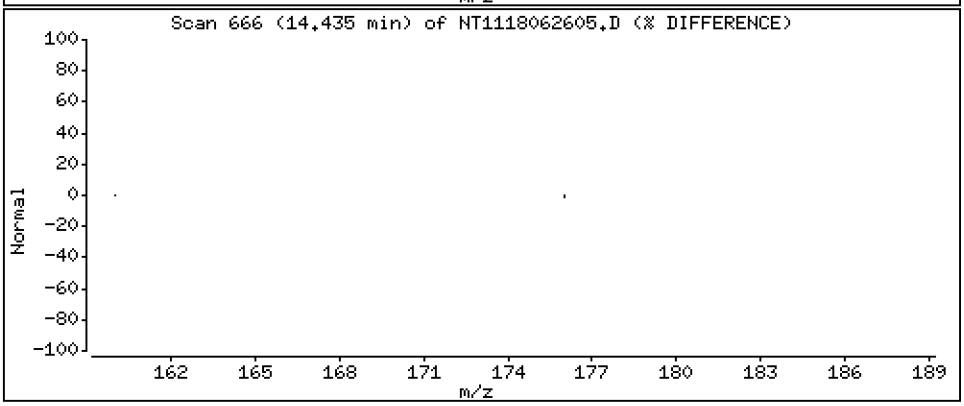












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Date : 27-JUN-2018 10:06

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02RE1,2

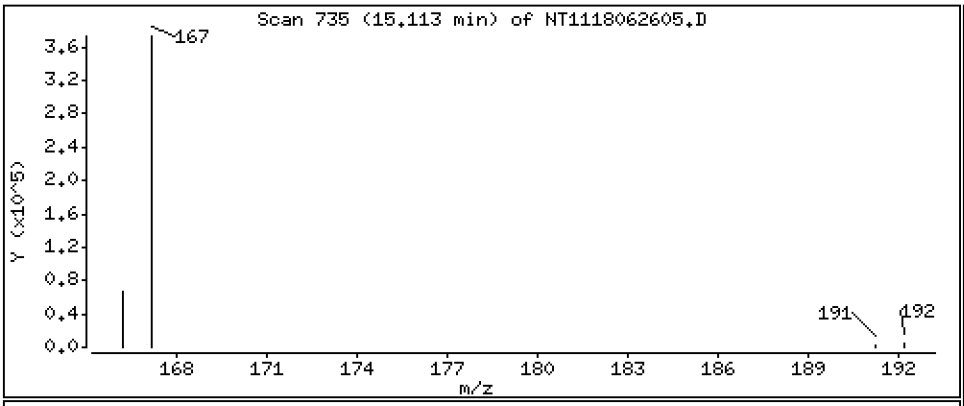
Operator: VTS

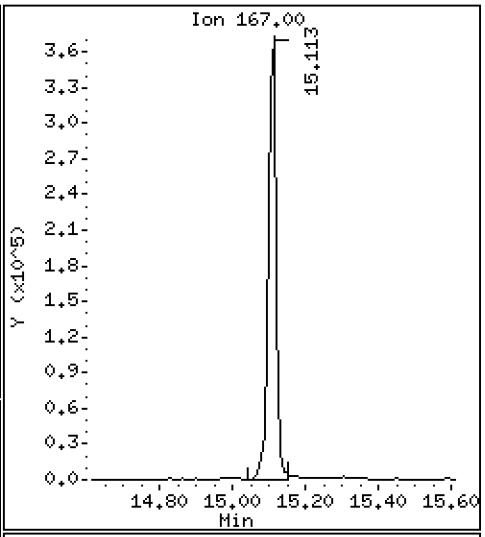
Column phase: Rxi-17Sil MS

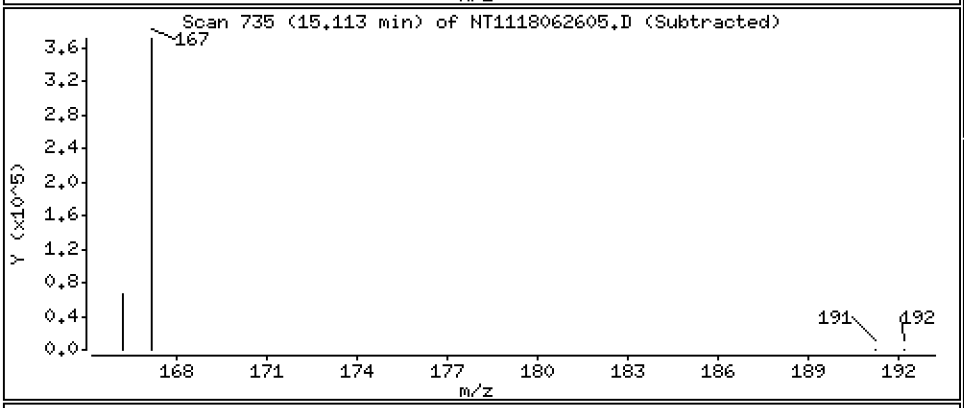
Column diameter: 0.25

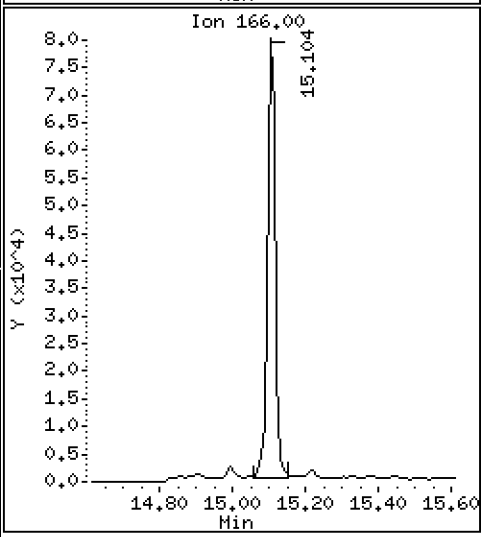
22 Carbazole

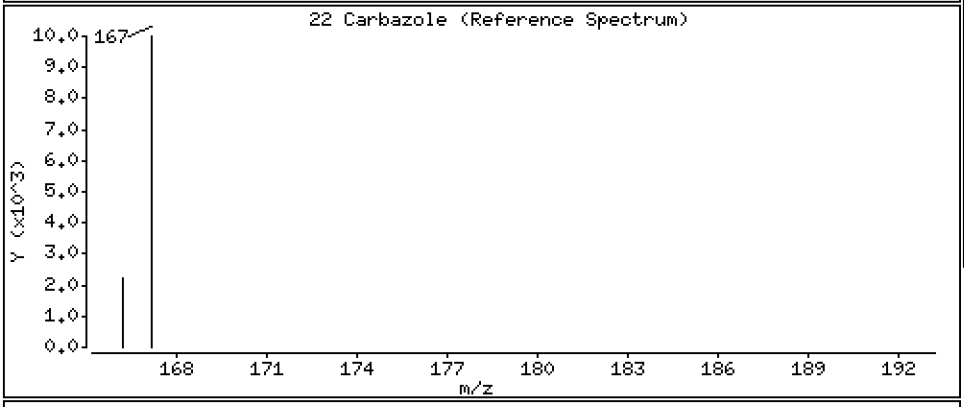
Concentration: 336 ng/mL

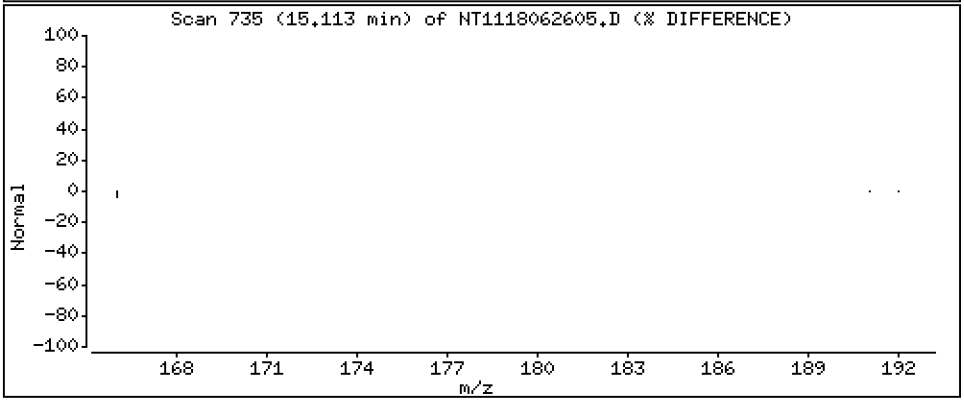












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Date : 27-JUN-2018 10:06

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02RE1,2

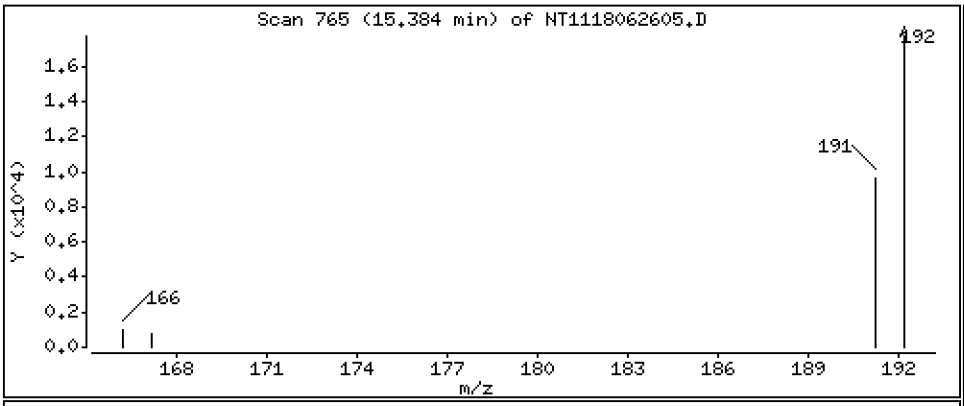
Operator: VTS

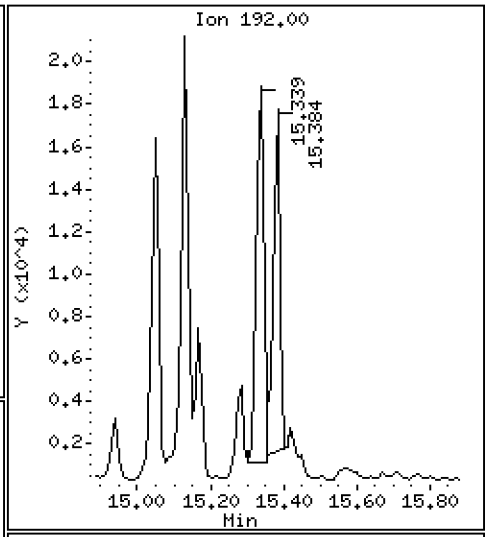
Column phase: Rxi-17Sil MS

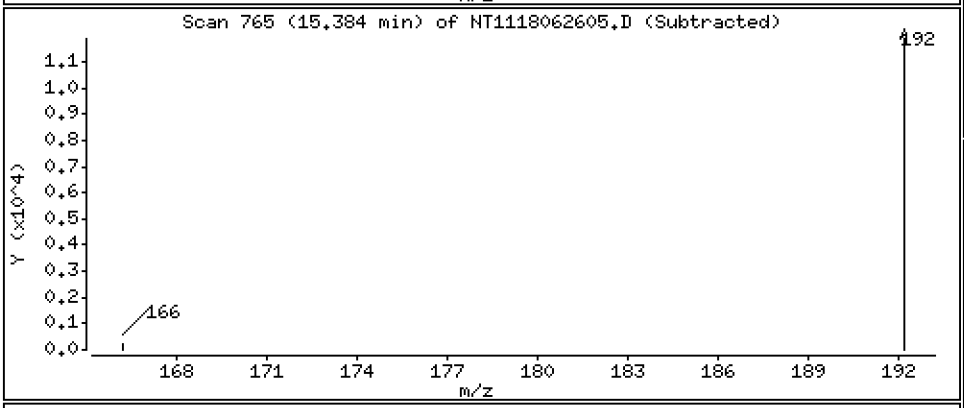
Column diameter: 0.25

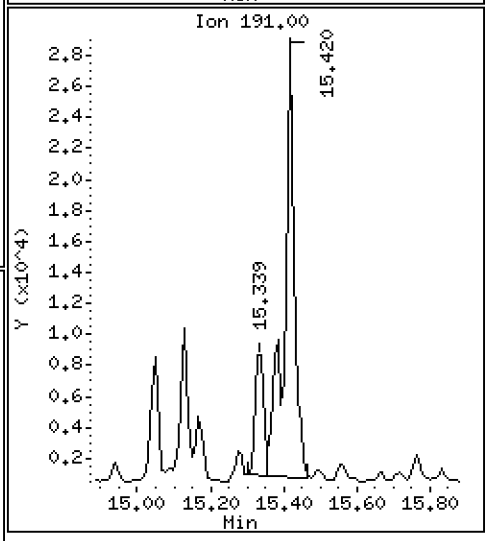
23 1-Methylphenanthrene

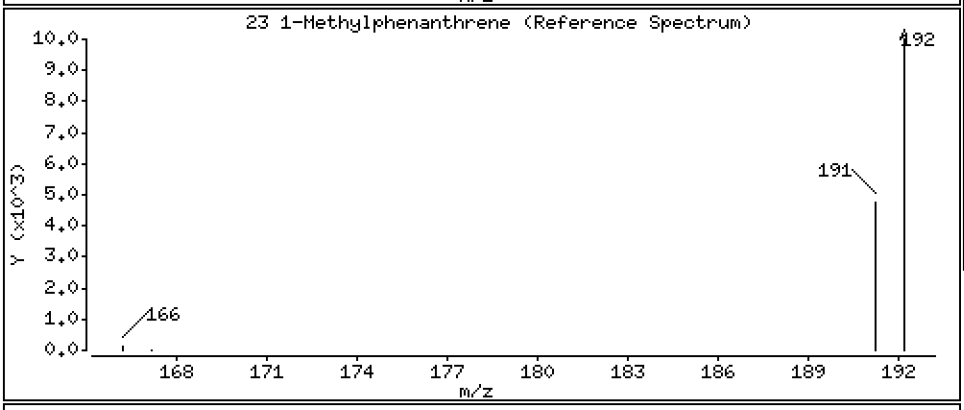
Concentration: 14.6 ng/mL

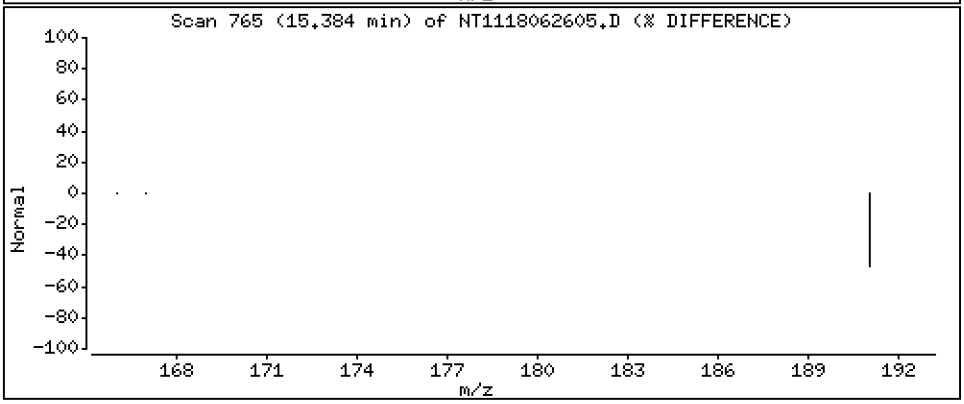












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Date : 27-JUN-2018 10:06

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02RE1,2

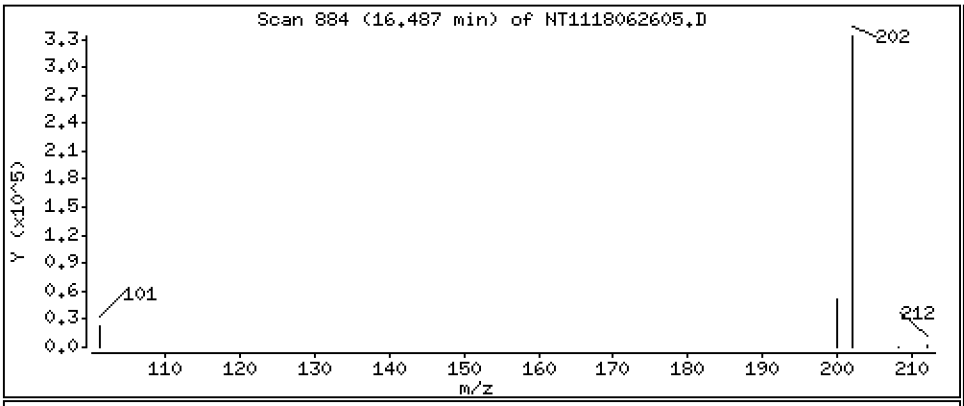
Operator: VTS

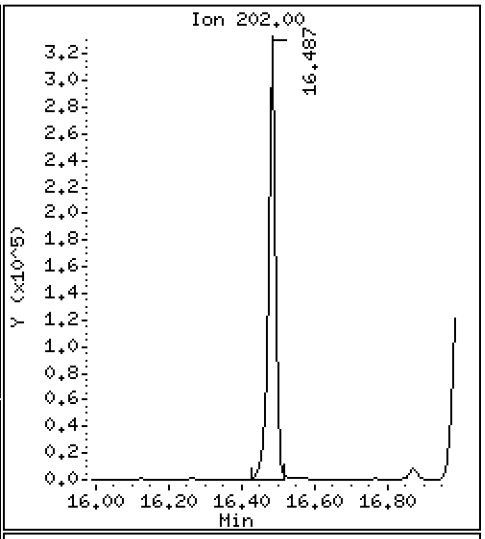
Column phase: Rxi-17Sil MS

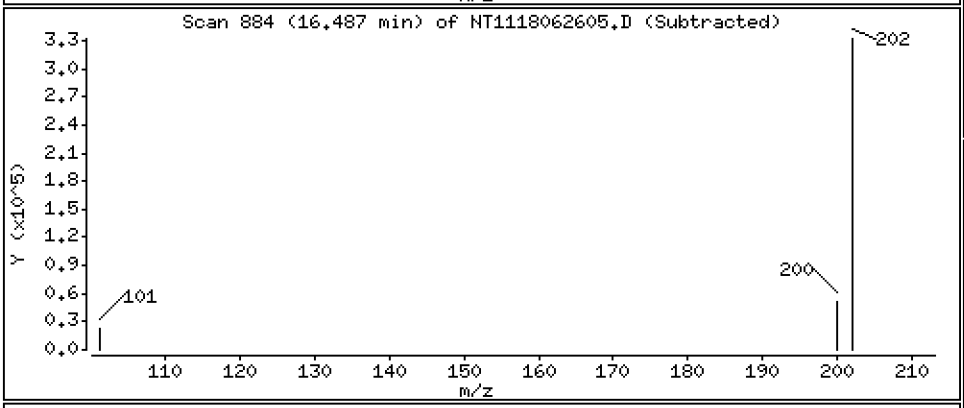
Column diameter: 0.25

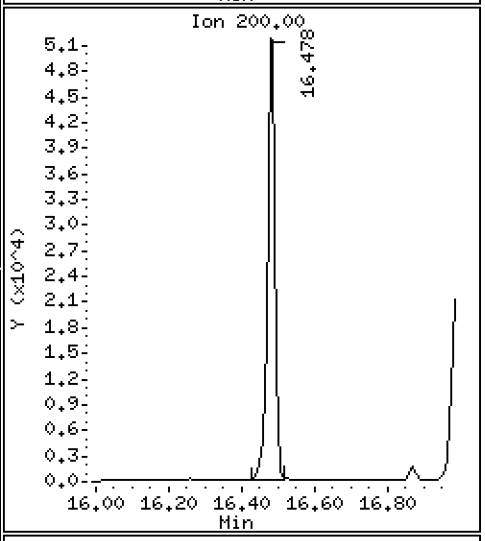
25 Fluoranthene

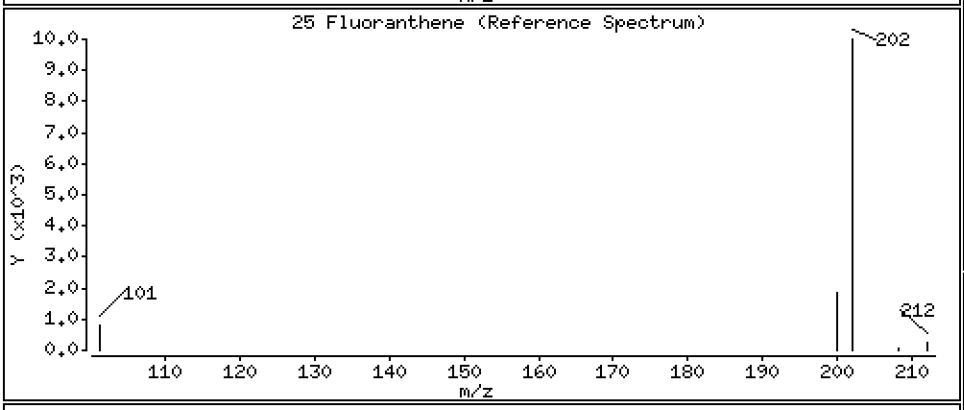
Concentration: 334 ng/mL

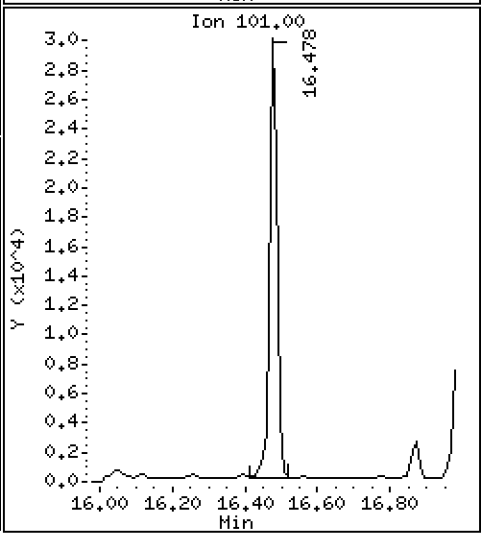


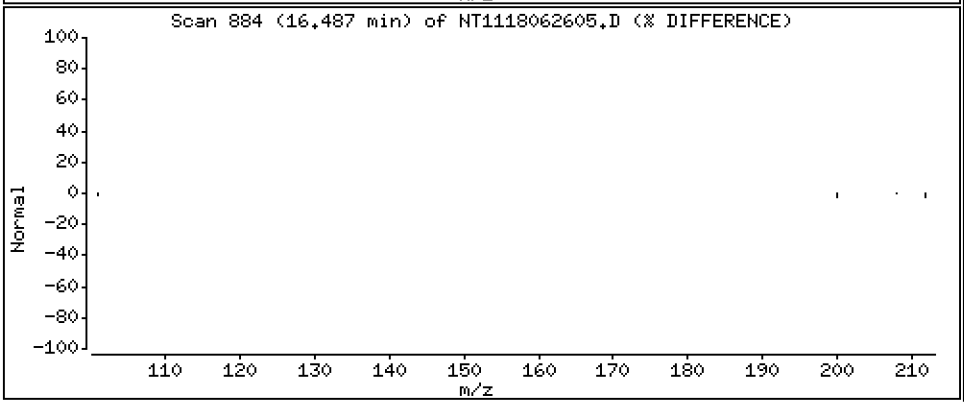












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Date : 27-JUN-2018 10:06

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02RE1,2

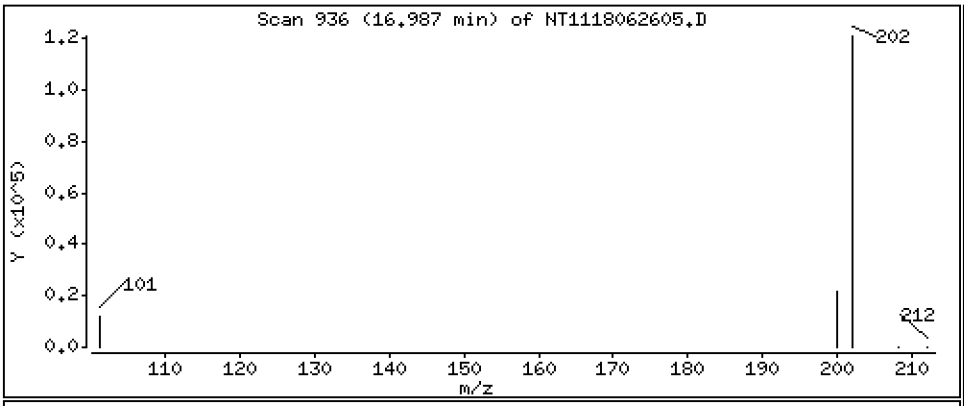
Operator: VTS

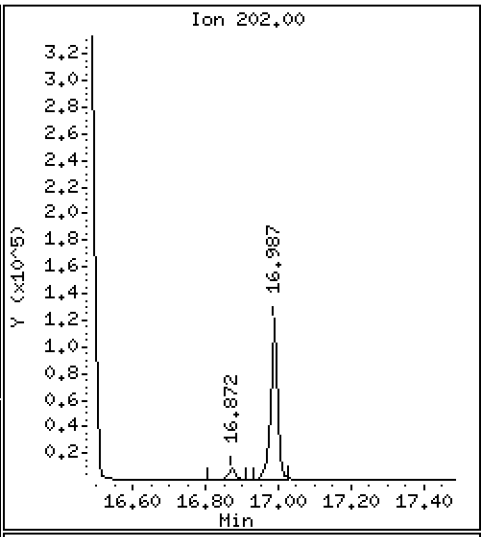
Column phase: Rxi-17Sil MS

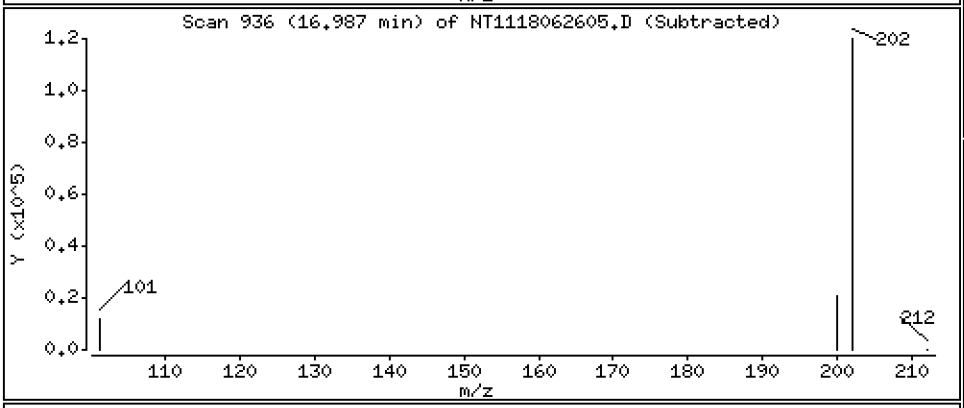
Column diameter: 0.25

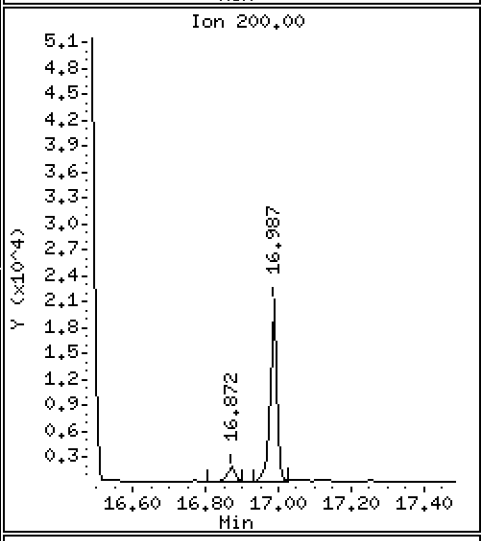
26 Pyrene

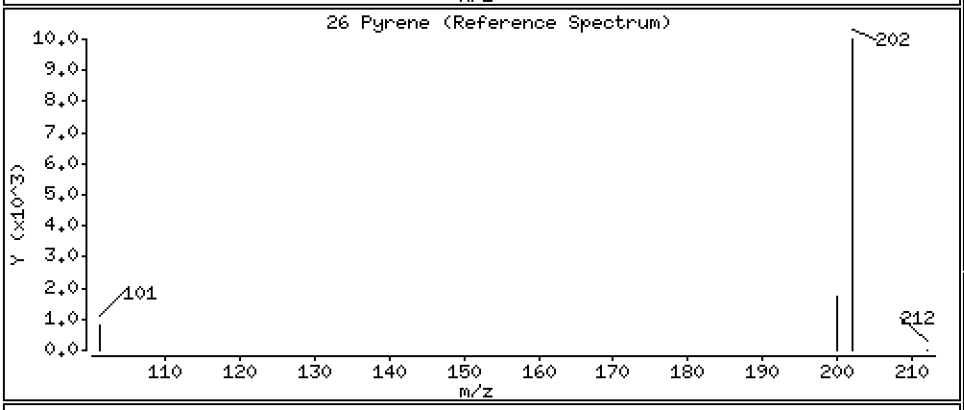
Concentration: 112 ng/mL

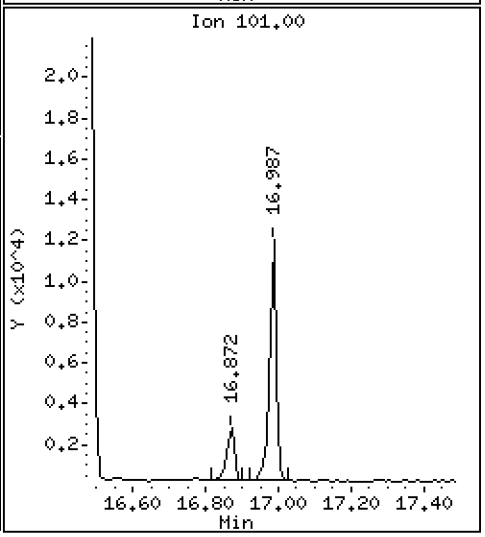


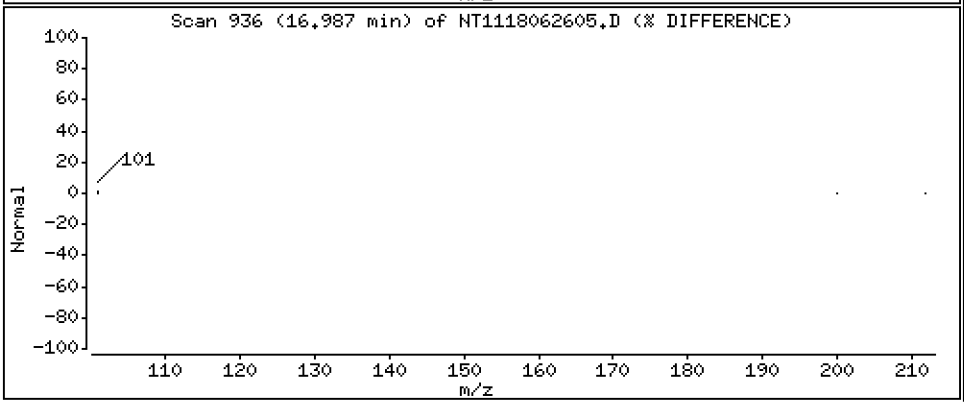












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Date : 27-JUN-2018 10:06

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02RE1,2

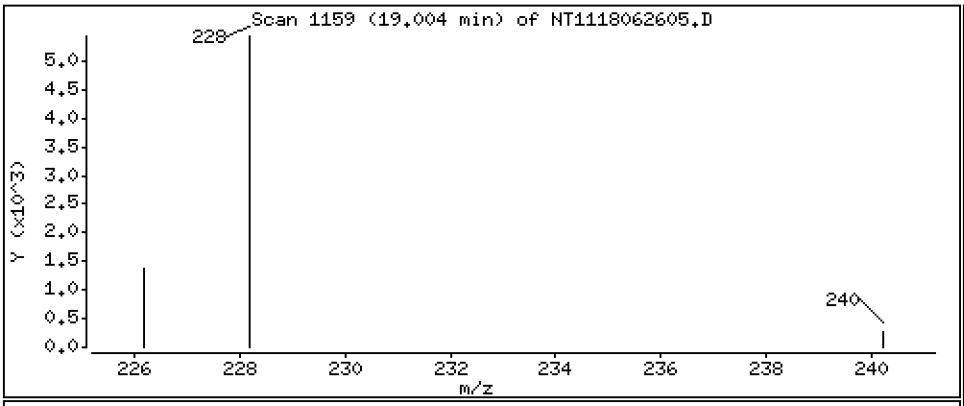
Operator: VTS

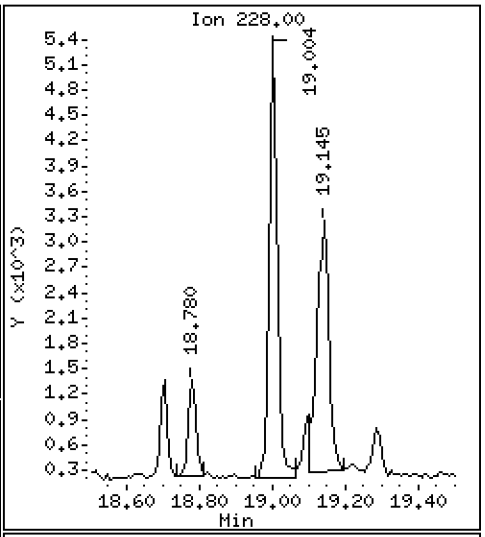
Column phase: Rxi-17Sil MS

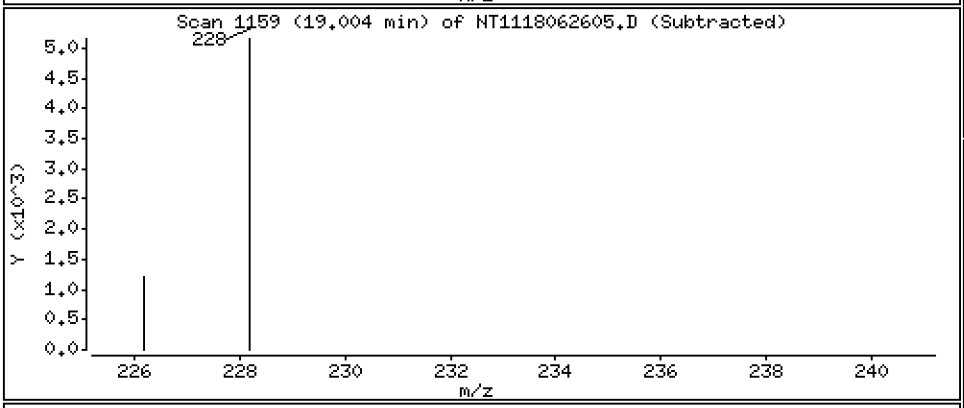
Column diameter: 0.25

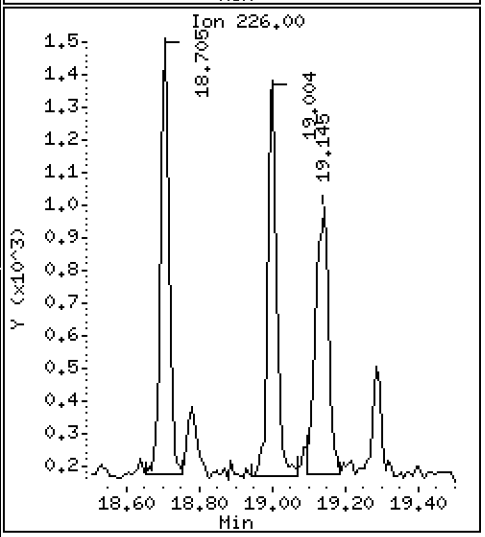
27 Benzo(a)anthracene

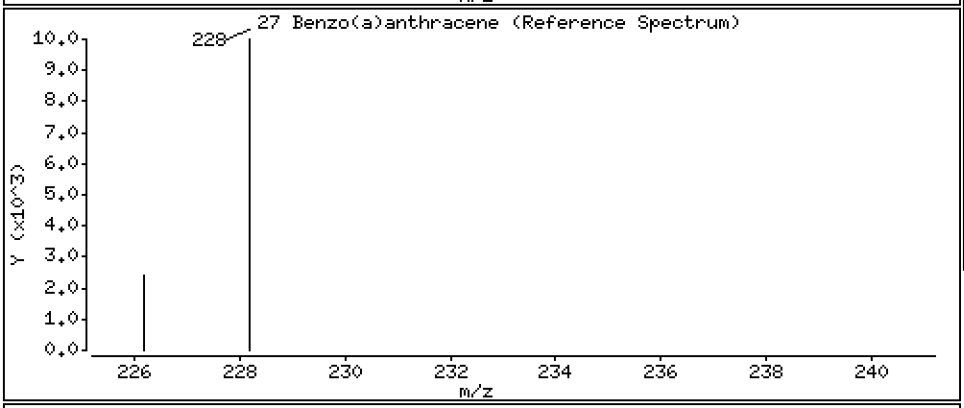
Concentration: 6.57 ng/mL

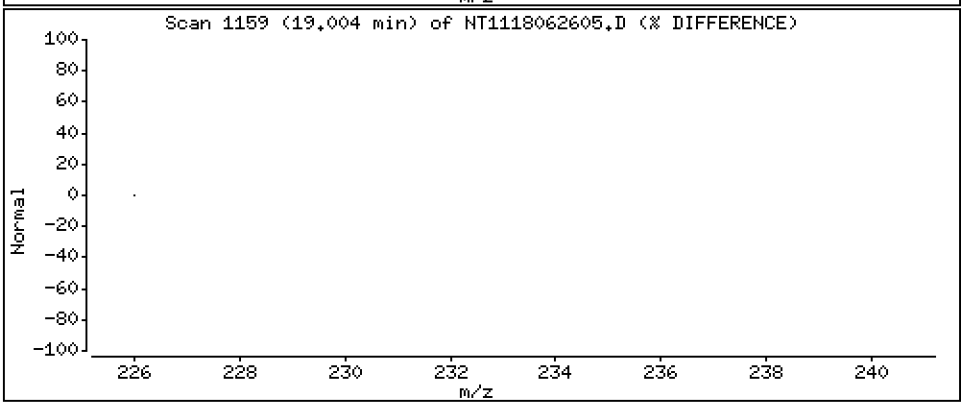












Data File: \\target\share\chem3\nt11.i\20180627.b\NT1118062605.D

Date : 27-JUN-2018 10:06

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02RE1,2

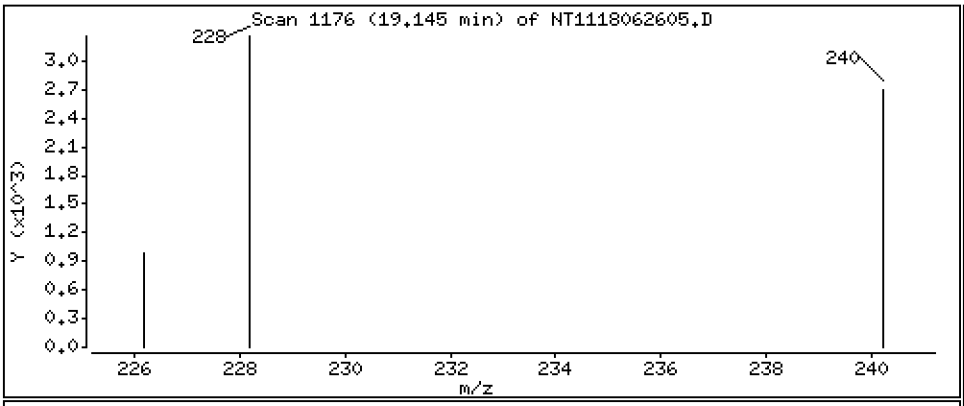
Operator: VTS

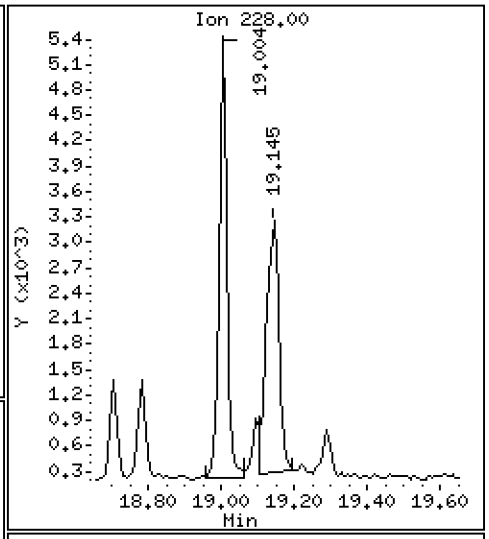
Column phase: Rxi-17Sil MS

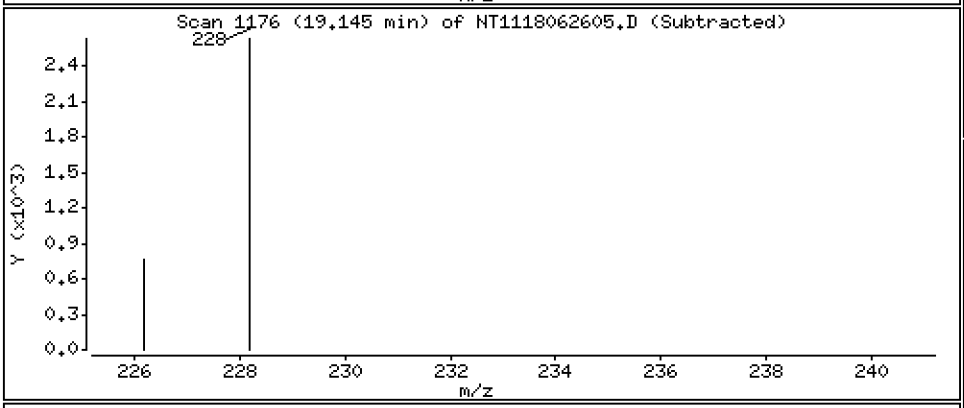
Column diameter: 0.25

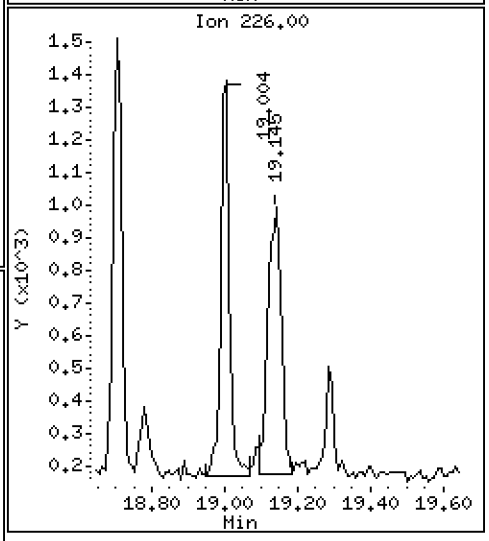
29 Chrysene

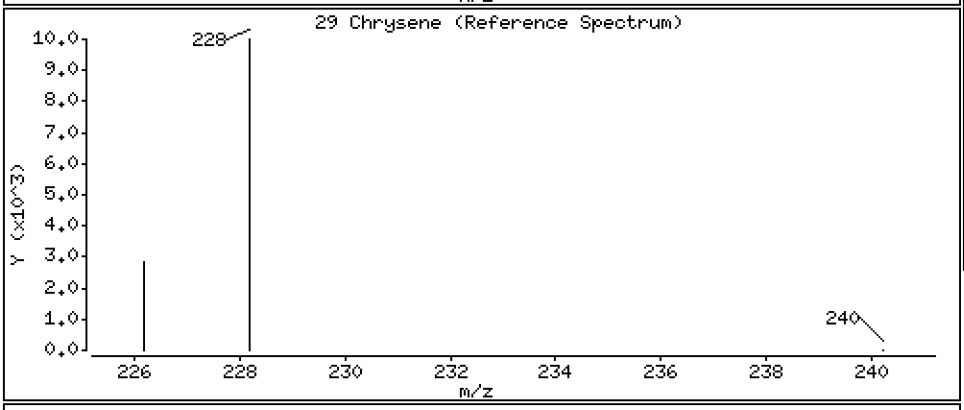
Concentration: 6.03 ng/mL

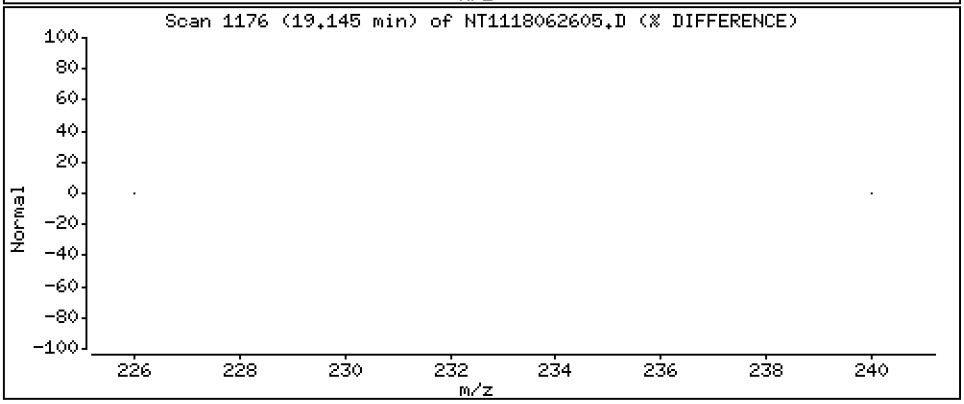












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Date : 27-JUN-2018 10:06

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-02RE1,2

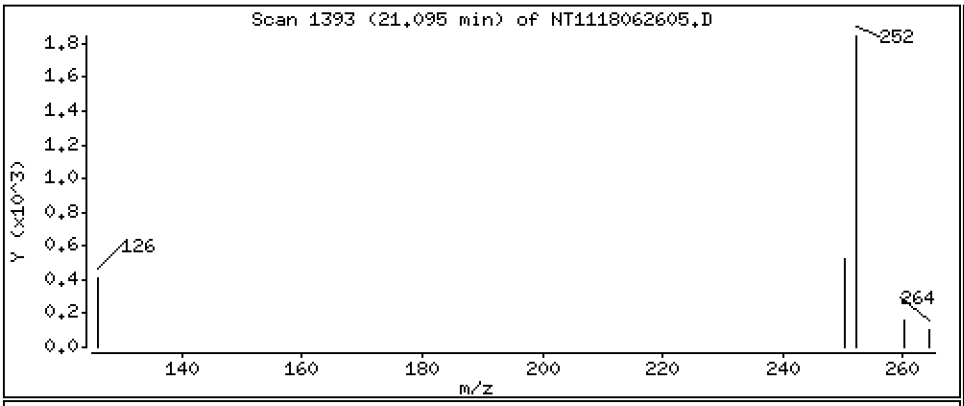
Operator: VTS

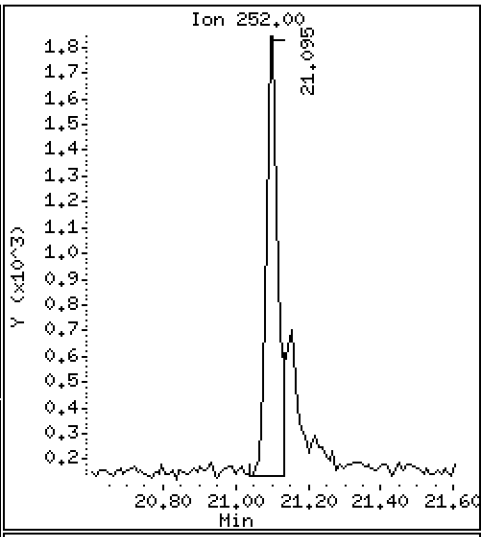
Column phase: Rxi-17Sil MS

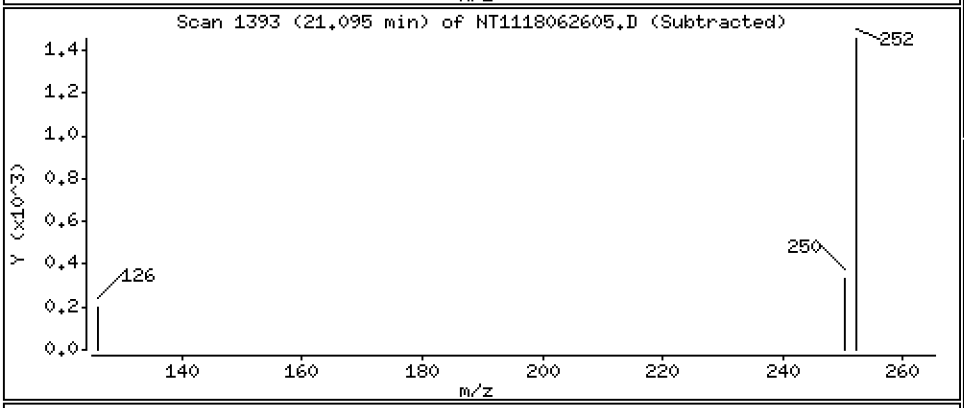
Column diameter: 0.25

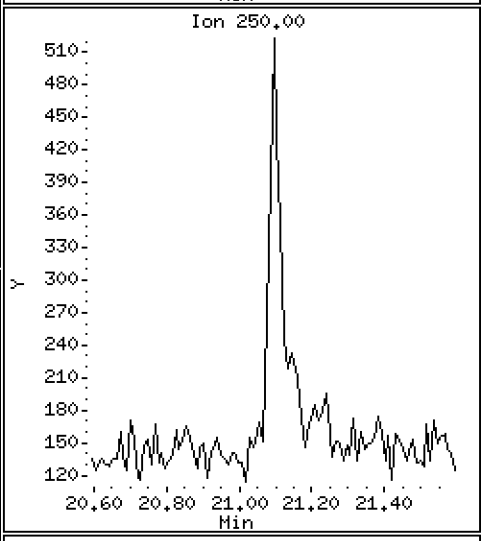
30 Benzo(b)fluoranthene

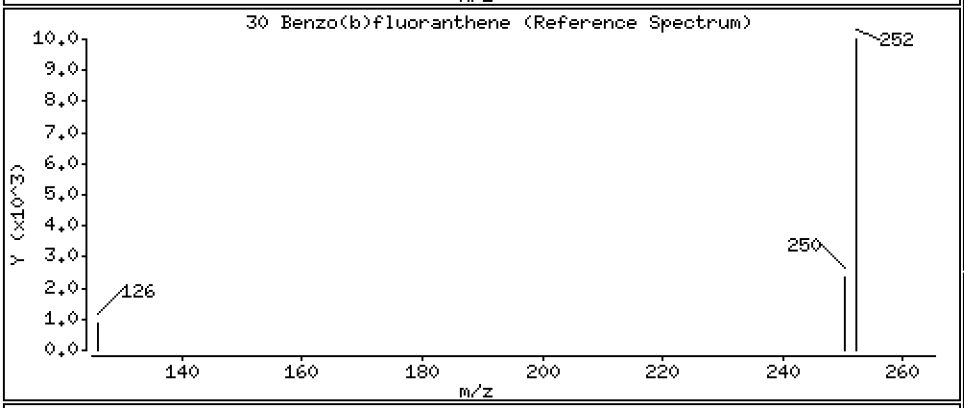
Concentration: 3.55 ng/mL

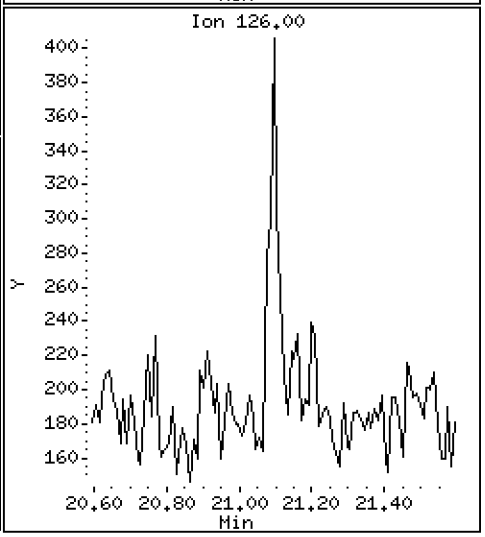


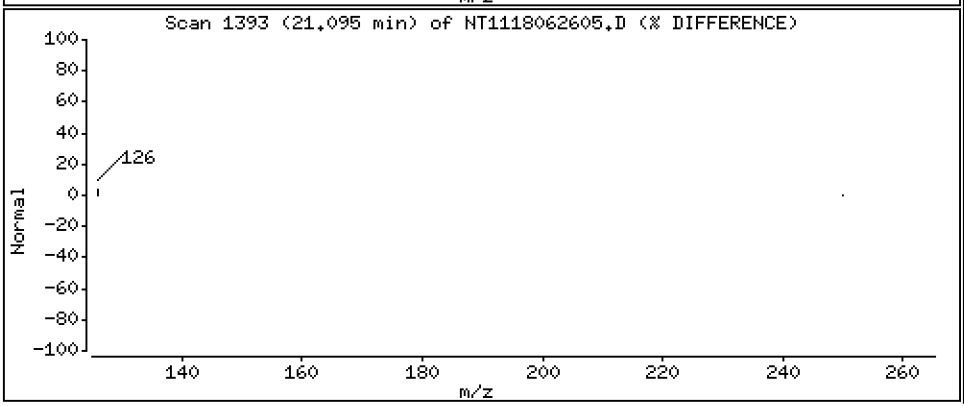












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180627.b\NT1118062605.D
Lab Smp Id: 18F0208-02RE1
Inj Date : 27-JUN-2018 10:06 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0208-02RE1,2
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180627.b\LOWSIM.m
Meth Date : 27-Jun-2018 08:43 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 2.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	444117	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	353178	113.137	226
	3 Benzo(b)thiophene	134	8.897	8.897	(1.034)	96431	41.4240	82.8
$	4 2-Methylnaphthalene-d10	152	9.591	9.592	(1.114)	256072	101.056	202
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	55746	20.6061	41.2
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	189614	70.4747	141
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	10.526	10.527	(0.904)	120956	41.3410	82.7
	9 2,6-Dimethylnaphthalene	156	10.579	10.579	(0.909)	41744	18.0530	36.1
	10 Acenaphthylene	152	11.490	11.499	(0.987)	24926	8.90943	17.8
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	235303	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	1317865	688.704	1380
	13 Dibenzofuran	168	11.907	11.908	(1.023)	736973	281.132	562
	14 2,3,5-Trimethylnaphthalene	170	11.996	11.996	(1.030)	9351	5.57394	11.1(M)
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.539	12.539	(1.077)	840087	397.399	795
	17 Dibenzothiophene	184	14.172	14.172	(0.988)	92081	37.4608	74.9
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	394726	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	422592	136.504	273
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.435	14.435	(1.007)	86746	29.9728	59.9
	22 Carbazole	167	15.112	15.113	(1.054)	566250	167.946	336
	23 1-Methylphenanthrene	192	15.384	15.384	(1.073)	21327	7.29103	14.6
$	24 Fluoranthene-d10	212	16.448	16.449	(1.147)	278387	116.189	232
	25 Fluoranthene	202	16.487	16.487	(1.150)	479667	166.844	334
	26 Pyrene	202	16.986	16.987	(0.890)	172036	56.1705	112
	27 Benzo(a)anthracene	228	19.004	19.004	(0.995)	7844	3.28379	6.57
*	28 Chrysene-d12	240	19.095	19.103	(1.000)	311539	200.000	
	29 Chrysene	228	19.145	19.153	(1.003)	7150	3.01340	6.03
	30 Benzo(b)fluoranthene	252	21.094	21.104	(0.944)	3951	1.77743	3.55
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	35 Benzo(a)pyrene	252	Compound Not Detected.					
*	36 Perylene-d12	264	22.353	22.353	(1.000)	314268	200.000	
	37 Perylene	252	Compound Not Detected.					
$	38 Dibenzo(a,h)anthracene-d14	292	25.279	25.279	(1.131)	158428	105.346	211
	39 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	40 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	41 Benzo(g,h,i)perylene	276	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118062605.D
Lab Smp Id: 18F0208-02RE1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180627.b\LOWSIM.m
Misc Info:

Calibration Date: 27-JUN-2018
Calibration Time: 08:13
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	444117	2.97
11 Acenaphthene-d10	260137	130069	520274	235303	-9.55
18 Phenanthrene-d10	427391	213696	854782	394726	-7.64
28 Chrysene-d12	304596	152298	609192	311539	2.28
36 Perylene-d12	263091	131546	526182	314268	19.45

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.04
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118062605.D

Lab ID: 18F0208-02RE1
nt11.i, 20180627.b\LOWSIM.m,   27-JUN-2018 10:06

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

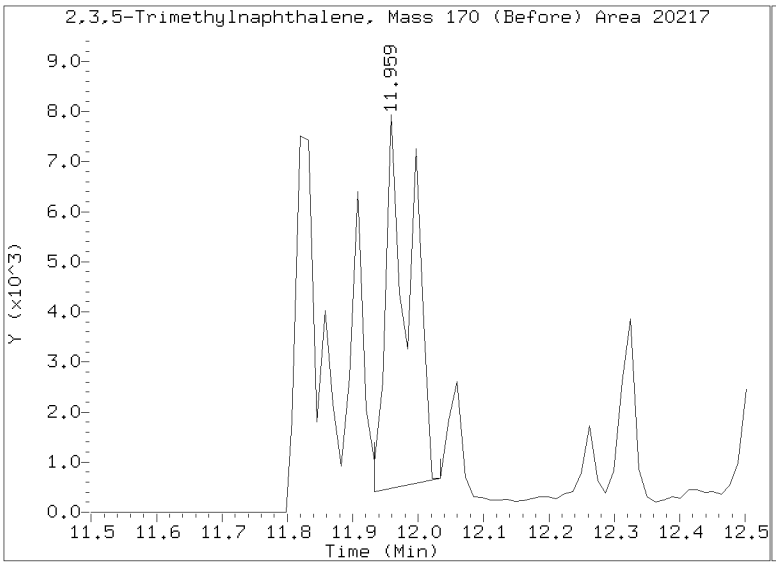
On Column LOD for nt11.i, 20180627.b\LOWSIM.m, allpna.sub = 0.0000

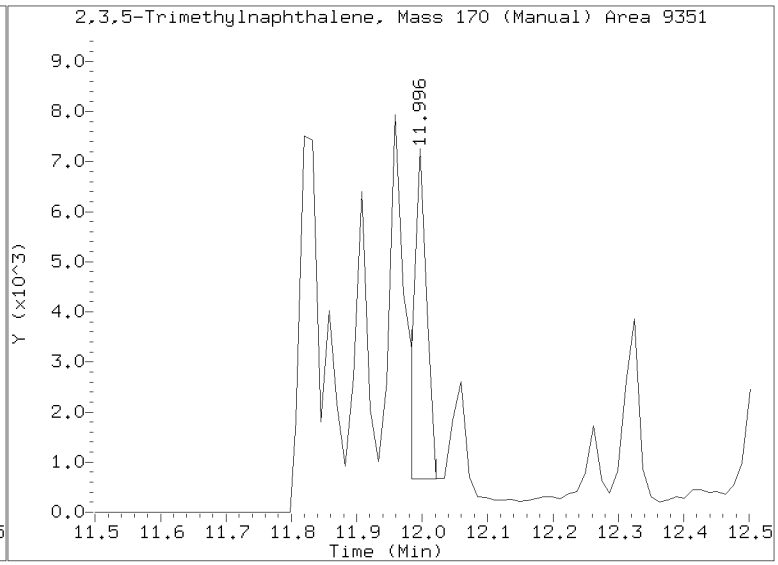
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20180627.b/NT1118062605.D
Injection Date: 27-JUN-2018 10:06
Lab ID:18F0208-02RE1 Client ID:
Report Date: 06/27/2018 14:24





LDW18-SP-24

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270D-SIM

Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-03	SDG:	18F0185
Sampled:	06/13/18 12:35	Prepared:	06/19/18 17:20	File ID:	NT1118062603.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/27/18 08:55
Batch:	BGF0455	Sequence:	SGF0327	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.002	J	0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.001	J	0.001	0.010
208-96-8	Acenaphthylene	1	0.010	U	0.002	0.010
83-32-9	Acenaphthene	1	0.010	U	0.003	0.010
86-73-7	Fluorene	1	0.010	U	0.002	0.010
85-01-8	Phenanthrene	1	0.003	J	0.001	0.010
120-12-7	Anthracene	1	0.010	U	0.001	0.010
206-44-0	Fluoranthene	1	0.003	J	0.002	0.010
129-00-0	Pyrene	1	0.002	J	0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.010	U	0.0008	0.010
218-01-9	Chrysene	1	0.0009	J	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.0006	J	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.204	68.1	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.223	74.3	29 - 120	
Fluoranthene-d10	0.30000	0.232	77.5	57 - 120	

Data File: \\target\share\chem3\nt11.i\20180627.b\NT1118062603.D

Date : 27-JUN-2018 08:55

Client ID:

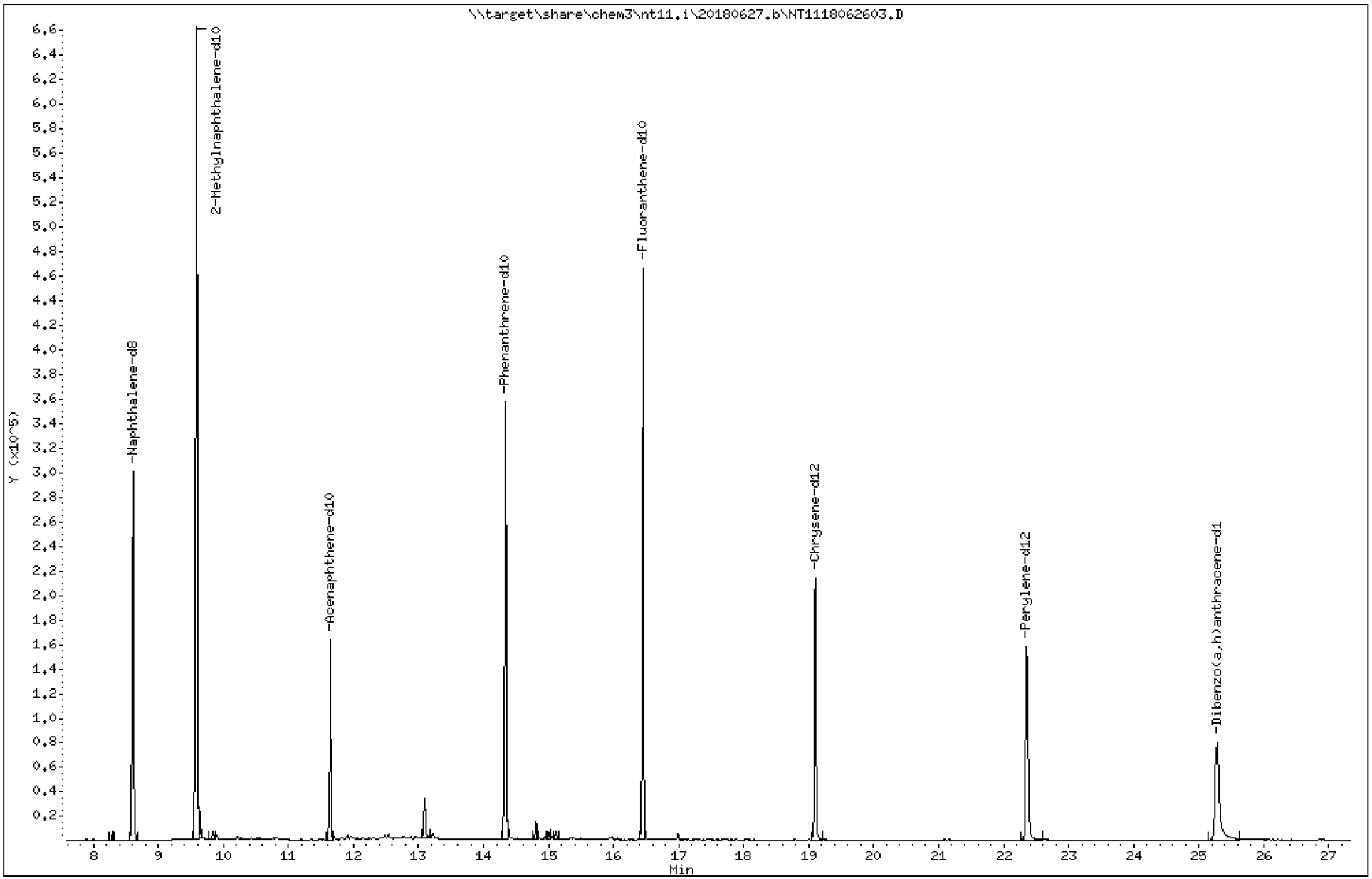
Instrument: nt11.i

Sample Info: 18F0208-03

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 27-JUN-2018 08:55

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-03

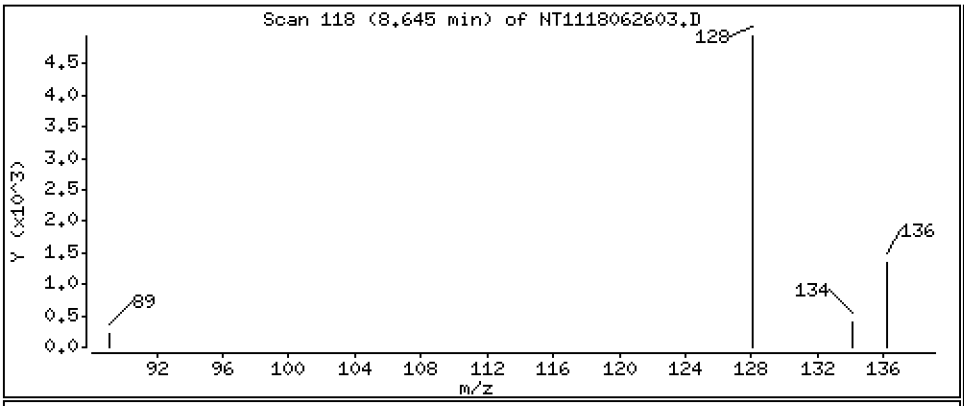
Operator: VTS

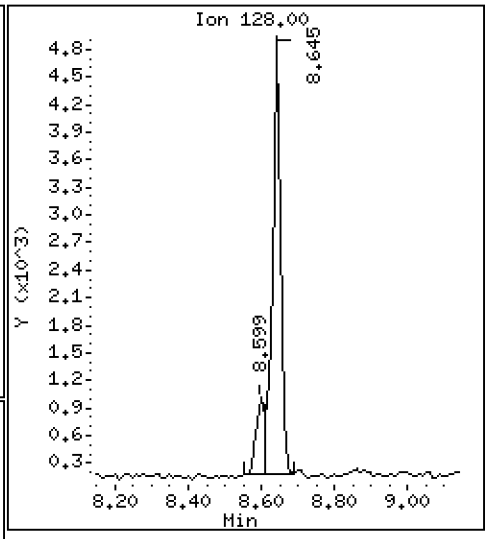
Column phase: Rxi-17Sil MS

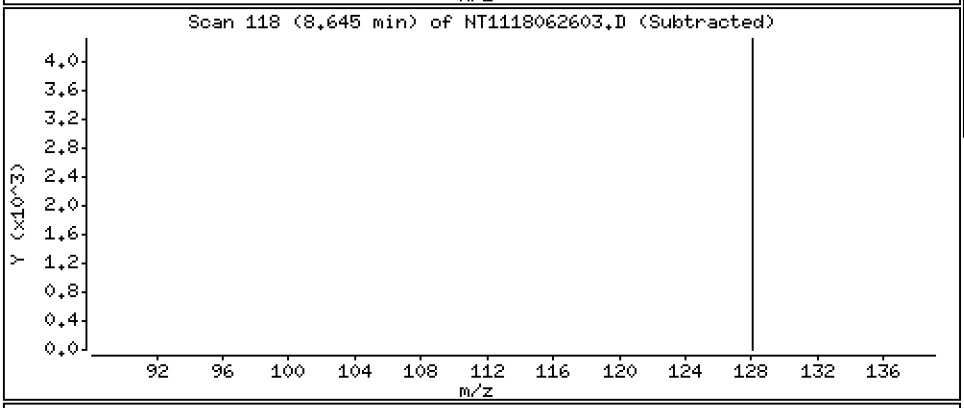
Column diameter: 0.25

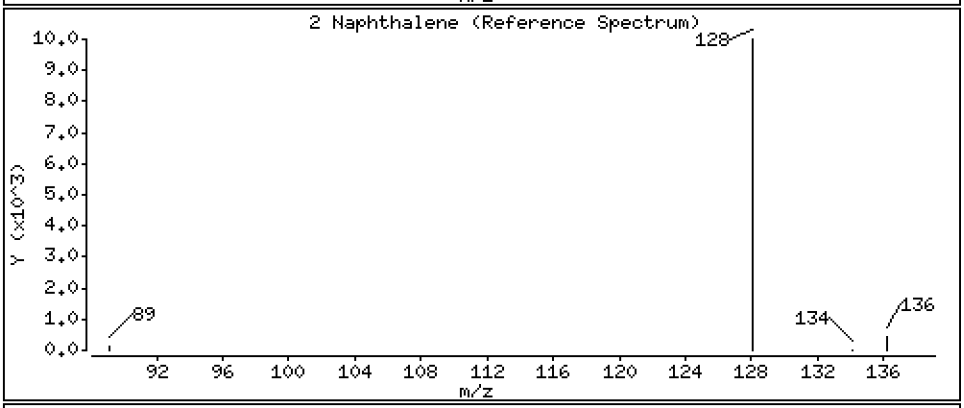
2 Naphthalene

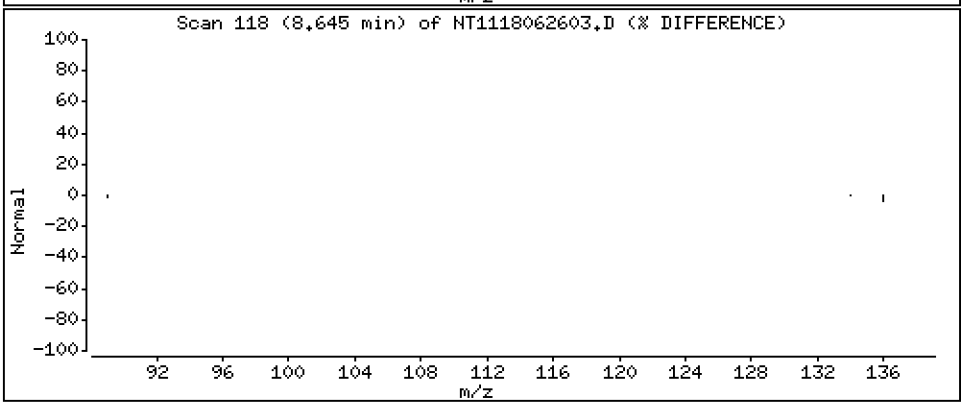
Concentration: 2.18 ng/mL











Data File: \\target\share\chem3\nt11.i\20180627.b\NT1118062603.D

Date : 27-JUN-2018 08:55

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-03

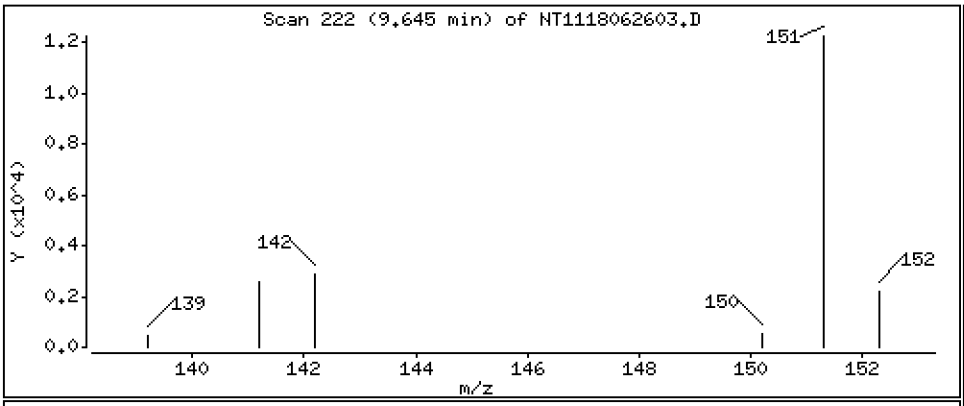
Operator: VTS

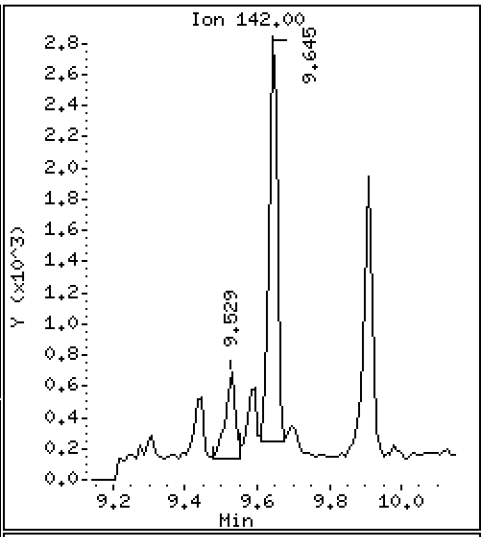
Column phase: Rxi-17Sil MS

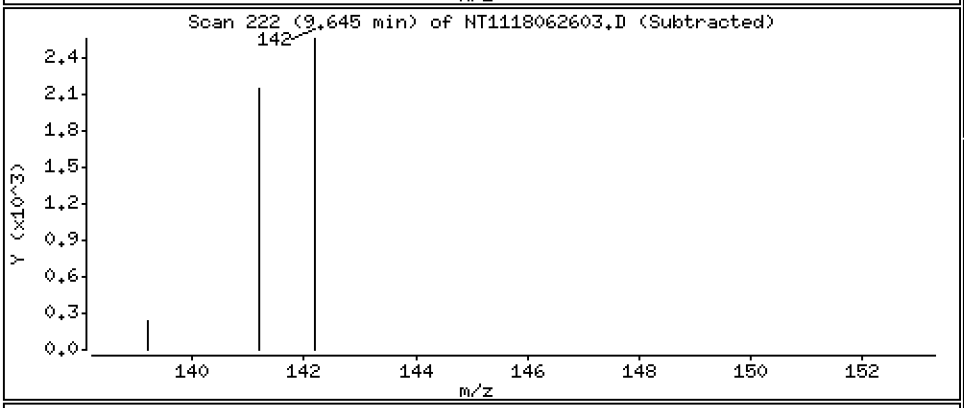
Column diameter: 0.25

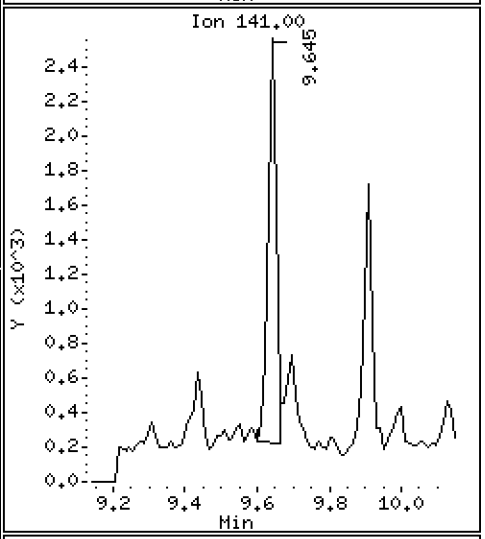
5 2-Methylnaphthalene

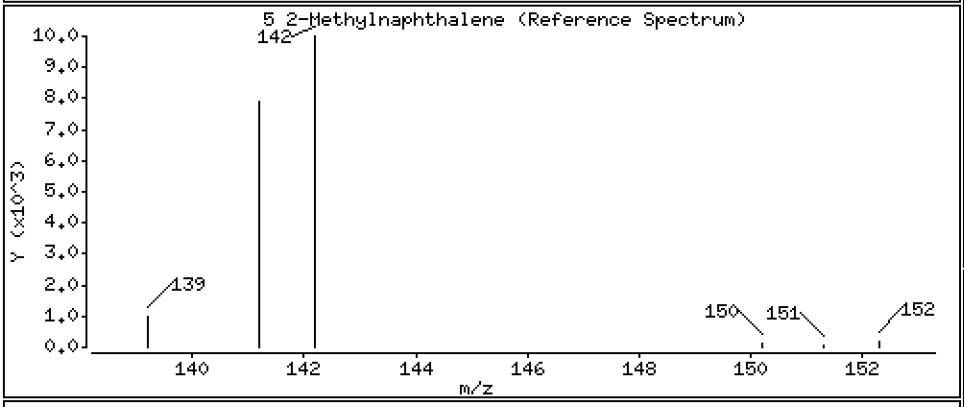
Concentration: 1.46 ng/mL

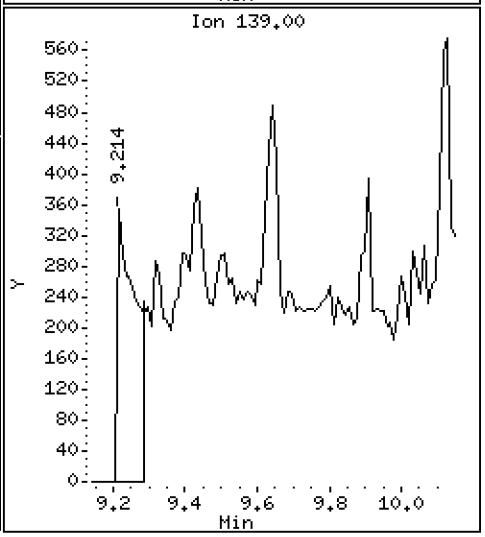


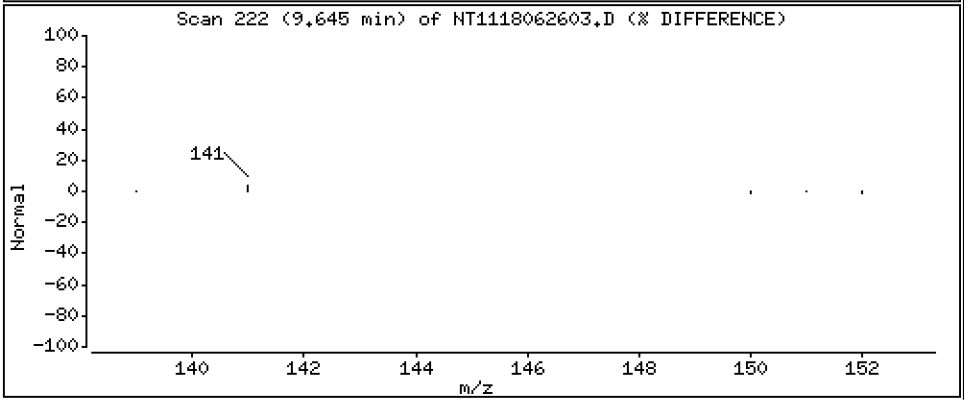












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Date : 27-JUN-2018 08:55

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-03

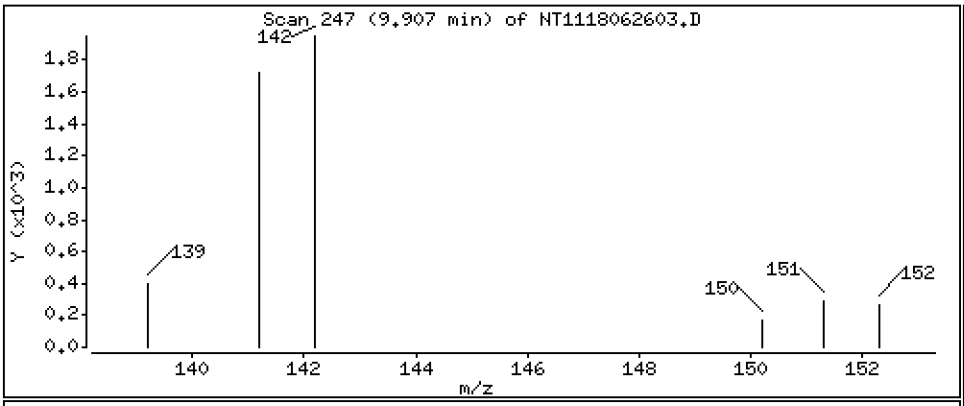
Operator: VTS

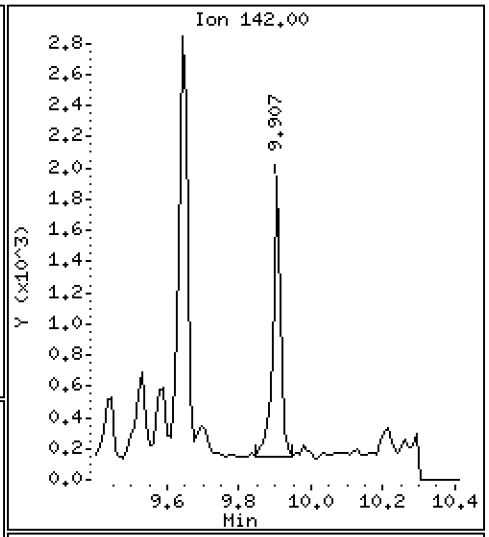
Column phase: Rxi-17Sil MS

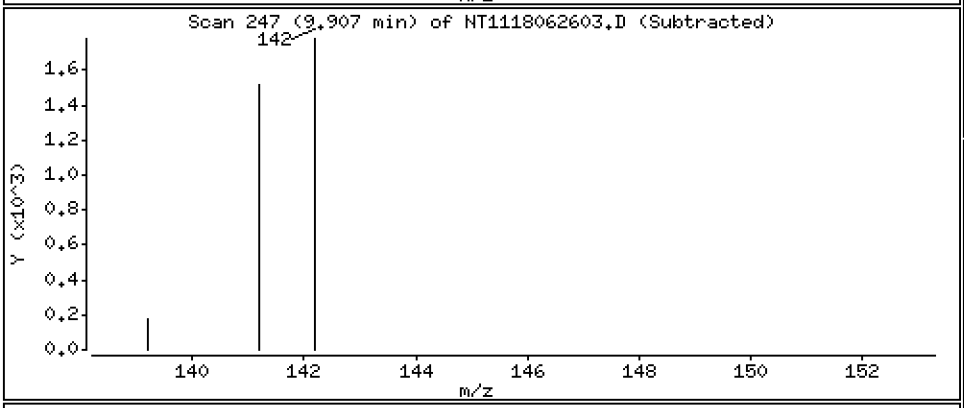
Column diameter: 0.25

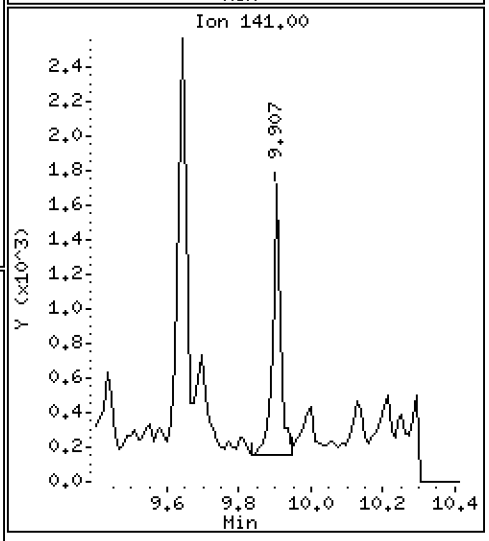
6 1-Methylnaphthalene

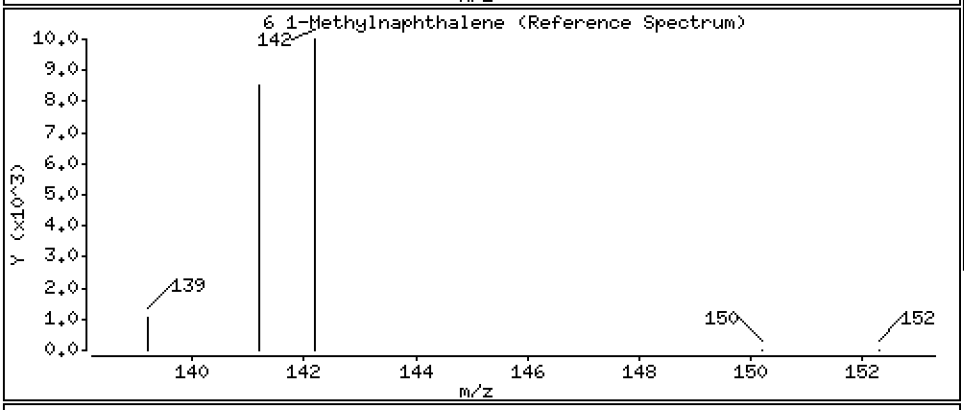
Concentration: 1.07 ng/mL

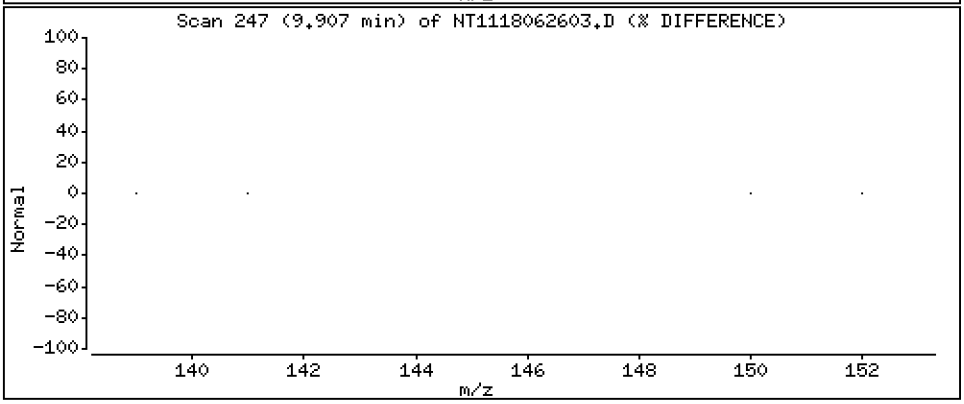












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Date : 27-JUN-2018 08:55

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-03

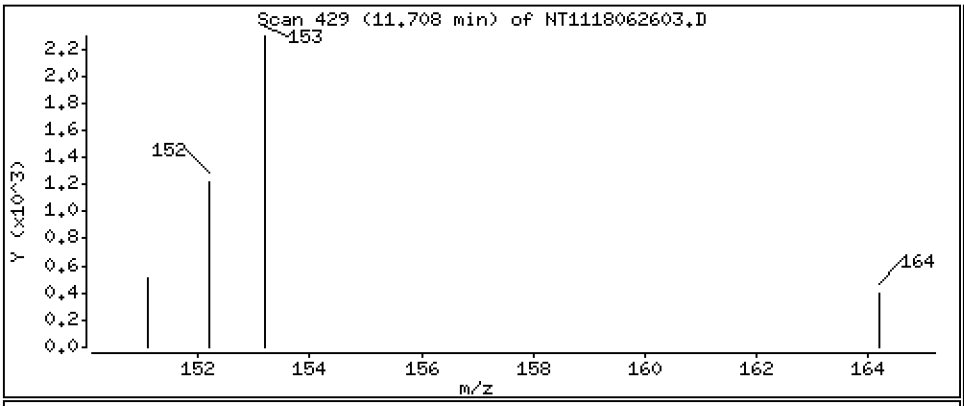
Operator: VTS

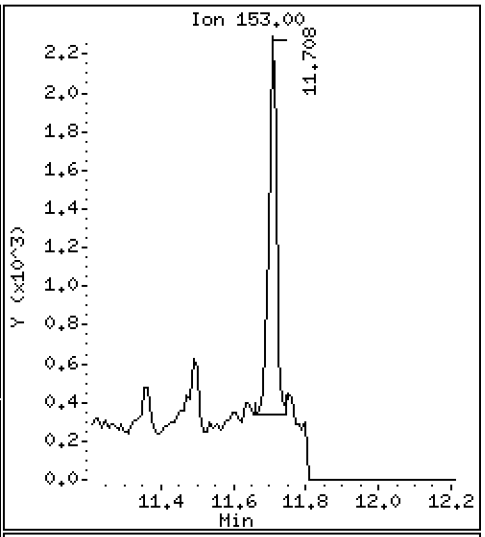
Column phase: Rxi-17Sil MS

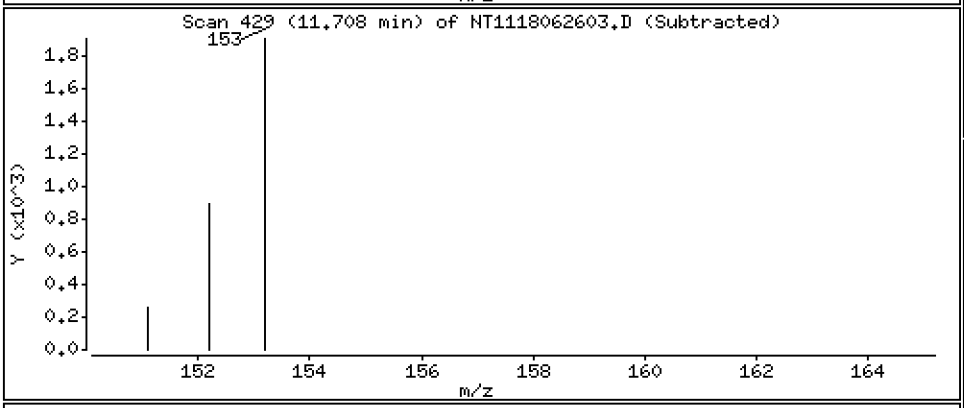
Column diameter: 0.25

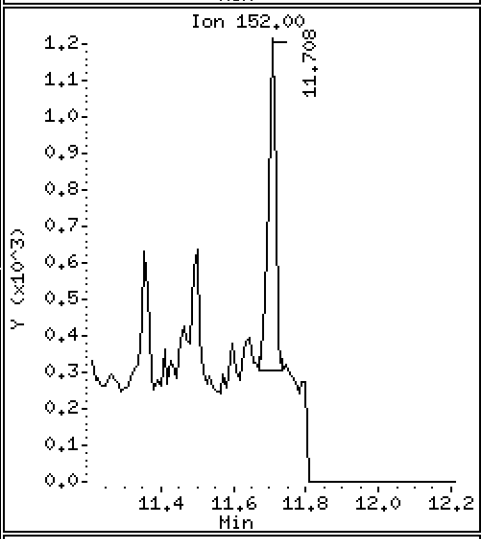
12 Acenaphthene

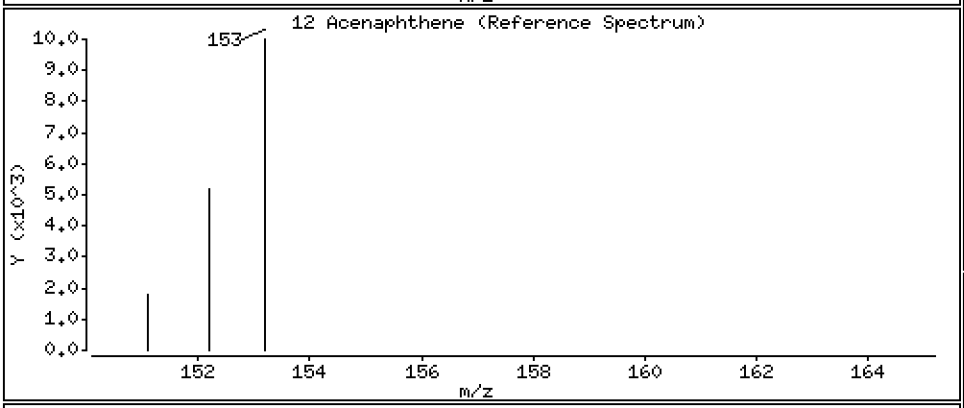
Concentration: 1.39 ng/mL

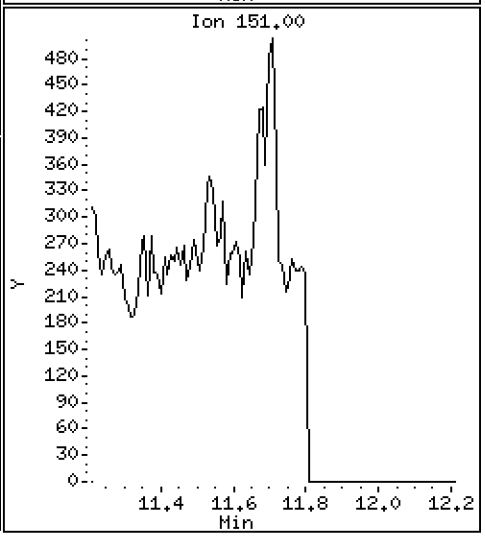


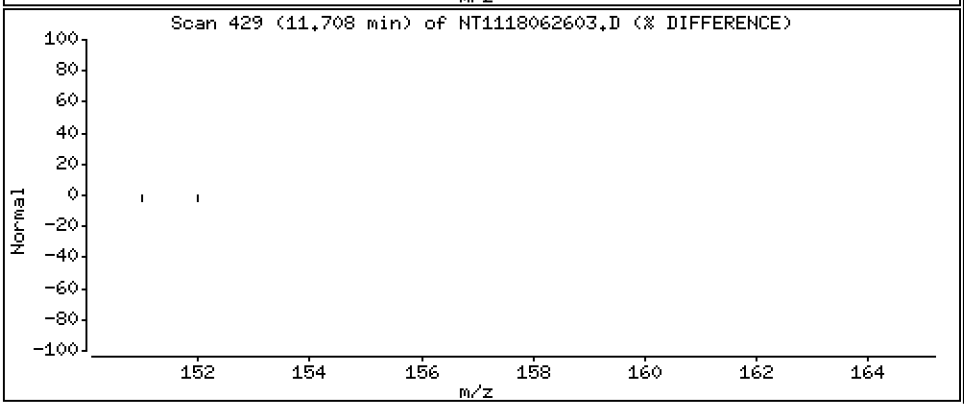












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Date : 27-JUN-2018 08:55

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-03

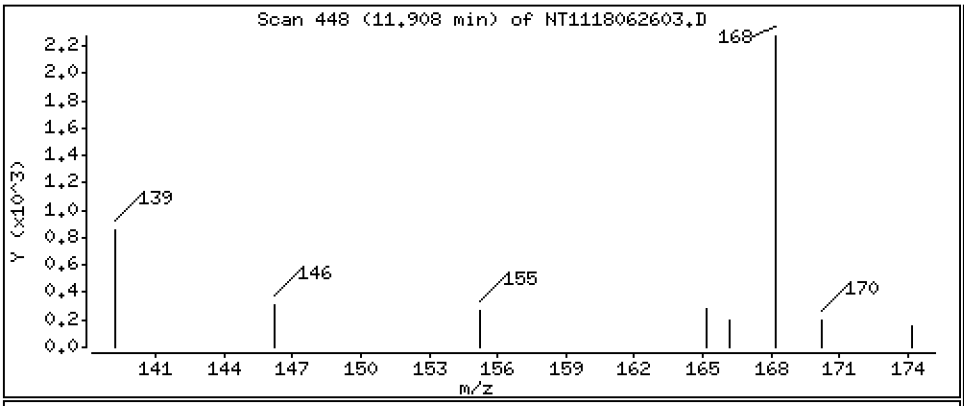
Operator: VTS

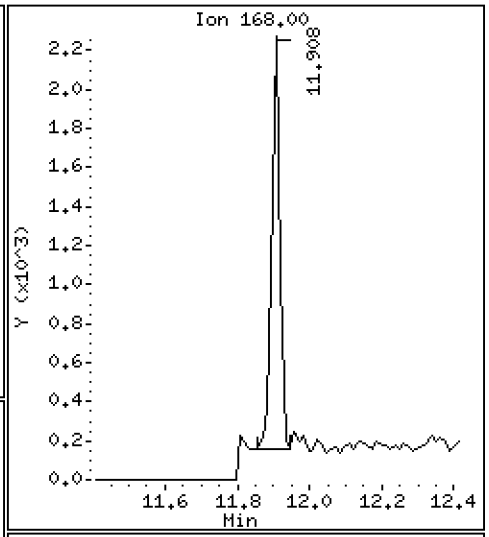
Column phase: Rxi-17Sil MS

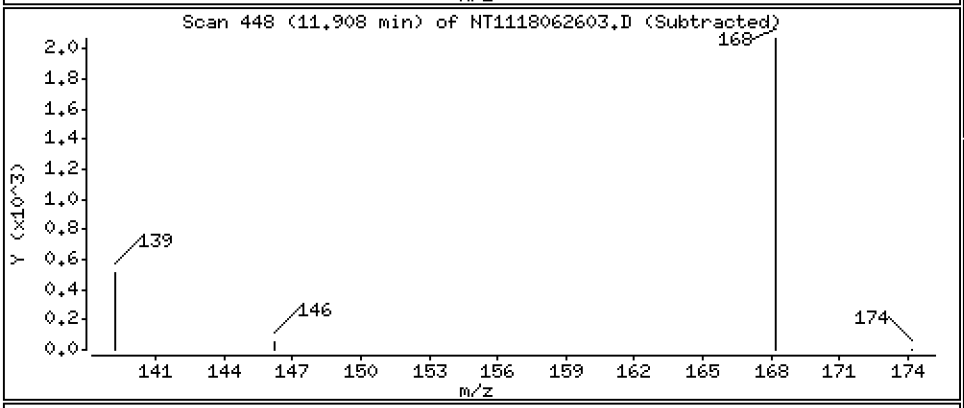
Column diameter: 0.25

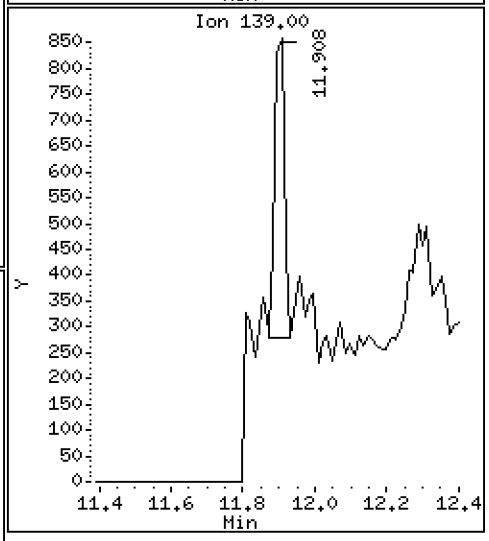
13 Dibenzofuran

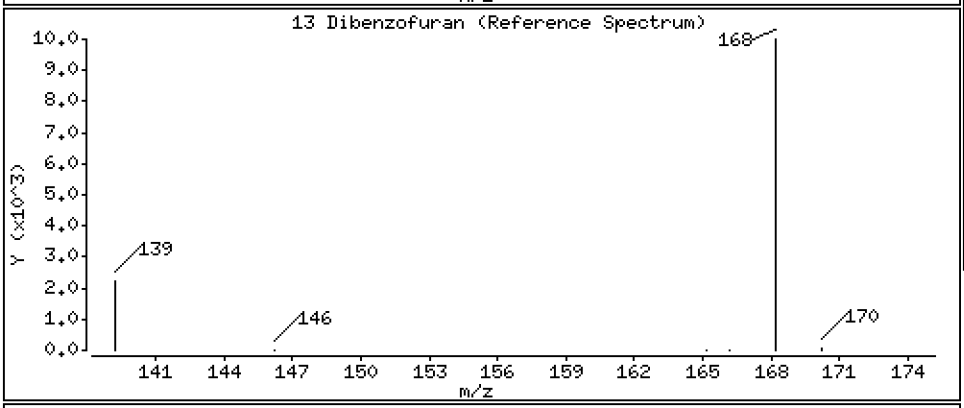
Concentration: 1.15 ng/mL

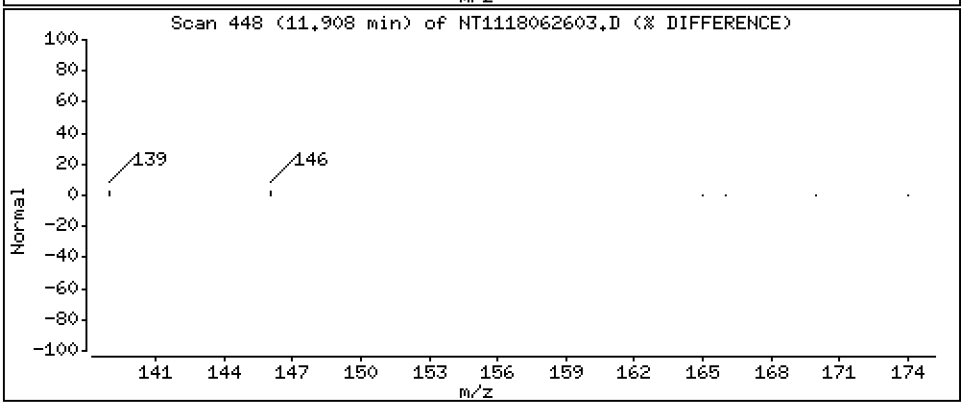












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Date : 27-JUN-2018 08:55

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-03

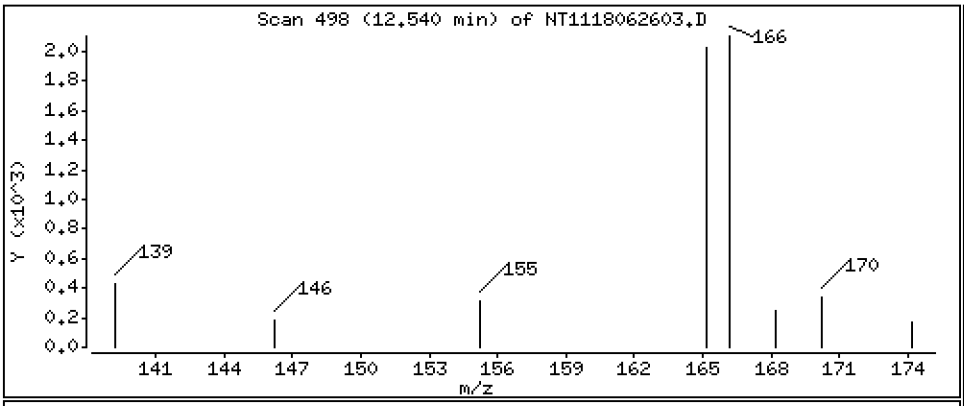
Operator: VTS

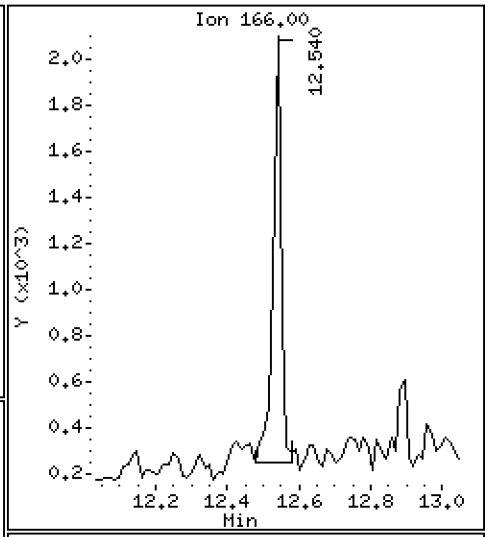
Column phase: Rxi-17Sil MS

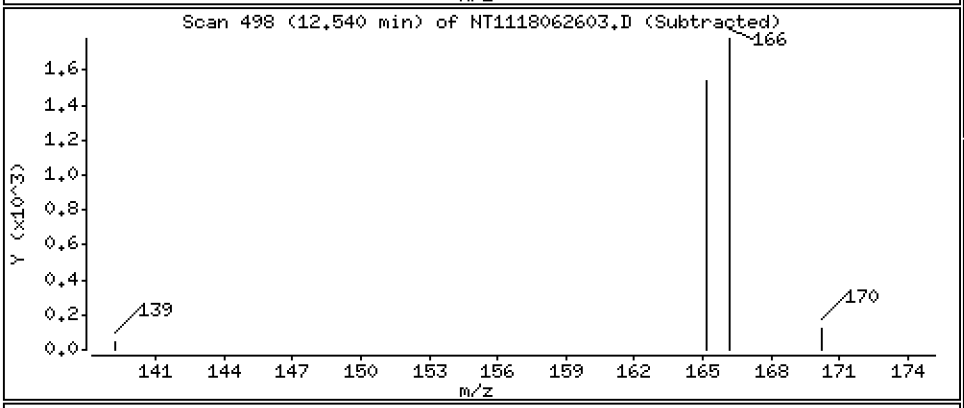
Column diameter: 0.25

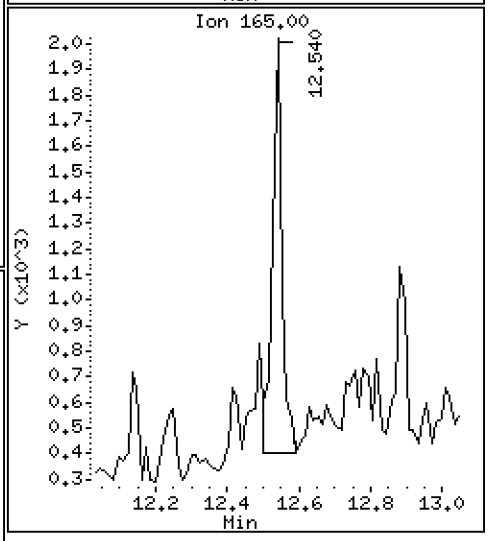
16 Fluorene

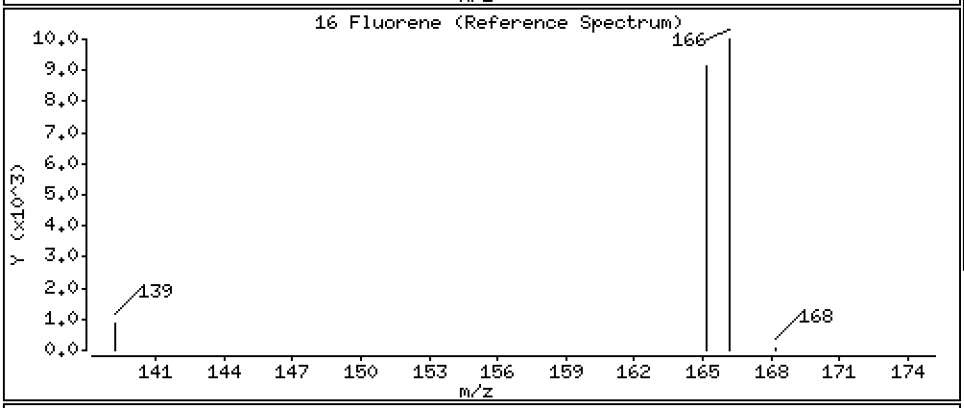
Concentration: 1.29 ng/mL

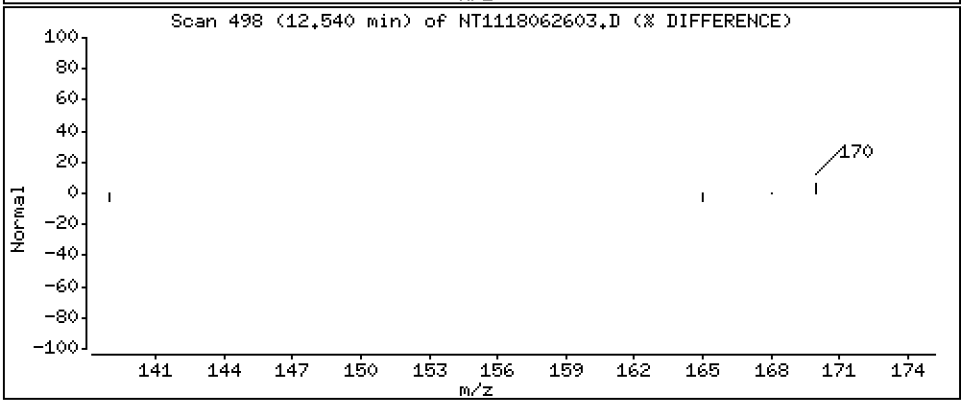












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Date : 27-JUN-2018 08:55

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-03

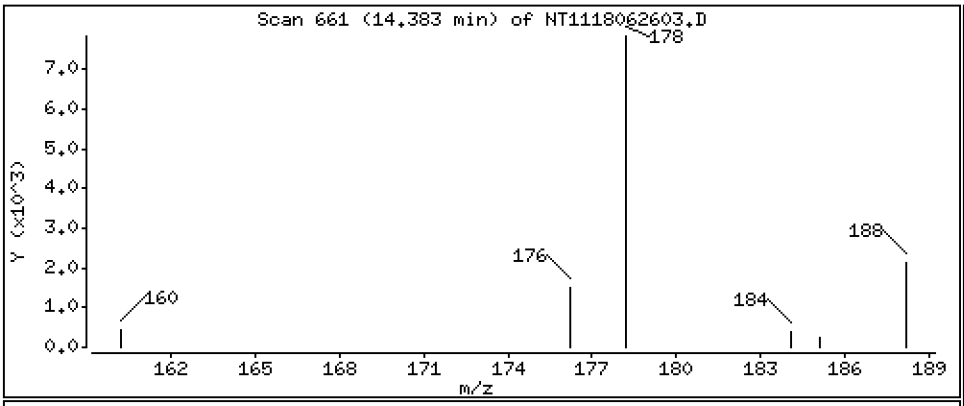
Operator: VTS

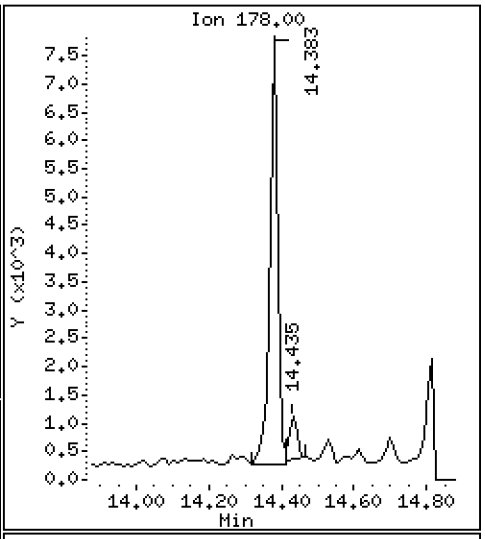
Column phase: Rxi-17Sil MS

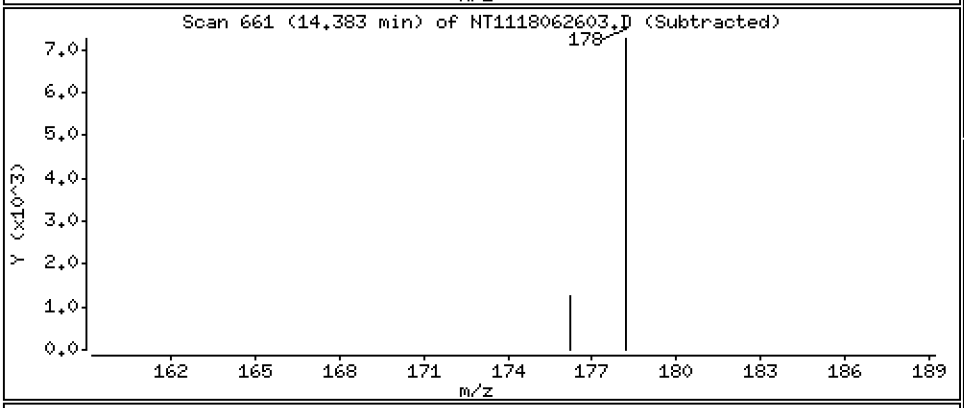
Column diameter: 0.25

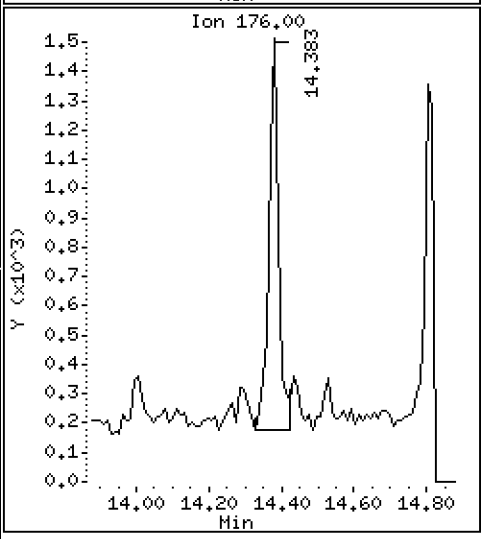
19 Phenanthrene

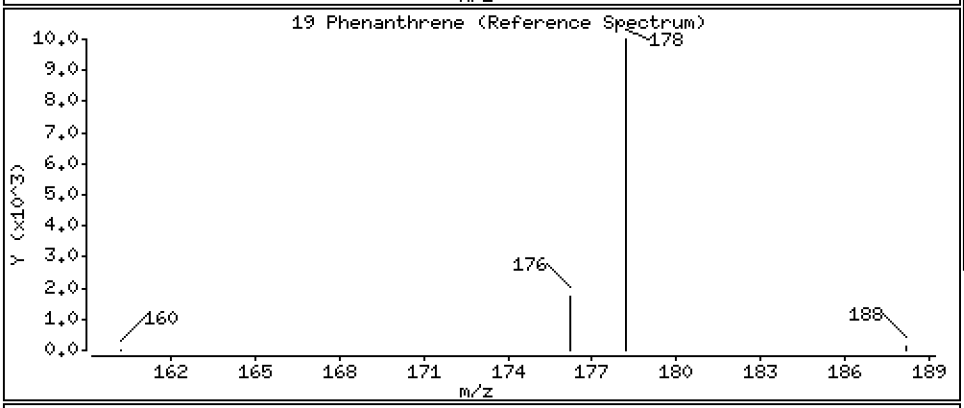
Concentration: 3.42 ng/mL

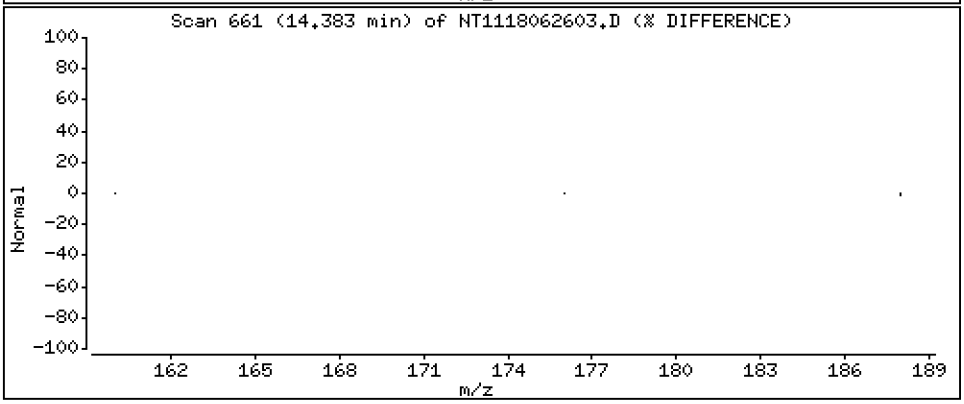












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Date : 27-JUN-2018 08:55

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-03

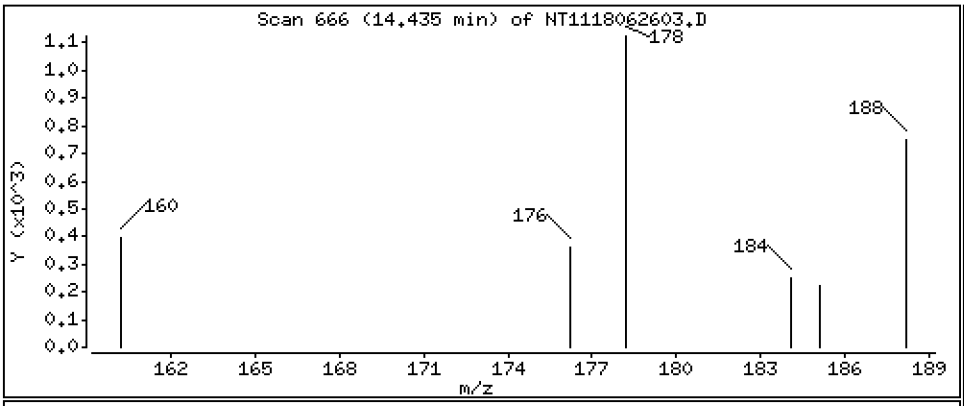
Operator: VTS

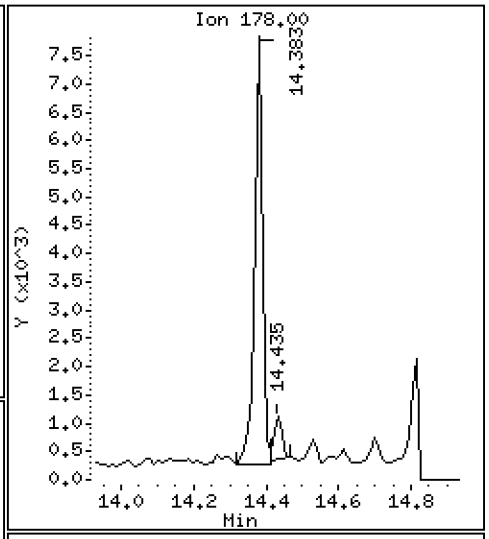
Column phase: Rxi-17Sil MS

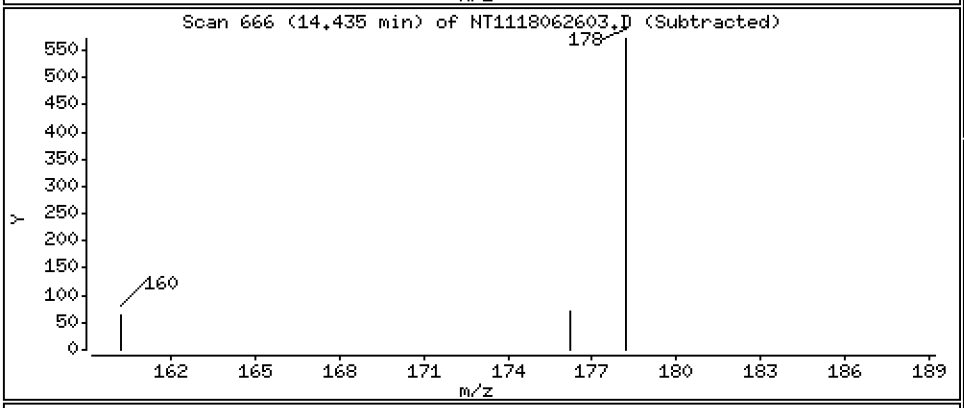
Column diameter: 0.25

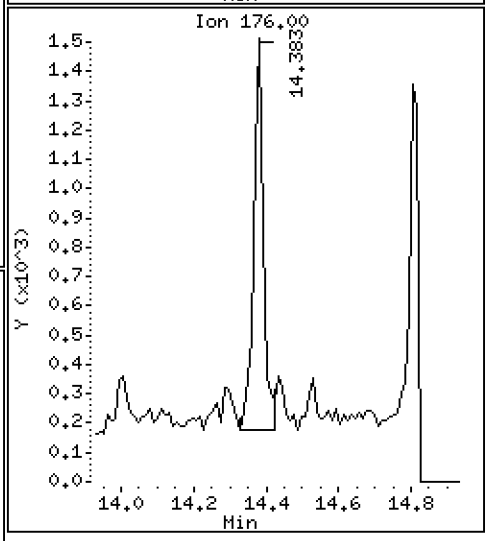
21 Anthracene

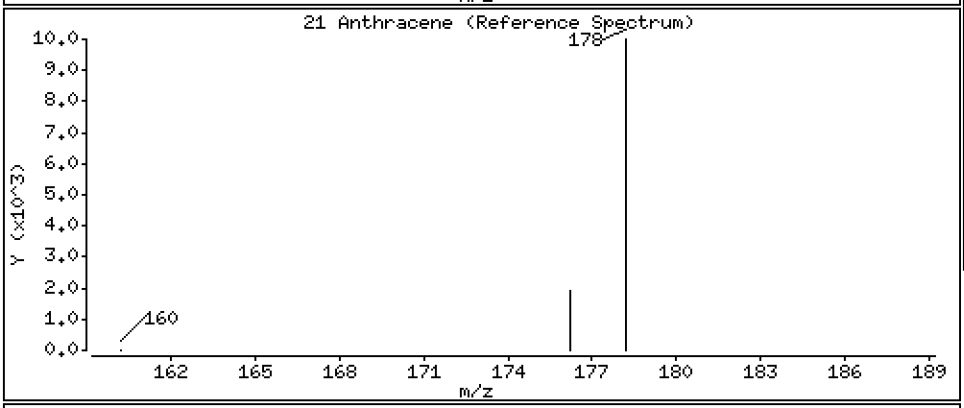
Concentration: 0.368 ng/mL

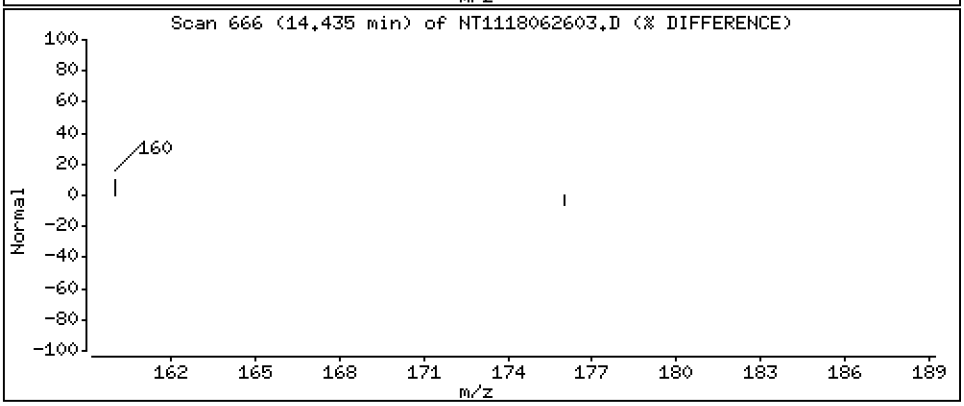












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Date : 27-JUN-2018 08:55

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-03

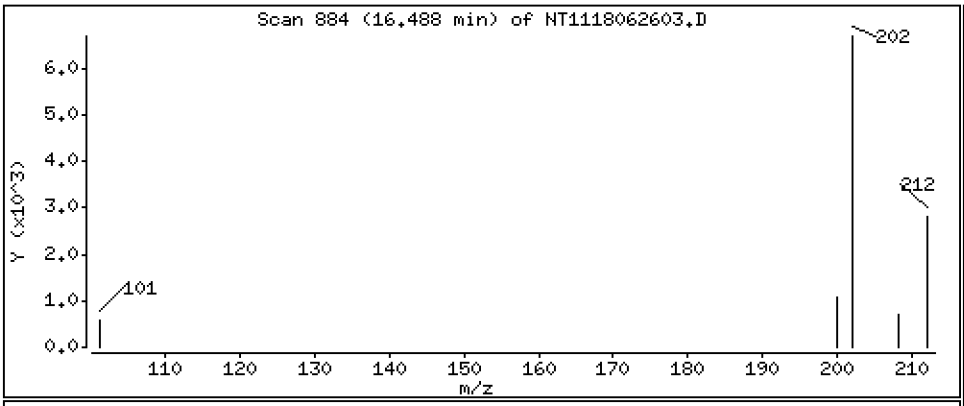
Operator: VTS

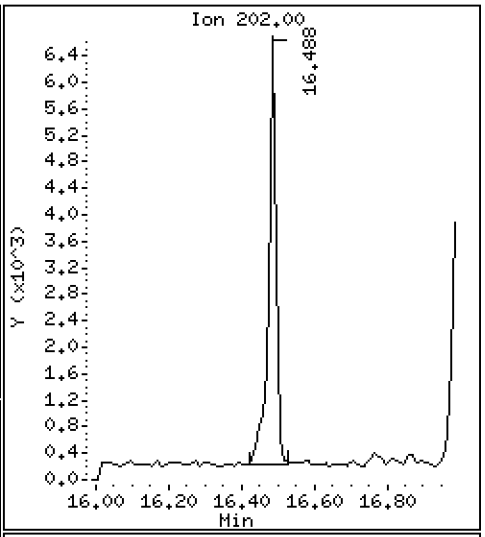
Column phase: Rxi-17Sil MS

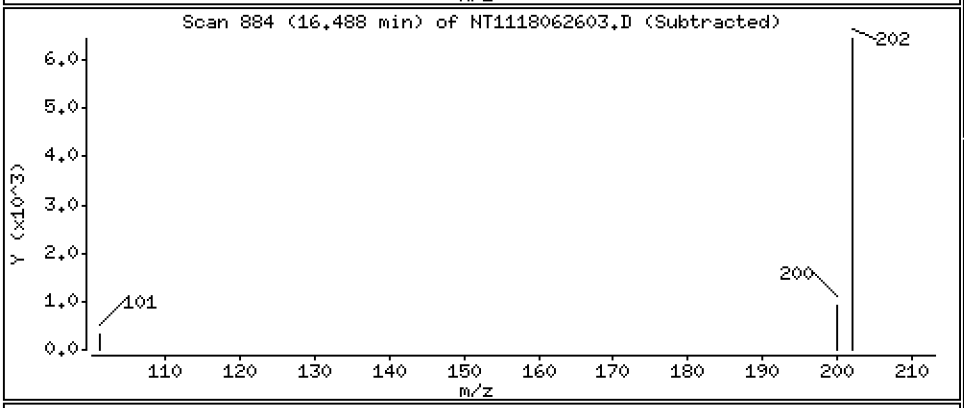
Column diameter: 0.25

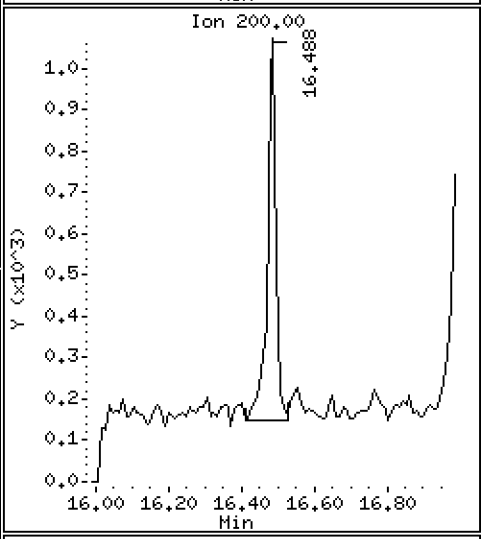
25 Fluoranthene

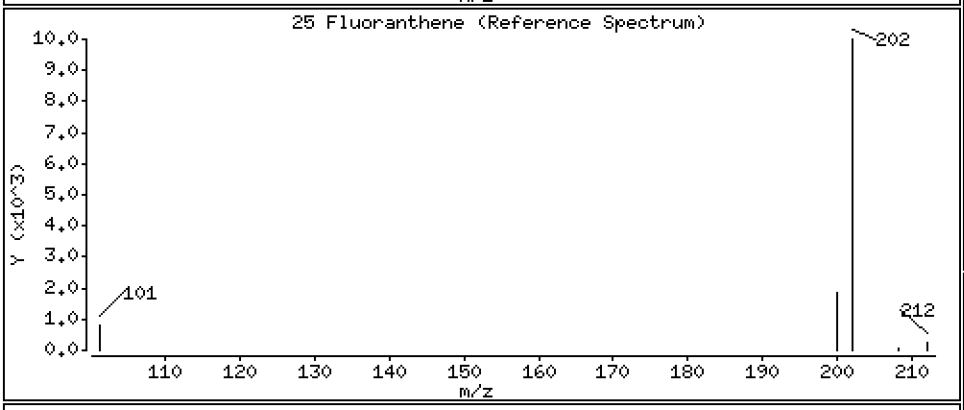
Concentration: 3.14 ng/mL

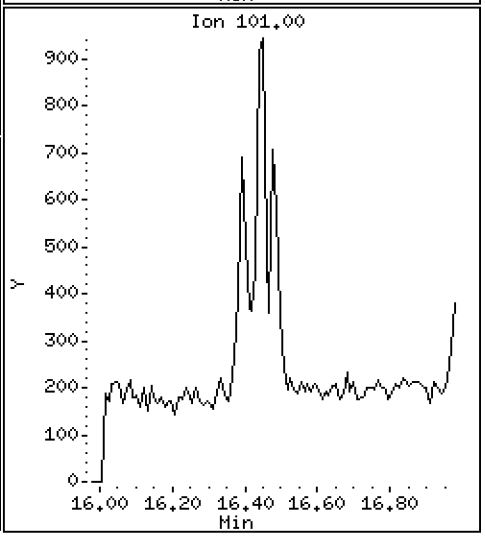


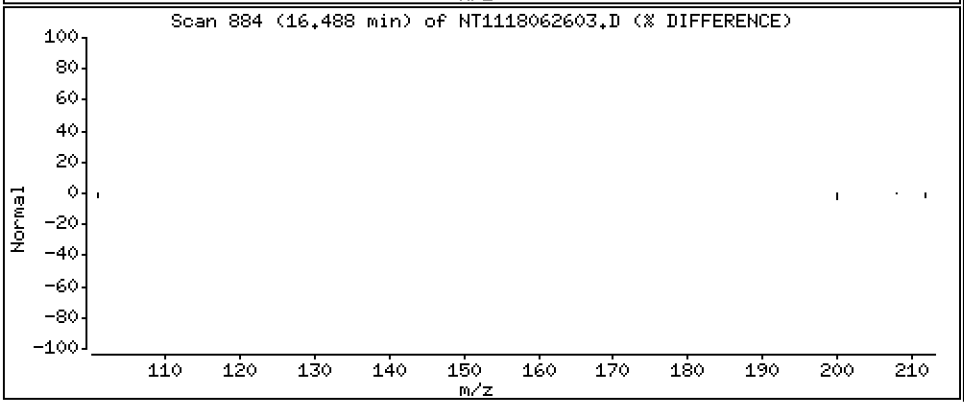












Data File: \\target\share\chem3\nt11.i\20180627.b\NT1118062603.D

Date : 27-JUN-2018 08:55

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-03

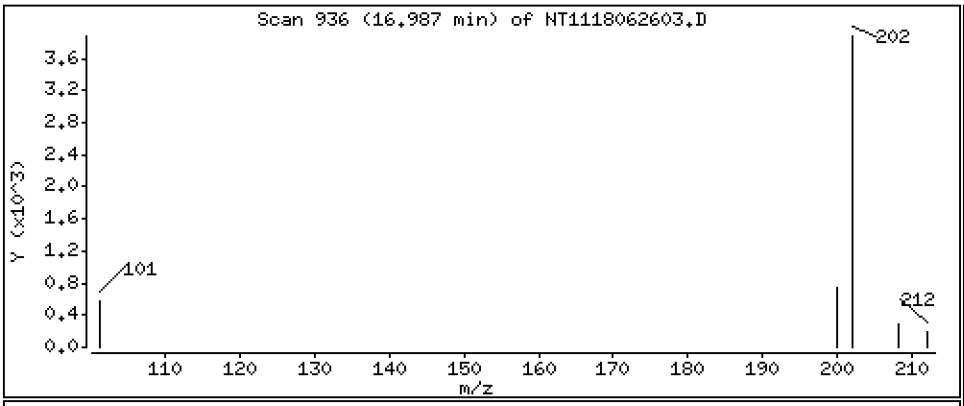
Operator: VTS

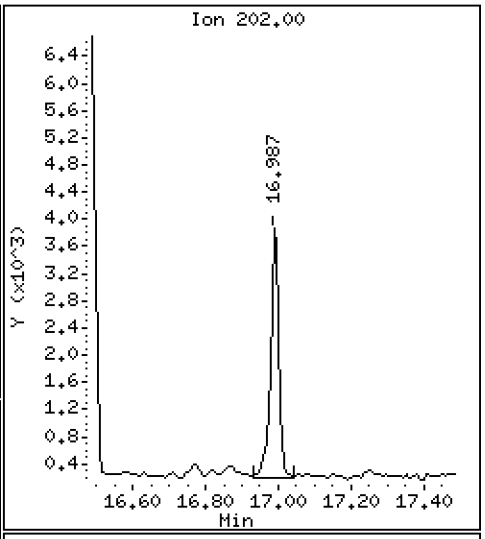
Column phase: Rxi-17Sil MS

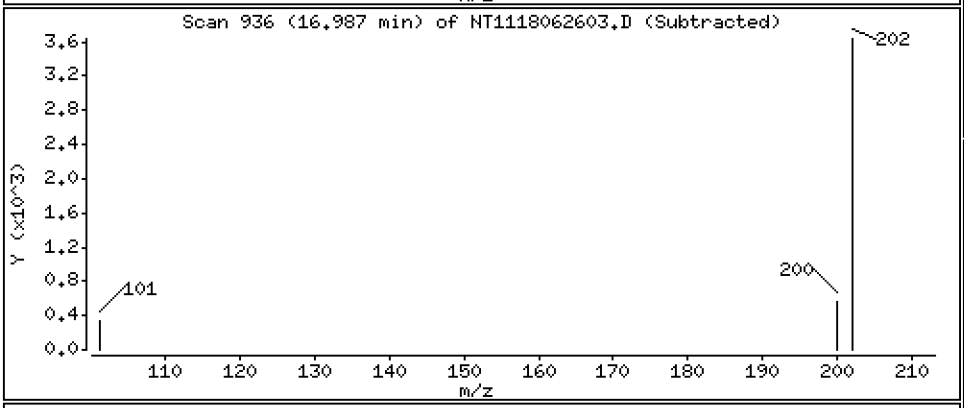
Column diameter: 0.25

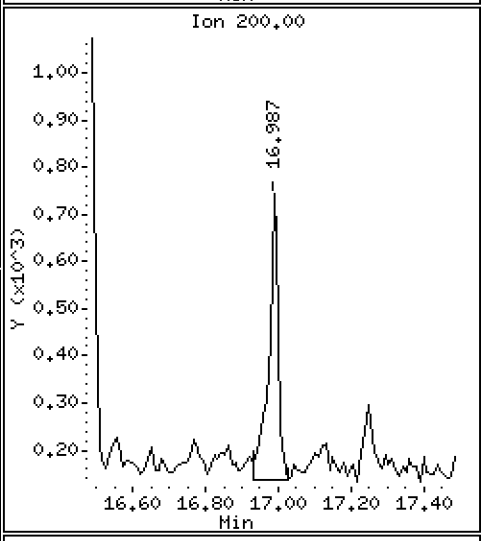
26 Pyrene

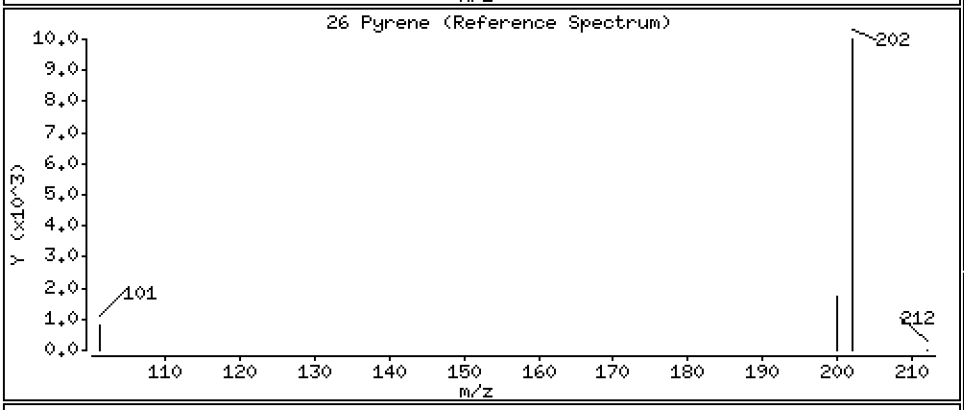
Concentration: 1.90 ng/mL

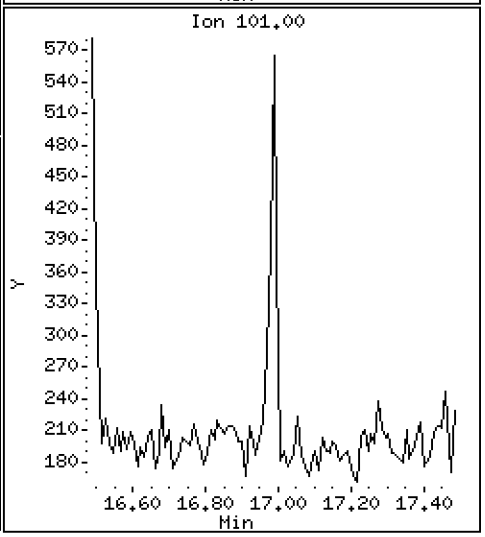


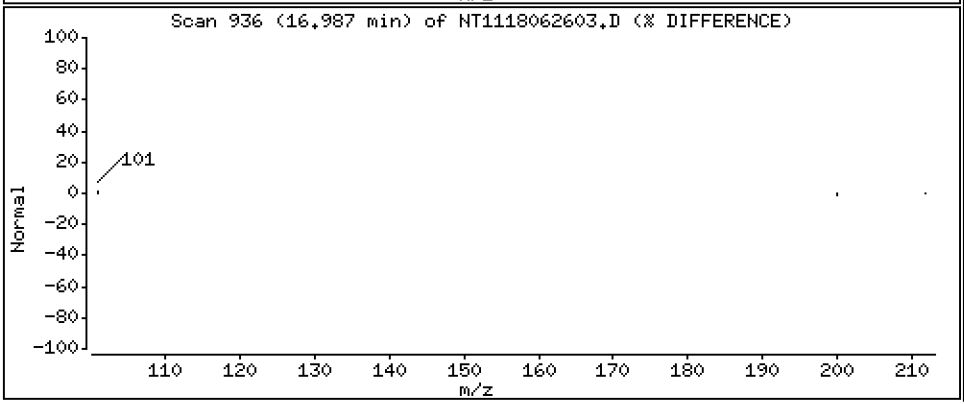












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Date : 27-JUN-2018 08:55

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-03

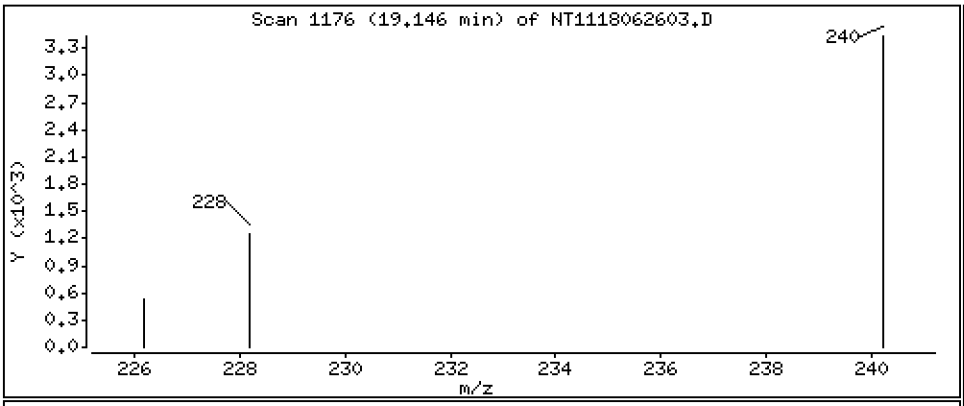
Operator: VTS

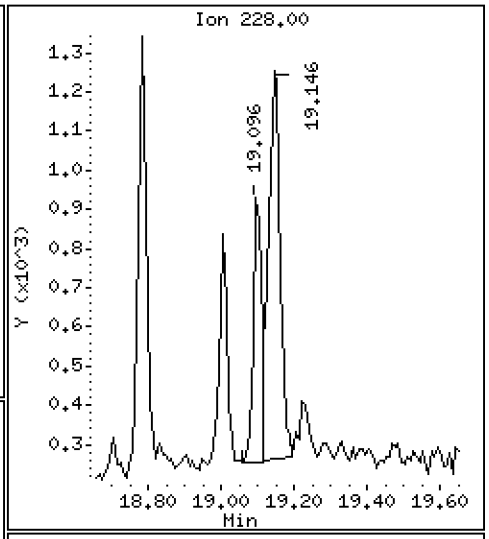
Column phase: Rxi-17Sil MS

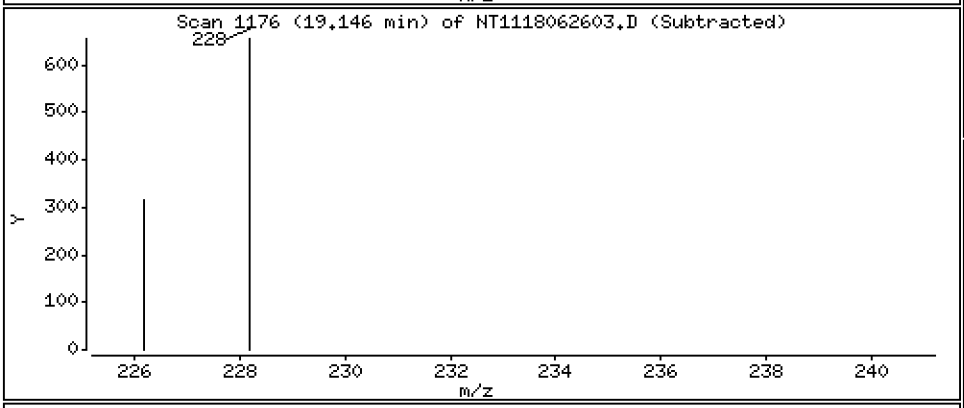
Column diameter: 0.25

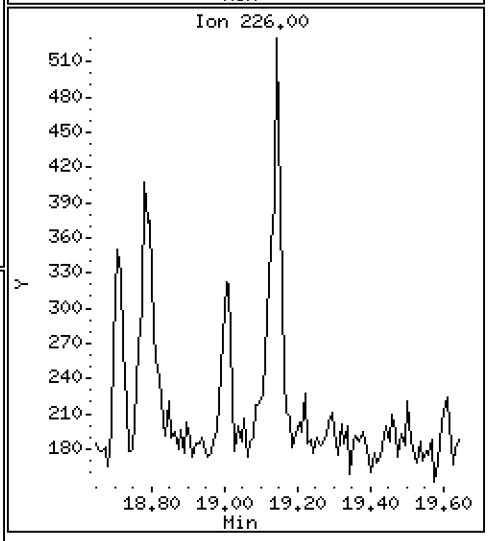
29 Chrysene

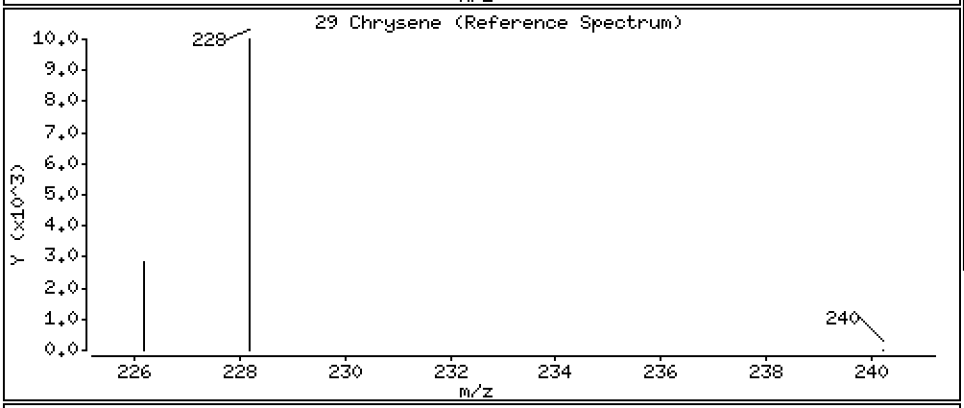
Concentration: 0.934 ng/mL

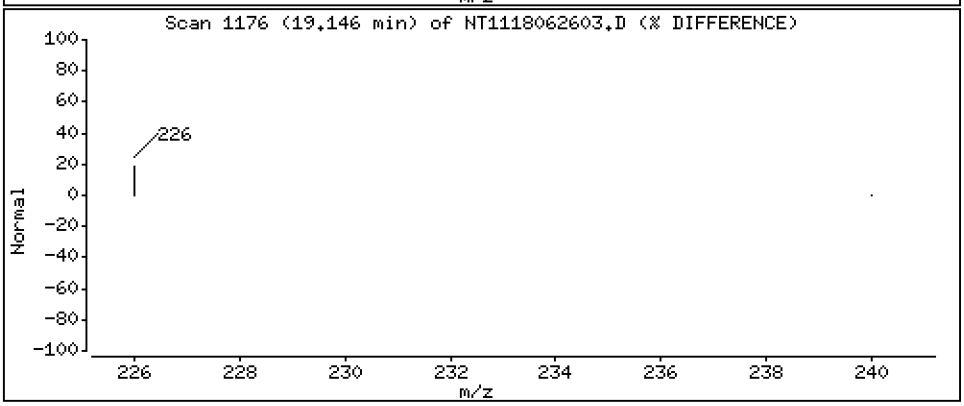












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Date : 27-JUN-2018 08:55

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-03

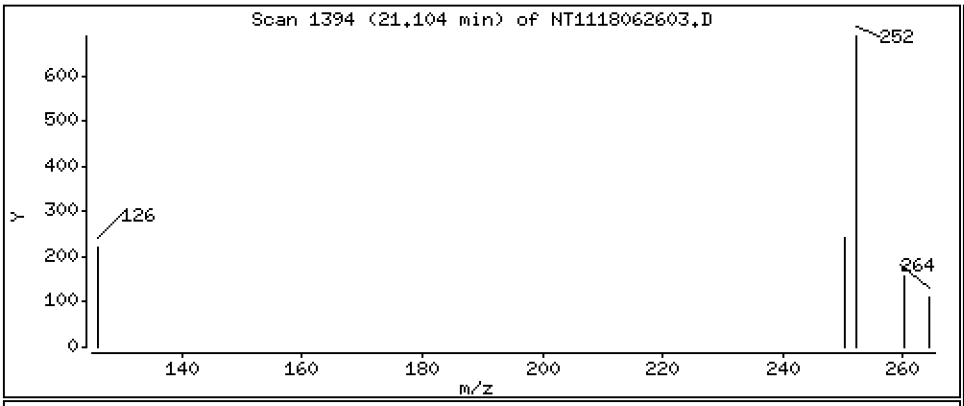
Operator: VTS

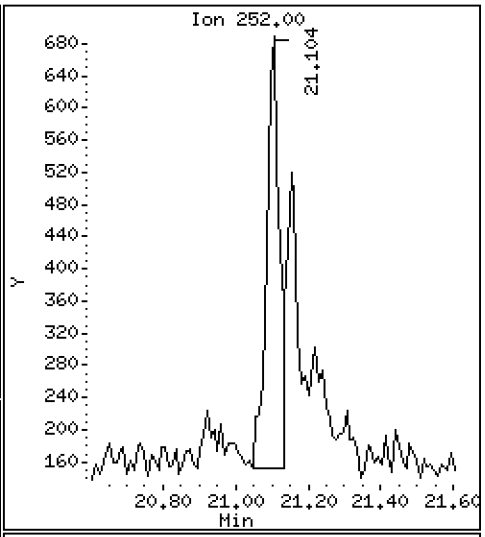
Column phase: Rxi-17Sil MS

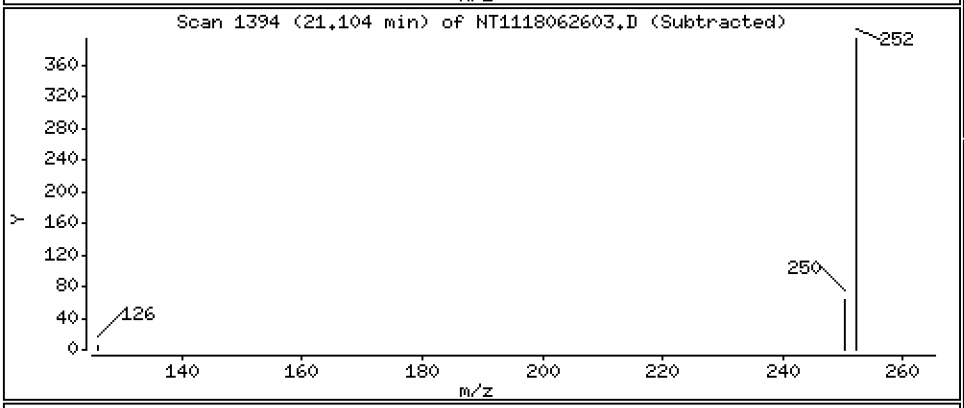
Column diameter: 0.25

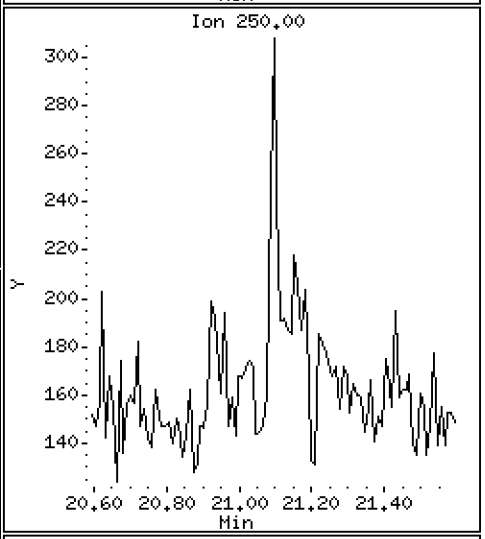
30 Benzo(b)fluoranthene

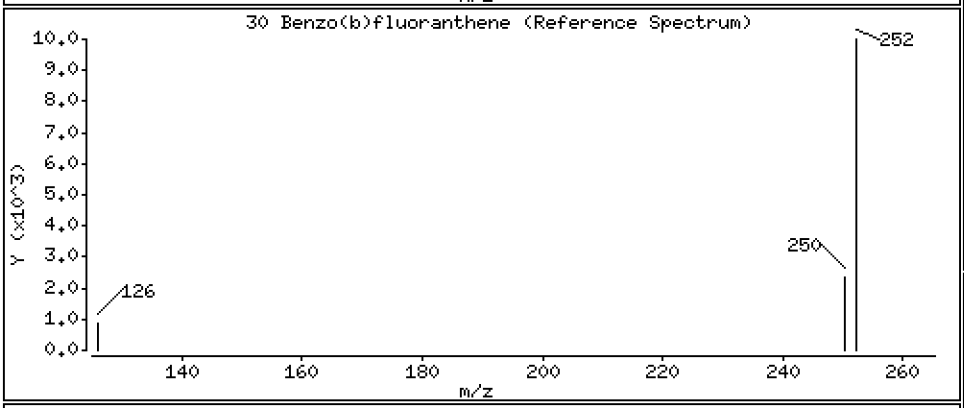
Concentration: 0.582 ng/mL

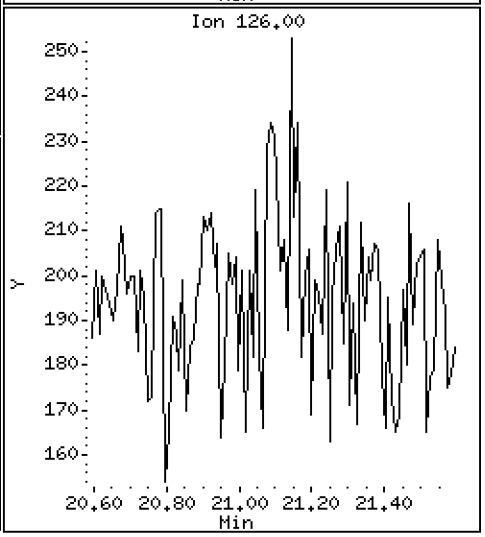


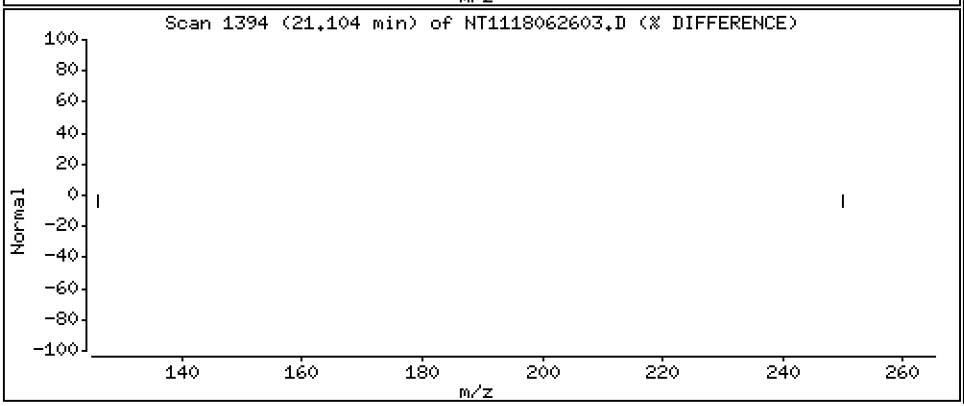












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180627.b\NT1118062603.D
Lab Smp Id: 18F0208-03
Inj Date : 27-JUN-2018 08:55 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0208-03
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180627.b\LOWSIM.m
Meth Date : 27-Jun-2018 08:43 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	466900	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	7682	2.18474	2.18
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	544272	204.309	204
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	4145	1.45741	1.46
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	3029	1.07087	1.07
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	250417	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	2828	1.38869	1.39
	13 Dibenzofuran	168	11.908	11.908	(1.023)	3209	1.15025	1.15
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.540	12.539	(1.077)	2893	1.28592	1.29
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	425760	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	11413	3.41786	3.42
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.435	14.435	(1.007)	1148	0.36775	0.368
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	Compound Not Detected.					
$	24 Fluoranthene-d10	212	16.449	16.449	(1.147)	600694	232.433	232
	25 Fluoranthene	202	16.487	16.487	(1.150)	9741	3.14126	3.14
	26 Pyrene	202	16.987	16.987	(0.889)	6226	1.90122	1.90
	27 Benzo(a)anthracene	228	Compound Not Detected.					
*	28 Chrysene-d12	240	19.104	19.103	(1.000)	333102	200.000	
	29 Chrysene	228	19.145	19.153	(1.002)	2370	0.93419	0.934
	30 Benzo(b)fluoranthene	252	21.104	21.104	(0.944)	1364	0.58155	0.582
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	35	Benzo(a)pyrene	252	Compound Not Detected.					
*	36	Perylene-d12	264	22.353	22.353	(1.000)	331601	200.000	
	37	Perylene	252	Compound Not Detected.					
$	38	Dibenzo(a,h)anthracene-d14	292	25.279	25.279	(1.131)	353479	222.758	223
	39	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	40	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	41	Benzo(g,h,i)perylene	276	Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118062603.D
Lab Smp Id: 18F0208-03
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180627.b\LOWSIM.m
Misc Info:

Calibration Date: 27-JUN-2018
Calibration Time: 08:13
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	466900	8.25
11 Acenaphthene-d10	260137	130069	520274	250417	-3.74
18 Phenanthrene-d10	427391	213696	854782	425760	-0.38
28 Chrysene-d12	304596	152298	609192	333102	9.36
36 Perylene-d12	263091	131546	526182	331601	26.04

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118062603.D

Lab ID: 18F0208-03
nt11.i, 20180627.b\LOWSIM.m,   27-JUN-2018 08:55

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180627.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-24-FD

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-04	SDG:	18F0185
Sampled:	06/13/18 12:42	Prepared:	06/19/18 17:20	File ID:	NT1118062604.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	06/27/18 09:31
Batch:	BGF0455	Sequence:	SGF0327	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.006	J	0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.010	J	0.001	0.010
208-96-8	Acenaphthylene	1	0.010	U	0.002	0.010
83-32-9	Acenaphthene	1	0.010	U	0.003	0.010
86-73-7	Fluorene	1	0.019		0.002	0.010
85-01-8	Phenanthrene	1	0.046		0.001	0.010
120-12-7	Anthracene	1	0.010	U	0.001	0.010
206-44-0	Fluoranthene	1	0.007	J	0.002	0.010
129-00-0	Pyrene	1	0.002	J	0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.010	U	0.0008	0.010
218-01-9	Chrysene	1	0.010	U	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.010	U	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.211	70.3	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.232	77.2	29 - 120	
Fluoranthene-d10	0.30000	0.227	75.8	57 - 120	

Data File: \\target\share\chem3\nt11.i\20180627.b\NT1118062604.D

Date : 27-JUN-2018 09:31

Client ID:

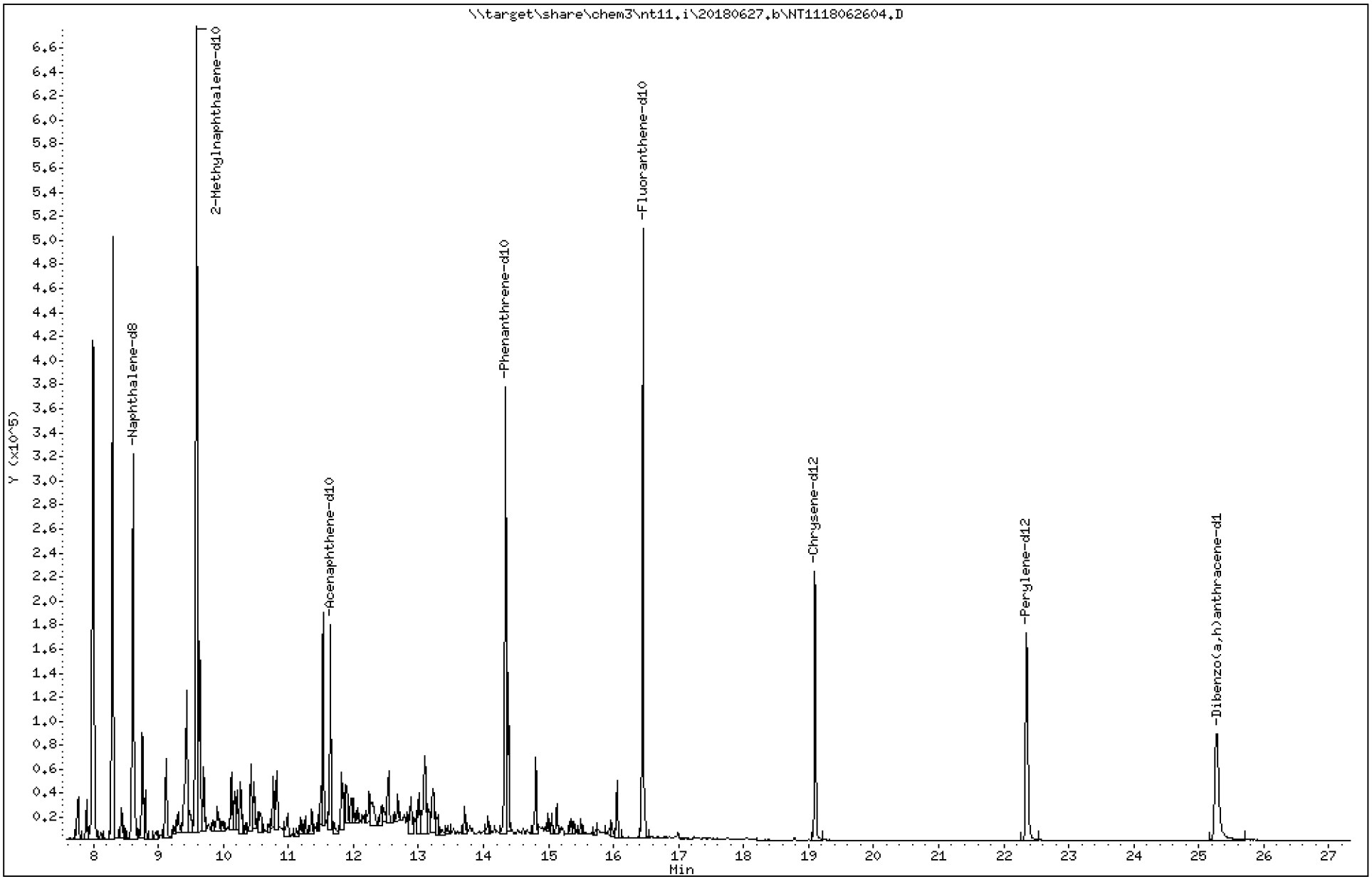
Instrument: nt11.i

Sample Info: 18F0208-04

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 27-JUN-2018 09:31

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-04

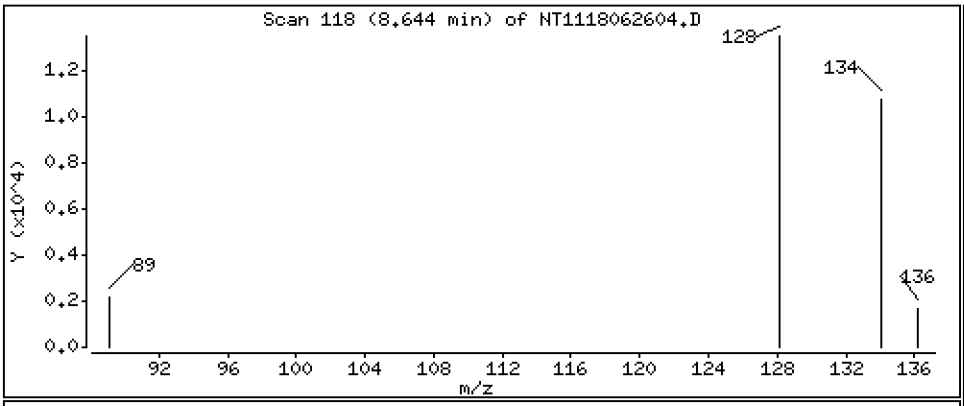
Operator: VTS

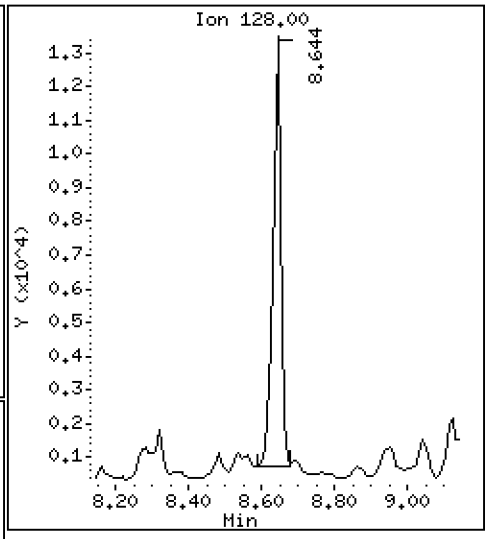
Column phase: Rxi-17Sil MS

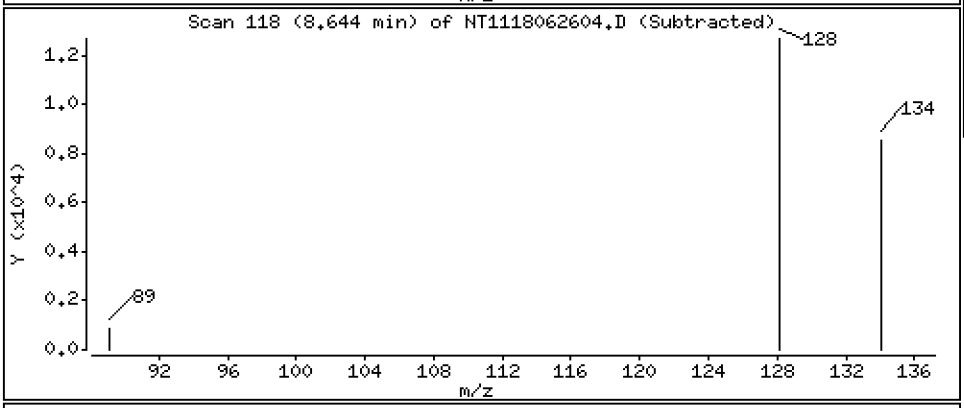
Column diameter: 0.25

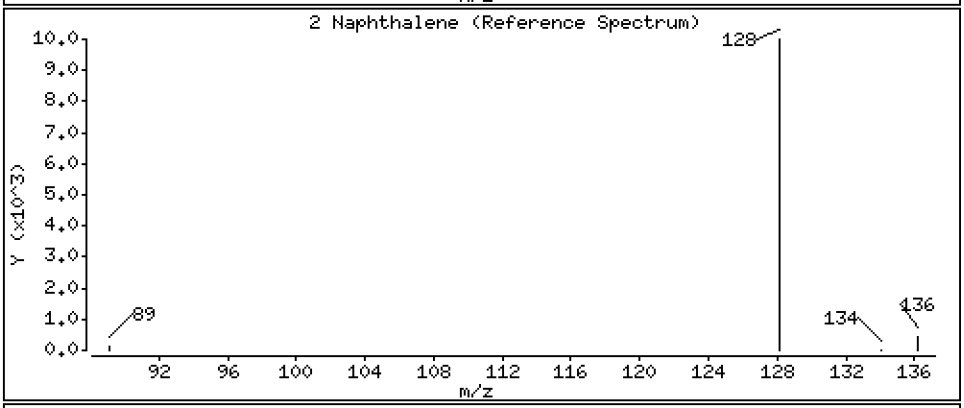
2 Naphthalene

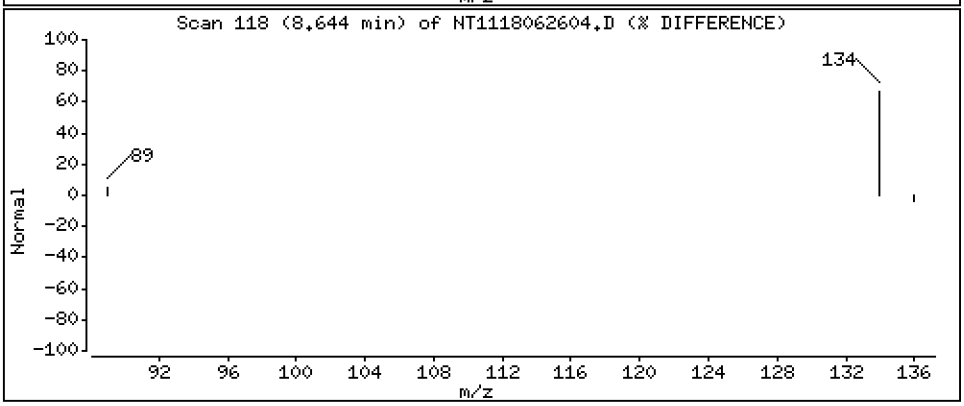
Concentration: 5.68 ng/mL











Data File: \\target\share\chem3\nt11.i\20180627.b\NT1118062604.D

Date : 27-JUN-2018 09:31

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-04

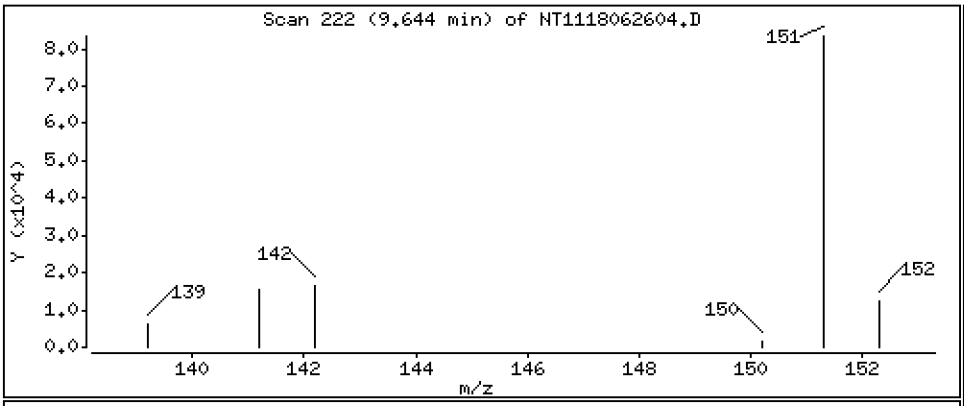
Operator: VTS

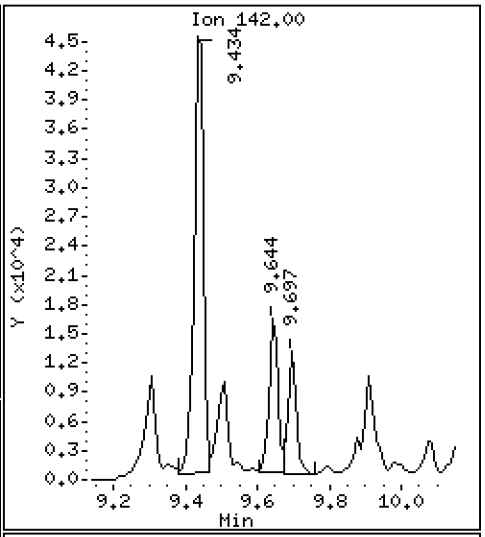
Column phase: Rxi-17Sil MS

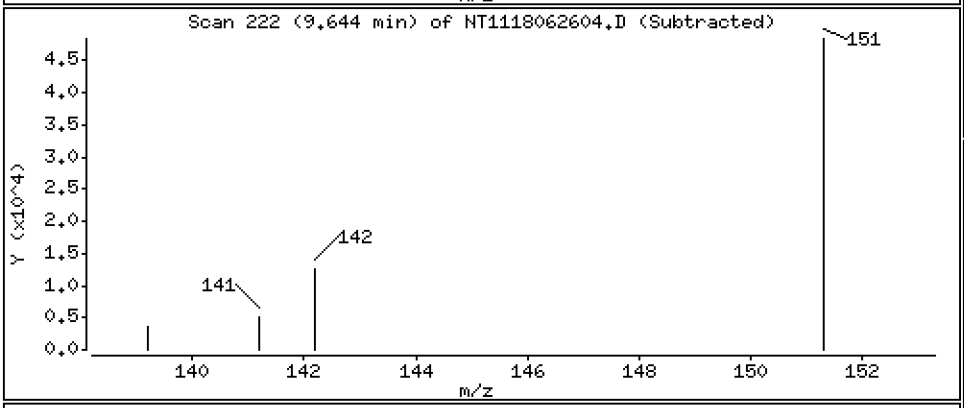
Column diameter: 0.25

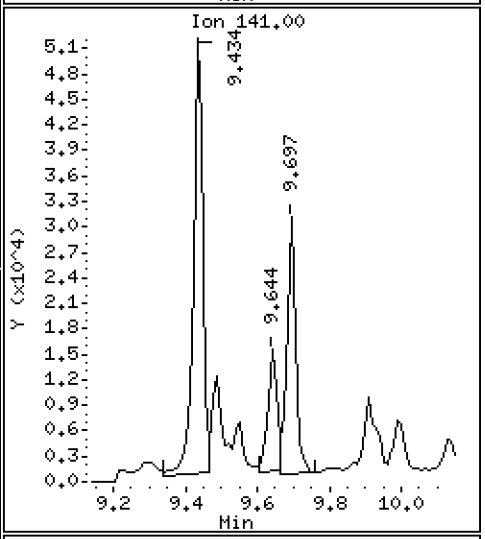
5 2-Methylnaphthalene

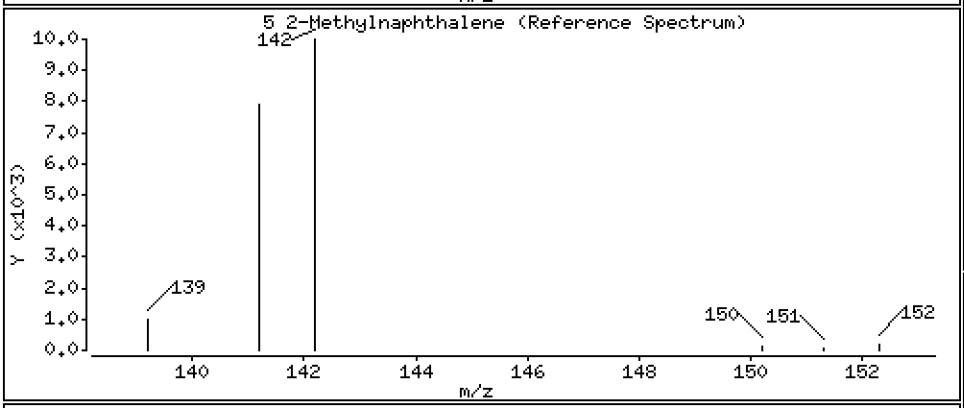
Concentration: 9.81 ng/mL

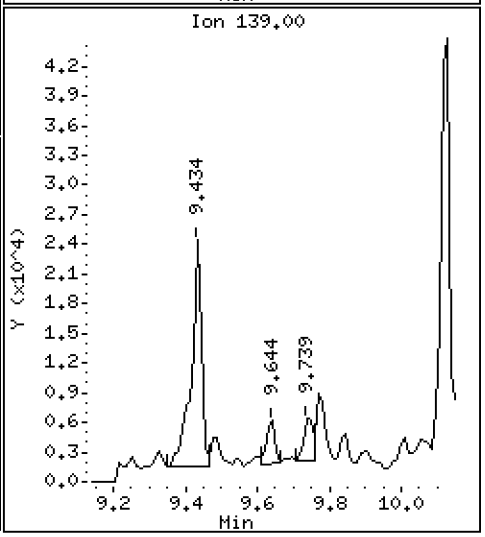


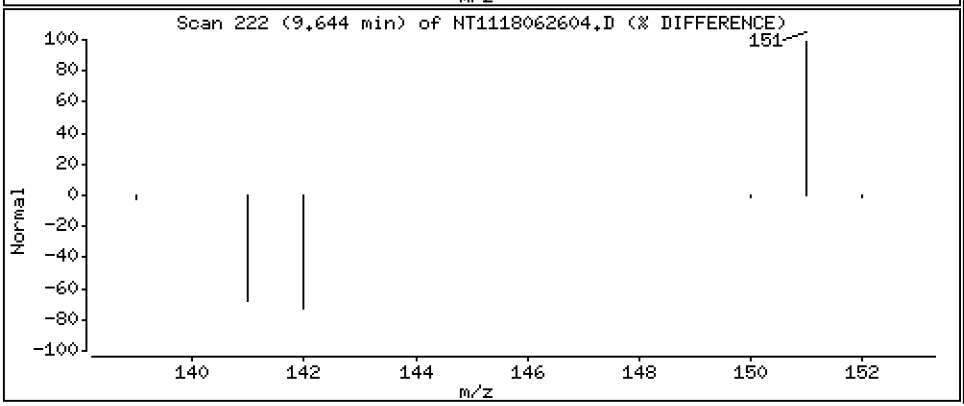












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Date : 27-JUN-2018 09:31

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-04

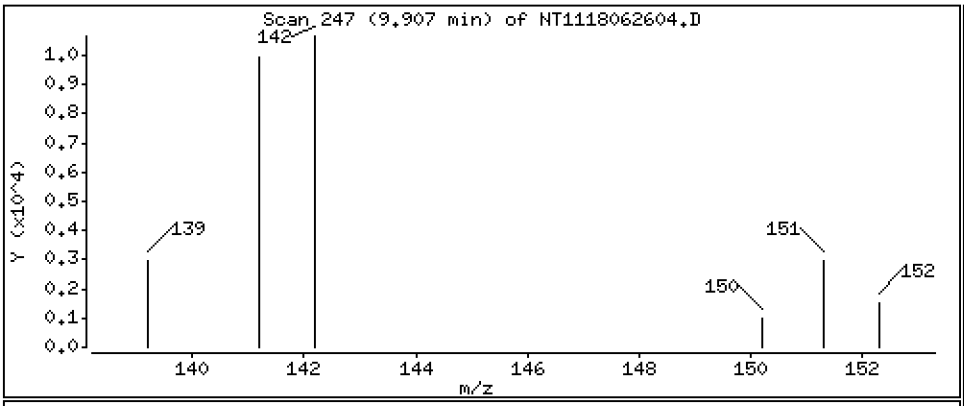
Operator: VTS

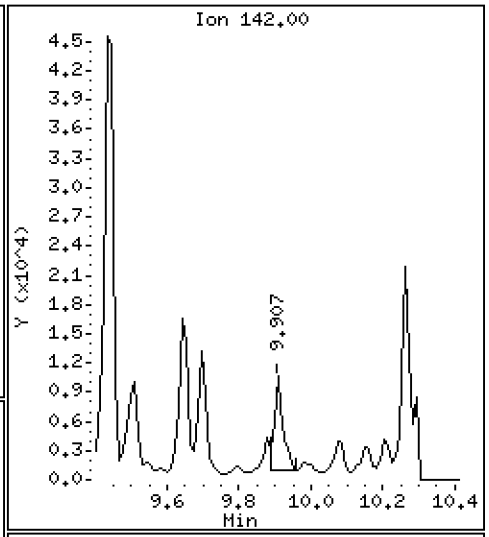
Column phase: Rxi-17Sil MS

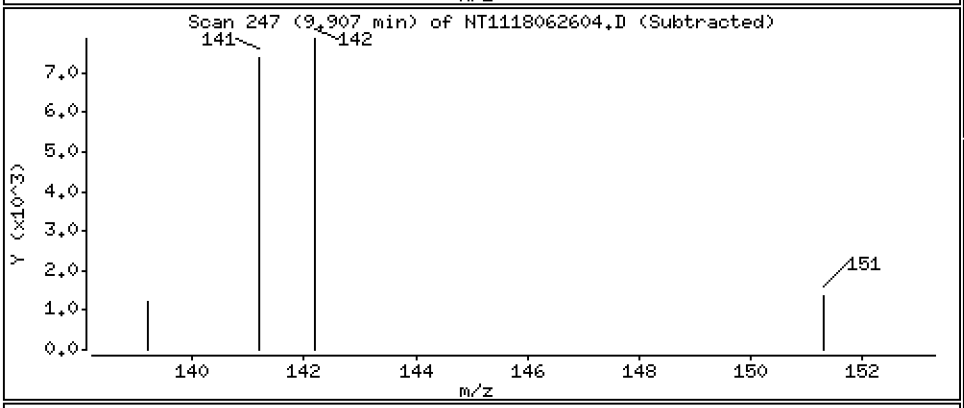
Column diameter: 0.25

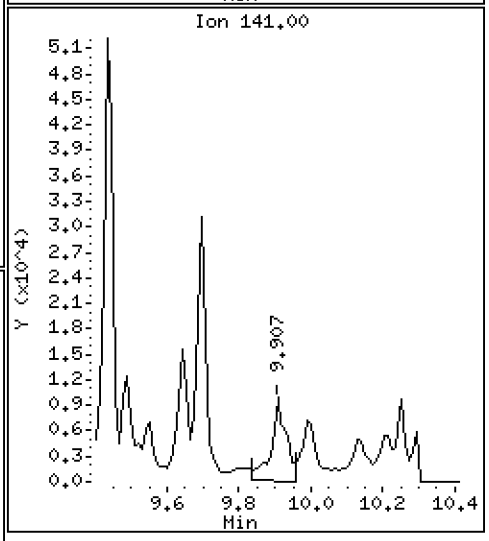
6 1-Methylnaphthalene

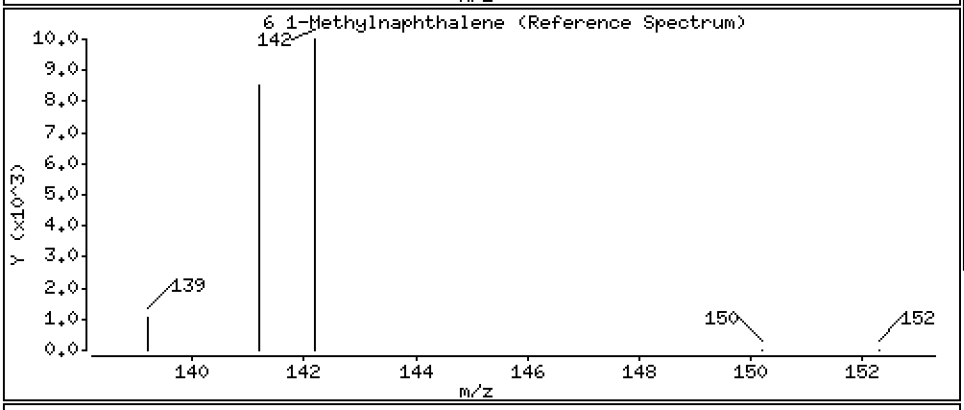
Concentration: 6.81 ng/mL

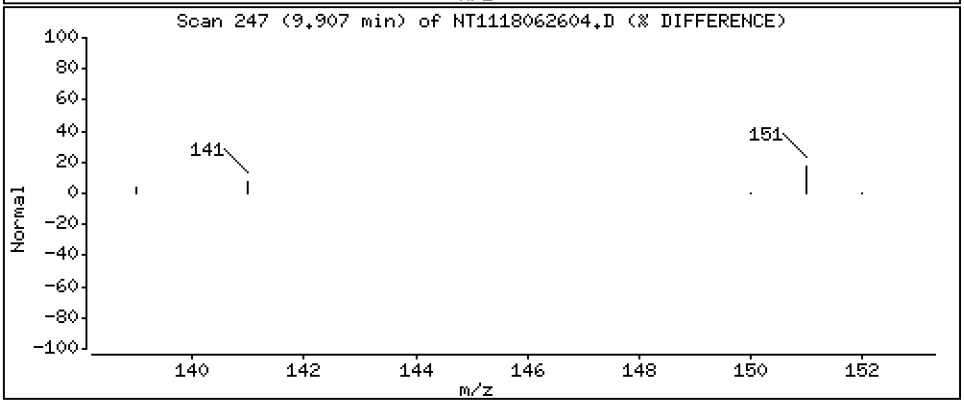












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Date : 27-JUN-2018 09:31

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-04

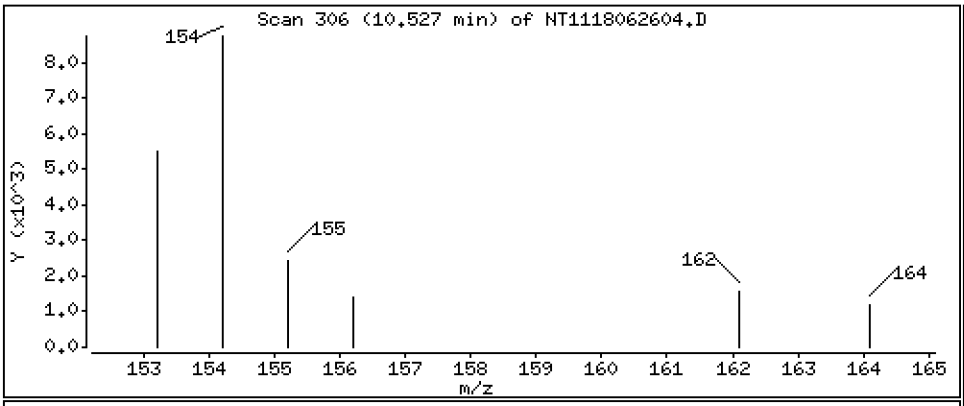
Operator: VTS

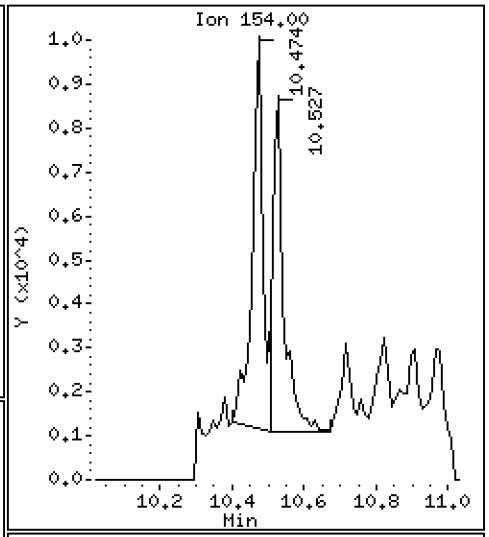
Column phase: Rxi-17Sil MS

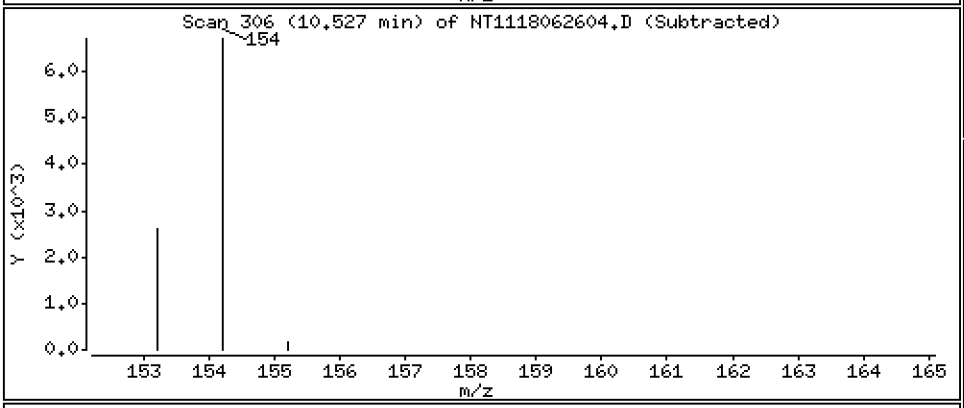
Column diameter: 0.25

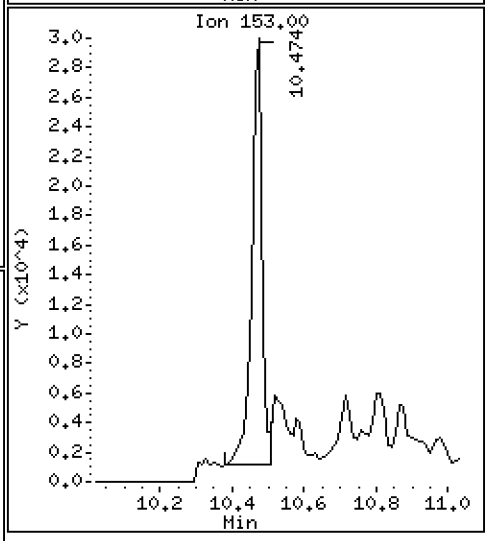
8 Biphenyl

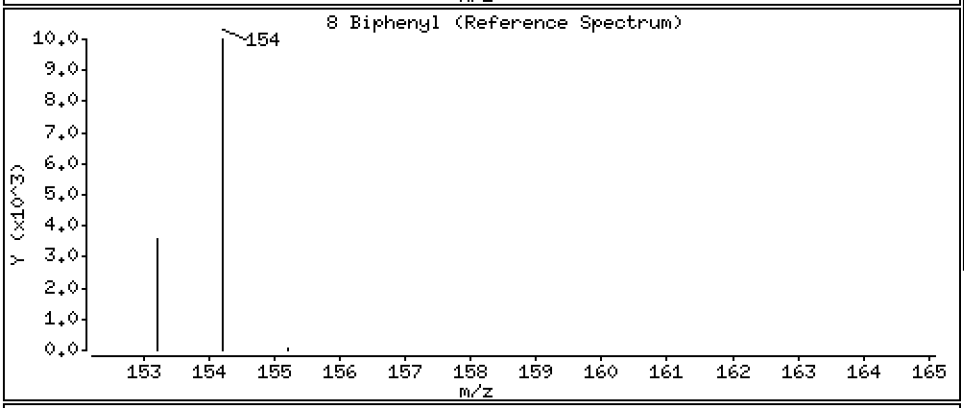
Concentration: 4.89 ng/mL

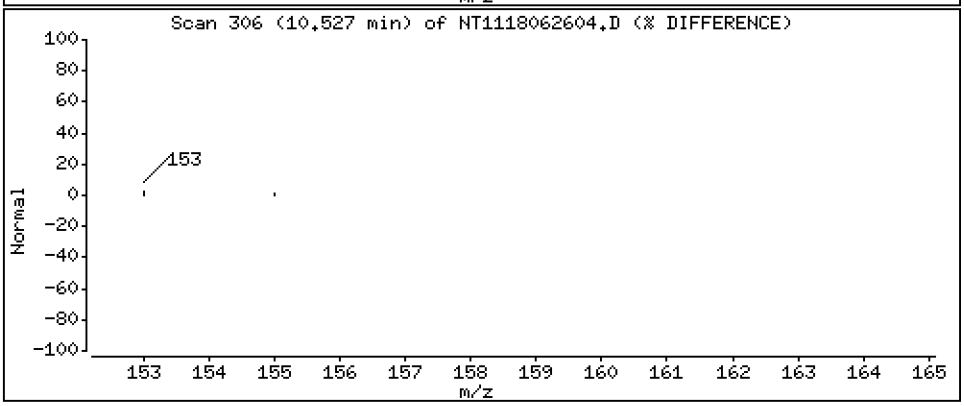












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Date : 27-JUN-2018 09:31

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-04

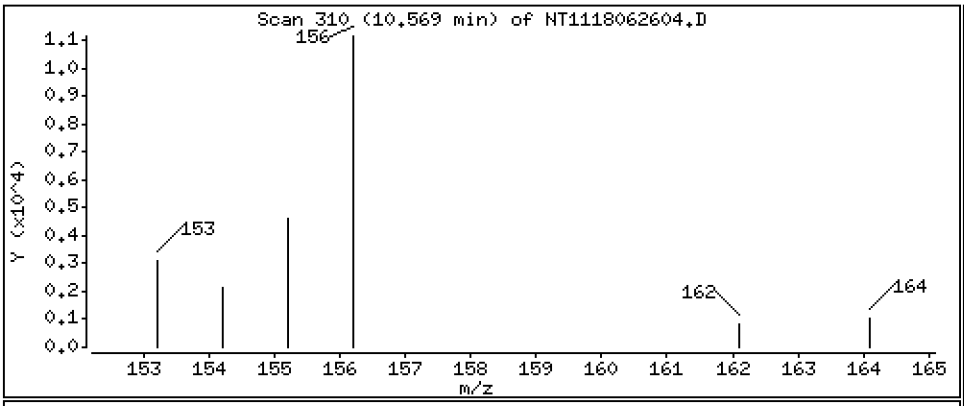
Operator: VTS

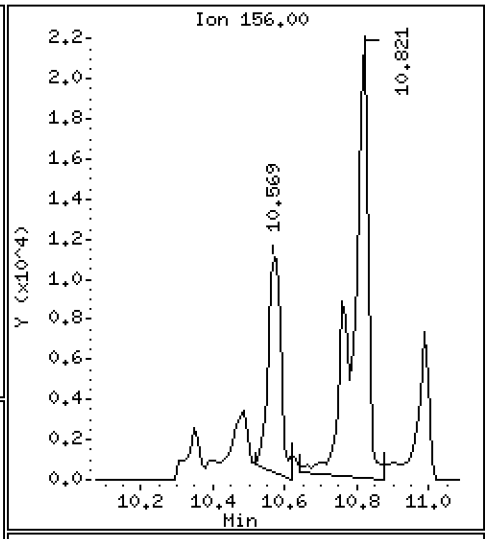
Column phase: Rxi-17Sil MS

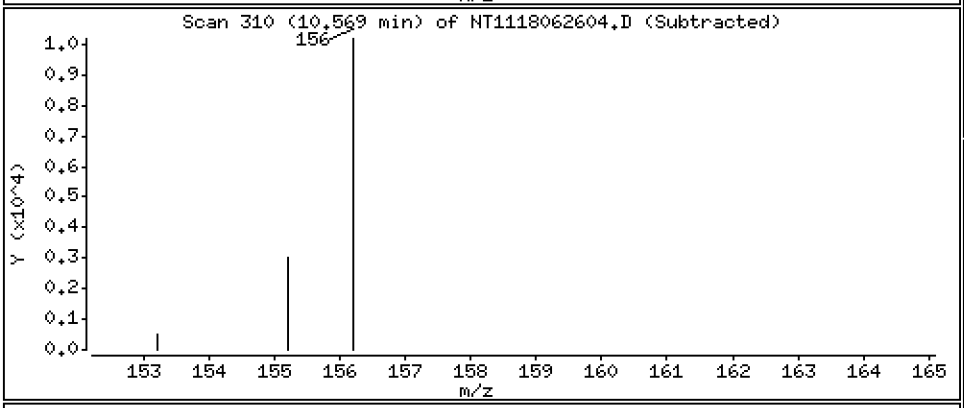
Column diameter: 0.25

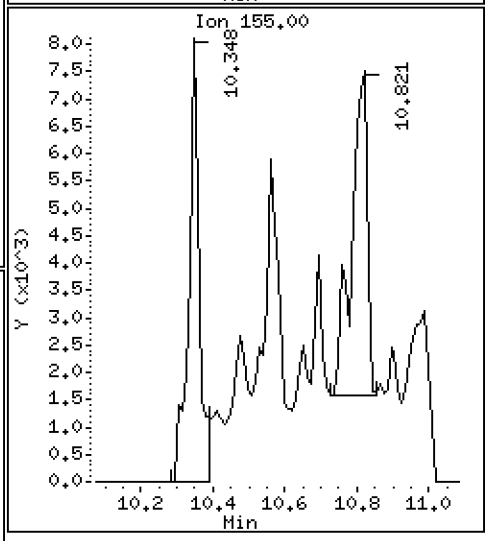
9 2,6-Dimethylnaphthalene

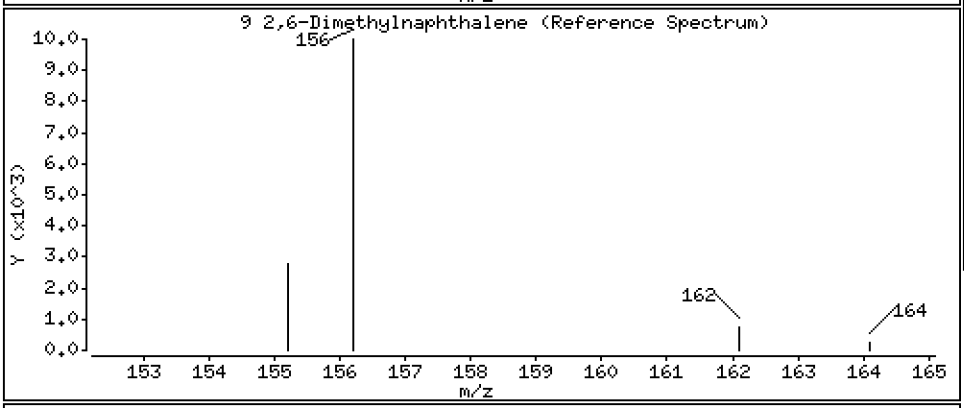
Concentration: 11.4 ng/mL

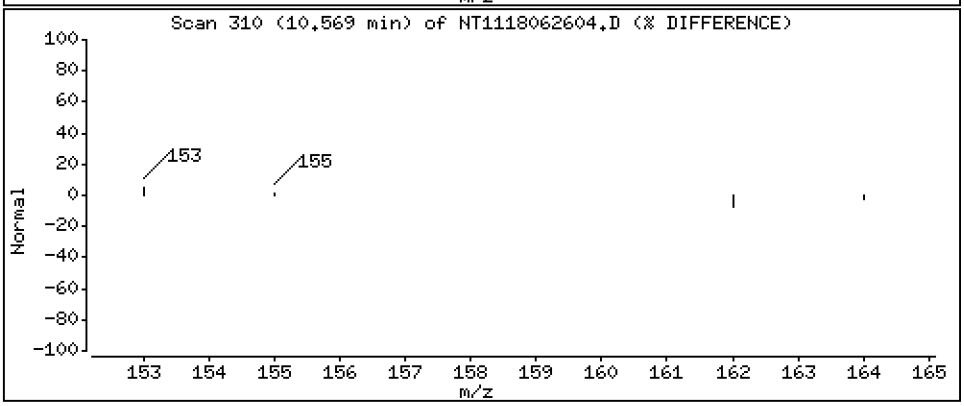












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Date : 27-JUN-2018 09:31

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-04

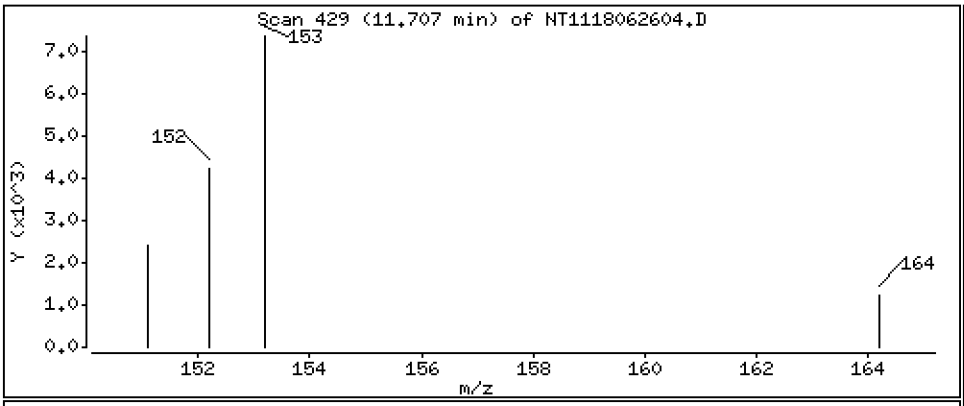
Operator: VTS

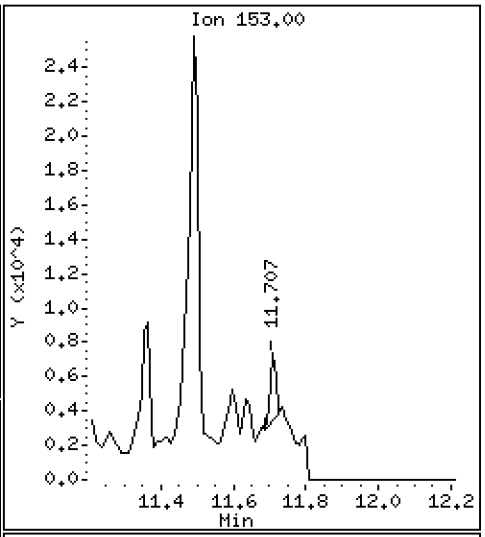
Column phase: Rxi-17Sil MS

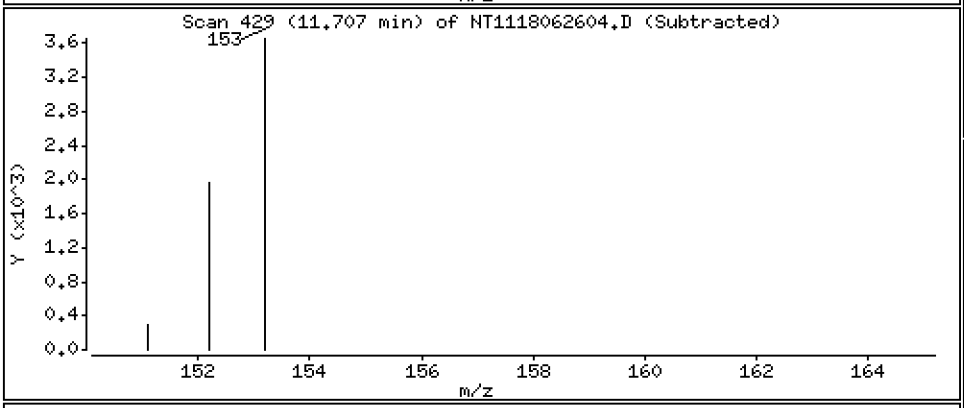
Column diameter: 0.25

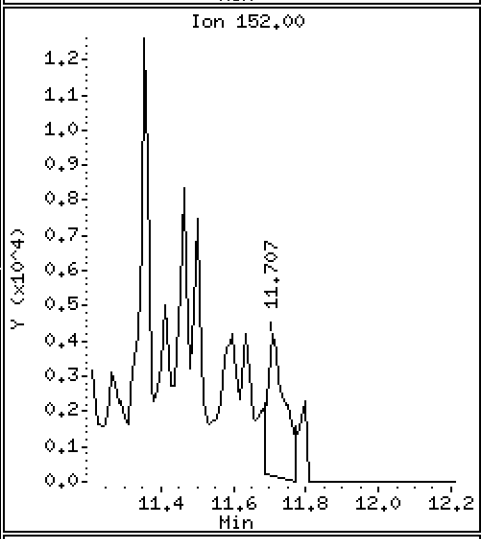
12 Acenaphthene

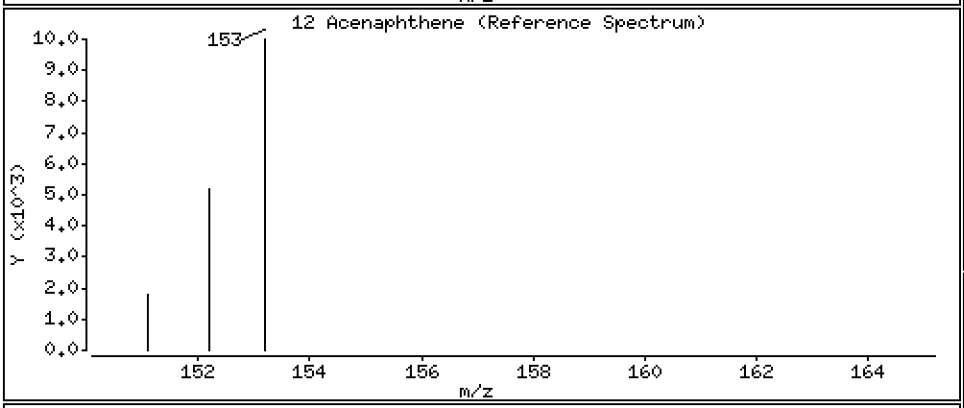
Concentration: 1.87 ng/mL

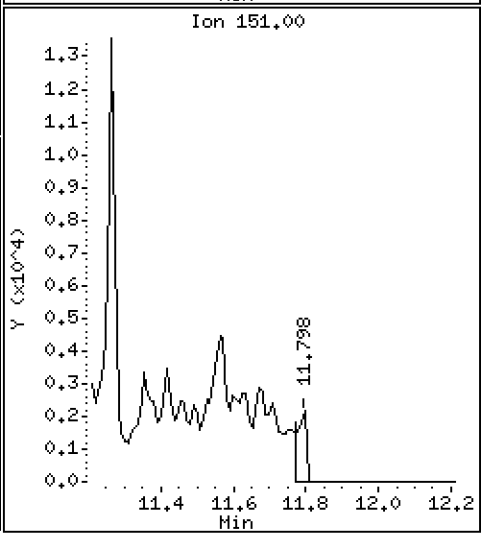


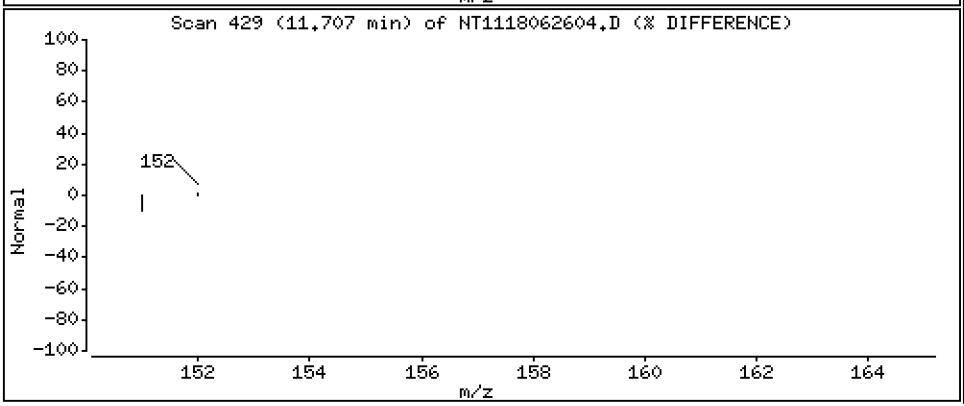












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Date : 27-JUN-2018 09:31

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-04

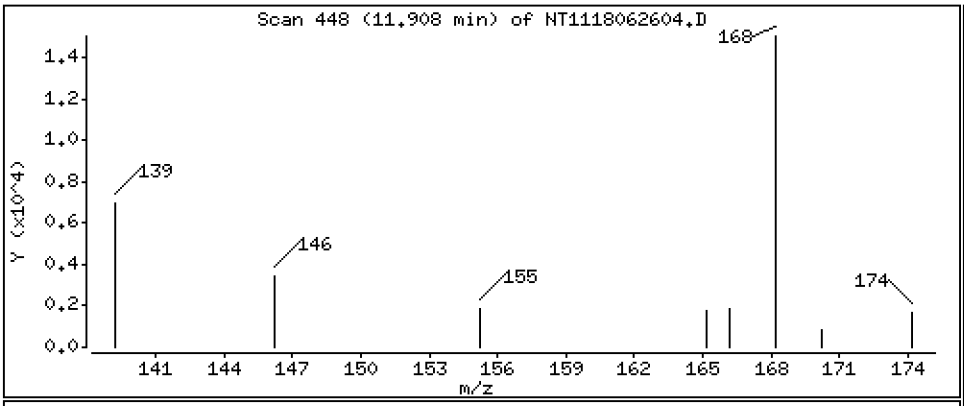
Operator: VTS

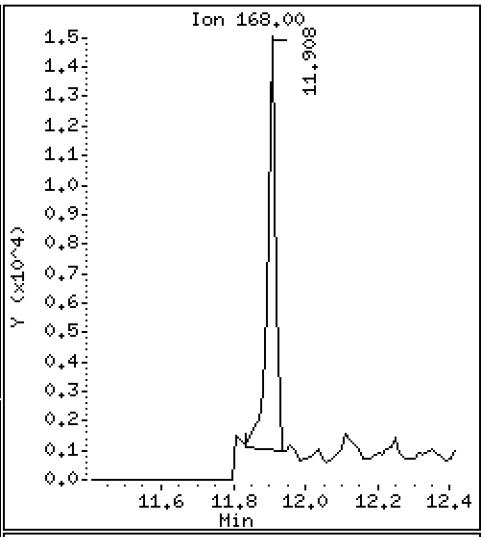
Column phase: Rxi-17Sil MS

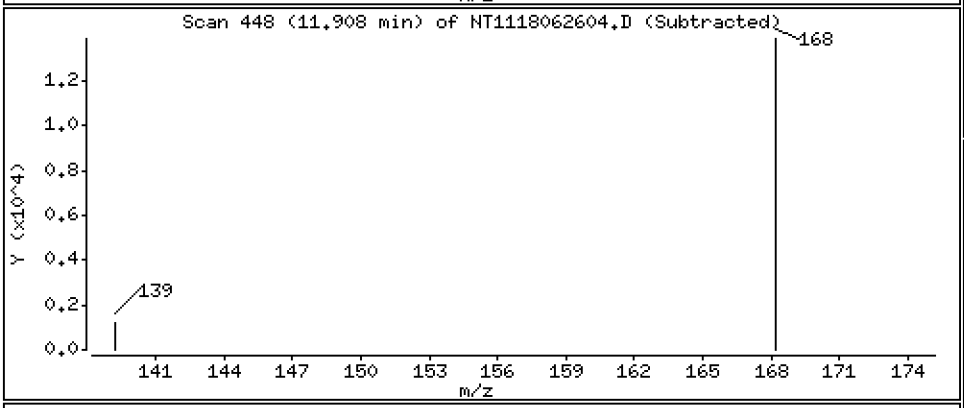
Column diameter: 0.25

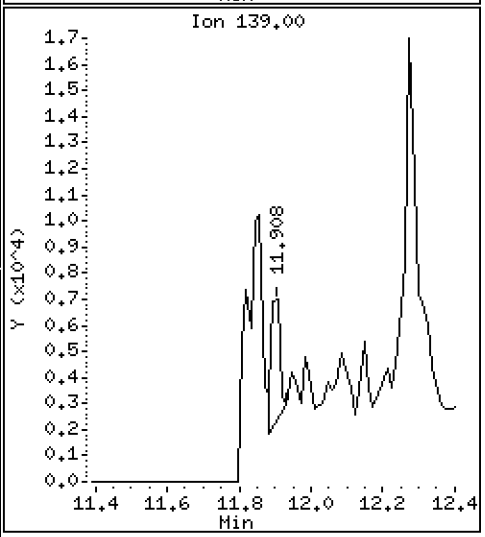
13 Dibenzofuran

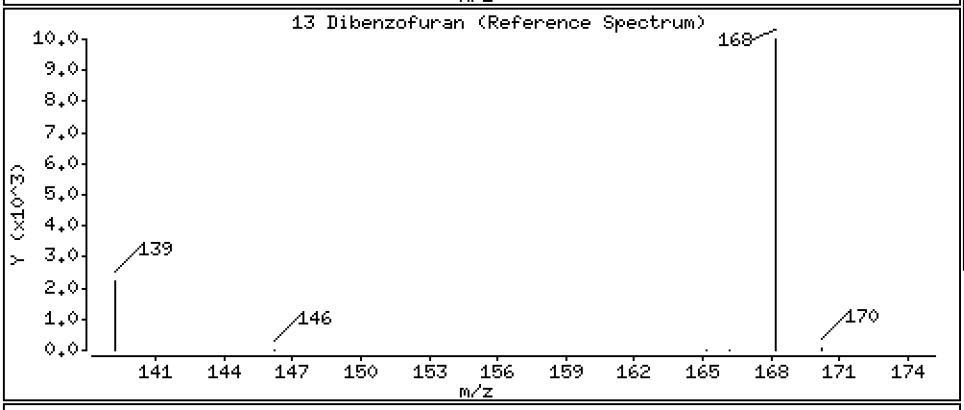
Concentration: 6.95 ng/mL

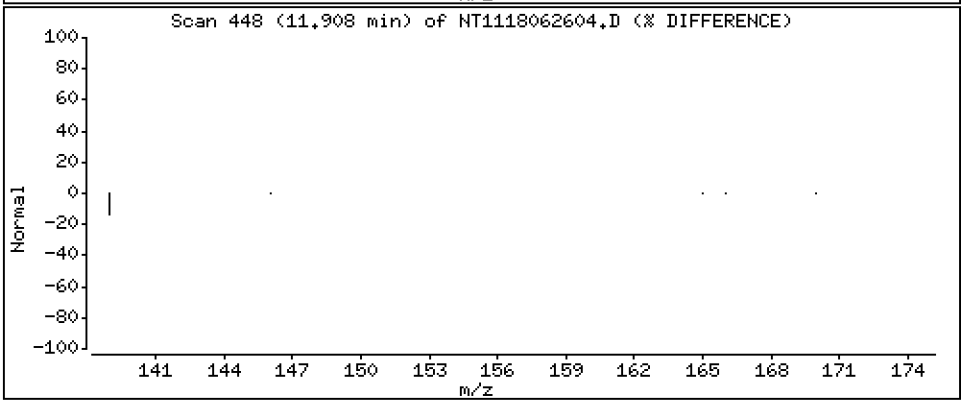












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Date : 27-JUN-2018 09:31

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-04

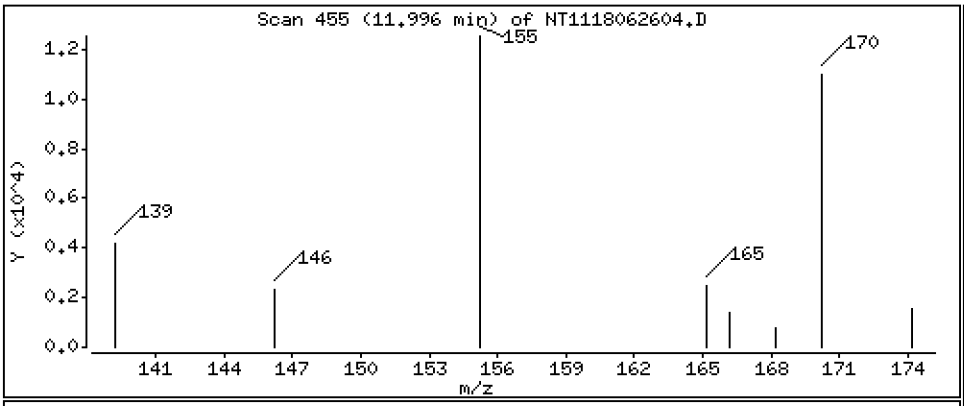
Operator: VTS

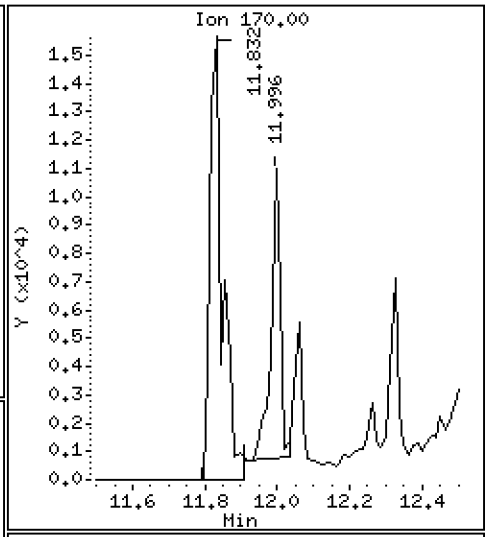
Column phase: Rxi-17Sil MS

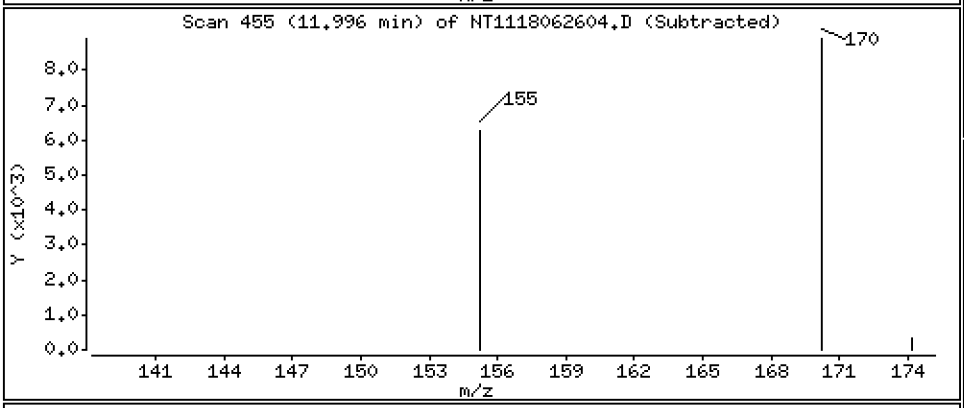
Column diameter: 0.25

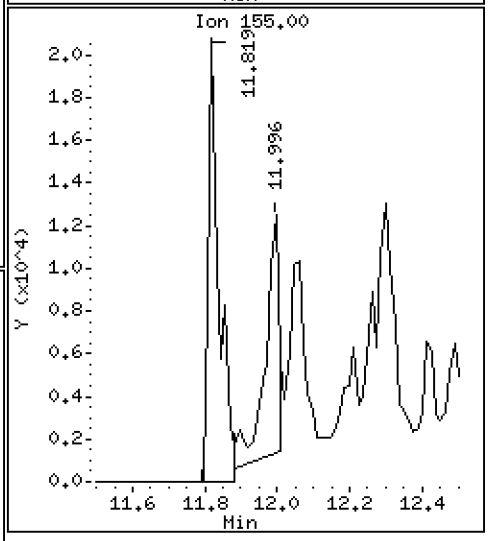
14 2,3,5-Trimethylnaphthalene

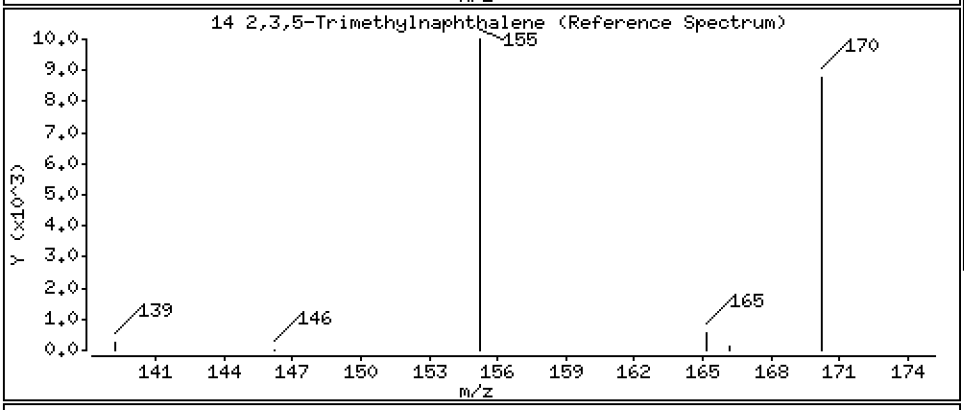
Concentration: 9.50 ng/mL

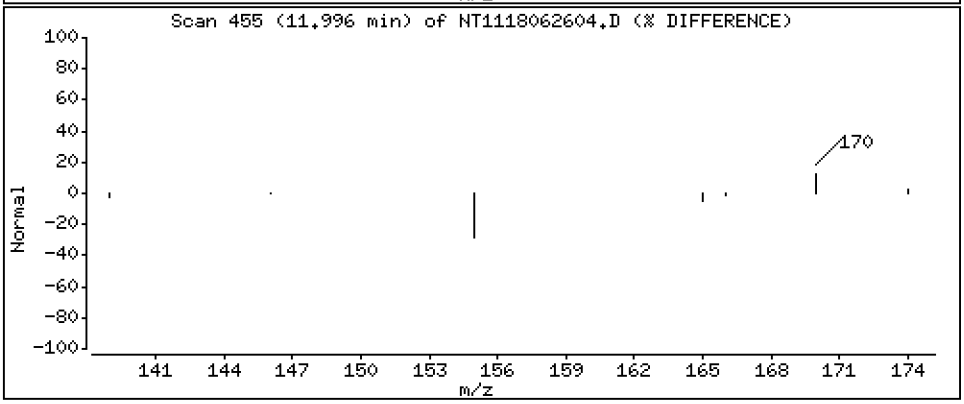












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Date : 27-JUN-2018 09:31

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-04

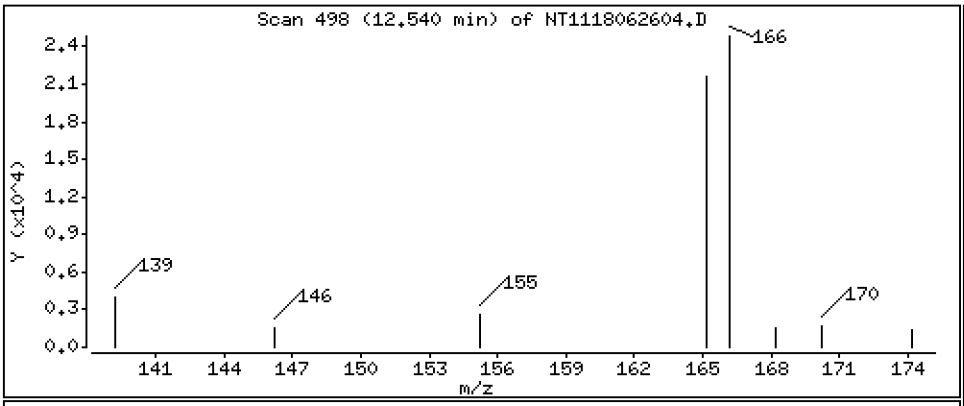
Operator: VTS

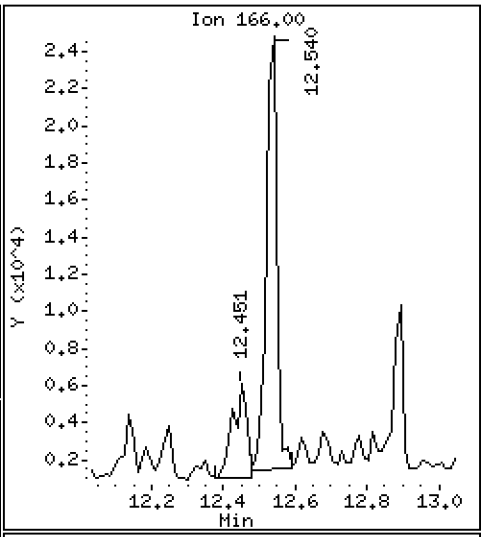
Column phase: Rxi-17Sil MS

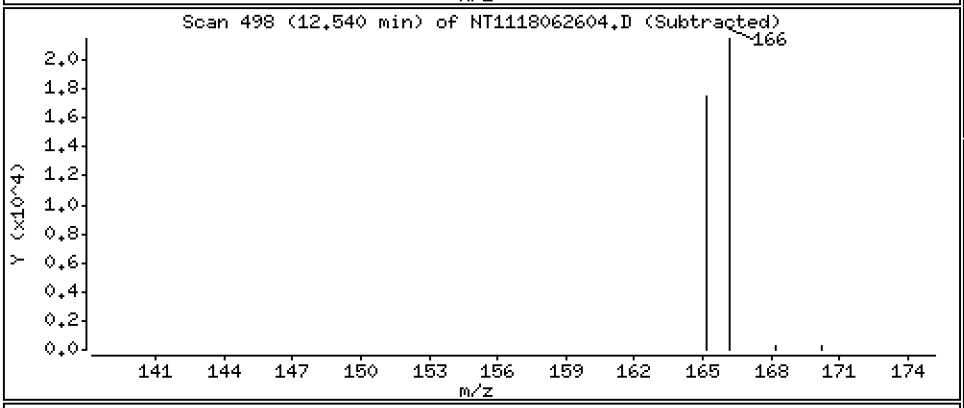
Column diameter: 0.25

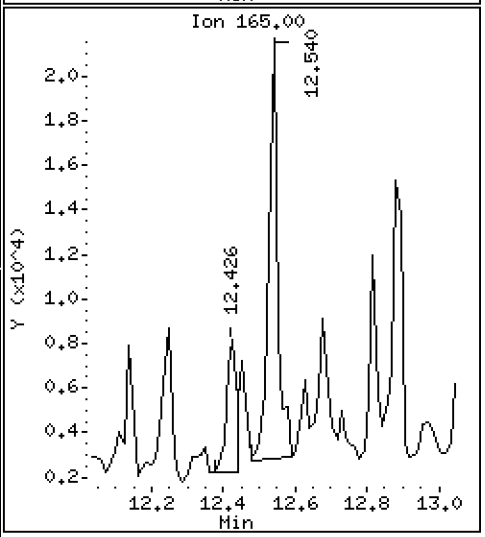
16 Fluorene

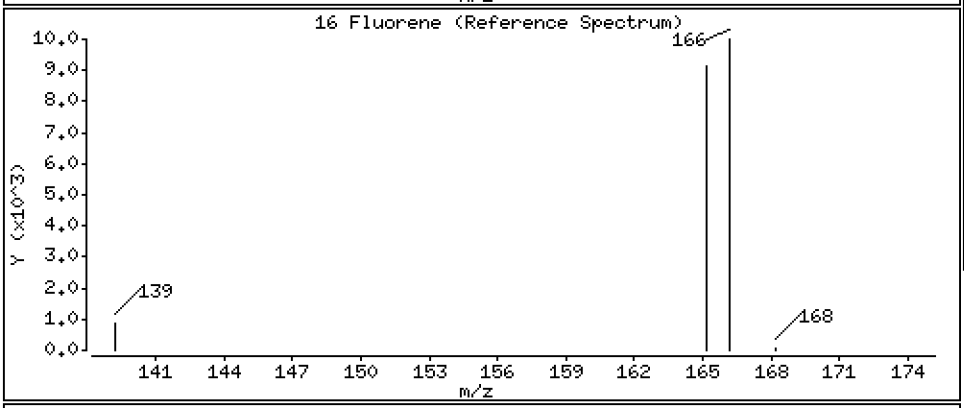
Concentration: 19.4 ng/mL

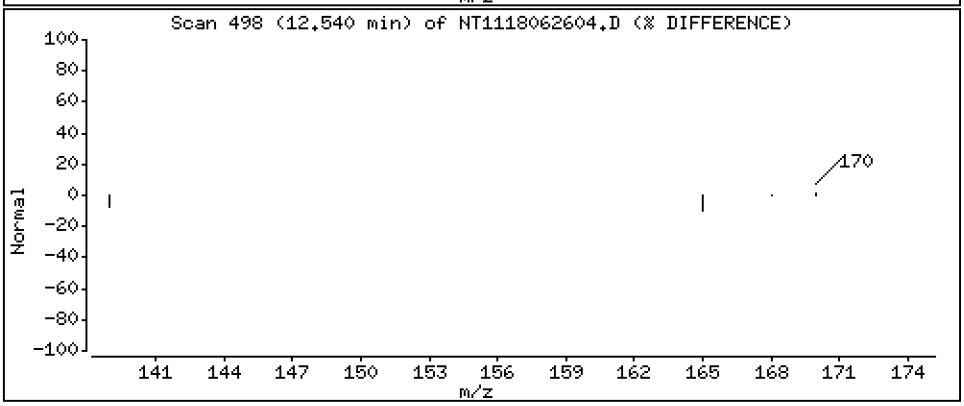












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Date : 27-JUN-2018 09:31

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-04

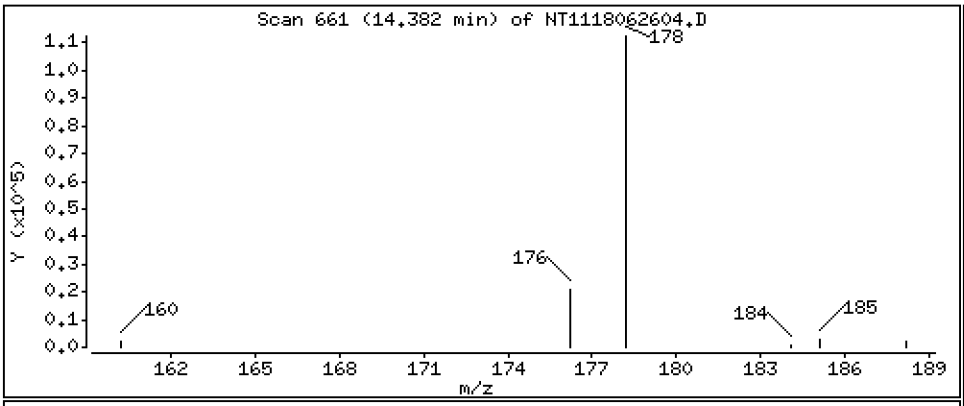
Operator: VTS

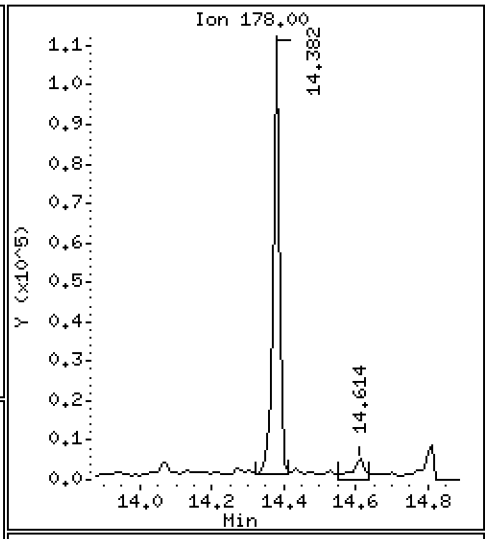
Column phase: Rxi-17Sil MS

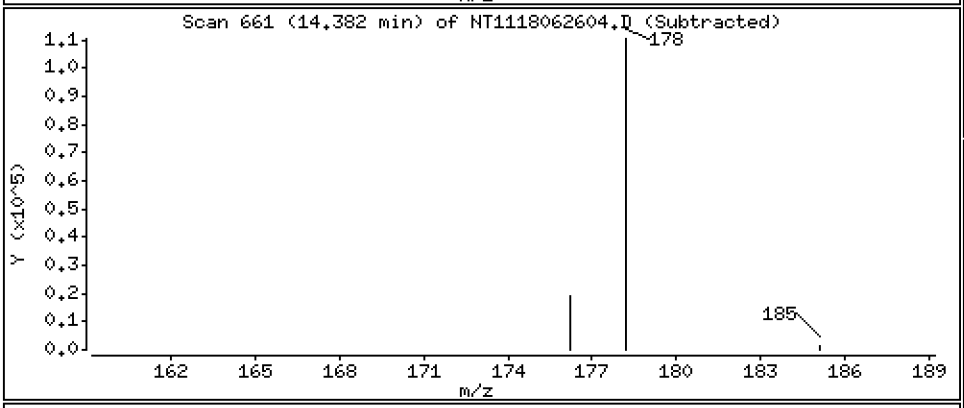
Column diameter: 0.25

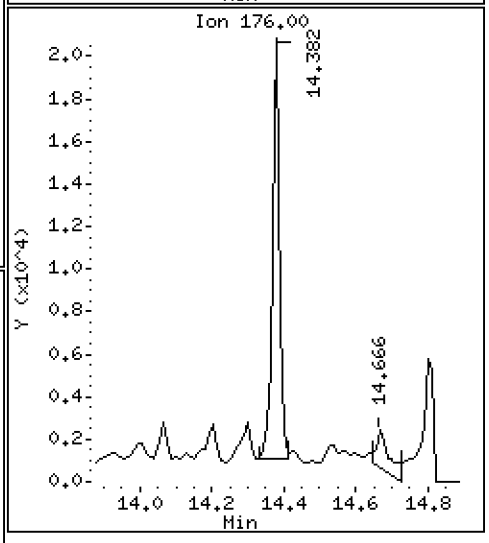
19 Phenanthrene

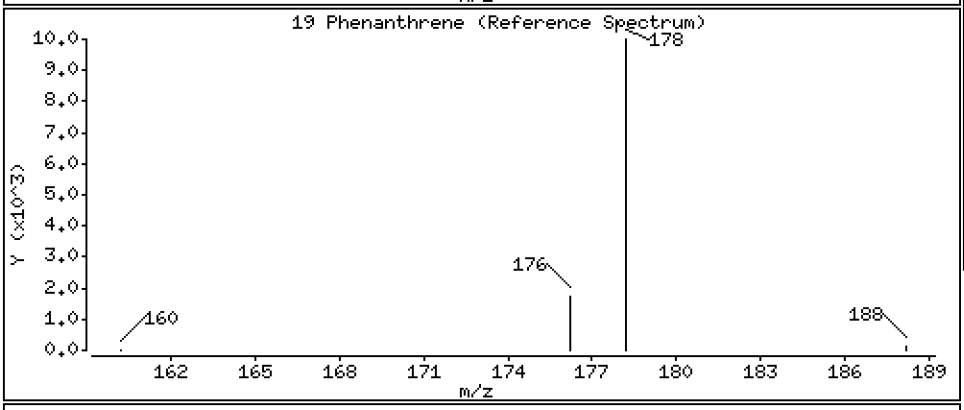
Concentration: 46.1 ng/mL

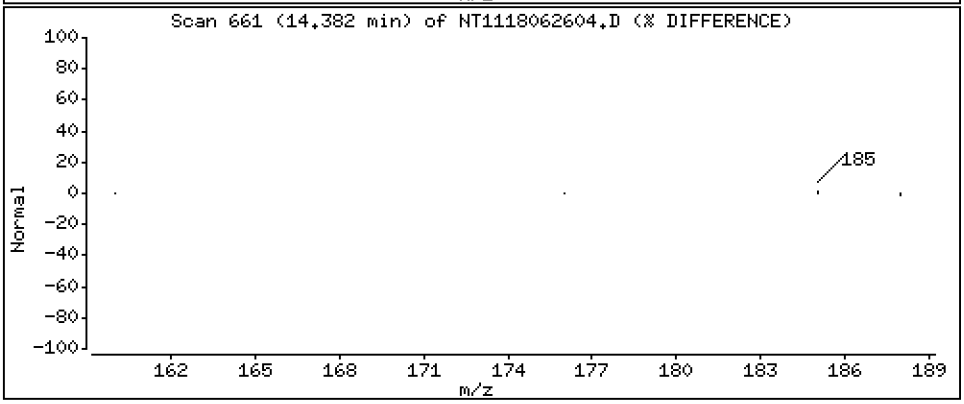












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Date : 27-JUN-2018 09:31

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-04

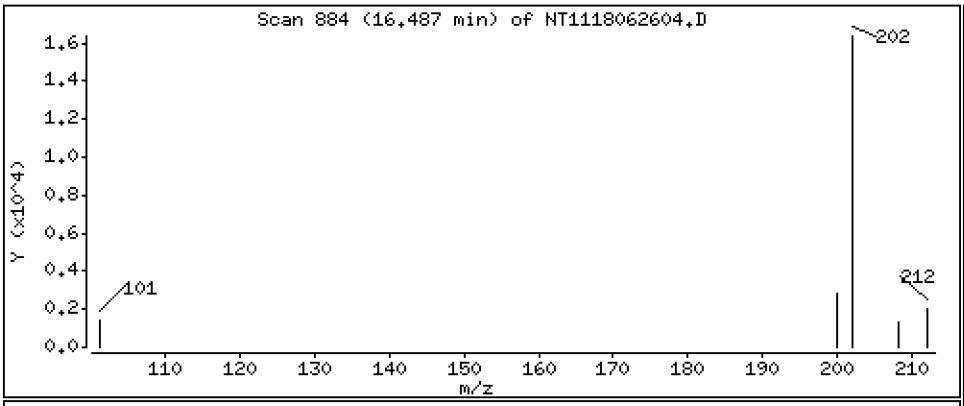
Operator: VTS

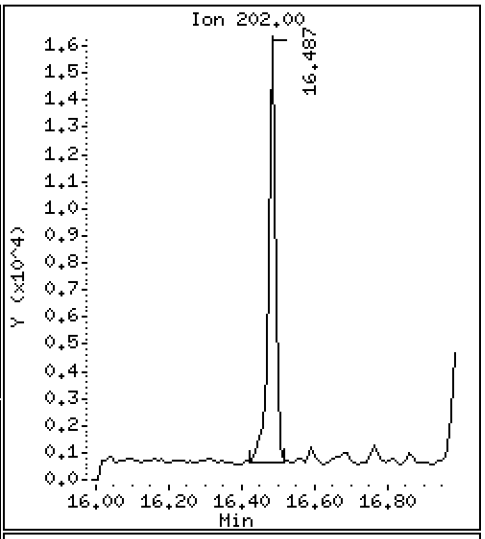
Column phase: Rxi-17Sil MS

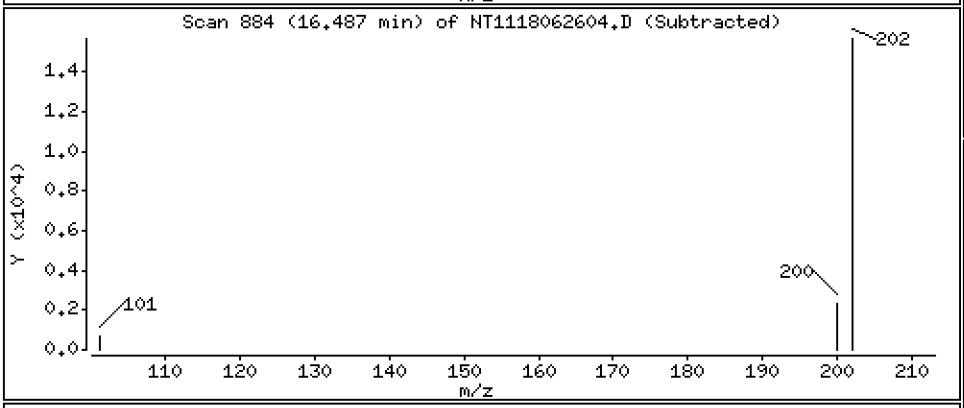
Column diameter: 0.25

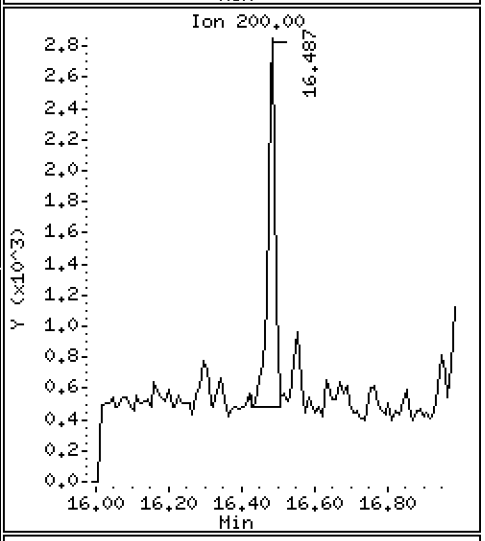
25 Fluoranthene

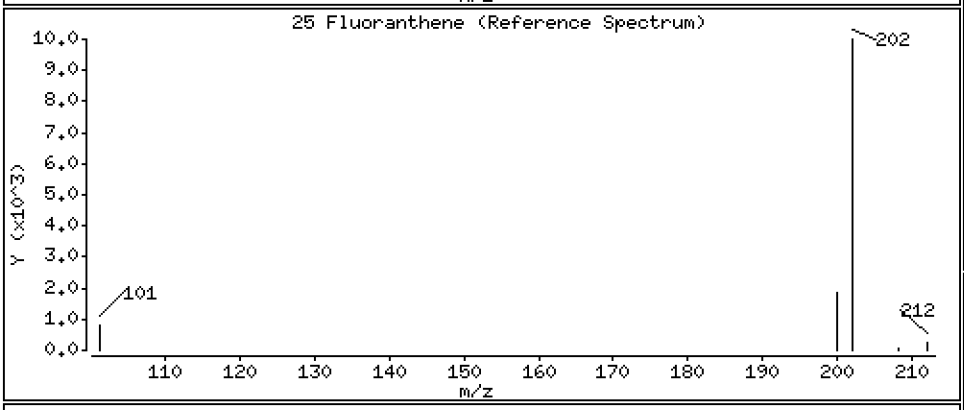
Concentration: 7.24 ng/mL

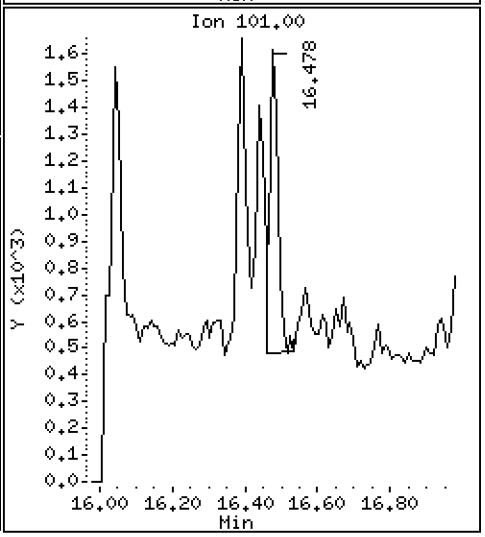


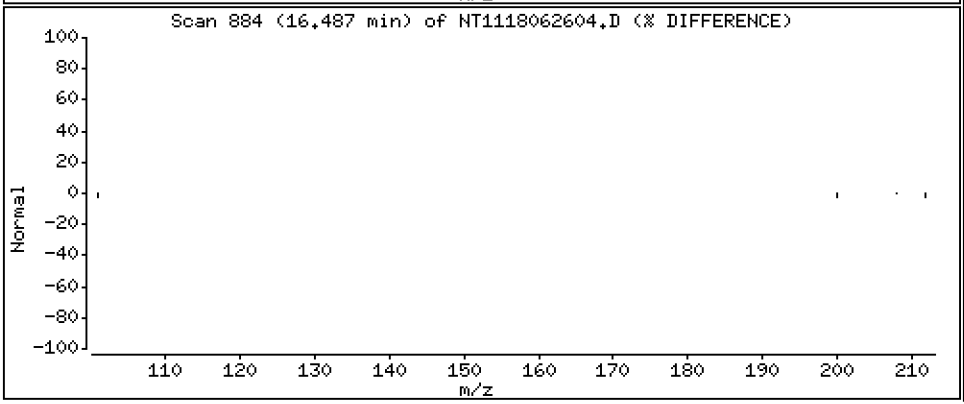












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Date : 27-JUN-2018 09:31

Client ID:

Instrument: nt11.i

Sample Info: 18F0208-04

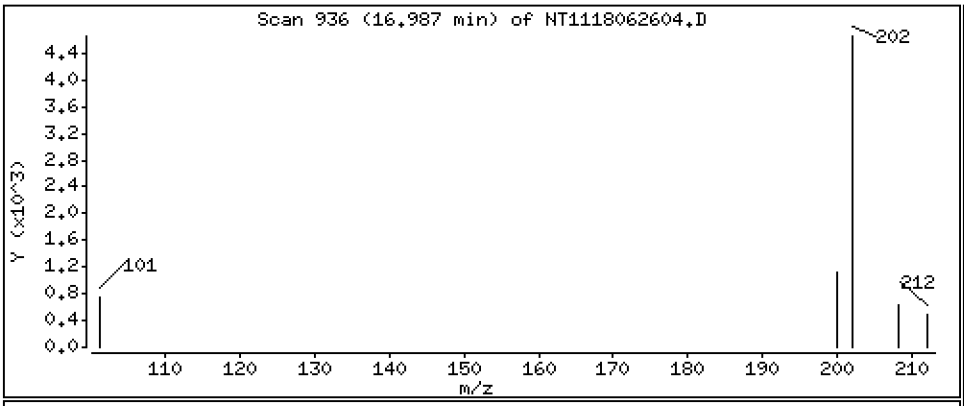
Operator: VTS

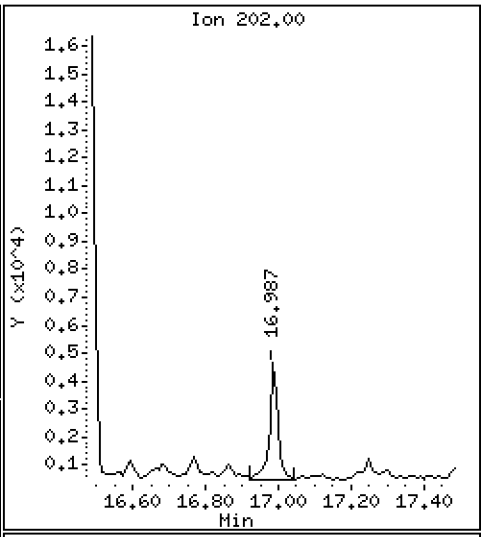
Column phase: Rxi-17Sil MS

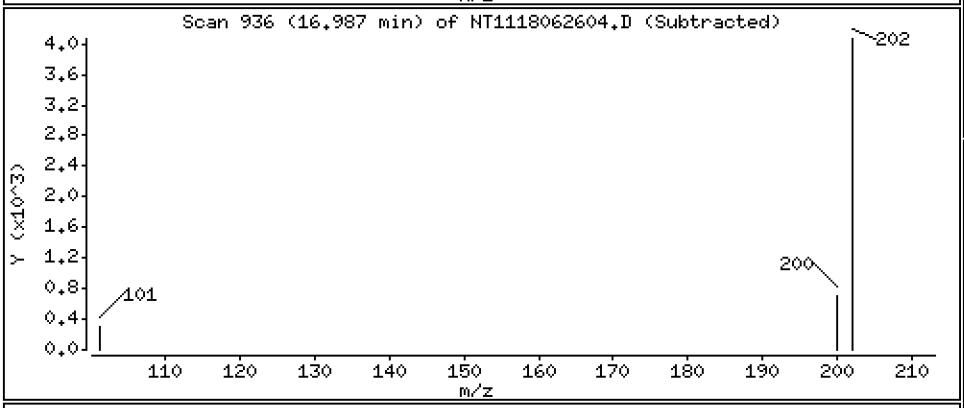
Column diameter: 0.25

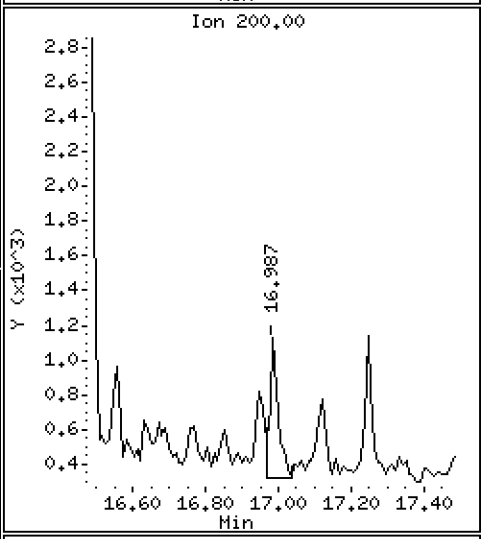
26 Pyrene

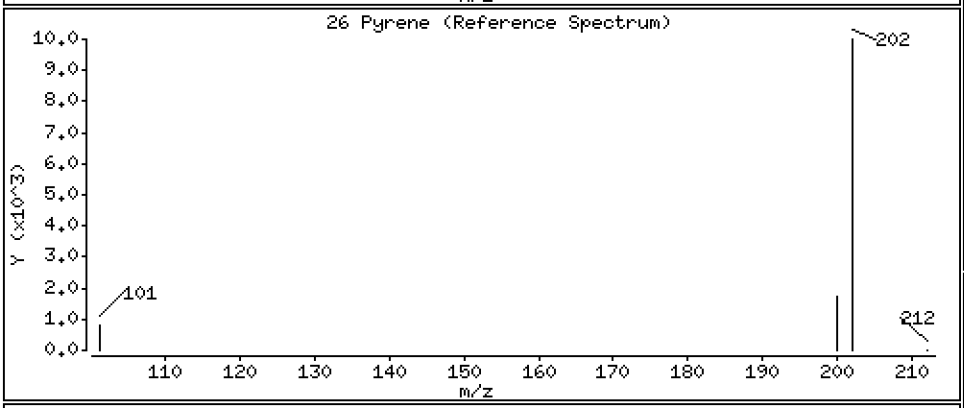
Concentration: 2.05 ng/mL

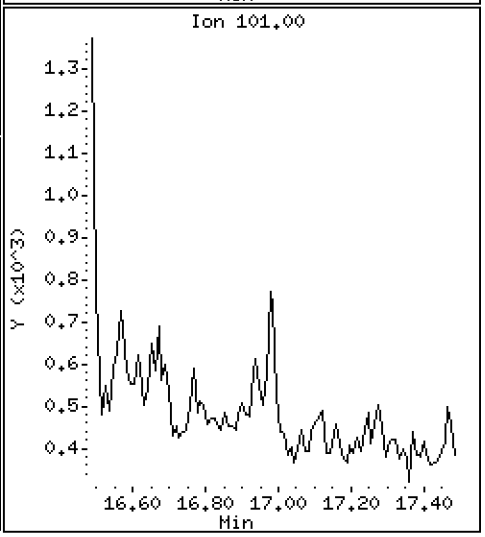


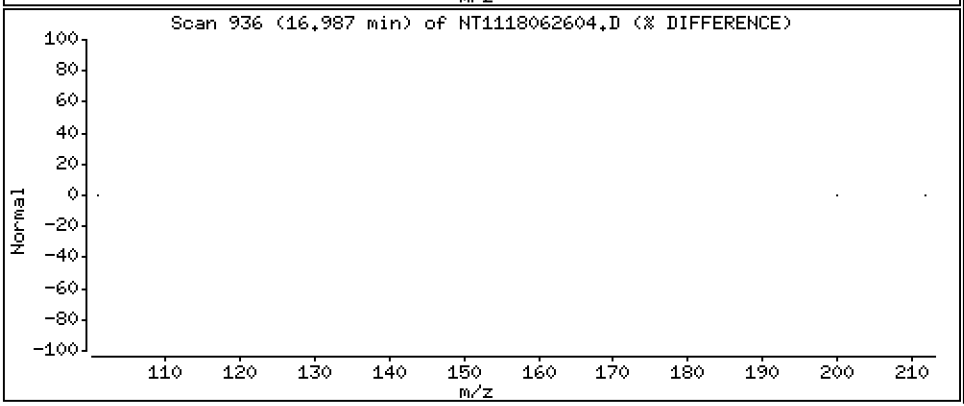












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180627.b\NT1118062604.D
Lab Smp Id: 18F0208-04
Inj Date : 27-JUN-2018 09:31 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0208-04
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180627.b\LOWSIM.m
Meth Date : 27-Jun-2018 08:43 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	459730	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	19616	5.67937	5.68
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.591	9.592	(1.114)	553319	210.945	211
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	27472	9.80996	9.81
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	18973	6.81230	6.81(M)
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	10.526	10.527	(0.904)	16598	4.88986	4.89
	9 2,6-Dimethylnaphthalene	156	10.568	10.579	(0.908)	30558	11.3912	11.4
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	272986	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	4149	1.86893	1.87(M)
	13 Dibenzofuran	168	11.907	11.908	(1.023)	21141	6.95139	6.95(M)
	14 2,3,5-Trimethylnaphthalene	170	11.996	11.996	(1.030)	18490	9.50010	9.50
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.539	12.539	(1.077)	47609	19.4124	19.4
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	442415	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	159943	46.0950	46.1
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	Compound Not Detected.					
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	Compound Not Detected.					
$	24 Fluoranthene-d10	212	16.448	16.449	(1.147)	610678	227.401	227
	25 Fluoranthene	202	16.487	16.487	(1.150)	23330	7.24020	7.24
	26 Pyrene	202	16.986	16.987	(0.890)	6922	2.05252	2.05
	27 Benzo(a)anthracene	228	Compound Not Detected.					
*	28 Chrysene-d12	240	19.095	19.103	(1.000)	343040	200.000	
	29 Chrysene	228	Compound Not Detected.					
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	35 Benzo(a)pyrene	252	Compound Not Detected.					
*	36 Perylene-d12	264	22.353	22.353	(1.000)	353146	200.000	
	37 Perylene	252	Compound Not Detected.					
$	38 Dibenzo(a,h)anthracene-d14	292	25.279	25.279	(1.131)	391233	231.508	232
	39 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	40 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	41 Benzo(g,h,i)perylene	276	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118062604.D
Lab Smp Id: 18F0208-04
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180627.b\LOWSIM.m
Misc Info:

Calibration Date: 27-JUN-2018
Calibration Time: 08:13
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	459730	6.59
11 Acenaphthene-d10	260137	130069	520274	272986	4.94
18 Phenanthrene-d10	427391	213696	854782	442415	3.52
28 Chrysene-d12	304596	152298	609192	343040	12.62
36 Perylene-d12	263091	131546	526182	353146	34.23

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.04
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118062604.D

Lab ID: 18F0208-04
nt11.i, 20180627.b\LOWSIM.m,   27-JUN-2018 09:31

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

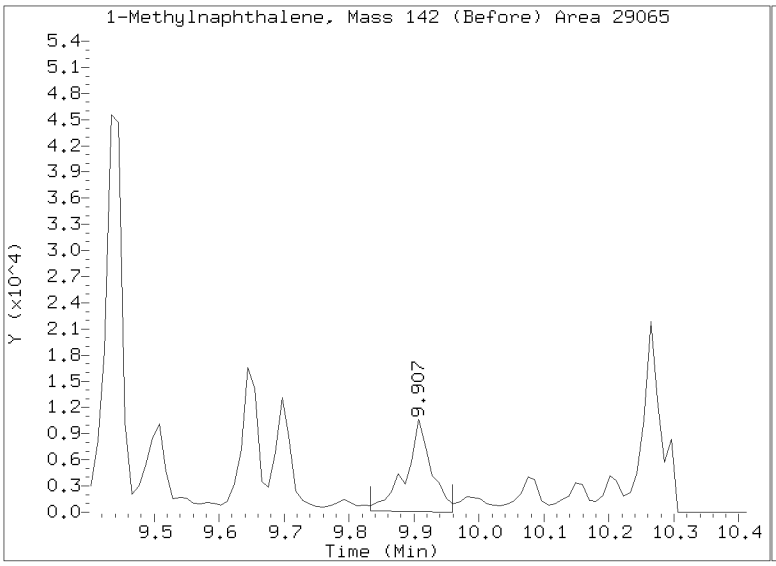
On Column LOD for nt11.i, 20180627.b\LOWSIM.m, allpna.sub = 0.0000

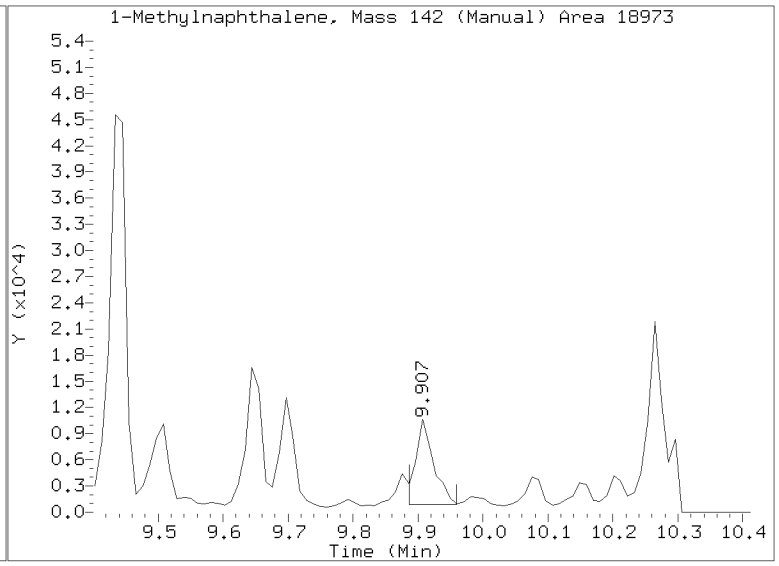
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

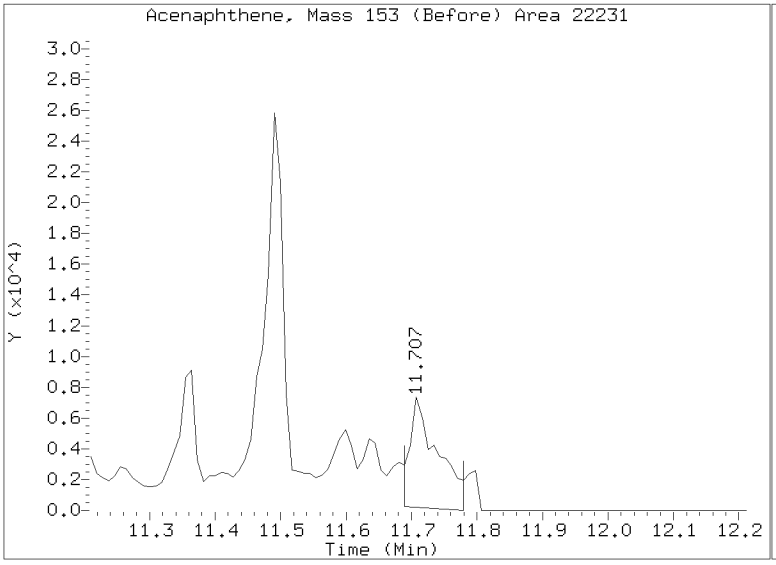
* Only compounds listed in the work order have been verified by the analyst *

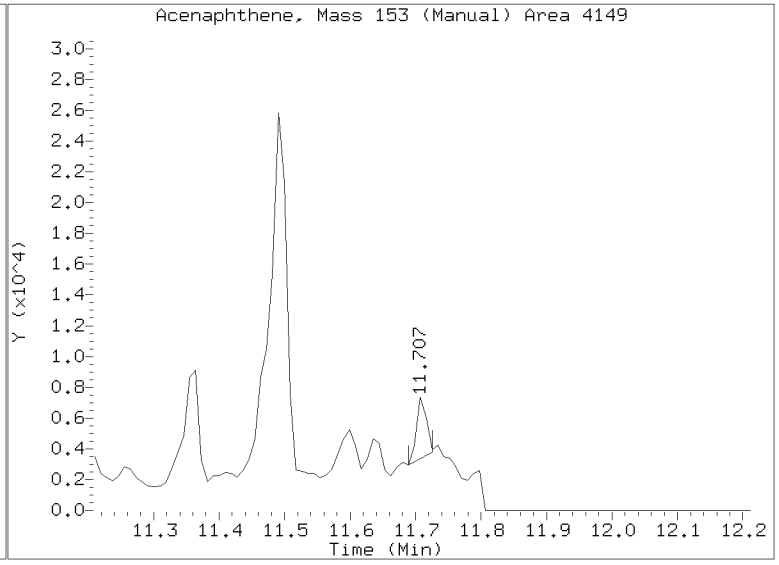
Quant Ion Manual Peak Adjustment Report

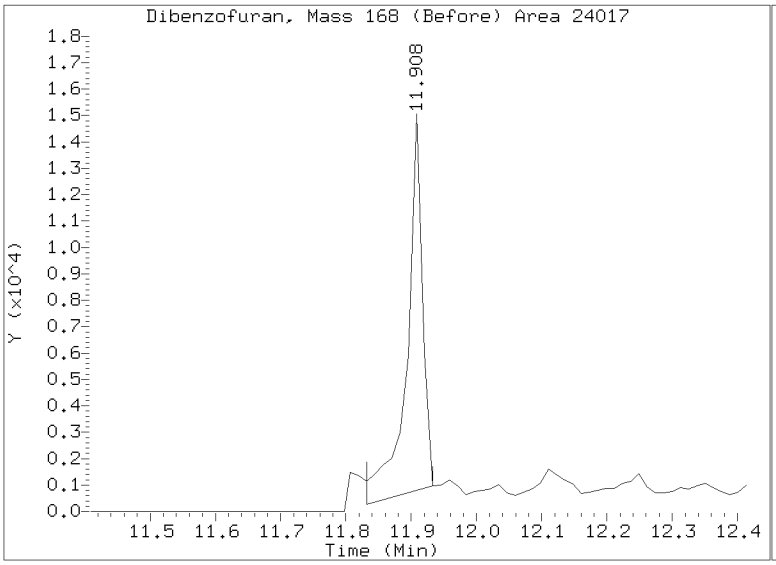
Datafile: //target/share/chem3/nt11.i/20180627.b/NT1118062604.D
Injection Date: 27-JUN-2018 09:31
Lab ID:18F0208-04 Client ID:
Report Date: 06/27/2018 14:24

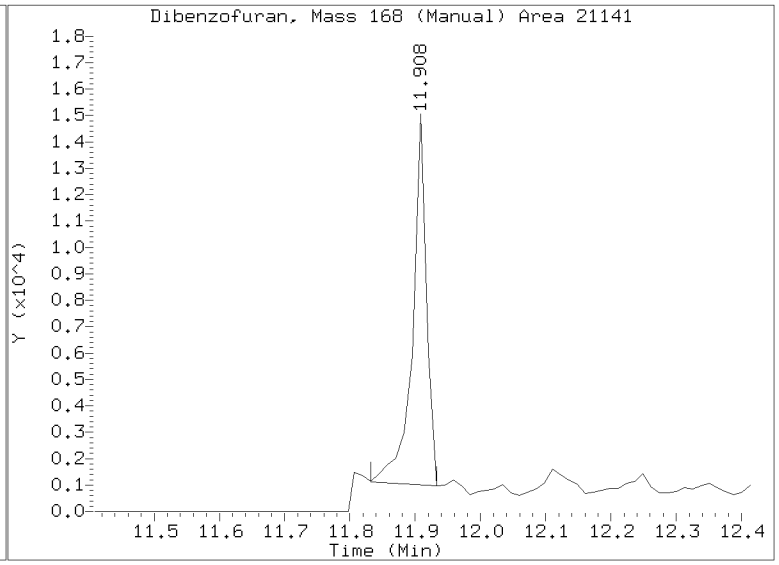












Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-05

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-01	SDG:	18F0185
Sampled:	06/14/18 14:08	Prepared:	06/21/18 13:35	File ID:	NT1118070605.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	07/06/18 14:42
Batch:	BGF0530	Sequence:	SGG0067	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.002	J	0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.002	J	0.001	0.010
208-96-8	Acenaphthylene	1	0.010	U	0.002	0.010
83-32-9	Acenaphthene	1	0.010	U	0.003	0.010
86-73-7	Fluorene	1	0.010	U	0.002	0.010
85-01-8	Phenanthrene	1	0.006	J	0.001	0.010
120-12-7	Anthracene	1	0.010	U	0.001	0.010
206-44-0	Fluoranthene	1	0.004	J	0.002	0.010
129-00-0	Pyrene	1	0.003	J	0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.010	U	0.0008	0.010
218-01-9	Chrysene	1	0.001	J	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.010	U	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.178	59.4	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.189	63.1	29 - 120	
Fluoranthene-d10	0.30000	0.210	70.0	57 - 120	

Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070605.D

Date : 06-JUL-2018 14:42

Client ID:

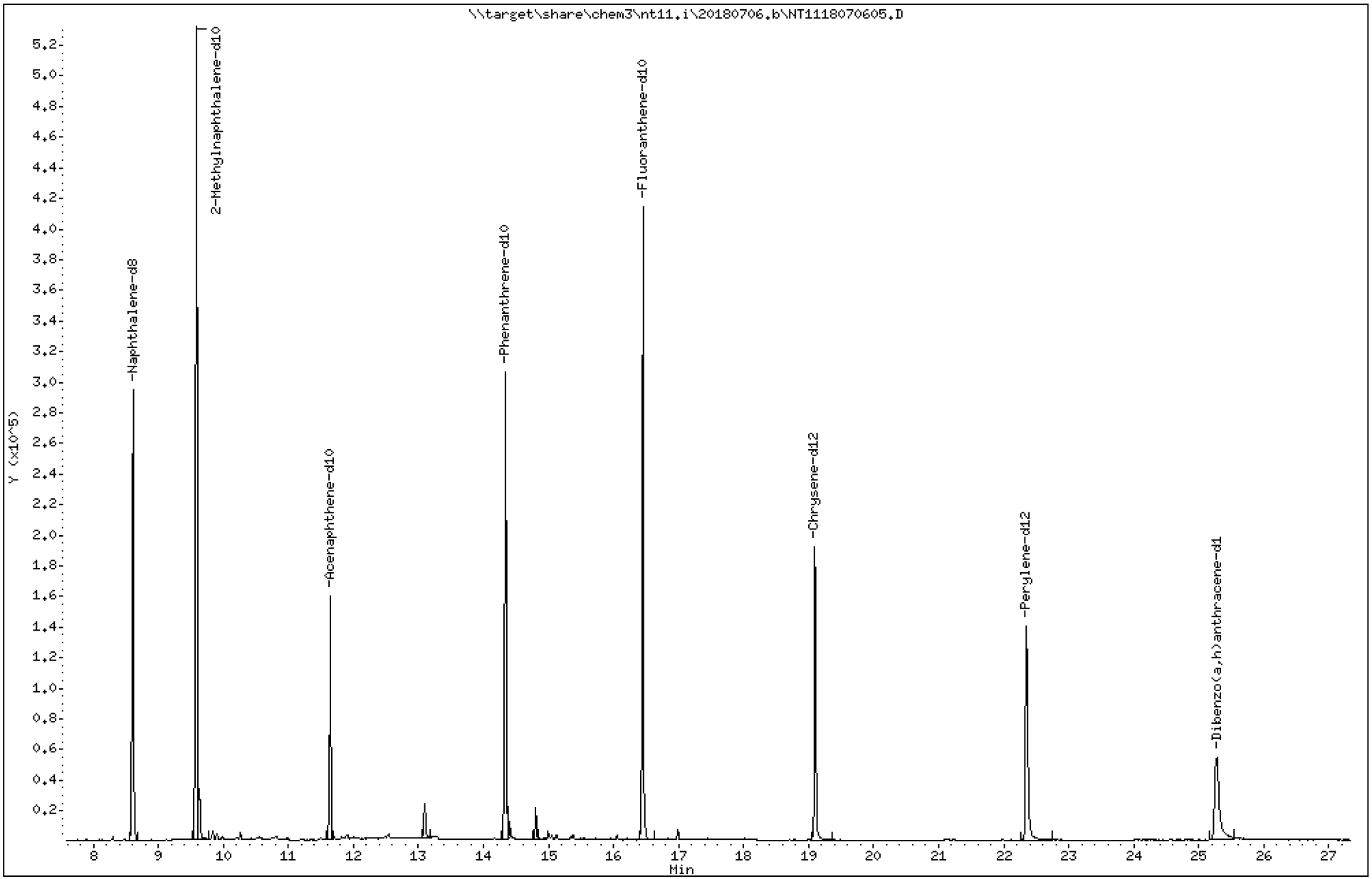
Instrument: nt11.i

Sample Info: 18F0226-01

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 06-JUL-2018 14:42

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-01

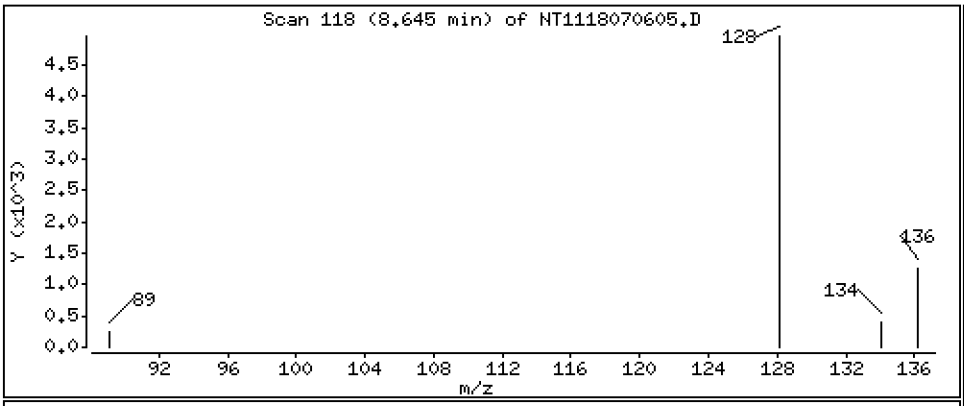
Operator: VTS

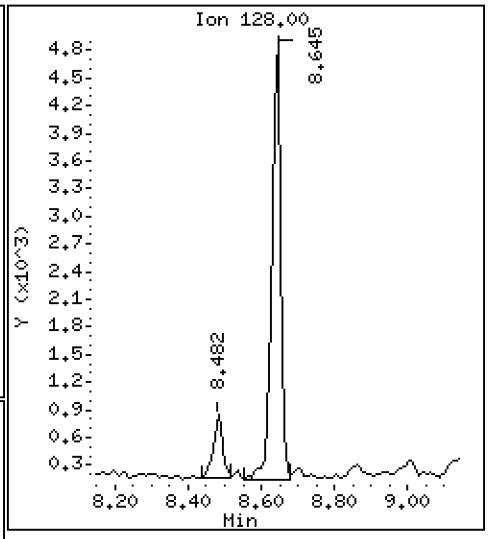
Column phase: Rxi-17Sil MS

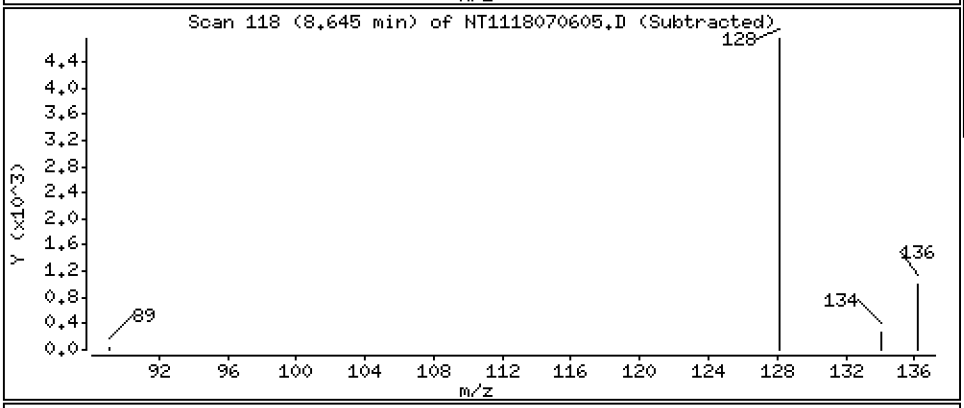
Column diameter: 0.25

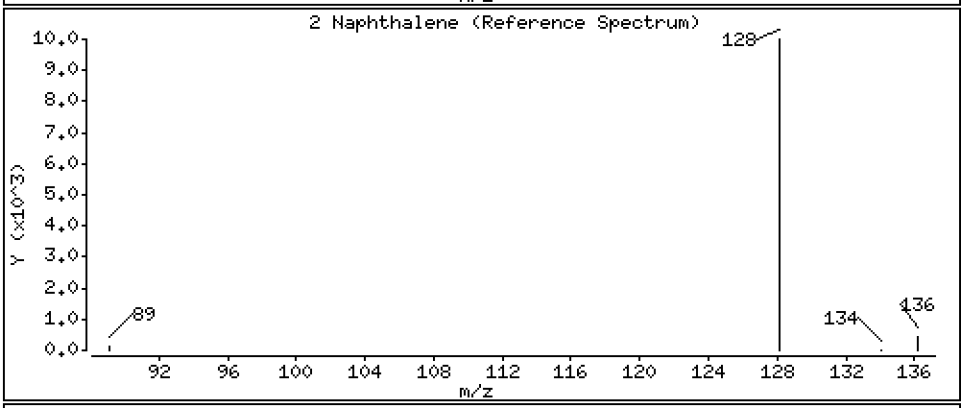
2 Naphthalene

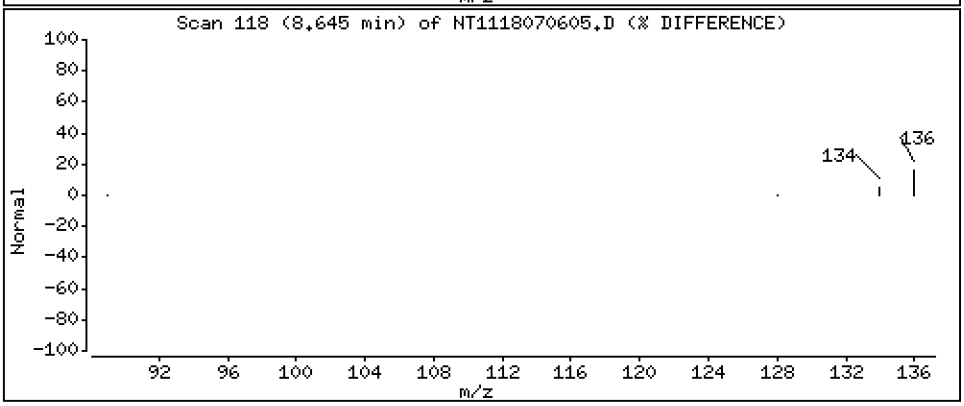
Concentration: 2.41 ng/mL











Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070605.D

Date : 06-JUL-2018 14:42

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-01

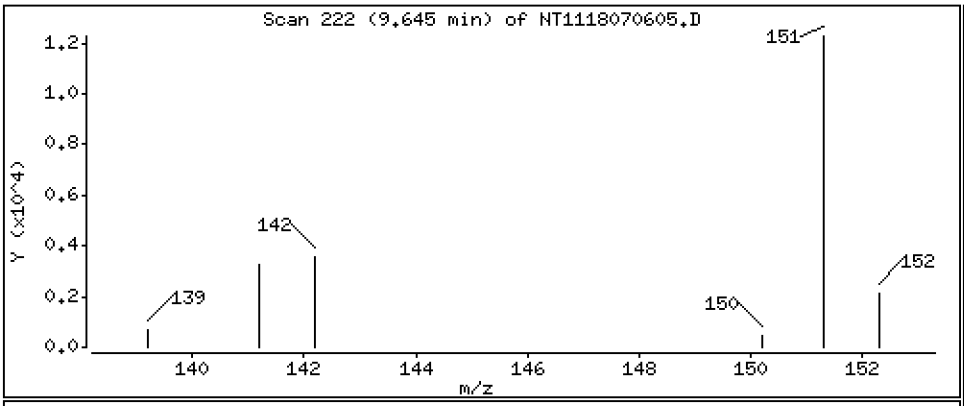
Operator: VTS

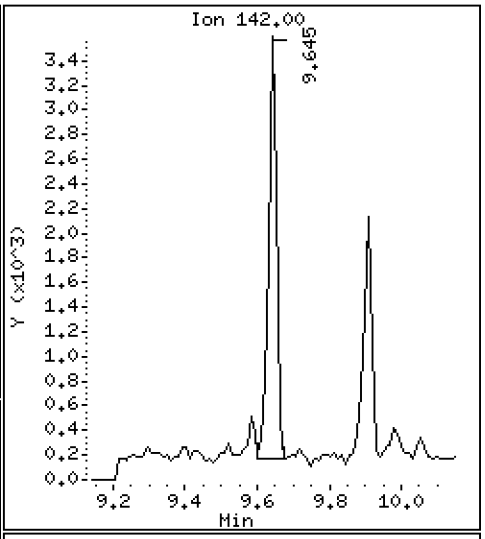
Column phase: Rxi-17Sil MS

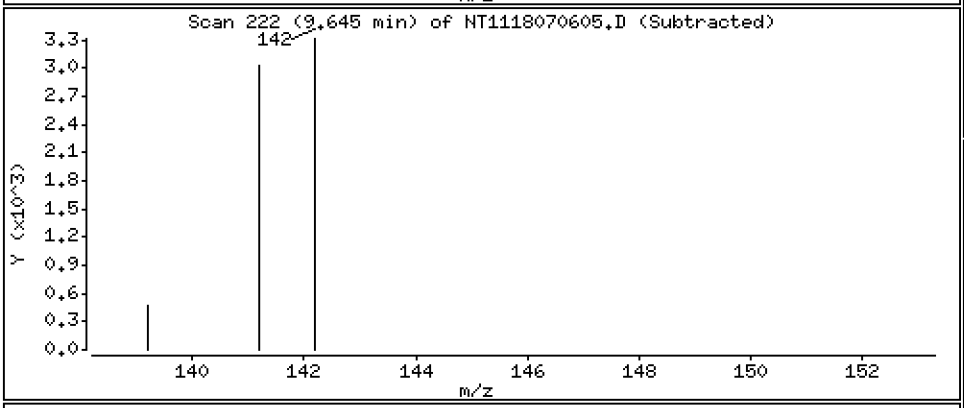
Column diameter: 0.25

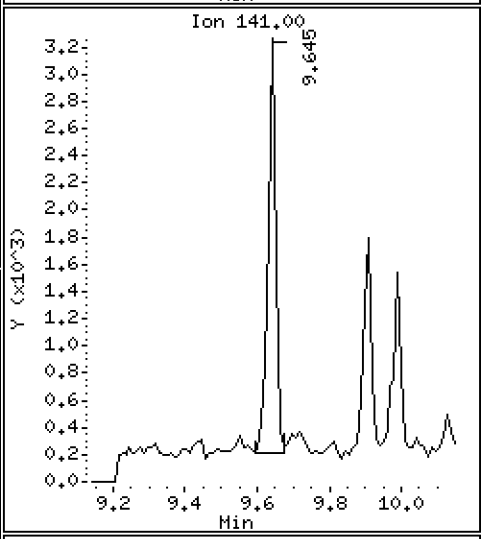
5 2-Methylnaphthalene

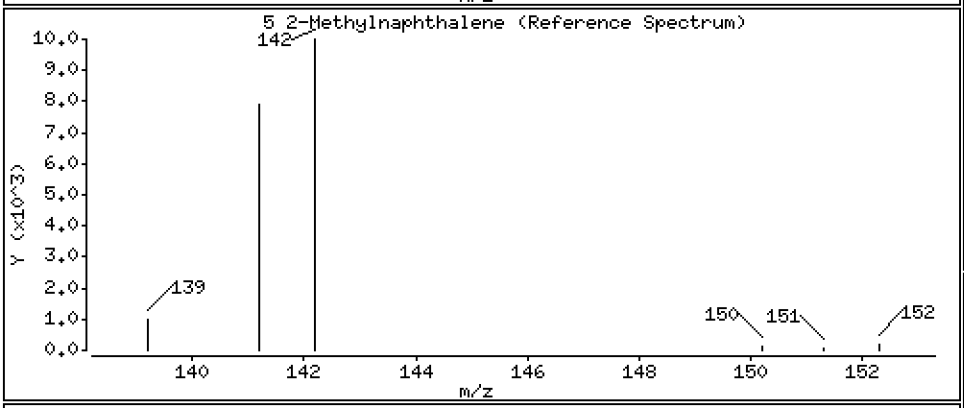
Concentration: 1.93 ng/mL

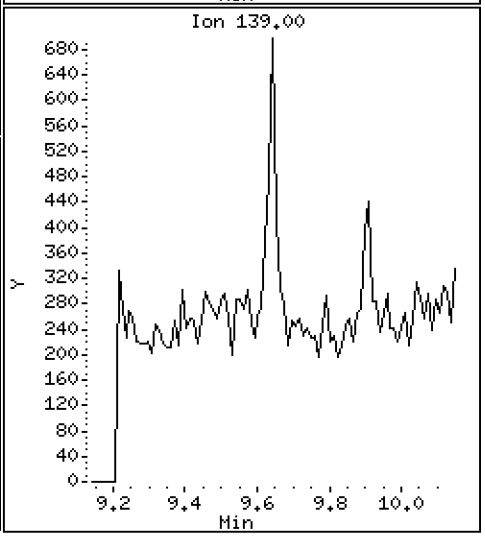


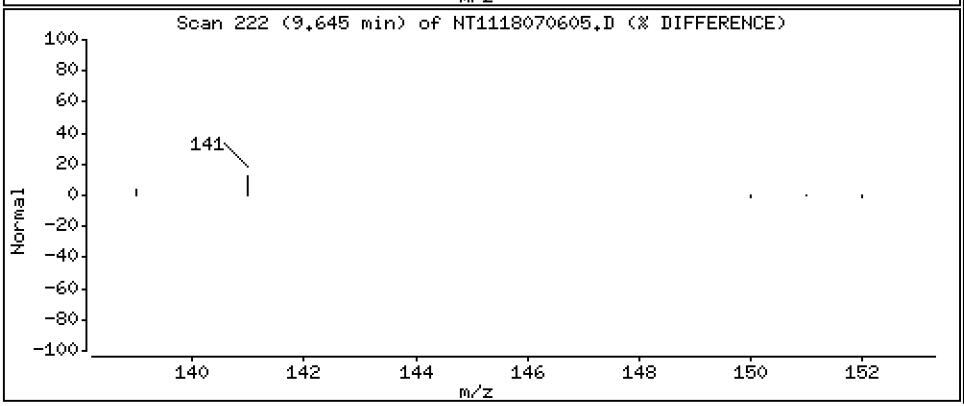












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070605.D

Date : 06-JUL-2018 14:42

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-01

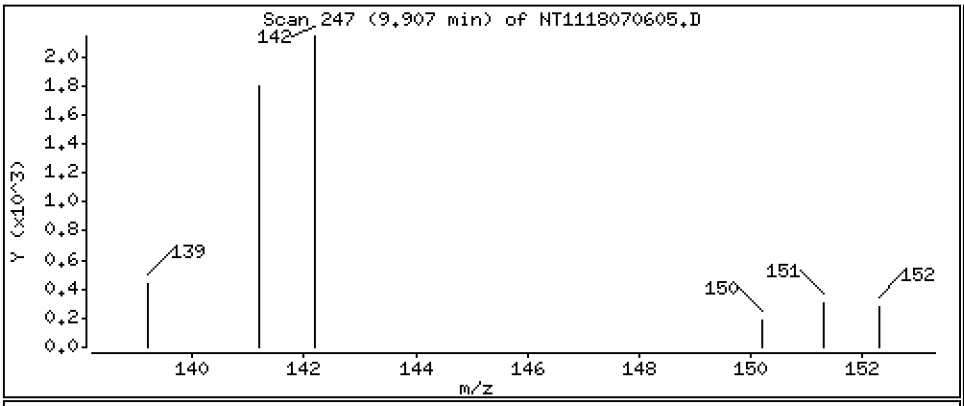
Operator: VTS

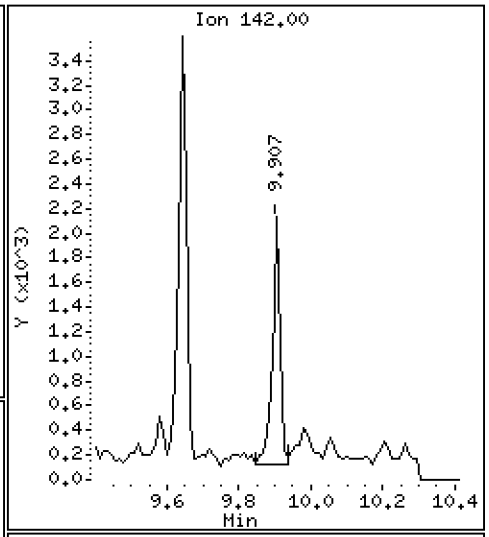
Column phase: Rxi-17Sil MS

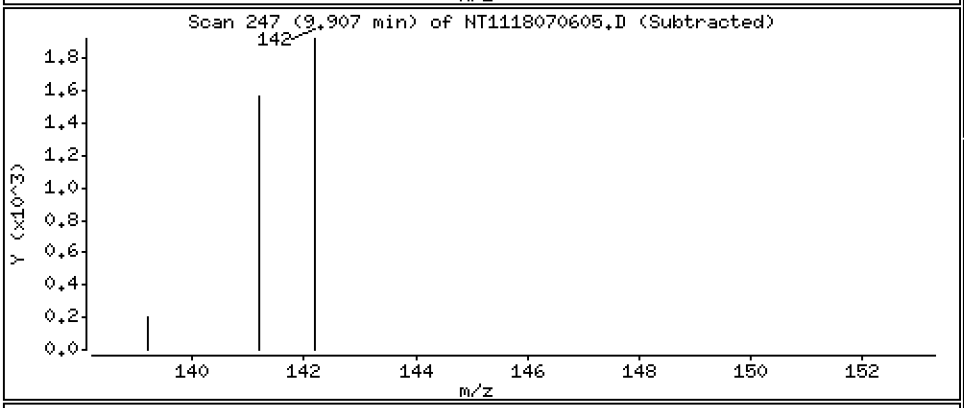
Column diameter: 0.25

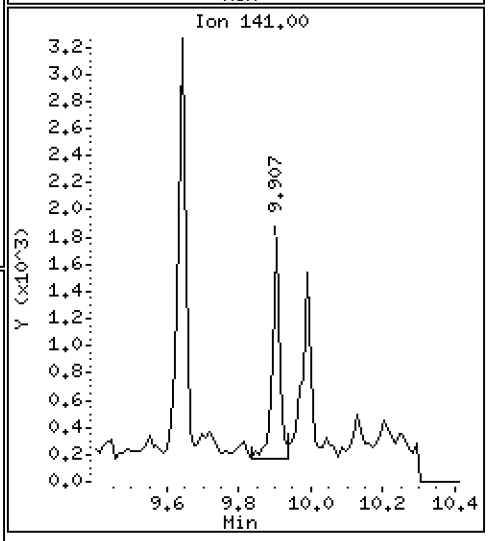
6 1-Methylnaphthalene

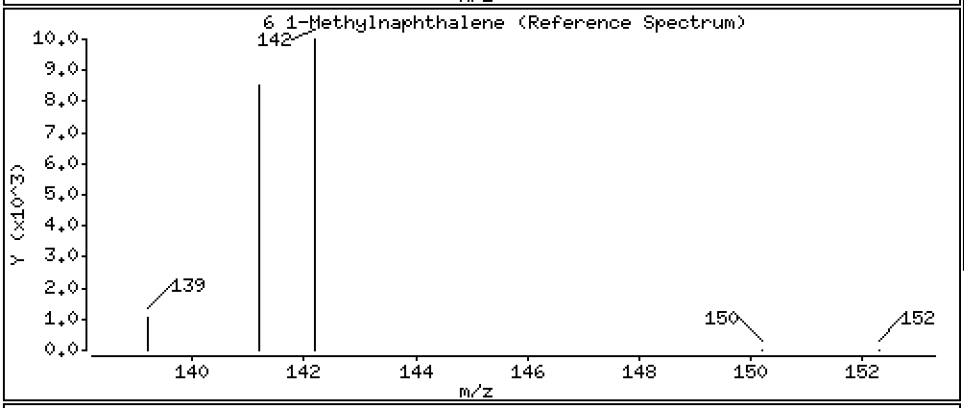
Concentration: 1.24 ng/mL

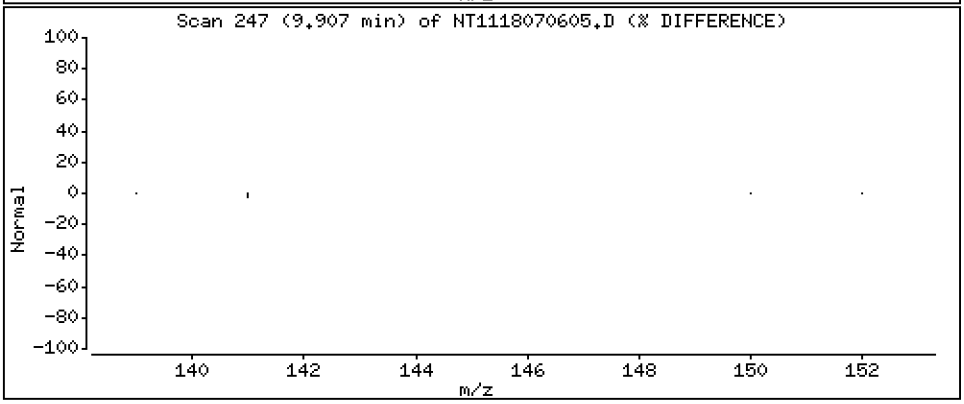












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Date : 06-JUL-2018 14:42

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-01

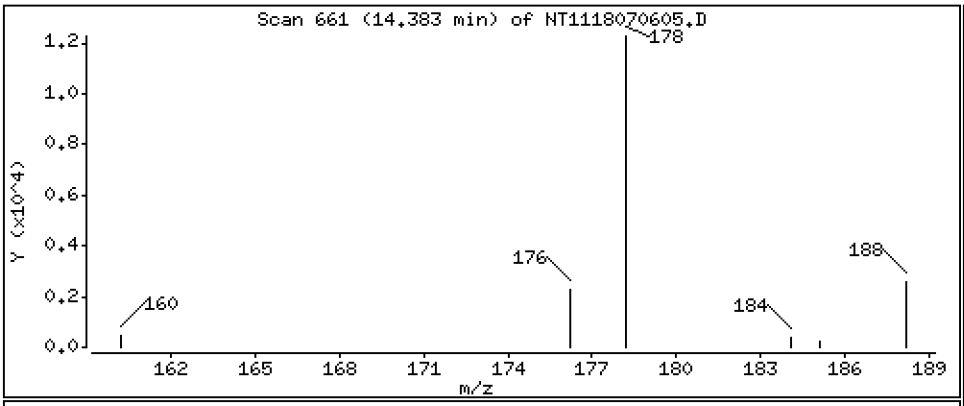
Operator: VTS

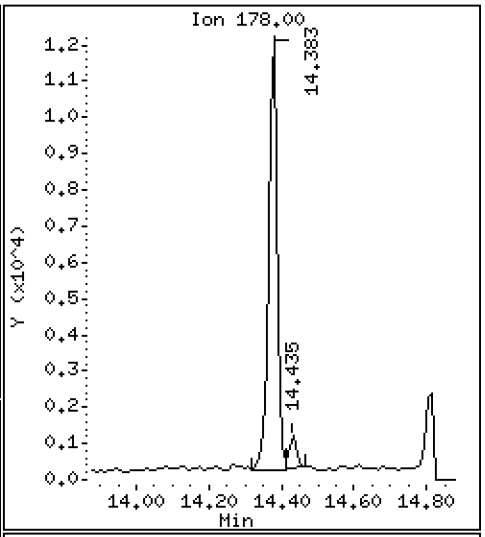
Column phase: Rxi-17Sil MS

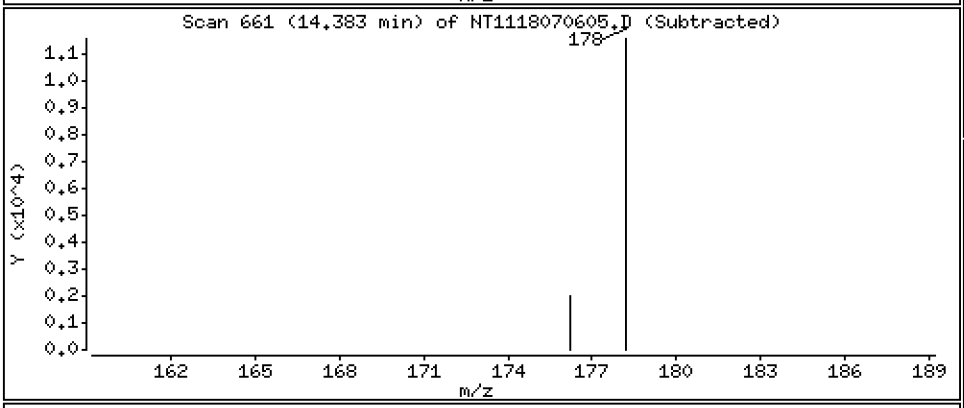
Column diameter: 0.25

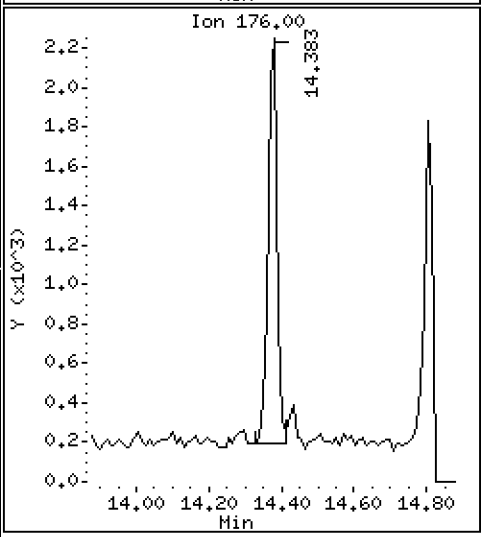
19 Phenanthrene

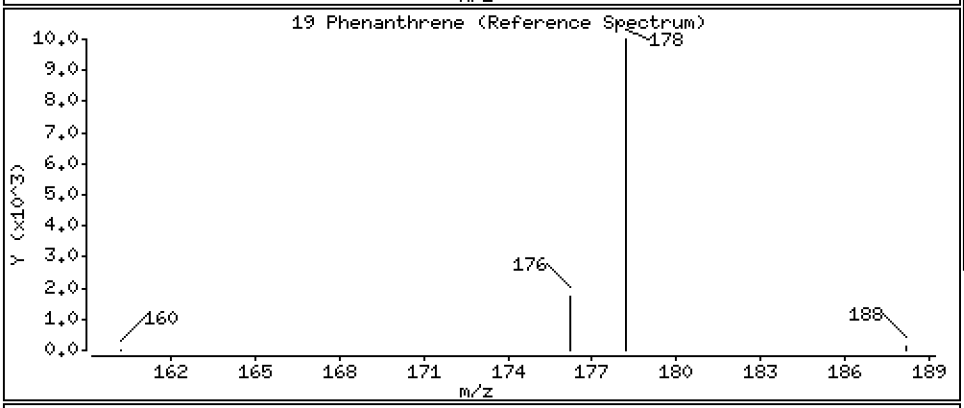
Concentration: 6.35 ng/mL

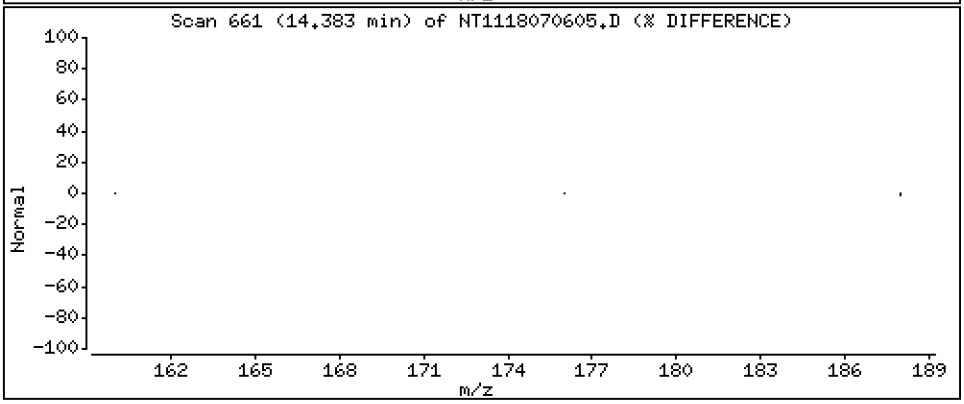












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Date : 06-JUL-2018 14:42

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-01

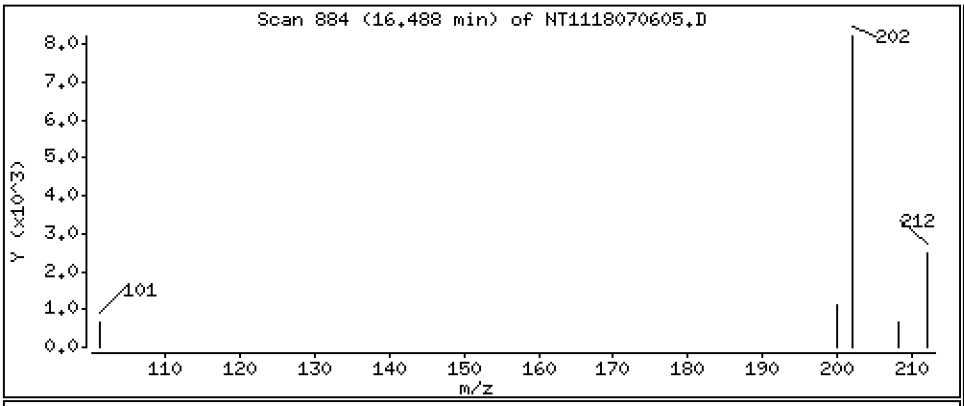
Operator: VTS

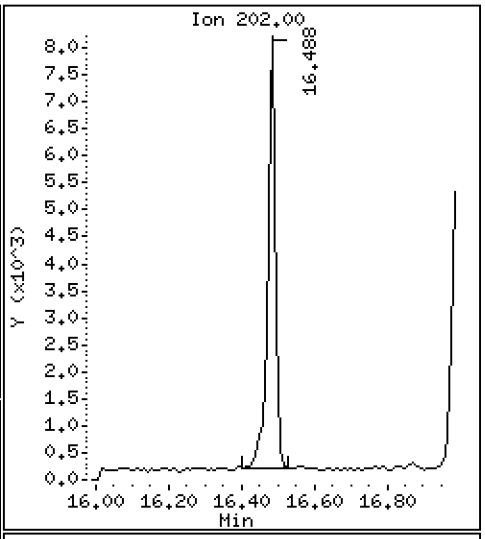
Column phase: Rxi-17Sil MS

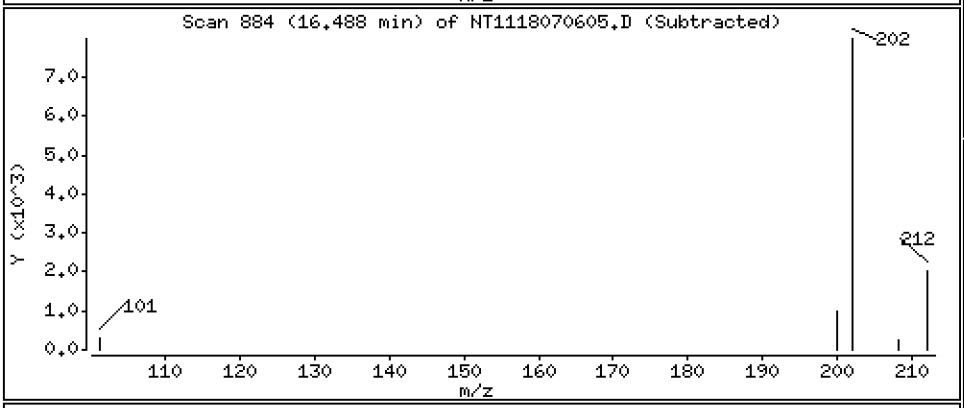
Column diameter: 0.25

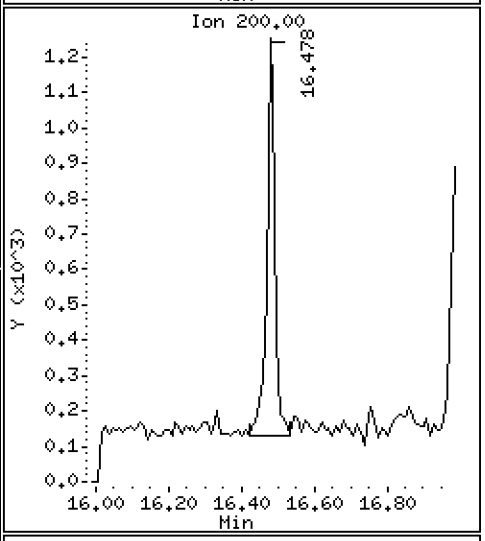
25 Fluoranthene

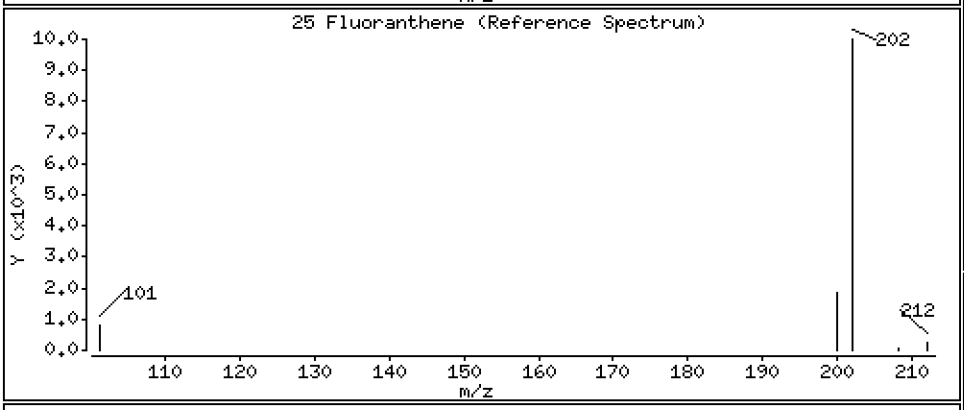
Concentration: 4.47 ng/mL

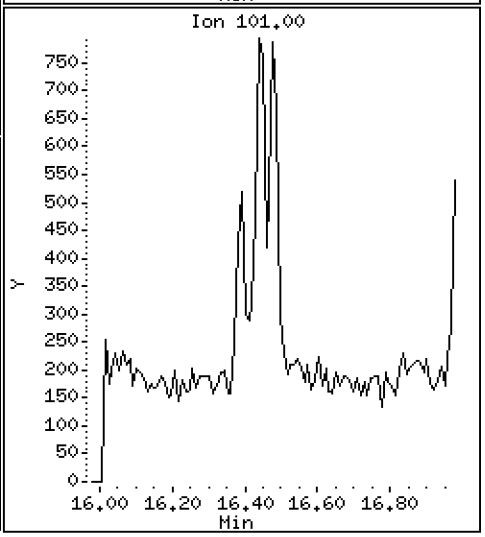


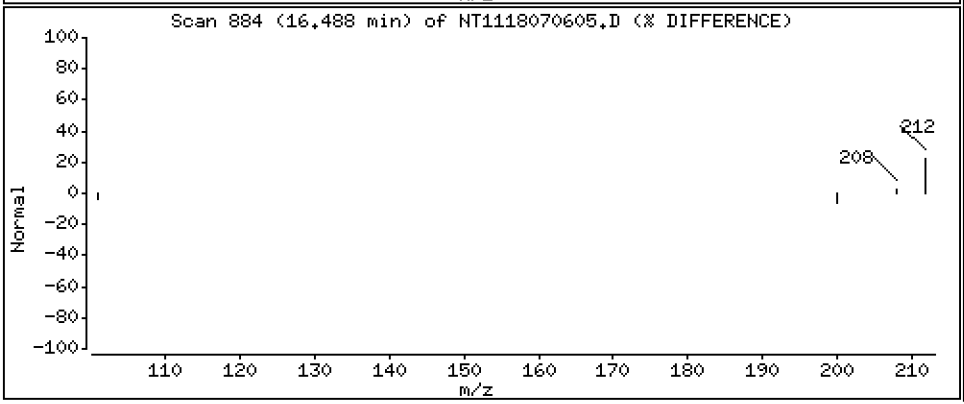












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Date : 06-JUL-2018 14:42

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-01

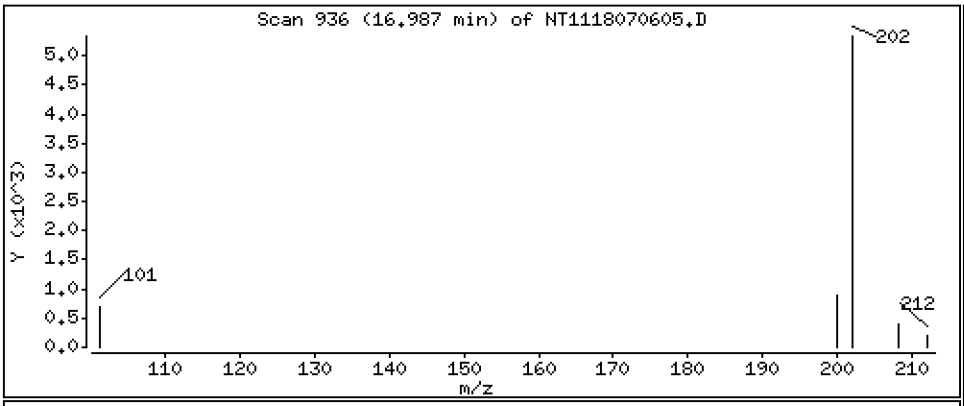
Operator: VTS

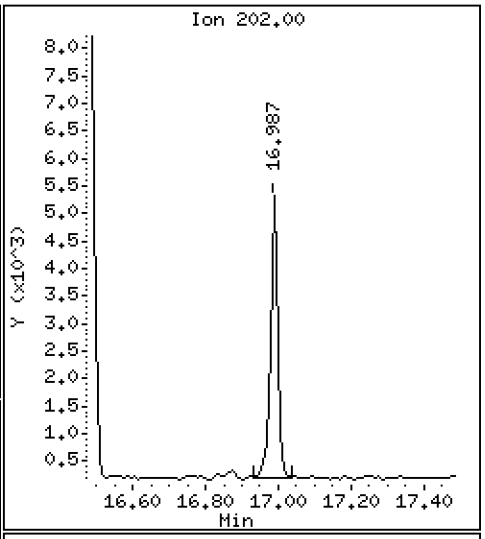
Column phase: Rxi-17Sil MS

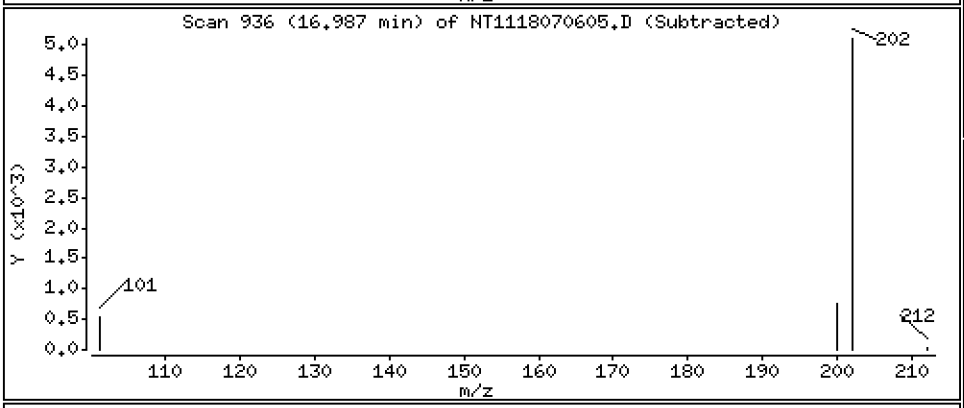
Column diameter: 0.25

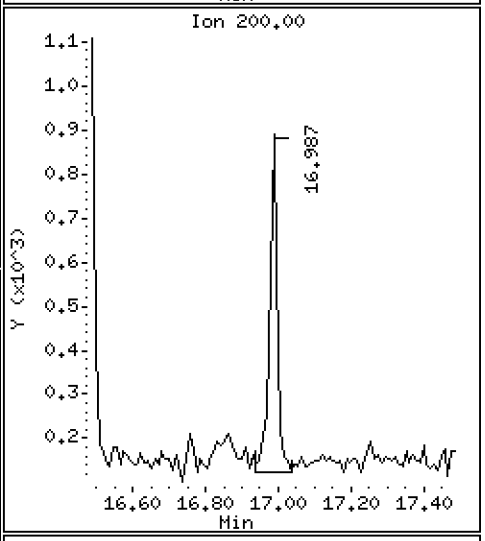
26 Pyrene

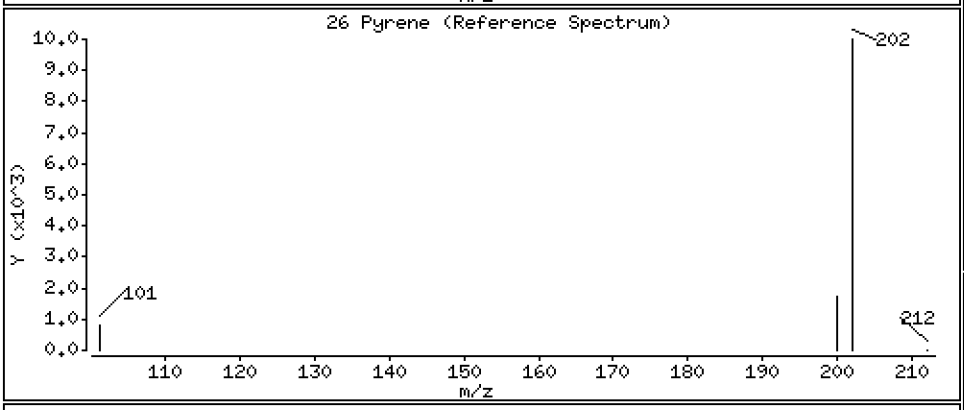
Concentration: 2.59 ng/mL

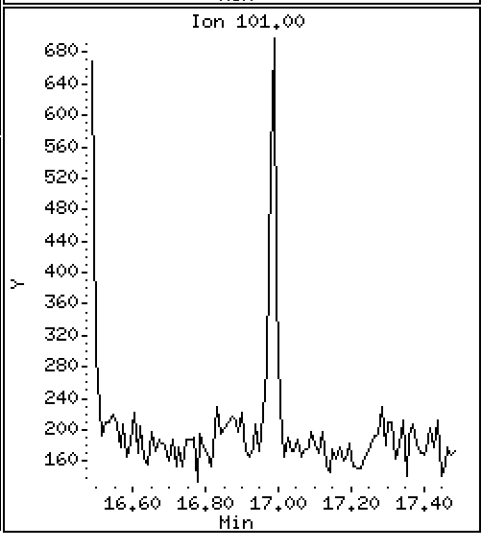


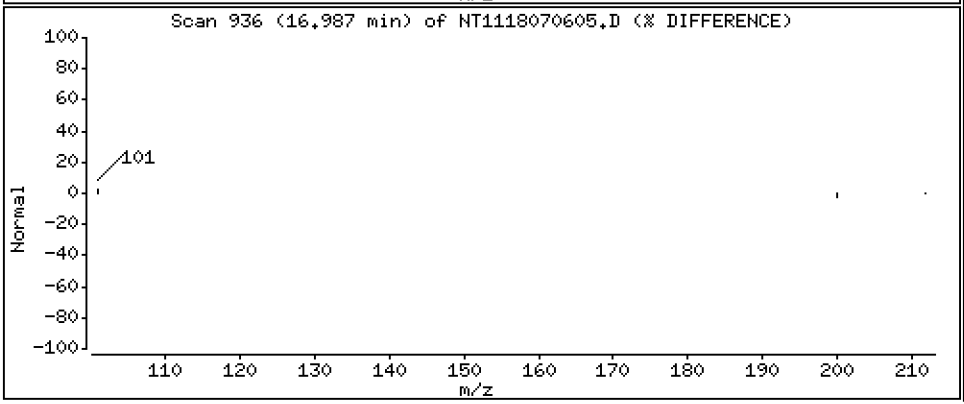












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Date : 06-JUL-2018 14:42

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-01

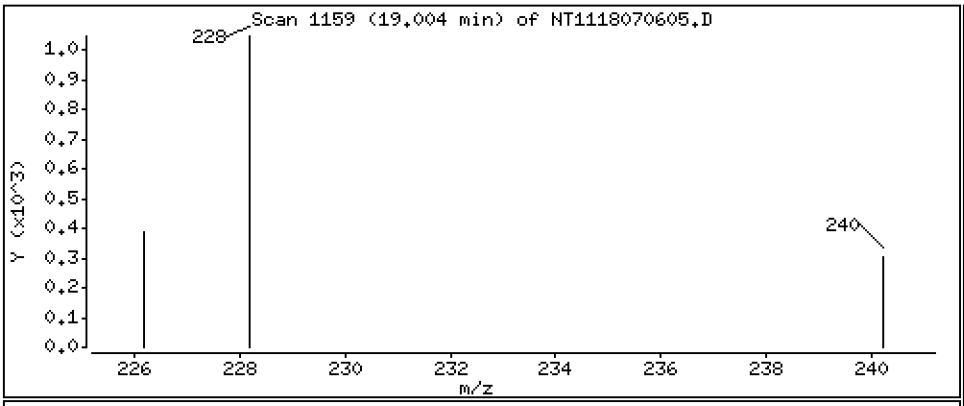
Operator: VTS

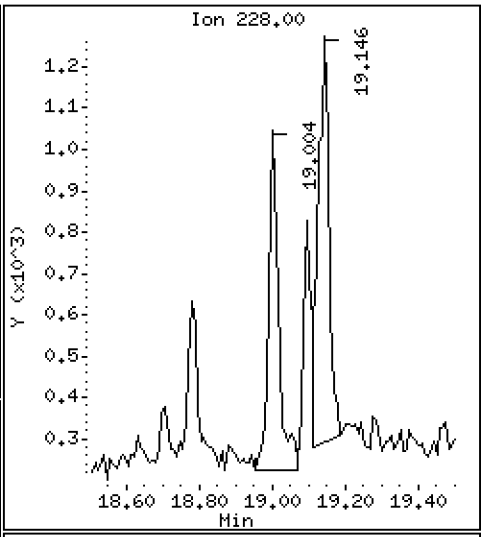
Column phase: Rxi-17Sil MS

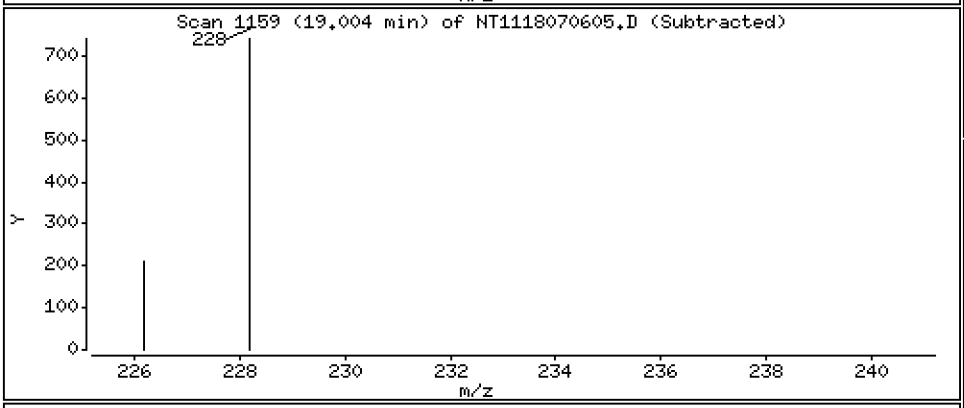
Column diameter: 0.25

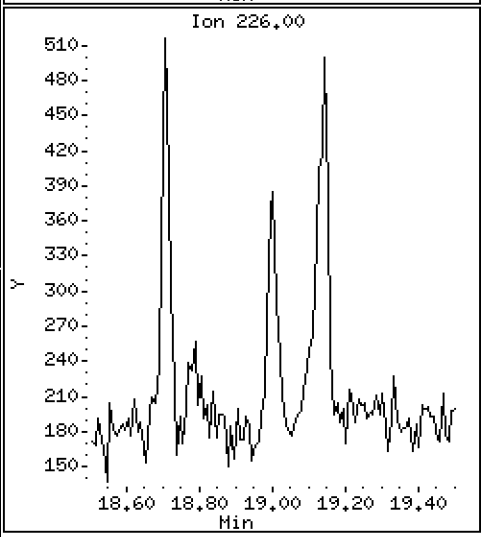
27 Benzo(a)anthracene

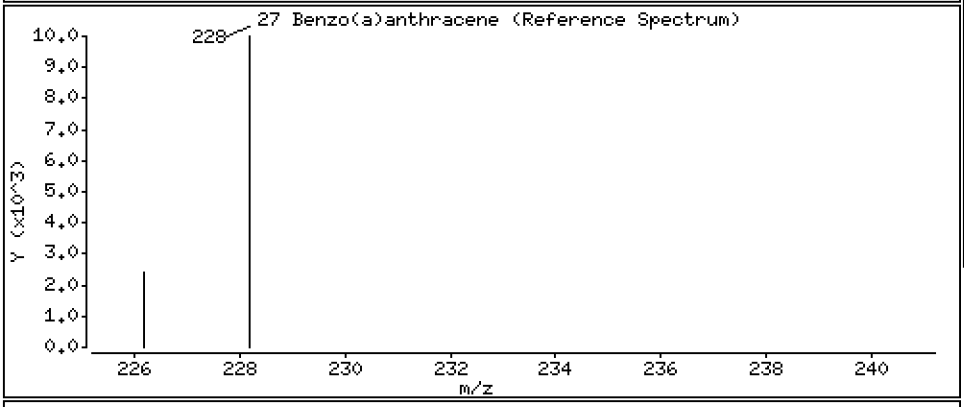
Concentration: 0.670 ng/mL

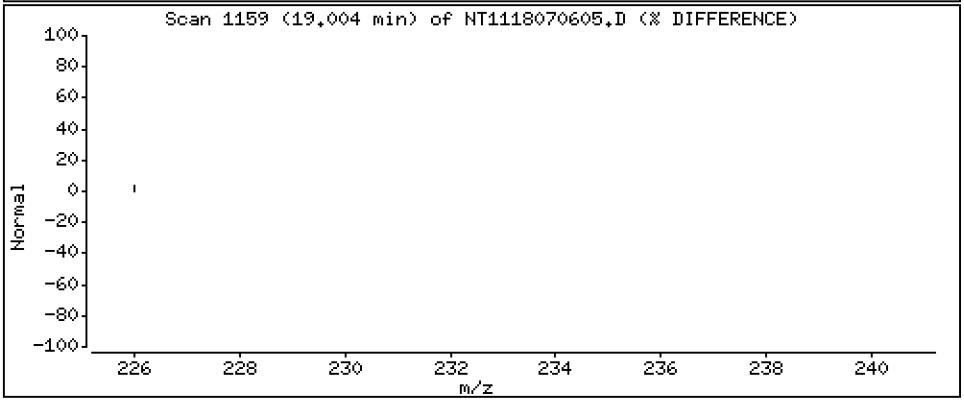












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Date : 06-JUL-2018 14:42

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-01

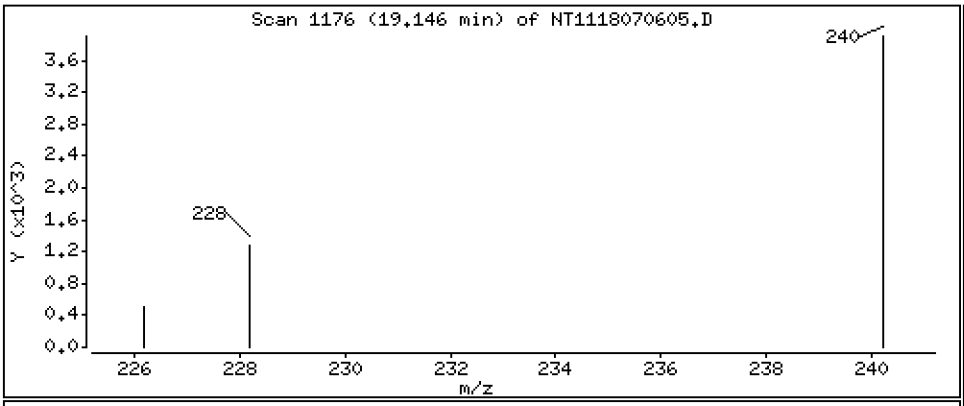
Operator: VTS

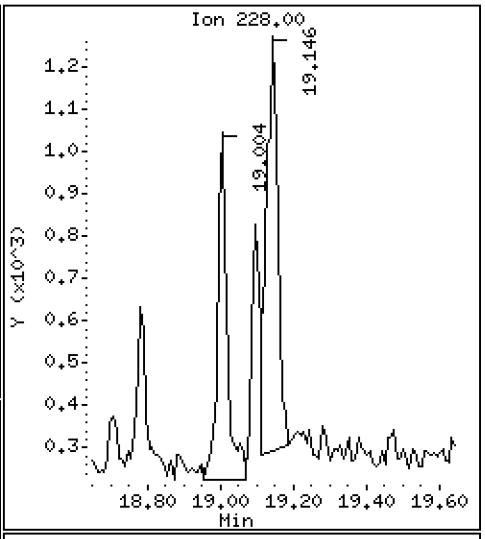
Column phase: Rxi-17Sil MS

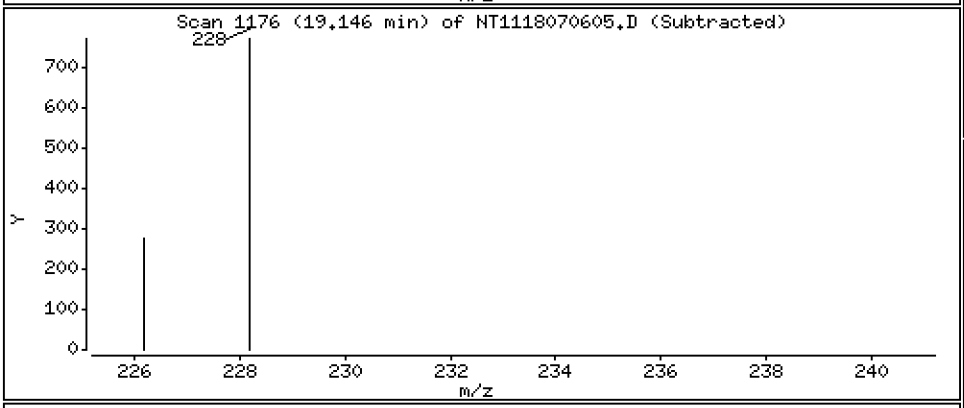
Column diameter: 0.25

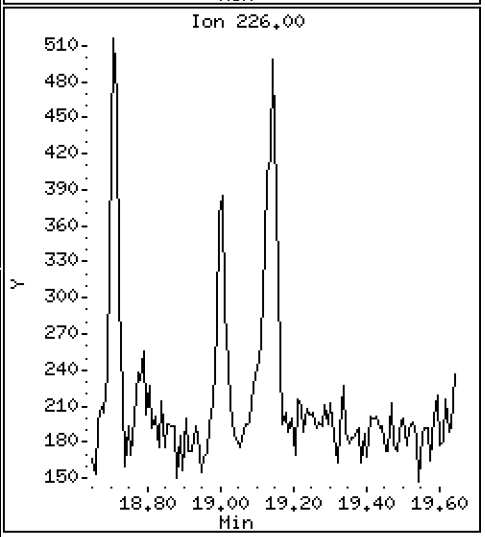
29 Chrysene

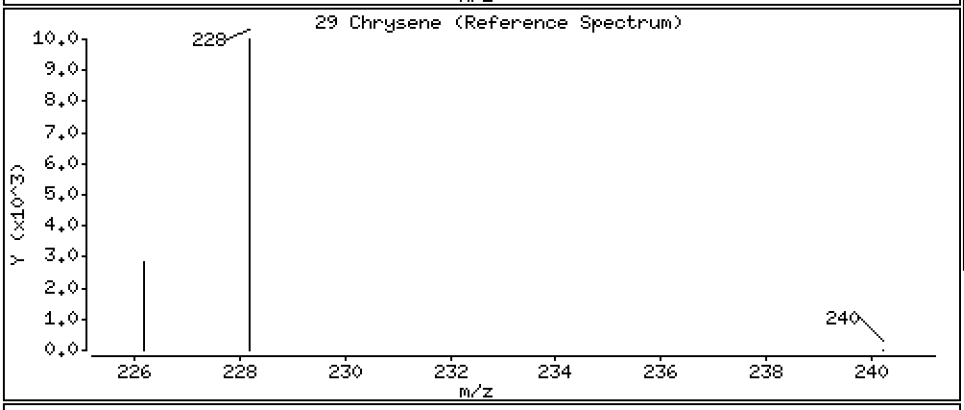
Concentration: 0.954 ng/mL

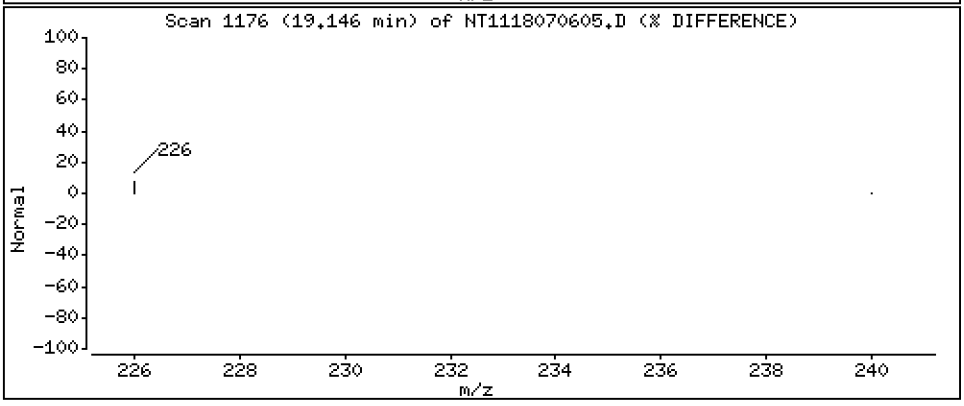












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180706.b\NT1118070605.D
Lab Smp Id: 18F0226-01
Inj Date : 06-JUL-2018 14:42 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0226-01
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Meth Date : 06-Jul-2018 13:13 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	447587	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	8115	2.40784	2.41
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	455152	178.228	178
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	5271	1.93328	1.93
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	3363	1.24025	1.24
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	237600	200.000	
	12 Acenaphthene	153	Compound Not Detected.					
	13 Dibenzofuran	168	Compound Not Detected.					
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	Compound Not Detected.					
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	389839	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	19429	6.35454	6.35
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	Compound Not Detected.					
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	Compound Not Detected.					
$	24 Fluoranthene-d10	212	16.449	16.449	(1.147)	496725	209.914	210
	25 Fluoranthene	202	16.487	16.487	(1.150)	12701	4.47320	4.47
	26 Pyrene	202	16.987	16.987	(0.890)	7695	2.58641	2.59
	27 Benzo(a)anthracene	228	19.004	19.004	(0.995)	1555	0.67014	0.670
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	302630	200.000	
	29 Chrysene	228	19.145	19.145	(1.003)	2200	0.95449	0.954
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
35	Benzo(a)pyrene	252	Compound Not Detected.					
* 36	Perylene-d12	264	22.353	22.353	(1.000)	299721	200.000	
37	Perylene	252	Compound Not Detected.					
$ 38	Dibenzo(a,h)anthracene-d14	292	25.280	25.279	(1.131)	271623	189.380	189
39	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
40	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
41	Benzo(g,h,i)perylene	276	Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118070605.D
Lab Smp Id: 18F0226-01
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Misc Info:

Calibration Date: 06-JUL-2018
Calibration Time: 12:50
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	447587	3.77
11 Acenaphthene-d10	260137	130069	520274	237600	-8.66
18 Phenanthrene-d10	427391	213696	854782	389839	-8.79
28 Chrysene-d12	304596	152298	609192	302630	-0.65
36 Perylene-d12	263091	131546	526182	299721	13.92

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118070605.D

Lab ID: 18F0226-01
nt11.i, 20180706.b\LOWSIM.m,   06-JUL-2018 14:42

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180706.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-57

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-02	SDG:	18F0185
Sampled:	06/14/18 10:41	Prepared:	06/21/18 13:35	File ID:	NT1118070606.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	07/06/18 15:18
Batch:	BGF0530	Sequence:	SGG0067	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.003	J	0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.001	J	0.001	0.010
208-96-8	Acenaphthylene	1	0.010	U	0.002	0.010
83-32-9	Acenaphthene	1	0.004	J	0.003	0.010
86-73-7	Fluorene	1	0.002	J	0.002	0.010
85-01-8	Phenanthrene	1	0.003	J	0.001	0.010
120-12-7	Anthracene	1	0.010	U	0.001	0.010
206-44-0	Fluoranthene	1	0.003	J	0.002	0.010
129-00-0	Pyrene	1	0.002	J	0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.010	U	0.0008	0.010
218-01-9	Chrysene	1	0.010	U	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.010	U	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.168	55.9	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.175	58.2	29 - 120	
Fluoranthene-d10	0.30000	0.192	64.1	57 - 120	

Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070606.D

Date : 06-JUL-2018 15:18

Client ID:

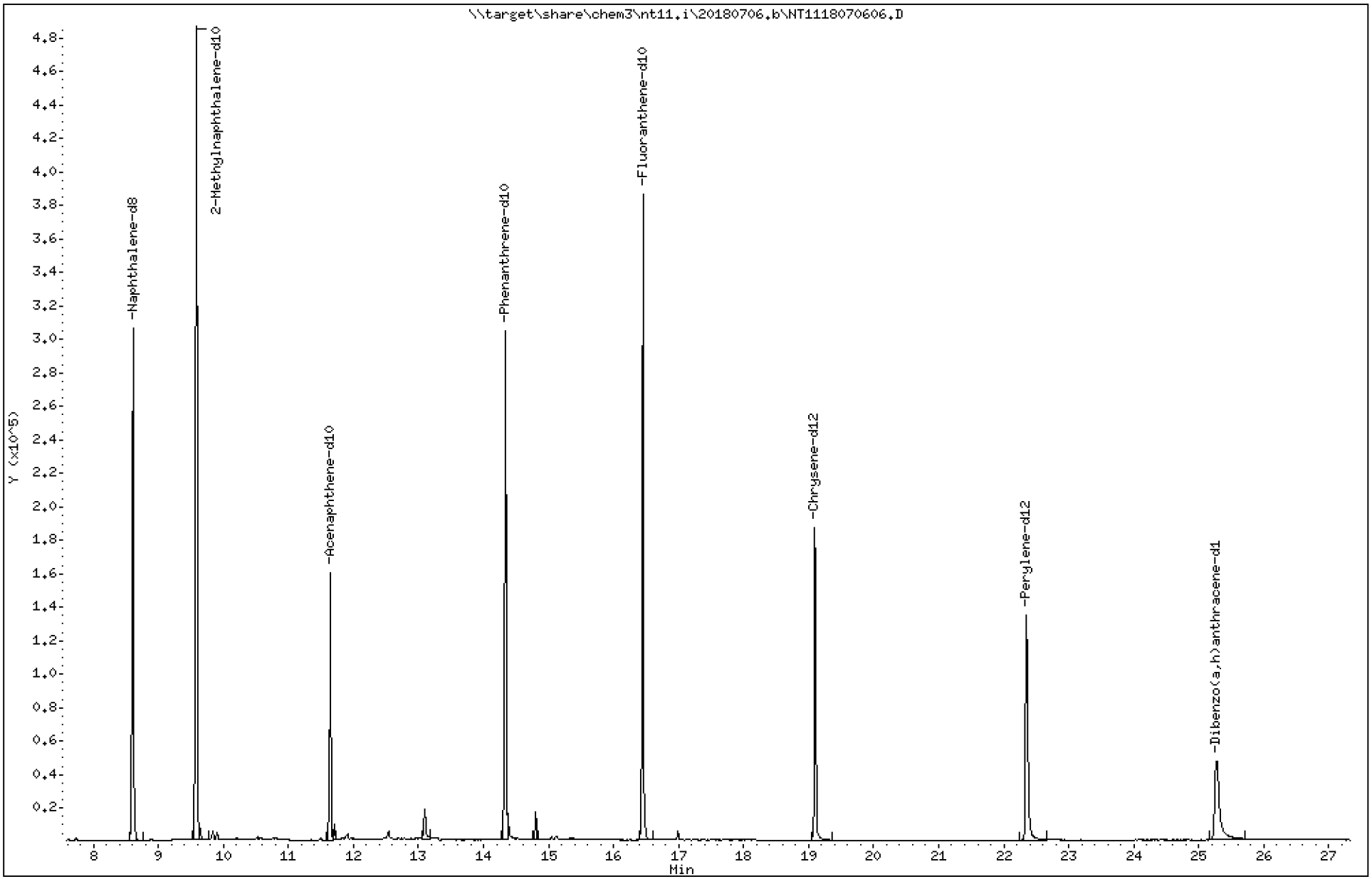
Instrument: nt11.i

Sample Info: 18F0226-02

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 06-JUL-2018 15:18

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-02

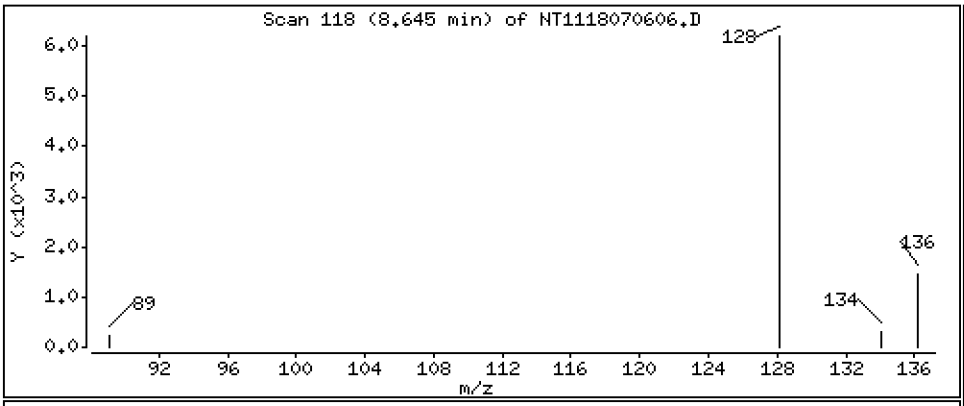
Operator: VTS

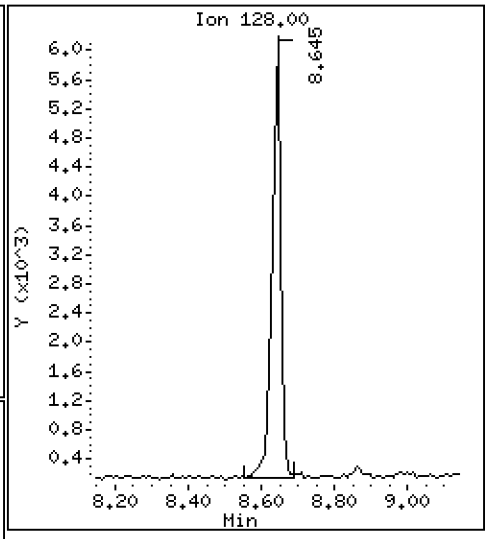
Column phase: Rxi-17Sil MS

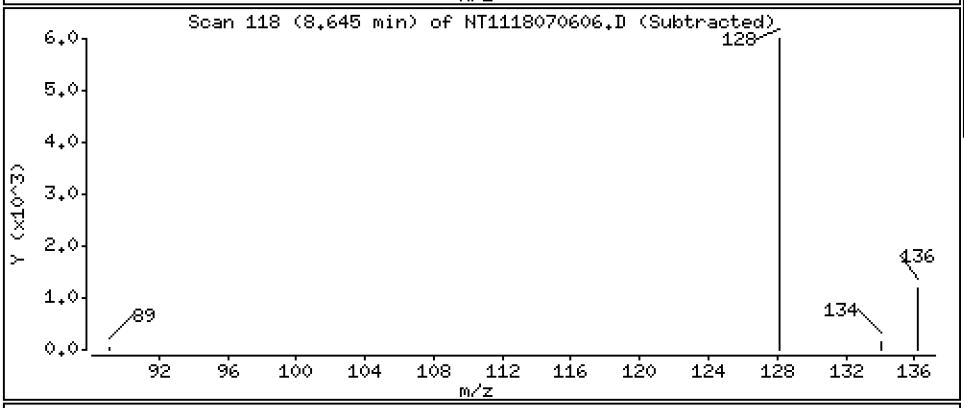
Column diameter: 0.25

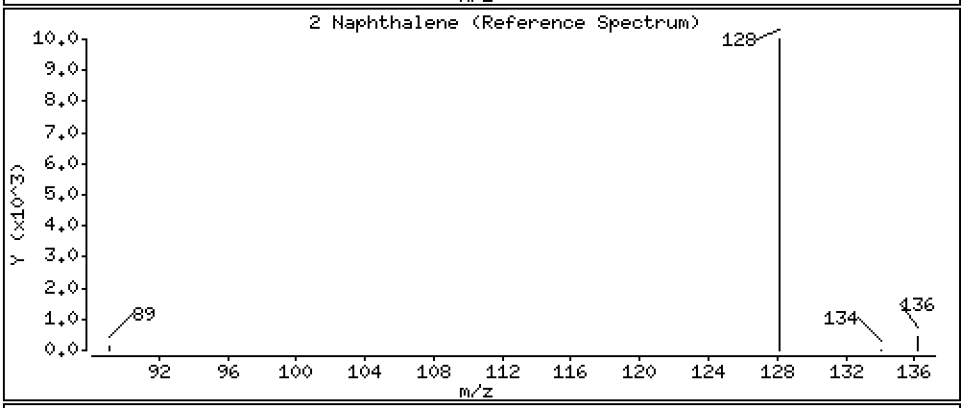
2 Naphthalene

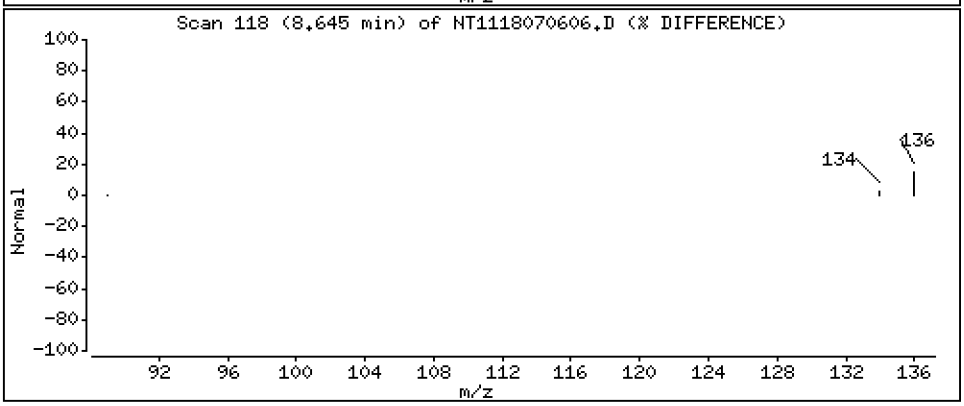
Concentration: 2.94 ng/mL











Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070606.D

Date : 06-JUL-2018 15:18

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-02

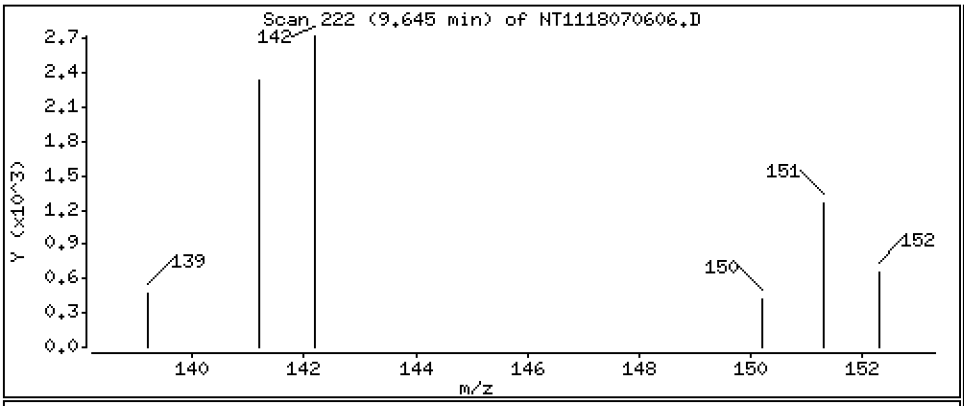
Operator: VTS

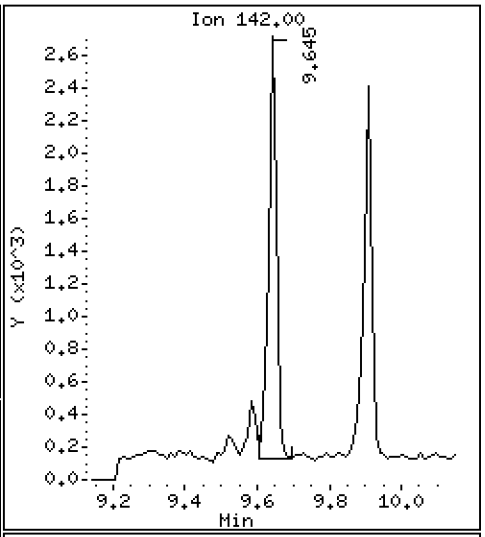
Column phase: Rxi-17Sil MS

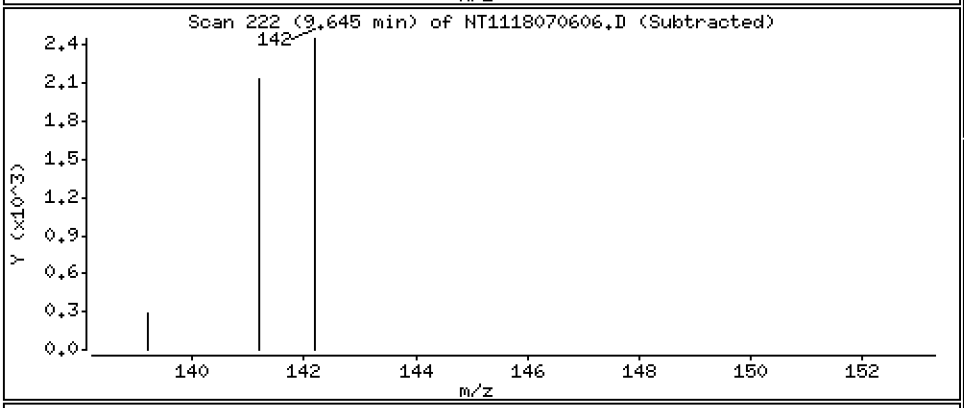
Column diameter: 0.25

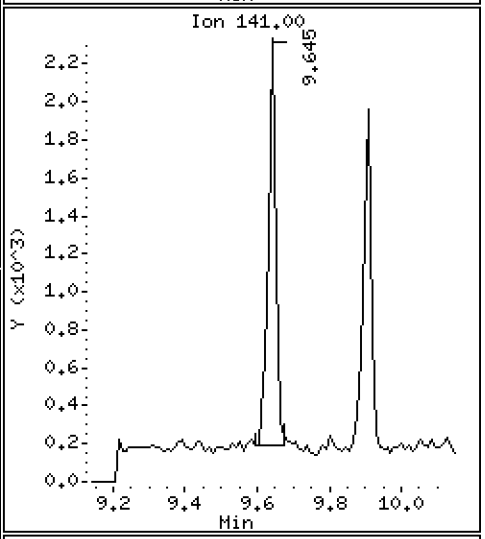
5 2-Methylnaphthalene

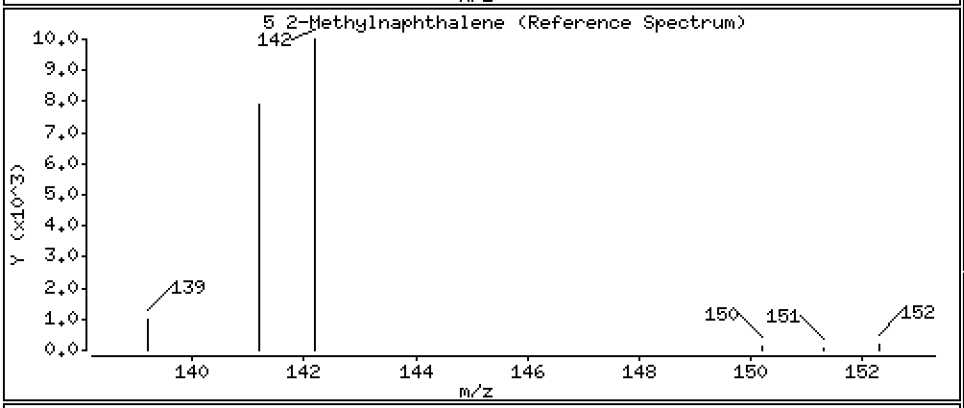
Concentration: 1.45 ng/mL

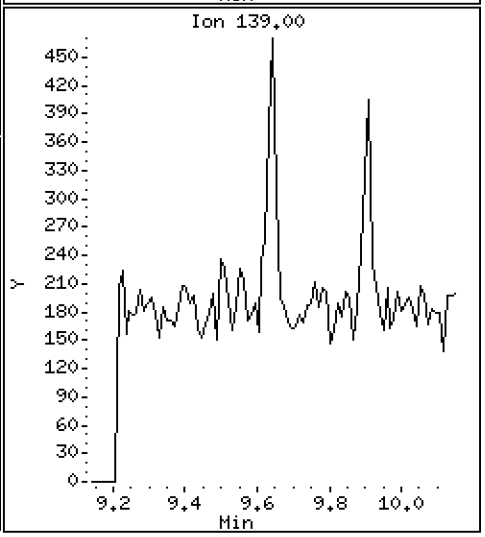


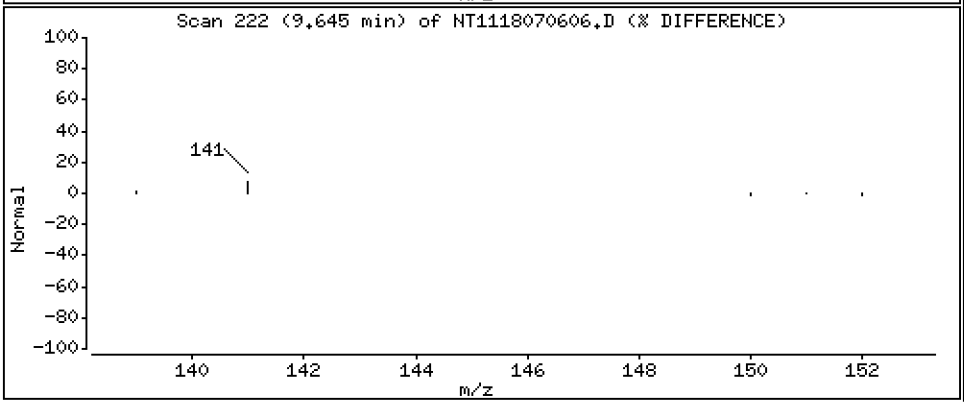












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070606.D

Date : 06-JUL-2018 15:18

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-02

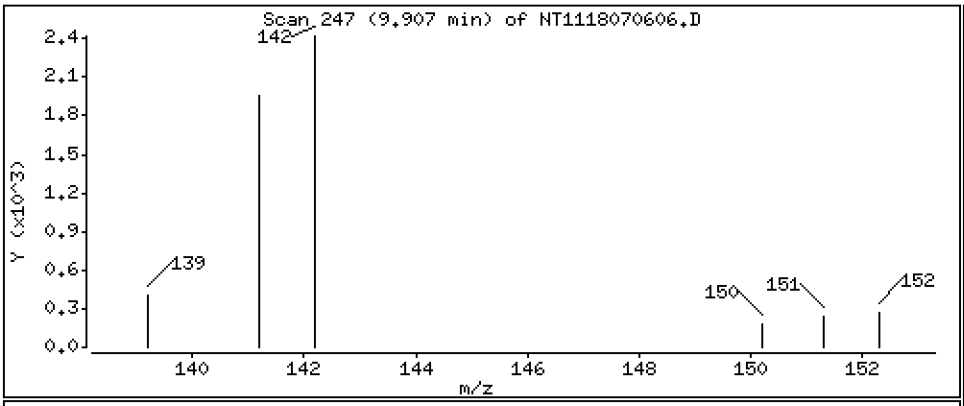
Operator: VTS

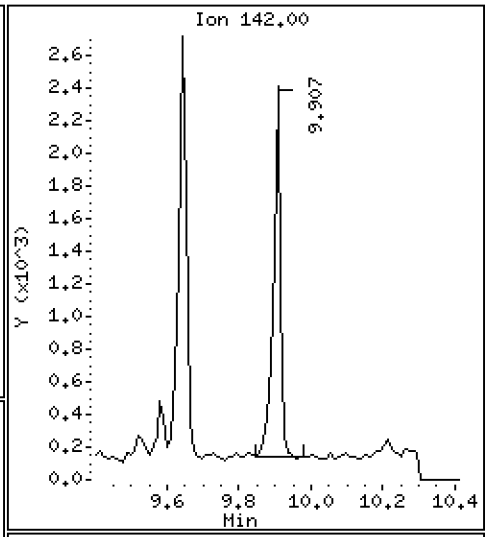
Column phase: Rxi-17Sil MS

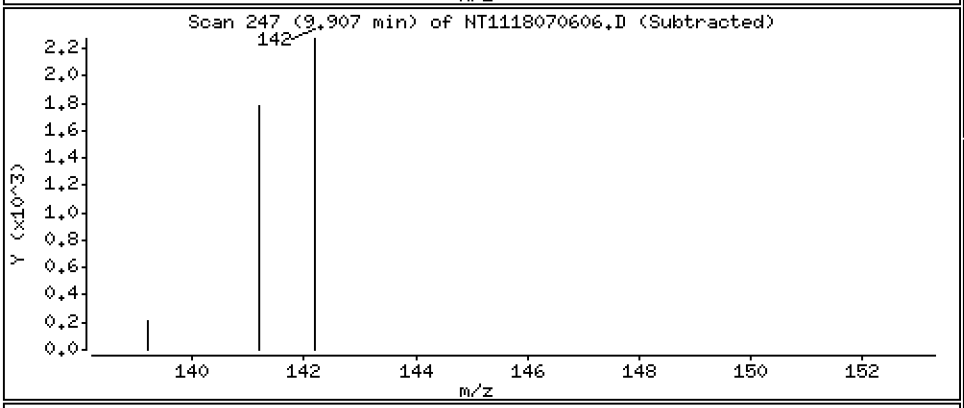
Column diameter: 0.25

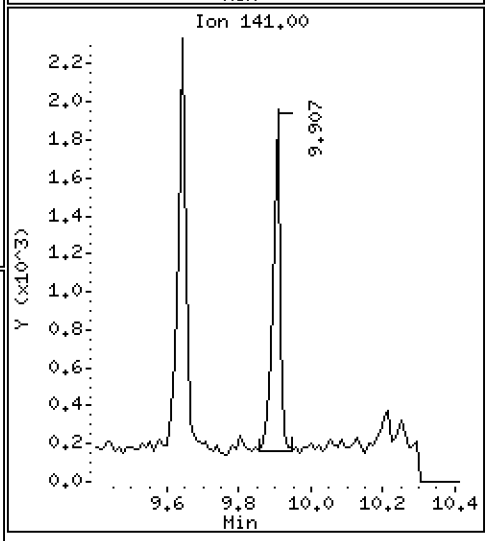
6 1-Methylnaphthalene

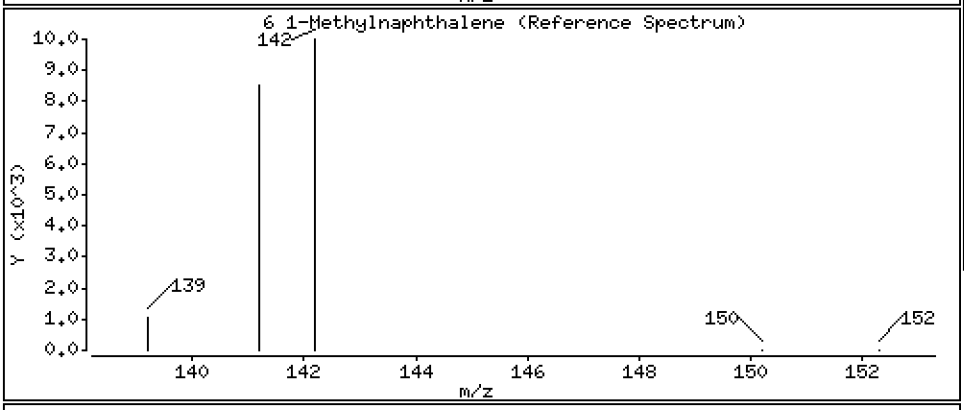
Concentration: 1.29 ng/mL

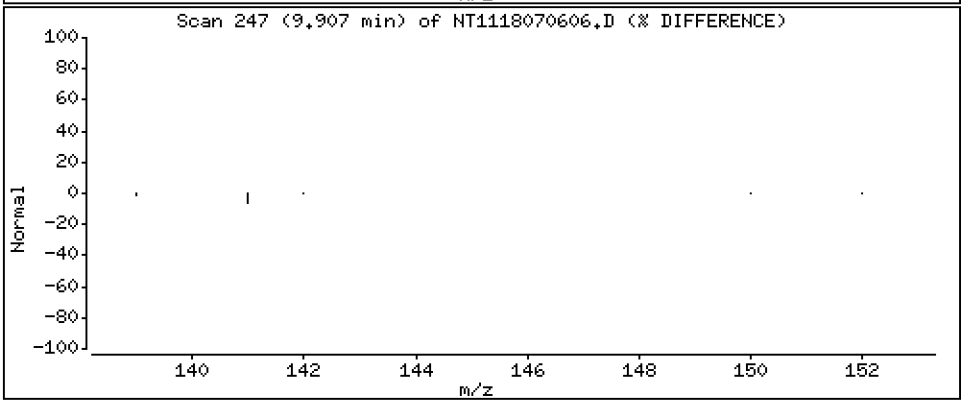












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Date : 06-JUL-2018 15:18

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-02

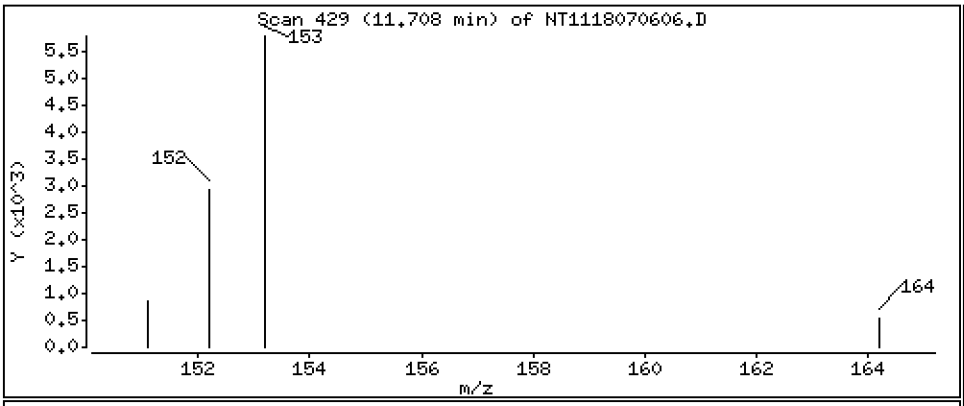
Operator: VTS

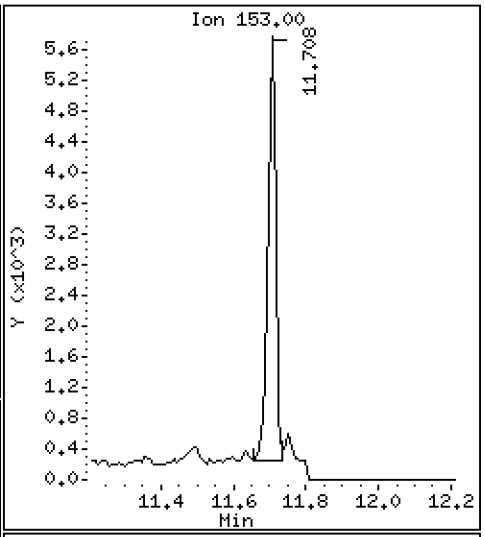
Column phase: Rxi-17Sil MS

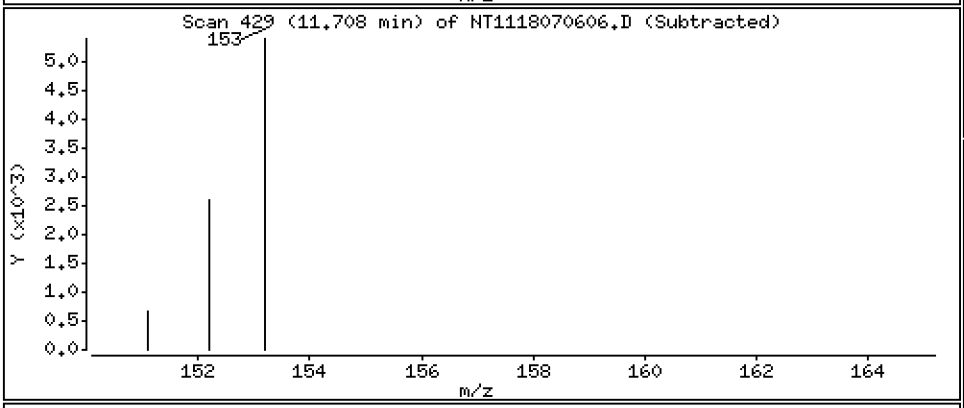
Column diameter: 0.25

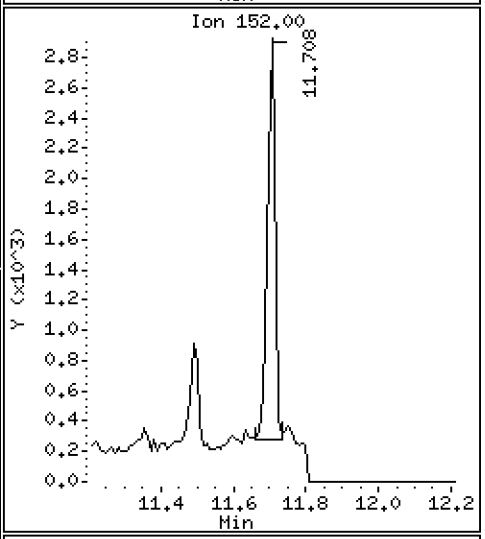
12 Acenaphthene

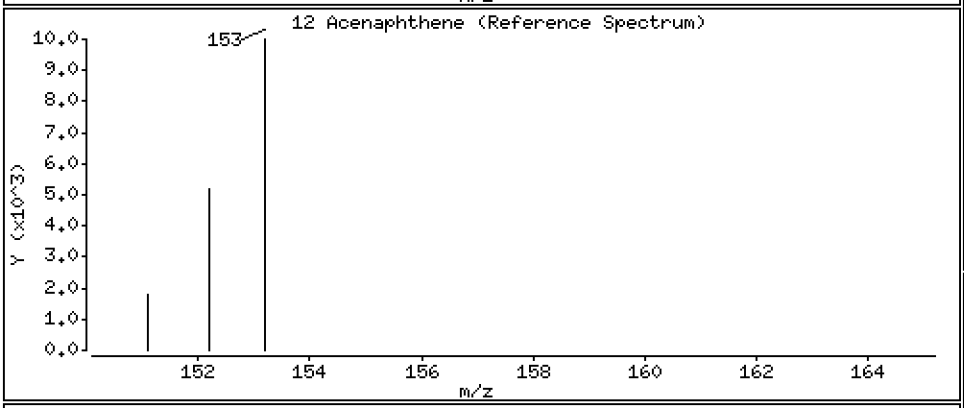
Concentration: 4.12 ng/mL

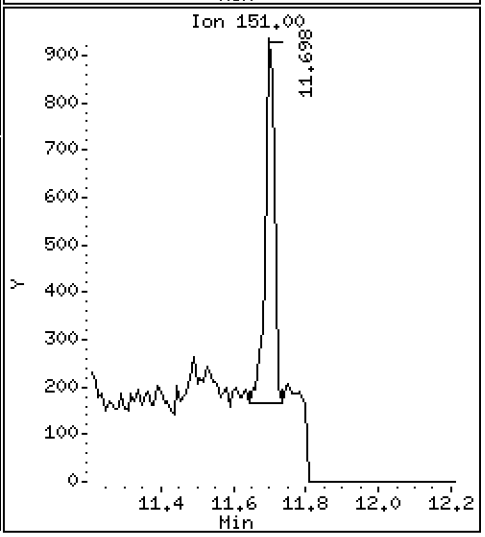


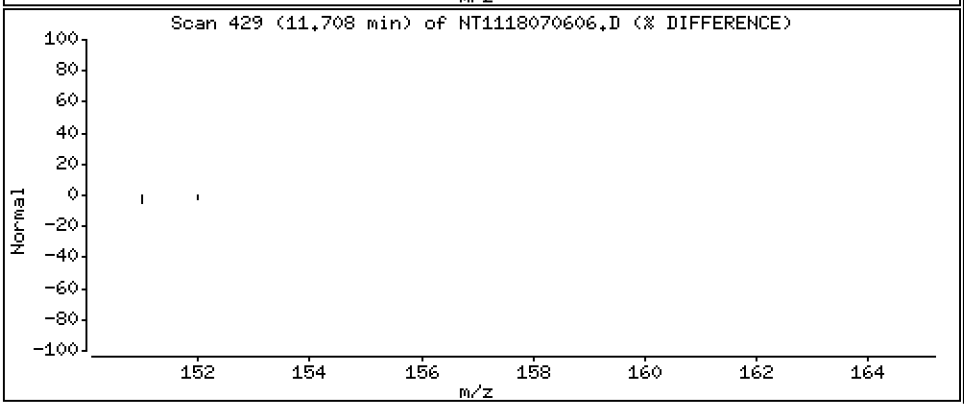












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Date : 06-JUL-2018 15:18

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-02

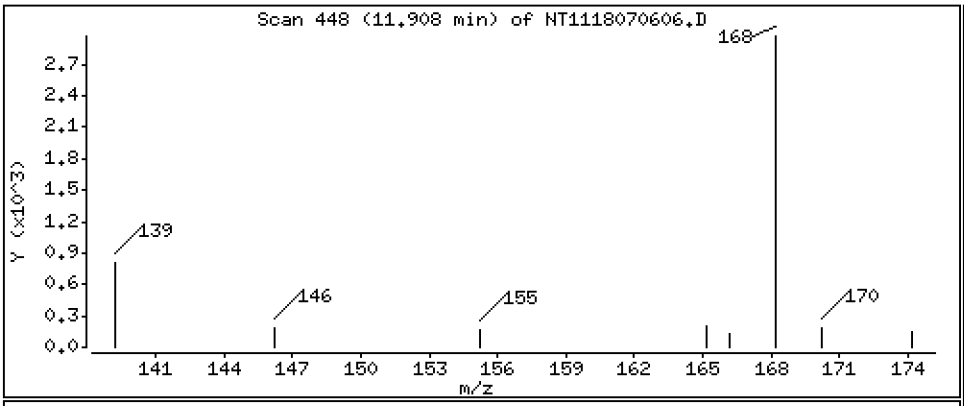
Operator: VTS

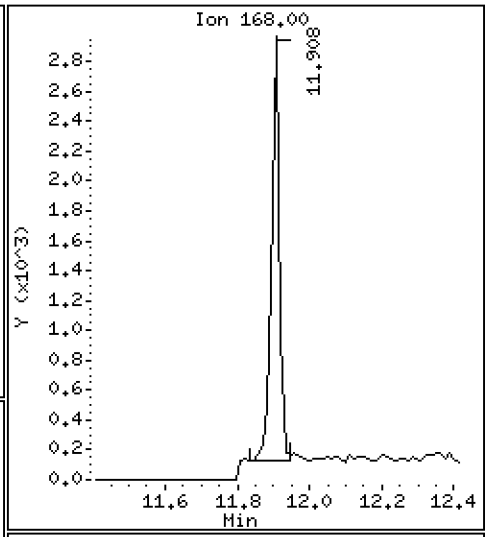
Column phase: Rxi-17Sil MS

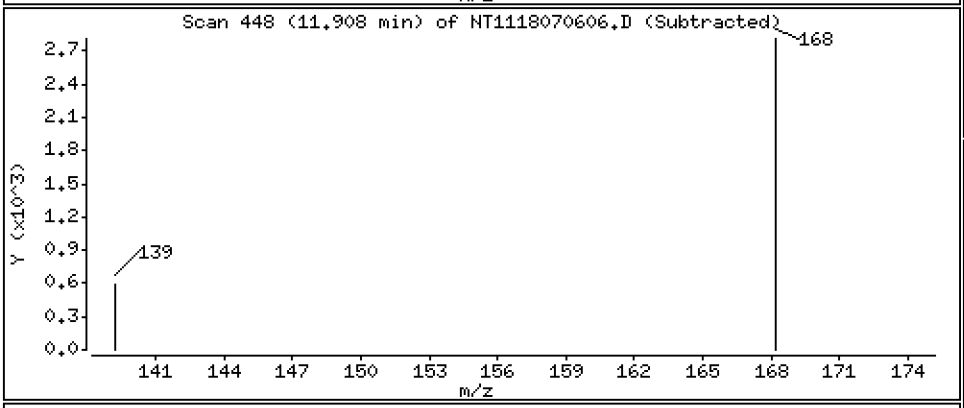
Column diameter: 0.25

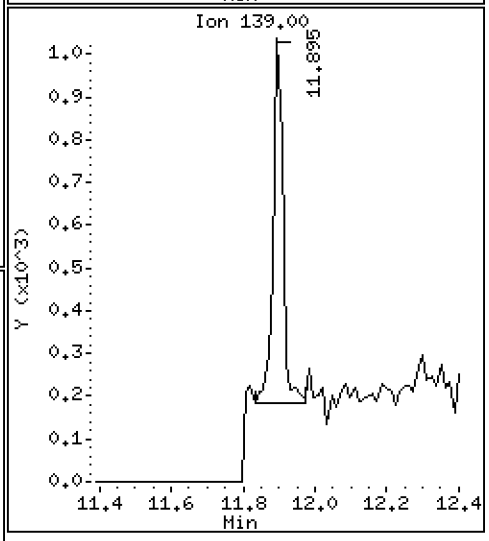
13 Dibenzofuran

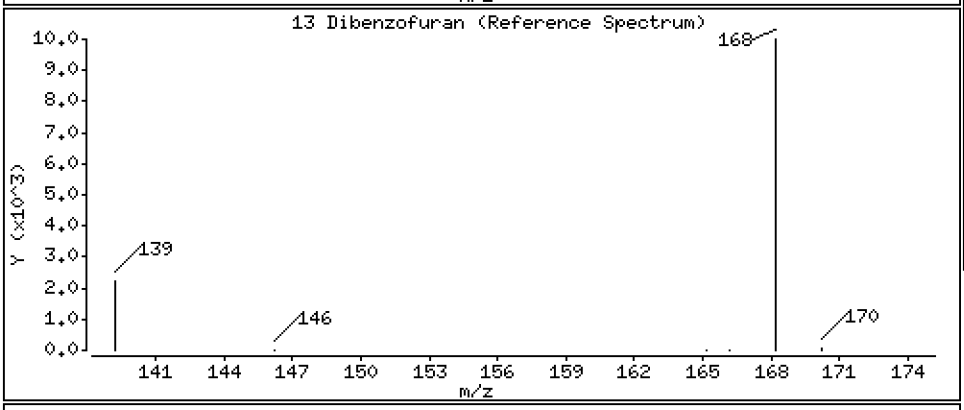
Concentration: 1.57 ng/mL

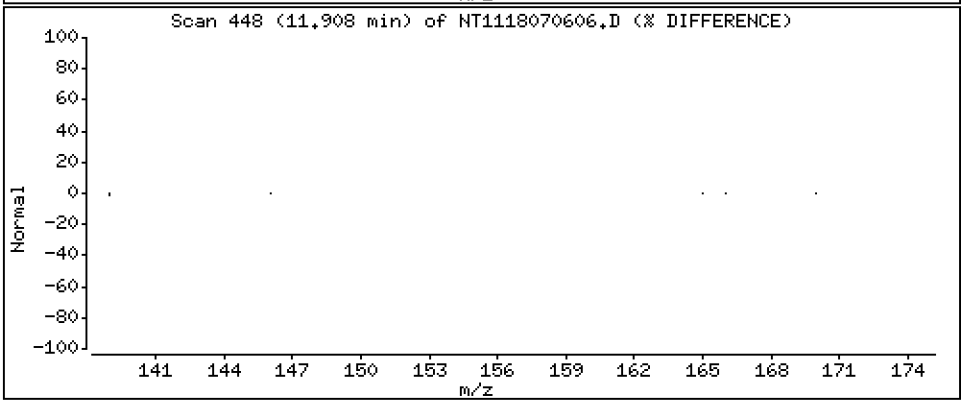












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070606.D

Date : 06-JUL-2018 15:18

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-02

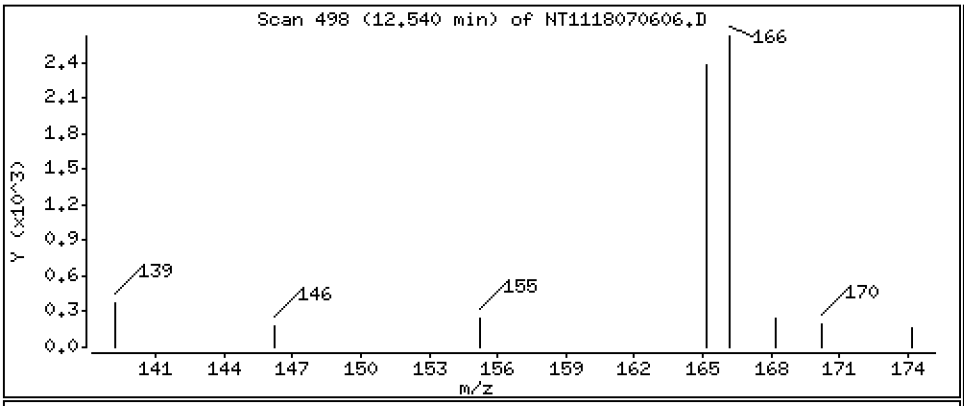
Operator: VTS

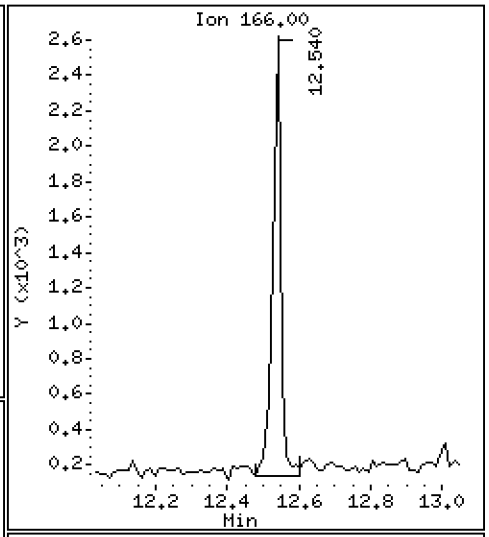
Column phase: Rxi-17Sil MS

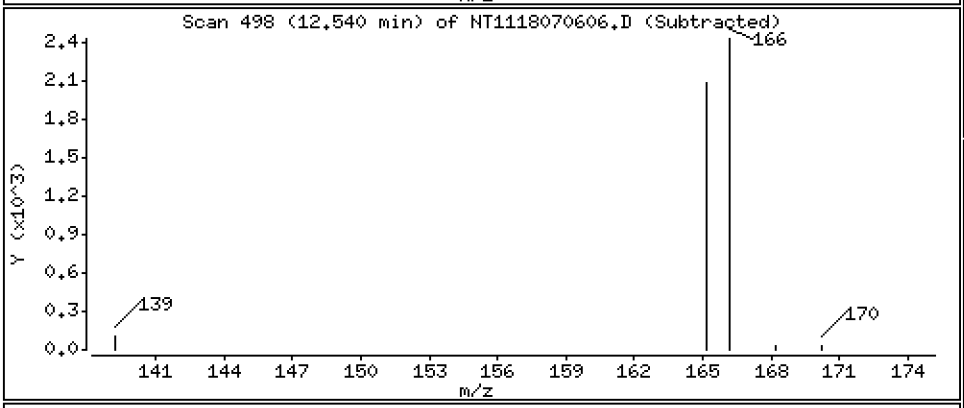
Column diameter: 0.25

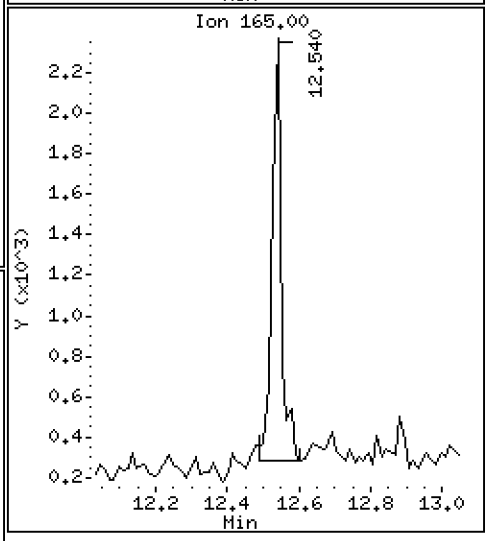
16 Fluorene

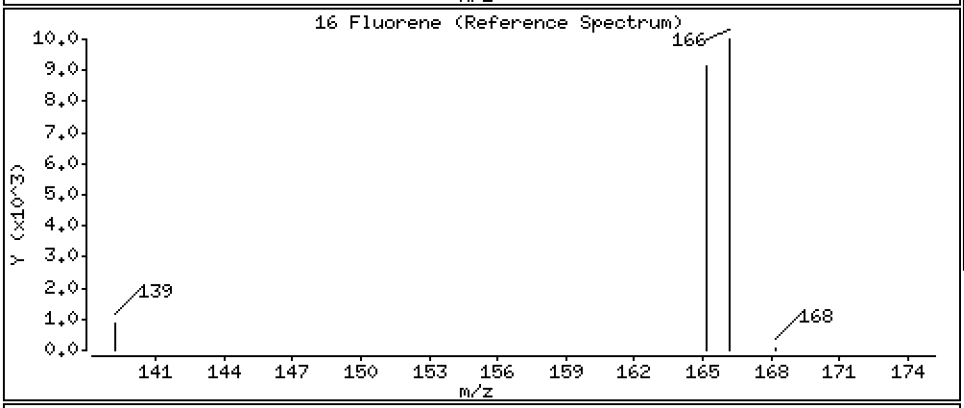
Concentration: 1.83 ng/mL

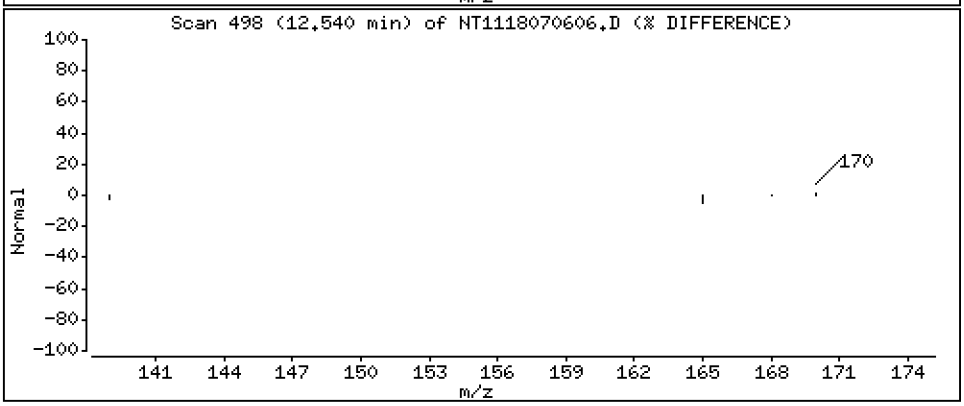












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070606.D

Date : 06-JUL-2018 15:18

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-02

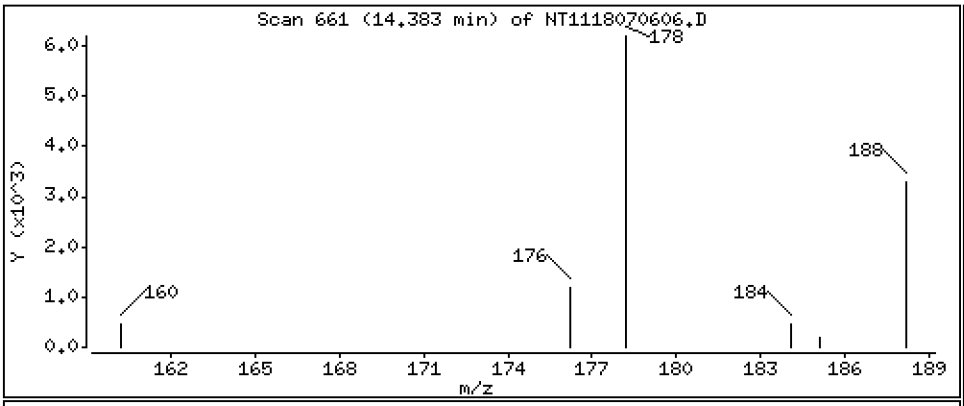
Operator: VTS

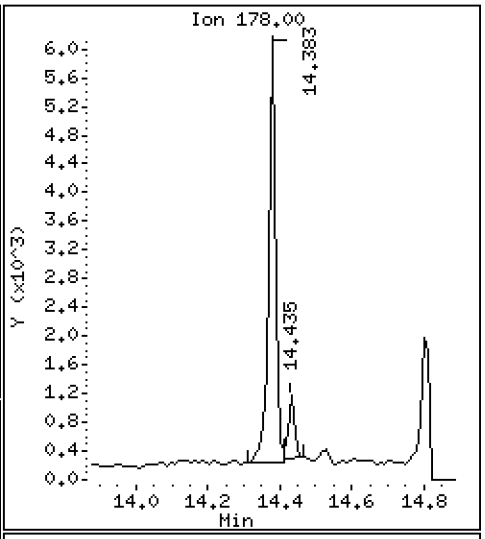
Column phase: Rxi-17Sil MS

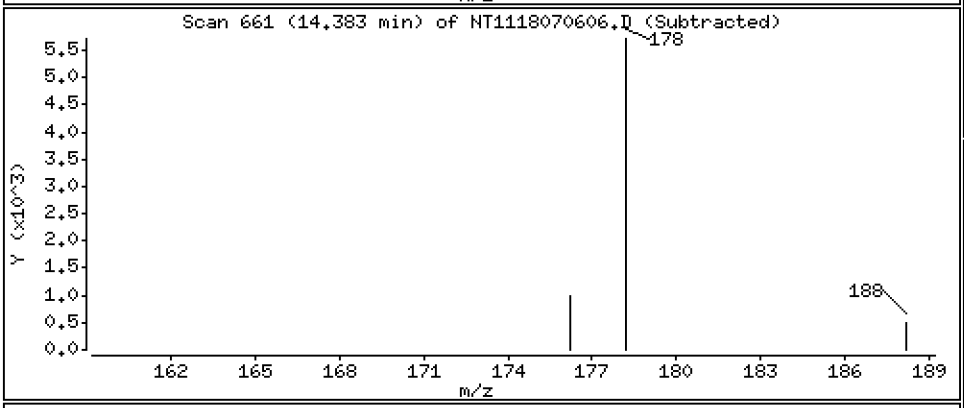
Column diameter: 0.25

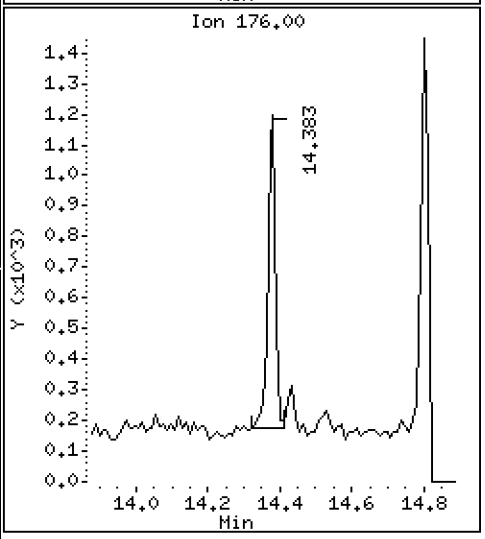
19 Phenanthrene

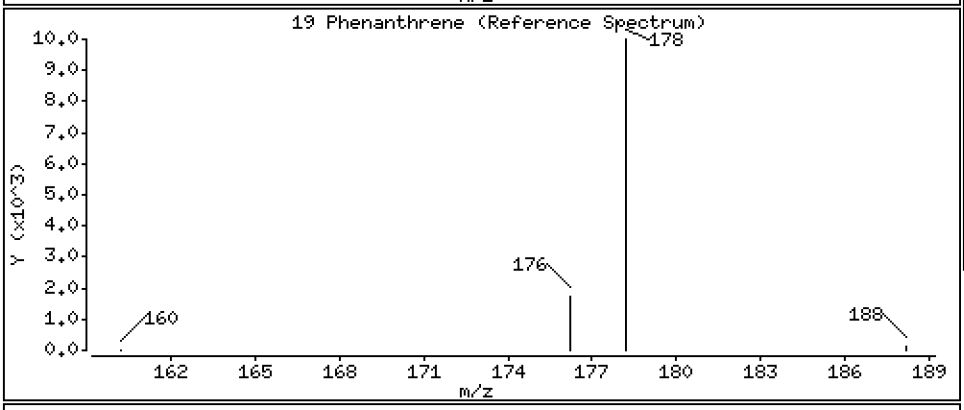
Concentration: 2.99 ng/mL

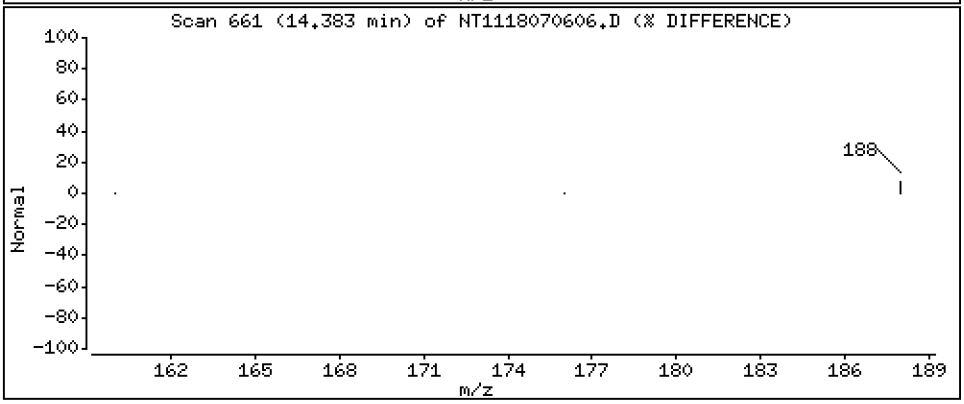












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Date : 06-JUL-2018 15:18

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-02

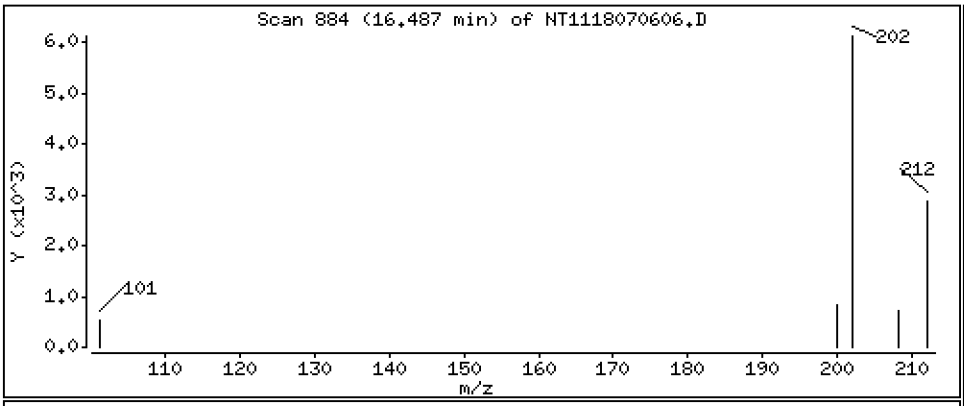
Operator: VTS

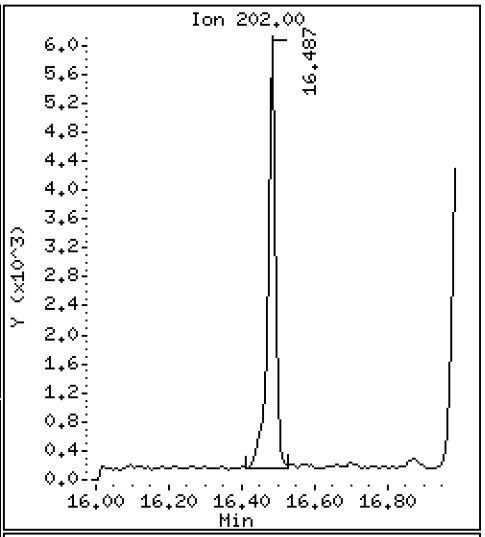
Column phase: Rxi-17Sil MS

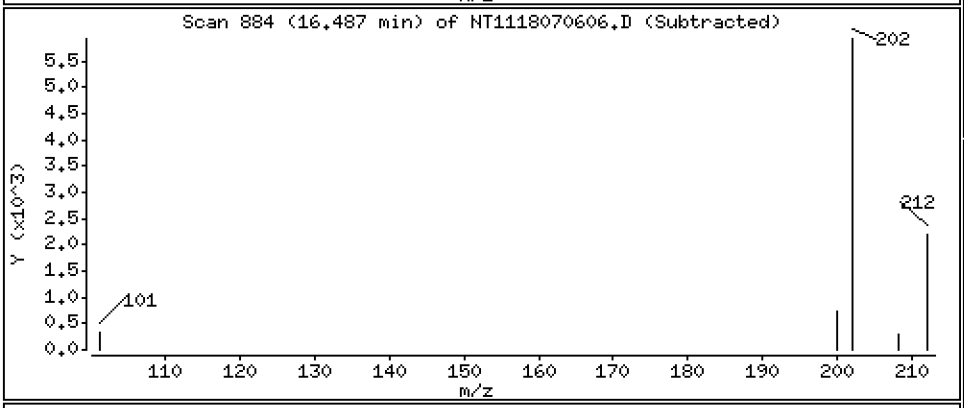
Column diameter: 0.25

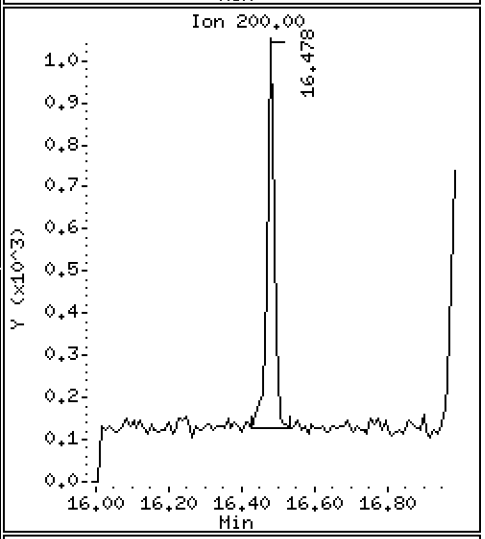
25 Fluoranthene

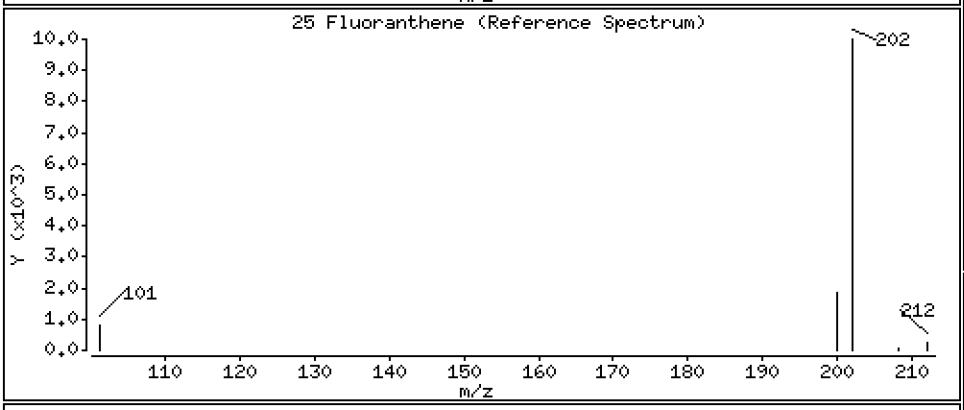
Concentration: 3.16 ng/mL

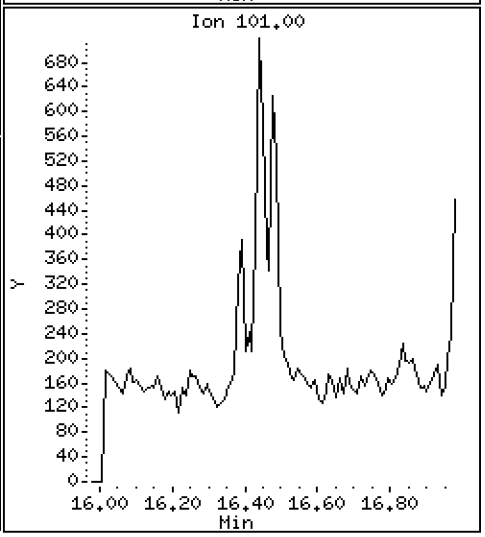


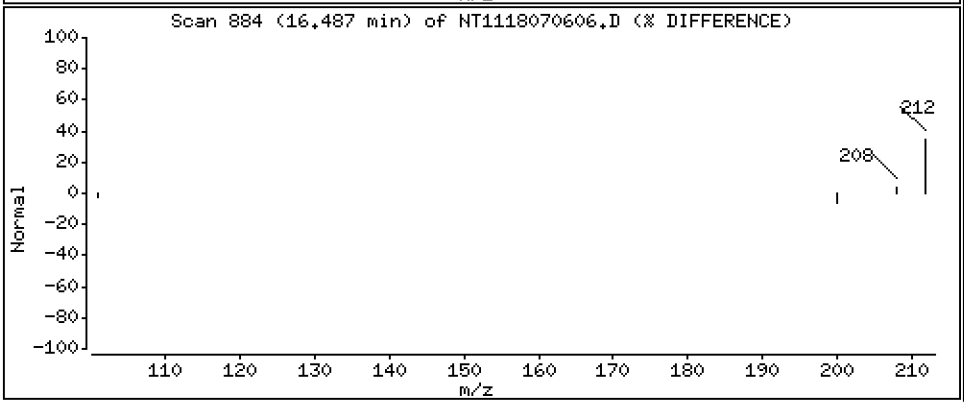












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Date : 06-JUL-2018 15:18

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-02

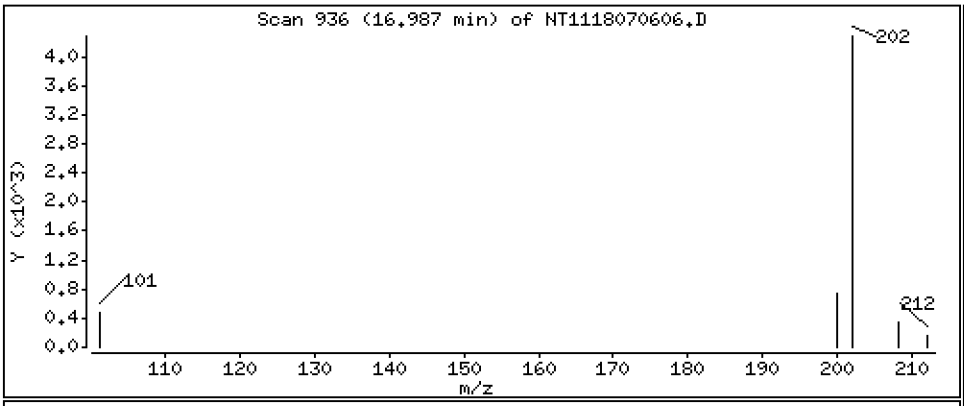
Operator: VTS

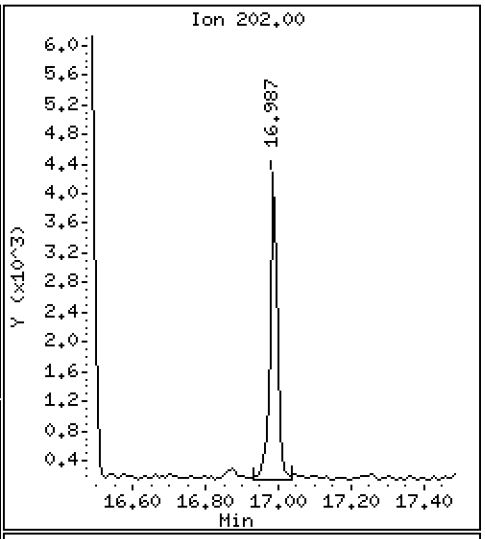
Column phase: Rxi-17Sil MS

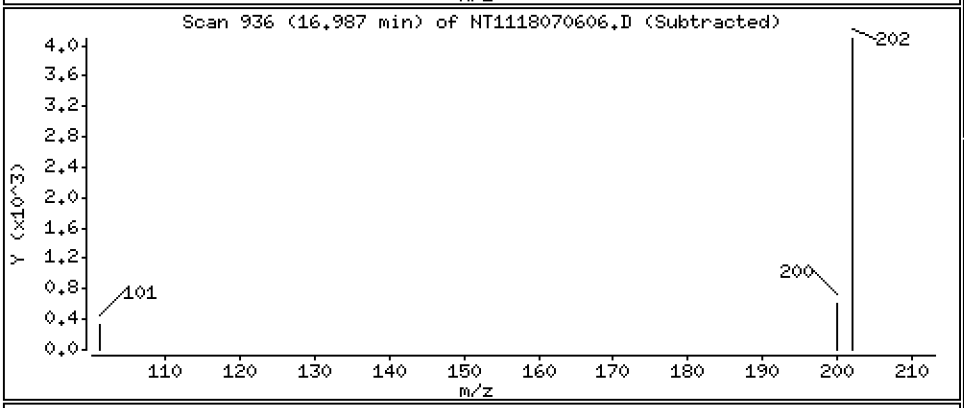
Column diameter: 0.25

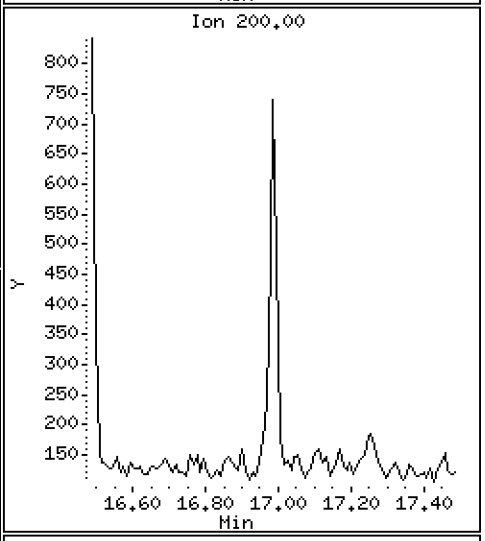
26 Pyrene

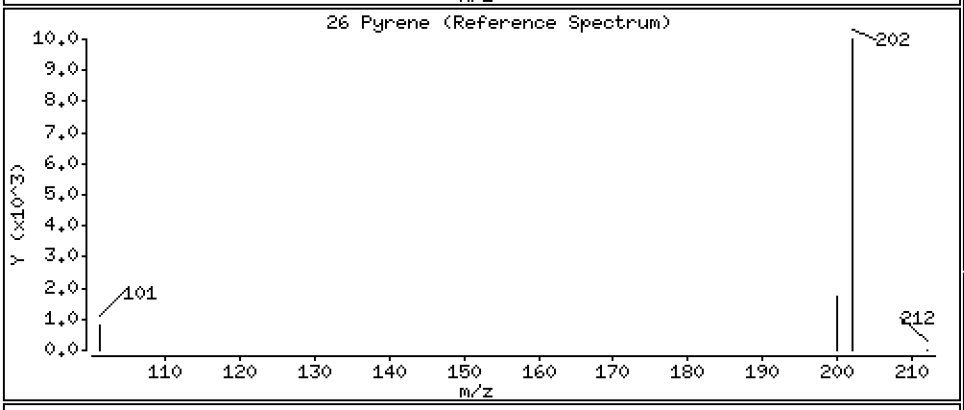
Concentration: 2.07 ng/mL

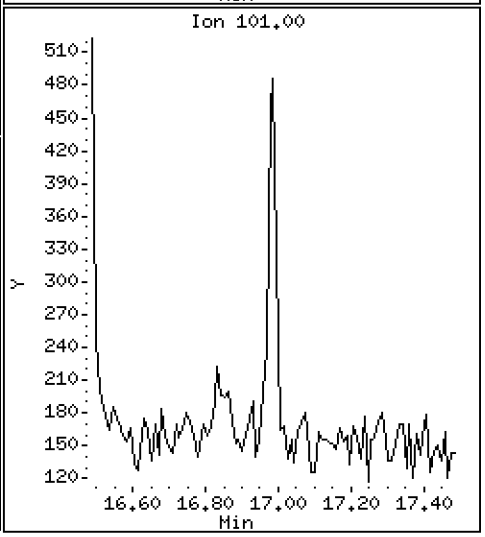


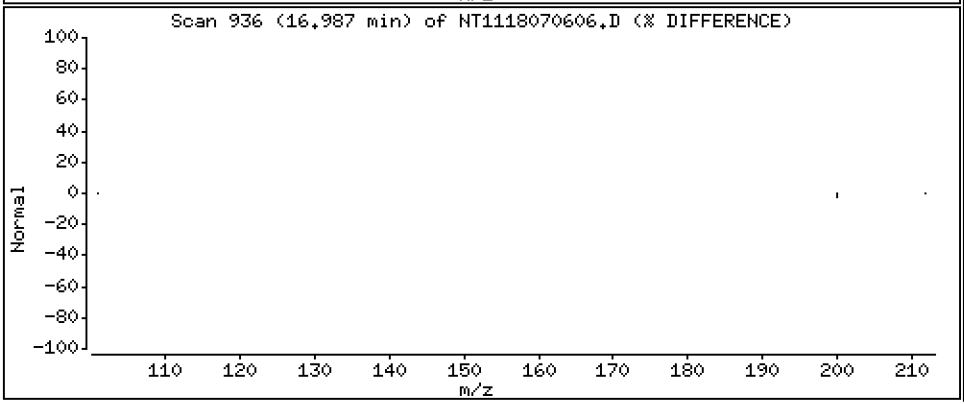












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

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Lab Smp Id: 18F0226-02
Inj Date : 06-JUL-2018 15:18 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0226-02
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Meth Date : 06-Jul-2018 13:13 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	452932	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	10022	2.93966	2.94
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	433066	167.578	168
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	3989	1.44581	1.45
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	3535	1.28830	1.29
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	237104	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	7950	4.12304	4.12
	13 Dibenzofuran	168	11.908	11.908	(1.023)	4134	1.56501	1.57
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.539	12.540	(1.077)	3900	1.83086	1.83
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	400608	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	9389	2.98826	2.99
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	Compound Not Detected.					
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	Compound Not Detected.					
$	24 Fluoranthene-d10	212	16.448	16.449	(1.147)	467482	192.245	192
	25 Fluoranthene	202	16.487	16.487	(1.150)	9228	3.16267	3.16
	26 Pyrene	202	16.987	16.987	(0.890)	6027	2.07234	2.07
	27 Benzo(a)anthracene	228	Compound Not Detected.					
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	295829	200.000	
	29 Chrysene	228	Compound Not Detected.					
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
35	Benzo(a)pyrene	252	Compound Not Detected.					
* 36	Perylene-d12	264	22.353	22.353	(1.000)	289532	200.000	
37	Perylene	252	Compound Not Detected.					
$ 38	Dibenzo(a,h)anthracene-d14	292	25.279	25.279	(1.131)	241946	174.625	175
39	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
40	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
41	Benzo(g,h,i)perylene	276	Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118070606.D
Lab Smp Id: 18F0226-02
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Misc Info:

Calibration Date: 06-JUL-2018
Calibration Time: 12:50
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	452932	5.01
11 Acenaphthene-d10	260137	130069	520274	237104	-8.85
18 Phenanthrene-d10	427391	213696	854782	400608	-6.27
28 Chrysene-d12	304596	152298	609192	295829	-2.88
36 Perylene-d12	263091	131546	526182	289532	10.05

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118070606.D

Lab ID: 18F0226-02
nt11.i, 20180706.b\LOWSIM.m,   06-JUL-2018 15:18

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

On Column LOD for nt11.i, 20180706.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

LDW18-SP-73

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270D-SIM

Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-03	SDG:	18F0185
Sampled:	06/14/18 13:08	Prepared:	06/21/18 13:35	File ID:	NT1118070609.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	07/06/18 17:14
Batch:	BGF0530	Sequence:	SGG0067	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.003	J	0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.002	J	0.001	0.010
208-96-8	Acenaphthylene	1	0.010	U	0.002	0.010
83-32-9	Acenaphthene	1	0.010	U	0.003	0.010
86-73-7	Fluorene	1	0.002	J	0.002	0.010
85-01-8	Phenanthrene	1	0.006	J	0.001	0.010
120-12-7	Anthracene	1	0.010	U	0.001	0.010
206-44-0	Fluoranthene	1	0.005	J	0.002	0.010
129-00-0	Pyrene	1	0.002	J	0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.010	U	0.0008	0.010
218-01-9	Chrysene	1	0.010	U	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.010	U	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.196	65.4	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.211	70.4	29 - 120	
Fluoranthene-d10	0.30000	0.224	74.7	57 - 120	

Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070609.D

Date : 06-JUL-2018 17:14

Client ID:

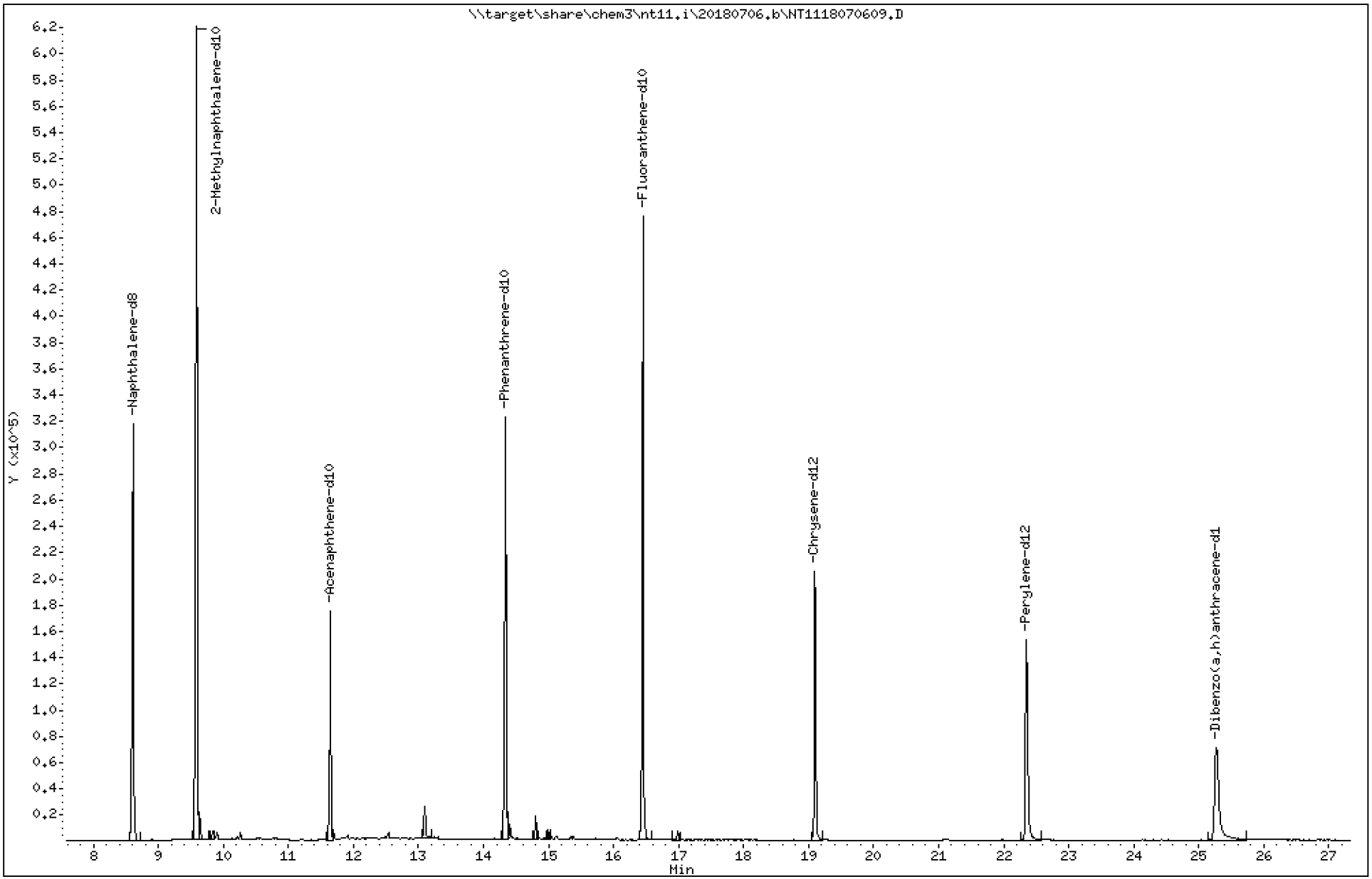
Instrument: nt11.i

Sample Info: 18F0226-03

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 06-JUL-2018 17:14

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-03

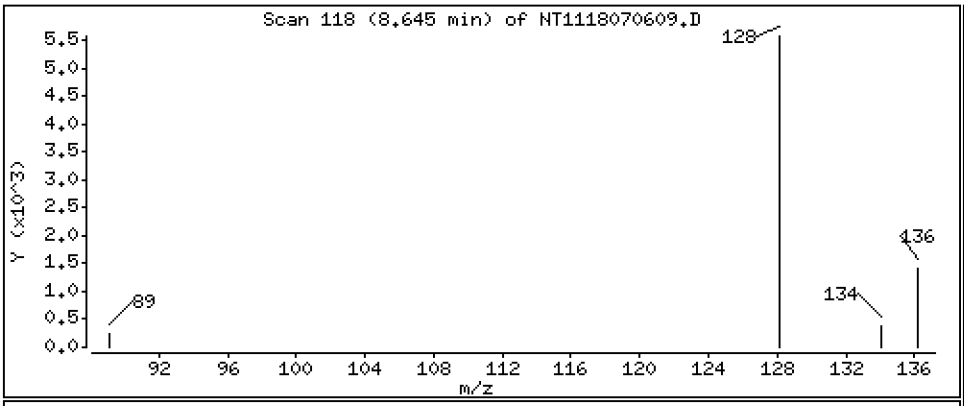
Operator: VTS

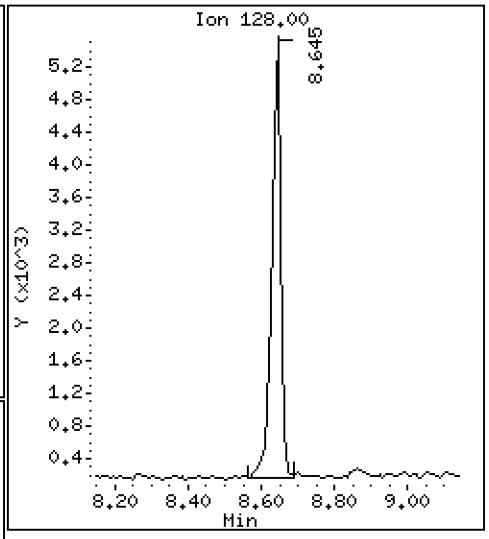
Column phase: Rxi-17Sil MS

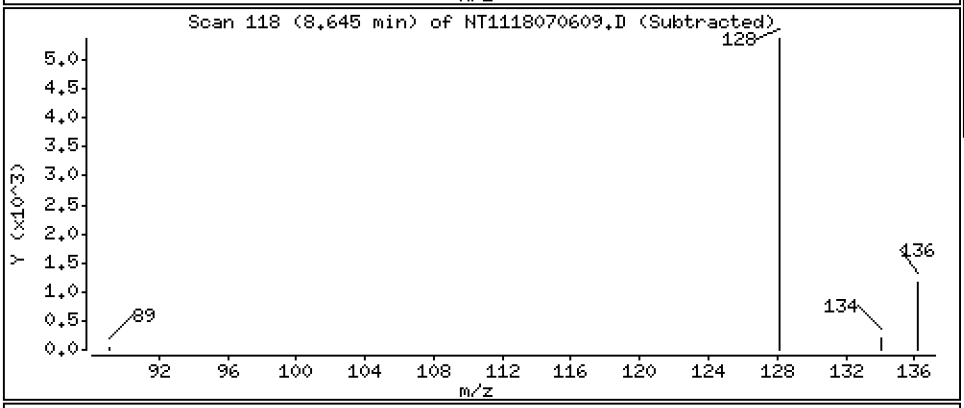
Column diameter: 0.25

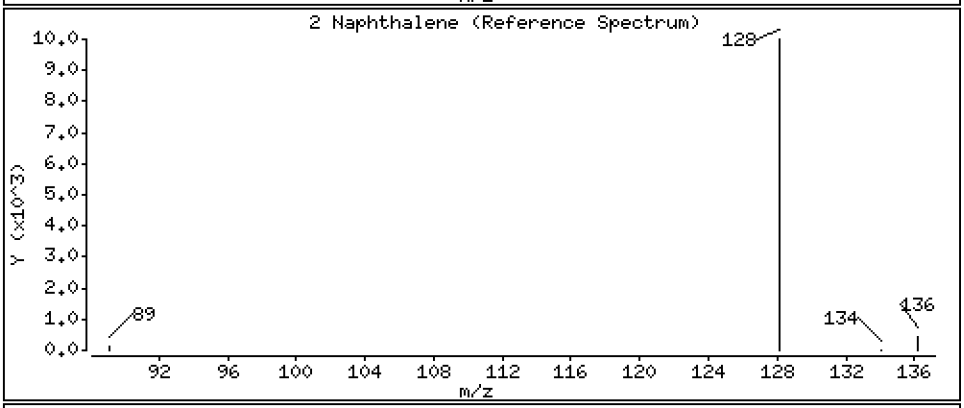
2 Naphthalene

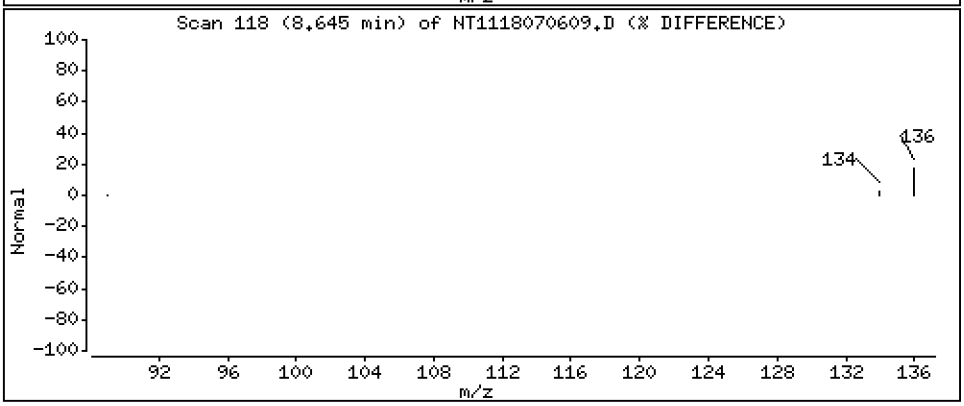
Concentration: 2.56 ng/mL











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Date : 06-JUL-2018 17:14

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-03

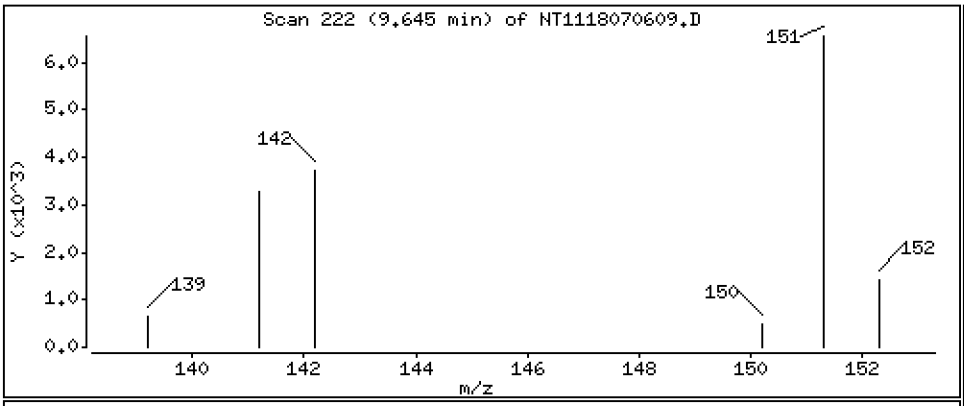
Operator: VTS

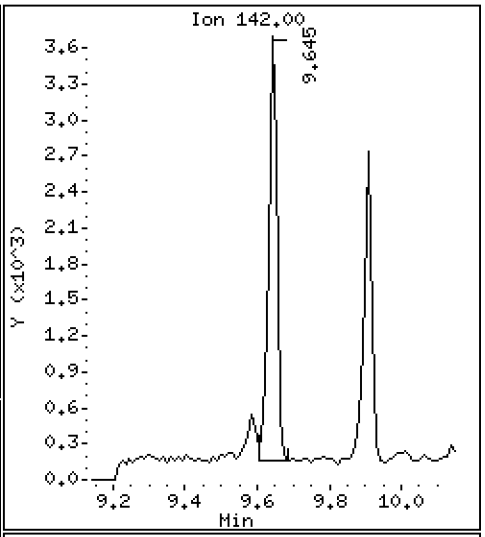
Column phase: Rxi-17Sil MS

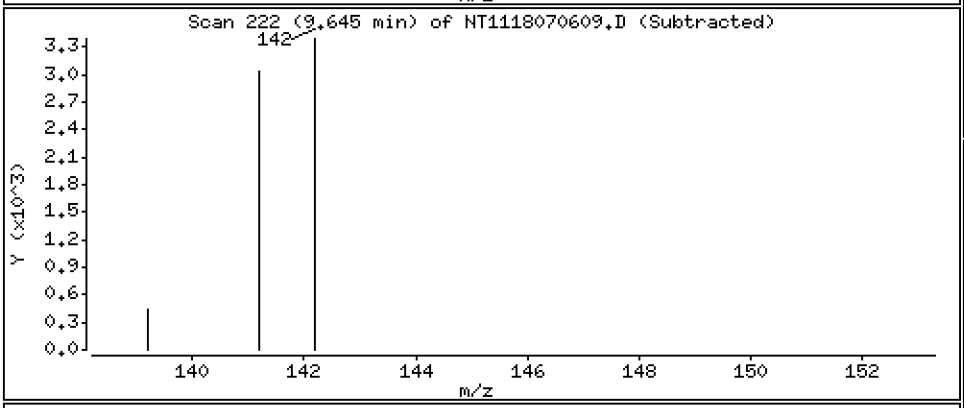
Column diameter: 0.25

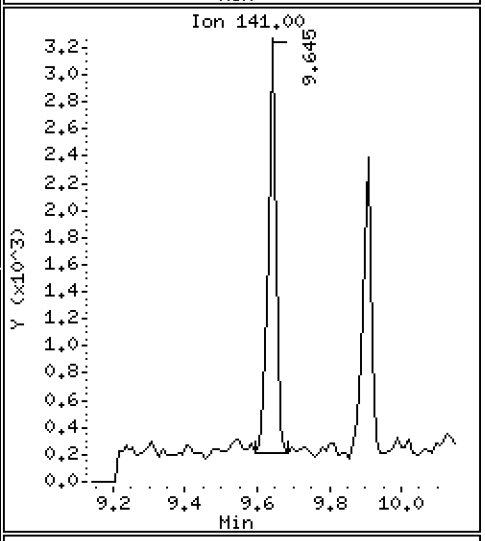
5 2-Methylnaphthalene

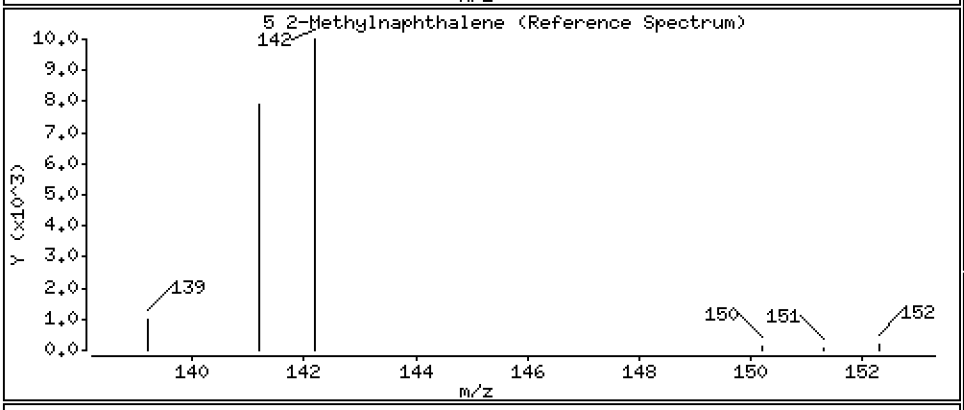
Concentration: 1.98 ng/mL

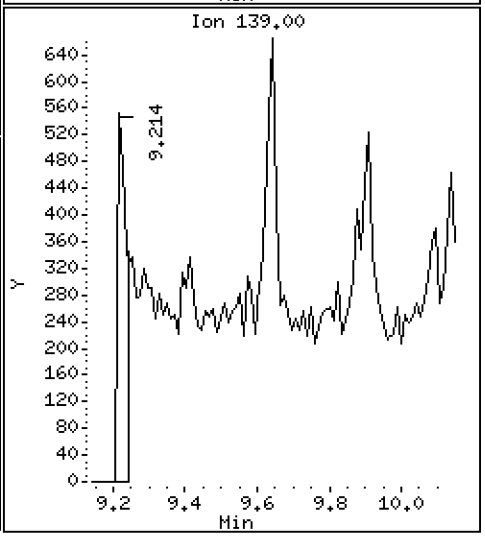


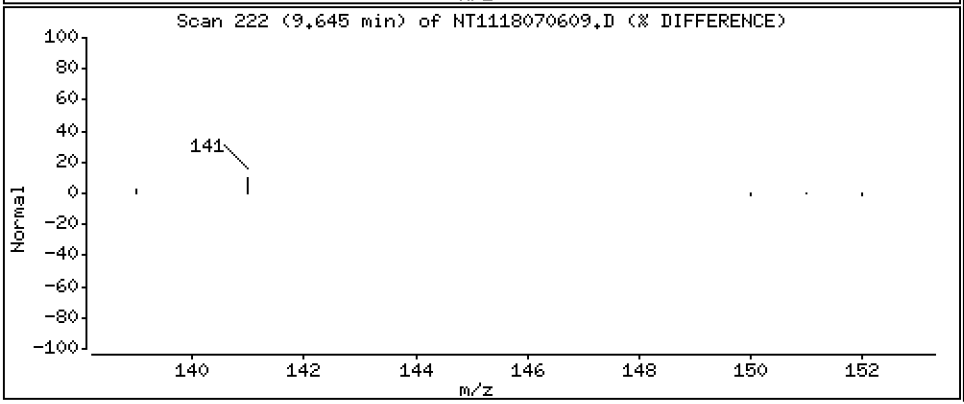












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Date : 06-JUL-2018 17:14

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-03

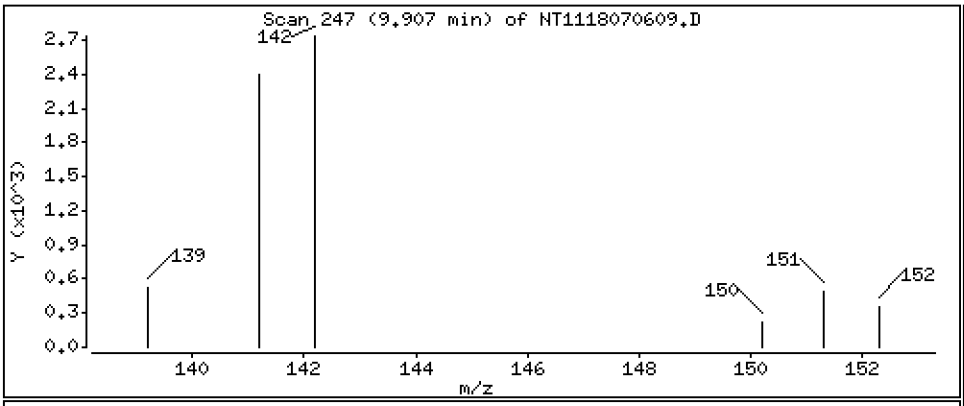
Operator: VTS

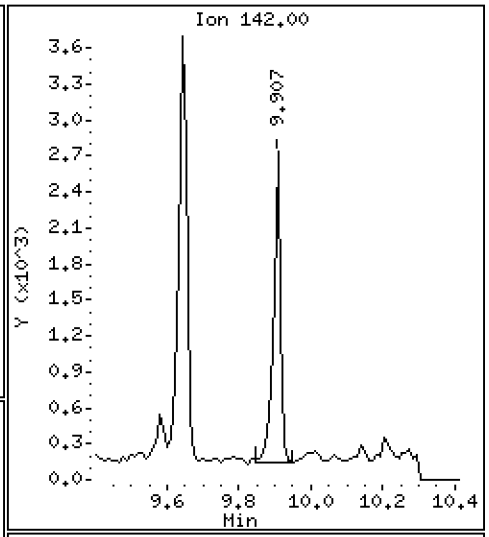
Column phase: Rxi-17Sil MS

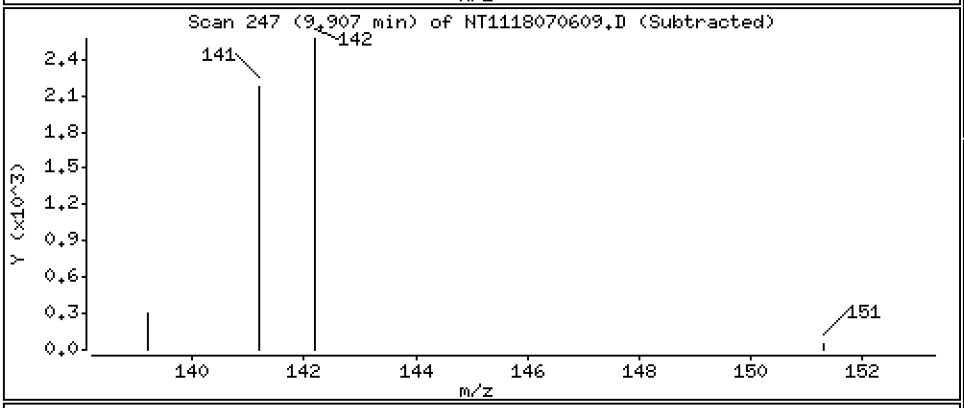
Column diameter: 0.25

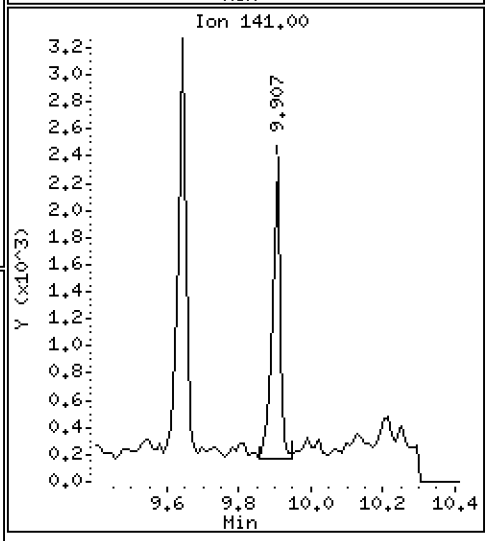
6 1-Methylnaphthalene

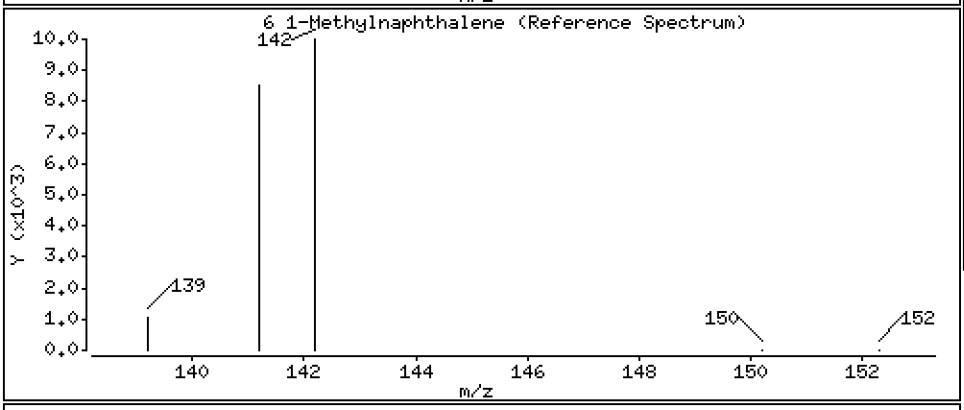
Concentration: 1.37 ng/mL

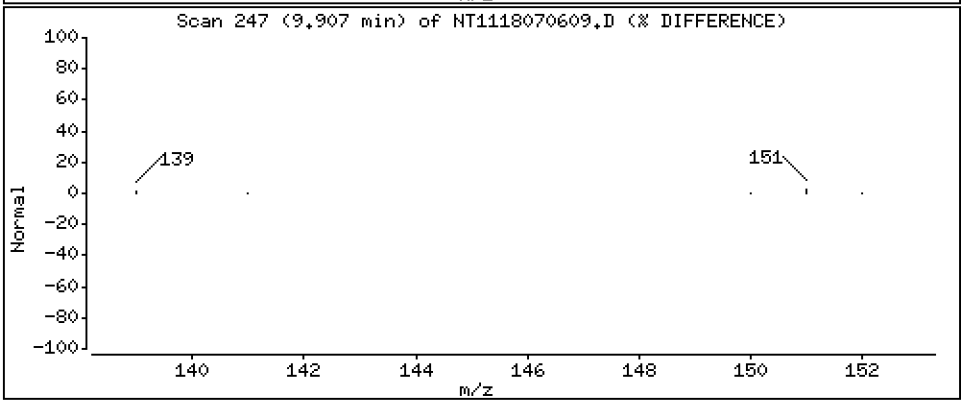












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Date : 06-JUL-2018 17:14

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-03

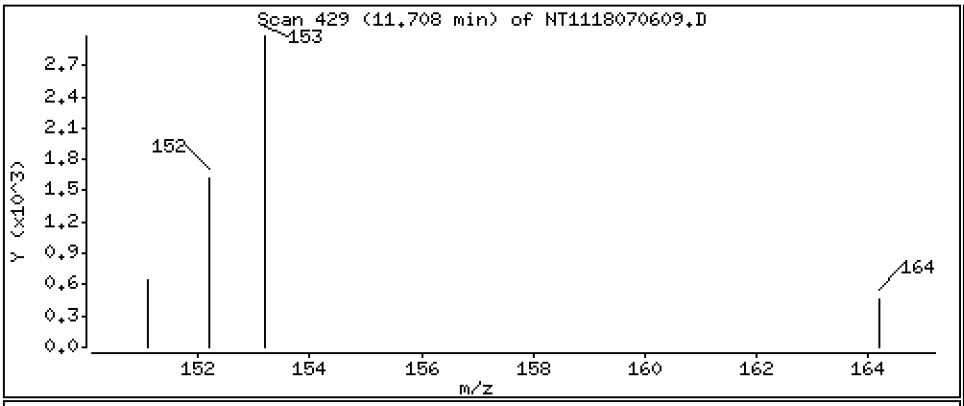
Operator: VTS

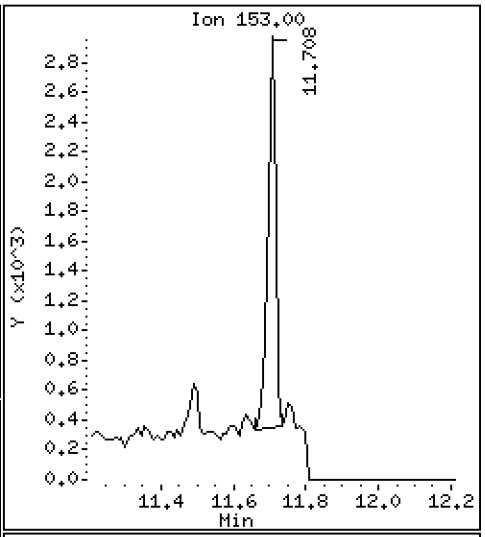
Column phase: Rxi-17Sil MS

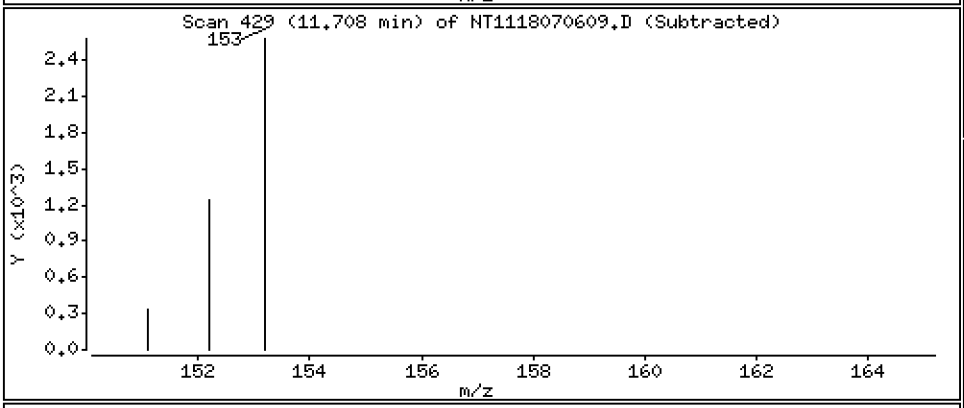
Column diameter: 0.25

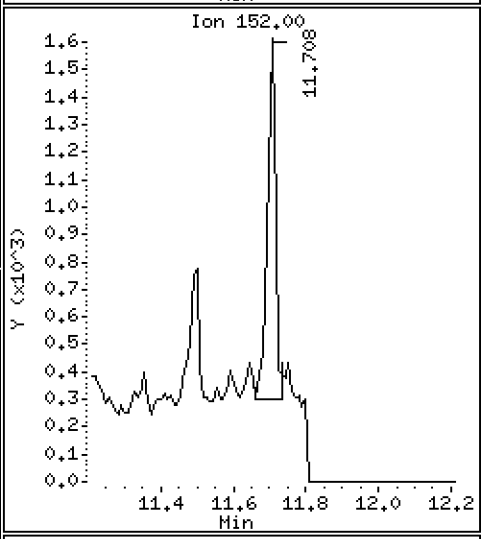
12 Acenaphthene

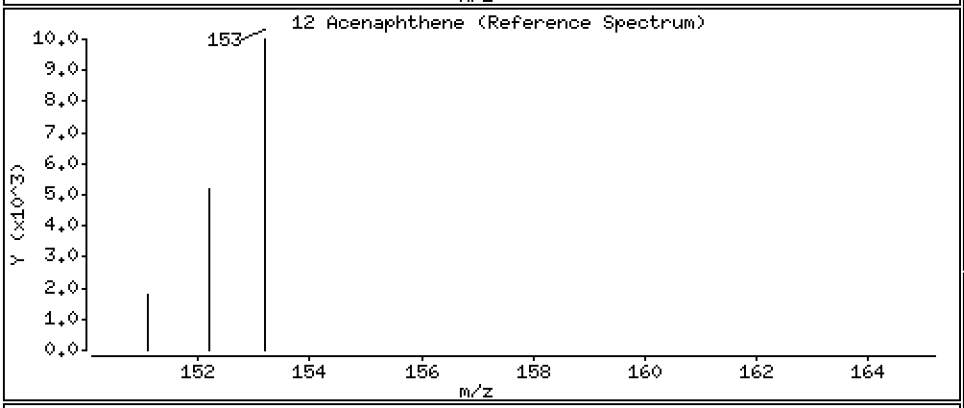
Concentration: 1.80 ng/mL

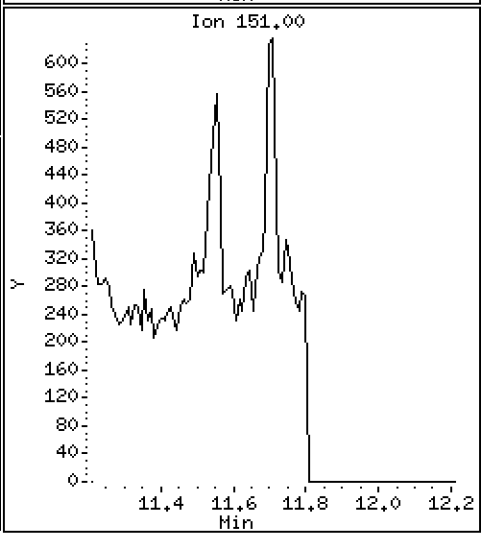


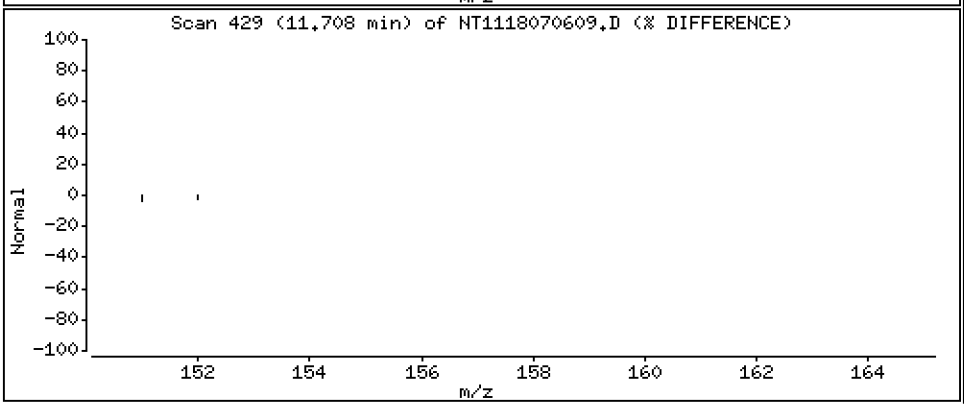












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Date : 06-JUL-2018 17:14

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-03

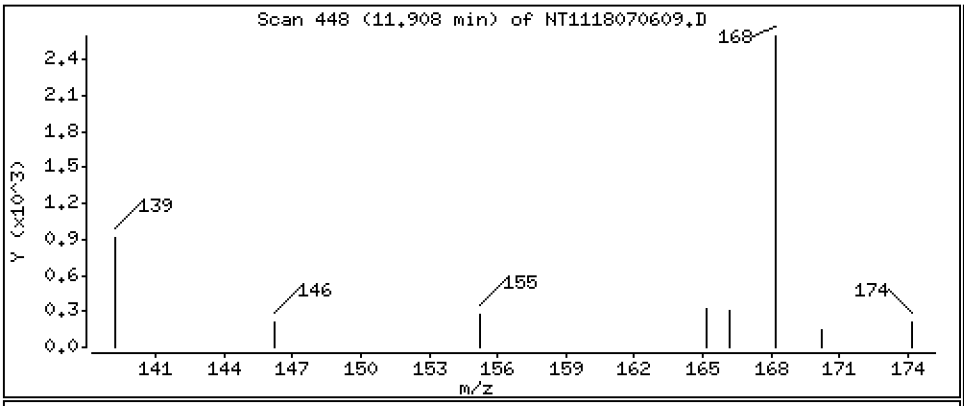
Operator: VTS

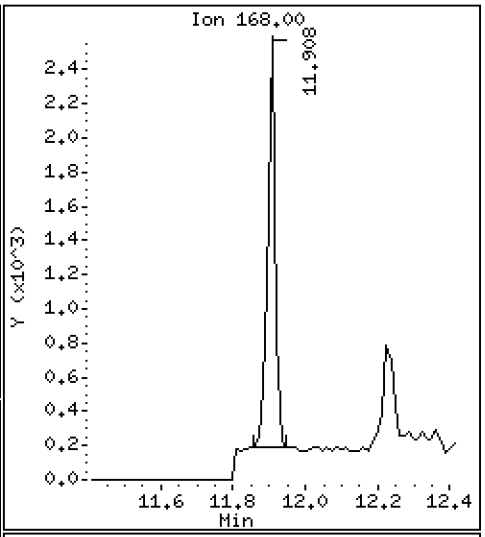
Column phase: Rxi-17Sil MS

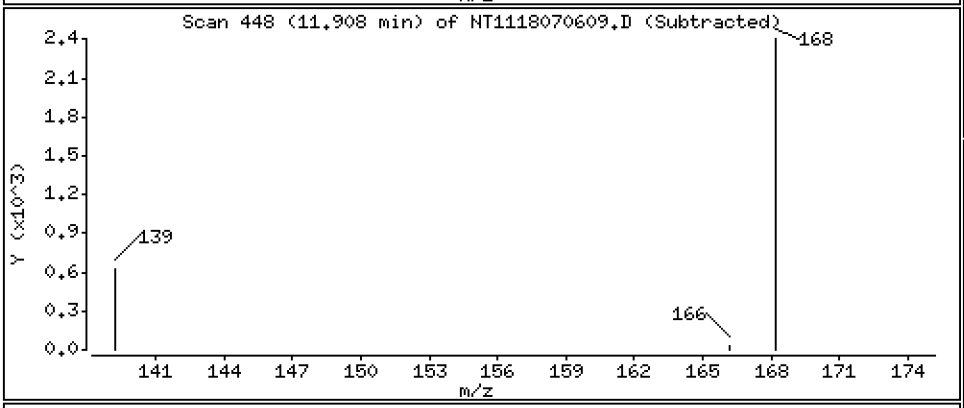
Column diameter: 0.25

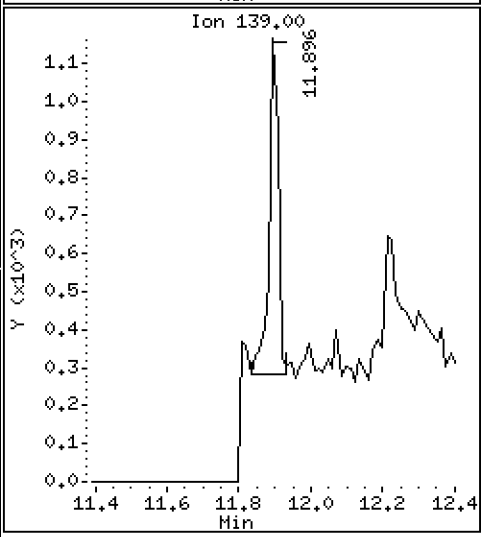
13 Dibenzofuran

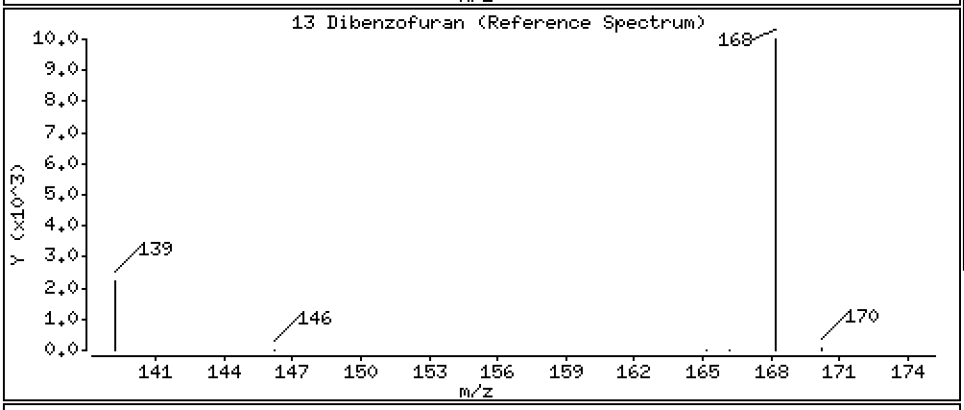
Concentration: 1.19 ng/mL

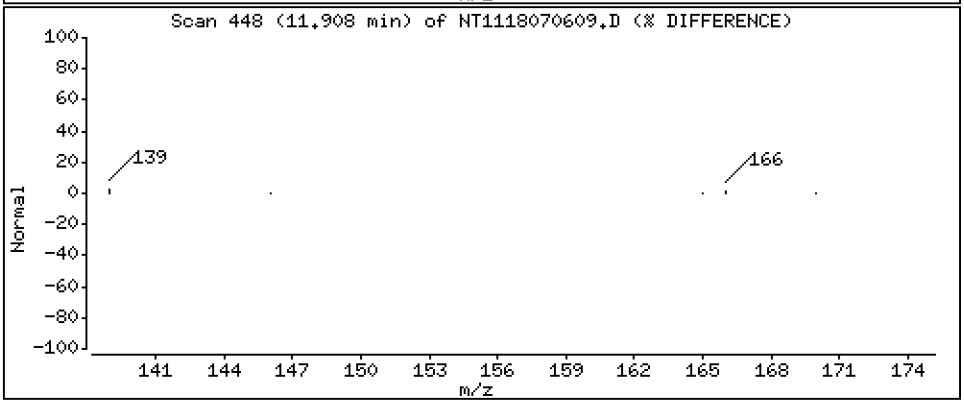












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Date : 06-JUL-2018 17:14

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-03

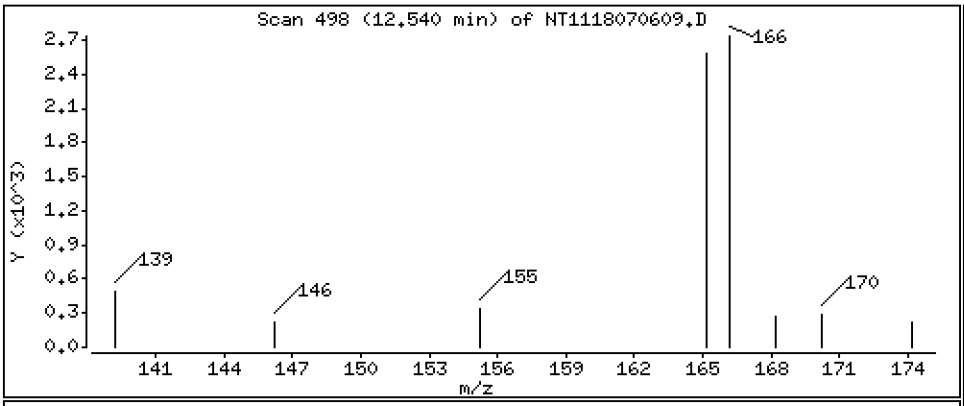
Operator: VTS

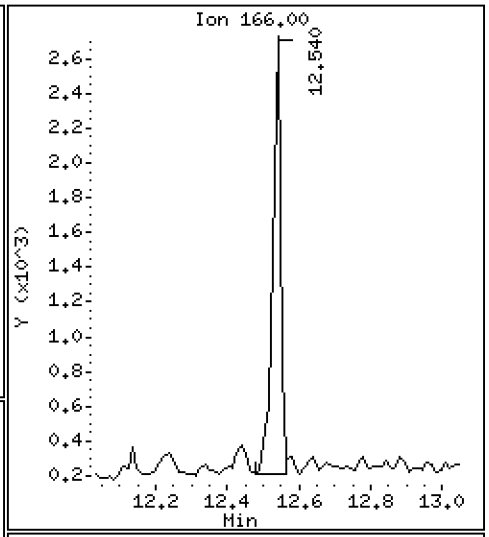
Column phase: Rxi-17Sil MS

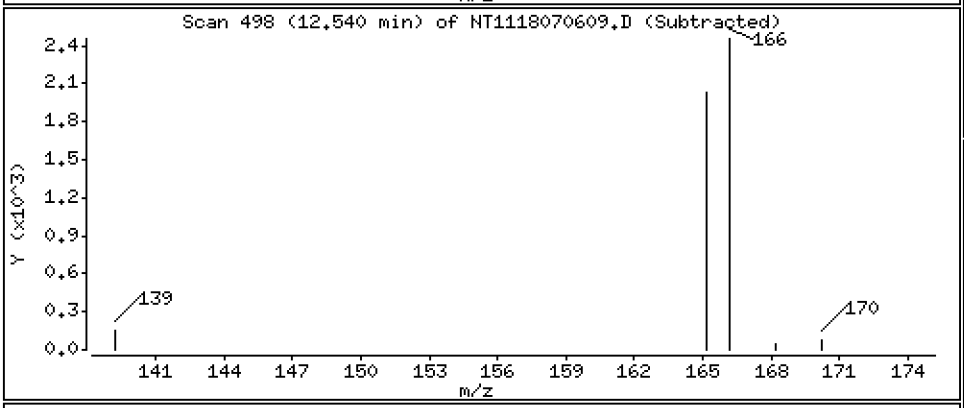
Column diameter: 0.25

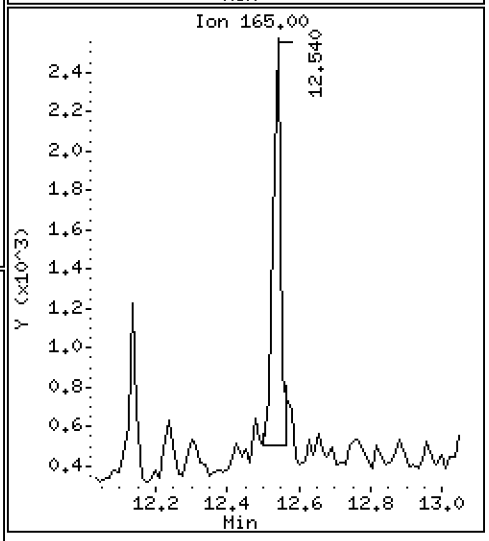
16 Fluorene

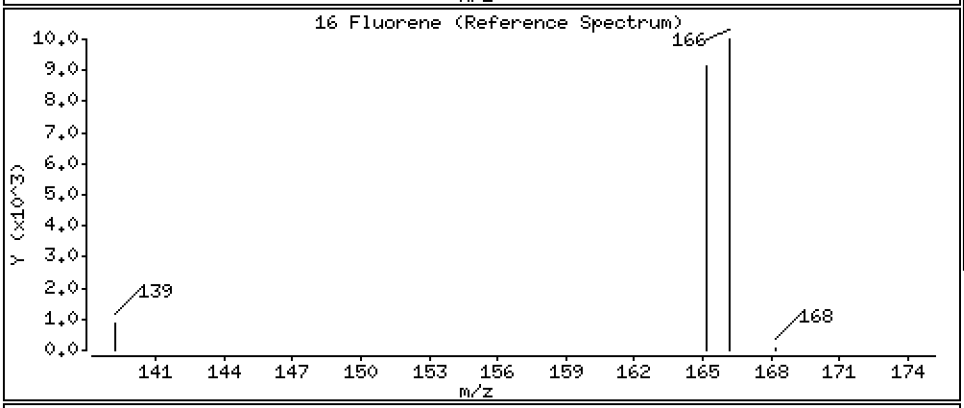
Concentration: 1.69 ng/mL

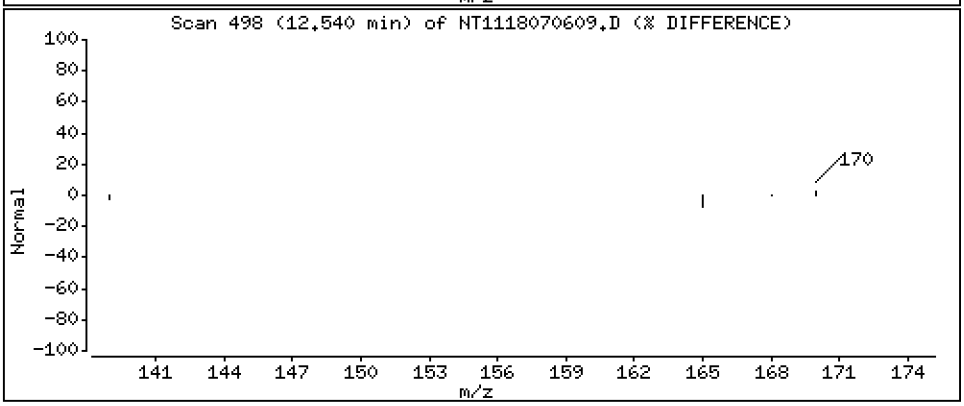












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Date : 06-JUL-2018 17:14

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-03

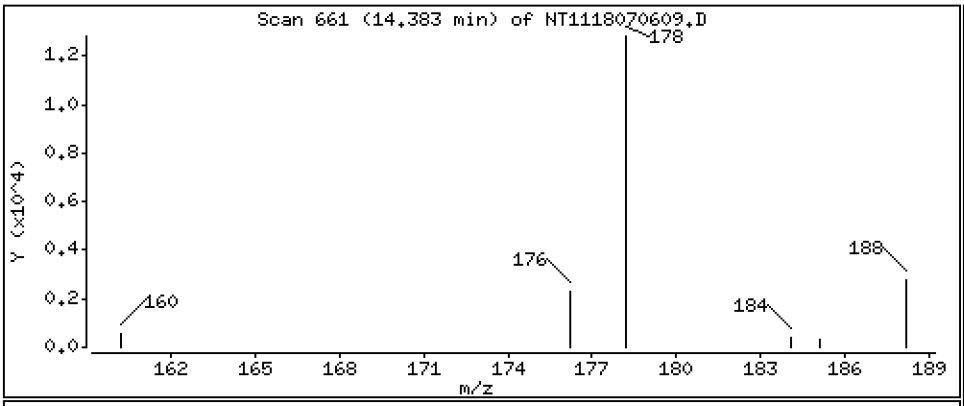
Operator: VTS

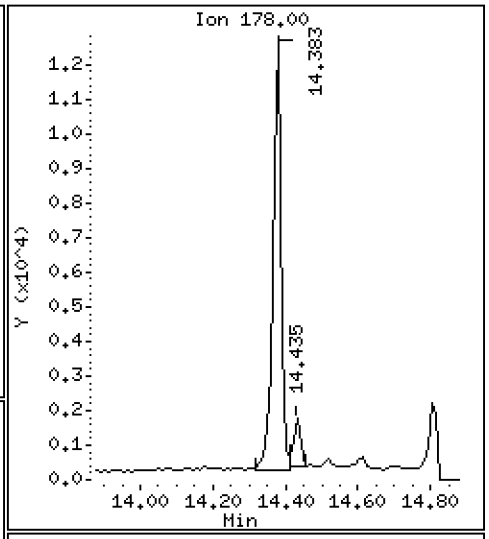
Column phase: Rxi-17Sil MS

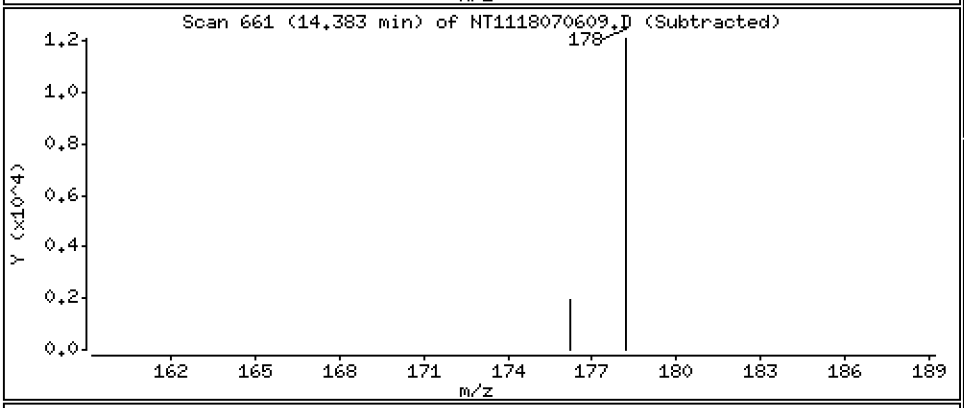
Column diameter: 0.25

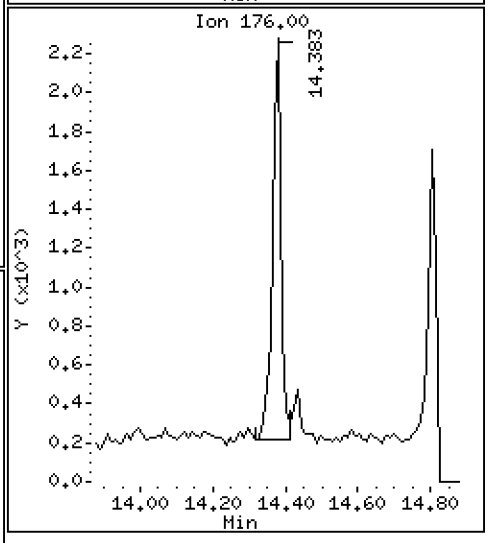
19 Phenanthrene

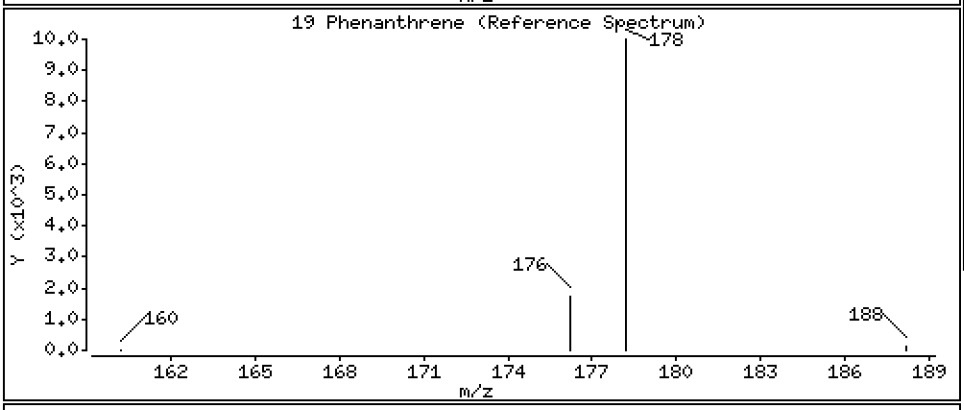
Concentration: 5.87 ng/mL

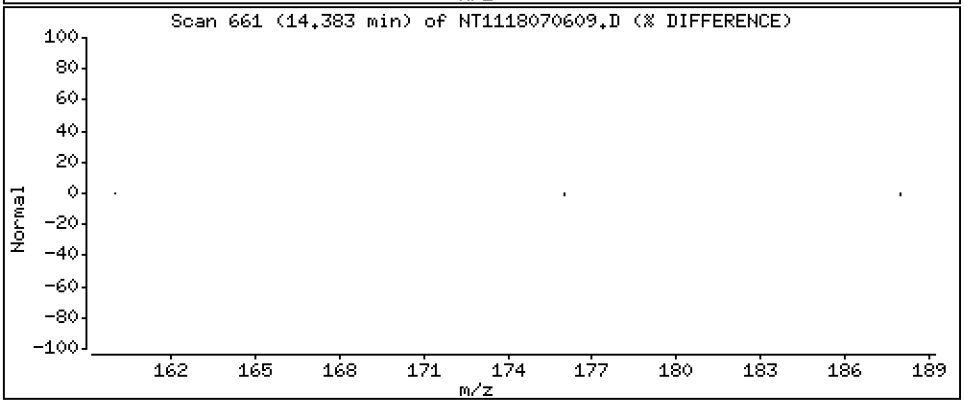












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Date : 06-JUL-2018 17:14

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-03

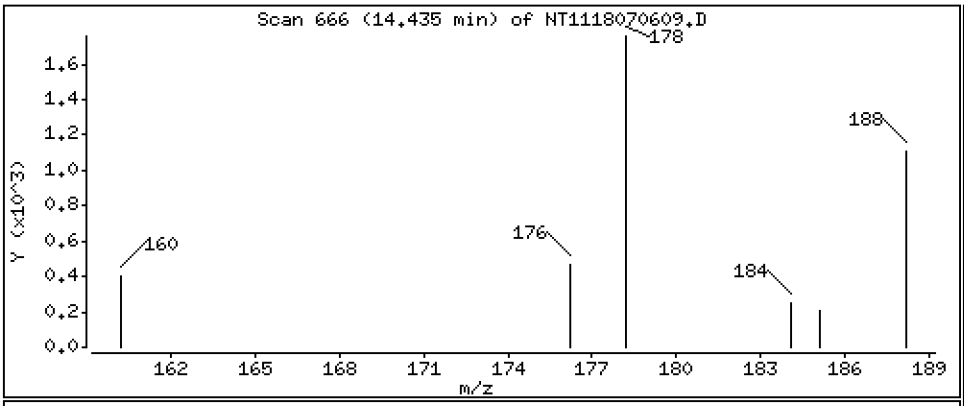
Operator: VTS

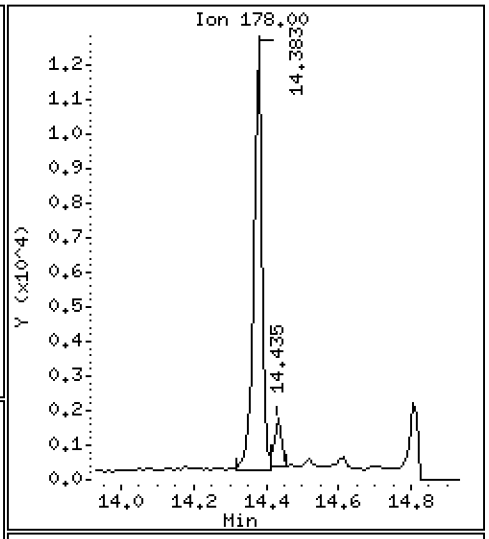
Column phase: Rxi-17Sil MS

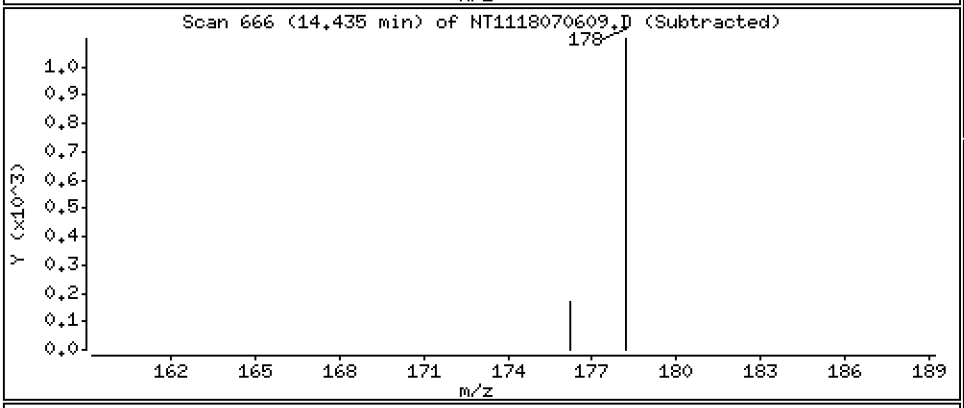
Column diameter: 0.25

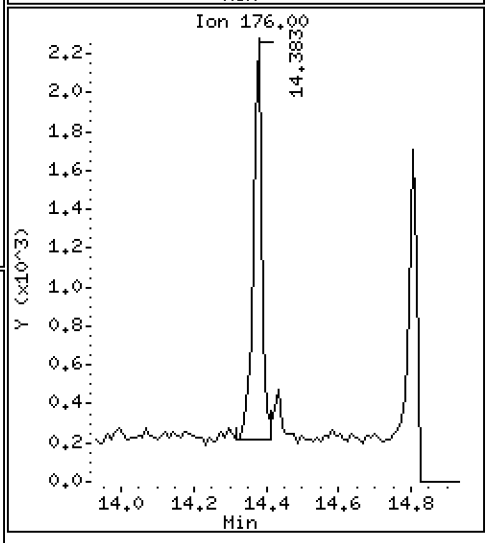
21 Anthracene

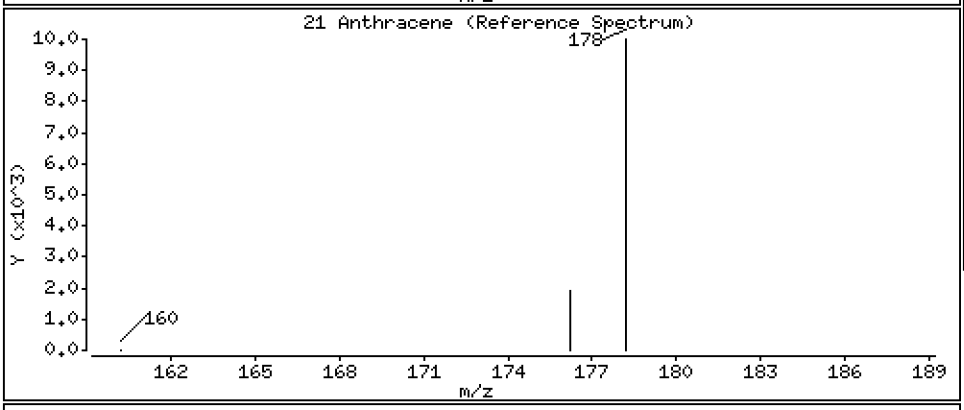
Concentration: 0.614 ng/mL

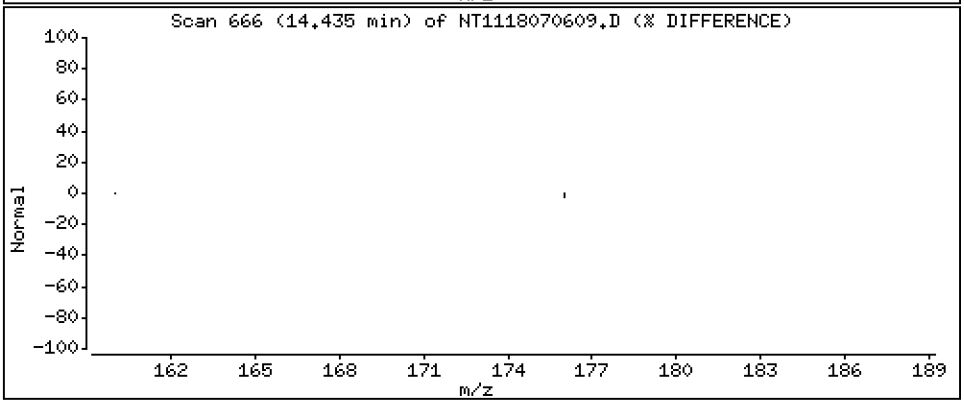












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Date : 06-JUL-2018 17:14

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-03

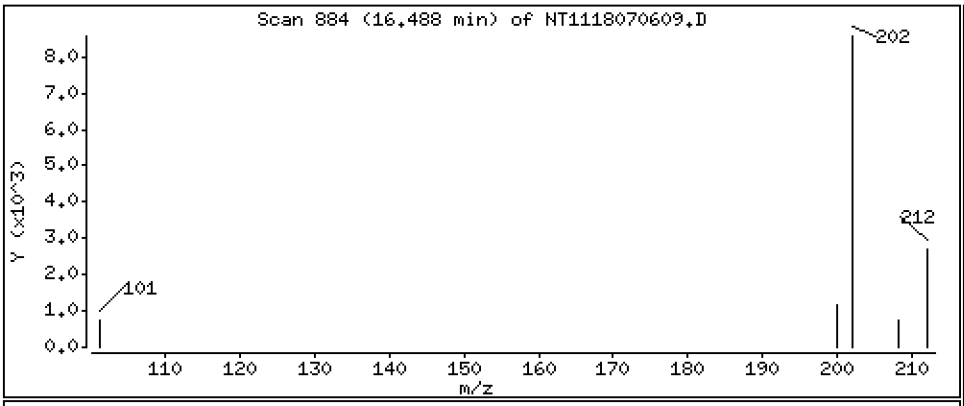
Operator: VTS

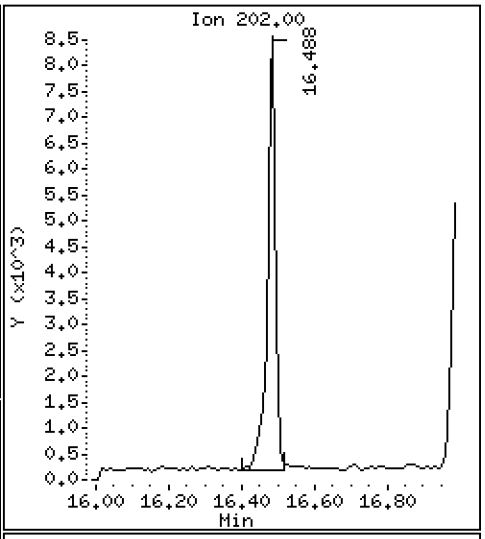
Column phase: Rxi-17Sil MS

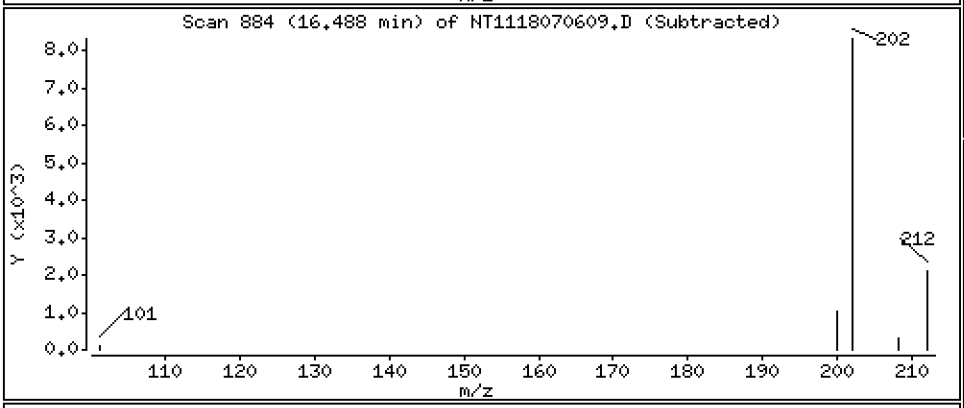
Column diameter: 0.25

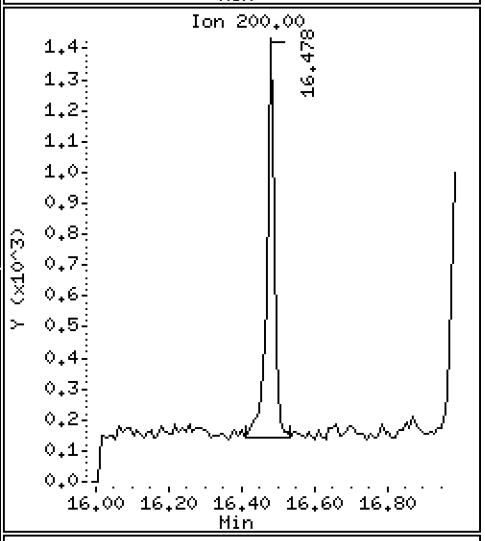
25 Fluoranthene

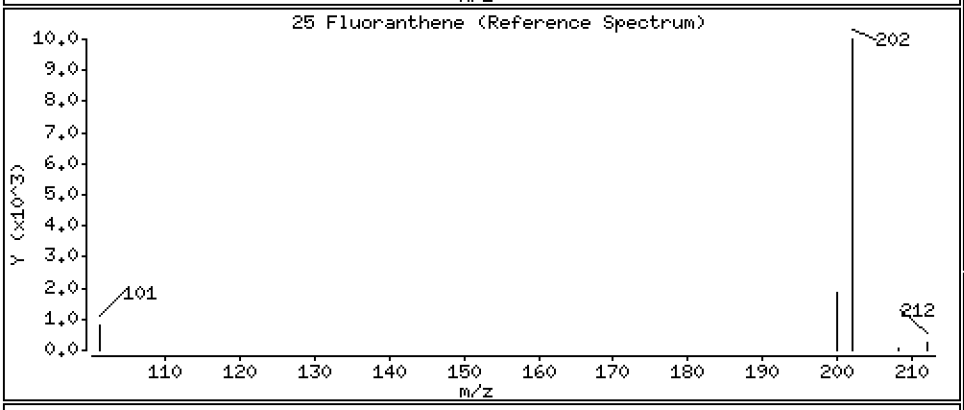
Concentration: 4.59 ng/mL

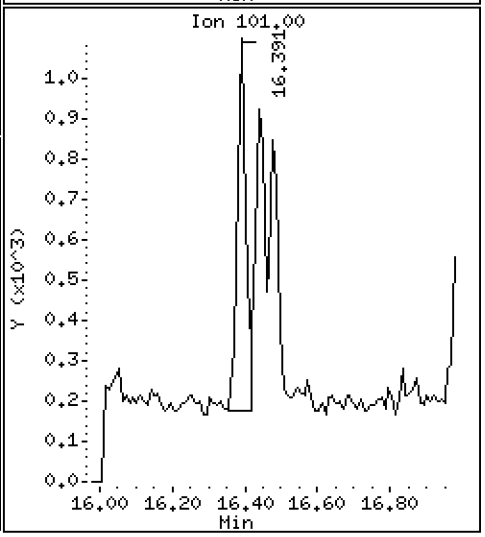


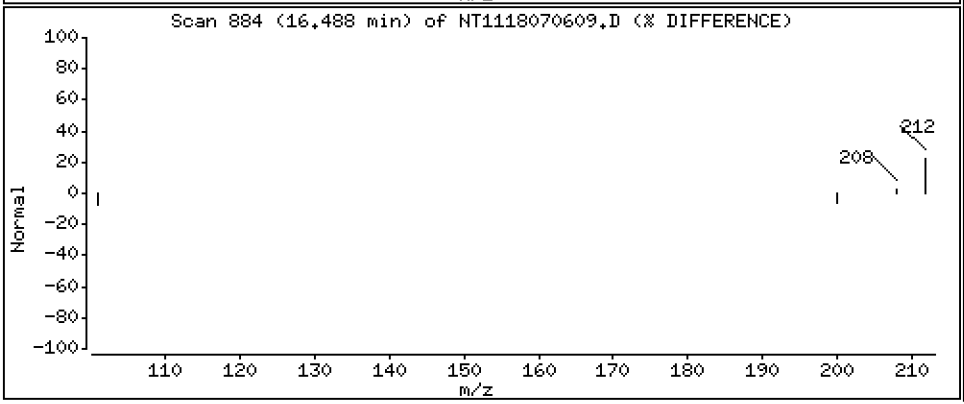












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Date : 06-JUL-2018 17:14

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-03

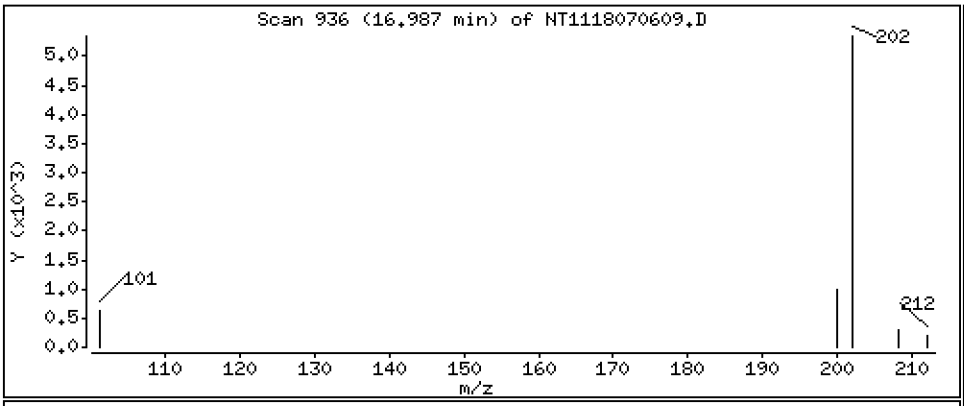
Operator: VTS

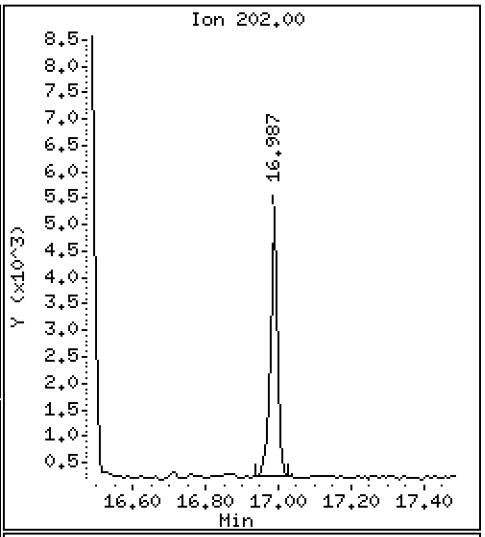
Column phase: Rxi-17Sil MS

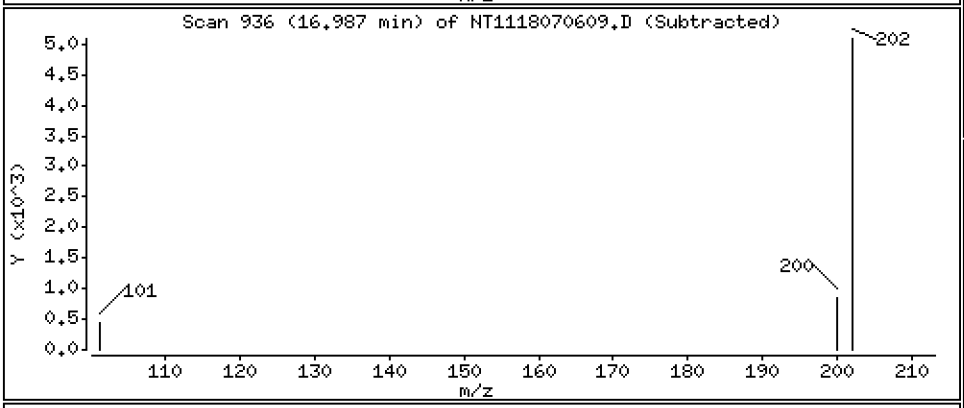
Column diameter: 0.25

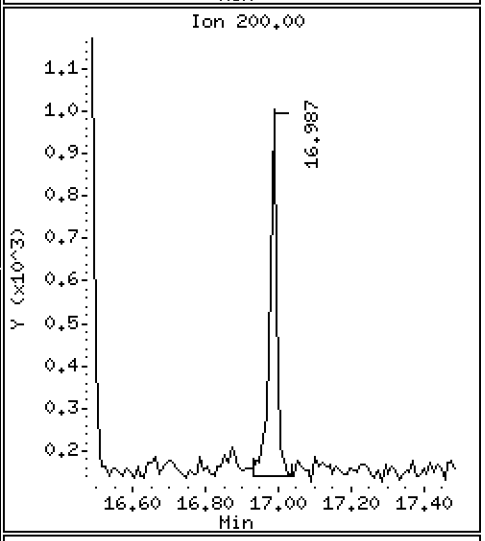
26 Pyrene

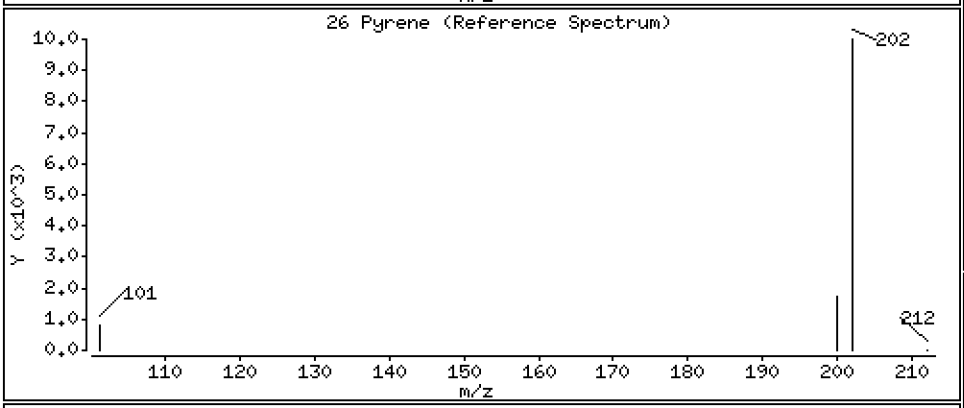
Concentration: 2.32 ng/mL

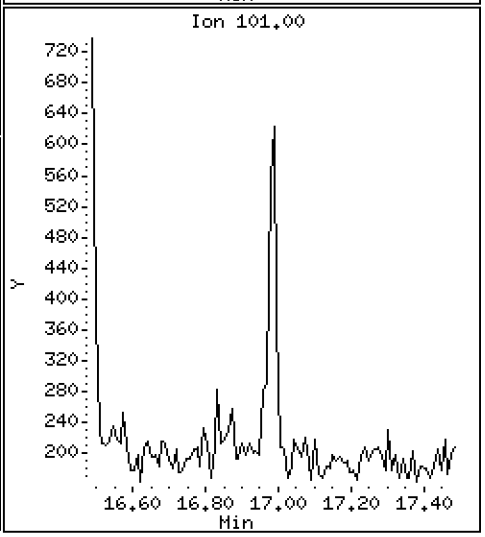


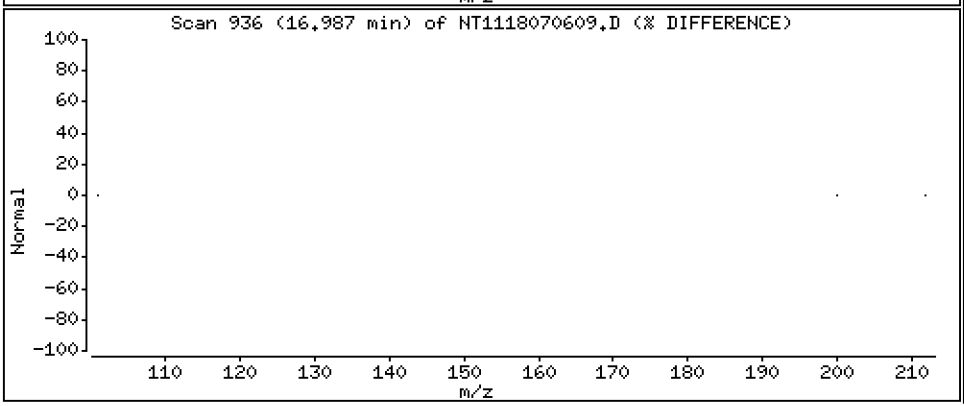












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180706.b\NT1118070609.D
Lab Smp Id: 18F0226-03
Inj Date : 06-JUL-2018 17:14 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0226-03
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Meth Date : 06-Jul-2018 13:13 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	477820	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	9200	2.55732	2.56
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	534844	196.182	196
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	5765	1.98068	1.98
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	3977	1.37389	1.37
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	253956	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	3721	1.80173	1.80(M)
	13 Dibenzofuran	168	11.908	11.908	(1.023)	3367	1.19007	1.19
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.540	12.540	(1.077)	3861	1.69228	1.69
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	415827	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	19128	5.86510	5.87
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.435	14.435	(1.007)	1873	0.61433	0.614
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	Compound Not Detected.					
$	24 Fluoranthene-d10	212	16.449	16.449	(1.147)	565896	224.199	224
	25 Fluoranthene	202	16.487	16.487	(1.150)	13902	4.59018	4.59
	26 Pyrene	202	16.987	16.987	(0.890)	7334	2.32500	2.32
	27 Benzo(a)anthracene	228	Compound Not Detected.					
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	320863	200.000	
	29 Chrysene	228	Compound Not Detected.					
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	35 Benzo(a)pyrene	252	Compound Not Detected.					
*	36 Perylene-d12	264	22.353	22.353	(1.000)	316832	200.000	
	37 Perylene	252	Compound Not Detected.					
$	38 Dibenzo(a,h)anthracene-d14	292	25.268	25.279	(1.130)	320322	211.272	211
	39 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	40 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	41 Benzo(g,h,i)perylene	276	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118070609.D
Lab Smp Id: 18F0226-03
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Misc Info:

Calibration Date: 06-JUL-2018
Calibration Time: 12:50
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	477820	10.78
11 Acenaphthene-d10	260137	130069	520274	253956	-2.38
18 Phenanthrene-d10	427391	213696	854782	415827	-2.71
28 Chrysene-d12	304596	152298	609192	320863	5.34
36 Perylene-d12	263091	131546	526182	316832	20.43

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118070609.D

Lab ID: 18F0226-03
nt11.i, 20180706.b\LOWSIM.m,   06-JUL-2018 17:14

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

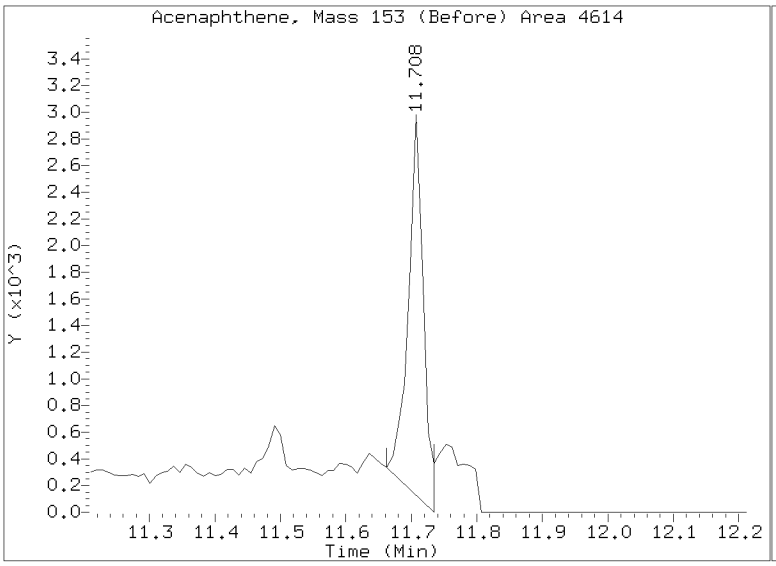
On Column LOD for nt11.i, 20180706.b\LOWSIM.m, allpna.sub = 0.0000

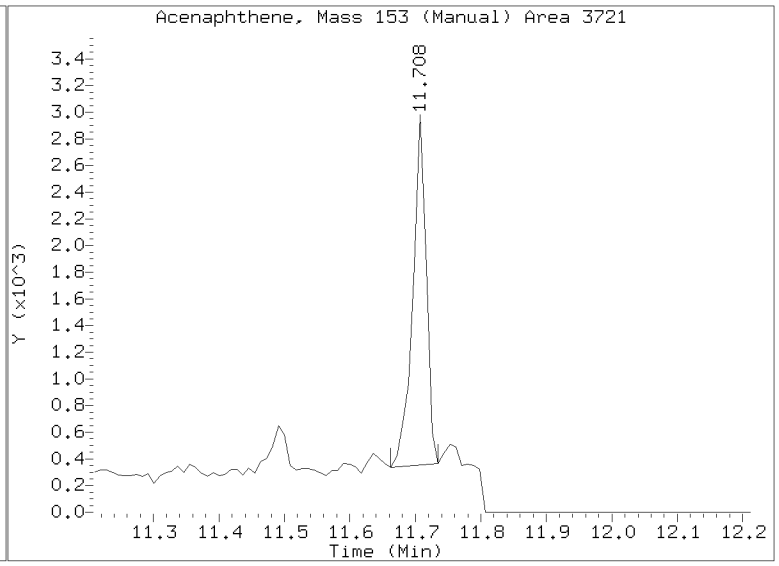
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20180706.b/NT1118070609.D
Injection Date: 06-JUL-2018 17:14
Lab ID:18F0226-03 Client ID:
Report Date: 07/07/2018 07:56





Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-74

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-04	SDG:	18F0185
Sampled:	06/14/18 13:14	Prepared:	06/21/18 13:35	File ID:	NT1118070610.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	07/06/18 17:50
Batch:	BGF0530	Sequence:	SGG0067	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.003	J	0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.002	J	0.001	0.010
208-96-8	Acenaphthylene	1	0.010	U	0.002	0.010
83-32-9	Acenaphthene	1	0.027		0.003	0.010
86-73-7	Fluorene	1	0.010	U	0.002	0.010
85-01-8	Phenanthrene	1	0.005	J	0.001	0.010
120-12-7	Anthracene	1	0.010	U	0.001	0.010
206-44-0	Fluoranthene	1	0.008	J	0.002	0.010
129-00-0	Pyrene	1	0.003	J	0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.010	U	0.0008	0.010
218-01-9	Chrysene	1	0.010	U	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.010	U	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.190	63.5	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.212	70.8	29 - 120	
Fluoranthene-d10	0.30000	0.227	75.7	57 - 120	

Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070610.D

Date : 06-JUL-2018 17:50

Client ID:

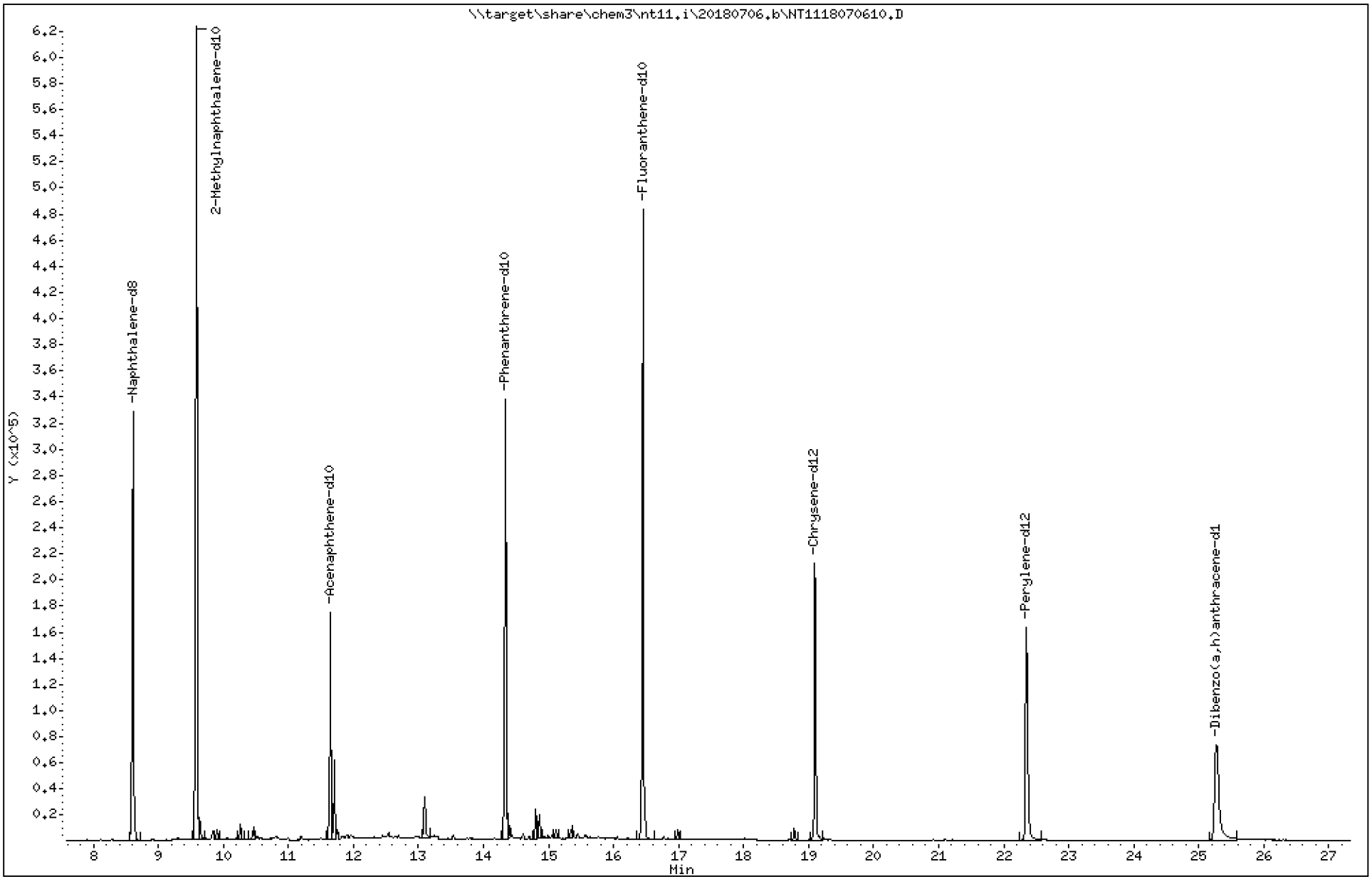
Instrument: nt11.i

Sample Info: 18F0226-04

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 06-JUL-2018 17:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-04

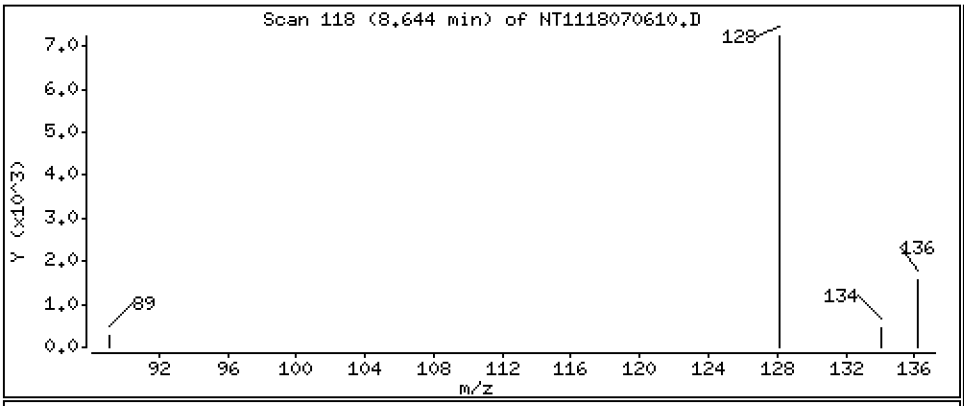
Operator: VTS

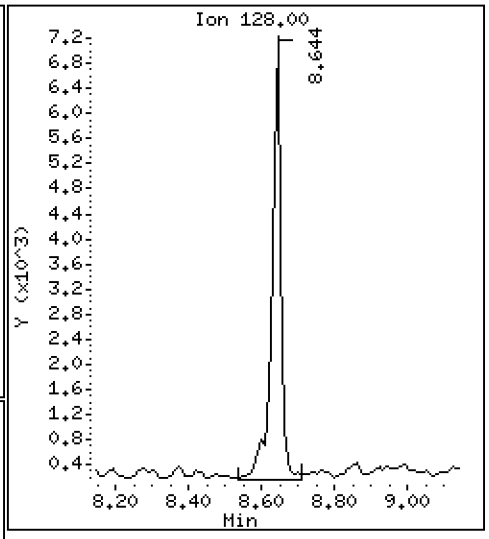
Column phase: Rxi-17Sil MS

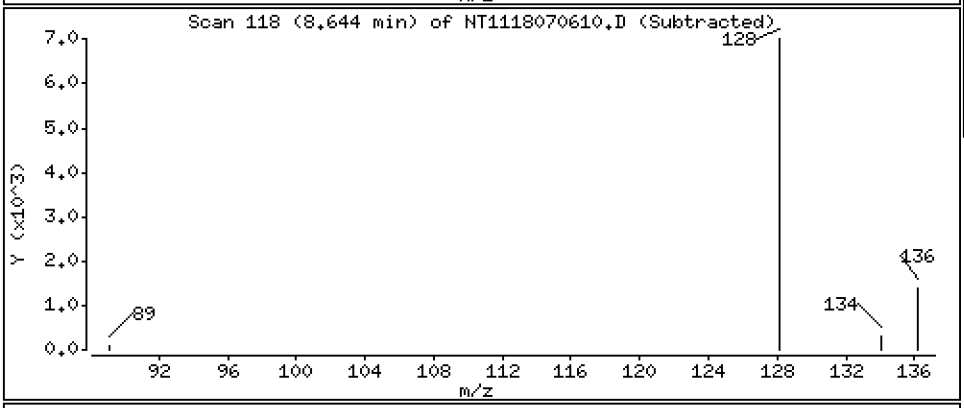
Column diameter: 0.25

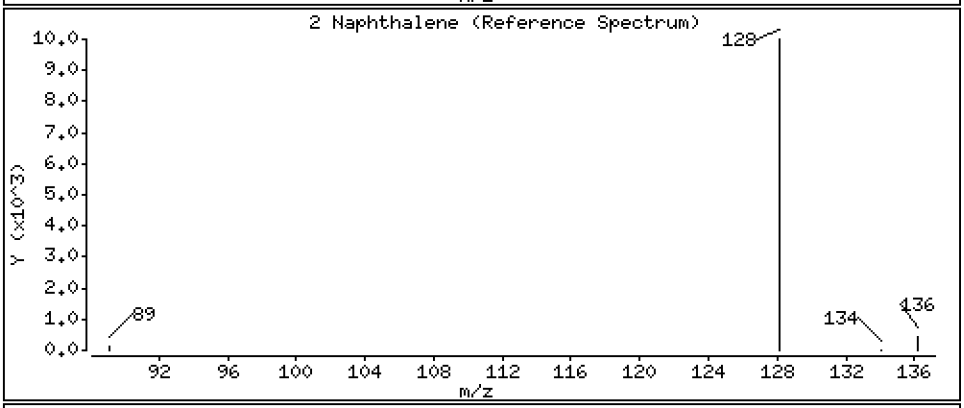
2 Naphthalene

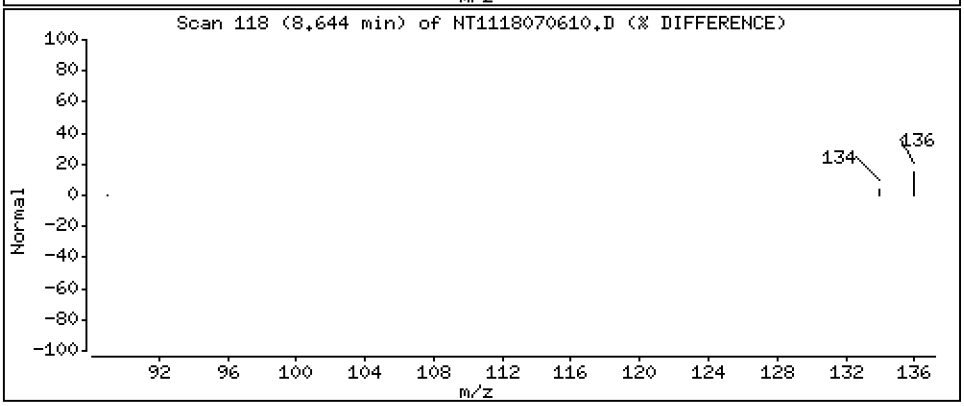
Concentration: 3.46 ng/mL











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Date : 06-JUL-2018 17:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-04

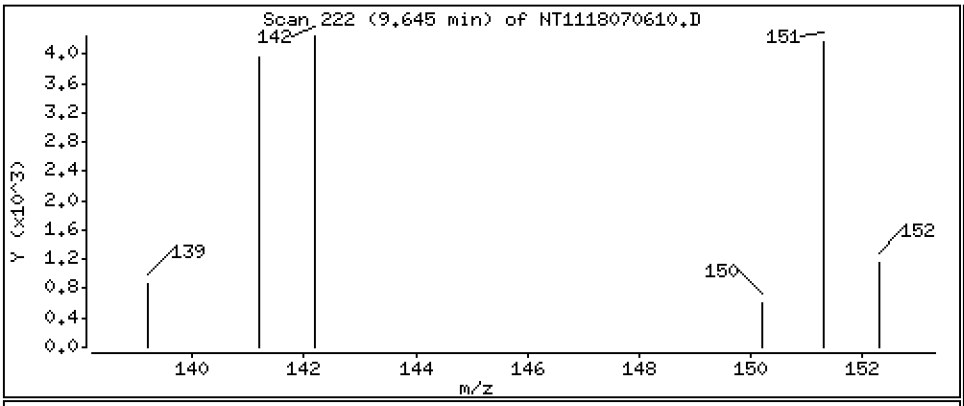
Operator: VTS

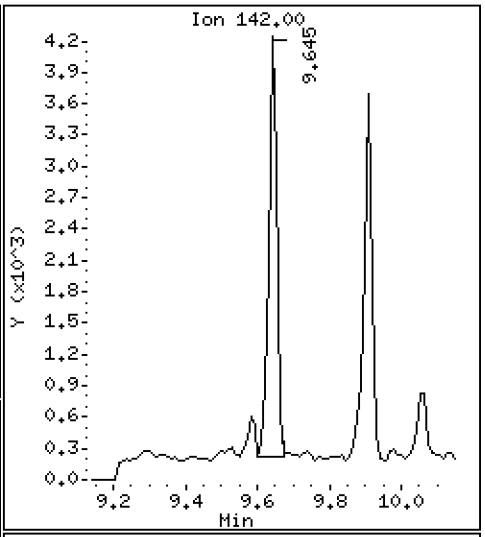
Column phase: Rxi-17Sil MS

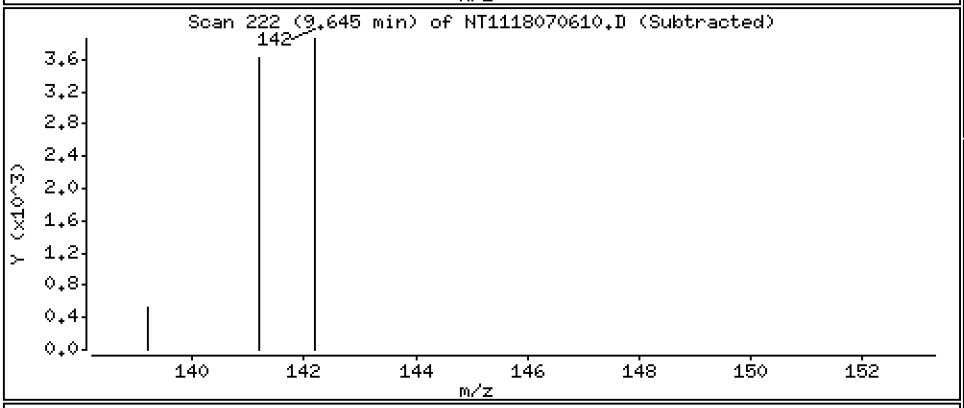
Column diameter: 0.25

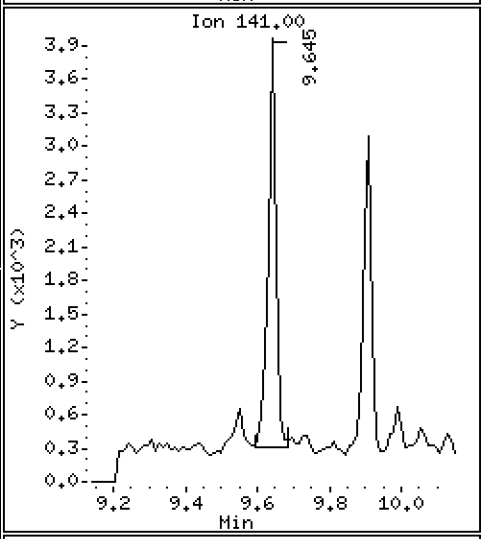
5 2-Methylnaphthalene

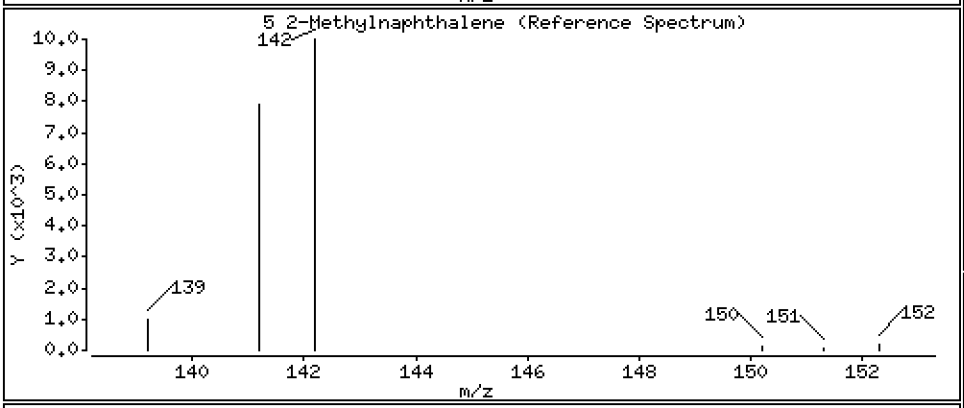
Concentration: 2.18 ng/mL

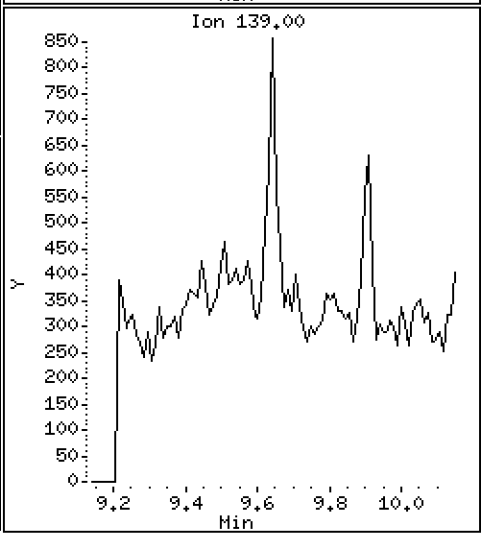


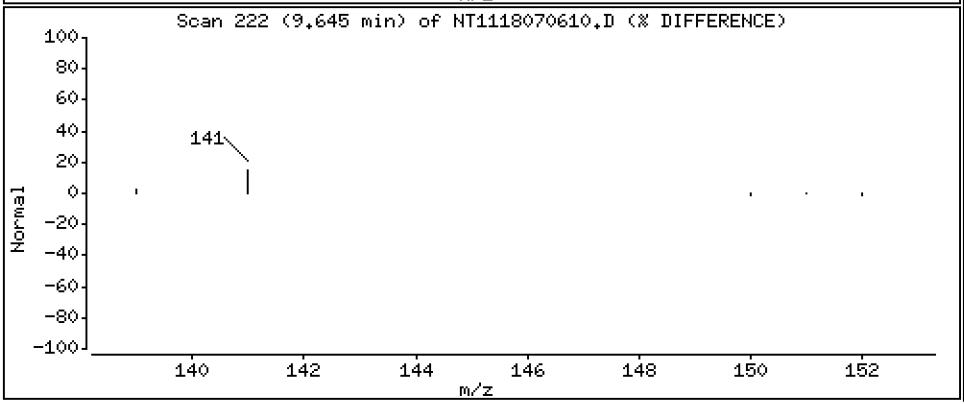












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Date : 06-JUL-2018 17:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-04

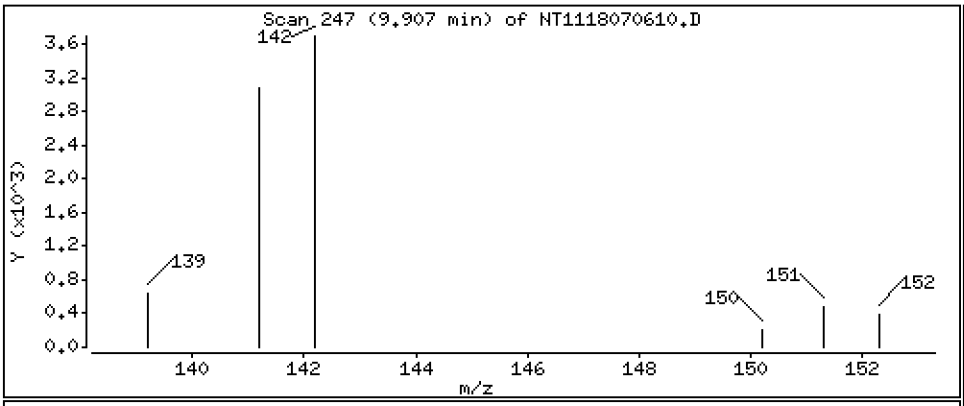
Operator: VTS

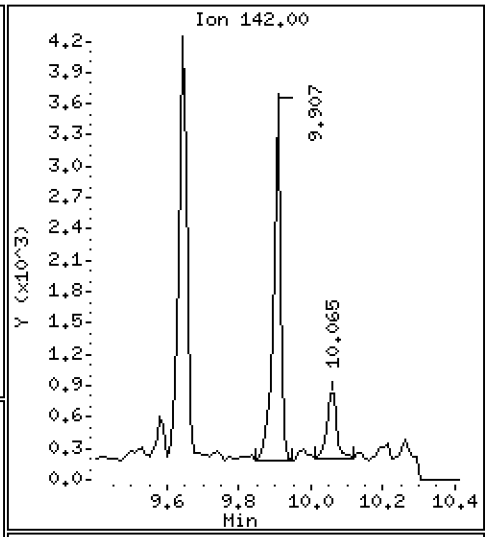
Column phase: Rxi-17Sil MS

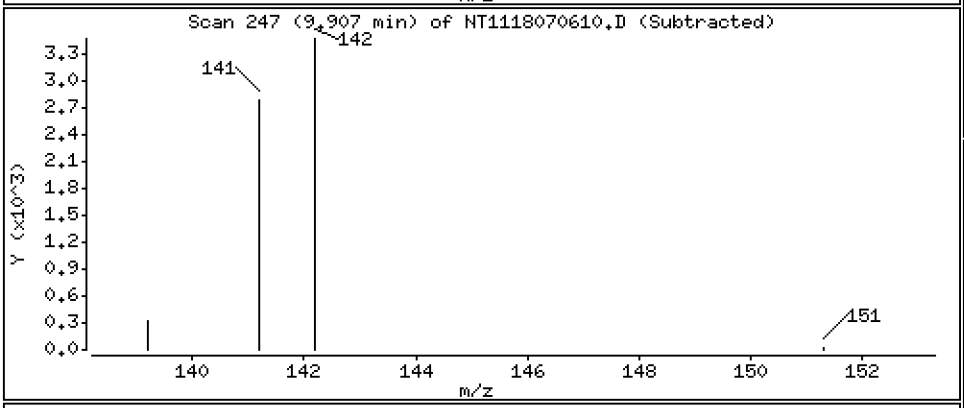
Column diameter: 0.25

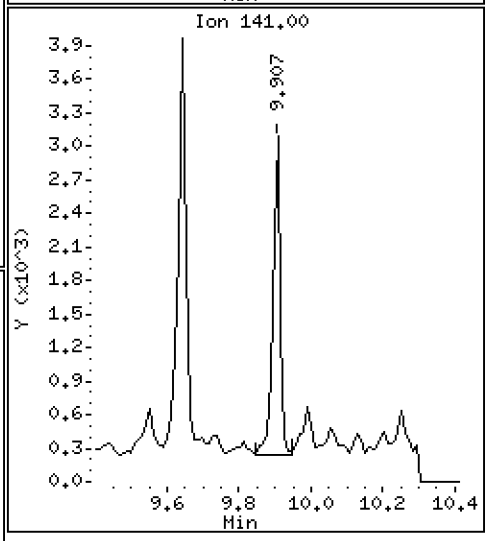
6 1-Methylnaphthalene

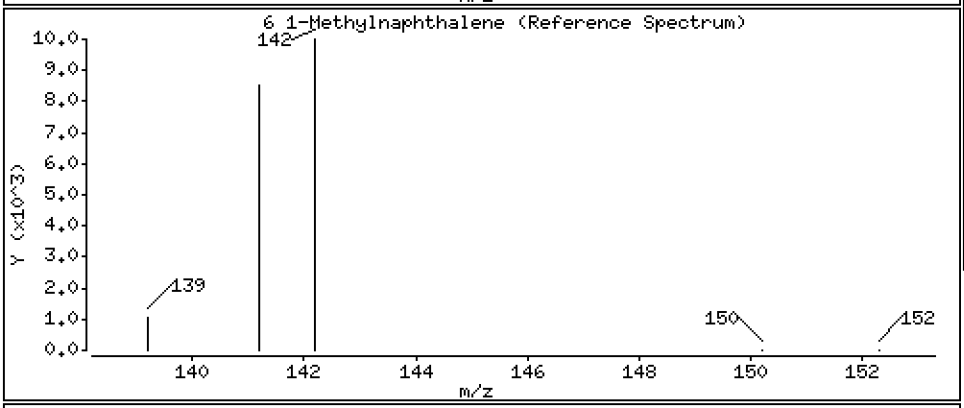
Concentration: 1.91 ng/mL

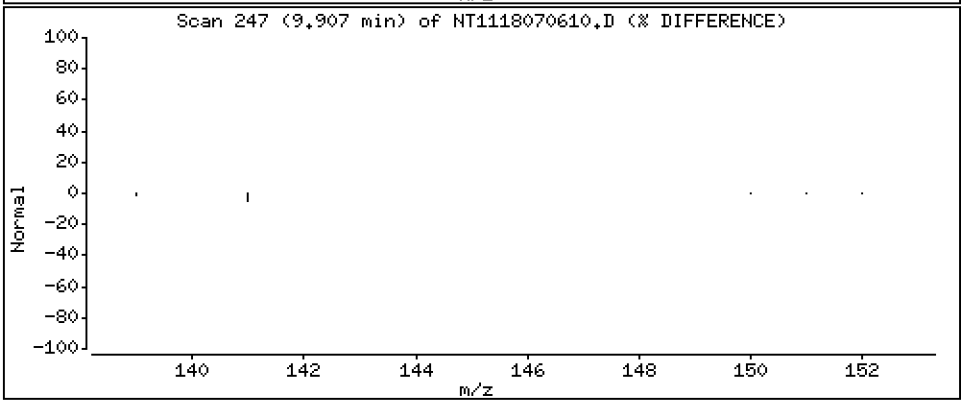












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Date : 06-JUL-2018 17:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-04

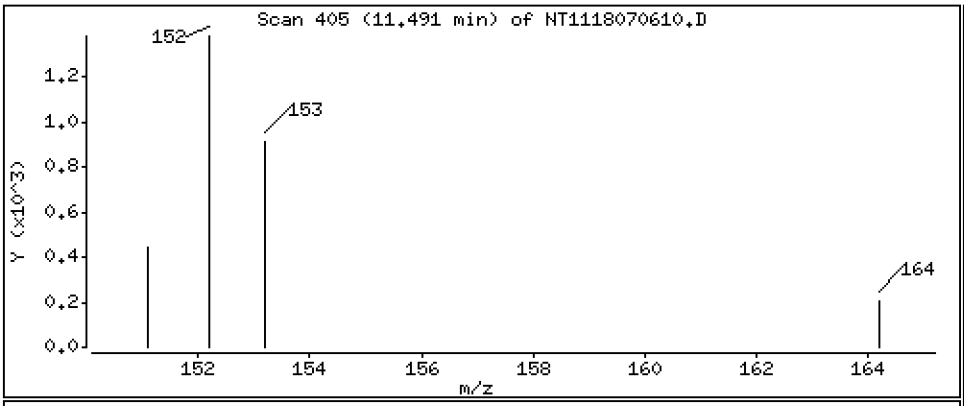
Operator: VTS

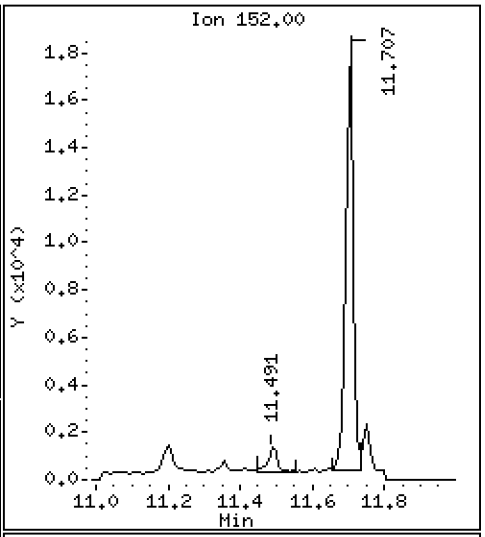
Column phase: Rxi-17Sil MS

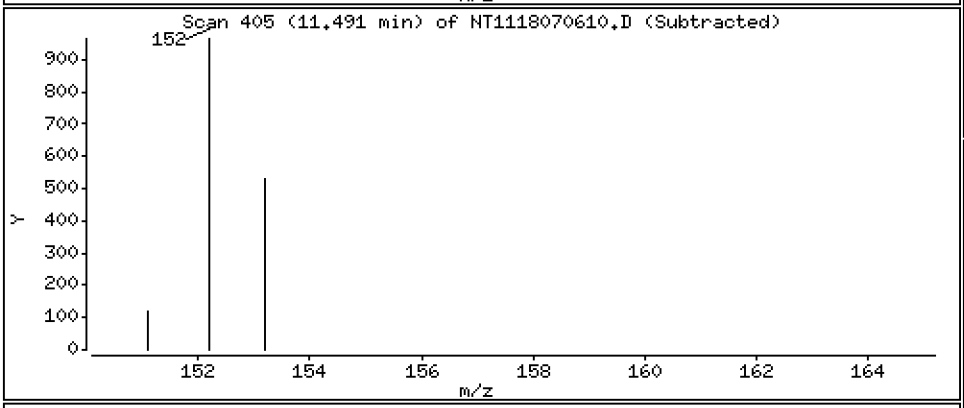
Column diameter: 0.25

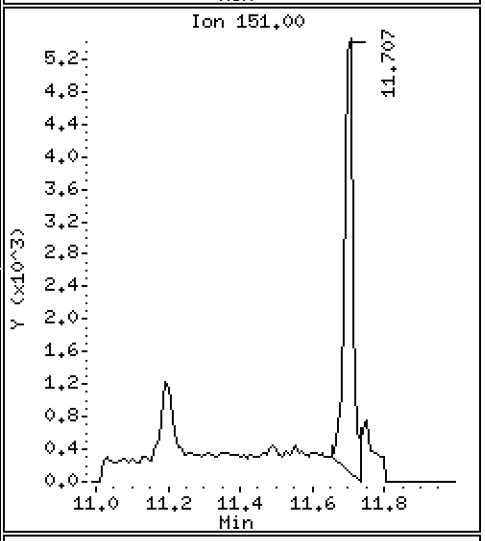
10 Acenaphthylene

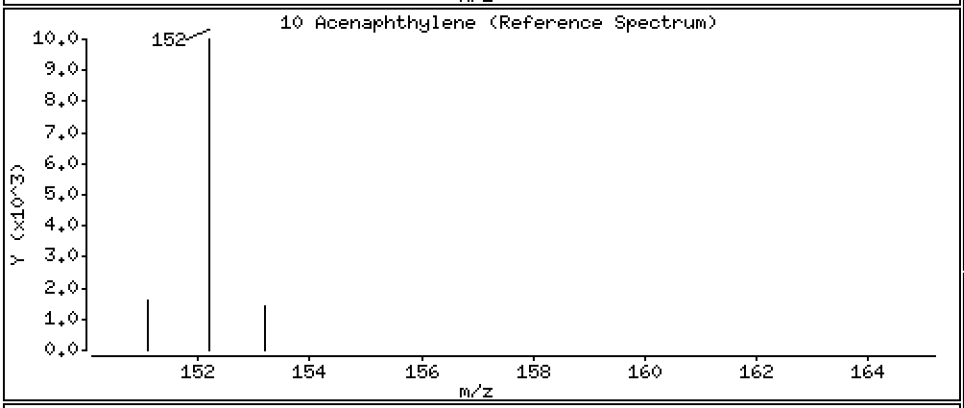
Concentration: 0.687 ng/mL

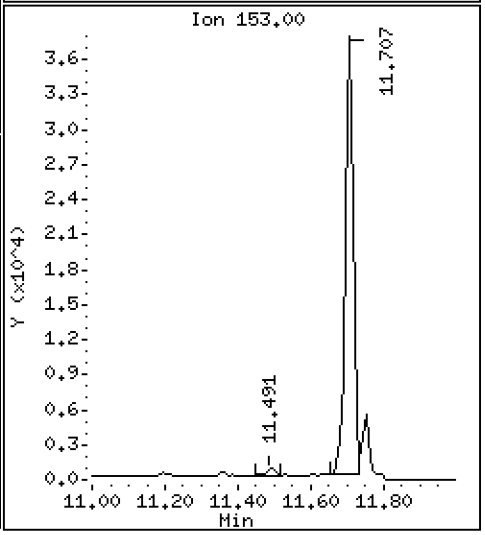


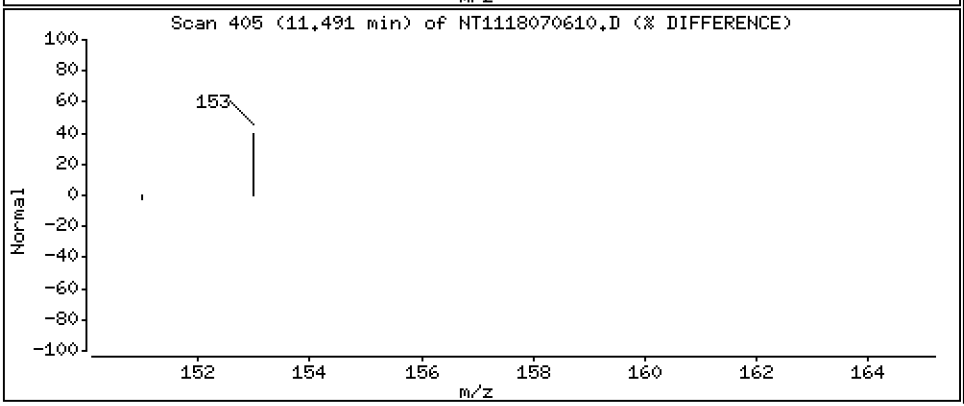












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Date : 06-JUL-2018 17:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-04

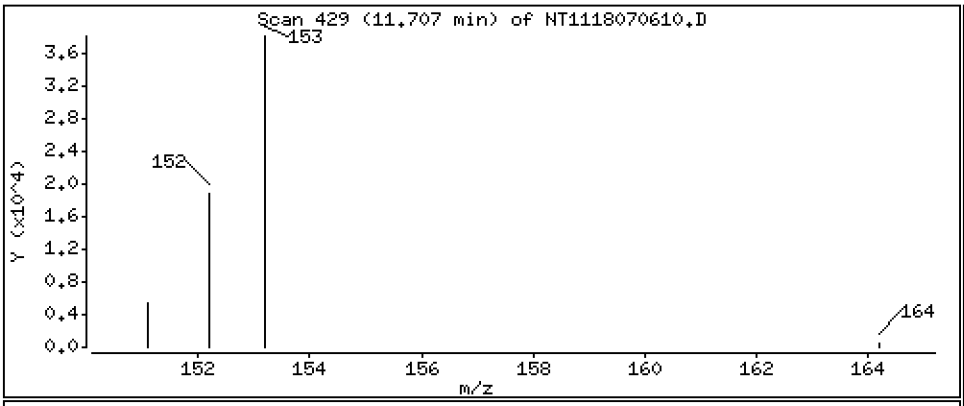
Operator: VTS

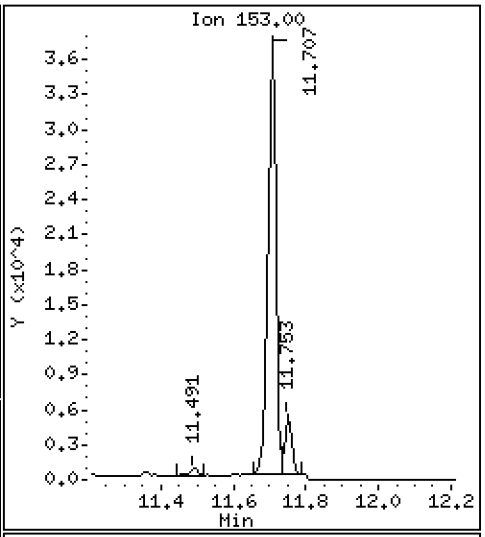
Column phase: Rxi-17Sil MS

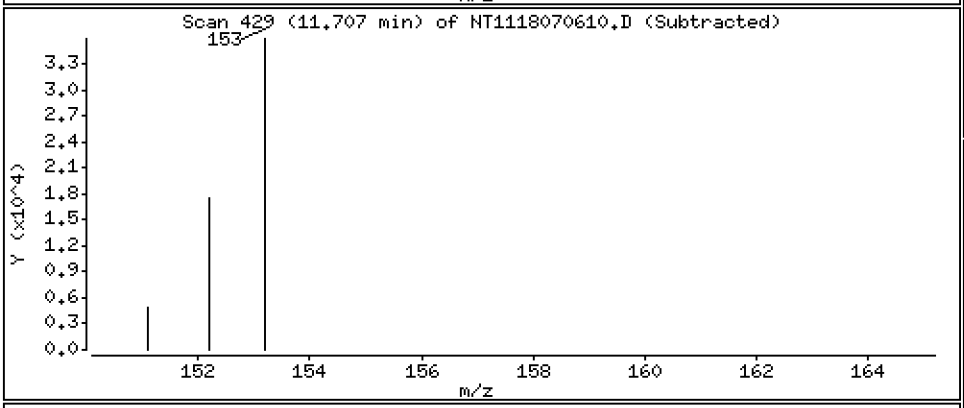
Column diameter: 0.25

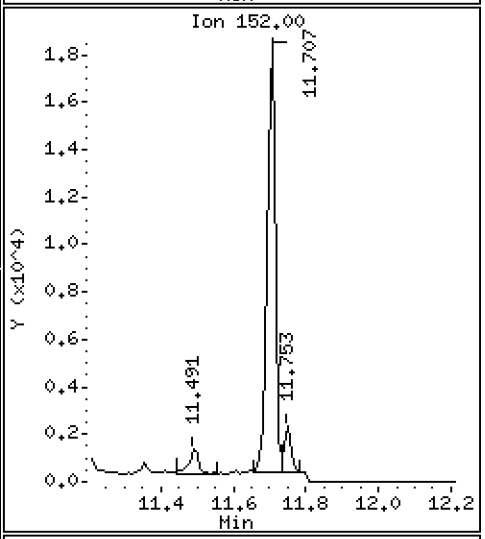
12 Acenaphthene

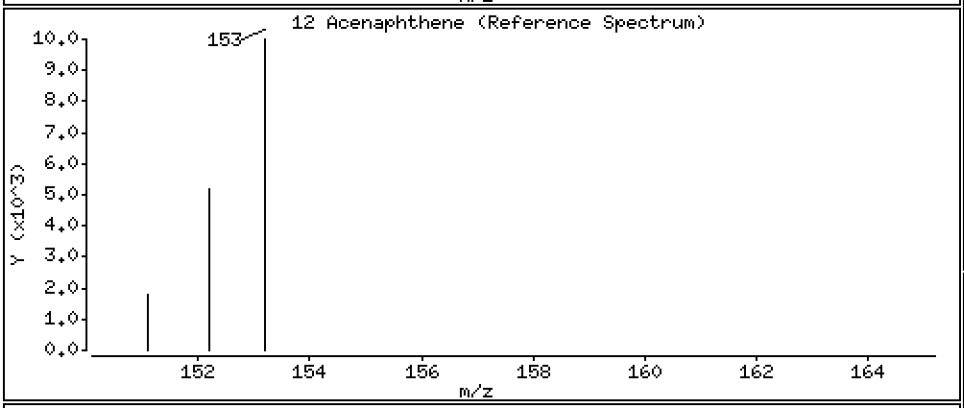
Concentration: 26.9 ng/mL

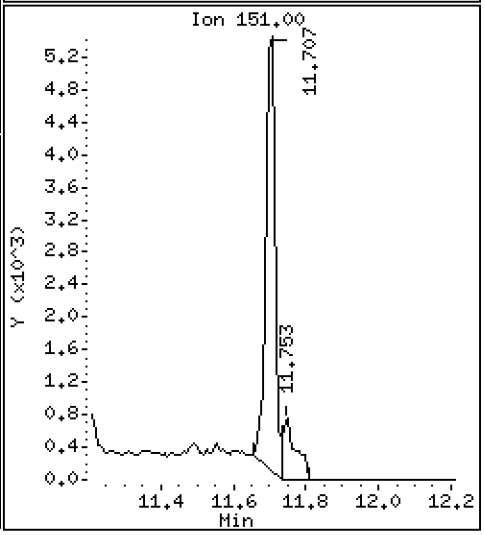


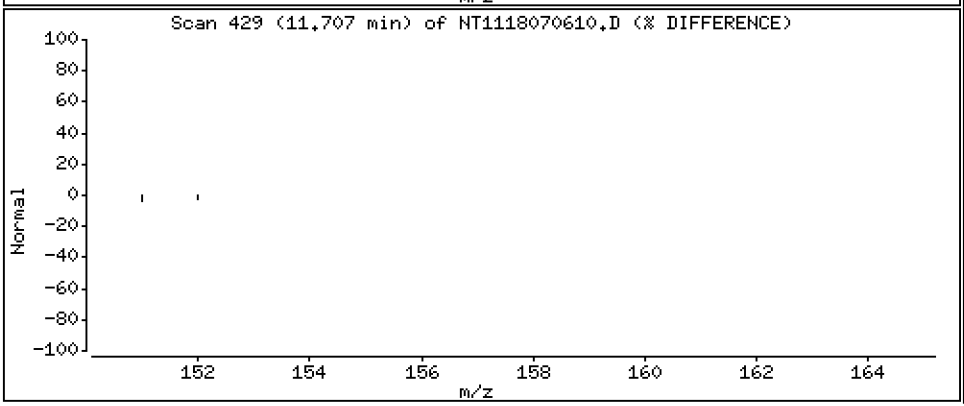












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Date : 06-JUL-2018 17:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-04

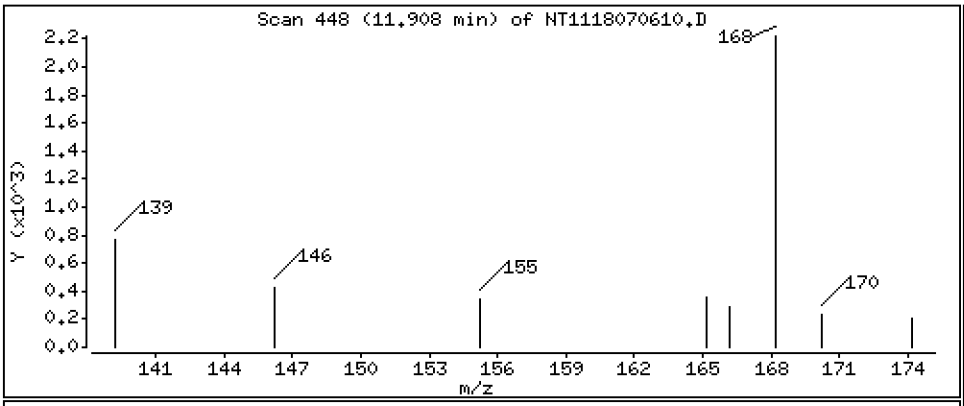
Operator: VTS

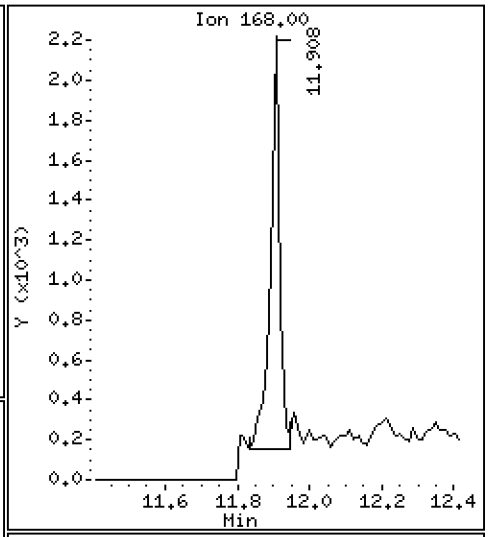
Column phase: Rxi-17Sil MS

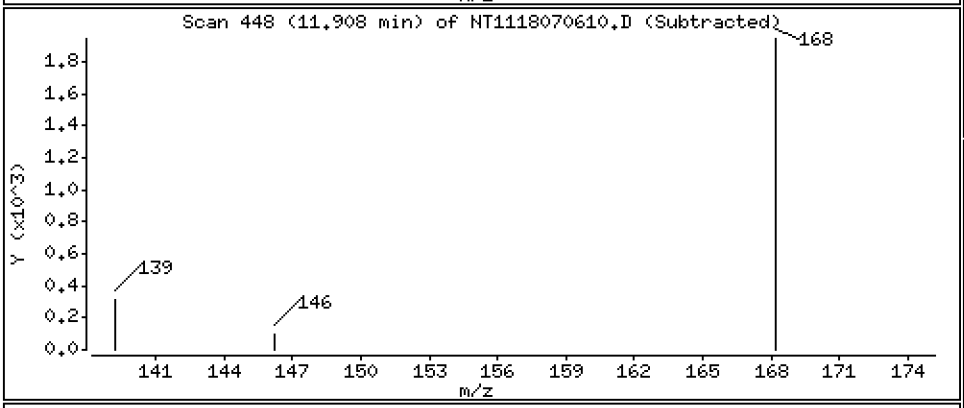
Column diameter: 0.25

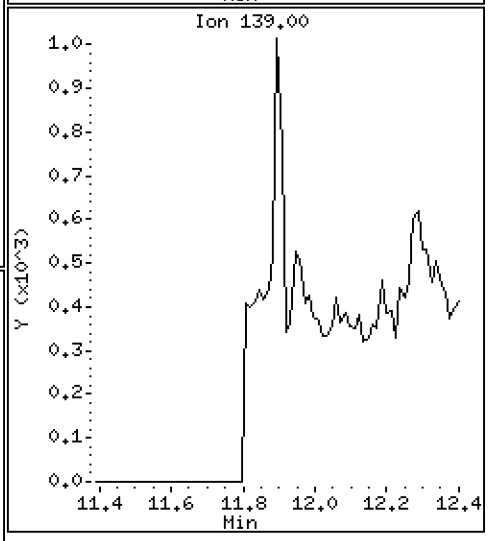
13 Dibenzofuran

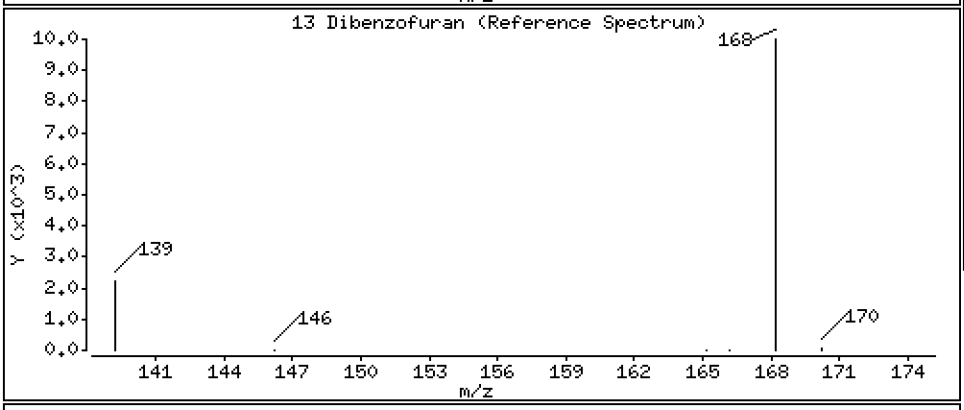
Concentration: 1.29 ng/mL

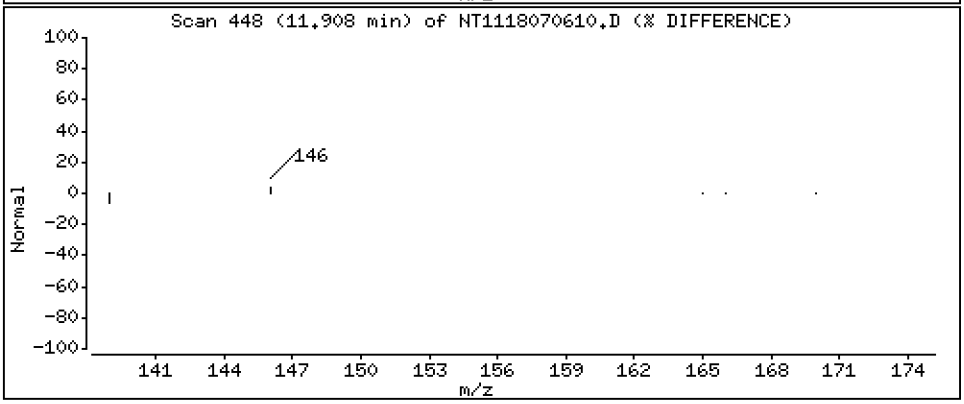












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Date : 06-JUL-2018 17:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-04

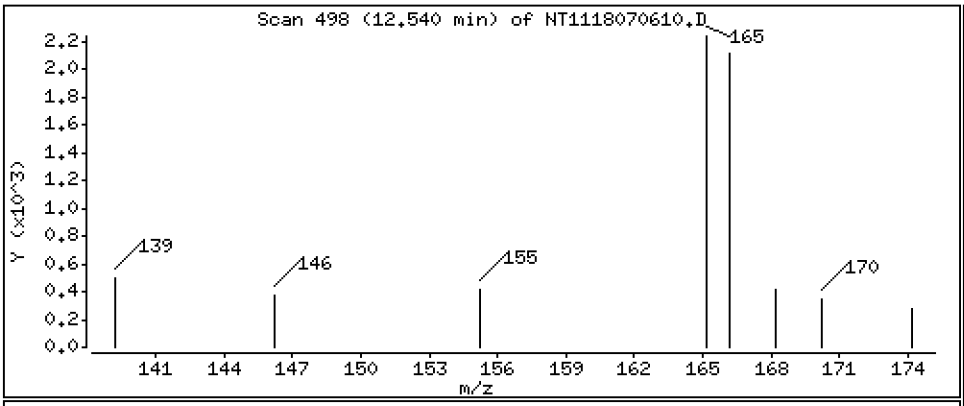
Operator: VTS

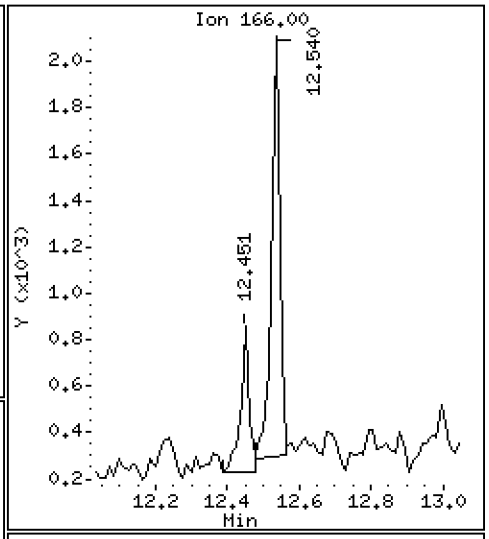
Column phase: Rxi-17Sil MS

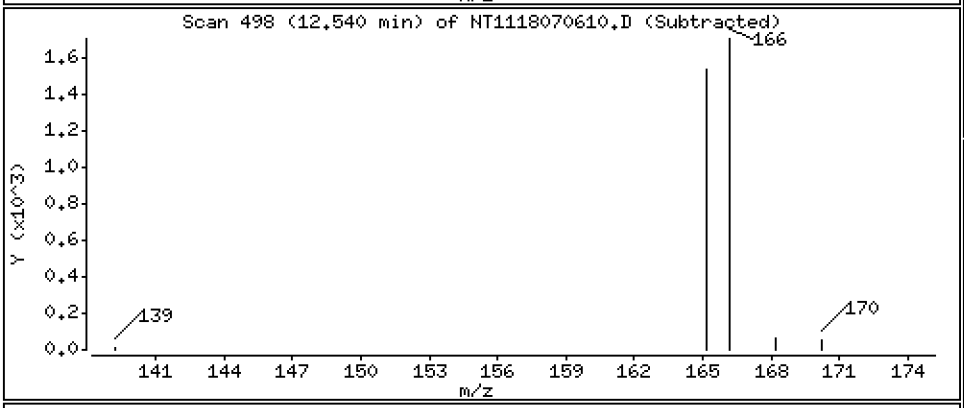
Column diameter: 0.25

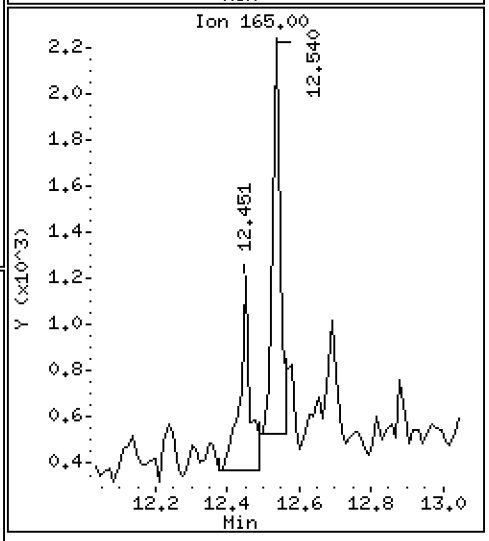
16 Fluorene

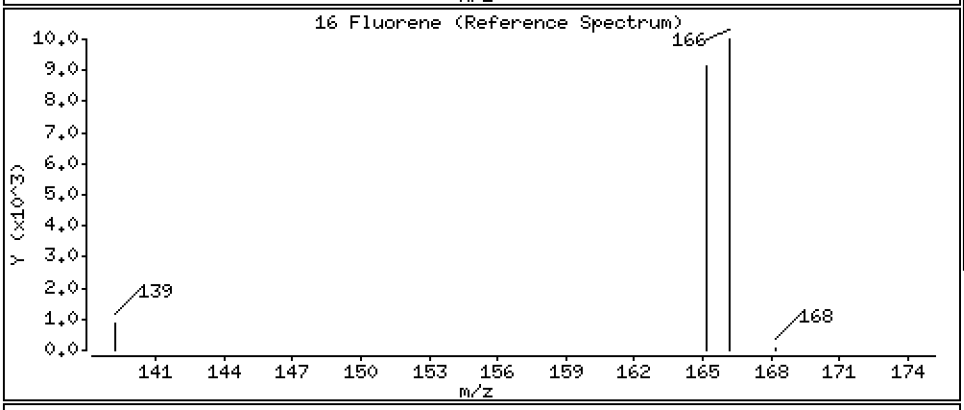
Concentration: 1.35 ng/mL

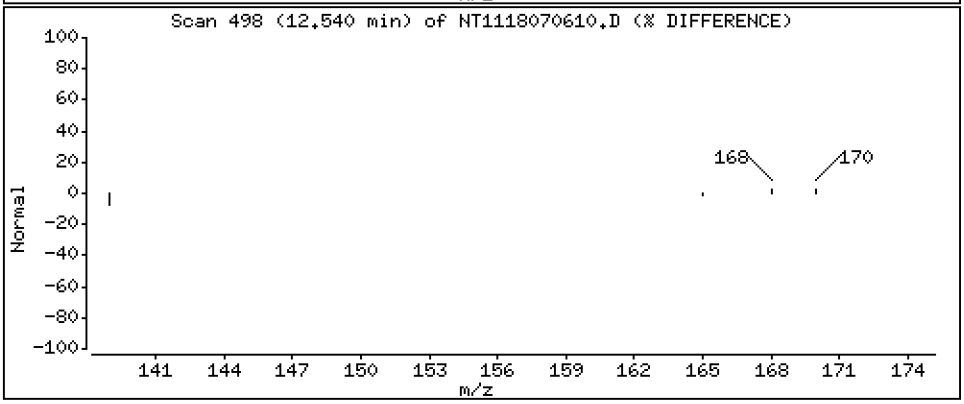












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Date : 06-JUL-2018 17:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-04

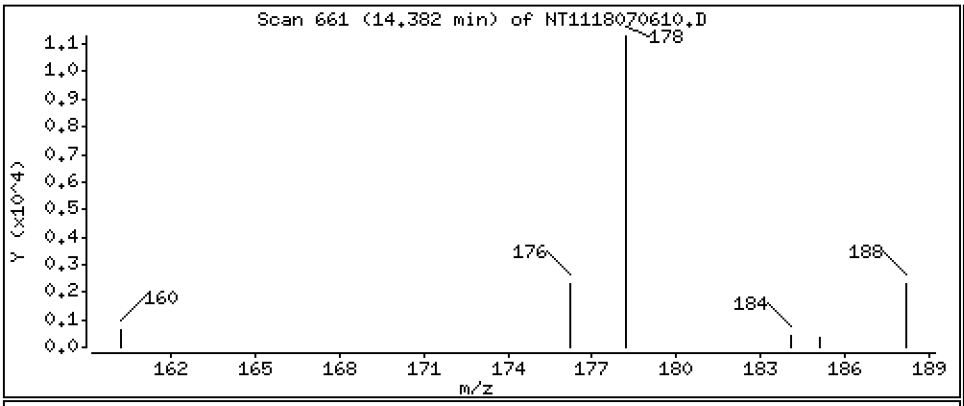
Operator: VTS

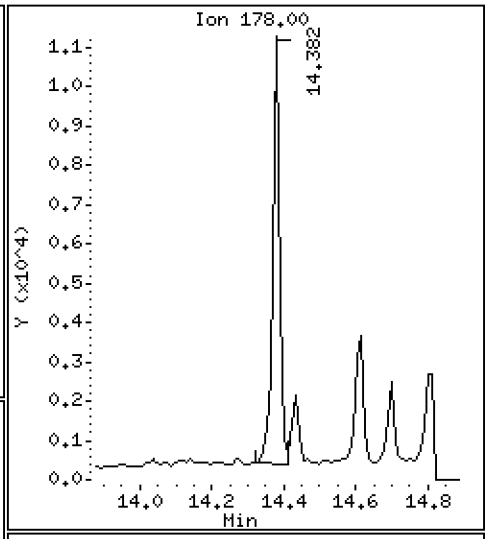
Column phase: Rxi-17Sil MS

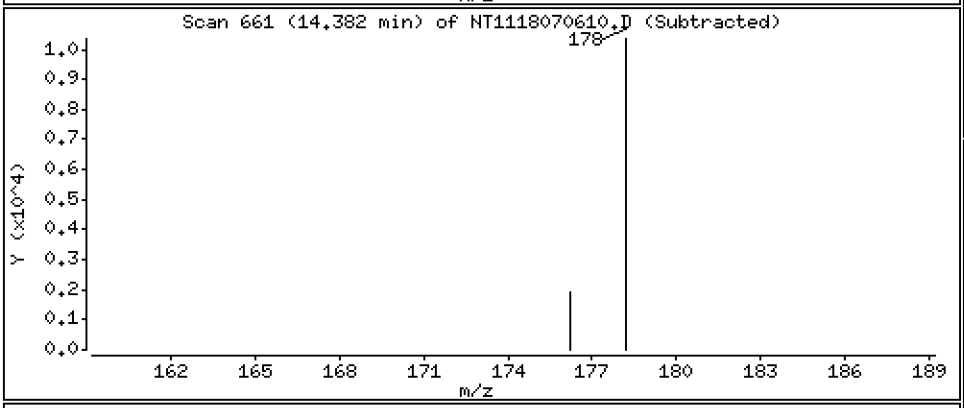
Column diameter: 0.25

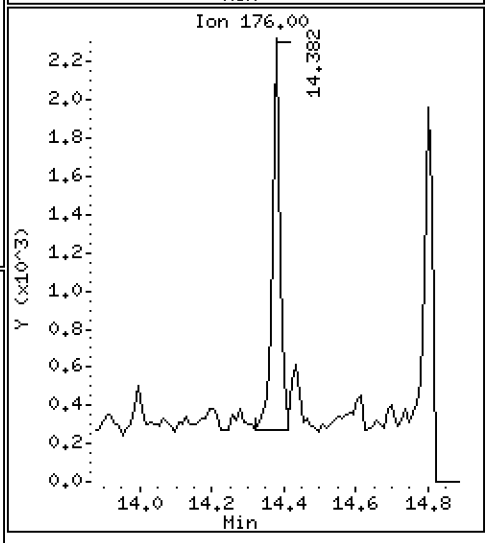
19 Phenanthrene

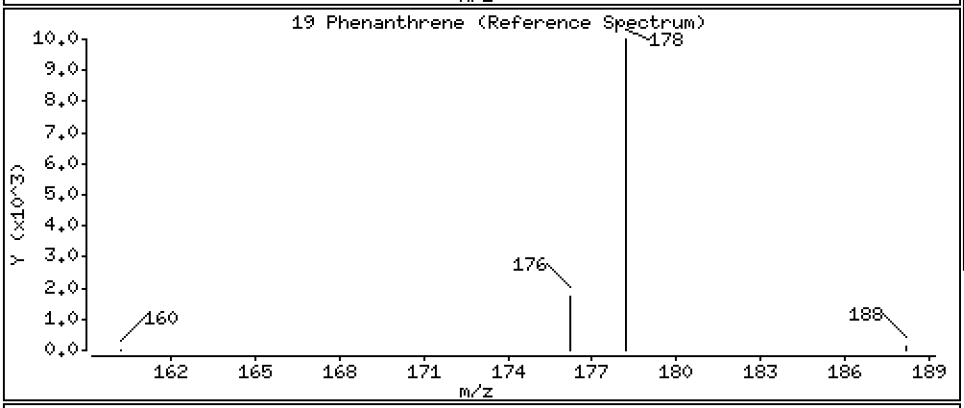
Concentration: 5.30 ng/mL

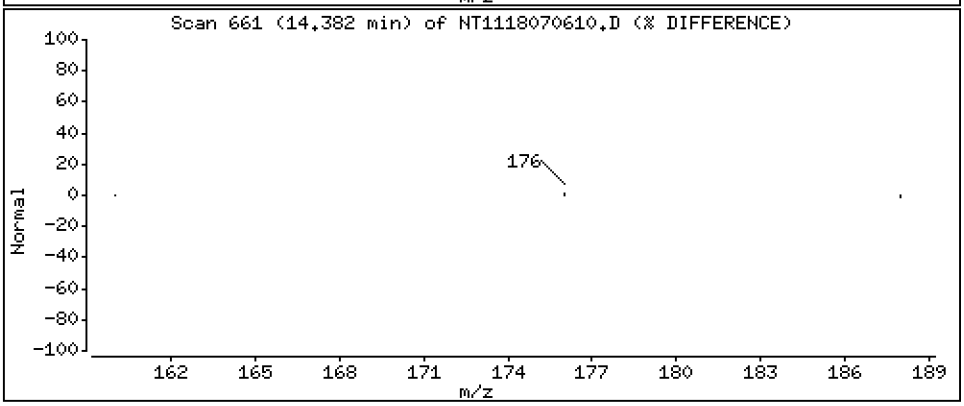












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Date : 06-JUL-2018 17:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-04

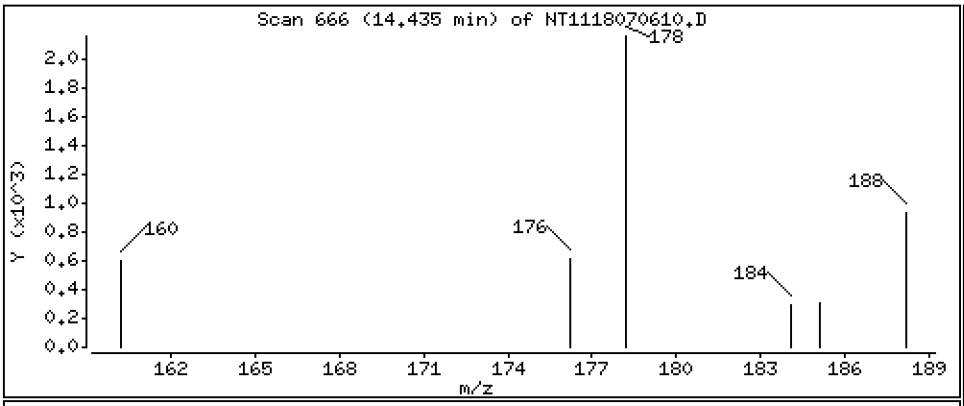
Operator: VTS

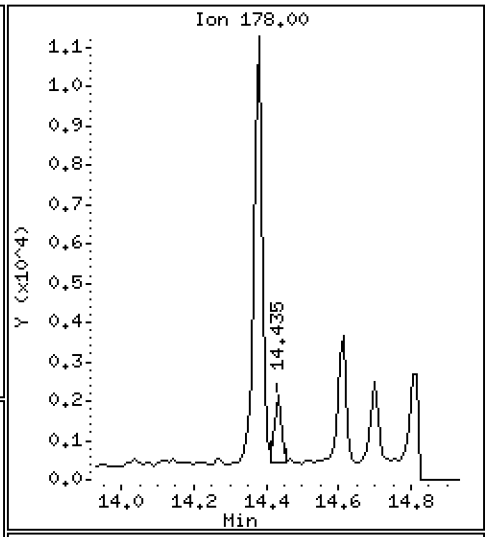
Column phase: Rxi-17Sil MS

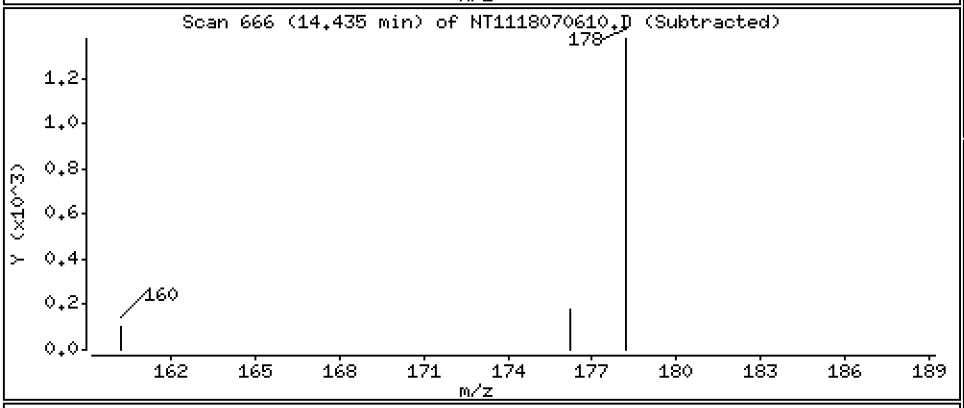
Column diameter: 0.25

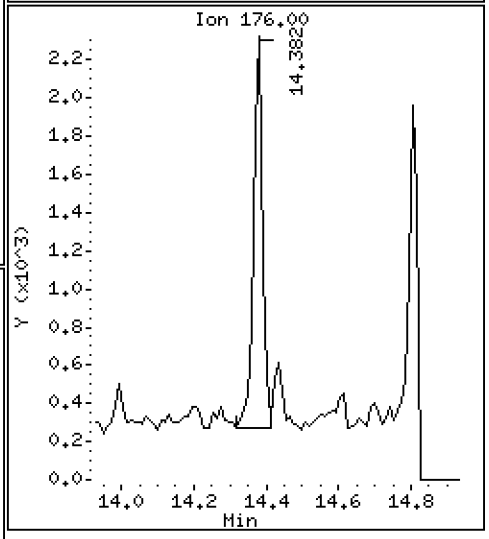
21 Anthracene

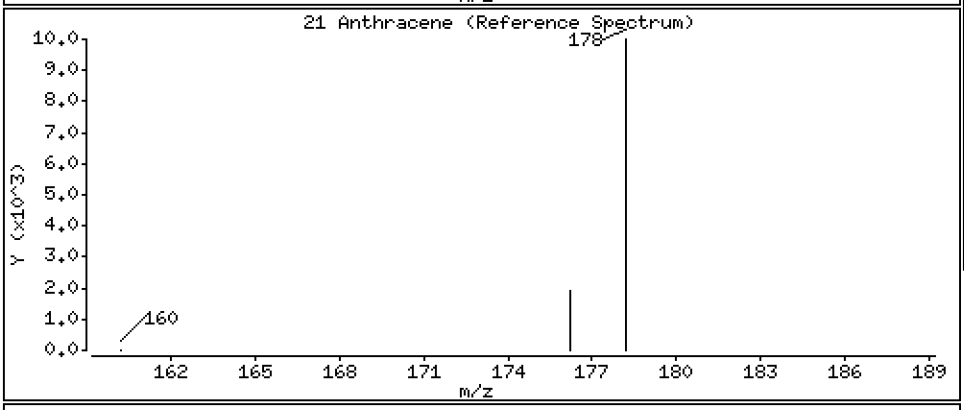
Concentration: 0.749 ng/mL

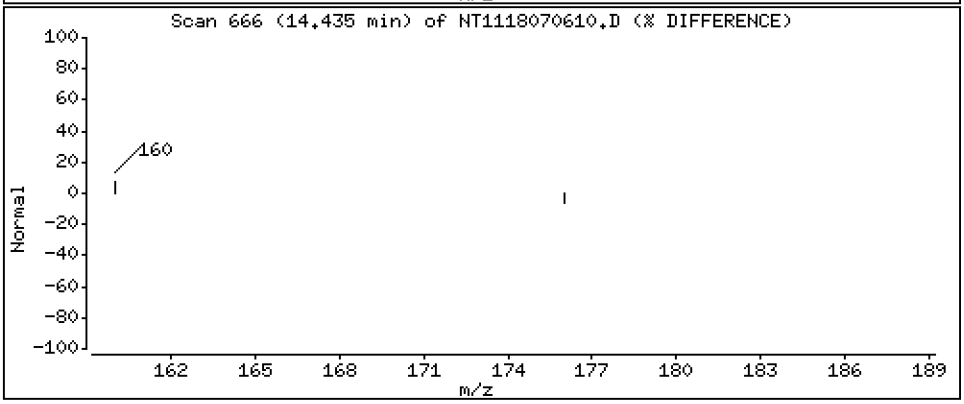












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Date : 06-JUL-2018 17:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-04

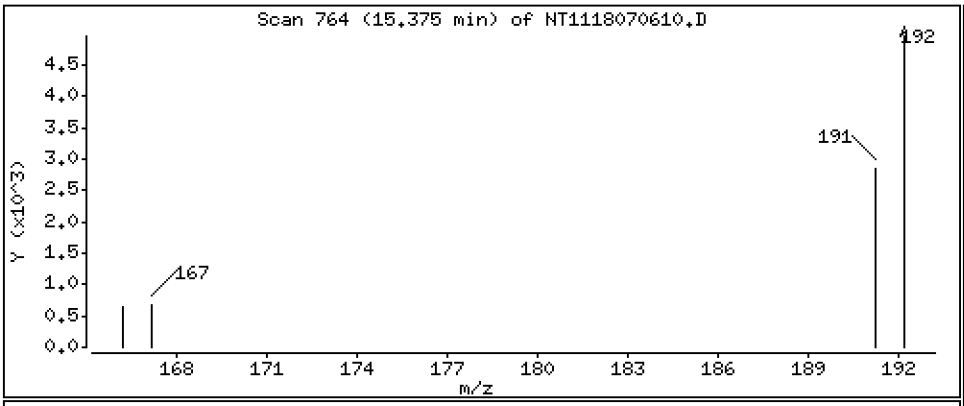
Operator: VTS

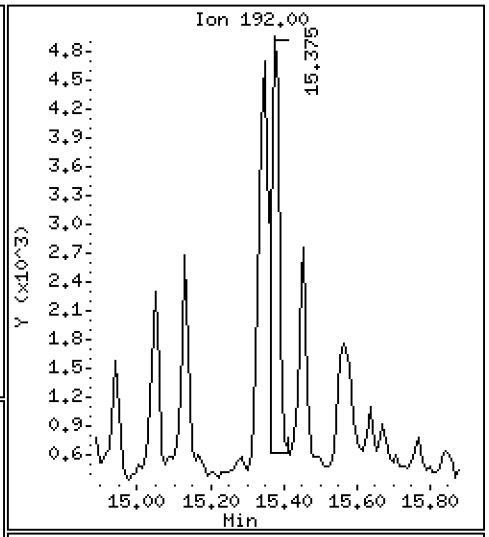
Column phase: Rxi-17Sil MS

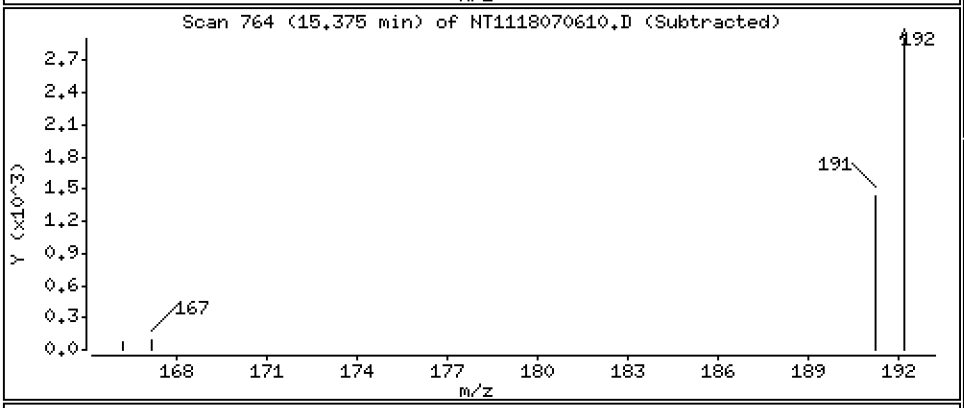
Column diameter: 0.25

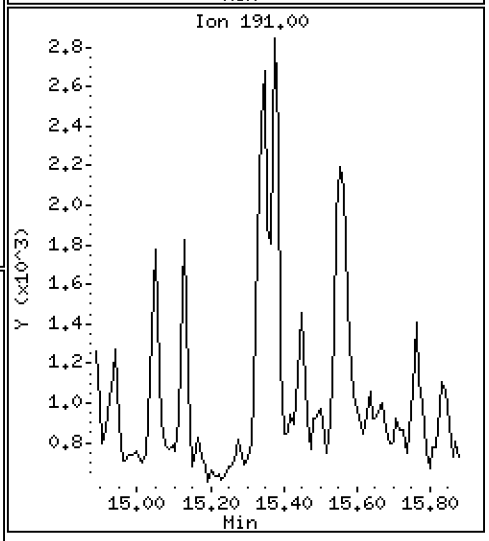
23 1-Methylphenanthrene

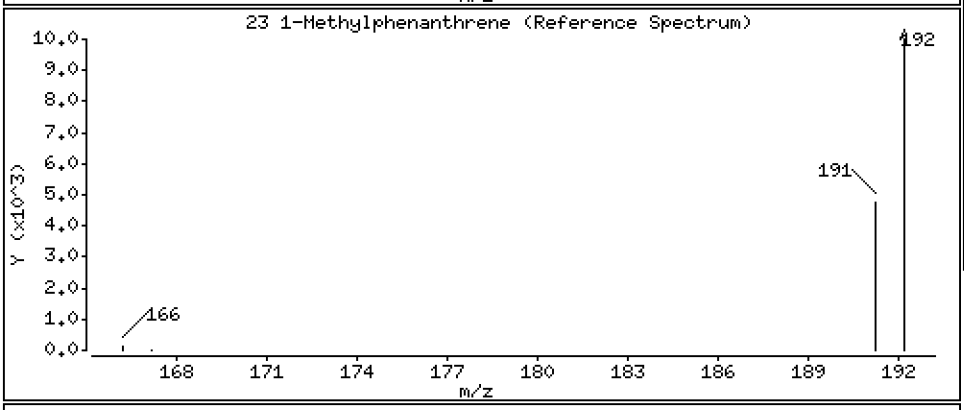
Concentration: 2.06 ng/mL

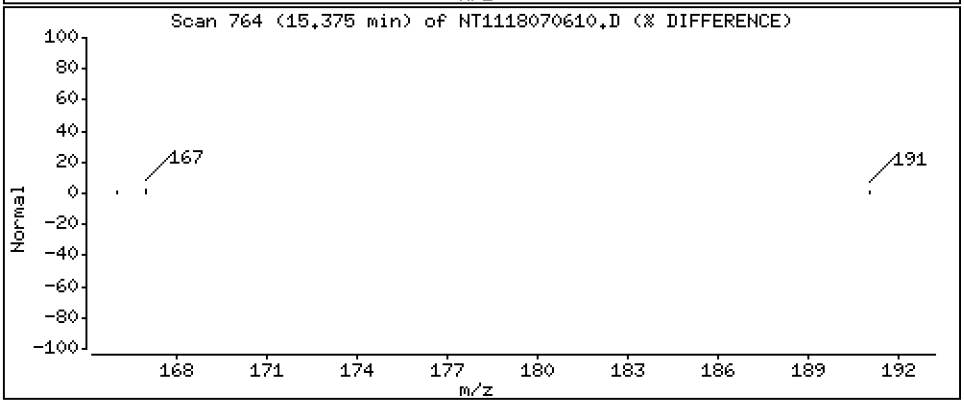












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Date : 06-JUL-2018 17:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-04

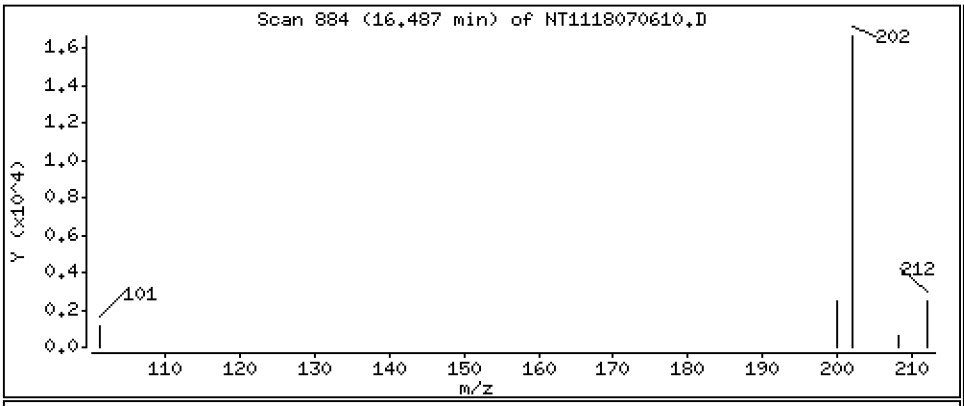
Operator: VTS

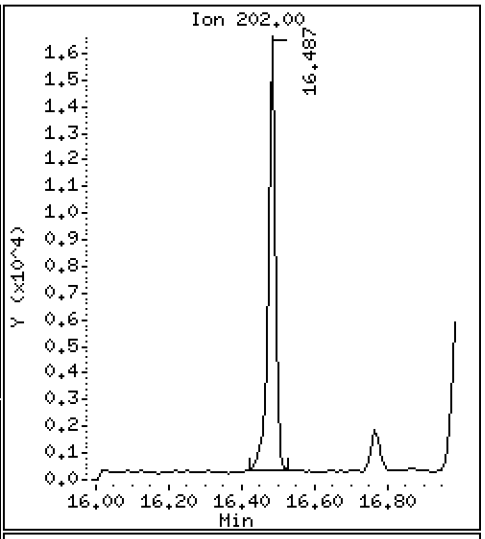
Column phase: Rxi-17Sil MS

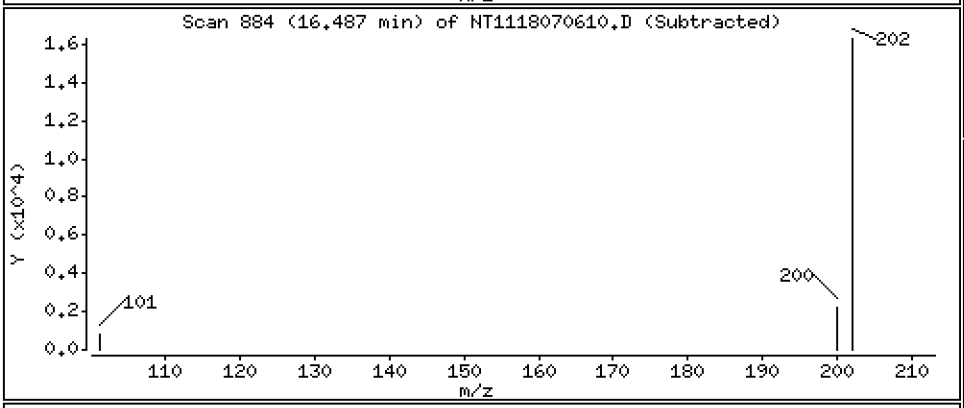
Column diameter: 0.25

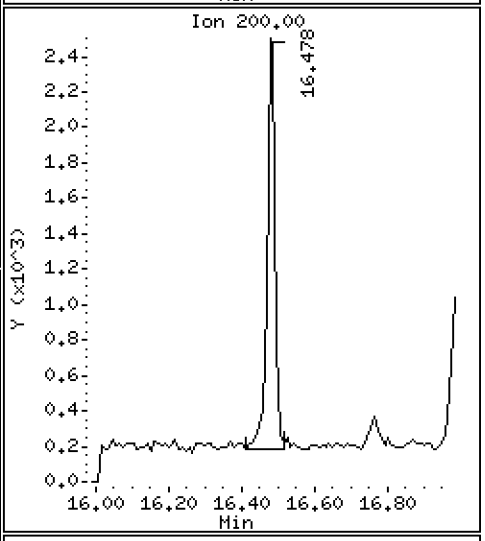
25 Fluoranthene

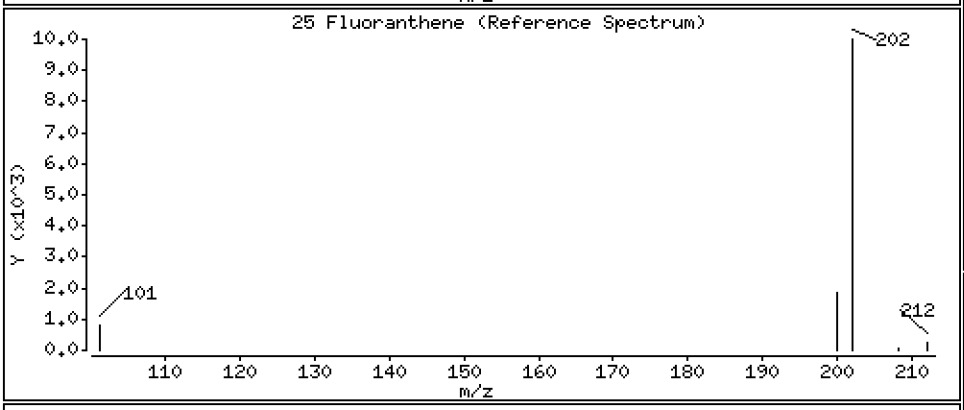
Concentration: 8.00 ng/mL

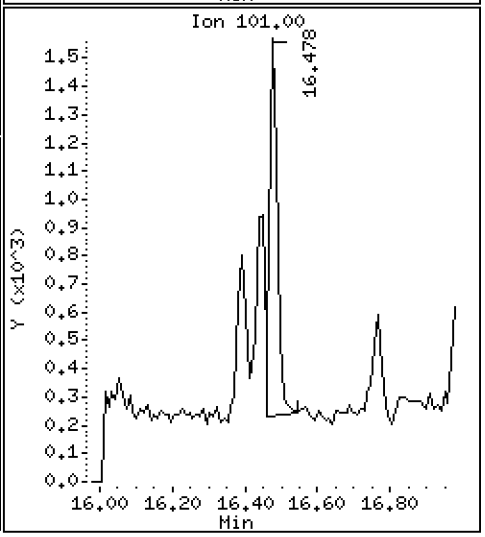


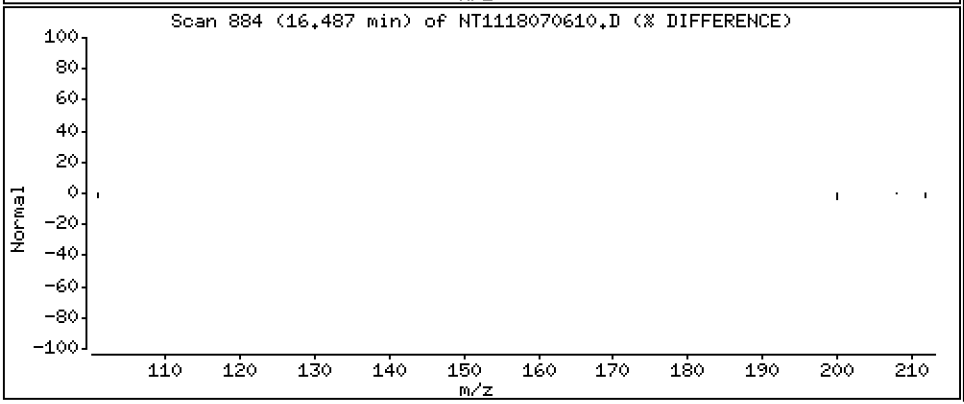












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Date : 06-JUL-2018 17:50

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-04

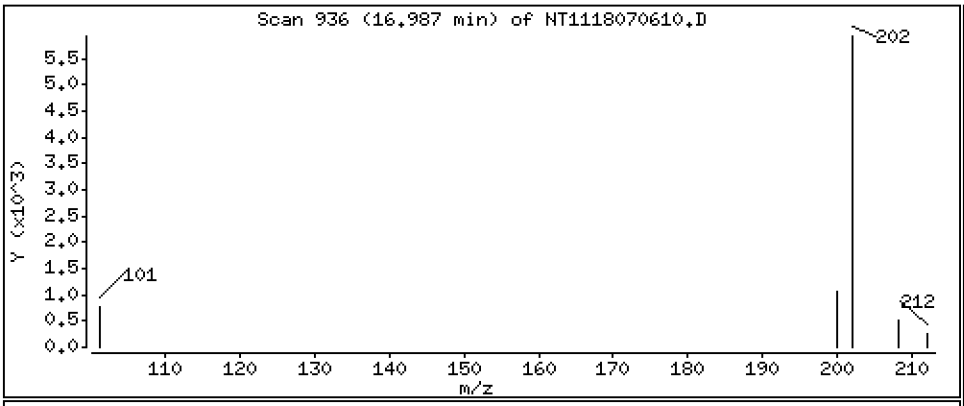
Operator: VTS

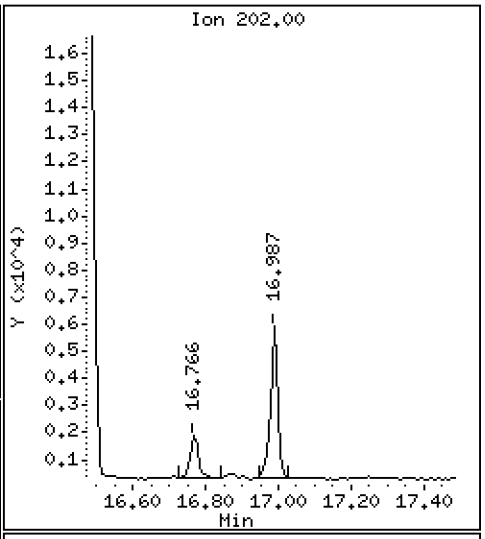
Column phase: Rxi-17Sil MS

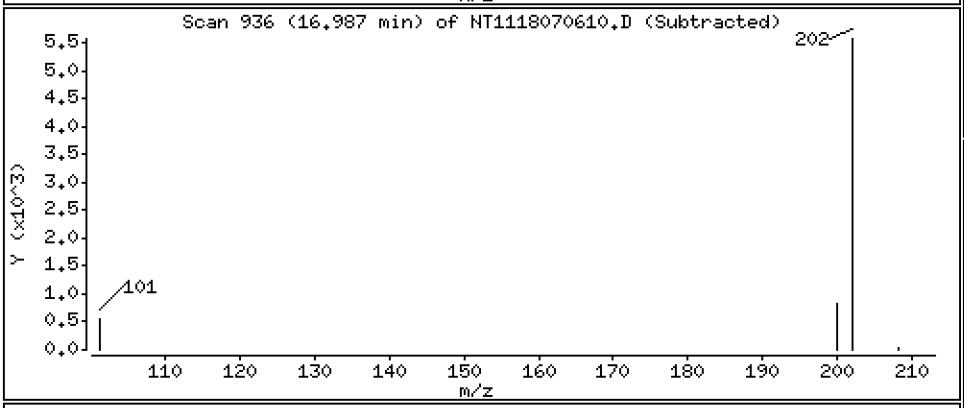
Column diameter: 0.25

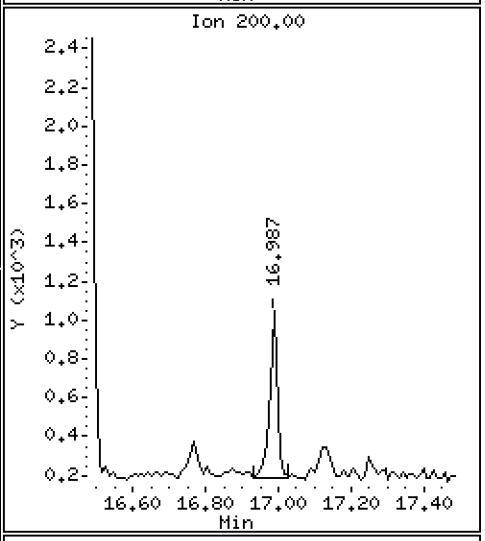
26 Pyrene

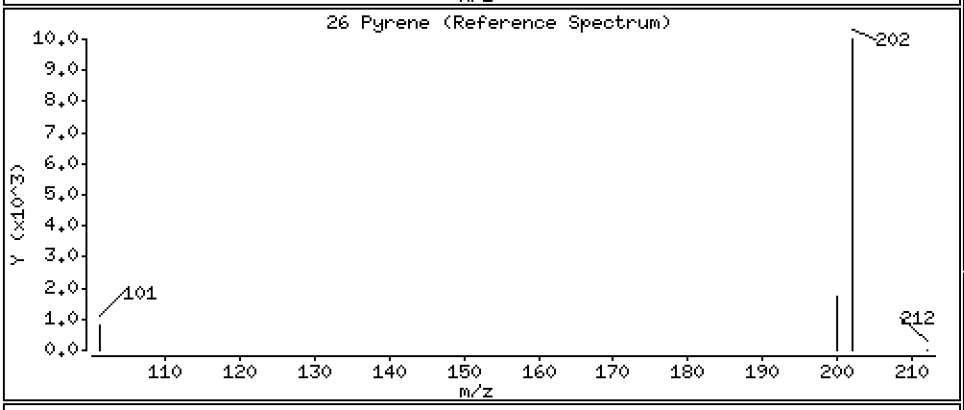
Concentration: 2.61 ng/mL

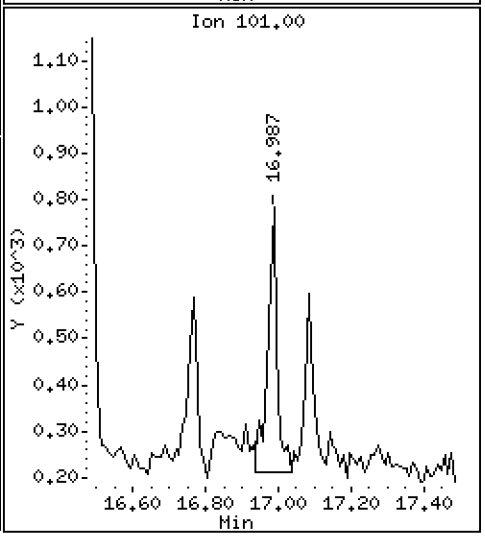


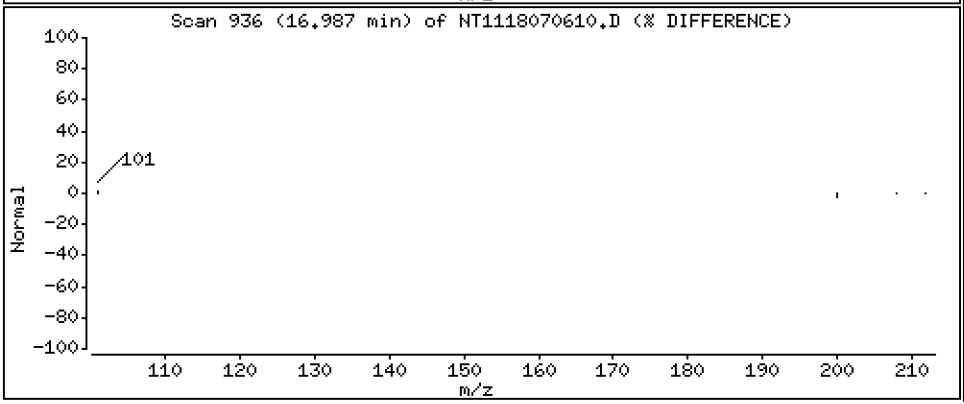












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180706.b\NT1118070610.D
Lab Smp Id: 18F0226-04
Inj Date : 06-JUL-2018 17:50 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0226-04
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Meth Date : 06-Jul-2018 13:13 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	471869	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	12270	3.45583	3.46
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.591	9.592	(1.114)	512752	190.451	190
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	6264	2.17927	2.18
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	5465	1.91174	1.91
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	11.490	11.490	(0.987)	2042	0.68729	0.687
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	249887	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	54734	26.9341	26.9
	13 Dibenzofuran	168	11.907	11.908	(1.023)	3586	1.28811	1.29
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.539	12.540	(1.077)	3027	1.34834	1.35
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	415529	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	17262	5.29674	5.30(M)
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.435	14.435	(1.007)	2281	0.74868	0.749(M)
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	15.374	15.384	(1.072)	6357	2.06446	2.06(M)
$	24 Fluoranthene-d10	212	16.448	16.449	(1.147)	572442	226.955	227
	25 Fluoranthene	202	16.487	16.487	(1.150)	24219	8.00240	8.00
	26 Pyrene	202	16.986	16.987	(0.890)	8476	2.60776	2.61
	27 Benzo(a)anthracene	228	Compound Not Detected.					
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	330617	200.000	
	29 Chrysene	228	Compound Not Detected.					
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	35 Benzo(a)pyrene	252	Compound Not Detected.					
*	36 Perylene-d12	264	22.353	22.353	(1.000)	334983	200.000	
	37 Perylene	252	Compound Not Detected.					
$	38 Dibenzo(a,h)anthracene-d14	292	25.268	25.279	(1.130)	340534	212.433	212
	39 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	40 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	41 Benzo(g,h,i)perylene	276	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118070610.D
Lab Smp Id: 18F0226-04
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Misc Info:

Calibration Date: 06-JUL-2018
Calibration Time: 12:50
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	471869	9.40
11 Acenaphthene-d10	260137	130069	520274	249887	-3.94
18 Phenanthrene-d10	427391	213696	854782	415529	-2.78
28 Chrysene-d12	304596	152298	609192	330617	8.54
36 Perylene-d12	263091	131546	526182	334983	27.33

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118070610.D

Lab ID: 18F0226-04
nt11.i, 20180706.b\LOWSIM.m,   06-JUL-2018 17:50

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

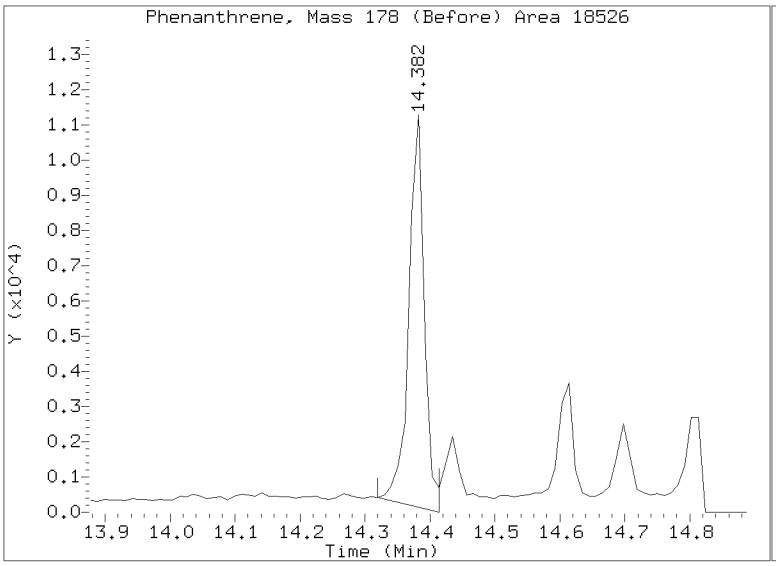
On Column LOD for nt11.i, 20180706.b\LOWSIM.m, allpna.sub = 0.0000

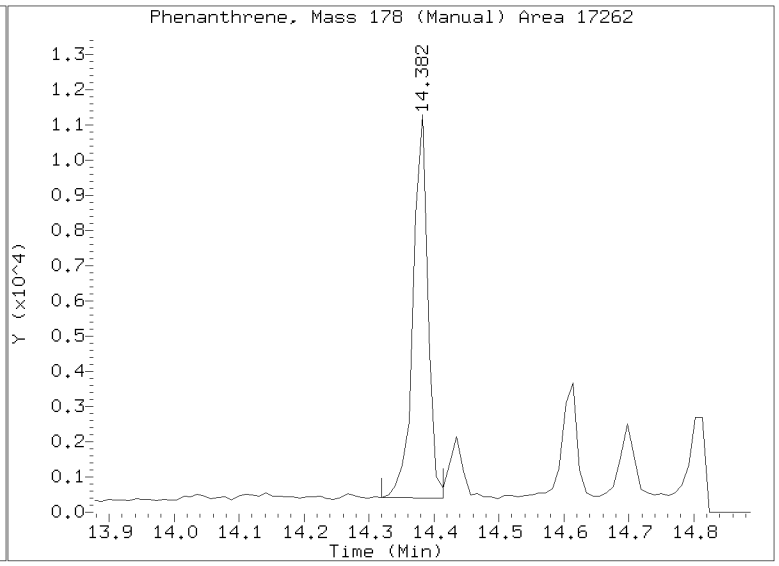
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

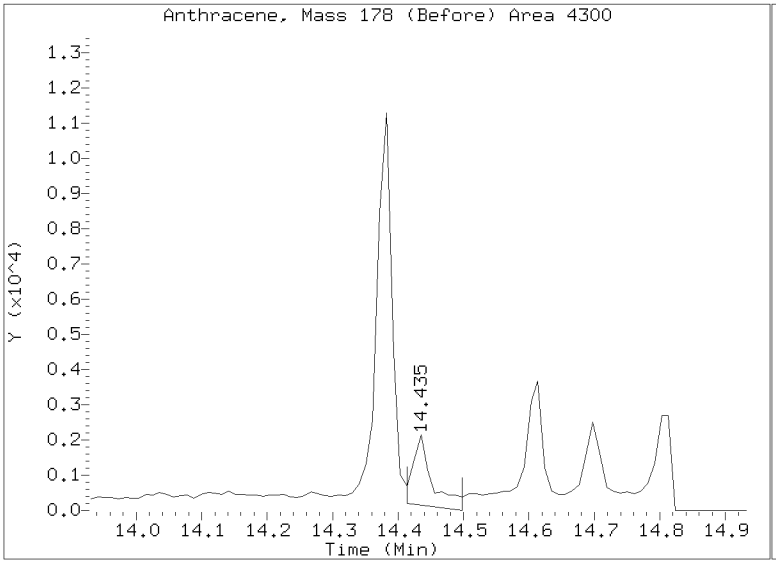
* Only compounds listed in the work order have been verified by the analyst *

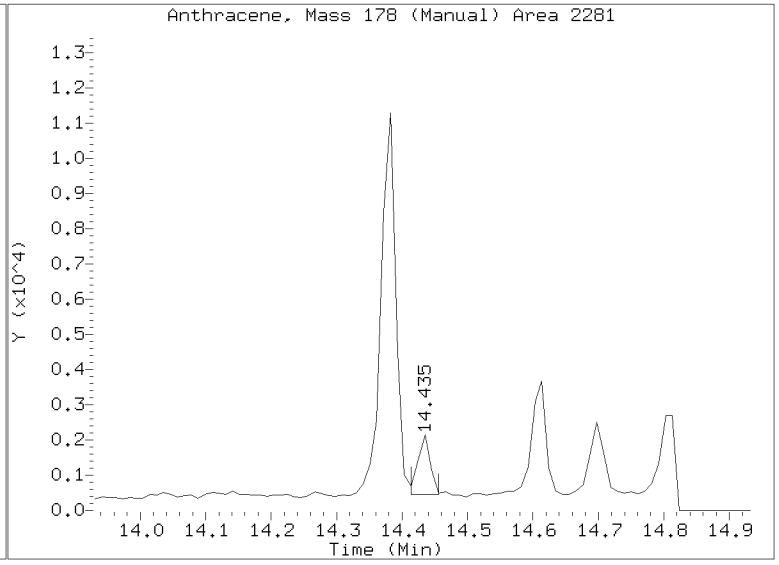
Quant Ion Manual Peak Adjustment Report

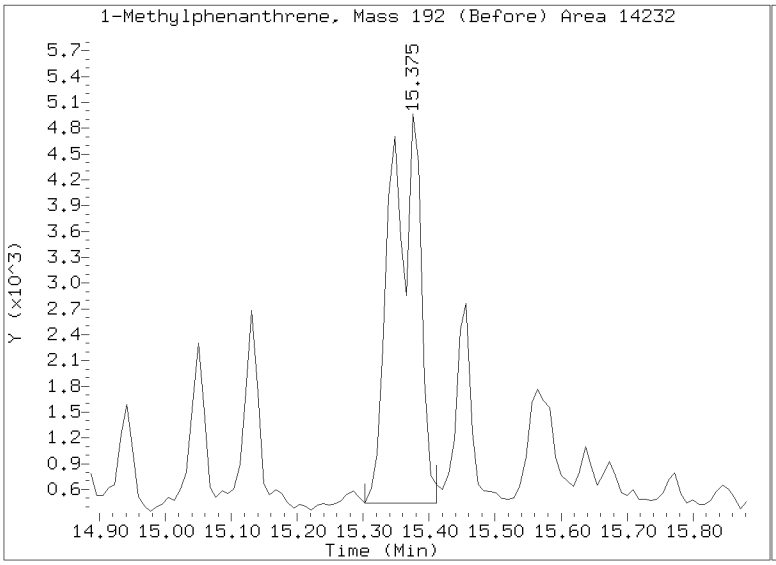
Datafile: //target/share/chem3/nt11.i/20180706.b/NT1118070610.D
Injection Date: 06-JUL-2018 17:50
Lab ID:18F0226-04 Client ID:
Report Date: 07/07/2018 07:56

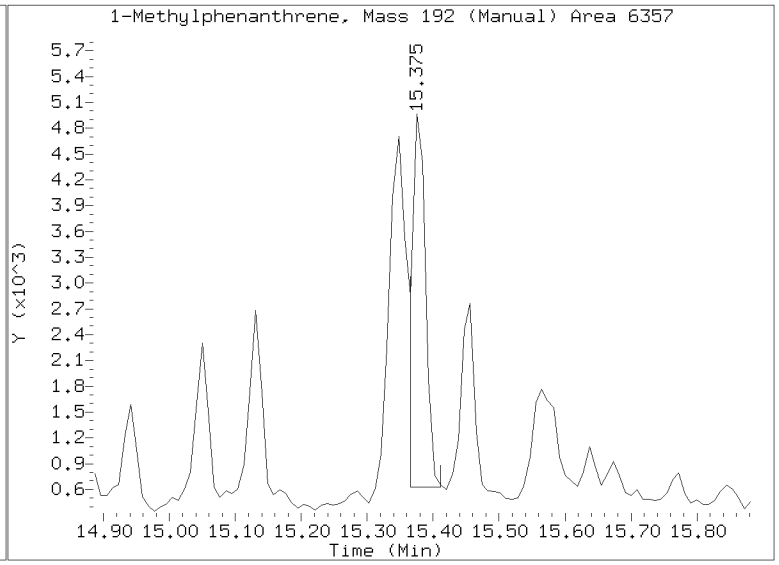












Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-77

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-05	SDG:	18F0185
Sampled:	06/14/18 12:10	Prepared:	06/21/18 13:35	File ID:	NT1118070611.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	07/06/18 18:27
Batch:	BGF0530	Sequence:	SGG0067	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.919		0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.864		0.001	0.010
208-96-8	Acenaphthylene	1	0.040		0.002	0.010
83-32-9	Acenaphthene	1	3.61	E	0.003	0.010
86-73-7	Fluorene	1	0.450		0.002	0.010
85-01-8	Phenanthrene	1	0.165		0.001	0.010
120-12-7	Anthracene	1	0.017		0.001	0.010
206-44-0	Fluoranthene	1	0.221	Q	0.002	0.010
129-00-0	Pyrene	1	0.079		0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.0009	J	0.0008	0.010
218-01-9	Chrysene	1	0.001	J	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.010	U	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.180	60.0	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.197	65.7	29 - 120	
Fluoranthene-d10	0.30000	0.214	71.4	57 - 120	

Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070611.D

Date : 06-JUL-2018 18:27

Client ID:

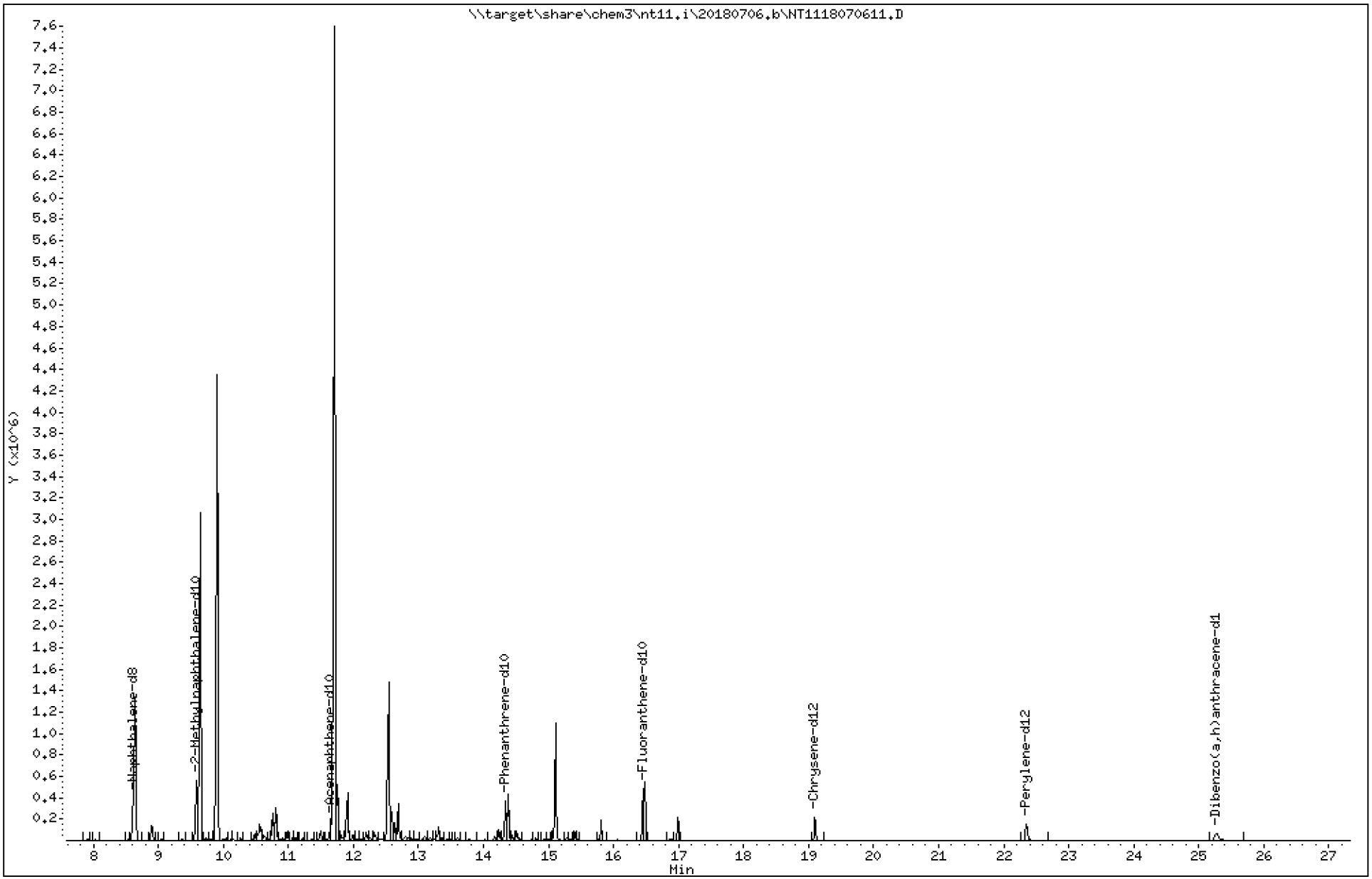
Instrument: nt11.i

Sample Info: 18F0226-05

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 06-JUL-2018 18:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05

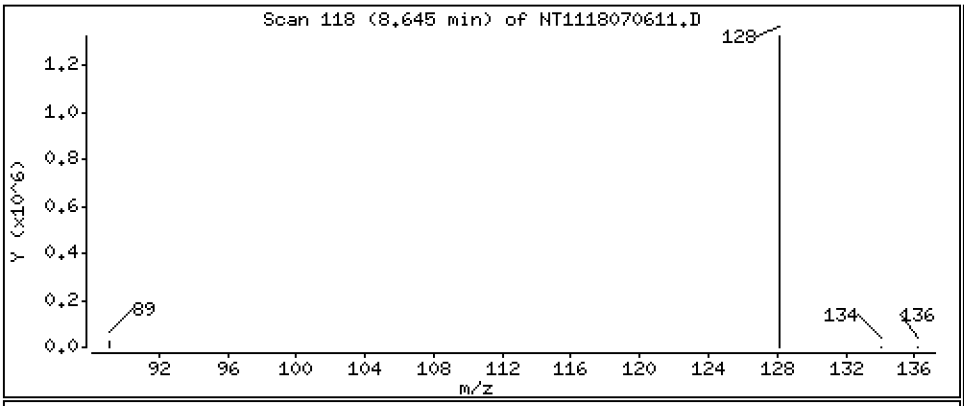
Operator: VTS

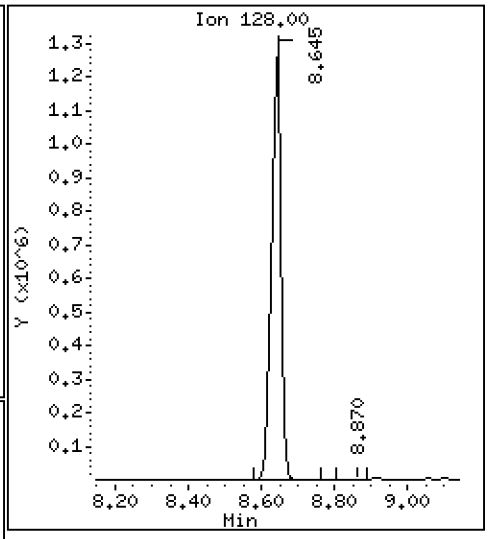
Column phase: Rxi-17Sil MS

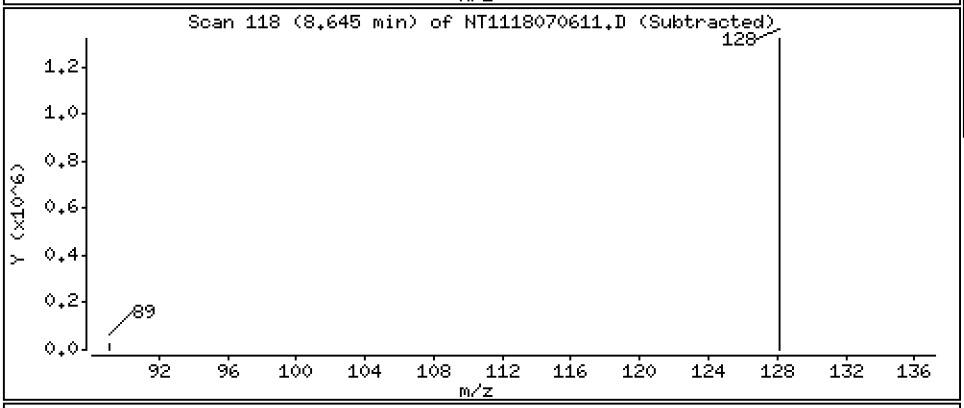
Column diameter: 0.25

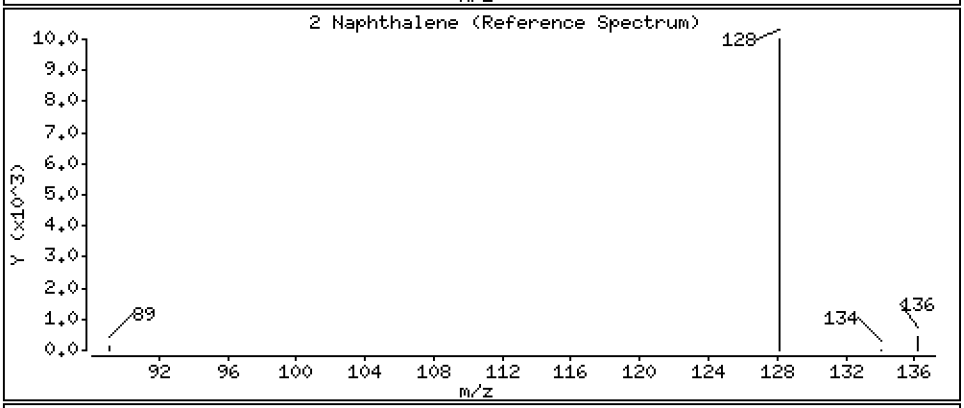
2 Naphthalene

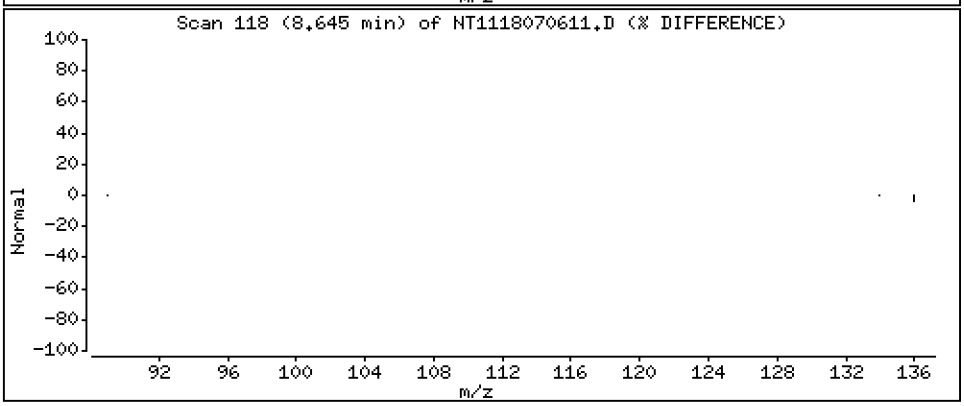
Concentration: 919 ng/mL











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Date : 06-JUL-2018 18:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05

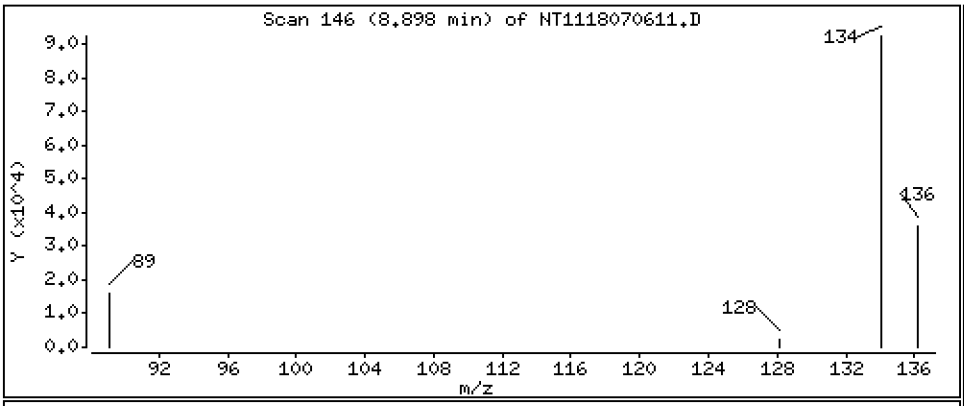
Operator: VTS

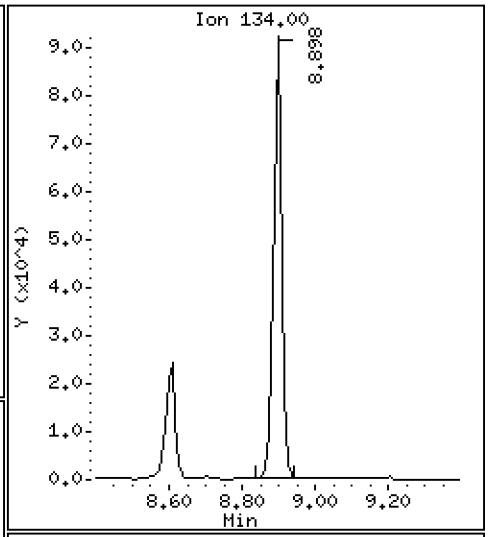
Column phase: Rxi-17Sil MS

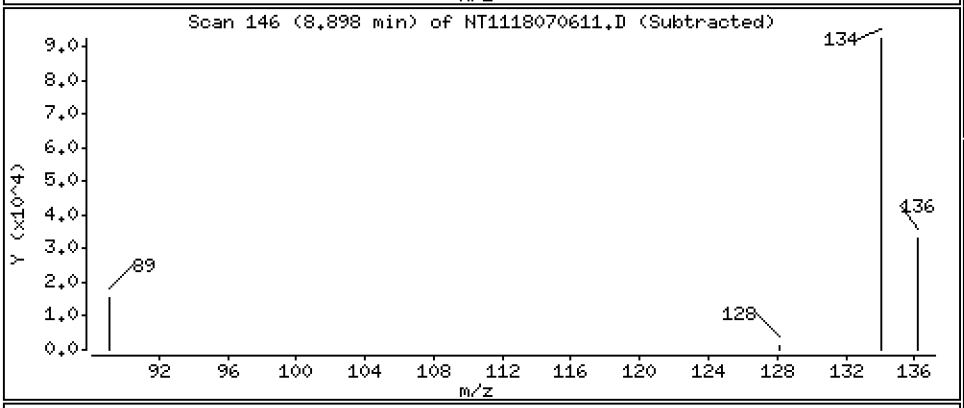
Column diameter: 0.25

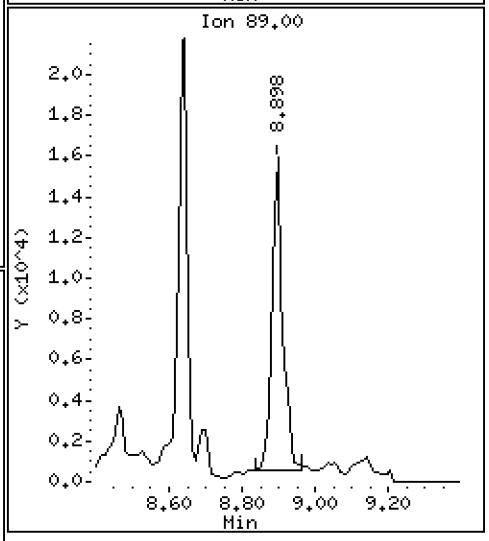
3 Benzo(b)thiophene

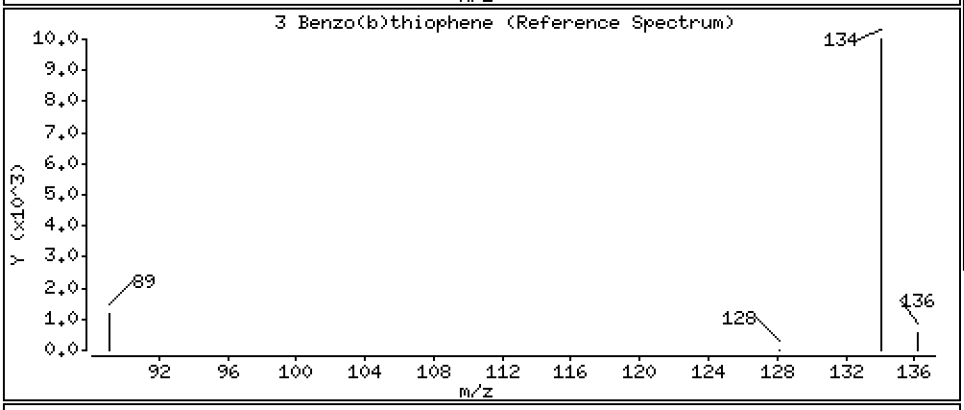
Concentration: 59.3 ng/mL

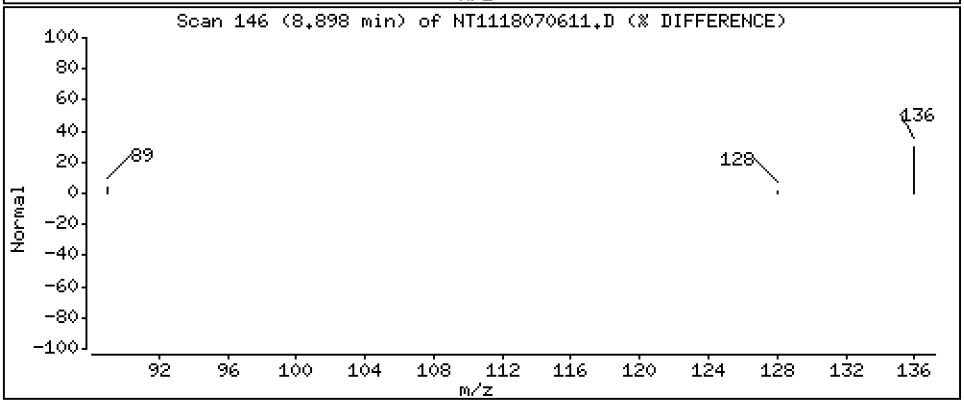












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Date : 06-JUL-2018 18:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05

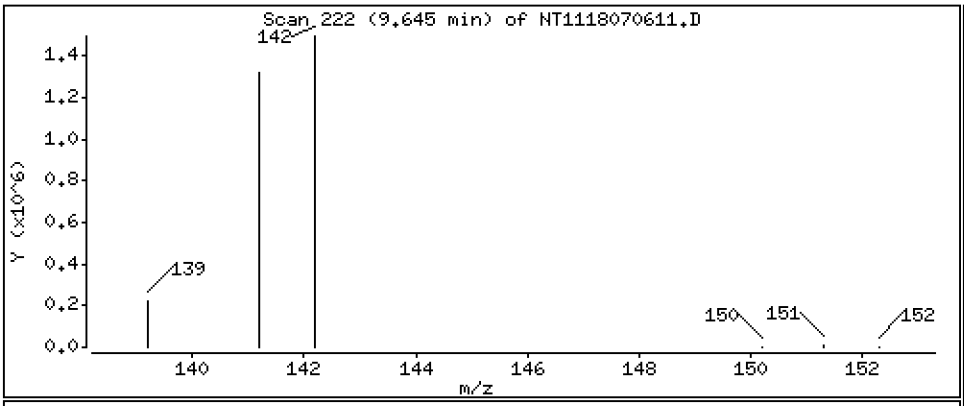
Operator: VTS

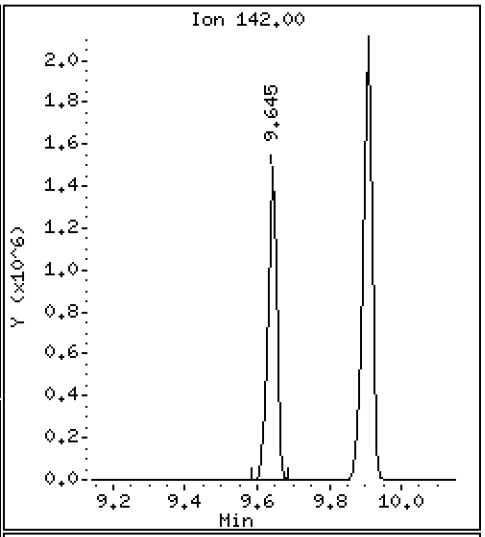
Column phase: Rxi-17Sil MS

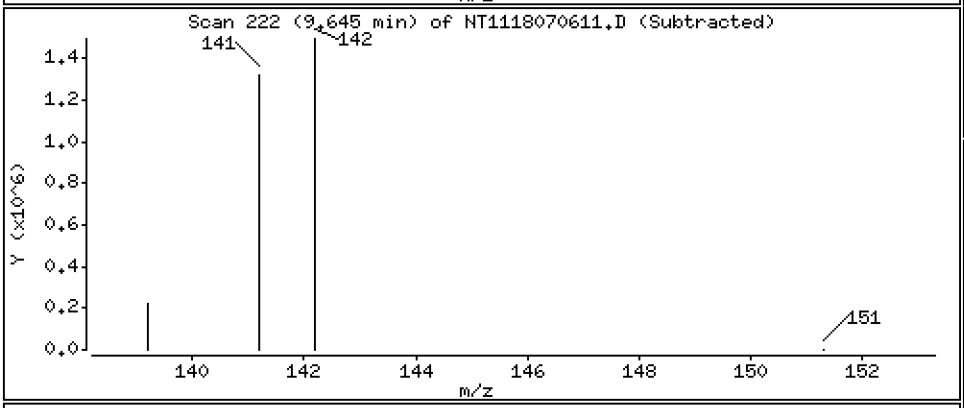
Column diameter: 0.25

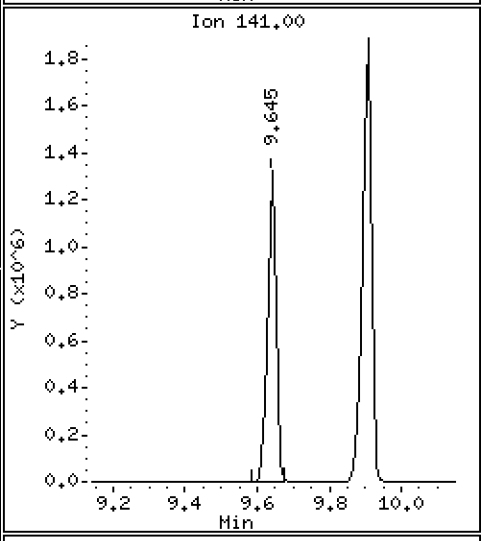
5 2-Methylnaphthalene

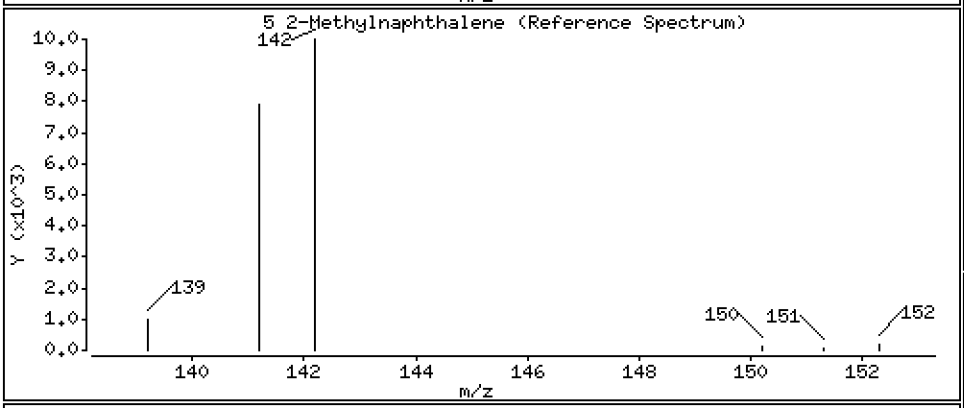
Concentration: 864 ng/mL

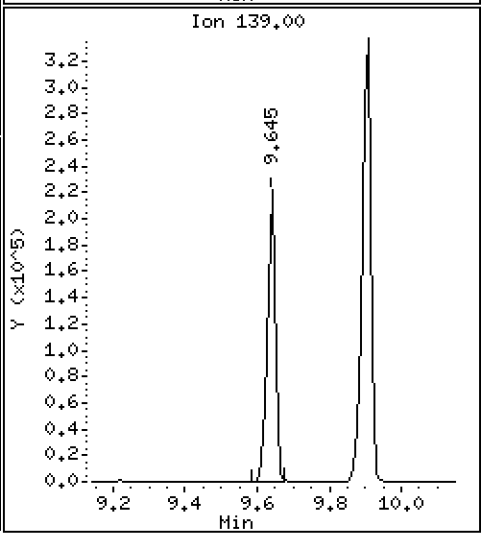


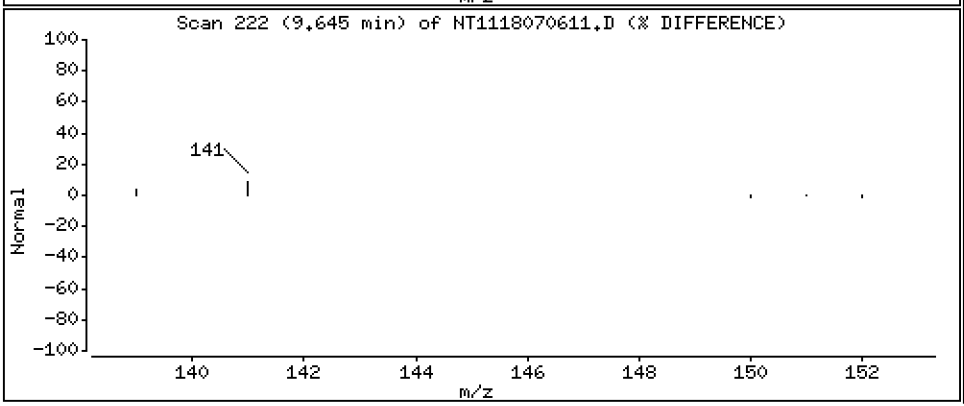












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Date : 06-JUL-2018 18:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05

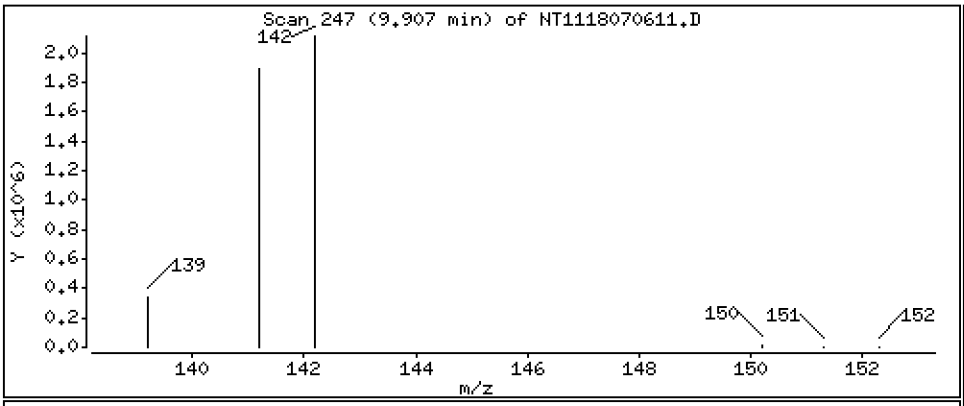
Operator: VTS

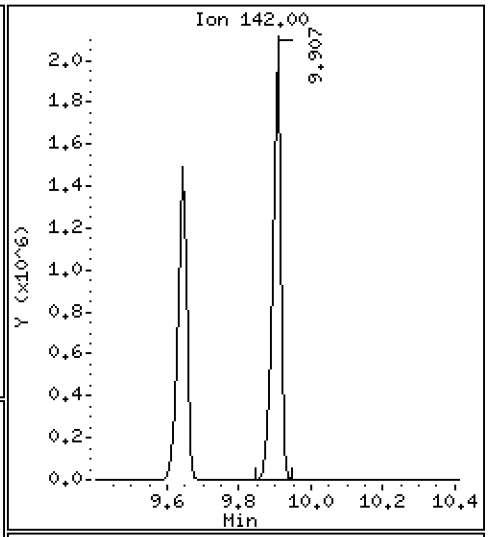
Column phase: Rxi-17Sil MS

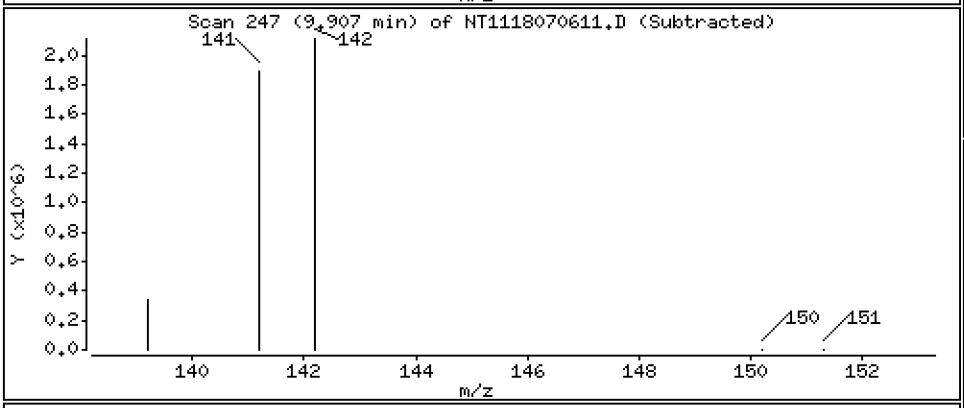
Column diameter: 0.25

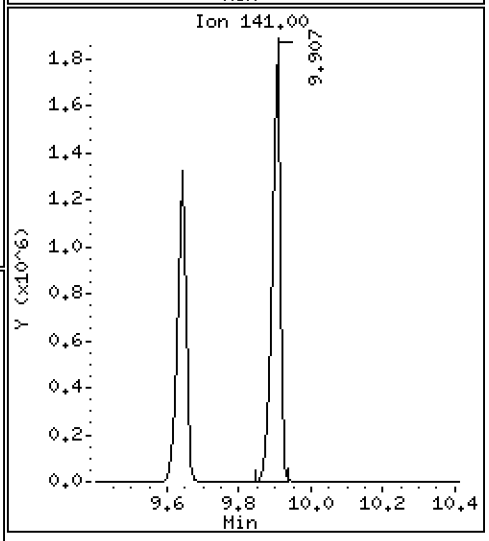
6 1-Methylnaphthalene

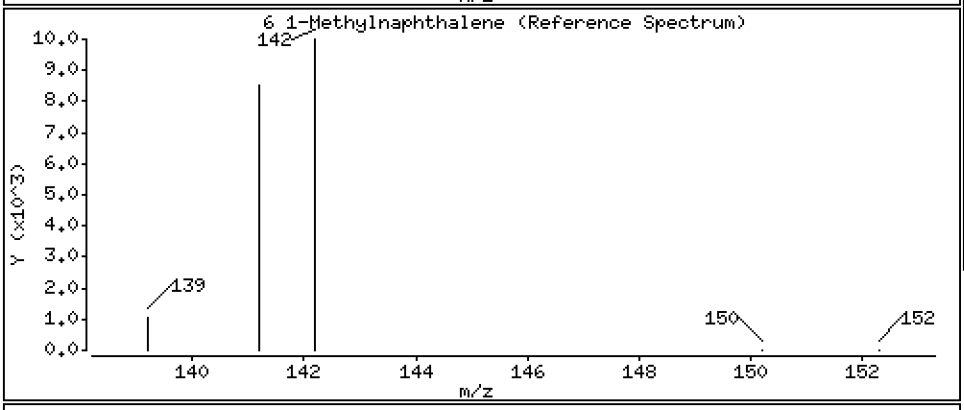
Concentration: 1260 ng/mL

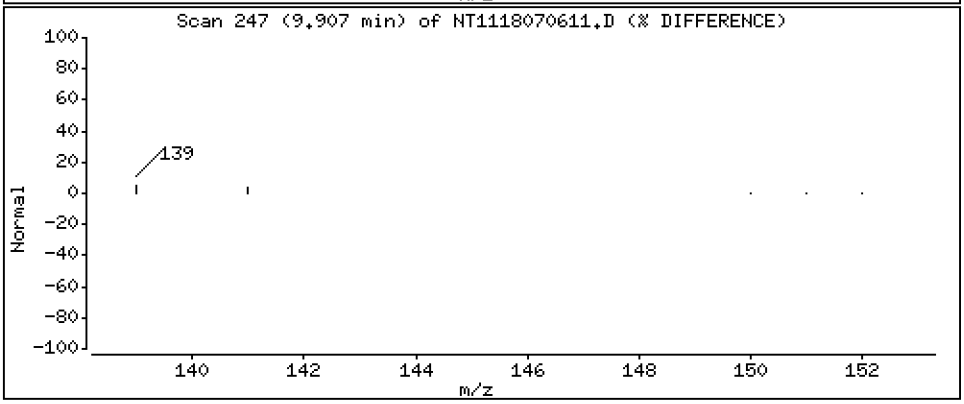












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Date : 06-JUL-2018 18:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05

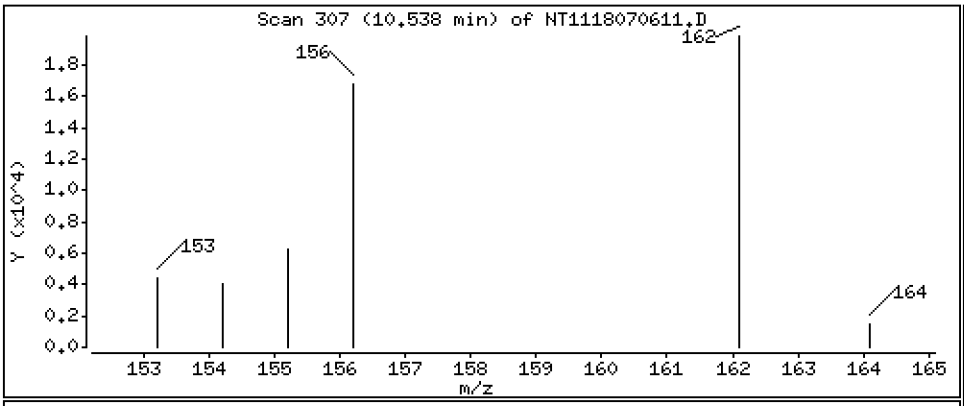
Operator: VTS

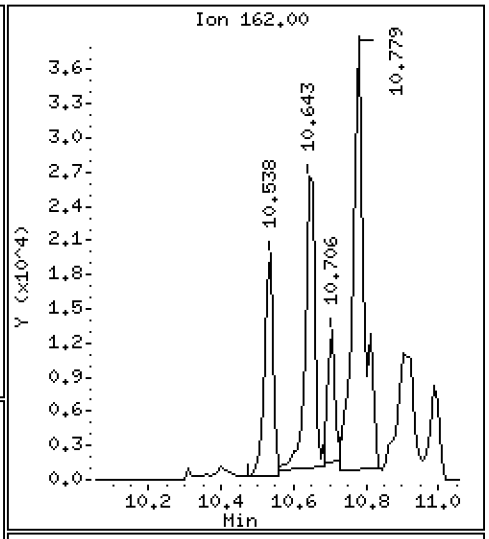
Column phase: Rxi-17Sil MS

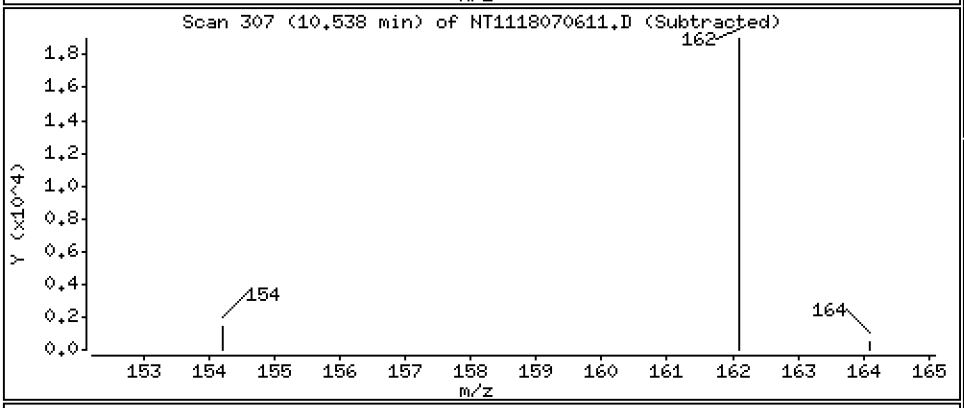
Column diameter: 0.25

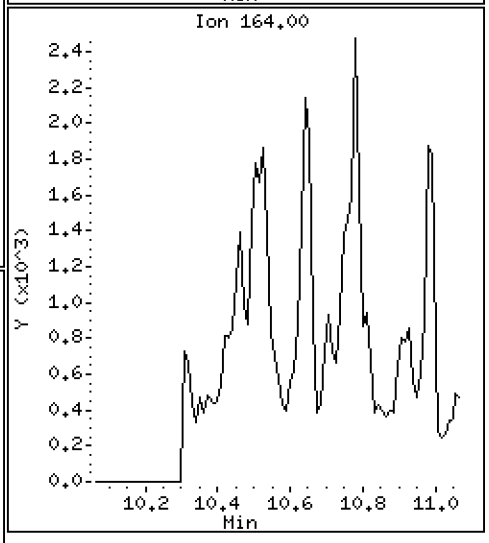
7 2-Chloronaphthalene

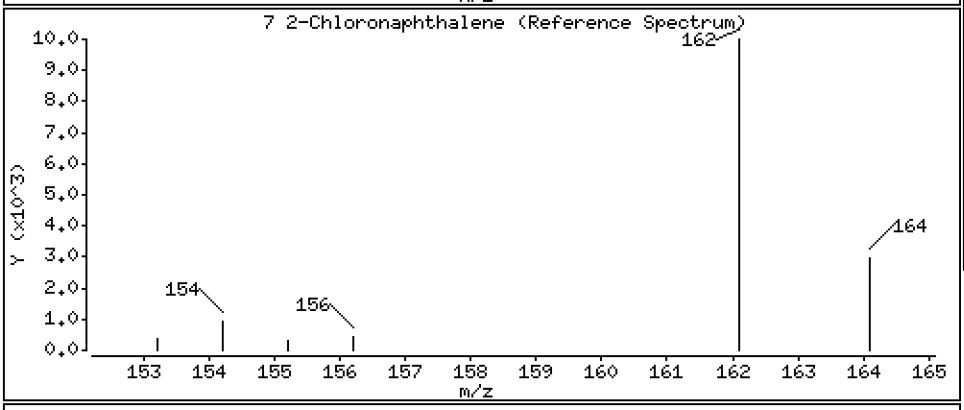
Concentration: 11.9 ng/mL

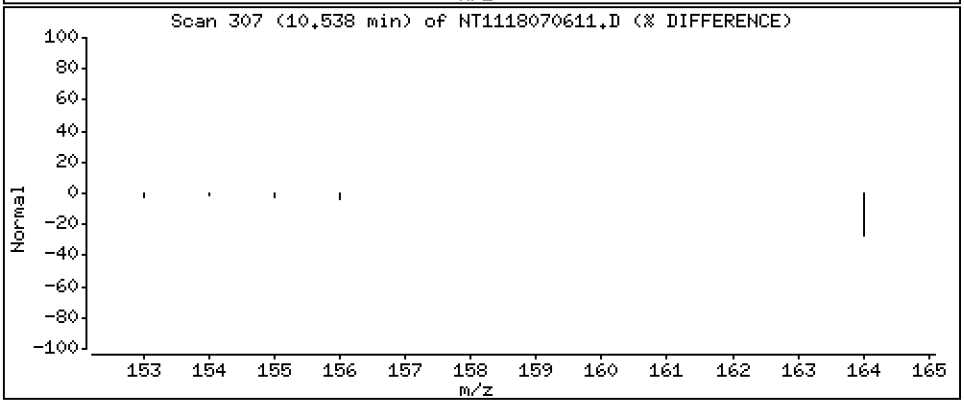












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070611.D

Date : 06-JUL-2018 18:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05

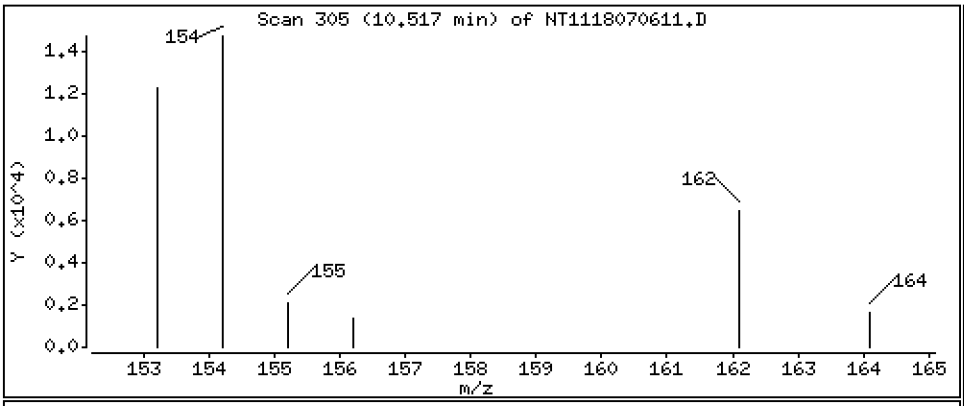
Operator: VTS

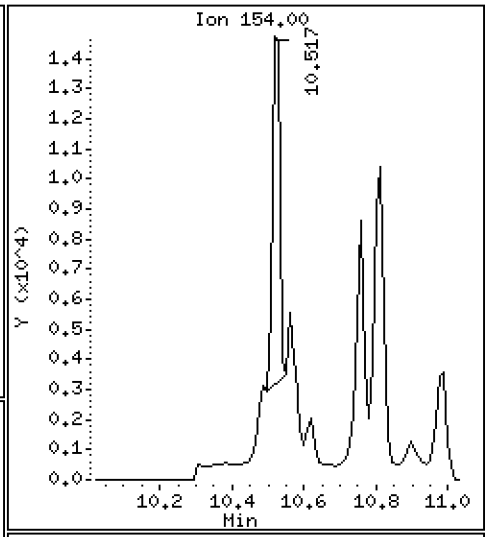
Column phase: Rxi-17Sil MS

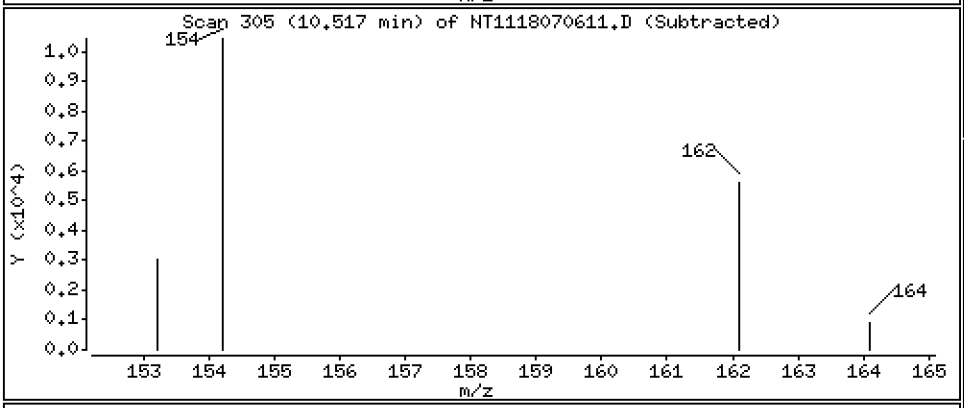
Column diameter: 0.25

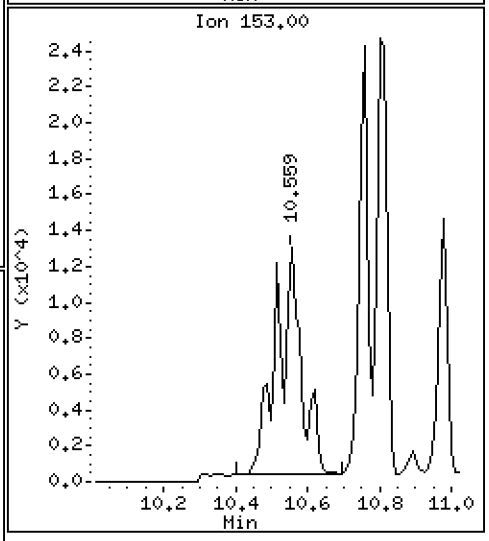
8 Biphenyl

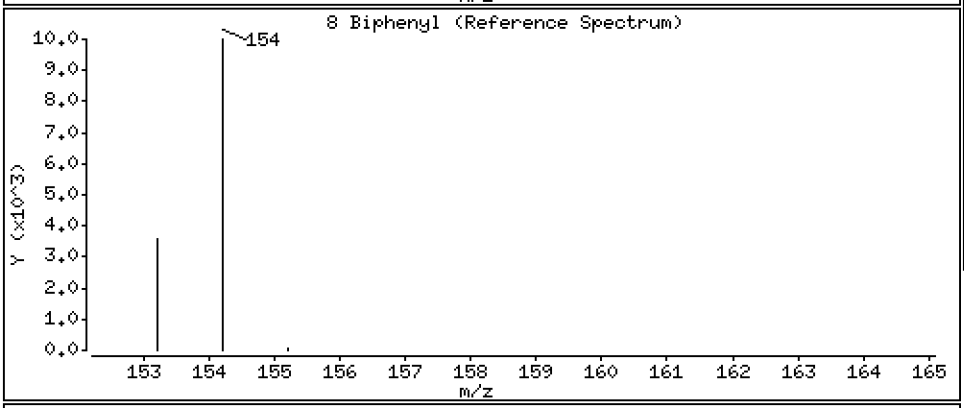
Concentration: 5.07 ng/mL

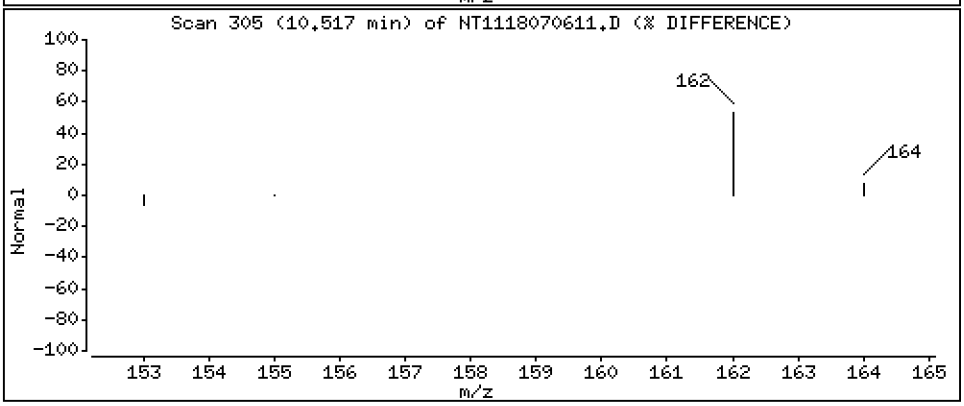












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070611.D

Date : 06-JUL-2018 18:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05

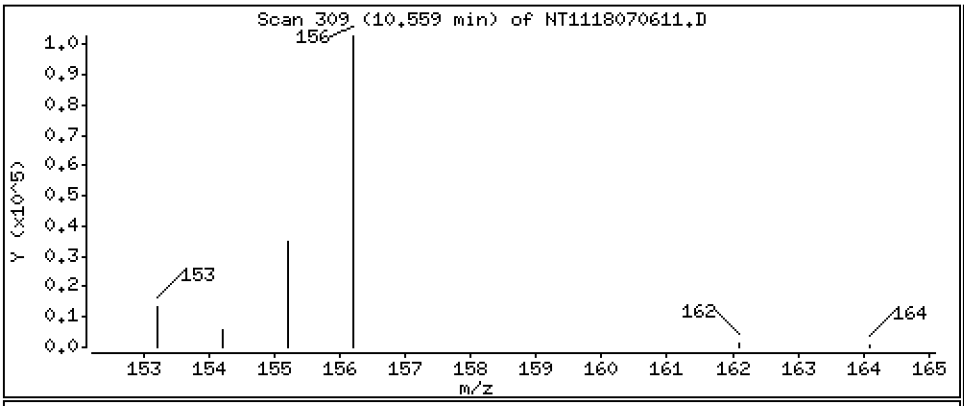
Operator: VTS

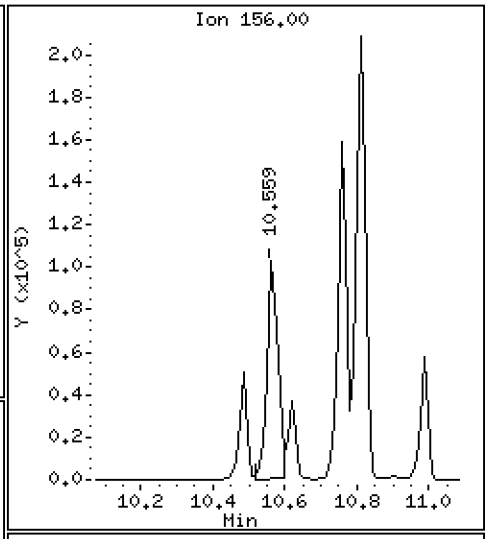
Column phase: Rxi-17Sil MS

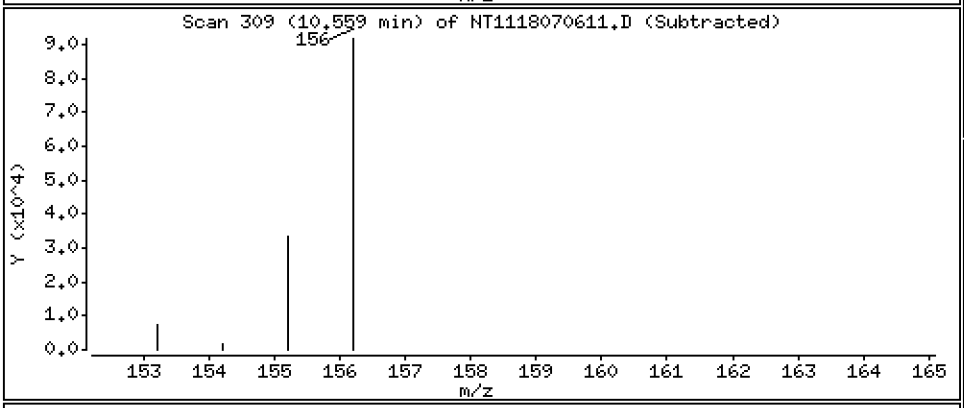
Column diameter: 0.25

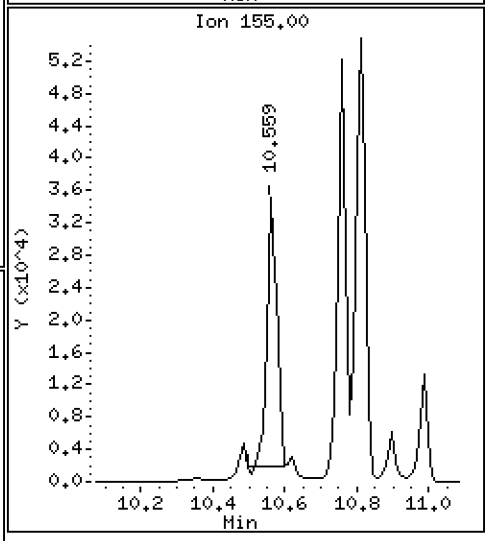
9 2,6-Dimethylnaphthalene

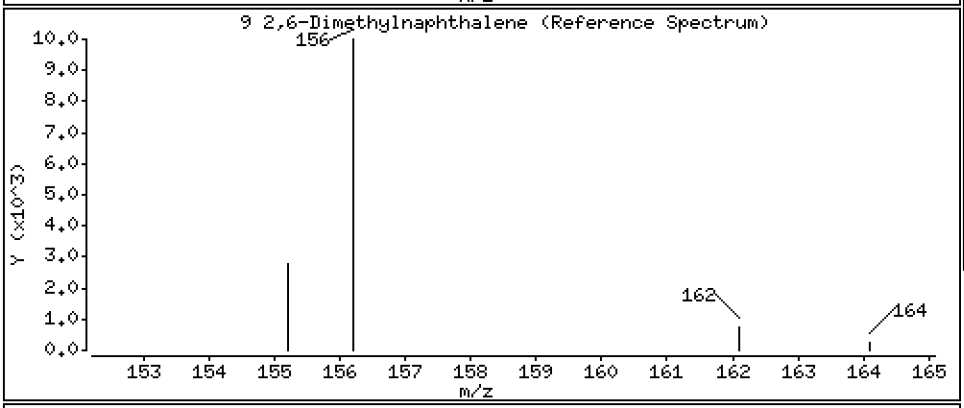
Concentration: 94.0 ng/mL

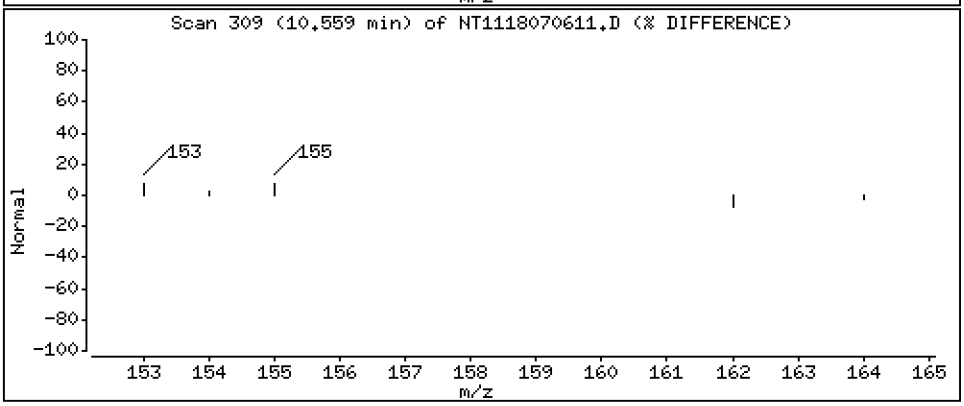












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070611.D

Date : 06-JUL-2018 18:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05

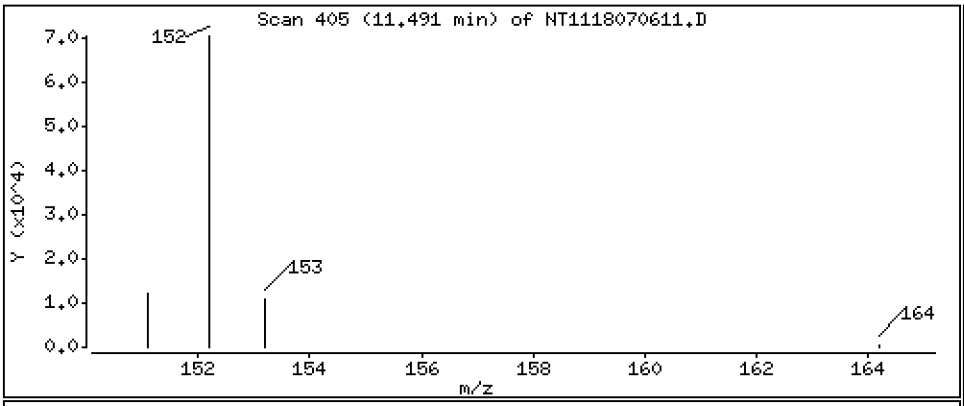
Operator: VTS

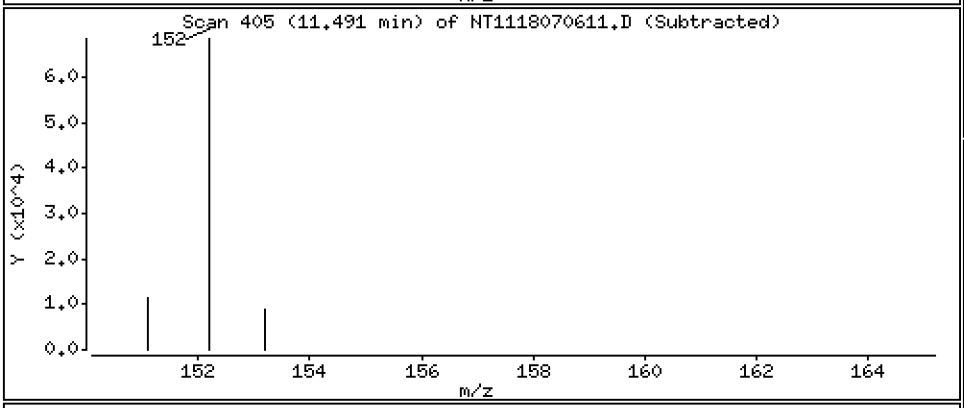
Column phase: Rxi-17Sil MS

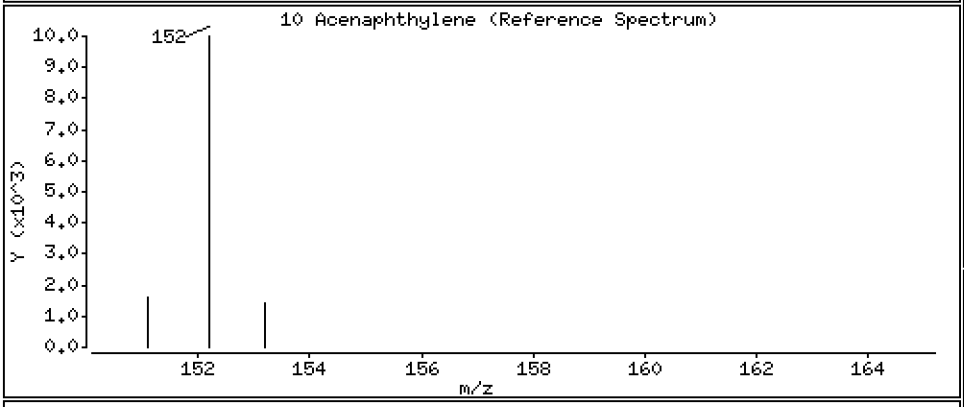
Column diameter: 0.25

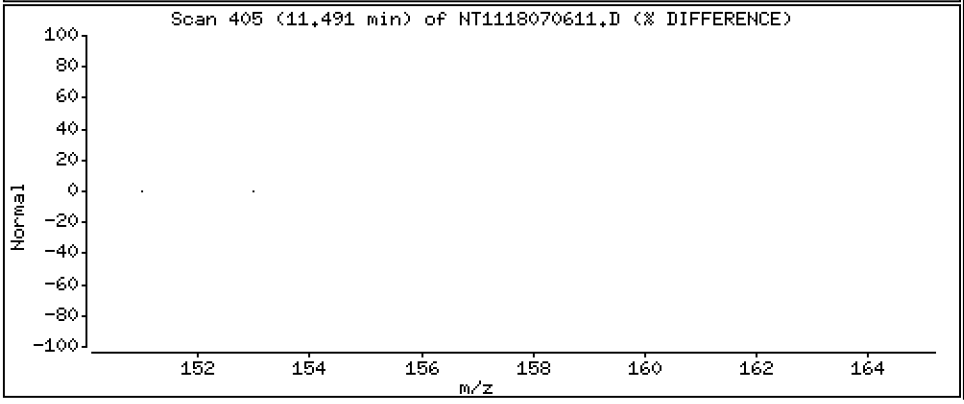
10 Acenaphthylene

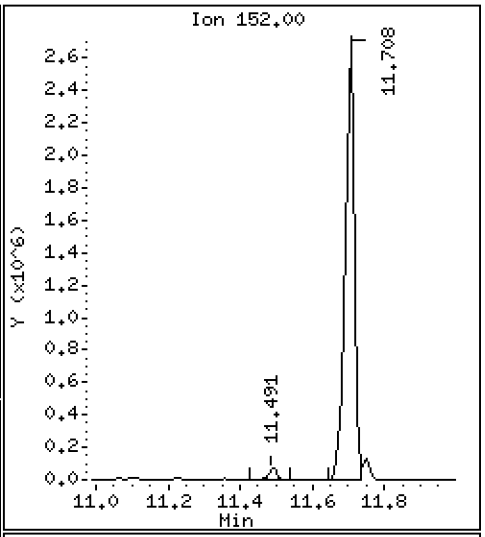
Concentration: 39.5 ng/mL

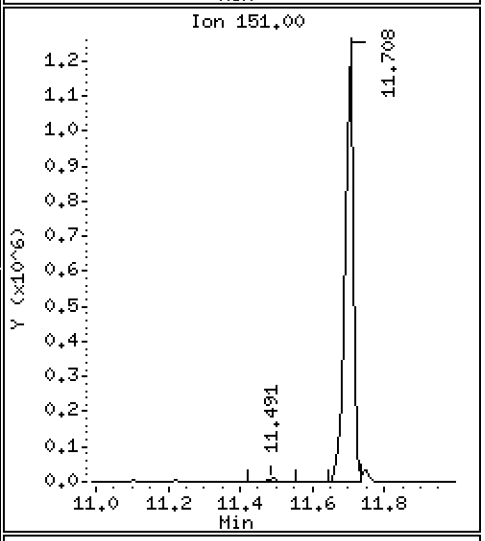


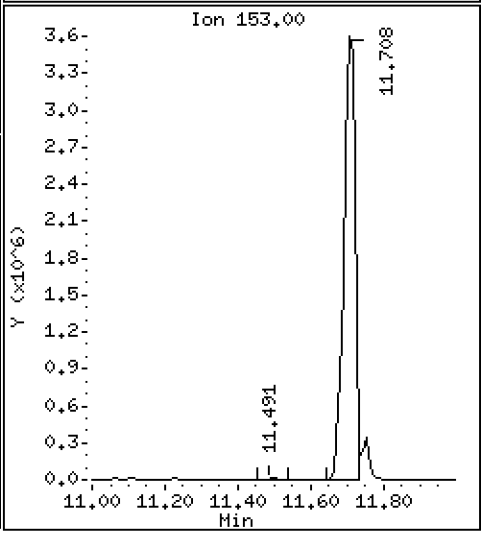












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Date : 06-JUL-2018 18:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05

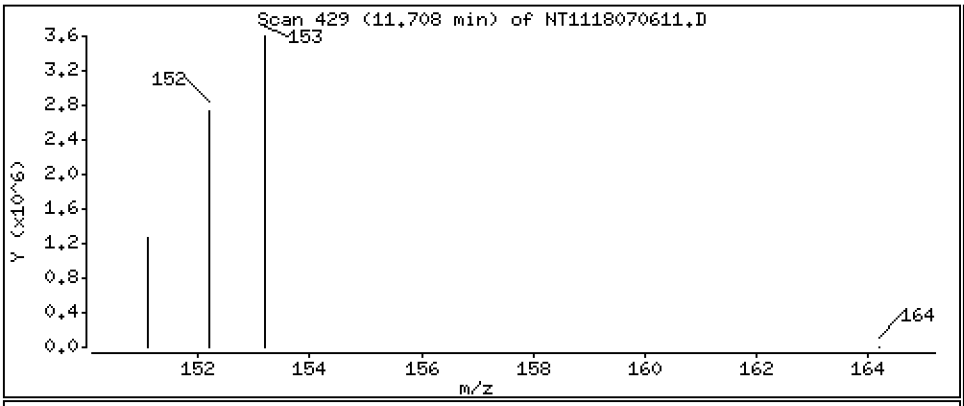
Operator: VTS

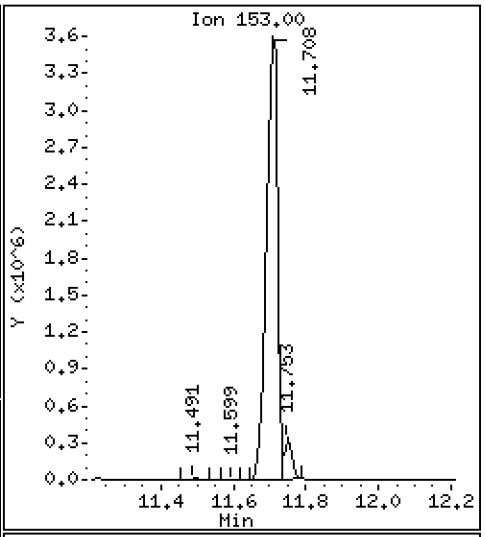
Column phase: Rxi-17Sil MS

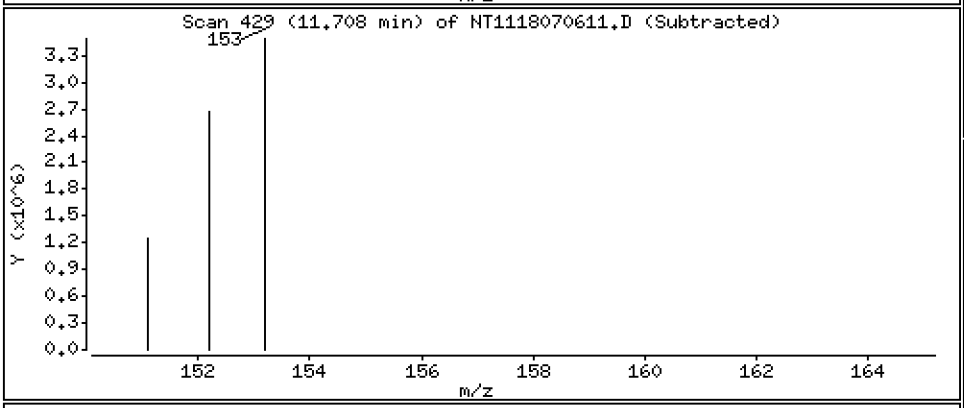
Column diameter: 0.25

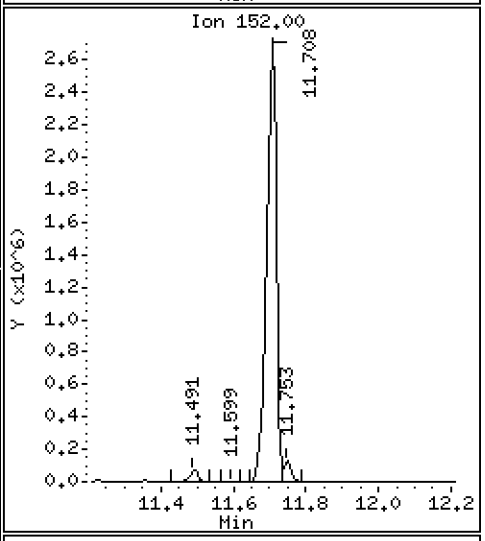
12 Acenaphthene

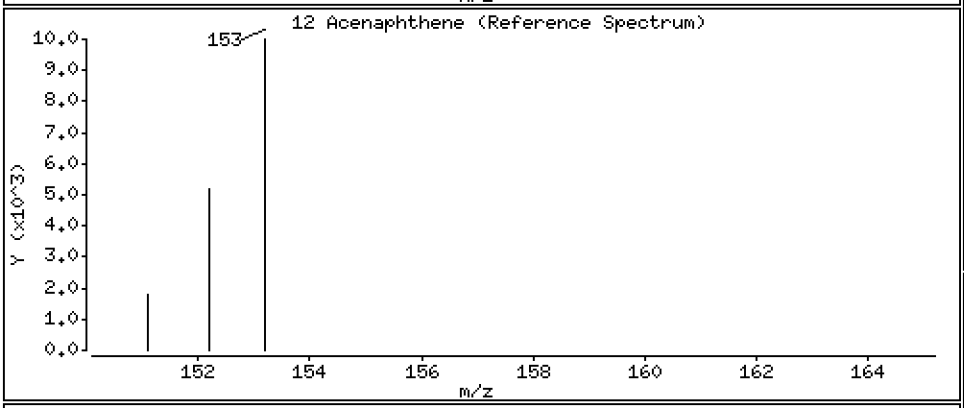
Concentration: 3610 ng/mL

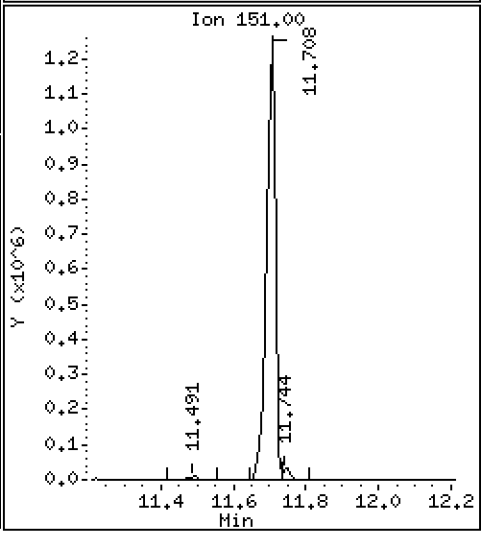


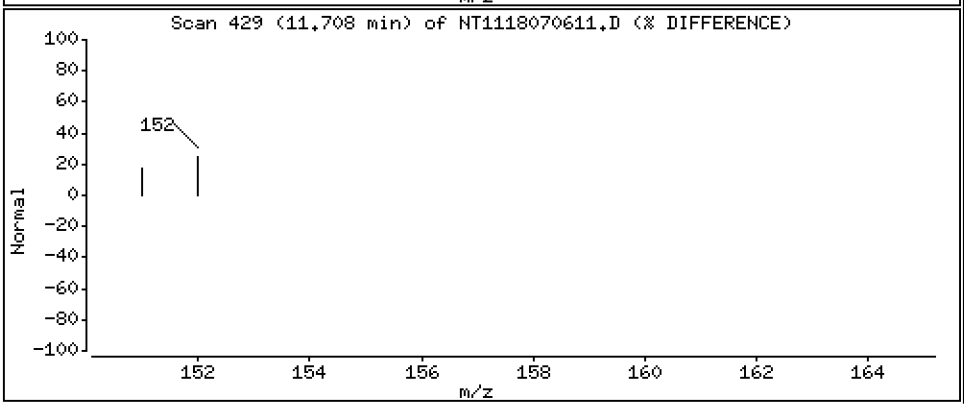












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Date : 06-JUL-2018 18:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05

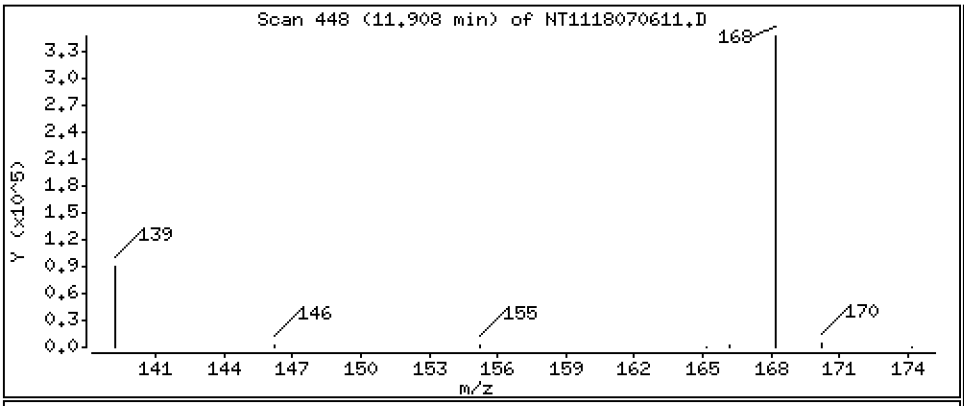
Operator: VTS

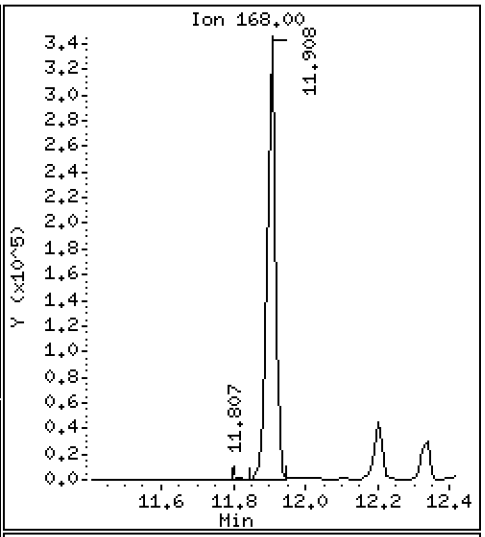
Column phase: Rxi-17Sil MS

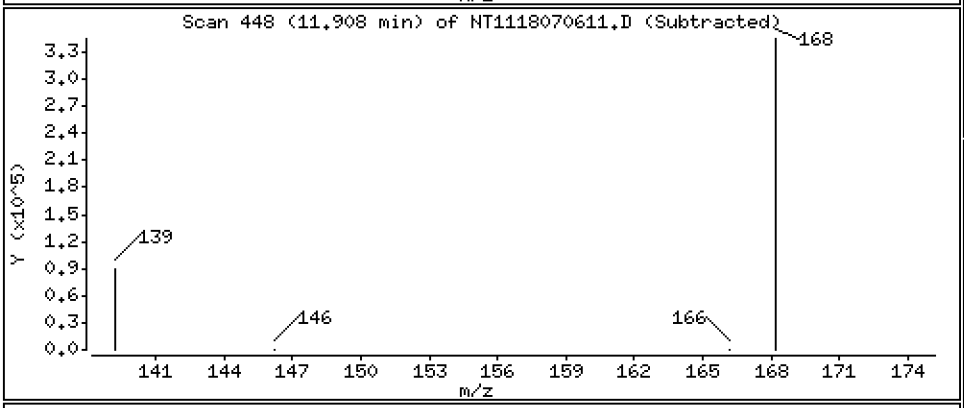
Column diameter: 0.25

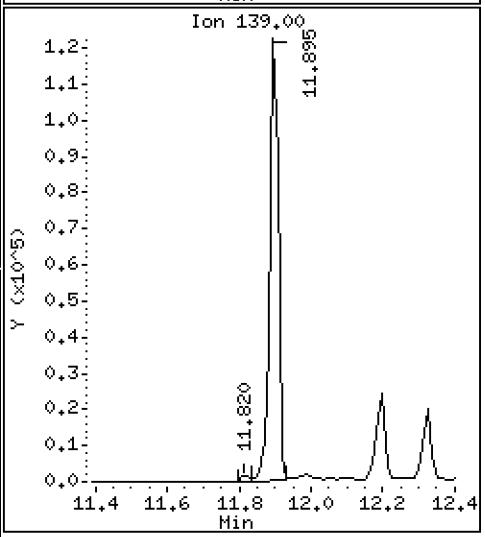
13 Dibenzofuran

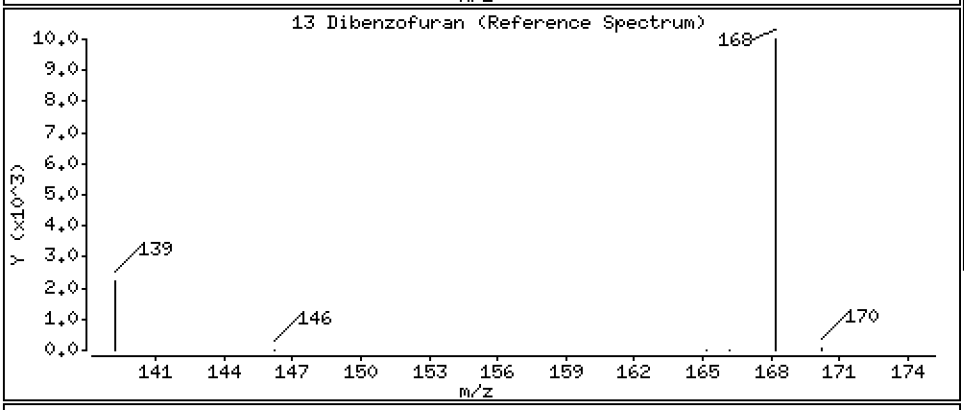
Concentration: 182 ng/mL

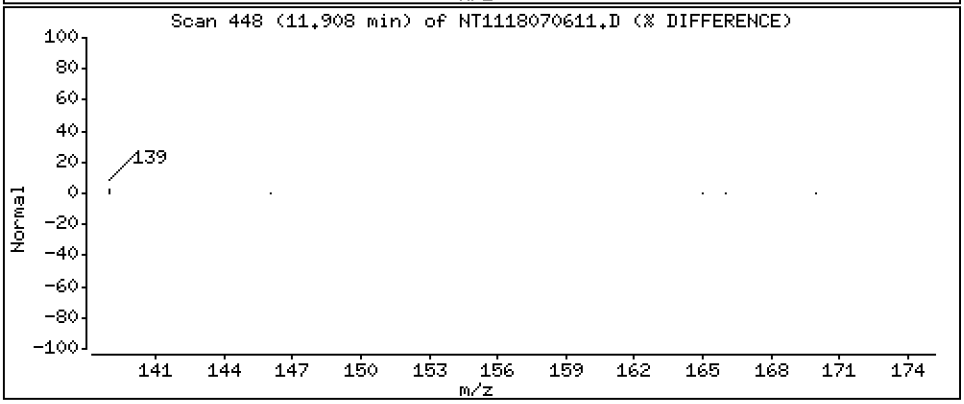












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070611.D

Date : 06-JUL-2018 18:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05

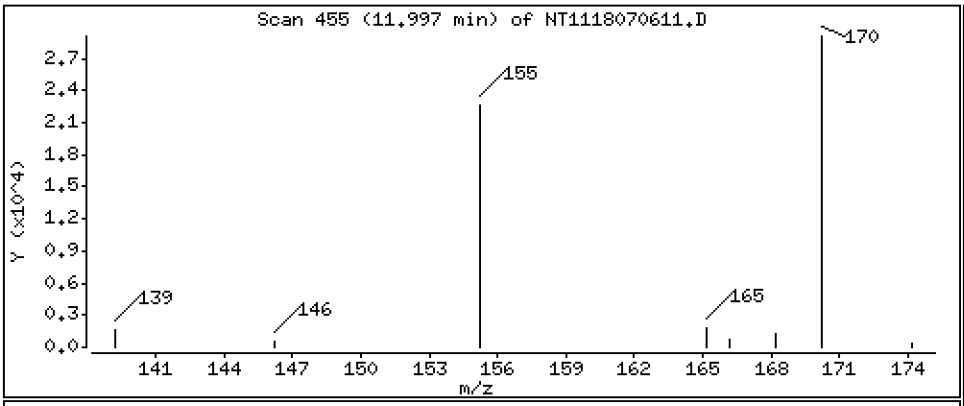
Operator: VTS

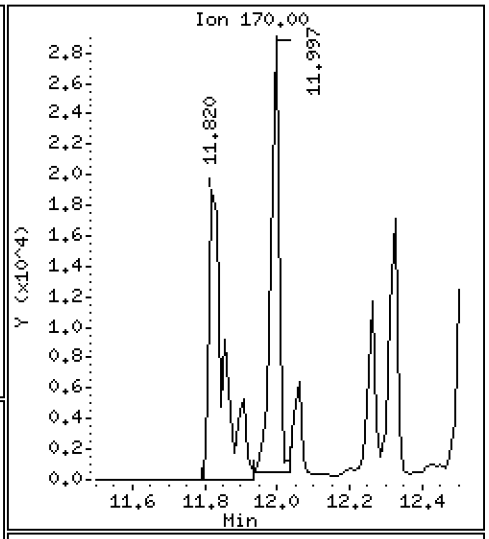
Column phase: Rxi-17Sil MS

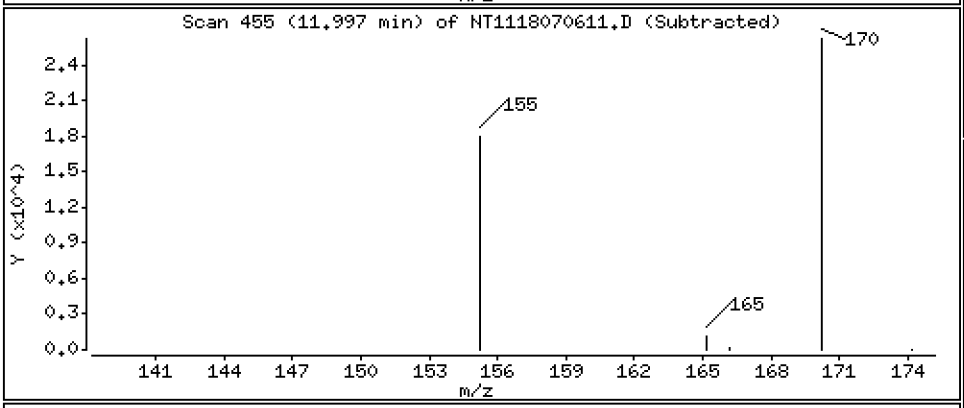
Column diameter: 0.25

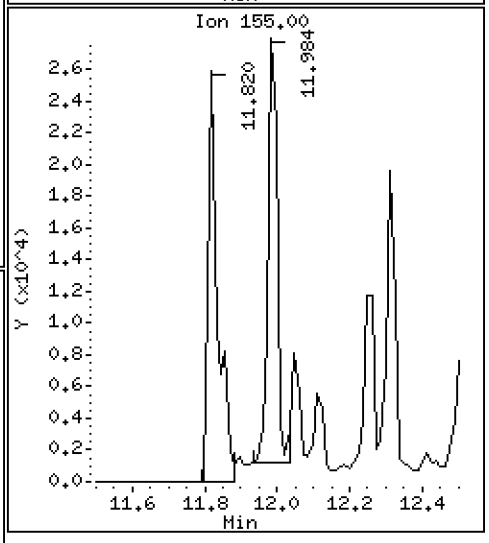
14 2,3,5-Trimethylnaphthalene

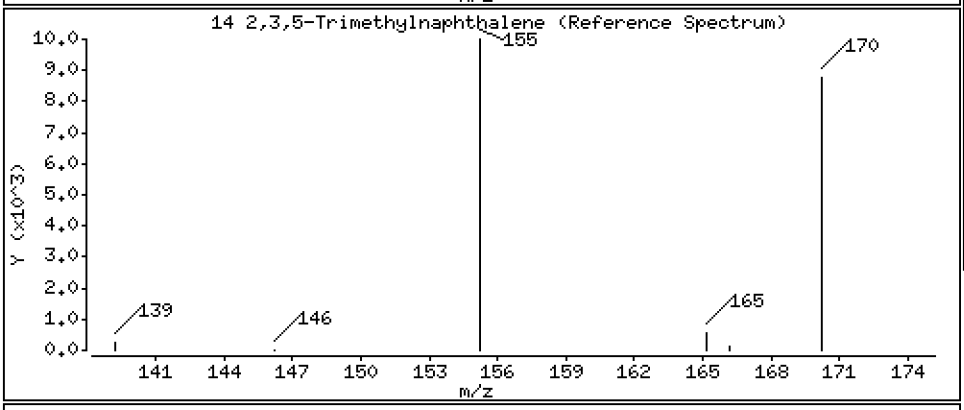
Concentration: 25.0 ng/mL

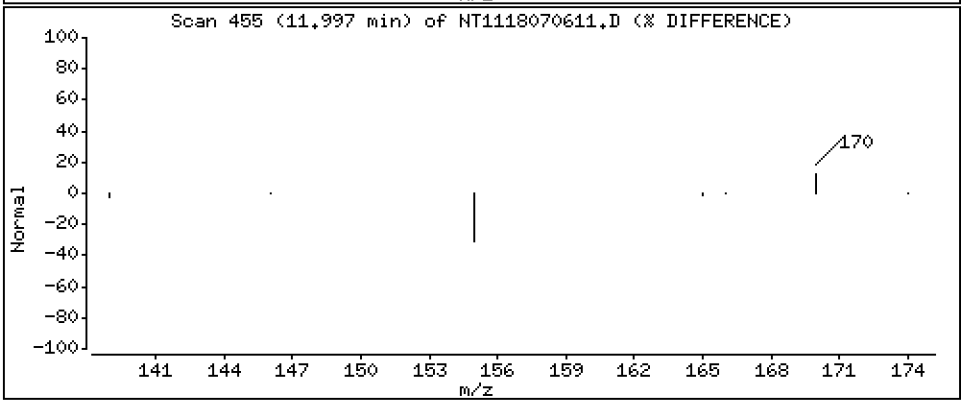












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070611.D

Date : 06-JUL-2018 18:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05

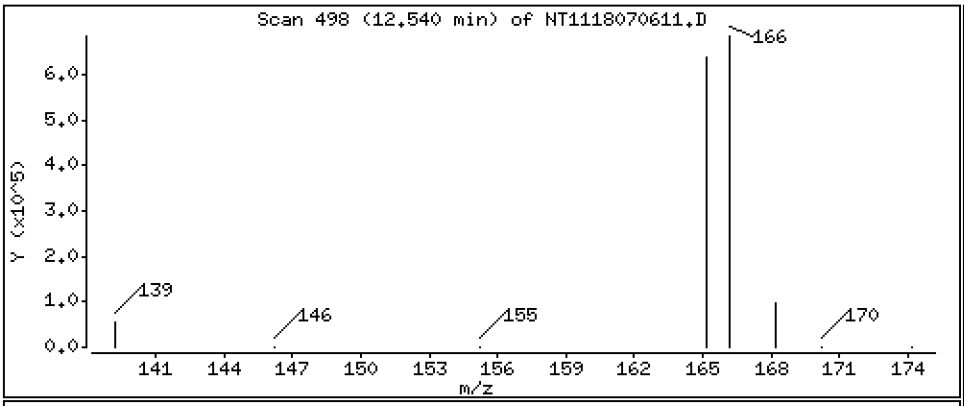
Operator: VTS

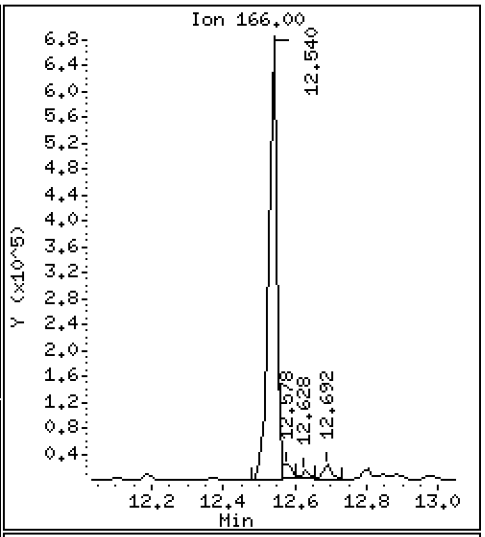
Column phase: Rxi-17Sil MS

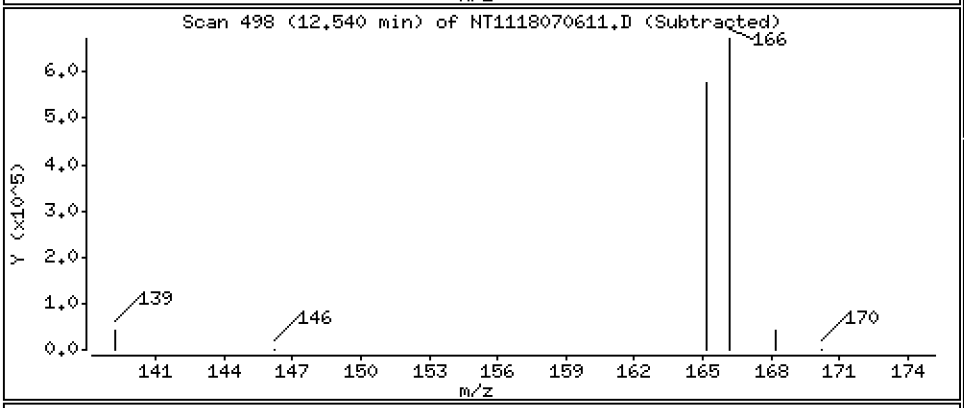
Column diameter: 0.25

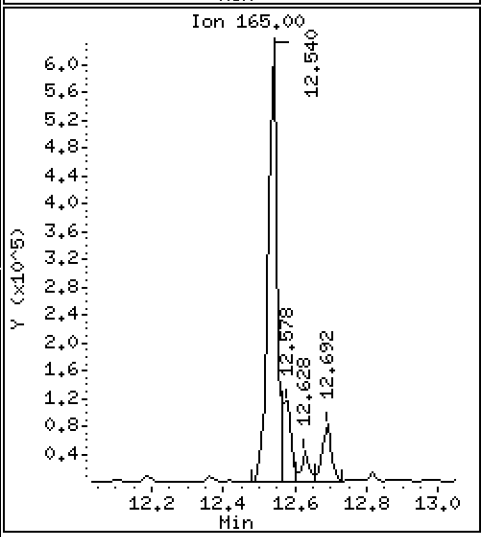
16 Fluorene

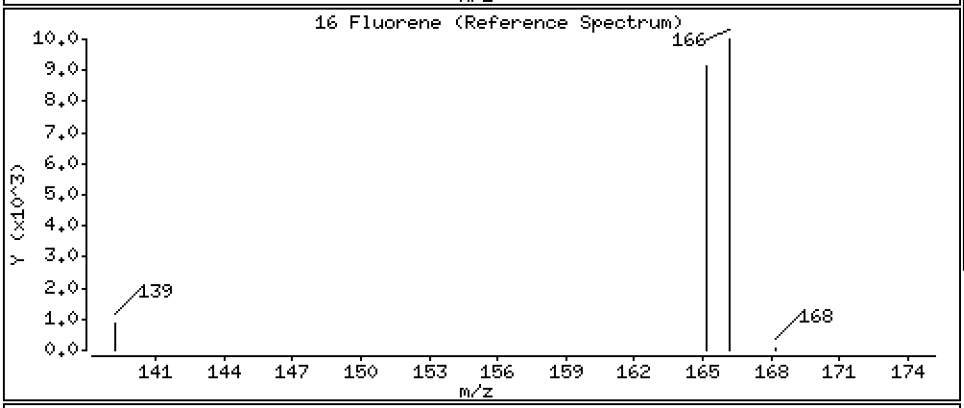
Concentration: 450 ng/mL

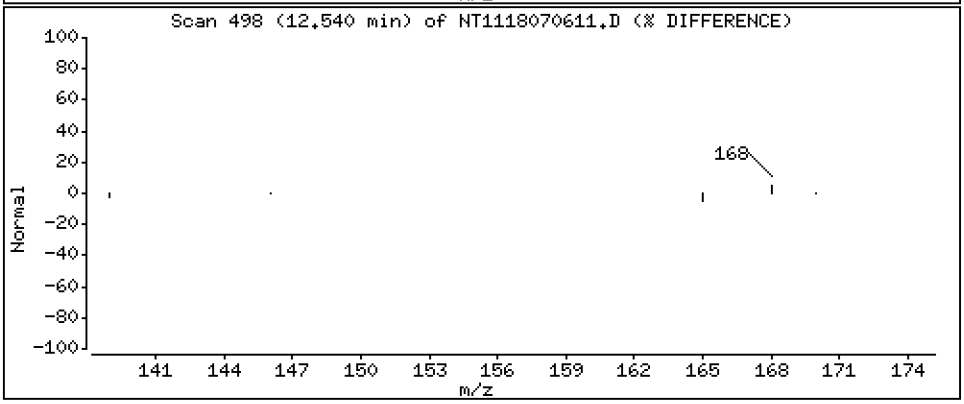












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Date : 06-JUL-2018 18:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05

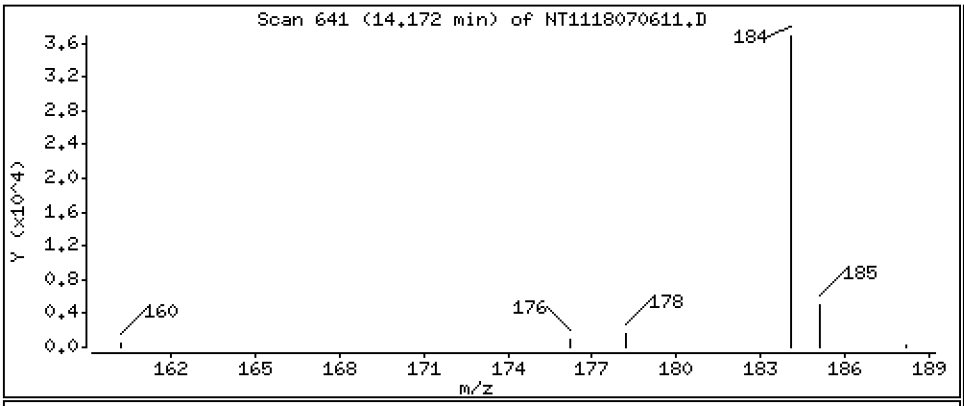
Operator: VTS

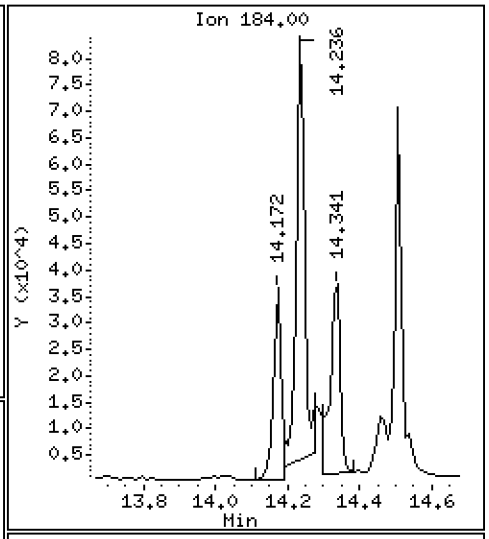
Column phase: Rxi-17Sil MS

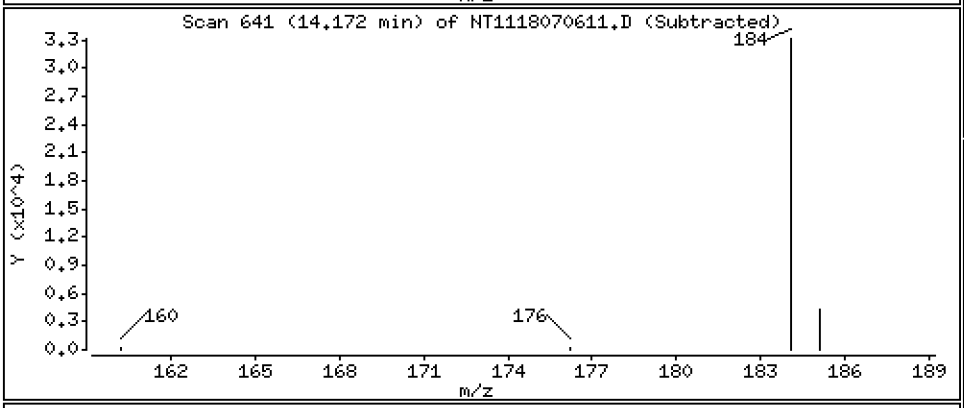
Column diameter: 0.25

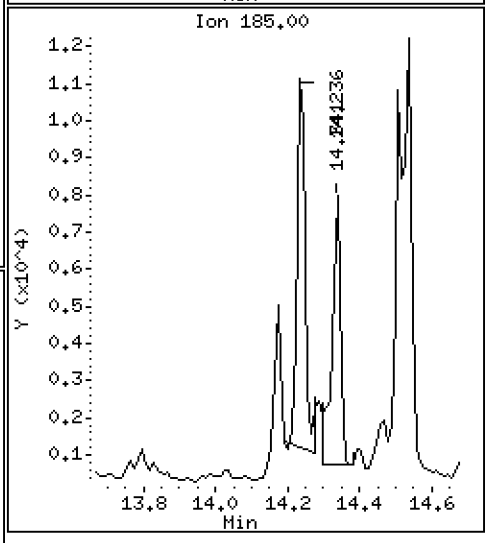
17 Dibenzothiophene

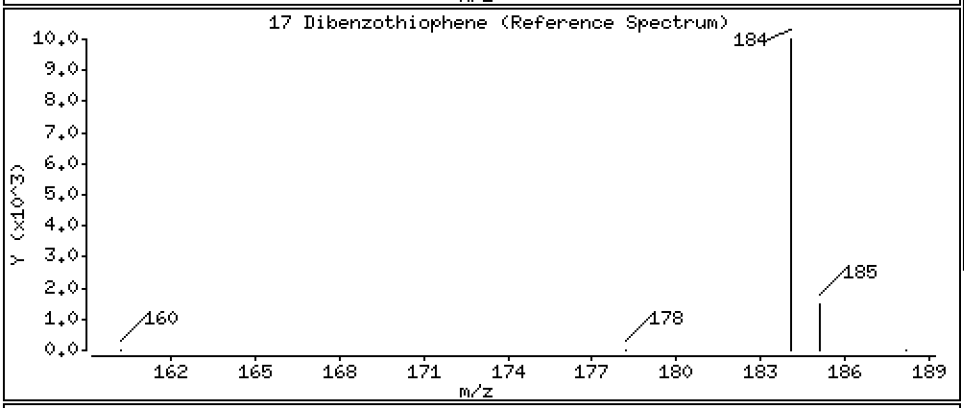
Concentration: 23.9 ng/mL

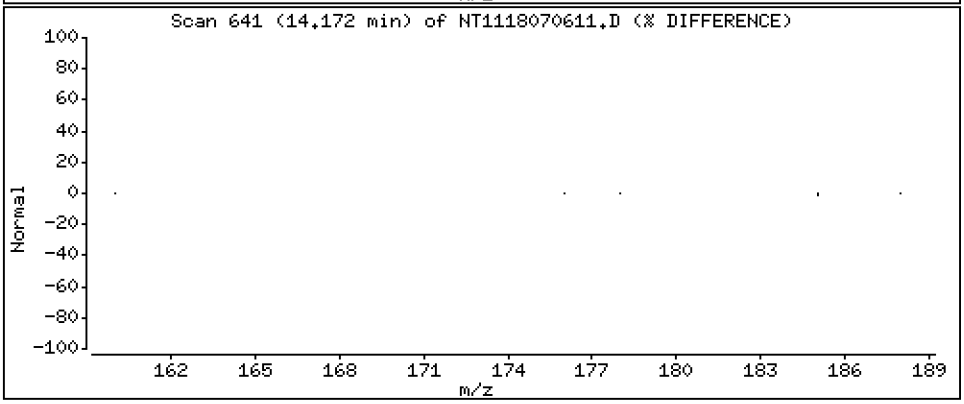












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Date : 06-JUL-2018 18:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05

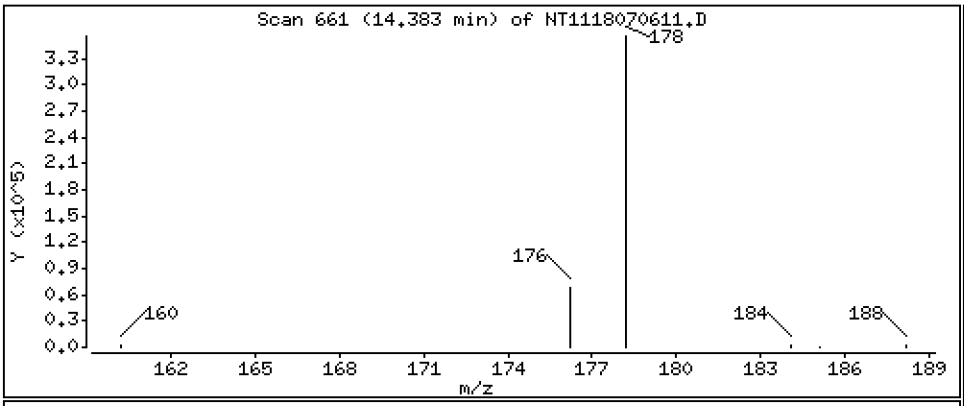
Operator: VTS

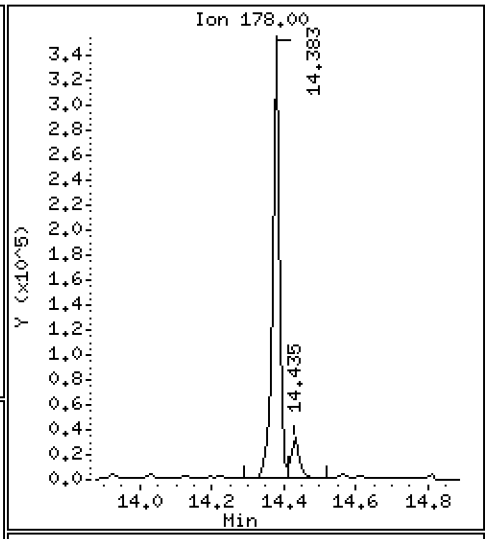
Column phase: Rxi-17Sil MS

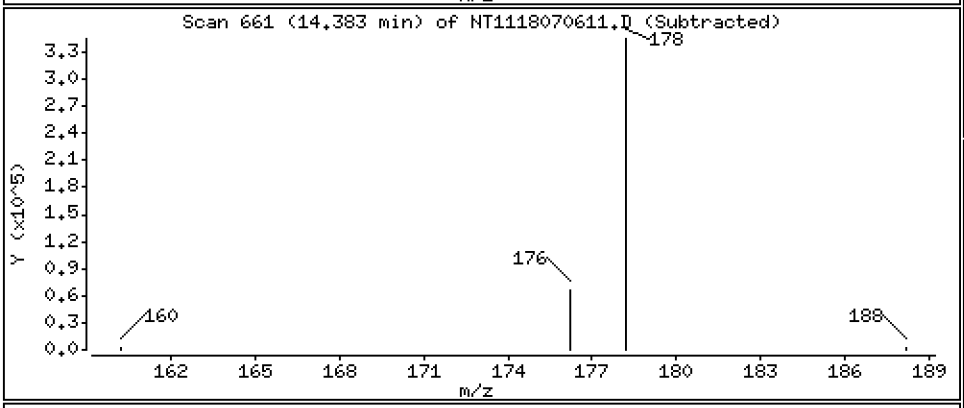
Column diameter: 0.25

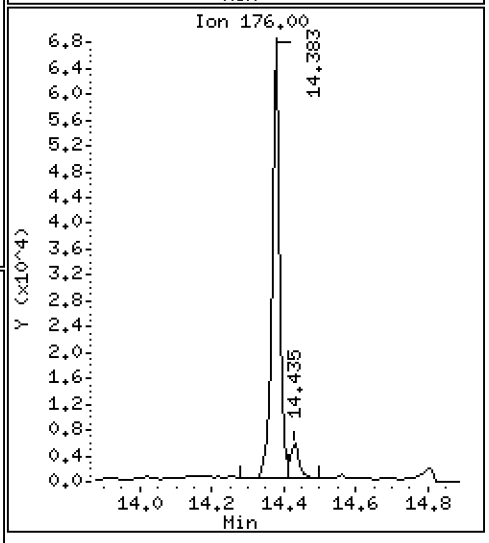
19 Phenanthrene

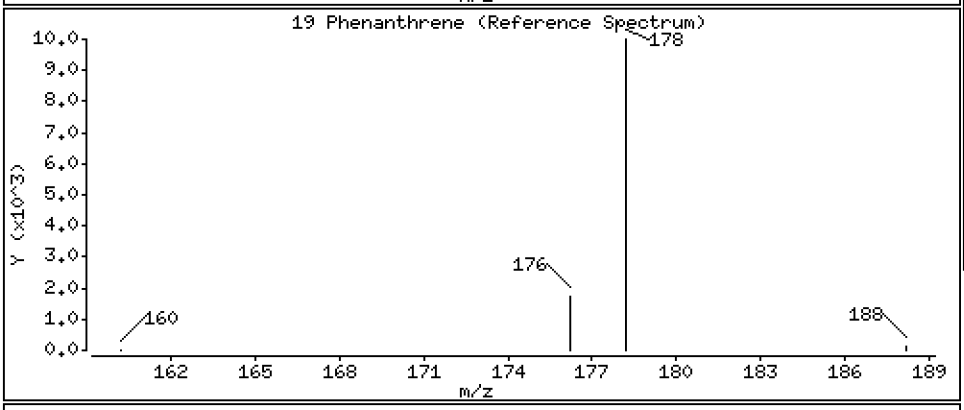
Concentration: 165 ng/mL

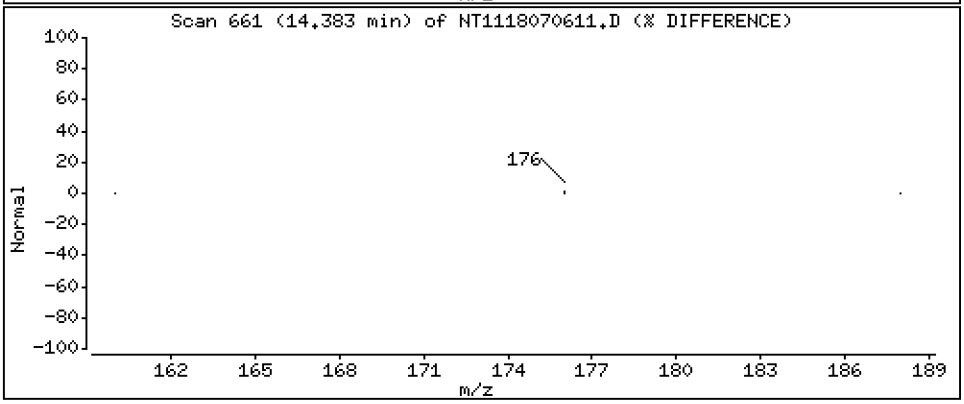












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Date : 06-JUL-2018 18:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05

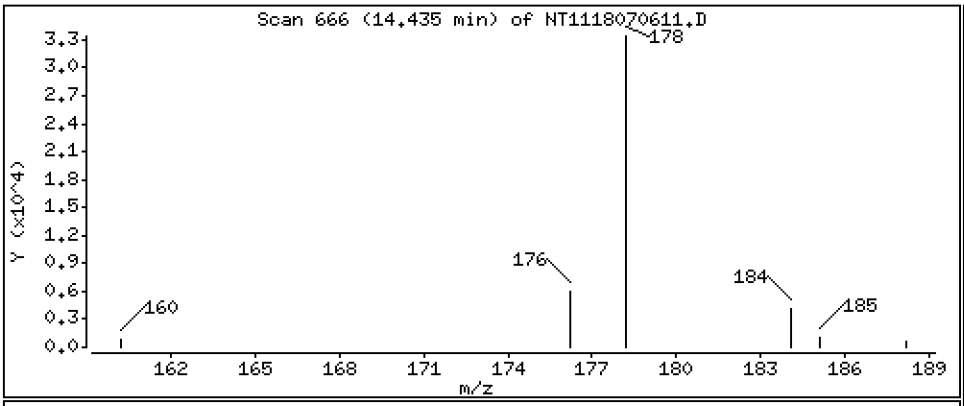
Operator: VTS

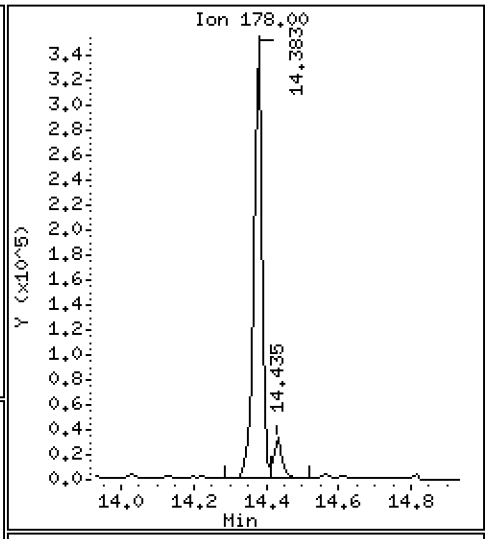
Column phase: Rxi-17Sil MS

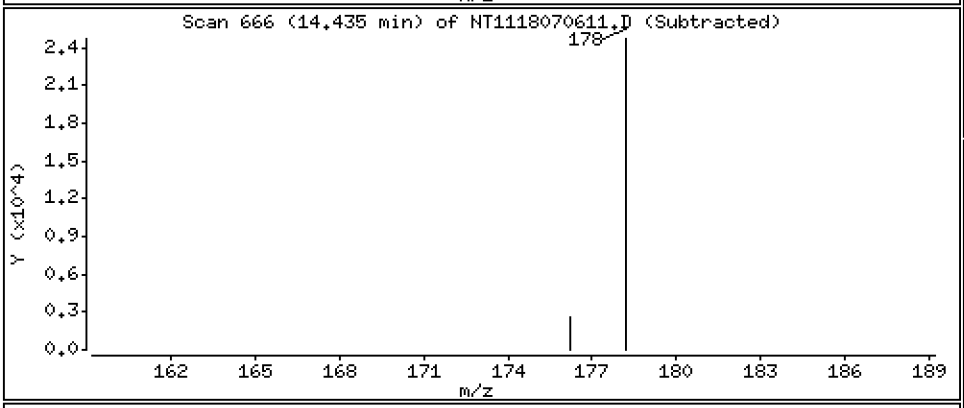
Column diameter: 0.25

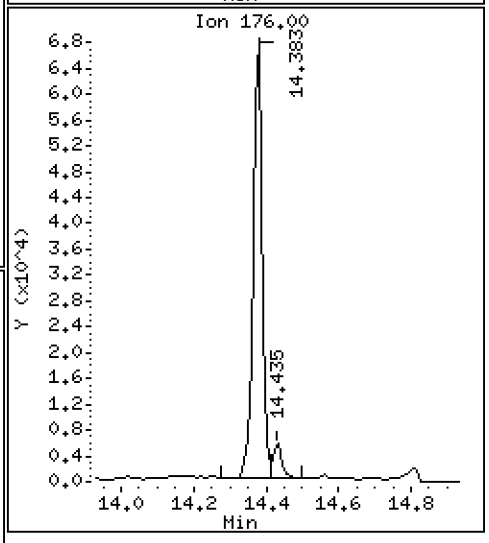
21 Anthracene

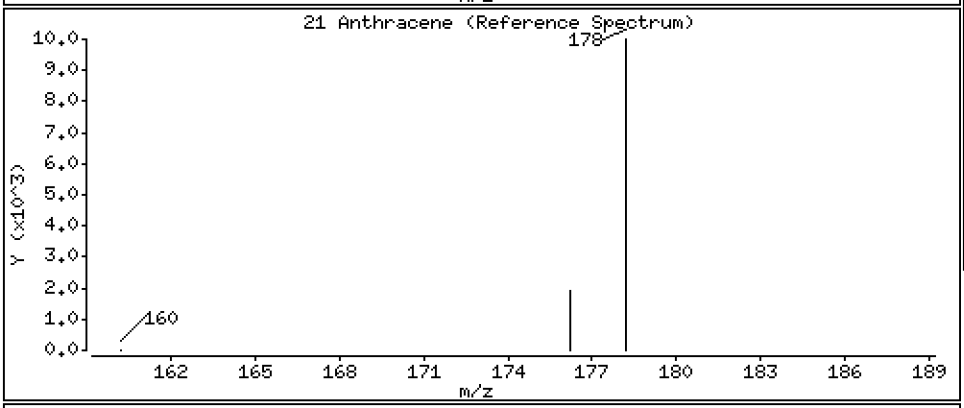
Concentration: 16.6 ng/mL

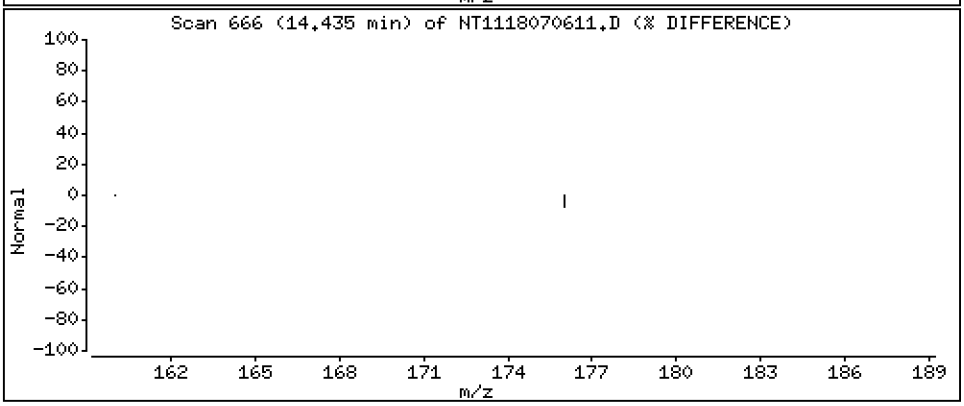












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Date : 06-JUL-2018 18:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05

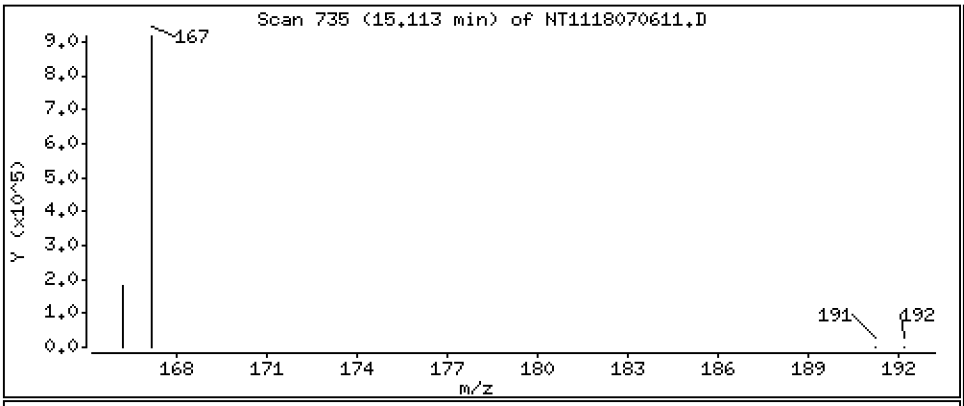
Operator: VTS

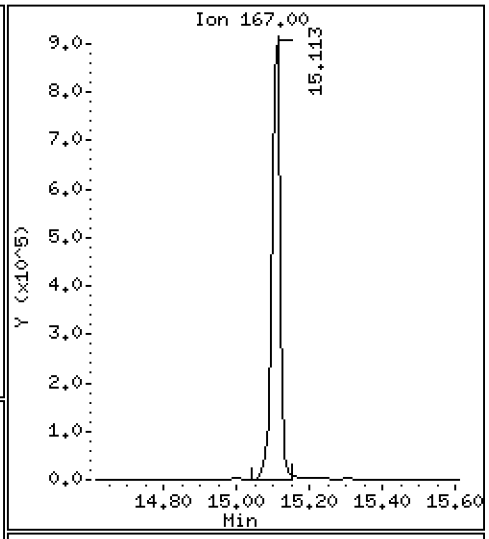
Column phase: Rxi-17Sil MS

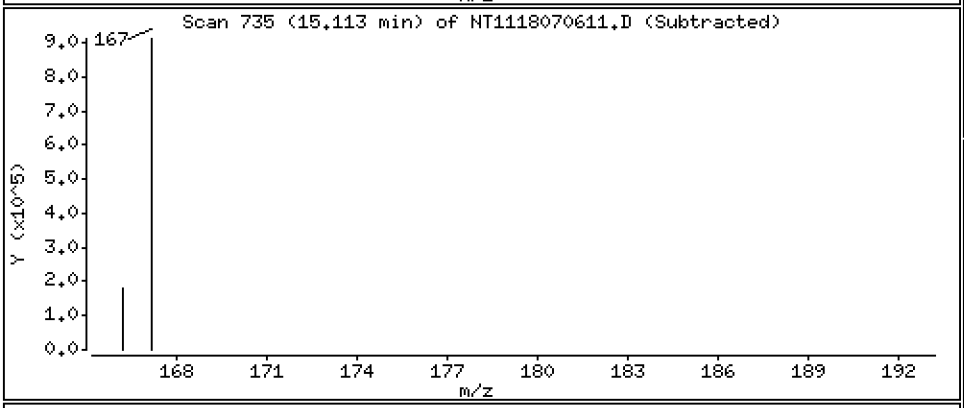
Column diameter: 0.25

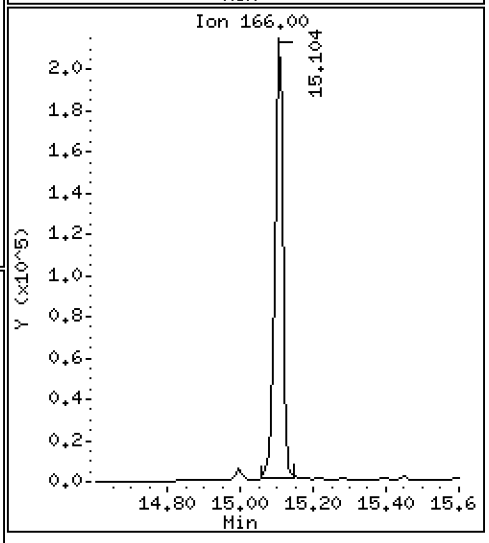
22 Carbazole

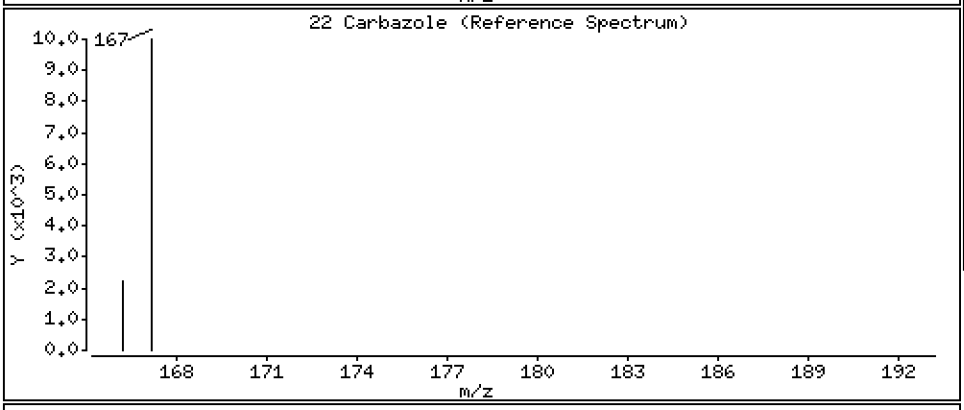
Concentration: 402 ng/mL

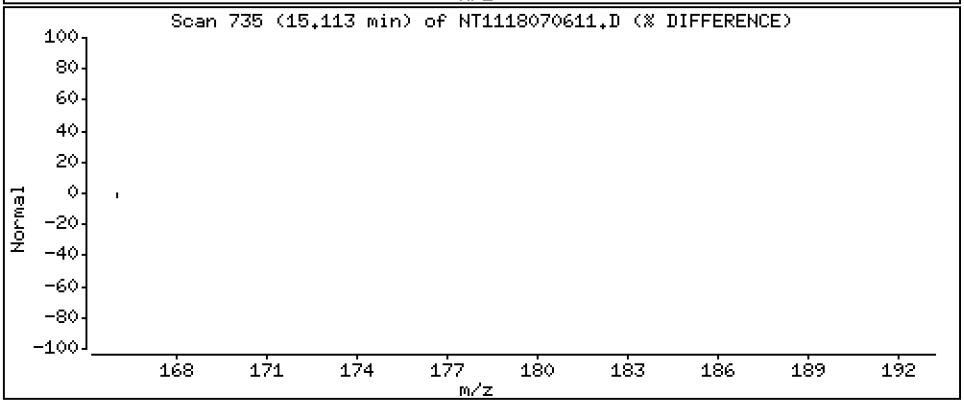












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Date : 06-JUL-2018 18:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05

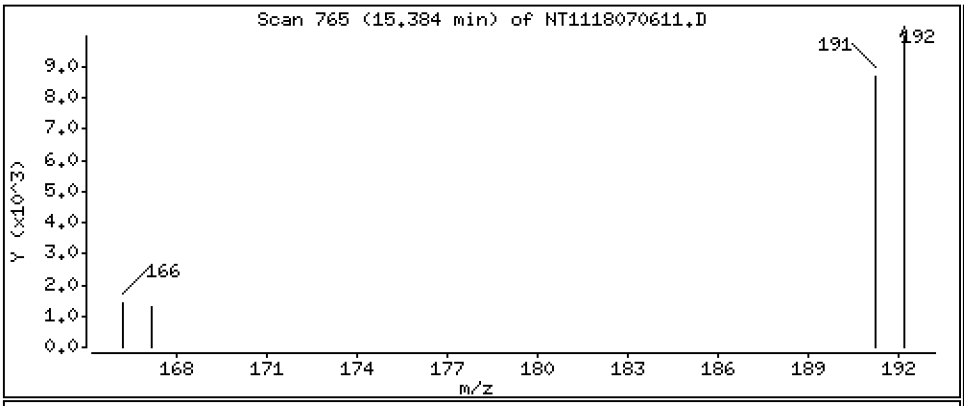
Operator: VTS

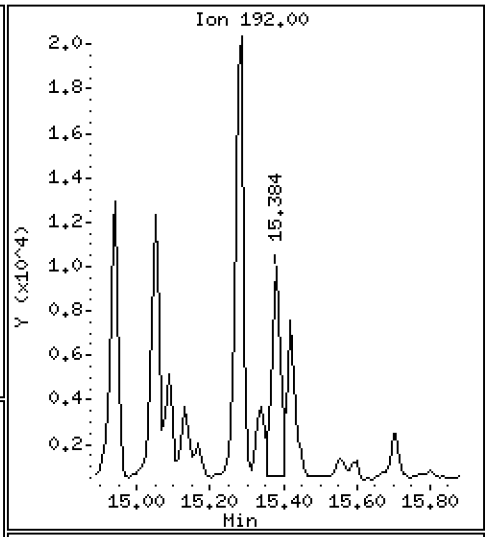
Column phase: Rxi-17Sil MS

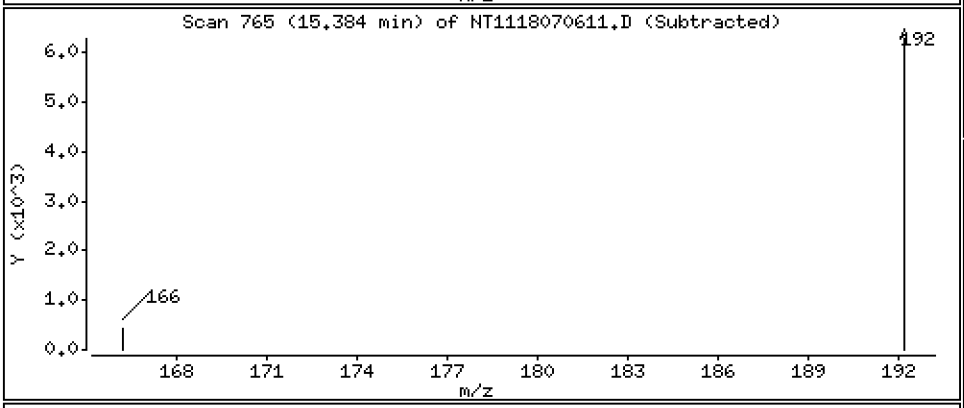
Column diameter: 0.25

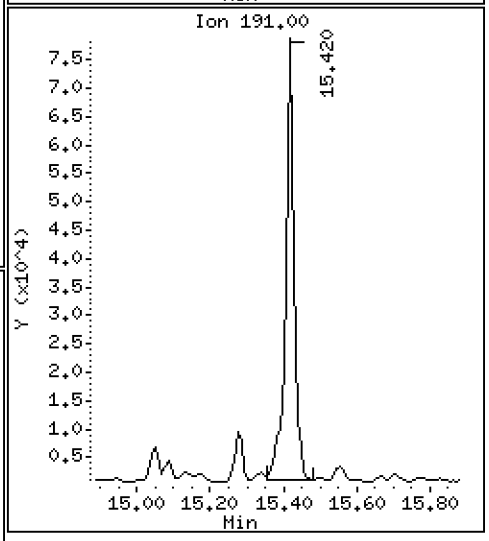
23 1-Methylphenanthrene

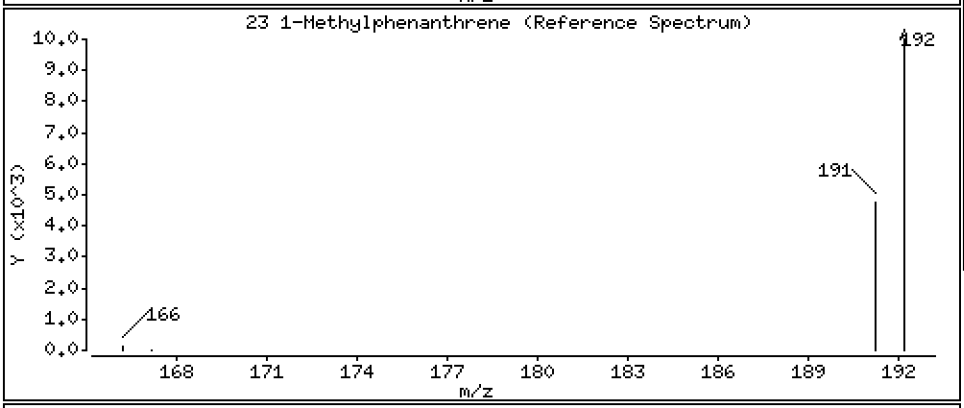
Concentration: 5.26 ng/mL

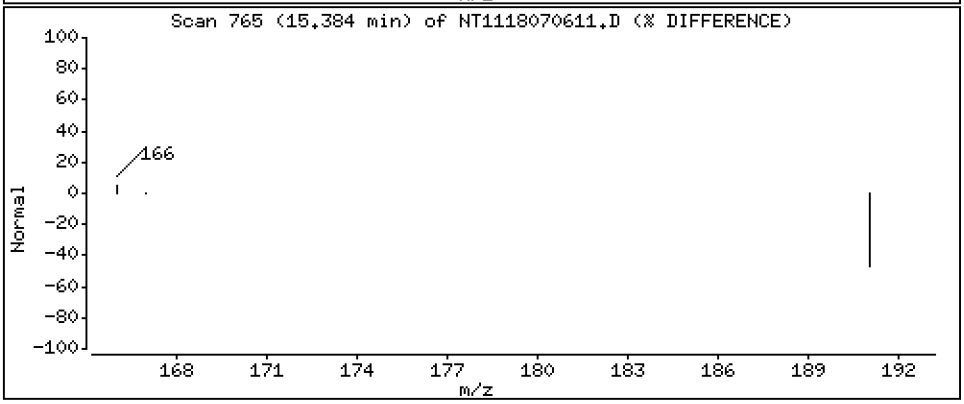












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Date : 06-JUL-2018 18:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05

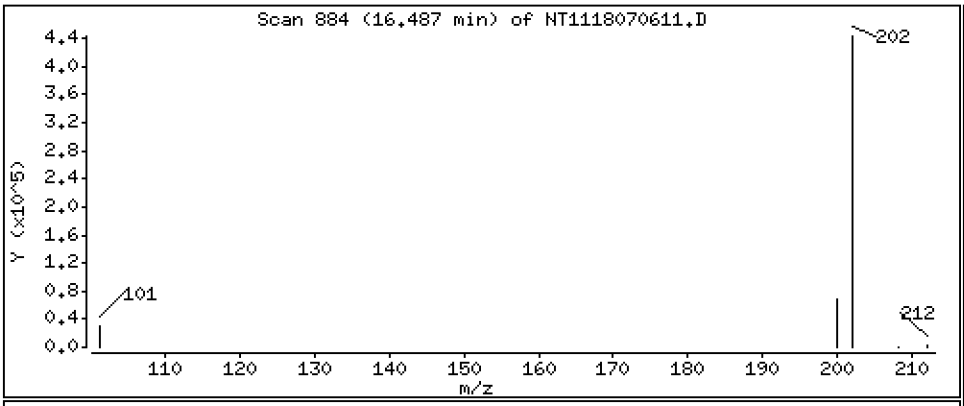
Operator: VTS

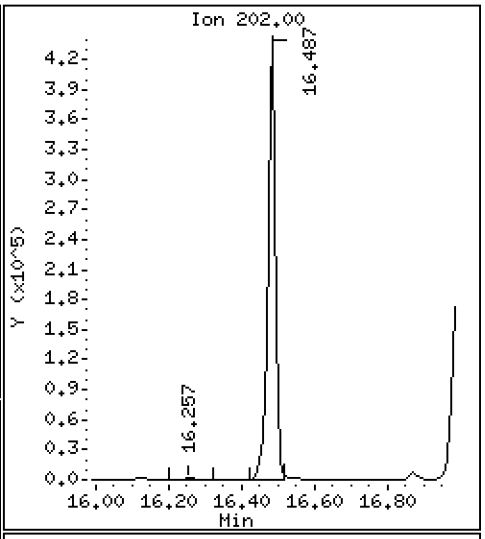
Column phase: Rxi-17Sil MS

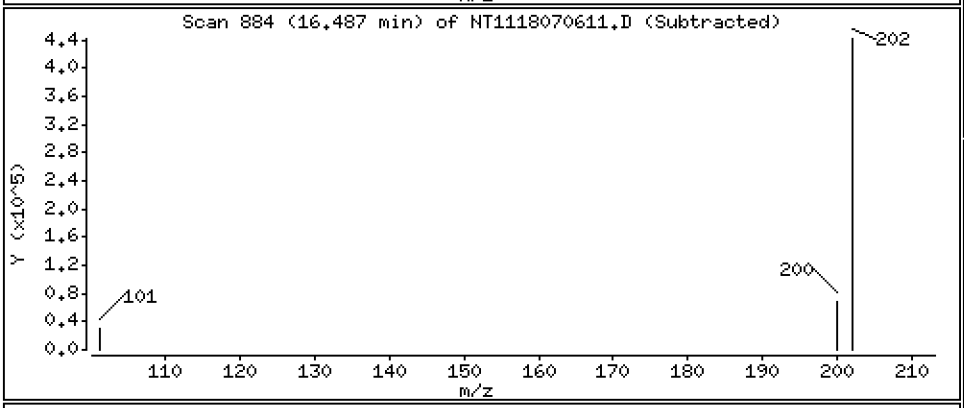
Column diameter: 0.25

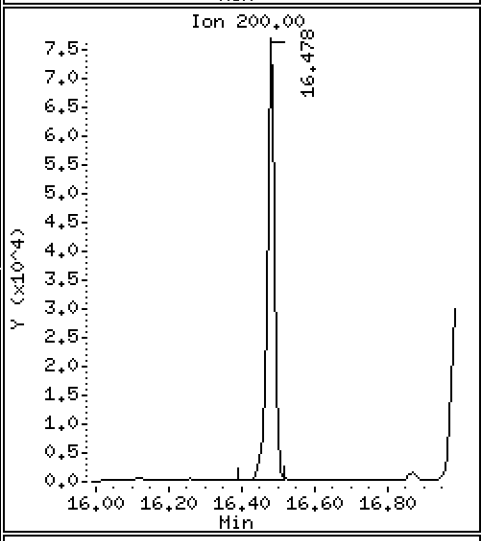
25 Fluoranthene

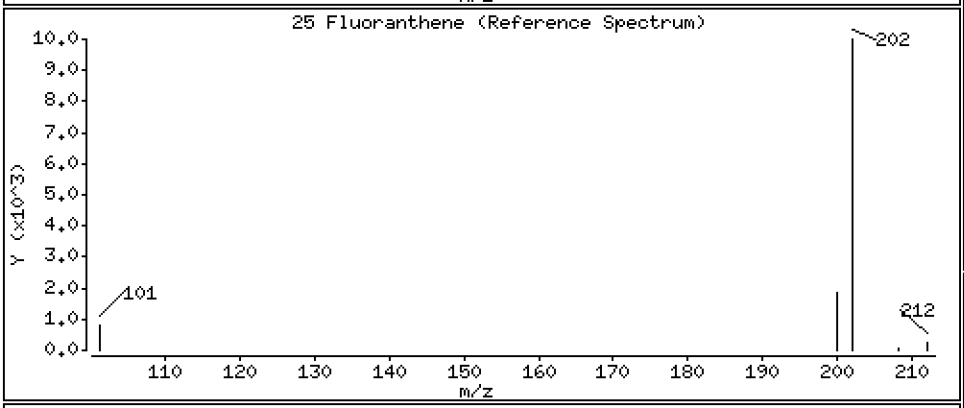
Concentration: 221 ng/mL

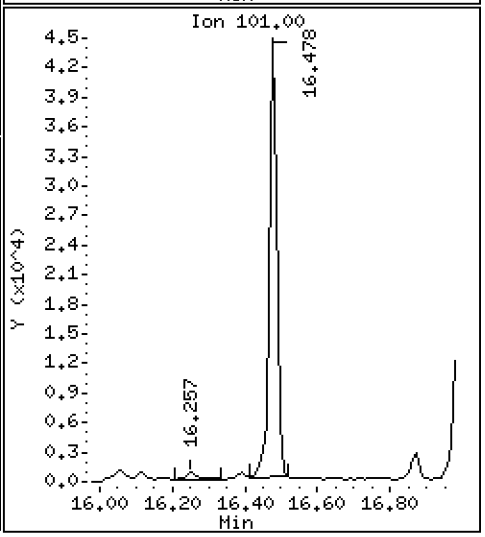


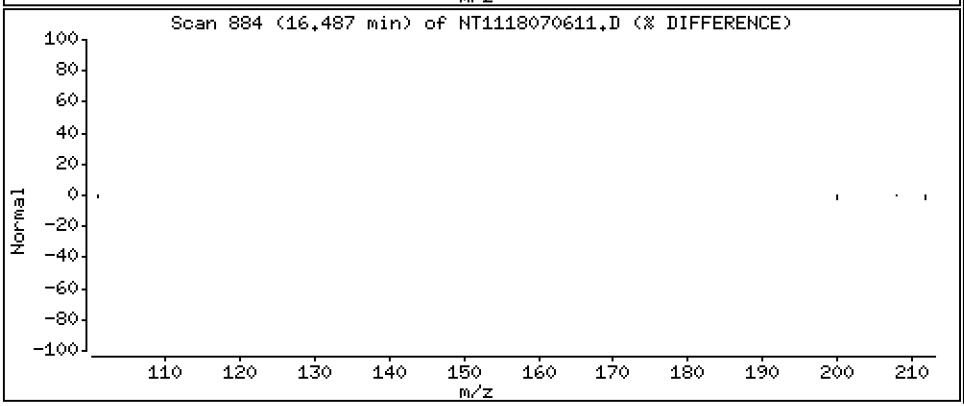












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Date : 06-JUL-2018 18:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05

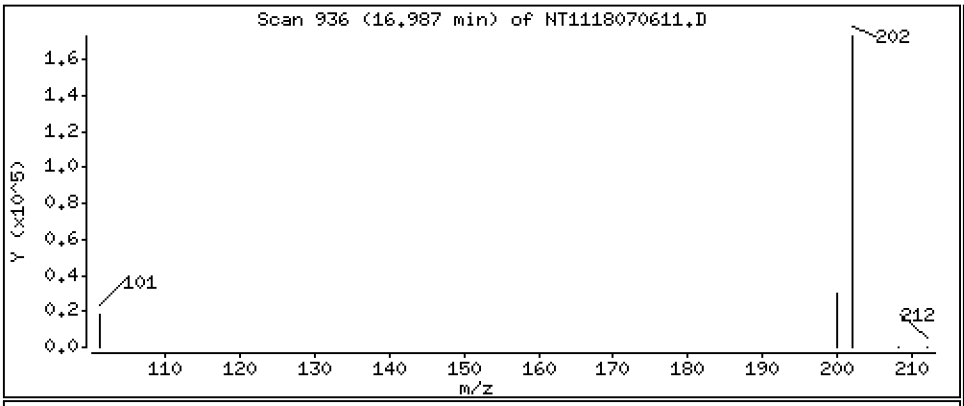
Operator: VTS

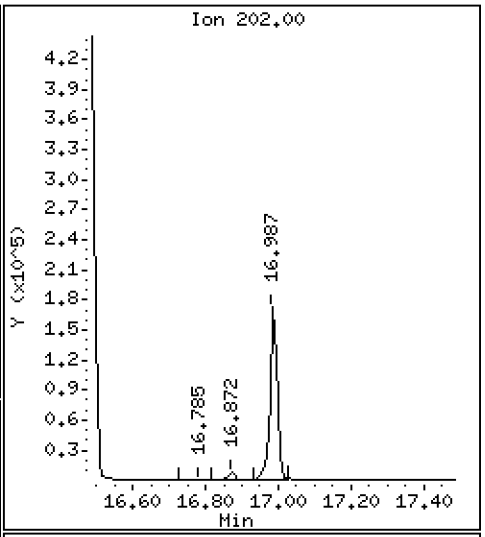
Column phase: Rxi-17Sil MS

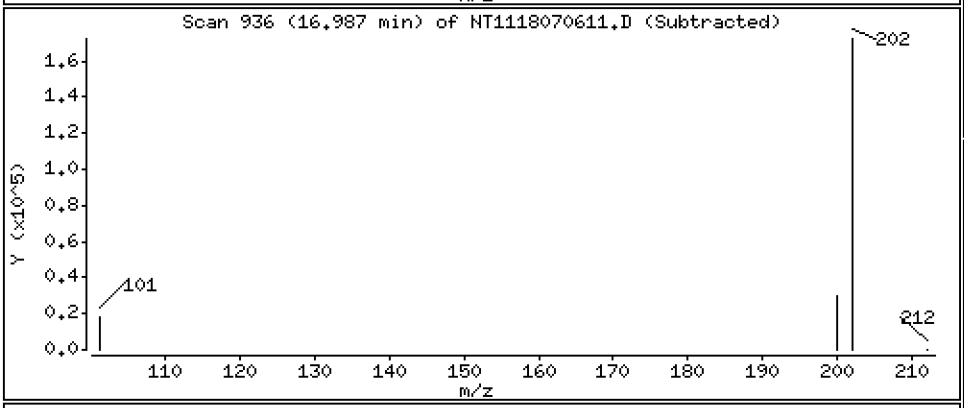
Column diameter: 0.25

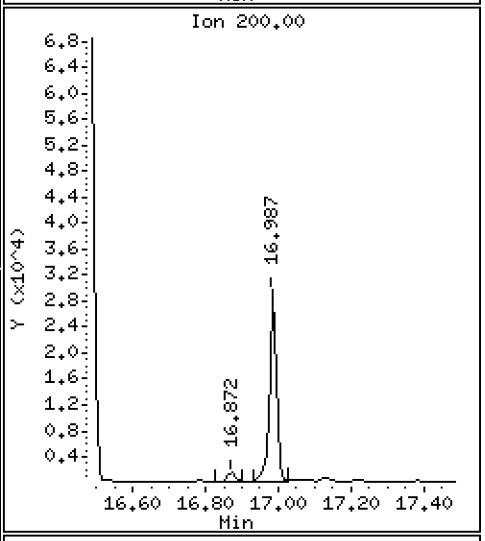
26 Pyrene

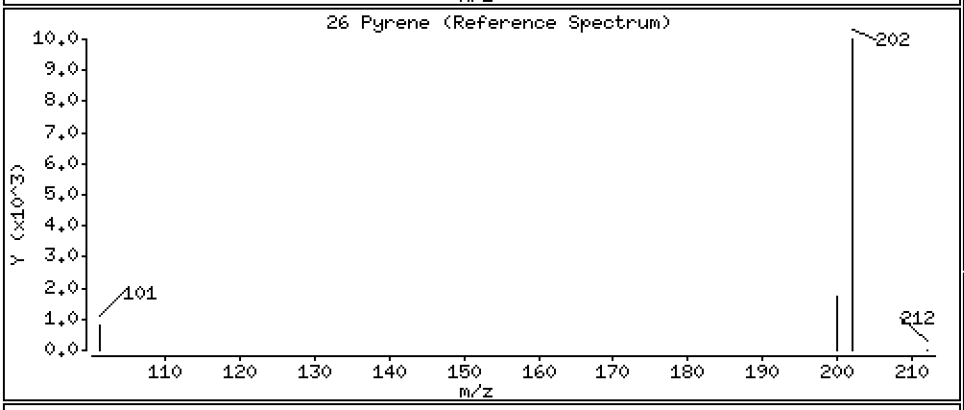
Concentration: 79.2 ng/mL

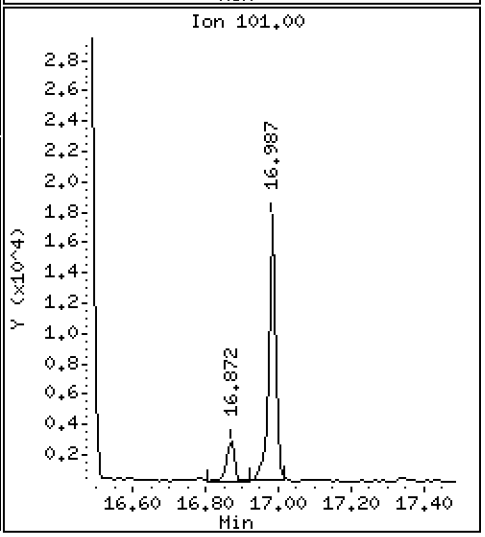


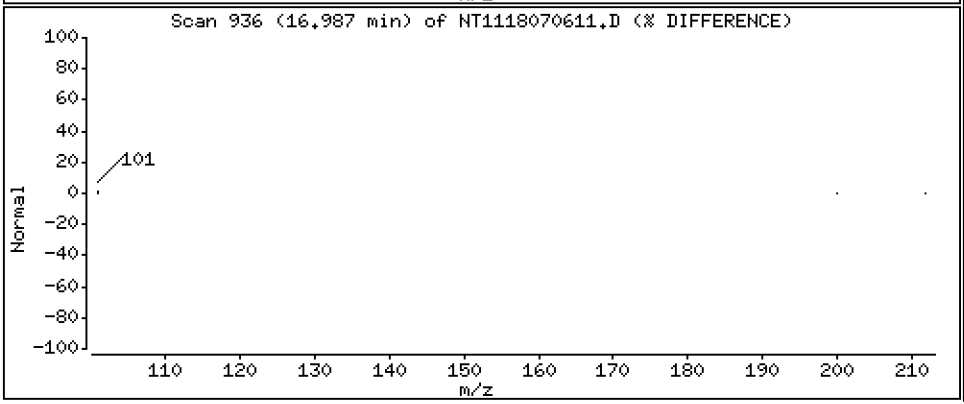












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070611.D

Date : 06-JUL-2018 18:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05

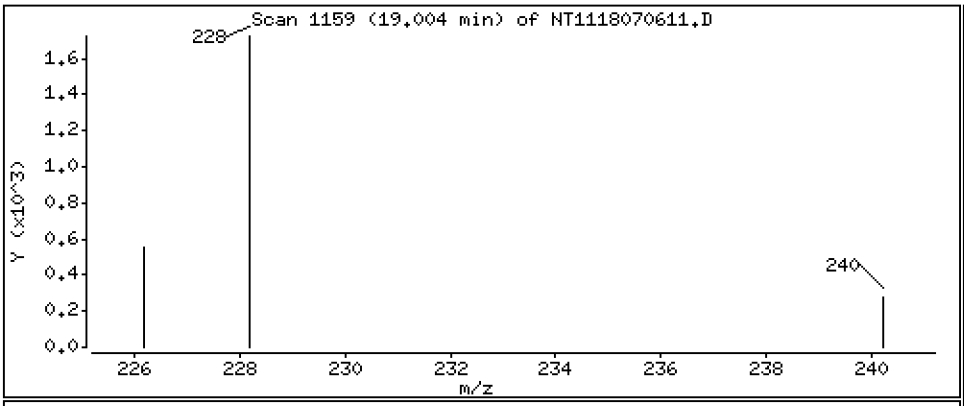
Operator: VTS

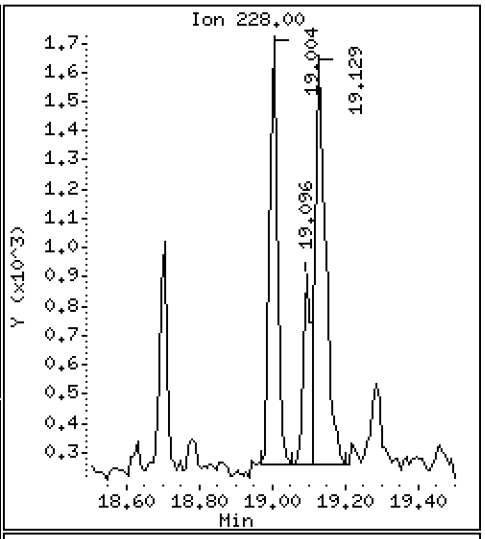
Column phase: Rxi-17Sil MS

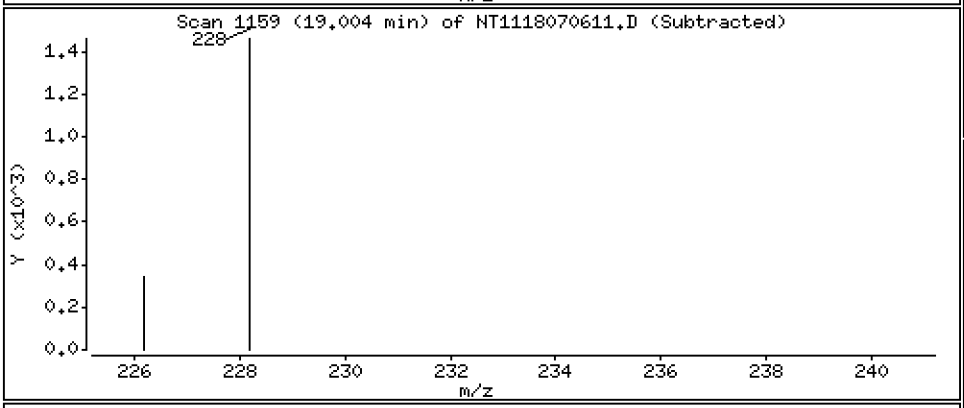
Column diameter: 0.25

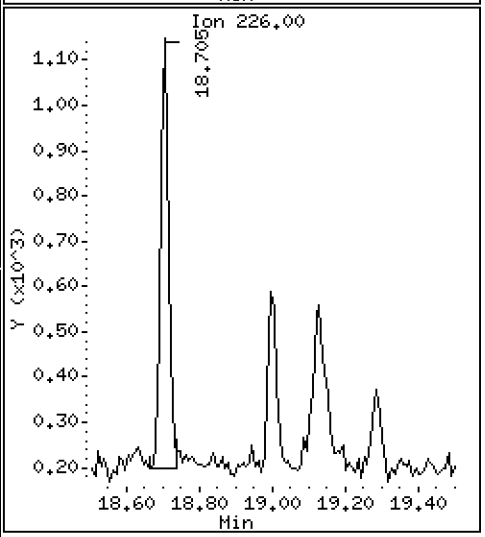
27 Benzo(a)anthracene

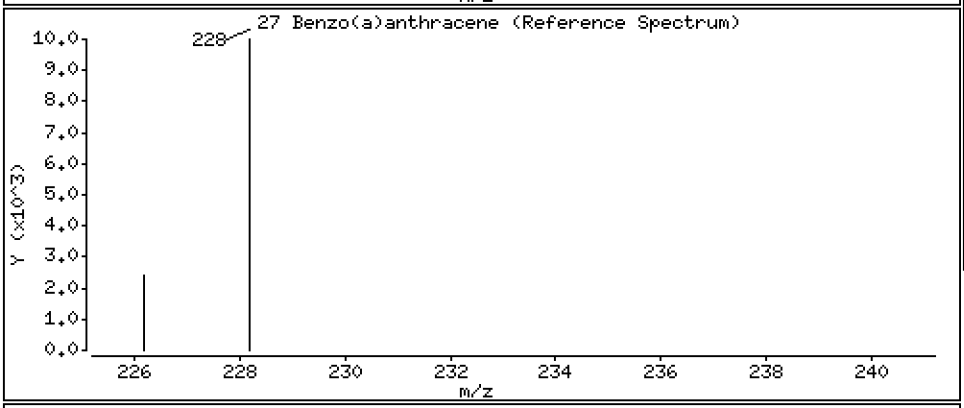
Concentration: 0.876 ng/mL

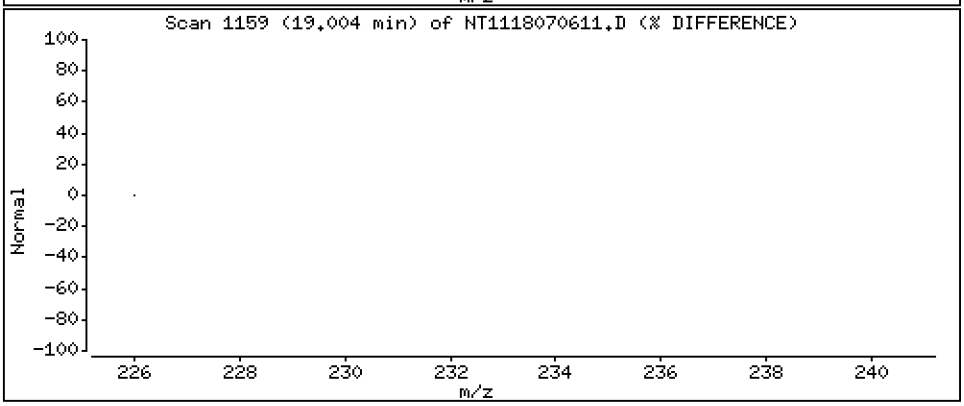












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070611.D

Date : 06-JUL-2018 18:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05

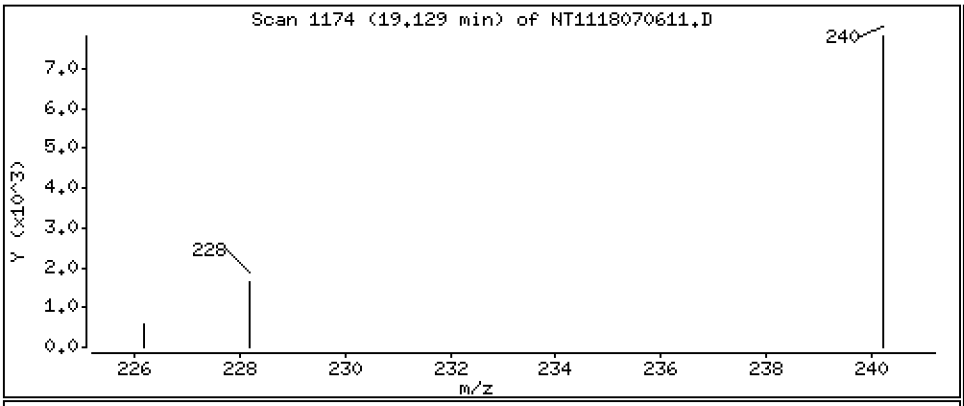
Operator: VTS

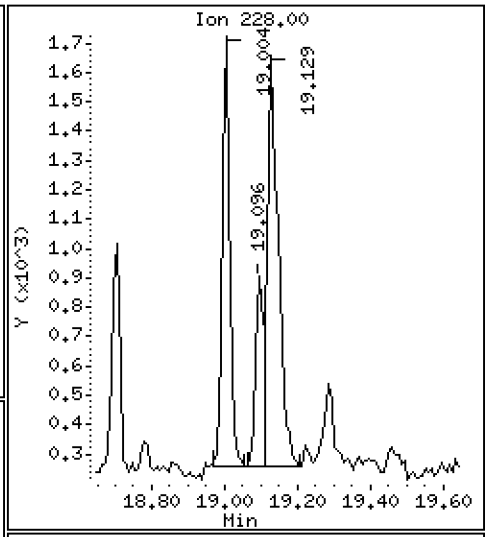
Column phase: Rxi-17Sil MS

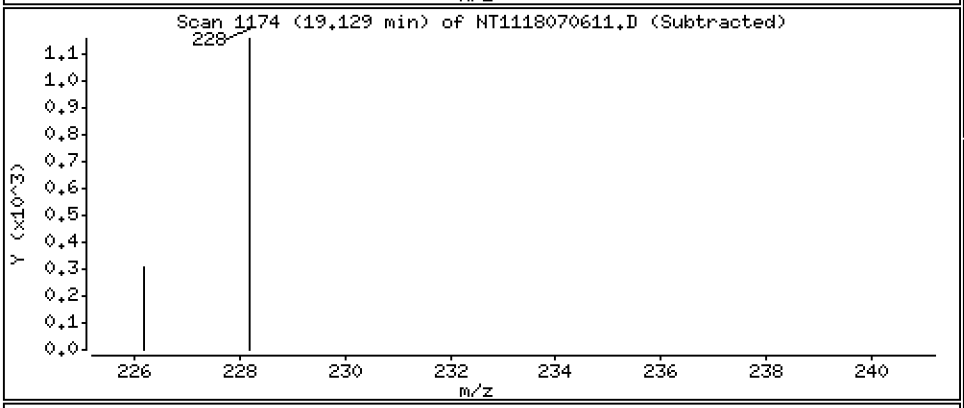
Column diameter: 0.25

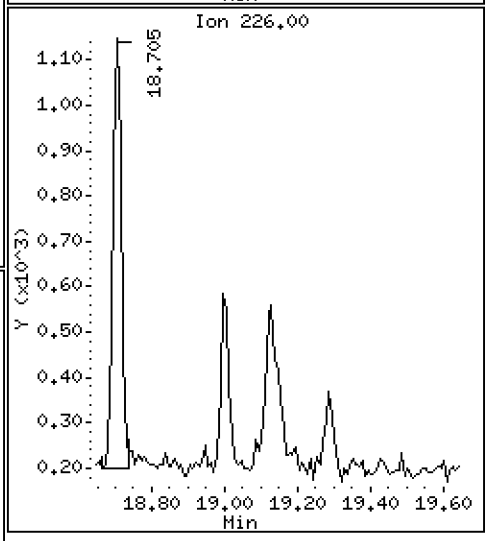
29 Chrysene

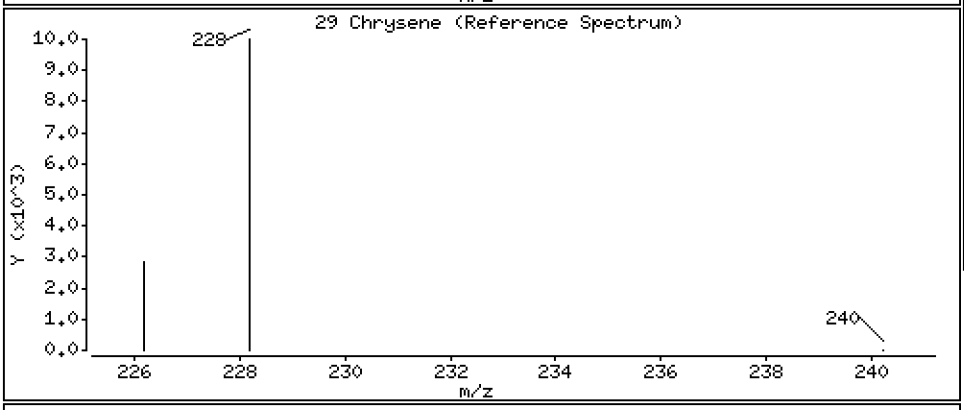
Concentration: 1.18 ng/mL

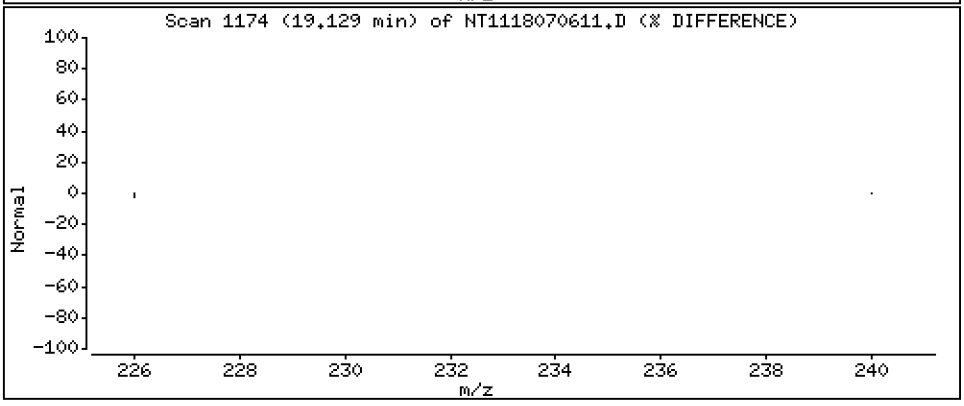












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180706.b\NT1118070611.D
Lab Smp Id: 18F0226-05
Inj Date : 06-JUL-2018 18:27 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0226-05
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Meth Date : 06-Jul-2018 13:13 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	478922	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	2302478	918.863	919
	3 Benzo(b)thiophene	134	8.897	8.897	(1.034)	148960	59.3386	59.3
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	491564	179.892	180
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	2521426	864.294	864
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	3660553	1261.66	1260
	7 2-Chloronaphthalene	162	10.537	10.558	(0.905)	32157	11.9462	11.9
	8 Biphenyl	154	10.516	10.527	(0.903)	16335	5.07325	5.07(M)
	9 2,6-Dimethylnaphthalene	156	10.558	10.579	(0.907)	239122	93.9700	94.0(M)
	10 Acenaphthylene	152	11.490	11.490	(0.987)	121668	39.5173	39.5
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	258949	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	7599565	3608.81	3610
	13 Dibenzofuran	168	11.908	11.908	(1.023)	524018	181.643	182
	14 2,3,5-Trimethylnaphthalene	170	11.996	11.996	(1.030)	46150	24.9971	25.0
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.540	12.540	(1.077)	1047296	450.179	450
	17 Dibenzothiophene	184	14.172	14.172	(0.988)	63330	23.9178	23.9
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	425199	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	549615	164.811	165
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.435	14.435	(1.007)	51798	16.6148	16.6
	22 Carbazole	167	15.113	15.113	(1.054)	1460764	402.202	402
	23 1-Methylphenanthrene	192	15.384	15.384	(1.073)	16573	5.25974	5.26(M)
$	24 Fluoranthene-d10	212	16.449	16.449	(1.147)	552898	214.221	214
	25 Fluoranthene	202	16.487	16.487	(1.150)	683444	220.687	221
	26 Pyrene	202	16.987	16.987	(0.890)	252346	79.1807	79.2
	27 Benzo(a)anthracene	228	19.004	19.004	(0.995)	2177	0.87585	0.876
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	324174	200.000	
	29 Chrysene	228	19.128	19.145	(1.002)	2922	1.18349	1.18
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	35 Benzo(a)pyrene	252	Compound Not Detected.					
*	36 Perylene-d12	264	22.353	22.353	(1.000)	322868	200.000	
	37 Perylene	252	Compound Not Detected.					
$	38 Dibenzo(a,h)anthracene-d14	292	25.268	25.279	(1.130)	304533	197.103	197
	39 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	40 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	41 Benzo(g,h,i)perylene	276	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118070611.D
Lab Smp Id: 18F0226-05
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Misc Info:

Calibration Date: 06-JUL-2018
Calibration Time: 12:50
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	478922	11.04
11 Acenaphthene-d10	260137	130069	520274	258949	-0.46
18 Phenanthrene-d10	427391	213696	854782	425199	-0.51
28 Chrysene-d12	304596	152298	609192	324174	6.43
36 Perylene-d12	263091	131546	526182	322868	22.72

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118070611.D

Lab ID: 18F0226-05
nt11.i, 20180706.b\LOWSIM.m,   06-JUL-2018 18:27

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

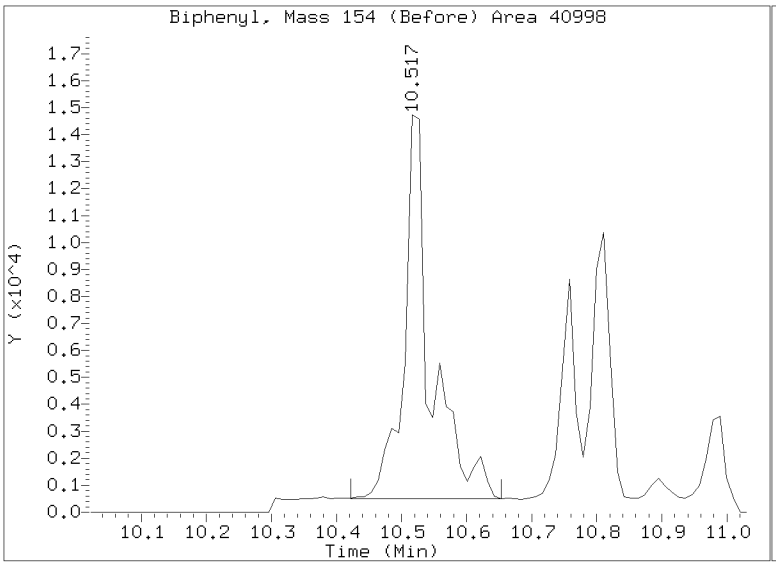
On Column LOD for nt11.i, 20180706.b\LOWSIM.m, allpna.sub = 0.0000

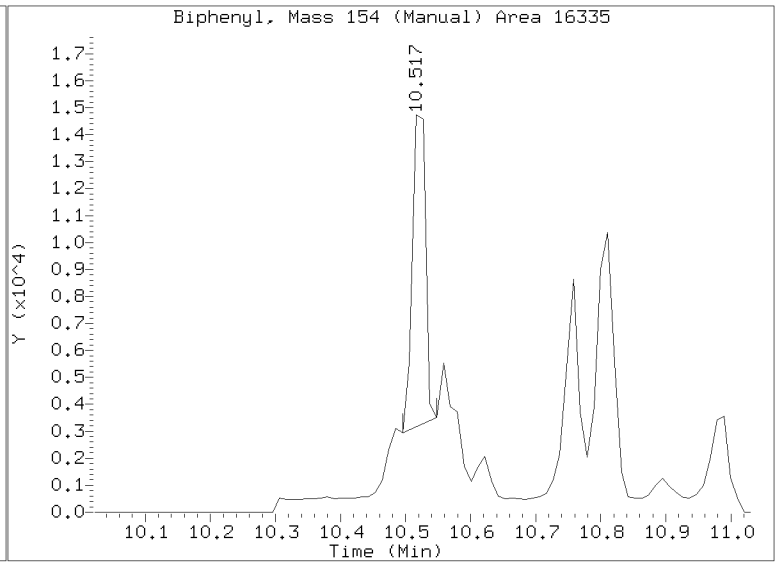
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

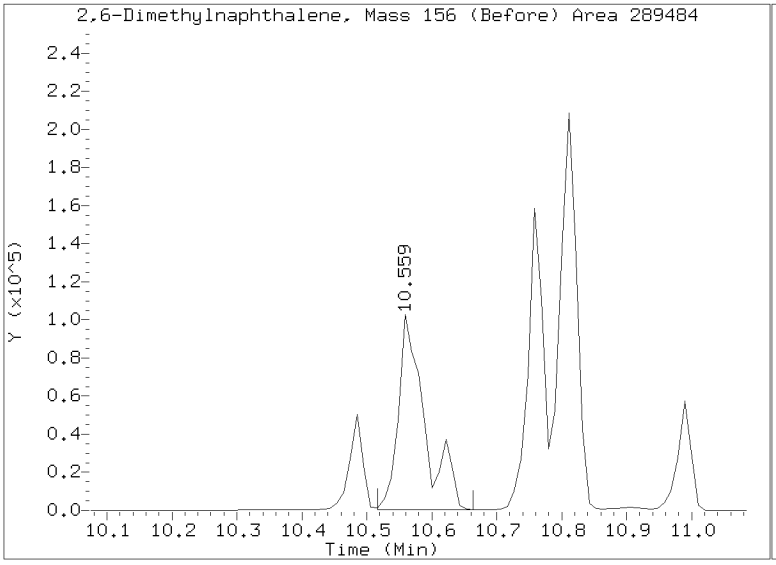
* Only compounds listed in the work order have been verified by the analyst *

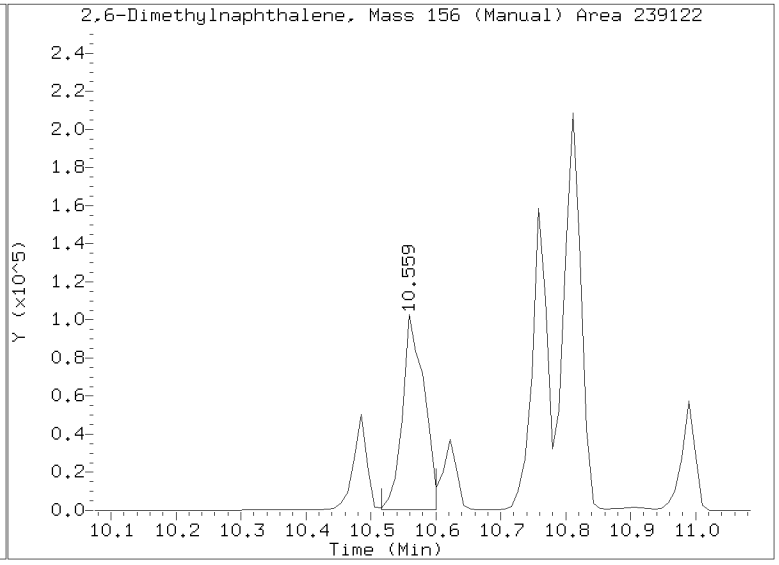
Quant Ion Manual Peak Adjustment Report

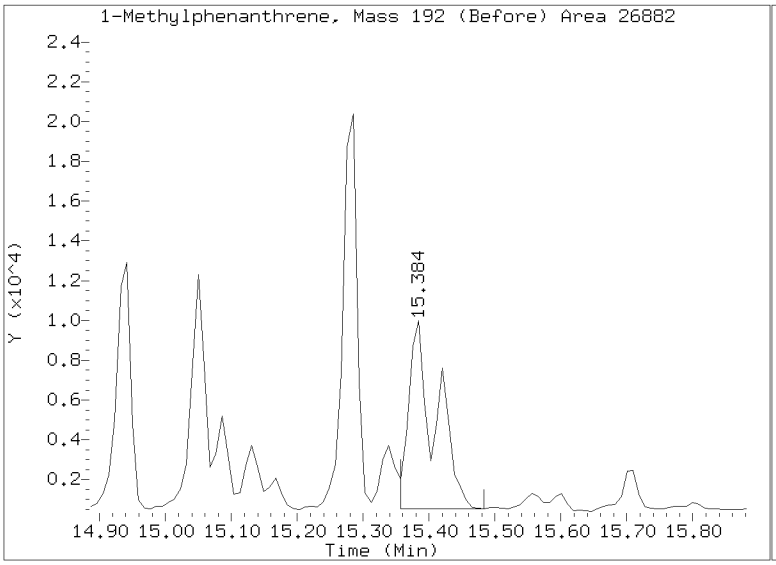
Datafile: //target/share/chem3/nt11.i/20180706.b/NT1118070611.D
Injection Date: 06-JUL-2018 18:27
Lab ID:18F0226-05 Client ID:
Report Date: 07/07/2018 07:56

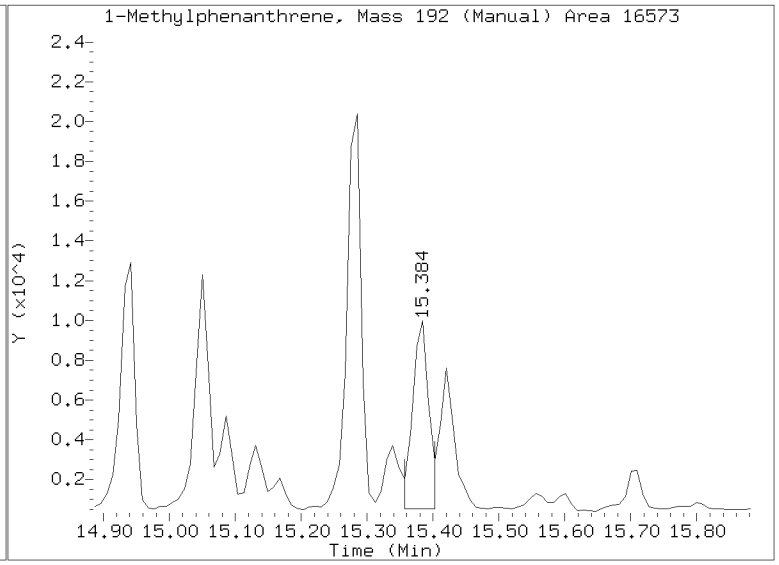












Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-77

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-05RE1	SDG:	18F0185
Sampled:	06/14/18 12:10	Prepared:	06/21/18 13:35	File ID:	NT1118070706.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	07/07/18 11:37
Batch:	BGF0530	Sequence:	SGG0076	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	10	0.792	D	0.013	0.100
91-57-6	2-Methylnaphthalene	10	1.01	D	0.010	0.100
208-96-8	Acenaphthylene	10	0.036	J, D	0.019	0.100
83-32-9	Acenaphthene	10	6.70	D	0.029	0.100
86-73-7	Fluorene	10	0.453	D	0.015	0.100
85-01-8	Phenanthrene	10	0.156	D	0.013	0.100
120-12-7	Anthracene	10	0.019	J, D	0.012	0.100
206-44-0	Fluoranthene	10	0.207	Q, D	0.017	0.100
129-00-0	Pyrene	10	0.078	J, D	0.012	0.100
56-55-3	Benzo(a)anthracene	10	0.100	U	0.008	0.100
218-01-9	Chrysene	10	0.100	U	0.009	0.100
205-99-2	Benzo(b)fluoranthene	10	0.100	U	0.005	0.100
207-08-9	Benzo(k)fluoranthene	10	0.100	U	0.032	0.100
205-82-3	Benzo(j)fluoranthene	10	0.100	U	0.019	0.100
50-32-8	Benzo(a)pyrene	10	0.100	U	0.025	0.100
193-39-5	Indeno(1,2,3-cd)pyrene	10	0.100	U	0.010	0.100
53-70-3	Dibenzo(a,h)anthracene	10	0.100	U	0.013	0.100
191-24-2	Benzo(g,h,i)perylene	10	0.100	U	0.014	0.100

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.179	59.6	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.119	39.8	29 - 120	
Fluoranthene-d10	0.30000	0.192	63.9	57 - 120	

Data File: \\target\share\chem3\nt11.i\20180707.b\NT1118070706.D

Page 1

Date : 07-JUL-2018 11:37

Client ID:

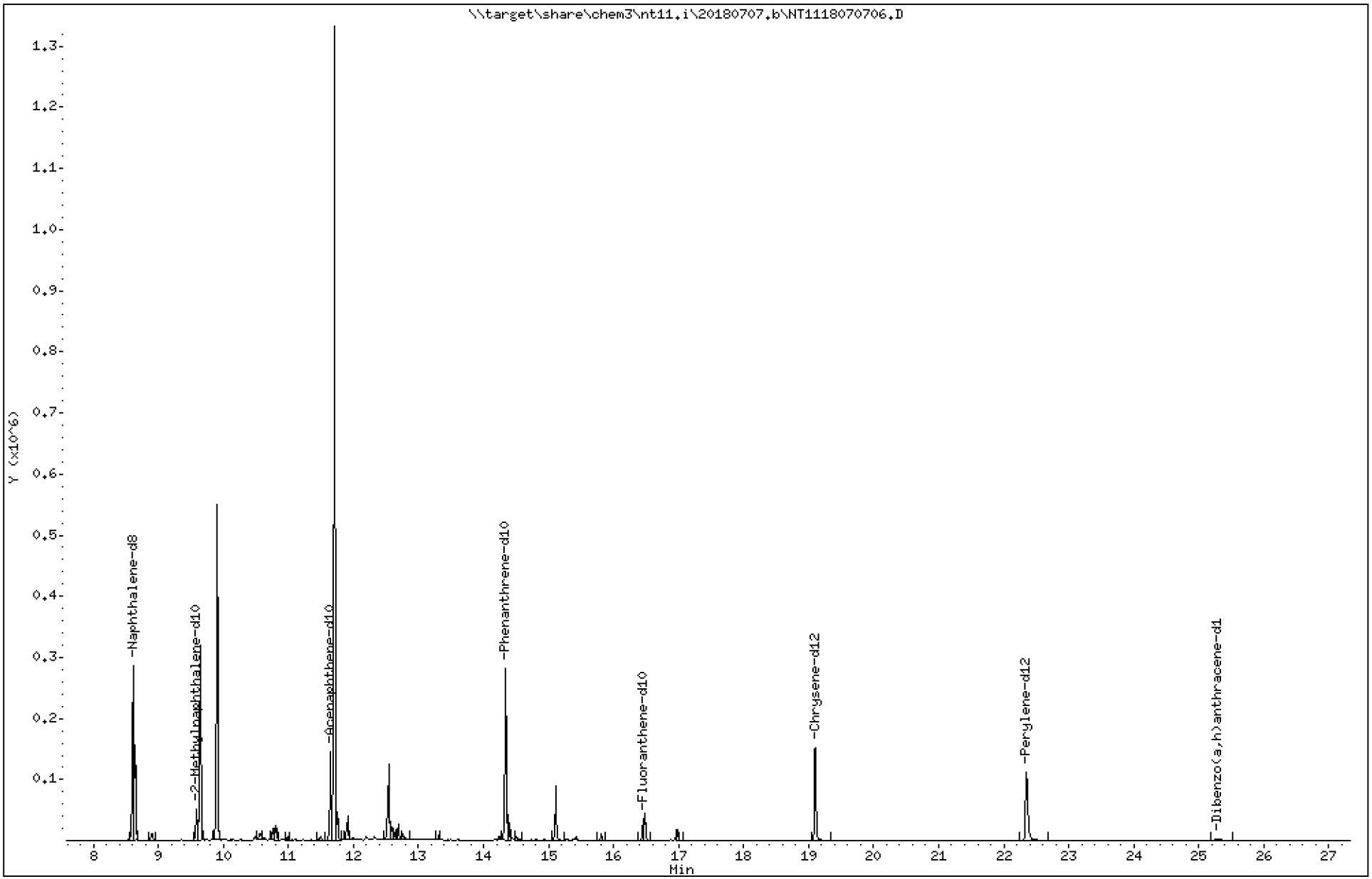
Instrument: nt11.i

Sample Info: 18F0226-05RE1,10

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 1638 of 6523

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Date : 07-JUL-2018 11:37

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05RE1,10

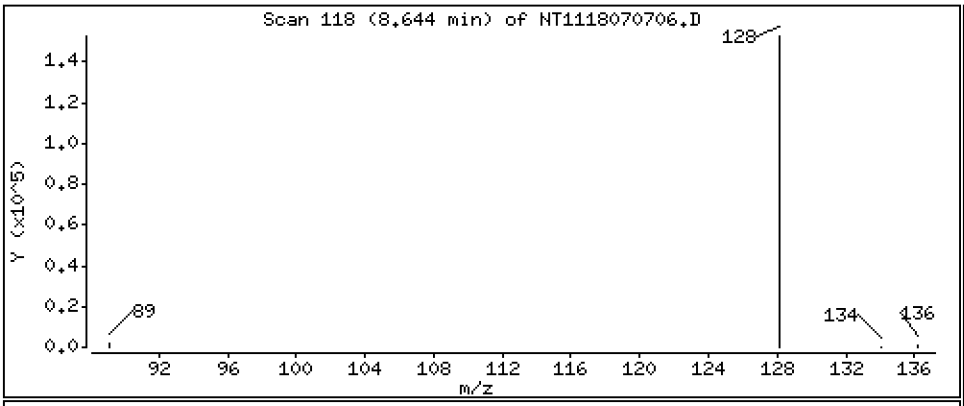
Operator: VTS

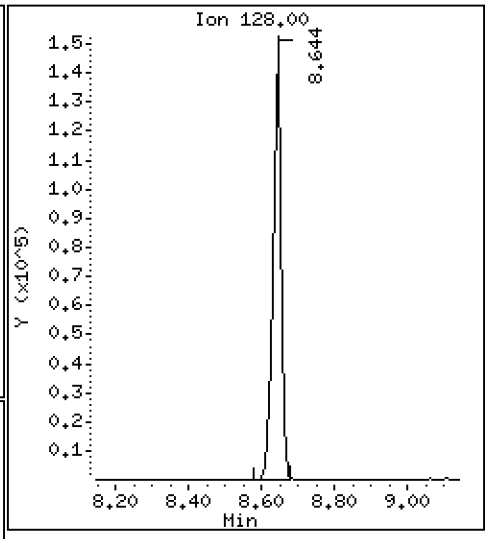
Column phase: Rxi-17Sil MS

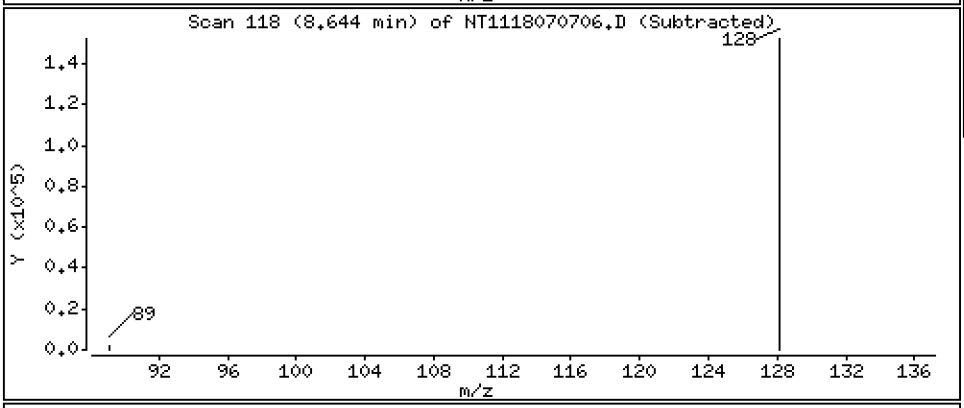
Column diameter: 0.25

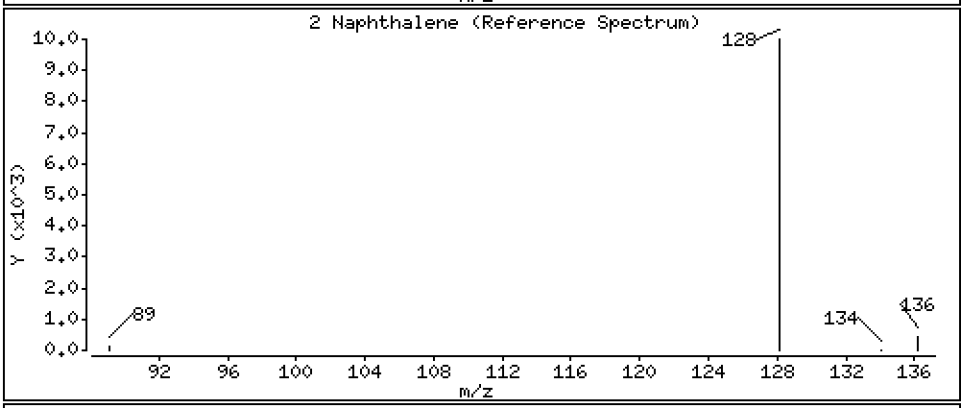
2 Naphthalene

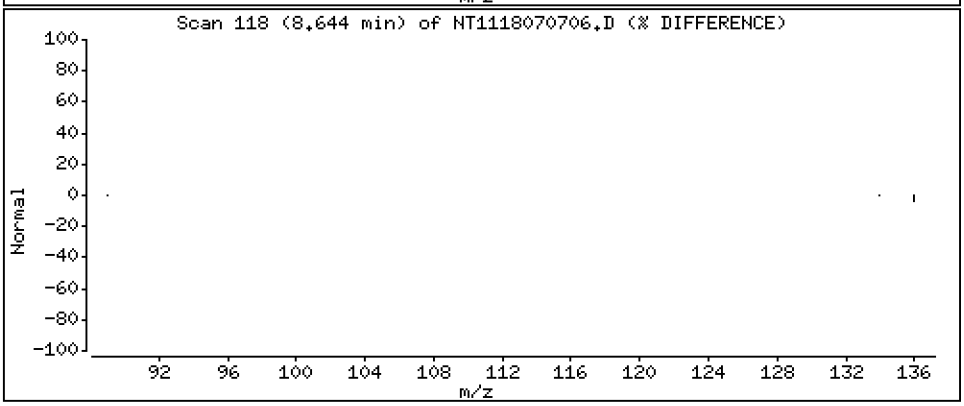
Concentration: 792 ng/mL











Data File: \\target\share\chem3\nt11.i\20180707.b\NT1118070706.D

Date : 07-JUL-2018 11:37

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05RE1,10

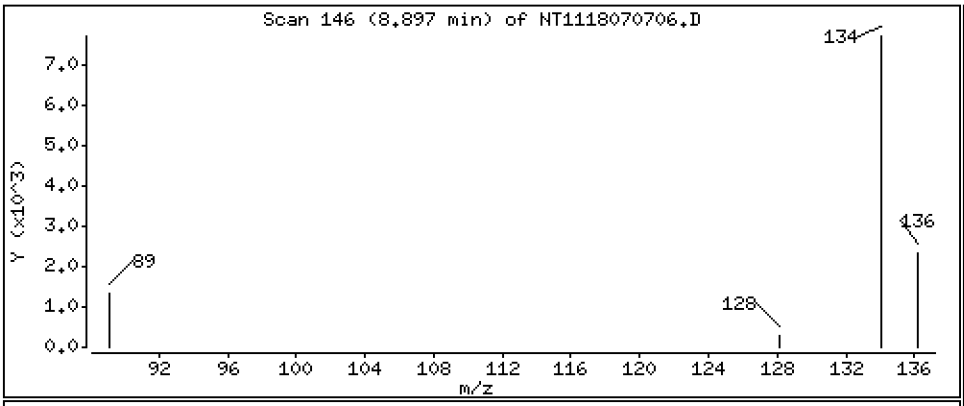
Operator: VTS

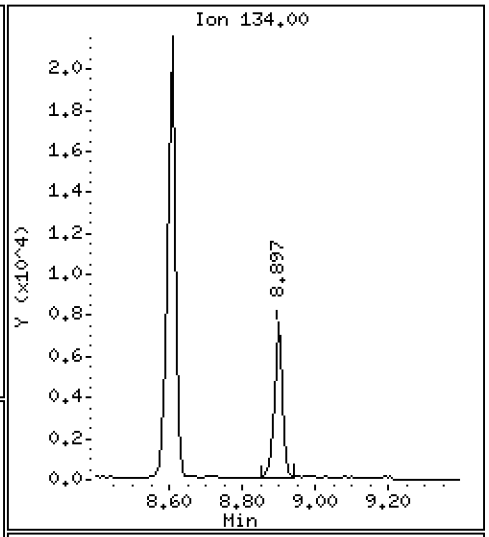
Column phase: Rxi-17Sil MS

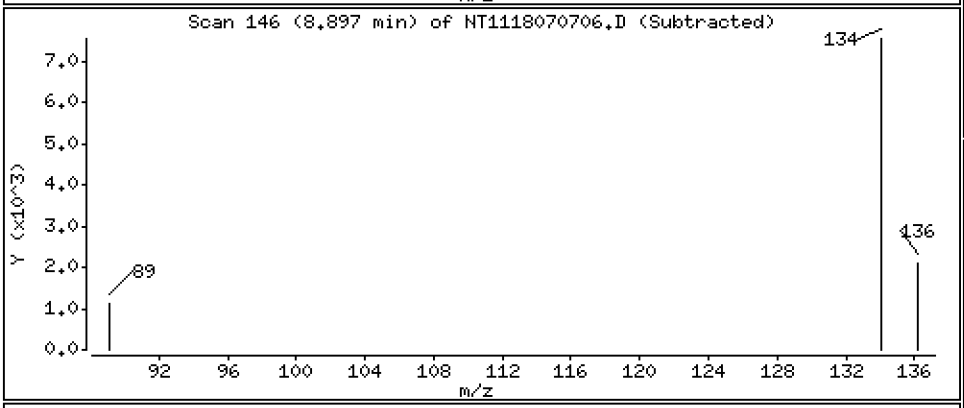
Column diameter: 0.25

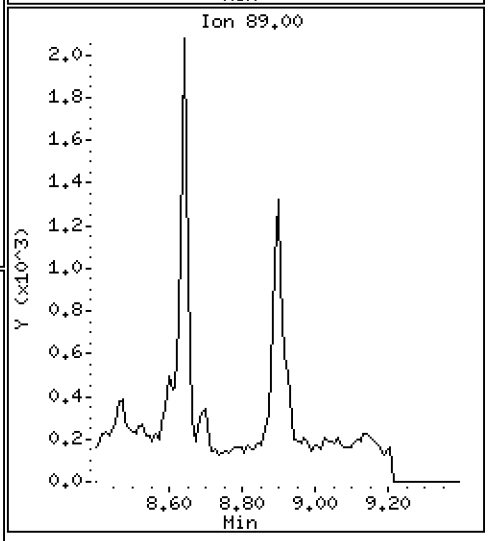
3 Benzo(b)thiophene

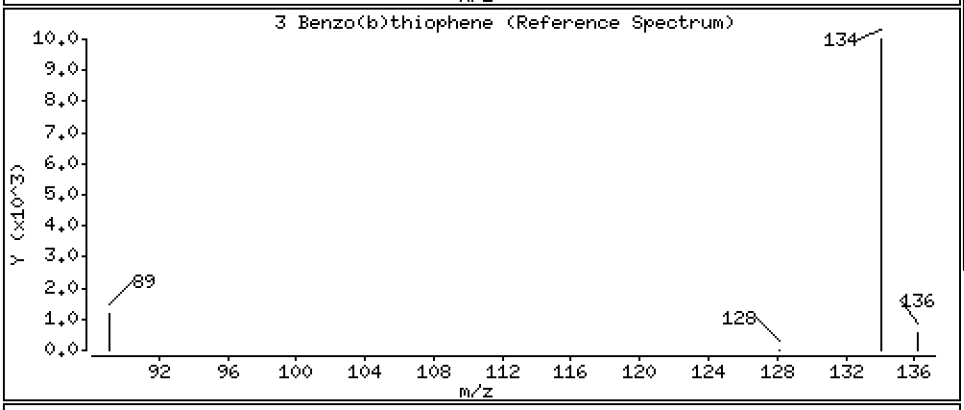
Concentration: 56.0 ng/mL

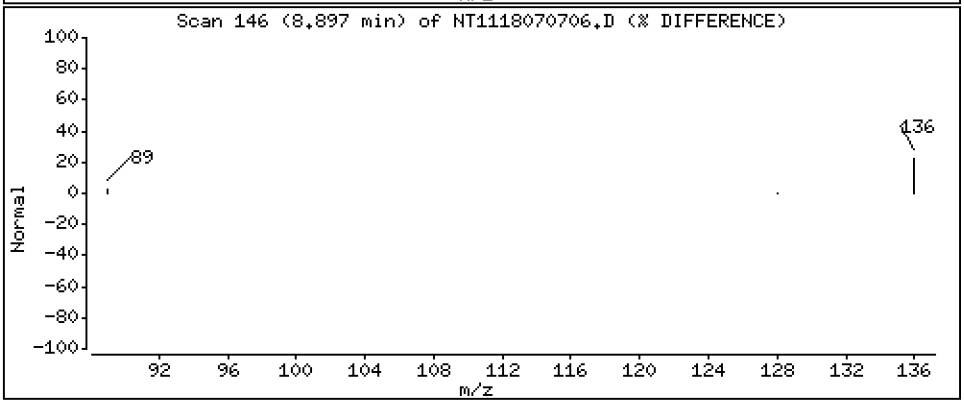












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Date : 07-JUL-2018 11:37

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05RE1,10

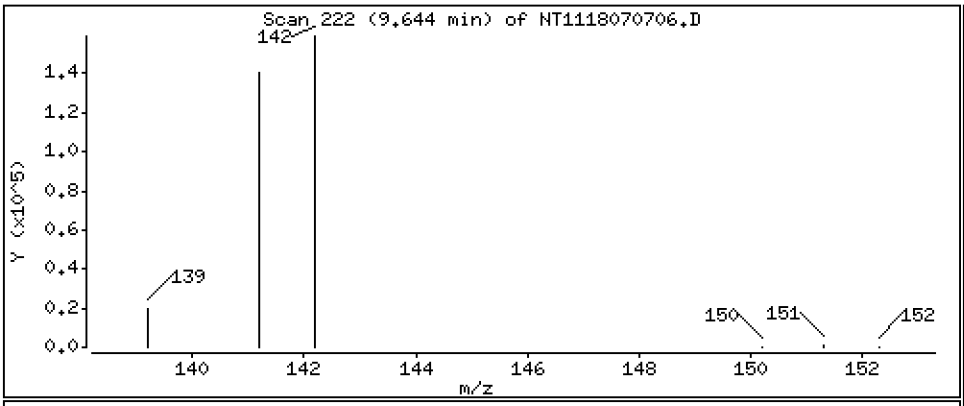
Operator: VTS

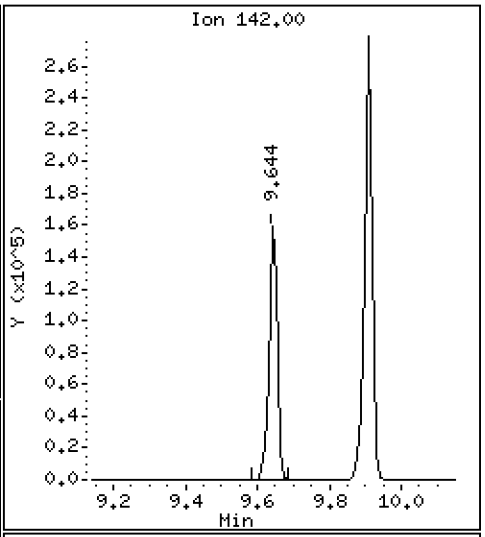
Column phase: Rxi-17Sil MS

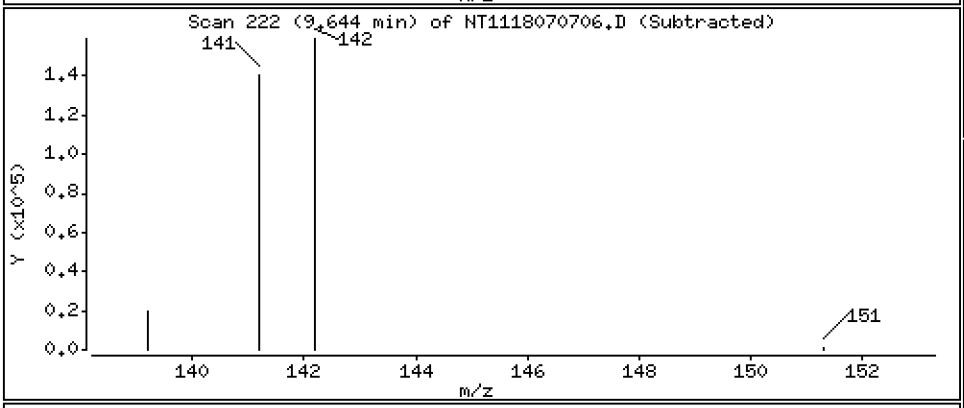
Column diameter: 0.25

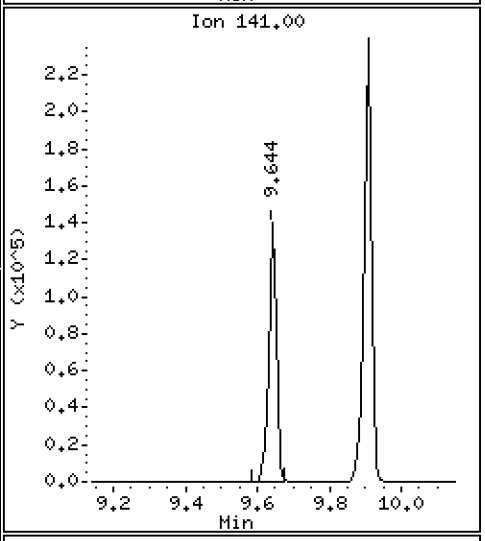
5 2-Methylnaphthalene

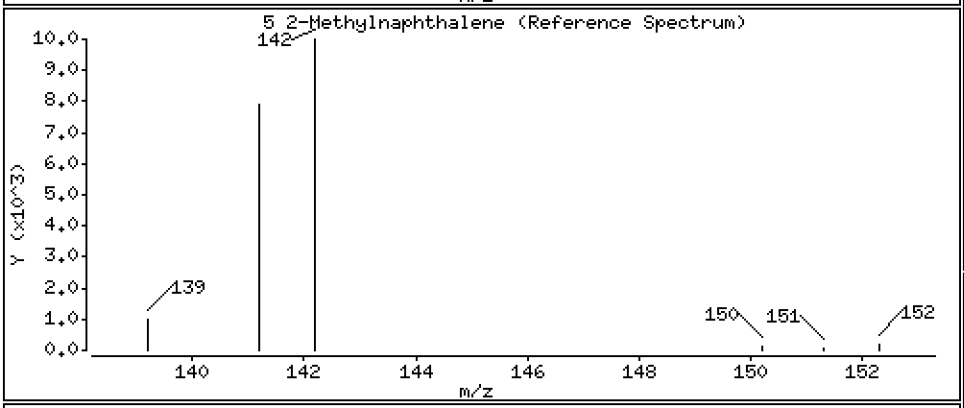
Concentration: 1010 ng/mL

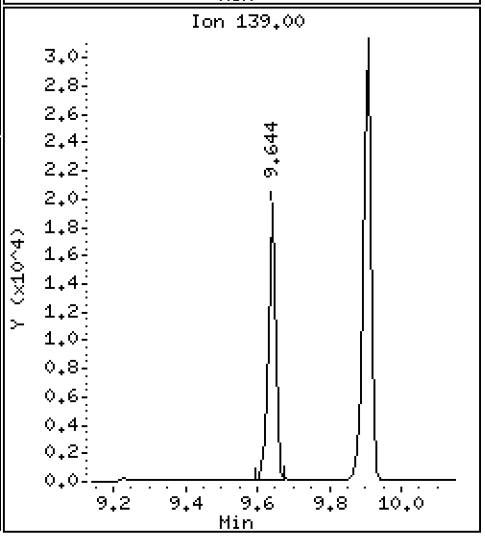


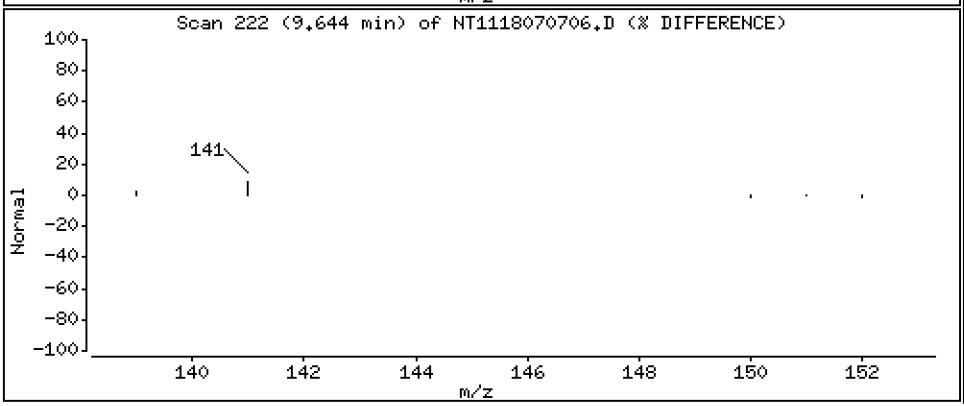












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Date : 07-JUL-2018 11:37

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05RE1,10

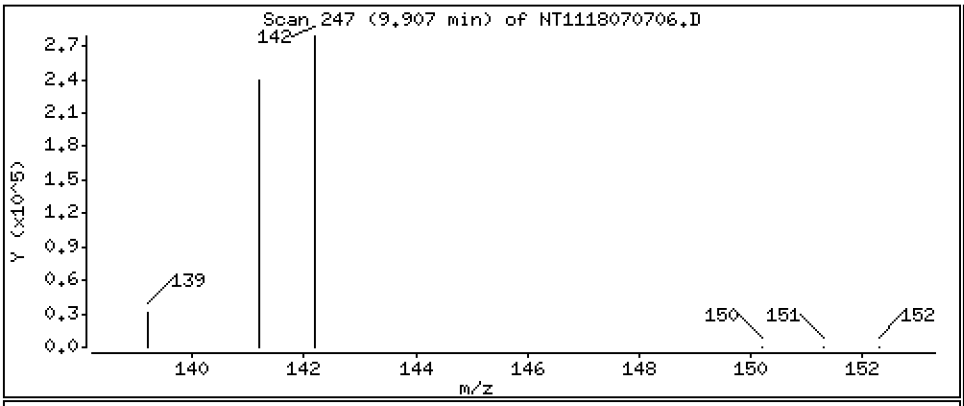
Operator: VTS

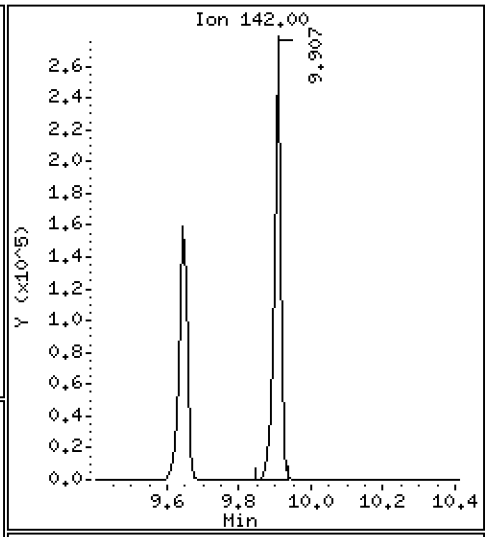
Column phase: Rxi-17Sil MS

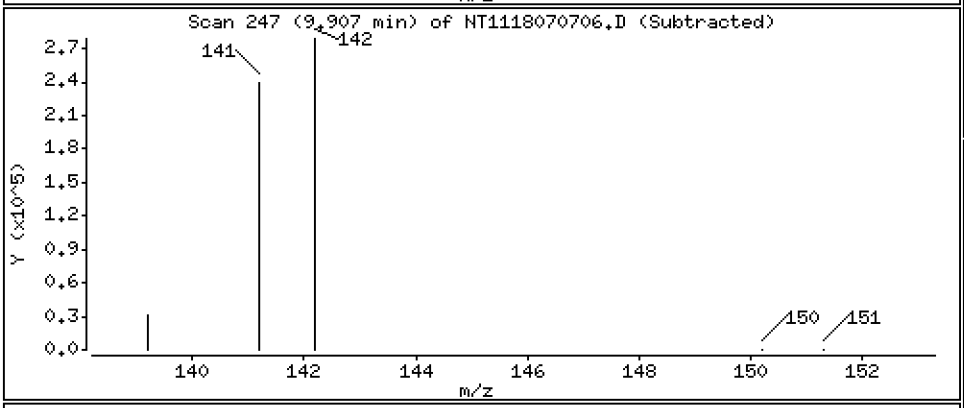
Column diameter: 0.25

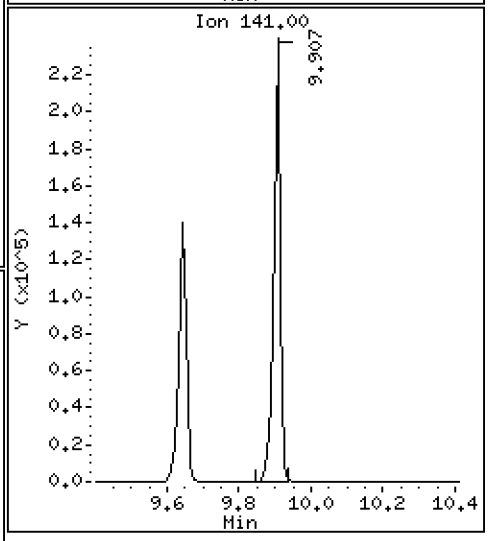
6 1-Methylnaphthalene

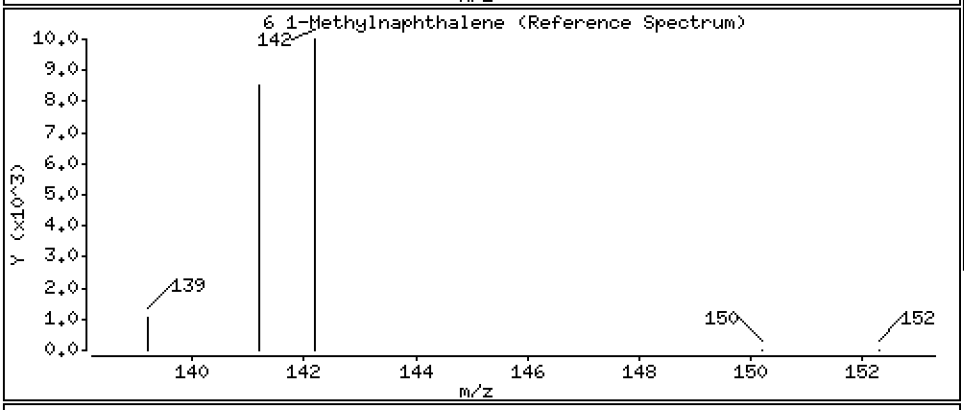
Concentration: 1610 ng/mL

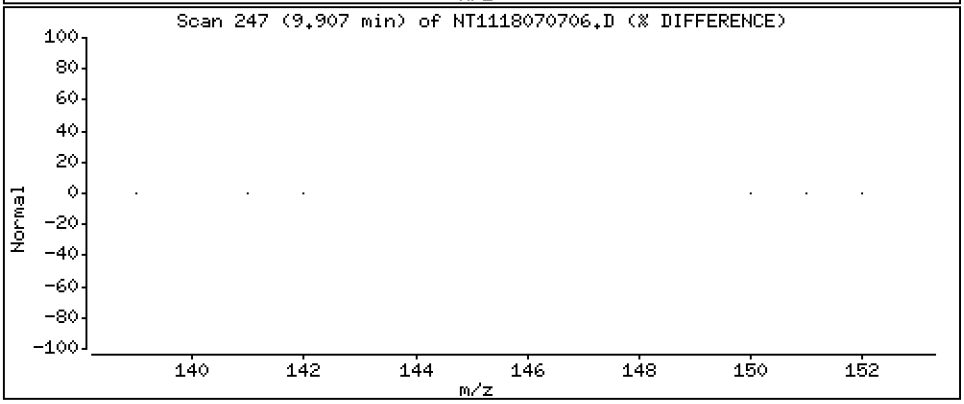












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Date : 07-JUL-2018 11:37

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05RE1,10

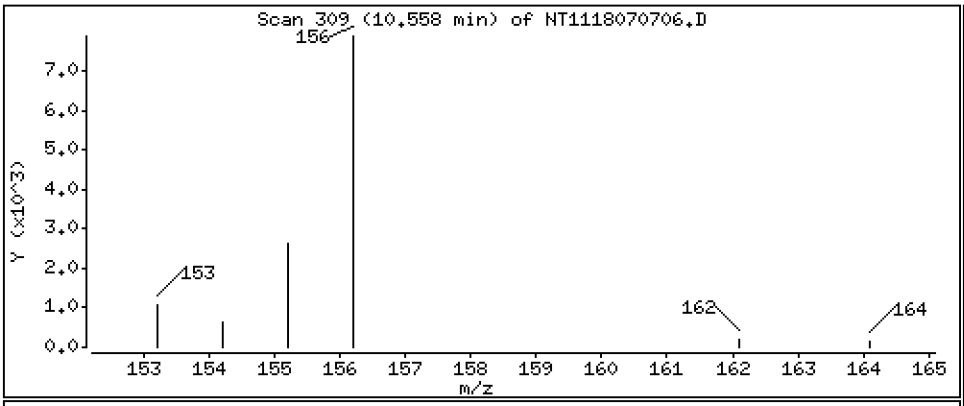
Operator: VTS

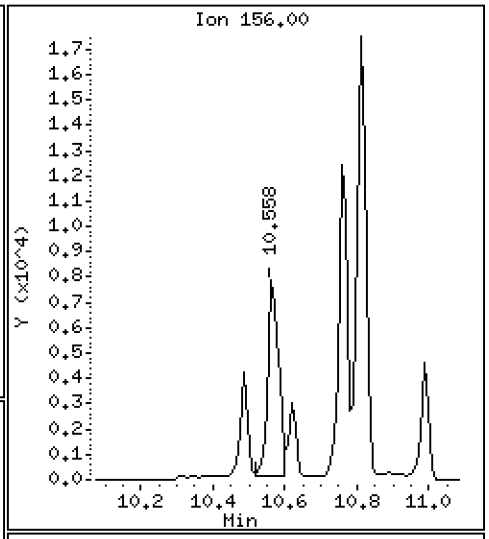
Column phase: Rxi-17Sil MS

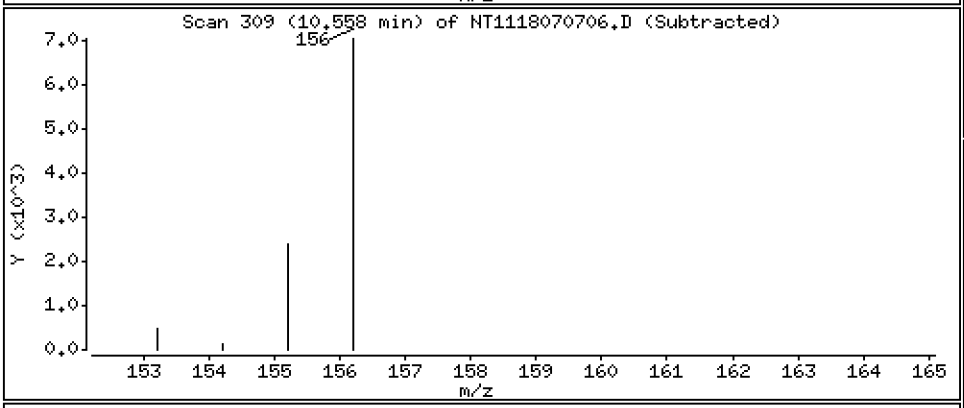
Column diameter: 0.25

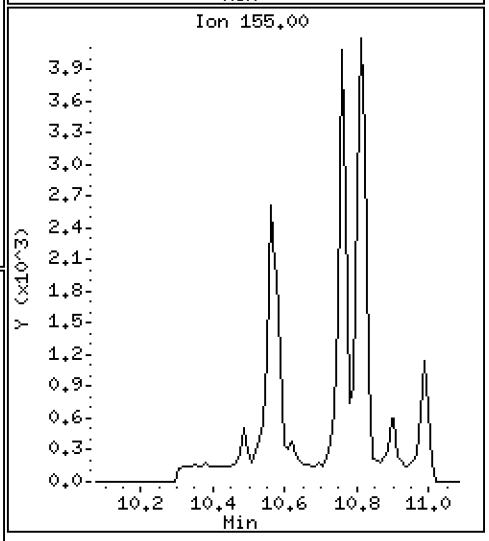
9 2,6-Dimethylnaphthalene

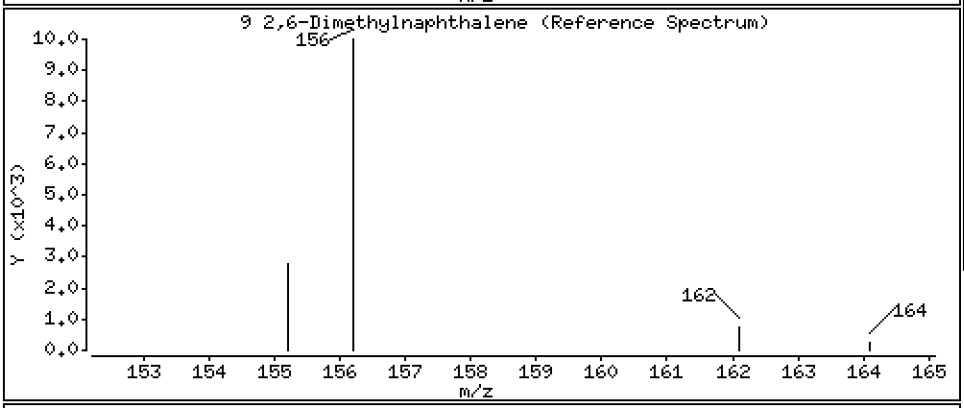
Concentration: 87.5 ng/mL

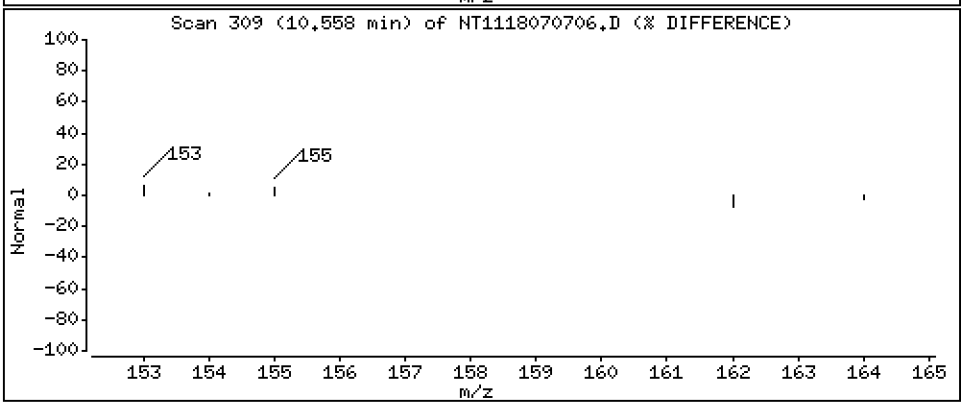












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Date : 07-JUL-2018 11:37

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05RE1,10

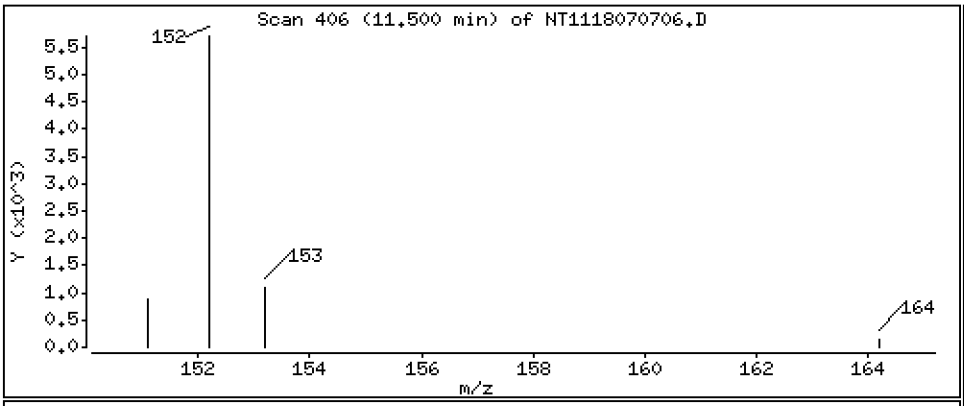
Operator: VTS

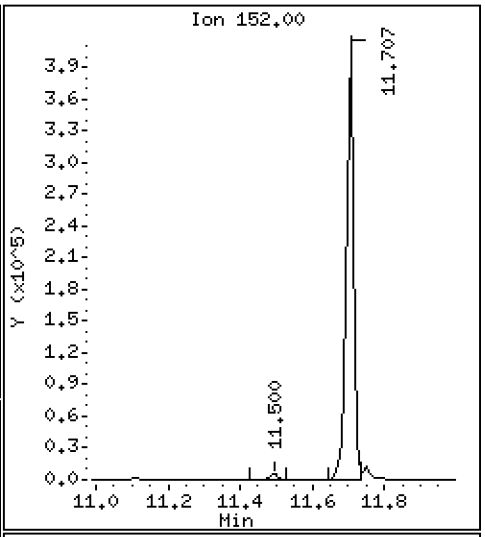
Column phase: Rxi-17Sil MS

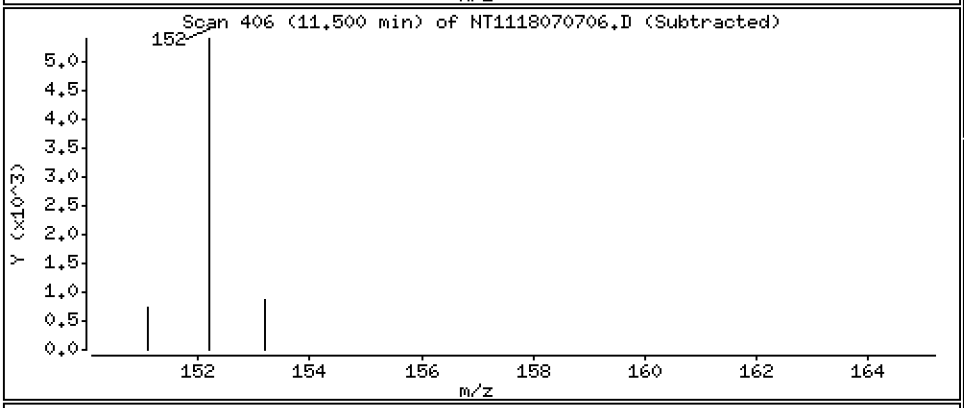
Column diameter: 0.25

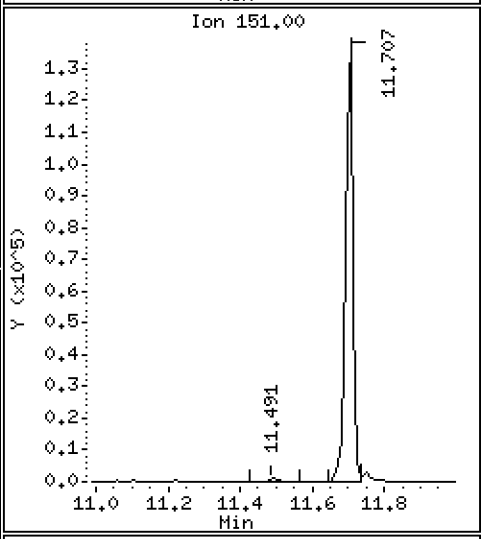
10 Acenaphthylene

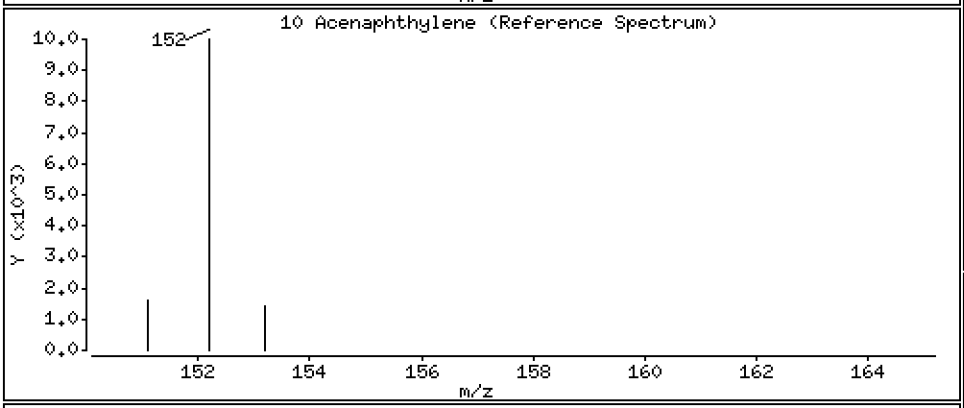
Concentration: 36.0 ng/mL

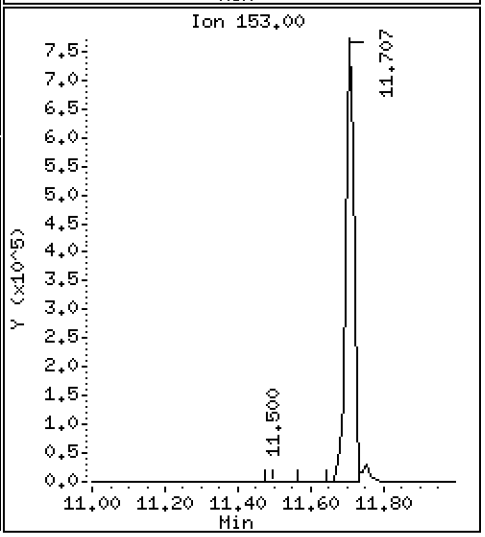


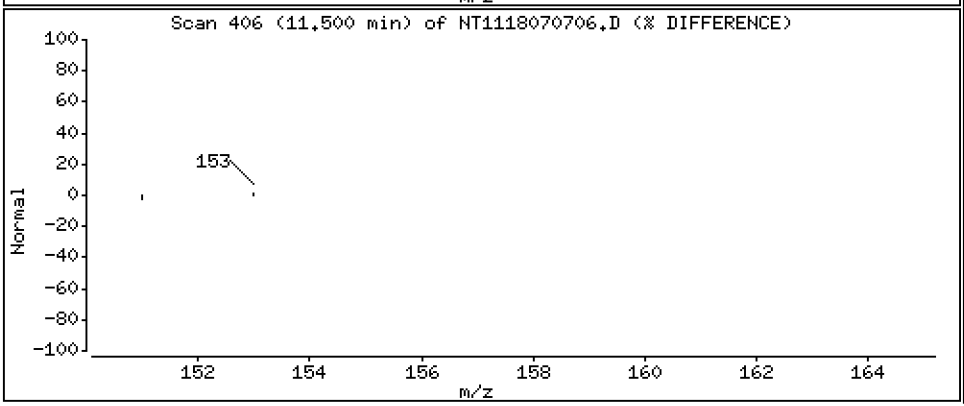












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Date : 07-JUL-2018 11:37

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05RE1,10

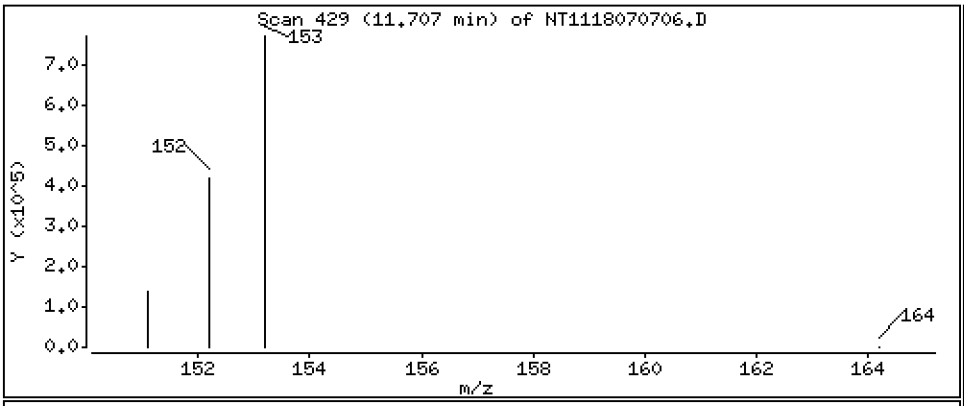
Operator: VTS

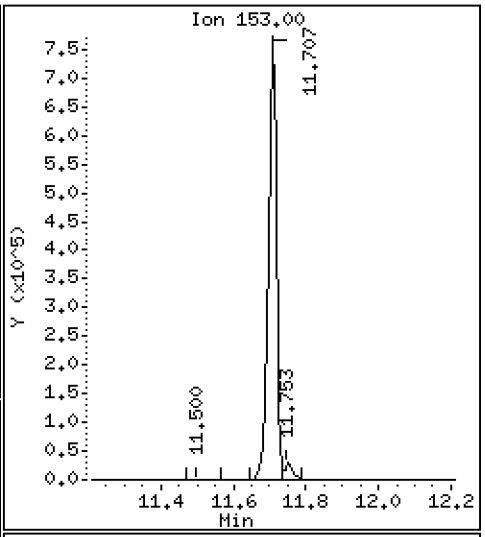
Column phase: Rxi-17Sil MS

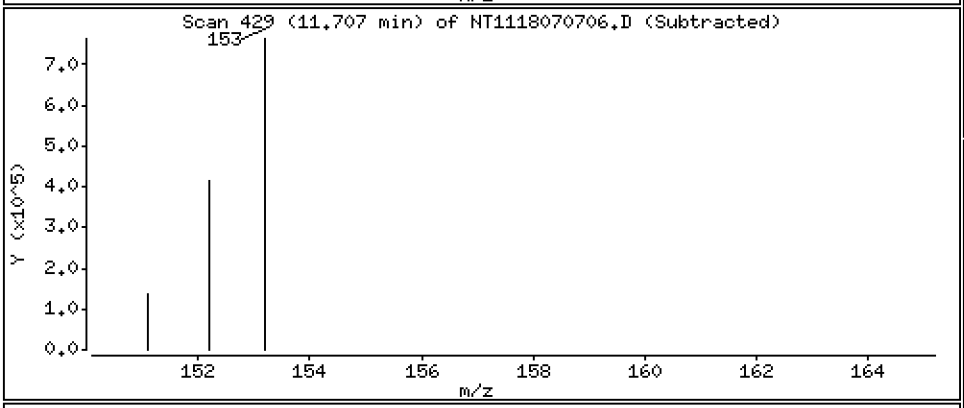
Column diameter: 0.25

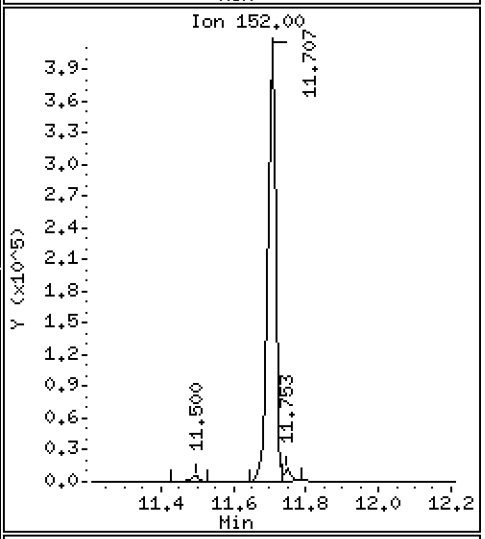
12 Acenaphthene

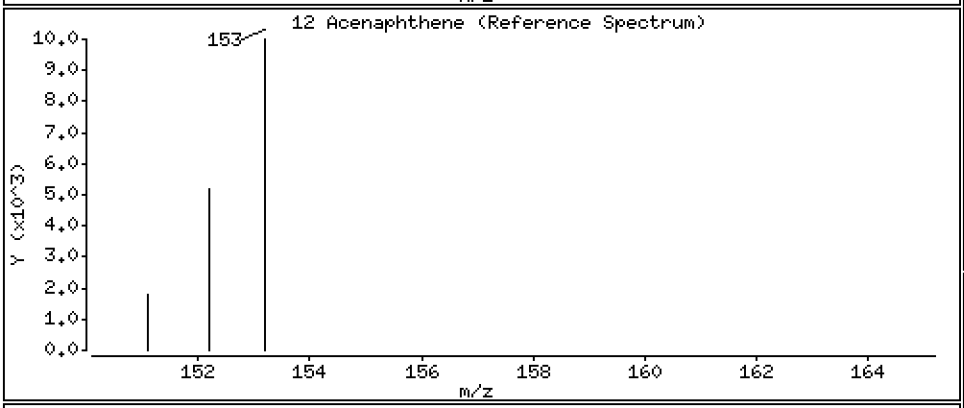
Concentration: 6700 ng/mL

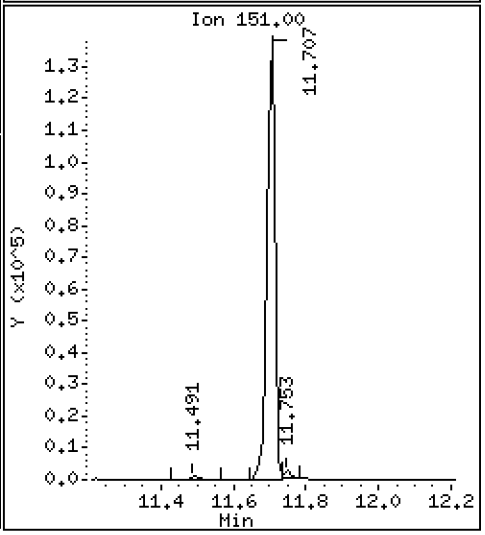


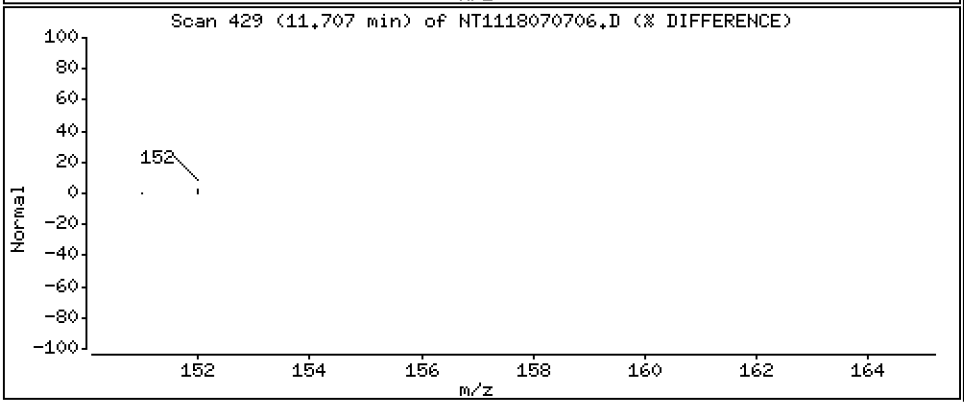












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Date : 07-JUL-2018 11:37

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05RE1,10

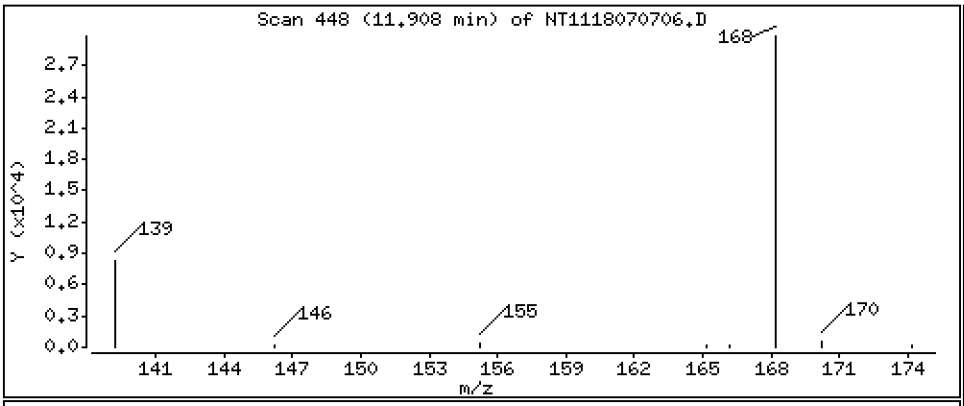
Operator: VTS

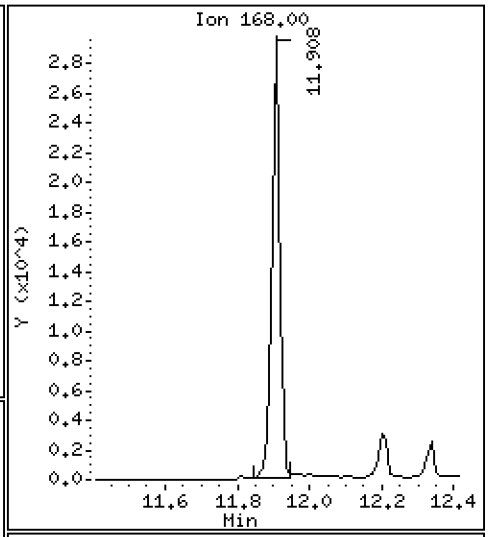
Column phase: Rxi-17Sil MS

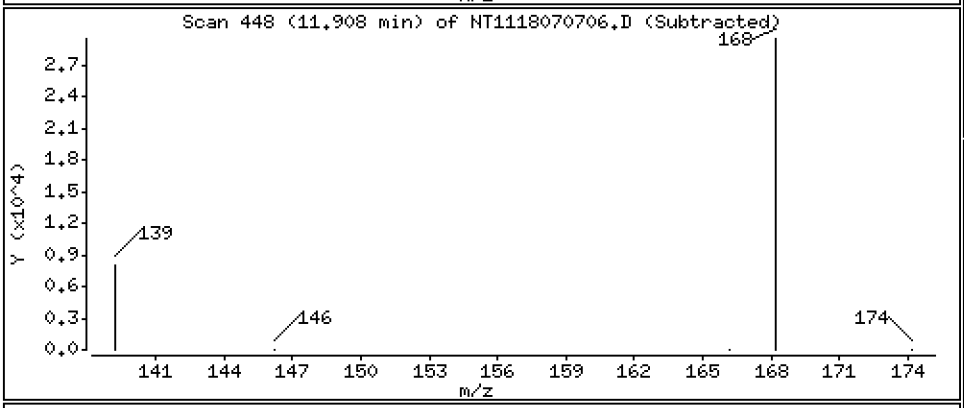
Column diameter: 0.25

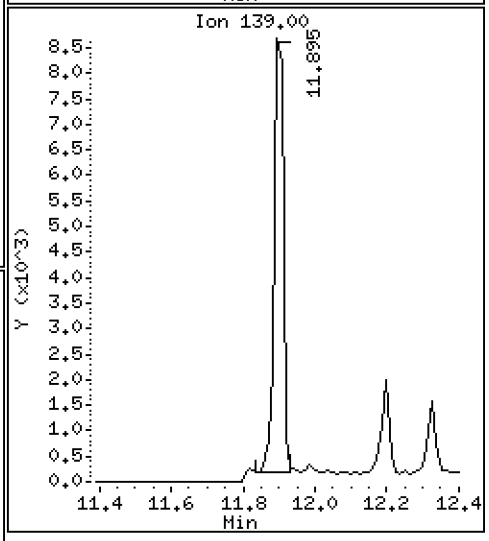
13 Dibenzofuran

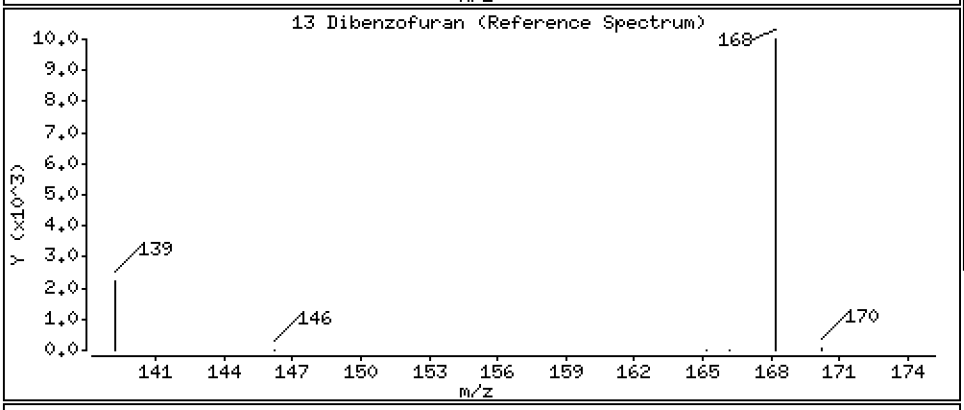
Concentration: 183 ng/mL

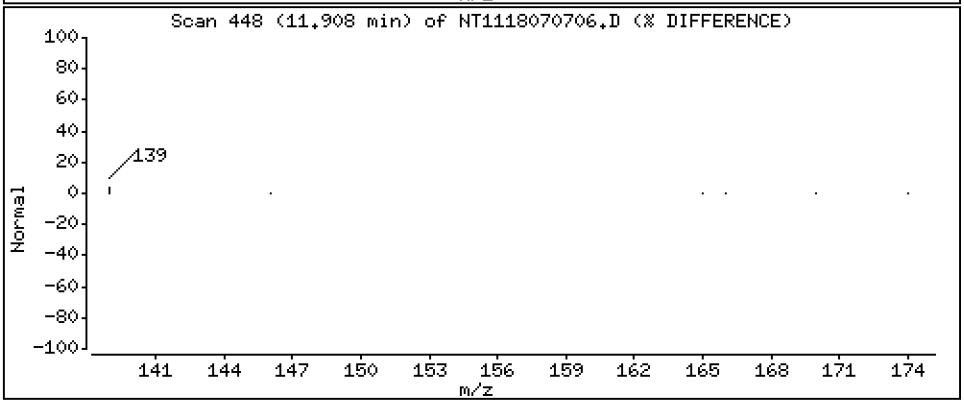












Data File: \\target\share\chem3\nt11.i\20180707.b\NT1118070706.D

Date : 07-JUL-2018 11:37

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05RE1,10

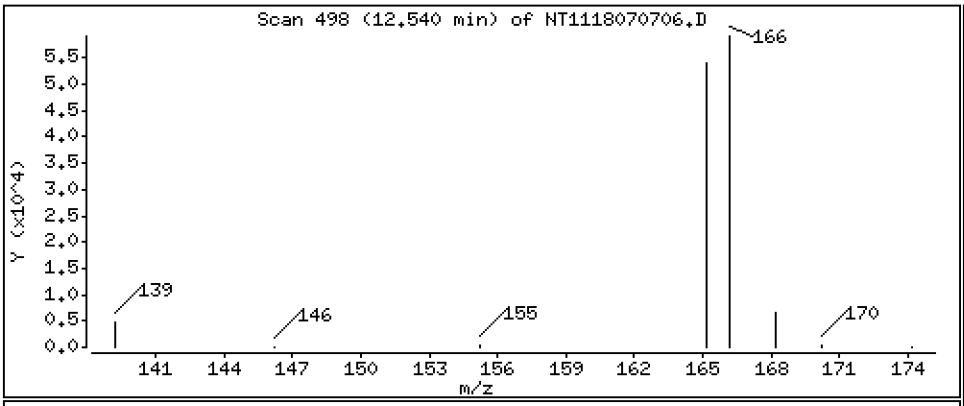
Operator: VTS

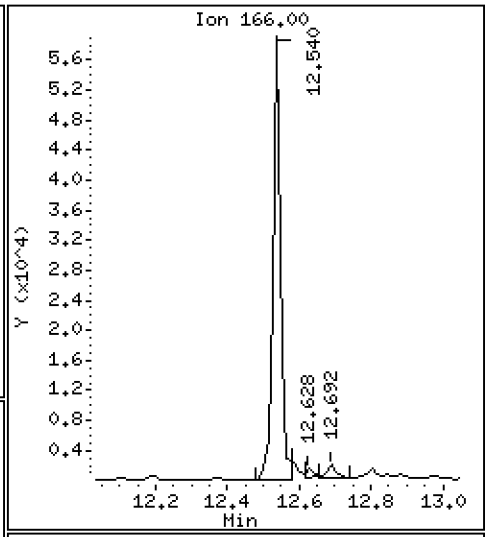
Column phase: Rxi-17Sil MS

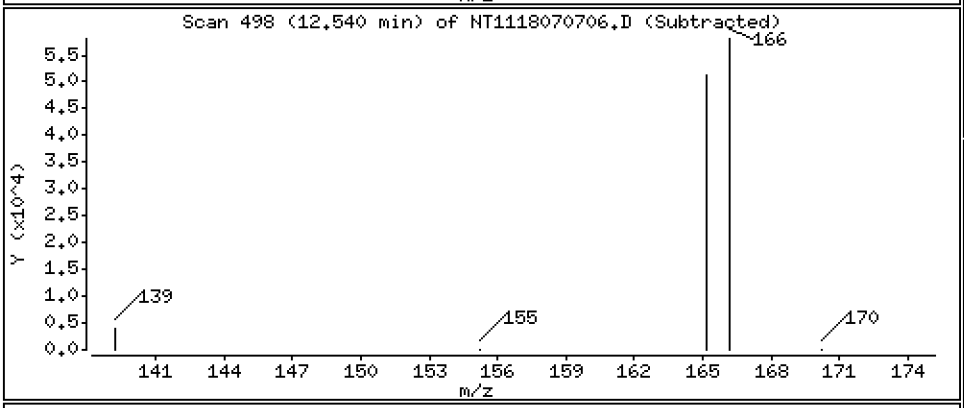
Column diameter: 0.25

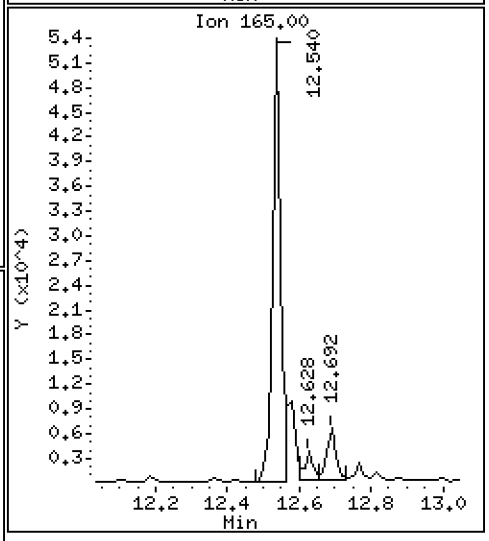
16 Fluorene

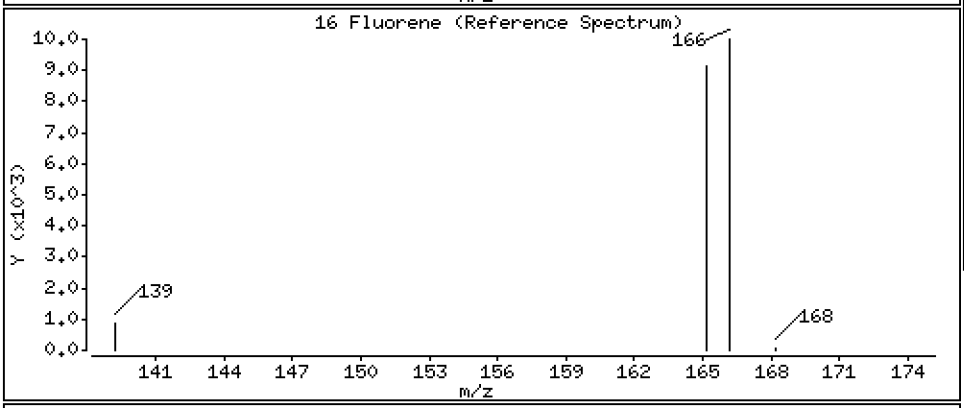
Concentration: 453 ng/mL

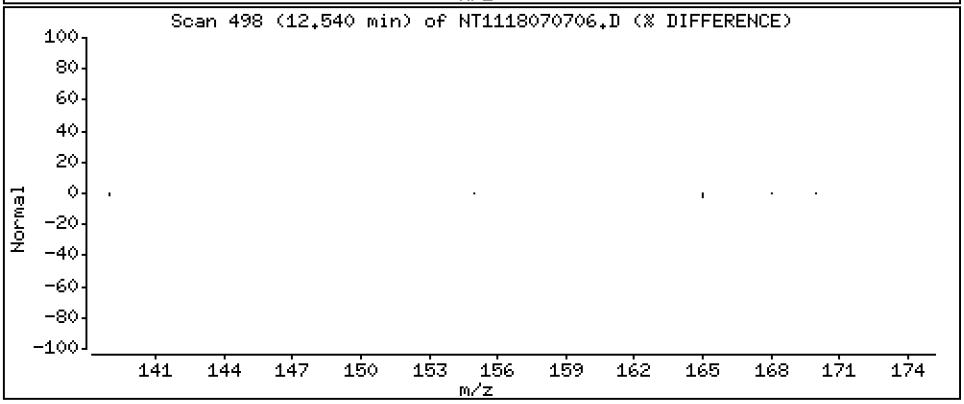












Data File: \\target\share\chem3\nt11.i\20180707.b\NT1118070706.D

Date : 07-JUL-2018 11:37

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05RE1,10

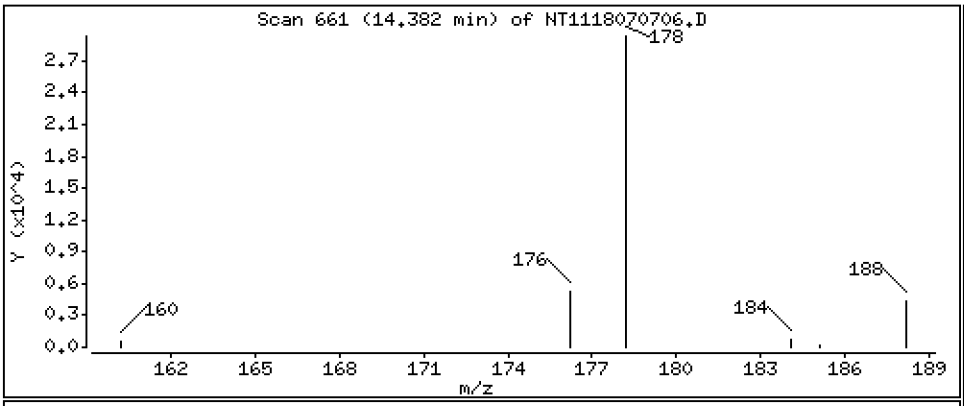
Operator: VTS

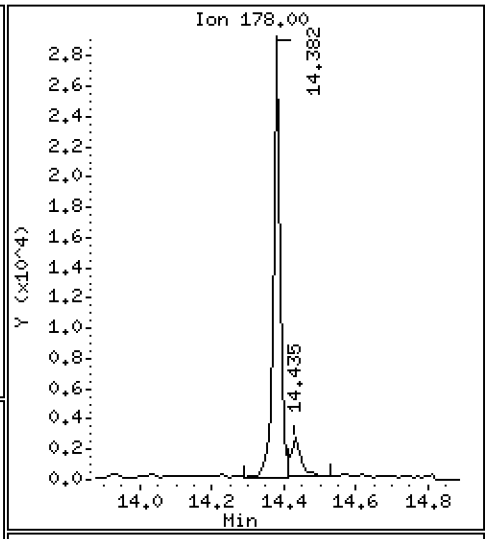
Column phase: Rxi-17Sil MS

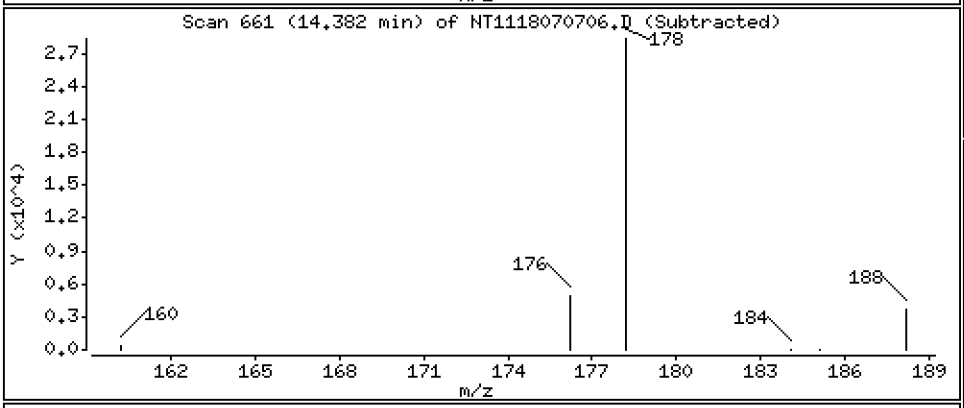
Column diameter: 0.25

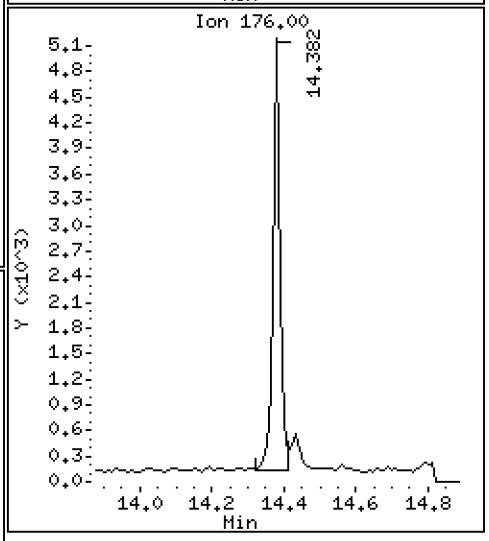
19 Phenanthrene

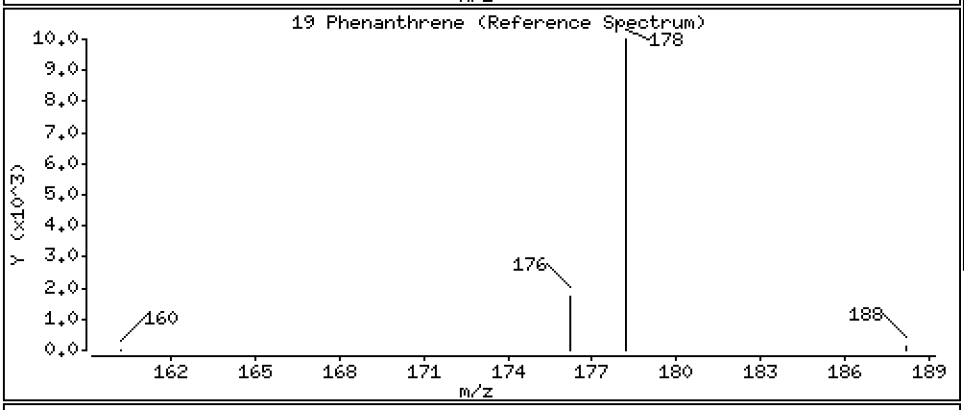
Concentration: 156 ng/mL

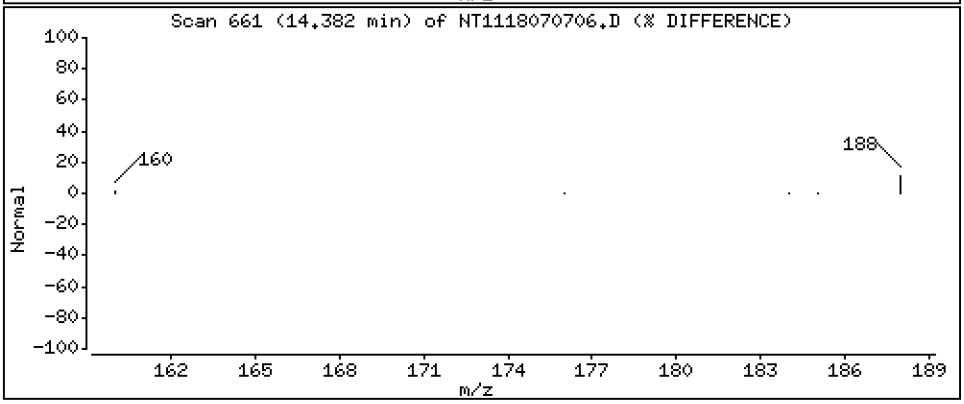












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Date : 07-JUL-2018 11:37

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05RE1,10

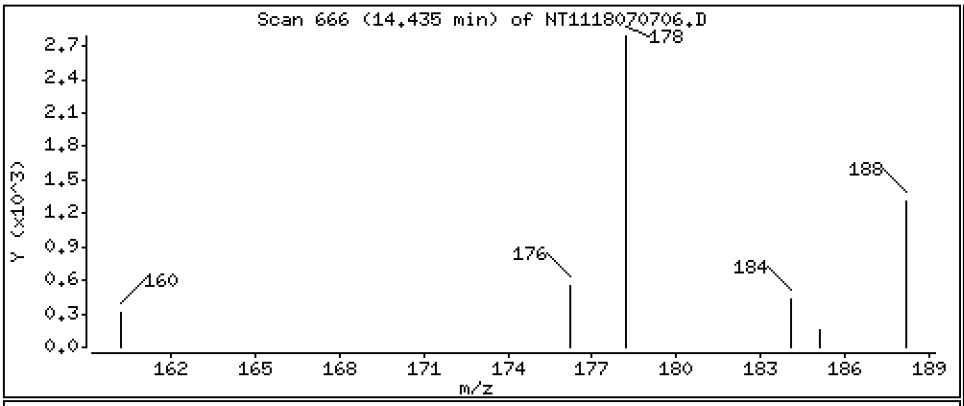
Operator: VTS

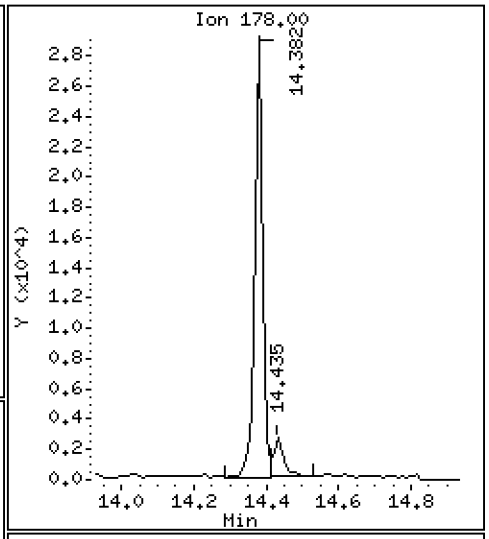
Column phase: Rxi-17Sil MS

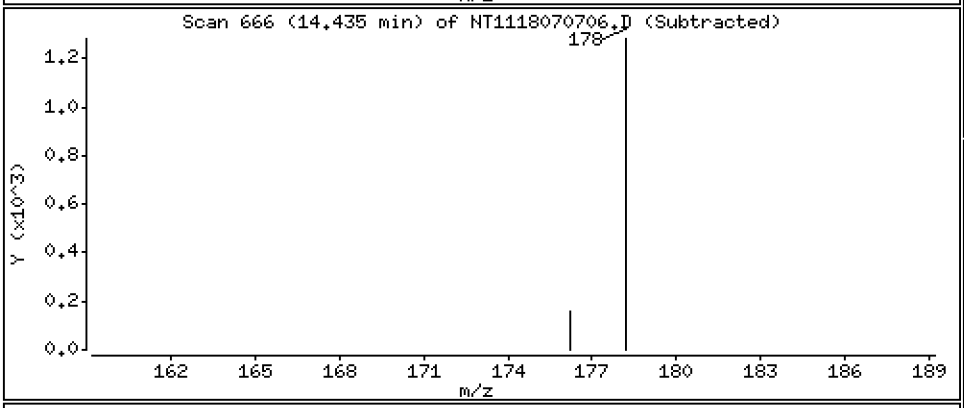
Column diameter: 0.25

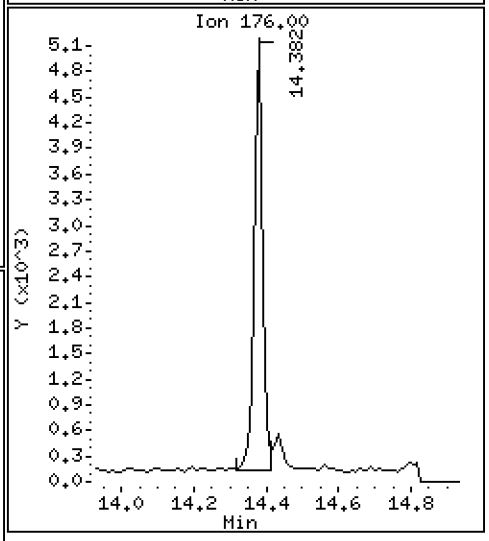
21 Anthracene

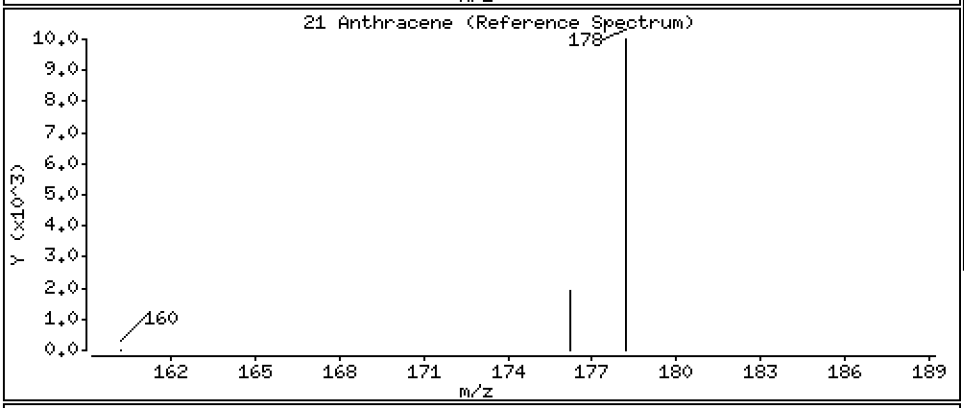
Concentration: 19.3 ng/mL

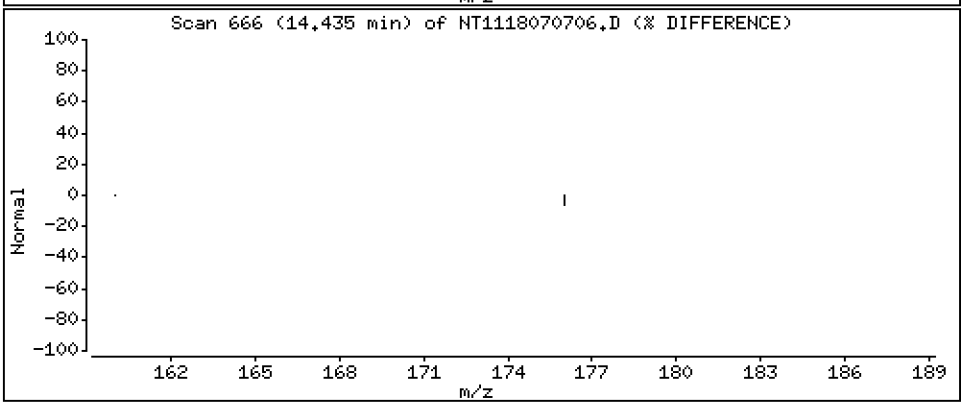












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Date : 07-JUL-2018 11:37

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05RE1,10

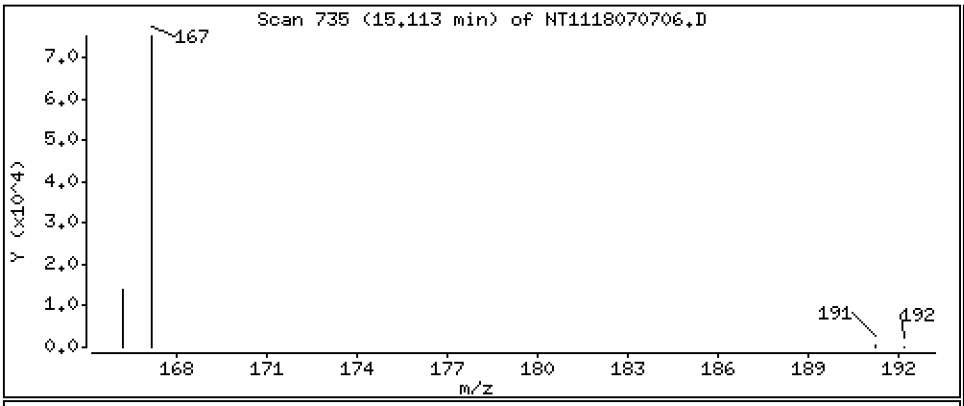
Operator: VTS

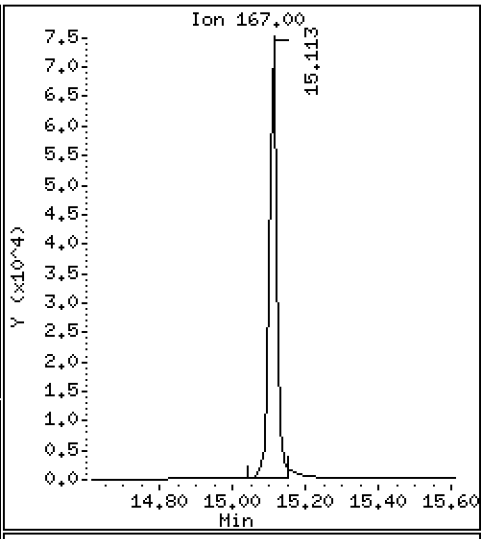
Column phase: Rxi-17Sil MS

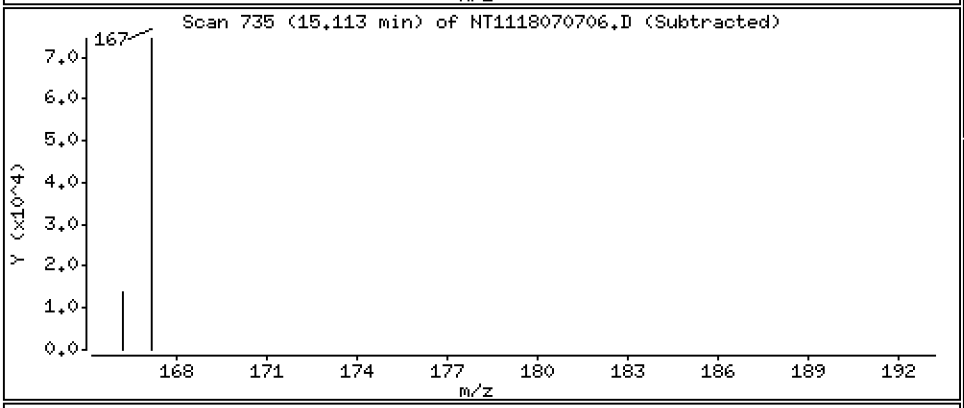
Column diameter: 0.25

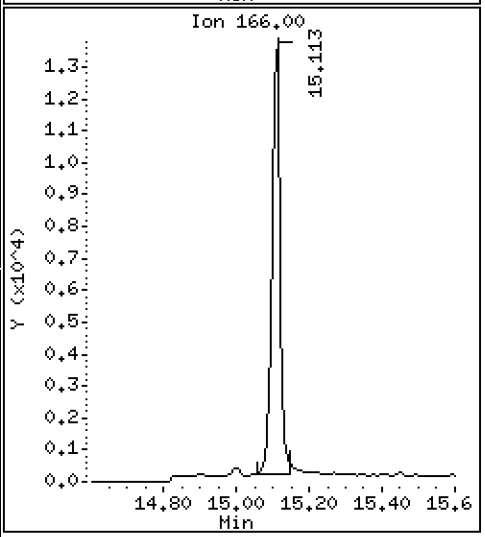
22 Carbazole

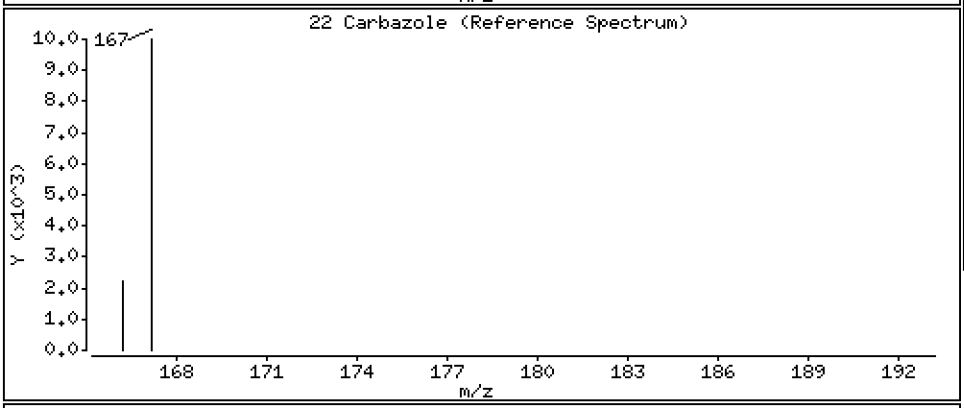
Concentration: 364 ng/mL

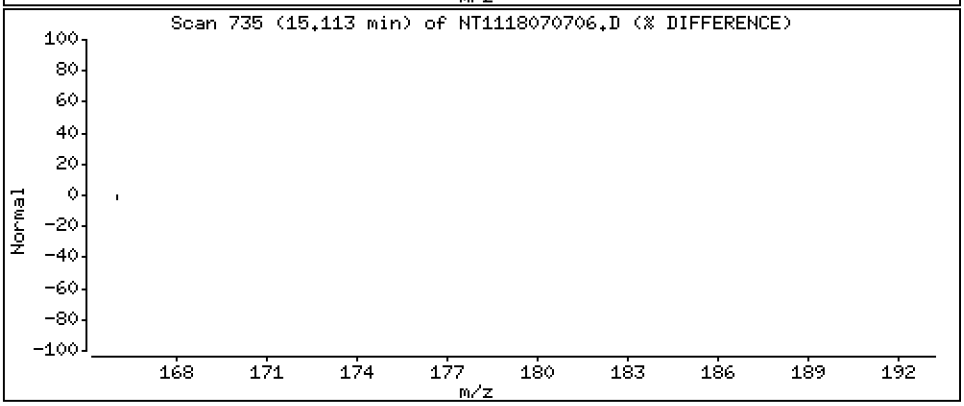












Data File: \\target\share\chem3\nt11.i\20180707.b\NT1118070706.D

Date : 07-JUL-2018 11:37

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05RE1,10

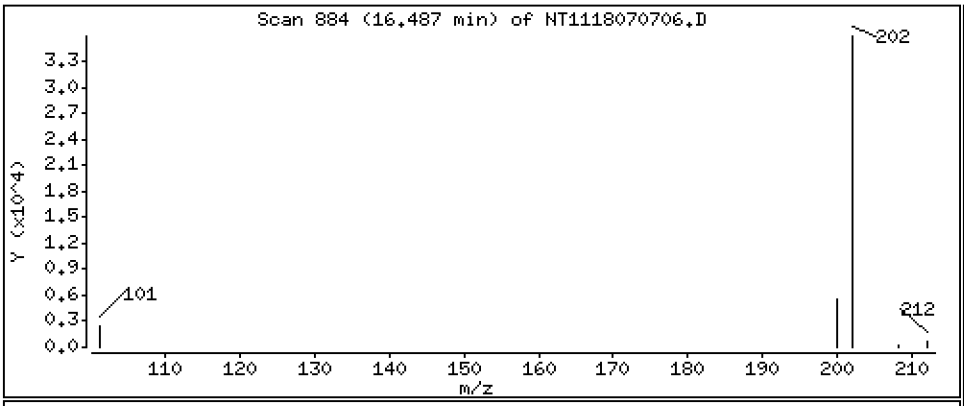
Operator: VTS

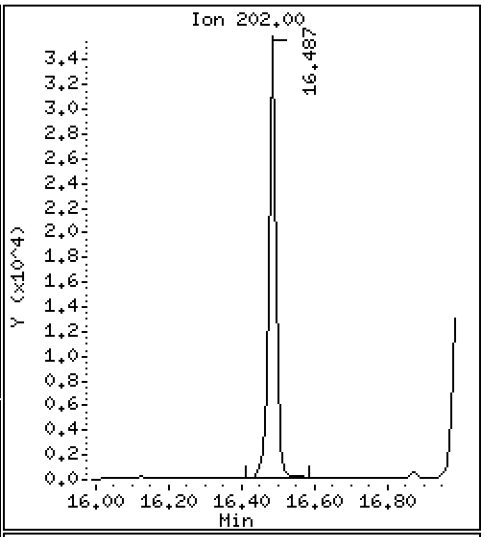
Column phase: Rxi-17Sil MS

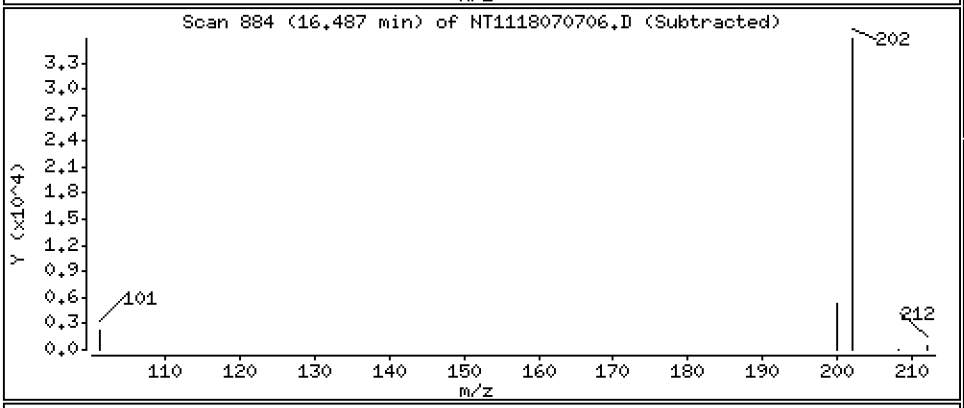
Column diameter: 0.25

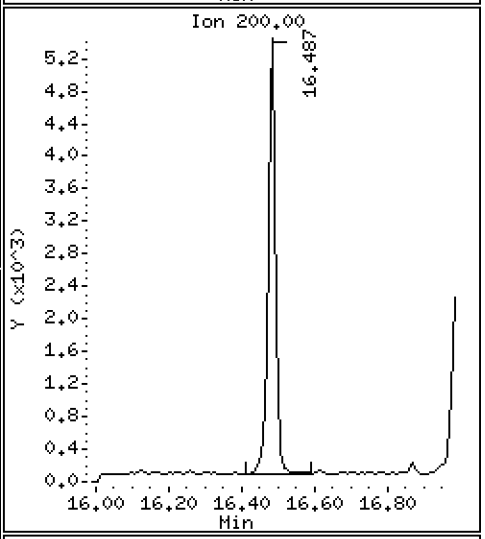
25 Fluoranthene

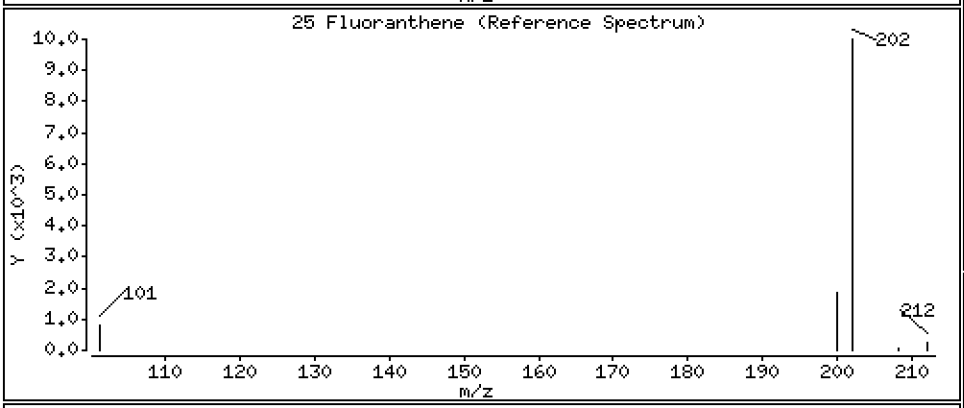
Concentration: 207 ng/mL

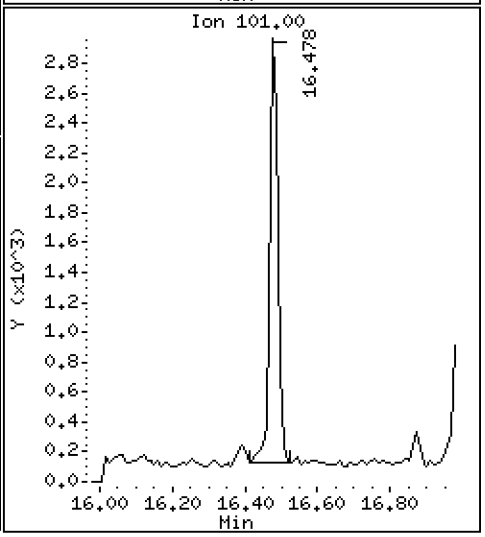


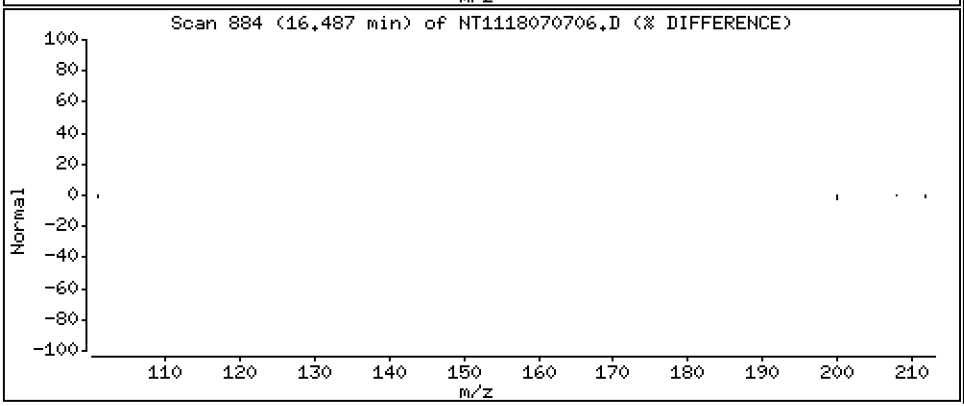












Data File: \\target\share\chem3\nt11.i\20180707.b\NT1118070706.D

Date : 07-JUL-2018 11:37

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-05RE1,10

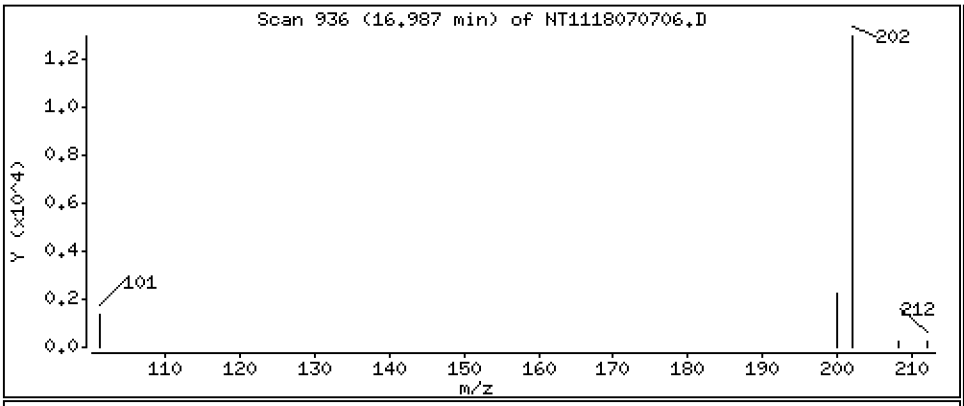
Operator: VTS

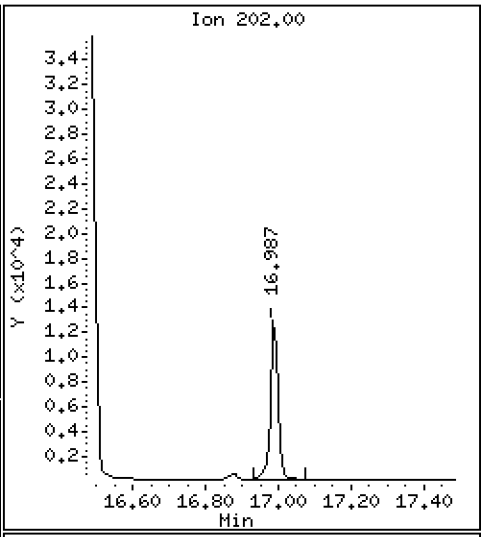
Column phase: Rxi-17Sil MS

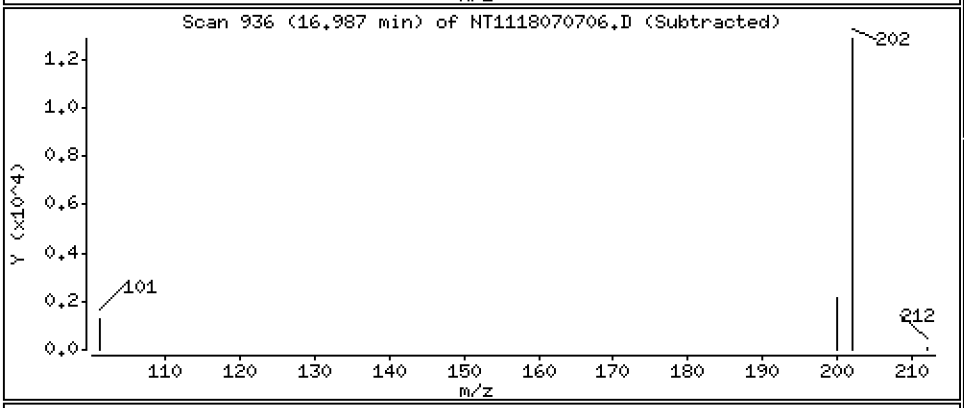
Column diameter: 0.25

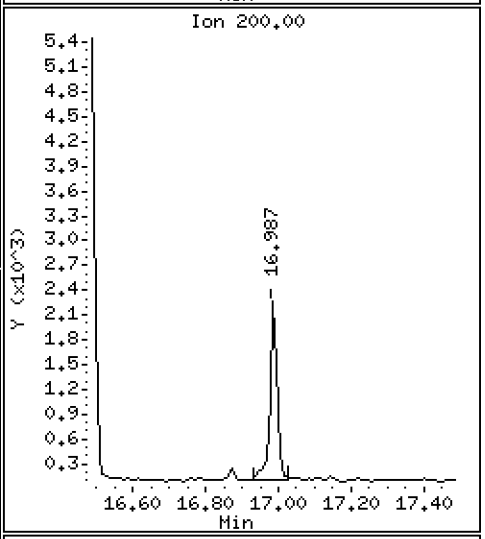
26 Pyrene

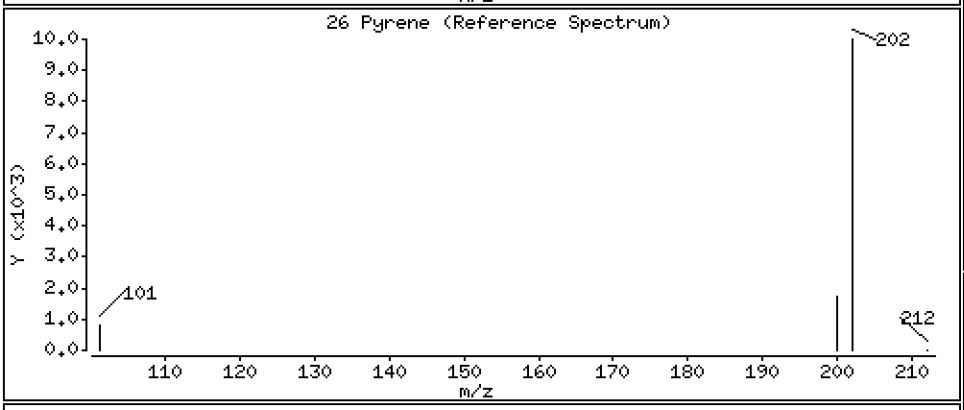
Concentration: 78.5 ng/mL

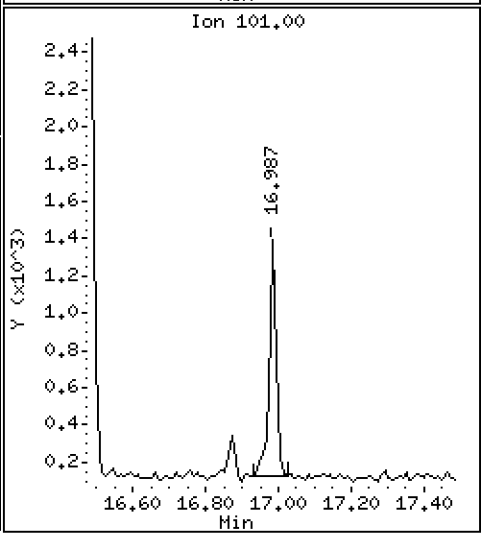


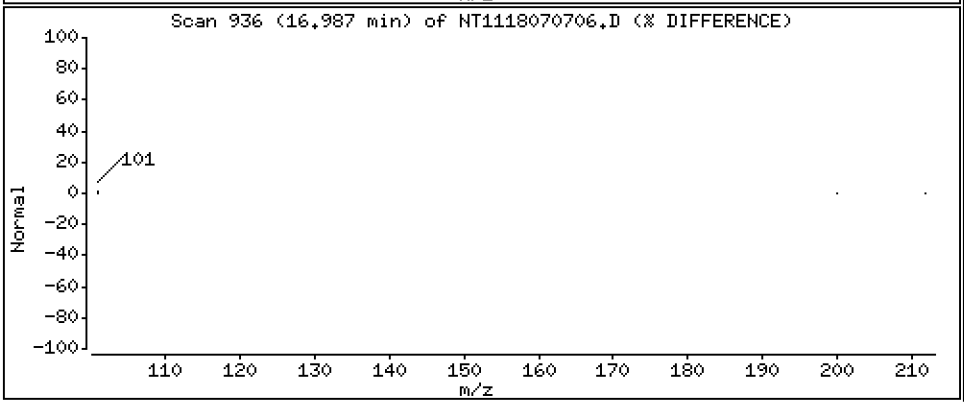












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

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Lab Smp Id: 18F0226-05RE1
Inj Date : 07-JUL-2018 11:37 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0226-05RE1,10
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180707.b\LOWSIM.m
Meth Date : 07-Jul-2018 09:32 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	405203	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	229997	79.1795	792
	3 Benzo(b)thiophene	134	8.897	8.897	(1.034)	11904	5.60470	56.0
$	4 2-Methylnaphthalene-d10	152	9.591	9.591	(1.114)	41354	17.8872	179
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	248878	100.831	1010
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	396348	161.460	1610
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	10.558	10.579	(0.907)	18004	8.75337	87.5(M)
	10 Acenaphthylene	152	11.499	11.490	(0.988)	8955	3.59843	36.0
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	209304	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	1139942	669.722	6700
	13 Dibenzofuran	168	11.907	11.907	(1.023)	42748	18.3326	183
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.539	12.539	(1.077)	85260	45.3417	453
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	354404	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	43310	15.5815	156
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.434	14.434	(1.007)	5008	1.92726	19.3
	22 Carbazole	167	15.112	15.112	(1.054)	110108	36.3728	364
	23 1-Methylphenanthrene	192	Compound Not Detected.					
$	24 Fluoranthene-d10	212	16.448	16.448	(1.147)	41268	19.1834	192
	25 Fluoranthene	202	16.487	16.487	(1.150)	53539	20.7414	207
	26 Pyrene	202	16.986	16.986	(0.889)	19647	7.84615	78.5
	27 Benzo(a)anthracene	228	Compound Not Detected.					
*	28 Chrysene-d12	240	19.103	19.095	(1.000)	254707	200.000	
	29 Chrysene	228	Compound Not Detected.					
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	35 Benzo(a)pyrene	252	Compound Not Detected.					
*	36 Perylene-d12	264	22.353	22.353	(1.000)	244733	200.000	
	37 Perylene	252	Compound Not Detected.					
$	38 Dibenzo(a,h)anthracene-d14	292	25.279	25.268	(1.131)	13980	11.9371	119
	39 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	40 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	41 Benzo(g,h,i)perylene	276	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118070706.D
Lab Smp Id: 18F0226-05RE1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180707.b\LOWSIM.m
Misc Info:

Calibration Date: 07-JUL-2018
Calibration Time: 08:54
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	405203	-6.06
11 Acenaphthene-d10	260137	130069	520274	209304	-19.54
18 Phenanthrene-d10	427391	213696	854782	354404	-17.08
28 Chrysene-d12	304596	152298	609192	254707	-16.38
36 Perylene-d12	263091	131546	526182	244733	-6.98

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	0.04
36 Perylene-d12	22.35	21.85	22.85	22.35	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118070706.D

Lab ID: 18F0226-05RE1
nt11.i, 20180707.b\LOWSIM.m,   07-JUL-2018 11:37

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

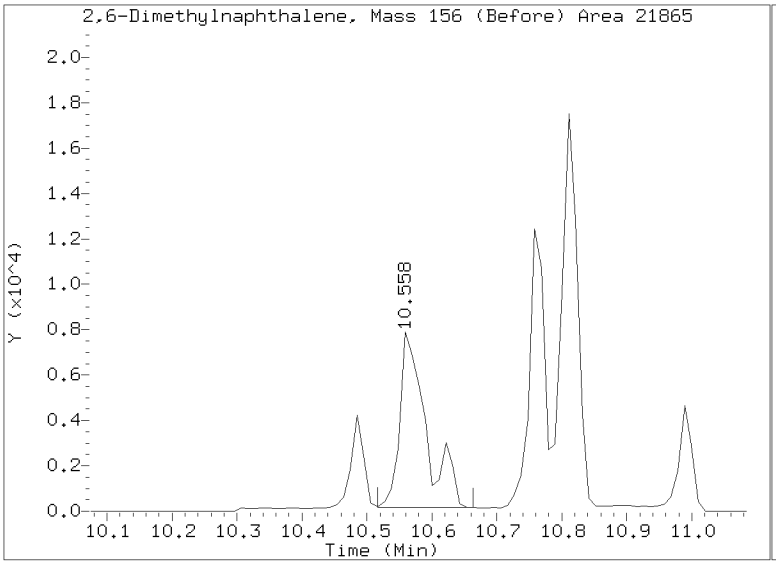
On Column LOD for nt11.i, 20180707.b\LOWSIM.m, allpna.sub = 0.0000

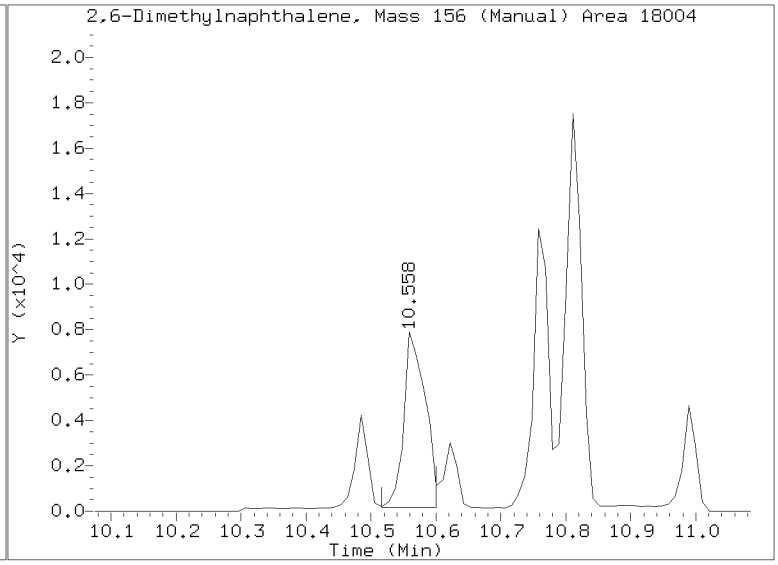
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20180707.b/NT1118070706.D
Injection Date: 07-JUL-2018 11:37
Lab ID:18F0226-05RE1 Client ID:
Report Date: 07/07/2018 13:02





Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-78

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-06	SDG:	18F0185
Sampled:	06/14/18 12:04	Prepared:	06/21/18 13:35	File ID:	NT1118070612.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	07/06/18 19:03
Batch:	BGF0530	Sequence:	SGG0067	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.003	J	0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.003	J	0.001	0.010
208-96-8	Acenaphthylene	1	0.010	U	0.002	0.010
83-32-9	Acenaphthene	1	0.007	J	0.003	0.010
86-73-7	Fluorene	1	0.002	J	0.002	0.010
85-01-8	Phenanthrene	1	0.006	J	0.001	0.010
120-12-7	Anthracene	1	0.010	U	0.001	0.010
206-44-0	Fluoranthene	1	0.005	J	0.002	0.010
129-00-0	Pyrene	1	0.006	J	0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.010	U	0.0008	0.010
218-01-9	Chrysene	1	0.010	U	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.010	U	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.180	60.1	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.205	68.3	29 - 120	
Fluoranthene-d10	0.30000	0.217	72.4	57 - 120	

Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070612.D

Date : 06-JUL-2018 19:03

Client ID:

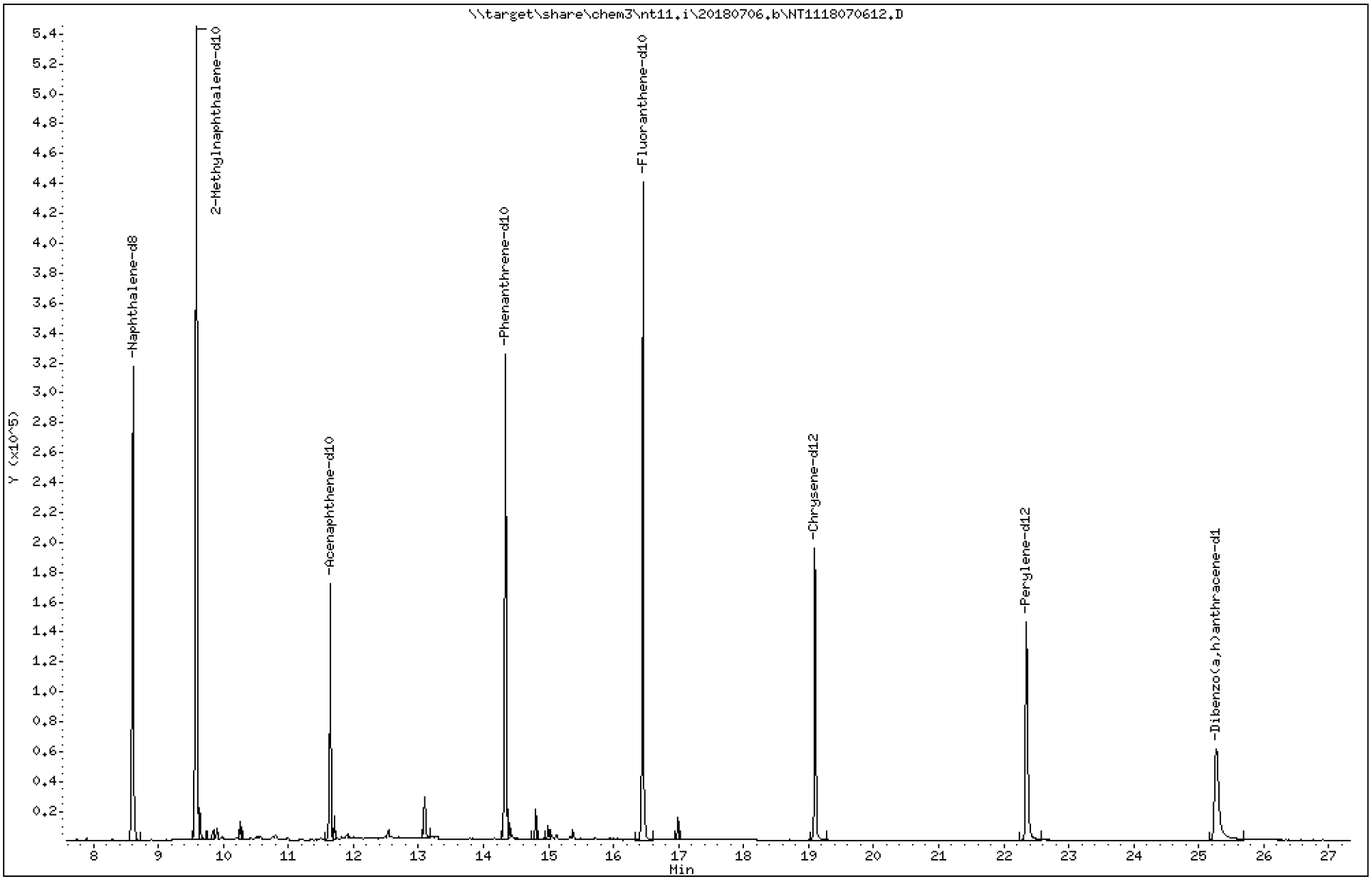
Instrument: nt11.i

Sample Info: 18F0226-06

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 06-JUL-2018 19:03

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-06

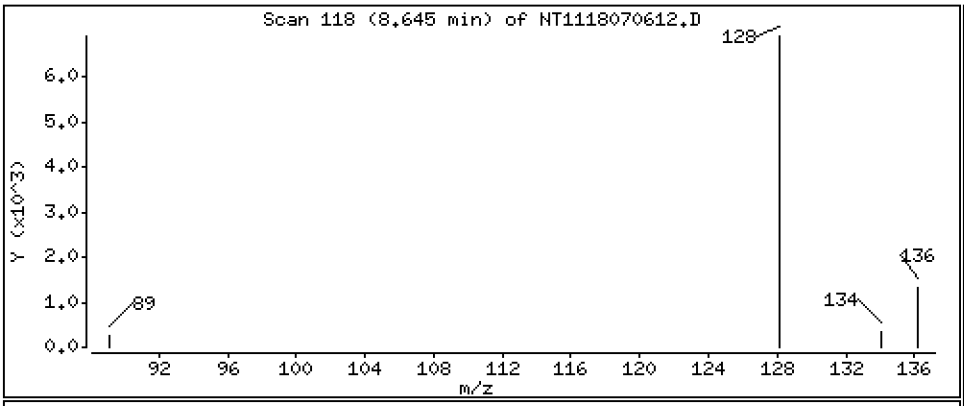
Operator: VTS

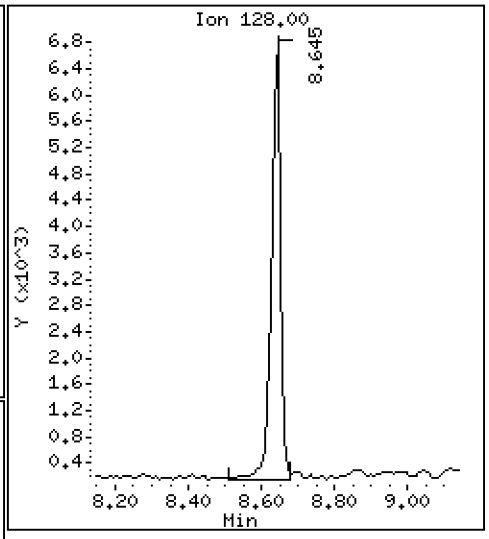
Column phase: Rxi-17Sil MS

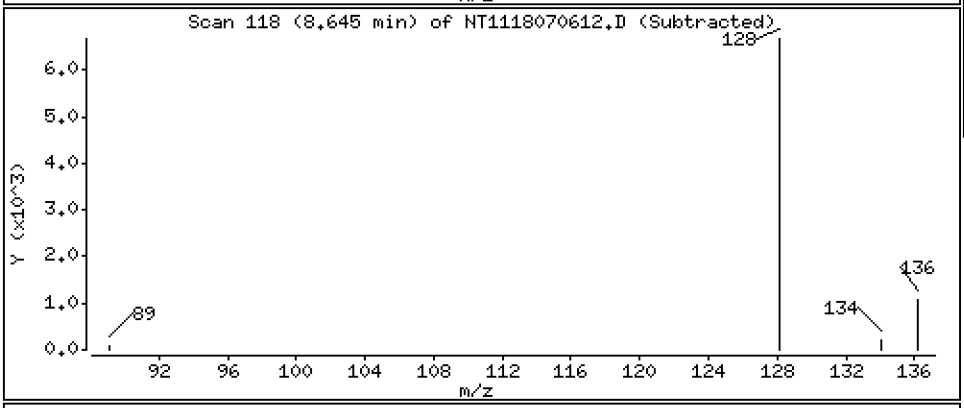
Column diameter: 0.25

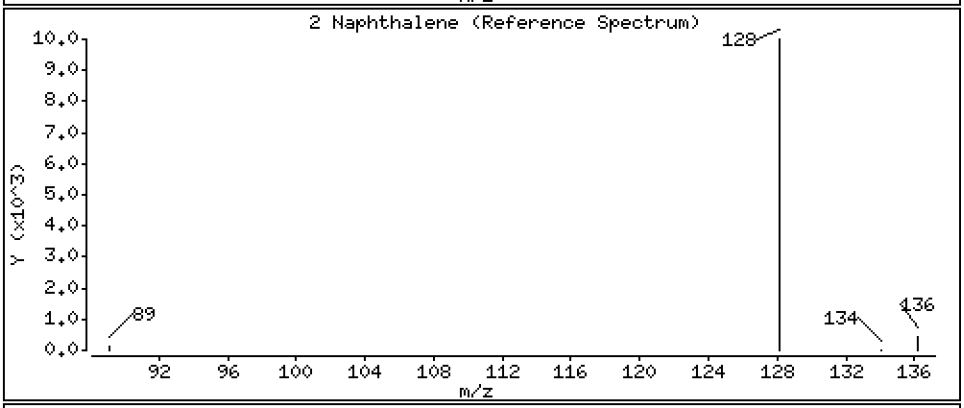
2 Naphthalene

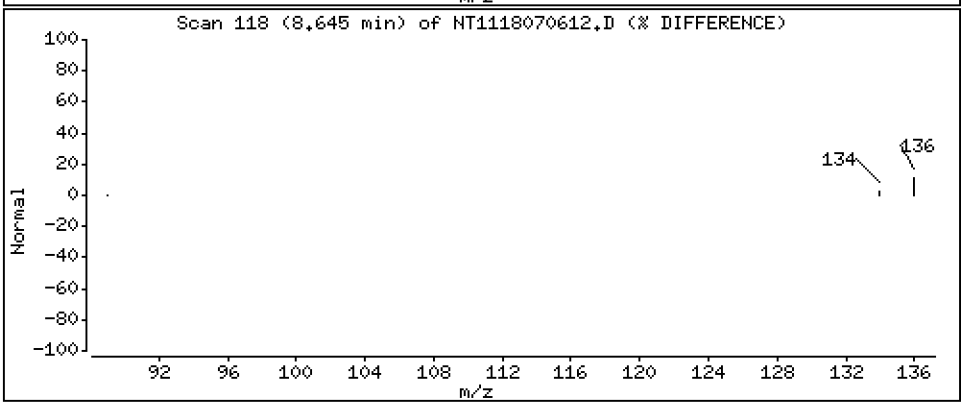
Concentration: 3.24 ng/mL











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Date : 06-JUL-2018 19:03

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-06

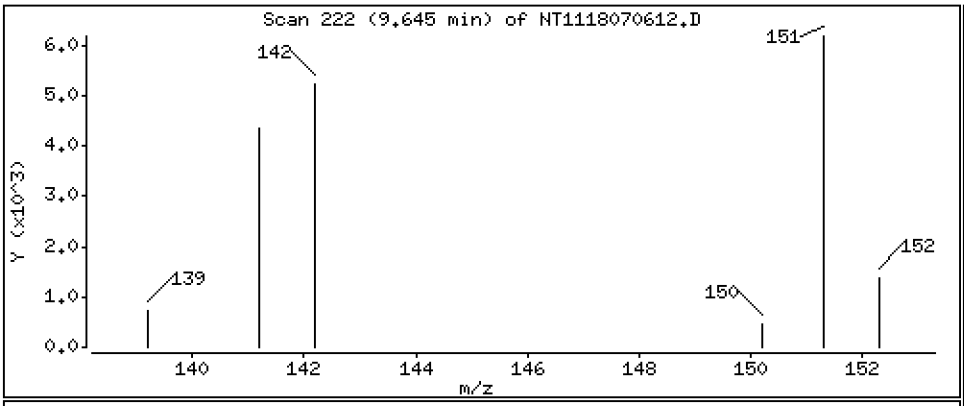
Operator: VTS

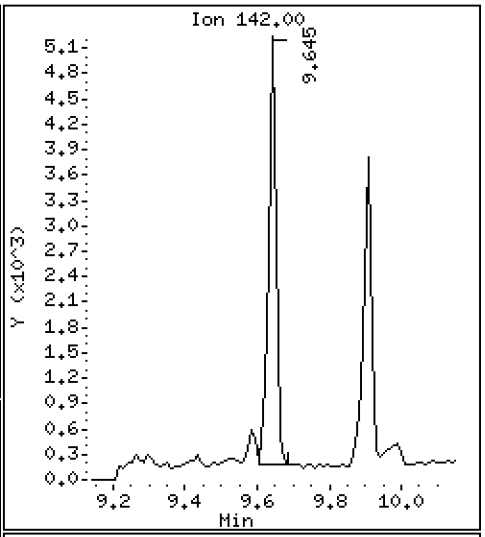
Column phase: Rxi-17Sil MS

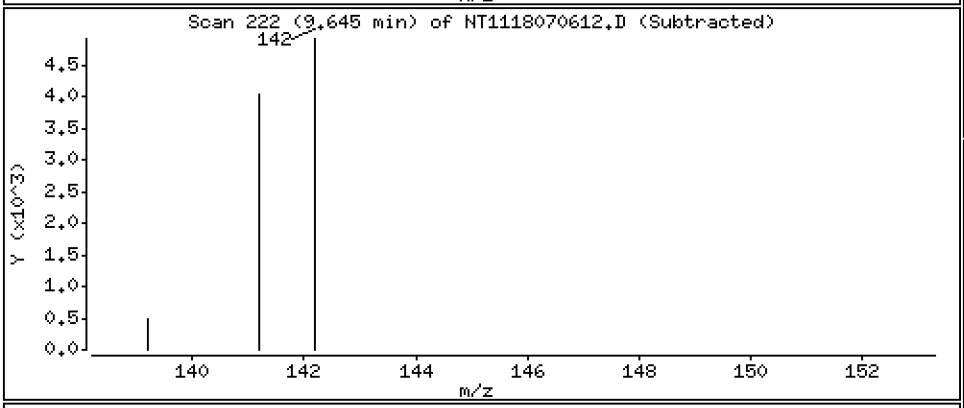
Column diameter: 0.25

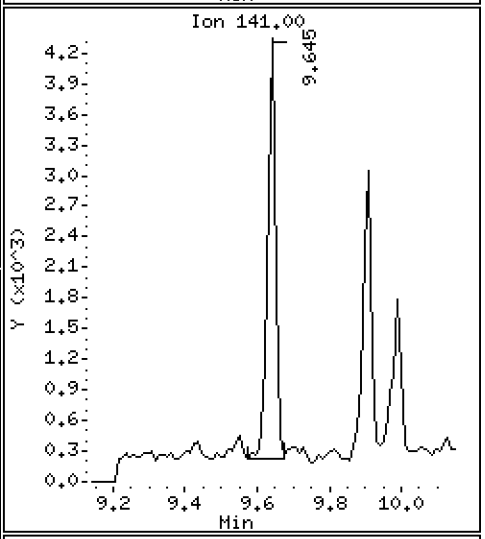
5 2-Methylnaphthalene

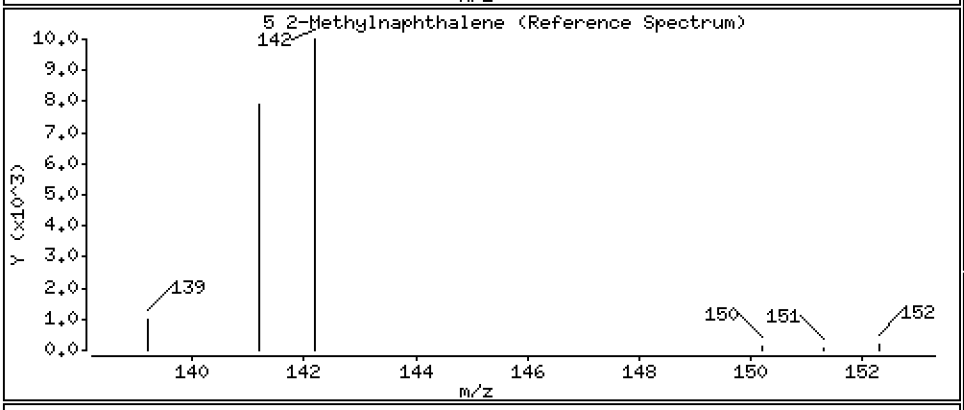
Concentration: 2.56 ng/mL

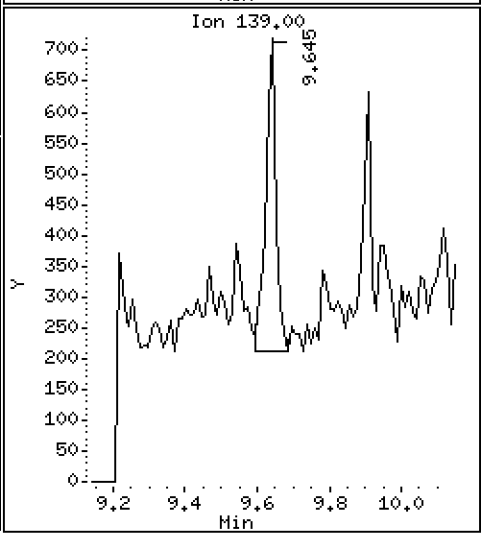


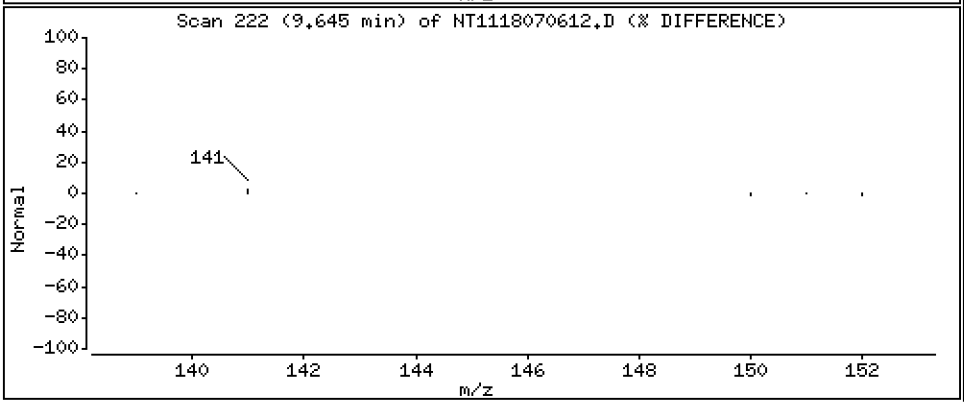












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Date : 06-JUL-2018 19:03

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-06

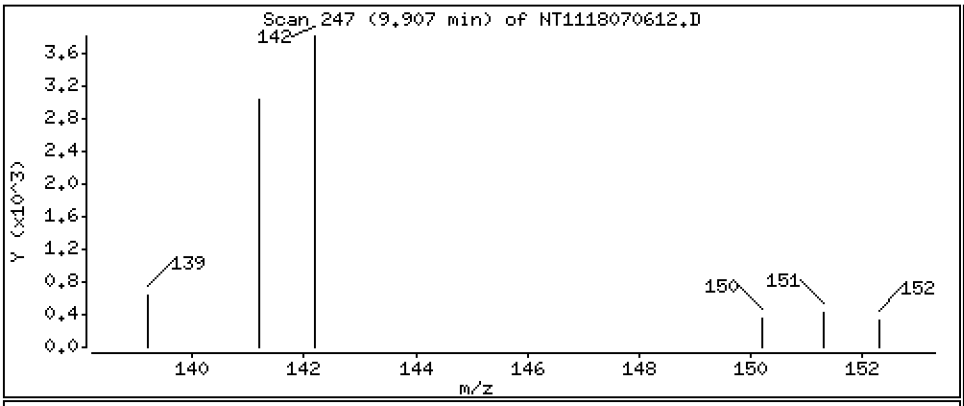
Operator: VTS

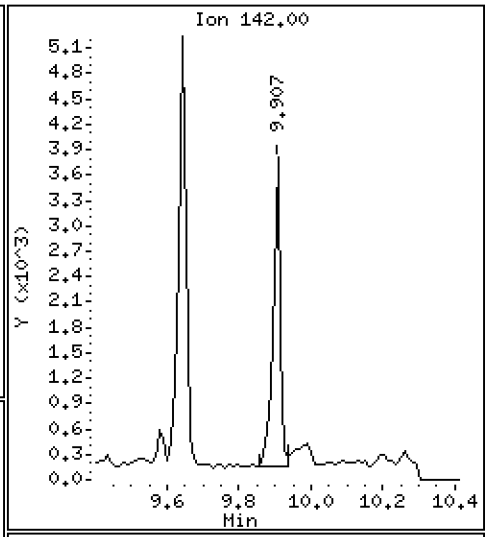
Column phase: Rxi-17Sil MS

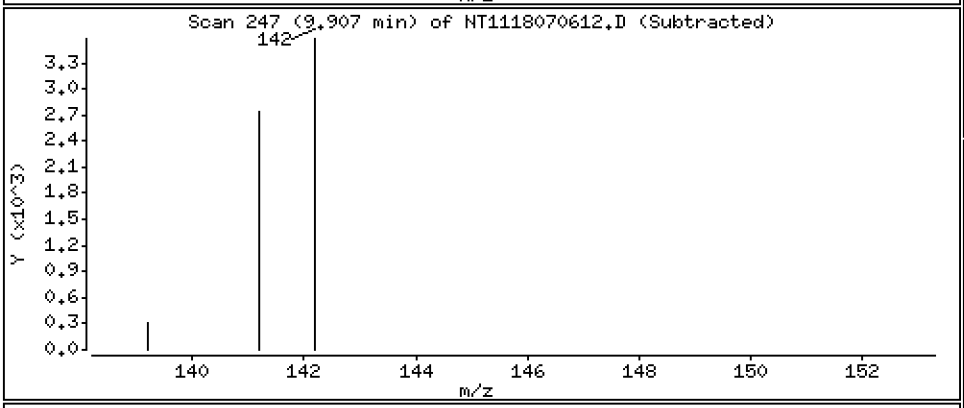
Column diameter: 0.25

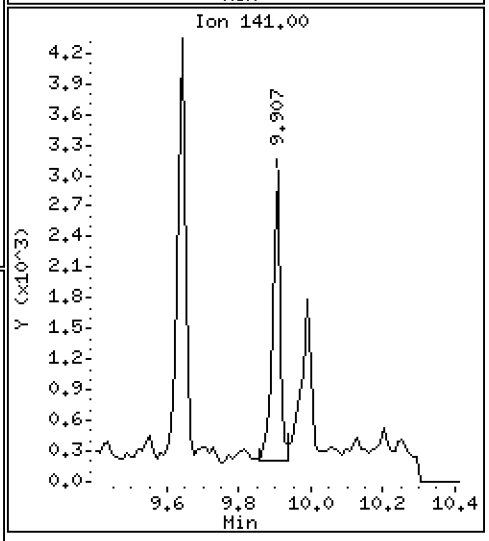
6 1-Methylnaphthalene

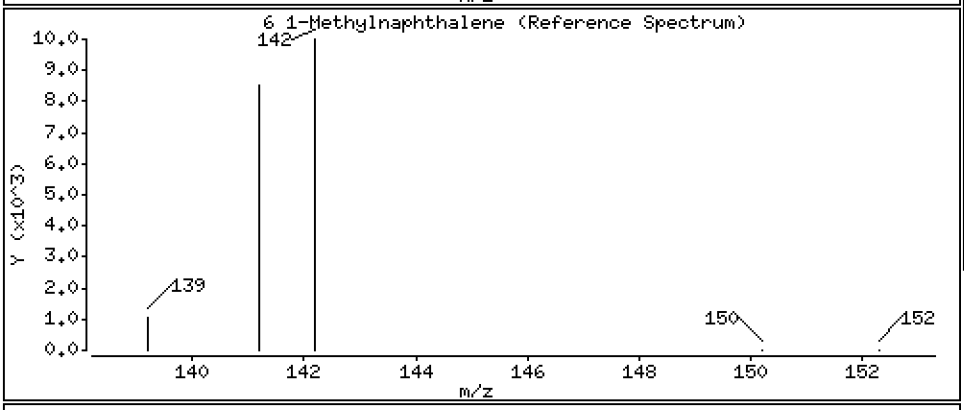
Concentration: 1.97 ng/mL

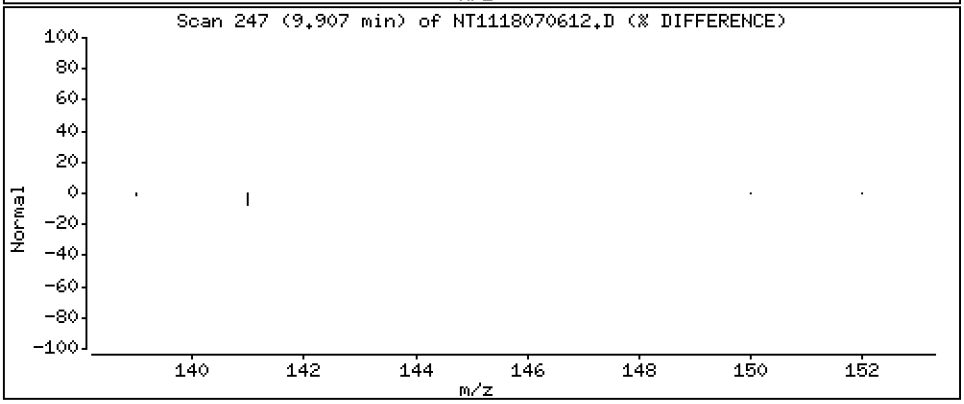












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Date : 06-JUL-2018 19:03

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-06

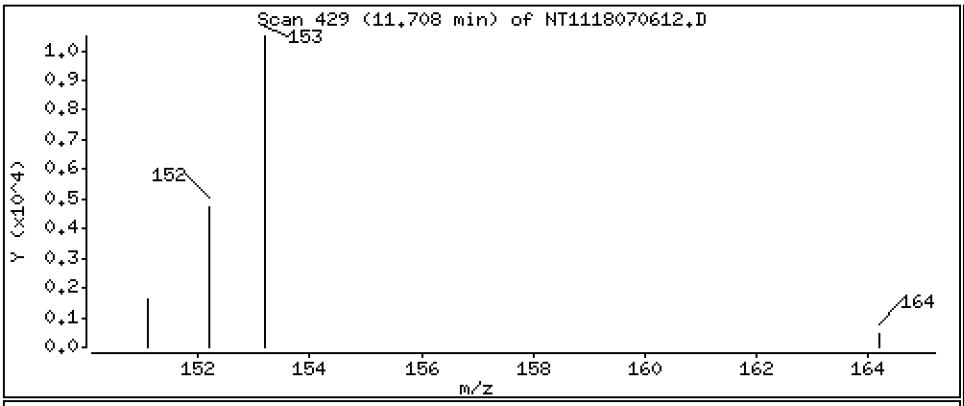
Operator: VTS

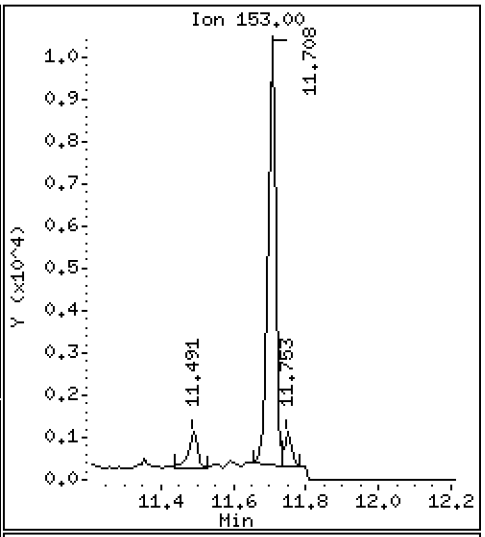
Column phase: Rxi-17Sil MS

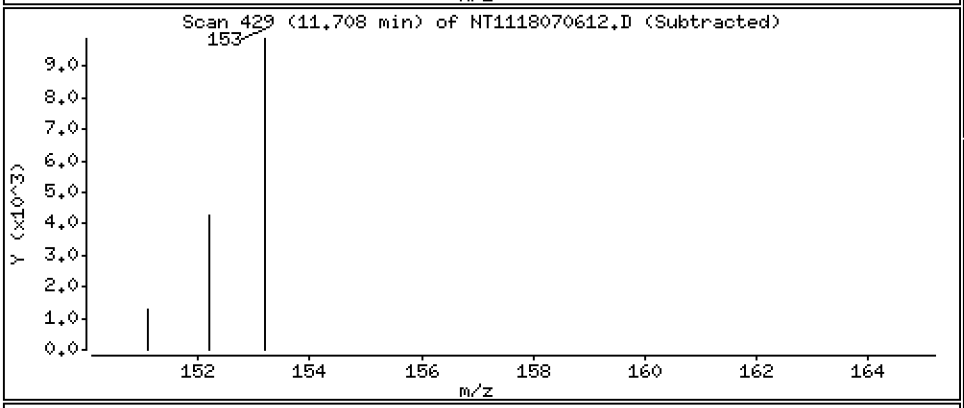
Column diameter: 0.25

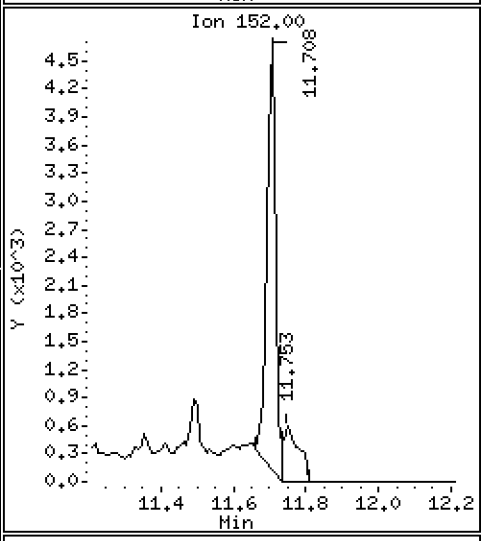
12 Acenaphthene

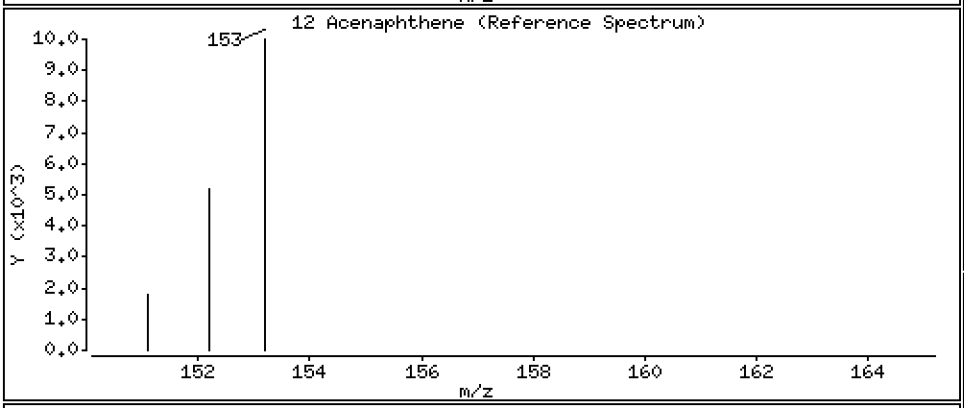
Concentration: 6.92 ng/mL

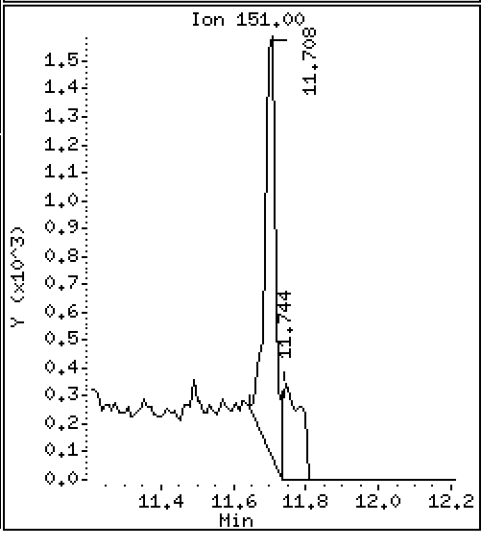


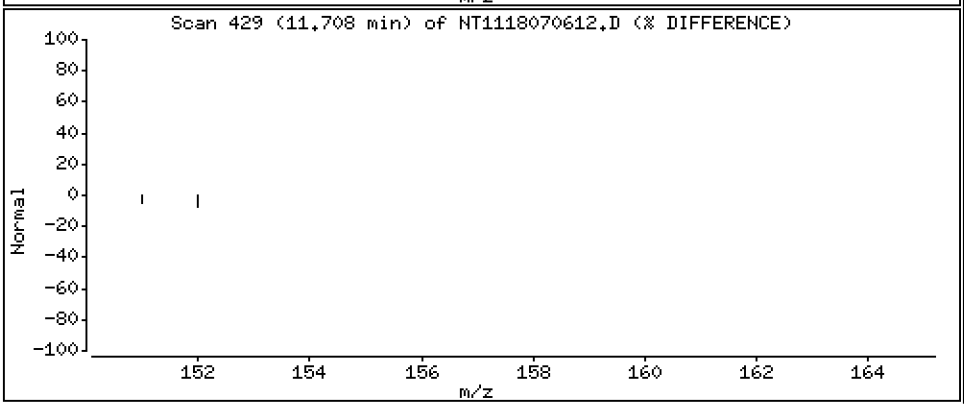












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Date : 06-JUL-2018 19:03

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-06

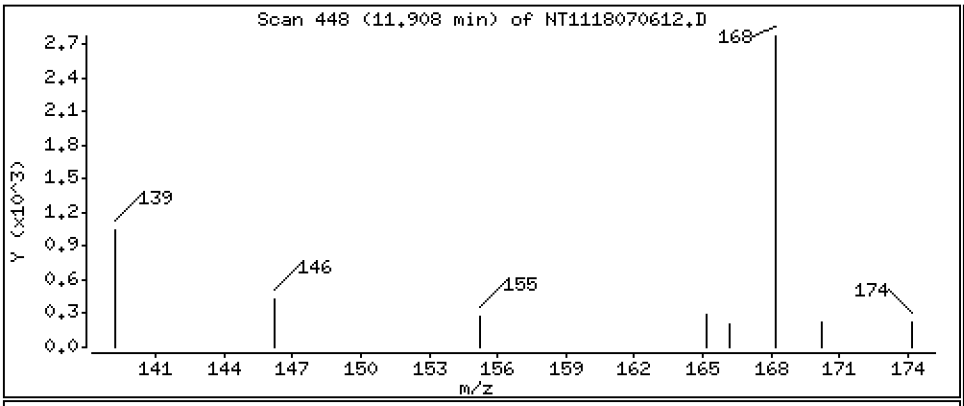
Operator: VTS

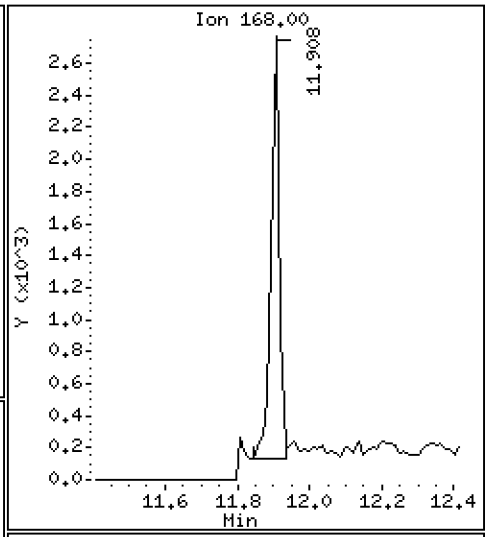
Column phase: Rxi-17Sil MS

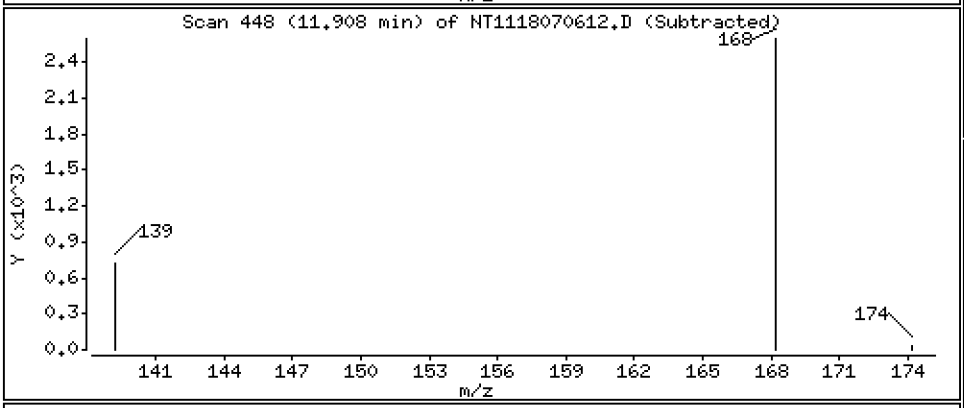
Column diameter: 0.25

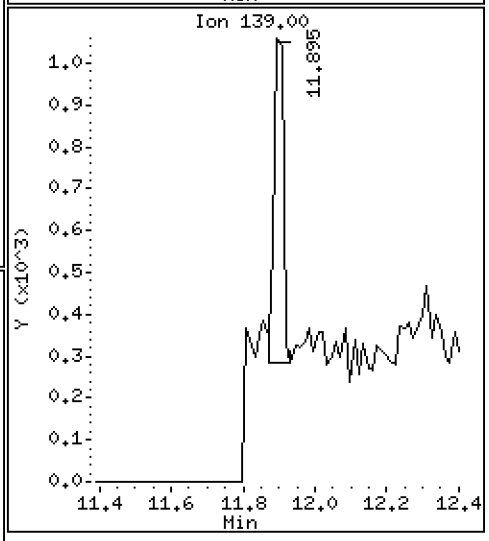
13 Dibenzofuran

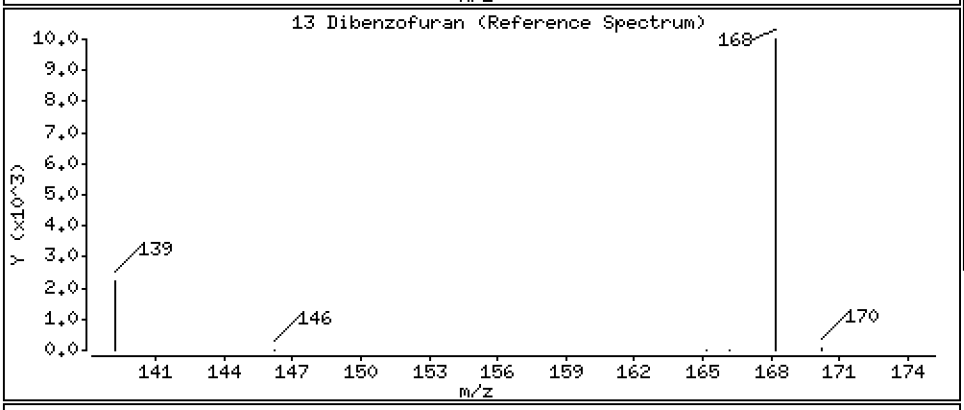
Concentration: 1.46 ng/mL

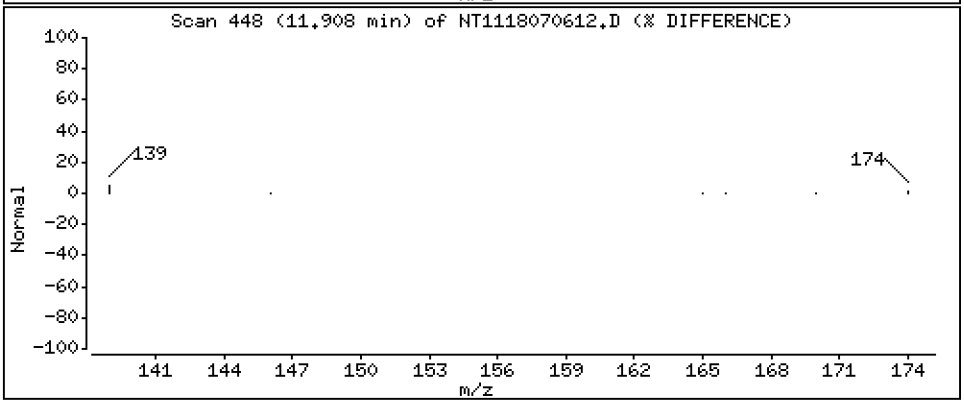












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Date : 06-JUL-2018 19:03

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-06

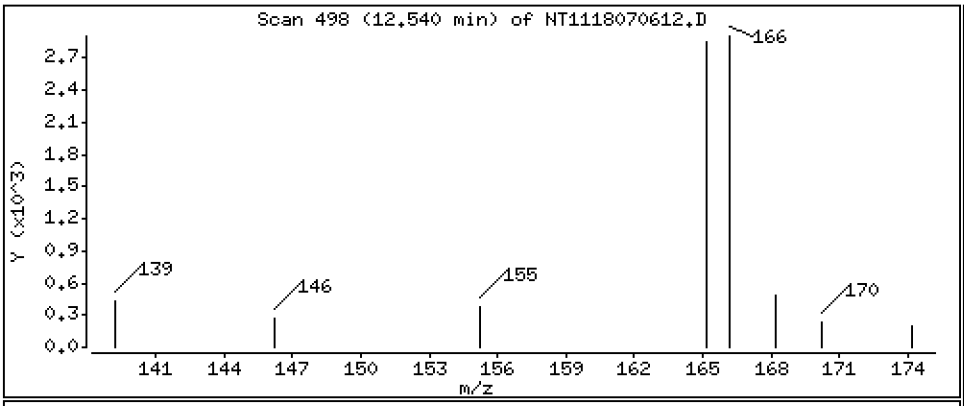
Operator: VTS

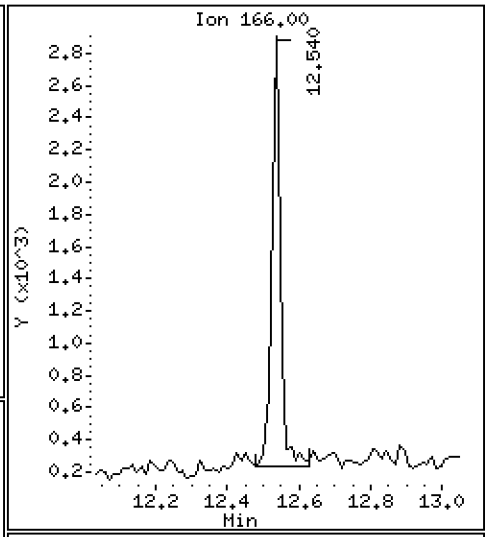
Column phase: Rxi-17Sil MS

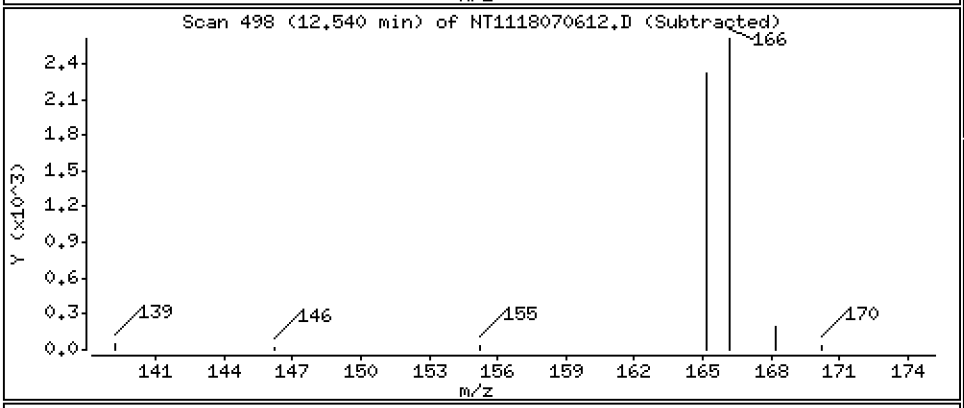
Column diameter: 0.25

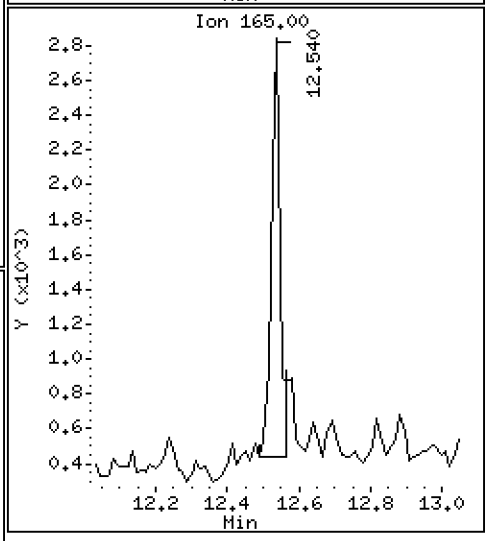
16 Fluorene

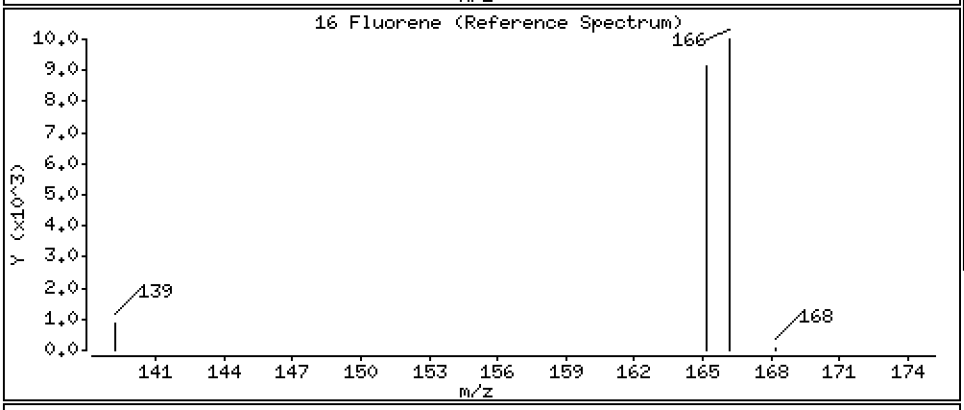
Concentration: 2.02 ng/mL

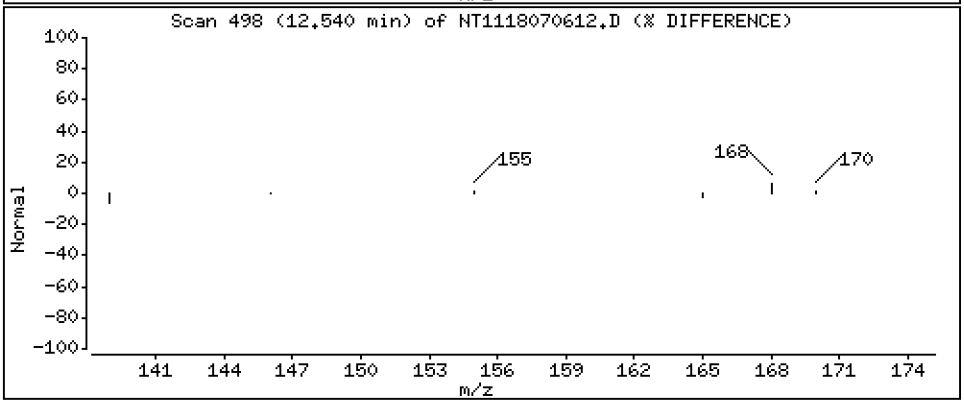












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Date : 06-JUL-2018 19:03

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-06

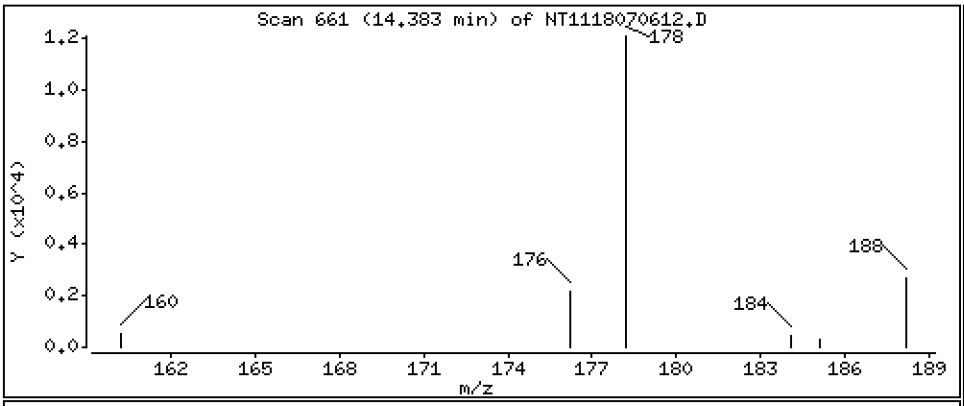
Operator: VTS

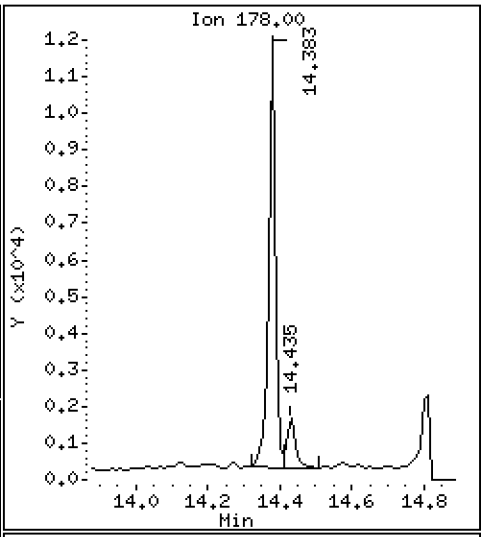
Column phase: Rxi-17Sil MS

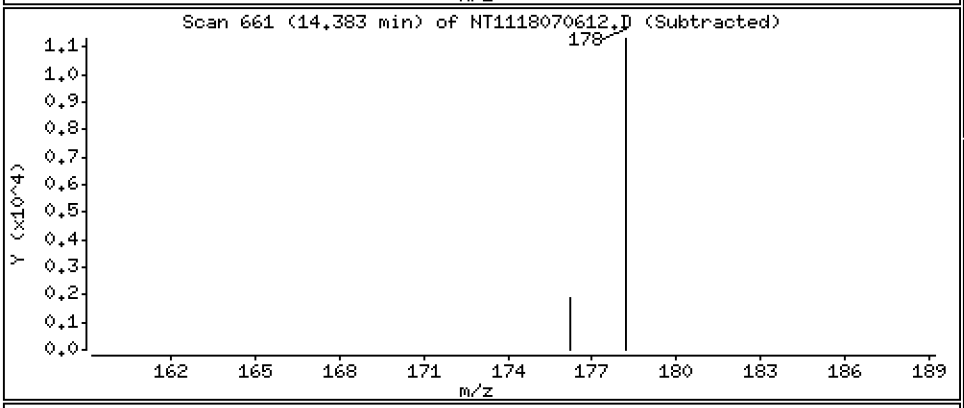
Column diameter: 0.25

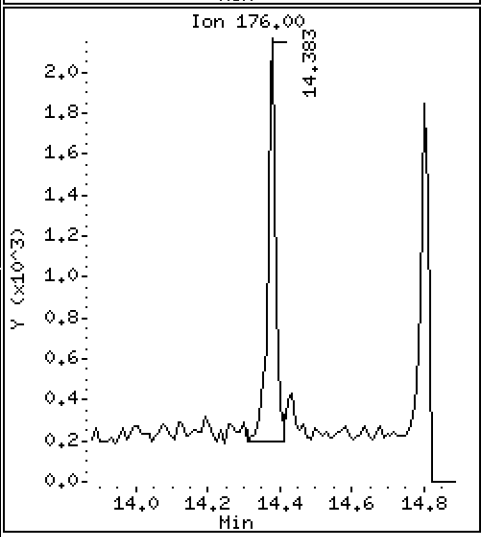
19 Phenanthrene

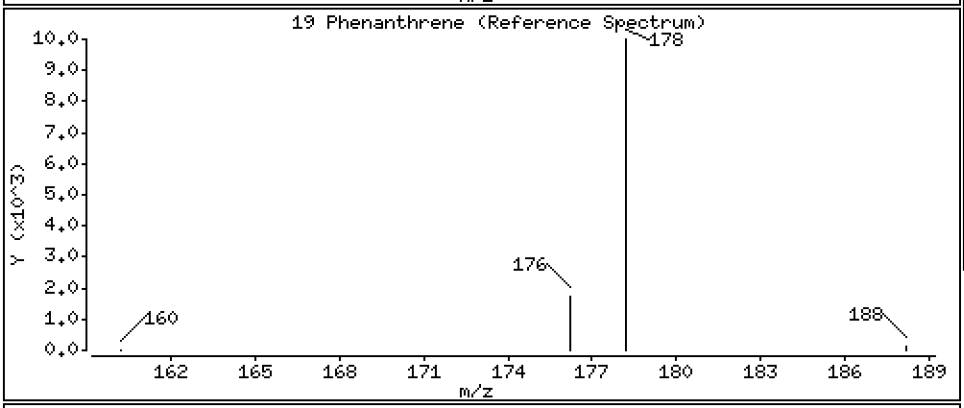
Concentration: 5.69 ng/mL

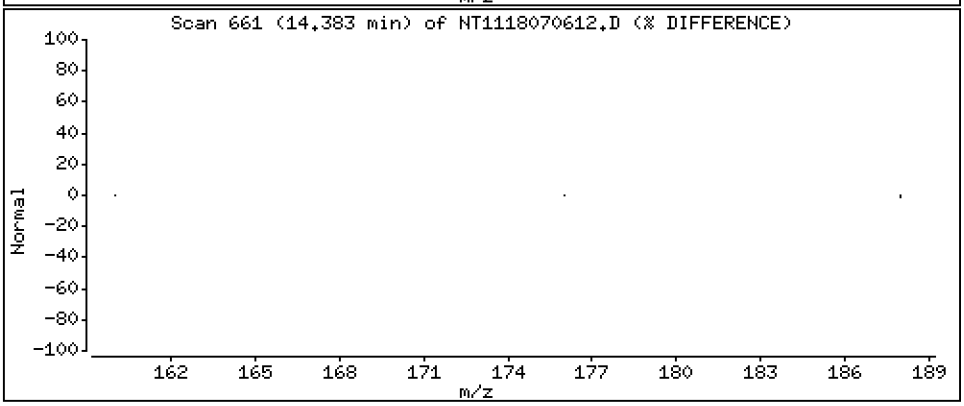












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Date : 06-JUL-2018 19:03

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-06

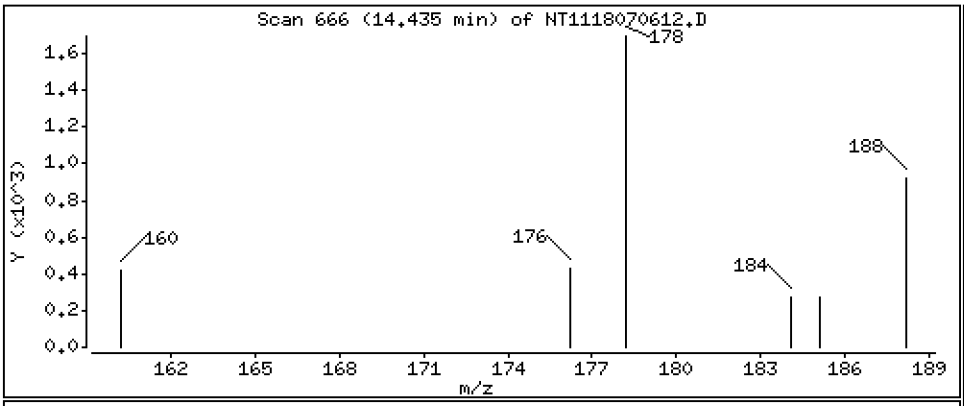
Operator: VTS

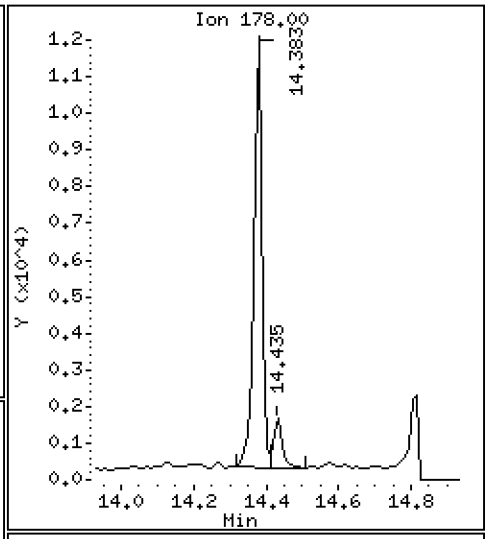
Column phase: Rxi-17Sil MS

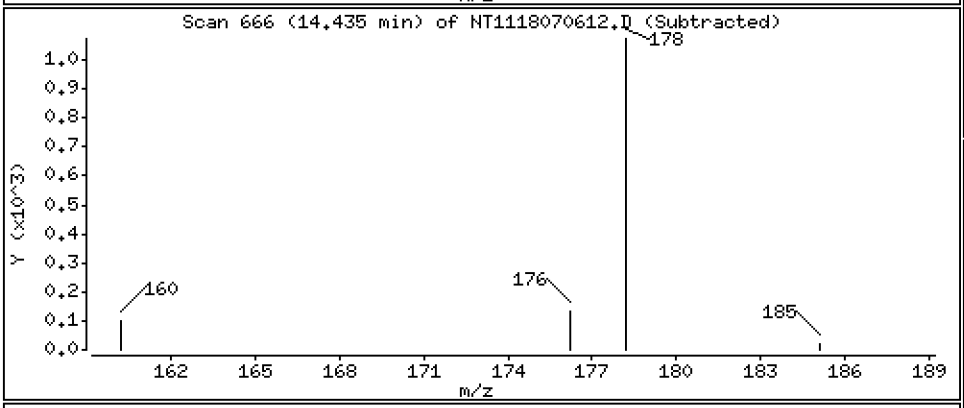
Column diameter: 0.25

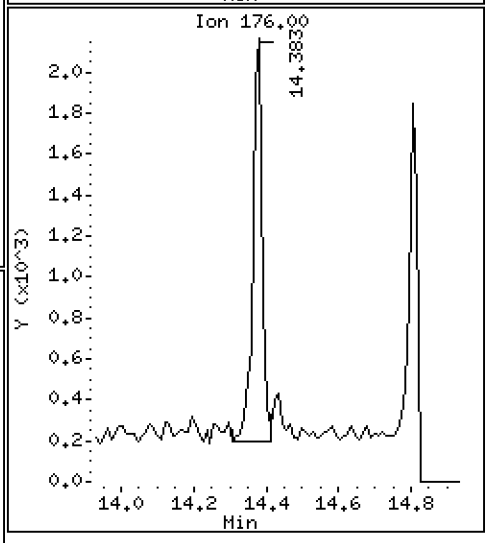
21 Anthracene

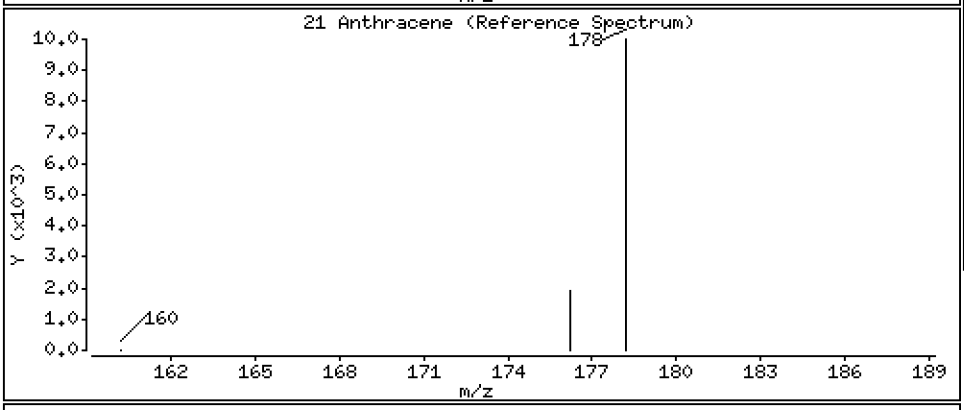
Concentration: 0.781 ng/mL

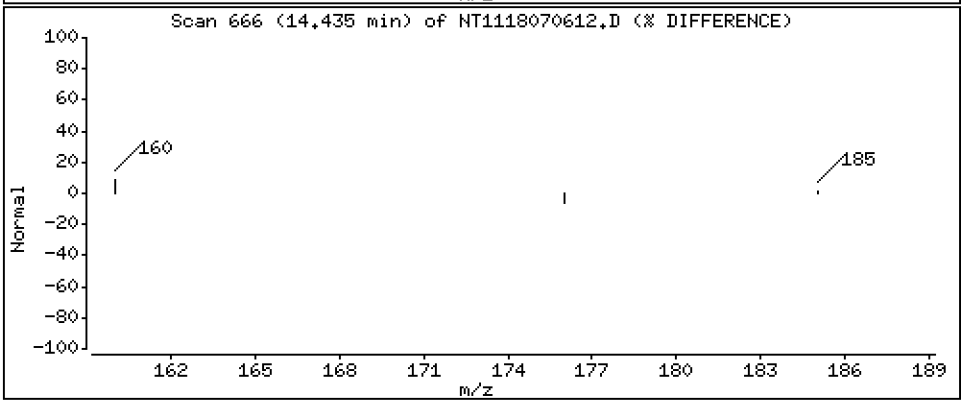












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Date : 06-JUL-2018 19:03

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-06

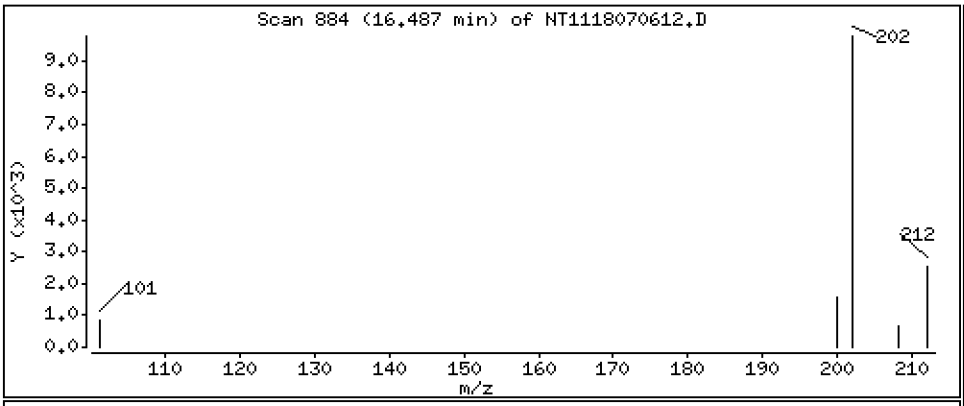
Operator: VTS

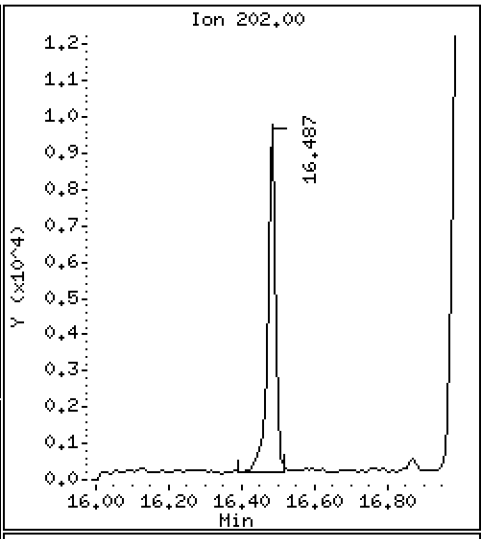
Column phase: Rxi-17Sil MS

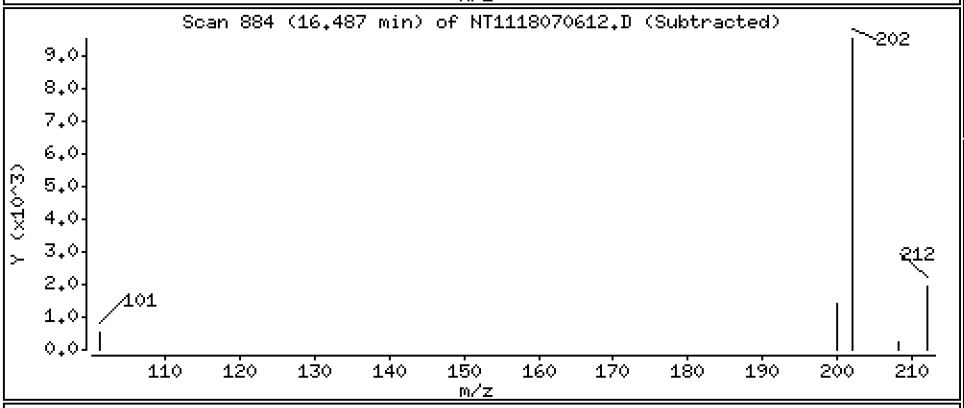
Column diameter: 0.25

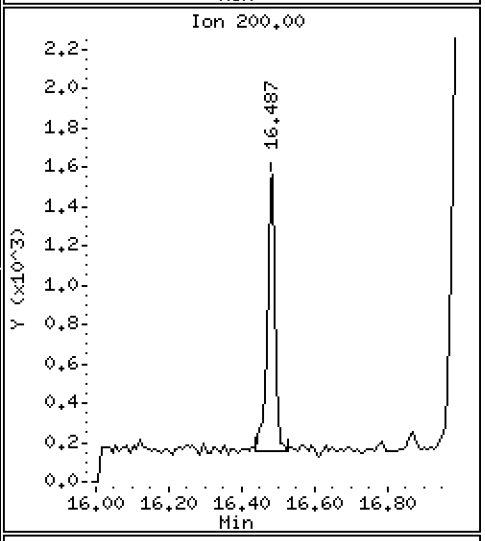
25 Fluoranthene

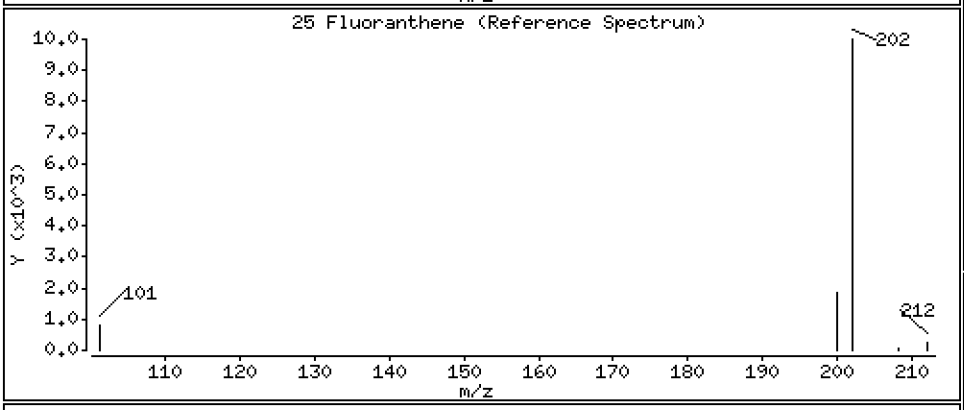
Concentration: 5.24 ng/mL

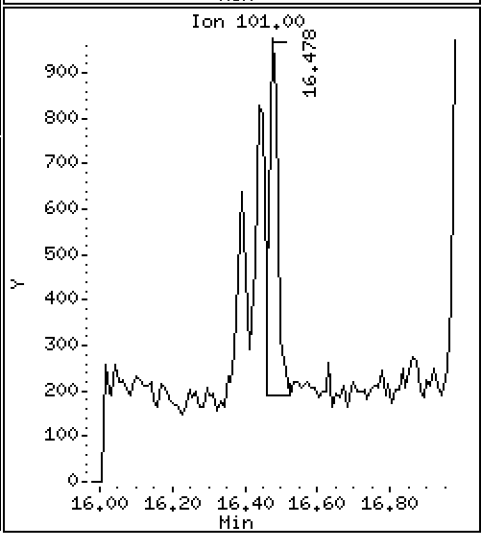


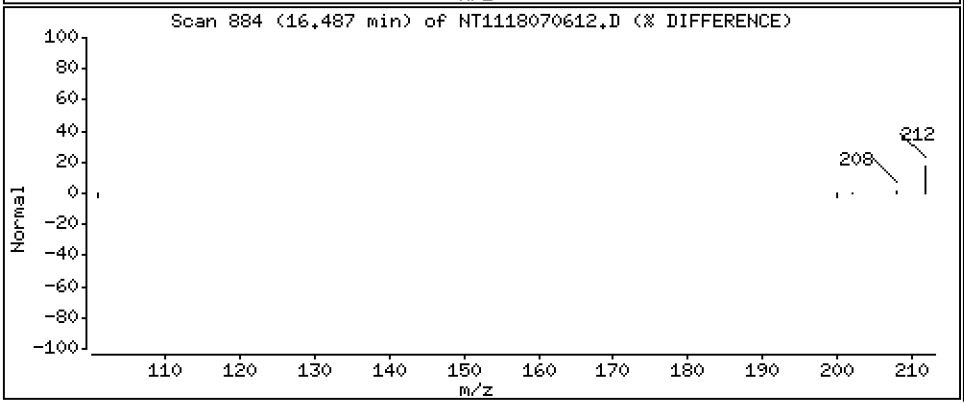












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Date : 06-JUL-2018 19:03

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-06

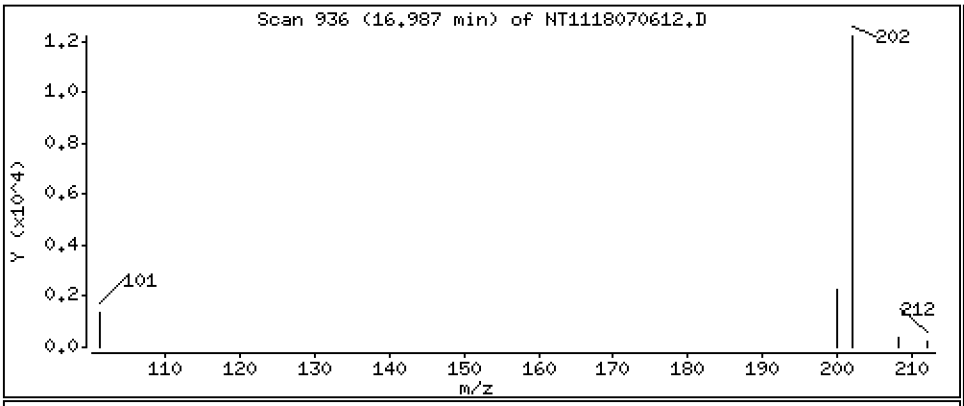
Operator: VTS

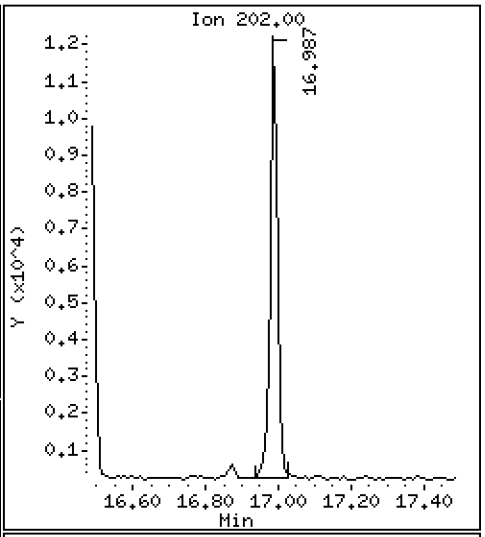
Column phase: Rxi-17Sil MS

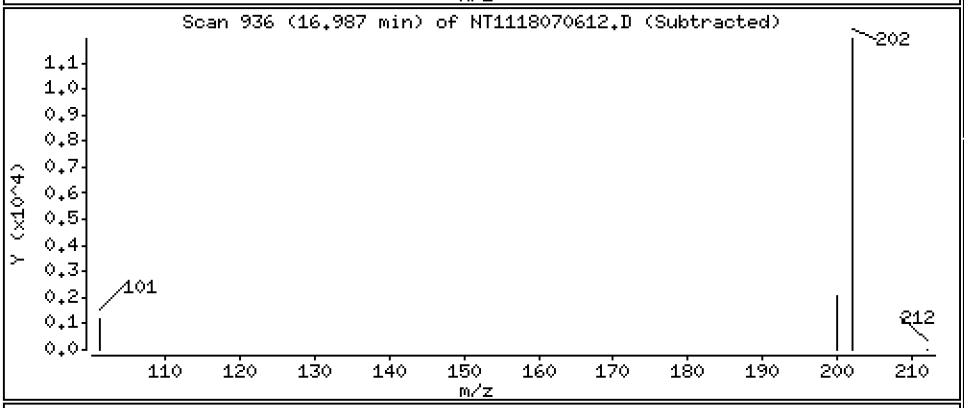
Column diameter: 0.25

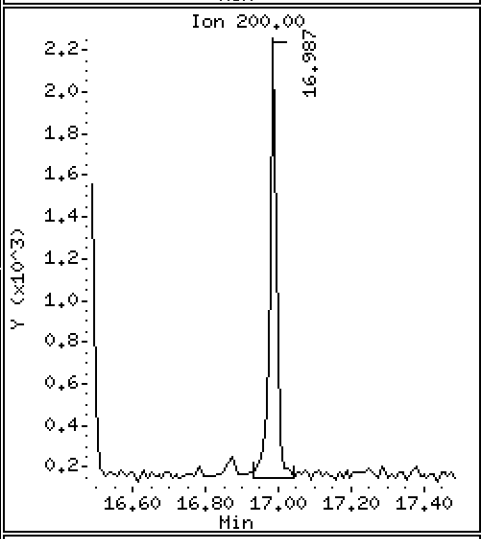
26 Pyrene

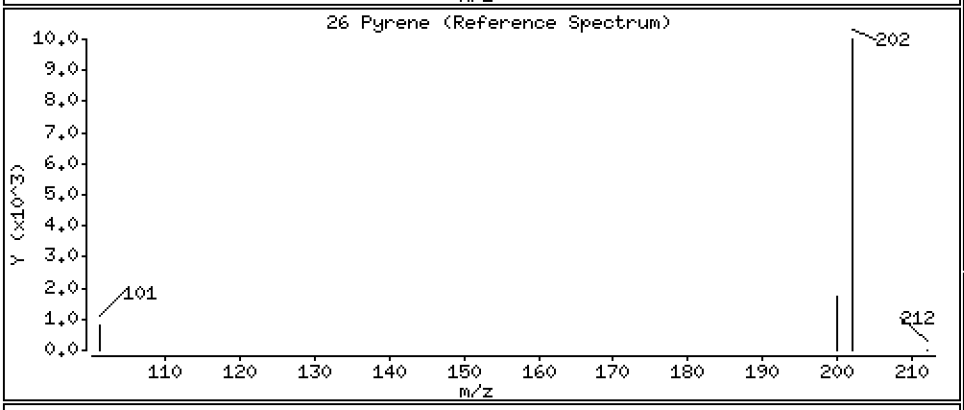
Concentration: 5.80 ng/mL

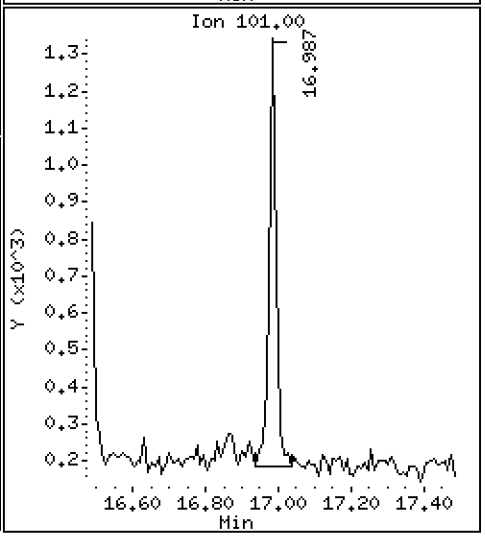


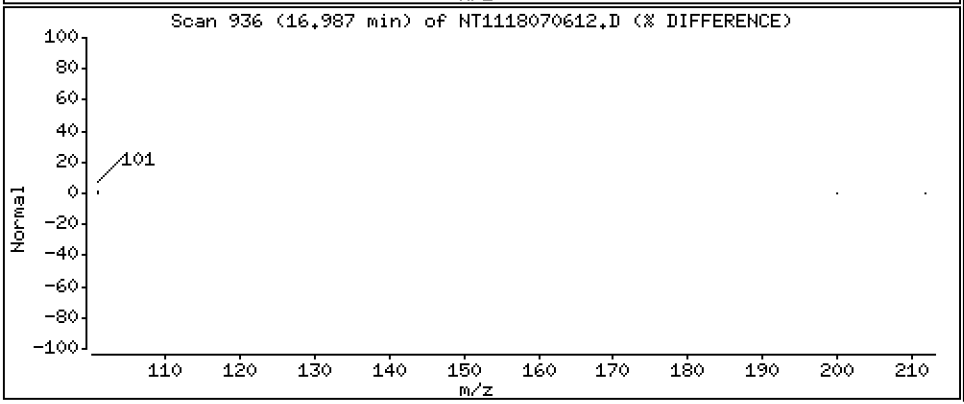












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

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Lab Smp Id: 18F0226-06
Inj Date : 06-JUL-2018 19:03 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0226-06
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Meth Date : 06-Jul-2018 13:13 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	475891	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	11609	3.24155	3.24
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	489897	180.424	180
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	7417	2.55859	2.56
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	5685	1.97189	1.97
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	249984	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	14070	6.92104	6.92
	13 Dibenzofuran	168	11.908	11.908	(1.023)	4080	1.46499	1.46
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.539	12.540	(1.077)	4531	2.01749	2.02
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	404938	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	18086	5.69473	5.69
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.435	14.435	(1.007)	2319	0.78106	0.781
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	Compound Not Detected.					
$	24 Fluoranthene-d10	212	16.448	16.449	(1.147)	533748	217.149	217
	25 Fluoranthene	202	16.487	16.487	(1.150)	15441	5.23543	5.24
	26 Pyrene	202	16.987	16.987	(0.890)	17372	5.80479	5.80
	27 Benzo(a)anthracene	228	Compound Not Detected.					
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	304414	200.000	
	29 Chrysene	228	Compound Not Detected.					
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
35	Benzo(a)pyrene	252	Compound Not Detected.					
* 36	Perylene-d12	264	22.353	22.353	(1.000)	296897	200.000	
37	Perylene	252	Compound Not Detected.					
$ 38	Dibenzo(a,h)anthracene-d14	292	25.268	25.279	(1.130)	291031	204.842	205
39	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
40	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
41	Benzo(g,h,i)perylene	276	Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118070612.D
Lab Smp Id: 18F0226-06
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Misc Info:

Calibration Date: 06-JUL-2018
Calibration Time: 12:50
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	475891	10.33
11 Acenaphthene-d10	260137	130069	520274	249984	-3.90
18 Phenanthrene-d10	427391	213696	854782	404938	-5.25
28 Chrysene-d12	304596	152298	609192	304414	-0.06
36 Perylene-d12	263091	131546	526182	296897	12.85

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118070612.D

Lab ID: 18F0226-06
nt11.i, 20180706.b\LOWSIM.m,   06-JUL-2018 19:03

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180706.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-79

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270D-SIM

Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-07	SDG:	18F0185
Sampled:	06/14/18 09:50	Prepared:	06/21/18 13:35	File ID:	NT1118070613.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	07/06/18 19:39
Batch:	BGF0530	Sequence:	SGG0067	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.004	J	0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.002	J	0.001	0.010
208-96-8	Acenaphthylene	1	0.010	U	0.002	0.010
83-32-9	Acenaphthene	1	0.026		0.003	0.010
86-73-7	Fluorene	1	0.002	J	0.002	0.010
85-01-8	Phenanthrene	1	0.006	J	0.001	0.010
120-12-7	Anthracene	1	0.010	U	0.001	0.010
206-44-0	Fluoranthene	1	0.009	J	0.002	0.010
129-00-0	Pyrene	1	0.008	J	0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.010	U	0.0008	0.010
218-01-9	Chrysene	1	0.010	U	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.010	U	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.187	62.3	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.210	70.0	29 - 120	
Fluoranthene-d10	0.30000	0.226	75.3	57 - 120	

Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070613.D

Date : 06-JUL-2018 19:39

Client ID:

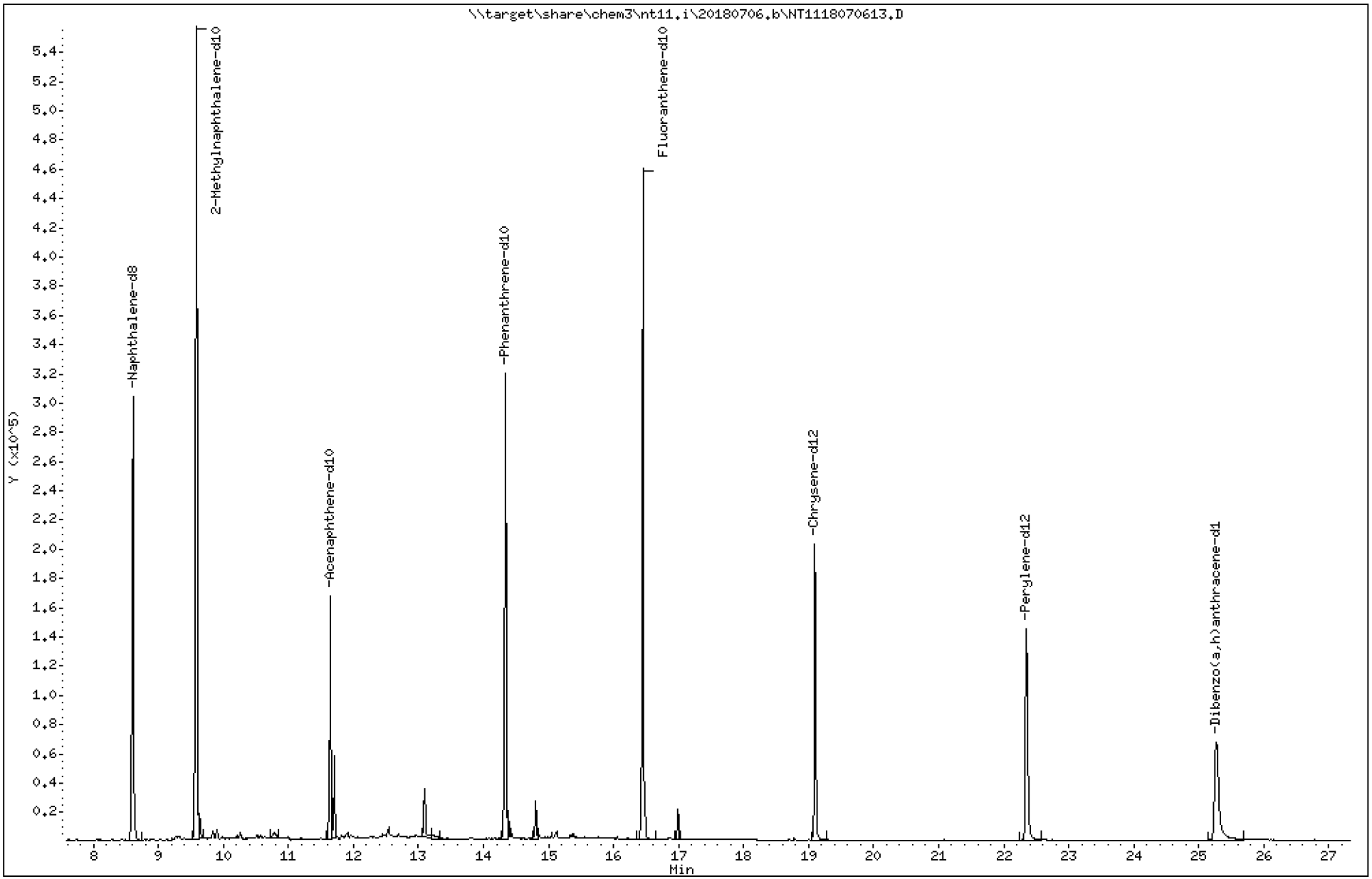
Instrument: nt11.i

Sample Info: 18F0226-07

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 06-JUL-2018 19:39

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-07

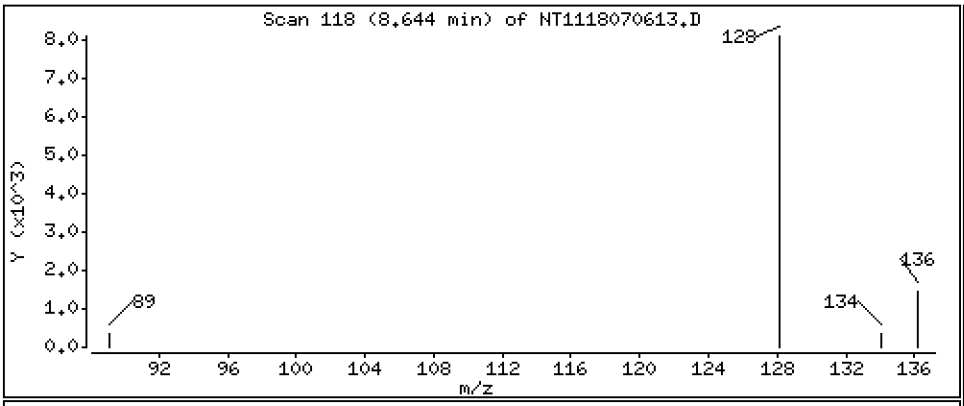
Operator: VTS

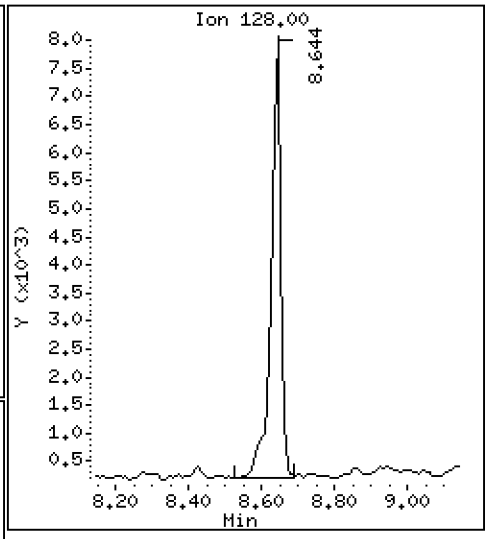
Column phase: Rxi-17Sil MS

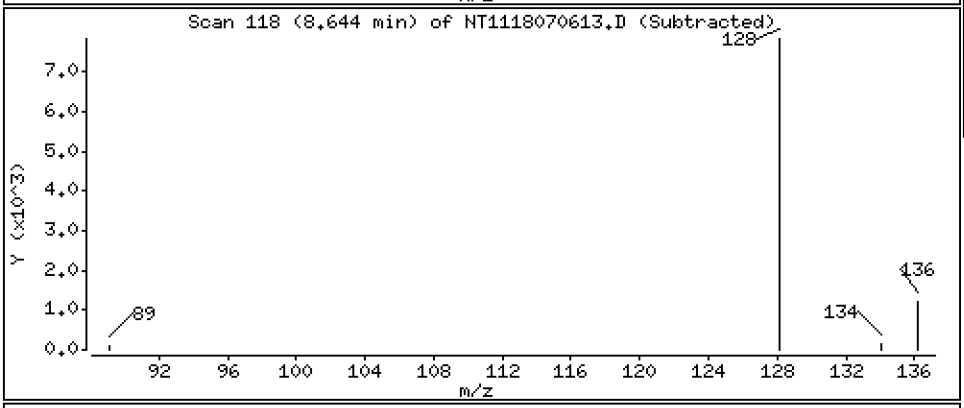
Column diameter: 0.25

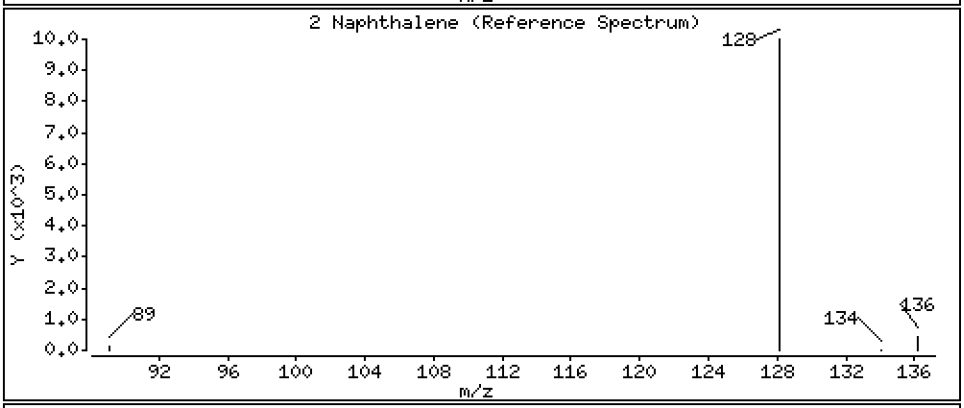
2 Naphthalene

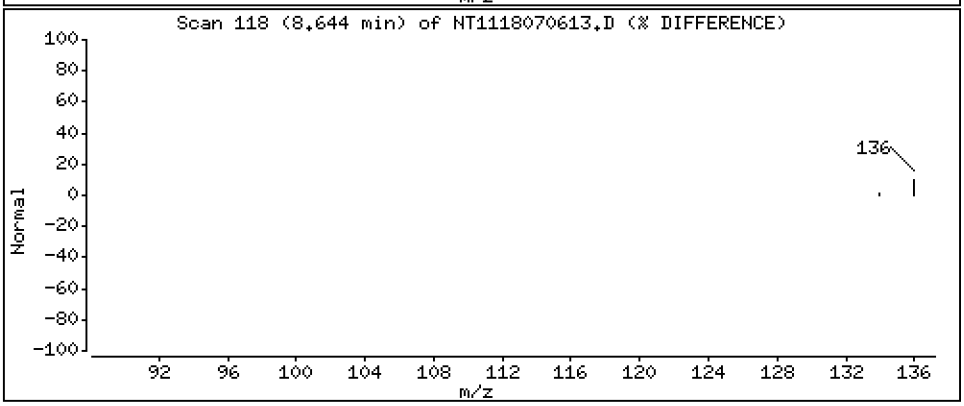
Concentration: 4.16 ng/mL











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Date : 06-JUL-2018 19:39

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-07

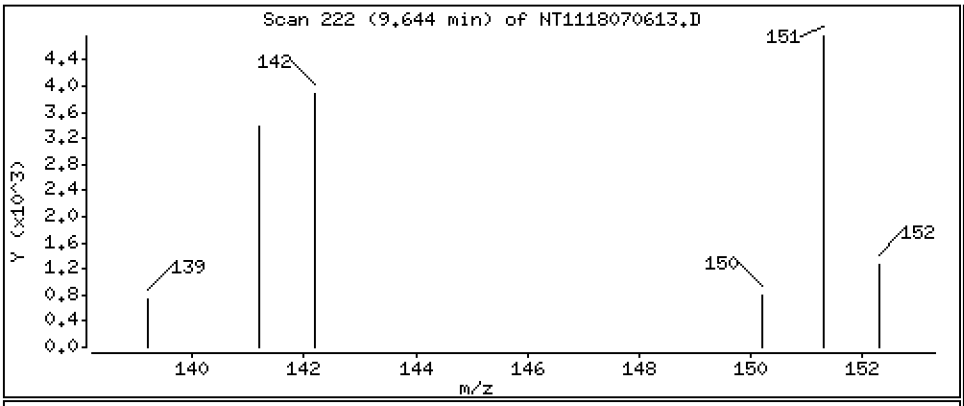
Operator: VTS

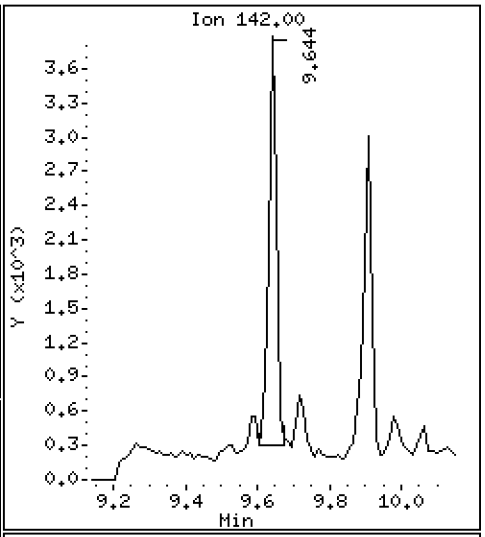
Column phase: Rxi-17Sil MS

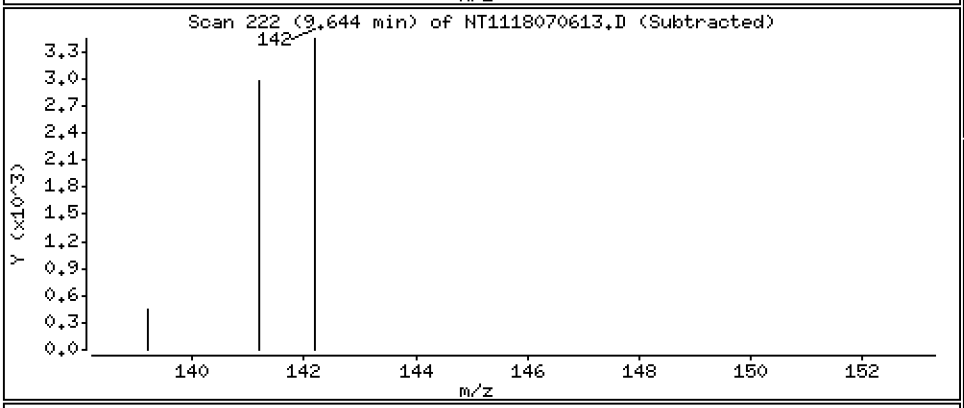
Column diameter: 0.25

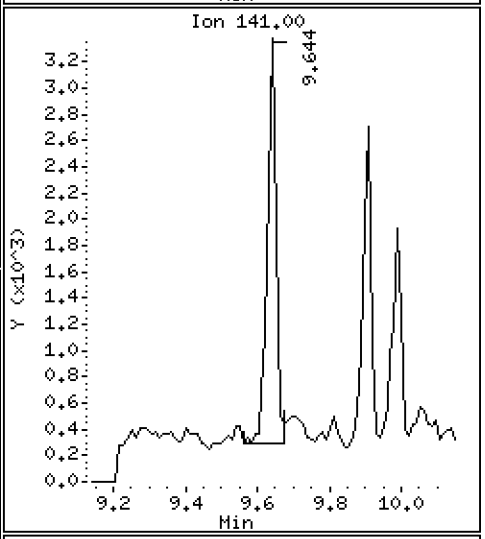
5 2-Methylnaphthalene

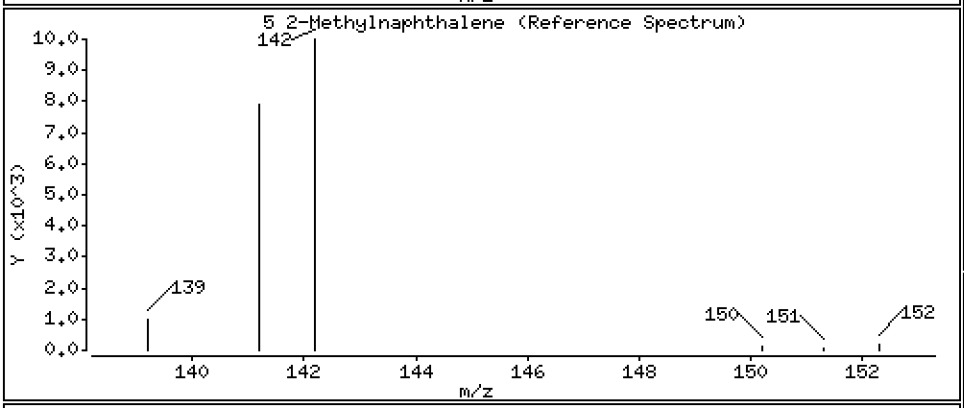
Concentration: 1.89 ng/mL

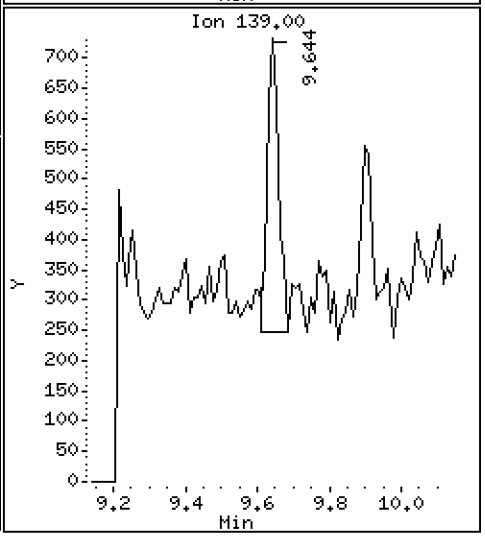


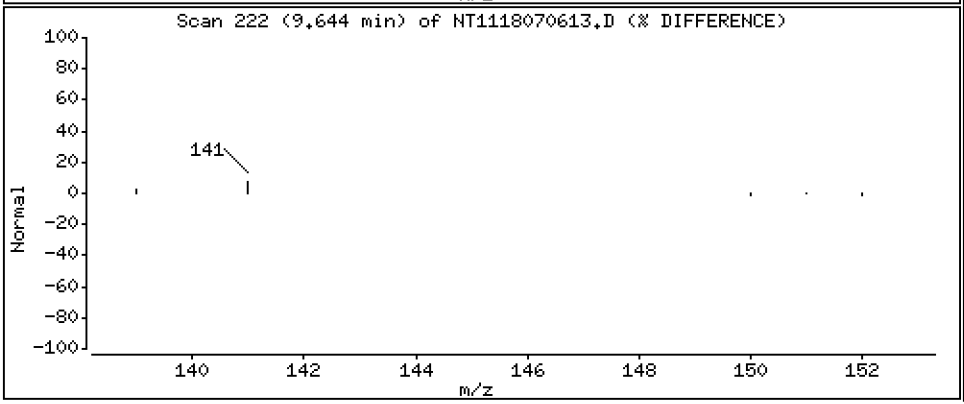












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Date : 06-JUL-2018 19:39

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-07

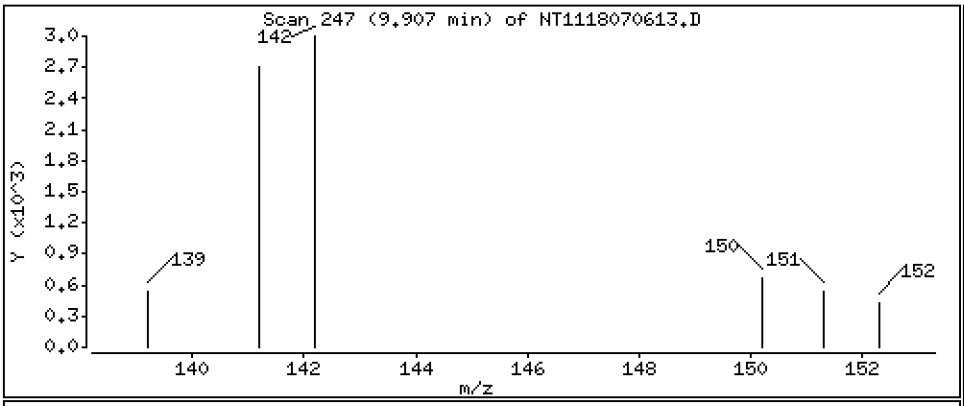
Operator: VTS

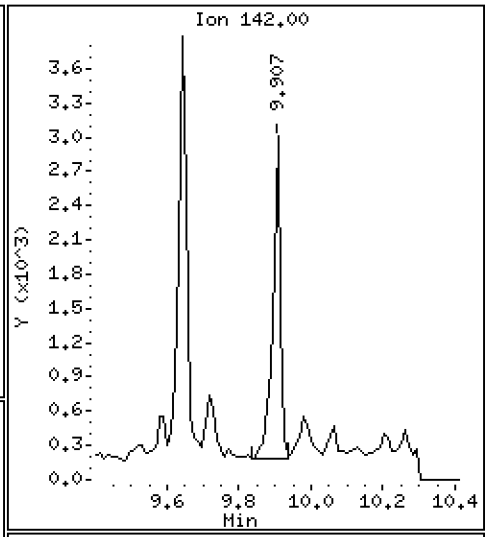
Column phase: Rxi-17Sil MS

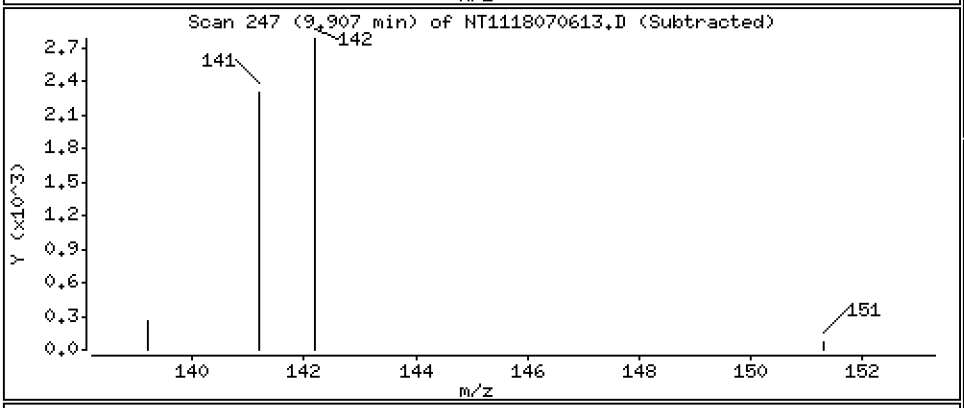
Column diameter: 0.25

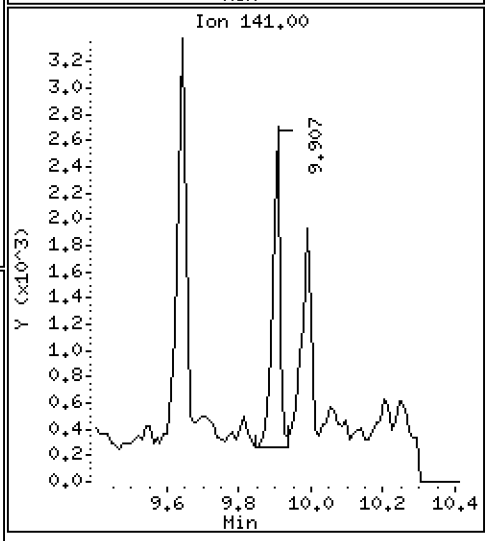
6 1-Methylnaphthalene

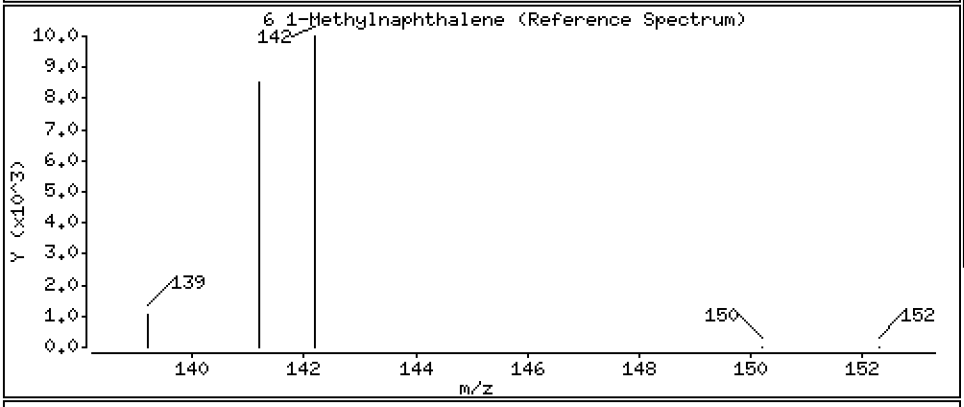
Concentration: 1.66 ng/mL

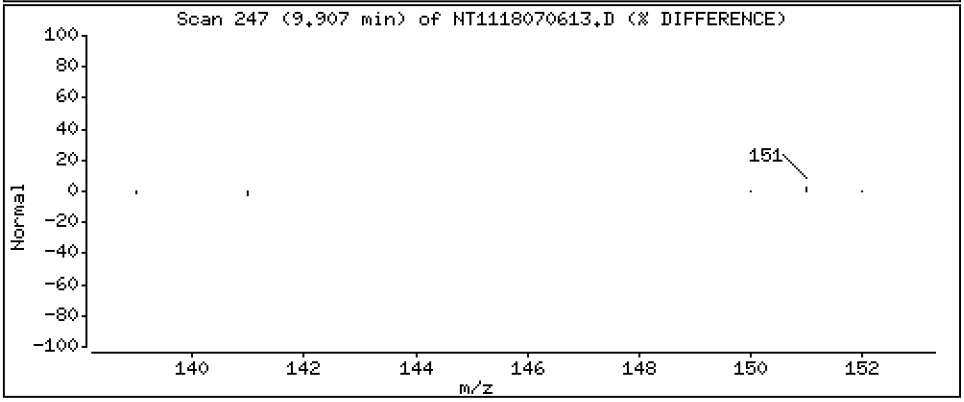












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Date : 06-JUL-2018 19:39

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-07

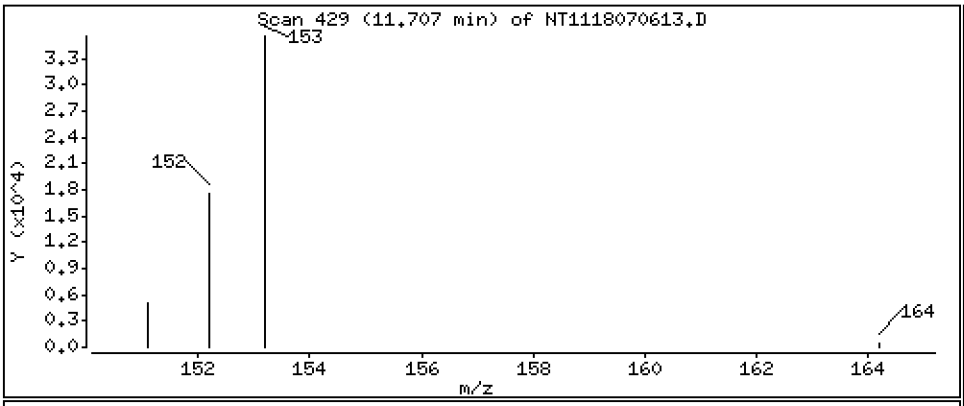
Operator: VTS

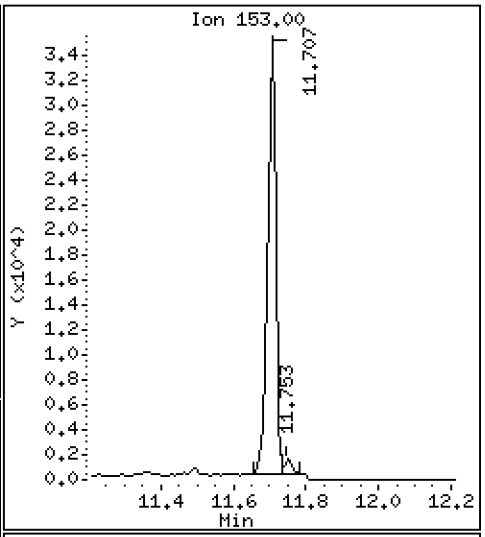
Column phase: Rxi-17Sil MS

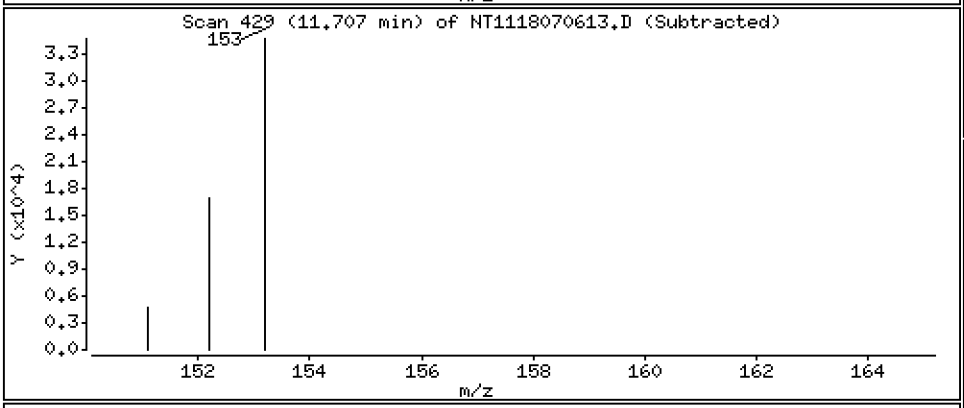
Column diameter: 0.25

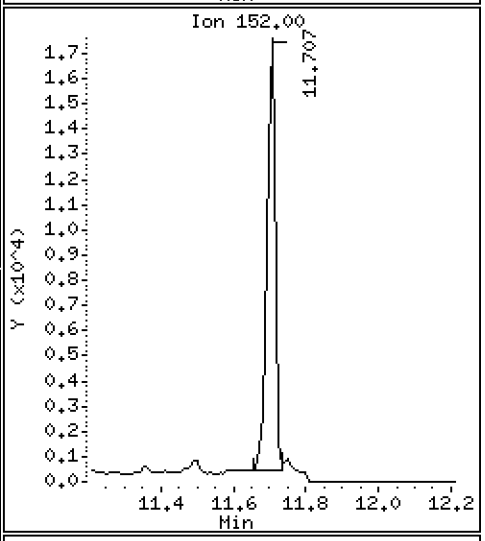
12 Acenaphthene

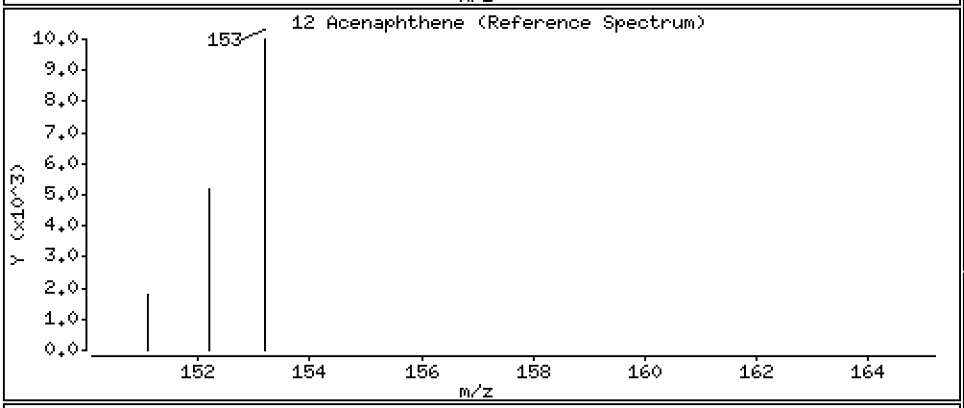
Concentration: 26.2 ng/mL

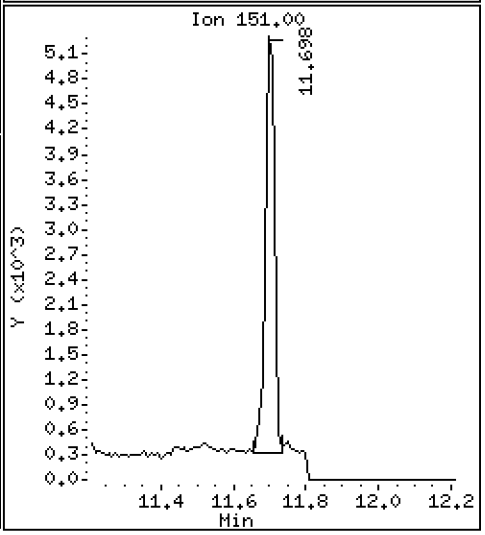


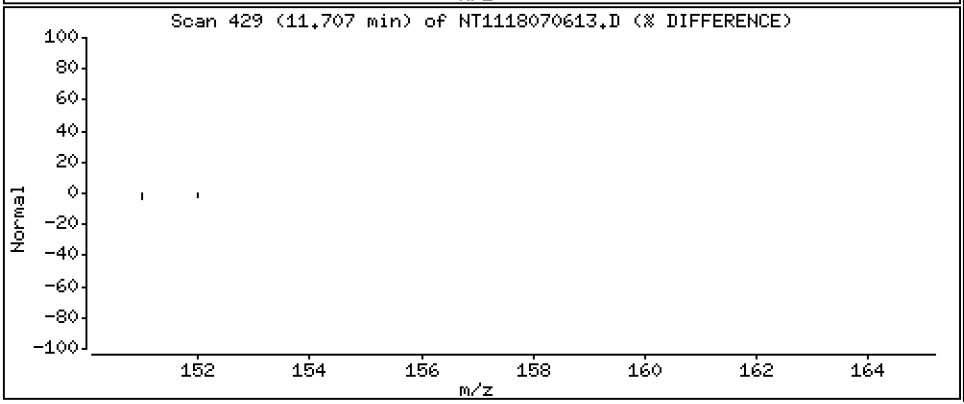












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Date : 06-JUL-2018 19:39

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-07

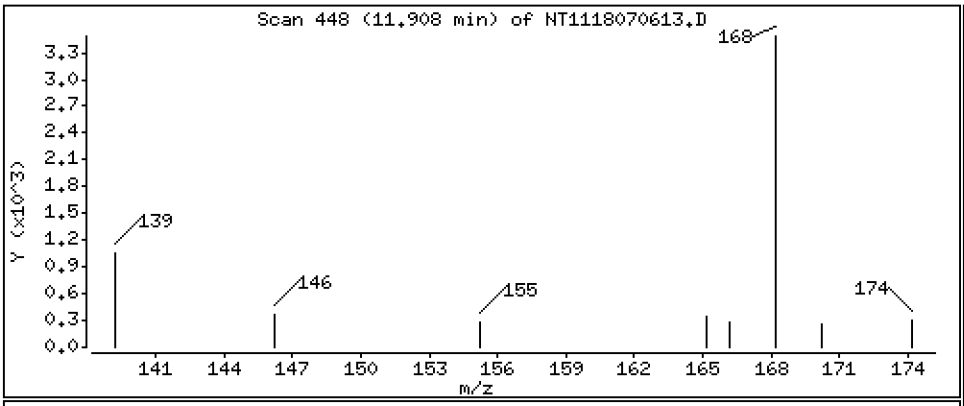
Operator: VTS

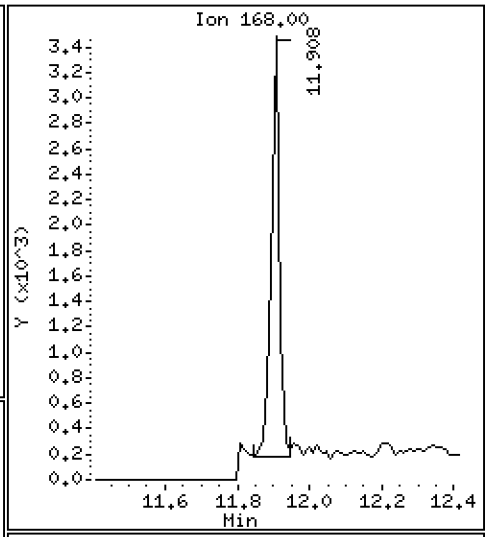
Column phase: Rxi-17Sil MS

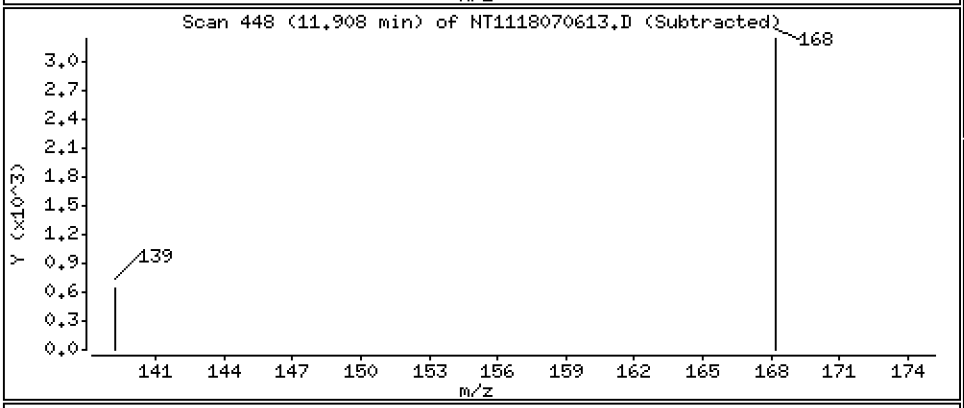
Column diameter: 0.25

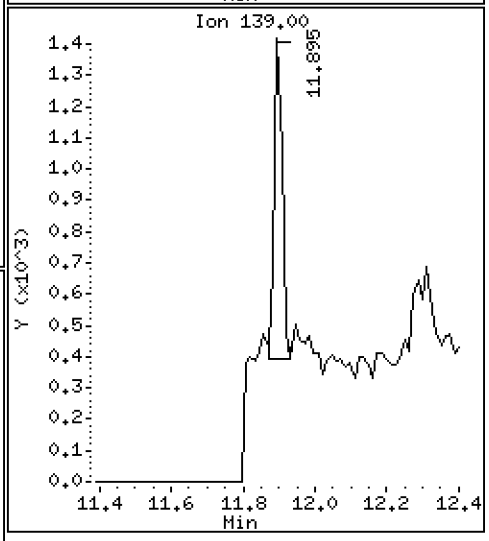
13 Dibenzofuran

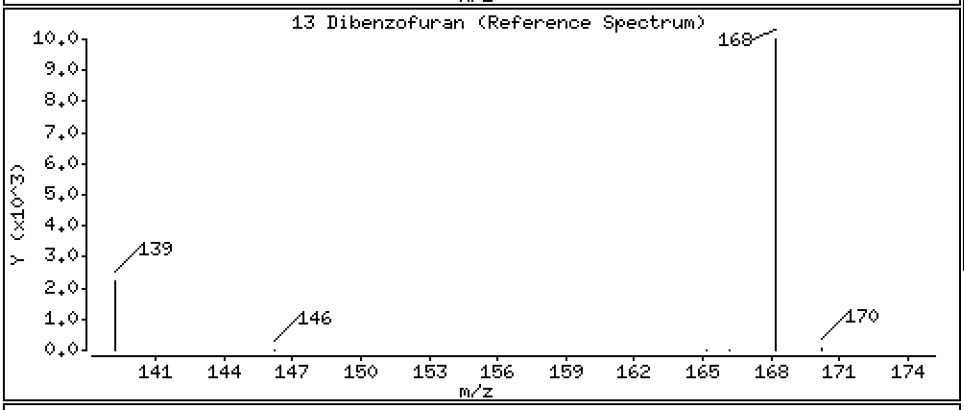
Concentration: 1.84 ng/mL

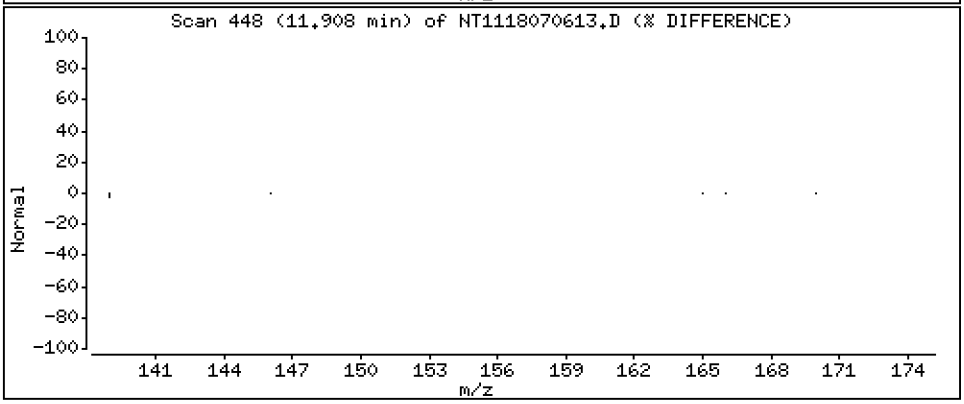












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Date : 06-JUL-2018 19:39

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-07

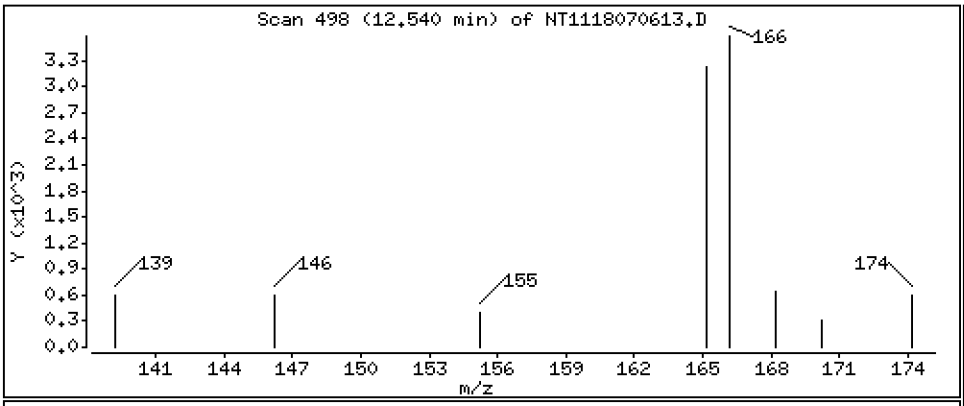
Operator: VTS

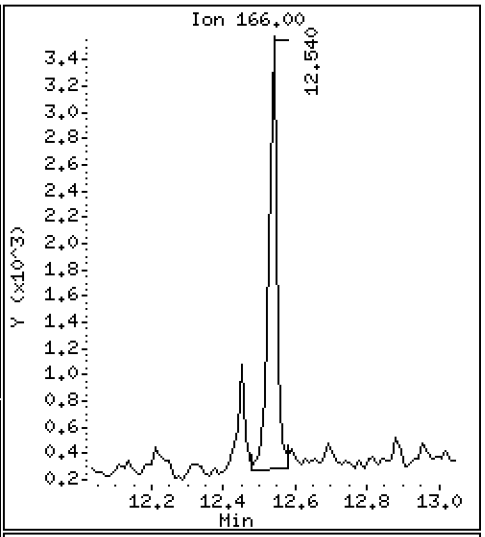
Column phase: Rxi-17Sil MS

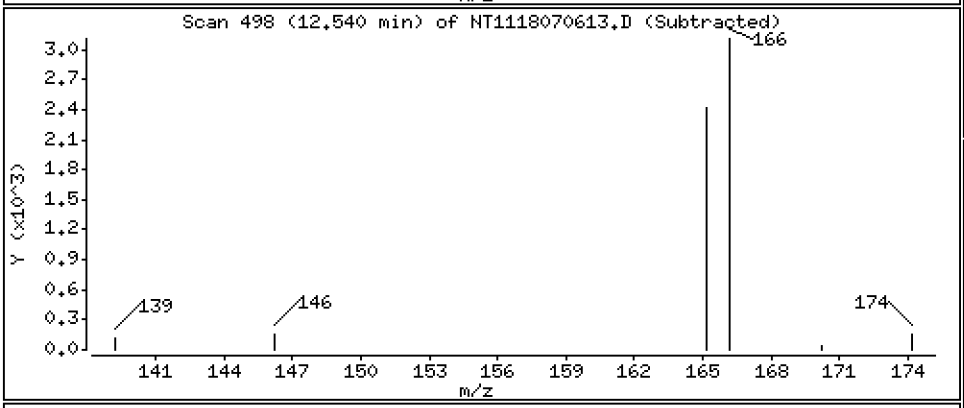
Column diameter: 0.25

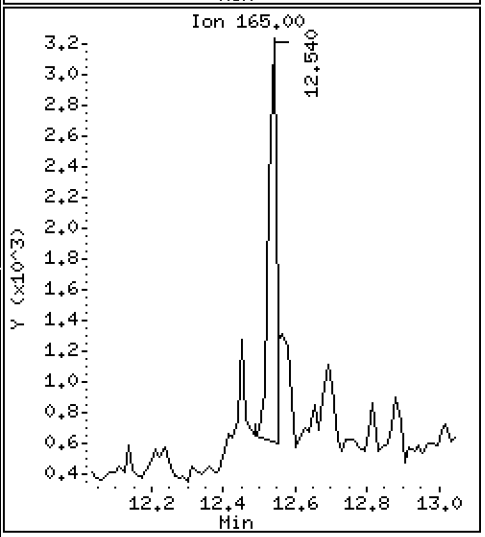
16 Fluorene

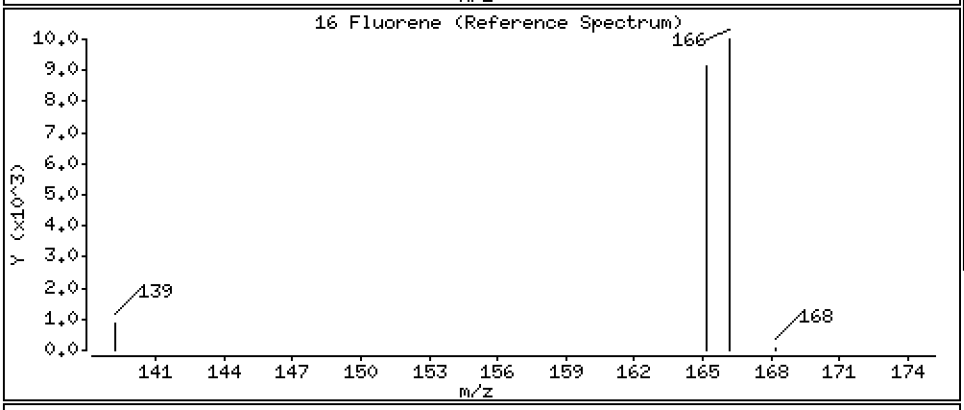
Concentration: 2.35 ng/mL

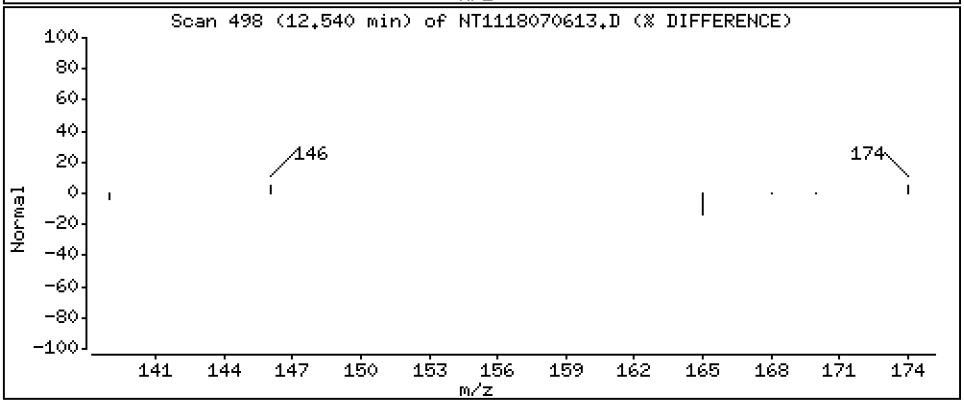












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Date : 06-JUL-2018 19:39

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-07

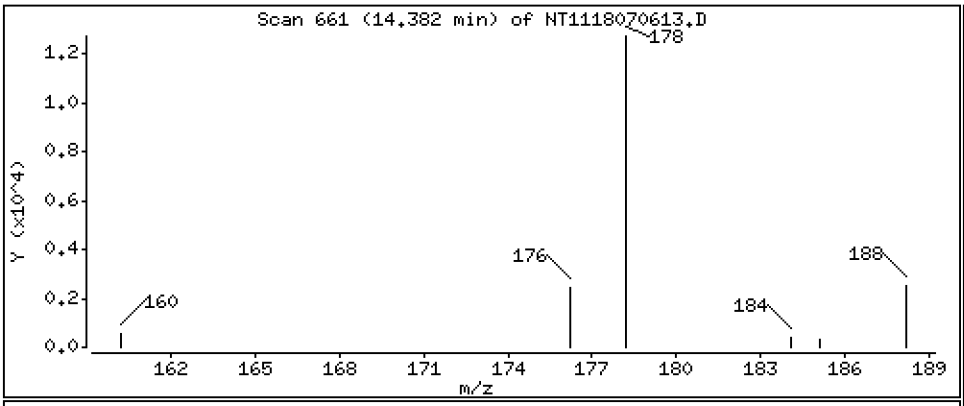
Operator: VTS

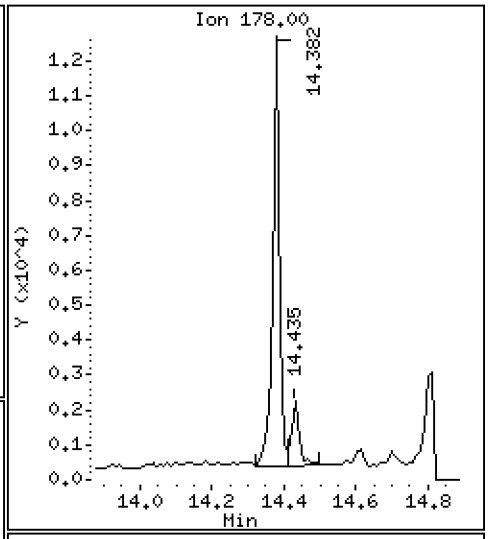
Column phase: Rxi-17Sil MS

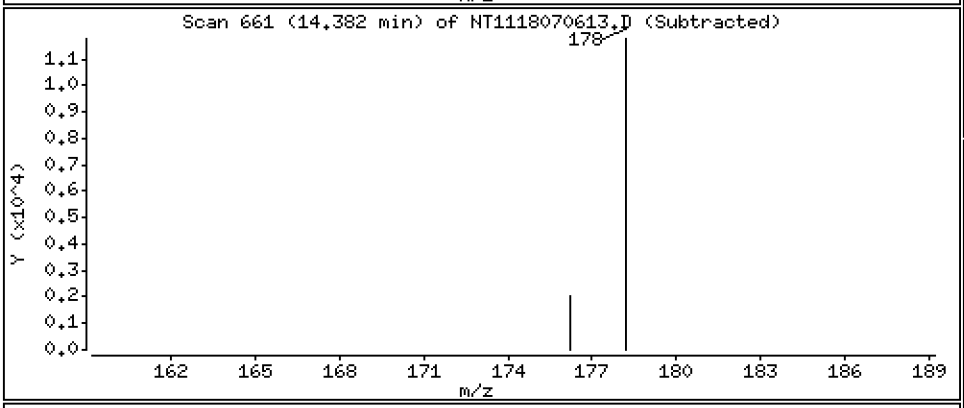
Column diameter: 0.25

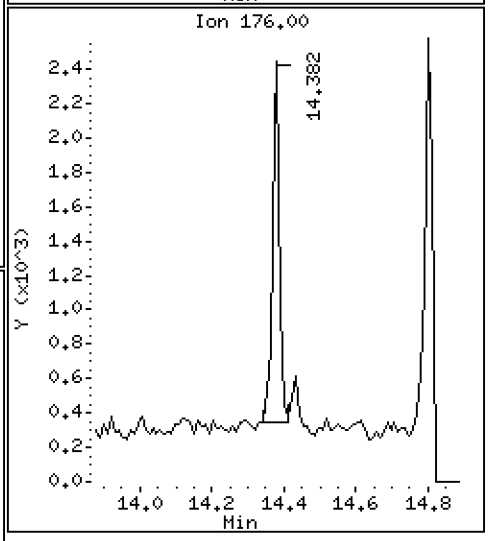
19 Phenanthrene

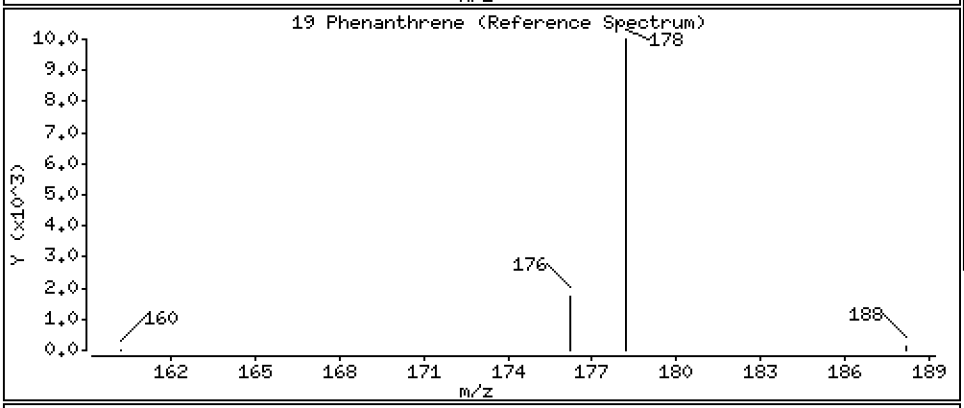
Concentration: 5.91 ng/mL

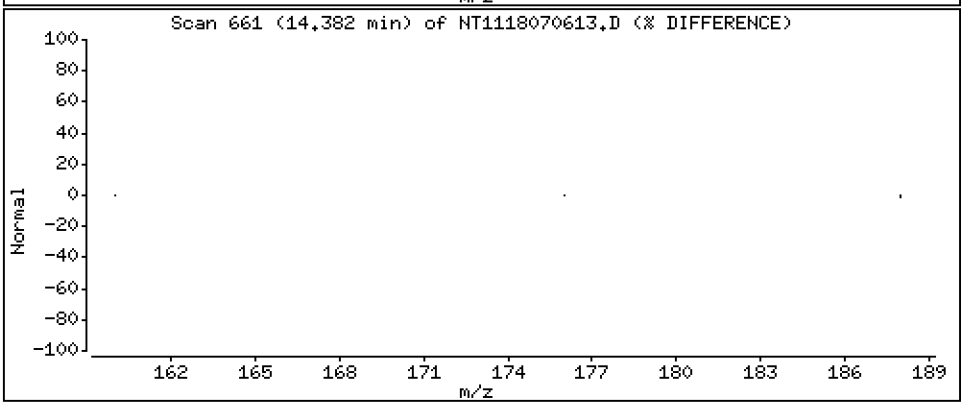












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Date : 06-JUL-2018 19:39

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-07

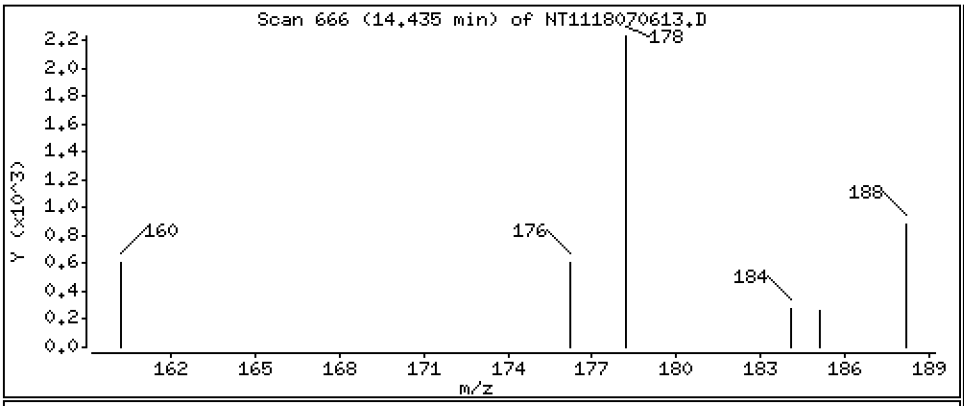
Operator: VTS

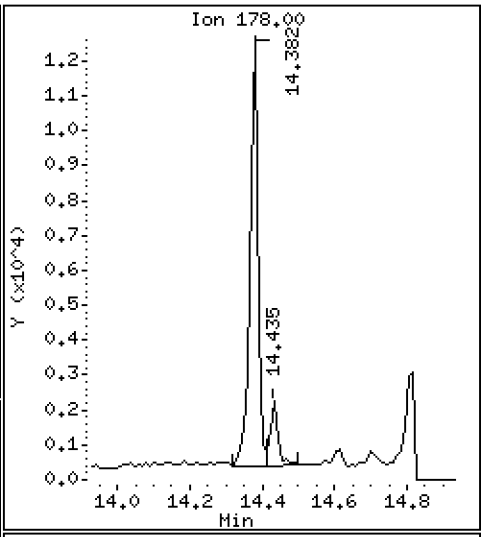
Column phase: Rxi-17Sil MS

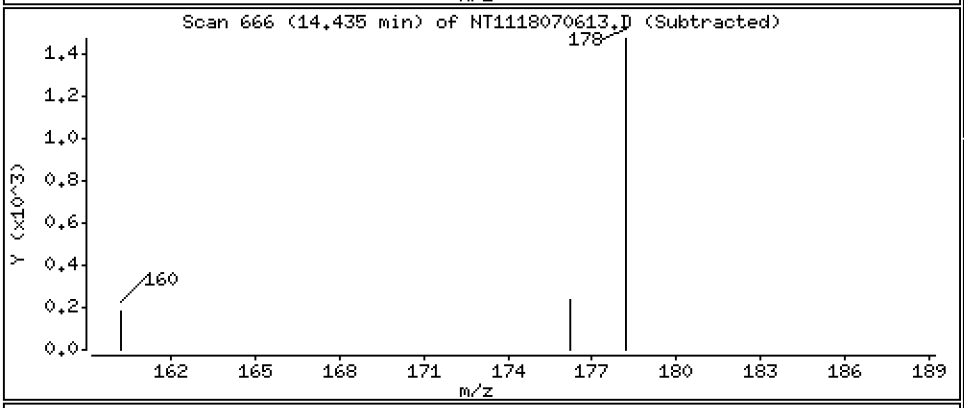
Column diameter: 0.25

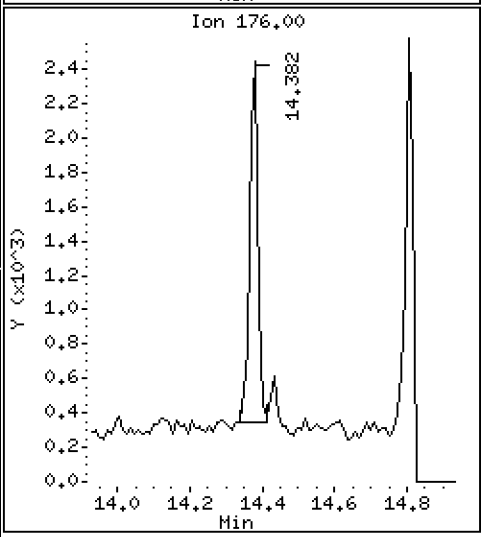
21 Anthracene

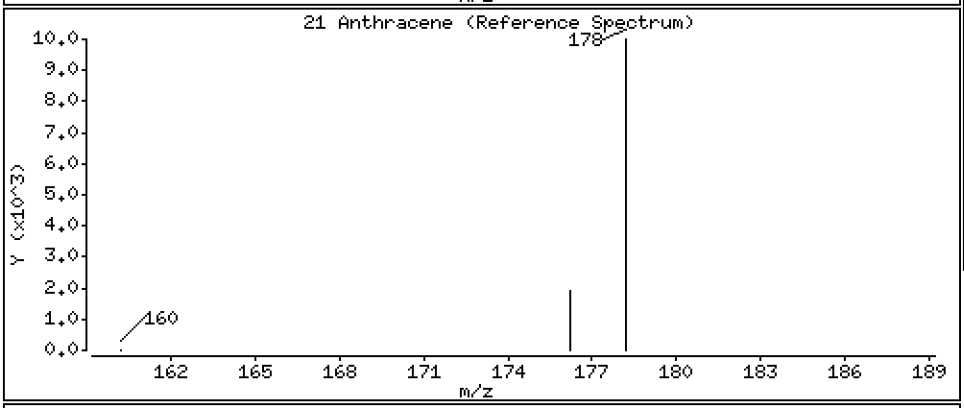
Concentration: 0.946 ng/mL

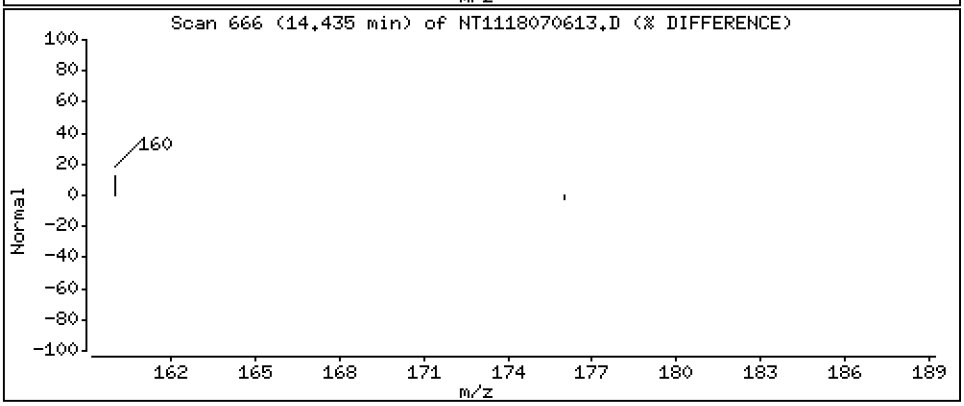












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Date : 06-JUL-2018 19:39

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-07

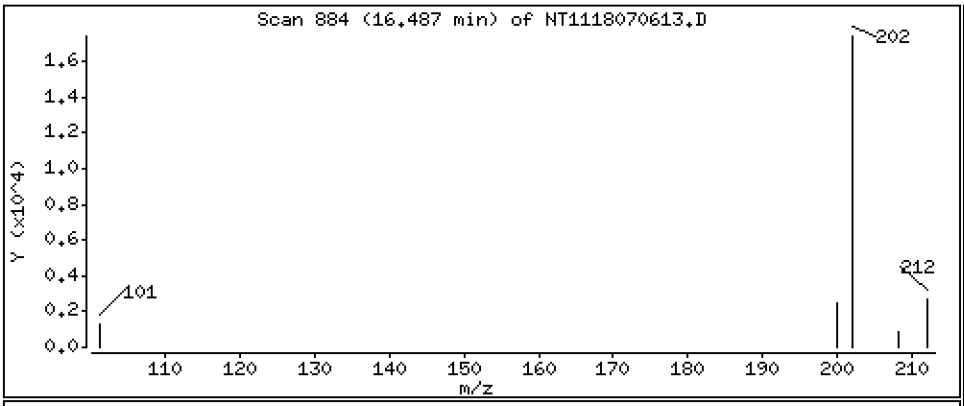
Operator: VTS

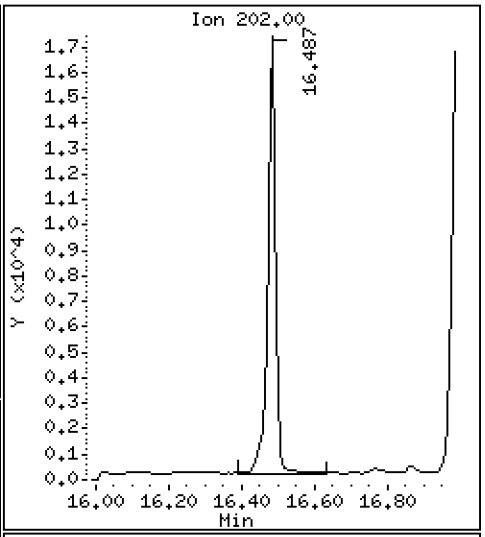
Column phase: Rxi-17Sil MS

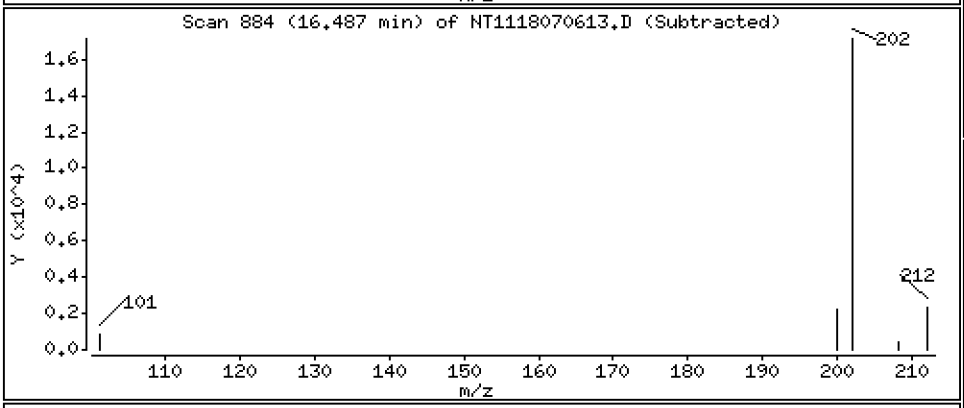
Column diameter: 0.25

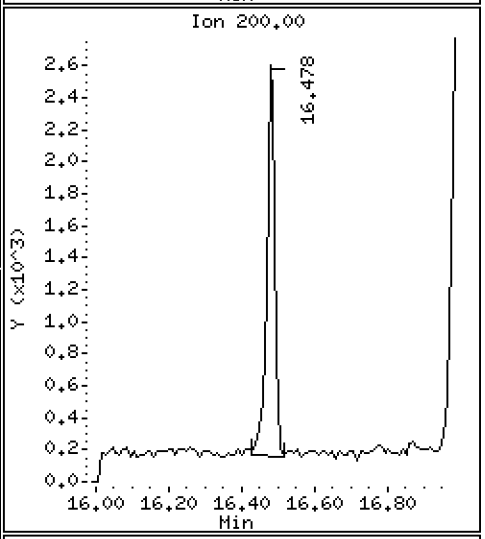
25 Fluoranthene

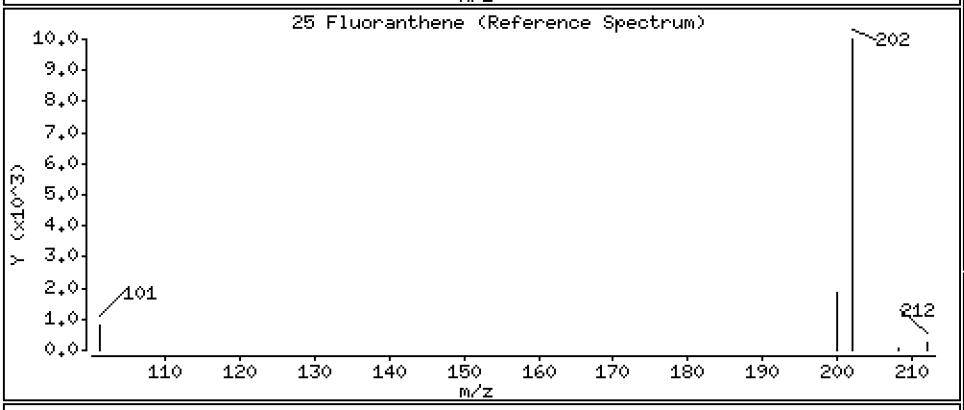
Concentration: 9.45 ng/mL

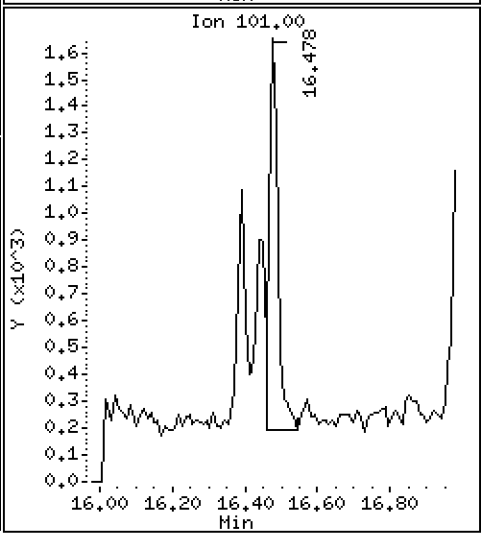


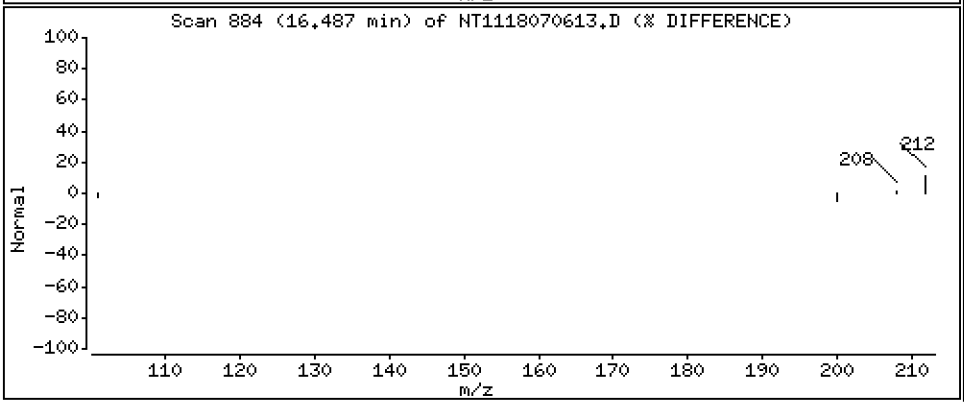












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Date : 06-JUL-2018 19:39

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-07

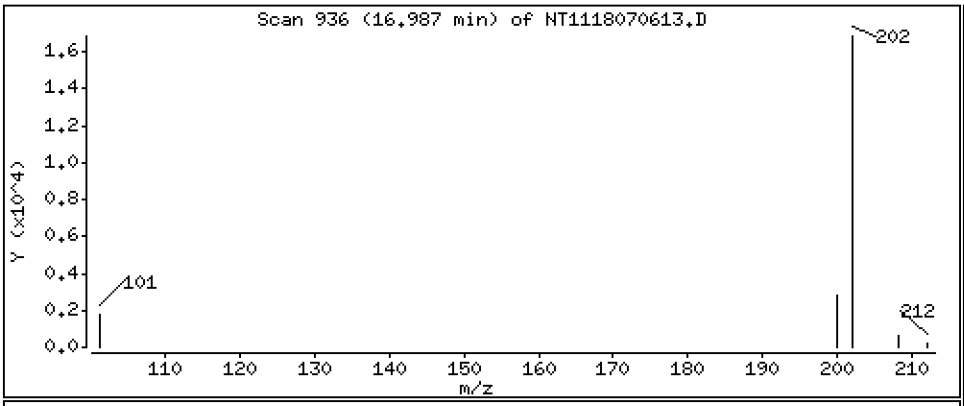
Operator: VTS

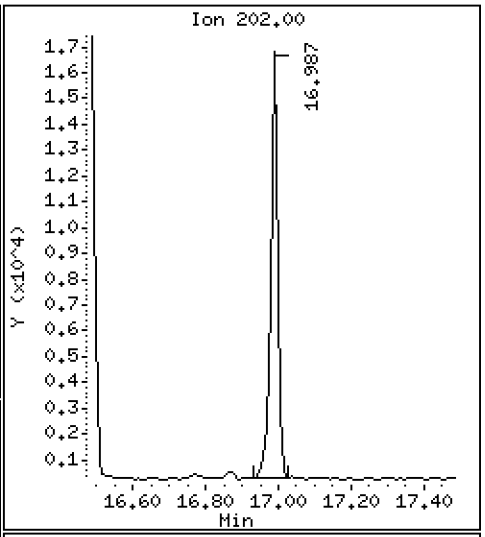
Column phase: Rxi-17Sil MS

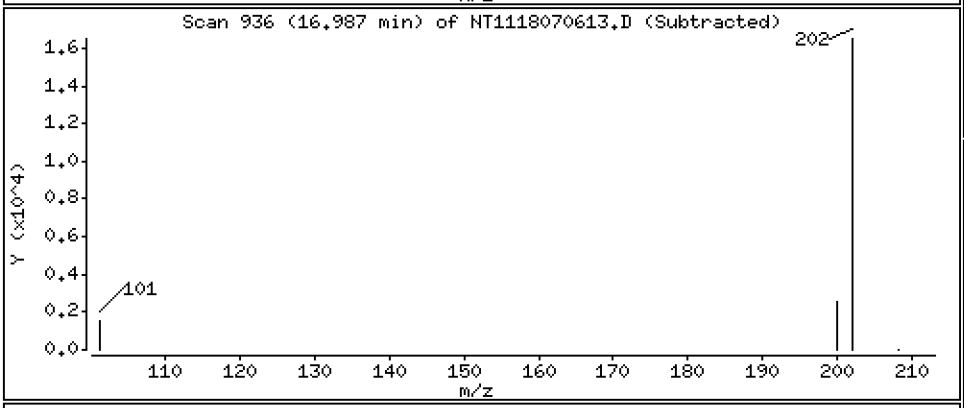
Column diameter: 0.25

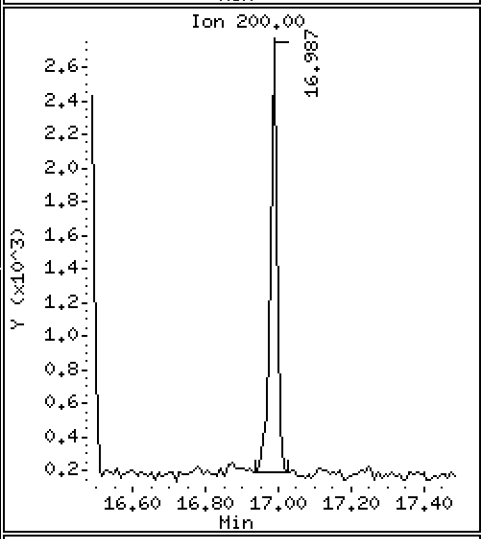
26 Pyrene

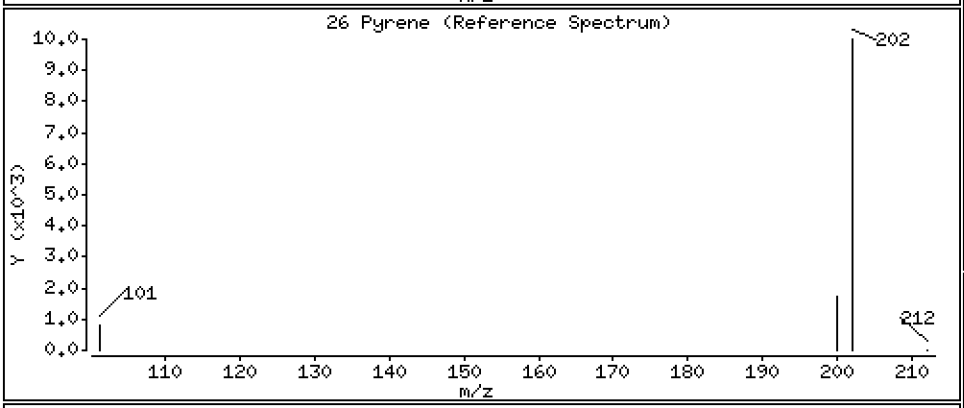
Concentration: 7.96 ng/mL

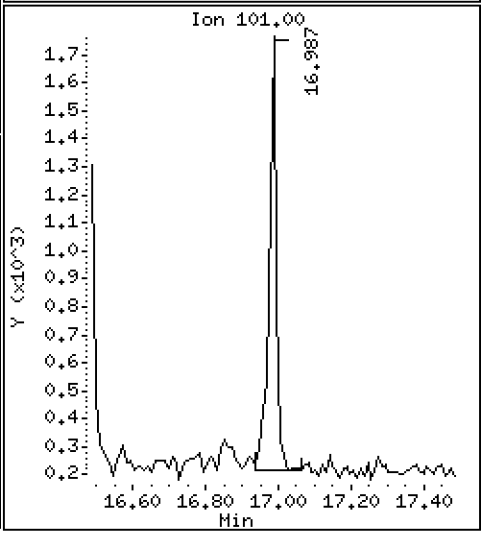


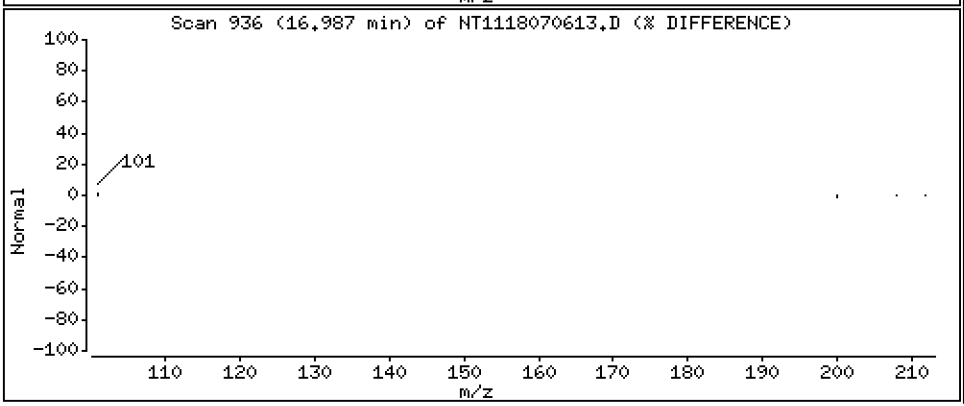












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180706.b\NT1118070613.D
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Inj Date : 06-JUL-2018 19:39 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0226-07
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Meth Date : 06-Jul-2018 13:13 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	464417	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	14525	4.15860	4.16
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.591	9.592	(1.114)	495392	186.955	187
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	5358	1.89398	1.89
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	4666	1.65843	1.66
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	244697	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	52159	26.2114	26.2
	13 Dibenzofuran	168	11.907	11.908	(1.023)	5021	1.84182	1.84
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.539	12.540	(1.077)	5169	2.35130	2.35(M)
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	404400	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	18740	5.90850	5.91
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.434	14.435	(1.007)	2804	0.94567	0.946
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	Compound Not Detected.					
$	24 Fluoranthene-d10	212	16.448	16.449	(1.147)	554356	225.833	226
	25 Fluoranthene	202	16.487	16.487	(1.150)	27823	9.44622	9.45
	26 Pyrene	202	16.986	16.987	(0.890)	23977	7.95899	7.96
	27 Benzo(a)anthracene	228	Compound Not Detected.					
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	306435	200.000	
	29 Chrysene	228	Compound Not Detected.					
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	35 Benzo(a)pyrene	252	Compound Not Detected.					
*	36 Perylene-d12	264	22.353	22.353	(1.000)	308535	200.000	
	37 Perylene	252	Compound Not Detected.					
$	38 Dibenzo(a,h)anthracene-d14	292	25.268	25.279	(1.130)	309855	209.864	210
	39 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	40 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	41 Benzo(g,h,i)perylene	276	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118070613.D
Lab Smp Id: 18F0226-07
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Misc Info:

Calibration Date: 06-JUL-2018
Calibration Time: 12:50
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	464417	7.67
11 Acenaphthene-d10	260137	130069	520274	244697	-5.94
18 Phenanthrene-d10	427391	213696	854782	404400	-5.38
28 Chrysene-d12	304596	152298	609192	306435	0.60
36 Perylene-d12	263091	131546	526182	308535	17.27

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118070613.D

Lab ID: 18F0226-07
nt11.i, 20180706.b\LOWSIM.m,   06-JUL-2018 19:39

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

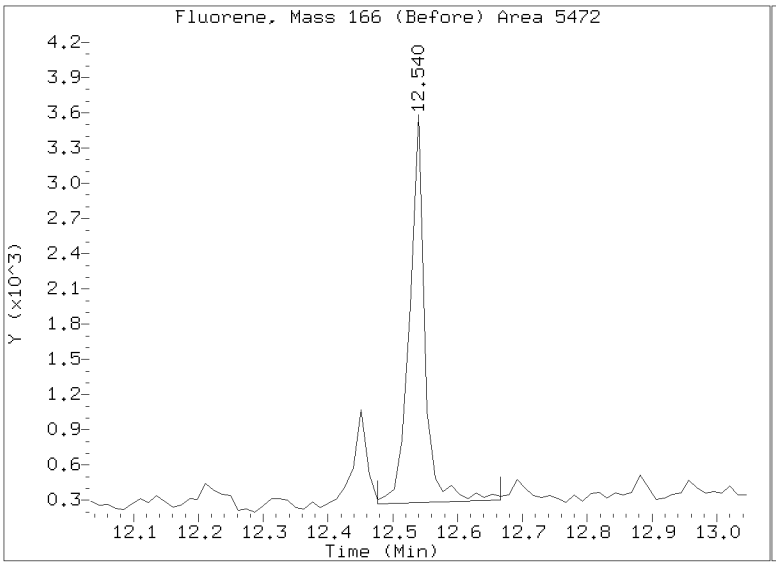
On Column LOD for nt11.i, 20180706.b\LOWSIM.m, allpna.sub = 0.0000

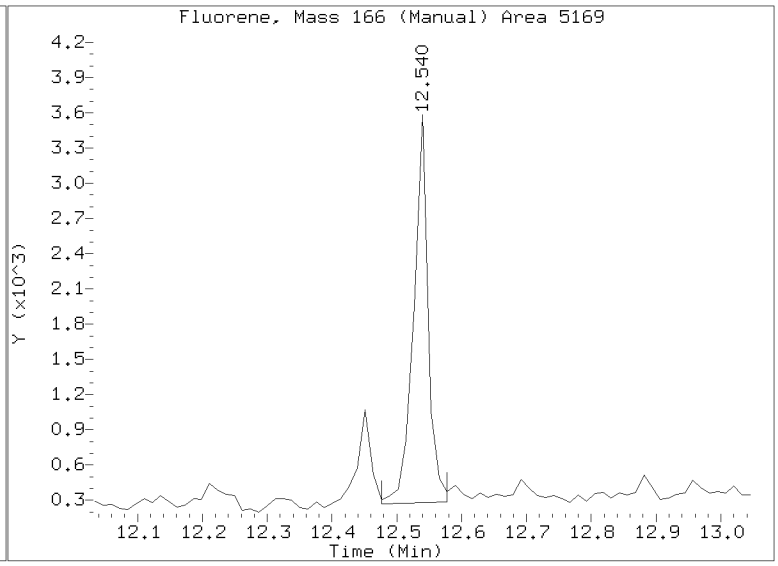
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20180706.b/NT1118070613.D
Injection Date: 06-JUL-2018 19:39
Lab ID:18F0226-07 Client ID:
Report Date: 07/07/2018 07:57





Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-84

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-08	SDG:	18F0185
Sampled:	06/14/18 09:53	Prepared:	06/21/18 13:35	File ID:	NT1118070614.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	07/06/18 20:15
Batch:	BGF0530	Sequence:	SGG0067	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.003	J	0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.002	J	0.001	0.010
208-96-8	Acenaphthylene	1	0.010	U	0.002	0.010
83-32-9	Acenaphthene	1	0.010	U	0.003	0.010
86-73-7	Fluorene	1	0.010	U	0.002	0.010
85-01-8	Phenanthrene	1	0.003	J	0.001	0.010
120-12-7	Anthracene	1	0.010	U	0.001	0.010
206-44-0	Fluoranthene	1	0.010	U	0.002	0.010
129-00-0	Pyrene	1	0.001	J	0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.010	U	0.0008	0.010
218-01-9	Chrysene	1	0.010	U	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.010	U	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.194	64.6	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.212	70.7	29 - 120	
Fluoranthene-d10	0.30000	0.225	75.1	57 - 120	

Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070614.D

Date : 06-JUL-2018 20:15

Client ID:

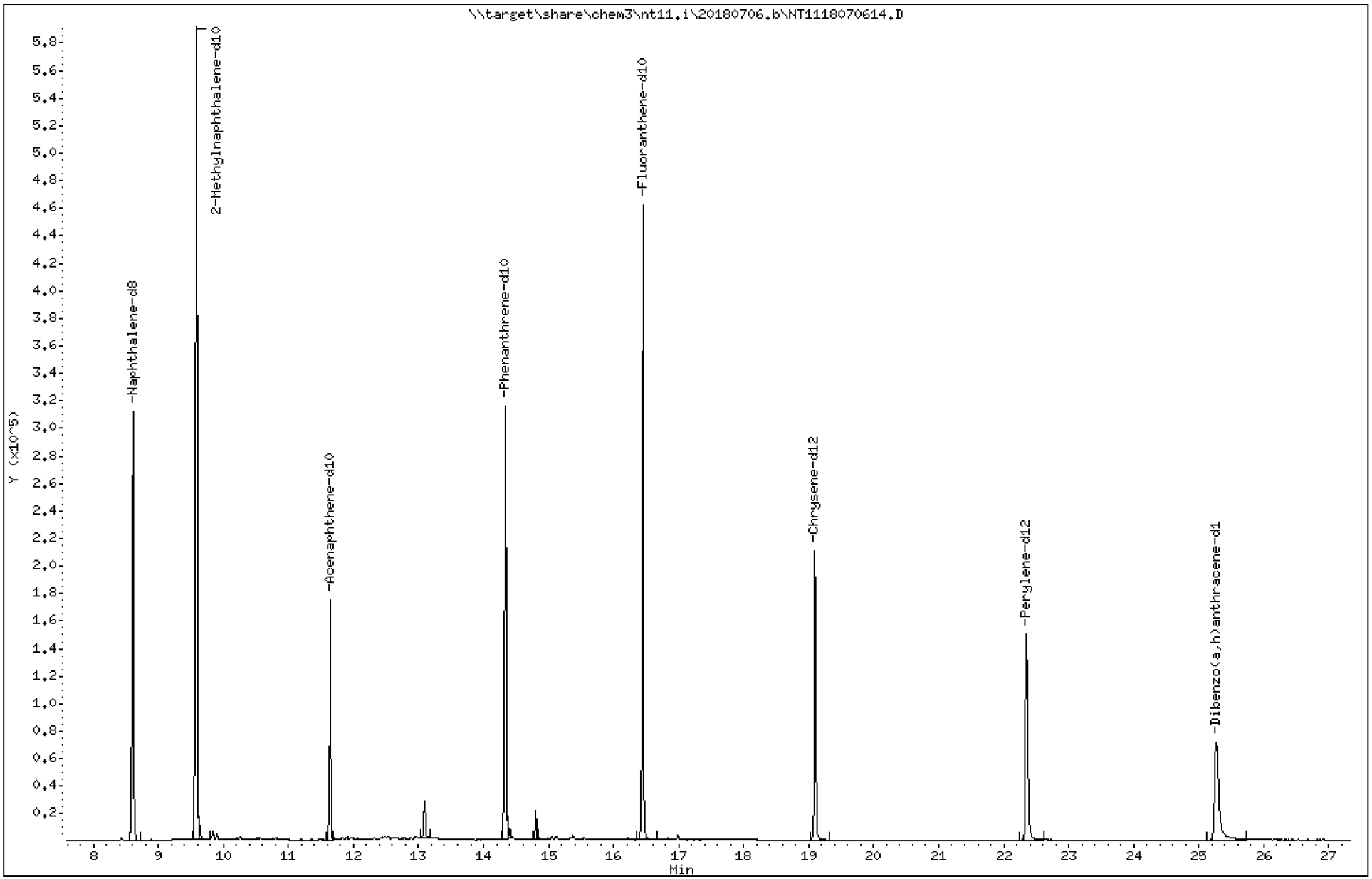
Instrument: nt11.i

Sample Info: 18F0226-08

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 06-JUL-2018 20:15

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-08

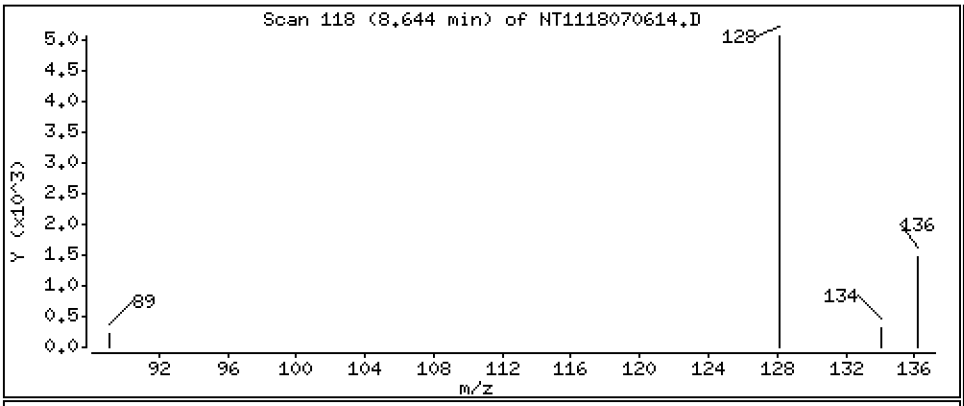
Operator: VTS

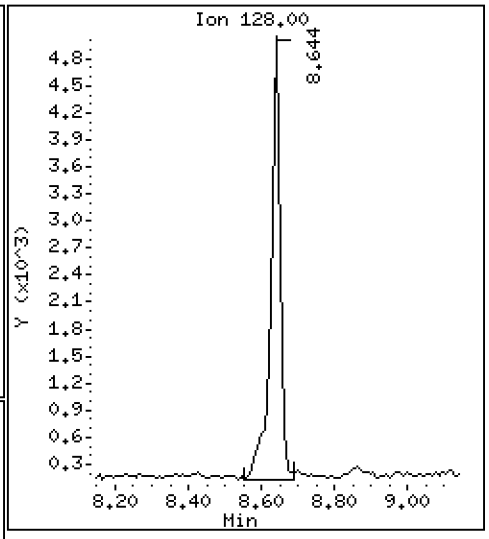
Column phase: Rxi-17Sil MS

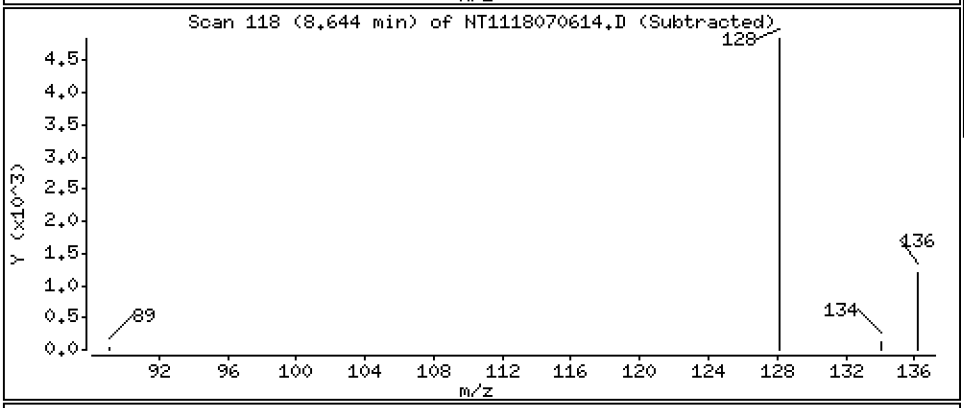
Column diameter: 0.25

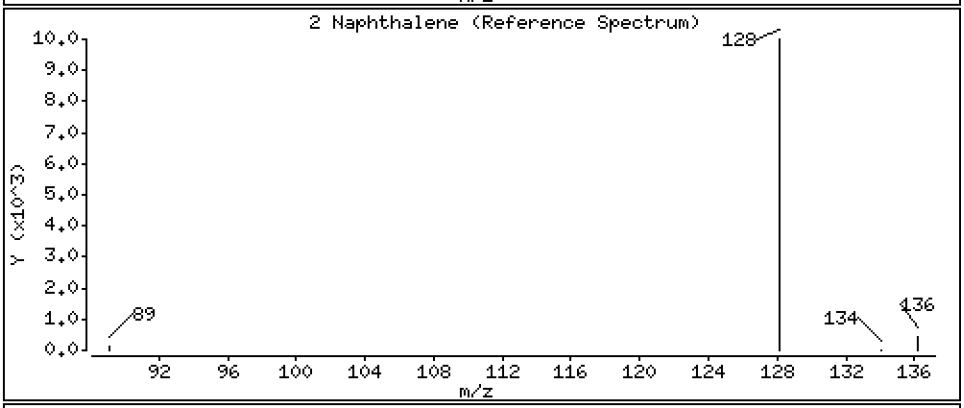
2 Naphthalene

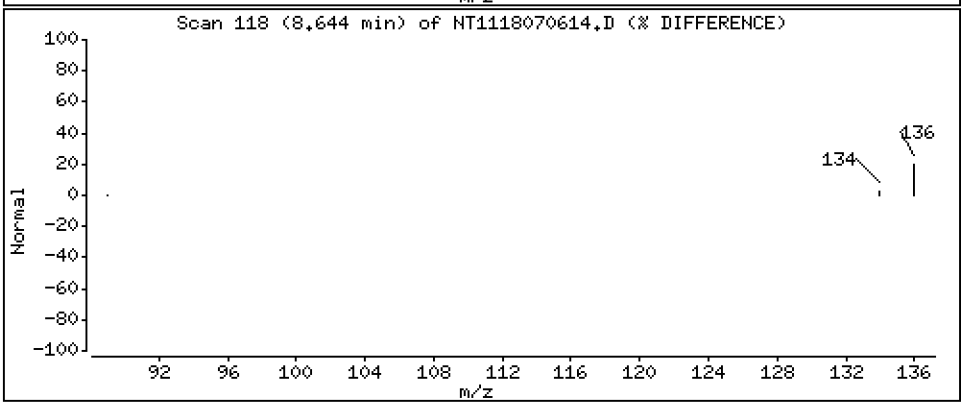
Concentration: 2.58 ng/mL











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Date : 06-JUL-2018 20:15

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-08

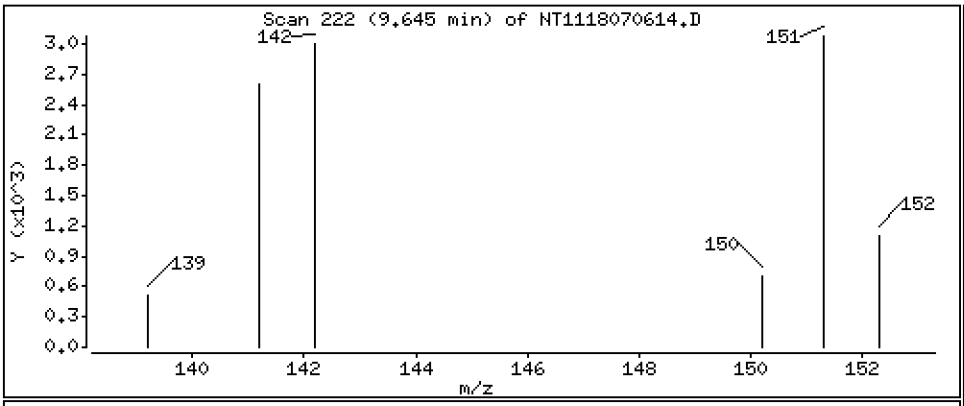
Operator: VTS

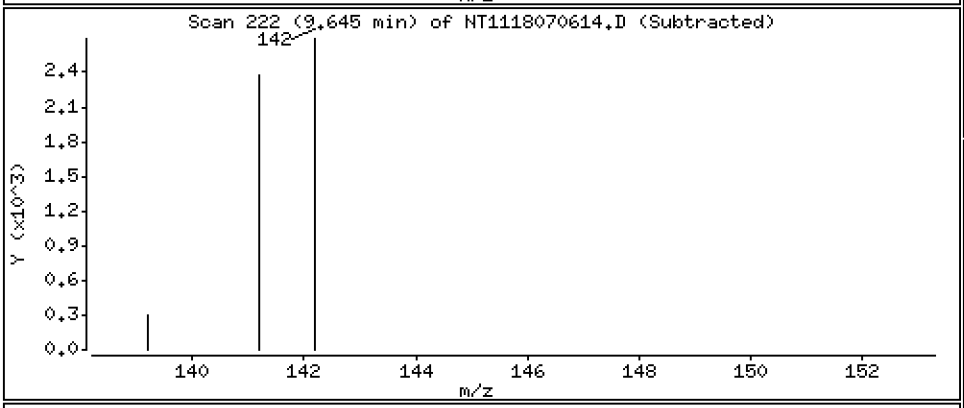
Column phase: Rxi-17Sil MS

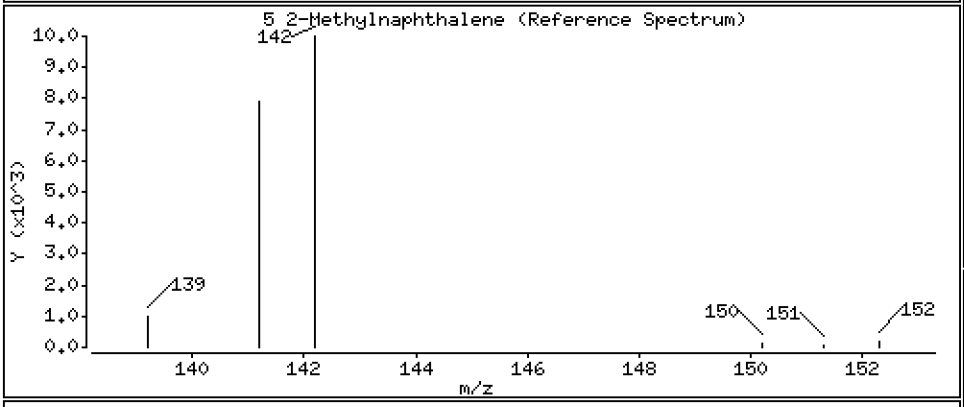
Column diameter: 0.25

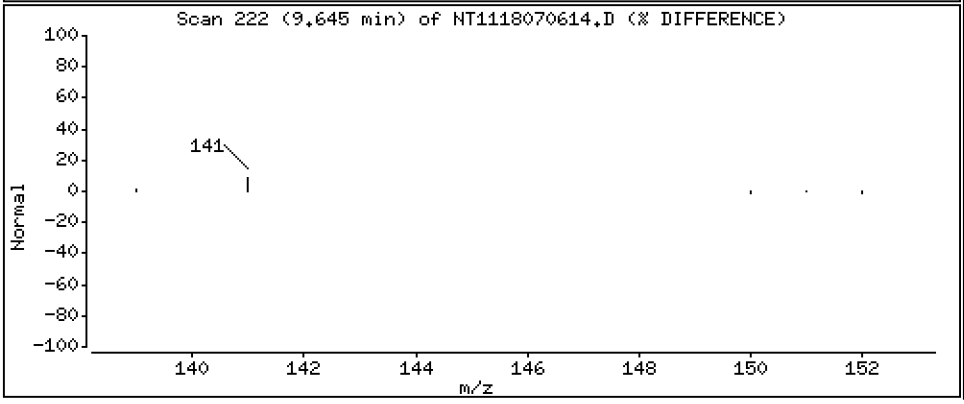
5 2-Methylnaphthalene

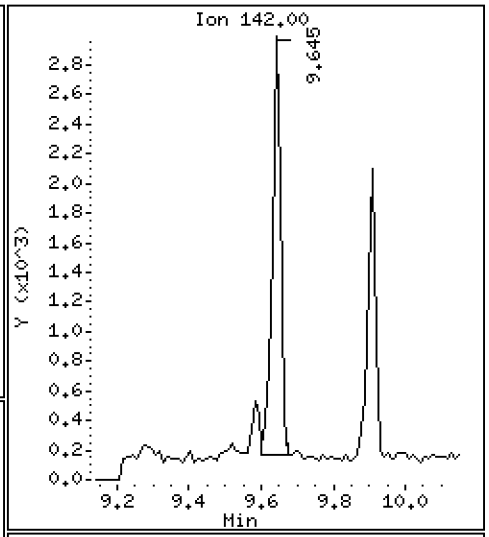
Concentration: 1.59 ng/mL

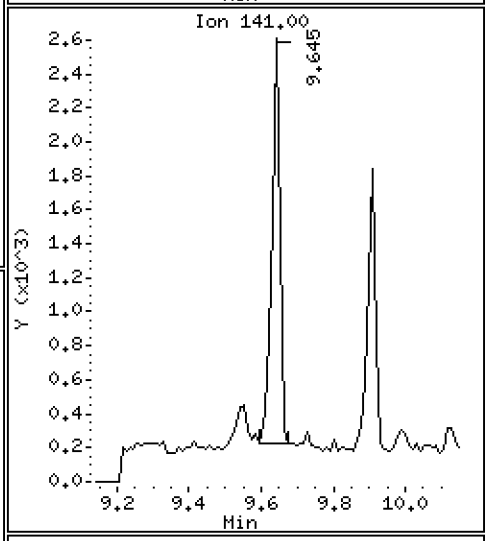


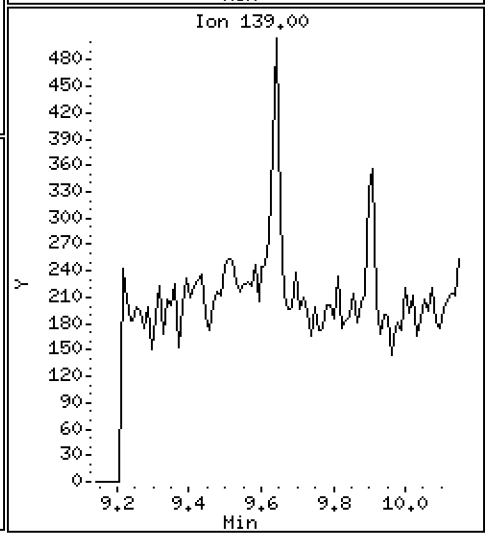












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Date : 06-JUL-2018 20:15

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-08

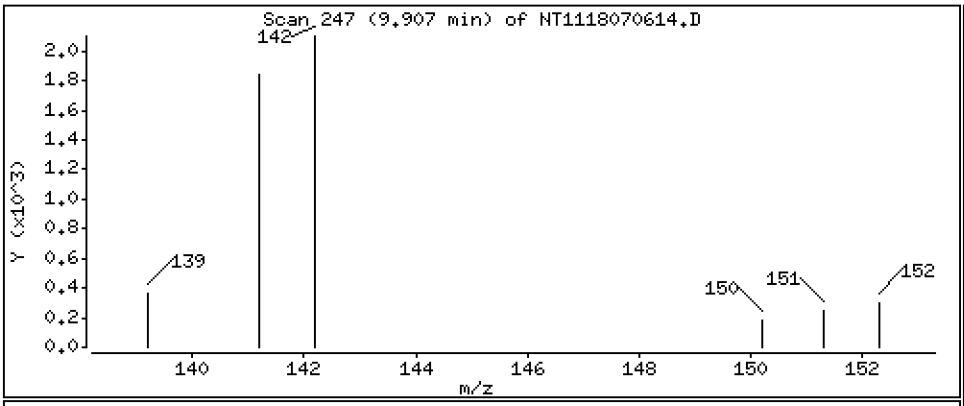
Operator: VTS

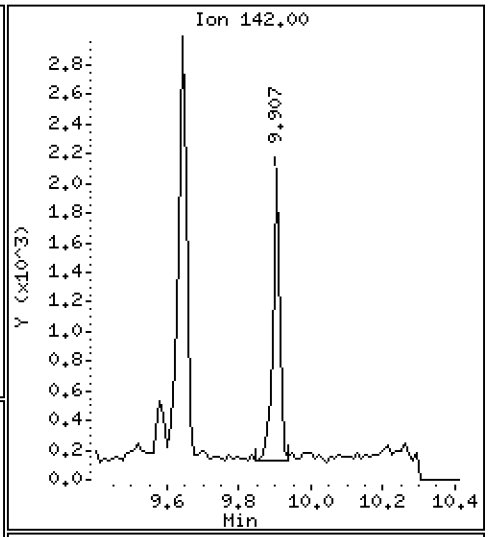
Column phase: Rxi-17Sil MS

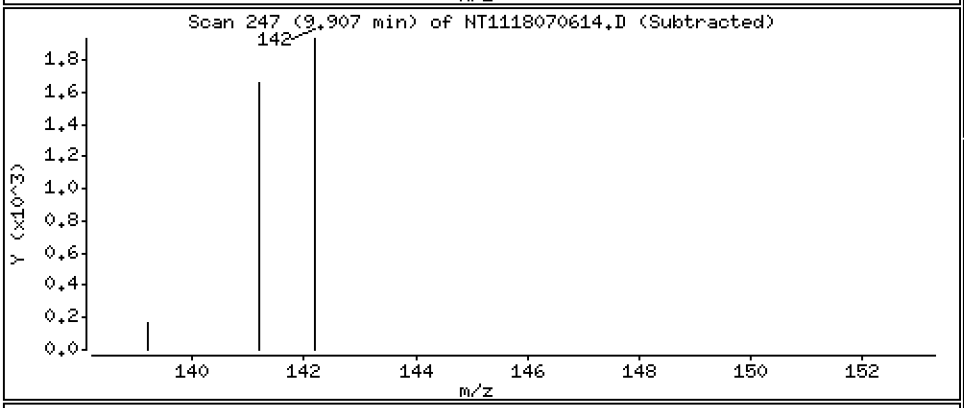
Column diameter: 0.25

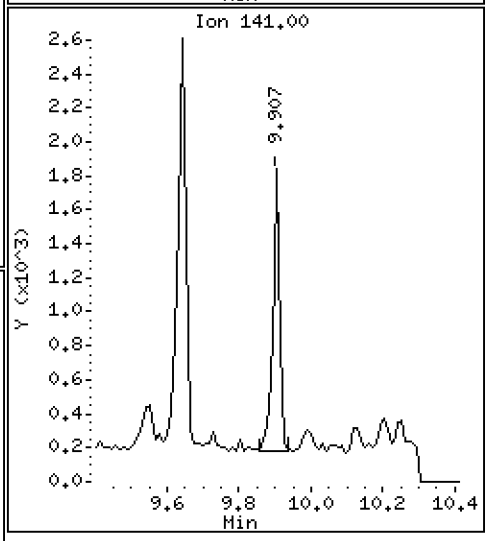
6 1-Methylnaphthalene

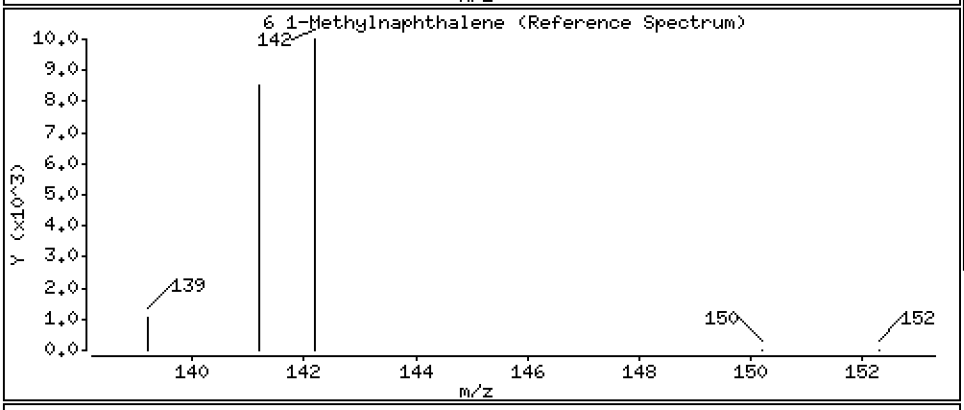
Concentration: 1.05 ng/mL

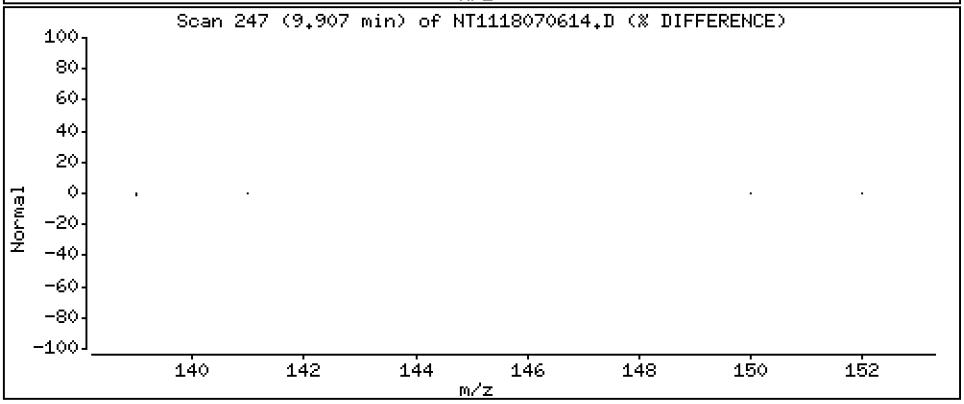












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Date : 06-JUL-2018 20:15

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-08

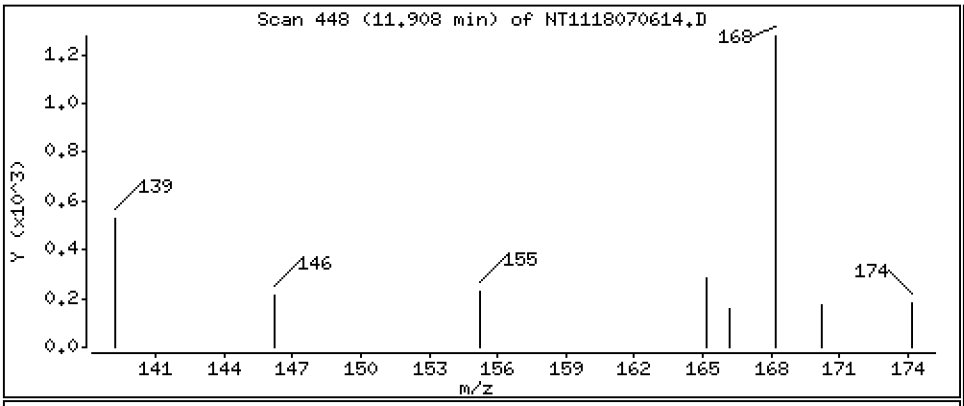
Operator: VTS

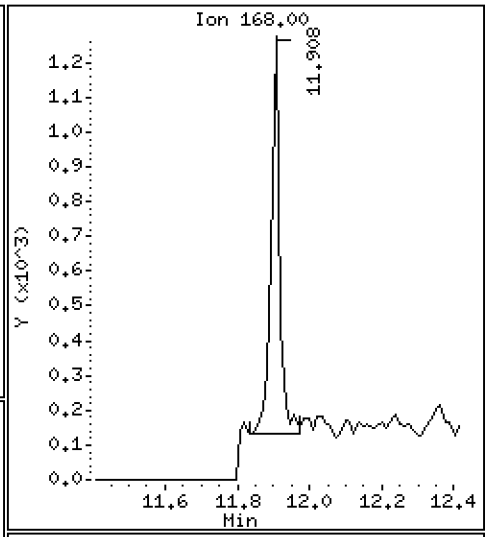
Column phase: Rxi-17Sil MS

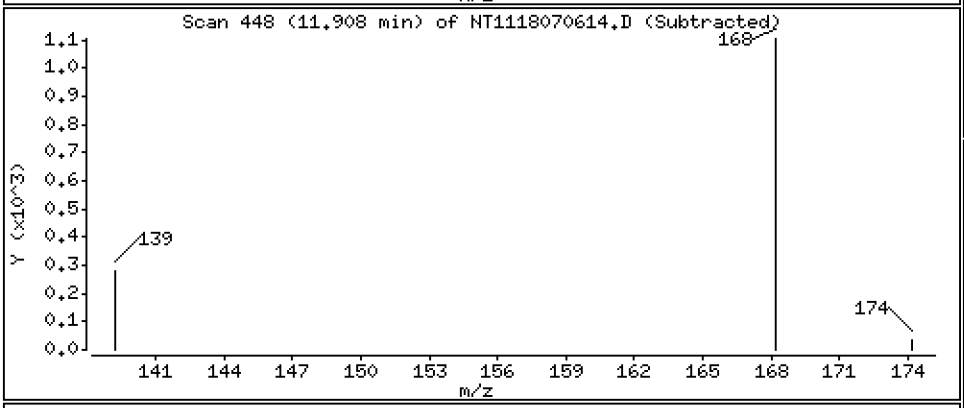
Column diameter: 0.25

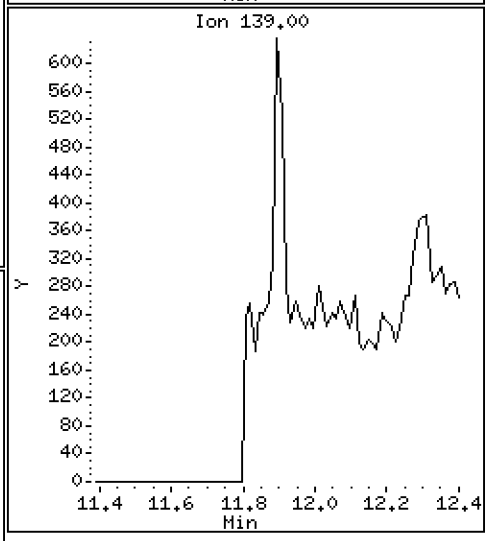
13 Dibenzofuran

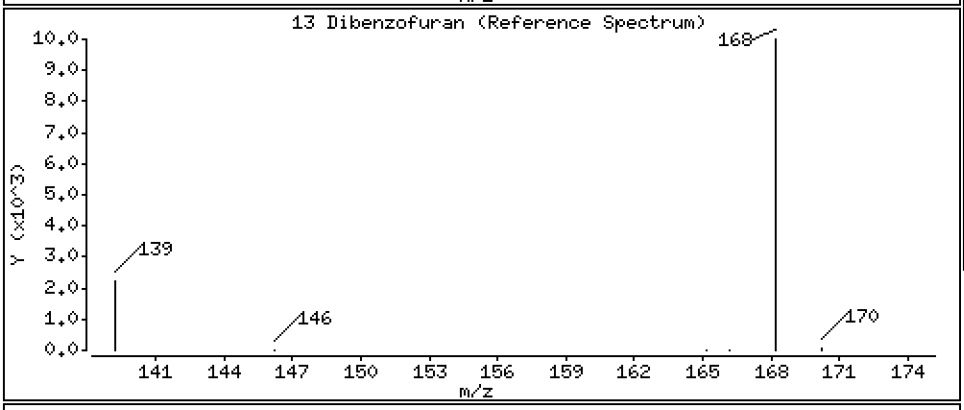
Concentration: 0.669 ng/mL

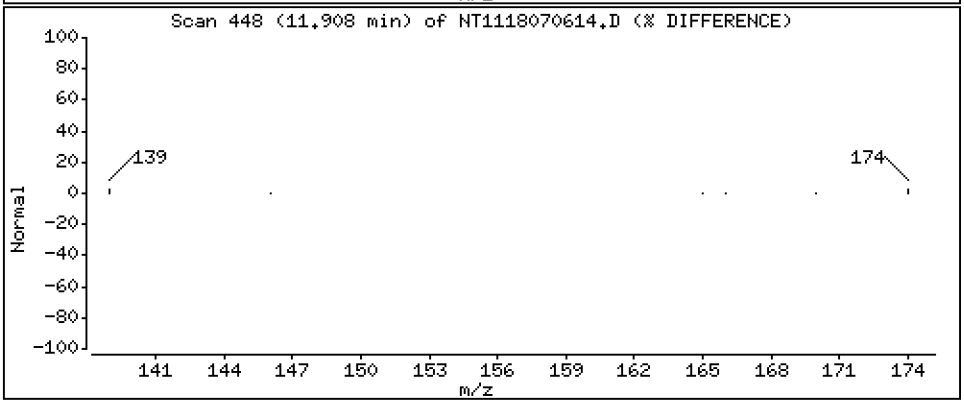












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Date : 06-JUL-2018 20:15

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-08

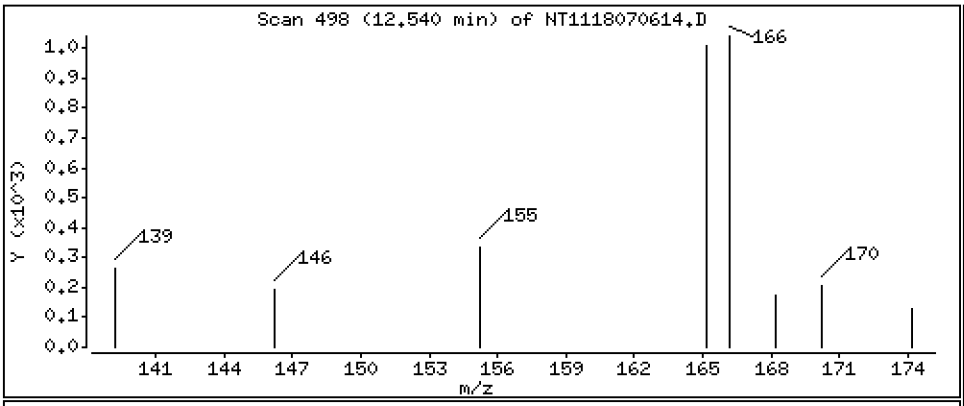
Operator: VTS

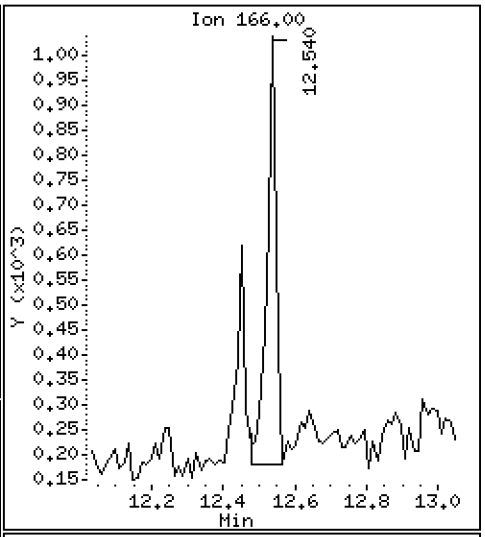
Column phase: Rxi-17Sil MS

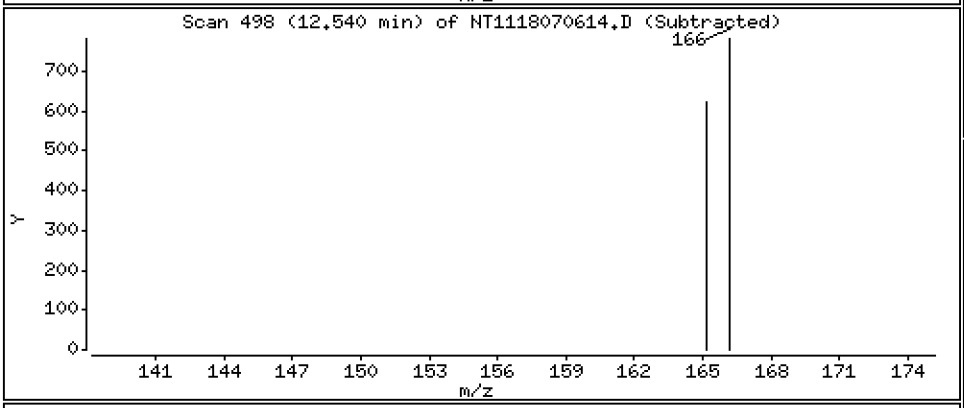
Column diameter: 0.25

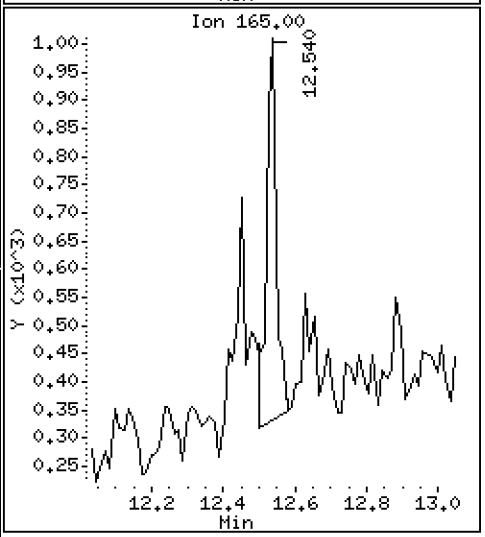
16 Fluorene

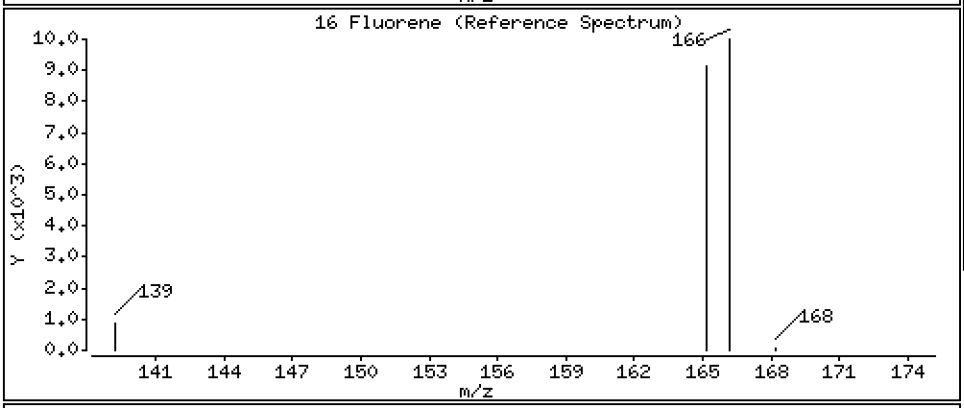
Concentration: 0.696 ng/mL

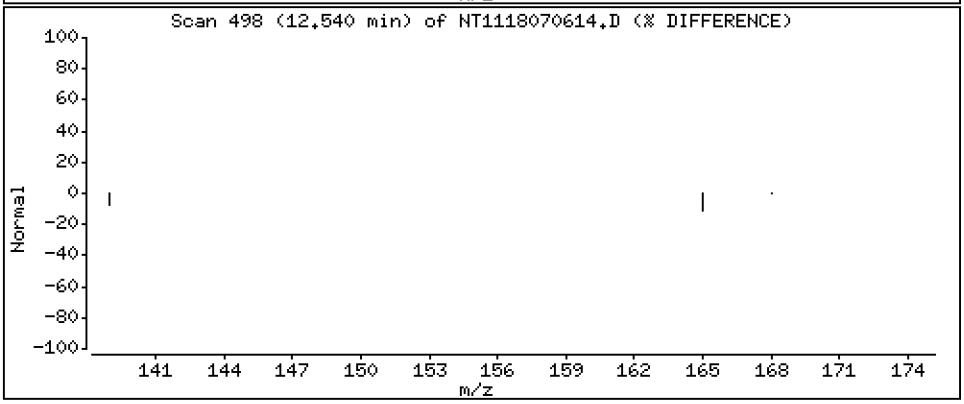












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070614.D

Date : 06-JUL-2018 20:15

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-08

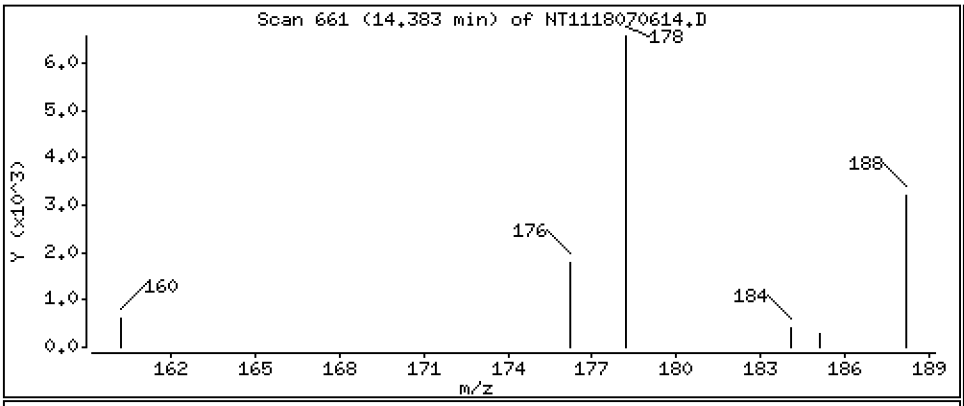
Operator: VTS

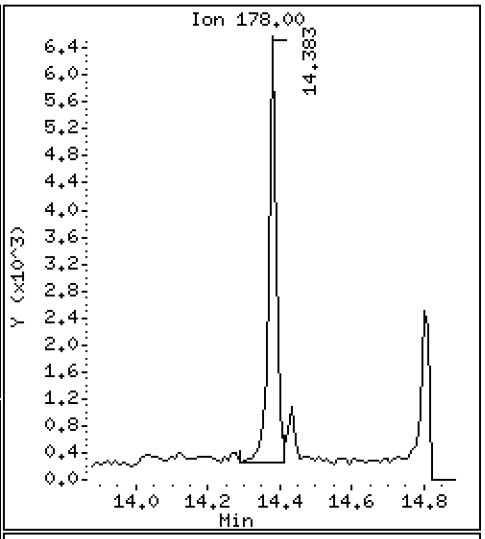
Column phase: Rxi-17Sil MS

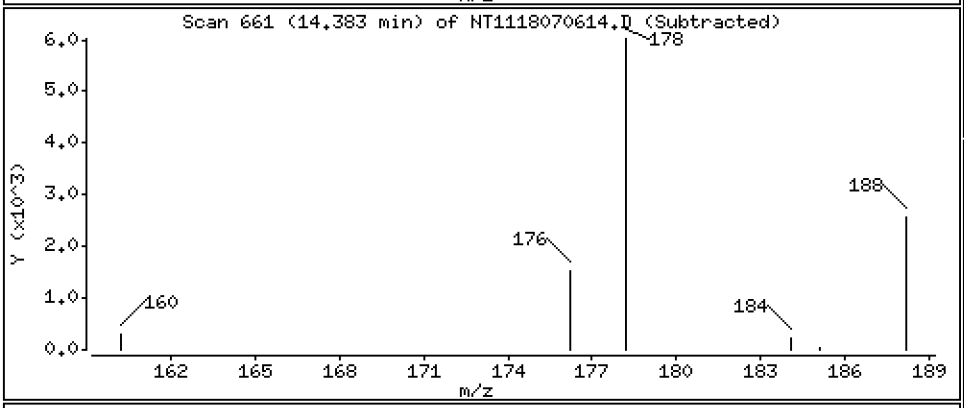
Column diameter: 0.25

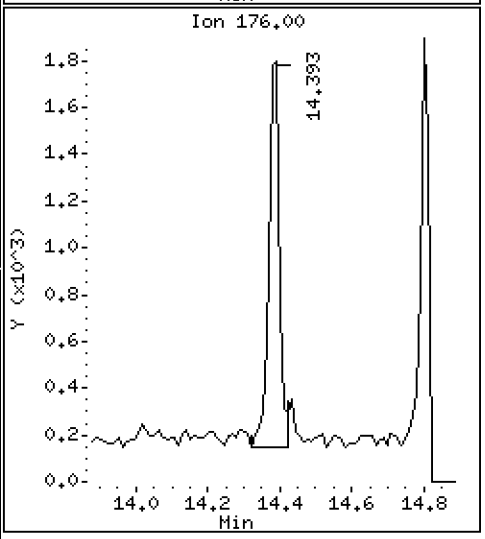
19 Phenanthrene

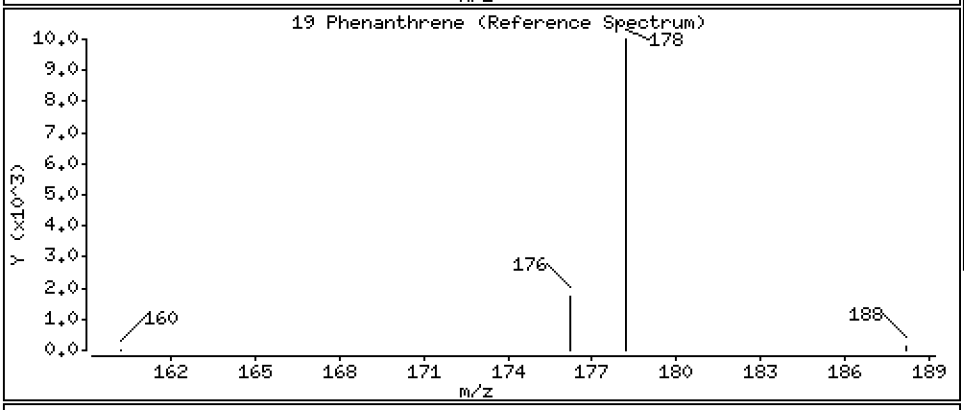
Concentration: 3.34 ng/mL

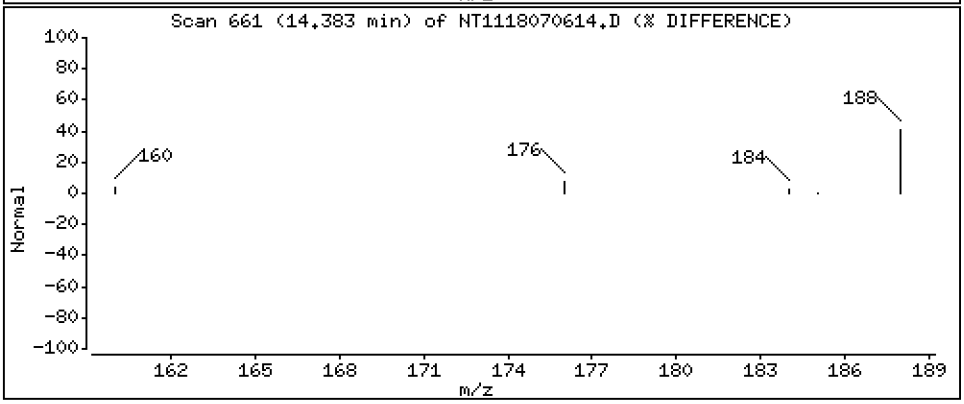












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Date : 06-JUL-2018 20:15

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-08

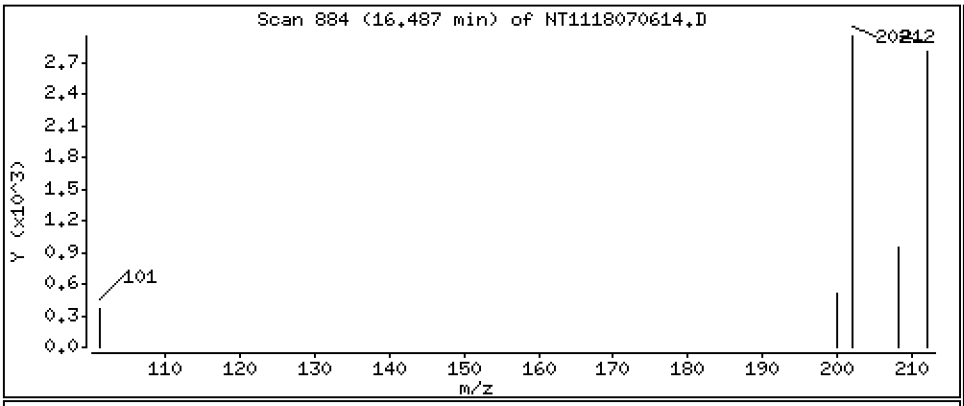
Operator: VTS

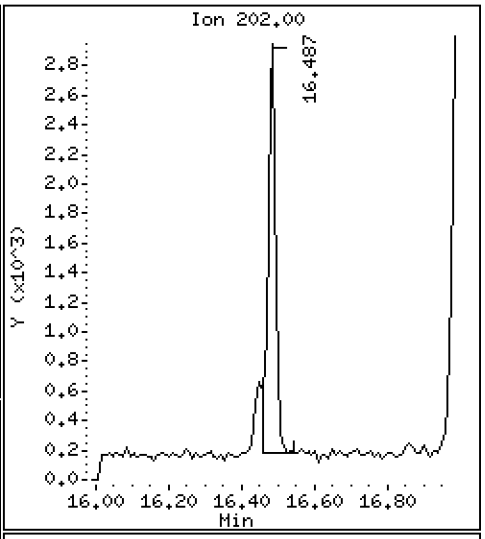
Column phase: Rxi-17Sil MS

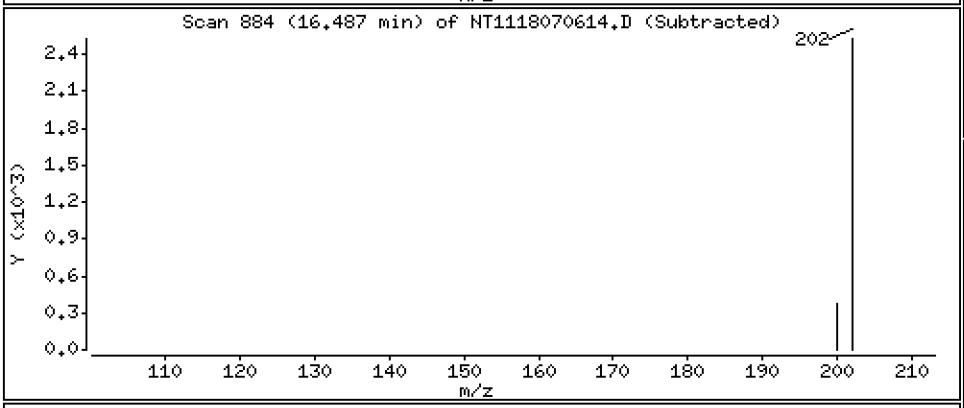
Column diameter: 0.25

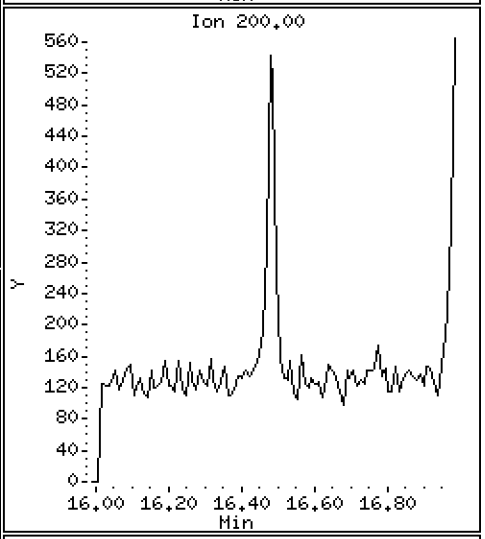
25 Fluoranthene

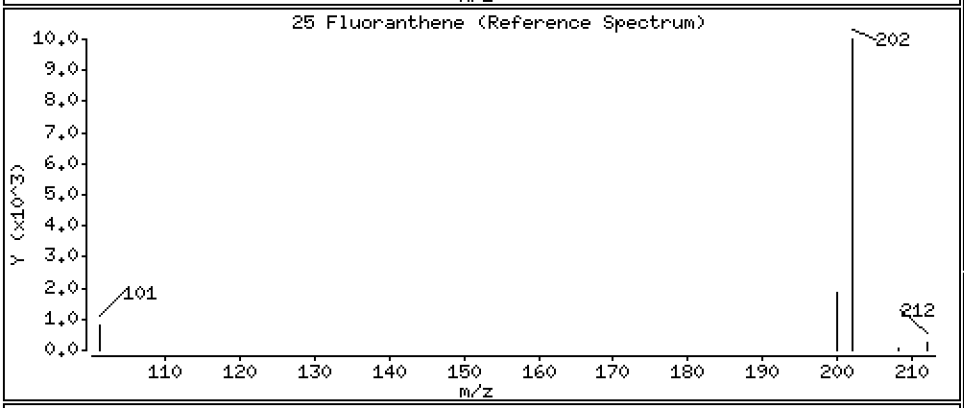
Concentration: 1.47 ng/mL

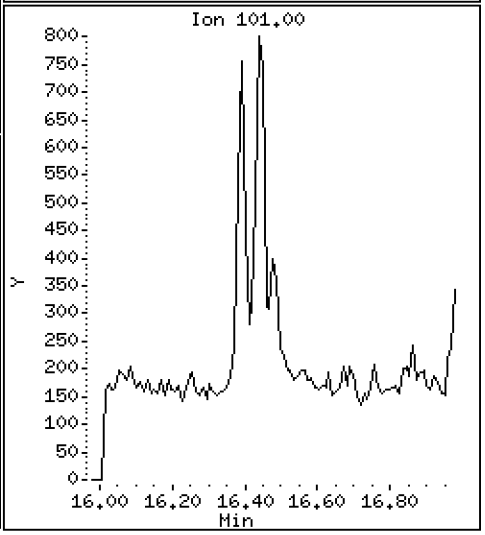


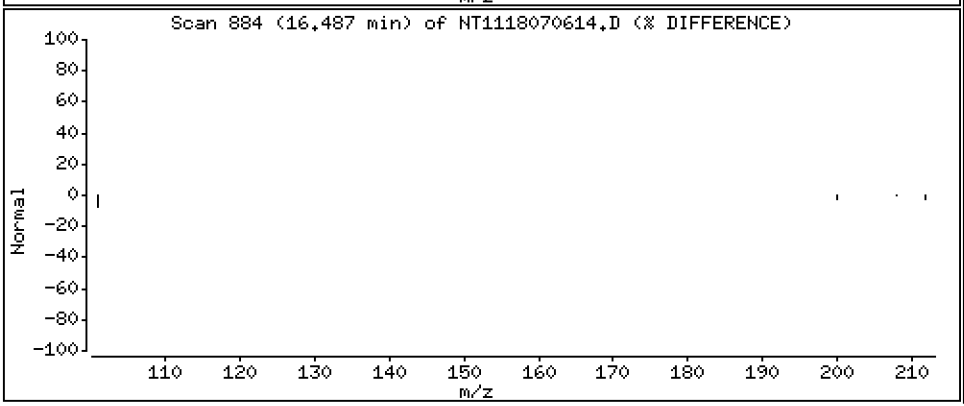












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070614.D

Date : 06-JUL-2018 20:15

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-08

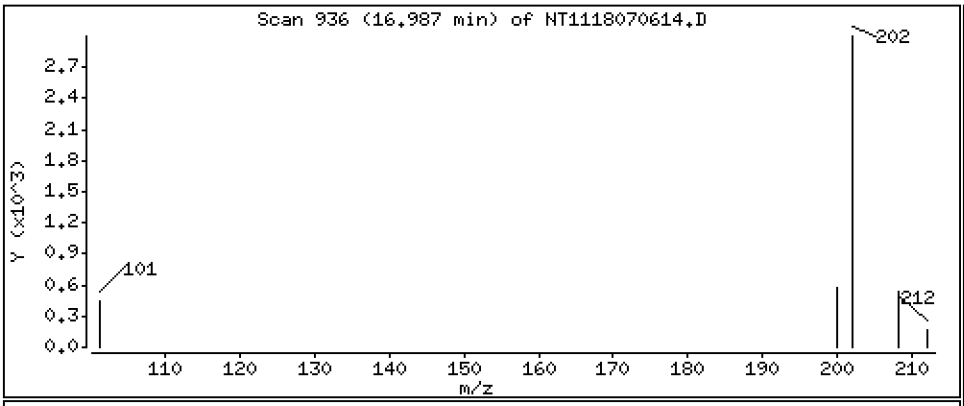
Operator: VTS

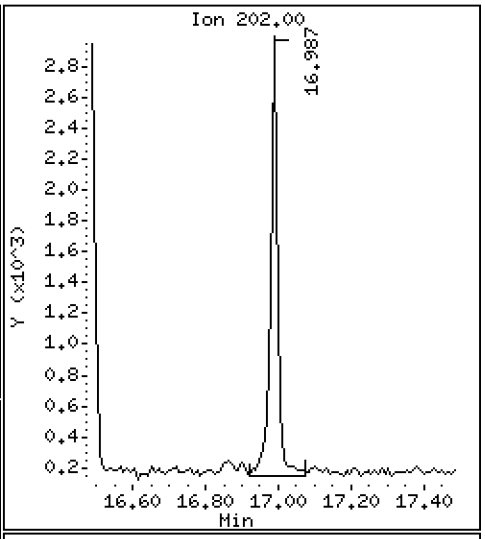
Column phase: Rxi-17Sil MS

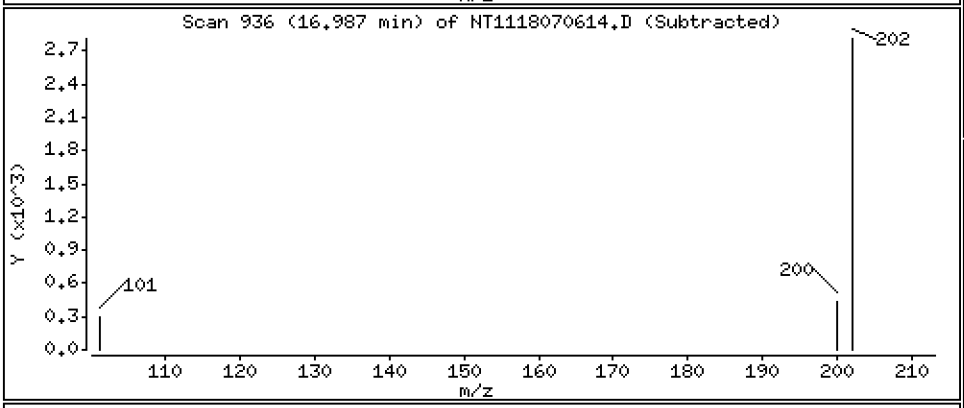
Column diameter: 0.25

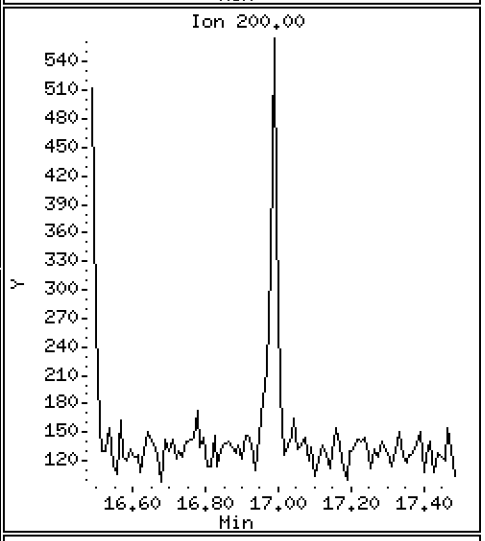
26 Pyrene

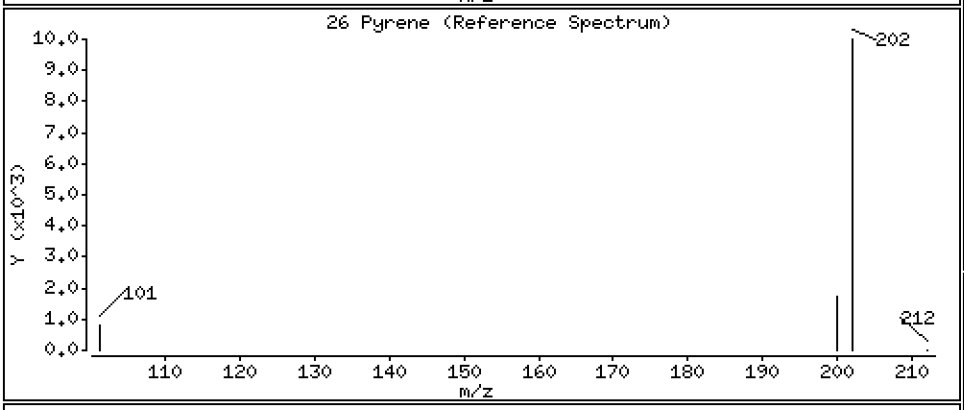
Concentration: 1.33 ng/mL

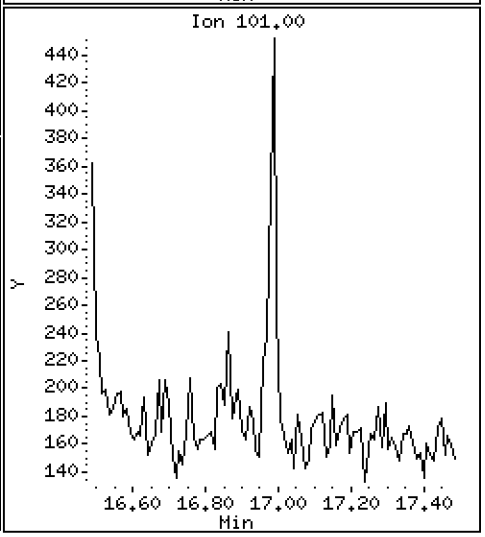


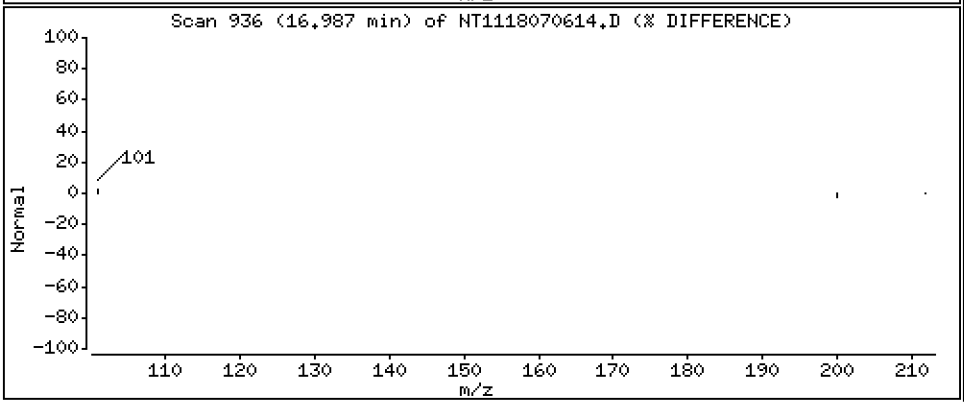












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180706.b\NT1118070614.D
Lab Smp Id: 18F0226-08
Inj Date : 06-JUL-2018 20:15 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0226-08
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Meth Date : 06-Jul-2018 13:13 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	468885	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	9092	2.57549	2.58
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	518866	193.948	194
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	4543	1.59058	1.59
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	2987	1.05155	1.05
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	246655	200.000	
	12 Acenaphthene	153	Compound Not Detected.					
	13 Dibenzofuran	168	11.908	11.908	(1.023)	1837	0.66851	0.669
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.539	12.540	(1.077)	1543	0.69632	0.696
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	410793	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	10755	3.33815	3.34
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	Compound Not Detected.					
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	Compound Not Detected.					
$	24 Fluoranthene-d10	212	16.448	16.449	(1.147)	561853	225.325	225
	25 Fluoranthene	202	16.487	16.487	(1.150)	4407	1.47294	1.47
	26 Pyrene	202	16.987	16.987	(0.890)	4212	1.33131	1.33
	27 Benzo(a)anthracene	228	Compound Not Detected.					
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	321818	200.000	
	29 Chrysene	228	Compound Not Detected.					
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
35	Benzo(a)pyrene	252	Compound Not Detected.					
* 36	Perylene-d12	264	22.353	22.353	(1.000)	318203	200.000	
37	Perylene	252	Compound Not Detected.					
$ 38	Dibenzo(a,h)anthracene-d14	292	25.268	25.279	(1.130)	322792	211.984	212
39	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
40	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
41	Benzo(g,h,i)perylene	276	Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118070614.D
Lab Smp Id: 18F0226-08
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Misc Info:

Calibration Date: 06-JUL-2018
Calibration Time: 12:50
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	468885	8.71
11 Acenaphthene-d10	260137	130069	520274	246655	-5.18
18 Phenanthrene-d10	427391	213696	854782	410793	-3.88
28 Chrysene-d12	304596	152298	609192	321818	5.65
36 Perylene-d12	263091	131546	526182	318203	20.95

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118070614.D

Lab ID: 18F0226-08
nt11.i, 20180706.b\LOWSIM.m,   06-JUL-2018 20:15

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180706.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-87

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polynuclear Aromatic Hydrocarbons - low level

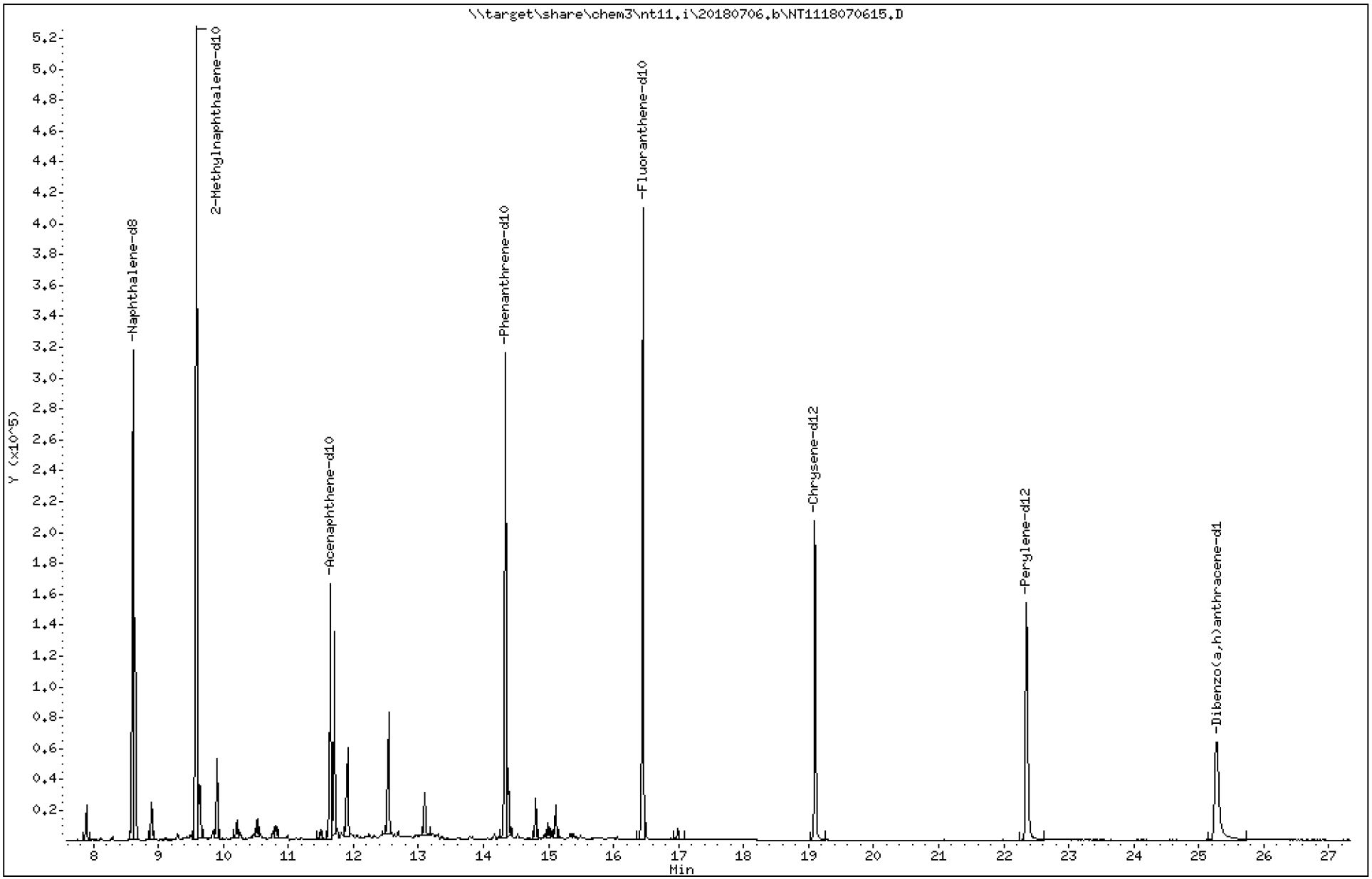
Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-09	SDG:	18F0185
Sampled:	06/14/18 11:11	Prepared:	06/21/18 13:35	File ID:	NT1118070615.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	07/06/18 20:51
Batch:	BGF0530	Sequence:	SGG0067	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.068		0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.007	J	0.001	0.010
208-96-8	Acenaphthylene	1	0.010	U	0.002	0.010
83-32-9	Acenaphthene	1	0.060		0.003	0.010
86-73-7	Fluorene	1	0.028		0.002	0.010
85-01-8	Phenanthrene	1	0.018		0.001	0.010
120-12-7	Anthracene	1	0.003	J	0.001	0.010
206-44-0	Fluoranthene	1	0.007	J	0.002	0.010
129-00-0	Pyrene	1	0.003	J	0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.010	U	0.0008	0.010
218-01-9	Chrysene	1	0.010	U	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.010	U	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.169	56.4	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.193	64.4	29 - 120	
Fluoranthene-d10	0.30000	0.198	66.1	57 - 120	

Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070615.D
Date : 06-JUL-2018 20:51
Client ID:
Sample Info: 18F0226-09

Instrument: nt11.i
Operator: VTS
Column phase: Rxi-17Sil MS
Column diameter: 0.25



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 1706 of 6523

Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070615.D

Date : 06-JUL-2018 20:51

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-09

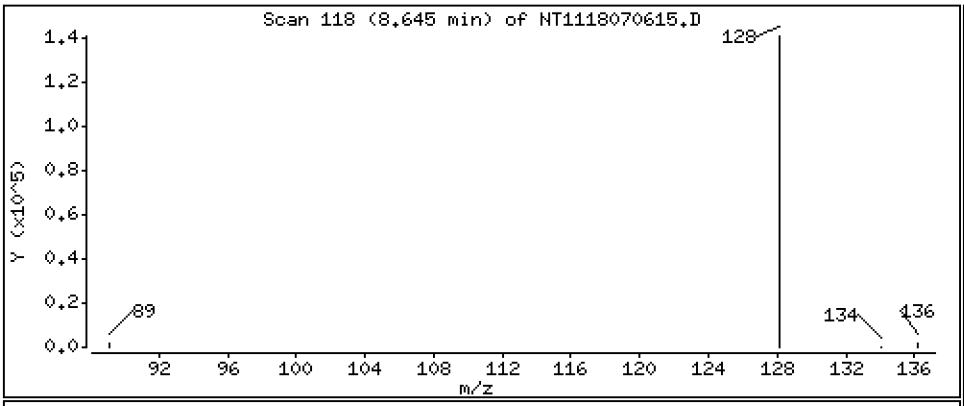
Operator: VTS

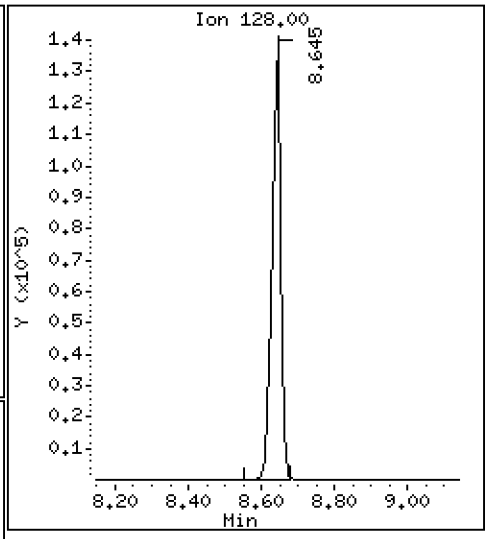
Column phase: Rxi-17Sil MS

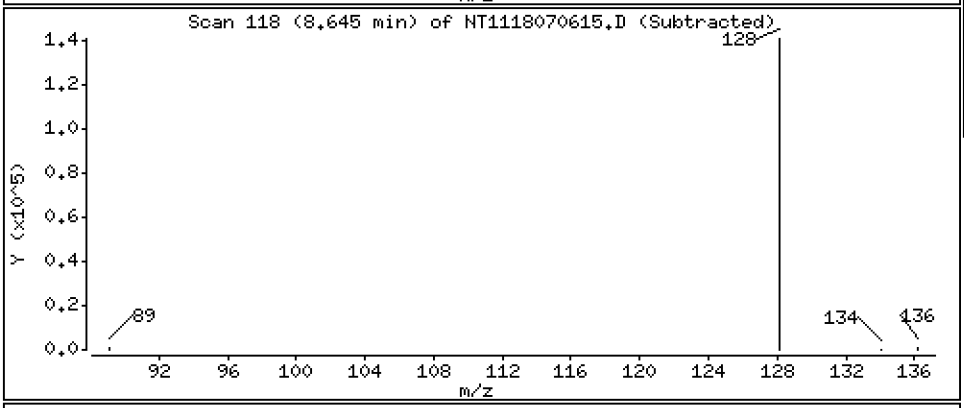
Column diameter: 0.25

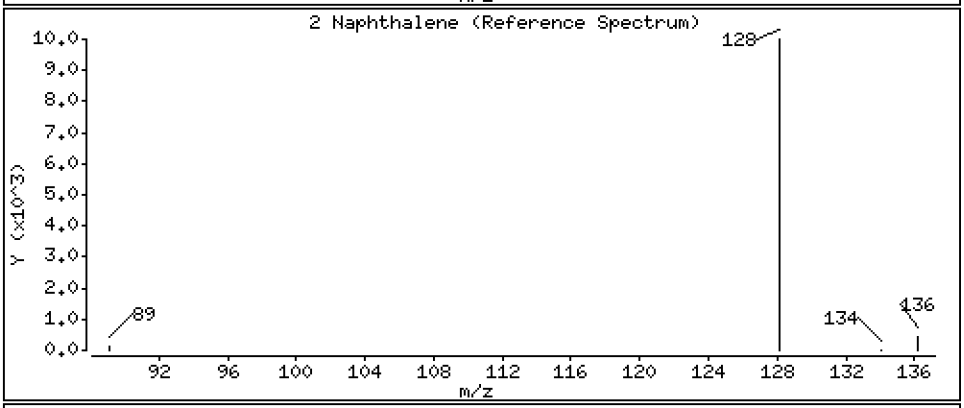
2 Naphthalene

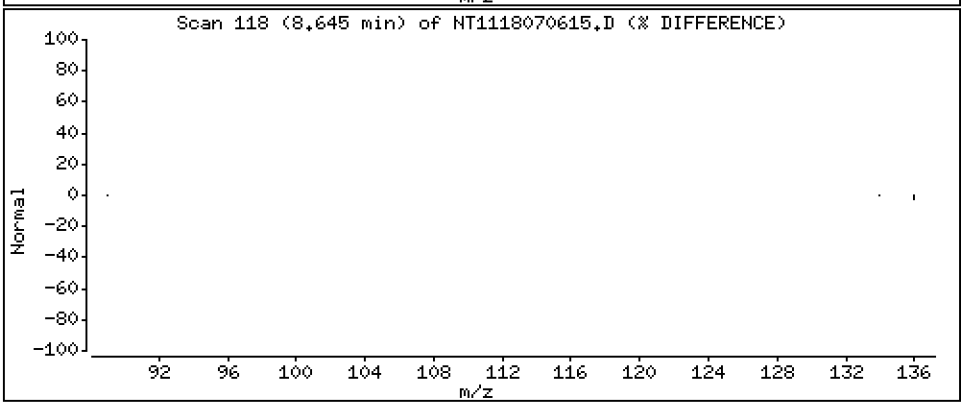
Concentration: 67.5 ng/mL











Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070615.D

Date : 06-JUL-2018 20:51

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-09

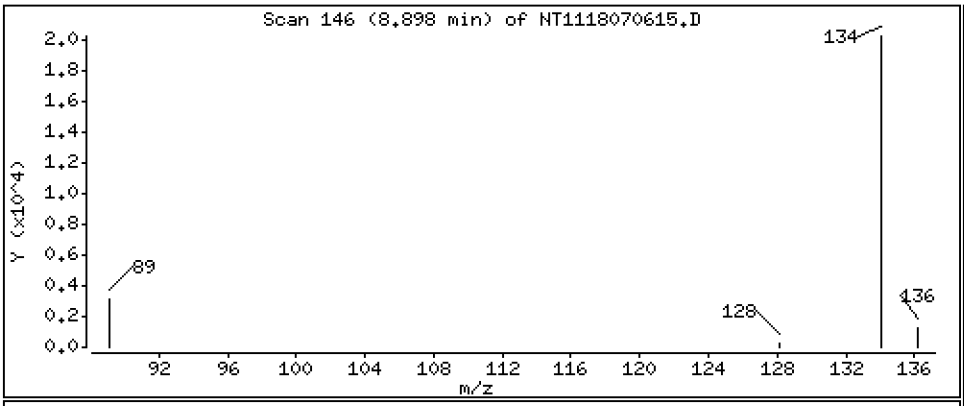
Operator: VTS

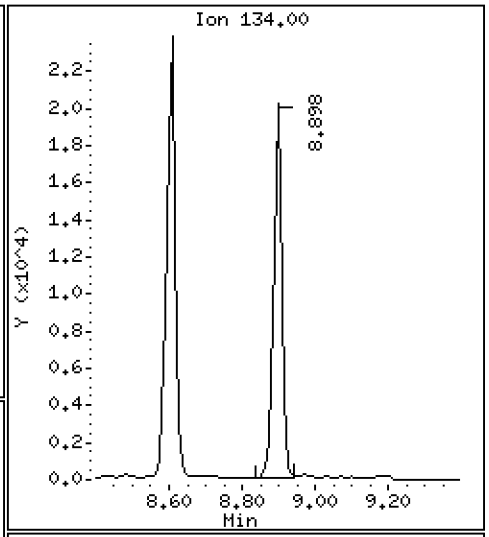
Column phase: Rxi-17Sil MS

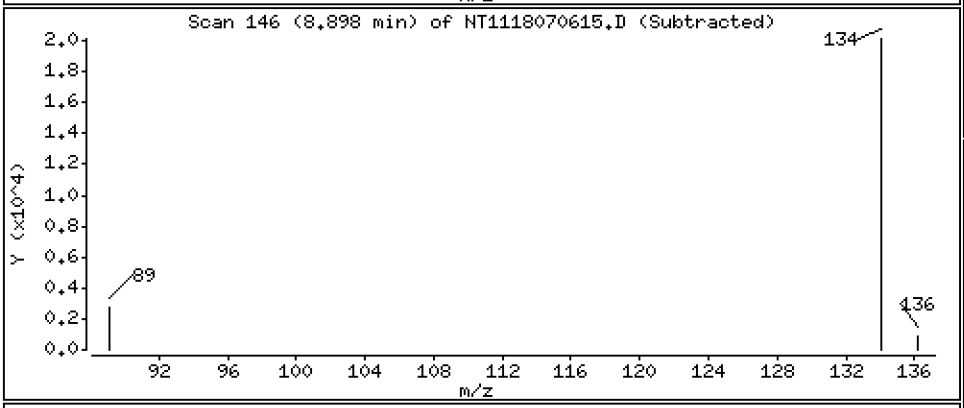
Column diameter: 0.25

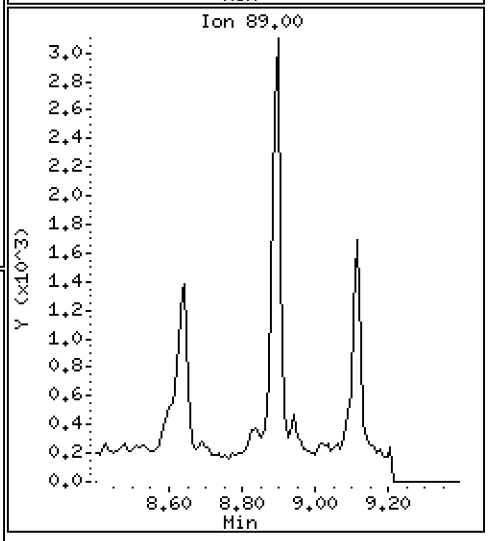
3 Benzo(b)thiophene

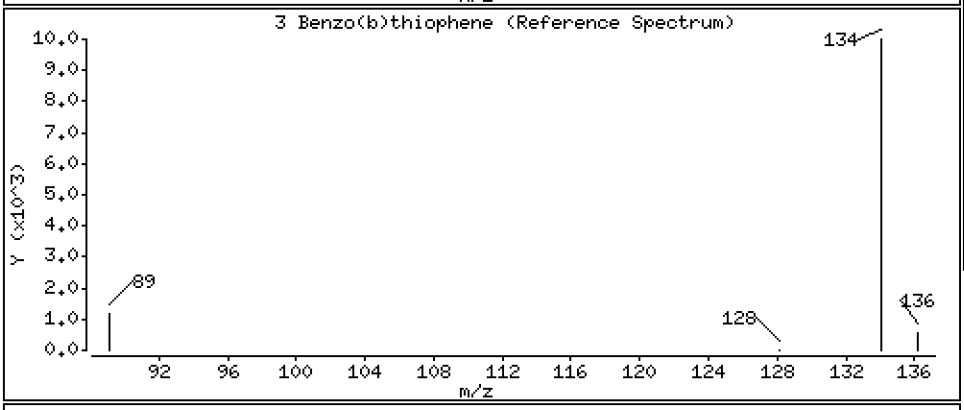
Concentration: 13.2 ng/mL

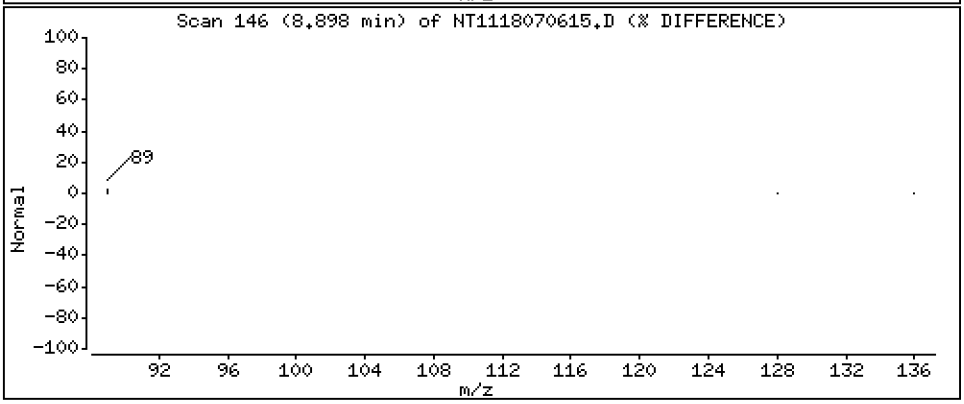












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Date : 06-JUL-2018 20:51

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-09

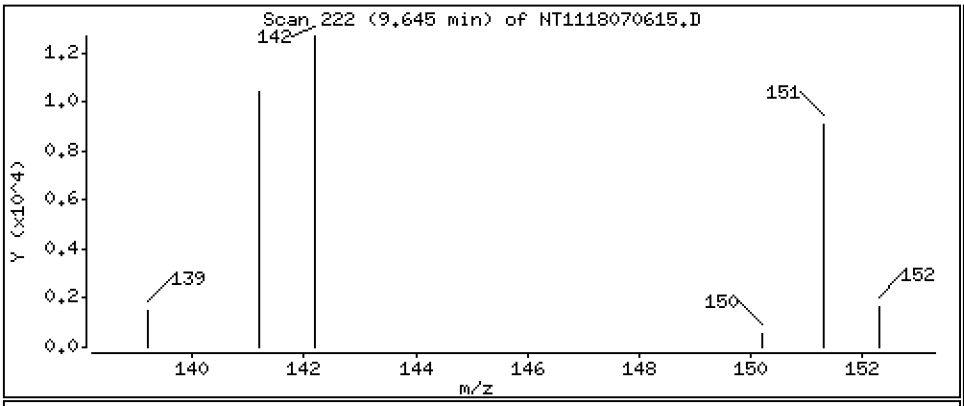
Operator: VTS

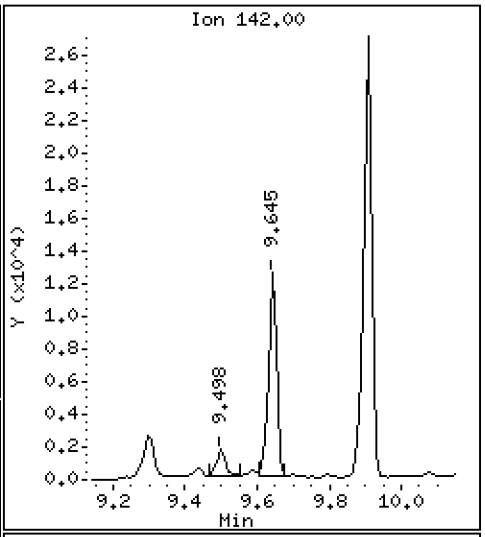
Column phase: Rxi-17Sil MS

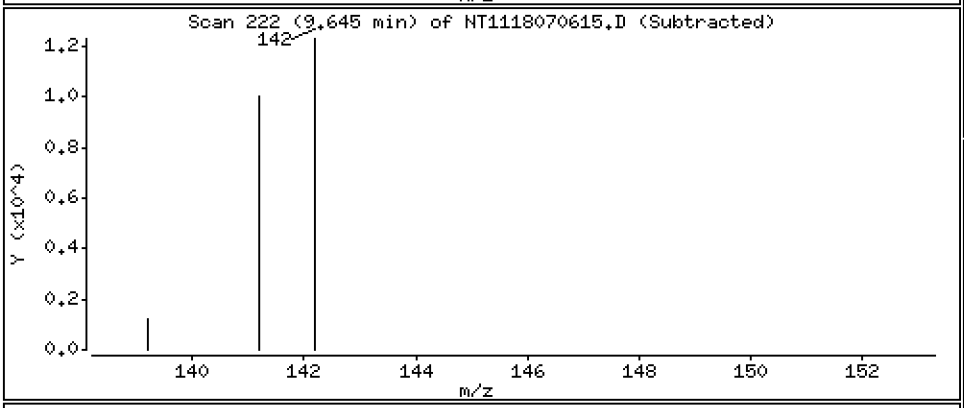
Column diameter: 0.25

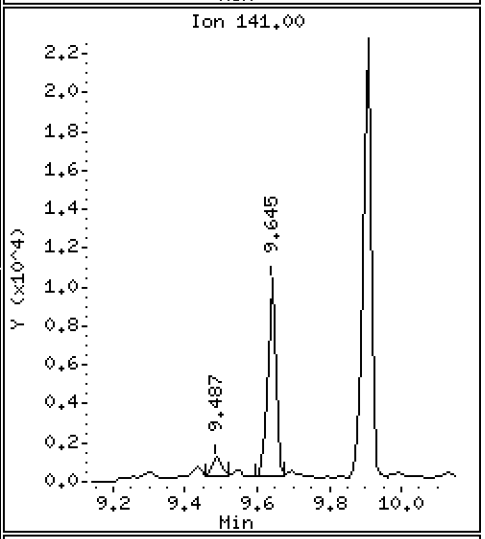
5 2-Methylnaphthalene

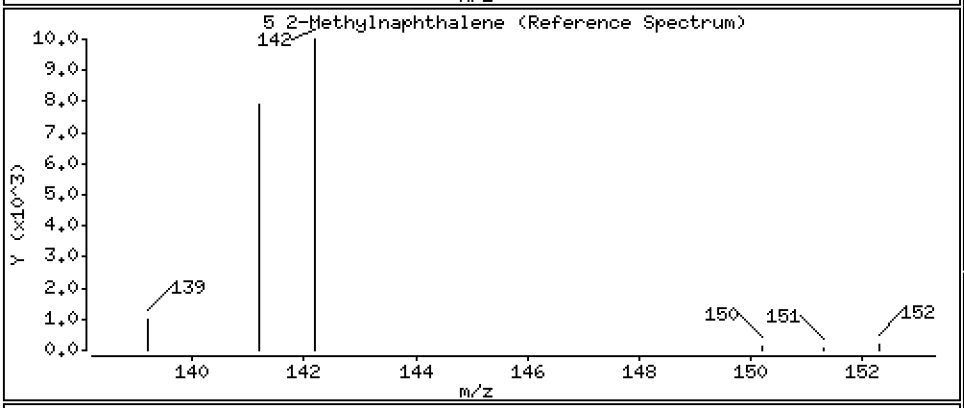
Concentration: 6.69 ng/mL

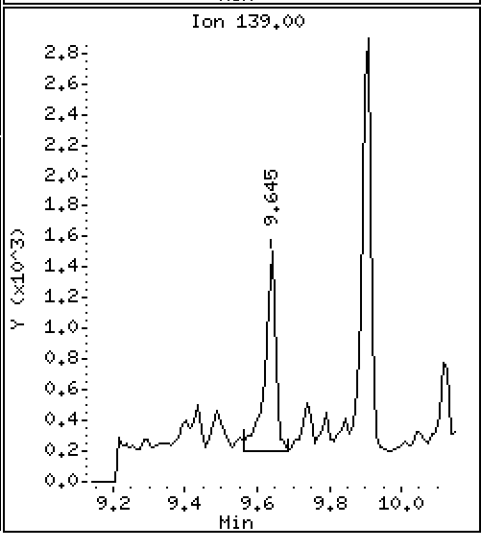


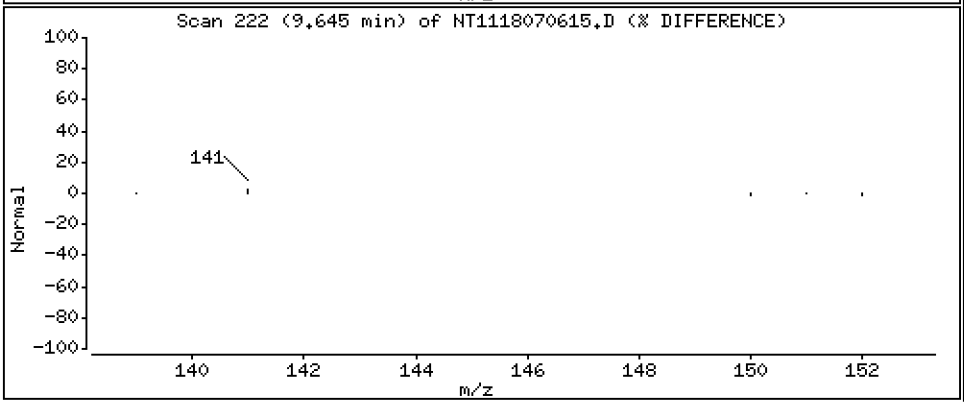












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Date : 06-JUL-2018 20:51

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-09

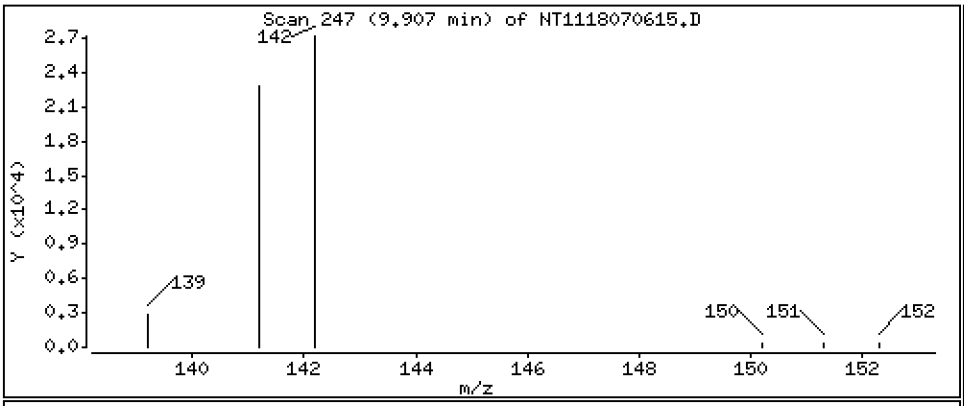
Operator: VTS

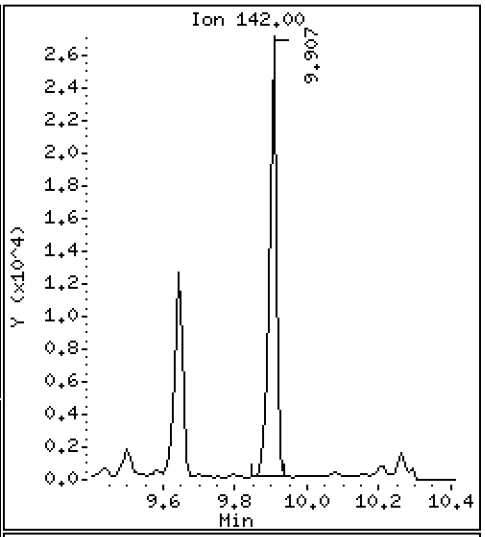
Column phase: Rxi-17Sil MS

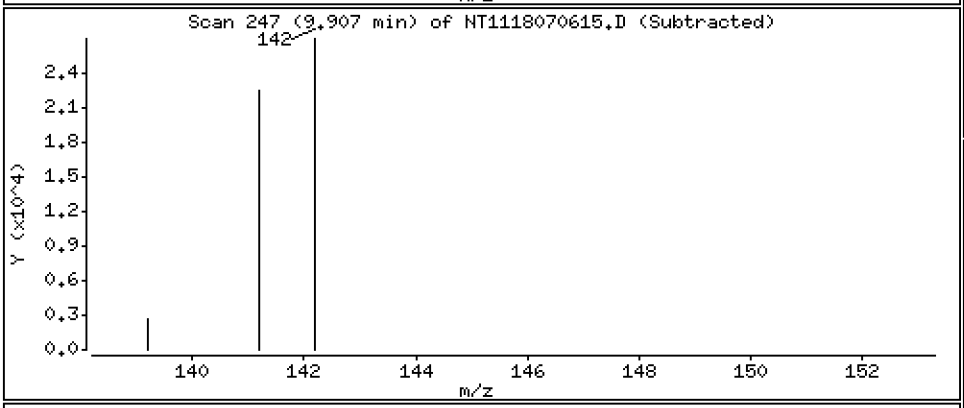
Column diameter: 0.25

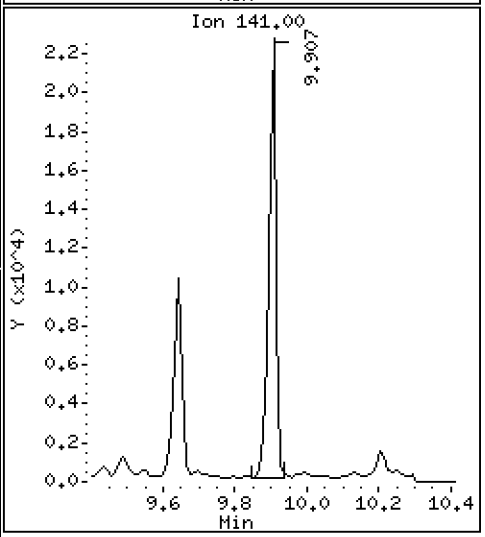
6 1-Methylnaphthalene

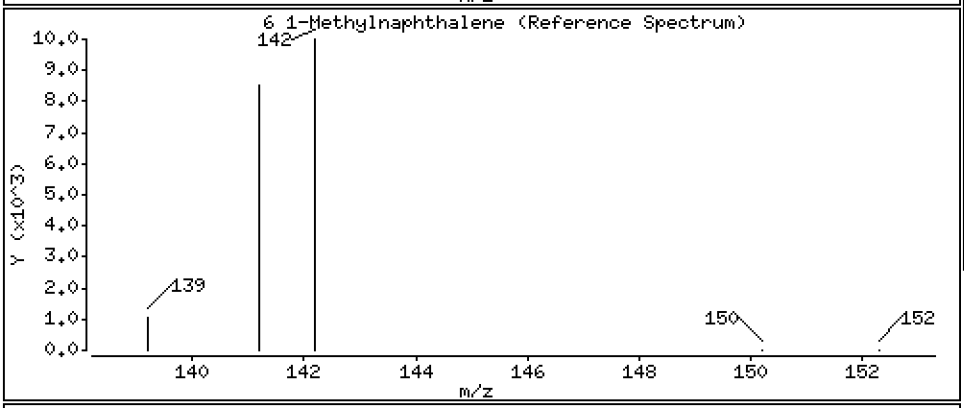
Concentration: 14.6 ng/mL

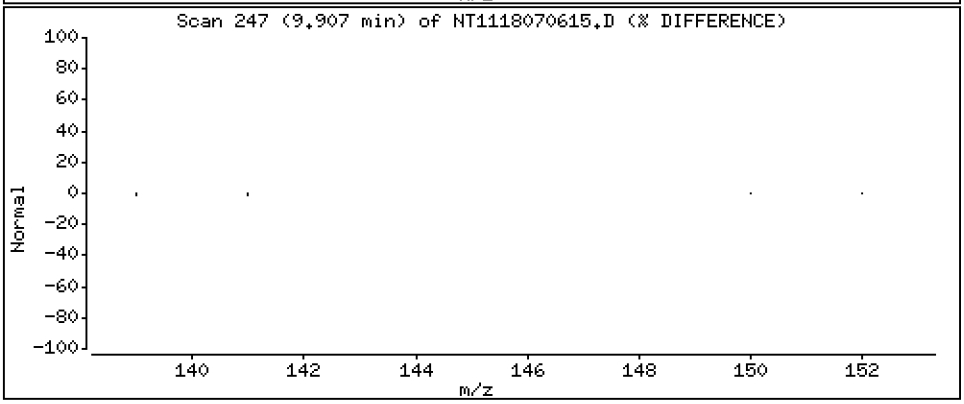












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Date : 06-JUL-2018 20:51

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-09

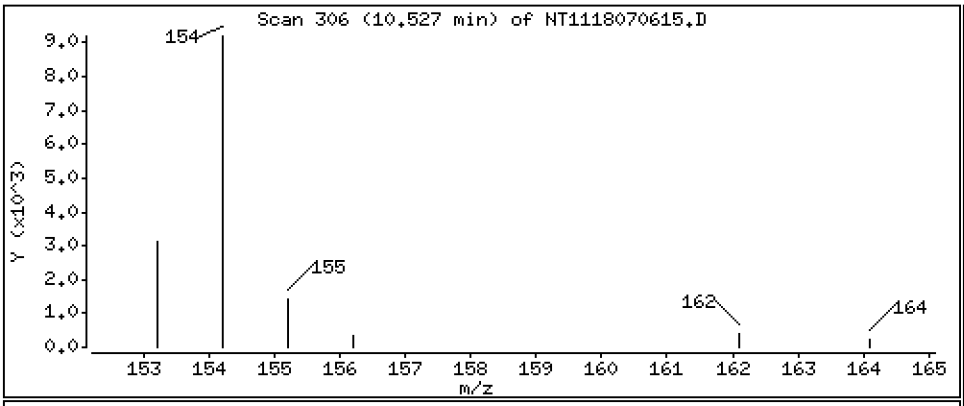
Operator: VTS

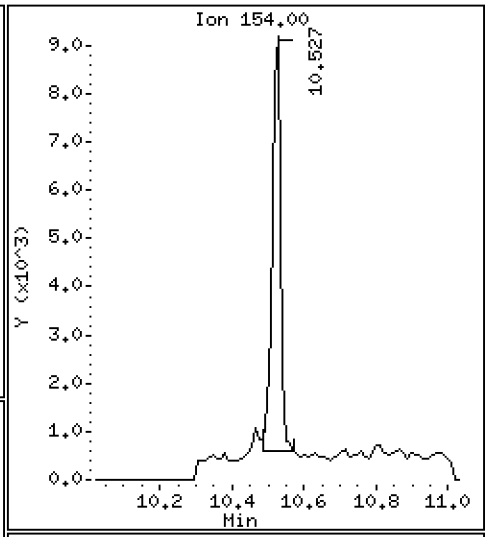
Column phase: Rxi-17Sil MS

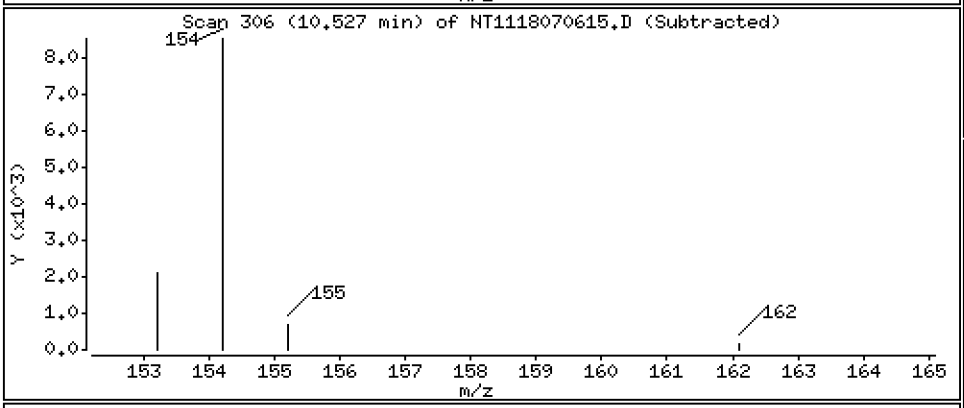
Column diameter: 0.25

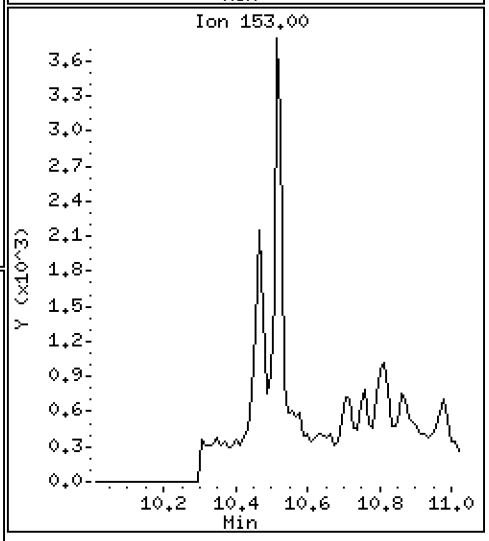
8 Biphenyl

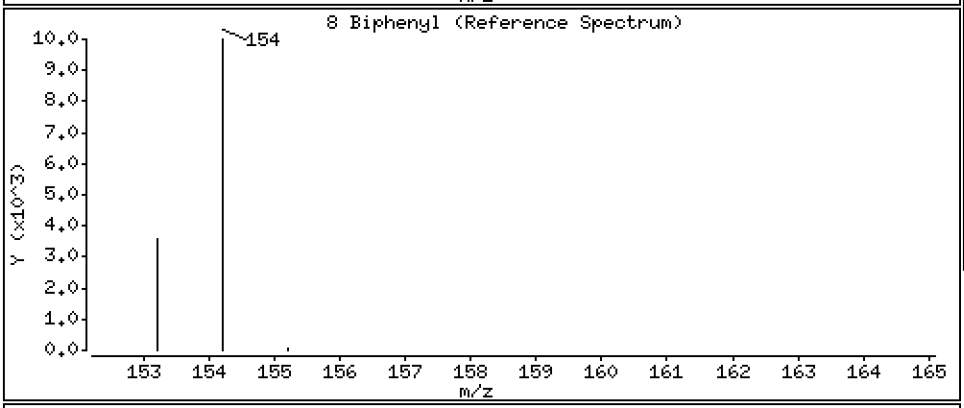
Concentration: 4.49 ng/mL

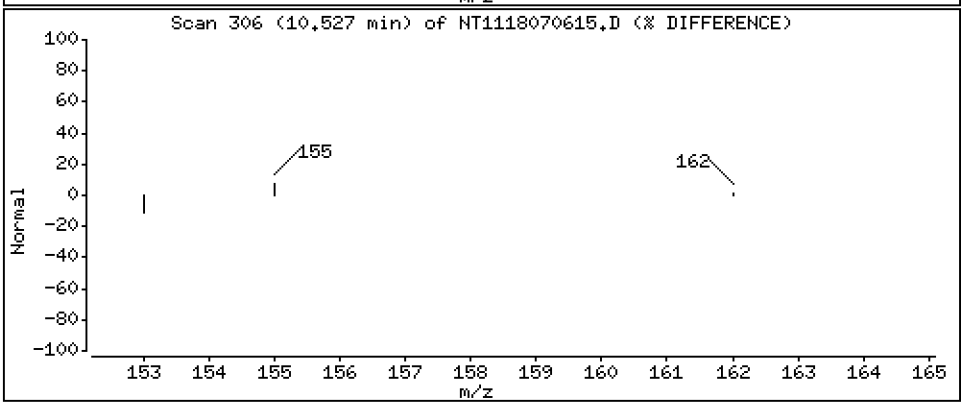












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Date : 06-JUL-2018 20:51

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-09

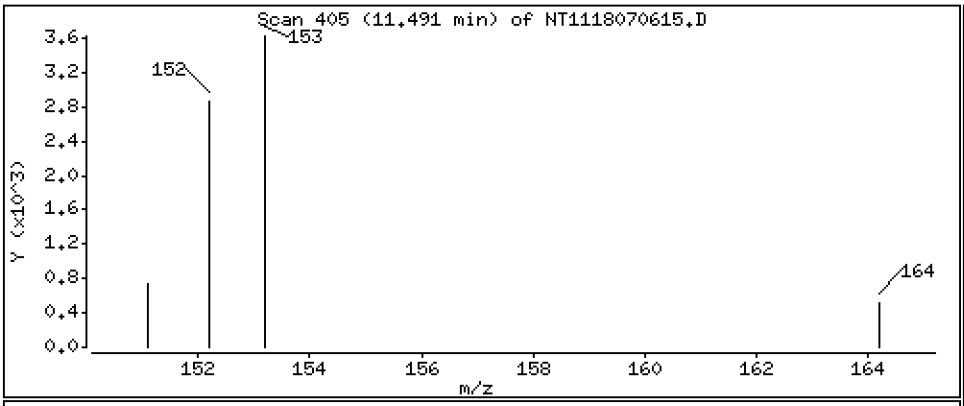
Operator: VTS

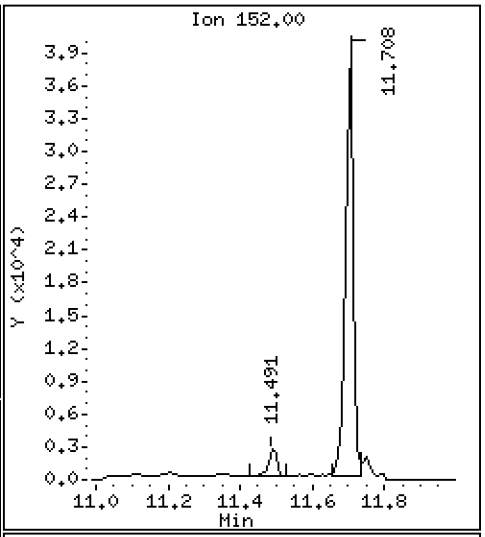
Column phase: Rxi-17Sil MS

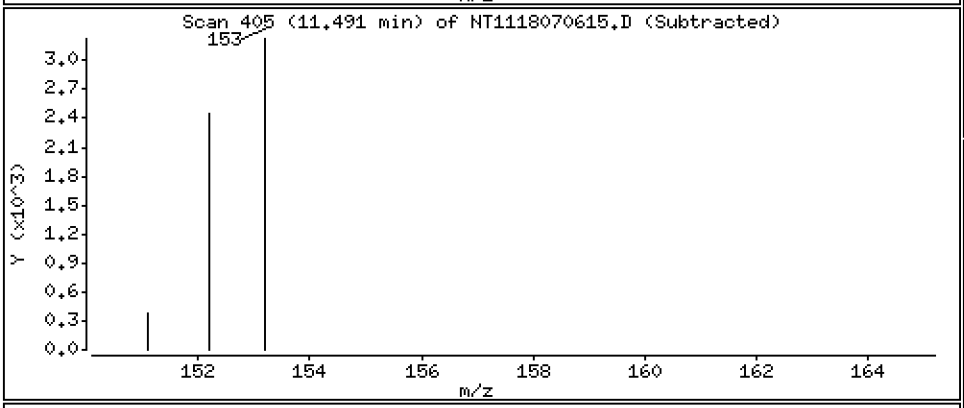
Column diameter: 0.25

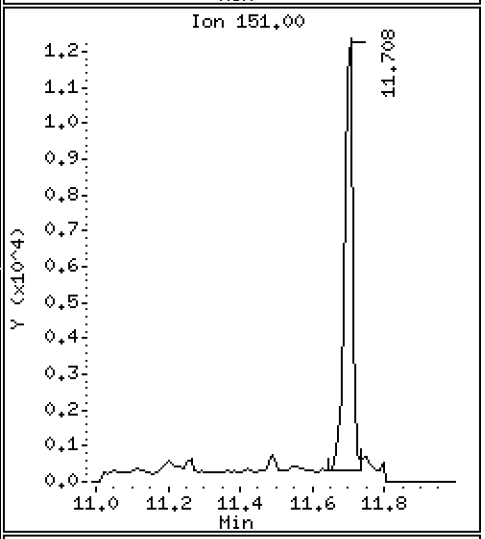
10 Acenaphthylene

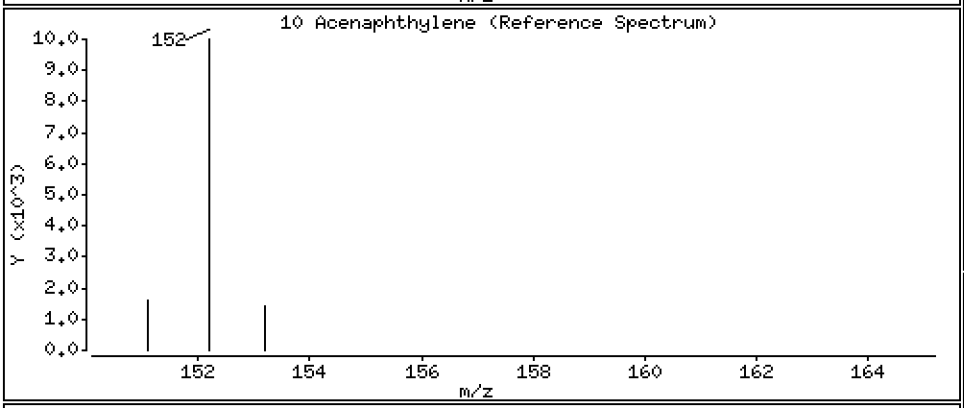
Concentration: 1.36 ng/mL

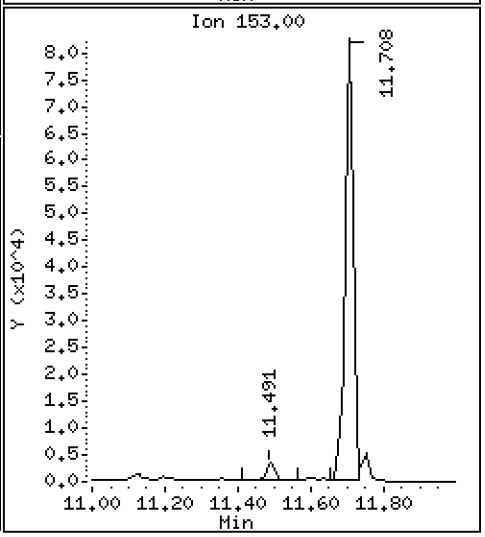


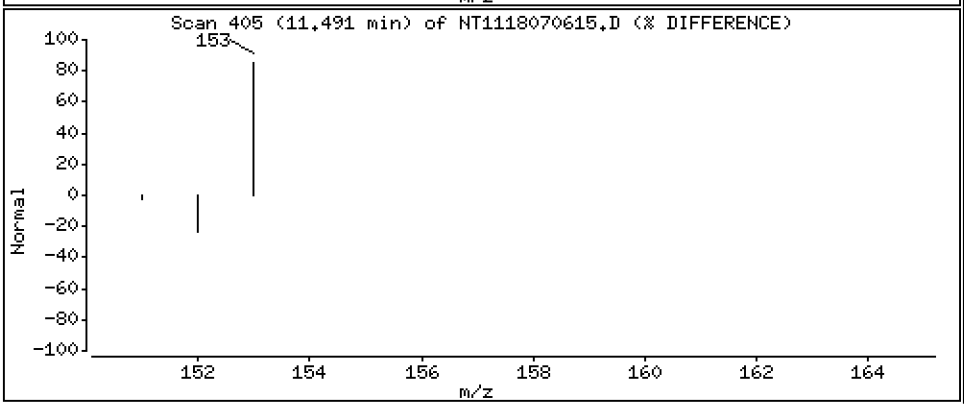












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Date : 06-JUL-2018 20:51

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-09

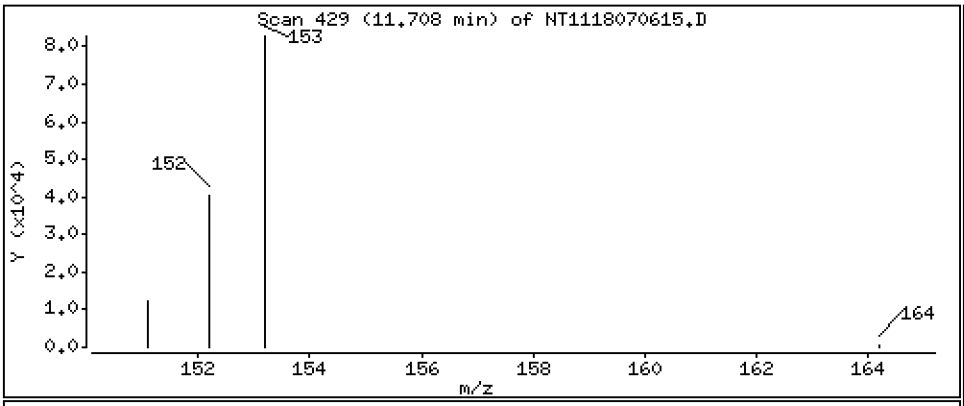
Operator: VTS

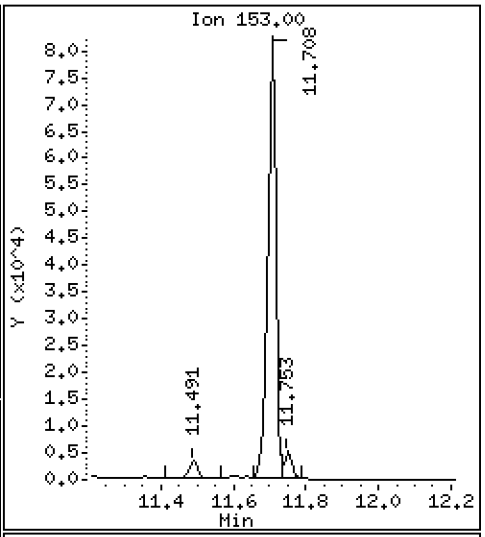
Column phase: Rxi-17Sil MS

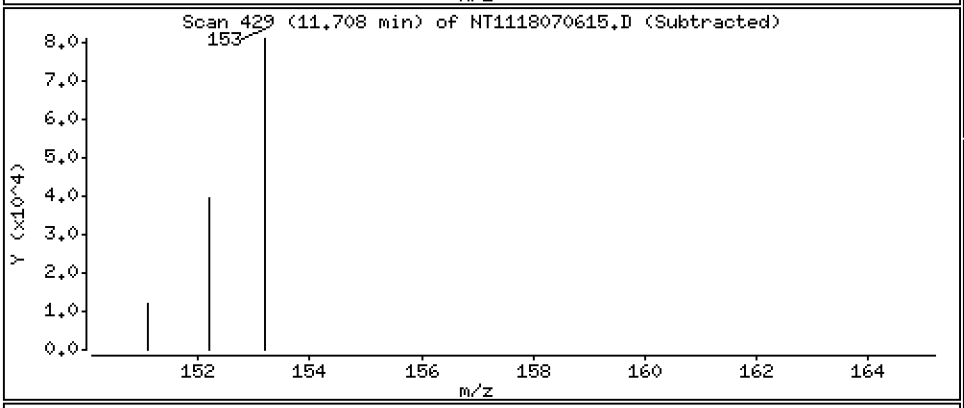
Column diameter: 0.25

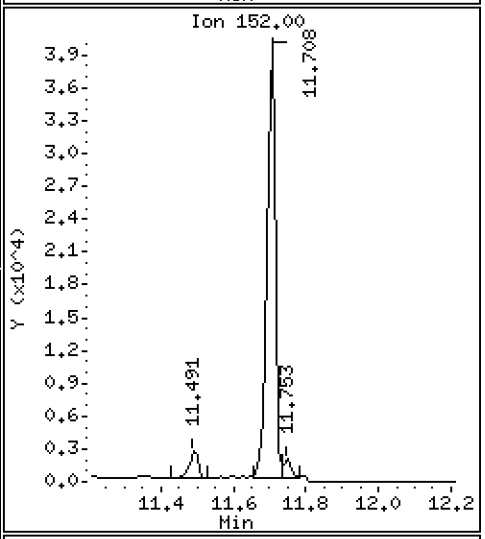
12 Acenaphthene

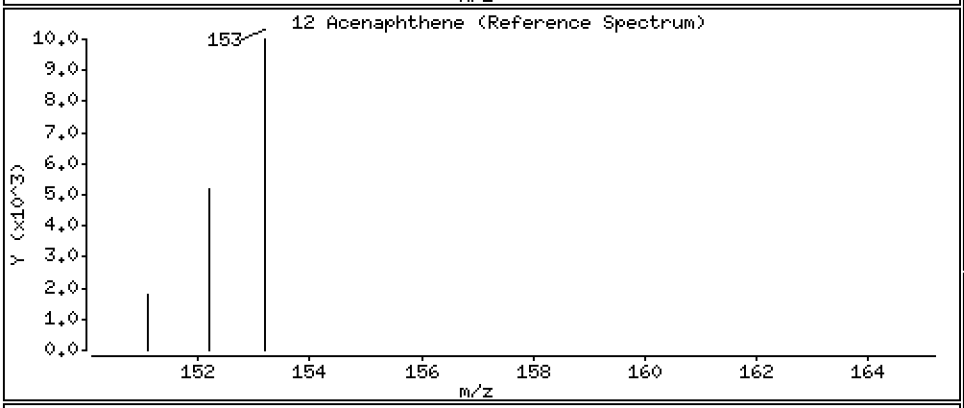
Concentration: 60.4 ng/mL

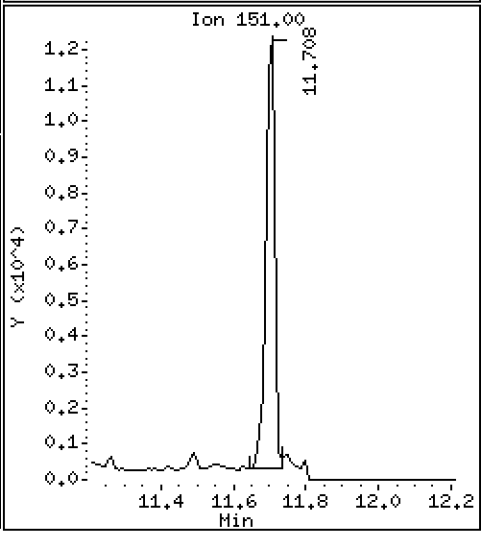


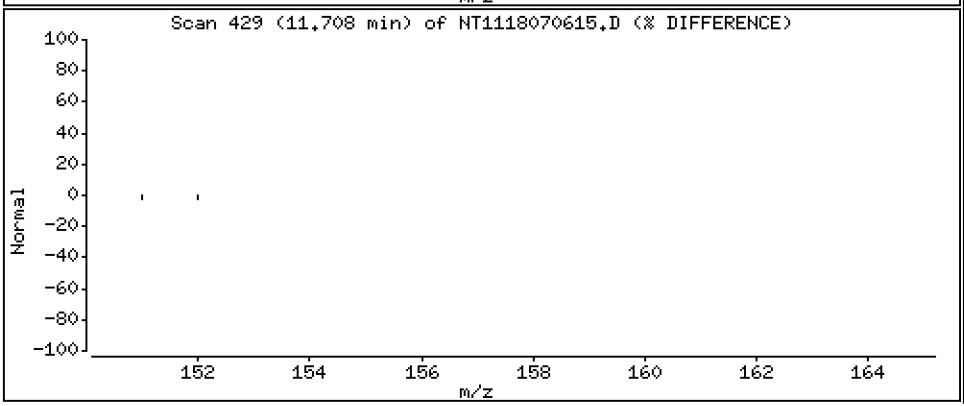












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Date : 06-JUL-2018 20:51

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-09

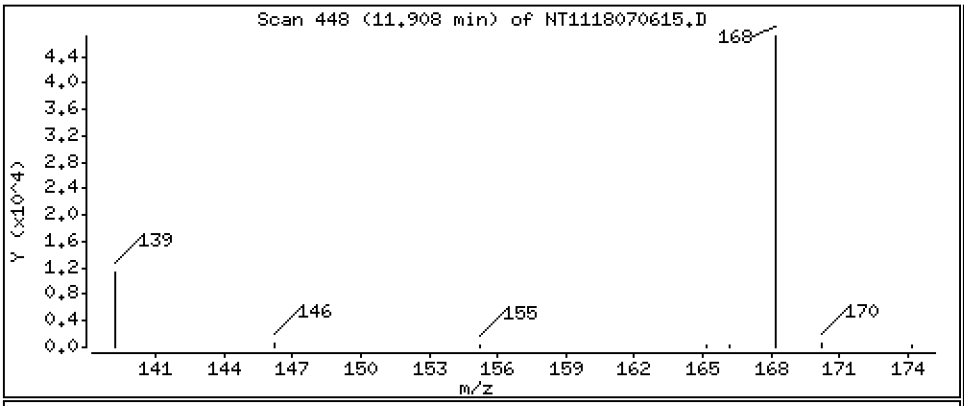
Operator: VTS

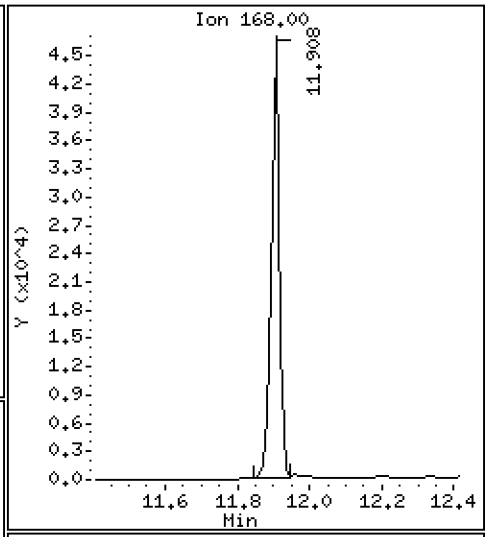
Column phase: Rxi-17Sil MS

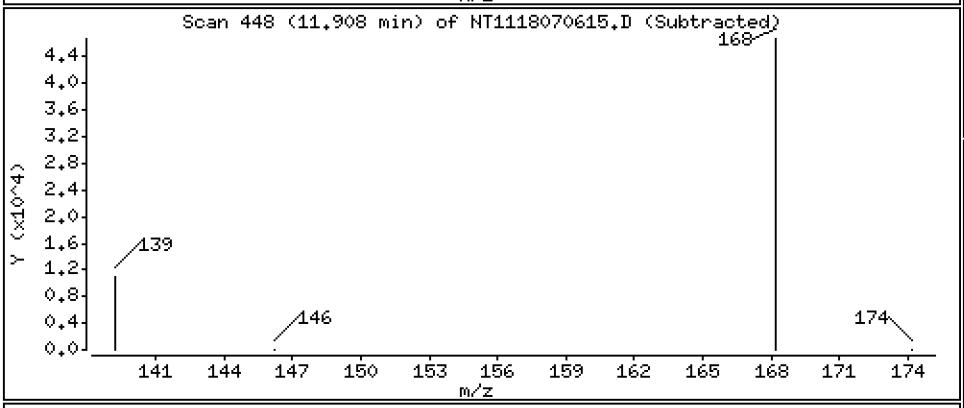
Column diameter: 0.25

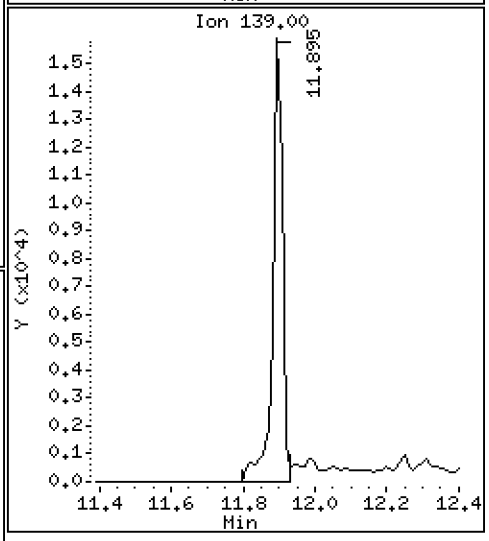
13 Dibenzofuran

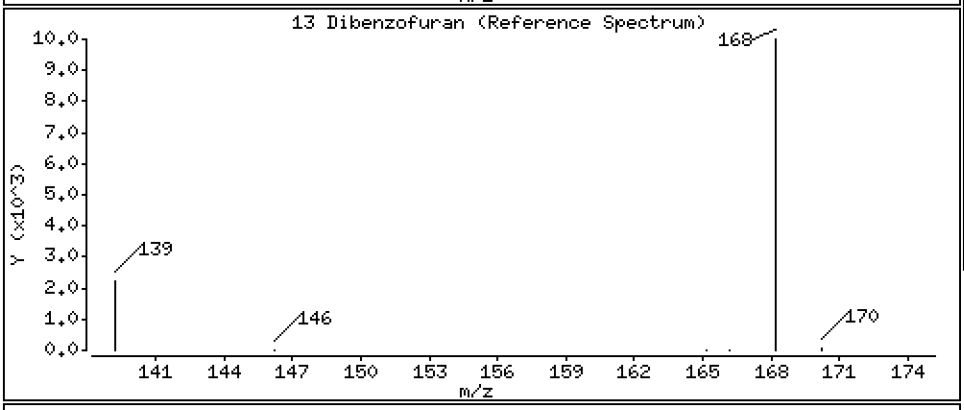
Concentration: 24.8 ng/mL

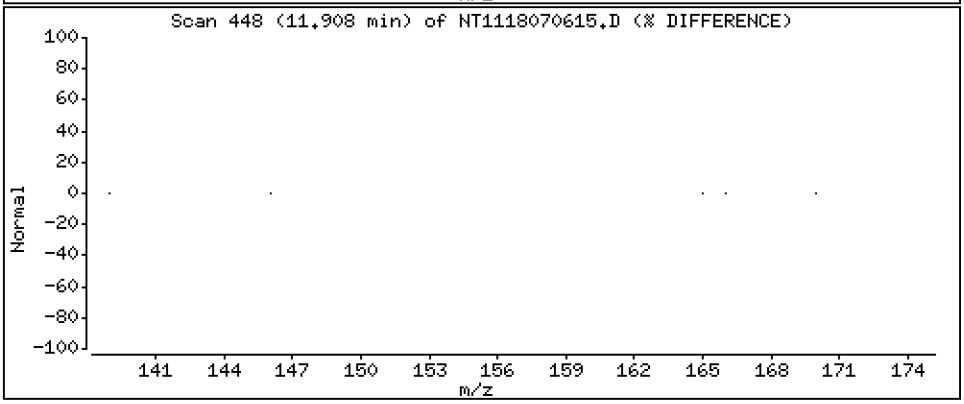












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Date : 06-JUL-2018 20:51

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-09

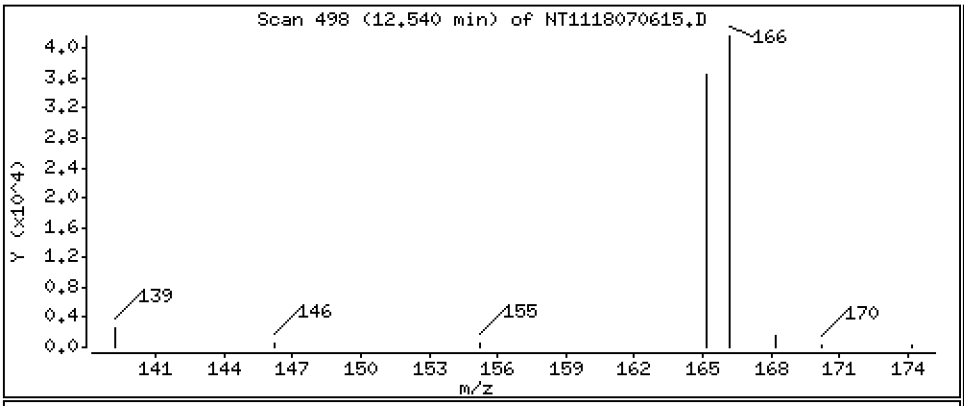
Operator: VTS

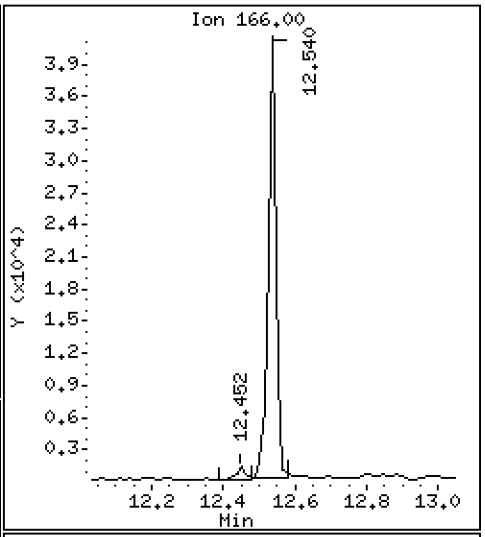
Column phase: Rxi-17Sil MS

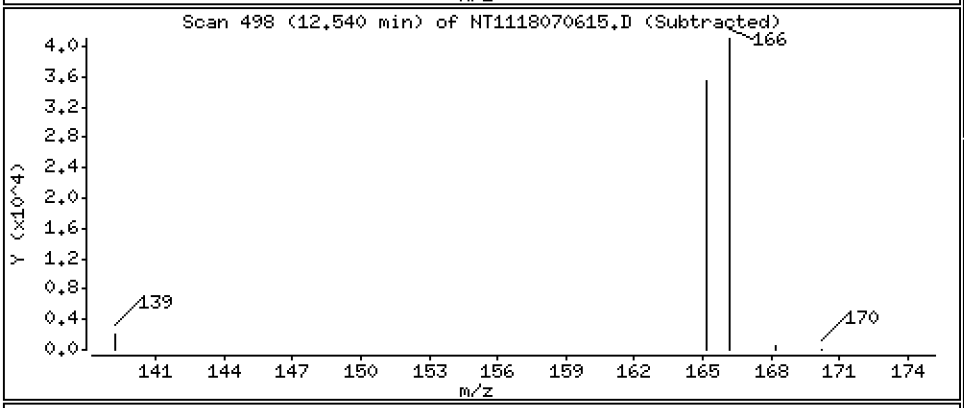
Column diameter: 0.25

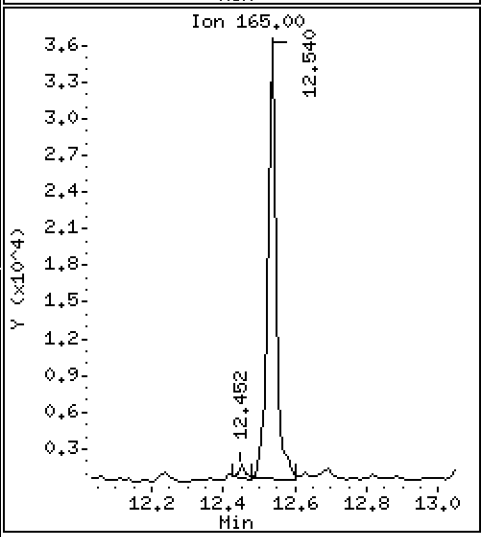
16 Fluorene

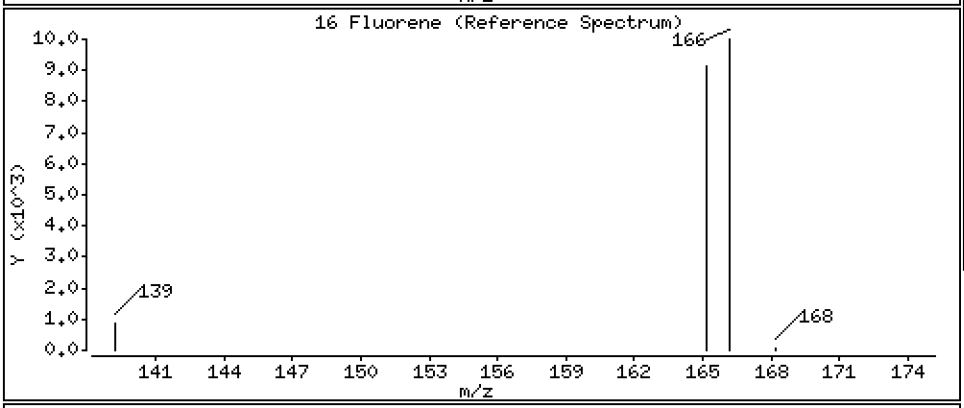
Concentration: 27.7 ng/mL

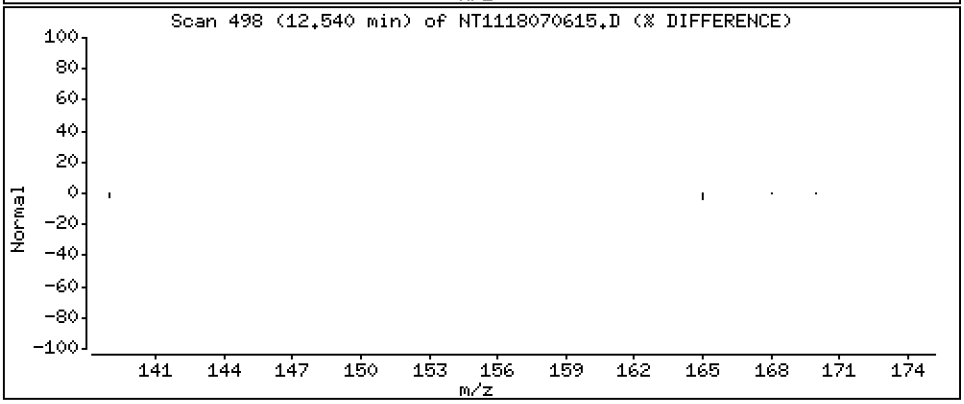












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070615.D

Date : 06-JUL-2018 20:51

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-09

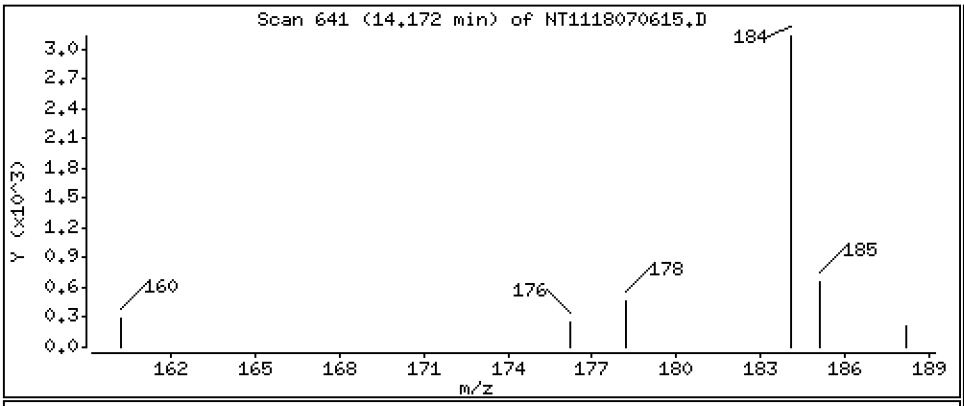
Operator: VTS

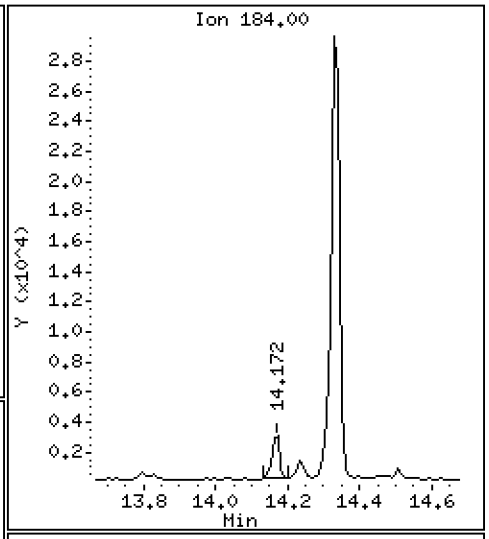
Column phase: Rxi-17Sil MS

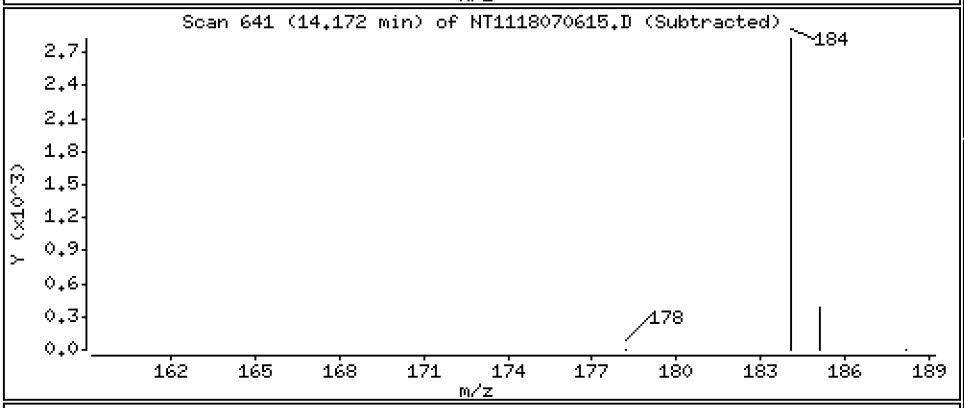
Column diameter: 0.25

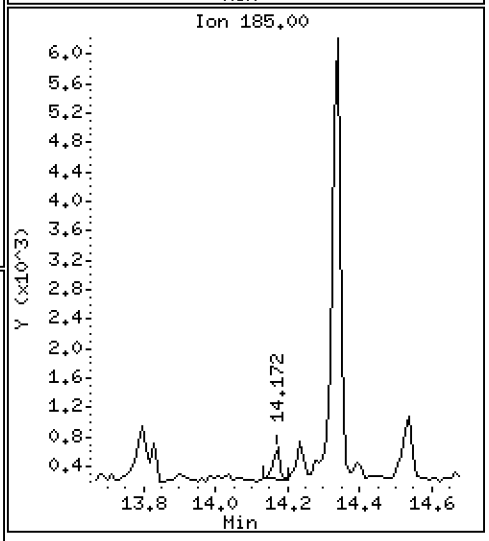
17 Dibenzothiophene

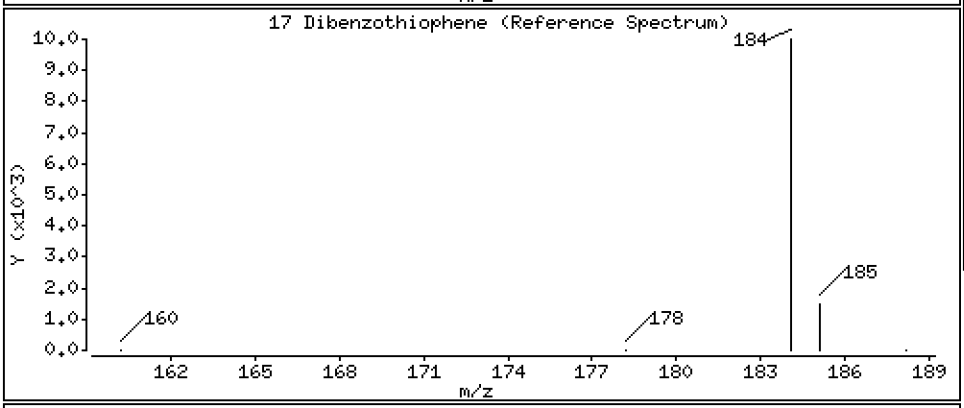
Concentration: 1.80 ng/mL

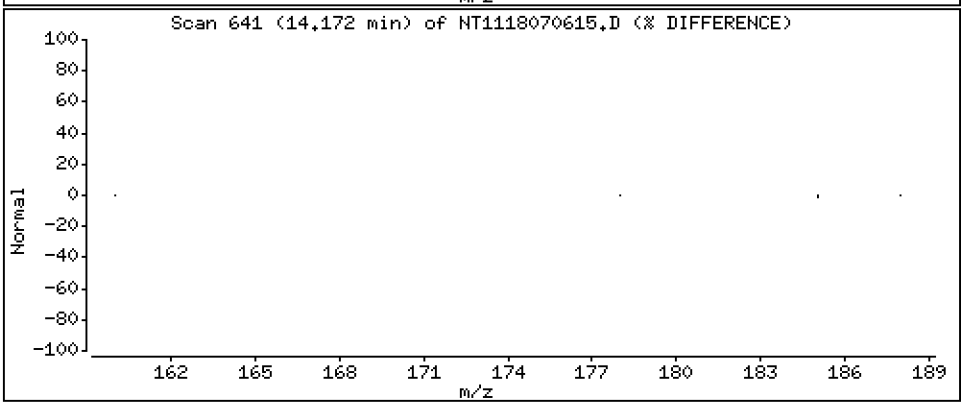












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070615.D

Date : 06-JUL-2018 20:51

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-09

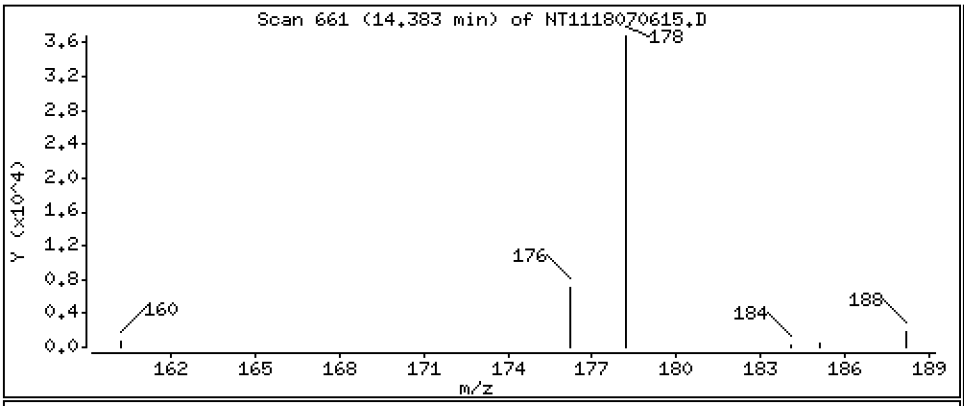
Operator: VTS

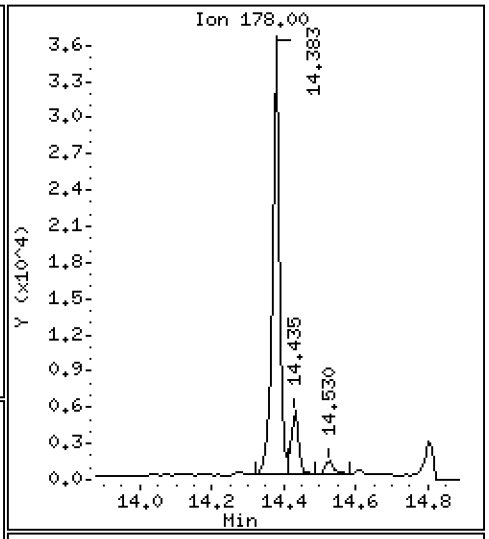
Column phase: Rxi-17Sil MS

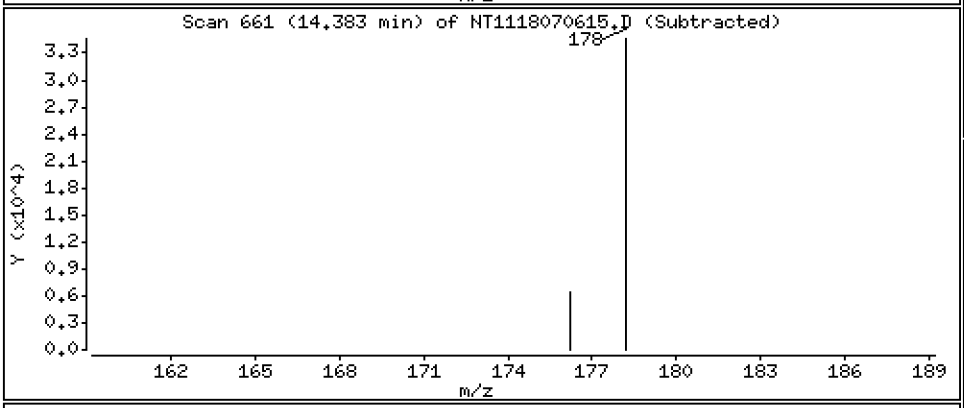
Column diameter: 0.25

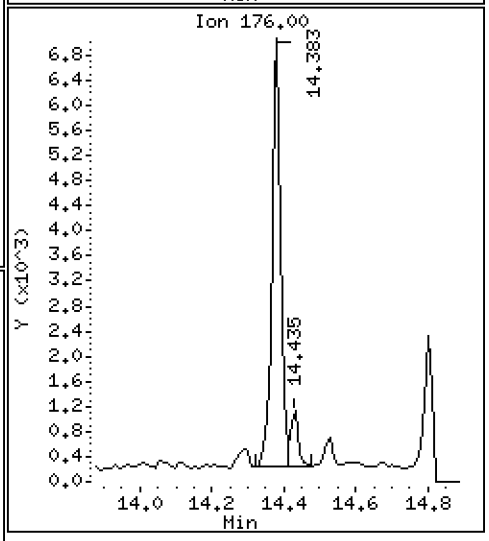
19 Phenanthrene

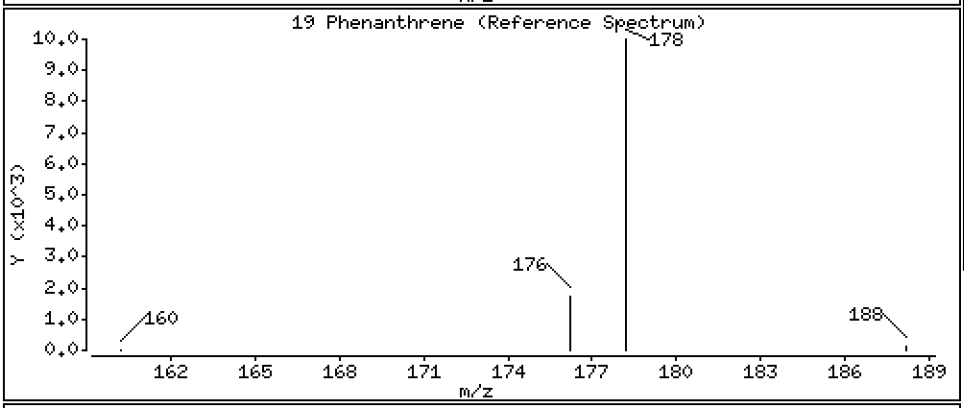
Concentration: 18.1 ng/mL

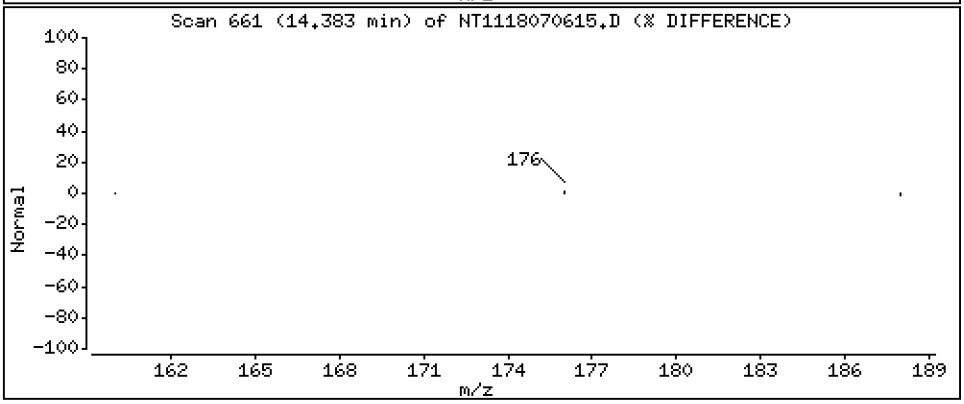












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070615.D

Date : 06-JUL-2018 20:51

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-09

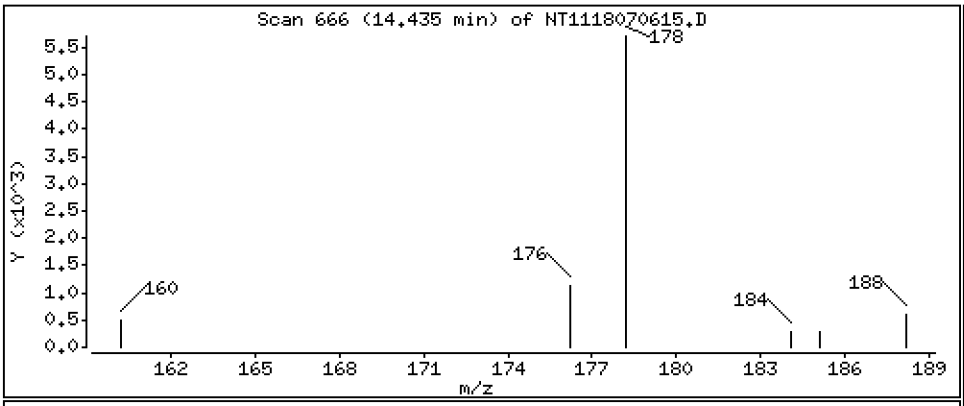
Operator: VTS

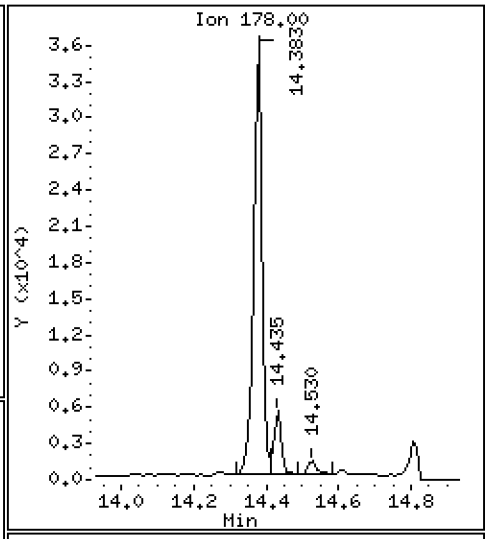
Column phase: Rxi-17Sil MS

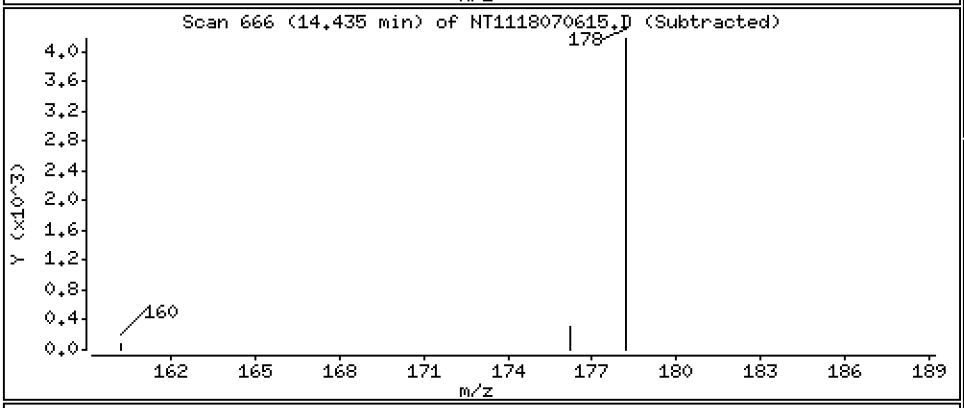
Column diameter: 0.25

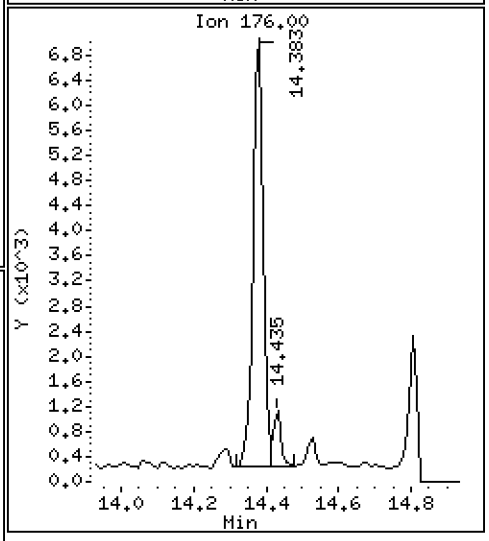
21 Anthracene

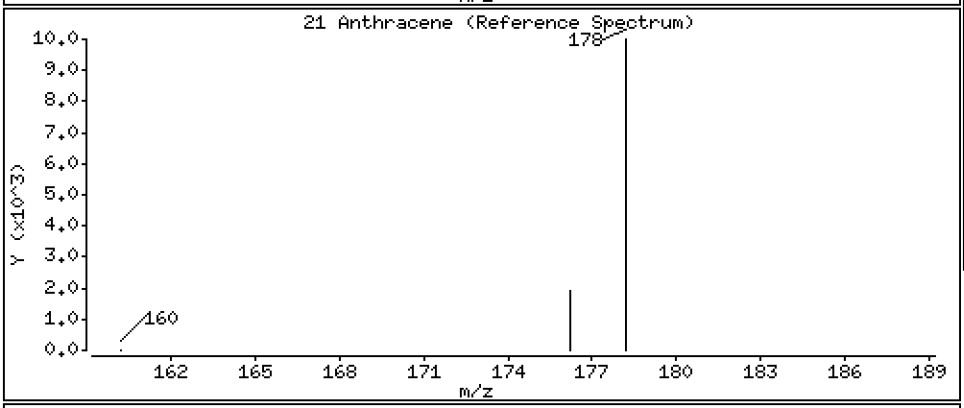
Concentration: 2.56 ng/mL

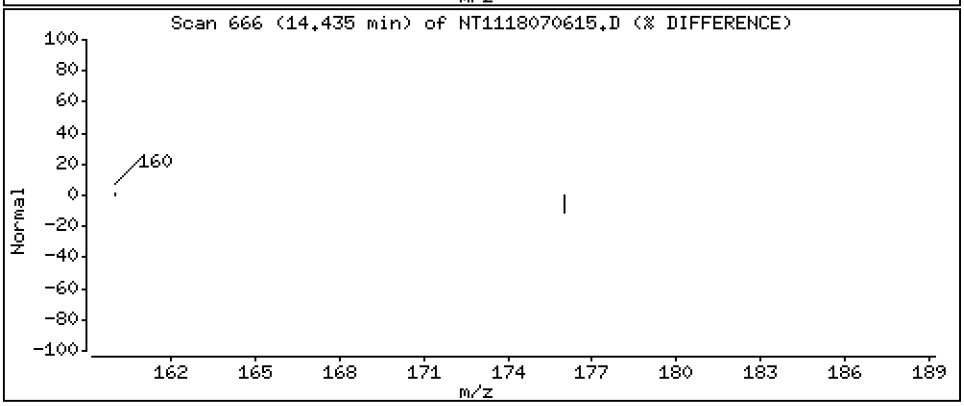












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070615.D

Date : 06-JUL-2018 20:51

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-09

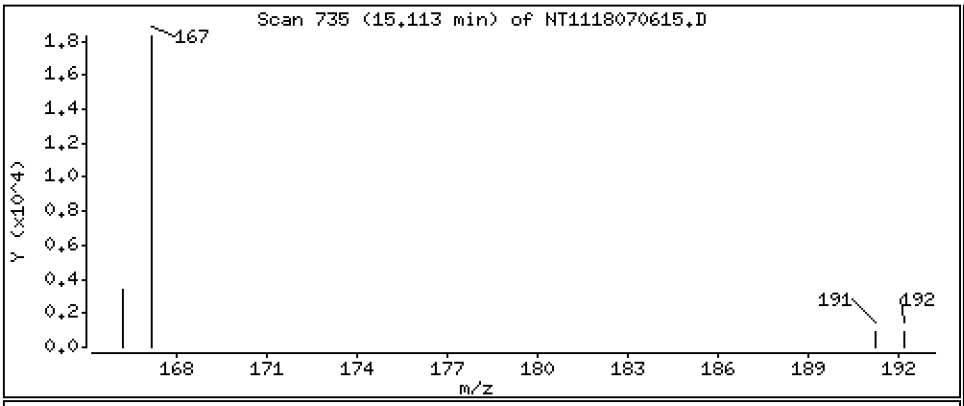
Operator: VTS

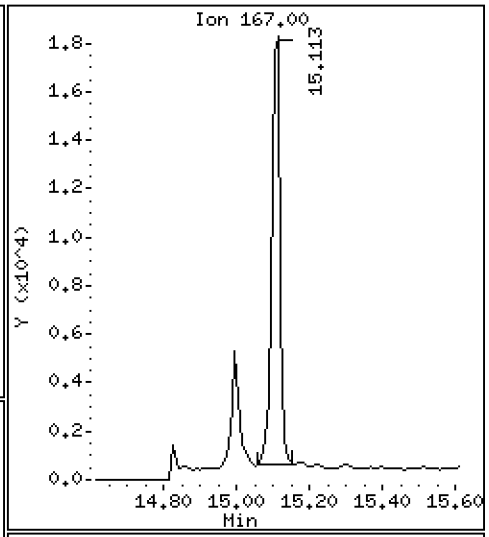
Column phase: Rxi-17Sil MS

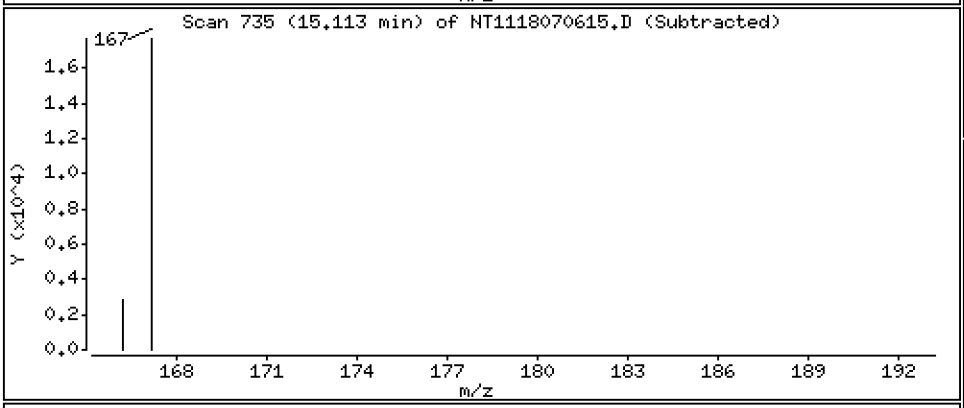
Column diameter: 0.25

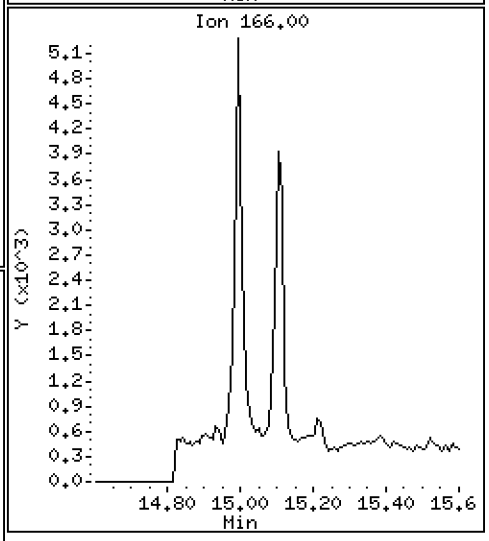
22 Carbazole

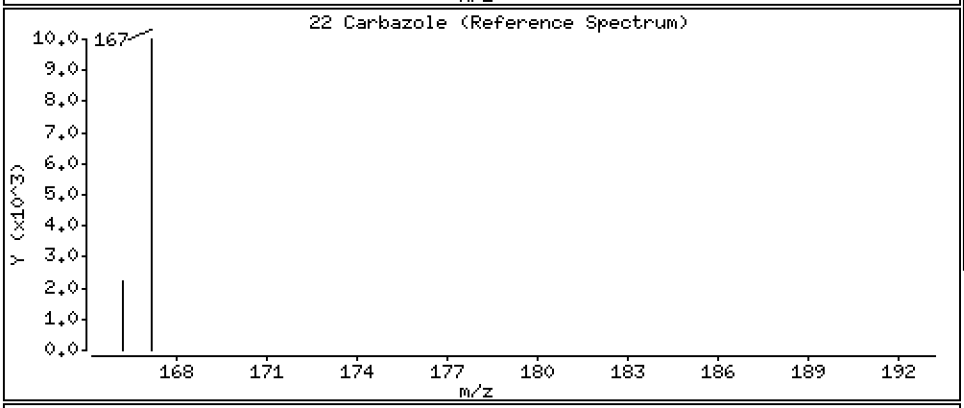
Concentration: 8.24 ng/mL

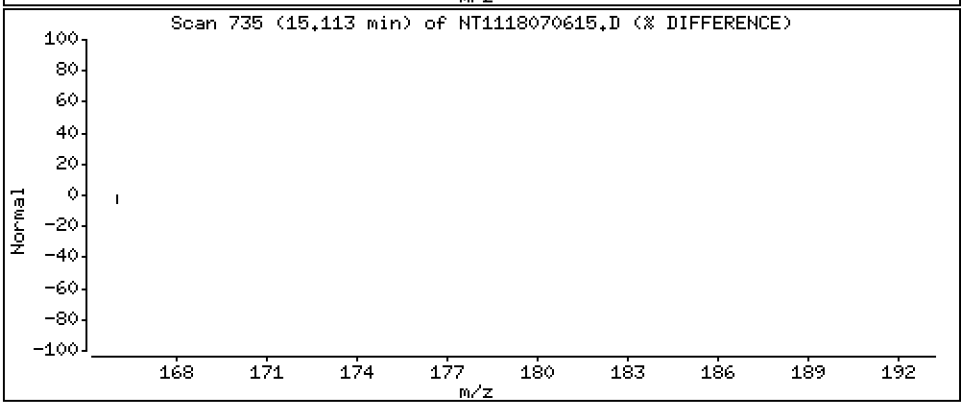












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070615.D

Date : 06-JUL-2018 20:51

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-09

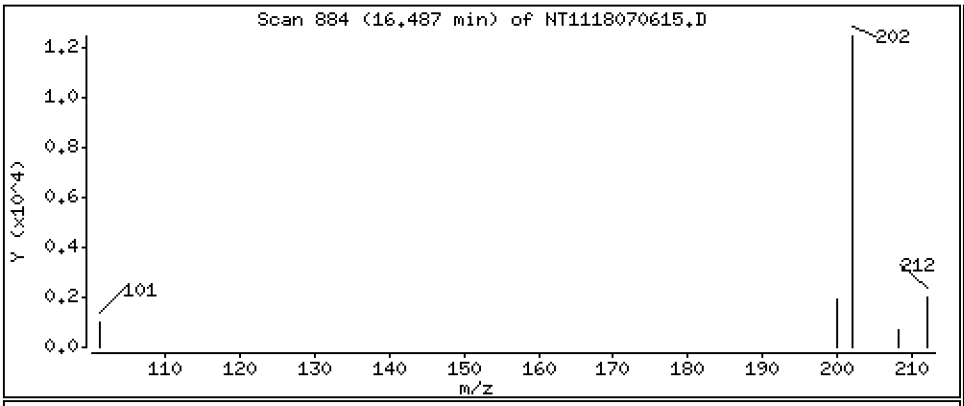
Operator: VTS

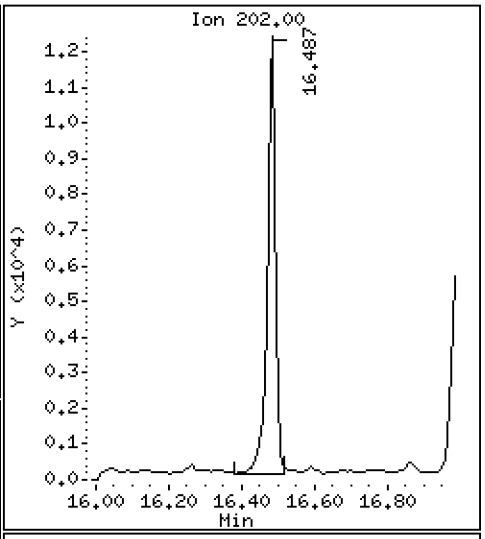
Column phase: Rxi-17Sil MS

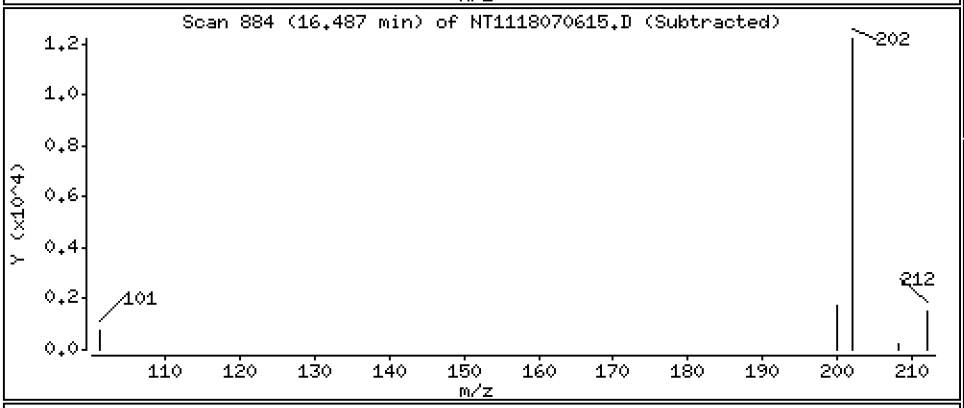
Column diameter: 0.25

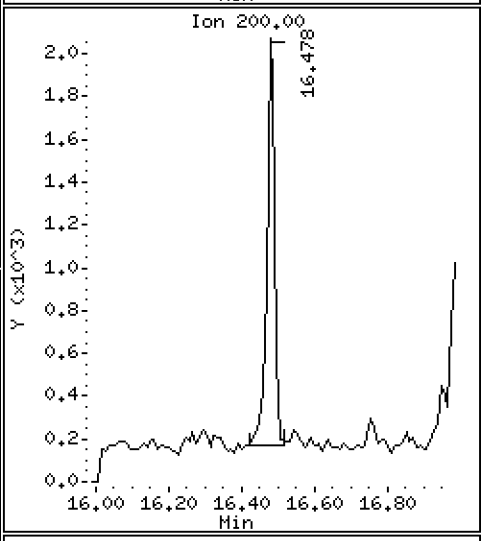
25 Fluoranthene

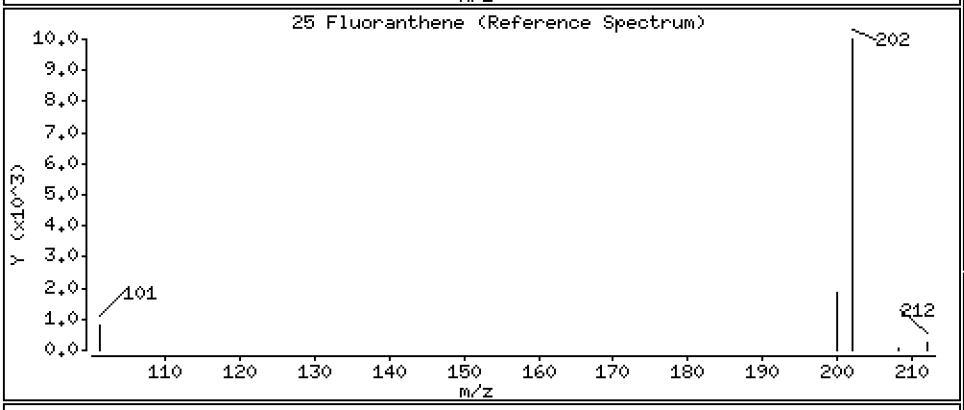
Concentration: 6.93 ng/mL

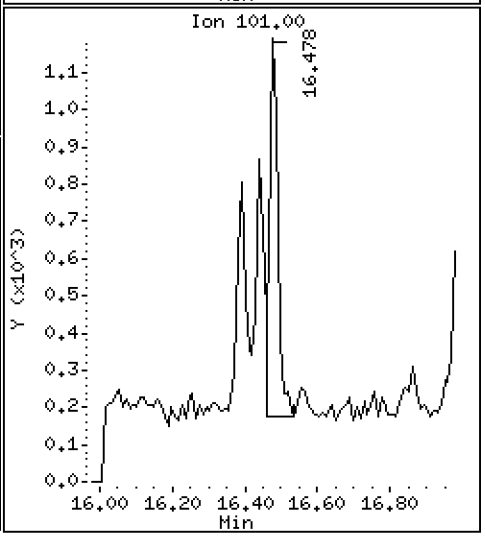


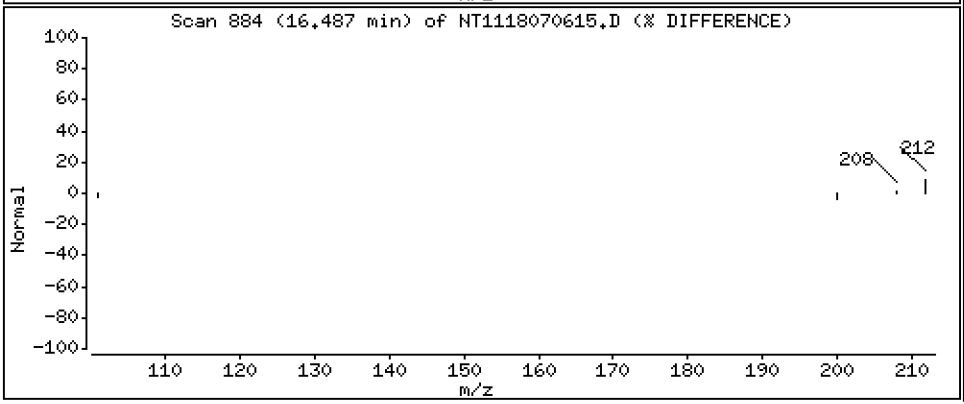












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070615.D

Date : 06-JUL-2018 20:51

Client ID:

Instrument: nt11.i

Sample Info: 18F0226-09

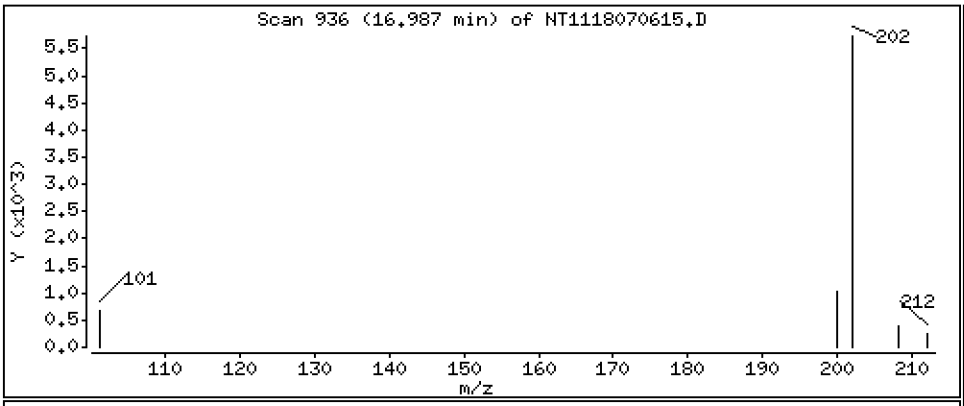
Operator: VTS

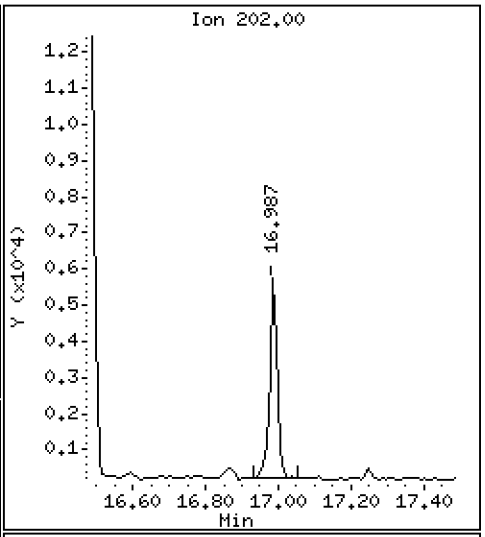
Column phase: Rxi-17Sil MS

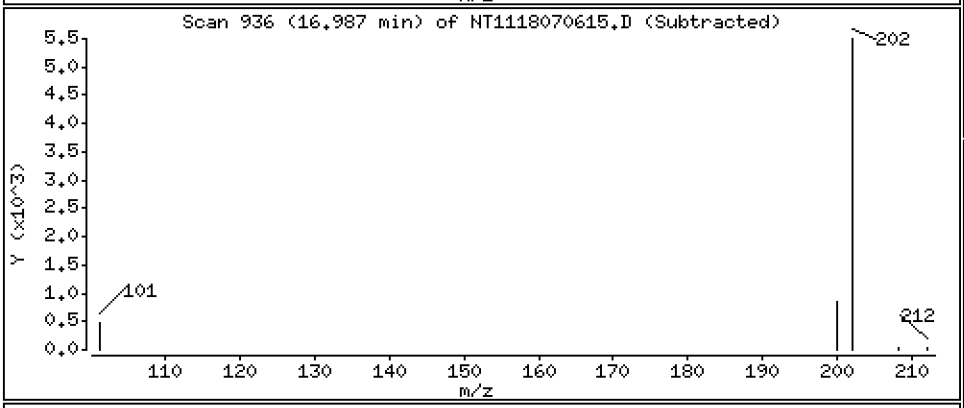
Column diameter: 0.25

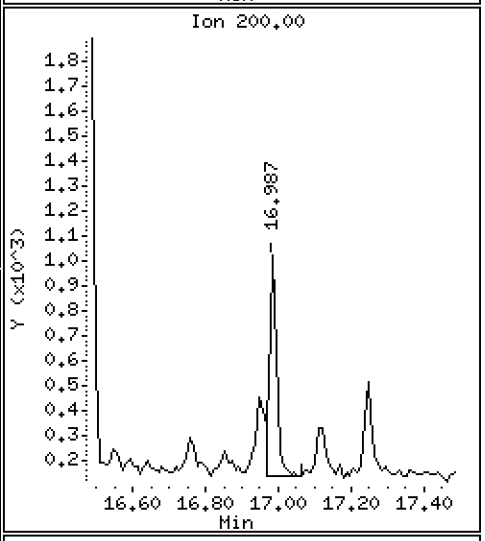
26 Pyrene

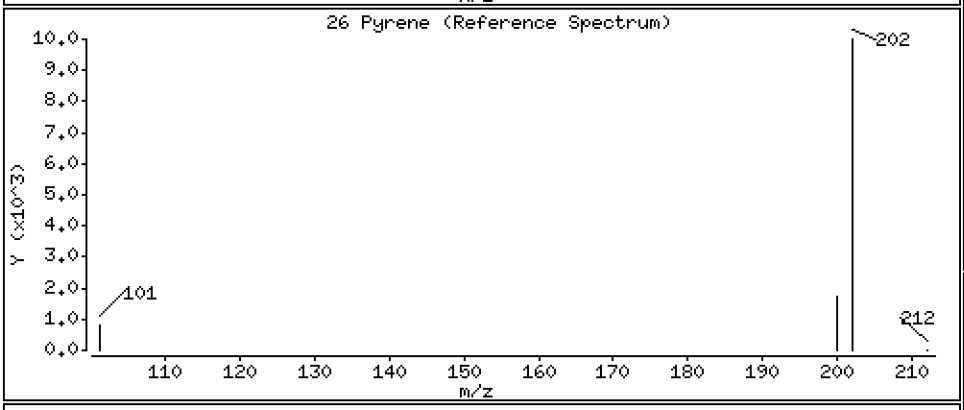
Concentration: 2.74 ng/mL

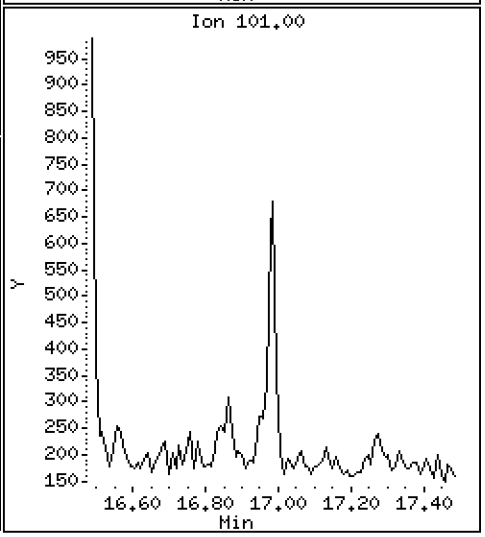


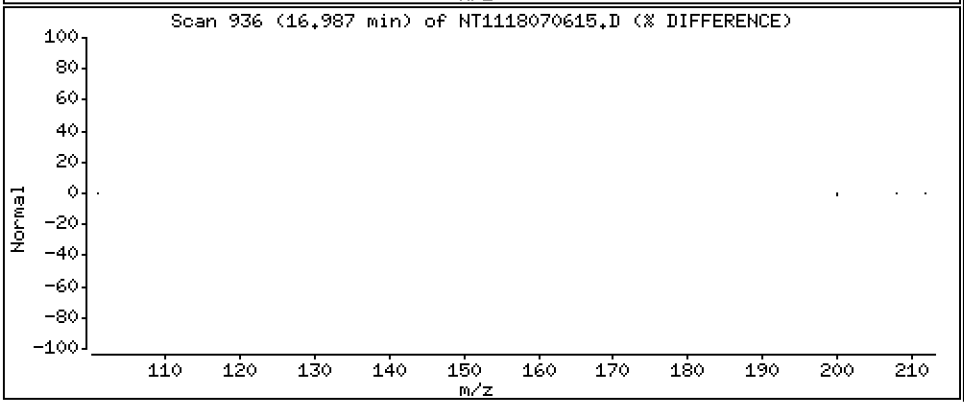












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180706.b\NT1118070615.D
Lab Smp Id: 18F0226-09
Inj Date : 06-JUL-2018 20:51 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0226-09
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Meth Date : 06-Jul-2018 13:13 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	470533	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	229389	67.5303	67.5
	3 Benzo(b)thiophene	134	8.897	8.897	(1.034)	32551	13.1980	13.2
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	453988	169.103	169
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	19183	6.69278	6.69
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	41760	14.6498	14.6
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	10.527	10.527	(0.904)	13831	4.49384	4.49
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	11.490	11.490	(0.987)	4009	1.36221	1.36
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	247524	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	121491	60.3554	60.4
	13 Dibenzofuran	168	11.908	11.908	(1.023)	68312	24.7723	24.8
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.540	12.540	(1.077)	61569	27.6870	27.7
	17 Dibenzothiophene	184	14.172	14.172	(0.988)	4542	1.80106	1.80(M)
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	404969	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	57427	18.0806	18.1
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.435	14.435	(1.007)	7604	2.56091	2.56
	22 Carbazole	167	15.113	15.113	(1.054)	28496	8.23795	8.24
	23 1-Methylphenanthrene	192	Compound Not Detected.					
$	24 Fluoranthene-d10	212	16.449	16.449	(1.147)	487468	198.305	198
	25 Fluoranthene	202	16.487	16.487	(1.150)	20440	6.92986	6.93
	26 Pyrene	202	16.987	16.987	(0.890)	8517	2.73766	2.74
	27 Benzo(a)anthracene	228	Compound Not Detected.					
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	316453	200.000	
	29 Chrysene	228	Compound Not Detected.					
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	35 Benzo(a)pyrene	252	Compound Not Detected.					
*	36 Perylene-d12	264	22.353	22.353	(1.000)	321961	200.000	
	37 Perylene	252	Compound Not Detected.					
$	38 Dibenzo(a,h)anthracene-d14	292	25.279	25.279	(1.131)	297709	193.230	193
	39 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	40 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	41 Benzo(g,h,i)perylene	276	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118070615.D
Lab Smp Id: 18F0226-09
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Misc Info:

Calibration Date: 06-JUL-2018
Calibration Time: 12:50
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	470533	9.09
11 Acenaphthene-d10	260137	130069	520274	247524	-4.85
18 Phenanthrene-d10	427391	213696	854782	404969	-5.25
28 Chrysene-d12	304596	152298	609192	316453	3.89
36 Perylene-d12	263091	131546	526182	321961	22.38

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118070615.D

Lab ID: 18F0226-09
nt11.i, 20180706.b\LOWSIM.m,   06-JUL-2018 20:51

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

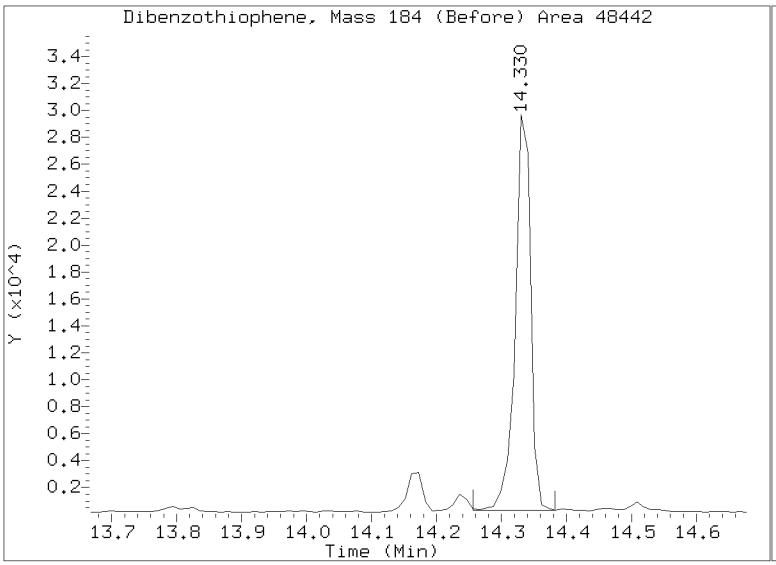
On Column LOD for nt11.i, 20180706.b\LOWSIM.m, allpna.sub = 0.0000

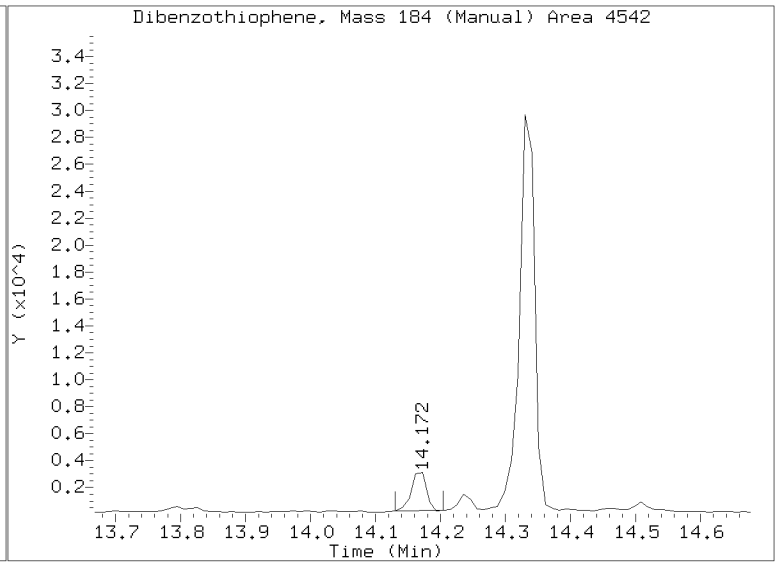
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20180706.b/NT1118070615.D
Injection Date: 06-JUL-2018 20:51
Lab ID:18F0226-09 Client ID:
Report Date: 07/07/2018 07:57





Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-01

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270D-SIM

Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-01	SDG:	18F0185
Sampled:	06/15/18 11:33	Prepared:	06/21/18 13:35	File ID:	NT1118070616.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	07/06/18 21:27
Batch:	BGF0530	Sequence:	SGG0067	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.007	J	0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.003	J	0.001	0.010
208-96-8	Acenaphthylene	1	0.003	J	0.002	0.010
83-32-9	Acenaphthene	1	0.517		0.003	0.010
86-73-7	Fluorene	1	0.013		0.002	0.010
85-01-8	Phenanthrene	1	0.038		0.001	0.010
120-12-7	Anthracene	1	0.012		0.001	0.010
206-44-0	Fluoranthene	1	0.070	Q	0.002	0.010
129-00-0	Pyrene	1	0.036		0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.001	J	0.0008	0.010
218-01-9	Chrysene	1	0.003	J	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.0006	J	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.186	62.1	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.196	65.4	29 - 120	
Fluoranthene-d10	0.30000	0.211	70.4	57 - 120	

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Date : 06-JUL-2018 21:27

Client ID:

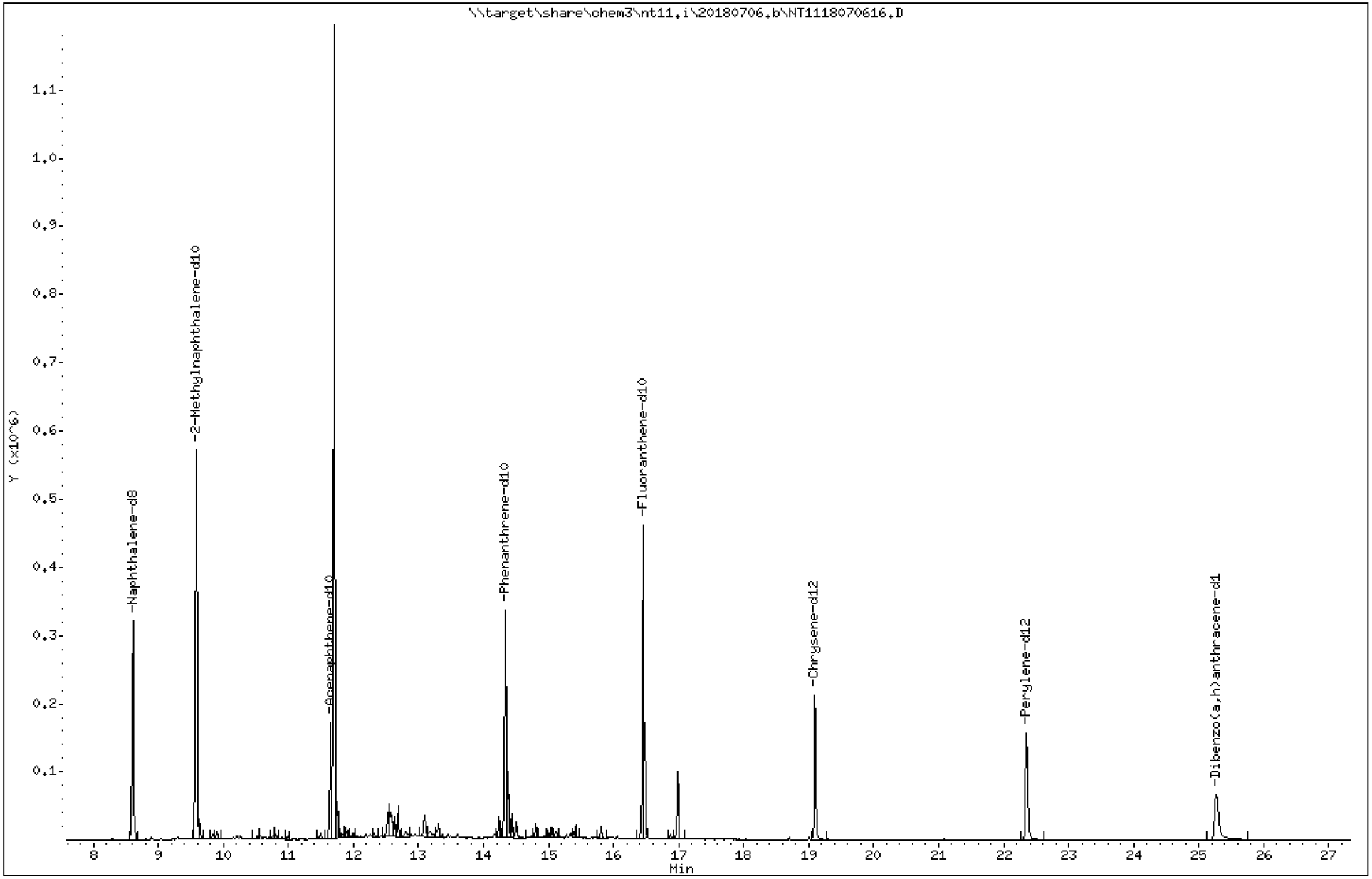
Instrument: nt11.i

Sample Info: 18F0248-01

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 06-JUL-2018 21:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-01

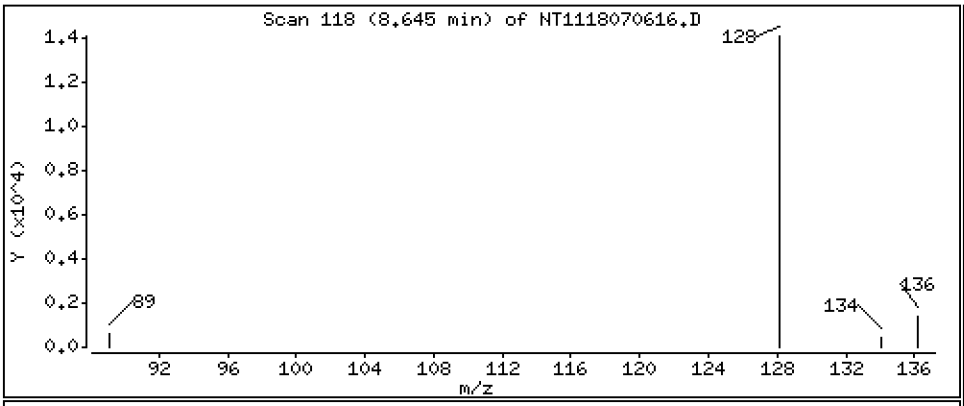
Operator: VTS

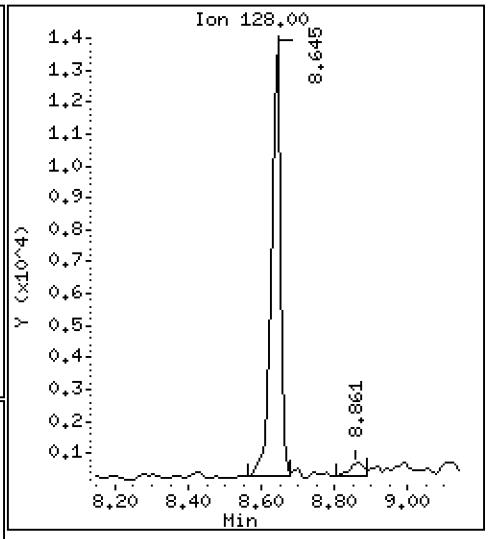
Column phase: Rxi-17Sil MS

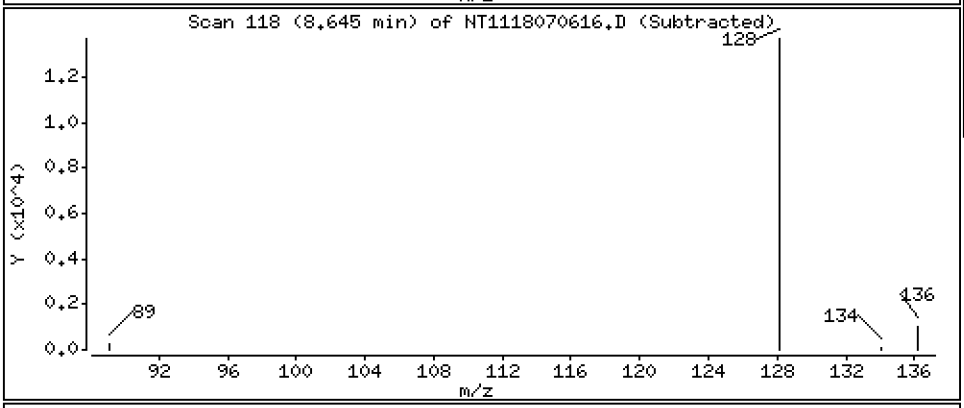
Column diameter: 0.25

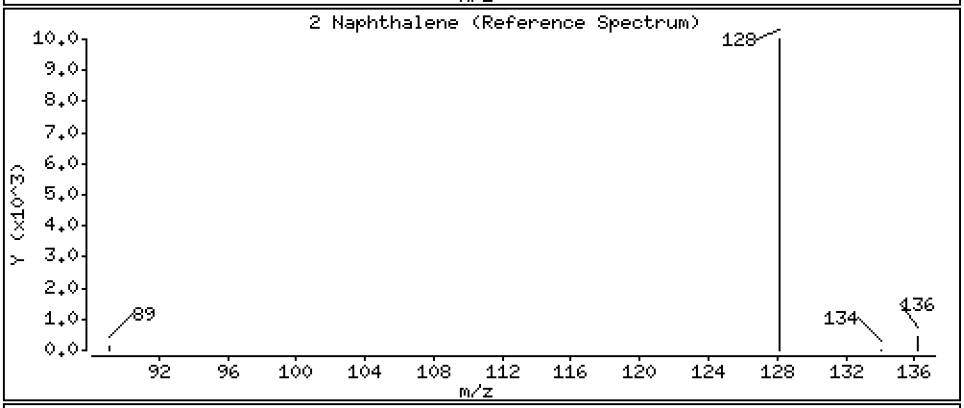
2 Naphthalene

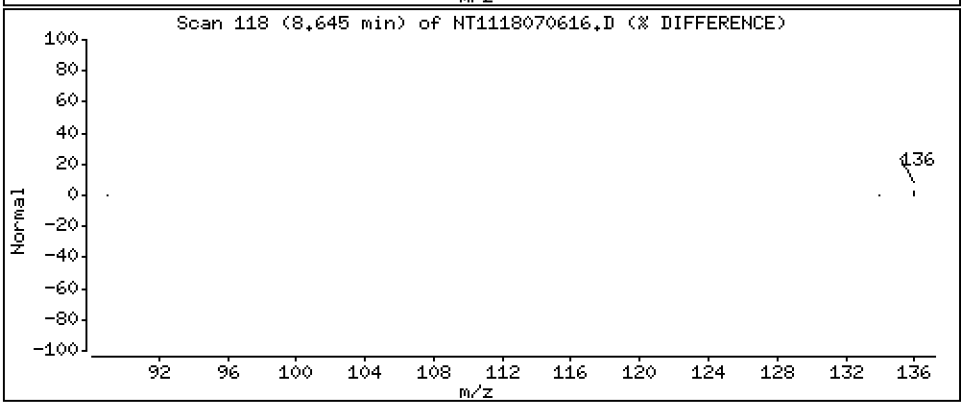
Concentration: 6.58 ng/mL











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Date : 06-JUL-2018 21:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-01

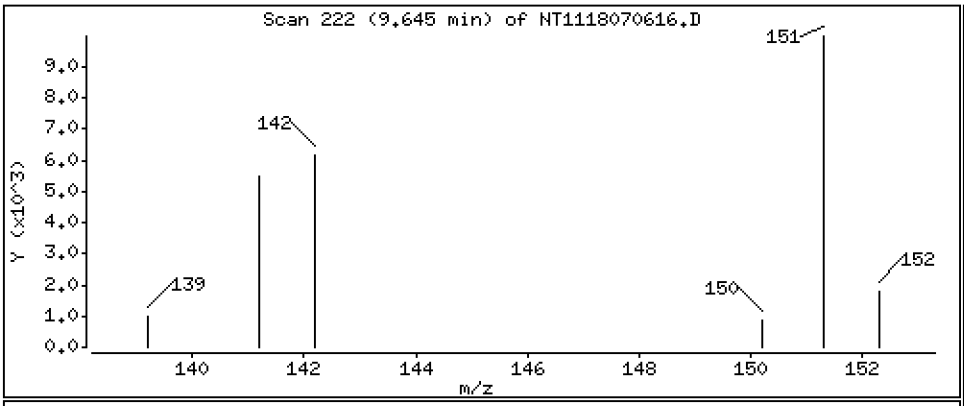
Operator: VTS

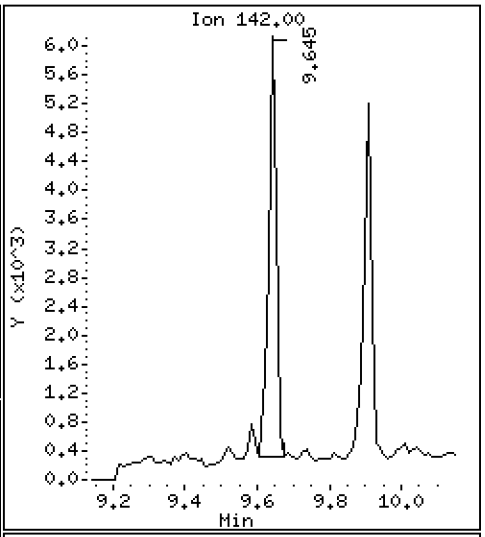
Column phase: Rxi-17Sil MS

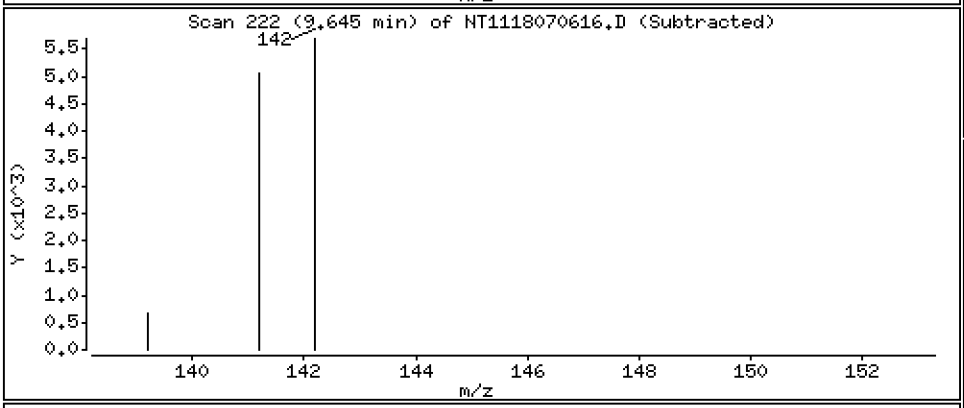
Column diameter: 0.25

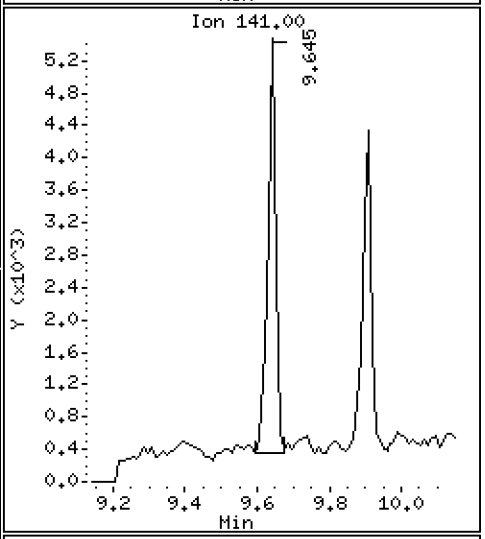
5 2-Methylnaphthalene

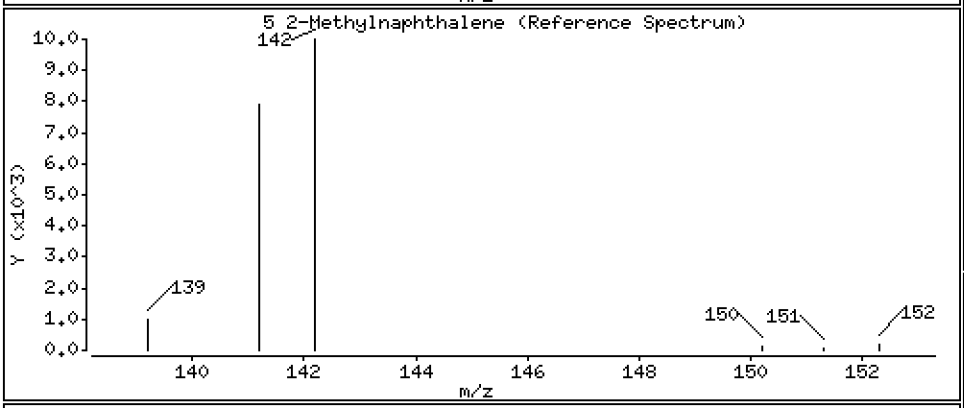
Concentration: 2.94 ng/mL

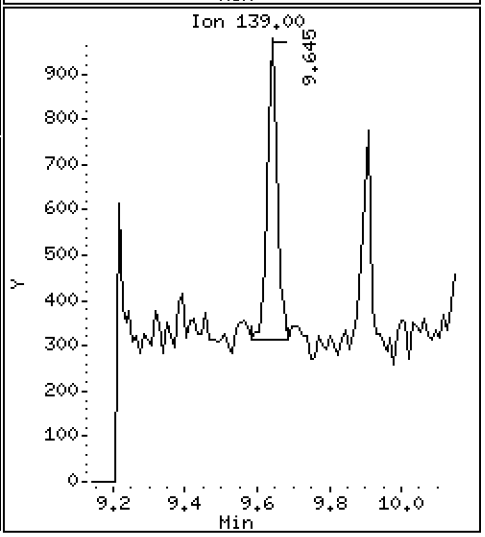


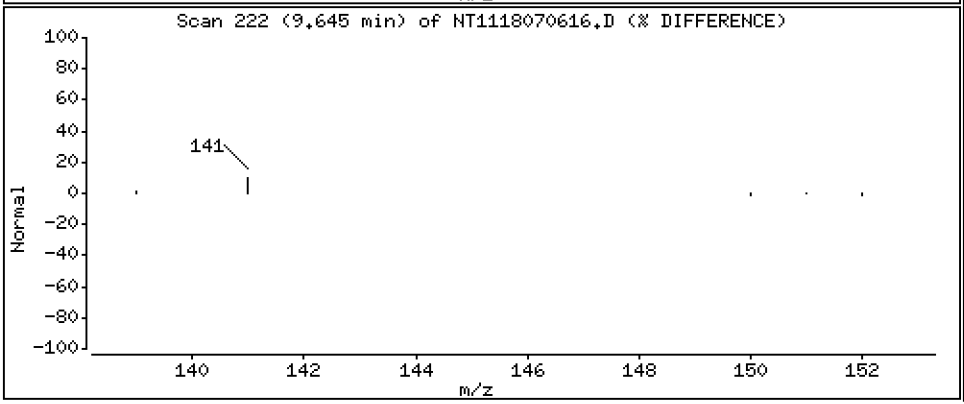












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Date : 06-JUL-2018 21:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-01

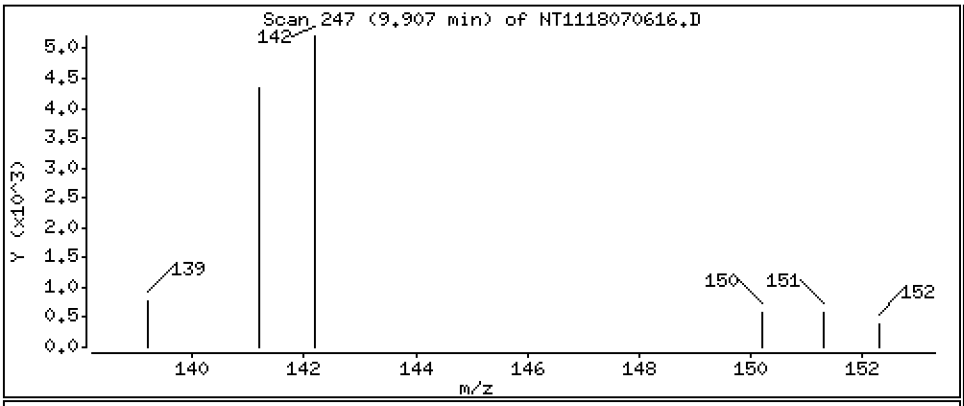
Operator: VTS

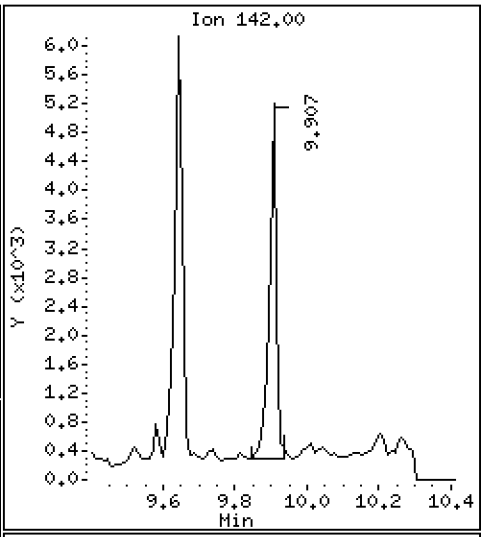
Column phase: Rxi-17Sil MS

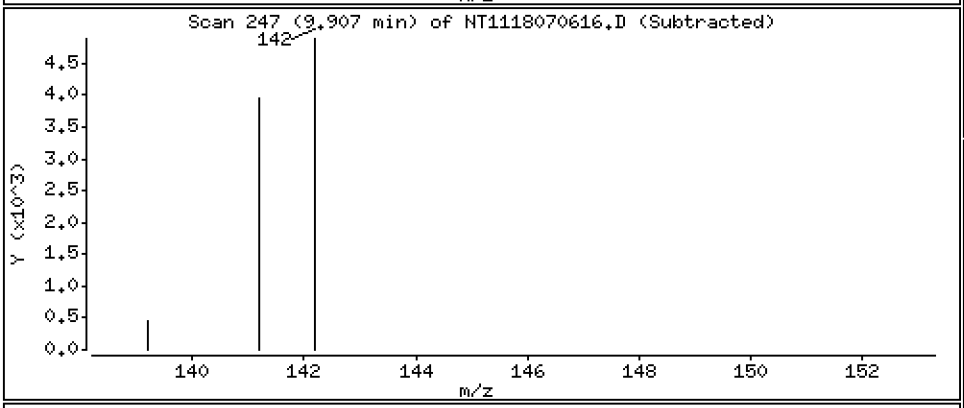
Column diameter: 0.25

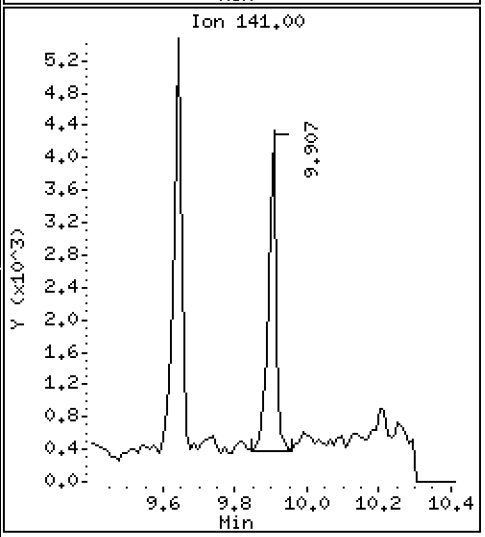
6 1-Methylnaphthalene

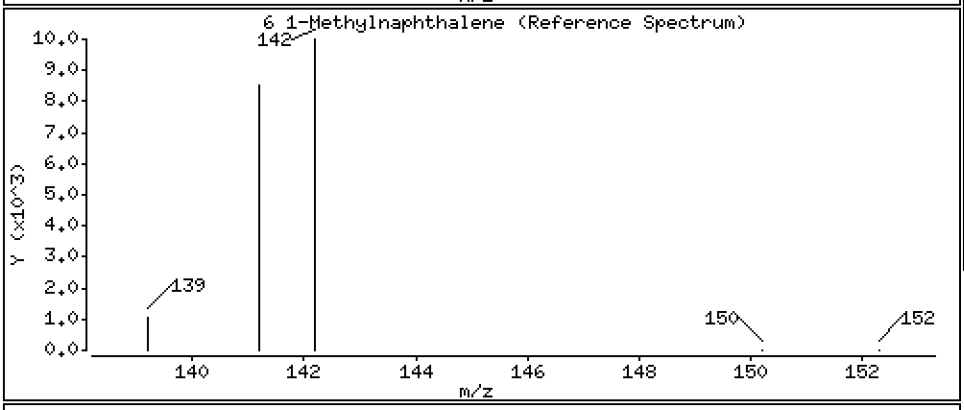
Concentration: 2.61 ng/mL

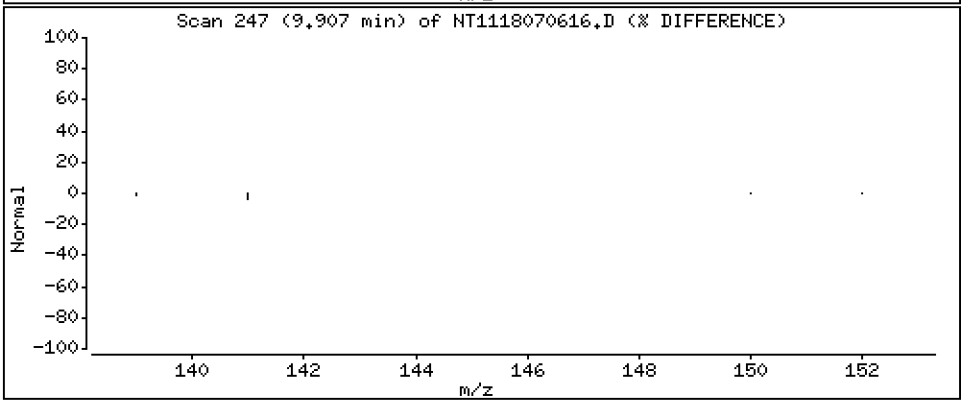












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Date : 06-JUL-2018 21:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-01

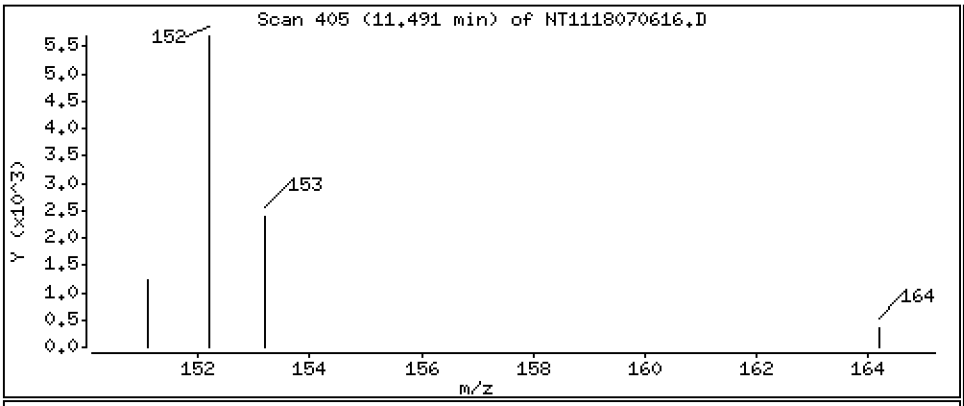
Operator: VTS

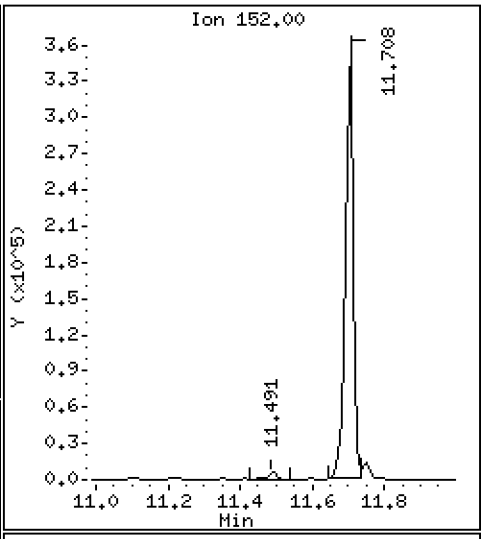
Column phase: Rxi-17Sil MS

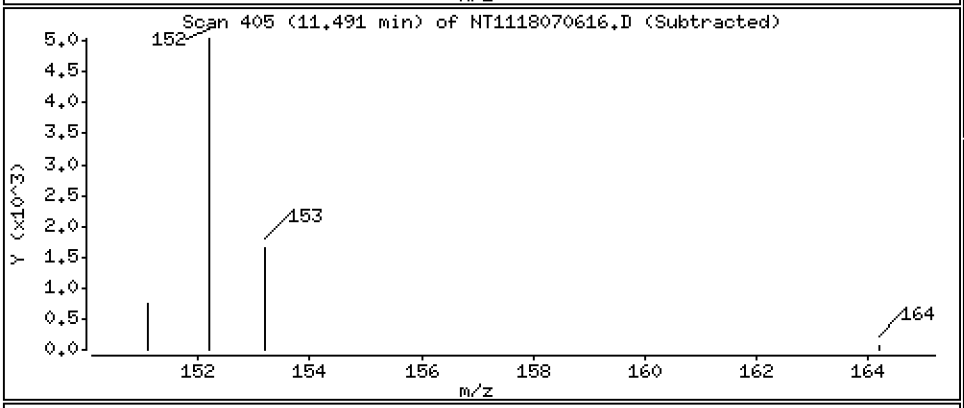
Column diameter: 0.25

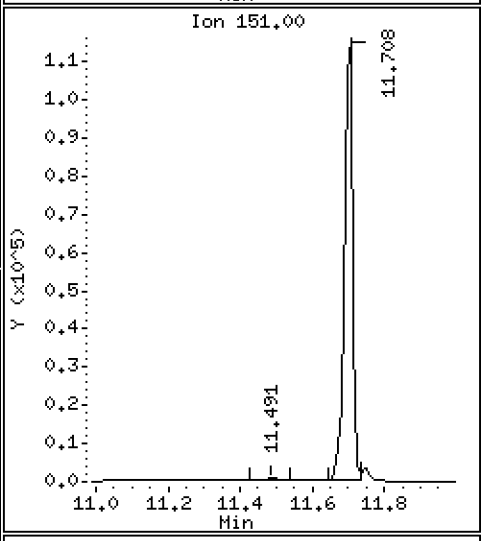
10 Acenaphthylene

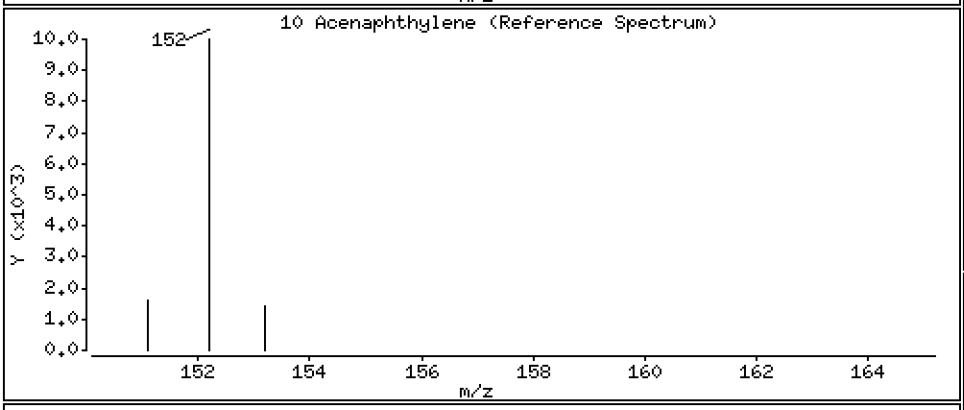
Concentration: 3.01 ng/mL

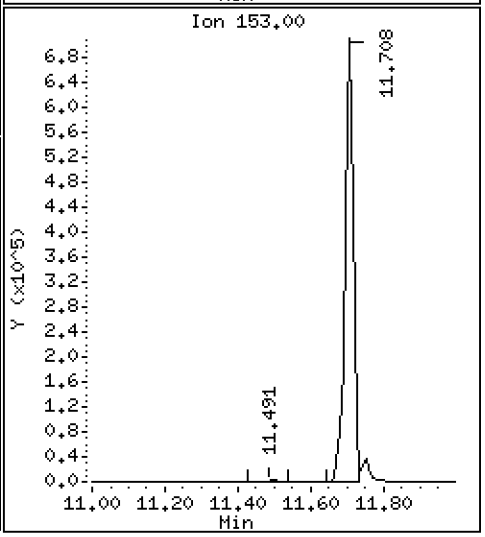


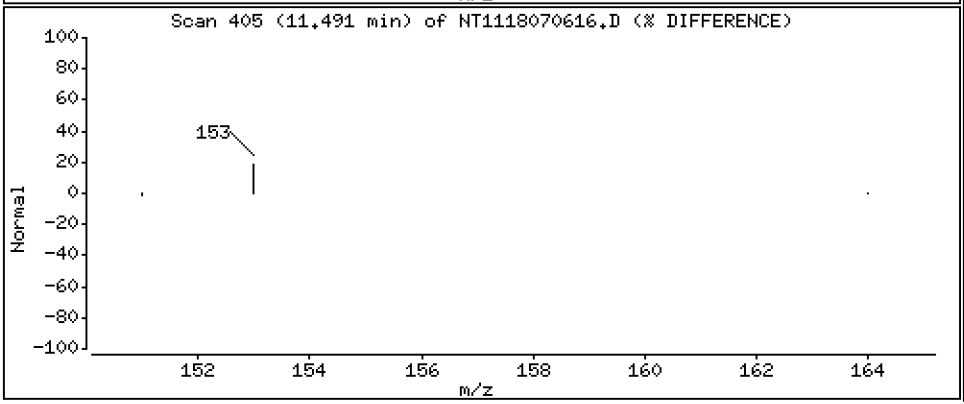












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Date : 06-JUL-2018 21:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-01

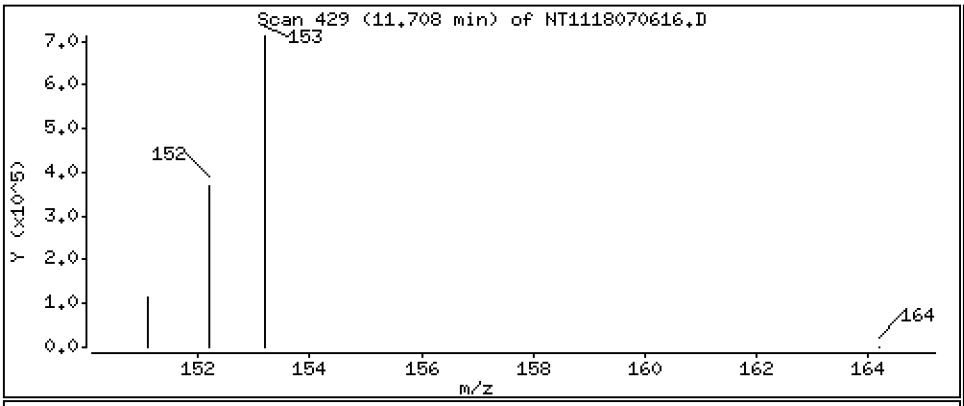
Operator: VTS

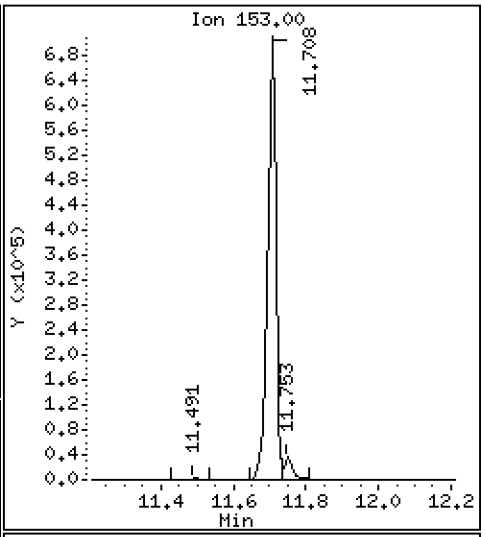
Column phase: Rxi-17Sil MS

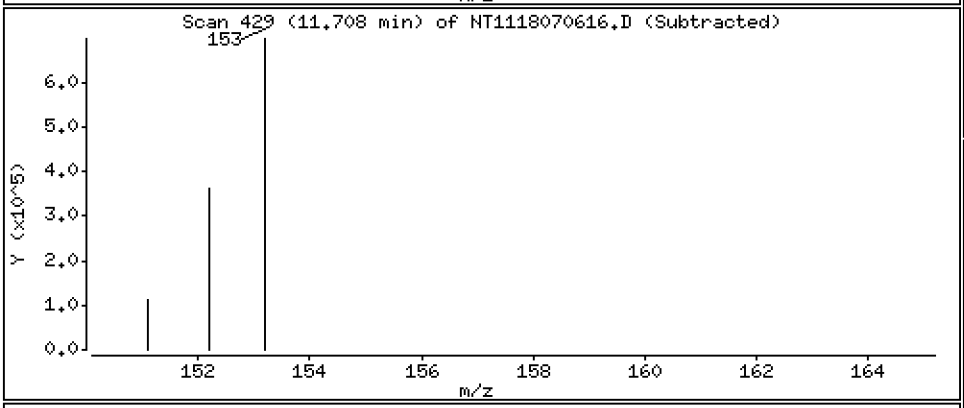
Column diameter: 0.25

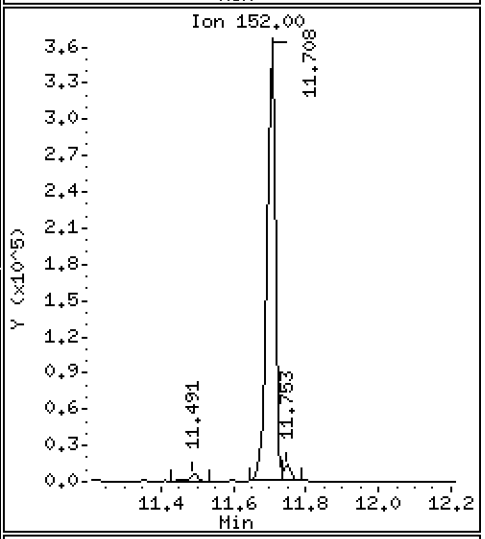
12 Acenaphthene

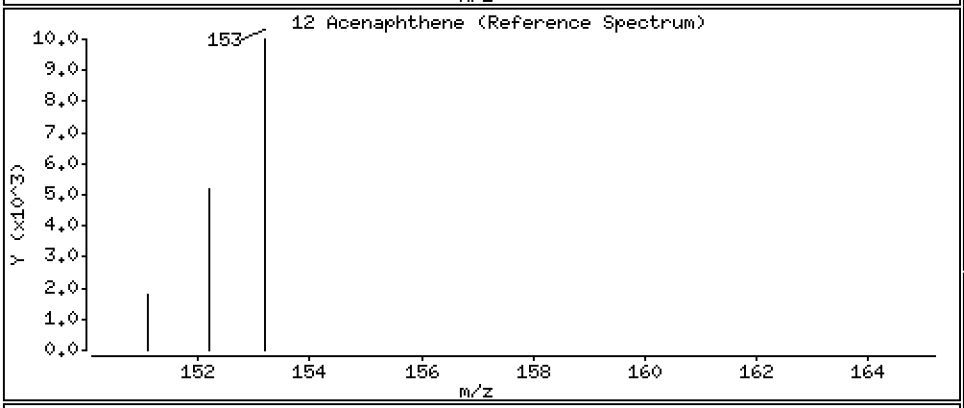
Concentration: 517 ng/mL

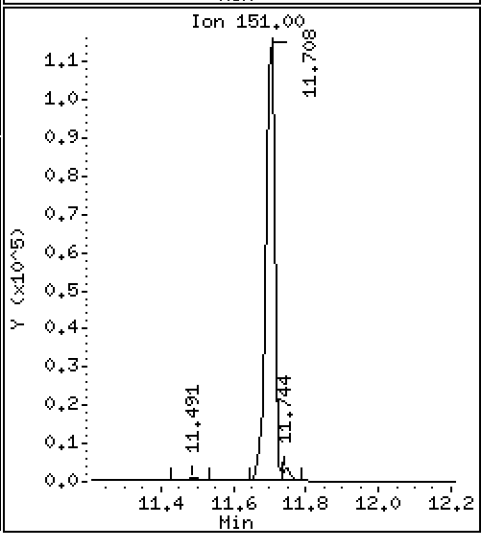


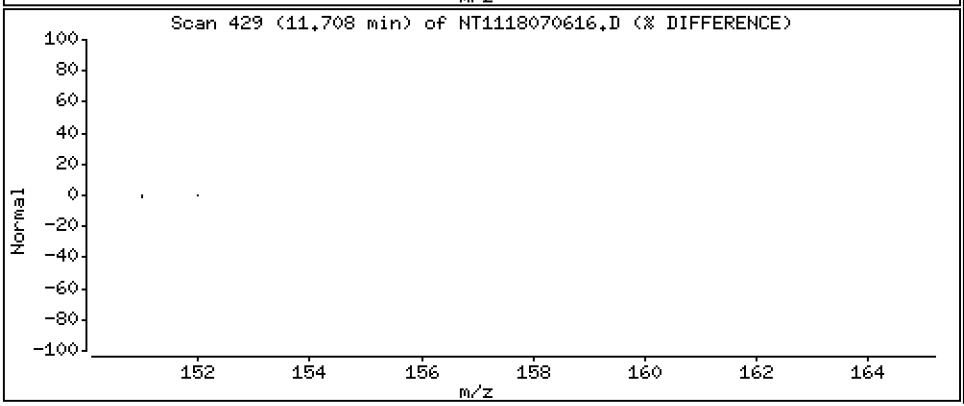












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Date : 06-JUL-2018 21:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-01

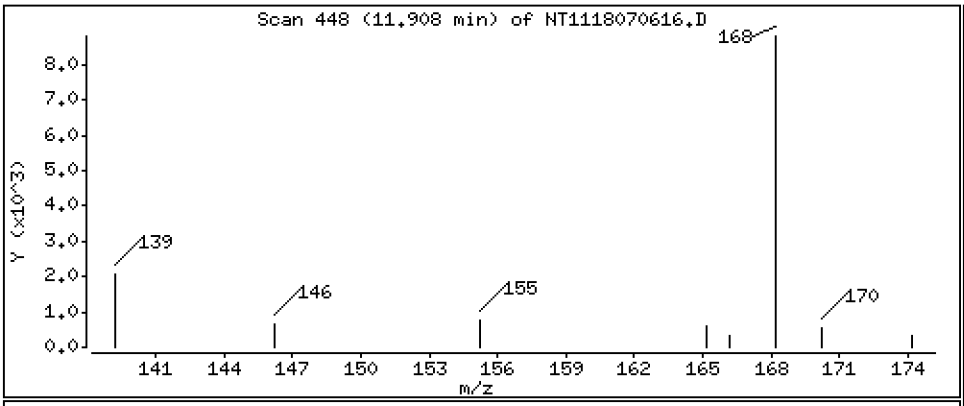
Operator: VTS

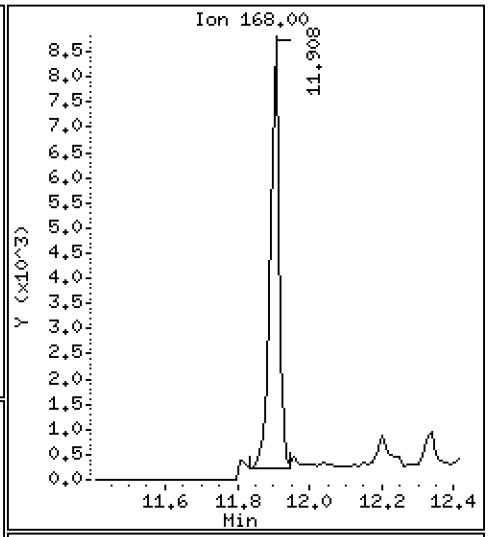
Column phase: Rxi-17Sil MS

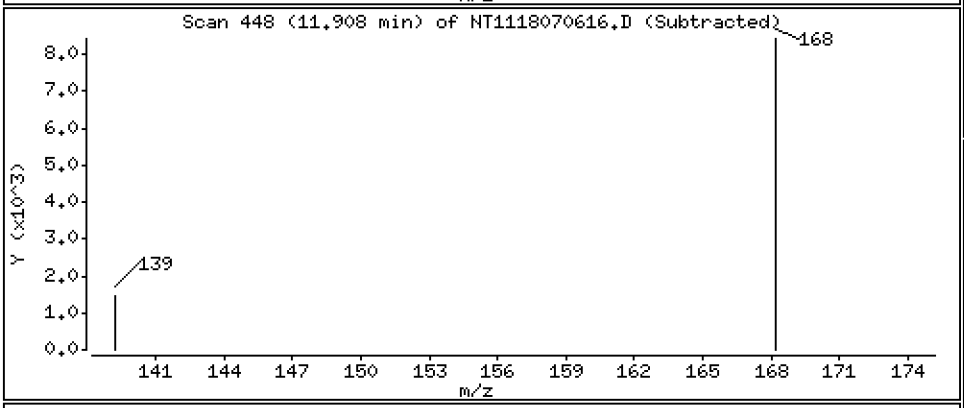
Column diameter: 0.25

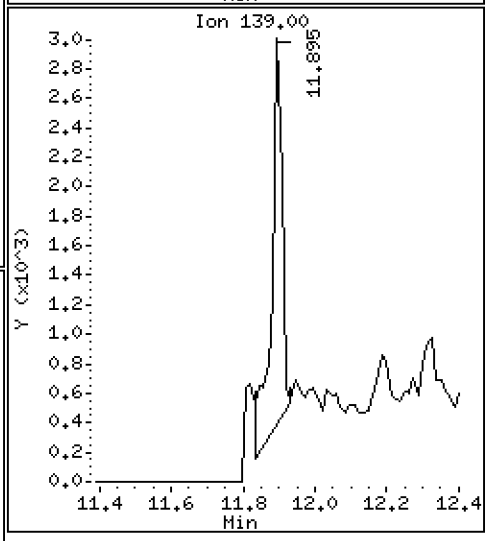
13 Dibenzofuran

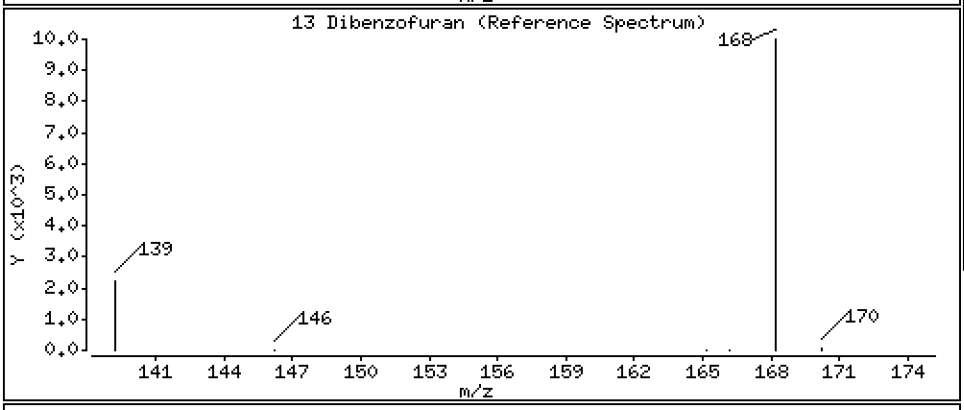
Concentration: 4.92 ng/mL

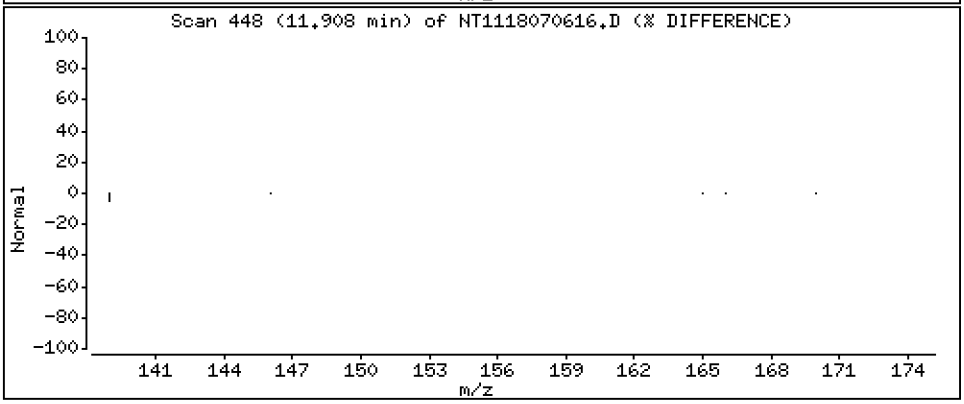












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Date : 06-JUL-2018 21:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-01

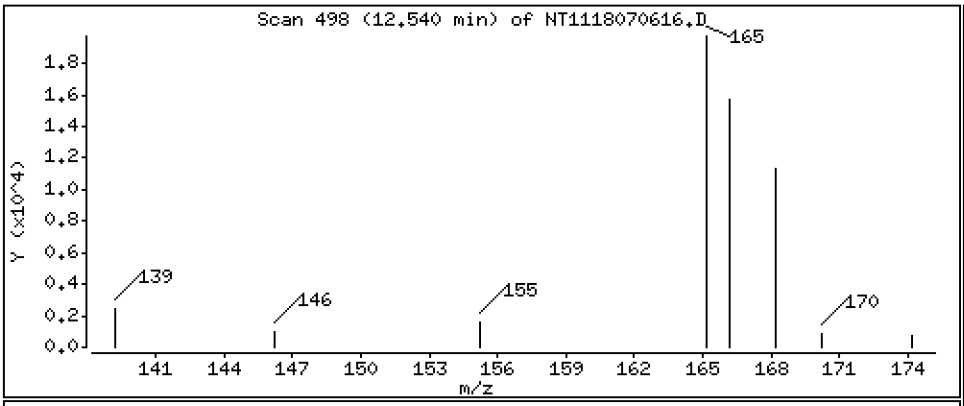
Operator: VTS

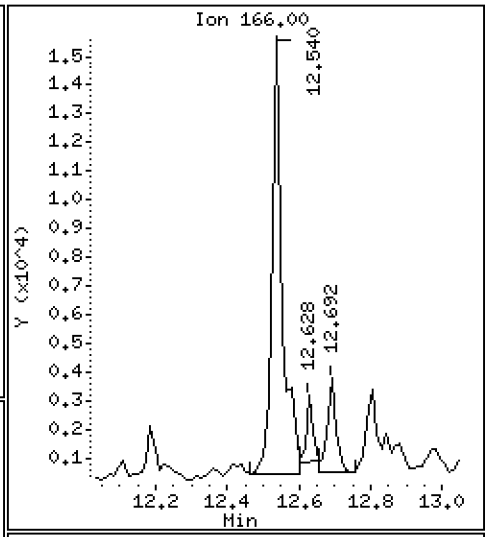
Column phase: Rxi-17Sil MS

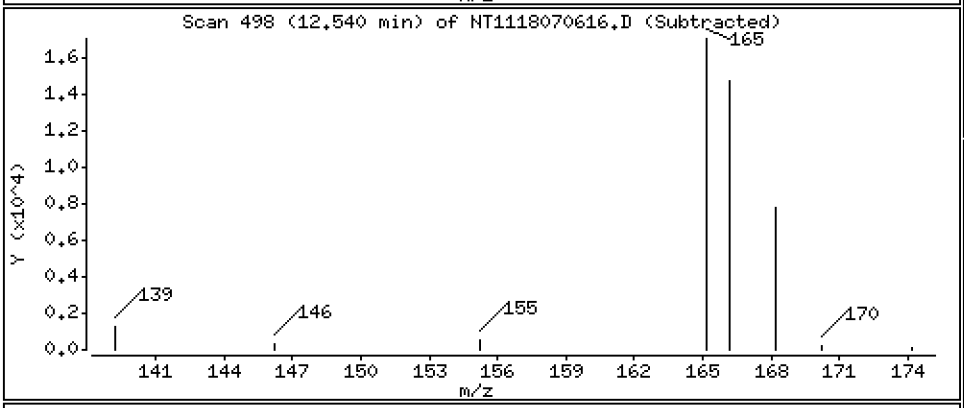
Column diameter: 0.25

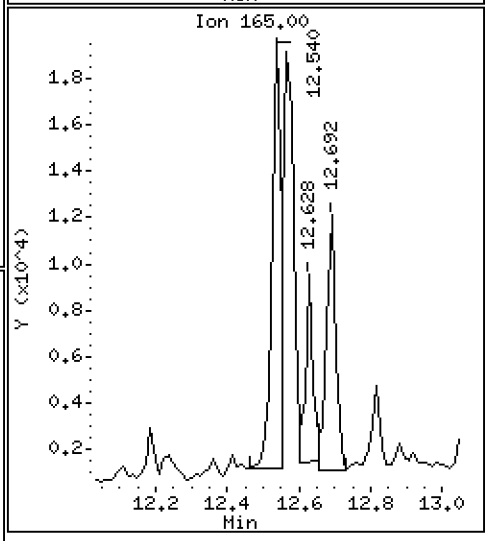
16 Fluorene

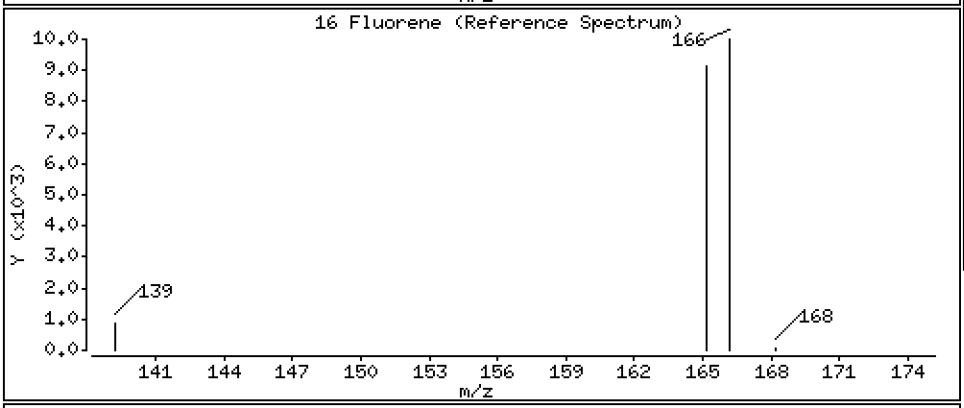
Concentration: 13.2 ng/mL

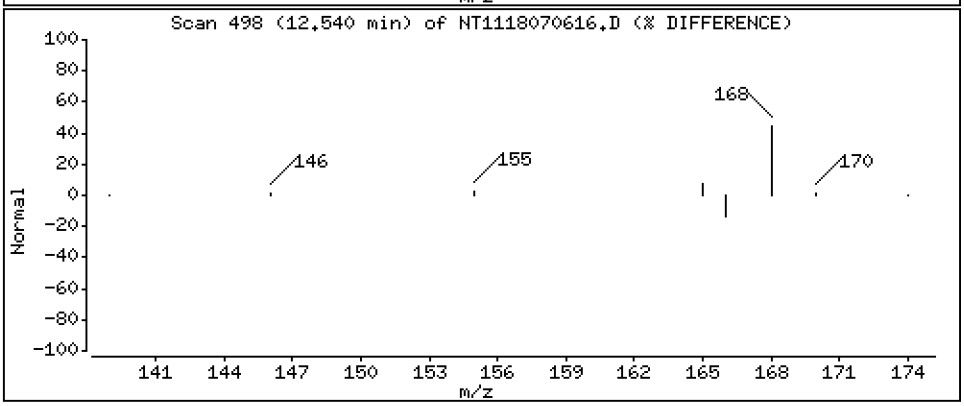












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Date : 06-JUL-2018 21:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-01

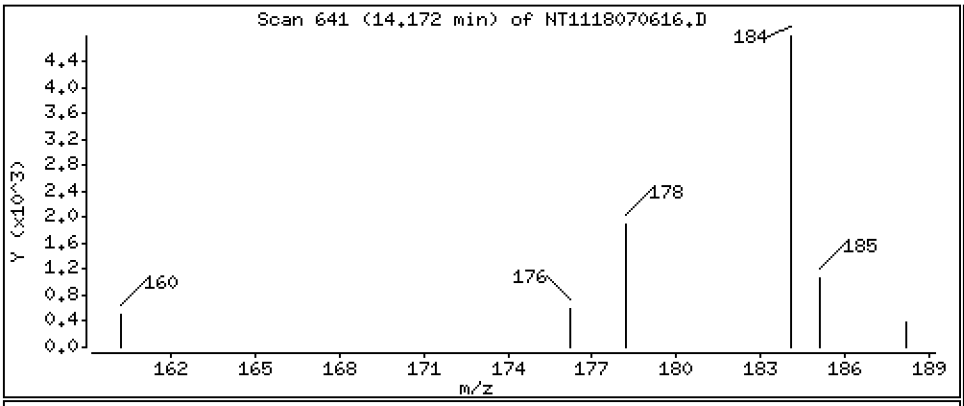
Operator: VTS

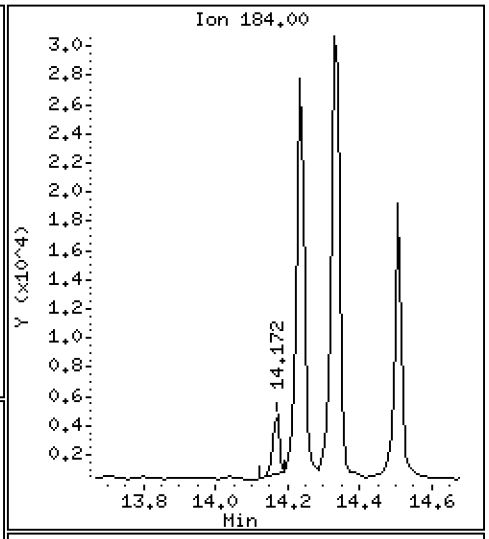
Column phase: Rxi-17Sil MS

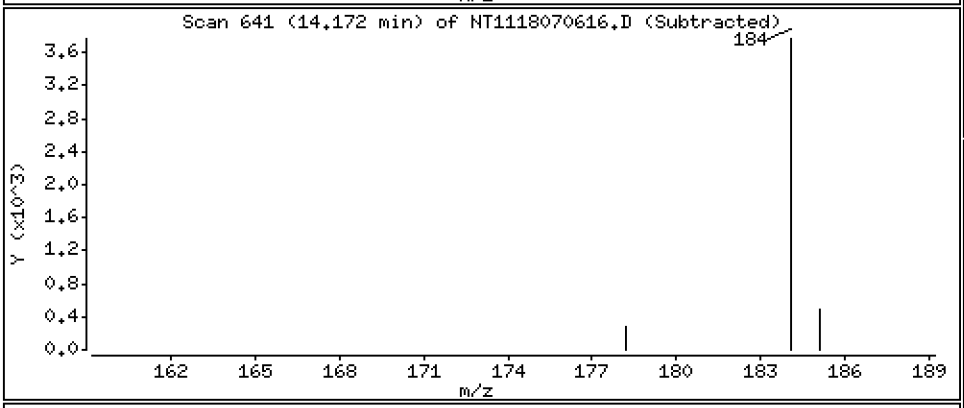
Column diameter: 0.25

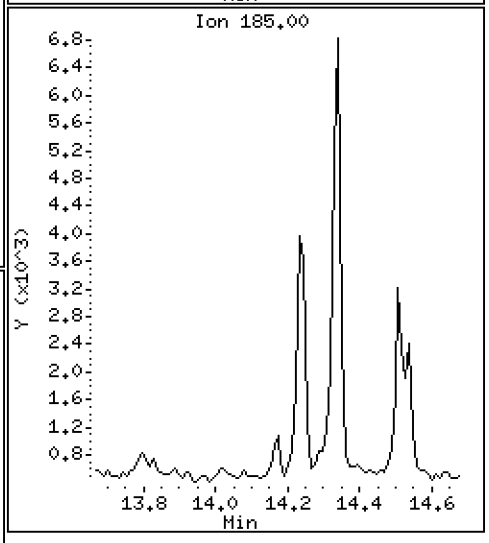
17 Dibenzothiophene

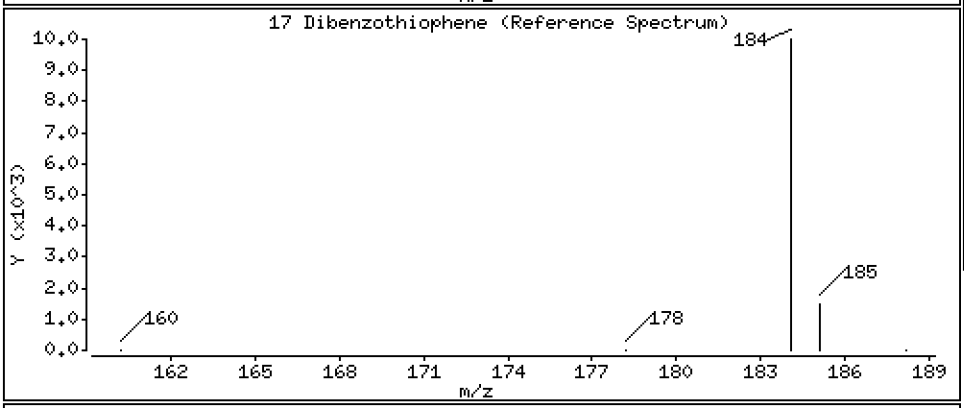
Concentration: 2.23 ng/mL

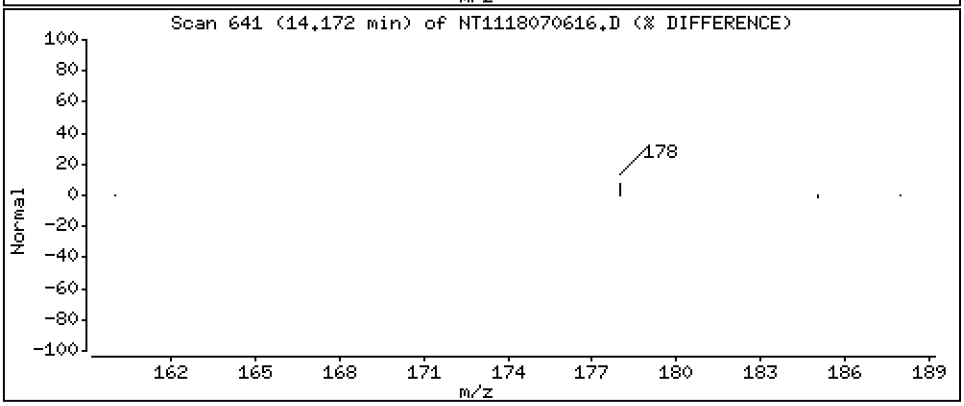












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Date : 06-JUL-2018 21:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-01

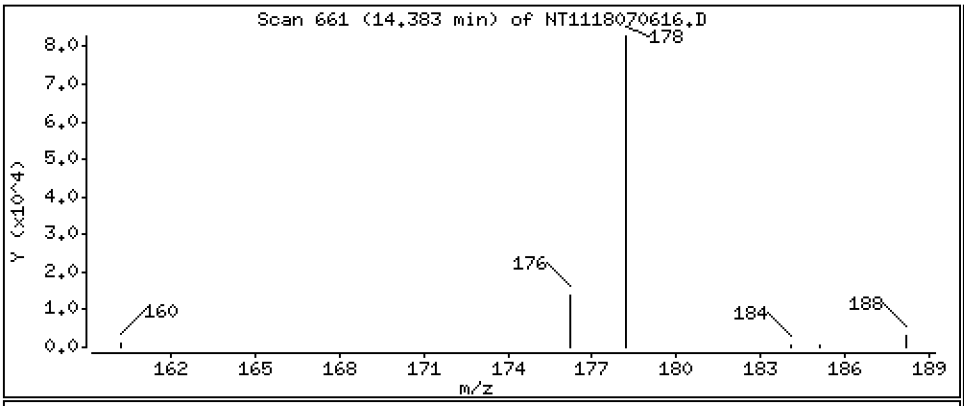
Operator: VTS

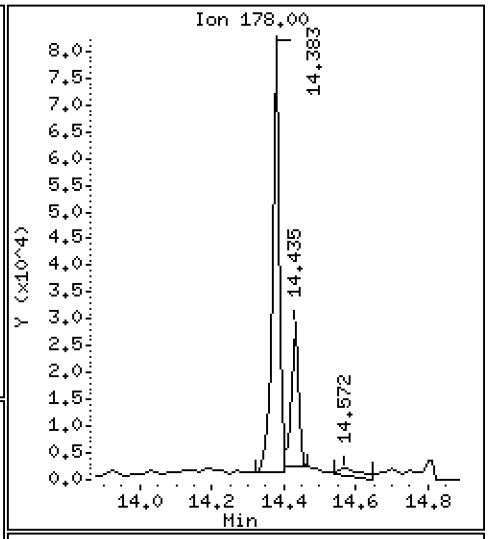
Column phase: Rxi-17Sil MS

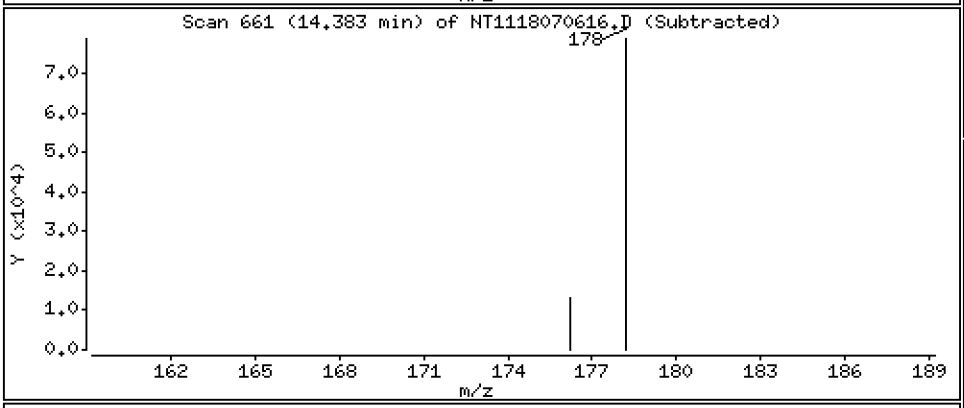
Column diameter: 0.25

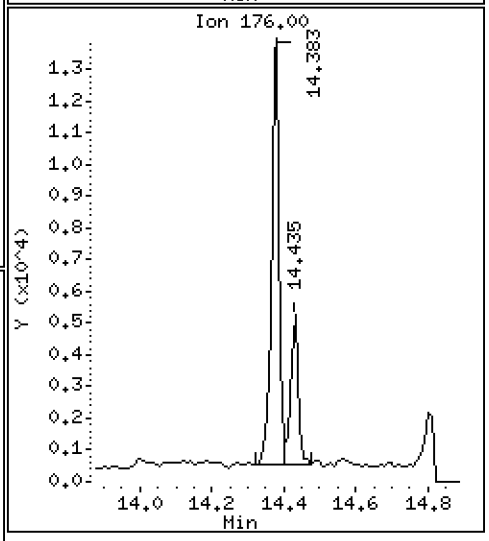
19 Phenanthrene

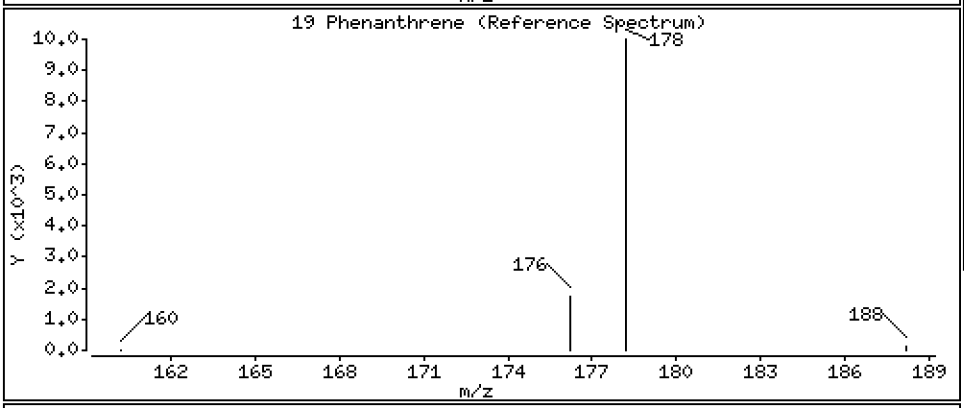
Concentration: 38.2 ng/mL

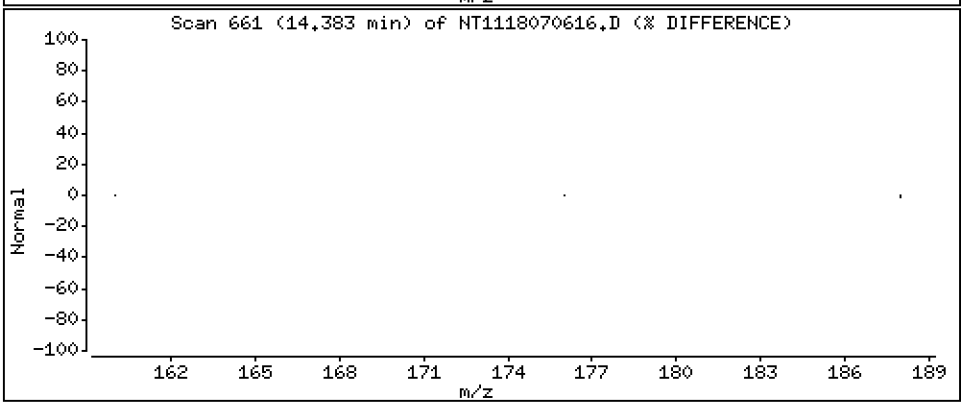












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070616.D

Date : 06-JUL-2018 21:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-01

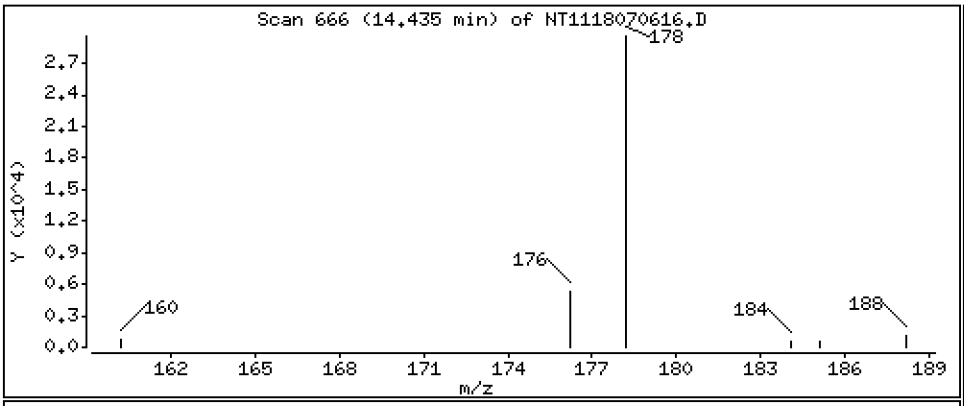
Operator: VTS

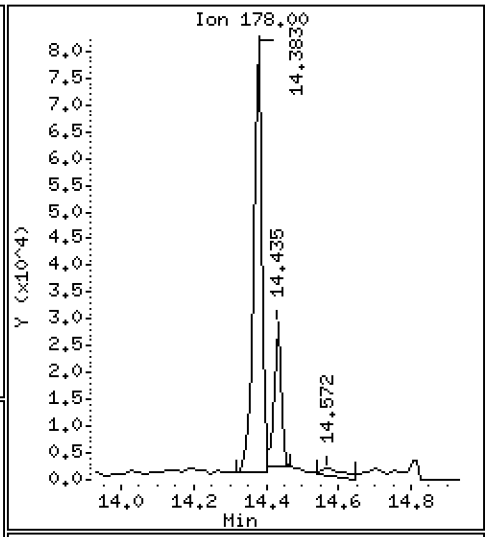
Column phase: Rxi-17Sil MS

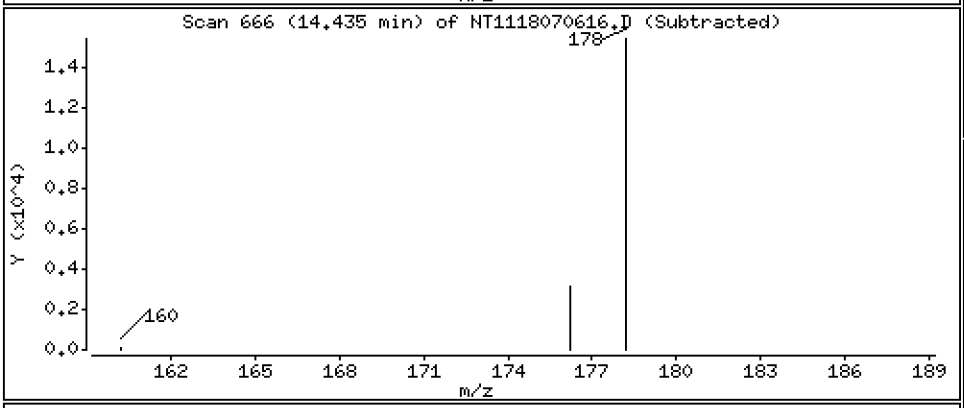
Column diameter: 0.25

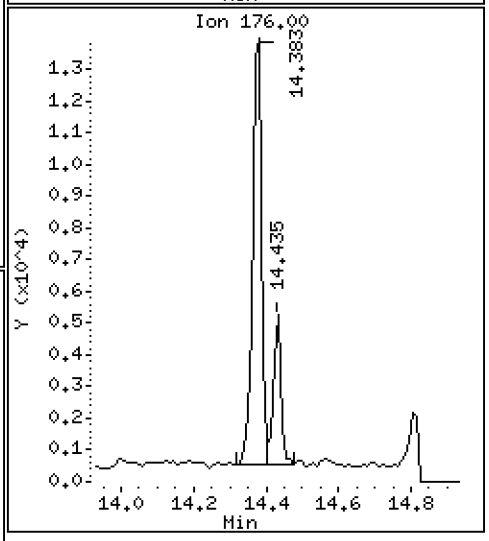
21 Anthracene

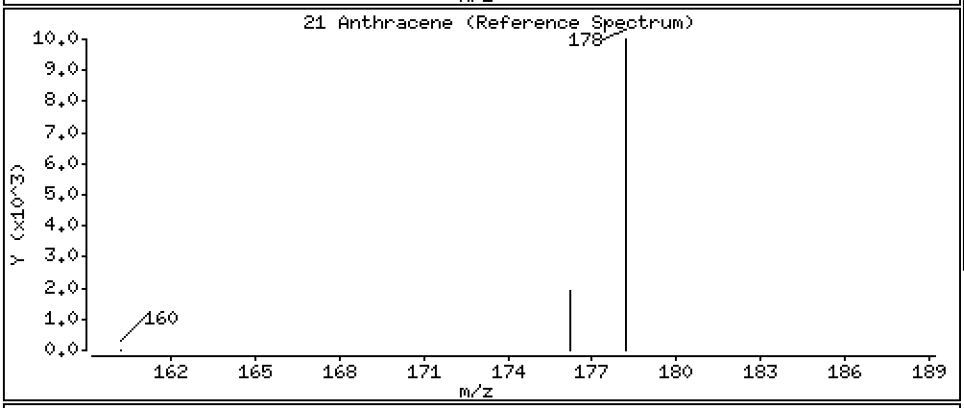
Concentration: 12.0 ng/mL

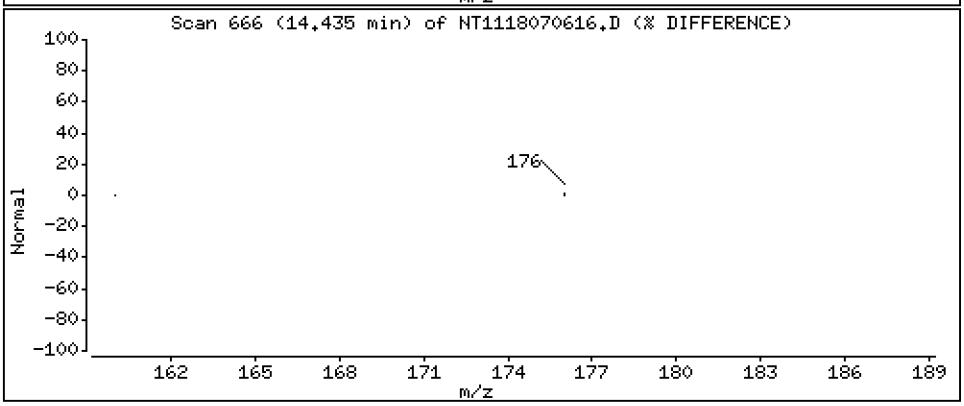












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Date : 06-JUL-2018 21:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-01

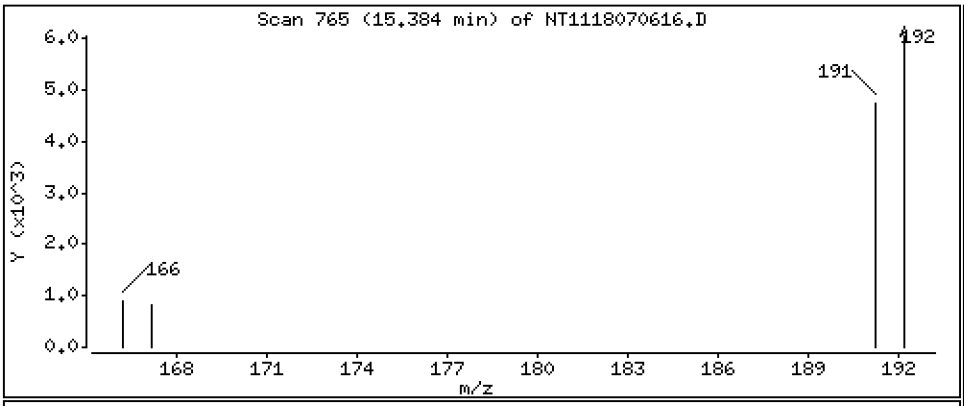
Operator: VTS

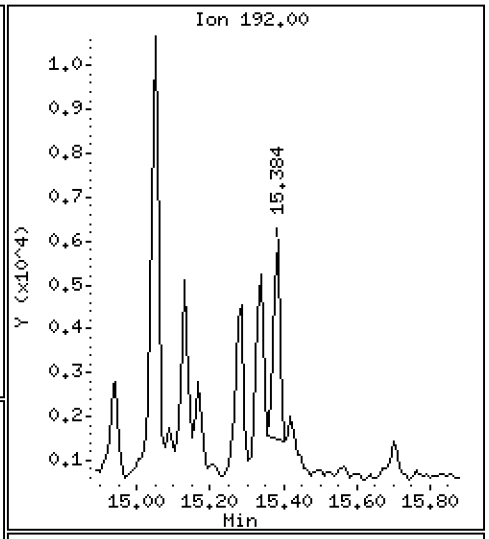
Column phase: Rxi-17Sil MS

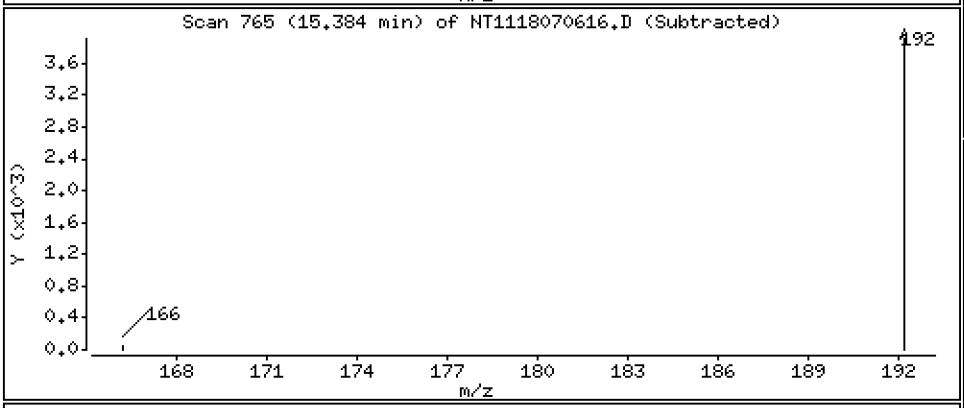
Column diameter: 0.25

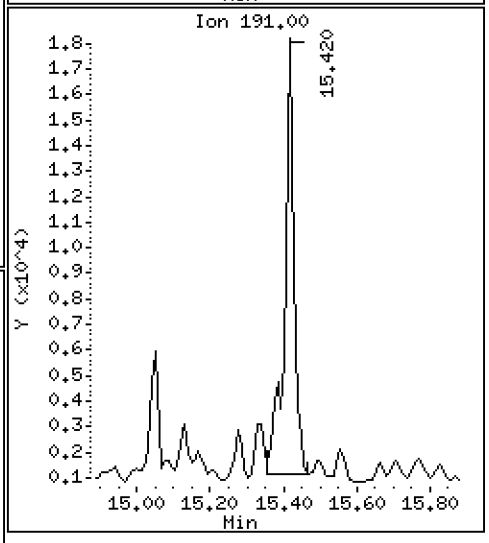
23 1-Methylphenanthrene

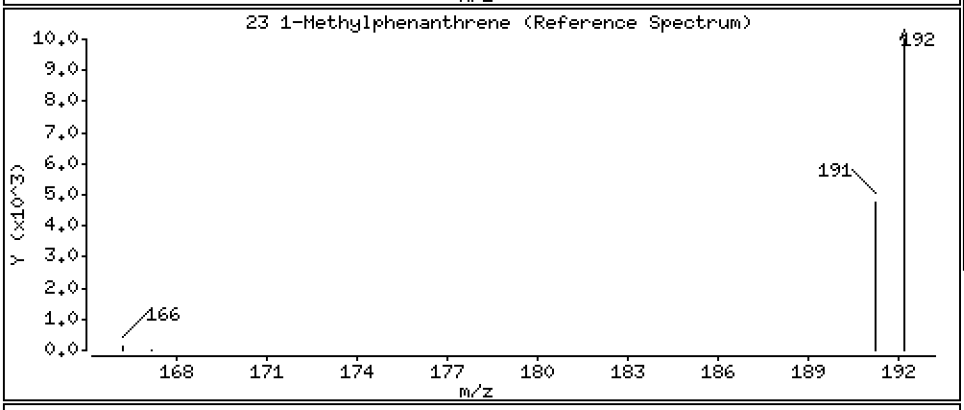
Concentration: 1.86 ng/mL

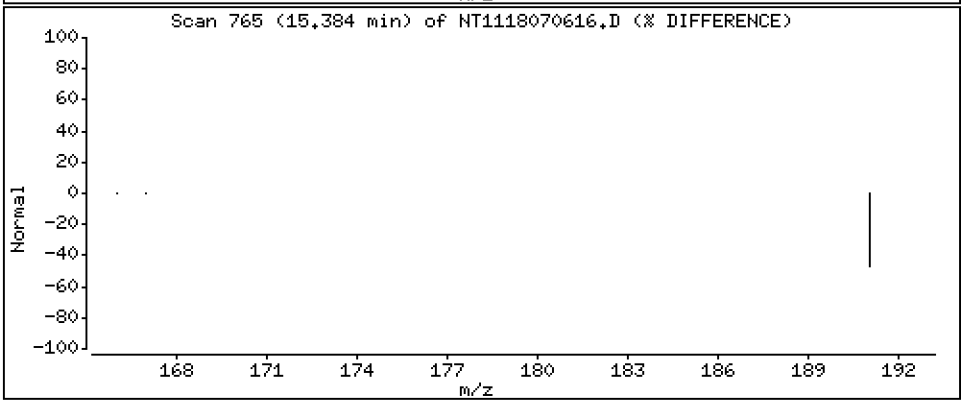












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Date : 06-JUL-2018 21:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-01

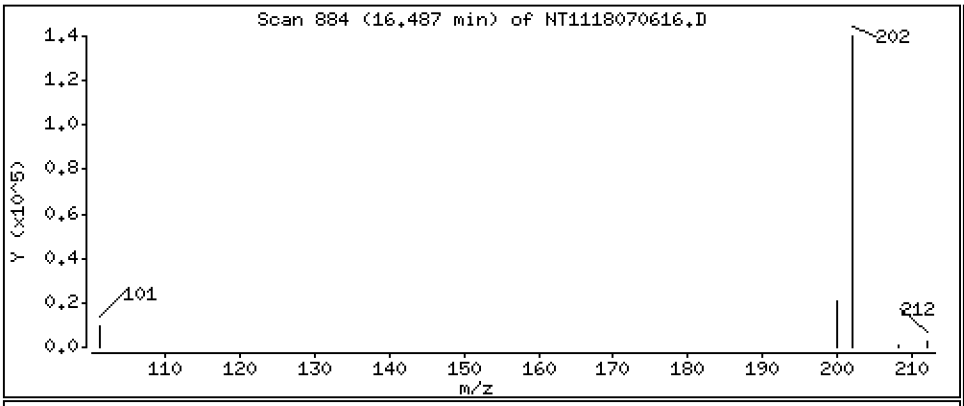
Operator: VTS

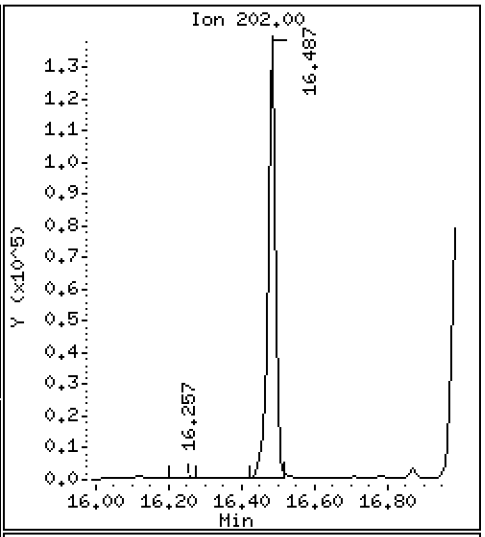
Column phase: Rxi-17Sil MS

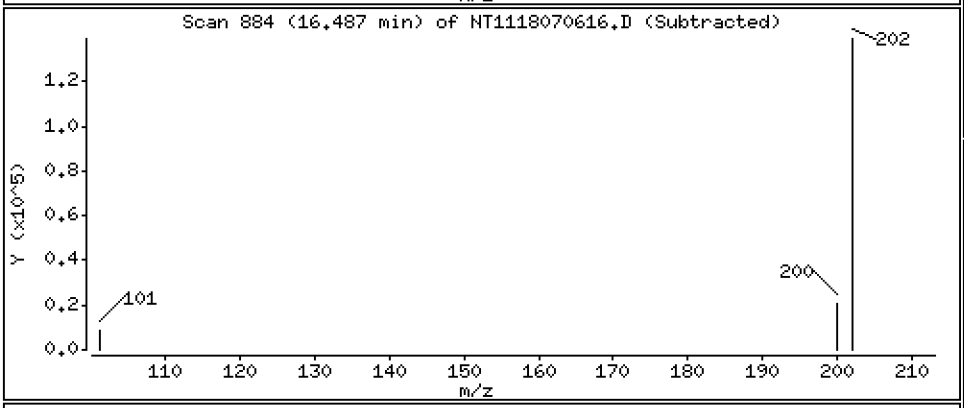
Column diameter: 0.25

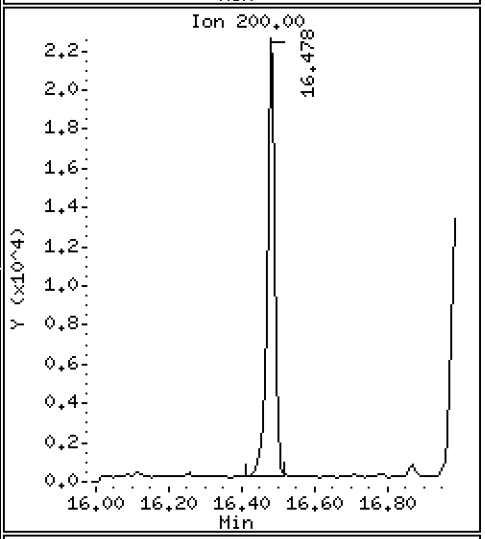
25 Fluoranthene

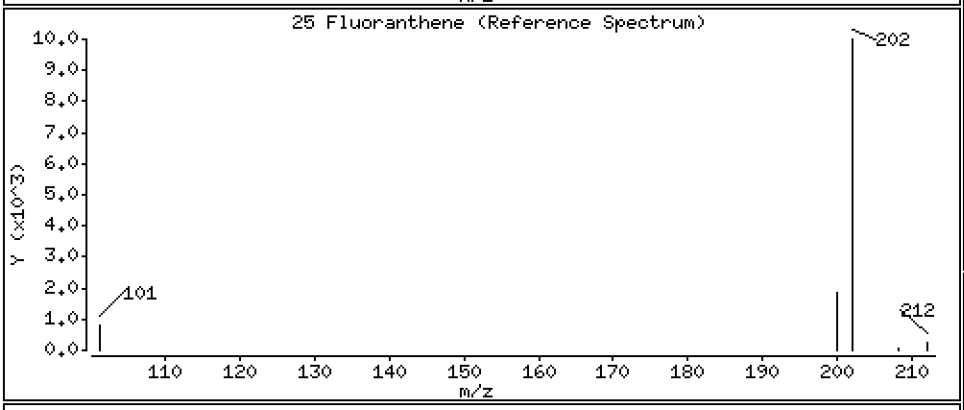
Concentration: 69.9 ng/mL

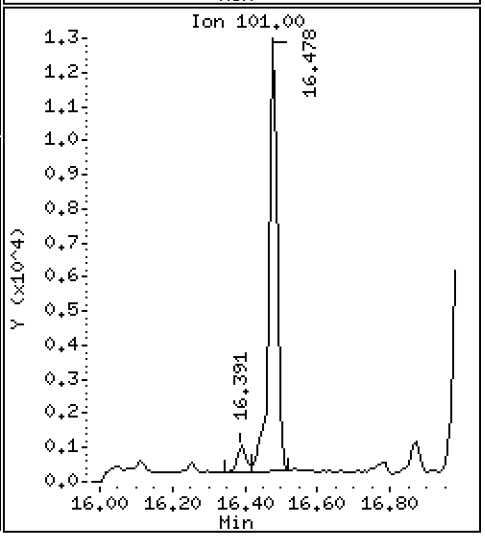


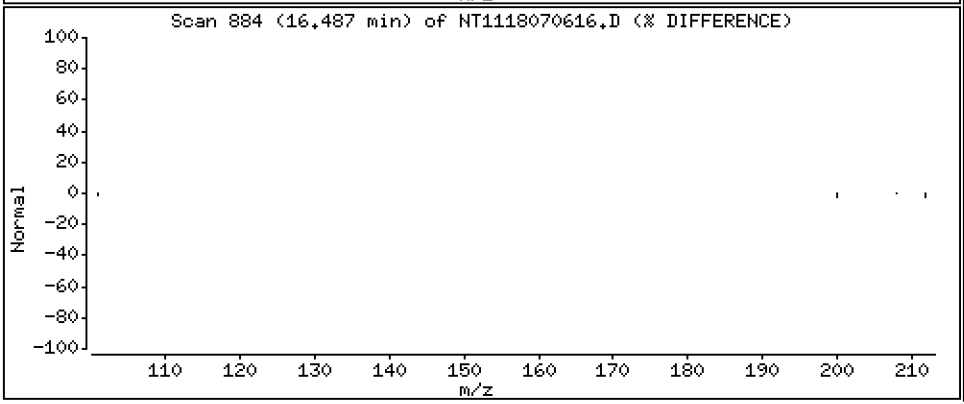












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Date : 06-JUL-2018 21:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-01

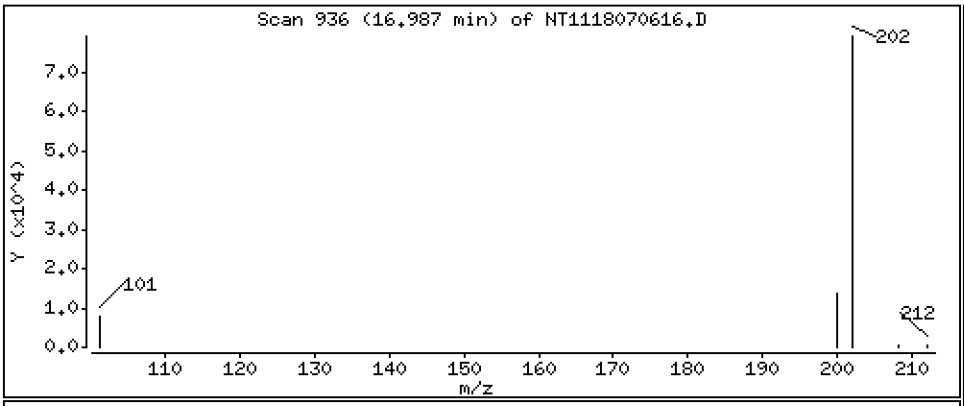
Operator: VTS

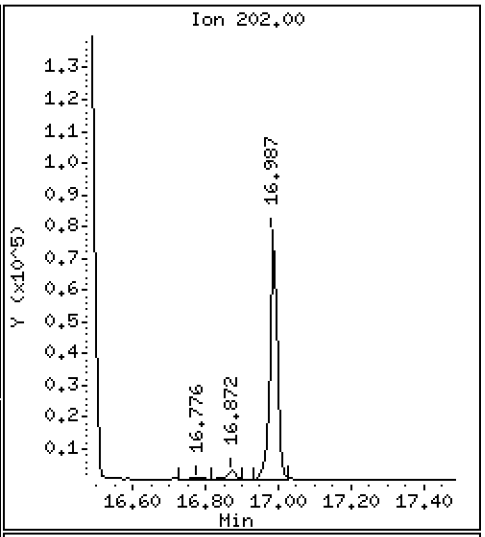
Column phase: Rxi-17Sil MS

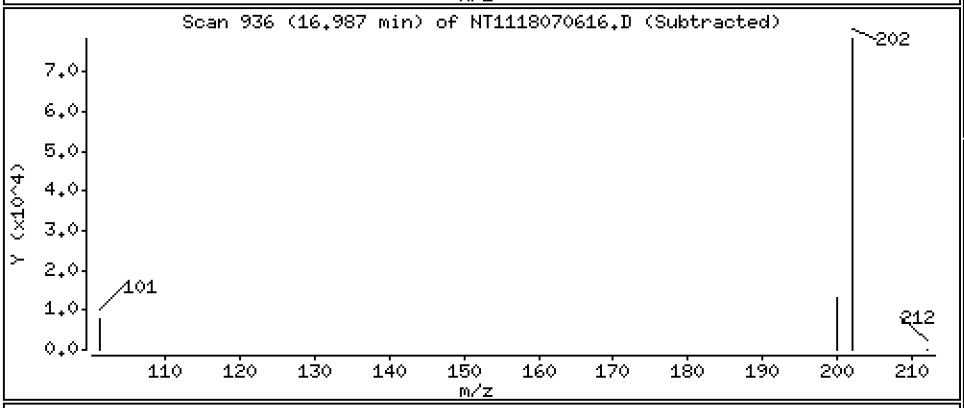
Column diameter: 0.25

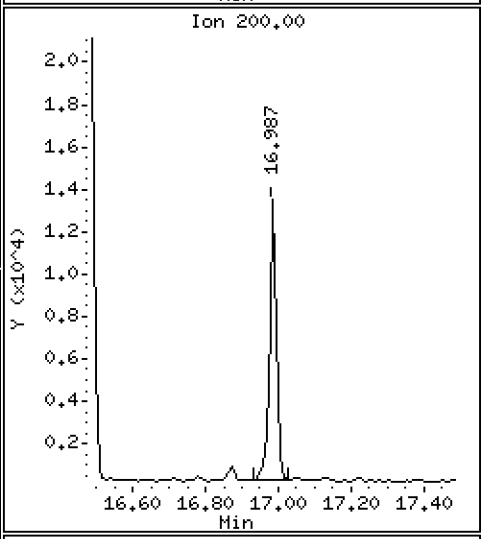
26 Pyrene

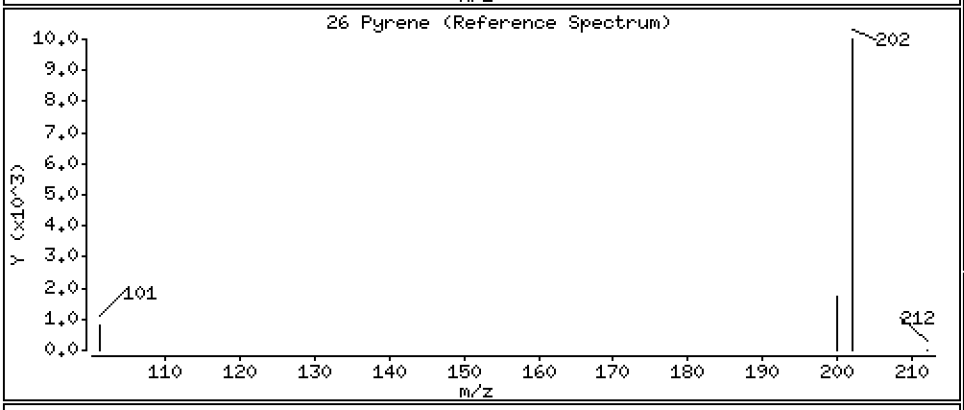
Concentration: 36.3 ng/mL

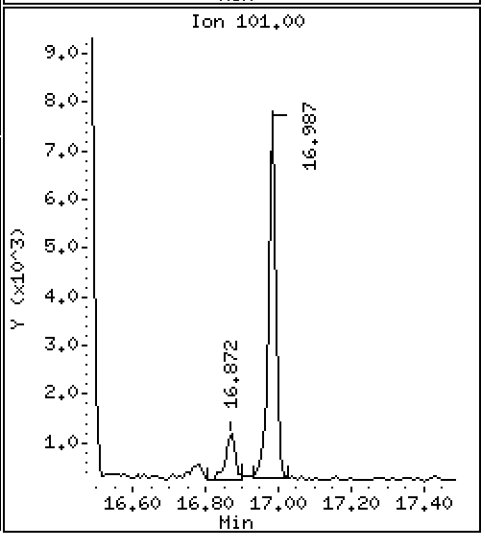


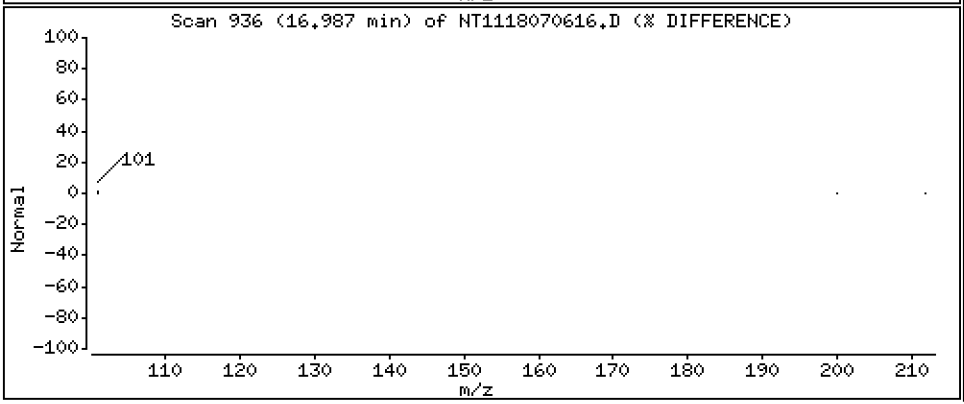












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Date : 06-JUL-2018 21:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-01

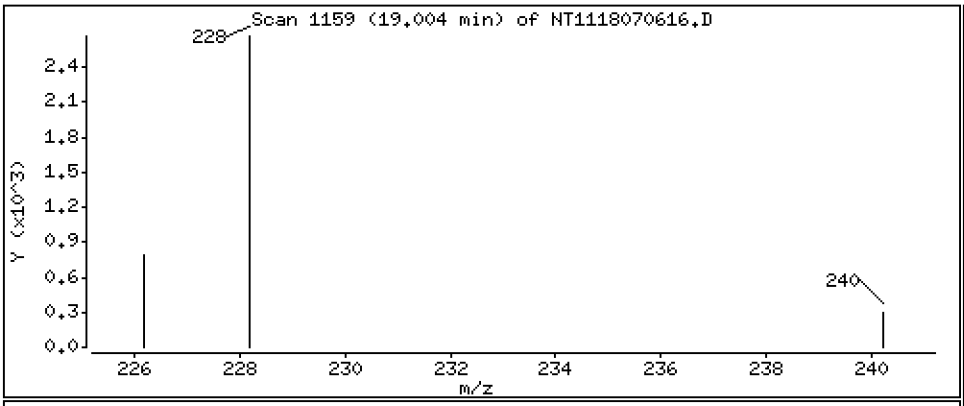
Operator: VTS

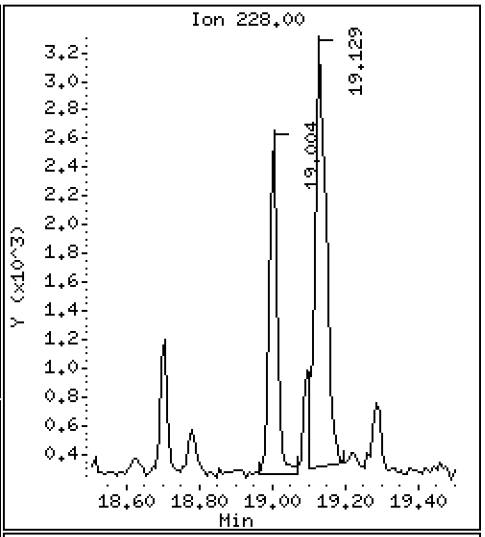
Column phase: Rxi-17Sil MS

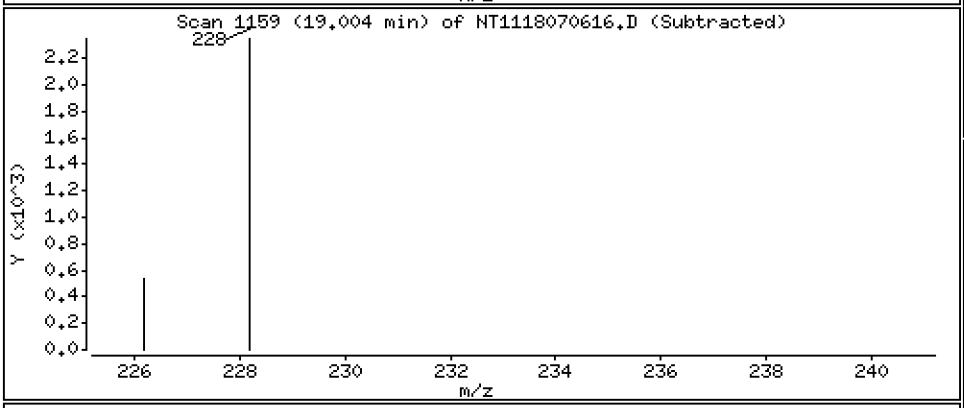
Column diameter: 0.25

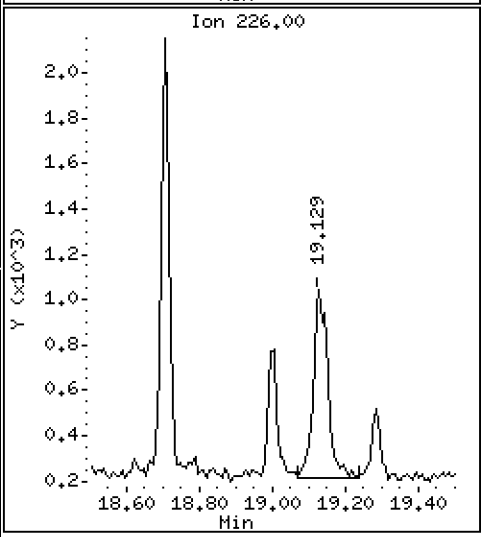
27 Benzo(a)anthracene

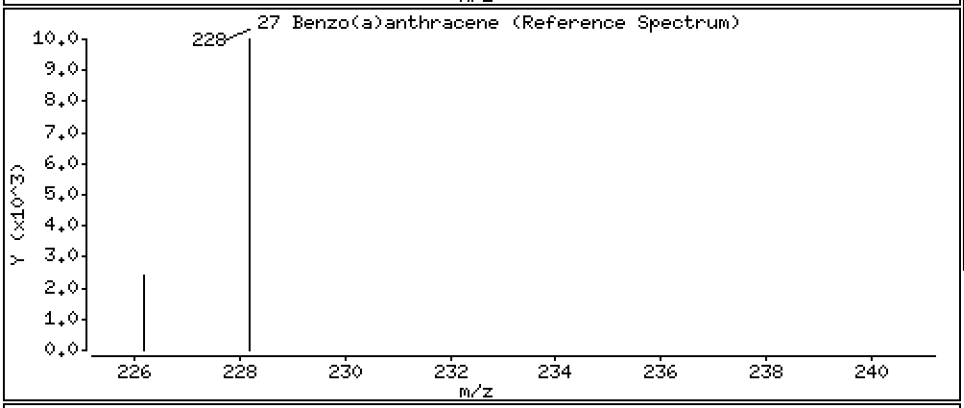
Concentration: 1.44 ng/mL

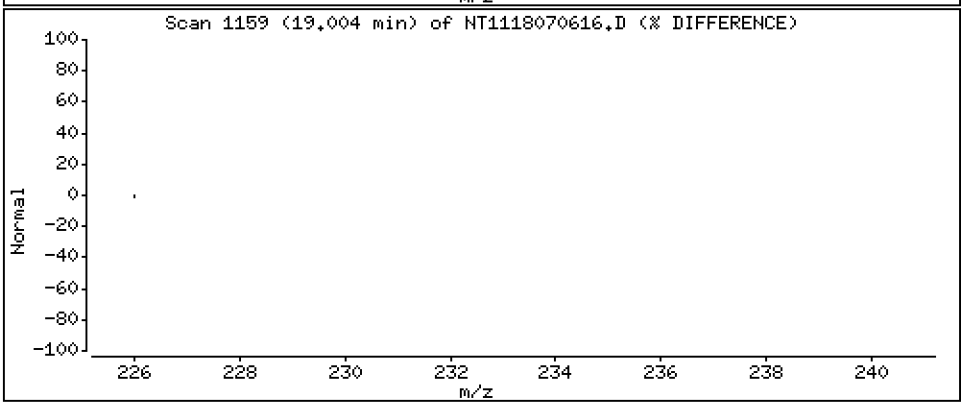












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Date : 06-JUL-2018 21:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-01

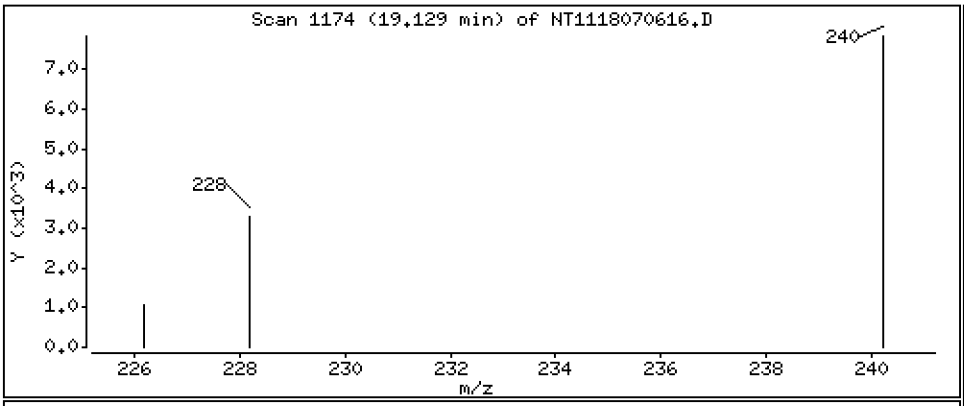
Operator: VTS

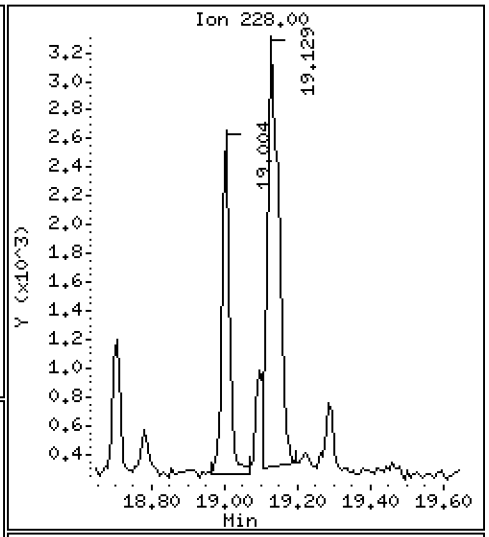
Column phase: Rxi-17Sil MS

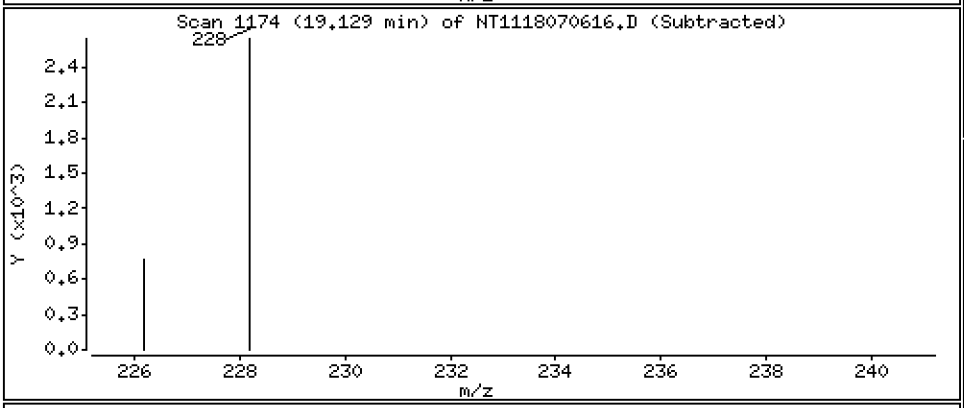
Column diameter: 0.25

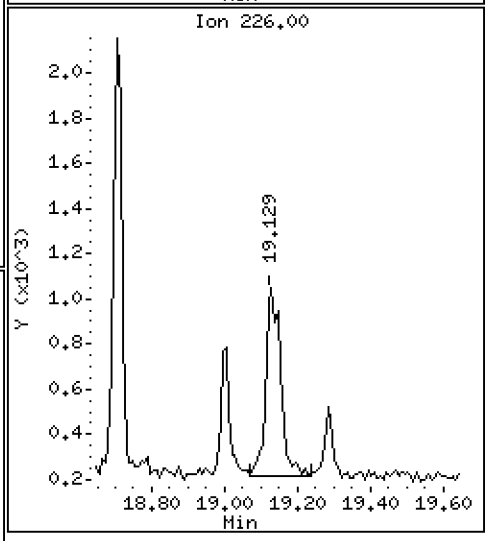
29 Chrysene

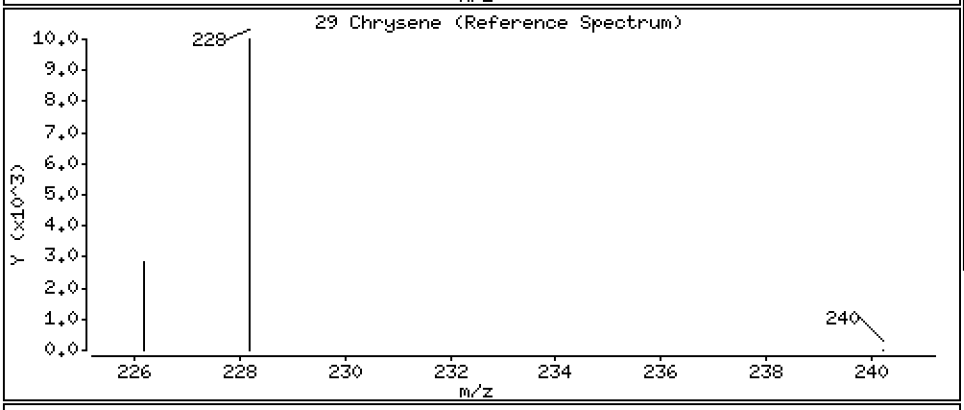
Concentration: 2.64 ng/mL

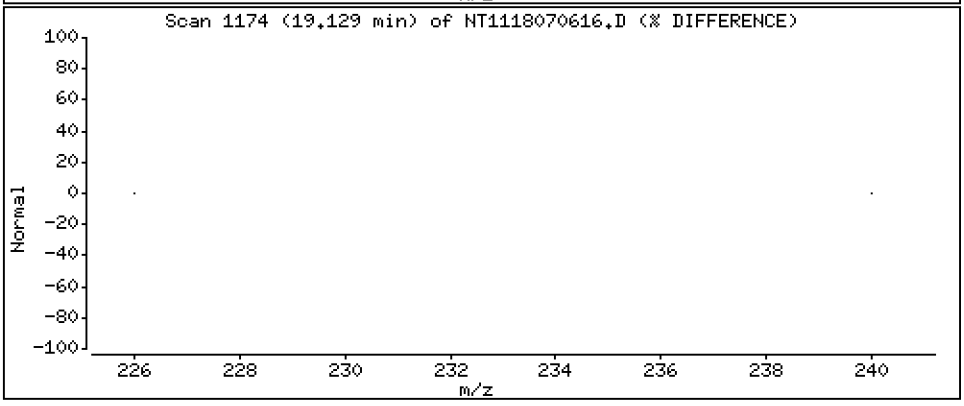












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070616.D

Date : 06-JUL-2018 21:27

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-01

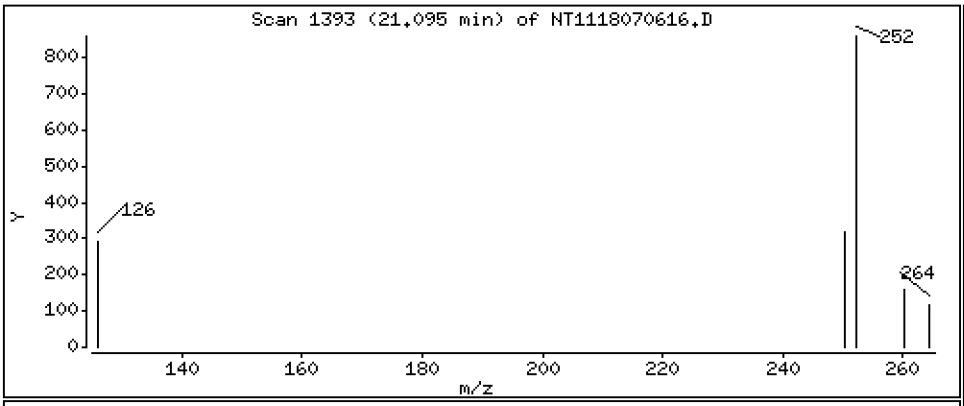
Operator: VTS

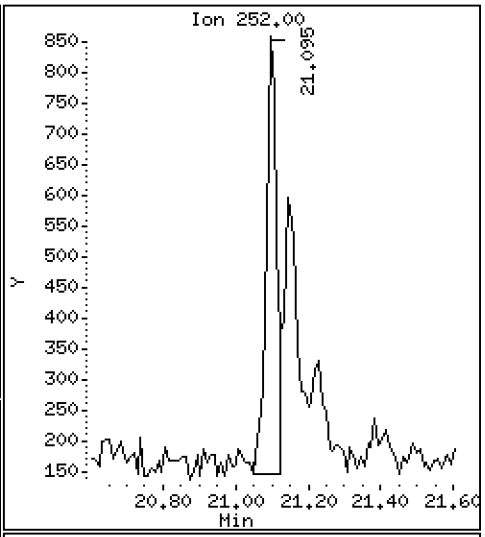
Column phase: Rxi-17Sil MS

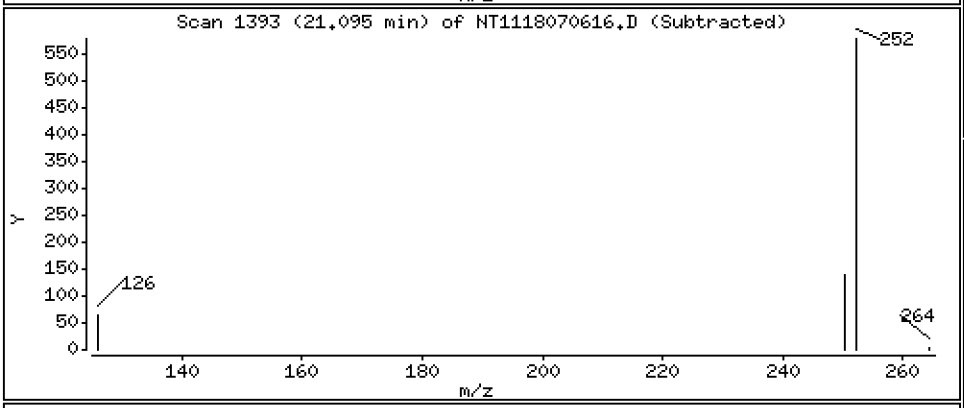
Column diameter: 0.25

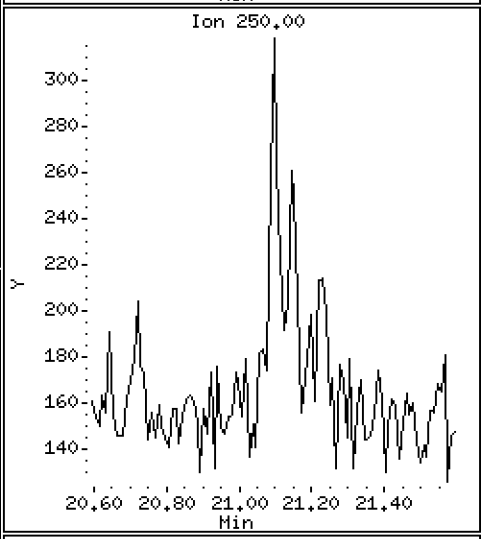
30 Benzo(b)fluoranthene

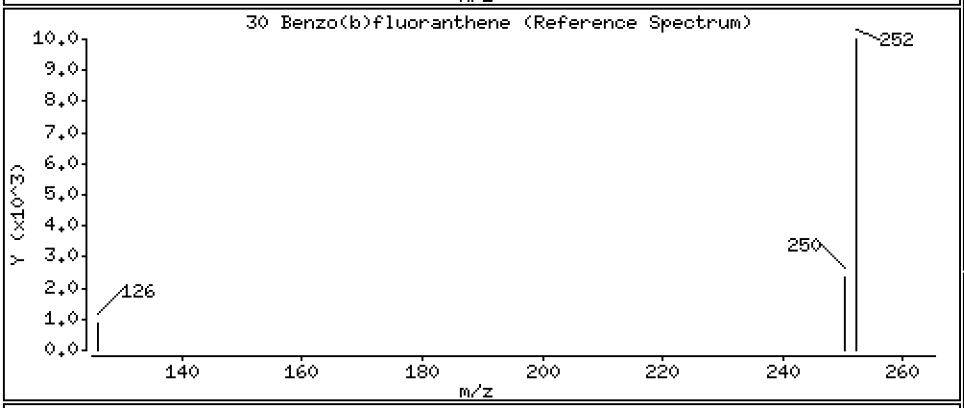
Concentration: 0.648 ng/mL

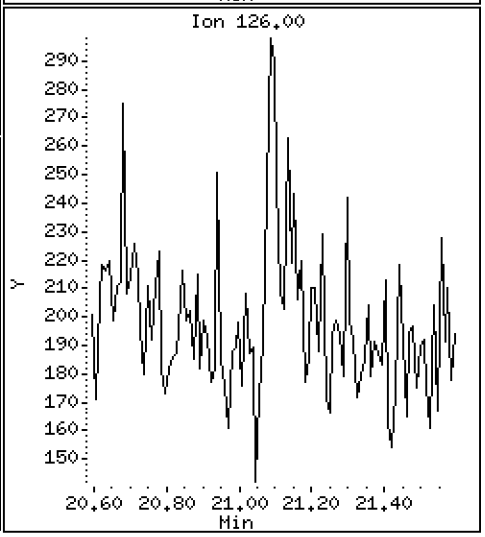


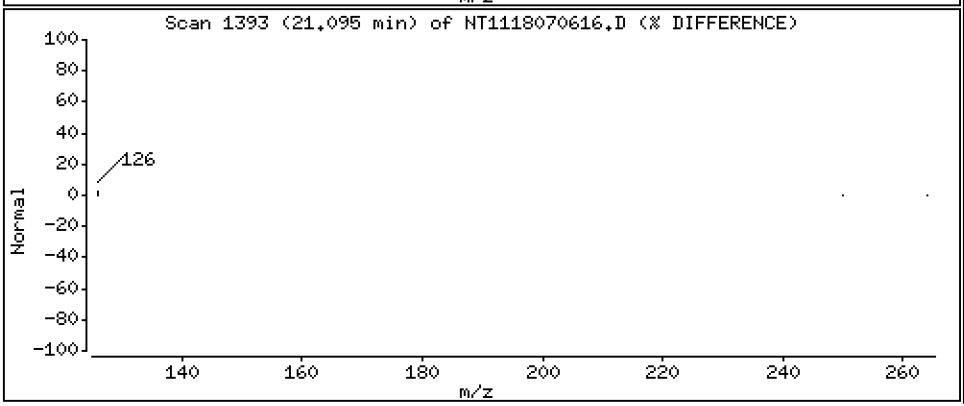












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180706.b\NT1118070616.D
Lab Smp Id: 18F0248-01
Inj Date : 06-JUL-2018 21:27 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0248-01
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Meth Date : 06-Jul-2018 13:13 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	482266	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	23817	6.57748	6.58
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	512766	186.350	186
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	8636	2.93972	2.94
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	7626	2.61018	2.61
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	11.490	11.490	(0.987)	9178	3.01262	3.01
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	256229	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	1077435	517.073	517
	13 Dibenzofuran	168	11.908	11.908	(1.023)	14039	4.91807	4.92
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.540	12.540	(1.077)	30280	13.1540	13.2
	17 Dibenzothiophene	184	14.172	14.172	(0.988)	5896	2.23456	2.23(M)
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	423710	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	126785	38.1521	38.2
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.435	14.435	(1.007)	37270	11.9968	12.0
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	15.384	15.384	(1.073)	5827	1.85580	1.86(M)
$	24 Fluoranthene-d10	212	16.449	16.449	(1.147)	542883	211.080	211
	25 Fluoranthene	202	16.487	16.487	(1.150)	215853	69.9447	69.9
	26 Pyrene	202	16.987	16.987	(0.890)	115108	36.2769	36.3
	27 Benzo(a)anthracene	228	19.004	19.004	(0.995)	3573	1.44380	1.44
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	322758	200.000	
	29 Chrysene	228	19.128	19.145	(1.002)	6501	2.64463	2.64
	30 Benzo(b)fluoranthene	252	21.094	21.104	(0.944)	1485	0.64767	0.648
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	35 Benzo(a)pyrene	252	Compound Not Detected.					
*	36 Perylene-d12	264	22.353	22.353	(1.000)	324161	200.000	
	37 Perylene	252	Compound Not Detected.					
$	38 Dibenzo(a,h)anthracene-d14	292	25.268	25.279	(1.130)	304157	196.075	196
	39 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	40 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	41 Benzo(g,h,i)perylene	276	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118070616.D
Lab Smp Id: 18F0248-01
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Misc Info:

Calibration Date: 06-JUL-2018
Calibration Time: 12:50
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	482266	11.81
11 Acenaphthene-d10	260137	130069	520274	256229	-1.50
18 Phenanthrene-d10	427391	213696	854782	423710	-0.86
28 Chrysene-d12	304596	152298	609192	322758	5.96
36 Perylene-d12	263091	131546	526182	324161	23.21

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118070616.D

Lab ID: 18F0248-01
nt11.i, 20180706.b\LOWSIM.m,   06-JUL-2018 21:27

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

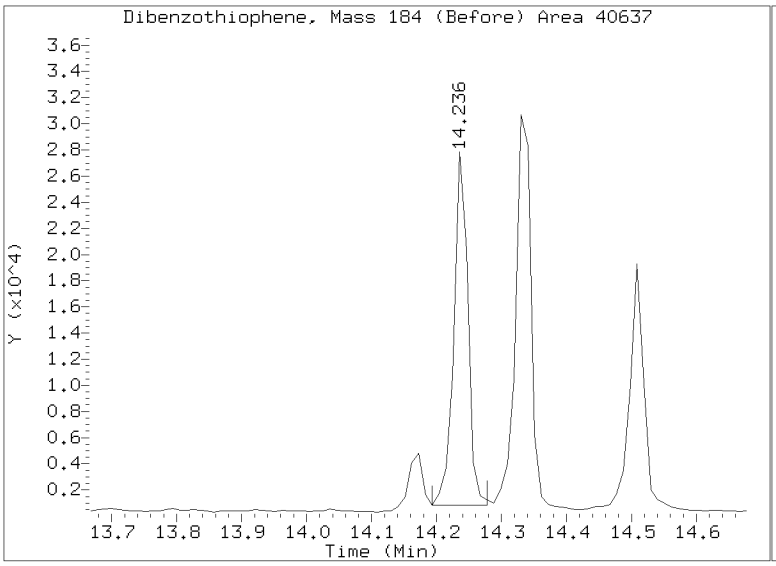
On Column LOD for nt11.i, 20180706.b\LOWSIM.m, allpna.sub = 0.0000

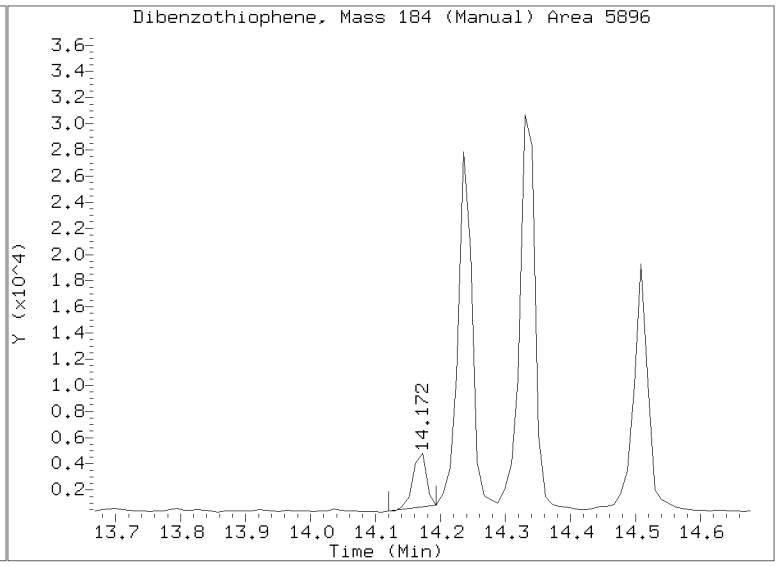
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

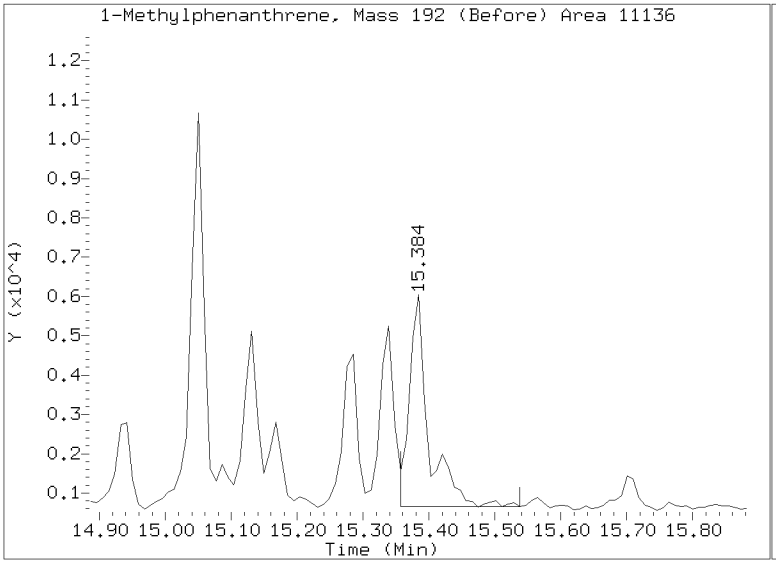
* Only compounds listed in the work order have been verified by the analyst *

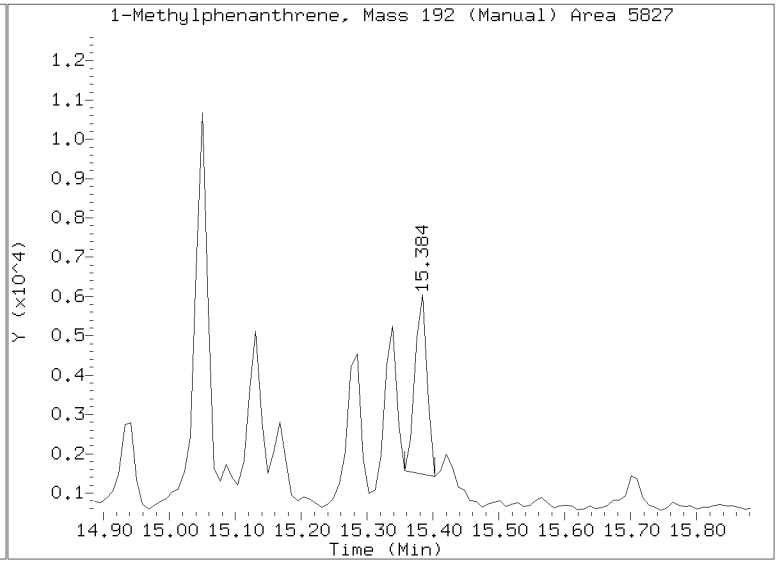
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20180706.b/NT1118070616.D
Injection Date: 06-JUL-2018 21:27
Lab ID:18F0248-01 Client ID:
Report Date: 07/07/2018 07:57









Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-45

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-02	SDG:	18F0185
Sampled:	06/15/18 13:45	Prepared:	06/21/18 13:35	File ID:	NT1118070617.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	07/06/18 22:03
Batch:	BGF0530	Sequence:	SGG0067	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.003	J	0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.002	J	0.001	0.010
208-96-8	Acenaphthylene	1	0.010	U	0.002	0.010
83-32-9	Acenaphthene	1	0.010	U	0.003	0.010
86-73-7	Fluorene	1	0.002	J	0.002	0.010
85-01-8	Phenanthrene	1	0.007	J	0.001	0.010
120-12-7	Anthracene	1	0.010	U	0.001	0.010
206-44-0	Fluoranthene	1	0.005	J	0.002	0.010
129-00-0	Pyrene	1	0.002	J	0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.010	U	0.0008	0.010
218-01-9	Chrysene	1	0.010	U	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.010	U	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.173	57.8	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.193	64.2	29 - 120	
Fluoranthene-d10	0.30000	0.206	68.7	57 - 120	

Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070617.D

Date : 06-JUL-2018 22:03

Client ID:

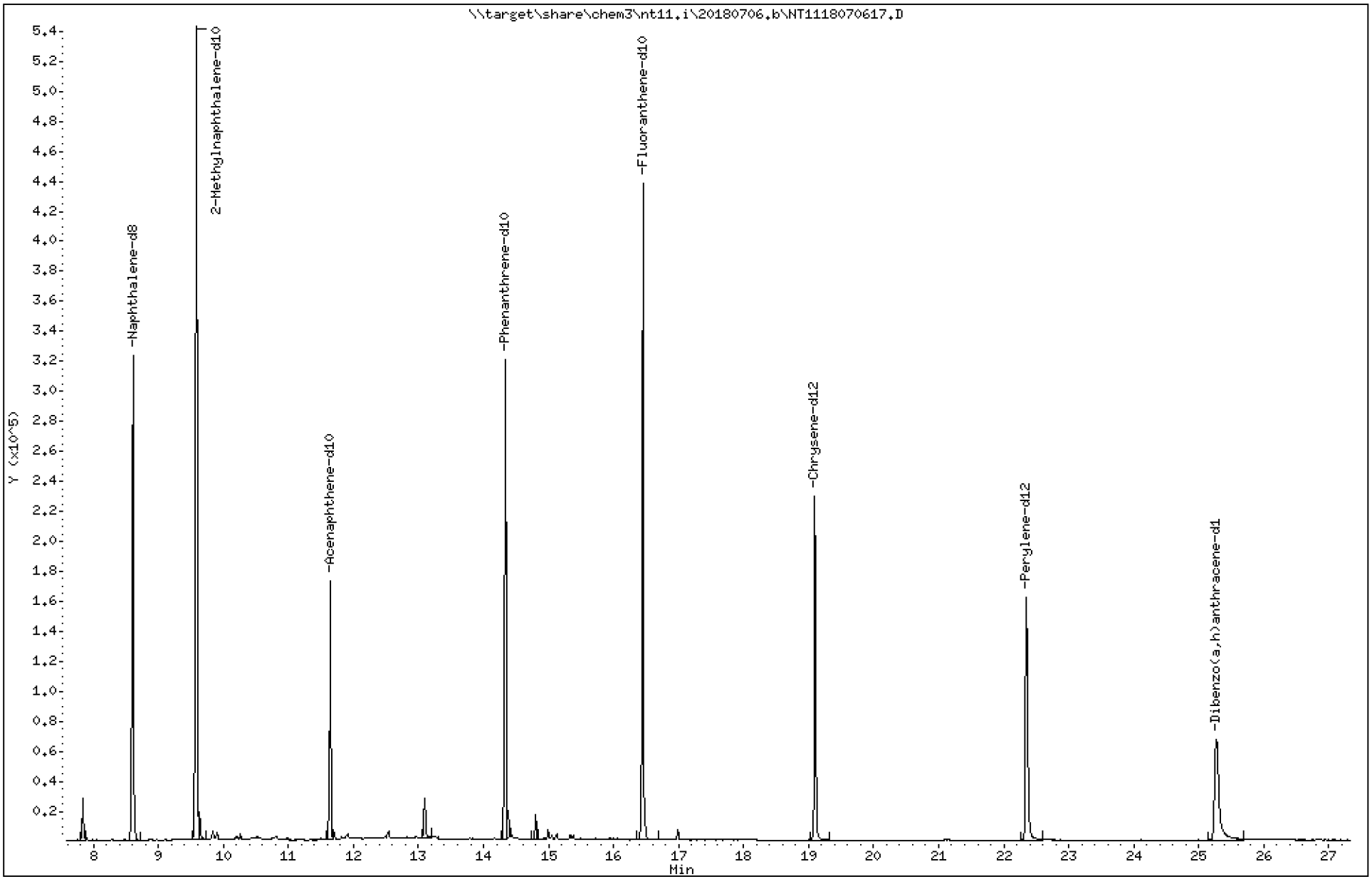
Instrument: nt11.i

Sample Info: 18F0248-02

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 06-JUL-2018 22:03

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-02

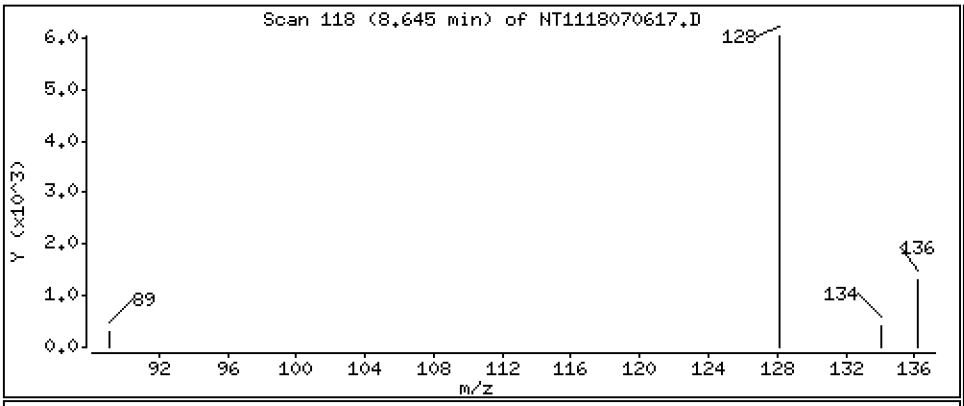
Operator: VTS

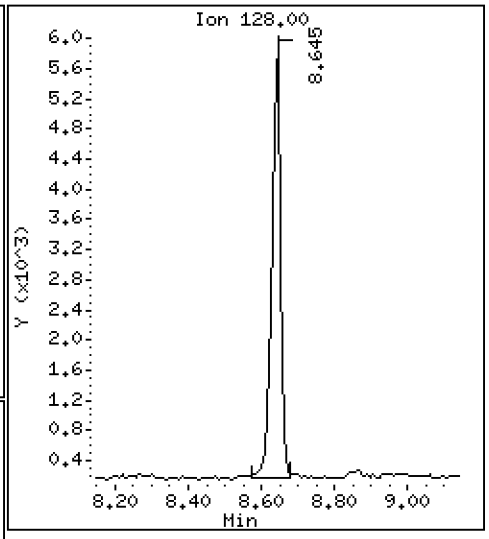
Column phase: Rxi-17Sil MS

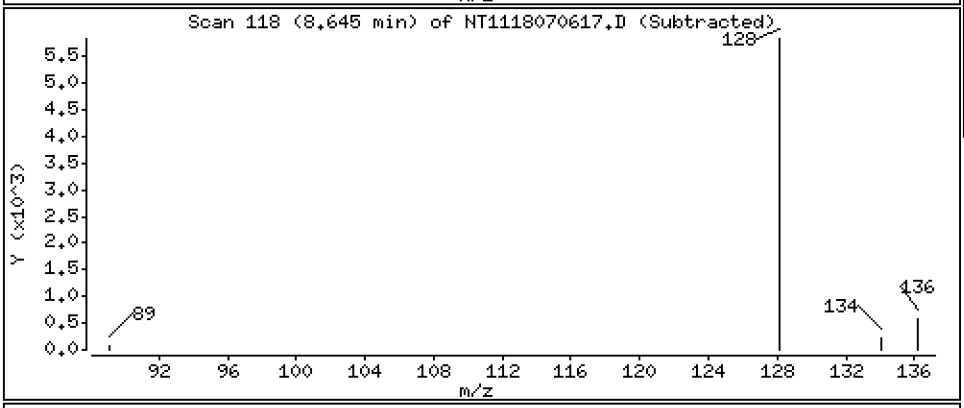
Column diameter: 0.25

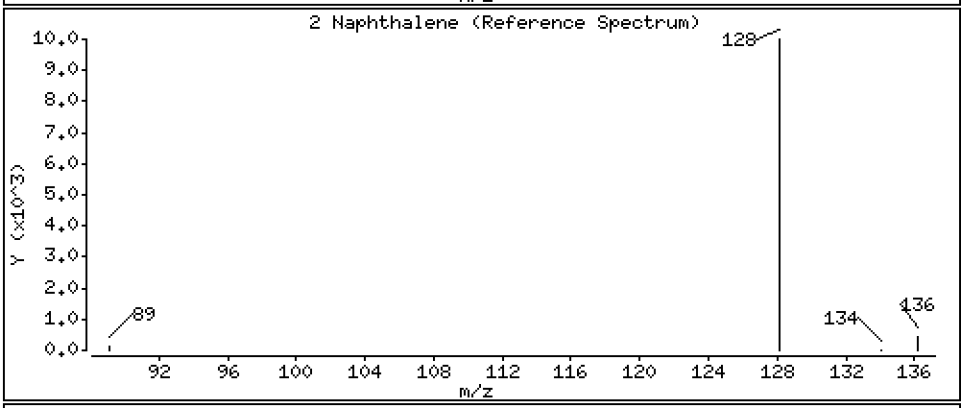
2 Naphthalene

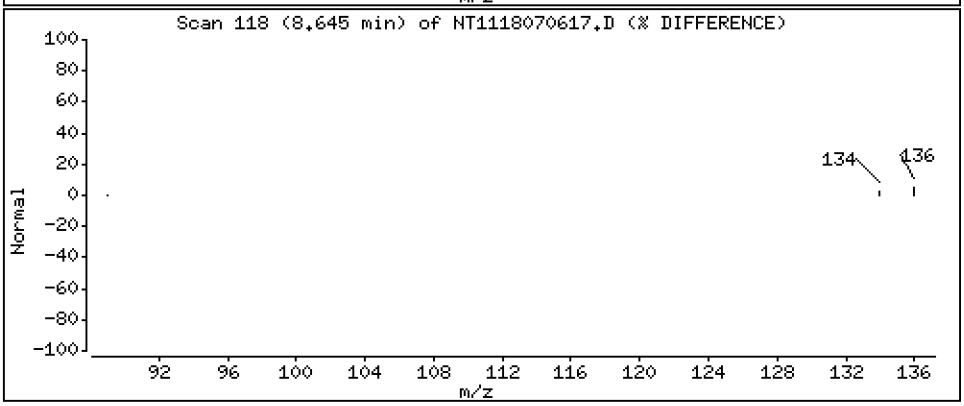
Concentration: 2.64 ng/mL











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Date : 06-JUL-2018 22:03

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-02

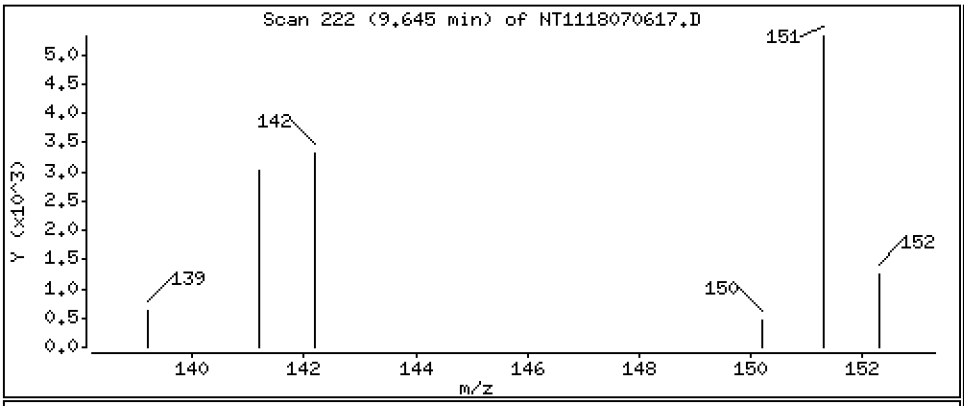
Operator: VTS

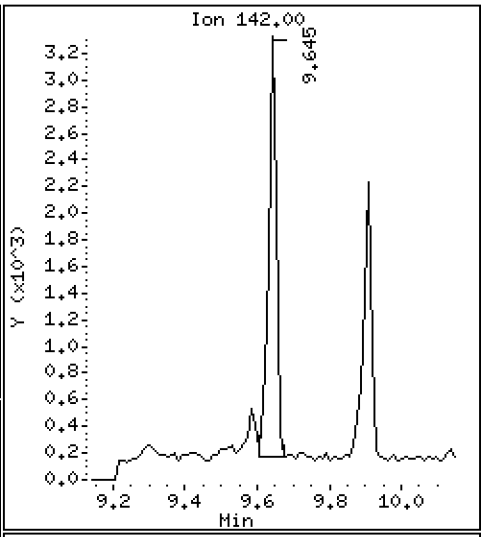
Column phase: Rxi-17Sil MS

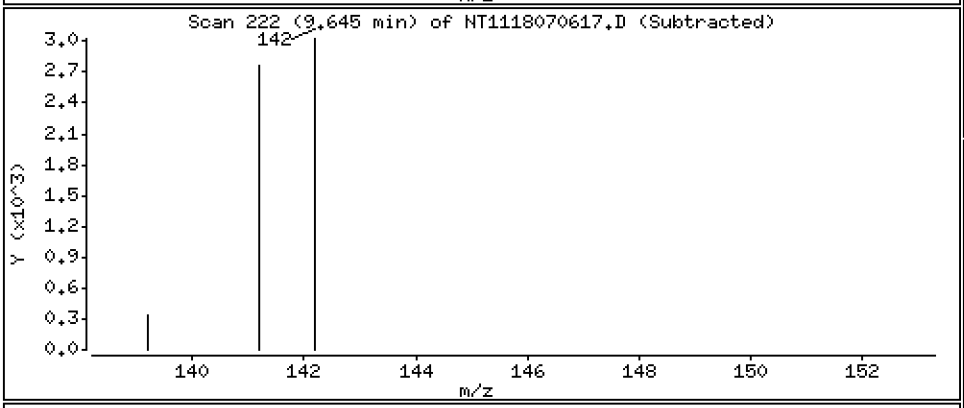
Column diameter: 0.25

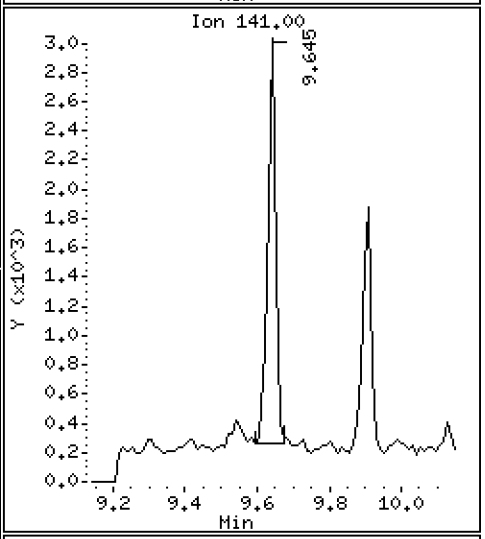
5 2-Methylnaphthalene

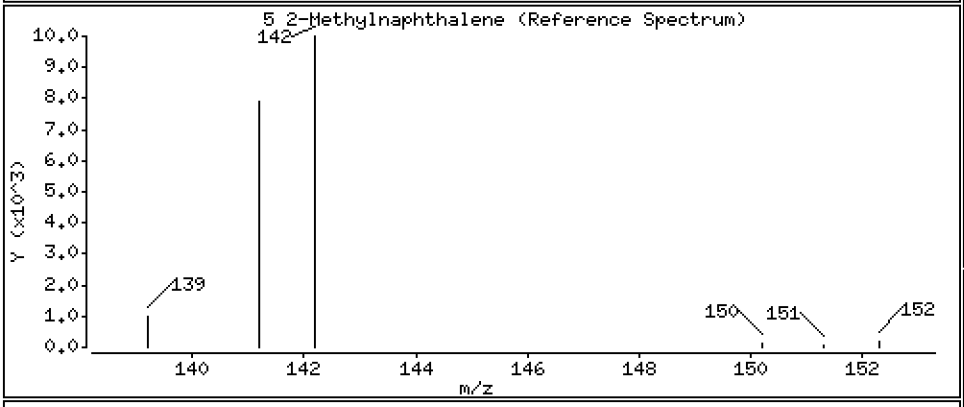
Concentration: 1.62 ng/mL

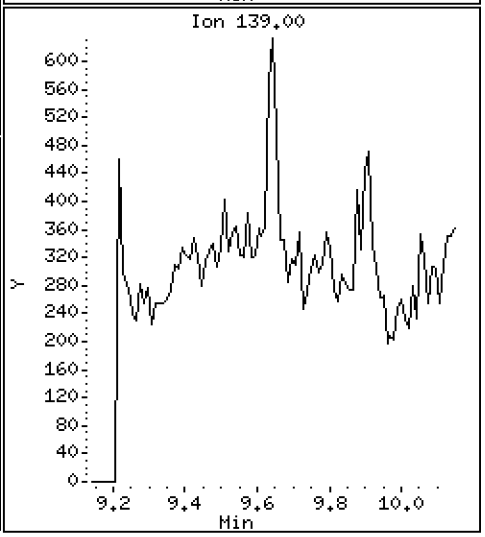


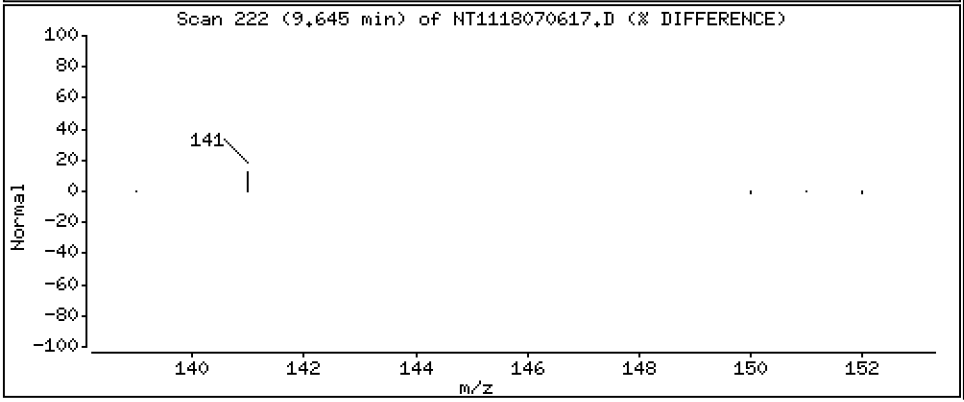












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Date : 06-JUL-2018 22:03

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-02

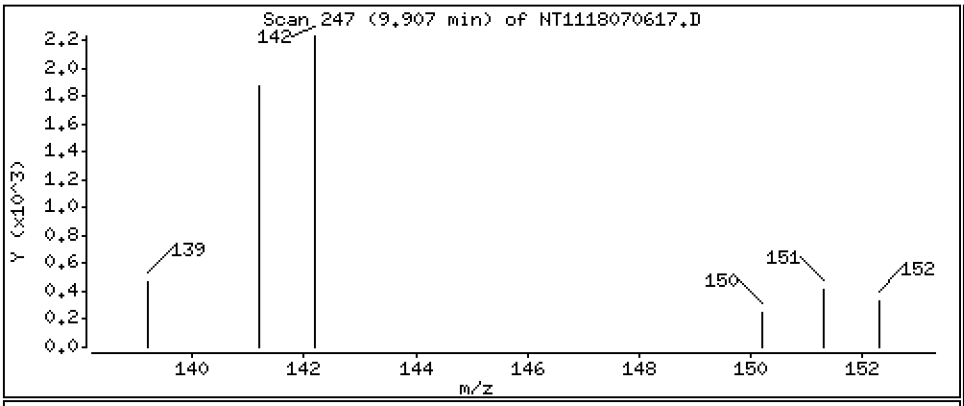
Operator: VTS

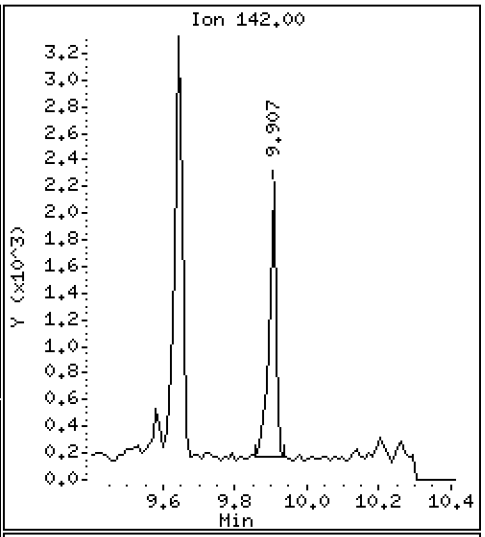
Column phase: Rxi-17Sil MS

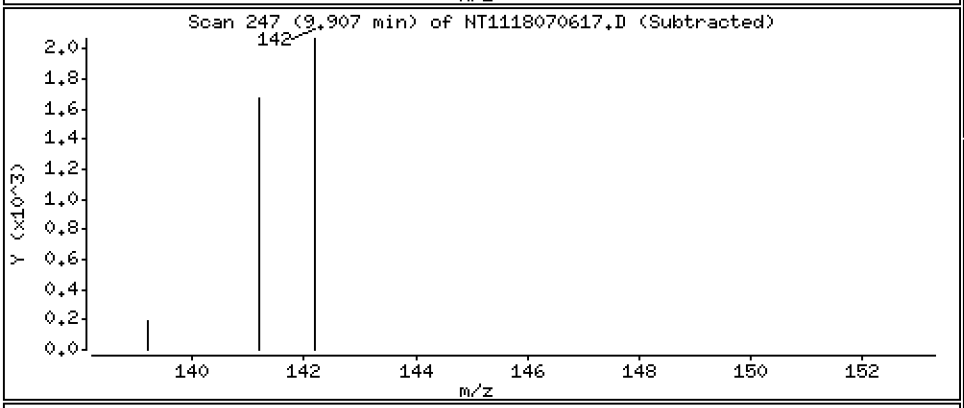
Column diameter: 0.25

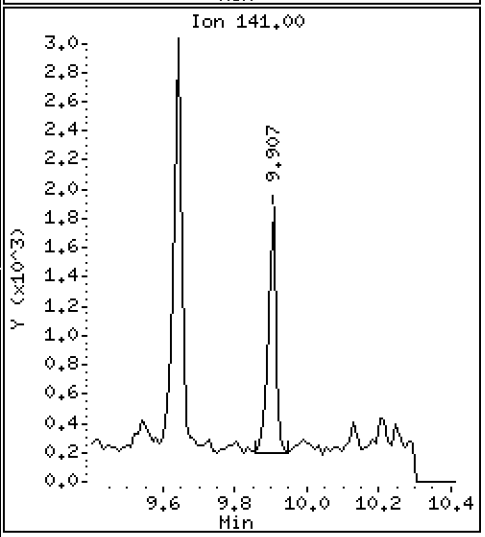
6 1-Methylnaphthalene

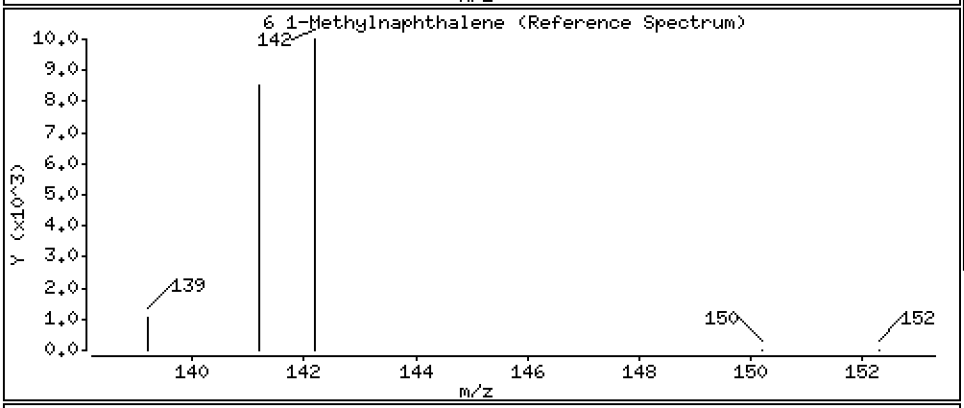
Concentration: 1.08 ng/mL

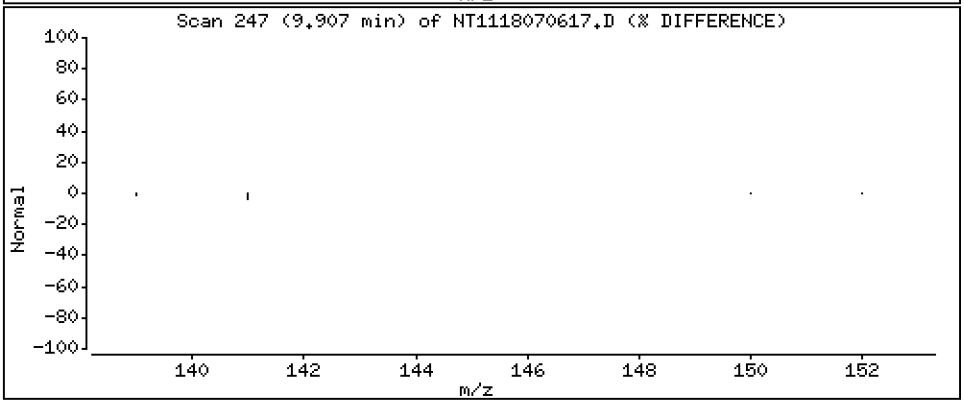












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Date : 06-JUL-2018 22:03

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-02

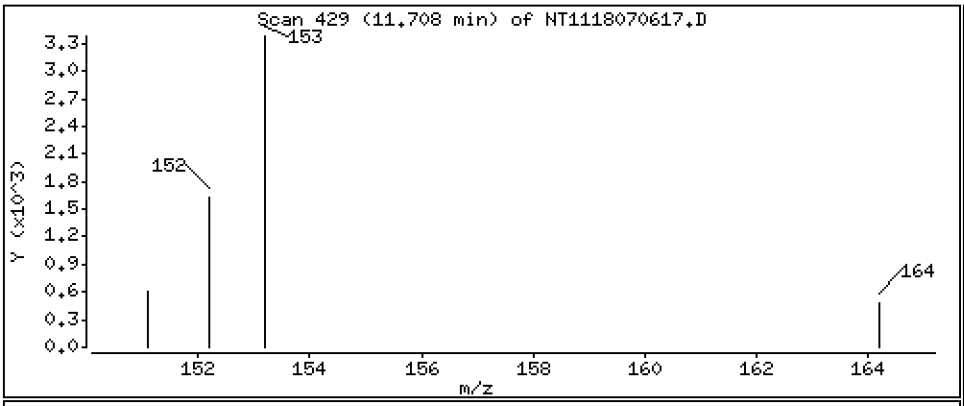
Operator: VTS

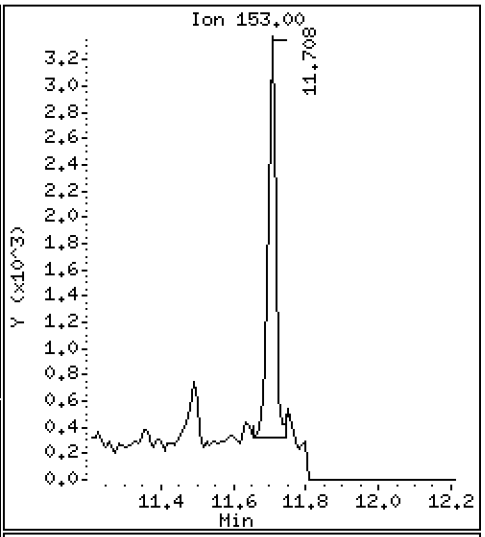
Column phase: Rxi-17Sil MS

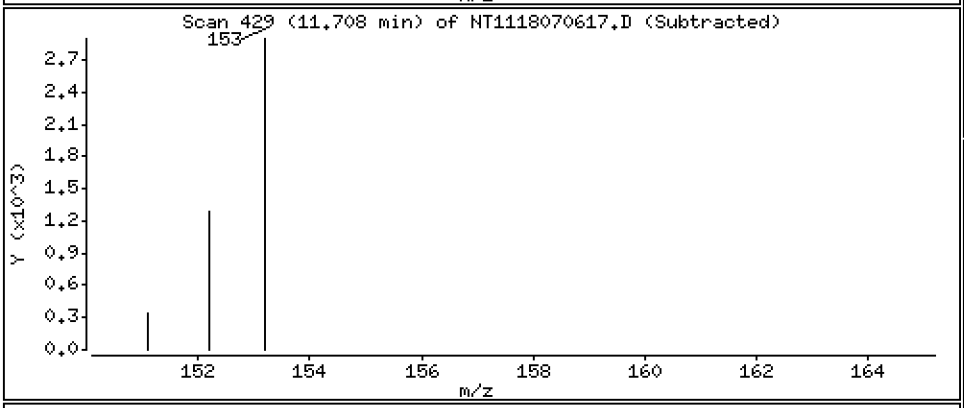
Column diameter: 0.25

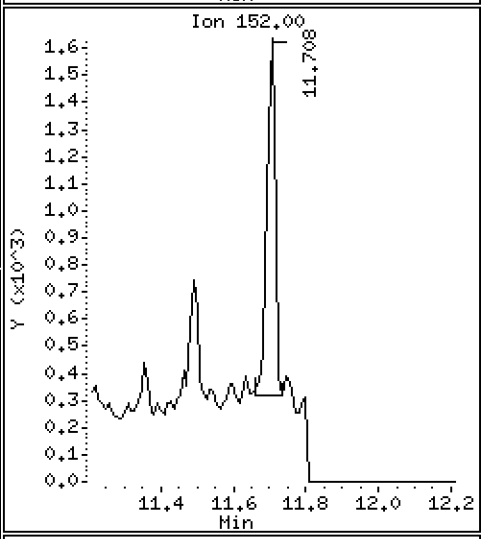
12 Acenaphthene

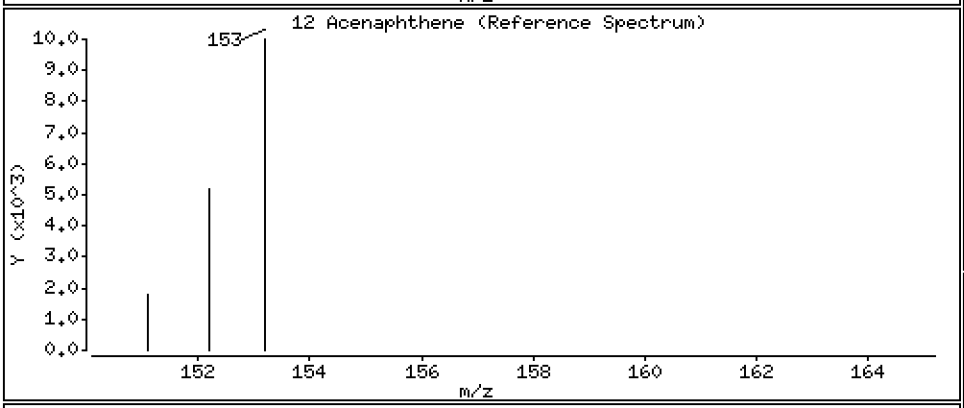
Concentration: 2.08 ng/mL

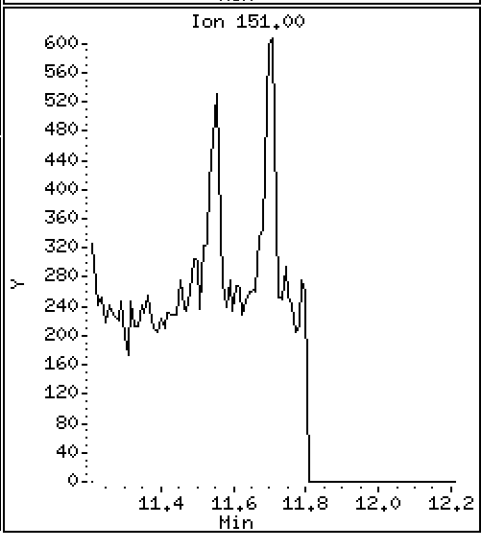


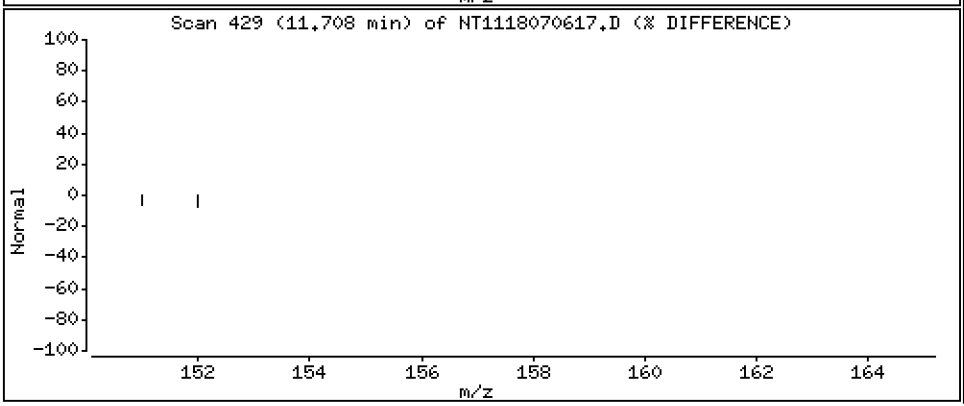












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Date : 06-JUL-2018 22:03

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-02

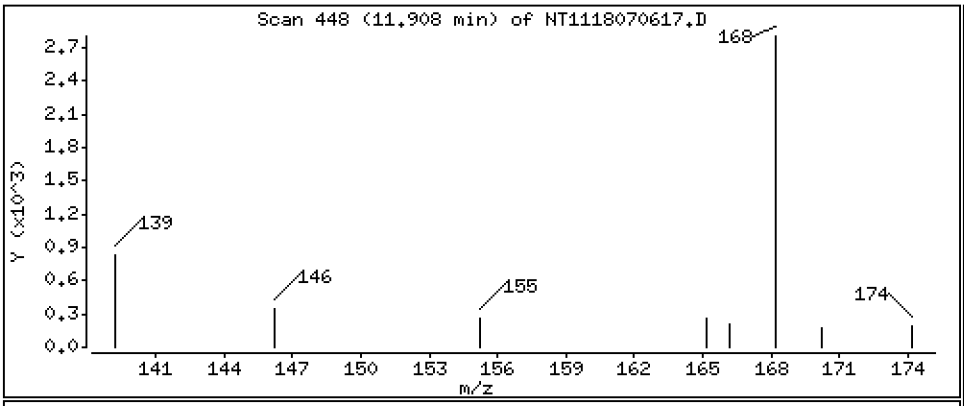
Operator: VTS

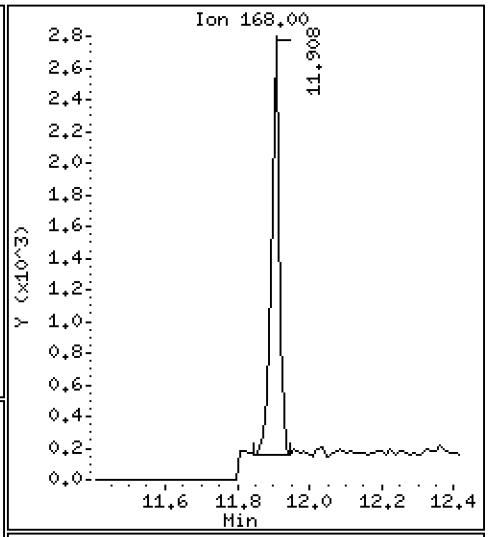
Column phase: Rxi-17Sil MS

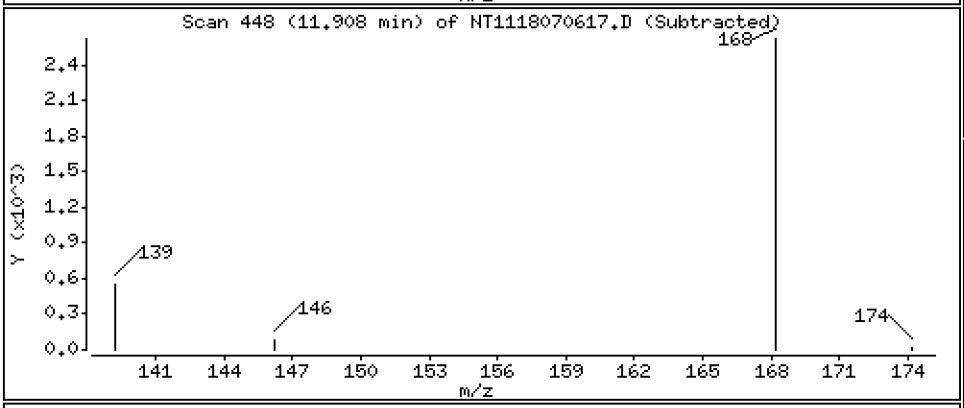
Column diameter: 0.25

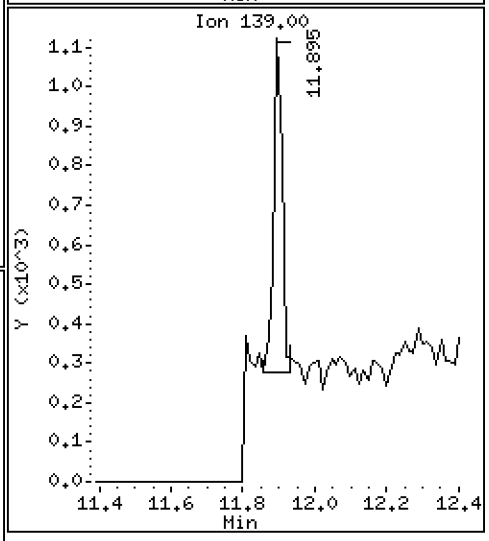
13 Dibenzofuran

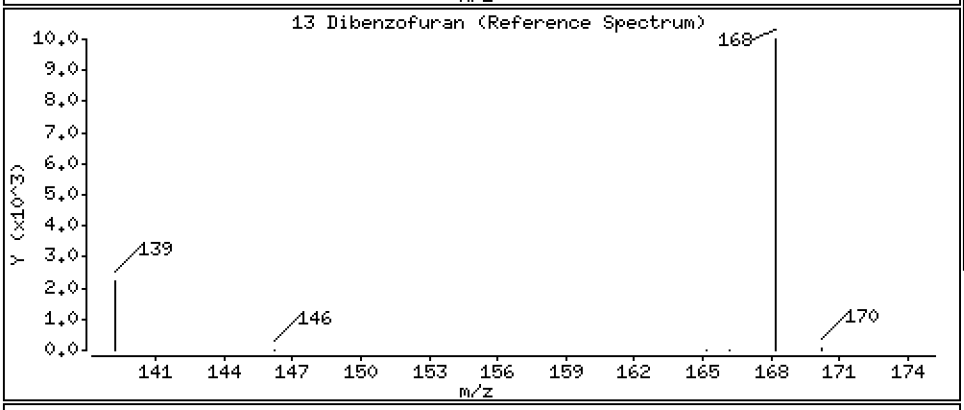
Concentration: 1.36 ng/mL

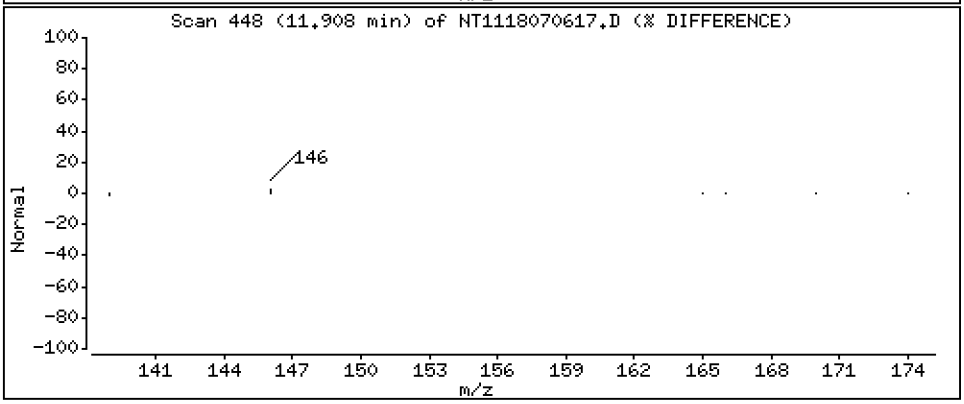












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Date : 06-JUL-2018 22:03

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-02

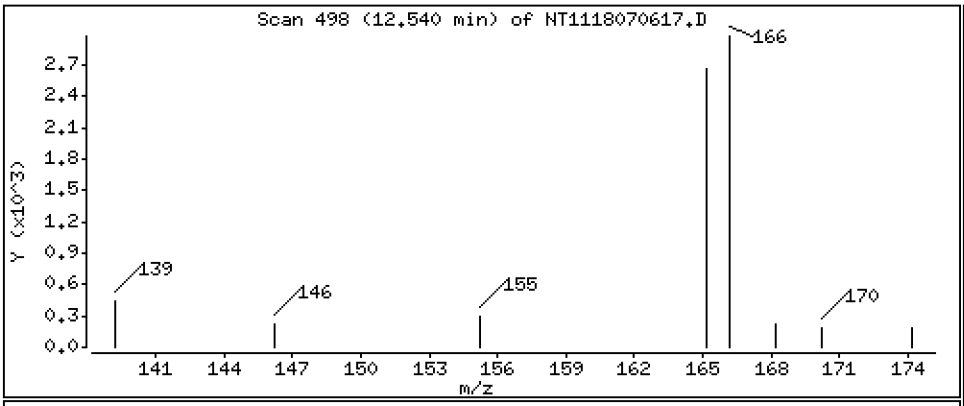
Operator: VTS

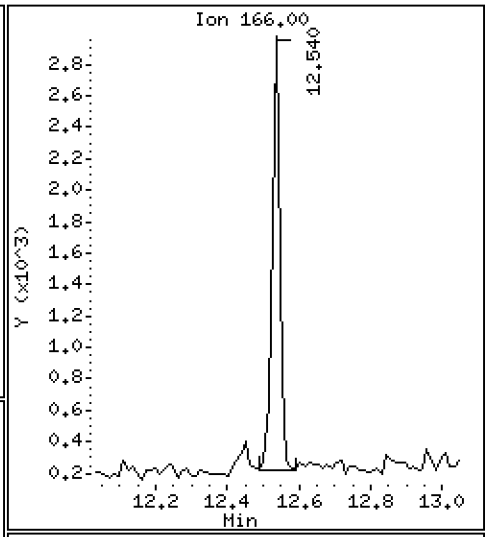
Column phase: Rxi-17Sil MS

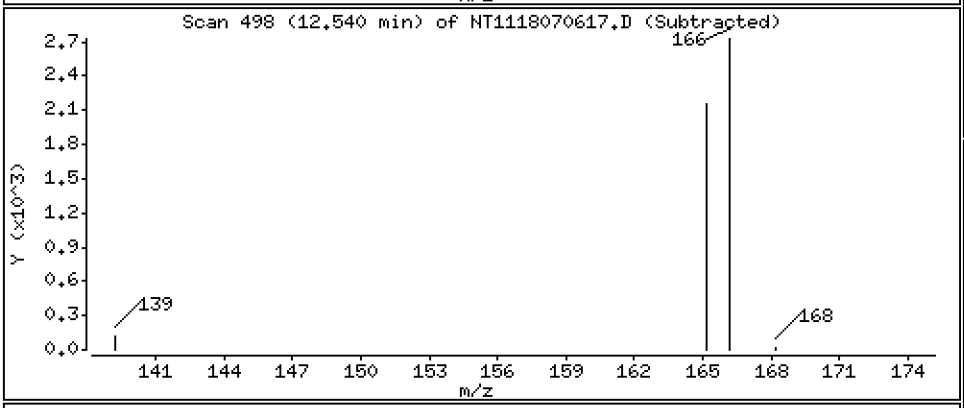
Column diameter: 0.25

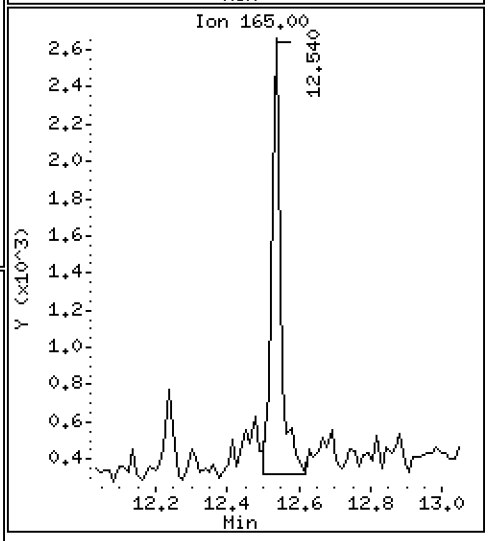
16 Fluorene

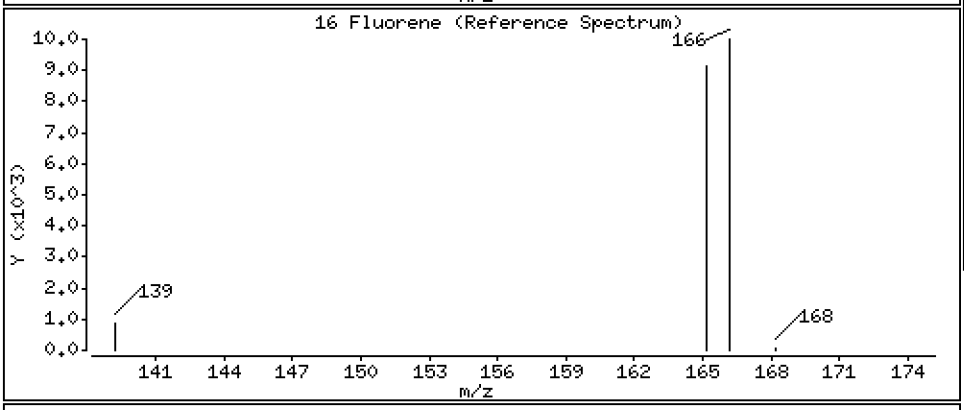
Concentration: 1.82 ng/mL

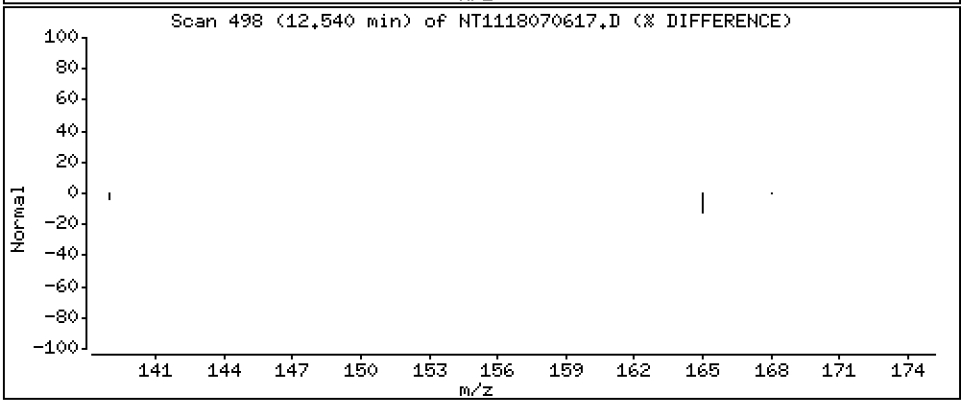












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Date : 06-JUL-2018 22:03

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-02

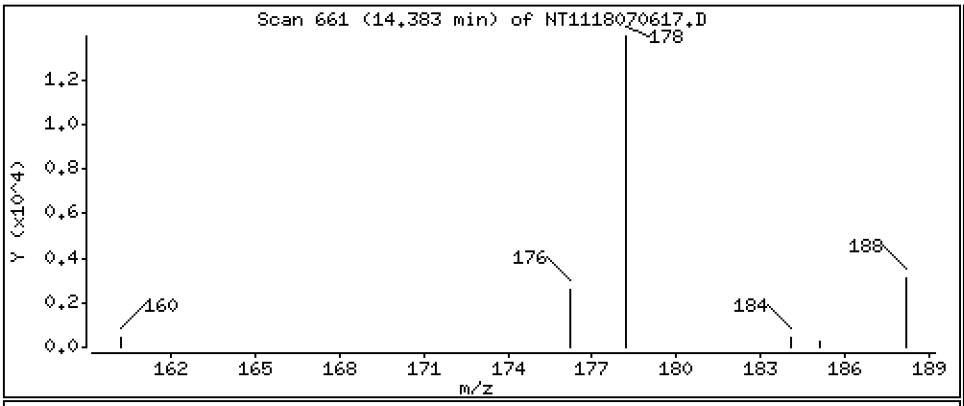
Operator: VTS

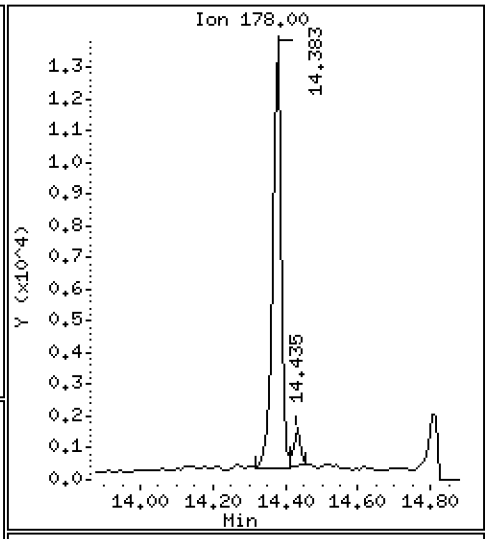
Column phase: Rxi-17Sil MS

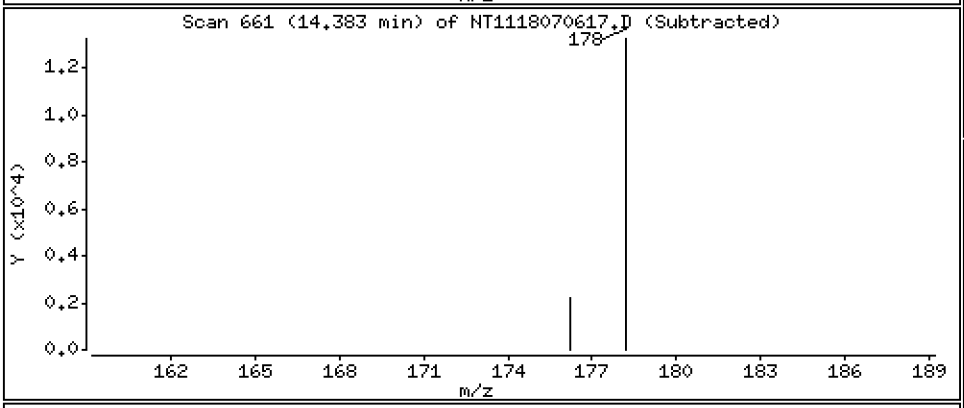
Column diameter: 0.25

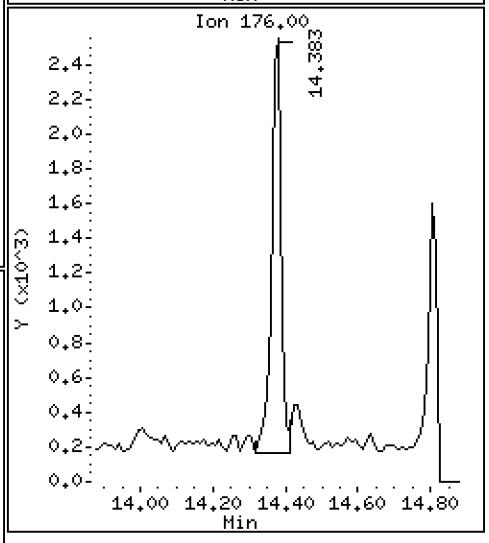
19 Phenanthrene

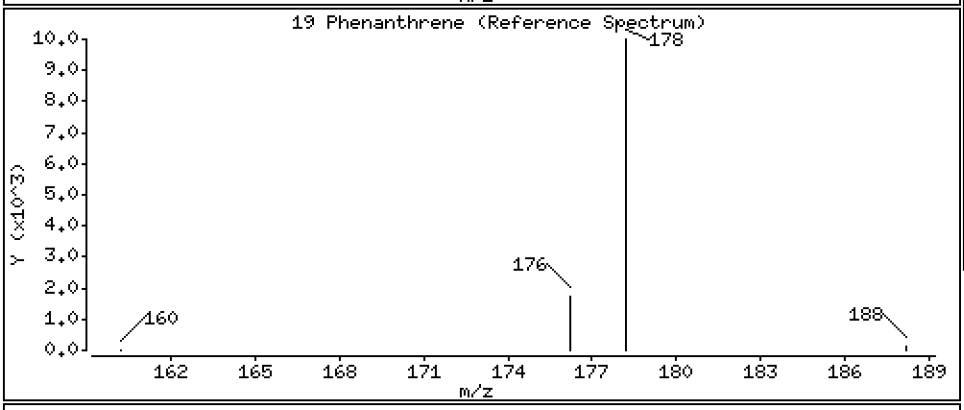
Concentration: 6.65 ng/mL

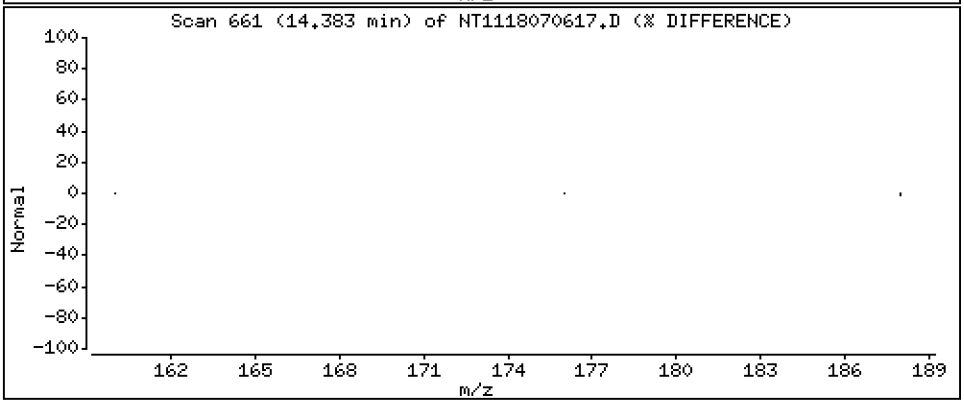












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Date : 06-JUL-2018 22:03

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-02

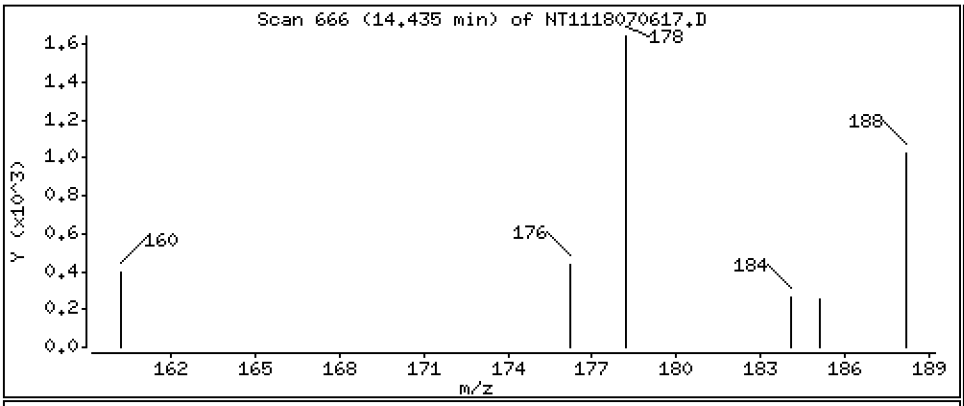
Operator: VTS

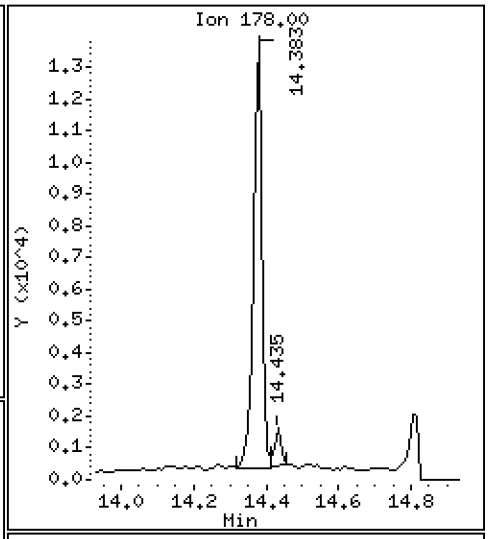
Column phase: Rxi-17Sil MS

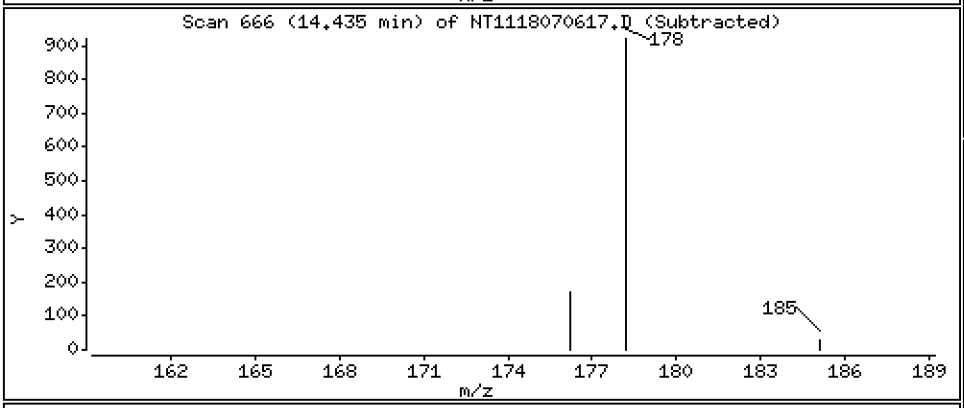
Column diameter: 0.25

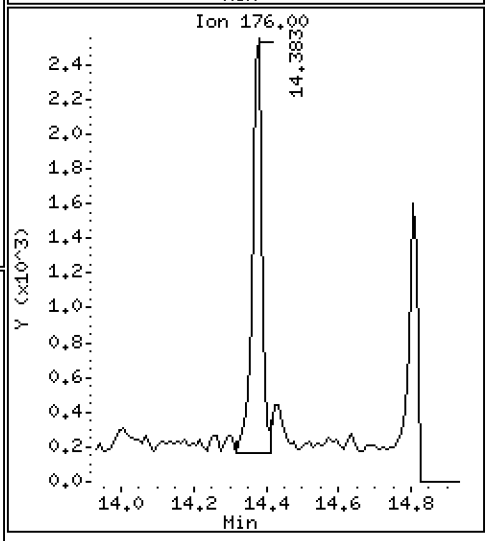
21 Anthracene

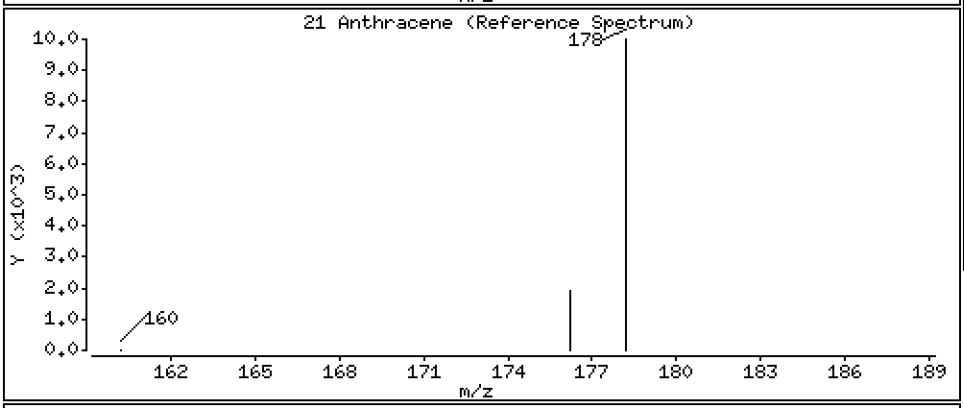
Concentration: 0.505 ng/mL

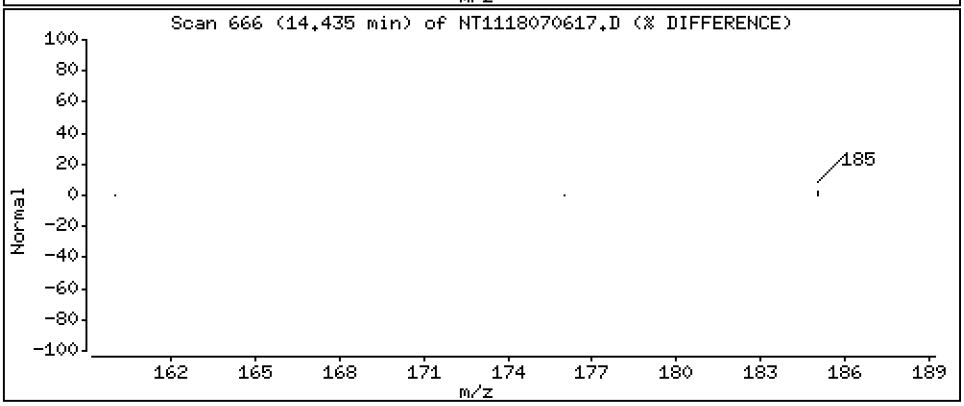












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Date : 06-JUL-2018 22:03

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-02

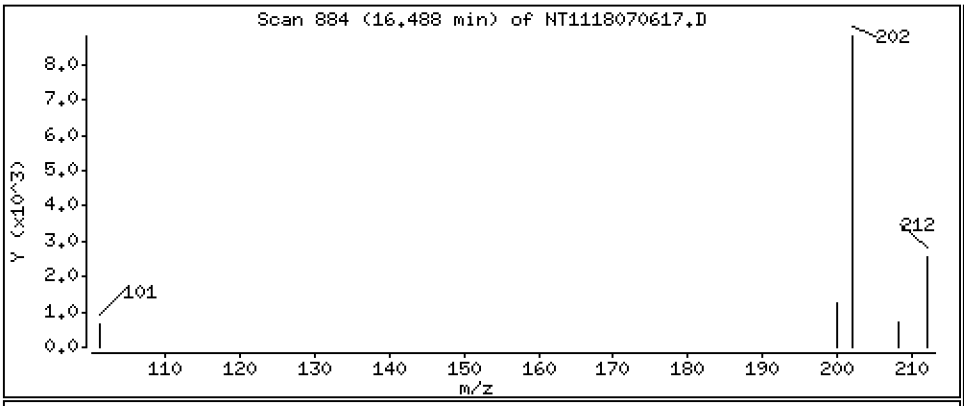
Operator: VTS

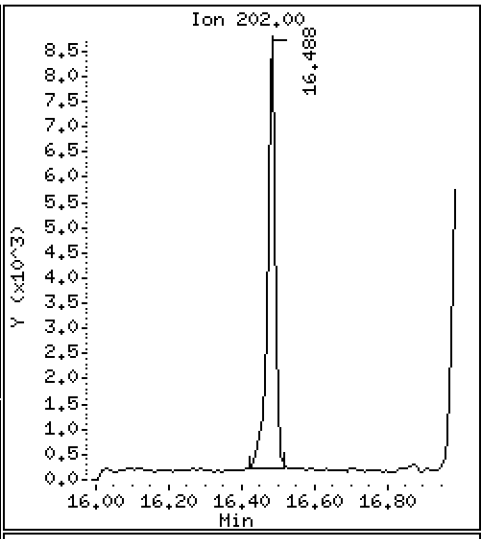
Column phase: Rxi-17Sil MS

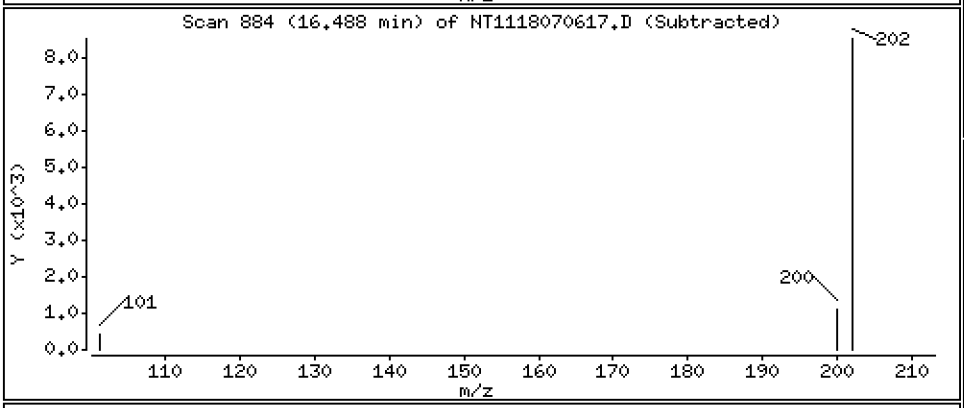
Column diameter: 0.25

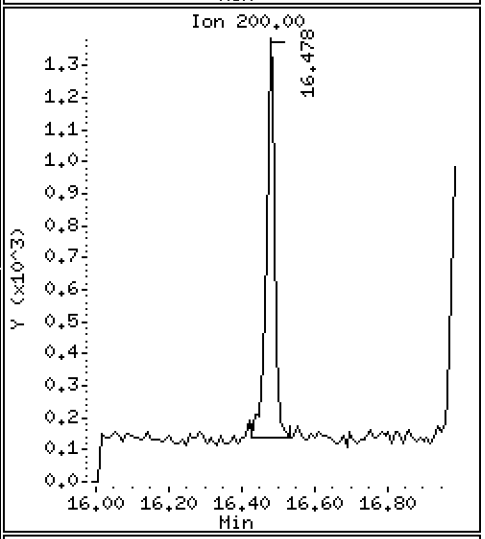
25 Fluoranthene

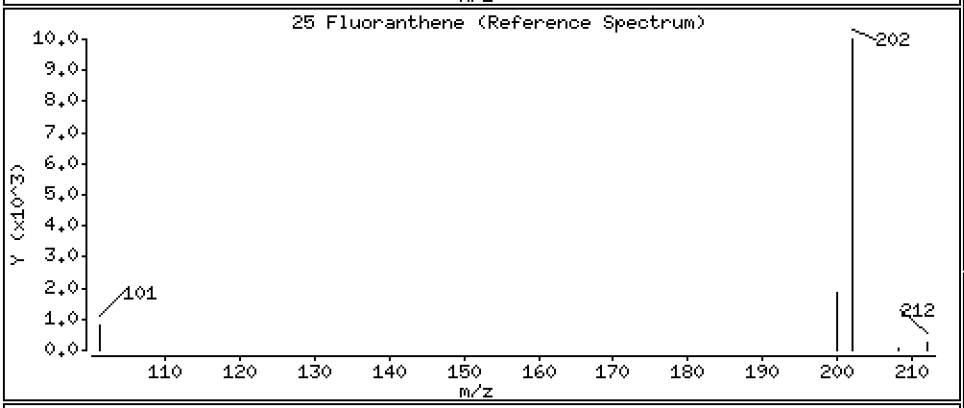
Concentration: 4.52 ng/mL

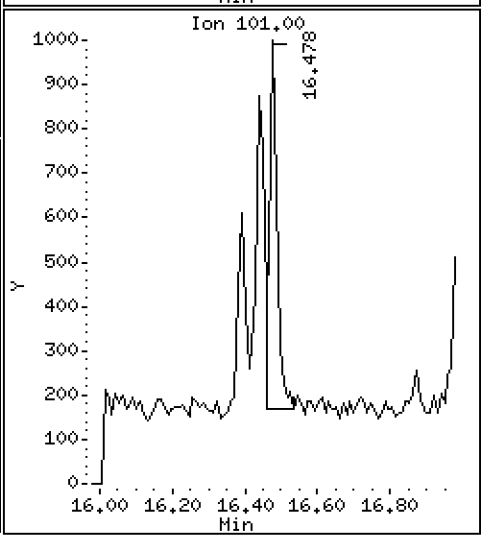


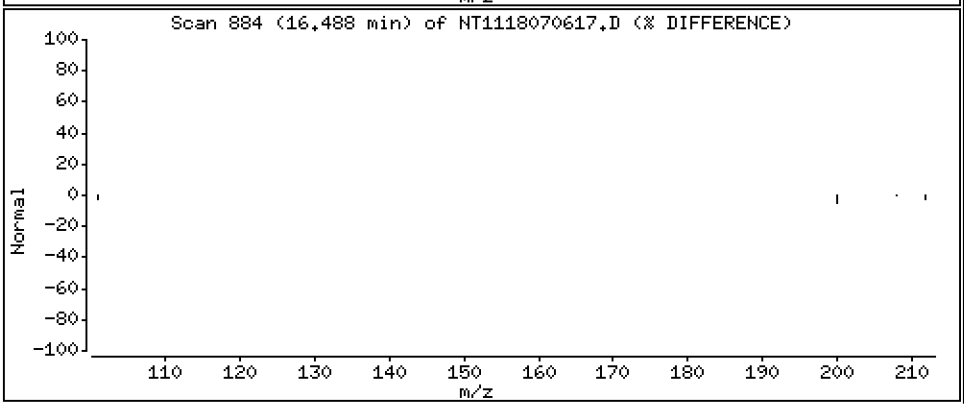












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Date : 06-JUL-2018 22:03

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-02

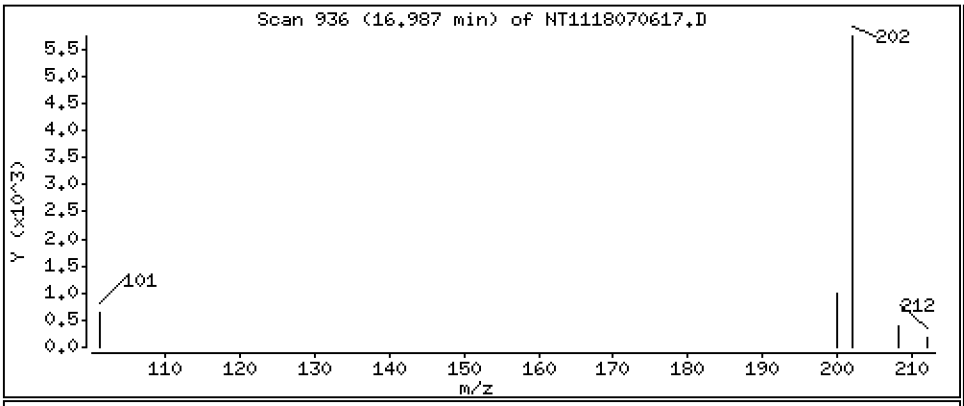
Operator: VTS

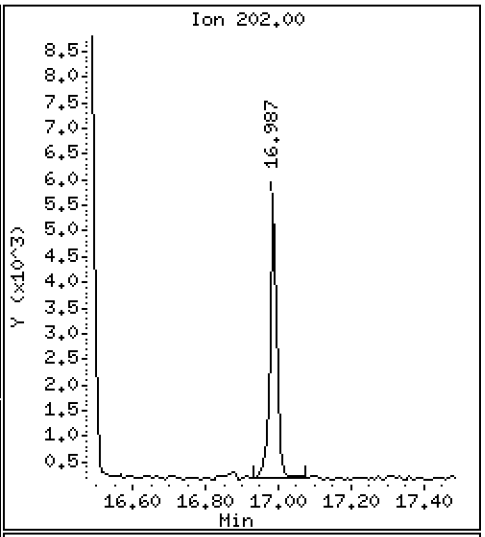
Column phase: Rxi-17Sil MS

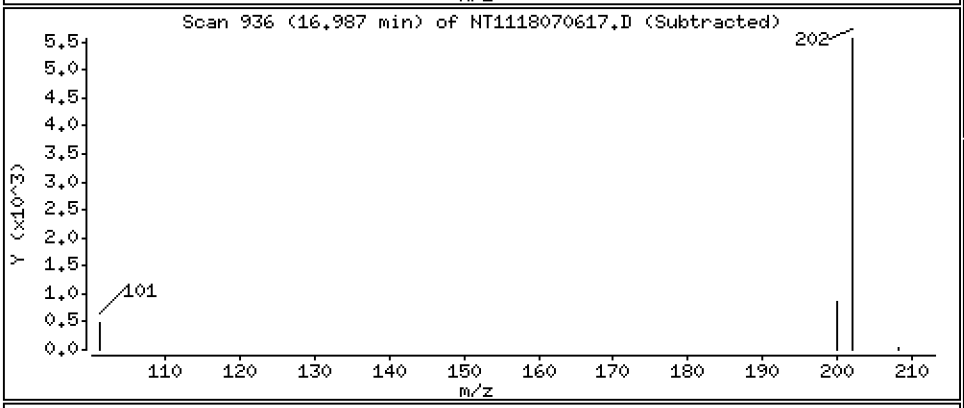
Column diameter: 0.25

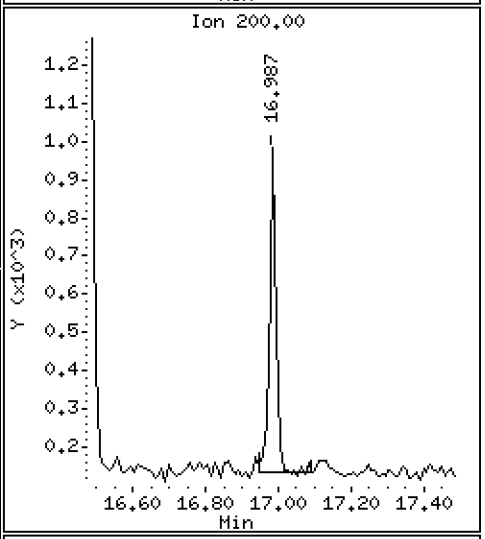
26 Pyrene

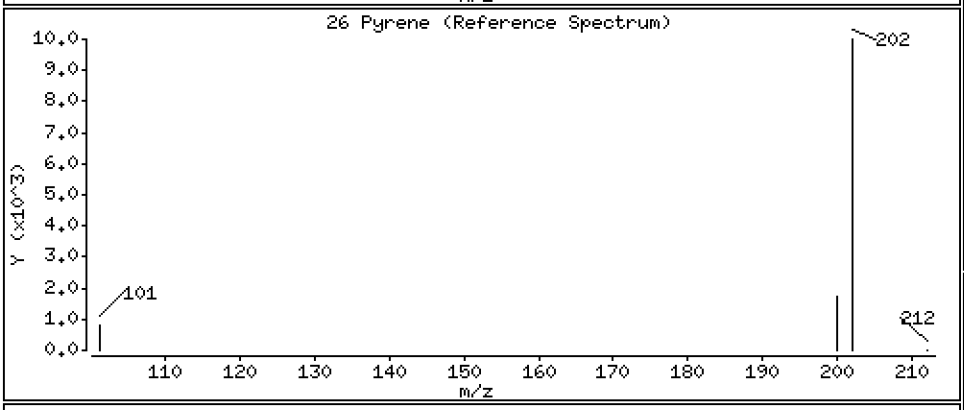
Concentration: 2.29 ng/mL

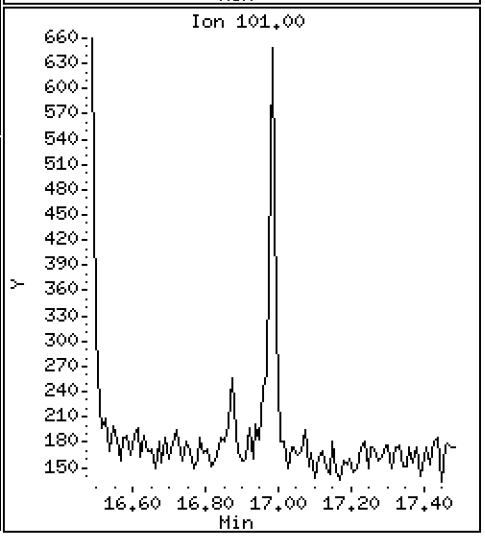


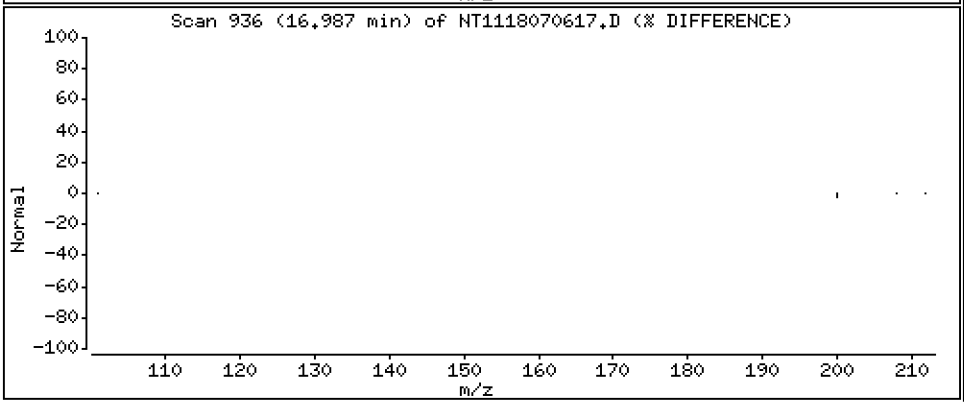












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180706.b\NT1118070617.D
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Inj Date : 06-JUL-2018 22:03 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0248-02
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Meth Date : 06-Jul-2018 13:13 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	482862	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	9593	2.63886	2.64
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	477790	173.425	173
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	4763	1.61934	1.62
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	3172	1.08435	1.08
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	254348	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	4309	2.08323	2.08
	13 Dibenzofuran	168	11.908	11.908	(1.023)	3851	1.35904	1.36
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.540	12.540	(1.077)	4155	1.81833	1.82
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	416626	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	21717	6.64618	6.65
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.435	14.435	(1.007)	1544	0.50545	0.505
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	Compound Not Detected.					
$	24 Fluoranthene-d10	212	16.449	16.449	(1.147)	521562	206.238	206
	25 Fluoranthene	202	16.487	16.487	(1.150)	13725	4.52305	4.52
	26 Pyrene	202	16.987	16.987	(0.890)	7713	2.28543	2.29
	27 Benzo(a)anthracene	228	Compound Not Detected.					
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	343287	200.000	
	29 Chrysene	228	Compound Not Detected.					
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
35	Benzo(a)pyrene	252	Compound Not Detected.					
* 36	Perylene-d12	264	22.353	22.353	(1.000)	337590	200.000	
37	Perylene	252	Compound Not Detected.					
$ 38	Dibenzo(a,h)anthracene-d14	292	25.268	25.279	(1.130)	311108	192.578	193
39	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
40	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
41	Benzo(g,h,i)perylene	276	Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118070617.D
Lab Smp Id: 18F0248-02
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Misc Info:

Calibration Date: 06-JUL-2018
Calibration Time: 12:50
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	482862	11.95
11 Acenaphthene-d10	260137	130069	520274	254348	-2.23
18 Phenanthrene-d10	427391	213696	854782	416626	-2.52
28 Chrysene-d12	304596	152298	609192	343287	12.70
36 Perylene-d12	263091	131546	526182	337590	28.32

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118070617.D

Lab ID: 18F0248-02
nt11.i, 20180706.b\LOWSIM.m,   06-JUL-2018 22:03

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180706.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-47

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-03	SDG:	18F0185
Sampled:	06/15/18 13:16	Prepared:	06/21/18 13:35	File ID:	NT1118070618.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	07/06/18 22:39
Batch:	BGF0530	Sequence:	SGG0067	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.003	J	0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.003	J	0.001	0.010
208-96-8	Acenaphthylene	1	0.010	U	0.002	0.010
83-32-9	Acenaphthene	1	0.010	U	0.003	0.010
86-73-7	Fluorene	1	0.003	J	0.002	0.010
85-01-8	Phenanthrene	1	0.008	J	0.001	0.010
120-12-7	Anthracene	1	0.010	U	0.001	0.010
206-44-0	Fluoranthene	1	0.003	J	0.002	0.010
129-00-0	Pyrene	1	0.002	J	0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.010	U	0.0008	0.010
218-01-9	Chrysene	1	0.010	U	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.010	U	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.176	58.6	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.199	66.3	29 - 120	
Fluoranthene-d10	0.30000	0.218	72.8	57 - 120	

Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070618.D

Date : 06-JUL-2018 22:39

Client ID:

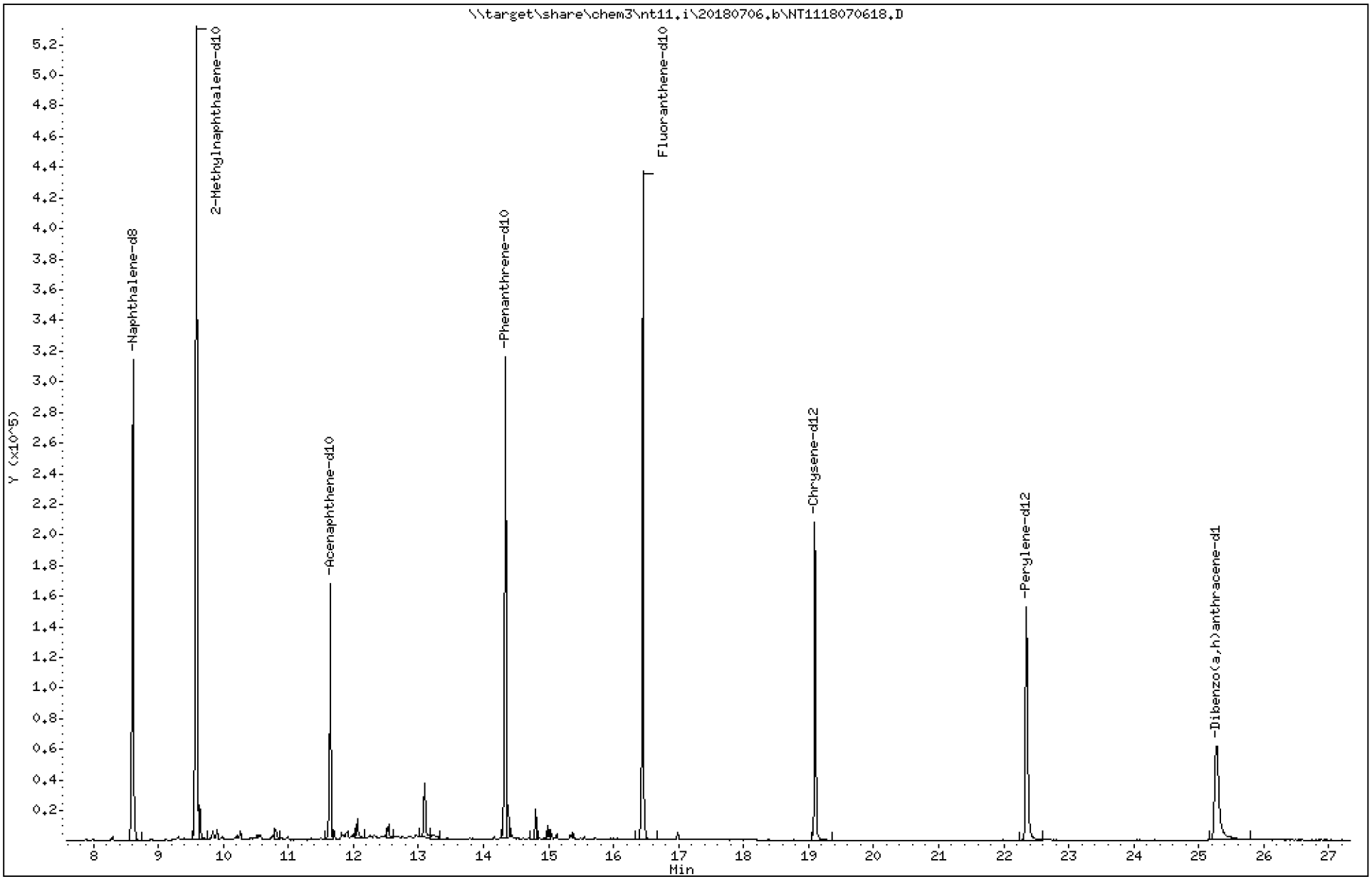
Instrument: nt11.i

Sample Info: 18F0248-03

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070618.D

Date : 06-JUL-2018 22:39

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-03

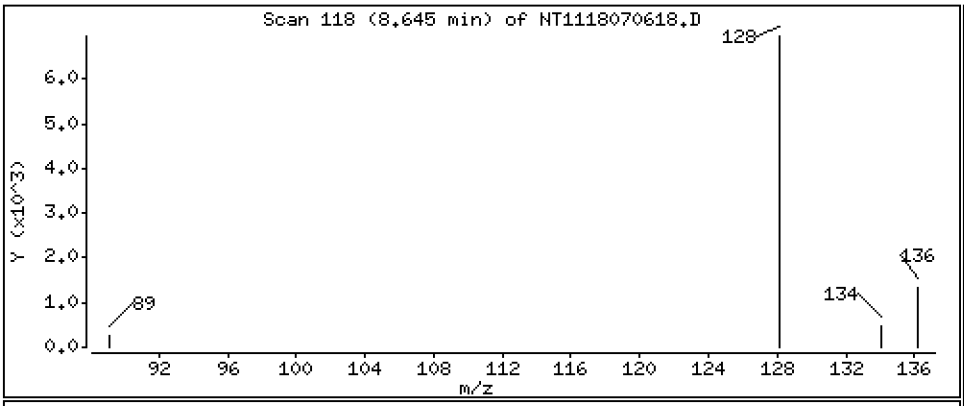
Operator: VTS

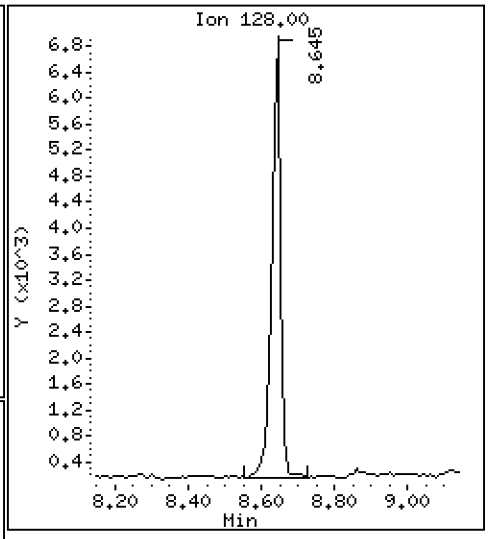
Column phase: Rxi-17Sil MS

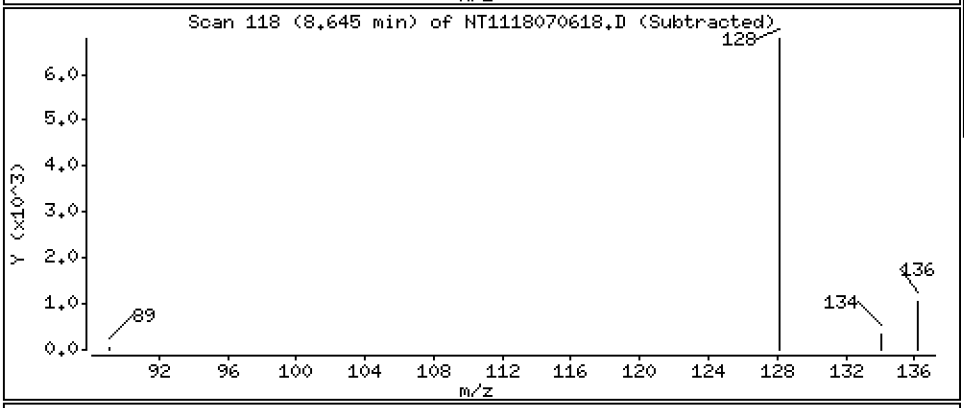
Column diameter: 0.25

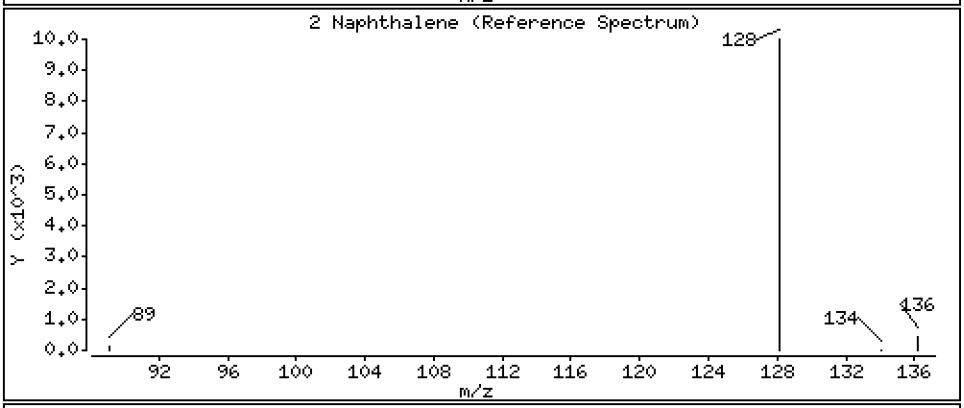
2 Naphthalene

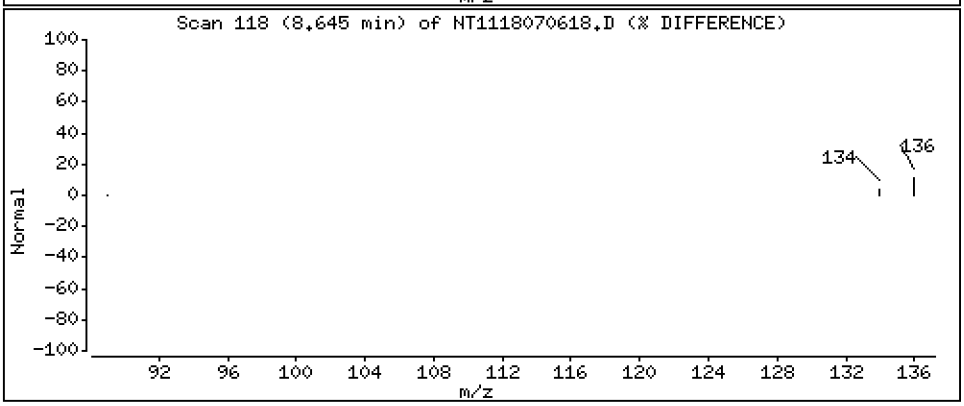
Concentration: 3.22 ng/mL











Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070618.D

Date : 06-JUL-2018 22:39

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-03

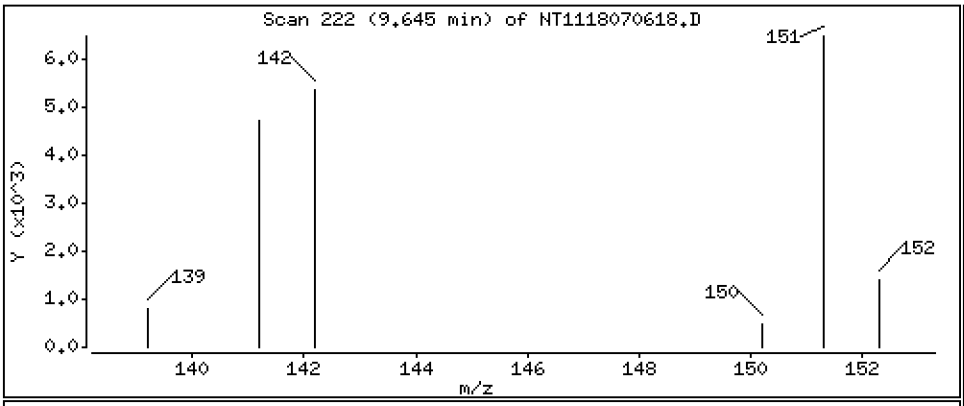
Operator: VTS

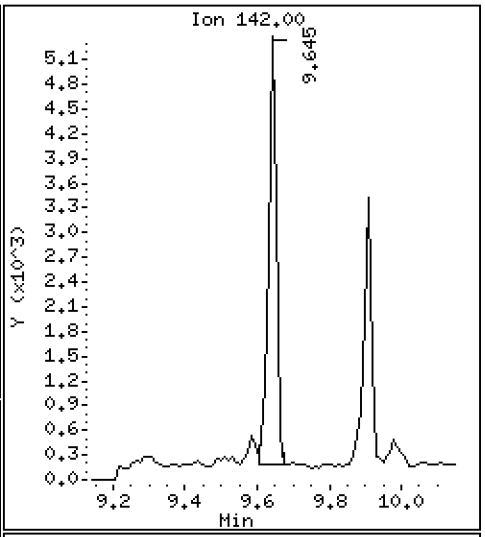
Column phase: Rxi-17Sil MS

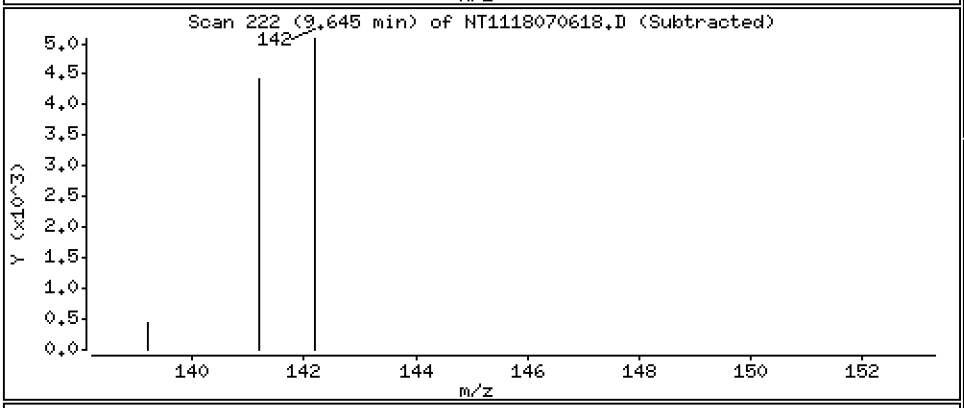
Column diameter: 0.25

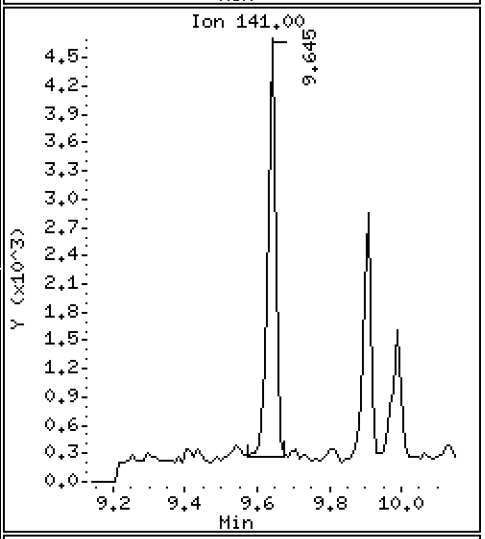
5 2-Methylnaphthalene

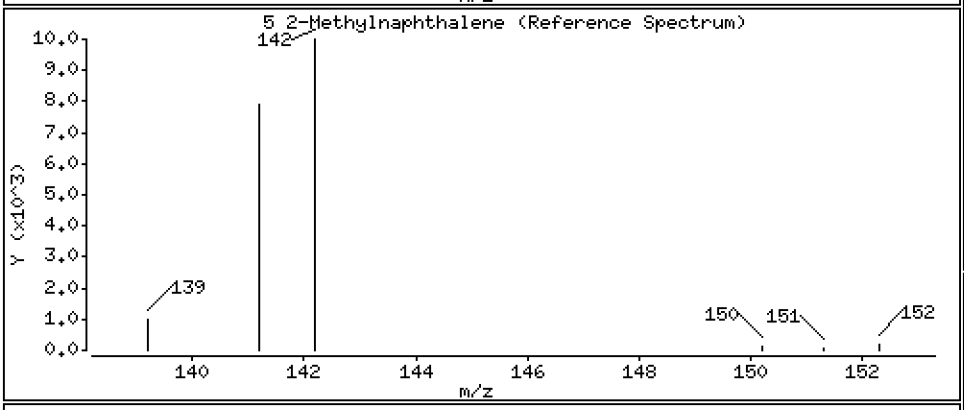
Concentration: 2.80 ng/mL

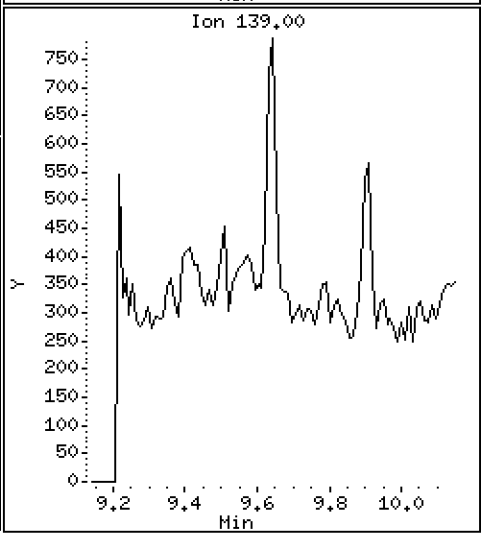


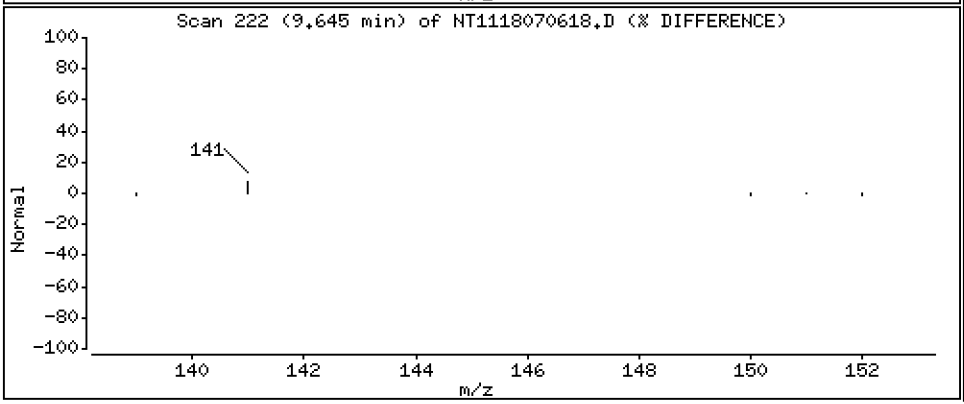












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Date : 06-JUL-2018 22:39

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-03

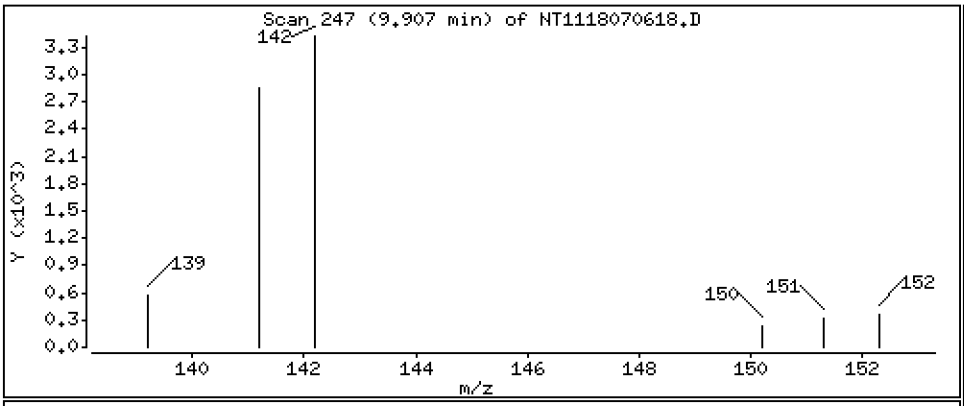
Operator: VTS

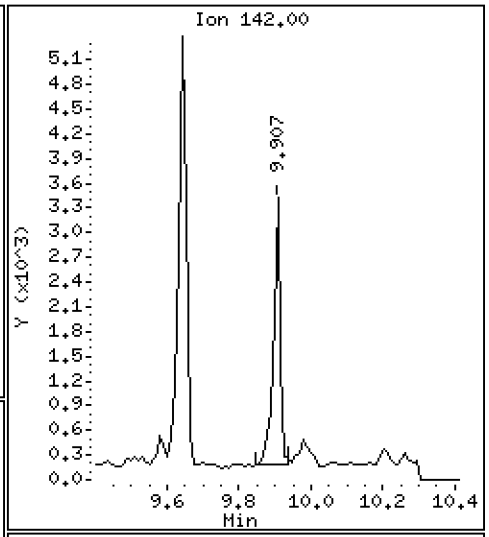
Column phase: Rxi-17Sil MS

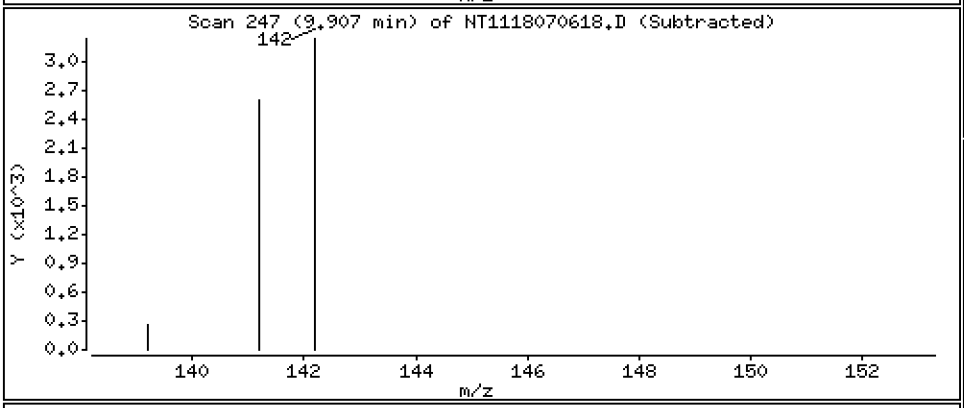
Column diameter: 0.25

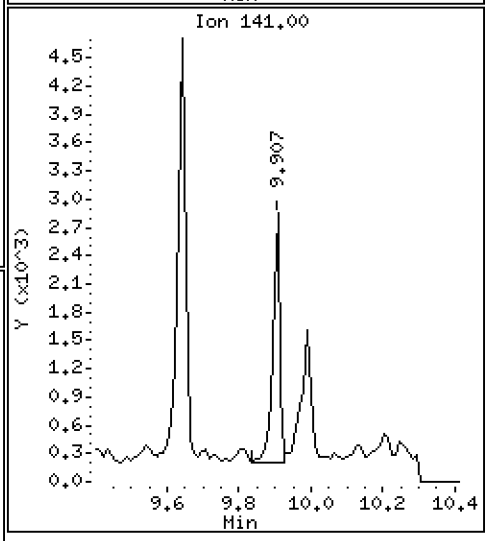
6 1-Methylnaphthalene

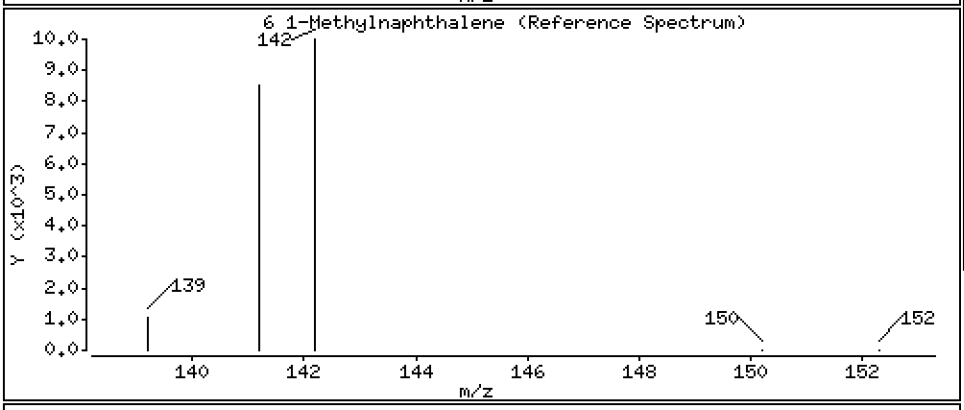
Concentration: 1.68 ng/mL

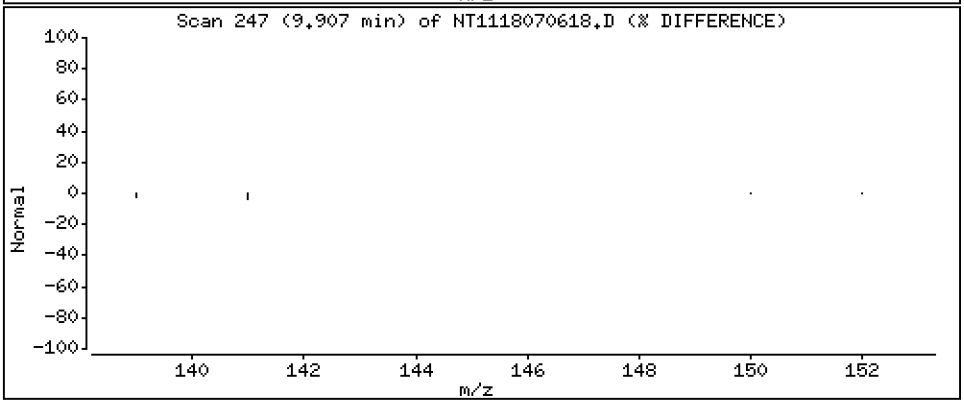












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Date : 06-JUL-2018 22:39

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-03

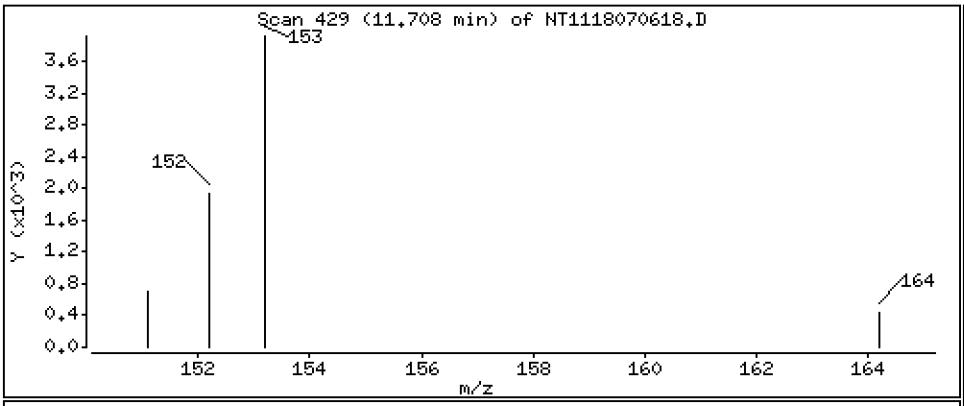
Operator: VTS

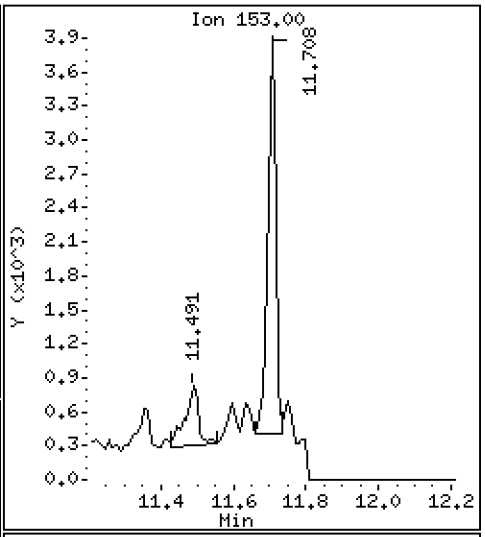
Column phase: Rxi-17Sil MS

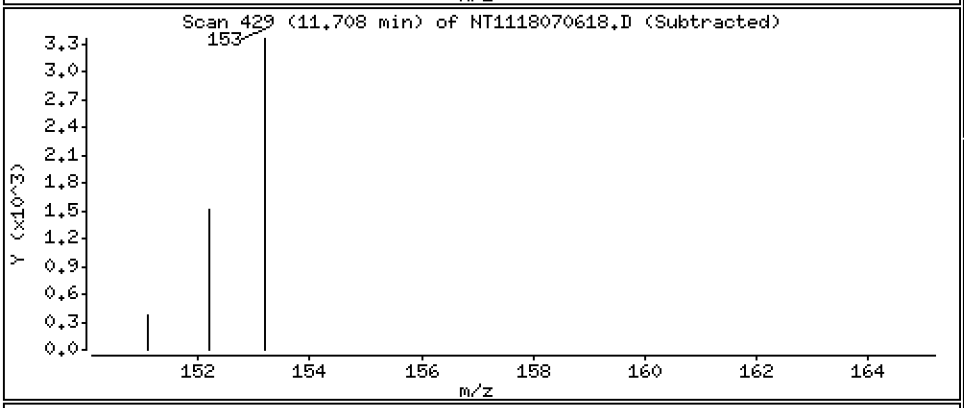
Column diameter: 0.25

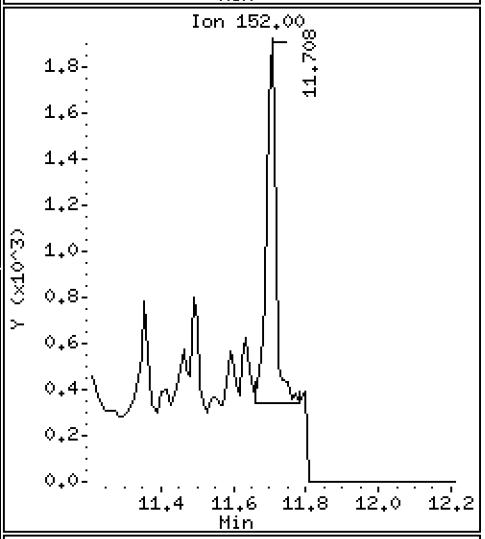
12 Acenaphthene

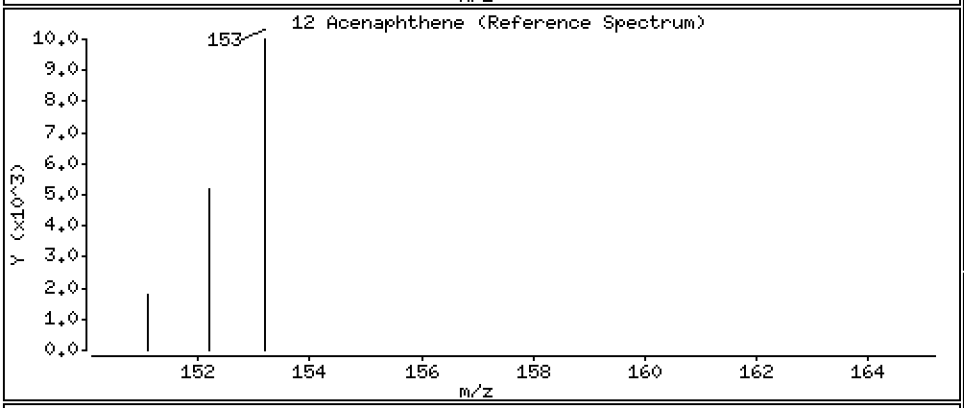
Concentration: 2.57 ng/mL

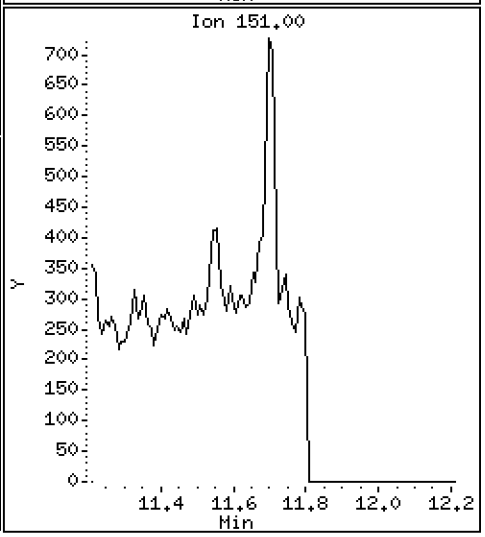


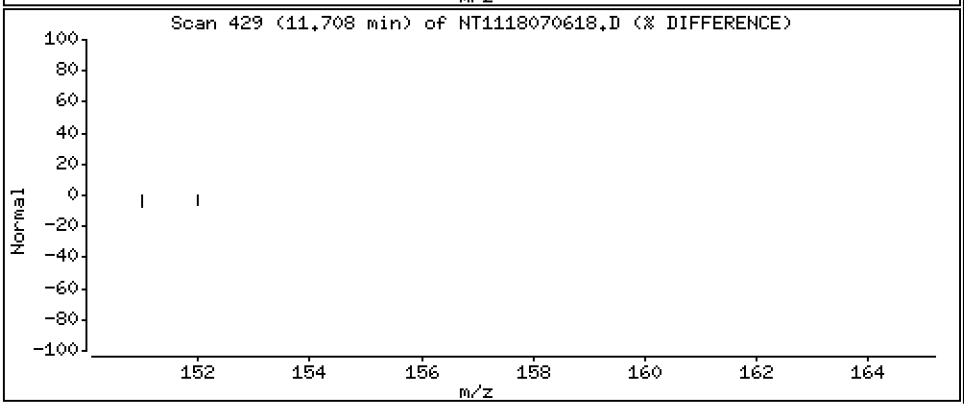












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Date : 06-JUL-2018 22:39

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-03

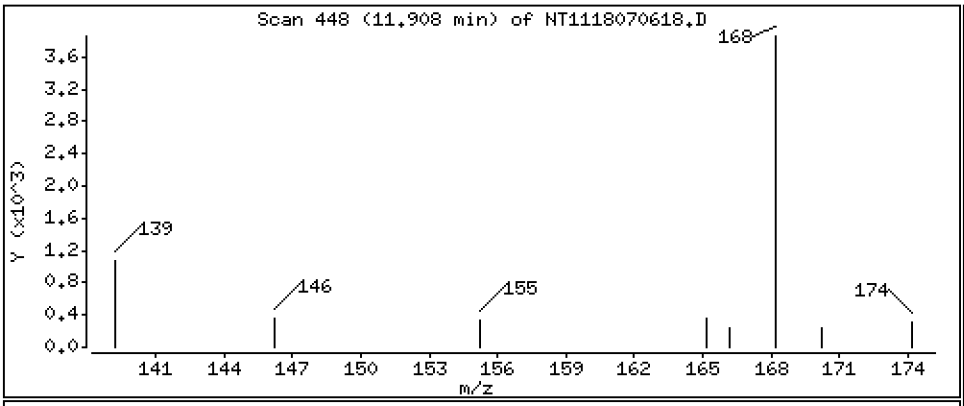
Operator: VTS

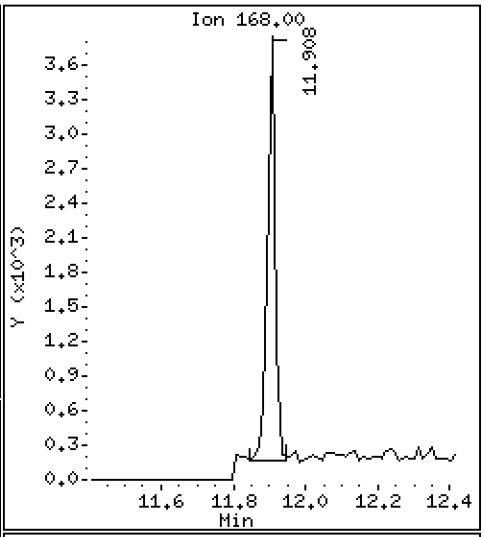
Column phase: Rxi-17Sil MS

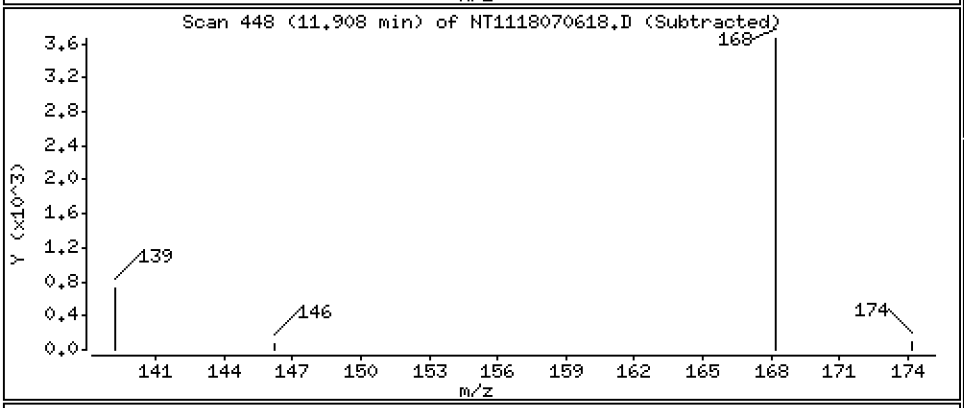
Column diameter: 0.25

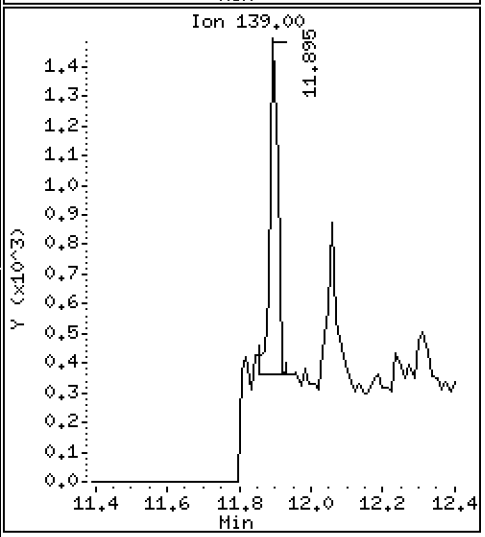
13 Dibenzofuran

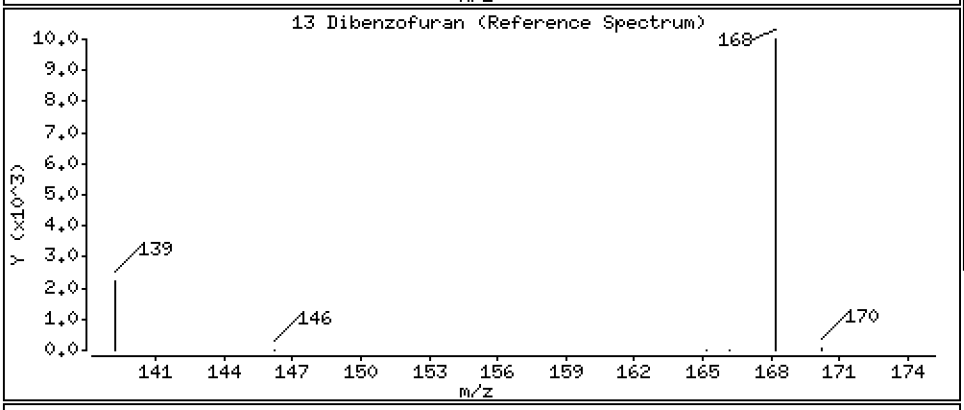
Concentration: 1.98 ng/mL

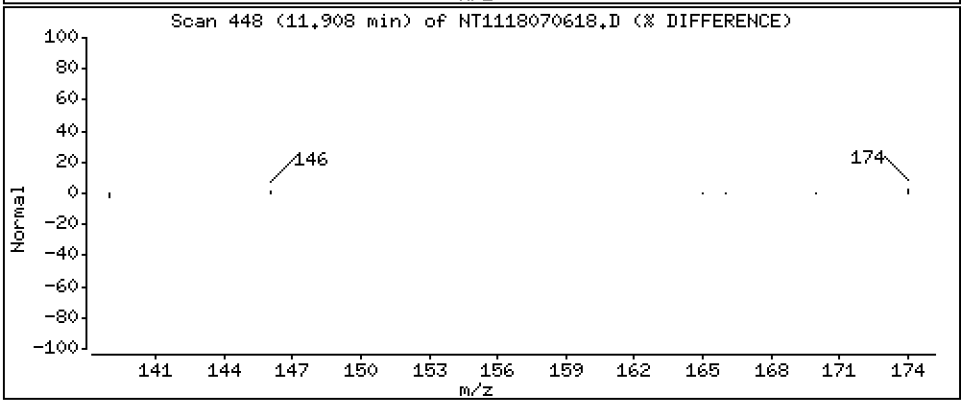












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Date : 06-JUL-2018 22:39

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-03

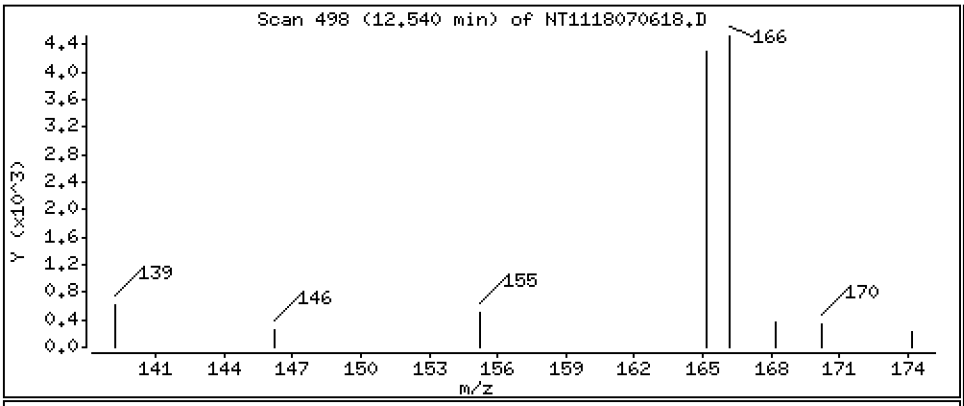
Operator: VTS

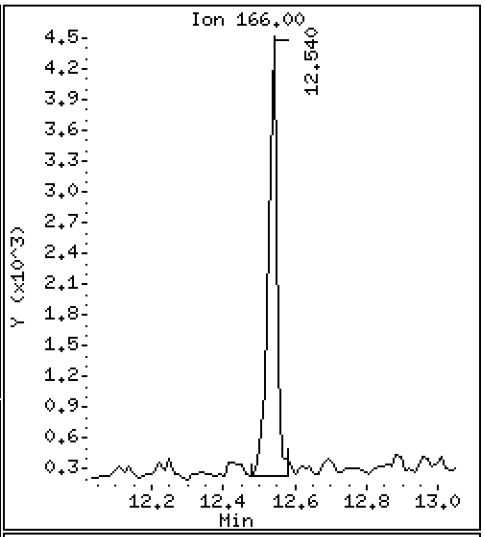
Column phase: Rxi-17Sil MS

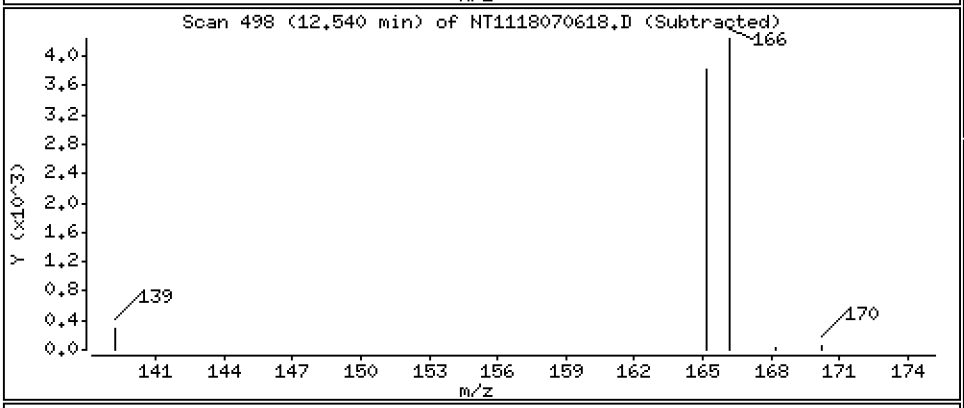
Column diameter: 0.25

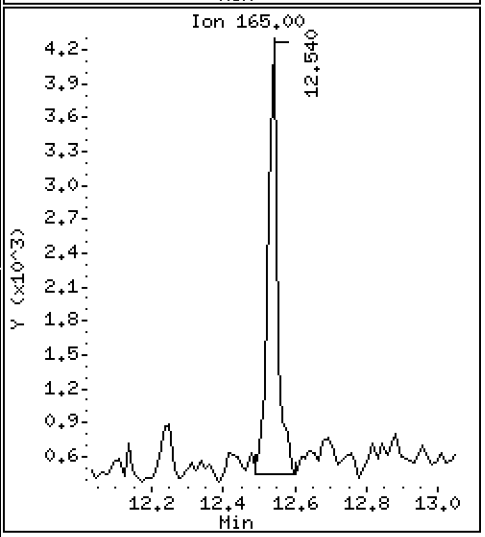
16 Fluorene

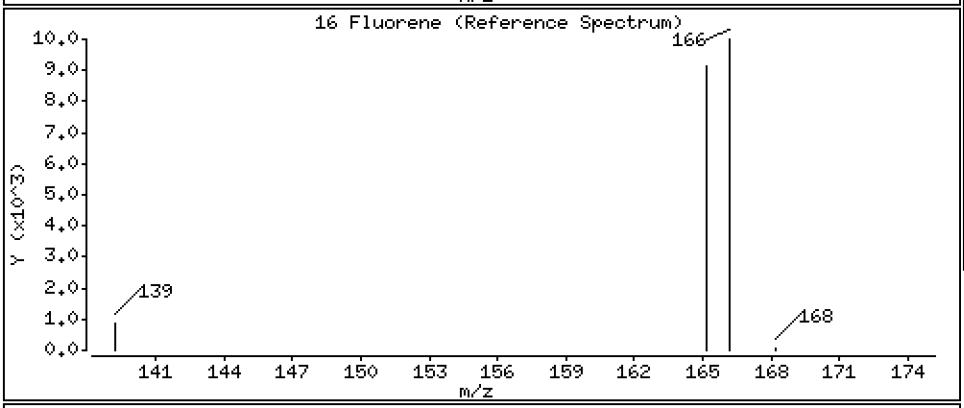
Concentration: 3.19 ng/mL

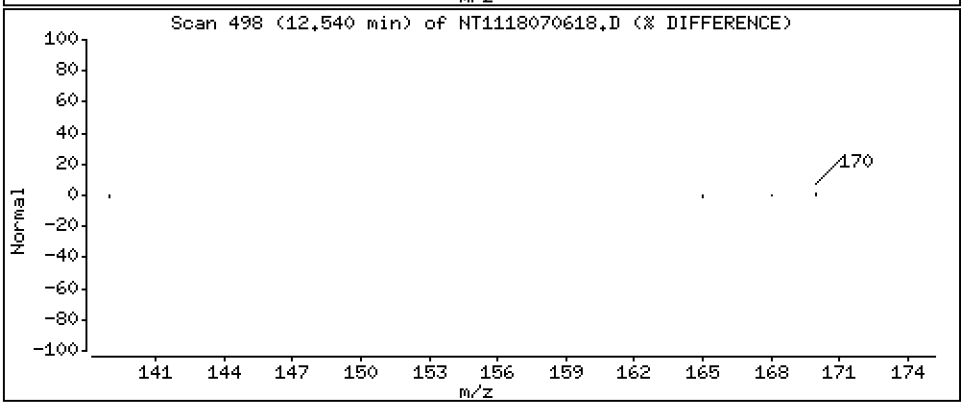












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070618.D

Date : 06-JUL-2018 22:39

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-03

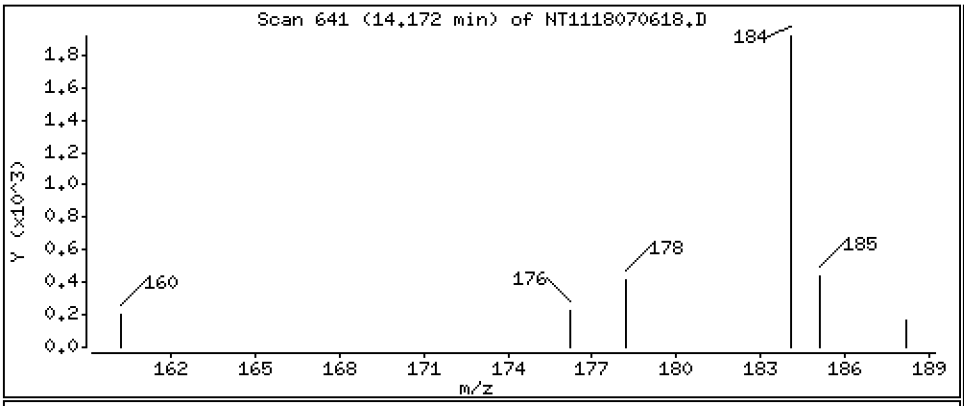
Operator: VTS

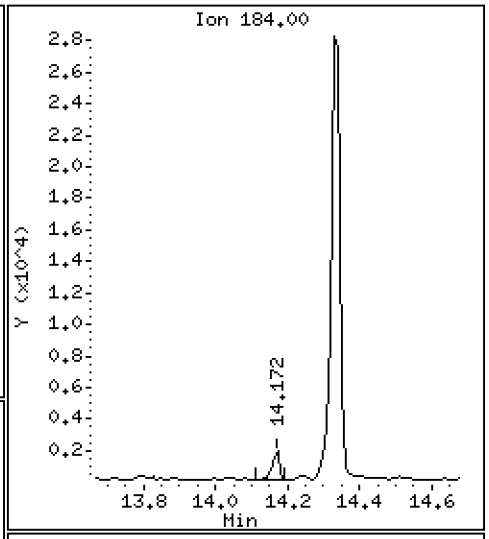
Column phase: Rxi-17Sil MS

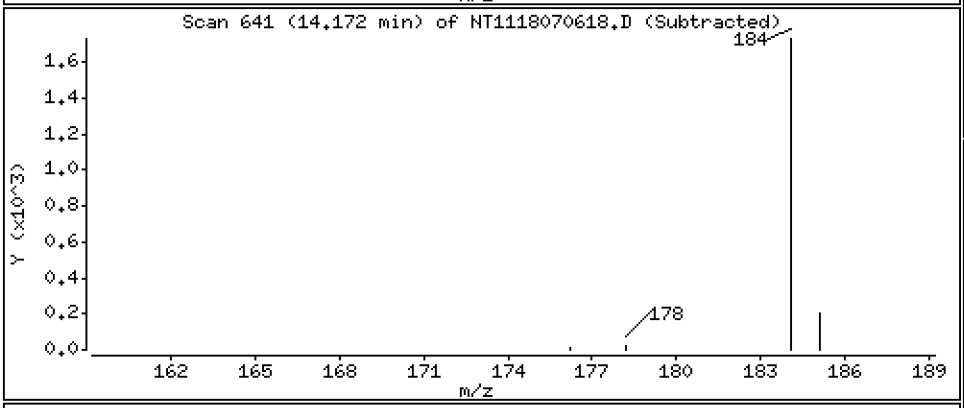
Column diameter: 0.25

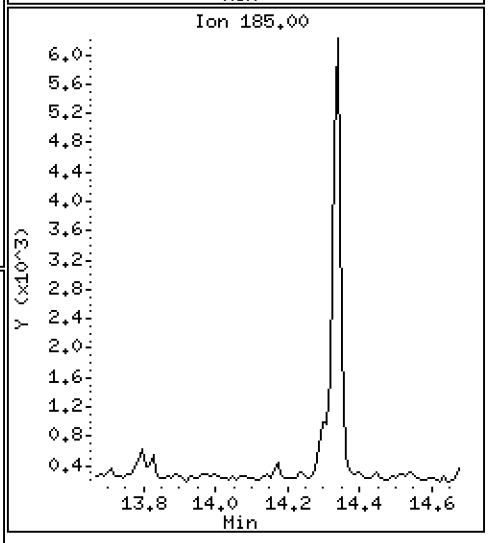
17 Dibenzothiophene

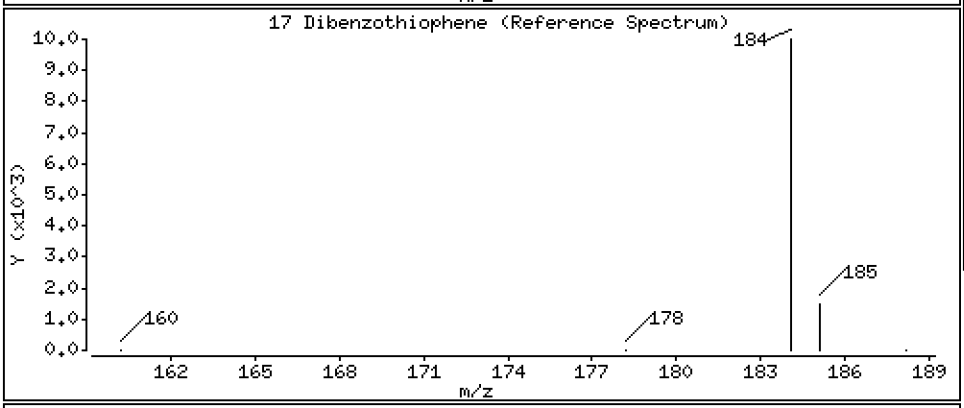
Concentration: 1.07 ng/mL

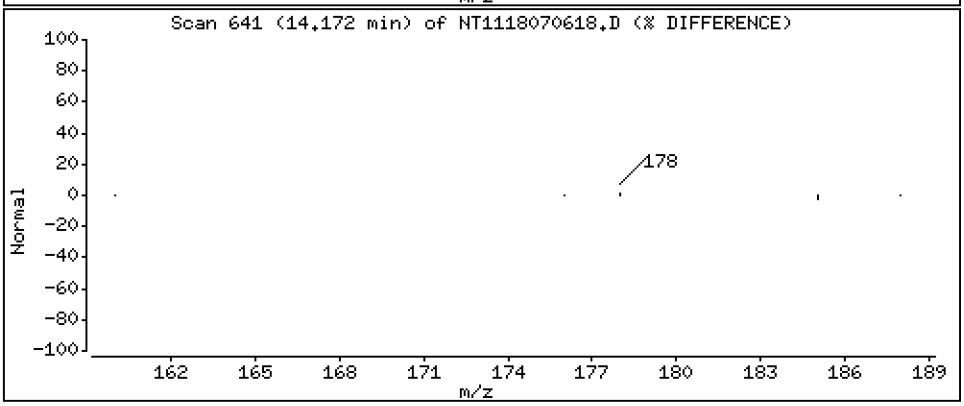












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Date : 06-JUL-2018 22:39

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-03

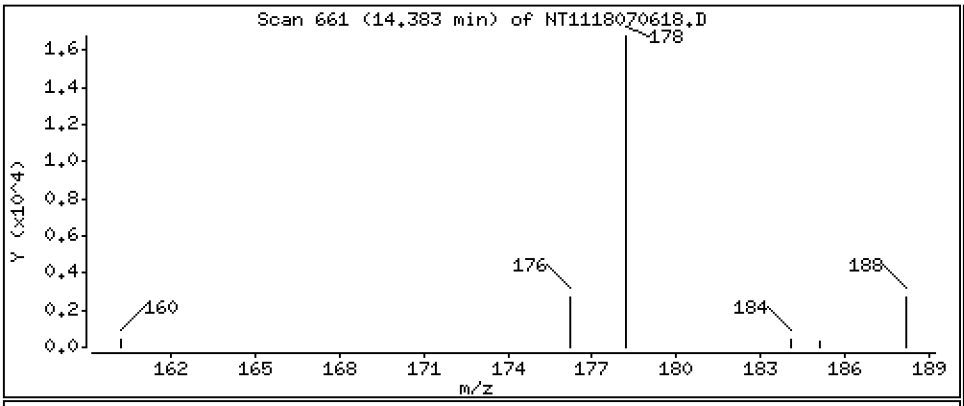
Operator: VTS

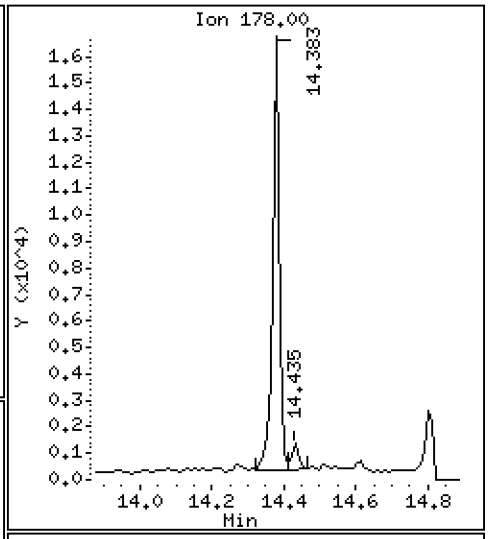
Column phase: Rxi-17Sil MS

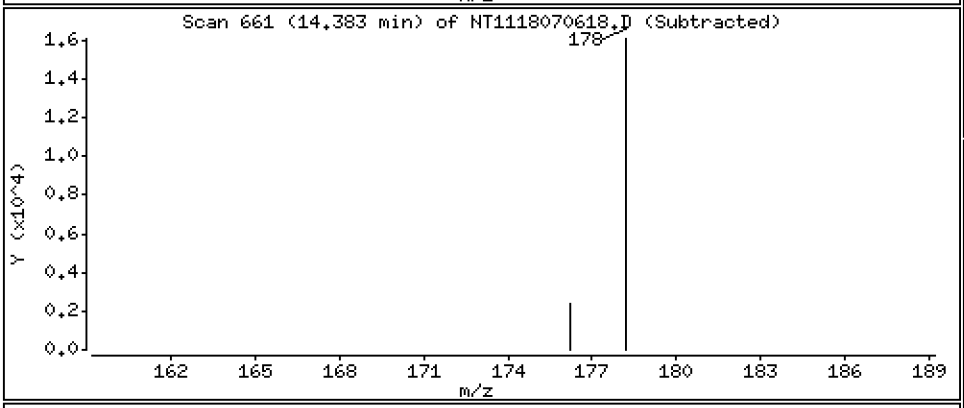
Column diameter: 0.25

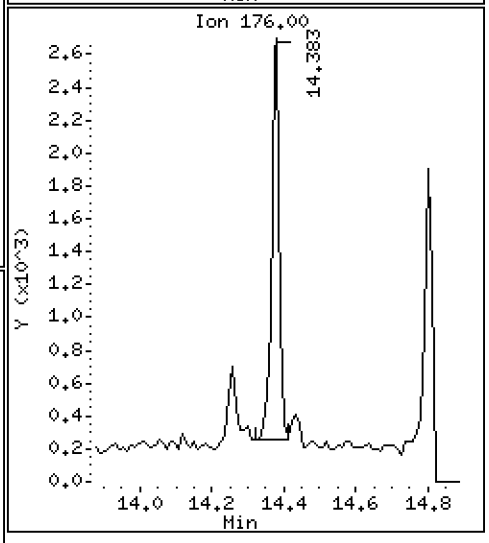
19 Phenanthrene

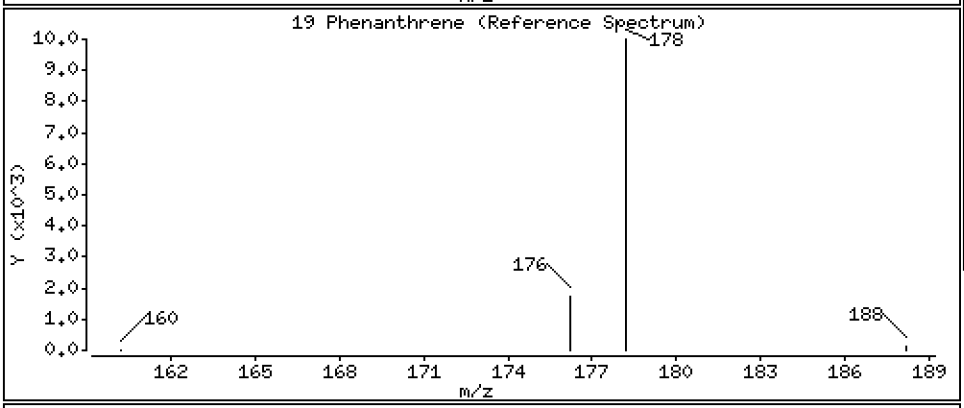
Concentration: 7.94 ng/mL

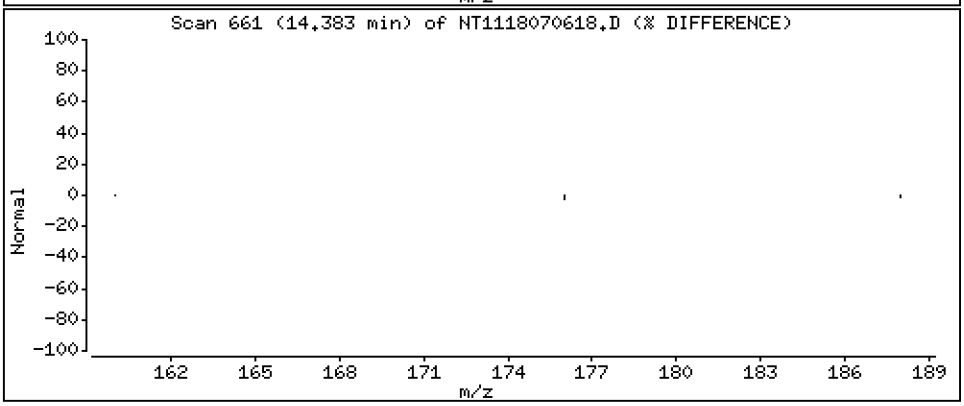












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070618.D

Date : 06-JUL-2018 22:39

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-03

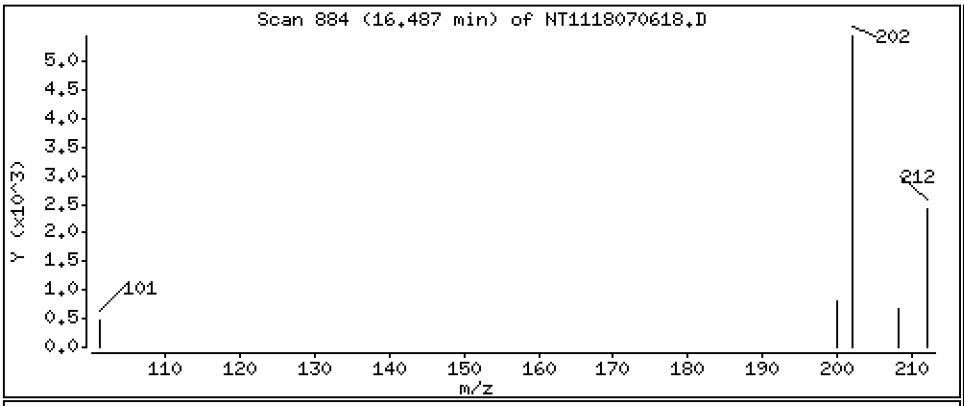
Operator: VTS

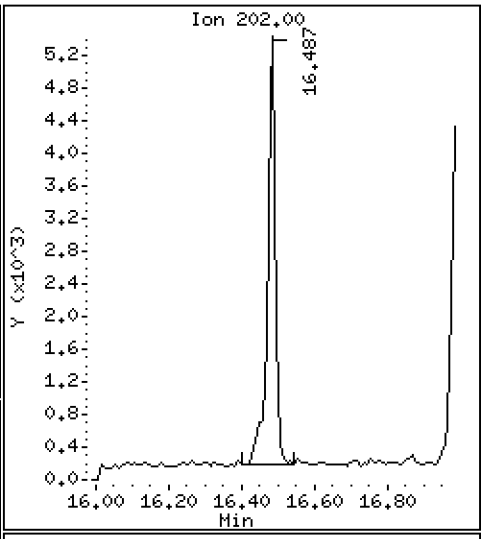
Column phase: Rxi-17Sil MS

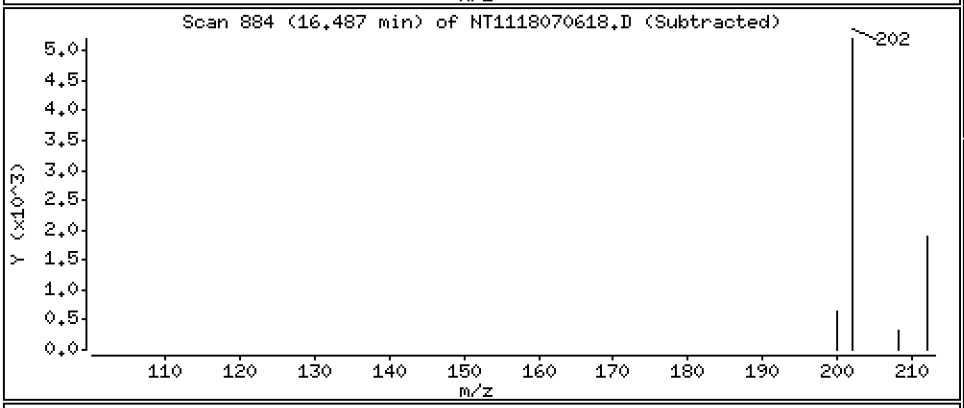
Column diameter: 0.25

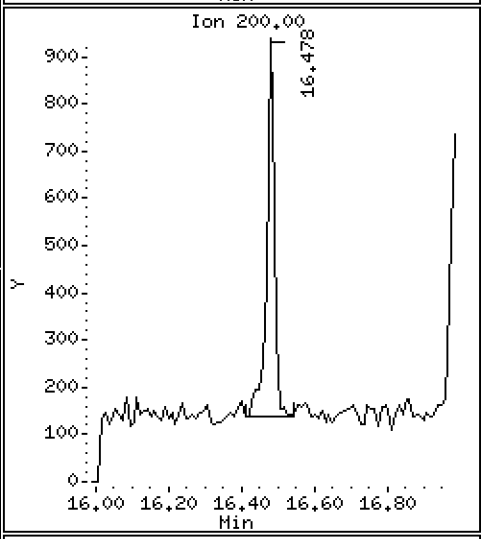
25 Fluoranthene

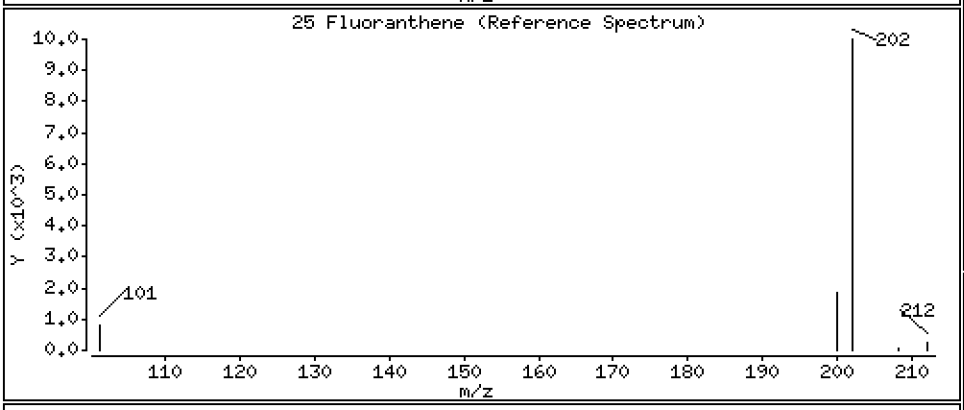
Concentration: 2.93 ng/mL

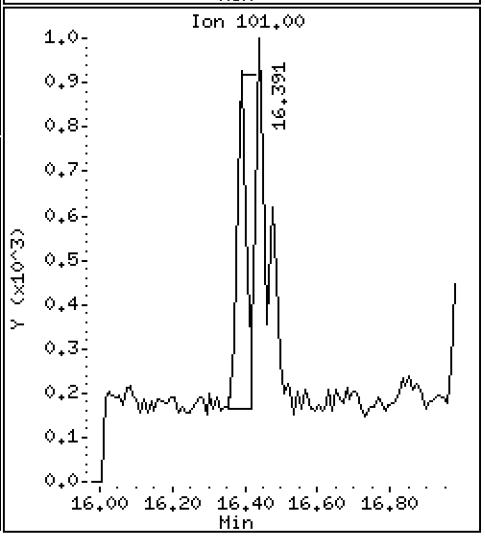


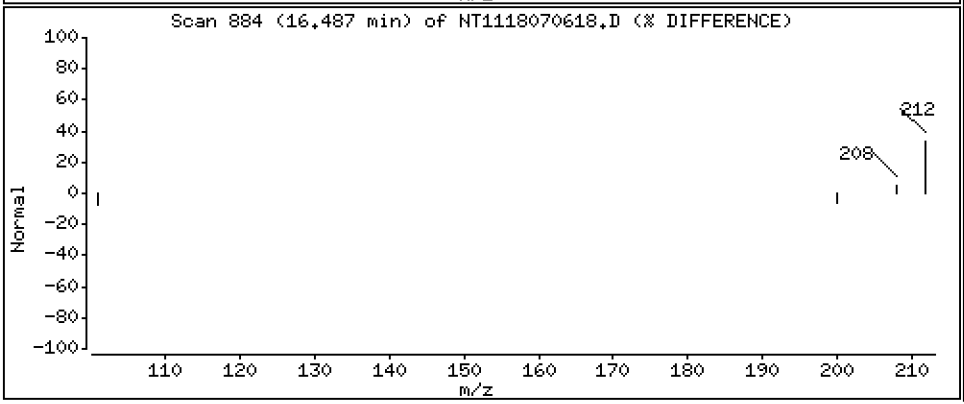












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070618.D

Date : 06-JUL-2018 22:39

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-03

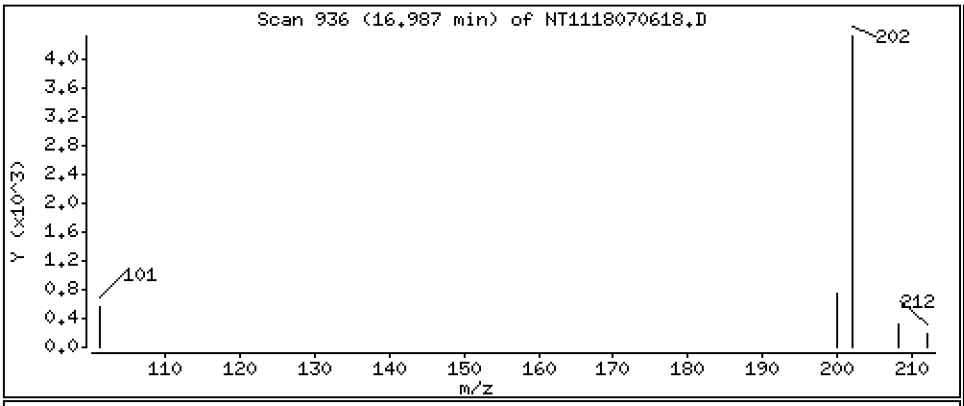
Operator: VTS

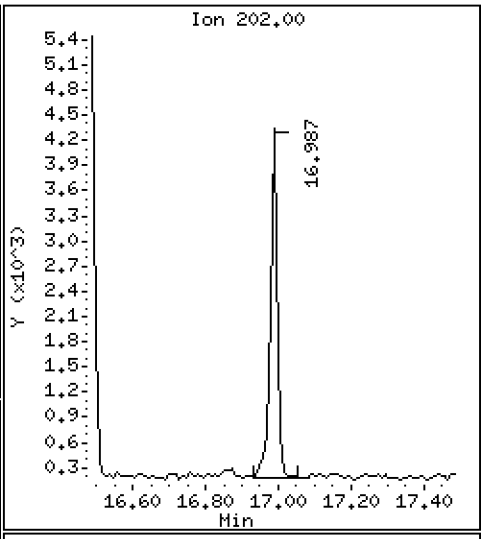
Column phase: Rxi-17Sil MS

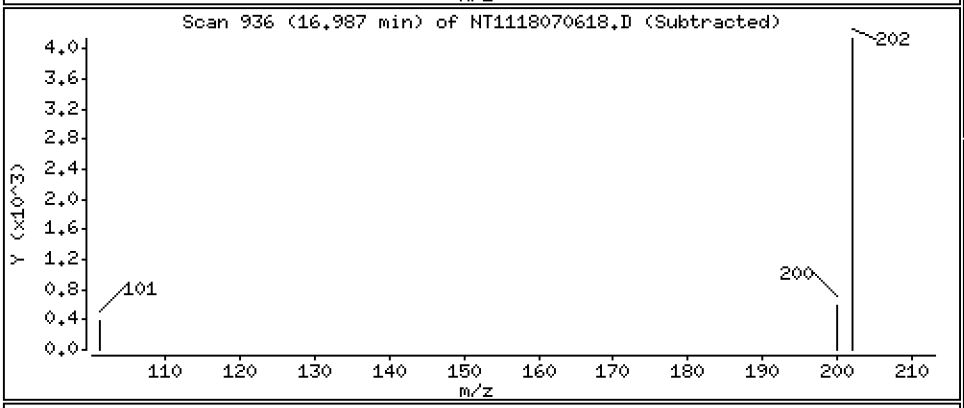
Column diameter: 0.25

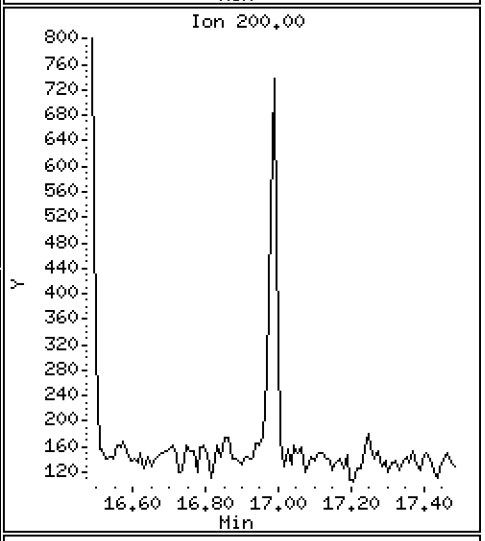
26 Pyrene

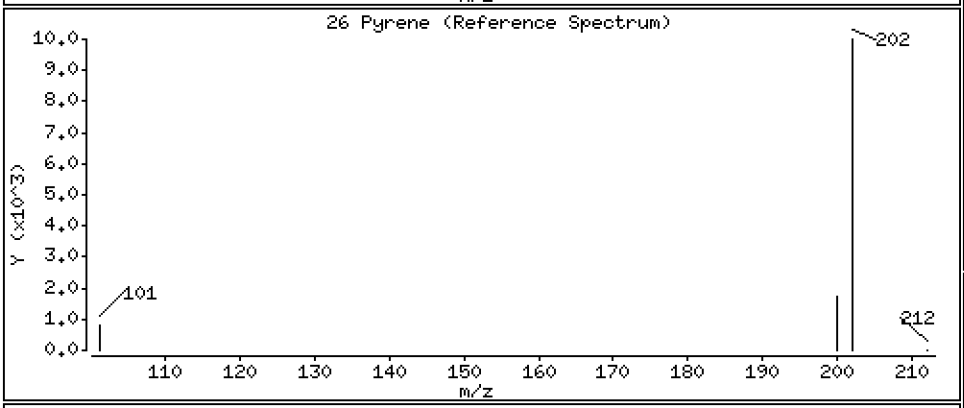
Concentration: 1.97 ng/mL

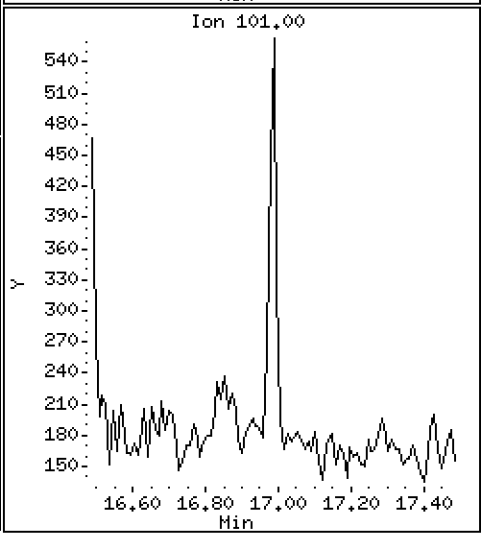


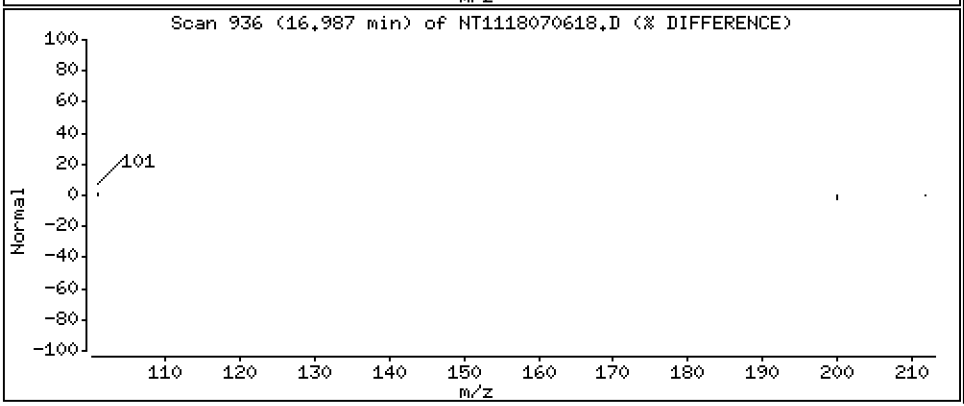












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180706.b\NT1118070618.D
Lab Smp Id: 18F0248-03
Inj Date : 06-JUL-2018 22:39 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0248-03
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Meth Date : 06-Jul-2018 13:13 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	465637	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	11267	3.21528	3.22
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	467004	175.780	176
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	7937	2.79826	2.80
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	4726	1.67535	1.68
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	243202	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	5088	2.57258	2.57
	13 Dibenzofuran	168	11.908	11.908	(1.023)	5357	1.97716	1.98
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.540	12.540	(1.077)	6964	3.18729	3.19
	17 Dibenzothiophene	184	14.172	14.172	(0.988)	2652	1.07235	1.07(M)
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	397137	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	24729	7.93935	7.94
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	Compound Not Detected.					
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	Compound Not Detected.					
$	24 Fluoranthene-d10	212	16.449	16.449	(1.147)	526643	218.467	218
	25 Fluoranthene	202	16.487	16.487	(1.150)	8471	2.92860	2.93
	26 Pyrene	202	16.987	16.987	(0.890)	6041	1.97461	1.97
	27 Benzo(a)anthracene	228	Compound Not Detected.					
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	311192	200.000	
	29 Chrysene	228	Compound Not Detected.					
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	35 Benzo(a)pyrene	252	Compound Not Detected.					
*	36 Perylene-d12	264	22.353	22.353	(1.000)	311656	200.000	
	37 Perylene	252	Compound Not Detected.					
$	38 Dibenzo(a,h)anthracene-d14	292	25.268	25.279	(1.130)	296642	198.903	199
	39 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	40 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	41 Benzo(g,h,i)perylene	276	Compound Not Detected.					

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118070618.D
Lab Smp Id: 18F0248-03
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Misc Info:

Calibration Date: 06-JUL-2018
Calibration Time: 12:50
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	465637	7.96
11 Acenaphthene-d10	260137	130069	520274	243202	-6.51
18 Phenanthrene-d10	427391	213696	854782	397137	-7.08
28 Chrysene-d12	304596	152298	609192	311192	2.17
36 Perylene-d12	263091	131546	526182	311656	18.46

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118070618.D

Lab ID: 18F0248-03
nt11.i, 20180706.b\LOWSIM.m,   06-JUL-2018 22:39

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

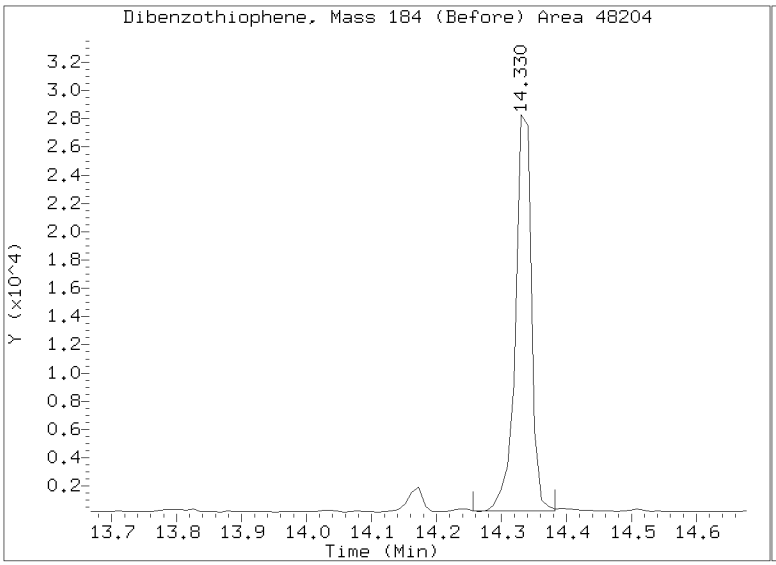
On Column LOD for nt11.i, 20180706.b\LOWSIM.m, allpna.sub = 0.0000

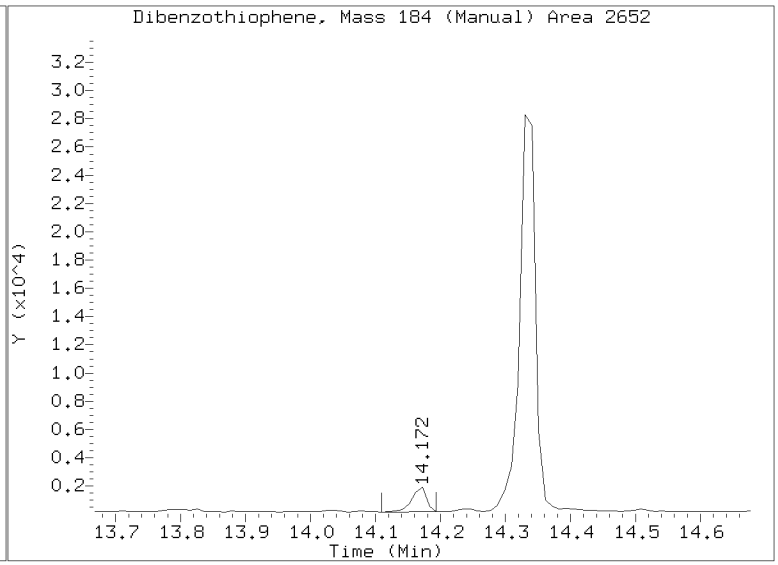
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20180706.b/NT1118070618.D
Injection Date: 06-JUL-2018 22:39
Lab ID:18F0248-03 Client ID:
Report Date: 07/07/2018 07:57





Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-66

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-04	SDG:	18F0185
Sampled:	06/15/18 13:25	Prepared:	06/21/18 13:35	File ID:	NT1118070619.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	07/06/18 23:15
Batch:	BGF0530	Sequence:	SGG0067	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.003	J	0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.002	J	0.001	0.010
208-96-8	Acenaphthylene	1	0.010	U	0.002	0.010
83-32-9	Acenaphthene	1	0.010	U	0.003	0.010
86-73-7	Fluorene	1	0.002	J	0.002	0.010
85-01-8	Phenanthrene	1	0.007	J	0.001	0.010
120-12-7	Anthracene	1	0.001	J	0.001	0.010
206-44-0	Fluoranthene	1	0.005	J	0.002	0.010
129-00-0	Pyrene	1	0.002	J	0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.010	U	0.0008	0.010
218-01-9	Chrysene	1	0.001	J	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.0007	J	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.178	59.4	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.188	62.5	29 - 120	
Fluoranthene-d10	0.30000	0.208	69.2	57 - 120	

Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070619.D

Date : 06-JUL-2018 23:15

Client ID:

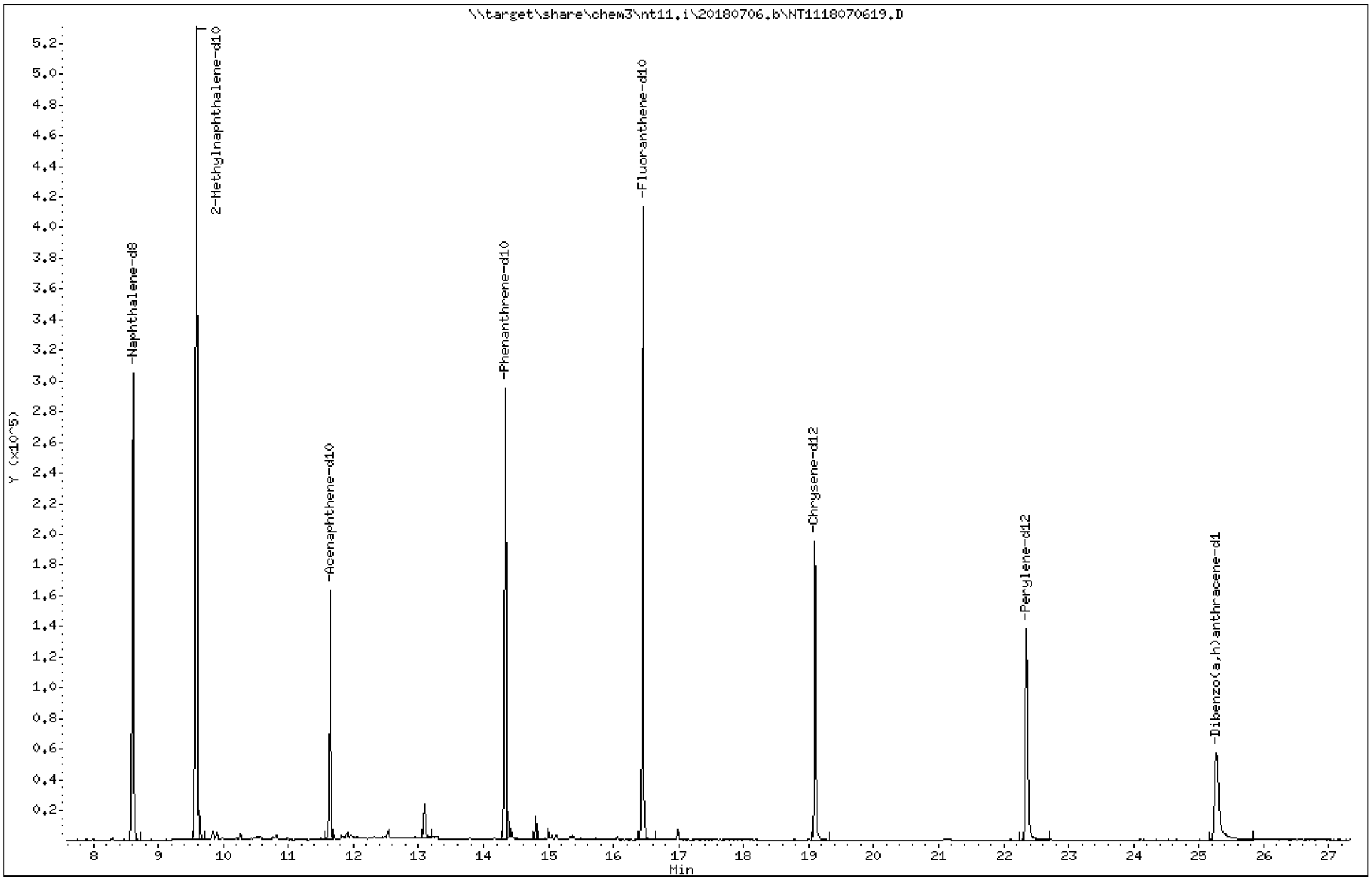
Instrument: nt11.i

Sample Info: 18F0248-04

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 06-JUL-2018 23:15

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-04

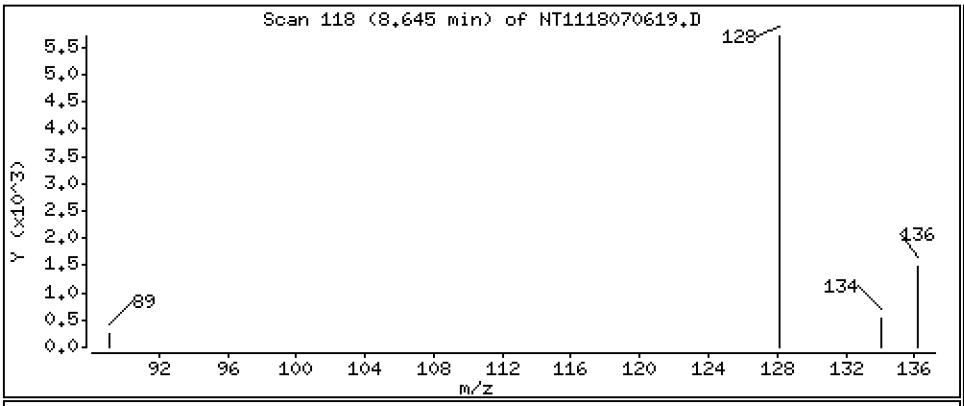
Operator: VTS

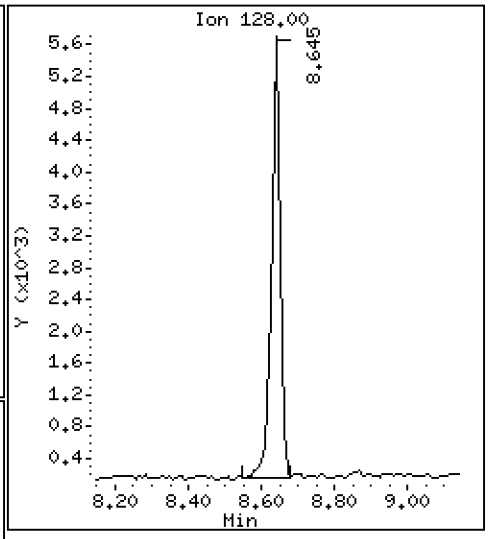
Column phase: Rxi-17Sil MS

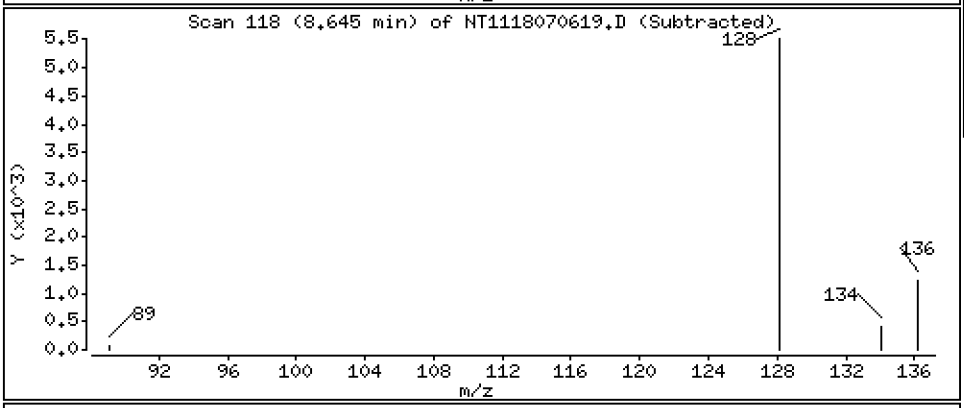
Column diameter: 0.25

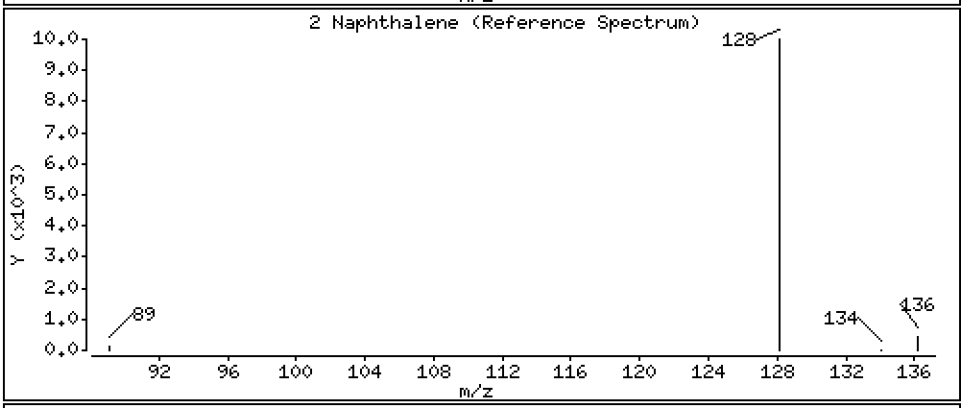
2 Naphthalene

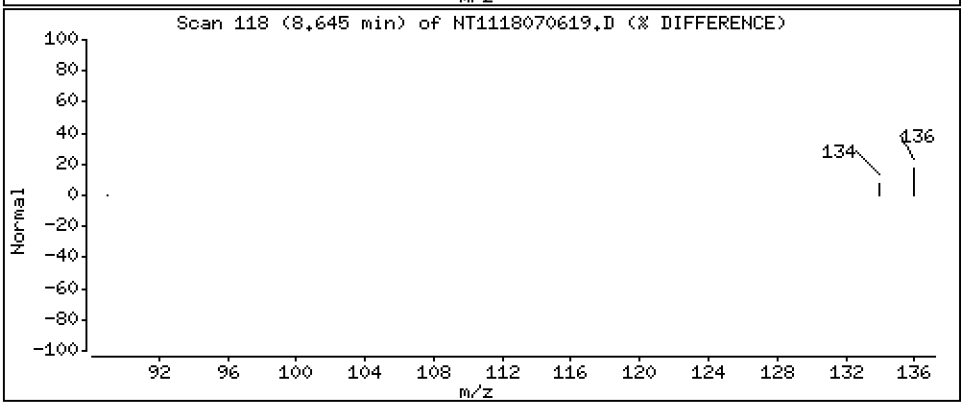
Concentration: 2.71 ng/mL











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Date : 06-JUL-2018 23:15

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-04

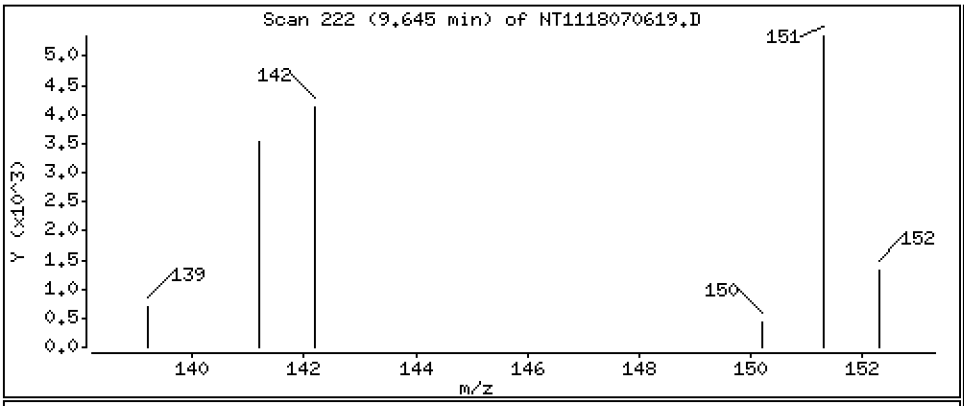
Operator: VTS

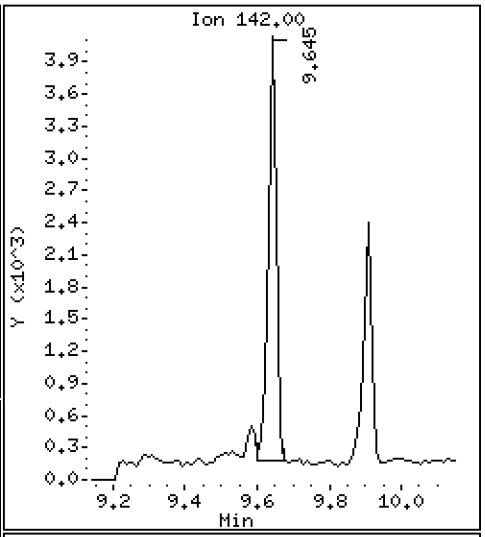
Column phase: Rxi-17Sil MS

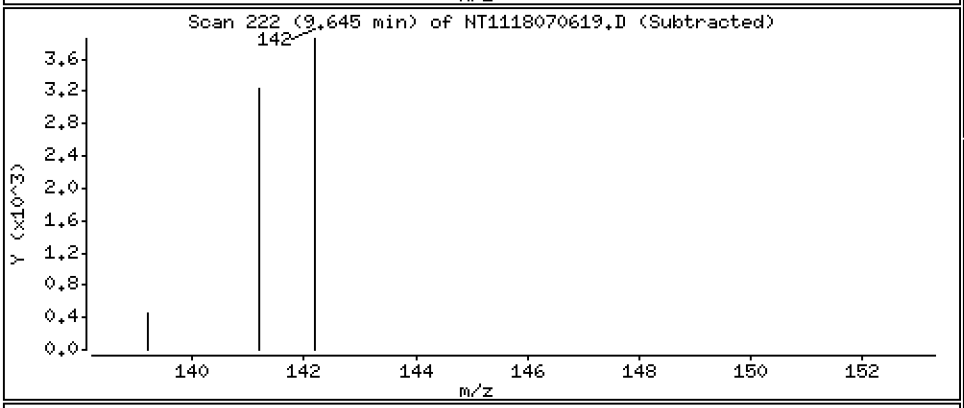
Column diameter: 0.25

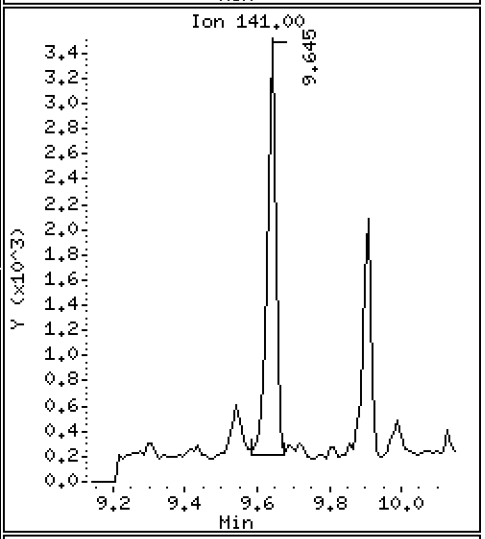
5 2-Methylnaphthalene

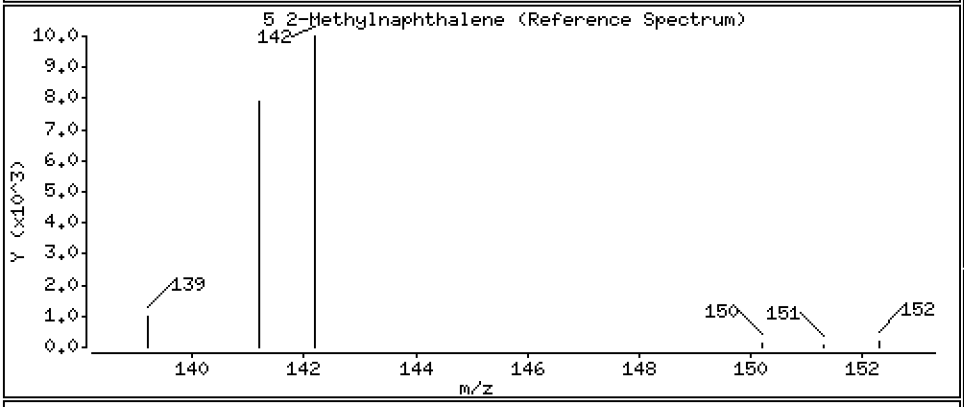
Concentration: 2.19 ng/mL

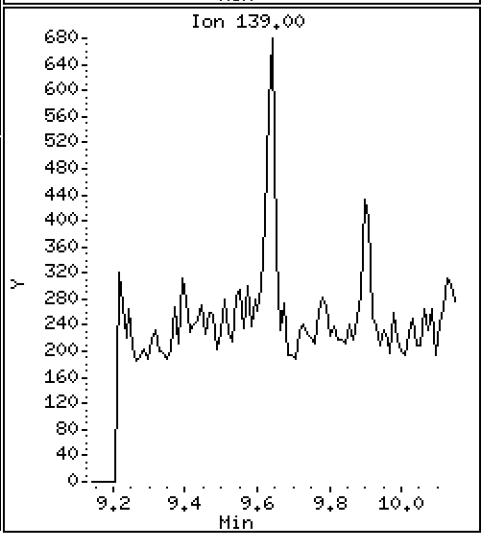


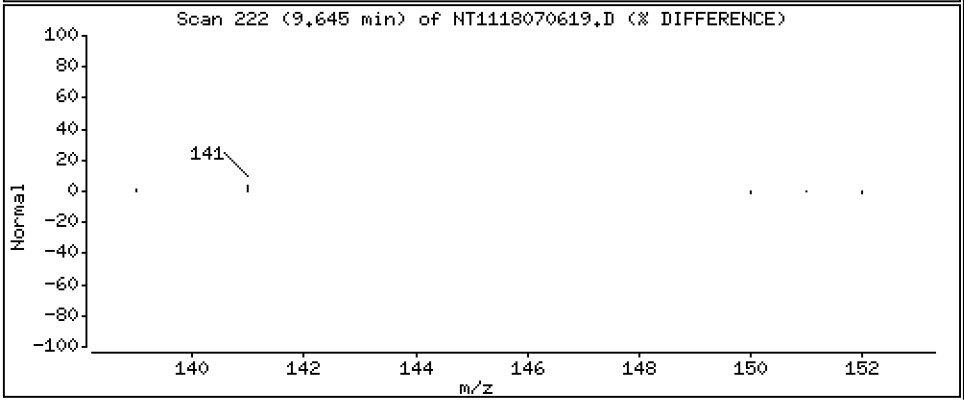












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Date : 06-JUL-2018 23:15

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-04

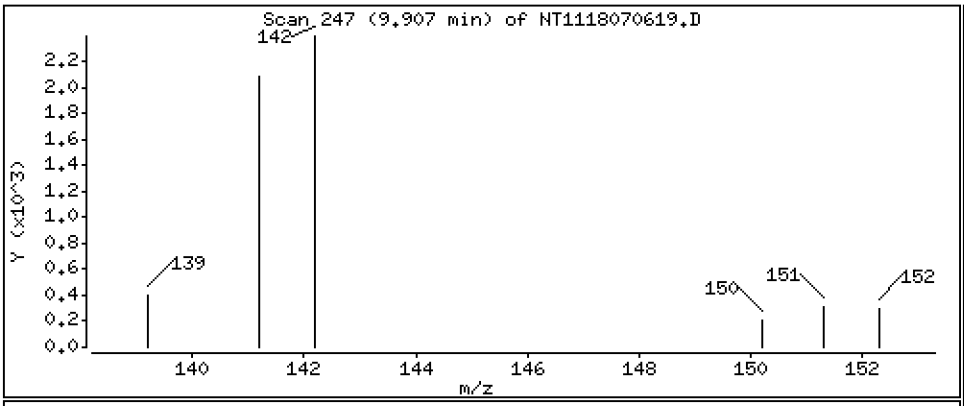
Operator: VTS

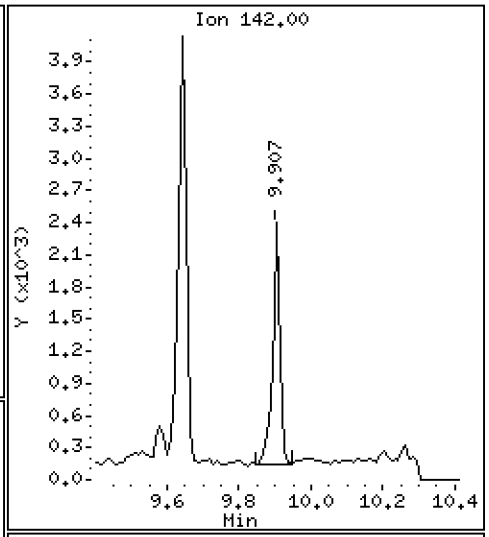
Column phase: Rxi-17Sil MS

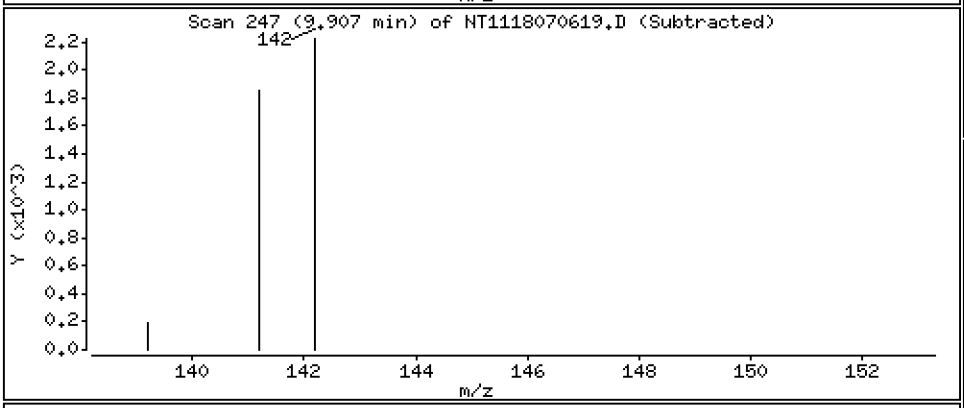
Column diameter: 0.25

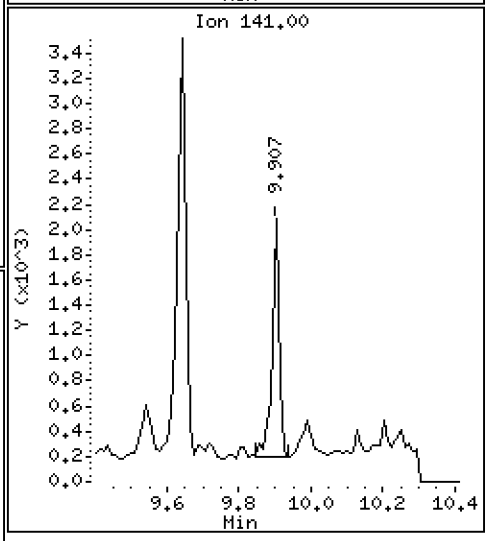
6 1-Methylnaphthalene

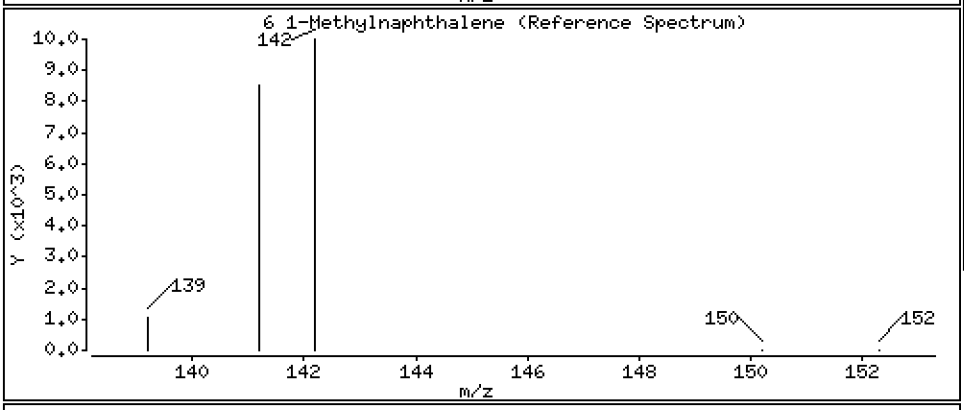
Concentration: 1.29 ng/mL

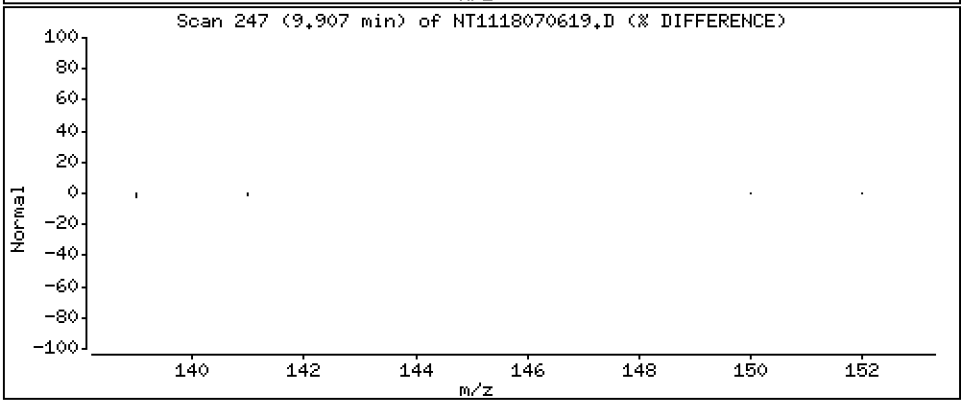












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Date : 06-JUL-2018 23:15

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-04

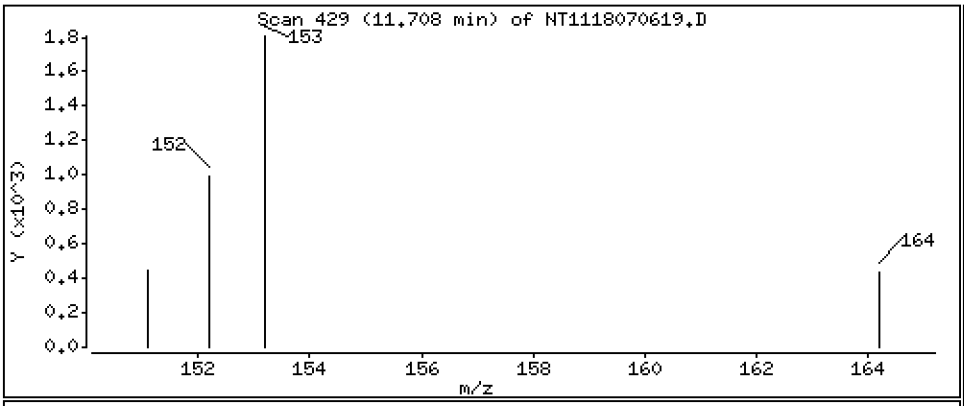
Operator: VTS

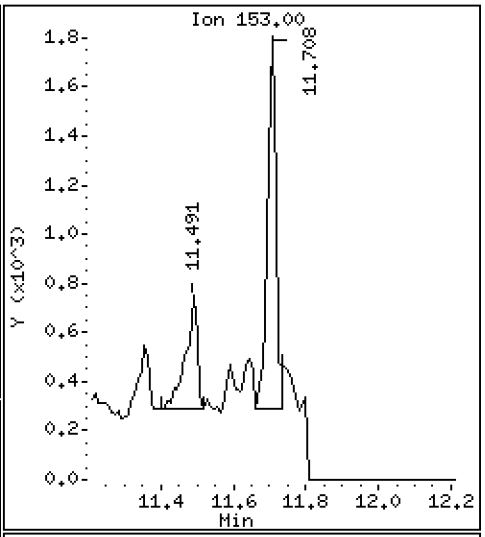
Column phase: Rxi-17Sil MS

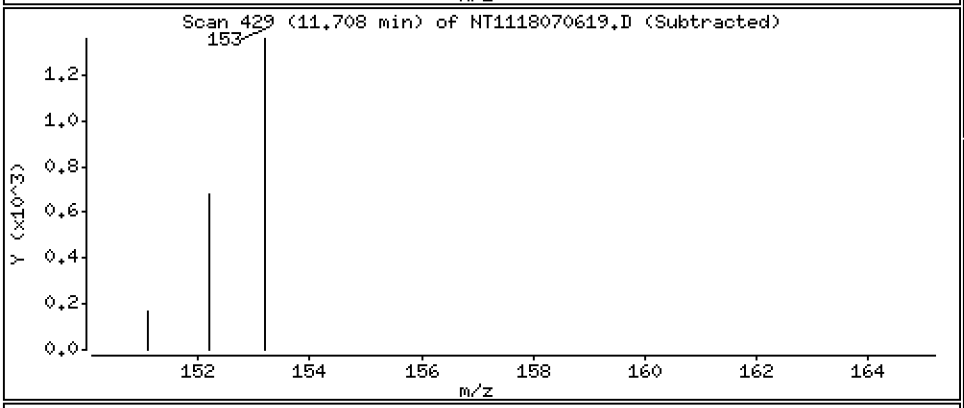
Column diameter: 0.25

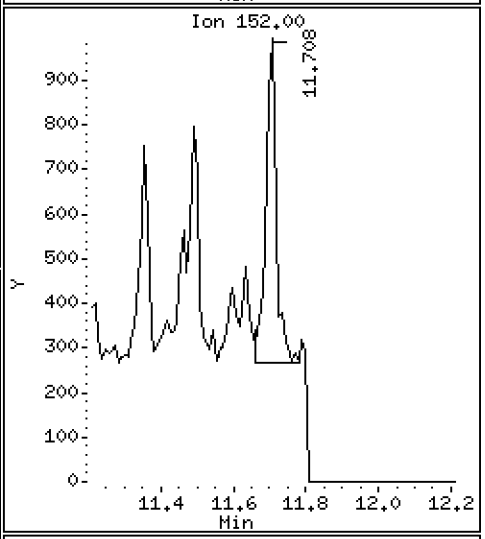
12 Acenaphthene

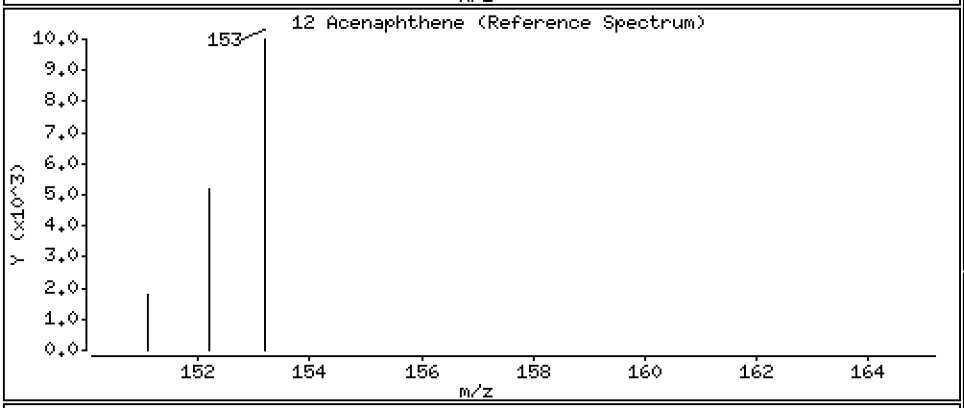
Concentration: 1.23 ng/mL

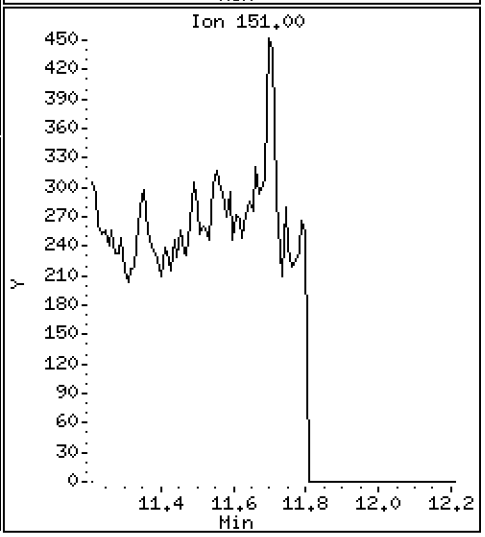


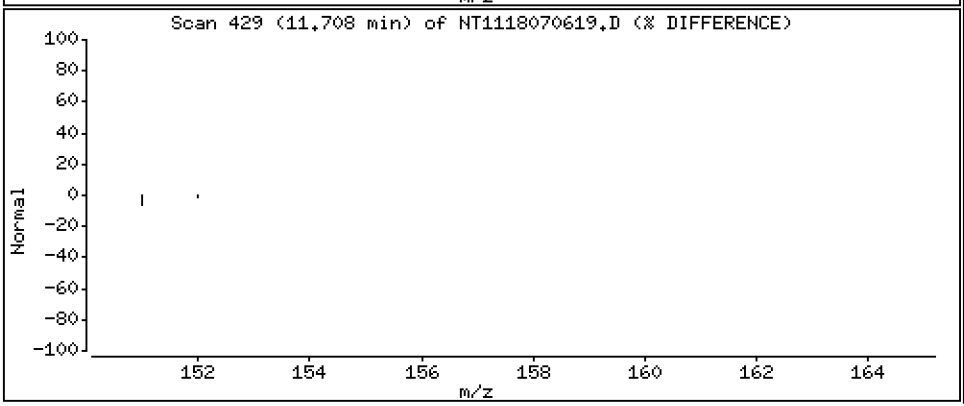












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Date : 06-JUL-2018 23:15

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-04

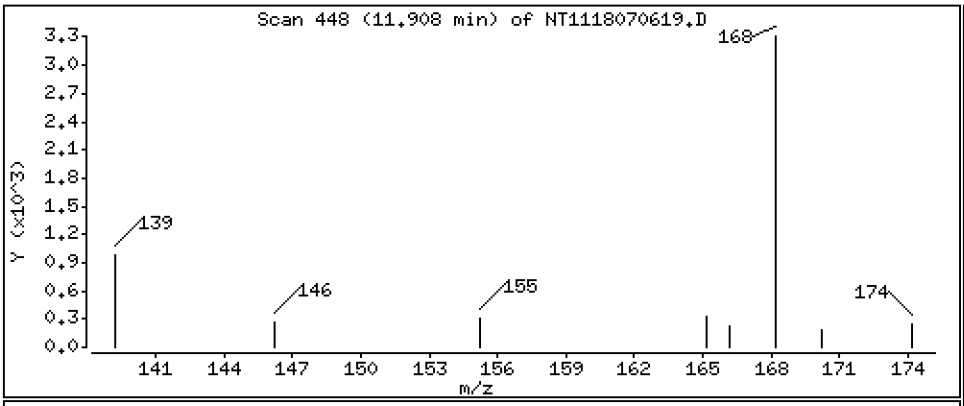
Operator: VTS

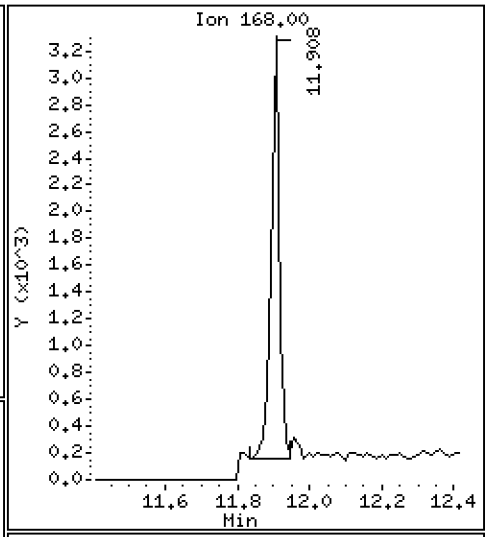
Column phase: Rxi-17Sil MS

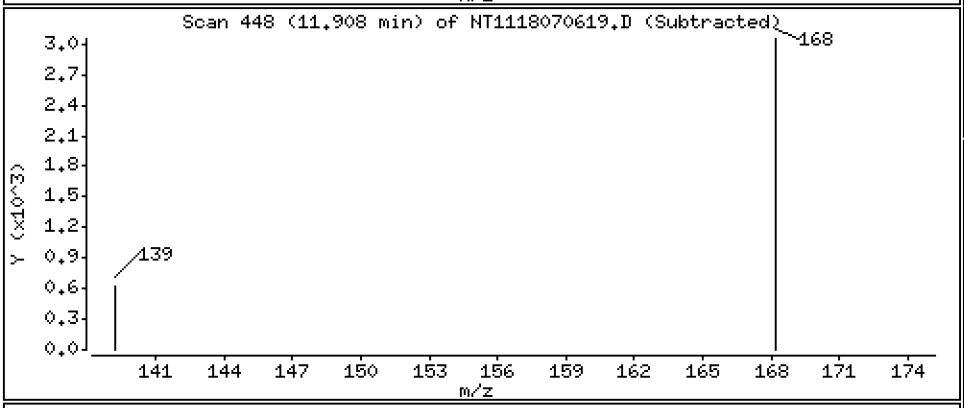
Column diameter: 0.25

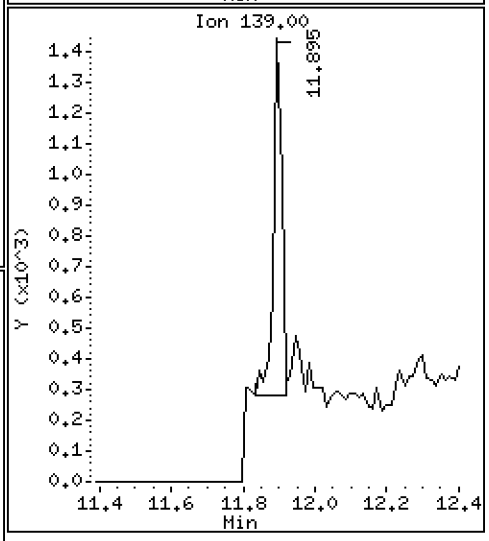
13 Dibenzofuran

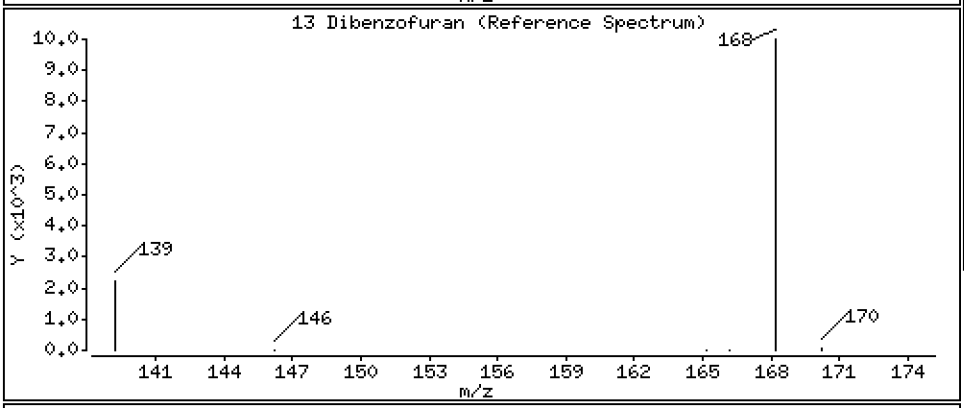
Concentration: 1.79 ng/mL

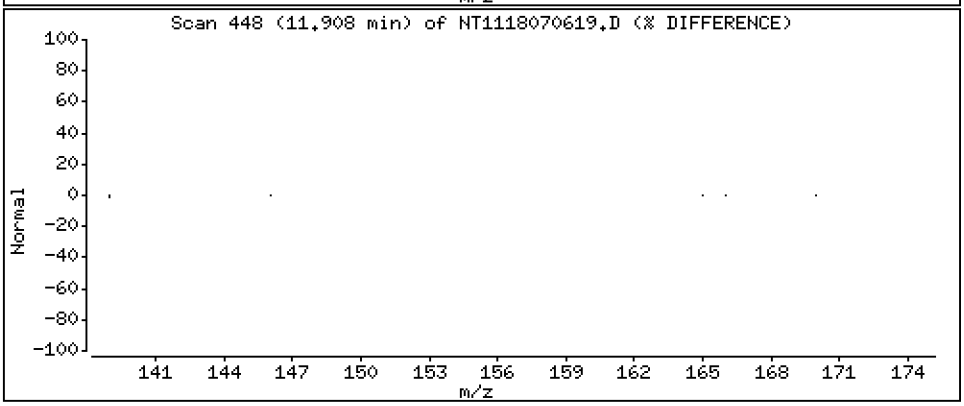












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Date : 06-JUL-2018 23:15

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-04

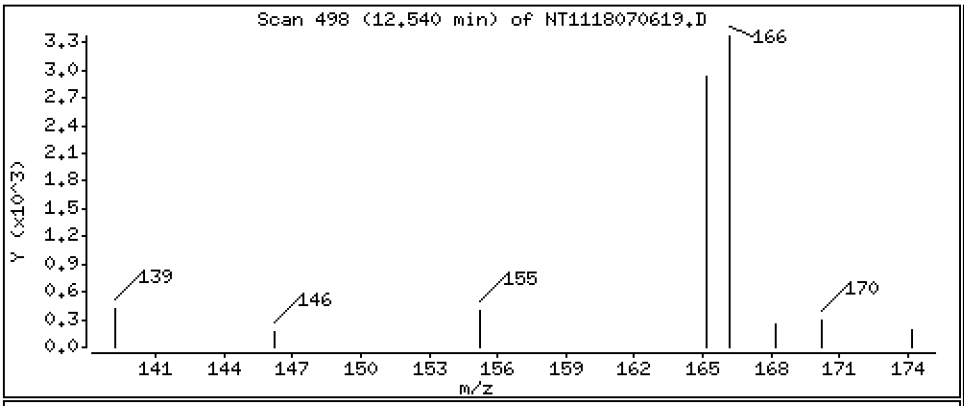
Operator: VTS

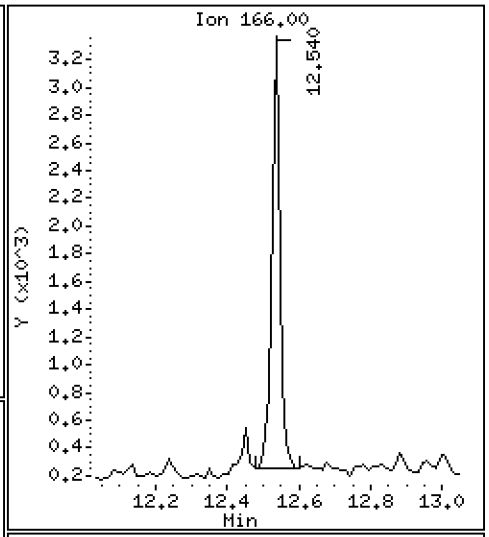
Column phase: Rxi-17Sil MS

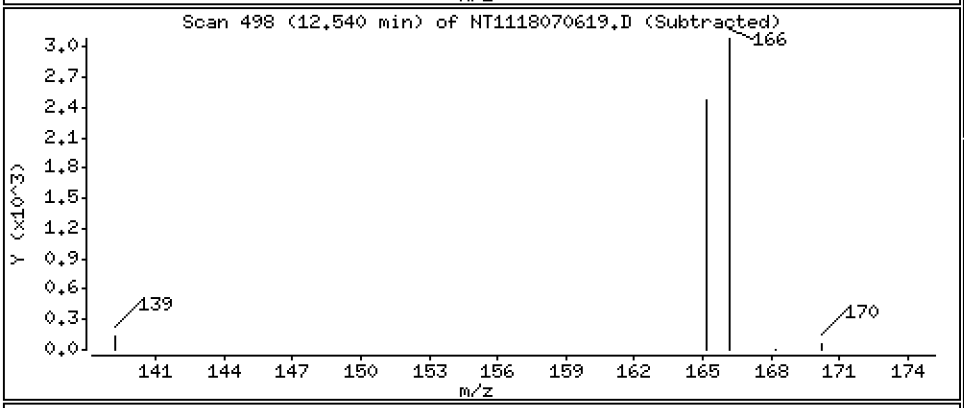
Column diameter: 0.25

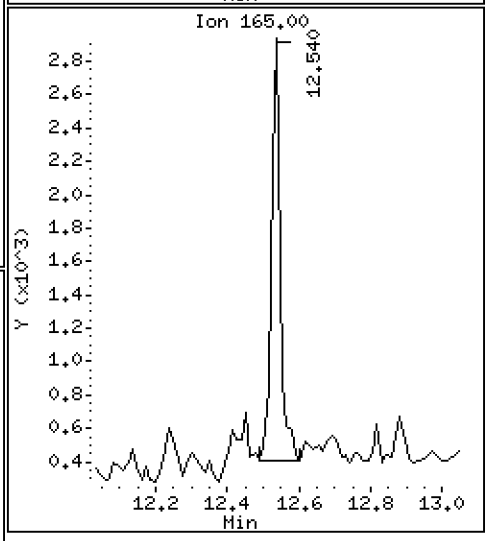
16 Fluorene

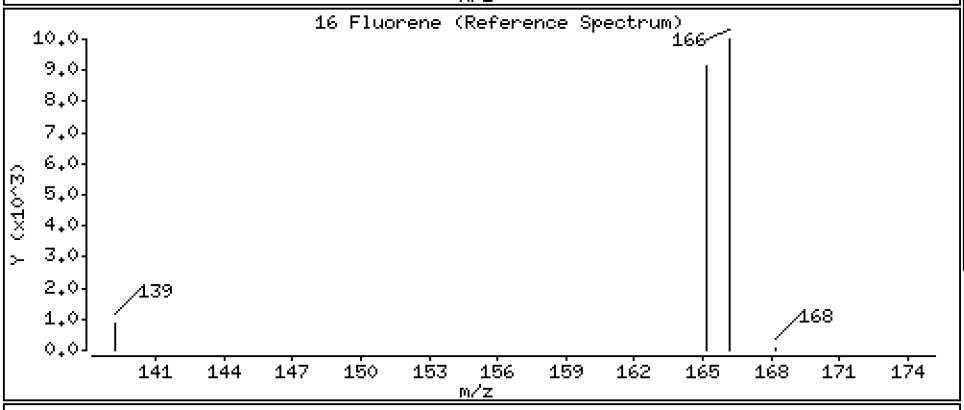
Concentration: 2.30 ng/mL

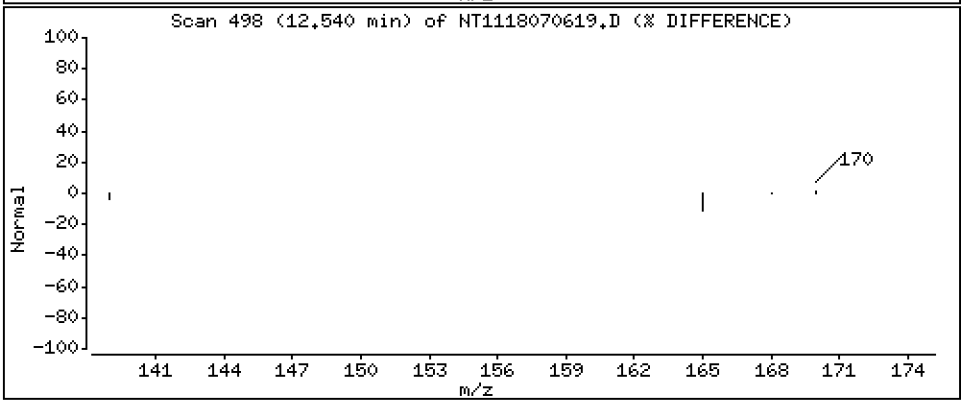












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Date : 06-JUL-2018 23:15

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-04

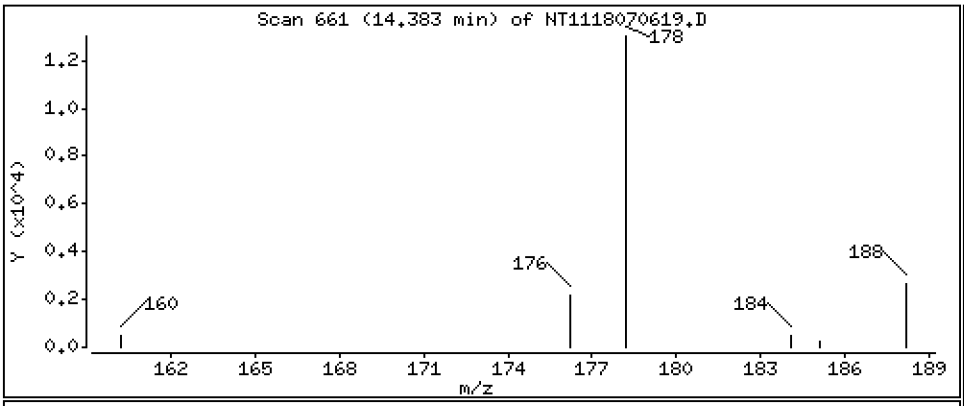
Operator: VTS

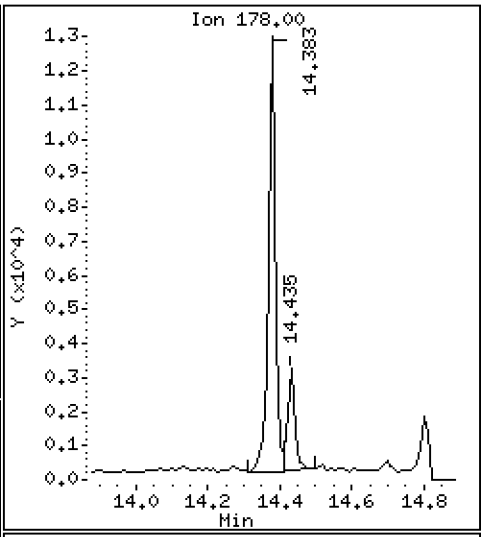
Column phase: Rxi-17Sil MS

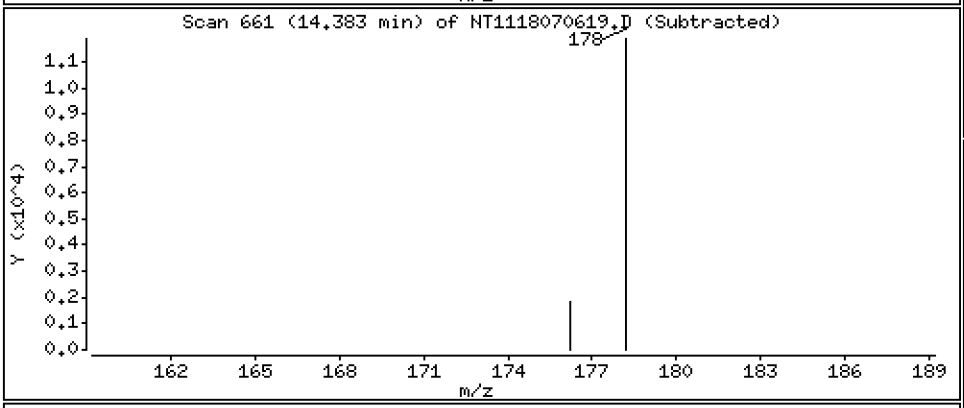
Column diameter: 0.25

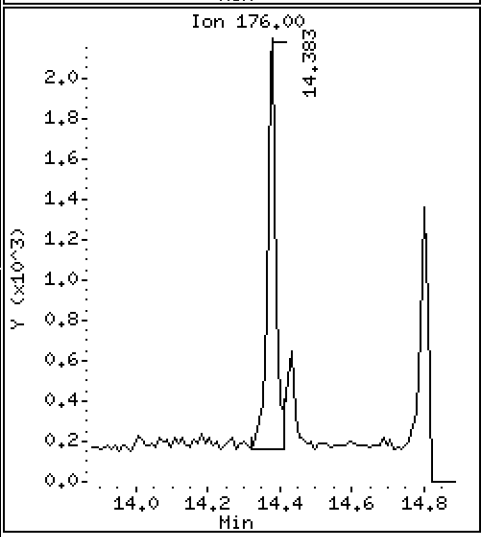
19 Phenanthrene

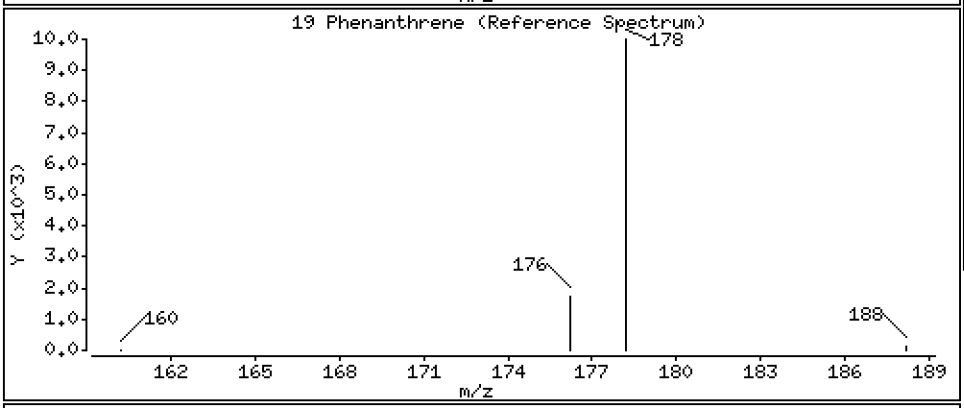
Concentration: 6.77 ng/mL

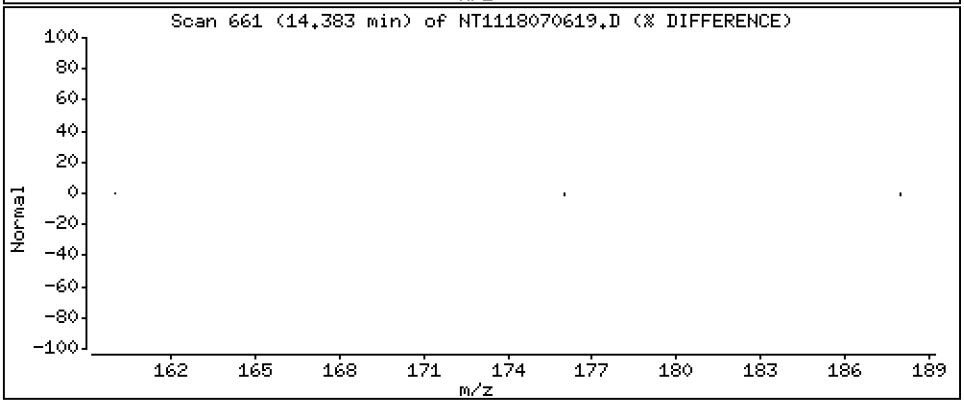












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Date : 06-JUL-2018 23:15

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-04

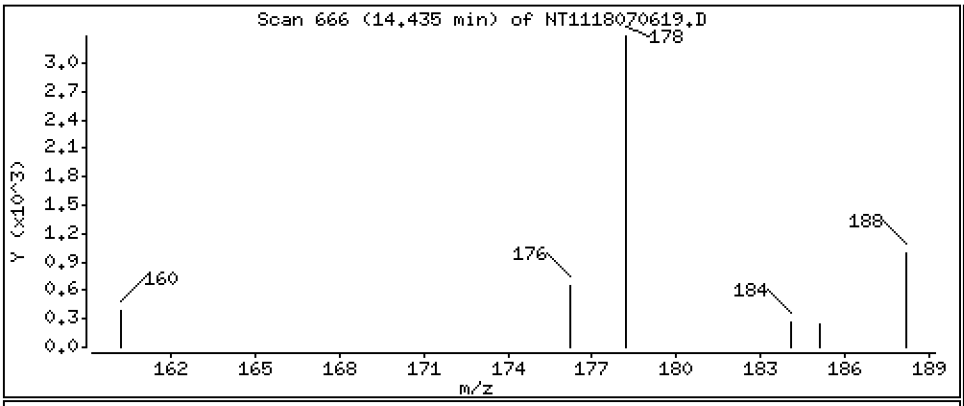
Operator: VTS

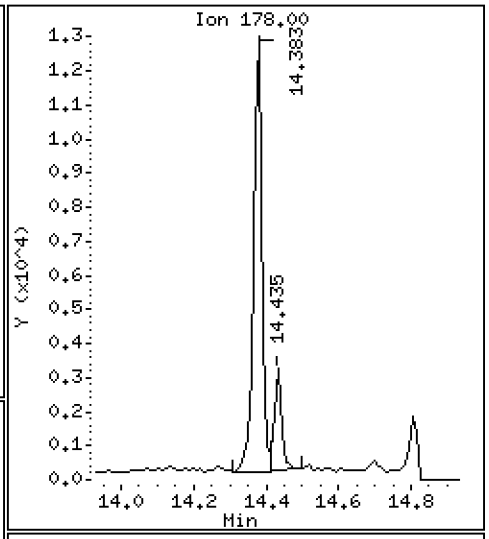
Column phase: Rxi-17Sil MS

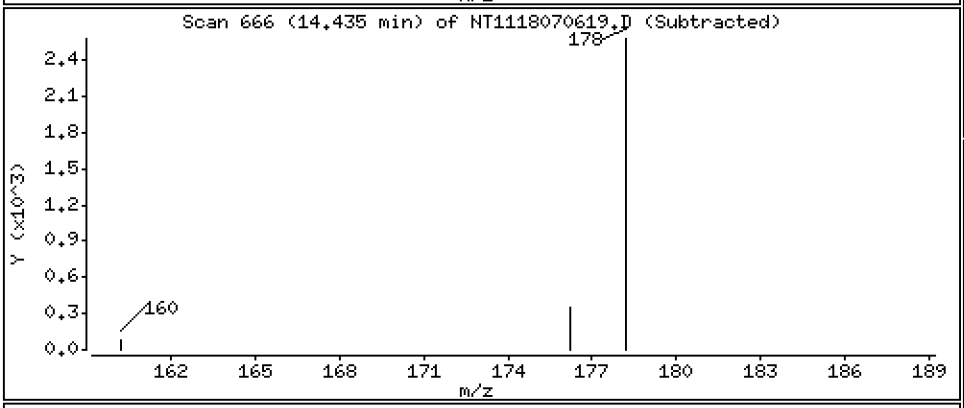
Column diameter: 0.25

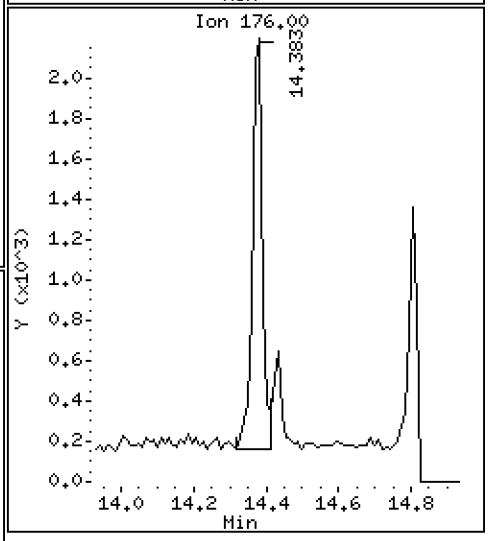
21 Anthracene

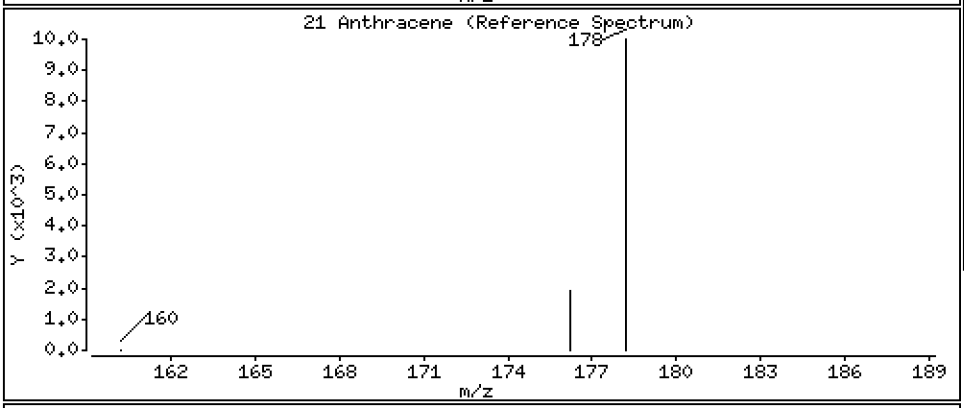
Concentration: 1.49 ng/mL

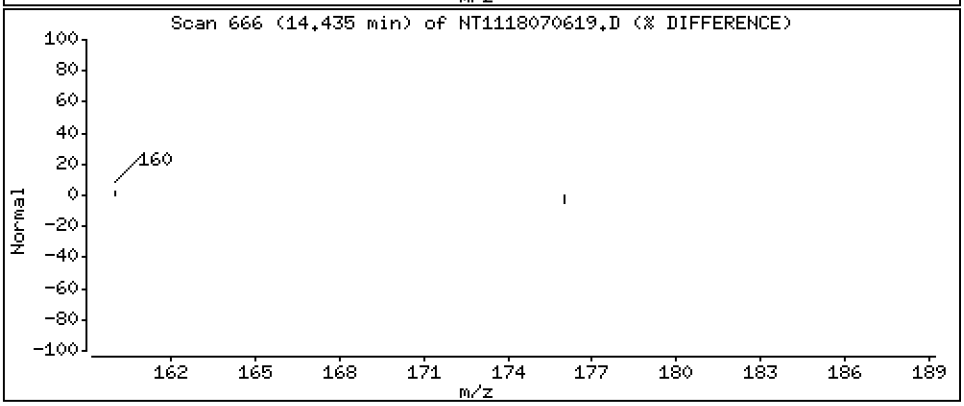












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Date : 06-JUL-2018 23:15

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-04

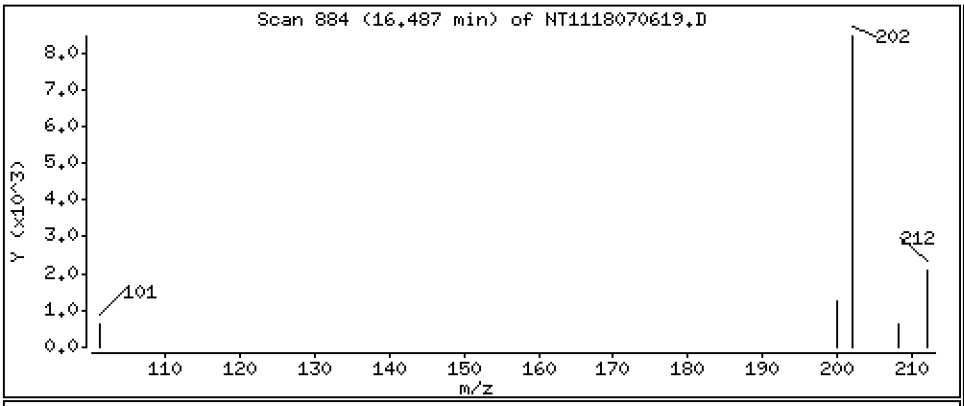
Operator: VTS

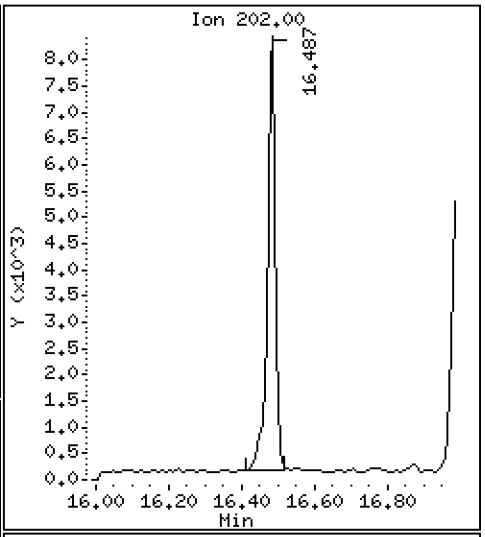
Column phase: Rxi-17Sil MS

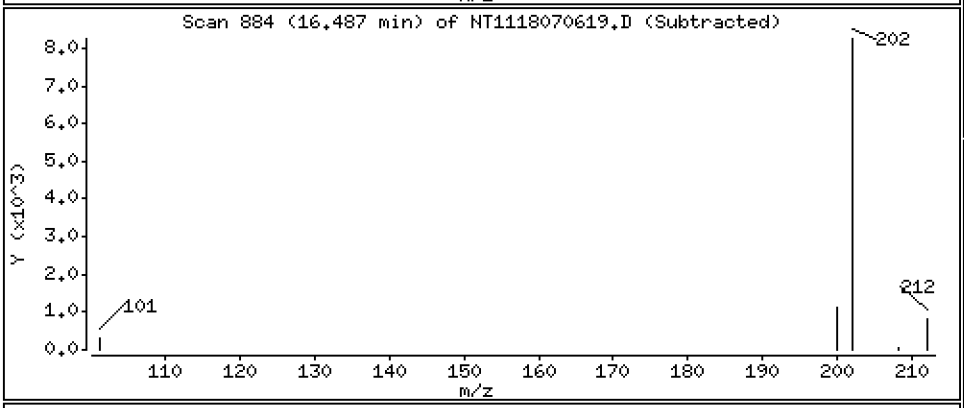
Column diameter: 0.25

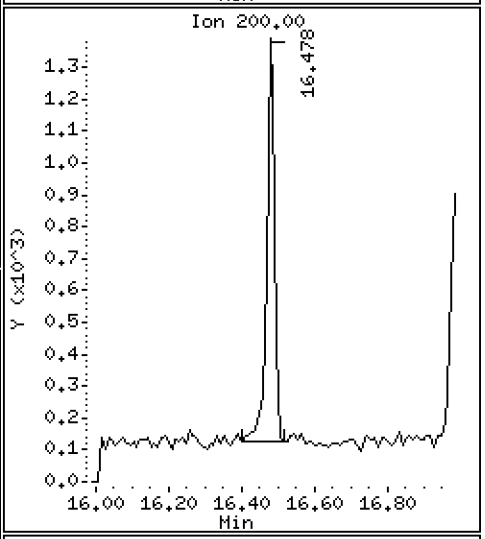
25 Fluoranthene

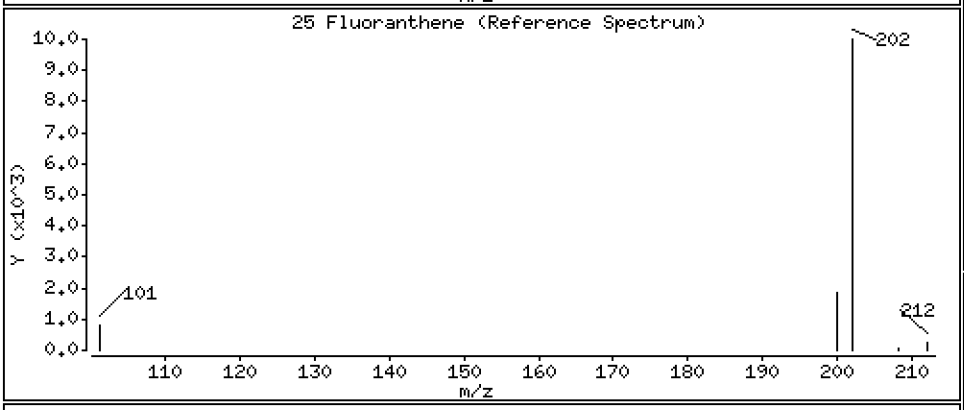
Concentration: 4.78 ng/mL

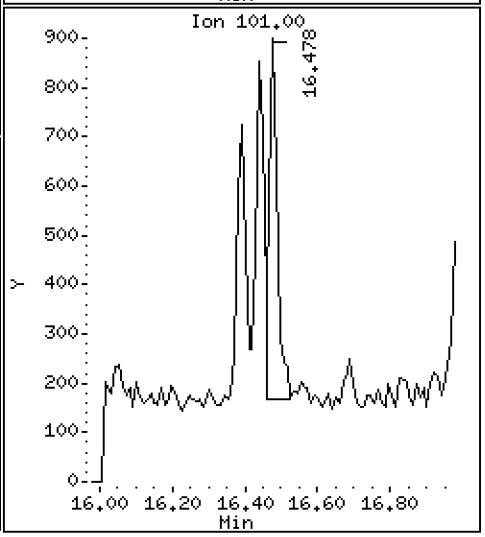


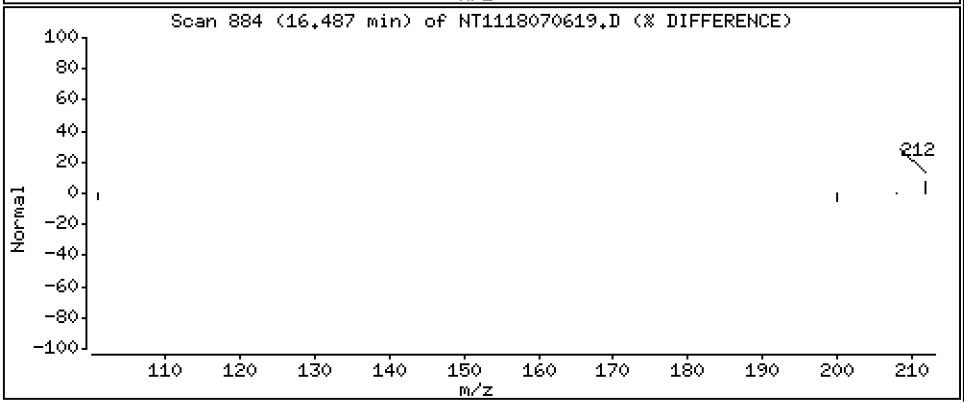












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Date : 06-JUL-2018 23:15

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-04

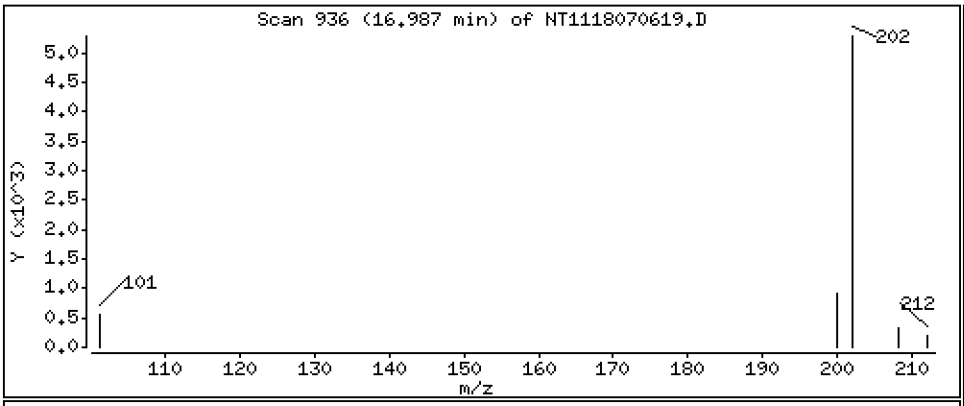
Operator: VTS

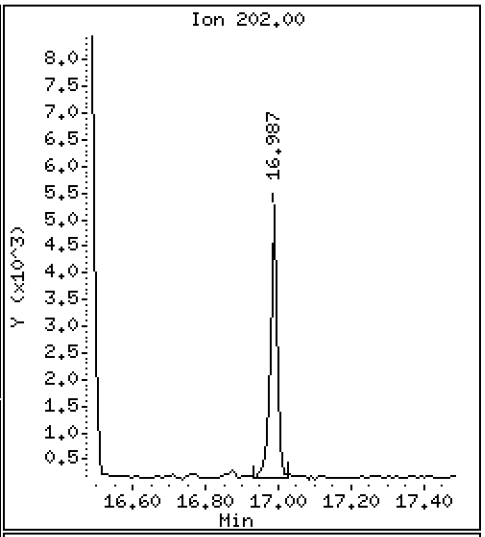
Column phase: Rxi-17Sil MS

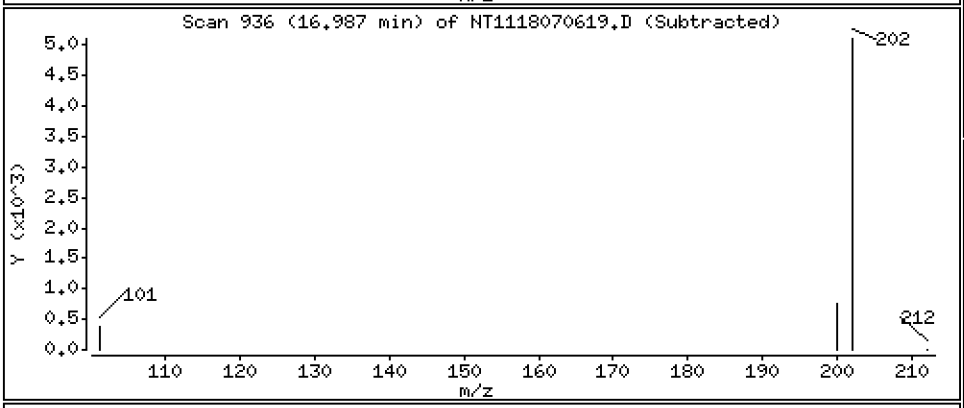
Column diameter: 0.25

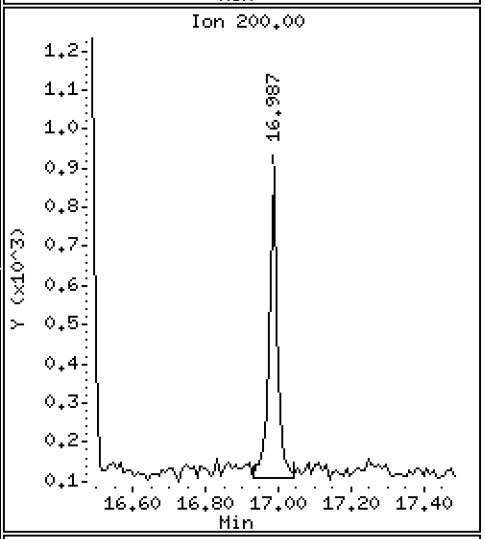
26 Pyrene

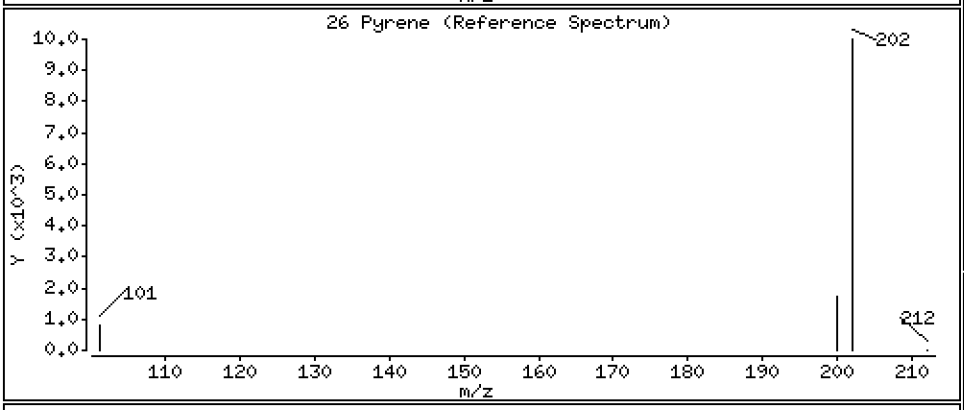
Concentration: 2.42 ng/mL

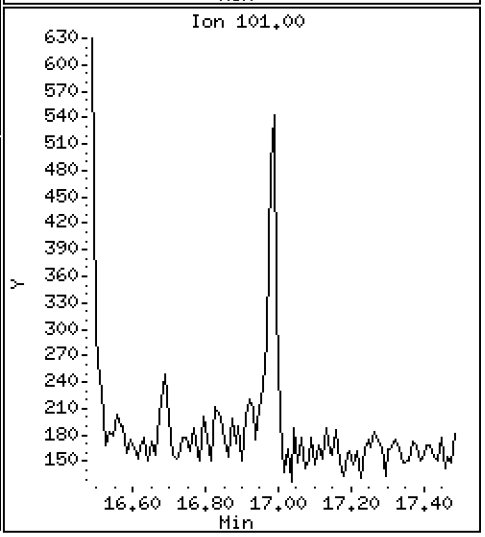


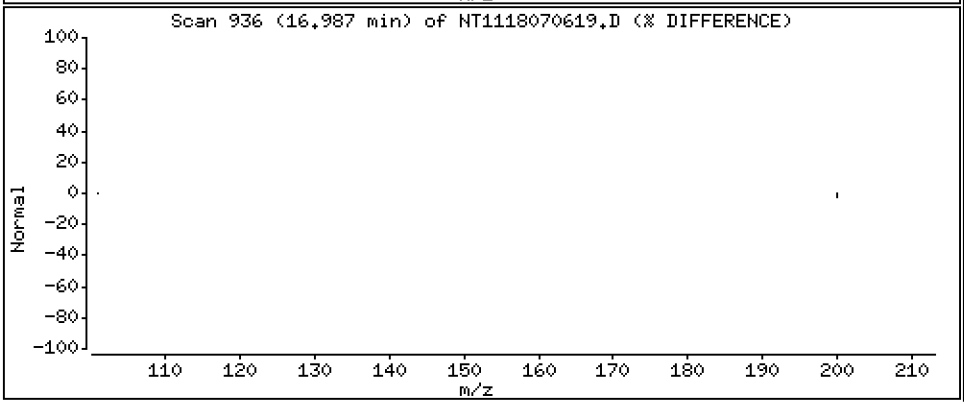












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Date : 06-JUL-2018 23:15

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-04

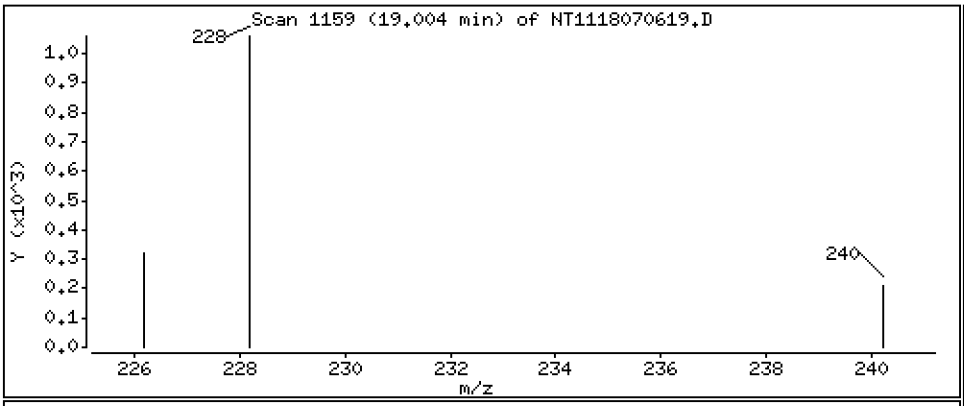
Operator: VTS

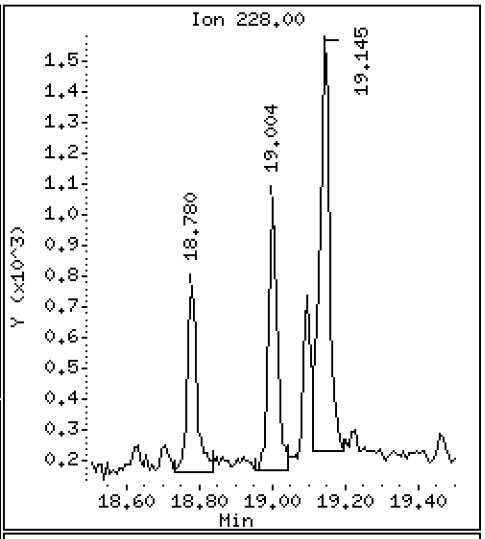
Column phase: Rxi-17Sil MS

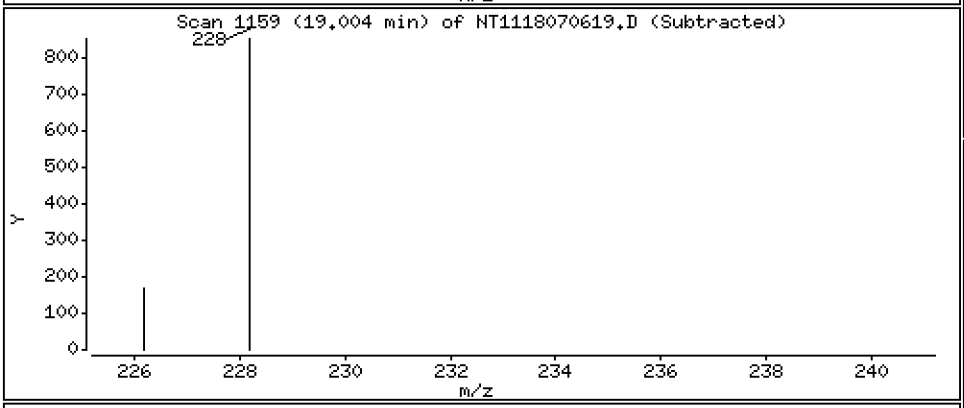
Column diameter: 0.25

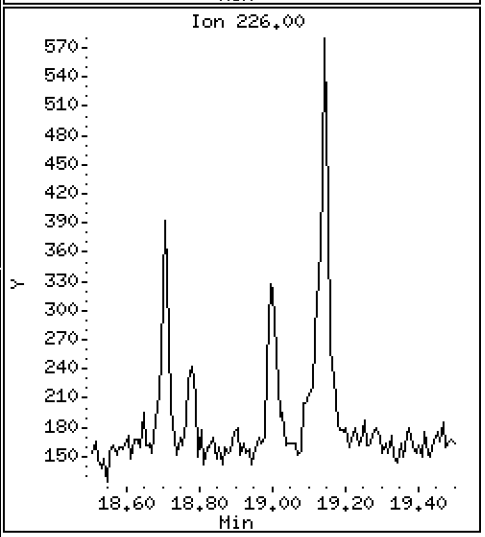
27 Benzo(a)anthracene

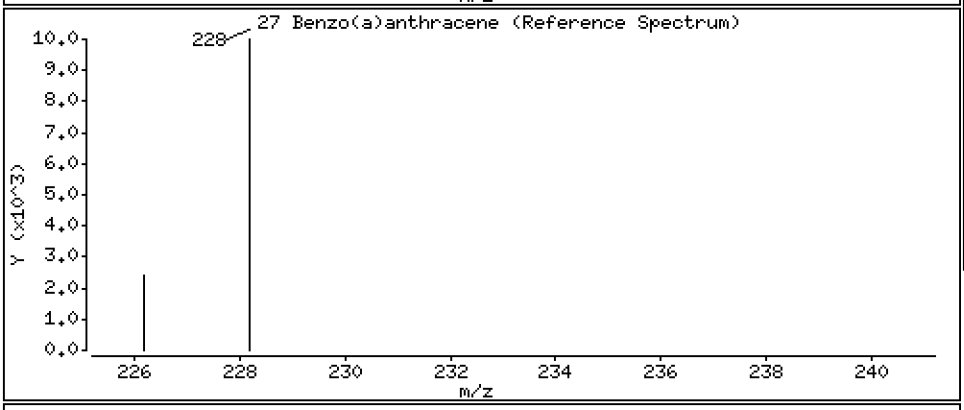
Concentration: 0.633 ng/mL

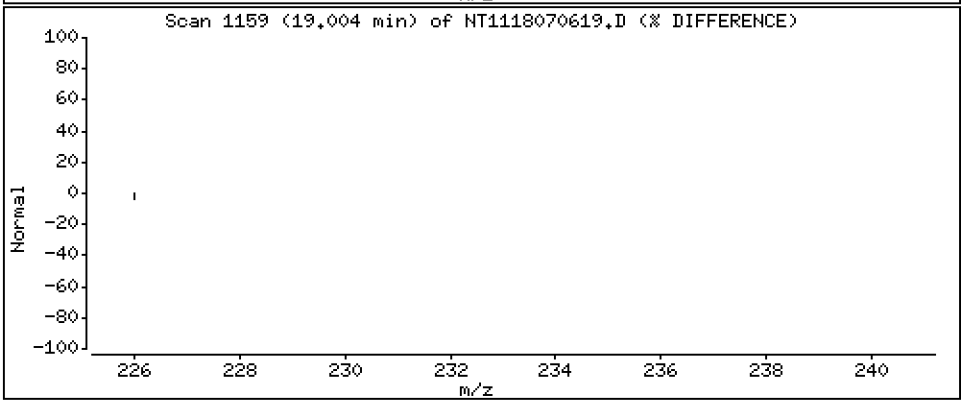












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Date : 06-JUL-2018 23:15

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-04

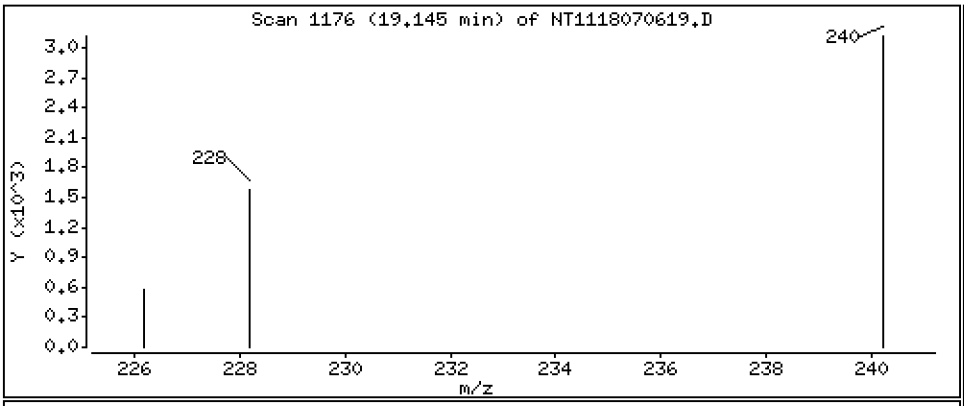
Operator: VTS

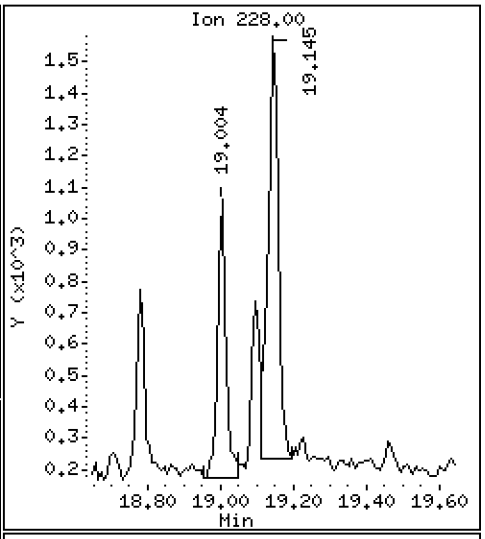
Column phase: Rxi-17Sil MS

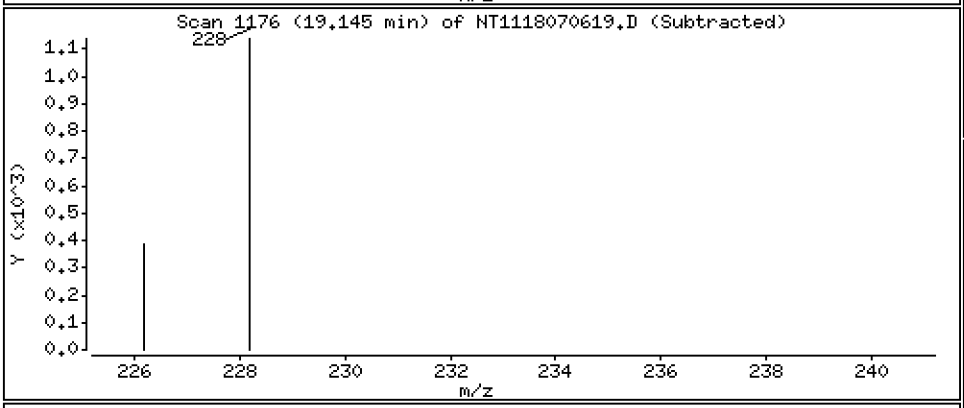
Column diameter: 0.25

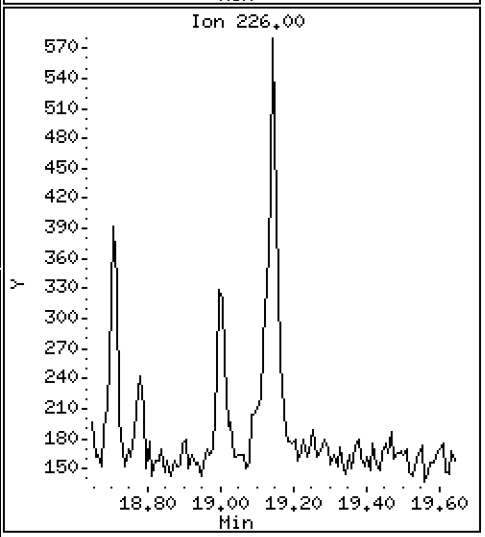
29 Chrysene

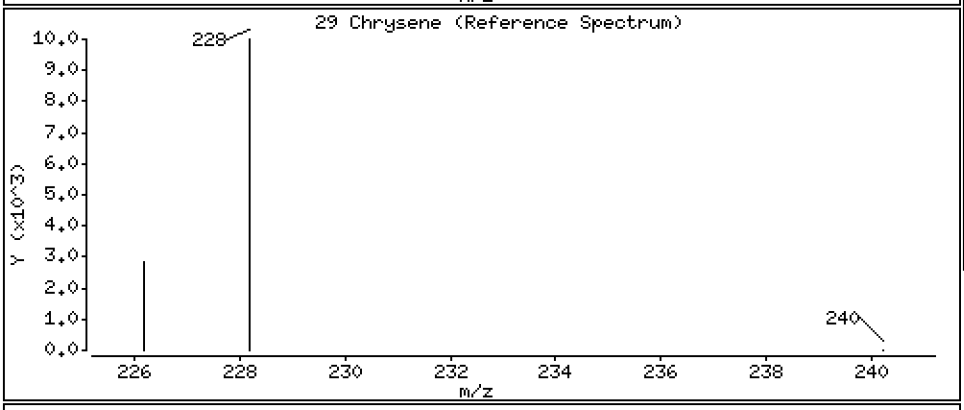
Concentration: 1.17 ng/mL

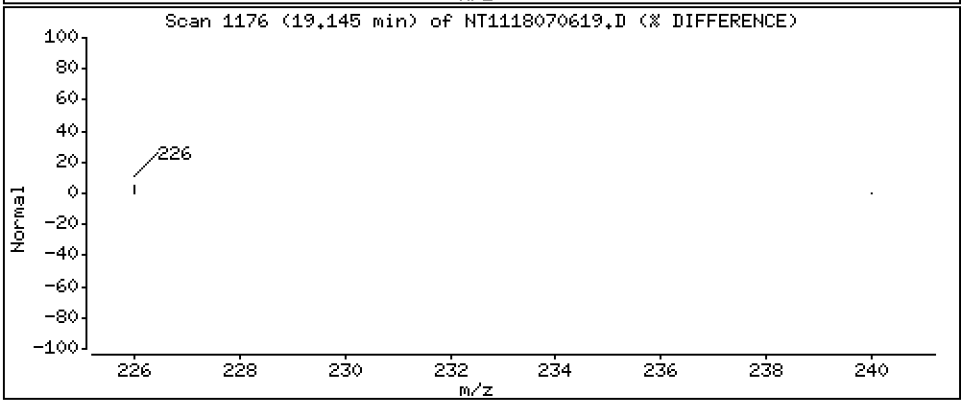












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Date : 06-JUL-2018 23:15

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-04

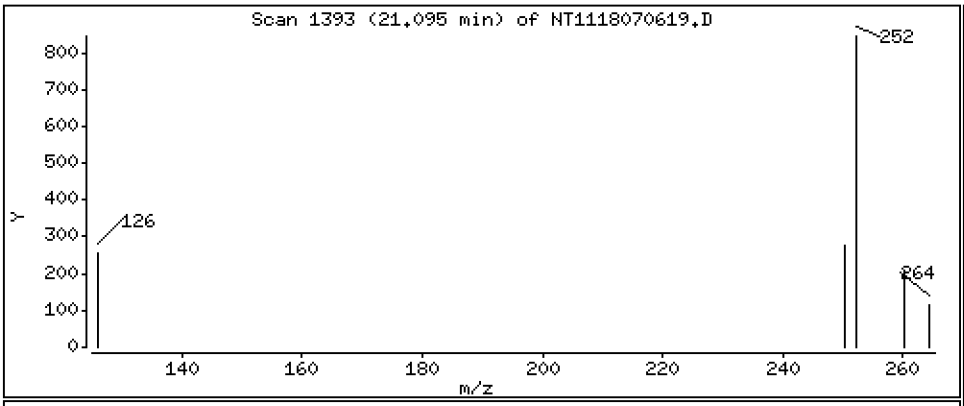
Operator: VTS

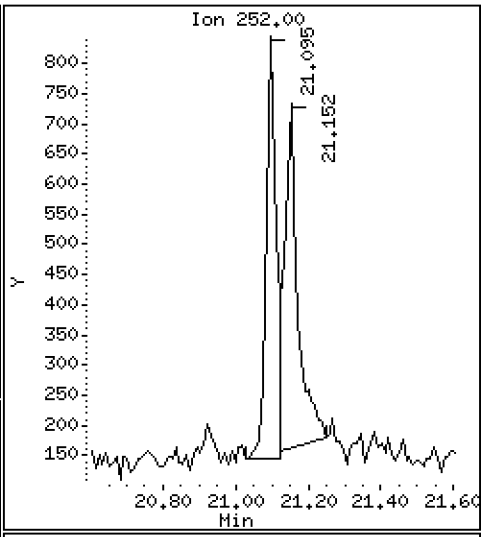
Column phase: Rxi-17Sil MS

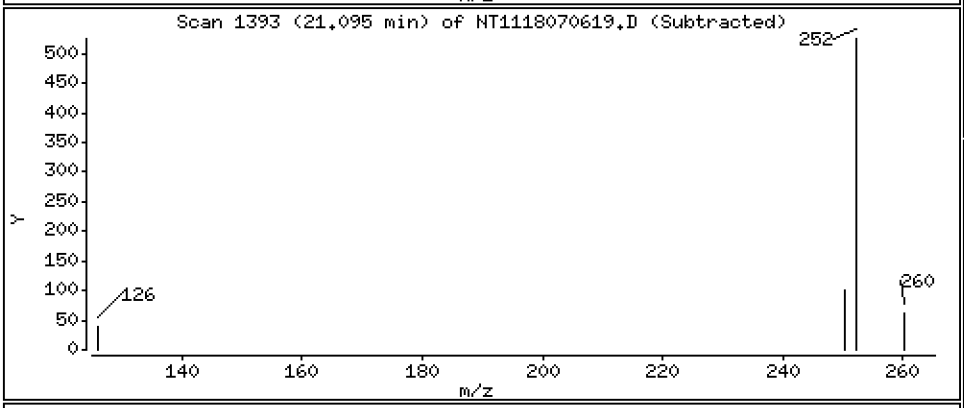
Column diameter: 0.25

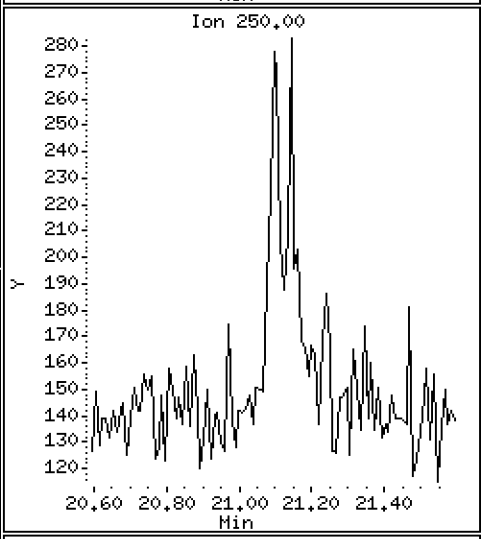
30 Benzo(b)fluoranthene

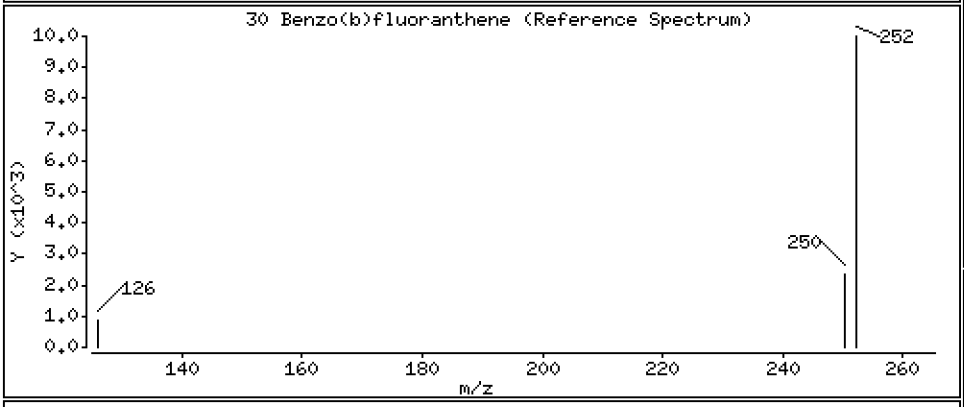
Concentration: 0.704 ng/mL

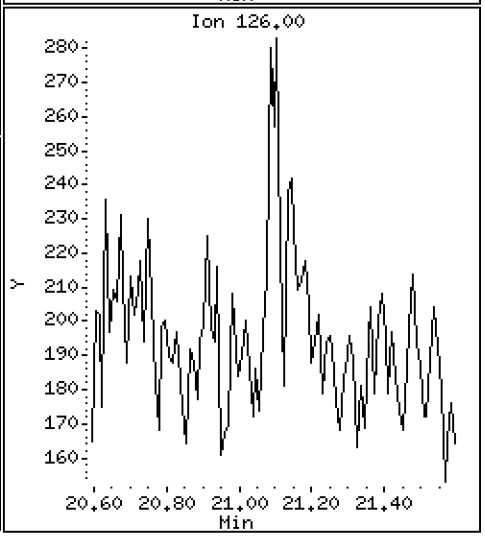


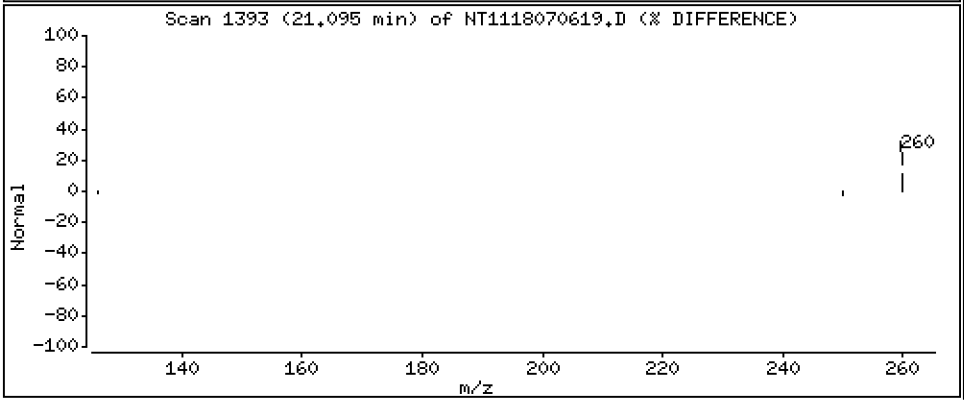












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Date : 06-JUL-2018 23:15

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-04

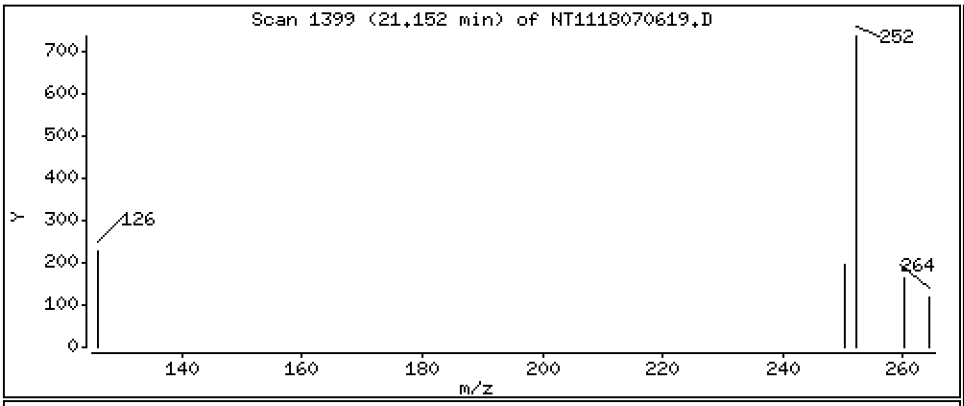
Operator: VTS

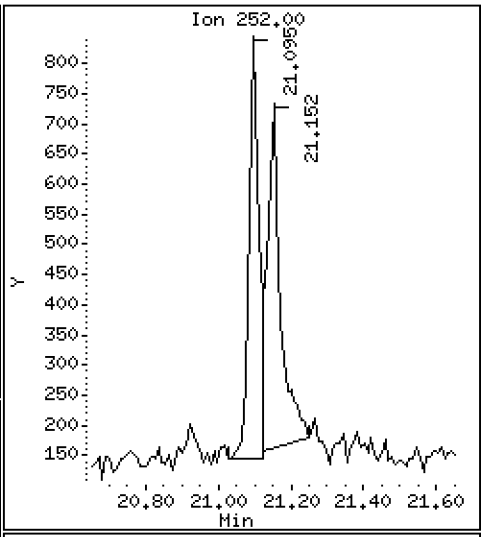
Column phase: Rxi-17Sil MS

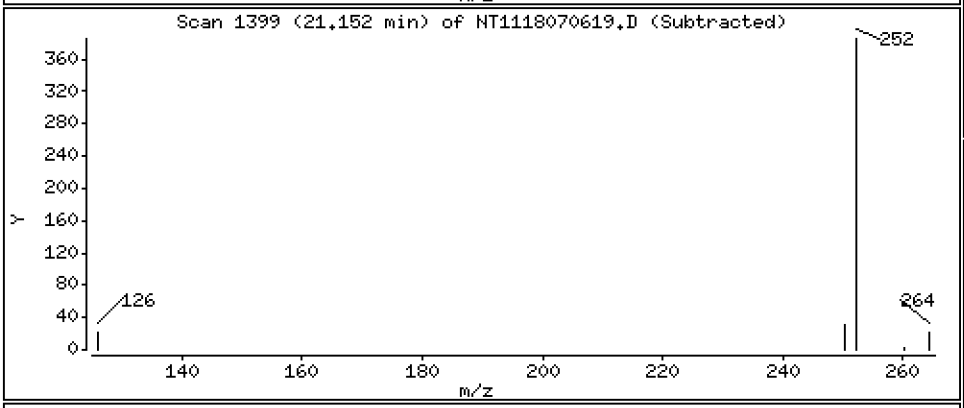
Column diameter: 0.25

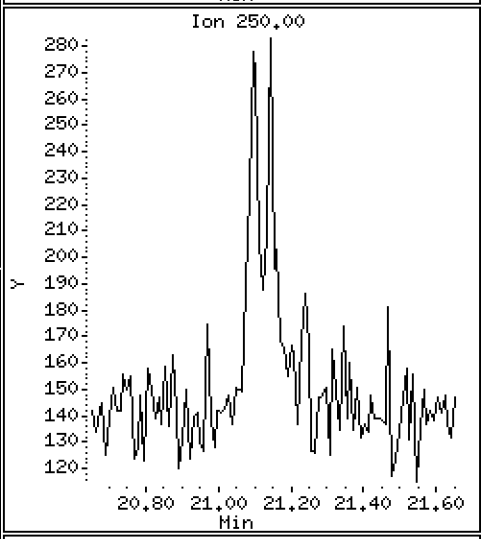
31 Benzo(k)fluoranthene

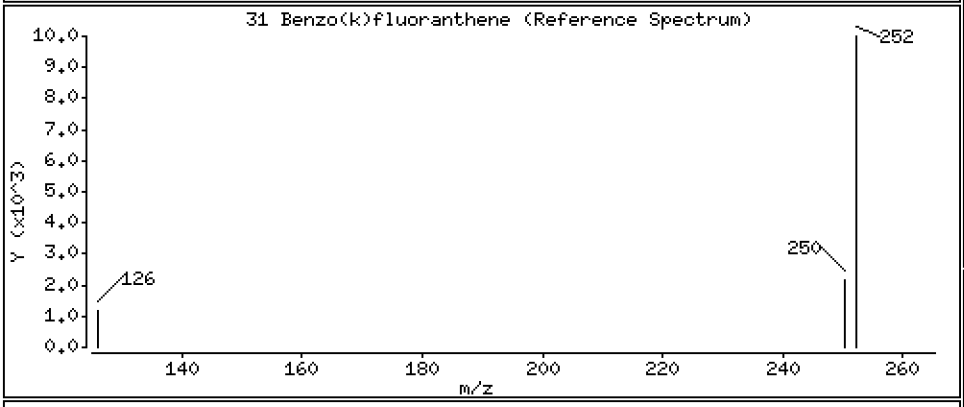
Concentration: 0.720 ng/mL

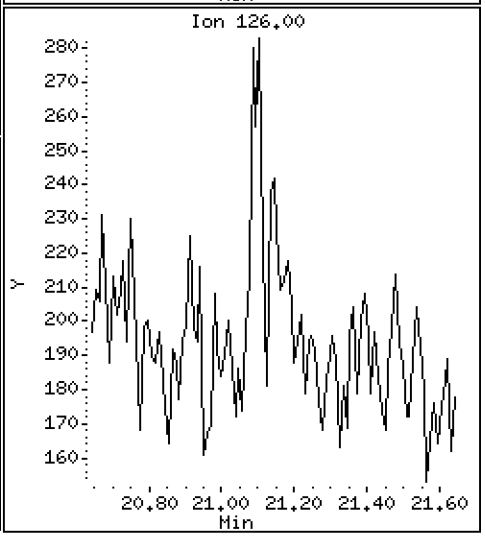


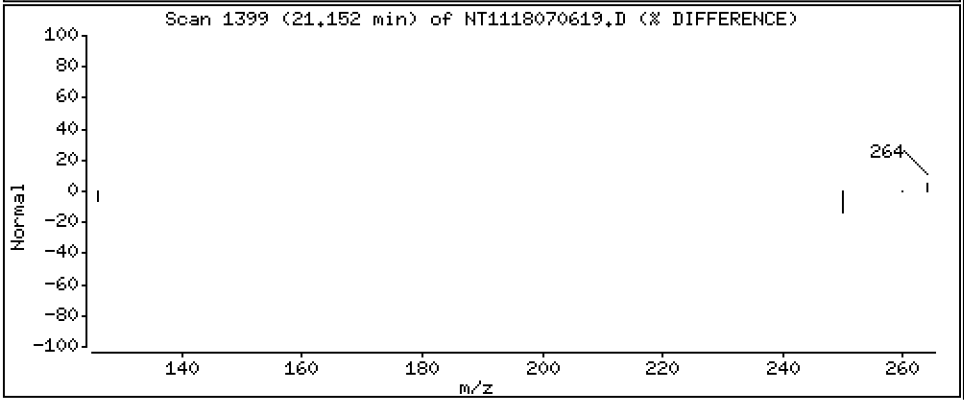












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180706.b\NT1118070619.D
Lab Smp Id: 18F0248-04
Inj Date : 06-JUL-2018 23:15 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0248-04
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Meth Date : 06-Jul-2018 13:13 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	458935	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	9376	2.71378	2.71
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	466551	178.174	178
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	6136	2.19490	2.19
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	3581	1.28799	1.29
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	239425	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	2386	1.22543	1.23
	13 Dibenzofuran	168	11.908	11.908	(1.023)	4785	1.79390	1.79
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.539	12.540	(1.077)	4941	2.29708	2.30
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	386379	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	20501	6.76520	6.77
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.435	14.435	(1.007)	4217	1.48855	1.49
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	Compound Not Detected.					
$	24 Fluoranthene-d10	212	16.449	16.449	(1.147)	487241	207.750	208
	25 Fluoranthene	202	16.487	16.487	(1.150)	13452	4.78012	4.78
	26 Pyrene	202	16.987	16.987	(0.890)	7115	2.41611	2.42
	27 Benzo(a)anthracene	228	19.004	19.004	(0.995)	1454	0.63308	0.633
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	299543	200.000	
	29 Chrysene	228	19.145	19.145	(1.003)	2668	1.16947	1.17
	30 Benzo(b)fluoranthene	252	21.094	21.104	(0.944)	1458	0.70446	0.704
	31 Benzo(k)fluoranthene	252	21.152	21.152	(0.946)	1545	0.71989	0.720
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
35	Benzo(a)pyrene	252	Compound Not Detected.					
* 36	Perylene-d12	264	22.353	22.353	(1.000)	292607	200.000	
37	Perylene	252	Compound Not Detected.					
$ 38	Dibenzo(a,h)anthracene-d14	292	25.268	25.279	(1.130)	262622	187.556	188
39	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
40	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
41	Benzo(g,h,i)perylene	276	Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118070619.D
Lab Smp Id: 18F0248-04
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Misc Info:

Calibration Date: 06-JUL-2018
Calibration Time: 12:50
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	458935	6.40
11 Acenaphthene-d10	260137	130069	520274	239425	-7.96
18 Phenanthrene-d10	427391	213696	854782	386379	-9.60
28 Chrysene-d12	304596	152298	609192	299543	-1.66
36 Perylene-d12	263091	131546	526182	292607	11.22

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118070619.D

Lab ID: 18F0248-04
nt11.i, 20180706.b\LOWSIM.m,   06-JUL-2018 23:15

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180706.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-70

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270D-SIM

Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-05	SDG:	18F0185
Sampled:	06/15/18 11:13	Prepared:	06/21/18 13:35	File ID:	NT1118070620.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	07/06/18 23:51
Batch:	BGF0530	Sequence:	SGG0067	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.002	J	0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.002	J	0.001	0.010
208-96-8	Acenaphthylene	1	0.010	U	0.002	0.010
83-32-9	Acenaphthene	1	0.010	U	0.003	0.010
86-73-7	Fluorene	1	0.010	U	0.002	0.010
85-01-8	Phenanthrene	1	0.002	J	0.001	0.010
120-12-7	Anthracene	1	0.010	U	0.001	0.010
206-44-0	Fluoranthene	1	0.002	J	0.002	0.010
129-00-0	Pyrene	1	0.010	U	0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.010	U	0.0008	0.010
218-01-9	Chrysene	1	0.010	U	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.010	U	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.196	65.5	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.207	68.9	29 - 120	
Fluoranthene-d10	0.30000	0.227	75.8	57 - 120	

Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070620.D

Date : 06-JUL-2018 23:51

Client ID:

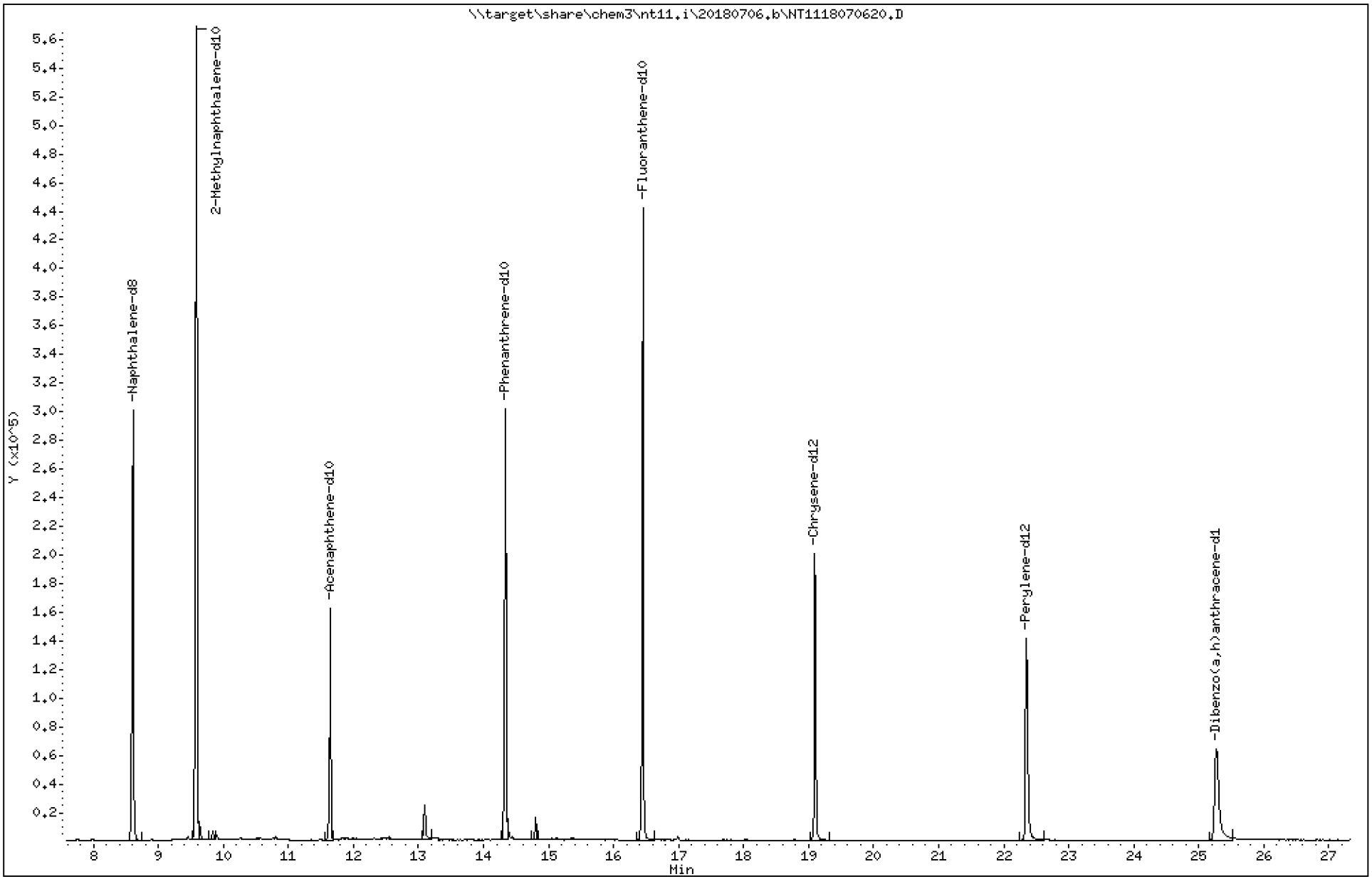
Instrument: nt11.i

Sample Info: 18F0248-05

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 06-JUL-2018 23:51

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-05

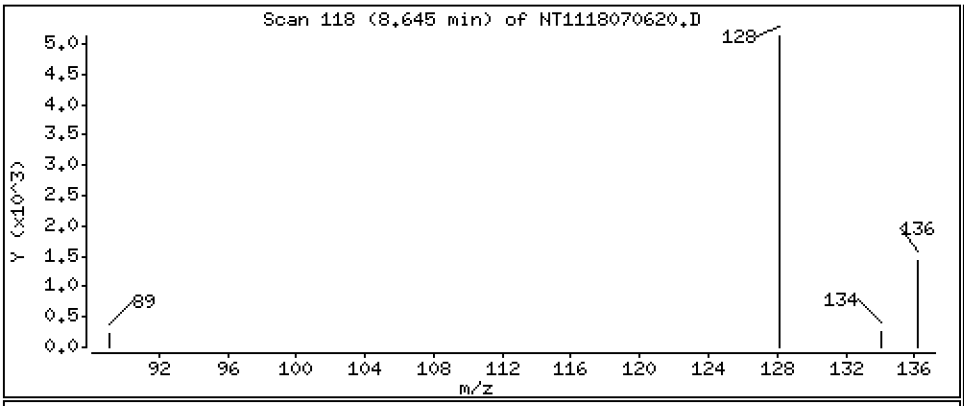
Operator: VTS

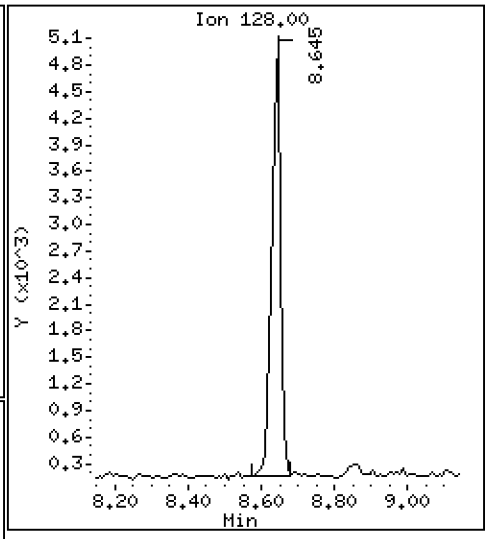
Column phase: Rxi-17Sil MS

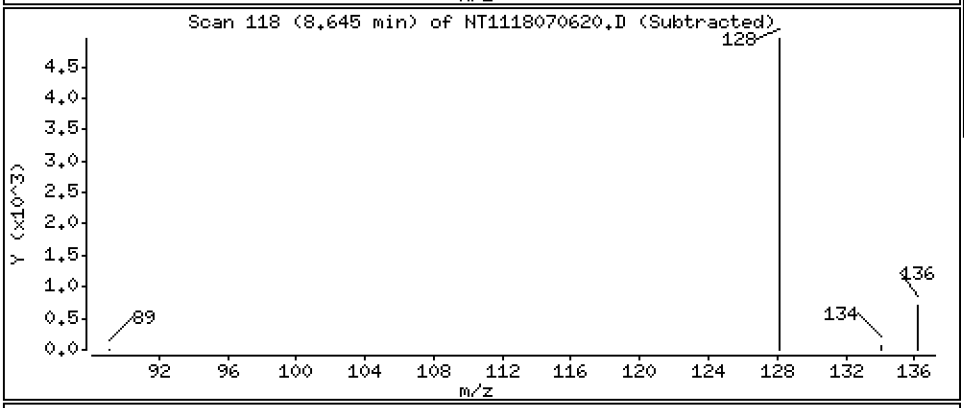
Column diameter: 0.25

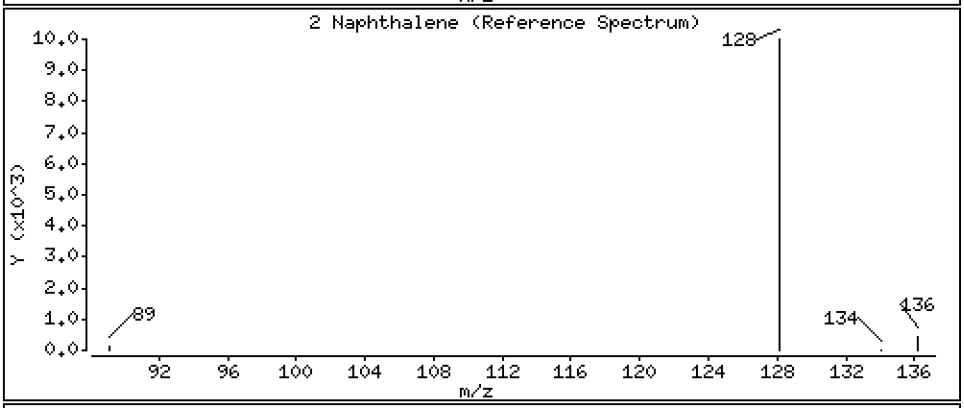
2 Naphthalene

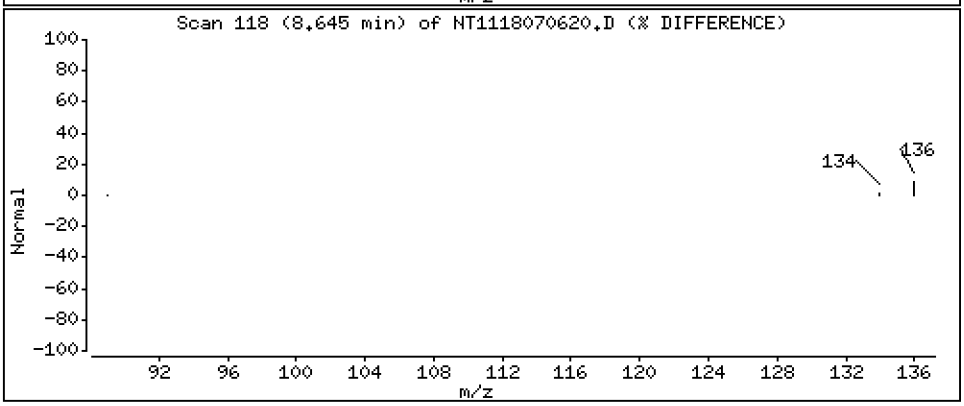
Concentration: 2.38 ng/mL











Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070620.D

Date : 06-JUL-2018 23:51

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-05

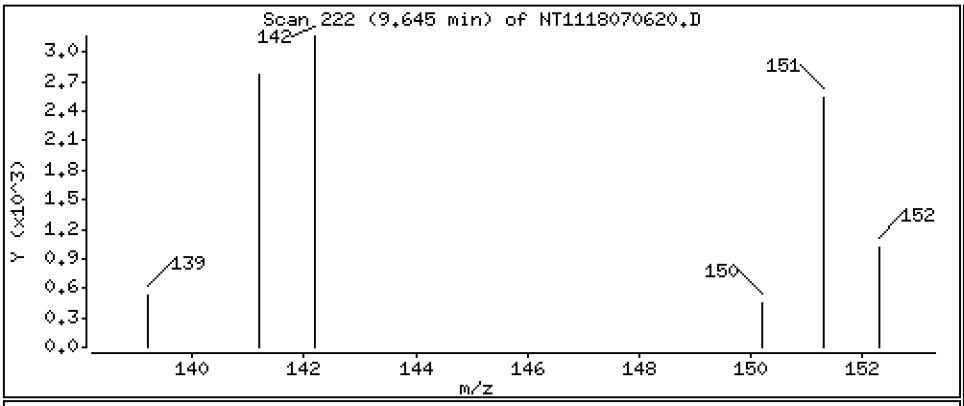
Operator: VTS

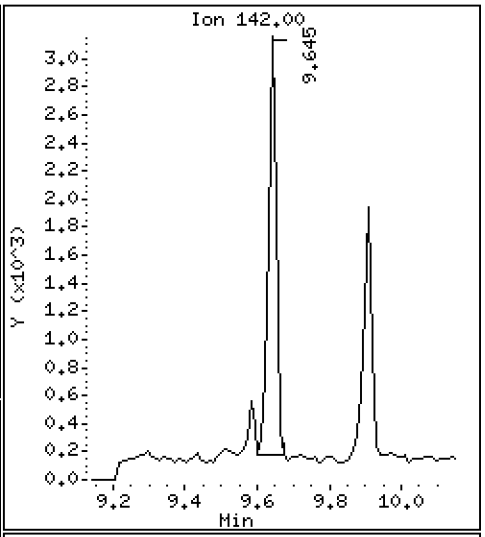
Column phase: Rxi-17Sil MS

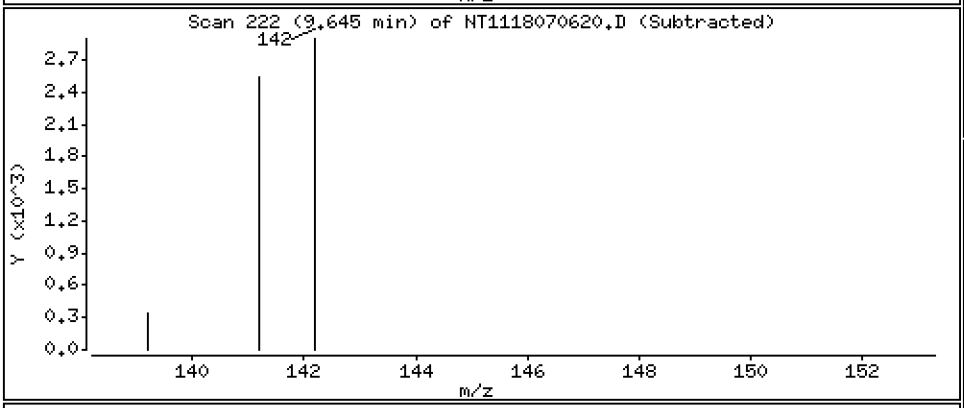
Column diameter: 0.25

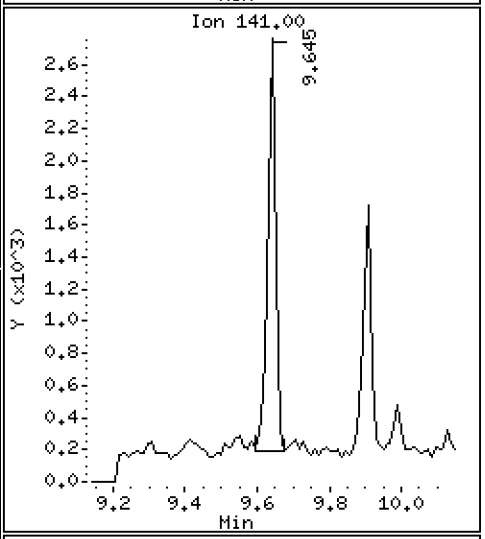
5 2-Methylnaphthalene

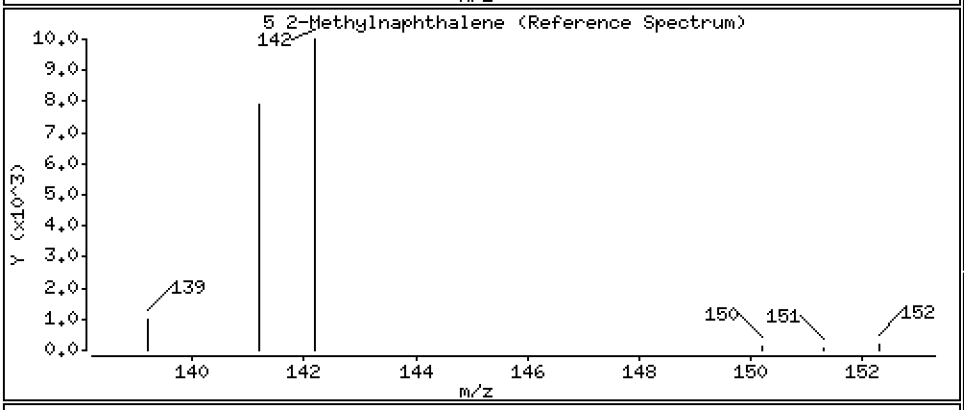
Concentration: 1.60 ng/mL

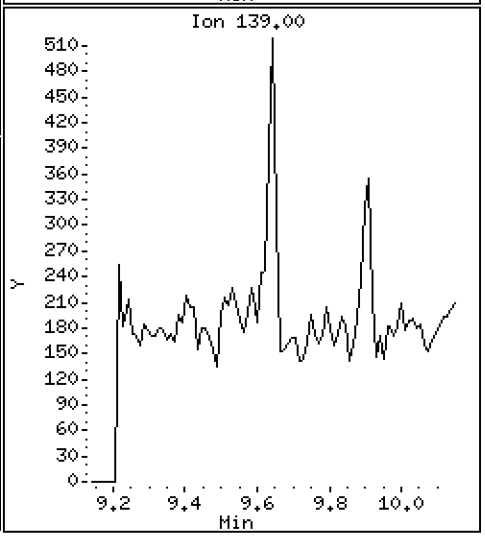


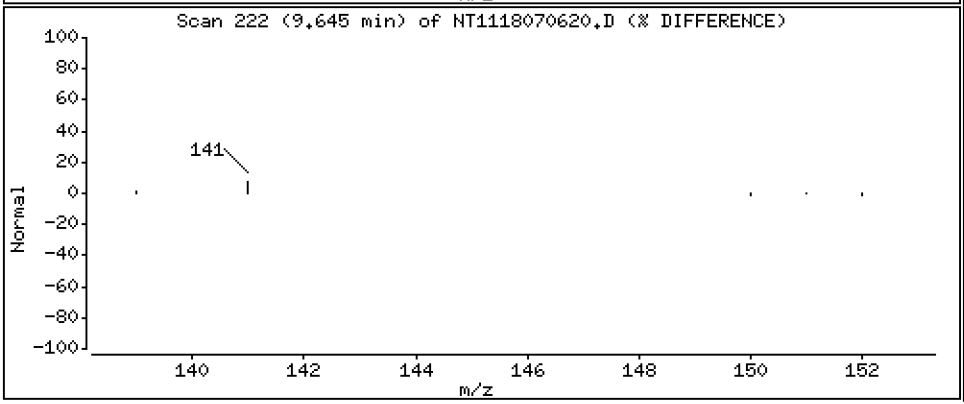












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070620.D

Date : 06-JUL-2018 23:51

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-05

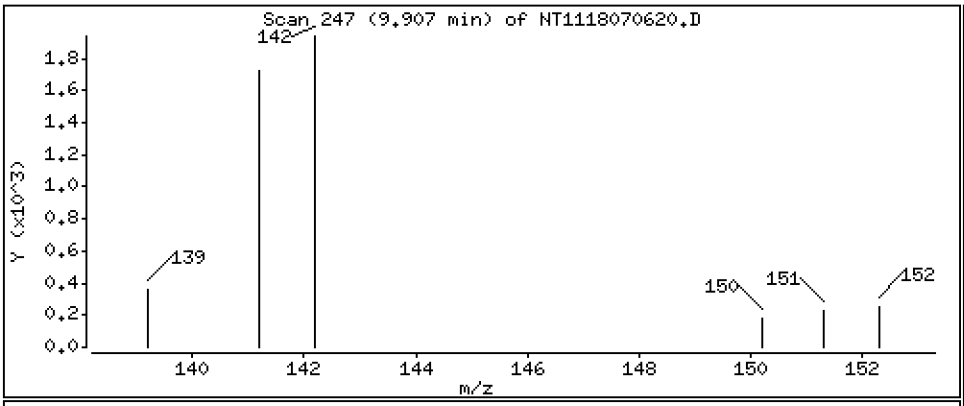
Operator: VTS

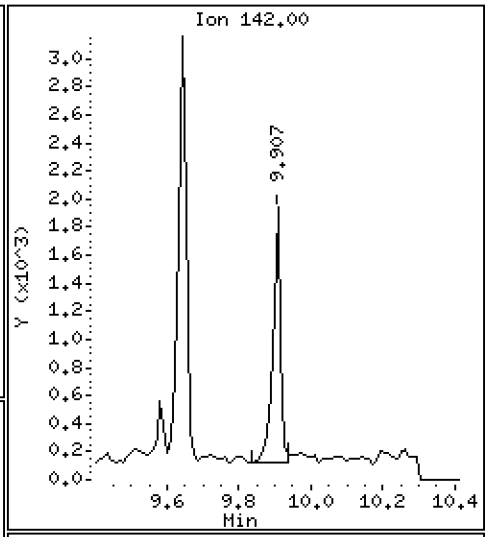
Column phase: Rxi-17Sil MS

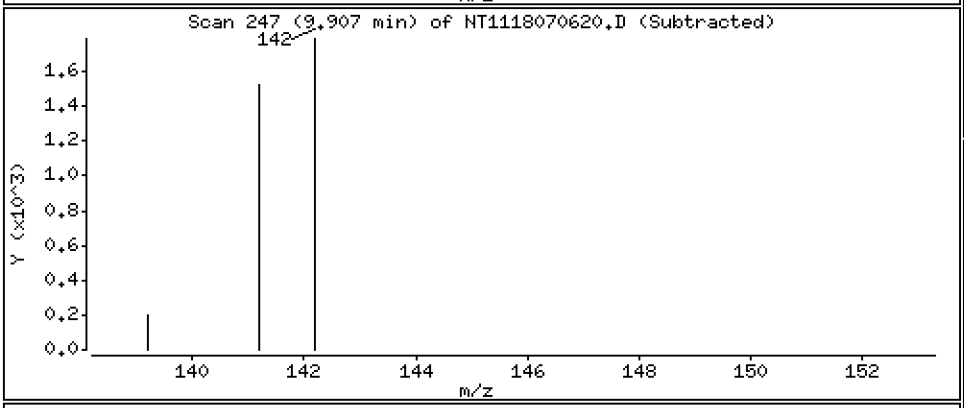
Column diameter: 0.25

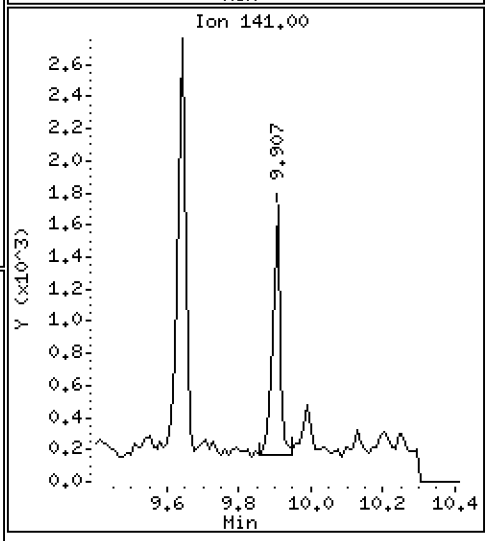
6 1-Methylnaphthalene

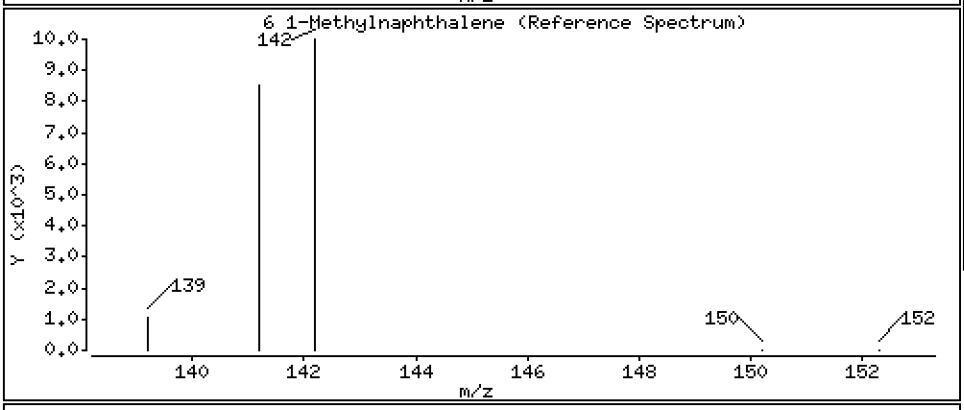
Concentration: 1.06 ng/mL

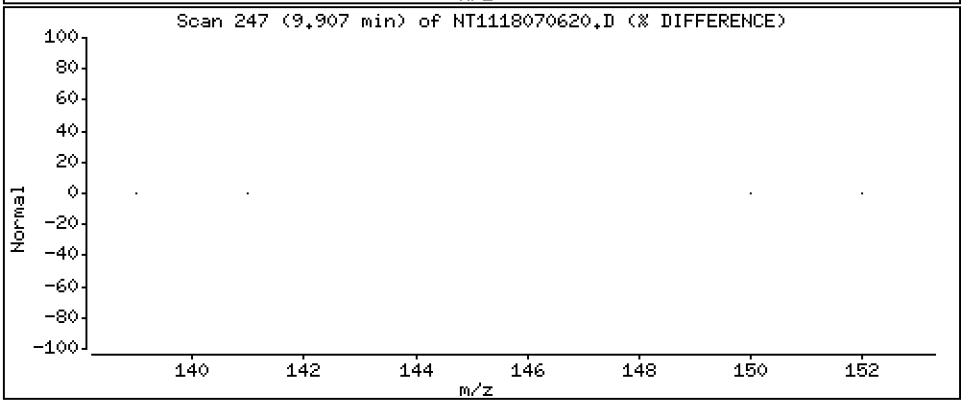












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Date : 06-JUL-2018 23:51

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-05

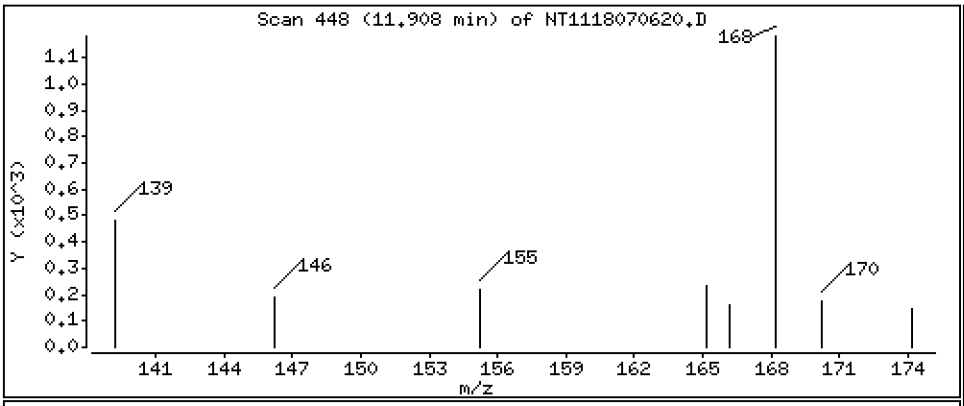
Operator: VTS

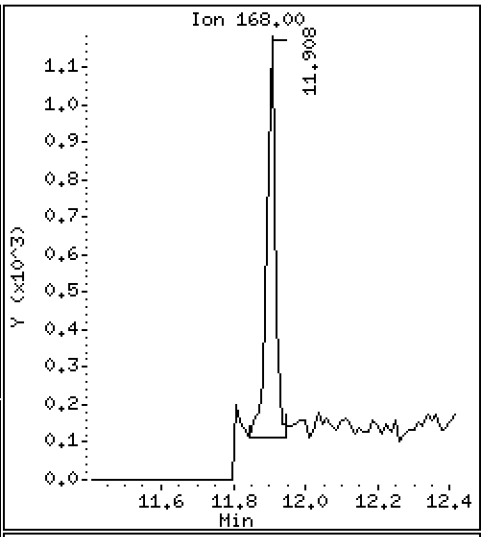
Column phase: Rxi-17Sil MS

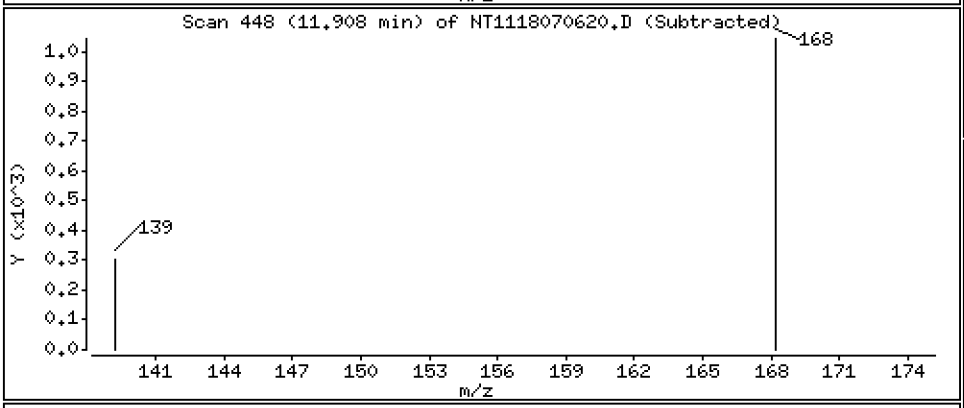
Column diameter: 0.25

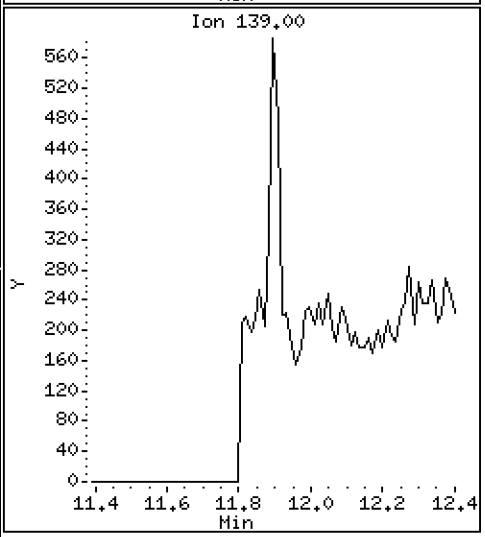
13 Dibenzofuran

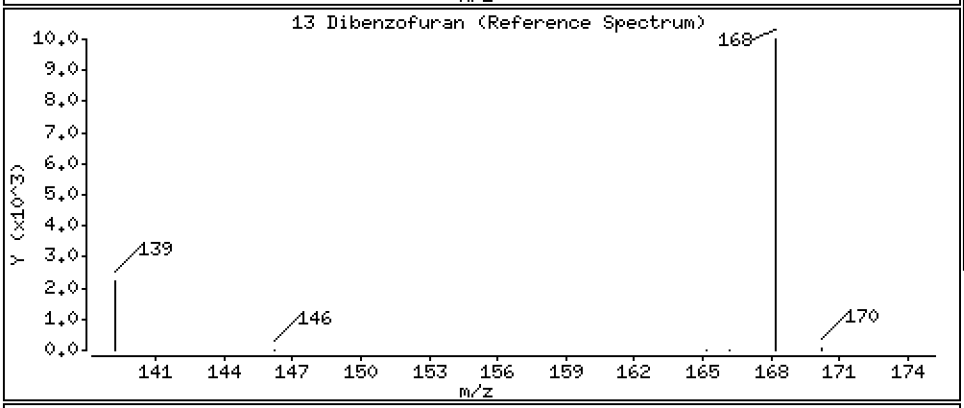
Concentration: 0.634 ng/mL

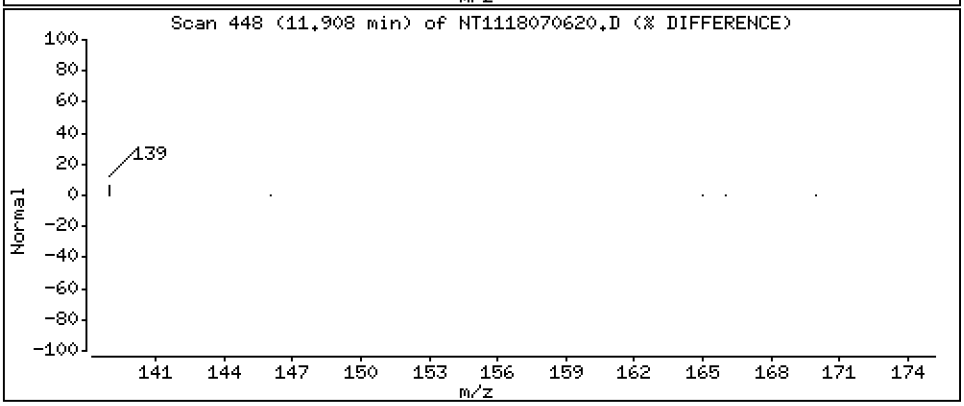












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Date : 06-JUL-2018 23:51

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-05

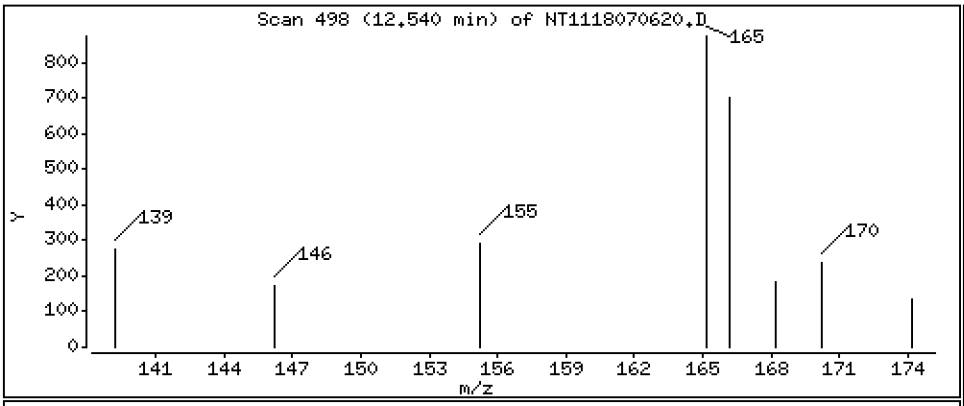
Operator: VTS

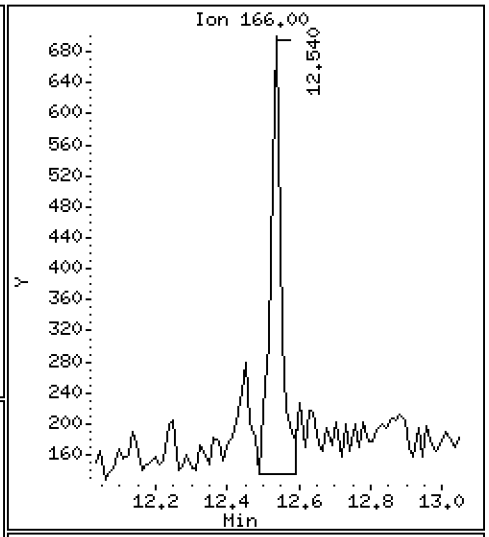
Column phase: Rxi-17Sil MS

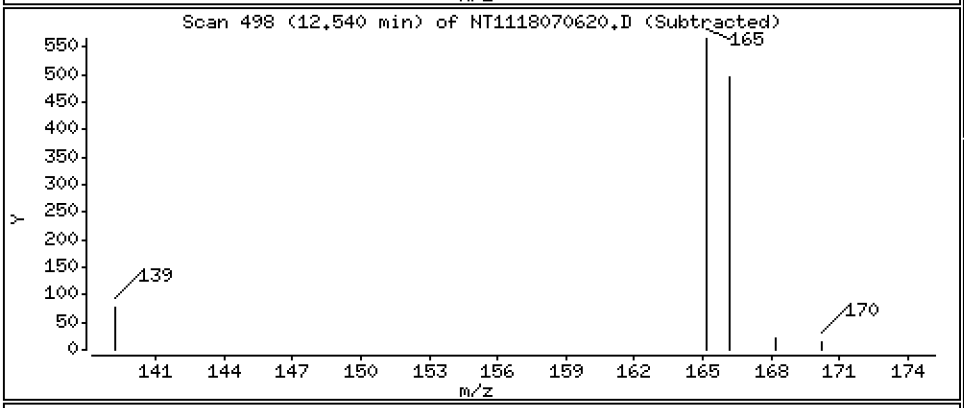
Column diameter: 0.25

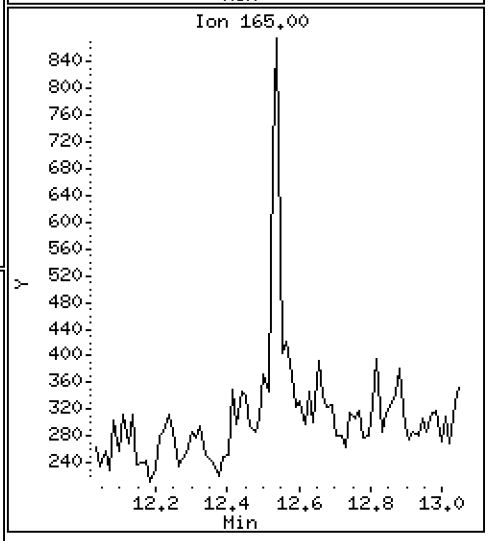
16 Fluorene

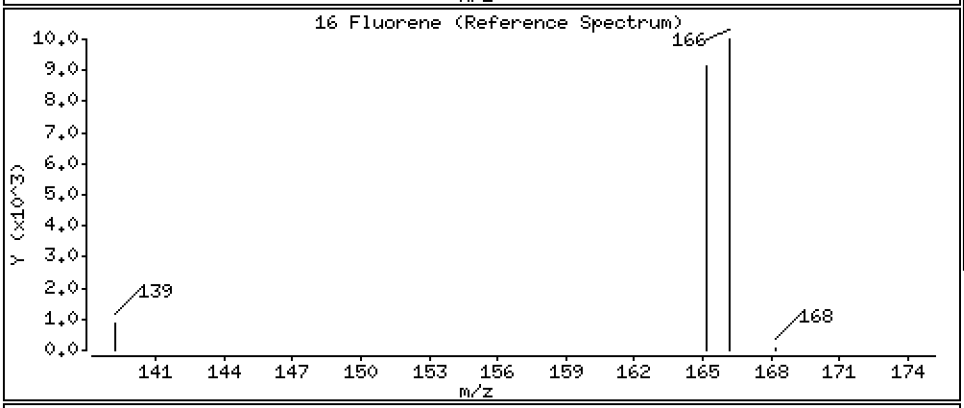
Concentration: 0.547 ng/mL

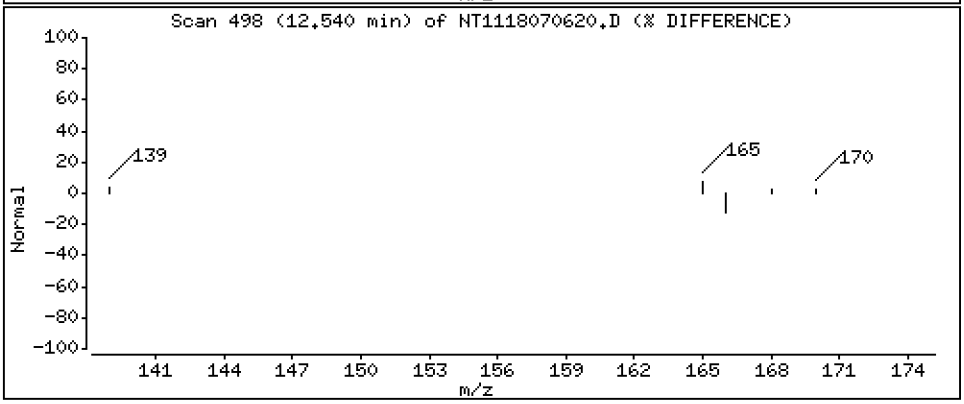












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Date : 06-JUL-2018 23:51

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-05

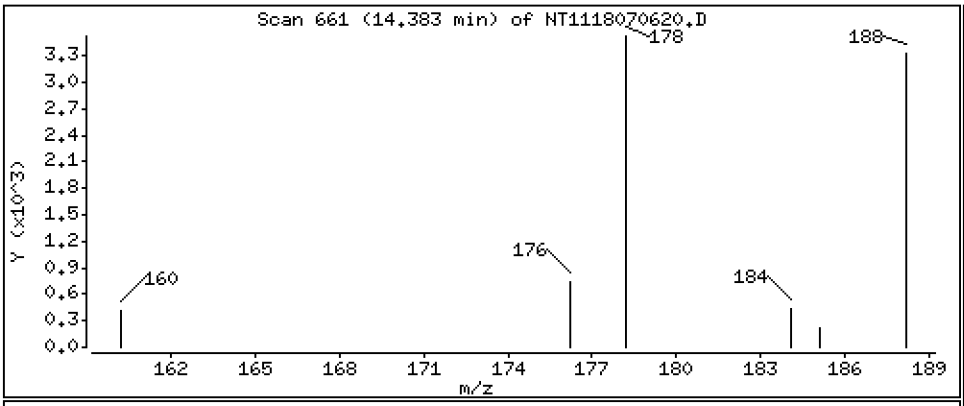
Operator: VTS

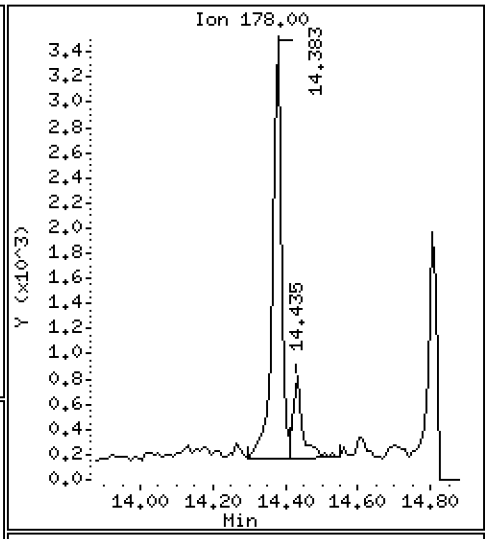
Column phase: Rxi-17Sil MS

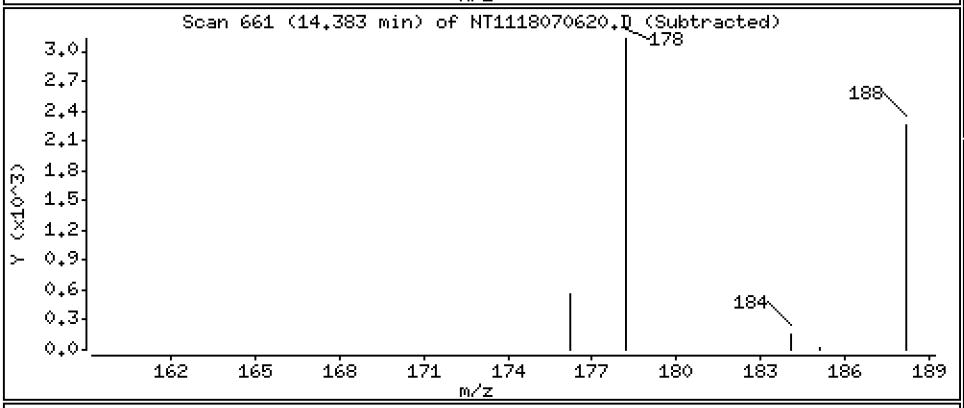
Column diameter: 0.25

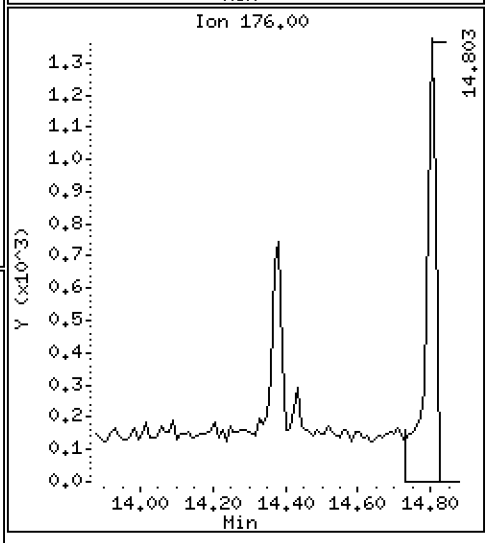
19 Phenanthrene

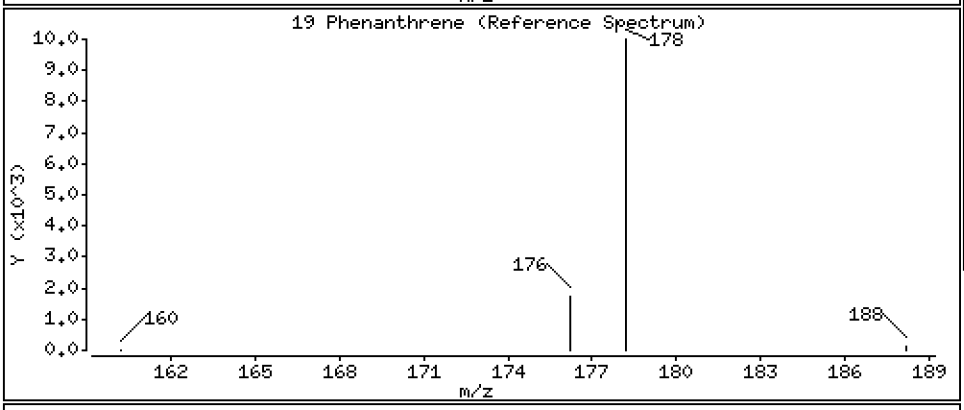
Concentration: 1.83 ng/mL

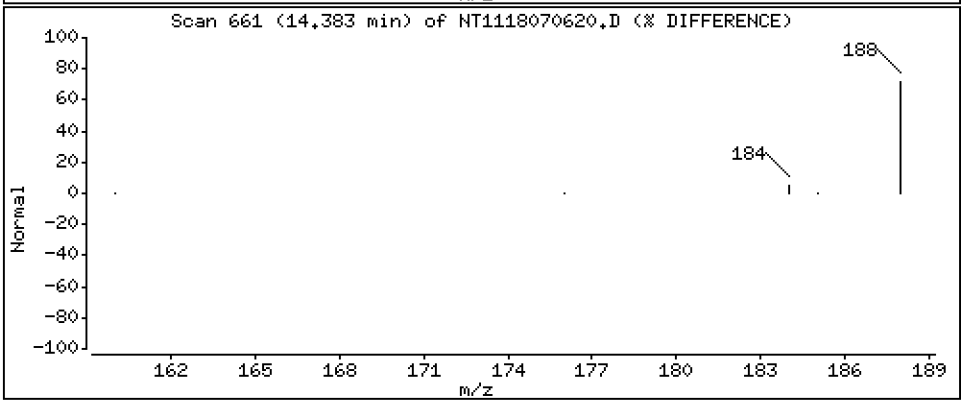












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070620.D

Date : 06-JUL-2018 23:51

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-05

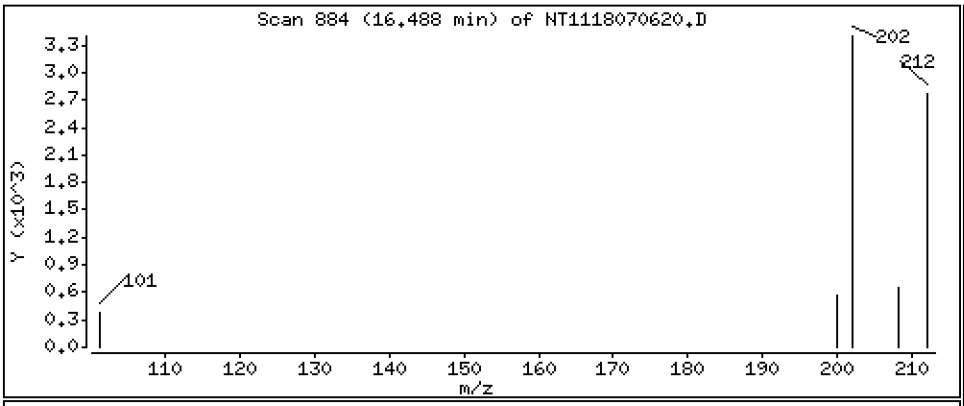
Operator: VTS

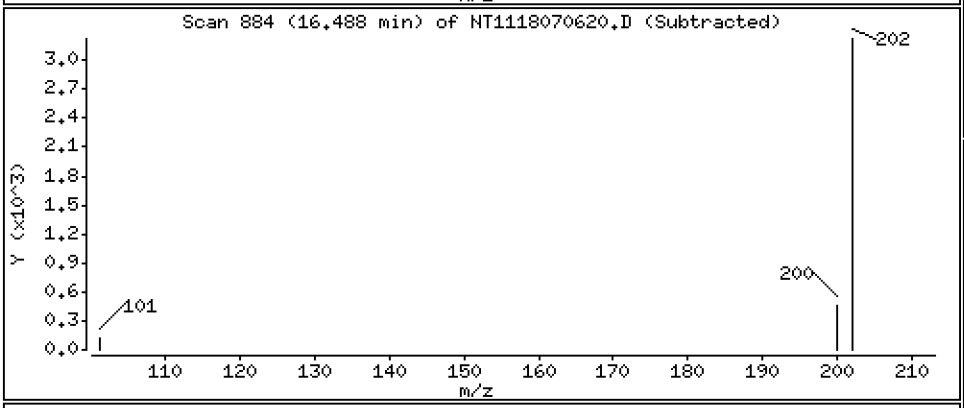
Column phase: Rxi-17Sil MS

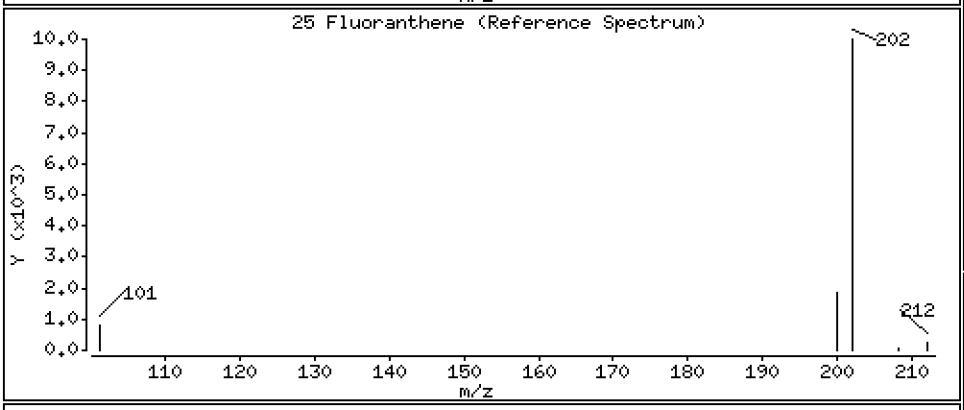
Column diameter: 0.25

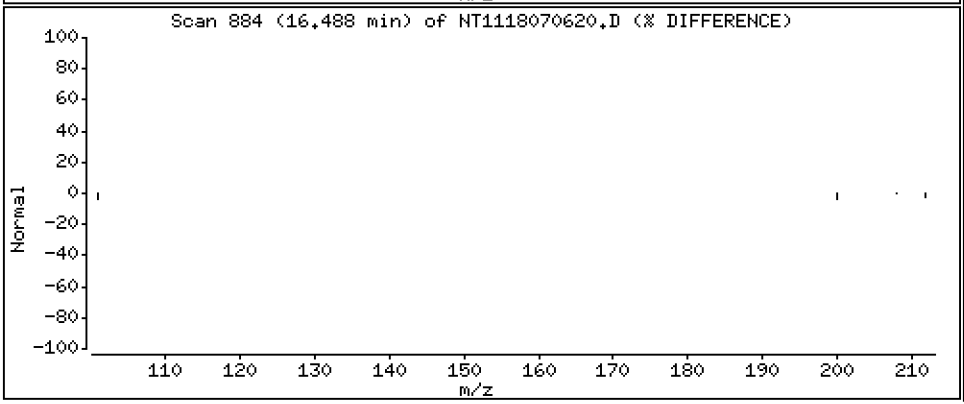
25 Fluoranthene

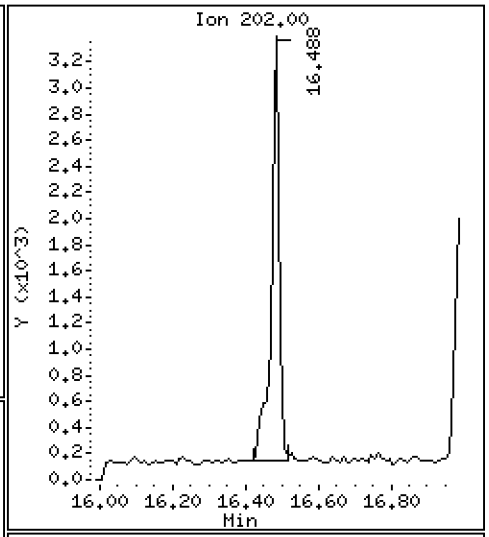
Concentration: 1.81 ng/mL

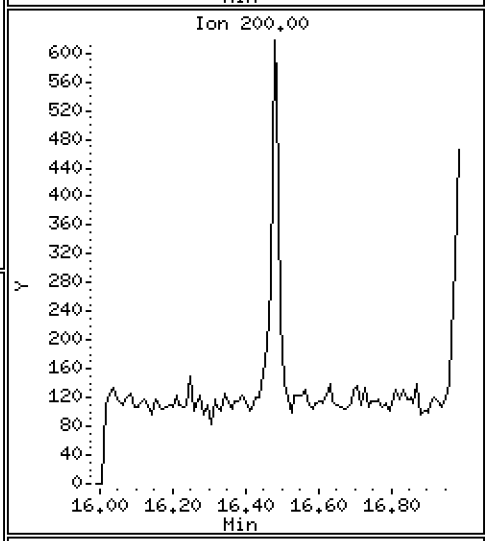


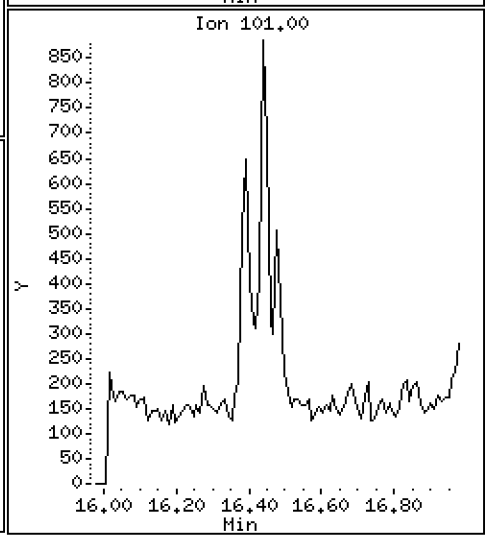












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Date : 06-JUL-2018 23:51

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-05

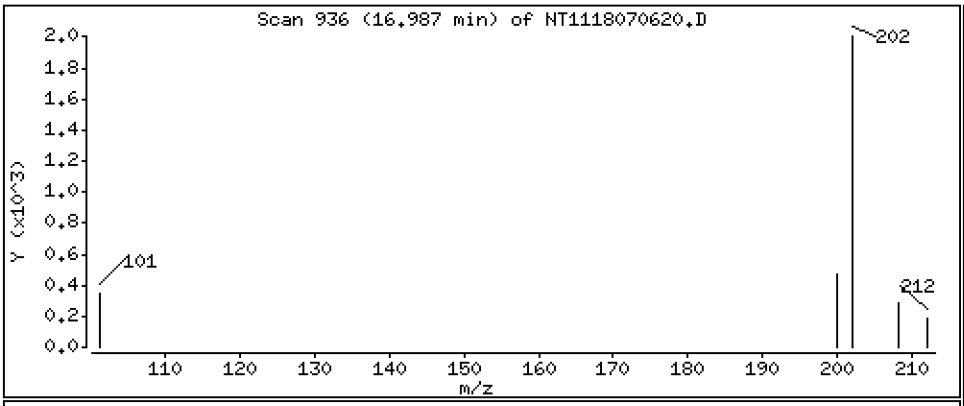
Operator: VTS

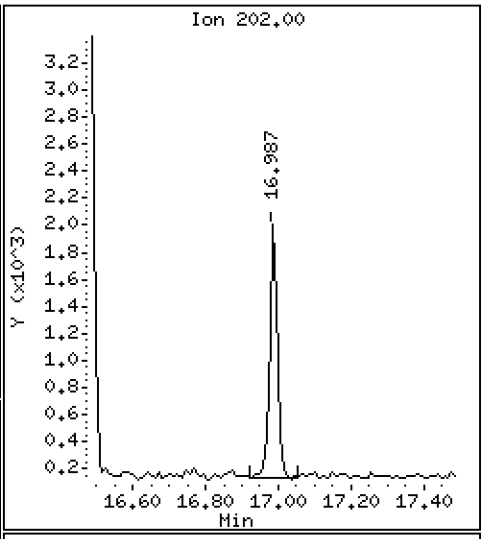
Column phase: Rxi-17Sil MS

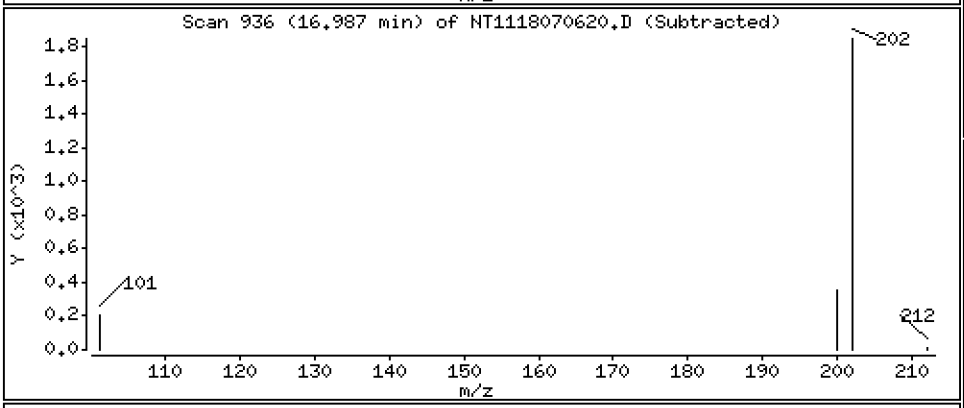
Column diameter: 0.25

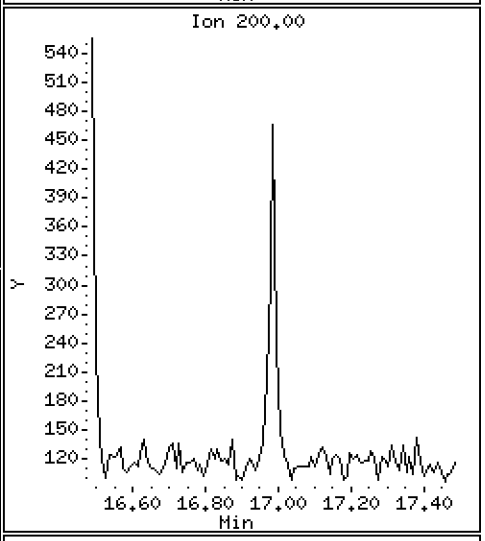
26 Pyrene

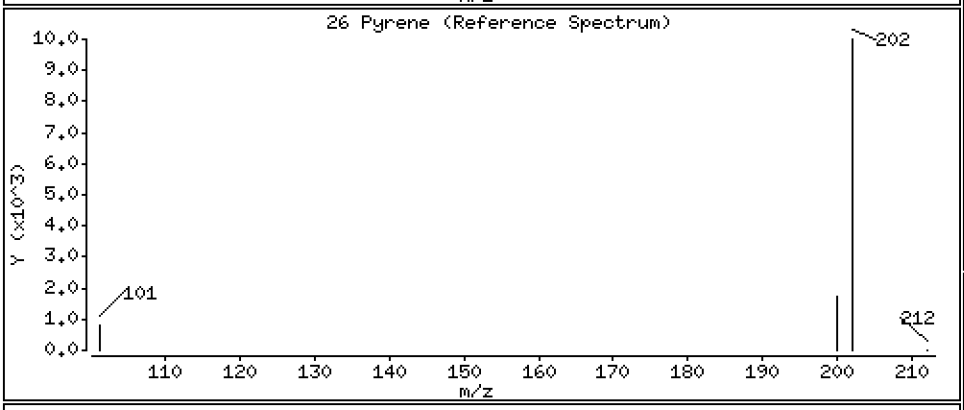
Concentration: 0.980 ng/mL

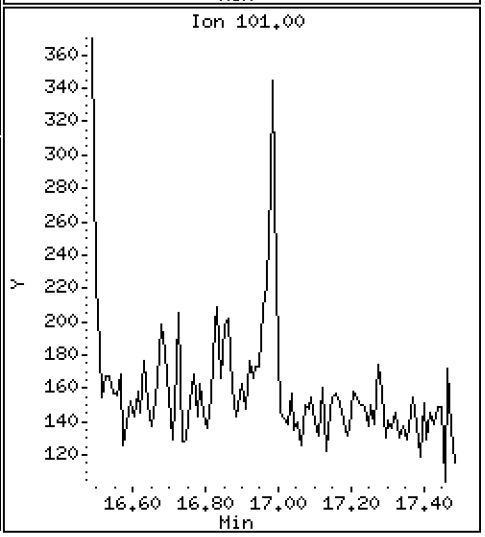


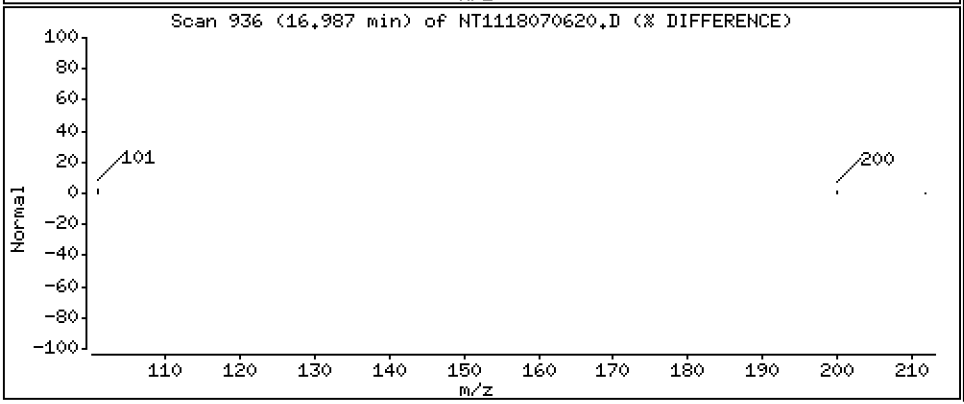












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180706.b\NT1118070620.D
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Inj Date : 06-JUL-2018 23:51 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0248-05
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Meth Date : 06-Jul-2018 13:13 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	462666	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	8278	2.37610	2.38
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	518655	196.475	196
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	4506	1.59883	1.60
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	2963	1.05712	1.06
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	241188	200.000	
	12 Acenaphthene	153	Compound Not Detected.					
	13 Dibenzofuran	168	11.908	11.908	(1.023)	1704	0.63416	0.634
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.540	12.540	(1.077)	1186	0.54734	0.547
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	399710	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	5733	1.82876	1.83
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	Compound Not Detected.					
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	Compound Not Detected.					
$	24 Fluoranthene-d10	212	16.449	16.449	(1.147)	551453	227.286	227
	25 Fluoranthene	202	16.487	16.487	(1.150)	5266	1.80884	1.81
	26 Pyrene	202	16.987	16.987	(0.890)	2951	0.97990	0.980
	27 Benzo(a)anthracene	228	Compound Not Detected.					
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	306329	200.000	
	29 Chrysene	228	Compound Not Detected.					
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
35	Benzo(a)pyrene	252	Compound Not Detected.					
* 36	Perylene-d12	264	22.353	22.353	(1.000)	299215	200.000	
37	Perylene	252	Compound Not Detected.					
$ 38	Dibenzo(a,h)anthracene-d14	292	25.268	25.279	(1.130)	295964	206.700	207
39	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
40	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
41	Benzo(g,h,i)perylene	276	Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118070620.D
Lab Smp Id: 18F0248-05
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Misc Info:

Calibration Date: 06-JUL-2018
Calibration Time: 12:50
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	462666	7.27
11 Acenaphthene-d10	260137	130069	520274	241188	-7.28
18 Phenanthrene-d10	427391	213696	854782	399710	-6.48
28 Chrysene-d12	304596	152298	609192	306329	0.57
36 Perylene-d12	263091	131546	526182	299215	13.73

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118070620.D

Lab ID: 18F0248-05
nt11.i, 20180706.b\LOWSIM.m,   06-JUL-2018 23:51

RT	CO-ELUTION COMPOUNDS
NO CO-ELUTIONS	

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

On Column LOD for nt11.i, 20180706.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-83

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-06	SDG:	18F0185
Sampled:	06/15/18 12:08	Prepared:	06/21/18 13:35	File ID:	NT1118070621.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	07/07/18 00:26
Batch:	BGF0530	Sequence:	SGG0067	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.002	J	0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.001	J	0.001	0.010
208-96-8	Acenaphthylene	1	0.010	U	0.002	0.010
83-32-9	Acenaphthene	1	0.010	U	0.003	0.010
86-73-7	Fluorene	1	0.010	U	0.002	0.010
85-01-8	Phenanthrene	1	0.005	J	0.001	0.010
120-12-7	Anthracene	1	0.010	U	0.001	0.010
206-44-0	Fluoranthene	1	0.002	J	0.002	0.010
129-00-0	Pyrene	1	0.001	J	0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.010	U	0.0008	0.010
218-01-9	Chrysene	1	0.010	U	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.010	U	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.171	57.1	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.184	61.4	29 - 120	
Fluoranthene-d10	0.30000	0.201	66.9	57 - 120	

Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070621.D

Date : 07-JUL-2018 00:26

Client ID:

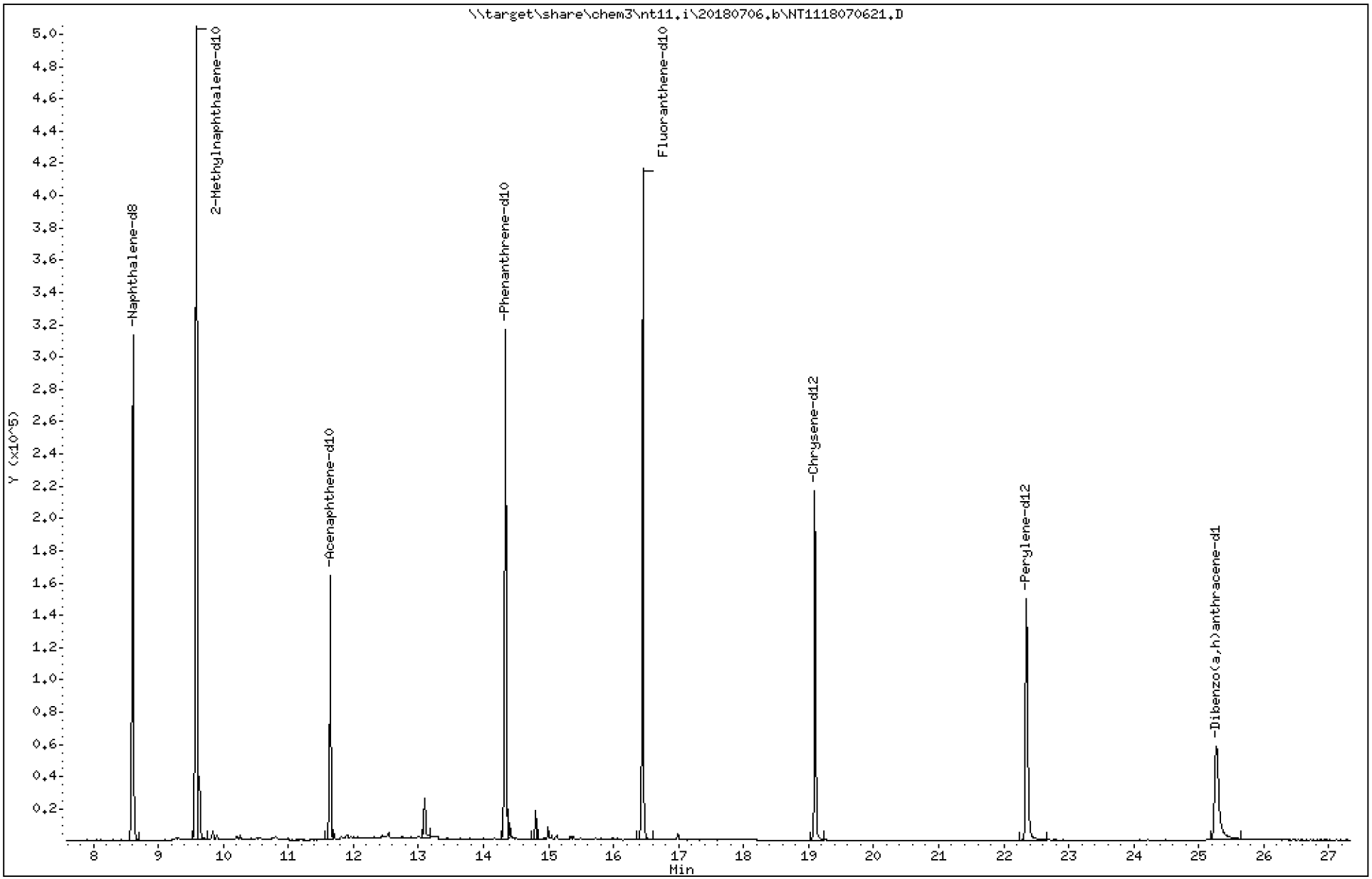
Instrument: nt11.i

Sample Info: 18F0248-06

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 07-JUL-2018 00:26

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-06

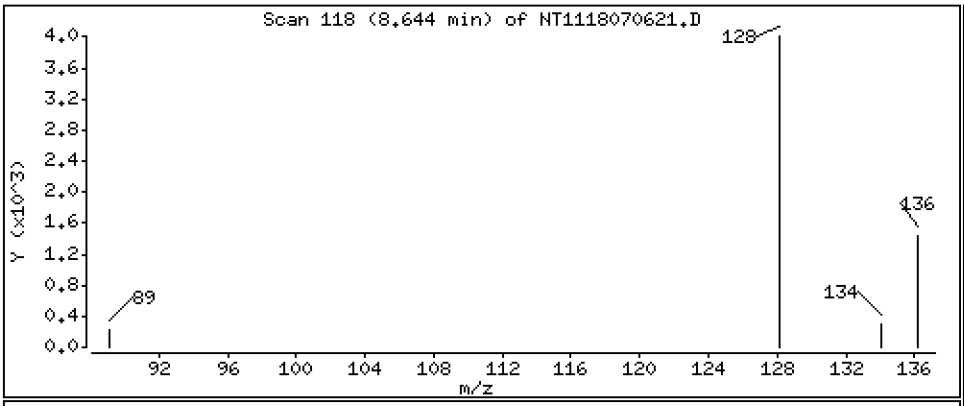
Operator: VTS

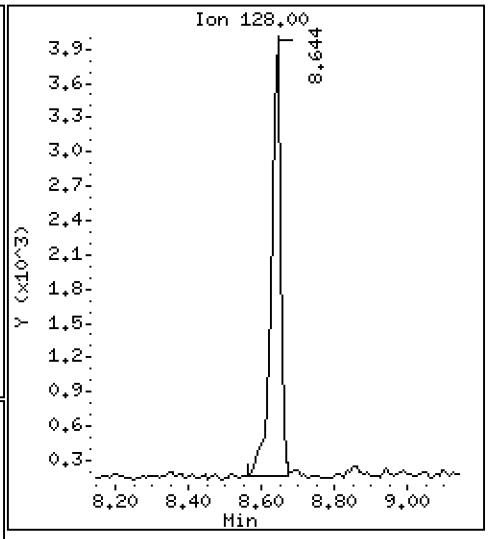
Column phase: Rxi-17Sil MS

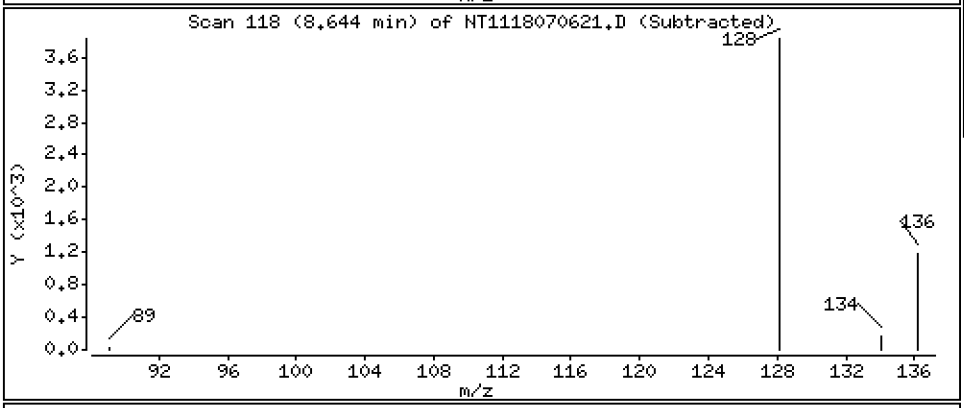
Column diameter: 0.25

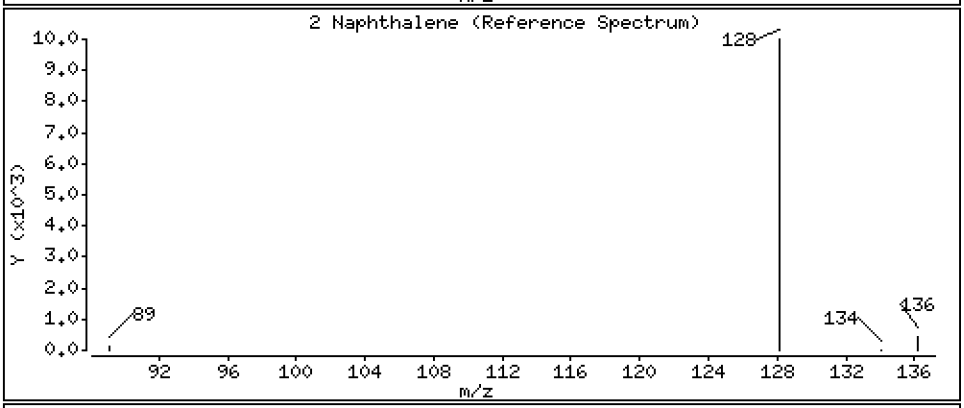
2 Naphthalene

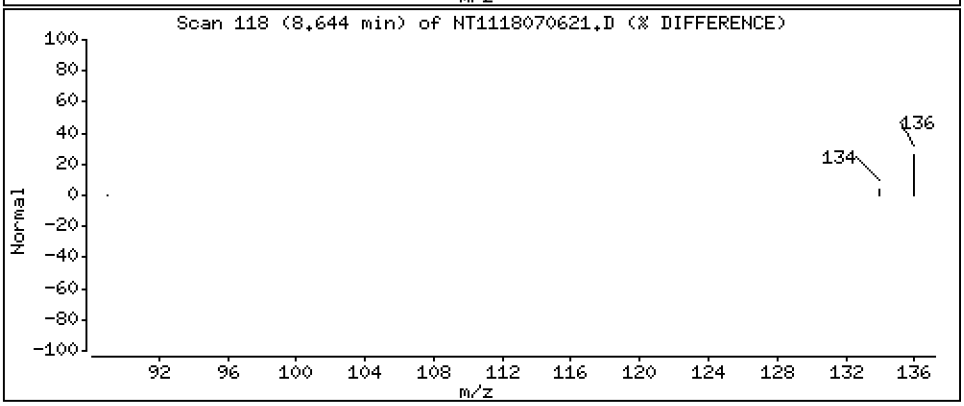
Concentration: 1.94 ng/mL











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Date : 07-JUL-2018 00:26

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-06

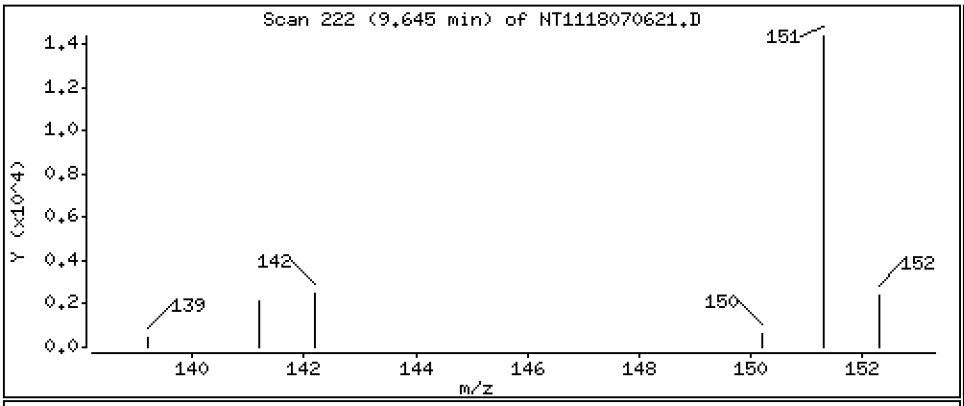
Operator: VTS

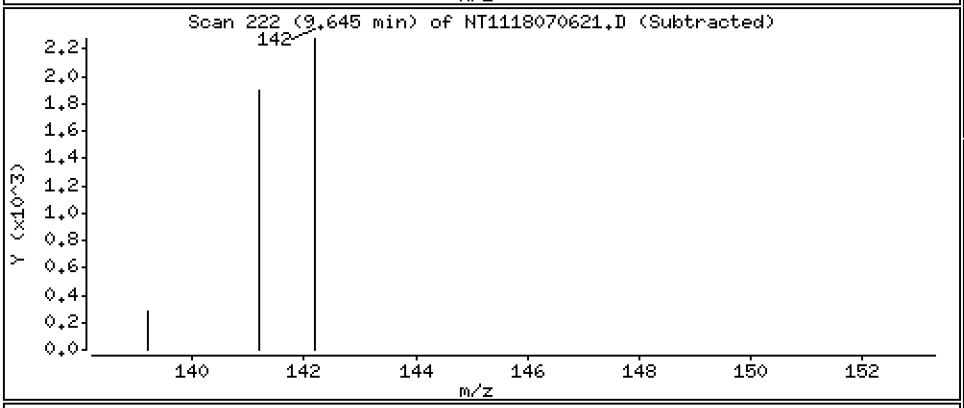
Column phase: Rxi-17Sil MS

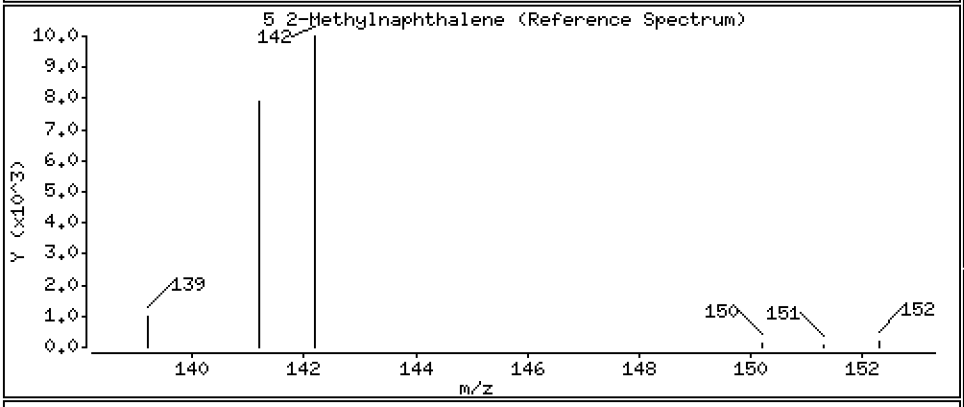
Column diameter: 0.25

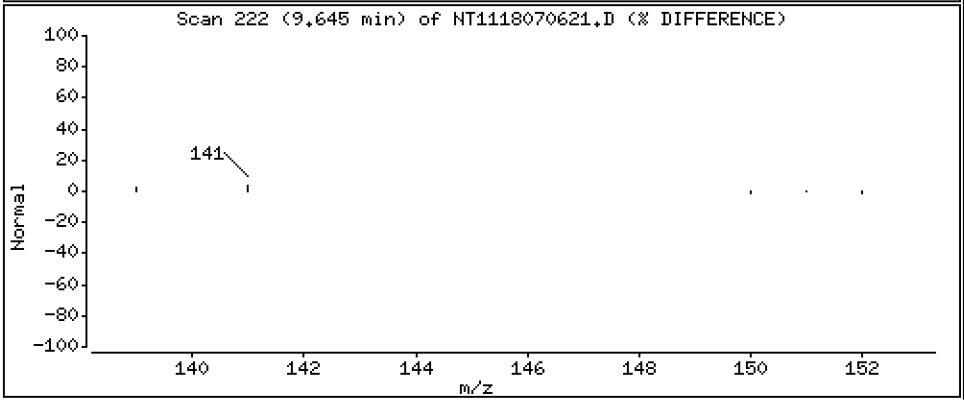
5 2-Methylnaphthalene

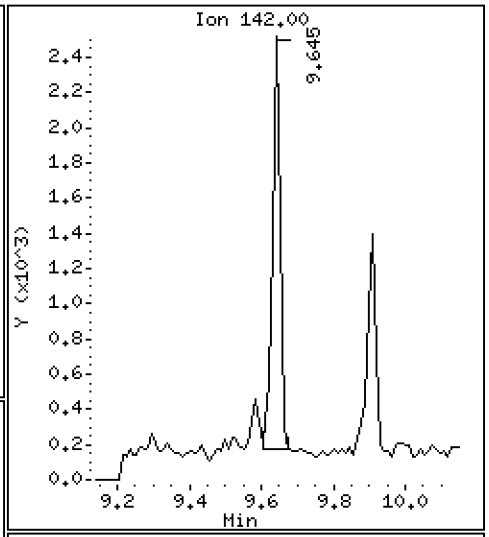
Concentration: 1.21 ng/mL

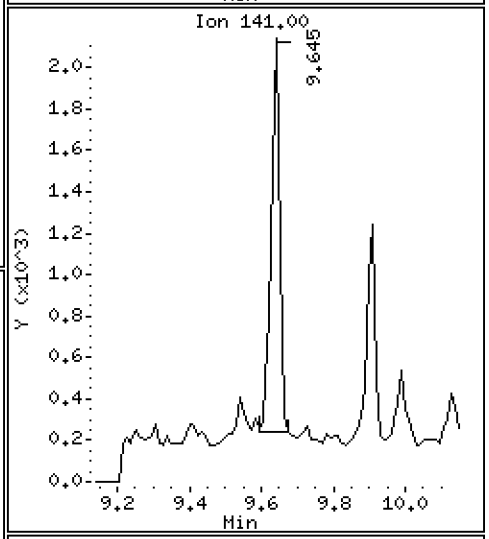


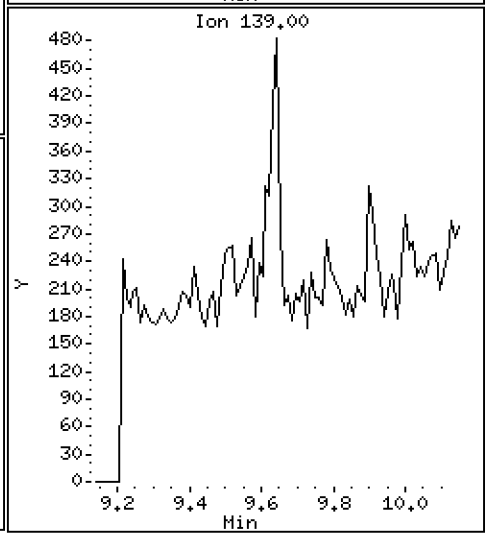












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Date : 07-JUL-2018 00:26

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-06

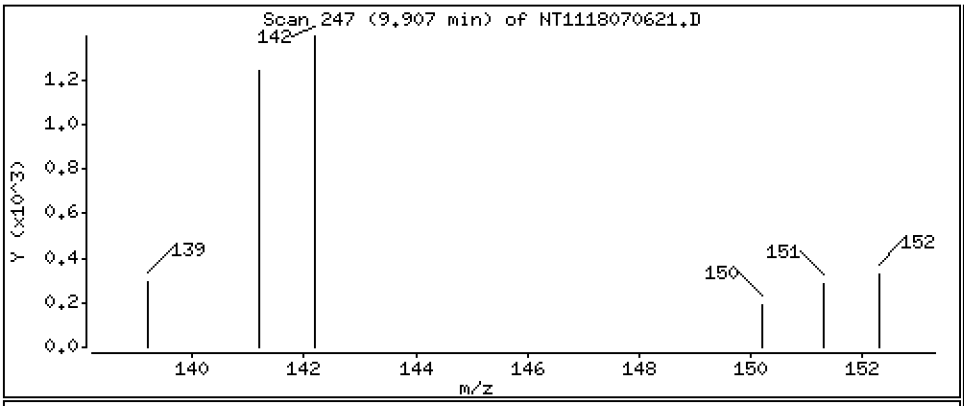
Operator: VTS

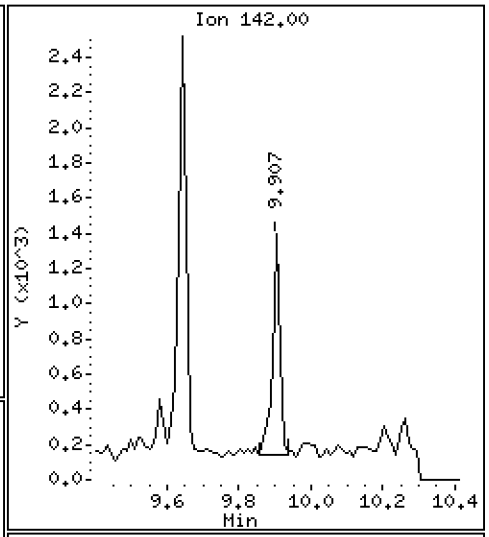
Column phase: Rxi-17Sil MS

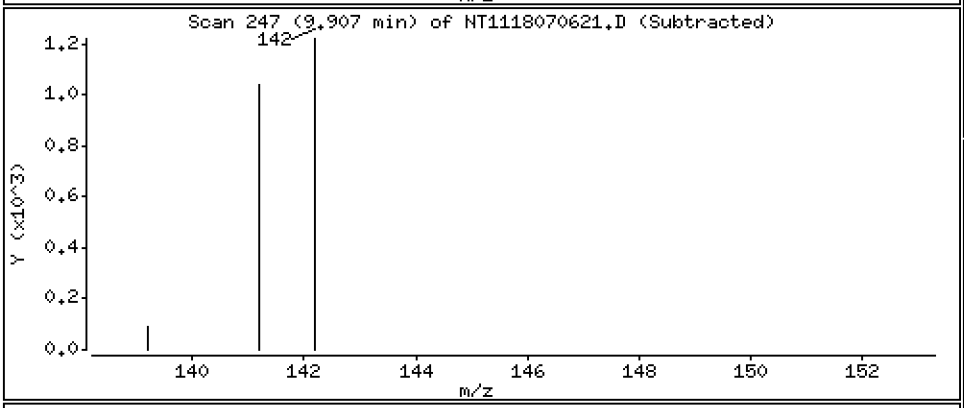
Column diameter: 0.25

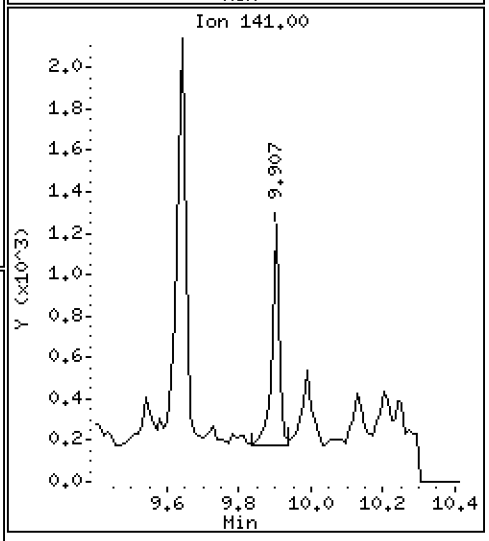
6 1-Methylnaphthalene

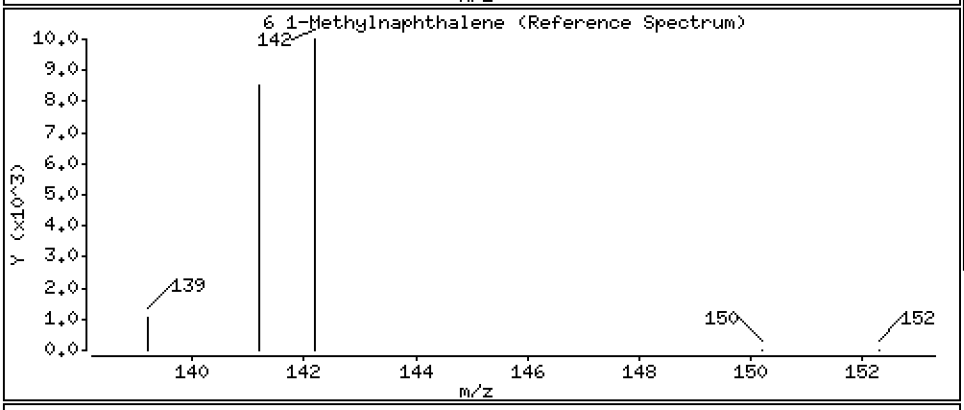
Concentration: 0.747 ng/mL

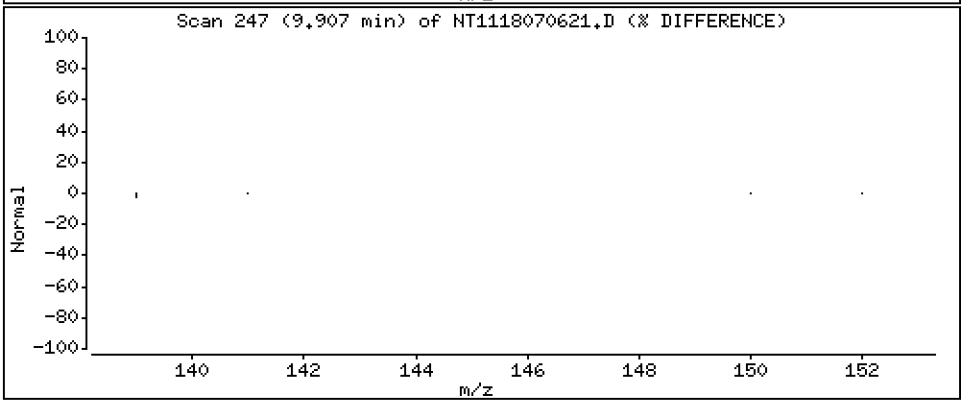












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Date : 07-JUL-2018 00:26

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-06

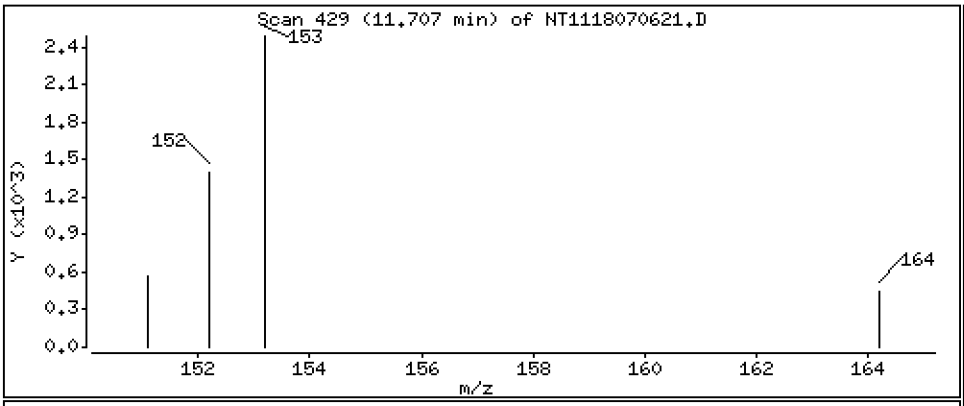
Operator: VTS

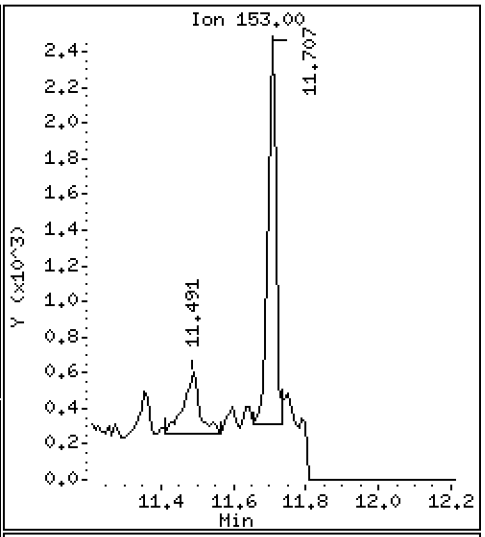
Column phase: Rxi-17Sil MS

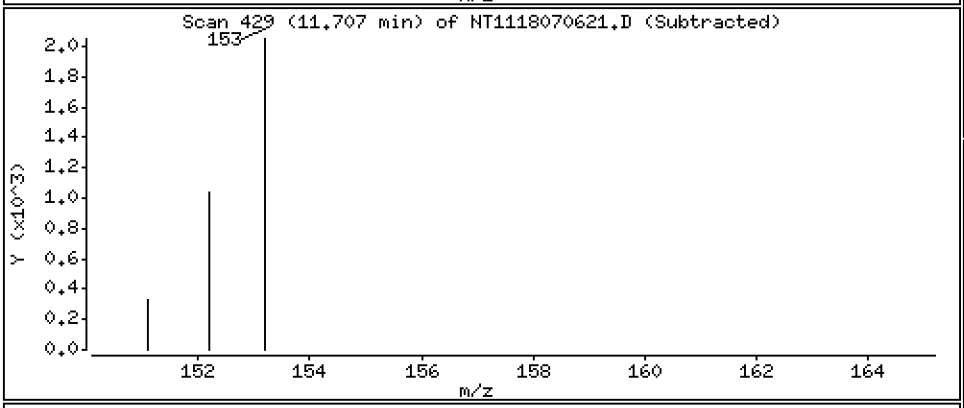
Column diameter: 0.25

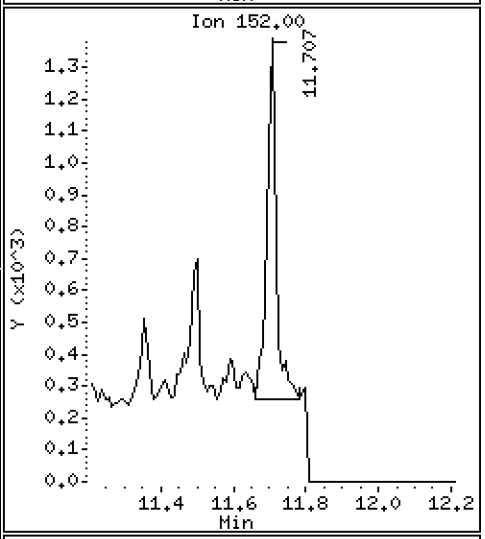
12 Acenaphthene

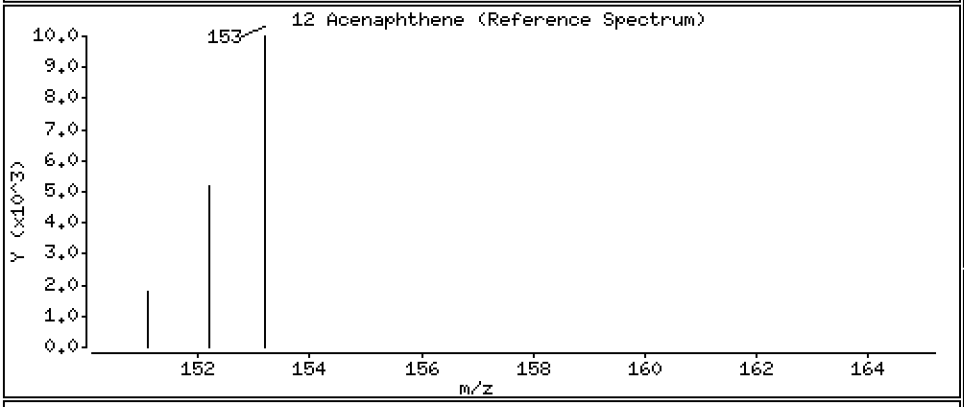
Concentration: 1.65 ng/mL

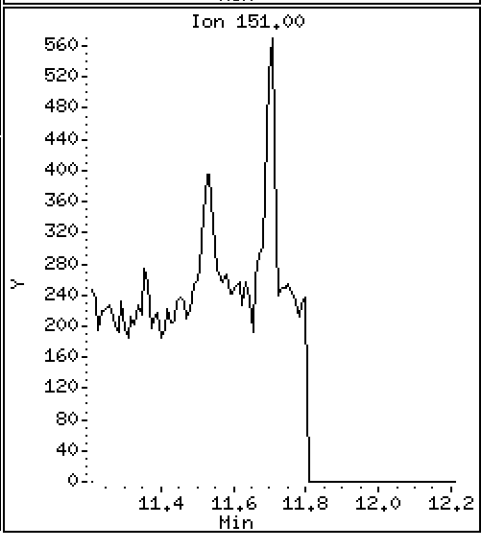


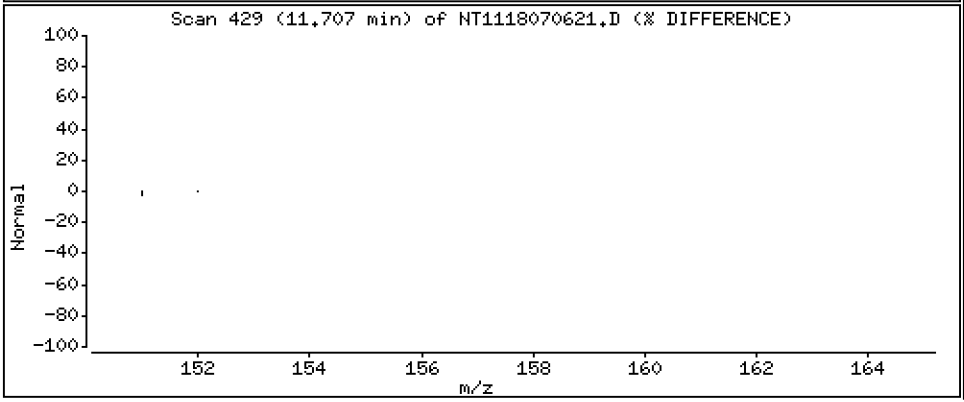












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Date : 07-JUL-2018 00:26

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-06

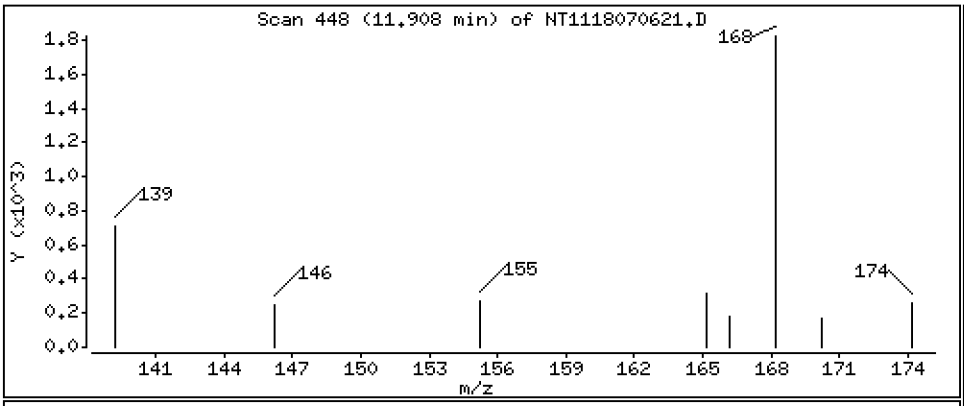
Operator: VTS

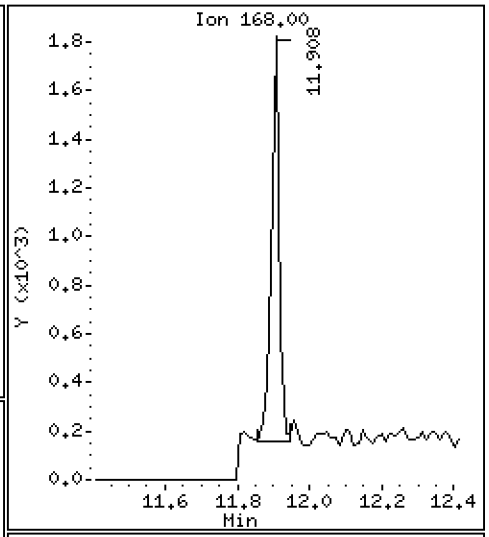
Column phase: Rxi-17Sil MS

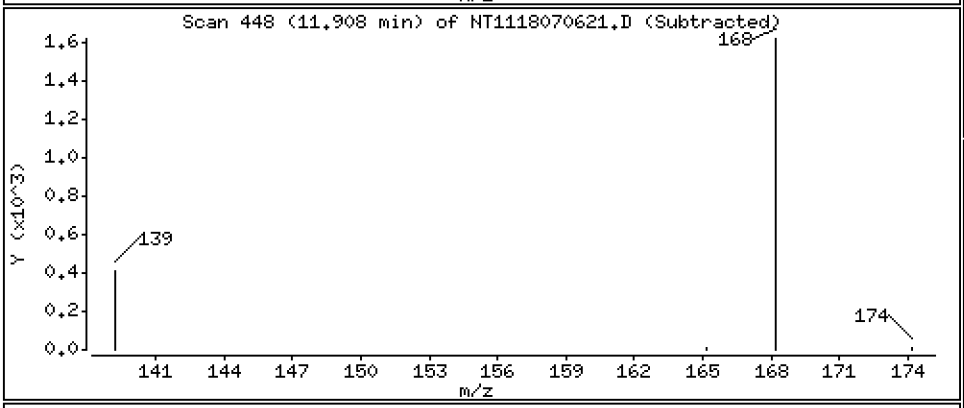
Column diameter: 0.25

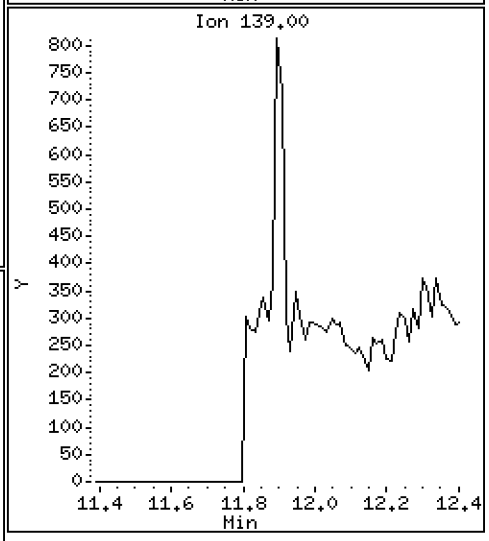
13 Dibenzofuran

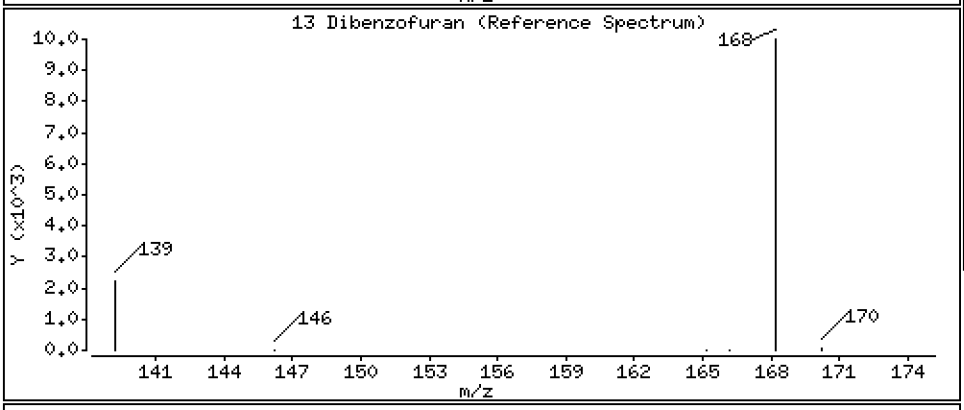
Concentration: 0.897 ng/mL

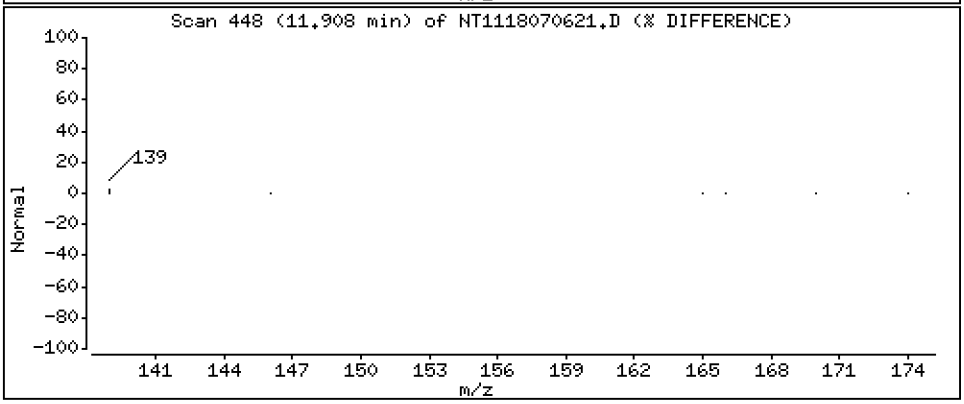












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Date : 07-JUL-2018 00:26

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-06

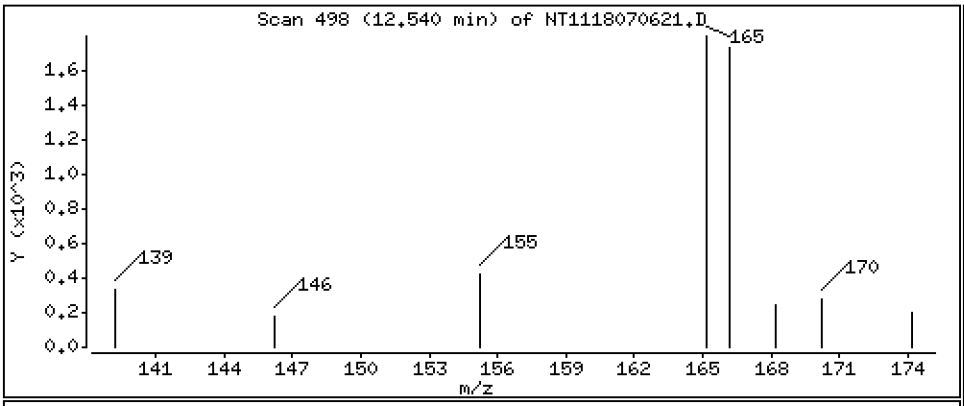
Operator: VTS

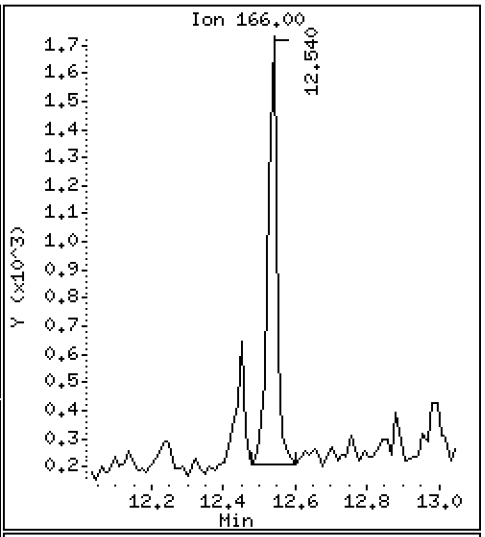
Column phase: Rxi-17Sil MS

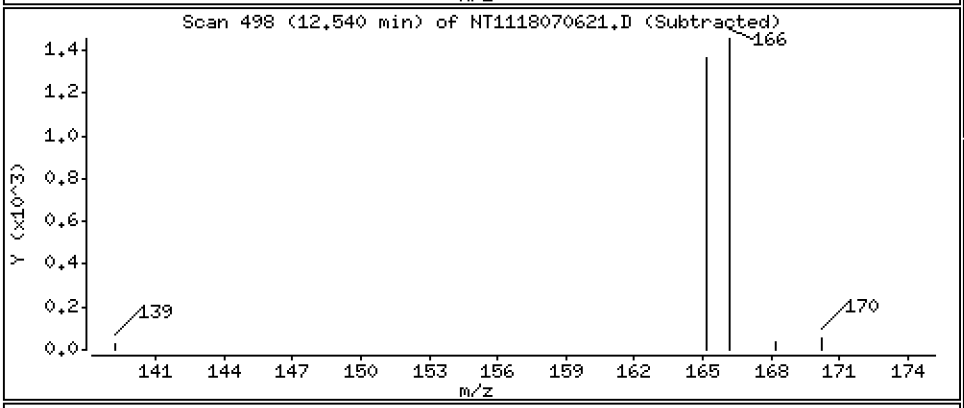
Column diameter: 0.25

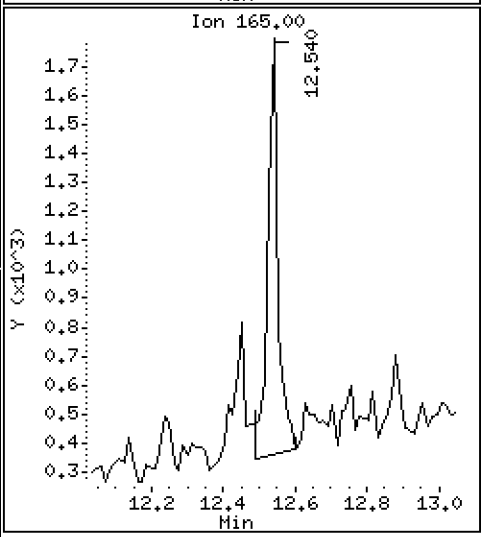
16 Fluorene

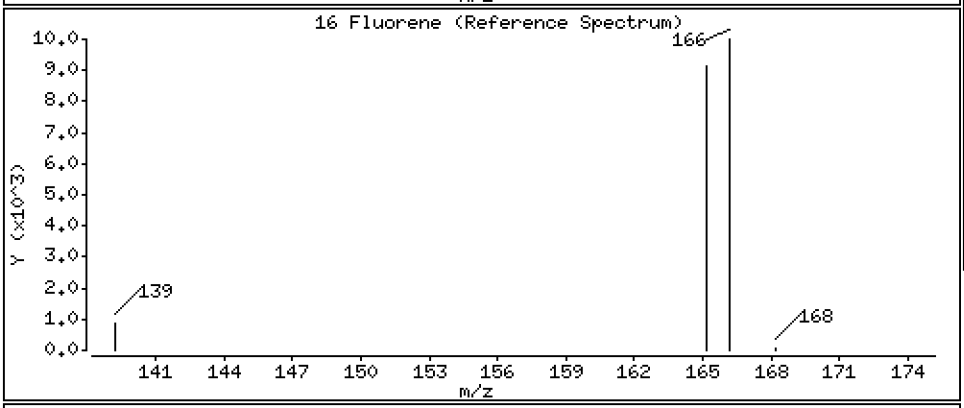
Concentration: 1.21 ng/mL

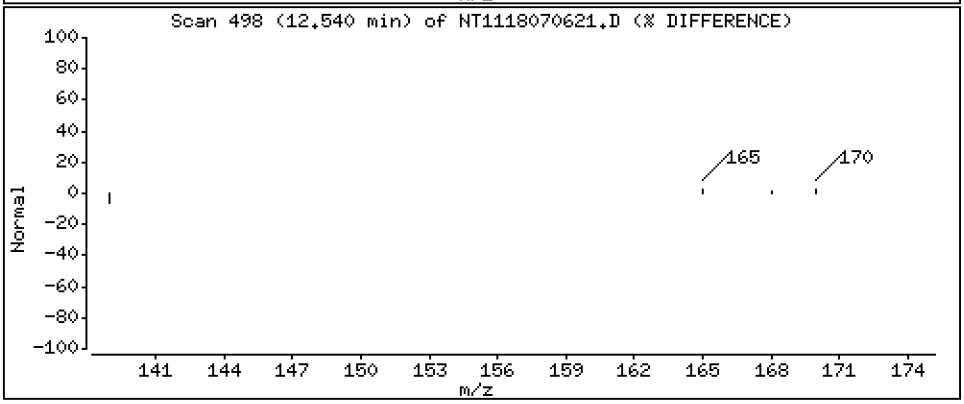












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Date : 07-JUL-2018 00:26

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-06

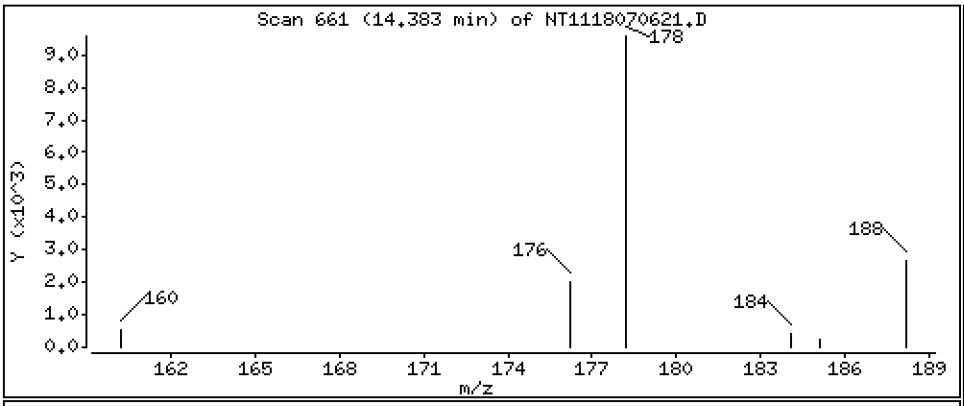
Operator: VTS

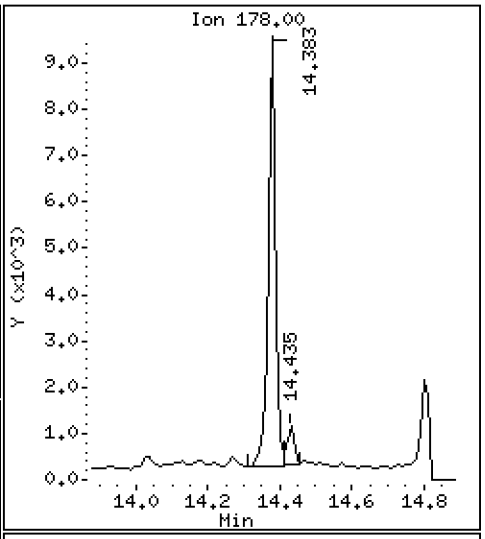
Column phase: Rxi-17Sil MS

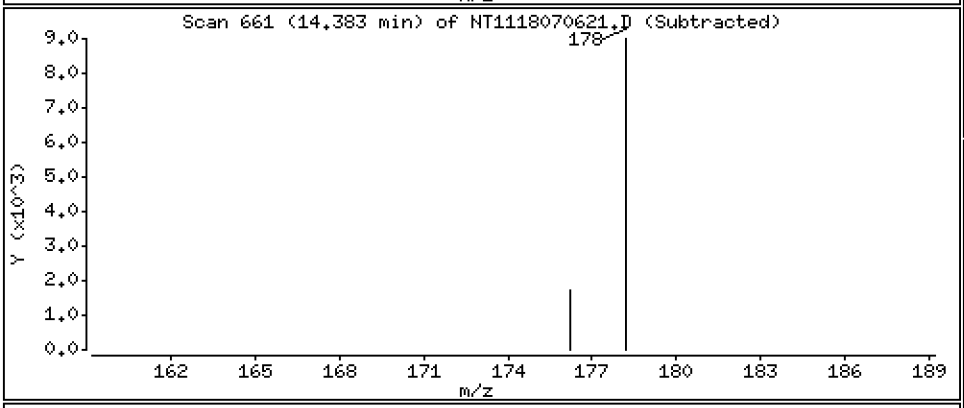
Column diameter: 0.25

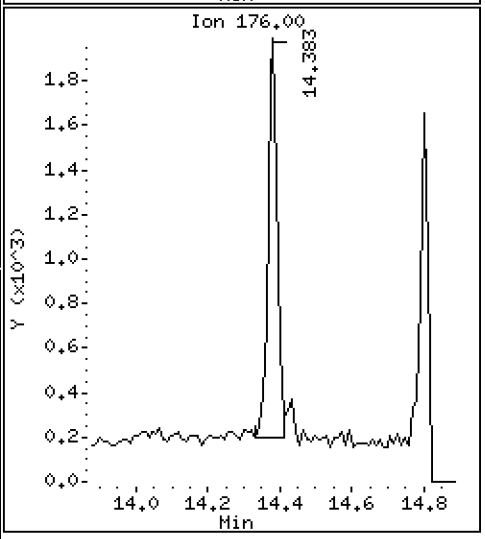
19 Phenanthrene

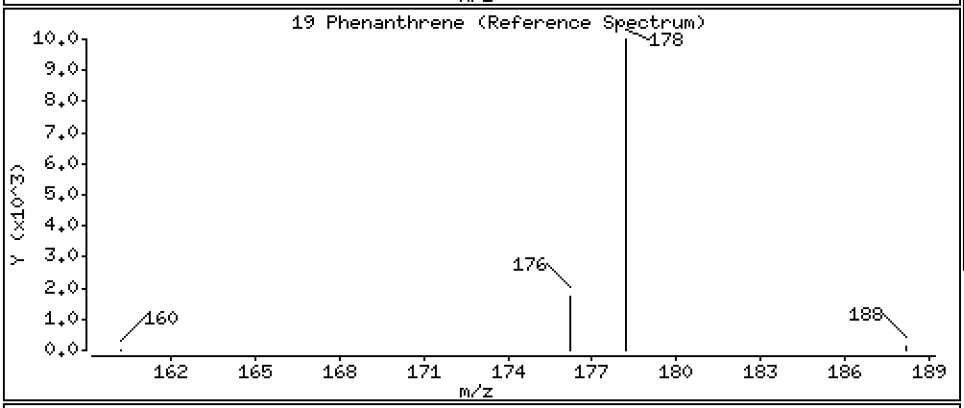
Concentration: 4.90 ng/mL

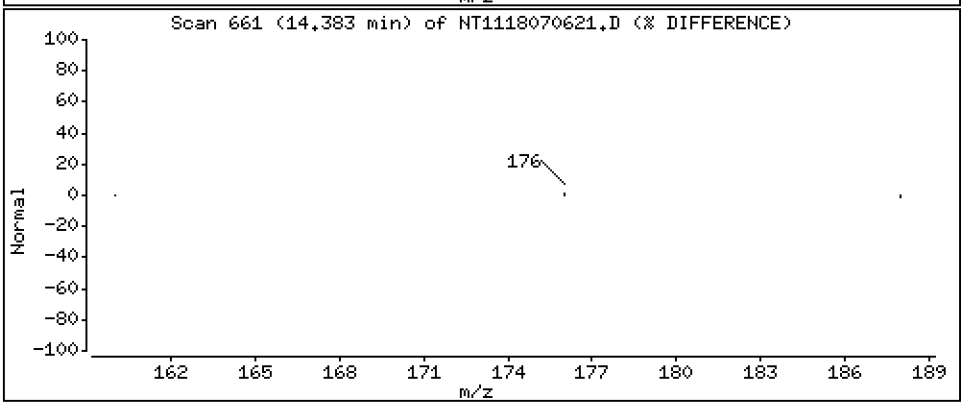












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Date : 07-JUL-2018 00:26

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-06

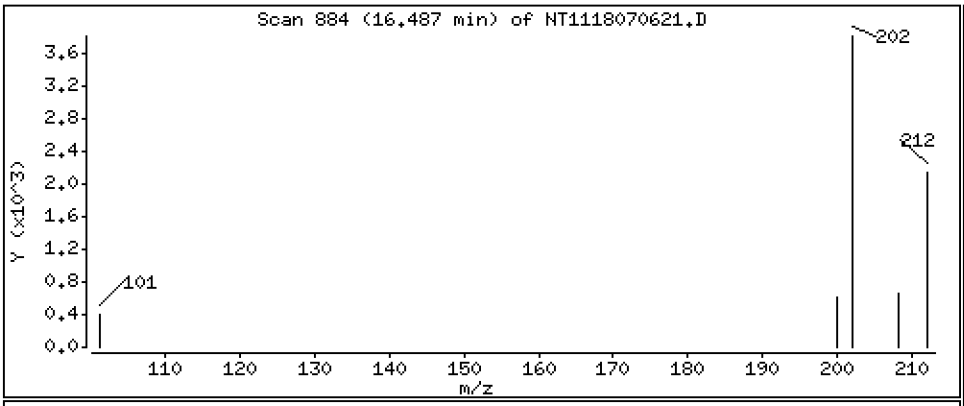
Operator: VTS

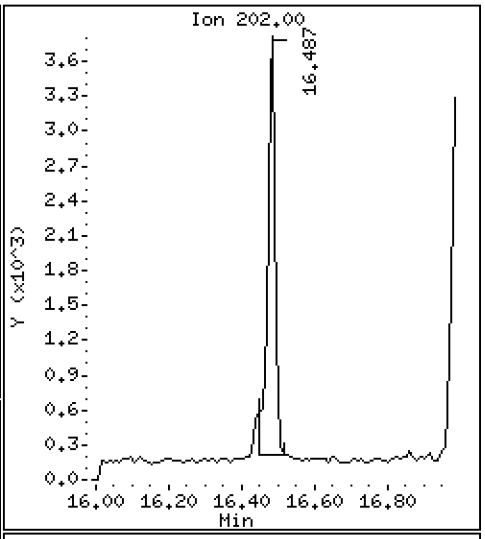
Column phase: Rxi-17Sil MS

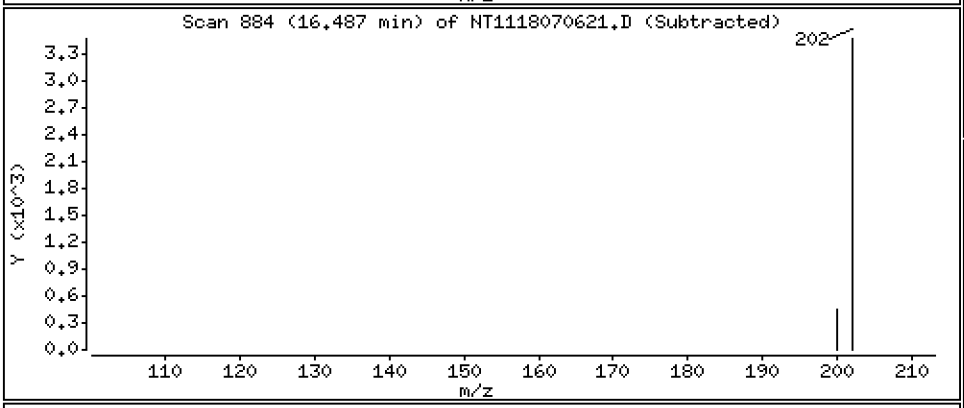
Column diameter: 0.25

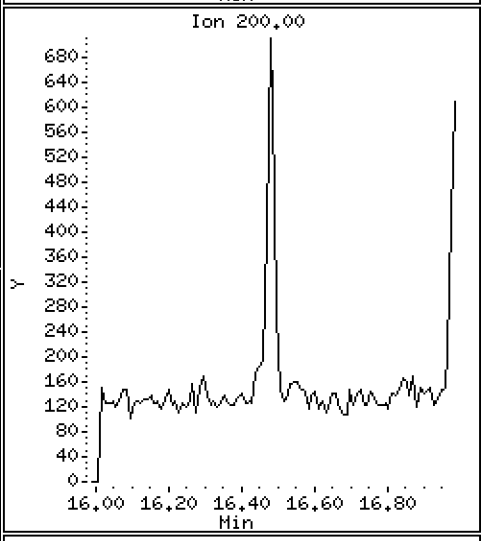
25 Fluoranthene

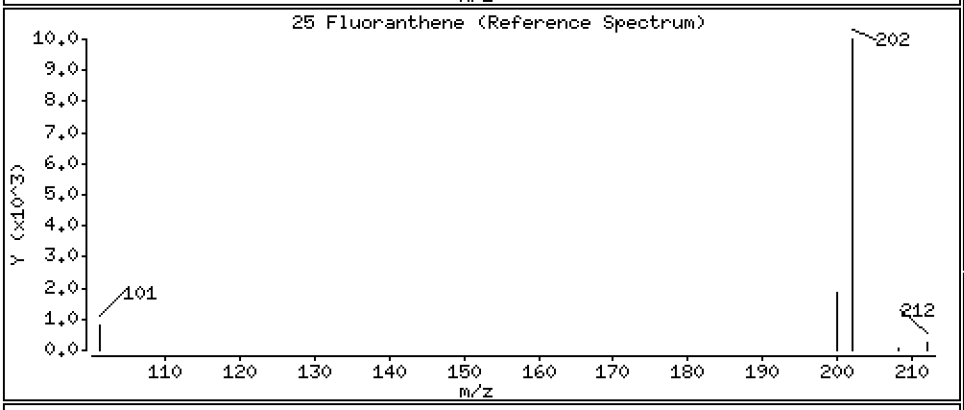
Concentration: 1.92 ng/mL

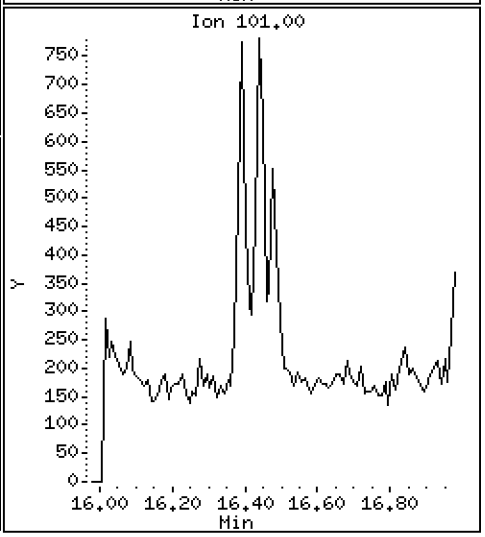


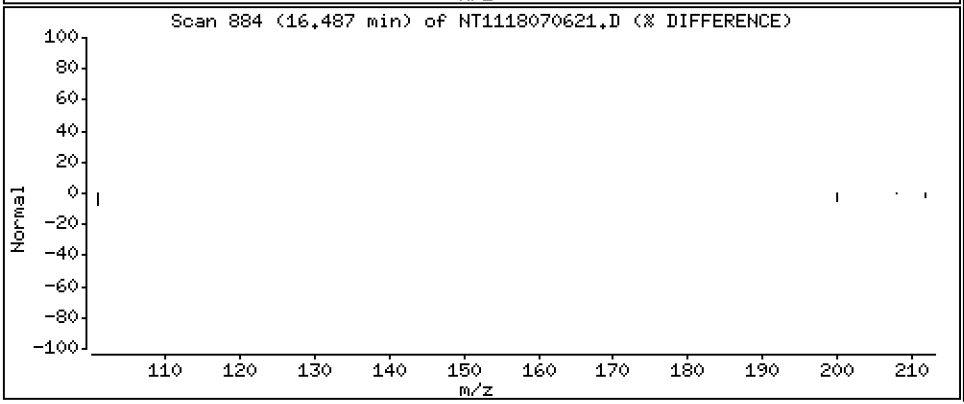












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Date : 07-JUL-2018 00:26

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-06

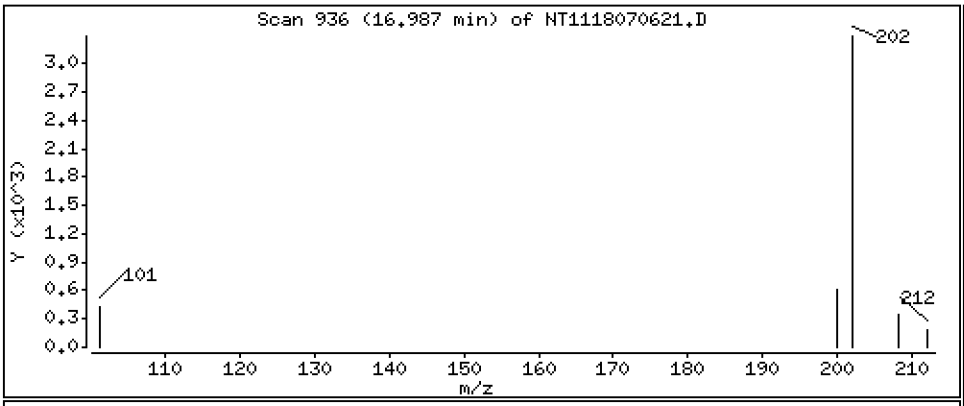
Operator: VTS

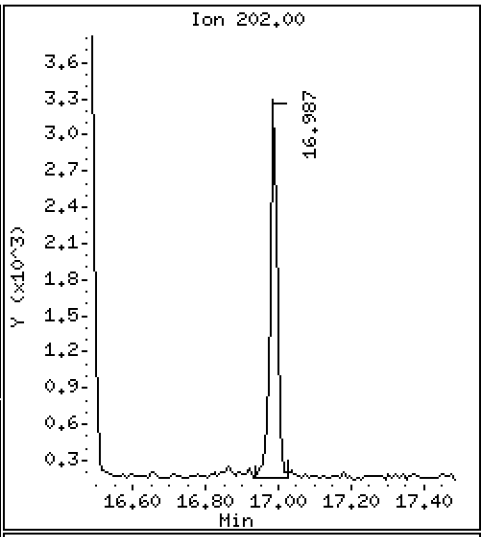
Column phase: Rxi-17Sil MS

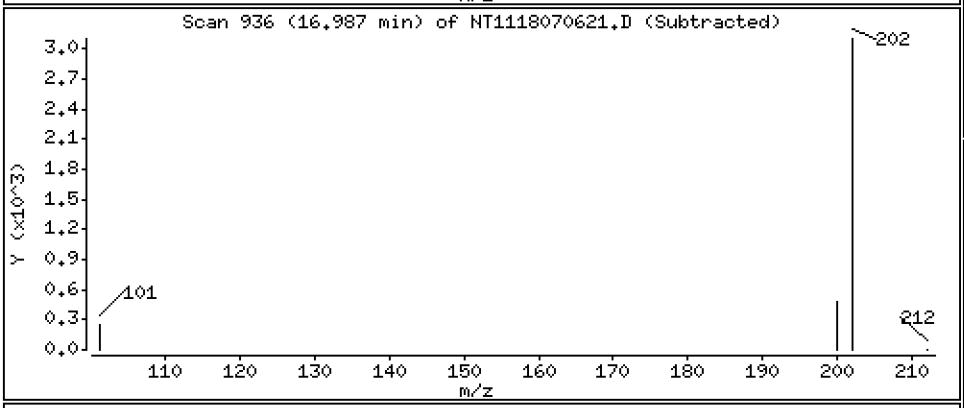
Column diameter: 0.25

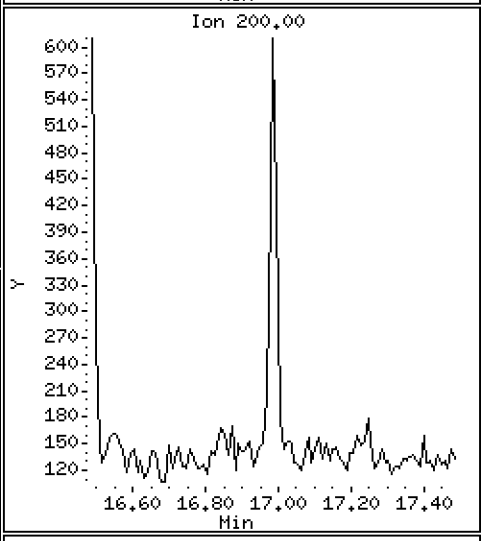
26 Pyrene

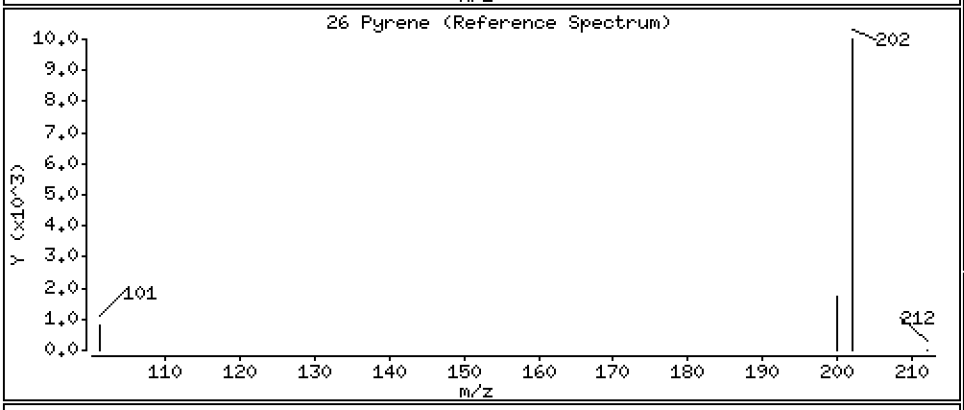
Concentration: 1.45 ng/mL

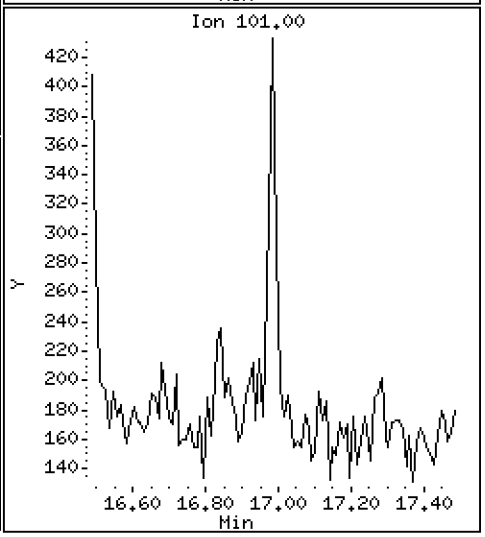


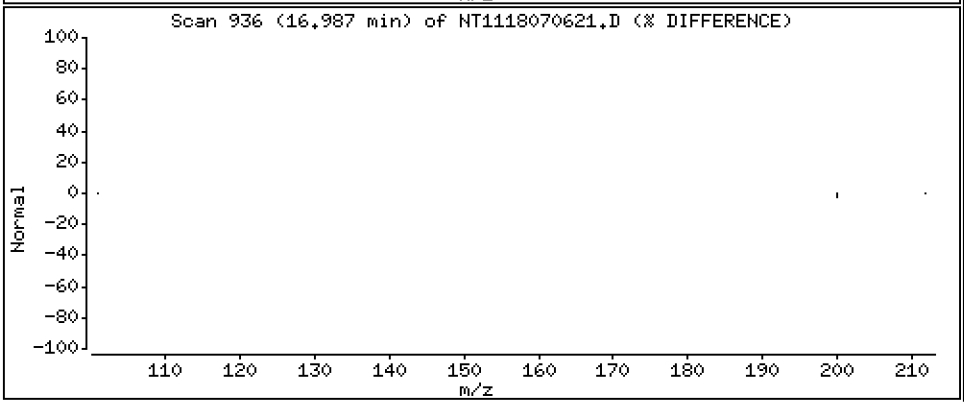












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

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Inj Date : 07-JUL-2018 00:26 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0248-06
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Meth Date : 06-Jul-2018 13:13 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	467869	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	6823	1.93609	1.94
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.591	9.592	(1.114)	457582	171.412	171
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	3457	1.21298	1.21
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	2116	0.74654	0.747
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	242636	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	3257	1.65064	1.65
	13 Dibenzofuran	168	11.907	11.908	(1.023)	2426	0.89747	0.897
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.539	12.540	(1.077)	2642	1.21202	1.21
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	402741	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	15478	4.90013	4.90
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	Compound Not Detected.					
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	Compound Not Detected.					
$	24 Fluoranthene-d10	212	16.448	16.449	(1.147)	490427	200.613	201
	25 Fluoranthene	202	16.487	16.487	(1.150)	5637	1.92171	1.92
	26 Pyrene	202	16.986	16.987	(0.890)	4521	1.45139	1.45
	27 Benzo(a)anthracene	228	Compound Not Detected.					
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	316848	200.000	
	29 Chrysene	228	Compound Not Detected.					
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
35	Benzo(a)pyrene	252	Compound Not Detected.					
* 36	Perylene-d12	264	22.353	22.353	(1.000)	309209	200.000	
37	Perylene	252	Compound Not Detected.					
$ 38	Dibenzo(a,h)anthracene-d14	292	25.268	25.279	(1.130)	272370	184.074	184
39	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
40	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
41	Benzo(g,h,i)perylene	276	Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118070621.D
Lab Smp Id: 18F0248-06
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Misc Info:

Calibration Date: 06-JUL-2018
Calibration Time: 12:50
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	467869	8.47
11 Acenaphthene-d10	260137	130069	520274	242636	-6.73
18 Phenanthrene-d10	427391	213696	854782	402741	-5.77
28 Chrysene-d12	304596	152298	609192	316848	4.02
36 Perylene-d12	263091	131546	526182	309209	17.53

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118070621.D

Lab ID: 18F0248-06
nt11.i, 20180706.b\LOWSIM.m,   07-JUL-2018 00:26

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180706.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-86

Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-07	SDG:	18F0185
Sampled:	06/15/18 12:19	Prepared:	06/21/18 13:35	File ID:	NT1118070703.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	07/07/18 09:44
Batch:	BGF0530	Sequence:	SGG0076	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.003	J	0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.002	J	0.001	0.010
208-96-8	Acenaphthylene	1	0.010	U	0.002	0.010
83-32-9	Acenaphthene	1	0.010	U	0.003	0.010
86-73-7	Fluorene	1	0.010	U	0.002	0.010
85-01-8	Phenanthrene	1	0.003	J	0.001	0.010
120-12-7	Anthracene	1	0.010	U	0.001	0.010
206-44-0	Fluoranthene	1	0.010	U	0.002	0.010
129-00-0	Pyrene	1	0.010	U	0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.010	U	0.0008	0.010
218-01-9	Chrysene	1	0.010	U	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.010	U	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.194	64.7	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.214	71.2	29 - 120	
Fluoranthene-d10	0.30000	0.223	74.4	57 - 120	

Data File: \\target\share\chem3\nt11.i\20180707.b\NT1118070703.D

Date : 07-JUL-2018 09:44

Client ID:

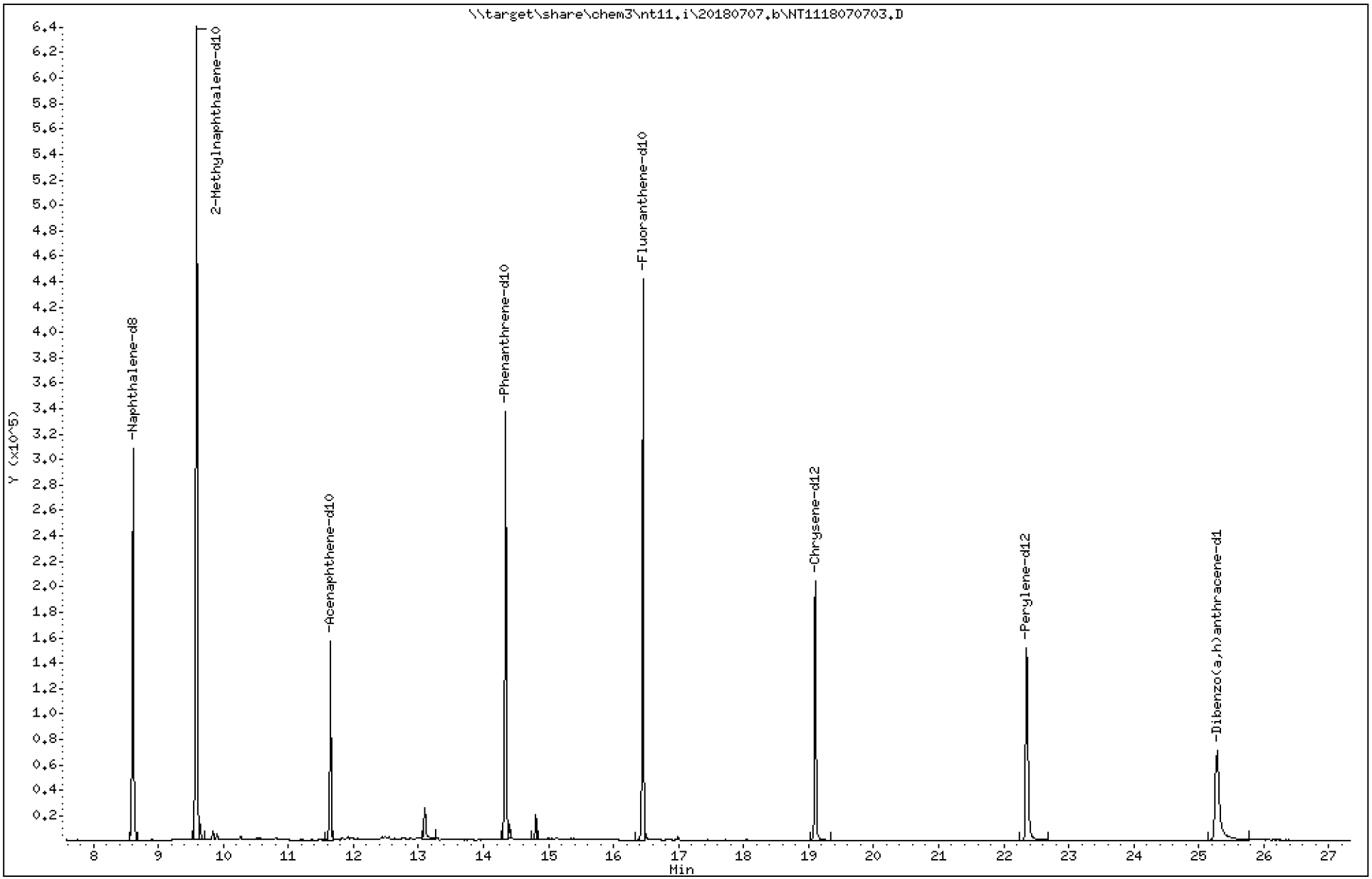
Instrument: nt11.i

Sample Info: 18F0248-07

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 07-JUL-2018 09:44

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-07

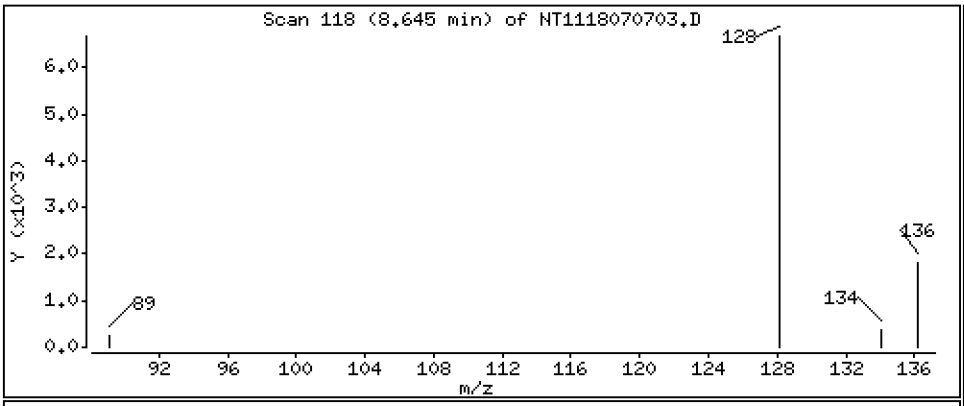
Operator: VTS

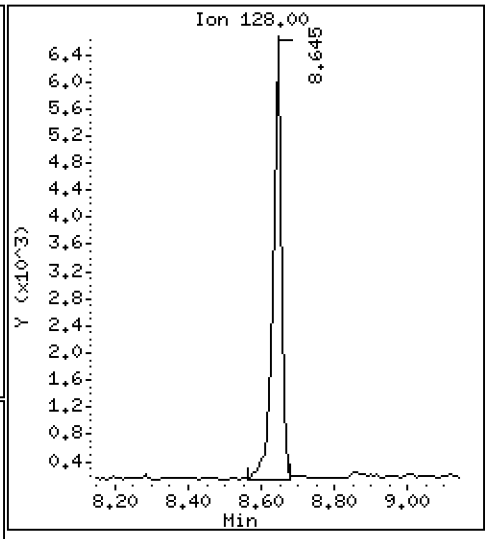
Column phase: Rxi-17Sil MS

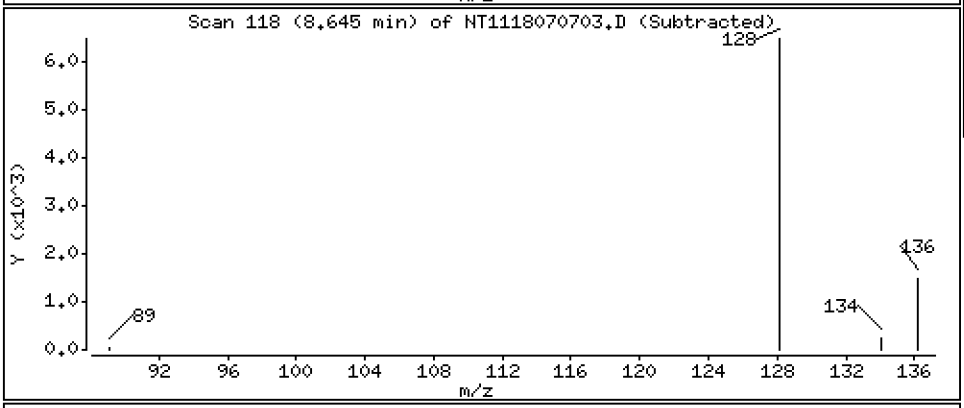
Column diameter: 0.25

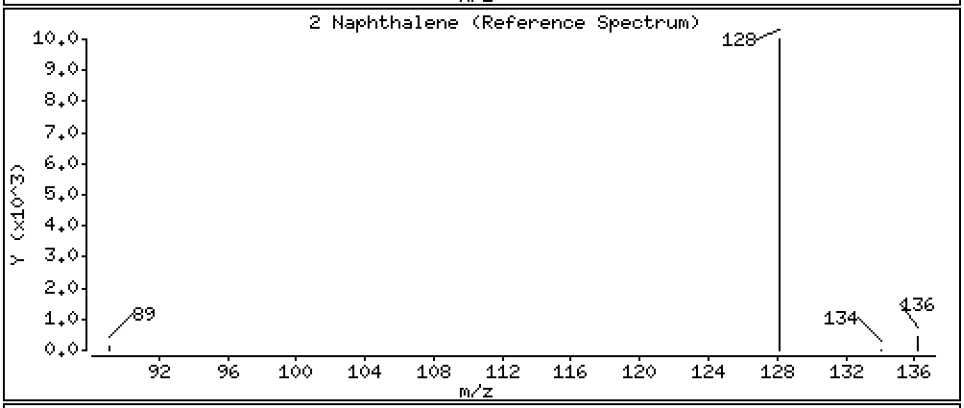
2 Naphthalene

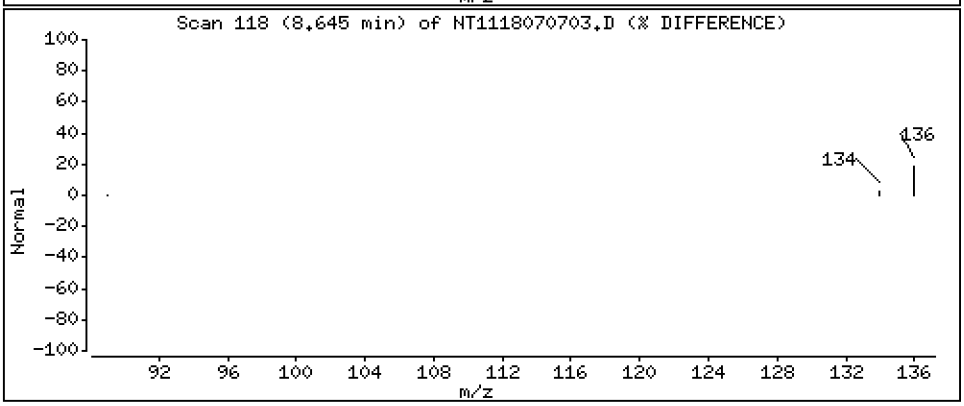
Concentration: 3.01 ng/mL











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Date : 07-JUL-2018 09:44

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-07

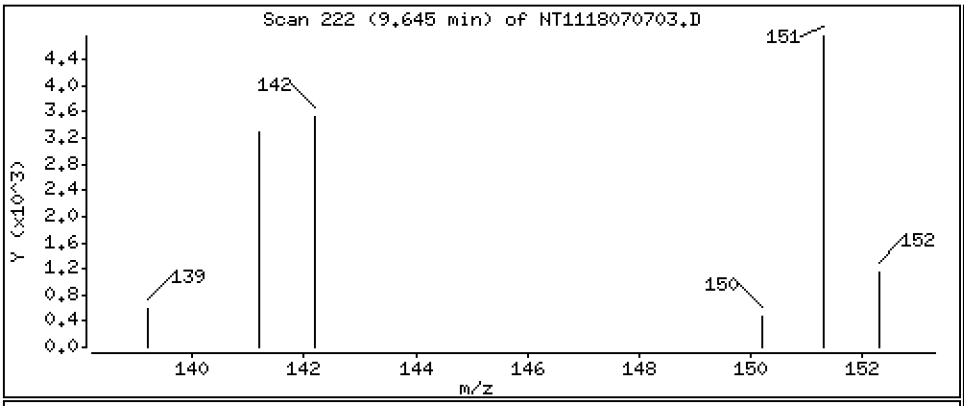
Operator: VTS

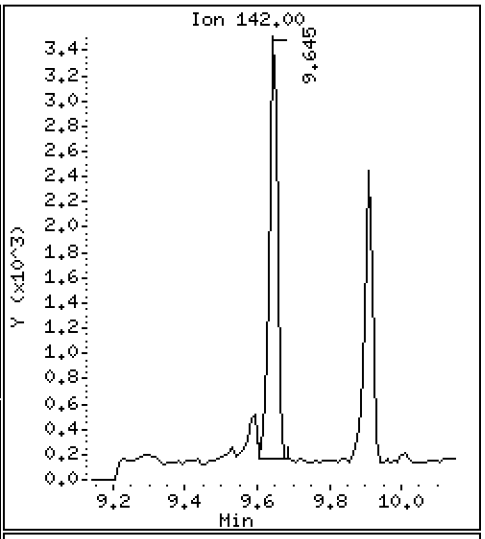
Column phase: Rxi-17Sil MS

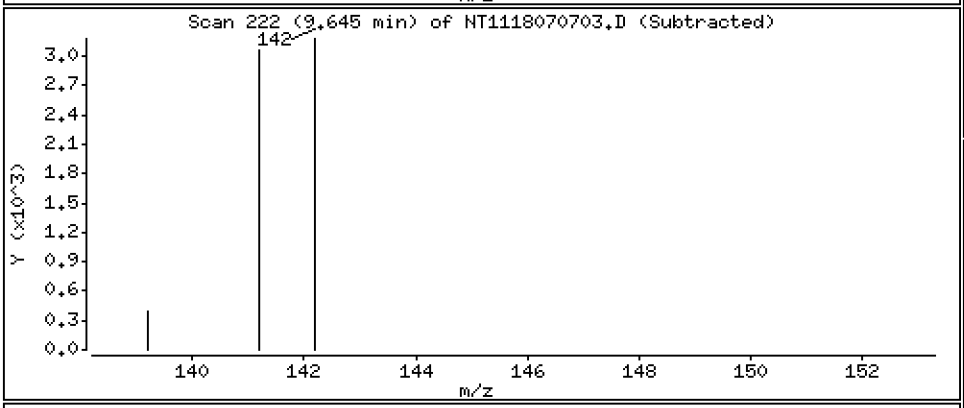
Column diameter: 0.25

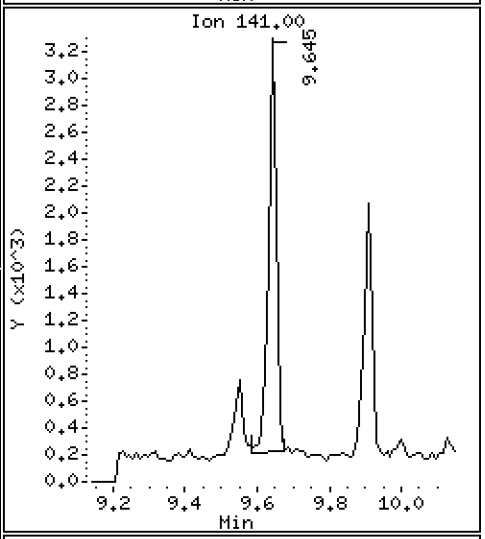
5 2-Methylnaphthalene

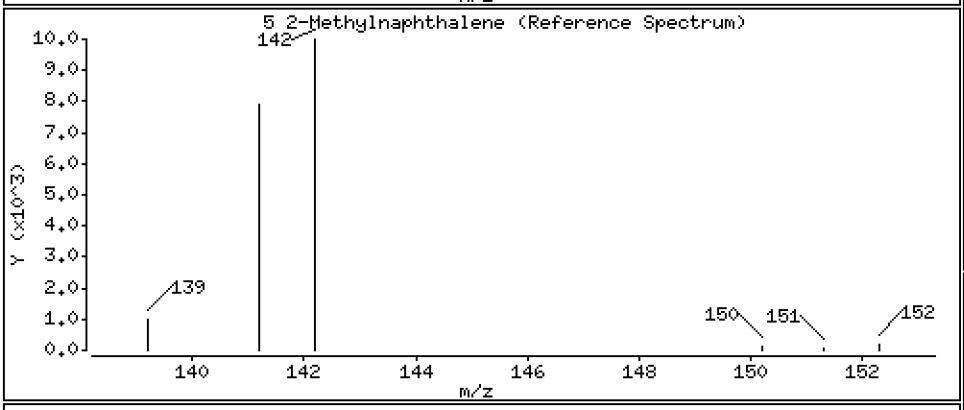
Concentration: 1.91 ng/mL

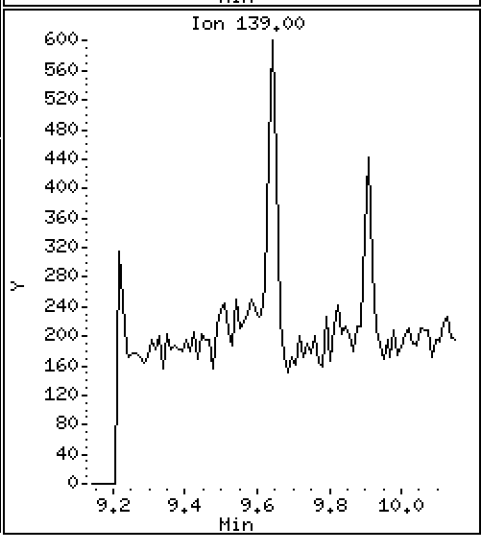


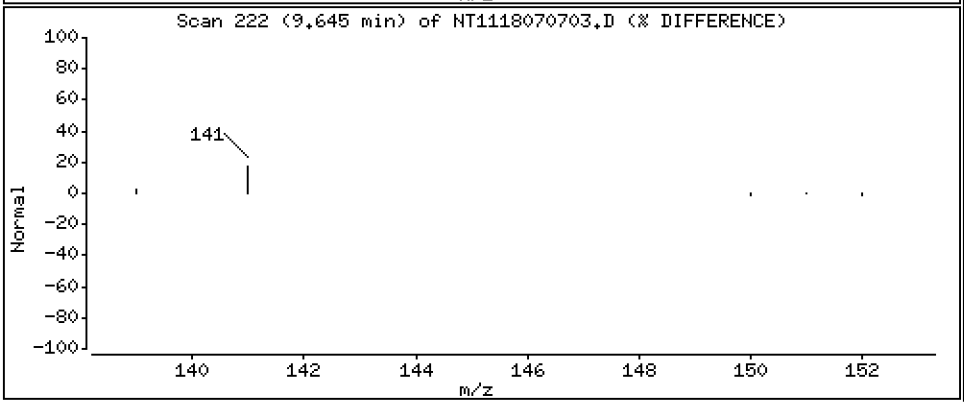












Data File: \\target\share\chem3\nt11.i\20180707.b\NT1118070703.D

Date : 07-JUL-2018 09:44

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-07

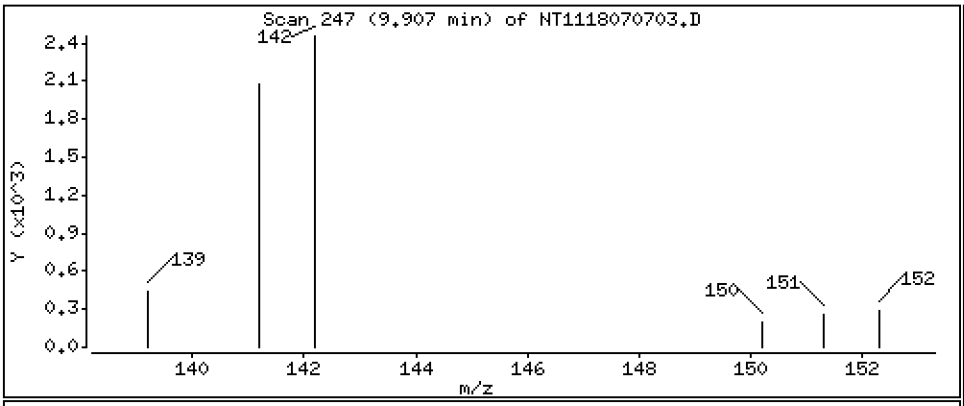
Operator: VTS

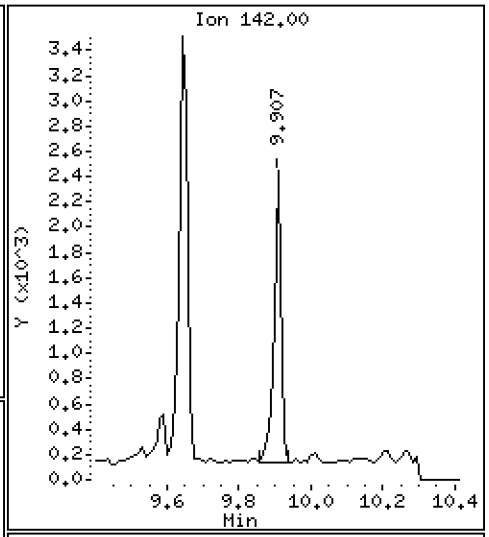
Column phase: Rxi-17Sil MS

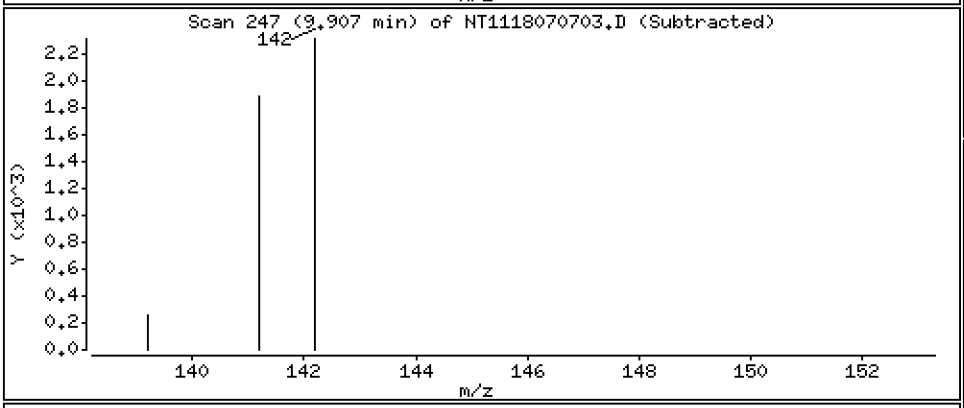
Column diameter: 0.25

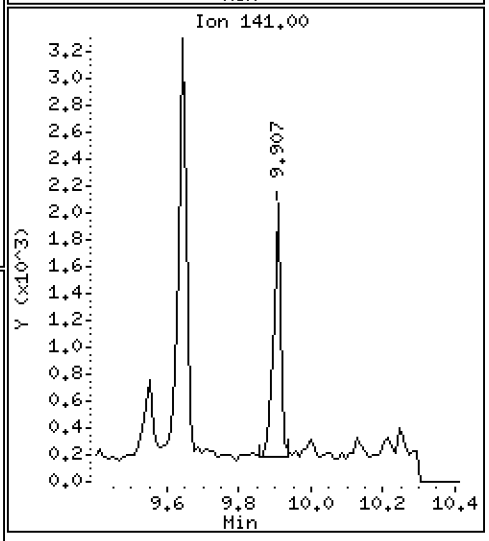
6 1-Methylnaphthalene

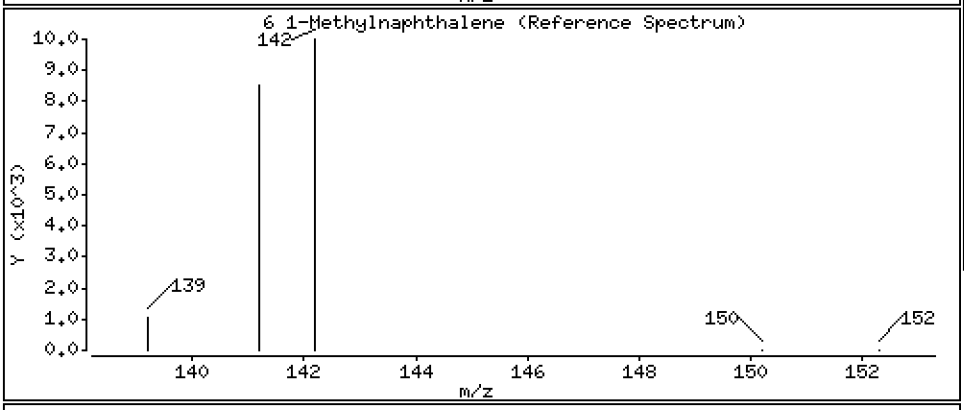
Concentration: 1.31 ng/mL

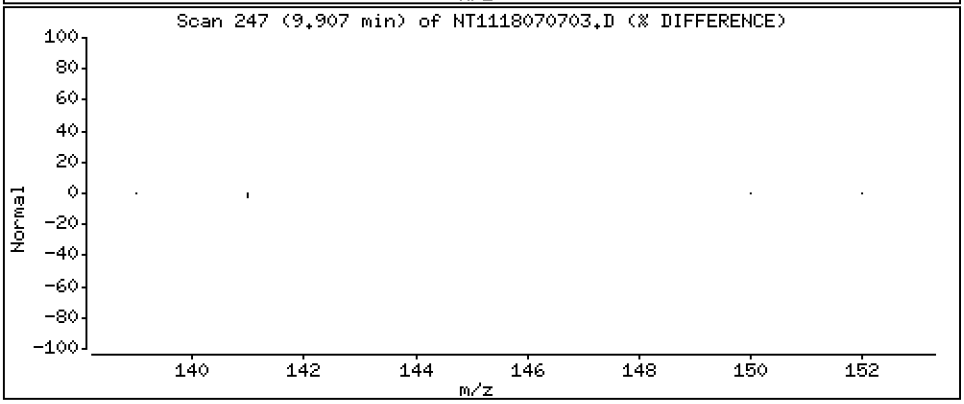












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Date : 07-JUL-2018 09:44

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-07

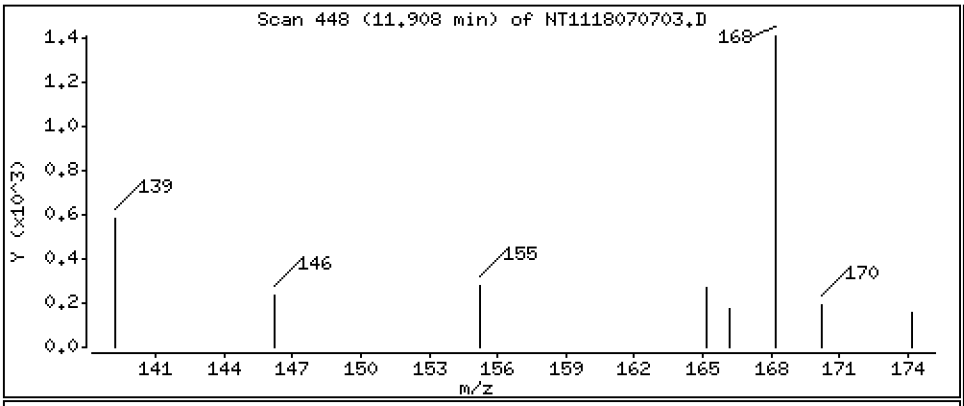
Operator: VTS

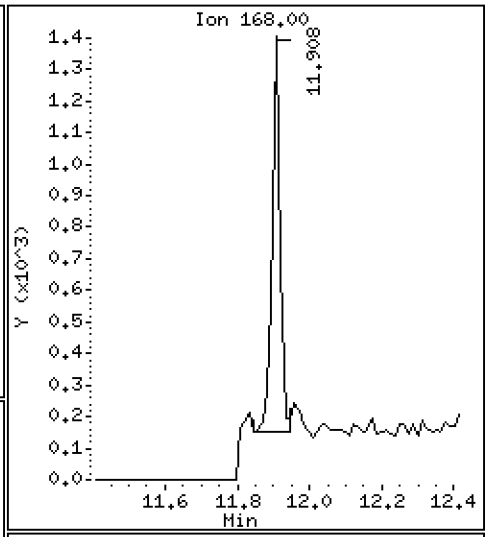
Column phase: Rxi-17Sil MS

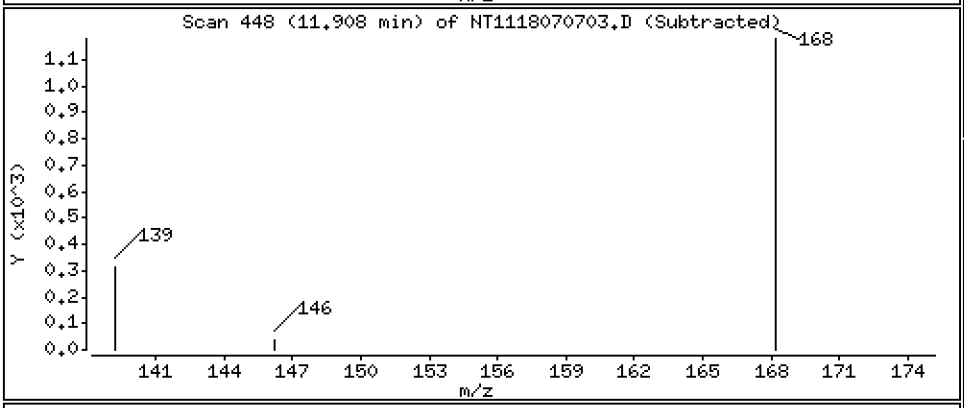
Column diameter: 0.25

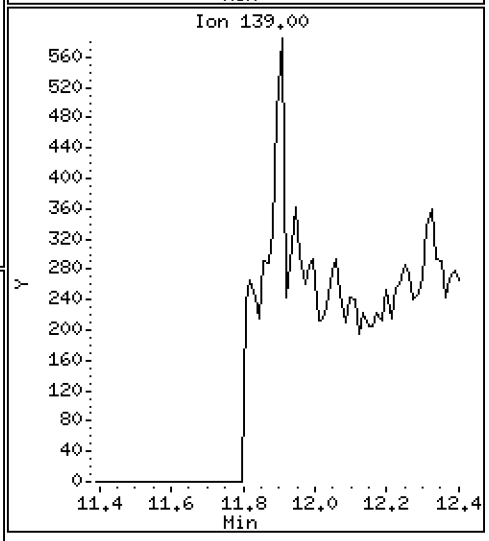
13 Dibenzofuran

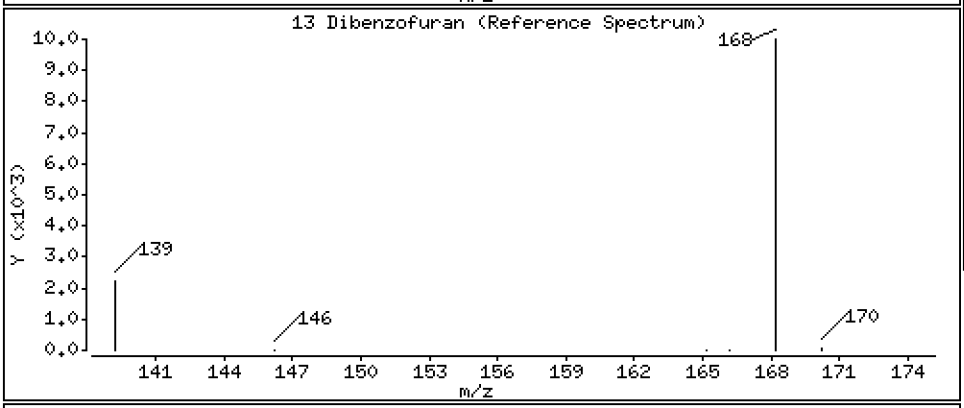
Concentration: 0.690 ng/mL

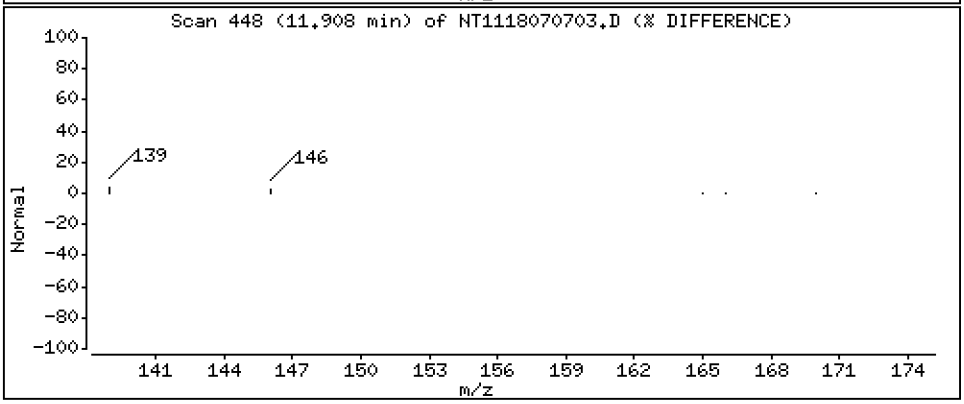












Data File: \\target\share\chem3\nt11.i\20180707.b\NT1118070703.D

Date : 07-JUL-2018 09:44

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-07

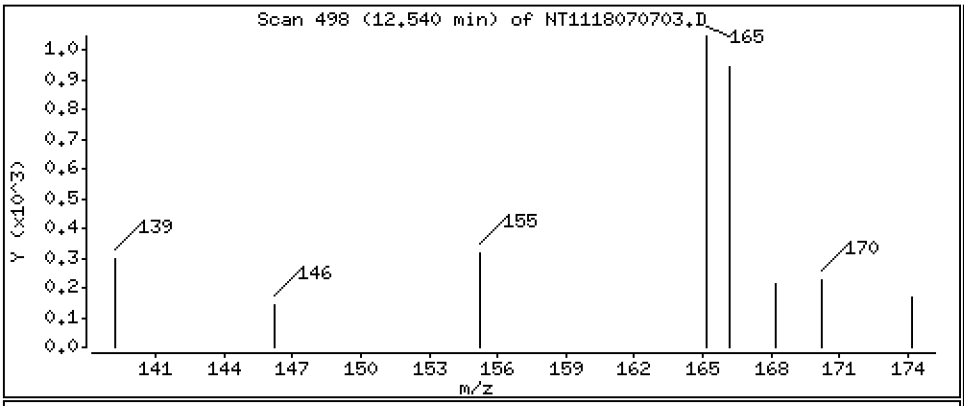
Operator: VTS

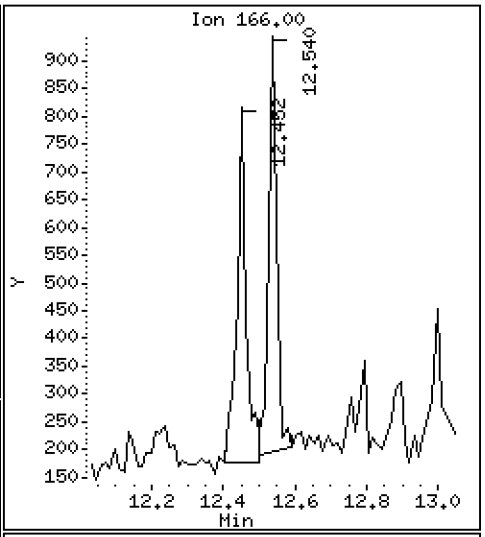
Column phase: Rxi-17Sil MS

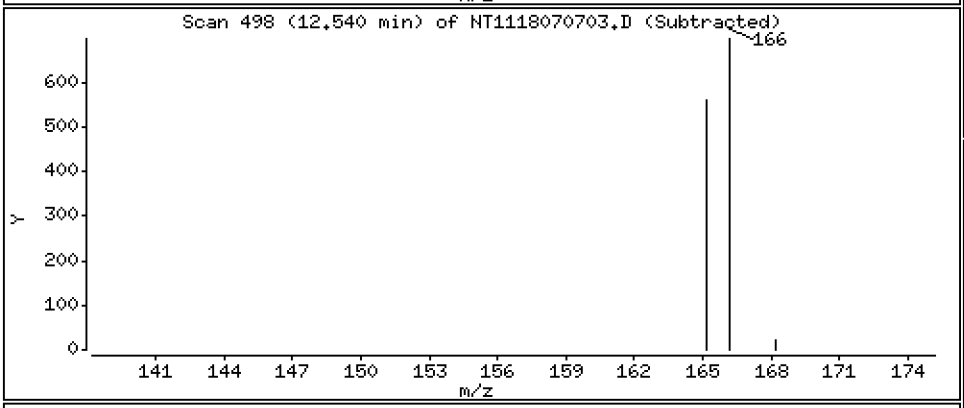
Column diameter: 0.25

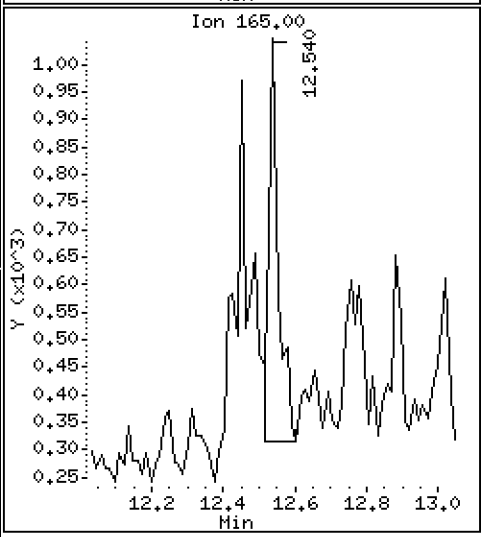
16 Fluorene

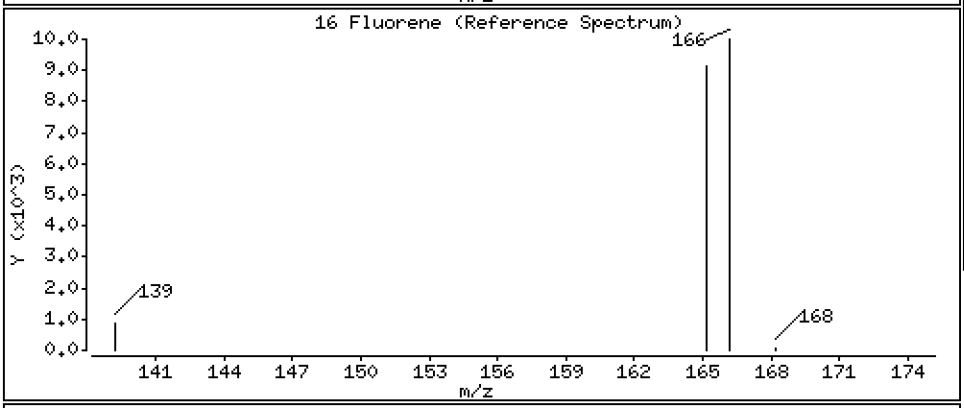
Concentration: 0.549 ng/mL

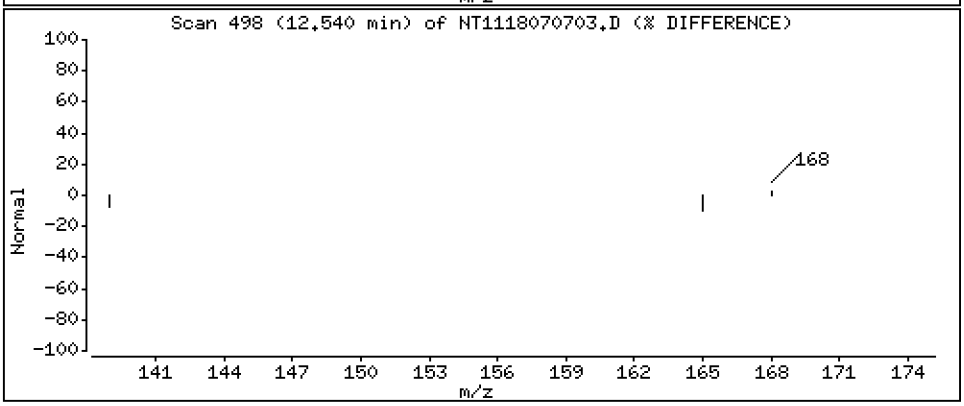












Data File: \\target\share\chem3\nt11.i\20180707.b\NT1118070703.D

Date : 07-JUL-2018 09:44

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-07

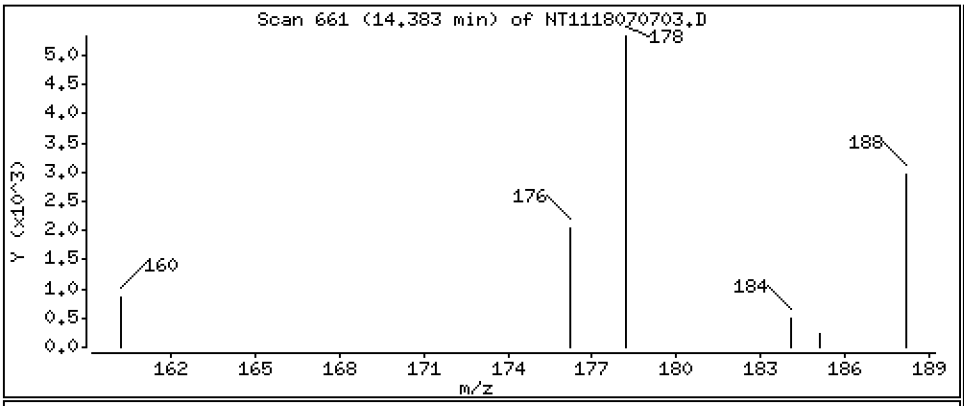
Operator: VTS

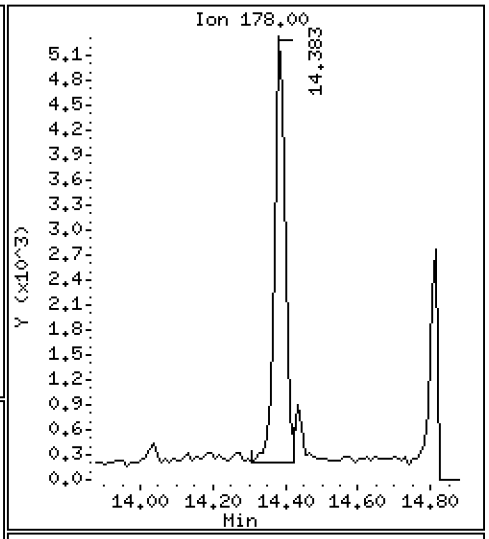
Column phase: Rxi-17Sil MS

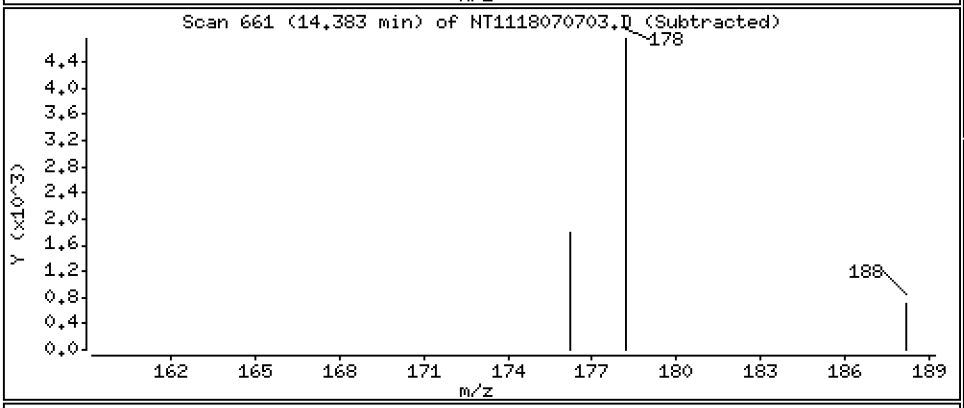
Column diameter: 0.25

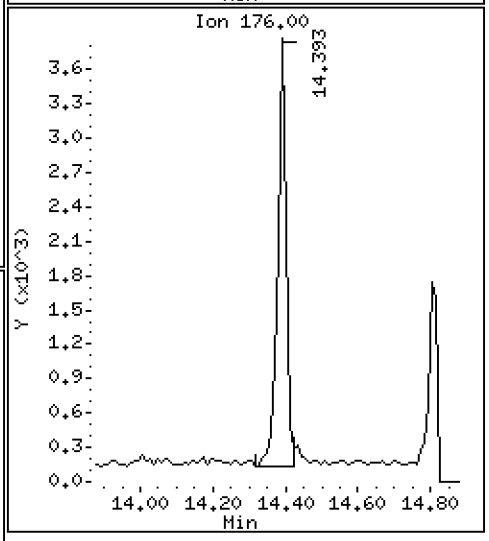
19 Phenanthrene

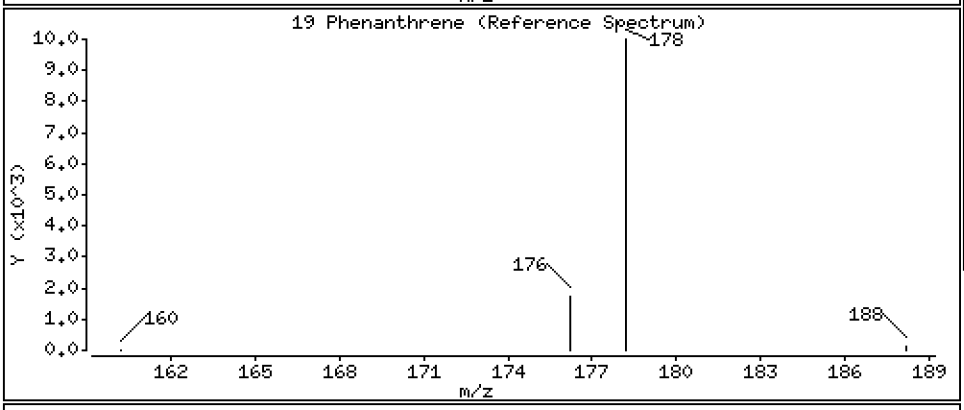
Concentration: 3.25 ng/mL

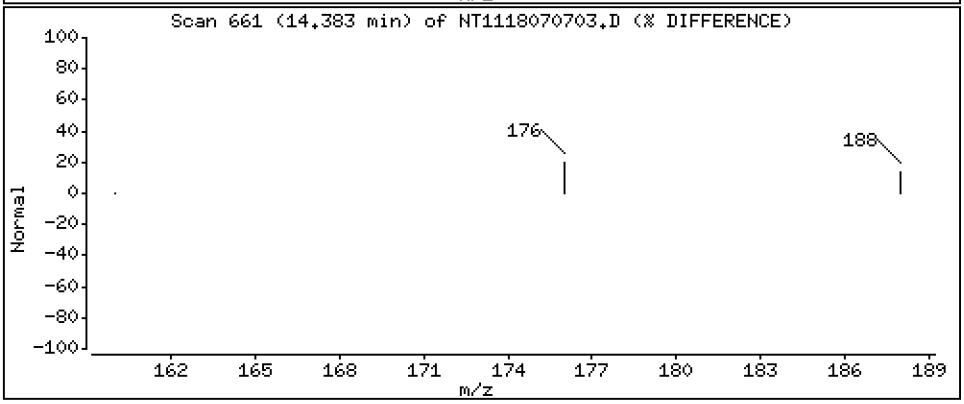












Data File: \\target\share\chem3\nt11.i\20180707.b\NT1118070703.D

Date : 07-JUL-2018 09:44

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-07

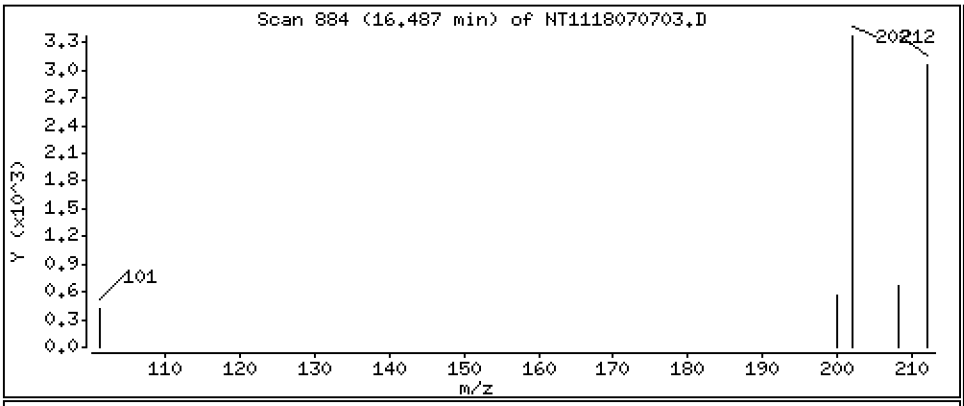
Operator: VTS

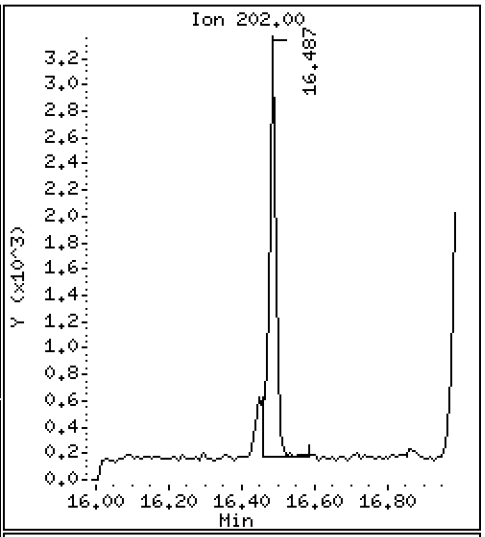
Column phase: Rxi-17Sil MS

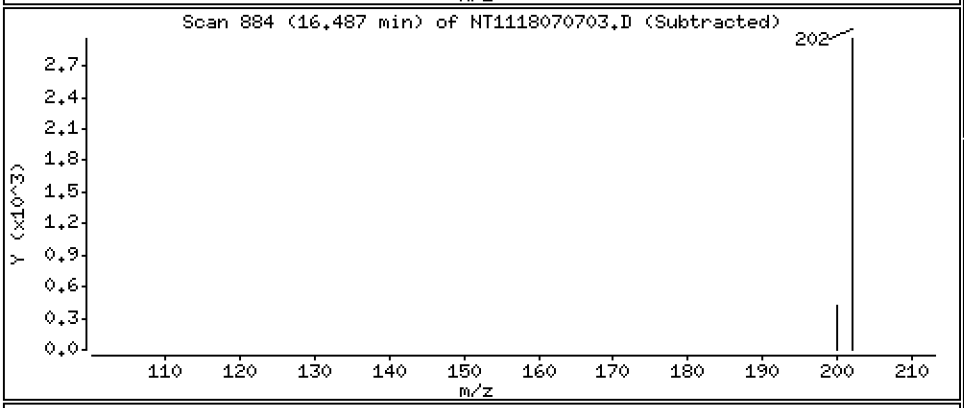
Column diameter: 0.25

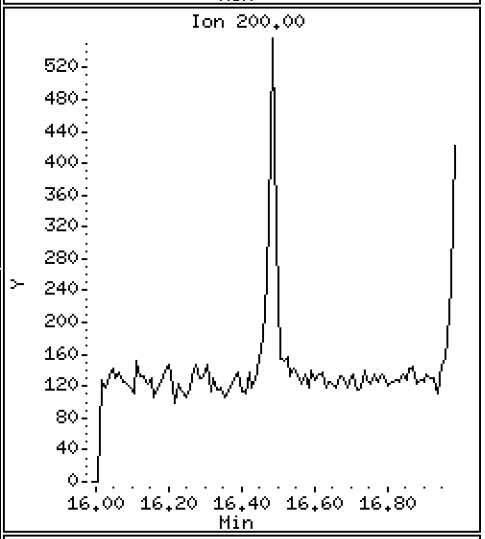
25 Fluoranthene

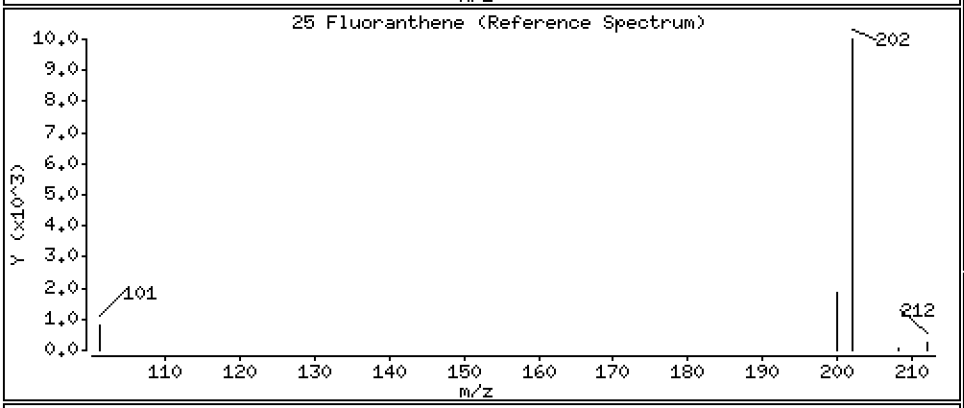
Concentration: 1.49 ng/mL

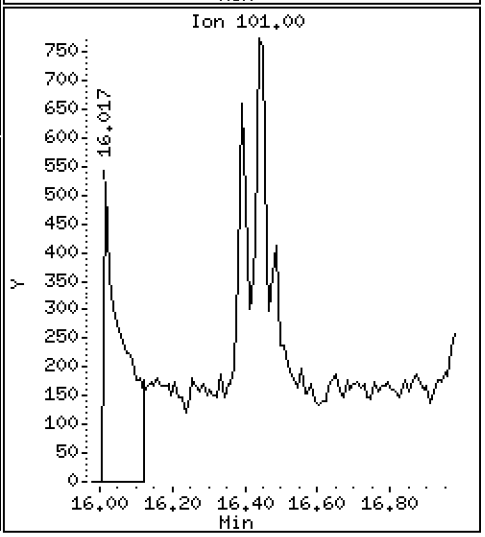


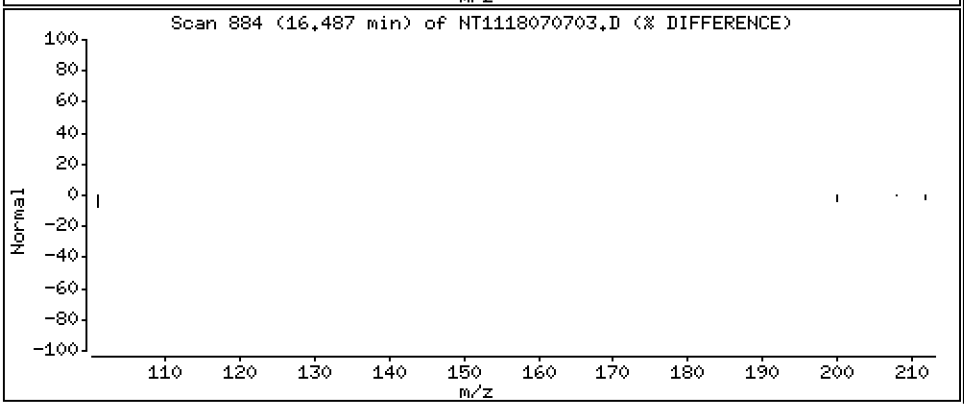












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Date : 07-JUL-2018 09:44

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-07

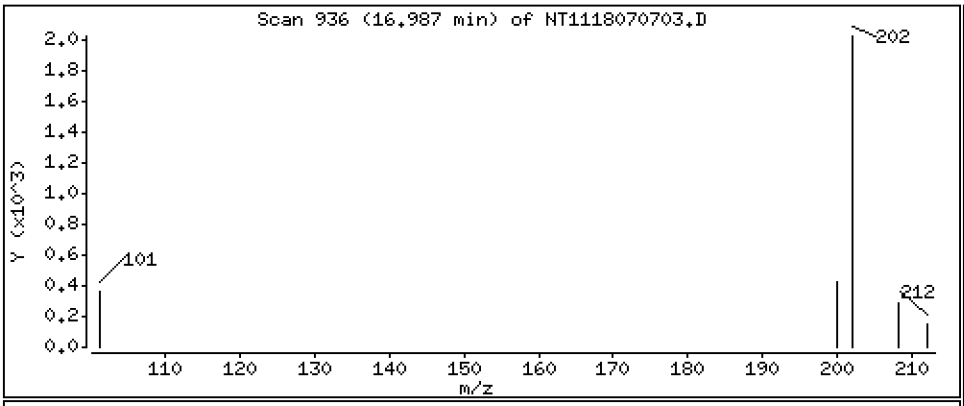
Operator: VTS

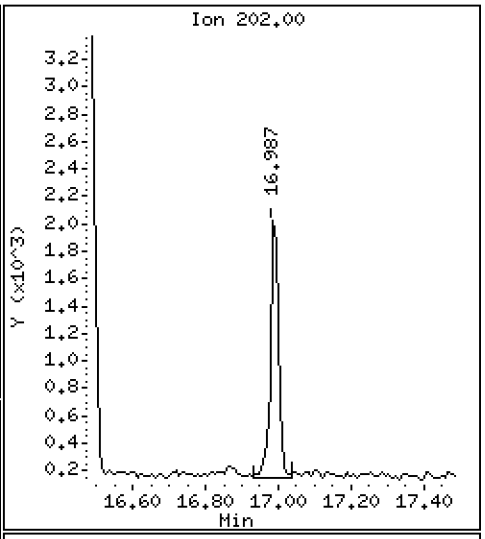
Column phase: Rxi-17Sil MS

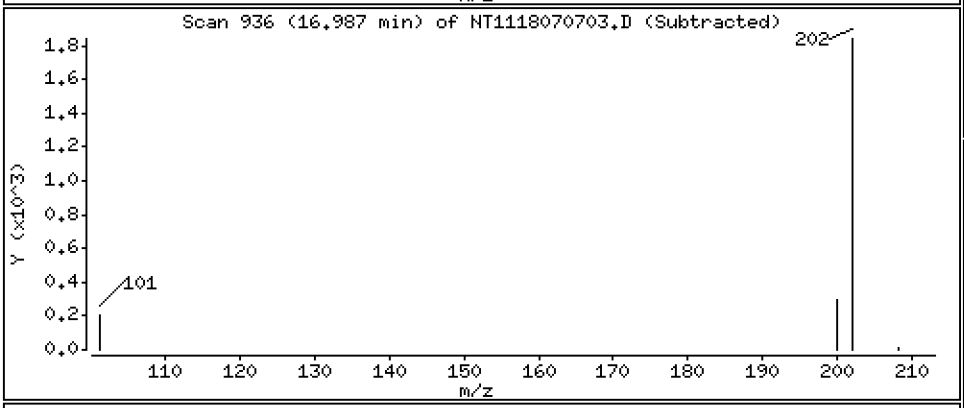
Column diameter: 0.25

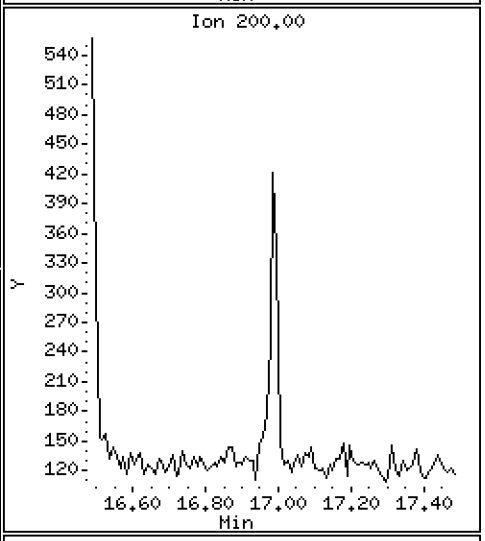
26 Pyrene

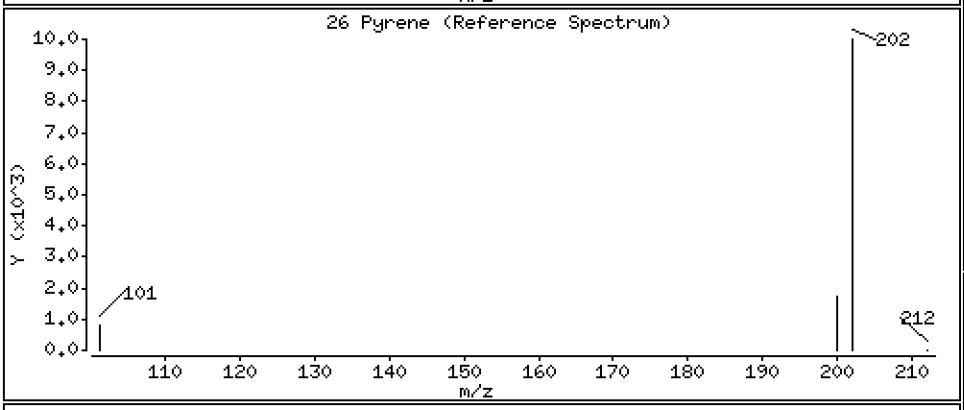
Concentration: 0.979 ng/mL

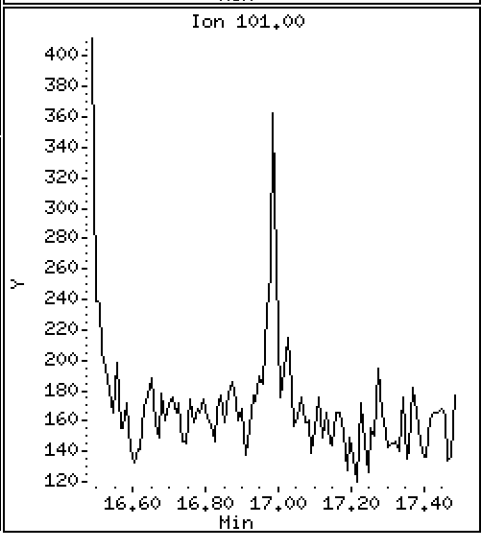


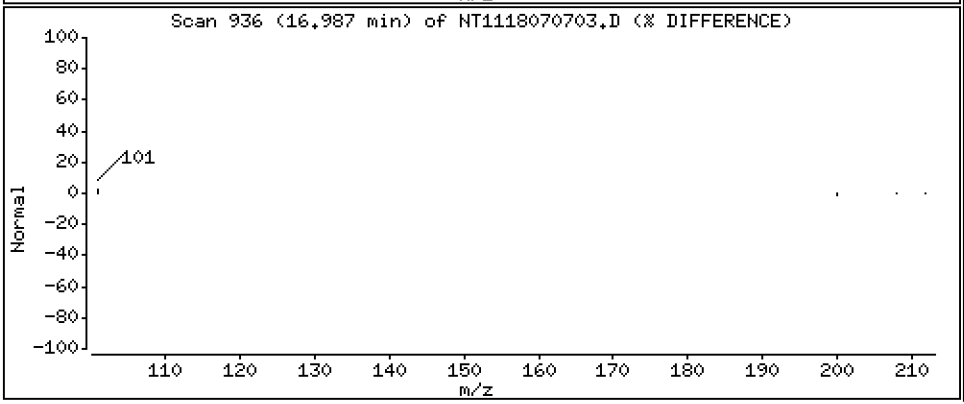












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180707.b\NT1118070703.D
Lab Smp Id: 18F0248-07
Inj Date : 07-JUL-2018 09:44 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0248-07
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180707.b\lowsim.m
Meth Date : 07-Jul-2018 09:32 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	462182	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	10467	3.00888	3.01
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.592	9.591	(1.114)	511935	194.132	194
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	5364	1.90527	1.91
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	3667	1.30966	1.31
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	240105	200.000	
	12 Acenaphthene	153	Compound Not Detected.					
	13 Dibenzofuran	168	11.908	11.907	(1.023)	1845	0.68973	0.690
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.540	12.539	(1.077)	1184	0.54888	0.549
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	410079	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	10448	3.24851	3.25
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	Compound Not Detected.					
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	Compound Not Detected.					
$	24 Fluoranthene-d10	212	16.449	16.448	(1.147)	555706	223.248	223
	25 Fluoranthene	202	16.487	16.487	(1.150)	4444	1.48789	1.49
	26 Pyrene	202	16.987	16.986	(0.889)	3089	0.97851	0.979
	27 Benzo(a)anthracene	228	Compound Not Detected.					
*	28 Chrysene-d12	240	19.103	19.095	(1.000)	321109	200.000	
	29 Chrysene	228	Compound Not Detected.					
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
34	Benzo(e)pyrene	252	Compound Not Detected.					
35	Benzo(a)pyrene	252	Compound Not Detected.					
* 36	Perylene-d12	264	22.353	22.353	(1.000)	318936	200.000	
37	Perylene	252	Compound Not Detected.					
$ 38	Dibenzo(a,h)anthracene-d14	292	25.279	25.268	(1.131)	325862	213.508	214
39	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
40	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
41	Benzo(g,h,i)perylene	276	Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118070703.D
Lab Smp Id: 18F0248-07
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180707.b\lowsim.m
Misc Info:

Calibration Date: 07-JUL-2018
Calibration Time: 08:54
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	462182	7.15
11 Acenaphthene-d10	260137	130069	520274	240105	-7.70
18 Phenanthrene-d10	427391	213696	854782	410079	-4.05
28 Chrysene-d12	304596	152298	609192	321109	5.42
36 Perylene-d12	263091	131546	526182	318936	21.23

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	0.04
36 Perylene-d12	22.35	21.85	22.85	22.35	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118070703.D

Lab ID: 18F0248-07
nt11.i, 20180707.b\lowsim.m,   07-JUL-2018 09:44

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180707.b\lowsim.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

LDW18-SP-88

Form I

ORGANIC ANALYSIS DATA SHEET

EPA 8270D-SIM

Polynuclear Aromatic Hydrocarbons - low level

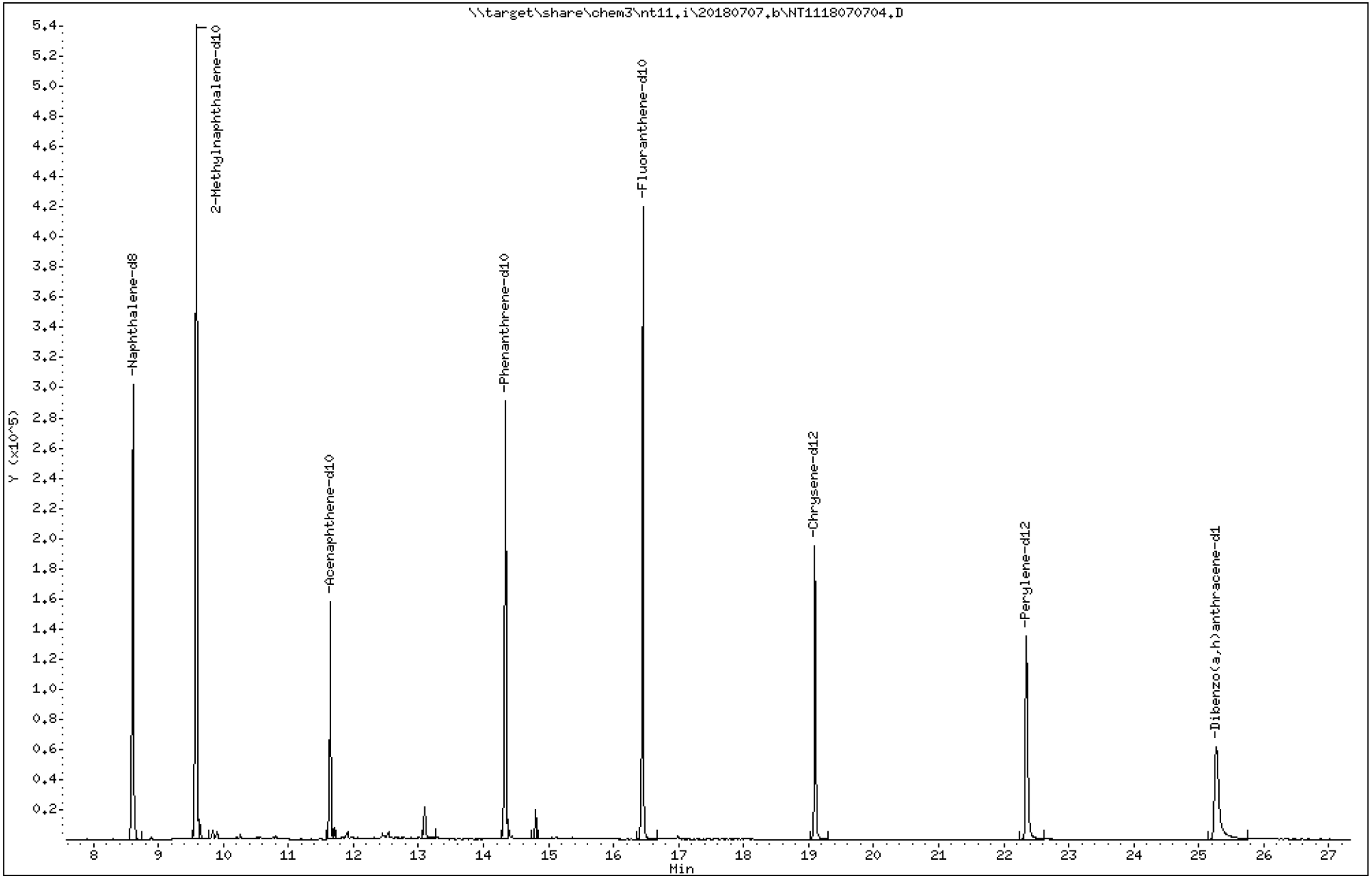
Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-08	SDG:	18F0185
Sampled:	06/15/18 10:52	Prepared:	06/21/18 13:35	File ID:	NT1118070704.D
% Solids:		Preparation:	EPA 3510C SepF	Analyzed:	07/07/18 10:20
Batch:	BGF0530	Sequence:	SGG0076	Initial/Final:	500 mL / 0.5 mL
Instrument:	NT11	Column:	RXi-17Sil-MS	Calibration:	BE00021
Cleanups:	Silica Gel				

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.004	J	0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.002	J	0.001	0.010
208-96-8	Acenaphthylene	1	0.010	U	0.002	0.010
83-32-9	Acenaphthene	1	0.004	J	0.003	0.010
86-73-7	Fluorene	1	0.002	J	0.002	0.010
85-01-8	Phenanthrene	1	0.002	J	0.001	0.010
120-12-7	Anthracene	1	0.010	U	0.001	0.010
206-44-0	Fluoranthene	1	0.010	U	0.002	0.010
129-00-0	Pyrene	1	0.010	U	0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.010	U	0.0008	0.010
218-01-9	Chrysene	1	0.010	U	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.010	U	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.192	63.9	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.213	70.9	29 - 120	
Fluoranthene-d10	0.30000	0.224	74.5	57 - 120	

Data File: \\target\share\chem3\nt11.i\20180707.b\NT1118070704.D
Date : 07-JUL-2018 10:20
Client ID:
Sample Info: 18F0248-08

Instrument: nt11.i
Operator: VTS
Column phase: Rxi-17Sil MS
Column diameter: 0.25



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 1847 of 6523

Data File: \\target\share\chem3\nt11.i\20180707.b\NT1118070704.D

Date : 07-JUL-2018 10:20

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-08

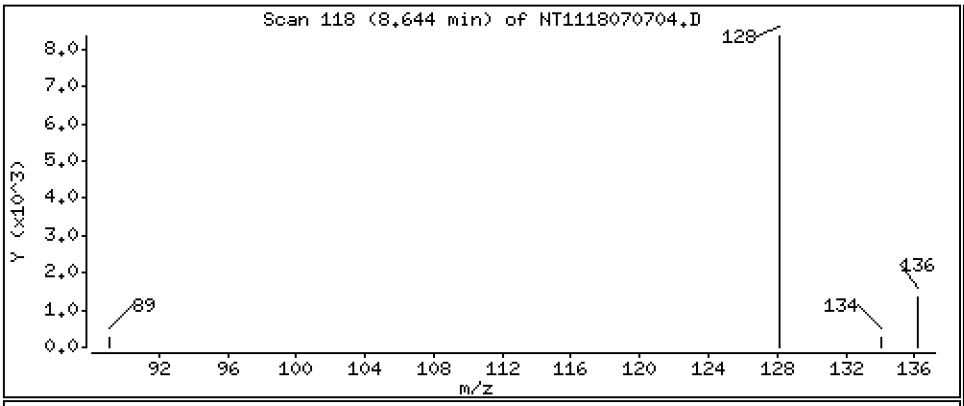
Operator: VTS

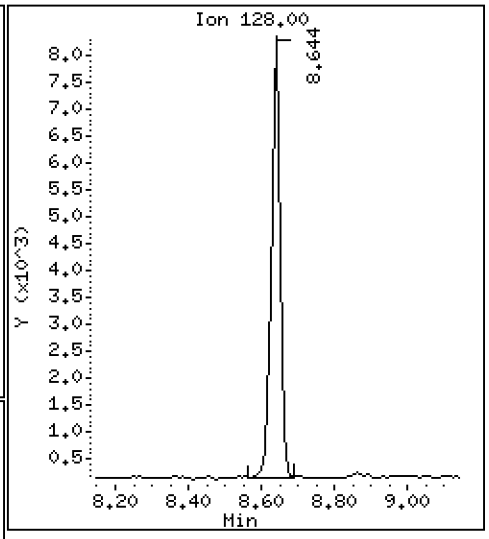
Column phase: Rxi-17Sil MS

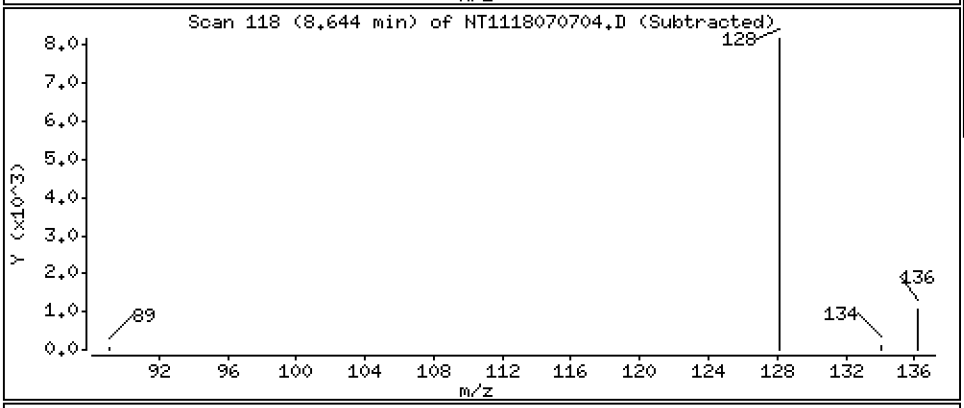
Column diameter: 0.25

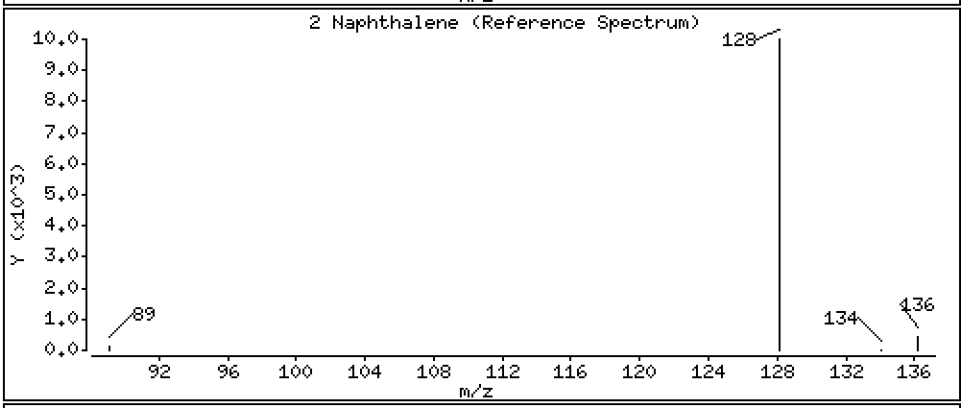
2 Naphthalene

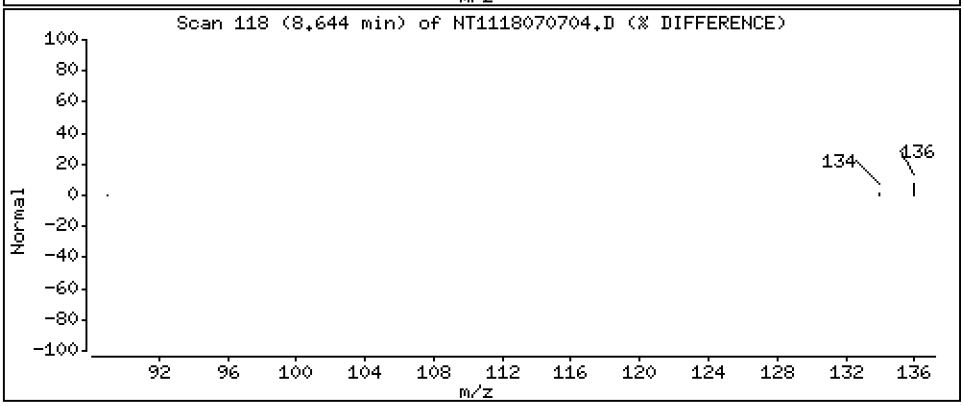
Concentration: 4.17 ng/mL











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Date : 07-JUL-2018 10:20

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-08

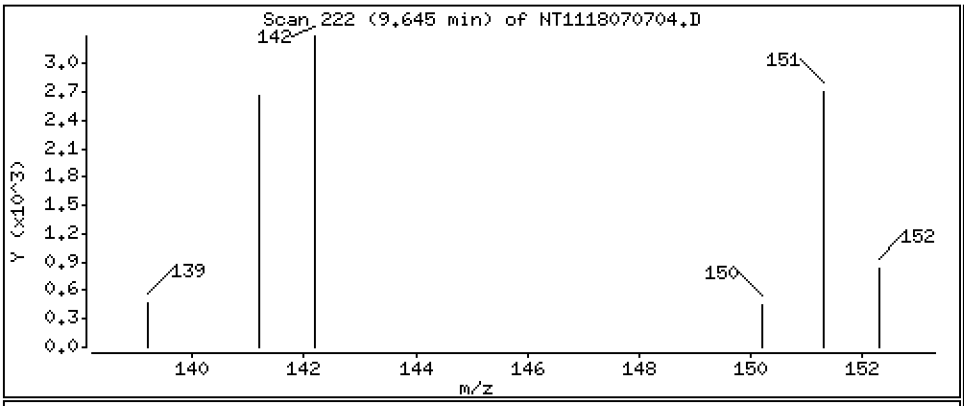
Operator: VTS

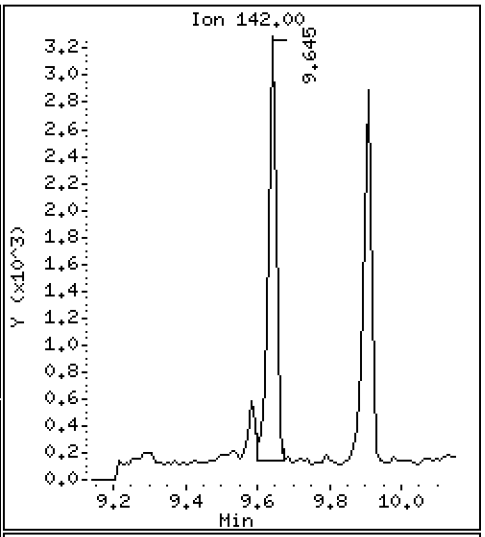
Column phase: Rxi-17Sil MS

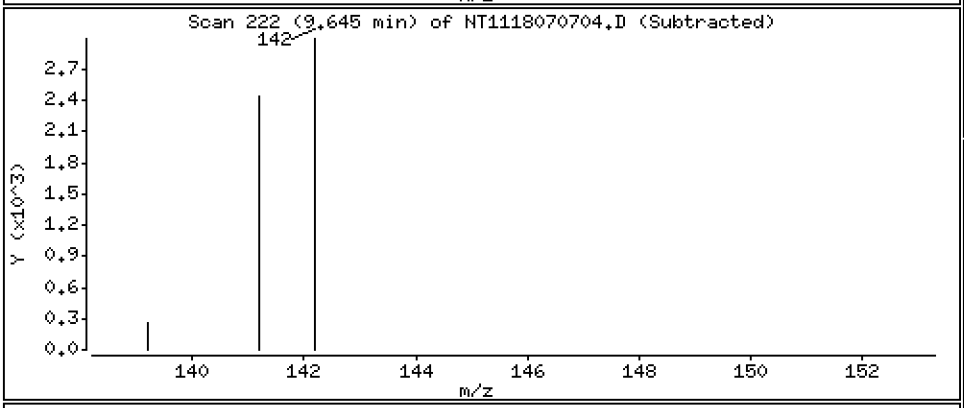
Column diameter: 0.25

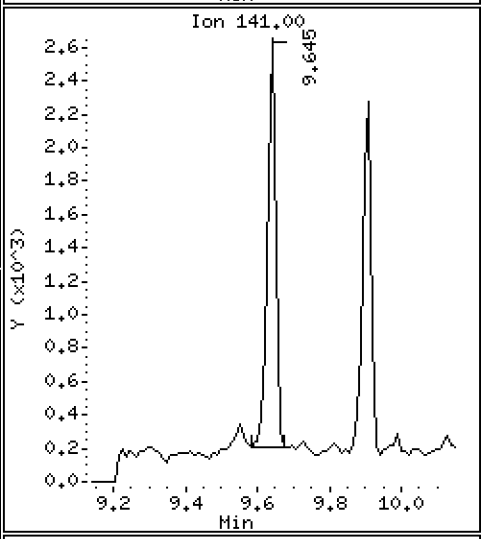
5 2-Methylnaphthalene

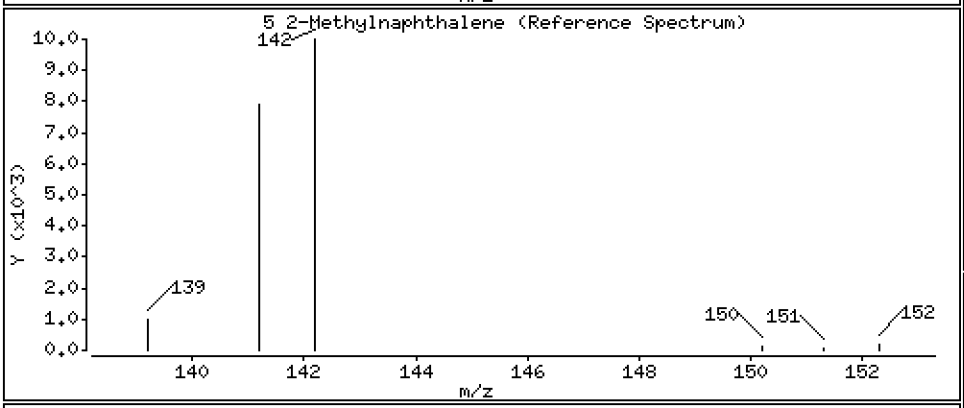
Concentration: 1.78 ng/mL

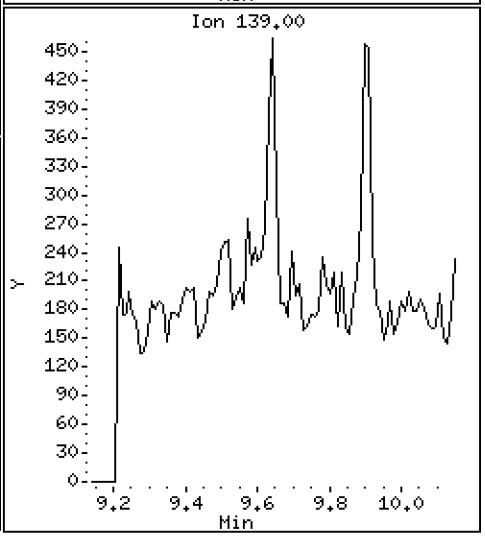


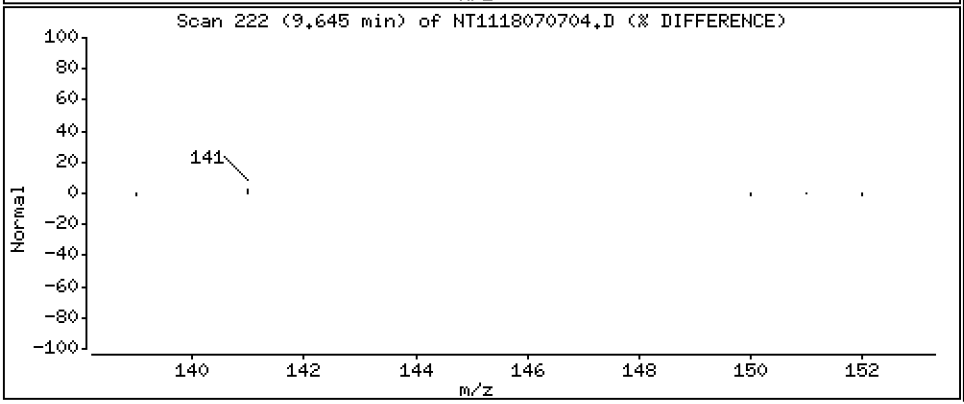












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Date : 07-JUL-2018 10:20

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-08

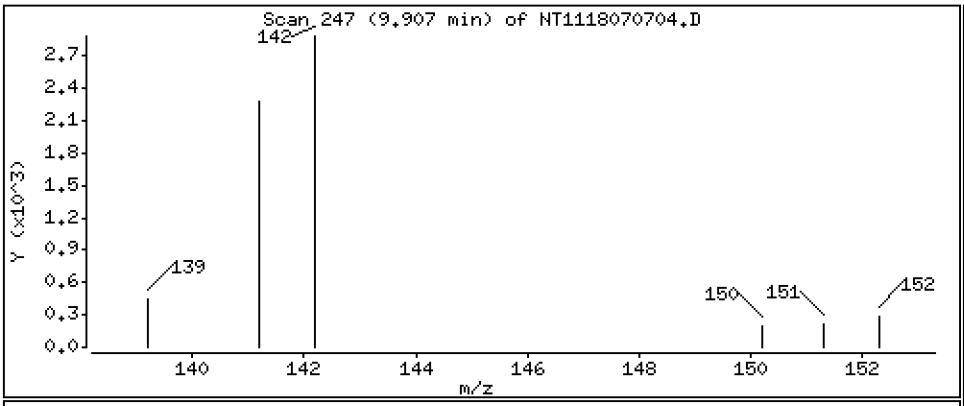
Operator: VTS

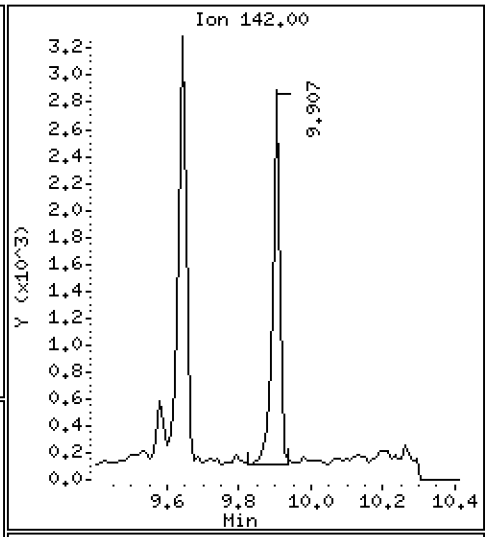
Column phase: Rxi-17Sil MS

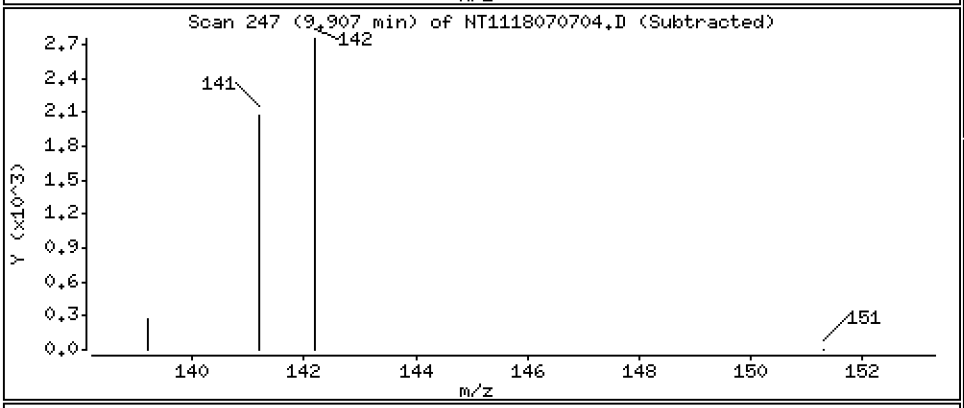
Column diameter: 0.25

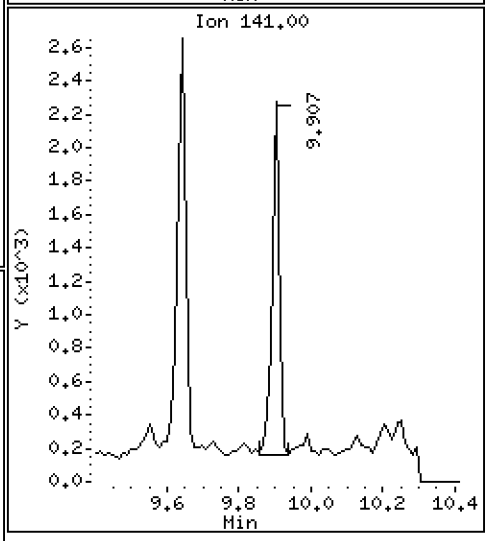
6 1-Methylnaphthalene

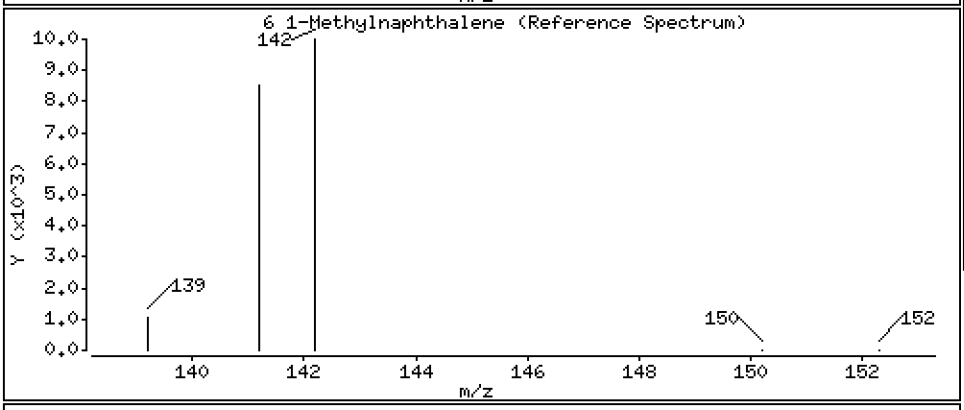
Concentration: 1.64 ng/mL

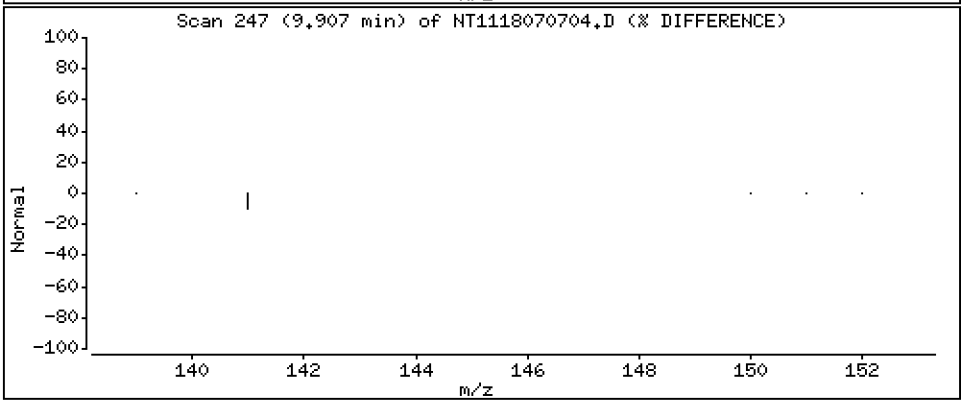












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Date : 07-JUL-2018 10:20

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-08

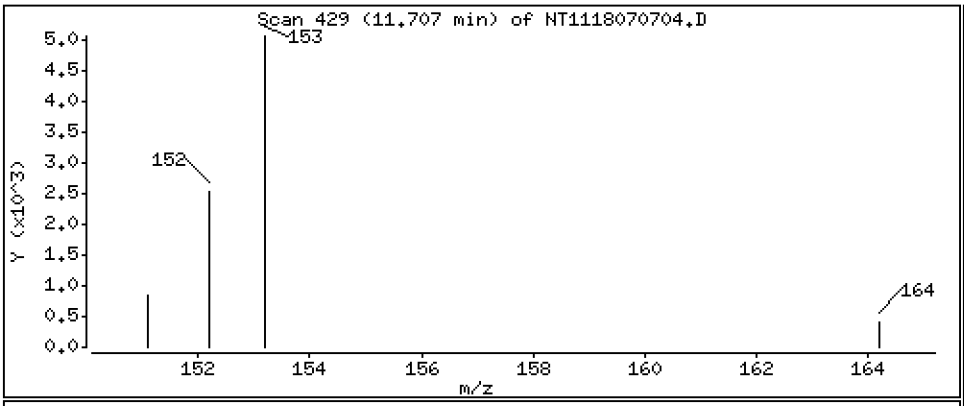
Operator: VTS

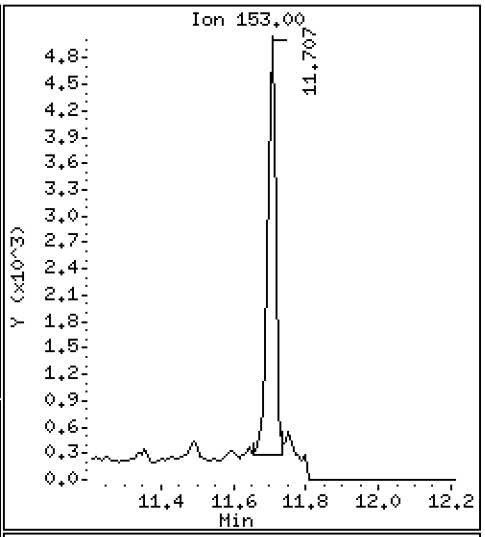
Column phase: Rxi-17Sil MS

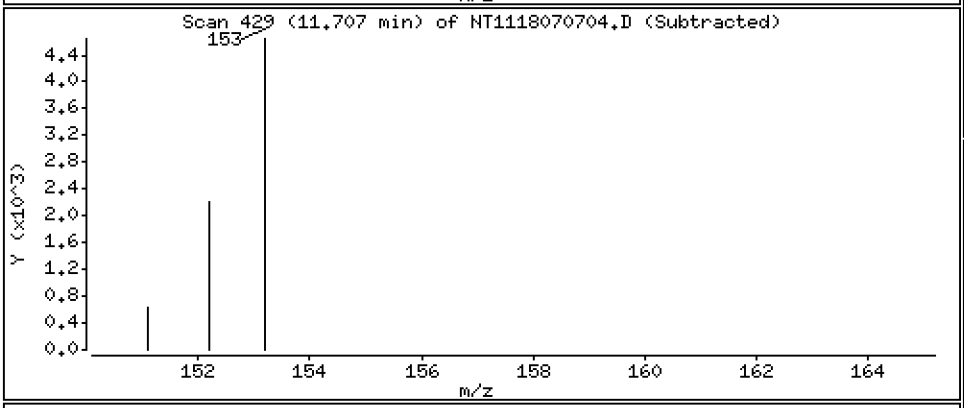
Column diameter: 0.25

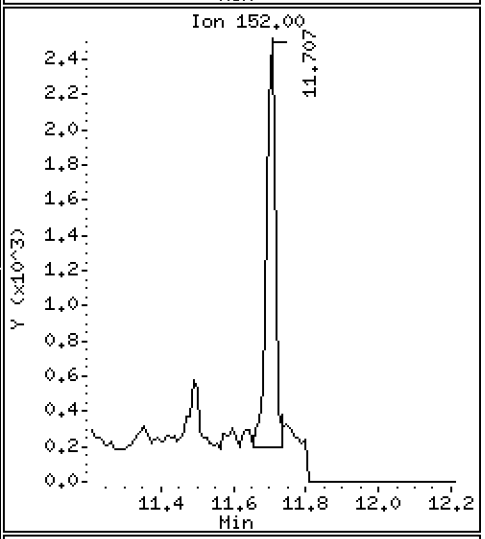
12 Acenaphthene

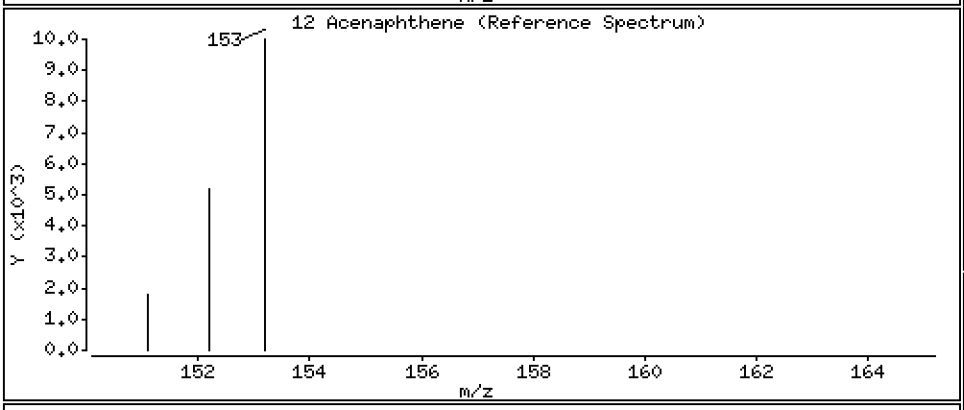
Concentration: 3.78 ng/mL

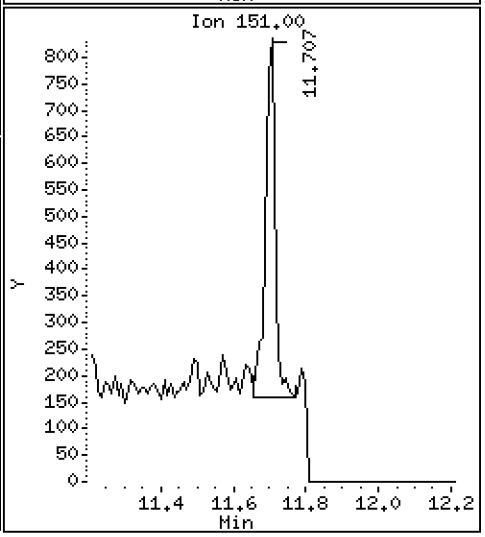


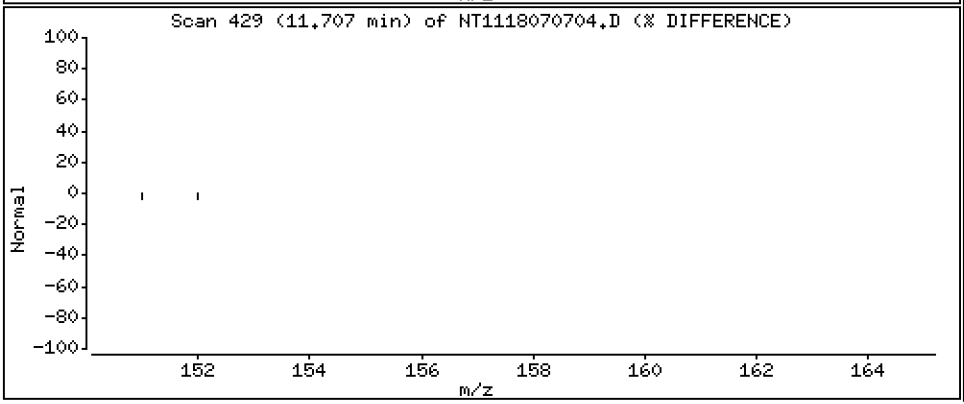












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Date : 07-JUL-2018 10:20

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-08

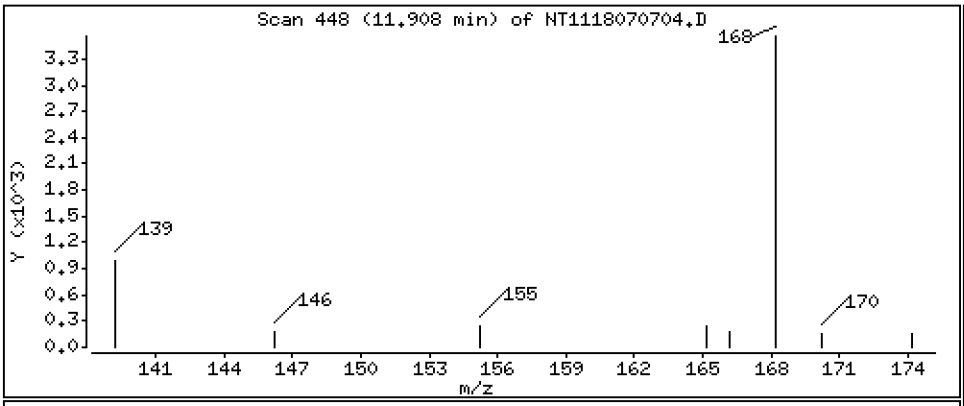
Operator: VTS

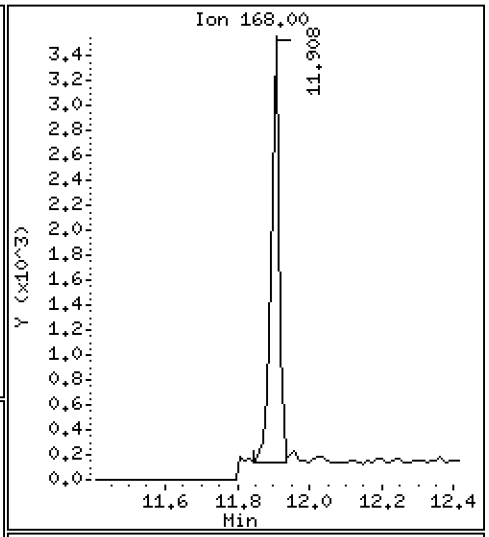
Column phase: Rxi-17Sil MS

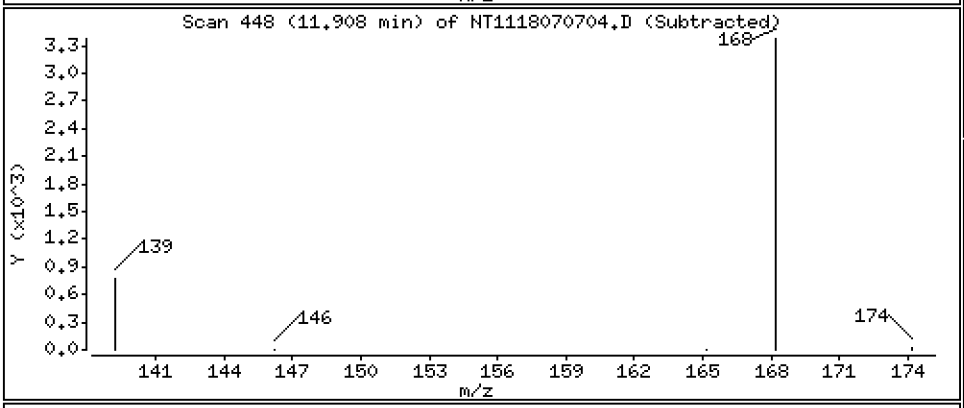
Column diameter: 0.25

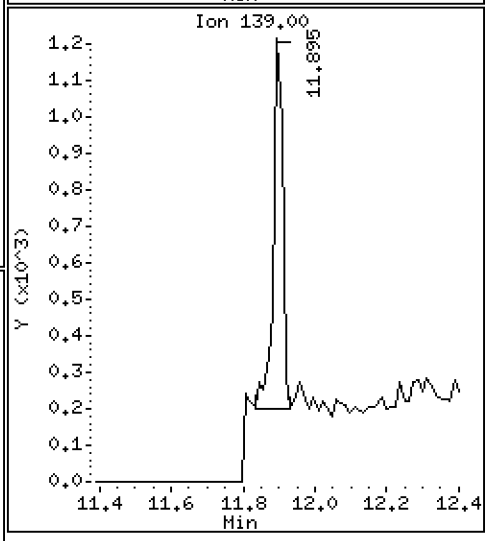
13 Dibenzofuran

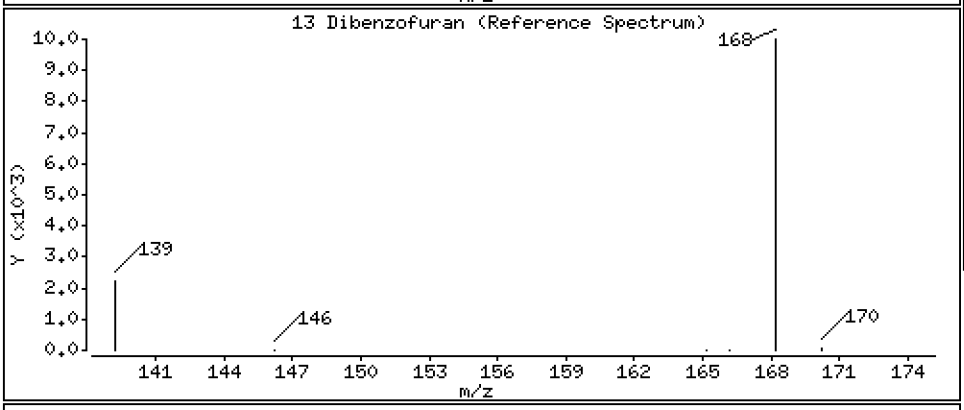
Concentration: 1.97 ng/mL

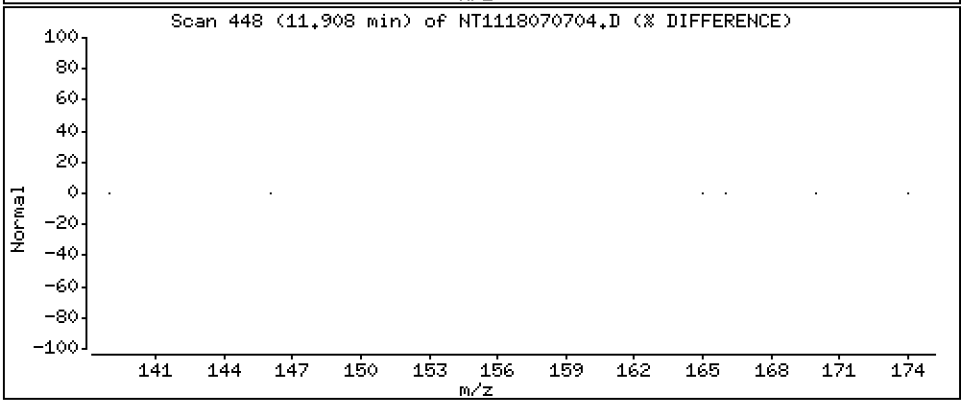












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Date : 07-JUL-2018 10:20

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-08

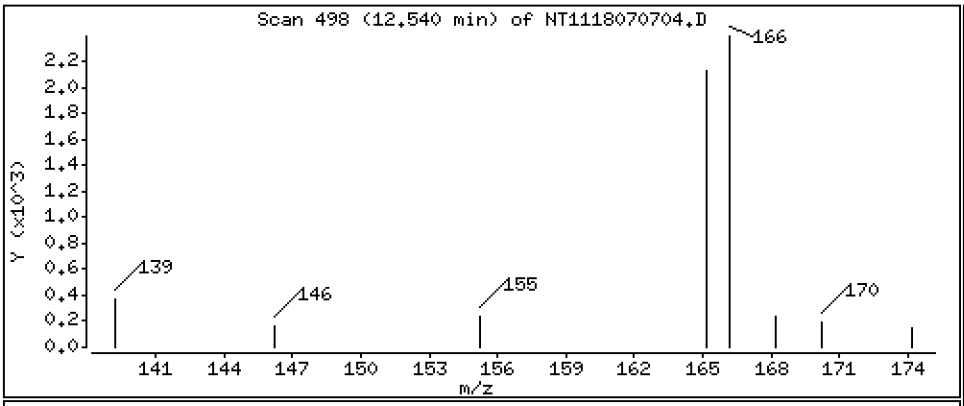
Operator: VTS

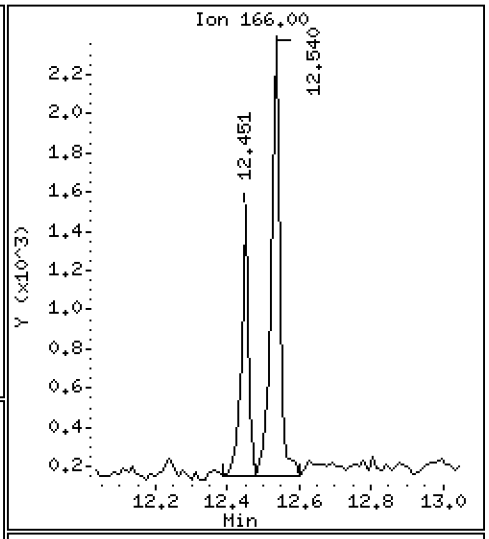
Column phase: Rxi-17Sil MS

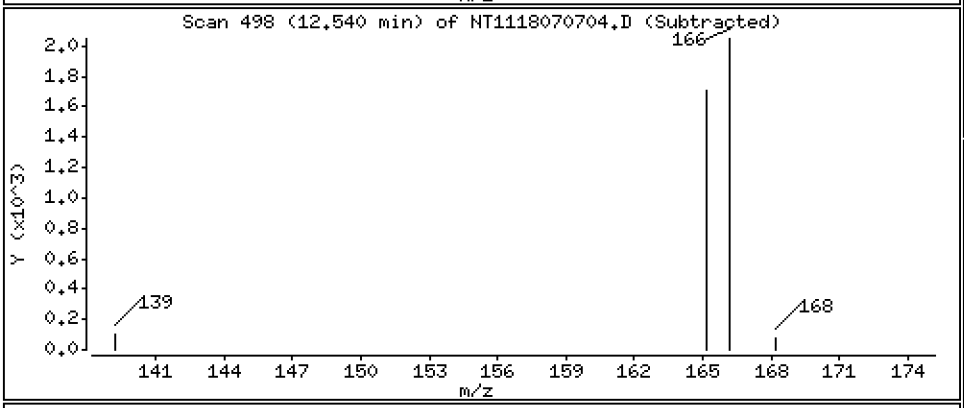
Column diameter: 0.25

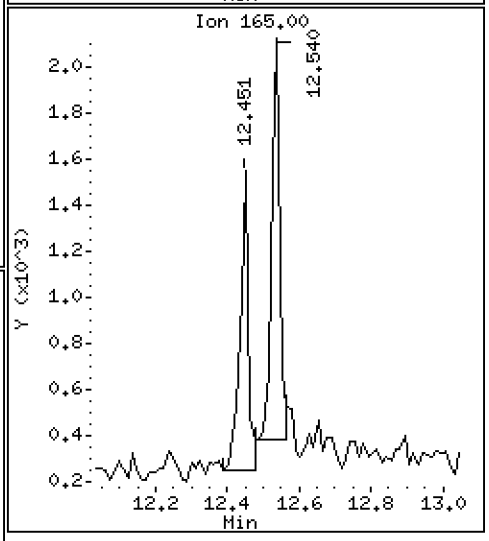
16 Fluorene

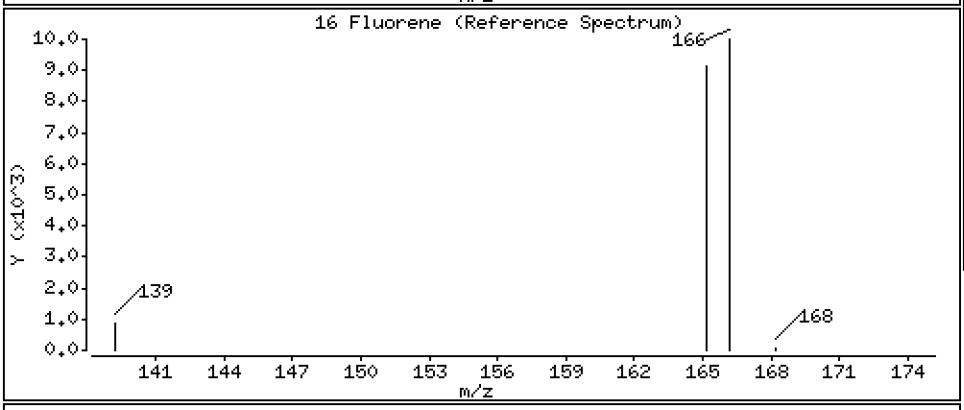
Concentration: 1.84 ng/mL

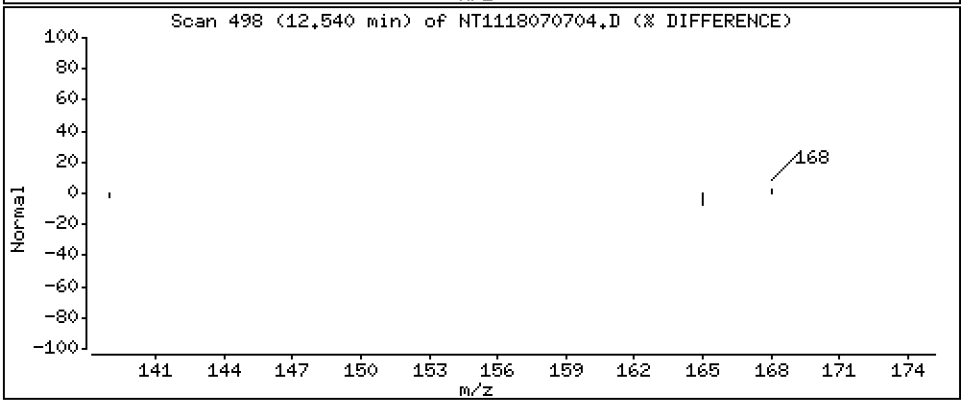












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Date : 07-JUL-2018 10:20

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-08

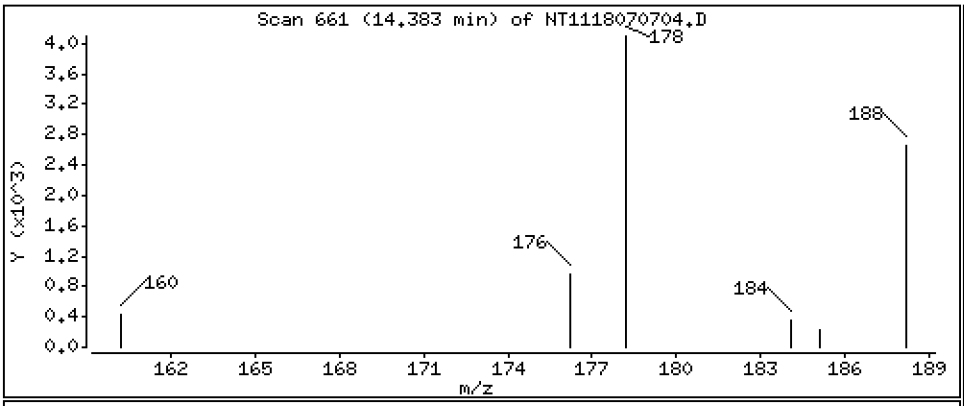
Operator: VTS

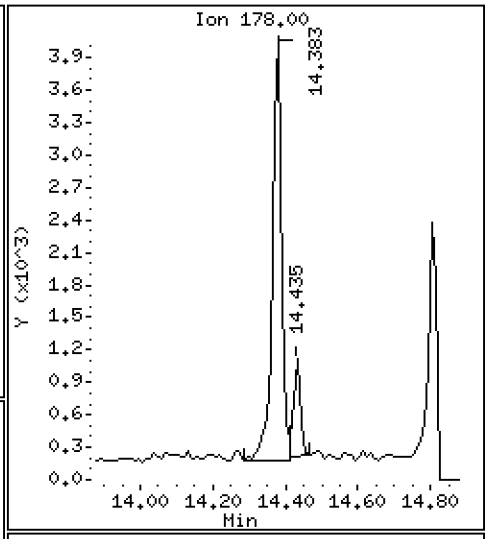
Column phase: Rxi-17Sil MS

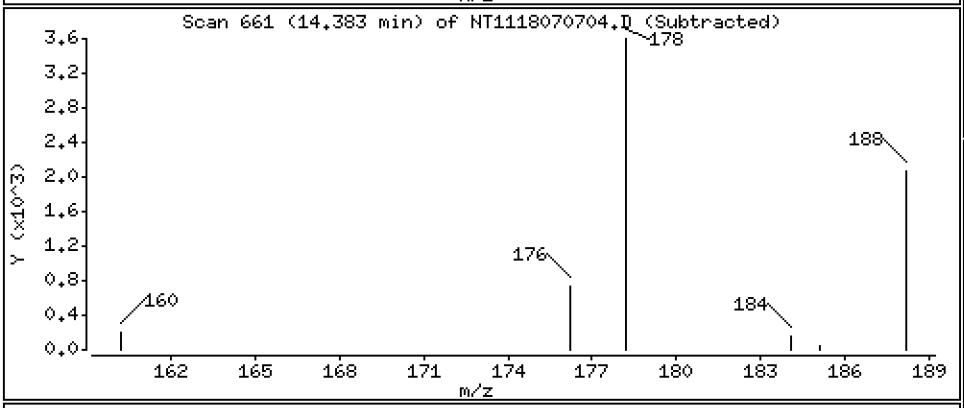
Column diameter: 0.25

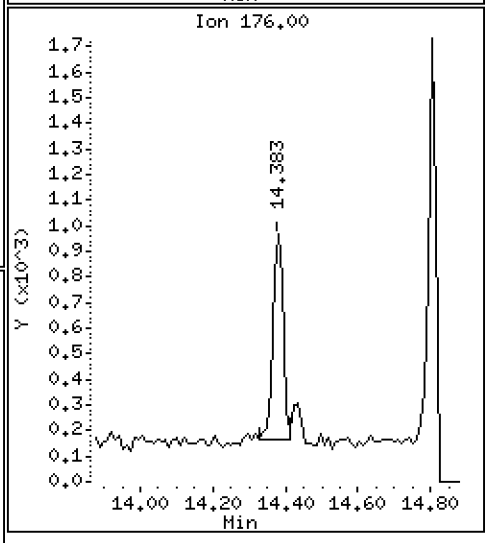
19 Phenanthrene

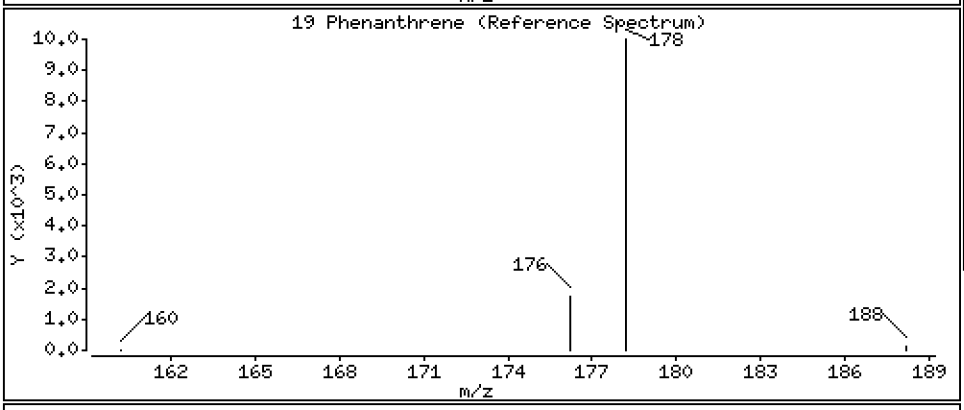
Concentration: 2.35 ng/mL

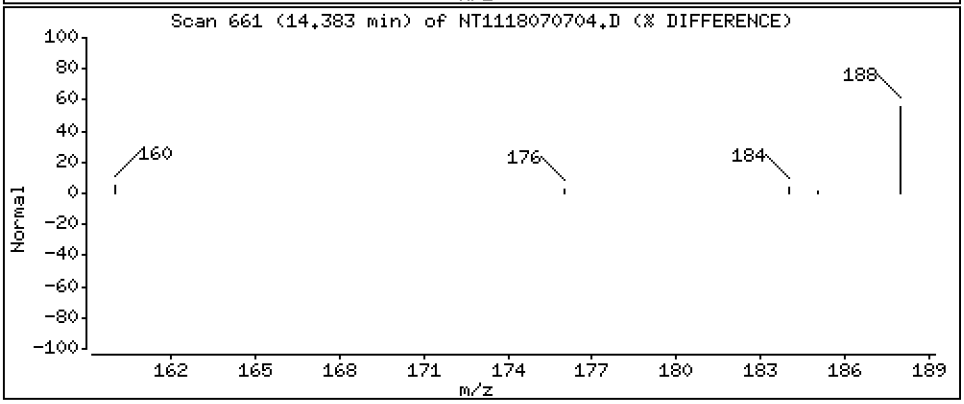












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Date : 07-JUL-2018 10:20

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-08

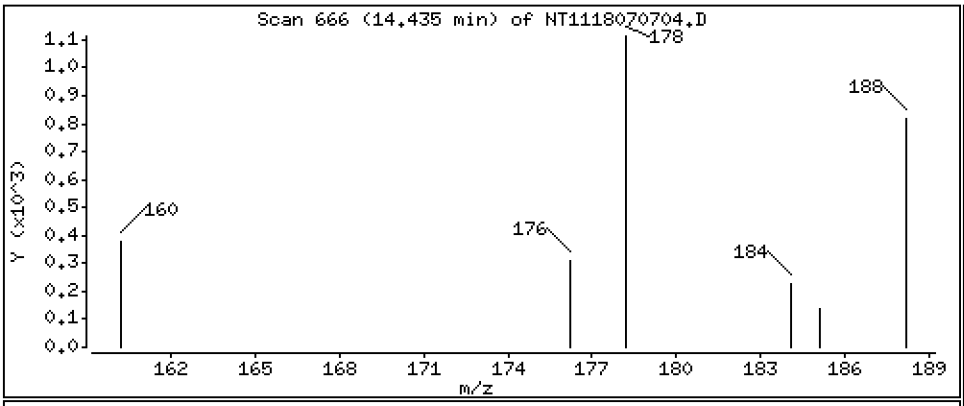
Operator: VTS

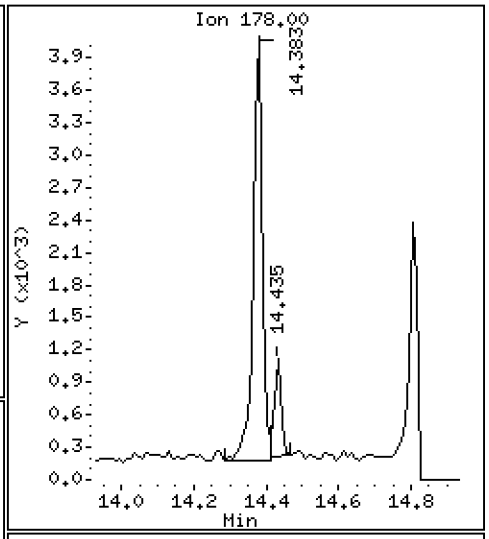
Column phase: Rxi-17Sil MS

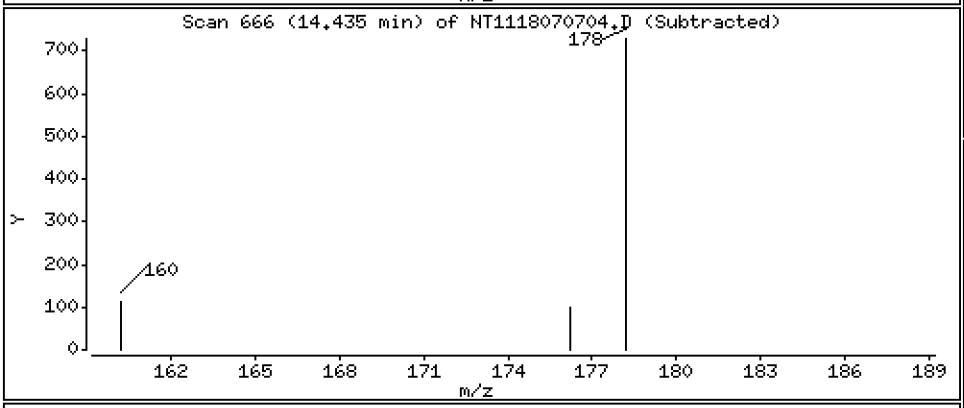
Column diameter: 0.25

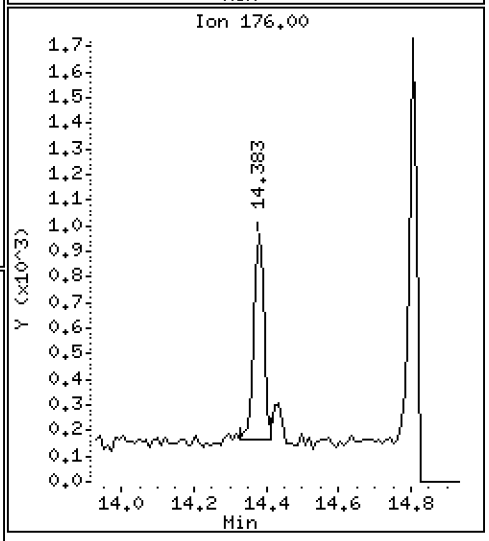
21 Anthracene

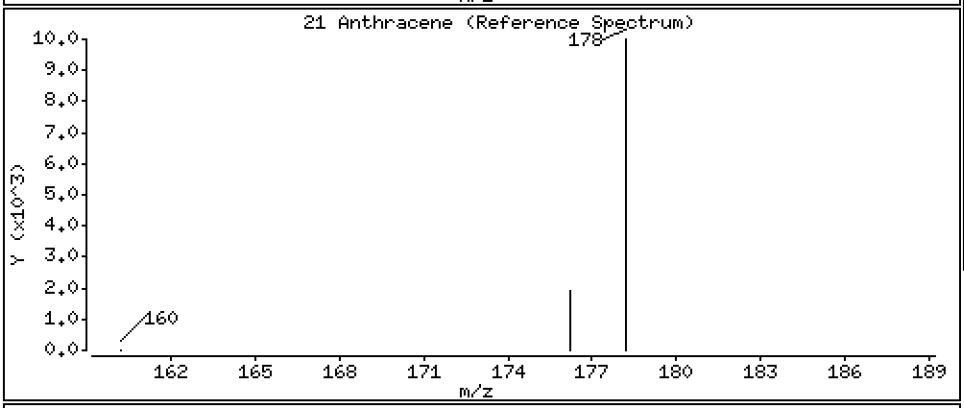
Concentration: 0.430 ng/mL

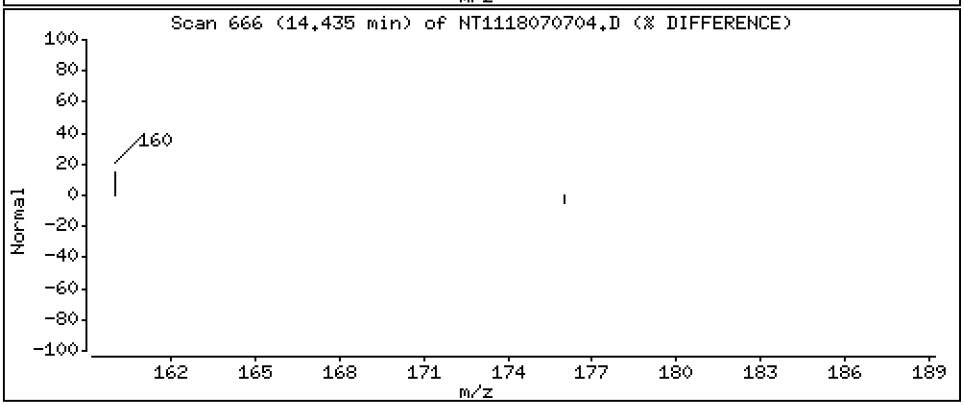












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Date : 07-JUL-2018 10:20

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-08

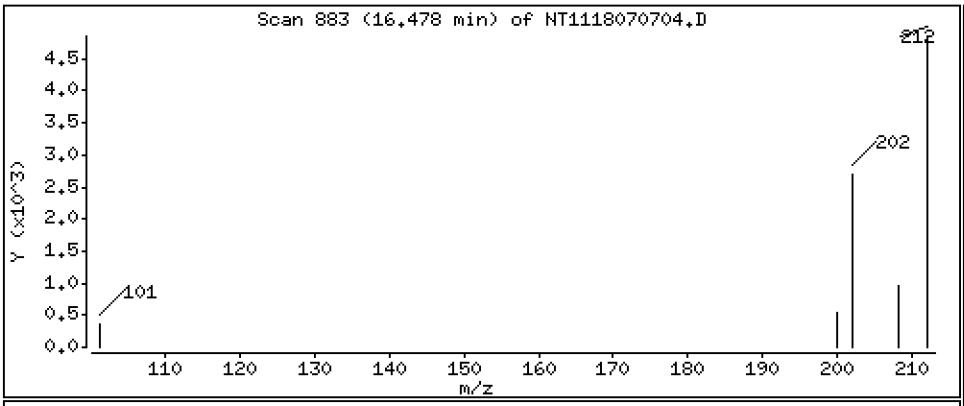
Operator: VTS

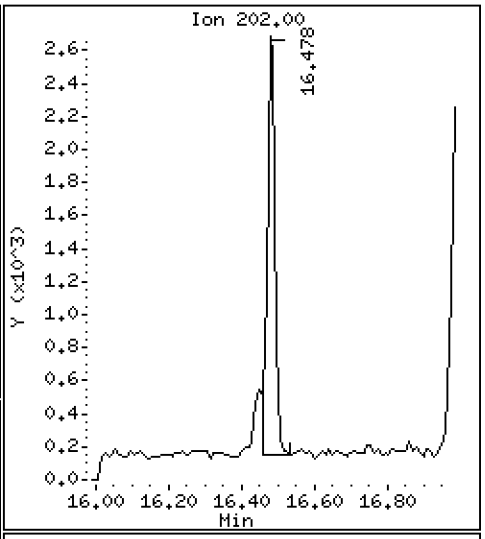
Column phase: Rxi-17Sil MS

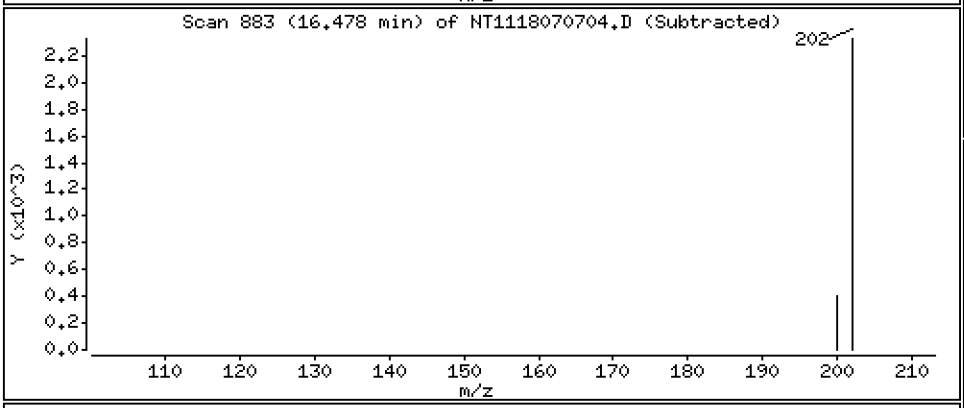
Column diameter: 0.25

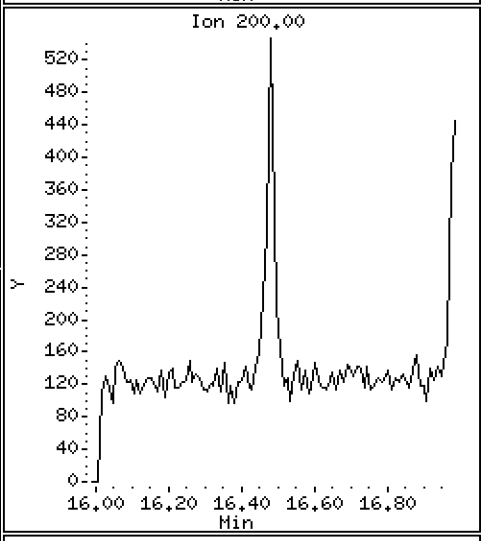
25 Fluoranthene

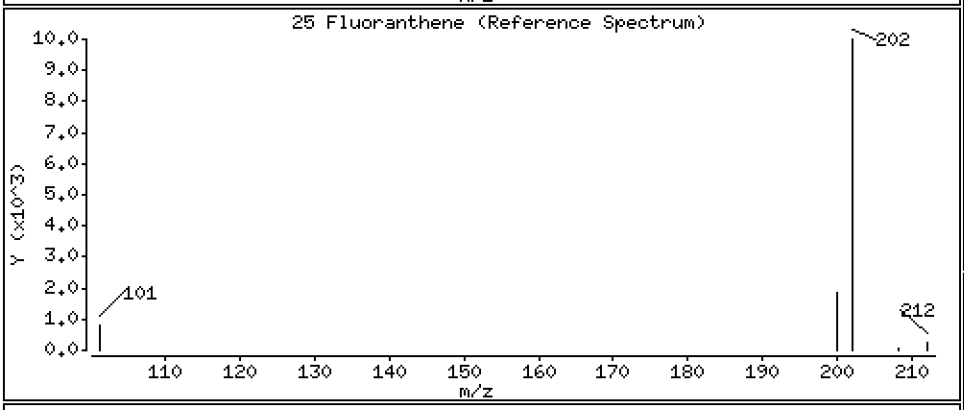
Concentration: 1.49 ng/mL

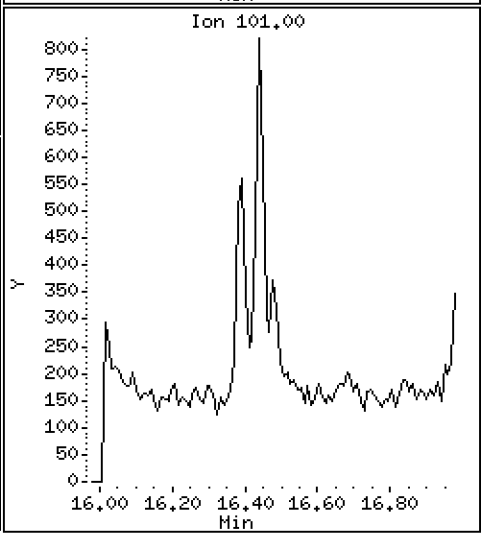


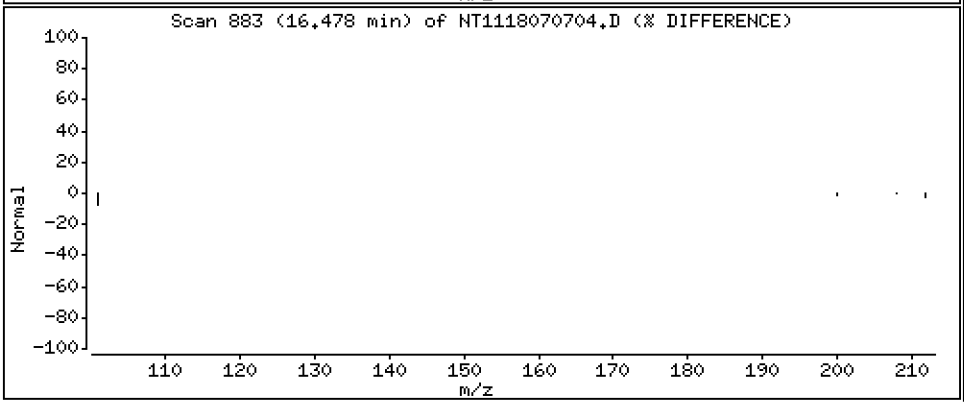












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Date : 07-JUL-2018 10:20

Client ID:

Instrument: nt11.i

Sample Info: 18F0248-08

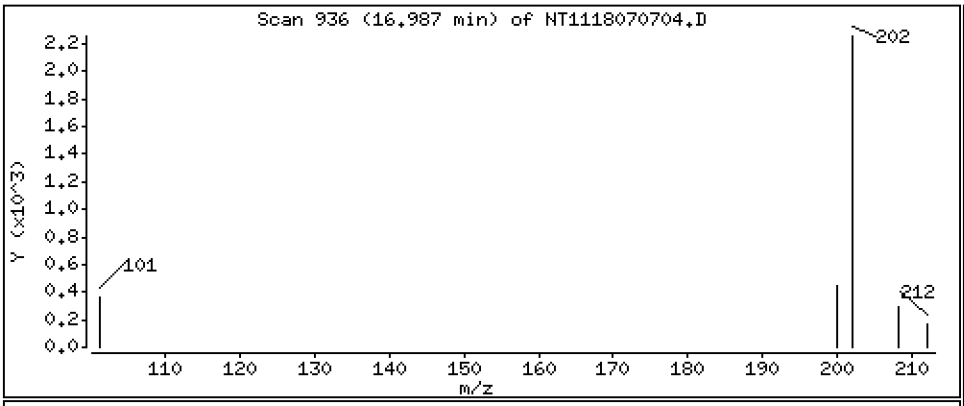
Operator: VTS

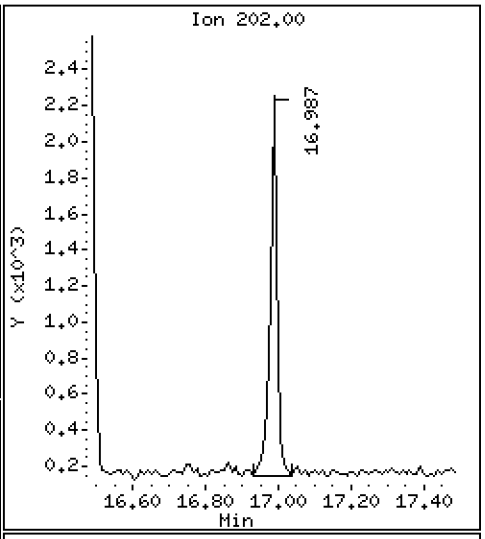
Column phase: Rxi-17Sil MS

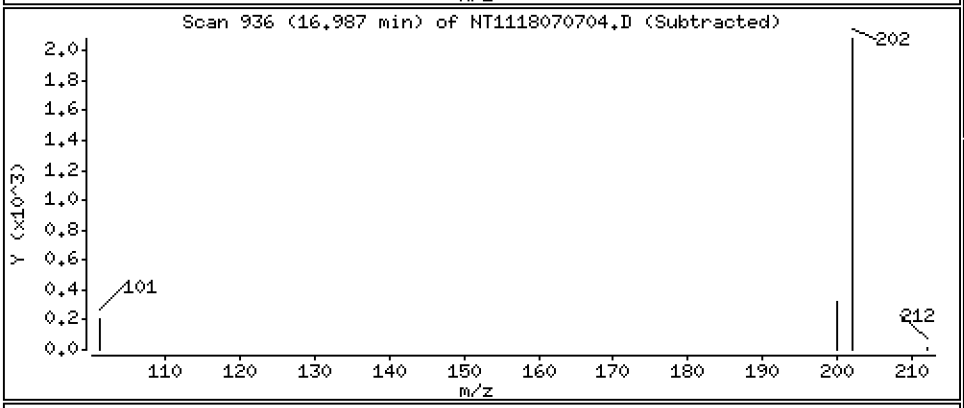
Column diameter: 0.25

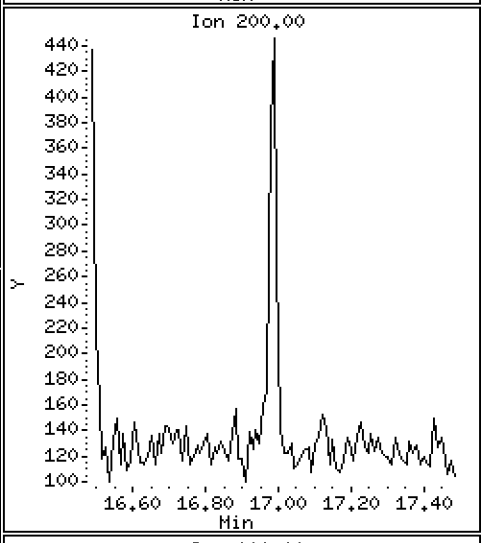
26 Pyrene

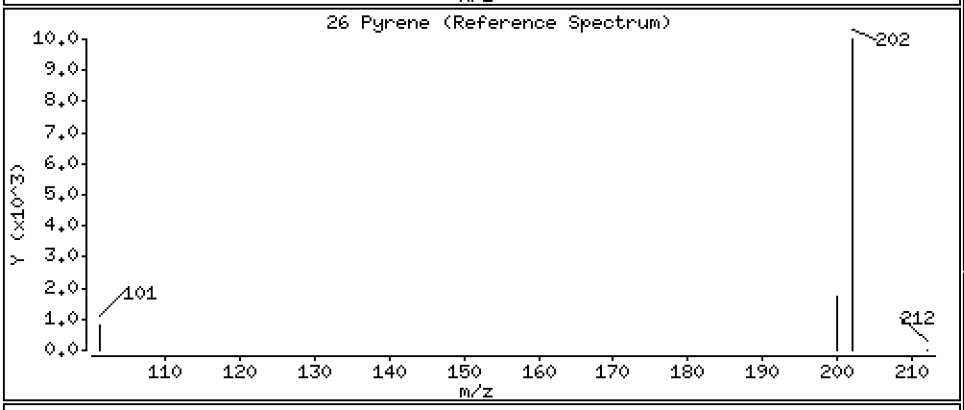
Concentration: 1.05 ng/mL

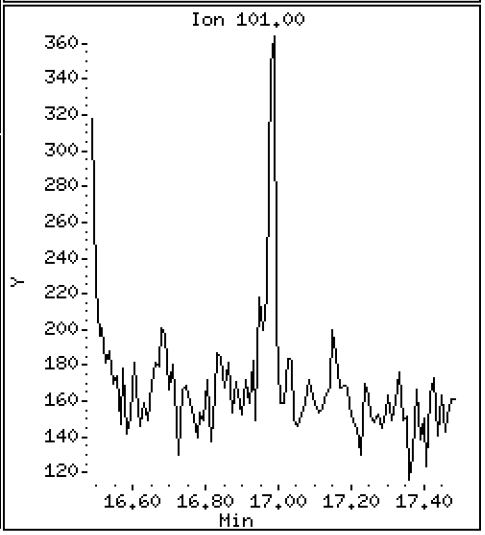


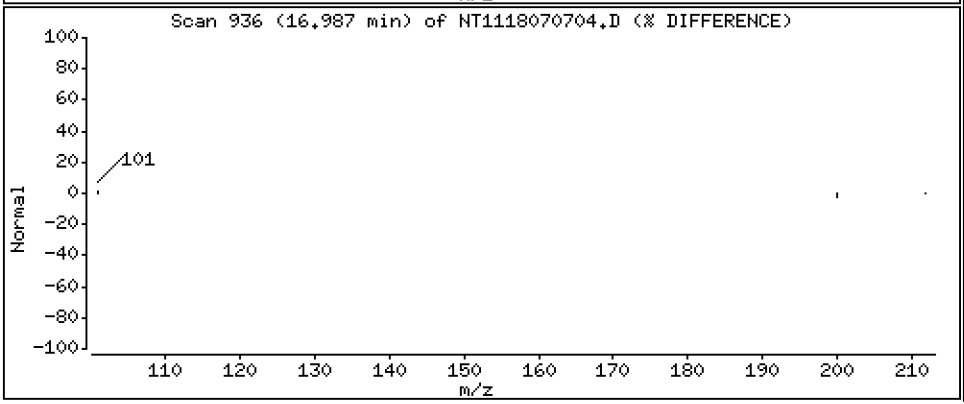












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180707.b\NT1118070704.D
Lab Smp Id: 18F0248-08
Inj Date : 07-JUL-2018 10:20 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0248-08
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180707.b\LOWSIM.m
Meth Date : 07-Jul-2018 09:32 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	447779	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	14058	4.17450	4.17
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.591	9.591	(1.114)	489514	191.601	192
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	4845	1.77627	1.78
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	4439	1.63637	1.64
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	230638	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	7082	3.77585	3.78
	13 Dibenzofuran	168	11.907	11.907	(1.023)	5063	1.97044	1.97
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.539	12.539	(1.077)	3820	1.84358	1.84
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	376281	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	6923	2.34585	2.35
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.435	14.434	(1.007)	1186	0.42988	0.430
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	Compound Not Detected.					
$	24 Fluoranthene-d10	212	16.448	16.448	(1.147)	510734	223.611	224
	25 Fluoranthene	202	16.477	16.487	(1.149)	4089	1.49200	1.49
	26 Pyrene	202	16.986	16.986	(0.890)	3041	1.04856	1.05
	27 Benzo(a)anthracene	228	Compound Not Detected.					
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	295002	200.000	
	29 Chrysene	228	Compound Not Detected.					
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
35	Benzo(a)pyrene	252	Compound Not Detected.					
* 36	Perylene-d12	264	22.353	22.353	(1.000)	290569	200.000	
37	Perylene	252	Compound Not Detected.					
$ 38	Dibenzo(a,h)anthracene-d14	292	25.268	25.268	(1.130)	295954	212.843	213
39	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
40	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
41	Benzo(g,h,i)perylene	276	Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118070704.D
Lab Smp Id: 18F0248-08
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180707.b\LOWSIM.m
Misc Info:

Calibration Date: 07-JUL-2018
Calibration Time: 08:54
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	447779	3.82
11 Acenaphthene-d10	260137	130069	520274	230638	-11.34
18 Phenanthrene-d10	427391	213696	854782	376281	-11.96
28 Chrysene-d12	304596	152298	609192	295002	-3.15
36 Perylene-d12	263091	131546	526182	290569	10.44

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118070704.D

Lab ID: 18F0248-08
nt11.i, 20180707.b\LOWSIM.m,   07-JUL-2018 10:20

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180707.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

PREPARATION BATCH SUMMARY

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGF0416 Batch Matrix: Water Preparation: EPA 3510C SepF

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-RB1	18F0185-01	NT1118062305.D	06/18/18 13:48	
LDW18-SP-30	18F0185-03	NT1118062306.D	06/18/18 13:48	
LDW18-SP-32	18F0185-04	NT1118062307.D	06/18/18 13:48	
LDW18-SP-35	18F0185-05	NT1118062308.D	06/18/18 13:48	
LDW18-SP-38	18F0185-06	NT1118062309.D	06/18/18 13:48	
LDW18-SP-42	18F0185-07	NT1118062310.D	06/18/18 13:48	
LDW18-SP-43	18F0185-08	NT1118062311.D	06/18/18 13:48	
Blank	BGF0416-BLK1	NT1118062303.D	06/18/18 13:48	
LCS	BGF0416-BS1	NT1118062304.D	06/18/18 13:48	
LDW18-SP-43	BGF0416-MS1	NT1118062312.D	06/18/18 13:48	
LDW18-SP-43	BGF0416-MSD1	NT1118062313.D	06/18/18 13:48	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BGF0416

Prepared using: EPA 3510C SepF

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) in Water (Version:AOC3 SIM PNA Task 4)

Matrix: Water **Date Prepared:** 6/18/18 **Balance ID:** N/A **Set Up By:** CCT 6/18/18

The following standards may be missing from this batch!

Designator	Description
QLS 2	QLS Spike

Analysis: 8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg)

Lab Number & Container	Initial (mL) Actual	Silica Gel Clean (1:1) (REQ)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
18F0185-01 D	(500.00) 500	(1:1)	0.5	0.5	
18F0185-03 D	(500.00)	(1:1)	0.5	0.5	
18F0185-04 D	(500.00)	(1:1)	0.5	0.5	
18F0185-05 D	(500.00)	(1:1)	0.5	0.5	
18F0185-06 D	(500.00)	(1:1)	0.5	0.5	
18F0185-07 D	(500.00)	(1:1)	0.5	0.5	
18F0185-08 E	(500.00)	(1:1)	0.5	0.5	

Batch QC

Lab Number	Initial (mL) Actual	Silica Gel Clean (1:1) (REQ)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
BGF0416-BLK1	(500.00) 500	(1:1)	0.5	0.5	
BGF0416-BS1	(500.00)	(1:1)	0.5	0.5	
BGF0416-MS1	(500.00)	(1:1)	0.5	0.5	Use 18F0185-08 F
BGF0416-MSD1	(500.00)	(1:1)	0.5	0.5	Use 18F0185-08 G

CLS 6/18/18 — Client ID verified By — Date

SP 6/22/18 — Preparation Reviewed By — Date

6/18/18 13:48 — Extraction Date and Time

Printed: 6/18/2018 8:45:03AM

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BGF0416

Prepared using: EPA 3510C SepF

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) in Water (Version:AOC3 SIM PNA Task 4)

Prep Steps

KD
80°C
1 (2) 3 4 5 6
BH 6/20/18
Analyst/Date

TurboVap Post Silica Gel Shakeout
(1) (2) 3 4 5
SC 6/22/18
Analyst/Date

Vialing
SC 6/22/18
Analyst/Date

Reagents Used

Station/Reagent	Standard ID
Separatory Funnel Analyst: BH Date: 6/18/18	
Methylene Chloride	G001967
Anhydrous Sodium Sulfate	G005382
KD Analyst: BH Date: 6/20/18	
Methylene Chloride	G001967
Vialing Analyst: SC Date: 6/22/18	
Methylene Chloride	G005487
0% Silica Gel	F006436
Neutral Glass Wool	G003192
Anhydrous Sodium Sulfate	G002672

Surrogates & Spike Standards Used

Type	Standard ID	Vol uL	Analyst	Witness
Surrogate 1.5/7.5µg/mL	1 F010596 Exp: 11/10/2018	100µL	CLP	BH
Spike 1.5/7.5µg/mL	18 G004278 Exp: 11/03/2018	100µL	CLP	BH

(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.

If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator inthe Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

Extraction Parameter: LLSim PNA

Element Batch: BGF0416 Work Order(s): 18F0185

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Received in 32oz jar(s)=Homogenized in Pyrex dish=	
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☑ Emulsions (%)= 185-81 100% emulsion; transferred after sulfate to new flask	KM 6/18/18
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
☐ Received in 1.0L Bottle(s)=No Bottle Rinse=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
☐ Share Samples Y / N	
☐ Multiple Jars Y / N	
☐ Sample Pre-Screens indicate analyte activity=	
☐ Sample weights/volumes reduced based on Pre-Screen=	

Prepared using: EPA 3510C SepF

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) in Water (Version:AOC3 SIM PNA Task 4)

Prep Instructions	
SPECIAL INSTRUCTIONS: 1. USE ONLY NON-SCRATCHED GLASSWARE. 2. Rinse all glassware with DCM. 3. Extract 3X with 30mL DCM. 4. KD (no drying column) at 80°. (Thoroughly rinse Snyder Columns with DCM)! 5. Transfer directly to Scintillation vials from KD. 6. Silica Gel Clean-up Shakeout is REQUIRED. (Scintillation vial shakeout): Add one scoop (approx 0.5g) of LL Silica Gel. Vortex for 1min. Pass thru turbo drying column with glass wool and sodium sulfate plug and DCM. 7. TurboVap. 8. Vial in DCM. (Pre-clean vialing syringes thoroughly)! 9. Post screen extracts with any color. Archive: Y (N)	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

PREPARATION BATCH SUMMARY

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGF0455 Batch Matrix: Water Preparation: EPA 3510C SepF

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-06	18F0208-01	NT1118062318.D	06/19/18 17:20	
LDW18-SP-33	18F0208-02	NT1118062319.D	06/19/18 17:20	
LDW18-SP-33	18F0208-02RE1	NT1118062605.D	06/19/18 17:20	Added 6/26/2018 by VTS
LDW18-SP-24	18F0208-03	NT1118062603.D	06/19/18 17:20	
LDW18-SP-24-FD	18F0208-04	NT1118062604.D	06/19/18 17:20	
Blank	BGF0455-BLK1	NT1118062314.D	06/19/18 17:20	
LCS	BGF0455-BS1	NT1118062315.D	06/19/18 17:20	
MRL Check	BGF0455-MRL1	NT1118062316.D	06/19/18 17:20	
MRL Check	BGF0455-MRL2	NT1118062317.D	06/19/18 17:20	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BGF0455

Prepared using: EPA 3510C SepF

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) in Water (Version:AOC3 SIM PNA Task 4)

Matrix: Water **Date Prepared:** 6/19/18 **Balance ID:** _____ **Set Up By:** CCT 6/19/18

Analysis: 8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg)

Lab Number & Container	Initial (mL) Actual	Silica Gel Clean (1:1) (REQ)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
18F0208-01 C	(500.00) 500	(1:1)	0.5	0.5	
18F0208-02 C	(500.00)	(1:1)	0.5	0.5	
18F0208-03 D	(500.00)	(1:1)	0.5	0.5	
18F0208-04 D	(500.00)	(1:1)	0.5	0.5	

Batch QC

Lab Number	Initial (mL) Actual	Silica Gel Clean (1:1) (REQ)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
BGF0455-BLK1	(500.00) 500	(1:1)	0.5	0.5	
BGF0455-BS1	(500.00)	(1:1)	0.5	0.5	
BGF0455-MRL1	(500.00)	(1:1)	0.5	0.5	
BGF0455-MRL2	(500.00)	(1:1)	0.5	0.5	

Client ID verified By 6/19/18 Date

Preparation Reviewed By 6/23/18 Date

Extraction Date and Time 6/19/18 17:20

Printed: 6/19/2018 10:45:07AM

3071F
Page 1 of 2

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BGF0455

Prepared using: EPA 3510C SepF

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) in Water (Version:AOC3 SIM PNA Task 4)

Prep Steps

KD
80°C
1 (2) 3 4 5 6
BH 6/22/18
Analyst/Date

TurboVap Post Silica Gel Shakeout
(1) (2) 3 4 5
6/23/18
Analyst/Date

Vialing
6/23/18
Analyst/Date

Reagents Used

Station/Reagent	Standard ID
Separatory Funnel Analyst: RA Date: 6/19/18	
Methylene Chloride	G005487
Anhydrous Sodium Sulfate	G005389
KD Analyst: BH Date: 6/22/18	
Methylene Chloride	G005487
Vialing Analyst: 6/23/18 Date: 6/23/18	
Methylene Chloride	G005487
0% Silica Gel	F006436
Neutral Glass Wool	G003192
Anhydrous Sodium Sulfate	G002672

Surrogates & Spike Standards Used

Type	Standard ID	Vol uL	Analyst	Witness
Surrogate 1.5/7.5µg/mL	I F010596 Exp: 11/10/2018	100µL	RA	
Spike 1.5/7.5µg/mL	18 G004278 Exp: 11/03/2018	100µL	RA	
QLS Spike 0.1µg/mL	QLS 2 G001425 MRL1 Exp: 11/10/2018	50µL	RA	
	MRL2	25uL	RA	

(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.

If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator inthe Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).

Prepared using: EPA 3510C SepF

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) in Water (Version:AOC3 SIM PNA Task 4)

Prep Instructions	
SPECIAL INSTRUCTIONS: 1. USE ONLY NON-SCRATCHED GLASSWARE. 2. Rinse all glassware with DCM. 3. Extract 3X with 30mL DCM. 4. KD (no drying column) at 80°. (Thoroughly rinse Snyder Columns with DCM)! 5. Transfer directly to Scintillation vials from KD. 6. Silica Gel Clean-up Shakeout is REQUIRED. (Scintillation vial shakeout): Add one scoop (approx 0.5g) of LL Silica Gel. Vortex for 1min. Pass thru turbo drying column with glass wool and sodium sulfate plug and DCM. 7. TurboVap. 8. Vial in DCM. (Pre-clean vialing syringes thoroughly)! 9. Post screen extracts with any color. Archive: Y / N	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

Extraction Parameter: LL SIM PNA

Element Batch: BGF0455 Work Order(s): 18F0208

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Received in 32oz jar(s)=Homogenized in Pyrex dish=	
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
☐ Received in 1.0L Bottle(s)=No Bottle Rinse=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
☐ Share Samples Y / N	
☐ Multiple Jars Y / N	
☐ Sample Pre-Screens indicate analyte activity=	
☐ Sample weights/volumes reduced based on Pre-Screen=	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

PREPARATION BATCH SUMMARY

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGF0530 Batch Matrix: Water Preparation: EPA 3510C SepF

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-05	18F0226-01	NT1118070605.D	06/21/18 13:35	
LDW18-SP-57	18F0226-02	NT1118070606.D	06/21/18 13:35	
LDW18-SP-73	18F0226-03	NT1118070609.D	06/21/18 13:35	
LDW18-SP-74	18F0226-04	NT1118070610.D	06/21/18 13:35	
LDW18-SP-77	18F0226-05	NT1118070611.D	06/21/18 13:35	
LDW18-SP-77	18F0226-05RE1	NT1118070706.D	06/21/18 13:35	Added 7/7/2018 by VTS
LDW18-SP-78	18F0226-06	NT1118070612.D	06/21/18 13:35	
LDW18-SP-79	18F0226-07	NT1118070613.D	06/21/18 13:35	
LDW18-SP-84	18F0226-08	NT1118070614.D	06/21/18 13:35	
LDW18-SP-87	18F0226-09	NT1118070615.D	06/21/18 13:35	
LDW18-SP-01	18F0248-01	NT1118070616.D	06/21/18 13:35	
LDW18-SP-45	18F0248-02	NT1118070617.D	06/21/18 13:35	
LDW18-SP-47	18F0248-03	NT1118070618.D	06/21/18 13:35	
LDW18-SP-66	18F0248-04	NT1118070619.D	06/21/18 13:35	
LDW18-SP-70	18F0248-05	NT1118070620.D	06/21/18 13:35	
LDW18-SP-83	18F0248-06	NT1118070621.D	06/21/18 13:35	
LDW18-SP-86	18F0248-07	NT1118070703.D	06/21/18 13:35	
LDW18-SP-88	18F0248-08	NT1118070704.D	06/21/18 13:35	
Blank	BGF0530-BLK1	NT1118070603.D	06/21/18 13:35	
Blank	BGF0530-BLK1	NT1118070603.D	06/21/18 13:35	
LCS	BGF0530-BS1	NT1118070604.D	06/21/18 13:35	
LCS	BGF0530-BS1	NT1118070604.D	06/21/18 13:35	
LDW18-SP-57	BGF0530-MS1	NT1118070607.D	06/21/18 13:35	
LDW18-SP-57	BGF0530-MS1	NT1118070607.D	06/21/18 13:35	
LDW18-SP-57	BGF0530-MSD1	NT1118070608.D	06/21/18 13:35	
LDW18-SP-57	BGF0530-MSD1	NT1118070608.D	06/21/18 13:35	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BGF0530

Prepared using: EPA 3510C SepF

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) in Water (Version:AOC3 SIM PNA Task 4)

Matrix: Water **Date Prepared:** 6/21/18 **Balance ID:** _____ **Set Up By:** CCT 6/21/18

The following standards may be missing from this batch!

Designator	Description
QLS 2	QLS Spike

Analysis: 8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg)

Lab Number & Container	Initial (mL) Actual	Silica Gel Clean (1:1) (REQ)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
18F0226-01 D	(500.00) 500	(1:1)	0.5	0.5	
18F0226-02 I	(500.00)	(1:1)	0.5	0.5	
18F0226-03 D	(500.00)	(1:1)	0.5	0.5	
18F0226-04 D	(500.00)	(1:1)	0.5	0.5	
18F0226-05 E	(500.00)	(1:1)	0.5	0.5	
18F0226-06 E	(500.00)	(1:1)	0.5	0.5	
18F0226-07 E	(500.00)	(1:1)	0.5	0.5	
18F0226-08 D	(500.00)	(1:1)	0.5	0.5	
18F0226-09 E	(500.00)	(1:1)	0.5	0.5	
18F0248-01 D	(500.00)	(1:1)	0.5	0.5	
18F0248-02 D	(500.00)	(1:1)	0.5	0.5	
18F0248-03 D	(500.00)	(1:1)	0.5	0.5	
18F0248-04 D	(500.00)	(1:1)	0.5	0.5	
18F0248-05 D	(500.00)	(1:1)	0.5	0.5	
18F0248-06 E	(500.00)	(1:1)	0.5	0.5	
18F0248-07 D	(500.00)	(1:1)	0.5	0.5	
18F0248-08 D	(500.00)	(1:1)	0.5	0.5	

Batch QC

Lab Number	Initial (mL) Actual	Silica Gel Clean (1:1) (REQ)	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
BGF0530-BLK1	(500.00) 500	(1:1)	0.5	0.5	
BGF0530-BS1	(500.00)	(1:1)	0.5	0.5	
BGF0530-MS1	(500.00)	(1:1)	0.5	0.5	Use 18F0226-02 J
BGF0530-MSD1	(500.00)	(1:1)	0.5	0.5	Use 18F0226-02 K

6/21/18
Client ID verified By Date

SP 7/6/18
Preparation Reviewed By Date

6/21/18 13:35
Extraction Date and Time

Printed: 6/21/2018 8:33:31AM

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BGF0530

Prepared using: EPA 3510C SepF

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) in Water (Version:AOC3 SIM PNA Task 4)

Prep Steps

KD
80°C
1 (2) 3 4 5 6
YM 7/5/18
Analyst/Date

TurboVap
Post Silica Gel
Shakeout
(1) (2) 3 4 5
SC 7/6/18
Analyst/Date

Vialing
SC 7/6/18
Analyst/Date

Reagents Used

Station/Reagent	Standard ID
Separatory Funnel Analyst: RR \ BH Date: 6/21/18	
Methylene Chloride	G005497
Anhydrous Sodium Sulfate	G005382
KD Analyst: YM Date: 7/5/18 SC	
Methylene Chloride	G005858
Vialing Analyst: SC Date: 7/6/18	
Methylene Chloride	G005858
0% Silica Gel	F006436
Neutral Glass Wool	G003192
Anhydrous Sodium Sulfate	G005382

Surrogates & Spike Standards Used

Type		Standard ID	Vol uL	Analyst	Witness
Surrogate 1.5/7.5µg/mL	I	F010596 Exp: 11/10/2018	100µL	RR	WW
Spike 1.5/7.5µg/mL	18	G004278 Exp: 11/03/2018	100µL	RR	WW

(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.

If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator inthe Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).

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Organic Extractions Laboratory Analyst Notes

Extraction Parameter: LL SIM PNA

Element Batch: BGF0530 Work Order(s): 18F0226, 18F0248

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Received in 32oz jar(s)=Homogenized in Pyrex dish=	
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
☐ Received in 1.0L Bottle(s)=No Bottle Rinse=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
☐ Share Samples Y / N	
☐ Multiple Jars Y / N	
☐ Sample Pre-Screens indicate analyte activity=	
☐ Sample weights/volumes reduced based on Pre-Screen=	

Prepared using: EPA 3510C SepF

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) in Water (Version:AOC3 SIM PNA Task 4)

Prep Instructions	
SPECIAL INSTRUCTIONS: 1. USE ONLY NON-SCRATCHED GLASSWARE. 2. Rinse all glassware with DCM. 3. Extract 3X with 30mL DCM. 4. KD (no drying column) at 80°. (Thoroughly rinse Snyder Columns with DCM)! 5. Transfer directly to Scintillation vials from KD. 6. Silica Gel Clean-up Shakeout is REQUIRED. (Scintillation vial shakeout): Add one scoop (approx 0.5g) of LL Silica Gel. Vortex for 1min. Pass thru turbo drying column with glass wool and sodium sulfate plug and DCM. 7. TurboVap. 8. Vial in DCM. (Pre-clean vialing syringes thoroughly)! 9. Post screen extracts with any color. Archive: Y / (N)	

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Cleanup Batch:	CGF0147	Cleanup Type:	Silica Gel
Cleanup Method:	EPA 3630C Silica Gel Cleanup	Analysis:	EPA 8270D-SIM

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARE	OBSERVATIONS
LDW18-SP-38	18F0185-06	NT1118062309.D	06/22/2018	
LDW18-SP-30	18F0185-03	NT1118062306.D	06/22/2018	
LDW18-SP-35	18F0185-05	NT1118062308.D	06/22/2018	
LDW18-SP-42	18F0185-07	NT1118062310.D	06/22/2018	
LDW18-SP-43	18F0185-08	NT1118062311.D	06/22/2018	
LDW18-SP-RB1	18F0185-01	NT1118062305.D	06/22/2018	
LDW18-SP-32	18F0185-04	NT1118062307.D	06/22/2018	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CGF0147

Matrix: Water **Cleanup using: Organics - EPA 3630C Silica Gel Cleanup** **Printed: 6/22/2018 2:18:44PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
18F0185-08	E	LDW18-SP-43	E 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	6/22/2018	SDP	
18F0185-07	D	LDW18-SP-42	D 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	6/22/2018	SDP	
18F0185-03	D	LDW18-SP-30	D 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	6/22/2018	SDP	
18F0185-04	D	LDW18-SP-32	D 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	6/22/2018	SDP	
18F0185-05	D	LDW18-SP-35	D 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	6/22/2018	SDP	
18F0185-06	D	LDW18-SP-38	D 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	6/22/2018	SDP	
18F0185-01	D	LDW18-SP-RB1	D 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	6/22/2018	SDP	
BGF0416-MSD1	-	Matrix Spike Dup	-	0.5	0.5	-	6/22/2018	SDP	
BGF0416-MS1	-	Matrix Spike	-	0.5	0.5	-	6/22/2018	SDP	
BGF0416-BS1	-	LCS	-	0.5	0.5	-	6/22/2018	SDP	
BGF0416-BLK1	-	Blank	-	0.5	0.5	-	6/22/2018	SDP	

Cleanup Reviewed By Date

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Cleanup Batch:	CGF0159	Cleanup Type:	Silica Gel
Cleanup Method:	EPA 3630C Silica Gel Cleanup	Analysis:	EPA 8270D-SIM

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARE	OBSERVATIONS
LDW18-SP-33	18F0208-02	NT1118062319.D	06/23/2018	
LDW18-SP-24-FD	18F0208-04	NT1118062604.D	06/23/2018	
LDW18-SP-24	18F0208-03	NT1118062603.D	06/23/2018	
LDW18-SP-06	18F0208-01	NT1118062318.D	06/23/2018	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CGF0159

Matrix: Water **Cleanup using: Organics - EPA 3630C Silica Gel Cleanup** **Printed: 6/23/2018 2:47:56PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
18F0208-01	C	LDW18-SP-06	C 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	6/23/2018	WPW	
18F0208-02	C	LDW18-SP-33	C 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	6/23/2018	WPW	
18F0208-03	D	LDW18-SP-24	D 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	6/23/2018	WPW	
18F0208-04	D	LDW18-SP-24-FD	D 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	6/23/2018	WPW	
BGF0455-BLK1	-	Blank	-	0.5	0.5	-	6/23/2018	WPW	
BGF0455-BS1	-	LCS	-	0.5	0.5	-	6/23/2018	WPW	
BGF0455-MRL1	-	MRL Check	-	0.5	0.5	-	6/23/2018	WPW	
BGF0455-MRL2	-	LOD	-	0.5	0.5	-	6/23/2018	WPW	

Cleanup Reviewed By Date

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Cleanup Batch:	CGG0030	Cleanup Type:	Silica Gel
Cleanup Method:	EPA 3630C Silica Gel Cleanup	Analysis:	EPA 8270D-SIM

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARE	OBSERVATIONS
LDW18-SP-73	18F0226-03	NT1118070609.D	07/06/2018	
LDW18-SP-79	18F0226-07	NT1118070613.D	07/06/2018	
LDW18-SP-83	18F0248-06	NT1118070621.D	07/06/2018	
LDW18-SP-84	18F0226-08	NT1118070614.D	07/06/2018	
LDW18-SP-77	18F0226-05	NT1118070611.D	07/06/2018	
LDW18-SP-87	18F0226-09	NT1118070615.D	07/06/2018	
LDW18-SP-47	18F0248-03	NT1118070618.D	07/06/2018	
LDW18-SP-78	18F0226-06	NT1118070612.D	07/06/2018	
LDW18-SP-74	18F0226-04	NT1118070610.D	07/06/2018	
LDW18-SP-66	18F0248-04	NT1118070619.D	07/06/2018	
LDW18-SP-70	18F0248-05	NT1118070620.D	07/06/2018	
LDW18-SP-57	18F0226-02	NT1118070606.D	07/06/2018	
LDW18-SP-45	18F0248-02	NT1118070617.D	07/06/2018	
LDW18-SP-05	18F0226-01	NT1118070605.D	07/06/2018	
LDW18-SP-01	18F0248-01	NT1118070616.D	07/06/2018	
LDW18-SP-88	18F0248-08	NT1118070704.D	07/06/2018	
LDW18-SP-86	18F0248-07	NT1118070703.D	07/06/2018	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CGG0030

Matrix: Water **Cleanup using: Organics - EPA 3630C Silica Gel Cleanup** **Printed: 7/6/2018 10:38:42AM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
18F0248-08	D	LDW18-SP-88	D 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	7/6/2018	SDP	
18F0248-07	D	LDW18-SP-86	D 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	7/6/2018	SDP	
18F0248-05	D	LDW18-SP-70	D 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	7/6/2018	SDP	
18F0248-06	E	LDW18-SP-83	E 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	7/6/2018	SDP	
18F0248-03	D	LDW18-SP-47	D 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	7/6/2018	SDP	
18F0248-04	D	LDW18-SP-66	D 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	7/6/2018	SDP	
18F0248-01	D	LDW18-SP-01	D 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	7/6/2018	SDP	
18F0248-02	D	LDW18-SP-45	D 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	7/6/2018	SDP	
18F0226-04	D	LDW18-SP-74	D 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	7/6/2018	SDP	
18F0226-05	E	LDW18-SP-77	E 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	7/6/2018	SDP	
18F0226-06	E	LDW18-SP-78	E 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	7/6/2018	SDP	
18F0226-07	E	LDW18-SP-79	E 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	7/6/2018	SDP	
18F0226-08	D	LDW18-SP-84	D 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	7/6/2018	SDP	
18F0226-09	E	LDW18-SP-87	E 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	7/6/2018	SDP	
18F0226-01	D	LDW18-SP-05	D 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	7/6/2018	SDP	
18F0226-02	I	LDW18-SP-57	I 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	7/6/2018	SDP	
18F0226-03	D	LDW18-SP-73	D 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	7/6/2018	SDP	
BGF0530-MSD1	-	Matrix Spike Dup	-	0.5	0.5	-	7/6/2018	SDP	
BGF0530-MS1	-	Matrix Spike	-	0.5	0.5	-	7/6/2018	SDP	
BGF0530-BS1	-	LCS	-	0.5	0.5	-	7/6/2018	SDP	
BGF0530-BLK1	-	Blank	-	0.5	0.5	-	7/6/2018	SDP	

Cleanup Reviewed By Date

Form I

METHOD BLANK DATA SHEET

EPA 8270D-SIM

Blank

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC			Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Laboratory ID:	BGF0416-BLK1	File ID:	NT1118062303.D
Sampled:	N/A	Prepared:	06/18/18 13:48	Analyzed:	06/23/18 11:11
Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	500 mL / 0.5 mL
Batch:	BGF0416	Sequence:	SGF0298	Calibration:	BE00021
Instrument:	NT11	Column:	RXi-17Sil-MS	Cleanups:	Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.002	J	0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.001	J	0.001	0.010
208-96-8	Acenaphthylene	1	0.010	U	0.002	0.010
83-32-9	Acenaphthene	1	0.010	U	0.003	0.010
86-73-7	Fluorene	1	0.010	U	0.002	0.010
85-01-8	Phenanthrene	1	0.010	U	0.001	0.010
120-12-7	Anthracene	1	0.010	U	0.001	0.010
206-44-0	Fluoranthene	1	0.010	U	0.002	0.010
129-00-0	Pyrene	1	0.010	U	0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.010	U	0.0008	0.010
218-01-9	Chrysene	1	0.010	U	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.0006	J	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.154	51.4	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.173	57.6	29 - 120	
Fluoranthene-d10	0.30000	0.171	57.0	57 - 120	

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Date : 23-JUN-2018 11:11

Client ID:

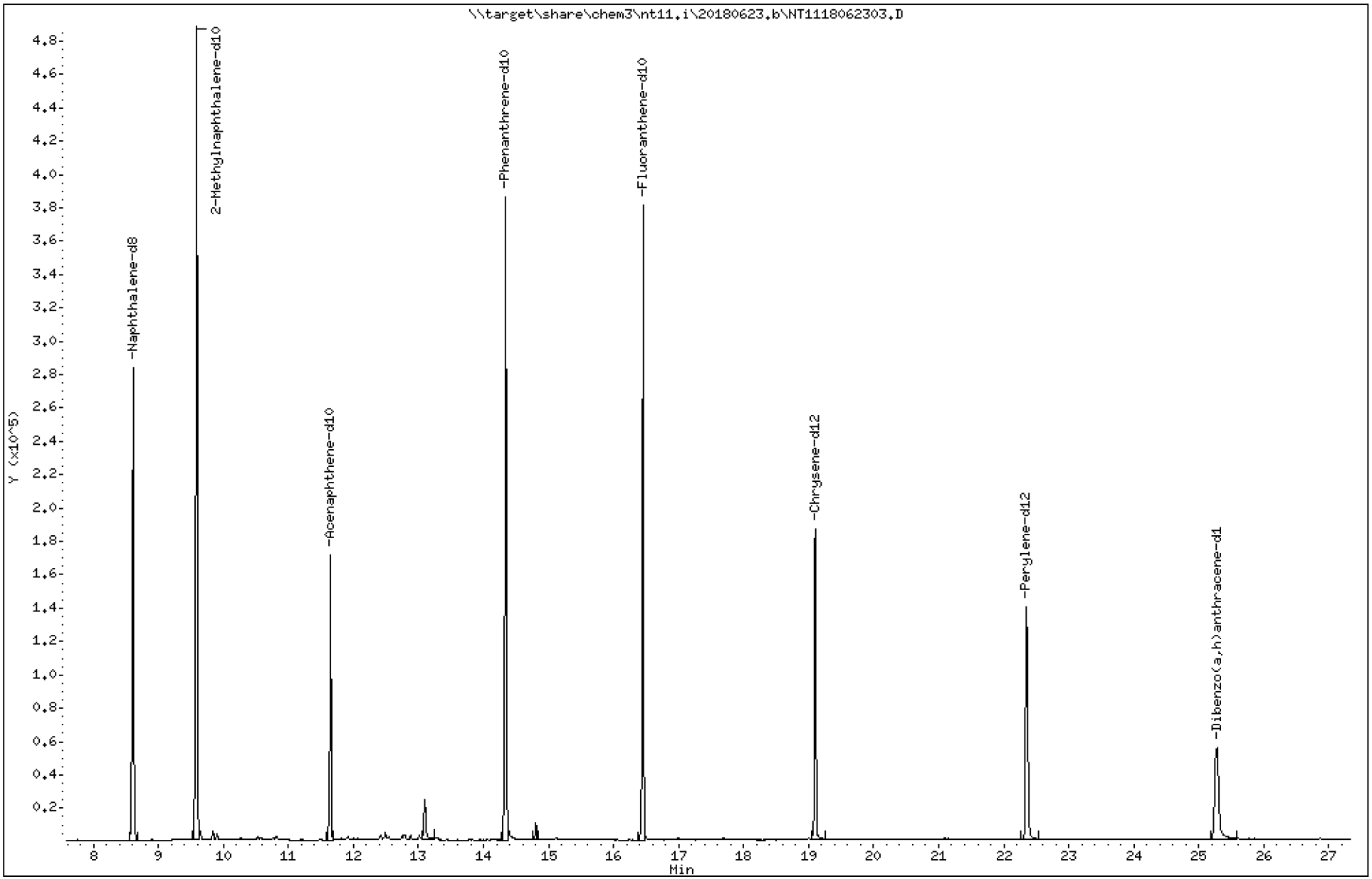
Instrument: nt11.i

Sample Info: BGF0416-BLK1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 23-JUN-2018 11:11

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BLK1

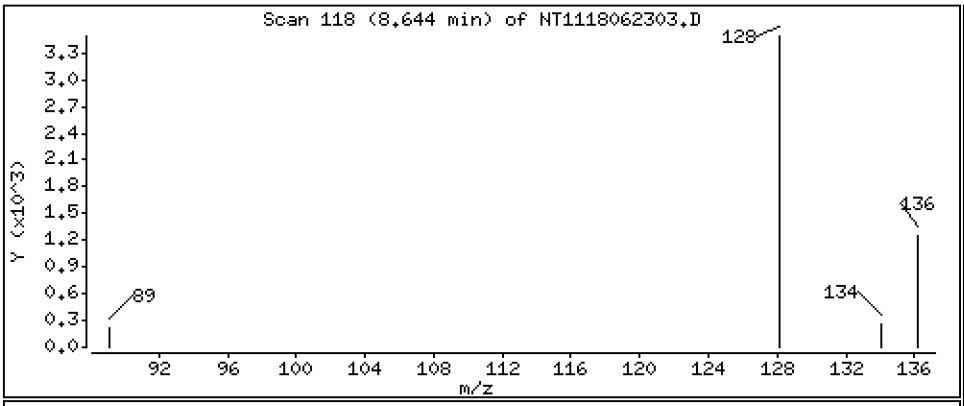
Operator: VTS

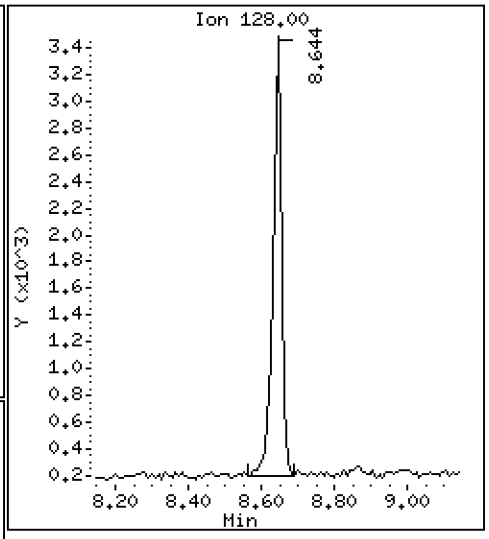
Column phase: Rxi-17Sil MS

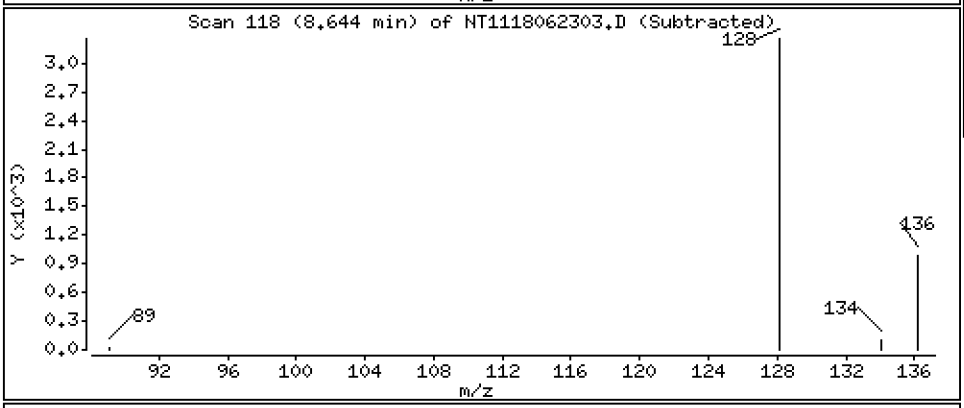
Column diameter: 0.25

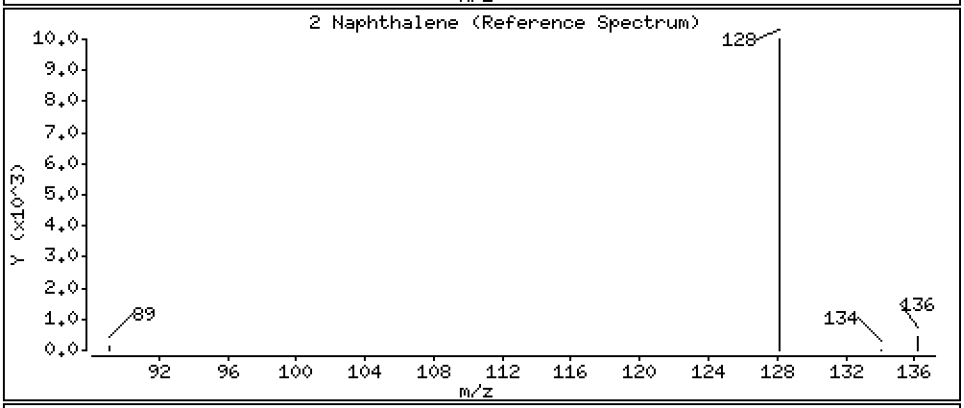
2 Naphthalene

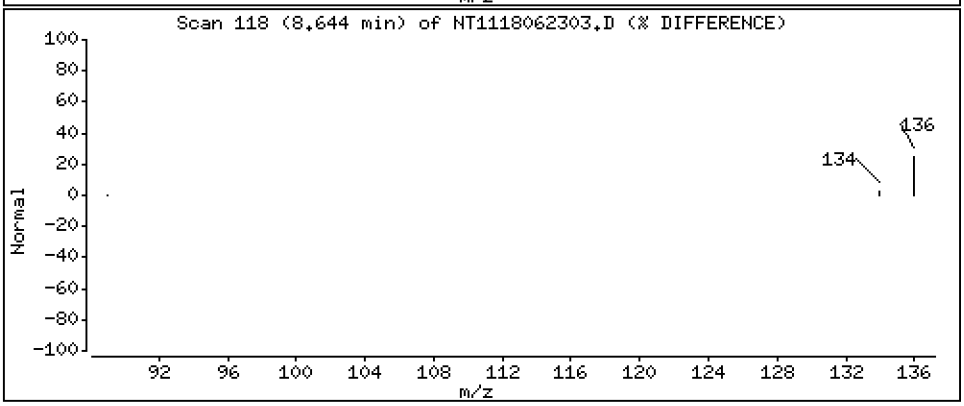
Concentration: 1.69 ng/mL











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Date : 23-JUN-2018 11:11

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BLK1

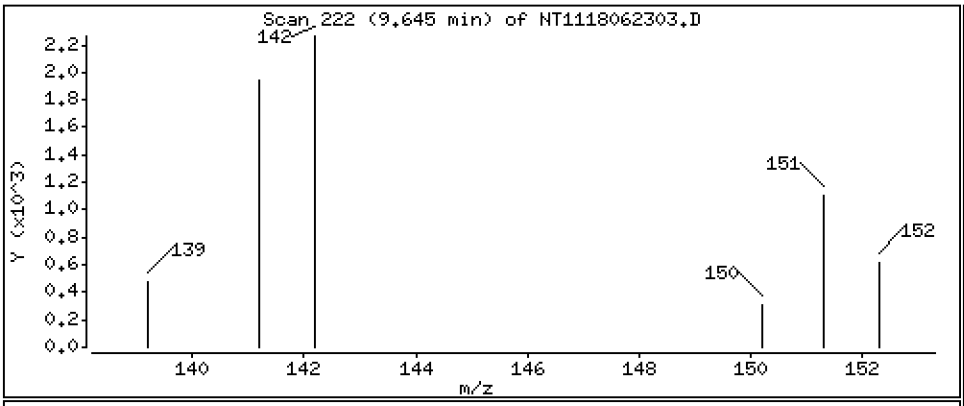
Operator: VTS

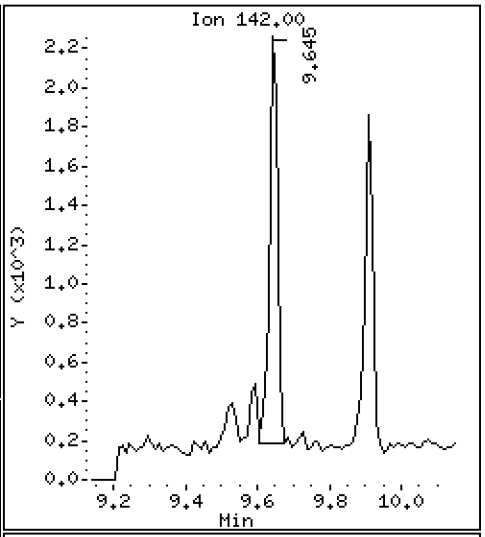
Column phase: Rxi-17Sil MS

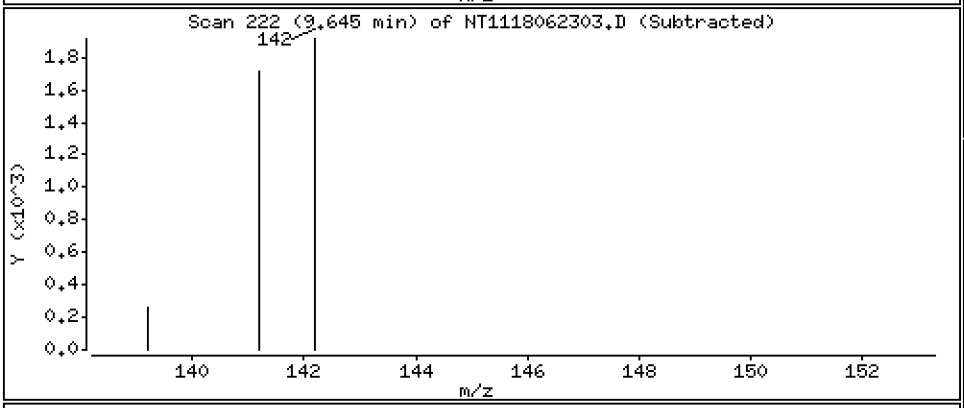
Column diameter: 0.25

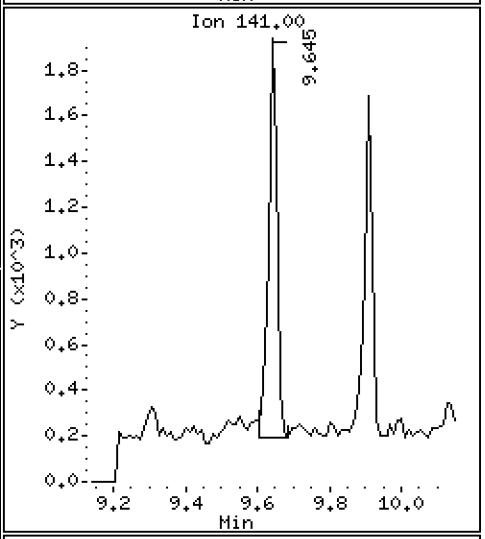
5 2-Methylnaphthalene

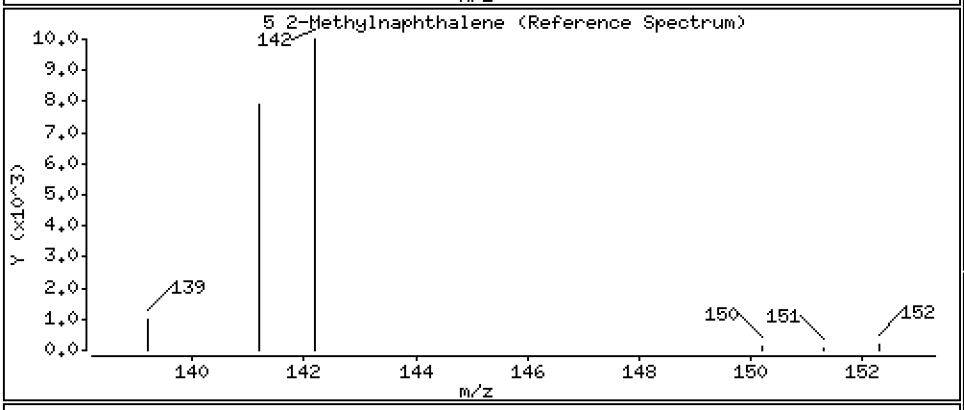
Concentration: 1.24 ng/mL

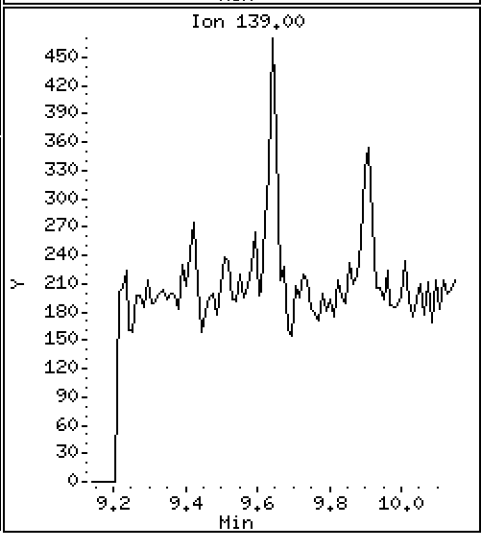


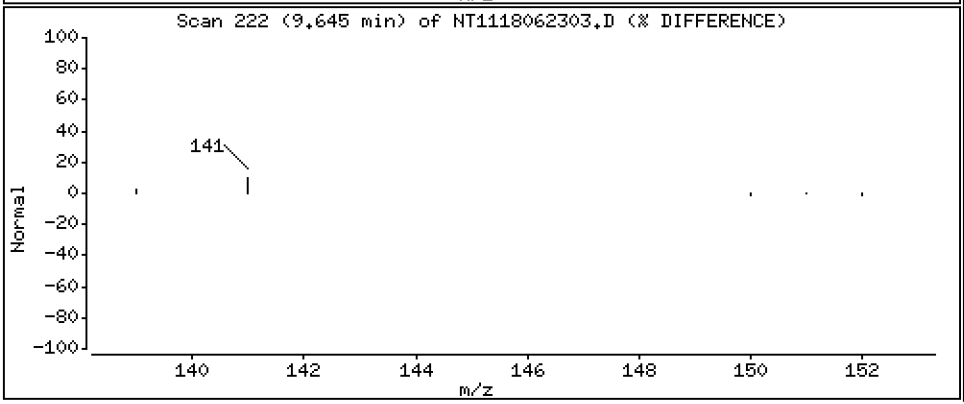












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Date : 23-JUN-2018 11:11

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BLK1

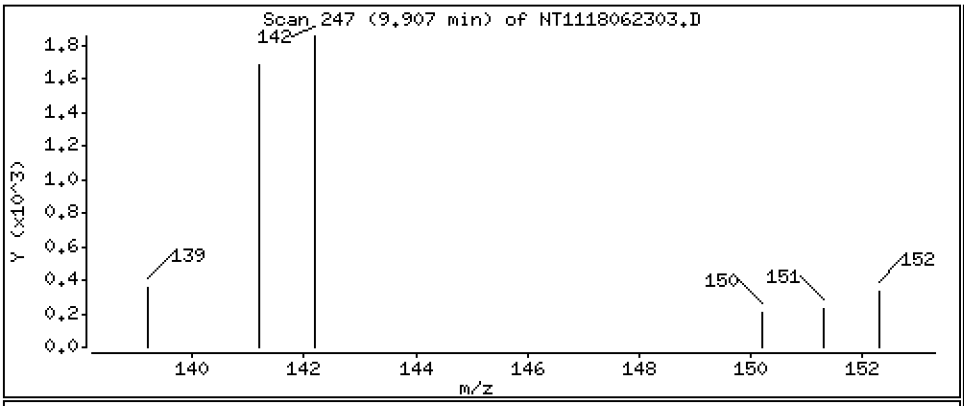
Operator: VTS

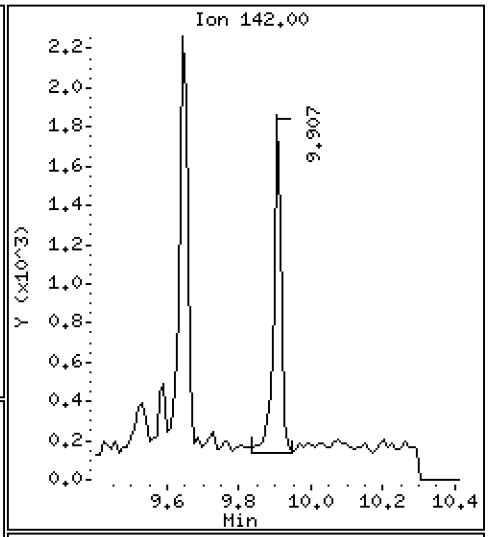
Column phase: Rxi-17Sil MS

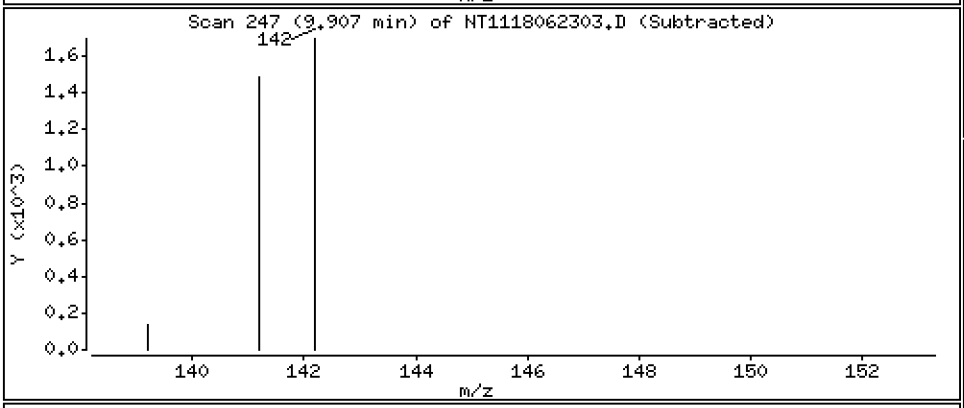
Column diameter: 0.25

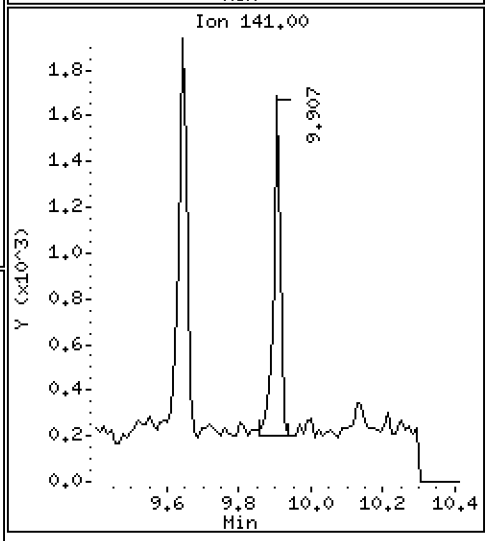
6 1-Methylnaphthalene

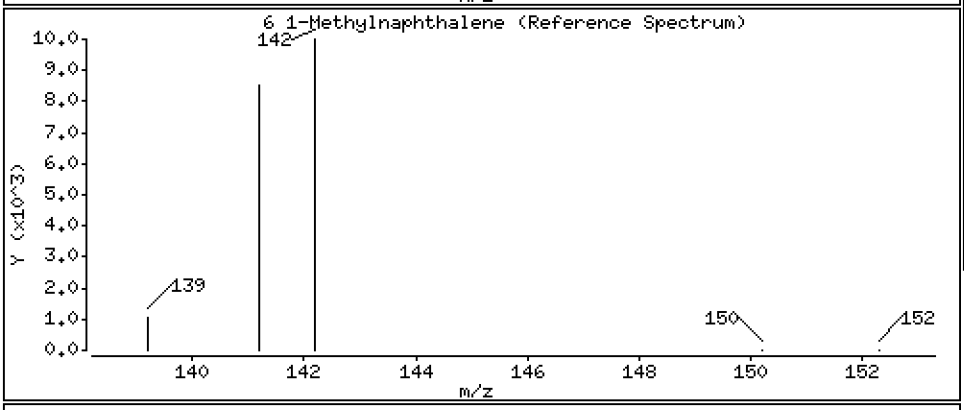
Concentration: 1.07 ng/mL

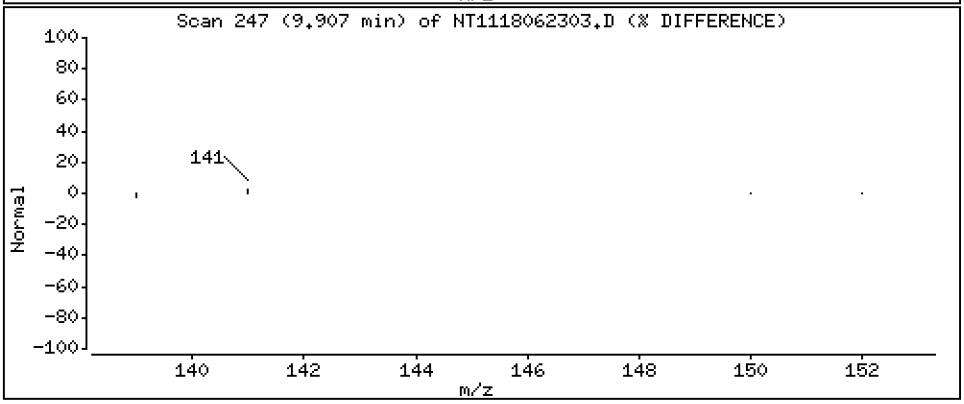












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Date : 23-JUN-2018 11:11

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BLK1

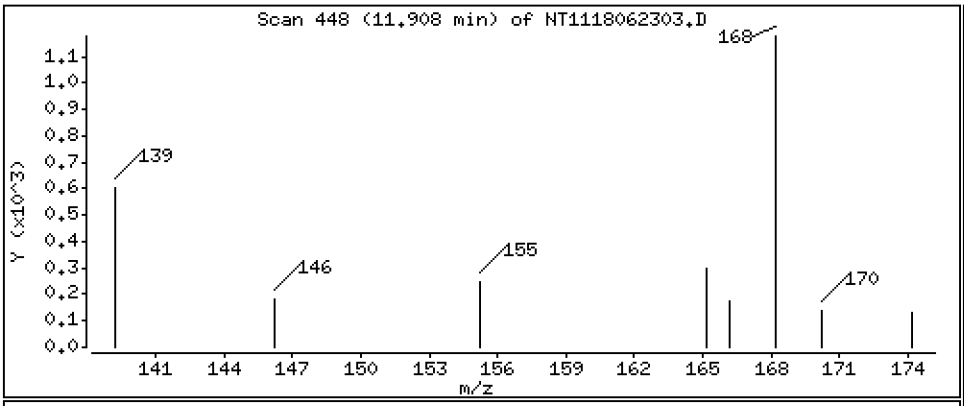
Operator: VTS

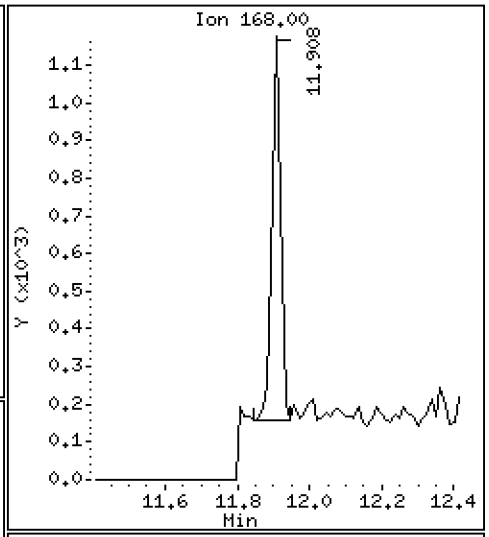
Column phase: Rxi-17Sil MS

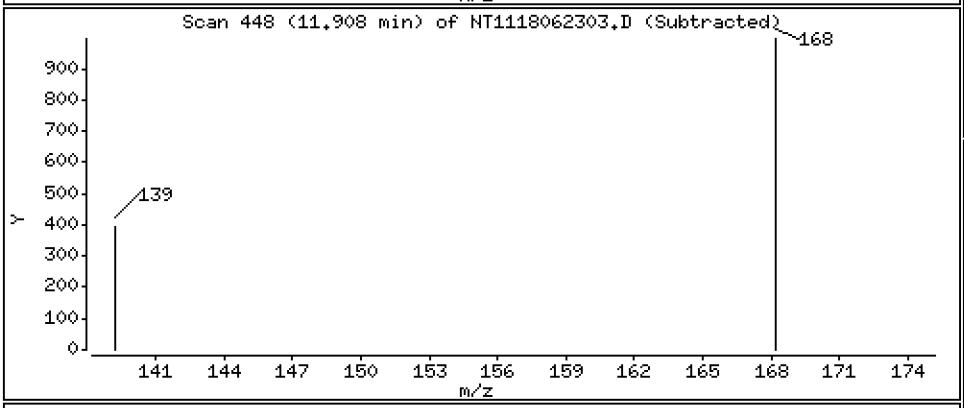
Column diameter: 0.25

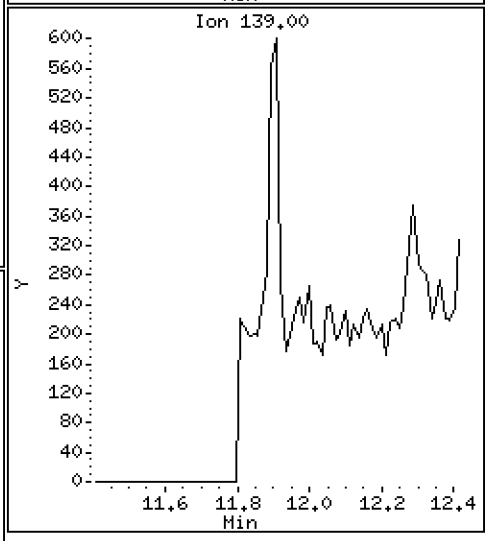
13 Dibenzofuran

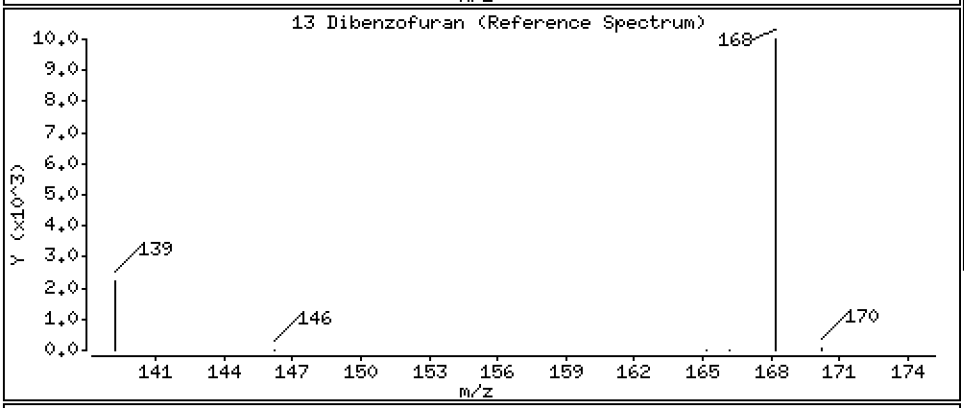
Concentration: 0.556 ng/mL

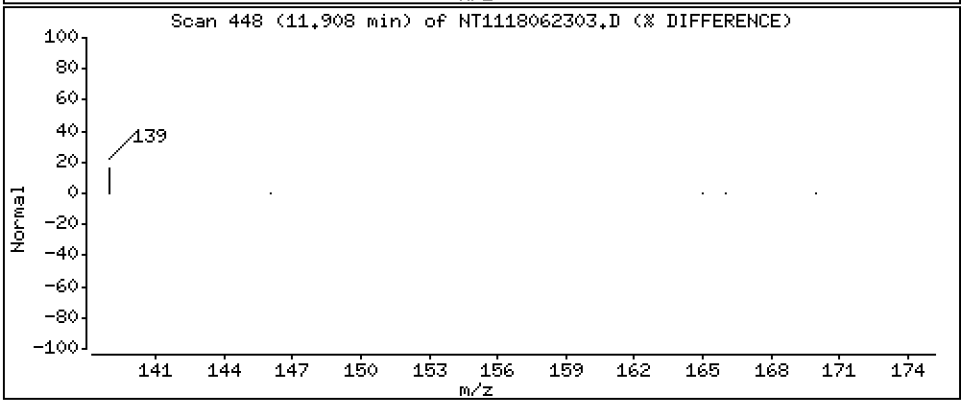












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Date : 23-JUN-2018 11:11

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BLK1

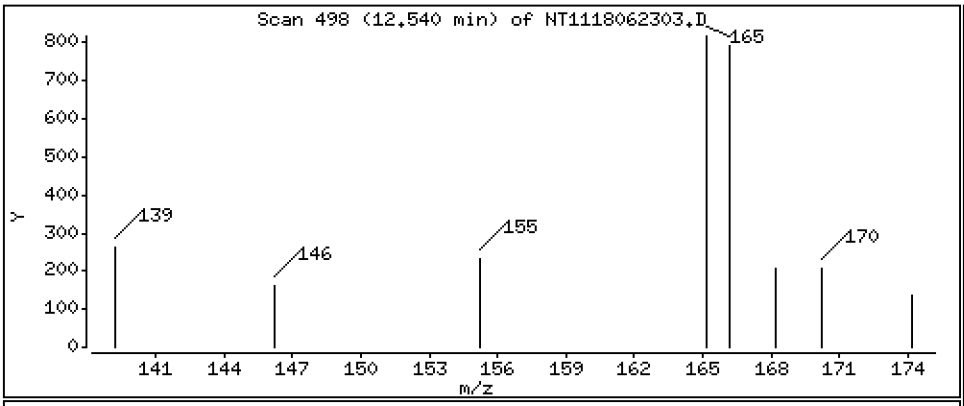
Operator: VTS

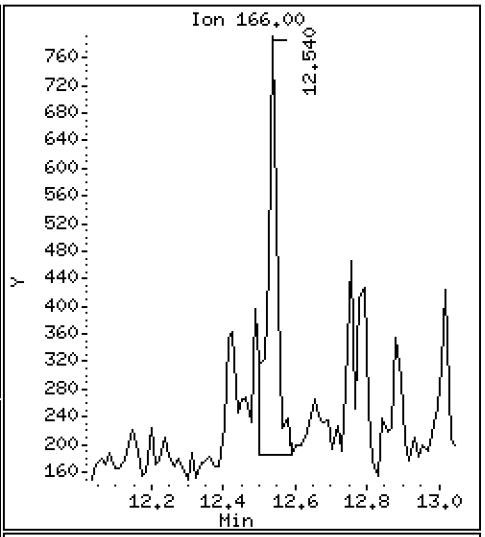
Column phase: Rxi-17Sil MS

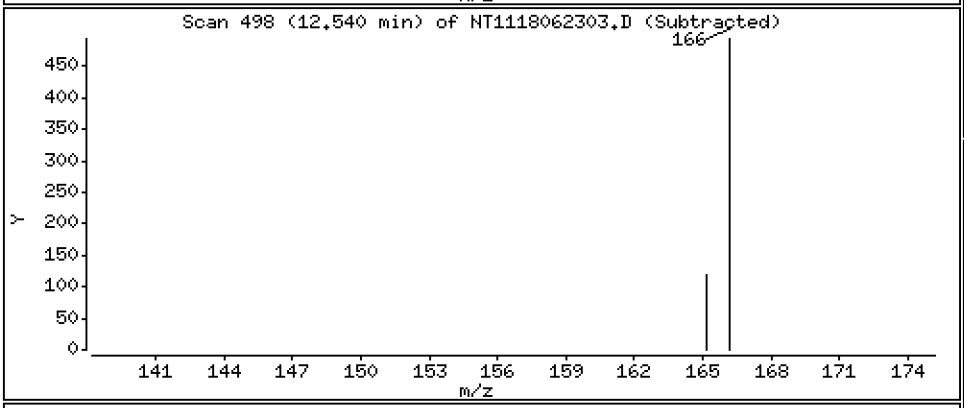
Column diameter: 0.25

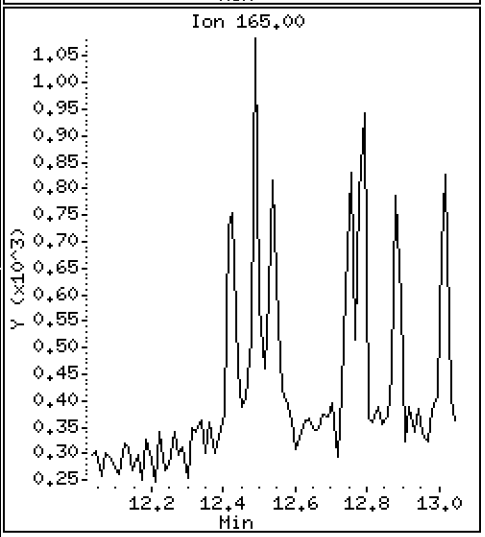
16 Fluorene

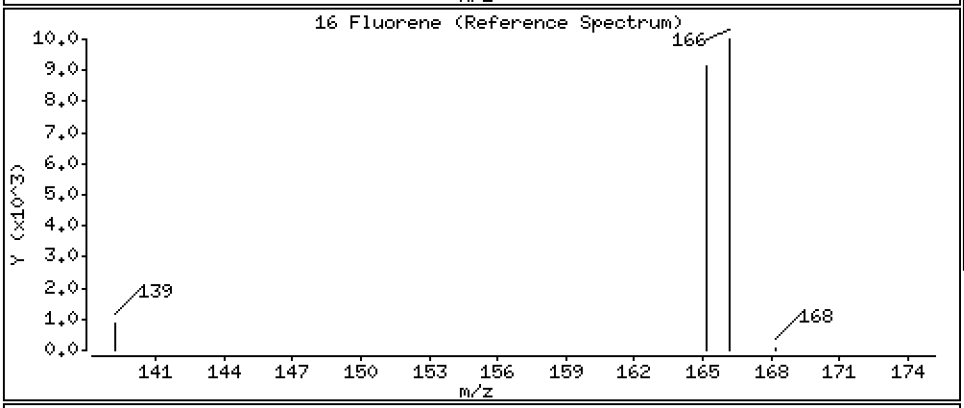
Concentration: 0.461 ng/mL

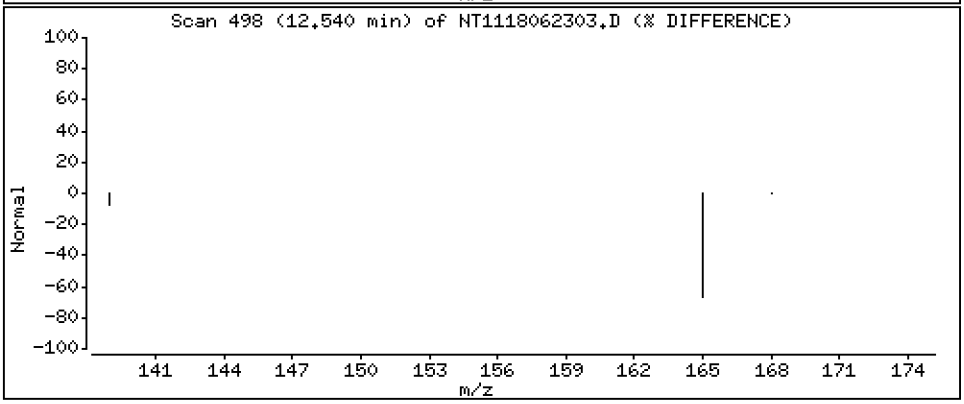












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Date : 23-JUN-2018 11:11

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BLK1

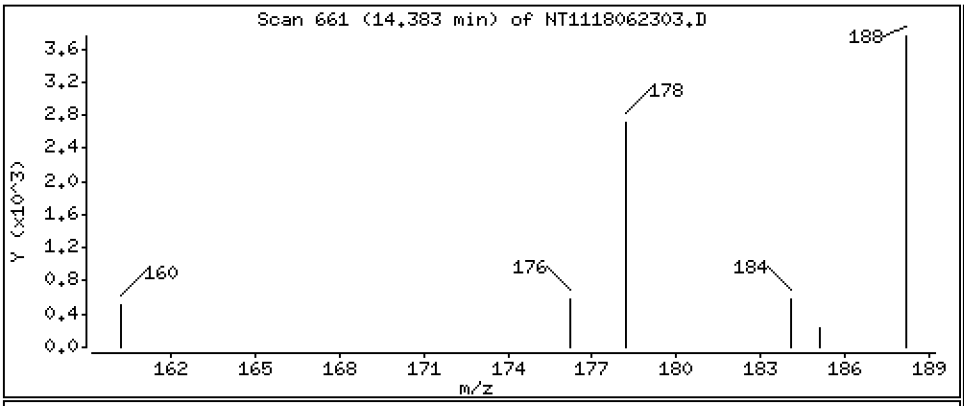
Operator: VTS

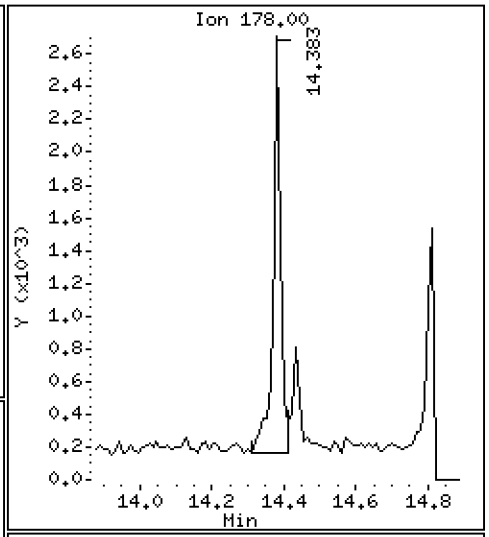
Column phase: Rxi-17Sil MS

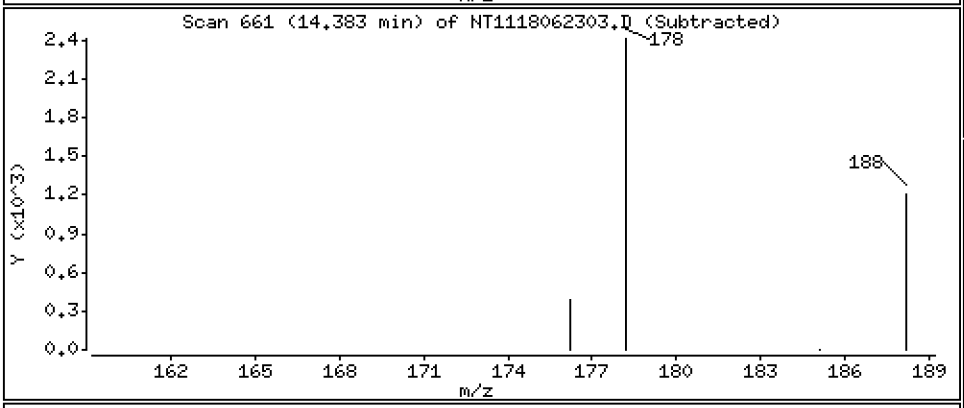
Column diameter: 0.25

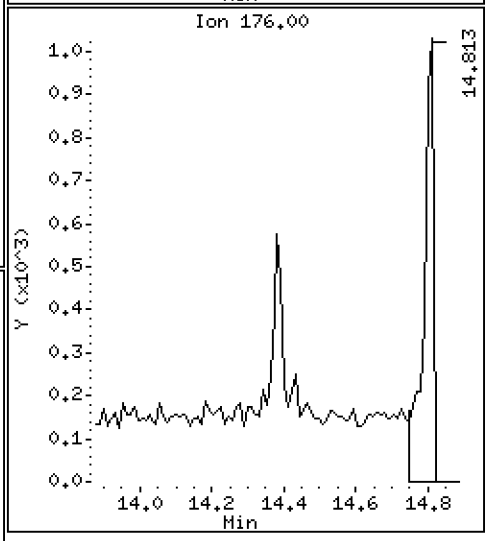
19 Phenanthrene

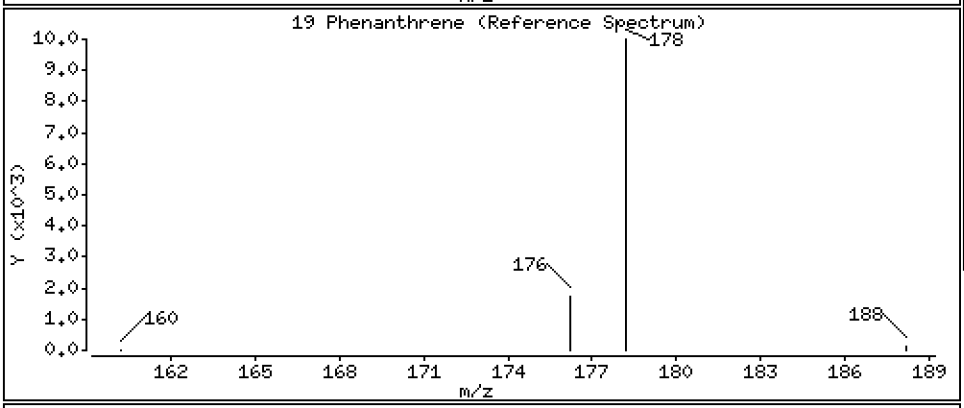
Concentration: 1.16 ng/mL

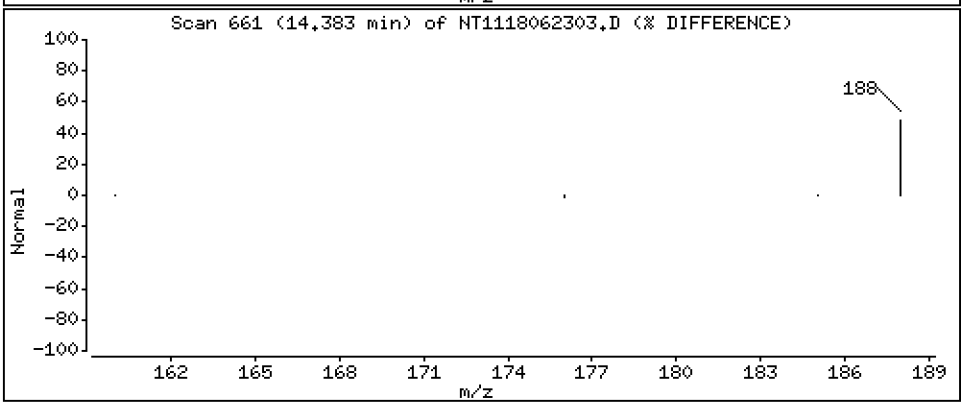












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Date : 23-JUN-2018 11:11

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BLK1

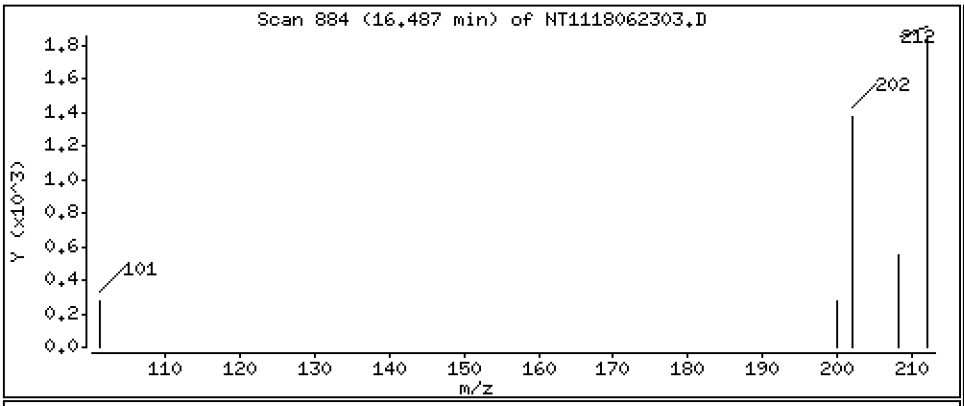
Operator: VTS

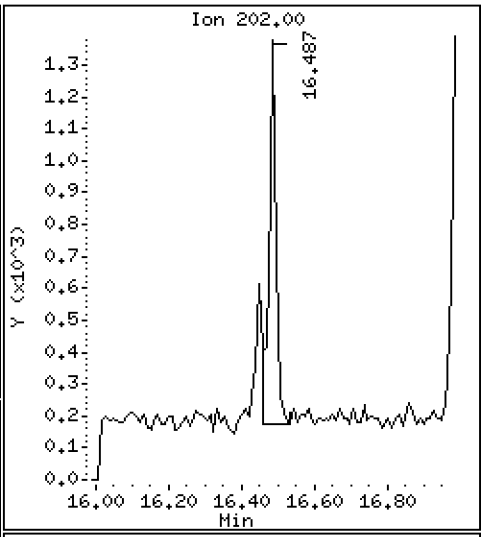
Column phase: Rxi-17Sil MS

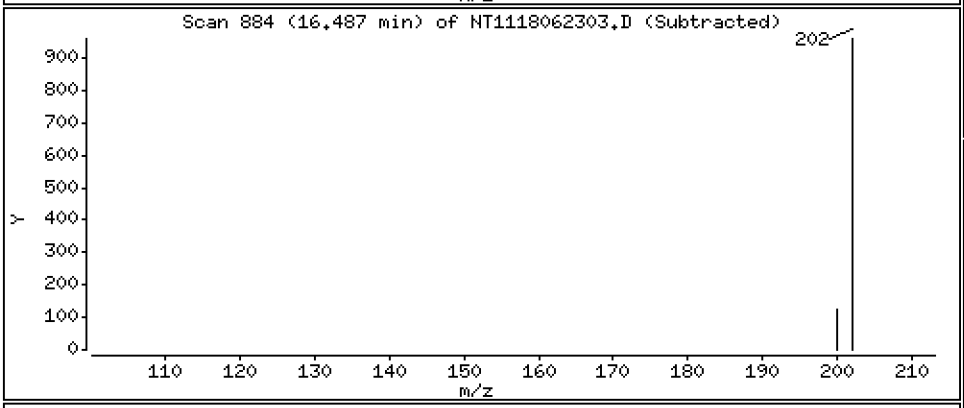
Column diameter: 0.25

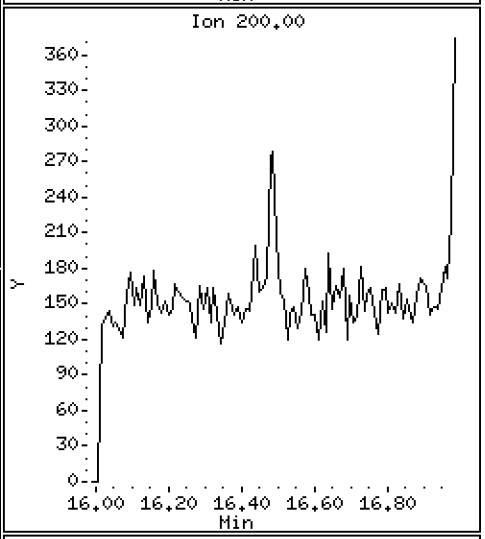
25 Fluoranthene

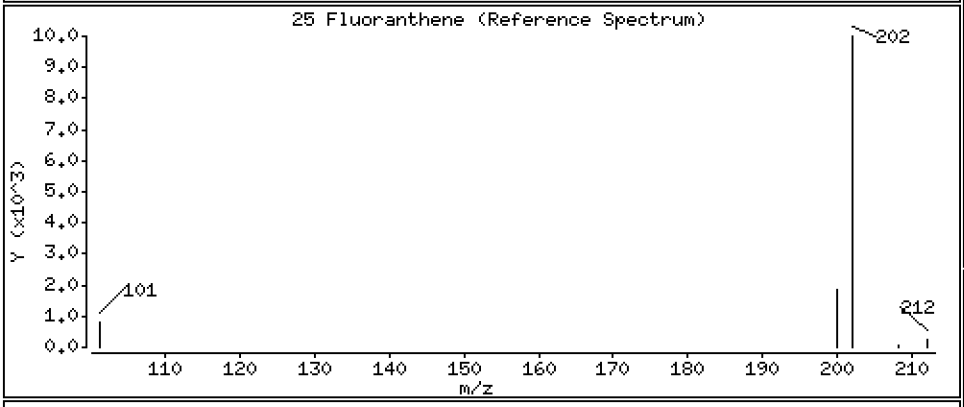
Concentration: 0.524 ng/mL

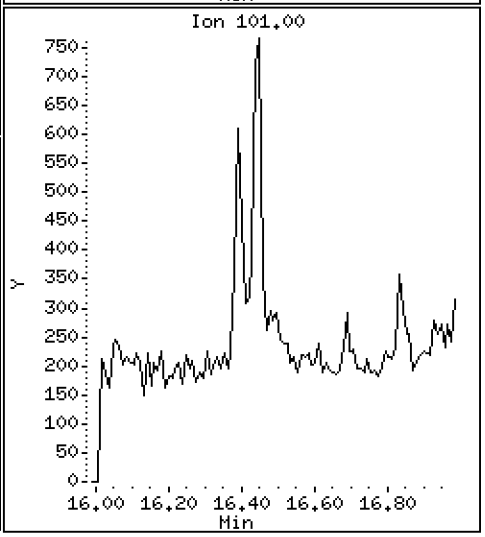


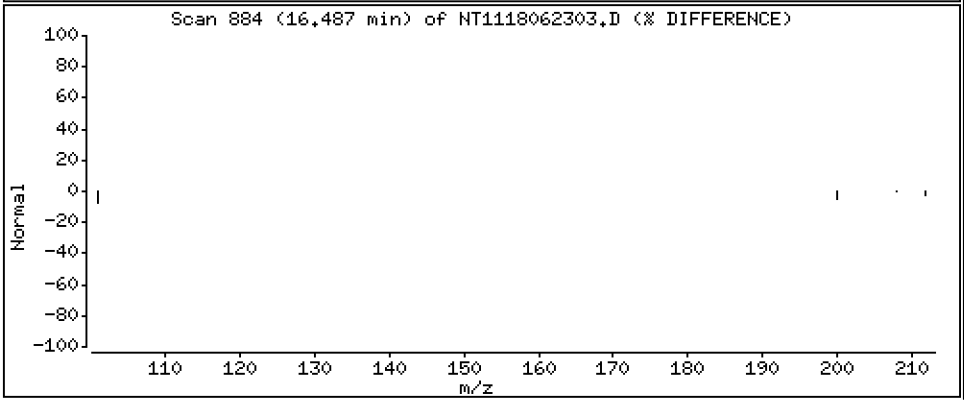












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Date : 23-JUN-2018 11:11

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BLK1

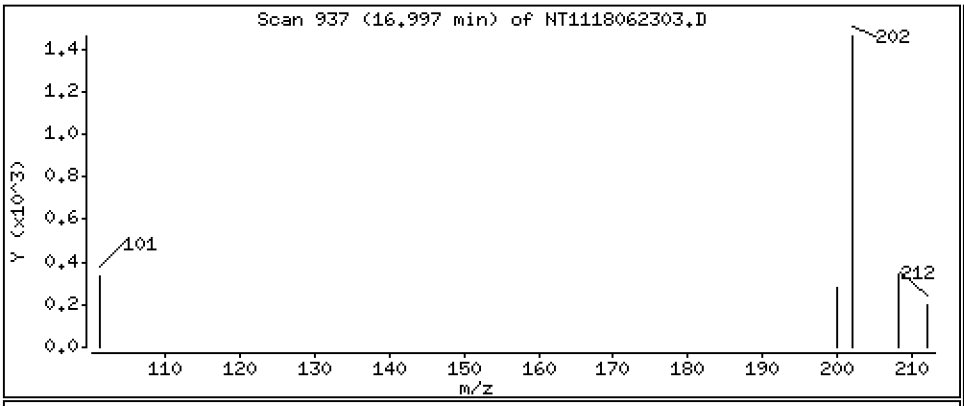
Operator: VTS

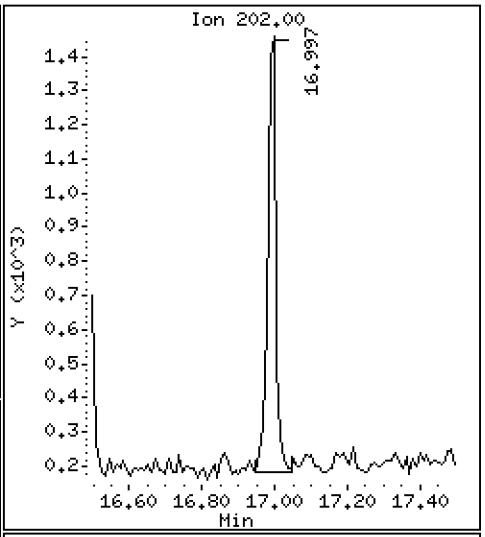
Column phase: Rxi-17Sil MS

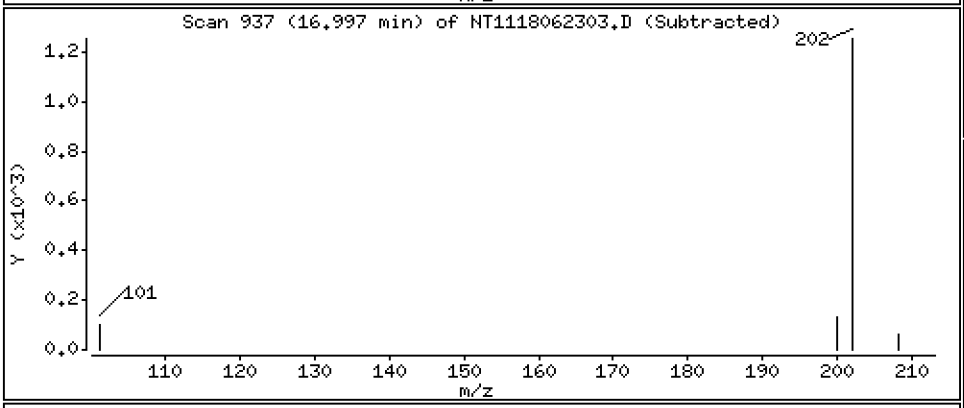
Column diameter: 0.25

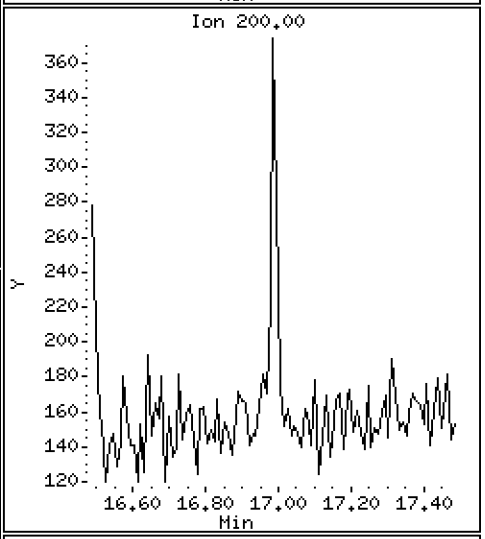
26 Pyrene

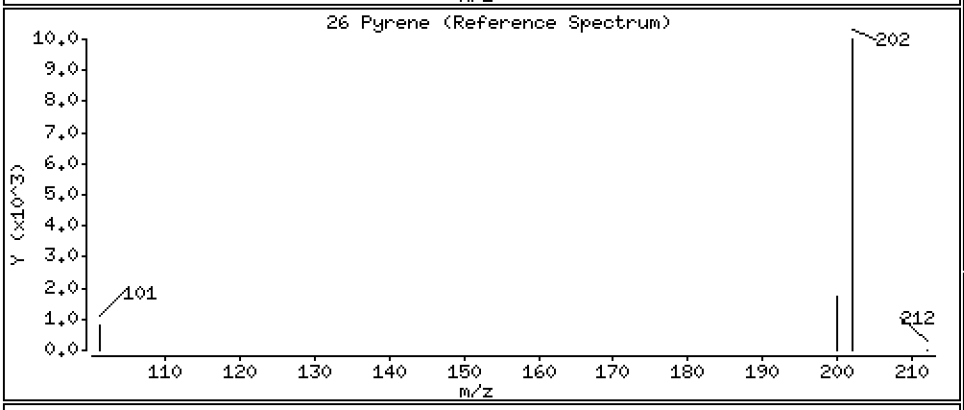
Concentration: 0.739 ng/mL

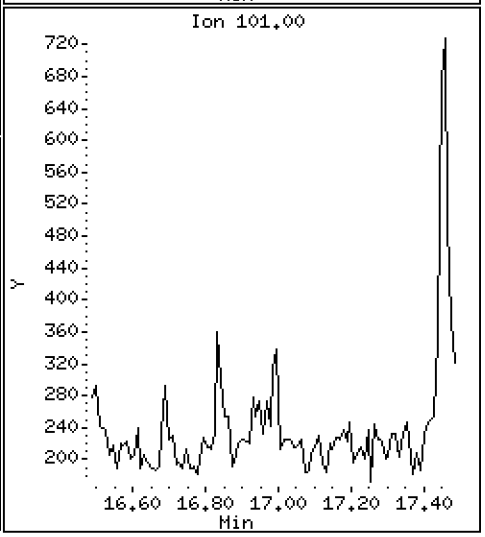


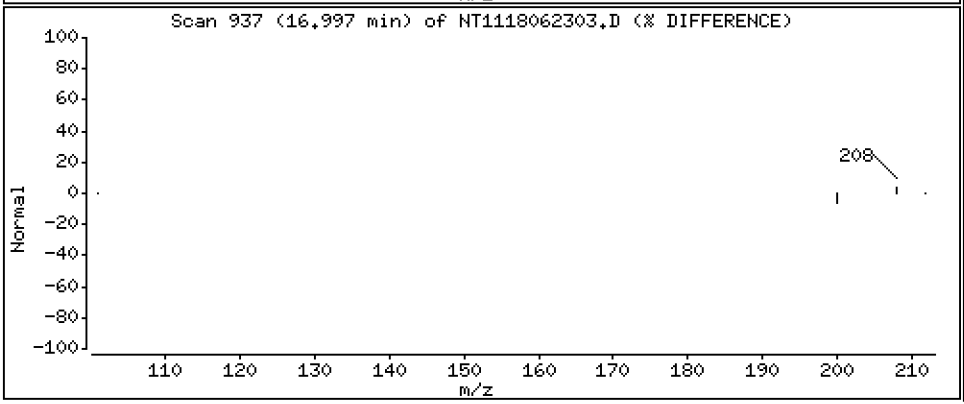












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Date : 23-JUN-2018 11:11

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BLK1

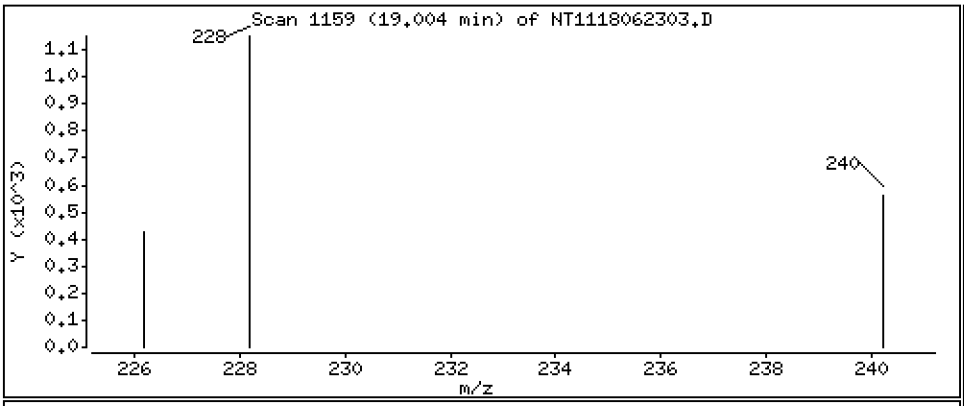
Operator: VTS

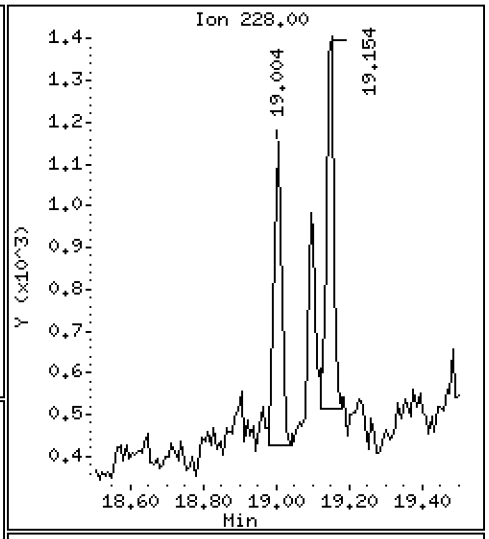
Column phase: Rxi-17Sil MS

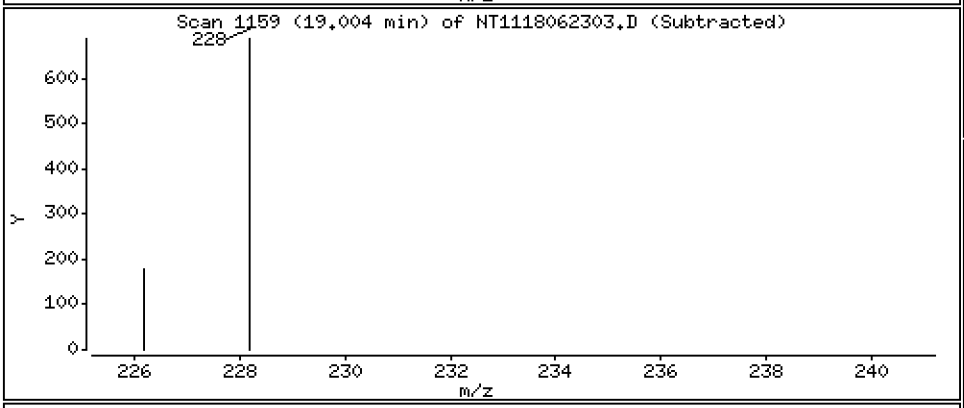
Column diameter: 0.25

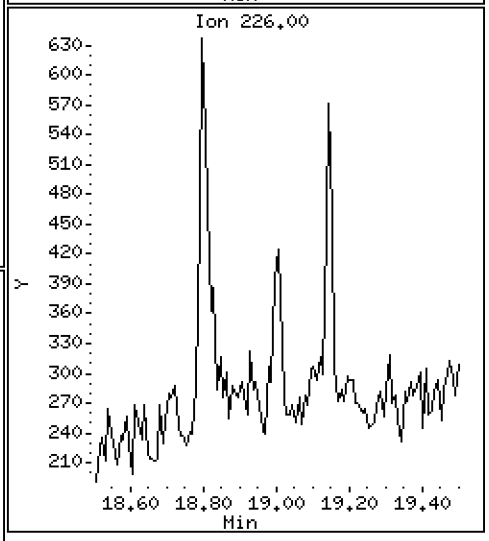
27 Benzo(a)anthracene

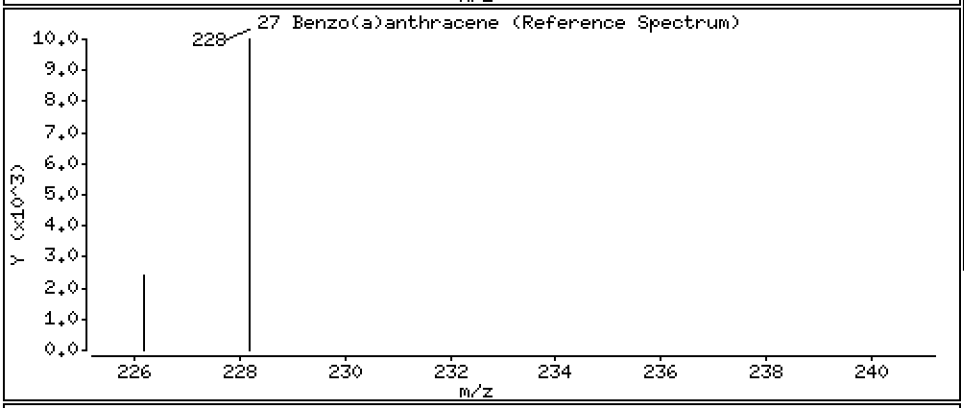
Concentration: 0.491 ng/mL

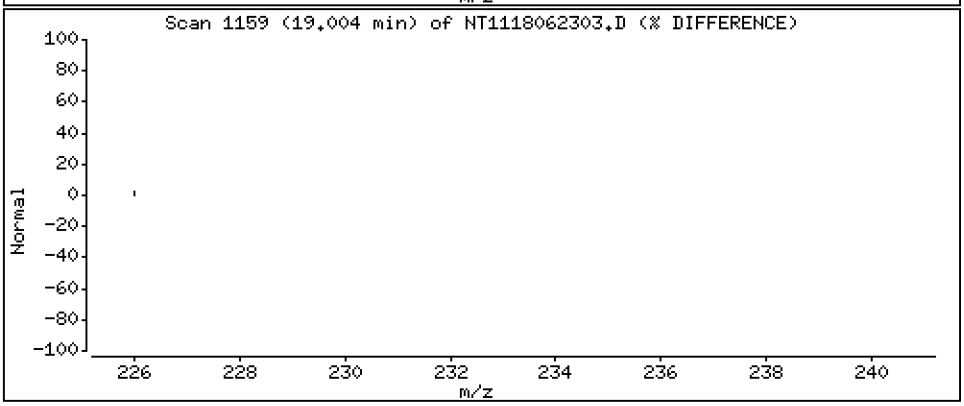












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Date : 23-JUN-2018 11:11

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BLK1

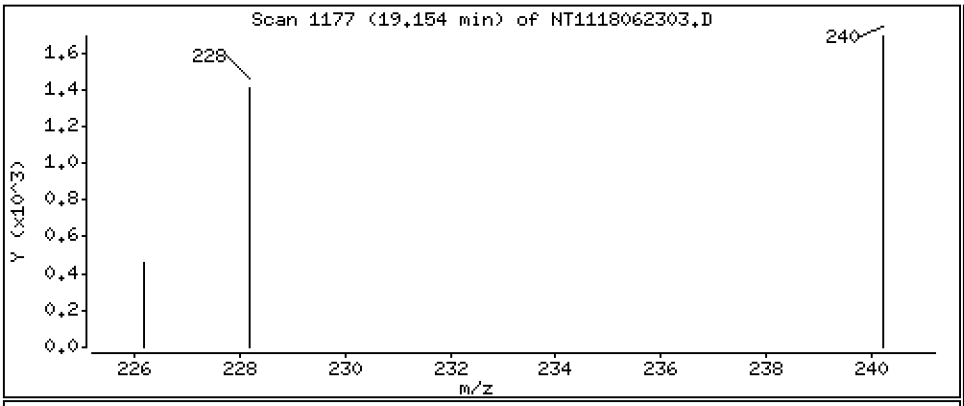
Operator: VTS

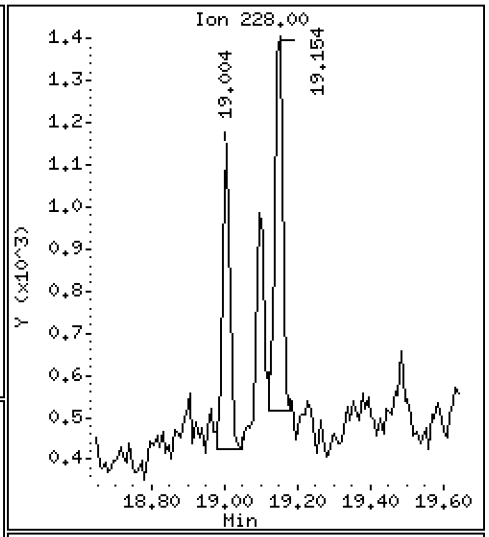
Column phase: Rxi-17Sil MS

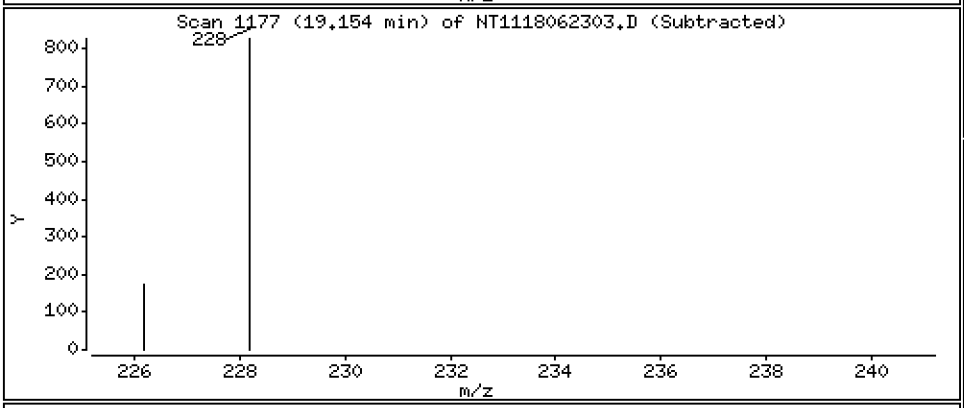
Column diameter: 0.25

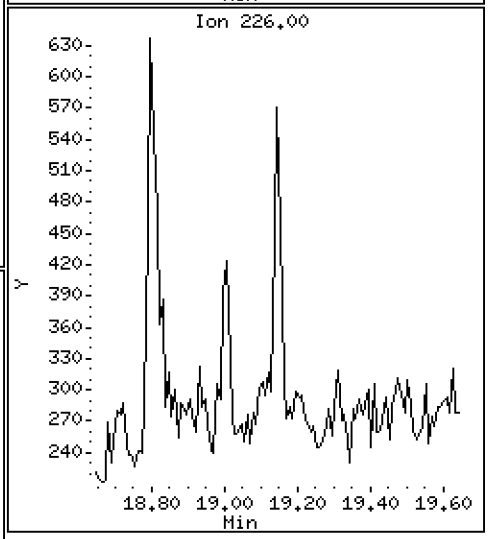
29 Chrysene

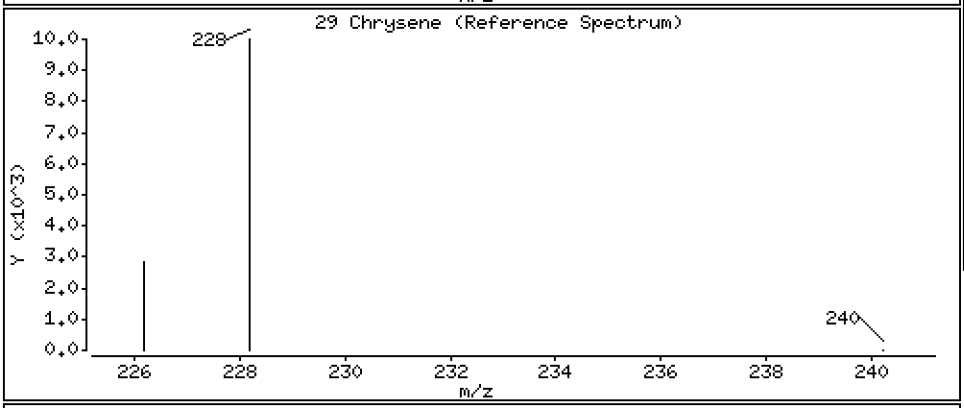
Concentration: 0.609 ng/mL

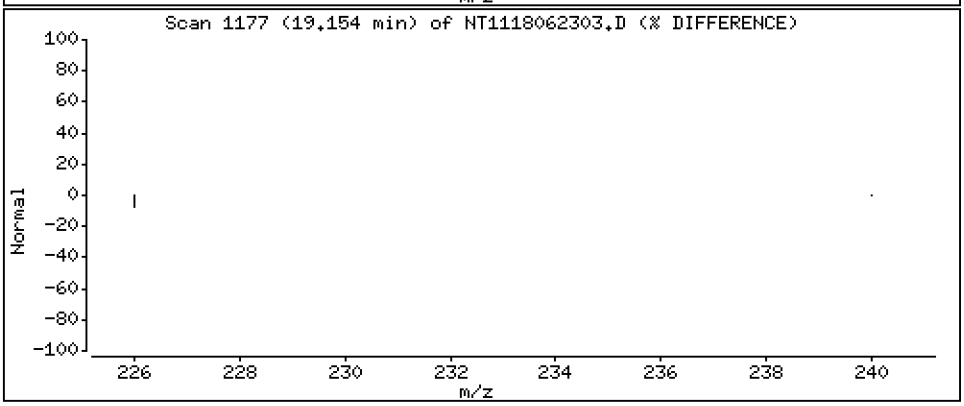












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062303.D

Date : 23-JUN-2018 11:11

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BLK1

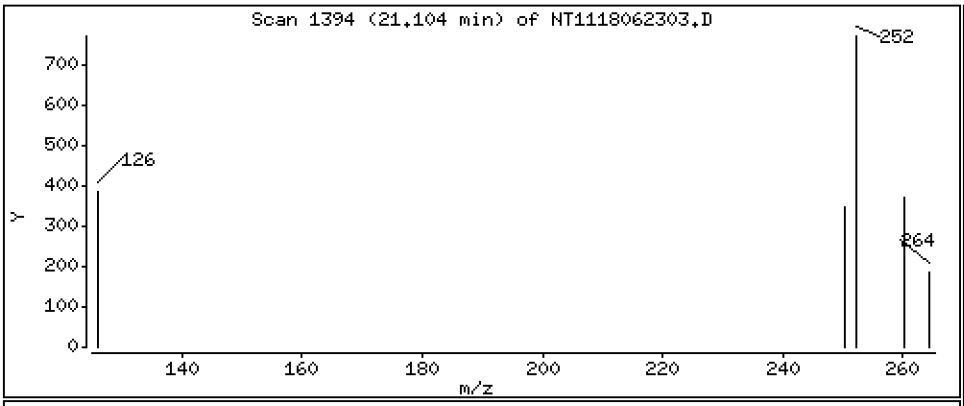
Operator: VTS

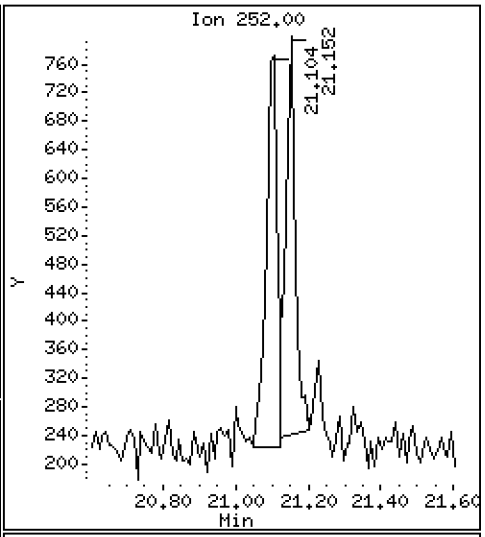
Column phase: Rxi-17Sil MS

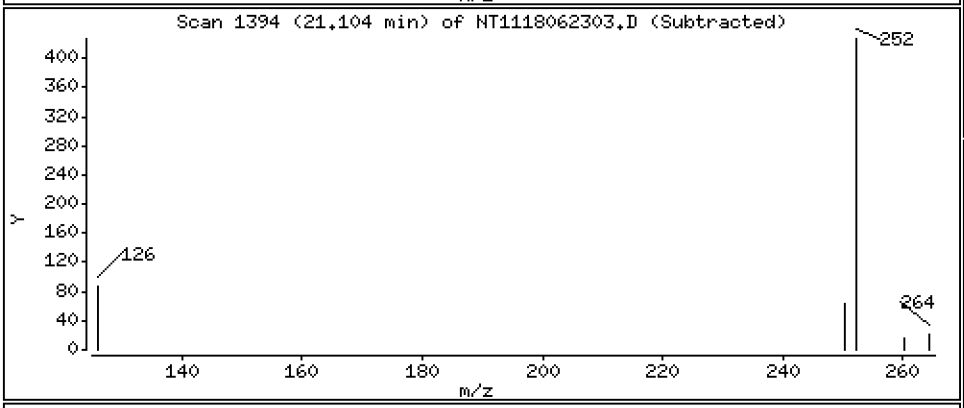
Column diameter: 0.25

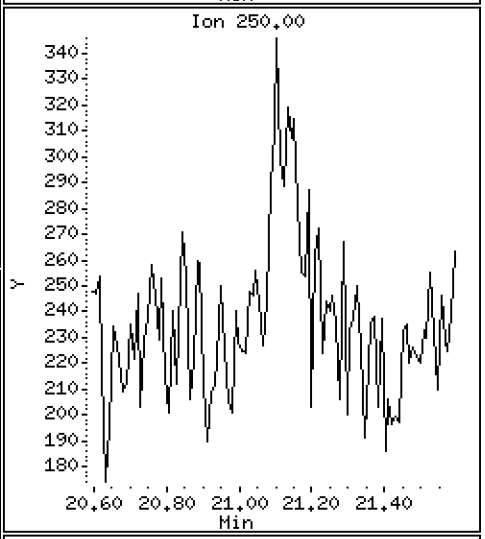
30 Benzo(b)fluoranthene

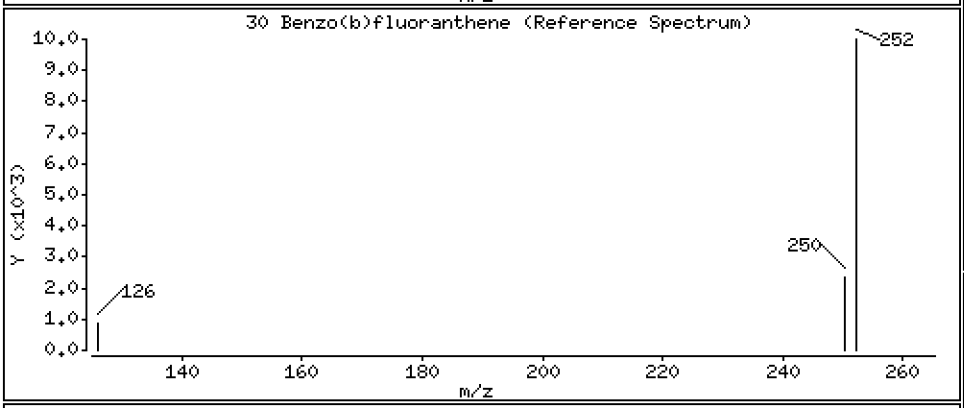
Concentration: 0.635 ng/mL

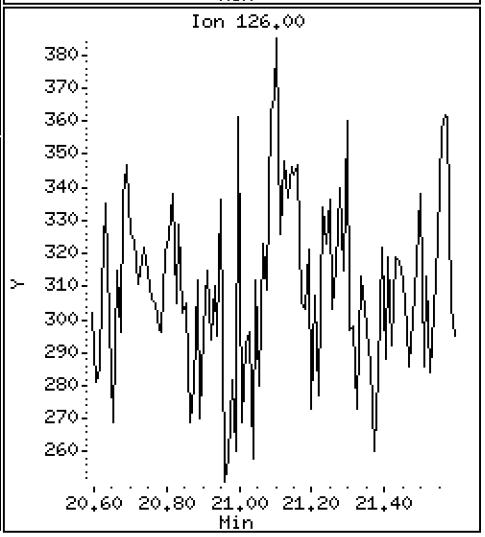


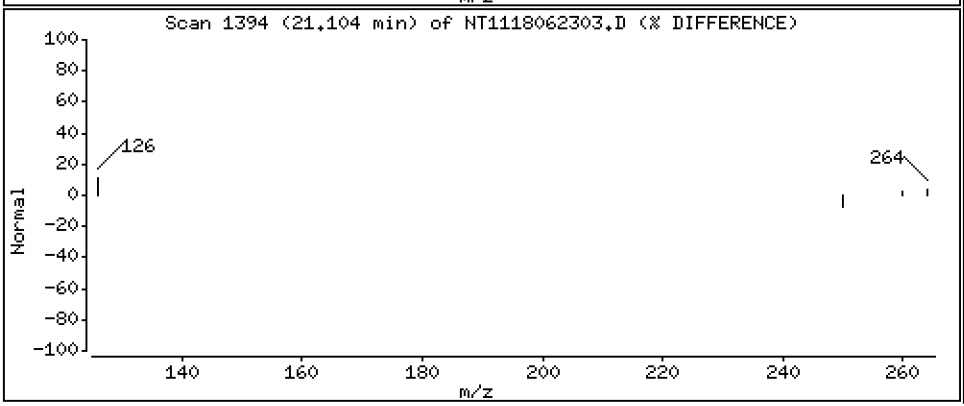












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062303.D

Date : 23-JUN-2018 11:11

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BLK1

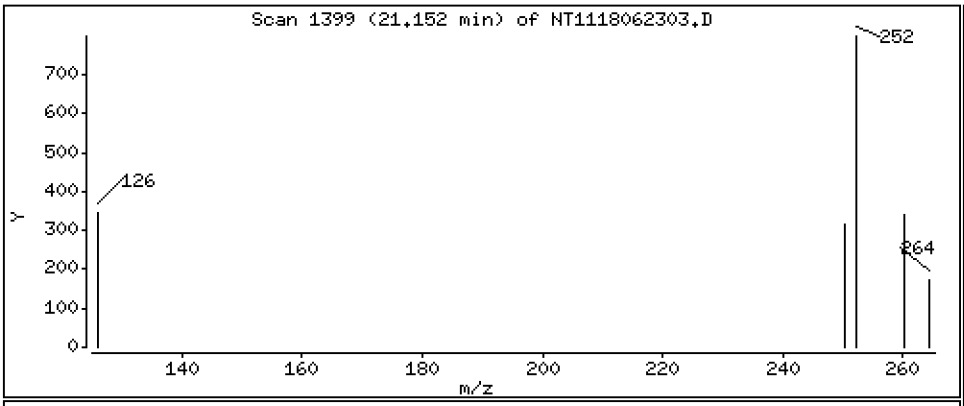
Operator: VTS

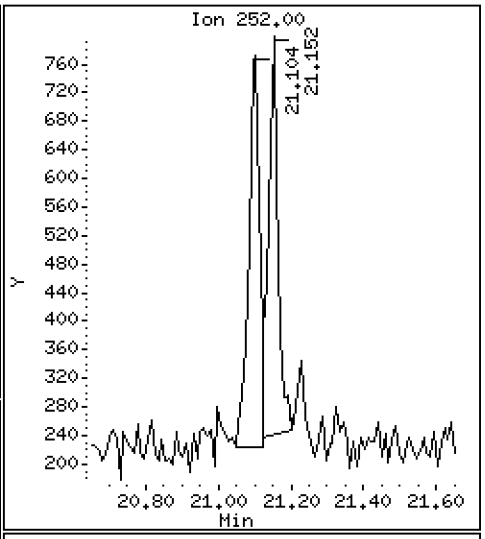
Column phase: Rxi-17Sil MS

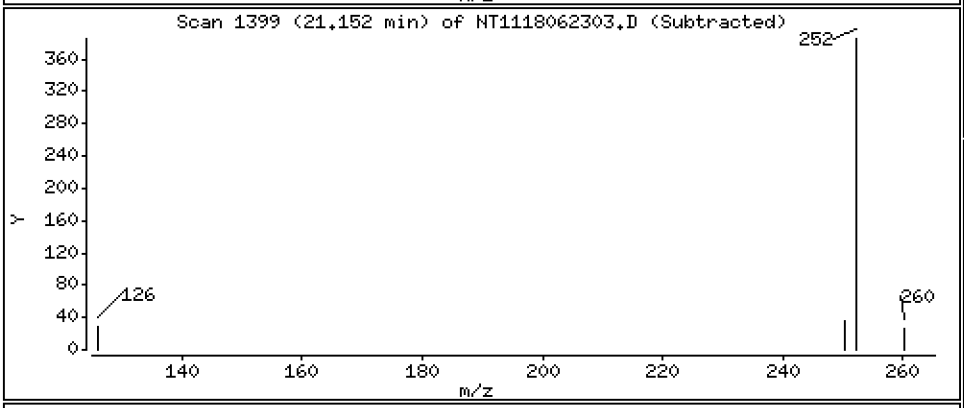
Column diameter: 0.25

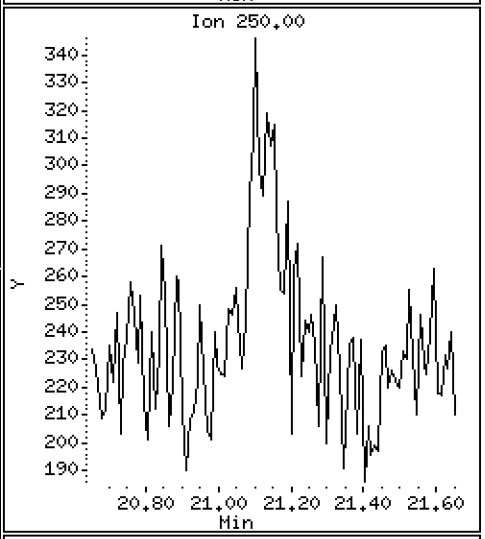
31 Benzo(k)fluoranthene

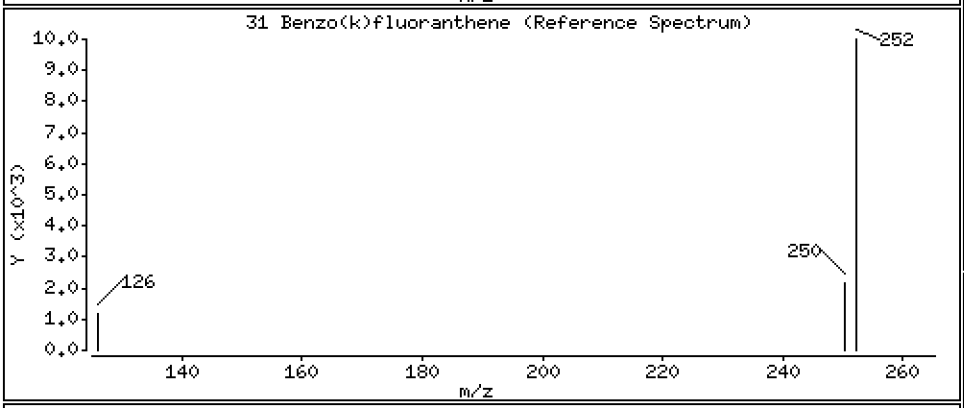
Concentration: 0.552 ng/mL

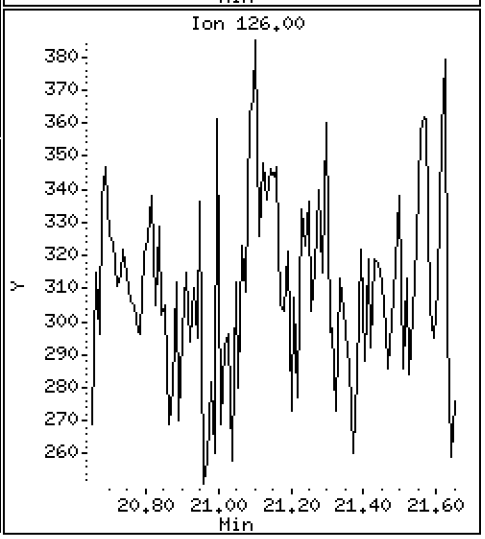


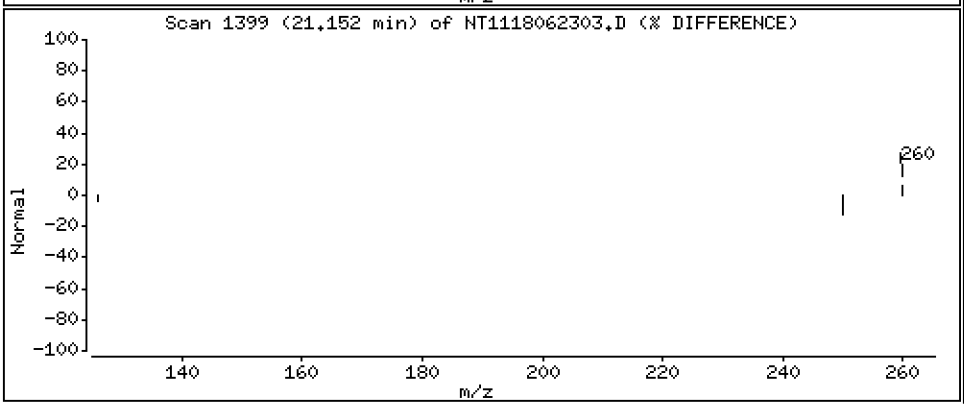












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062303.D

Date : 23-JUN-2018 11:11

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BLK1

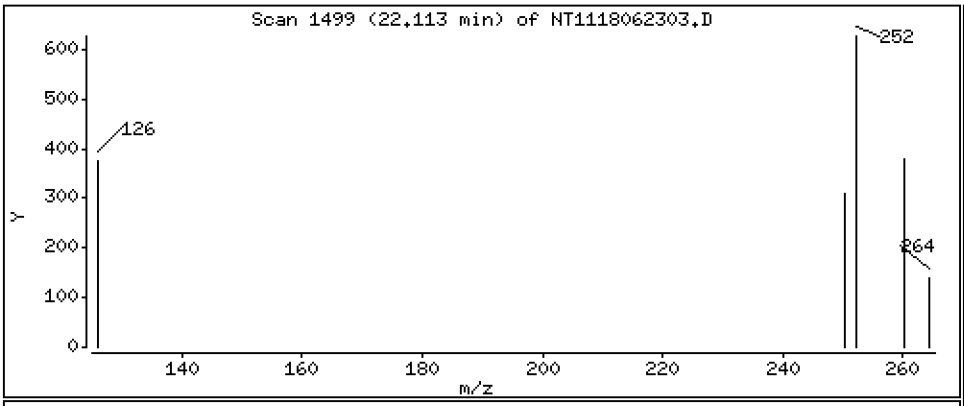
Operator: VTS

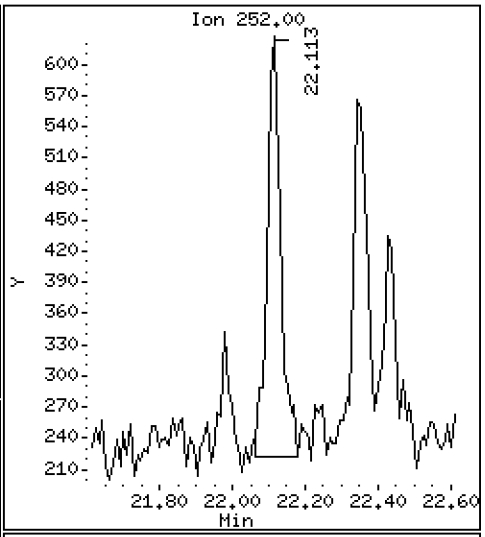
Column phase: Rxi-17Sil MS

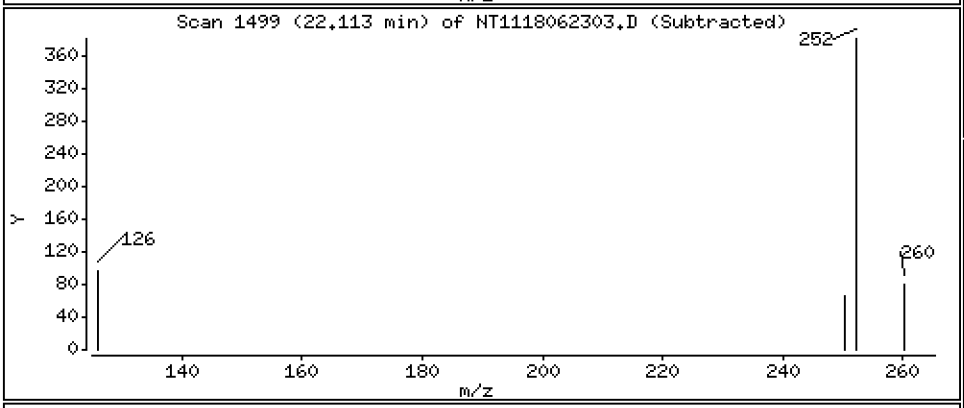
Column diameter: 0.25

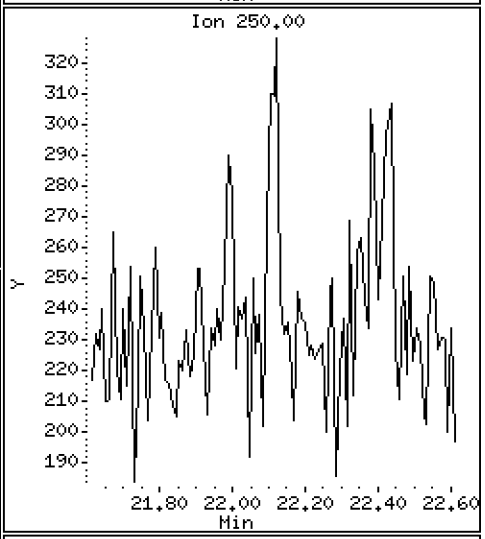
35 Benzo(a)pyrene

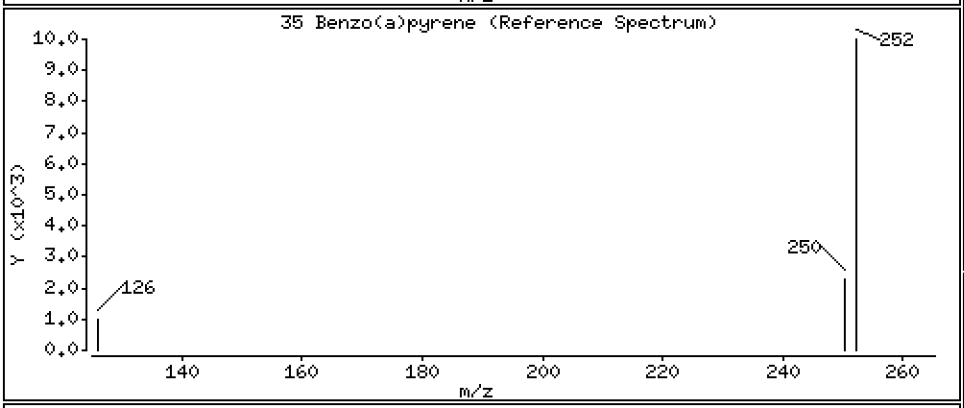
Concentration: 0.641 ng/mL

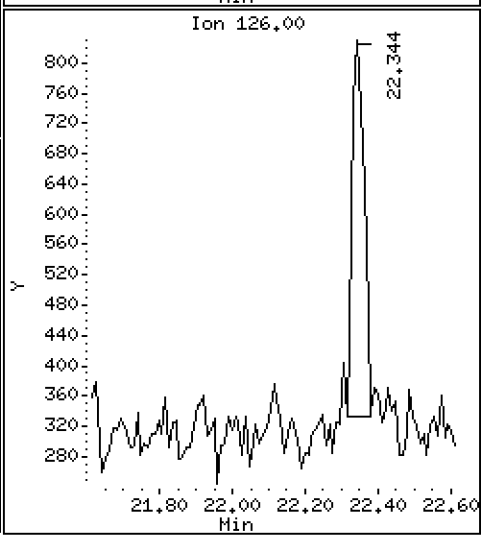


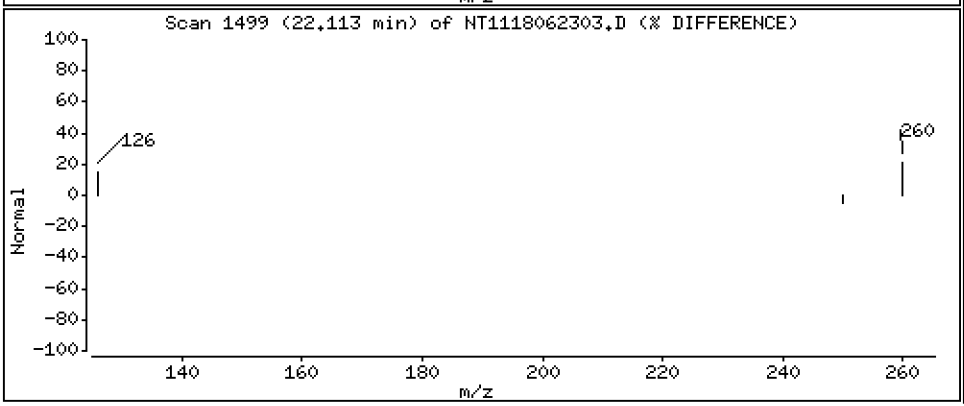












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062303.D

Date : 23-JUN-2018 11:11

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BLK1

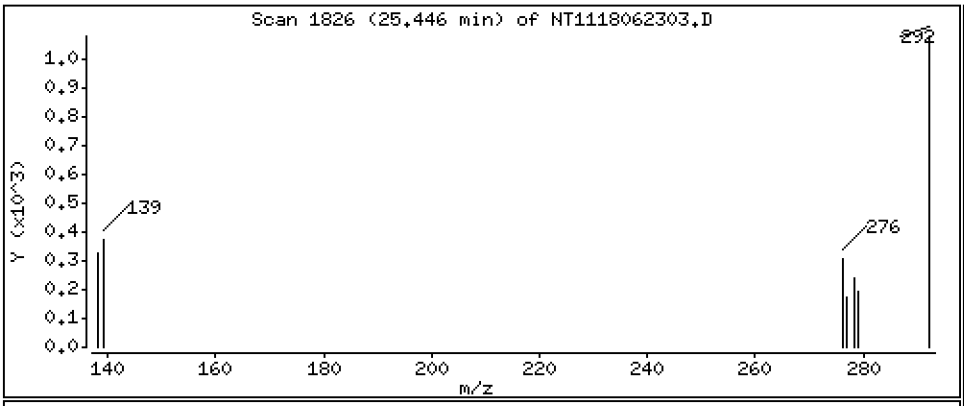
Operator: VTS

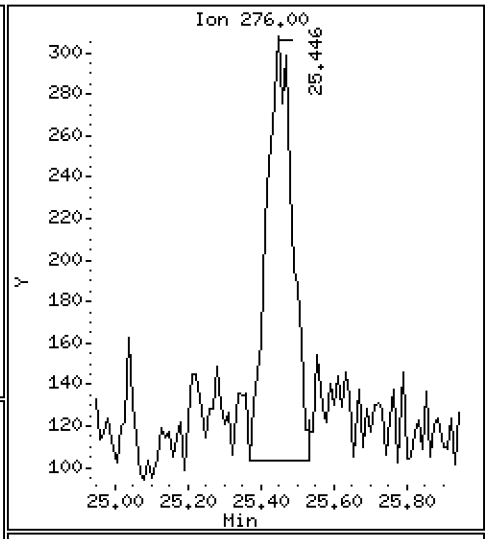
Column phase: Rxi-17Sil MS

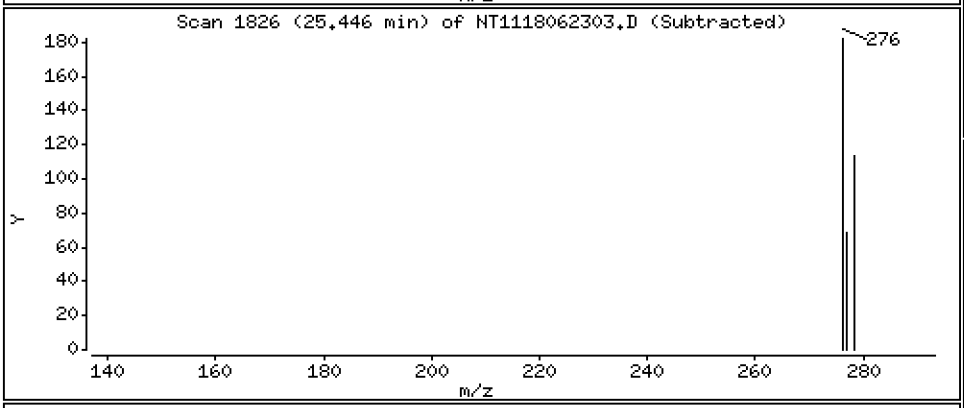
Column diameter: 0.25

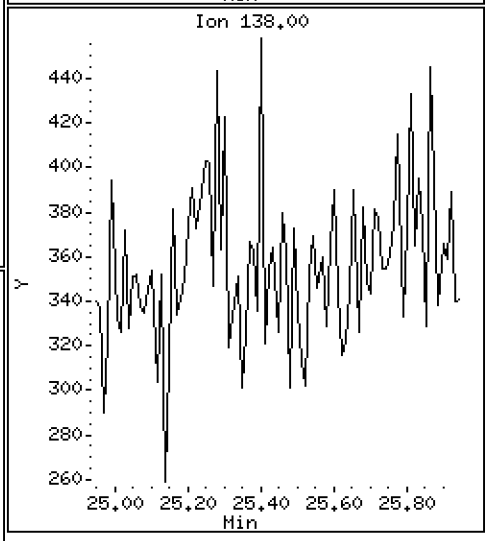
40 Indeno(1,2,3-cd)pyrene

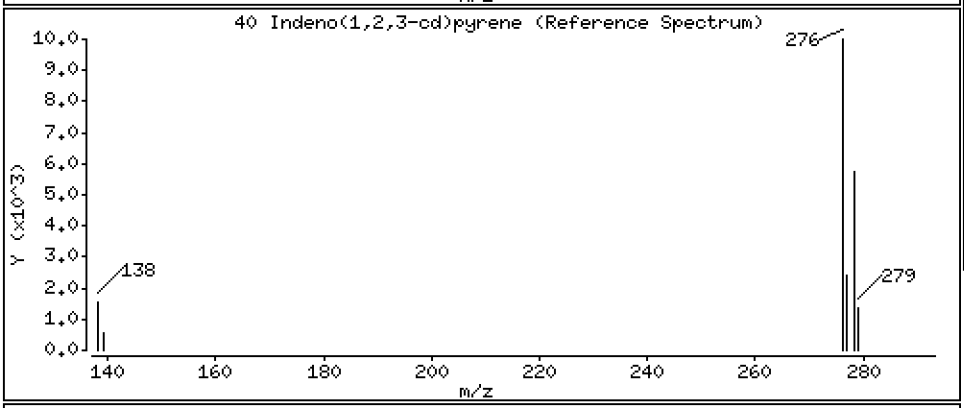
Concentration: 0.573 ng/mL

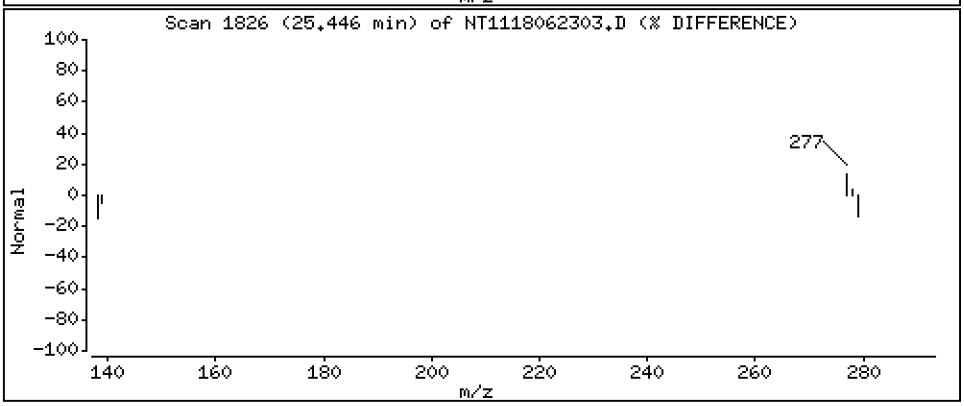












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062303.D

Date : 23-JUN-2018 11:11

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BLK1

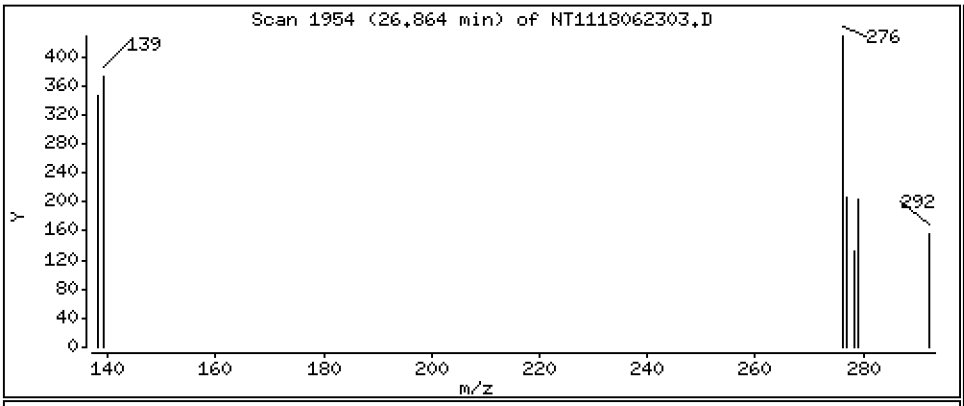
Operator: VTS

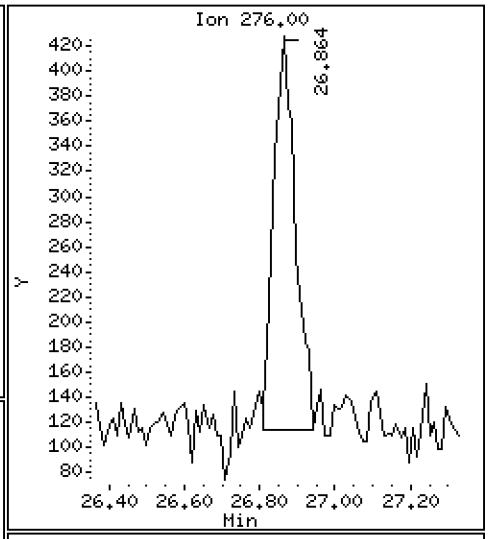
Column phase: Rxi-17Sil MS

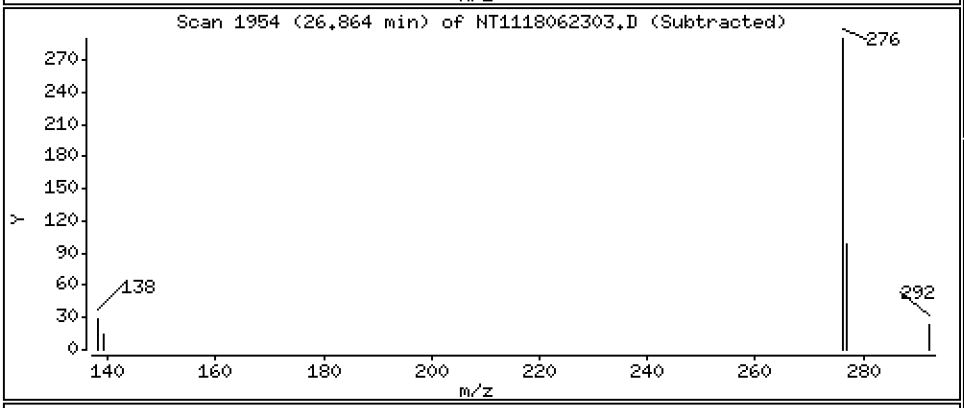
Column diameter: 0.25

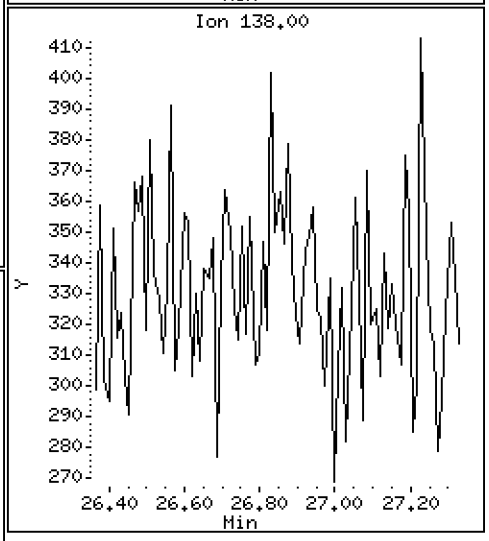
41 Benzo(g,h,i)perylene

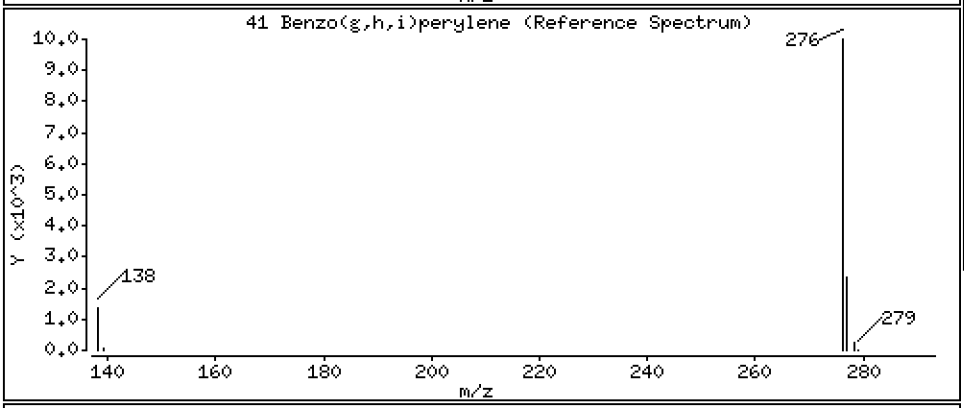
Concentration: 0.835 ng/mL

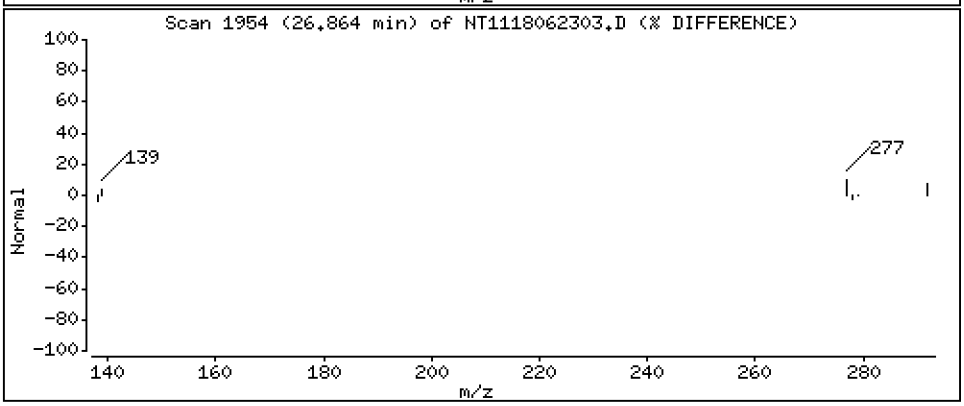












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180623.b\NT1118062303.D
Lab Smp Id: BGF0416-BLK1
Inj Date : 23-JUN-2018 11:11 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : BGF0416-BLK1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180623.b\lowsim.m
Meth Date : 23-Jun-2018 13:20 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	437861	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	5571	1.68888	1.69
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.591	9.592	(1.114)	384976	154.097	154
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	3315	1.24287	1.24
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	2832	1.06762	1.07
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	267531	200.000	
	12 Acenaphthene	153	Compound Not Detected.					
	13 Dibenzofuran	168	11.907	11.908	(1.023)	1657	0.55595	0.556
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.539	12.540	(1.077)	1109	0.46141	0.461
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	460495	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	4183	1.15820	1.16
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	Compound Not Detected.					
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	Compound Not Detected.					
$	24 Fluoranthene-d10	212	16.448	16.449	(1.147)	477931	170.982	171
	25 Fluoranthene	202	16.487	16.487	(1.150)	1757	0.52386	0.524
	26 Pyrene	202	16.996	16.996	(0.890)	2052	0.73883	0.739
	27 Benzo(a)anthracene	228	19.004	19.004	(0.995)	1064	0.49120	0.491
*	28 Chrysene-d12	240	19.103	19.095	(1.000)	282512	200.000	
	29 Chrysene	228	19.153	19.145	(1.003)	1311	0.60930	0.609
	30 Benzo(b)fluoranthene	252	21.104	21.104	(0.944)	1225	0.63491	0.635
	31 Benzo(k)fluoranthene	252	21.152	21.152	(0.946)	1105	0.55230	0.552
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
34	Benzo(e)pyrene	252	Compound Not Detected.					
35	Benzo(a)pyrene	252	22.113	22.113	(0.989)	1086	0.64070	0.641
* 36	Perylene-d12	264	22.353	22.353	(1.000)	272776	200.000	
37	Perylene	252	Compound Not Detected.					
$ 38	Dibenzo(a,h)anthracene-d14	292	25.279	25.268	(1.131)	225401	172.677	173
39	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
40	Indeno(1,2,3-cd)pyrene	276	25.445	25.446	(1.138)	1011	0.57342	0.573
41	Benzo(g,h,i)perylene	276	26.863	26.863	(1.202)	1274	0.83539	0.835

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118062303.D
Lab Smp Id: BGF0416-BLK1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180623.b\lowsim.m
Misc Info:

Calibration Date: 23-JUN-2018
Calibration Time: 10:32
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	437861	1.52
11 Acenaphthene-d10	260137	130069	520274	267531	2.84
18 Phenanthrene-d10	427391	213696	854782	460495	7.75
28 Chrysene-d12	304596	152298	609192	282512	-7.25
36 Perylene-d12	263091	131546	526182	272776	3.68

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	0.04
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118062303.D

Lab ID: BGF0416-BLK1
nt11.i, 20180623.b\lowsim.m,   23-JUN-2018 11:11

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180623.b\lowsim.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Form I

METHOD BLANK DATA SHEET

EPA 8270D-SIM

Blank

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC			Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Laboratory ID:	BGF0455-BLK1	File ID:	NT1118062314.D
Sampled:	N/A	Prepared:	06/19/18 17:20	Analyzed:	06/23/18 18:50
Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	500 mL / 0.5 mL
Batch:	BGF0455	Sequence:	SGF0298	Calibration:	BE00021
Instrument:	NT11	Column:	RXi-17Sil-MS	Cleanups:	Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.010	U	0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.010	U	0.001	0.010
208-96-8	Acenaphthylene	1	0.010	U	0.002	0.010
83-32-9	Acenaphthene	1	0.010	U	0.003	0.010
86-73-7	Fluorene	1	0.010	U	0.002	0.010
85-01-8	Phenanthrene	1	0.010	U	0.001	0.010
120-12-7	Anthracene	1	0.010	U	0.001	0.010
206-44-0	Fluoranthene	1	0.010	U	0.002	0.010
129-00-0	Pyrene	1	0.010	U	0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.010	U	0.0008	0.010
218-01-9	Chrysene	1	0.010	U	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.010	U	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.196	65.3	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.207	69.0	29 - 120	
Fluoranthene-d10	0.30000	0.215	71.8	57 - 120	

Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062314.D

Date : 23-JUN-2018 18:50

Client ID:

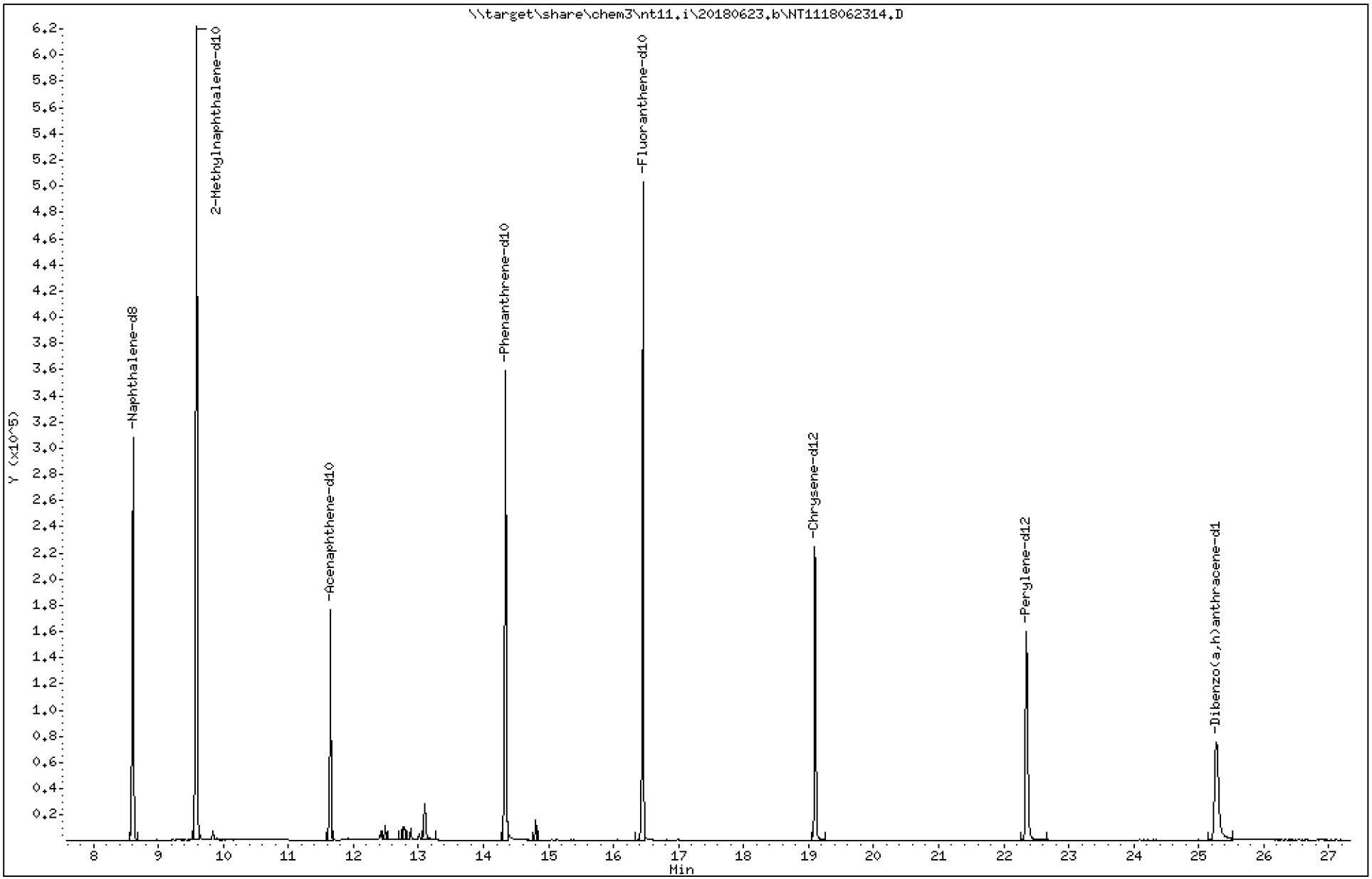
Instrument: nt11.i

Sample Info: BGF0455-BLK1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 23-JUN-2018 18:50

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BLK1

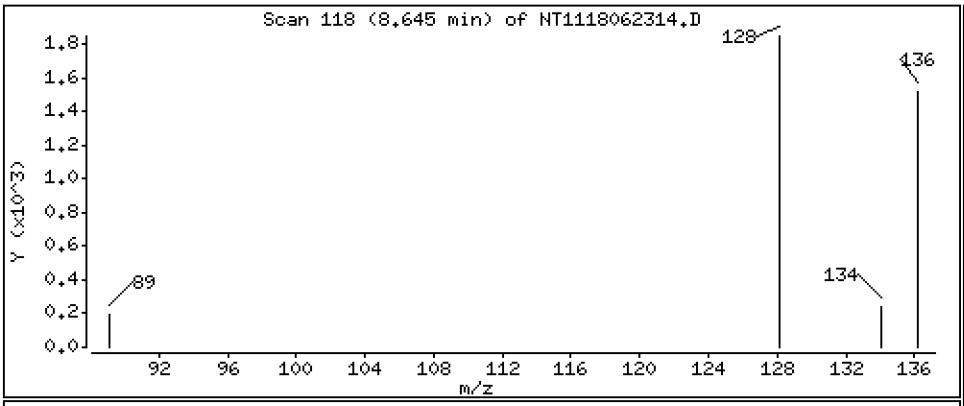
Operator: VTS

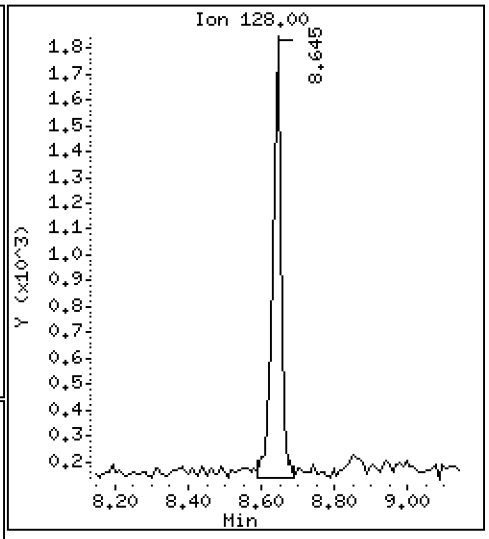
Column phase: Rxi-17Sil MS

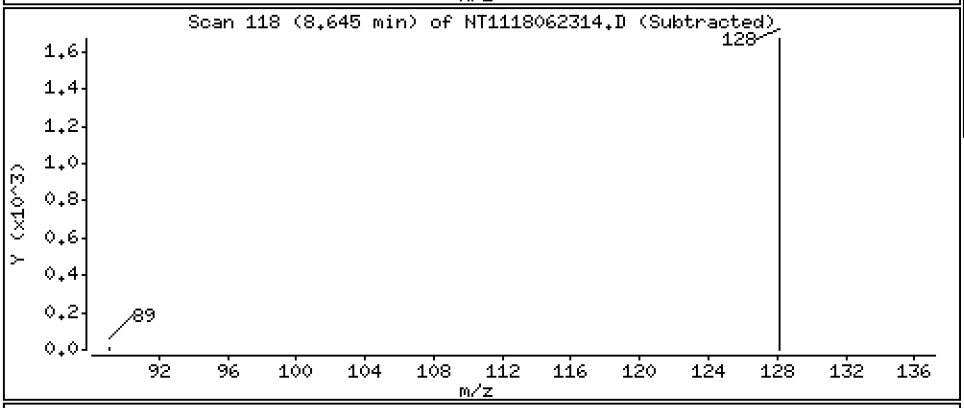
Column diameter: 0.25

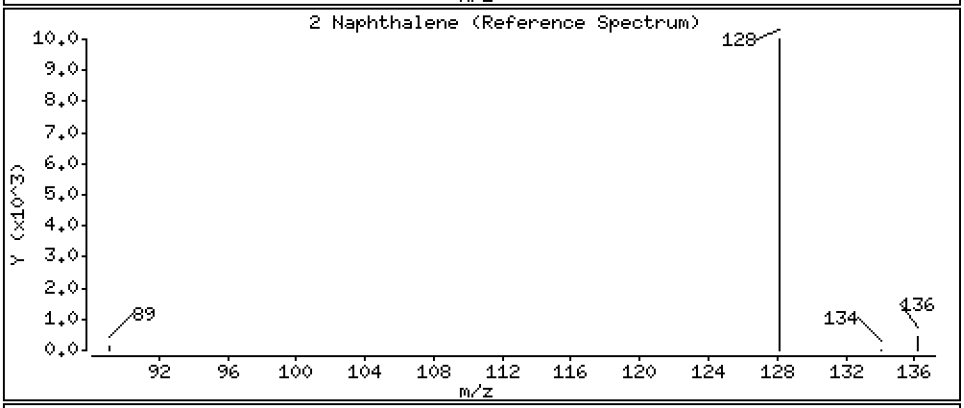
2 Naphthalene

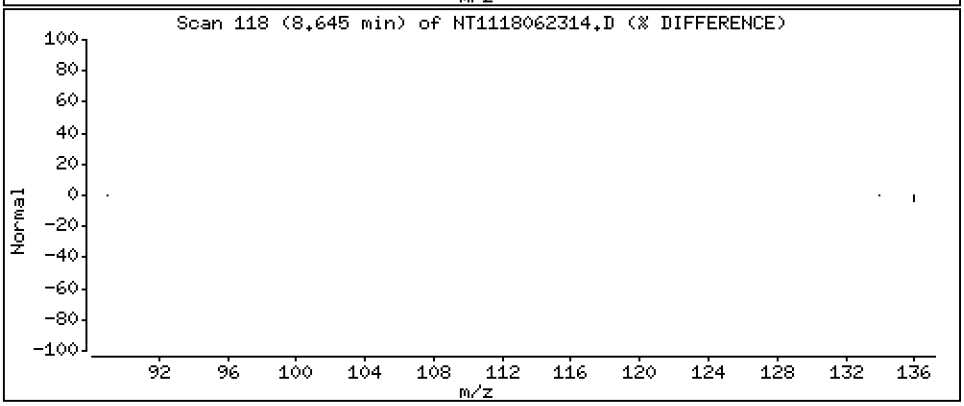
Concentration: 0.813 ng/mL











Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062314.D

Date : 23-JUN-2018 18:50

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BLK1

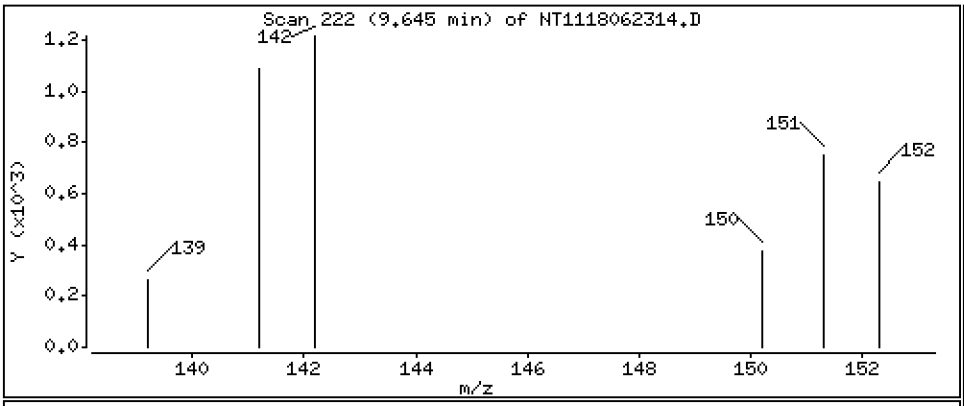
Operator: VTS

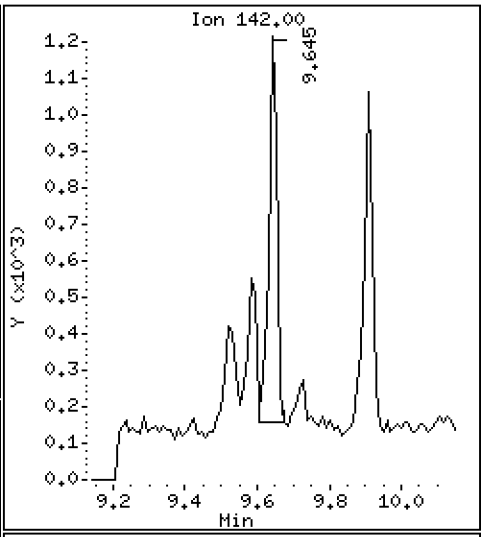
Column phase: Rxi-17Sil MS

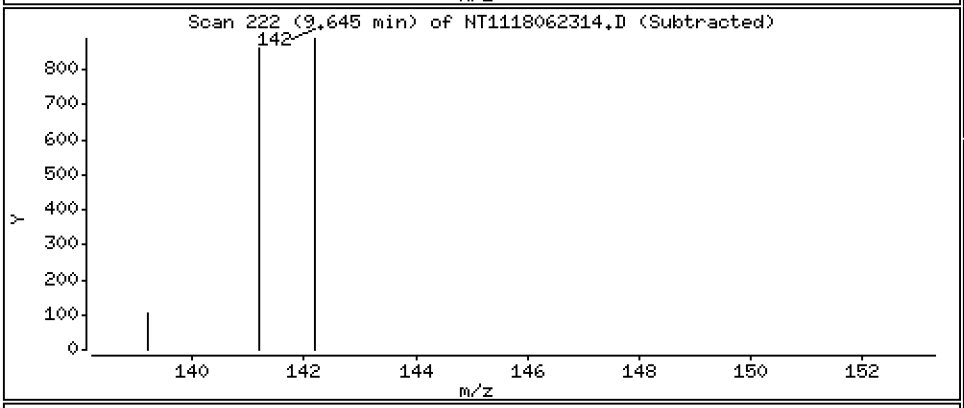
Column diameter: 0.25

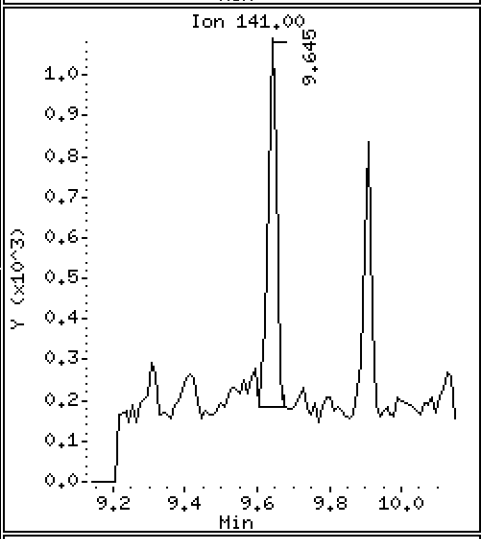
5 2-Methylnaphthalene

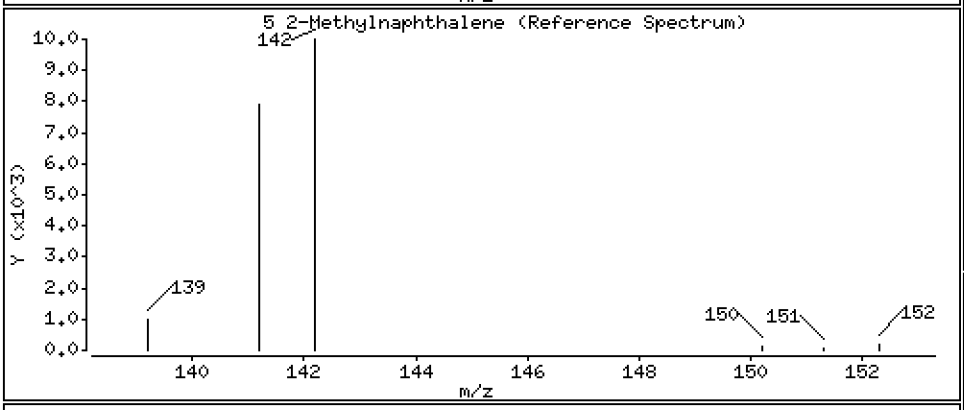
Concentration: 0.601 ng/mL

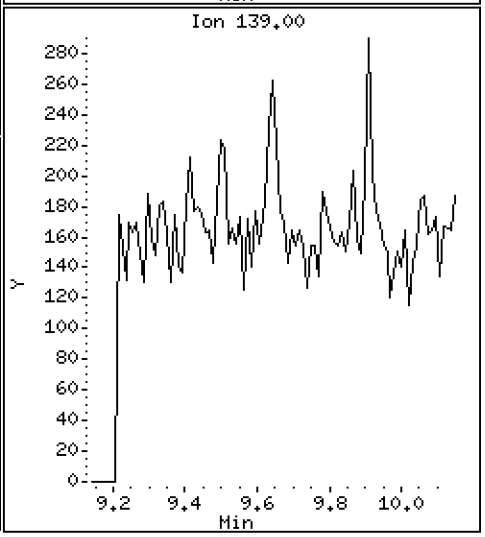


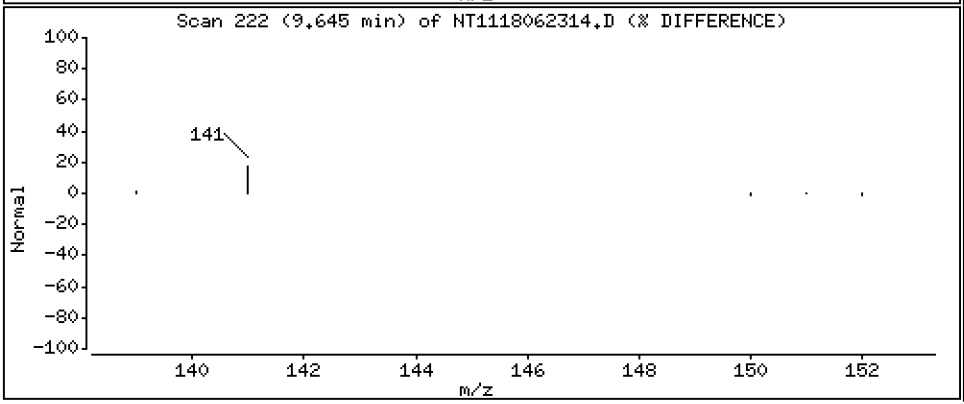












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062314.D

Date : 23-JUN-2018 18:50

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BLK1

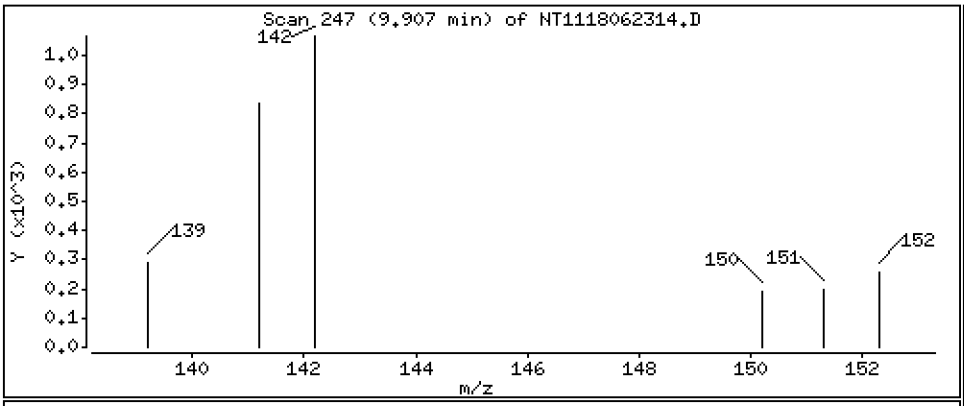
Operator: VTS

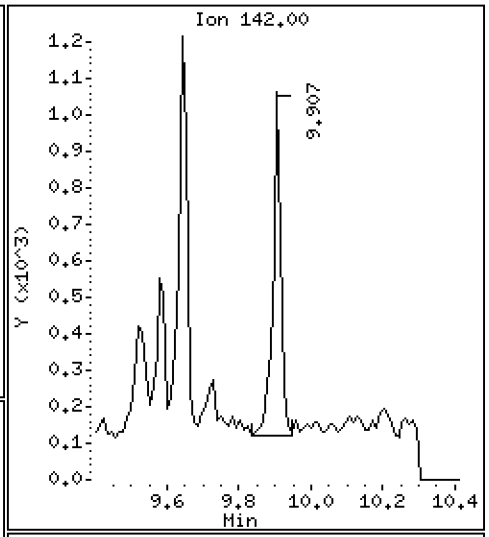
Column phase: Rxi-17Sil MS

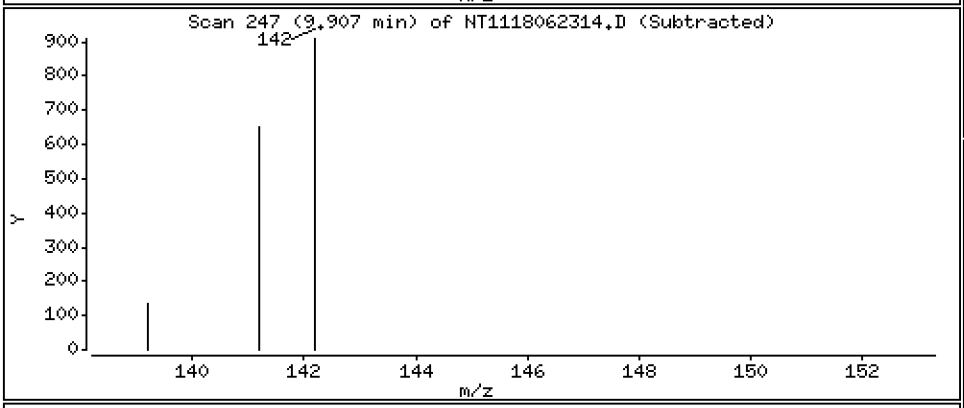
Column diameter: 0.25

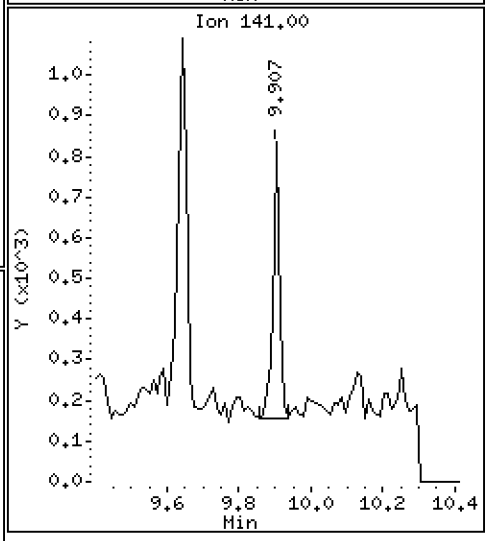
6 1-Methylnaphthalene

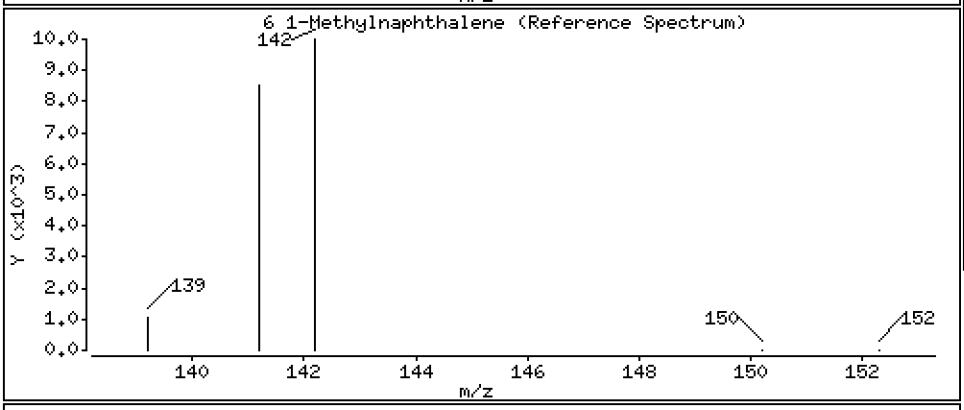
Concentration: 0.590 ng/mL

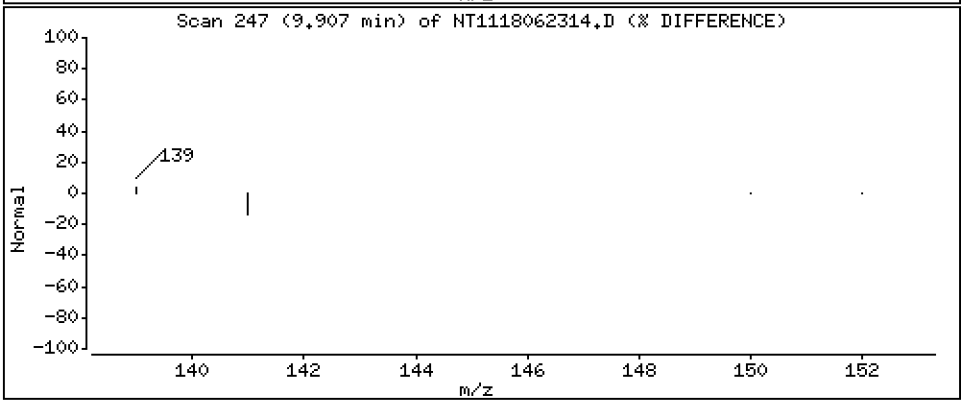












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062314.D

Date : 23-JUN-2018 18:50

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BLK1

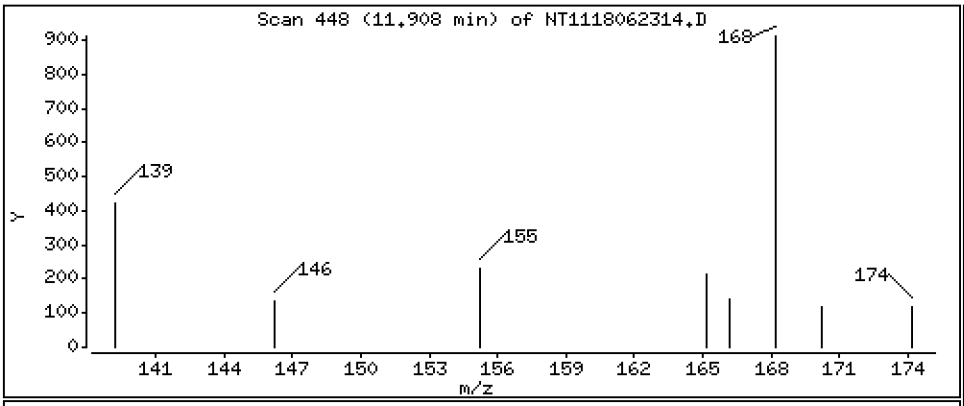
Operator: VTS

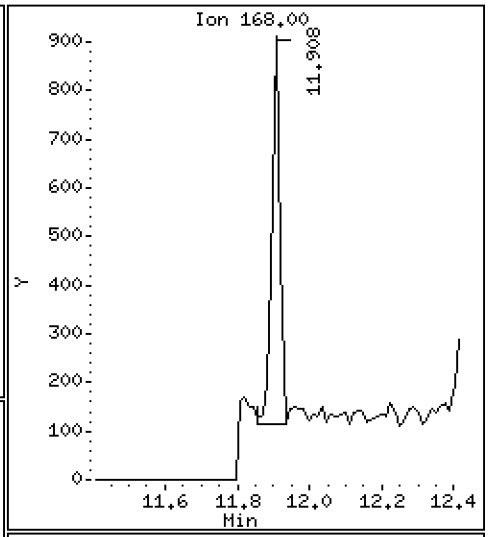
Column phase: Rxi-17Sil MS

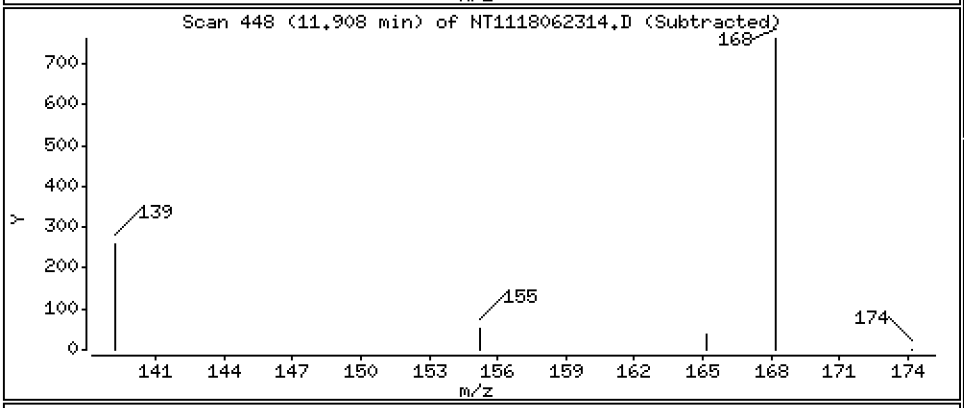
Column diameter: 0.25

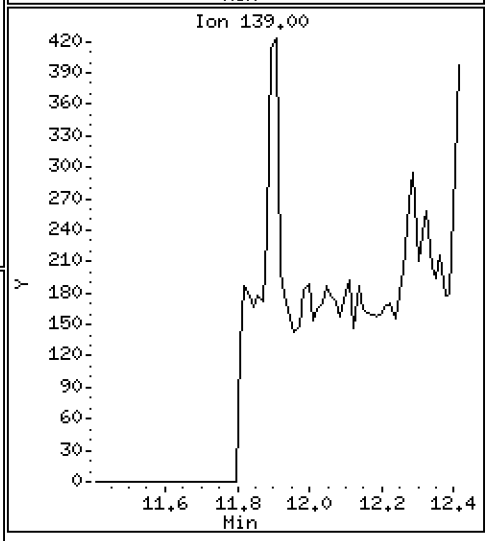
13 Dibenzofuran

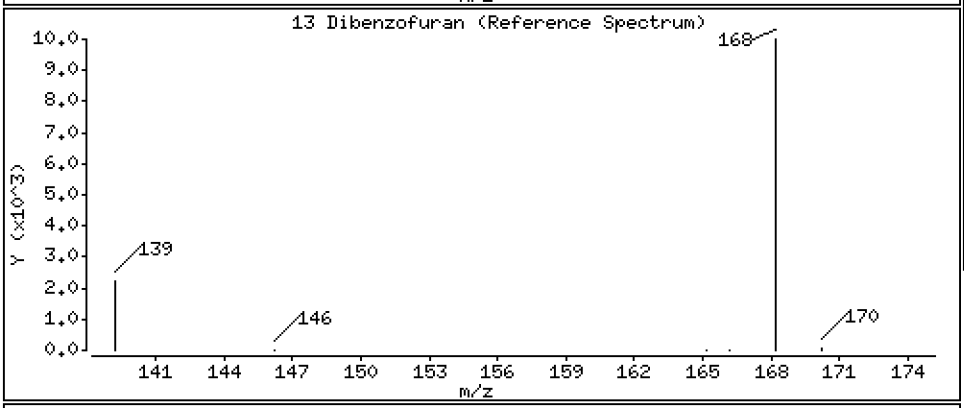
Concentration: 0.414 ng/mL

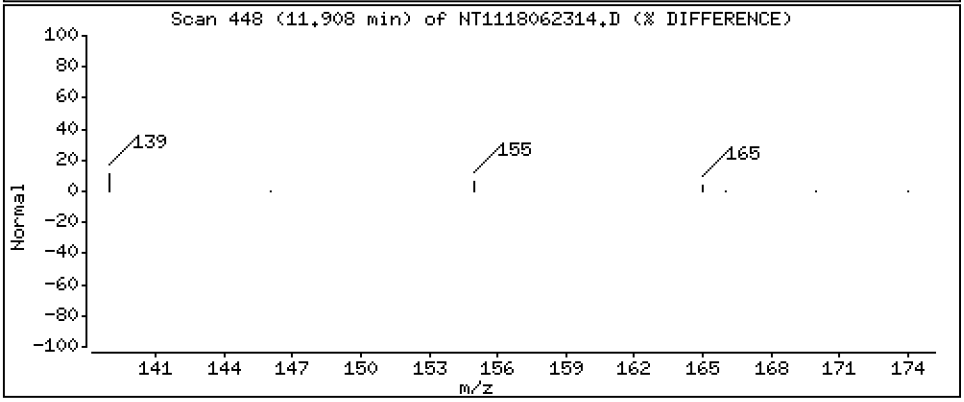












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062314.D

Date : 23-JUN-2018 18:50

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BLK1

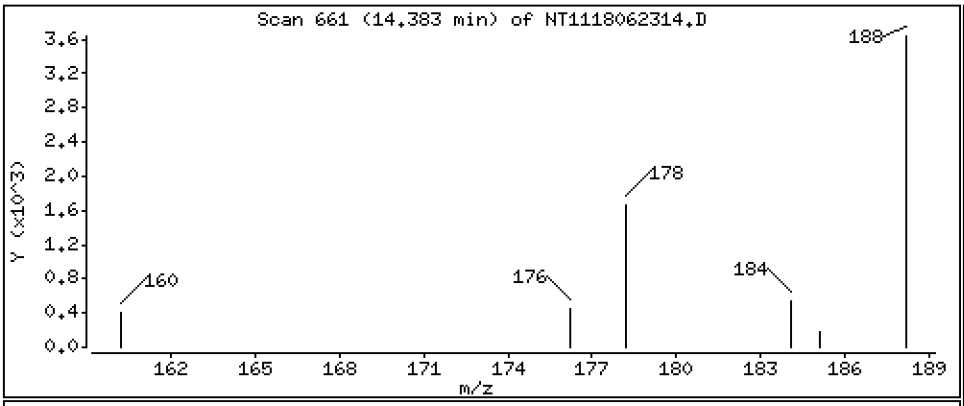
Operator: VTS

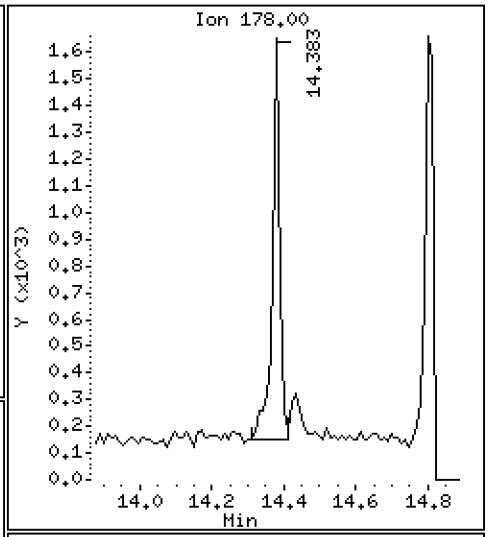
Column phase: Rxi-17Sil MS

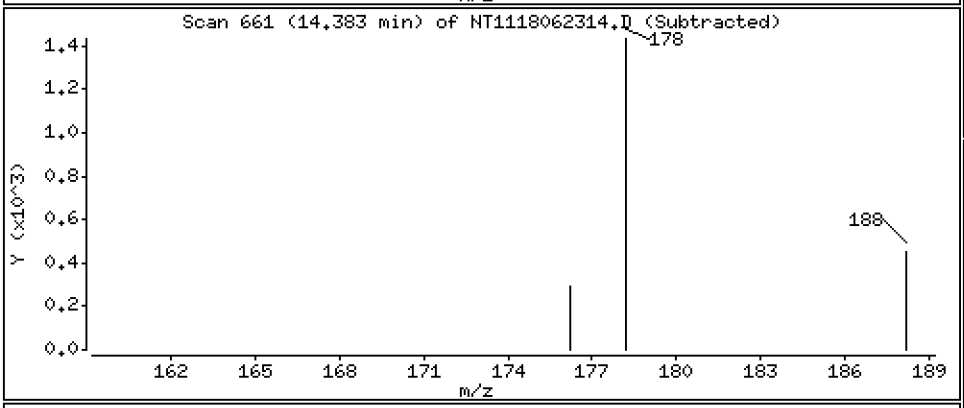
Column diameter: 0.25

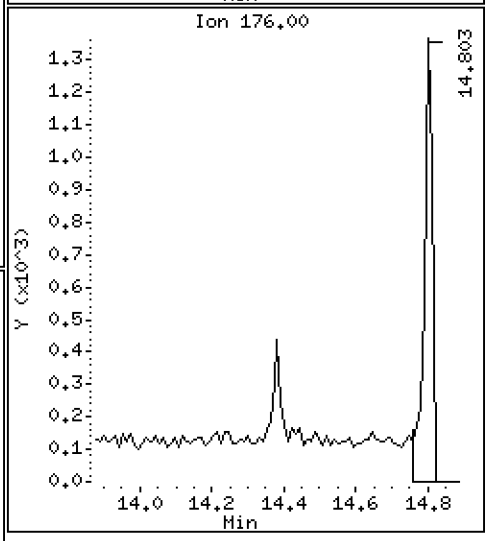
19 Phenanthrene

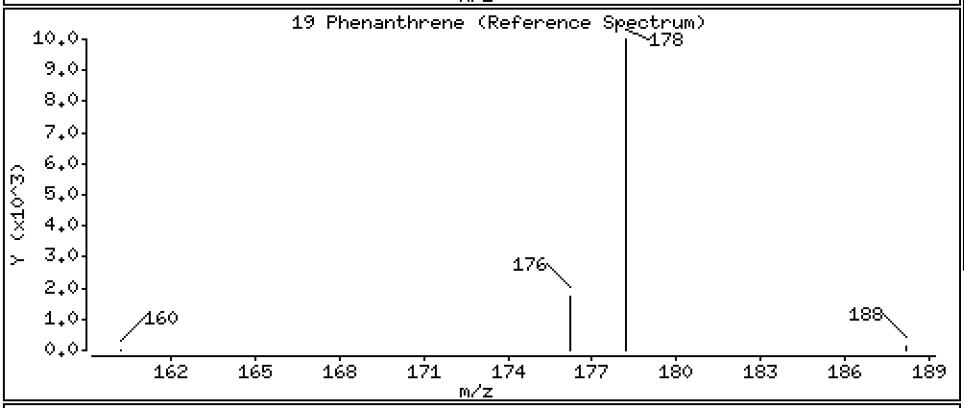
Concentration: 0.707 ng/mL

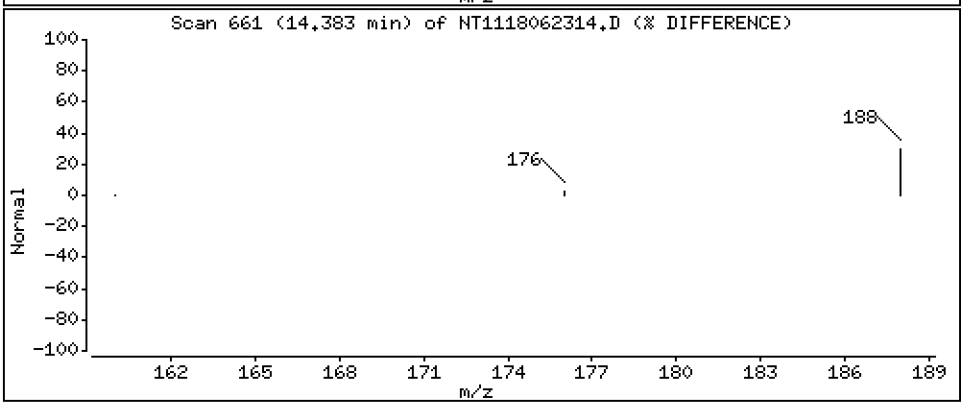












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180623.b\NT1118062314.D
Lab Smp Id: BGF0455-BLK1
Inj Date : 23-JUN-2018 18:50 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : BGF0455-BLK1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180623.b\LOWSIM.m
Meth Date : 23-Jun-2018 13:20 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	456808	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	2800	0.81313	0.813
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	510379	195.819	196
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	1672	0.60087	0.601
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	1634	0.59044	0.590
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	259788	200.000	
	12 Acenaphthene	153	Compound Not Detected.					
	13 Dibenzofuran	168	11.908	11.908	(1.023)	1197	0.41358	0.414
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	Compound Not Detected.					
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	455065	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	2523	0.70691	0.707
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	Compound Not Detected.					
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	Compound Not Detected.					
$	24 Fluoranthene-d10	212	16.449	16.449	(1.147)	594942	215.383	215
	25 Fluoranthene	202	Compound Not Detected.					
	26 Pyrene	202	Compound Not Detected.					
	27 Benzo(a)anthracene	228	Compound Not Detected.					
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	343022	200.000	
	29 Chrysene	228	Compound Not Detected.					
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
35	Benzo(a)pyrene	252	Compound Not Detected.					
* 36	Perylene-d12	264	22.353	22.353	(1.000)	321640	200.000	
37	Perylene	252	Compound Not Detected.					
$ 38	Dibenzo(a,h)anthracene-d14	292	25.268	25.268	(1.130)	318781	207.113	207
39	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
40	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
41	Benzo(g,h,i)perylene	276	Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118062314.D
Lab Smp Id: BGF0455-BLK1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180623.b\LOWSIM.m
Misc Info:

Calibration Date: 23-JUN-2018
Calibration Time: 10:32
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	456808	5.91
11 Acenaphthene-d10	260137	130069	520274	259788	-0.13
18 Phenanthrene-d10	427391	213696	854782	455065	6.48
28 Chrysene-d12	304596	152298	609192	343022	12.62
36 Perylene-d12	263091	131546	526182	321640	22.25

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118062314.D

Lab ID: BGF0455-BLK1
nt11.i, 20180623.b\LOWSIM.m,   23-JUN-2018 18:50

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180623.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Form I

METHOD BLANK DATA SHEET

EPA 8270D-SIM

Blank

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC			Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Laboratory ID:	BGF0530-BLK1	File ID:	NT1118070603.D
Sampled:	N/A	Prepared:	06/21/18 13:35	Analyzed:	07/06/18 13:29
Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	500 mL / 0.5 mL
Batch:	BGF0530	Sequence:	SGG0067	Calibration:	BE00021
Instrument:	NT11	Column:	RXi-17Sil-MS	Cleanups:	Silica Gel

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
91-20-3	Naphthalene	1	0.010	U	0.001	0.010
91-57-6	2-Methylnaphthalene	1	0.010	U	0.001	0.010
208-96-8	Acenaphthylene	1	0.010	U	0.002	0.010
83-32-9	Acenaphthene	1	0.010	U	0.003	0.010
86-73-7	Fluorene	1	0.010	U	0.002	0.010
85-01-8	Phenanthrene	1	0.010	U	0.001	0.010
120-12-7	Anthracene	1	0.010	U	0.001	0.010
206-44-0	Fluoranthene	1	0.010	U	0.002	0.010
129-00-0	Pyrene	1	0.010	U	0.001	0.010
56-55-3	Benzo(a)anthracene	1	0.010	U	0.0008	0.010
218-01-9	Chrysene	1	0.010	U	0.0009	0.010
205-99-2	Benzo(b)fluoranthene	1	0.010	U	0.0005	0.010
207-08-9	Benzo(k)fluoranthene	1	0.010	U	0.003	0.010
205-82-3	Benzo(j)fluoranthene	1	0.010	U	0.002	0.010
50-32-8	Benzo(a)pyrene	1	0.010	U	0.002	0.010
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.010	U	0.001	0.010
53-70-3	Dibenzo(a,h)anthracene	1	0.010	U	0.001	0.010
191-24-2	Benzo(g,h,i)perylene	1	0.010	U	0.001	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	0.30000	0.163	54.4	42 - 120	
Dibenzo[a,h]anthracene-d14	0.30000	0.166	55.4	29 - 120	
Fluoranthene-d10	0.30000	0.191	63.7	57 - 120	

Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070603.D

Date : 06-JUL-2018 13:29

Client ID:

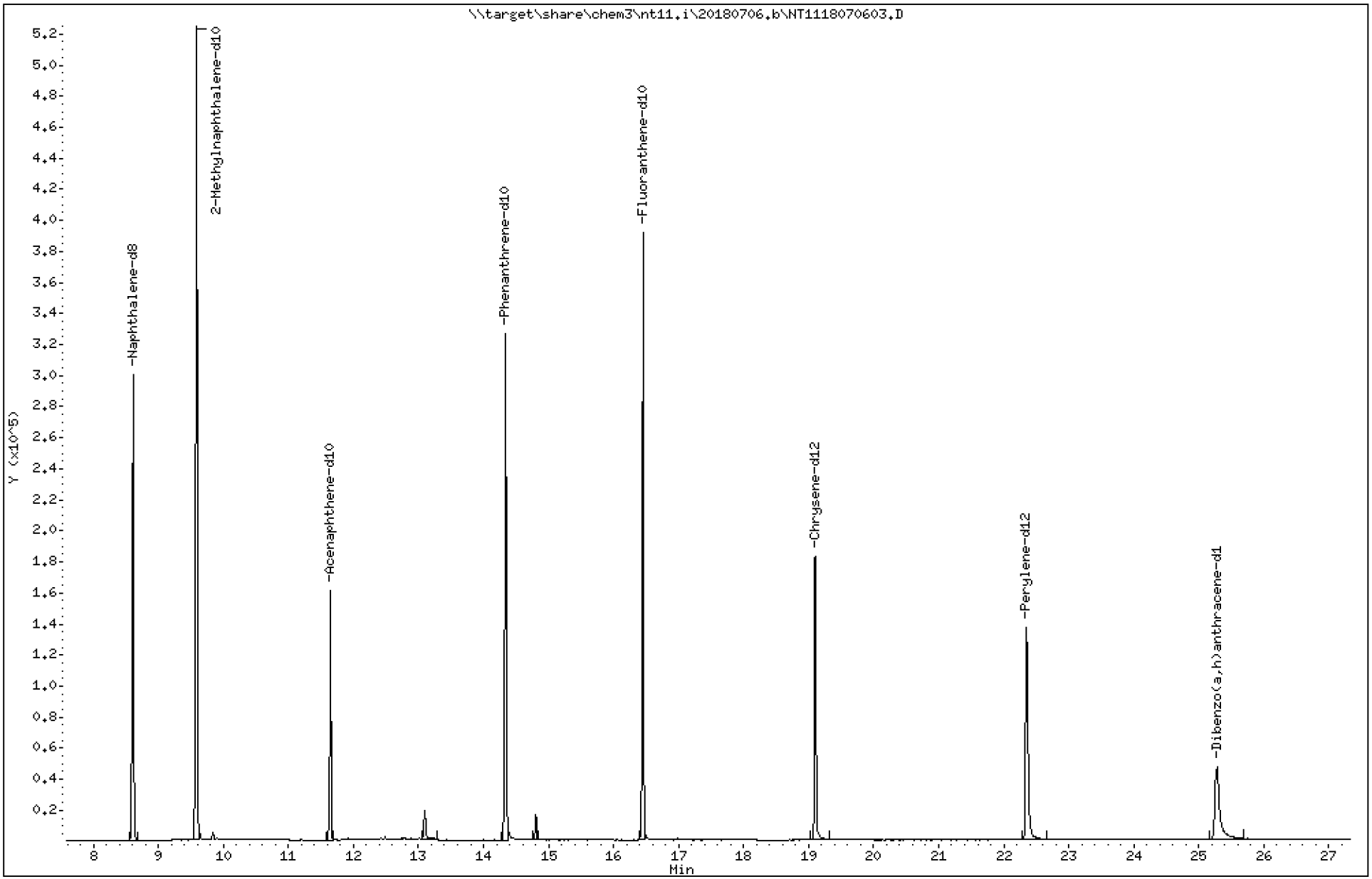
Instrument: nt11.i

Sample Info: BGF0530-BLK1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 1916 of 6523

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Date : 06-JUL-2018 13:29

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BLK1

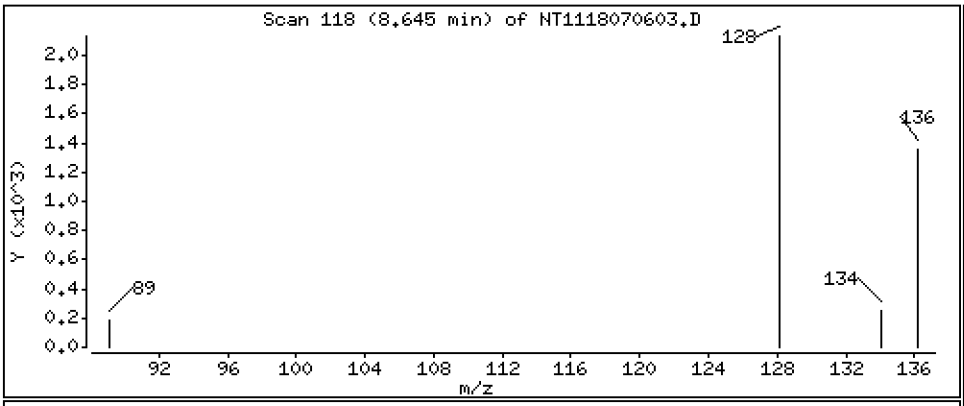
Operator: VTS

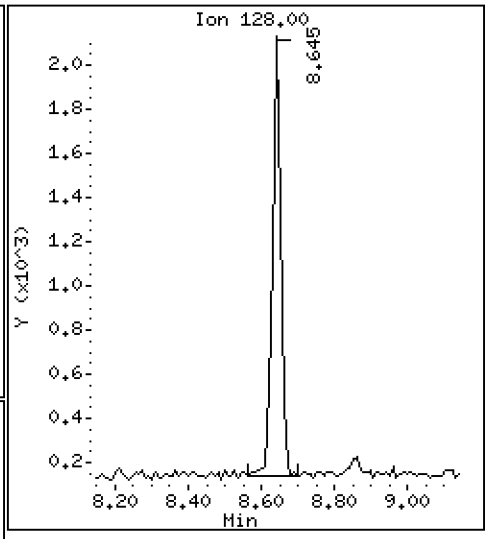
Column phase: Rxi-17Sil MS

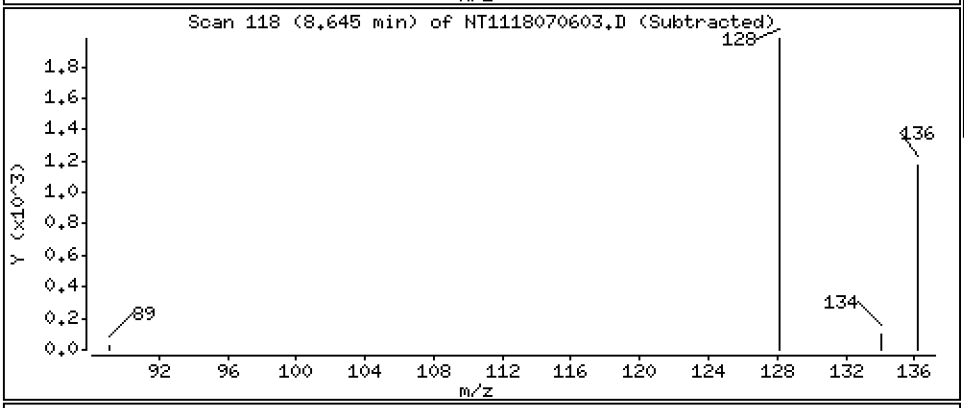
Column diameter: 0.25

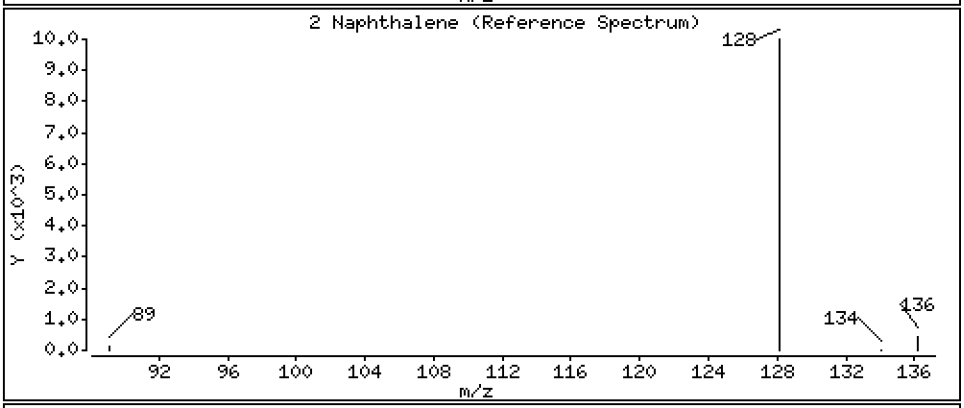
2 Naphthalene

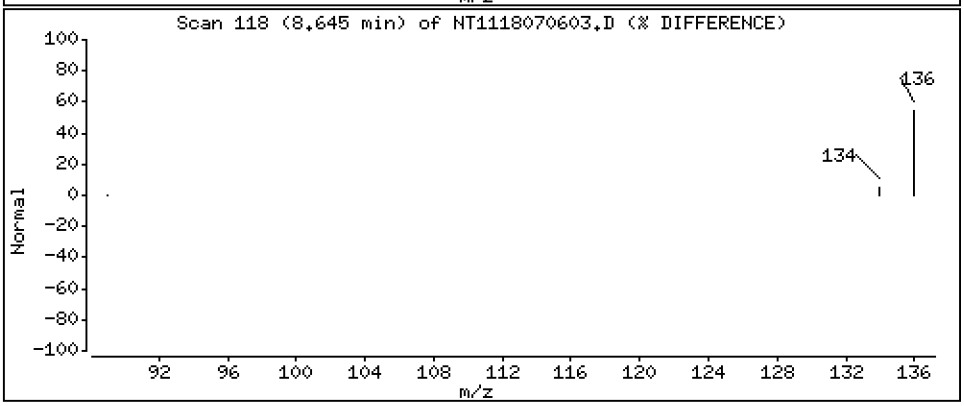
Concentration: 0.967 ng/mL











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Date : 06-JUL-2018 13:29

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BLK1

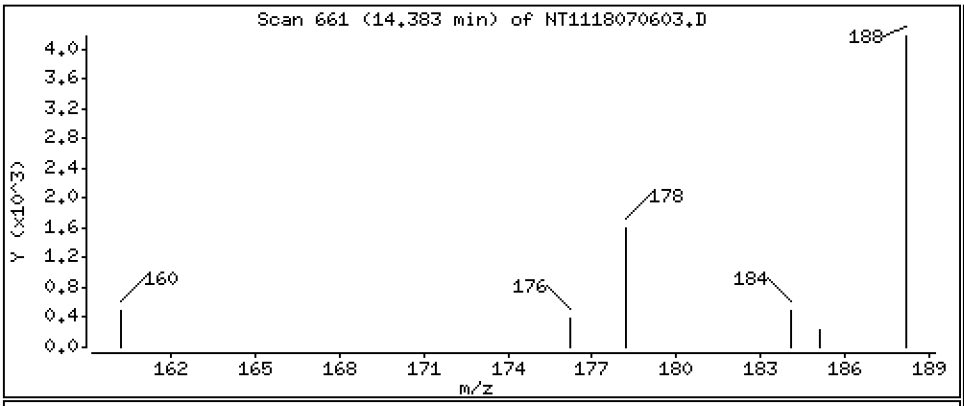
Operator: VTS

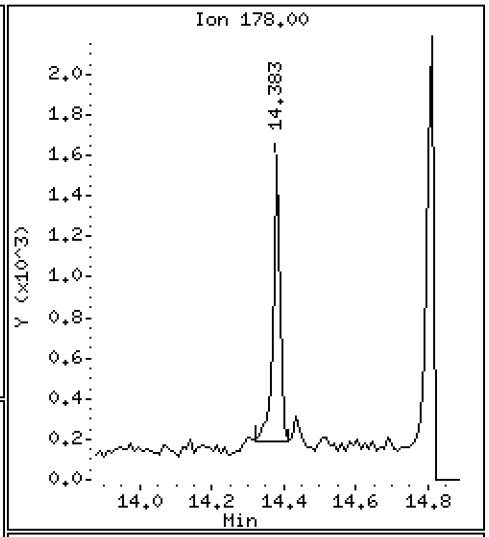
Column phase: Rxi-17Sil MS

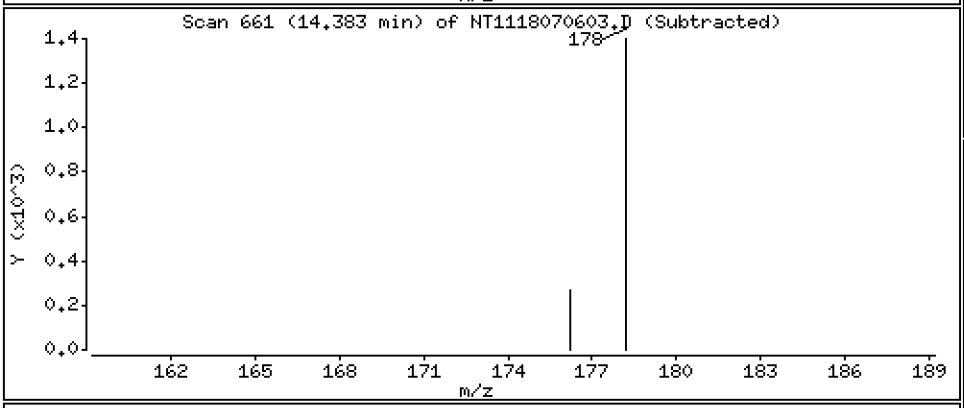
Column diameter: 0.25

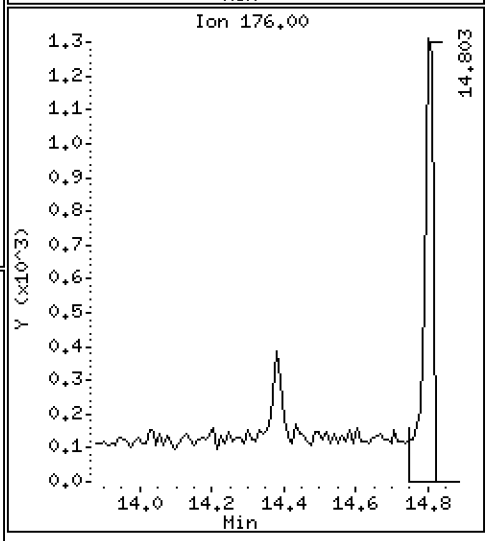
19 Phenanthrene

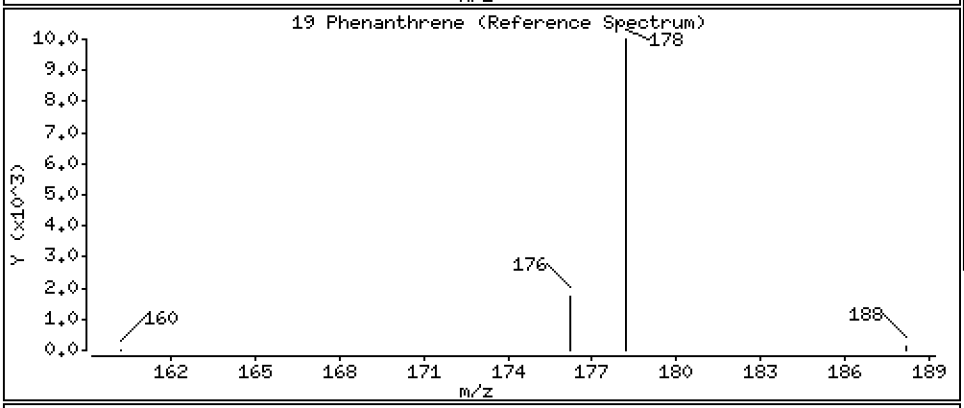
Concentration: 0.679 ng/mL

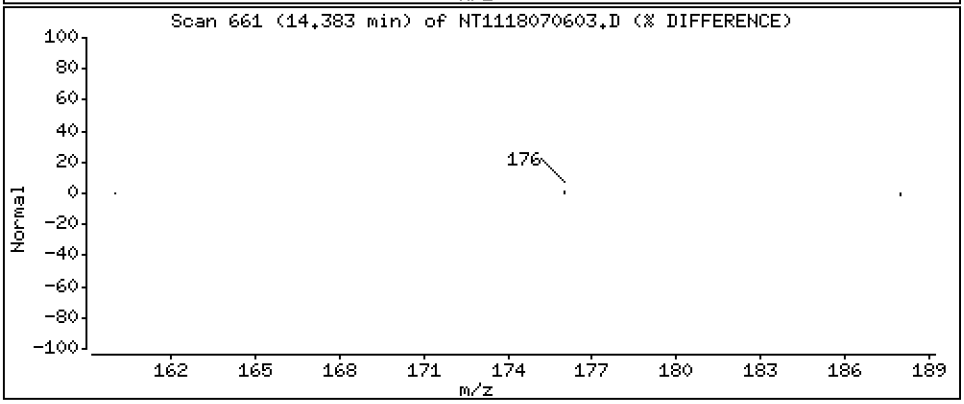












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180706.b\NT1118070603.D
Lab Smp Id: BGF0530-BLK1
Inj Date : 06-JUL-2018 13:29 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : BGF0530-BLK1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Meth Date : 06-Jul-2018 13:13 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1	Naphthalene-d8	136	8.608	8.608	(1.000)	445789	200.000	
	2	Naphthalene	128	8.644	8.644	(1.004)	3250	0.96725	0.967
	3	Benzo(b)thiophene	134	Compound Not Detected.					
$	4	2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	415227	163.250	163
	5	2-Methylnaphthalene	142	Compound Not Detected.					
	6	1-Methylnaphthalene	142	Compound Not Detected.					
	7	2-Chloronaphthalene	162	Compound Not Detected.					
	8	Biphenyl	154	Compound Not Detected.					
	9	2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10	Acenaphthylene	152	Compound Not Detected.					
*	11	Acenaphthene-d10	164	11.644	11.644	(1.000)	238290	200.000	
	12	Acenaphthene	153	Compound Not Detected.					
	13	Dibenzofuran	168	Compound Not Detected.					
	14	2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15	Fluorene-d10	174	Compound Not Detected.					
	16	Fluorene	166	Compound Not Detected.					
	17	Dibenzothiophene	184	Compound Not Detected.					
*	18	Phenanthrene-d10	188	14.340	14.340	(1.000)	408592	200.000	
	19	Phenanthrene	178	14.382	14.382	(1.003)	2176	0.67903	0.679
$	20	Anthracene-d10	188	Compound Not Detected.					
	21	Anthracene	178	Compound Not Detected.					
	22	Carbazole	167	Compound Not Detected.					
	23	1-Methylphenanthrene	192	Compound Not Detected.					
$	24	Fluoranthene-d10	212	16.449	16.449	(1.147)	473956	191.099	191
	25	Fluoranthene	202	Compound Not Detected.					
	26	Pyrene	202	Compound Not Detected.					
	27	Benzo(a)anthracene	228	Compound Not Detected.					
*	28	Chrysene-d12	240	19.104	19.095	(1.000)	304324	200.000	
	29	Chrysene	228	Compound Not Detected.					
	30	Benzo(b)fluoranthene	252	Compound Not Detected.					
	31	Benzo(k)fluoranthene	252	Compound Not Detected.					
	32	Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33	Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34	Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
35	Benzo(a)pyrene	252	Compound Not Detected.					
* 36	Perylene-d12	264	22.353	22.353	(1.000)	300913	200.000	
37	Perylene	252	Compound Not Detected.					
$ 38	Dibenzo(a,h)anthracene-d14	292	25.279	25.279	(1.131)	239447	166.285	166
39	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
40	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
41	Benzo(g,h,i)perylene	276	Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118070603.D
Lab Smp Id: BGF0530-BLK1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Misc Info:

Calibration Date: 06-JUL-2018
Calibration Time: 12:50
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	445789	3.35
11 Acenaphthene-d10	260137	130069	520274	238290	-8.40
18 Phenanthrene-d10	427391	213696	854782	408592	-4.40
28 Chrysene-d12	304596	152298	609192	304324	-0.09
36 Perylene-d12	263091	131546	526182	300913	14.38

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	0.04
36 Perylene-d12	22.35	21.85	22.85	22.35	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118070603.D

Lab ID: BGF0530-BLK1
nt11.i, 20180706.b\LOWSIM.m,   06-JUL-2018 13:29

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180706.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

LCS / LCS DUPLICATE RECOVERY

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/23/18 11:47
Batch:	BGF0416	Laboratory ID:	BGF0416-BS1
Preparation:	EPA 3510C SepF	Sequence Name:	LCS
Initial/Final:	500 mL / 0.5 mL		

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	Q	LCS % REC. #	QC LIMITS REC.
Naphthalene	0.300	0.111		36.9	30 - 160
2-Methylnaphthalene	0.300	0.136		45.3	30 - 160
Acenaphthylene	0.300	0.141		46.9	30 - 160
Acenaphthene	0.300	0.137		45.7	30 - 160
Fluorene	0.300	0.139		46.4	30 - 160
Phenanthrene	0.300	0.153		51.0	30 - 160
Anthracene	0.300	0.142		47.3	30 - 160
Fluoranthene	0.300	0.166		55.4	30 - 160
Pyrene	0.300	0.170		56.7	30 - 160
Benzo(a)anthracene	0.300	0.169		56.3	30 - 160
Chrysene	0.300	0.176		58.6	30 - 160
Benzo(b)fluoranthene	0.300	0.163		54.4	30 - 160
Benzo(k)fluoranthene	0.300	0.164		54.8	30 - 160
Benzo(j)fluoranthene	0.300	0.174		58.1	30 - 160
Benzo(a)pyrene	0.300	0.154		51.4	30 - 160
Indeno(1,2,3-cd)pyrene	0.300	0.161		53.7	30 - 160
Dibenzo(a,h)anthracene	0.300	0.157		52.4	30 - 160
Benzo(g,h,i)perylene	0.300	0.159		52.9	30 - 160

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062304.D

Date : 23-JUN-2018 11:47

Client ID:

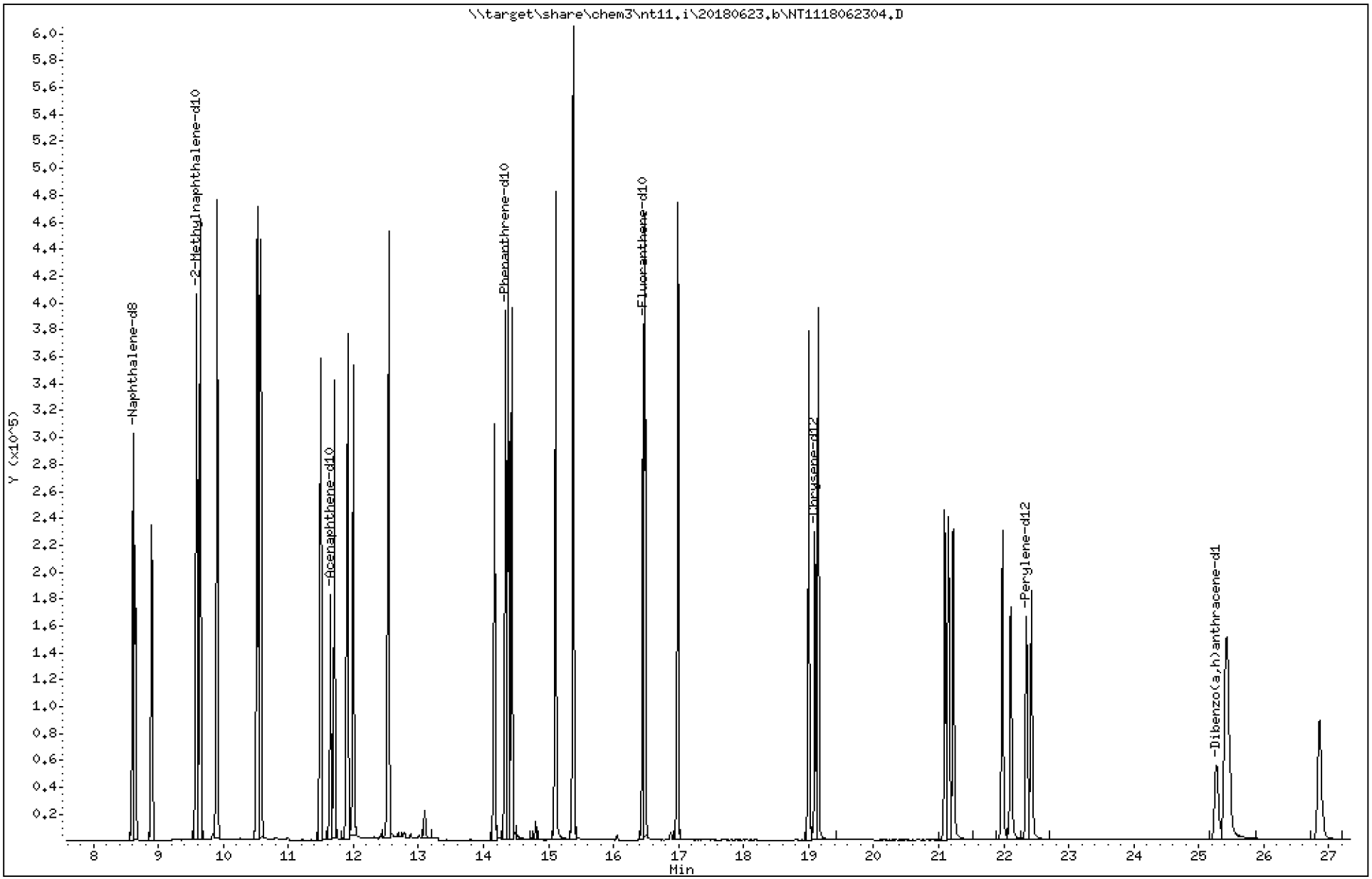
Instrument: nt11.i

Sample Info: BGF0416-BS1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 23-JUN-2018 11:47

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

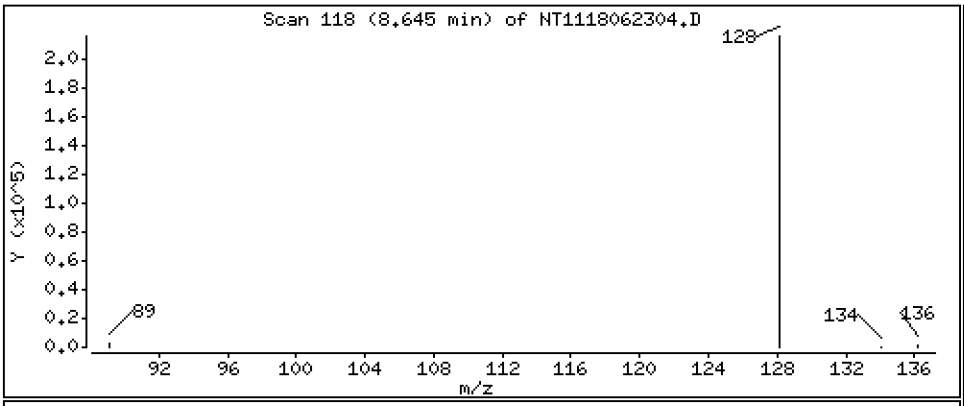
Operator: VTS

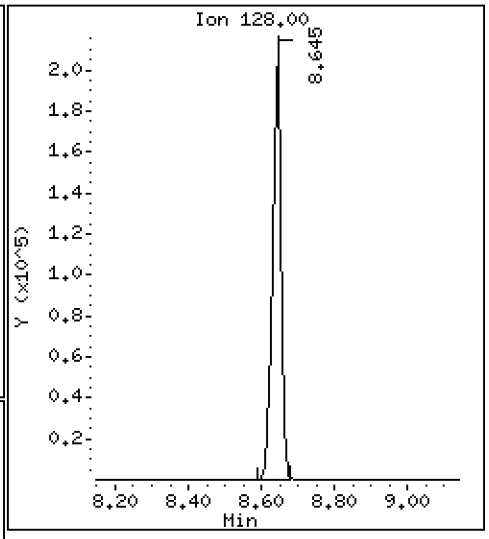
Column phase: Rxi-17Sil MS

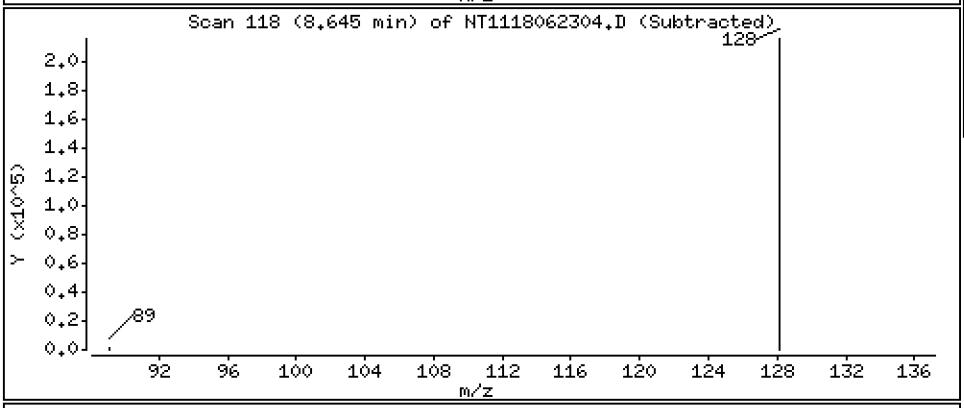
Column diameter: 0.25

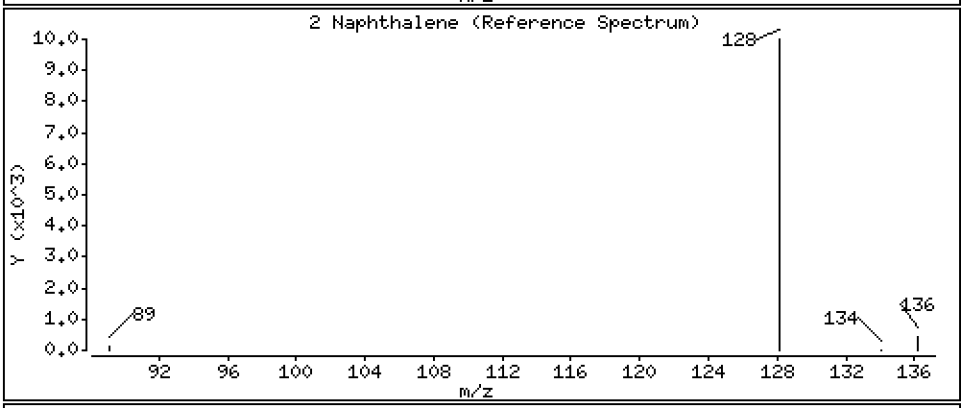
2 Naphthalene

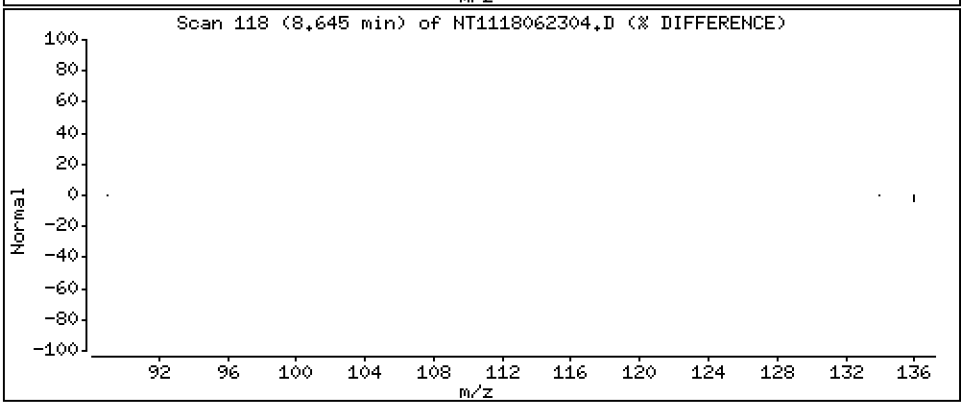
Concentration: 111 ng/mL











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Date : 23-JUN-2018 11:47

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

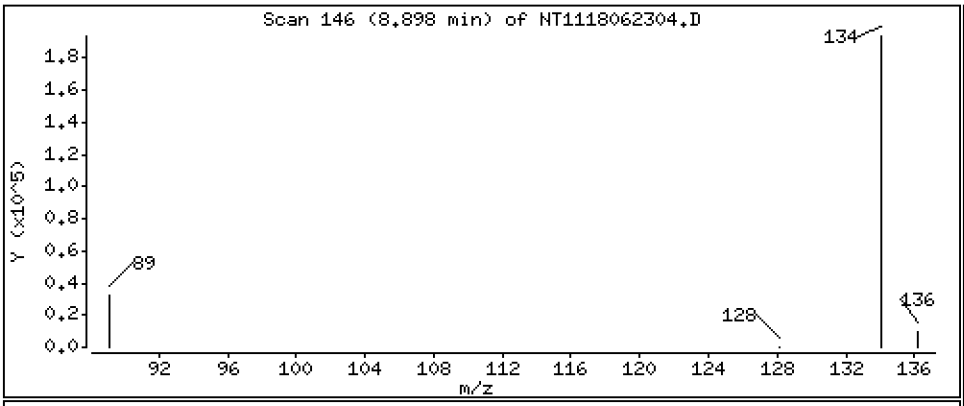
Operator: VTS

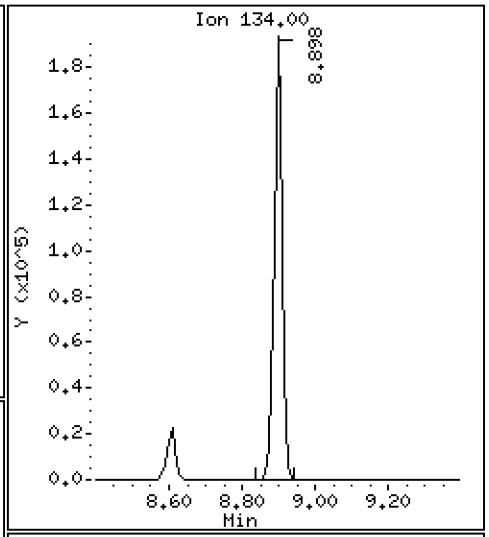
Column phase: Rxi-17Sil MS

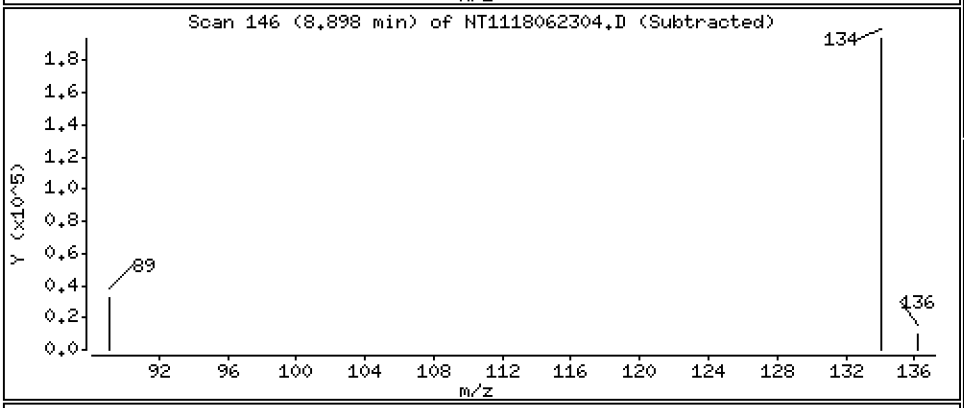
Column diameter: 0.25

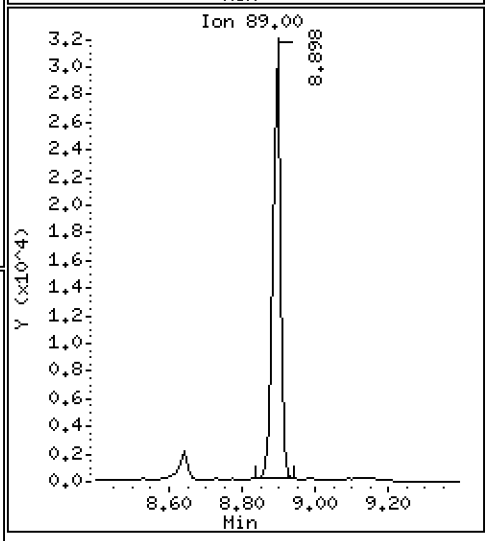
3 Benzo(b)thiophene

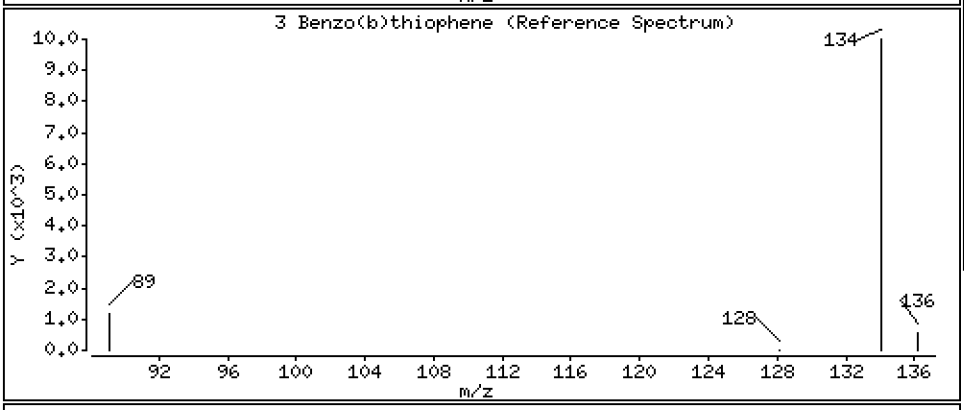
Concentration: 134 ng/mL

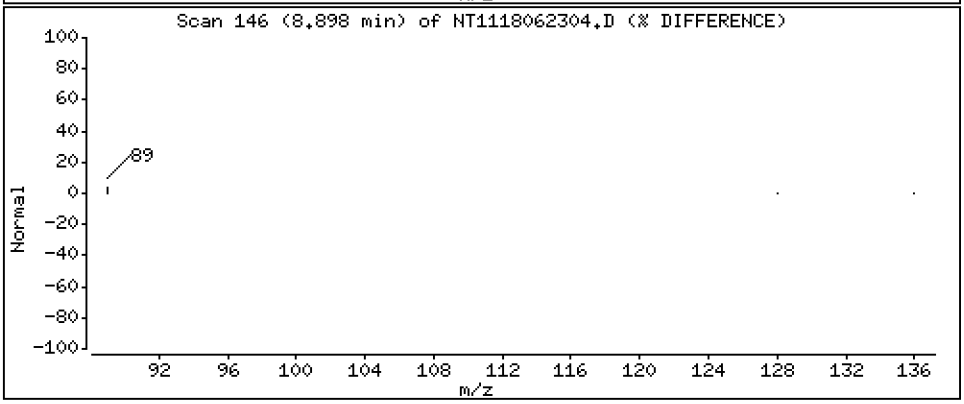












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Date : 23-JUN-2018 11:47

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

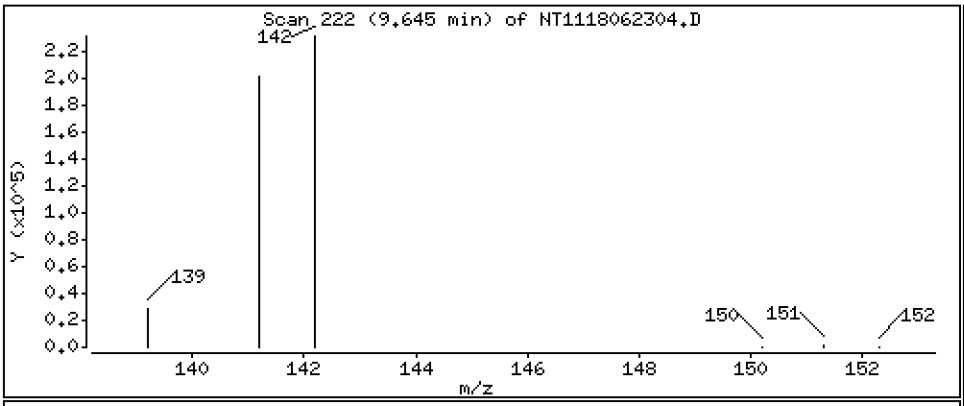
Operator: VTS

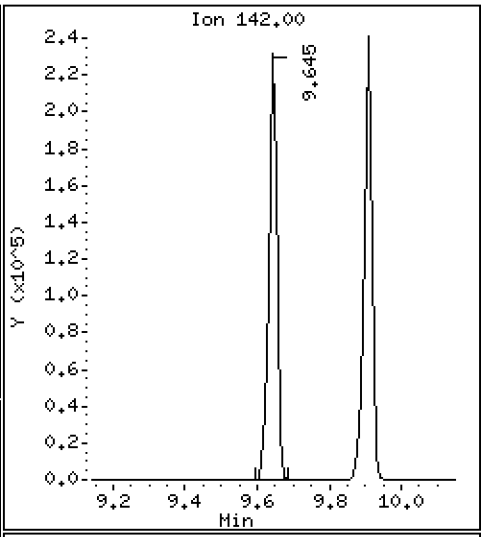
Column phase: Rxi-17Sil MS

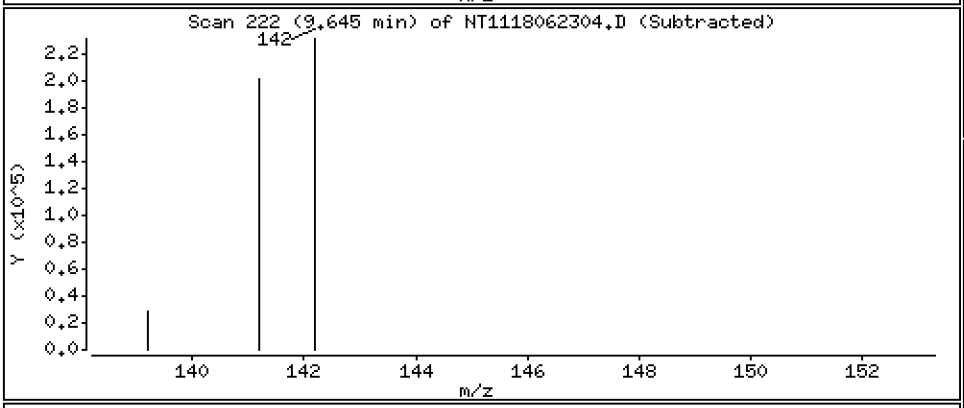
Column diameter: 0.25

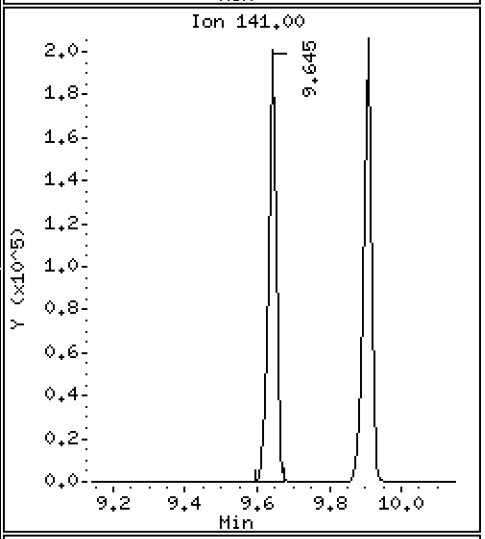
5 2-Methylnaphthalene

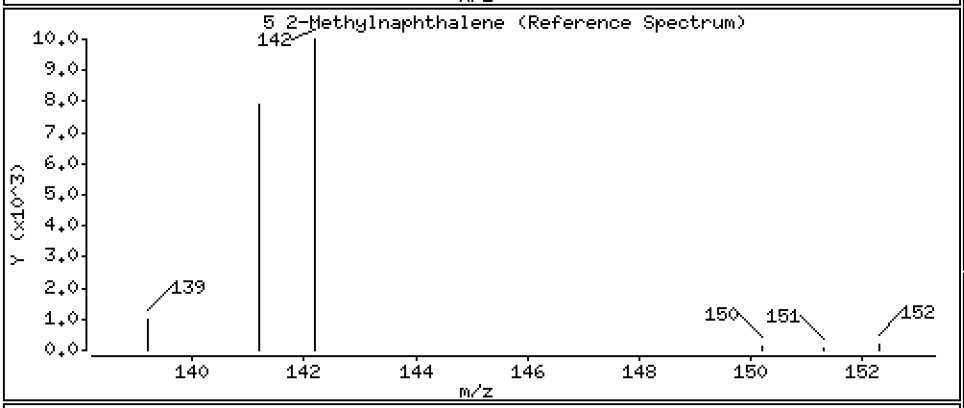
Concentration: 136 ng/mL

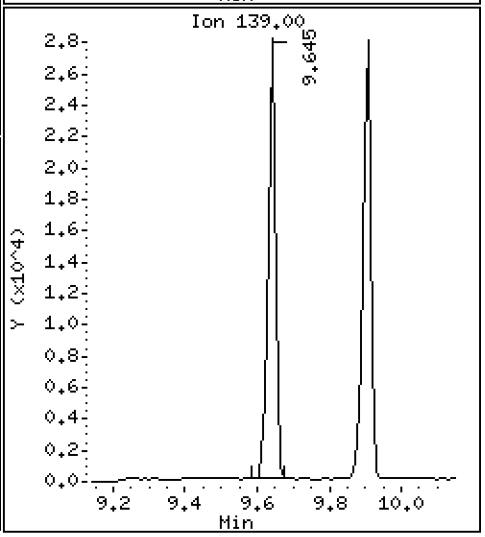


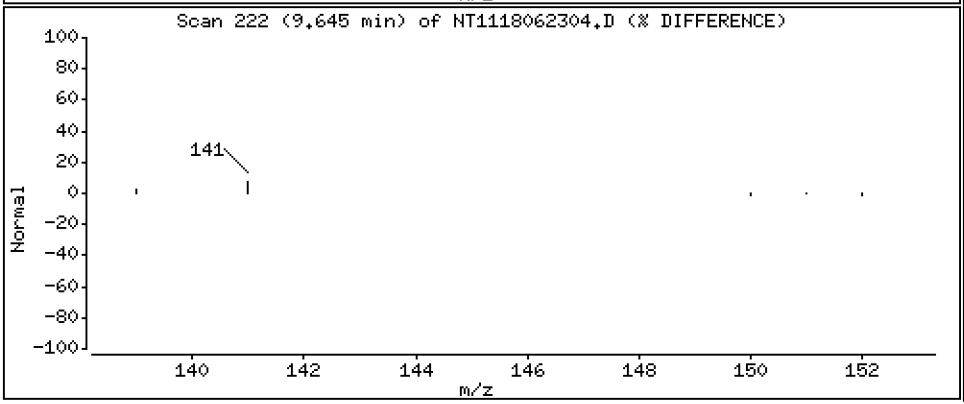












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Date : 23-JUN-2018 11:47

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

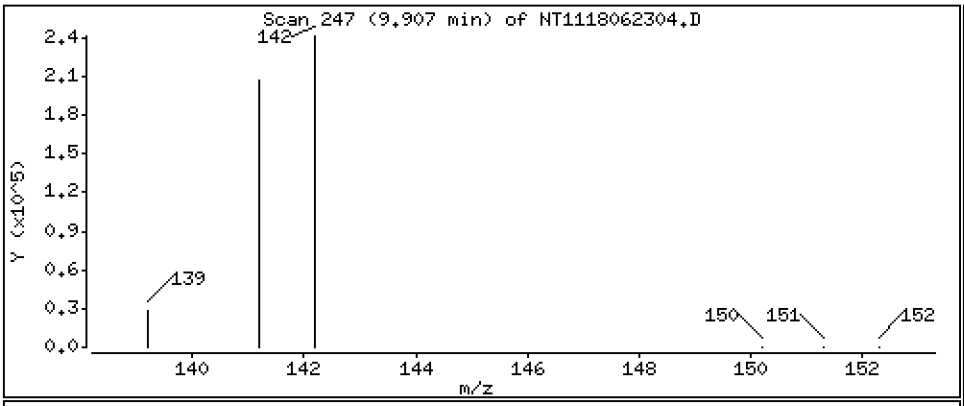
Operator: VTS

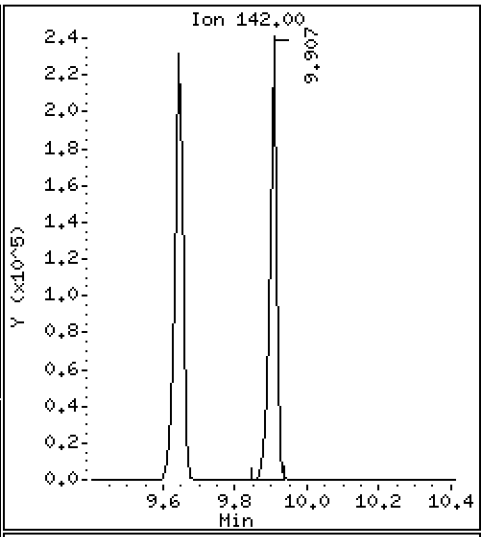
Column phase: Rxi-17Sil MS

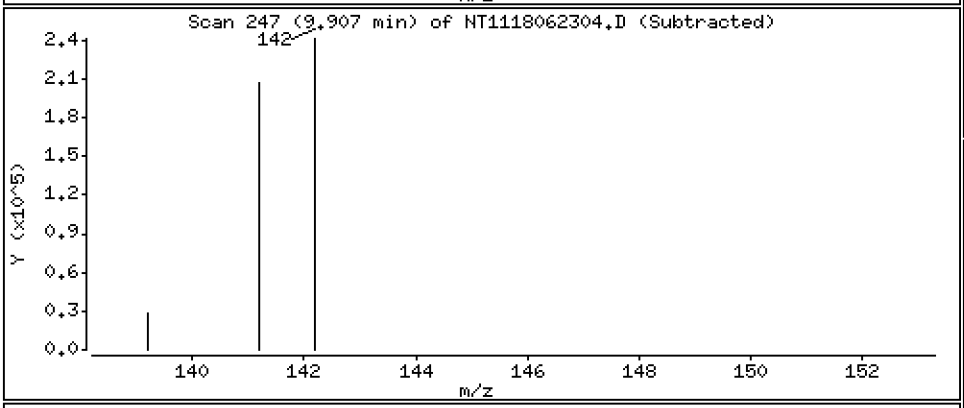
Column diameter: 0.25

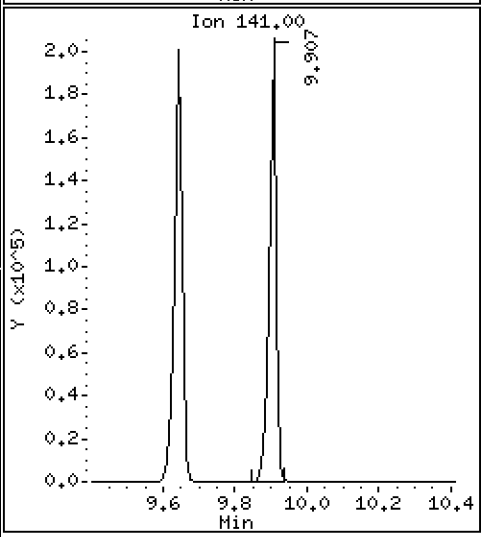
6 1-Methylnaphthalene

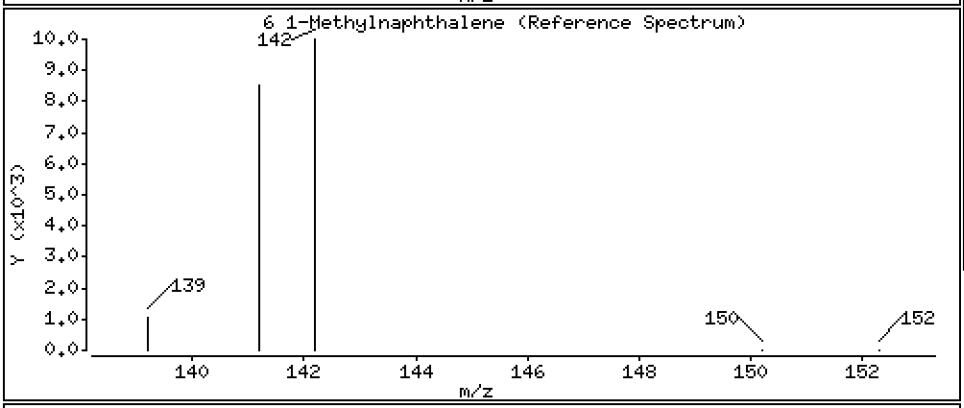
Concentration: 136 ng/mL

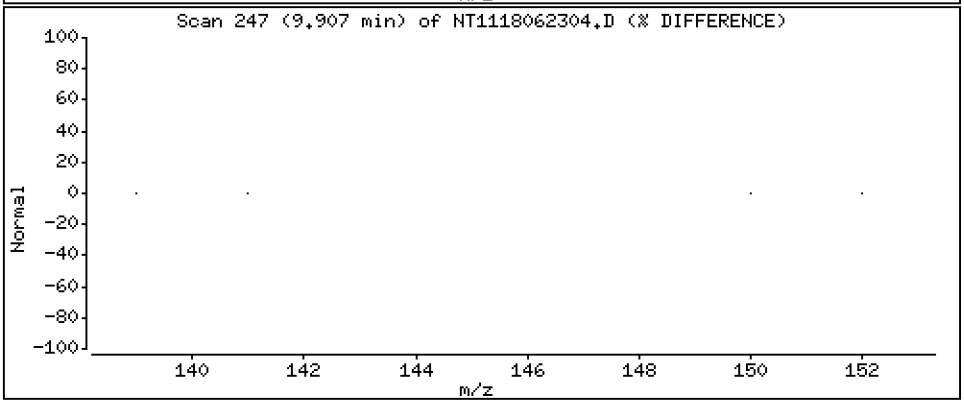












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Date : 23-JUN-2018 11:47

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

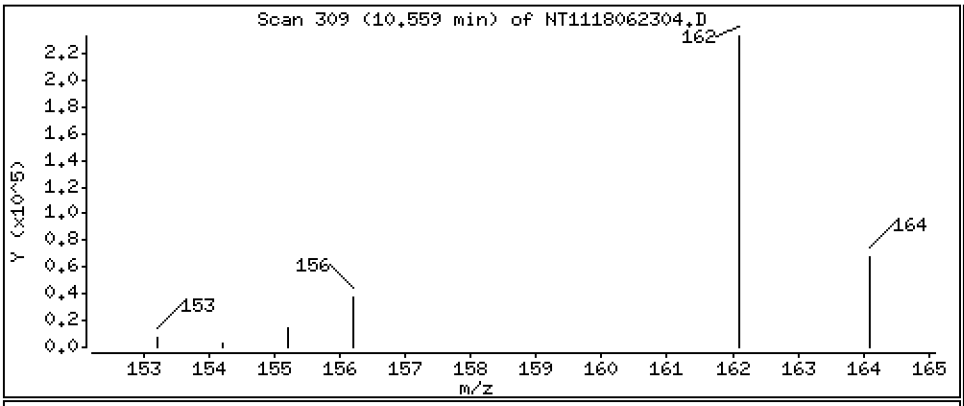
Operator: VTS

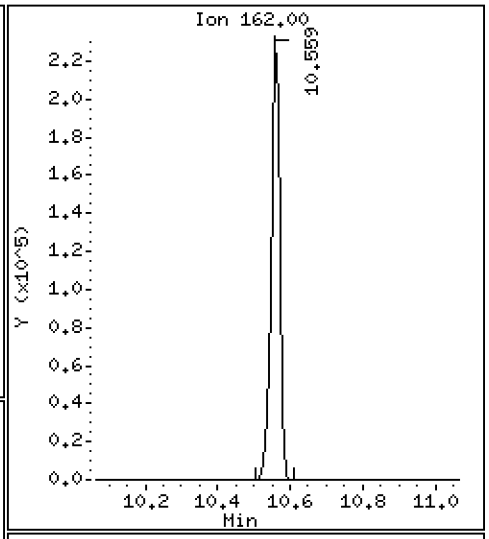
Column phase: Rxi-17Sil MS

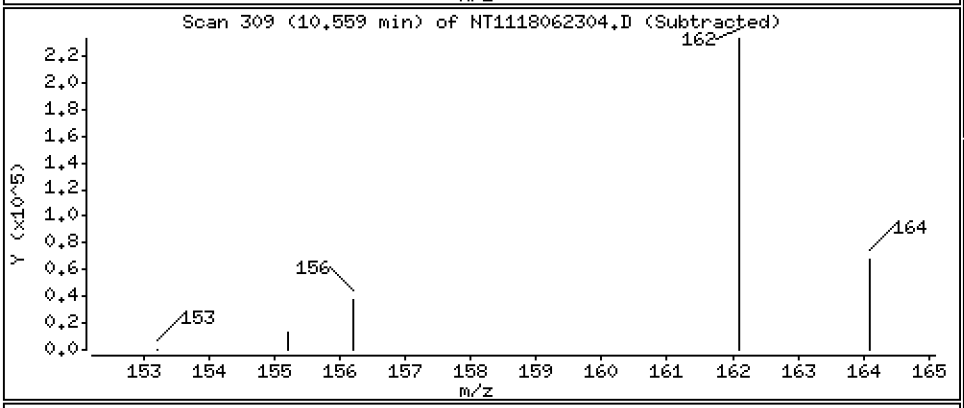
Column diameter: 0.25

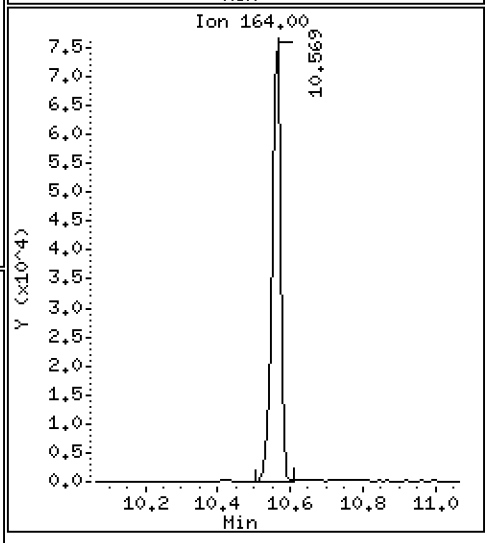
7 2-Chloronaphthalene

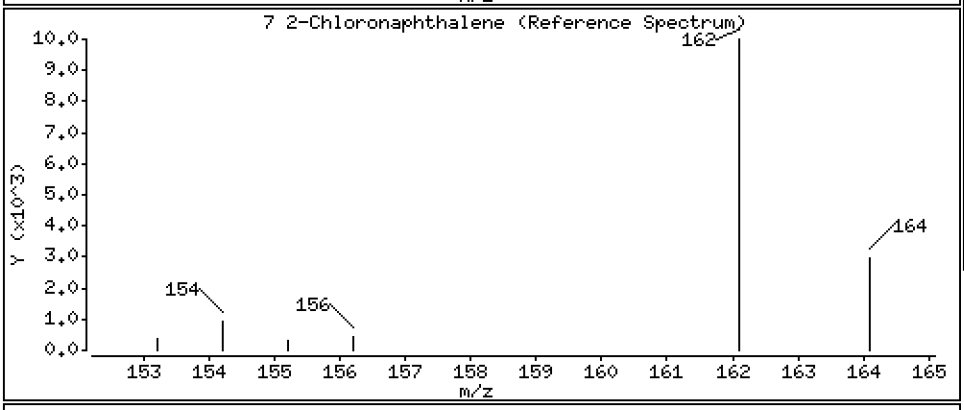
Concentration: 137 ng/mL

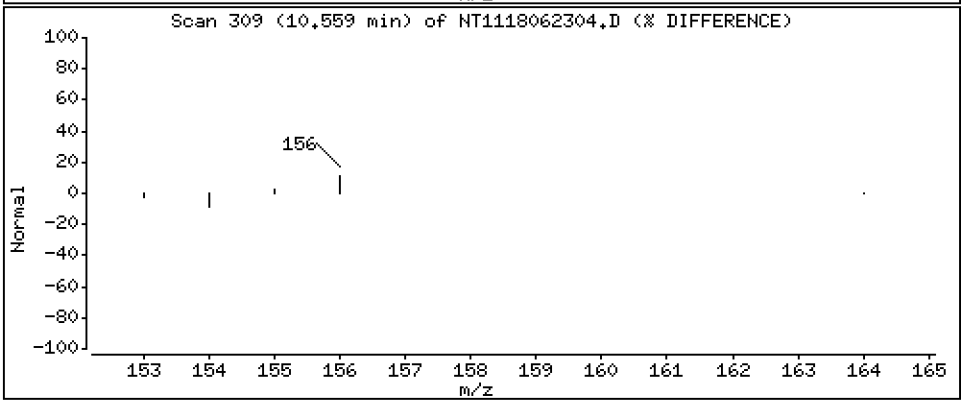












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Date : 23-JUN-2018 11:47

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

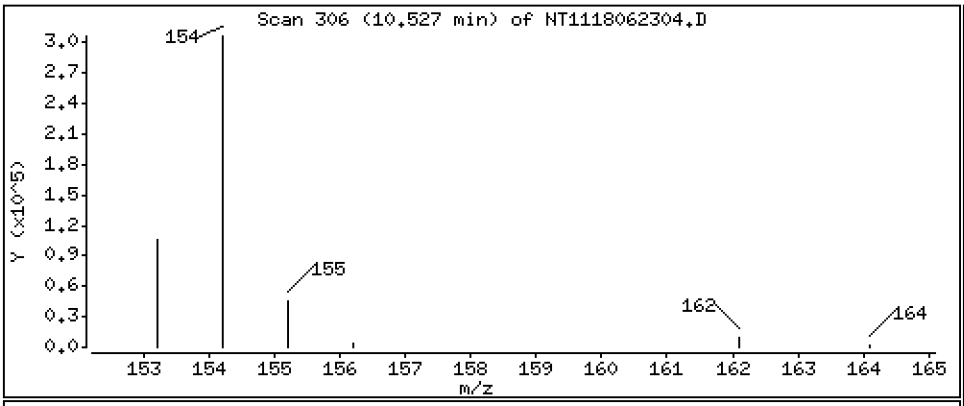
Operator: VTS

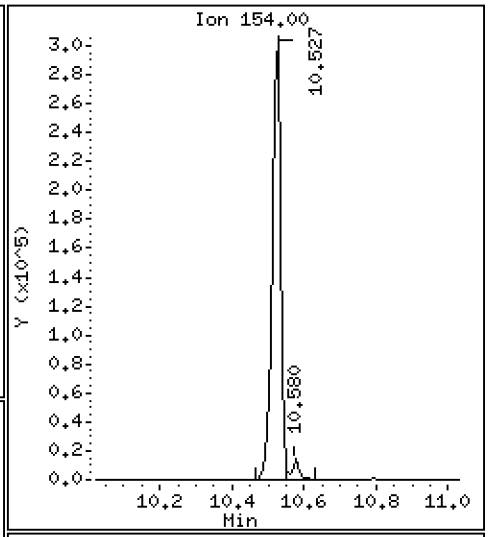
Column phase: Rxi-17Sil MS

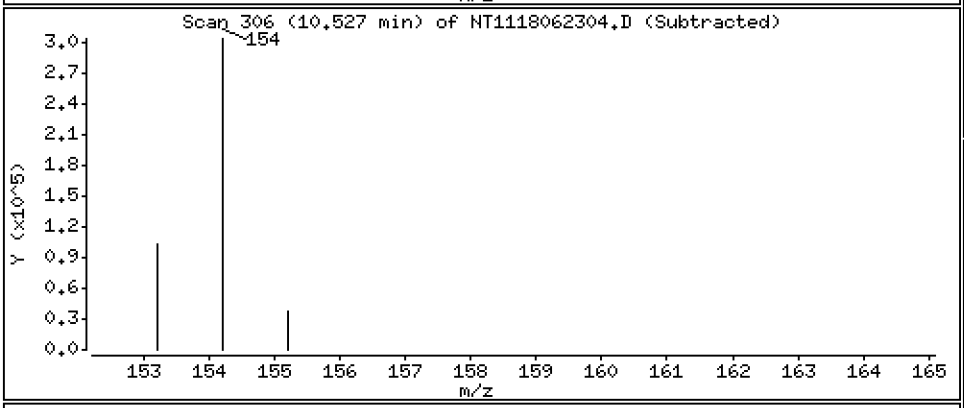
Column diameter: 0.25

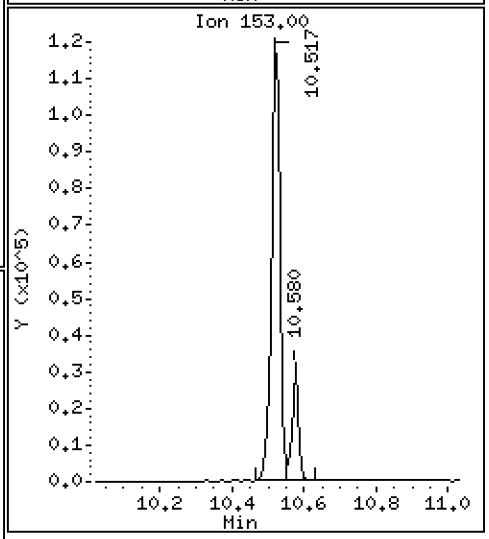
8 Biphenyl

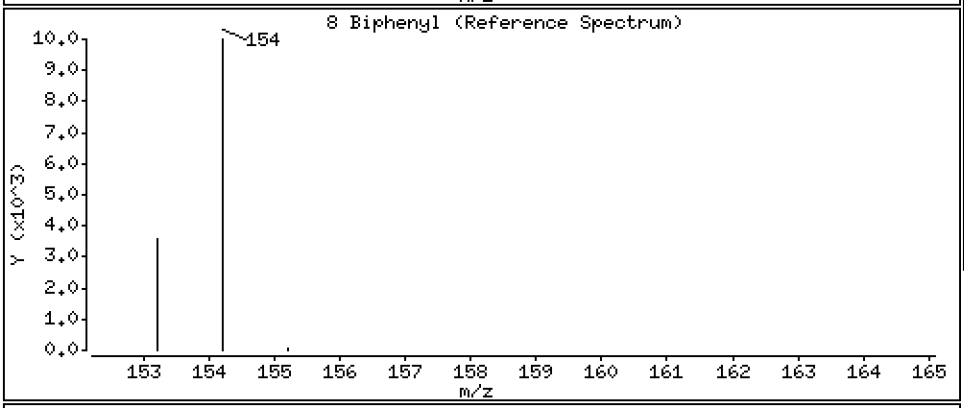
Concentration: 147 ng/mL

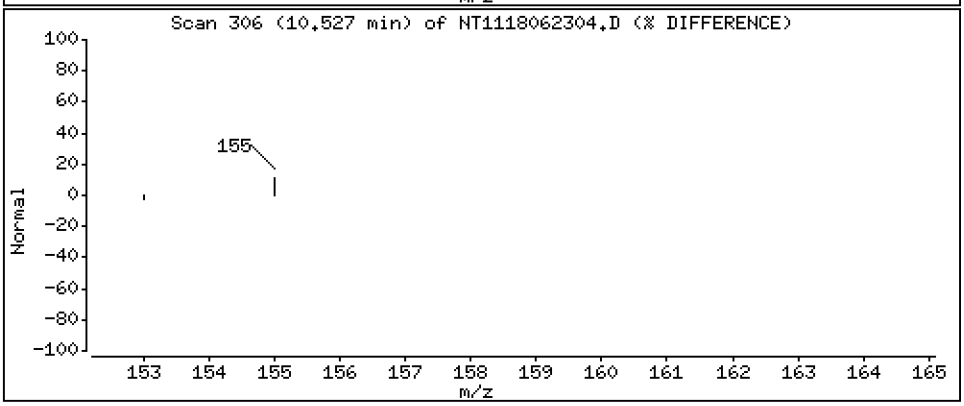












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Date : 23-JUN-2018 11:47

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

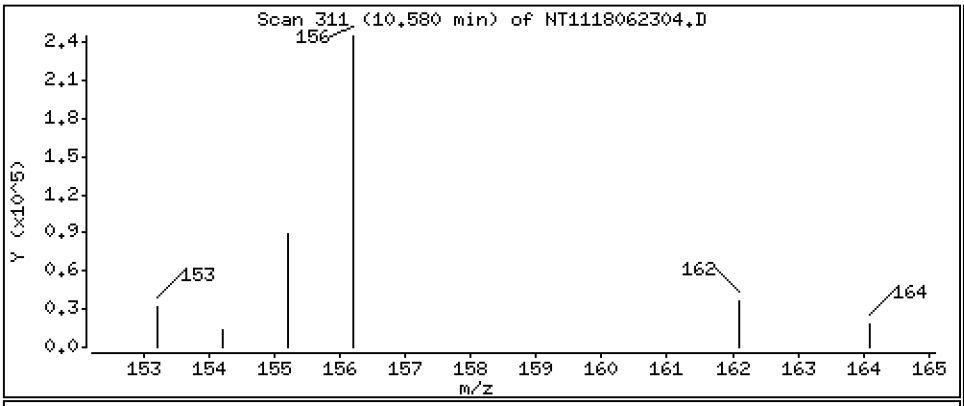
Operator: VTS

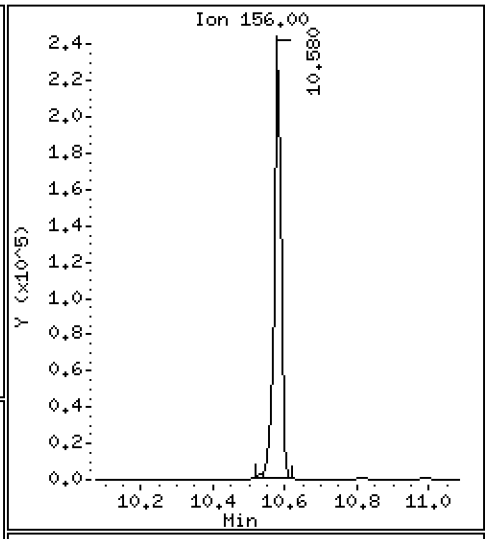
Column phase: Rxi-17Sil MS

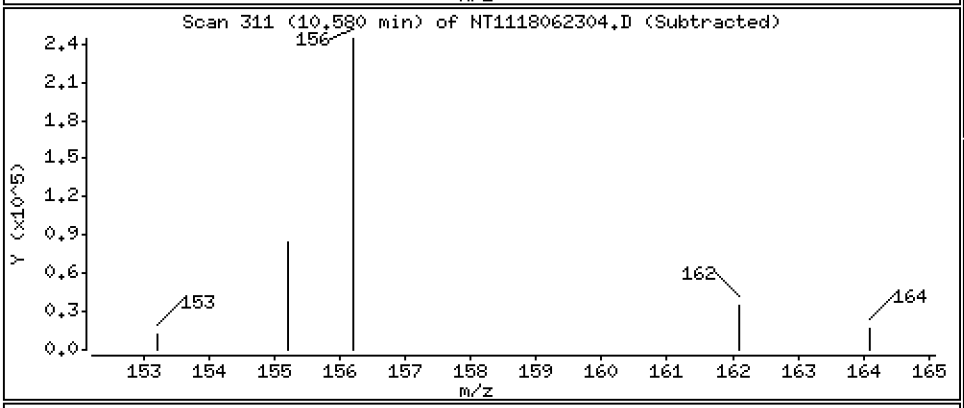
Column diameter: 0.25

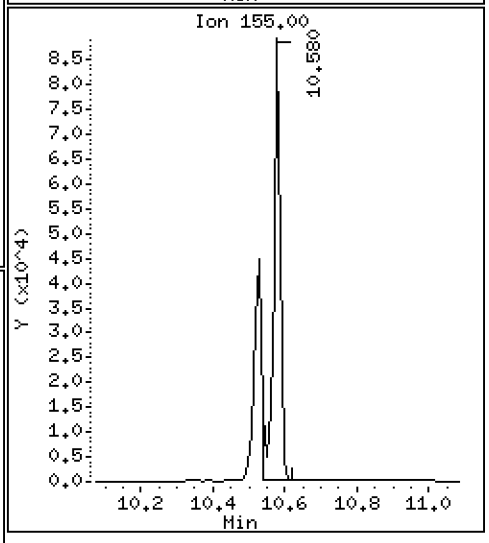
9 2,6-Dimethylnaphthalene

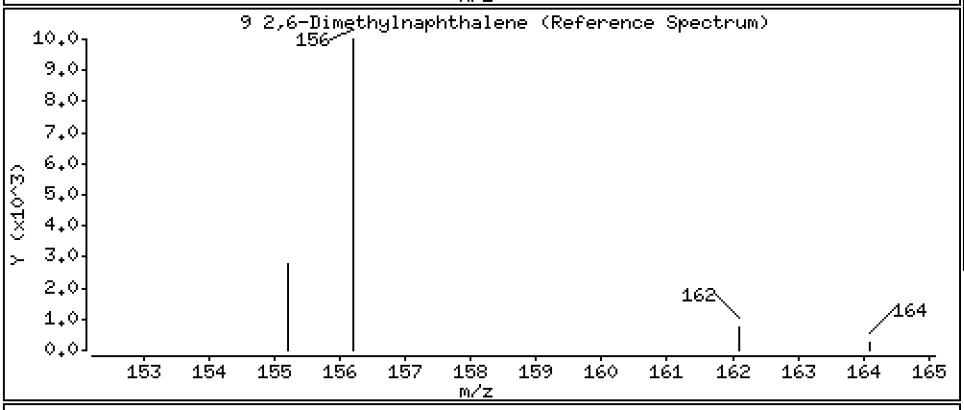
Concentration: 140 ng/mL

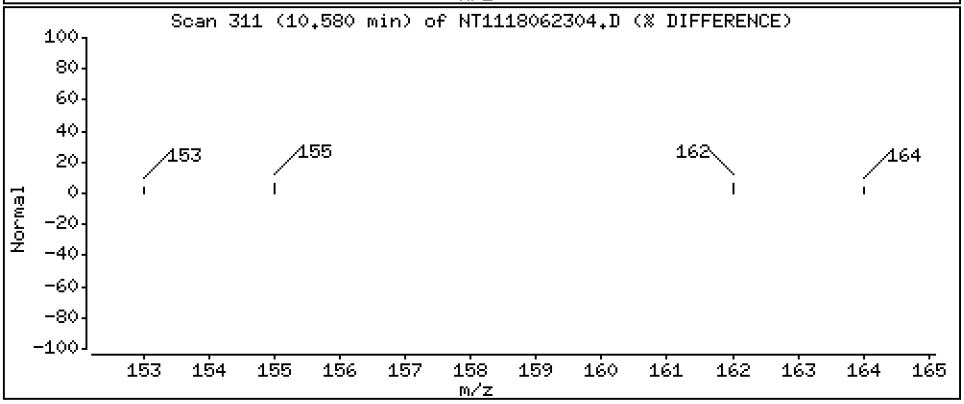












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Date : 23-JUN-2018 11:47

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

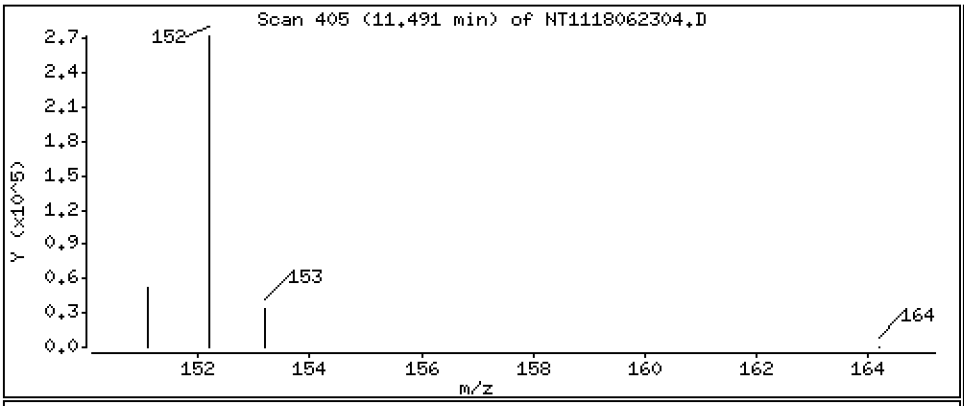
Operator: VTS

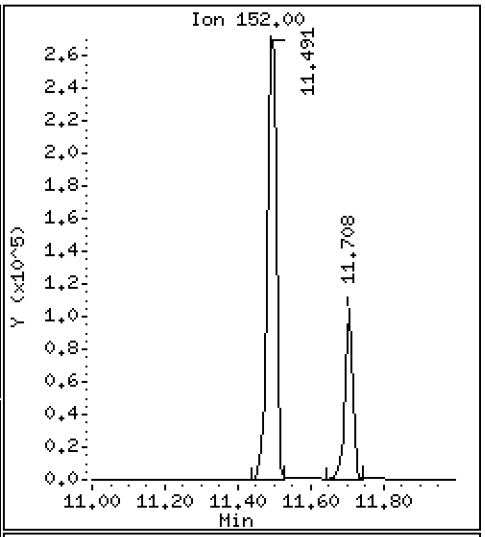
Column phase: Rxi-17Sil MS

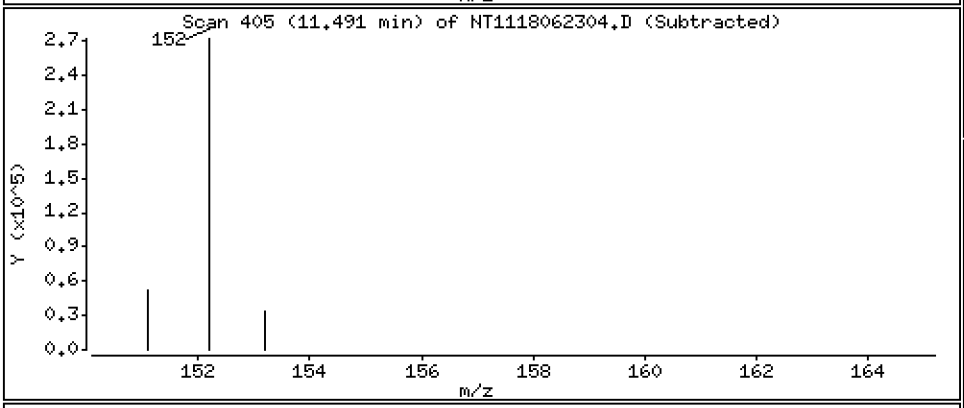
Column diameter: 0.25

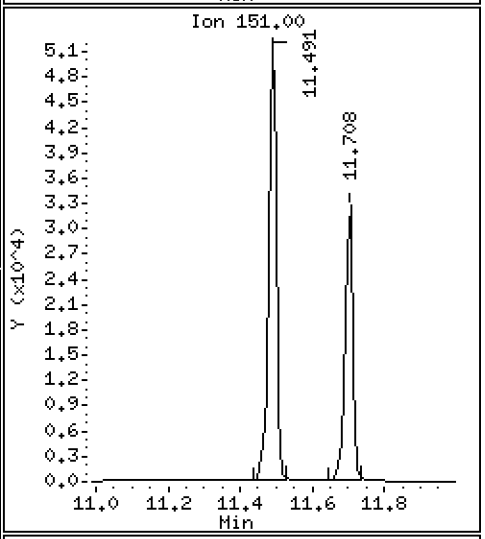
10 Acenaphthylene

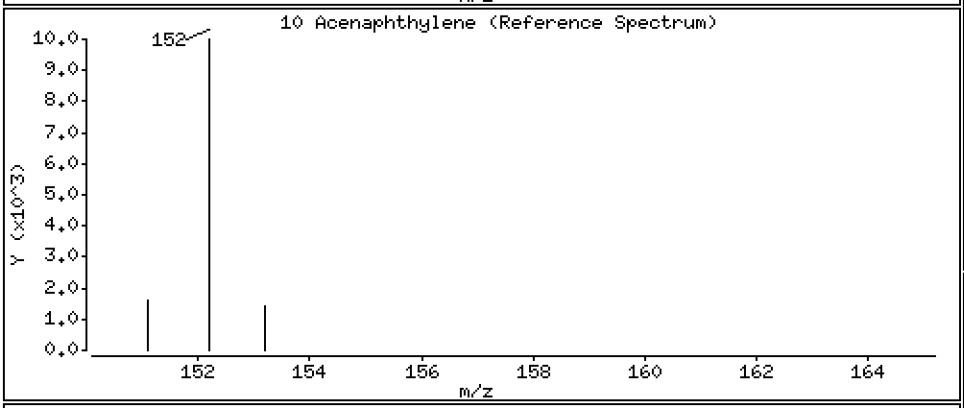
Concentration: 141 ng/mL

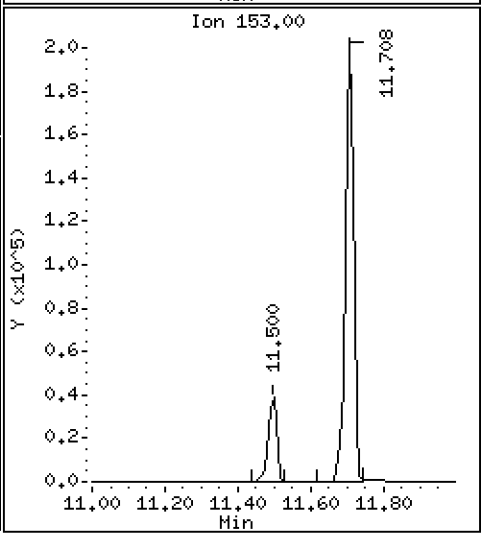


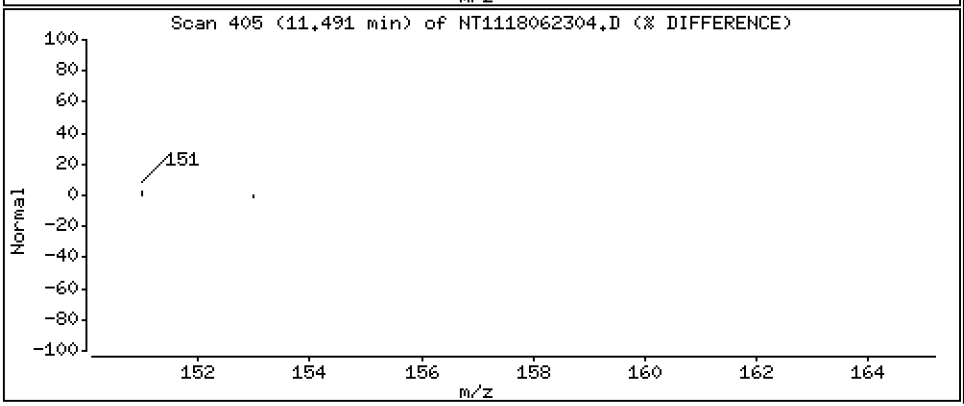












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Date : 23-JUN-2018 11:47

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

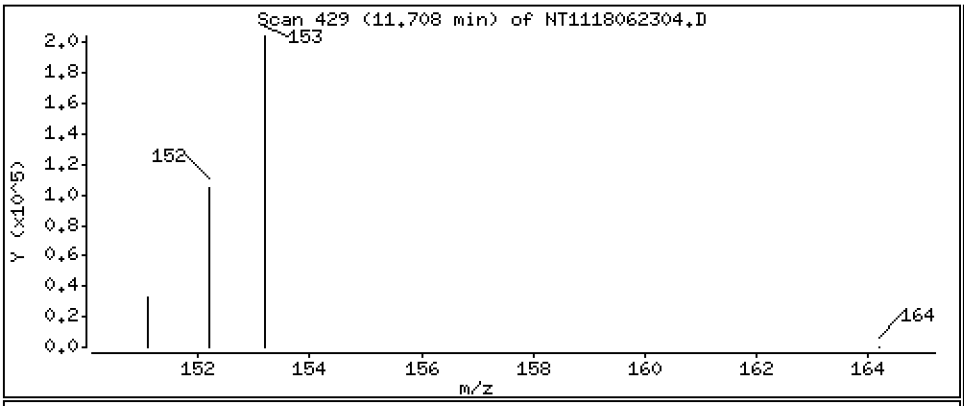
Operator: VTS

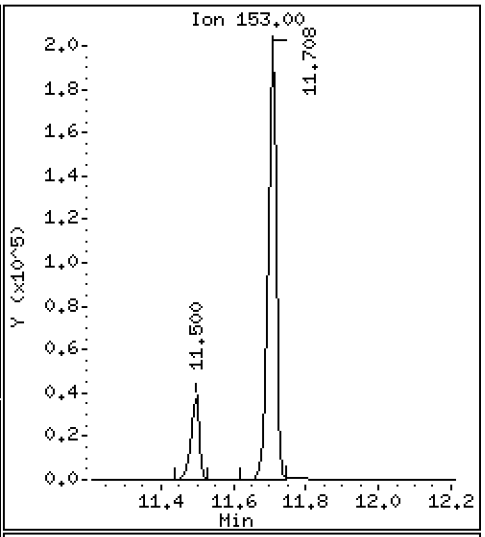
Column phase: Rxi-17Sil MS

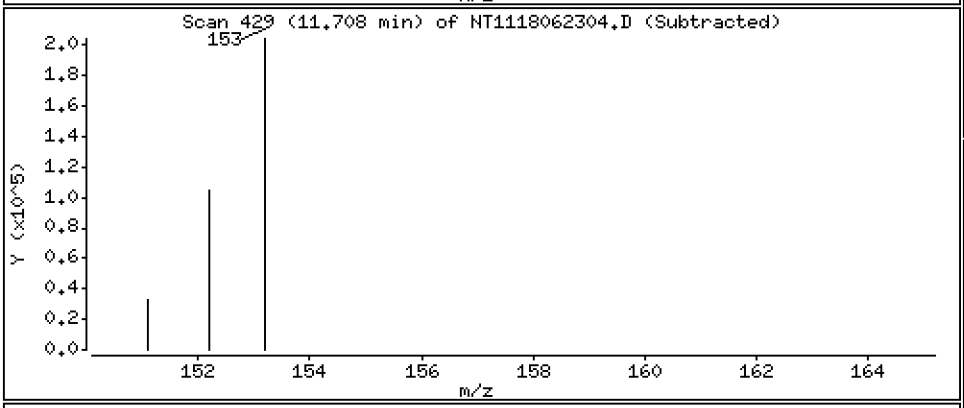
Column diameter: 0.25

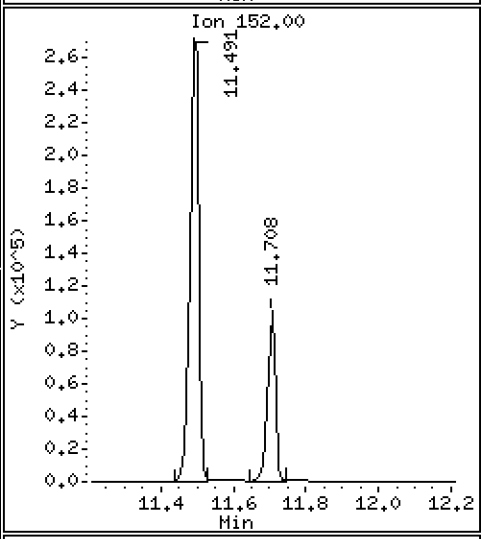
12 Acenaphthene

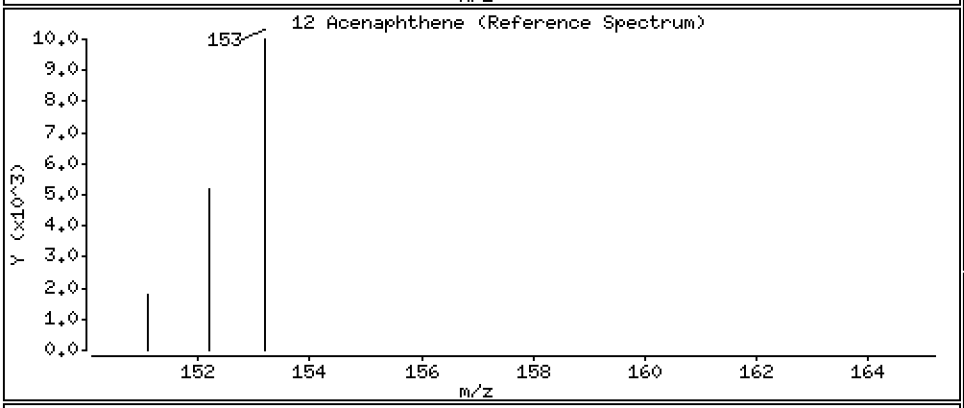
Concentration: 137 ng/mL

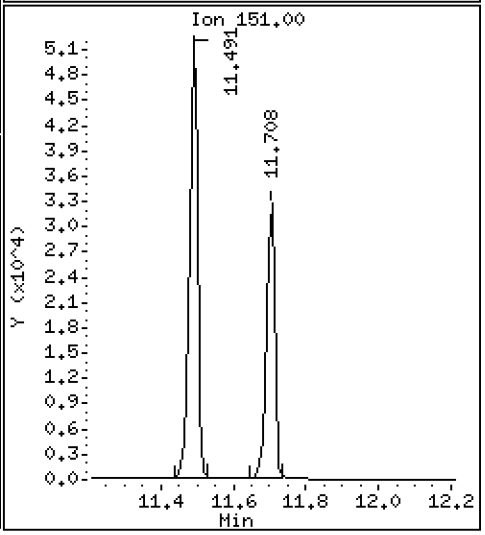


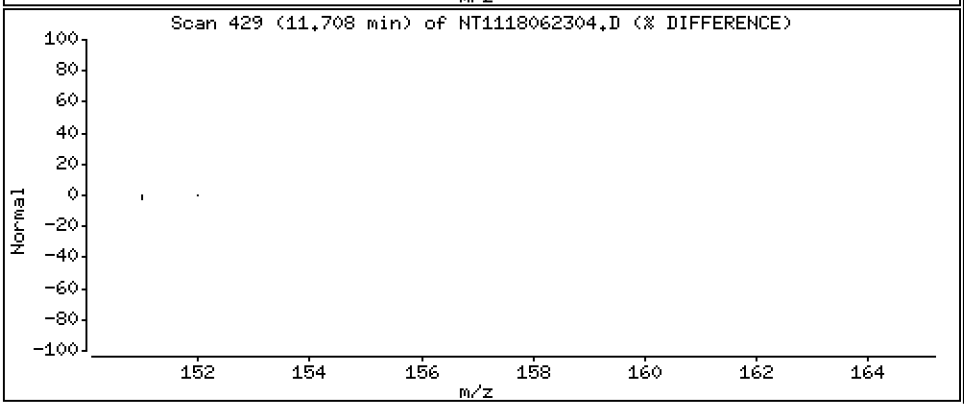












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Date : 23-JUN-2018 11:47

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

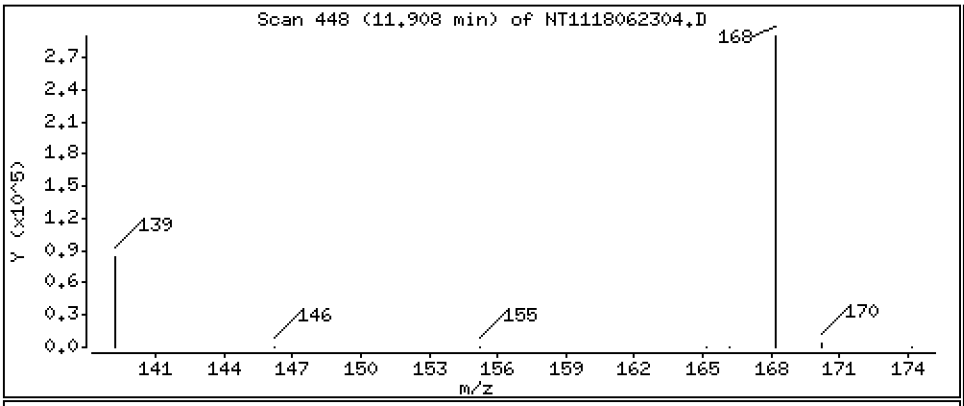
Operator: VTS

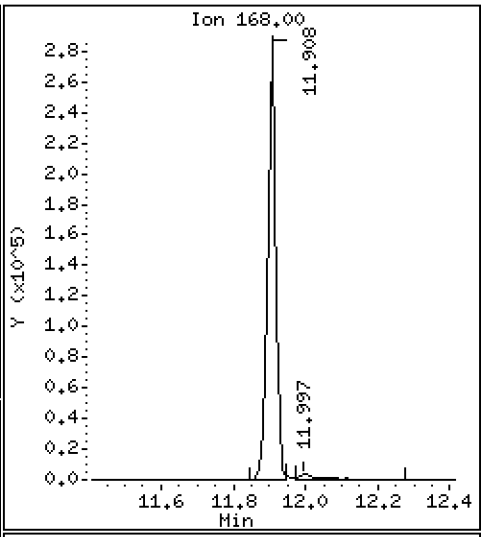
Column phase: Rxi-17Sil MS

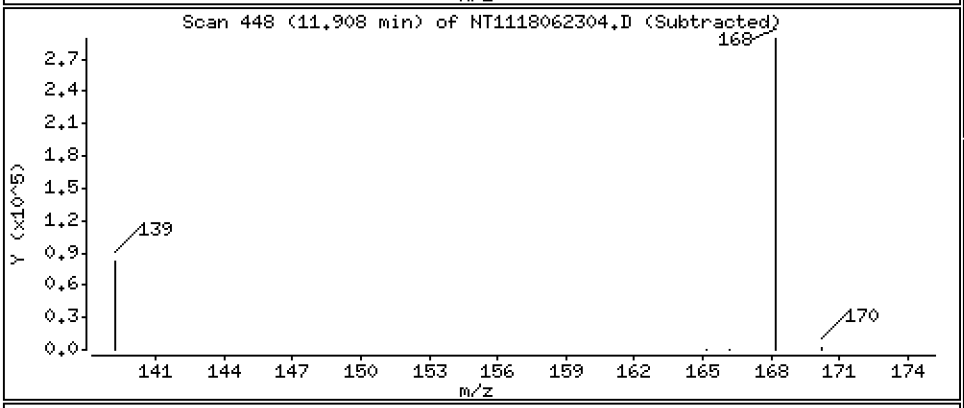
Column diameter: 0.25

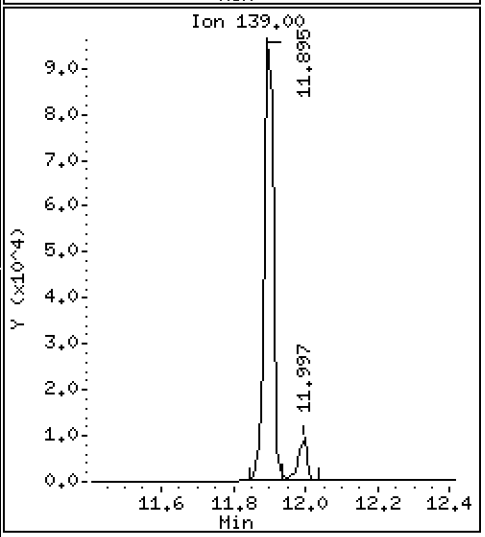
13 Dibenzofuran

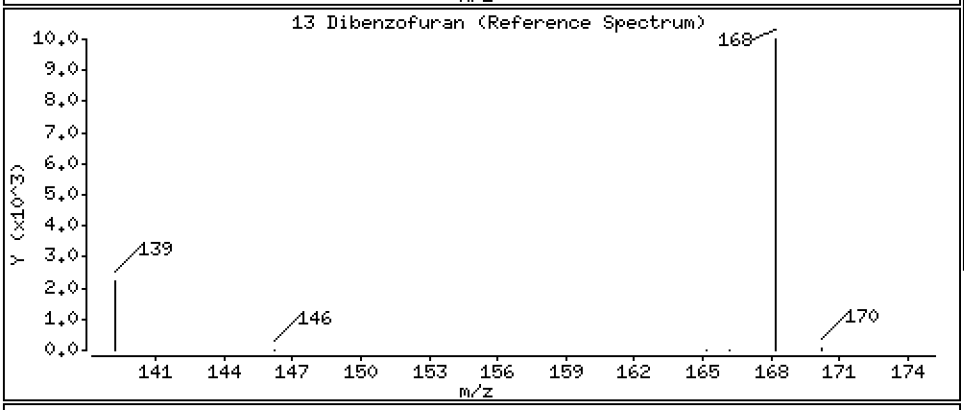
Concentration: 142 ng/mL

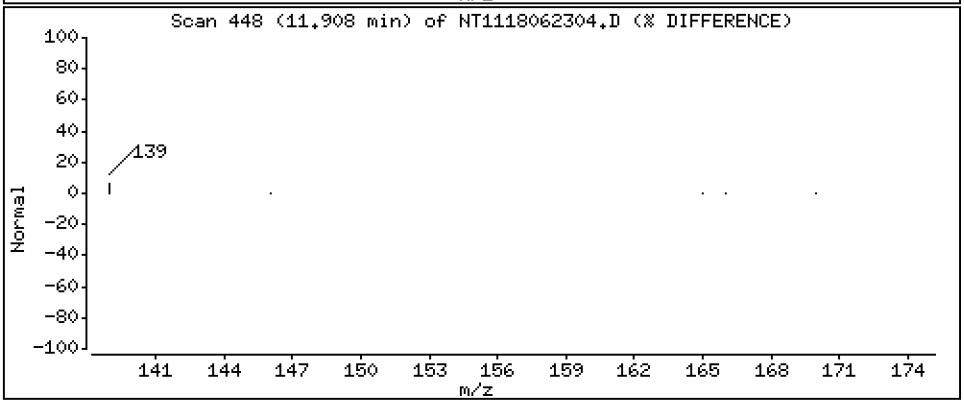












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Date : 23-JUN-2018 11:47

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

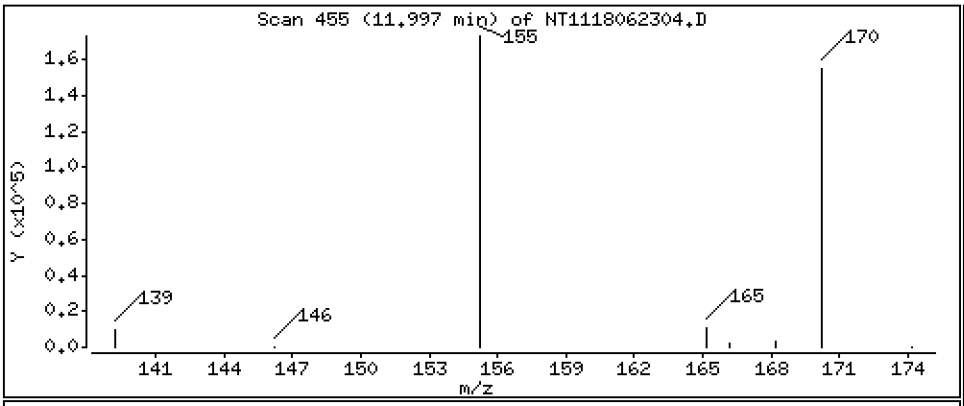
Operator: VTS

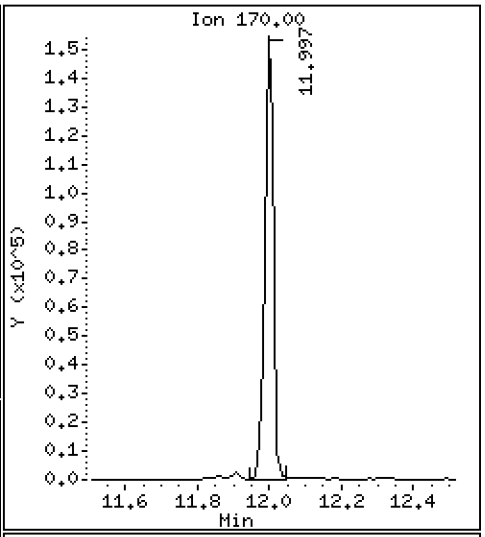
Column phase: Rxi-17Sil MS

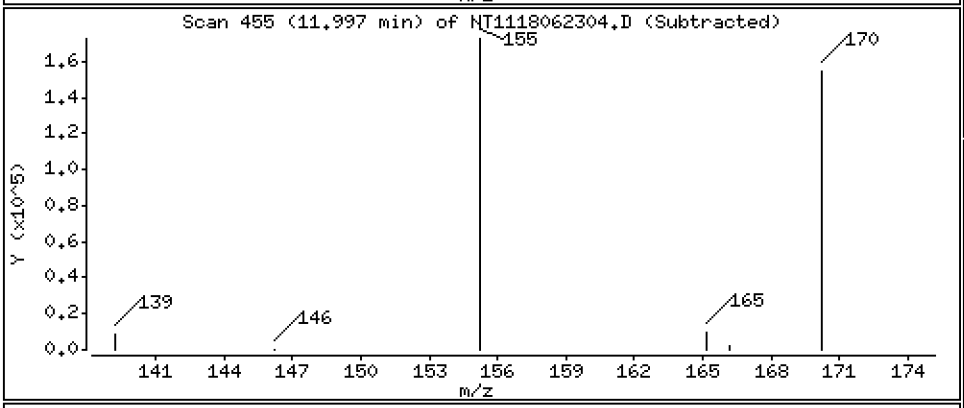
Column diameter: 0.25

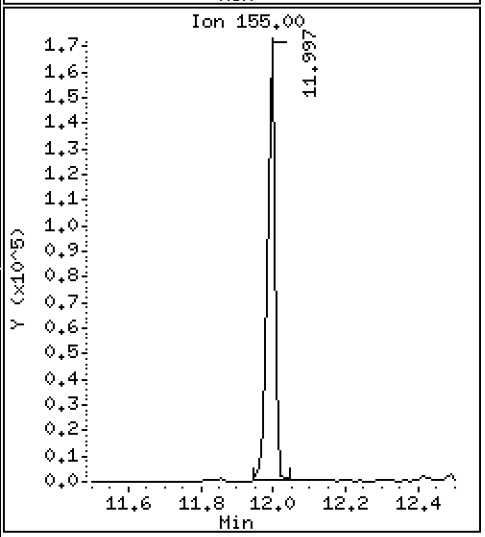
14 2,3,5-Trimethylnaphthalene

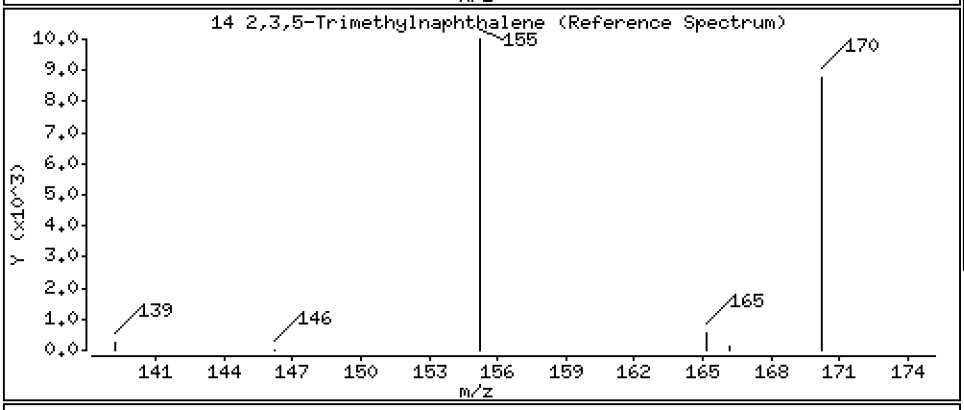
Concentration: 138 ng/mL

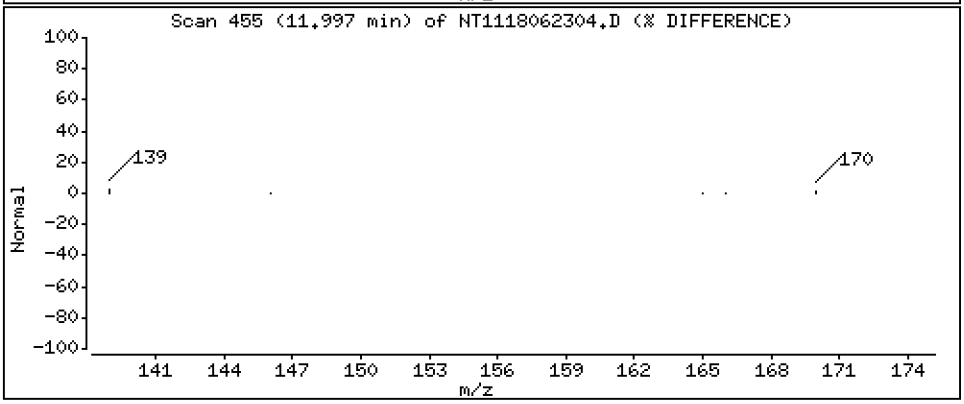












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Date : 23-JUN-2018 11:47

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

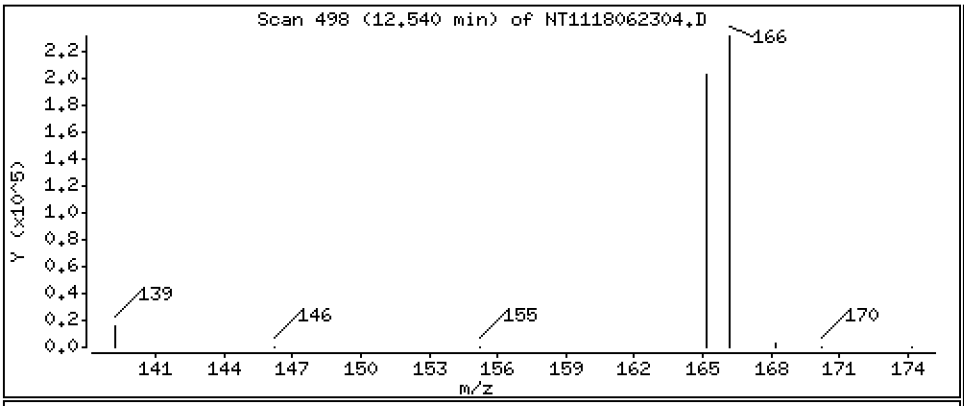
Operator: VTS

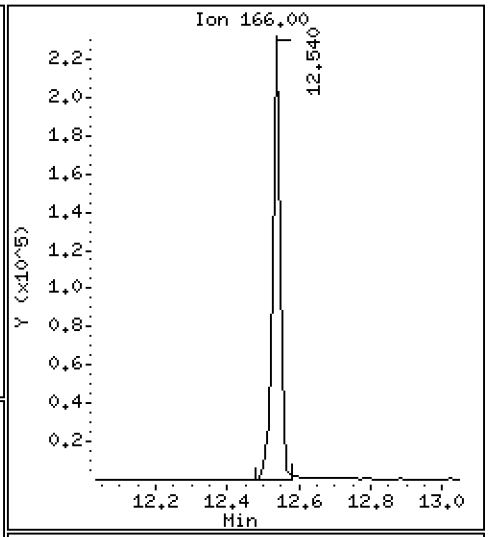
Column phase: Rxi-17Sil MS

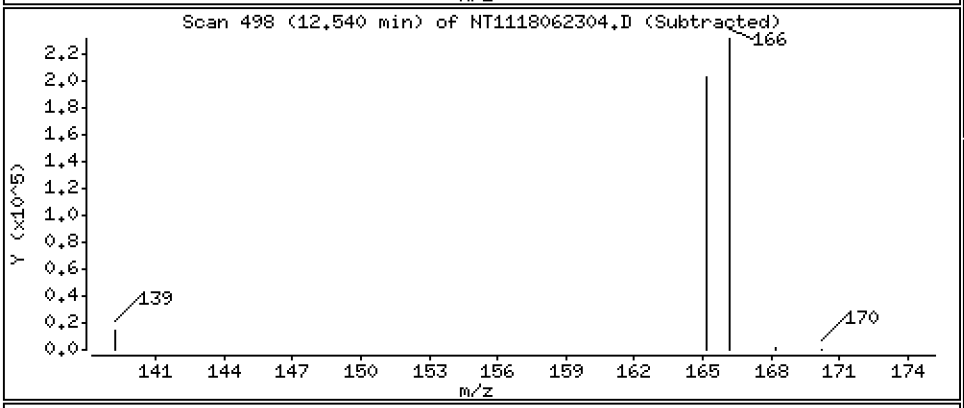
Column diameter: 0.25

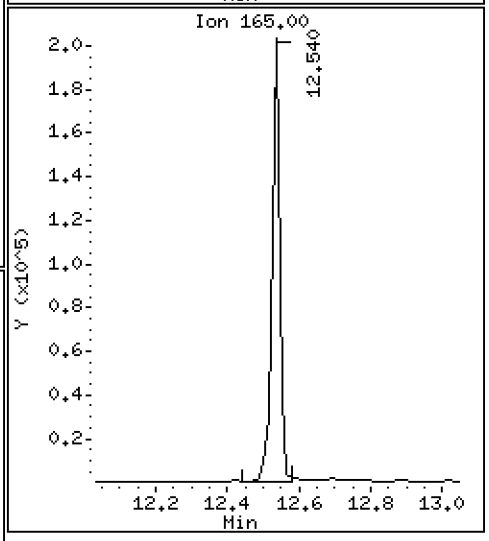
16 Fluorene

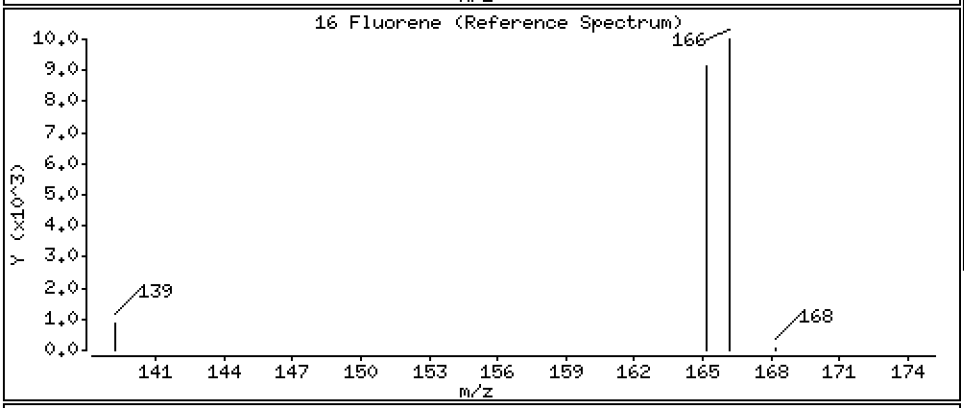
Concentration: 139 ng/mL

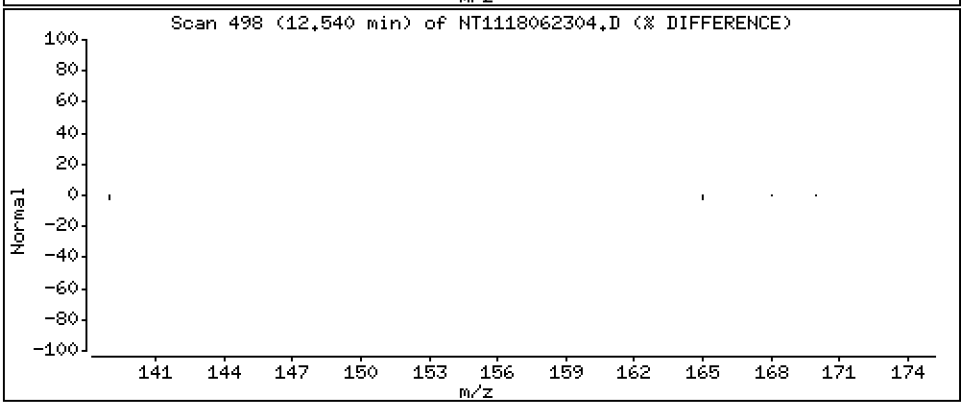












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Date : 23-JUN-2018 11:47

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

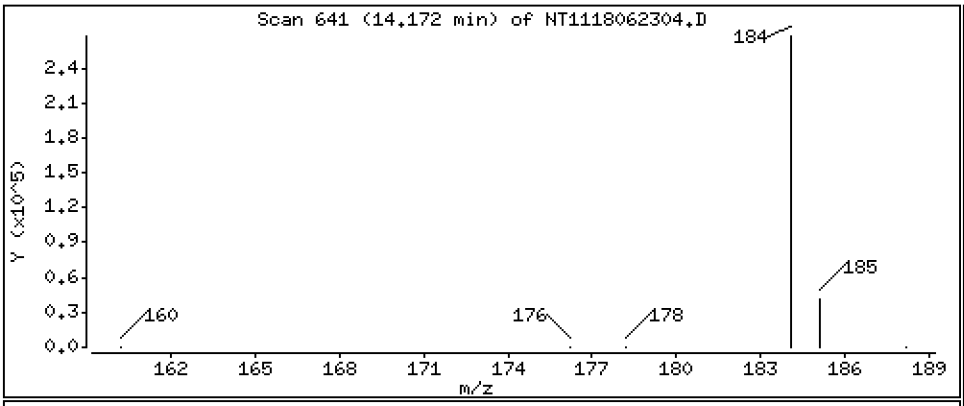
Operator: VTS

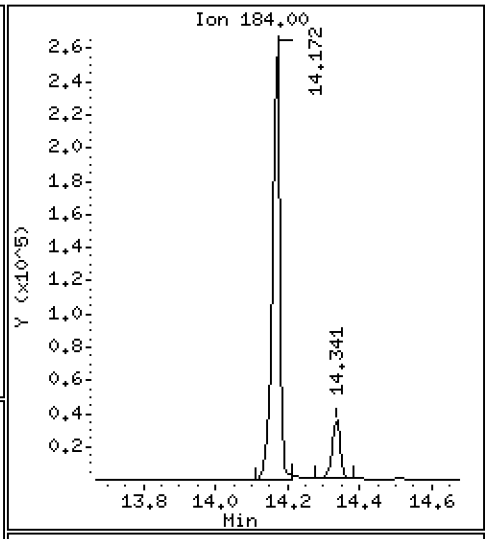
Column phase: Rxi-17Sil MS

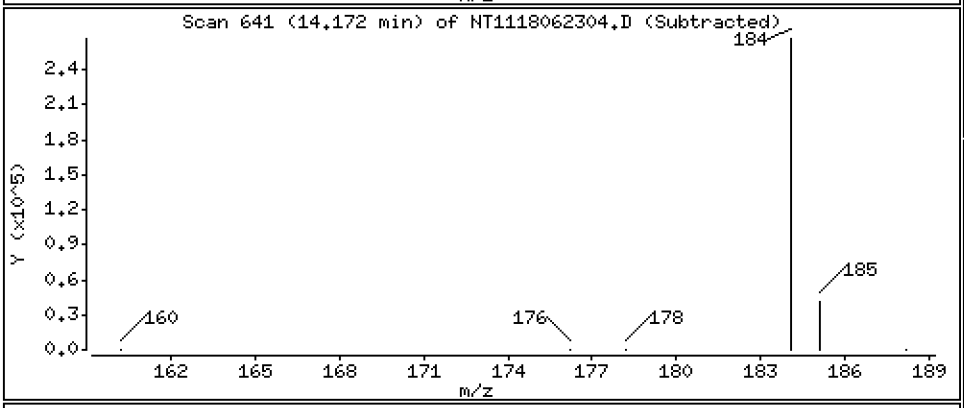
Column diameter: 0.25

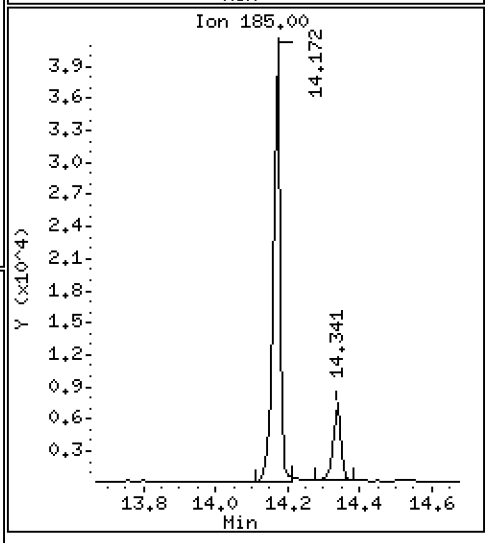
17 Dibenzothiophene

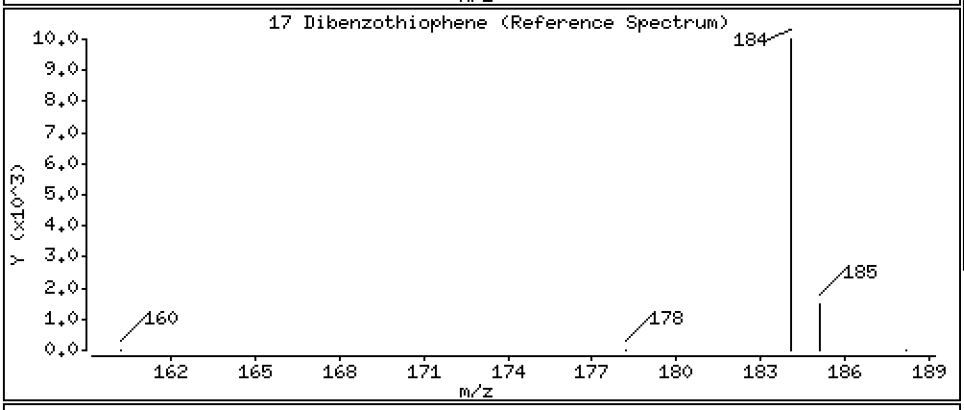
Concentration: 149 ng/mL

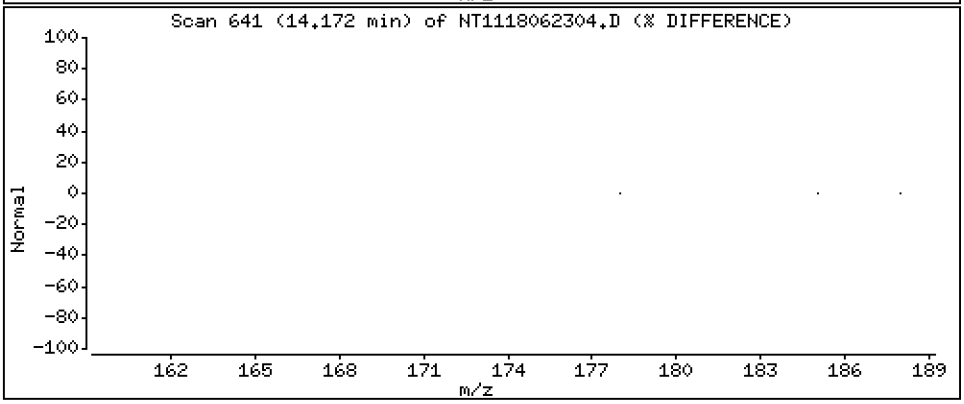












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Date : 23-JUN-2018 11:47

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

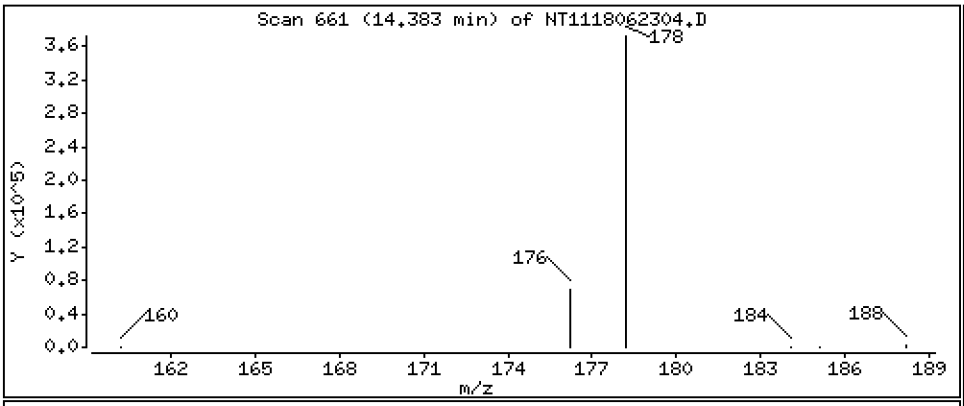
Operator: VTS

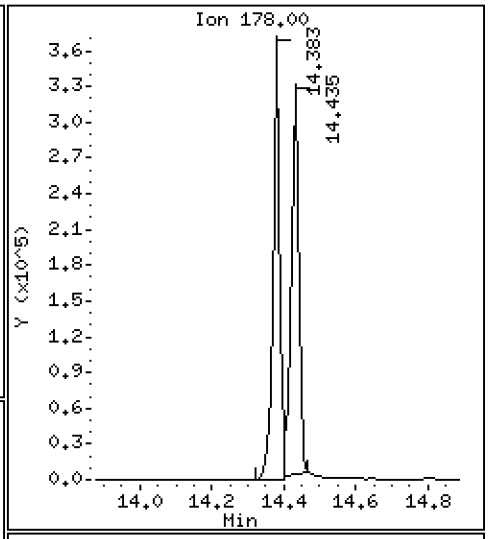
Column phase: Rxi-17Sil MS

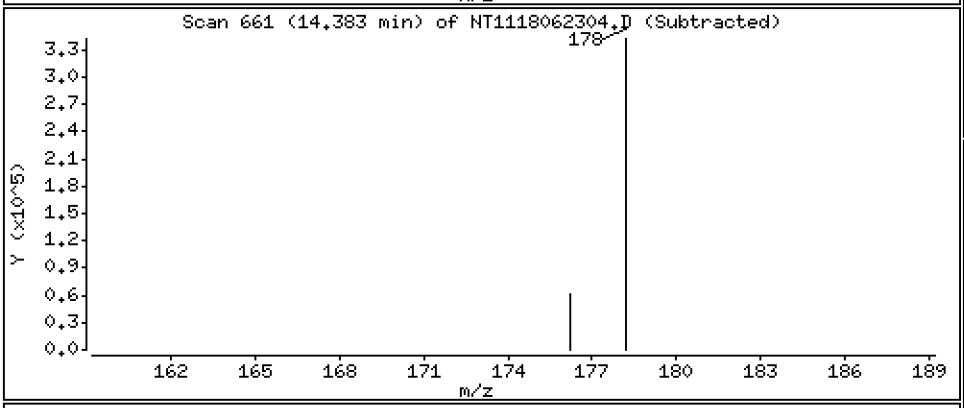
Column diameter: 0.25

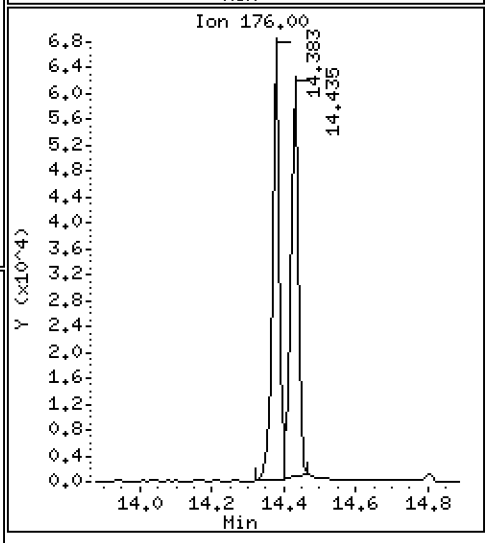
19 Phenanthrene

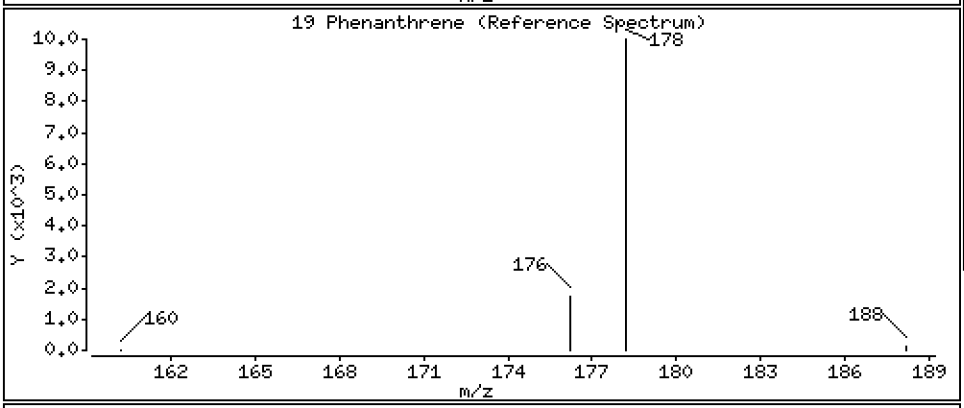
Concentration: 153 ng/mL

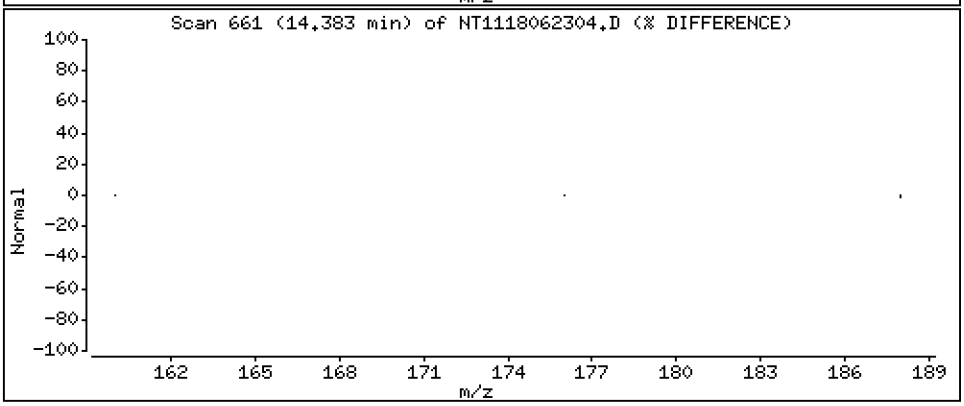












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Date : 23-JUN-2018 11:47

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

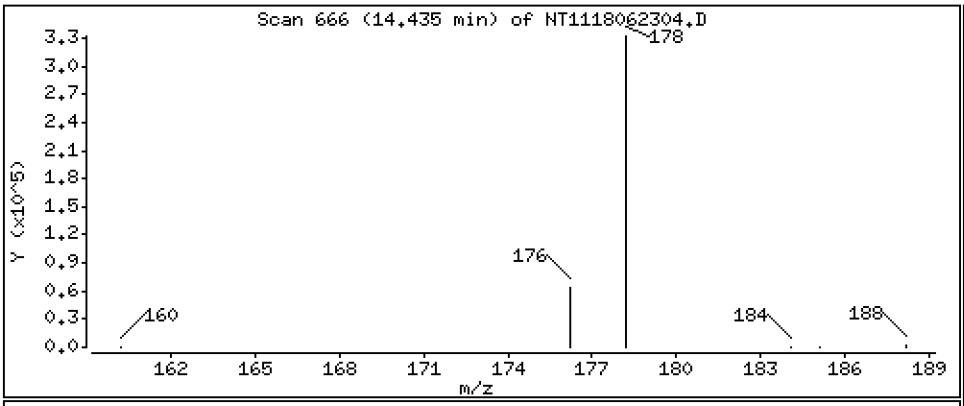
Operator: VTS

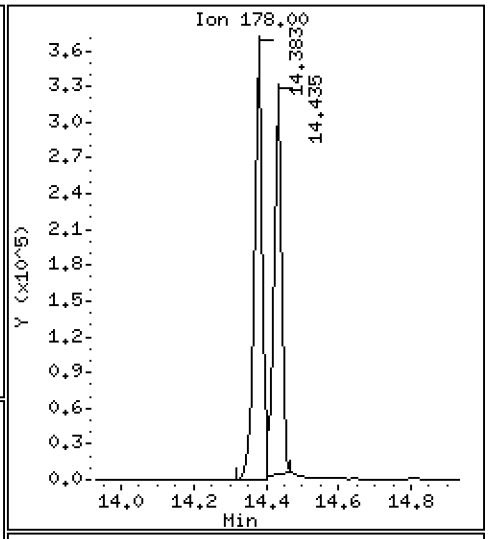
Column phase: Rxi-17Sil MS

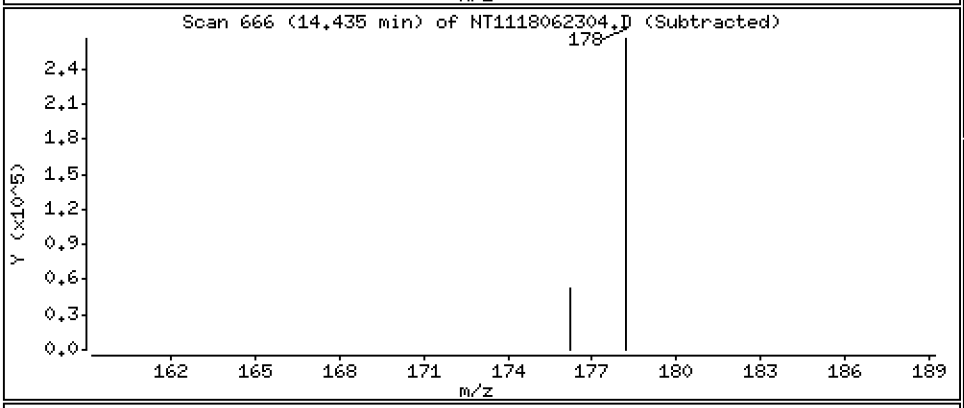
Column diameter: 0.25

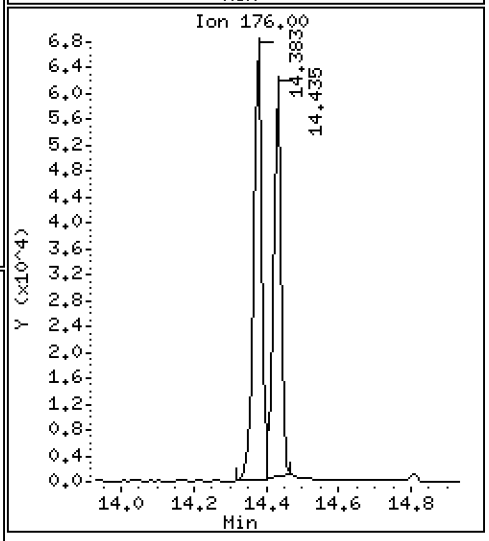
21 Anthracene

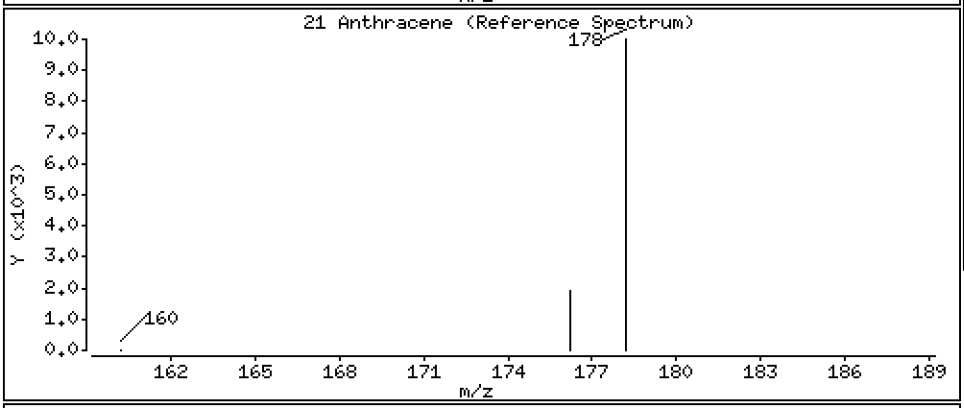
Concentration: 142 ng/mL

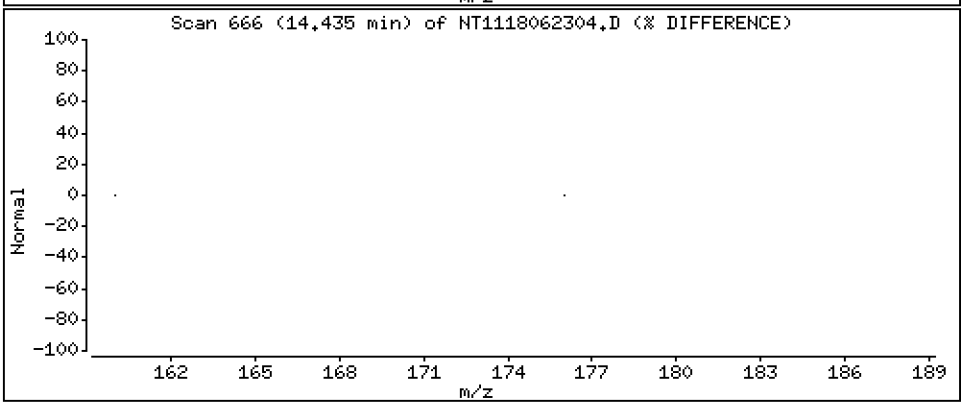












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Date : 23-JUN-2018 11:47

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

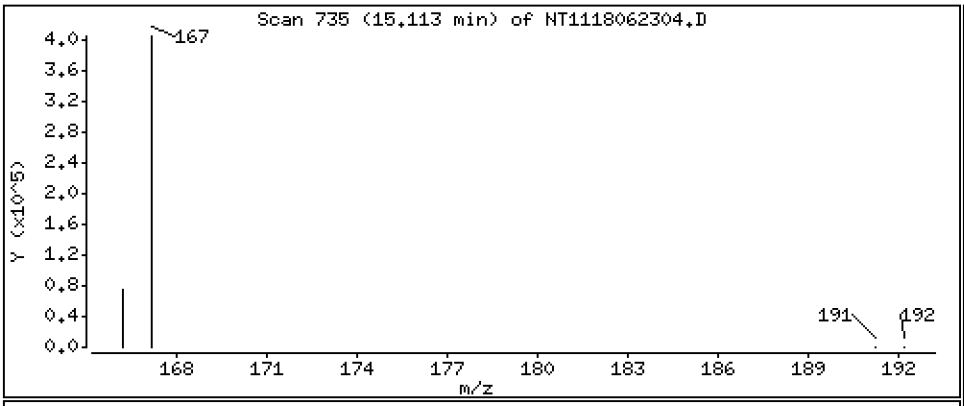
Operator: VTS

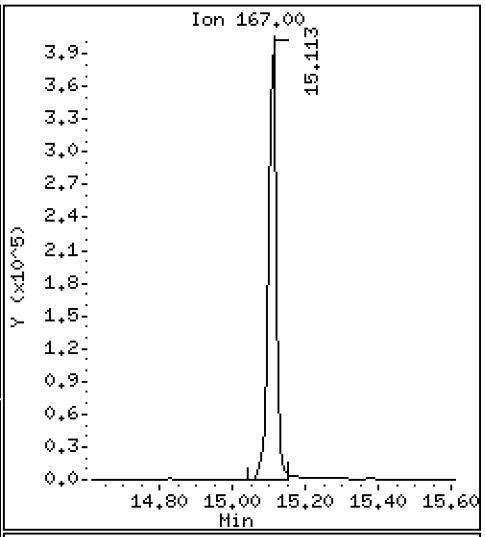
Column phase: Rxi-17Sil MS

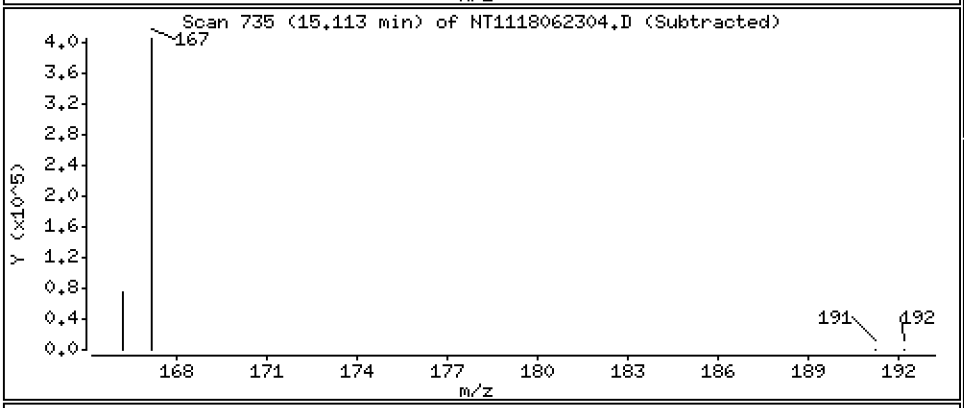
Column diameter: 0.25

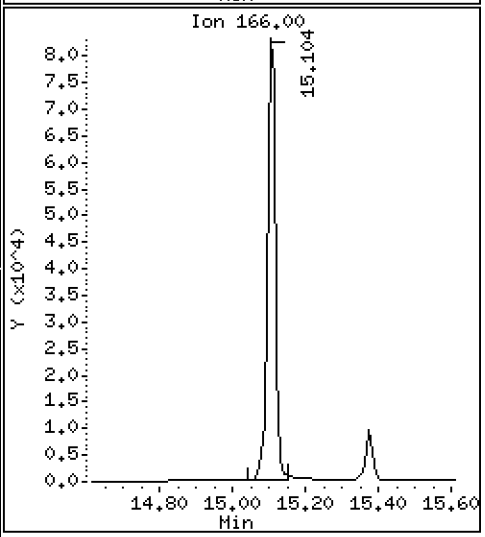
22 Carbazole

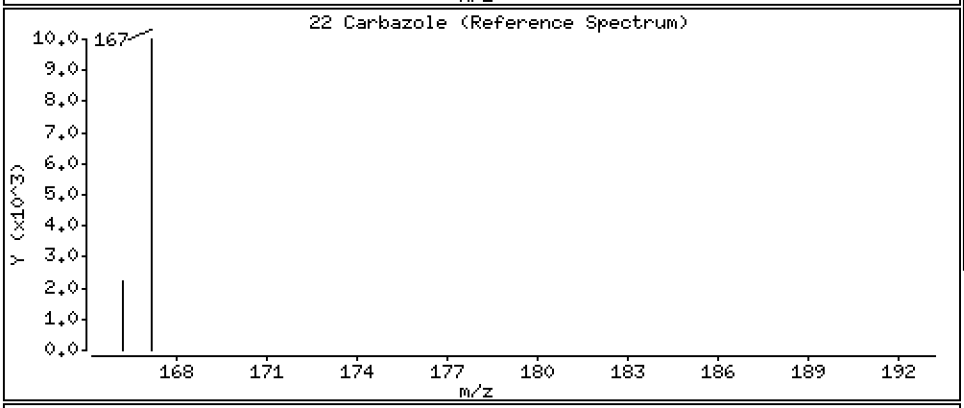
Concentration: 158 ng/mL

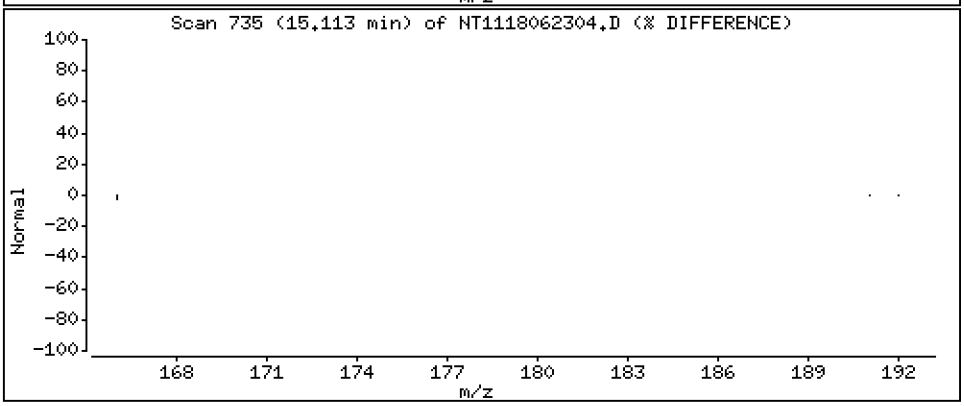












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Date : 23-JUN-2018 11:47

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

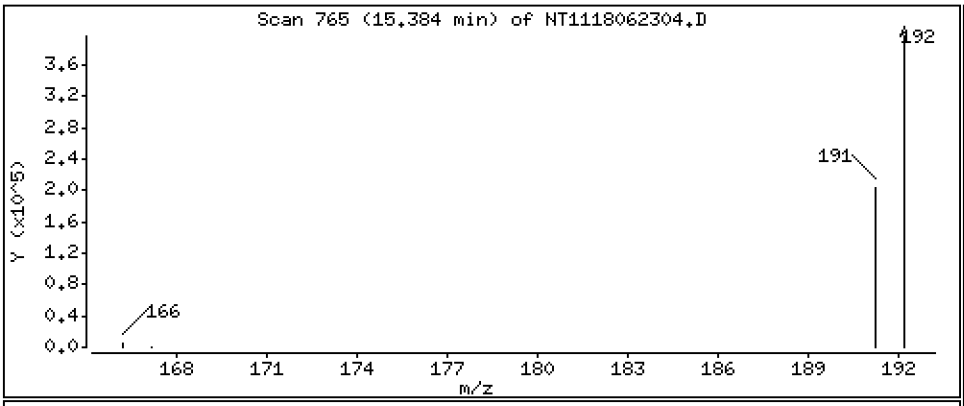
Operator: VTS

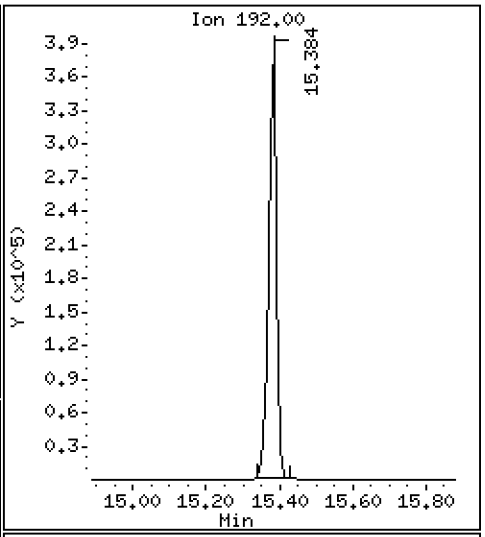
Column phase: Rxi-17Sil MS

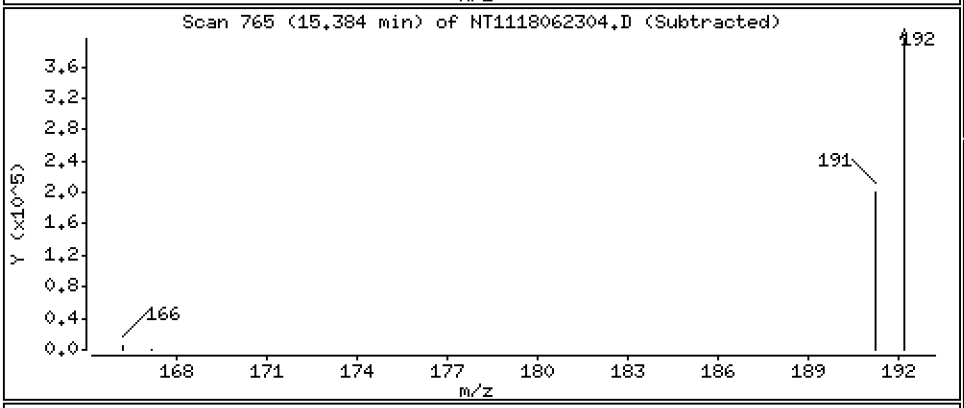
Column diameter: 0.25

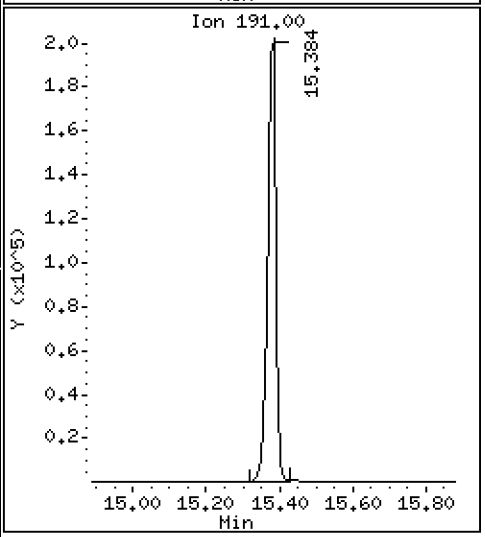
23 1-Methylphenanthrene

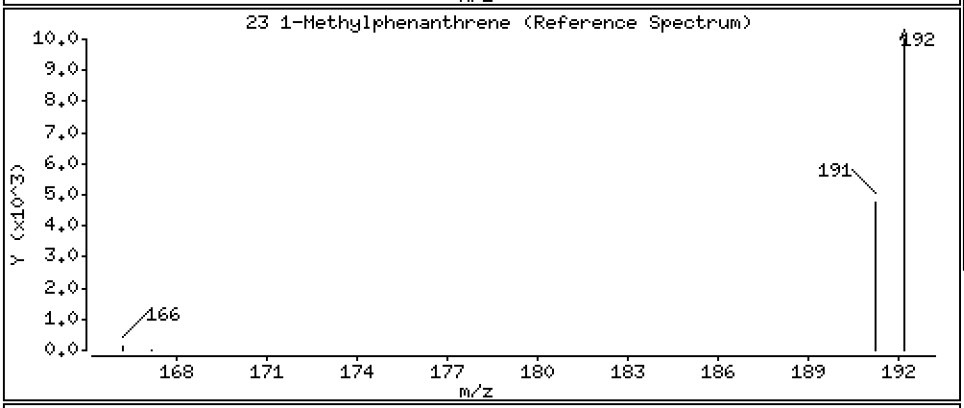
Concentration: 168 ng/mL

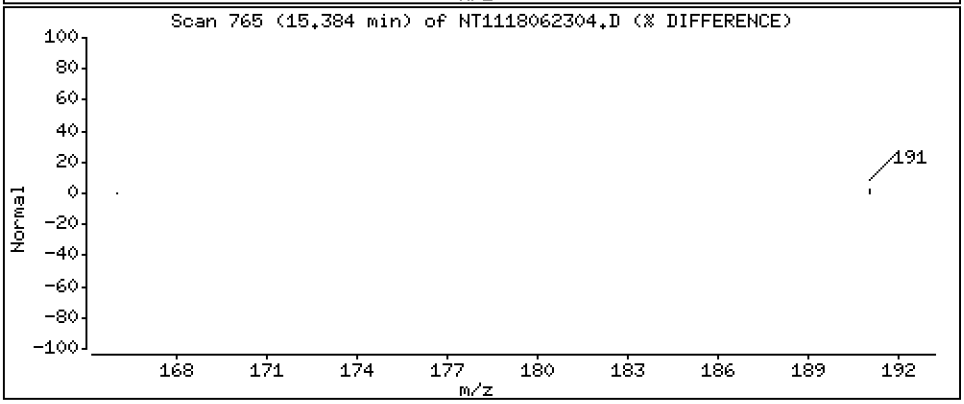












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Date : 23-JUN-2018 11:47

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

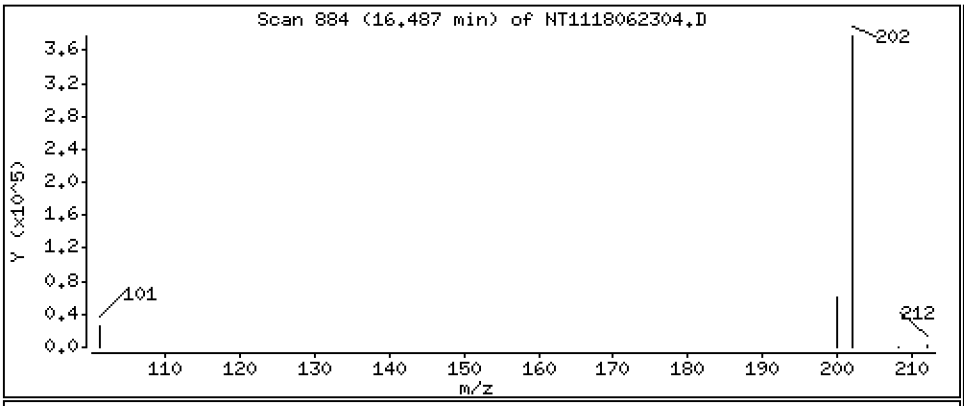
Operator: VTS

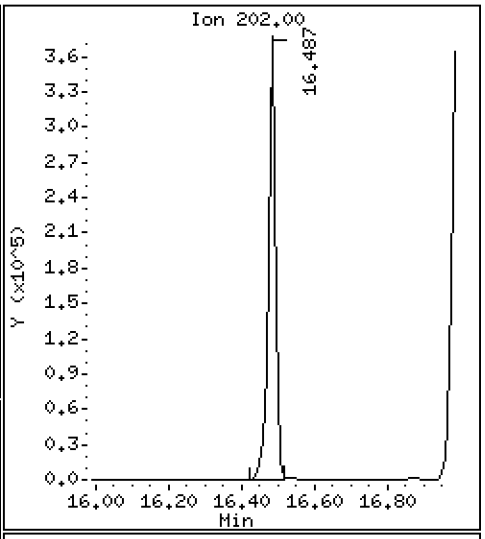
Column phase: Rxi-17Sil MS

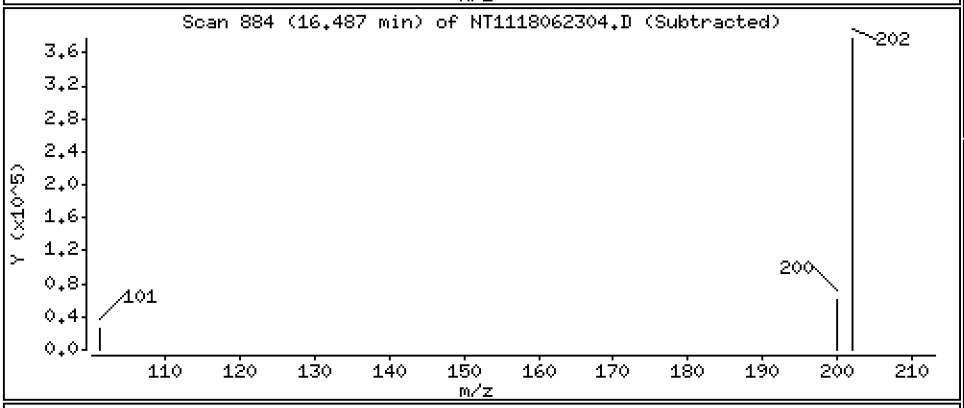
Column diameter: 0.25

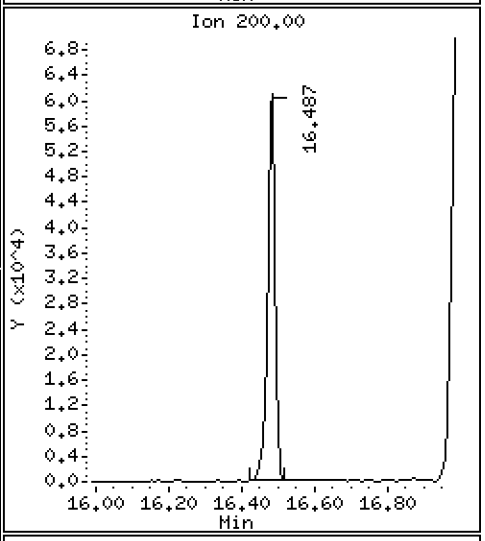
25 Fluoranthene

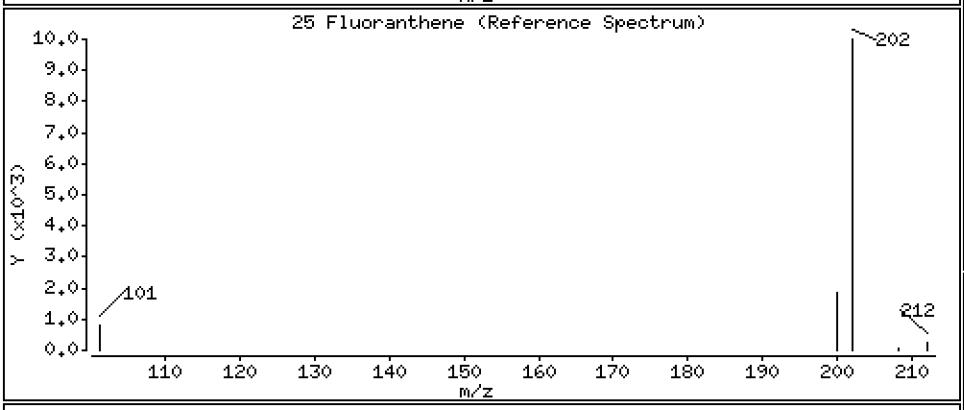
Concentration: 166 ng/mL

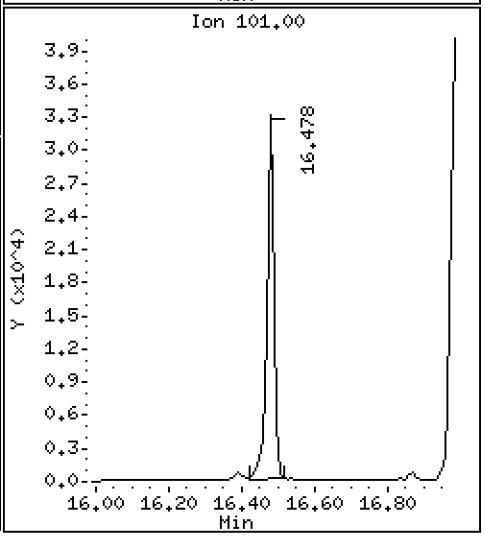


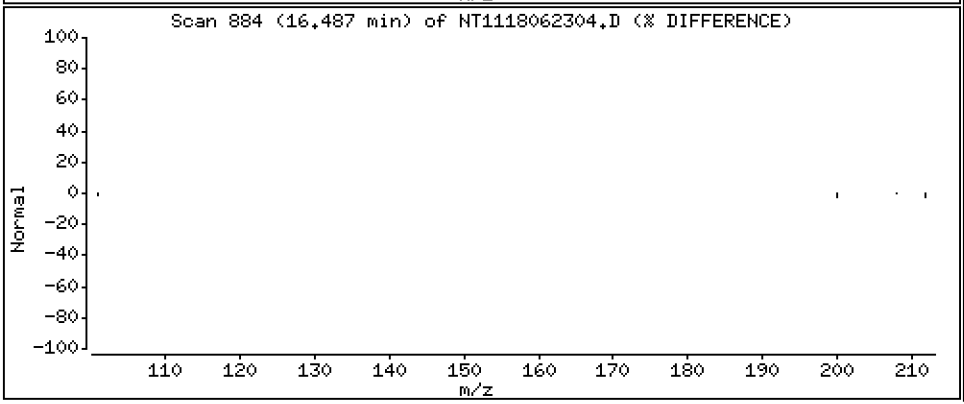












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Date : 23-JUN-2018 11:47

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

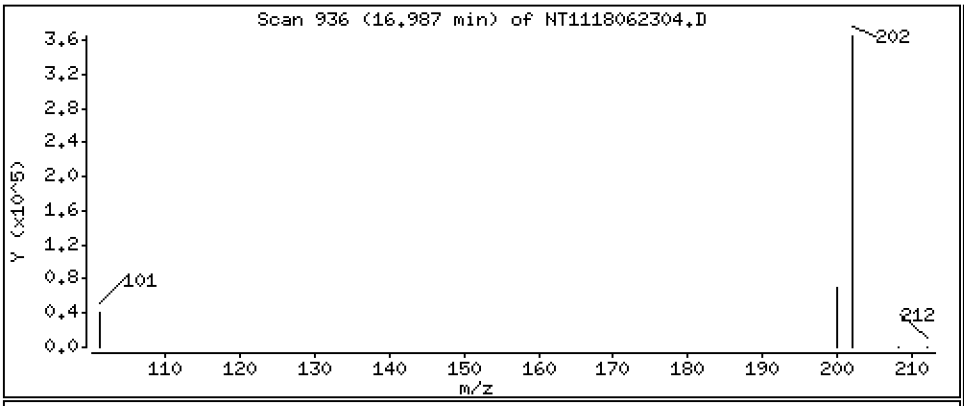
Operator: VTS

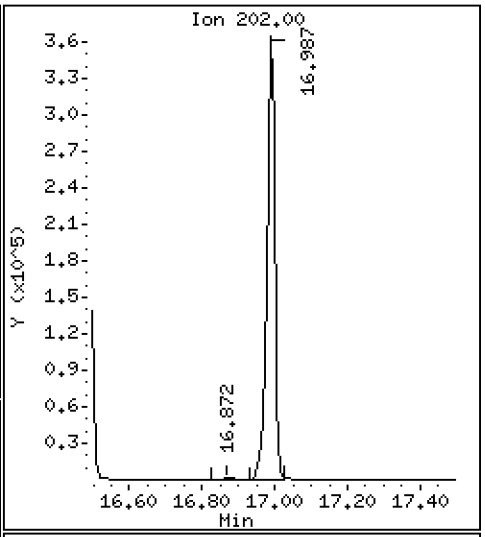
Column phase: Rxi-17Sil MS

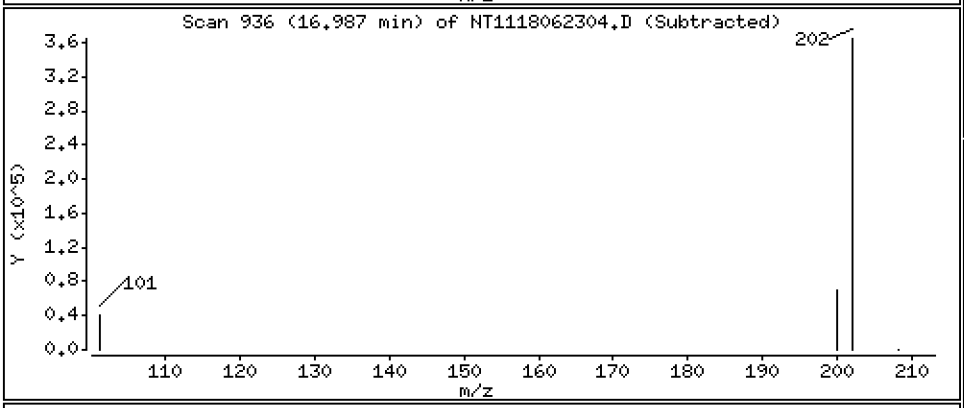
Column diameter: 0.25

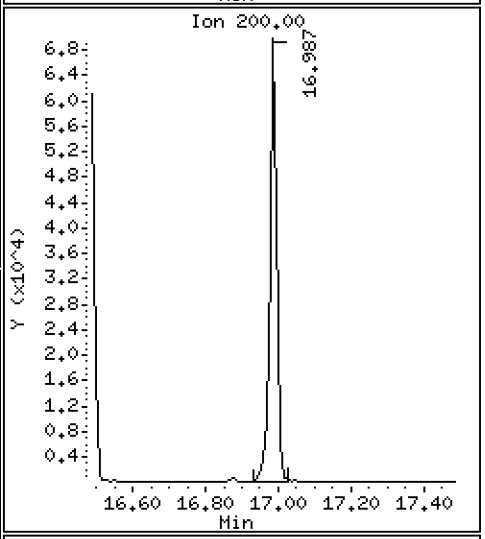
26 Pyrene

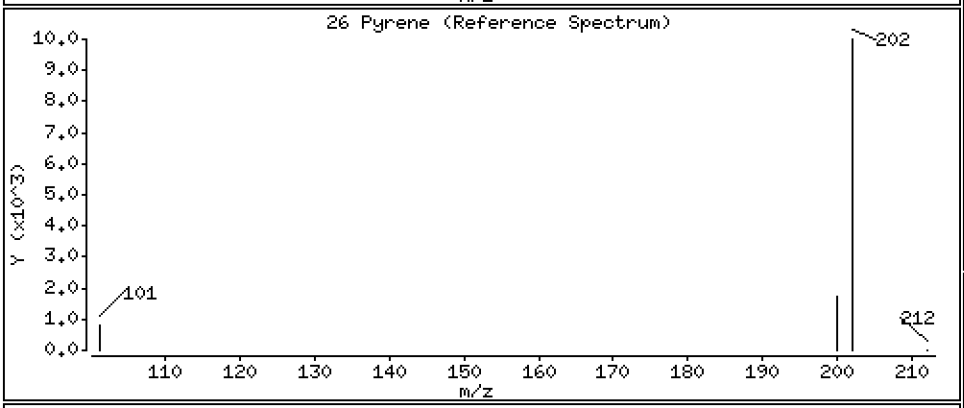
Concentration: 170 ng/mL

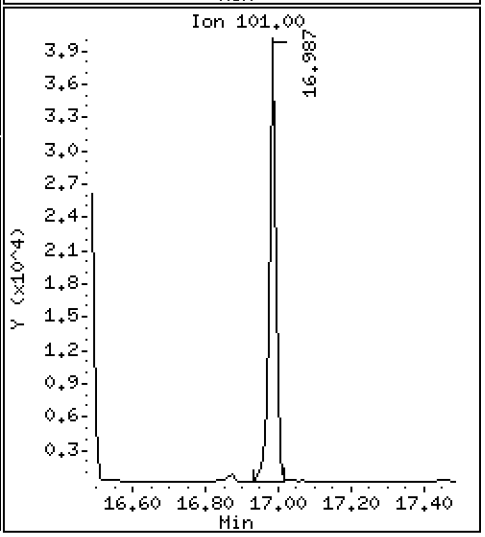


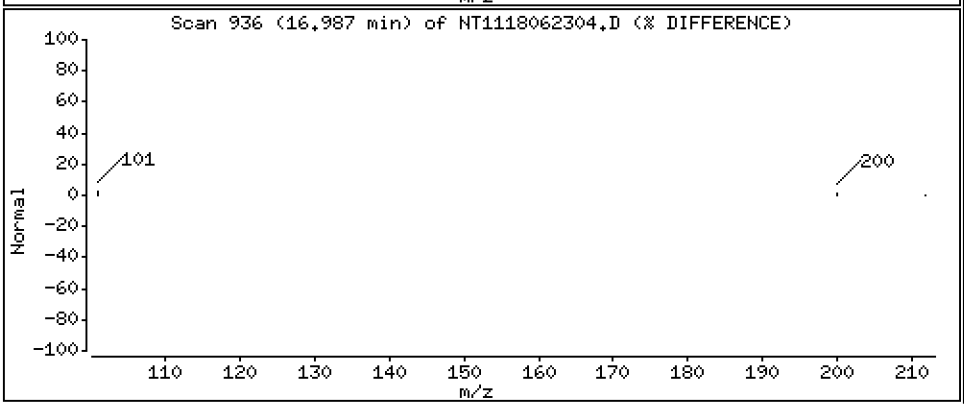












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Date : 23-JUN-2018 11:47

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

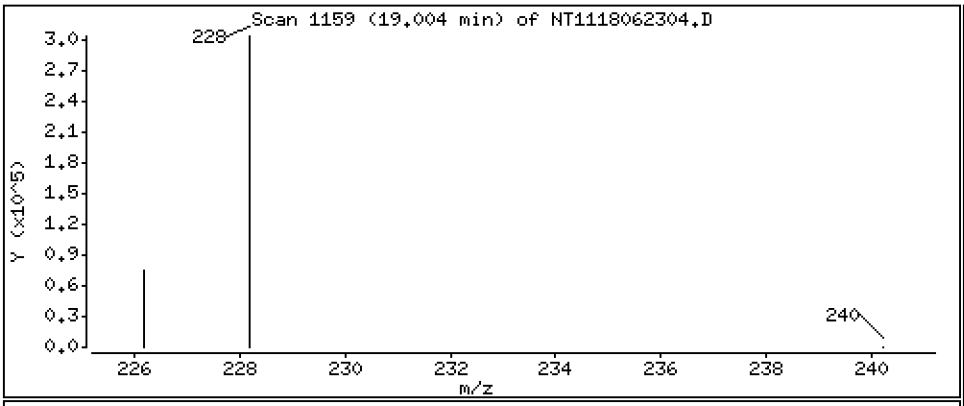
Operator: VTS

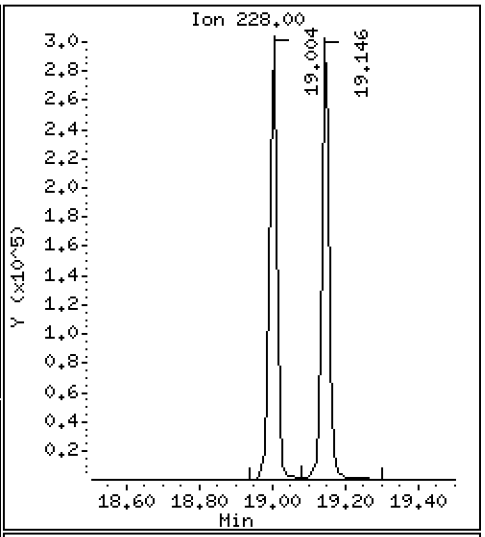
Column phase: Rxi-17Sil MS

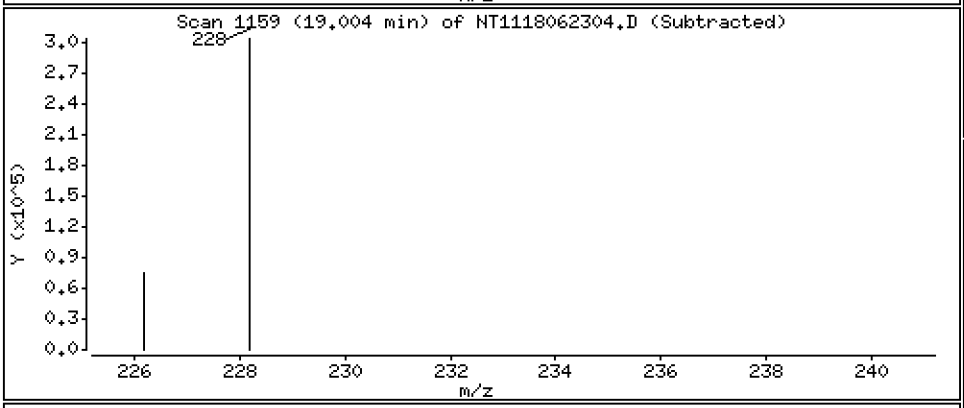
Column diameter: 0.25

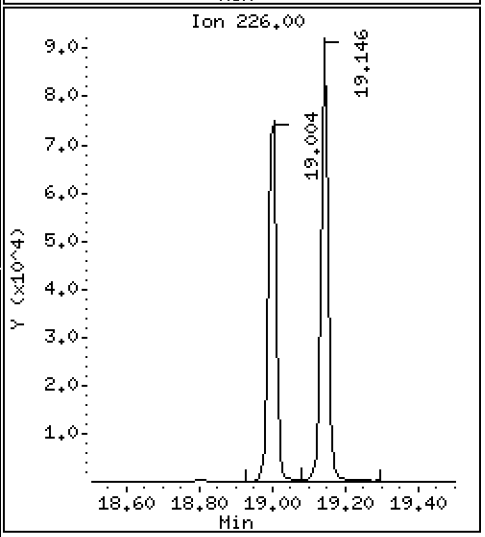
27 Benzo(a)anthracene

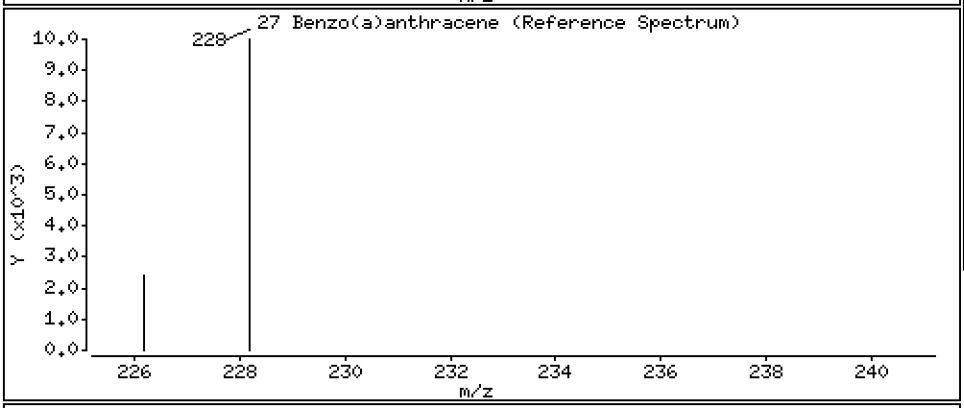
Concentration: 169 ng/mL

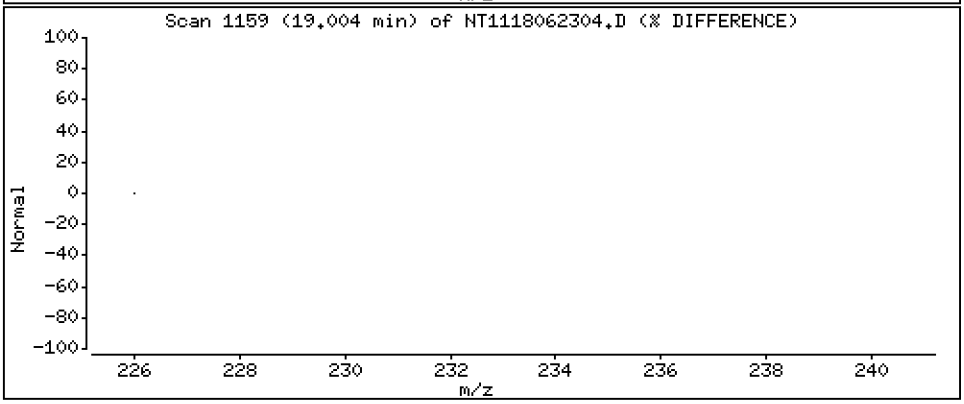












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Date : 23-JUN-2018 11:47

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

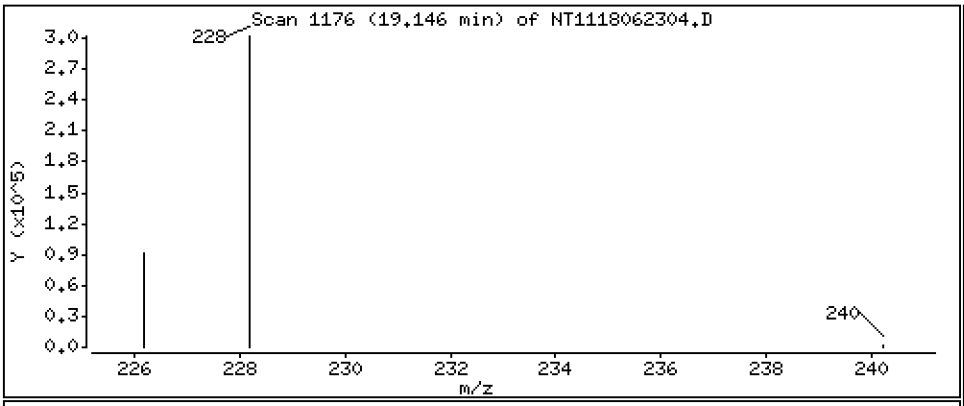
Operator: VTS

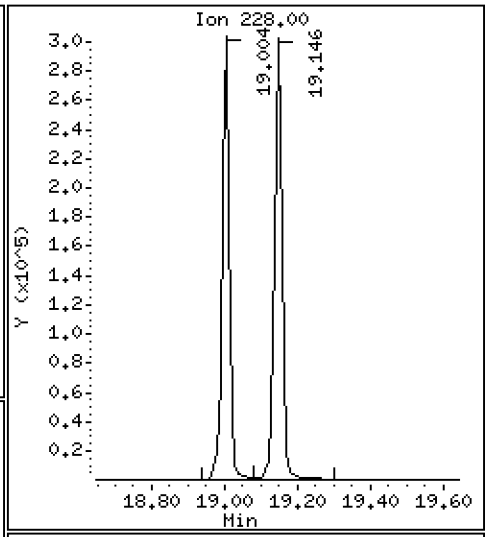
Column phase: Rxi-17Sil MS

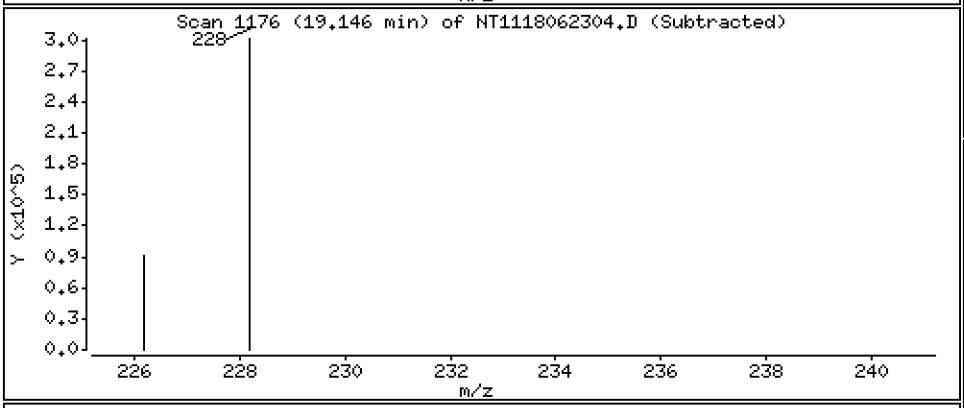
Column diameter: 0.25

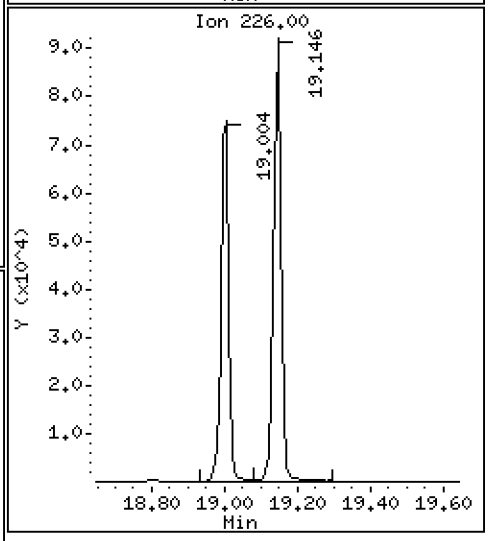
29 Chrysene

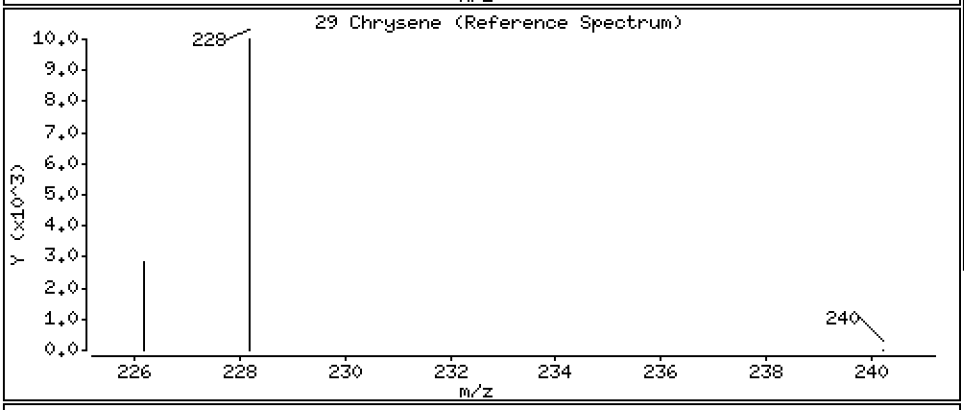
Concentration: 176 ng/mL

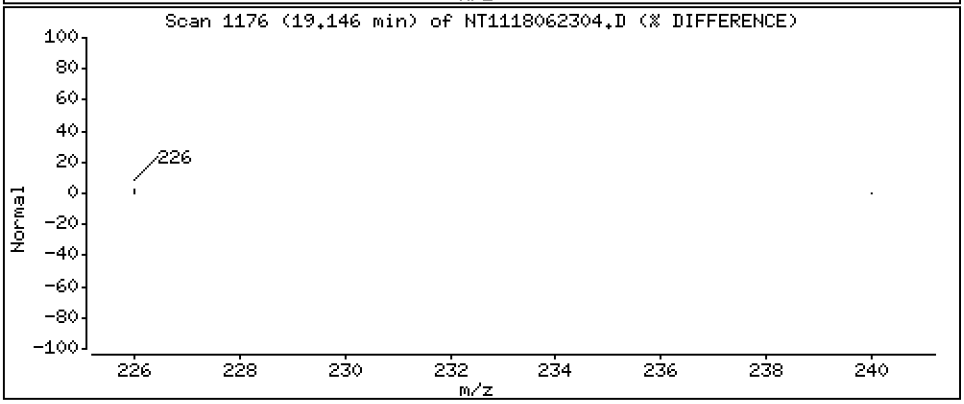












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Date : 23-JUN-2018 11:47

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

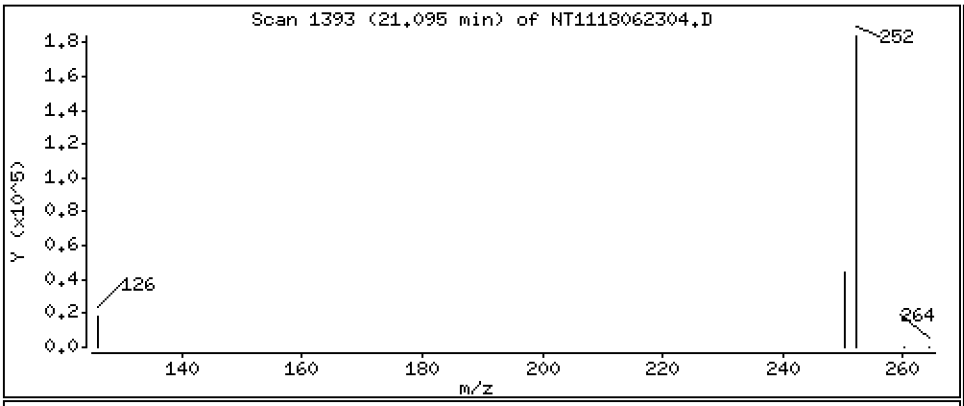
Operator: VTS

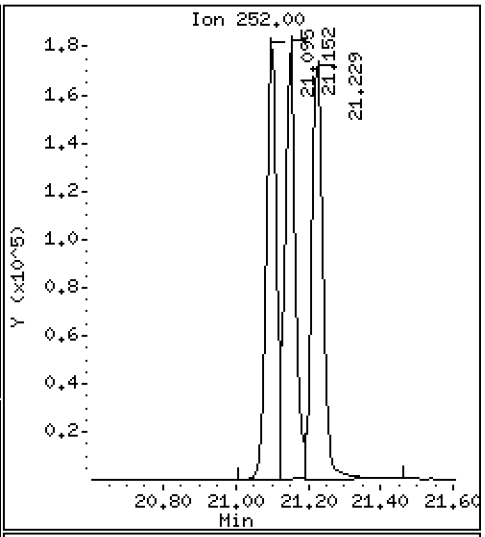
Column phase: Rxi-17Sil MS

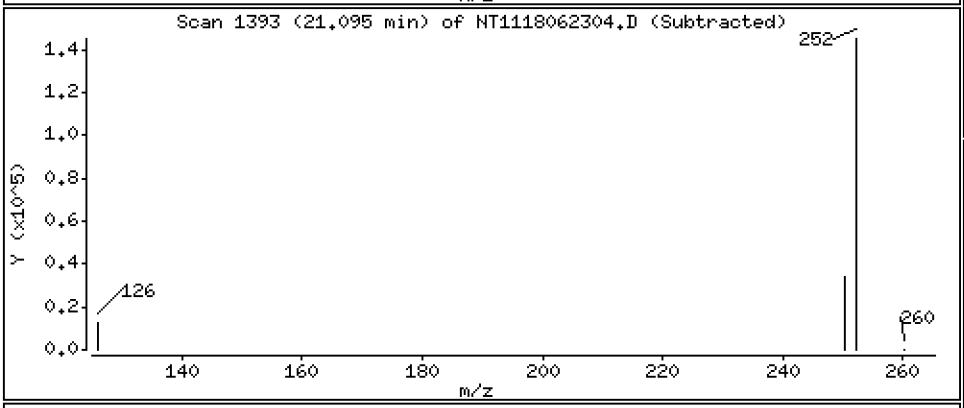
Column diameter: 0.25

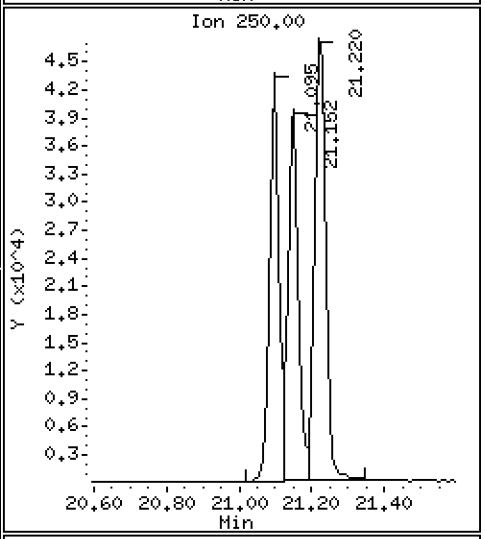
30 Benzo(b)fluoranthene

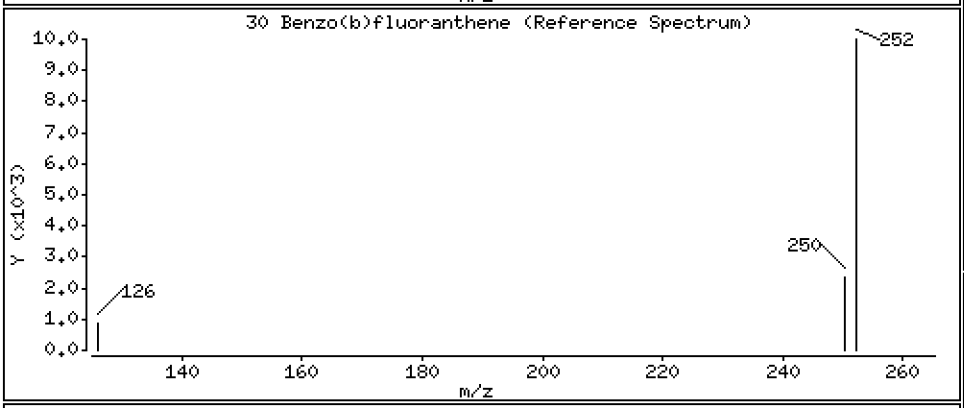
Concentration: 163 ng/mL

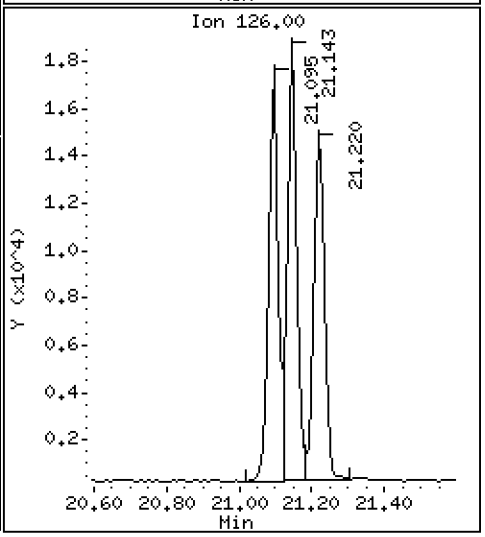


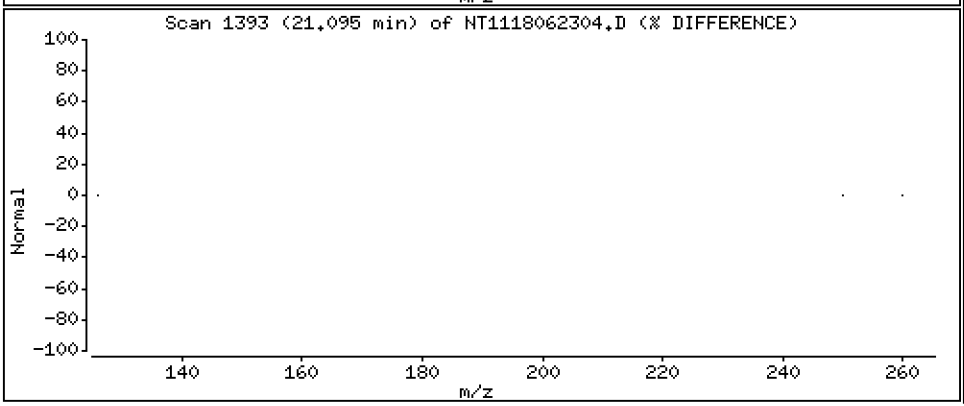












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Date : 23-JUN-2018 11:47

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

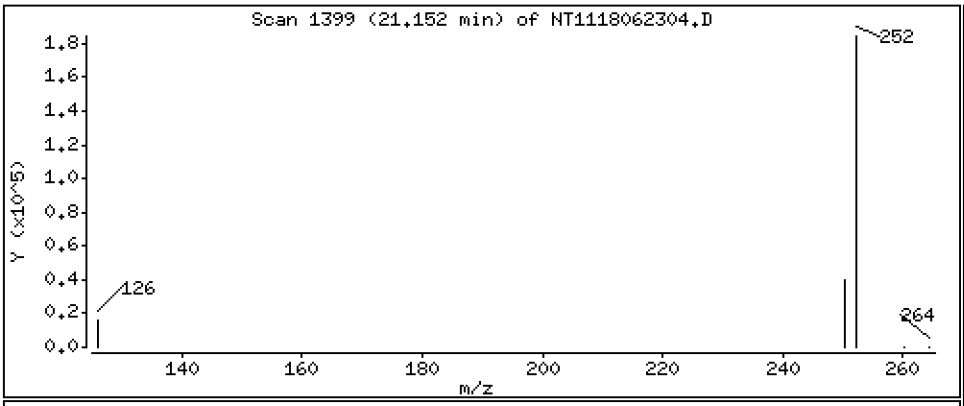
Operator: VTS

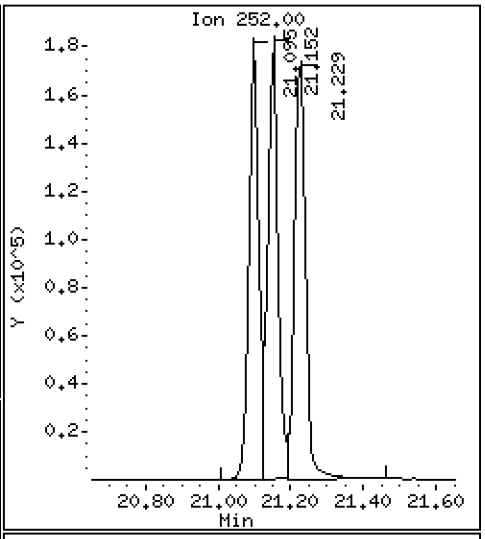
Column phase: Rxi-17Sil MS

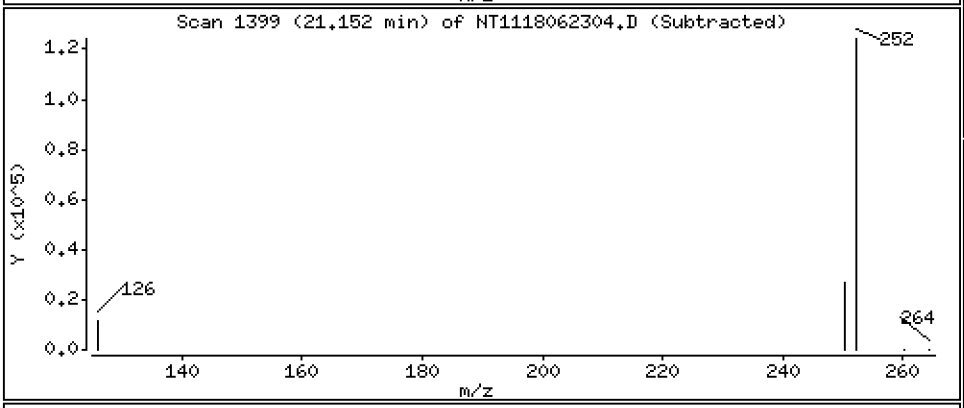
Column diameter: 0.25

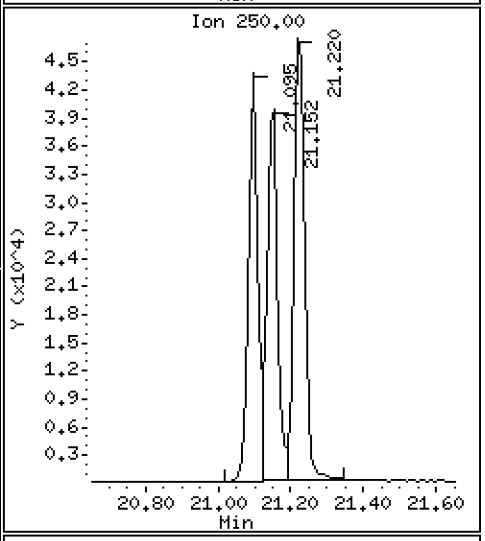
31 Benzo(k)fluoranthene

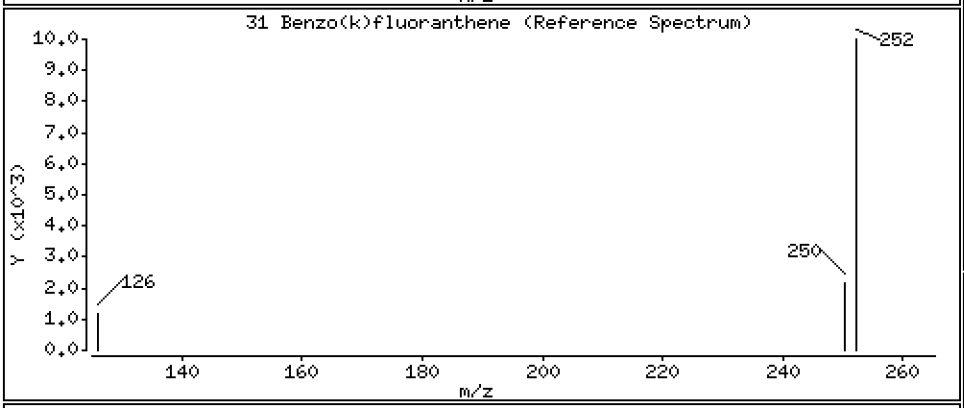
Concentration: 164 ng/mL

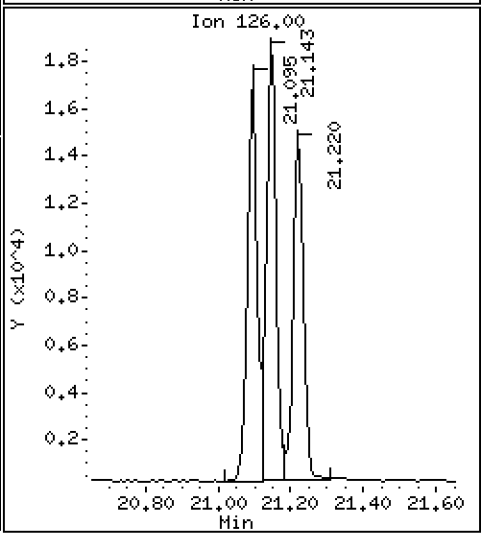


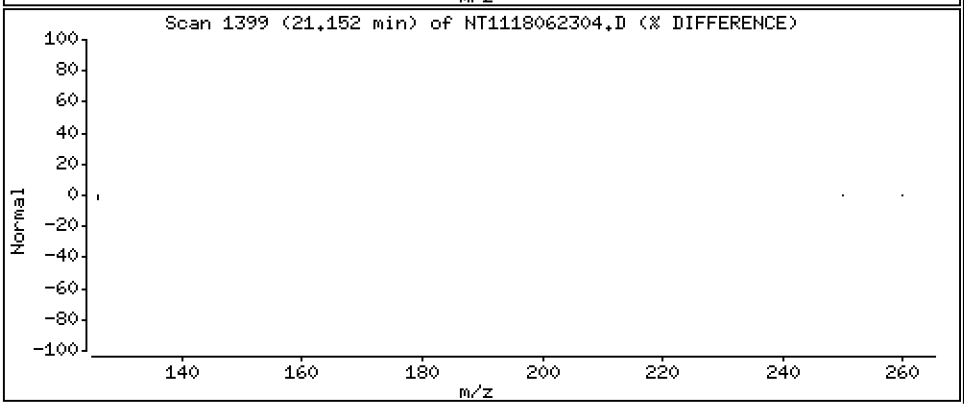












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Date : 23-JUN-2018 11:47

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

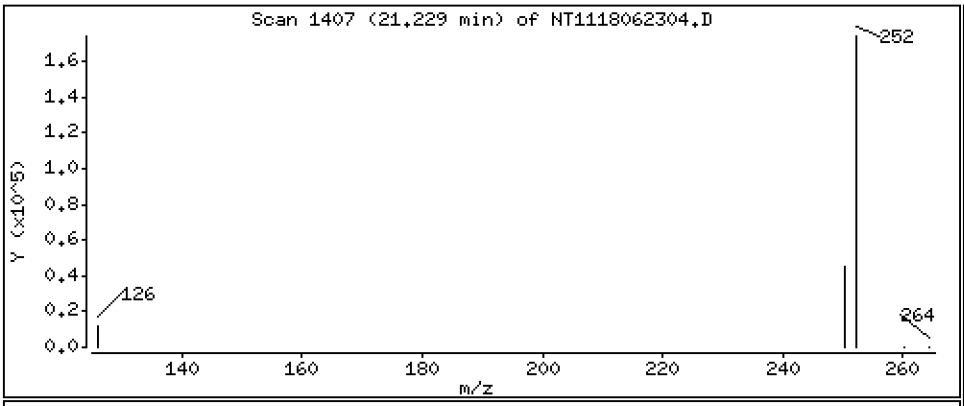
Operator: VTS

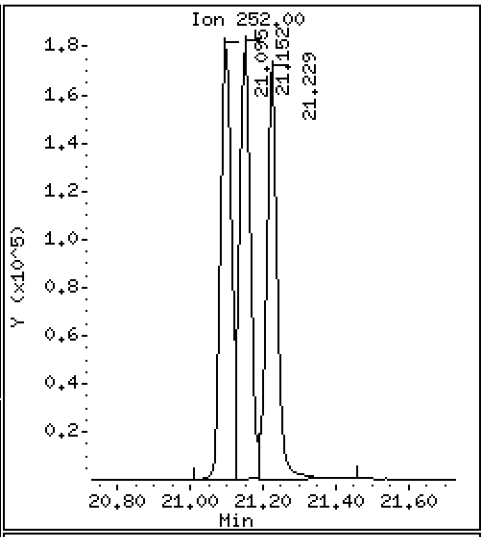
Column phase: Rxi-17Sil MS

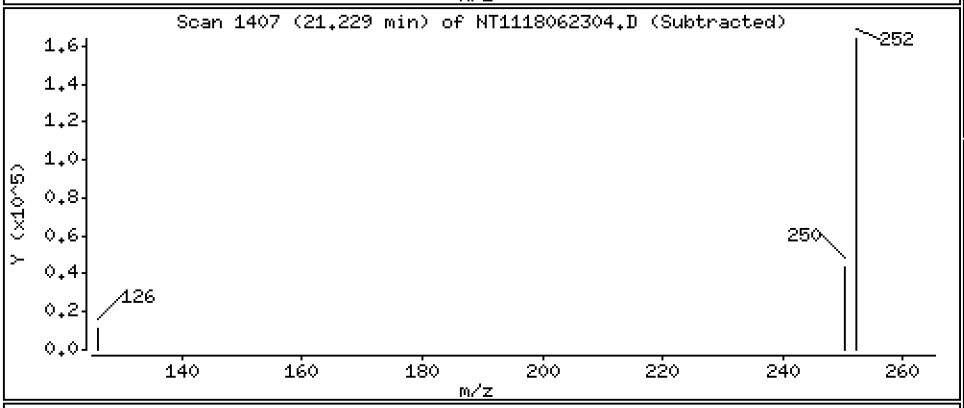
Column diameter: 0.25

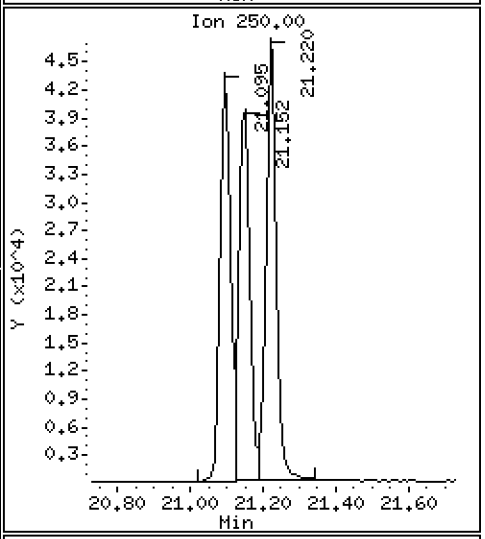
32 Benzo(j)fluoranthene

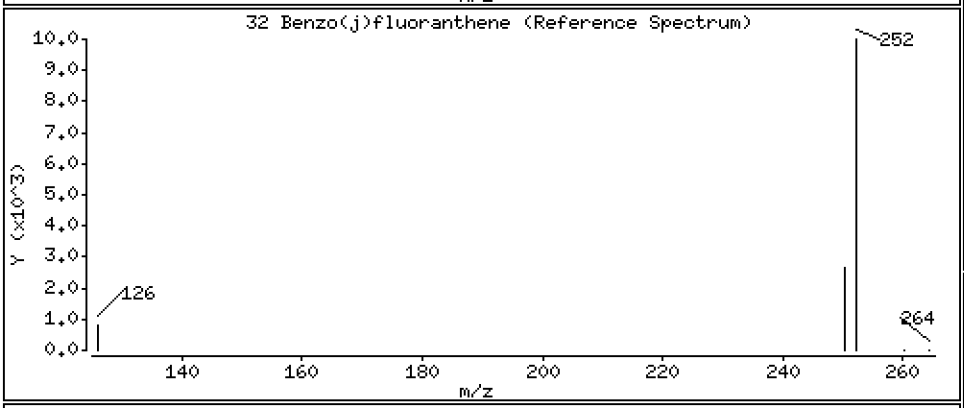
Concentration: 174 ng/mL

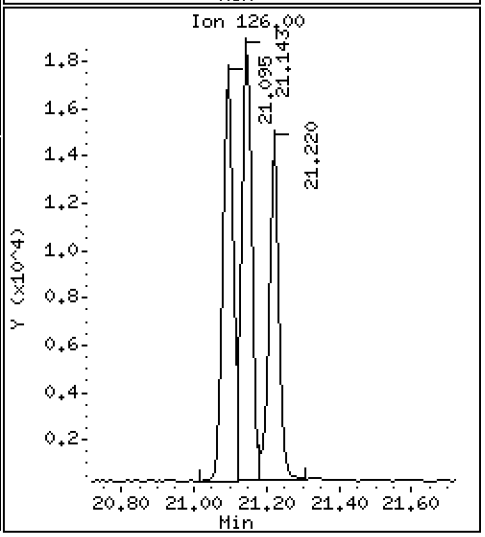


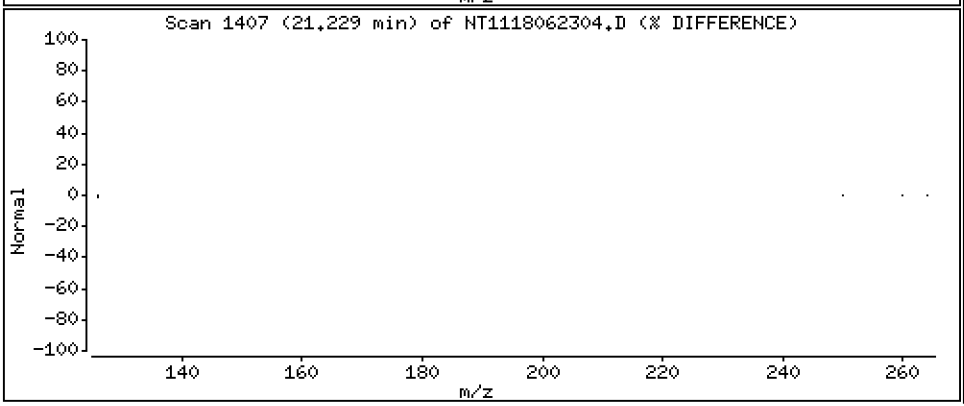












Date : 23-JUN-2018 11:47

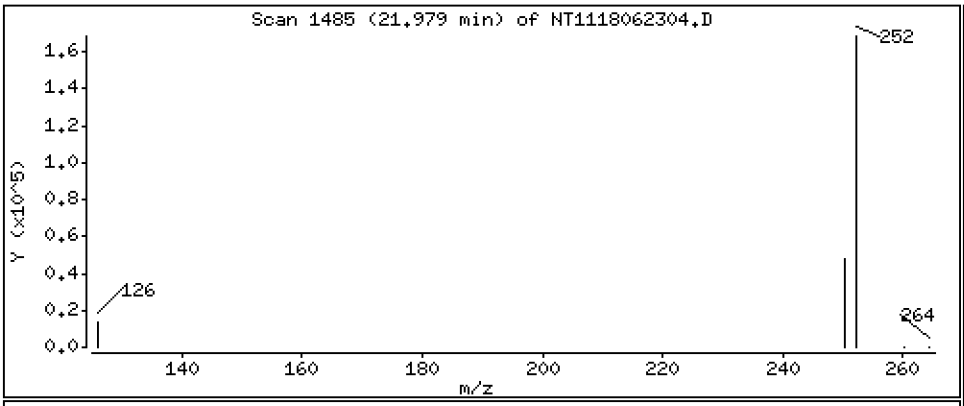
Client ID: Instrument: nt11.i

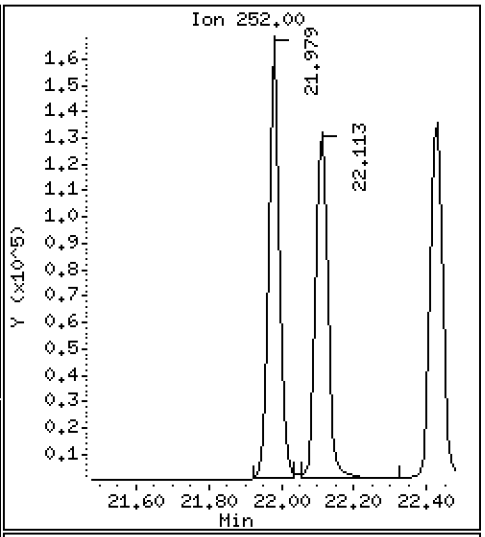
Sample Info: BGF0416-BS1

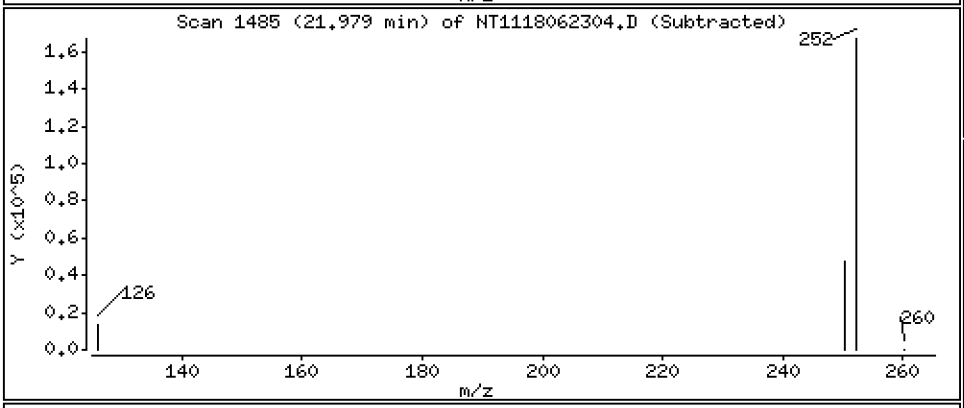
Operator: VTS

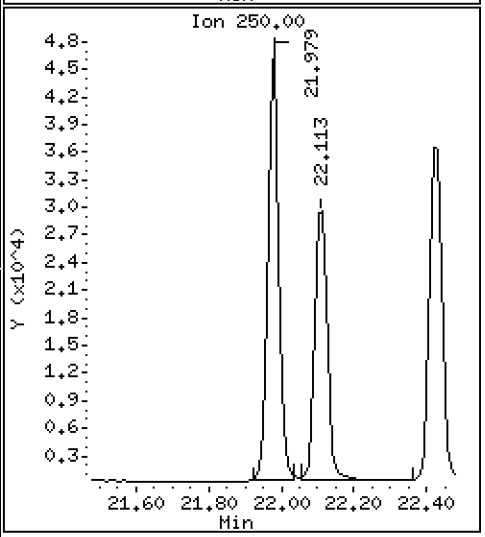
Column phase: Rxi-17Sil MS Column diameter: 0.25

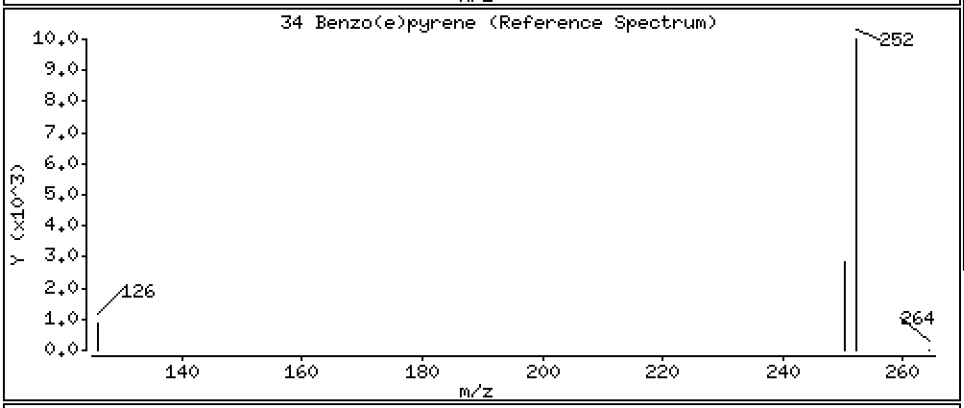
34 Benzo(e)pyrene Concentration: 160 ng/mL

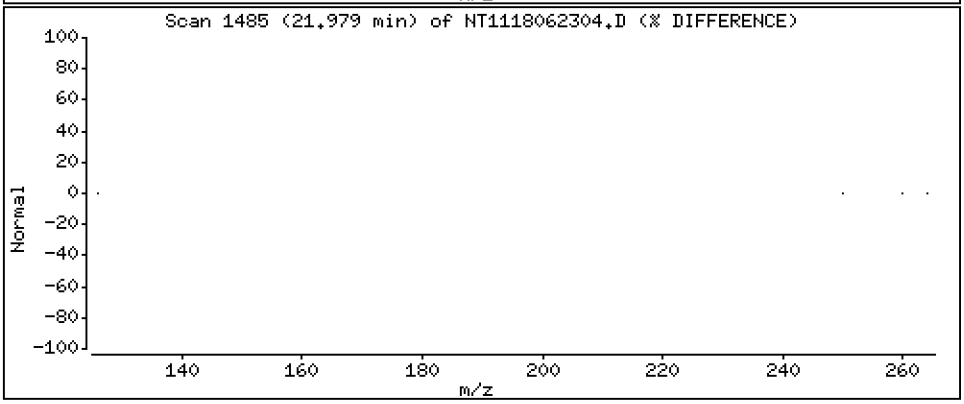












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Date : 23-JUN-2018 11:47

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

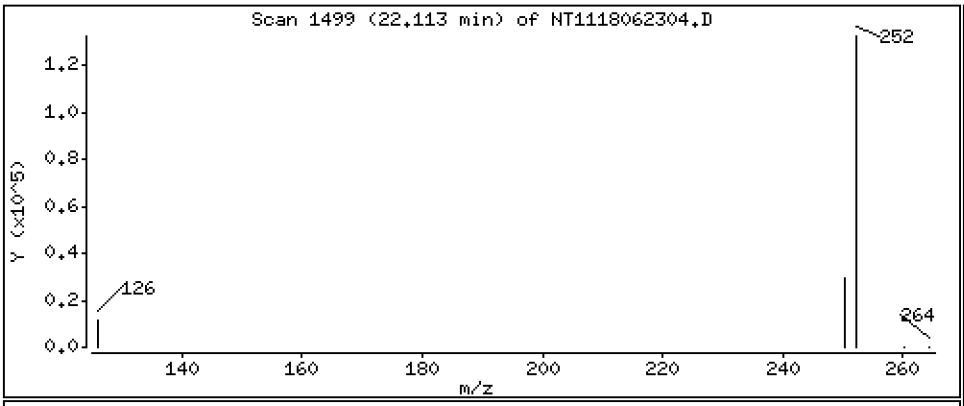
Operator: VTS

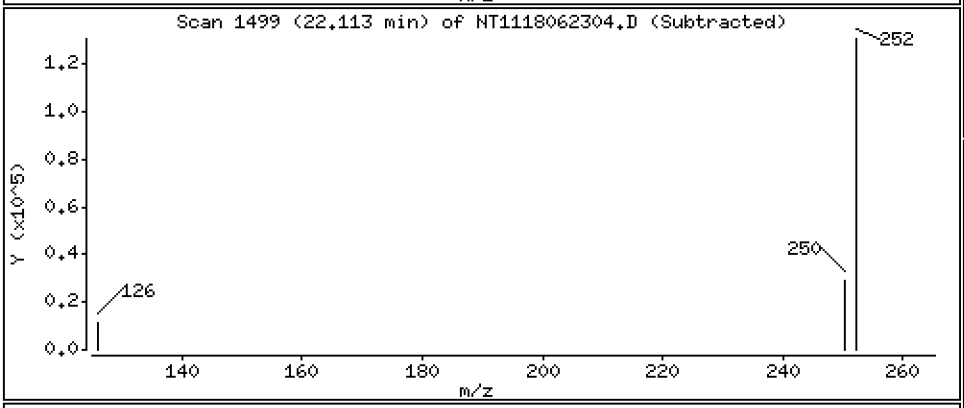
Column phase: Rxi-17Sil MS

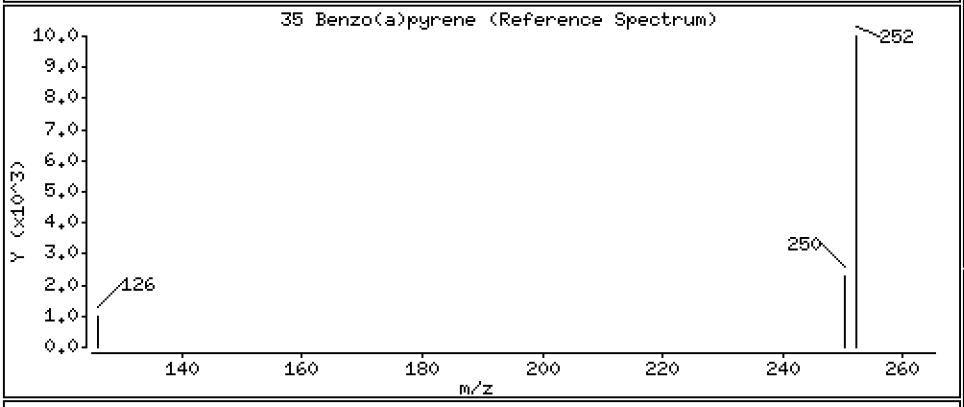
Column diameter: 0.25

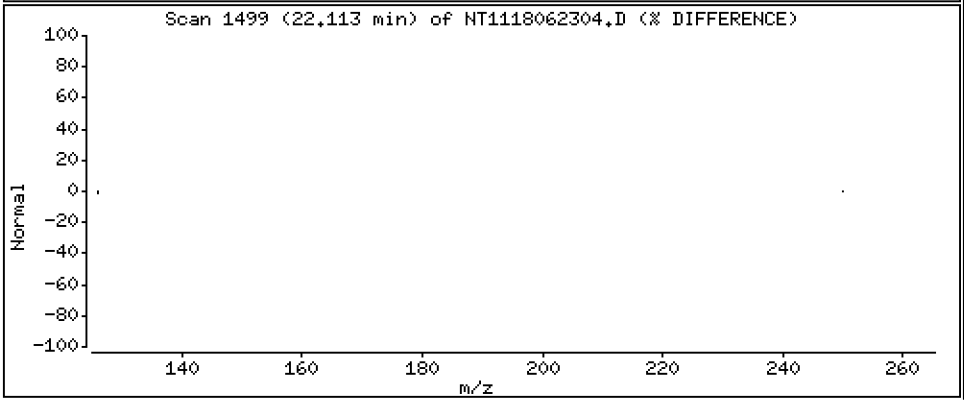
35 Benzo(a)pyrene

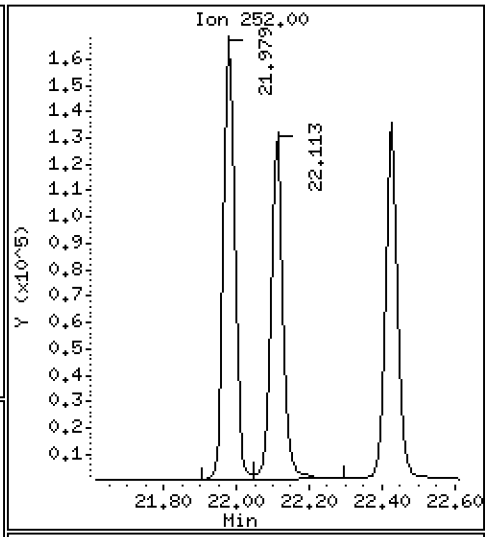
Concentration: 154 ng/mL

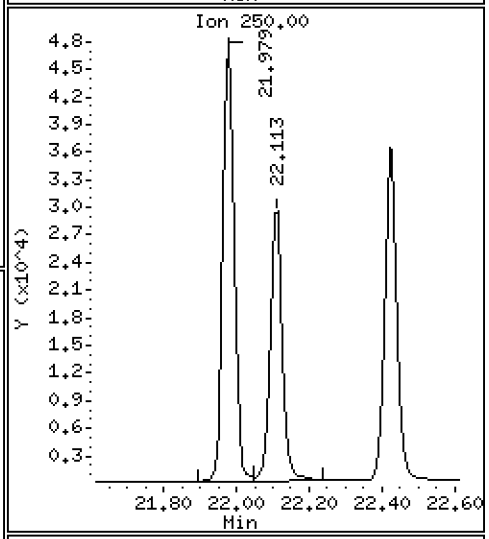


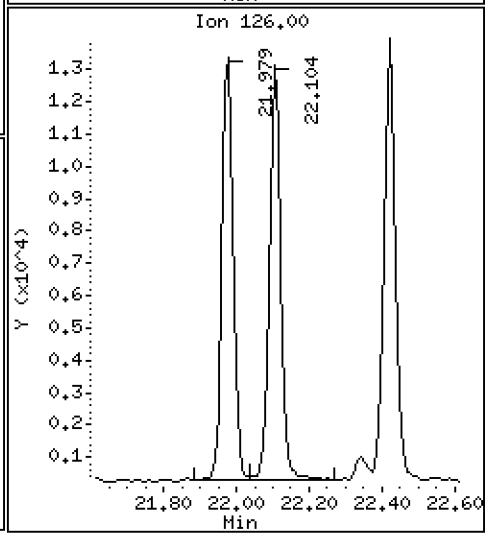












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Date : 23-JUN-2018 11:47

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

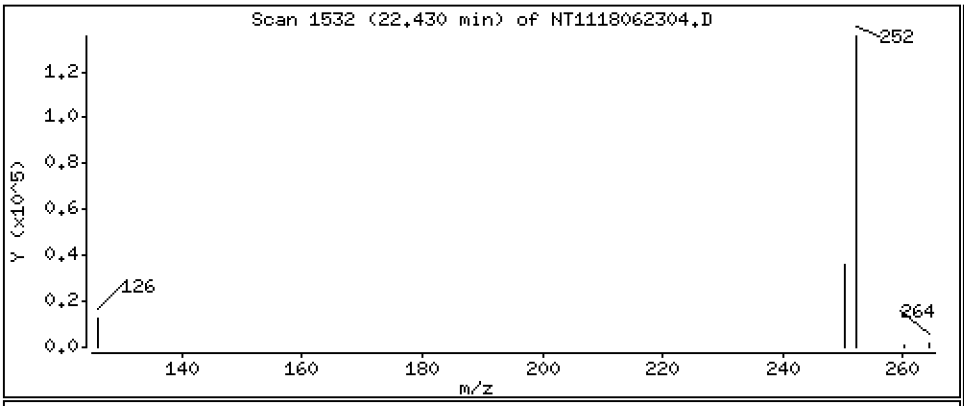
Operator: VTS

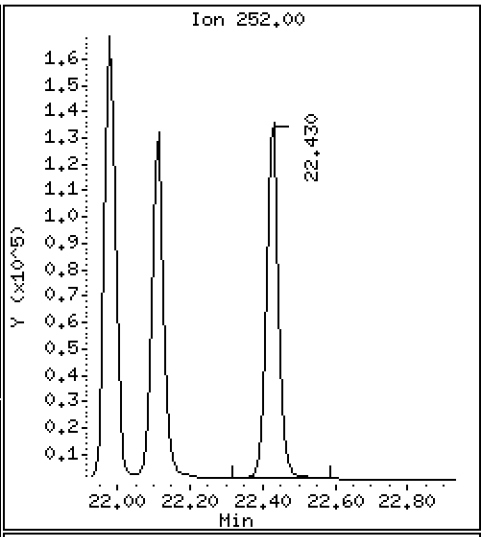
Column phase: Rxi-17Sil MS

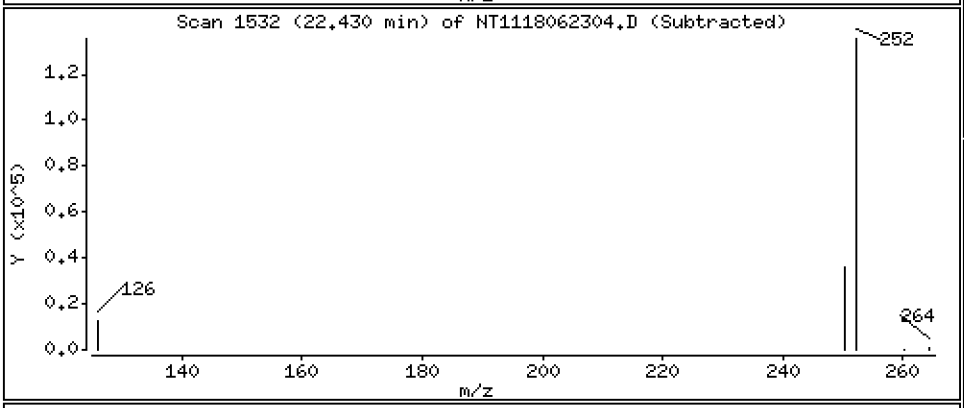
Column diameter: 0.25

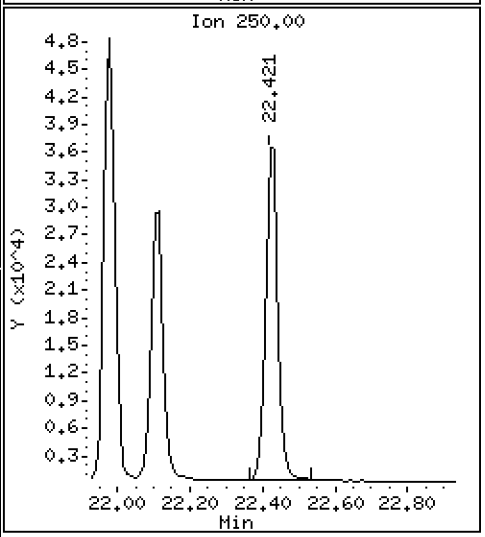
37 Perylene

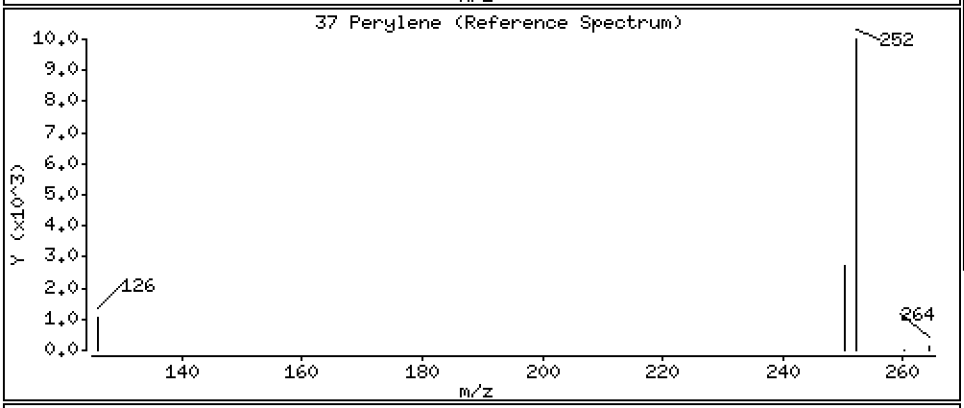
Concentration: 153 ng/mL

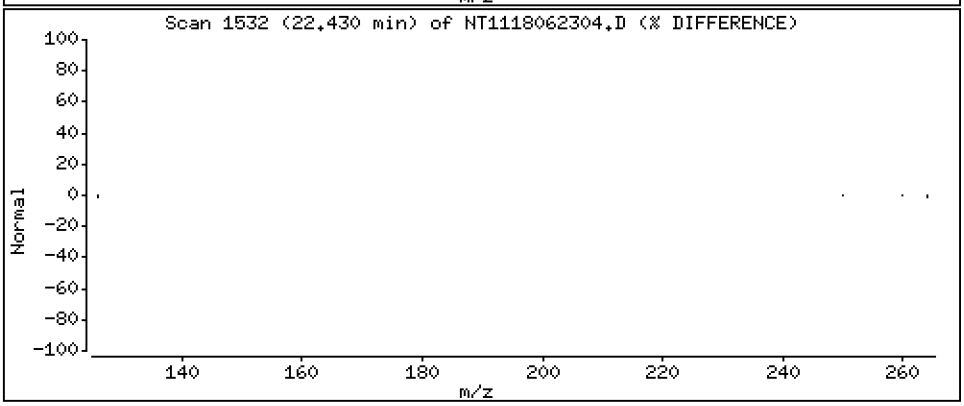












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062304.D

Date : 23-JUN-2018 11:47

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

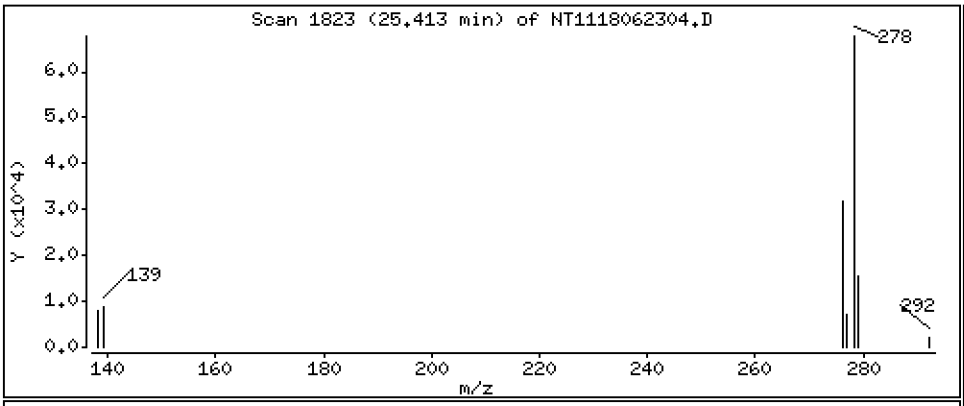
Operator: VTS

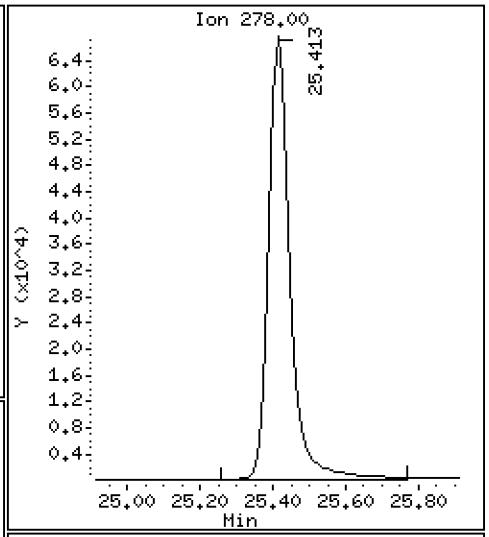
Column phase: Rxi-17Sil MS

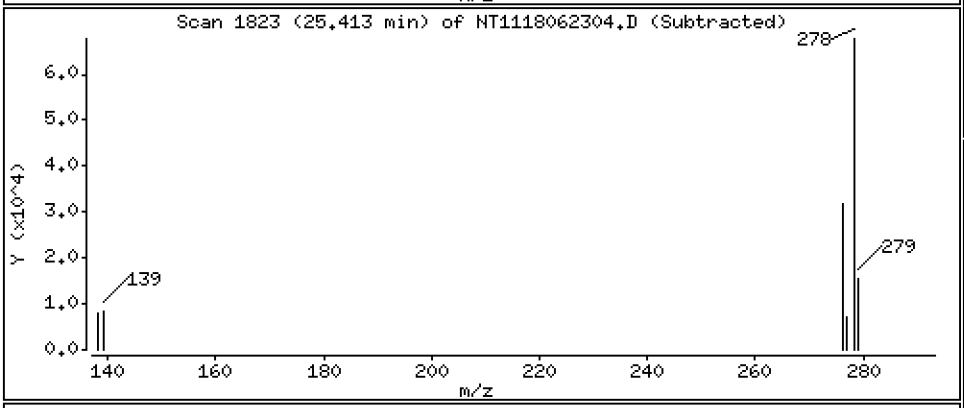
Column diameter: 0.25

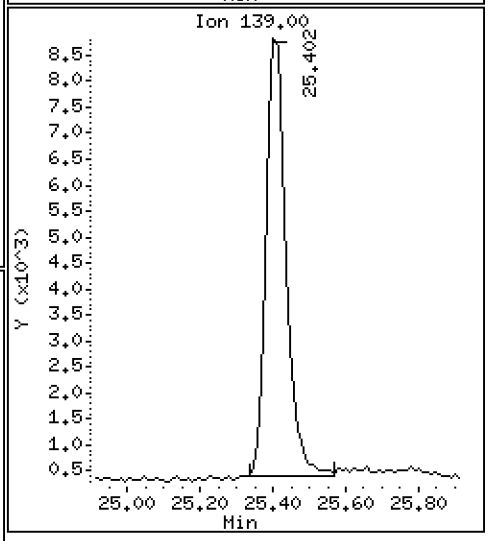
39 Dibenzo(a,h)anthracene

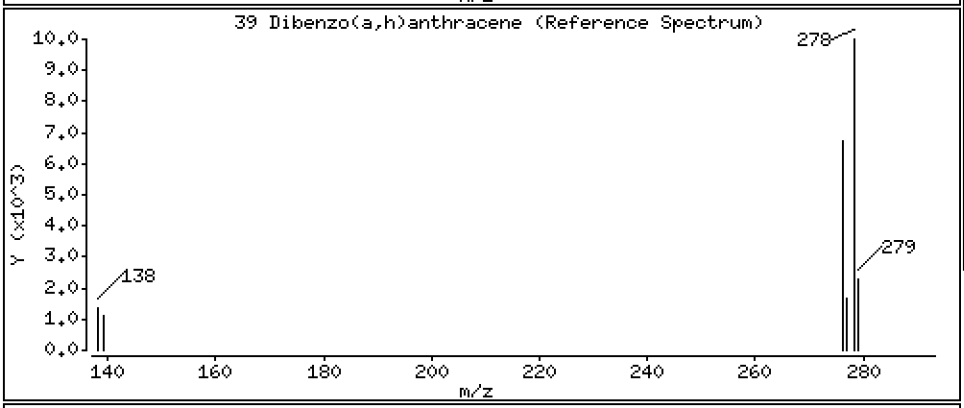
Concentration: 157 ng/mL

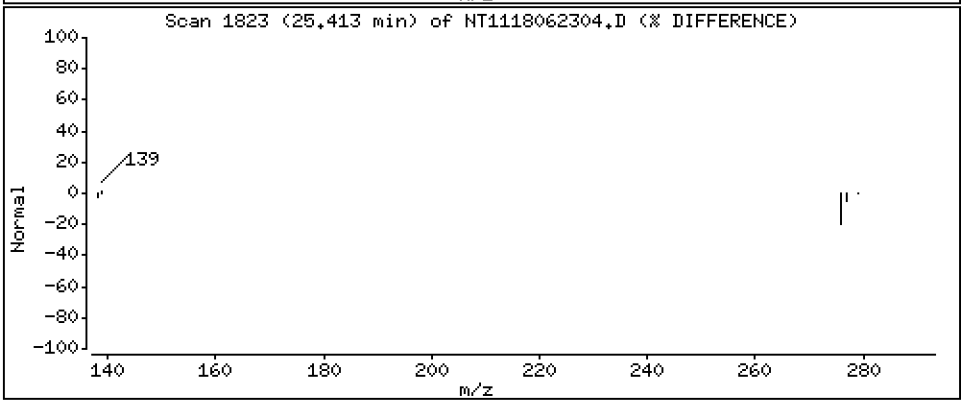












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Date : 23-JUN-2018 11:47

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

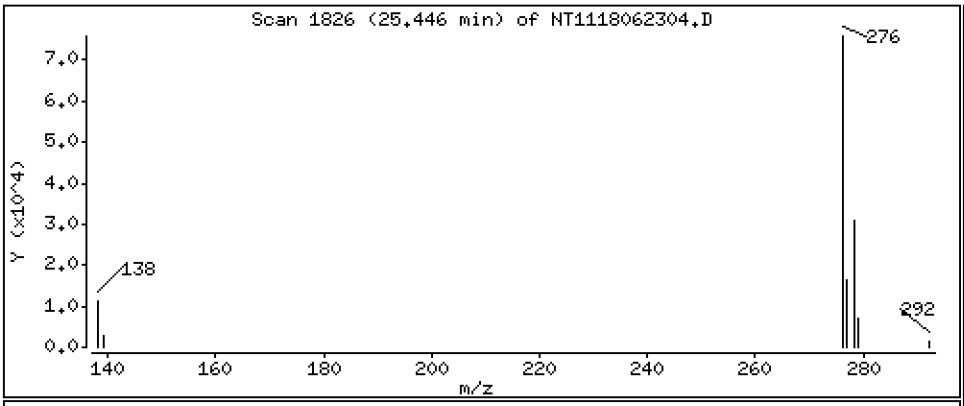
Operator: VTS

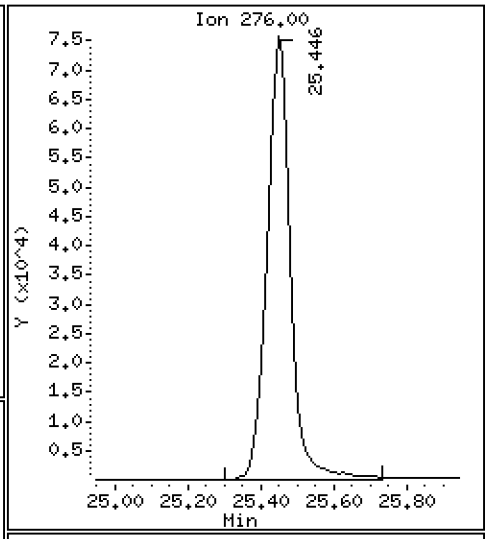
Column phase: Rxi-17Sil MS

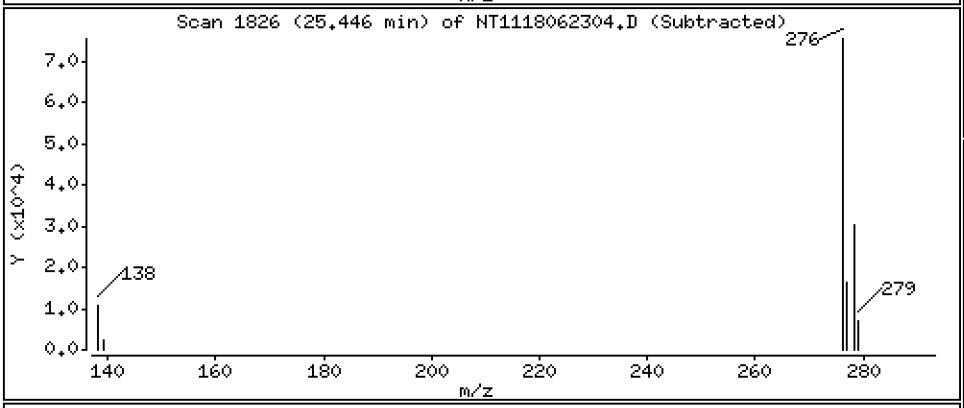
Column diameter: 0.25

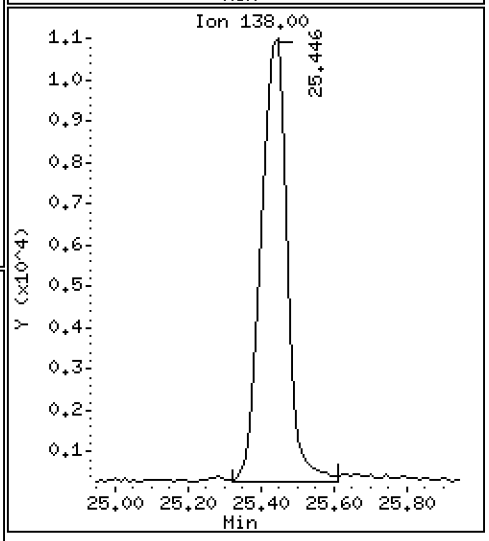
40 Indeno(1,2,3-cd)pyrene

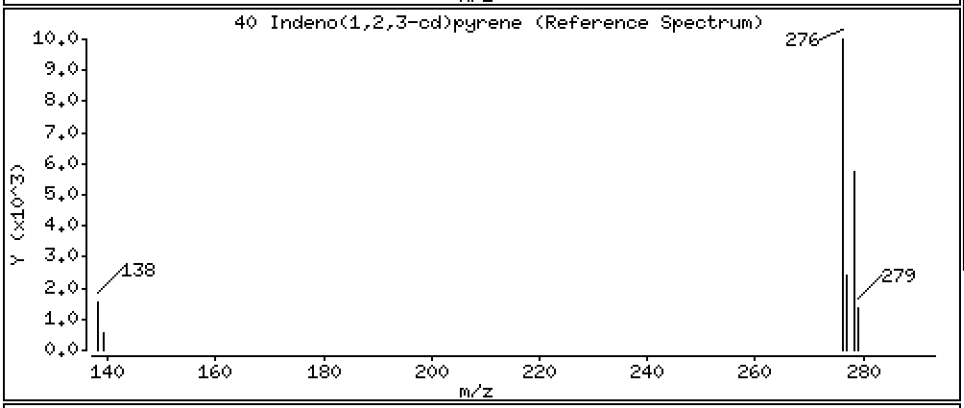
Concentration: 161 ng/mL

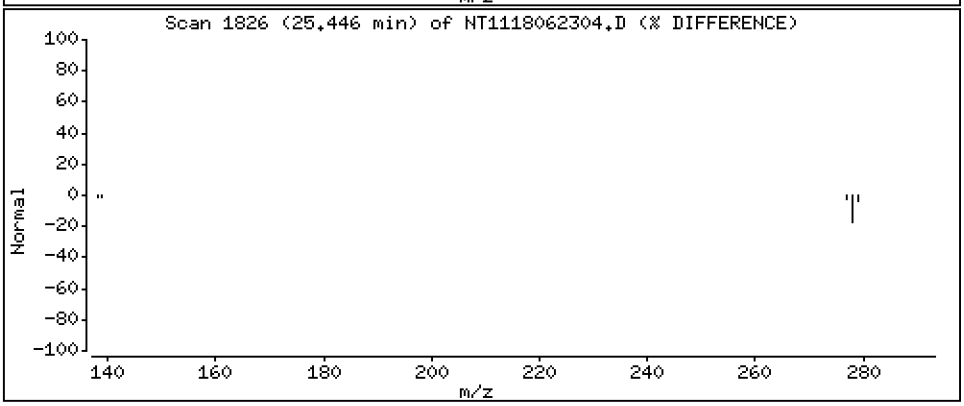












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062304.D

Date : 23-JUN-2018 11:47

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

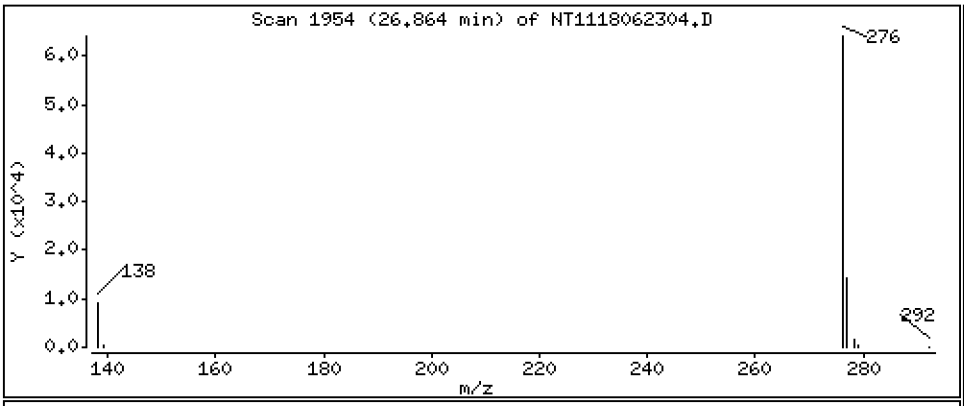
Operator: VTS

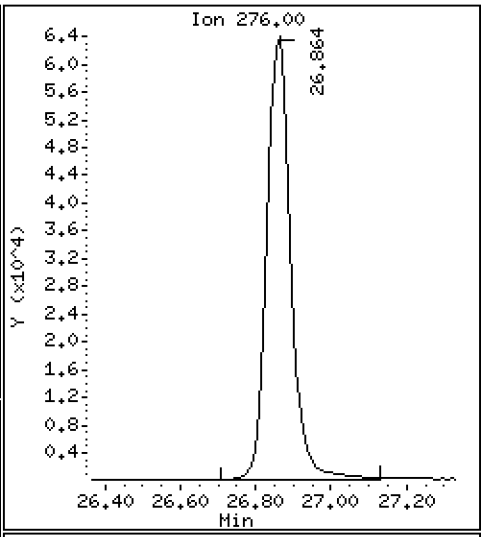
Column phase: Rxi-17Sil MS

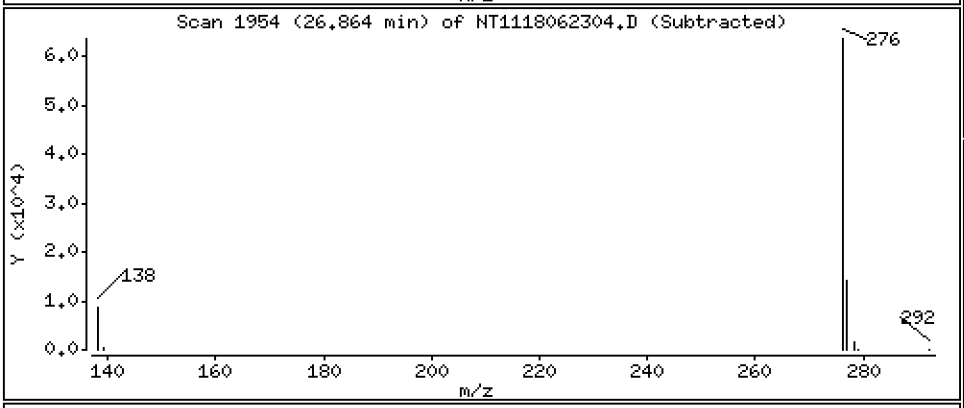
Column diameter: 0.25

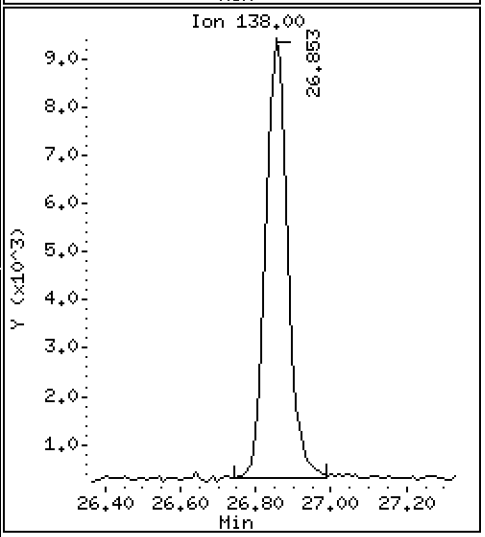
41 Benzo(g,h,i)perylene

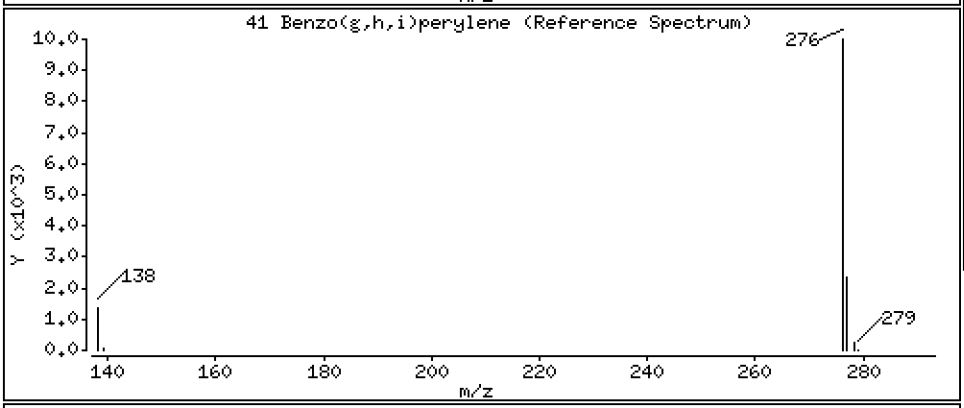
Concentration: 159 ng/mL

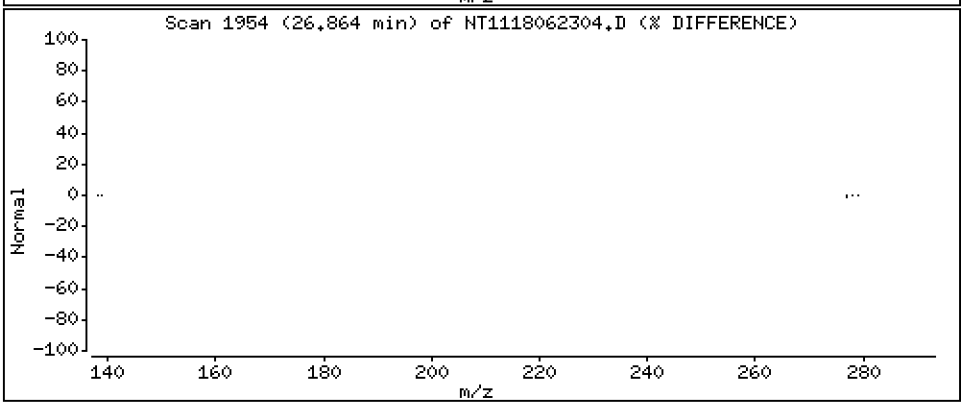












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180623.b\NT1118062304.D
Lab Smp Id: BGF0416-BS1
Inj Date : 23-JUN-2018 11:47 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : BGF0416-BS1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180623.b\lowsim.m
Meth Date : 23-Jun-2018 13:20 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	435740	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	339678	110.755	111
	3 Benzo(b)thiophene	134	8.897	8.897	(1.034)	306427	134.163	134
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	331854	133.480	133
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	360738	135.908	136
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	358984	135.990	136
	7 2-Chloronaphthalene	162	10.558	10.569	(0.907)	381840	137.106	137
	8 Biphenyl	154	10.527	10.527	(0.904)	490121	147.126	147
	9 2,6-Dimethylnaphthalene	156	10.579	10.579	(0.909)	369465	140.334	140
	10 Acenaphthylene	152	11.490	11.499	(0.987)	447754	140.563	141
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	267913	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	298948	137.212	137
	13 Dibenzofuran	168	11.908	11.908	(1.023)	423575	141.913	142
	14 2,3,5-Trimethylnaphthalene	170	11.996	12.009	(1.030)	263255	137.821	138
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.540	12.540	(1.077)	334931	139.153	139
	17 Dibenzothiophene	184	14.172	14.172	(0.988)	425030	148.789	149
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	458725	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	550437	152.994	153
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.435	14.435	(1.007)	477393	141.938	142
	22 Carbazole	167	15.113	15.113	(1.054)	617381	157.564	158
	23 1-Methylphenanthrene	192	15.384	15.384	(1.073)	571462	168.109	168
$	24 Fluoranthene-d10	212	16.449	16.449	(1.147)	439317	157.774	158
	25 Fluoranthene	202	16.487	16.487	(1.150)	555573	166.285	166
	26 Pyrene	202	16.987	16.996	(0.890)	550863	170.247	170
	27 Benzo(a)anthracene	228	19.004	19.004	(0.995)	426523	169.016	169
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	329128	200.000	
	29 Chrysene	228	19.145	19.145	(1.003)	440966	175.915	176
	30 Benzo(b)fluoranthene	252	21.094	21.104	(0.944)	368704	163.097	163
	31 Benzo(k)fluoranthene	252	21.152	21.152	(0.946)	385055	164.259	164
	32 Benzo(j)fluoranthene	252	21.229	21.229	(0.950)	371936	174.323	174
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	34 Benzo(e)pyrene	252	21.978	21.978	(0.983)	349895	160.469	160
	35 Benzo(a)pyrene	252	22.113	22.113	(0.989)	305980	154.067	154
*	36 Perylene-d12	264	22.353	22.353	(1.000)	319608	200.000	
	37 Perylene	252	22.430	22.430	(1.003)	319473	153.273	153
$	38 Dibenzo(a,h)anthracene-d14	292	25.268	25.268	(1.130)	228234	149.227	149
	39 Dibenzo(a,h)anthracene	278	25.412	25.412	(1.137)	271560	157.151	157
	40 Indeno(1,2,3-cd)pyrene	276	25.446	25.446	(1.138)	332821	161.108	161
	41 Benzo(g,h,i)perylene	276	26.863	26.863	(1.202)	283353	158.576	159

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118062304.D
Lab Smp Id: BGF0416-BS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180623.b\lowsim.m
Misc Info:

Calibration Date: 23-JUN-2018
Calibration Time: 10:32
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	435740	1.02
11 Acenaphthene-d10	260137	130069	520274	267913	2.99
18 Phenanthrene-d10	427391	213696	854782	458725	7.33
28 Chrysene-d12	304596	152298	609192	329128	8.05
36 Perylene-d12	263091	131546	526182	319608	21.48

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118062304.D

Lab ID: BGF0416-BS1
nt11.i, 20180623.b\lowsim.m,   23-JUN-2018 11:47

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180623.b\lowsim.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

LCS / LCS DUPLICATE RECOVERY

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/23/18 19:26
Batch:	BGF0455	Laboratory ID:	BGF0455-BS1
Preparation:	EPA 3510C SepF	Sequence Name:	LCS
Initial/Final:	500 mL / 0.5 mL		

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	Q	LCS % REC. #	QC LIMITS REC.
Naphthalene	0.300	0.183		61.1	30 - 160
2-Methylnaphthalene	0.300	0.210		70.1	30 - 160
Acenaphthylene	0.300	0.217		72.3	30 - 160
Acenaphthene	0.300	0.213		71.1	30 - 160
Fluorene	0.300	0.214		71.2	30 - 160
Phenanthrene	0.300	0.228		75.9	30 - 160
Anthracene	0.300	0.200		66.5	30 - 160
Fluoranthene	0.300	0.247		82.2	30 - 160
Pyrene	0.300	0.229		76.5	30 - 160
Benzo(a)anthracene	0.300	0.236		78.6	30 - 160
Chrysene	0.300	0.250		83.5	30 - 160
Benzo(b)fluoranthene	0.300	0.230		76.6	30 - 160
Benzo(k)fluoranthene	0.300	0.239		79.5	30 - 160
Benzo(j)fluoranthene	0.300	0.254		84.8	30 - 160
Benzo(a)pyrene	0.300	0.199		66.3	30 - 160
Indeno(1,2,3-cd)pyrene	0.300	0.237		79.2	30 - 160
Dibenzo(a,h)anthracene	0.300	0.226		75.4	30 - 160
Benzo(g,h,i)perylene	0.300	0.234		78.1	30 - 160

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062315.D

Date : 23-JUN-2018 19:26

Client ID:

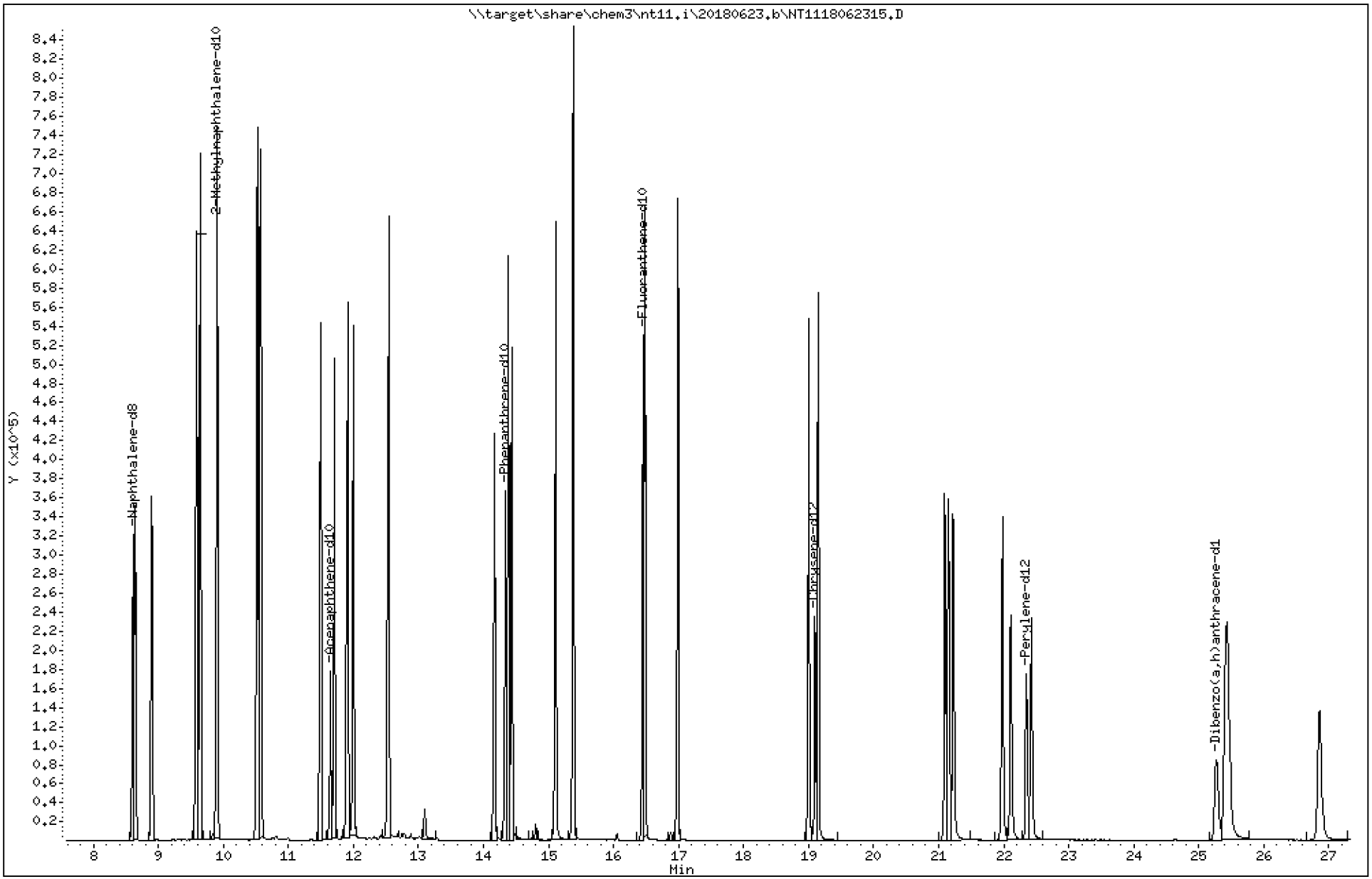
Instrument: nt11.i

Sample Info: BGF0455-BS1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

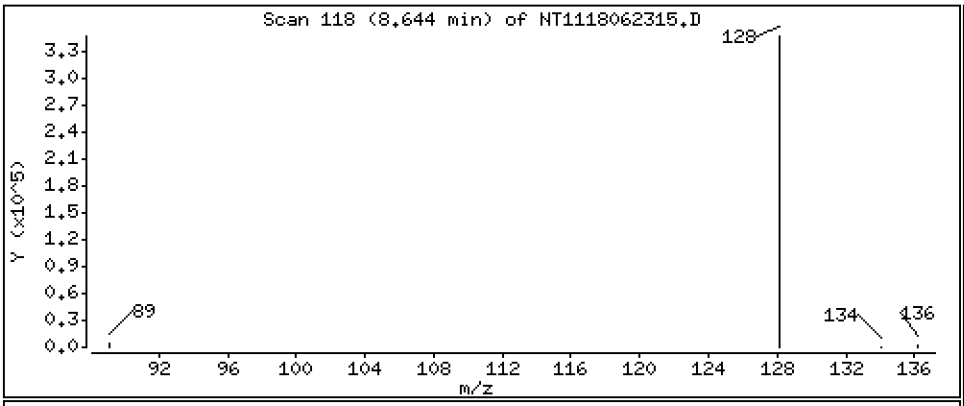
Operator: VTS

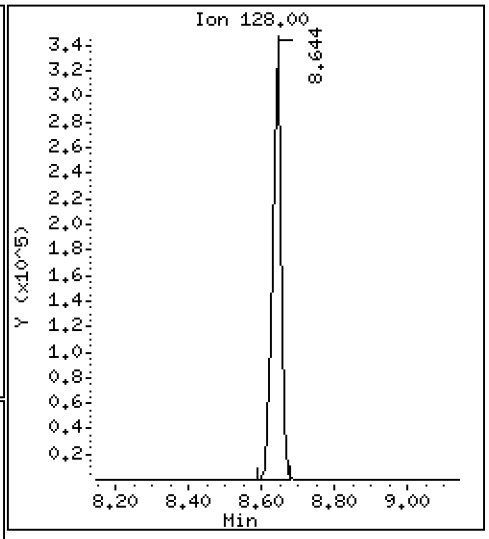
Column phase: Rxi-17Sil MS

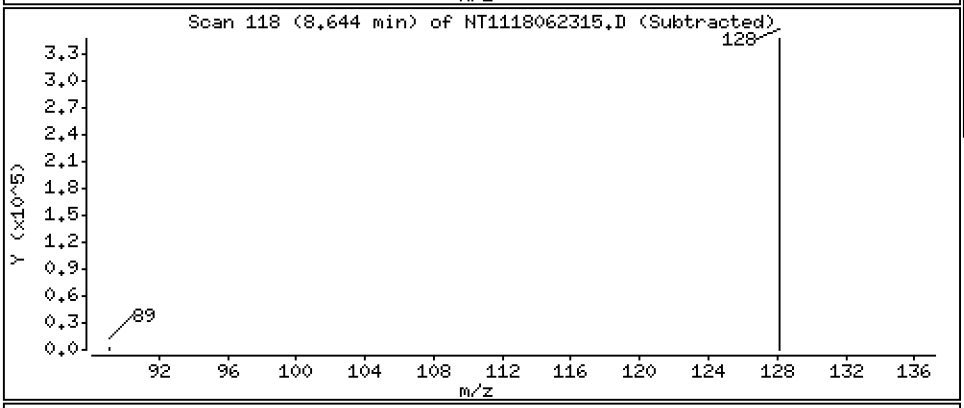
Column diameter: 0.25

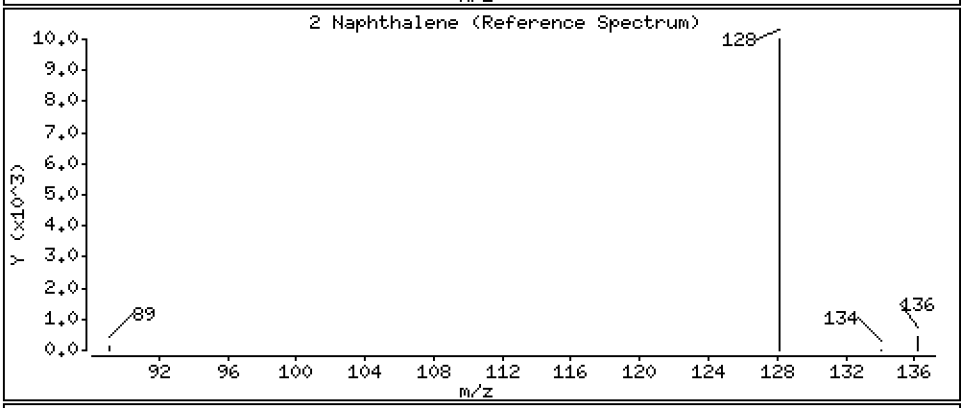
2 Naphthalene

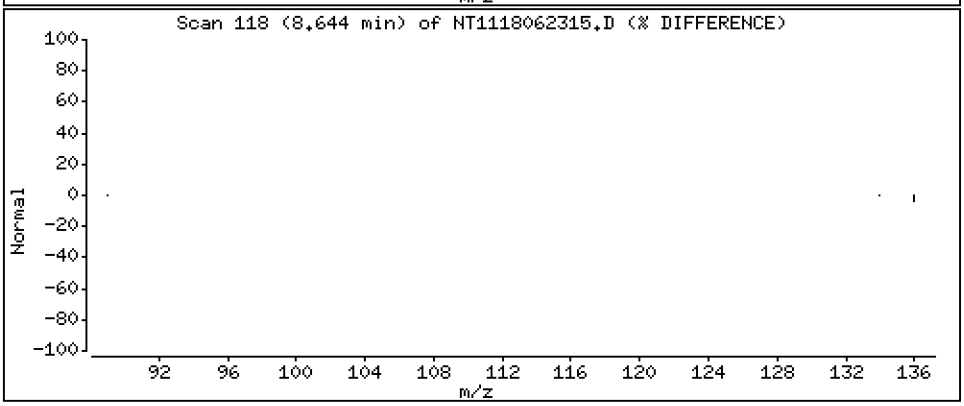
Concentration: 183 ng/mL











Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062315.D

Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

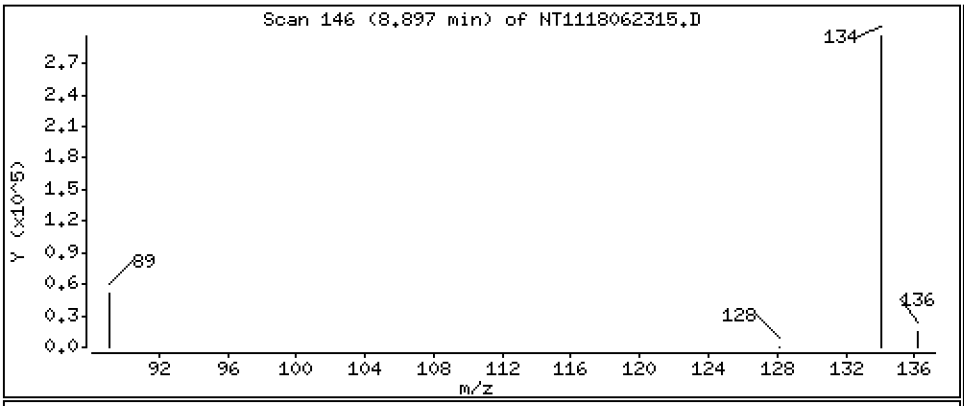
Operator: VTS

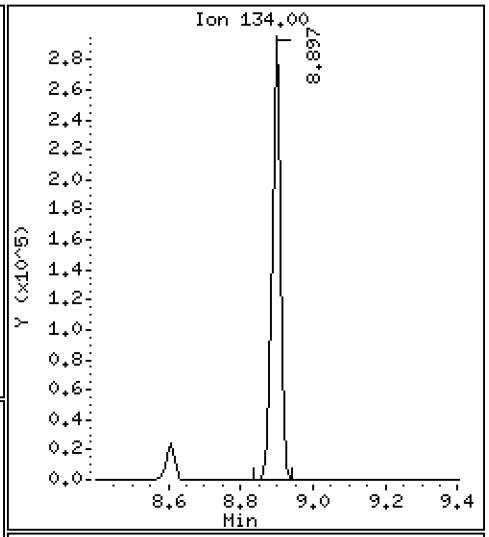
Column phase: Rxi-17Sil MS

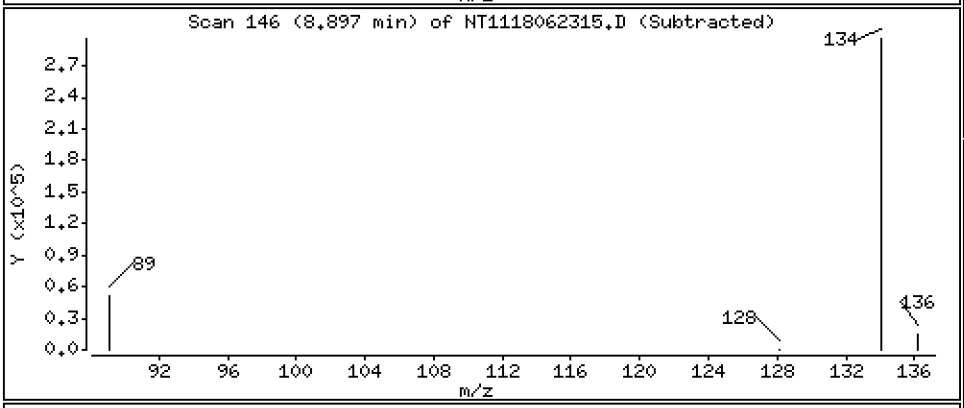
Column diameter: 0.25

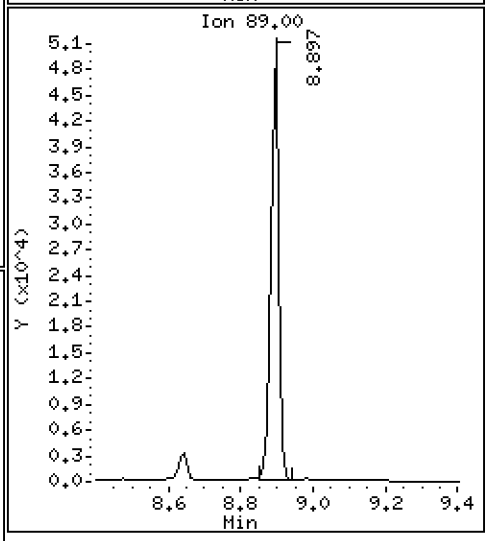
3 Benzo(b)thiophene

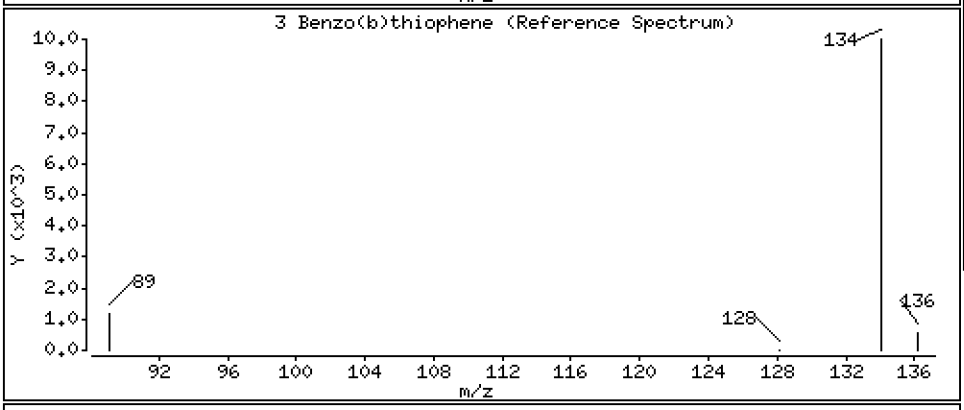
Concentration: 208 ng/mL

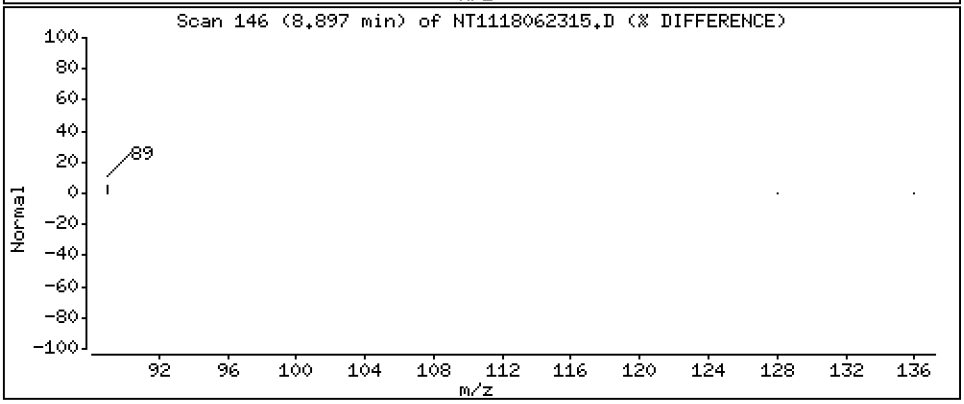












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Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

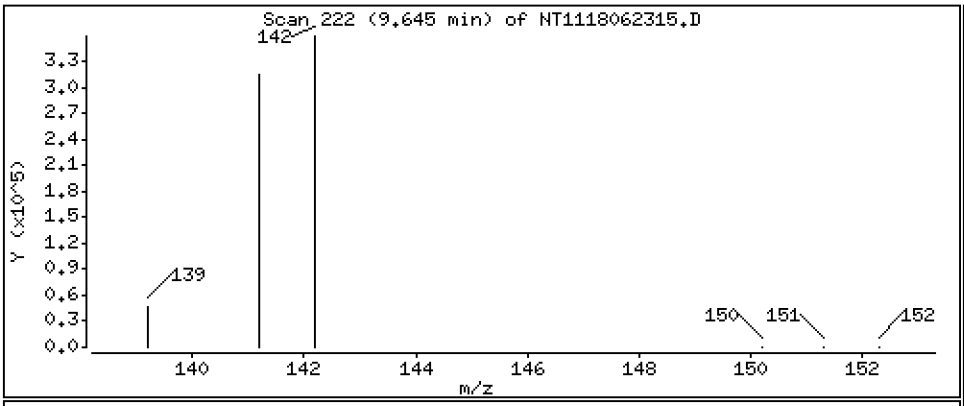
Operator: VTS

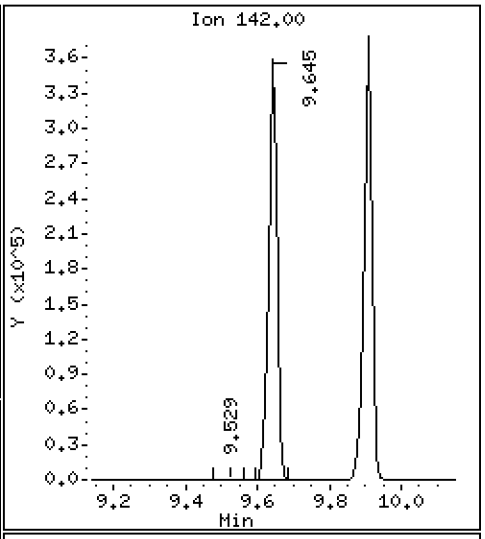
Column phase: Rxi-17Sil MS

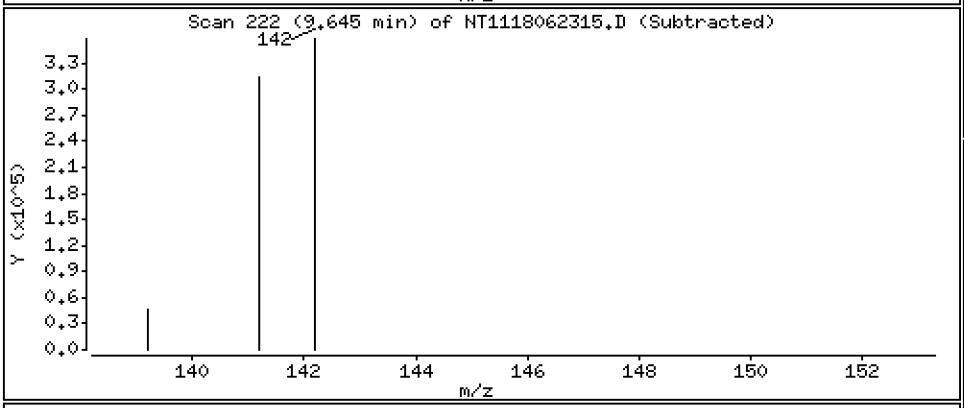
Column diameter: 0.25

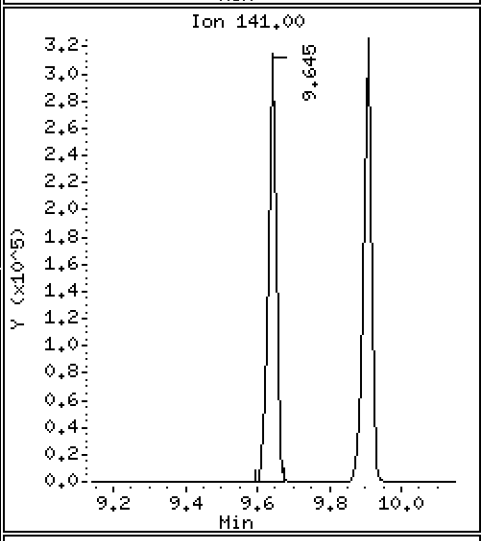
5 2-Methylnaphthalene

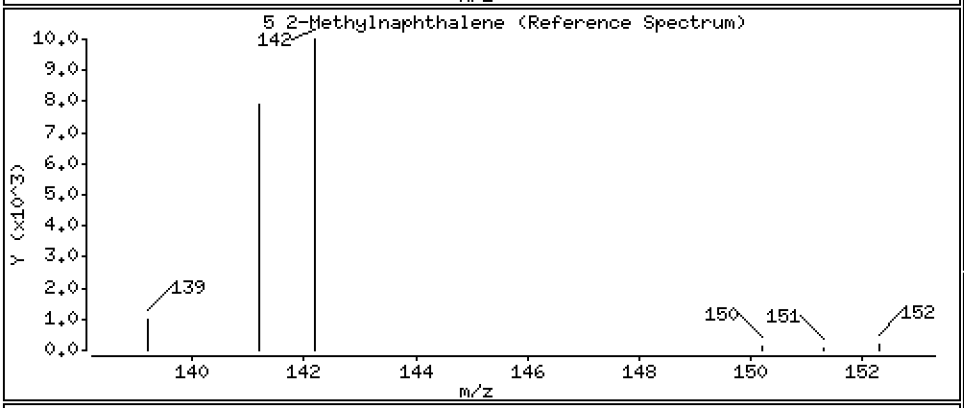
Concentration: 210 ng/mL

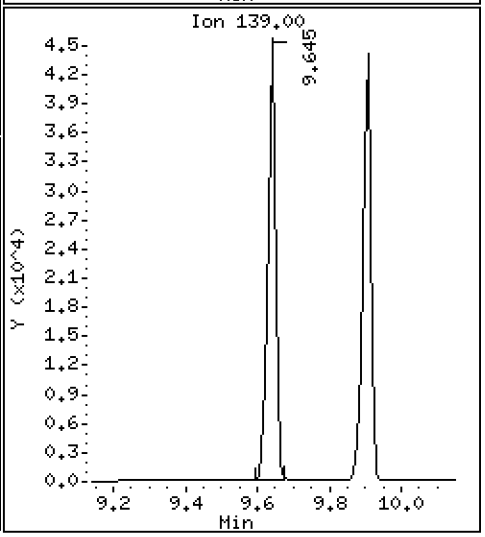


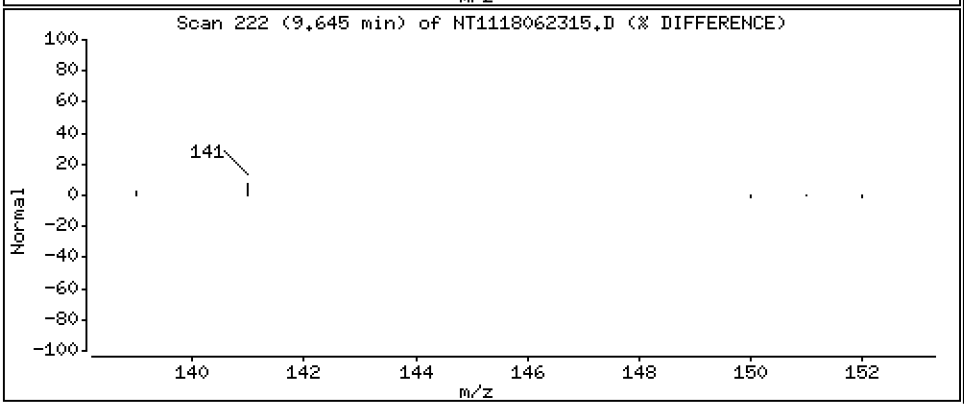












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Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

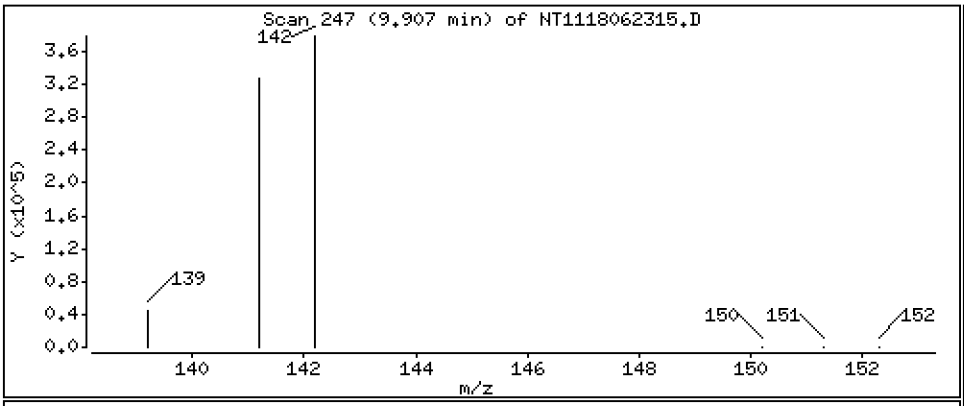
Operator: VTS

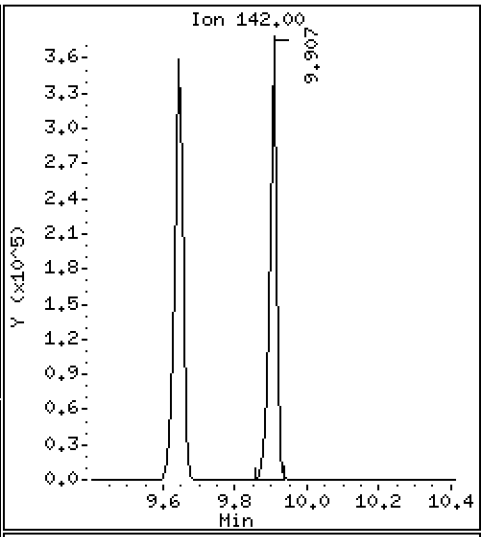
Column phase: Rxi-17Sil MS

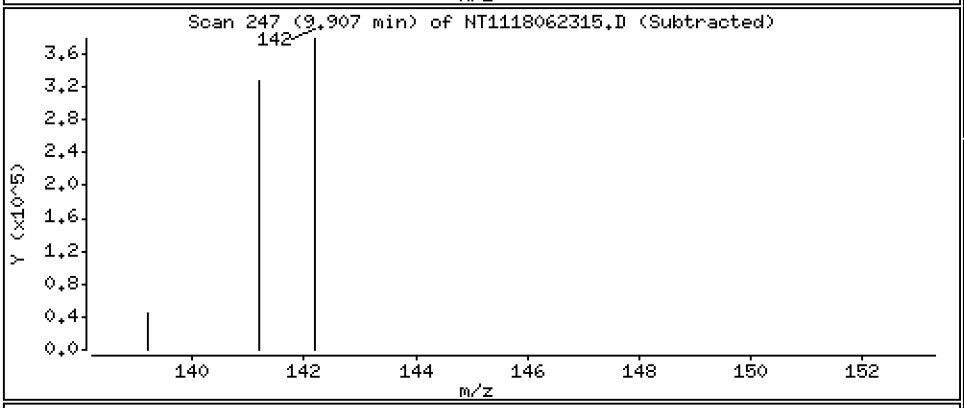
Column diameter: 0.25

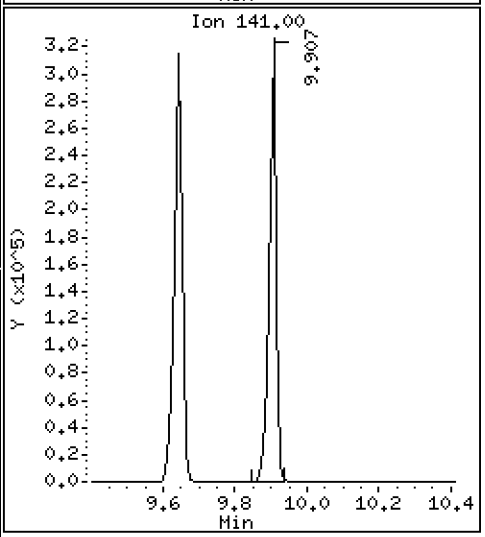
6 1-Methylnaphthalene

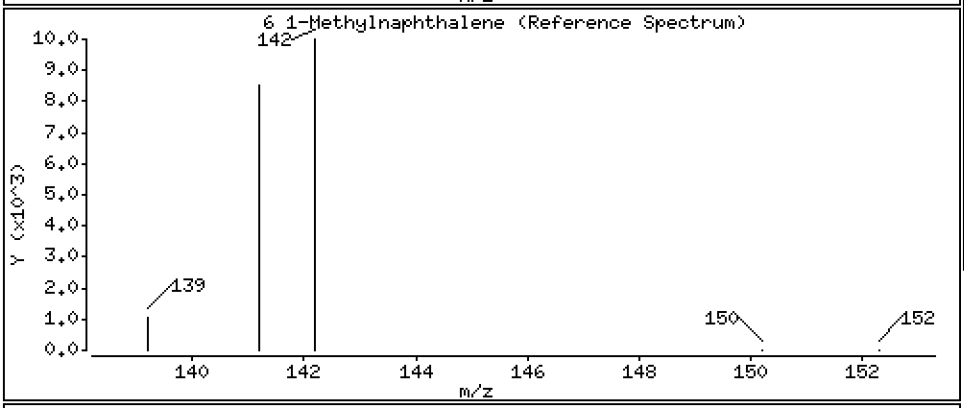
Concentration: 210 ng/mL

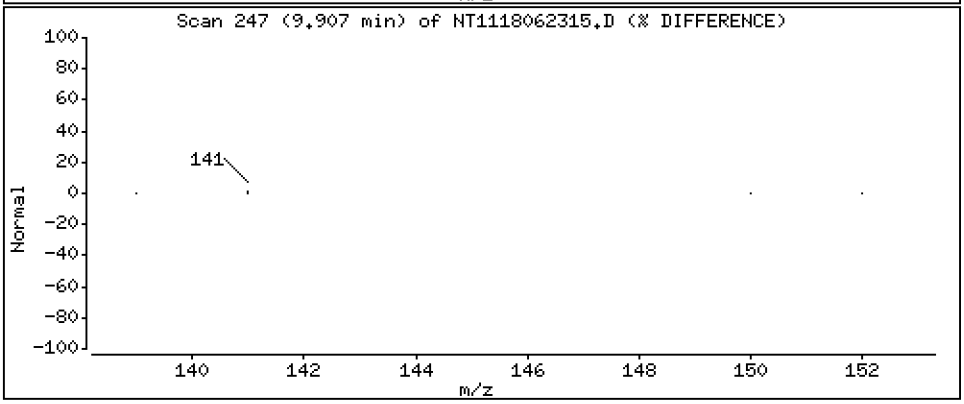












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Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

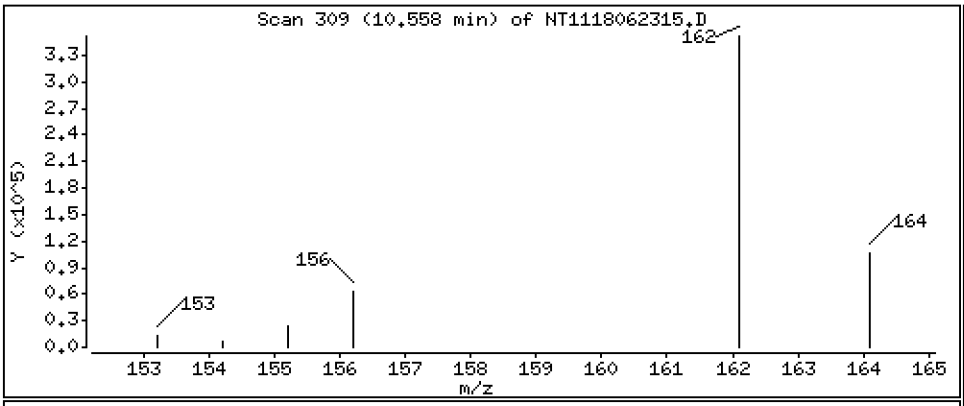
Operator: VTS

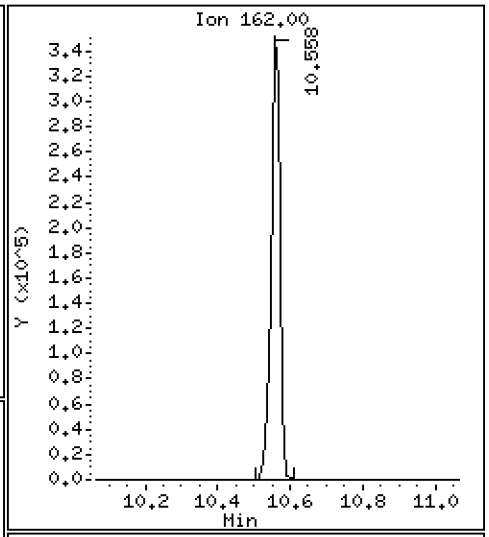
Column phase: Rxi-17Sil MS

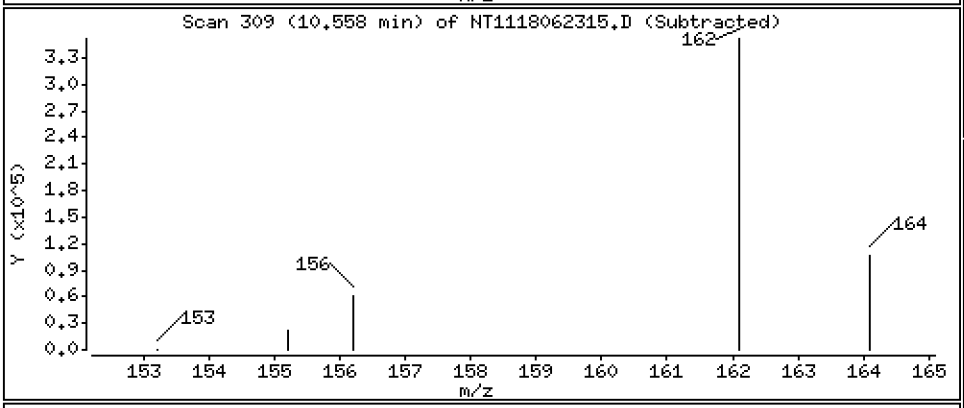
Column diameter: 0.25

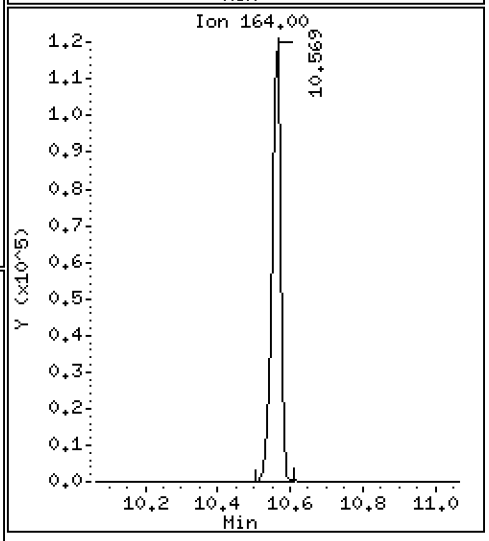
7 2-Chloronaphthalene

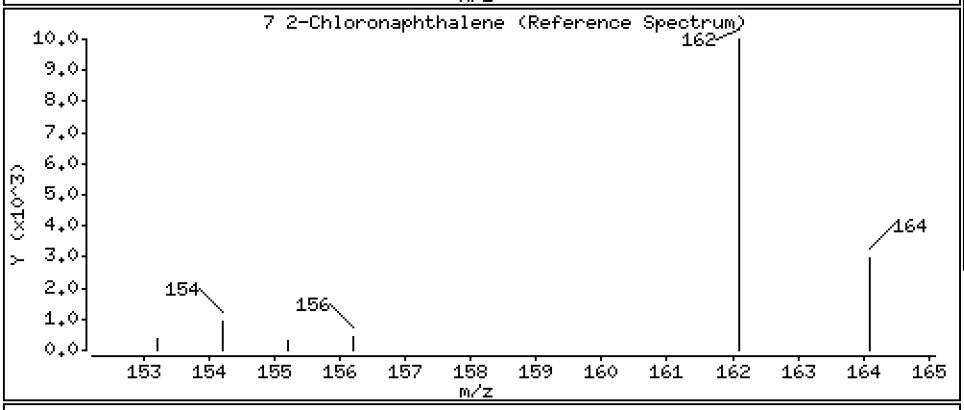
Concentration: 221 ng/mL

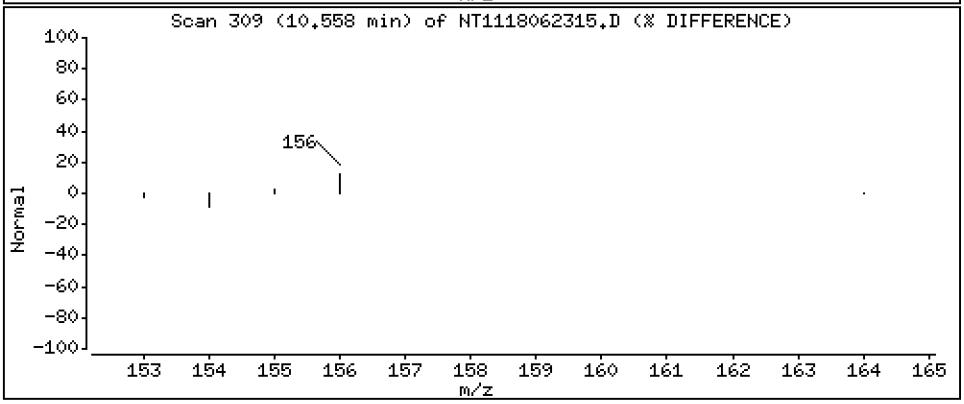












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Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

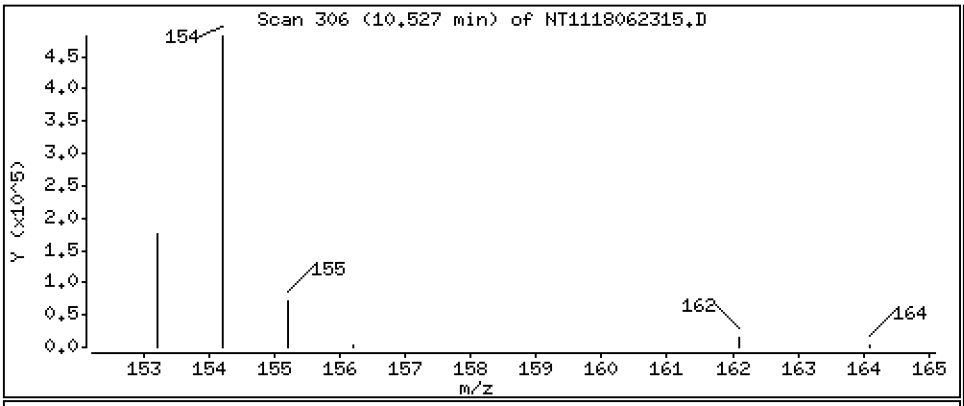
Operator: VTS

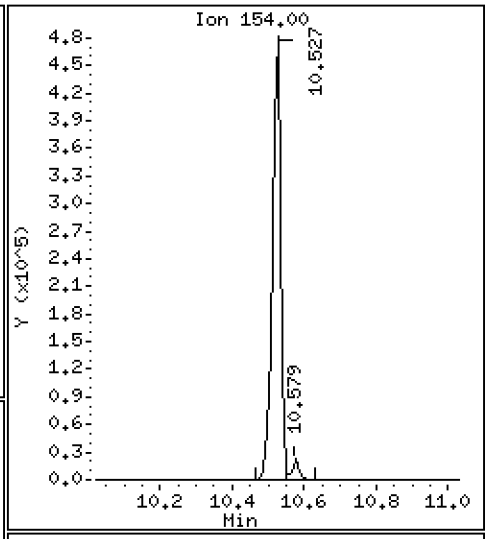
Column phase: Rxi-17Sil MS

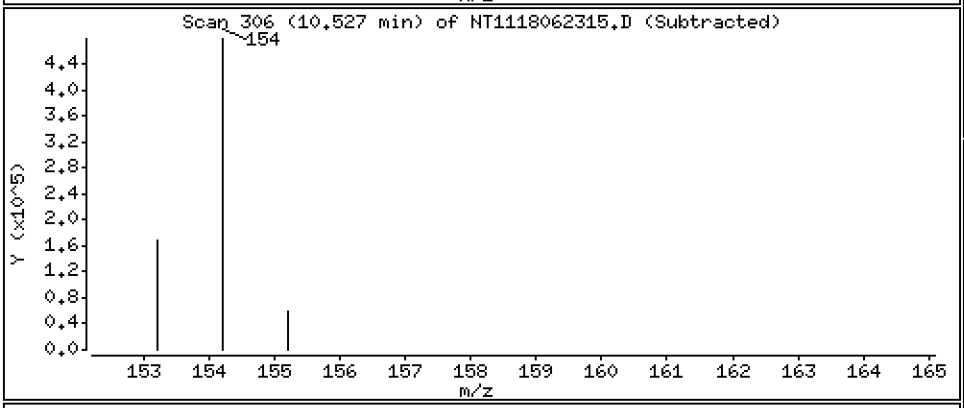
Column diameter: 0.25

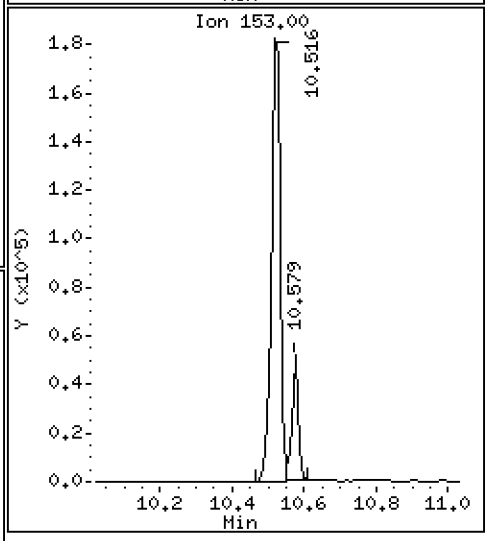
8 Biphenyl

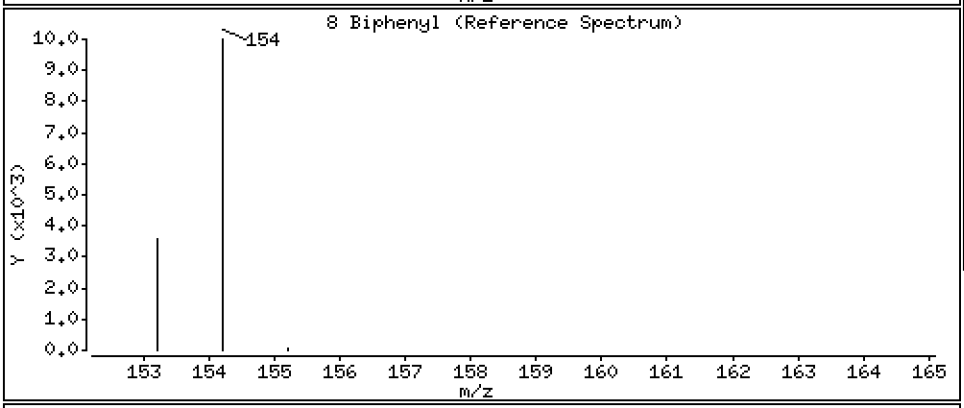
Concentration: 236 ng/mL

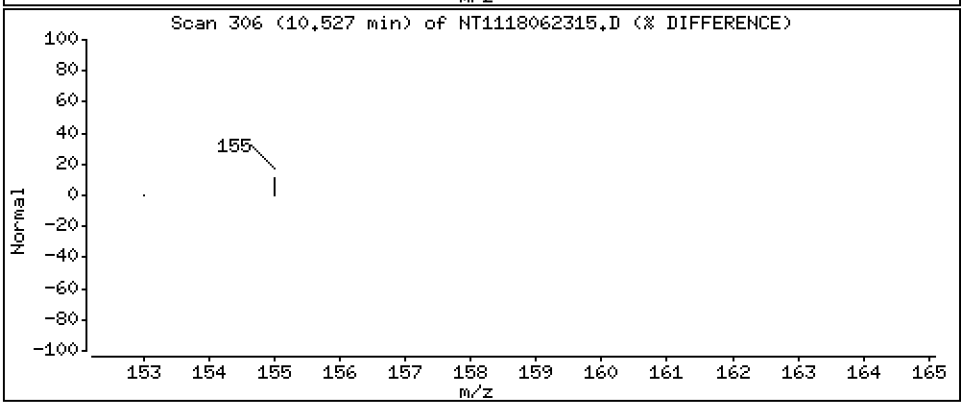












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Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

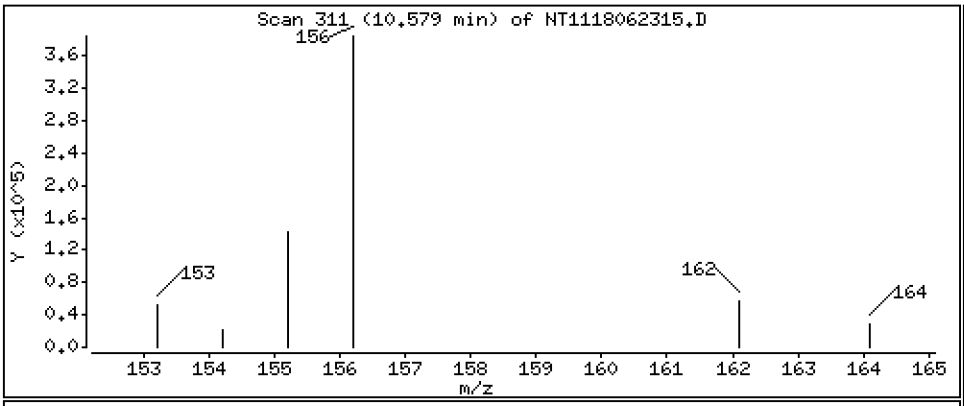
Operator: VTS

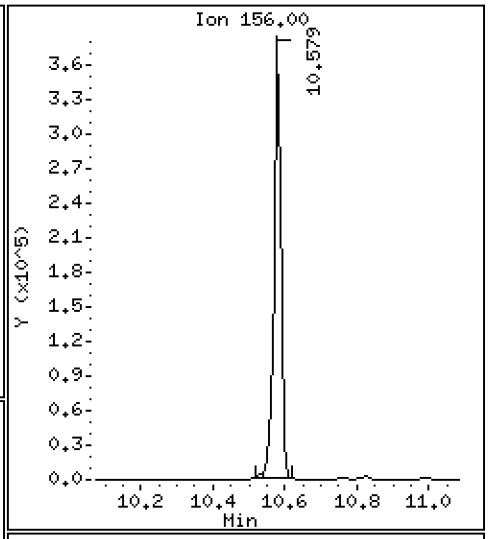
Column phase: Rxi-17Sil MS

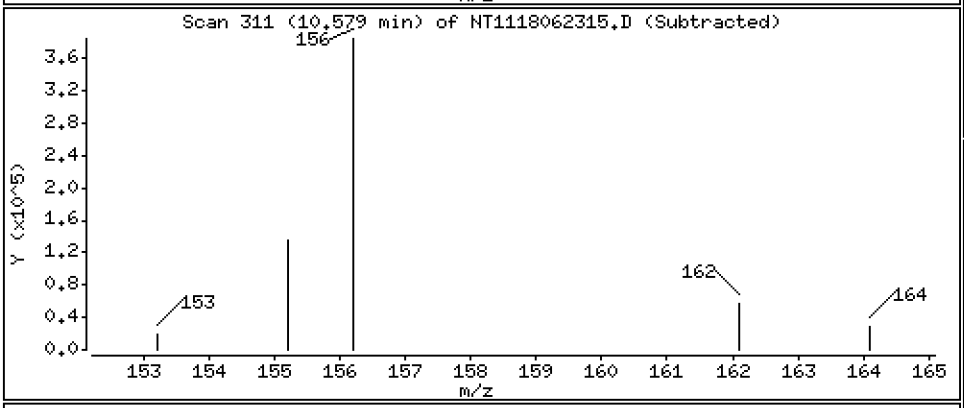
Column diameter: 0.25

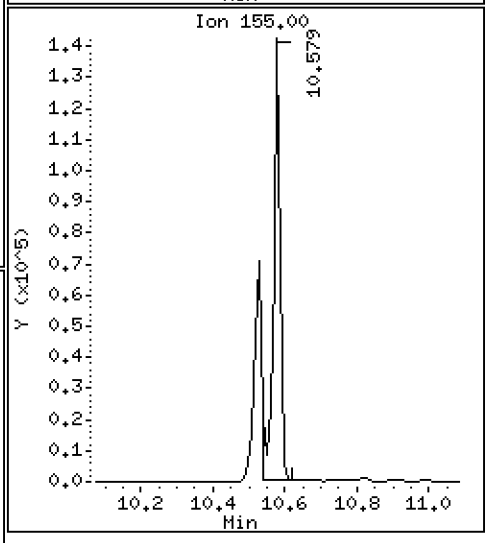
9 2,6-Dimethylnaphthalene

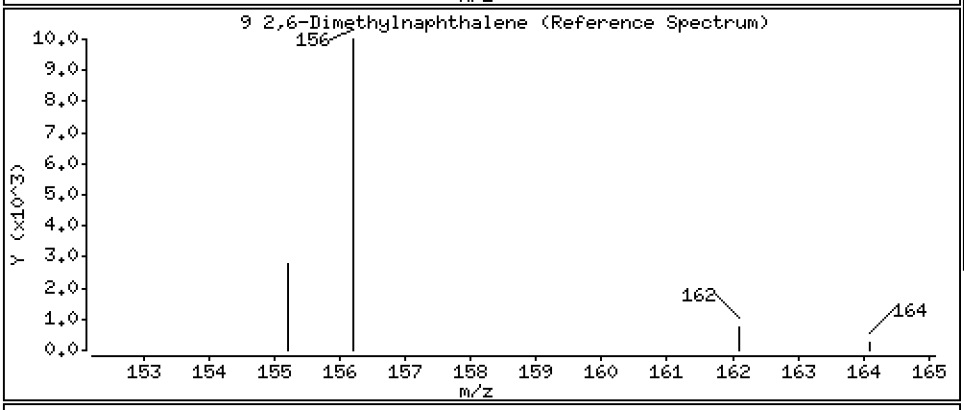
Concentration: 230 ng/mL

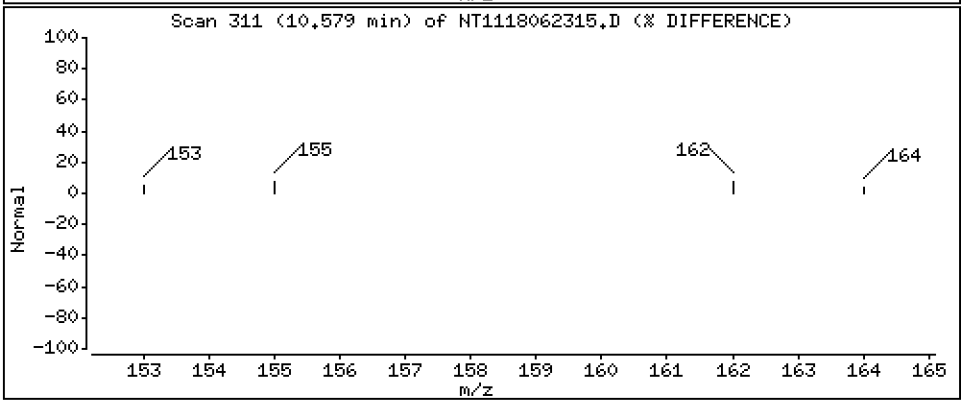












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Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

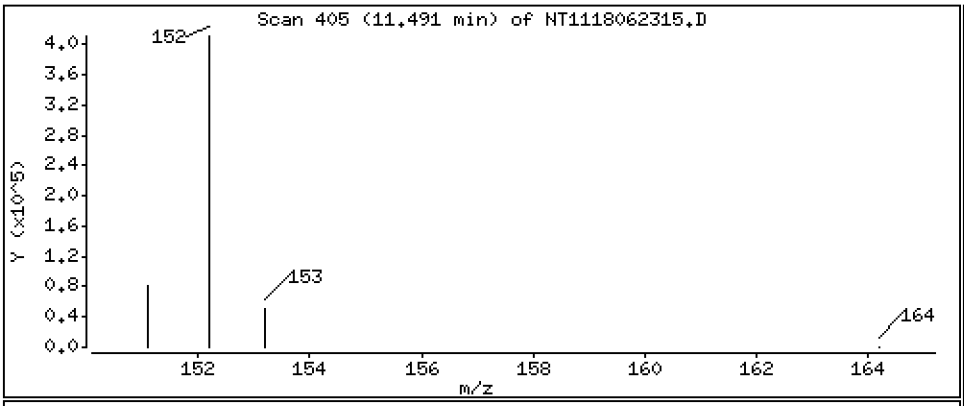
Operator: VTS

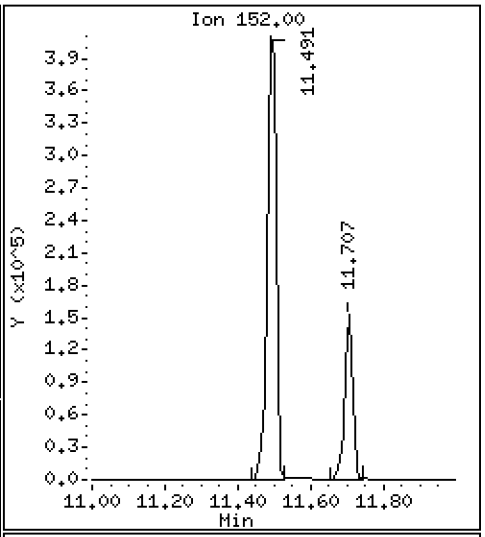
Column phase: Rxi-17Sil MS

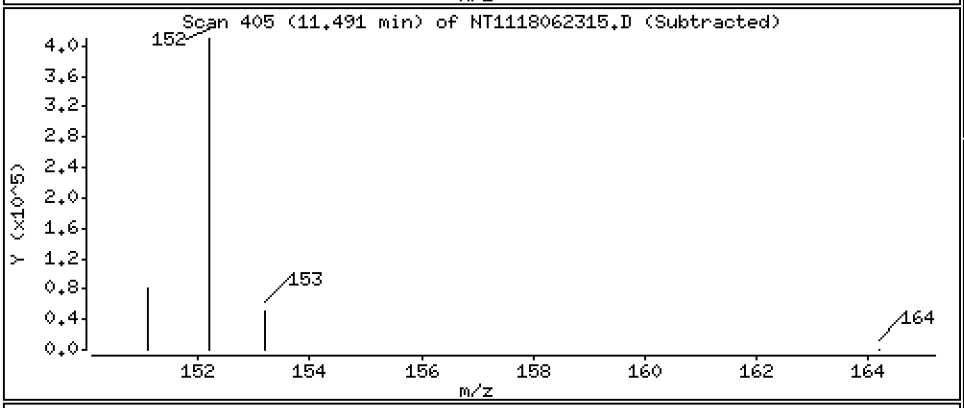
Column diameter: 0.25

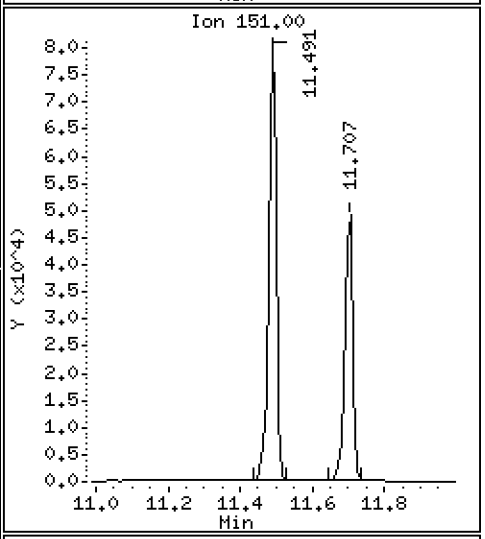
10 Acenaphthylene

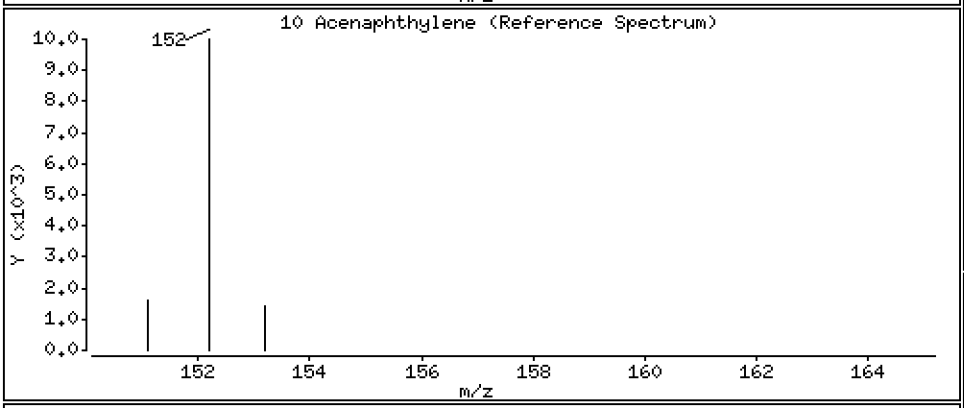
Concentration: 217 ng/mL

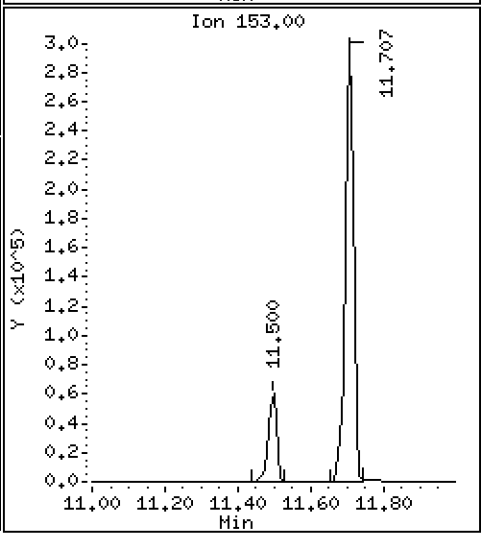


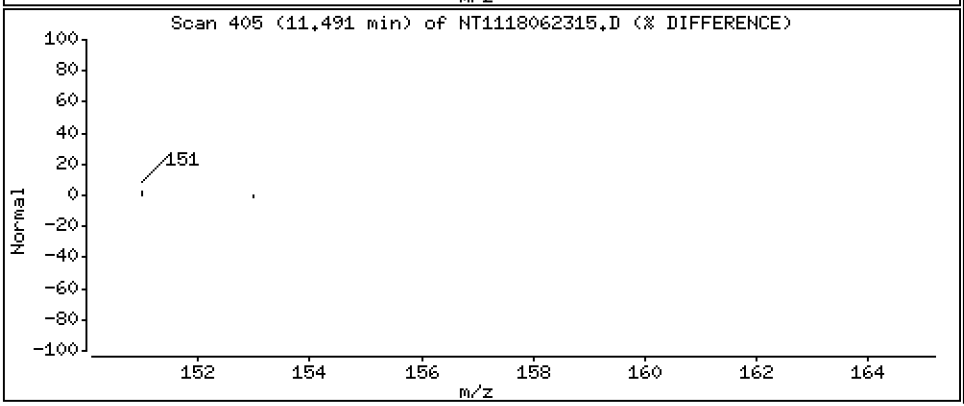












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Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

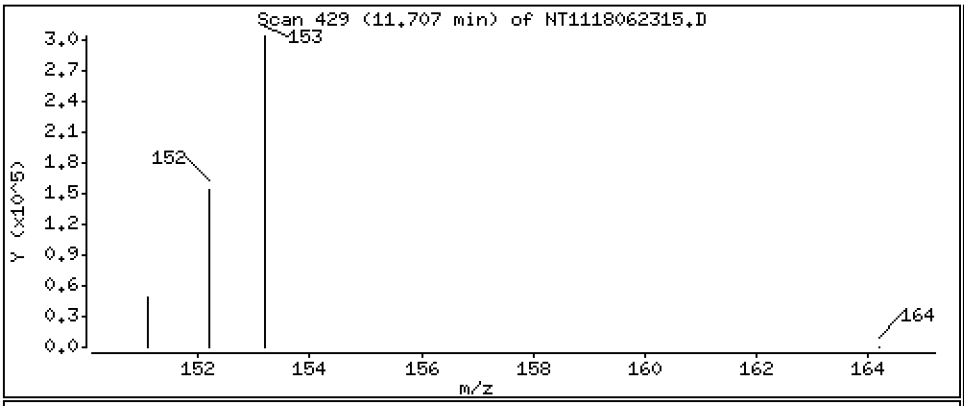
Operator: VTS

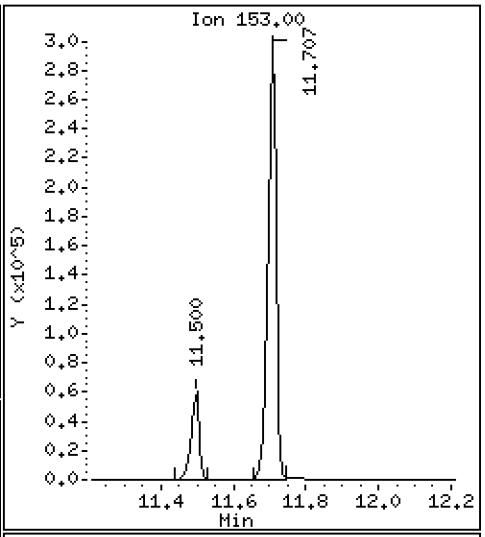
Column phase: Rxi-17Sil MS

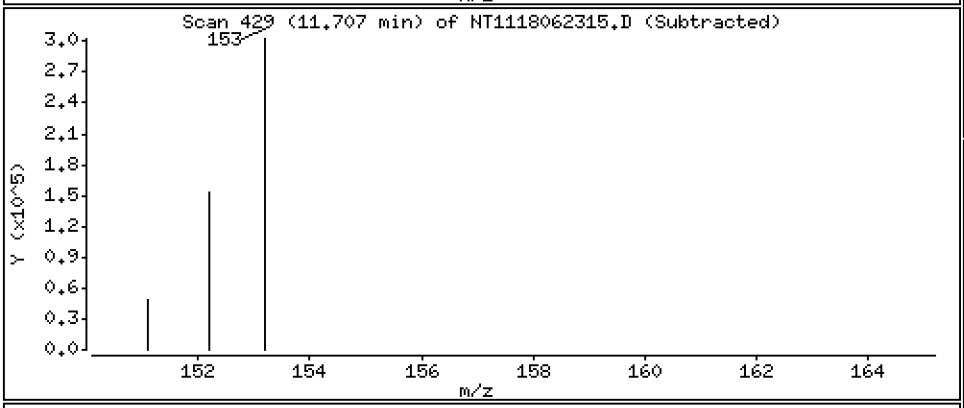
Column diameter: 0.25

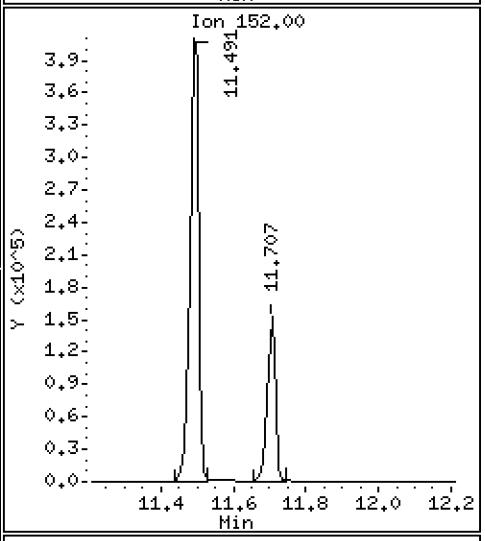
12 Acenaphthene

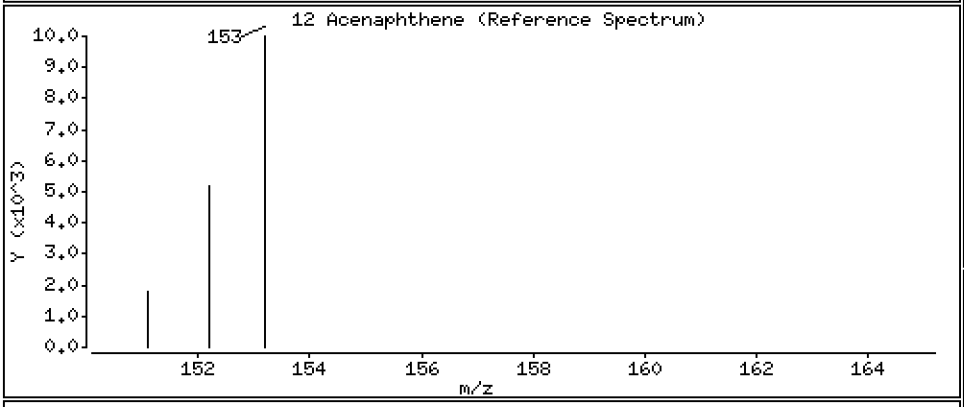
Concentration: 213 ng/mL

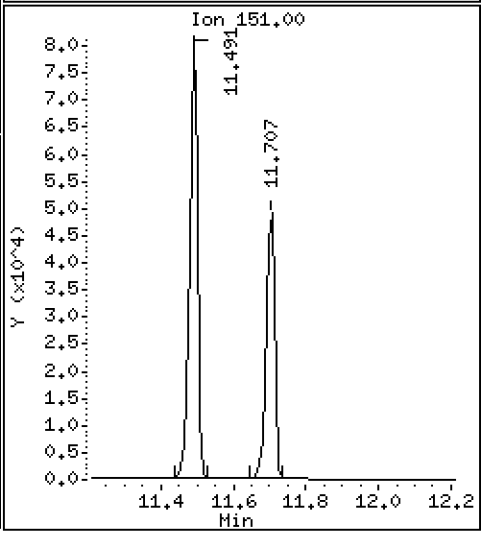


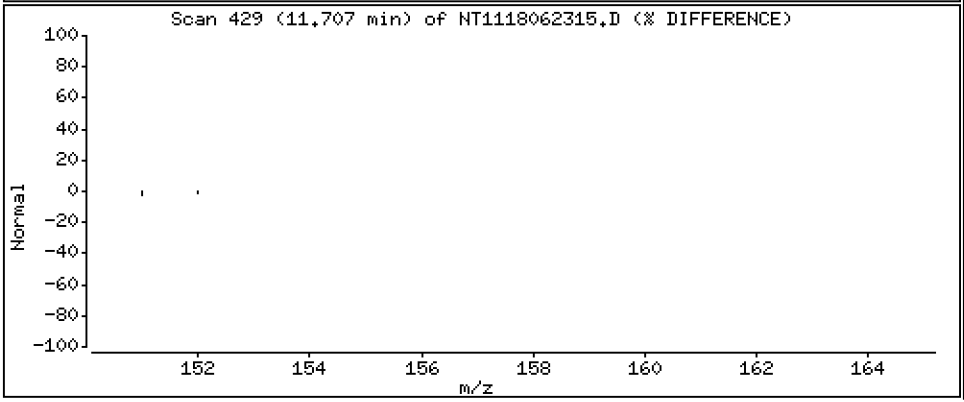












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Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

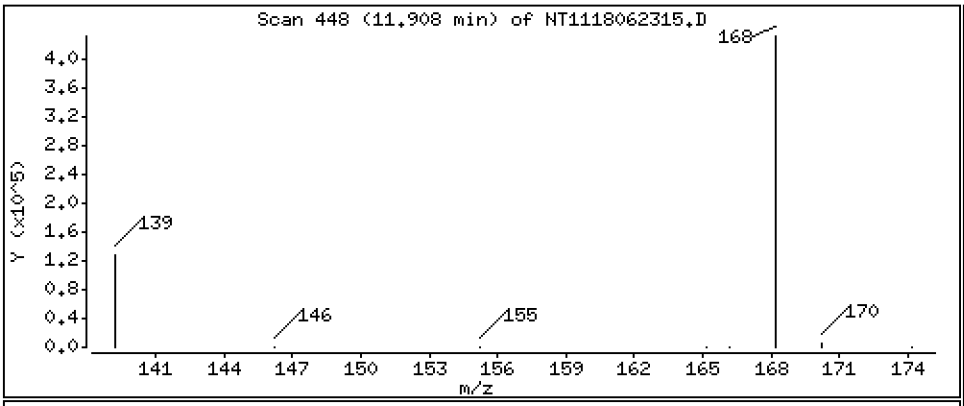
Operator: VTS

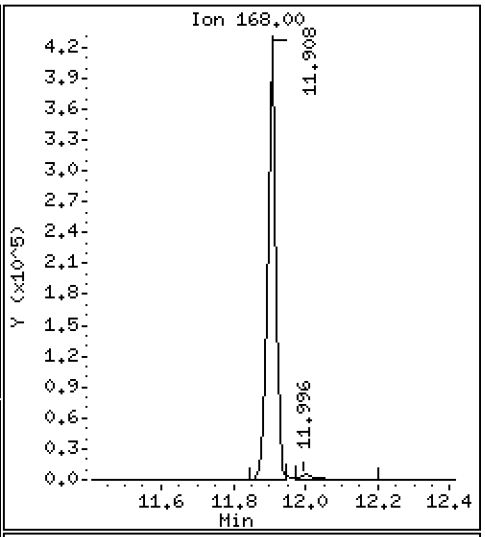
Column phase: Rxi-17Sil MS

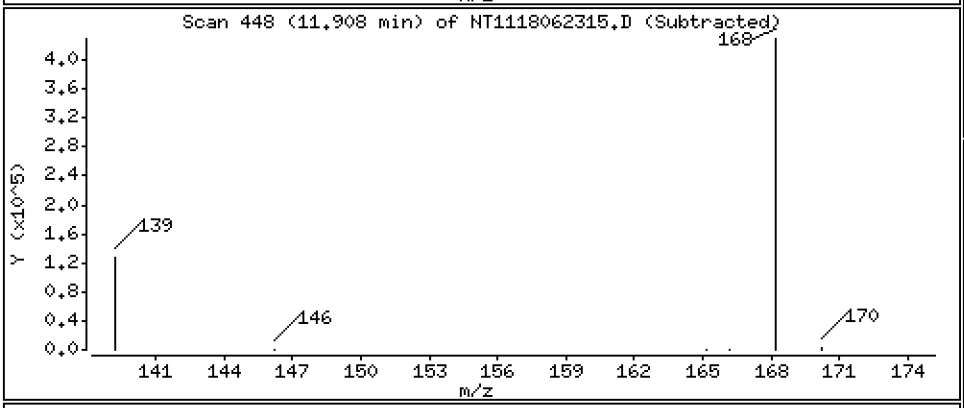
Column diameter: 0.25

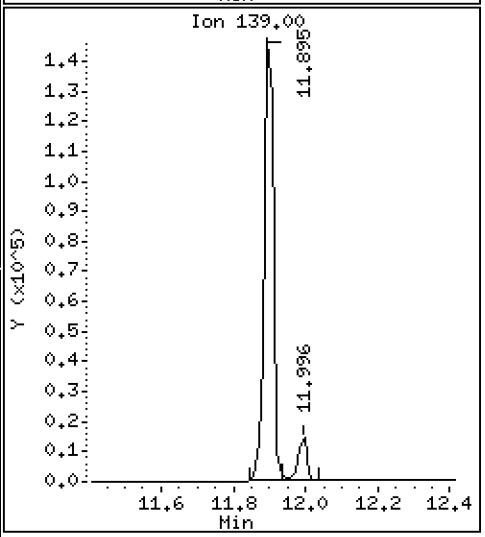
13 Dibenzofuran

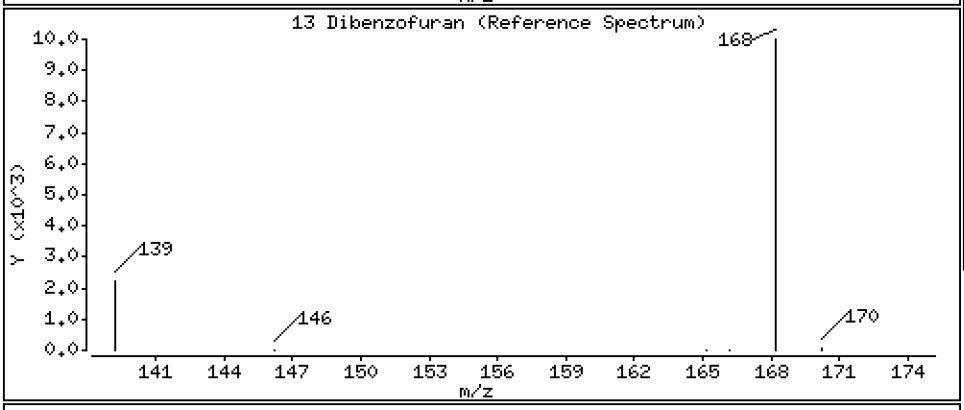
Concentration: 218 ng/mL

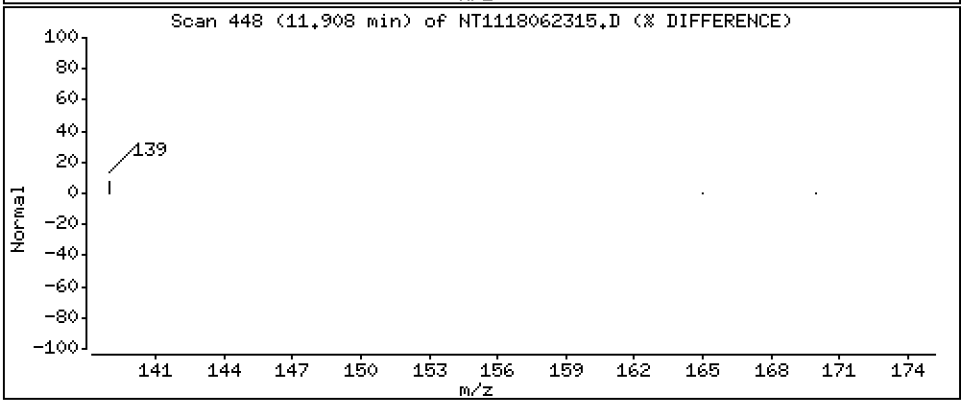












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Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

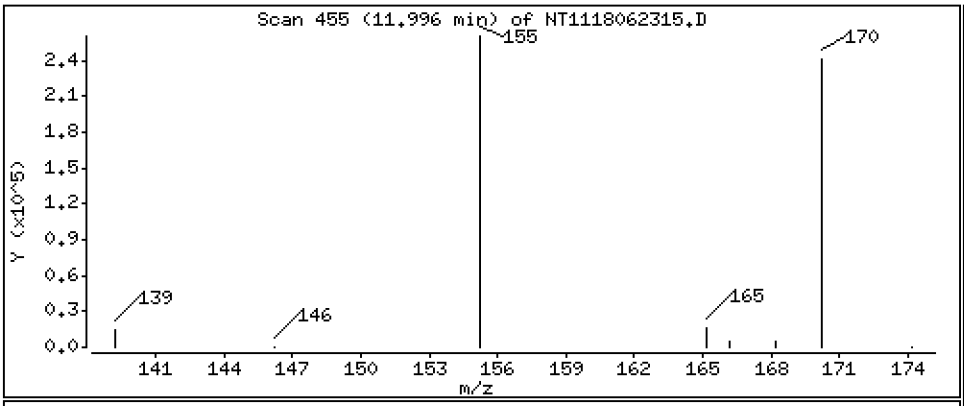
Operator: VTS

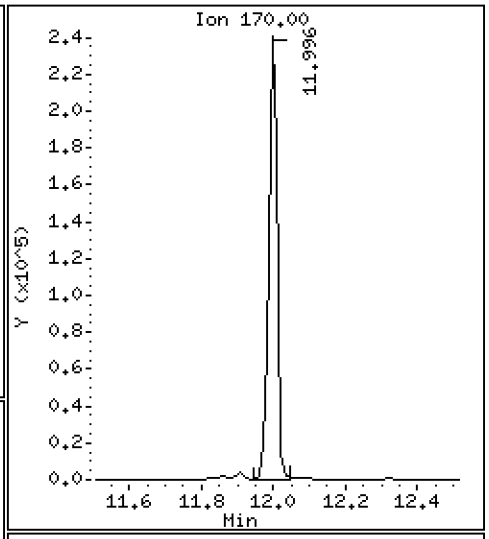
Column phase: Rxi-17Sil MS

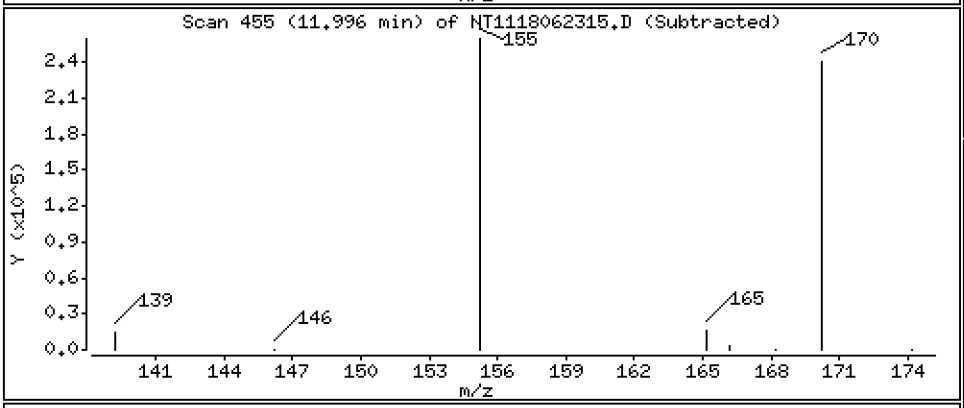
Column diameter: 0.25

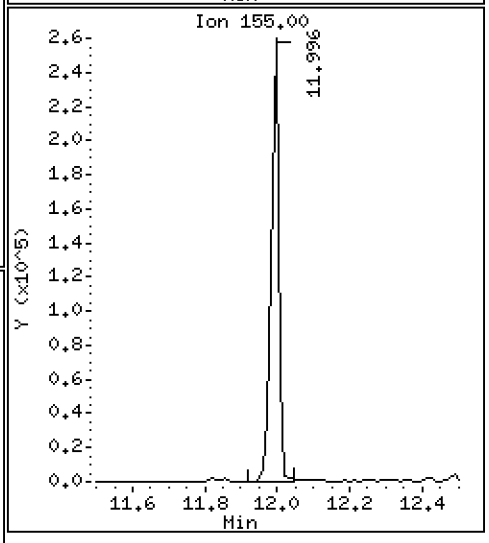
14 2,3,5-Trimethylnaphthalene

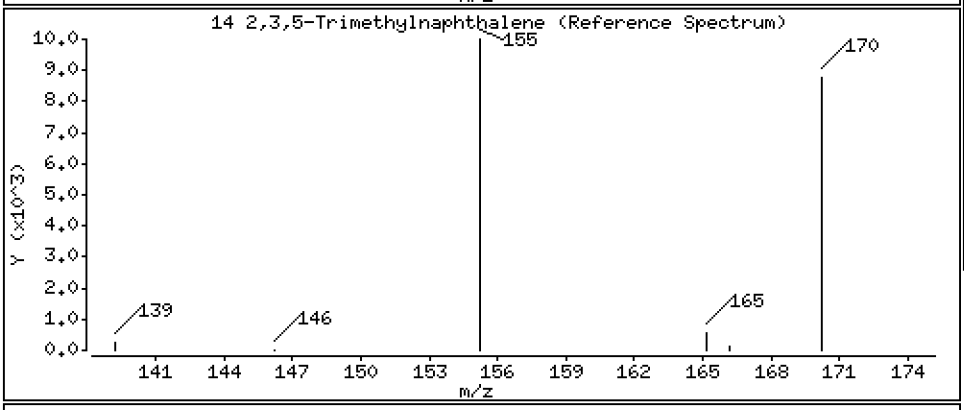
Concentration: 218 ng/mL

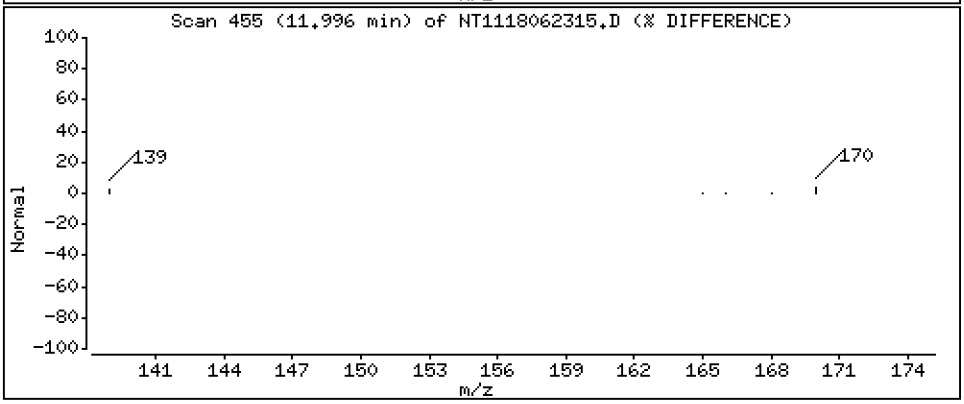












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Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

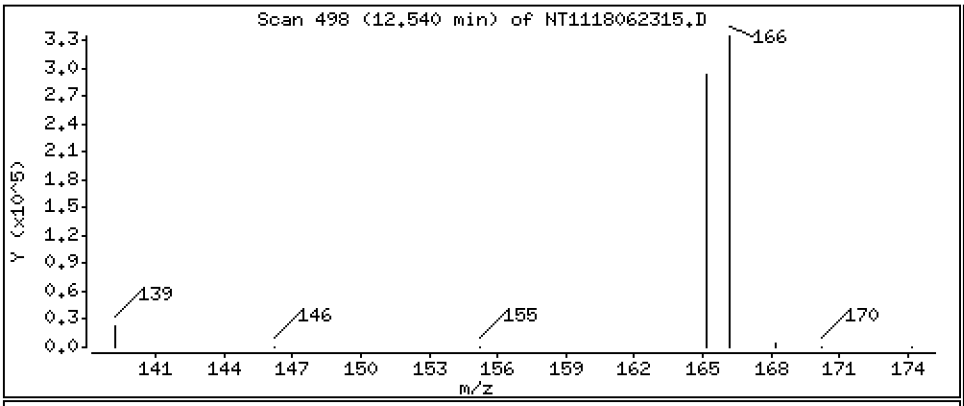
Operator: VTS

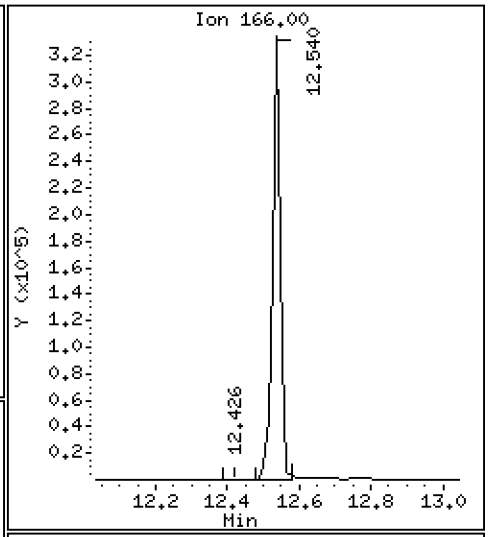
Column phase: Rxi-17Sil MS

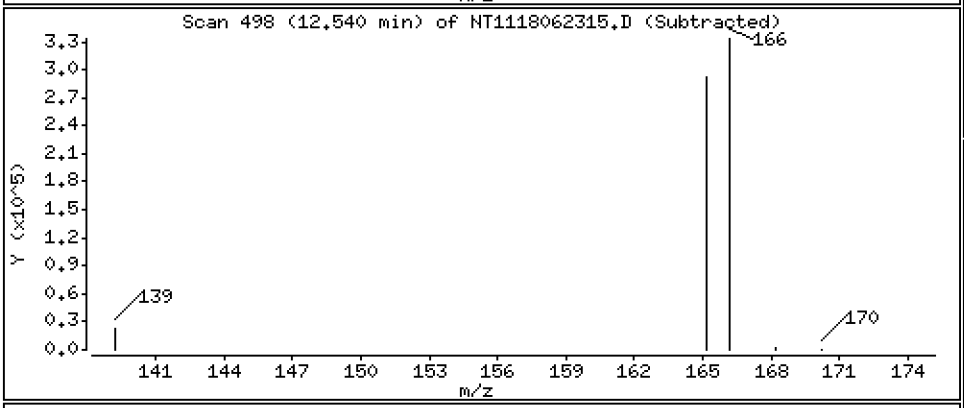
Column diameter: 0.25

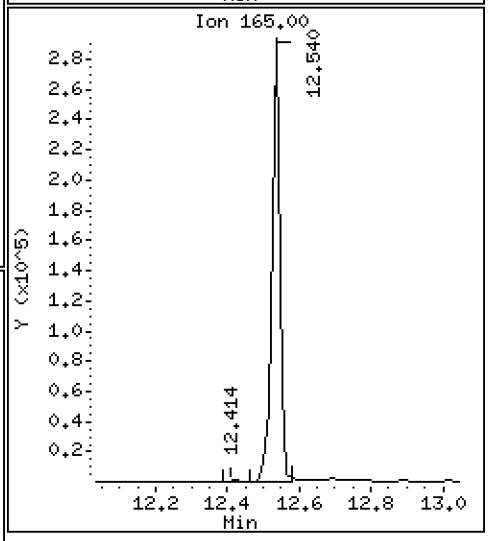
16 Fluorene

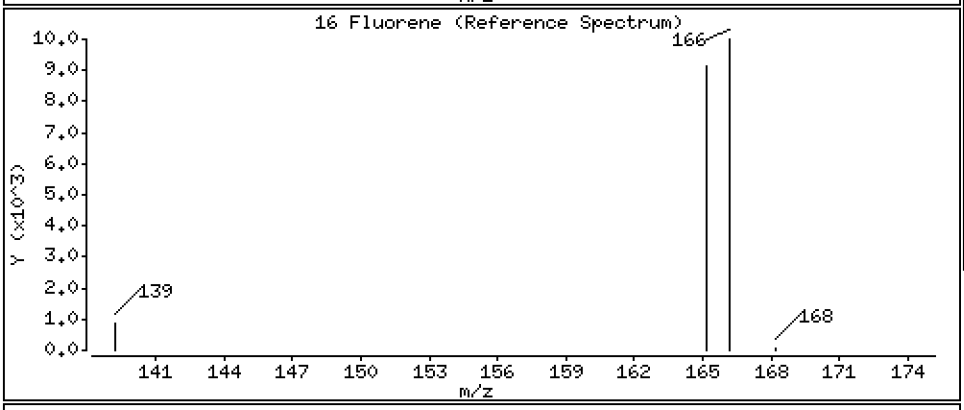
Concentration: 214 ng/mL

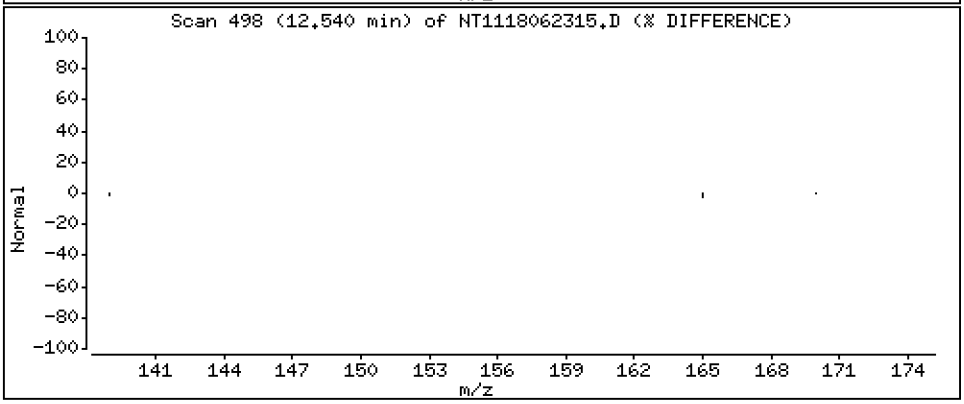












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Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

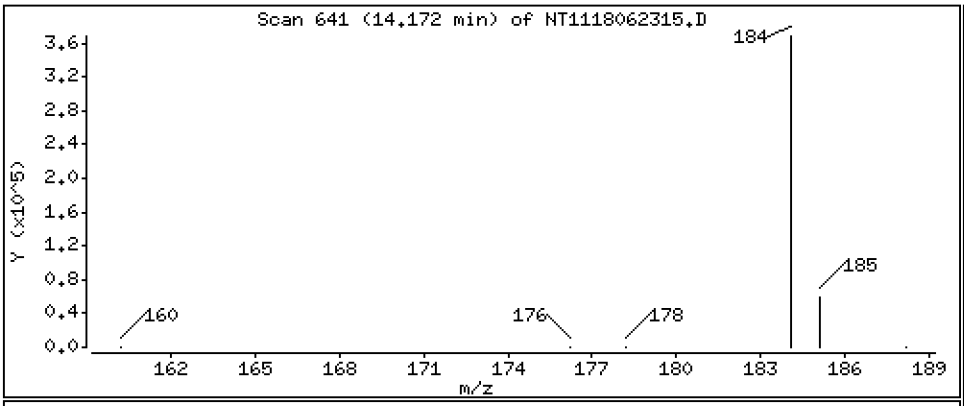
Operator: VTS

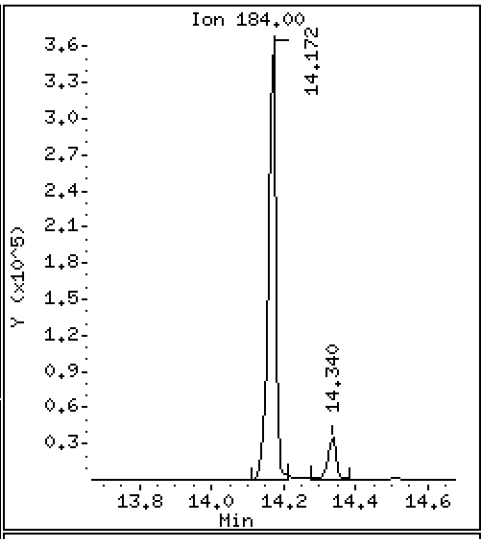
Column phase: Rxi-17Sil MS

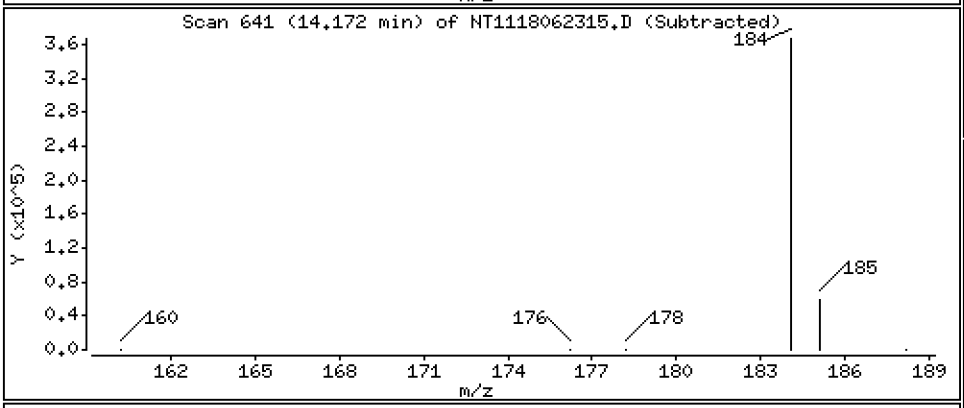
Column diameter: 0.25

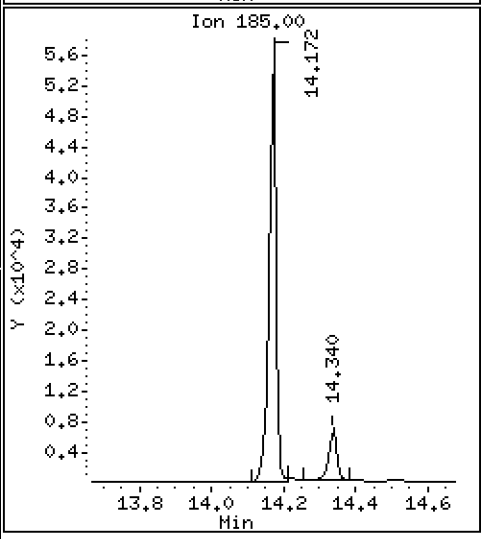
17 Dibenzothiophene

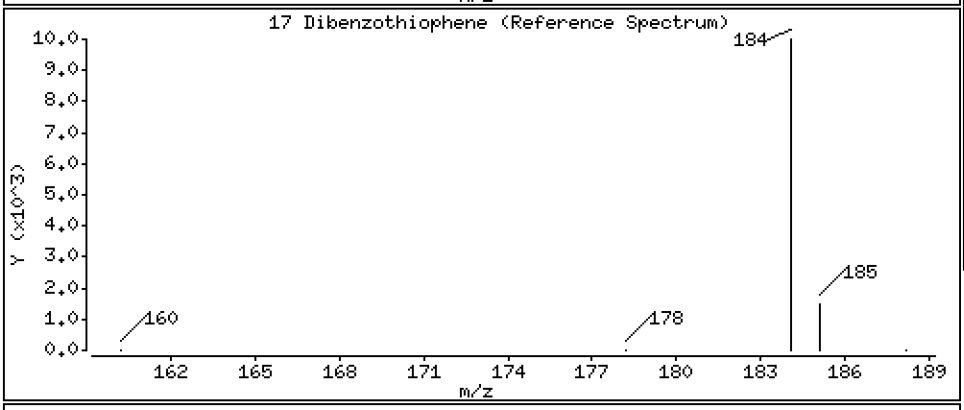
Concentration: 221 ng/mL

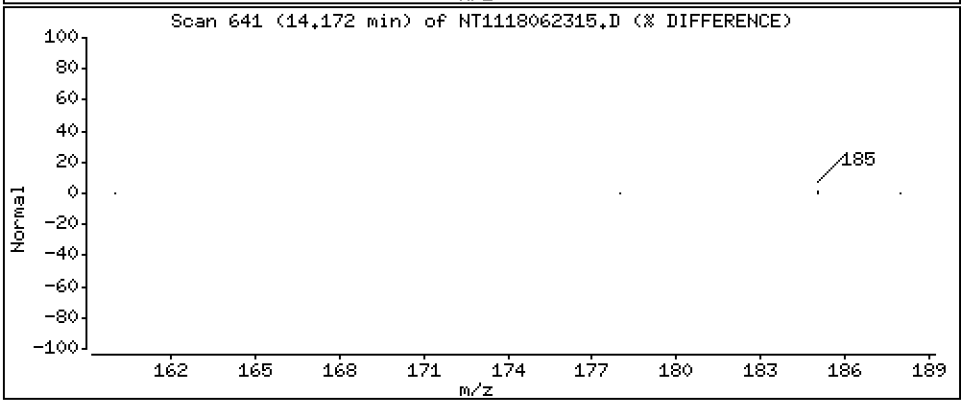












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Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

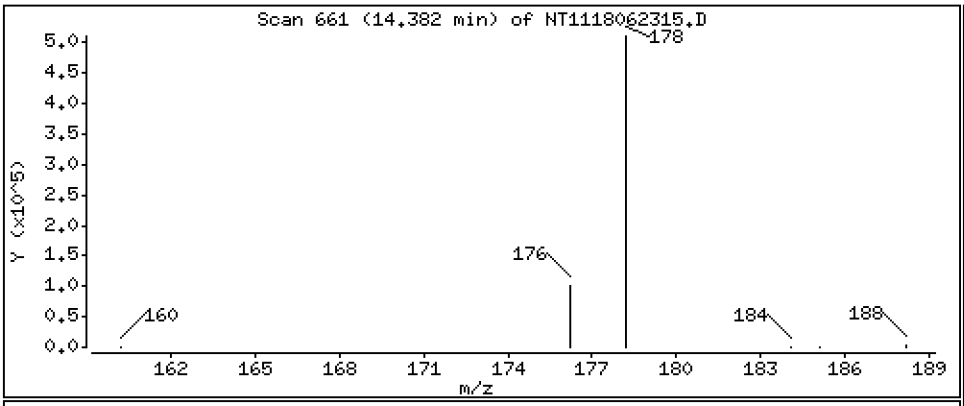
Operator: VTS

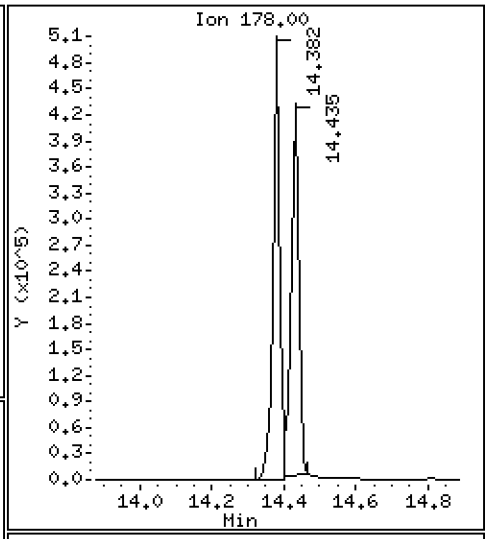
Column phase: Rxi-17Sil MS

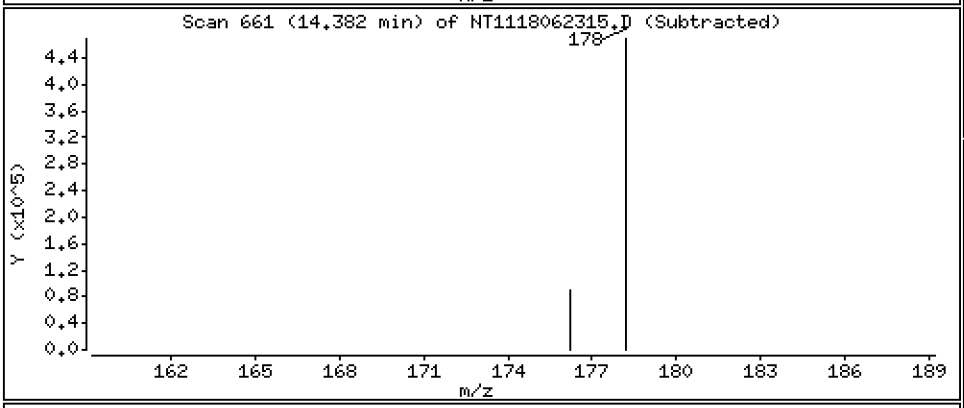
Column diameter: 0.25

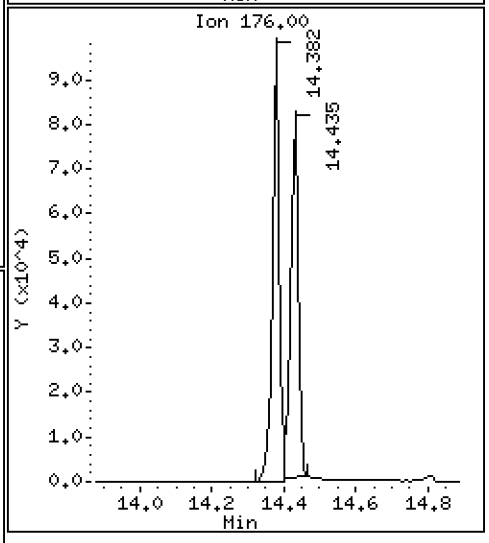
19 Phenanthrene

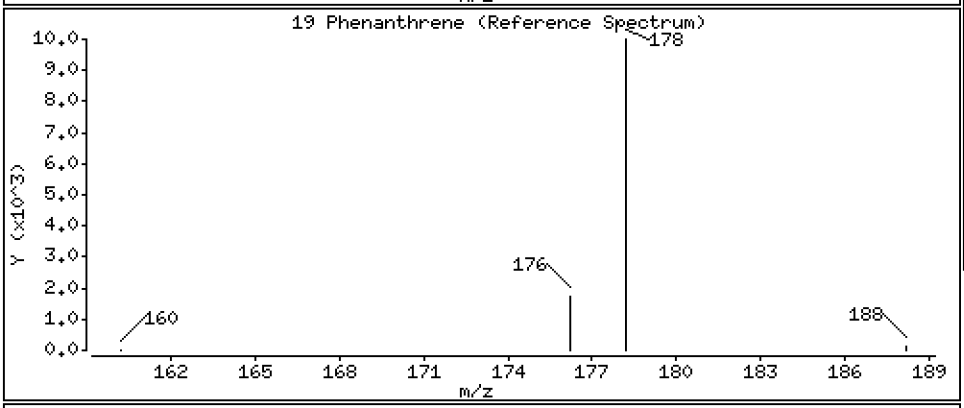
Concentration: 228 ng/mL

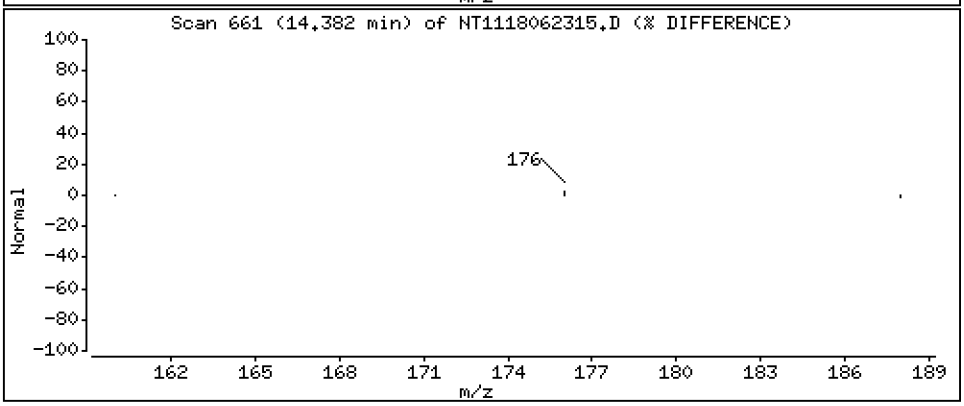












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Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

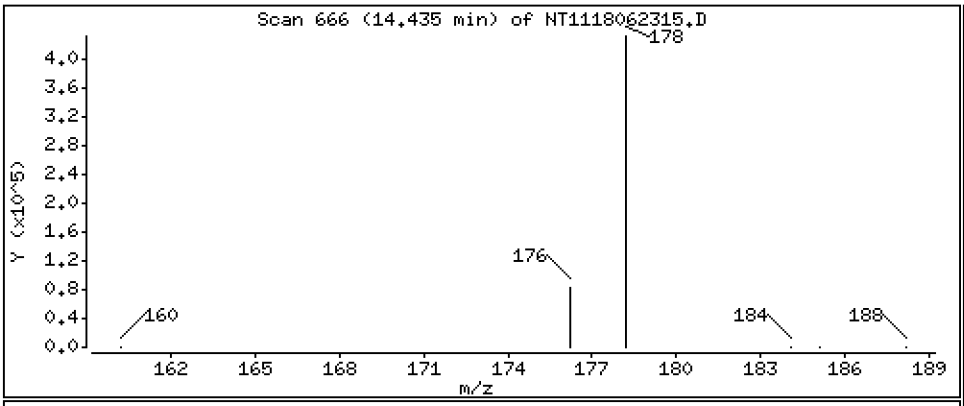
Operator: VTS

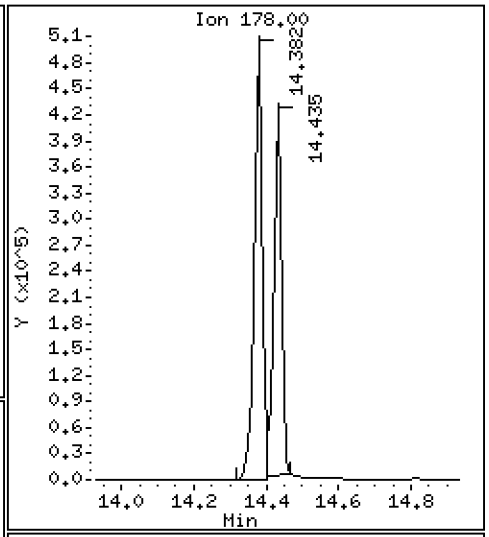
Column phase: Rxi-17Sil MS

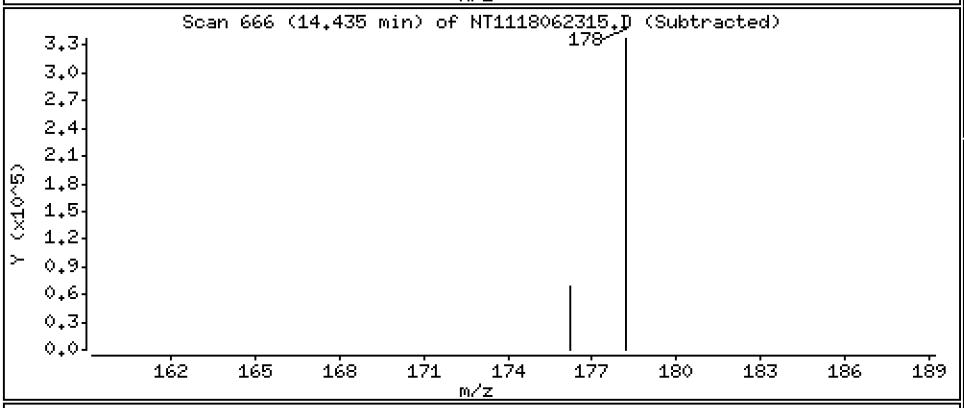
Column diameter: 0.25

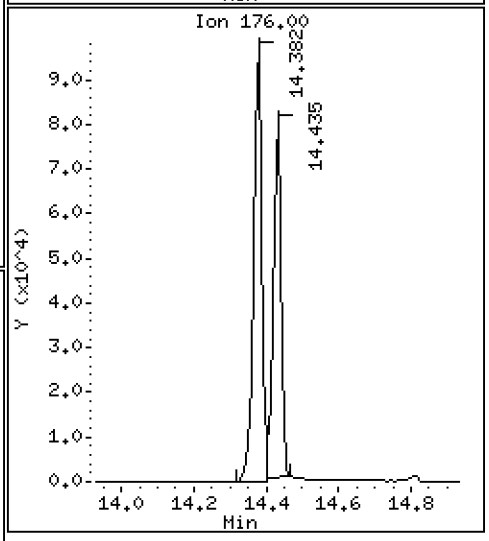
21 Anthracene

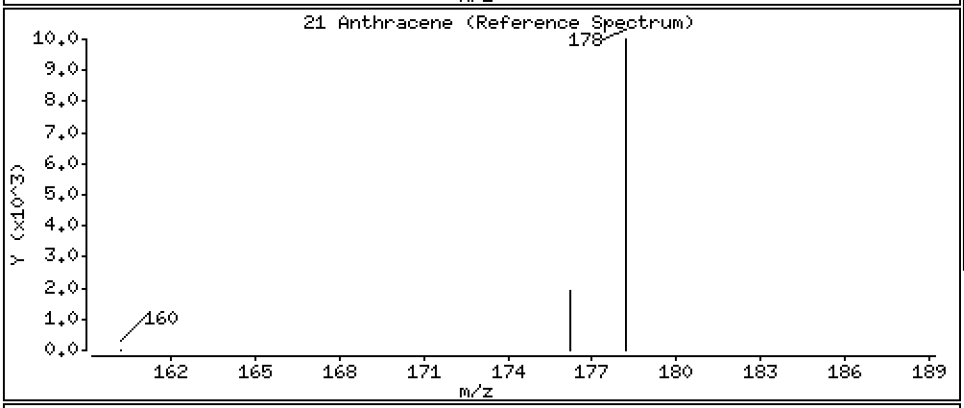
Concentration: 200 ng/mL

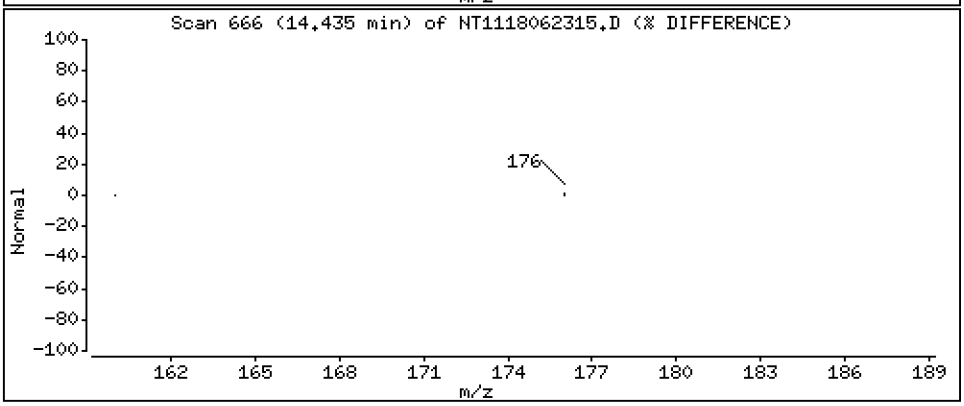












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Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

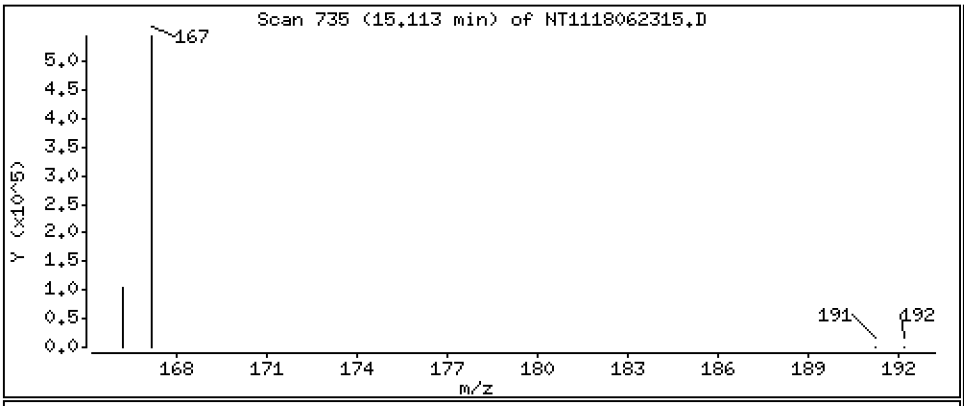
Operator: VTS

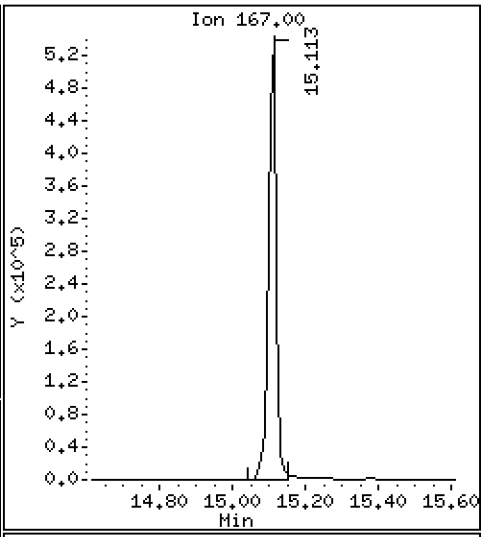
Column phase: Rxi-17Sil MS

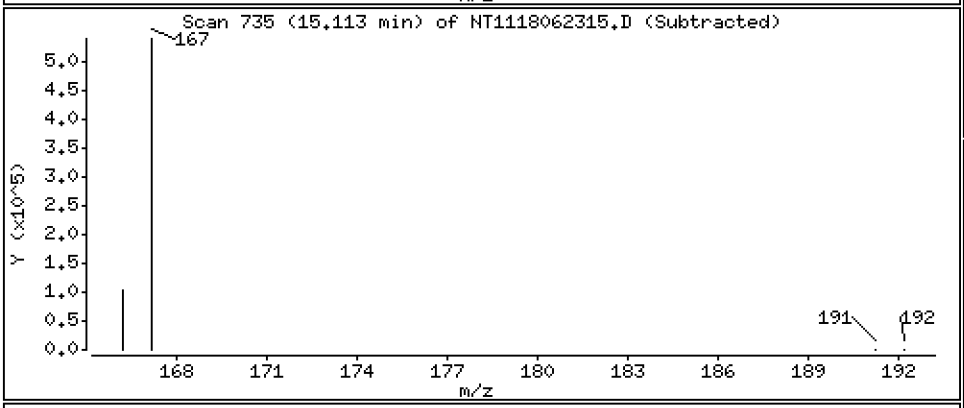
Column diameter: 0.25

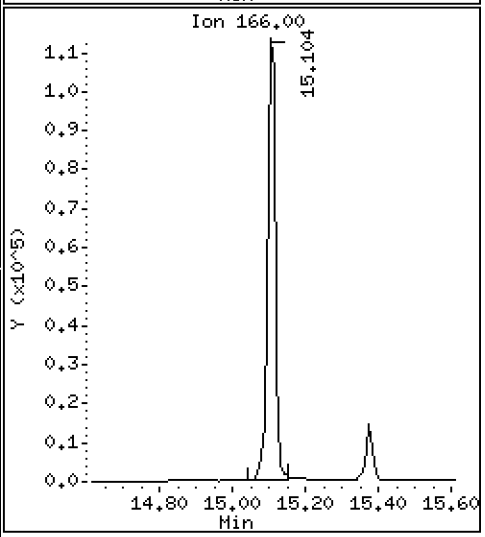
22 Carbazole

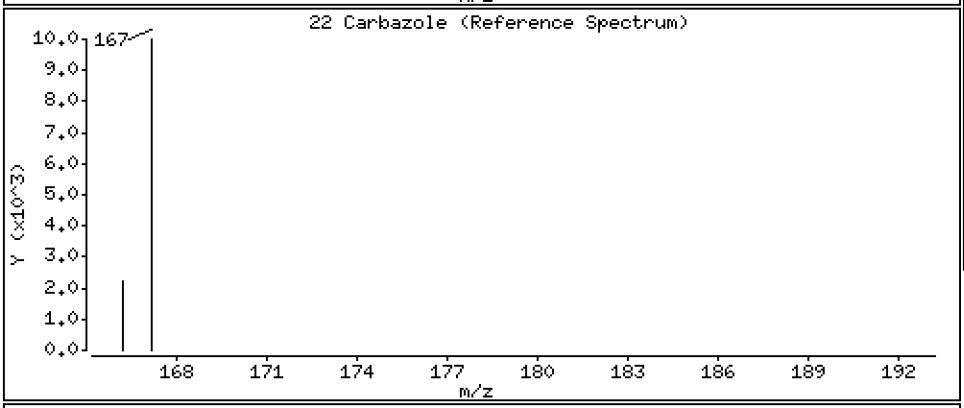
Concentration: 221 ng/mL

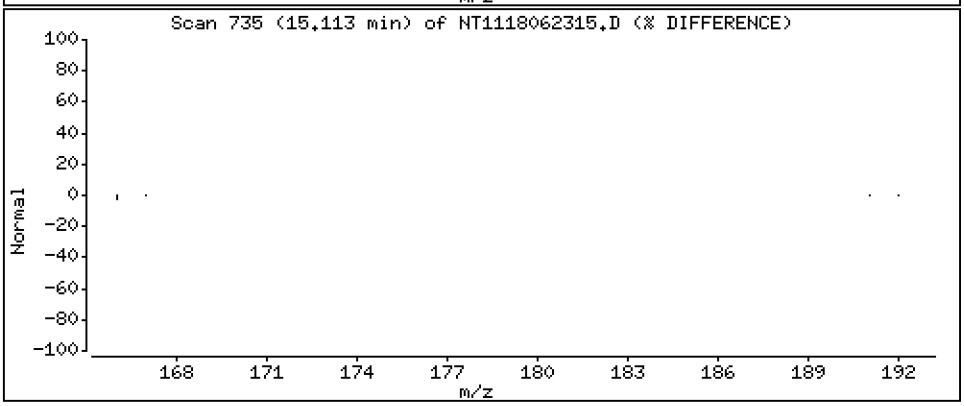












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Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

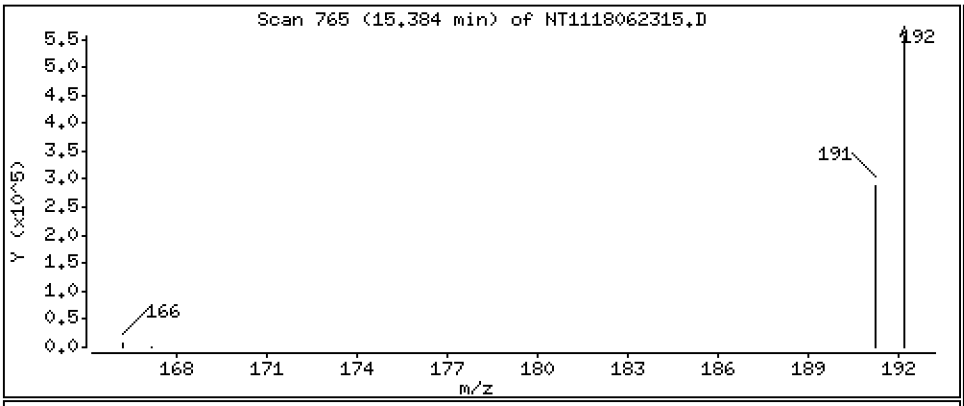
Operator: VTS

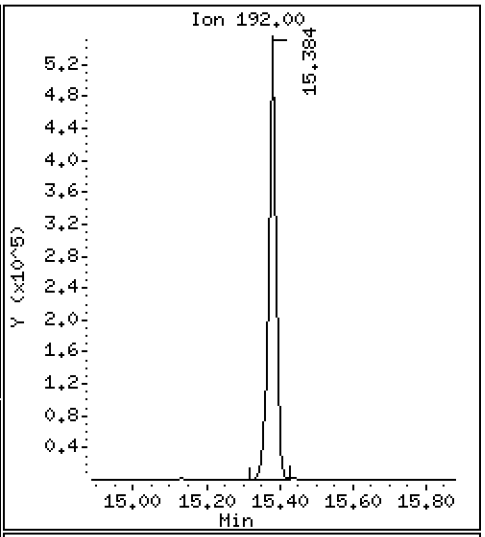
Column phase: Rxi-17Sil MS

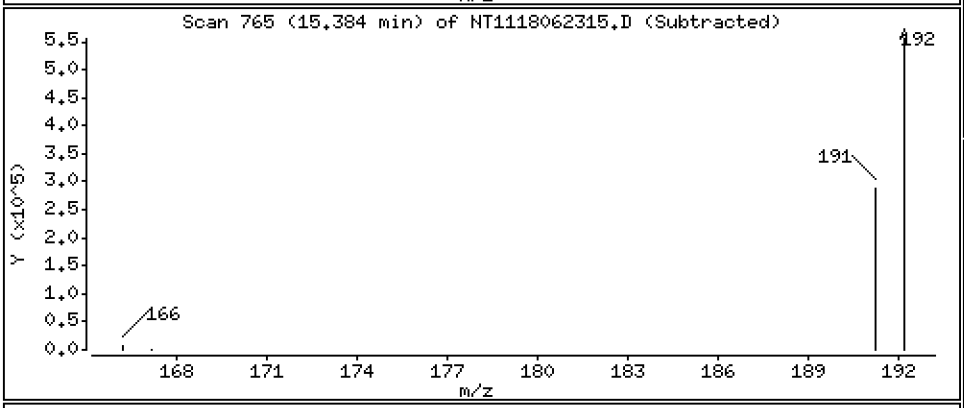
Column diameter: 0.25

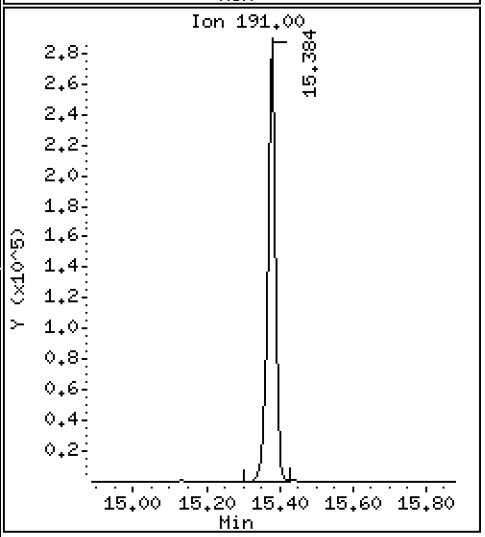
23 1-Methylphenanthrene

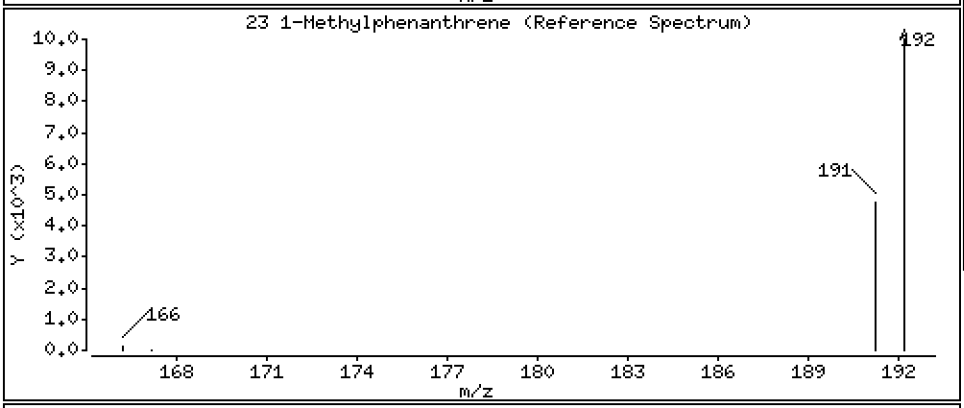
Concentration: 248 ng/mL

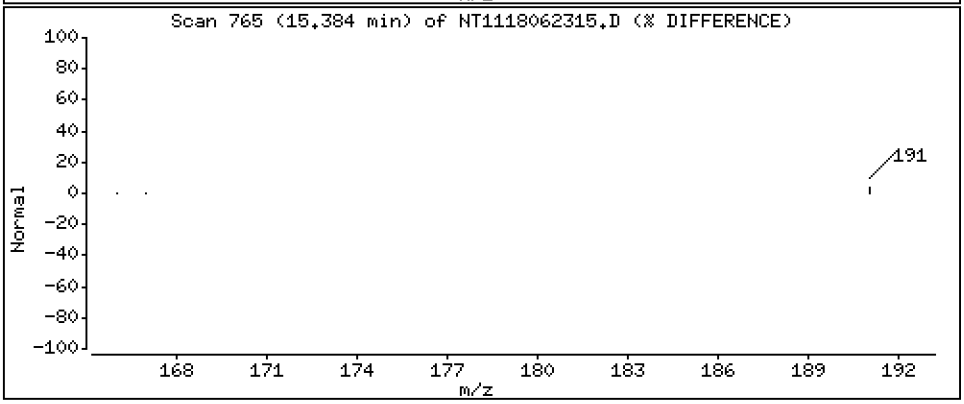












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Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

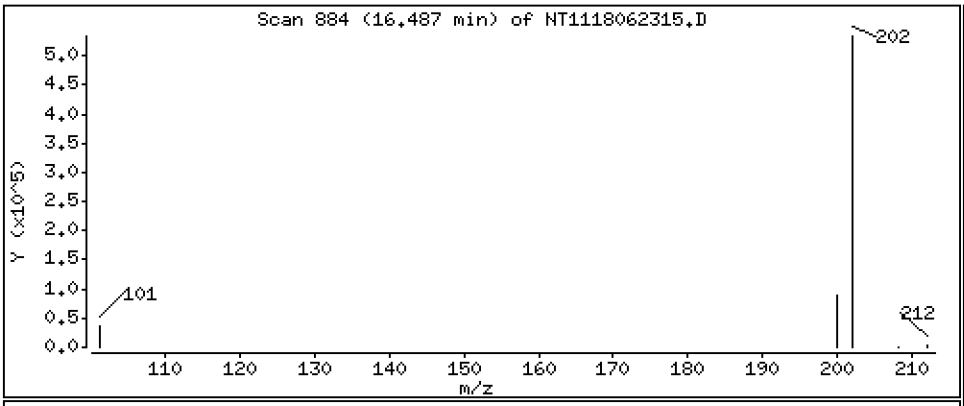
Operator: VTS

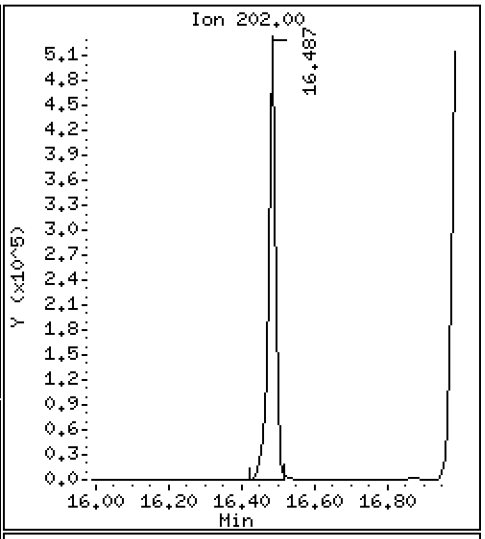
Column phase: Rxi-17Sil MS

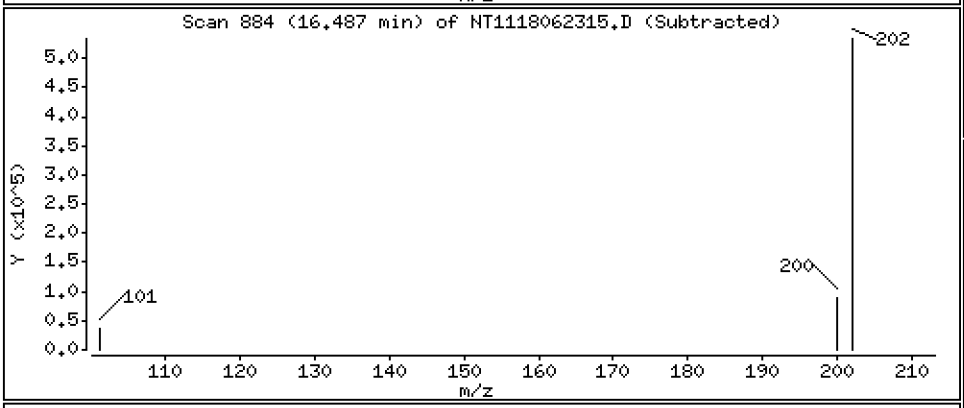
Column diameter: 0.25

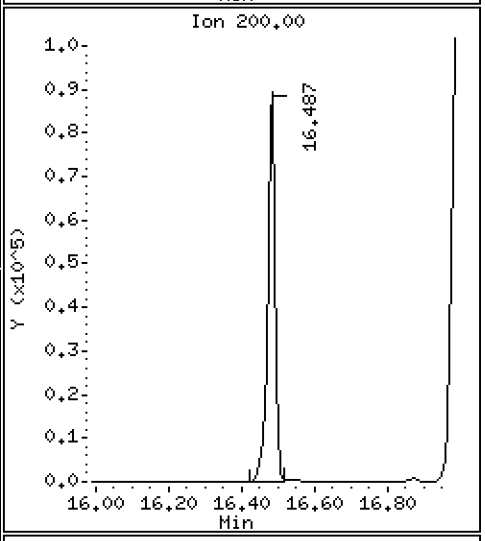
25 Fluoranthene

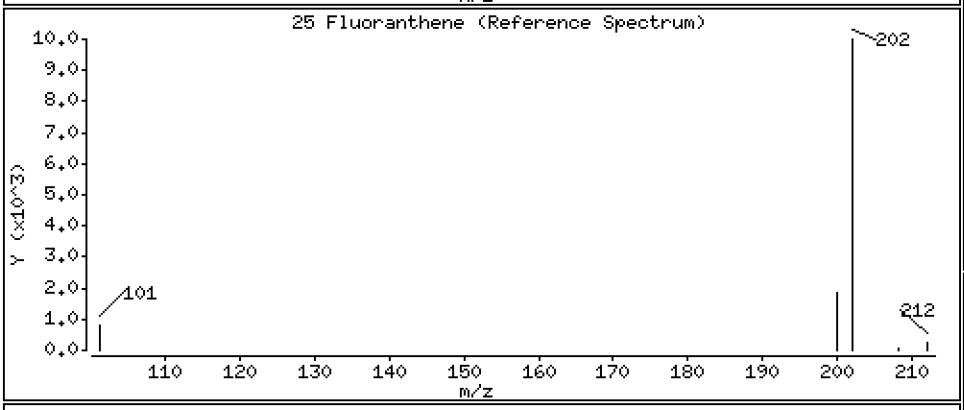
Concentration: 247 ng/mL

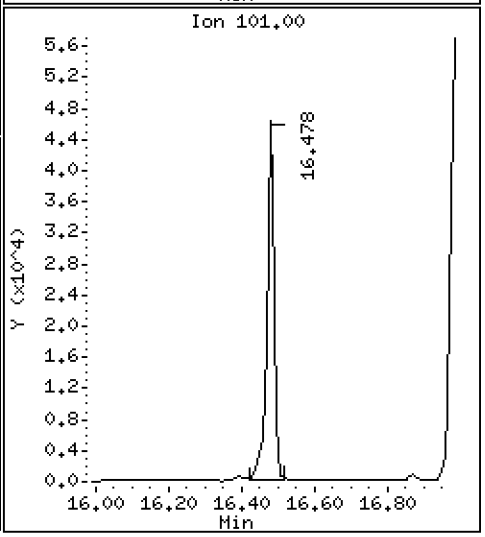


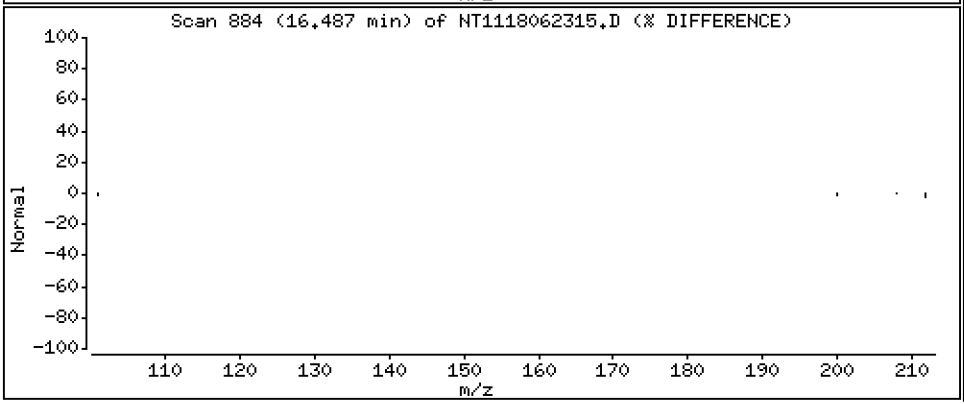












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Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

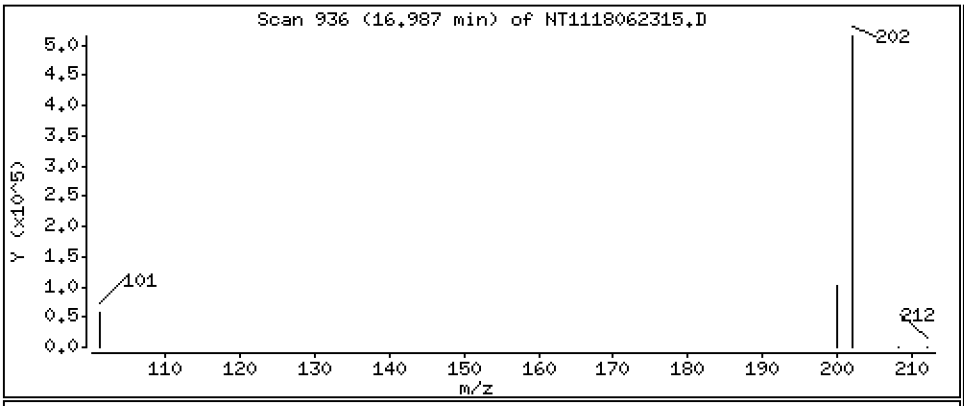
Operator: VTS

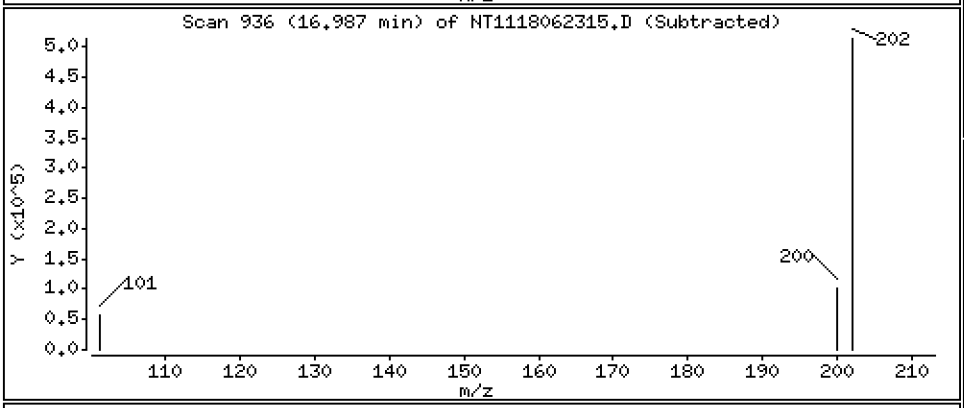
Column phase: Rxi-17Sil MS

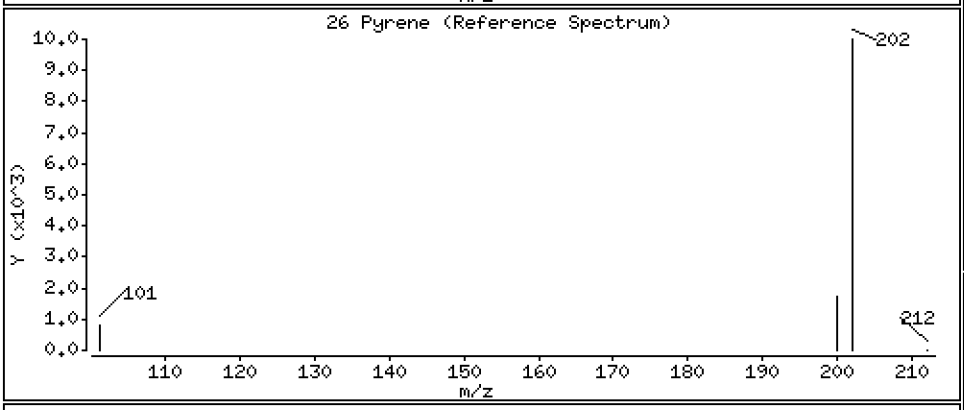
Column diameter: 0.25

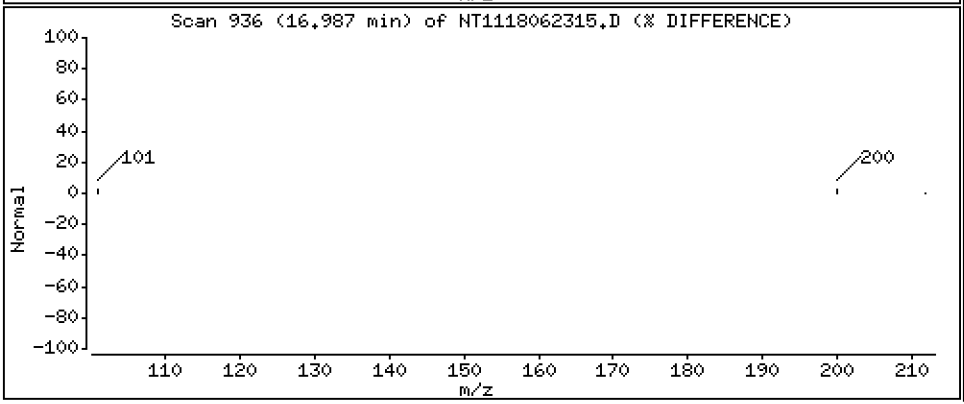
26 Pyrene

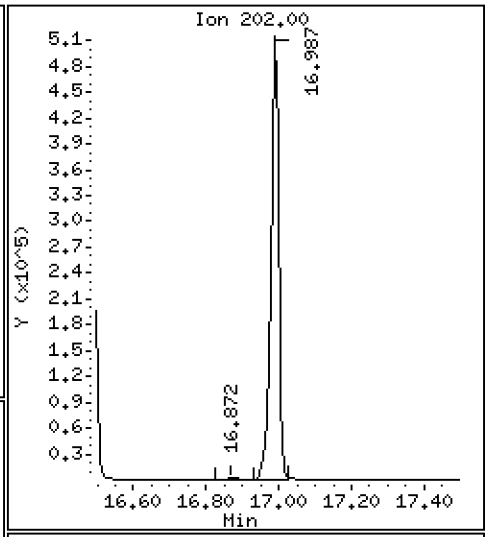
Concentration: 229 ng/mL

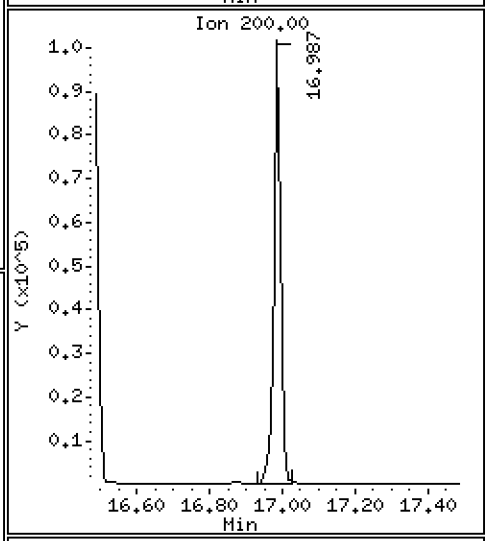


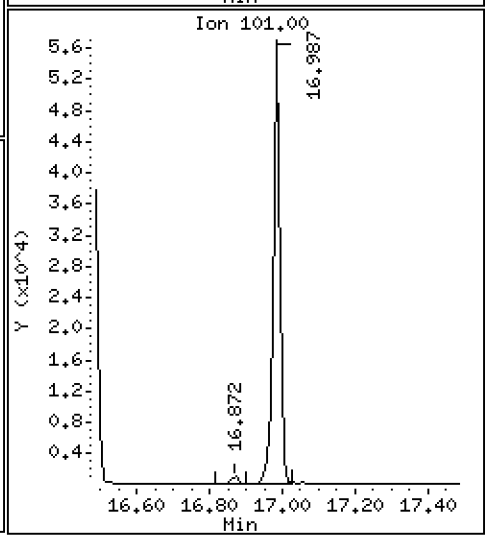












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Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

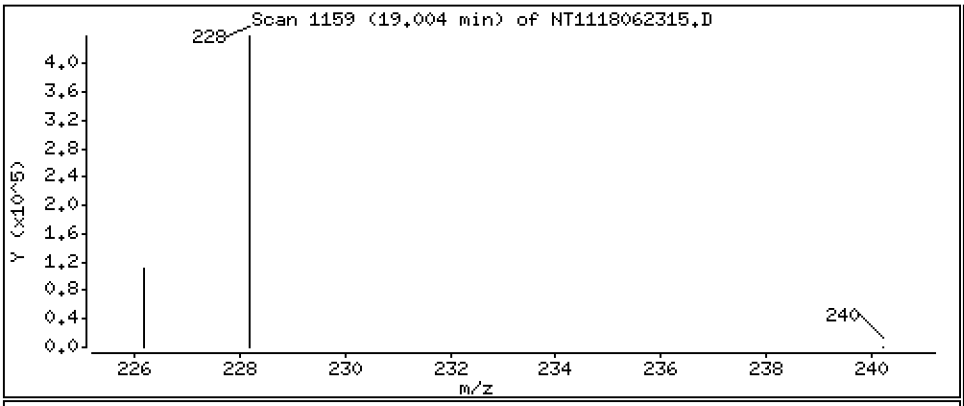
Operator: VTS

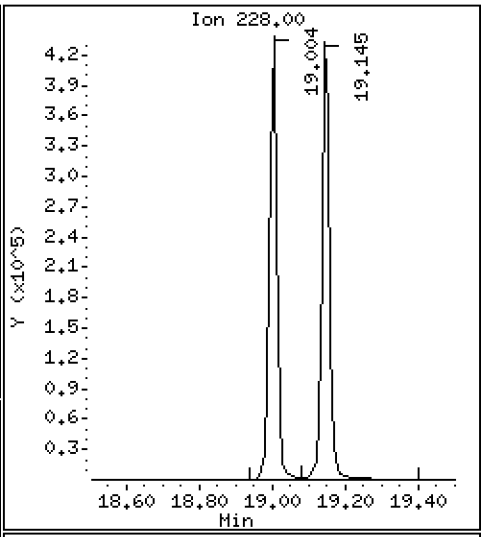
Column phase: Rxi-17Sil MS

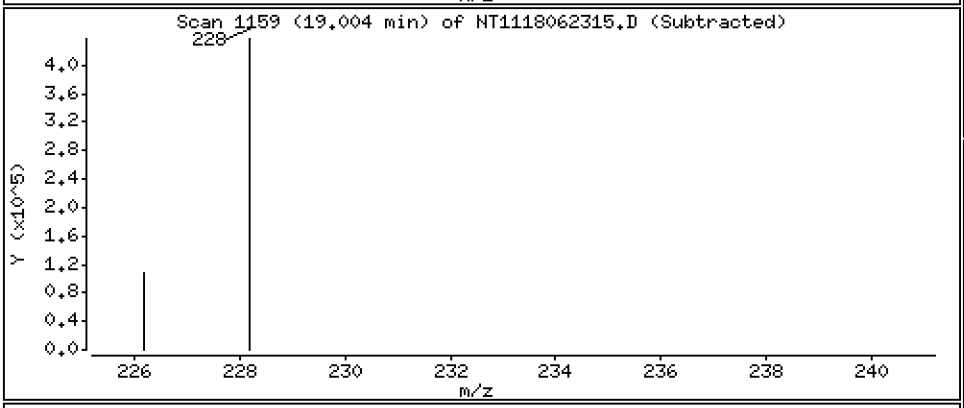
Column diameter: 0.25

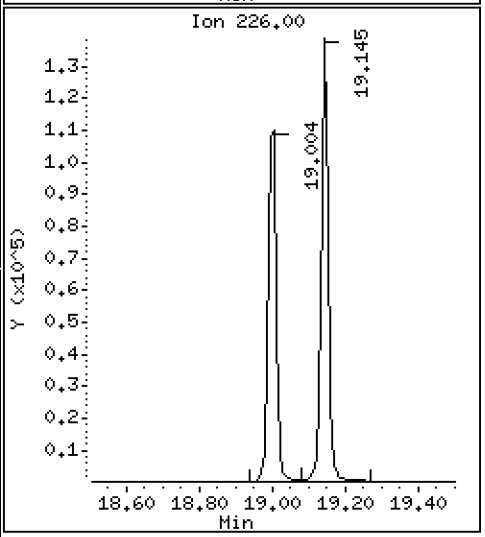
27 Benzo(a)anthracene

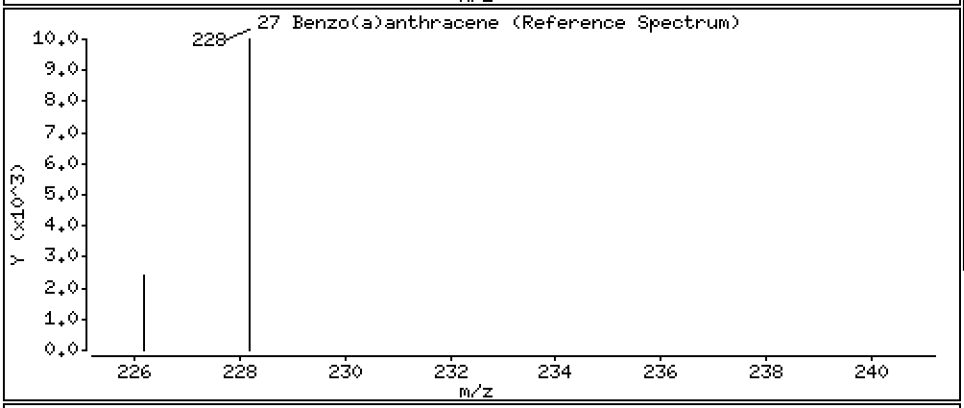
Concentration: 236 ng/mL

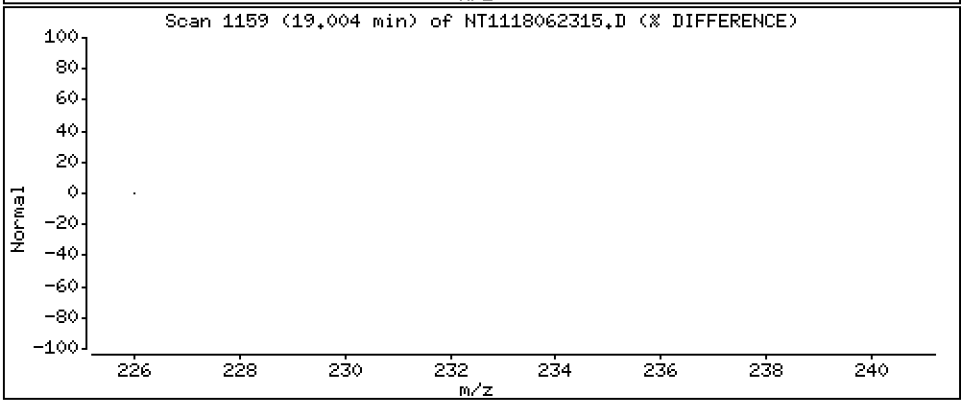












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Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

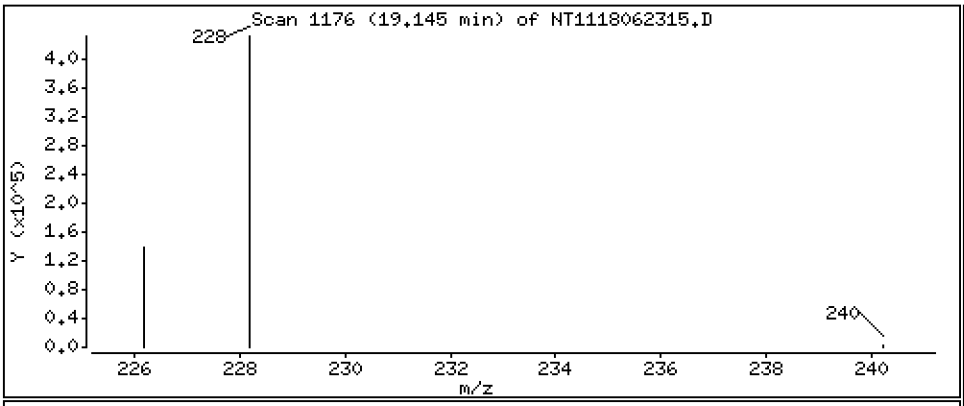
Operator: VTS

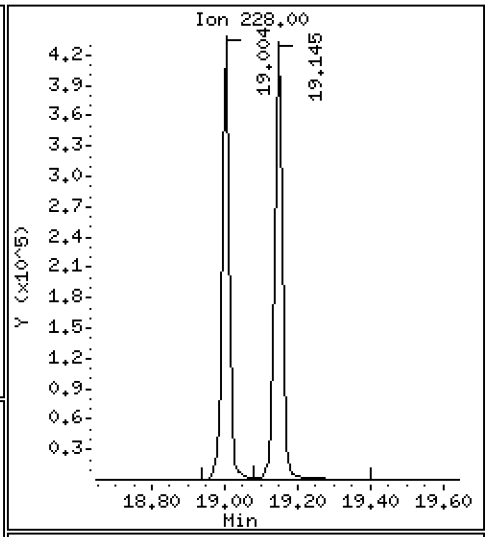
Column phase: Rxi-17Sil MS

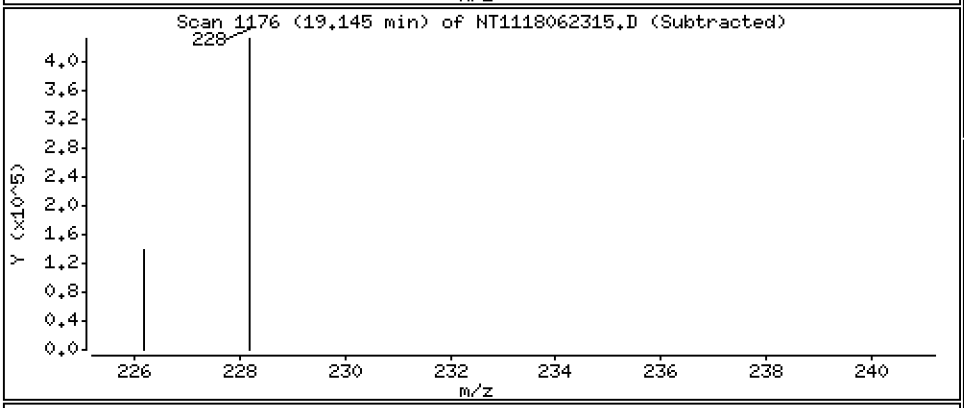
Column diameter: 0.25

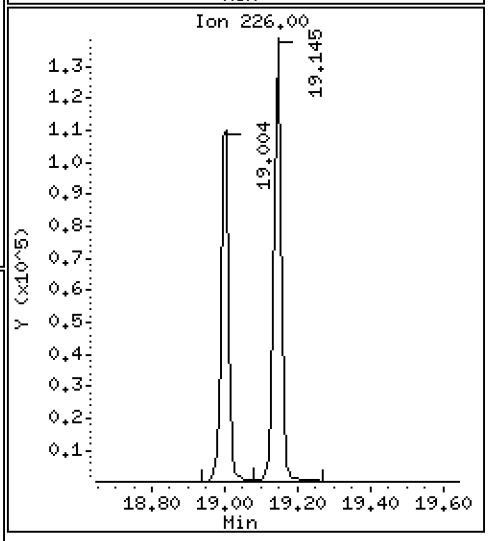
29 Chrysene

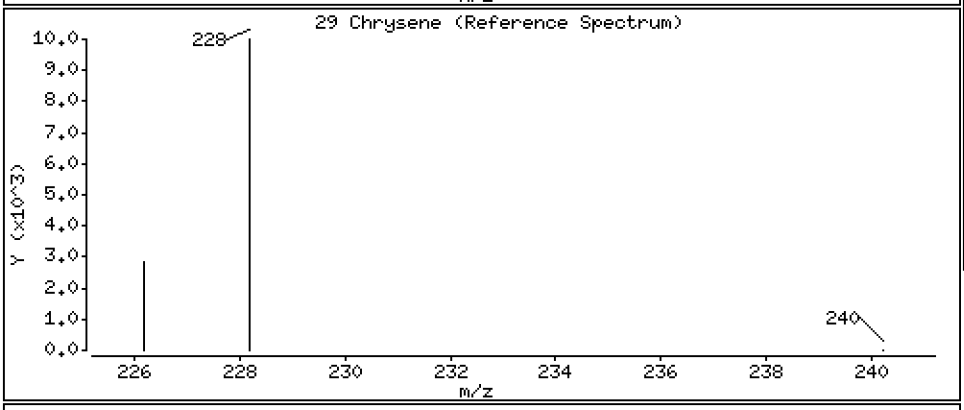
Concentration: 250 ng/mL

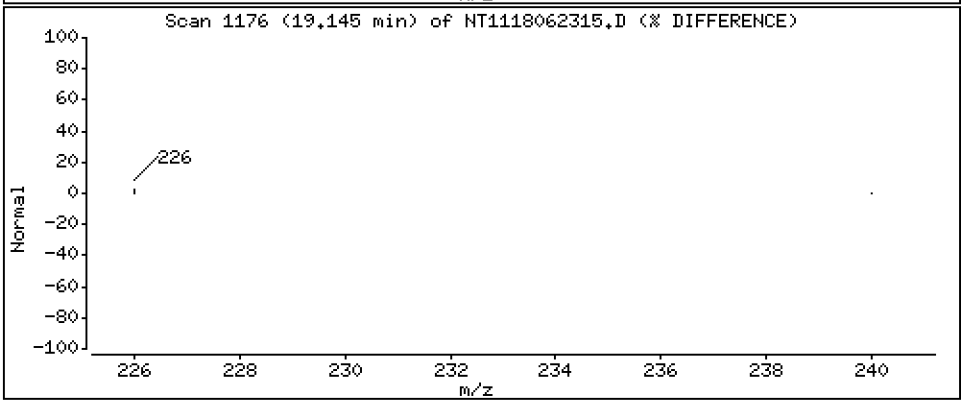












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Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

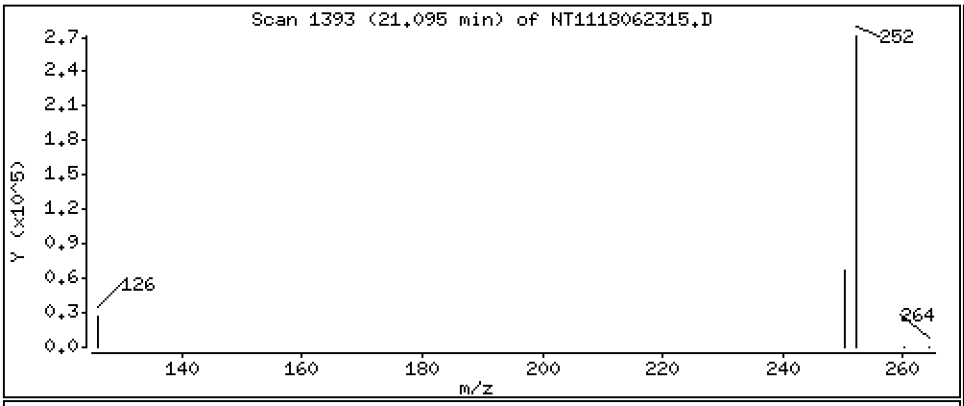
Operator: VTS

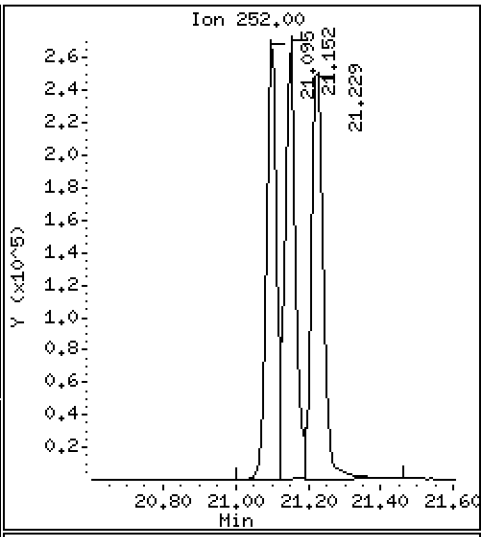
Column phase: Rxi-17Sil MS

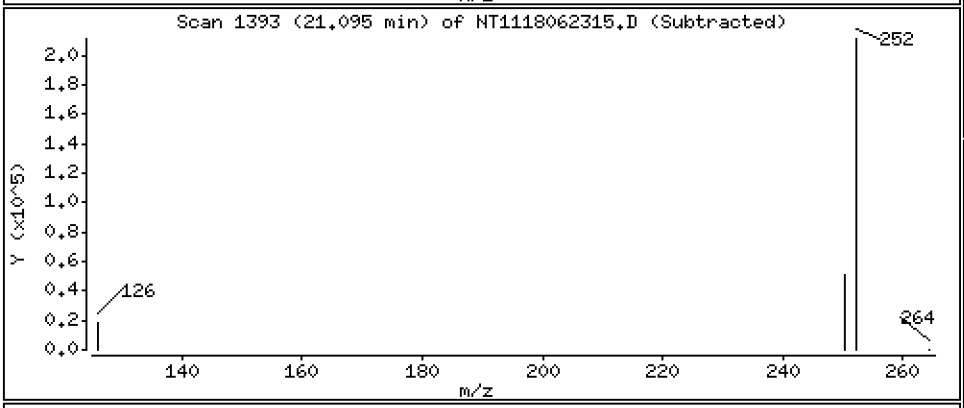
Column diameter: 0.25

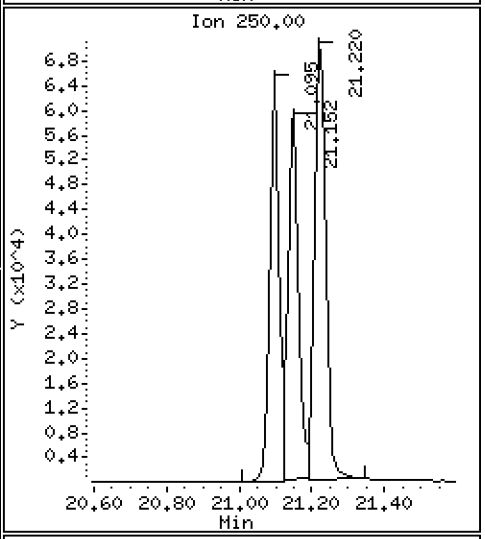
30 Benzo(b)fluoranthene

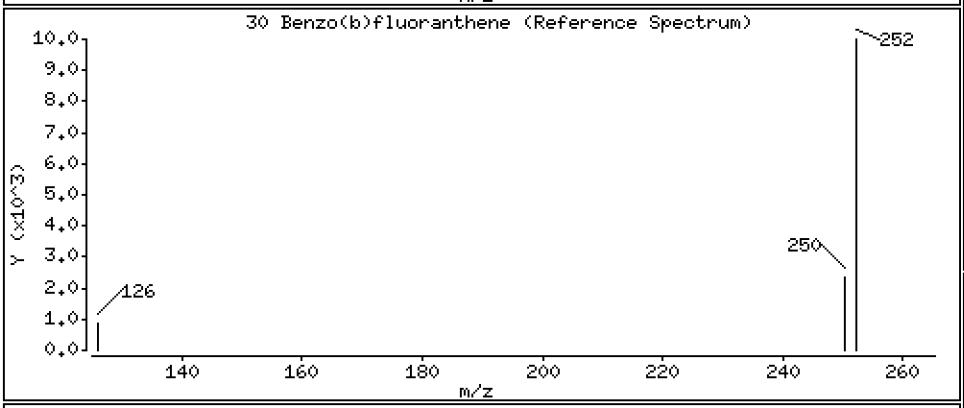
Concentration: 230 ng/mL

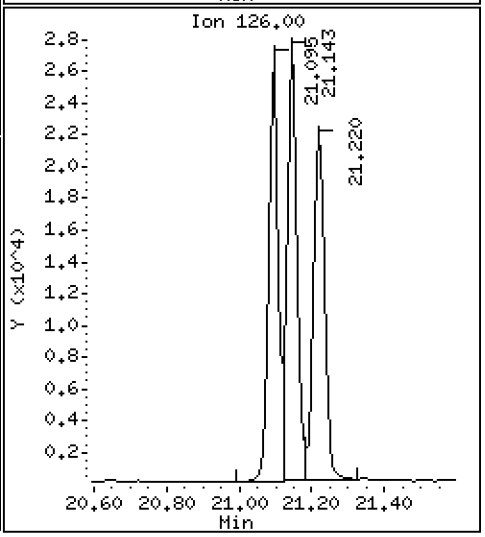


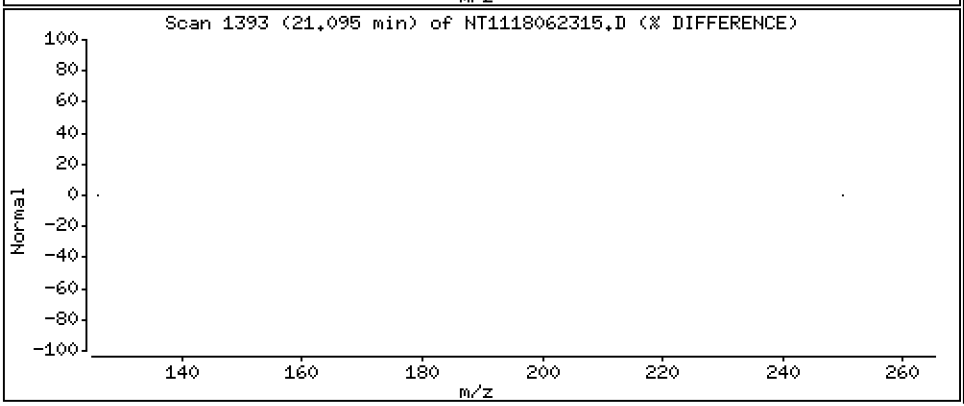












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Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

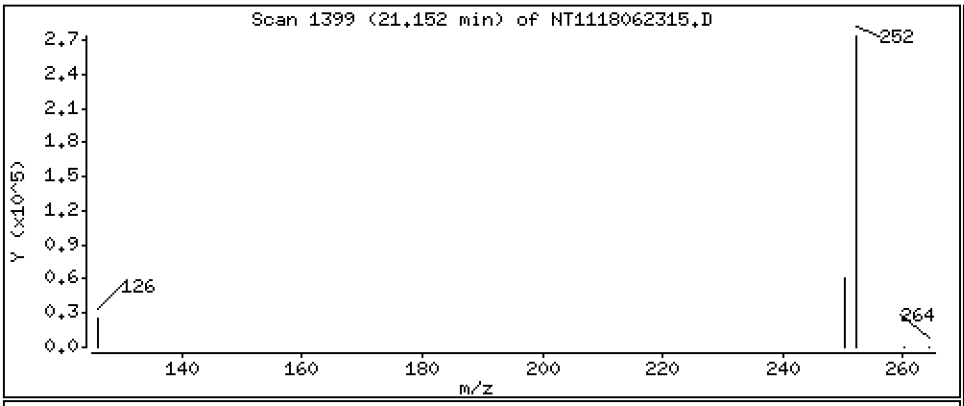
Operator: VTS

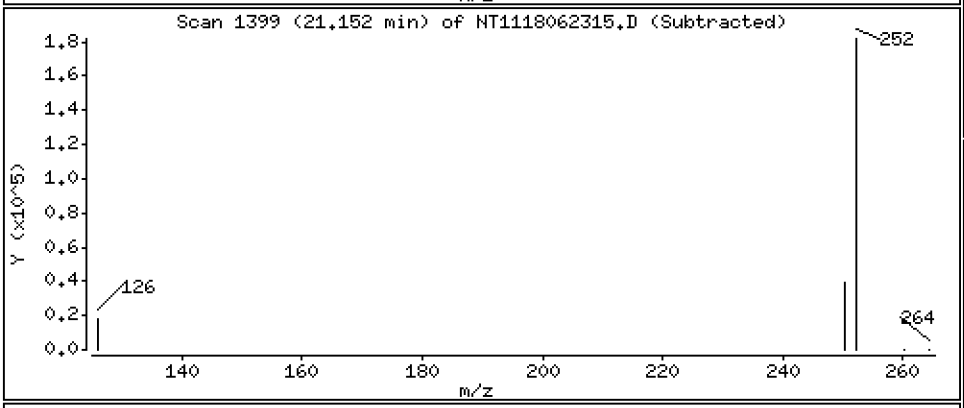
Column phase: Rxi-17Sil MS

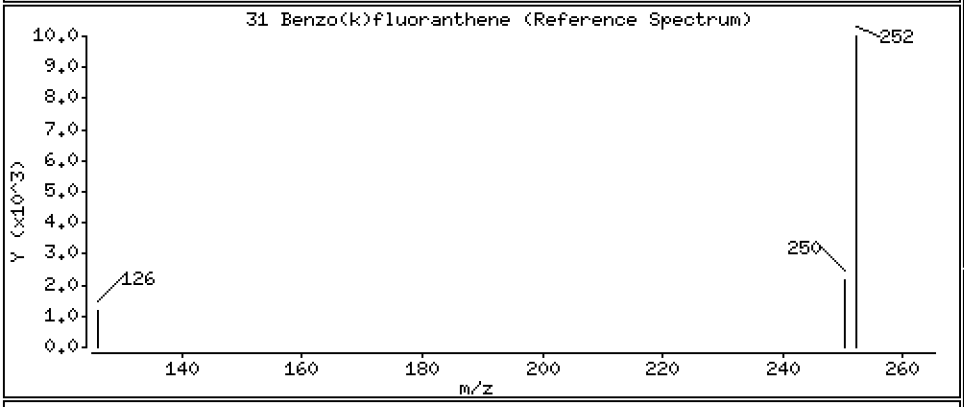
Column diameter: 0.25

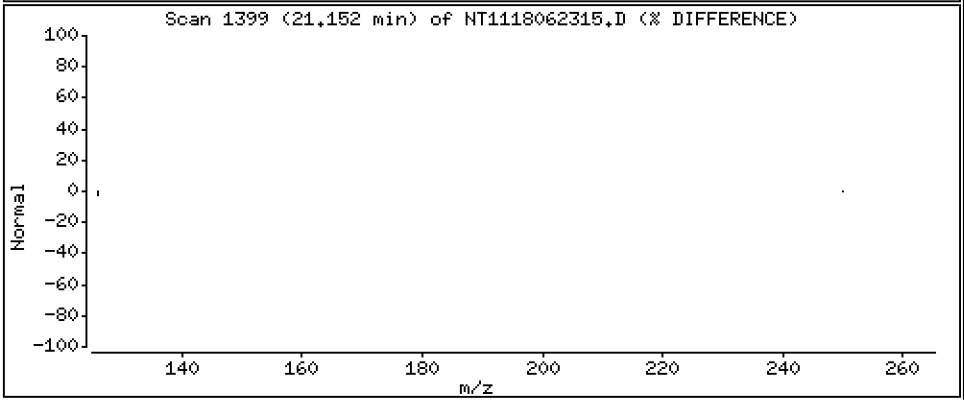
31 Benzo(k)fluoranthene

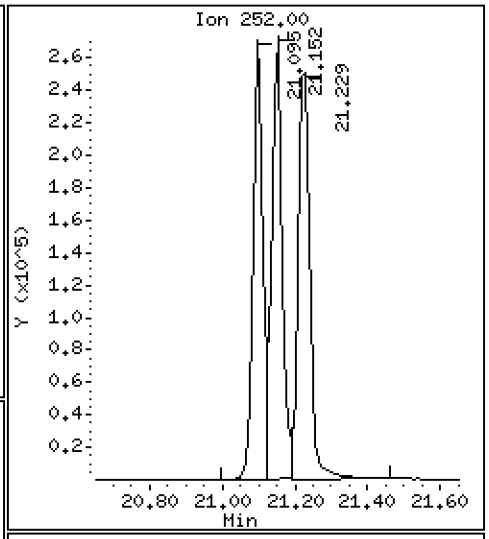
Concentration: 239 ng/mL

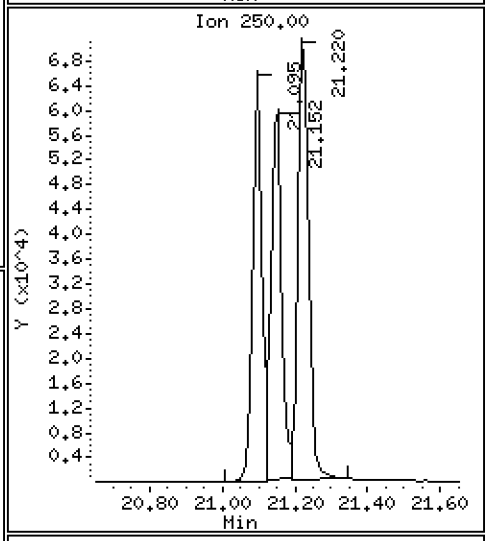


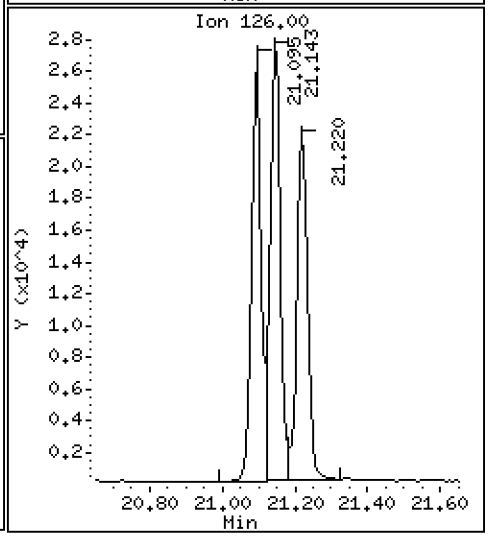












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Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

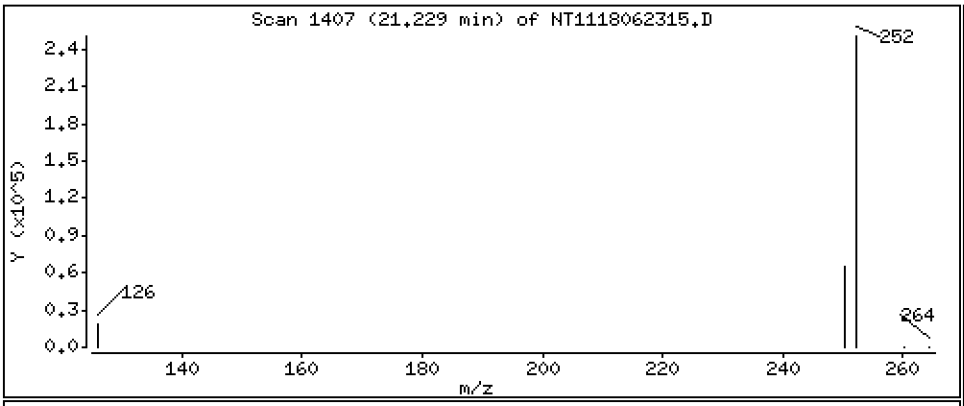
Operator: VTS

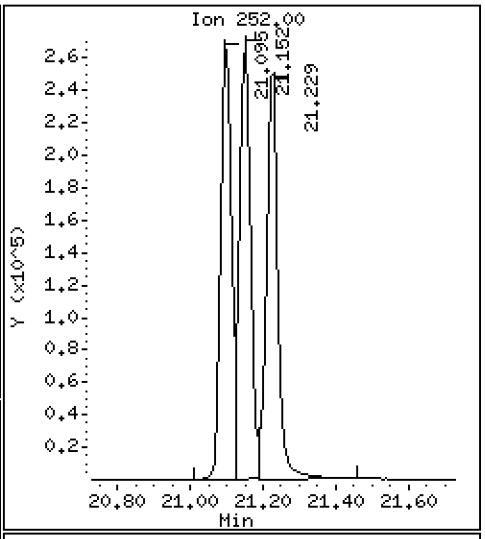
Column phase: Rxi-17Sil MS

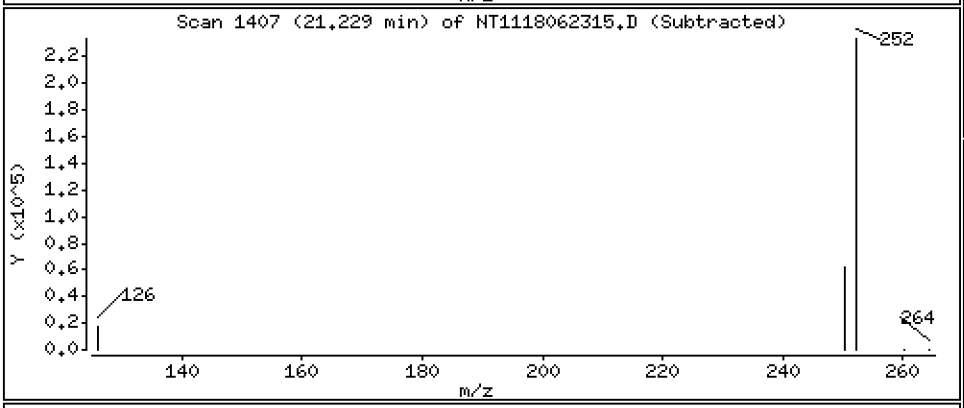
Column diameter: 0.25

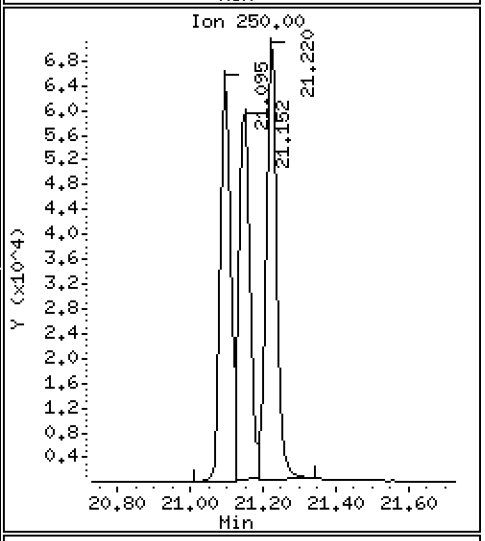
32 Benzo(j)fluoranthene

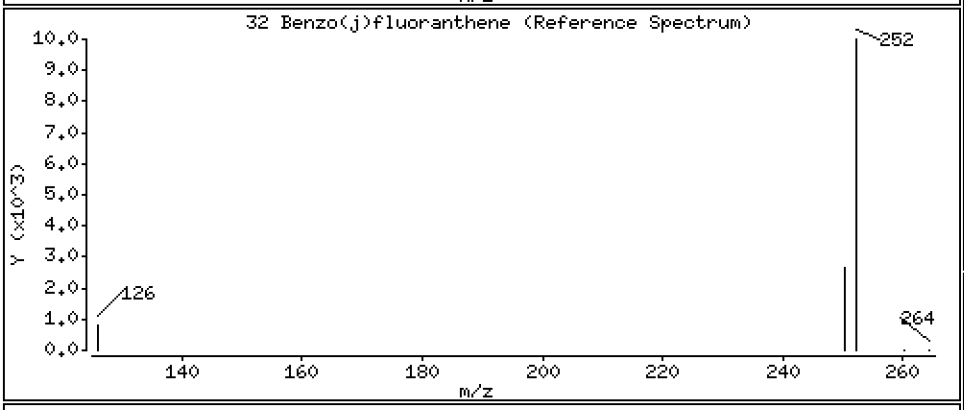
Concentration: 254 ng/mL

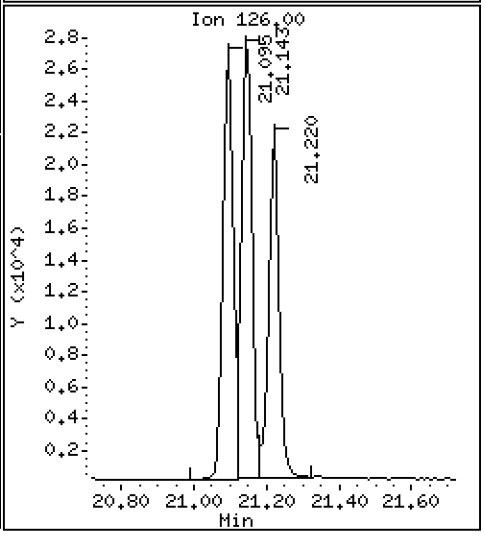


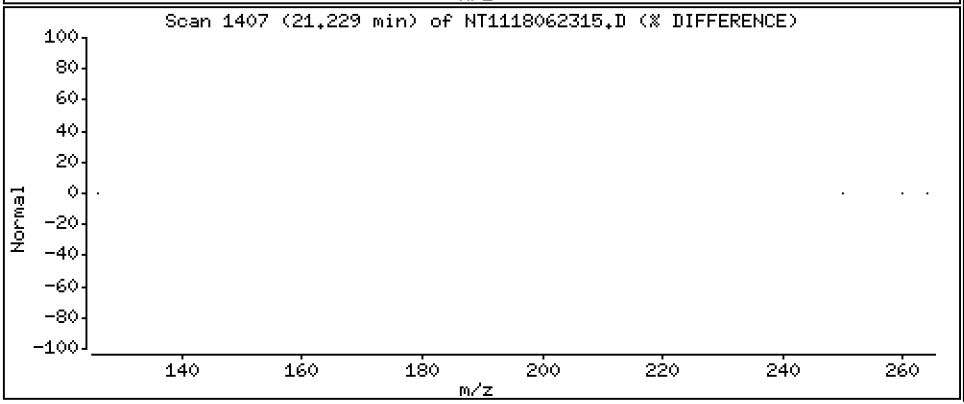












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Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

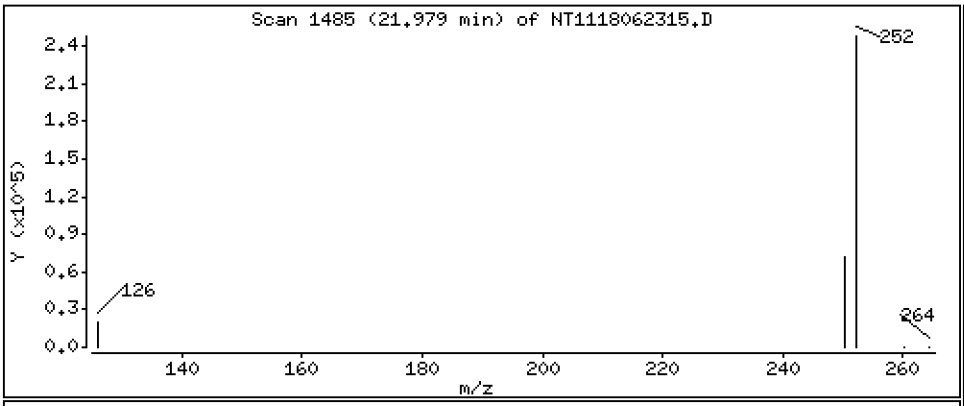
Operator: VTS

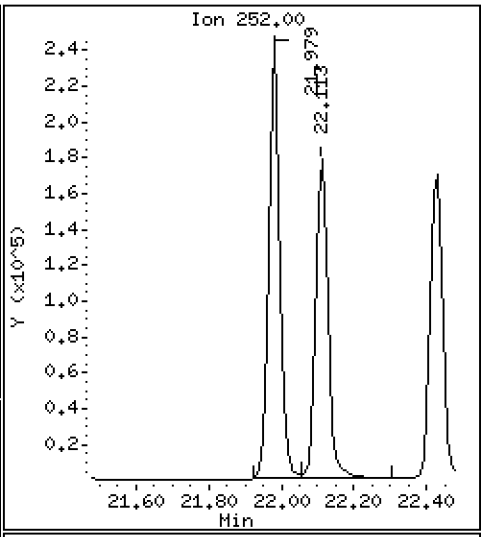
Column phase: Rxi-17Sil MS

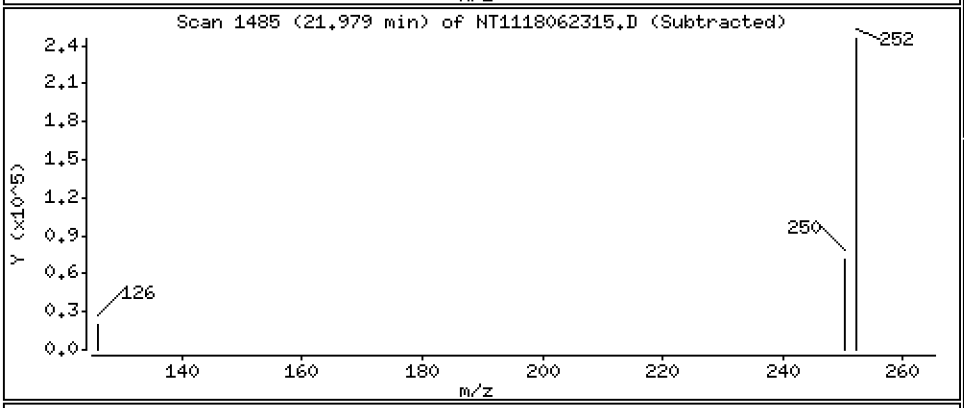
Column diameter: 0.25

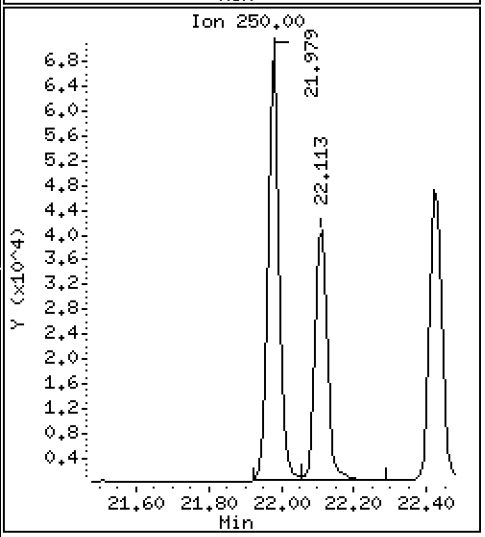
34 Benzo(e)pyrene

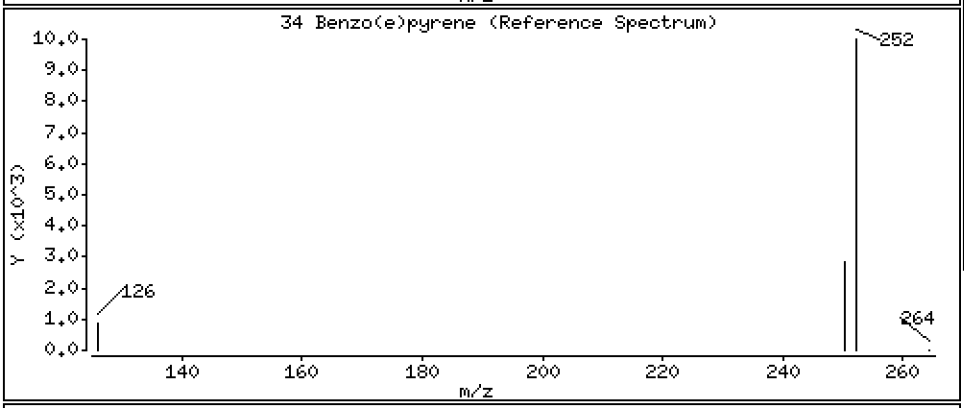
Concentration: 232 ng/mL

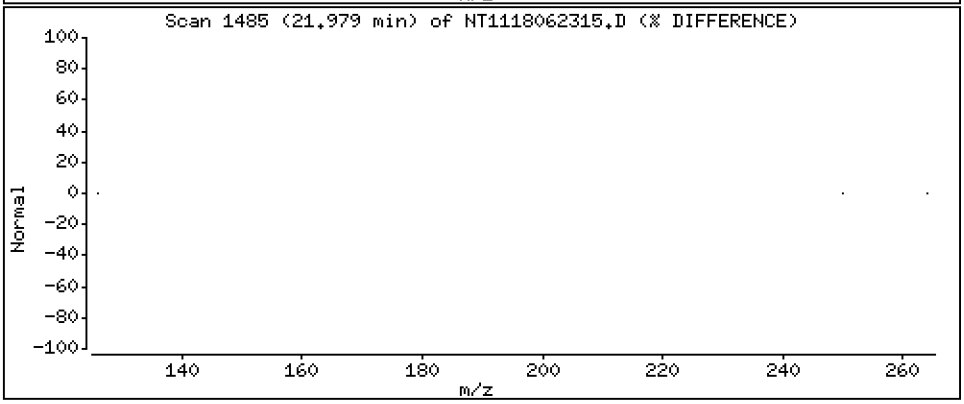












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062315.D

Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

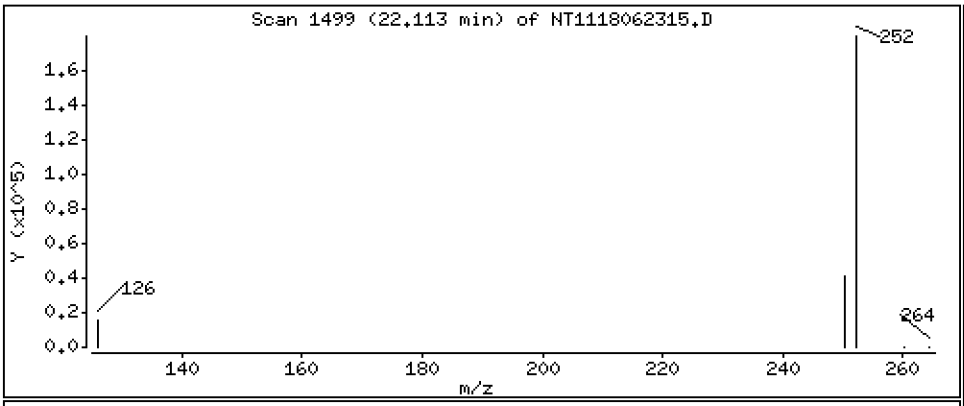
Operator: VTS

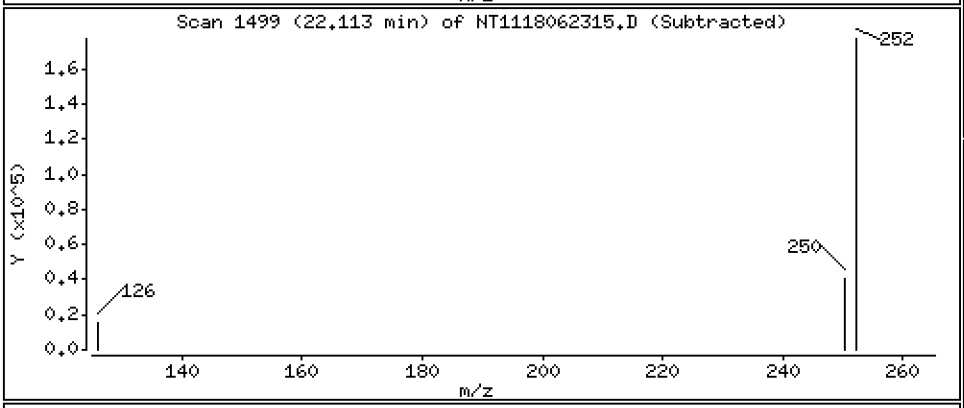
Column phase: Rxi-17Sil MS

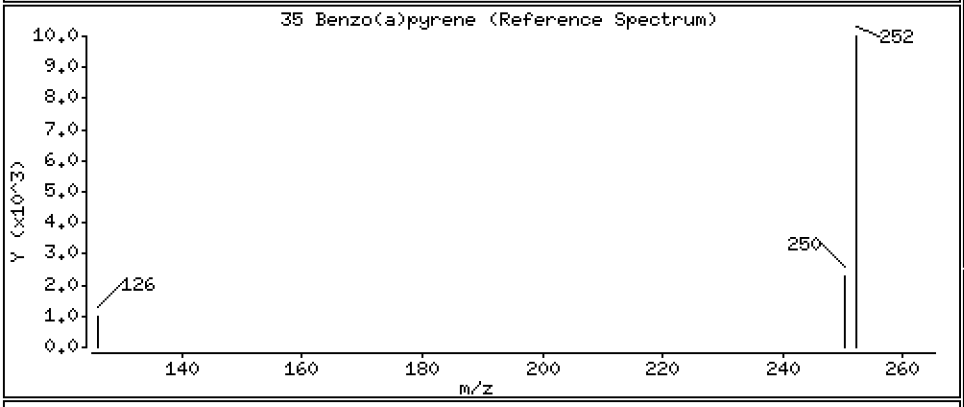
Column diameter: 0.25

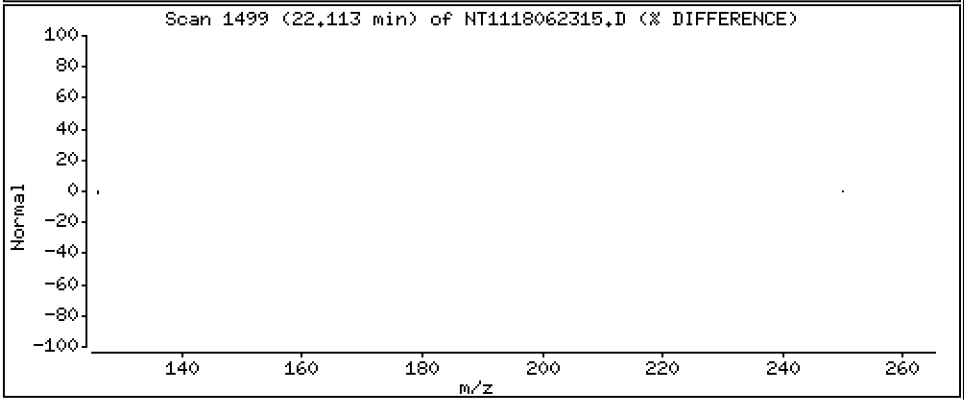
35 Benzo(a)pyrene

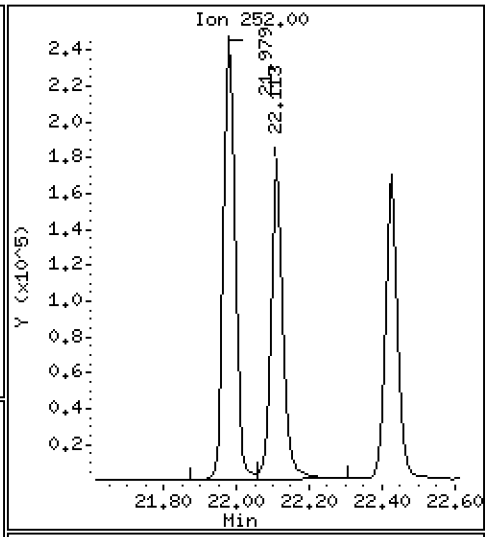
Concentration: 199 ng/mL

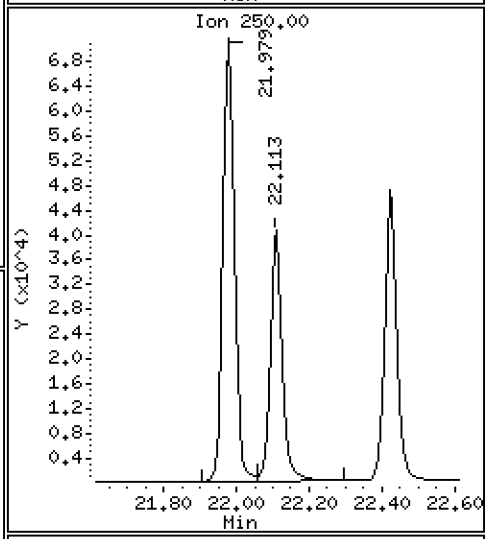


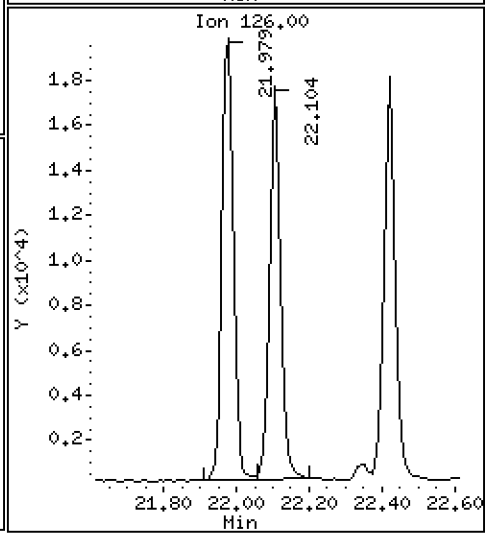












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062315.D

Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

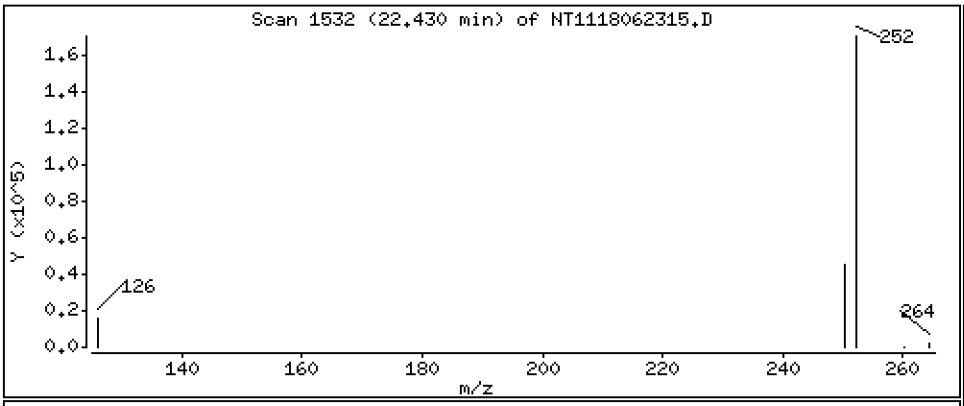
Operator: VTS

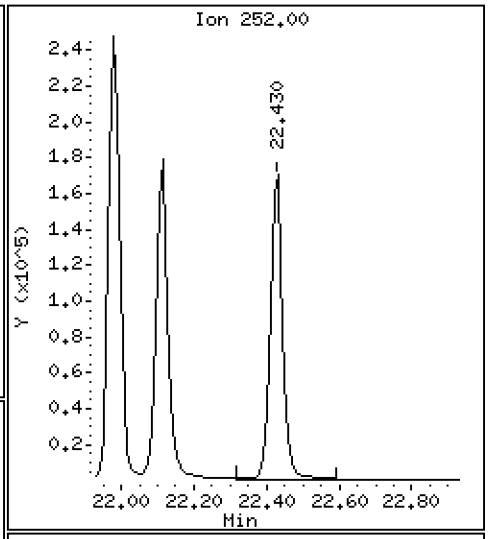
Column phase: Rxi-17Sil MS

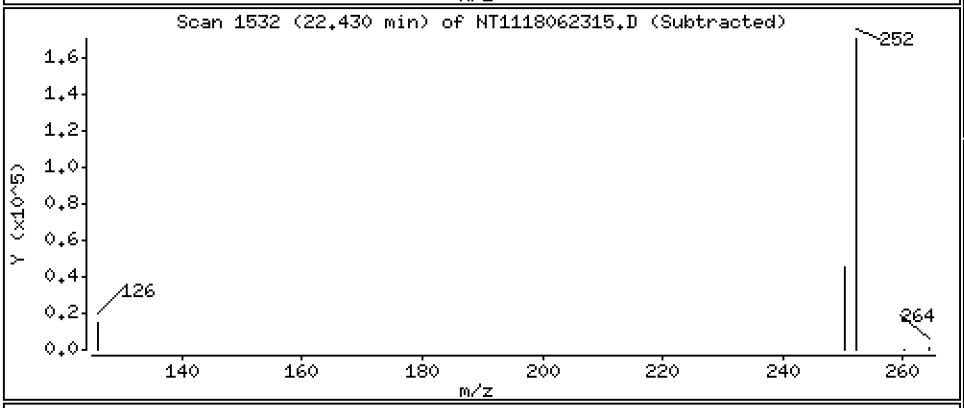
Column diameter: 0.25

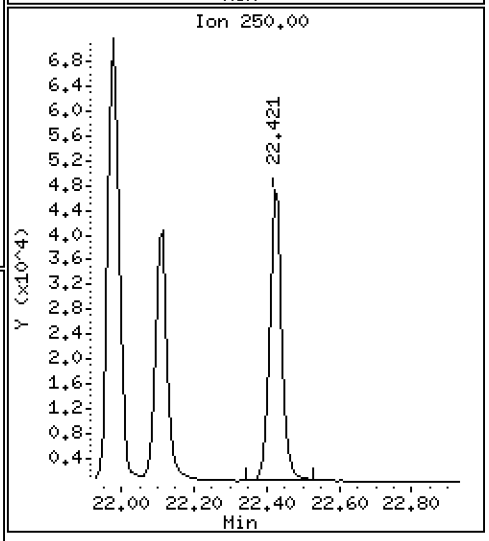
37 Perylene

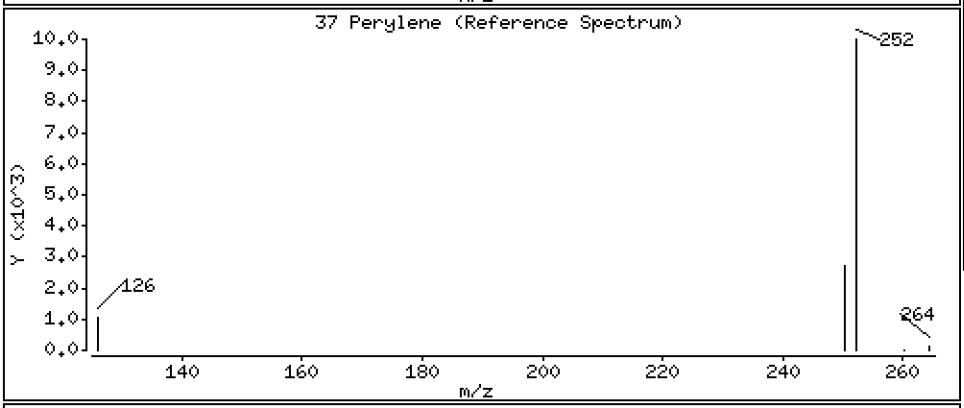
Concentration: 186 ng/mL

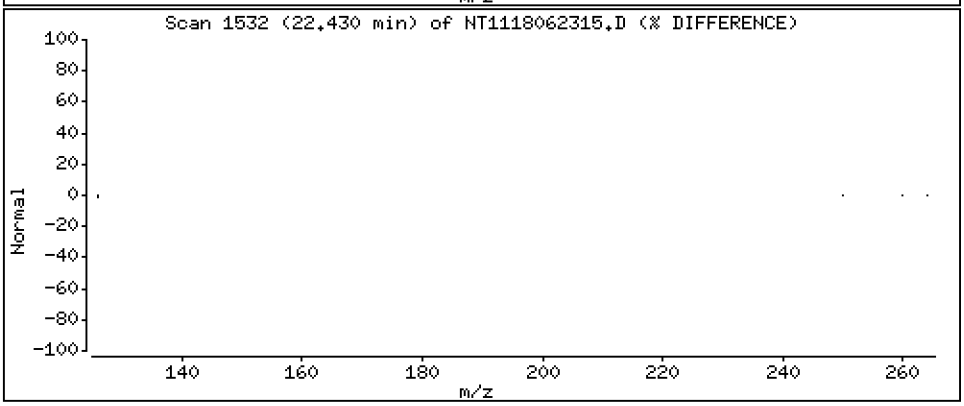












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062315.D

Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

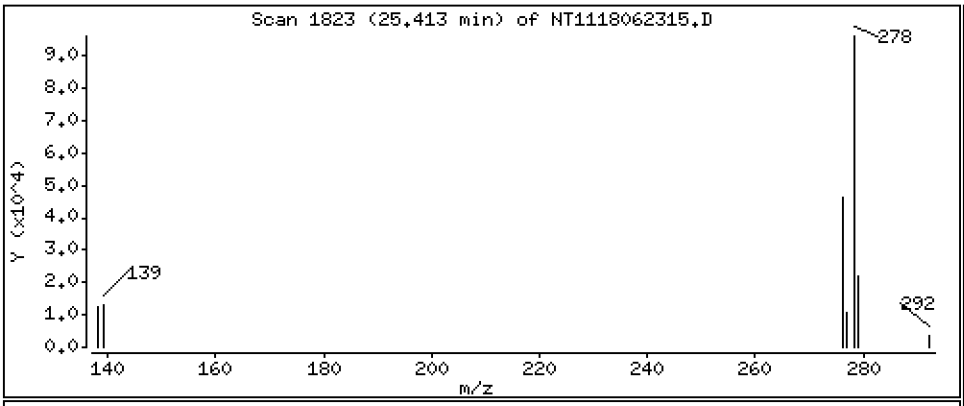
Operator: VTS

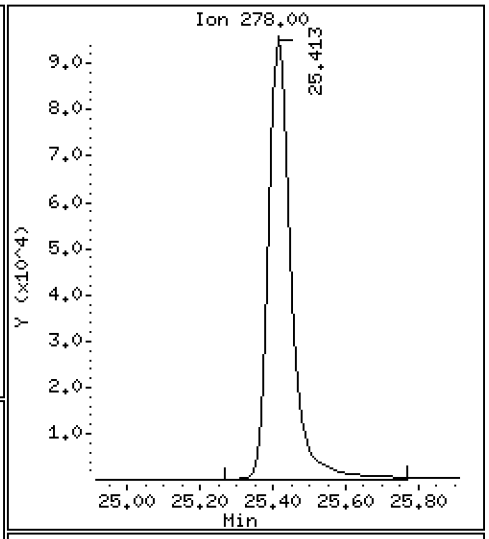
Column phase: Rxi-17Sil MS

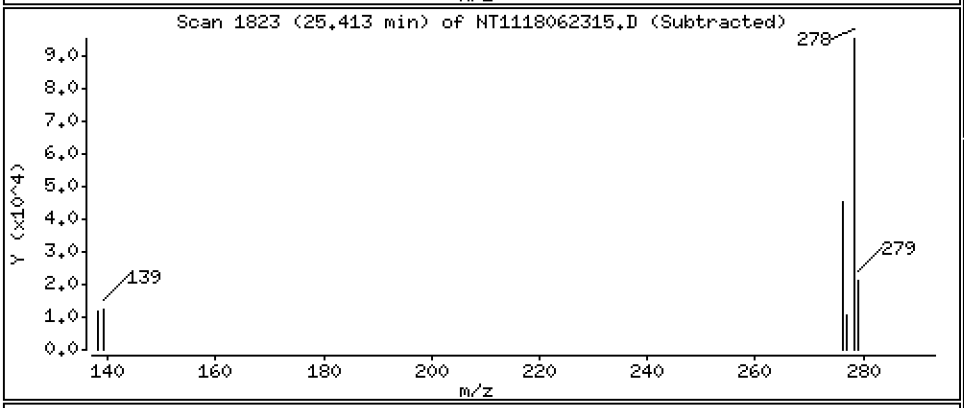
Column diameter: 0.25

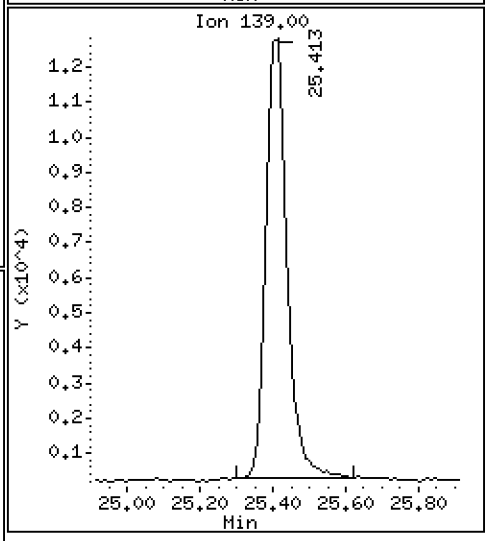
39 Dibenzo(a,h)anthracene

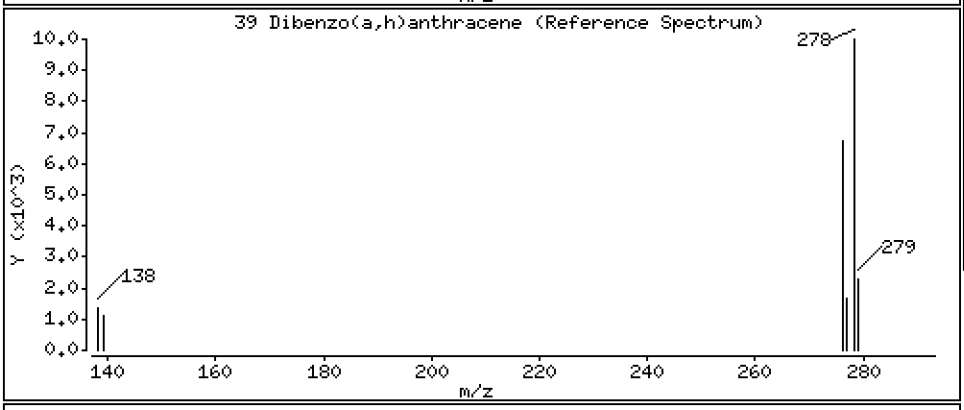
Concentration: 226 ng/mL

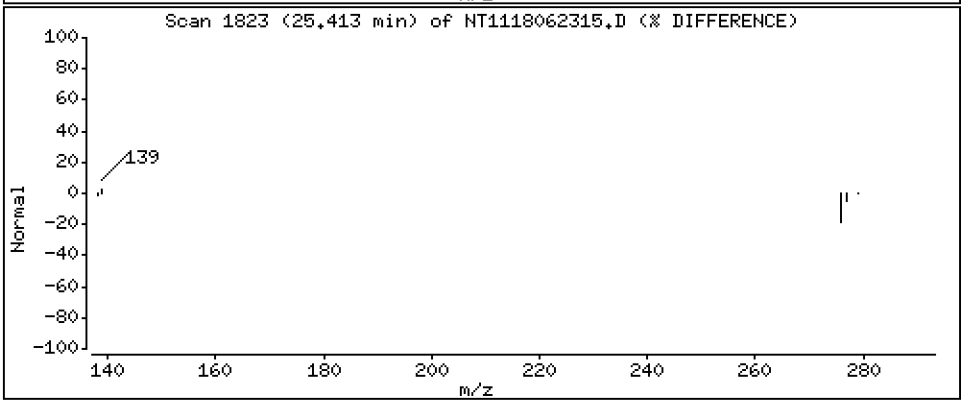












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062315.D

Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

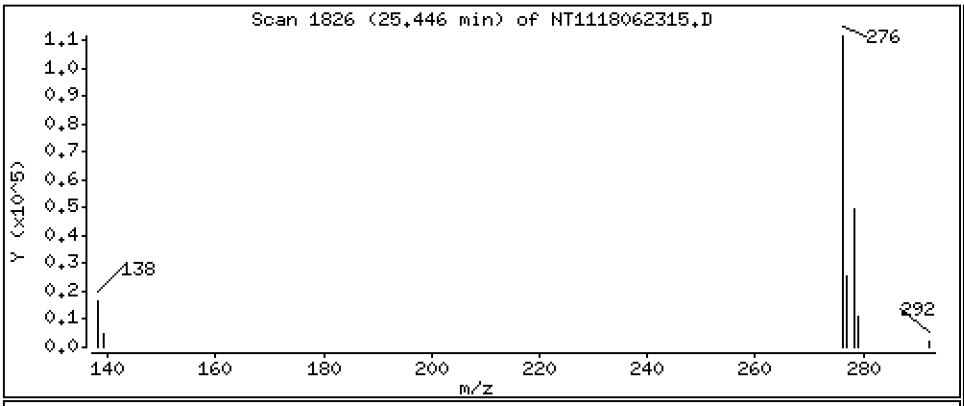
Operator: VTS

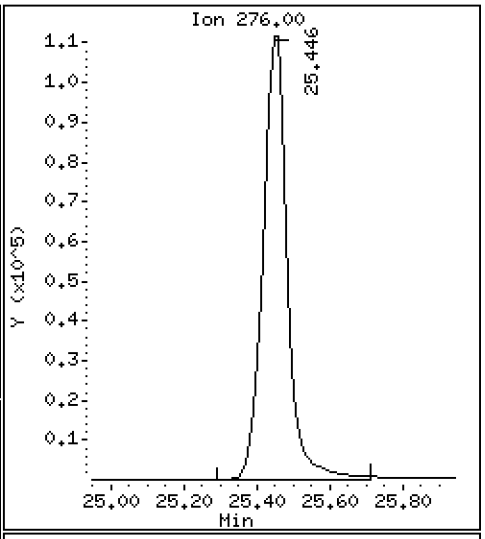
Column phase: Rxi-17Sil MS

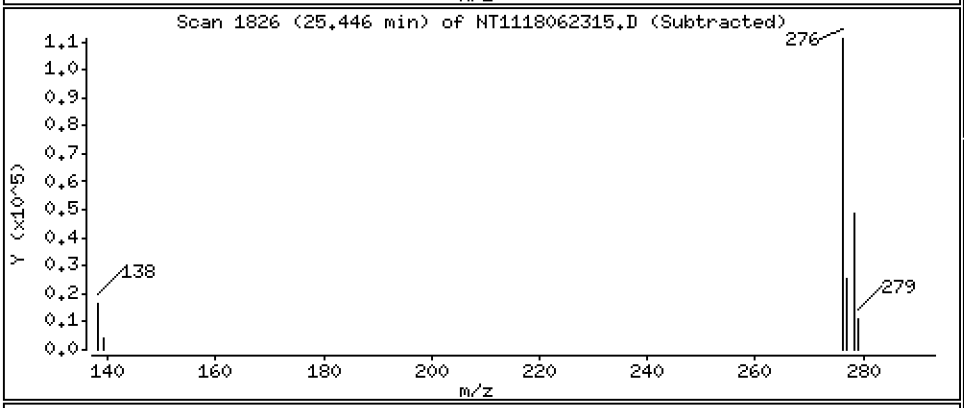
Column diameter: 0.25

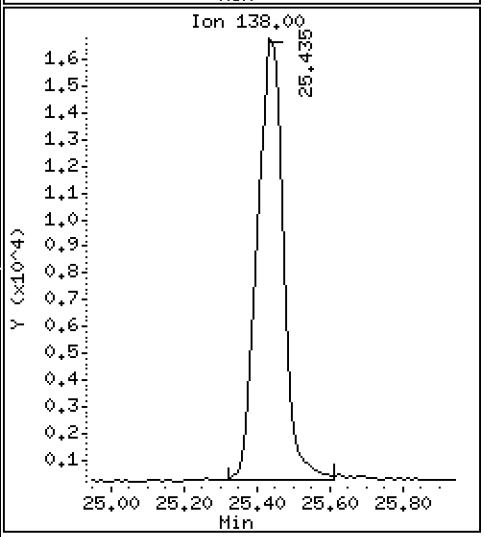
40 Indeno(1,2,3-cd)pyrene

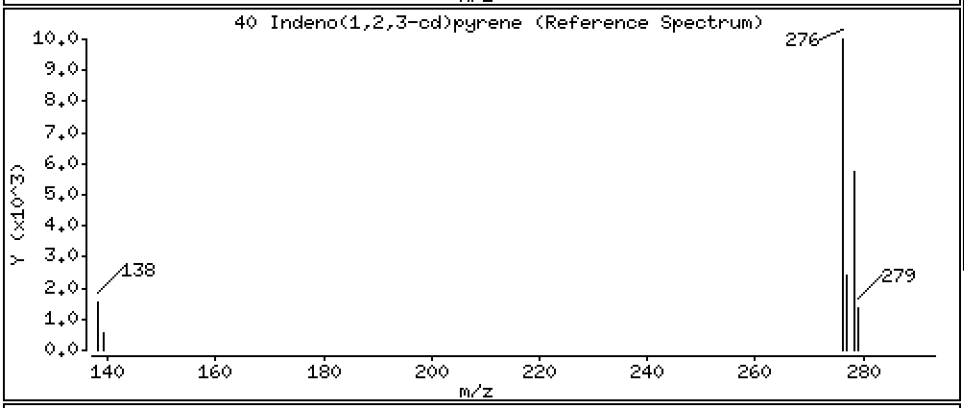
Concentration: 237 ng/mL

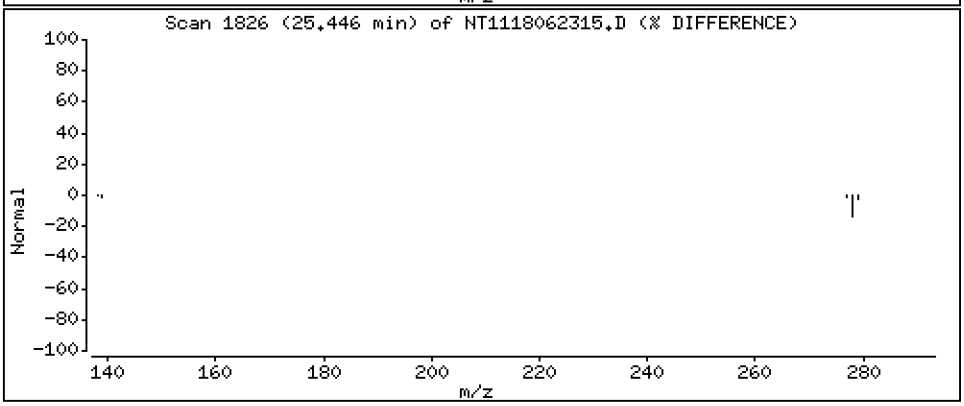












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062315.D

Date : 23-JUN-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: BGF0455-BS1

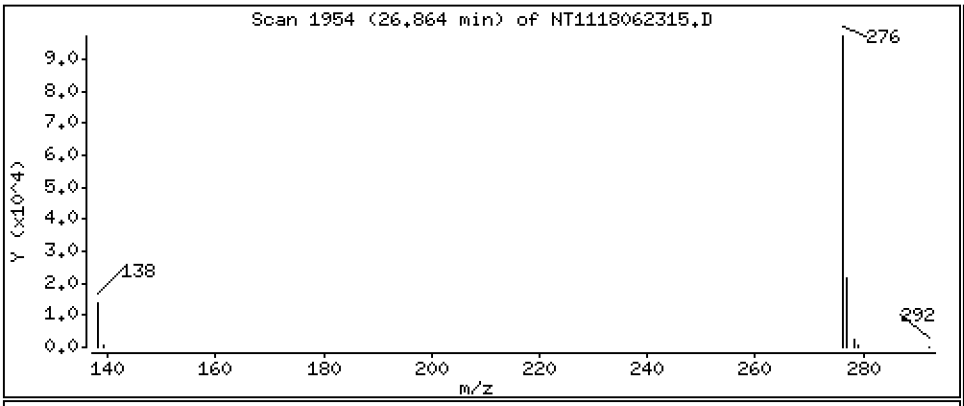
Operator: VTS

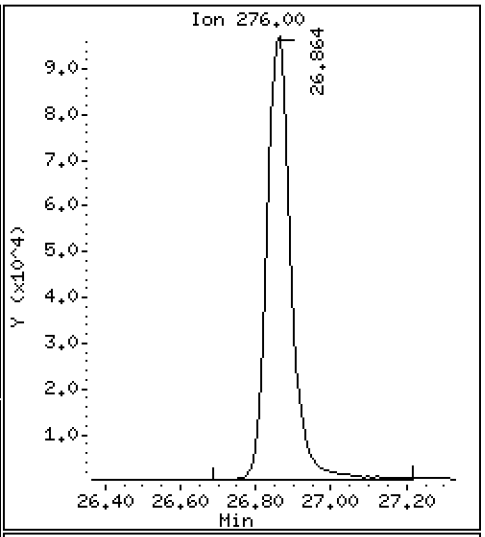
Column phase: Rxi-17Sil MS

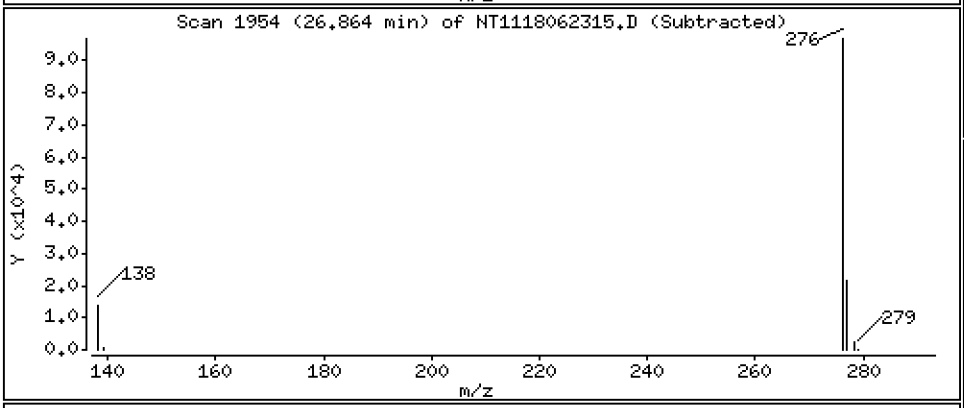
Column diameter: 0.25

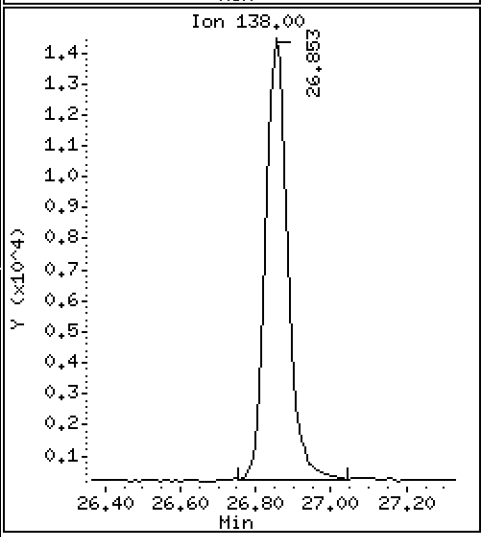
41 Benzo(g,h,i)perylene

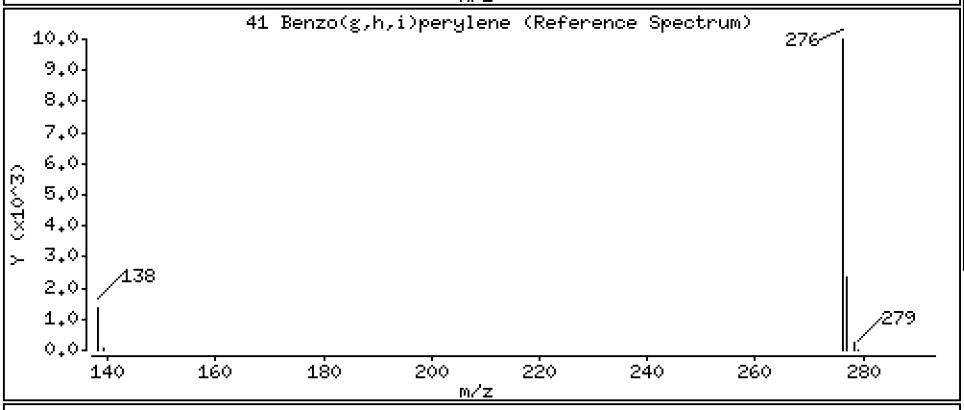
Concentration: 234 ng/mL

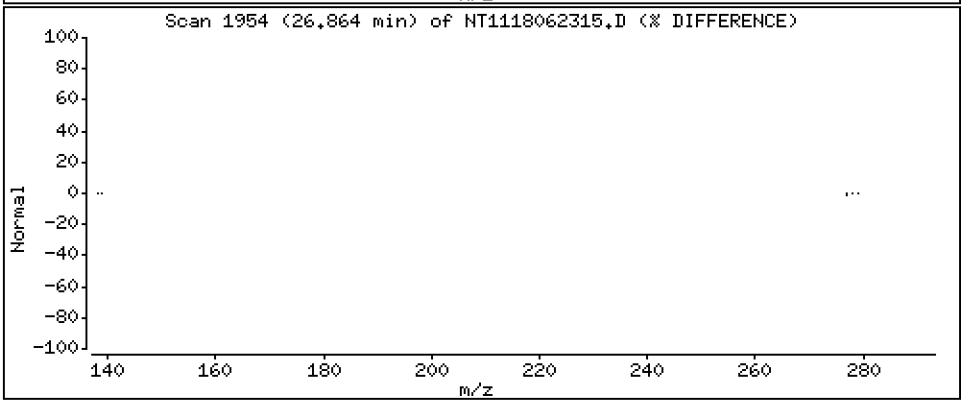












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180623.b\NT1118062315.D
Lab Smp Id: BGF0455-BS1
Inj Date : 23-JUN-2018 19:26 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : BGF0455-BS1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180623.b\LOWSIM.m
Meth Date : 23-Jun-2018 13:20 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	447669	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	555172	183.151	183
	3 Benzo(b)thiophene	134	8.897	8.897	(1.034)	487657	207.821	208
$	4 2-Methylnaphthalene-d10	152	9.591	9.592	(1.114)	528849	207.048	207
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	573841	210.433	210
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	568230	209.521	210
	7 2-Chloronaphthalene	162	10.558	10.569	(0.907)	592737	221.142	221
	8 Biphenyl	154	10.526	10.527	(0.904)	755342	235.595	236
	9 2,6-Dimethylnaphthalene	156	10.579	10.579	(0.909)	582905	230.050	230
	10 Acenaphthylene	152	11.490	11.499	(0.987)	665160	216.966	217
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	257845	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	447300	213.319	213
	13 Dibenzofuran	168	11.907	11.908	(1.023)	627644	218.495	218
	14 2,3,5-Trimethylnaphthalene	170	11.996	12.009	(1.030)	401050	218.158	218
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.539	12.540	(1.077)	495059	213.712	214
	17 Dibenzothiophene	184	14.172	14.172	(0.988)	594602	221.013	221
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	432028	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	771549	227.704	228
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.435	14.435	(1.007)	632160	199.567	200
	22 Carbazole	167	15.112	15.113	(1.054)	815233	220.916	221
	23 1-Methylphenanthrene	192	15.384	15.384	(1.073)	792962	247.683	248
$	24 Fluoranthene-d10	212	16.448	16.449	(1.147)	607685	231.727	232
	25 Fluoranthene	202	16.487	16.487	(1.150)	776172	246.667	247
	26 Pyrene	202	16.986	16.996	(0.890)	772663	229.427	229
	27 Benzo(a)anthracene	228	19.004	19.004	(0.995)	618964	235.651	236
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	342568	200.000	
	29 Chrysene	228	19.145	19.145	(1.003)	653452	250.455	250
	30 Benzo(b)fluoranthene	252	21.094	21.104	(0.944)	542196	229.853	230
	31 Benzo(k)fluoranthene	252	21.152	21.152	(0.946)	583465	238.532	239
	32 Benzo(j)fluoranthene	252	21.229	21.229	(0.950)	566151	254.300	254
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	21.978	21.978	(0.983)	528739	232.393	232

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	35 Benzo(a)pyrene	252	22.113	22.113	(0.989)	411914	198.769	199
*	36 Perylene-d12	264	22.353	22.353	(1.000)	333496	200.000	
	37 Perylene	252	22.430	22.430	(1.003)	403996	185.753	186
$	38 Dibenzo(a,h)anthracene-d14	292	25.268	25.268	(1.130)	349683	219.113	219
	39 Dibenzo(a,h)anthracene	278	25.412	25.412	(1.137)	407940	226.243	226
	40 Indeno(1,2,3-cd)pyrene	276	25.445	25.446	(1.138)	511913	237.482	237
	41 Benzo(g,h,i)perylene	276	26.863	26.863	(1.202)	437115	234.441	234

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118062315.D
Lab Smp Id: BGF0455-BS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180623.b\LOWSIM.m
Misc Info:

Calibration Date: 23-JUN-2018
Calibration Time: 10:32
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	447669	3.79
11 Acenaphthene-d10	260137	130069	520274	257845	-0.88
18 Phenanthrene-d10	427391	213696	854782	432028	1.08
28 Chrysene-d12	304596	152298	609192	342568	12.47
36 Perylene-d12	263091	131546	526182	333496	26.76

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118062315.D

Lab ID: BGF0455-BS1
nt11.i, 20180623.b\LOWSIM.m,   23-JUN-2018 19:26

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180623.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

LCS / LCS DUPLICATE RECOVERY

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	07/06/18 14:05
Batch:	BGF0530	Laboratory ID:	BGF0530-BS1
Preparation:	EPA 3510C SepF	Sequence Name:	LCS
Initial/Final:	500 mL / 0.5 mL		

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	Q	LCS % REC. #	QC LIMITS REC.
Naphthalene	0.300	0.167		55.7	30 - 160
2-Methylnaphthalene	0.300	0.192		64.1	30 - 160
Acenaphthylene	0.300	0.205		68.4	30 - 160
Acenaphthene	0.300	0.205		68.3	30 - 160
Fluorene	0.300	0.202		67.5	30 - 160
Phenanthrene	0.300	0.218		72.8	30 - 160
Anthracene	0.300	0.196		65.5	30 - 160
Fluoranthene	0.300	0.243	Q	81.0	30 - 160
Pyrene	0.300	0.227		75.7	30 - 160
Benzo(a)anthracene	0.300	0.231		76.9	30 - 160
Chrysene	0.300	0.251	Q	83.6	30 - 160
Benzo(b)fluoranthene	0.300	0.207		69.2	30 - 160
Benzo(k)fluoranthene	0.300	0.235		78.4	30 - 160
Benzo(j)fluoranthene	0.300	0.267	Q	88.9	30 - 160
Benzo(a)pyrene	0.300	0.199		66.3	30 - 160
Indeno(1,2,3-cd)pyrene	0.300	0.220		73.3	30 - 160
Dibenzo(a,h)anthracene	0.300	0.211		70.2	30 - 160
Benzo(g,h,i)perylene	0.300	0.224		74.6	30 - 160

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070604.D

Date : 06-JUL-2018 14:05

Client ID:

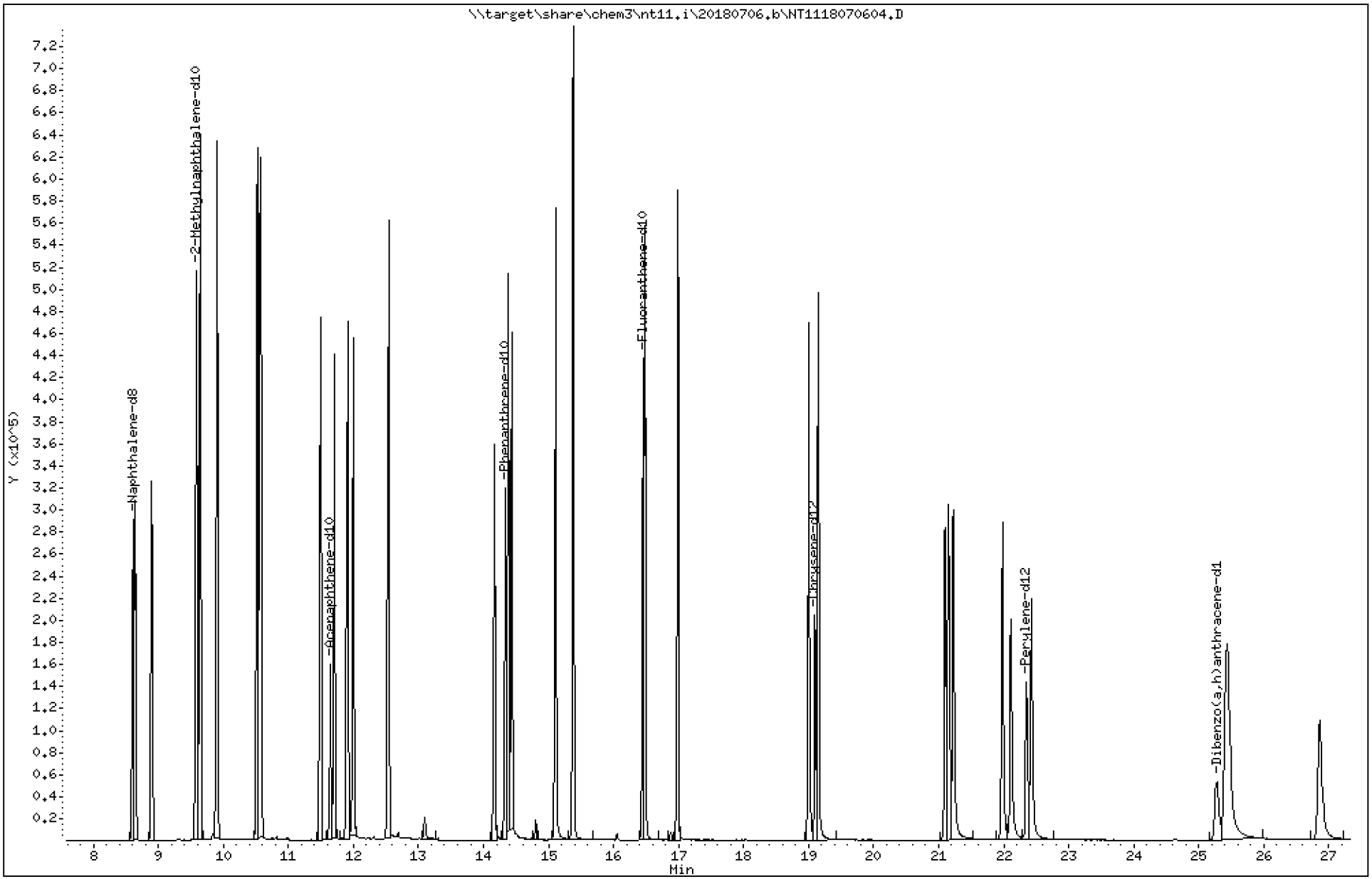
Instrument: nt11.i

Sample Info: BGF0530-BS1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 1996 of 6523

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Date : 06-JUL-2018 14:05

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BS1

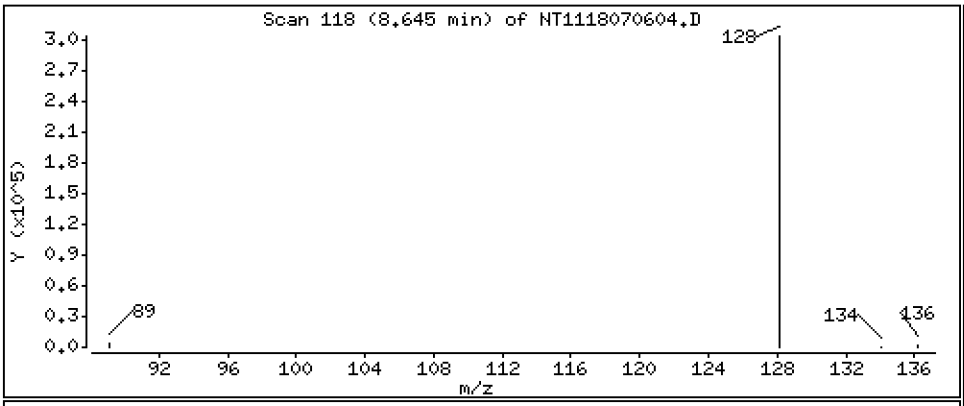
Operator: VTS

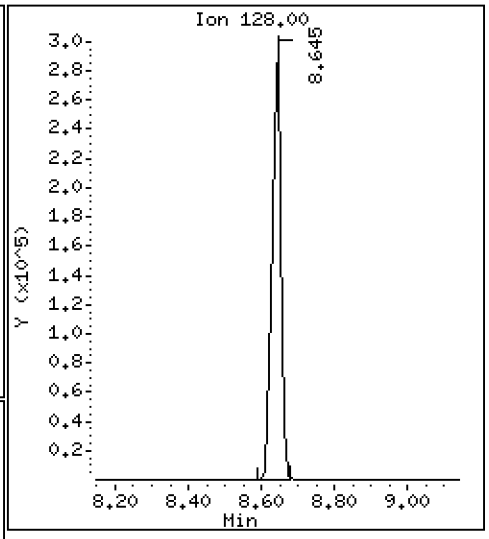
Column phase: Rxi-17Sil MS

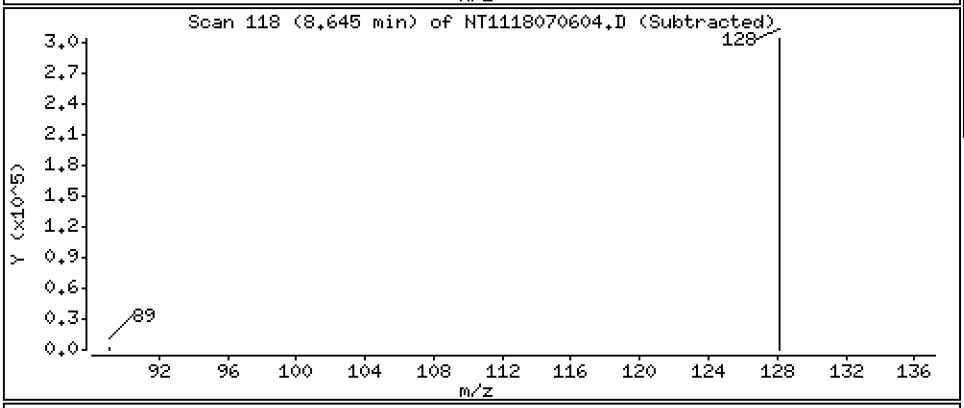
Column diameter: 0.25

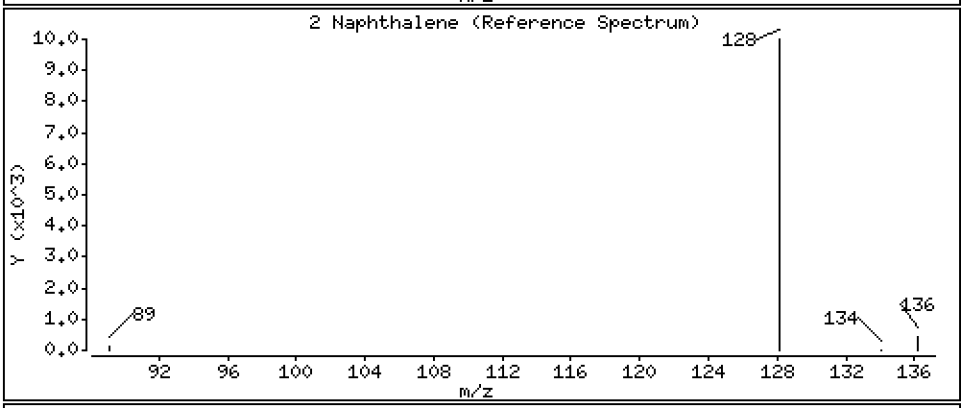
2 Naphthalene

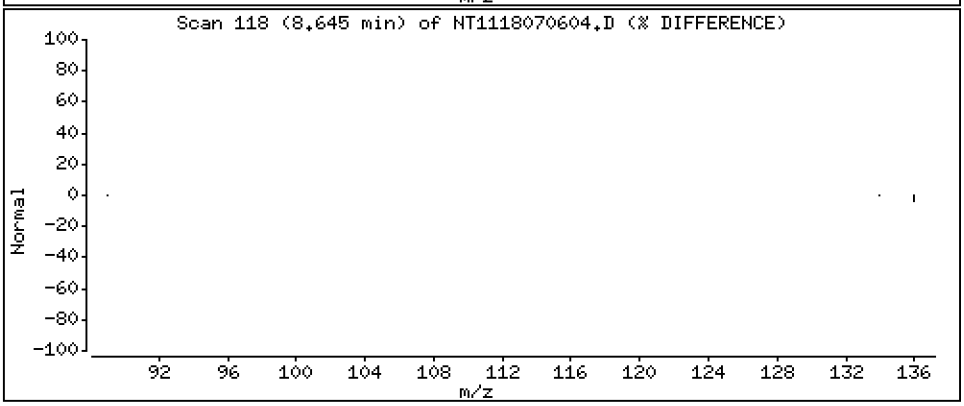
Concentration: 167 ng/mL











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Date : 06-JUL-2018 14:05

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BS1

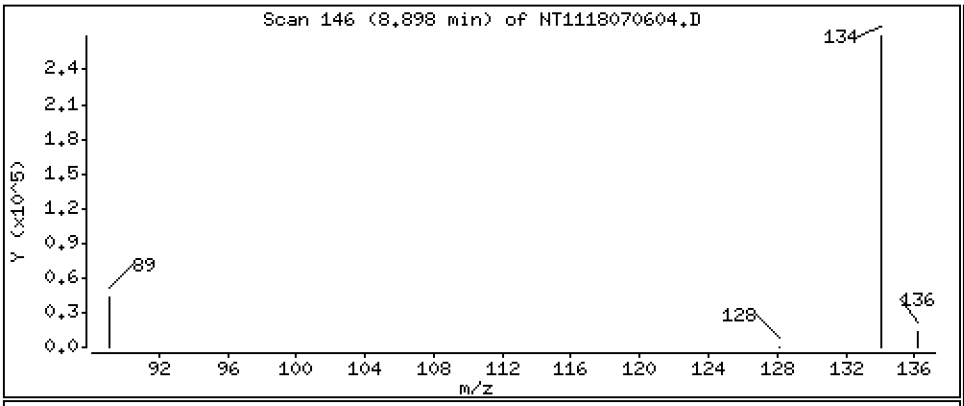
Operator: VTS

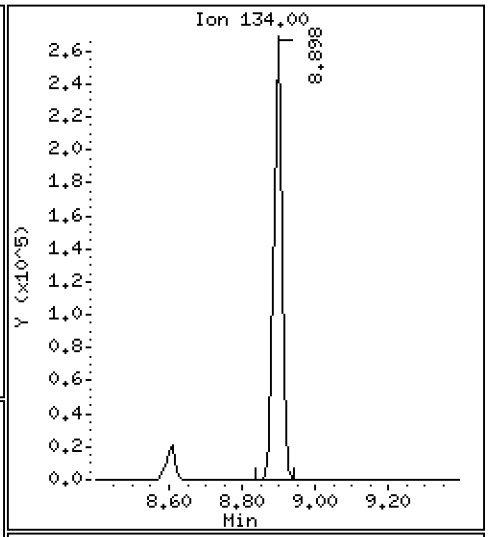
Column phase: Rxi-17Sil MS

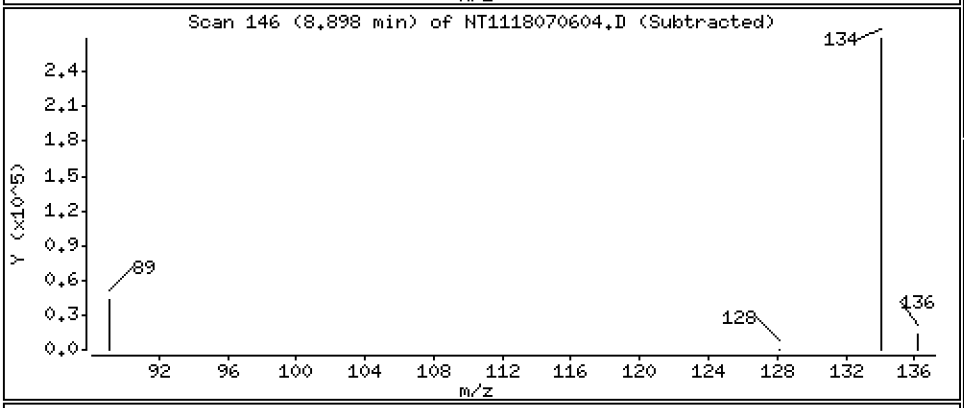
Column diameter: 0.25

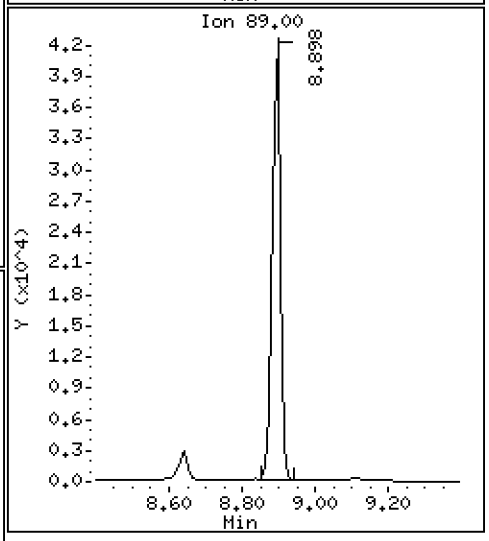
3 Benzo(b)thiophene

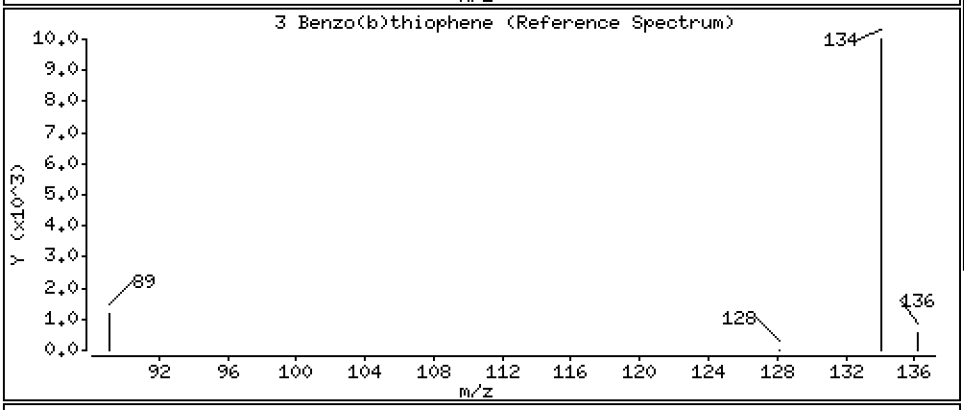
Concentration: 193 ng/mL

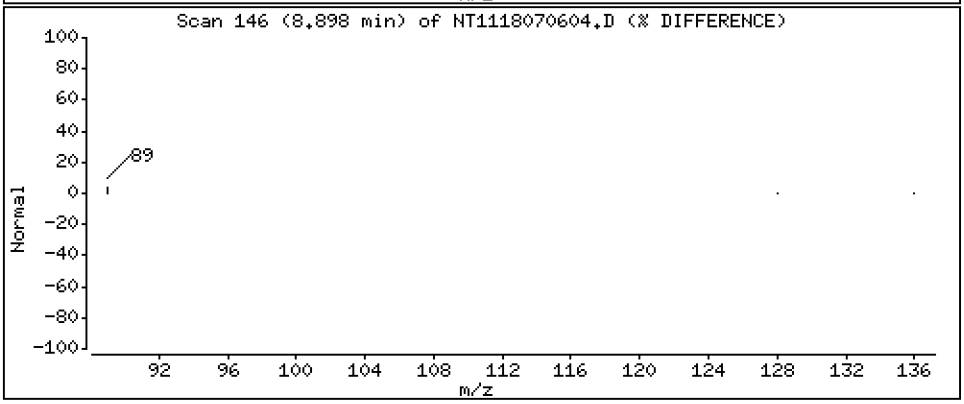












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Date : 06-JUL-2018 14:05

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BS1

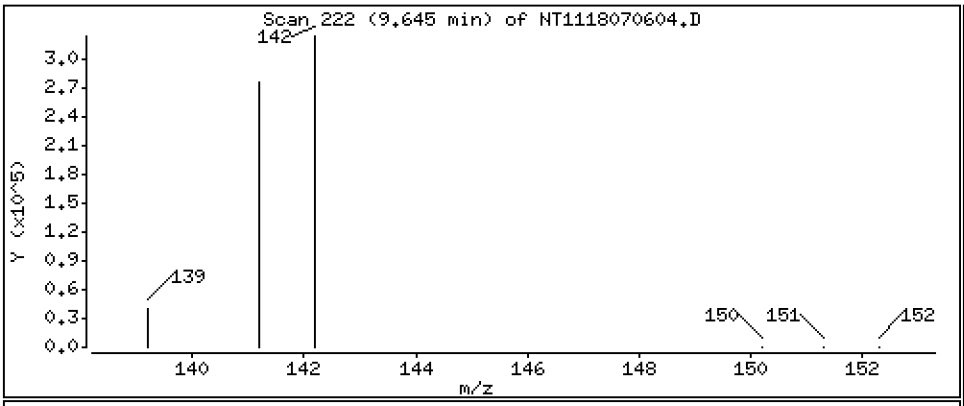
Operator: VTS

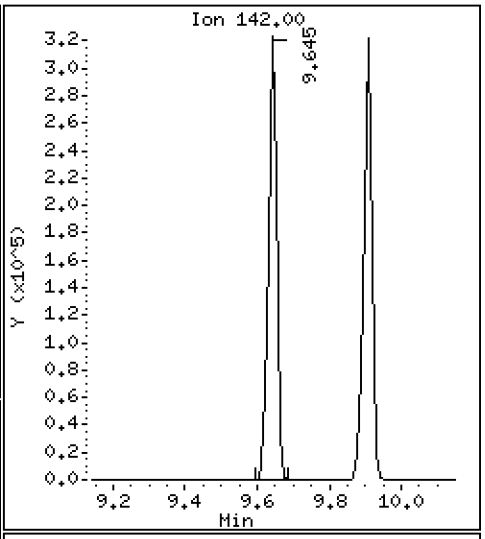
Column phase: Rxi-17Sil MS

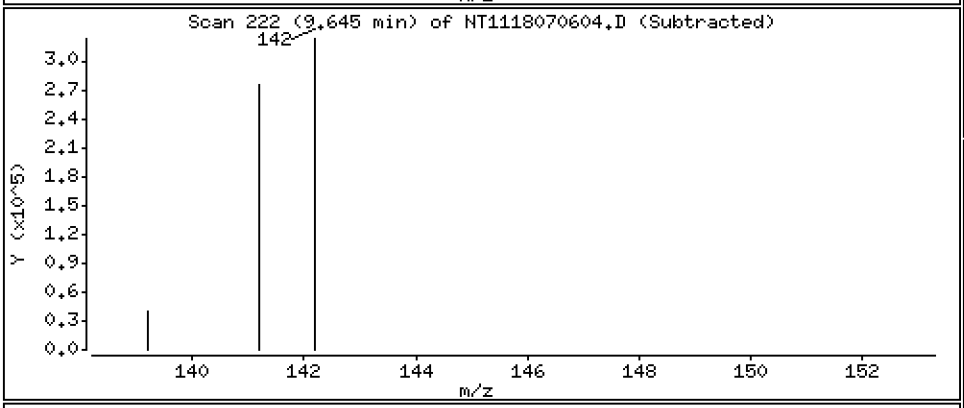
Column diameter: 0.25

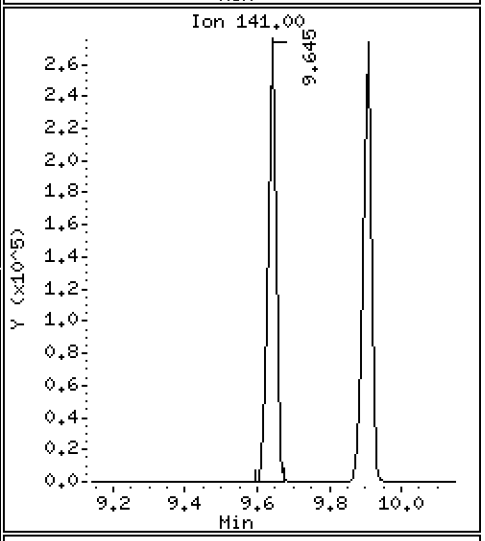
5 2-Methylnaphthalene

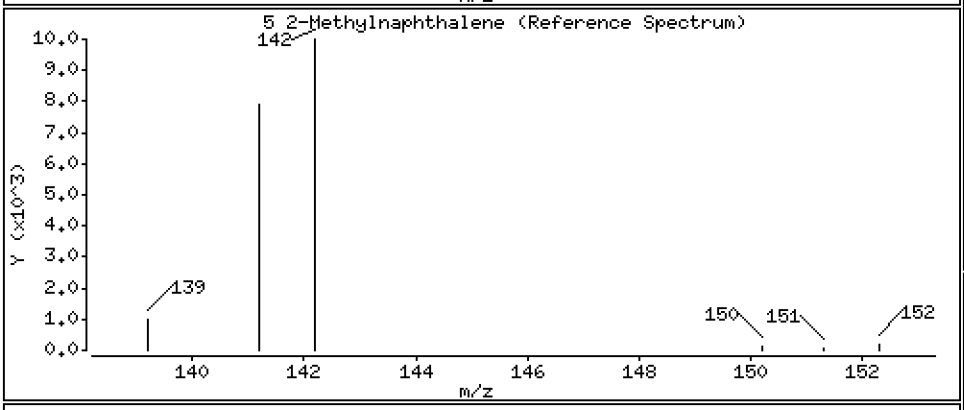
Concentration: 192 ng/mL

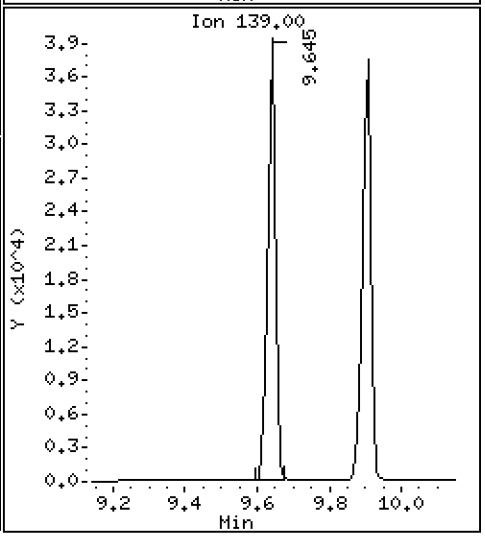


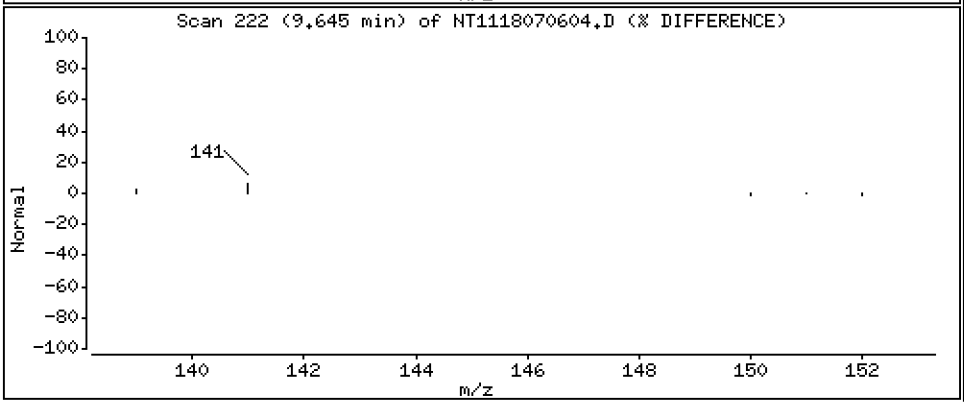












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Date : 06-JUL-2018 14:05

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BS1

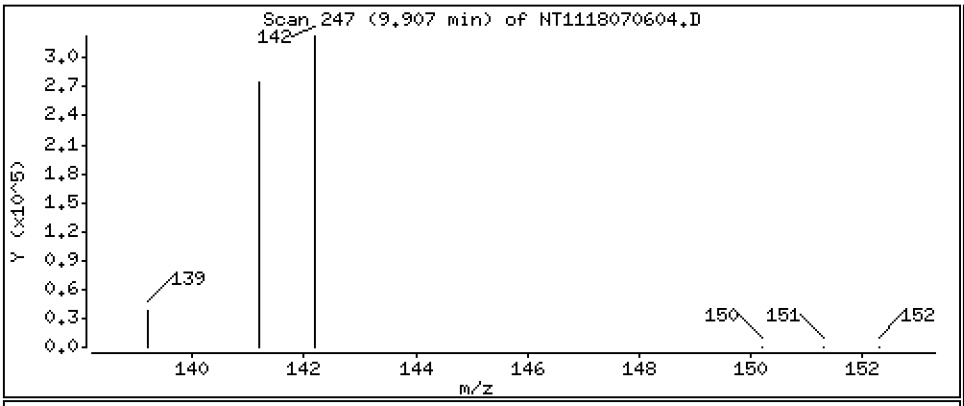
Operator: VTS

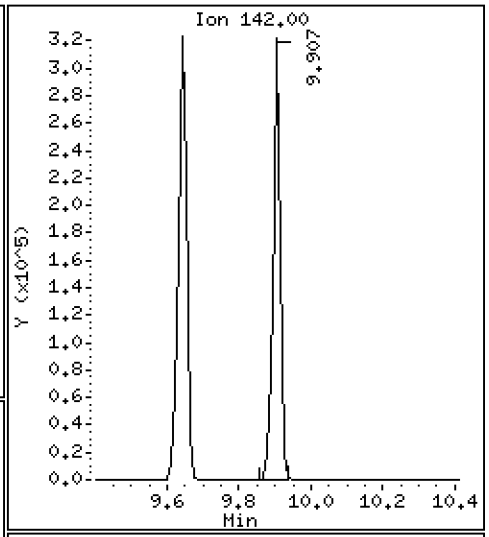
Column phase: Rxi-17Sil MS

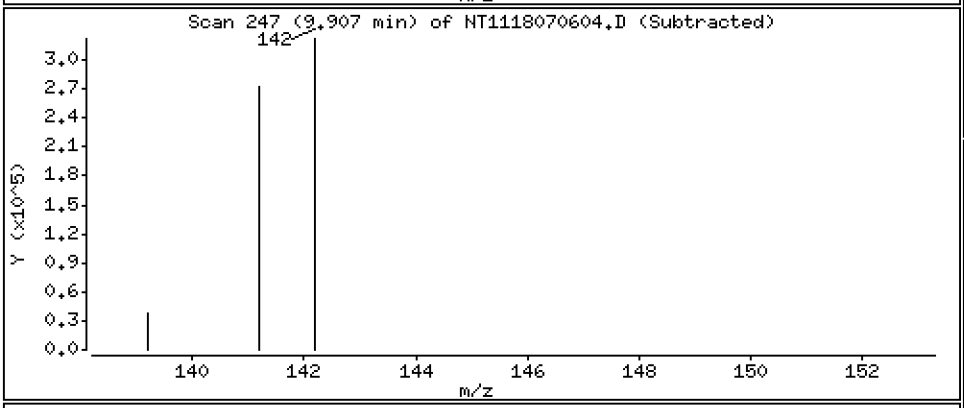
Column diameter: 0.25

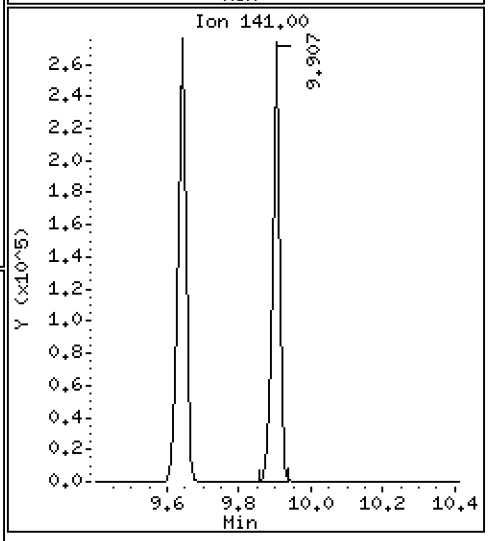
6 1-Methylnaphthalene

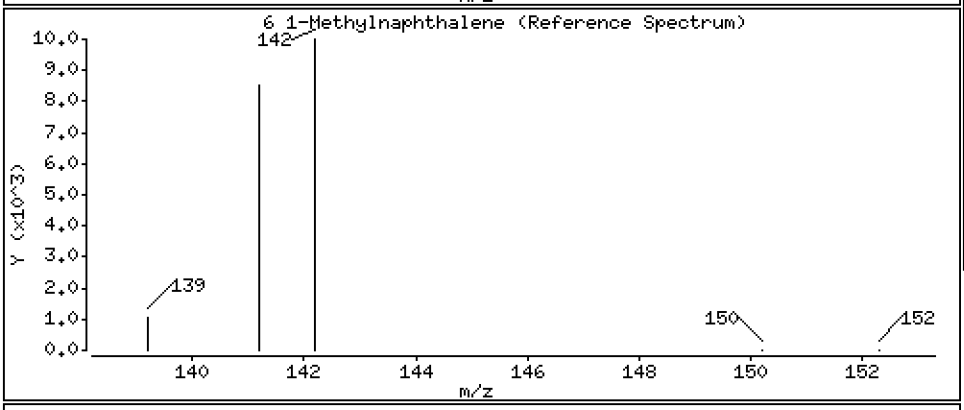
Concentration: 190 ng/mL

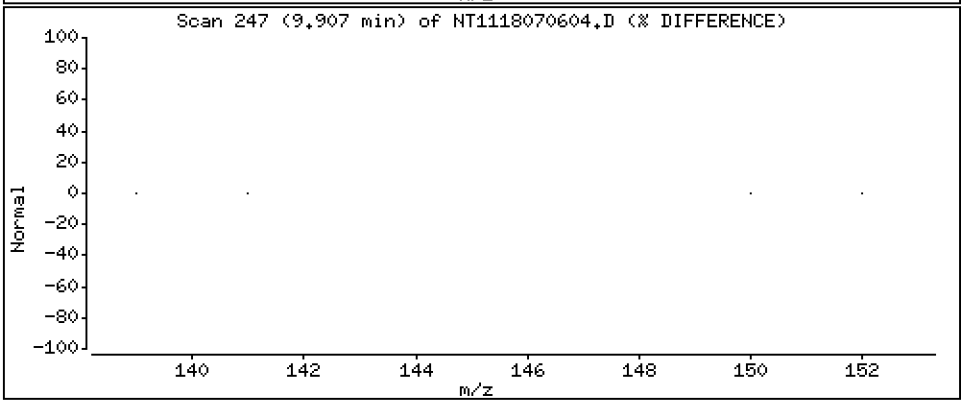












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Date : 06-JUL-2018 14:05

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BS1

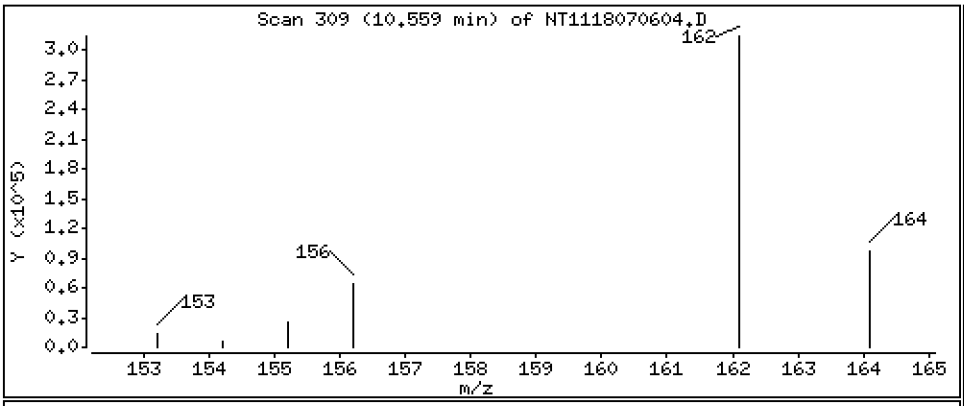
Operator: VTS

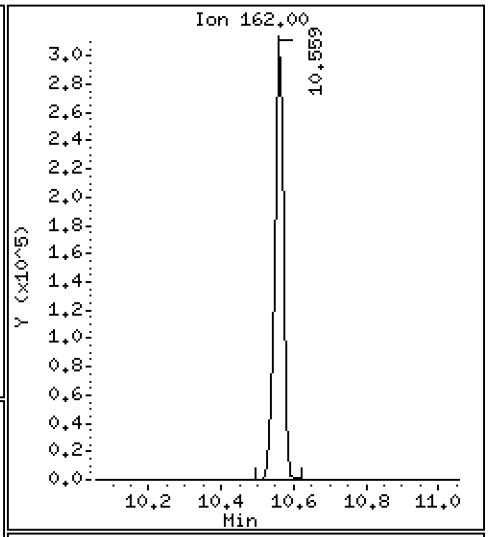
Column phase: Rxi-17Sil MS

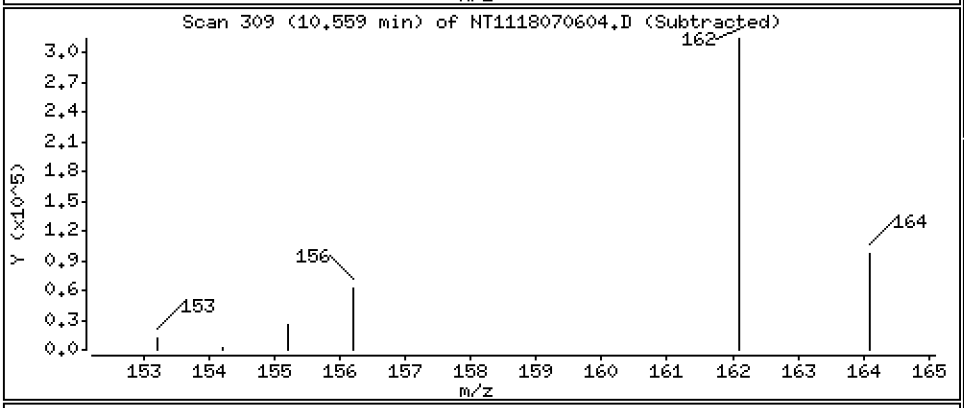
Column diameter: 0.25

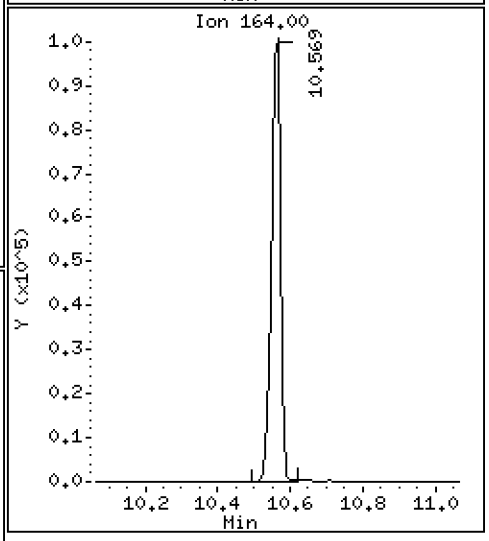
7 2-Chloronaphthalene

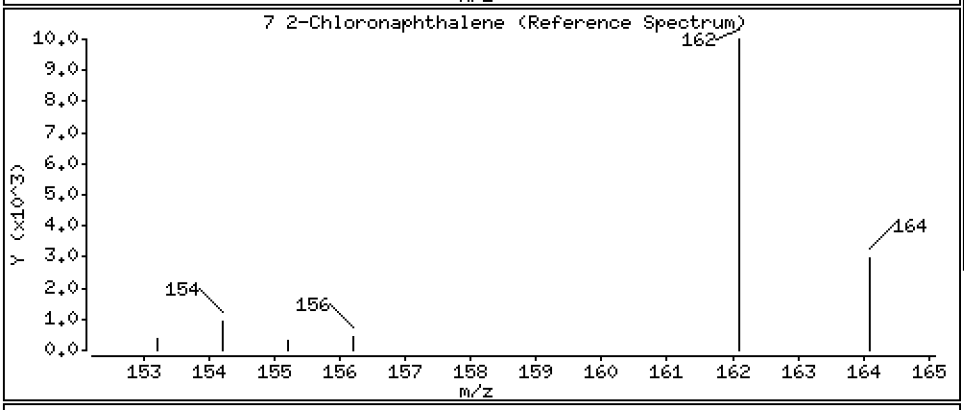
Concentration: 210 ng/mL

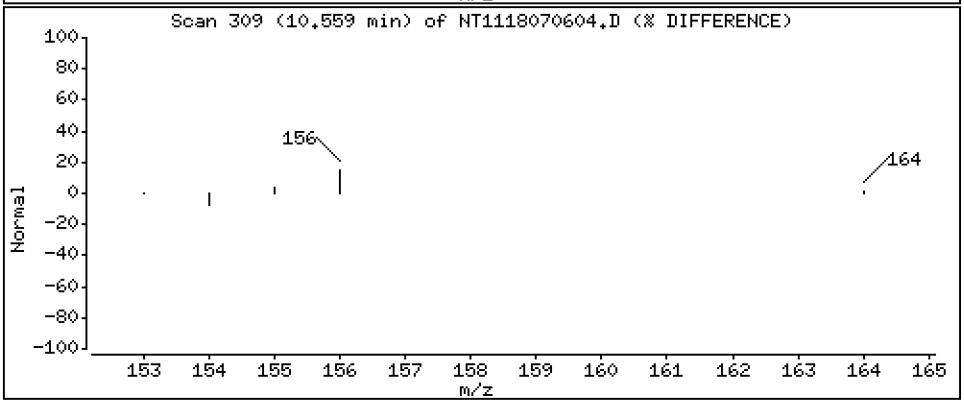












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Date : 06-JUL-2018 14:05

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BS1

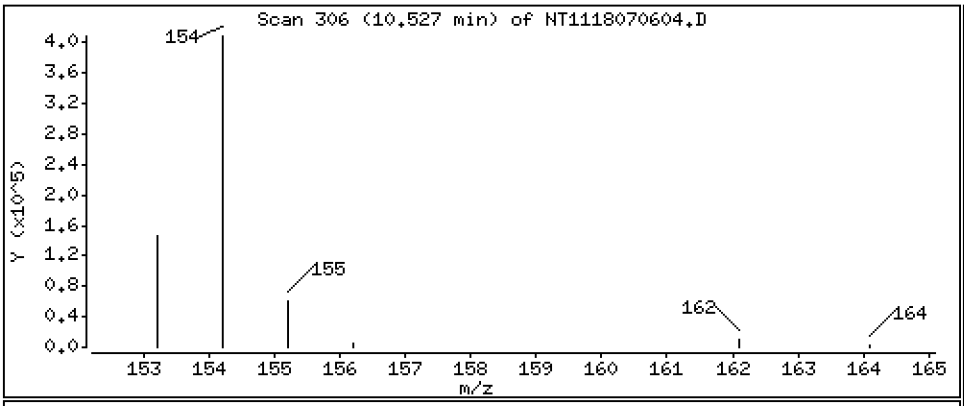
Operator: VTS

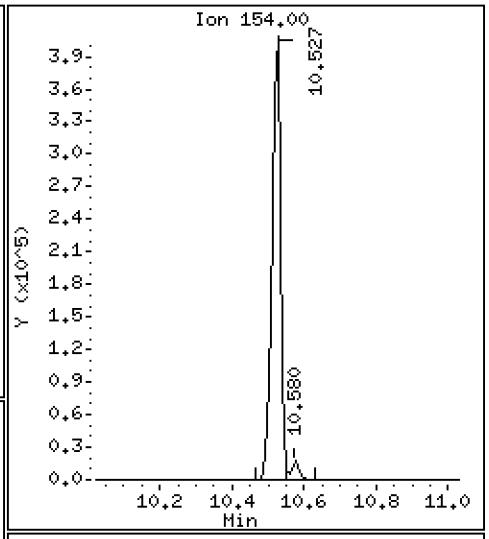
Column phase: Rxi-17Sil MS

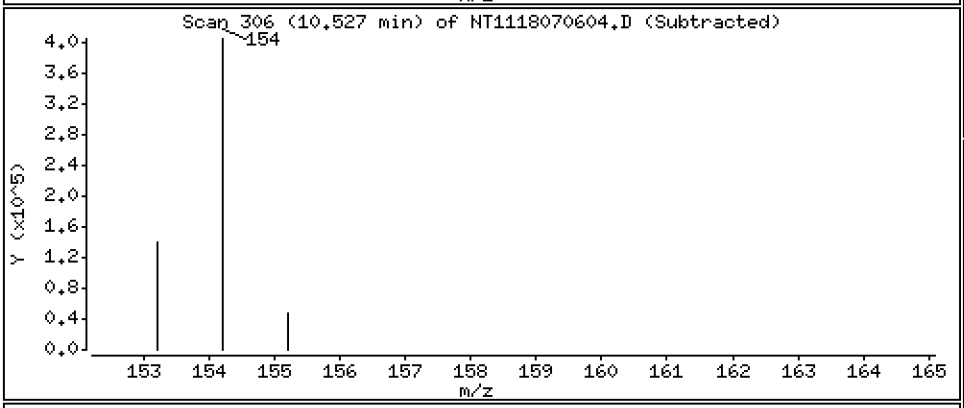
Column diameter: 0.25

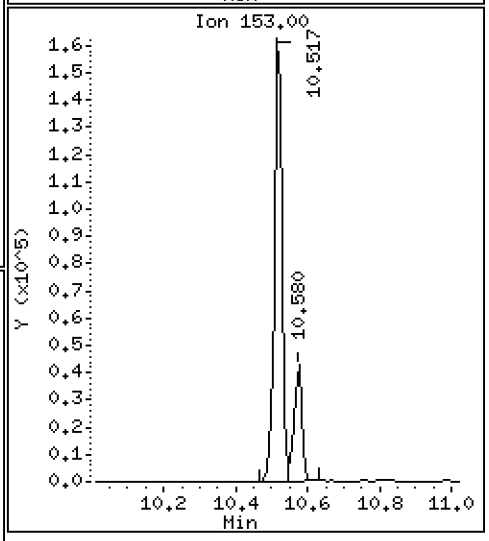
8 Biphenyl

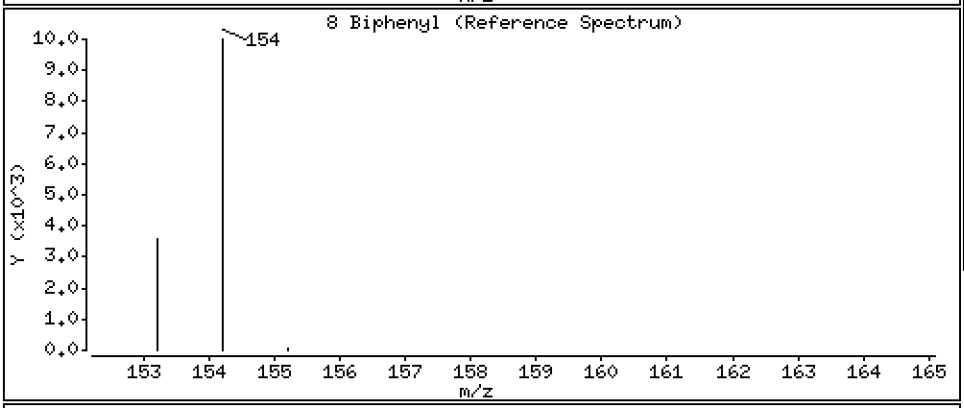
Concentration: 225 ng/mL

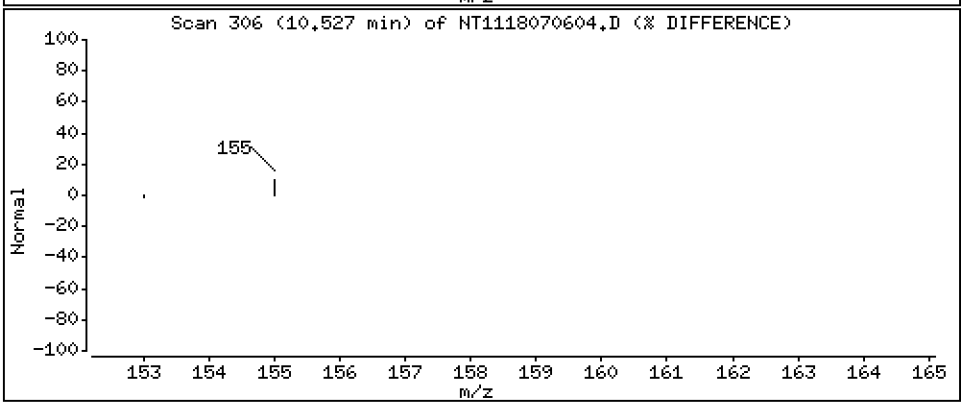












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Date : 06-JUL-2018 14:05

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BS1

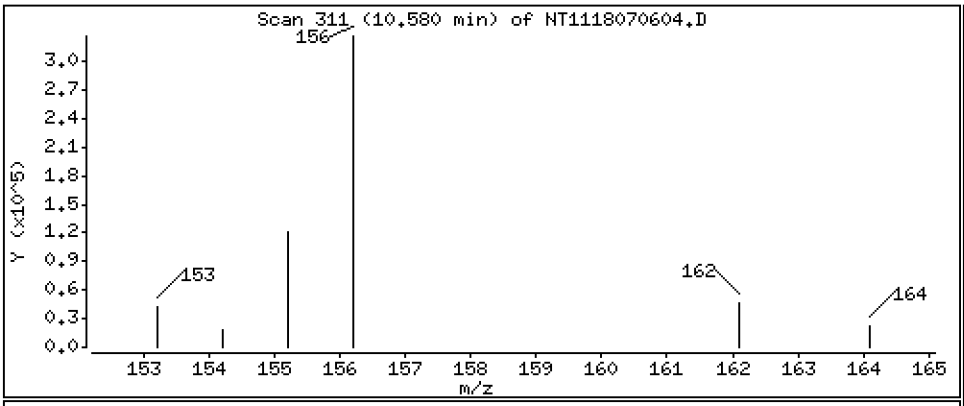
Operator: VTS

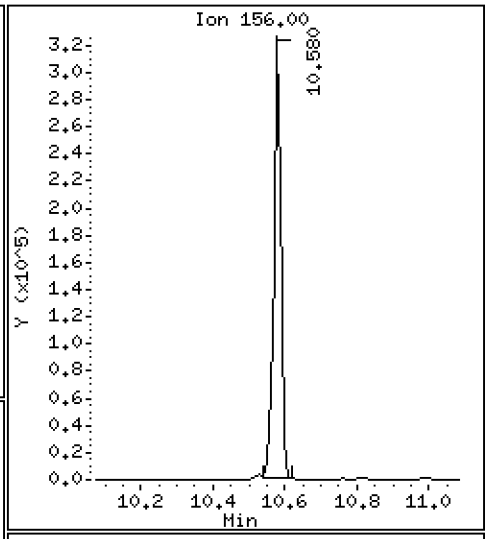
Column phase: Rxi-17Sil MS

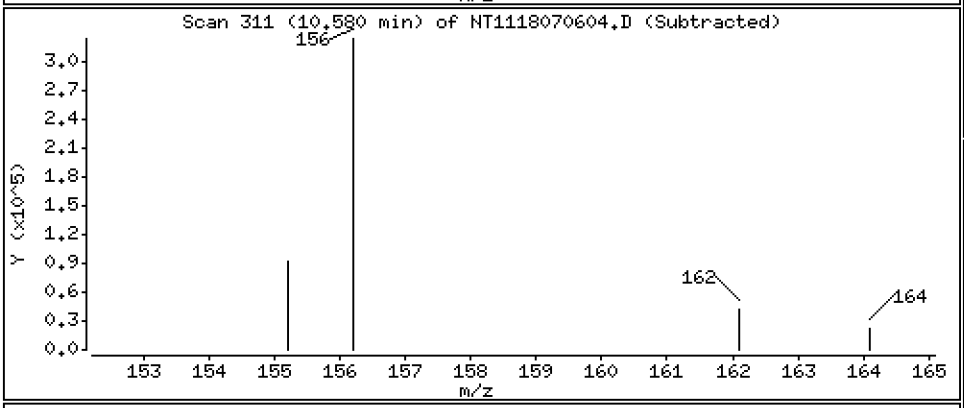
Column diameter: 0.25

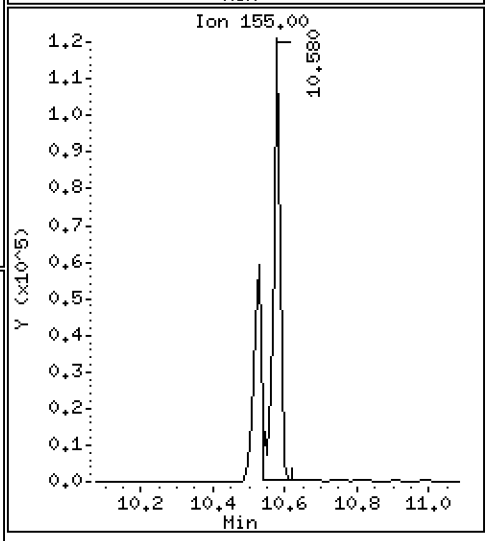
9 2,6-Dimethylnaphthalene

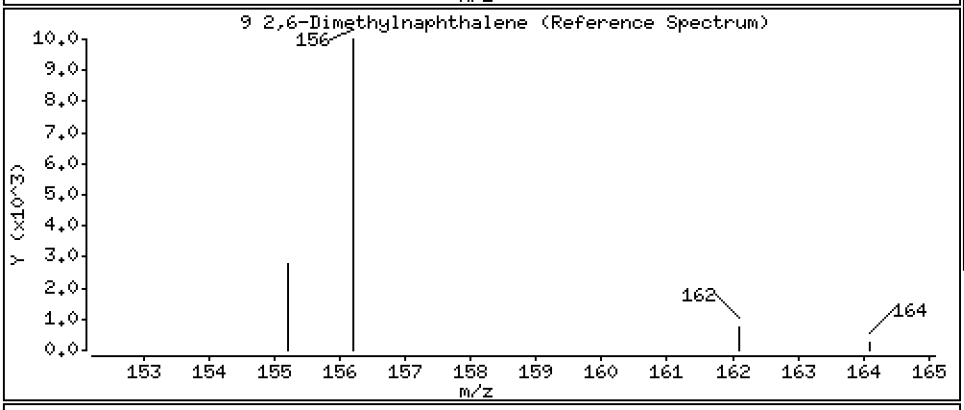
Concentration: 216 ng/mL

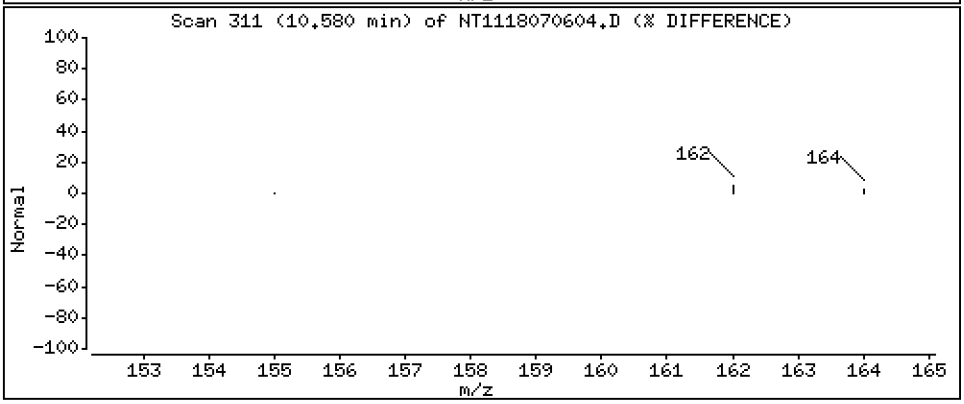












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Date : 06-JUL-2018 14:05

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BS1

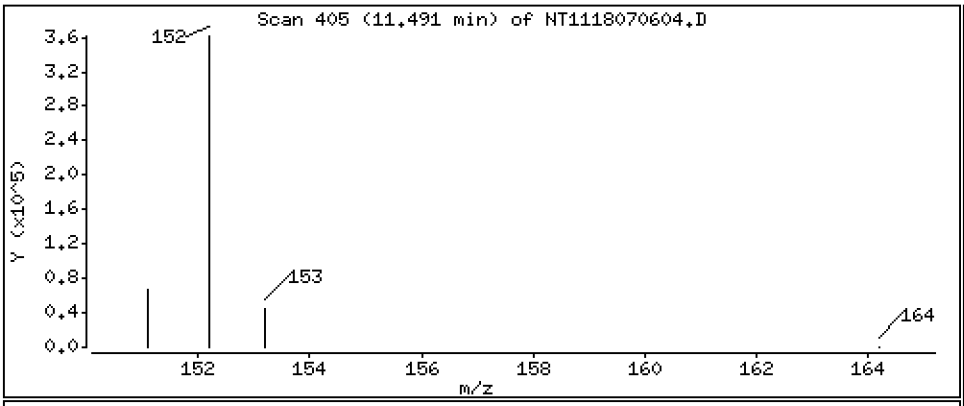
Operator: VTS

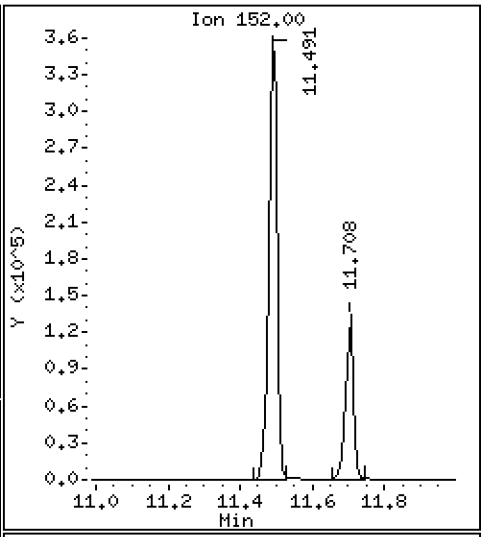
Column phase: Rxi-17Sil MS

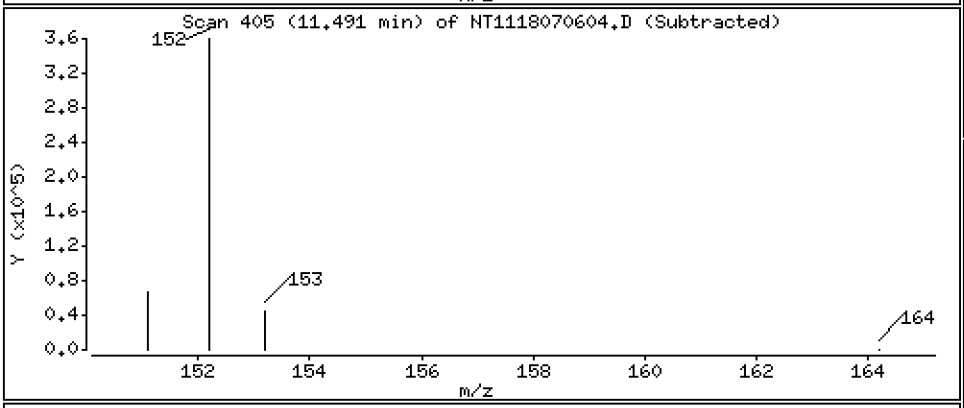
Column diameter: 0.25

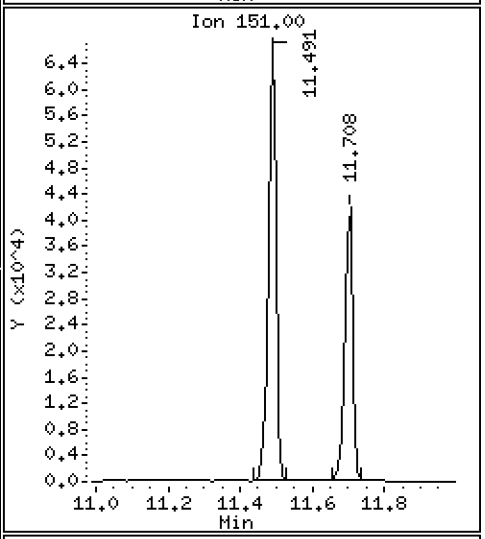
10 Acenaphthylene

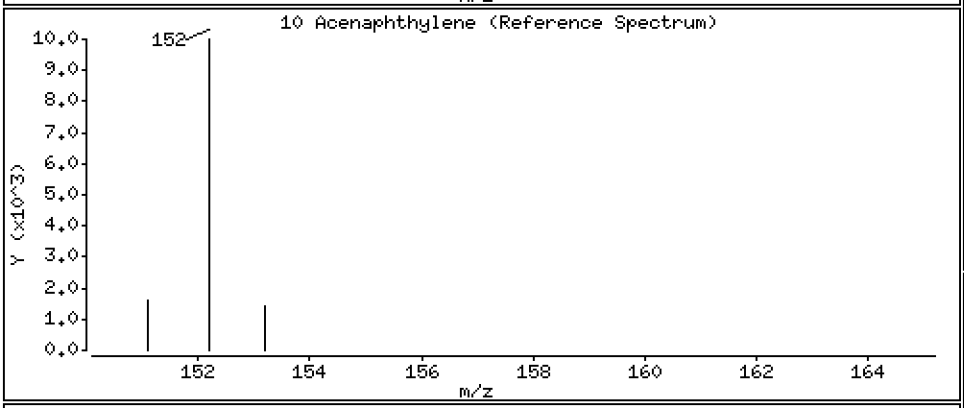
Concentration: 205 ng/mL

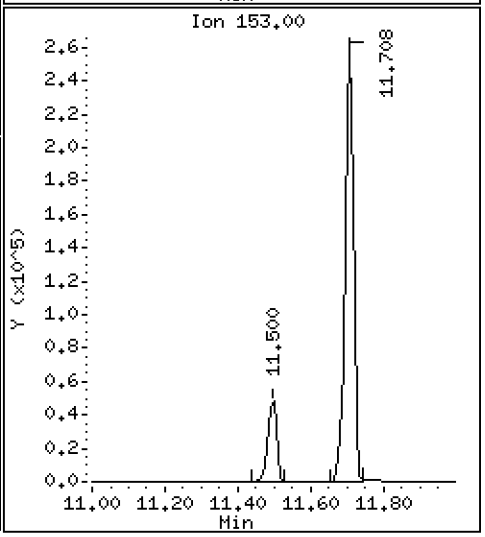


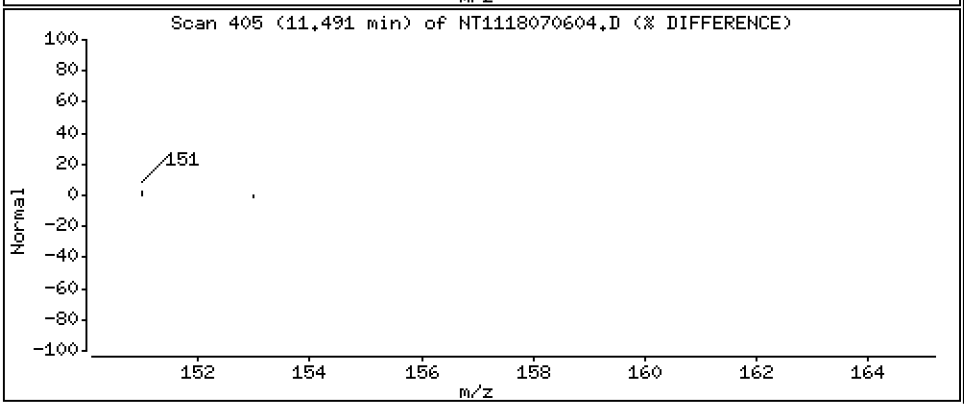












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070604.D

Date : 06-JUL-2018 14:05

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BS1

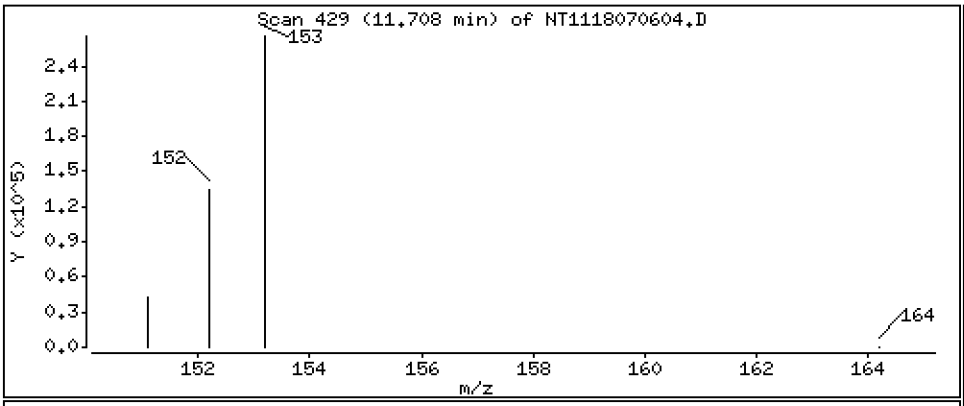
Operator: VTS

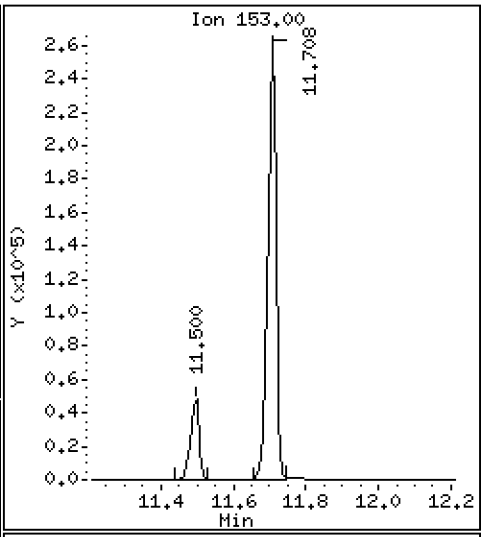
Column phase: Rxi-17Sil MS

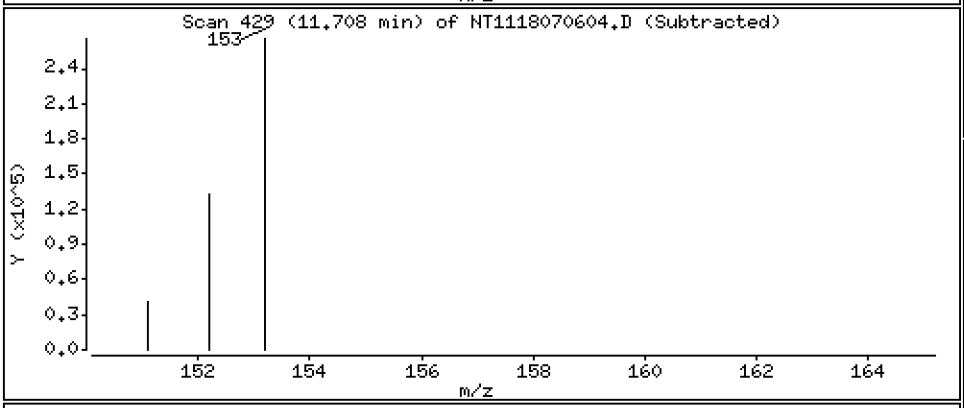
Column diameter: 0.25

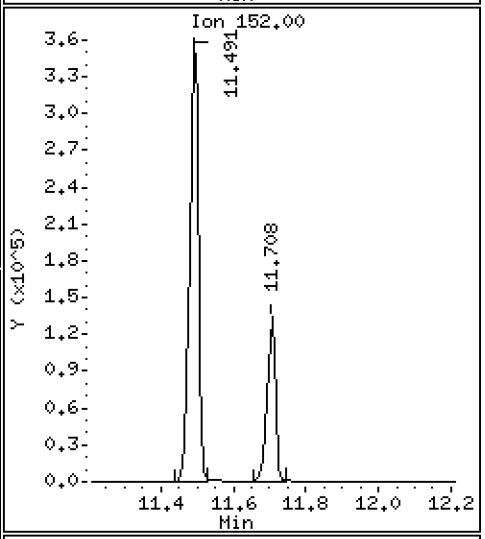
12 Acenaphthene

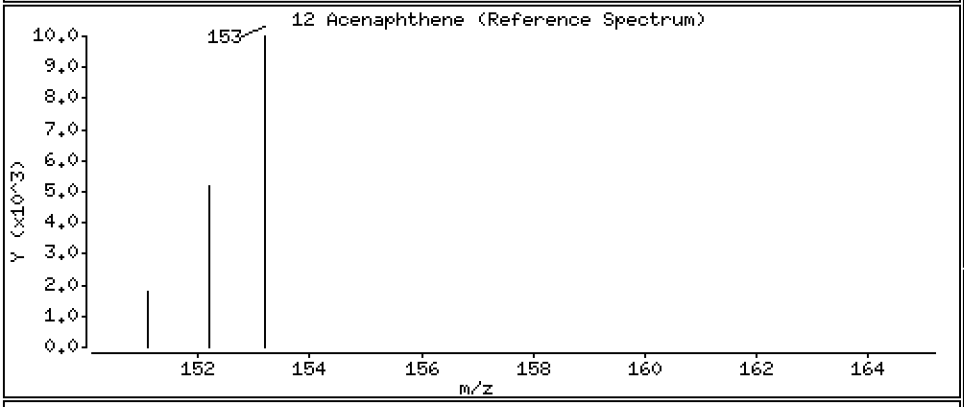
Concentration: 205 ng/mL

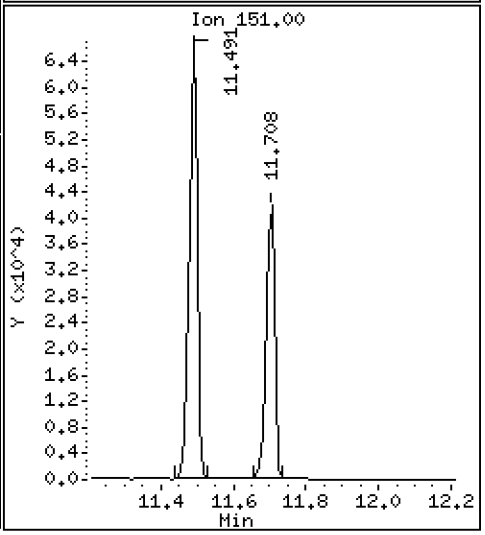


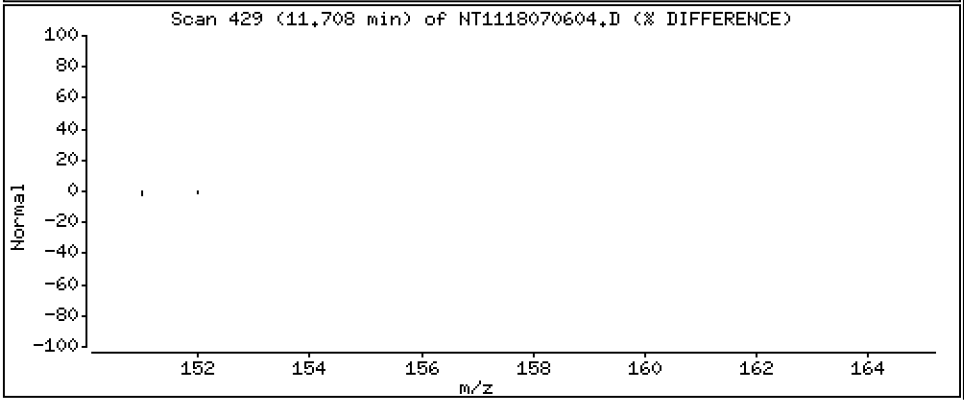












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Date : 06-JUL-2018 14:05

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BS1

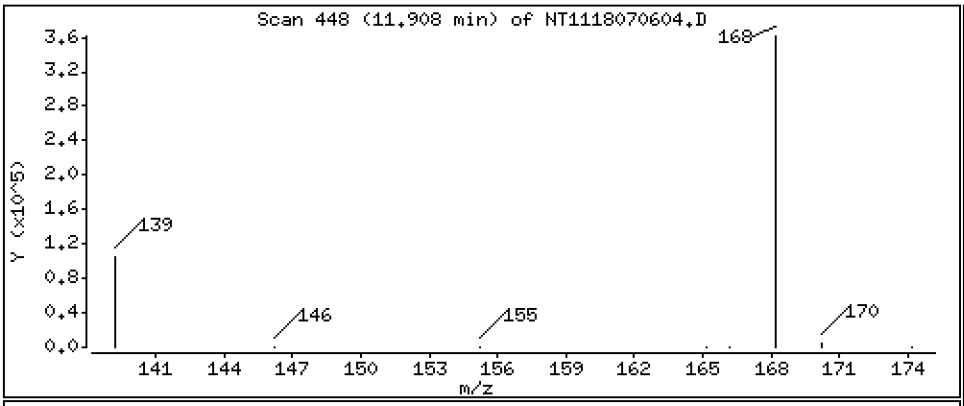
Operator: VTS

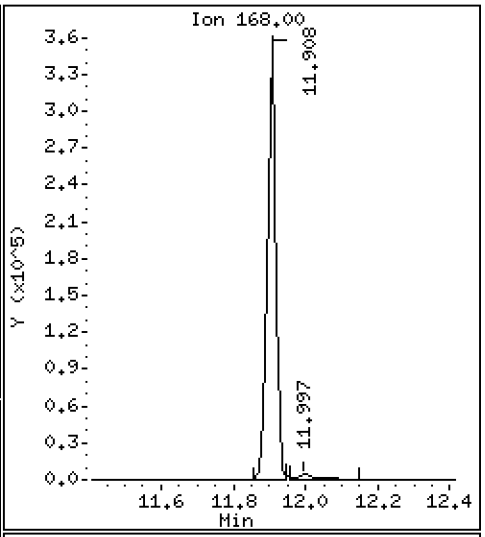
Column phase: Rxi-17Sil MS

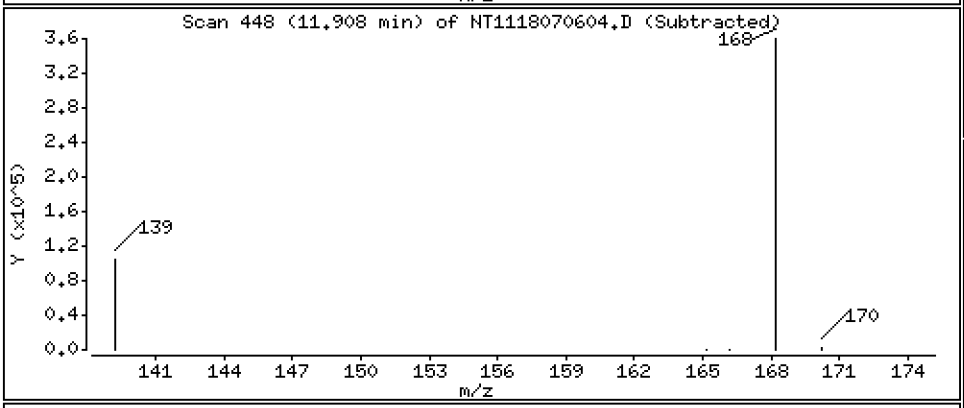
Column diameter: 0.25

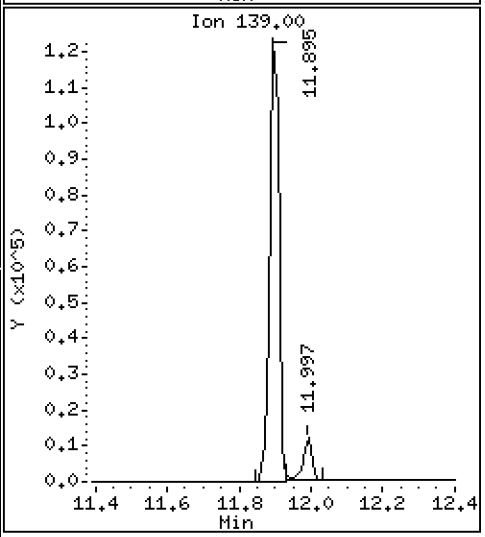
13 Dibenzofuran

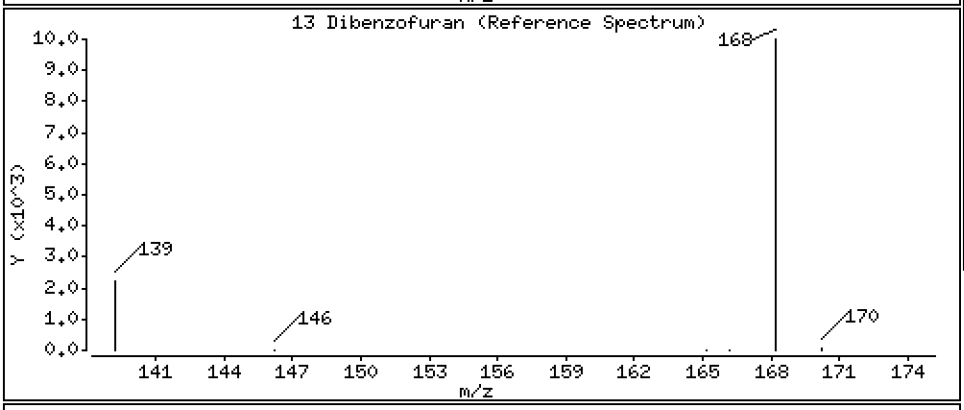
Concentration: 208 ng/mL

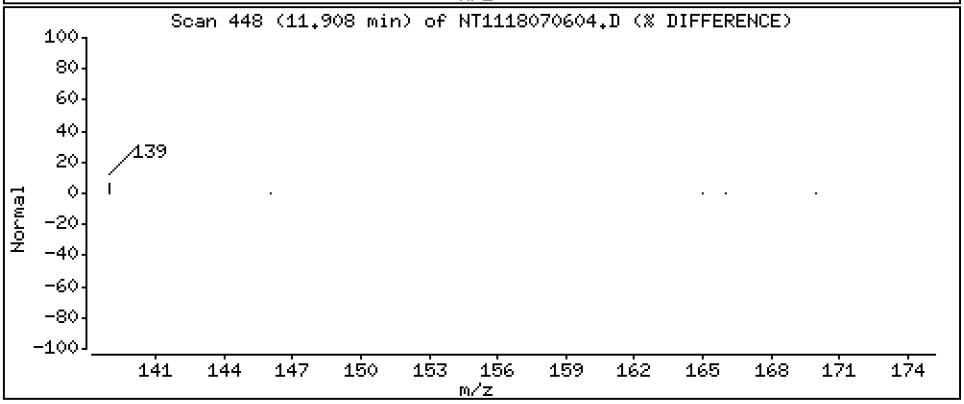












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Date : 06-JUL-2018 14:05

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BS1

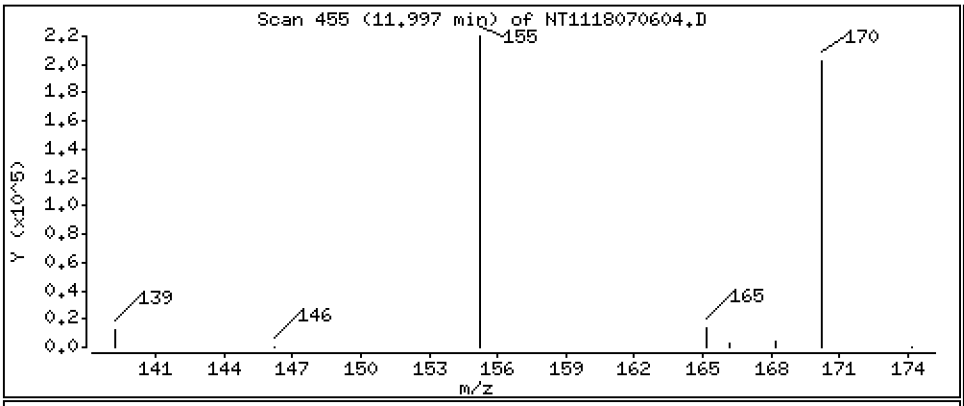
Operator: VTS

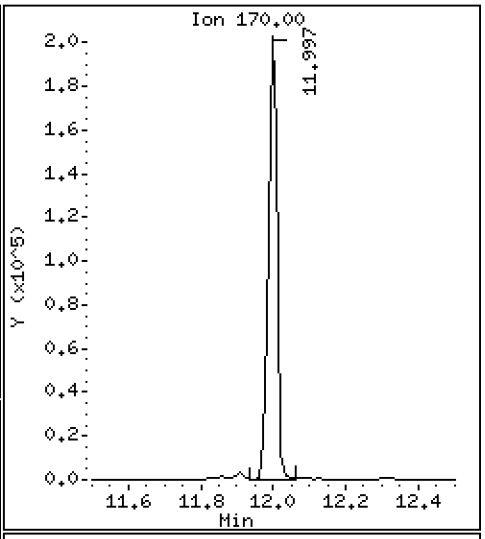
Column phase: Rxi-17Sil MS

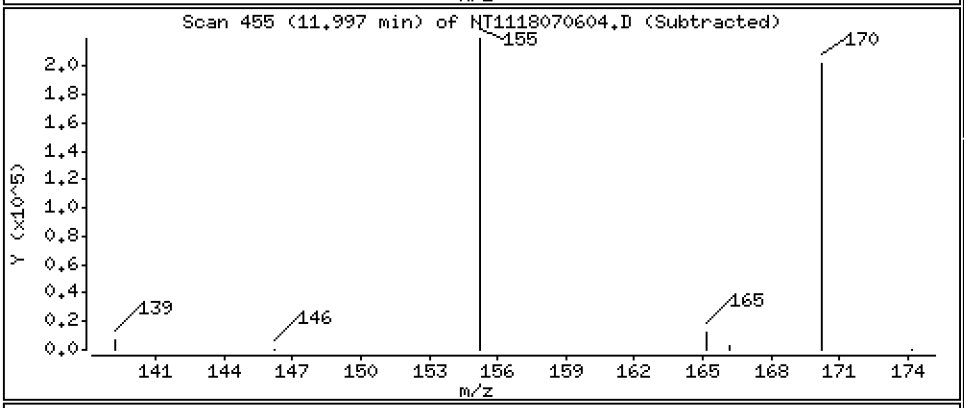
Column diameter: 0.25

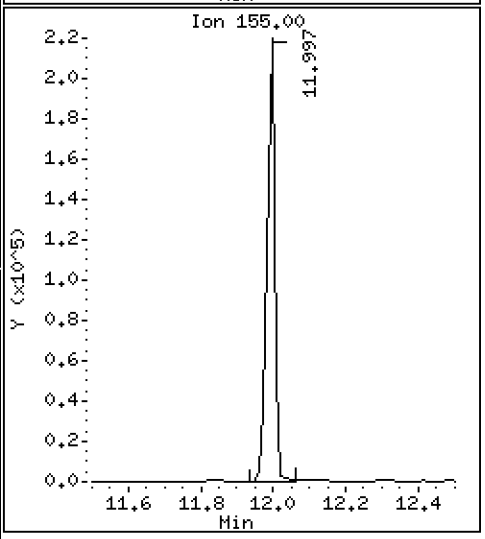
14 2,3,5-Trimethylnaphthalene

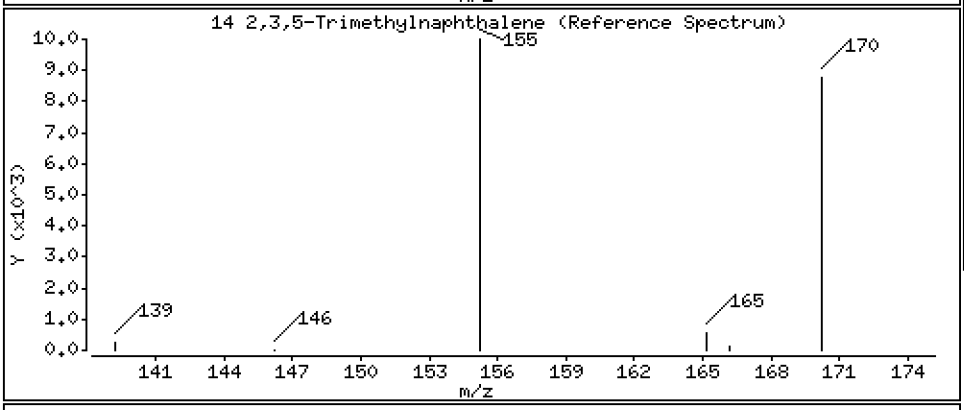
Concentration: 207 ng/mL

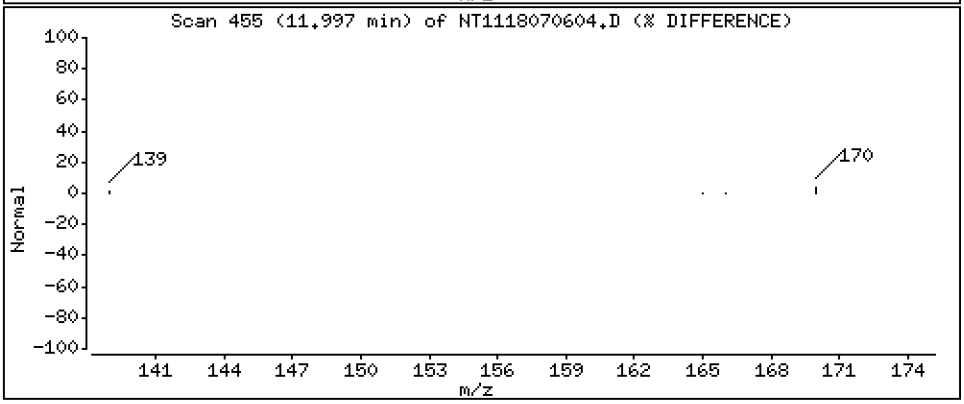












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Date : 06-JUL-2018 14:05

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BS1

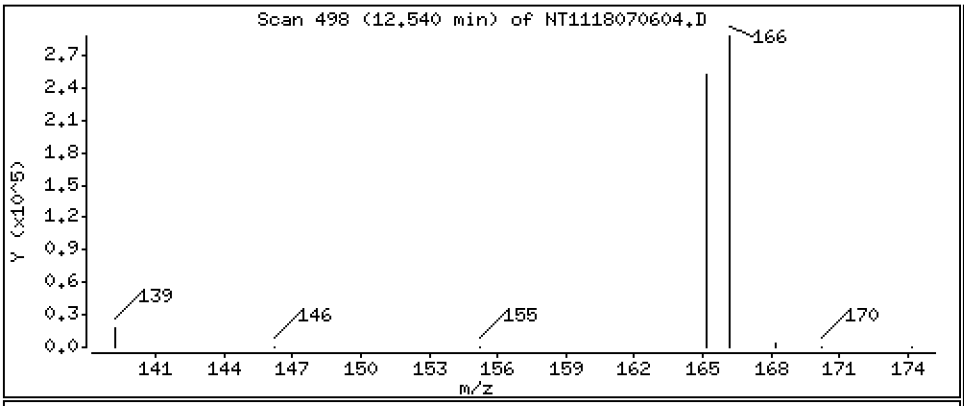
Operator: VTS

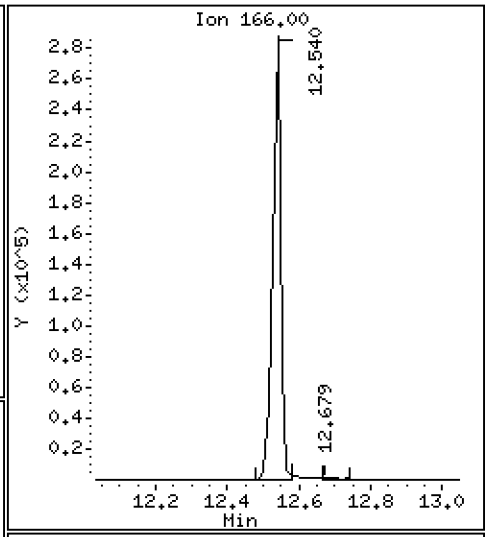
Column phase: Rxi-17Sil MS

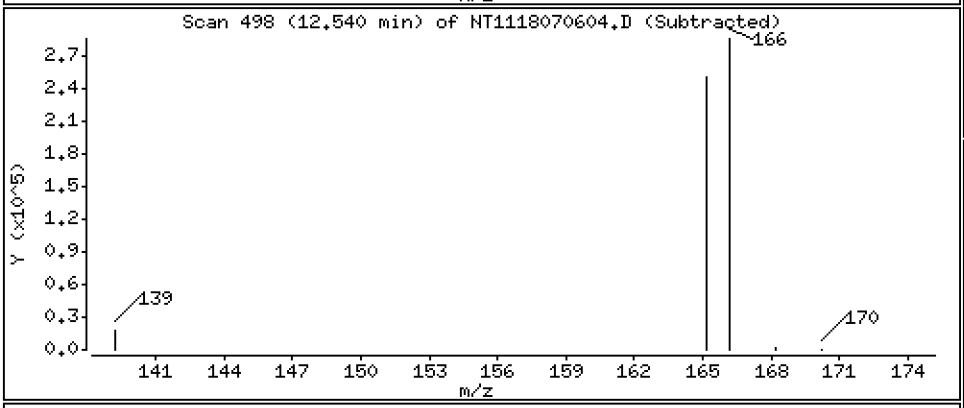
Column diameter: 0.25

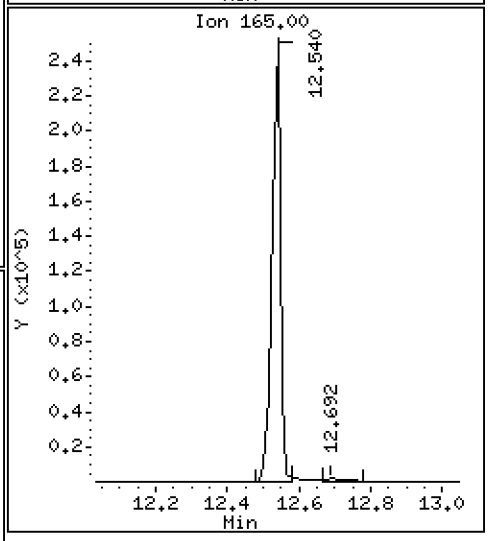
16 Fluorene

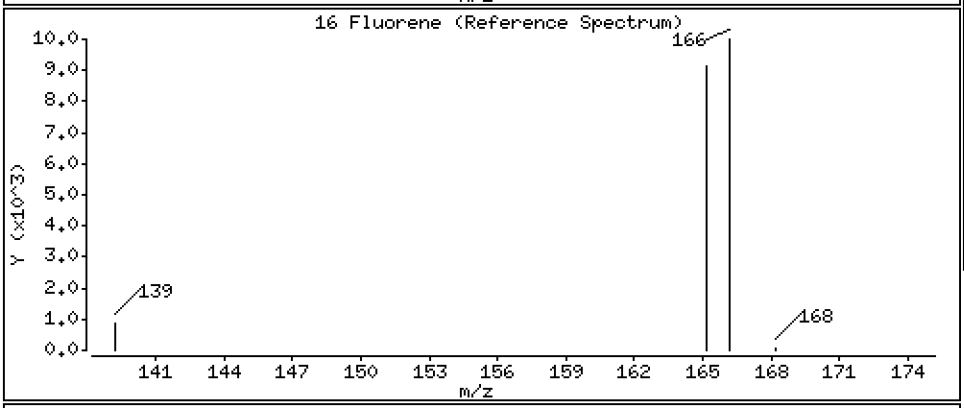
Concentration: 202 ng/mL

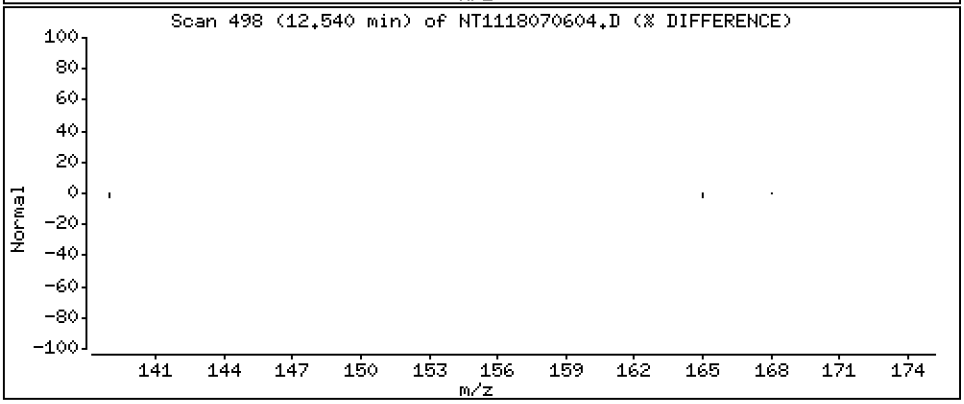












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Date : 06-JUL-2018 14:05

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BS1

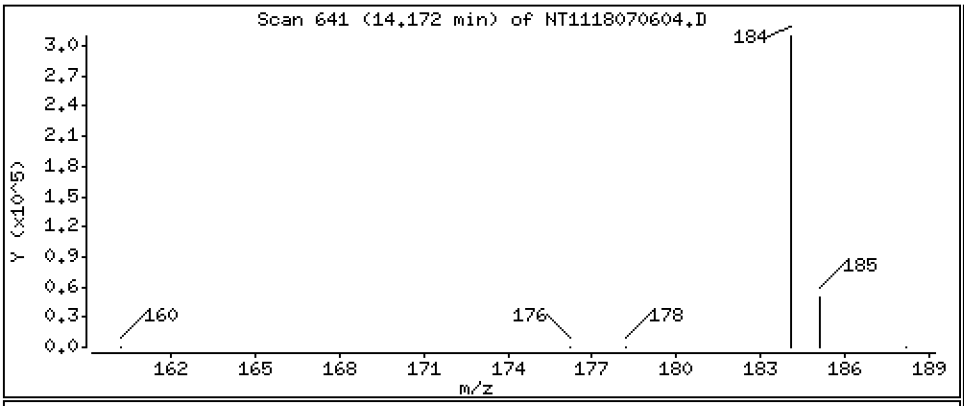
Operator: VTS

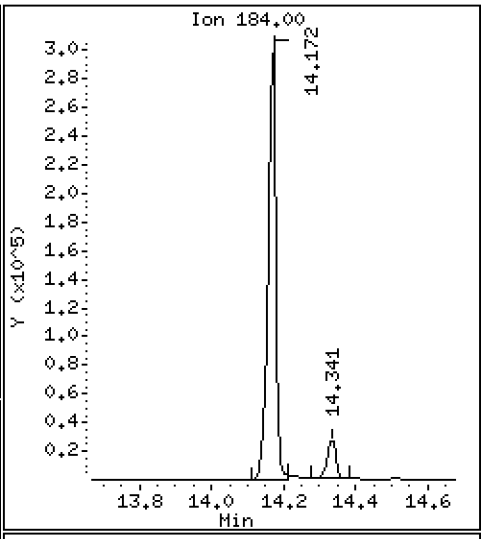
Column phase: Rxi-17Sil MS

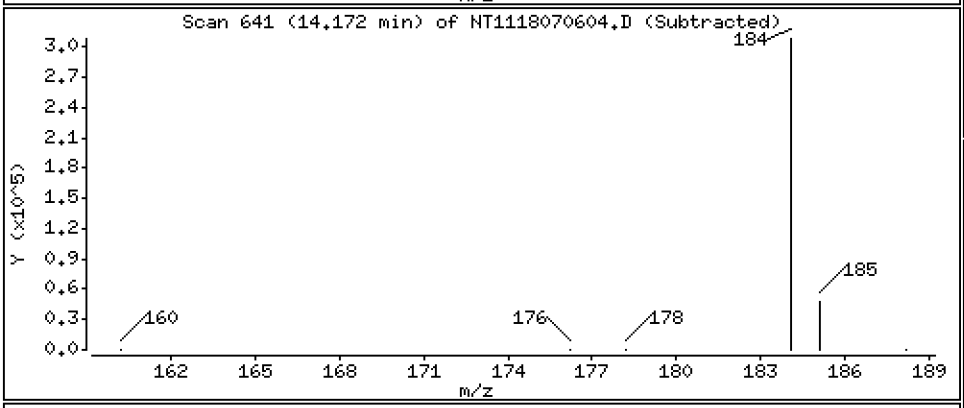
Column diameter: 0.25

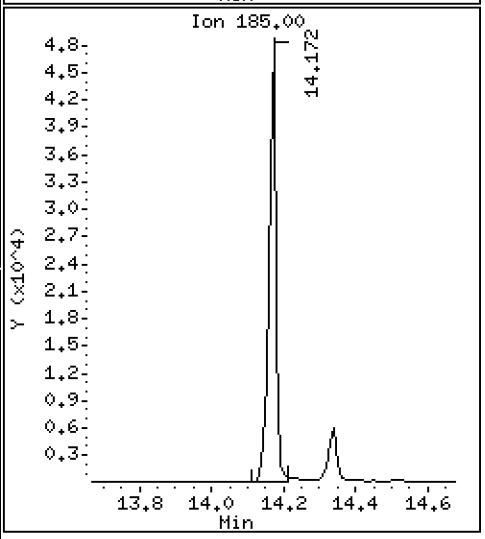
17 Dibenzothiophene

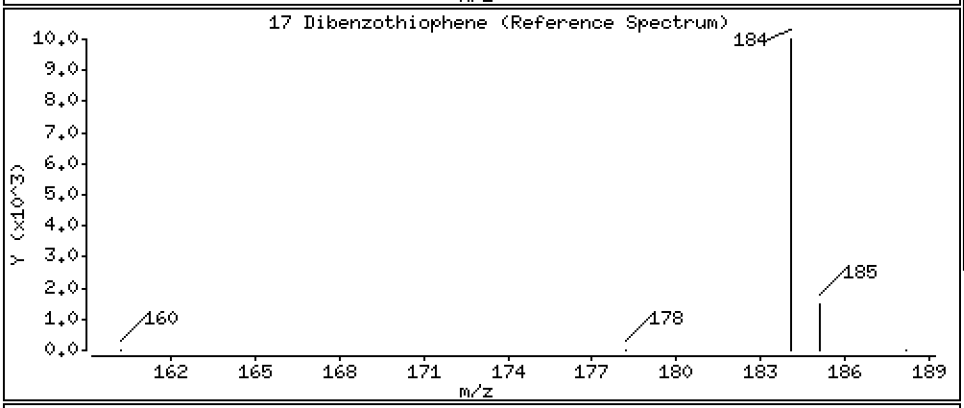
Concentration: 209 ng/mL

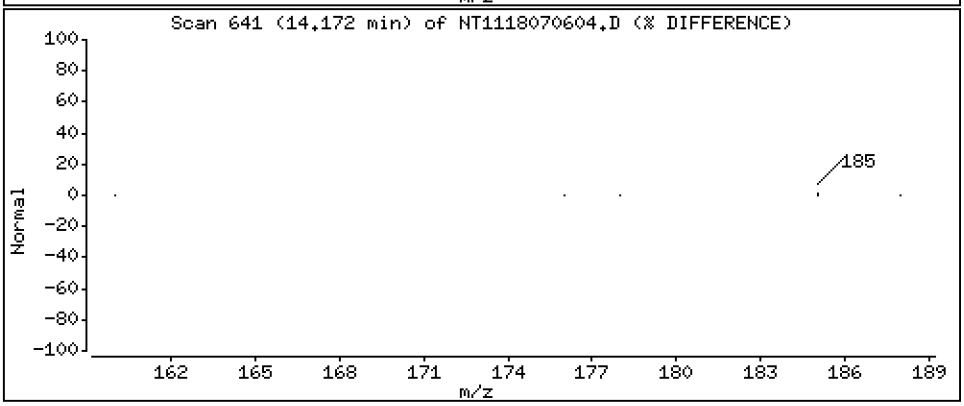












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Date : 06-JUL-2018 14:05

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BS1

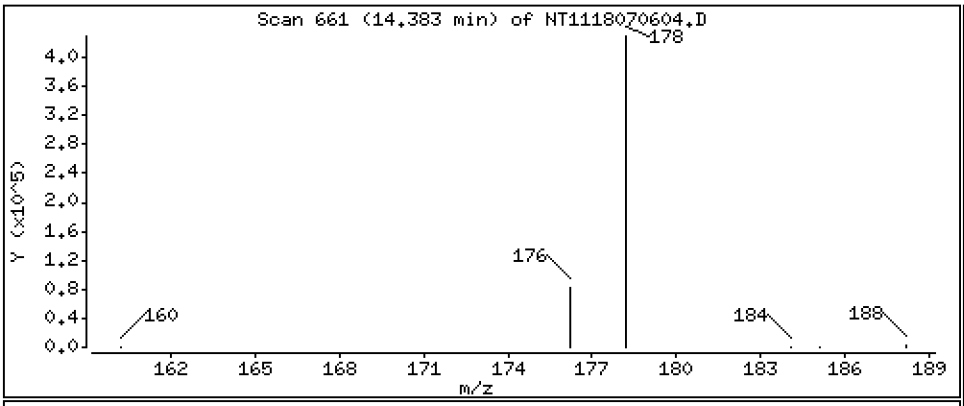
Operator: VTS

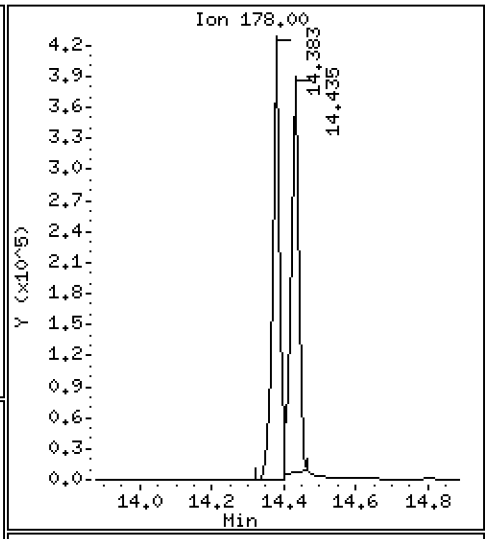
Column phase: Rxi-17Sil MS

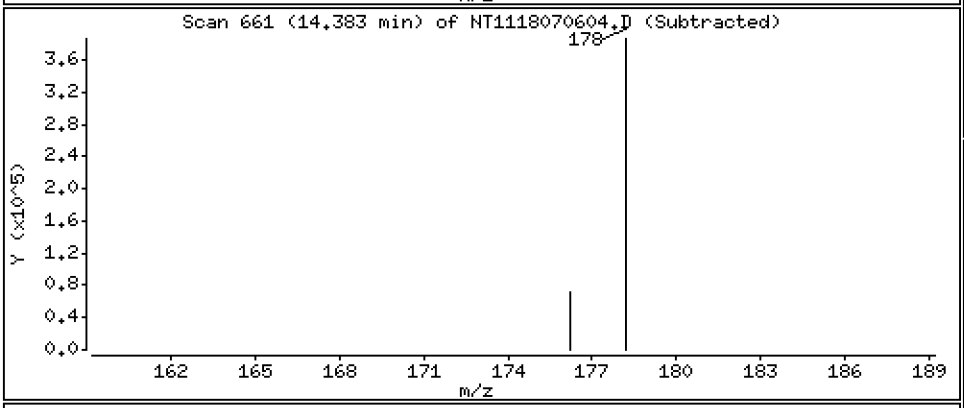
Column diameter: 0.25

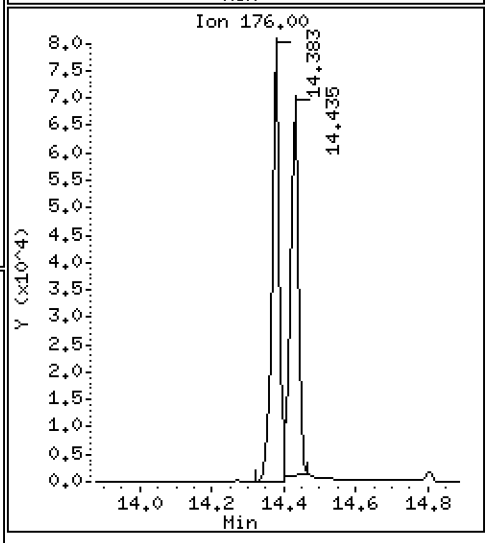
19 Phenanthrene

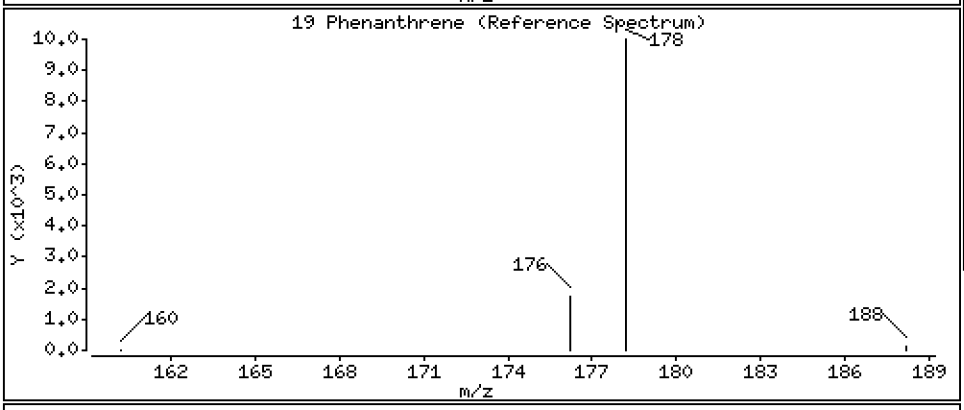
Concentration: 218 ng/mL

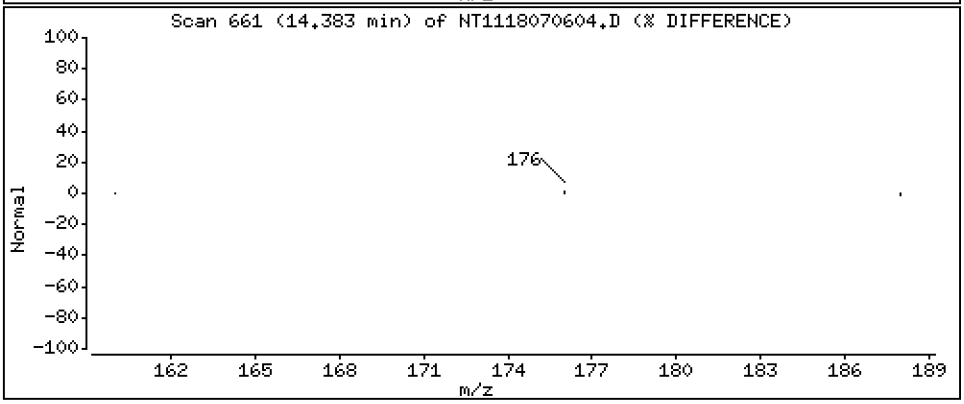












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Date : 06-JUL-2018 14:05

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BS1

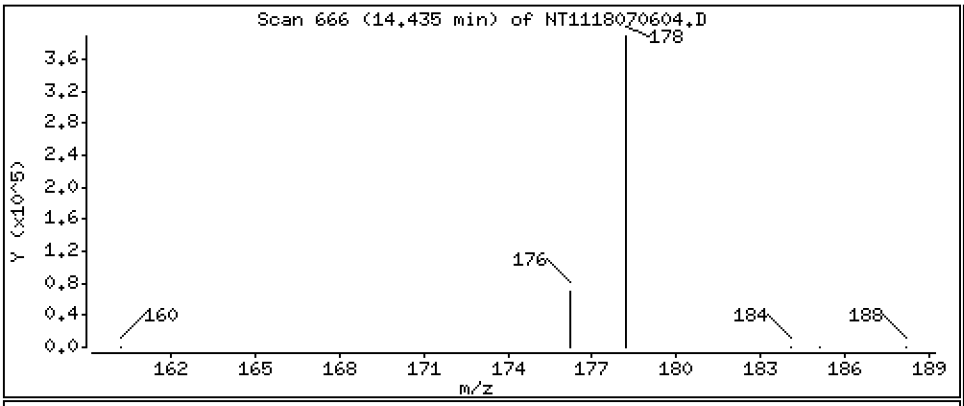
Operator: VTS

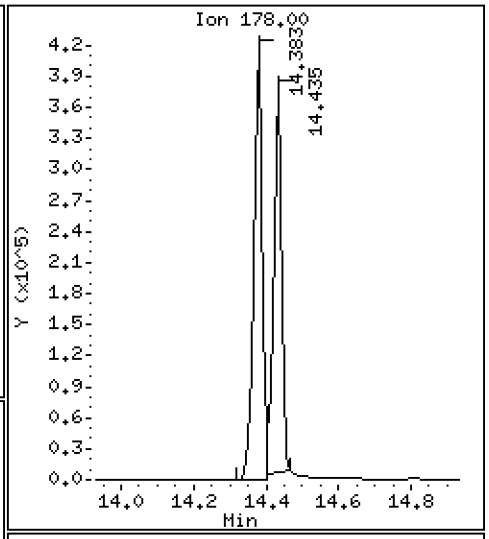
Column phase: Rxi-17Sil MS

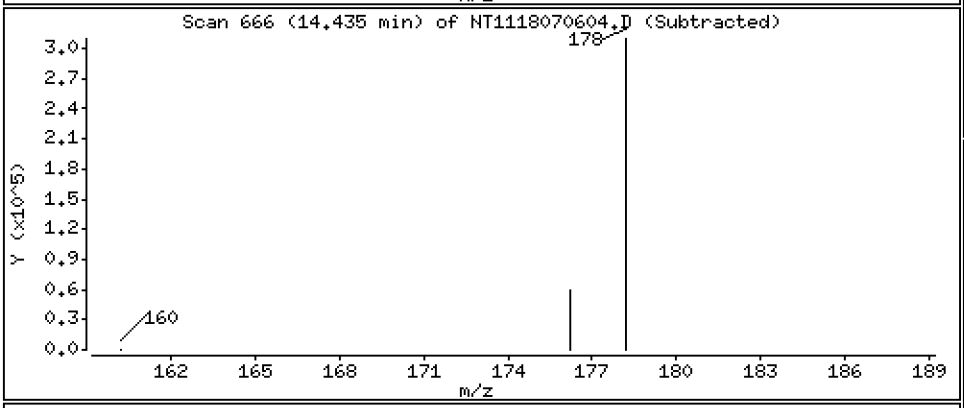
Column diameter: 0.25

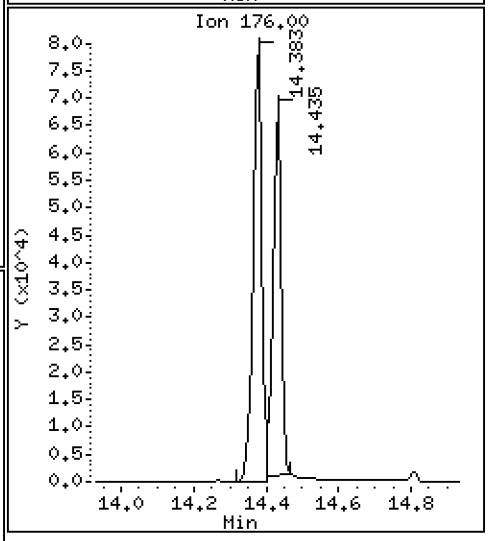
21 Anthracene

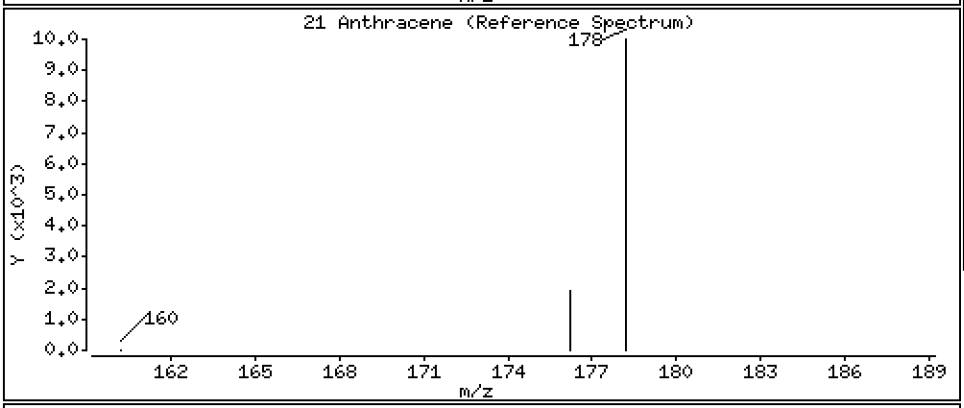
Concentration: 196 ng/mL

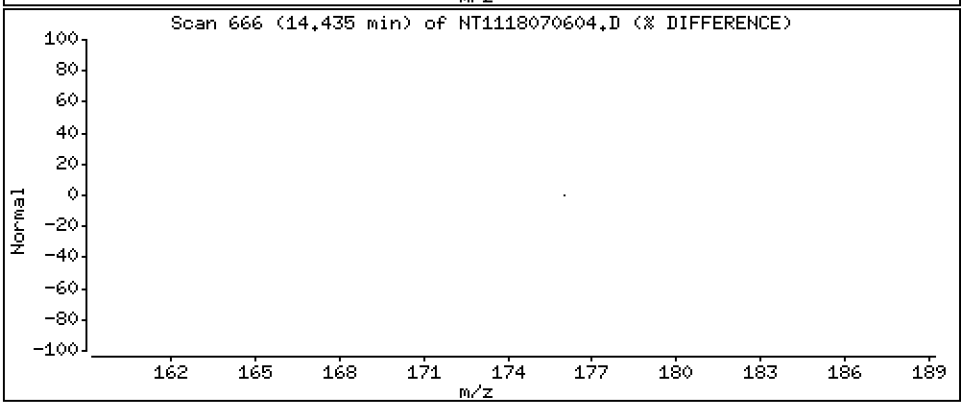












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Date : 06-JUL-2018 14:05

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BS1

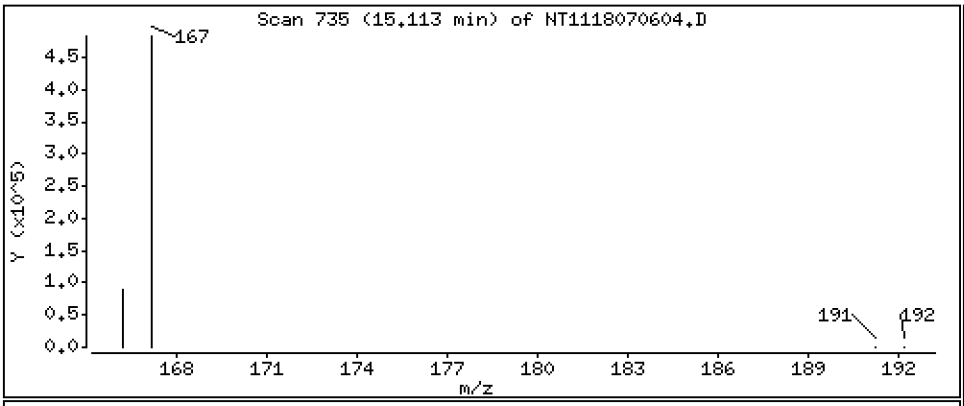
Operator: VTS

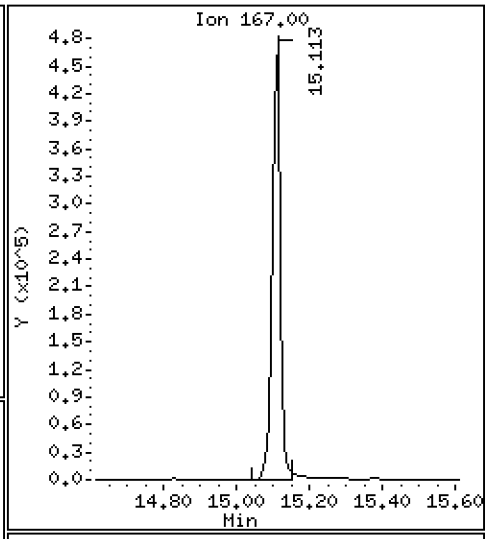
Column phase: Rxi-17Sil MS

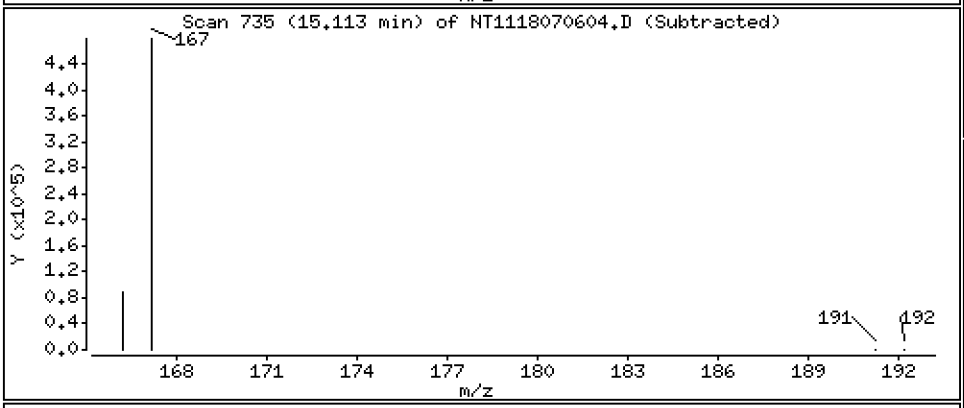
Column diameter: 0.25

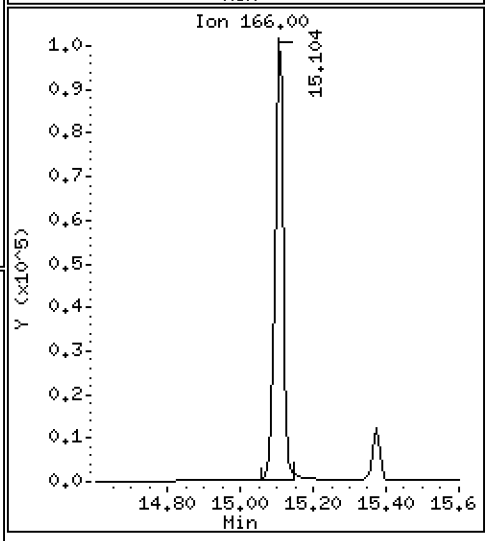
22 Carbazole

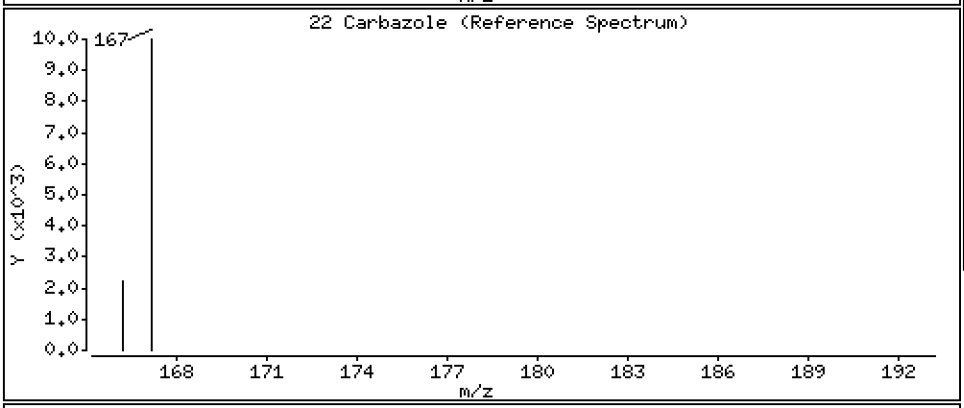
Concentration: 222 ng/mL

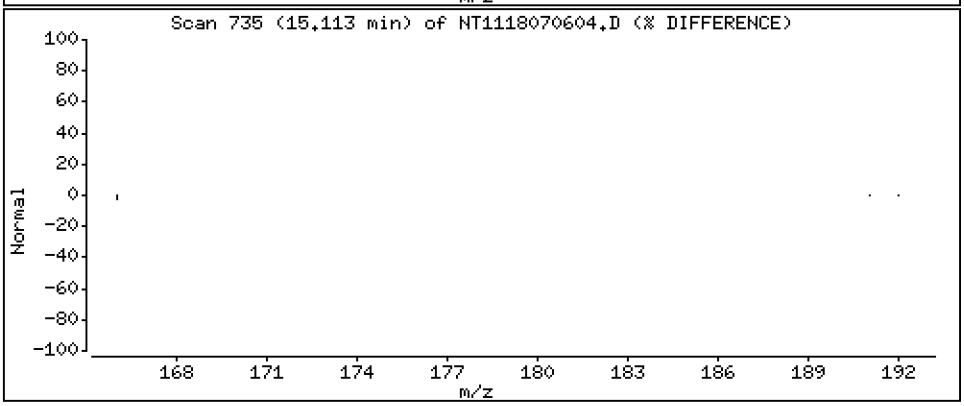












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Date : 06-JUL-2018 14:05

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BS1

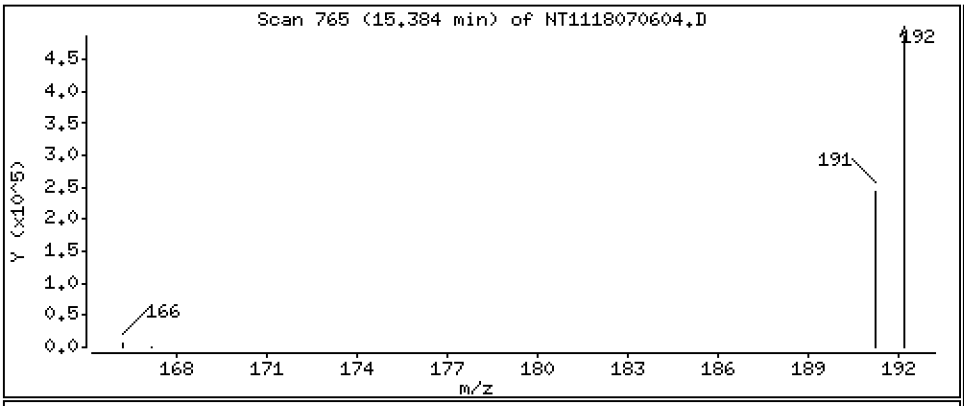
Operator: VTS

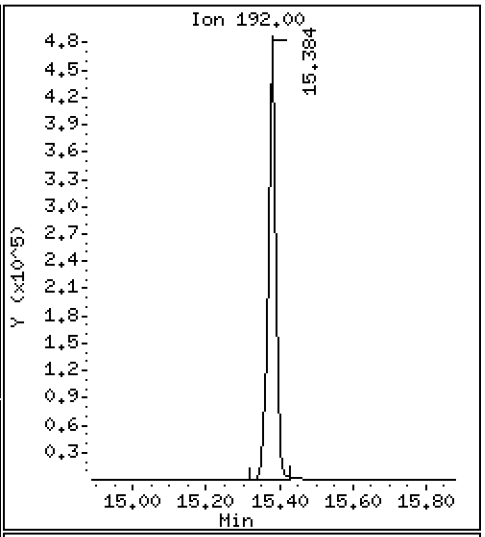
Column phase: Rxi-17Sil MS

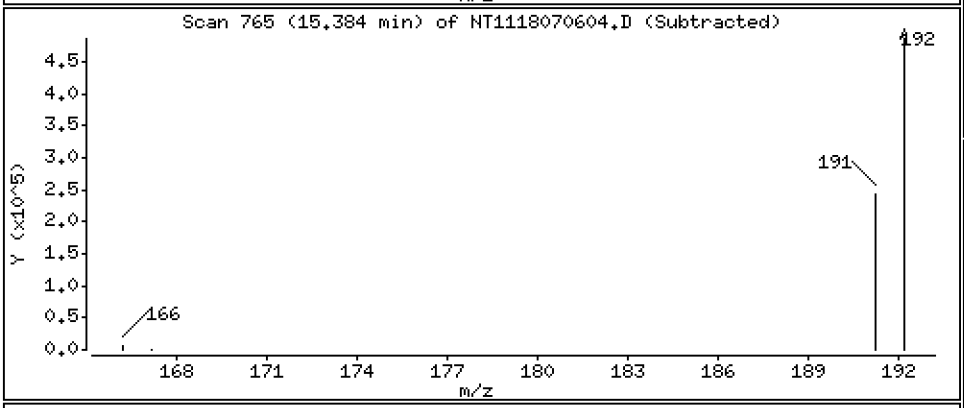
Column diameter: 0.25

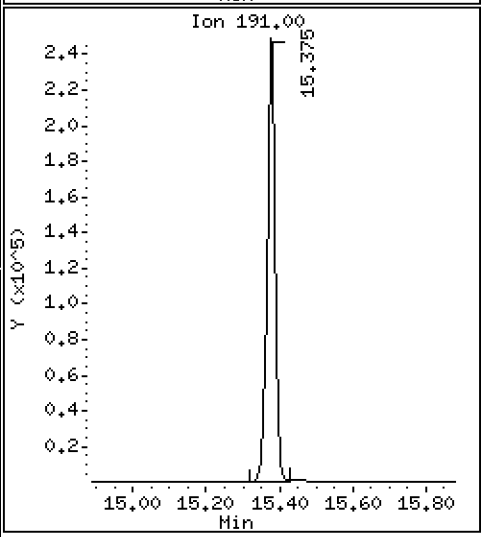
23 1-Methylphenanthrene

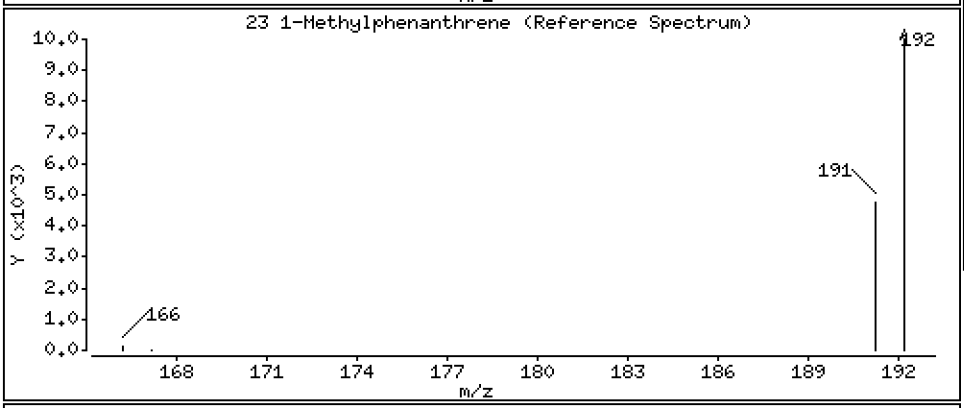
Concentration: 245 ng/mL

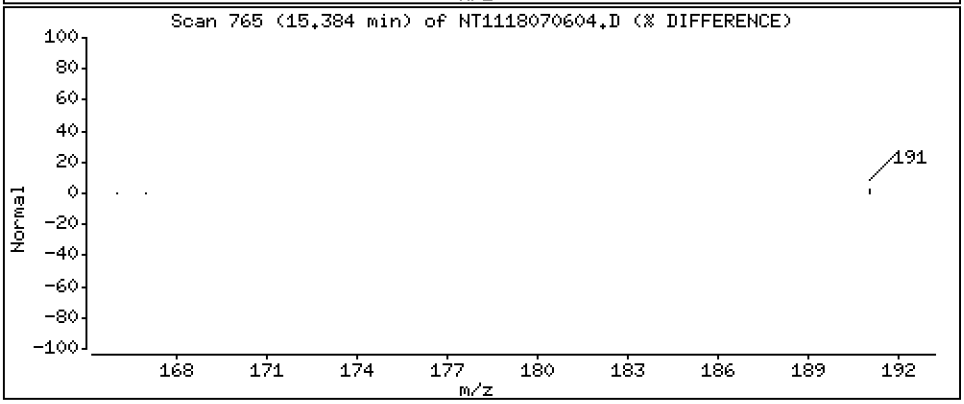












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Date : 06-JUL-2018 14:05

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BS1

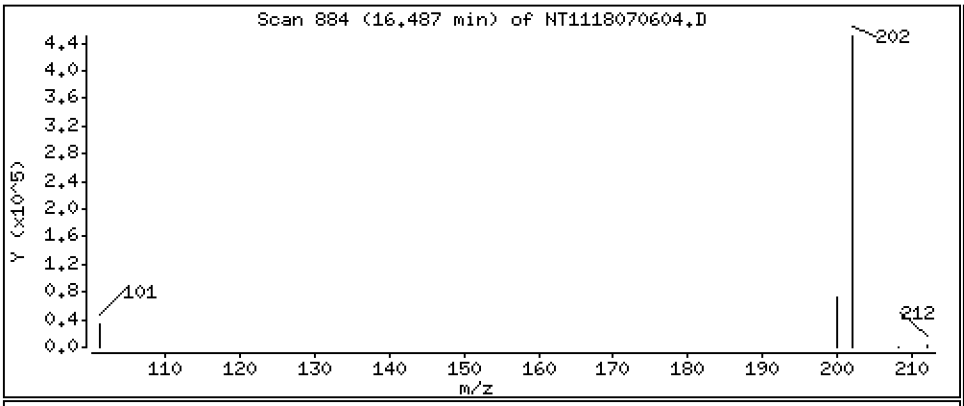
Operator: VTS

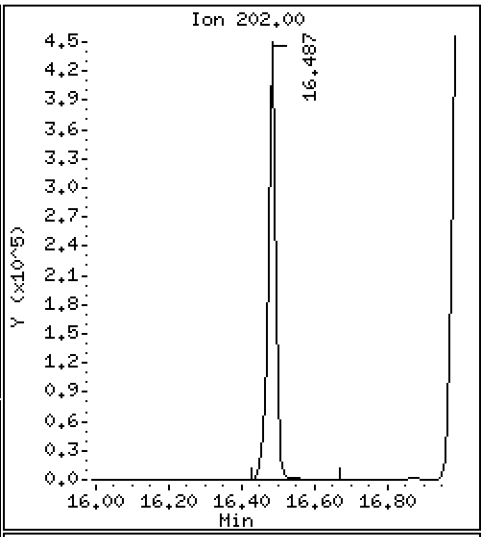
Column phase: Rxi-17Sil MS

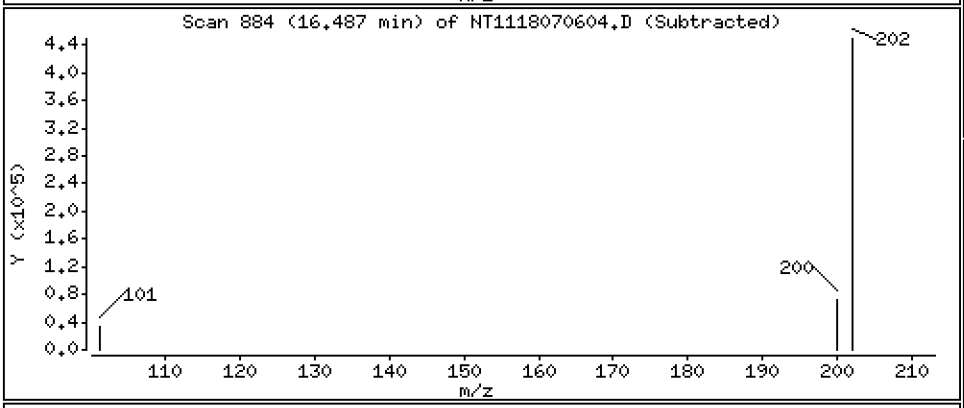
Column diameter: 0.25

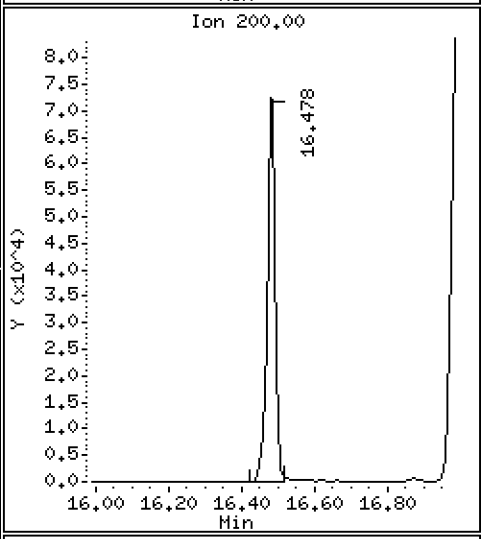
25 Fluoranthene

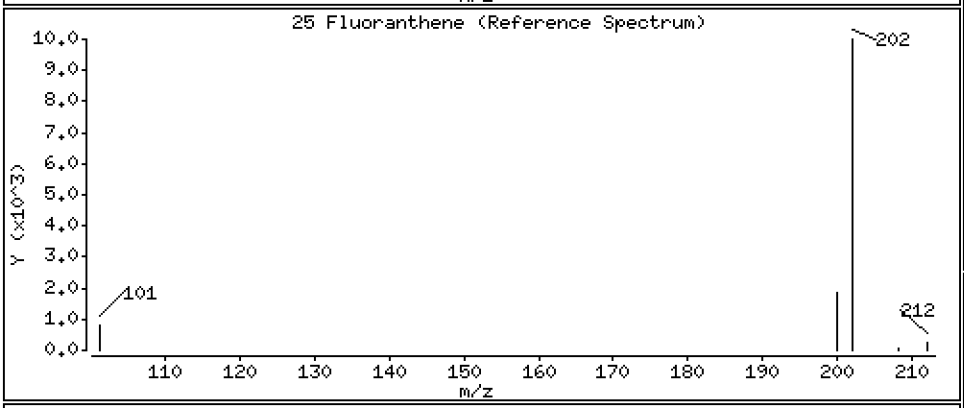
Concentration: 243 ng/mL

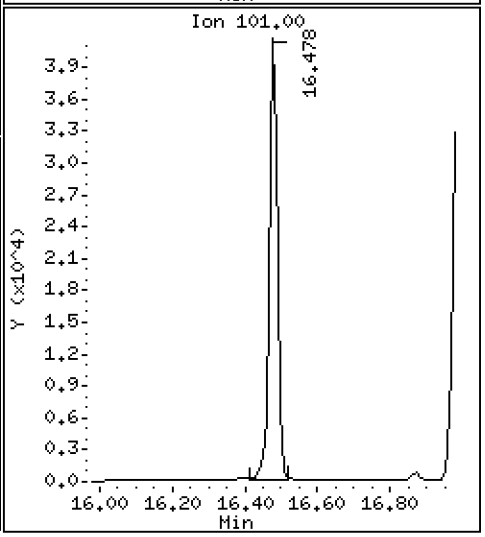


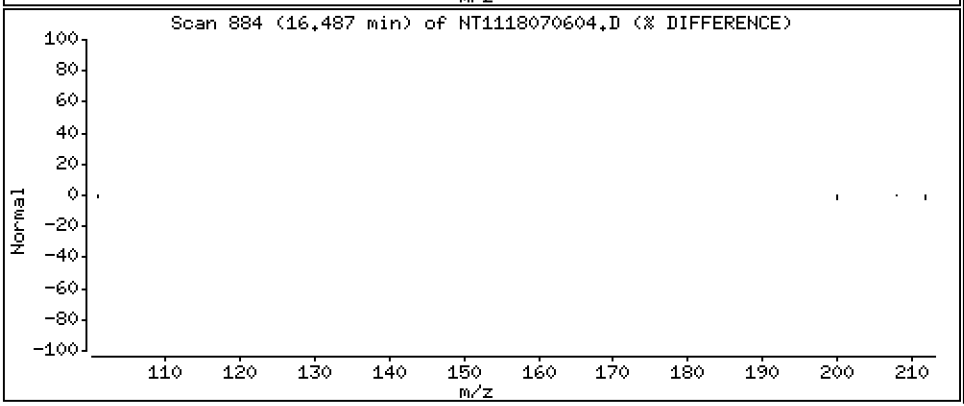












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Date : 06-JUL-2018 14:05

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BS1

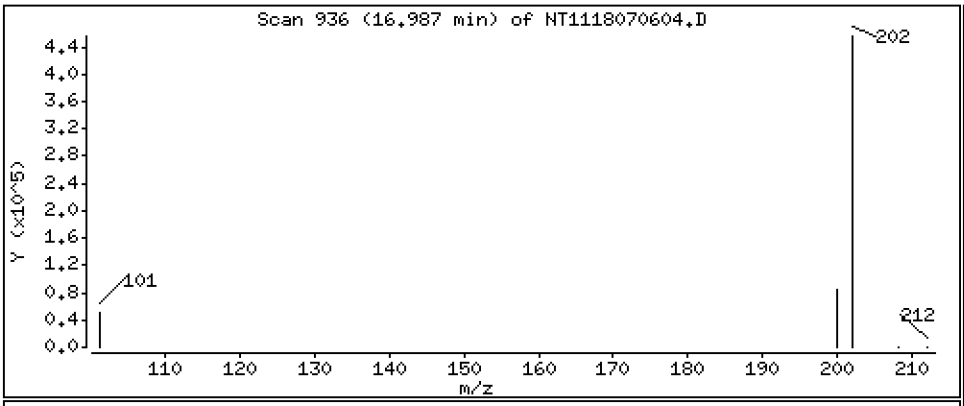
Operator: VTS

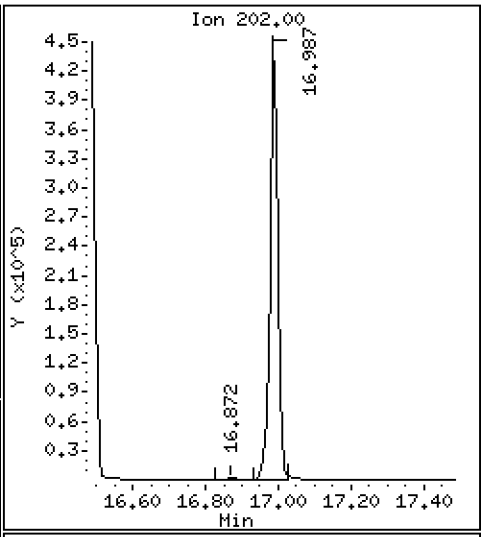
Column phase: Rxi-17Sil MS

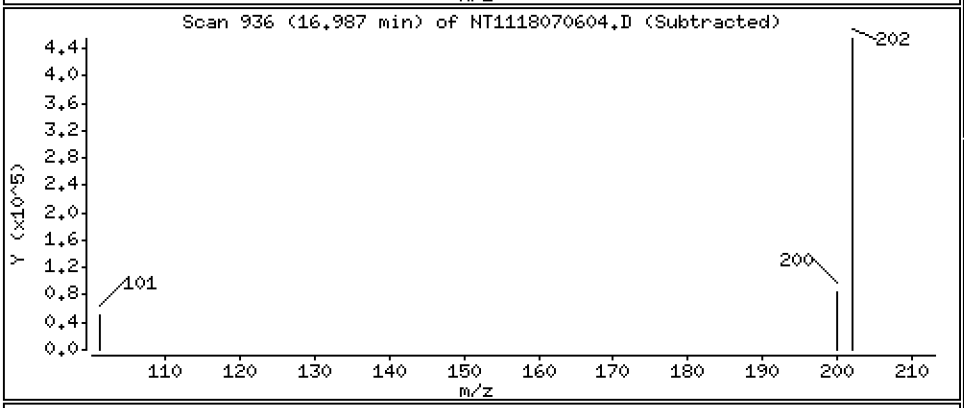
Column diameter: 0.25

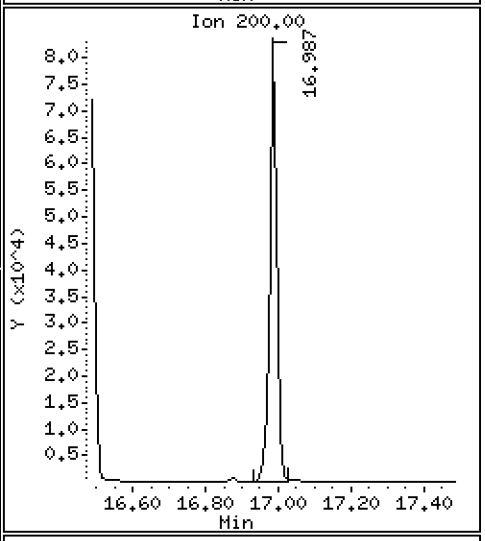
26 Pyrene

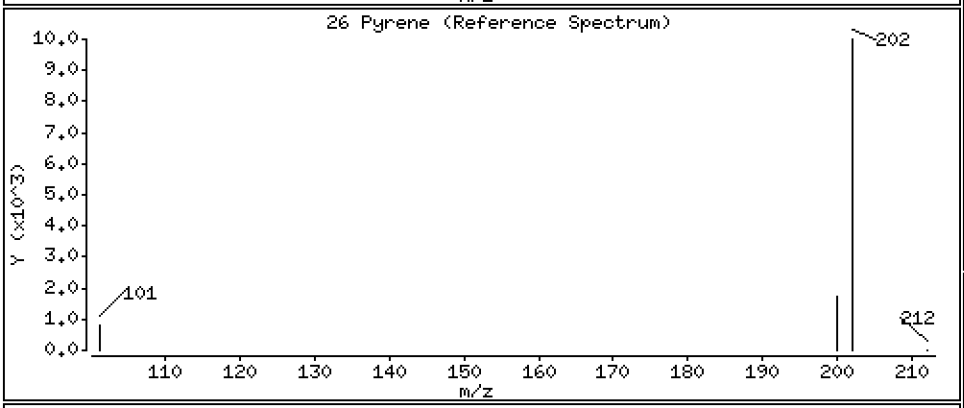
Concentration: 227 ng/mL

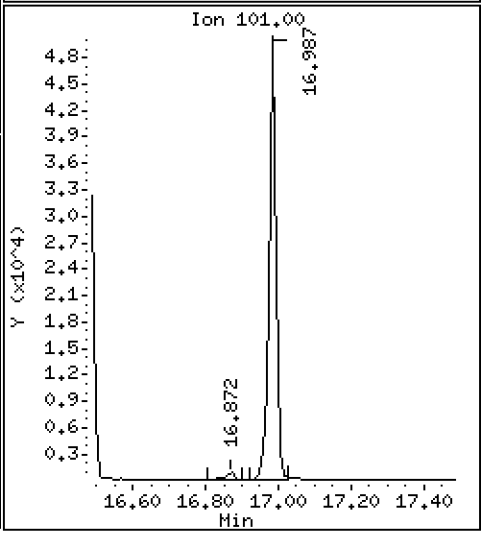


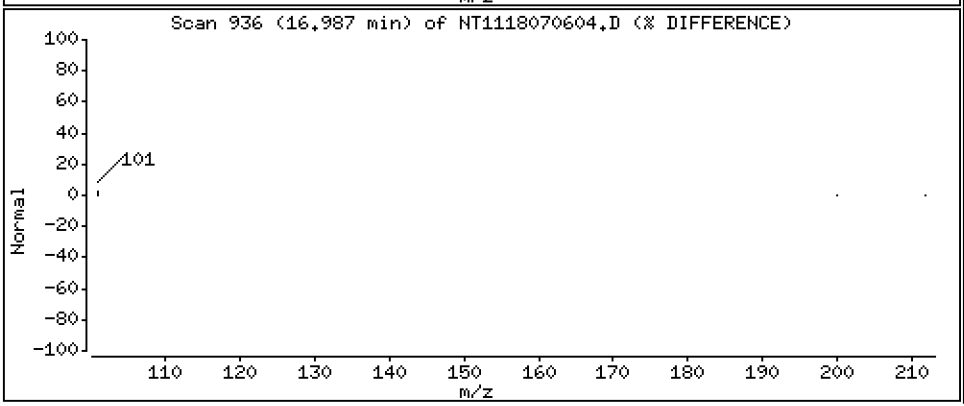












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Date : 06-JUL-2018 14:05

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BS1

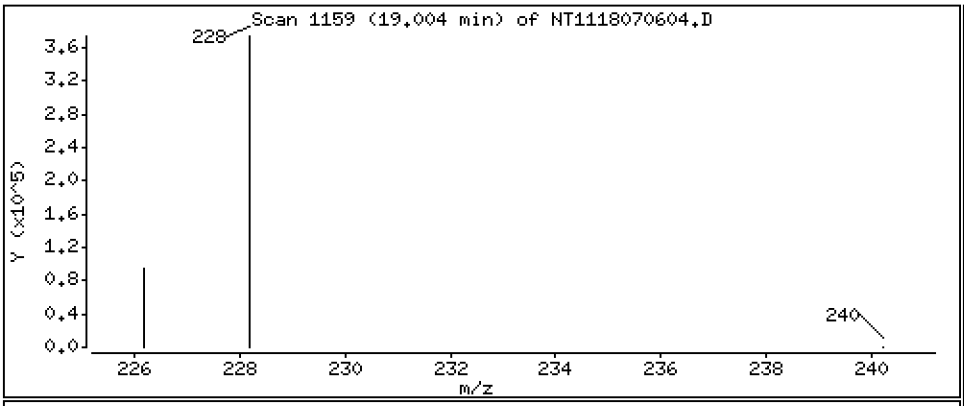
Operator: VTS

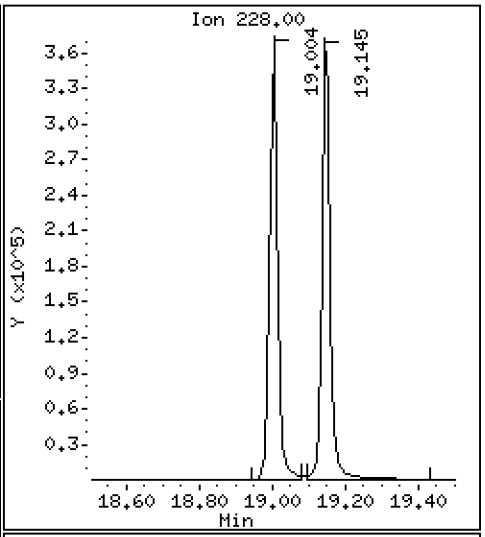
Column phase: Rxi-17Sil MS

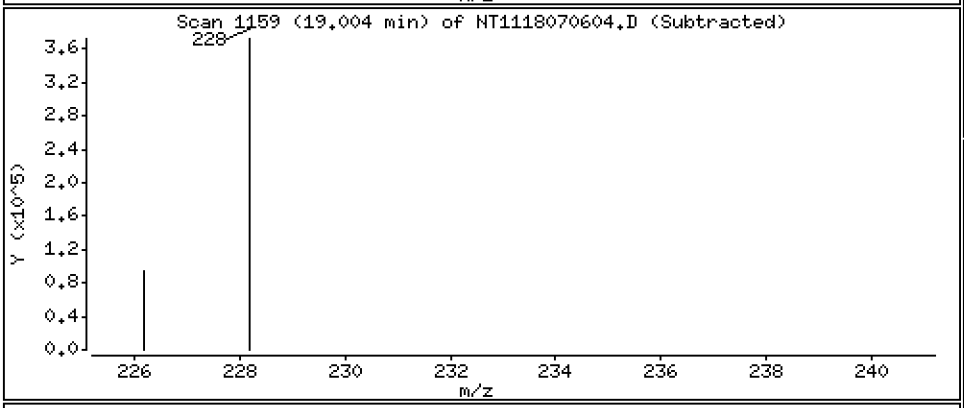
Column diameter: 0.25

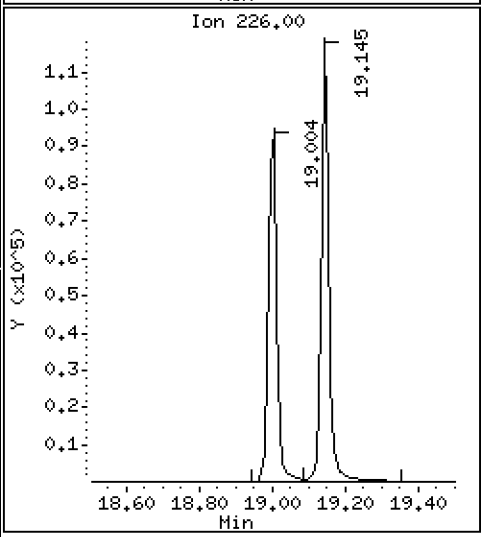
27 Benzo(a)anthracene

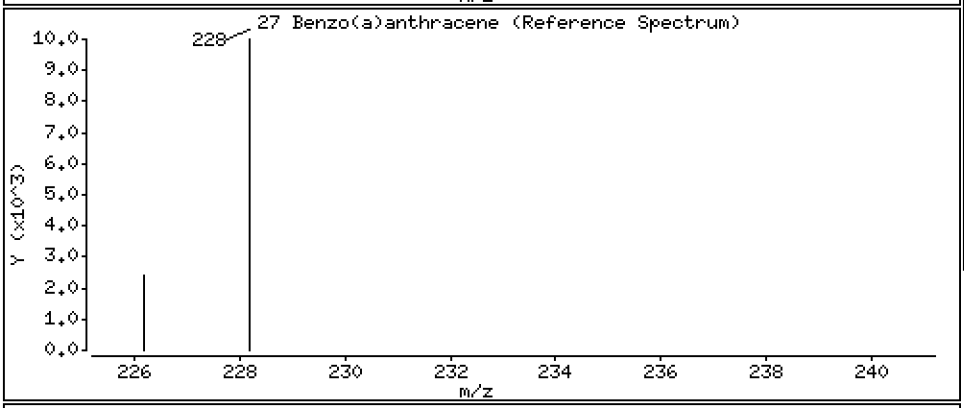
Concentration: 231 ng/mL

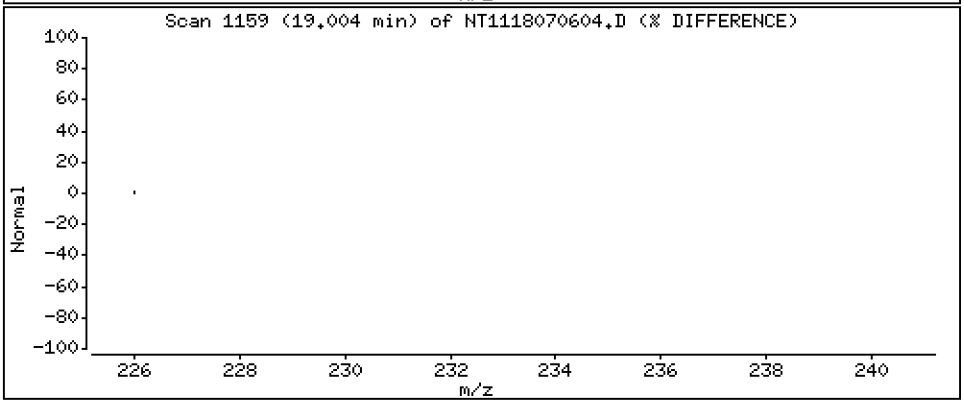












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Date : 06-JUL-2018 14:05

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BS1

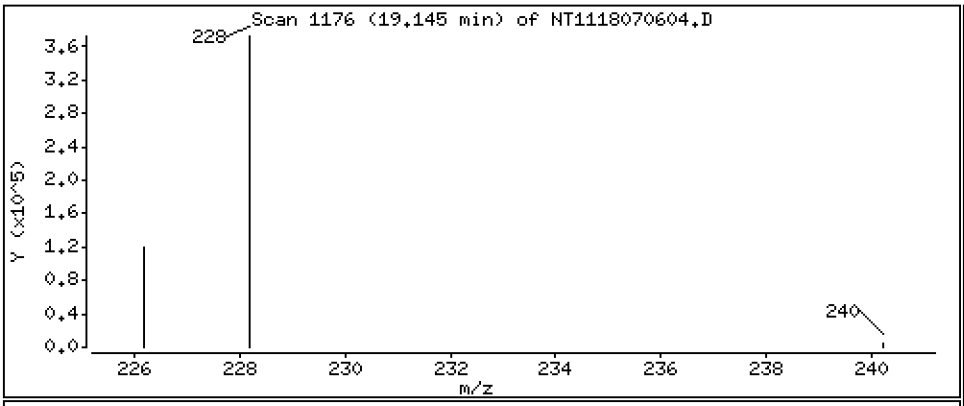
Operator: VTS

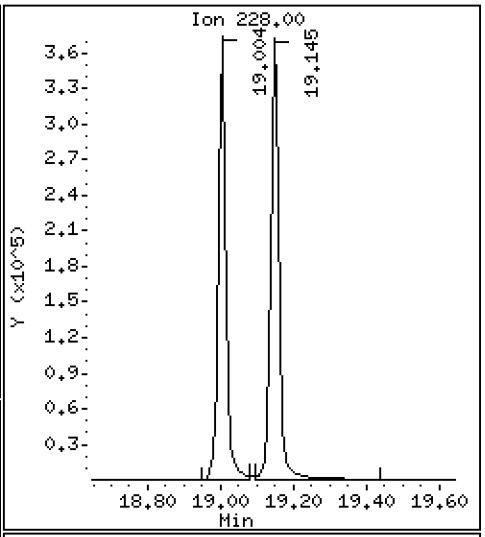
Column phase: Rxi-17Sil MS

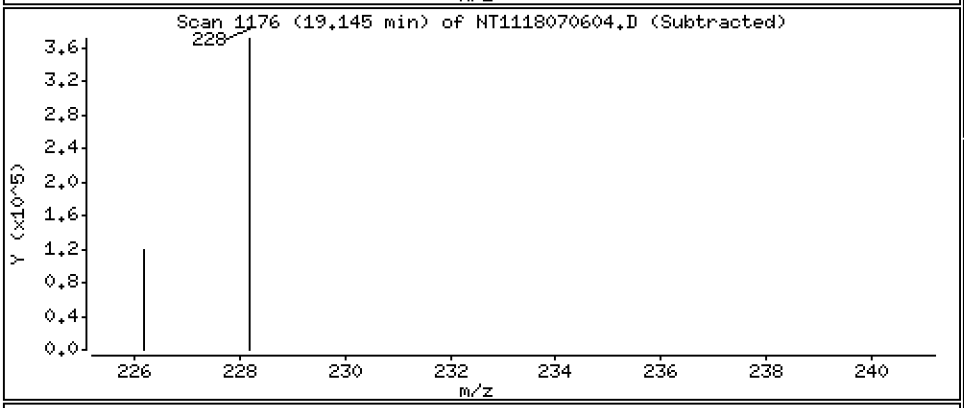
Column diameter: 0.25

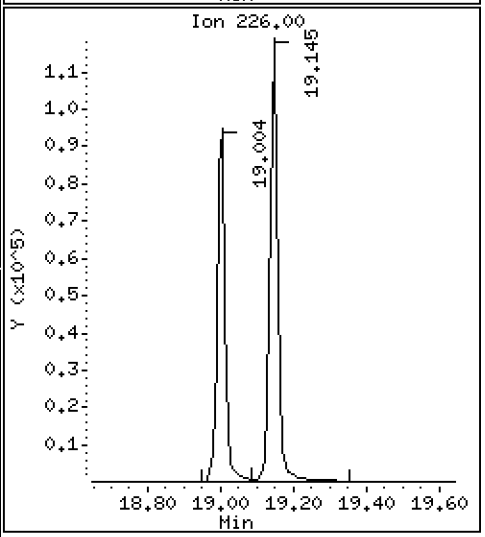
29 Chrysene

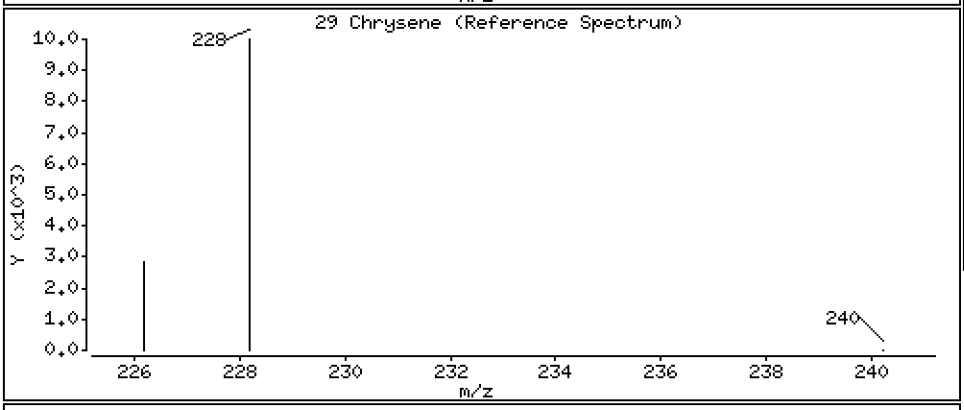
Concentration: 251 ng/mL

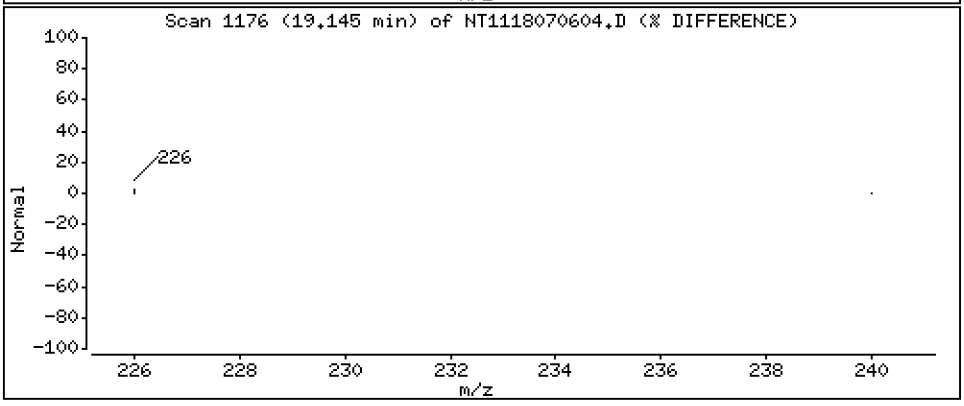












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Date : 06-JUL-2018 14:05

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BS1

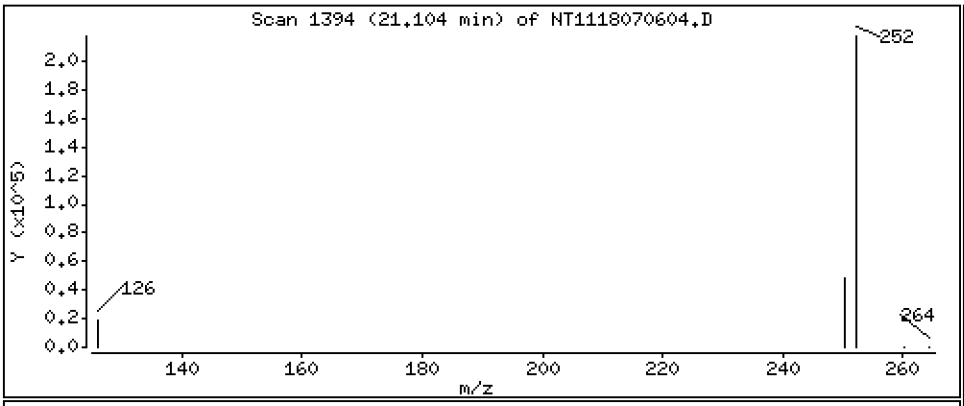
Operator: VTS

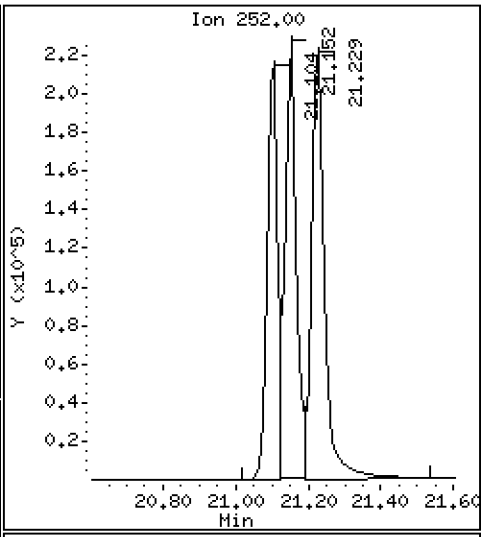
Column phase: Rxi-17Sil MS

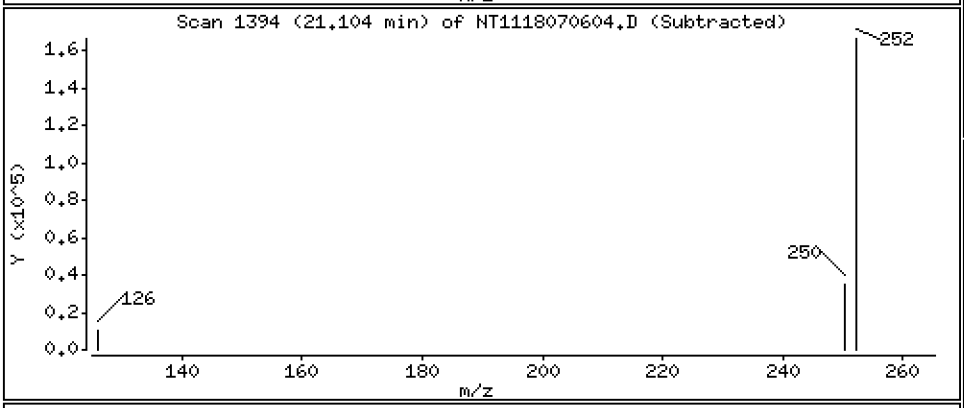
Column diameter: 0.25

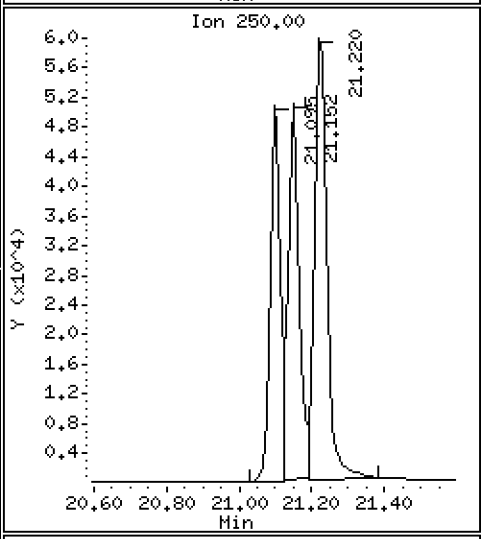
30 Benzo(b)fluoranthene

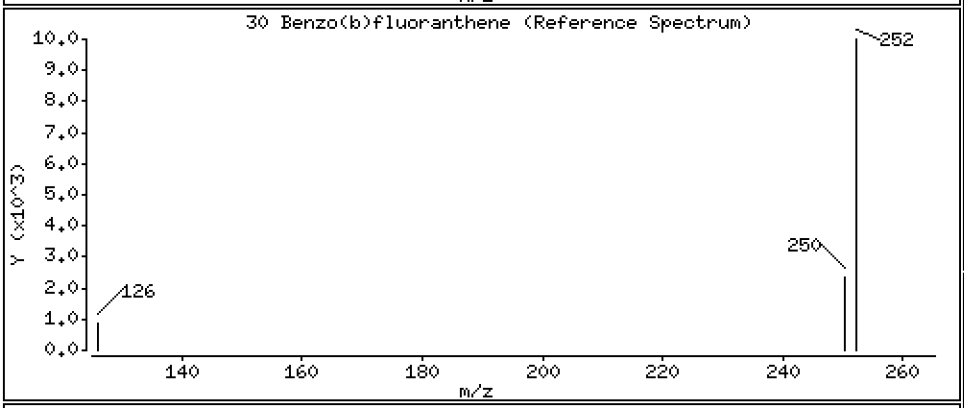
Concentration: 207 ng/mL

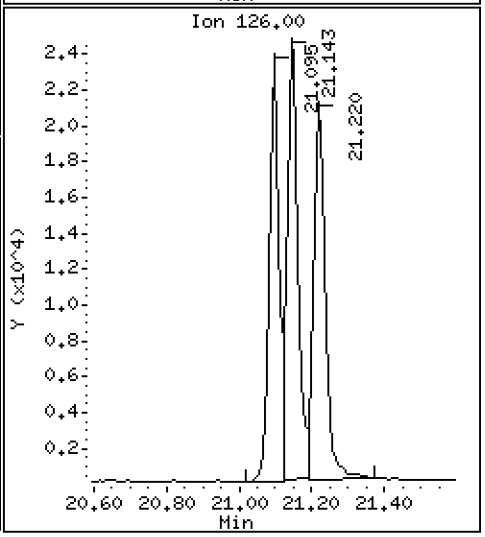


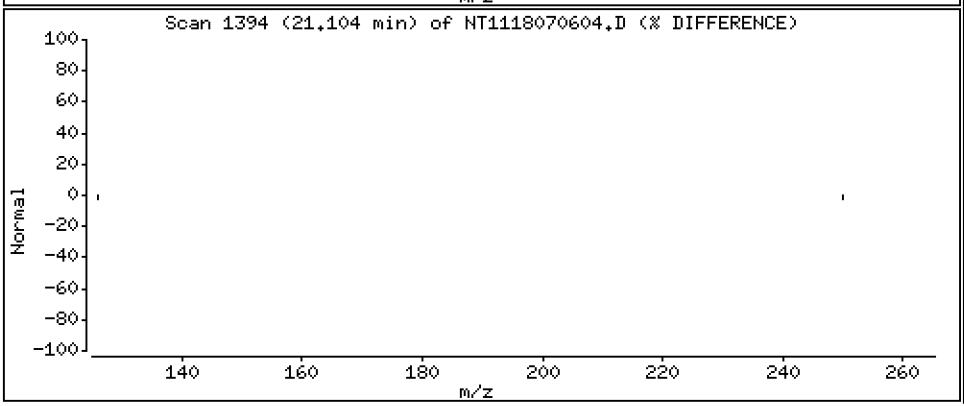












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Date : 06-JUL-2018 14:05

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BS1

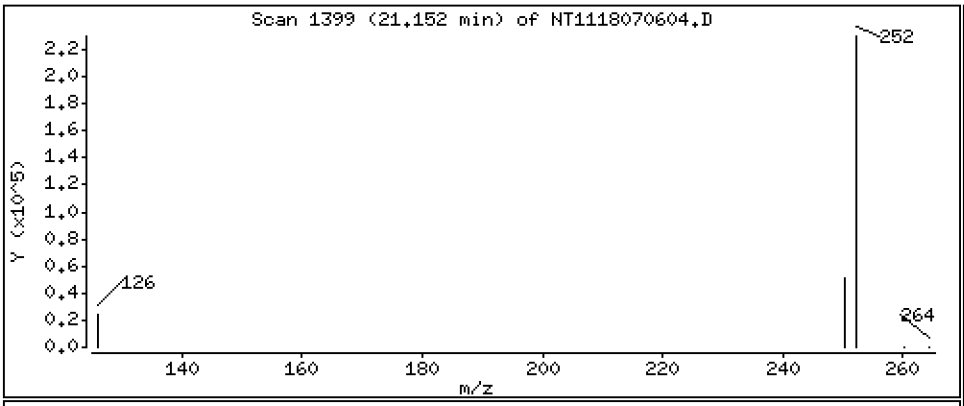
Operator: VTS

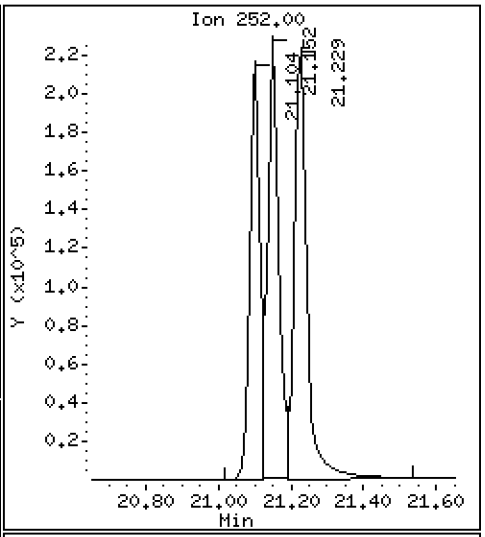
Column phase: Rxi-17Sil MS

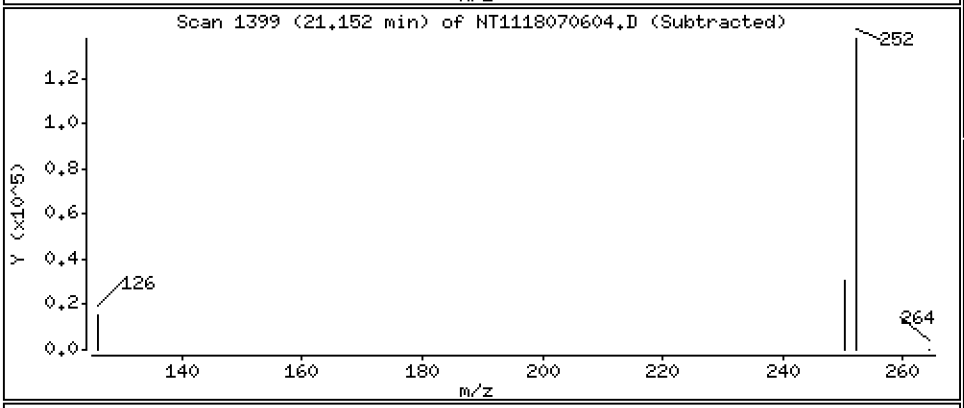
Column diameter: 0.25

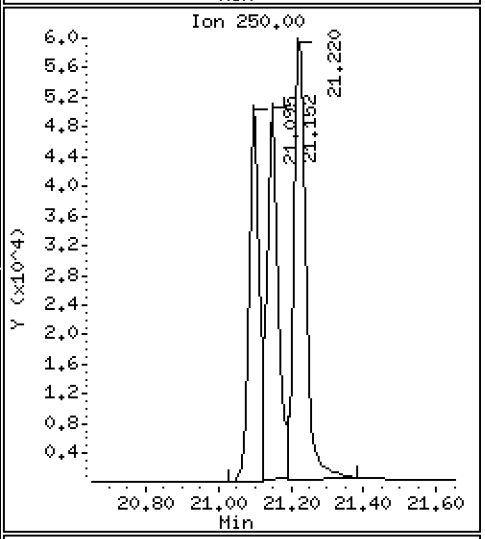
31 Benzo(k)fluoranthene

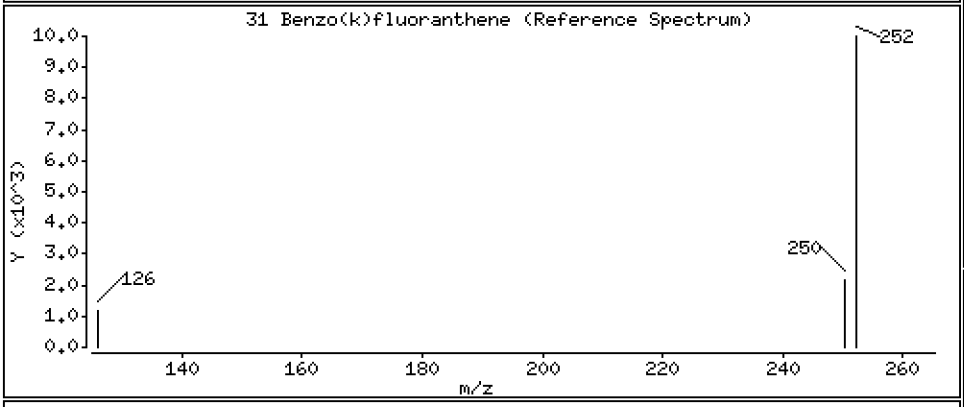
Concentration: 235 ng/mL

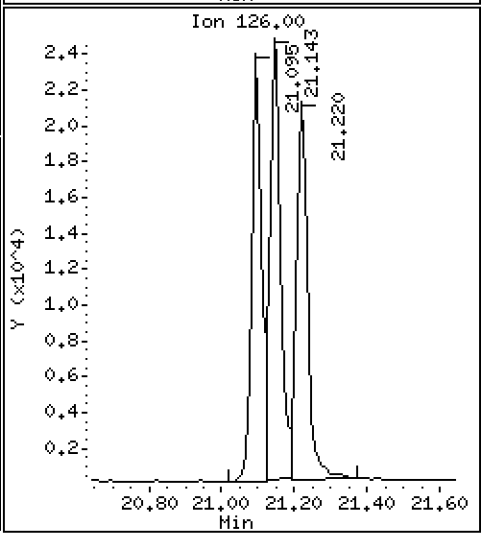


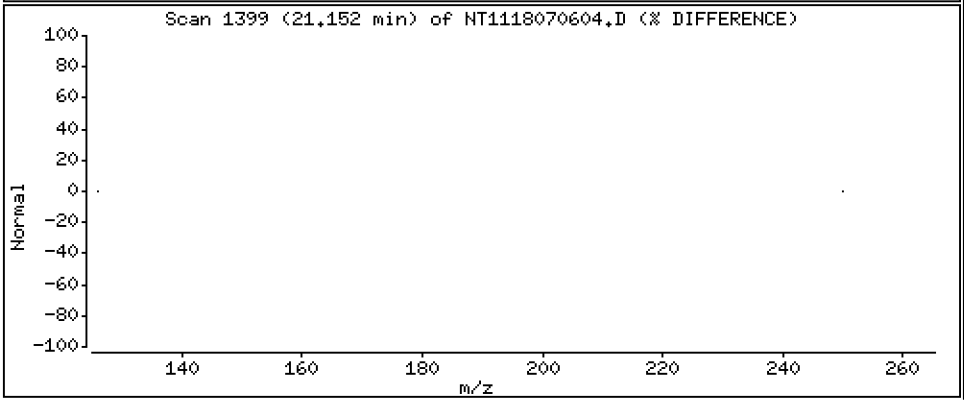












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Date : 06-JUL-2018 14:05

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BS1

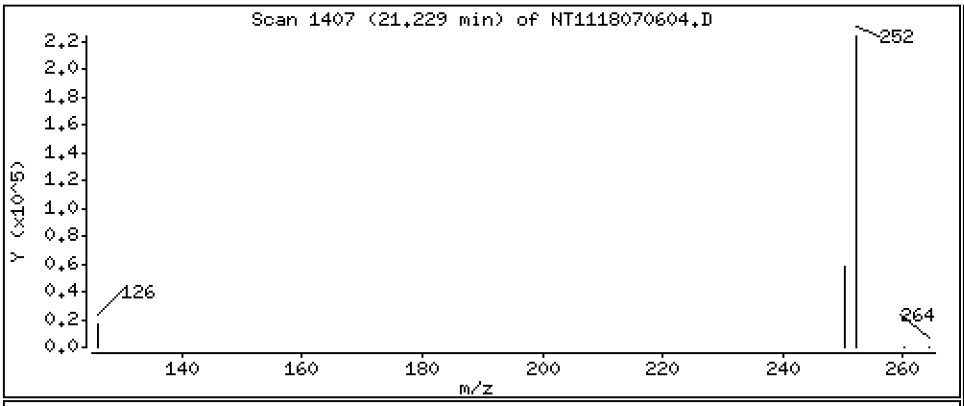
Operator: VTS

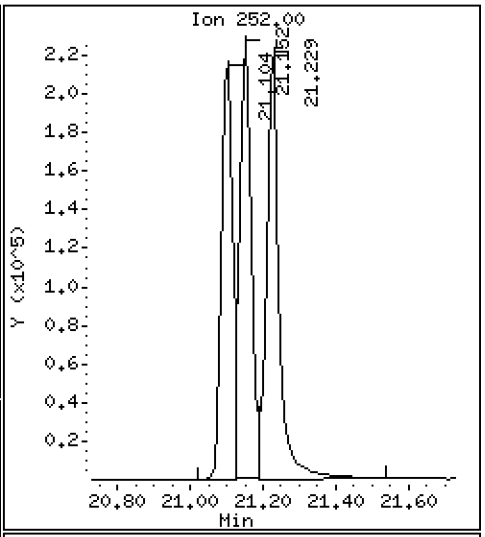
Column phase: Rxi-17Sil MS

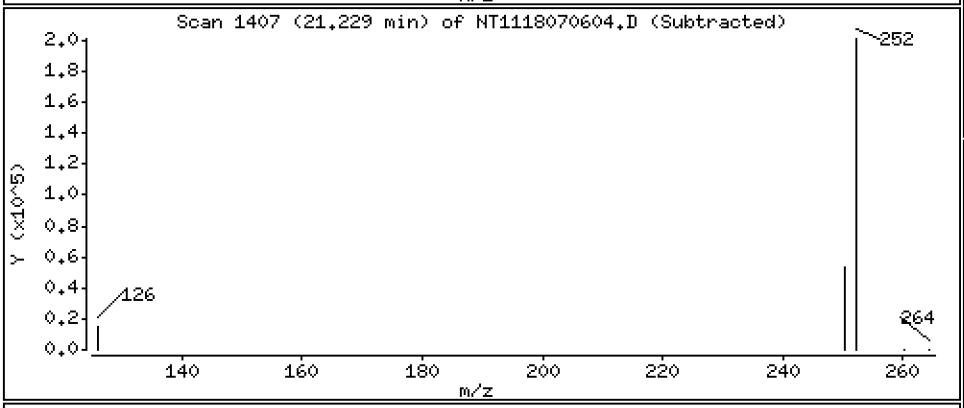
Column diameter: 0.25

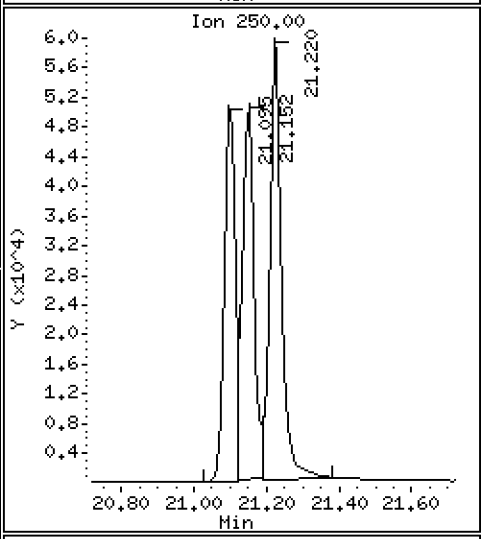
32 Benzo(j)fluoranthene

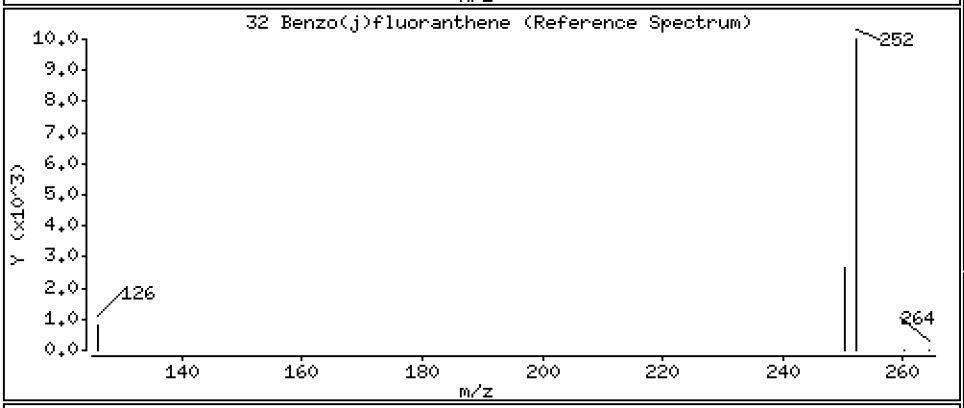
Concentration: 267 ng/mL

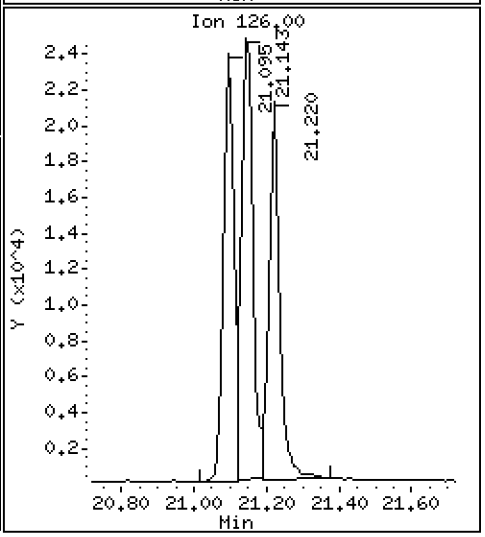


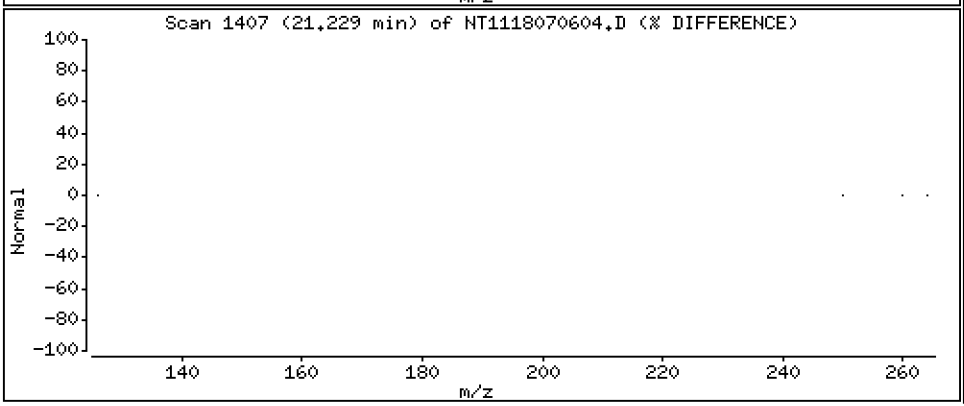












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070604.D

Date : 06-JUL-2018 14:05

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BS1

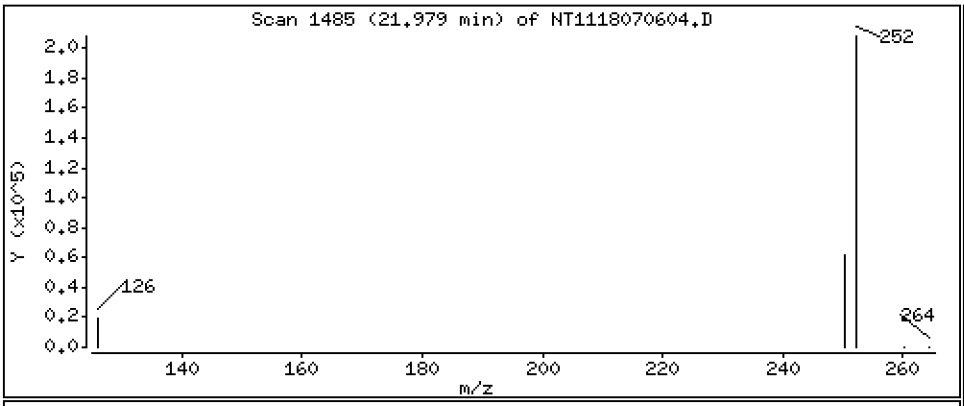
Operator: VTS

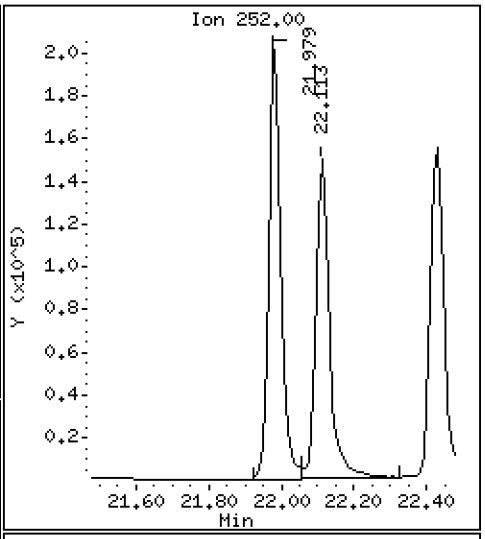
Column phase: Rxi-17Sil MS

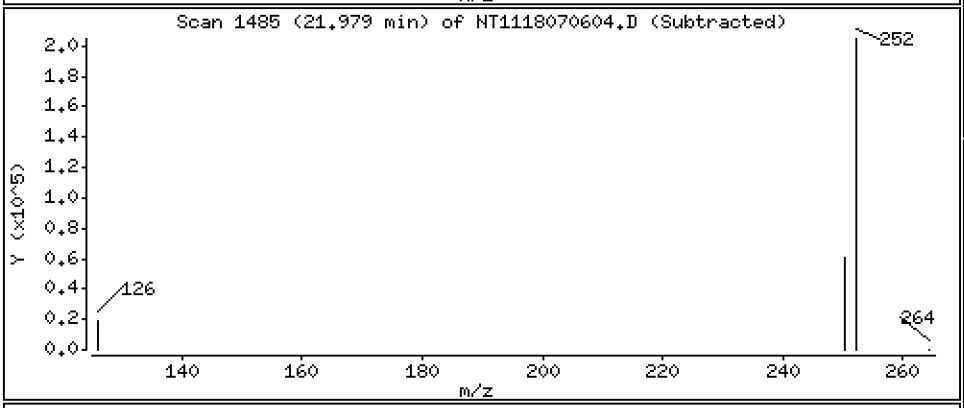
Column diameter: 0.25

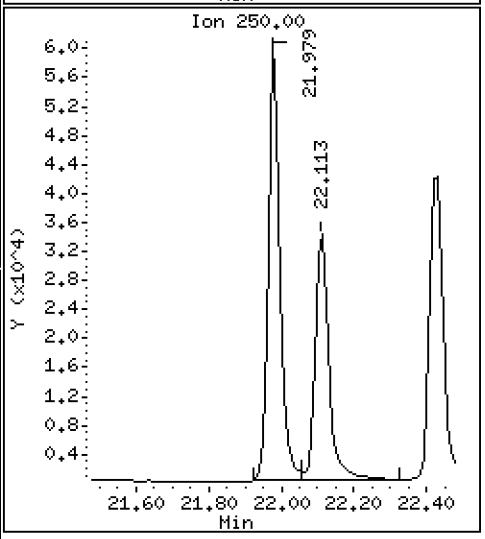
34 Benzo(e)pyrene

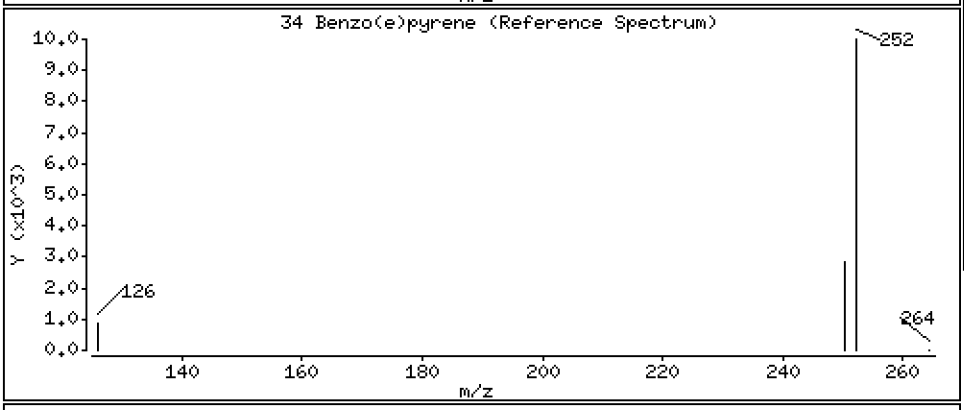
Concentration: 227 ng/mL

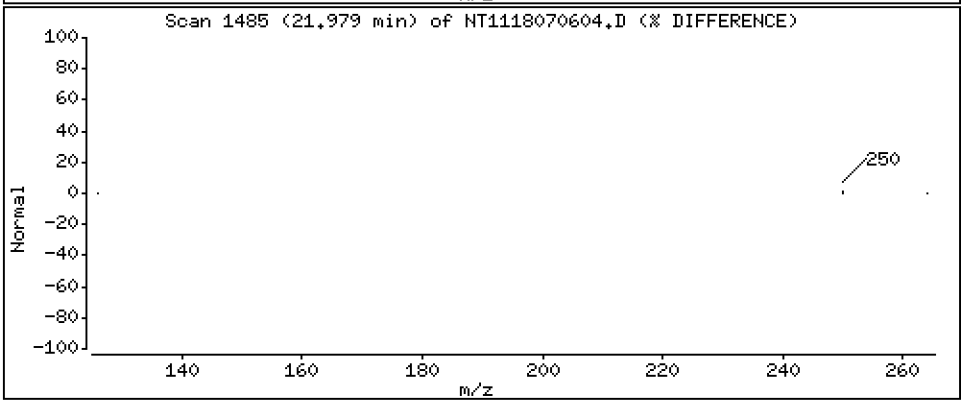












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070604.D

Date : 06-JUL-2018 14:05

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BS1

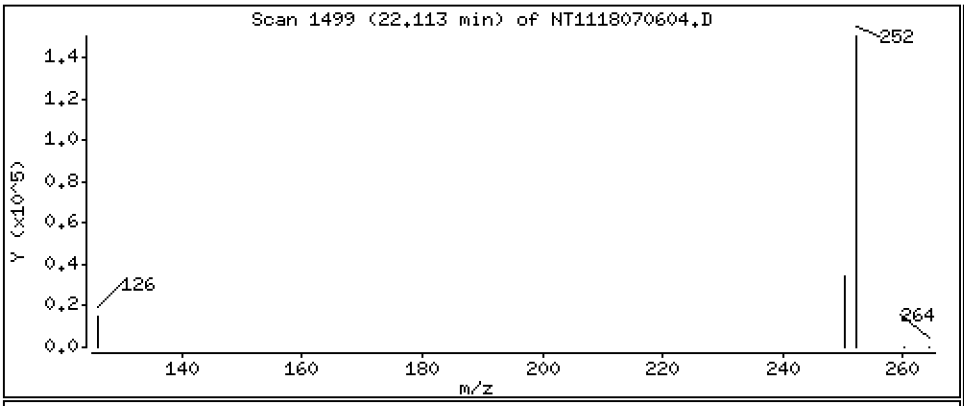
Operator: VTS

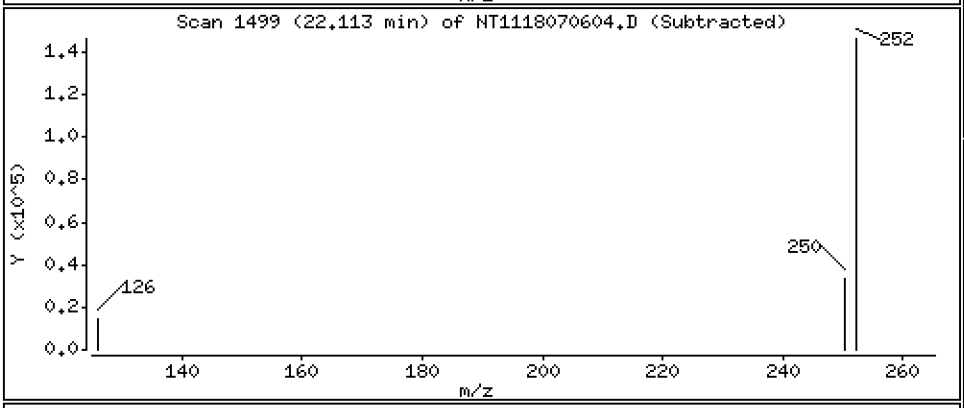
Column phase: Rxi-17Sil MS

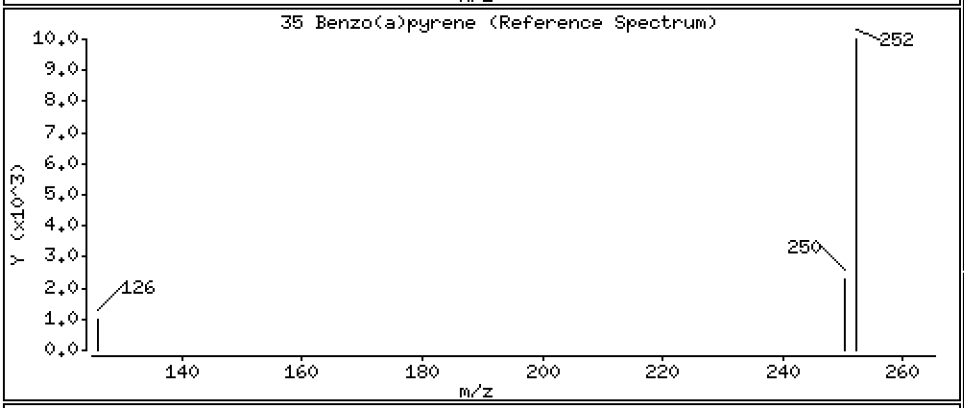
Column diameter: 0.25

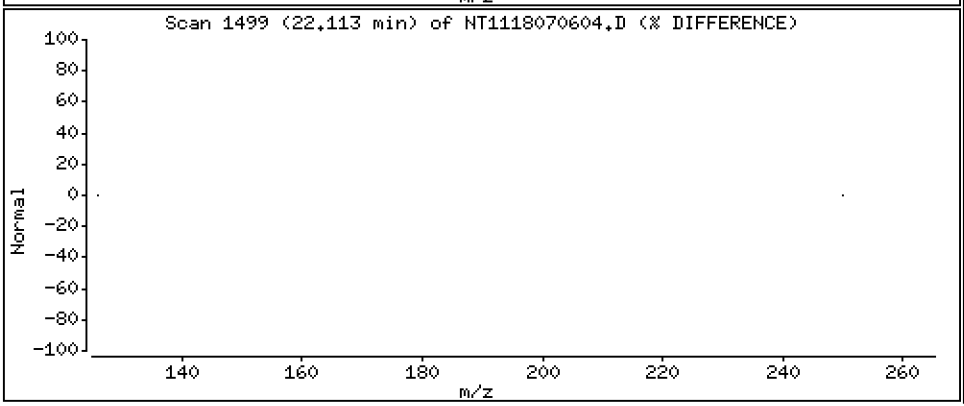
35 Benzo(a)pyrene

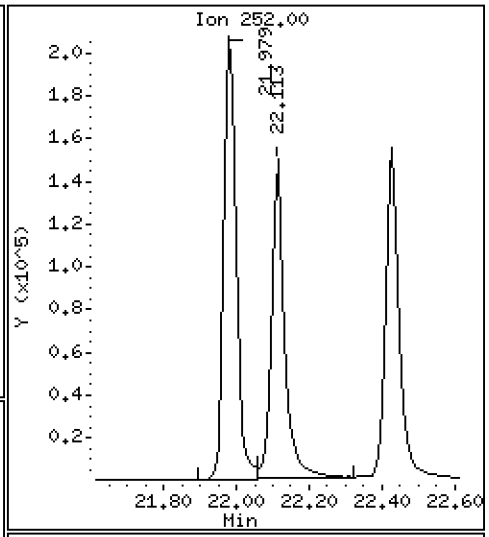
Concentration: 199 ng/mL

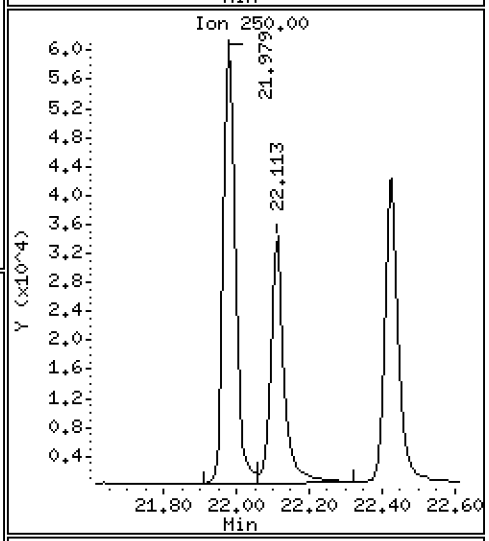


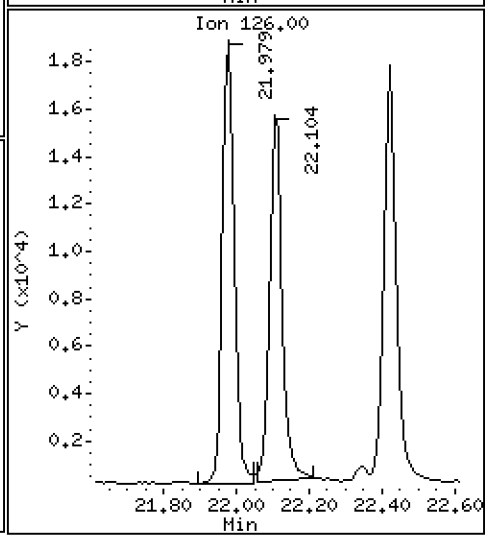












Date : 06-JUL-2018 14:05

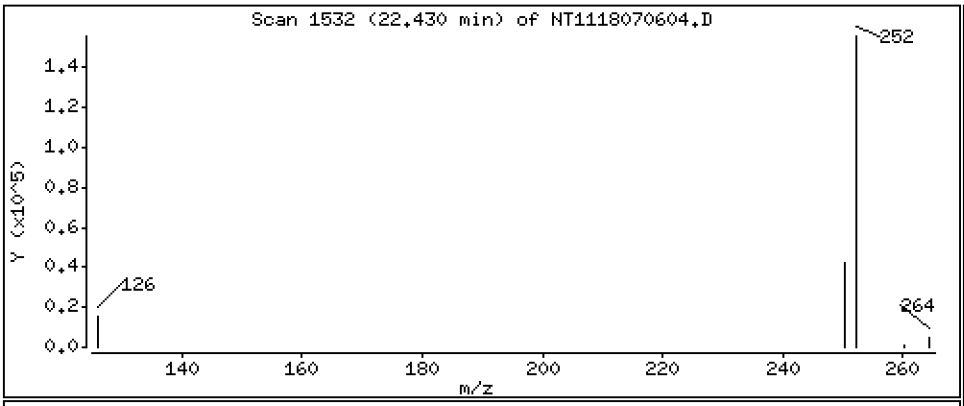
Client ID: Instrument: nt11.i

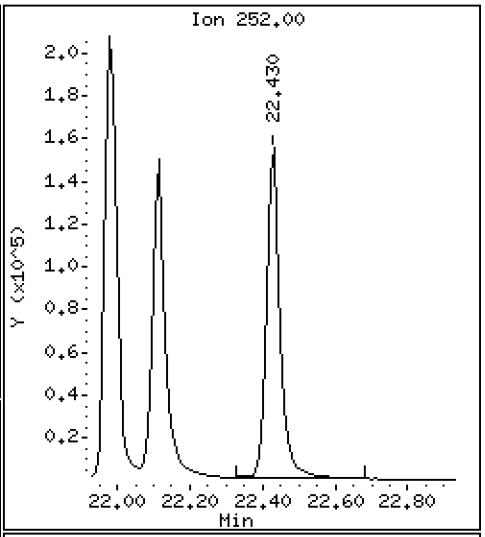
Sample Info: BGF0530-BS1

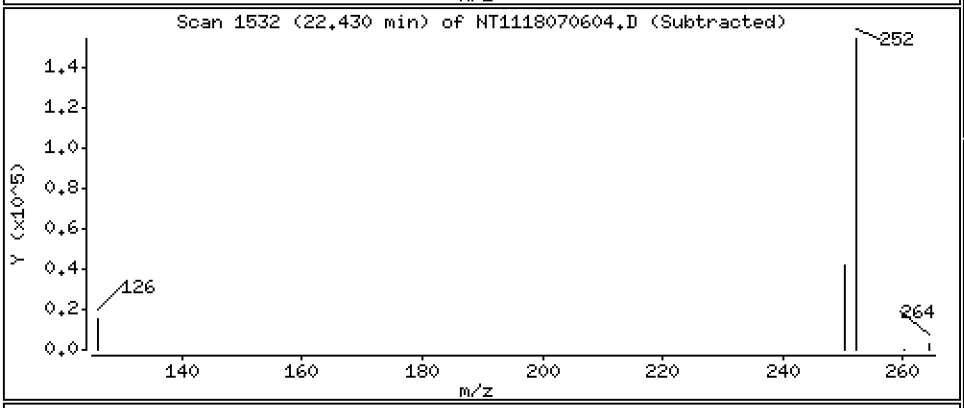
Operator: VTS

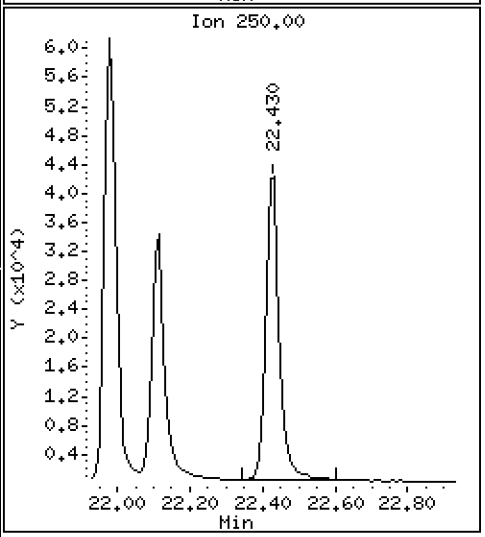
Column phase: Rxi-17Sil MS Column diameter: 0.25

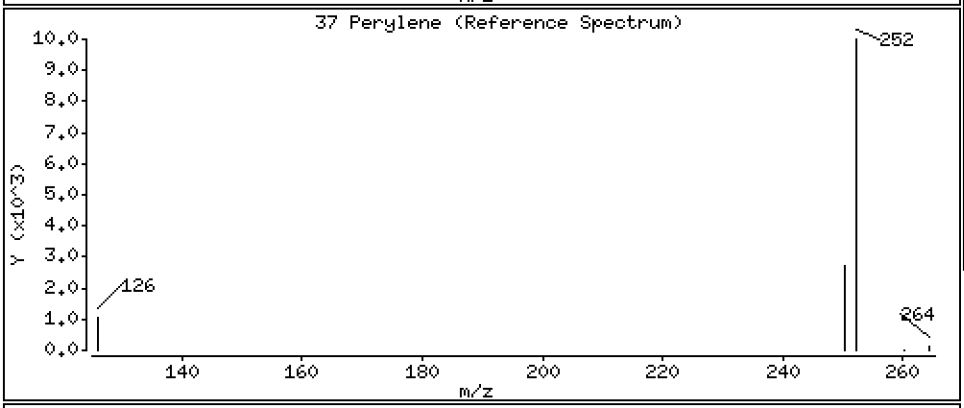
37 Perylene Concentration: 207 ng/mL

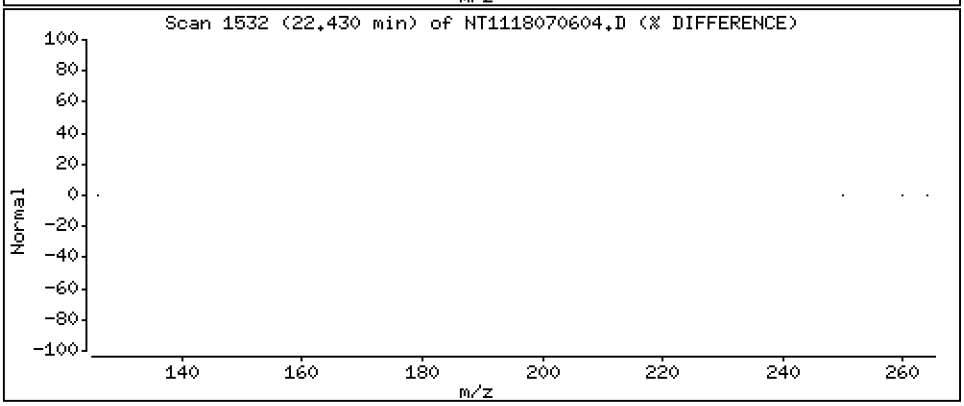












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070604.D

Date : 06-JUL-2018 14:05

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BS1

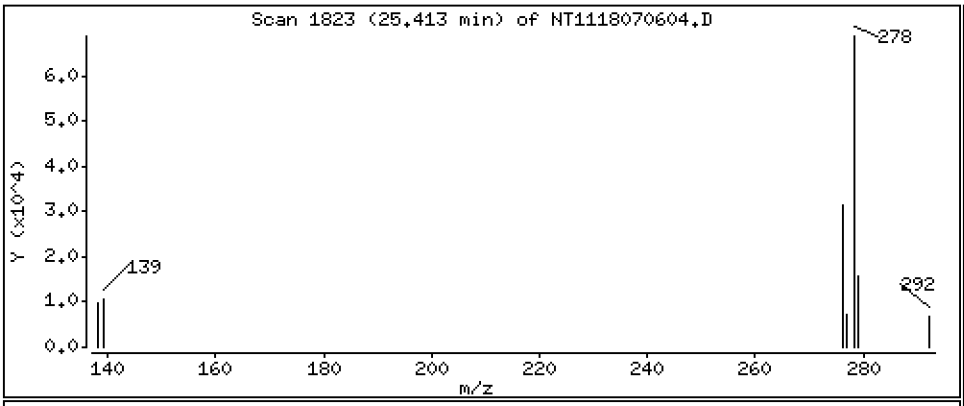
Operator: VTS

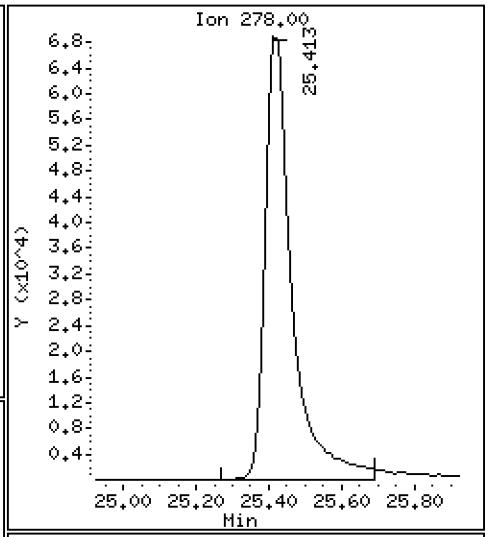
Column phase: Rxi-17Sil MS

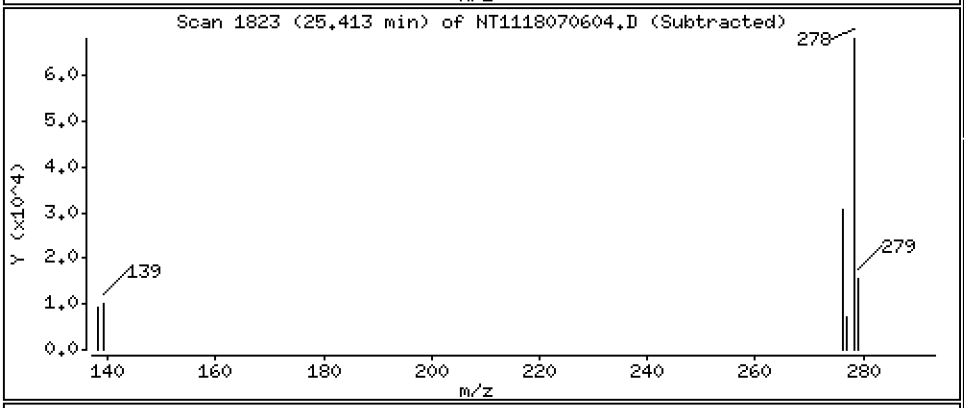
Column diameter: 0.25

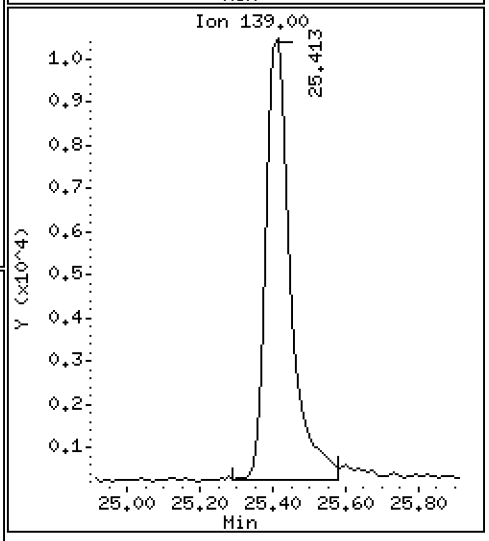
39 Dibenzo(a,h)anthracene

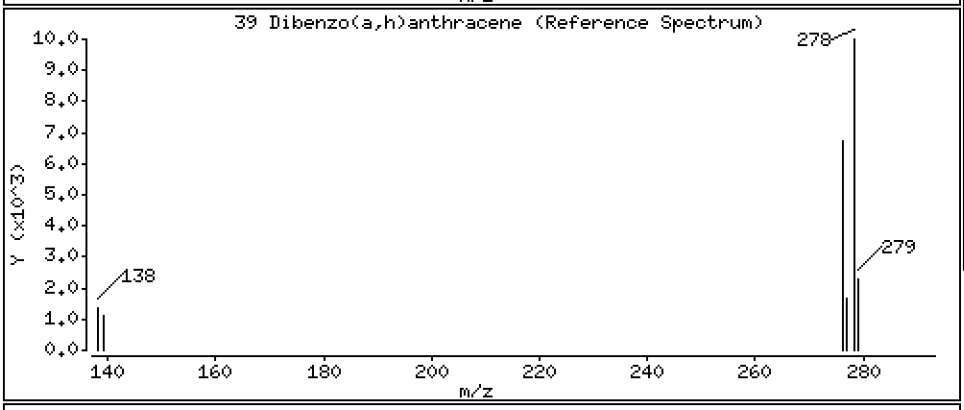
Concentration: 211 ng/mL

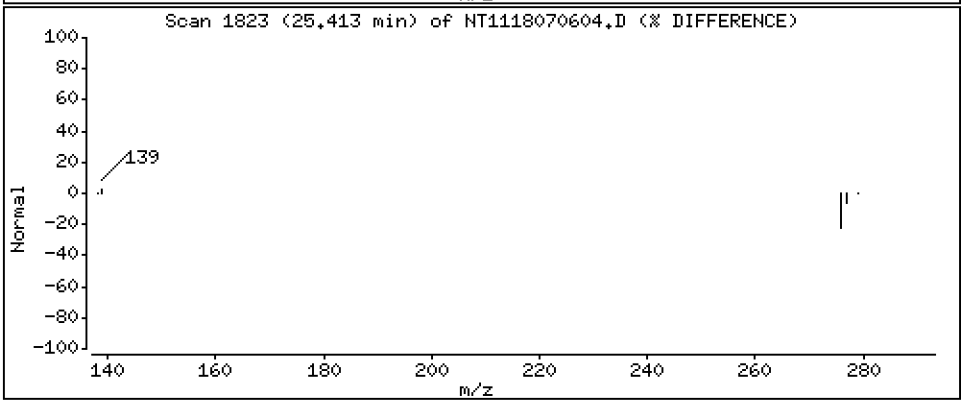












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070604.D

Date : 06-JUL-2018 14:05

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BS1

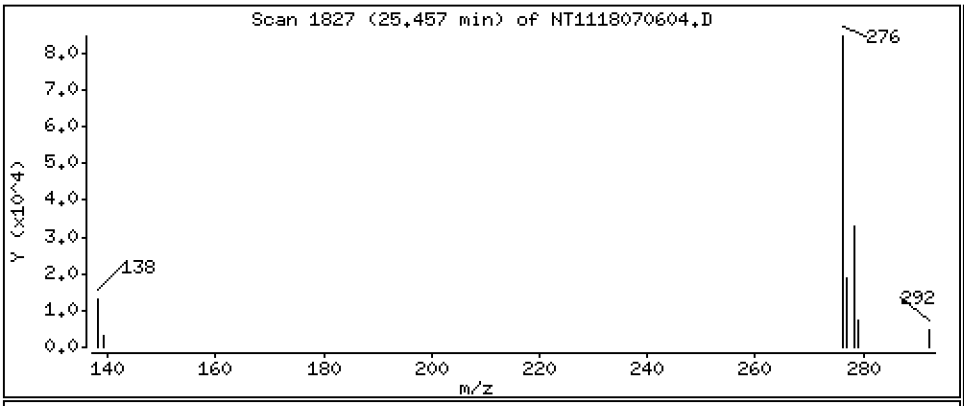
Operator: VTS

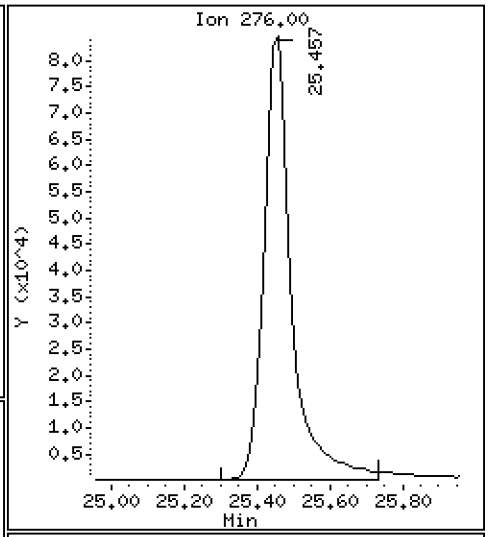
Column phase: Rxi-17Sil MS

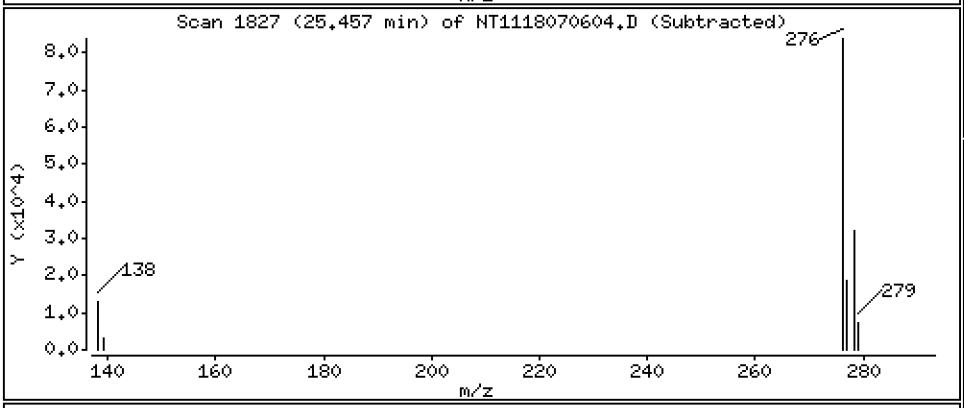
Column diameter: 0.25

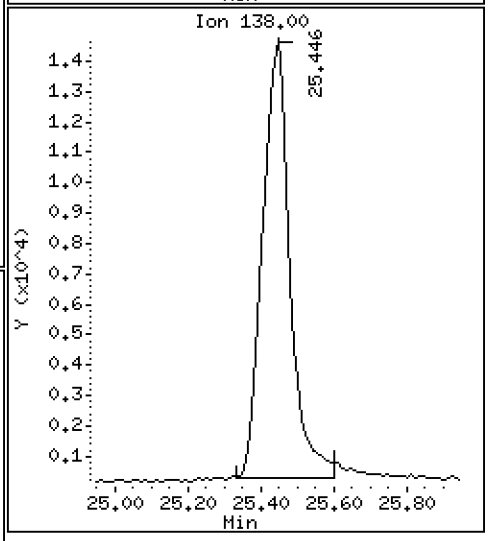
40 Indeno(1,2,3-cd)pyrene

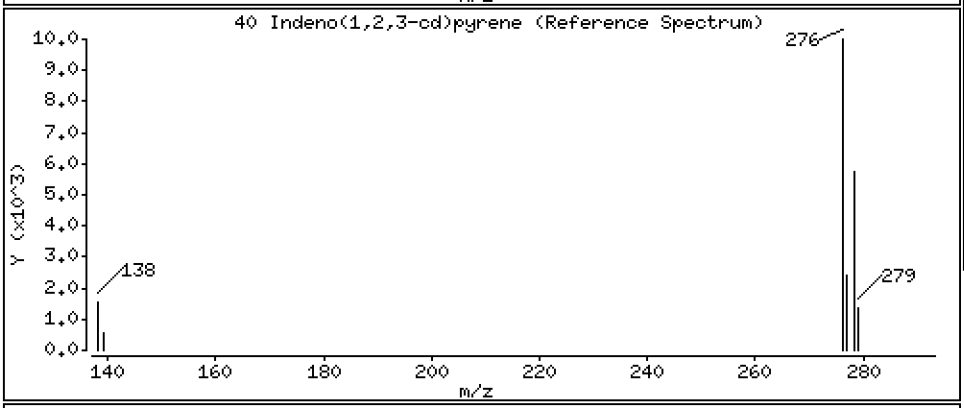
Concentration: 220 ng/mL

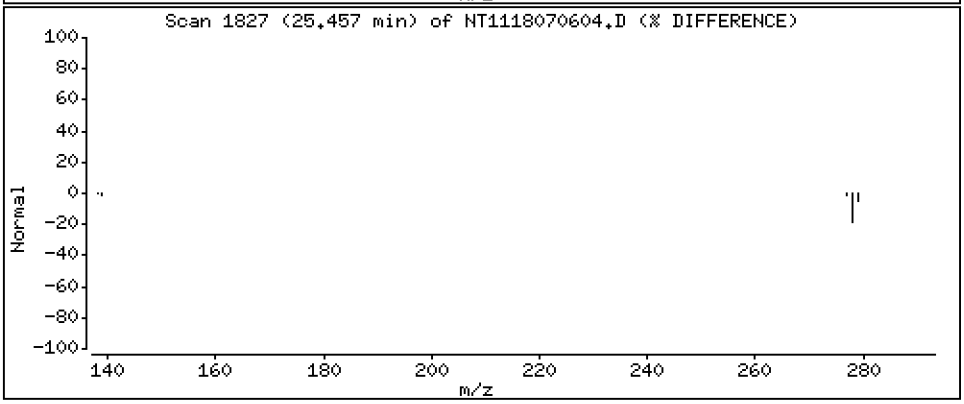












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070604.D

Date : 06-JUL-2018 14:05

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-BS1

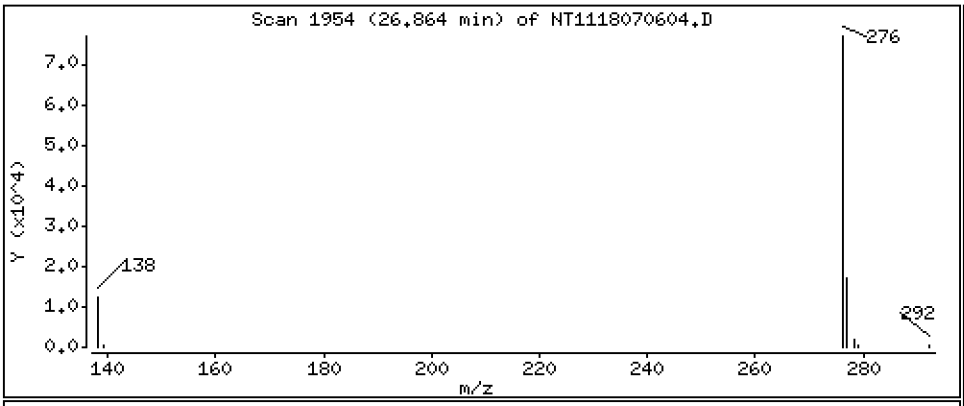
Operator: VTS

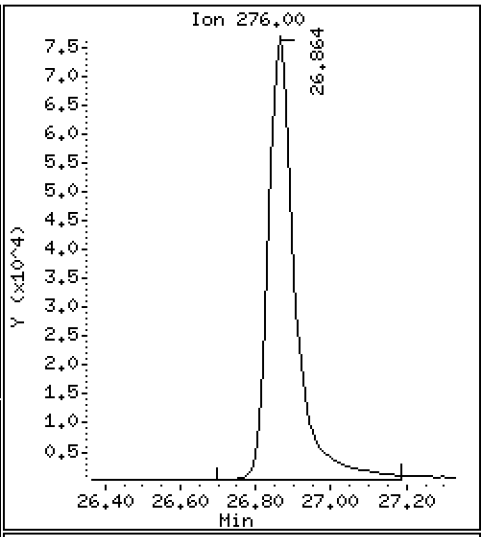
Column phase: Rxi-17Sil MS

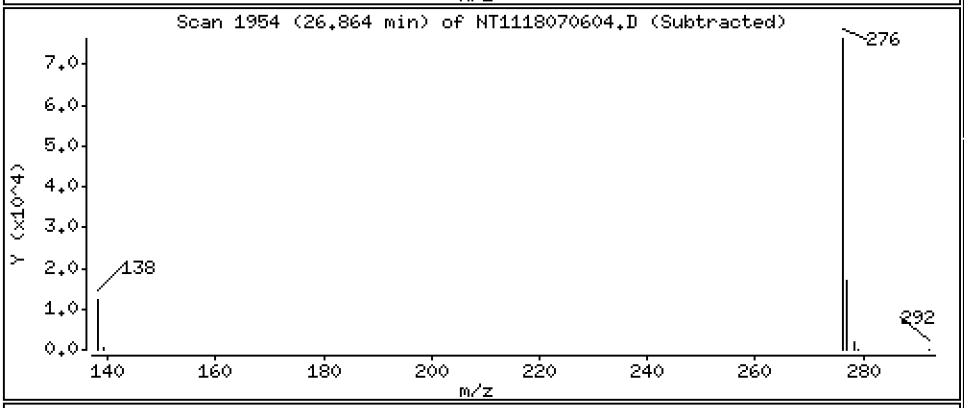
Column diameter: 0.25

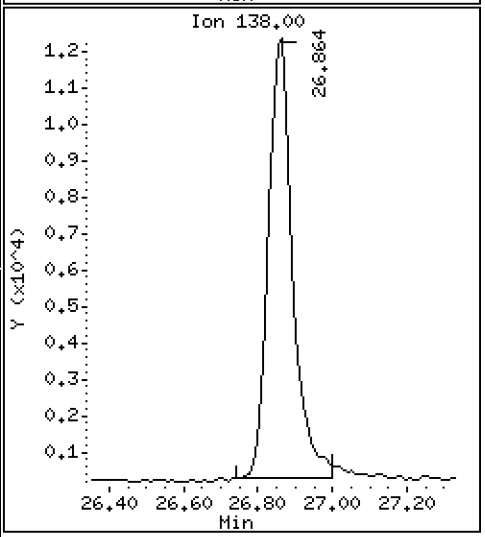
41 Benzo(g,h,i)perylene

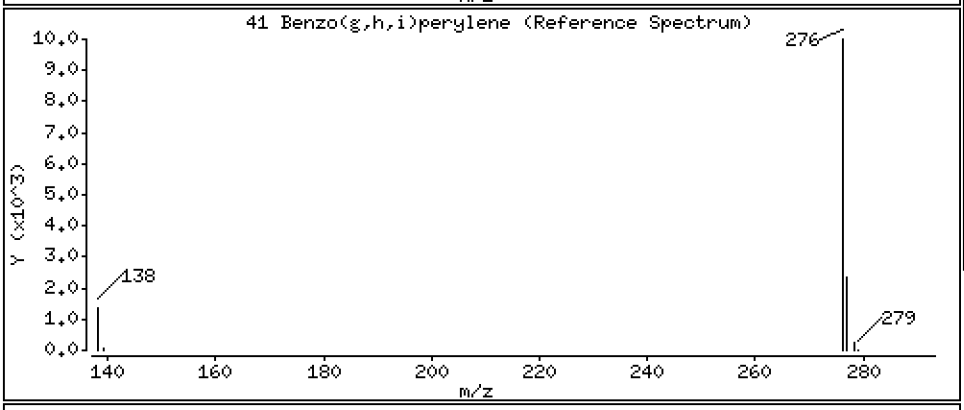
Concentration: 224 ng/mL

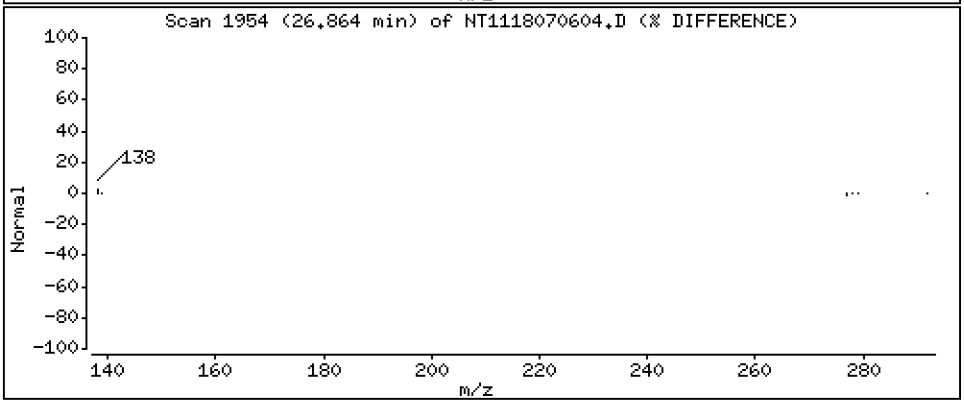












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180706.b\NT1118070604.D
Lab Smp Id: BGF0530-BS1
Inj Date : 06-JUL-2018 14:05 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : BGF0530-BS1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Meth Date : 06-Jul-2018 13:13 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	438406	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	499899	167.014	167
	3 Benzo(b)thiophene	134	8.897	8.897	(1.034)	443404	192.955	193
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	454030	181.512	182
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	513768	192.385	192
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	503594	189.611	190
	7 2-Chloronaphthalene	162	10.558	10.558	(0.907)	520315	210.011	210
	8 Biphenyl	154	10.527	10.527	(0.904)	667594	225.269	225
	9 2,6-Dimethylnaphthalene	156	10.579	10.579	(0.909)	506249	216.151	216
	10 Acenaphthylene	152	11.490	11.490	(0.987)	581530	205.213	205
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	238337	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	396982	204.818	205
	13 Dibenzofuran	168	11.908	11.908	(1.023)	552481	208.071	208
	14 2,3,5-Trimethylnaphthalene	170	11.996	11.996	(1.030)	351293	206.733	207
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.539	12.540	(1.077)	433337	202.379	202
	17 Dibenzothiophene	184	14.172	14.172	(0.988)	513902	209.203	209
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	394472	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	675616	218.375	218
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.435	14.435	(1.007)	568051	196.401	196
	22 Carbazole	167	15.112	15.113	(1.054)	746752	221.624	222
	23 1-Methylphenanthrene	192	15.384	15.384	(1.073)	715259	244.682	245
$	24 Fluoranthene-d10	212	16.449	16.449	(1.147)	514657	214.937	215
	25 Fluoranthene	202	16.487	16.487	(1.150)	697936	242.921	243
	26 Pyrene	202	16.987	16.987	(0.890)	698166	227.177	227
	27 Benzo(a)anthracene	228	19.004	19.004	(0.995)	552860	230.658	231
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	312605	200.000	
	29 Chrysene	228	19.145	19.145	(1.003)	597316	250.883	251
	30 Benzo(b)fluoranthene	252	21.104	21.104	(0.944)	450434	207.491	207
	31 Benzo(k)fluoranthene	252	21.152	21.152	(0.946)	529548	235.240	235
	32 Benzo(j)fluoranthene	252	21.229	21.229	(0.950)	546294	266.633	267
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	21.978	21.978	(0.983)	474773	226.747	227

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	35 Benzo(a)pyrene	252	22.113	22.113	(0.989)	379140	198.800	199
*	36 Perylene-d12	264	22.353	22.353	(1.000)	306914	200.000	
	37 Perylene	252	22.430	22.430	(1.003)	414002	206.840	207
$	38 Dibenzo(a,h)anthracene-d14	292	25.279	25.279	(1.131)	286875	195.326	195
	39 Dibenzo(a,h)anthracene	278	25.412	25.423	(1.137)	349458	210.595	211
	40 Indeno(1,2,3-cd)pyrene	276	25.457	25.457	(1.139)	436448	220.009	220
	41 Benzo(g,h,i)perylene	276	26.863	26.863	(1.202)	383892	223.728	224

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118070604.D
Lab Smp Id: BGF0530-BS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Misc Info:

Calibration Date: 06-JUL-2018
Calibration Time: 12:50
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	438406	1.64
11 Acenaphthene-d10	260137	130069	520274	238337	-8.38
18 Phenanthrene-d10	427391	213696	854782	394472	-7.70
28 Chrysene-d12	304596	152298	609192	312605	2.63
36 Perylene-d12	263091	131546	526182	306914	16.66

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118070604.D

Lab ID: BGF0530-BS1
nt11.i, 20180706.b\LOWSIM.m,   06-JUL-2018 14:05

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180706.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

MS / MS DUPLICATE RECOVERY
EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/23/18 17:37
Batch:	BGF0416	Laboratory ID:	BGF0416-MS1
Preparation:	EPA 3510C SepF	Sequence Name:	Matrix Spike
Initial/Final:	500 mL / 0.5 mL	Source Sample:	LDW18-SP-43

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	Q	MS CONCENTRATION (ug/L)	Q	MS % REC. #	QC LIMITS REC.
Naphthalene	0.300	ND	U	0.123		41.1	30 - 160
2-Methylnaphthalene	0.300	0.001	J	0.140		46.4	30 - 160
Acenaphthylene	0.300	ND	U	0.151		50.3	30 - 160
Acenaphthene	0.300	ND	U	0.146		48.7	30 - 160
Fluorene	0.300	ND	U	0.156		52.1	30 - 160
Phenanthrene	0.300	ND	U	0.167		55.7	30 - 160
Anthracene	0.300	ND	U	0.163		54.2	30 - 160
Fluoranthene	0.300	ND	U	0.182		60.6	30 - 160
Pyrene	0.300	ND	U	0.166		55.2	30 - 160
Benzo(a)anthracene	0.300	ND	U	0.176		58.6	30 - 160
Chrysene	0.300	ND	U	0.182		60.7	30 - 160
Benzo(b)fluoranthene	0.300	ND	U	0.163		54.5	30 - 160
Benzo(k)fluoranthene	0.300	ND	U	0.168		55.9	30 - 160
Benzo(j)fluoranthene	0.300	ND	U	0.179		59.6	30 - 160
Benzo(a)pyrene	0.300	ND	U	0.166		55.3	30 - 160
Indeno(1,2,3-cd)pyrene	0.300	ND	U	0.168		56.1	30 - 160
Dibenzo(a,h)anthracene	0.300	ND	U	0.169		56.2	30 - 160
Benzo(g,h,i)perylene	0.300	ND	U	0.167		55.7	30 - 160

* Values outside of QC limits

MS / MS DUPLICATE RECOVERY
EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/23/18 18:13
Batch:	BGF0416	Laboratory ID:	BGF0416-MSD1
Preparation:	EPA 3510C SepF	Sequence Name:	Matrix Spike Dup
Initial/Final:	500 mL / 0.5 mL	Source Sample:	LDW18-SP-43

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	Q	MSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Naphthalene	0.300	0.169		56.3	31.2 *	30	30 - 160
2-Methylnaphthalene	0.300	0.192		63.5	31.0 *	30	30 - 160
Acenaphthylene	0.300	0.199		66.4	27.7	30	30 - 160
Acenaphthene	0.300	0.196		65.4	29.2	30	30 - 160
Fluorene	0.300	0.197		65.7	23.1	30	30 - 160
Phenanthrene	0.300	0.209		69.7	22.2	30	30 - 160
Anthracene	0.300	0.191		63.8	16.3	30	30 - 160
Fluoranthene	0.300	0.227		75.8	22.4	30	30 - 160
Pyrene	0.300	0.221		73.6	28.6	30	30 - 160
Benzo(a)anthracene	0.300	0.225		74.9	24.4	30	30 - 160
Chrysene	0.300	0.236		78.6	25.6	30	30 - 160
Benzo(b)fluoranthene	0.300	0.215		71.6	27.1	30	30 - 160
Benzo(k)fluoranthene	0.300	0.220		73.4	27.0	30	30 - 160
Benzo(j)fluoranthene	0.300	0.234		78.0	26.8	30	30 - 160
Benzo(a)pyrene	0.300	0.201		67.0	19.1	30	30 - 160
Indeno(1,2,3-cd)pyrene	0.300	0.225		75.0	28.9	30	30 - 160
Dibenzo(a,h)anthracene	0.300	0.226		75.3	29.0	30	30 - 160
Benzo(g,h,i)perylene	0.300	0.219		73.1	26.9	30	30 - 160

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062312.D

Date : 23-JUN-2018 17:37

Client ID:

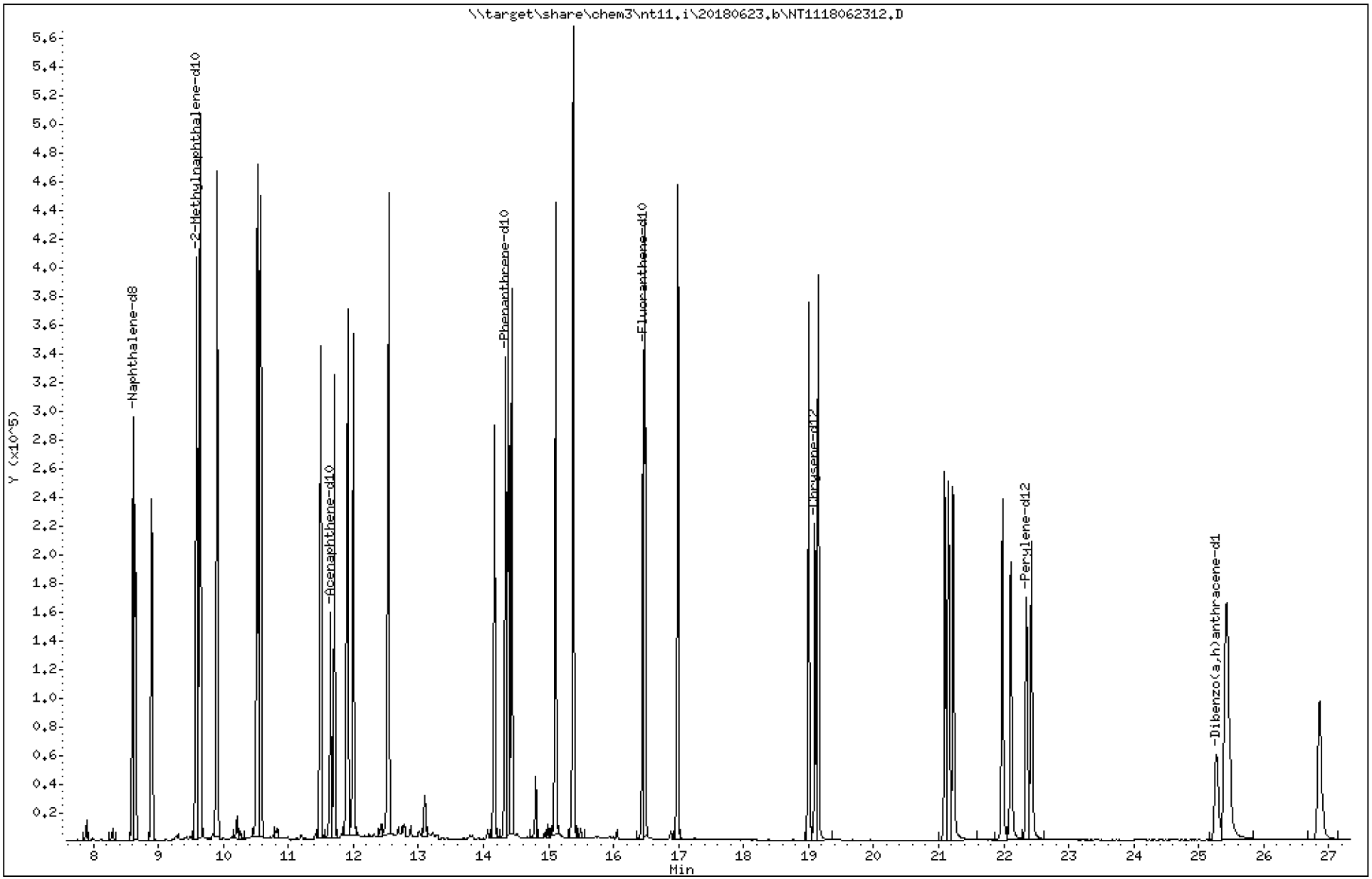
Instrument: nt11.i

Sample Info: BGF0416-MS1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

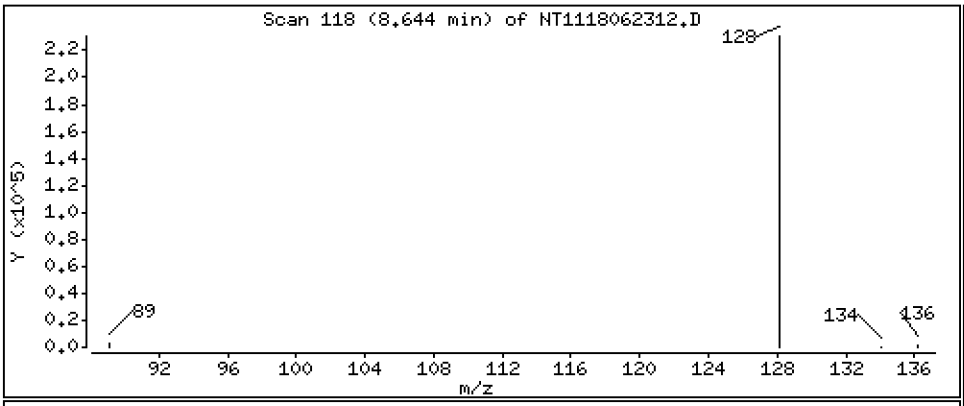
Operator: VTS

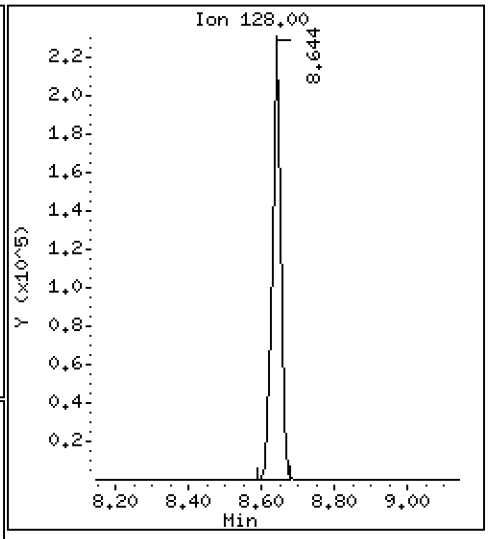
Column phase: Rxi-17Sil MS

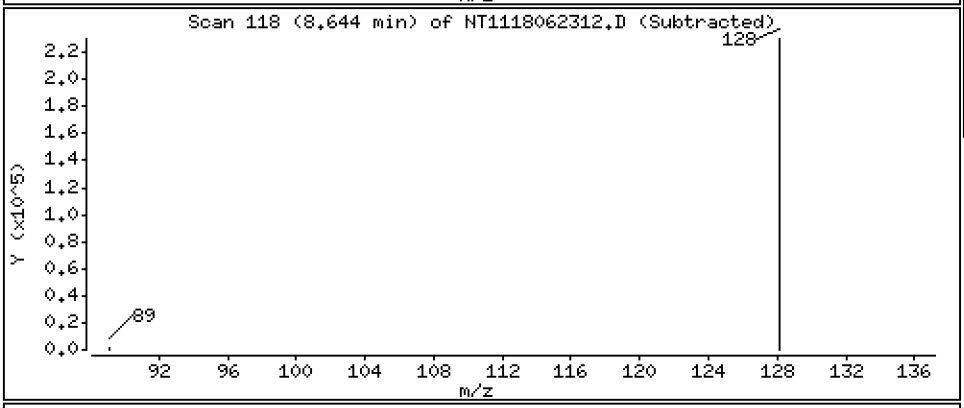
Column diameter: 0.25

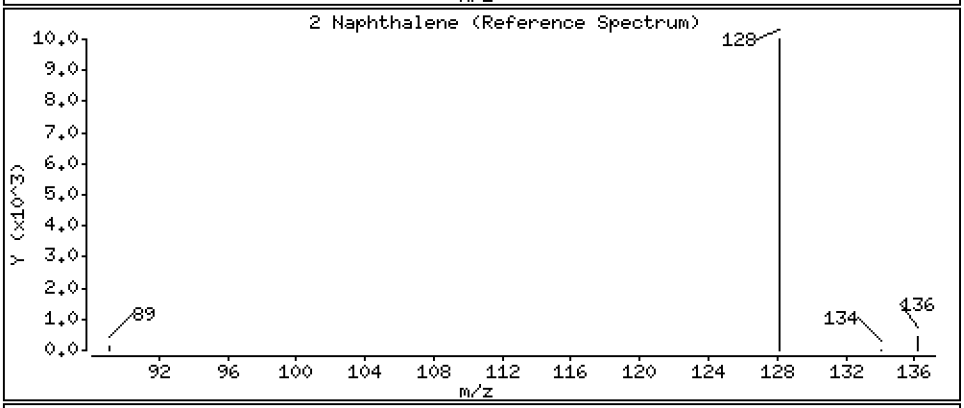
2 Naphthalene

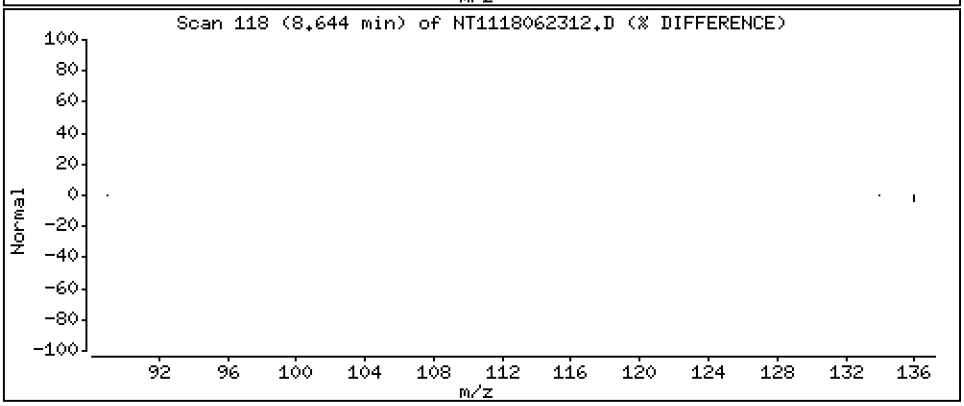
Concentration: 123 ng/mL











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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

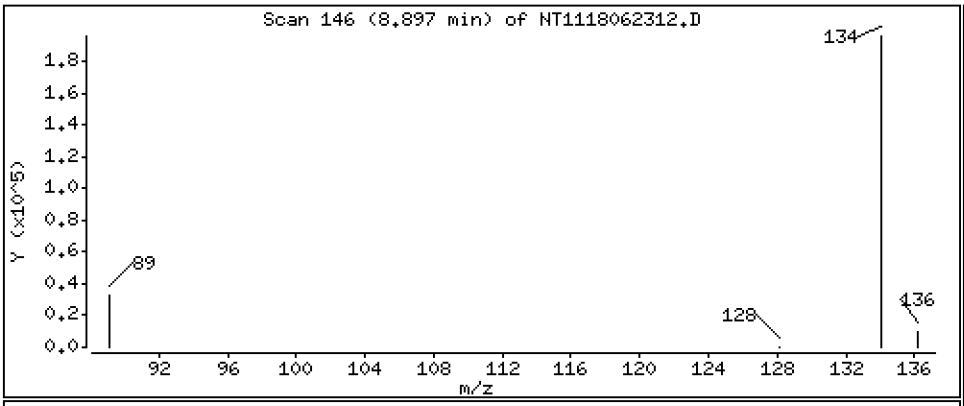
Operator: VTS

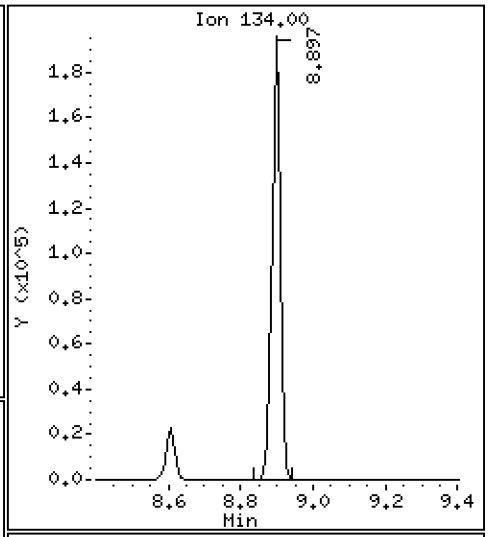
Column phase: Rxi-17Sil MS

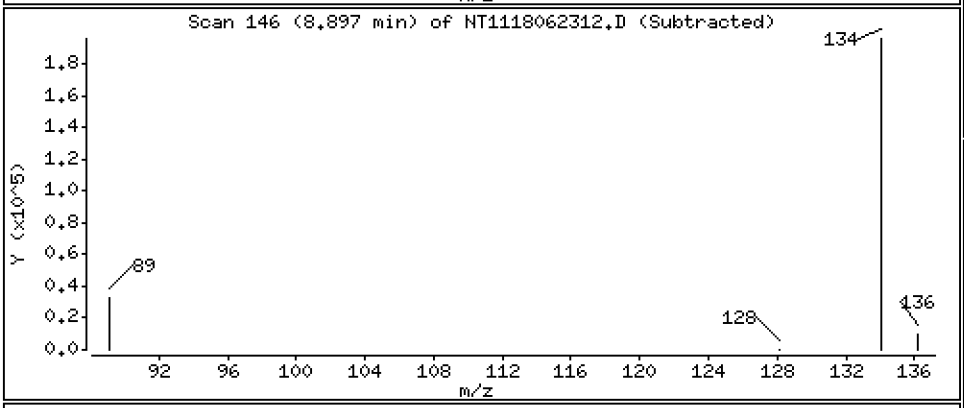
Column diameter: 0.25

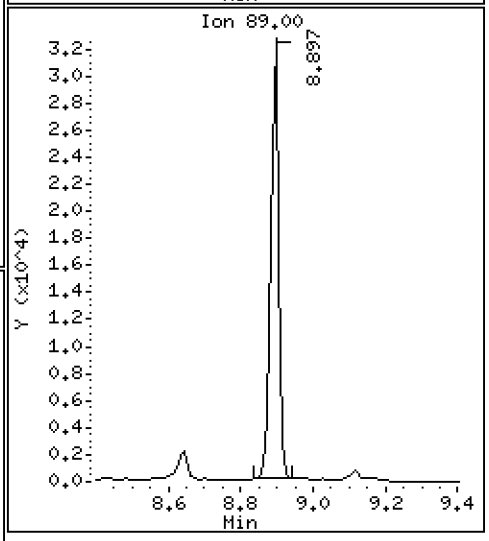
3 Benzo(b)thiophene

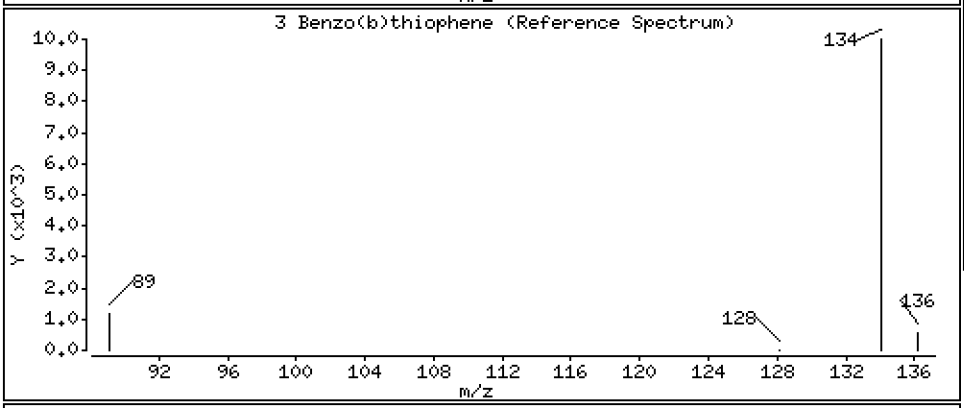
Concentration: 143 ng/mL

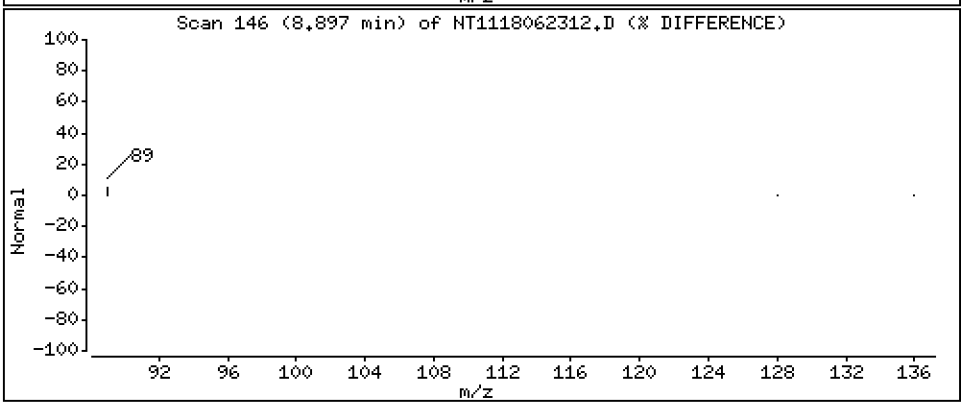












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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

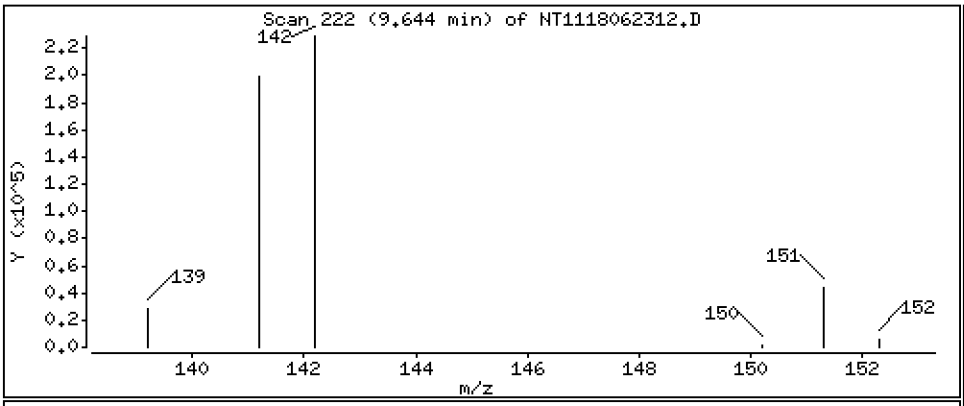
Operator: VTS

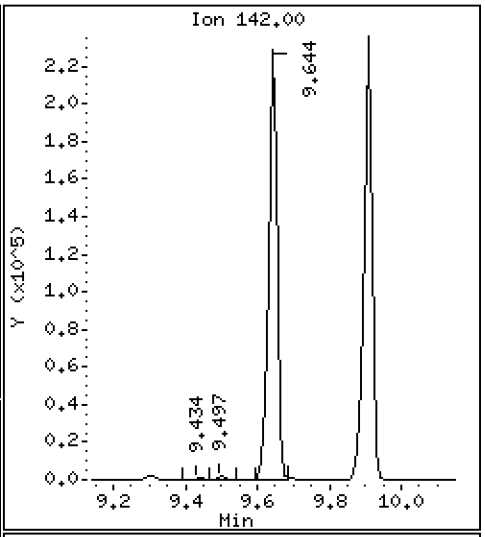
Column phase: Rxi-17Sil MS

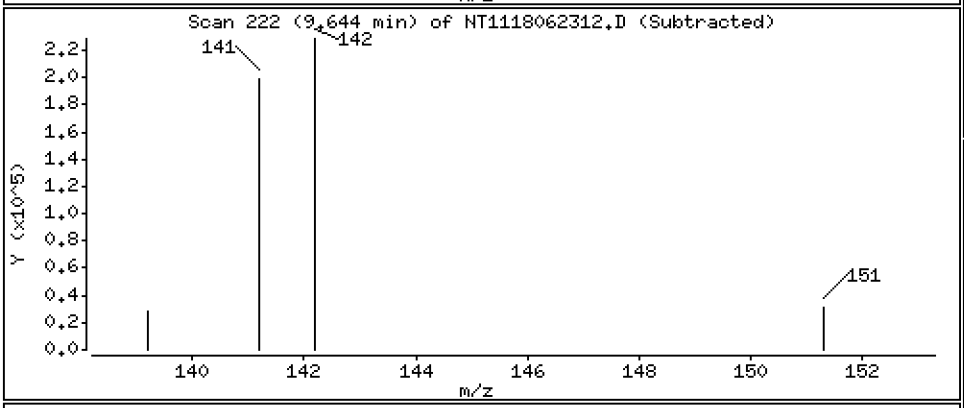
Column diameter: 0.25

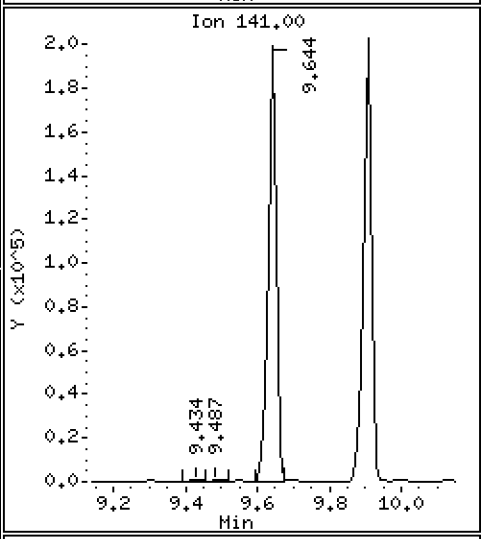
5 2-Methylnaphthalene

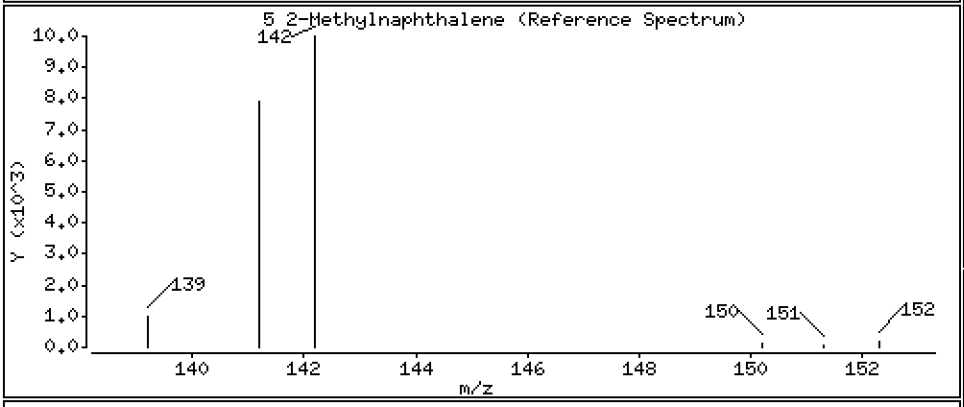
Concentration: 140 ng/mL

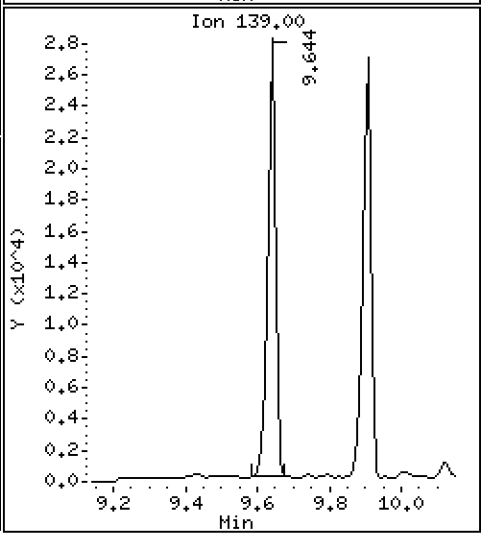


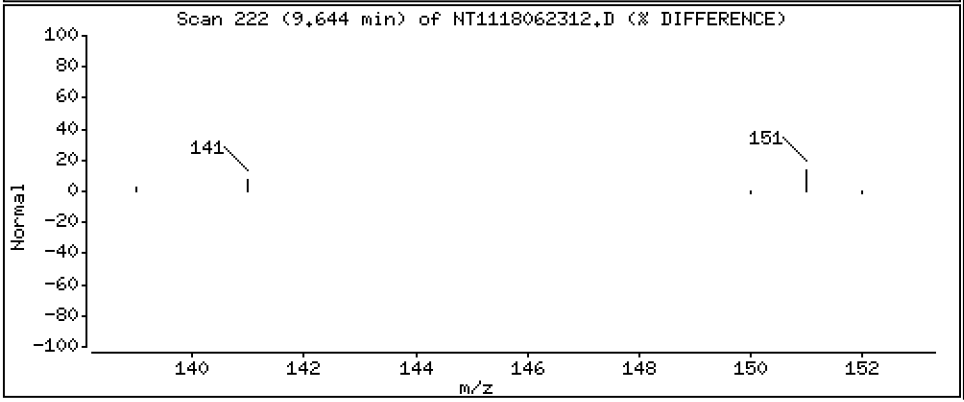












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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

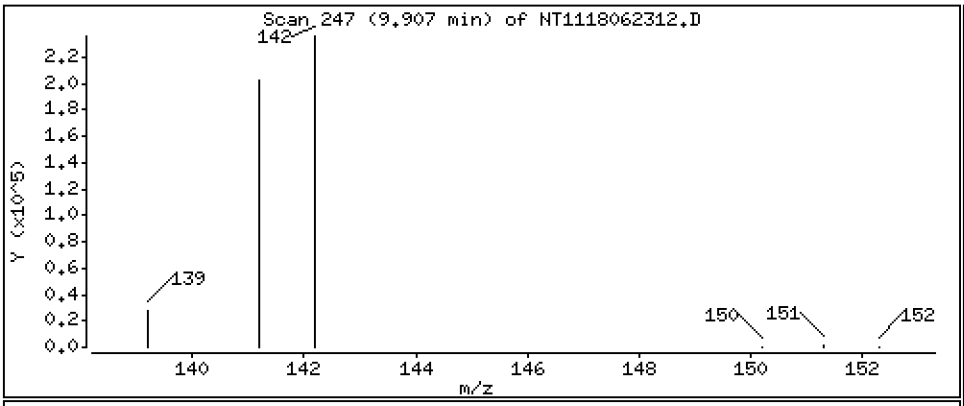
Operator: VTS

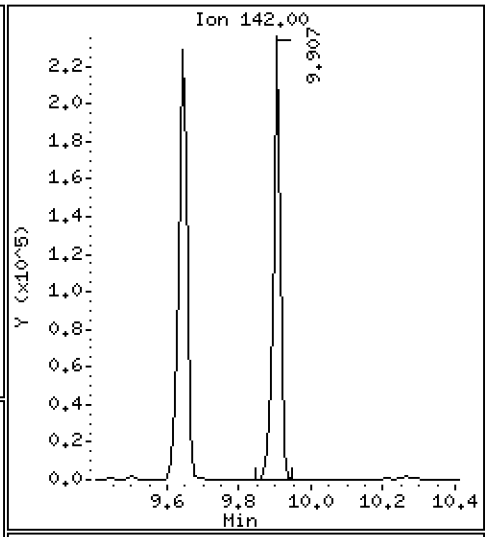
Column phase: Rxi-17Sil MS

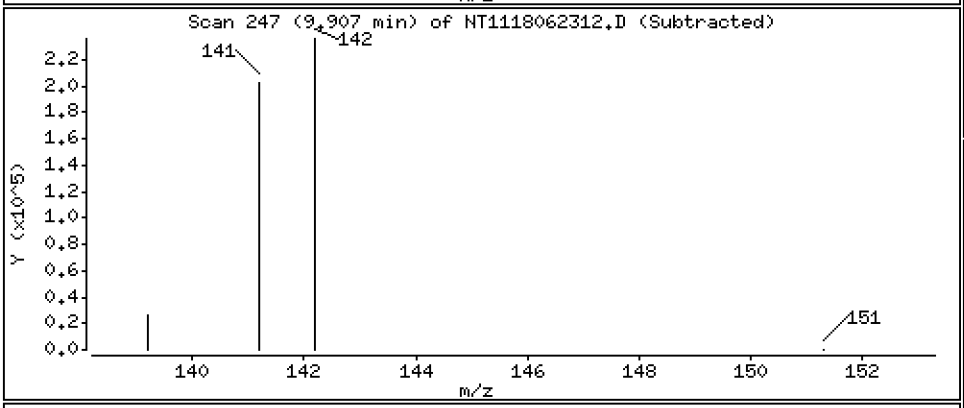
Column diameter: 0.25

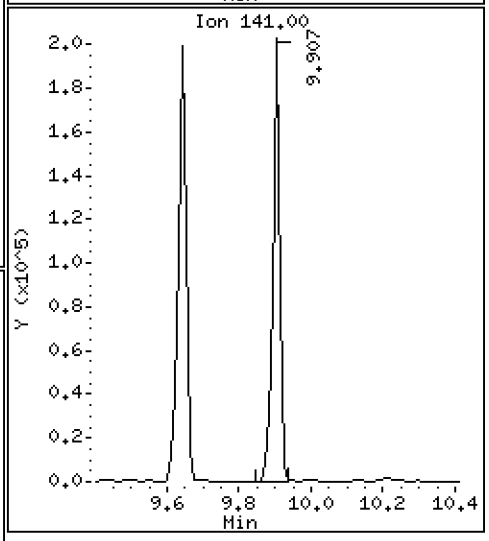
6 1-Methylnaphthalene

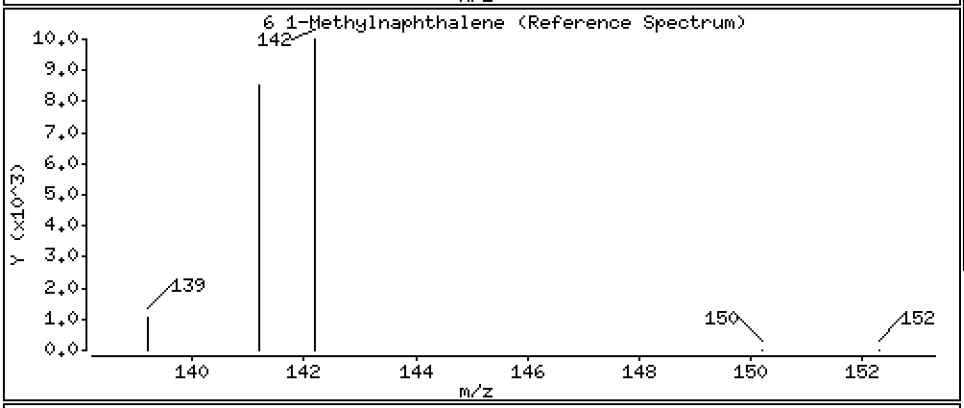
Concentration: 139 ng/mL

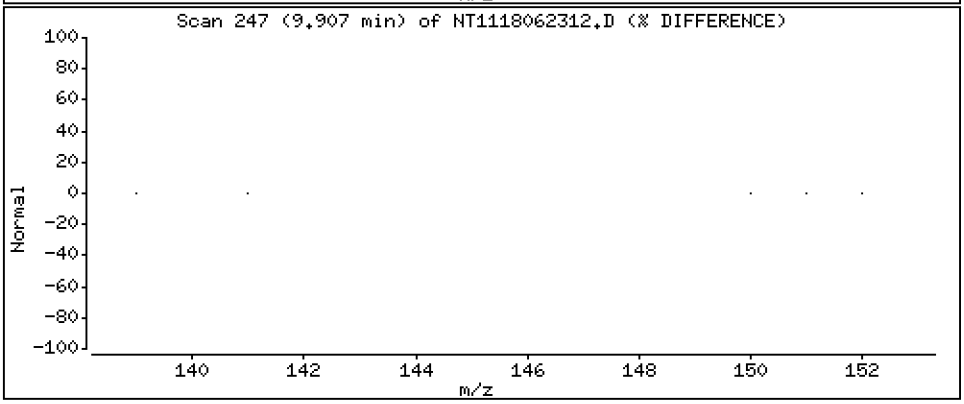












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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

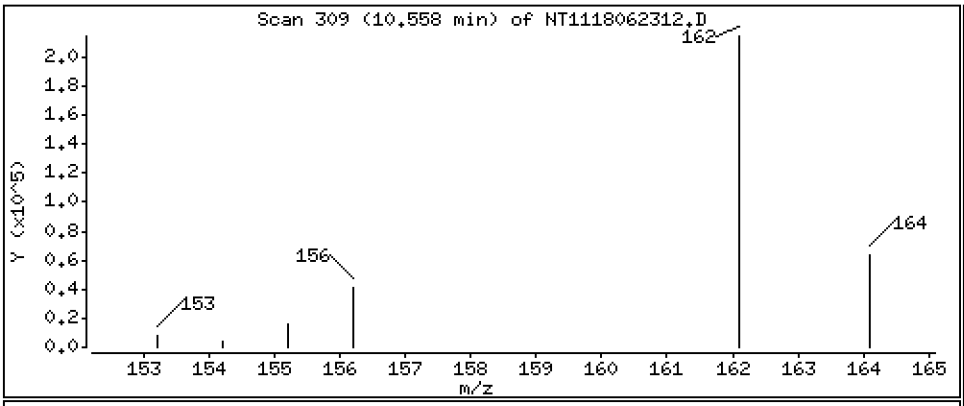
Operator: VTS

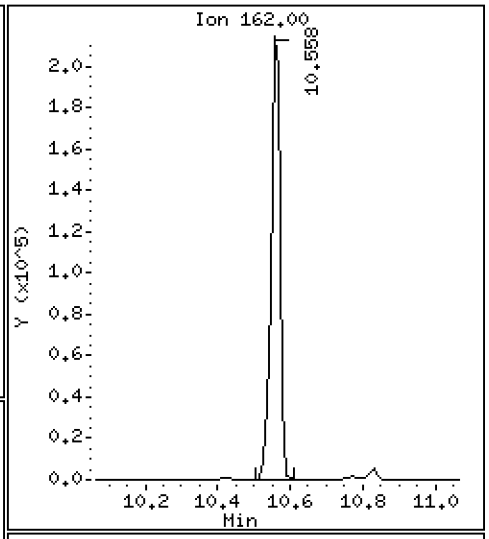
Column phase: Rxi-17Sil MS

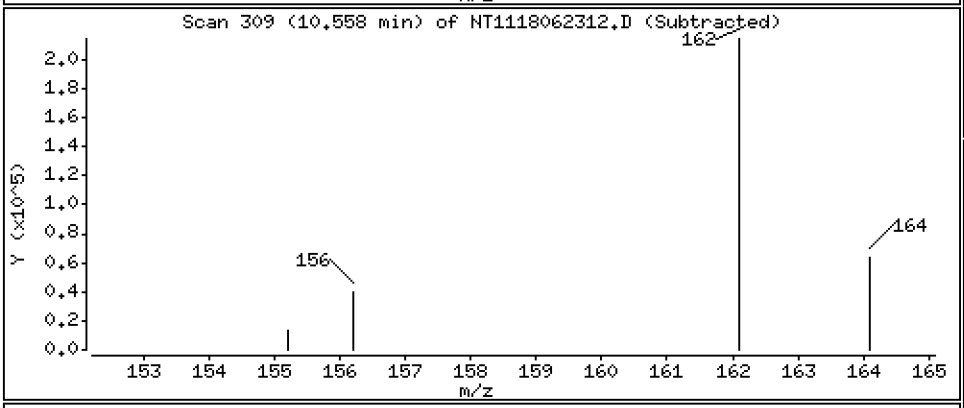
Column diameter: 0.25

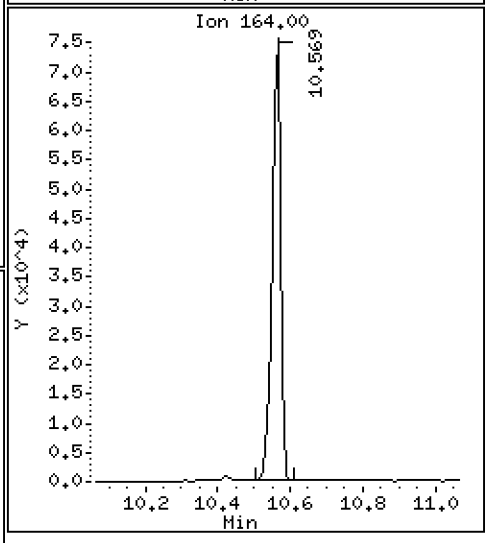
7 2-Chloronaphthalene

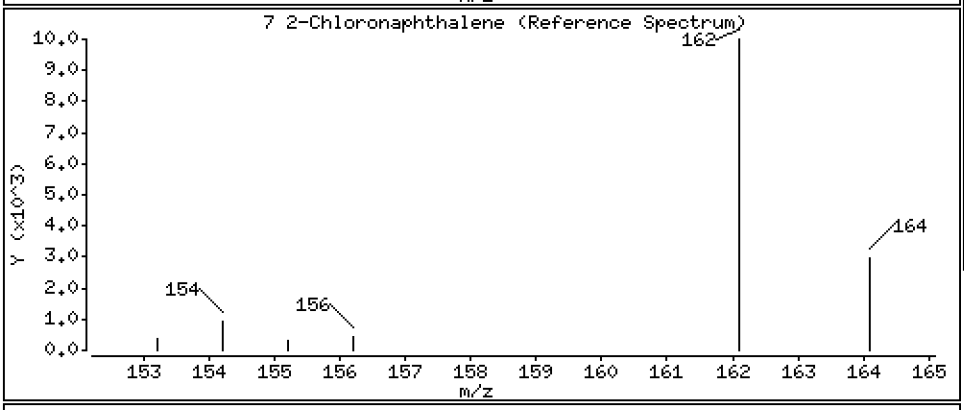
Concentration: 148 ng/mL

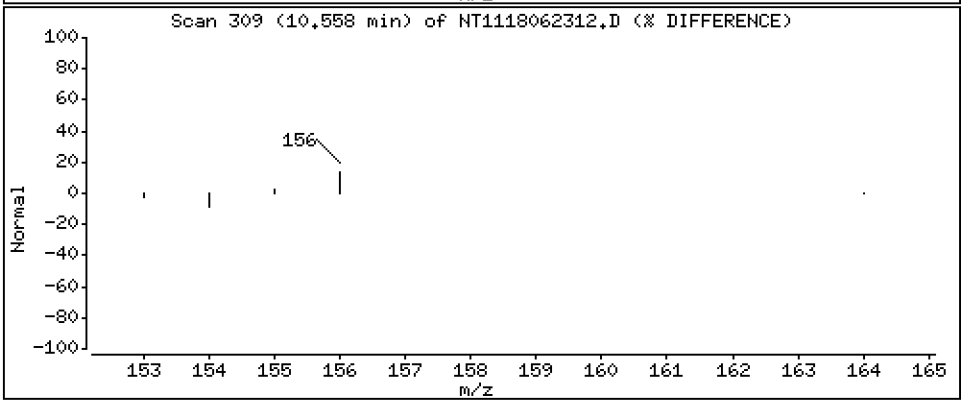












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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

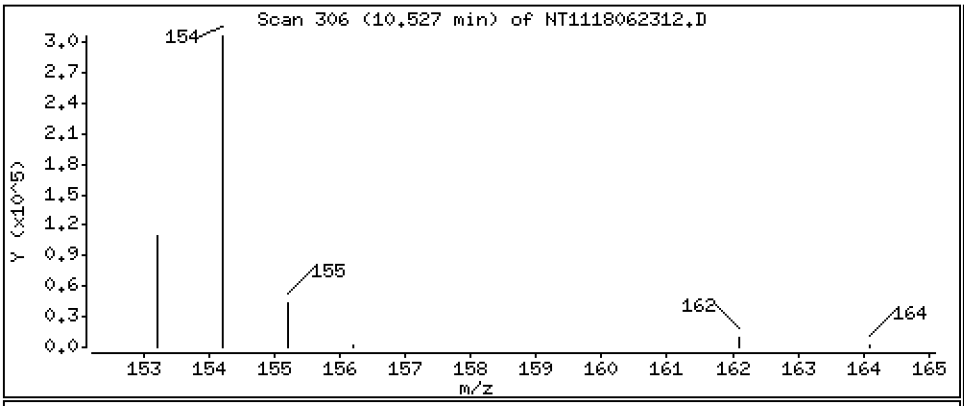
Operator: VTS

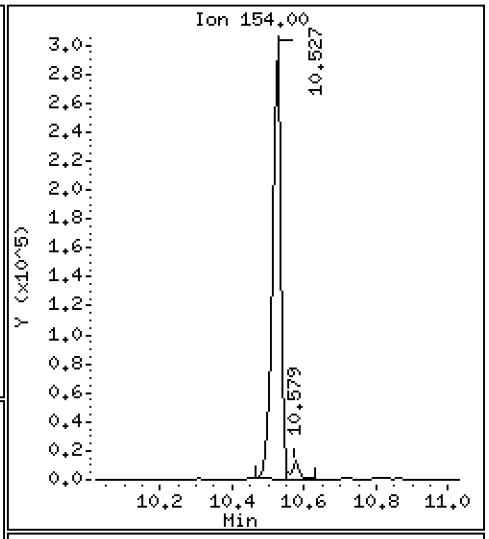
Column phase: Rxi-17Sil MS

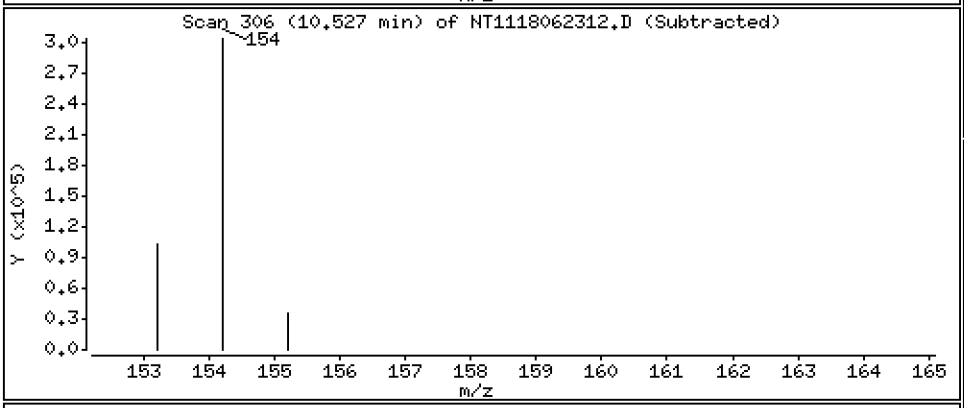
Column diameter: 0.25

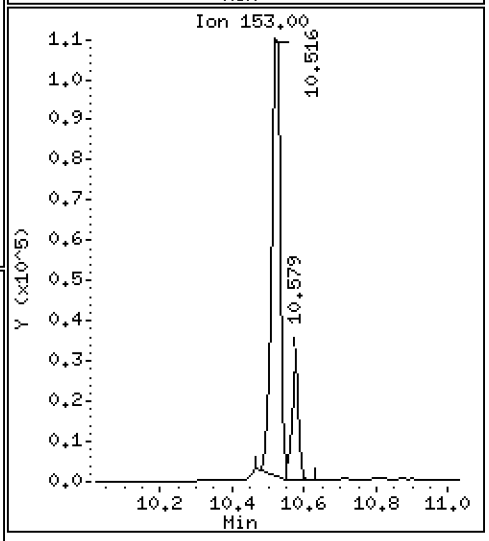
8 Biphenyl

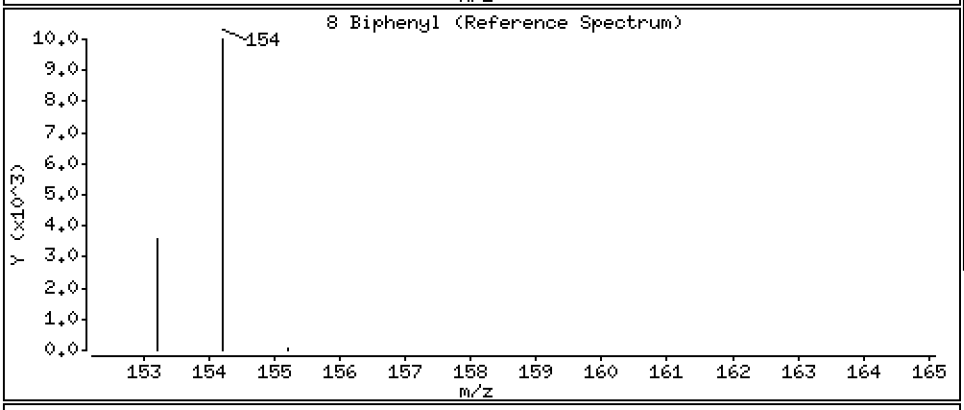
Concentration: 159 ng/mL

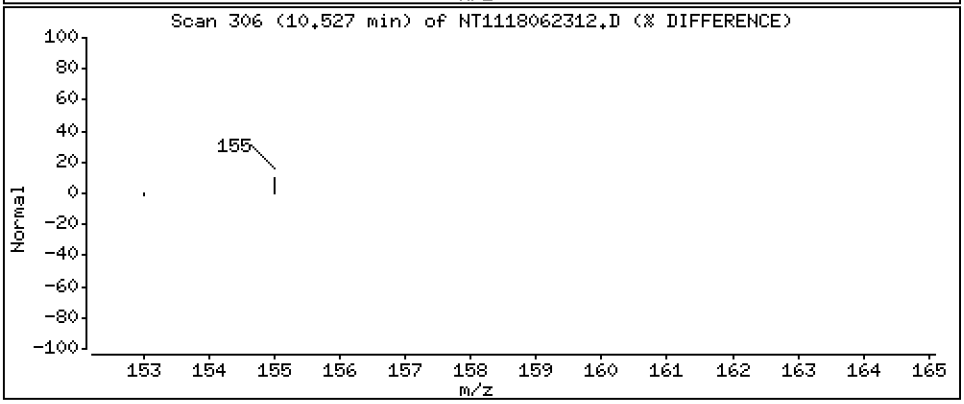












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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

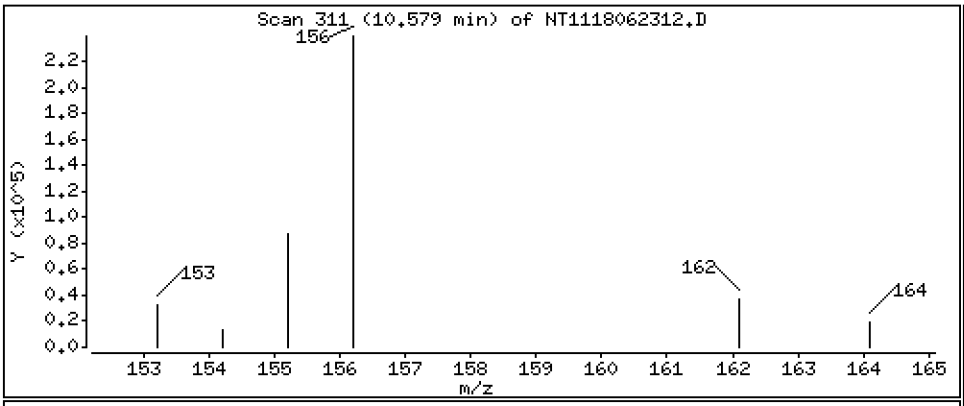
Operator: VTS

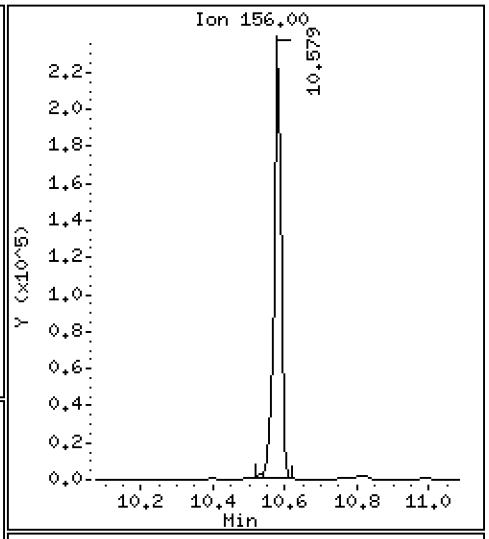
Column phase: Rxi-17Sil MS

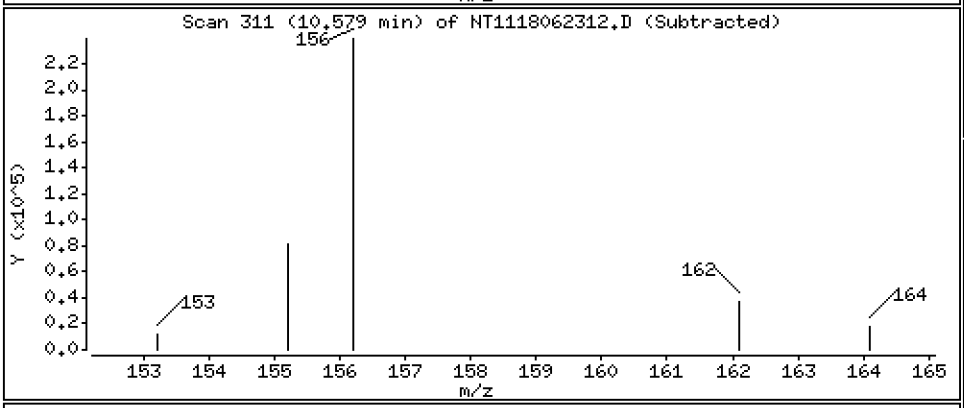
Column diameter: 0.25

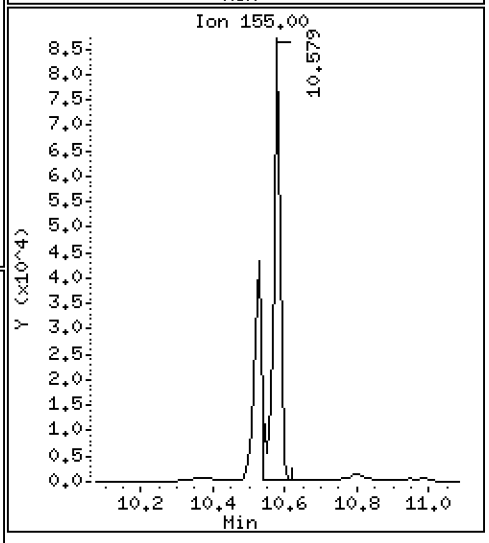
9 2,6-Dimethylnaphthalene

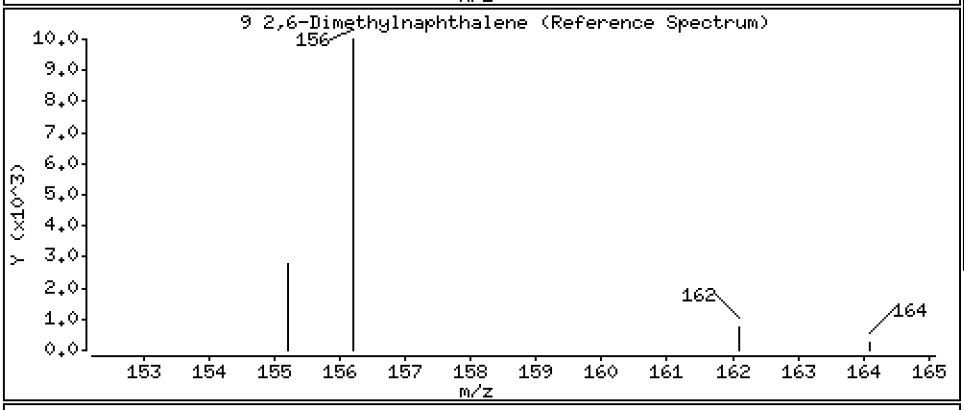
Concentration: 158 ng/mL

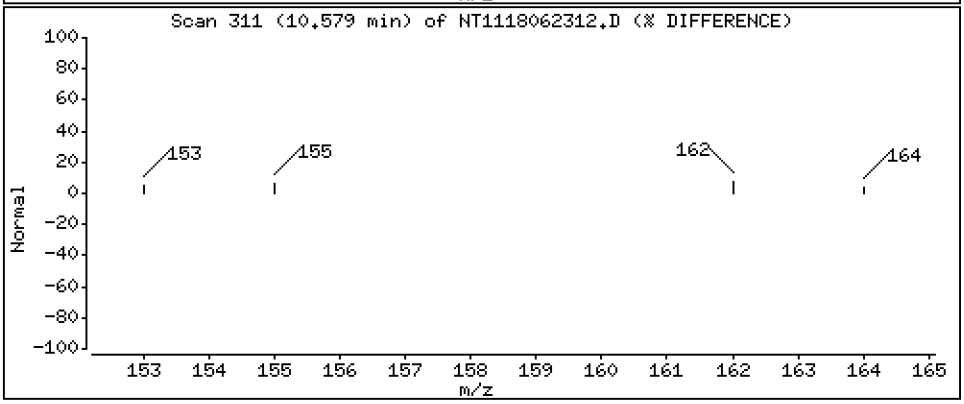












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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

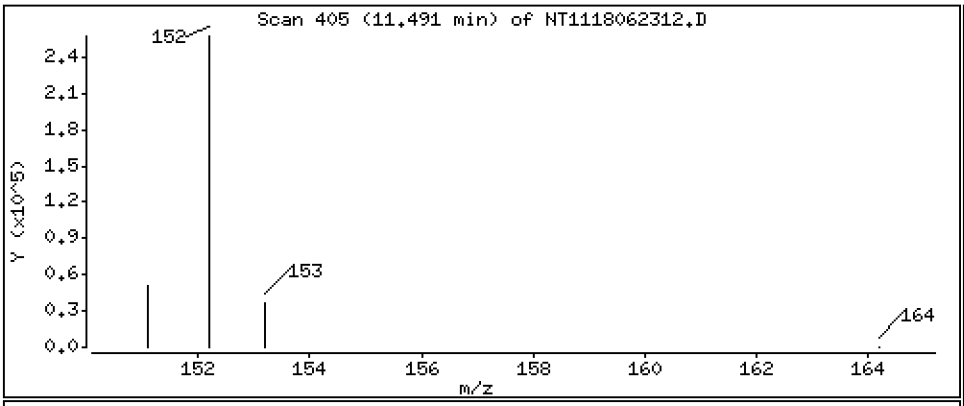
Operator: VTS

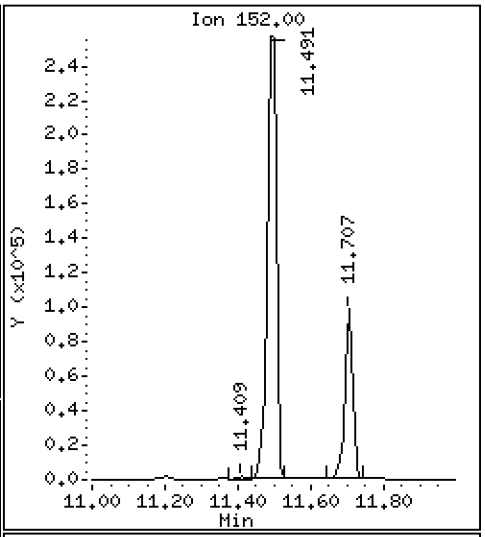
Column phase: Rxi-17Sil MS

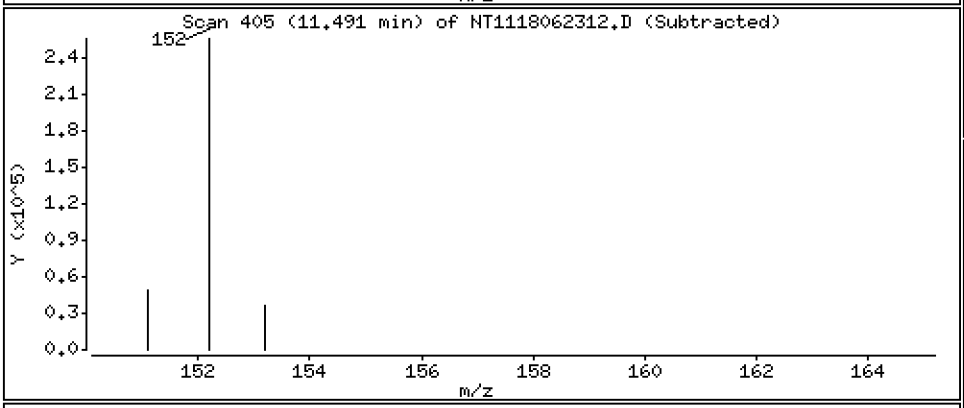
Column diameter: 0.25

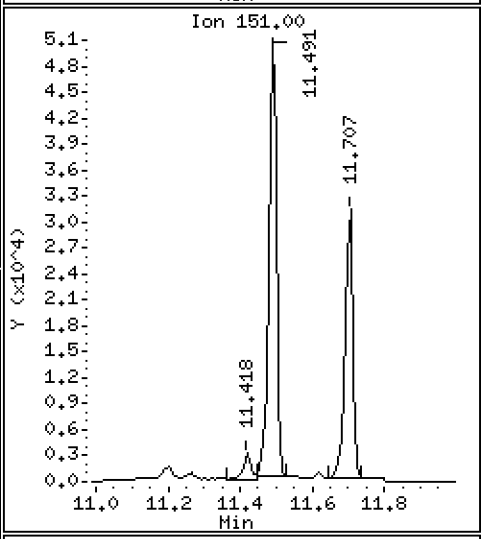
10 Acenaphthylene

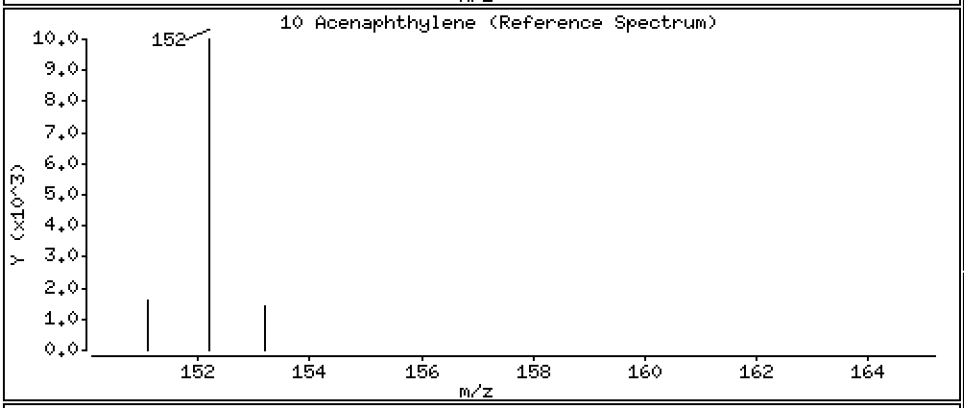
Concentration: 151 ng/mL

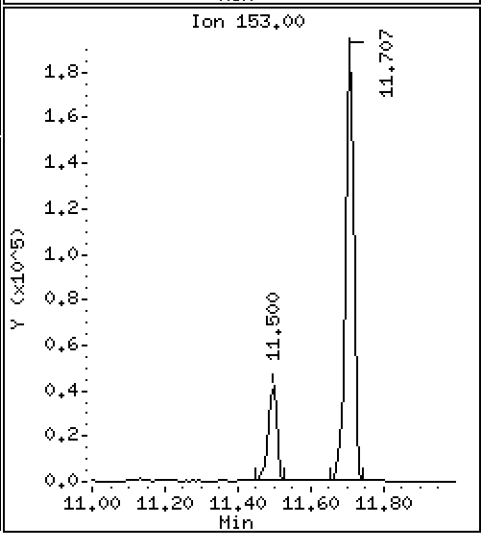


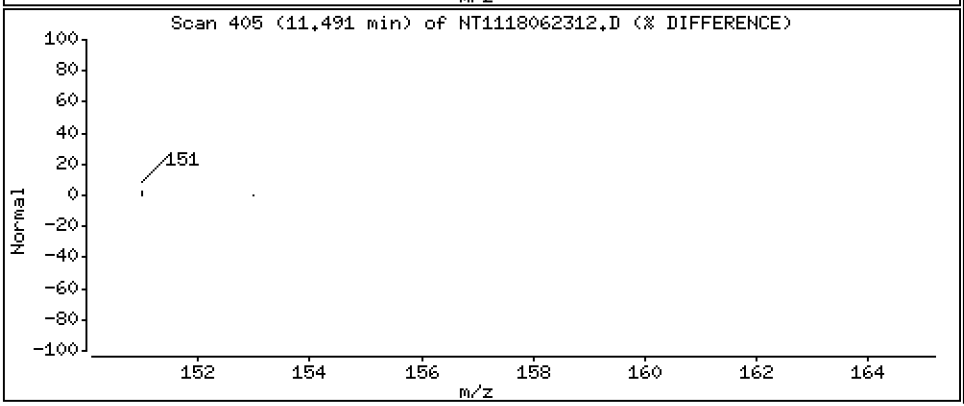












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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

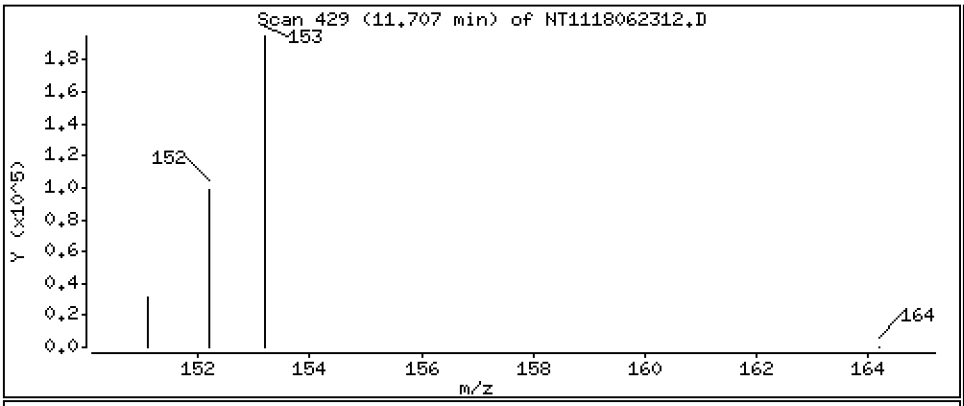
Operator: VTS

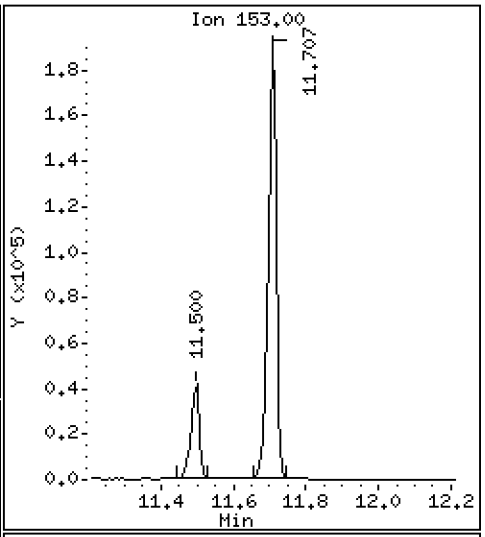
Column phase: Rxi-17Sil MS

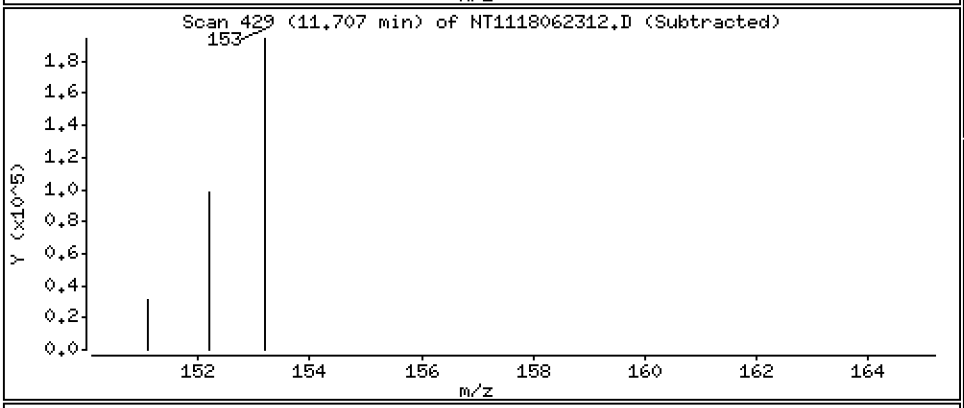
Column diameter: 0.25

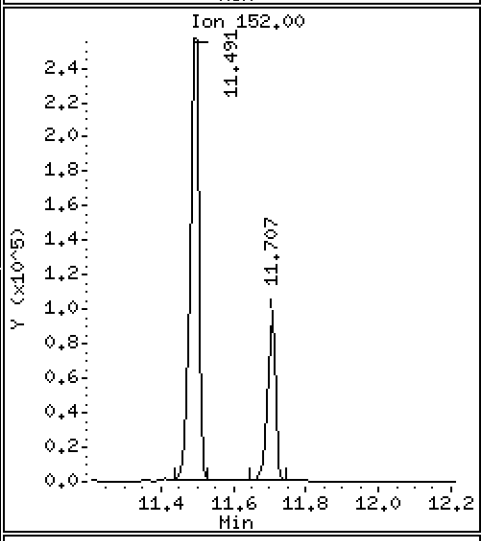
12 Acenaphthene

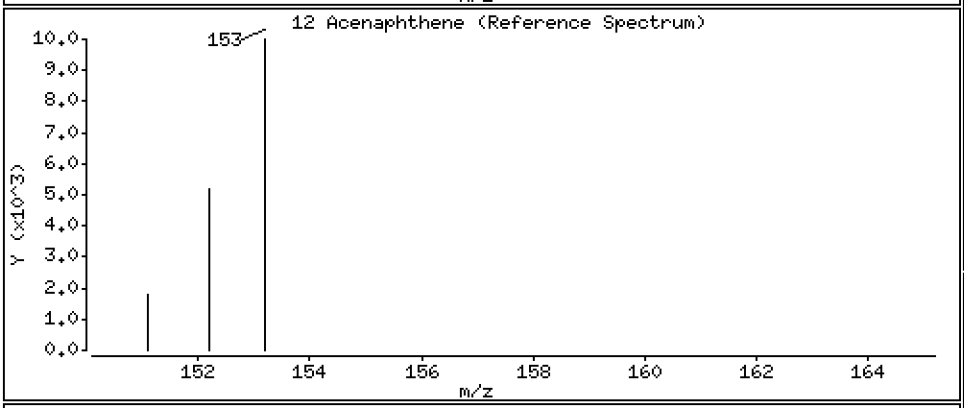
Concentration: 146 ng/mL

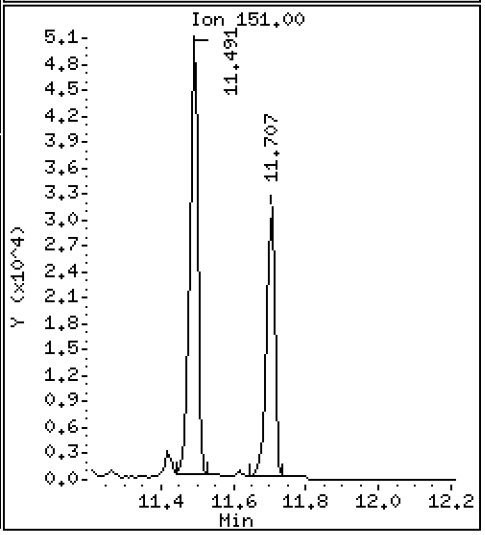


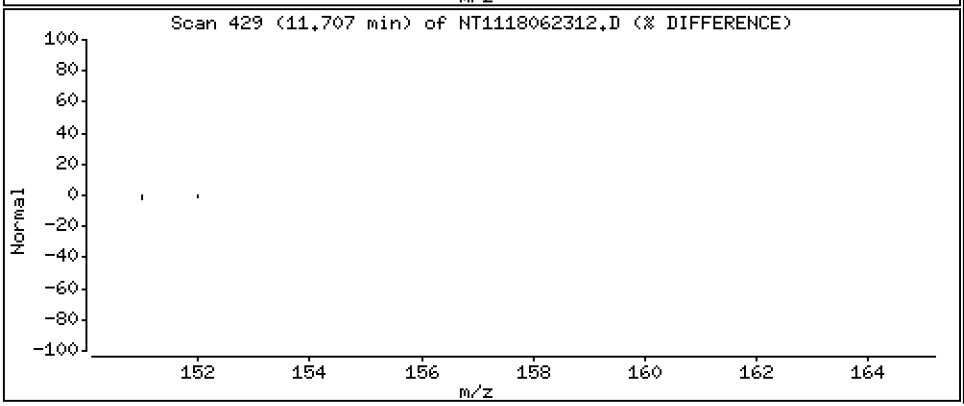












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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

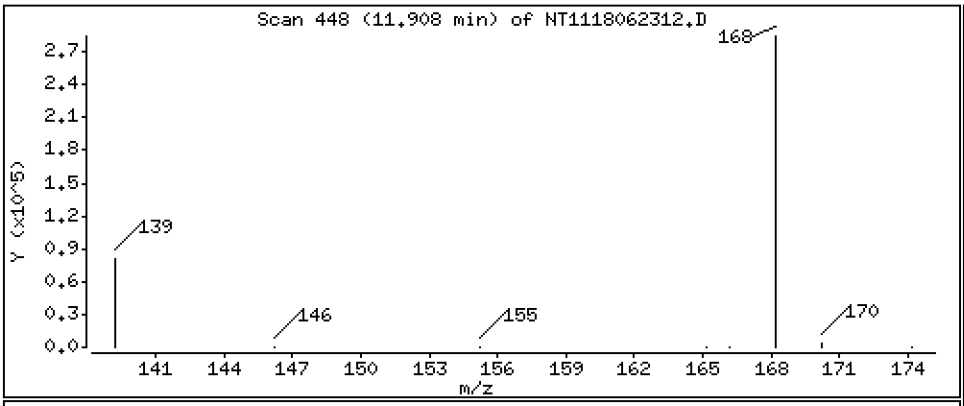
Operator: VTS

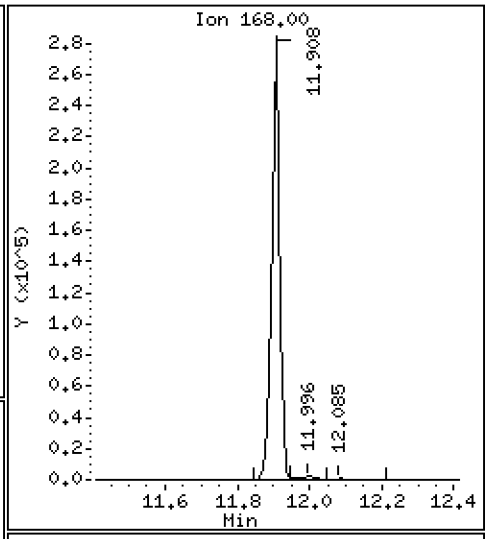
Column phase: Rxi-17Sil MS

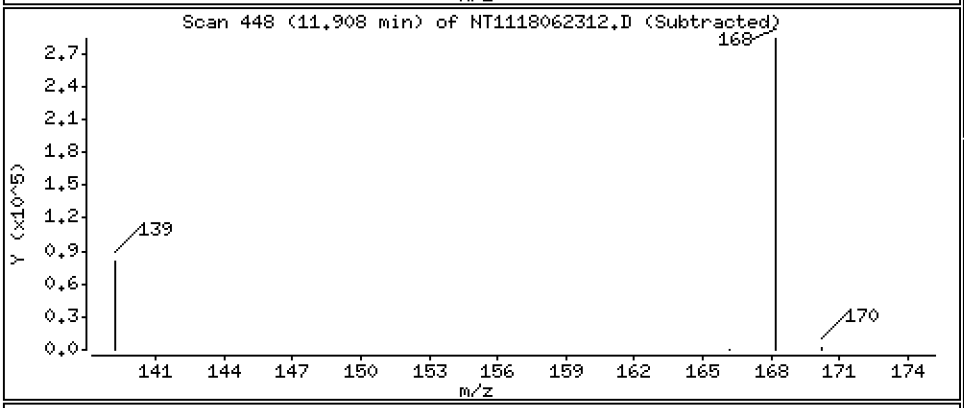
Column diameter: 0.25

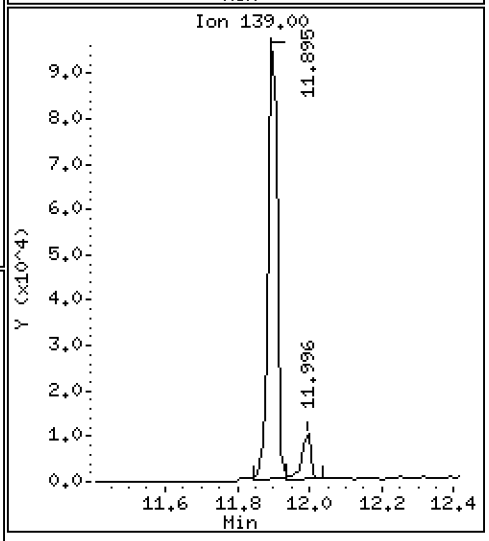
13 Dibenzofuran

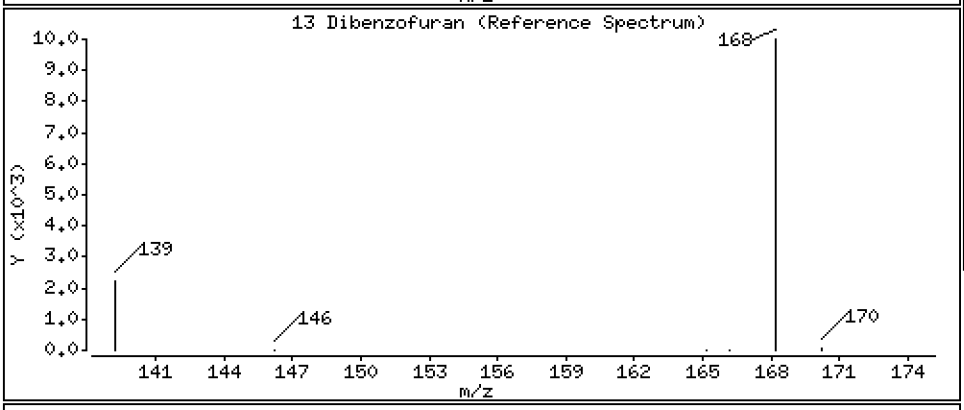
Concentration: 153 ng/mL

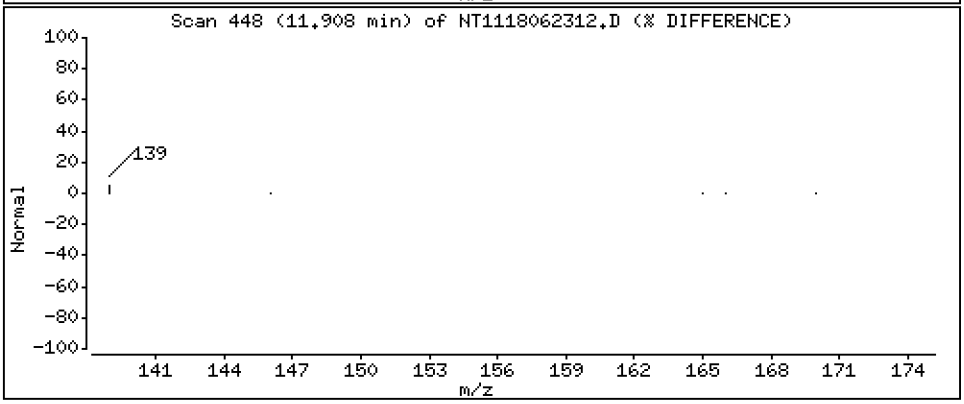












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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

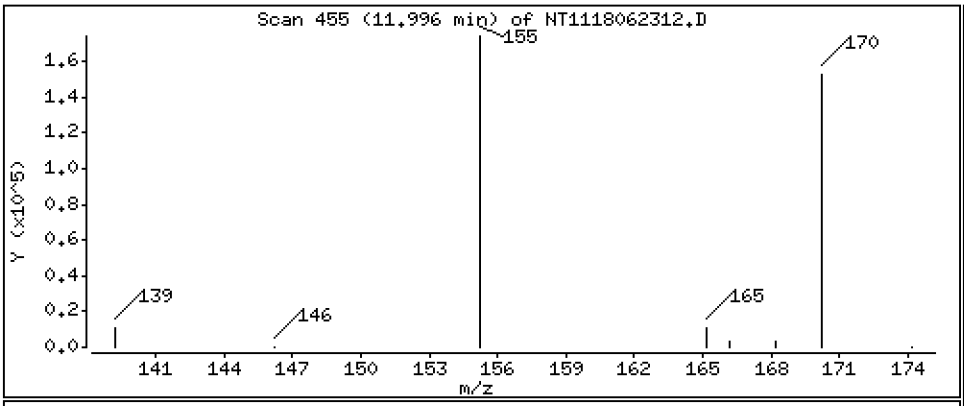
Operator: VTS

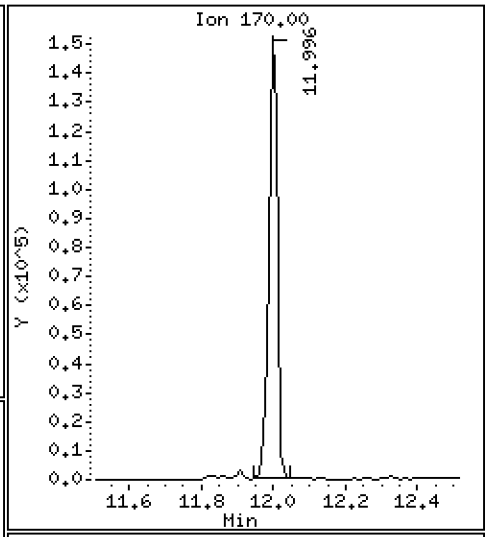
Column phase: Rxi-17Sil MS

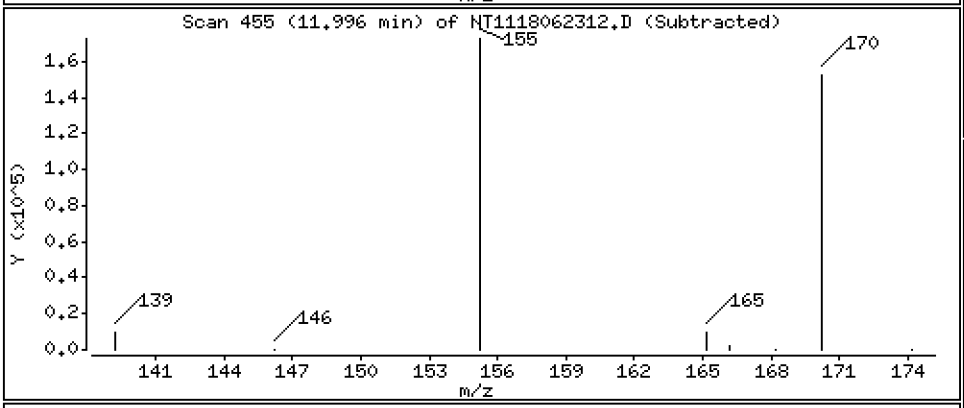
Column diameter: 0.25

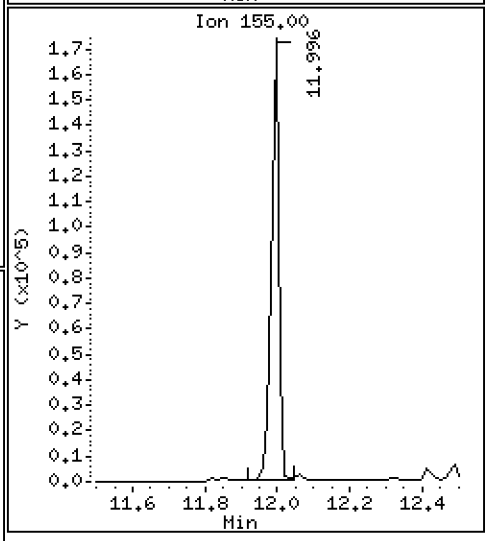
14 2,3,5-Trimethylnaphthalene

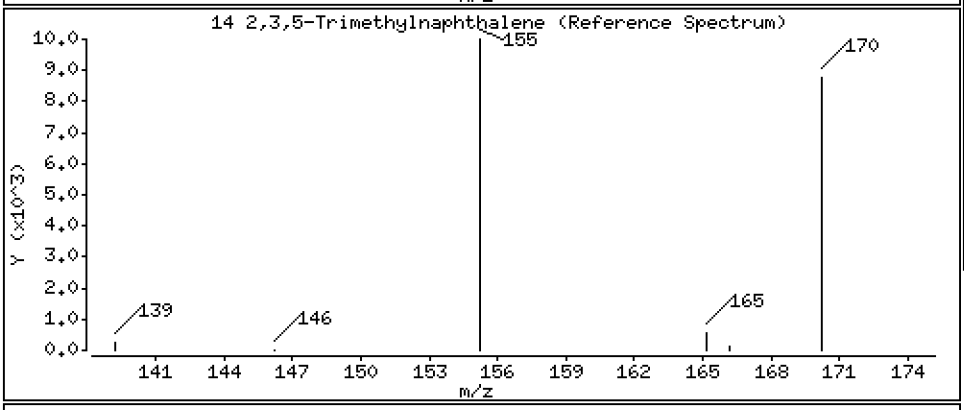
Concentration: 155 ng/mL

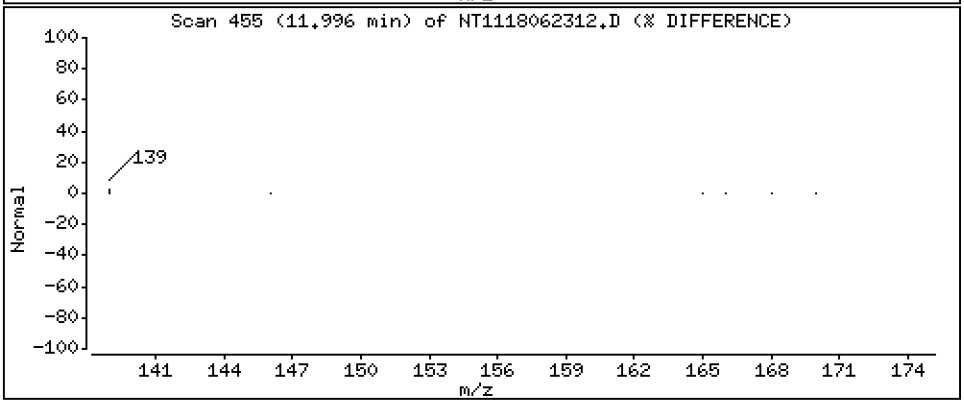












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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

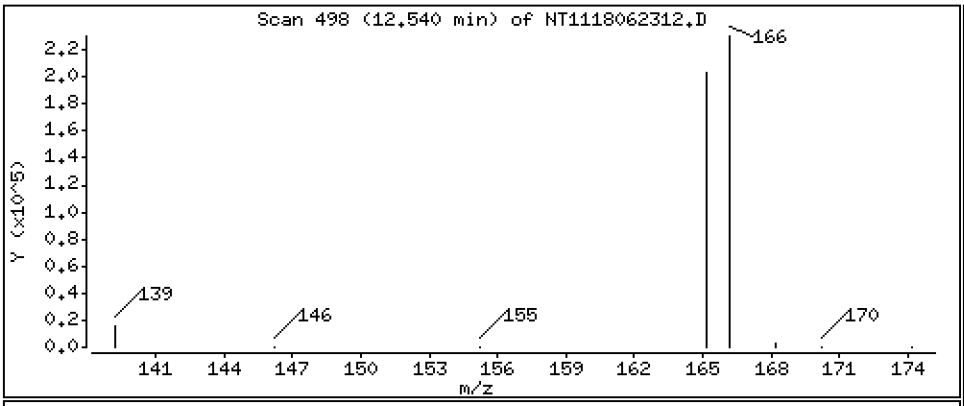
Operator: VTS

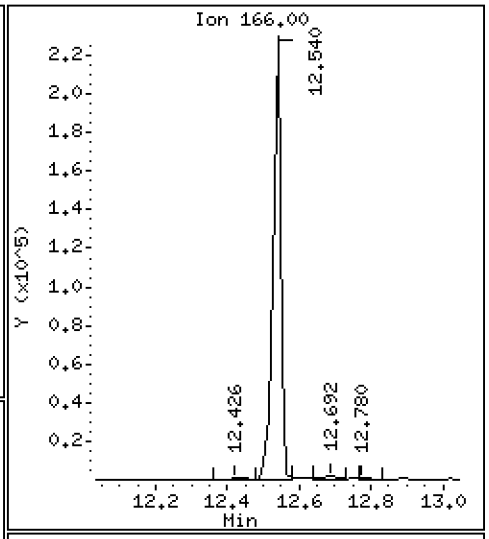
Column phase: Rxi-17Sil MS

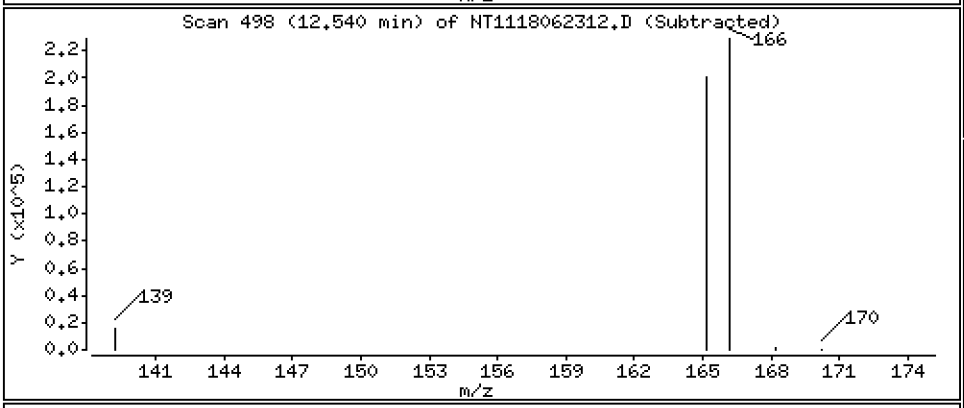
Column diameter: 0.25

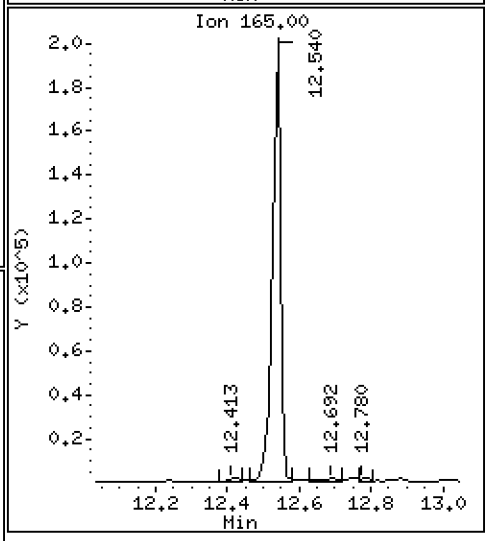
16 Fluorene

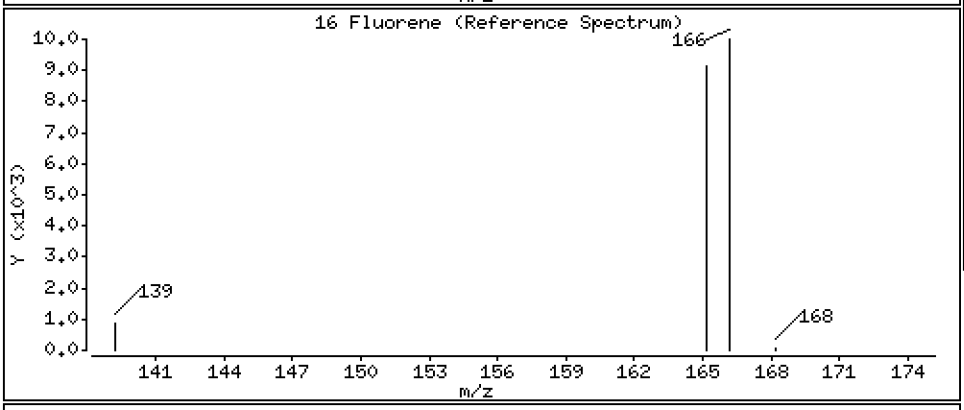
Concentration: 156 ng/mL

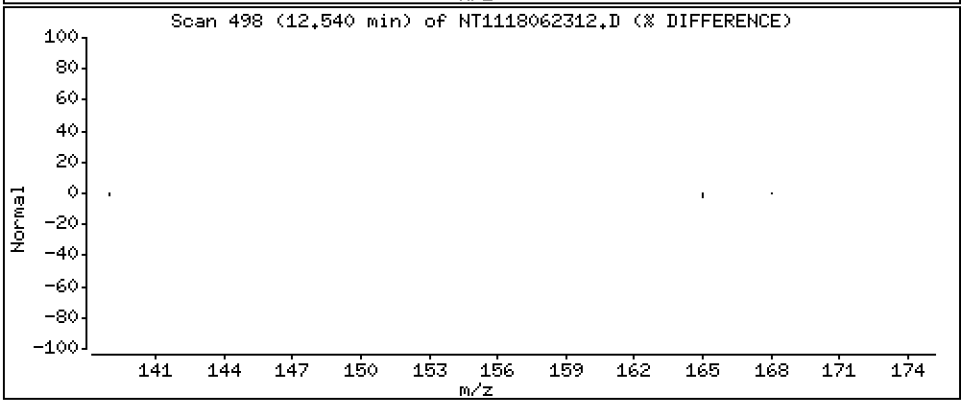












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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

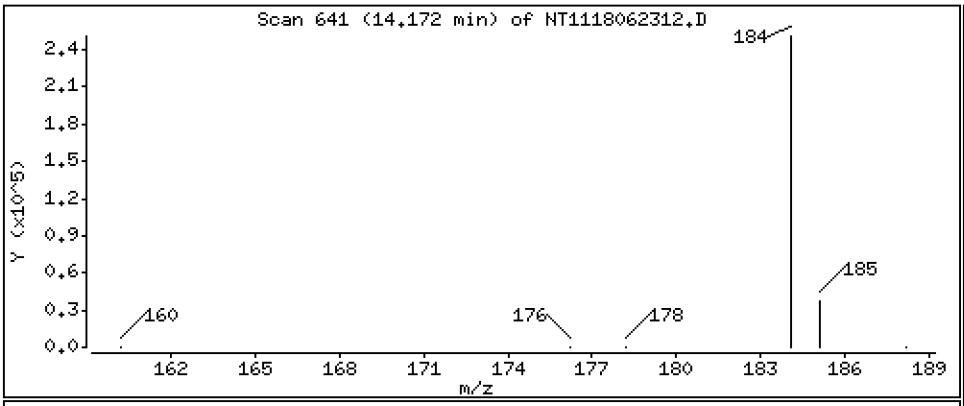
Operator: VTS

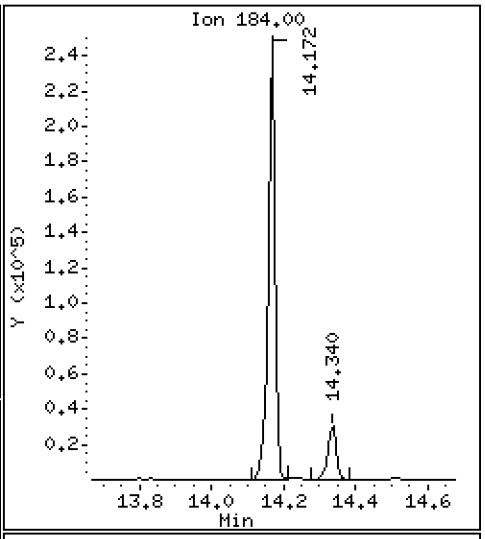
Column phase: Rxi-17Sil MS

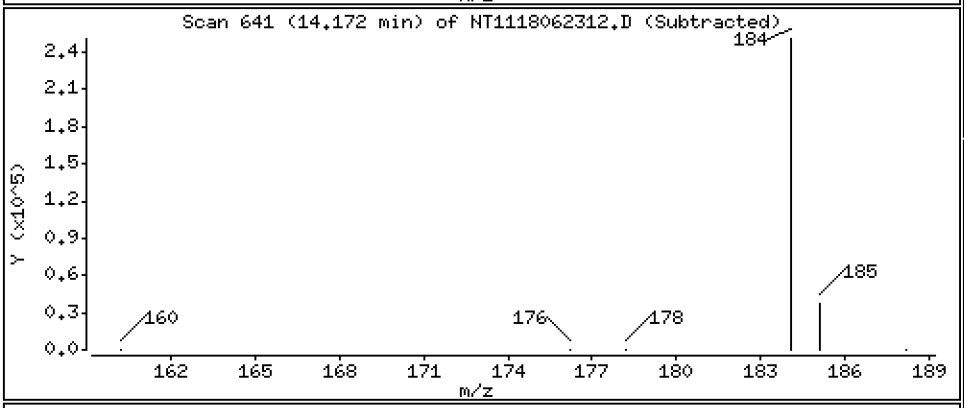
Column diameter: 0.25

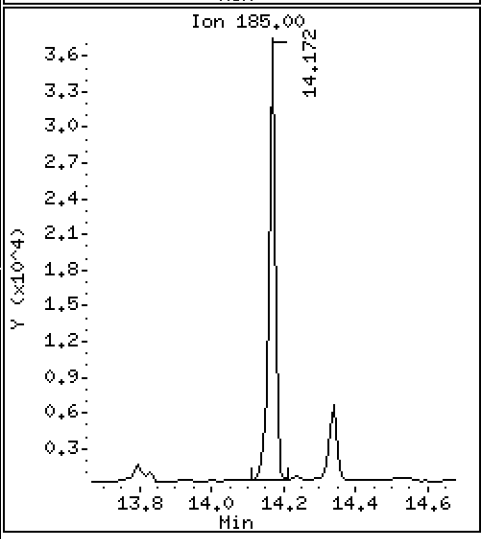
17 Dibenzothiophene

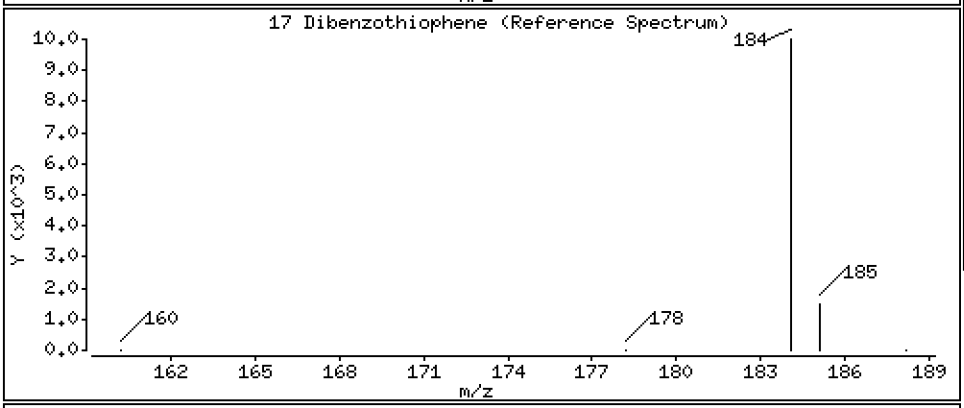
Concentration: 159 ng/mL

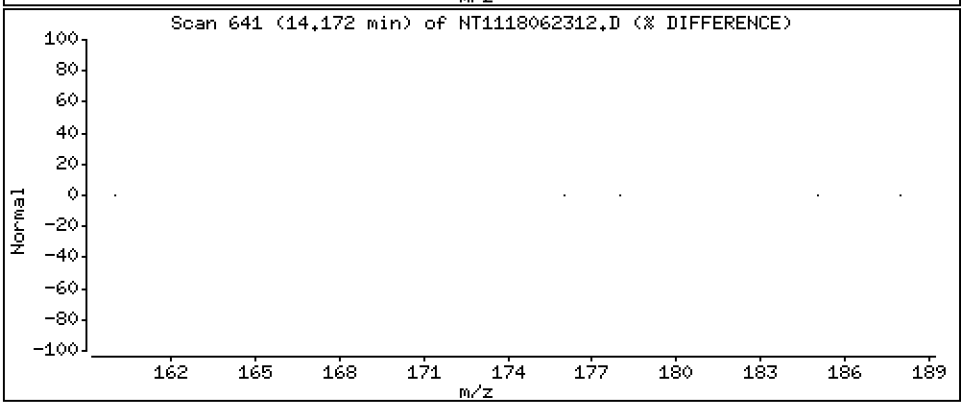












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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

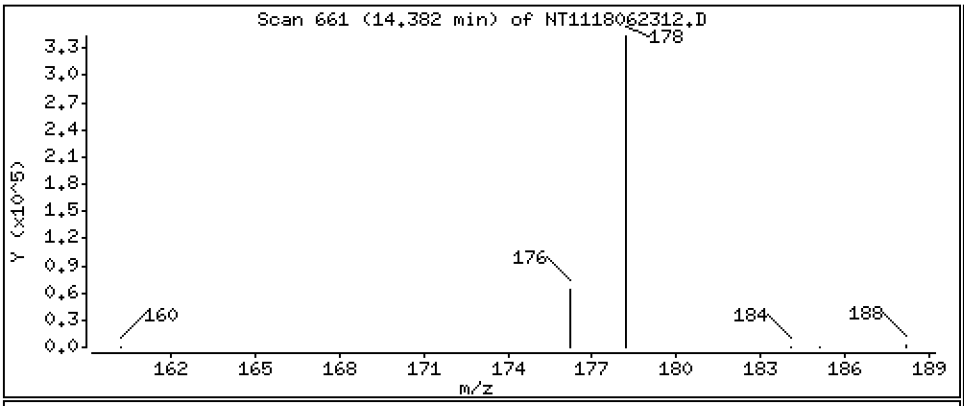
Operator: VTS

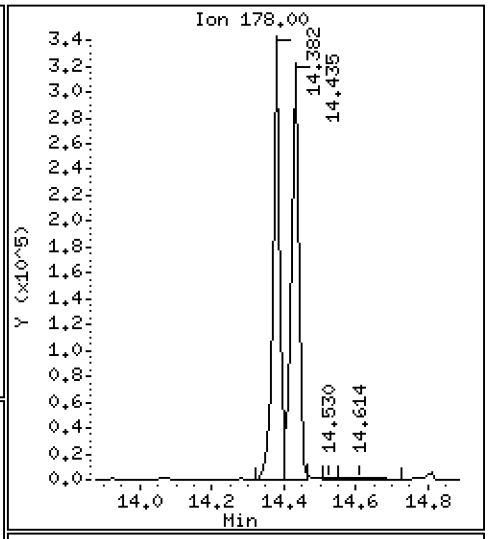
Column phase: Rxi-17Sil MS

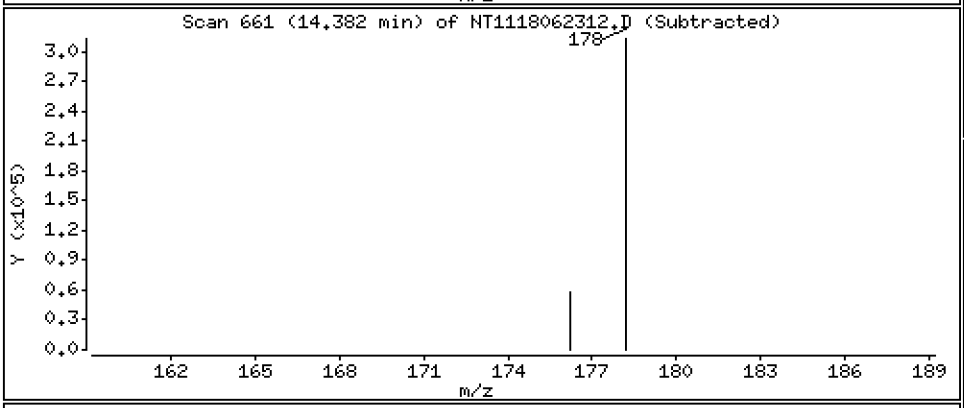
Column diameter: 0.25

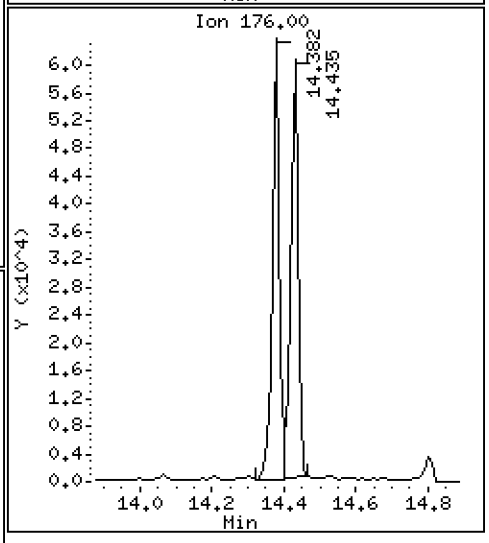
19 Phenanthrene

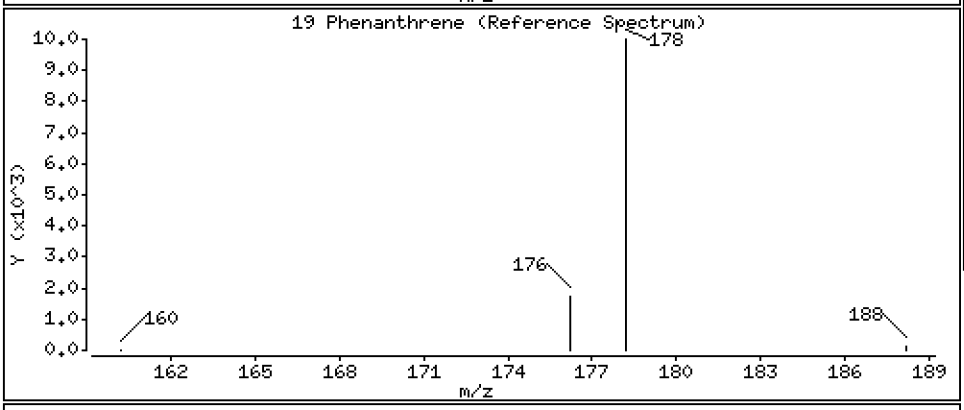
Concentration: 167 ng/mL

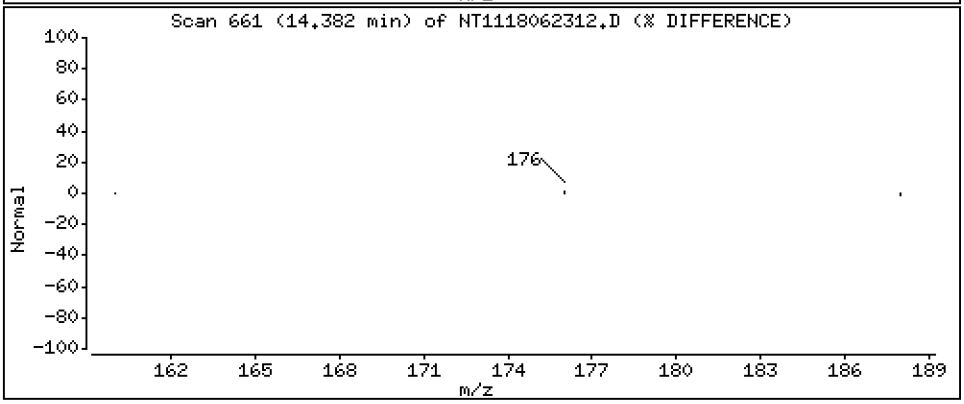












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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

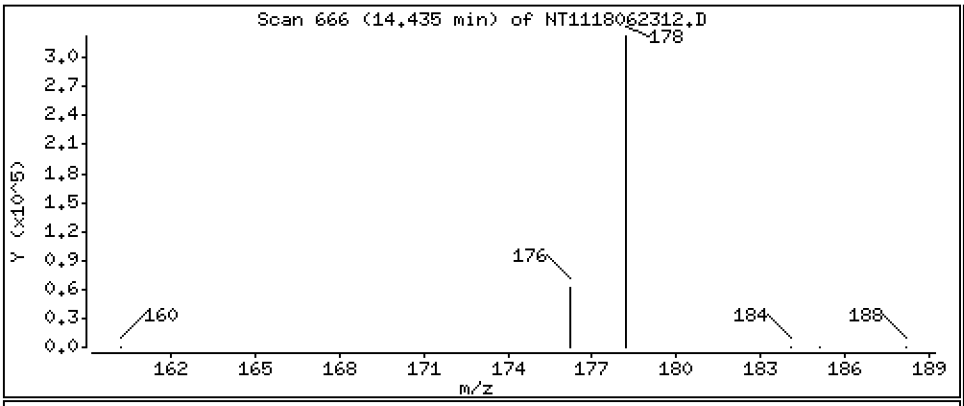
Operator: VTS

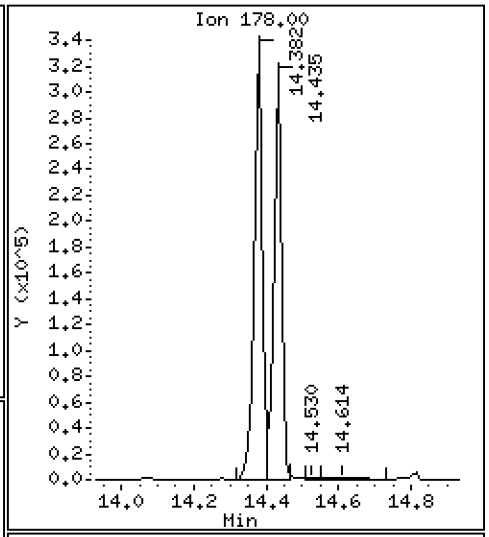
Column phase: Rxi-17Sil MS

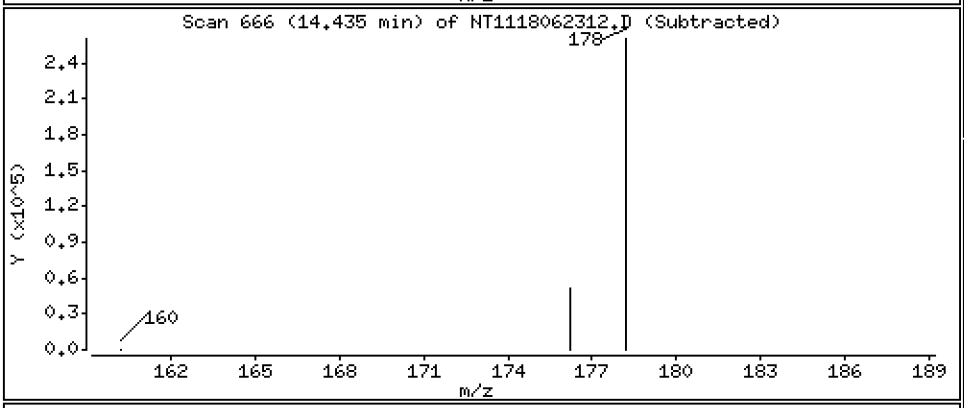
Column diameter: 0.25

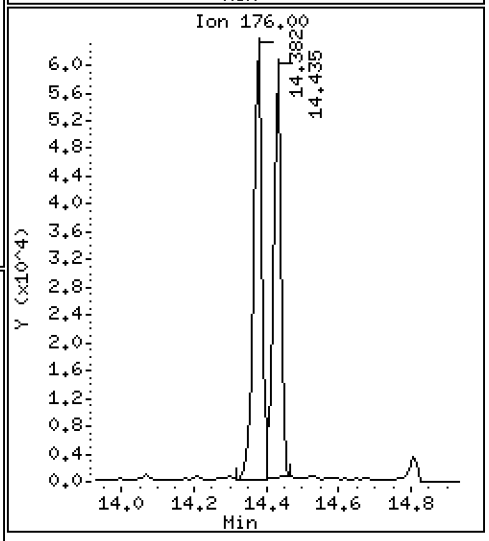
21 Anthracene

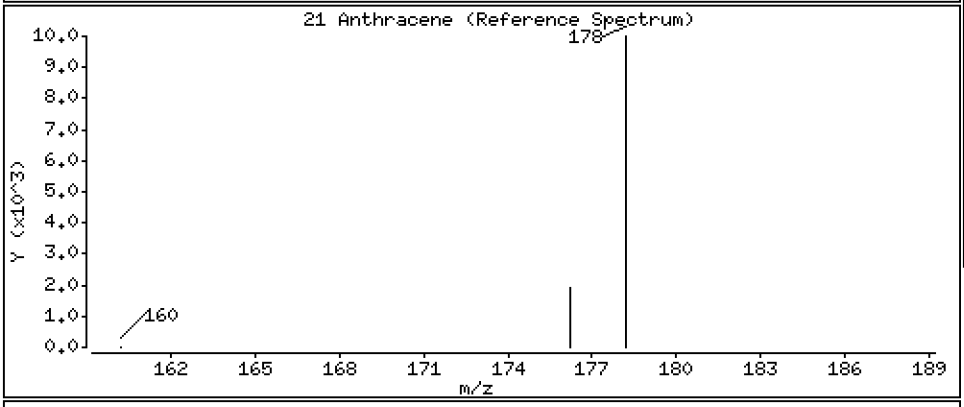
Concentration: 163 ng/mL

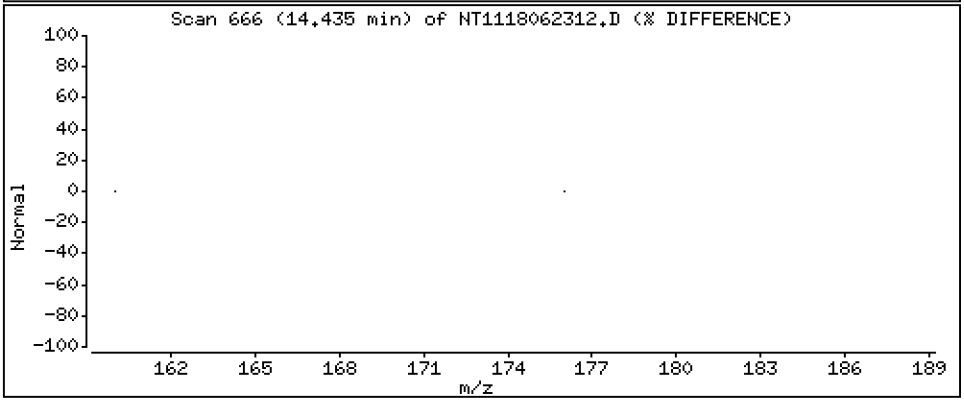












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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

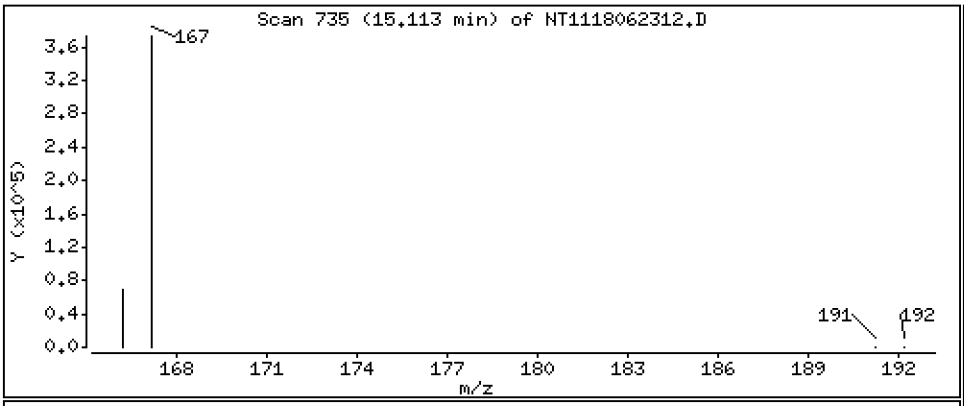
Operator: VTS

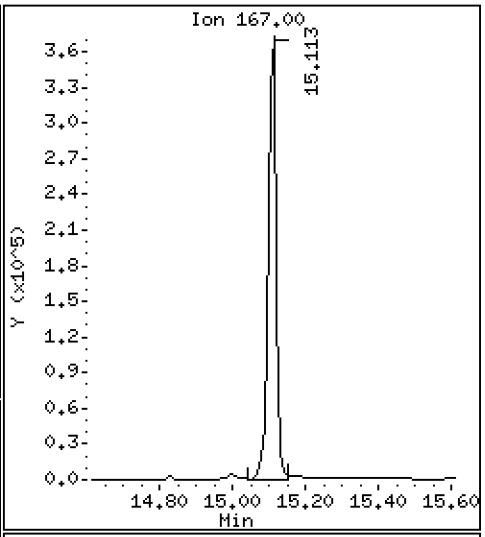
Column phase: Rxi-17Sil MS

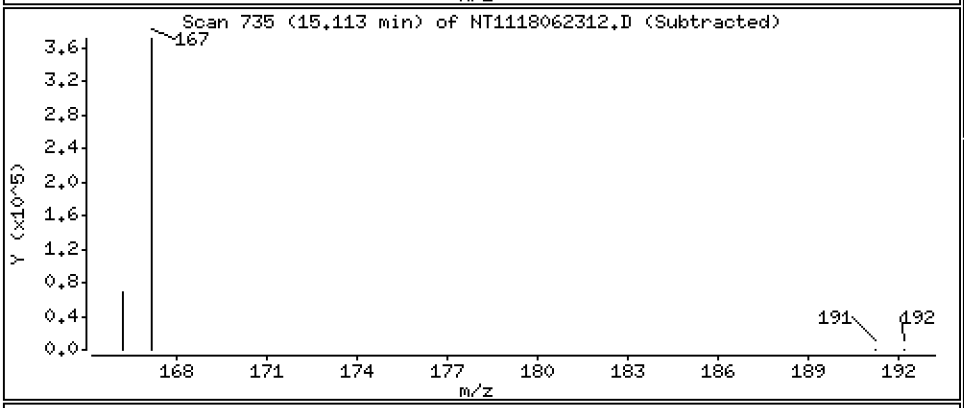
Column diameter: 0.25

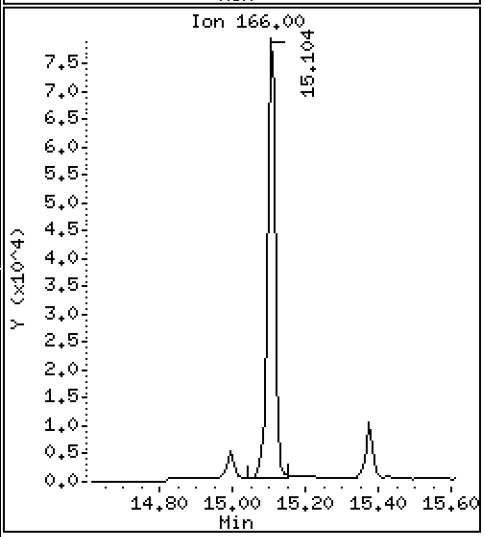
22 Carbazole

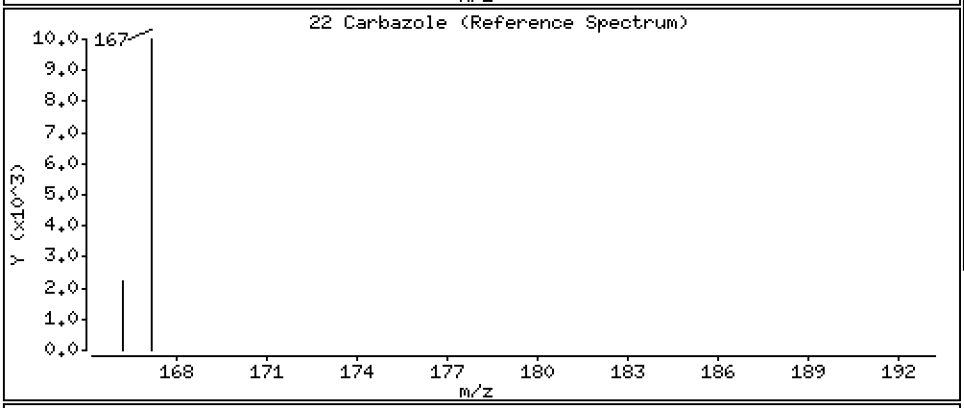
Concentration: 169 ng/mL

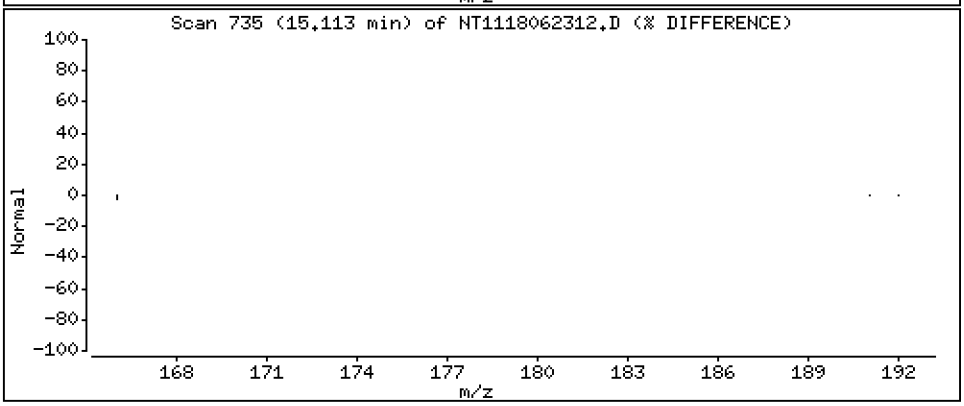












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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

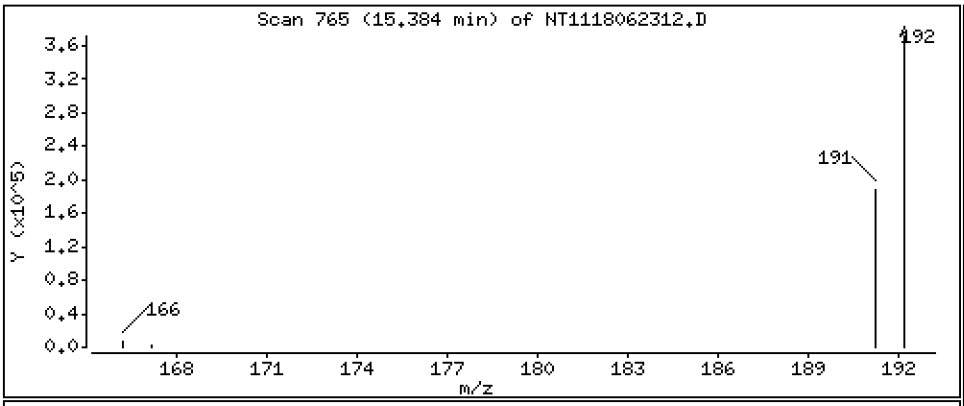
Operator: VTS

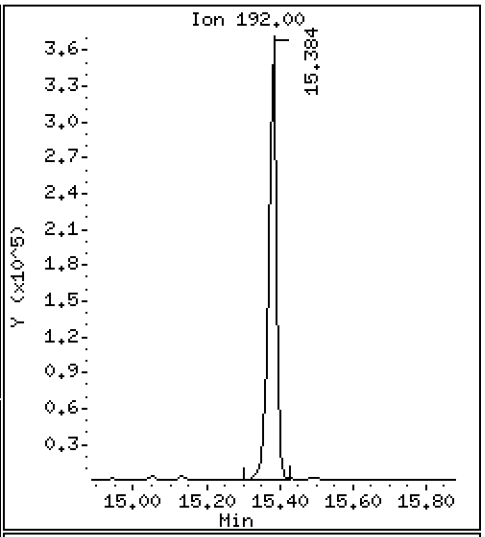
Column phase: Rxi-17Sil MS

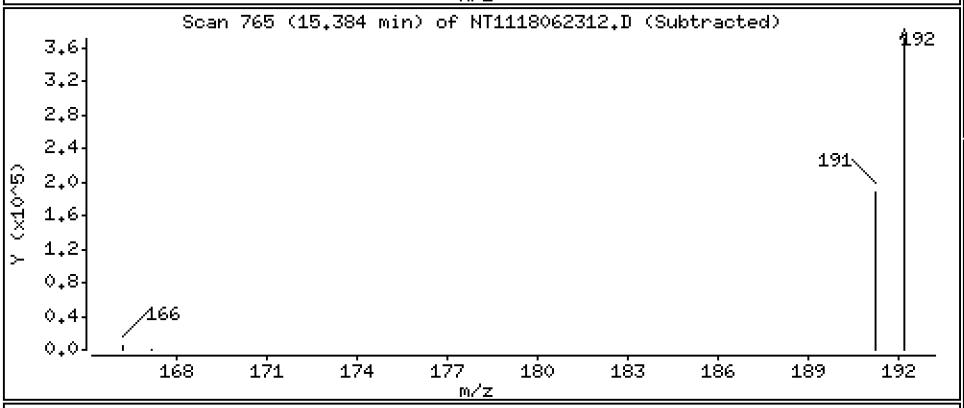
Column diameter: 0.25

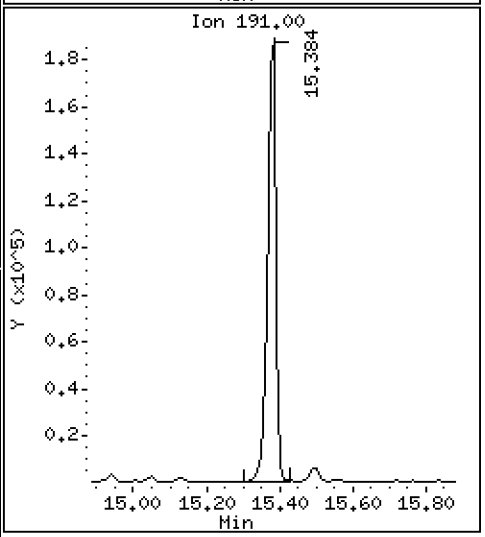
23 1-Methylphenanthrene

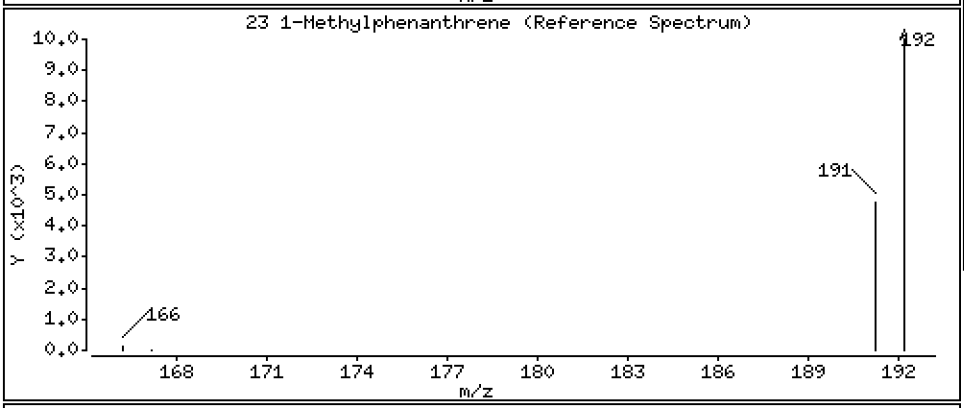
Concentration: 185 ng/mL

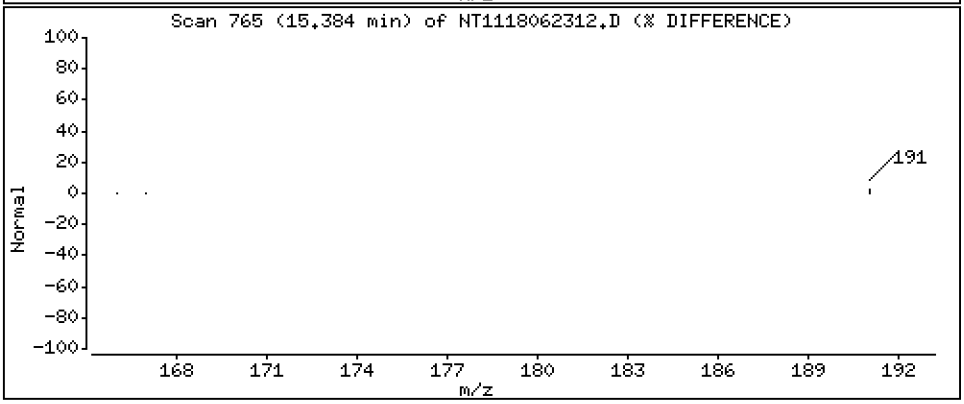












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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

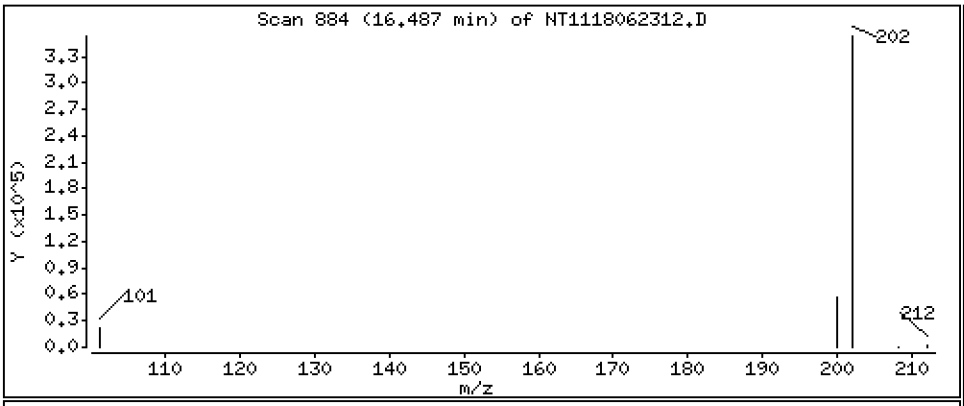
Operator: VTS

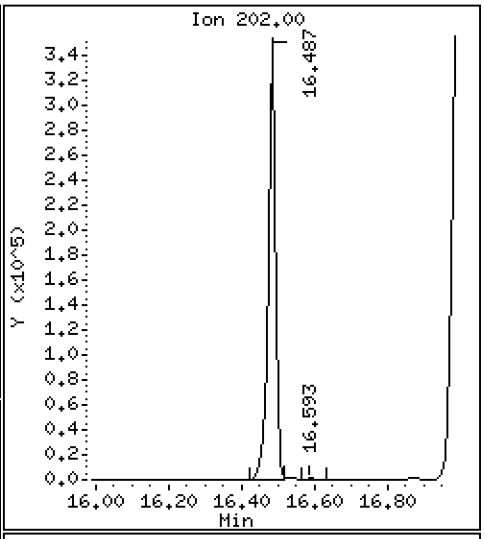
Column phase: Rxi-17Sil MS

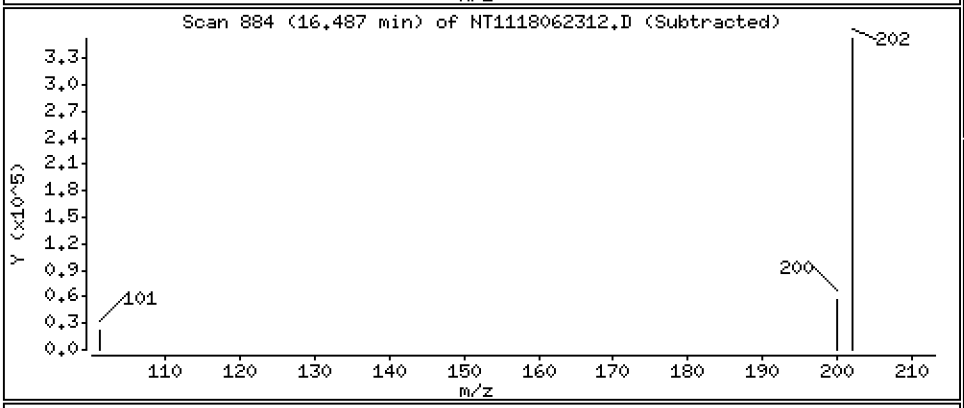
Column diameter: 0.25

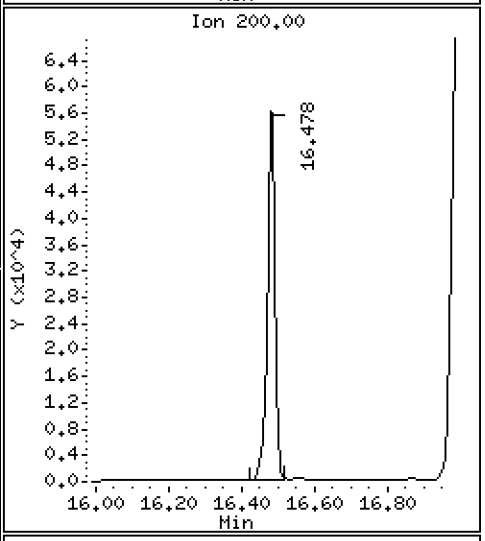
25 Fluoranthene

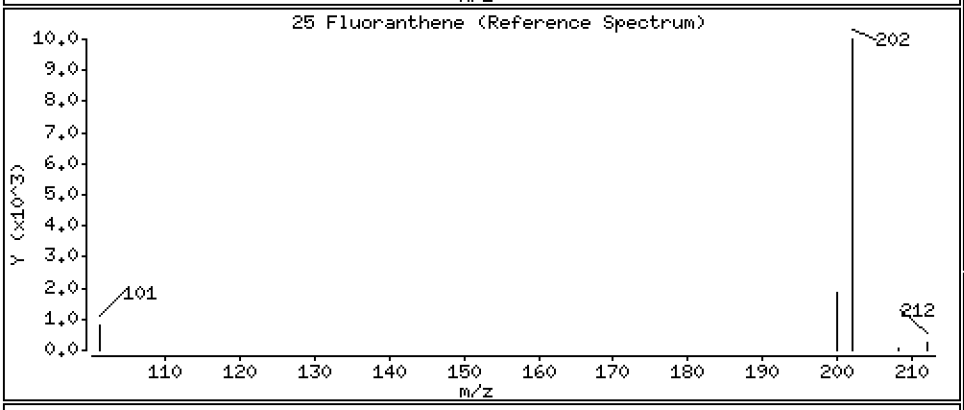
Concentration: 182 ng/mL

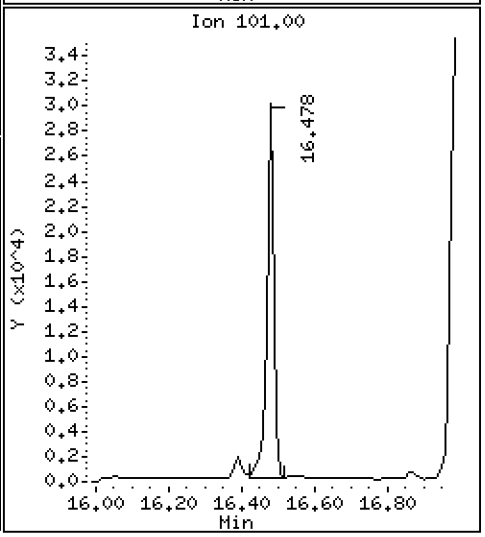


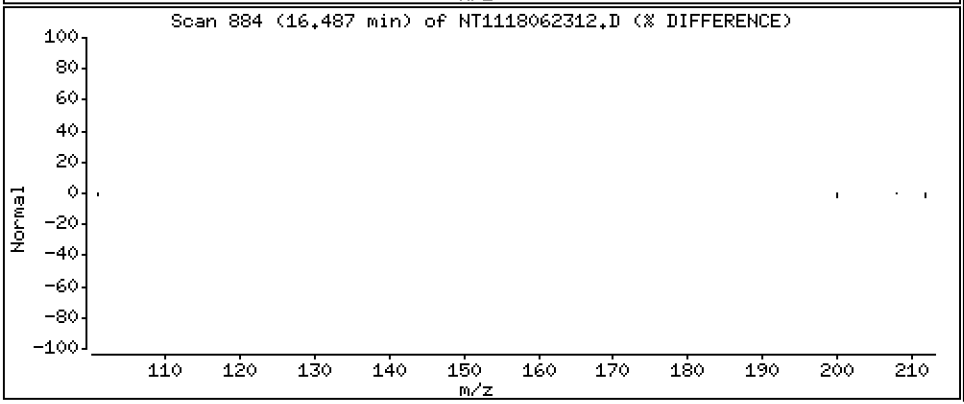












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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

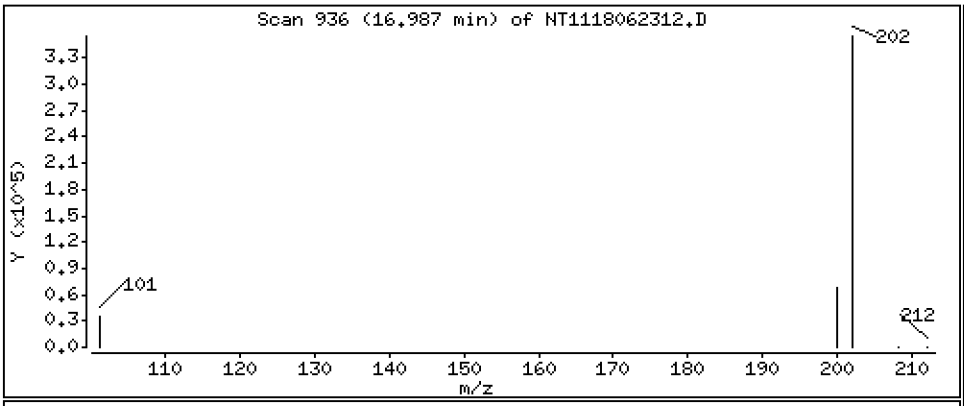
Operator: VTS

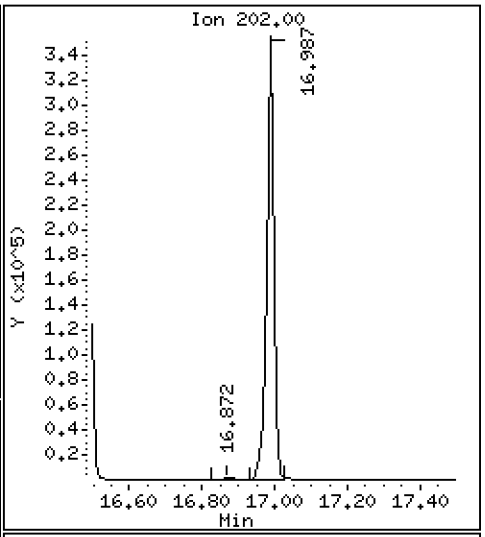
Column phase: Rxi-17Sil MS

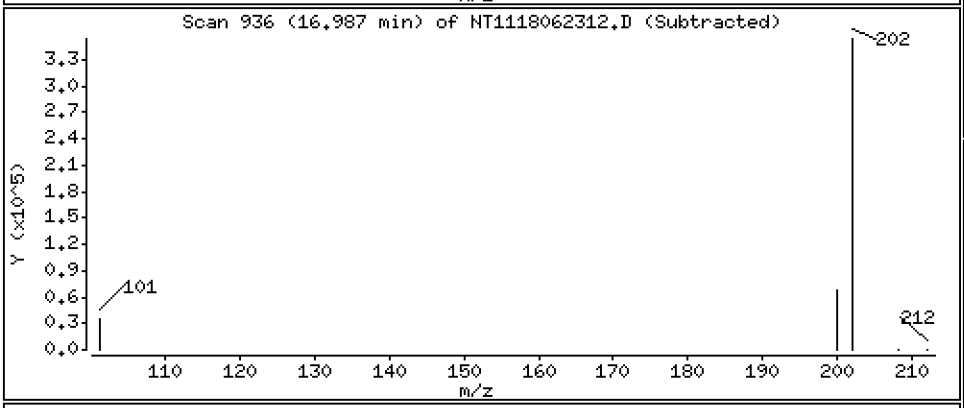
Column diameter: 0.25

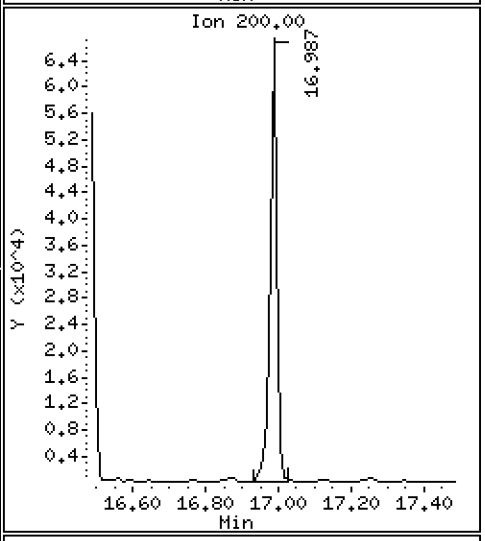
26 Pyrene

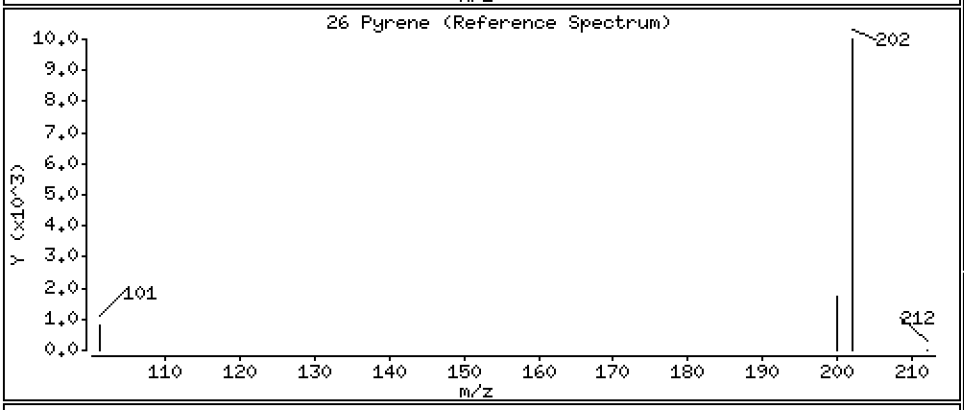
Concentration: 166 ng/mL

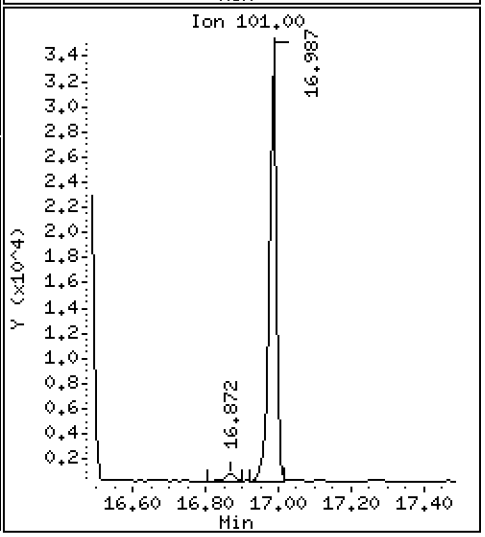


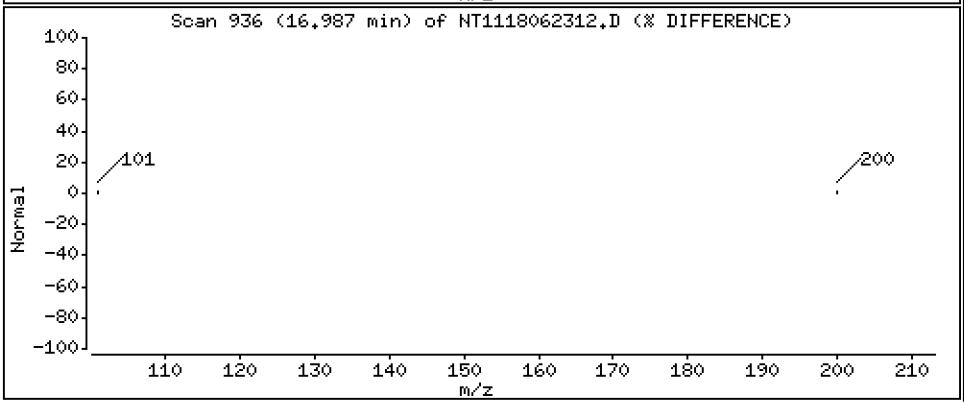












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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

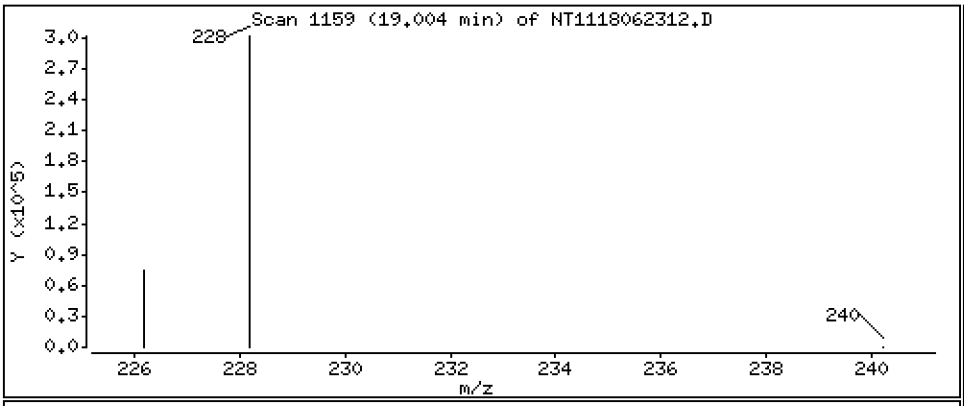
Operator: VTS

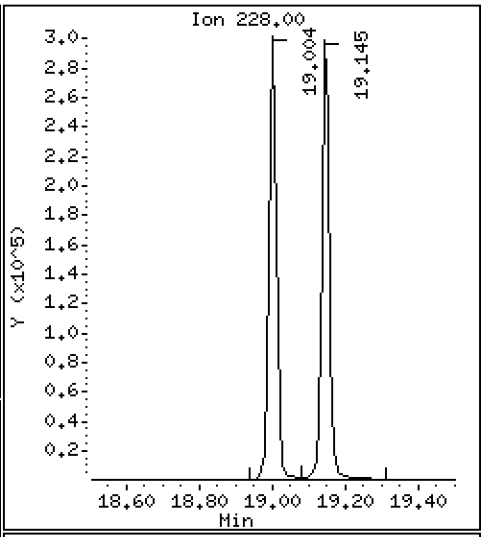
Column phase: Rxi-17Sil MS

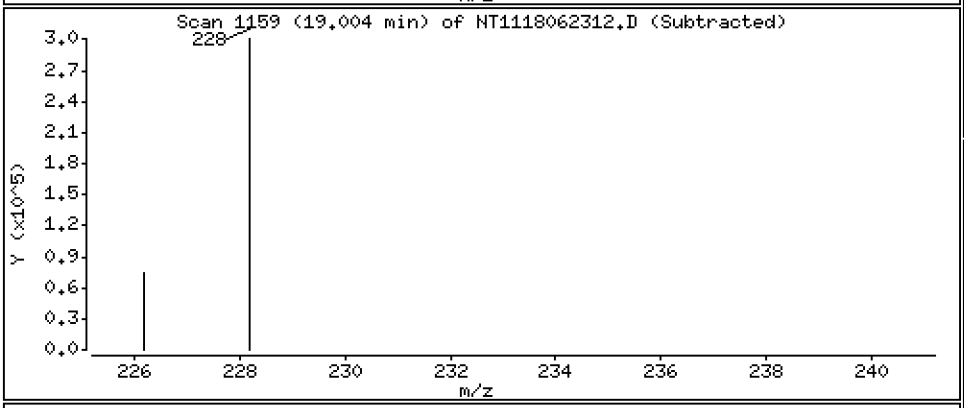
Column diameter: 0.25

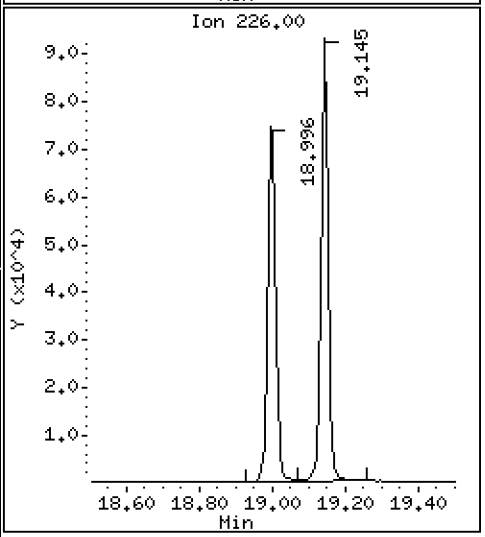
27 Benzo(a)anthracene

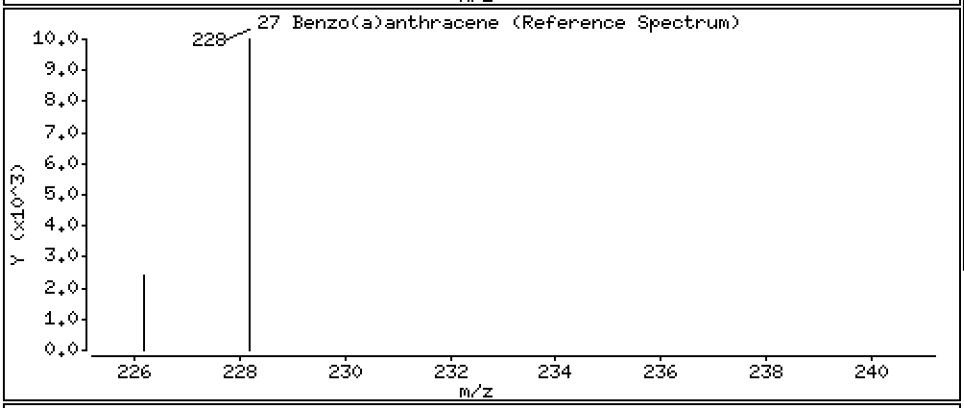
Concentration: 176 ng/mL

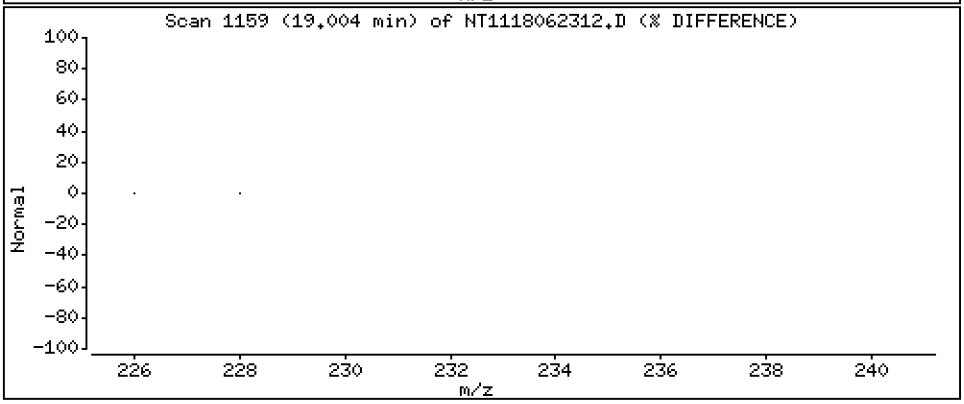












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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

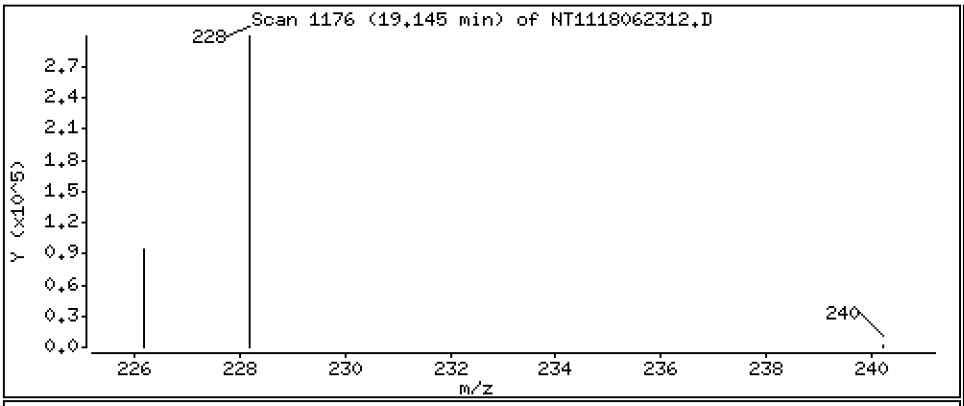
Operator: VTS

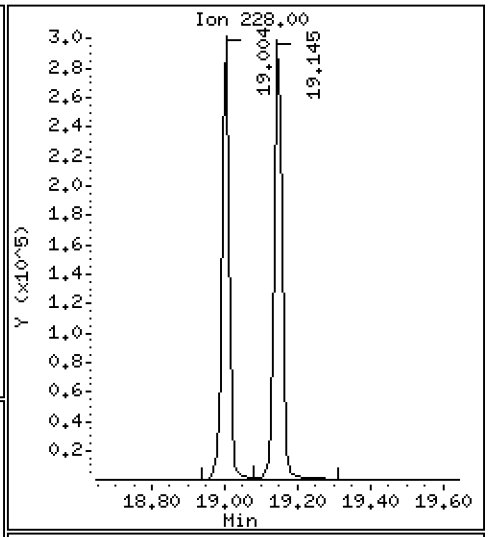
Column phase: Rxi-17Sil MS

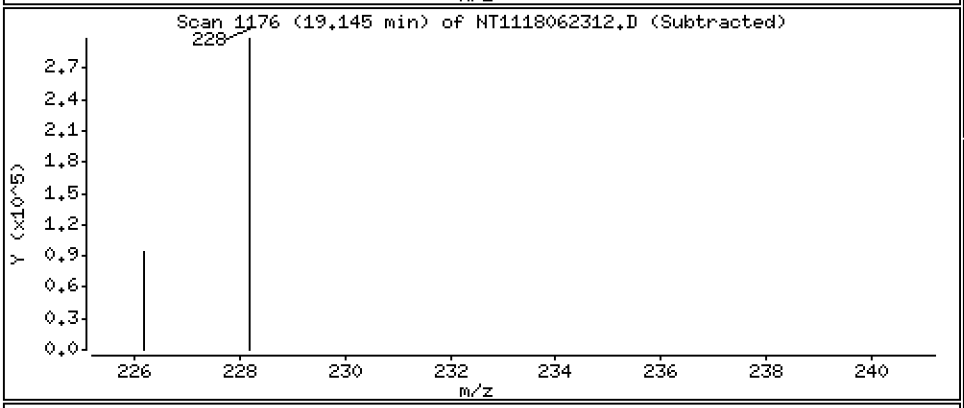
Column diameter: 0.25

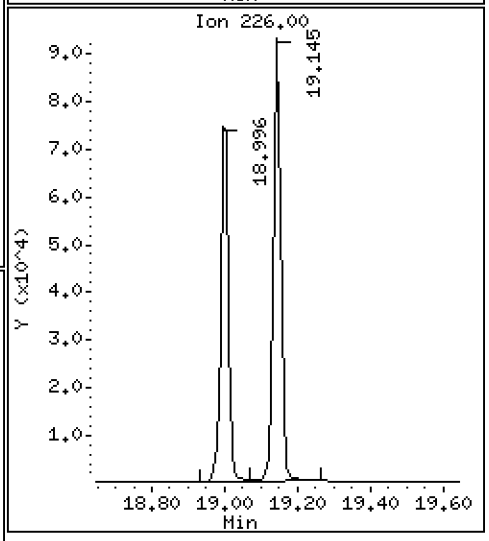
29 Chrysene

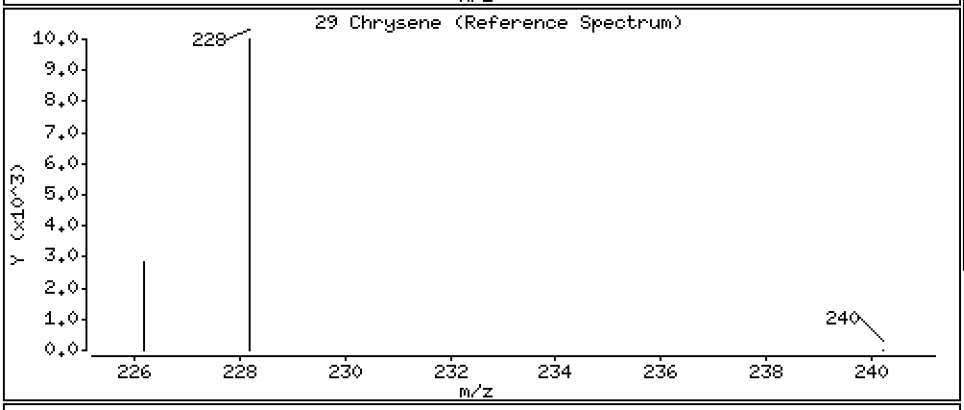
Concentration: 182 ng/mL

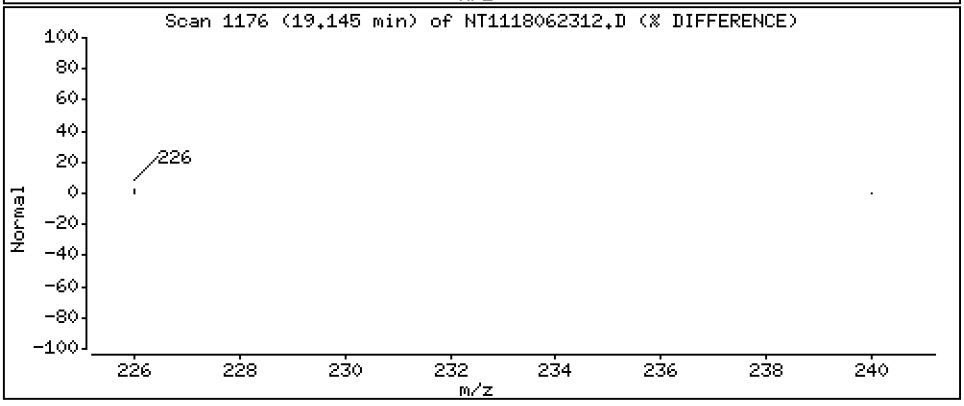












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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

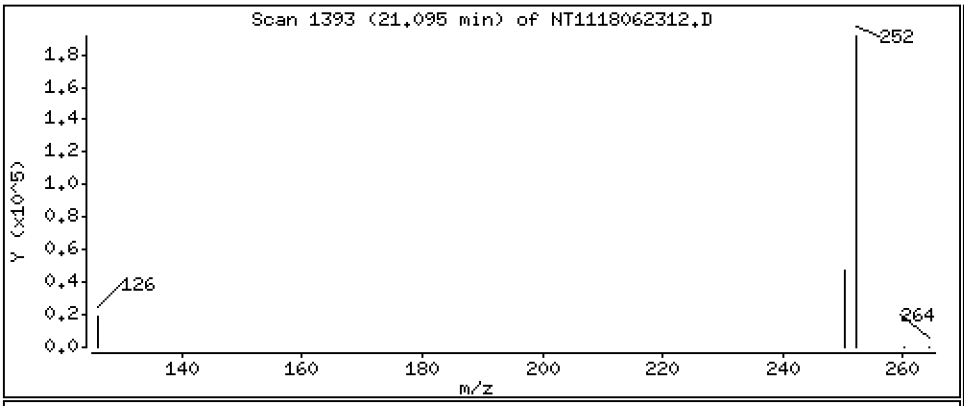
Operator: VTS

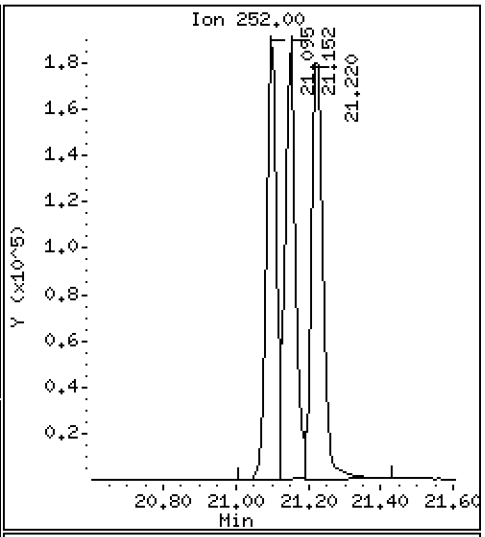
Column phase: Rxi-17Sil MS

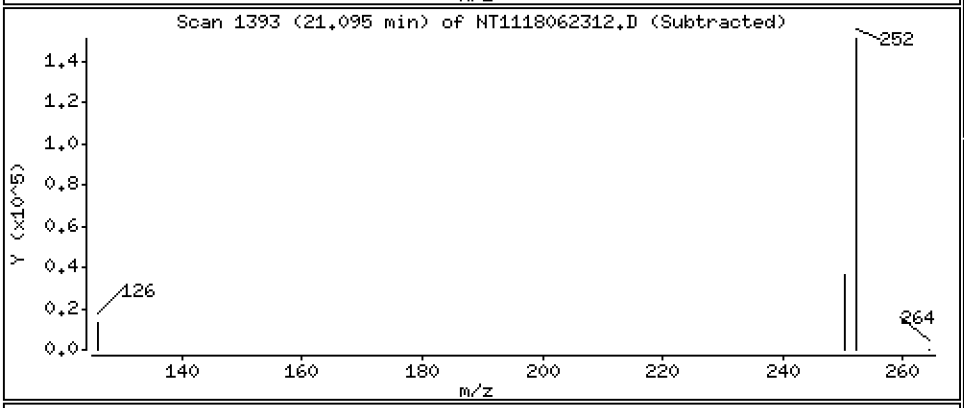
Column diameter: 0.25

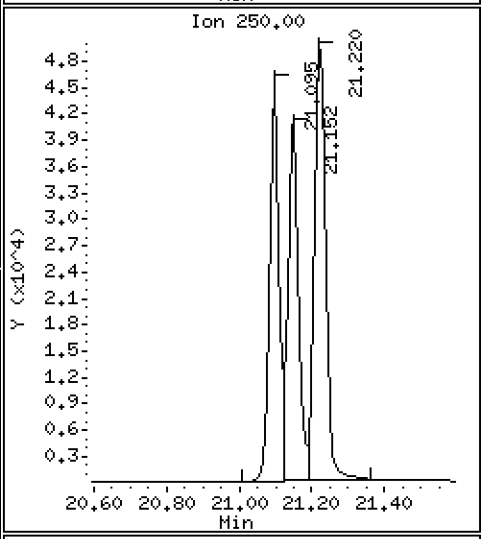
30 Benzo(b)fluoranthene

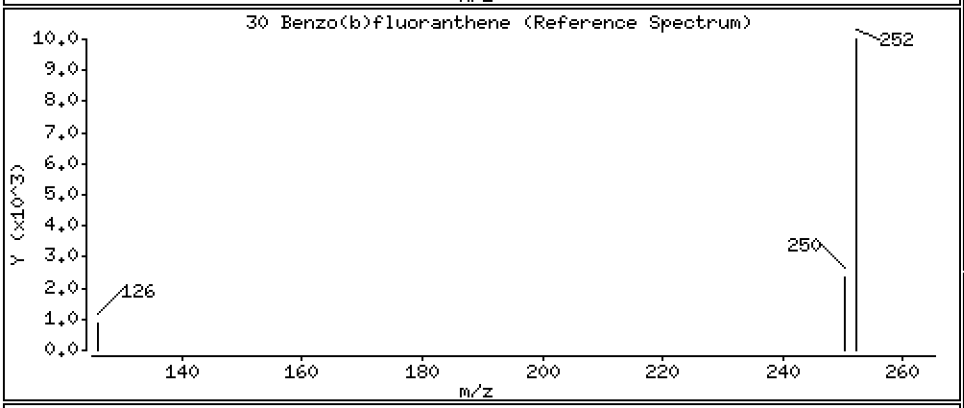
Concentration: 163 ng/mL

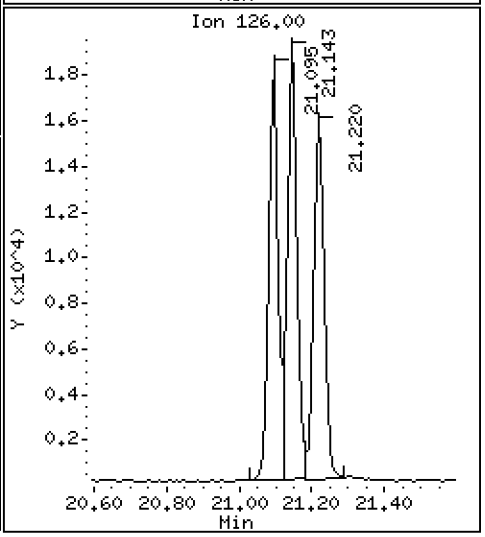


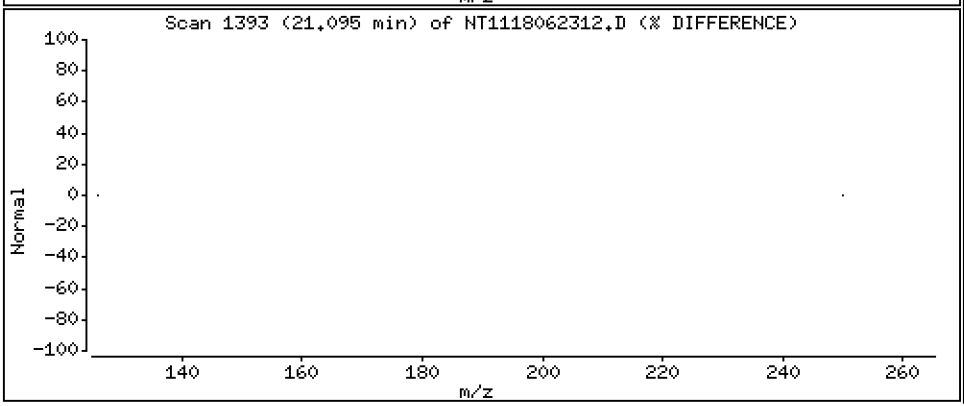












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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

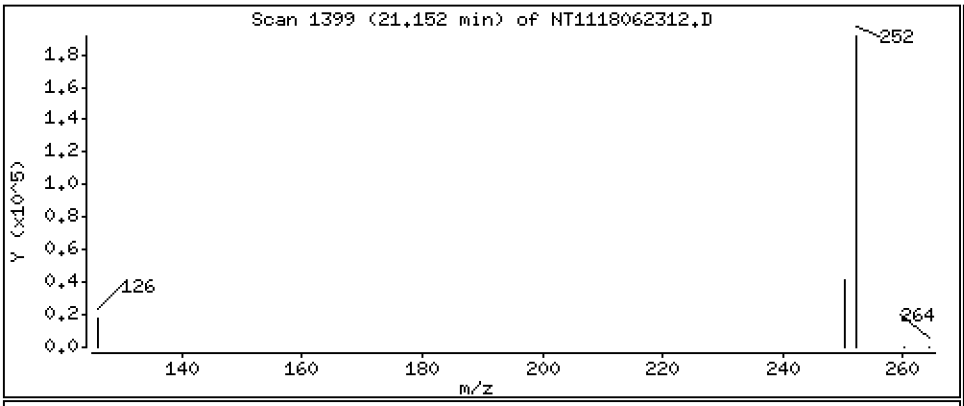
Operator: VTS

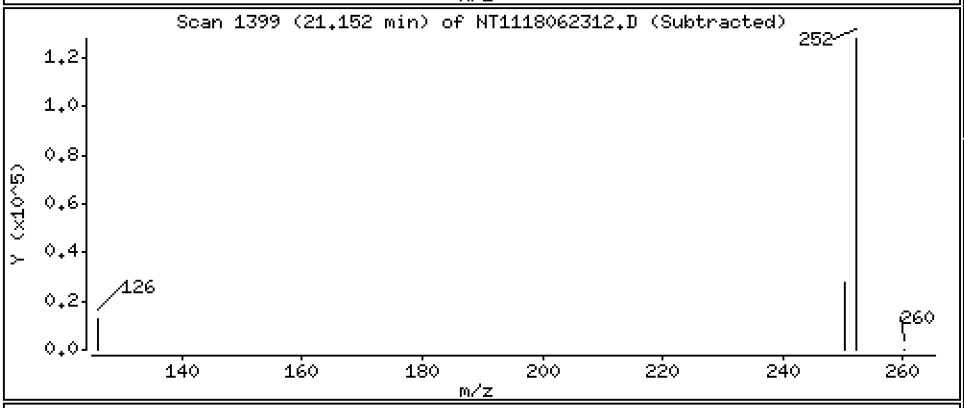
Column phase: Rxi-17Sil MS

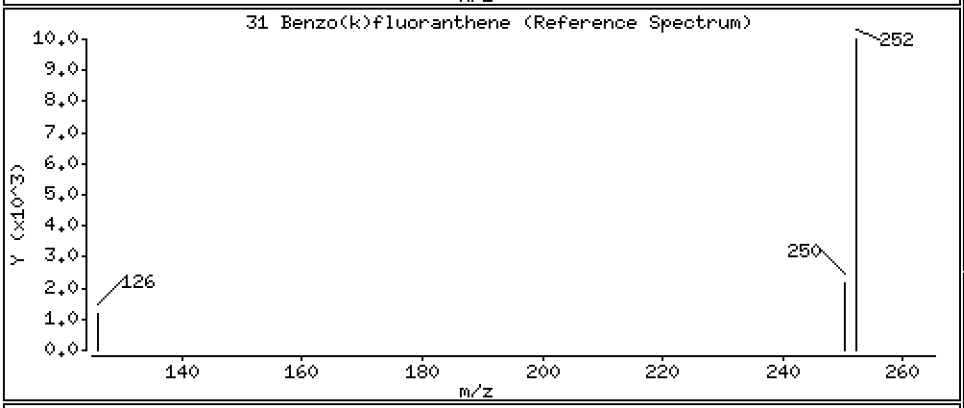
Column diameter: 0.25

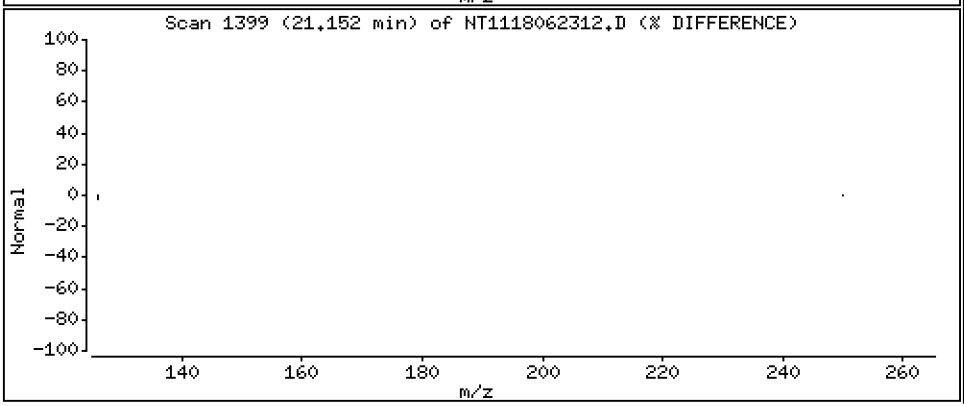
31 Benzo(k)fluoranthene

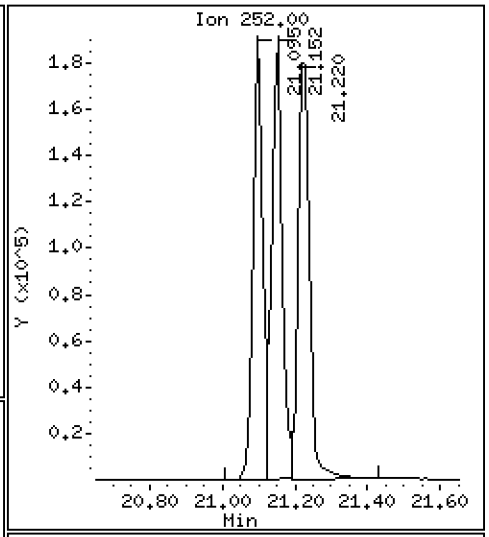
Concentration: 168 ng/mL

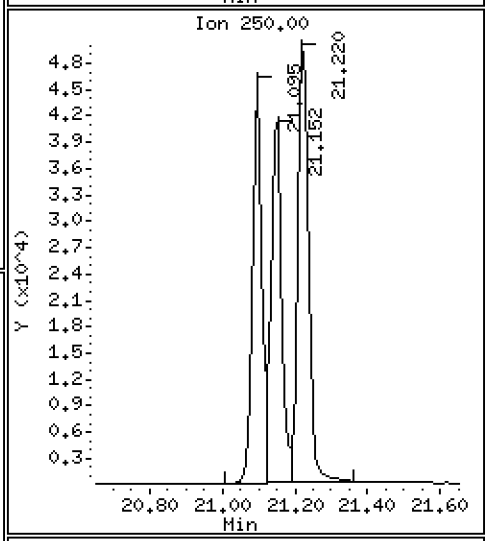


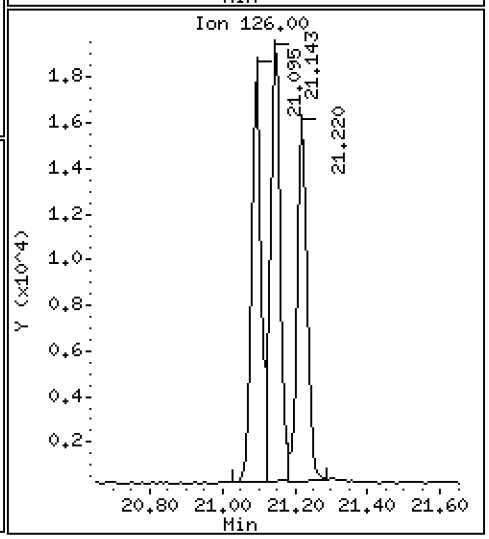












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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

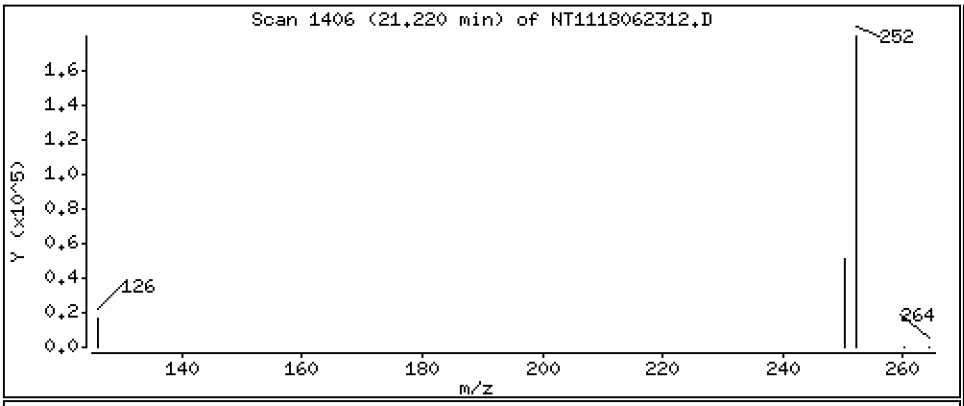
Operator: VTS

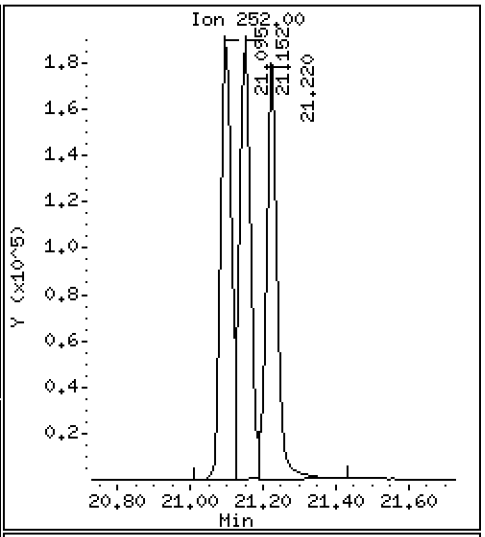
Column phase: Rxi-17Sil MS

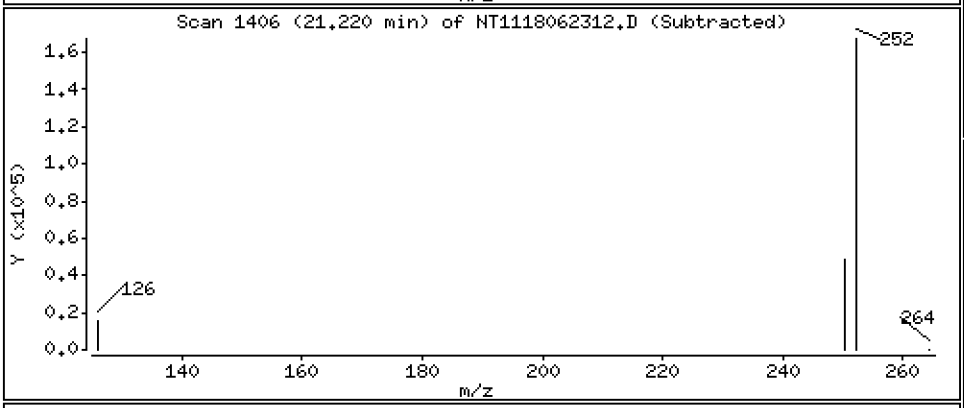
Column diameter: 0.25

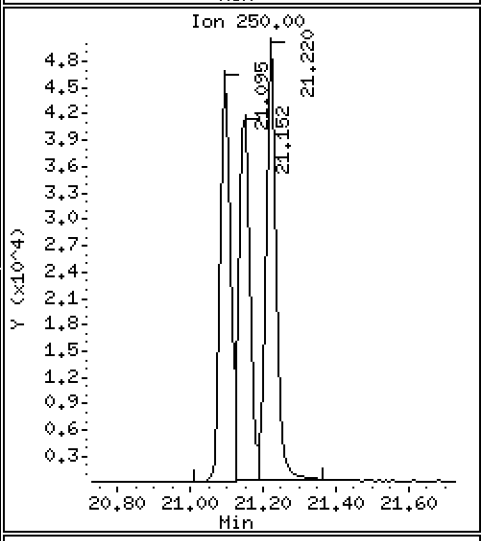
32 Benzo(j)fluoranthene

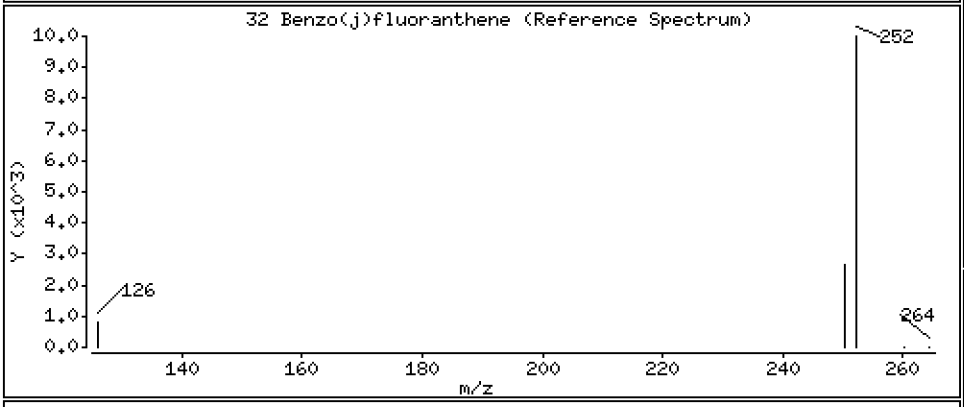
Concentration: 179 ng/mL

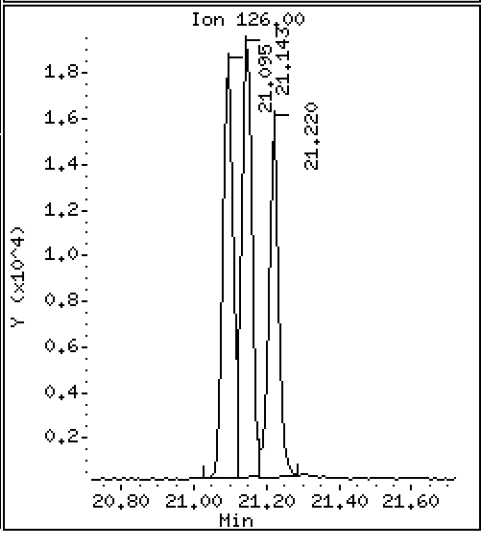


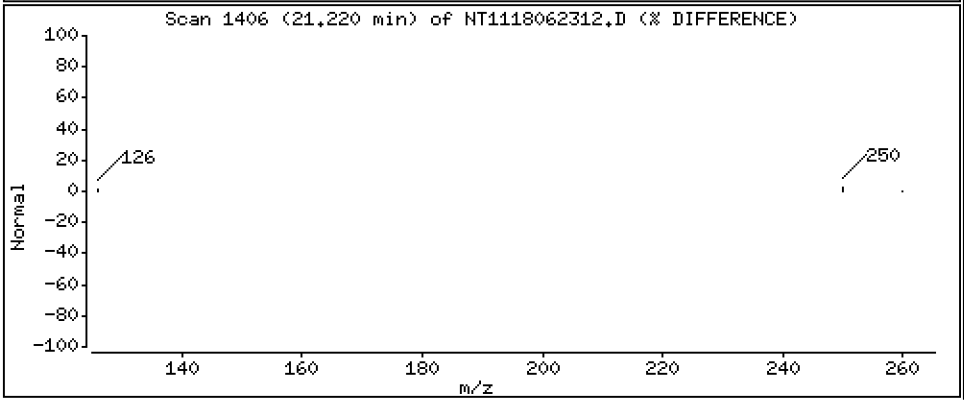












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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

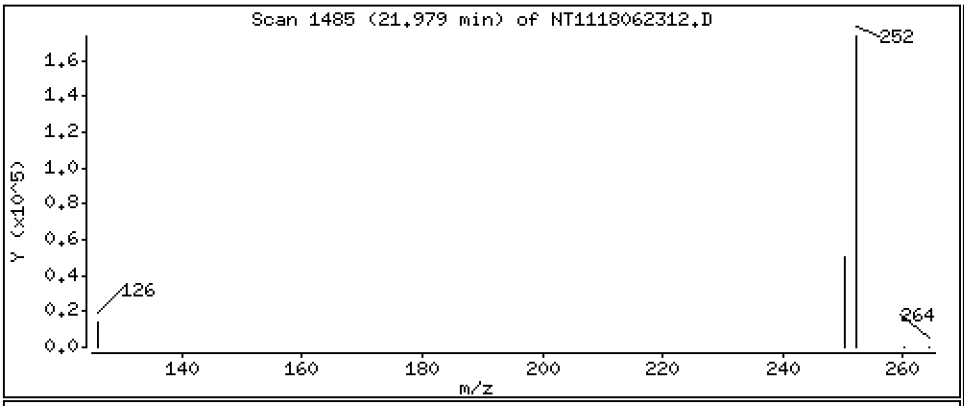
Operator: VTS

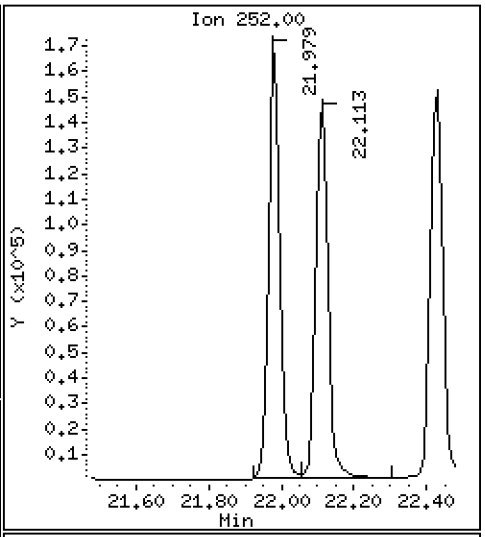
Column phase: Rxi-17Sil MS

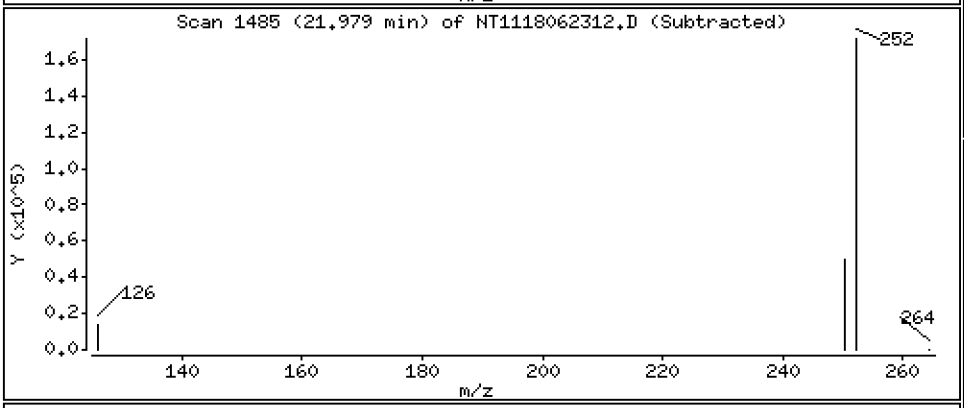
Column diameter: 0.25

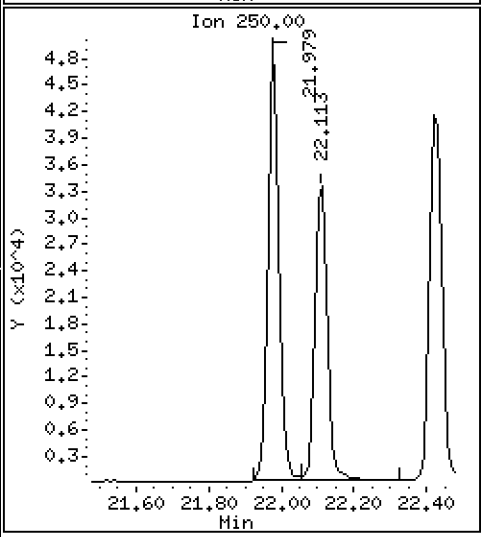
34 Benzo(e)pyrene

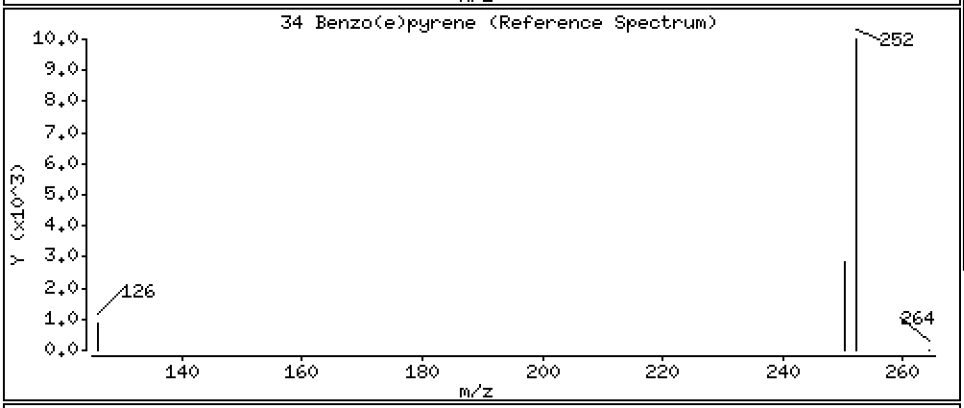
Concentration: 166 ng/mL

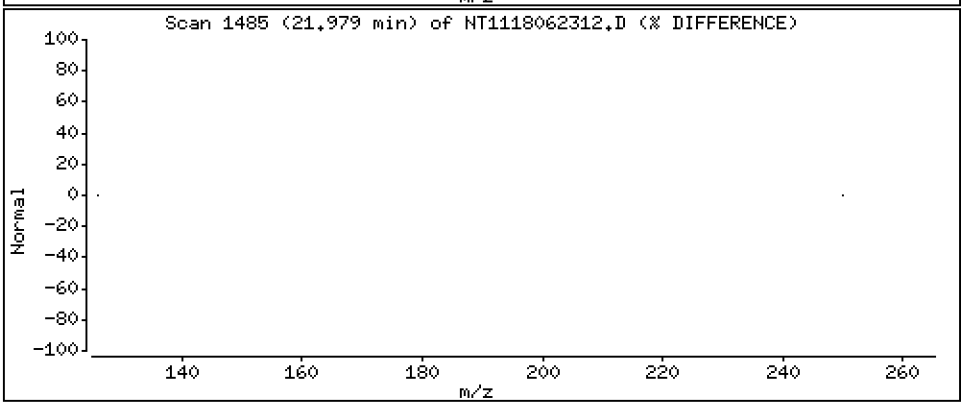












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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

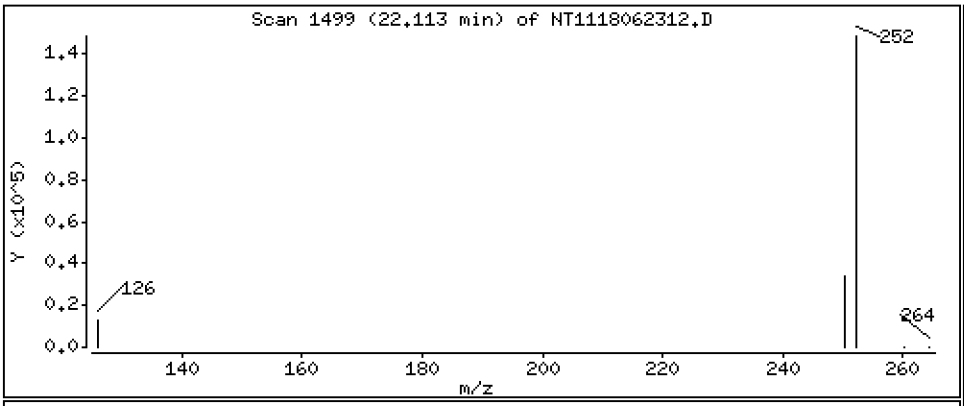
Operator: VTS

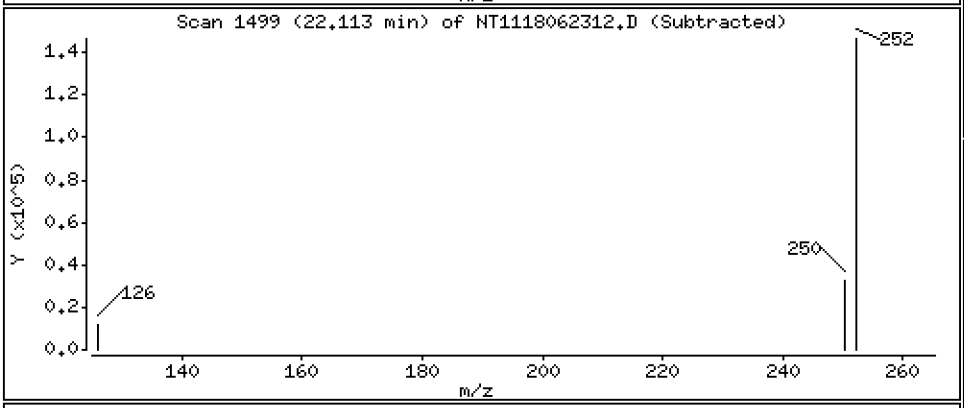
Column phase: Rxi-17Sil MS

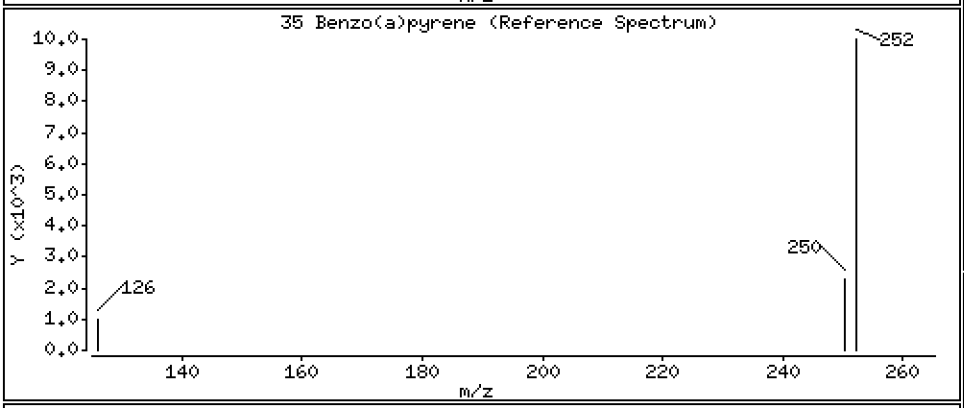
Column diameter: 0.25

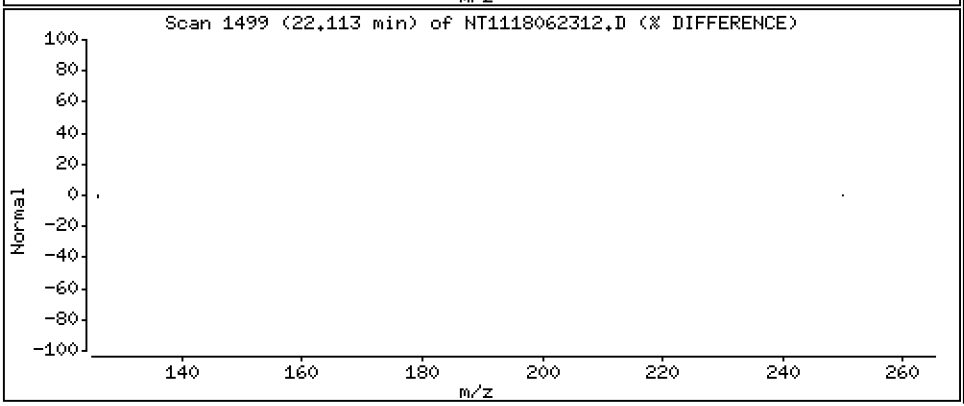
35 Benzo(a)pyrene

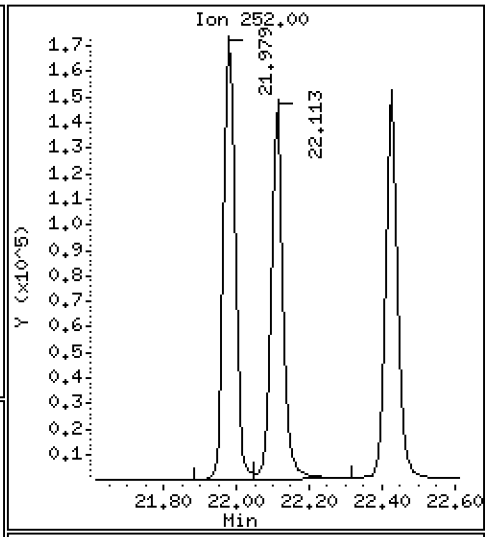
Concentration: 166 ng/mL

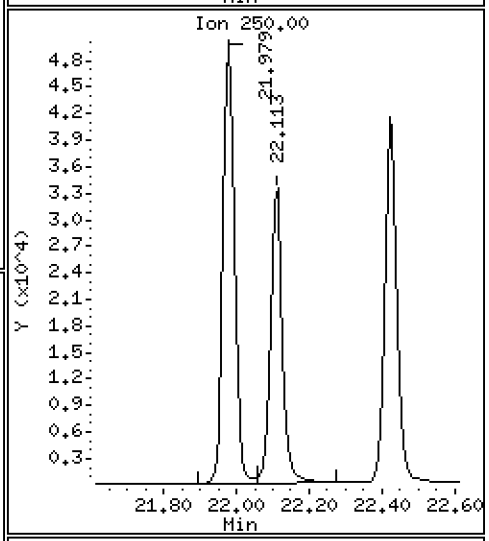


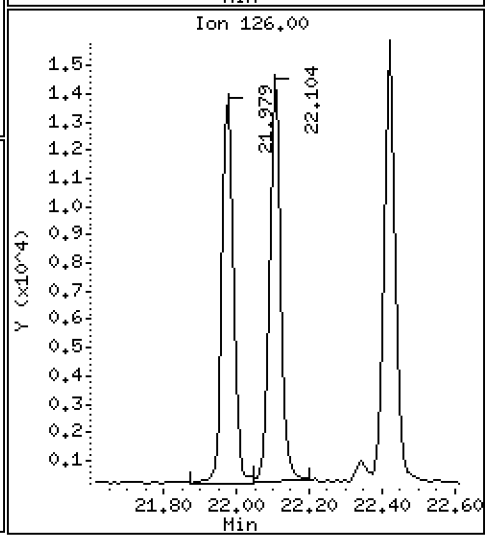












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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

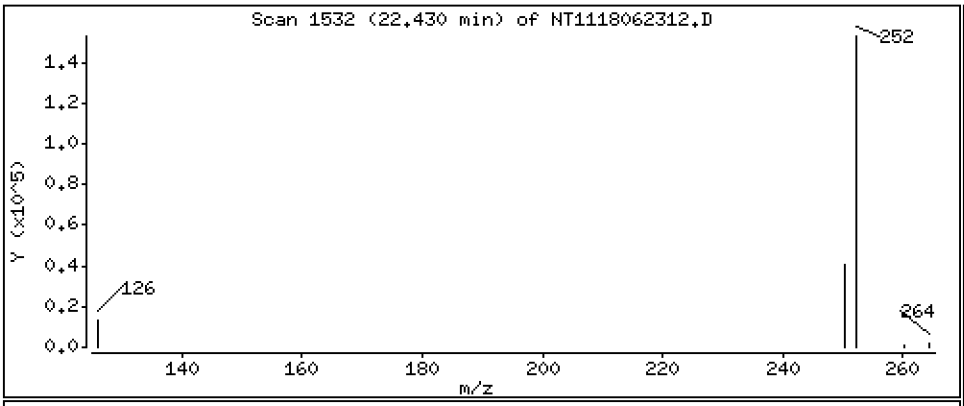
Operator: VTS

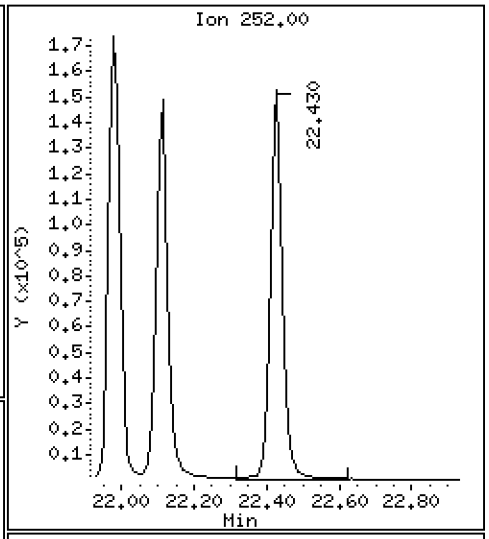
Column phase: Rxi-17Sil MS

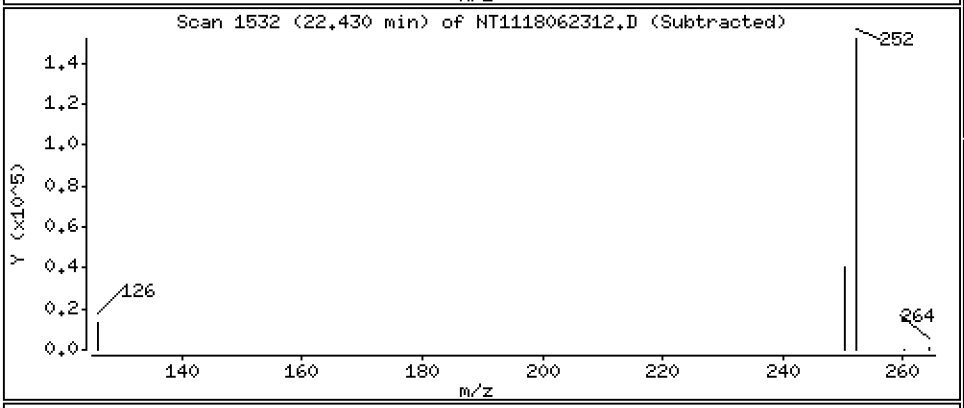
Column diameter: 0.25

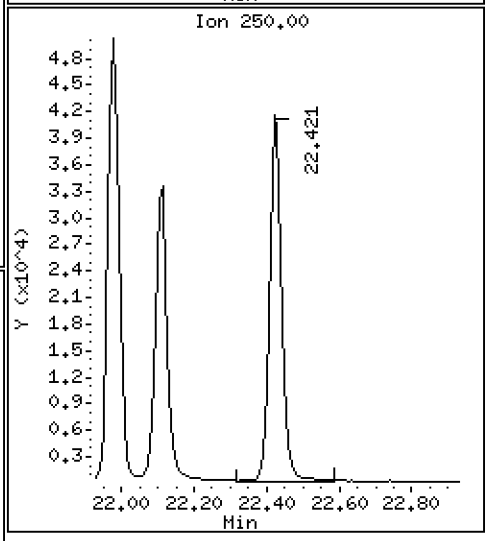
37 Perylene

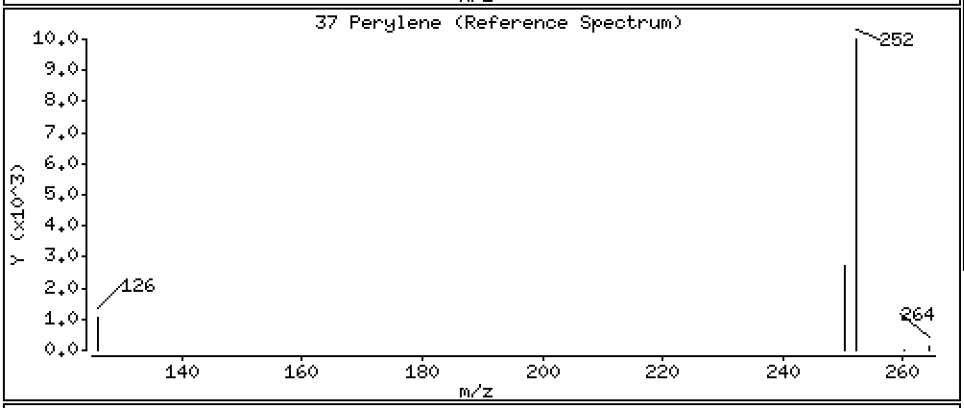
Concentration: 167 ng/mL

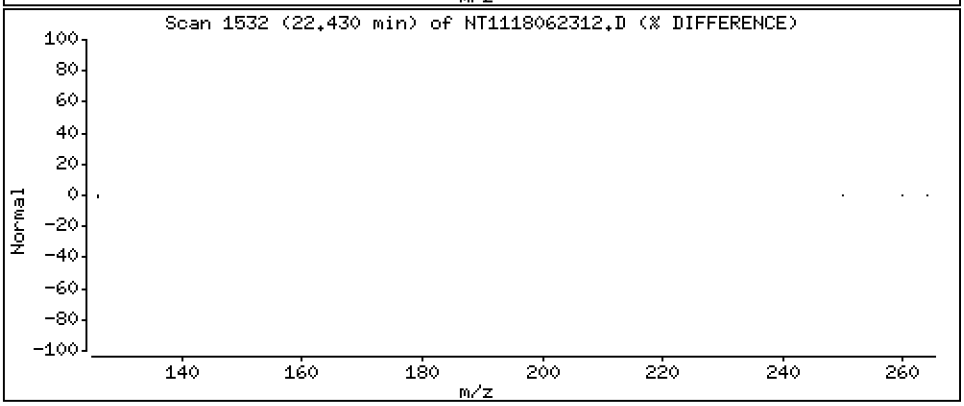












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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

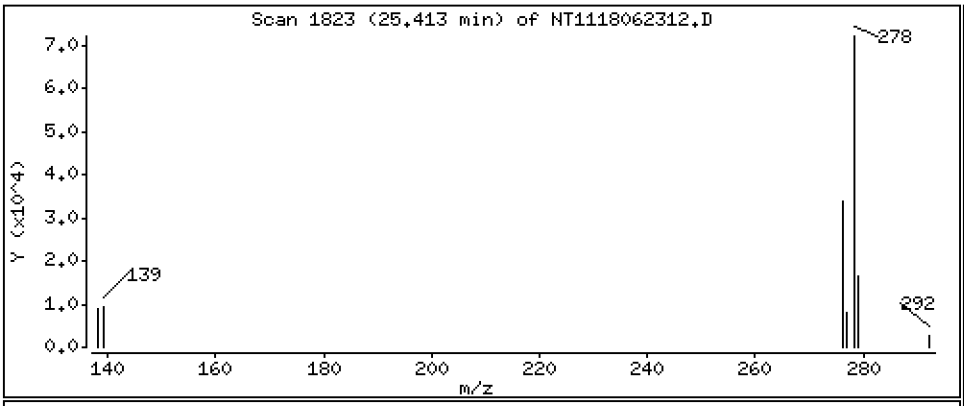
Operator: VTS

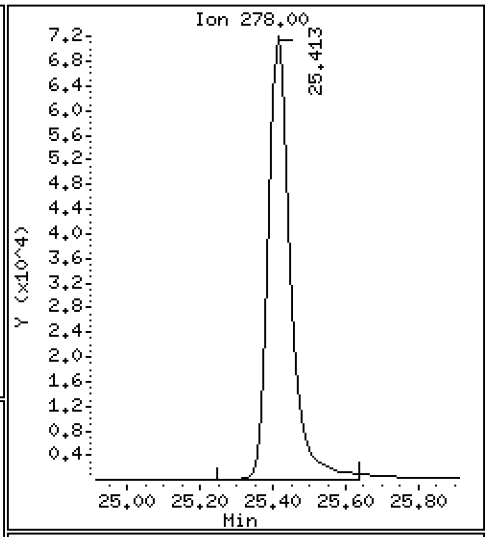
Column phase: Rxi-17Sil MS

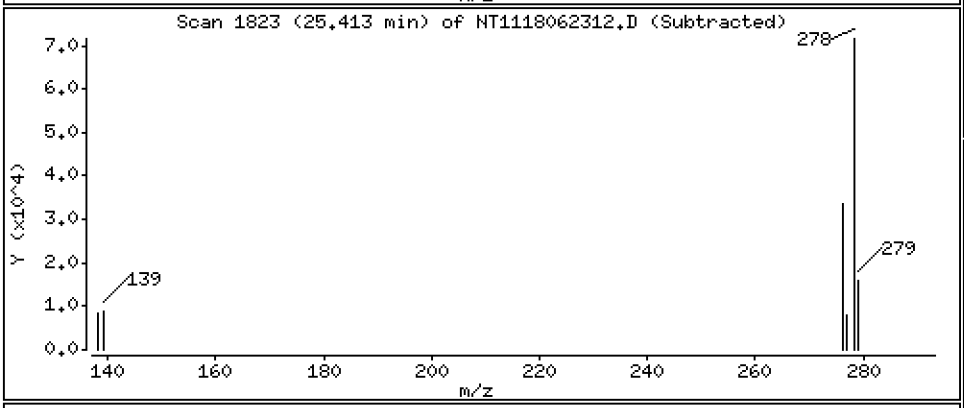
Column diameter: 0.25

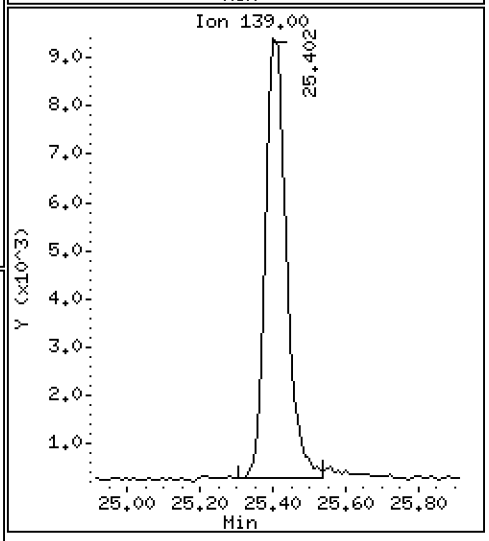
39 Dibenzo(a,h)anthracene

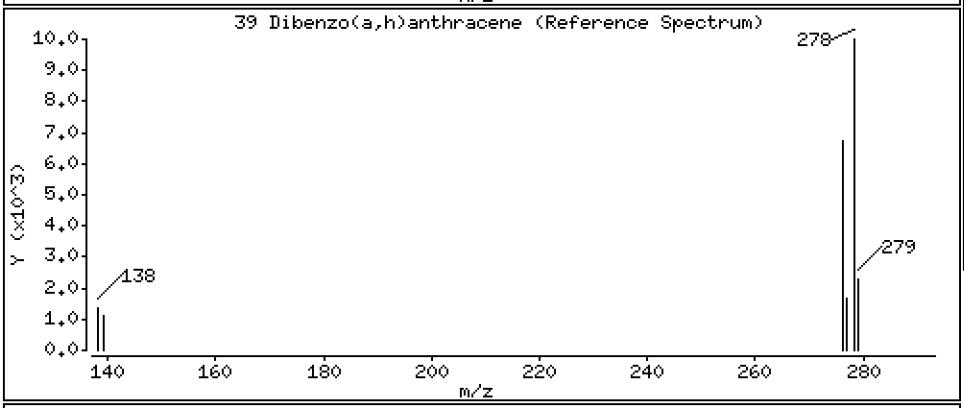
Concentration: 169 ng/mL

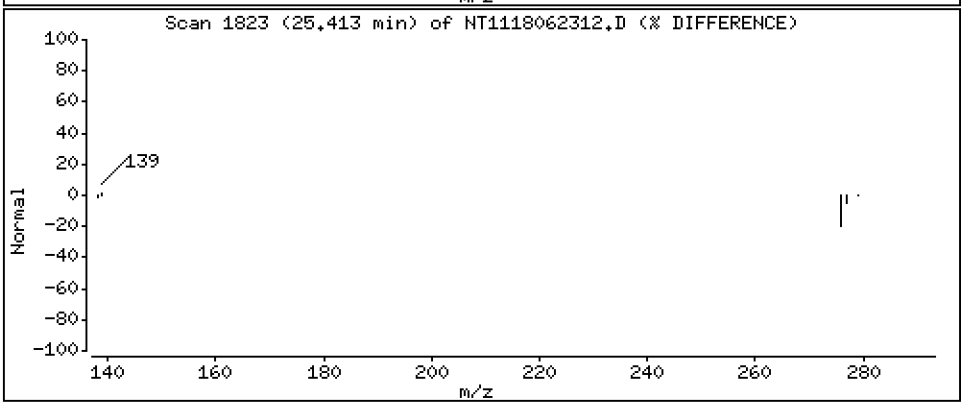












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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

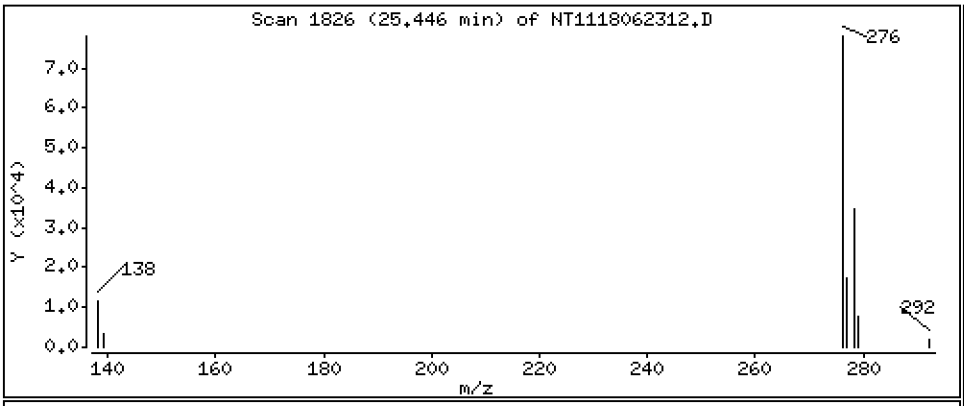
Operator: VTS

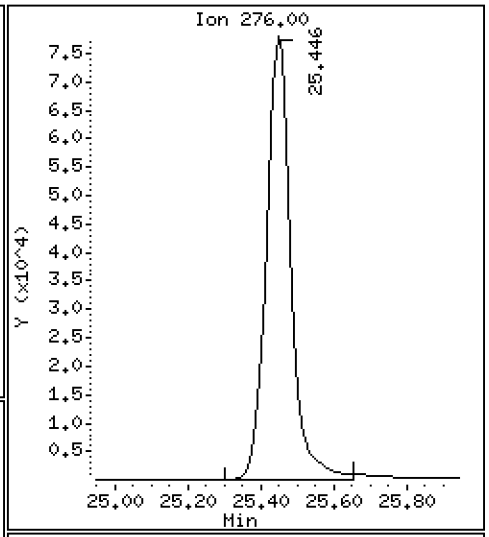
Column phase: Rxi-17Sil MS

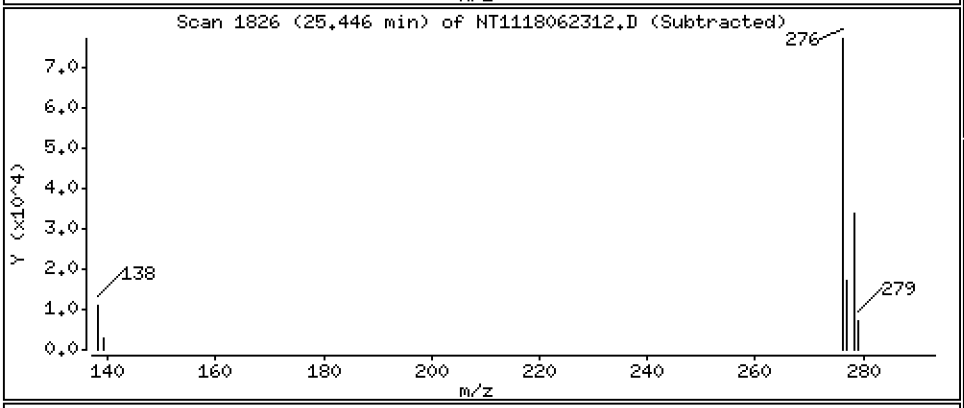
Column diameter: 0.25

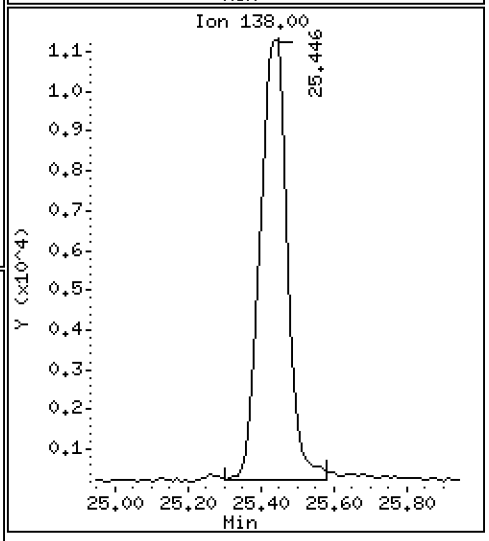
40 Indeno(1,2,3-cd)pyrene

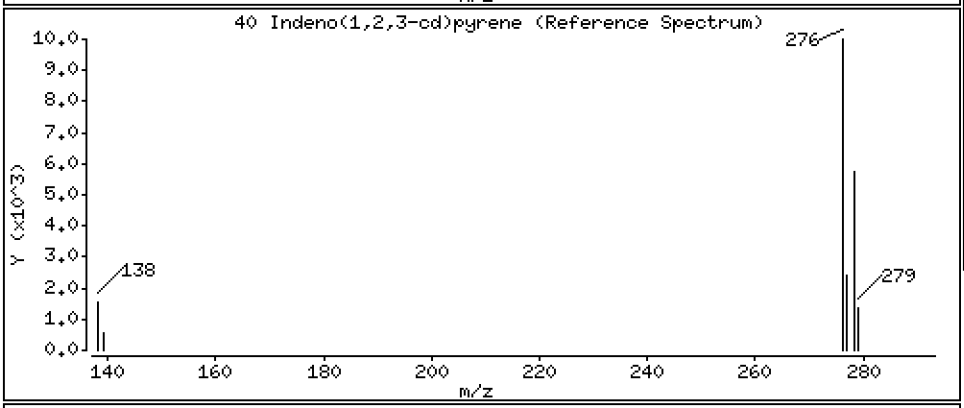
Concentration: 168 ng/mL

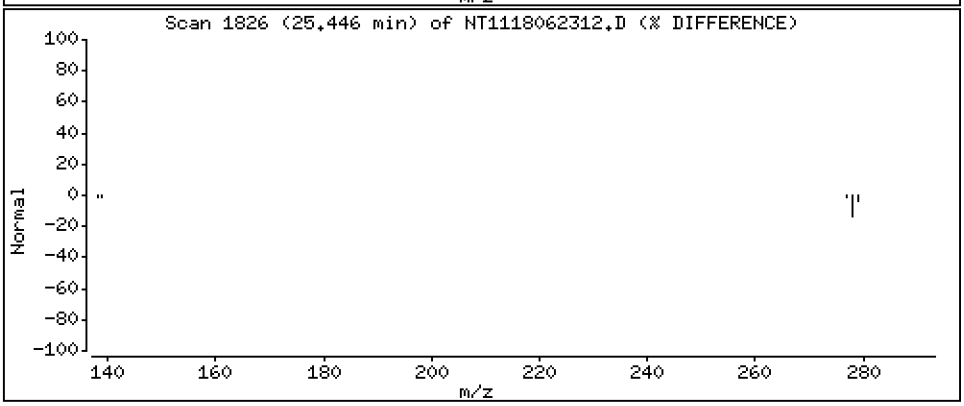












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Date : 23-JUN-2018 17:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

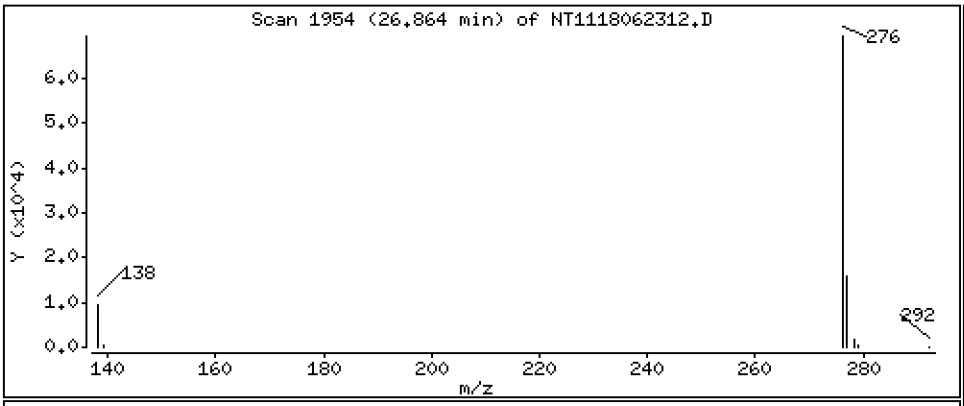
Operator: VTS

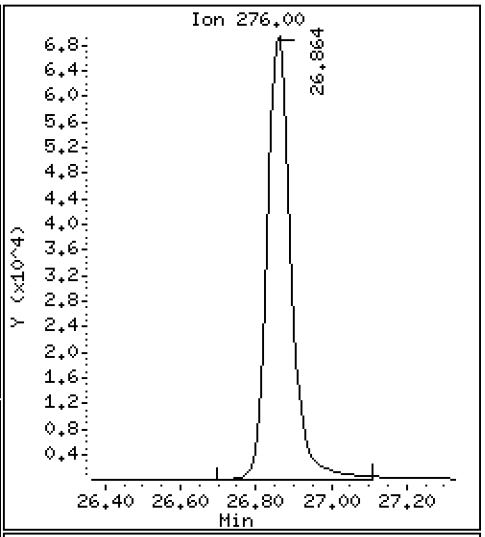
Column phase: Rxi-17Sil MS

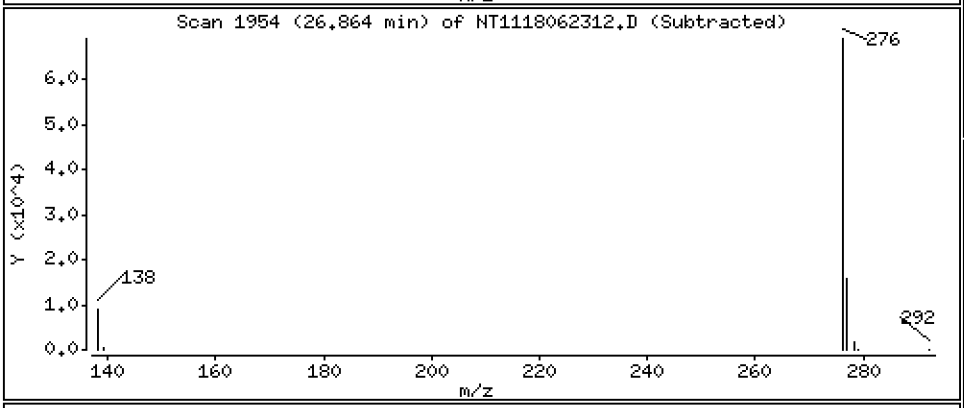
Column diameter: 0.25

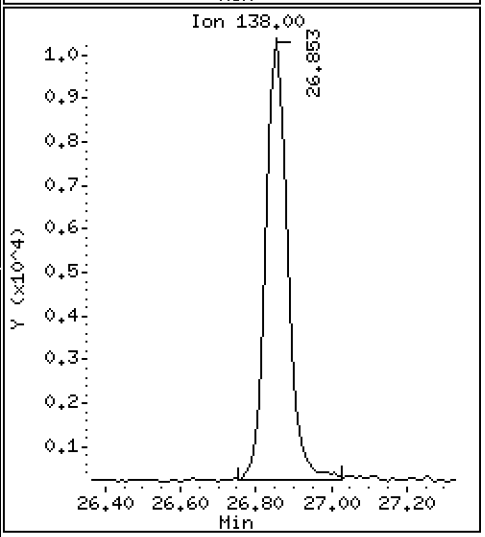
41 Benzo(g,h,i)perylene

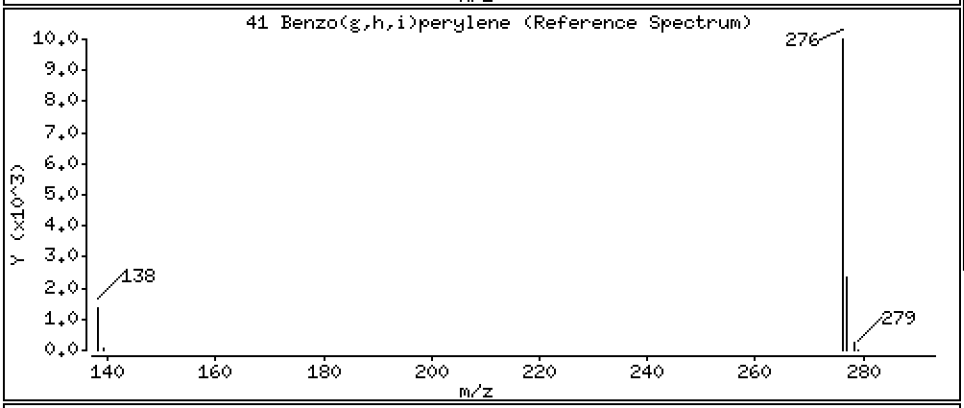
Concentration: 167 ng/mL

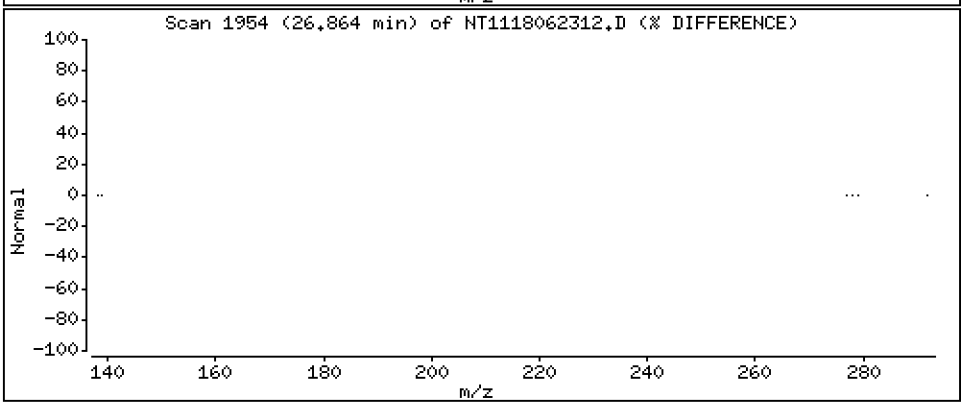












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180623.b\NT1118062312.D
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Inj Date : 23-JUN-2018 17:37 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : BGF0416-MS1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180623.b\LOWSIM.m
Meth Date : 23-Jun-2018 13:20 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	432165	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	372144	123.200	123
	3 Benzo(b)thiophene	134	8.897	8.897	(1.034)	323064	142.617	143
$	4 2-Methylnaphthalene-d10	152	9.591	9.592	(1.114)	335736	136.158	136
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	369280	140.277	140
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	362682	138.528	139
	7 2-Chloronaphthalene	162	10.558	10.569	(0.907)	367917	148.290	148
	8 Biphenyl	154	10.526	10.527	(0.904)	472272	159.136	159
	9 2,6-Dimethylnaphthalene	156	10.579	10.579	(0.909)	370012	157.759	158
	10 Acenaphthylene	152	11.490	11.499	(0.987)	428092	150.854	151
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	238674	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	283563	146.094	146
	13 Dibenzofuran	168	11.907	11.908	(1.023)	405883	152.645	153
	14 2,3,5-Trimethylnaphthalene	170	11.996	12.009	(1.030)	262958	154.530	155
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.539	12.540	(1.077)	335279	156.362	156
	17 Dibenzothiophene	184	14.172	14.172	(0.988)	391576	158.578	159
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	396531	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	520123	167.243	167
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.434	14.435	(1.007)	472576	162.543	163
	22 Carbazole	167	15.112	15.113	(1.054)	572155	168.925	169
	23 1-Methylphenanthrene	192	15.383	15.384	(1.073)	544774	185.393	185
$	24 Fluoranthene-d10	212	16.448	16.449	(1.147)	387094	160.823	161
	25 Fluoranthene	202	16.487	16.487	(1.150)	524692	181.674	182
	26 Pyrene	202	16.986	16.996	(0.890)	522544	165.522	166
	27 Benzo(a)anthracene	228	19.004	19.004	(0.995)	432926	175.831	176
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	321120	200.000	
	29 Chrysene	228	19.145	19.145	(1.003)	445588	182.192	182
	30 Benzo(b)fluoranthene	252	21.094	21.104	(0.944)	381558	163.472	163
	31 Benzo(k)fluoranthene	252	21.152	21.152	(0.946)	406225	167.837	168
	32 Benzo(j)fluoranthene	252	21.219	21.229	(0.949)	393840	178.781	179
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	21.978	21.978	(0.983)	372996	165.682	166

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	35 Benzo(a)pyrene	252	22.113	22.113	(0.989)	340199	165.907	166
*	36 Perylene-d12	264	22.353	22.353	(1.000)	329991	200.000	
	37 Perylene	252	22.430	22.430	(1.003)	358351	166.516	167
$	38 Dibenzo(a,h)anthracene-d14	292	25.268	25.268	(1.130)	251251	159.107	159
	39 Dibenzo(a,h)anthracene	278	25.412	25.412	(1.137)	300991	168.703	169
	40 Indeno(1,2,3-cd)pyrene	276	25.445	25.446	(1.138)	358803	168.221	168
	41 Benzo(g,h,i)perylene	276	26.863	26.863	(1.202)	308448	167.189	167

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118062312.D
Lab Smp Id: BGF0416-MS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180623.b\LOWSIM.m
Misc Info:

Calibration Date: 23-JUN-2018
Calibration Time: 10:32
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	432165	0.20
11 Acenaphthene-d10	260137	130069	520274	238674	-8.25
18 Phenanthrene-d10	427391	213696	854782	396531	-7.22
28 Chrysene-d12	304596	152298	609192	321120	5.42
36 Perylene-d12	263091	131546	526182	329991	25.43

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118062312.D

Lab ID: BGF0416-MS1
nt11.i, 20180623.b\LOWSIM.m,   23-JUN-2018 17:37

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180623.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062313.D

Date : 23-JUN-2018 18:13

Client ID:

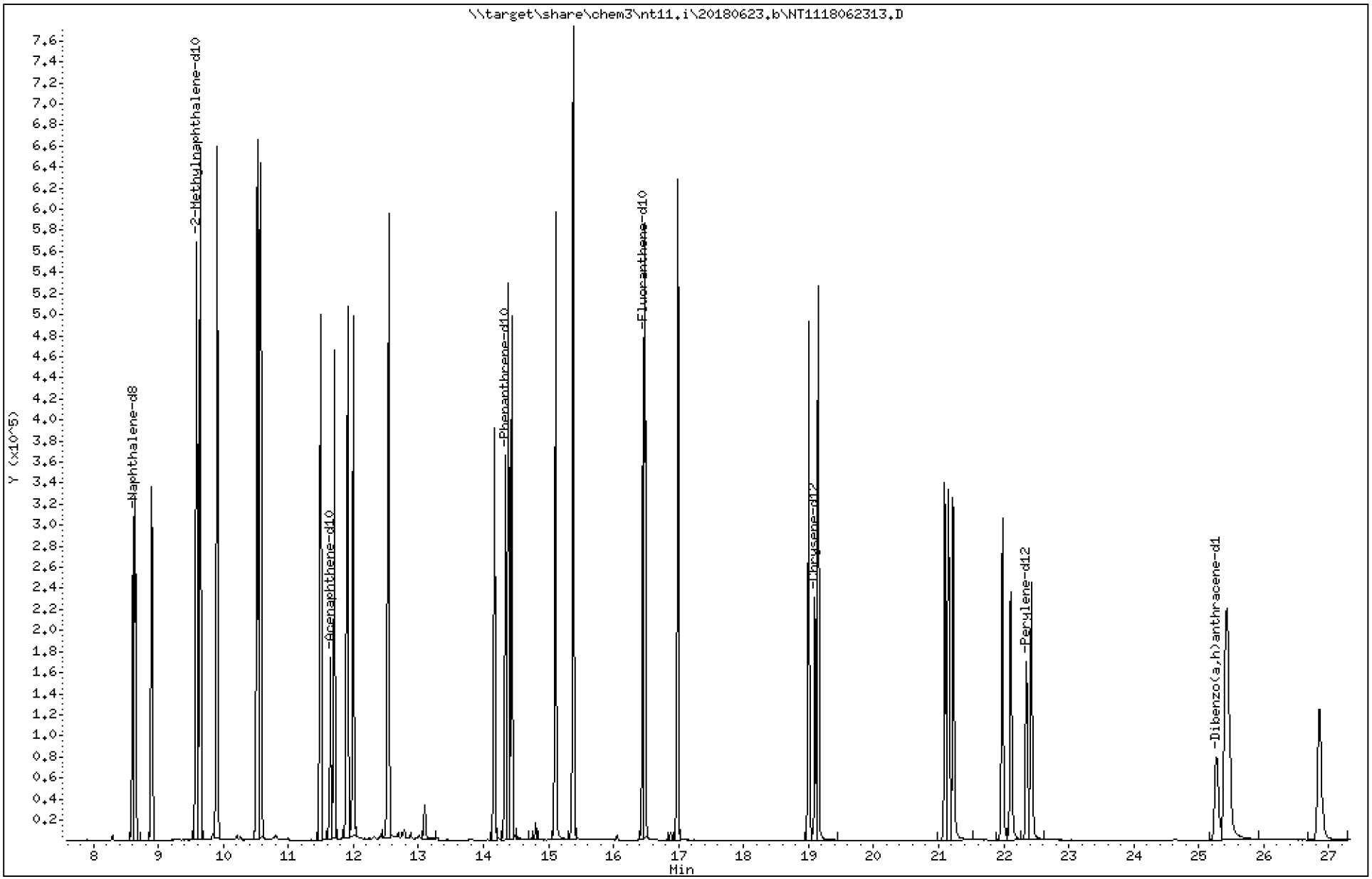
Instrument: nt11.i

Sample Info: BGF0416-MSD1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

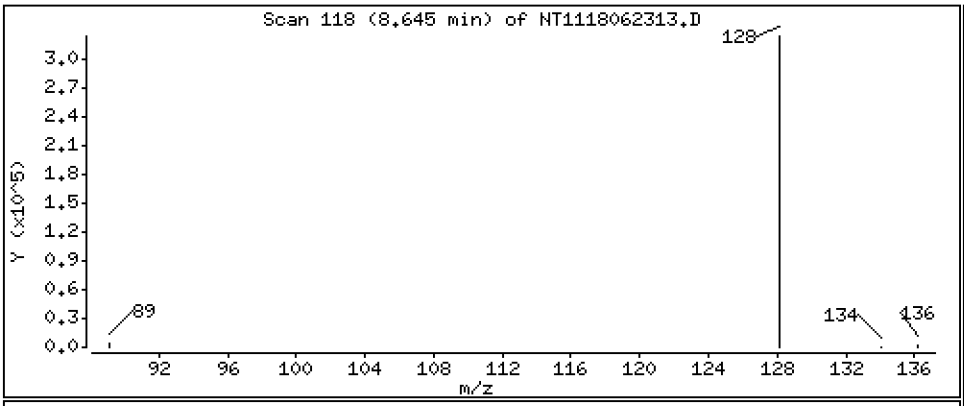
Operator: VTS

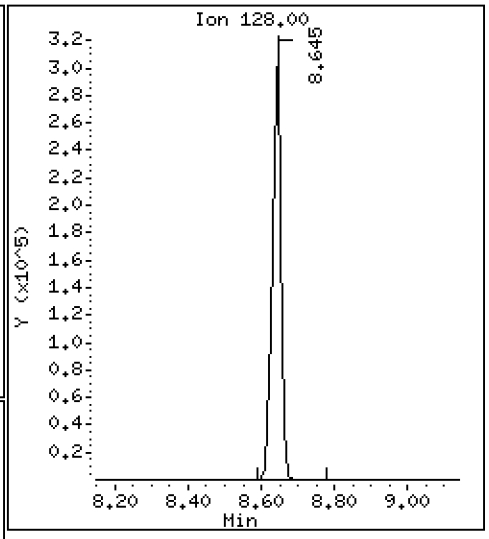
Column phase: Rxi-17Sil MS

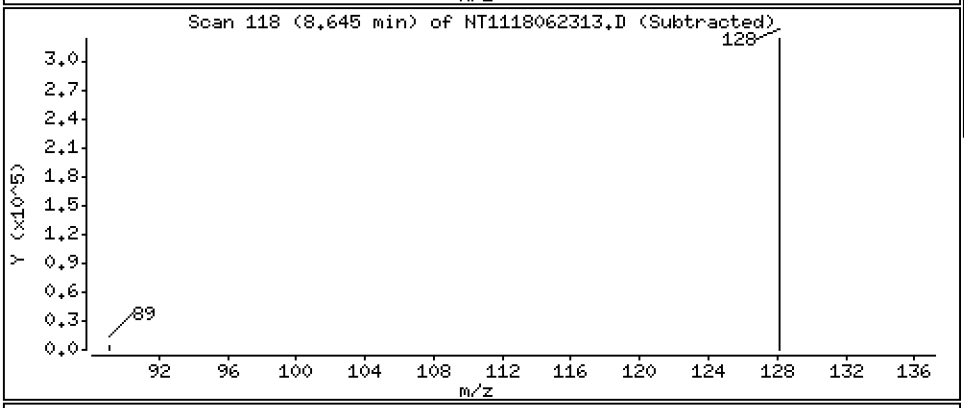
Column diameter: 0.25

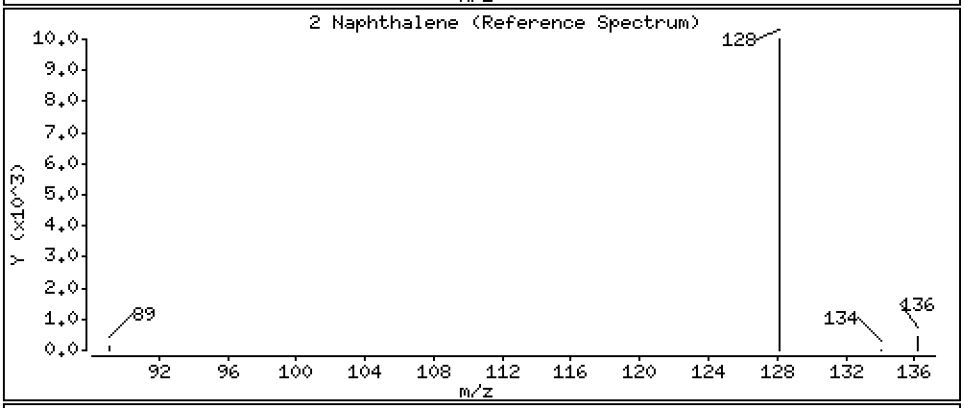
2 Naphthalene

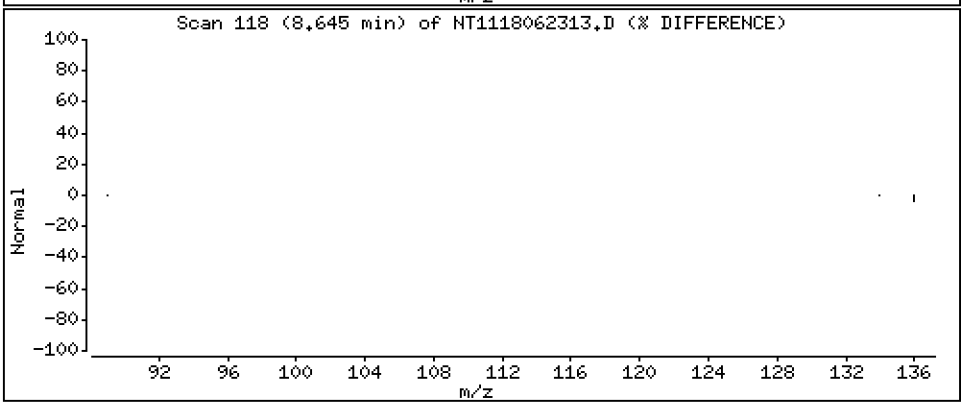
Concentration: 169 ng/mL











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Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

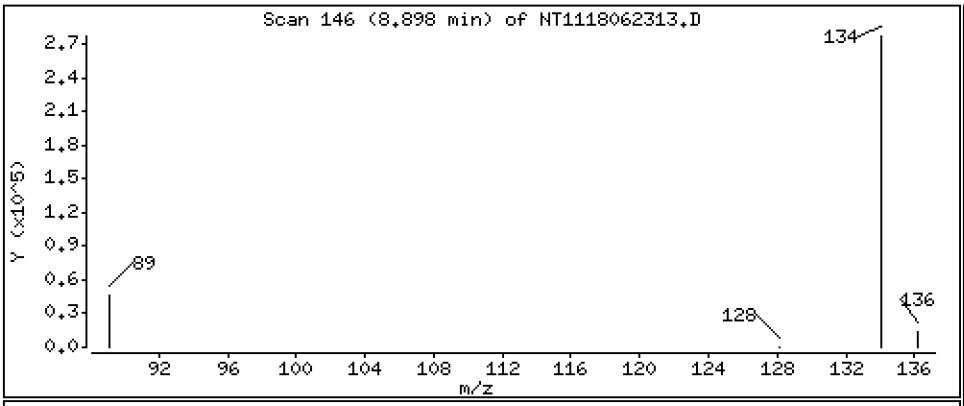
Operator: VTS

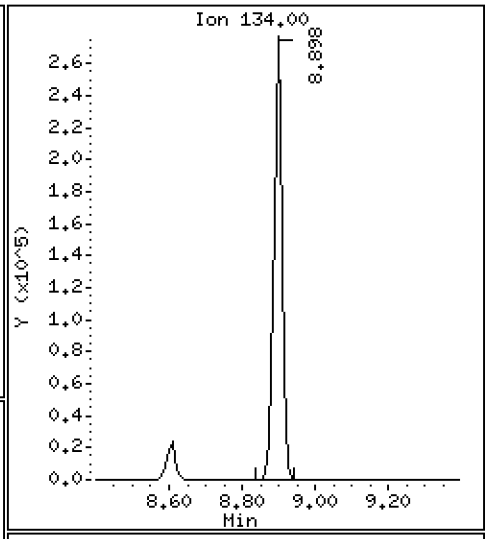
Column phase: Rxi-17Sil MS

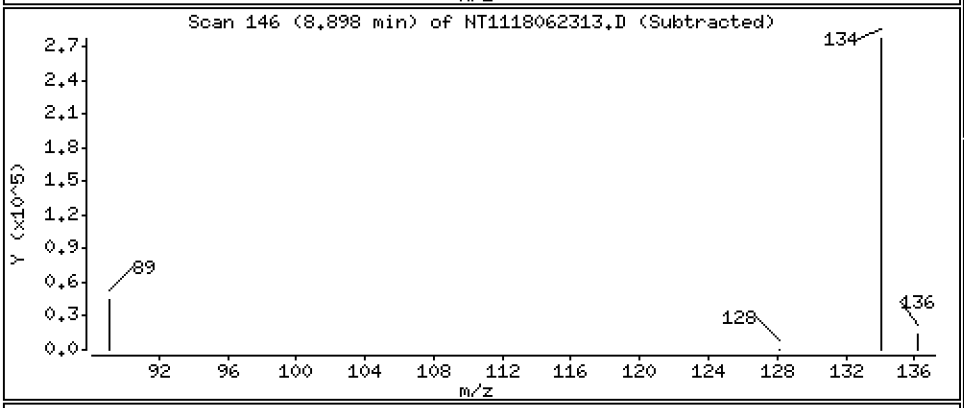
Column diameter: 0.25

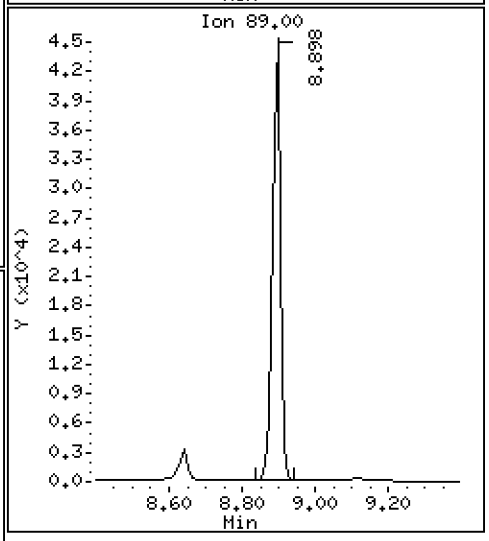
3 Benzo(b)thiophene

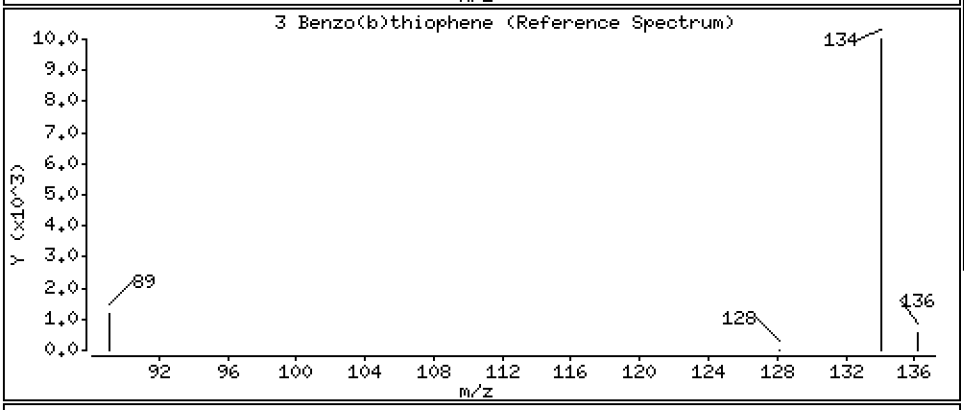
Concentration: 193 ng/mL

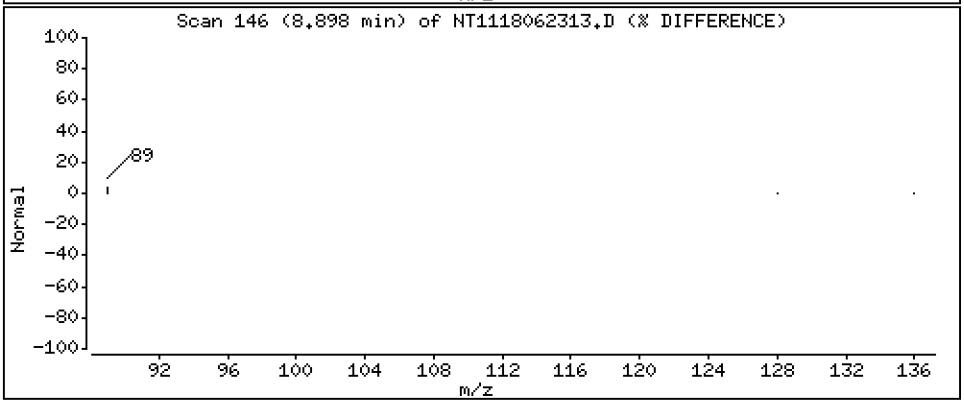












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062313.D

Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

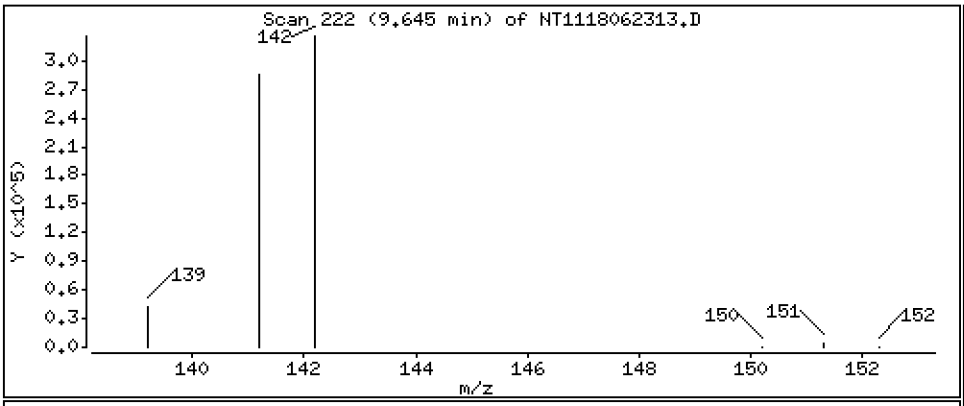
Operator: VTS

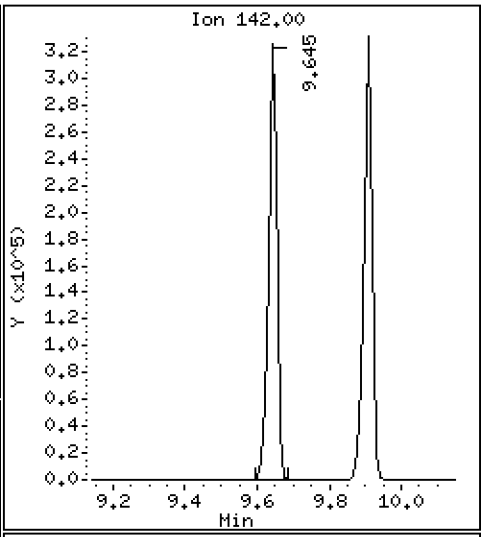
Column phase: Rxi-17Sil MS

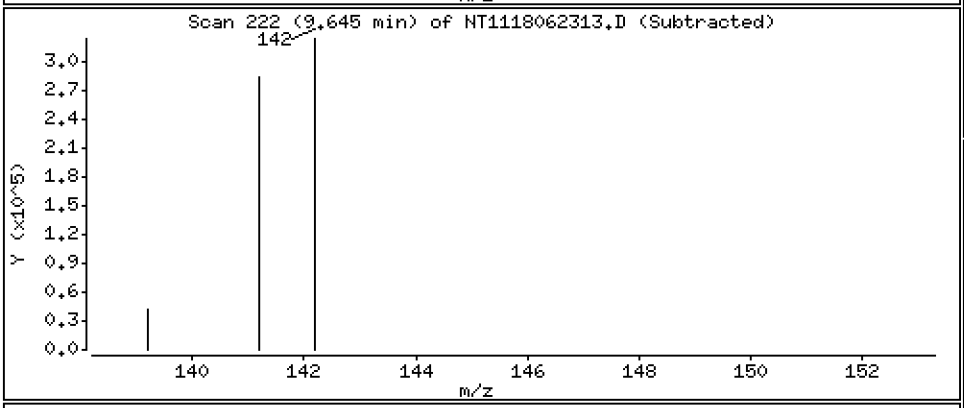
Column diameter: 0.25

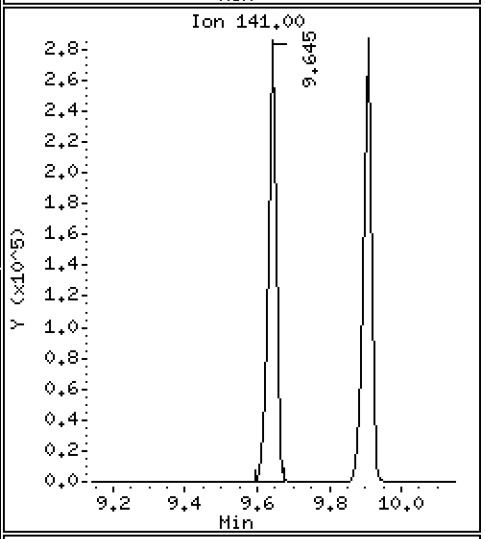
5 2-Methylnaphthalene

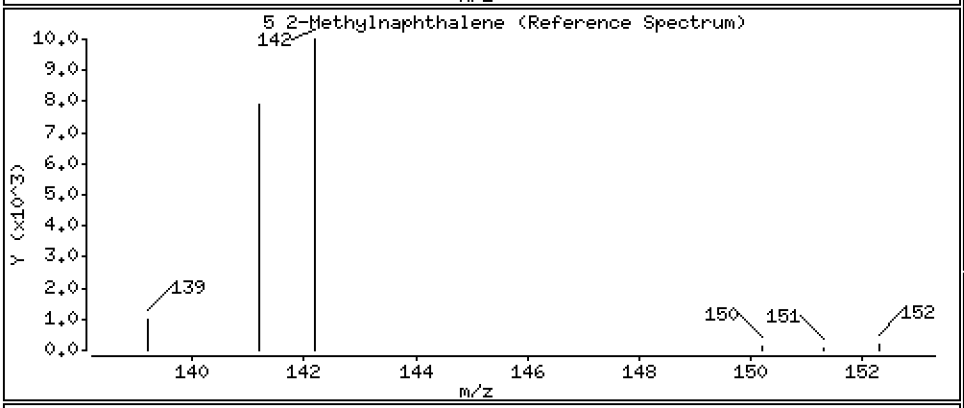
Concentration: 192 ng/mL

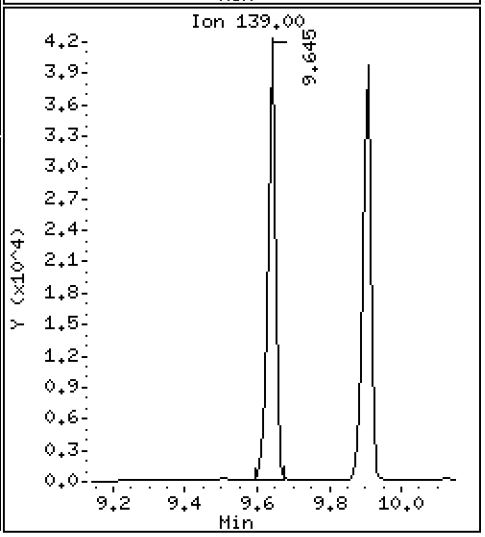


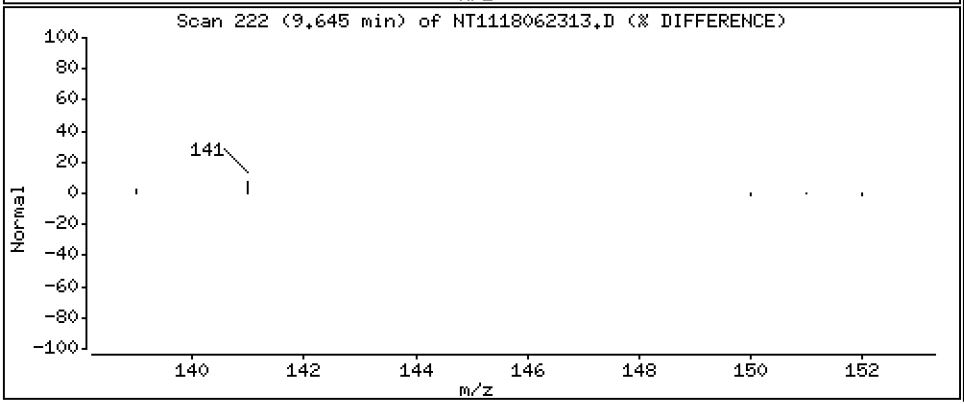












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062313.D

Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

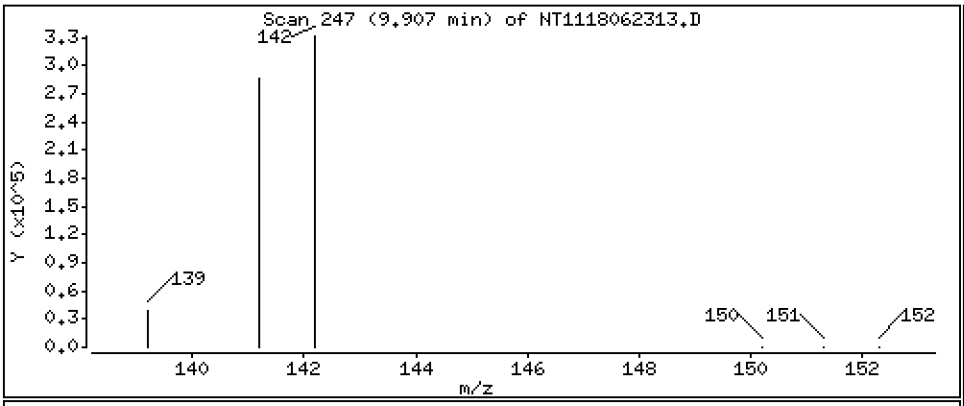
Operator: VTS

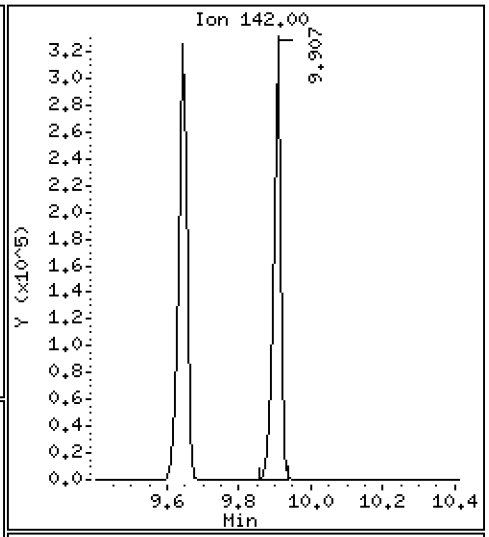
Column phase: Rxi-17Sil MS

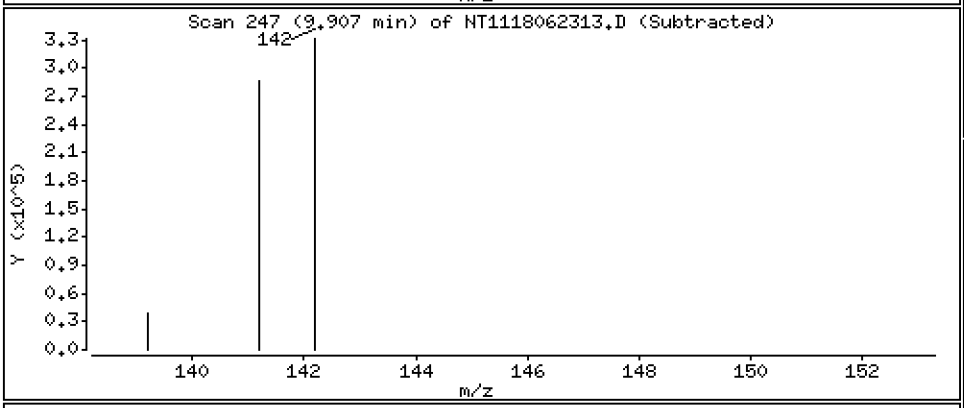
Column diameter: 0.25

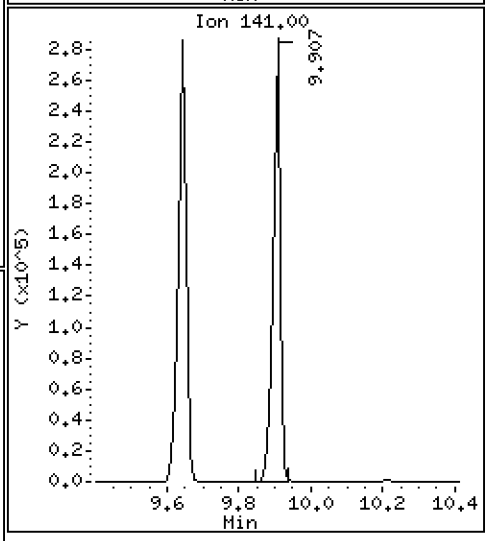
6 1-Methylnaphthalene

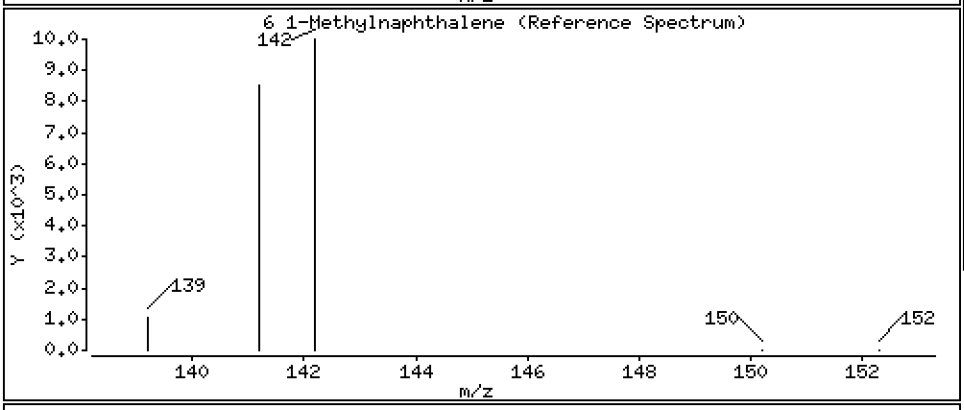
Concentration: 191 ng/mL

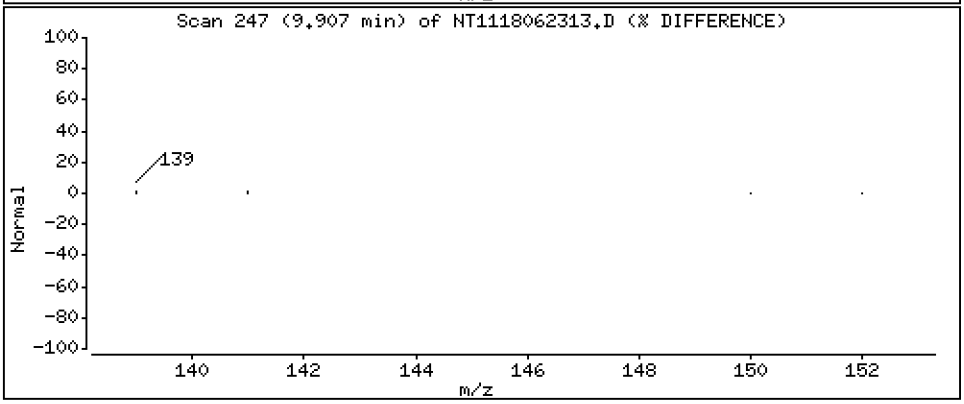












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Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

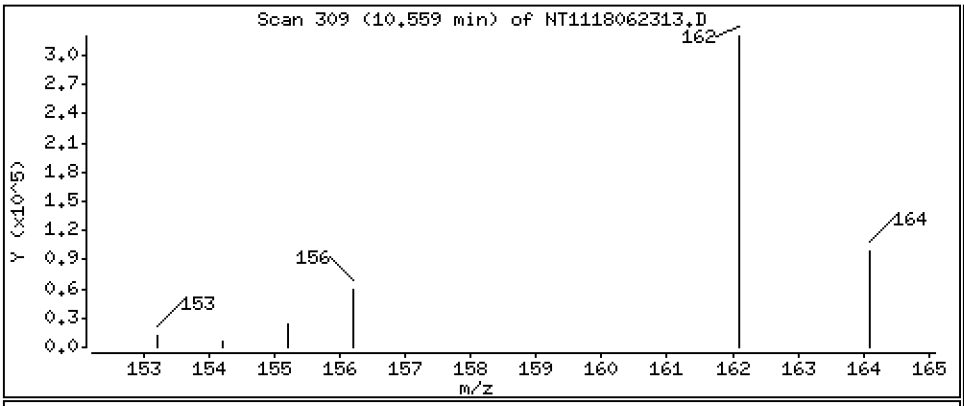
Operator: VTS

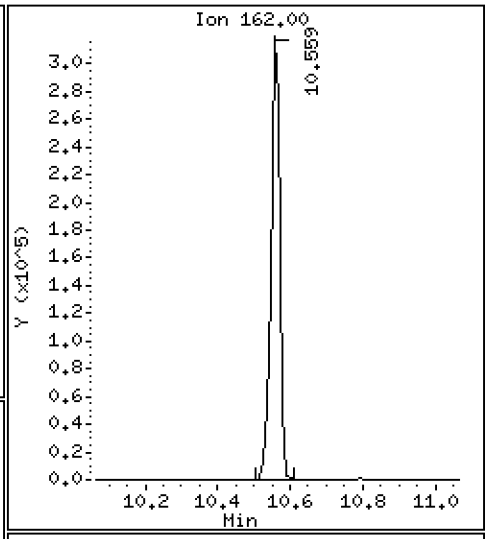
Column phase: Rxi-17Sil MS

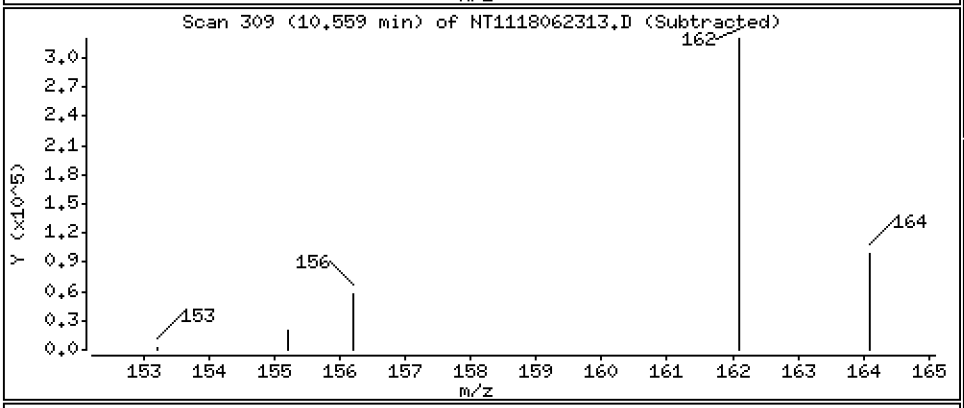
Column diameter: 0.25

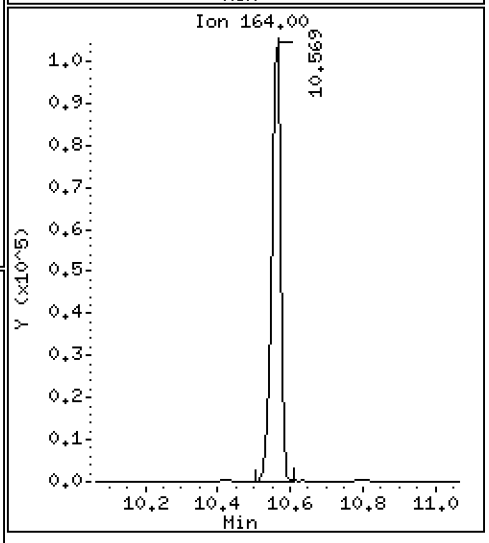
7 2-Chloronaphthalene

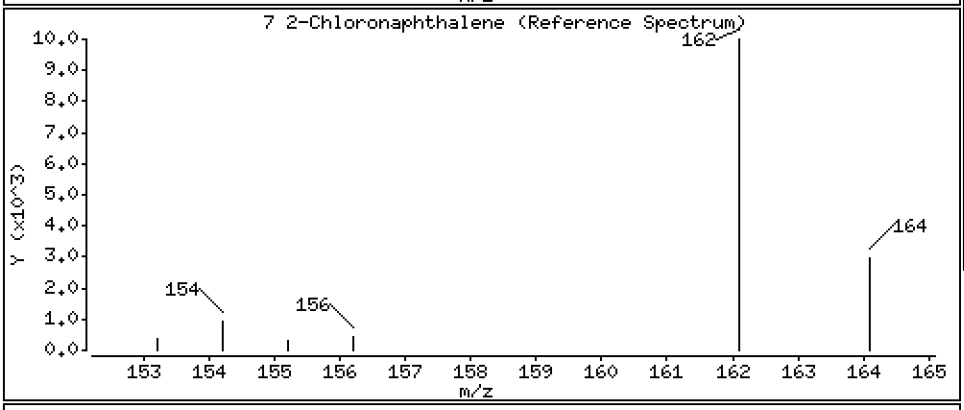
Concentration: 200 ng/mL

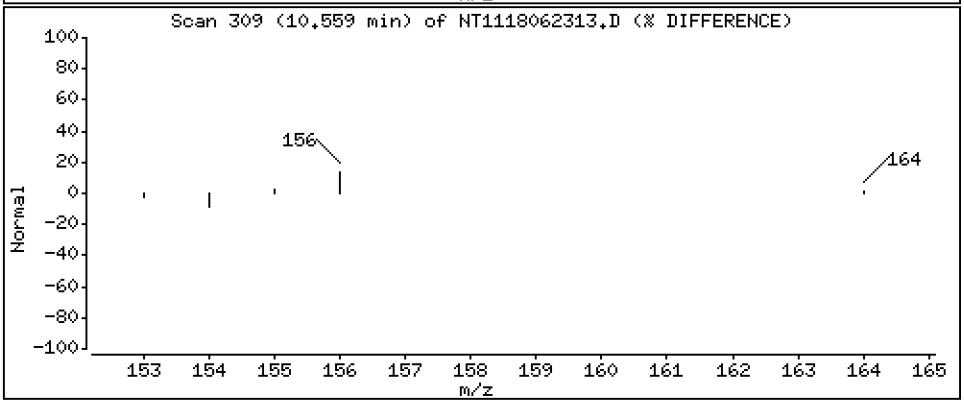












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Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

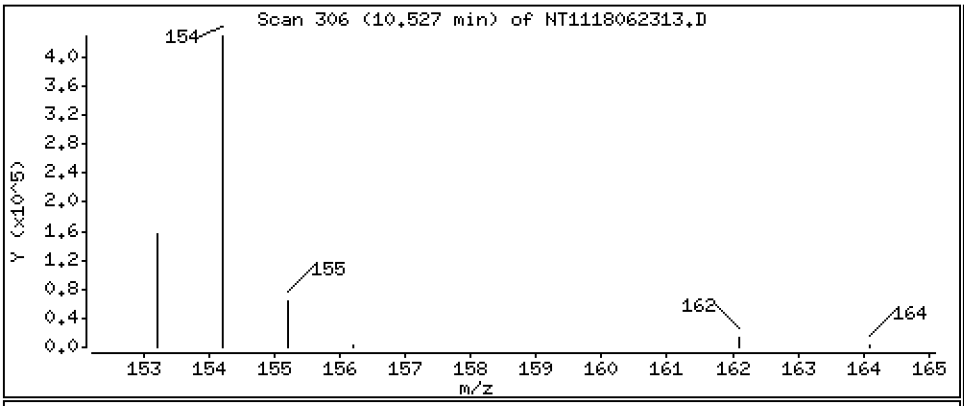
Operator: VTS

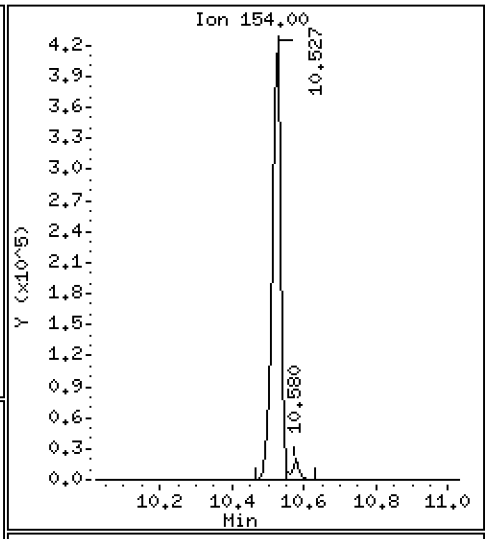
Column phase: Rxi-17Sil MS

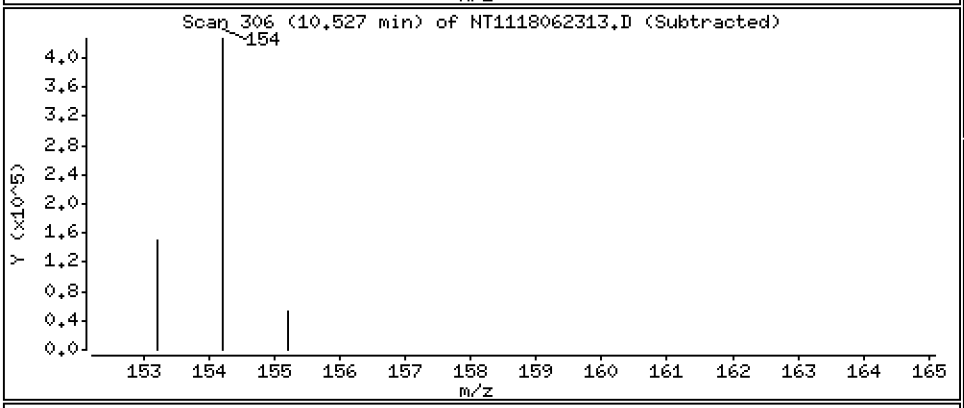
Column diameter: 0.25

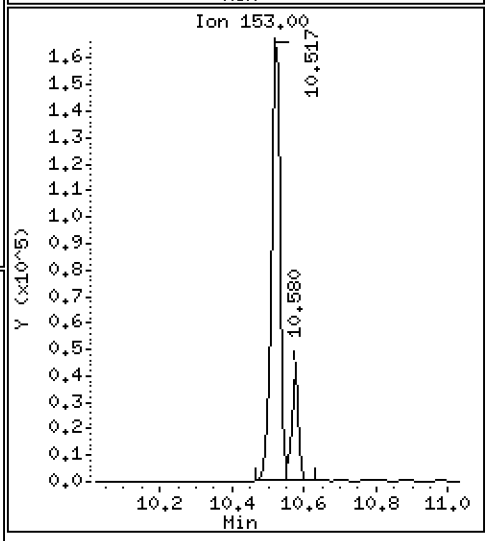
8 Biphenyl

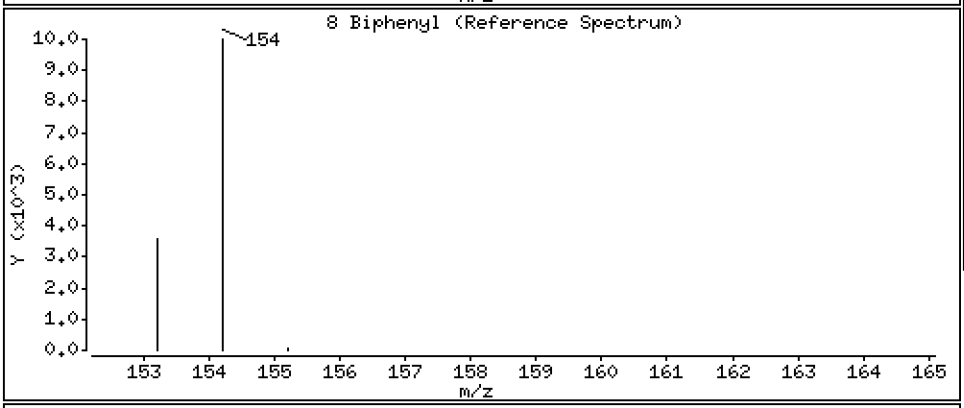
Concentration: 213 ng/mL

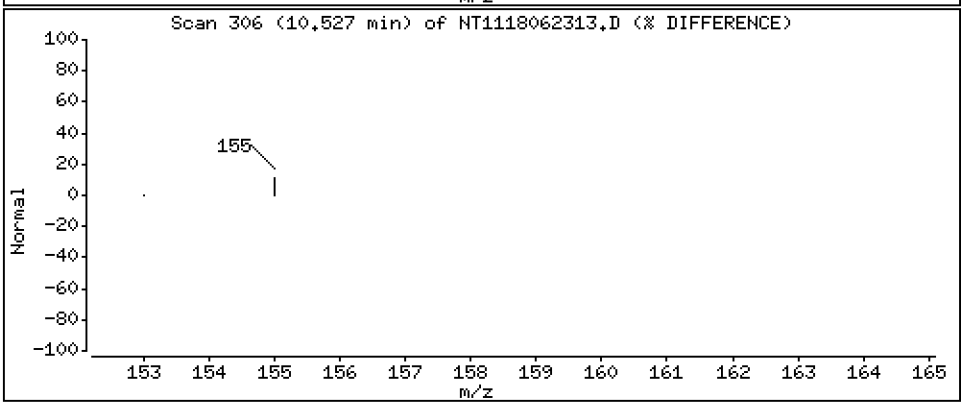












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Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

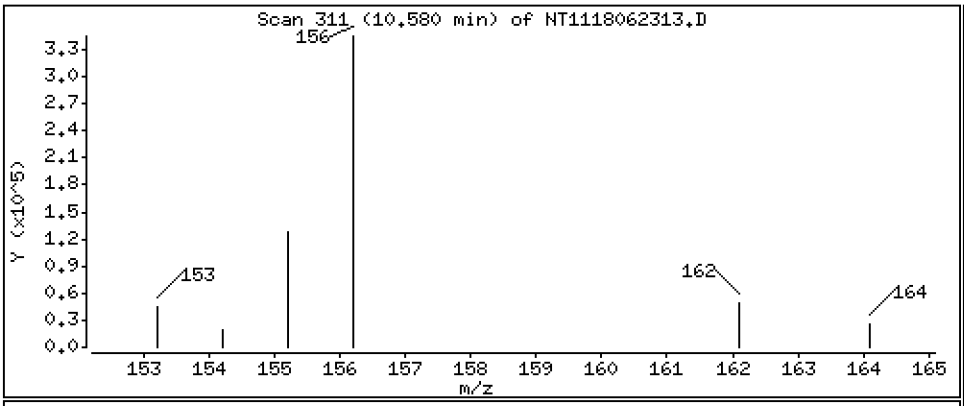
Operator: VTS

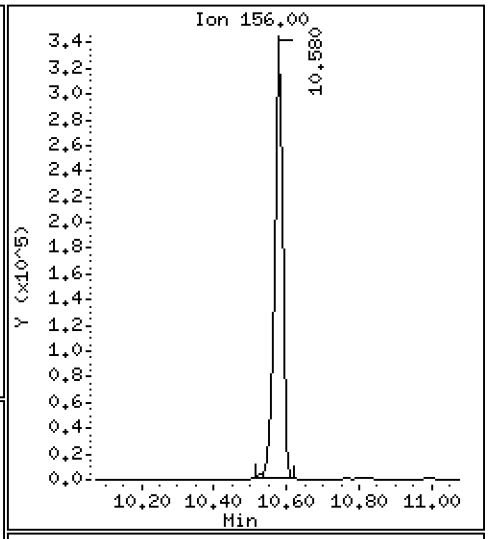
Column phase: Rxi-17Sil MS

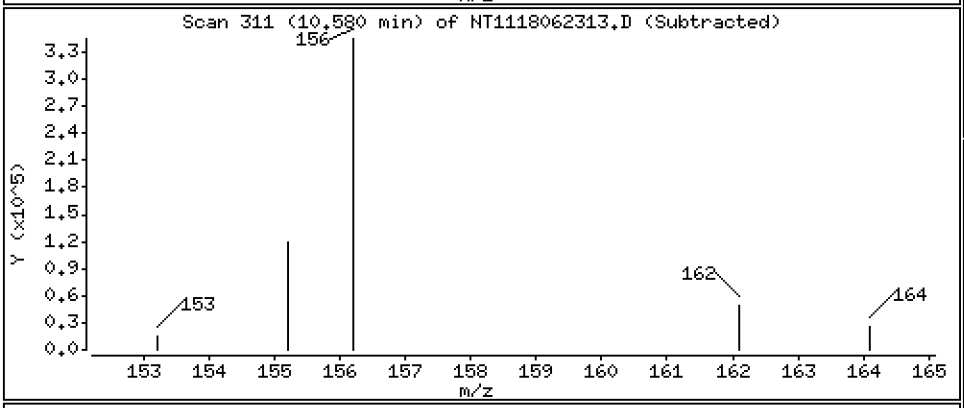
Column diameter: 0.25

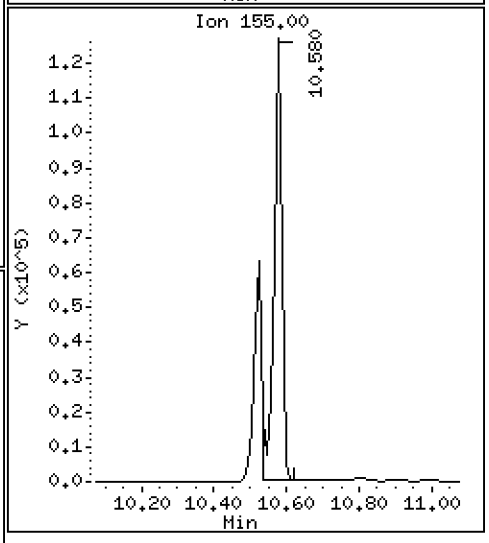
9 2,6-Dimethylnaphthalene

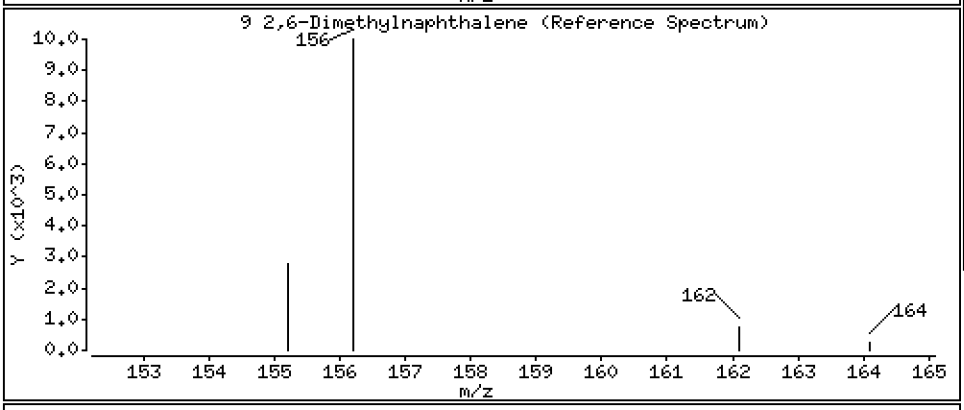
Concentration: 209 ng/mL

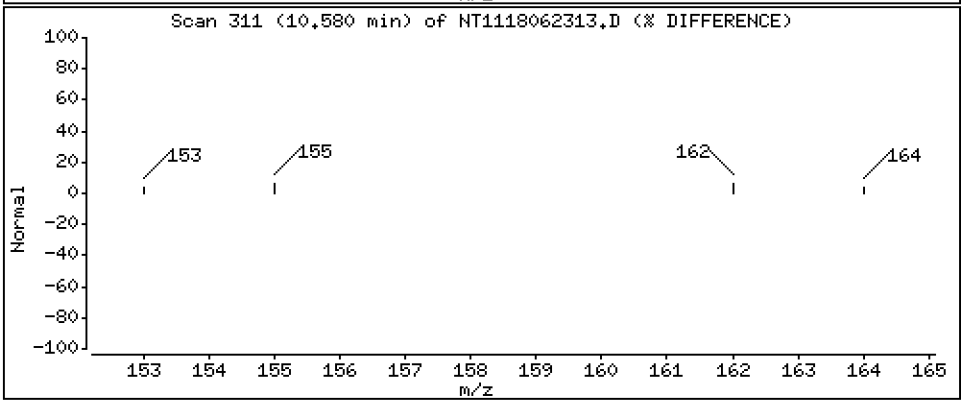












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Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

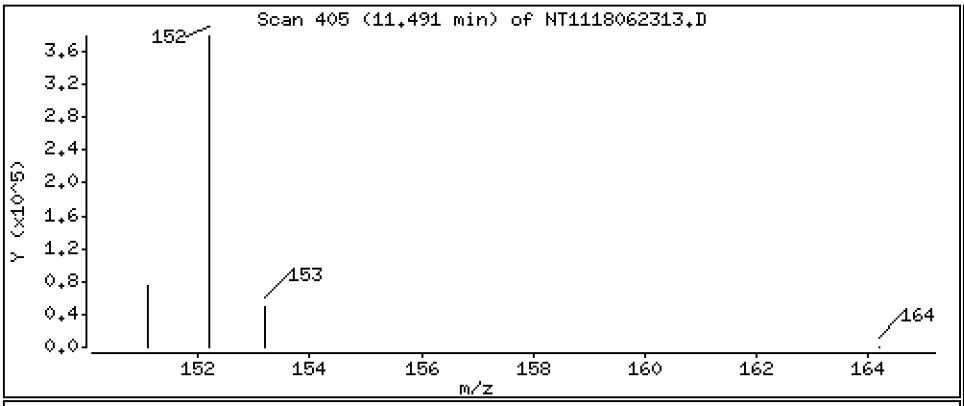
Operator: VTS

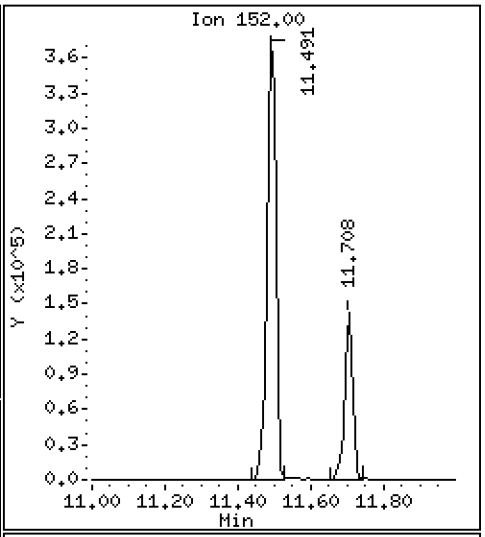
Column phase: Rxi-17Sil MS

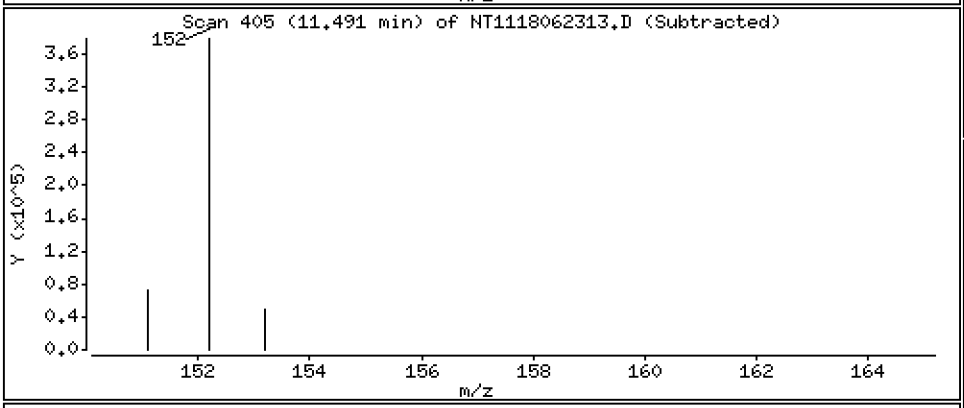
Column diameter: 0.25

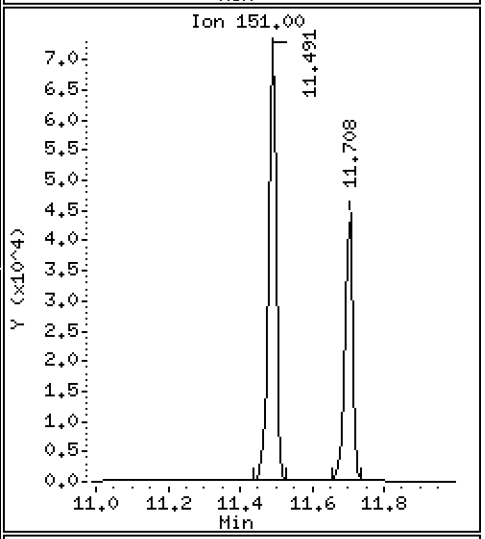
10 Acenaphthylene

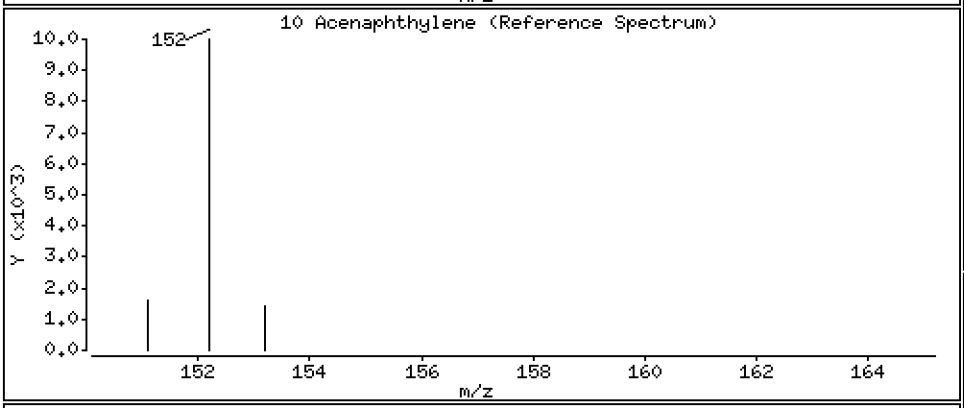
Concentration: 199 ng/mL

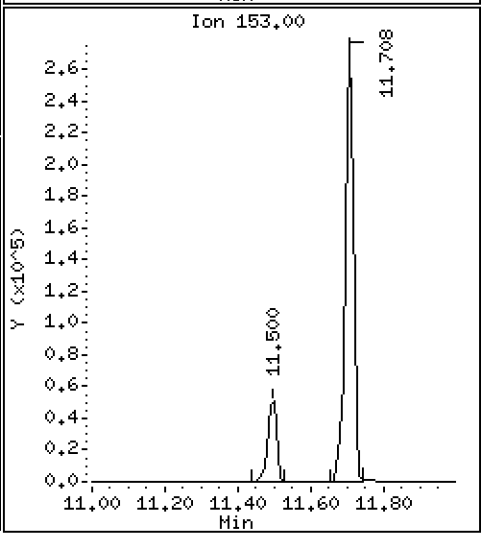


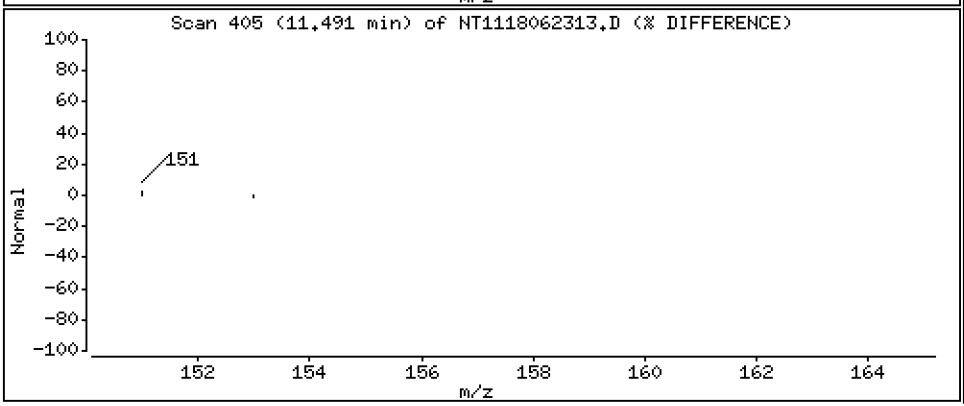












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Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

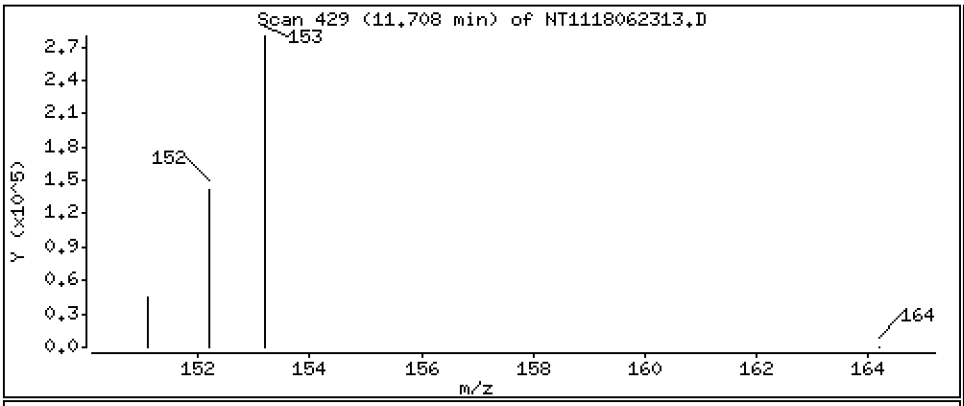
Operator: VTS

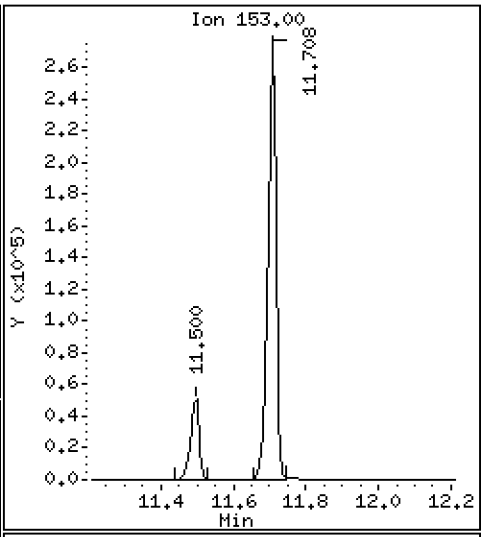
Column phase: Rxi-17Sil MS

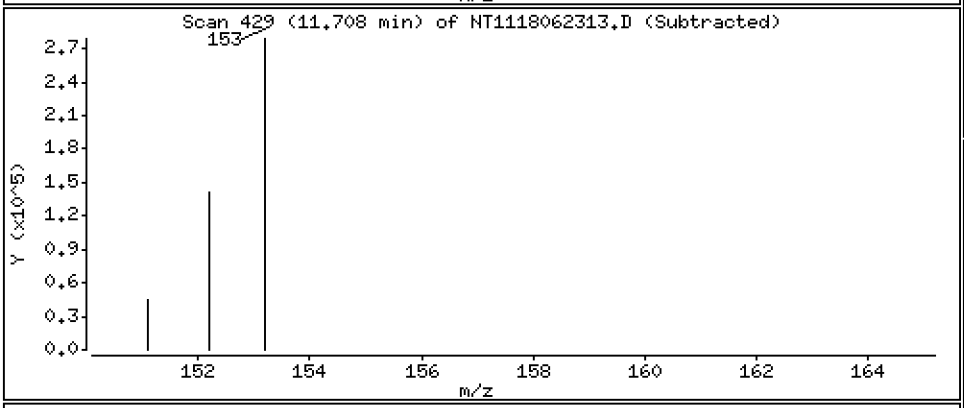
Column diameter: 0.25

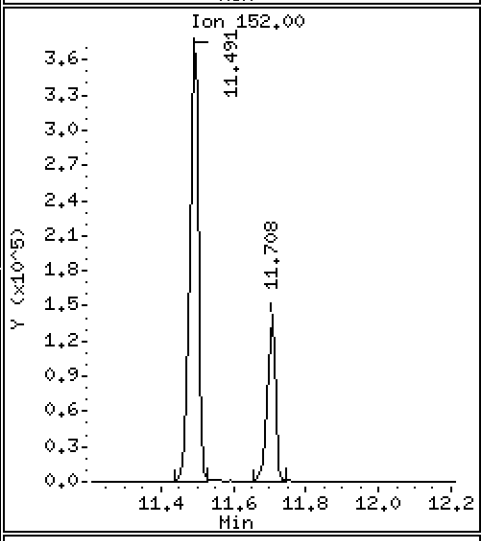
12 Acenaphthene

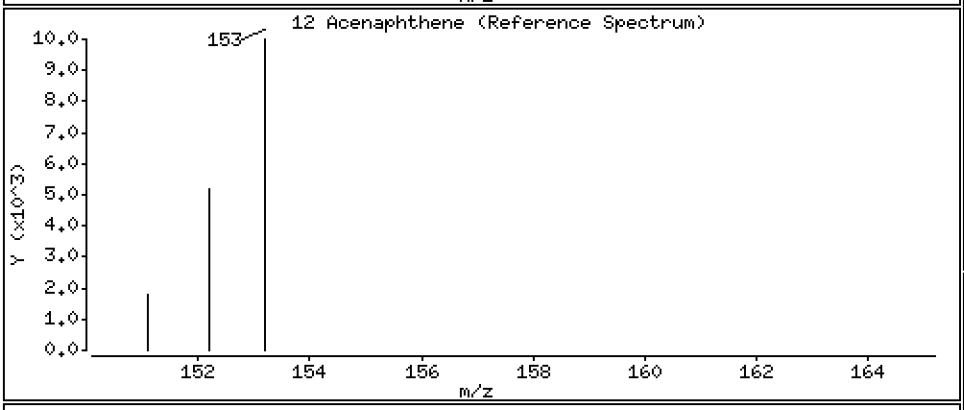
Concentration: 196 ng/mL

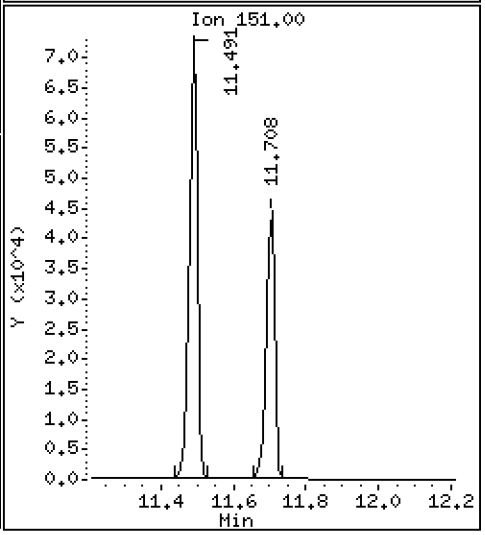


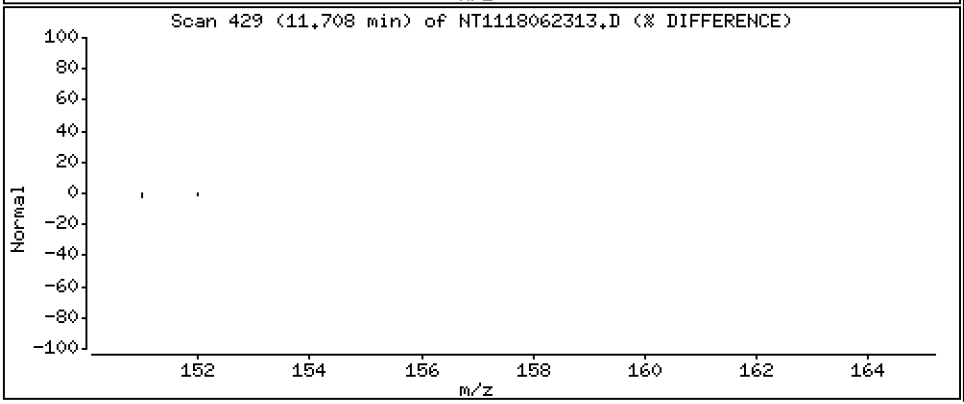












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Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

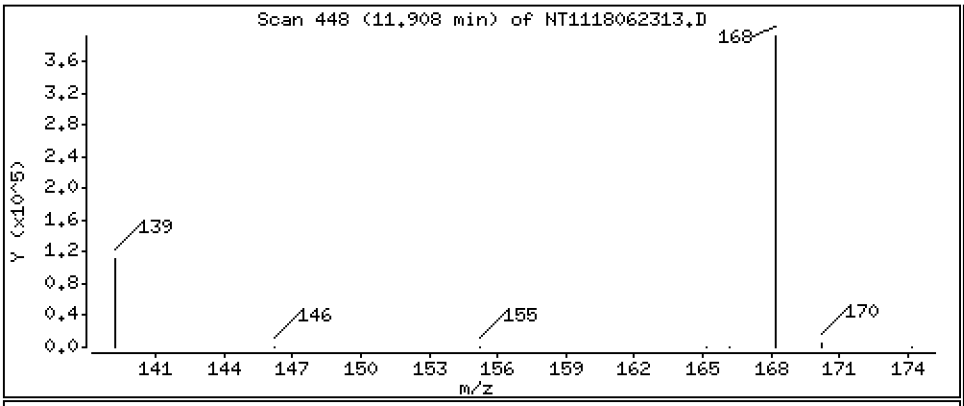
Operator: VTS

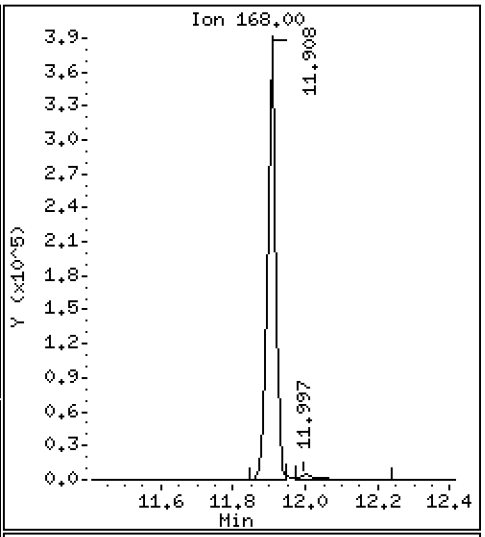
Column phase: Rxi-17Sil MS

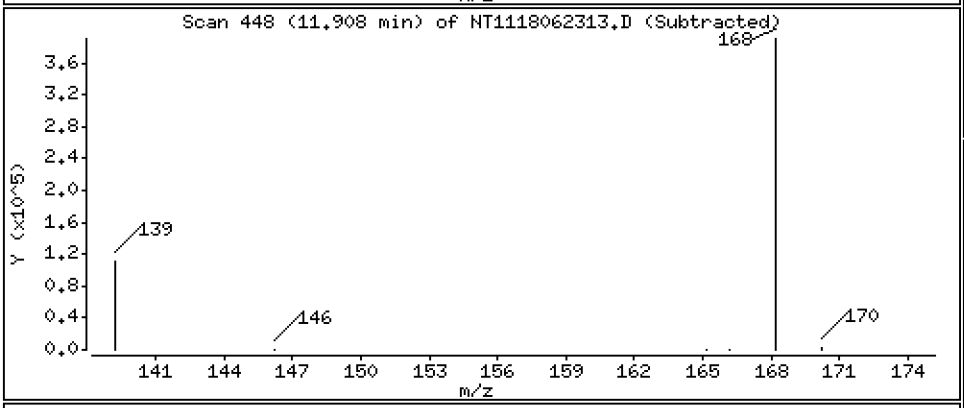
Column diameter: 0.25

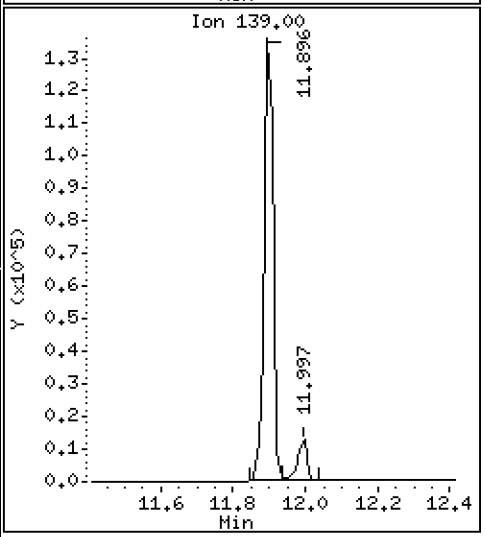
13 Dibenzofuran

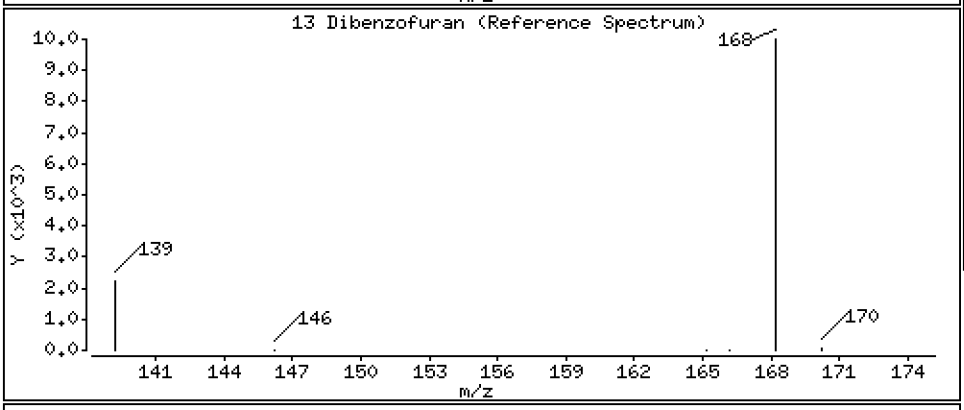
Concentration: 201 ng/mL

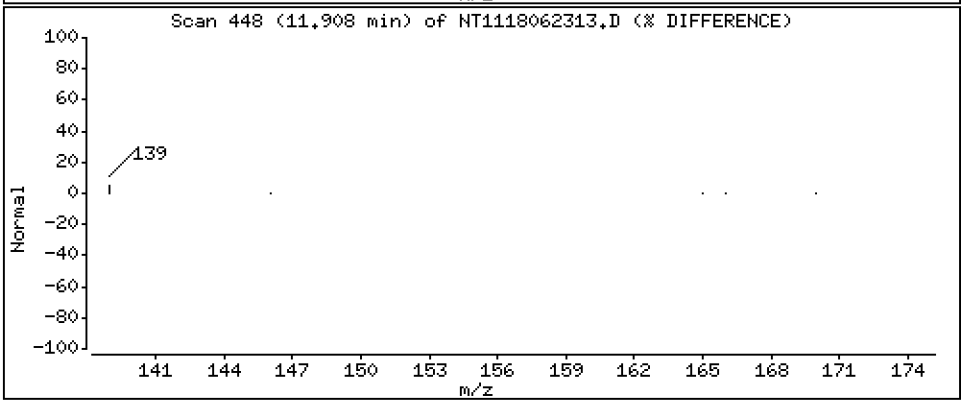












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Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

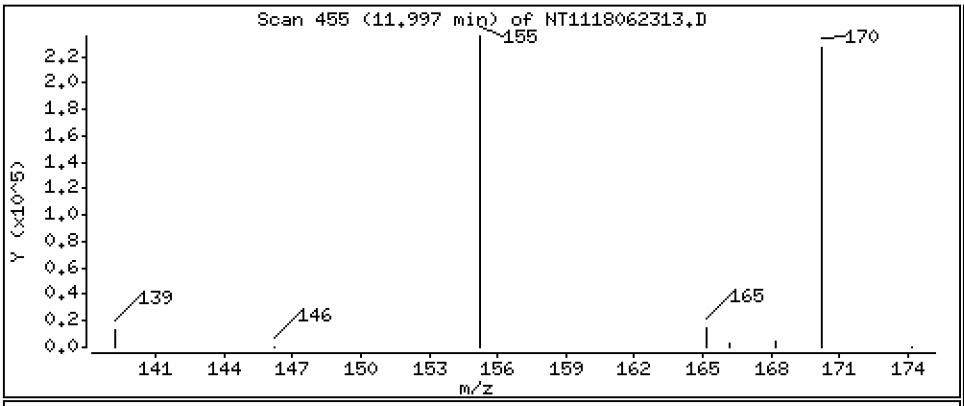
Operator: VTS

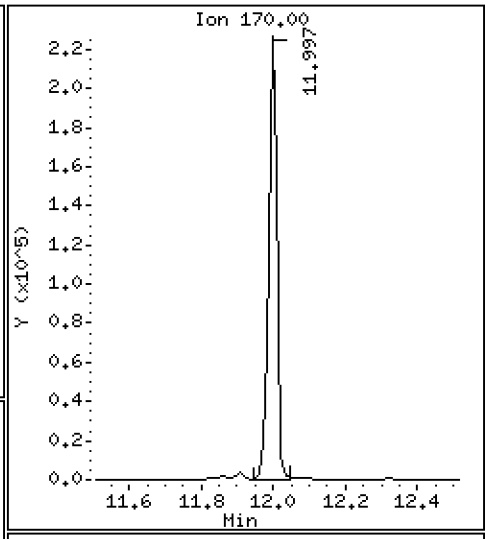
Column phase: Rxi-17Sil MS

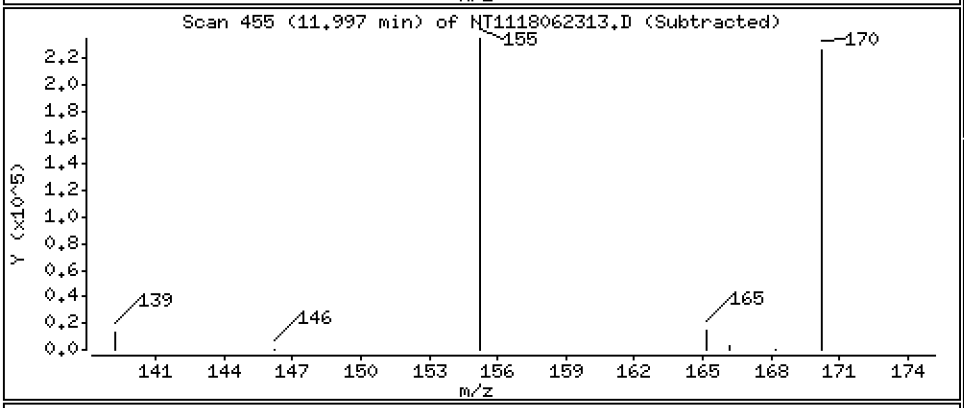
Column diameter: 0.25

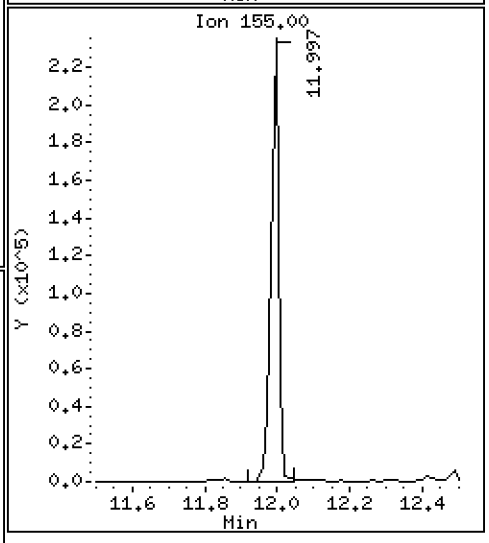
14 2,3,5-Trimethylnaphthalene

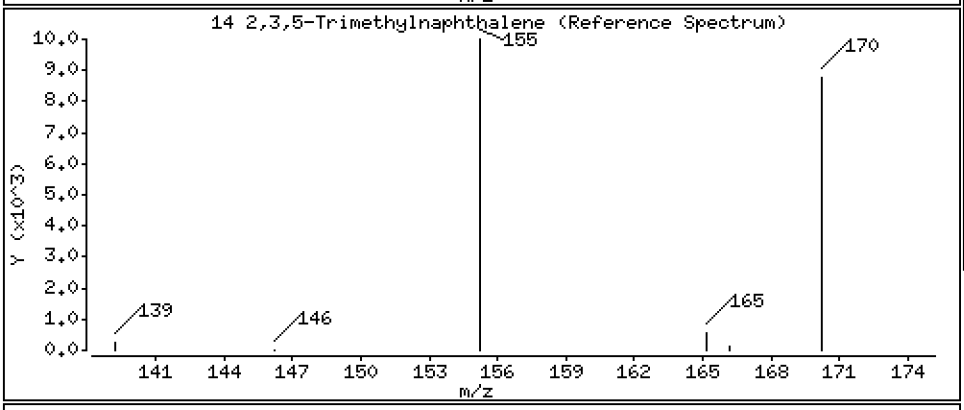
Concentration: 200 ng/mL

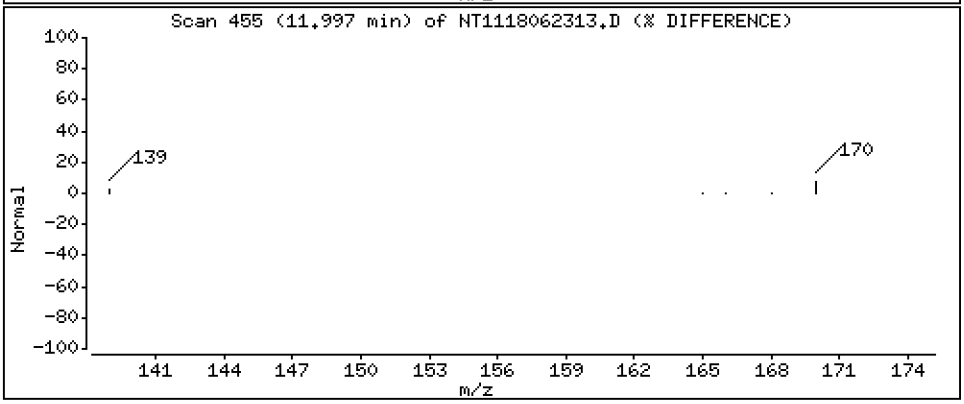












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Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

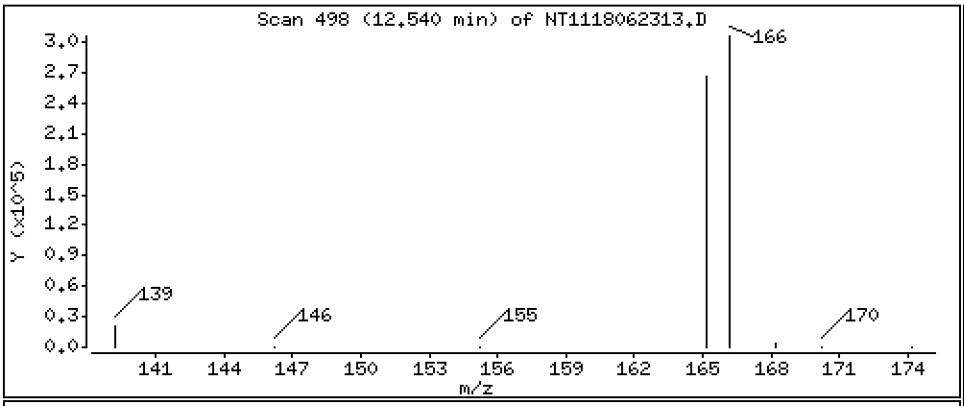
Operator: VTS

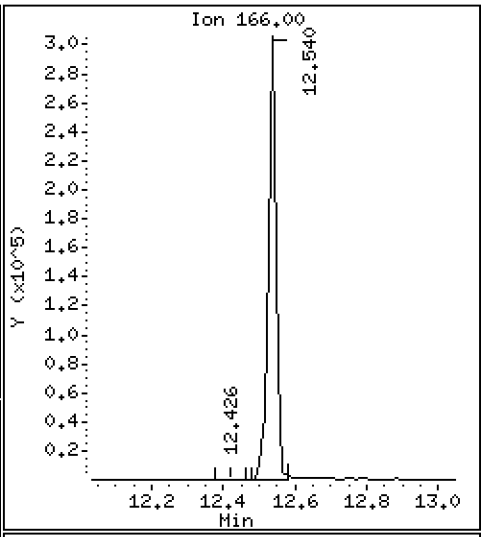
Column phase: Rxi-17Sil MS

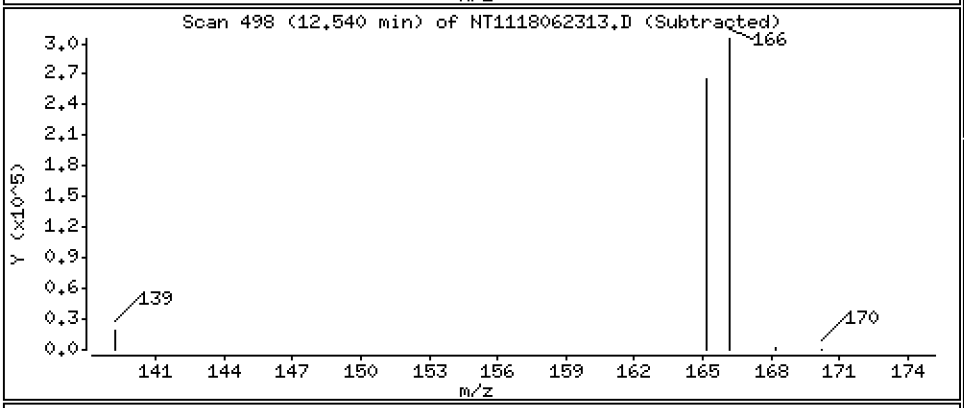
Column diameter: 0.25

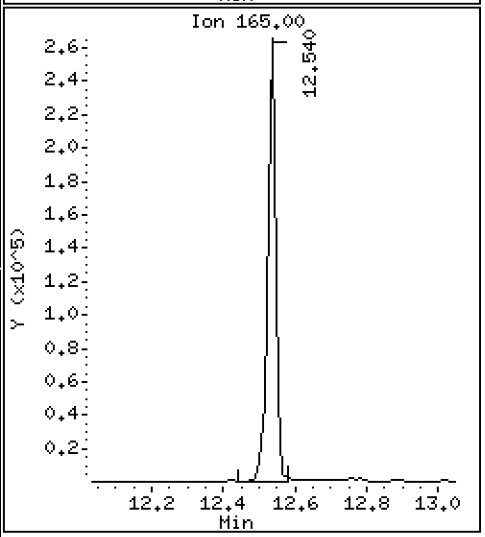
16 Fluorene

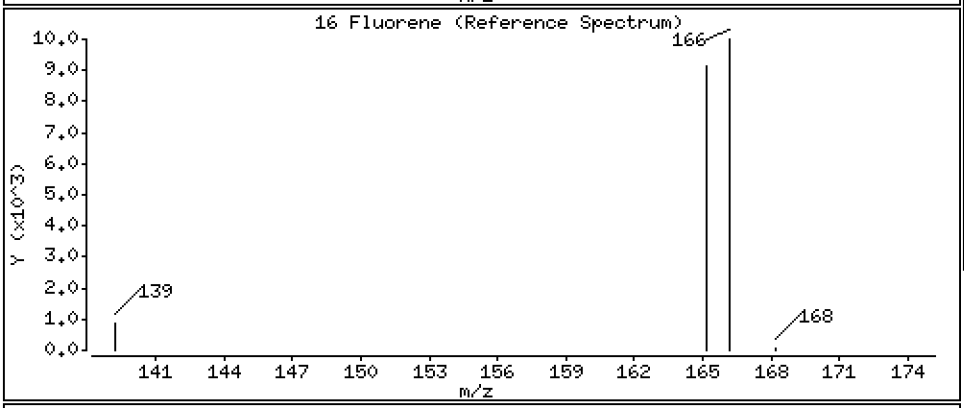
Concentration: 197 ng/mL

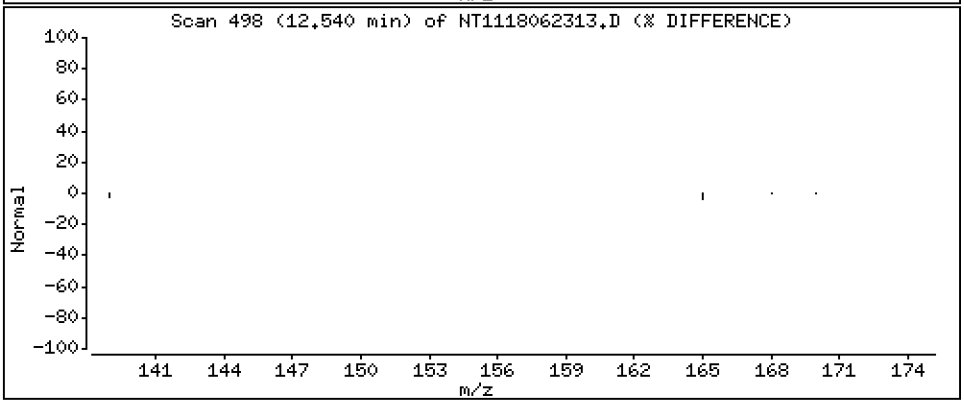












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Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

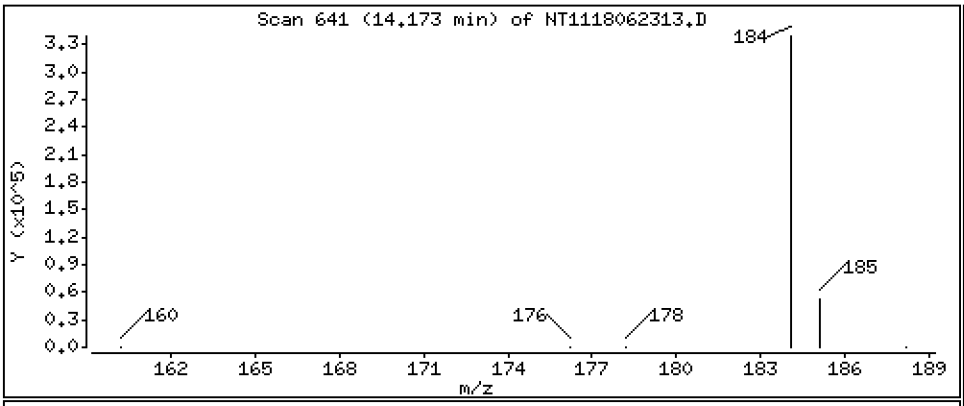
Operator: VTS

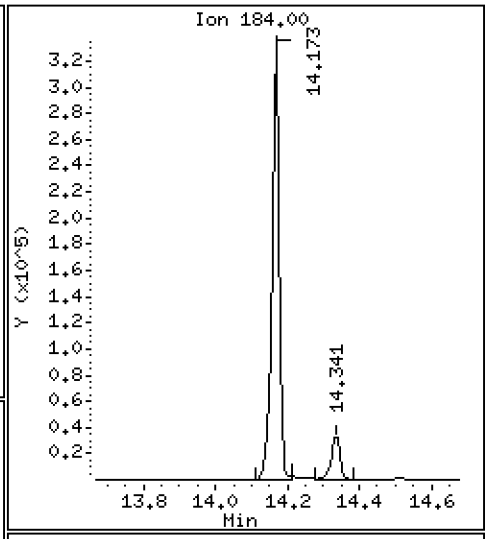
Column phase: Rxi-17Sil MS

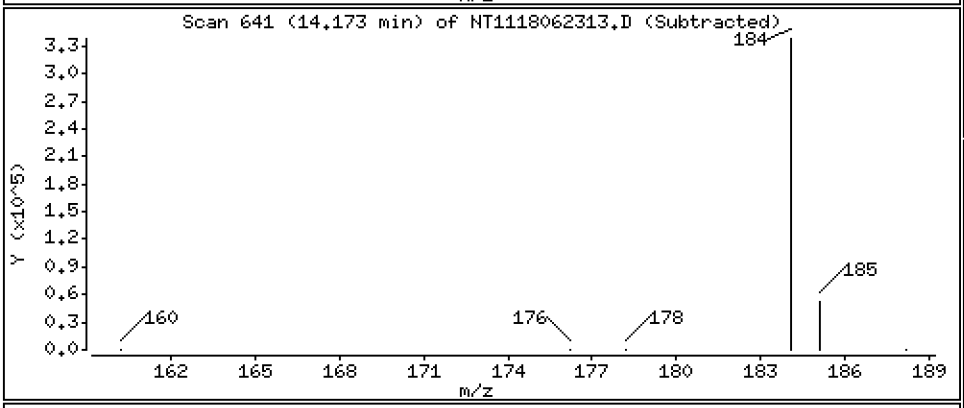
Column diameter: 0.25

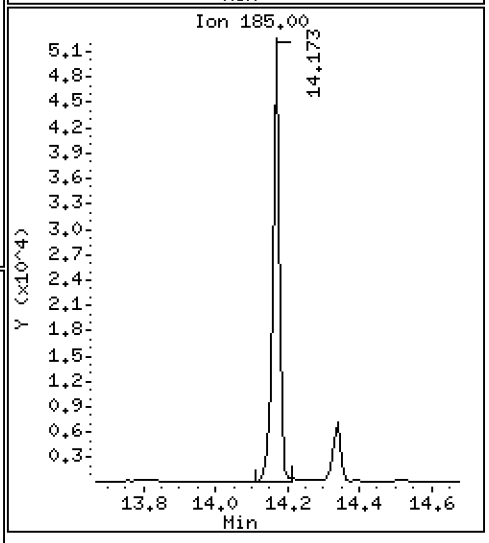
17 Dibenzothiophene

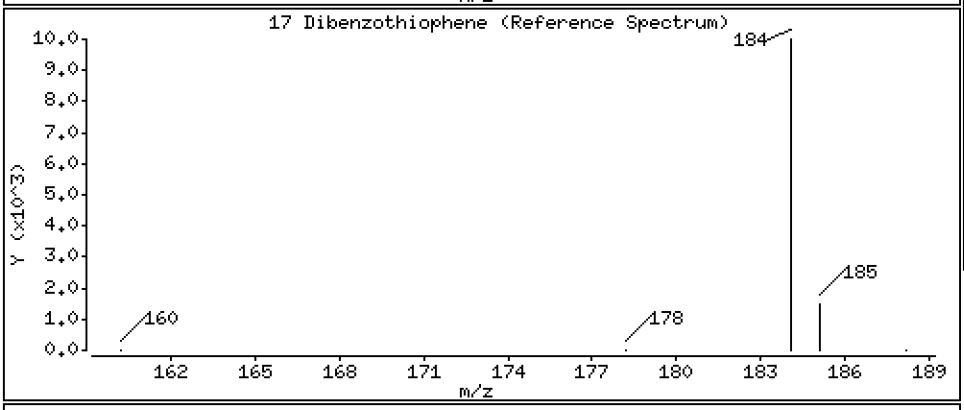
Concentration: 204 ng/mL

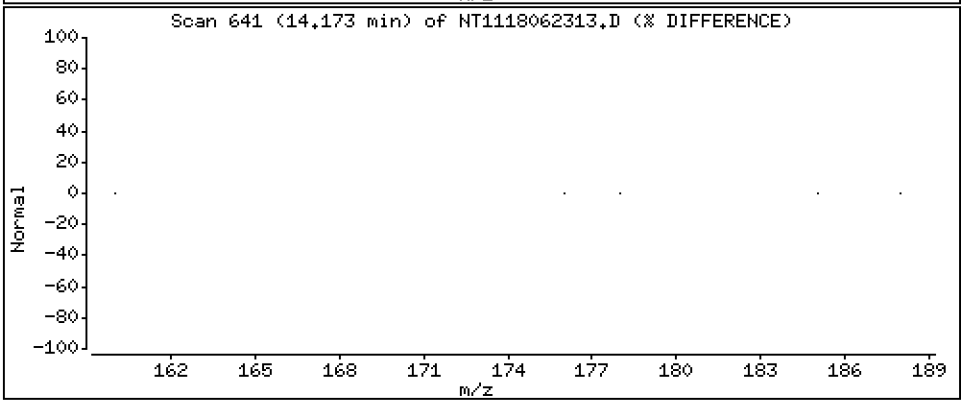












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Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

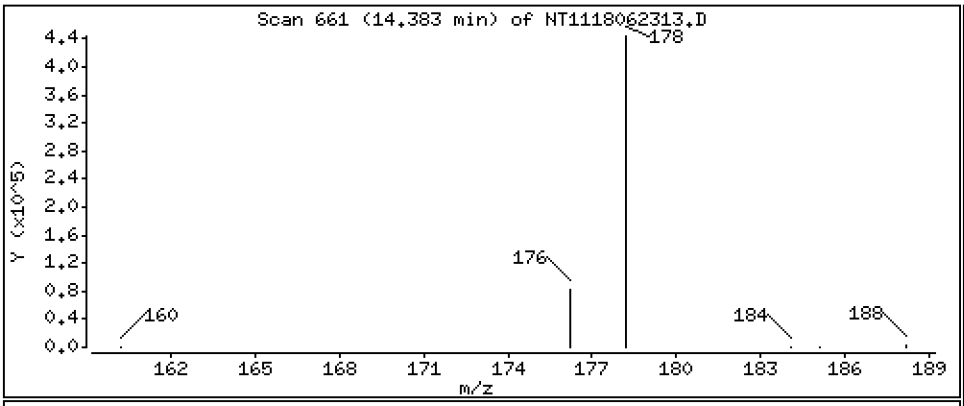
Operator: VTS

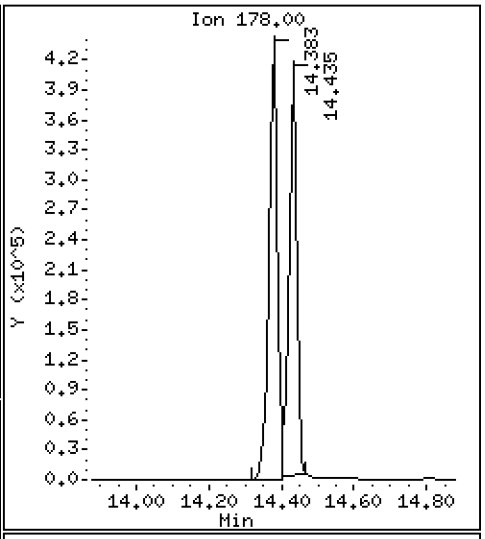
Column phase: Rxi-17Sil MS

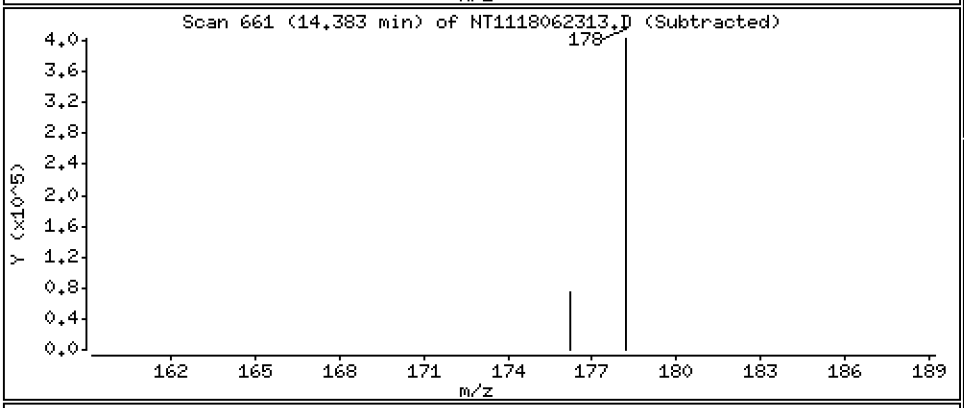
Column diameter: 0.25

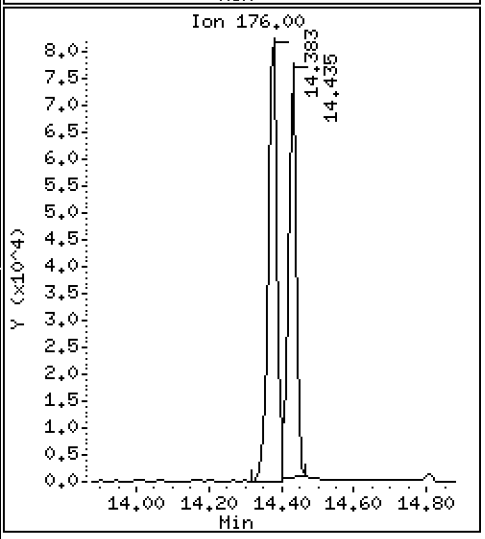
19 Phenanthrene

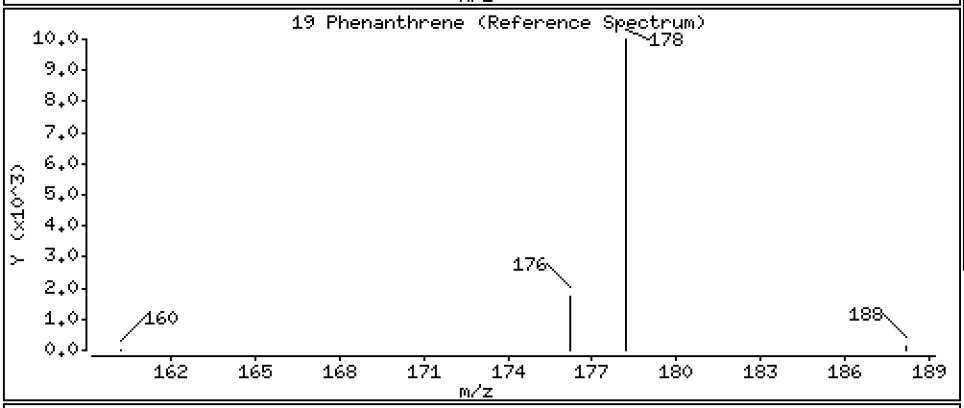
Concentration: 209 ng/mL

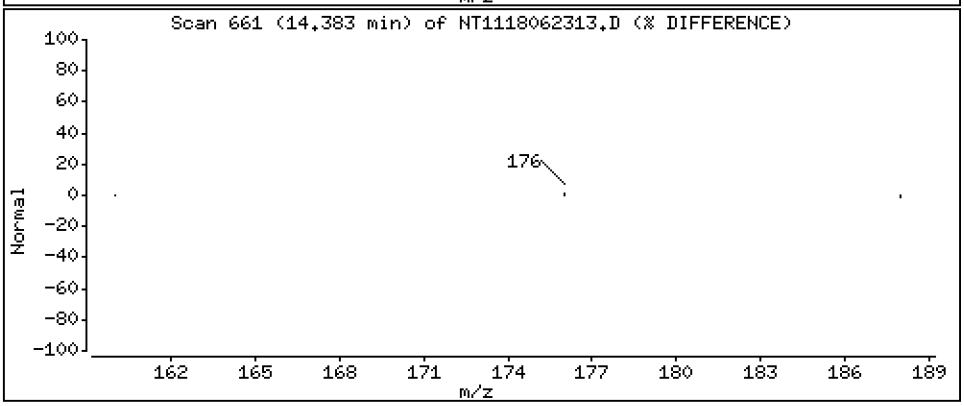












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Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

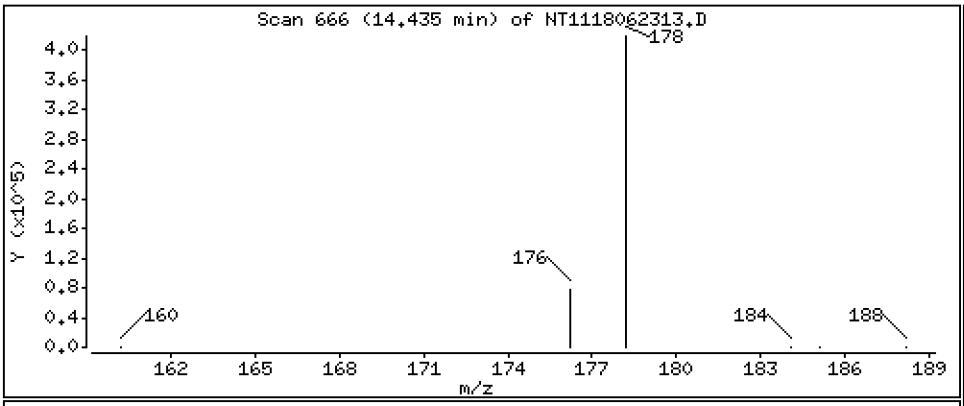
Operator: VTS

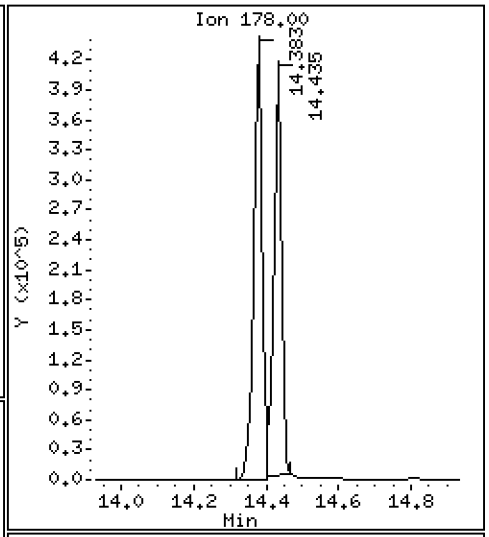
Column phase: Rxi-17Sil MS

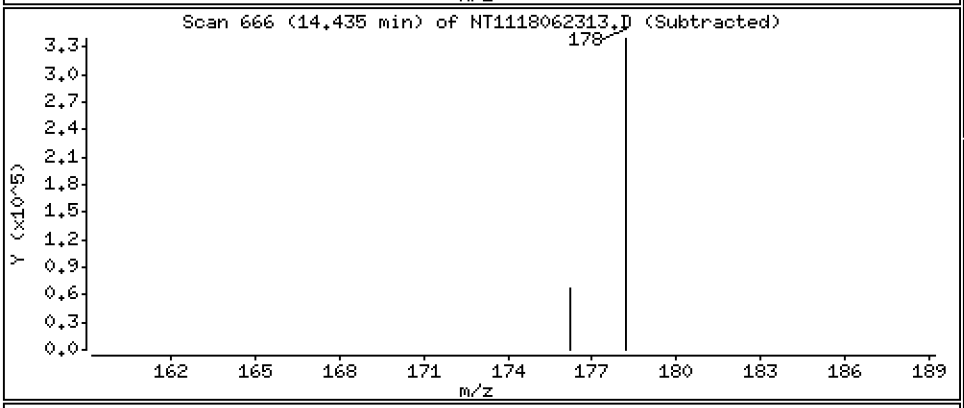
Column diameter: 0.25

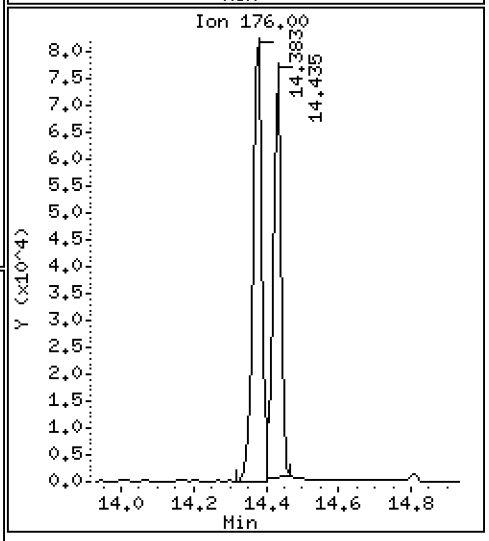
21 Anthracene

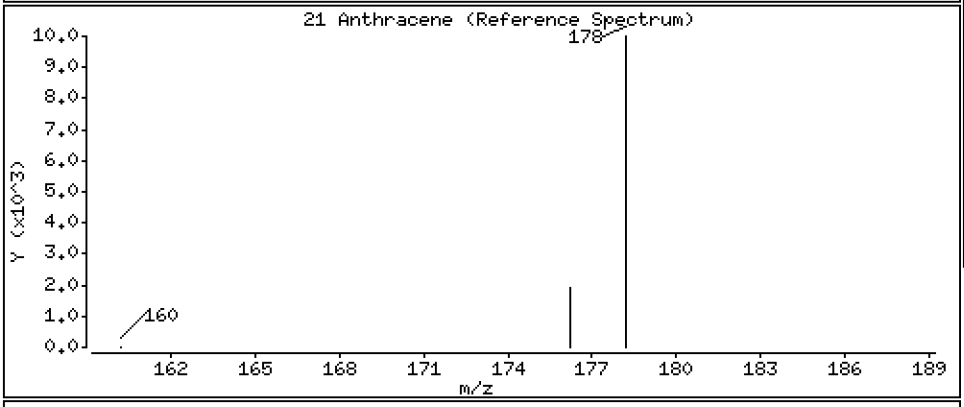
Concentration: 191 ng/mL

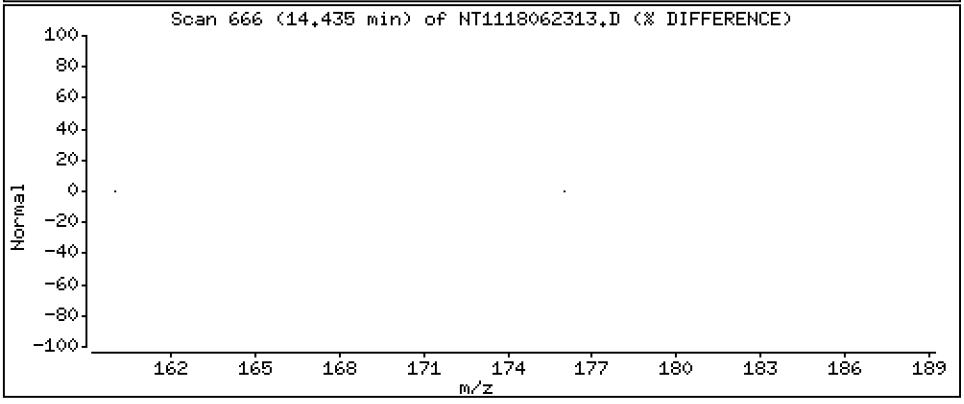












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Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

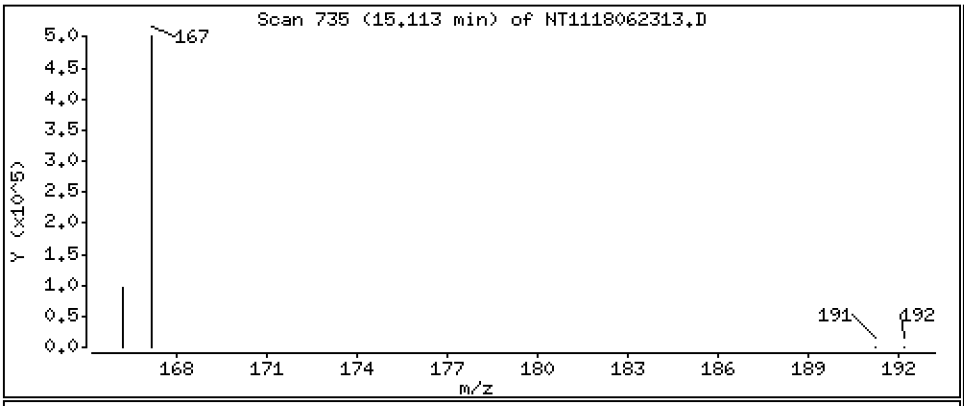
Operator: VTS

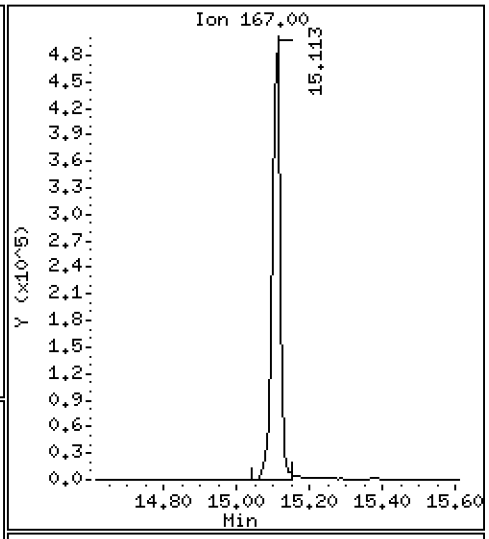
Column phase: Rxi-17Sil MS

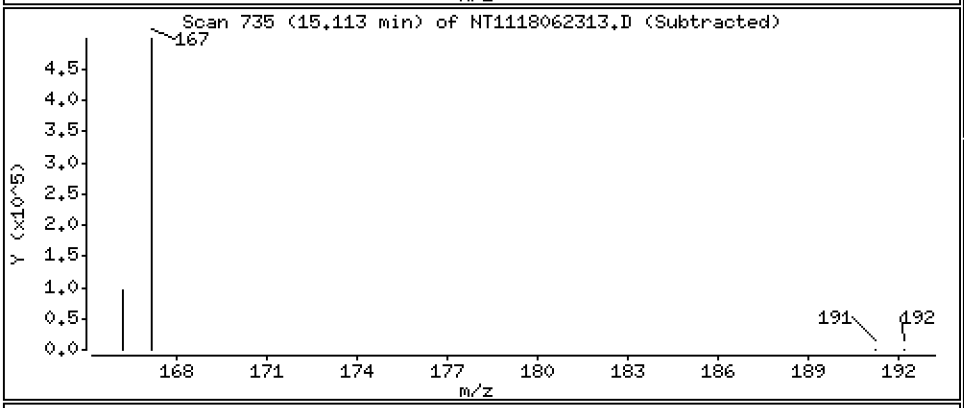
Column diameter: 0.25

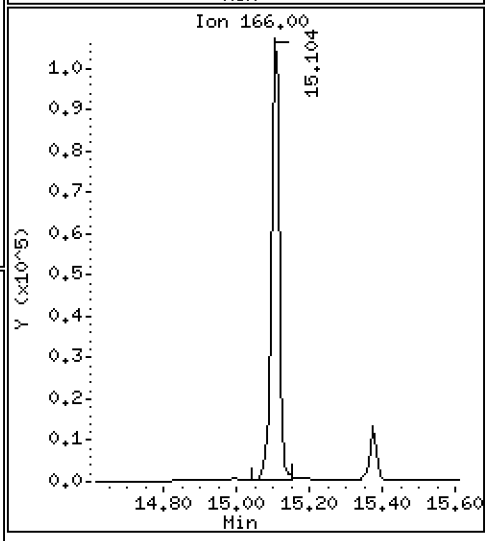
22 Carbazole

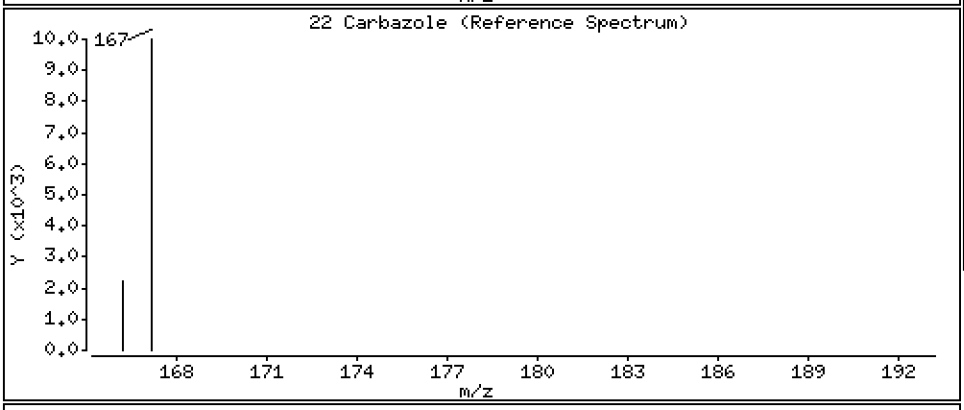
Concentration: 209 ng/mL

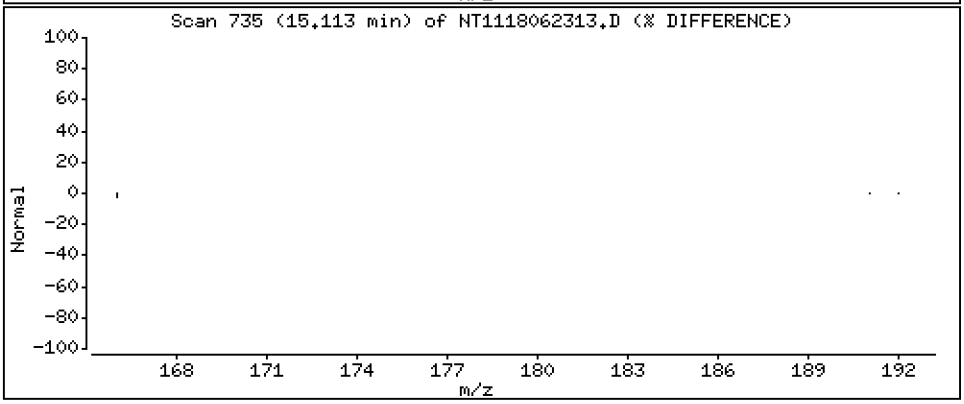












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062313.D

Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

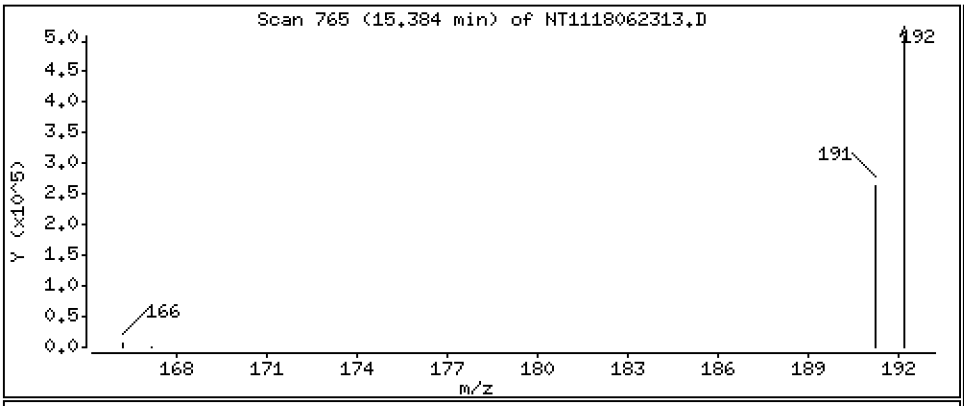
Operator: VTS

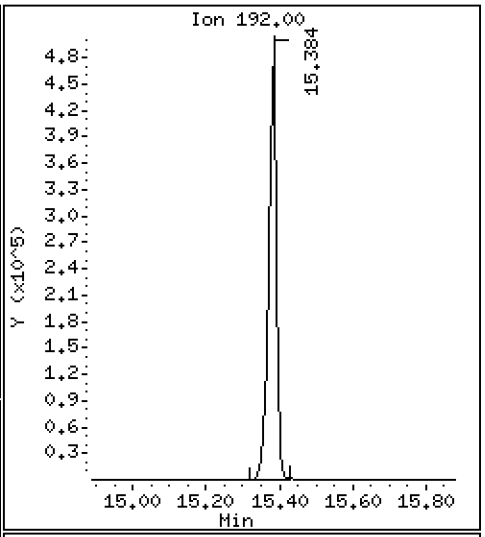
Column phase: Rxi-17Sil MS

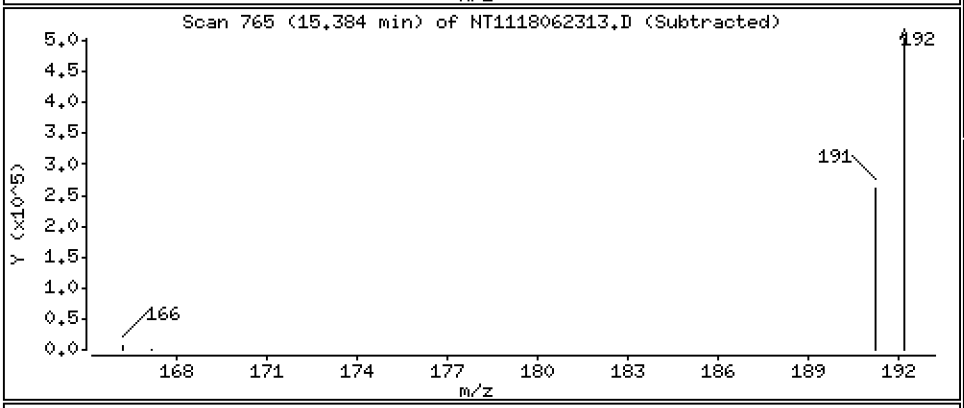
Column diameter: 0.25

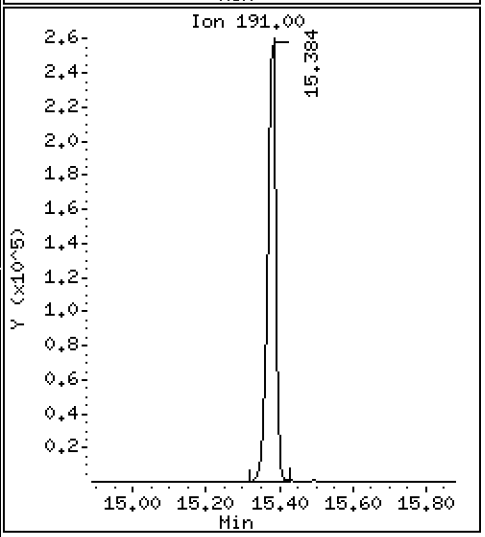
23 1-Methylphenanthrene

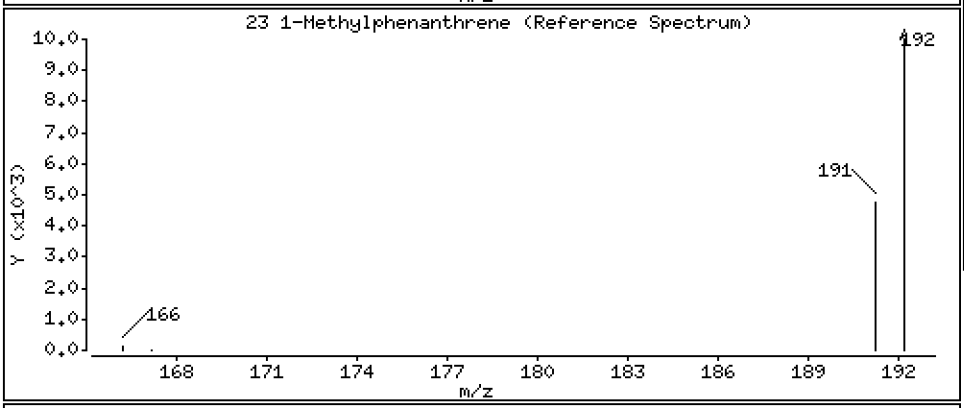
Concentration: 227 ng/mL

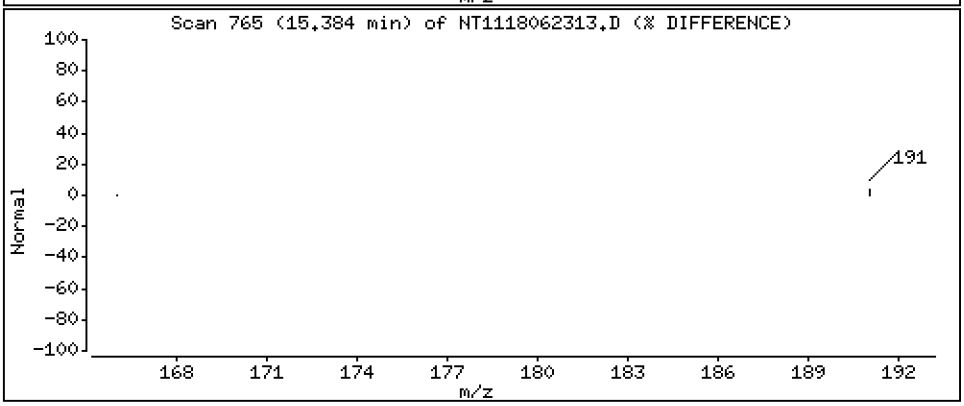












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Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

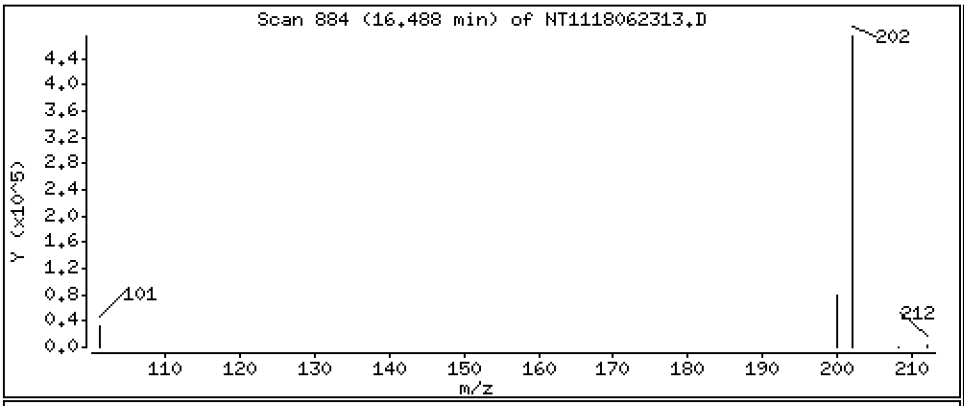
Operator: VTS

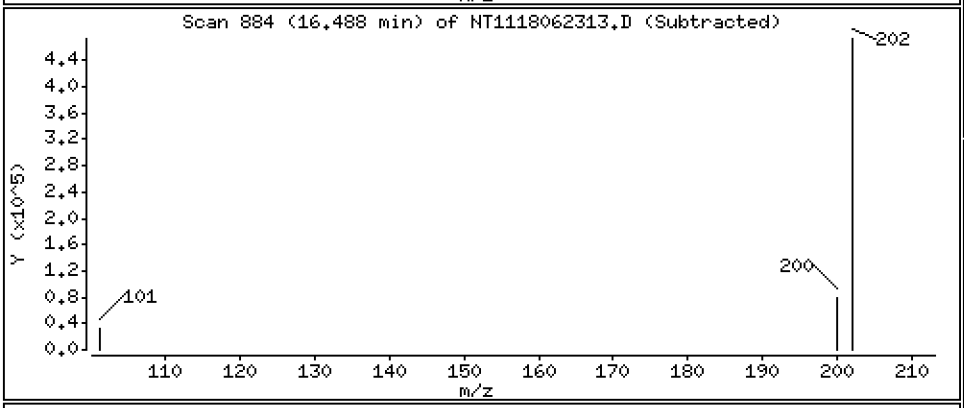
Column phase: Rxi-17Sil MS

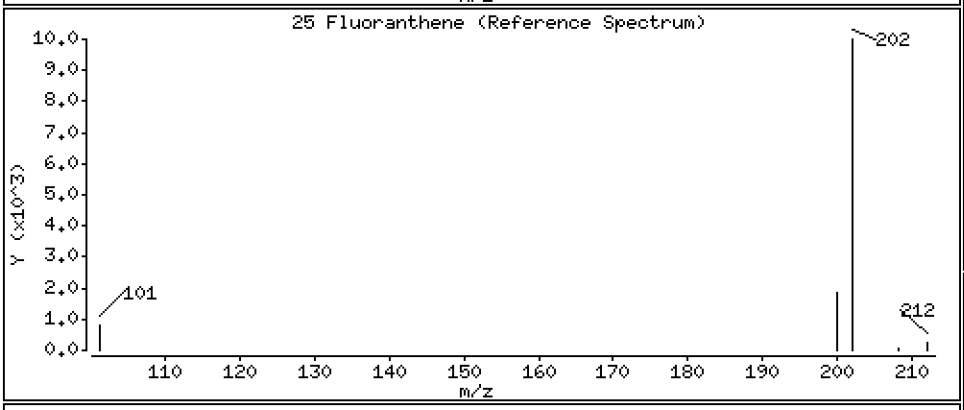
Column diameter: 0.25

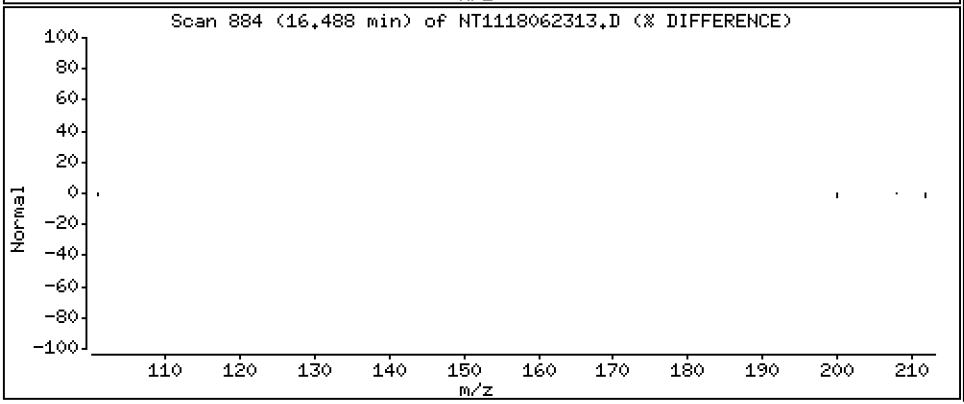
25 Fluoranthene

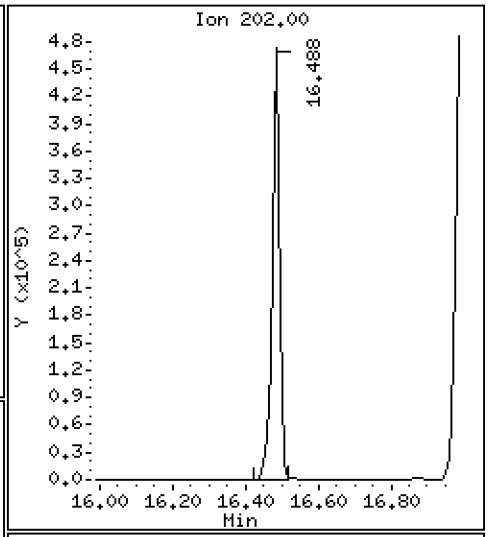
Concentration: 227 ng/mL

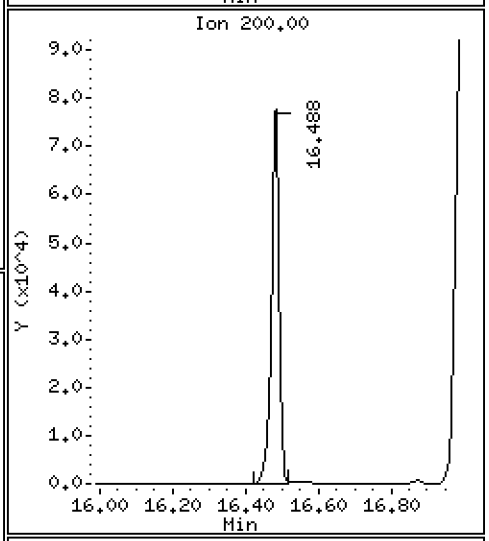


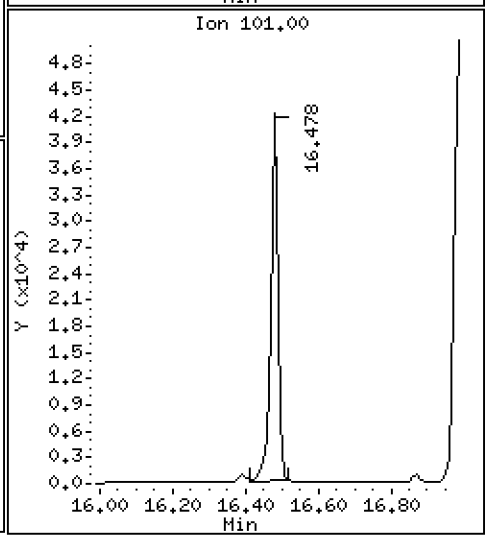












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062313.D

Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

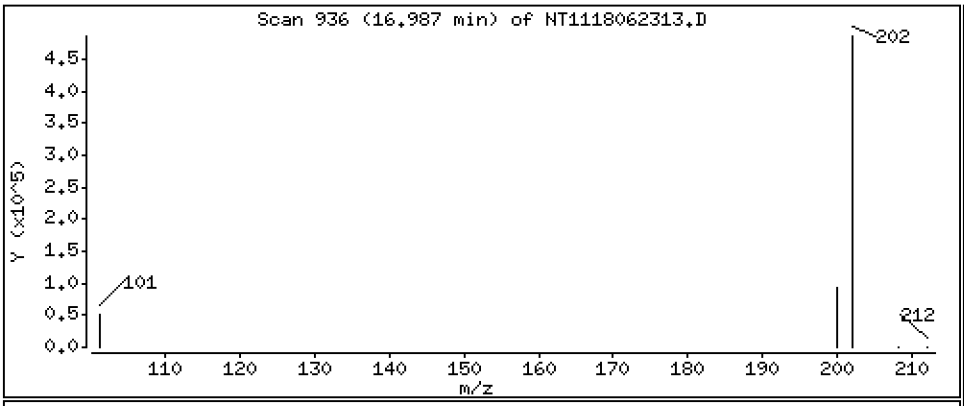
Operator: VTS

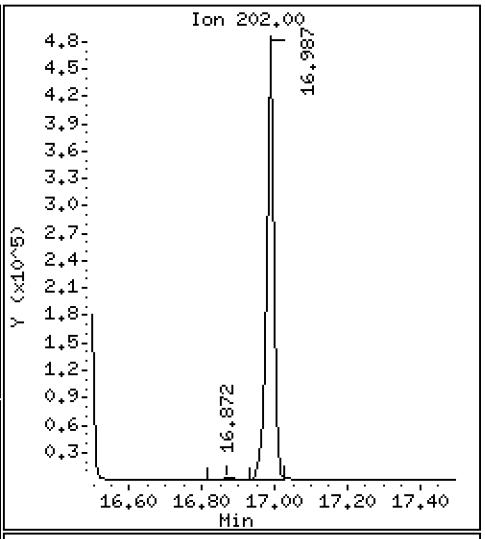
Column phase: Rxi-17Sil MS

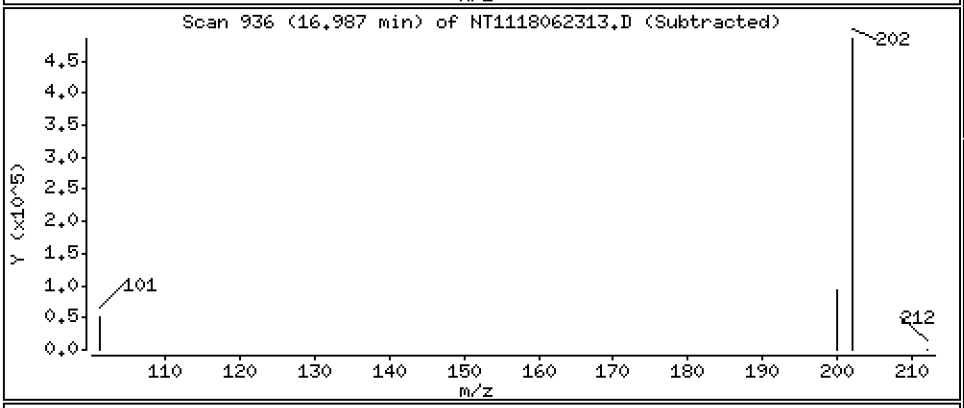
Column diameter: 0.25

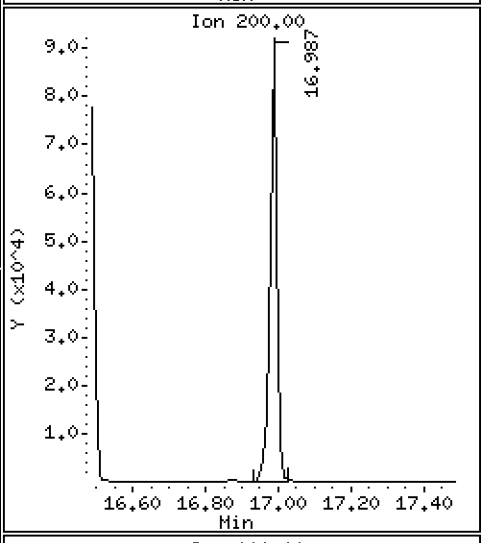
26 Pyrene

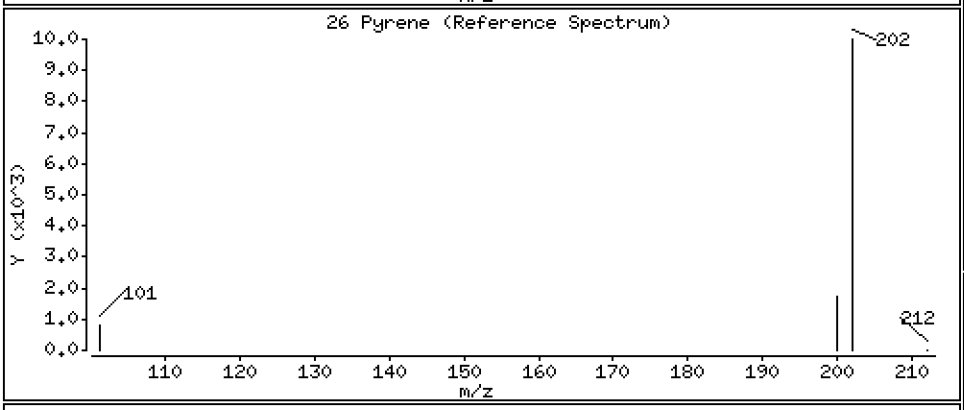
Concentration: 221 ng/mL

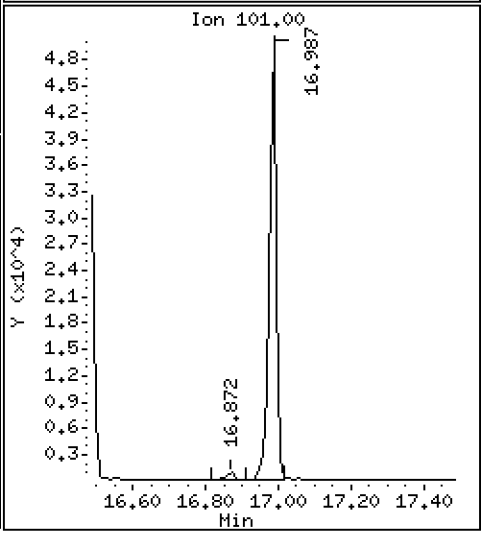


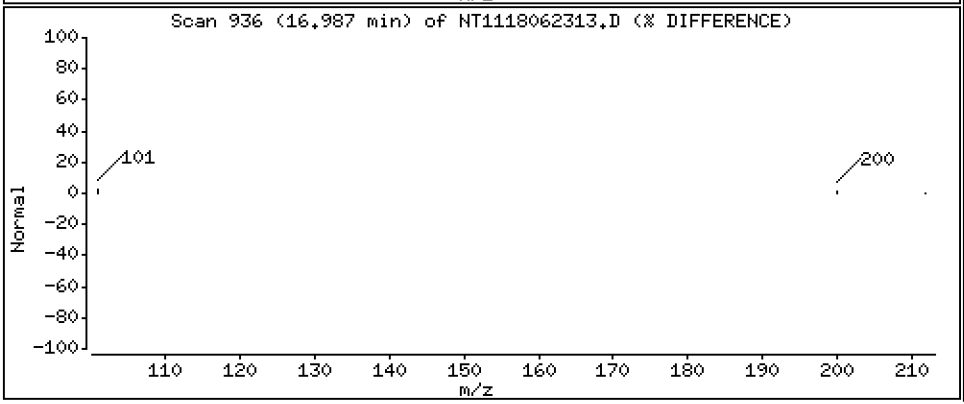












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Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

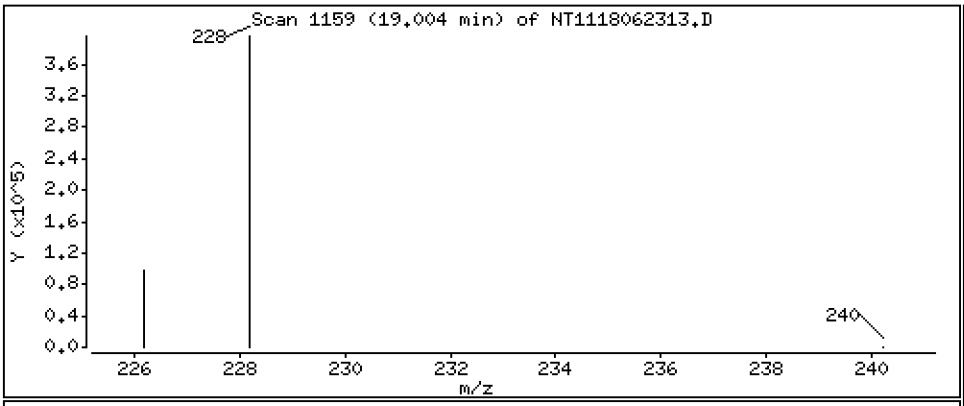
Operator: VTS

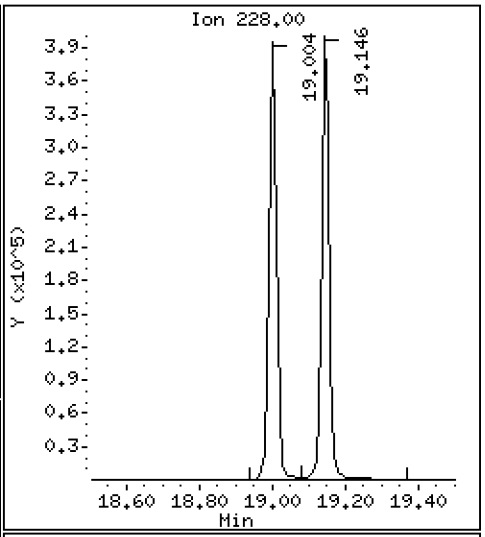
Column phase: Rxi-17Sil MS

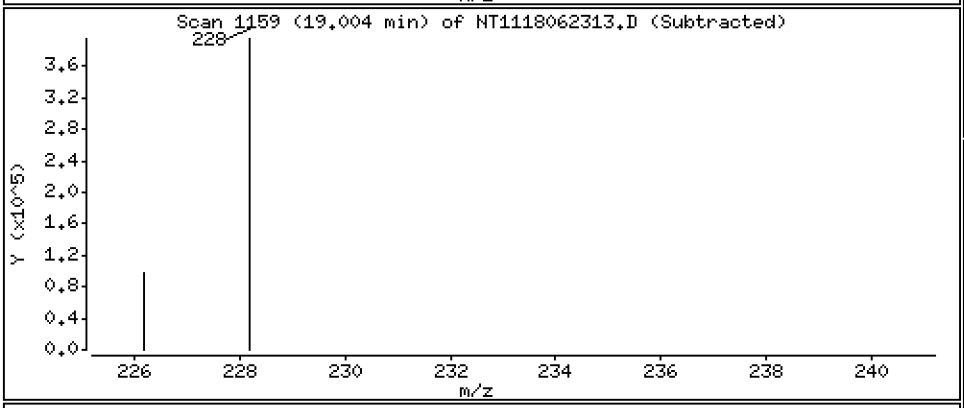
Column diameter: 0.25

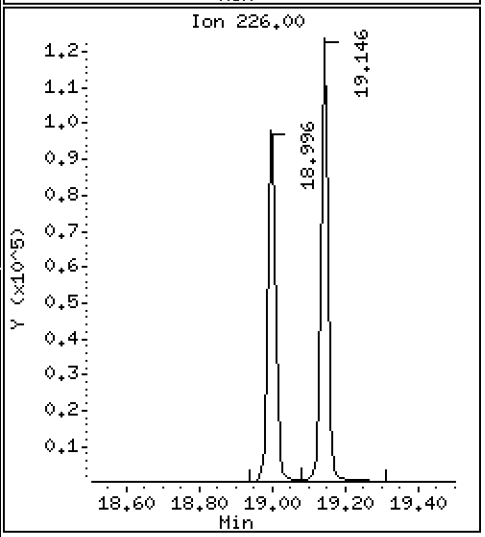
27 Benzo(a)anthracene

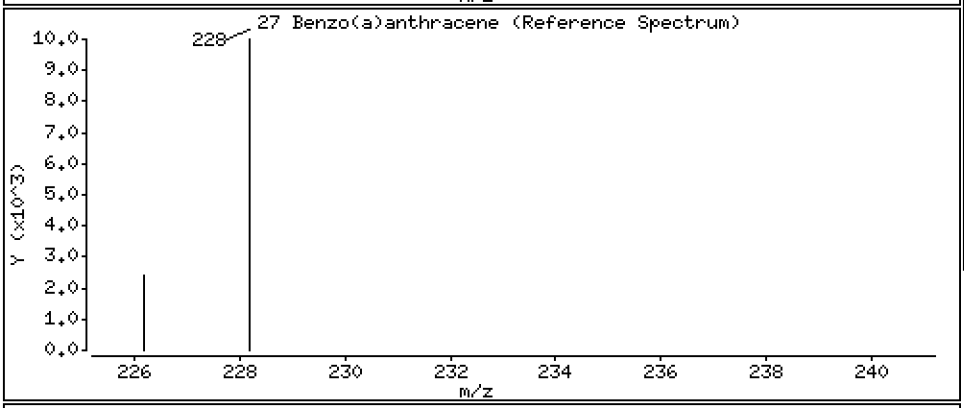
Concentration: 225 ng/mL

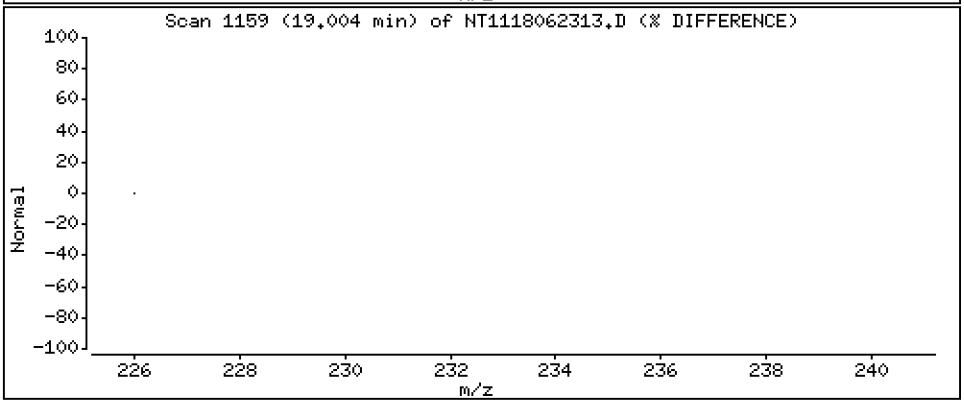












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Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

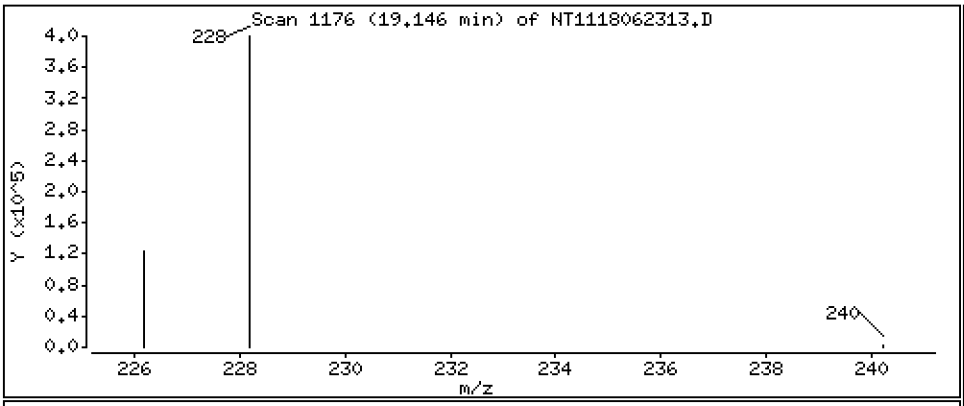
Operator: VTS

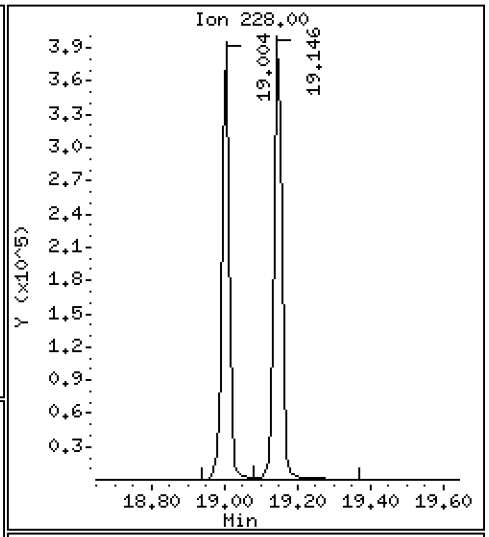
Column phase: Rxi-17Sil MS

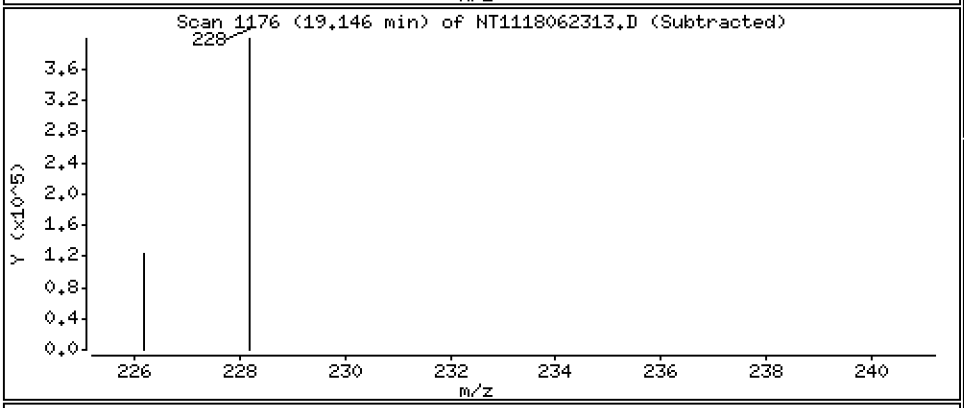
Column diameter: 0.25

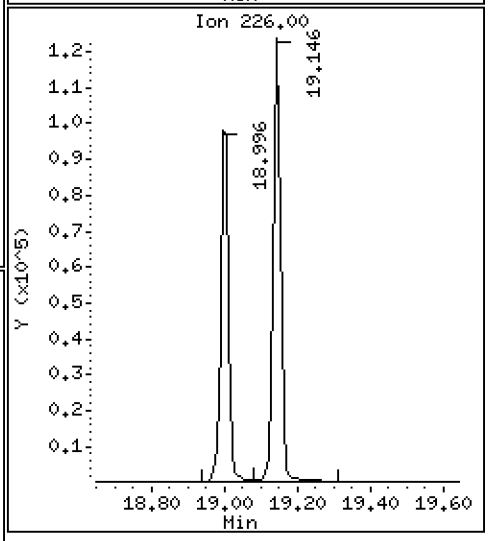
29 Chrysene

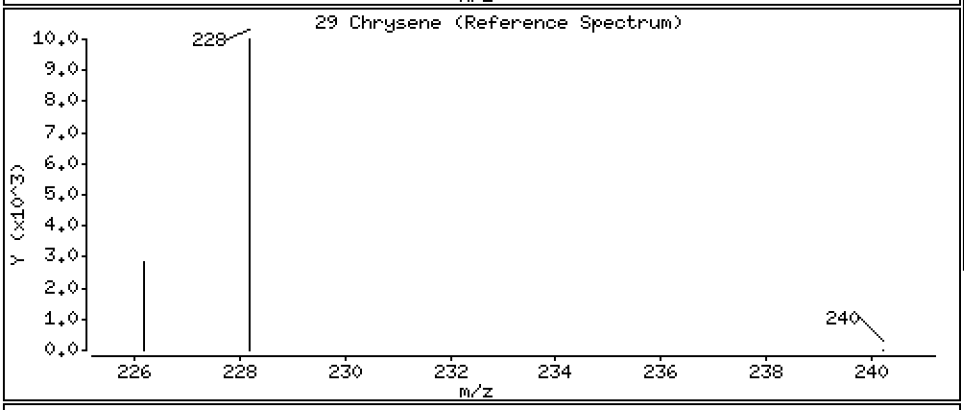
Concentration: 236 ng/mL

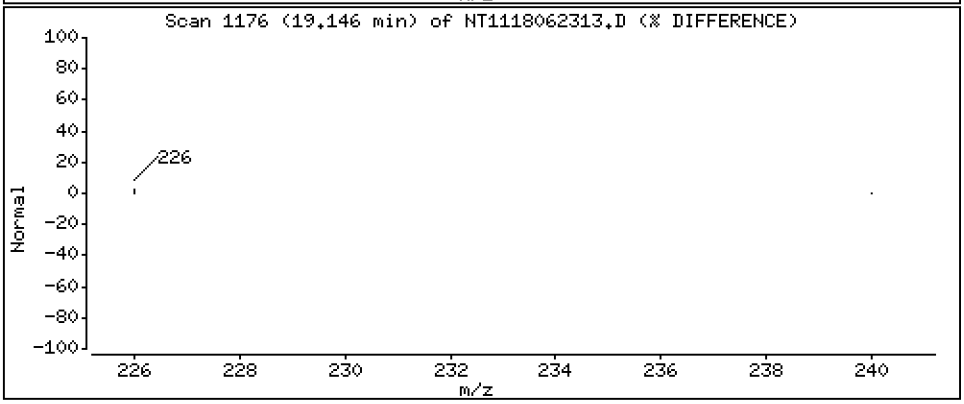












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062313.D

Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

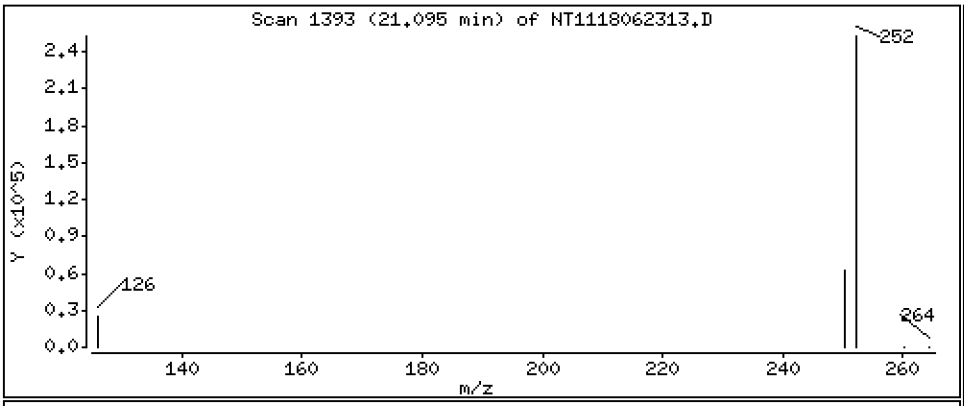
Operator: VTS

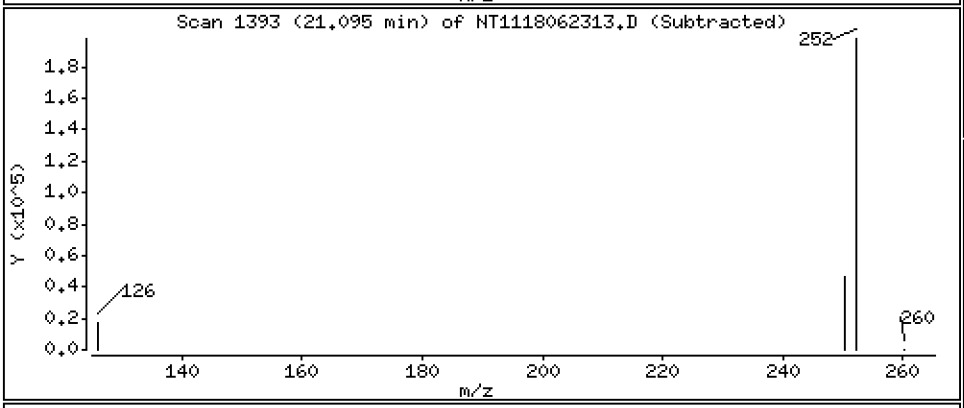
Column phase: Rxi-17Sil MS

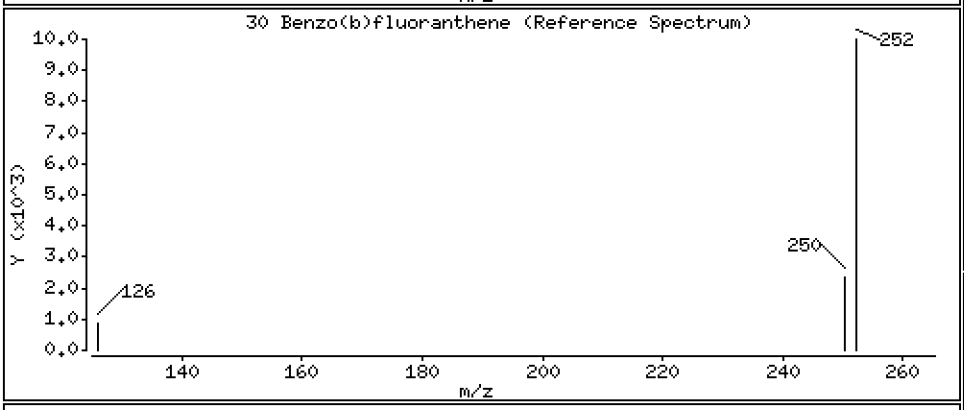
Column diameter: 0.25

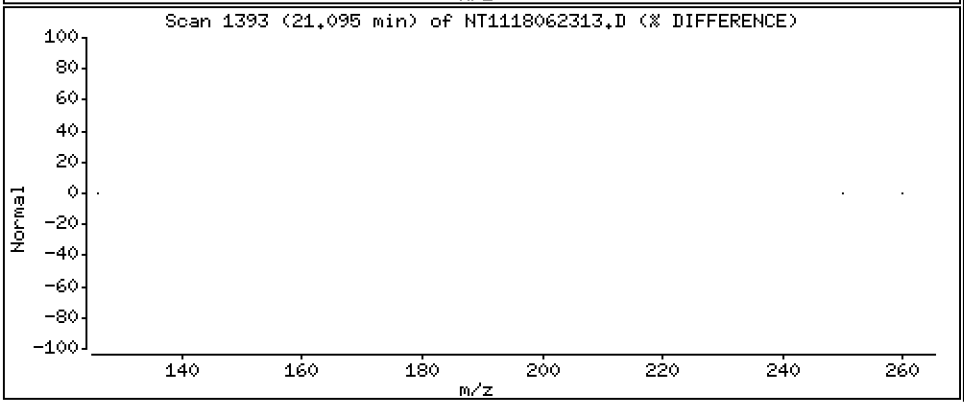
30 Benzo(b)fluoranthene

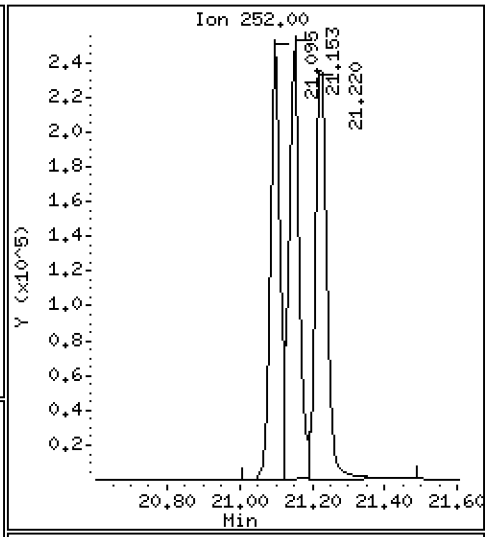
Concentration: 215 ng/mL

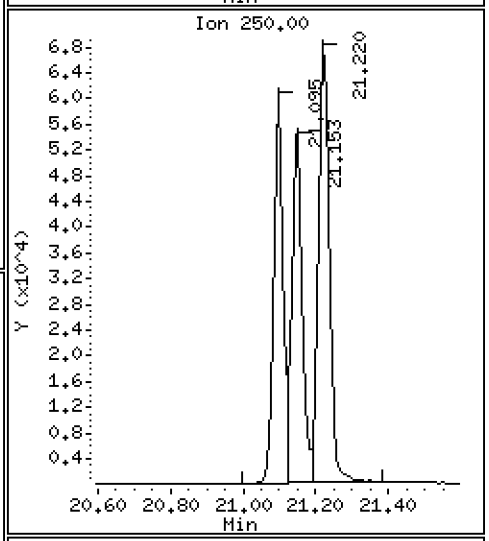


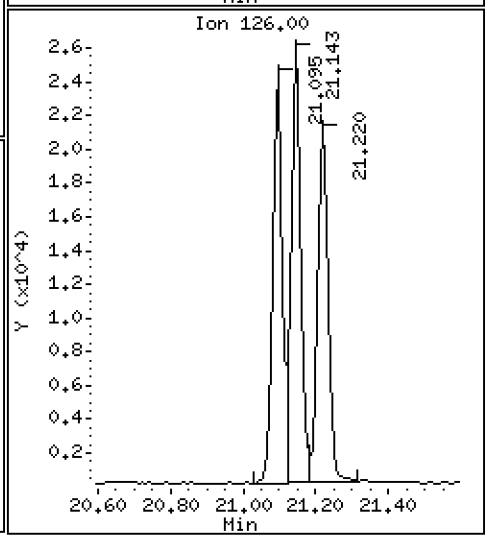












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Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

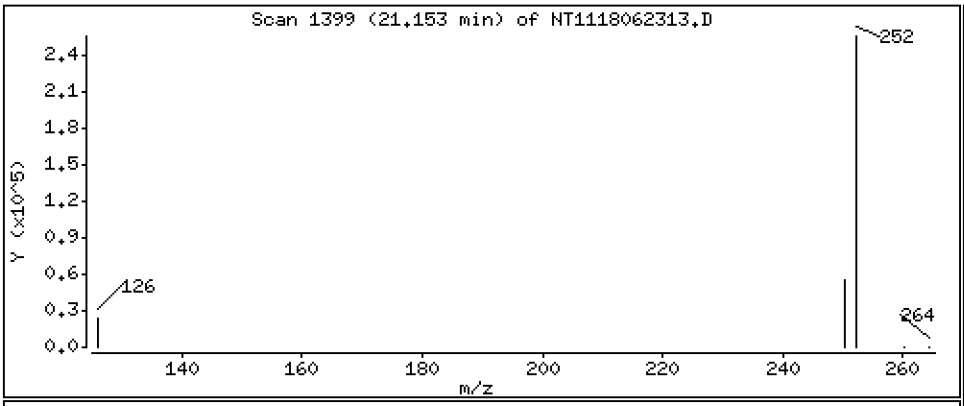
Operator: VTS

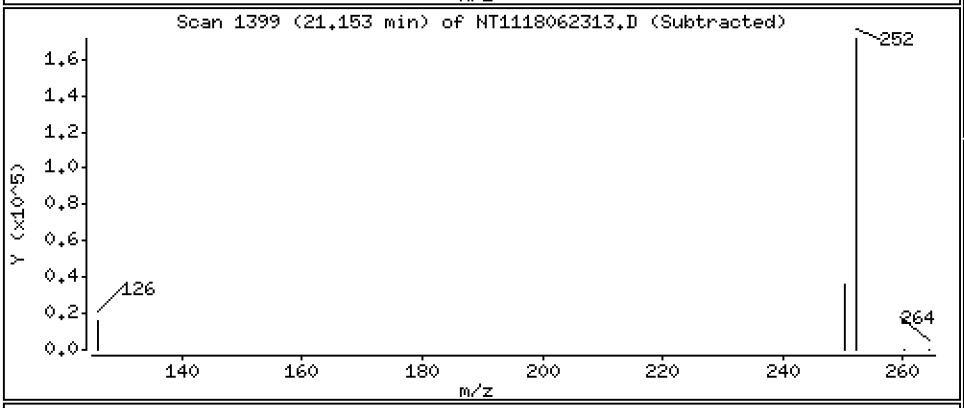
Column phase: Rxi-17Sil MS

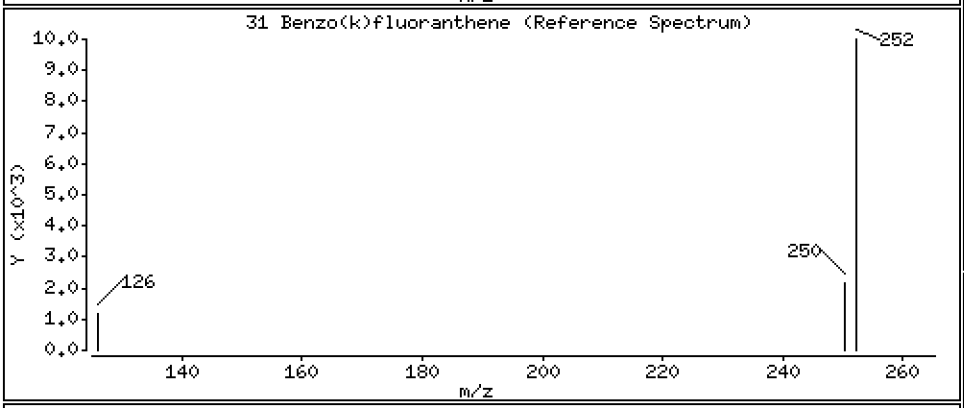
Column diameter: 0.25

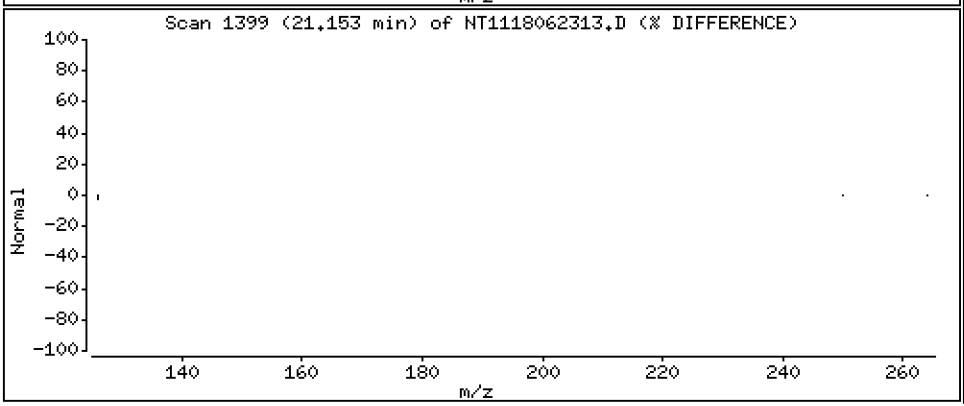
31 Benzo(k)fluoranthene

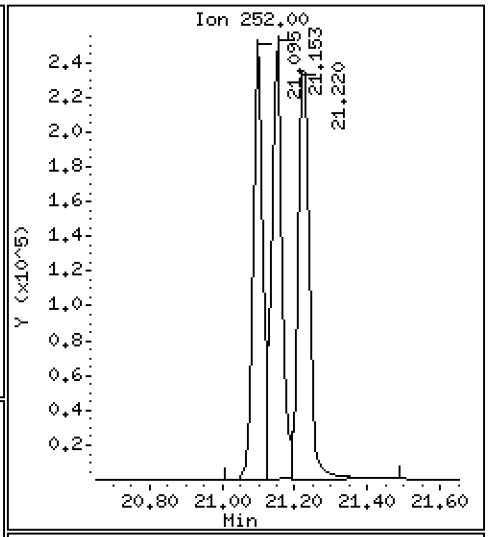
Concentration: 220 ng/mL

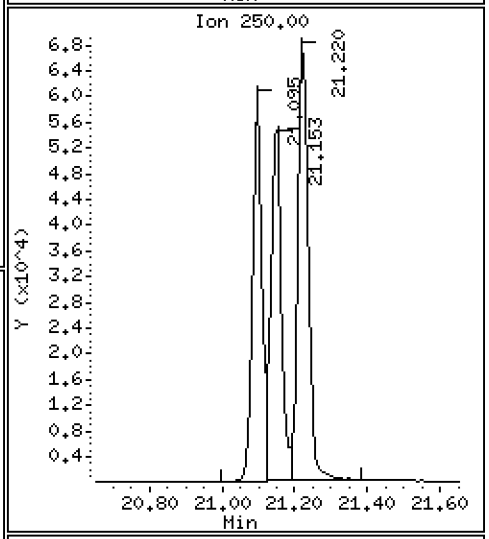


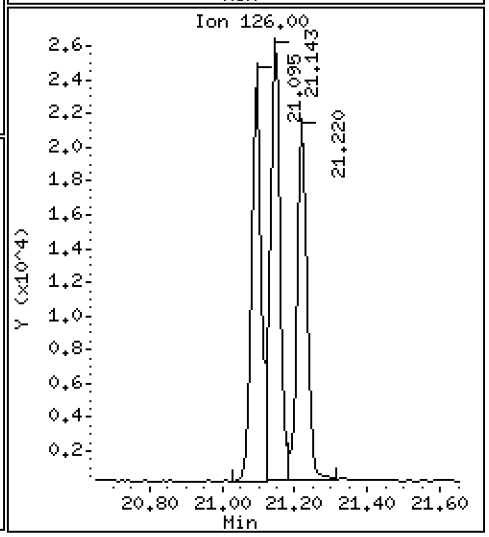












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Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

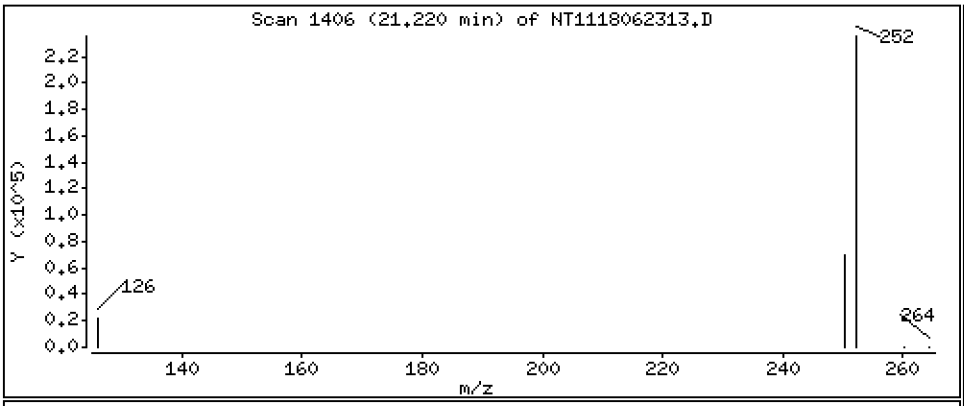
Operator: VTS

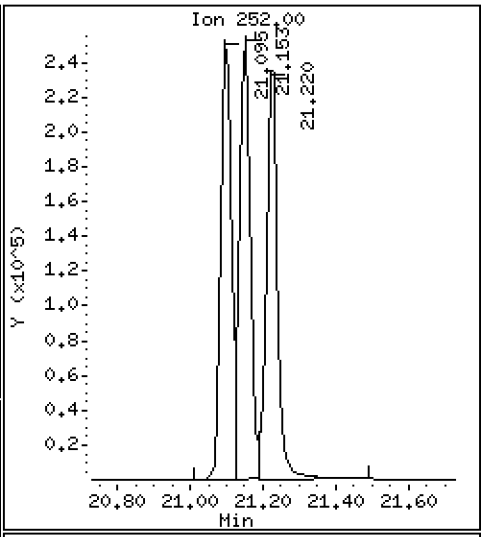
Column phase: Rxi-17Sil MS

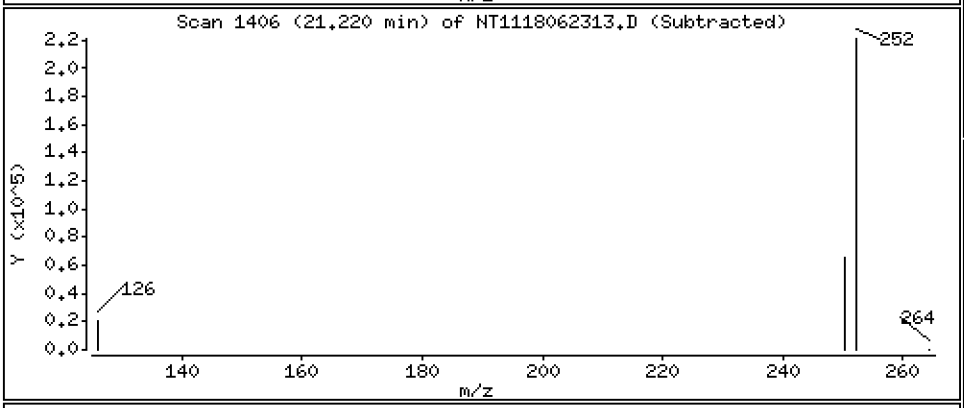
Column diameter: 0.25

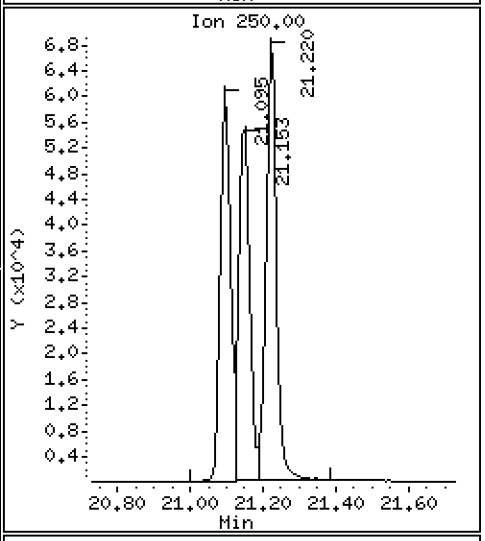
32 Benzo(j)fluoranthene

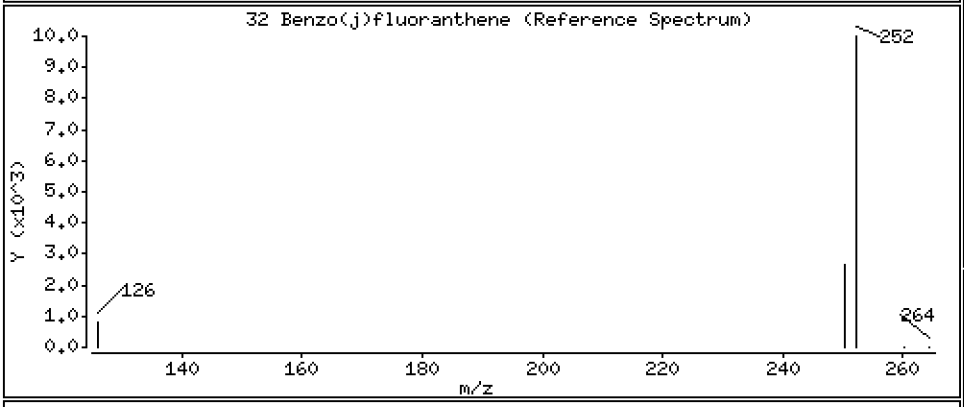
Concentration: 234 ng/mL

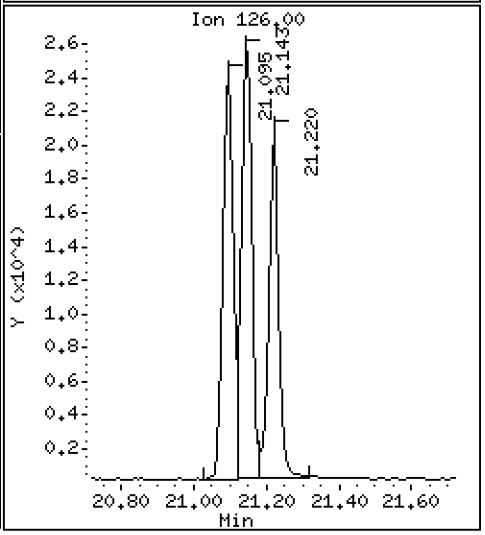


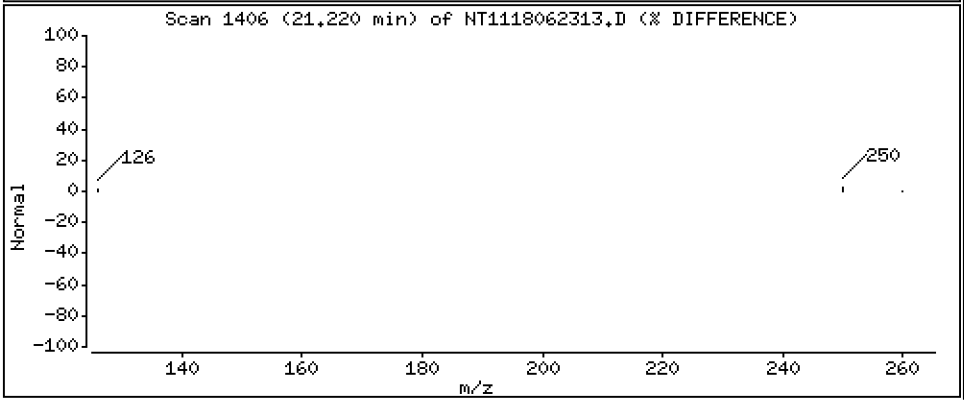












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Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

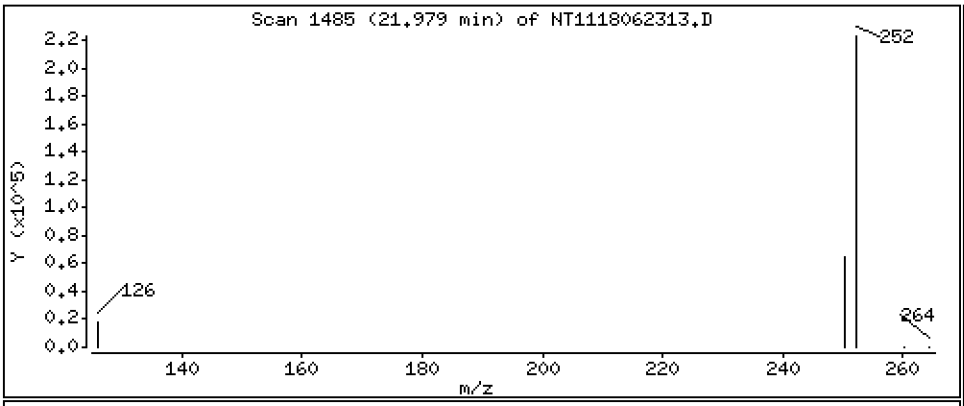
Operator: VTS

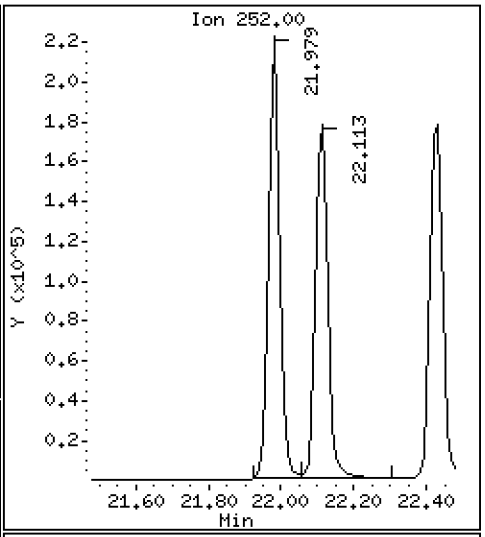
Column phase: Rxi-17Sil MS

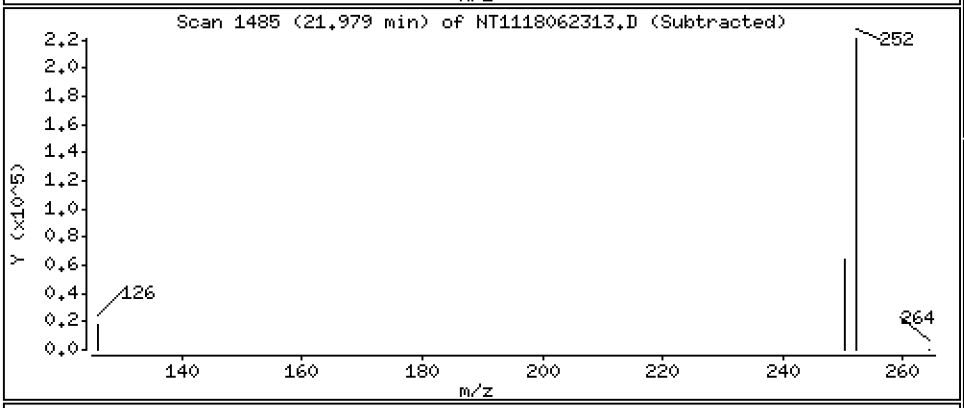
Column diameter: 0.25

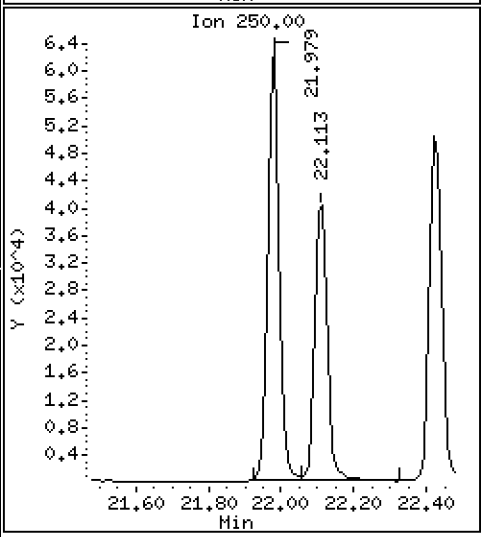
34 Benzo(e)pyrene

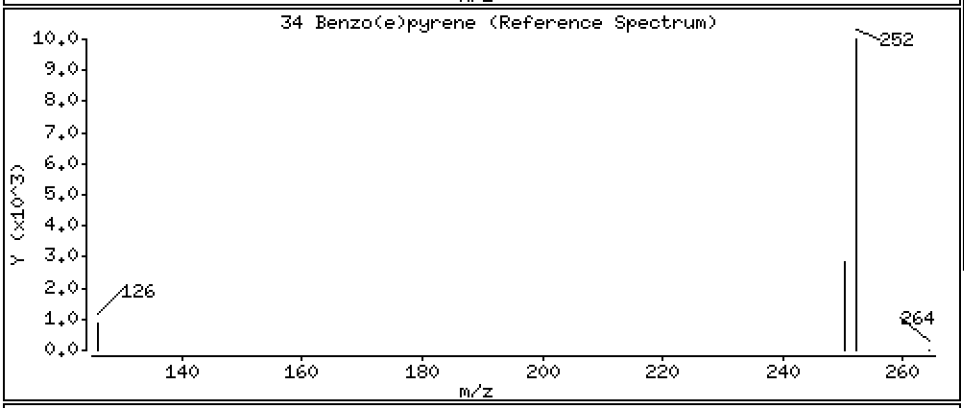
Concentration: 215 ng/mL

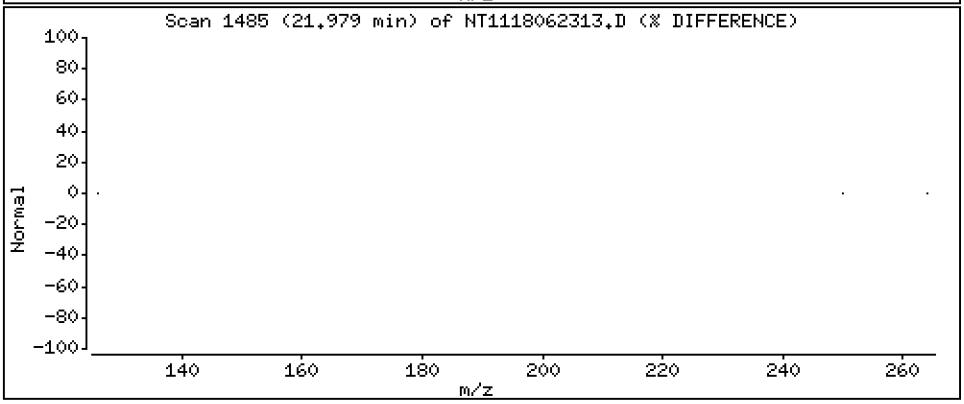












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Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

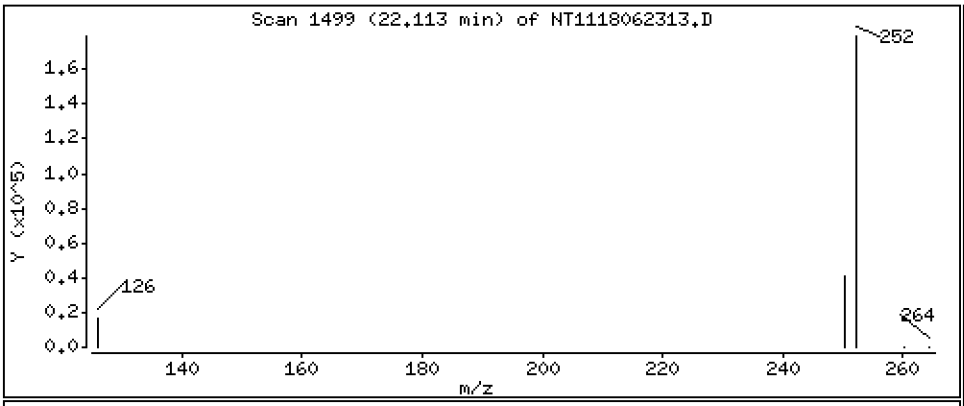
Operator: VTS

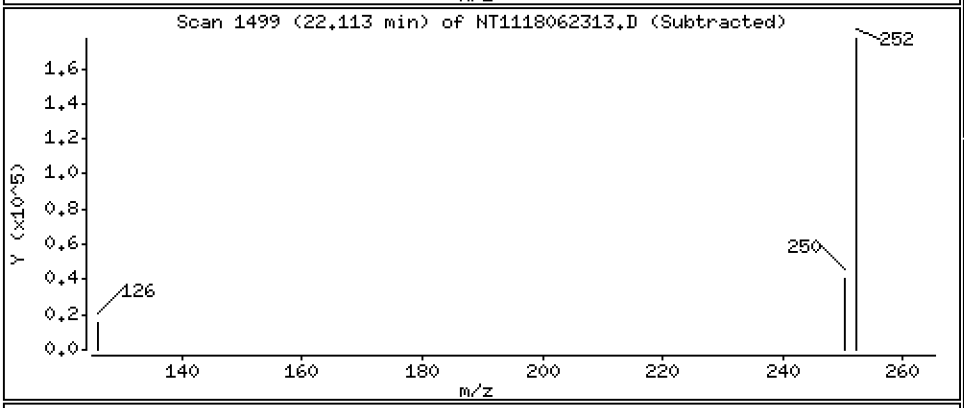
Column phase: Rxi-17Sil MS

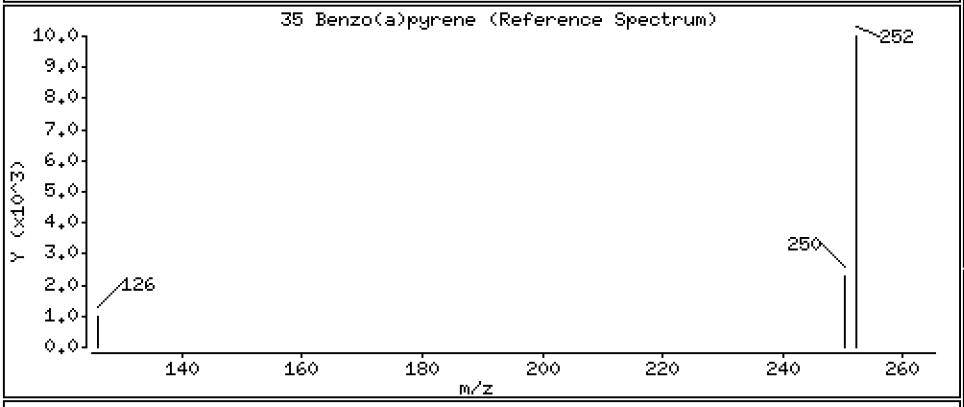
Column diameter: 0.25

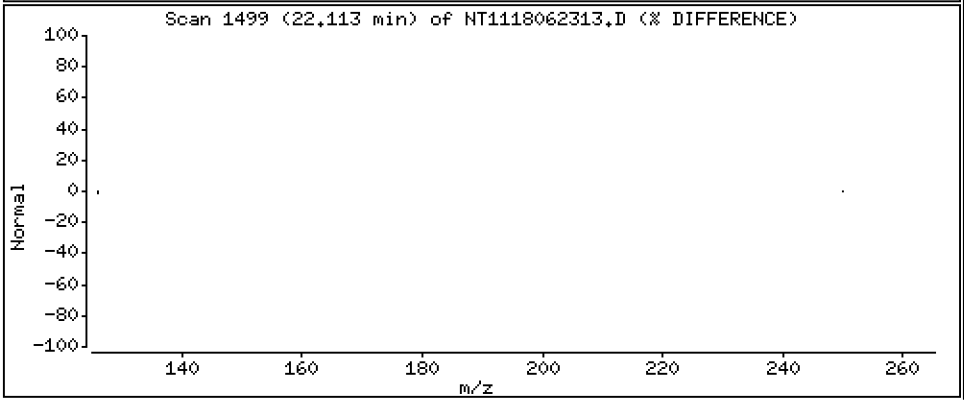
35 Benzo(a)pyrene

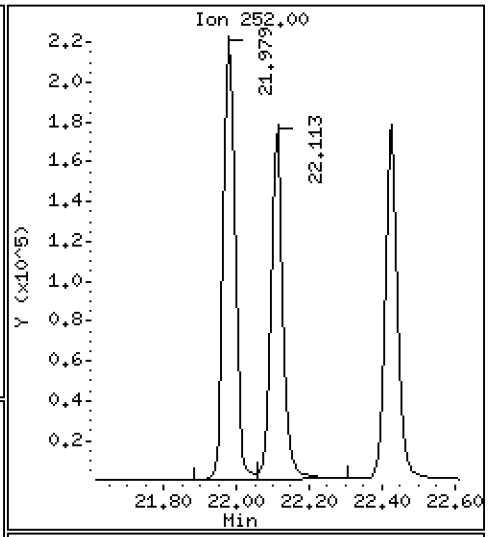
Concentration: 201 ng/mL

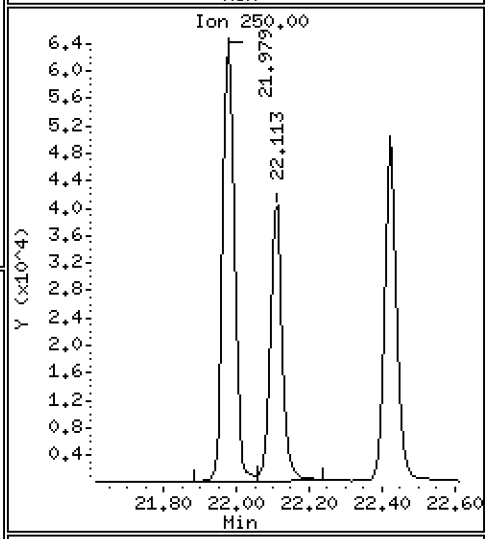


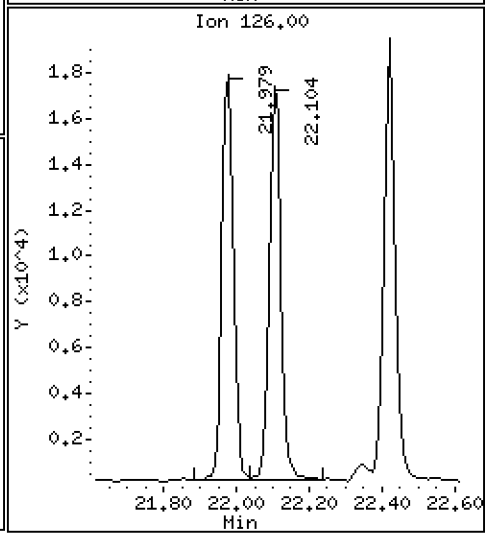












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Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

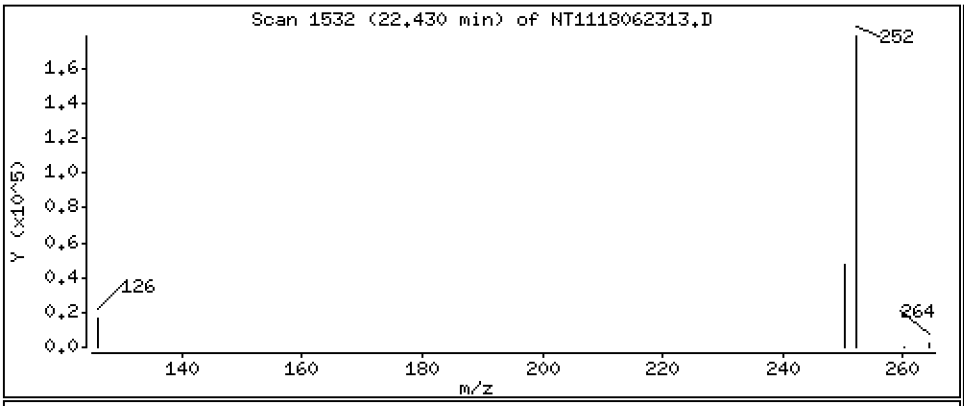
Operator: VTS

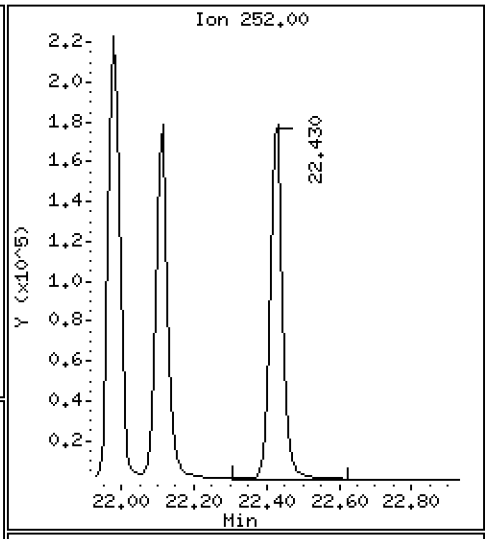
Column phase: Rxi-17Sil MS

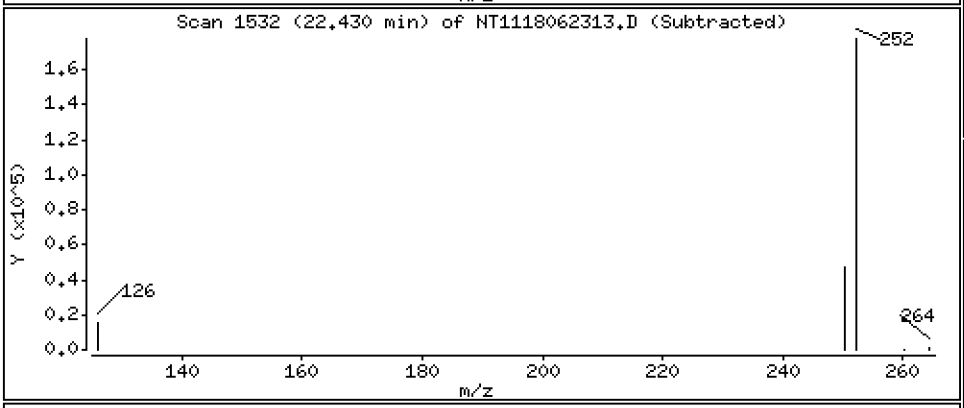
Column diameter: 0.25

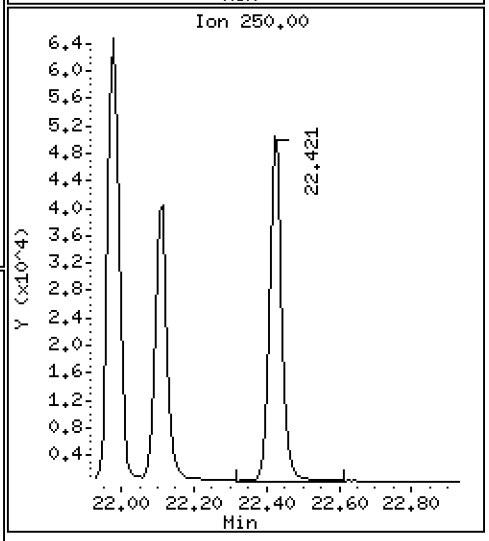
37 Perylene

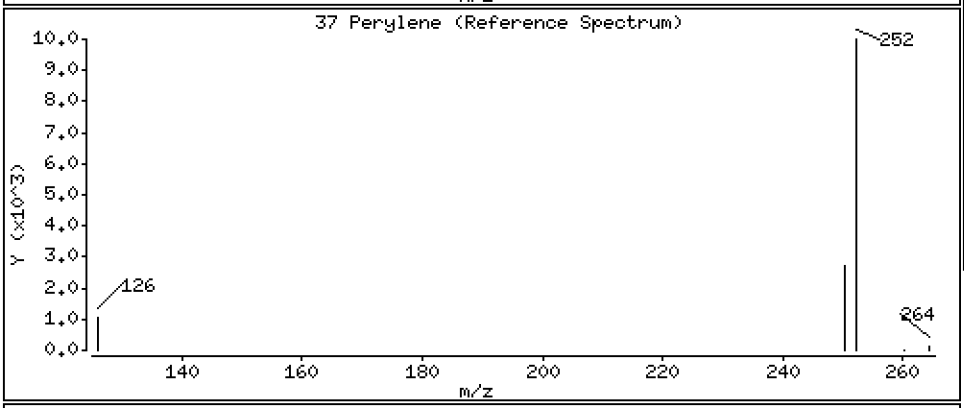
Concentration: 199 ng/mL

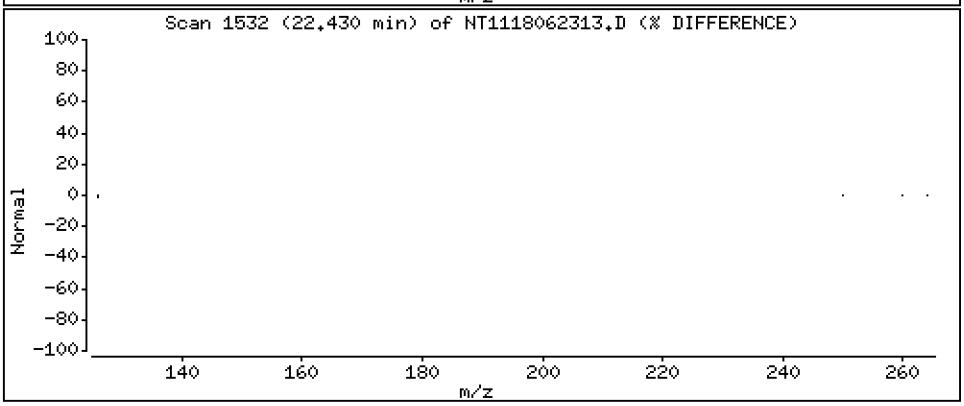












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Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

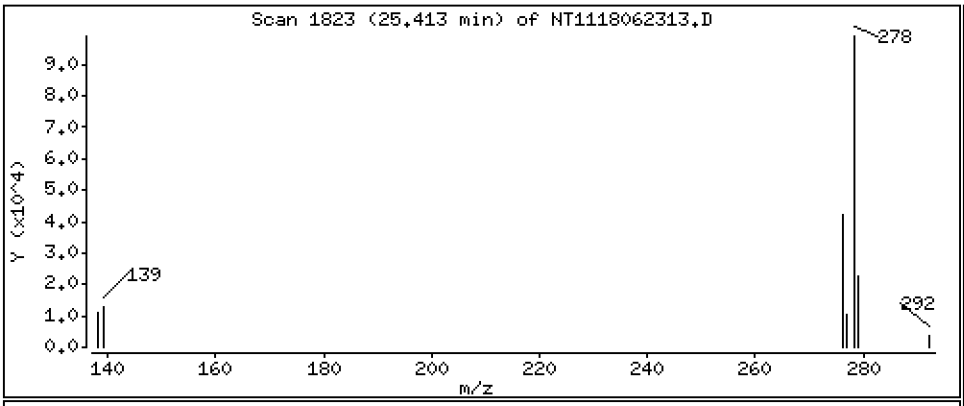
Operator: VTS

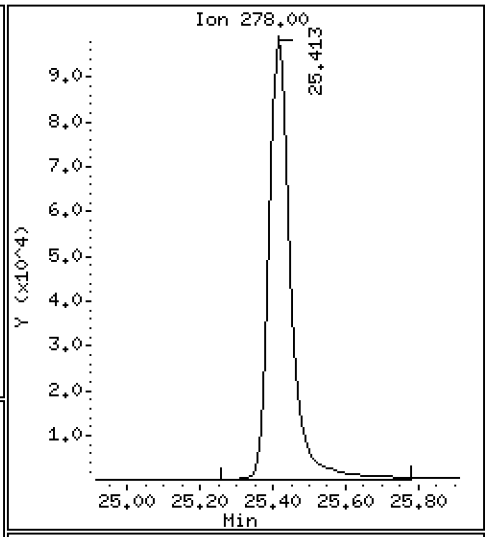
Column phase: Rxi-17Sil MS

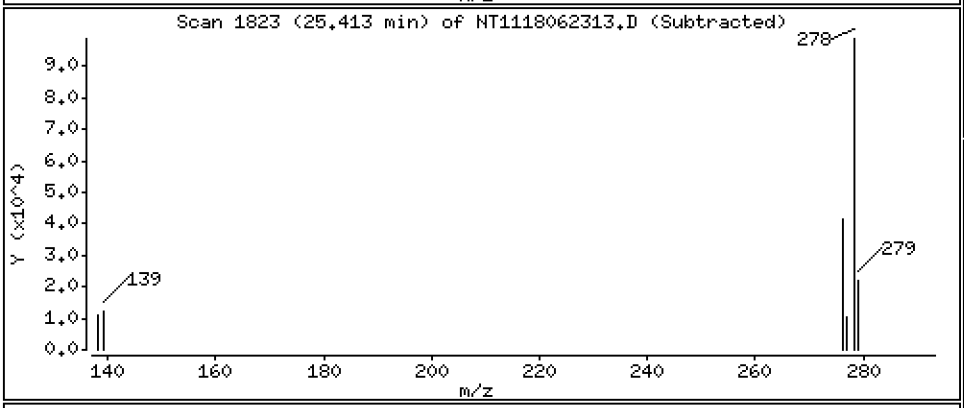
Column diameter: 0.25

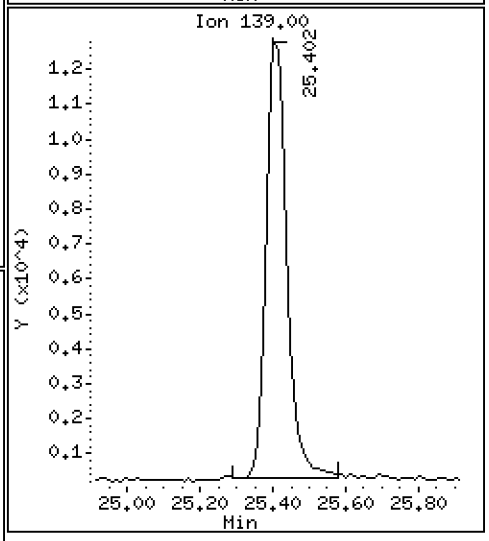
39 Dibenzo(a,h)anthracene

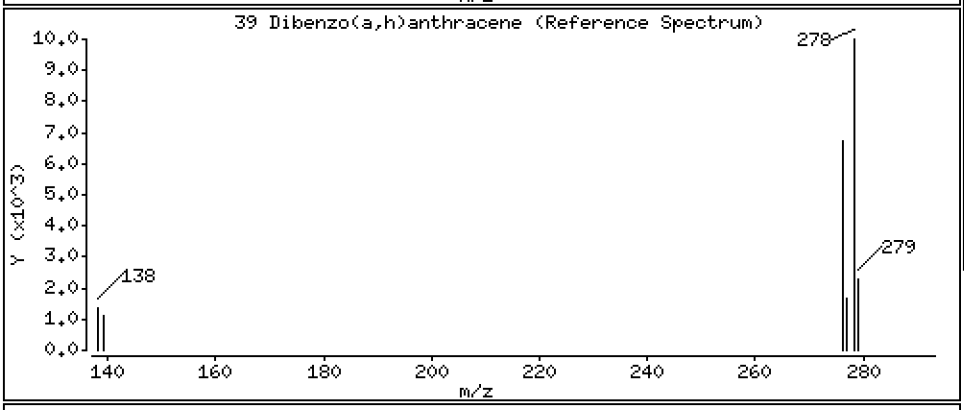
Concentration: 226 ng/mL

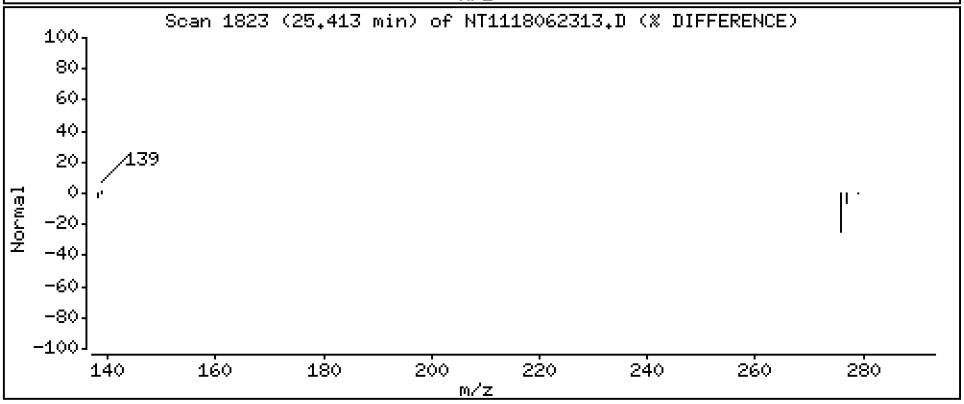












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Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

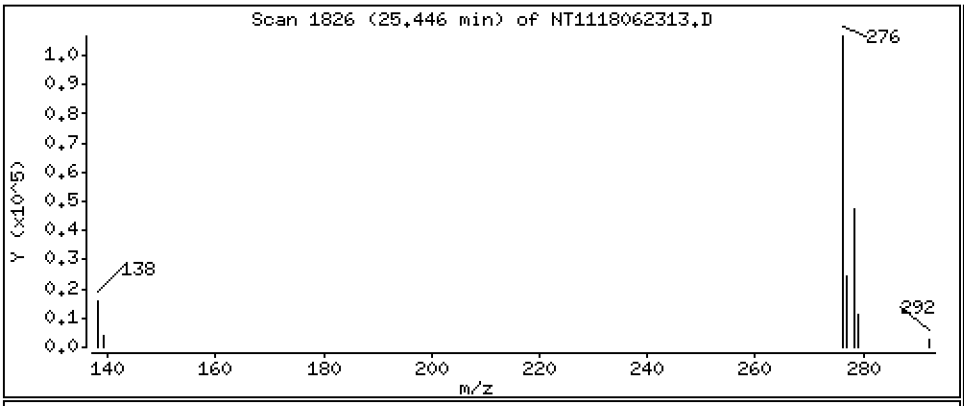
Operator: VTS

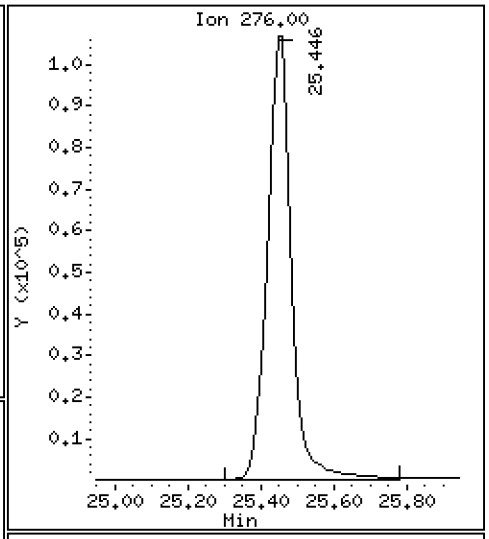
Column phase: Rxi-17Sil MS

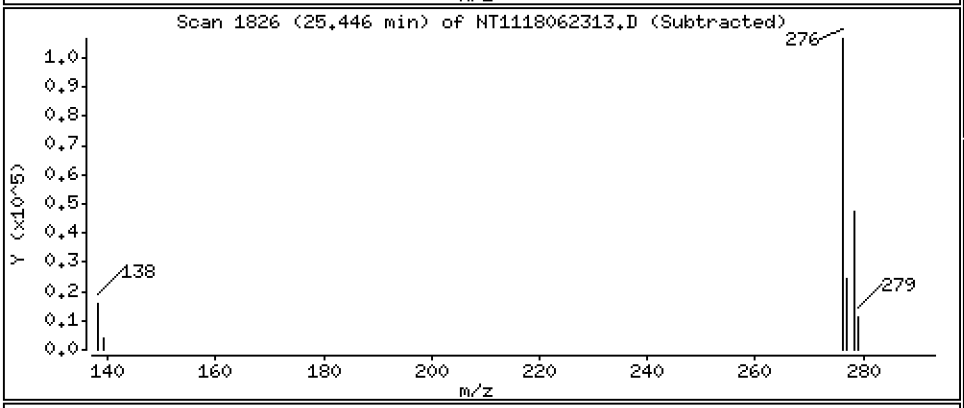
Column diameter: 0.25

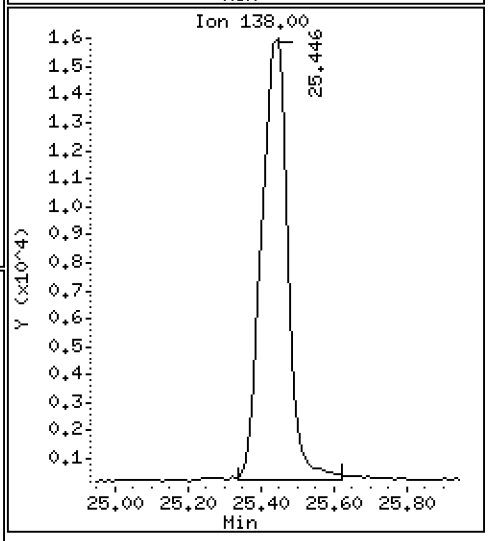
40 Indeno(1,2,3-cd)pyrene

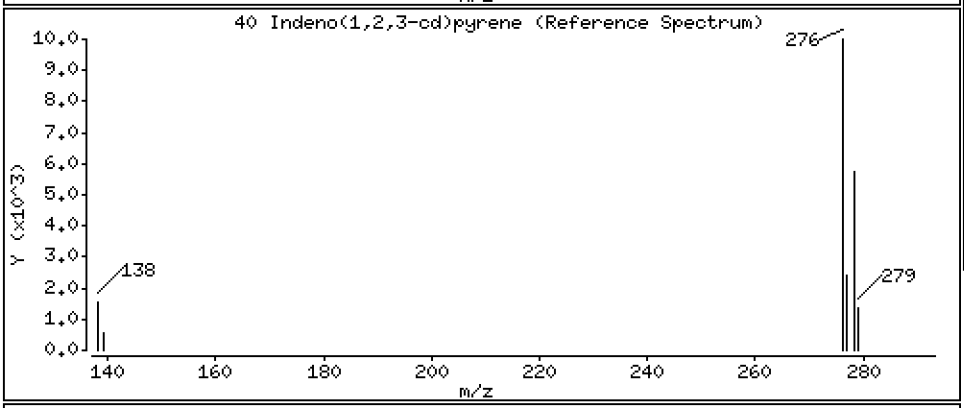
Concentration: 225 ng/mL

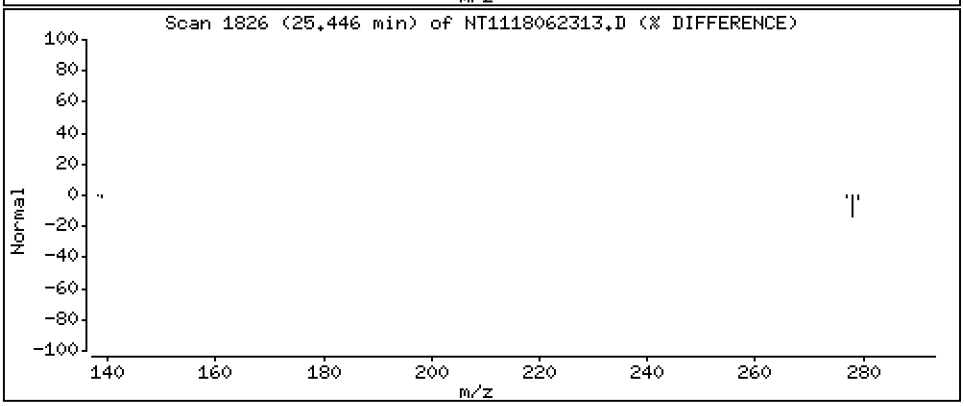












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Date : 23-JUN-2018 18:13

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MSD1

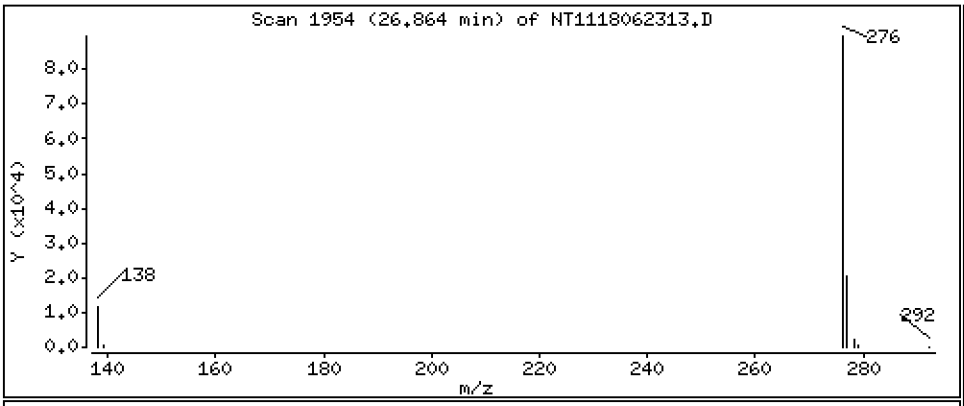
Operator: VTS

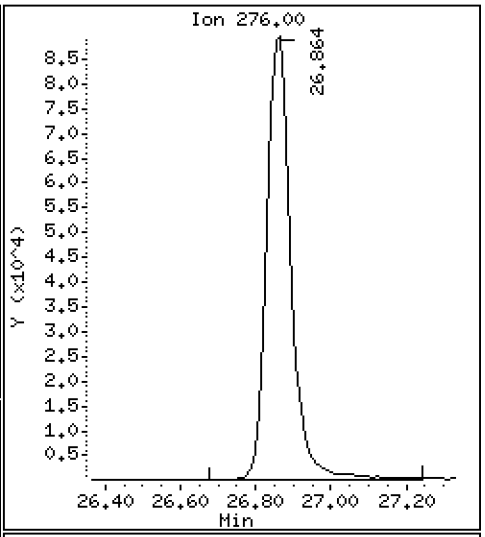
Column phase: Rxi-17Sil MS

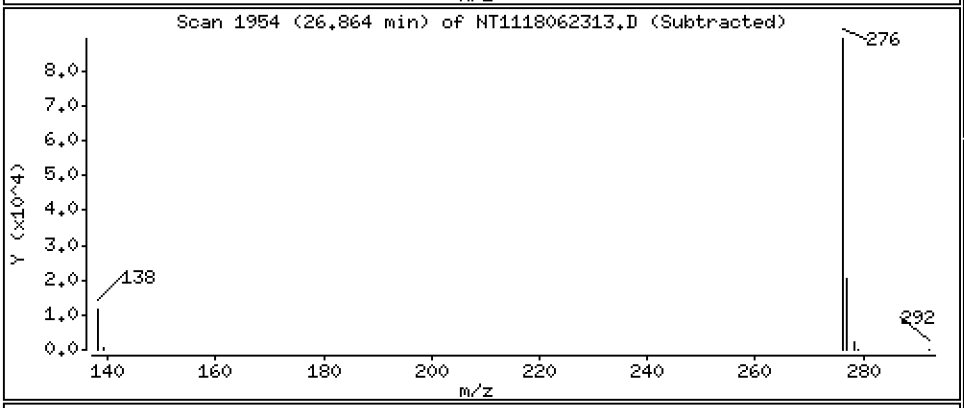
Column diameter: 0.25

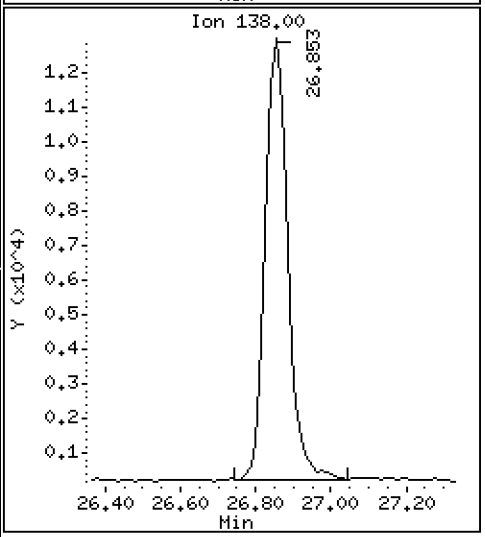
41 Benzo(g,h,i)perylene

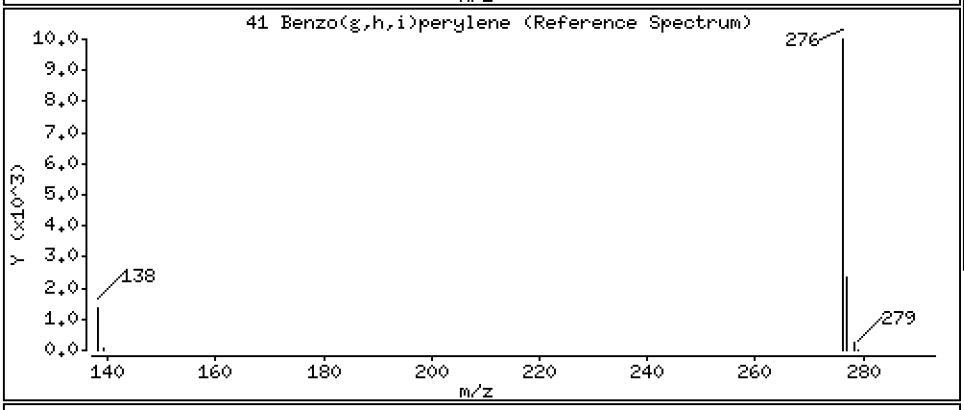
Concentration: 219 ng/mL

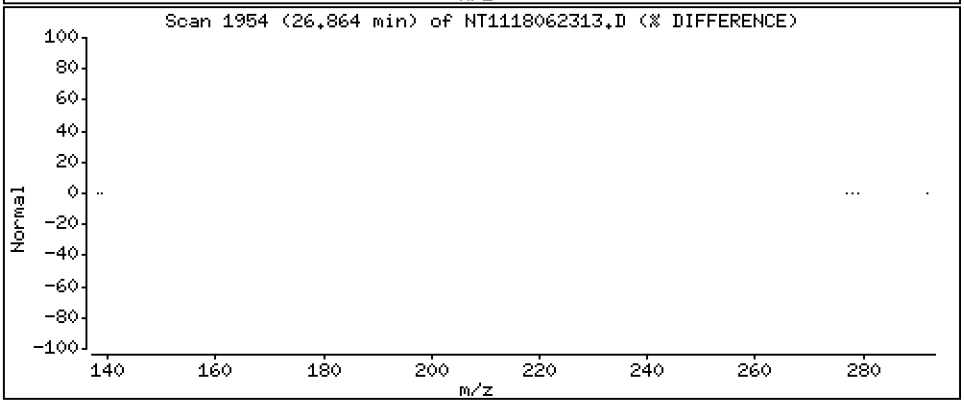












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180623.b\NT1118062313.D
Lab Smp Id: BGF0416-MSD1
Inj Date : 23-JUN-2018 18:13 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : BGF0416-MSD1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180623.b\LOWSIM.m
Meth Date : 23-Jun-2018 13:20 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	443613	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	510825	168.819	169
	3 Benzo(b)thiophene	134	8.897	8.897	(1.034)	449666	193.383	193
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	475096	187.704	188
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	518066	191.717	192
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	514531	191.455	191
	7 2-Chloronaphthalene	162	10.558	10.569	(0.907)	534153	199.832	200
	8 Biphenyl	154	10.527	10.527	(0.904)	682175	213.358	213
	9 2,6-Dimethylnaphthalene	156	10.579	10.579	(0.909)	527840	208.890	209
	10 Acenaphthylene	152	11.490	11.499	(0.987)	609284	199.286	199
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	257139	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	410023	196.078	196
	13 Dibenzofuran	168	11.908	11.908	(1.023)	575645	200.943	201
	14 2,3,5-Trimethylnaphthalene	170	11.996	12.009	(1.030)	367110	200.244	200
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.540	12.540	(1.077)	455412	197.136	197
	17 Dibenzothiophene	184	14.172	14.172	(0.988)	549441	203.673	204
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	433203	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	710037	208.982	209
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.435	14.435	(1.007)	608084	191.446	191
	22 Carbazole	167	15.113	15.113	(1.054)	772589	208.792	209
	23 1-Methylphenanthrene	192	15.384	15.384	(1.073)	728686	226.989	227
$	24 Fluoranthene-d10	212	16.449	16.449	(1.147)	545172	207.325	207
	25 Fluoranthene	202	16.487	16.487	(1.150)	717770	227.488	227
	26 Pyrene	202	16.987	16.996	(0.890)	715724	220.748	221
	27 Benzo(a)anthracene	228	19.004	19.004	(0.995)	567956	224.602	225
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	329800	200.000	
	29 Chrysene	228	19.145	19.145	(1.003)	592011	235.690	236
	30 Benzo(b)fluoranthene	252	21.094	21.104	(0.944)	502559	214.802	215
	31 Benzo(k)fluoranthene	252	21.152	21.152	(0.946)	534335	220.244	220
	32 Benzo(j)fluoranthene	252	21.219	21.229	(0.949)	516809	234.046	234
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	21.978	21.978	(0.983)	484908	214.881	215

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	35 Benzo(a)pyrene	252	22.113	22.113	(0.989)	413018	200.942	201
*	36 Perylene-d12	264	22.353	22.353	(1.000)	330775	200.000	
	37 Perylene	252	22.430	22.430	(1.003)	429895	199.287	199
$	38 Dibenzo(a,h)anthracene-d14	292	25.268	25.268	(1.130)	330864	209.027	209
	39 Dibenzo(a,h)anthracene	278	25.412	25.412	(1.137)	404008	225.906	226
	40 Indeno(1,2,3-cd)pyrene	276	25.446	25.446	(1.138)	481310	225.122	225
	41 Benzo(g,h,i)perylene	276	26.863	26.863	(1.202)	405428	219.235	219

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118062313.D
Lab Smp Id: BGF0416-MSD1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180623.b\LOWSIM.m
Misc Info:

Calibration Date: 23-JUN-2018
Calibration Time: 10:32
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	443613	2.85
11 Acenaphthene-d10	260137	130069	520274	257139	-1.15
18 Phenanthrene-d10	427391	213696	854782	433203	1.36
28 Chrysene-d12	304596	152298	609192	329800	8.27
36 Perylene-d12	263091	131546	526182	330775	25.73

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118062313.D

Lab ID: BGF0416-MSD1
nt11.i, 20180623.b\LOWSIM.m,   23-JUN-2018 18:13

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180623.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

MS / MS DUPLICATE RECOVERY
EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	07/06/18 16:01
Batch:	BGF0530	Laboratory ID:	BGF0530-MS1
Preparation:	EPA 3510C SepF	Sequence Name:	Matrix Spike
Initial/Final:	500 mL / 0.5 mL	Source Sample:	LDW18-SP-57

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	Q	MS CONCENTRATION (ug/L)	Q	MS % REC. #	QC LIMITS REC.
Naphthalene	0.300	0.003	J	0.172		56.3	30 - 160
2-Methylnaphthalene	0.300	0.001	J	0.195		64.6	30 - 160
Acenaphthylene	0.300	ND	U	0.208		69.4	30 - 160
Acenaphthene	0.300	0.004	J	0.213		69.6	30 - 160
Fluorene	0.300	0.002	J	0.211		69.7	30 - 160
Phenanthrene	0.300	0.003	J	0.229		75.3	30 - 160
Anthracene	0.300	ND	U	0.226		75.4	30 - 160
Fluoranthene	0.300	0.003	J	0.248	Q	81.6	30 - 160
Pyrene	0.300	0.002	J	0.239		78.9	30 - 160
Benzo(a)anthracene	0.300	ND	U	0.248		82.7	30 - 160
Chrysene	0.300	ND	U	0.258	Q	85.9	30 - 160
Benzo(b)fluoranthene	0.300	ND	U	0.209		69.7	30 - 160
Benzo(k)fluoranthene	0.300	ND	U	0.238		79.3	30 - 160
Benzo(j)fluoranthene	0.300	ND	U	0.262	Q	87.5	30 - 160
Benzo(a)pyrene	0.300	ND	U	0.213		71.1	30 - 160
Indeno(1,2,3-cd)pyrene	0.300	ND	U	0.231		77.1	30 - 160
Dibenzo(a,h)anthracene	0.300	ND	U	0.229		76.4	30 - 160
Benzo(g,h,i)perylene	0.300	ND	U	0.233		77.5	30 - 160

* Values outside of QC limits

MS / MS DUPLICATE RECOVERY
EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	07/06/18 16:37
Batch:	BGF0530	Laboratory ID:	BGF0530-MSD1
Preparation:	EPA 3510C SepF	Sequence Name:	Matrix Spike Dup
Initial/Final:	500 mL / 0.5 mL	Source Sample:	LDW18-SP-57

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	Q	MSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Naphthalene	0.300	0.195		63.9	12.5	30	30 - 160
2-Methylnaphthalene	0.300	0.220		72.7	11.8	30	30 - 160
Acenaphthylene	0.300	0.231		76.9	10.2	30	30 - 160
Acenaphthene	0.300	0.238		77.8	10.9	30	30 - 160
Fluorene	0.300	0.238		78.6	11.8	30	30 - 160
Phenanthrene	0.300	0.250		82.2	8.60	30	30 - 160
Anthracene	0.300	0.229		76.2	1.02	30	30 - 160
Fluoranthene	0.300	0.271	Q	89.1	8.73	30	30 - 160
Pyrene	0.300	0.253		83.7	5.85	30	30 - 160
Benzo(a)anthracene	0.300	0.260		86.7	4.81	30	30 - 160
Chrysene	0.300	0.276	Q	92.1	7.00	30	30 - 160
Benzo(b)fluoranthene	0.300	0.238		79.3	12.9	30	30 - 160
Benzo(k)fluoranthene	0.300	0.256		85.2	7.14	30	30 - 160
Benzo(j)fluoranthene	0.300	0.281	Q	93.5	6.68	30	30 - 160
Benzo(a)pyrene	0.300	0.229		76.5	7.35	30	30 - 160
Indeno(1,2,3-cd)pyrene	0.300	0.249		83.1	7.58	30	30 - 160
Dibenzo(a,h)anthracene	0.300	0.250		83.4	8.70	30	30 - 160
Benzo(g,h,i)perylene	0.300	0.250		83.4	7.27	30	30 - 160

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070607.D

Date : 06-JUL-2018 16:01

Client ID:

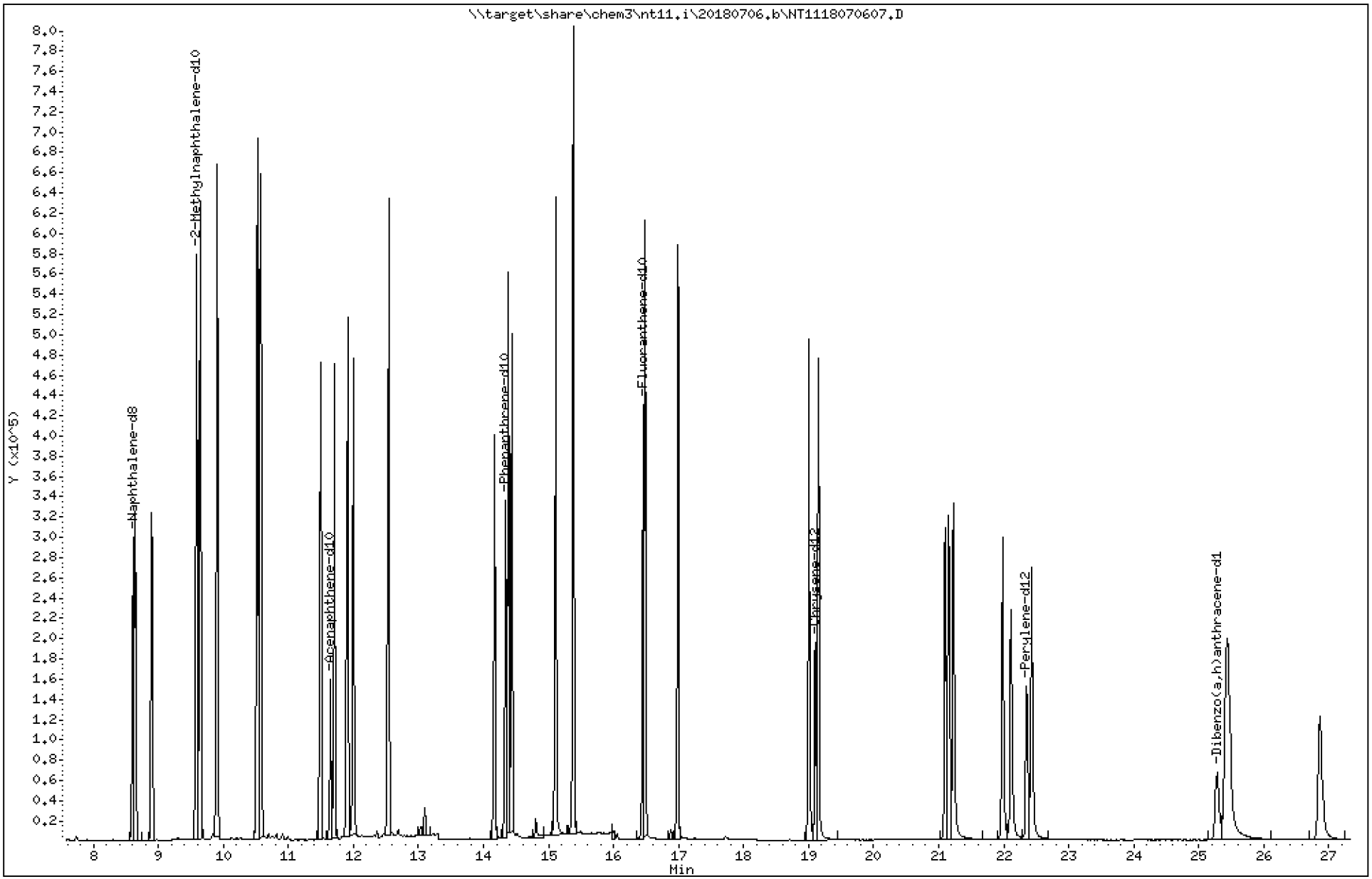
Instrument: nt11.i

Sample Info: BGF0530-MS1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

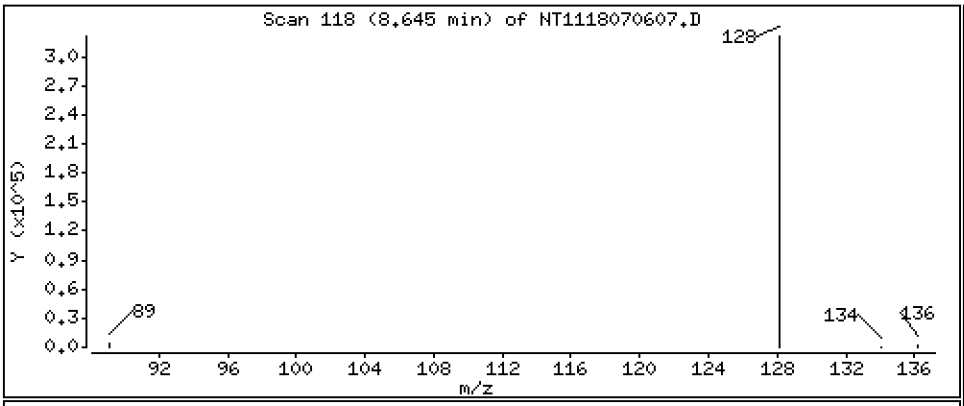
Operator: VTS

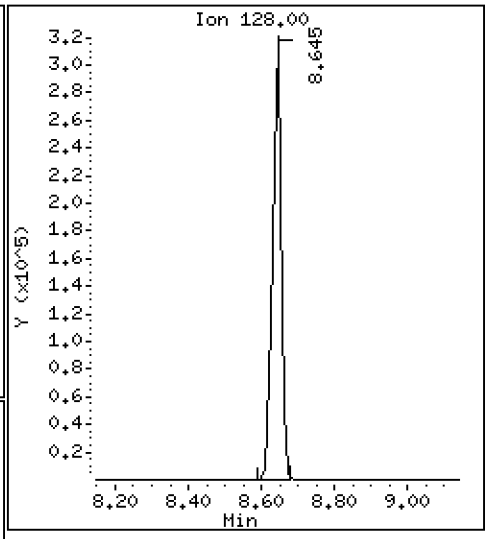
Column phase: Rxi-17Sil MS

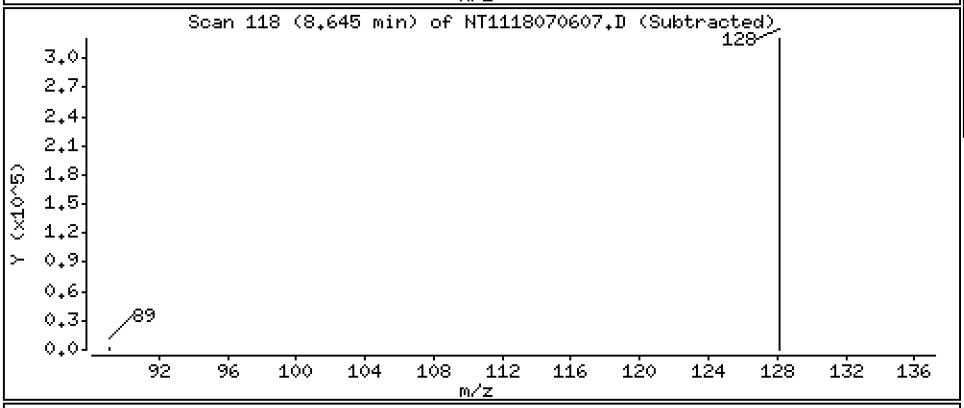
Column diameter: 0.25

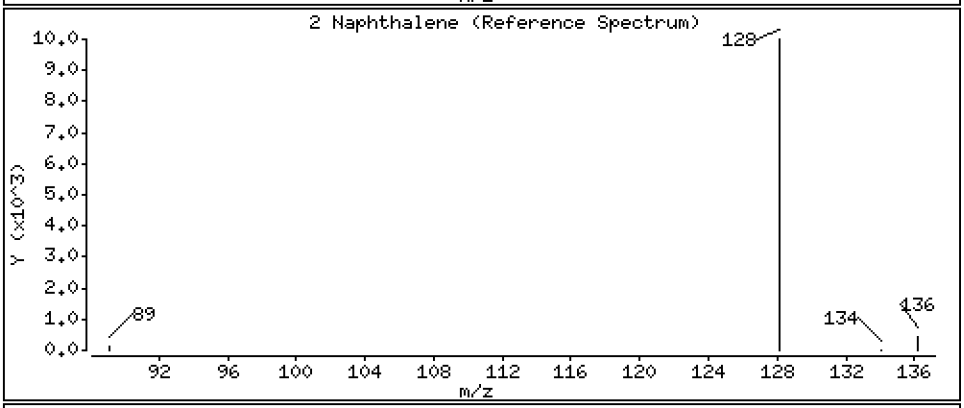
2 Naphthalene

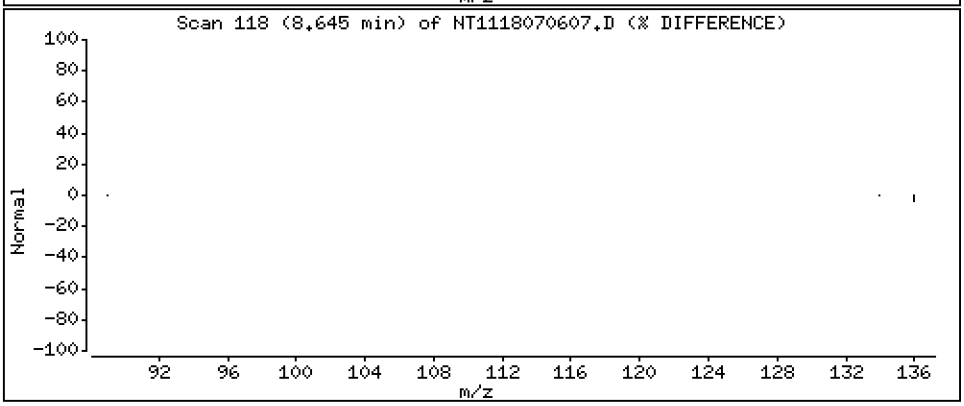
Concentration: 172 ng/mL











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Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

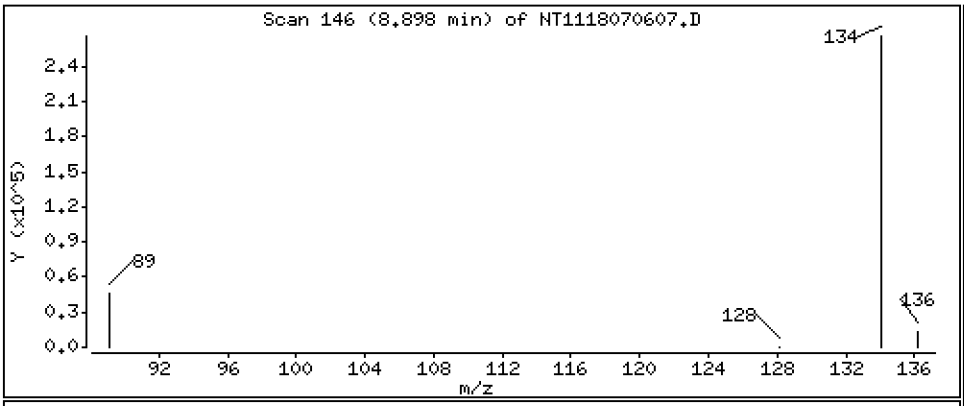
Operator: VTS

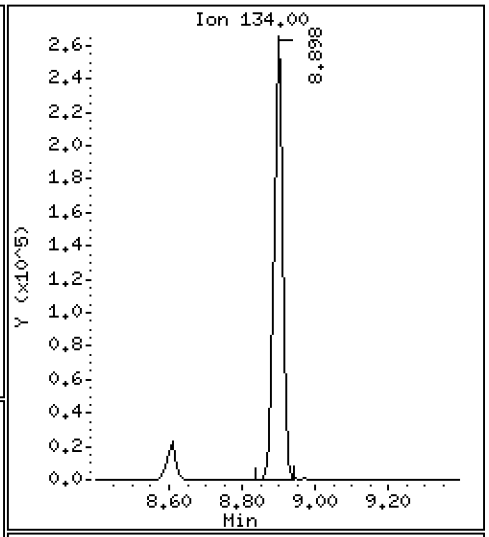
Column phase: Rxi-17Sil MS

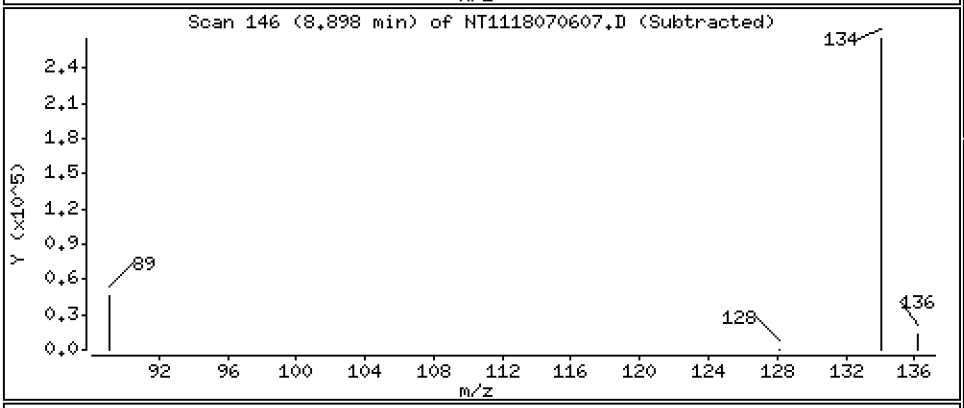
Column diameter: 0.25

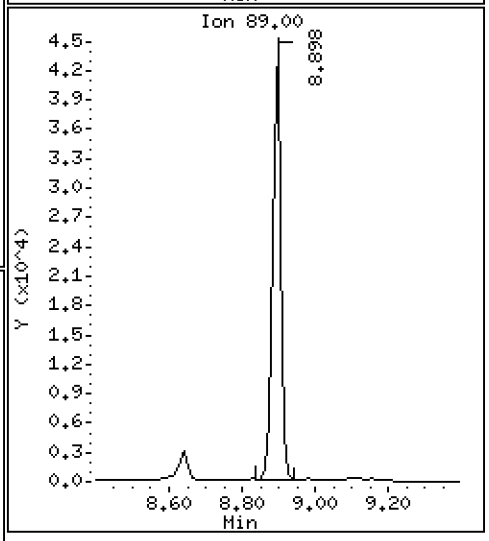
3 Benzo(b)thiophene

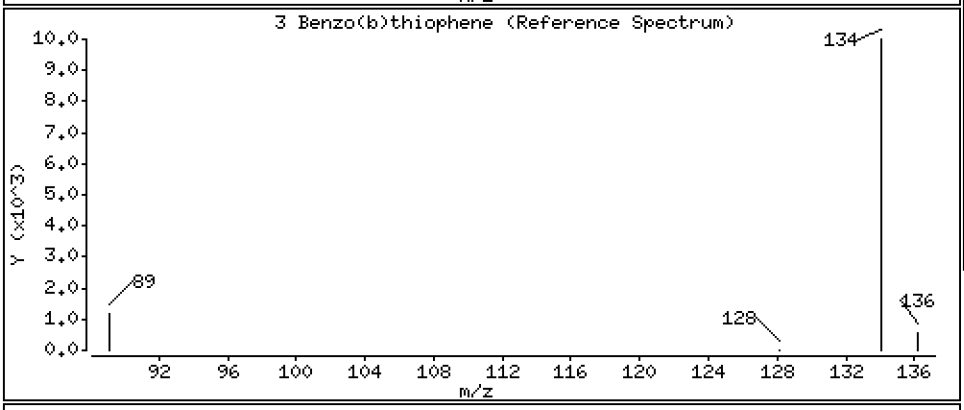
Concentration: 193 ng/mL

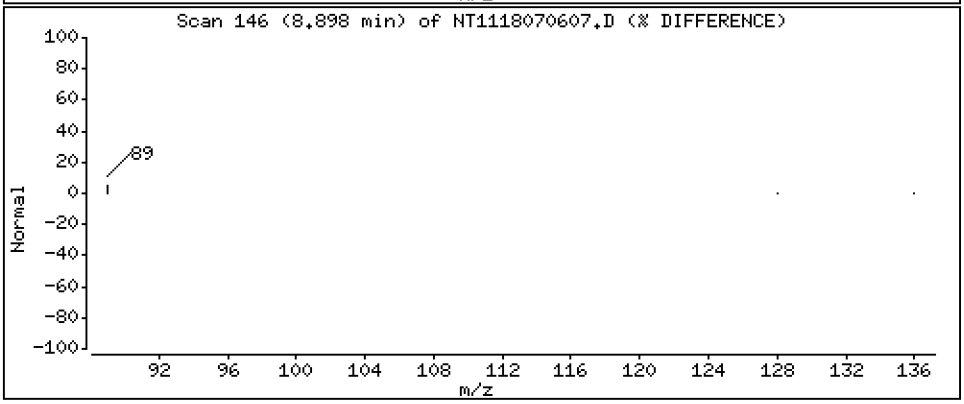












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Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

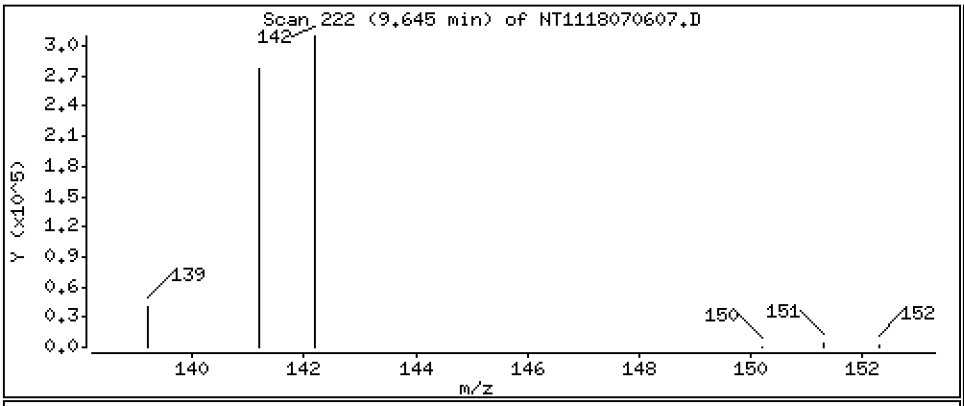
Operator: VTS

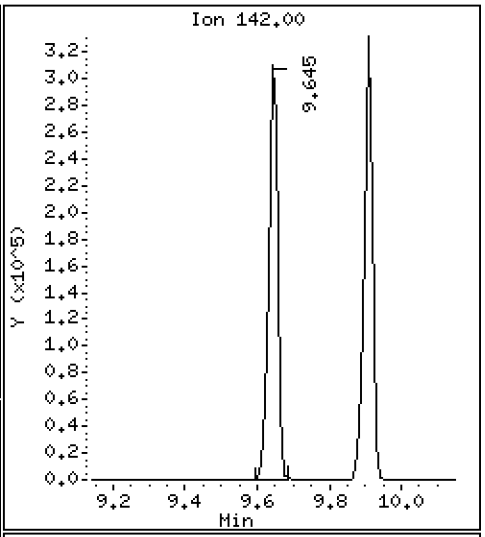
Column phase: Rxi-17Sil MS

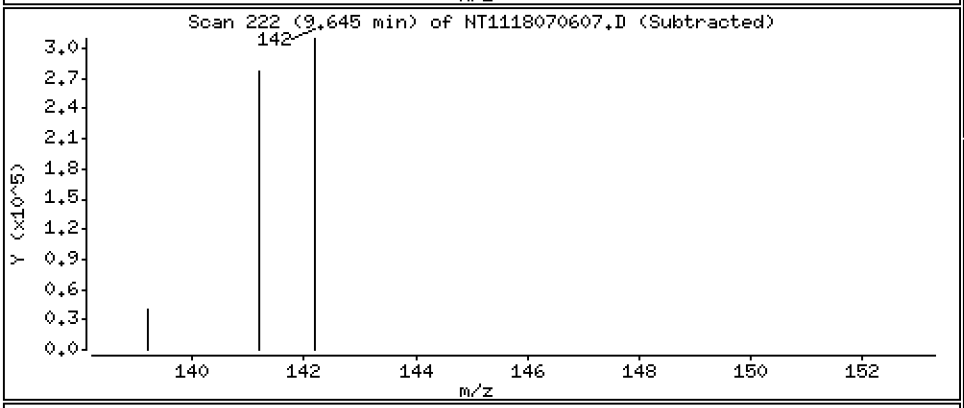
Column diameter: 0.25

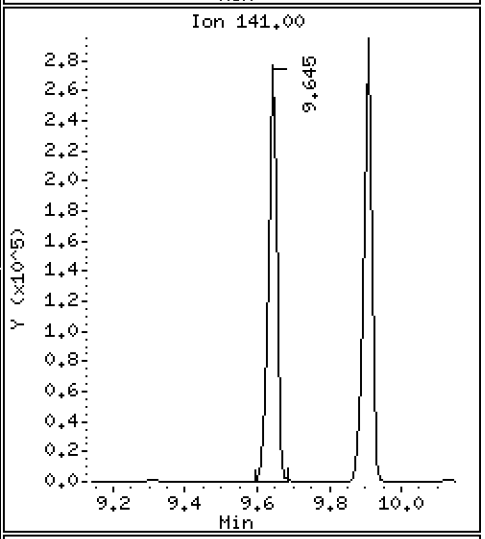
5 2-Methylnaphthalene

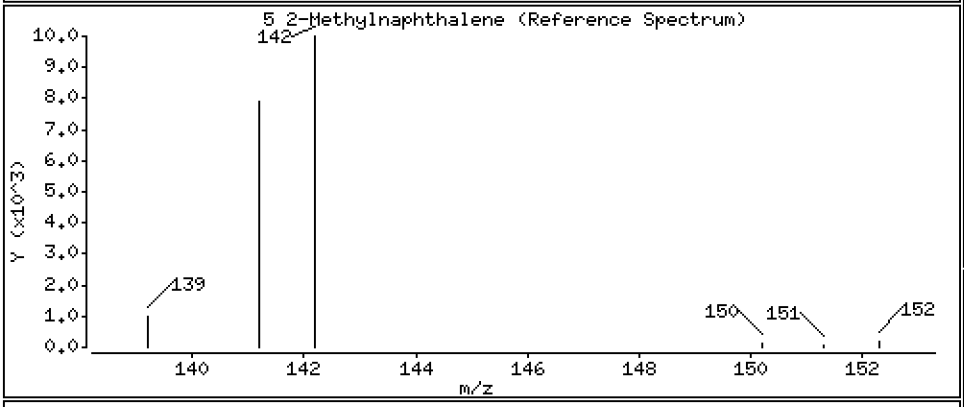
Concentration: 195 ng/mL

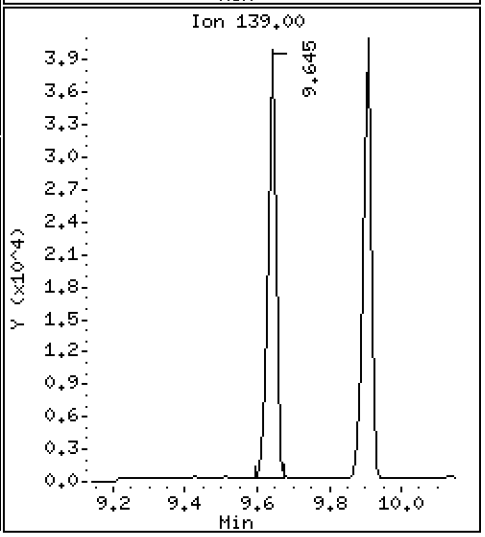


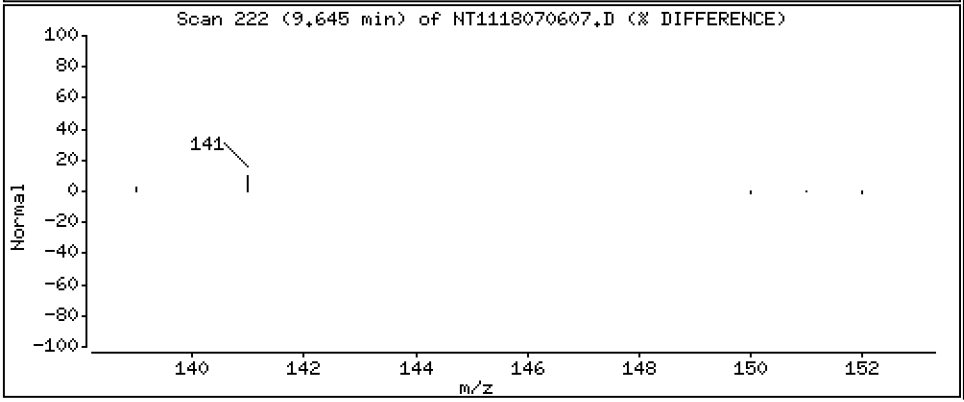












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070607.D

Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

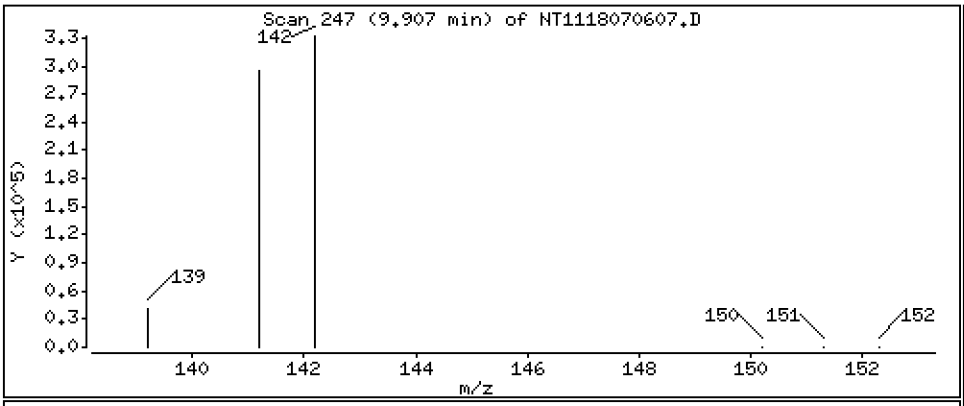
Operator: VTS

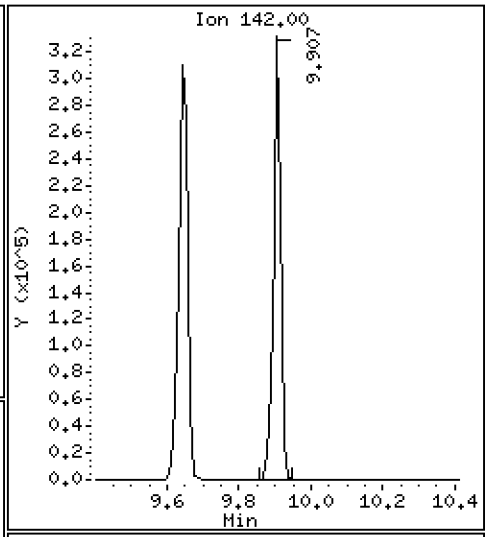
Column phase: Rxi-17Sil MS

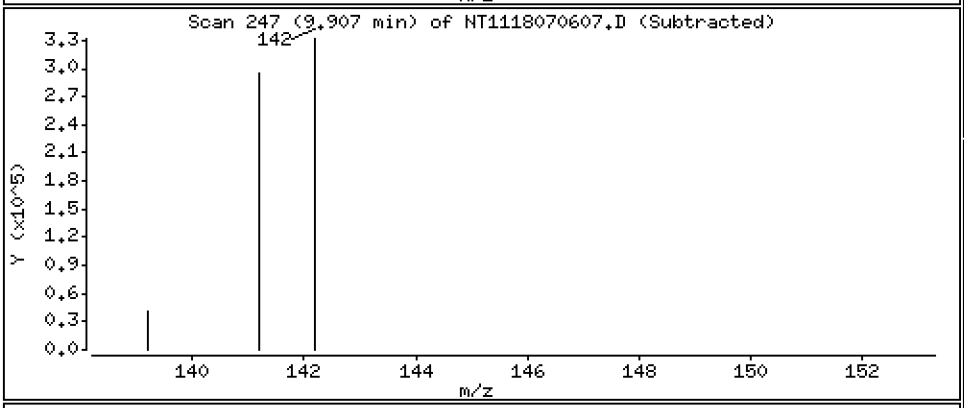
Column diameter: 0.25

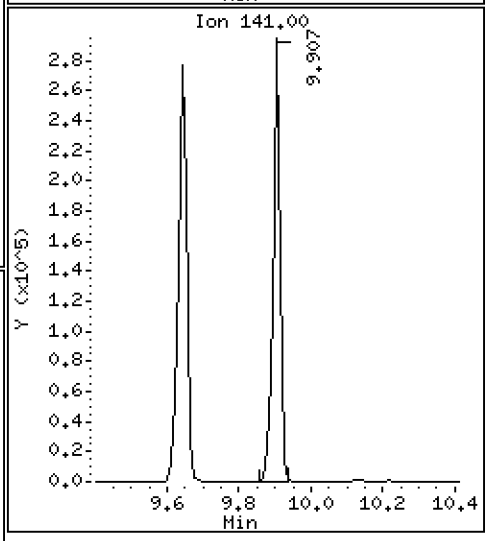
6 1-Methylnaphthalene

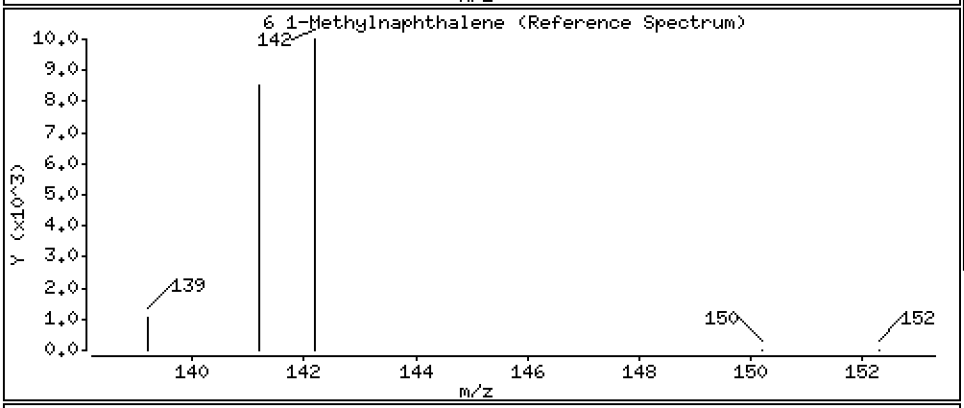
Concentration: 192 ng/mL

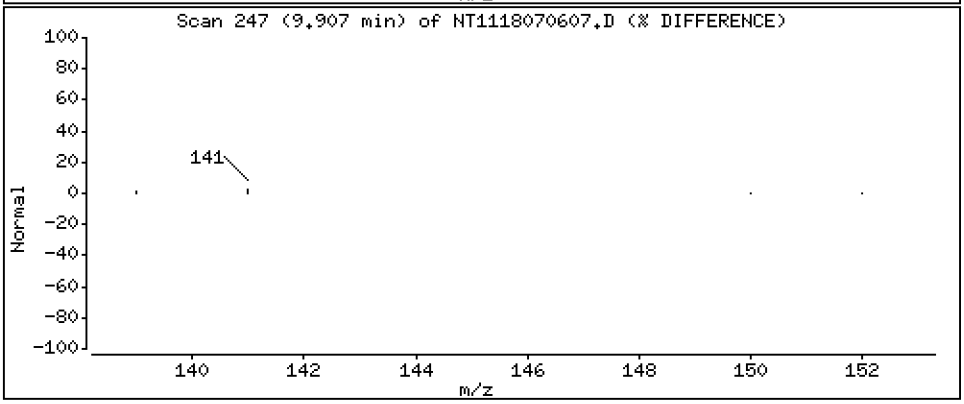












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Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

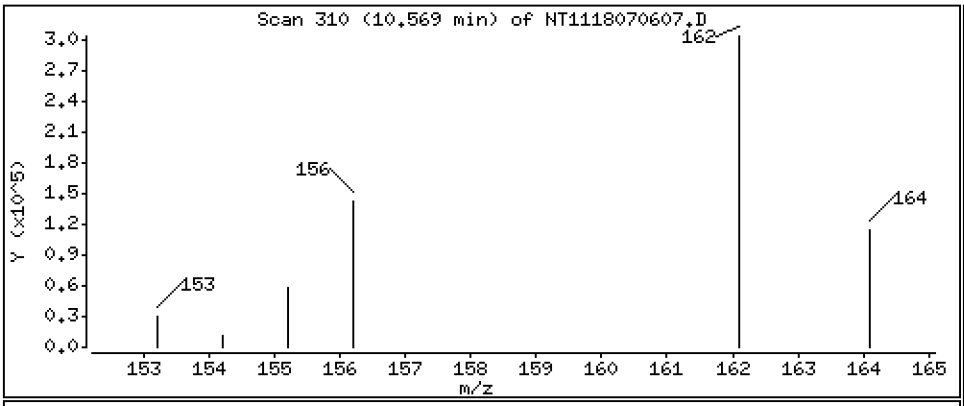
Operator: VTS

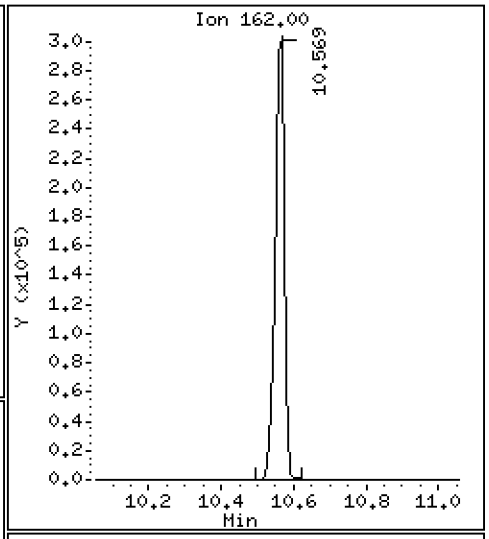
Column phase: Rxi-17Sil MS

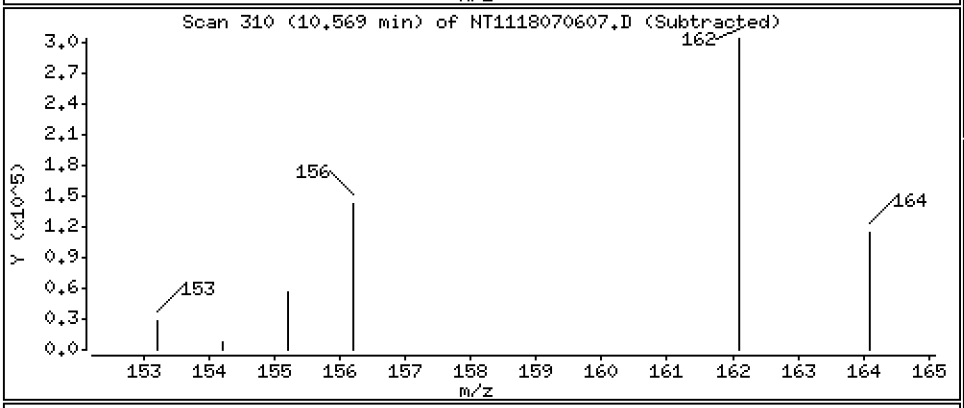
Column diameter: 0.25

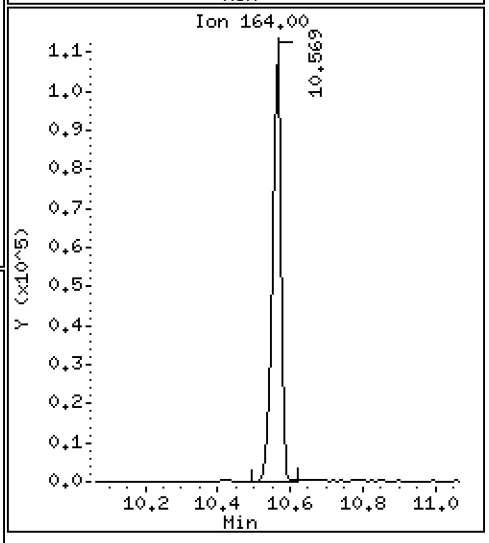
7 2-Chloronaphthalene

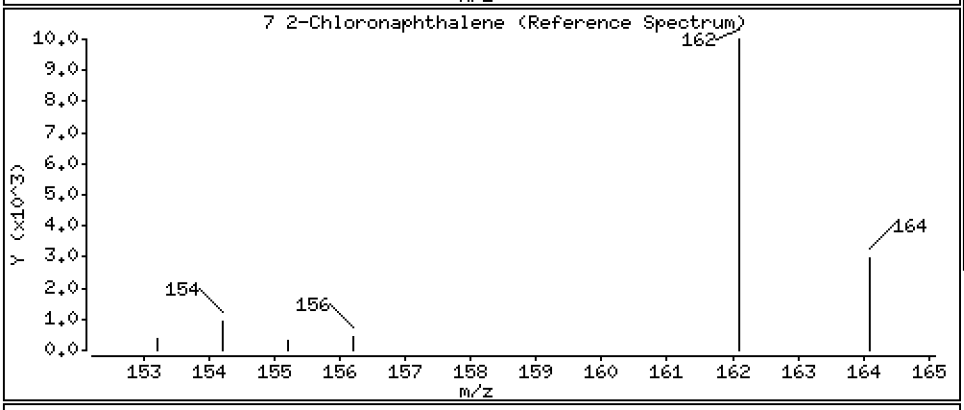
Concentration: 212 ng/mL

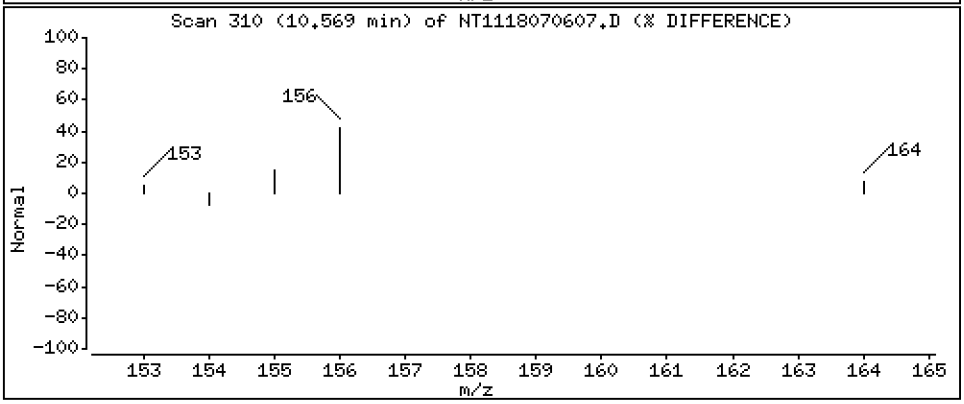












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Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

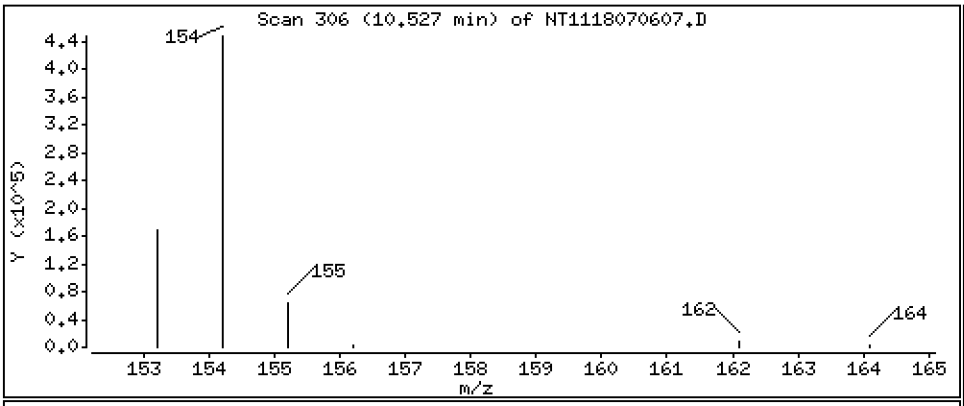
Operator: VTS

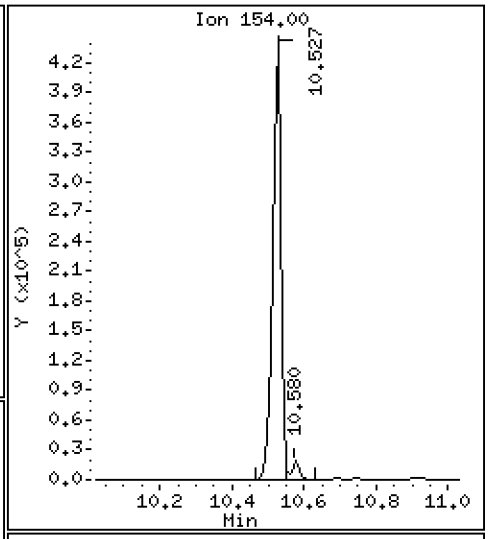
Column phase: Rxi-17Sil MS

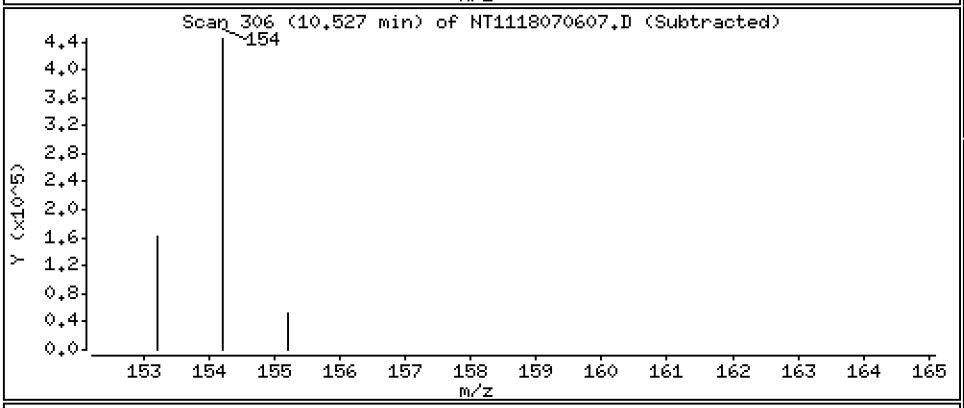
Column diameter: 0.25

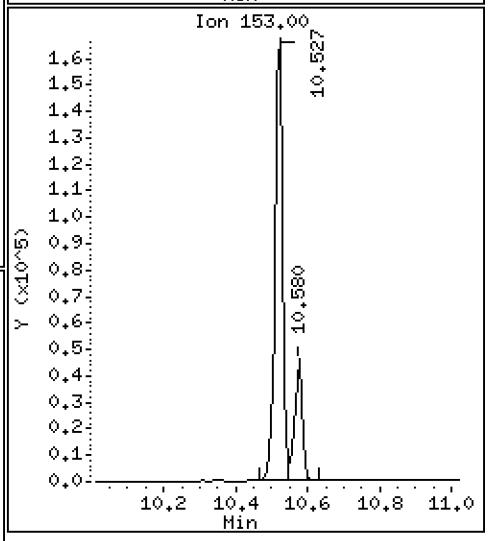
8 Biphenyl

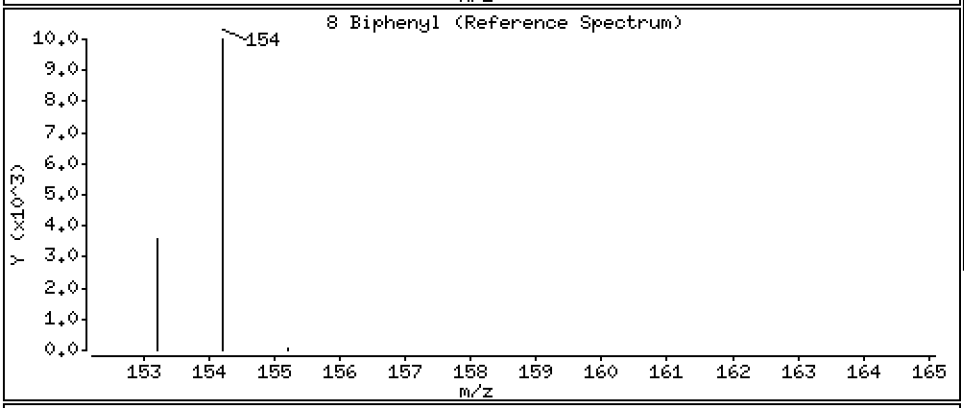
Concentration: 227 ng/mL

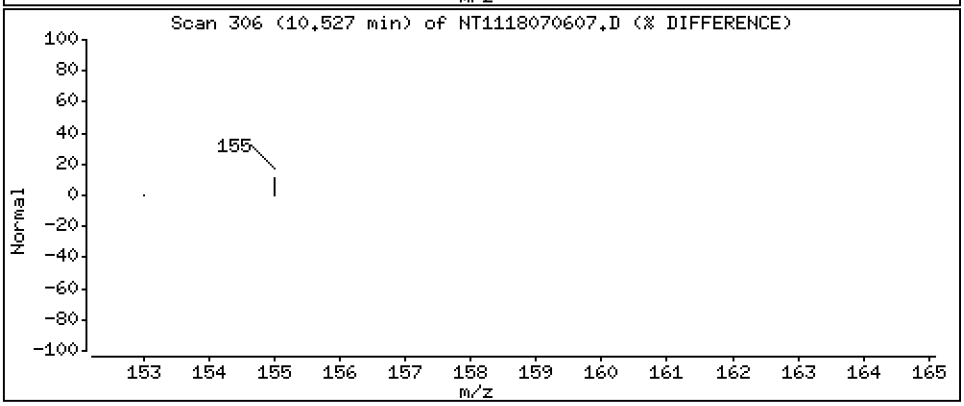












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Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

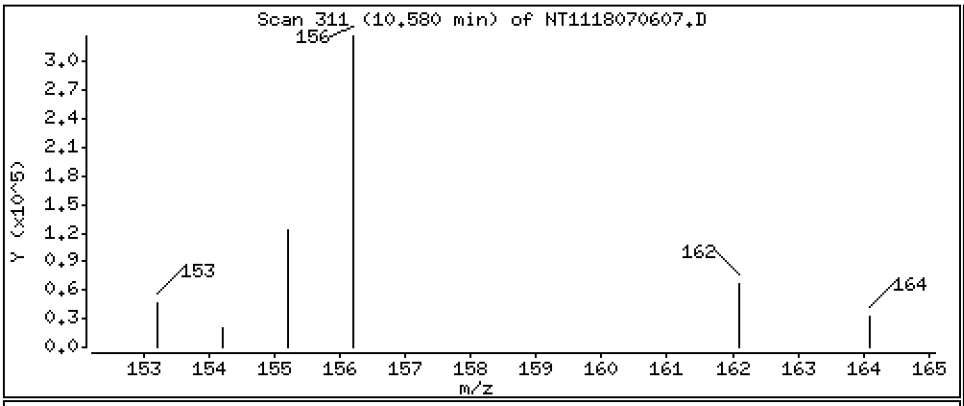
Operator: VTS

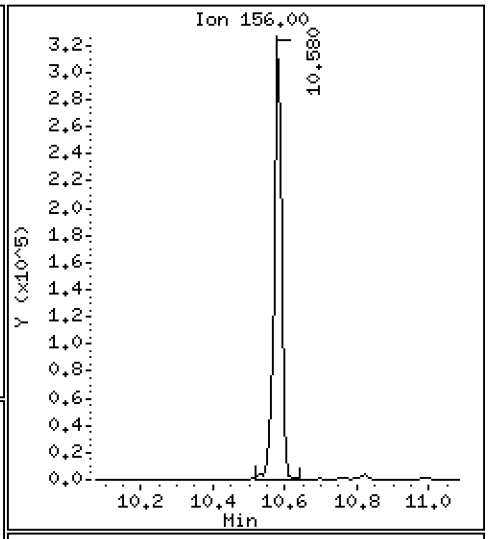
Column phase: Rxi-17Sil MS

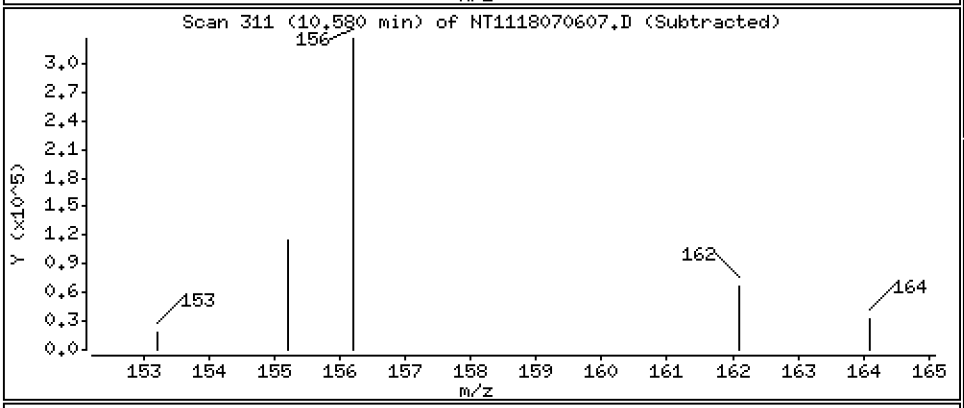
Column diameter: 0.25

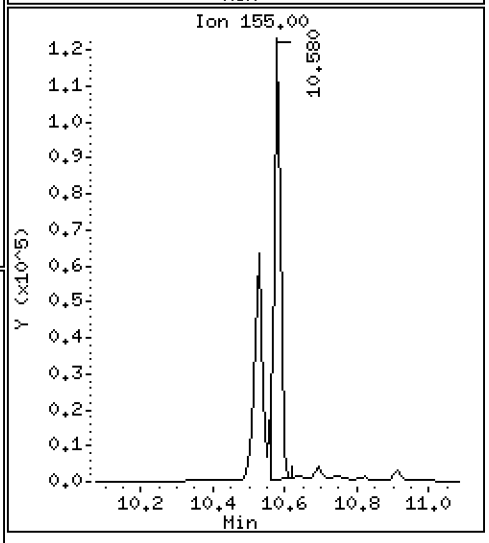
9 2,6-Dimethylnaphthalene

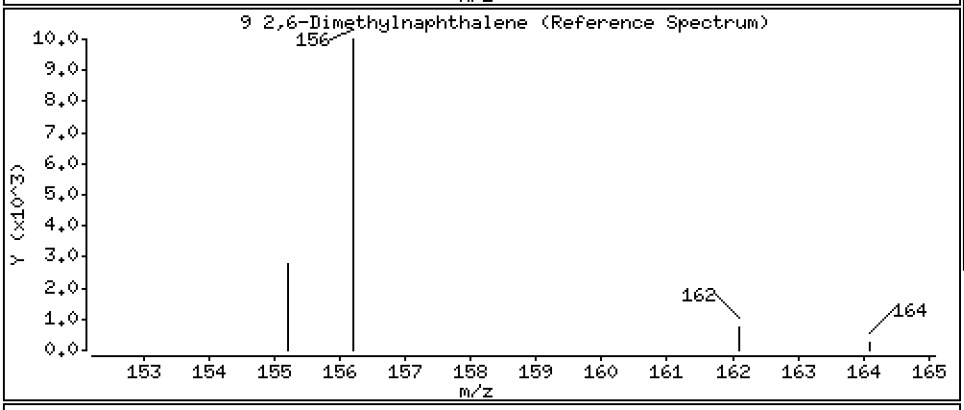
Concentration: 224 ng/mL

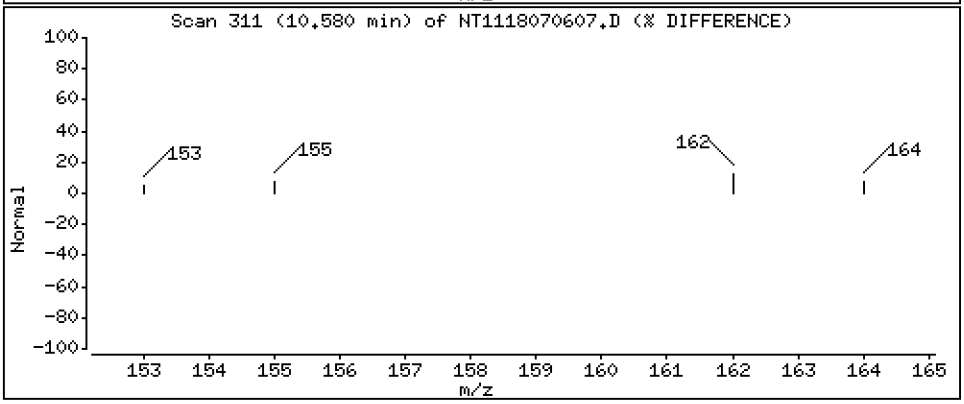












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Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

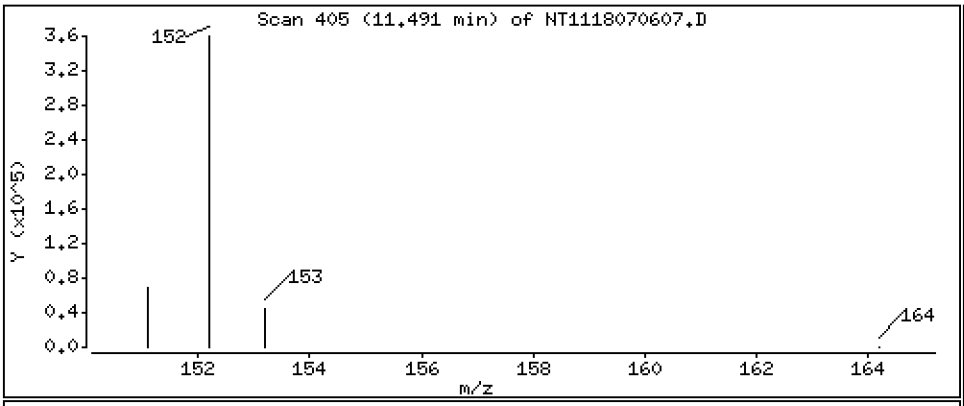
Operator: VTS

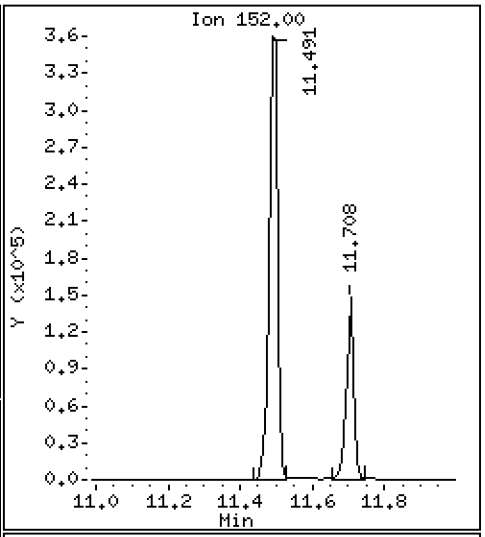
Column phase: Rxi-17Sil MS

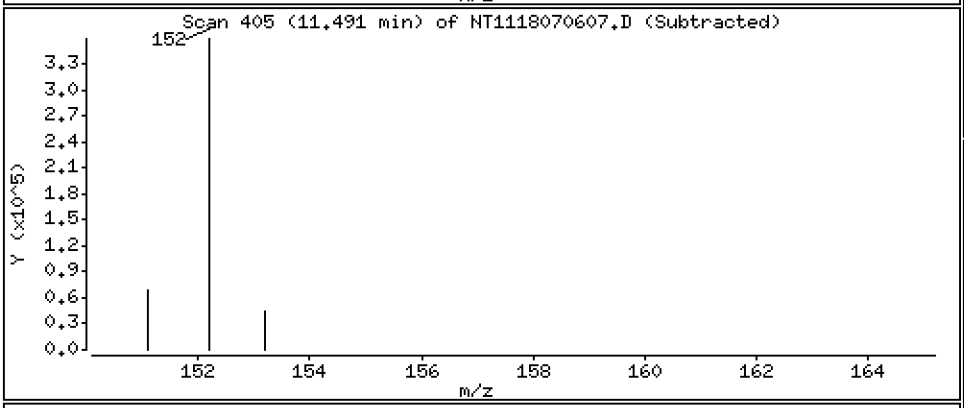
Column diameter: 0.25

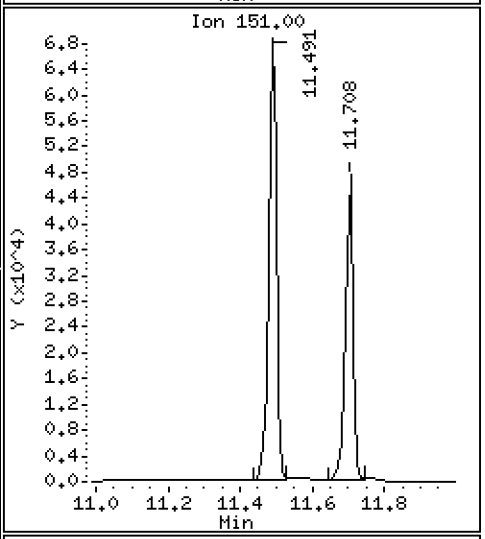
10 Acenaphthylene

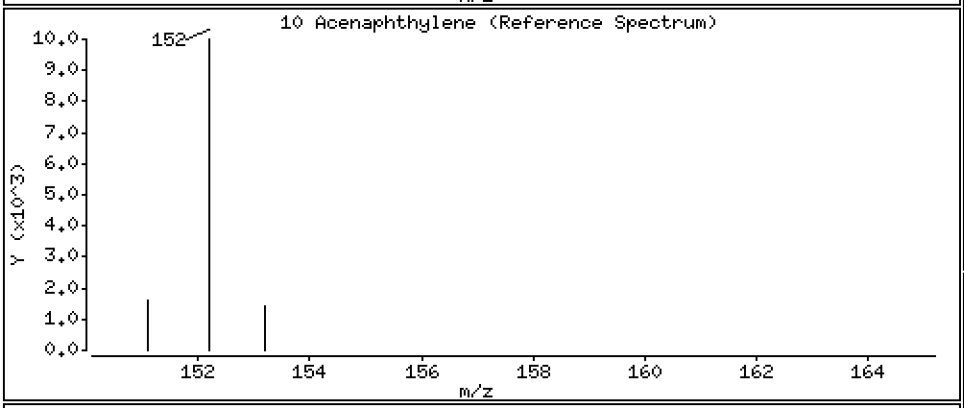
Concentration: 208 ng/mL

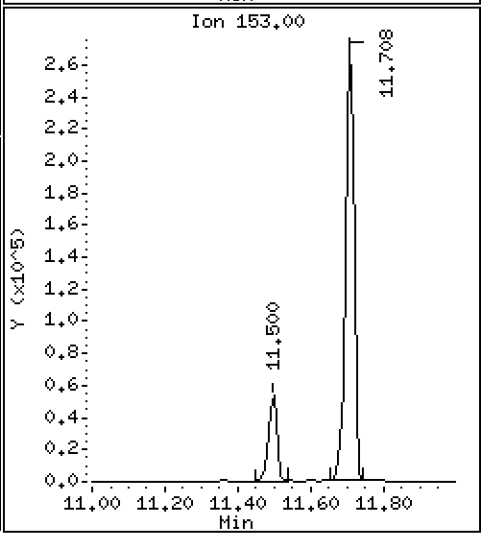


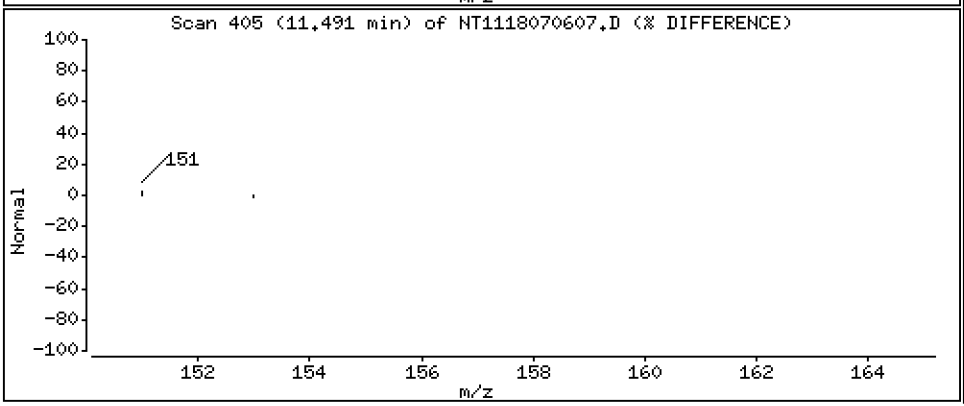












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Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

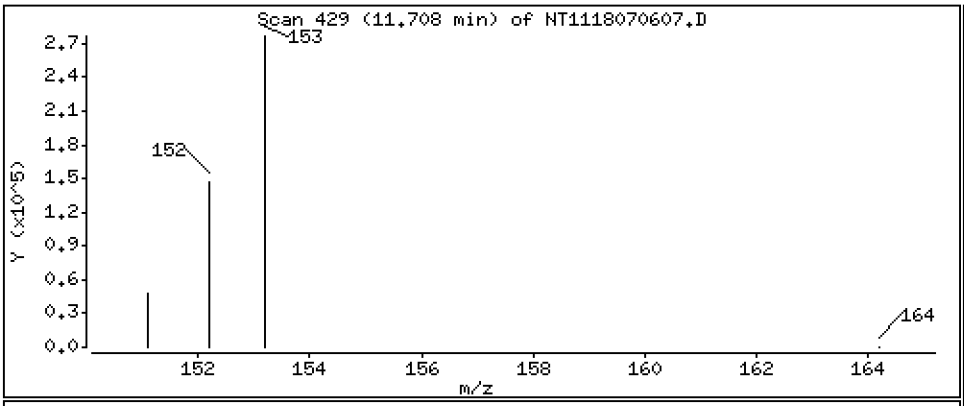
Operator: VTS

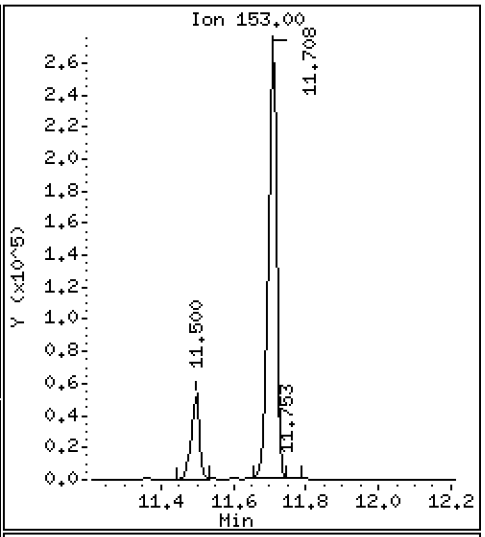
Column phase: Rxi-17Sil MS

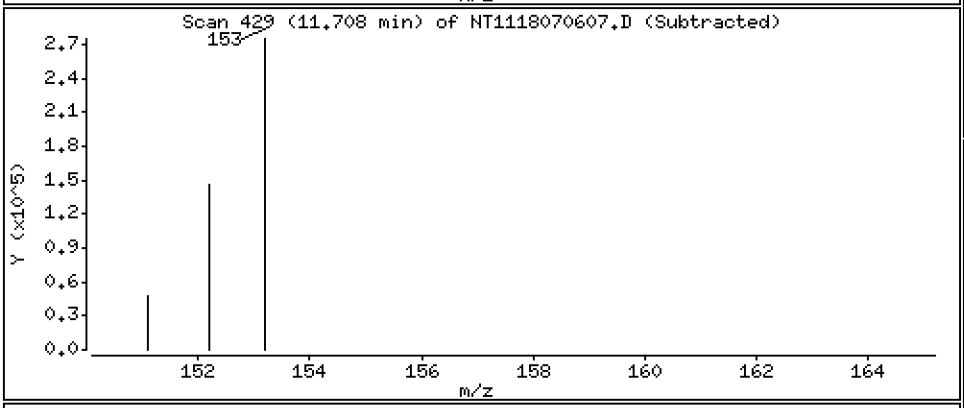
Column diameter: 0.25

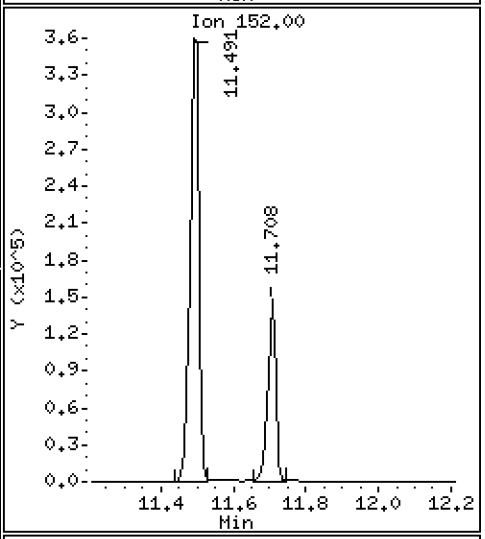
12 Acenaphthene

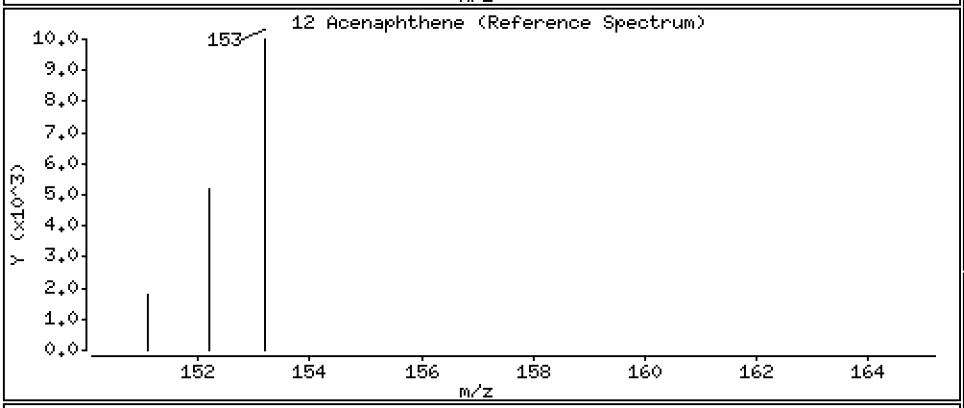
Concentration: 213 ng/mL

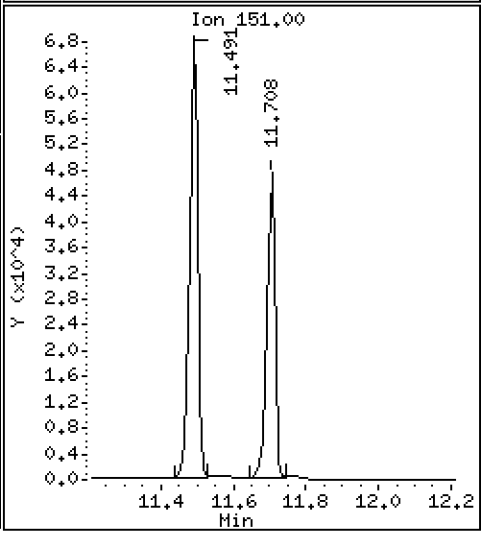


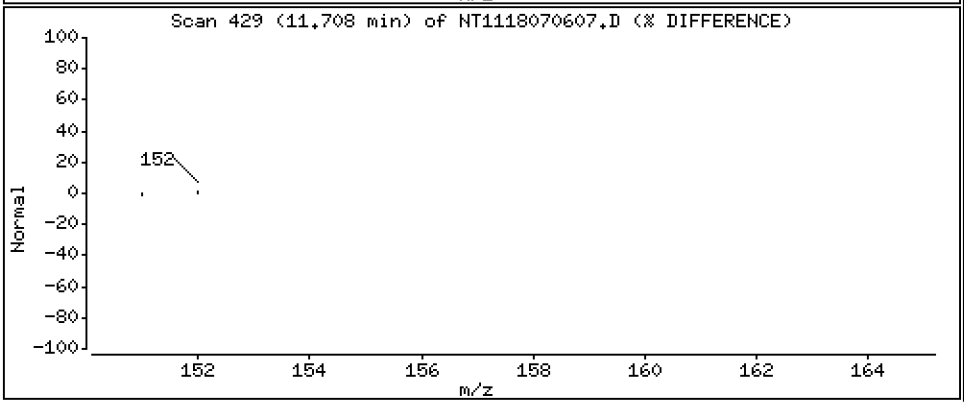












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Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

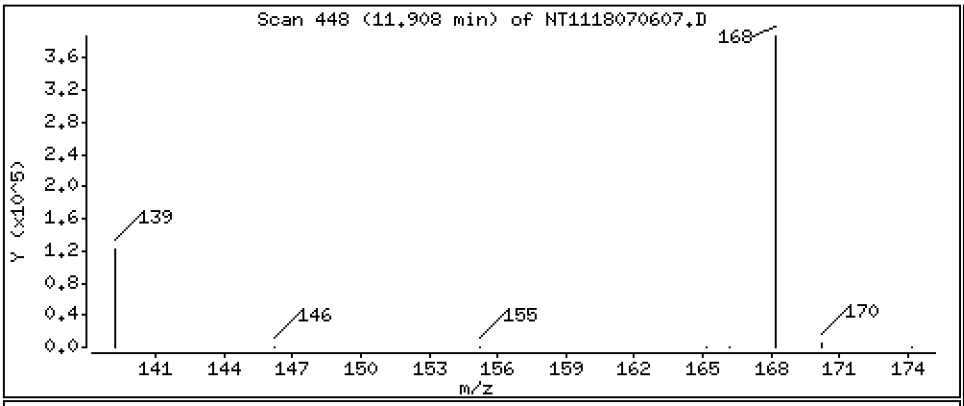
Operator: VTS

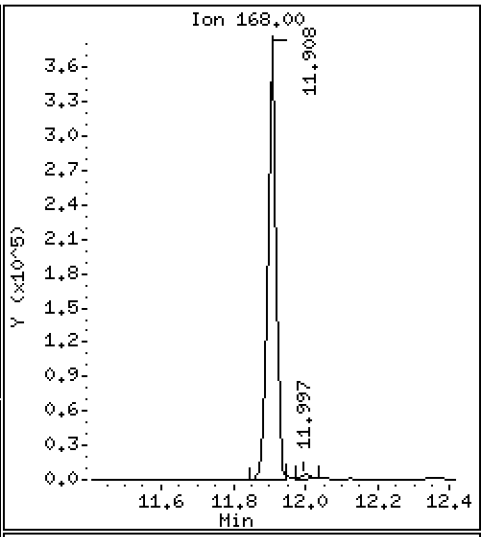
Column phase: Rxi-17Sil MS

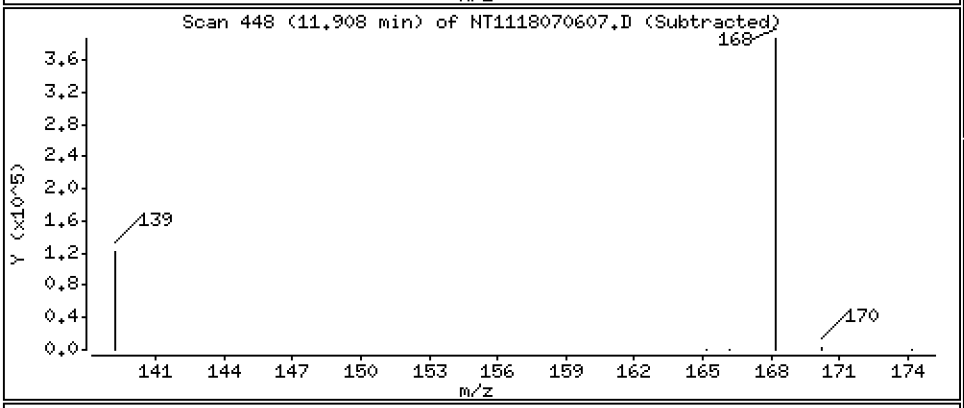
Column diameter: 0.25

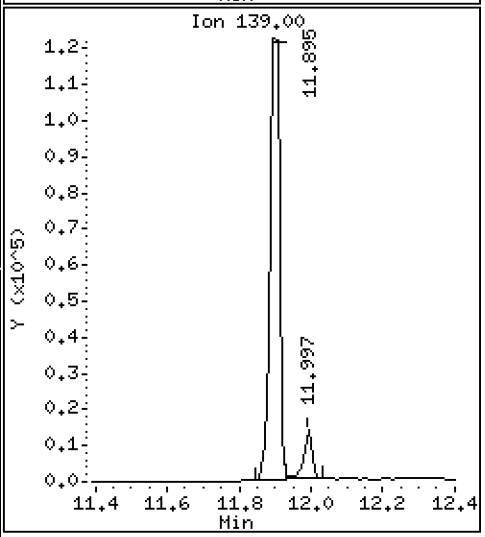
13 Dibenzofuran

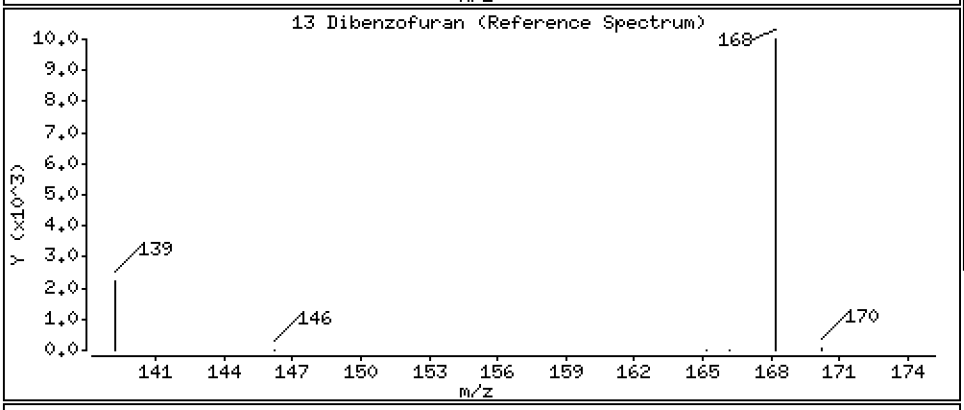
Concentration: 213 ng/mL

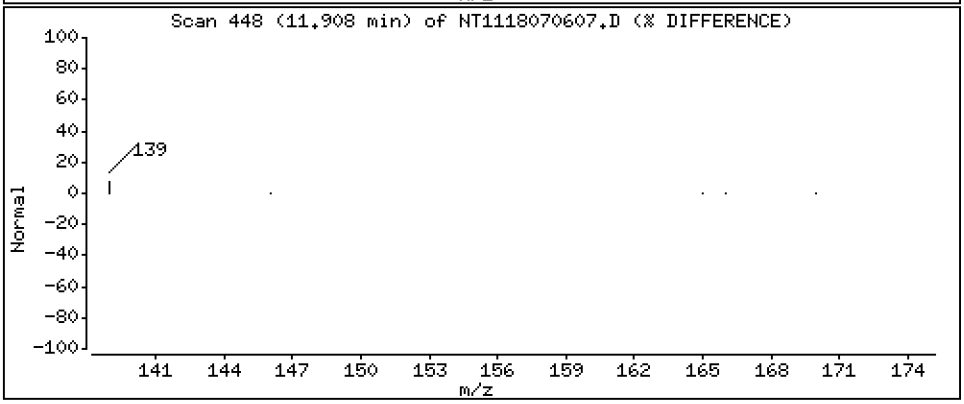












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Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

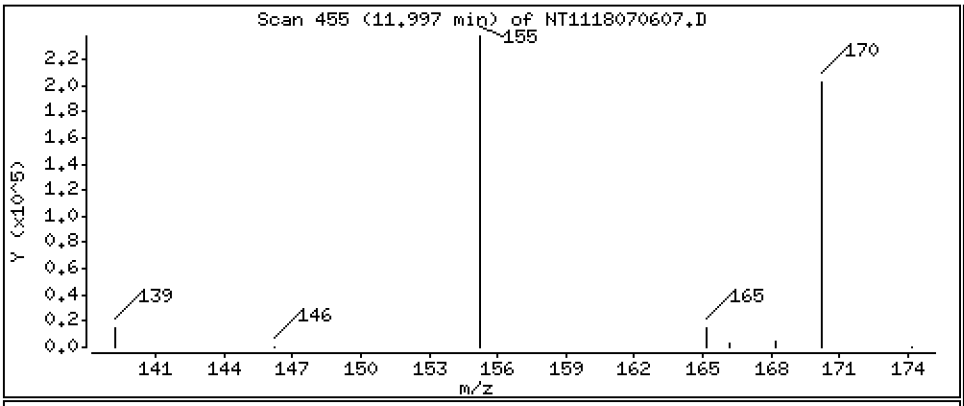
Operator: VTS

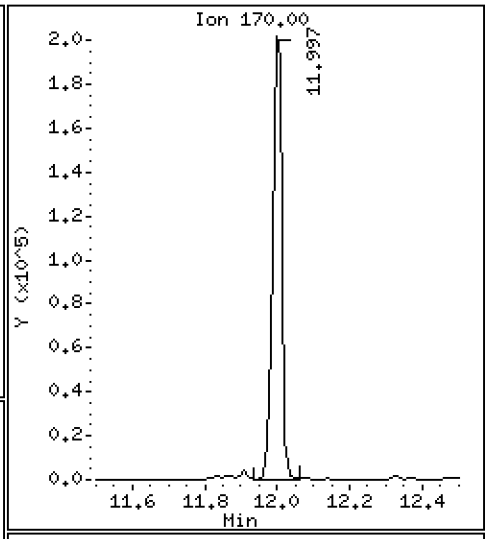
Column phase: Rxi-17Sil MS

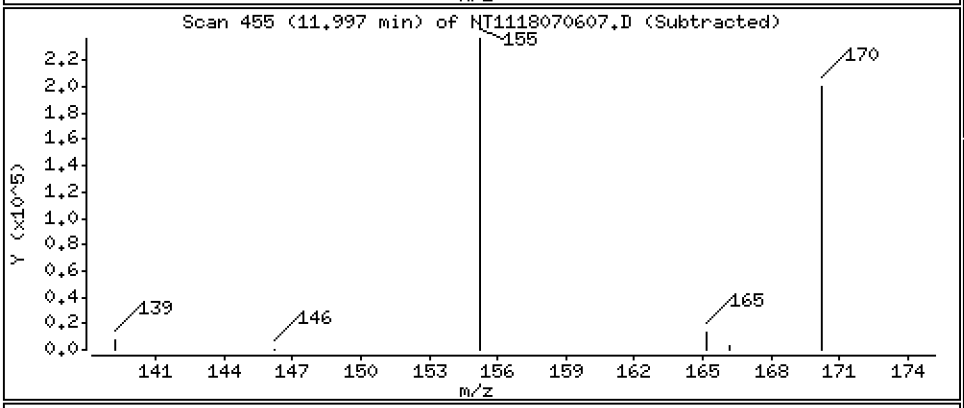
Column diameter: 0.25

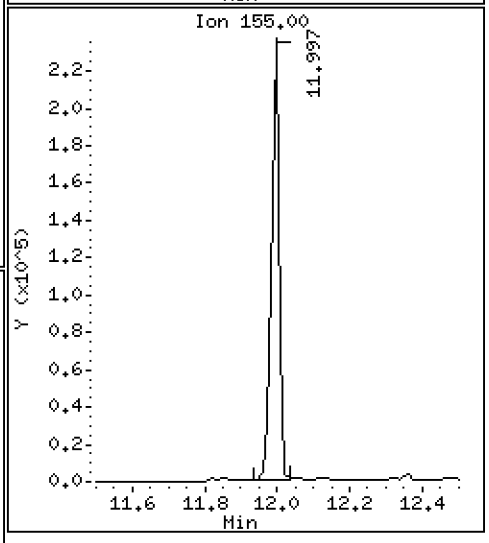
14 2,3,5-Trimethylnaphthalene

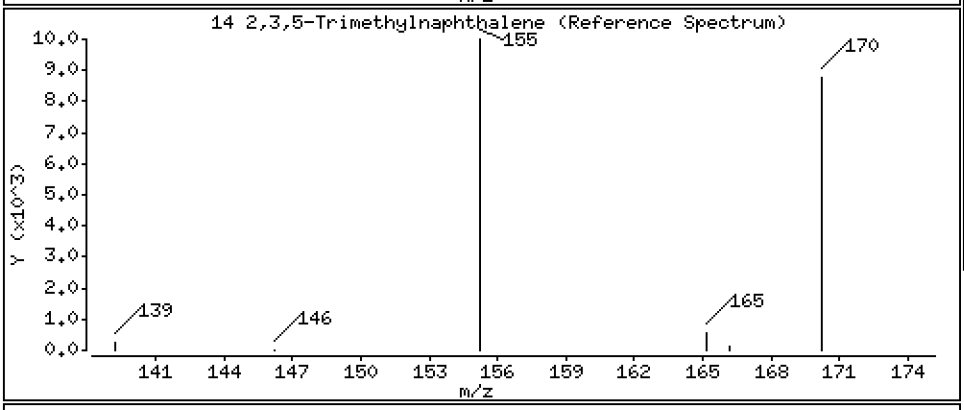
Concentration: 215 ng/mL

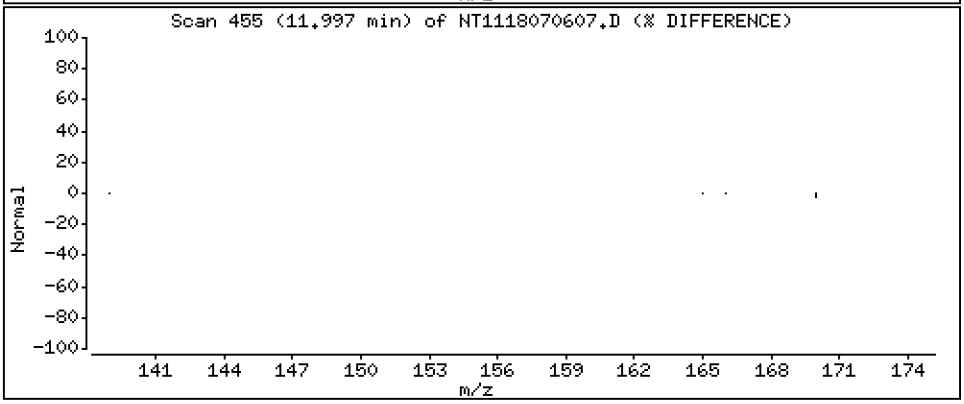












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Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

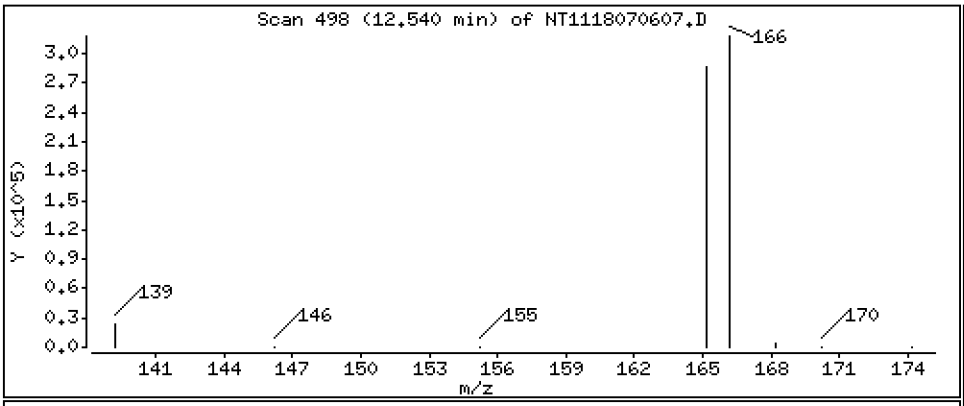
Operator: VTS

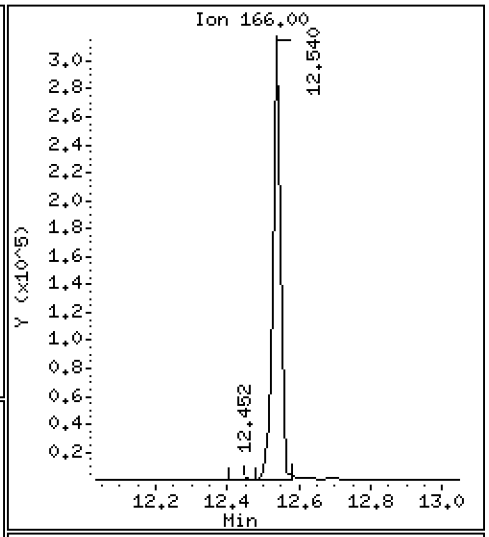
Column phase: Rxi-17Sil MS

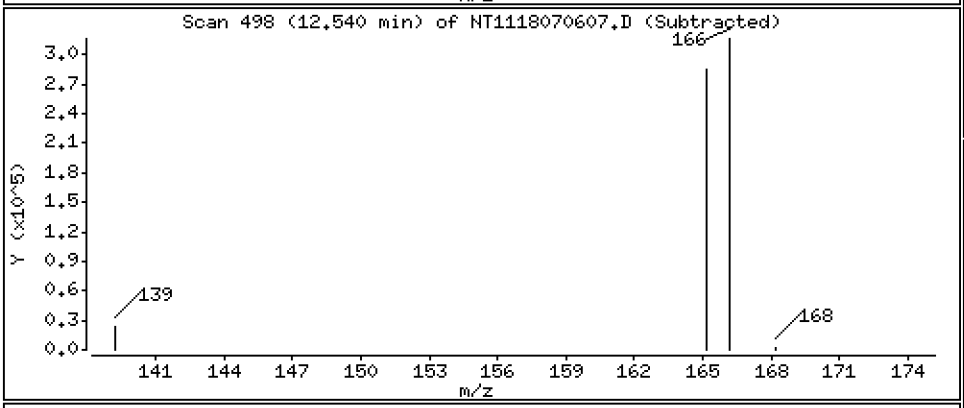
Column diameter: 0.25

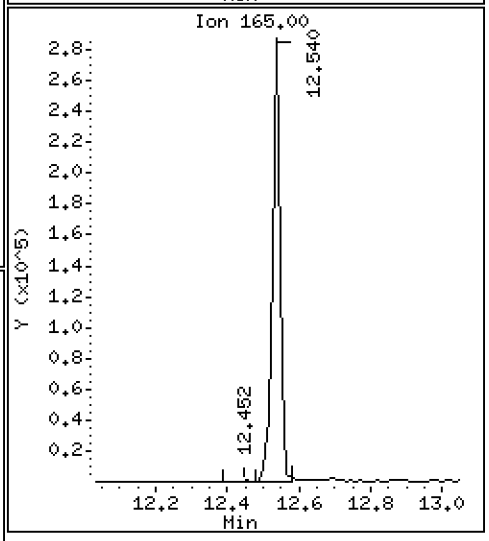
16 Fluorene

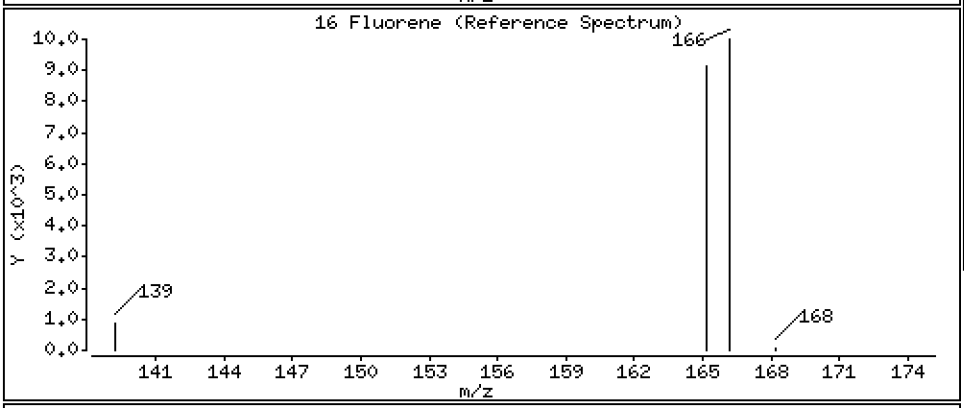
Concentration: 211 ng/mL

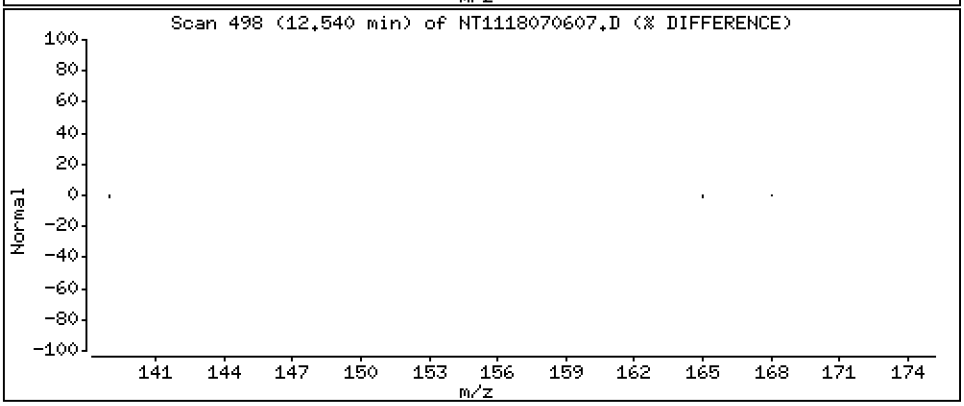












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Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

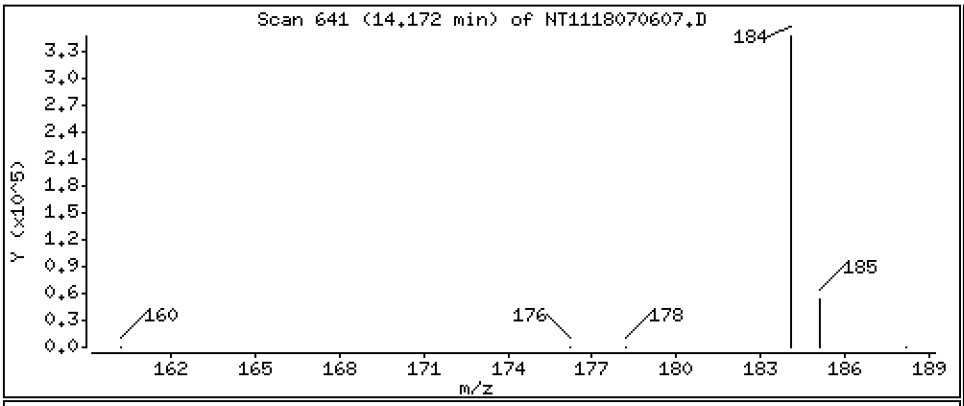
Operator: VTS

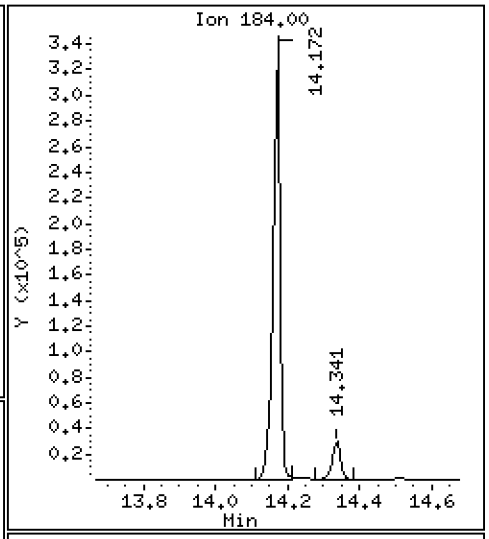
Column phase: Rxi-17Sil MS

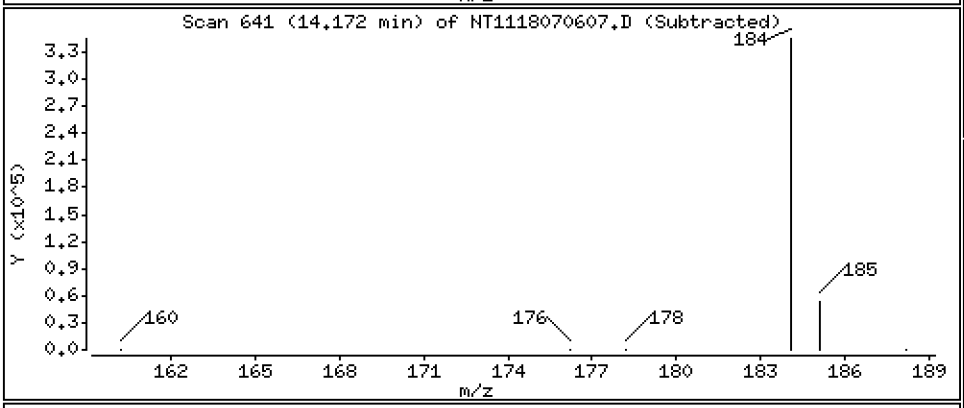
Column diameter: 0.25

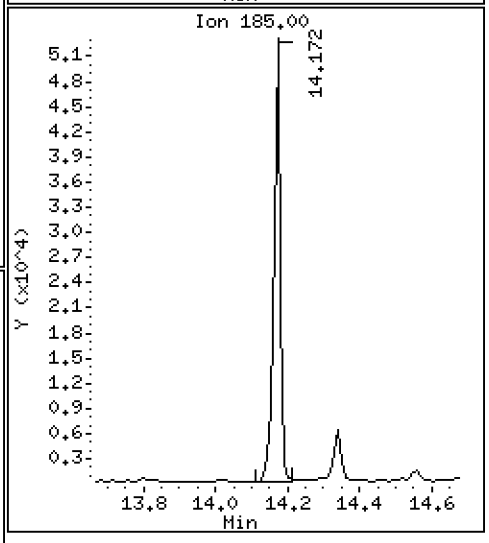
17 Dibenzothiophene

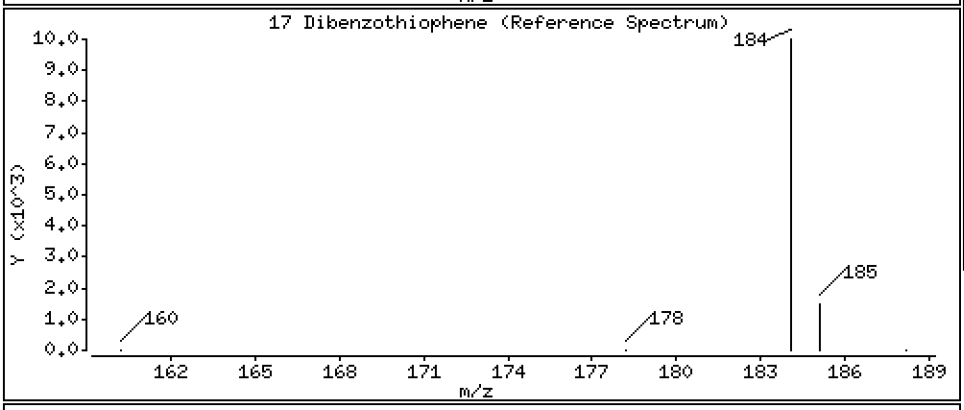
Concentration: 216 ng/mL

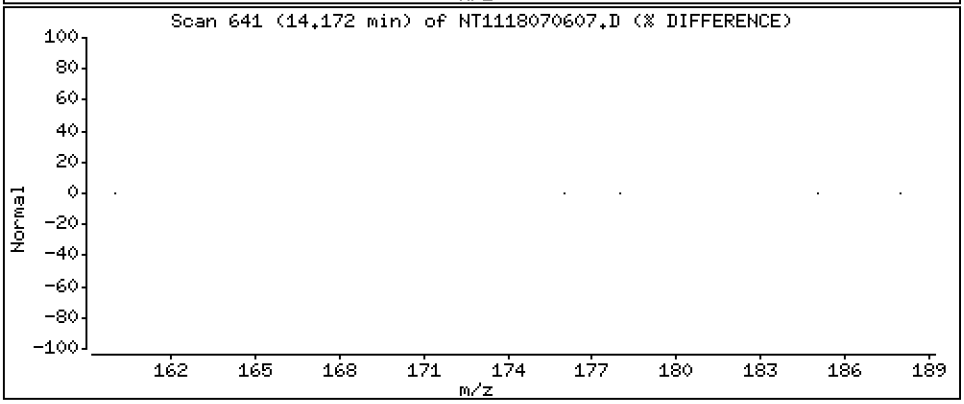












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Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

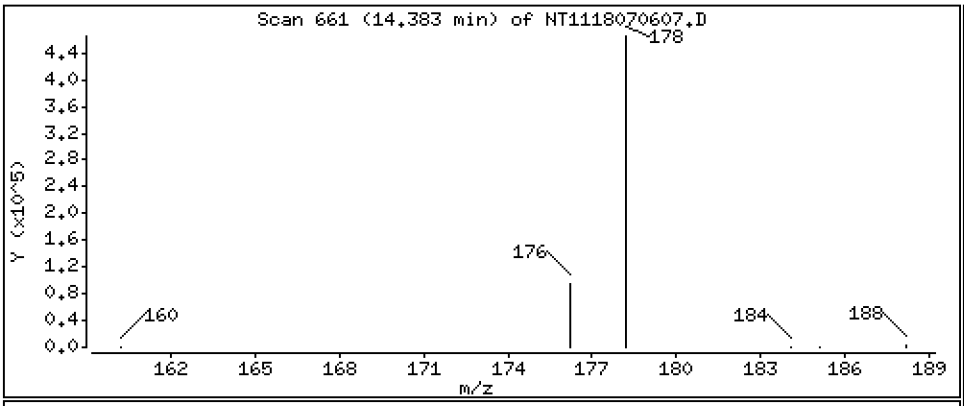
Operator: VTS

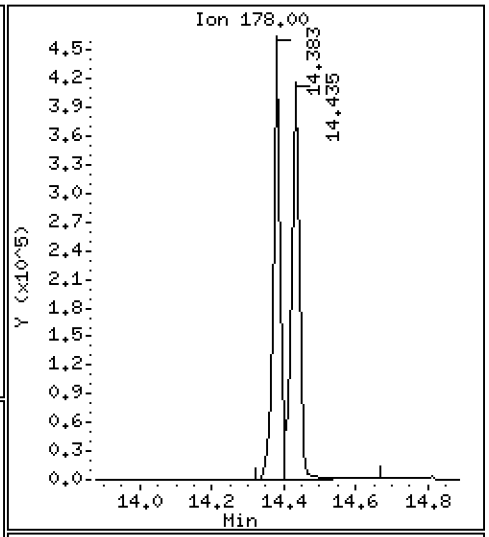
Column phase: Rxi-17Sil MS

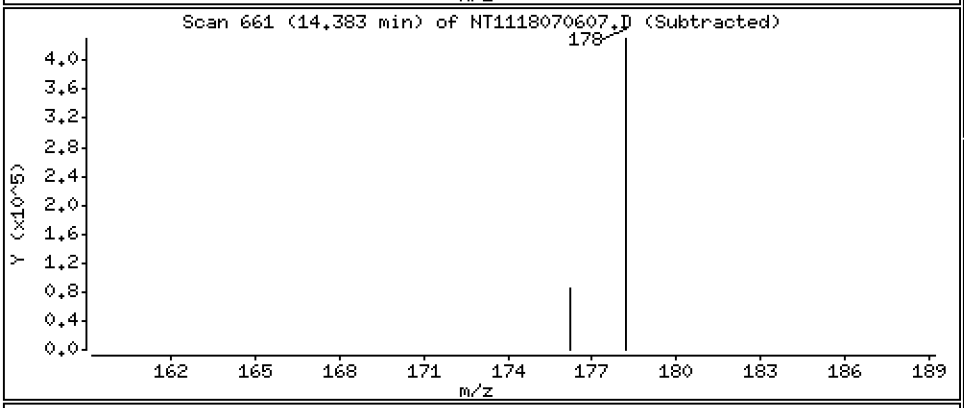
Column diameter: 0.25

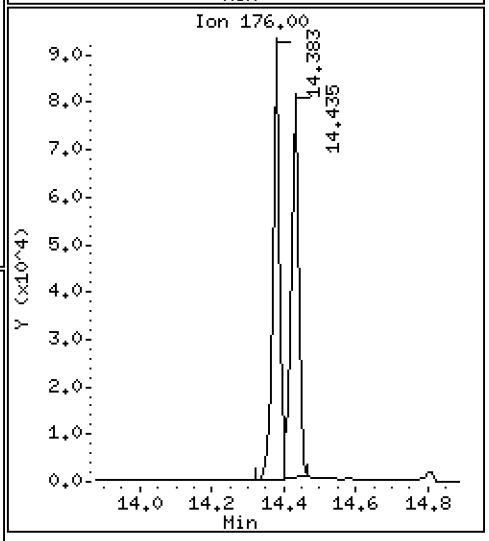
19 Phenanthrene

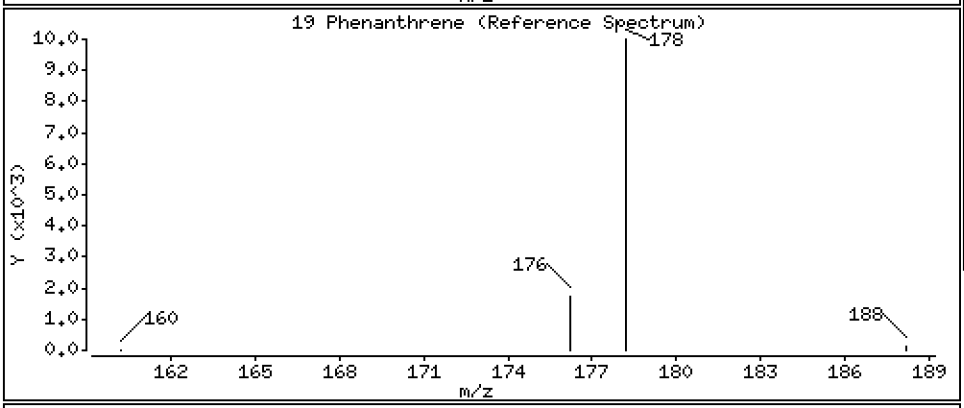
Concentration: 229 ng/mL

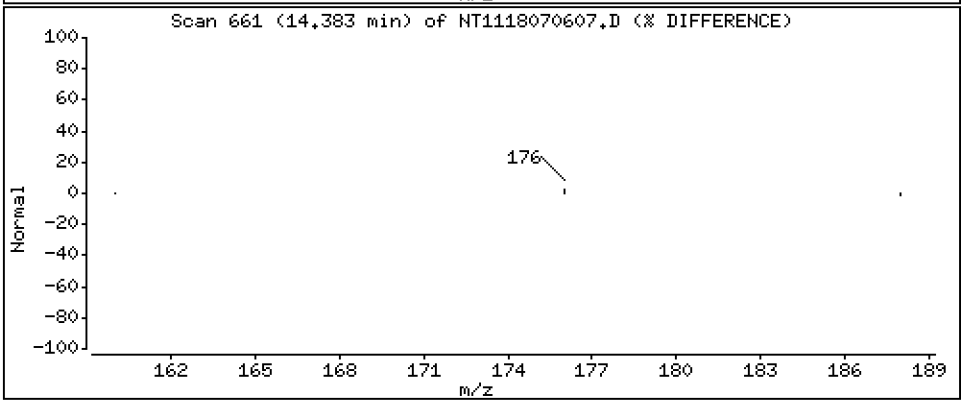












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070607.D

Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

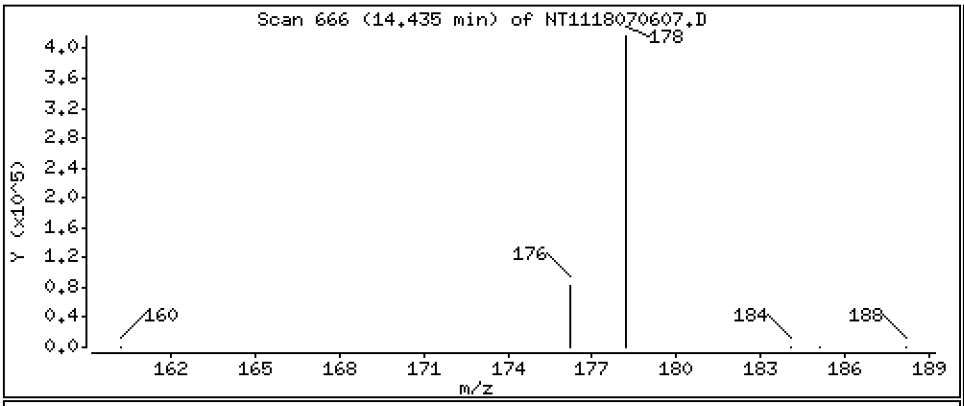
Operator: VTS

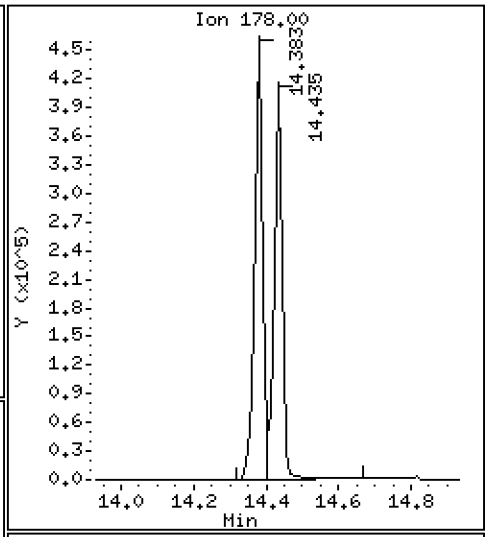
Column phase: Rxi-17Sil MS

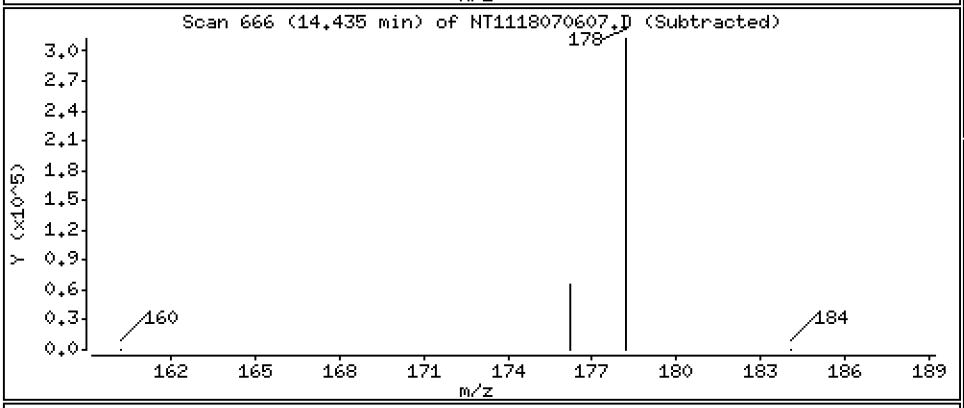
Column diameter: 0.25

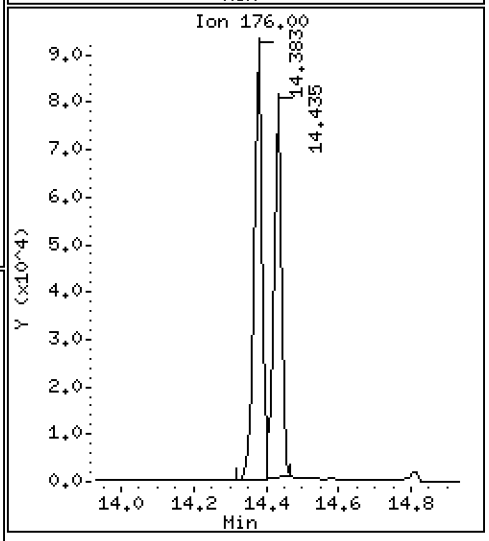
21 Anthracene

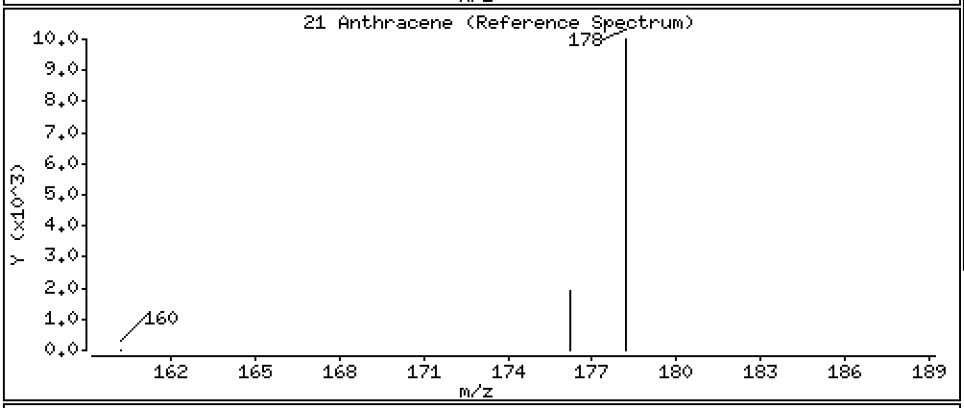
Concentration: 226 ng/mL

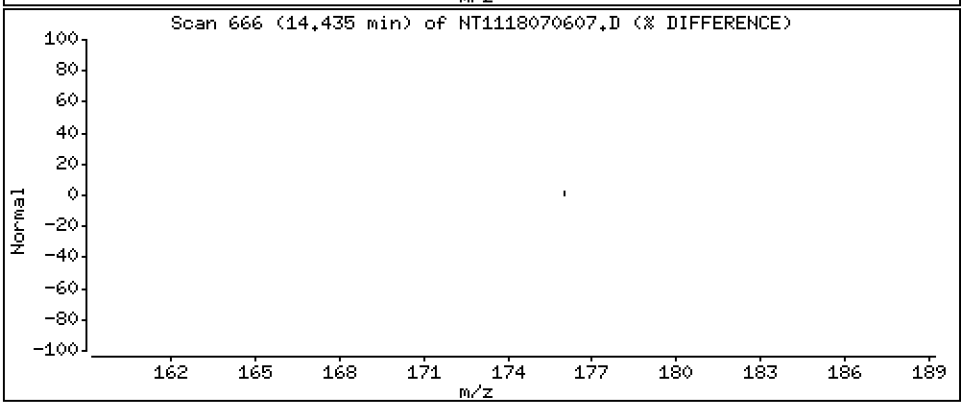












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Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

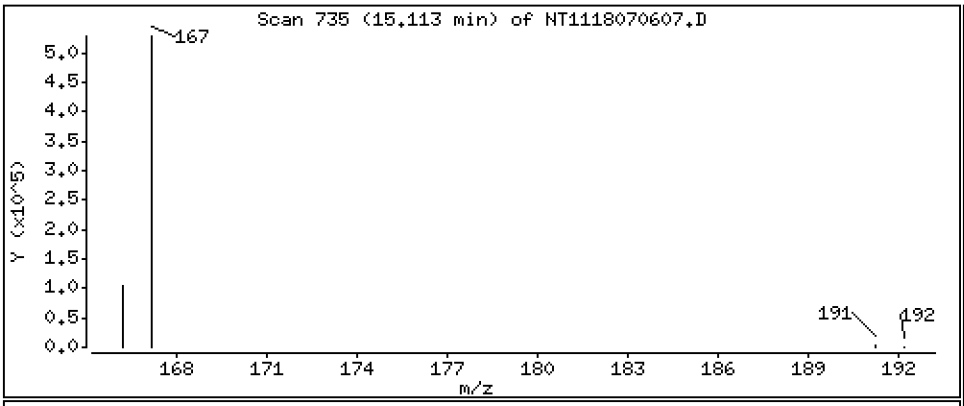
Operator: VTS

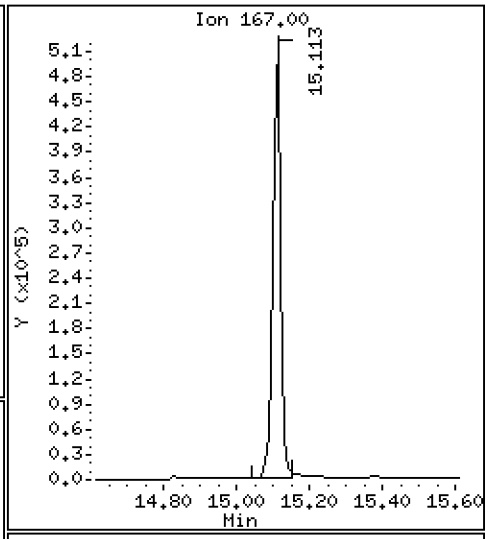
Column phase: Rxi-17Sil MS

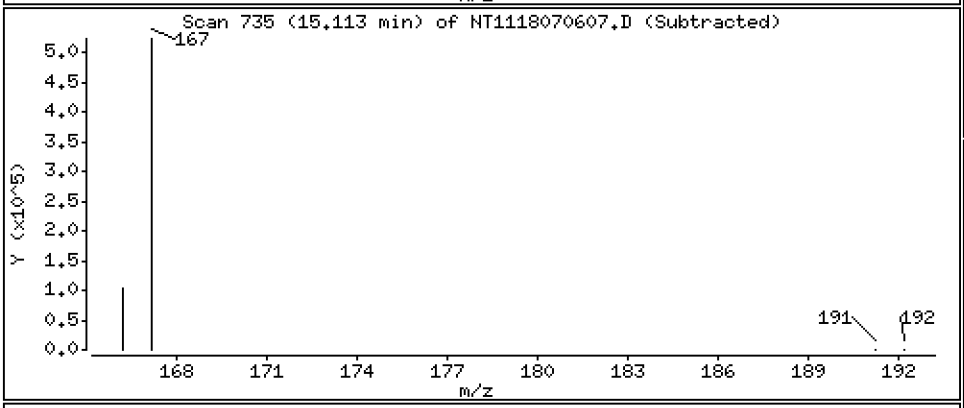
Column diameter: 0.25

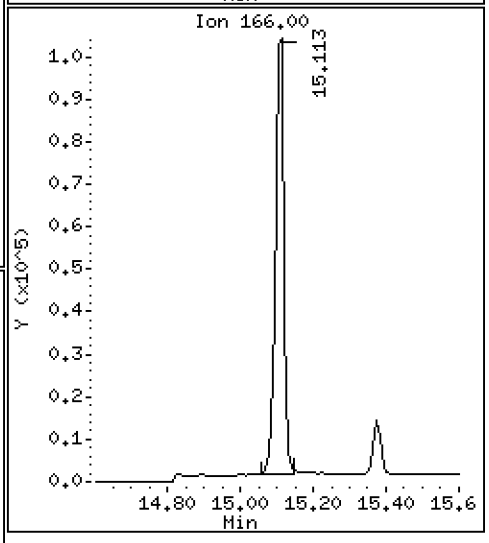
22 Carbazole

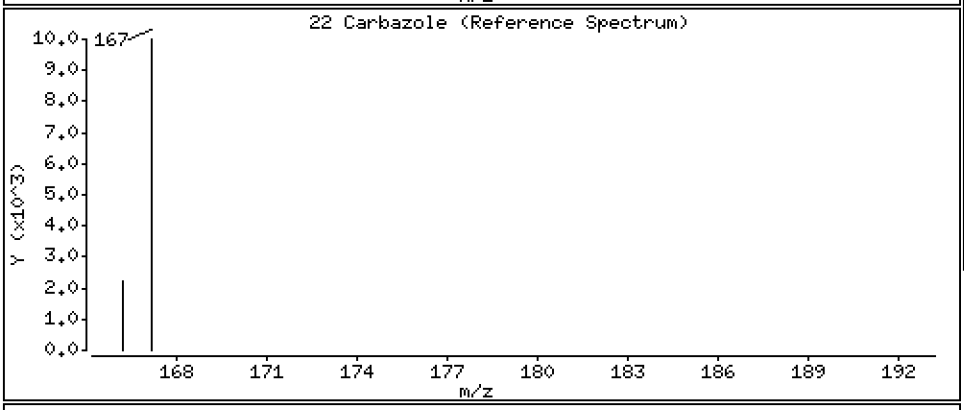
Concentration: 236 ng/mL

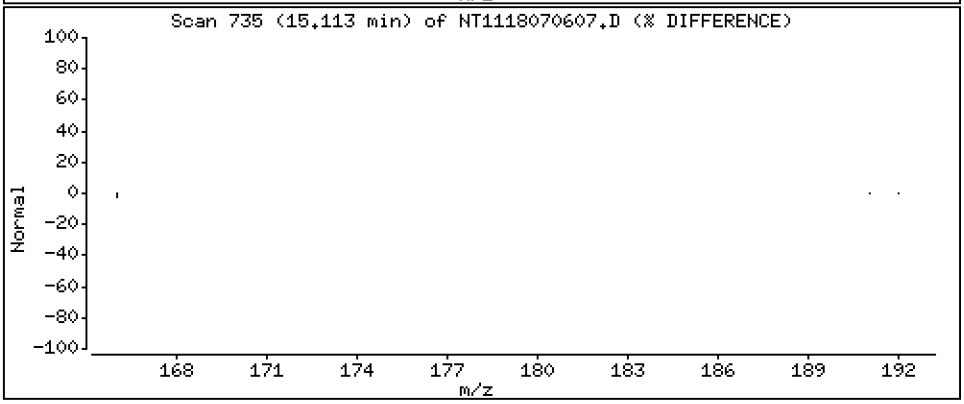












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Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

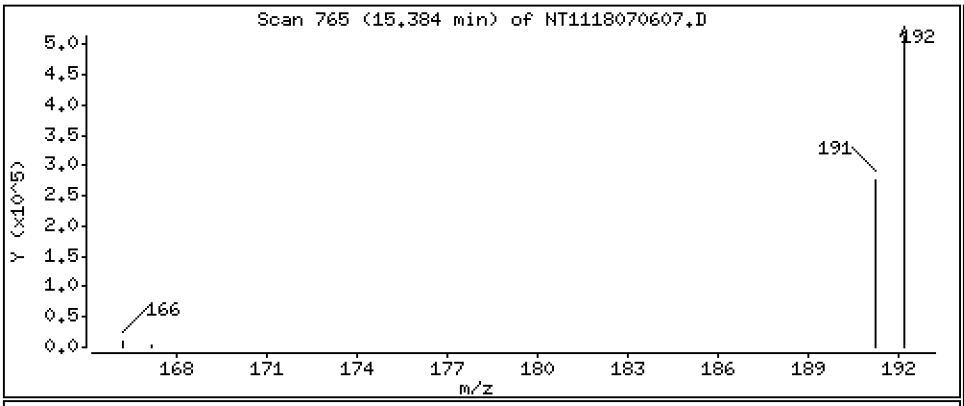
Operator: VTS

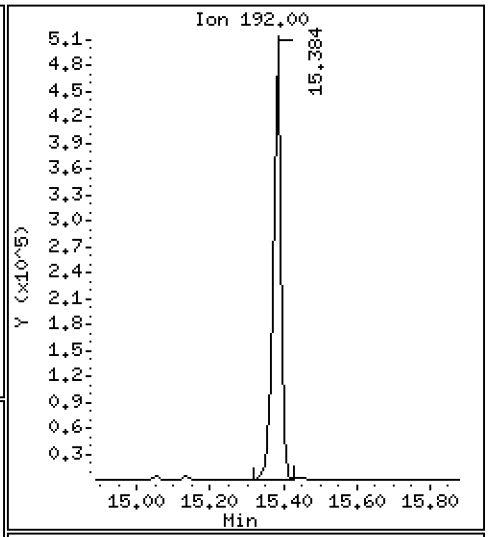
Column phase: Rxi-17Sil MS

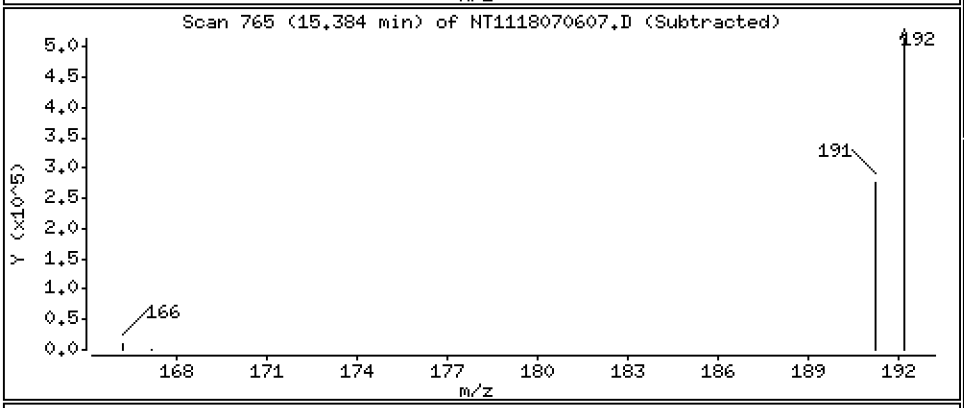
Column diameter: 0.25

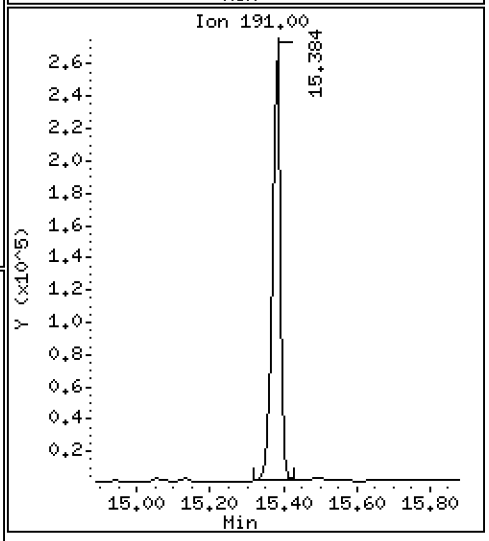
23 1-Methylphenanthrene

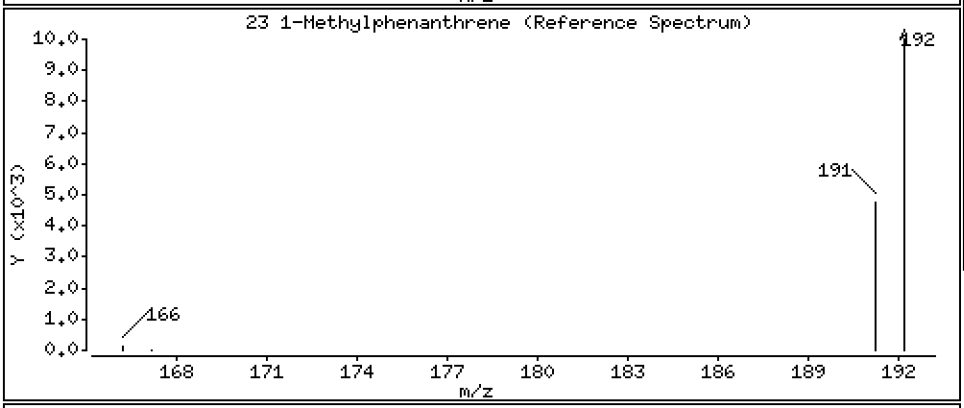
Concentration: 258 ng/mL

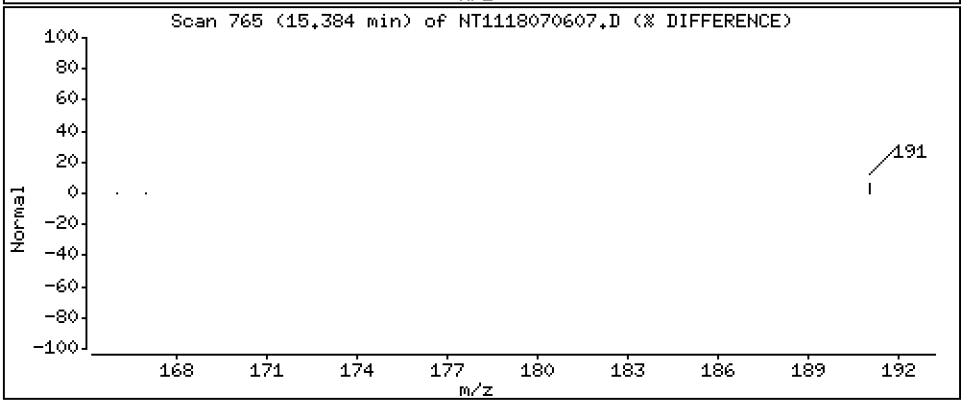












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Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

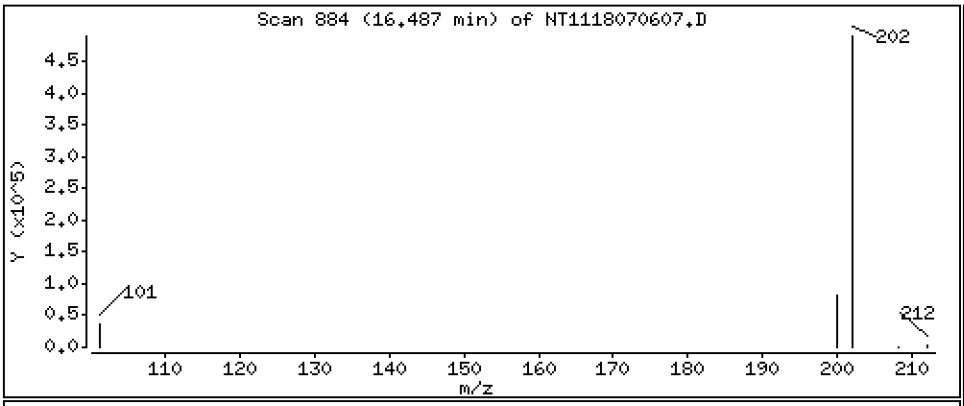
Operator: VTS

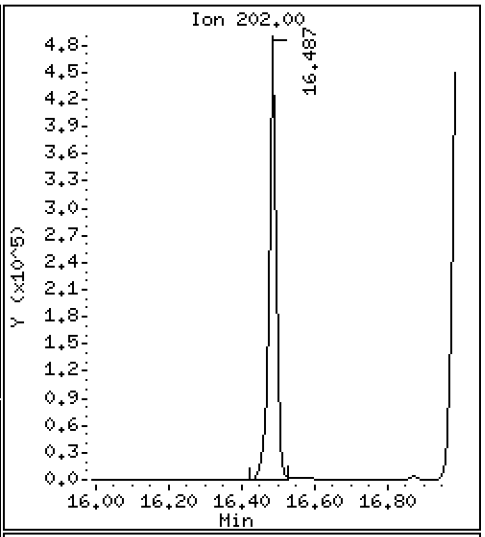
Column phase: Rxi-17Sil MS

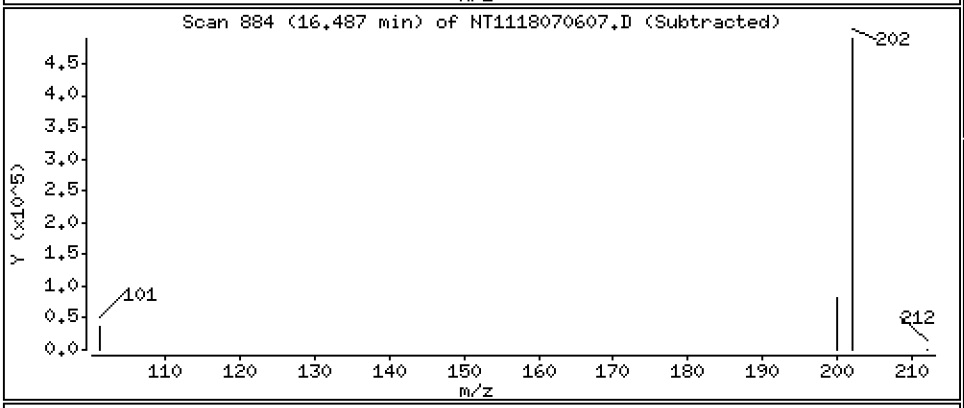
Column diameter: 0.25

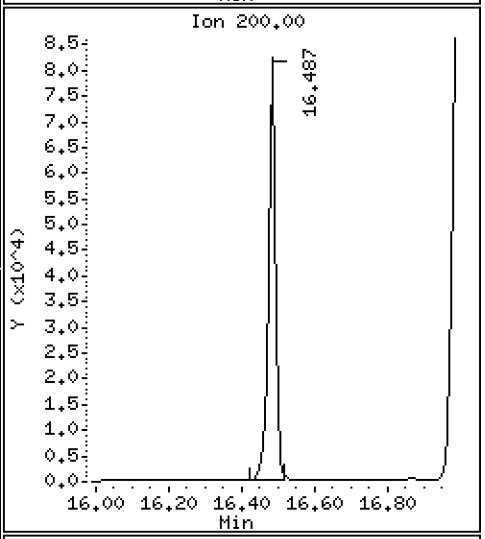
25 Fluoranthene

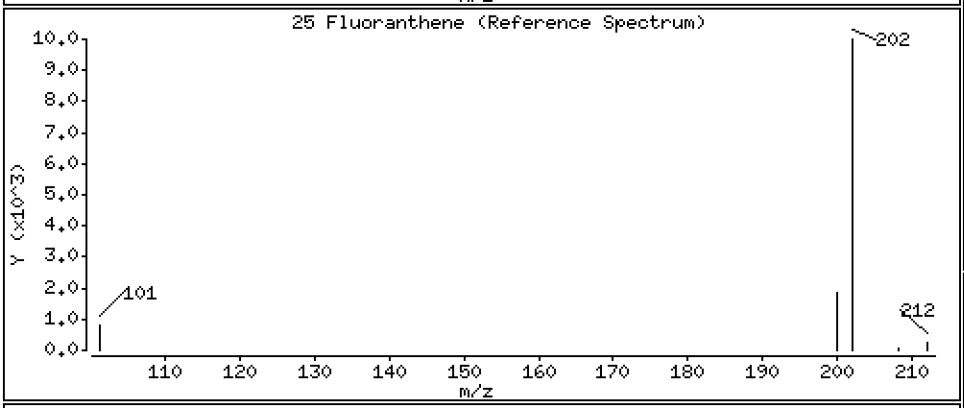
Concentration: 248 ng/mL

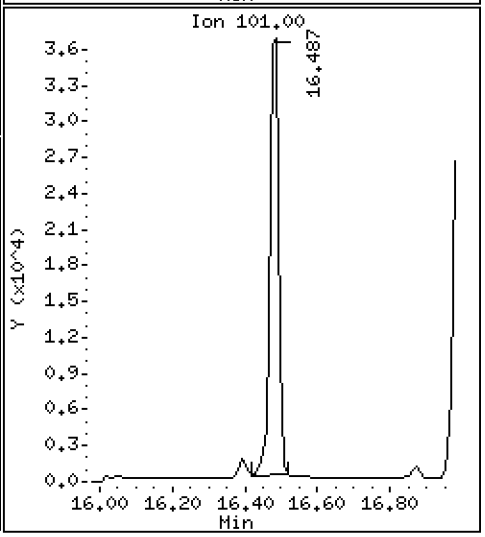


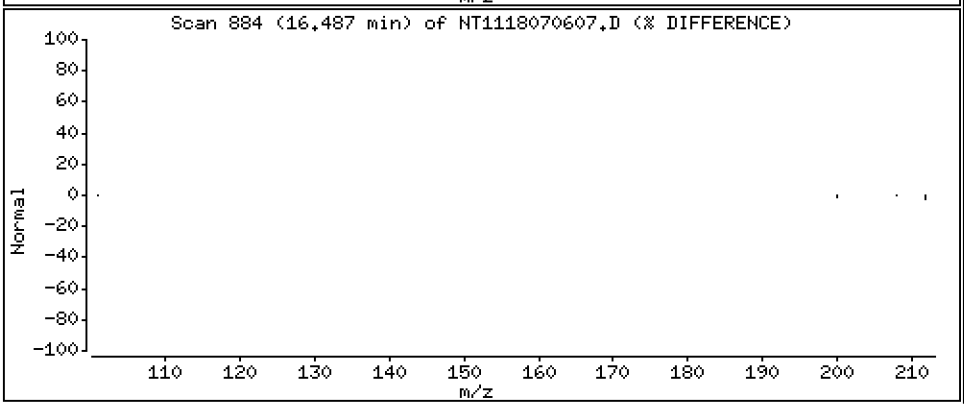












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Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

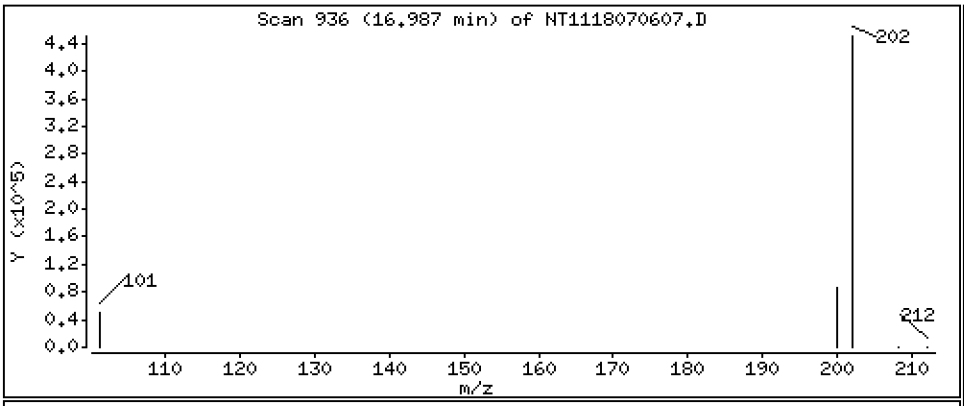
Operator: VTS

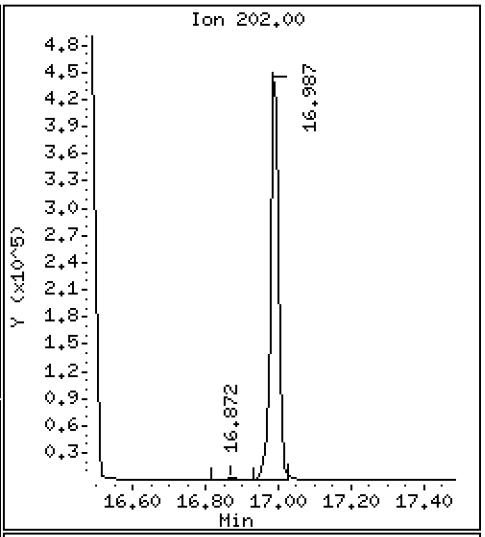
Column phase: Rxi-17Sil MS

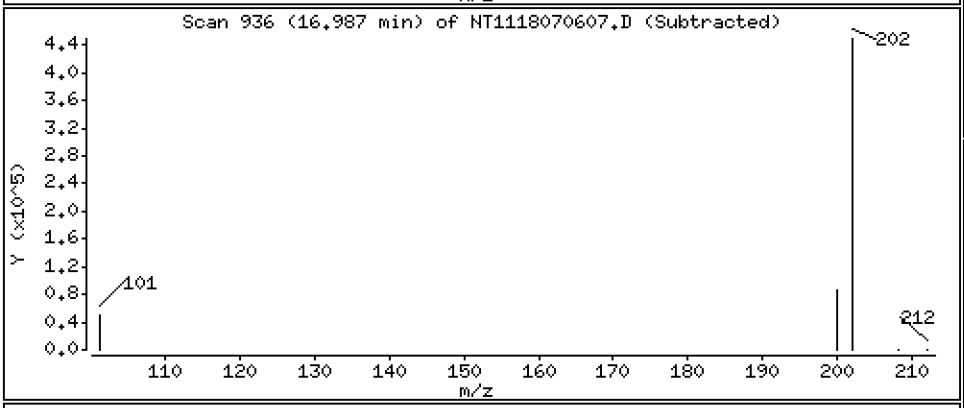
Column diameter: 0.25

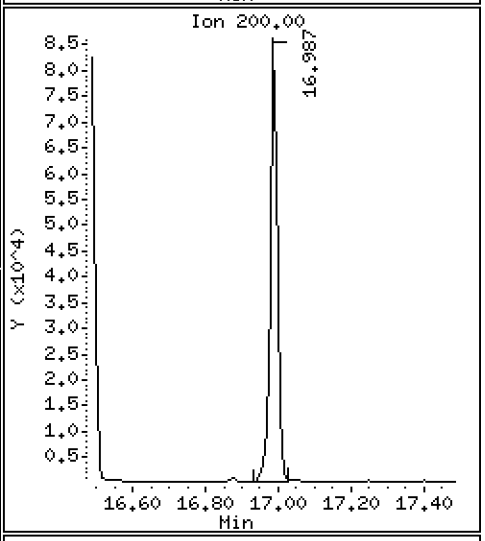
26 Pyrene

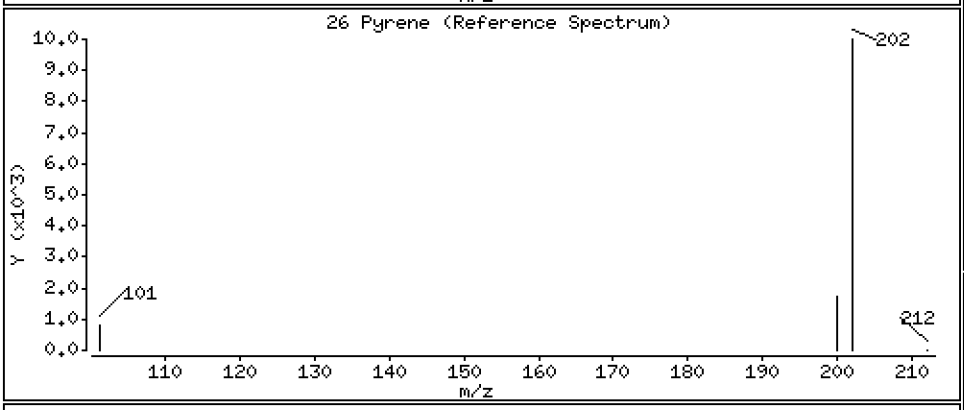
Concentration: 239 ng/mL

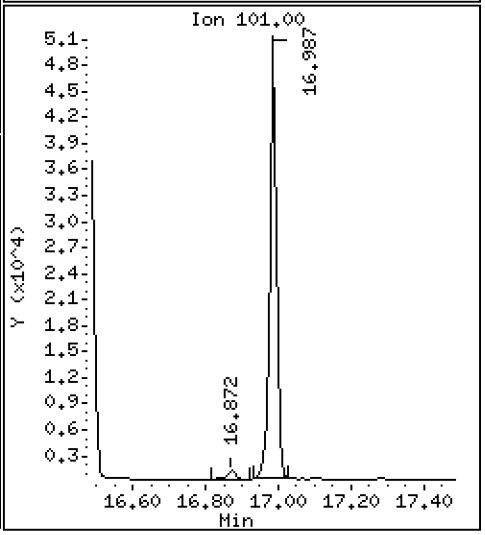


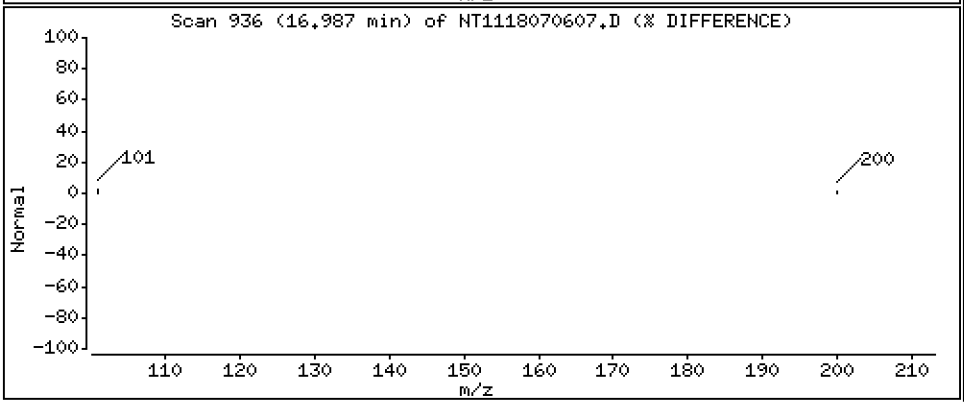












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070607.D

Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

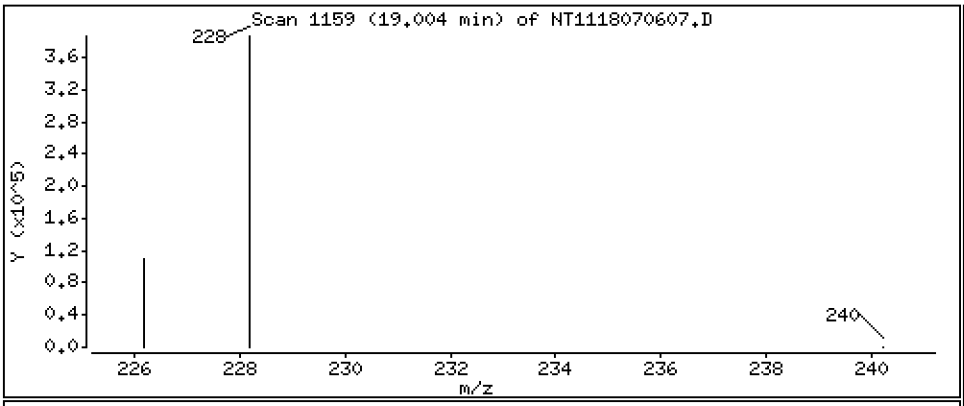
Operator: VTS

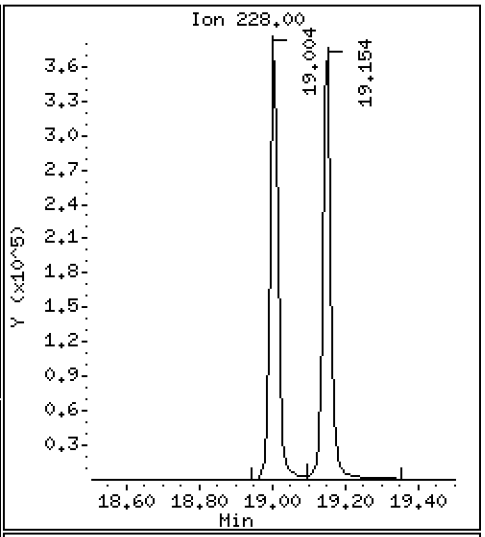
Column phase: Rxi-17Sil MS

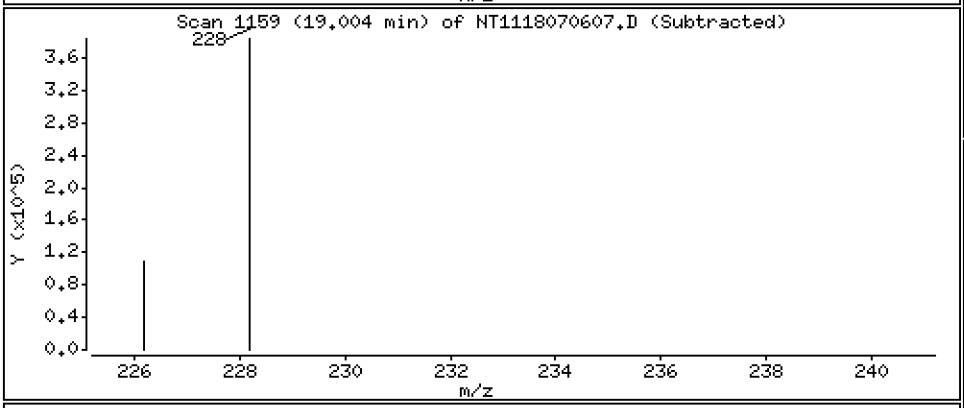
Column diameter: 0.25

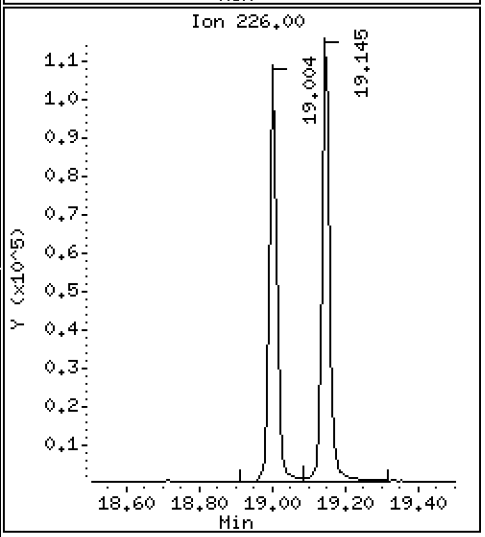
27 Benzo(a)anthracene

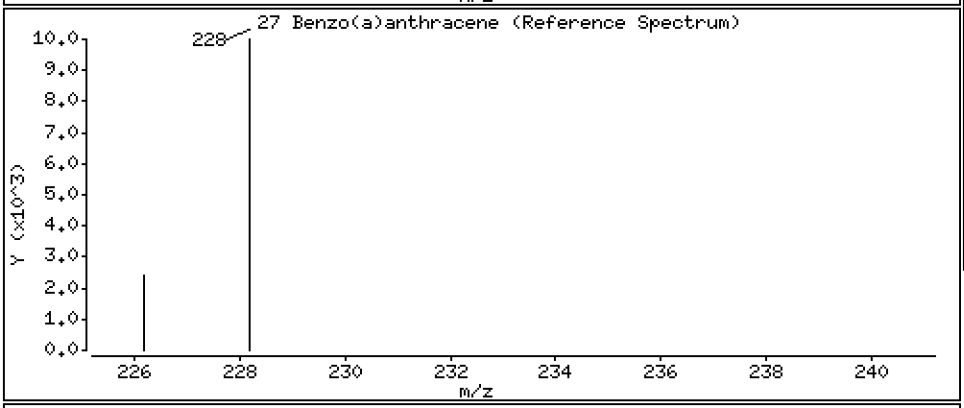
Concentration: 248 ng/mL

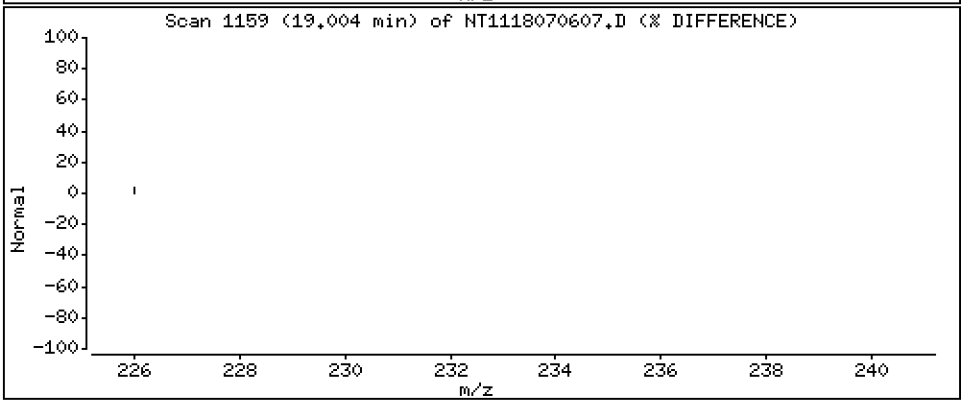












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Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

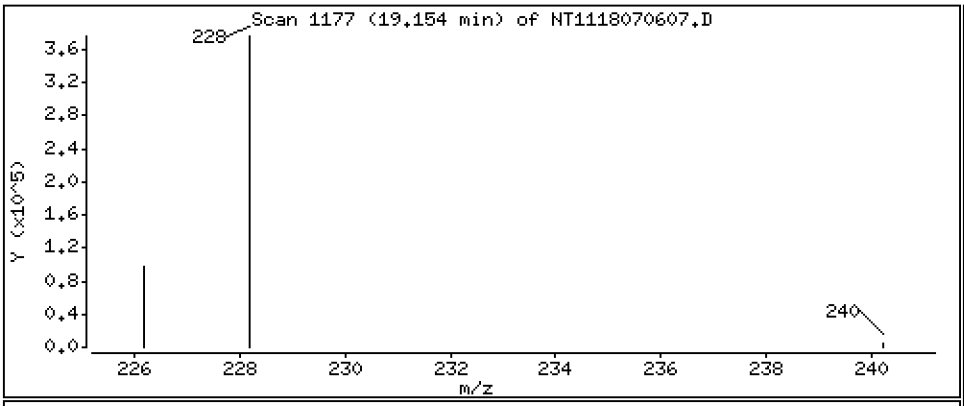
Operator: VTS

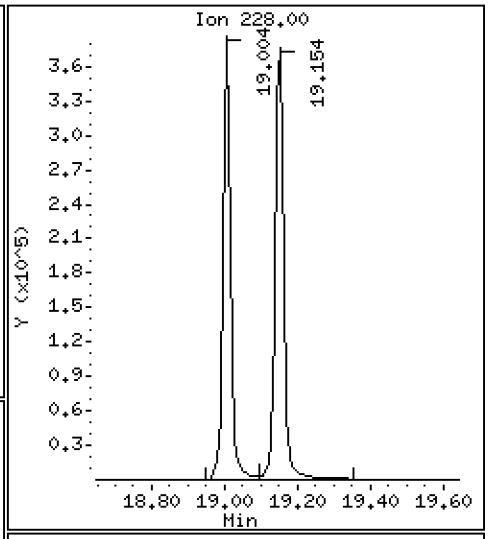
Column phase: Rxi-17Sil MS

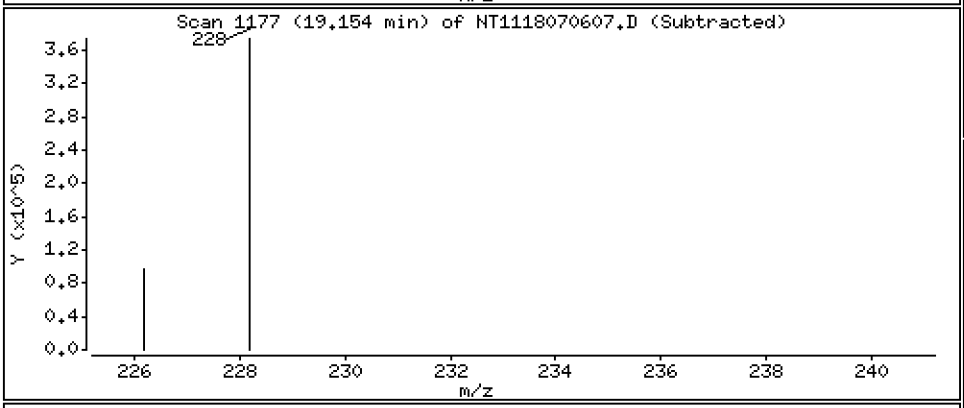
Column diameter: 0.25

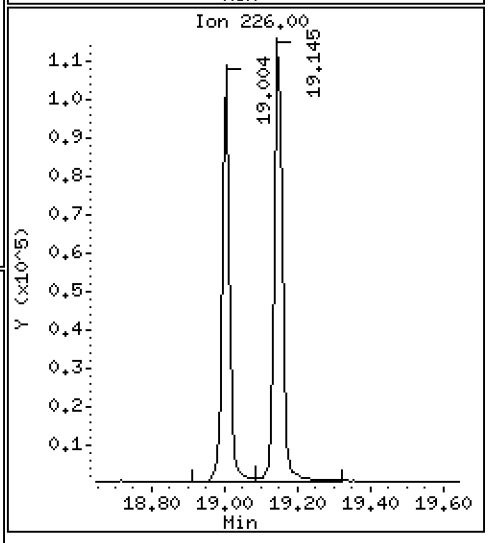
29 Chrysene

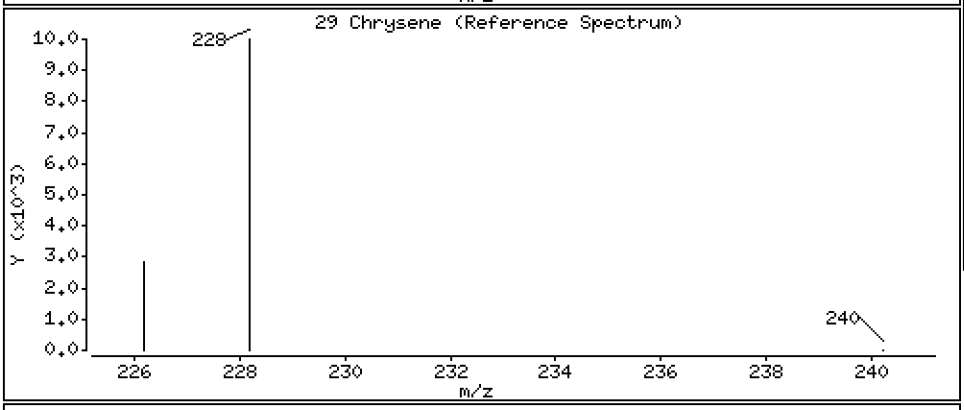
Concentration: 258 ng/mL

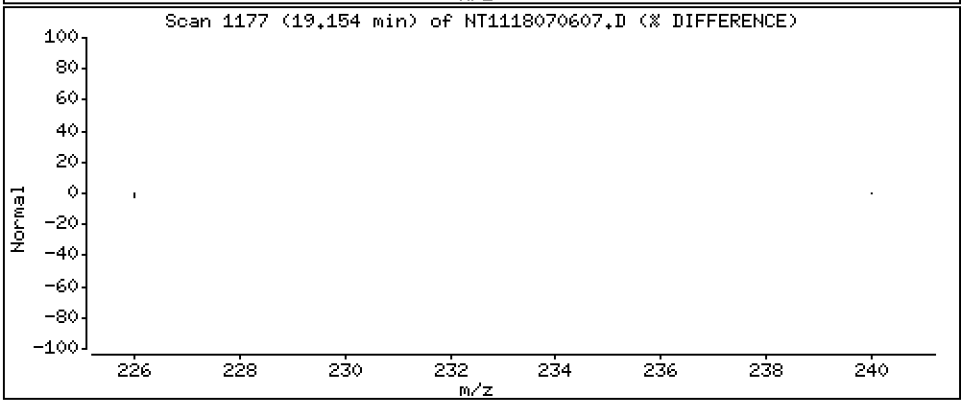












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Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

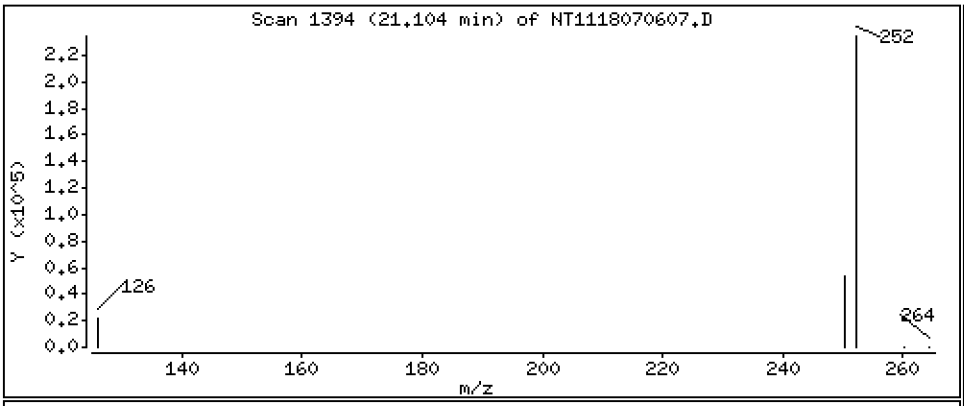
Operator: VTS

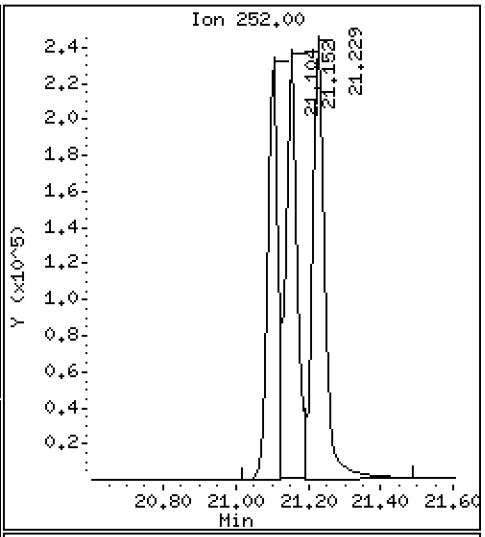
Column phase: Rxi-17Sil MS

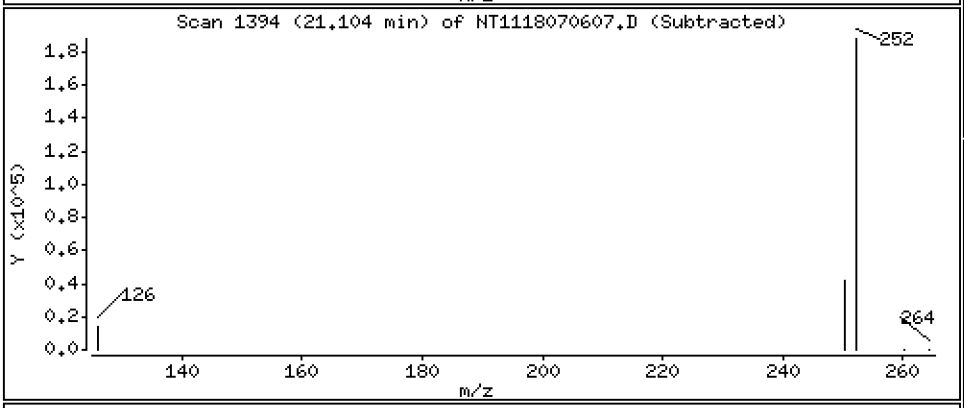
Column diameter: 0.25

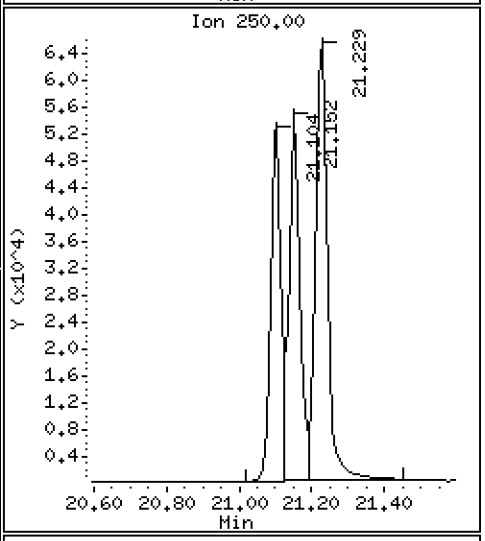
30 Benzo(b)fluoranthene

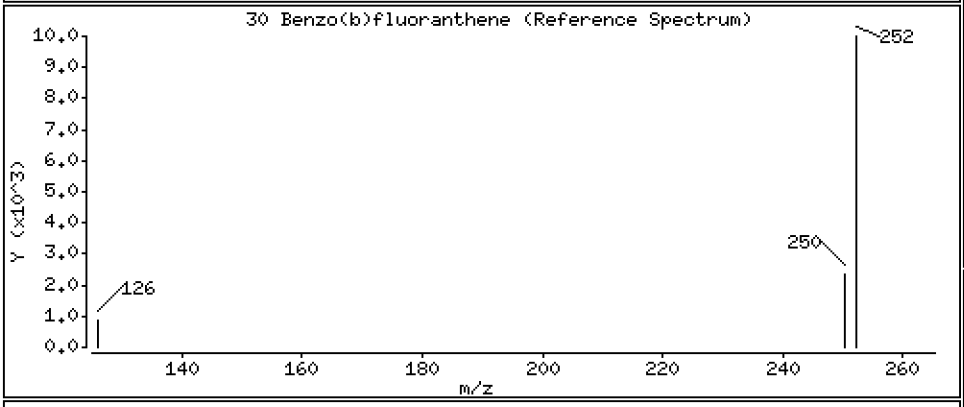
Concentration: 209 ng/mL

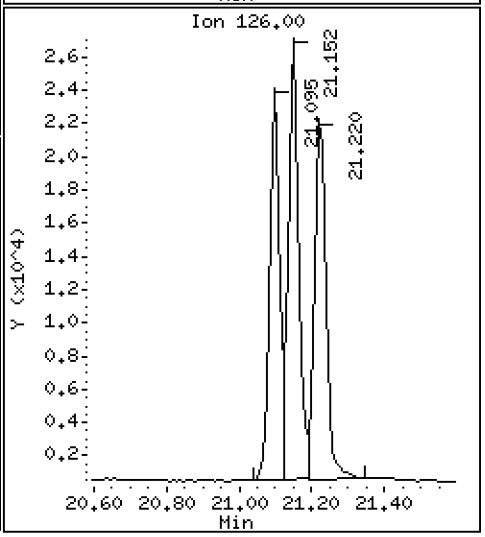


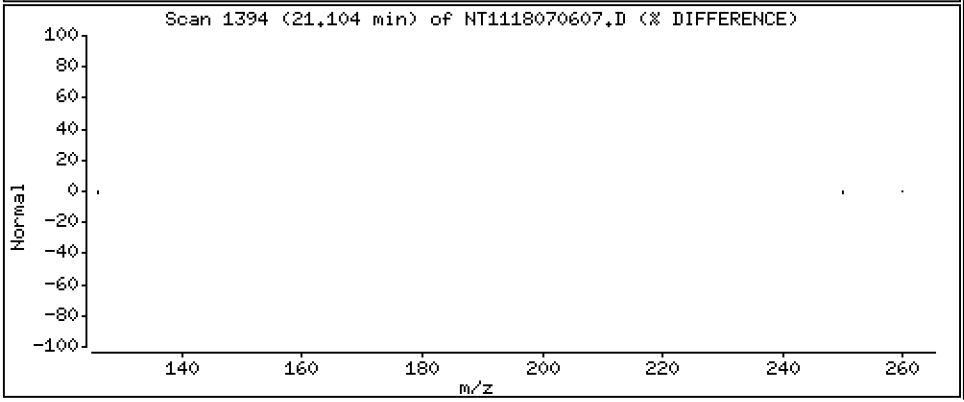












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Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

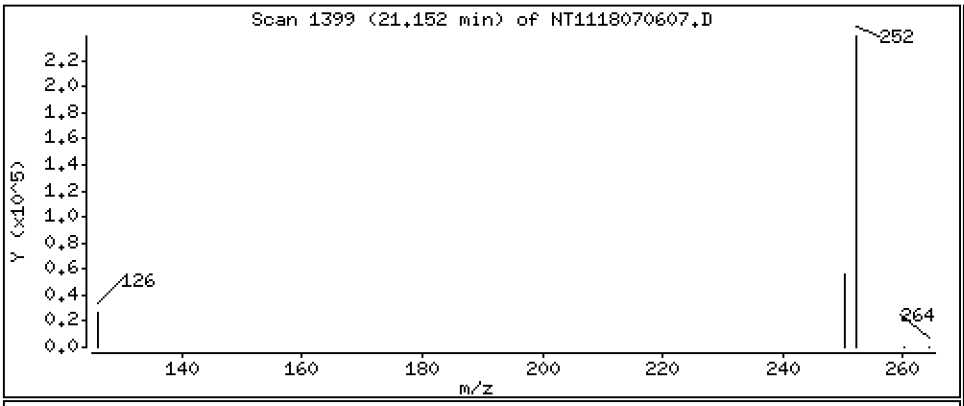
Operator: VTS

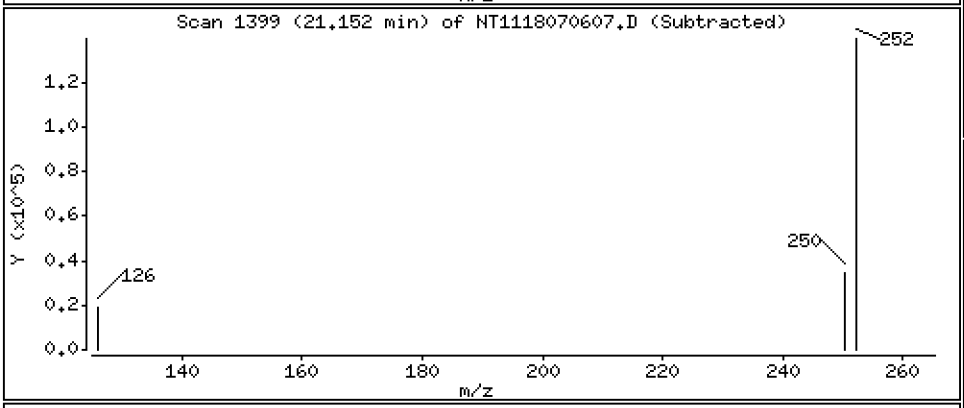
Column phase: Rxi-17Sil MS

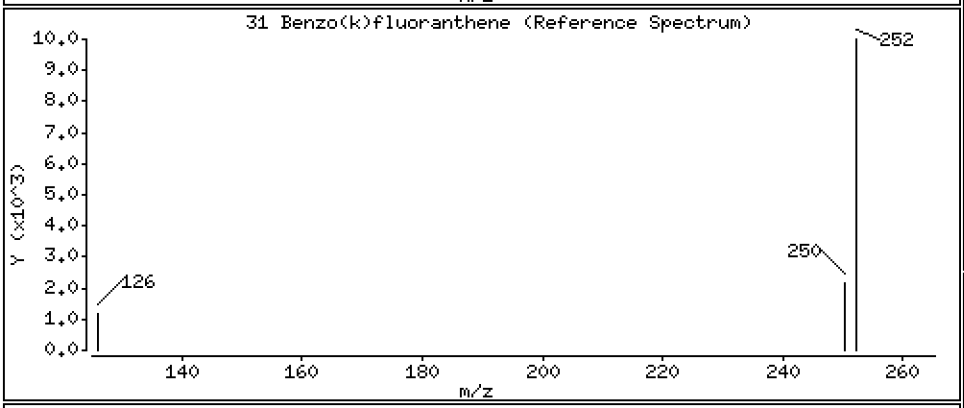
Column diameter: 0.25

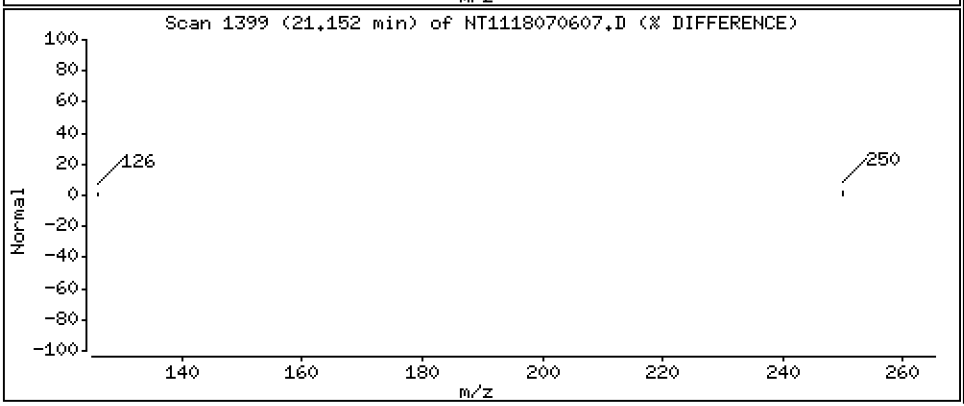
31 Benzo(k)fluoranthene

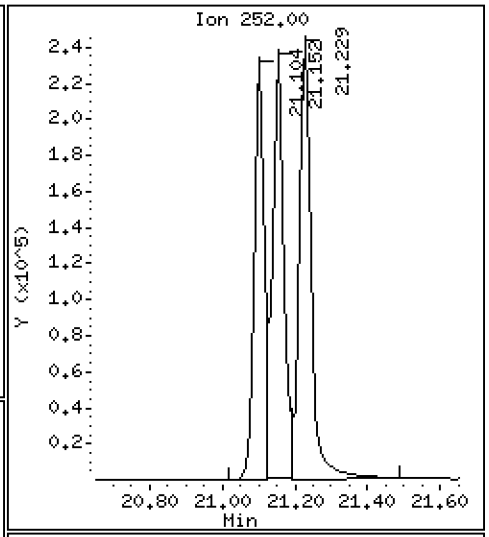
Concentration: 238 ng/mL

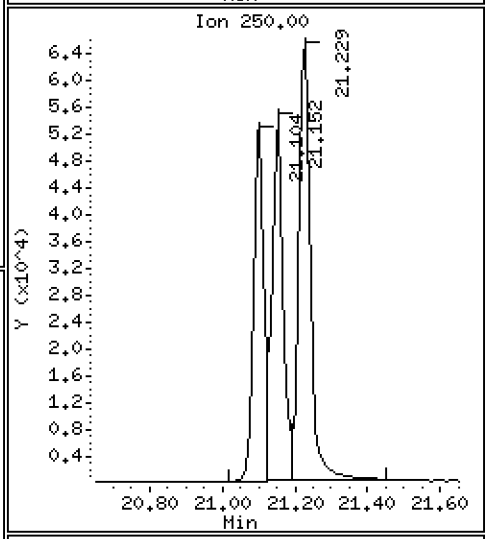


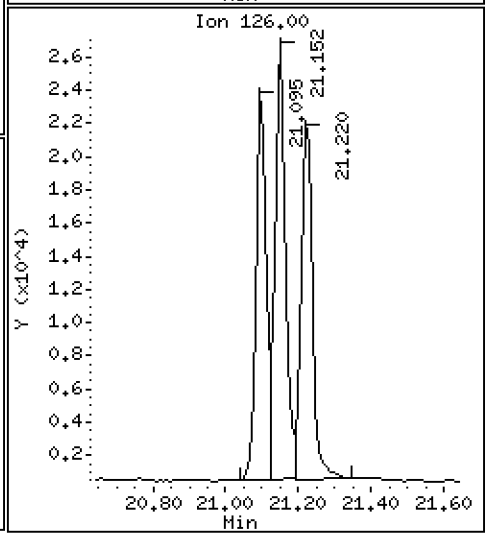












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Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

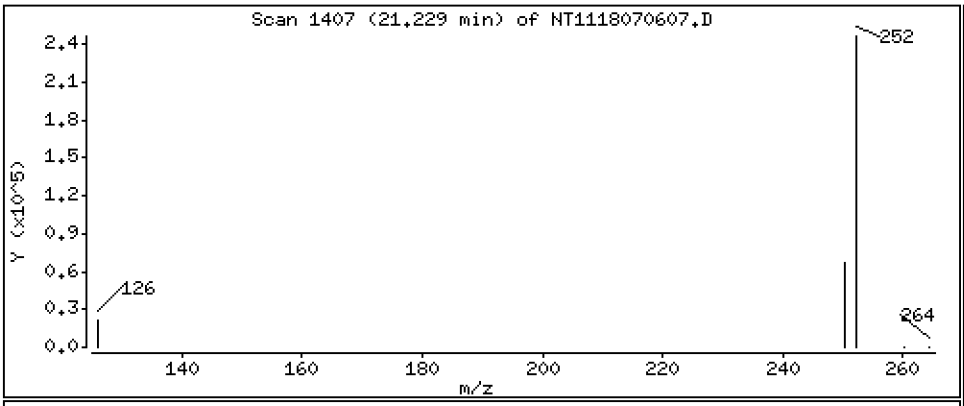
Operator: VTS

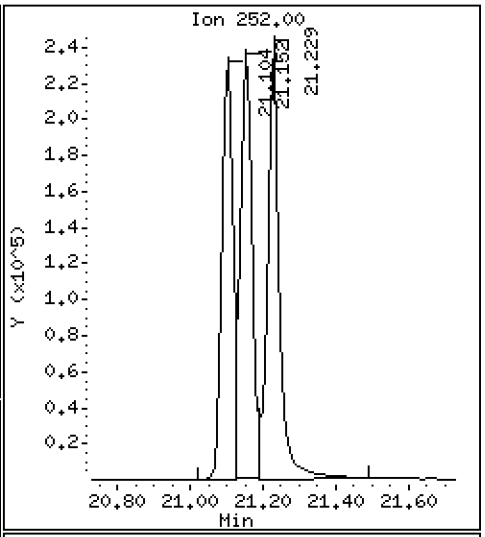
Column phase: Rxi-17Sil MS

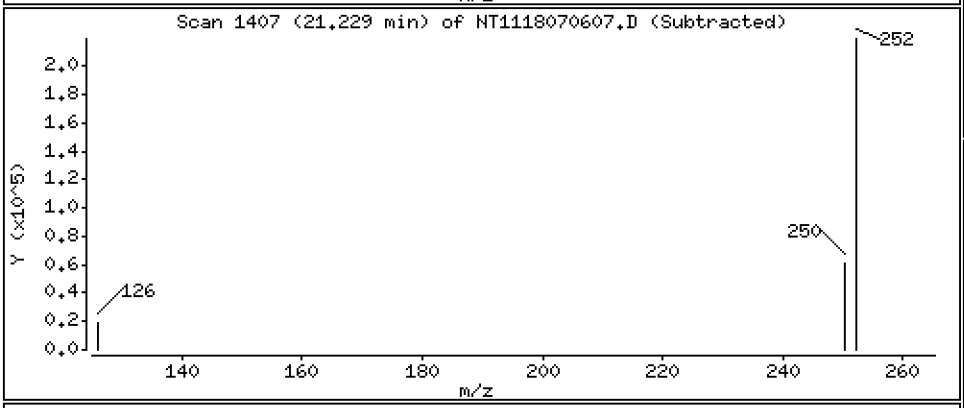
Column diameter: 0.25

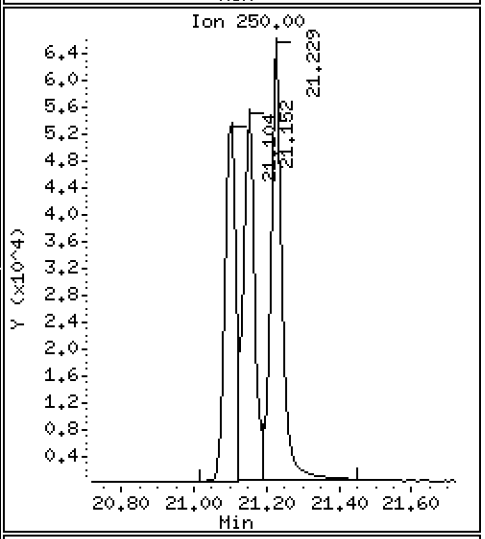
32 Benzo(j)fluoranthene

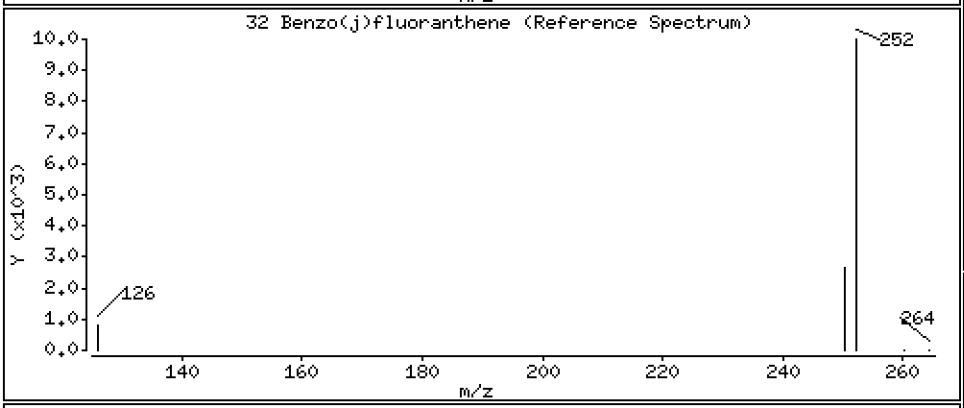
Concentration: 262 ng/mL

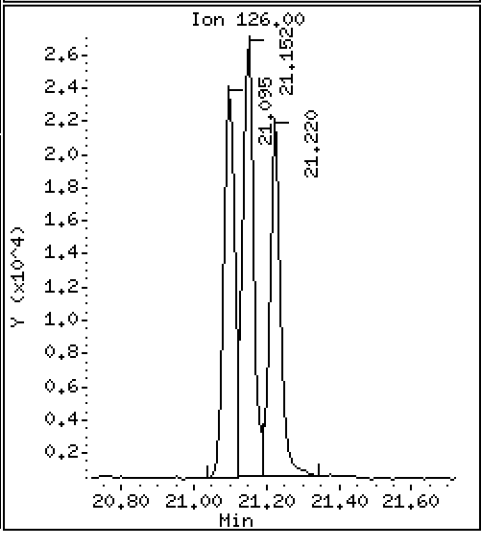


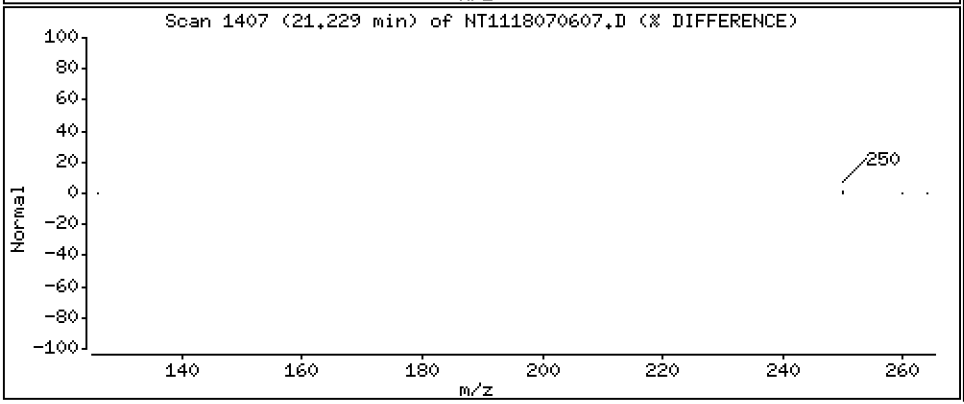












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Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

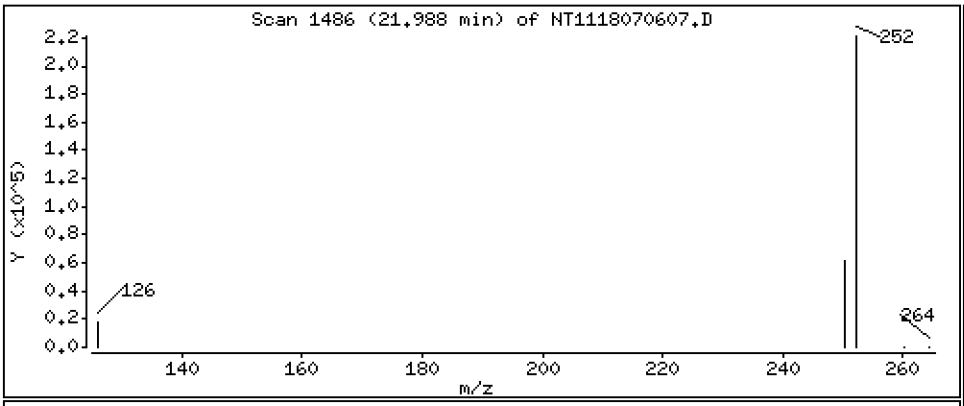
Operator: VTS

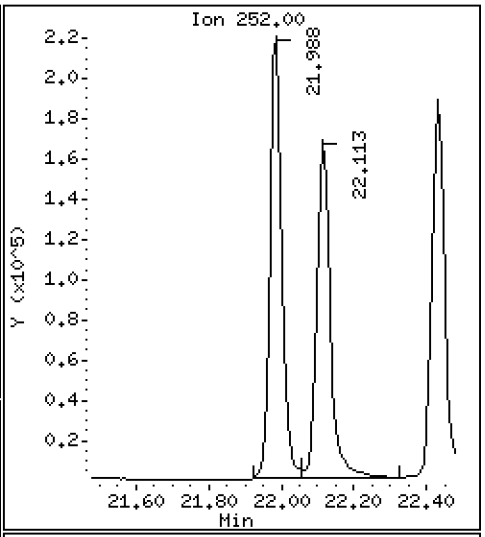
Column phase: Rxi-17Sil MS

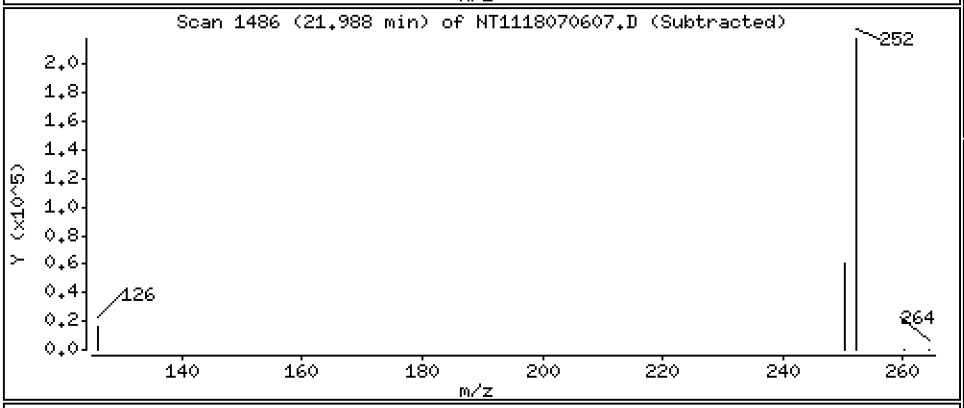
Column diameter: 0.25

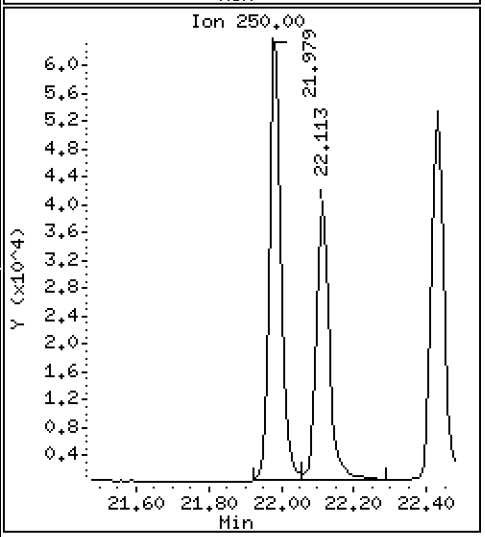
34 Benzo(e)pyrene

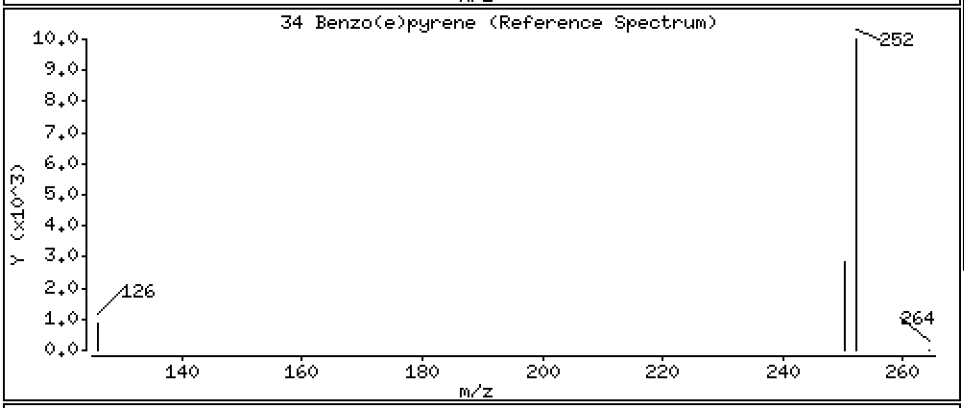
Concentration: 229 ng/mL

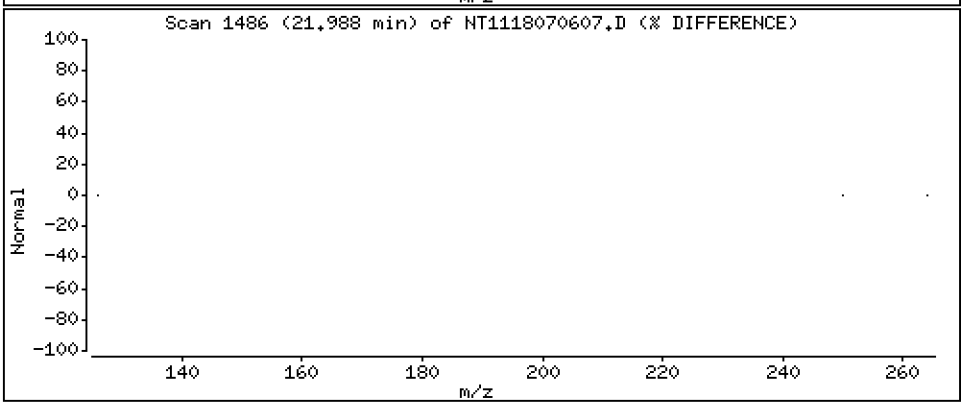












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Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

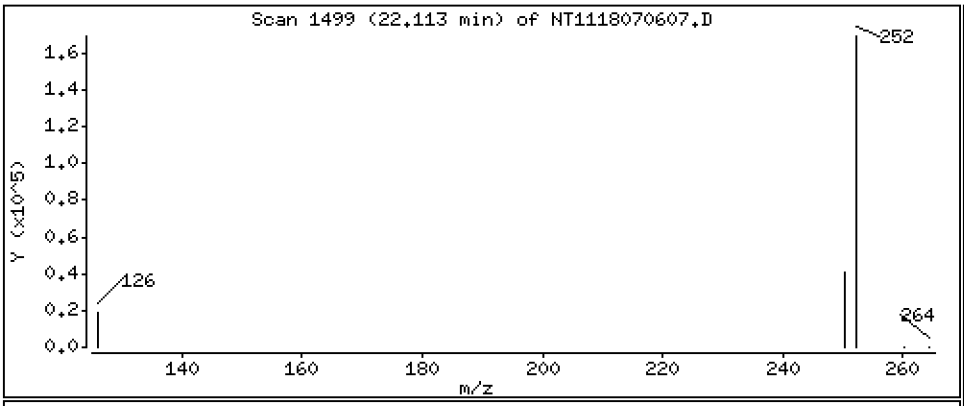
Operator: VTS

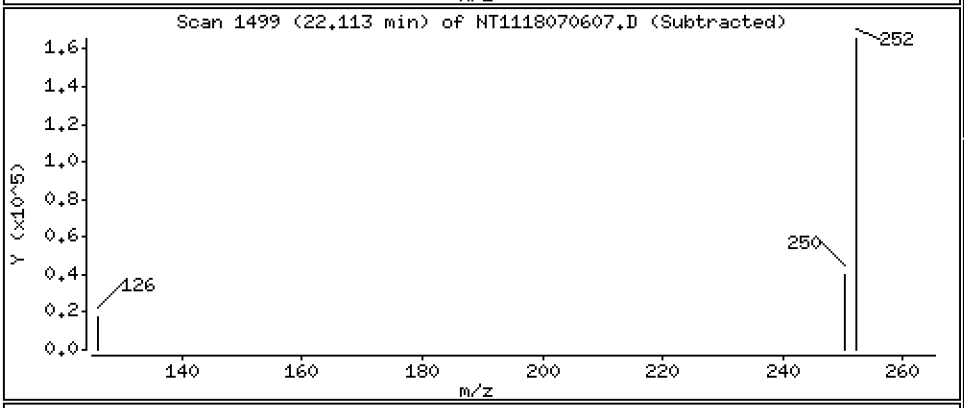
Column phase: Rxi-17Sil MS

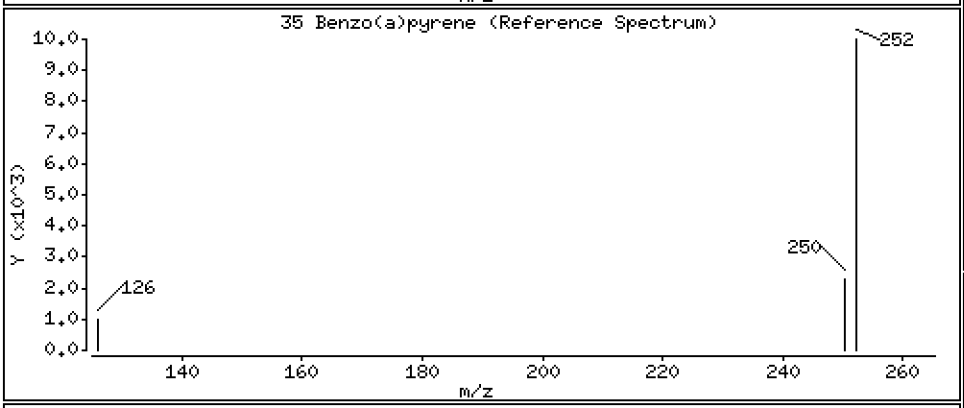
Column diameter: 0.25

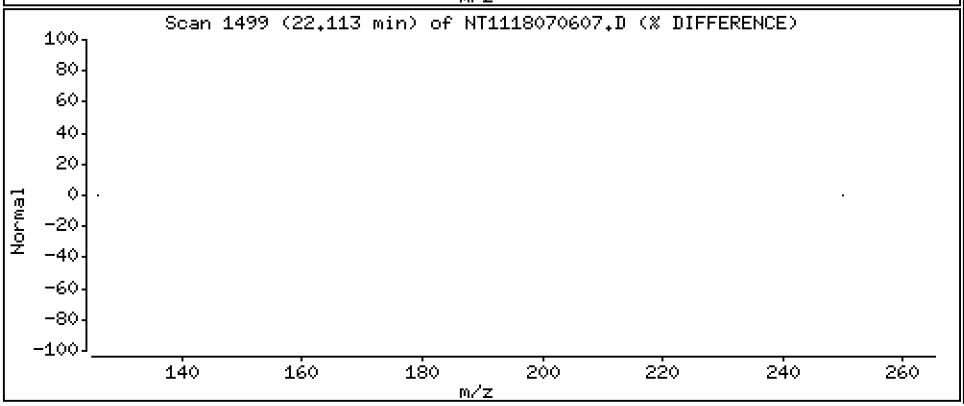
35 Benzo(a)pyrene

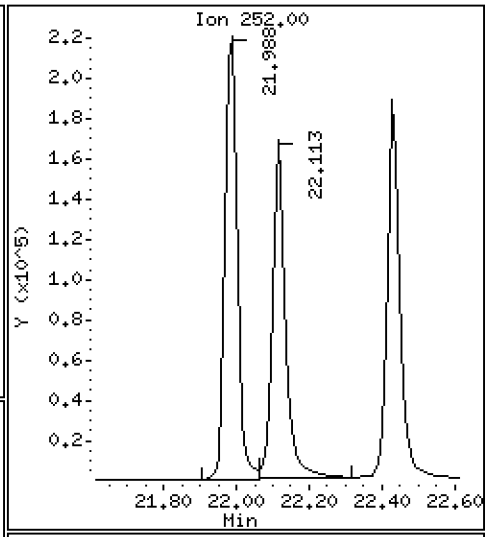
Concentration: 213 ng/mL

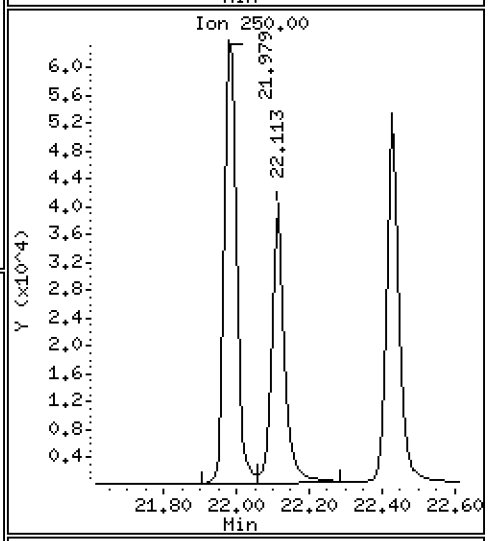


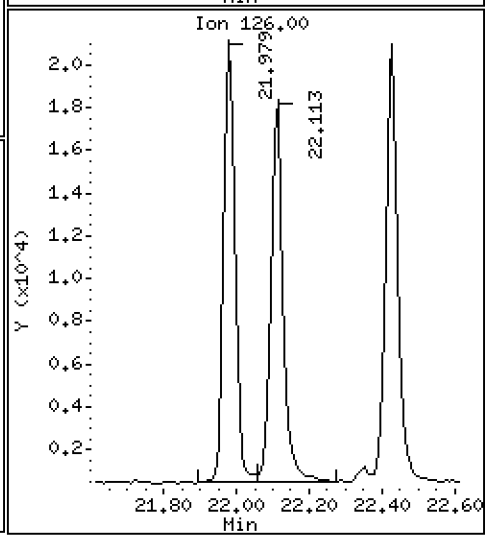












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Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

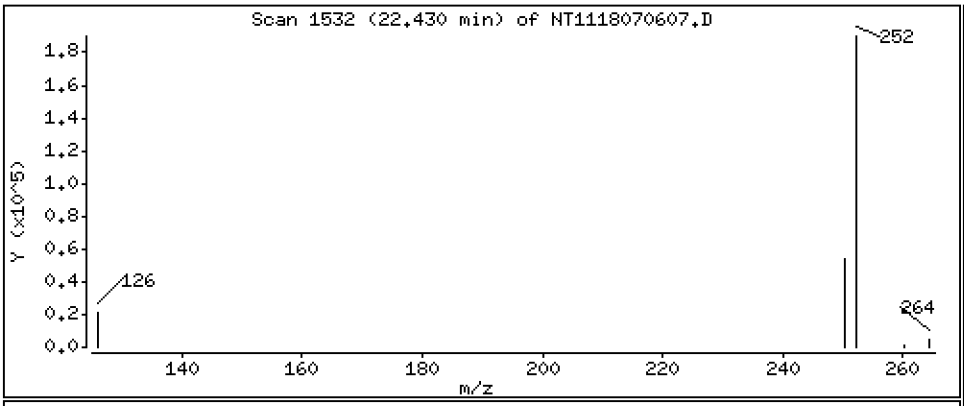
Operator: VTS

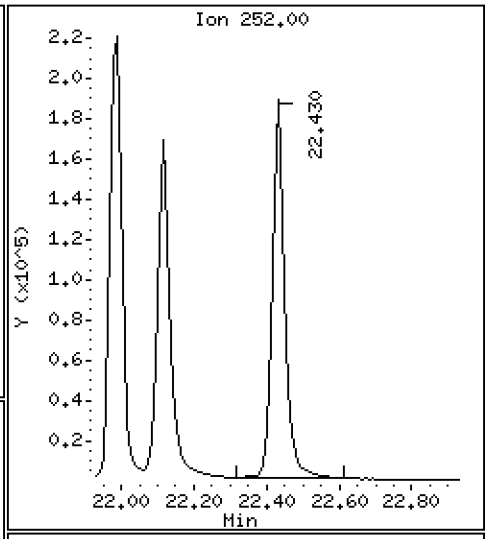
Column phase: Rxi-17Sil MS

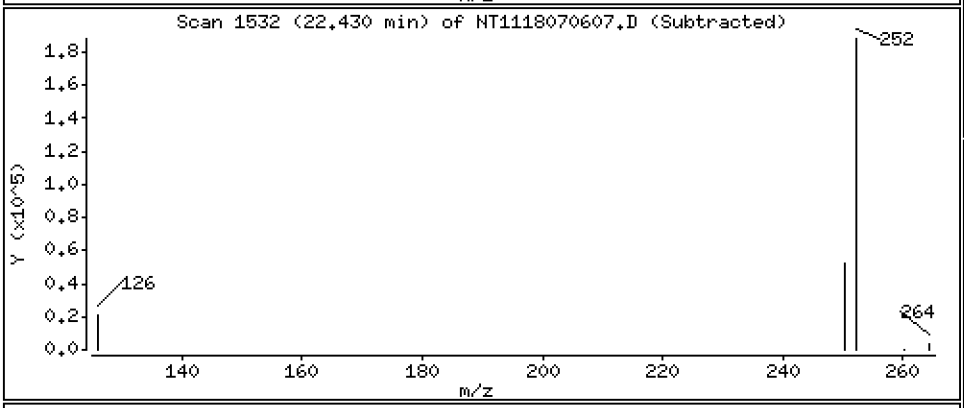
Column diameter: 0.25

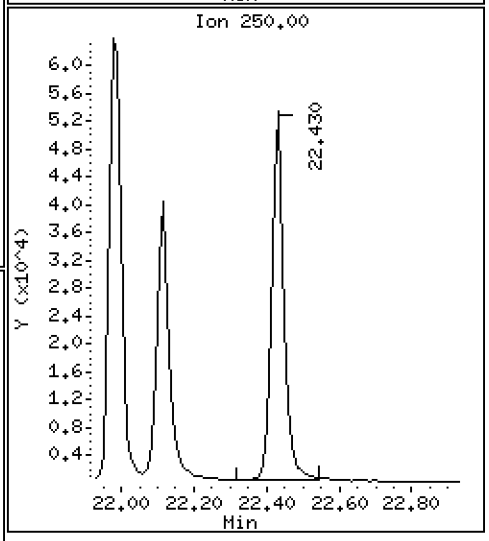
37 Perylene

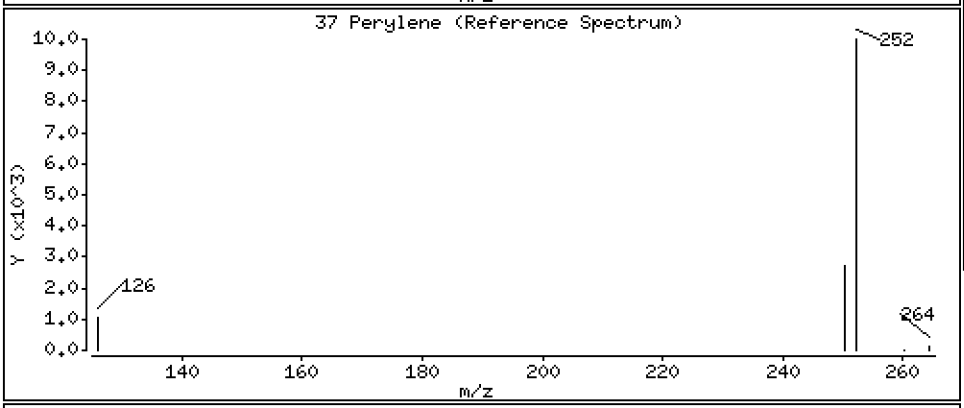
Concentration: 220 ng/mL

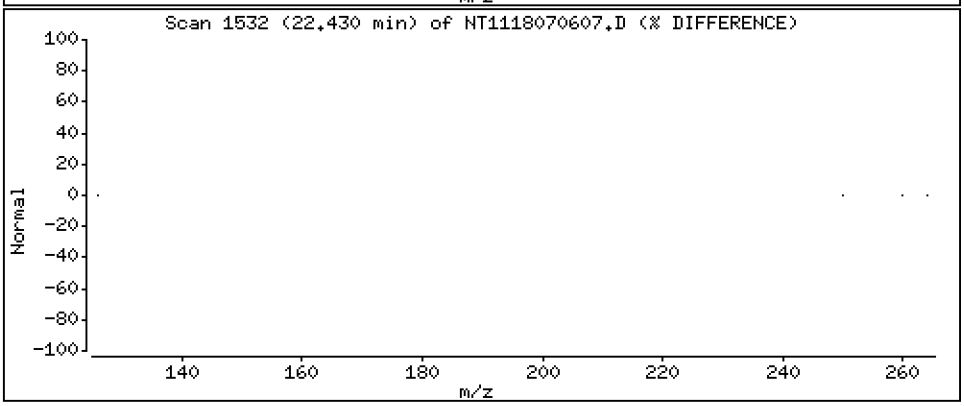












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Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

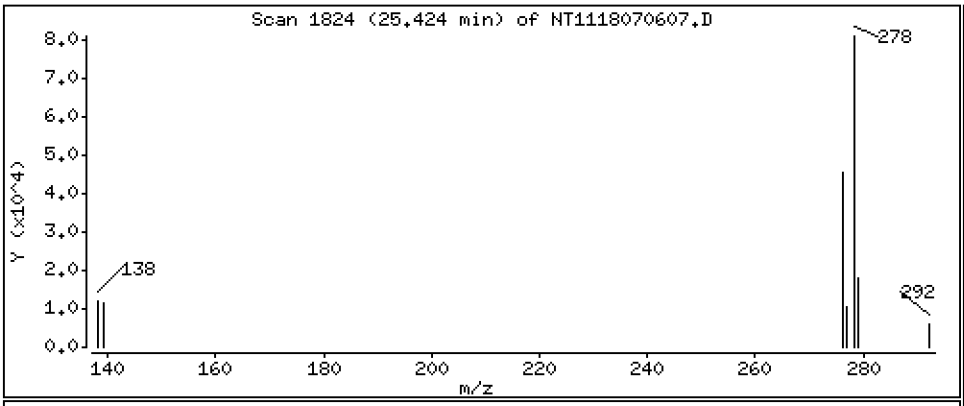
Operator: VTS

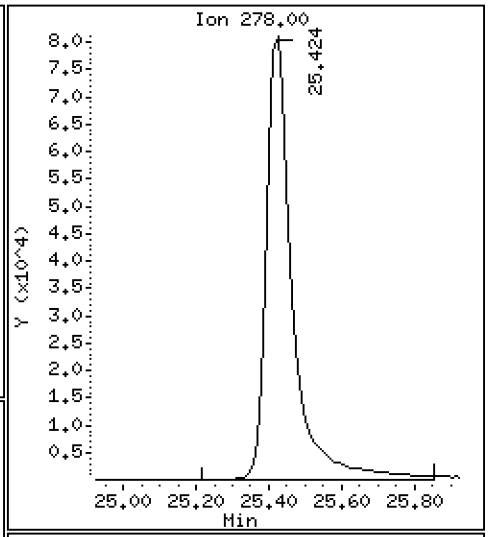
Column phase: Rxi-17Sil MS

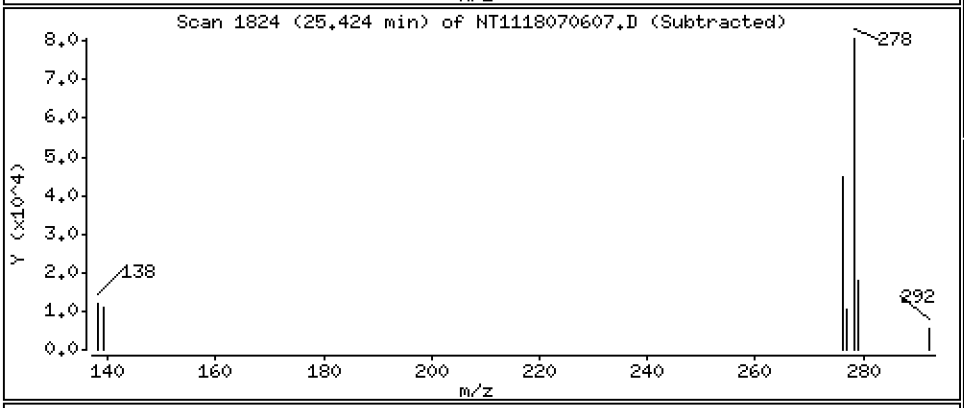
Column diameter: 0.25

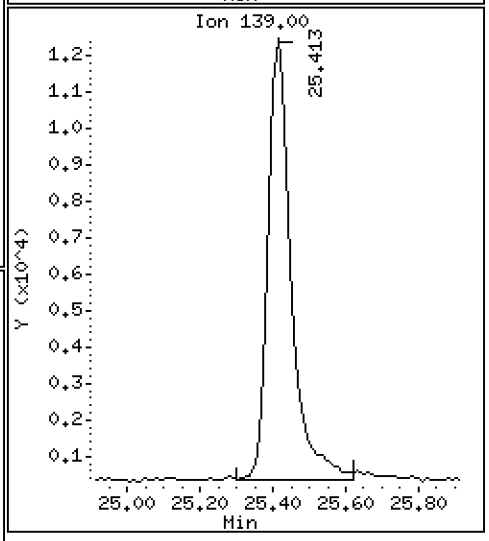
39 Dibenzo(a,h)anthracene

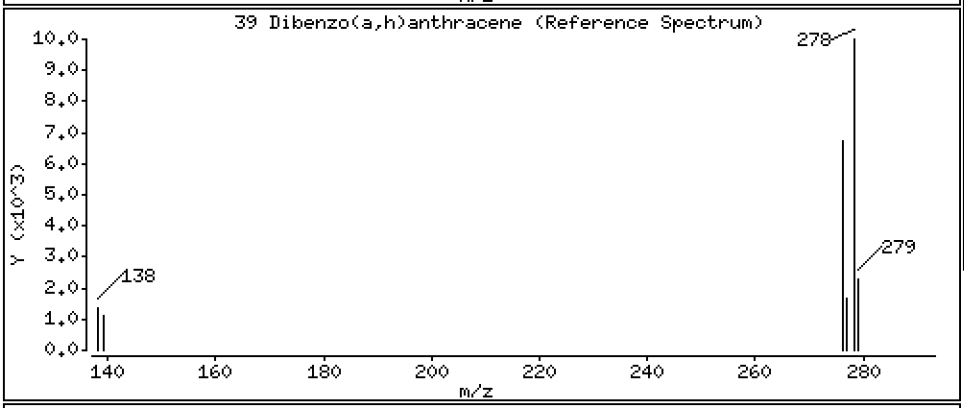
Concentration: 229 ng/mL

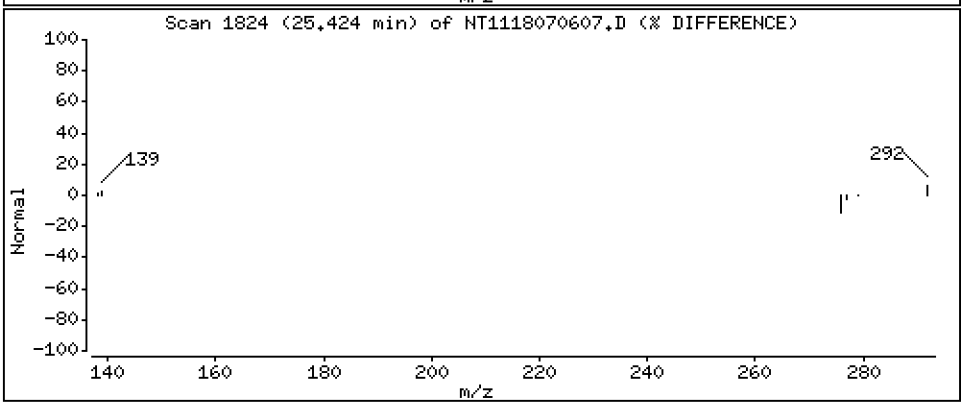












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Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

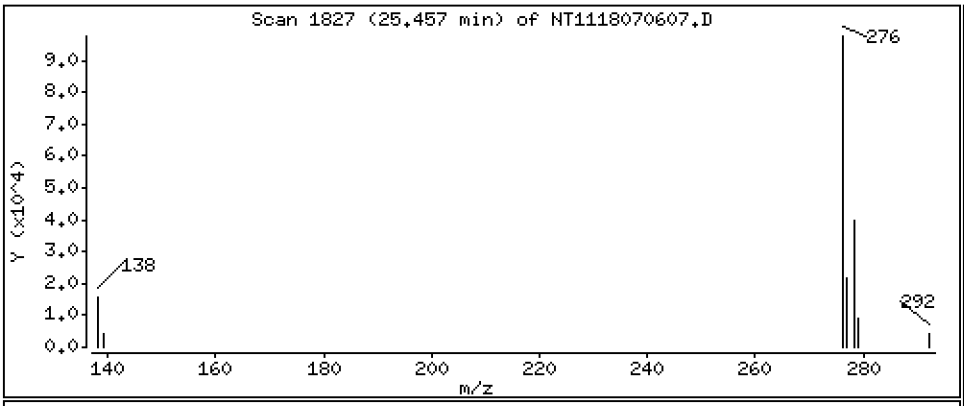
Operator: VTS

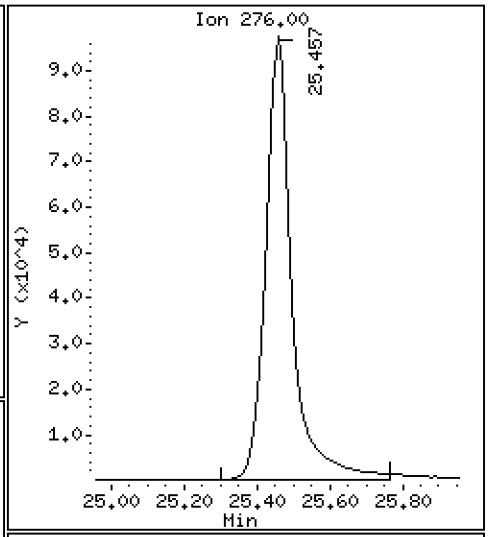
Column phase: Rxi-17Sil MS

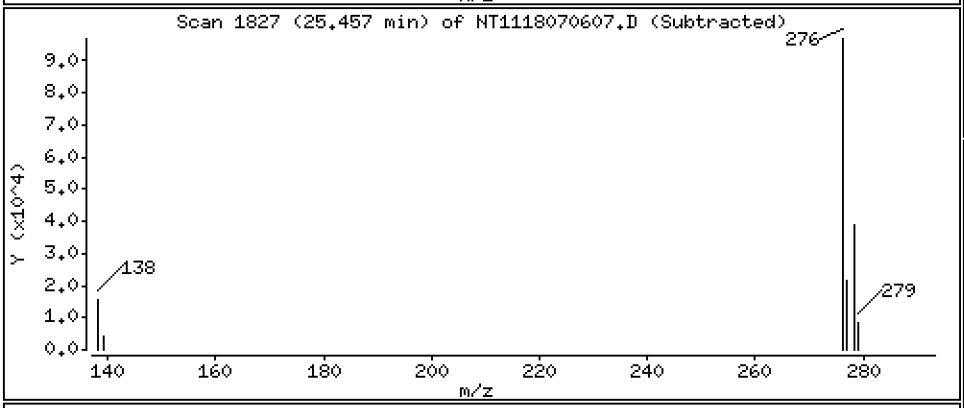
Column diameter: 0.25

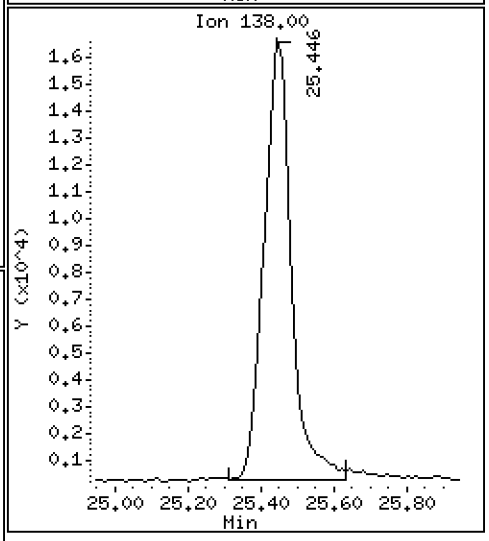
40 Indeno(1,2,3-cd)pyrene

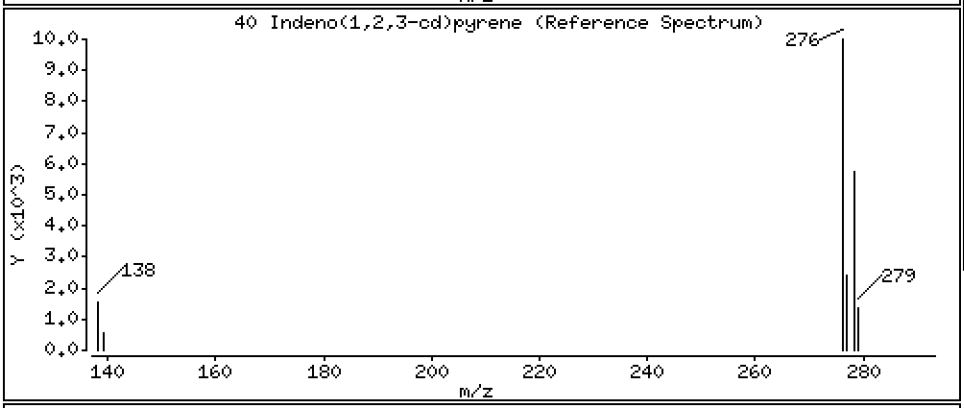
Concentration: 231 ng/mL

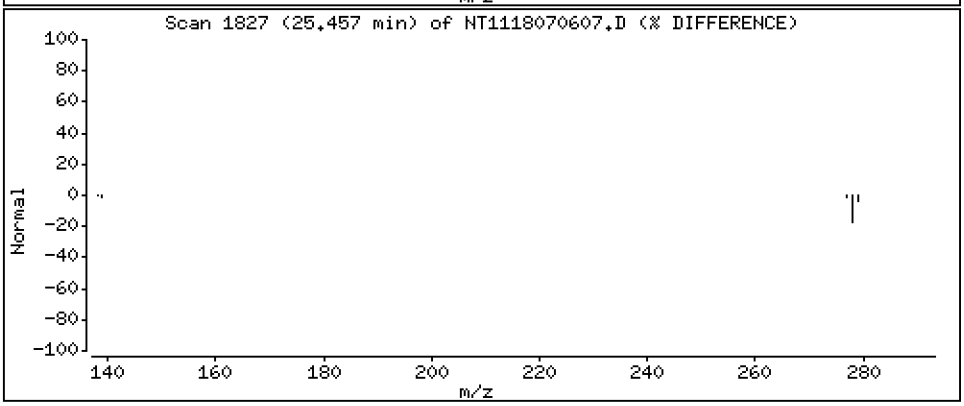












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070607.D

Date : 06-JUL-2018 16:01

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MS1

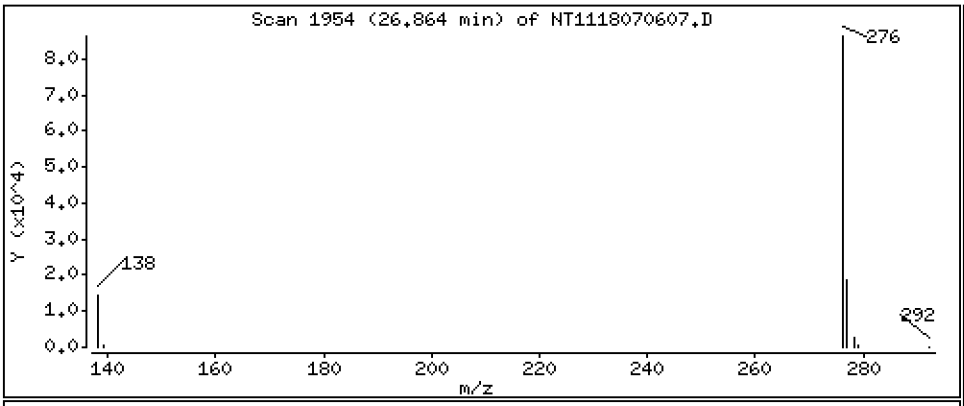
Operator: VTS

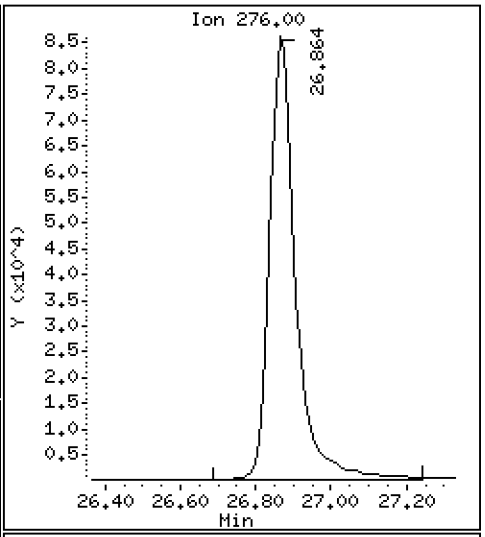
Column phase: Rxi-17Sil MS

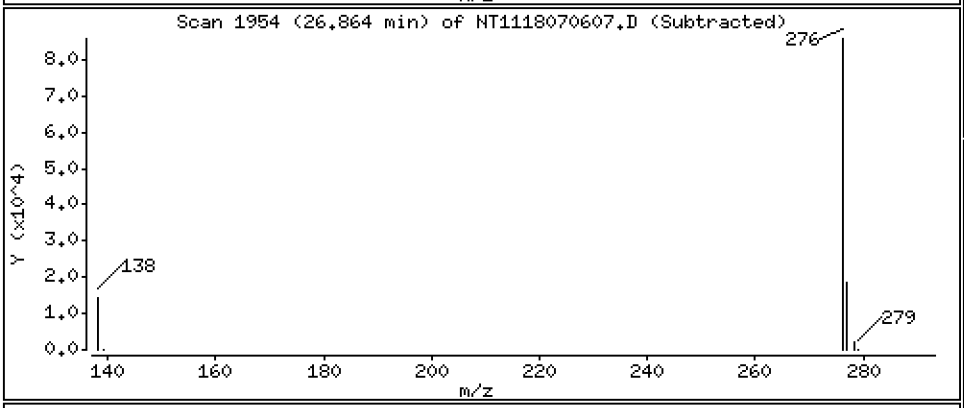
Column diameter: 0.25

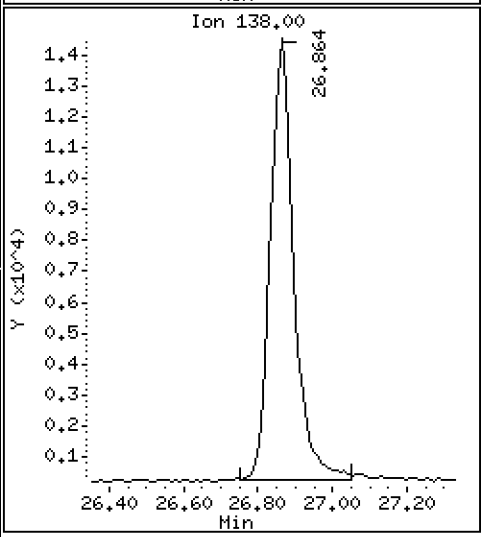
41 Benzo(g,h,i)perylene

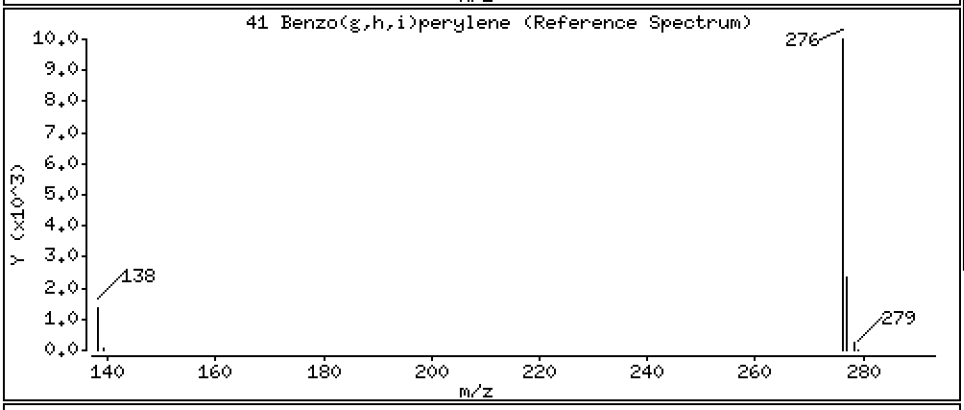
Concentration: 233 ng/mL

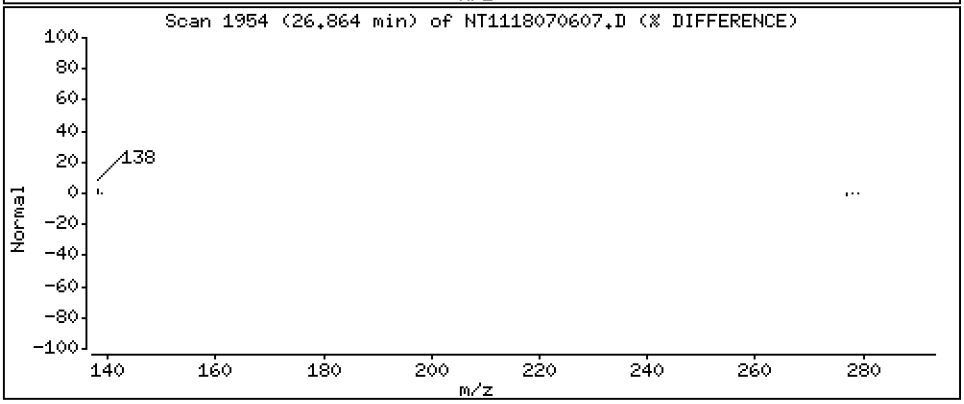












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180706.b\NT1118070607.D
Lab Smp Id: BGF0530-MS1
Inj Date : 06-JUL-2018 16:01 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : BGF0530-MS1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Meth Date : 06-Jul-2018 13:13 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	449364	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	525562	171.723	172
	3 Benzo(b)thiophene	134	8.897	8.897	(1.034)	454920	193.139	193
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	469191	182.999	183
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	534219	195.165	195
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	523757	192.394	192
	7 2-Chloronaphthalene	162	10.569	10.558	(0.908)	533251	211.533	212
	8 Biphenyl	154	10.527	10.527	(0.904)	685861	227.456	227
	9 2,6-Dimethylnaphthalene	156	10.579	10.579	(0.909)	533440	223.846	224
	10 Acenaphthylene	152	11.490	11.490	(0.987)	600484	208.260	208
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	242505	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	420108	213.024	213
	13 Dibenzofuran	168	11.908	11.908	(1.023)	576292	213.309	213
	14 2,3,5-Trimethylnaphthalene	170	11.996	11.996	(1.030)	372554	215.477	215
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.539	12.540	(1.077)	459780	211.038	211
	17 Dibenzothiophene	184	14.172	14.172	(0.988)	521829	215.880	216
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	388168	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	697232	229.022	229
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.435	14.435	(1.007)	643726	226.180	226
	22 Carbazole	167	15.112	15.113	(1.054)	782249	235.929	236
	23 1-Methylphenanthrene	192	15.384	15.384	(1.073)	741615	257.818	258
$	24 Fluoranthene-d10	212	16.449	16.449	(1.147)	505448	214.520	215
	25 Fluoranthene	202	16.487	16.487	(1.150)	700794	247.877	248
	26 Pyrene	202	16.987	16.987	(0.889)	715495	238.871	239
	27 Benzo(a)anthracene	228	19.004	19.004	(0.995)	579287	247.970	248
*	28 Chrysene-d12	240	19.103	19.095	(1.000)	304681	200.000	
	29 Chrysene	228	19.153	19.145	(1.003)	598085	257.739	258
	30 Benzo(b)fluoranthene	252	21.104	21.104	(0.944)	474129	209.073	209
	31 Benzo(k)fluoranthene	252	21.152	21.152	(0.946)	559587	237.962	238
	32 Benzo(j)fluoranthene	252	21.229	21.229	(0.950)	561603	262.393	262
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	21.988	21.978	(0.984)	500007	228.594	229

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	35 Benzo(a)pyrene	252	22.113	22.113	(0.989)	424665	213.156	213
*	36 Perylene-d12	264	22.353	22.353	(1.000)	320614	200.000	
	37 Perylene	252	22.430	22.430	(1.003)	460453	220.217	220
$	38 Dibenzo(a,h)anthracene-d14	292	25.279	25.279	(1.131)	321110	209.294	209
	39 Dibenzo(a,h)anthracene	278	25.423	25.423	(1.137)	397353	229.226	229
	40 Indeno(1,2,3-cd)pyrene	276	25.457	25.457	(1.139)	479098	231.189	231
	41 Benzo(g,h,i)perylene	276	26.863	26.863	(1.202)	417008	232.643	233

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118070607.D
Lab Smp Id: BGF0530-MS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Misc Info:

Calibration Date: 06-JUL-2018
Calibration Time: 12:50
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	449364	4.18
11 Acenaphthene-d10	260137	130069	520274	242505	-6.78
18 Phenanthrene-d10	427391	213696	854782	388168	-9.18
28 Chrysene-d12	304596	152298	609192	304681	0.03
36 Perylene-d12	263091	131546	526182	320614	21.86

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	0.04
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118070607.D

Lab ID: BGF0530-MS1
nt11.i, 20180706.b\LOWSIM.m,   06-JUL-2018 16:01

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180706.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070608.D

Date : 06-JUL-2018 16:37

Client ID:

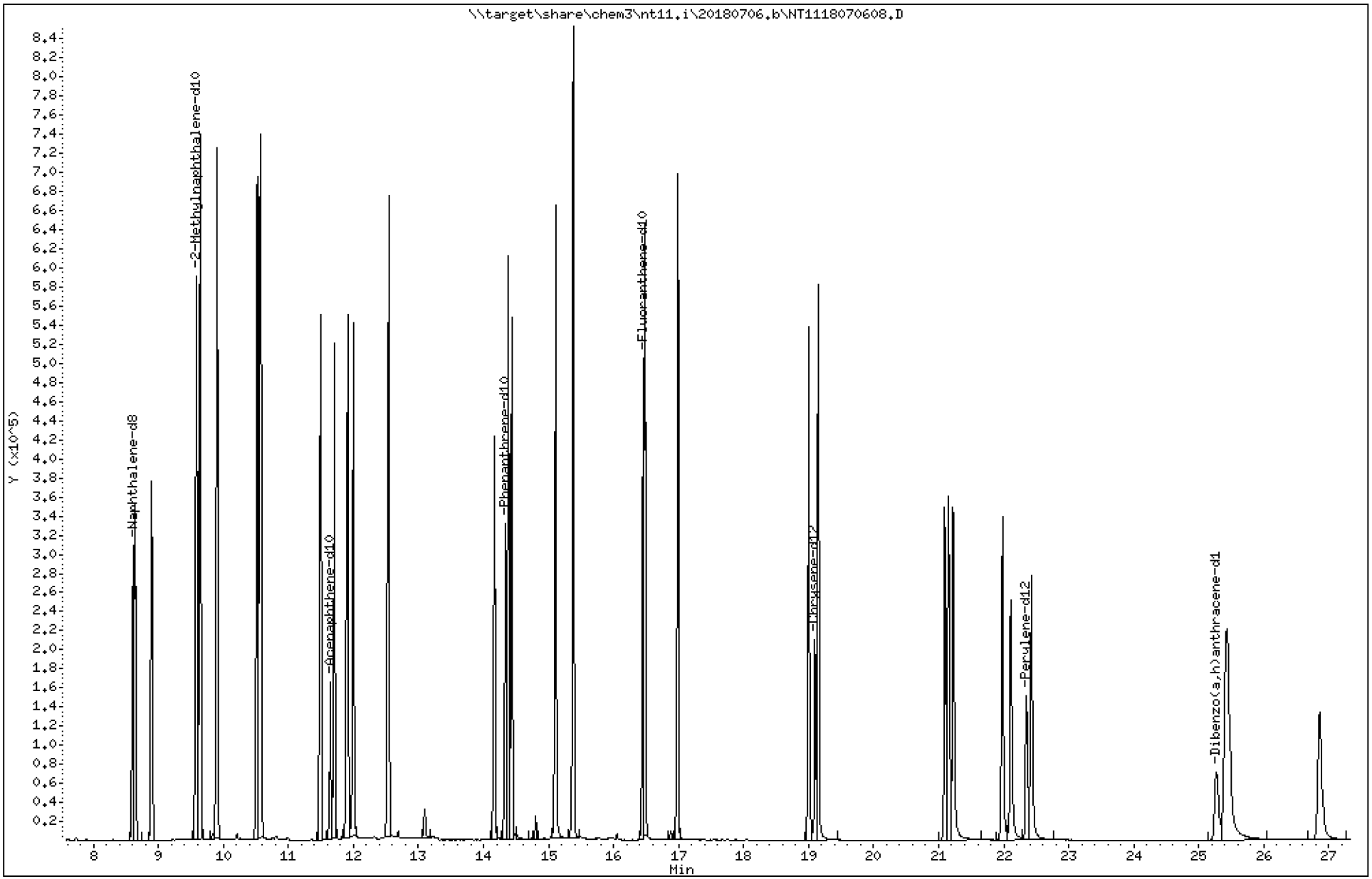
Instrument: nt11.i

Sample Info: BGF0530-MSD1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

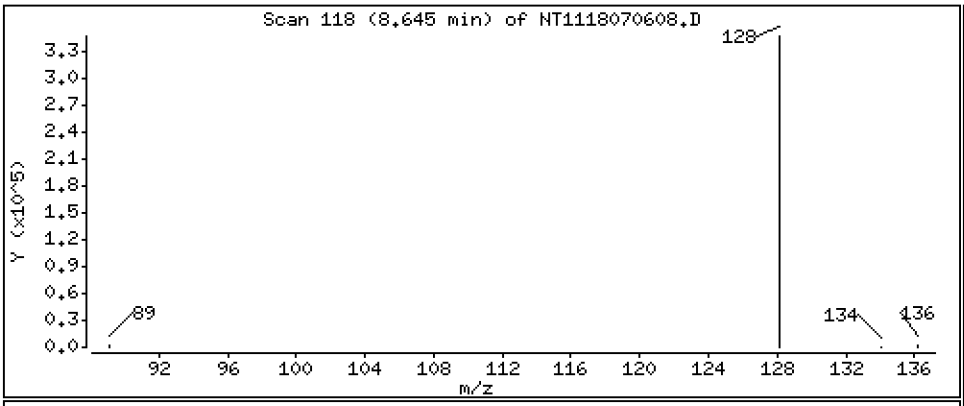
Operator: VTS

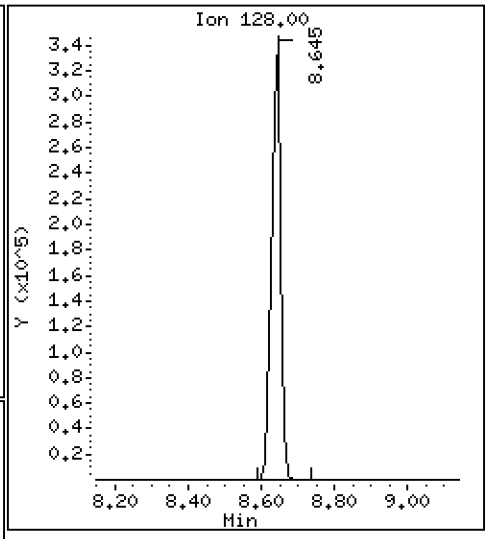
Column phase: Rxi-17Sil MS

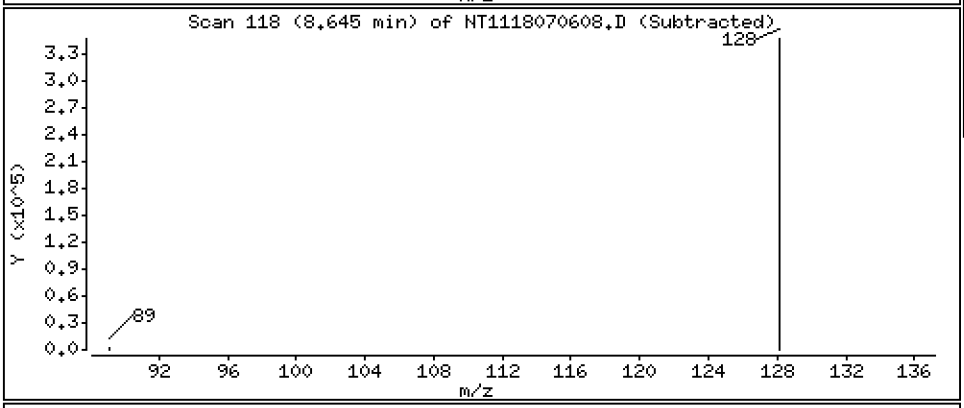
Column diameter: 0.25

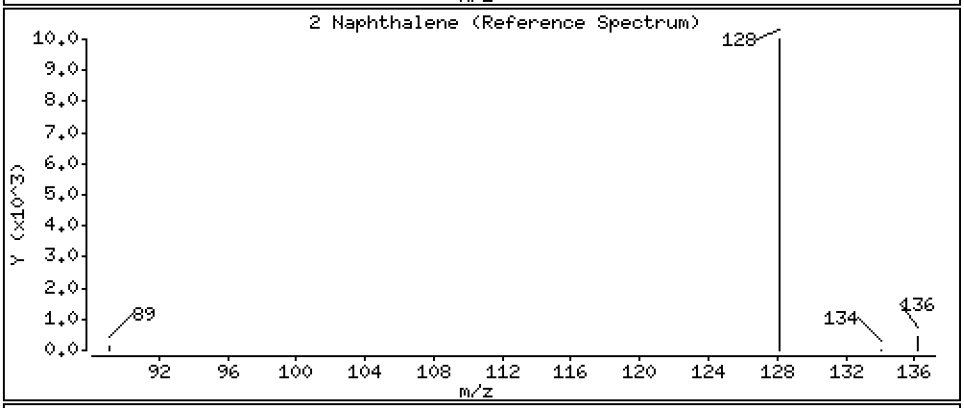
2 Naphthalene

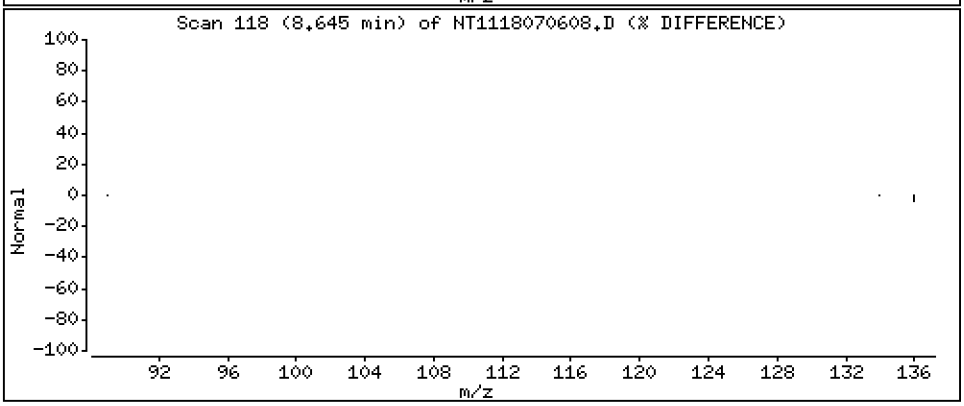
Concentration: 195 ng/mL











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Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

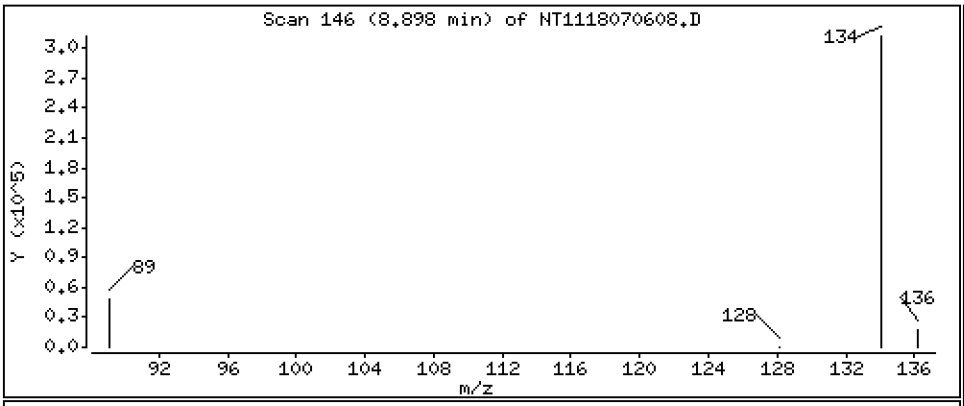
Operator: VTS

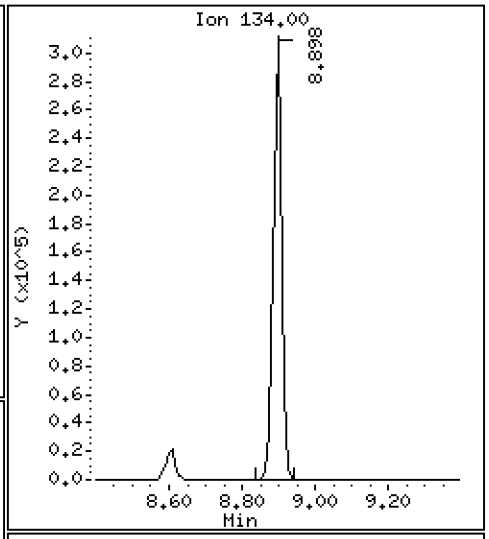
Column phase: Rxi-17Sil MS

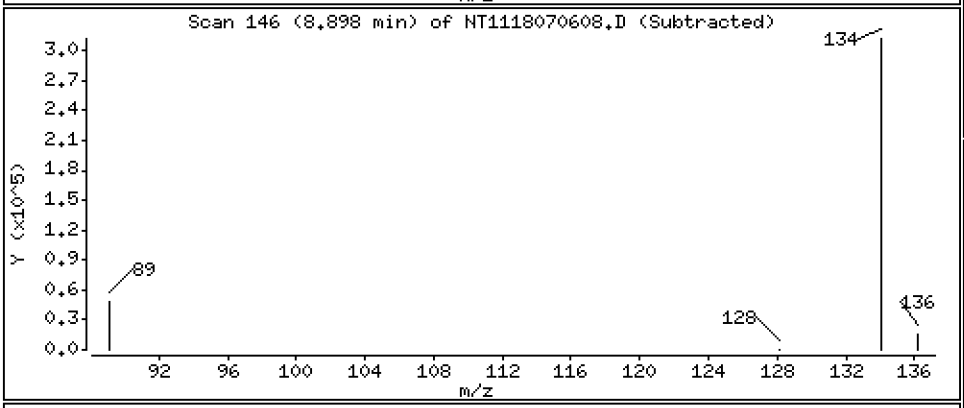
Column diameter: 0.25

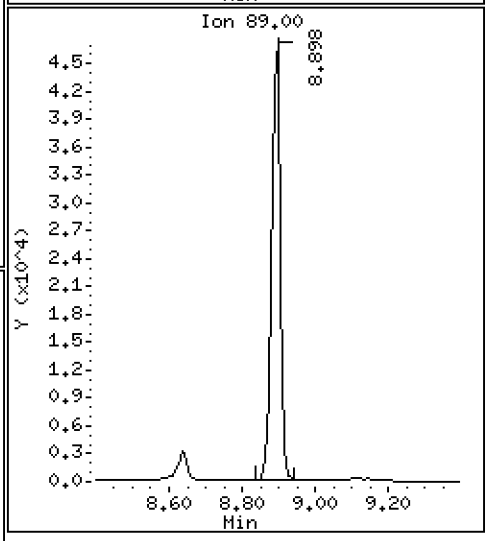
3 Benzo(b)thiophene

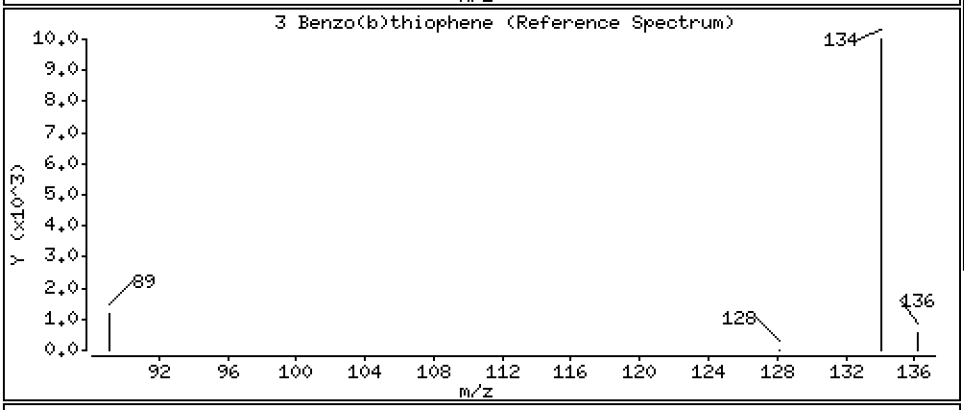
Concentration: 216 ng/mL

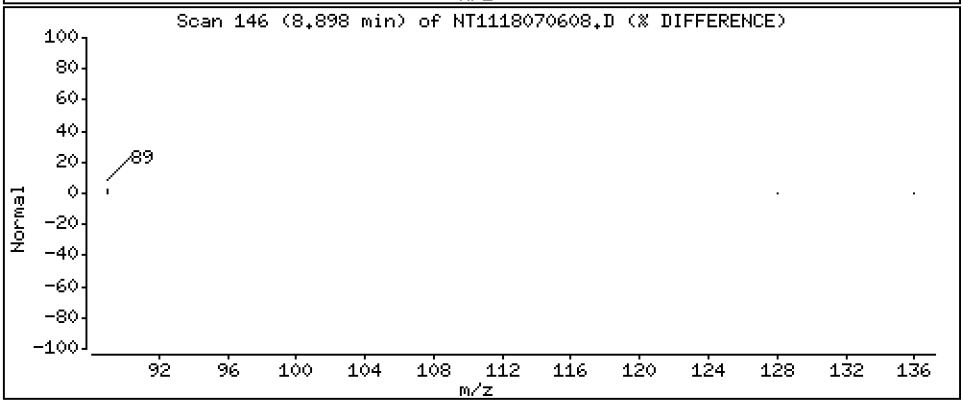












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070608.D

Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

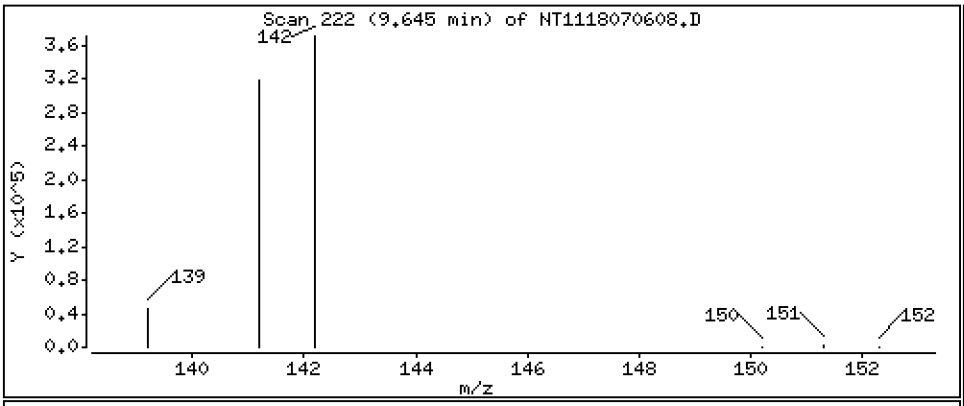
Operator: VTS

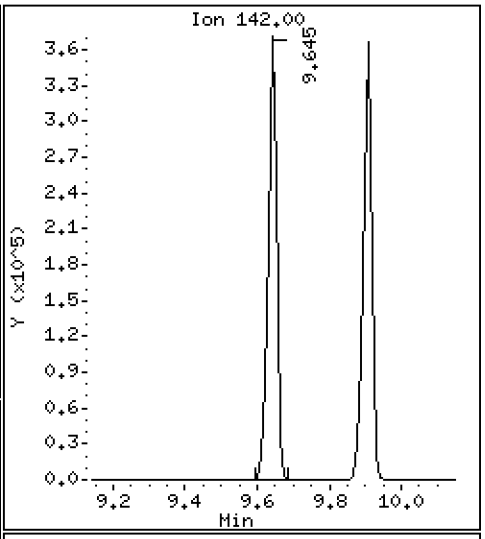
Column phase: Rxi-17Sil MS

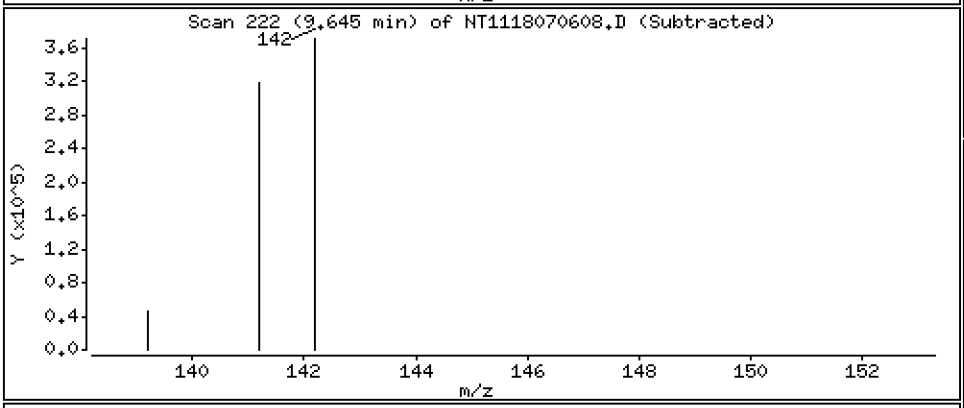
Column diameter: 0.25

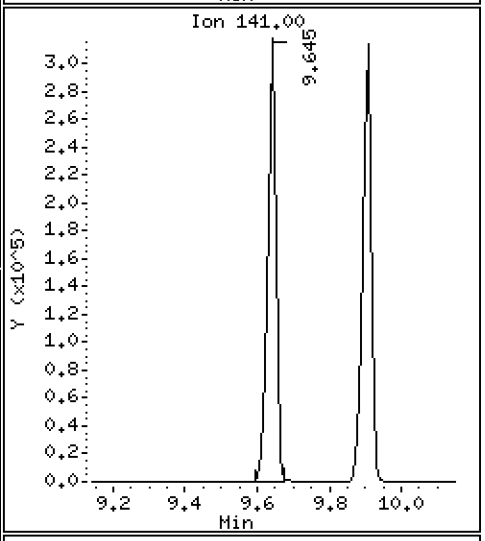
5 2-Methylnaphthalene

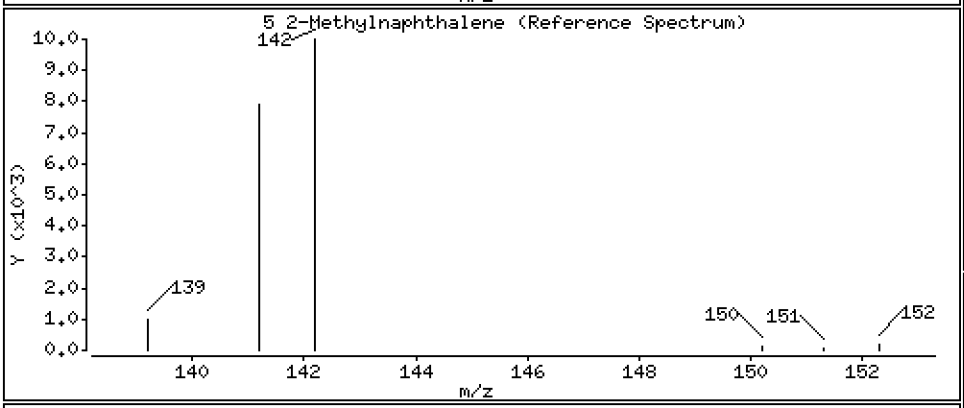
Concentration: 220 ng/mL

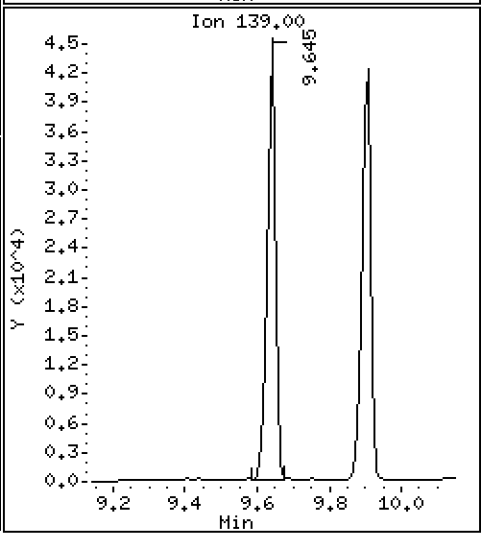


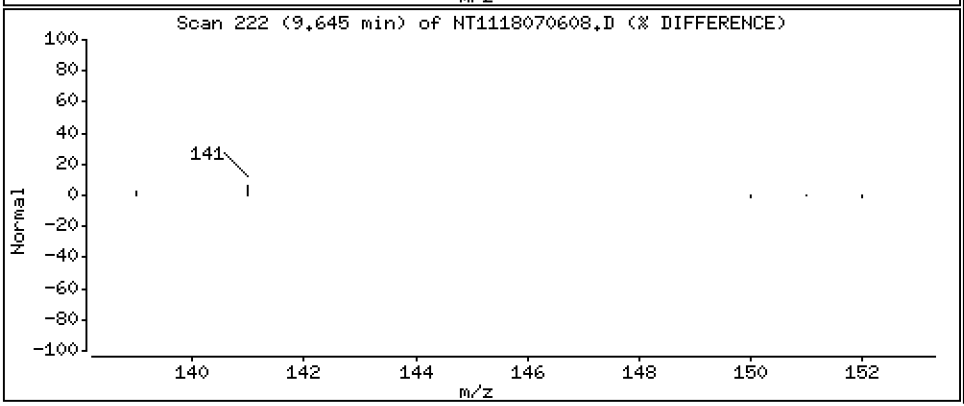












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Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

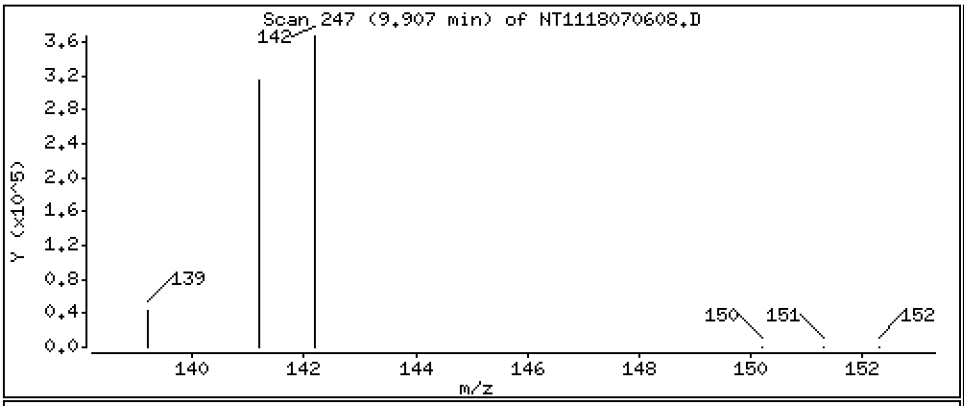
Operator: VTS

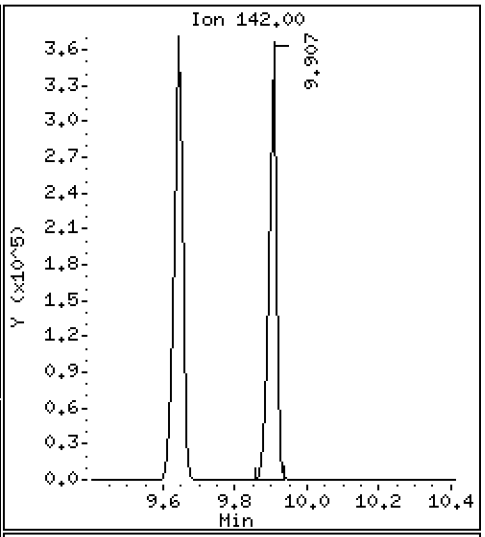
Column phase: Rxi-17Sil MS

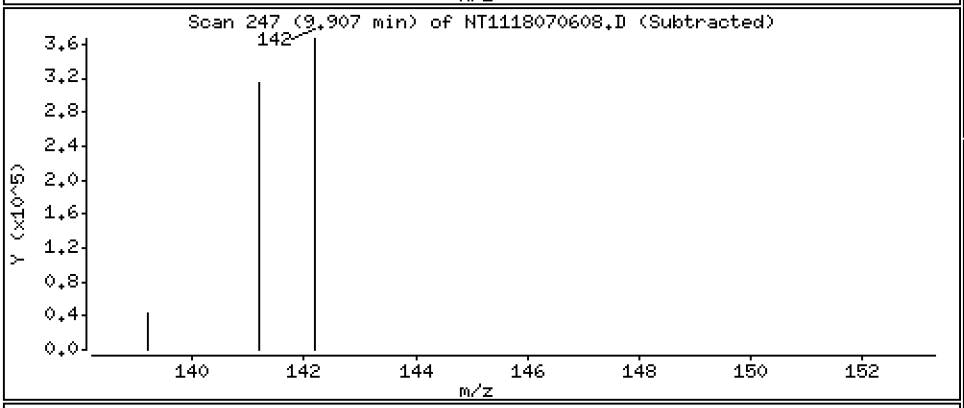
Column diameter: 0.25

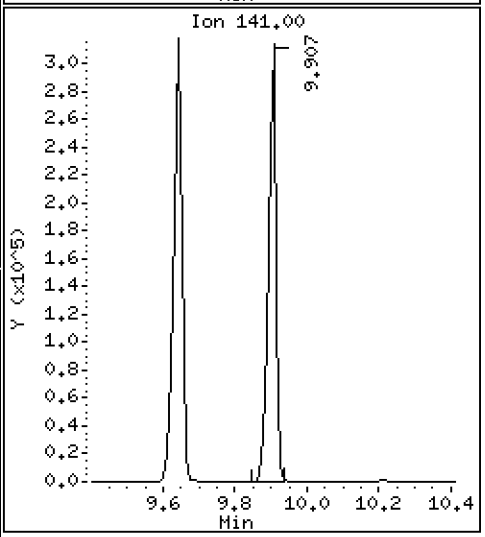
6 1-Methylnaphthalene

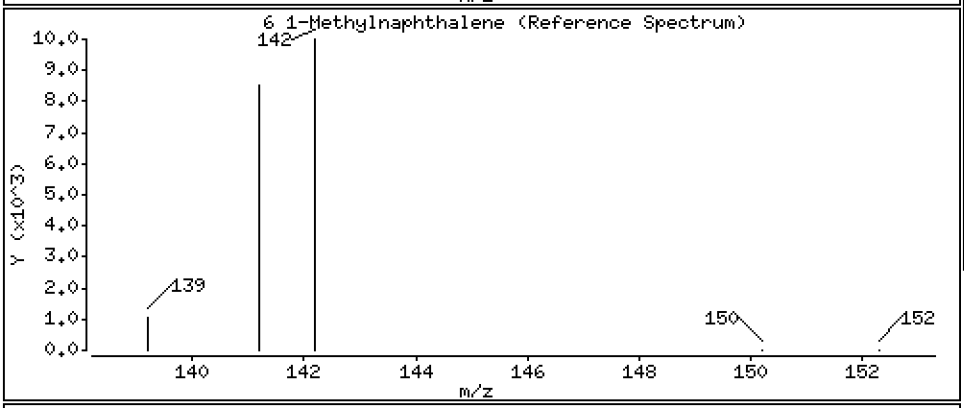
Concentration: 216 ng/mL

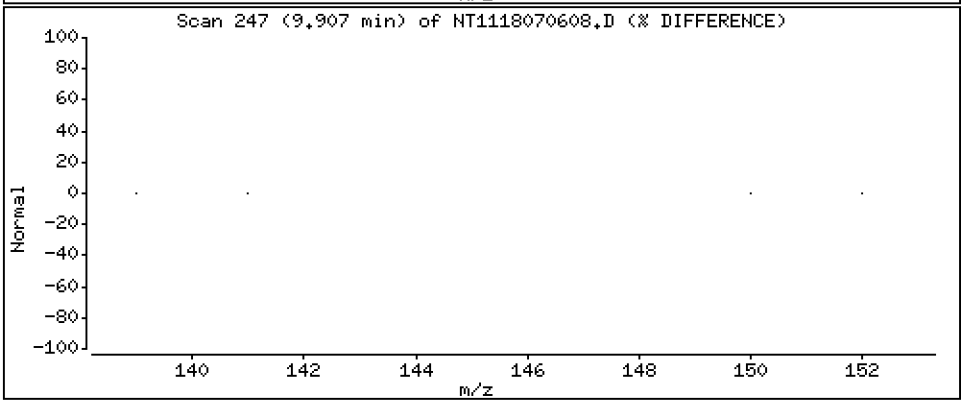












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Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

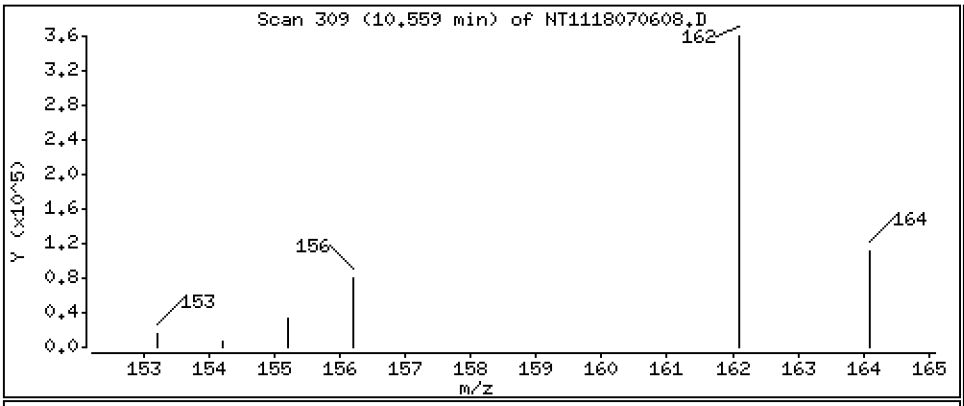
Operator: VTS

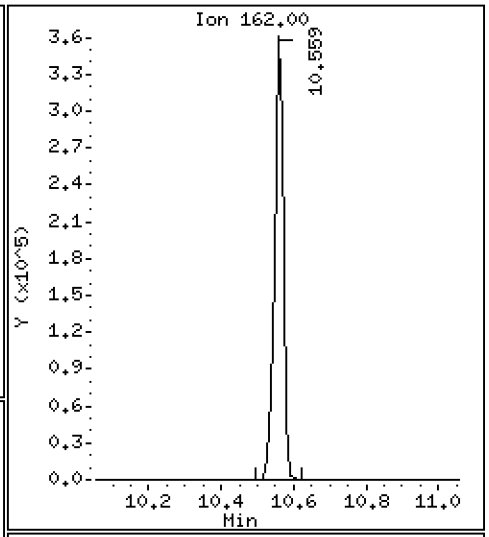
Column phase: Rxi-17Sil MS

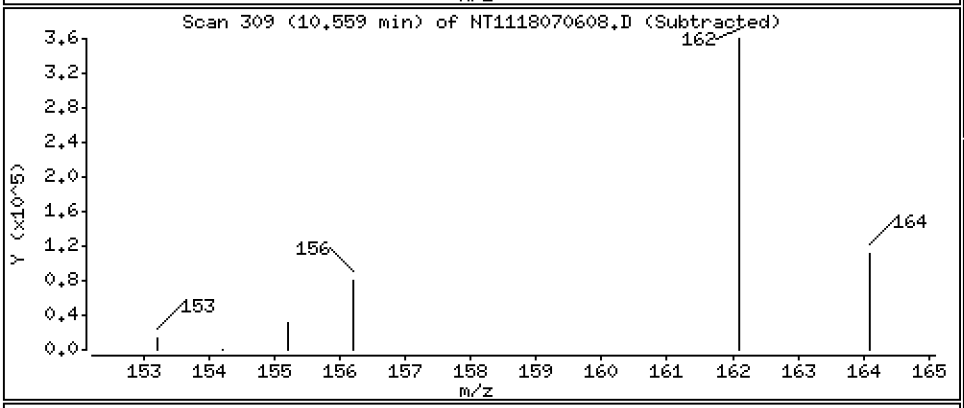
Column diameter: 0.25

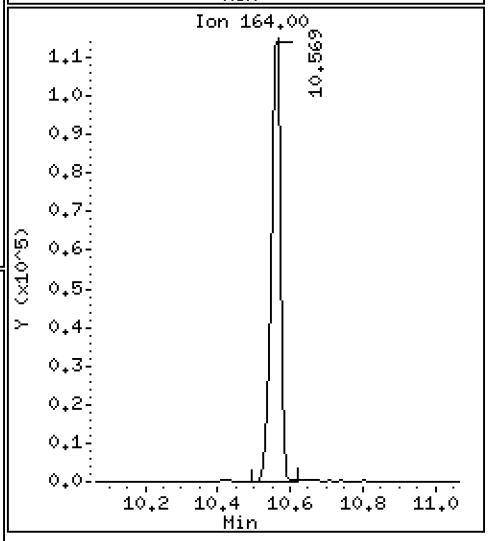
7 2-Chloronaphthalene

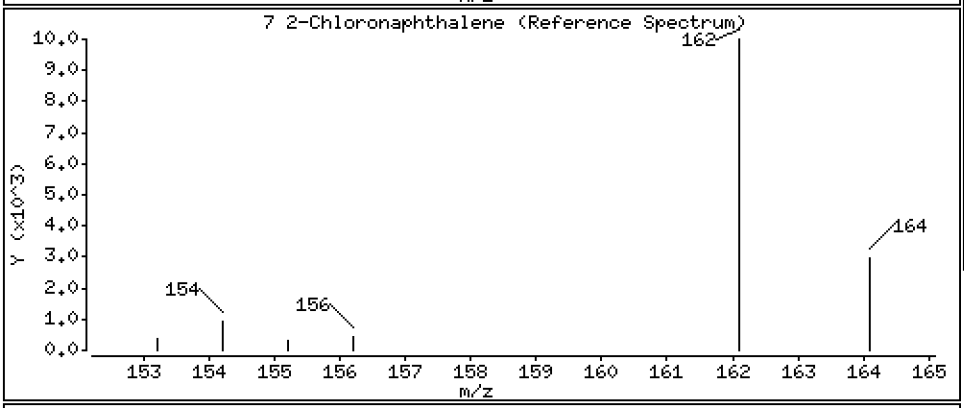
Concentration: 236 ng/mL

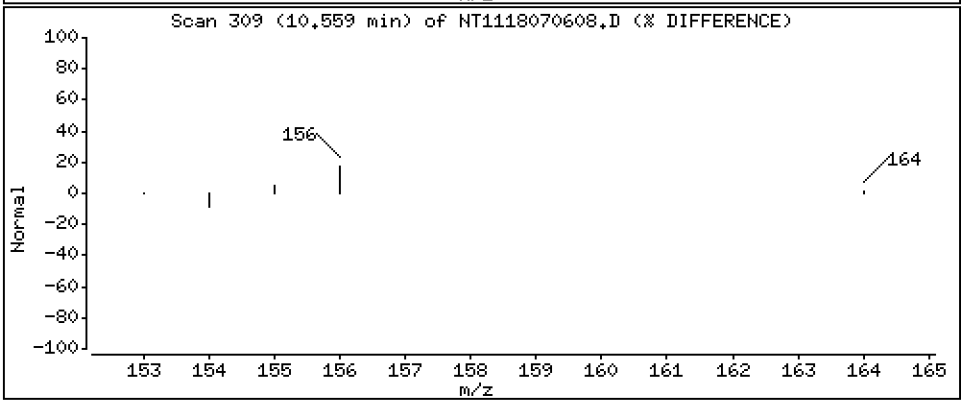












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070608.D

Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

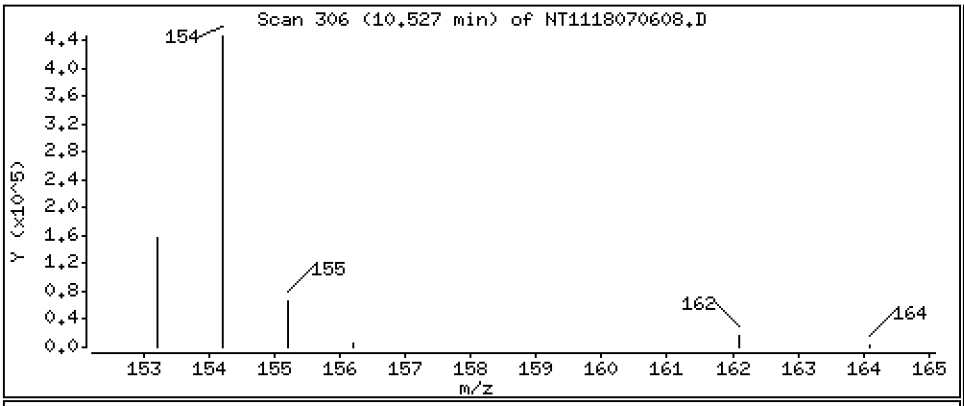
Operator: VTS

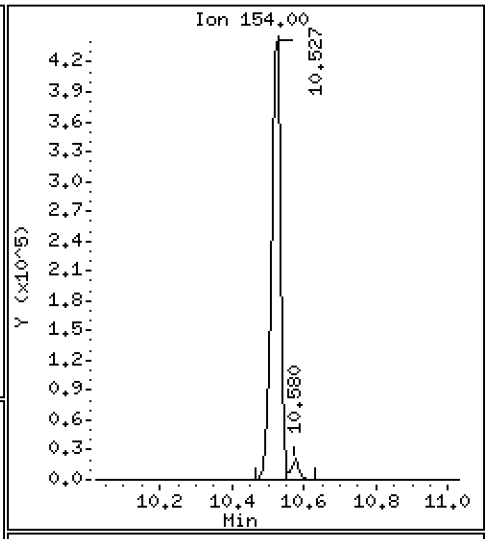
Column phase: Rxi-17Sil MS

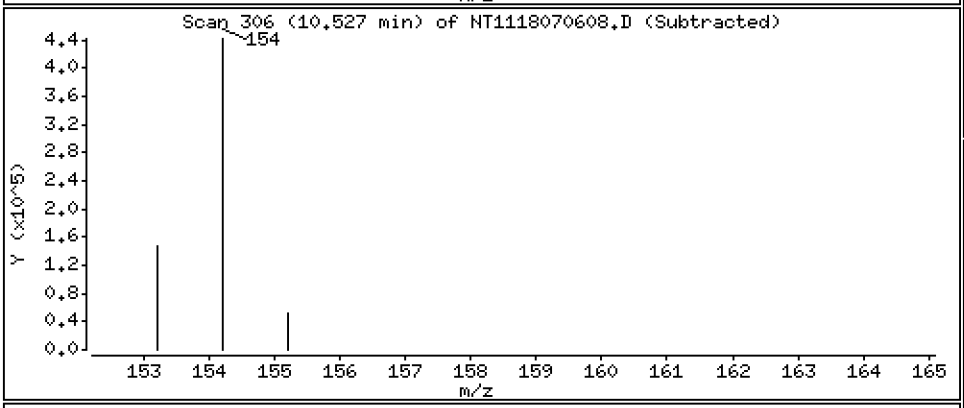
Column diameter: 0.25

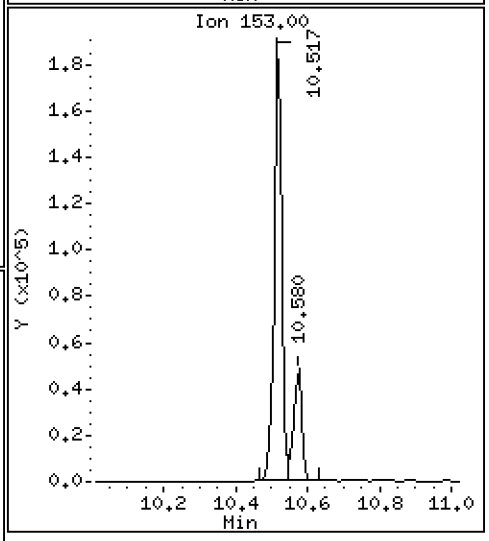
8 Biphenyl

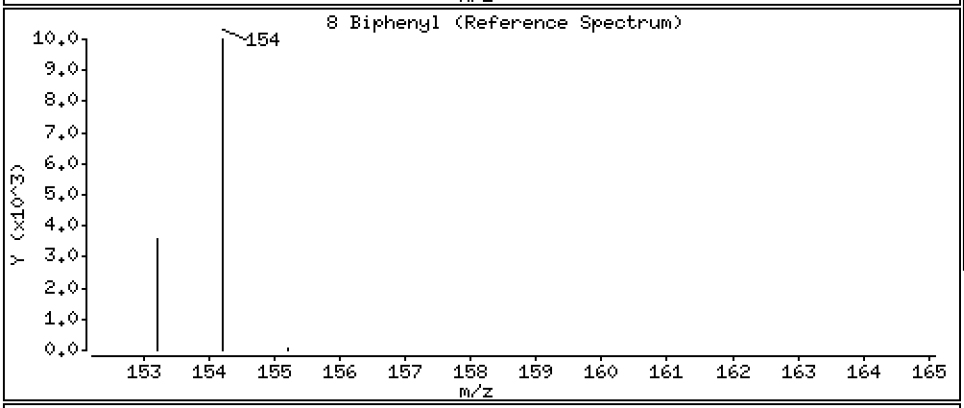
Concentration: 253 ng/mL

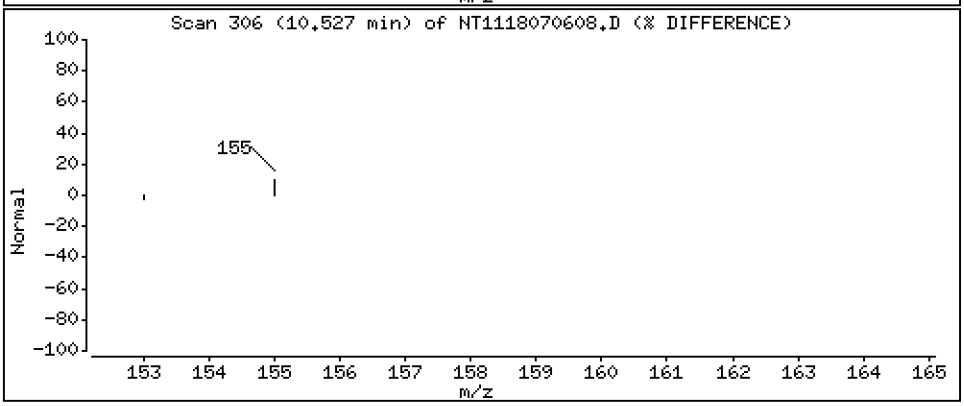












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Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

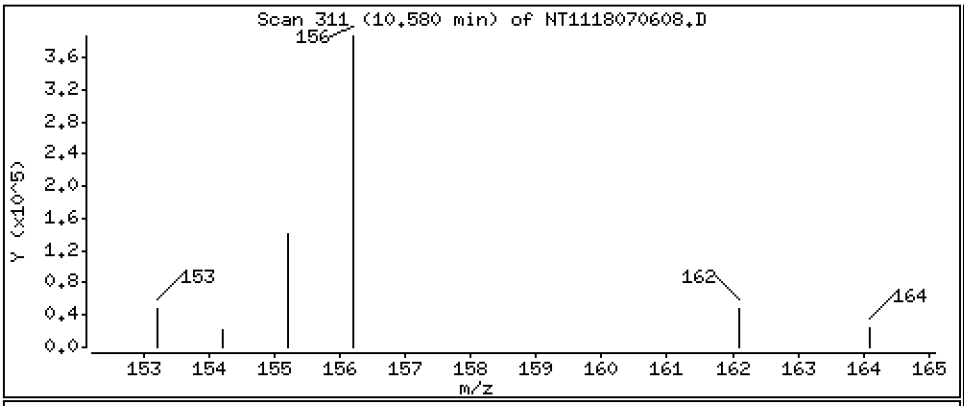
Operator: VTS

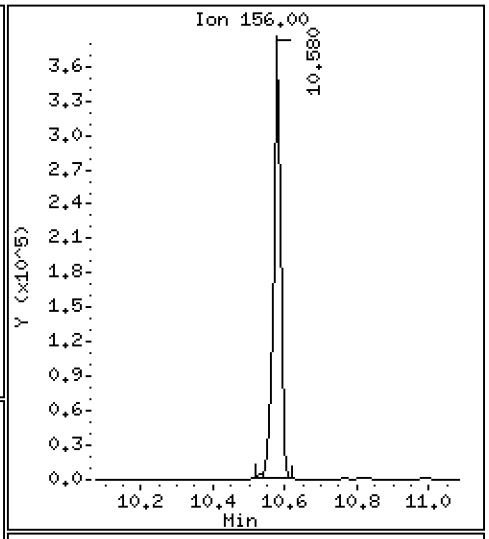
Column phase: Rxi-17Sil MS

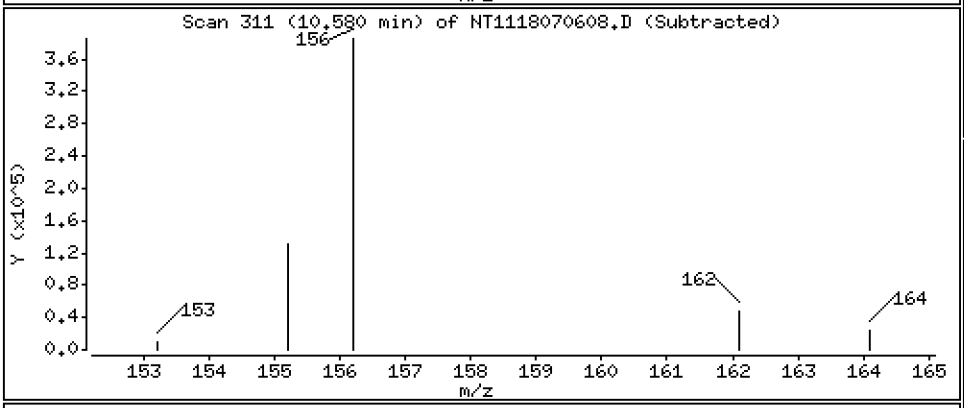
Column diameter: 0.25

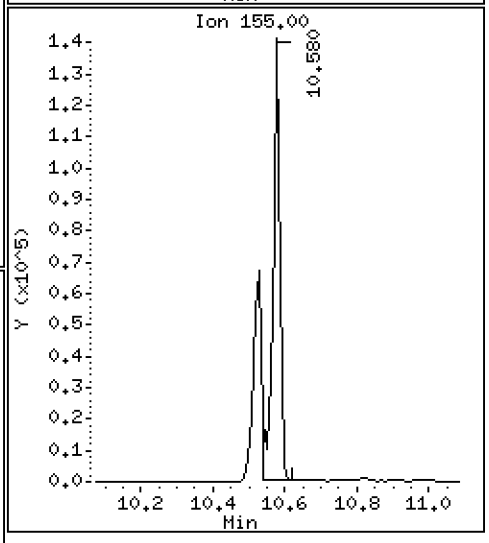
9 2,6-Dimethylnaphthalene

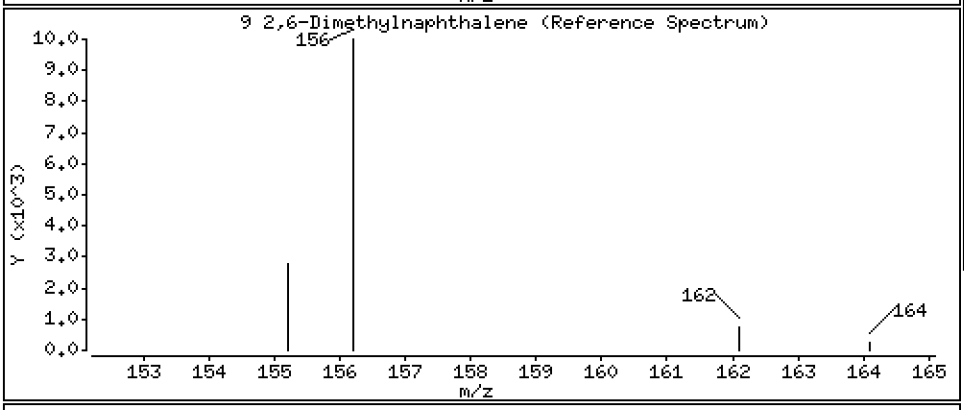
Concentration: 249 ng/mL

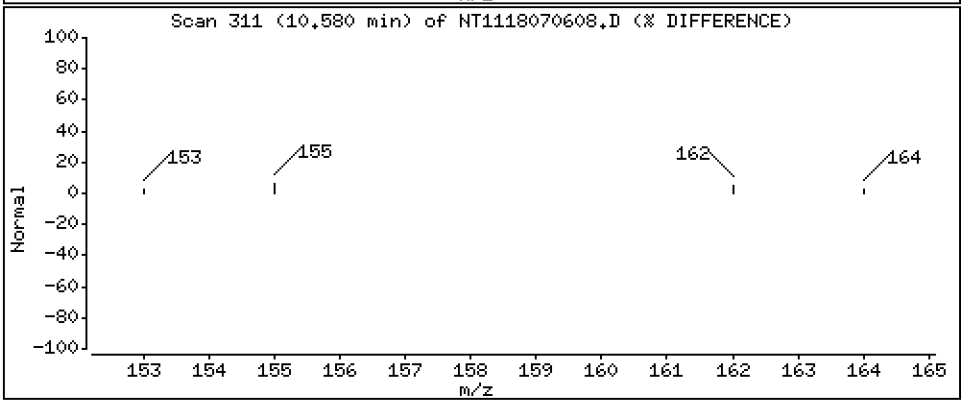












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070608.D

Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

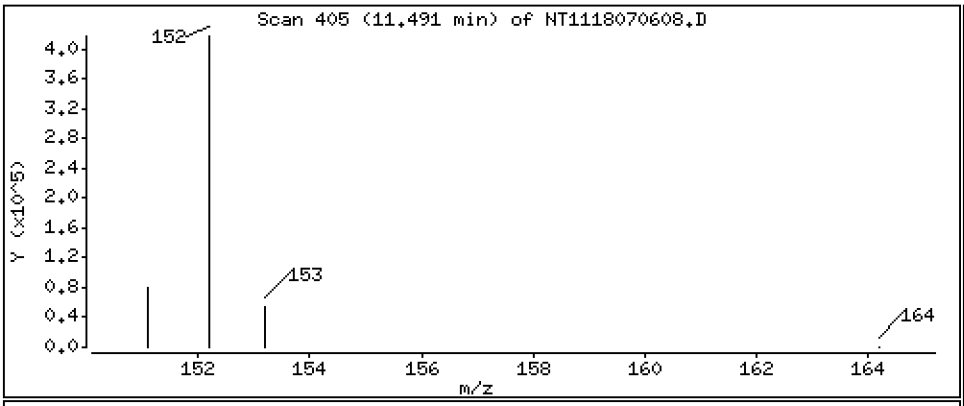
Operator: VTS

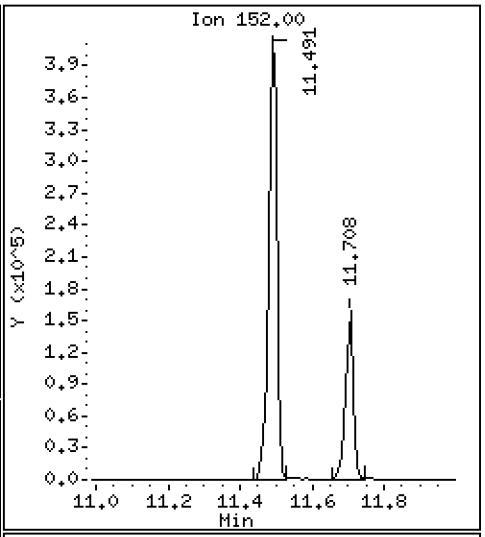
Column phase: Rxi-17Sil MS

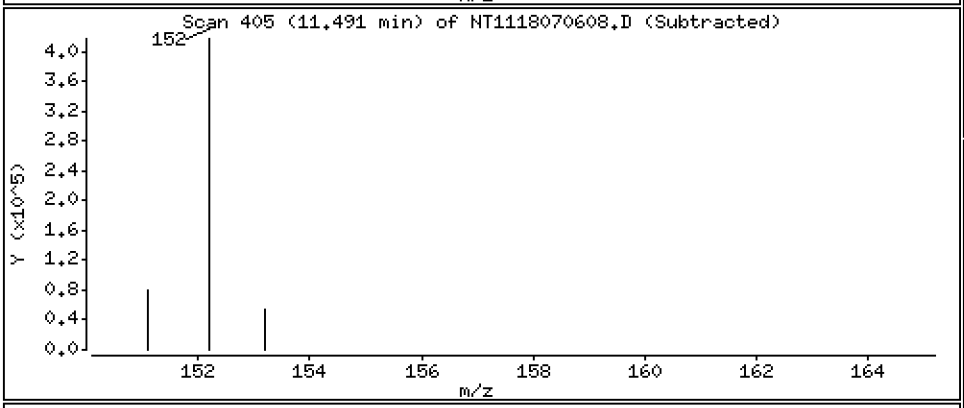
Column diameter: 0.25

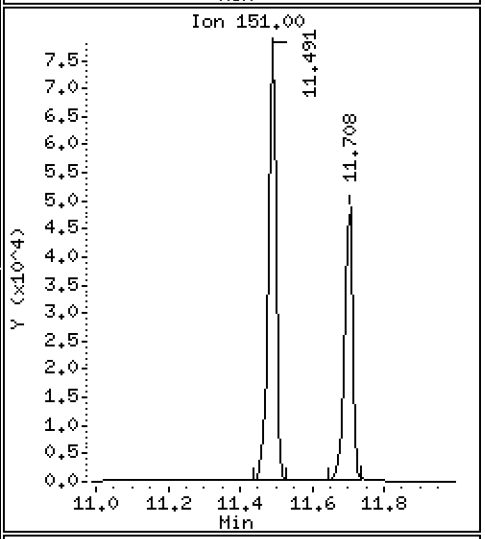
10 Acenaphthylene

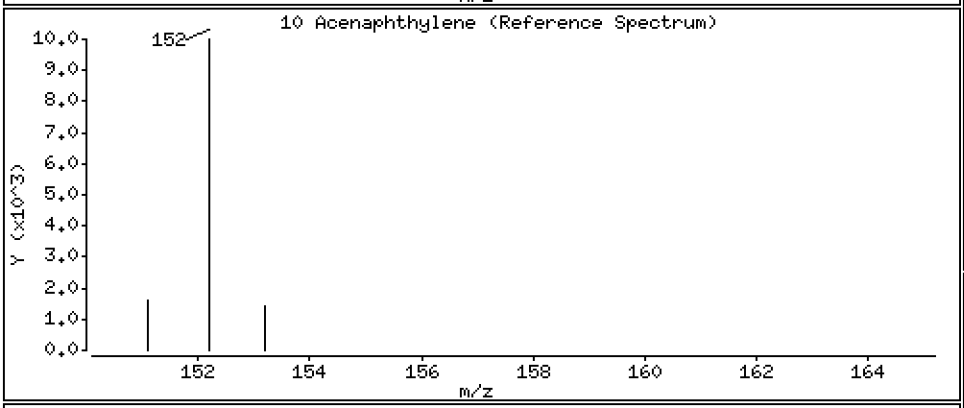
Concentration: 231 ng/mL

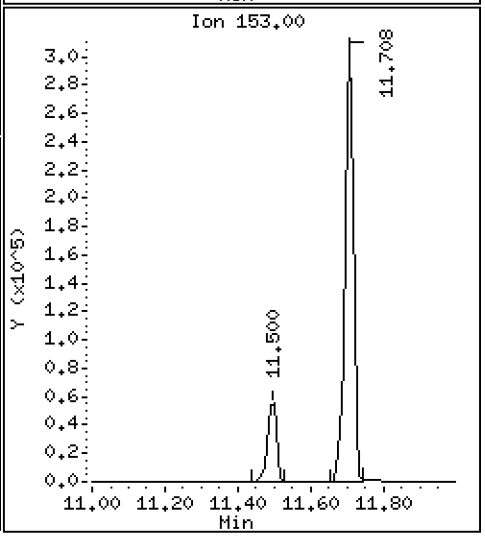


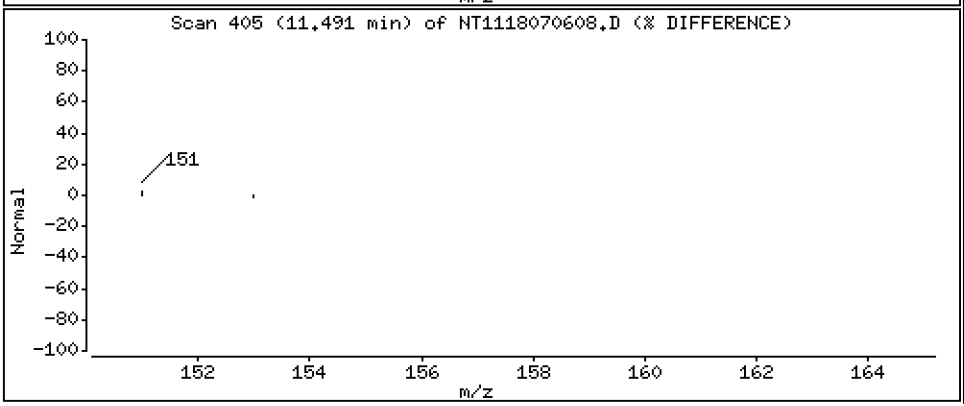












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Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

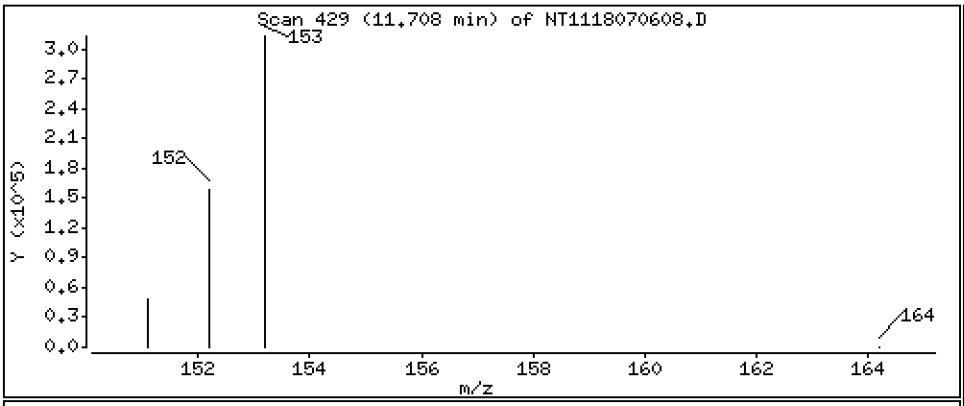
Operator: VTS

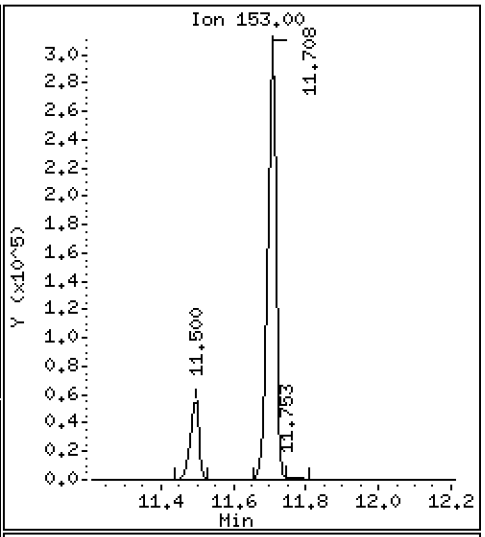
Column phase: Rxi-17Sil MS

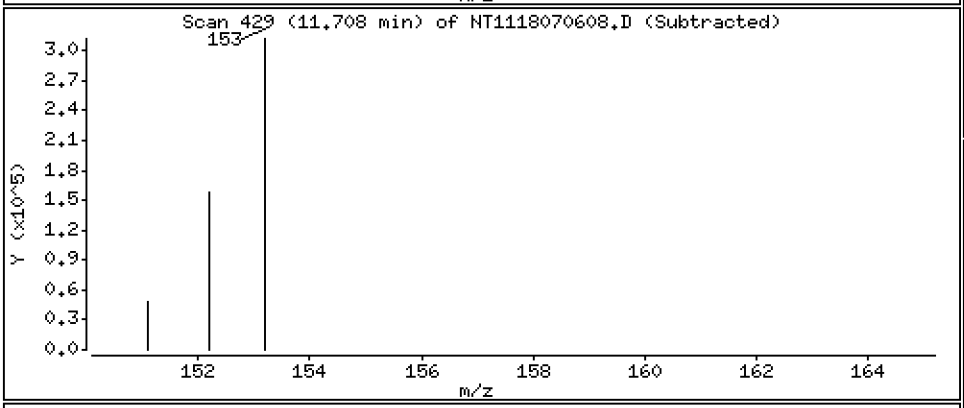
Column diameter: 0.25

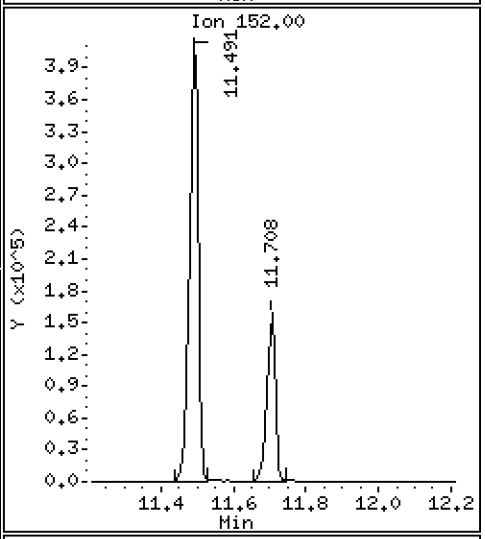
12 Acenaphthene

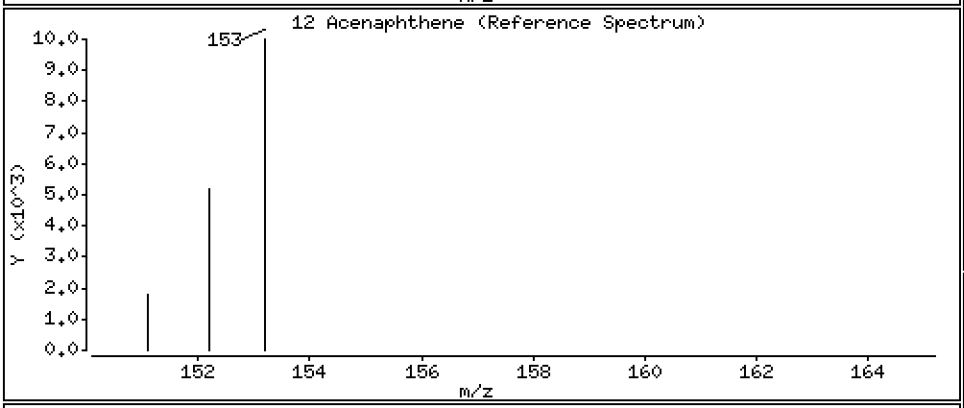
Concentration: 238 ng/mL

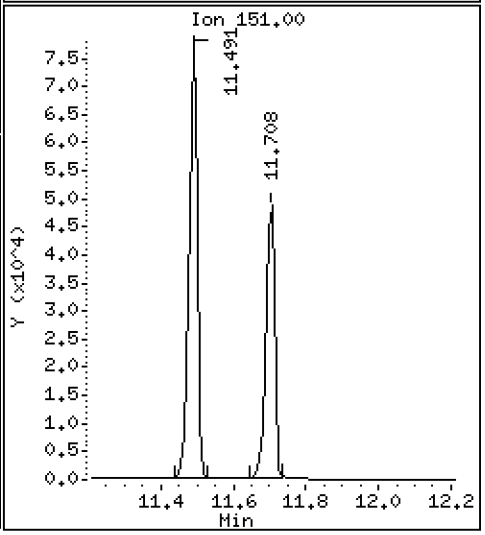


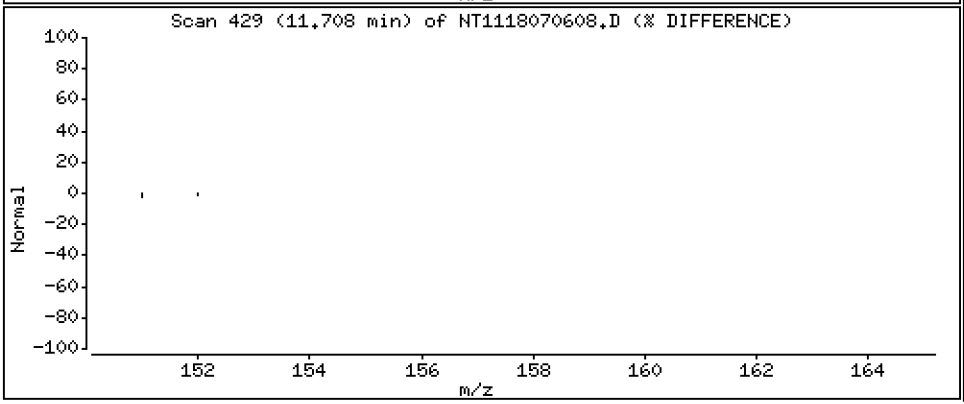












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Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

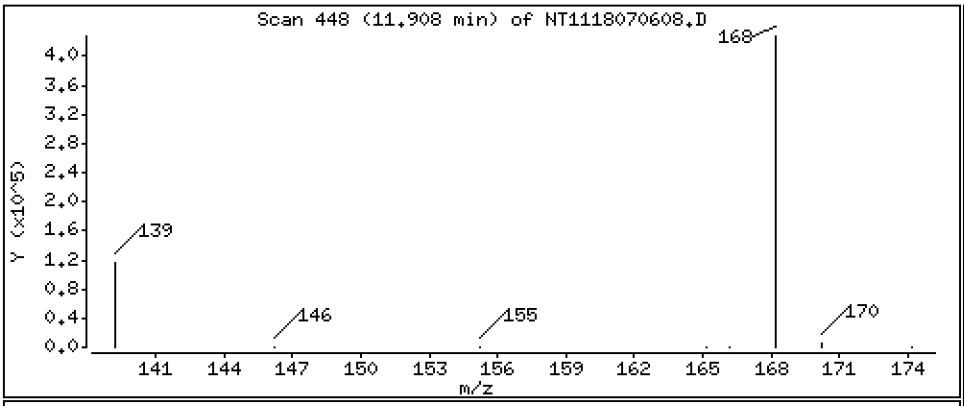
Operator: VTS

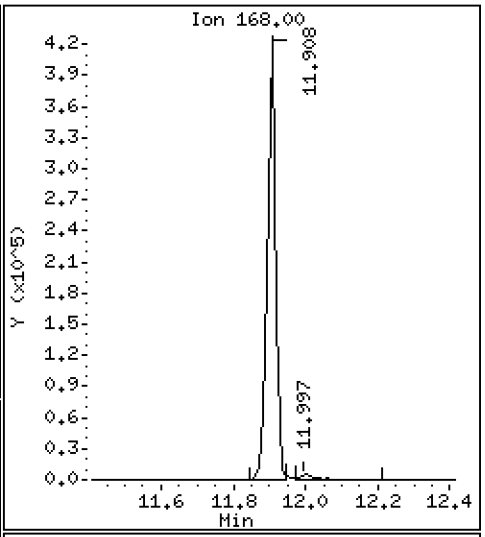
Column phase: Rxi-17Sil MS

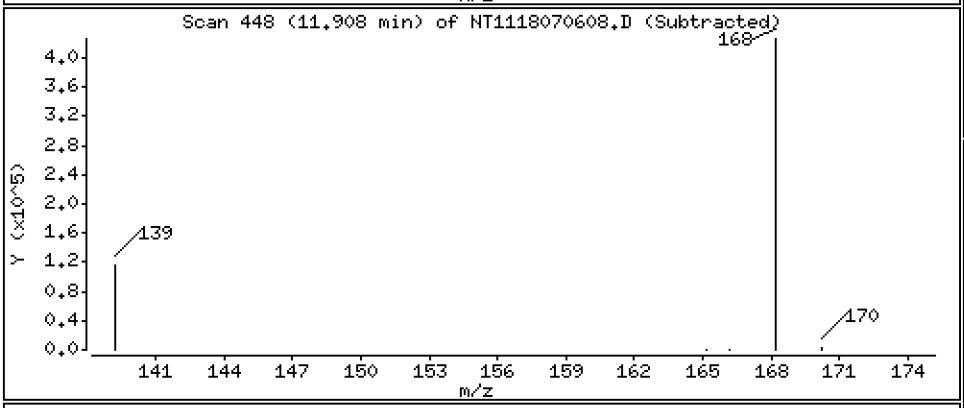
Column diameter: 0.25

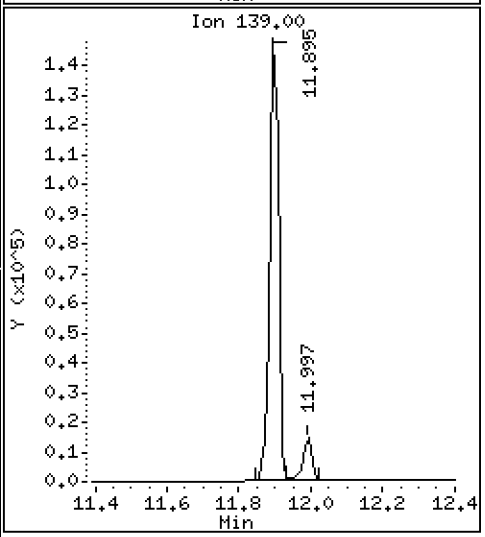
13 Dibenzofuran

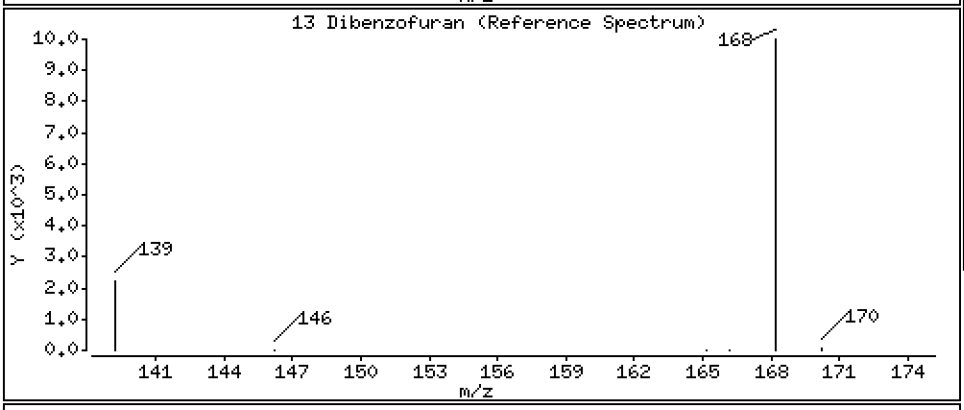
Concentration: 236 ng/mL

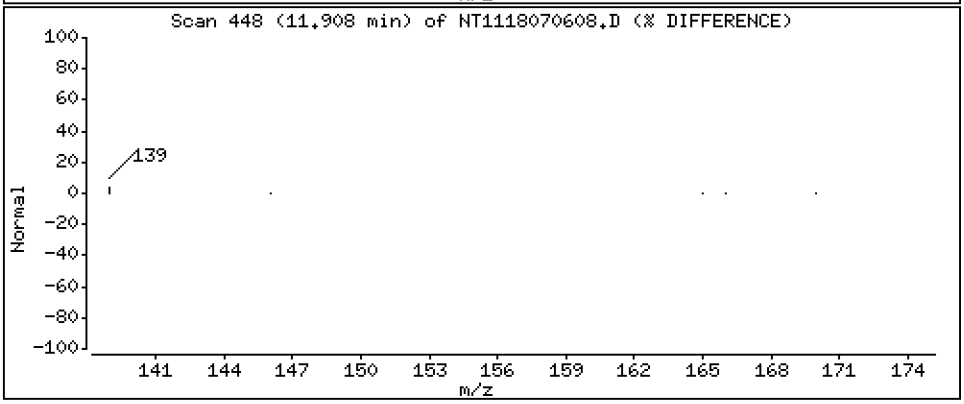












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Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

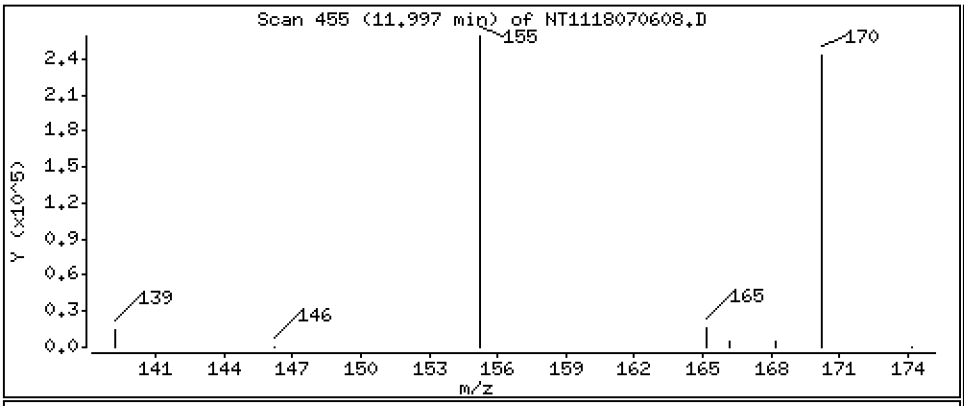
Operator: VTS

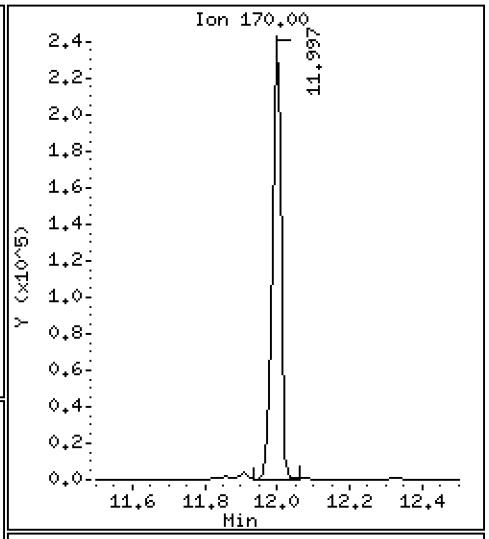
Column phase: Rxi-17Sil MS

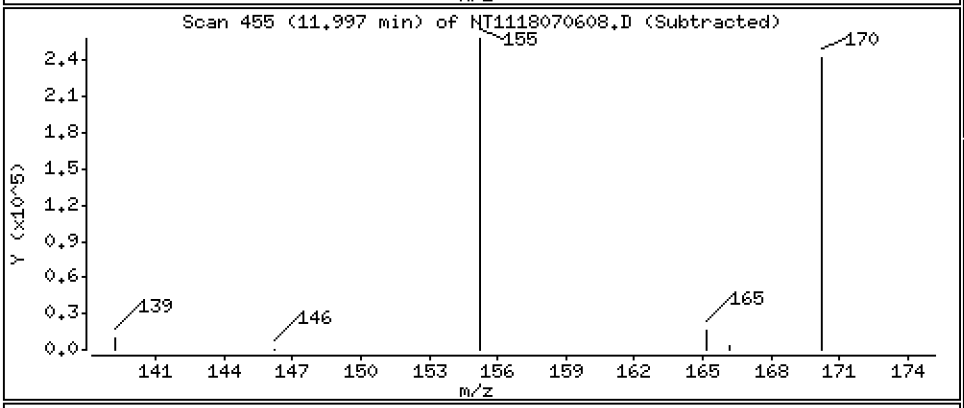
Column diameter: 0.25

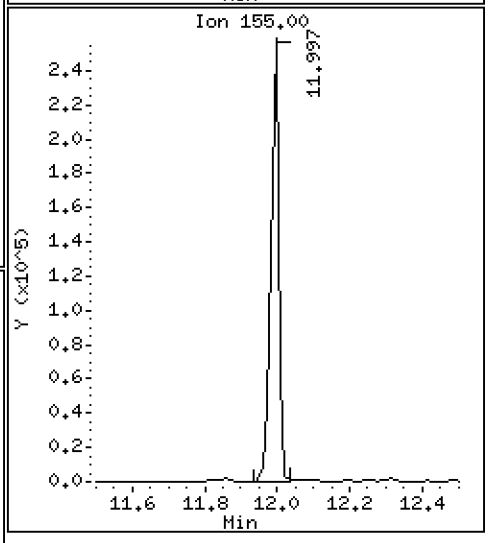
14 2,3,5-Trimethylnaphthalene

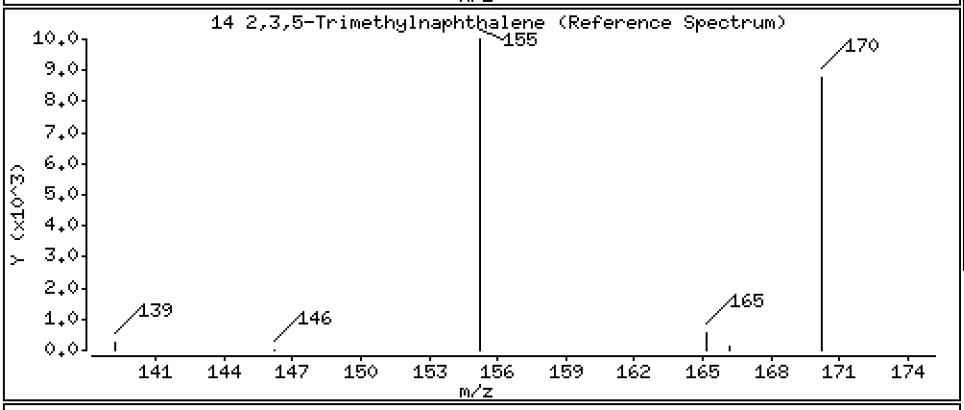
Concentration: 238 ng/mL

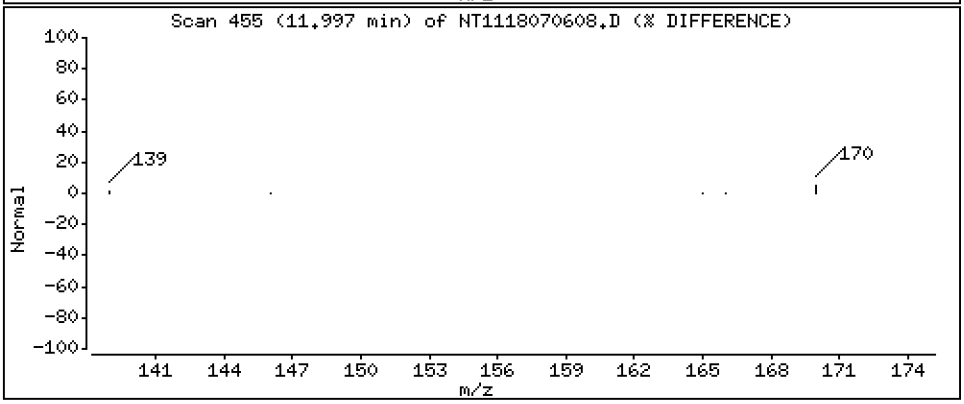












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Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

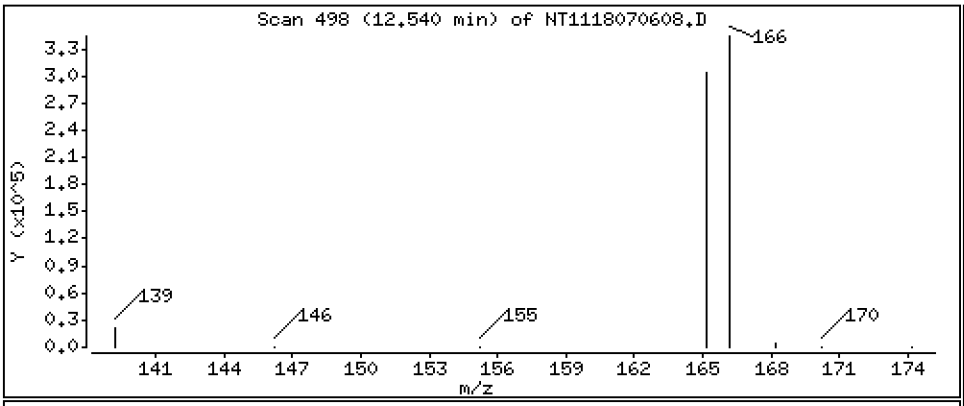
Operator: VTS

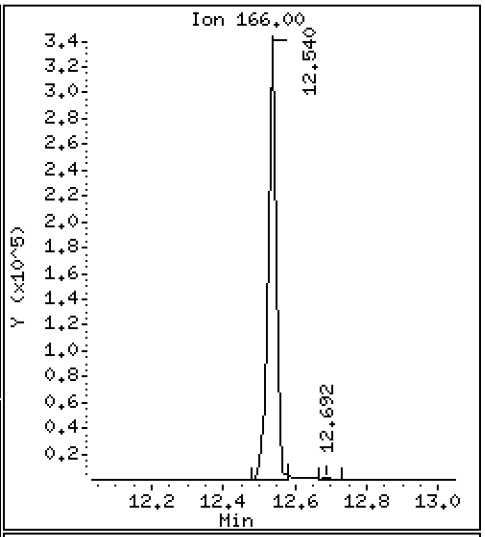
Column phase: Rxi-17Sil MS

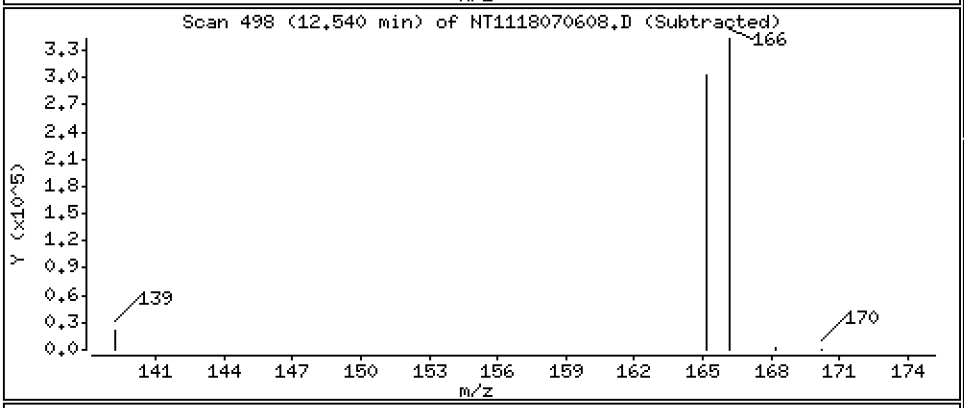
Column diameter: 0.25

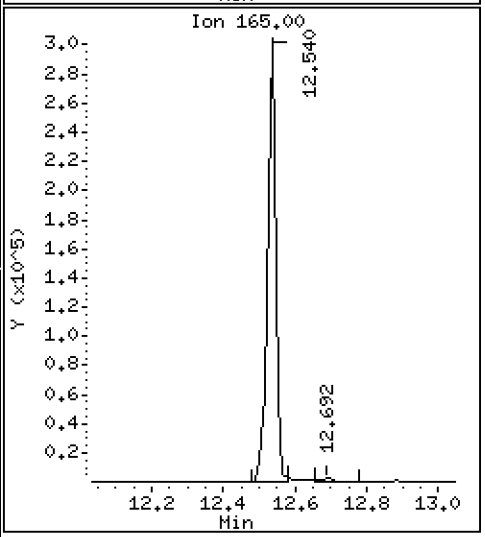
16 Fluorene

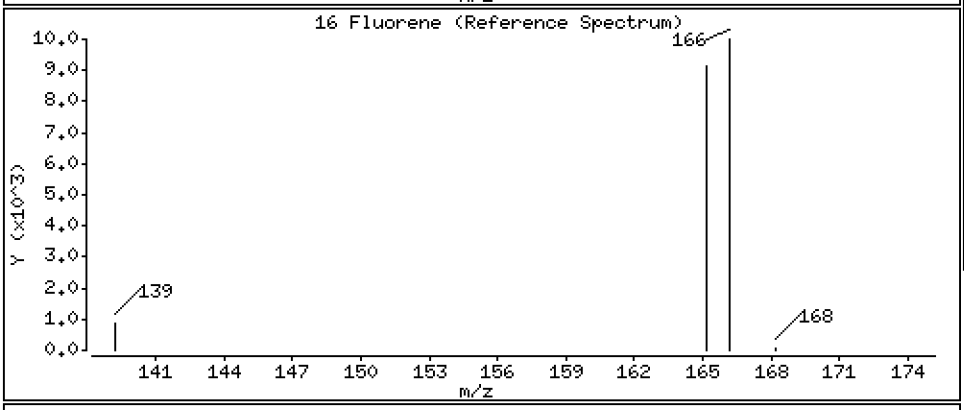
Concentration: 238 ng/mL

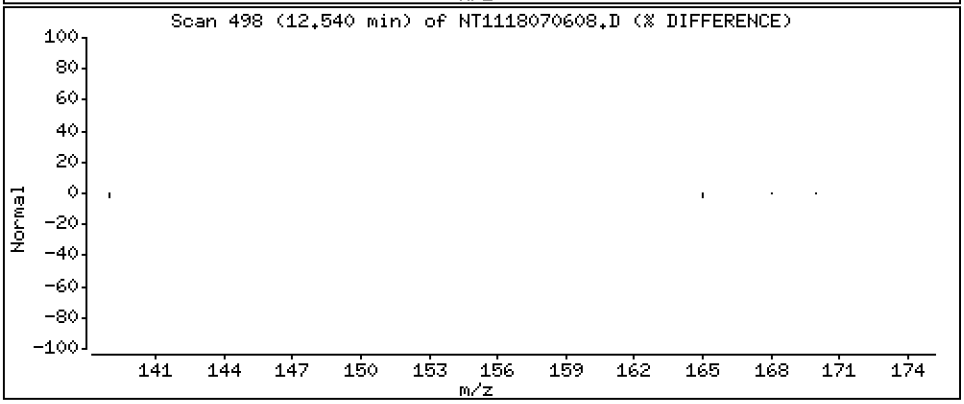












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Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

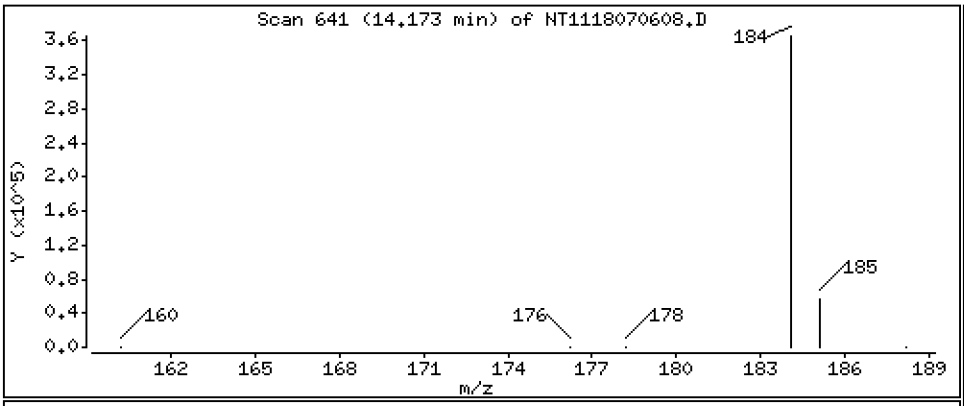
Operator: VTS

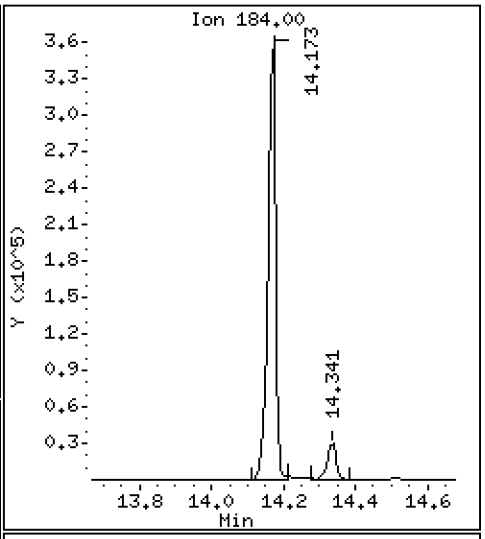
Column phase: Rxi-17Sil MS

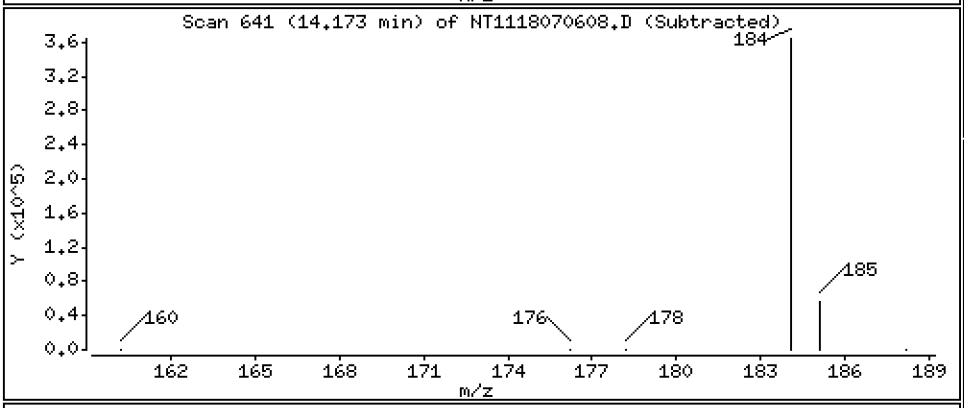
Column diameter: 0.25

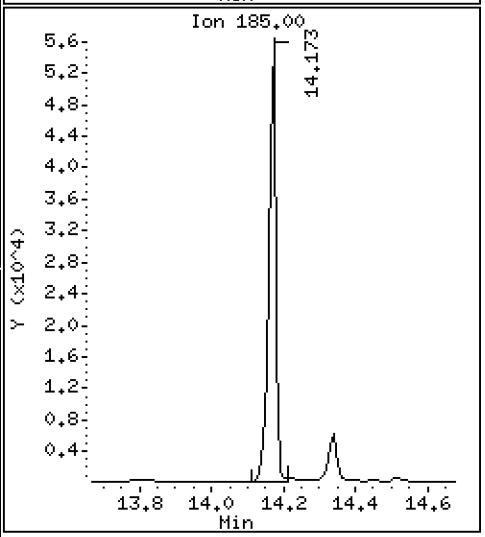
17 Dibenzothiophene

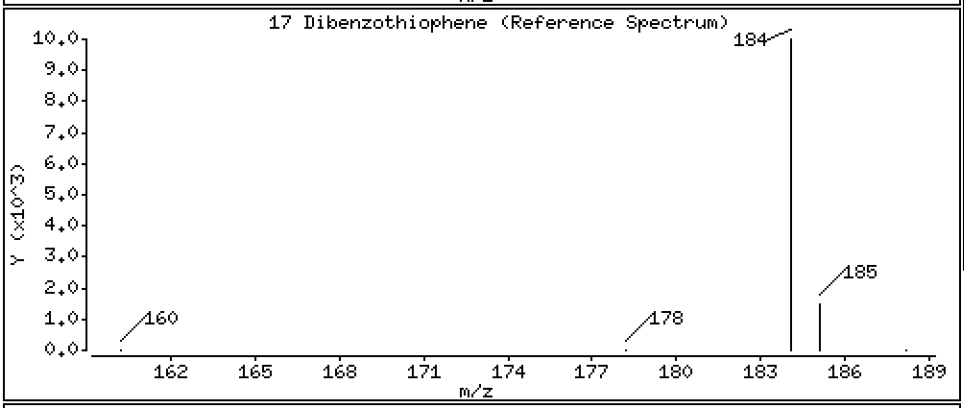
Concentration: 238 ng/mL

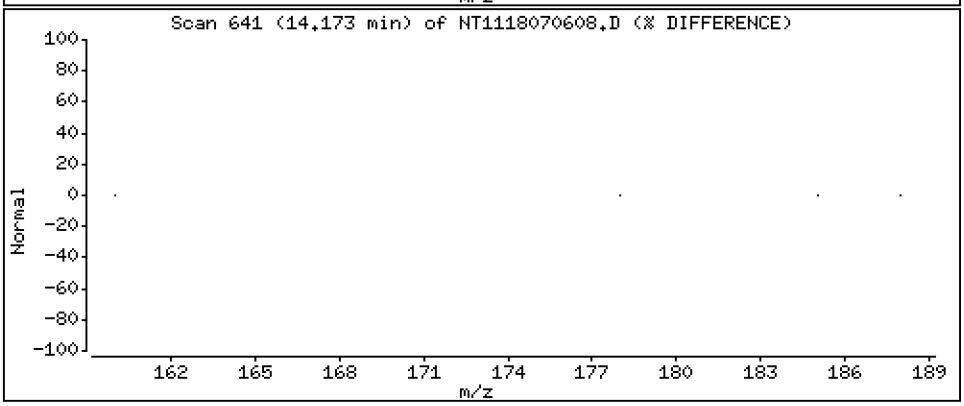












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Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

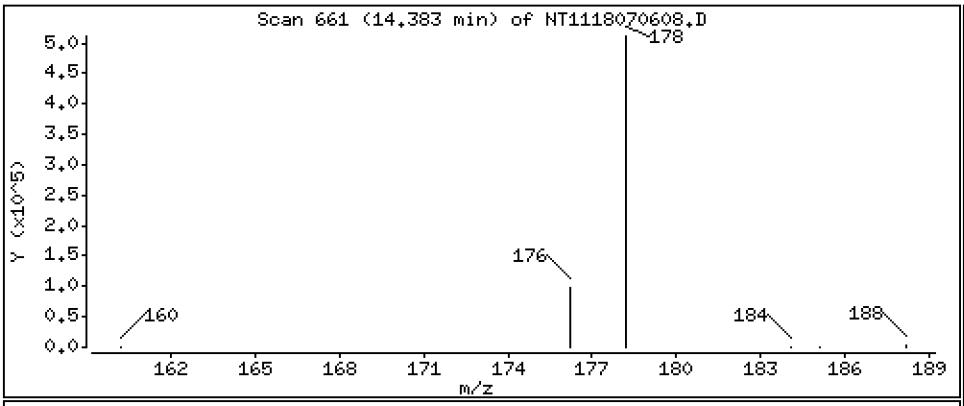
Operator: VTS

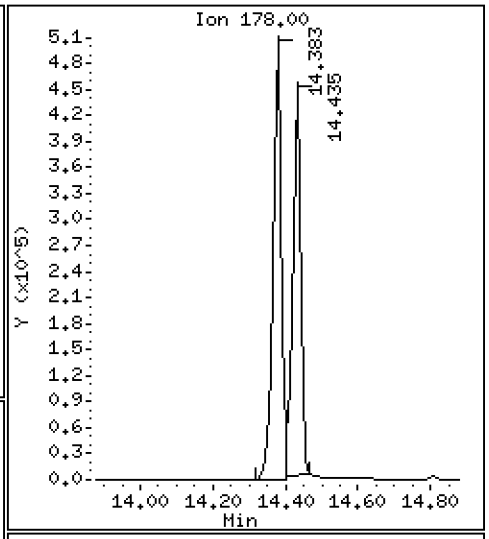
Column phase: Rxi-17Sil MS

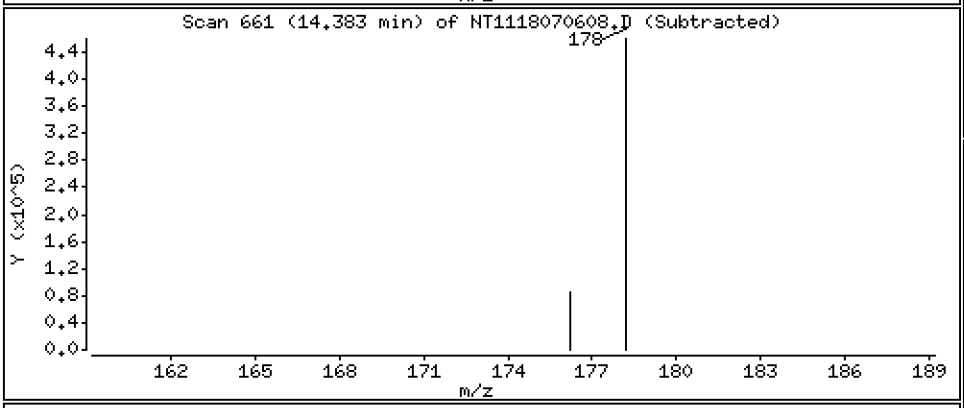
Column diameter: 0.25

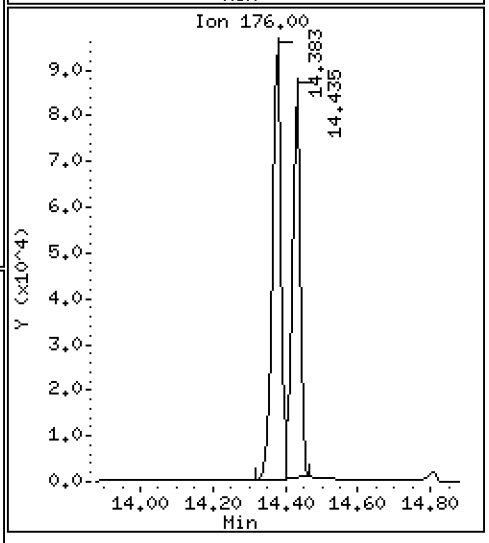
19 Phenanthrene

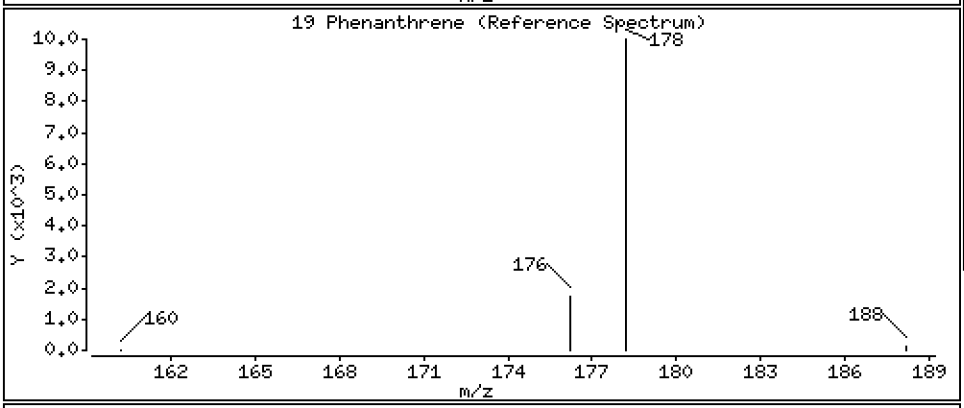
Concentration: 250 ng/mL

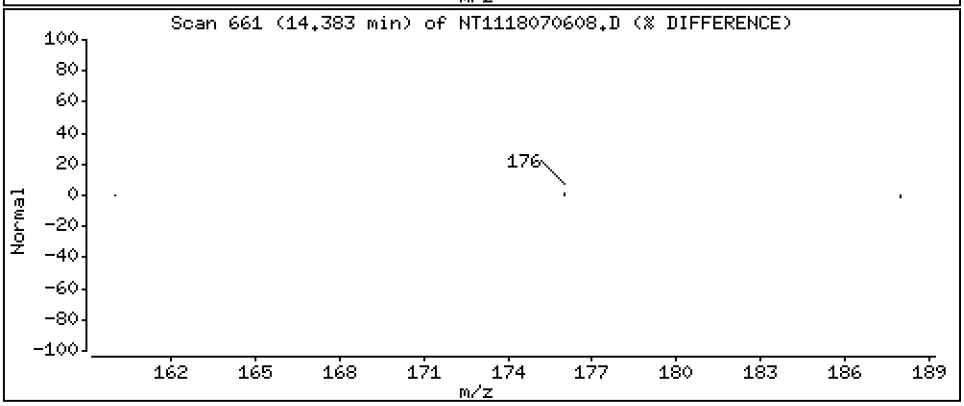












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Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

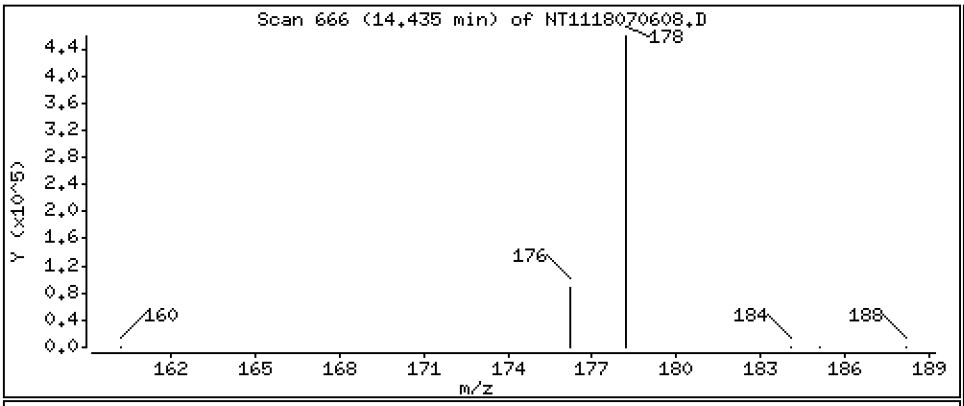
Operator: VTS

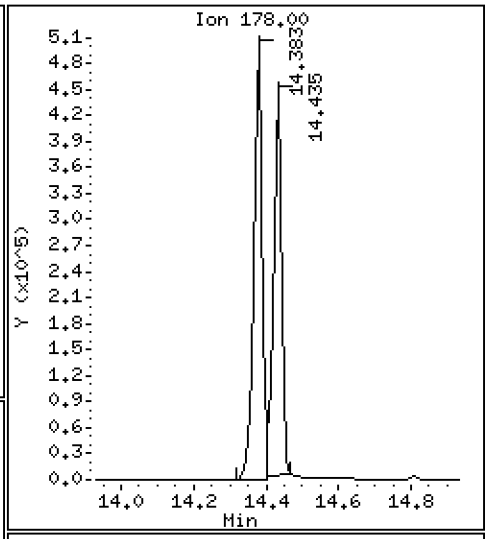
Column phase: Rxi-17Sil MS

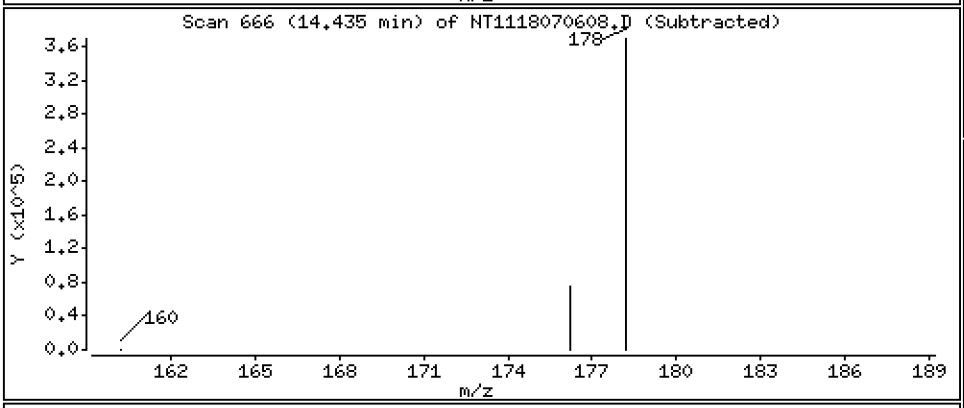
Column diameter: 0.25

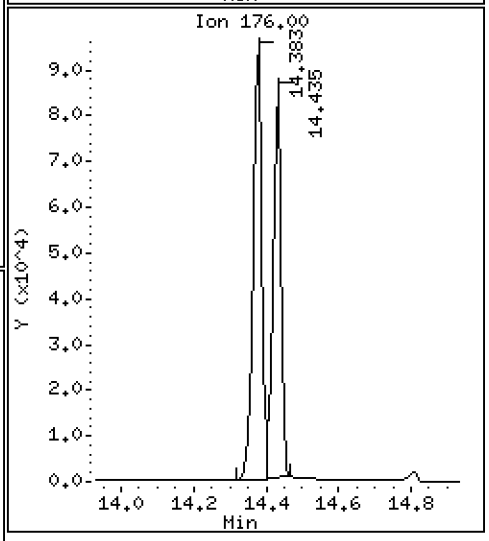
21 Anthracene

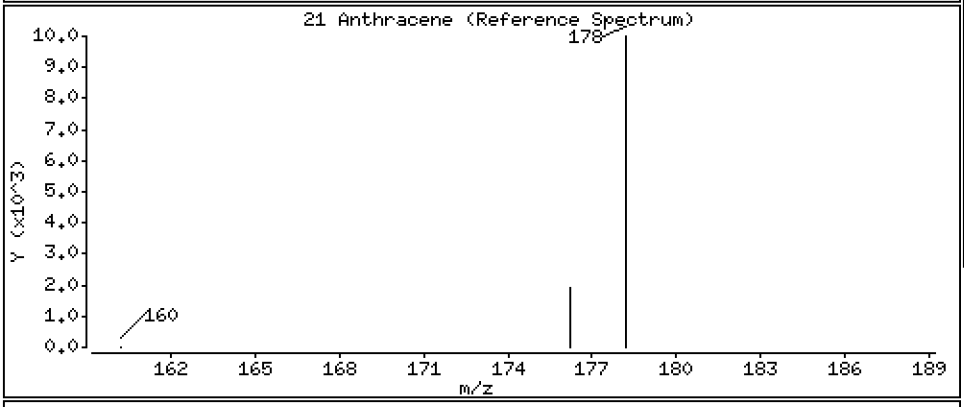
Concentration: 229 ng/mL

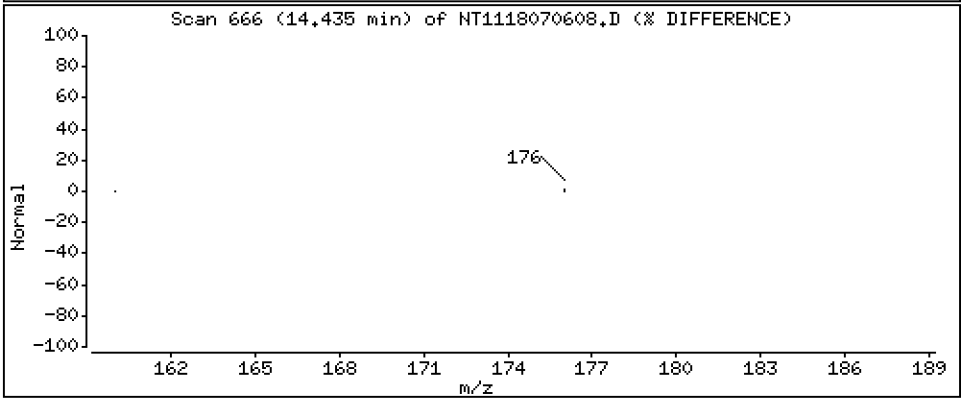












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Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

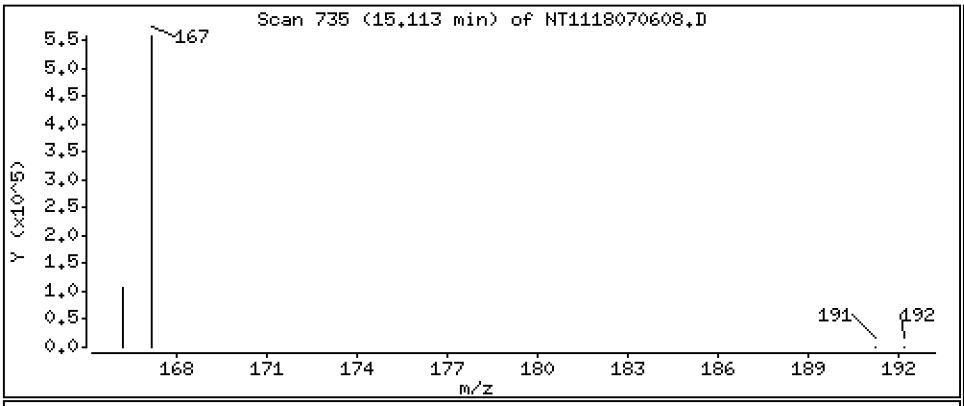
Operator: VTS

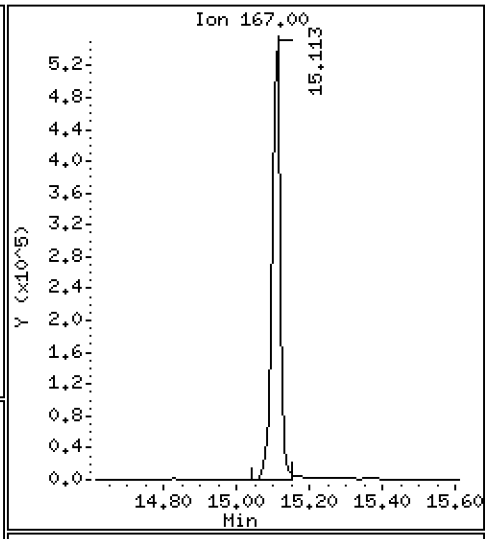
Column phase: Rxi-17Sil MS

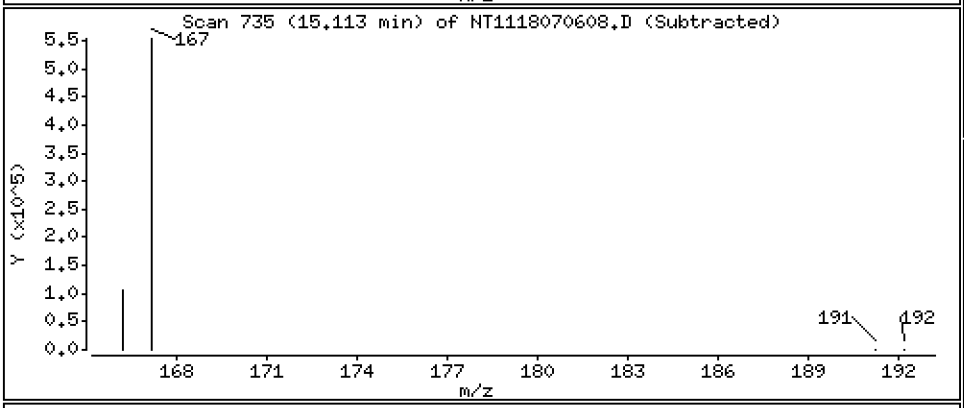
Column diameter: 0.25

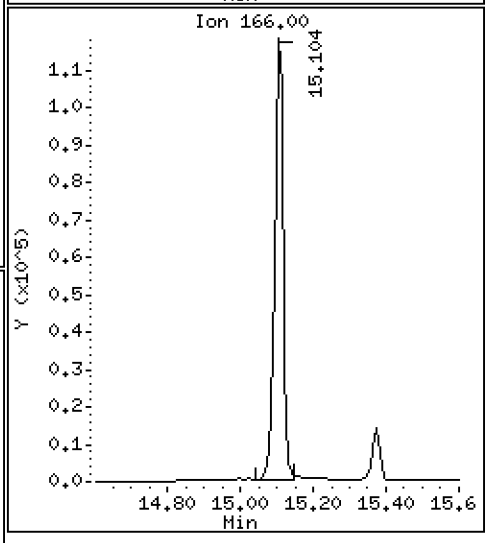
22 Carbazole

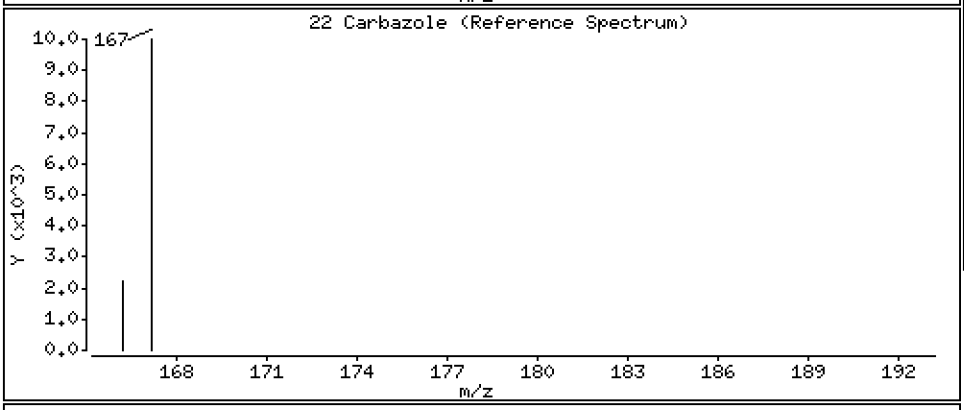
Concentration: 252 ng/mL

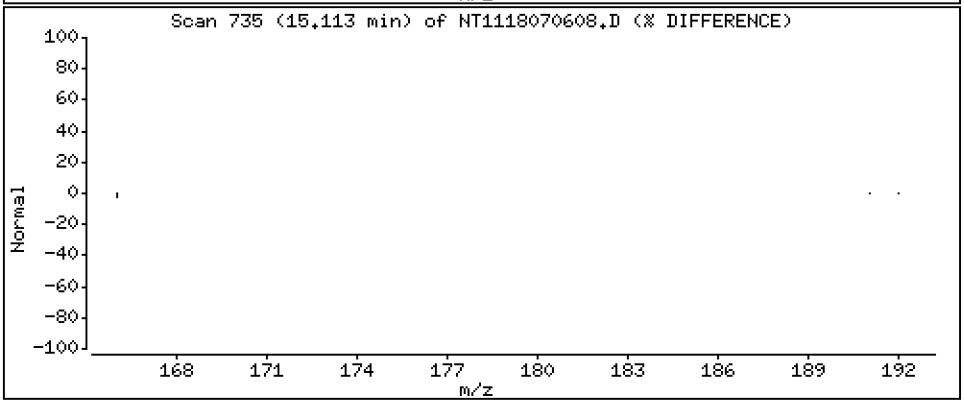












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Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

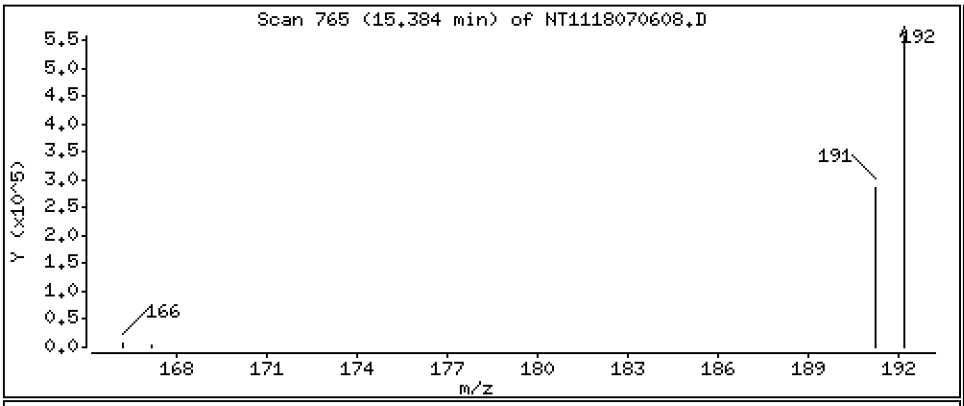
Operator: VTS

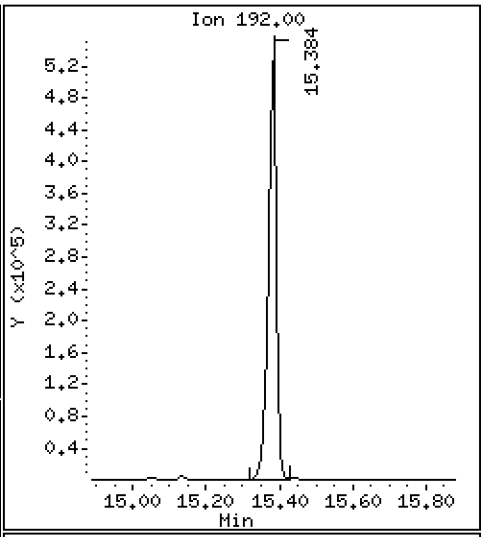
Column phase: Rxi-17Sil MS

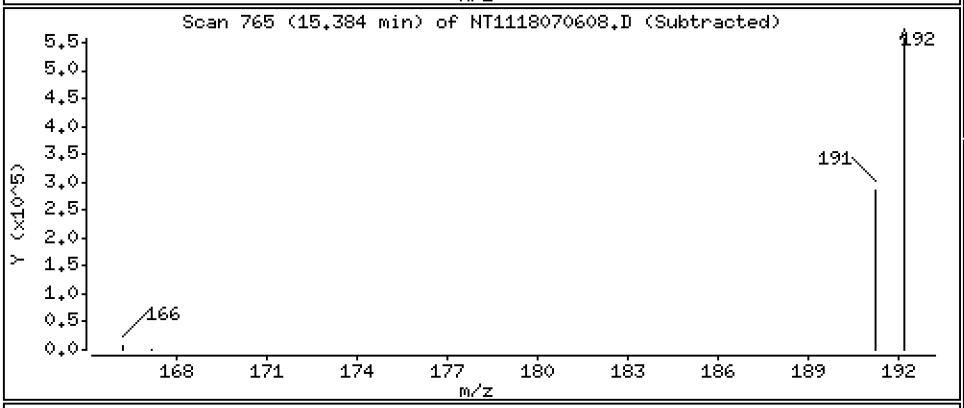
Column diameter: 0.25

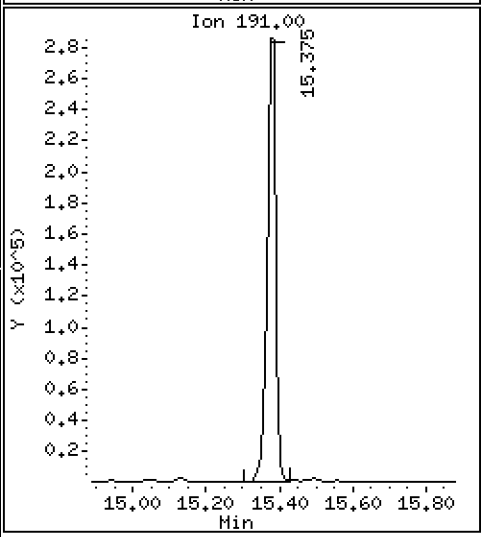
23 1-Methylphenanthrene

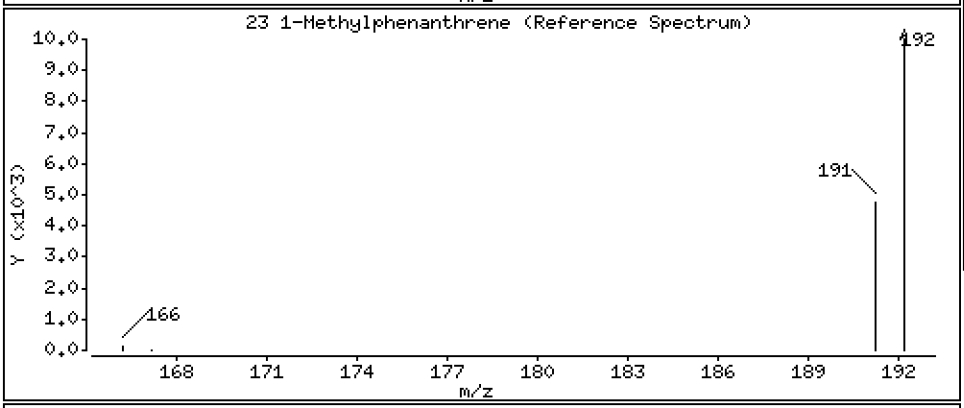
Concentration: 273 ng/mL

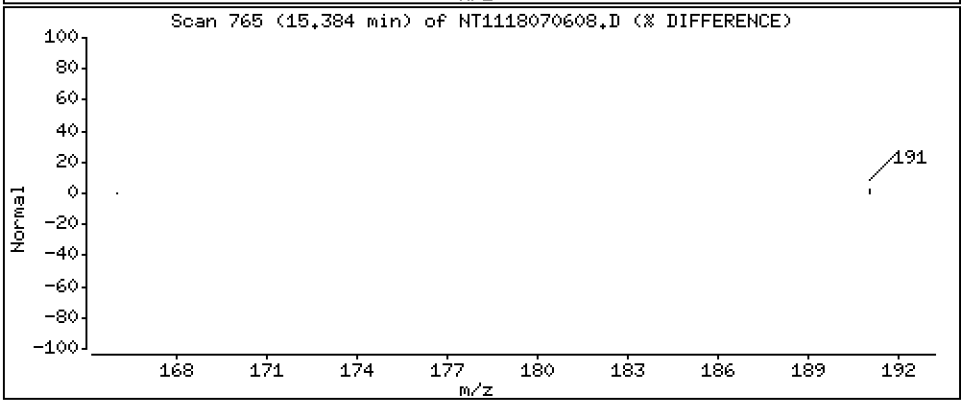












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Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

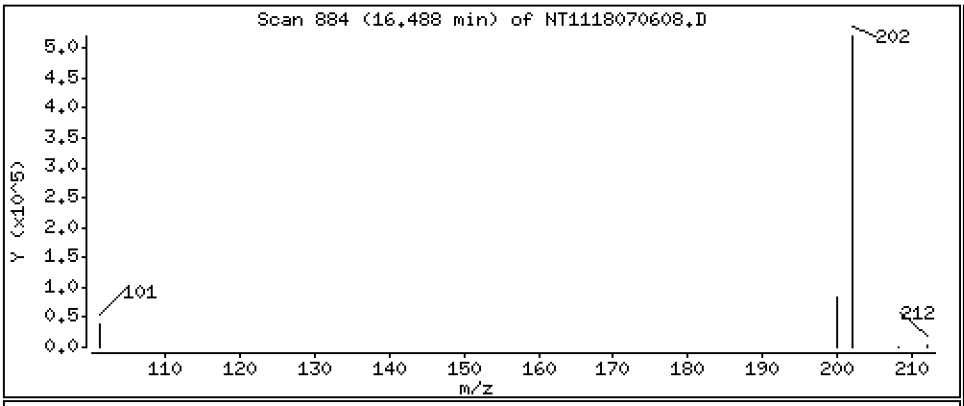
Operator: VTS

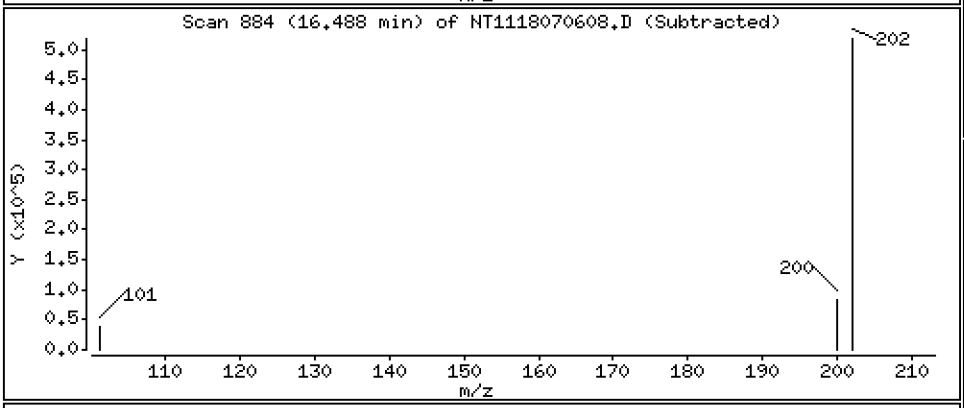
Column phase: Rxi-17Sil MS

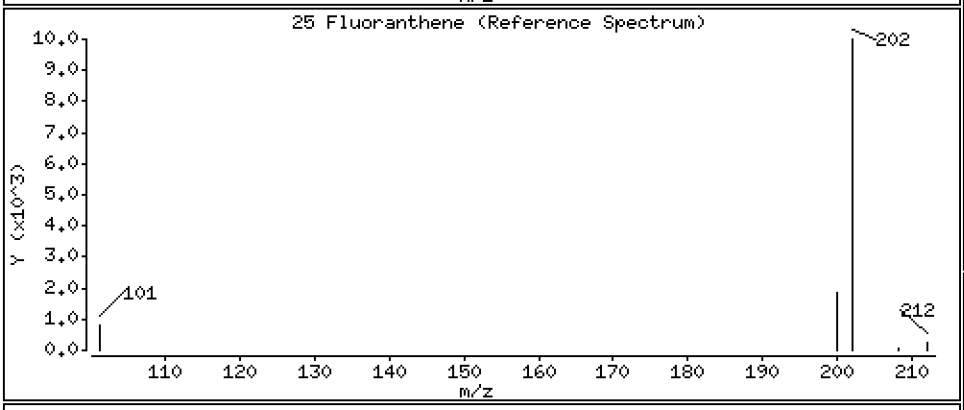
Column diameter: 0.25

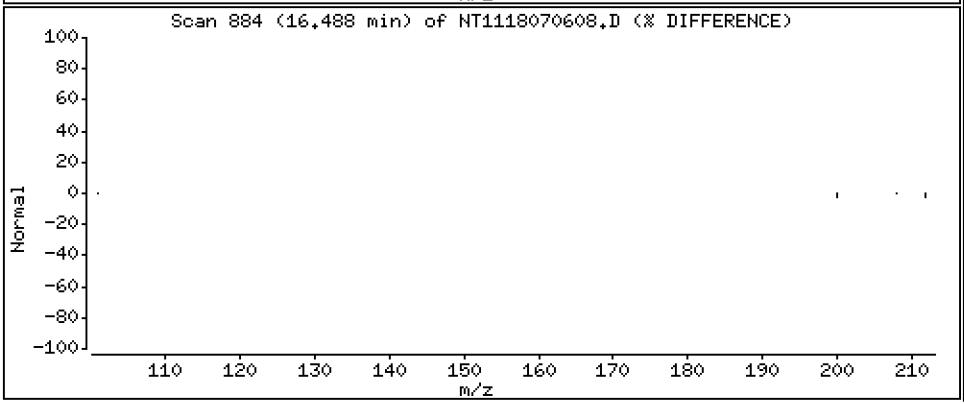
25 Fluoranthene

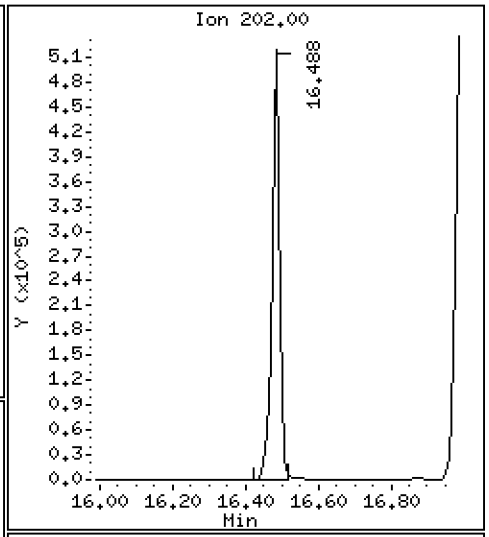
Concentration: 271 ng/mL

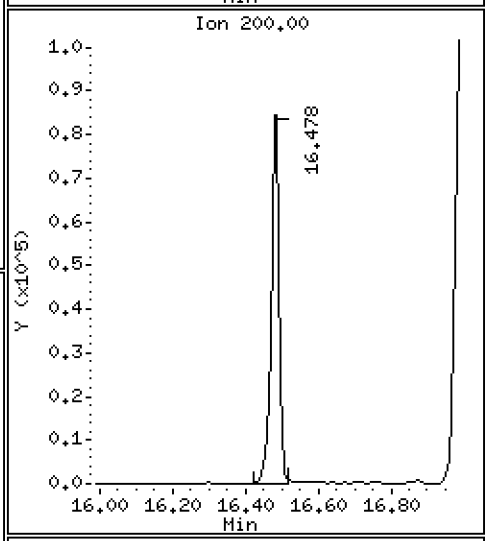


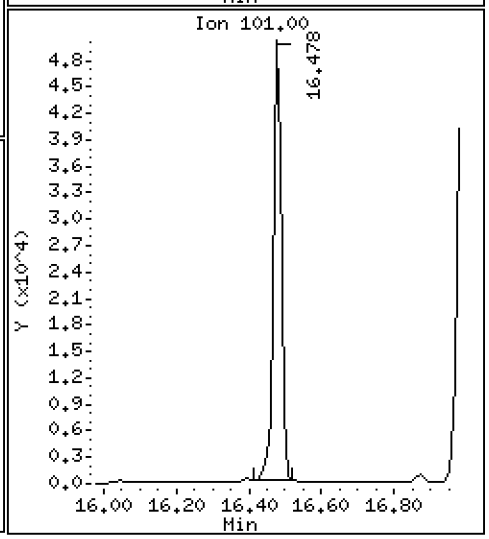












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Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

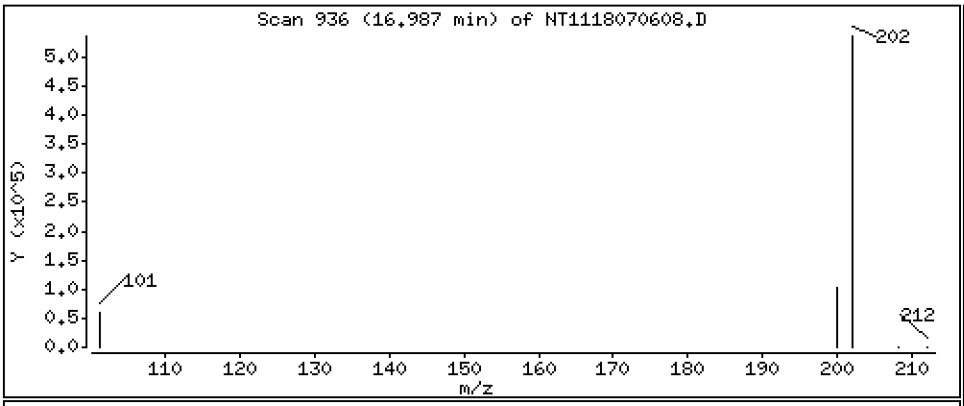
Operator: VTS

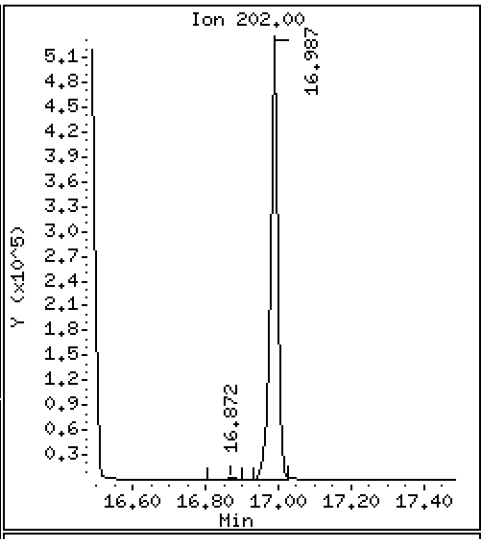
Column phase: Rxi-17Sil MS

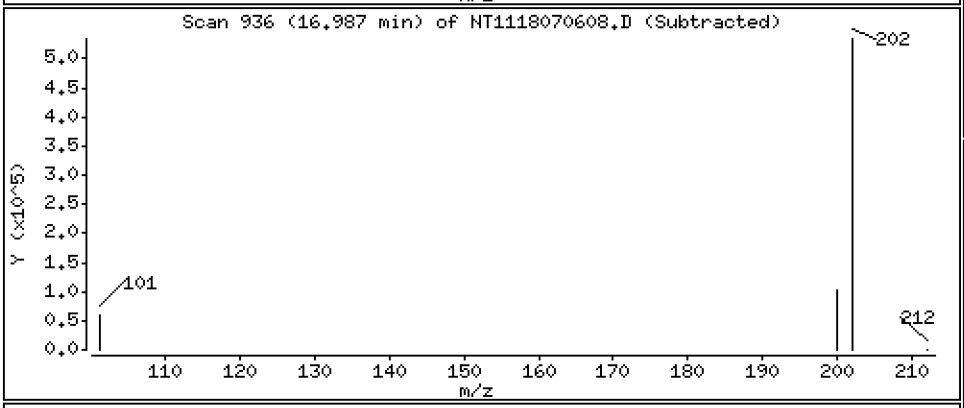
Column diameter: 0.25

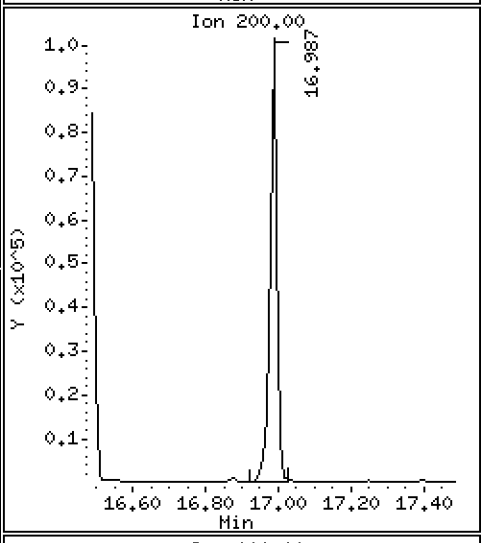
26 Pyrene

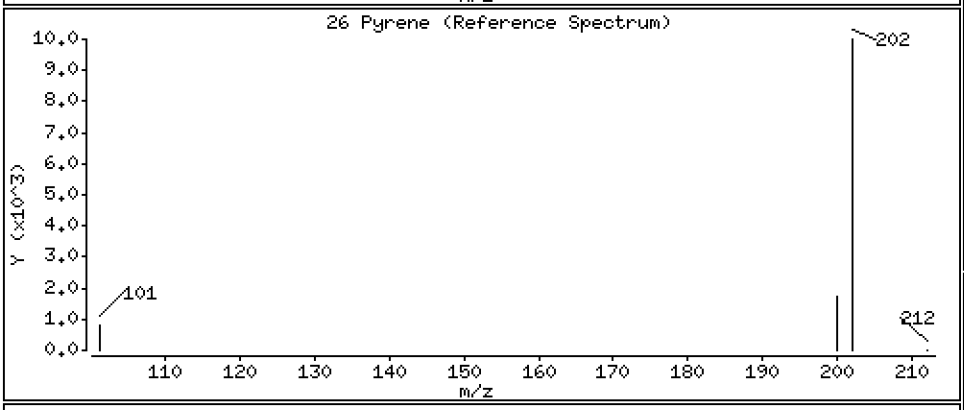
Concentration: 253 ng/mL

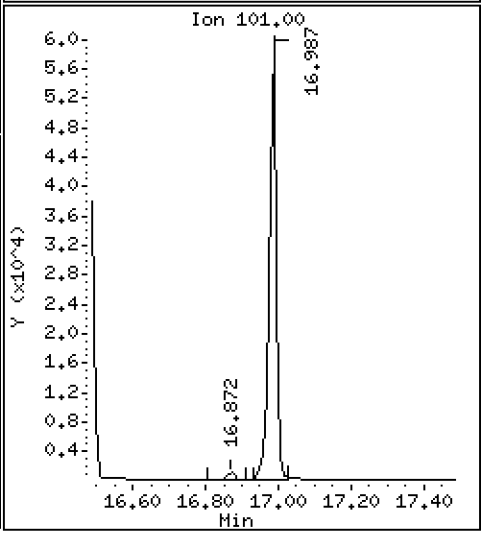


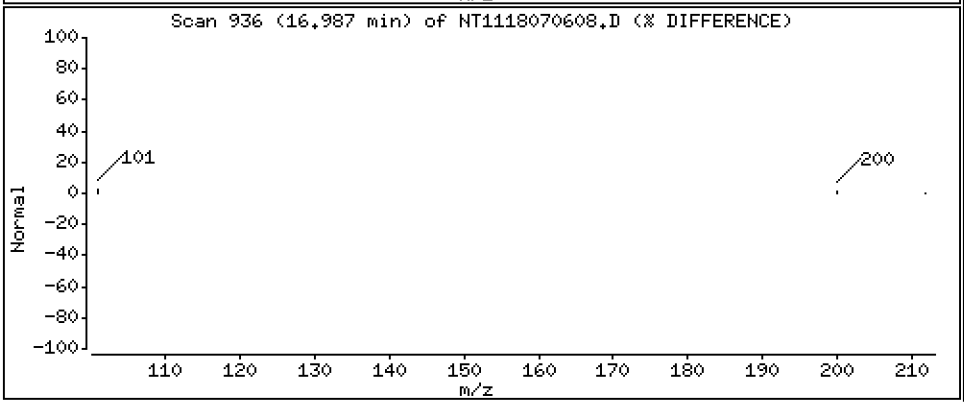












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Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

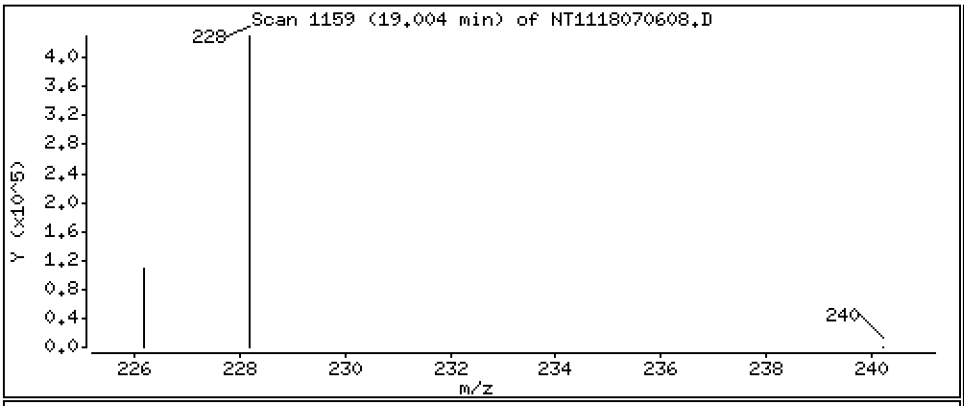
Operator: VTS

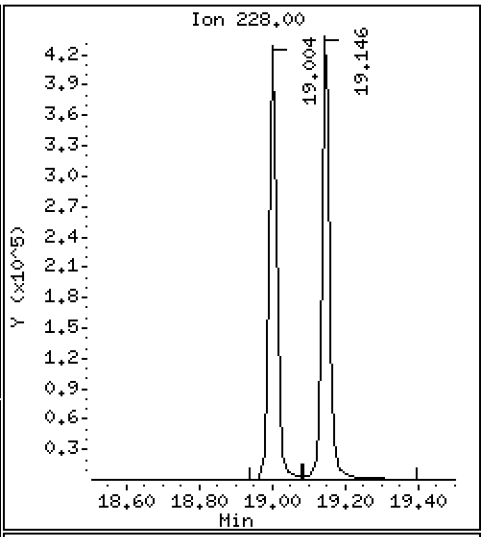
Column phase: Rxi-17Sil MS

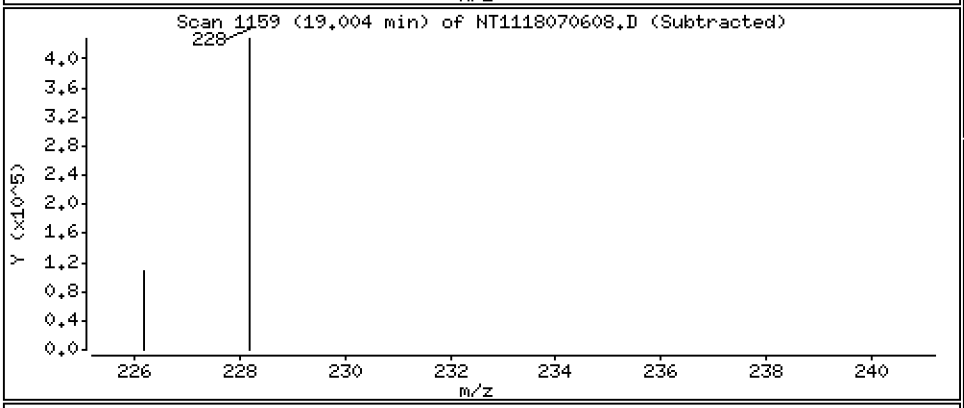
Column diameter: 0.25

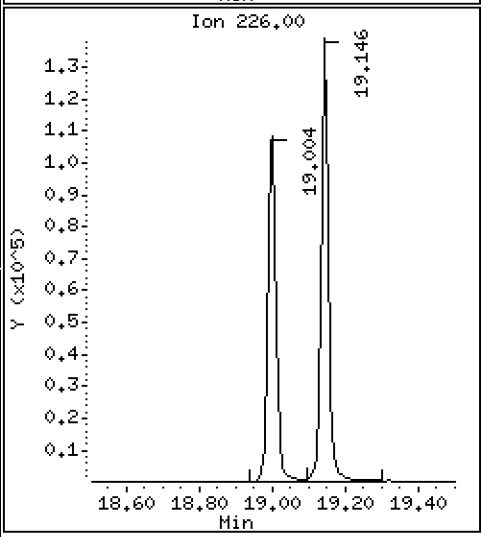
27 Benzo(a)anthracene

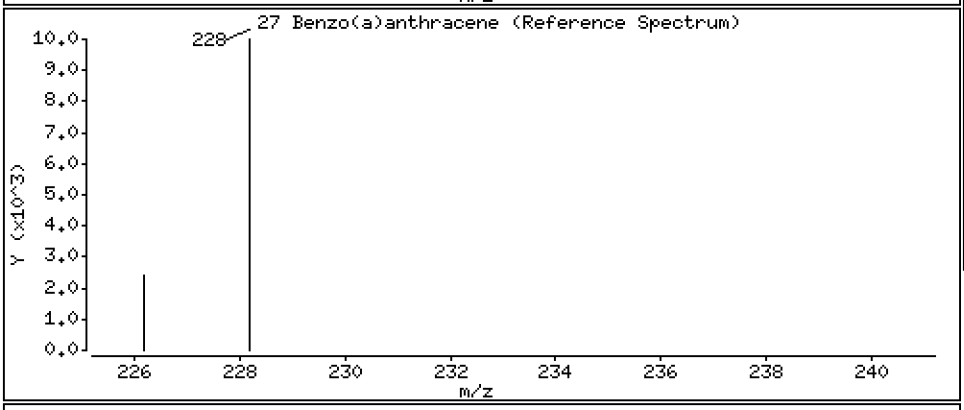
Concentration: 260 ng/mL

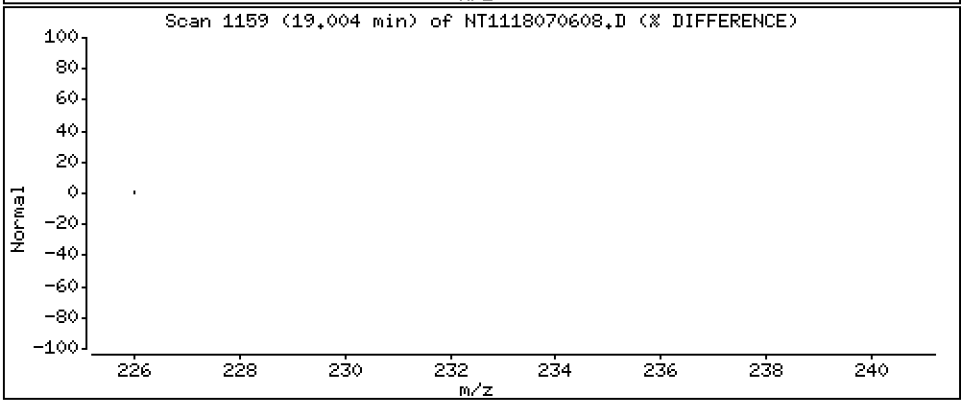












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Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

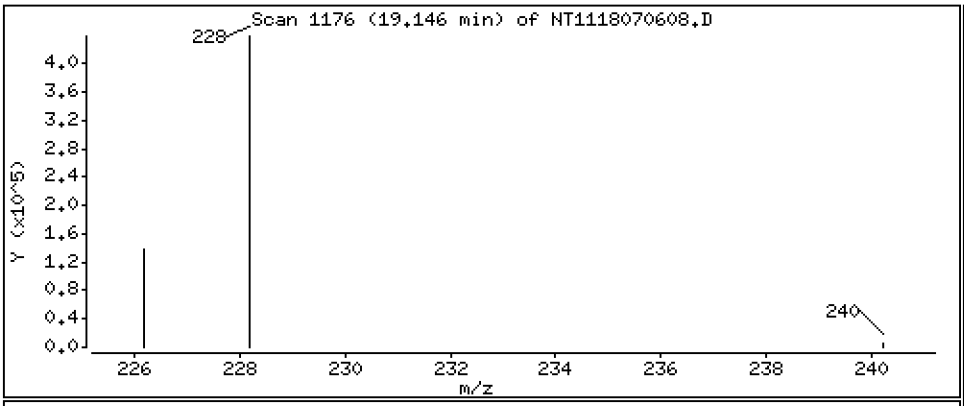
Operator: VTS

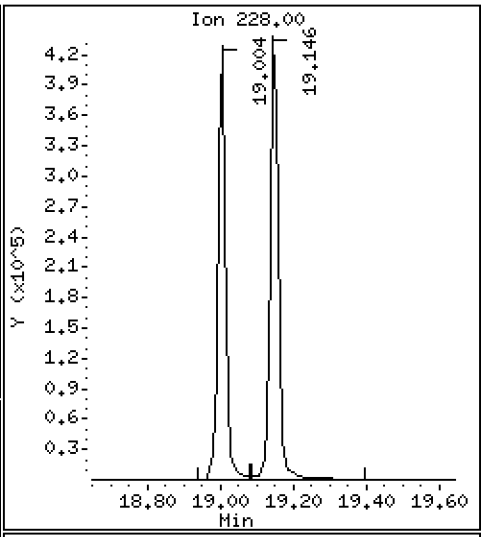
Column phase: Rxi-17Sil MS

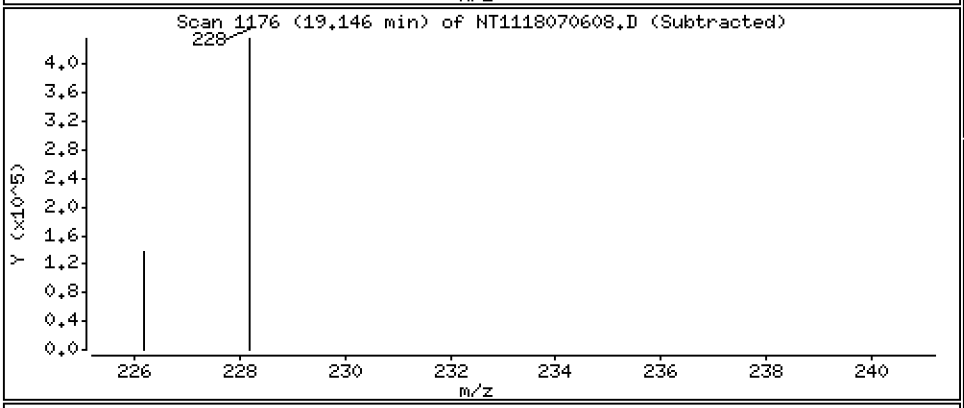
Column diameter: 0.25

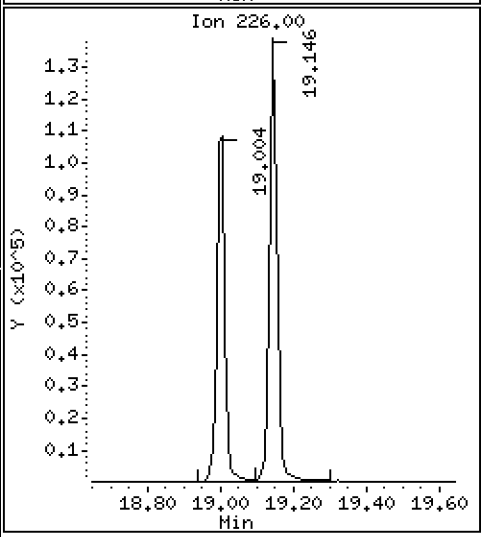
29 Chrysene

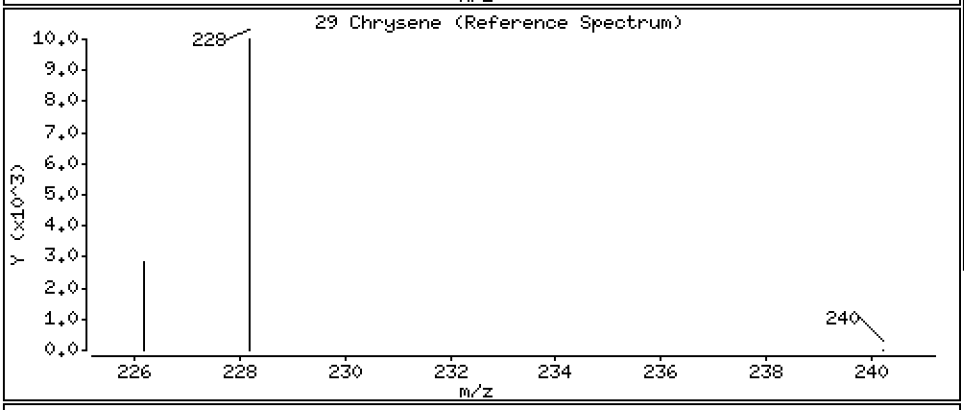
Concentration: 276 ng/mL

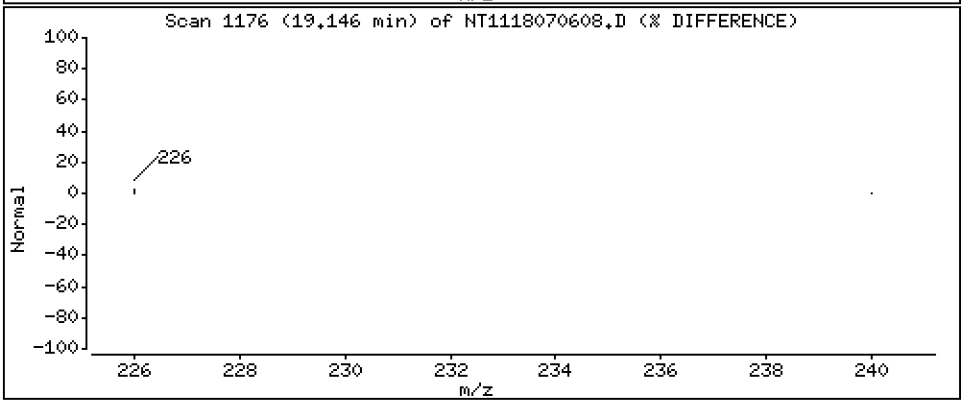












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Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

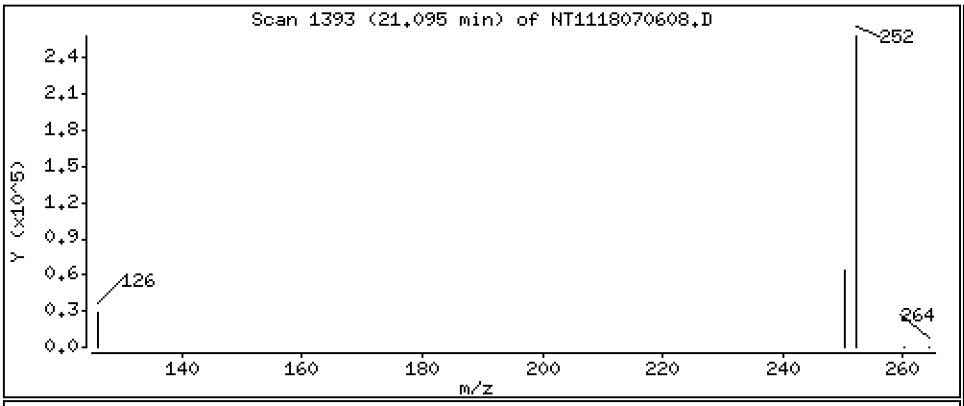
Operator: VTS

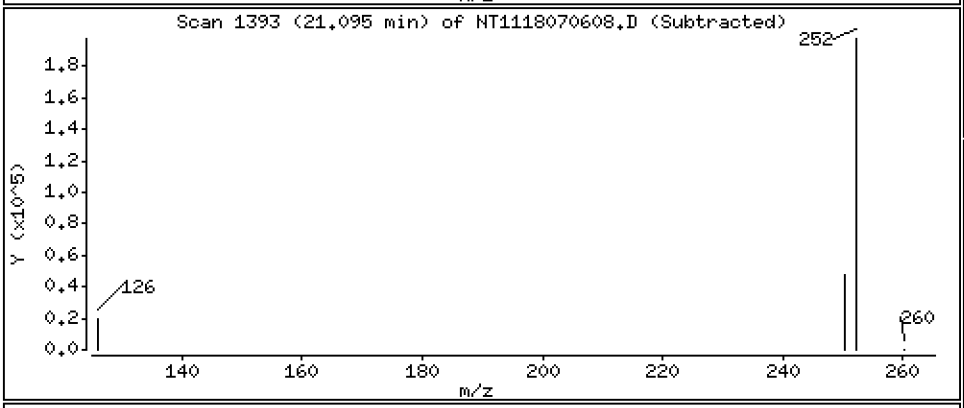
Column phase: Rxi-17Sil MS

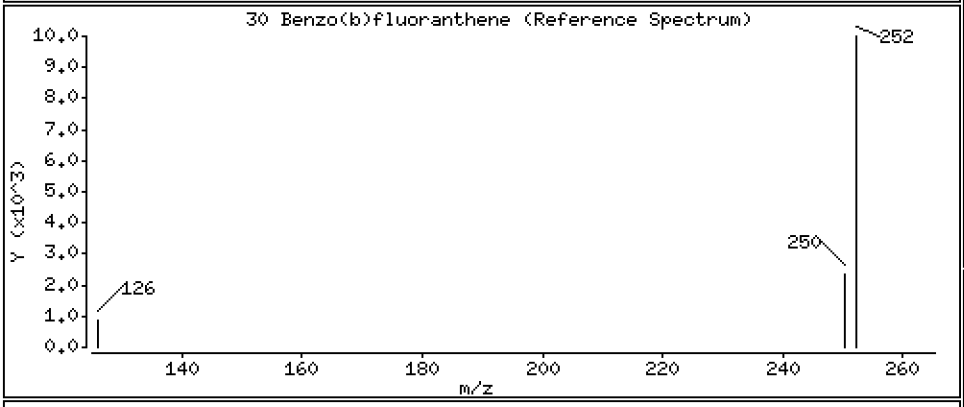
Column diameter: 0.25

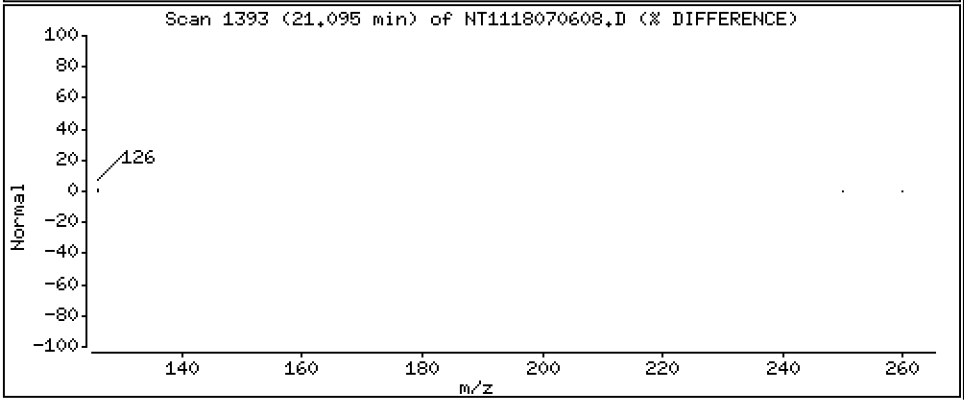
30 Benzo(b)fluoranthene

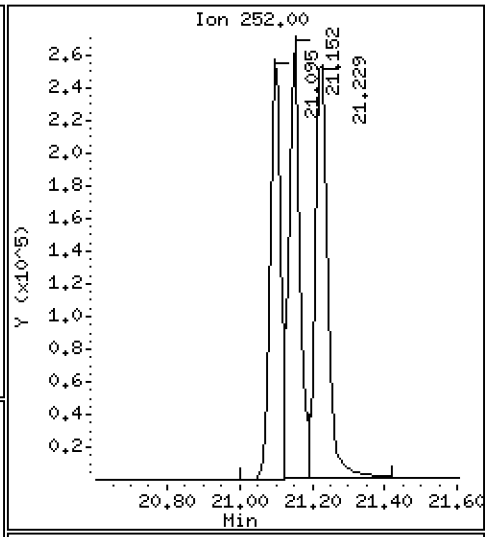
Concentration: 238 ng/mL

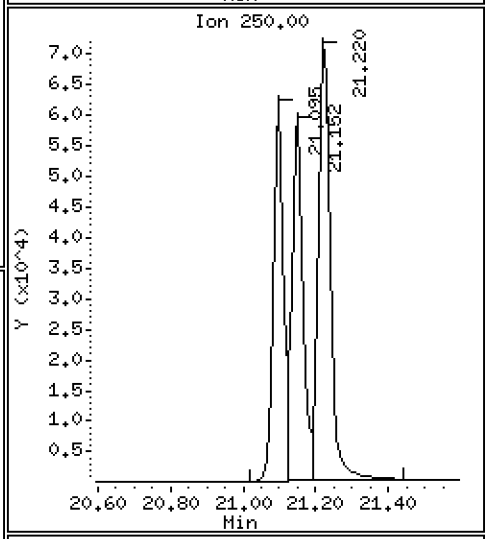


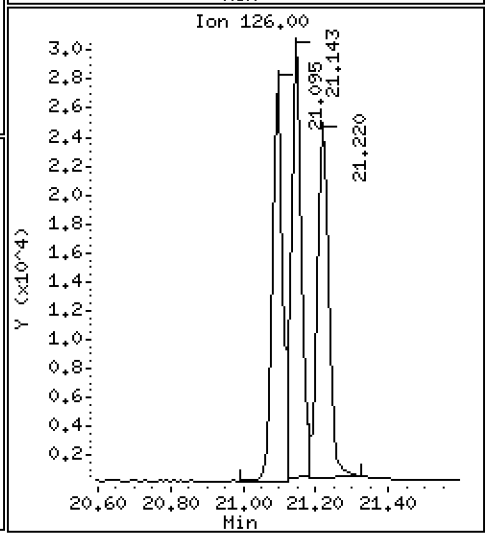












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Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

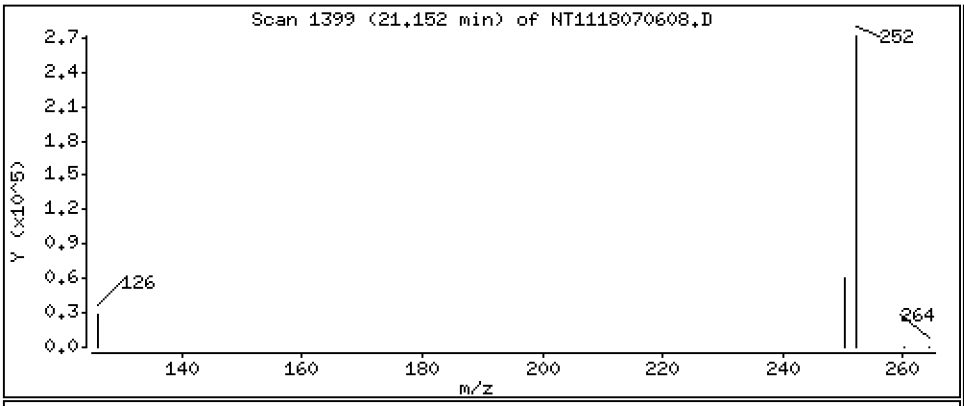
Operator: VTS

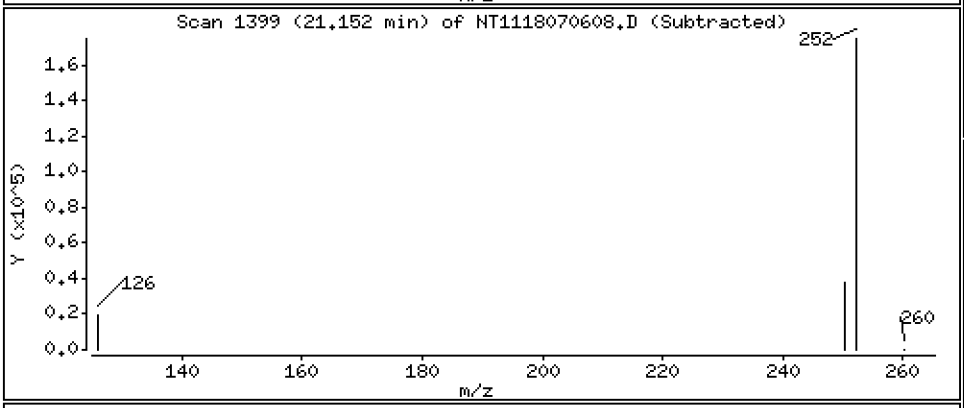
Column phase: Rxi-17Sil MS

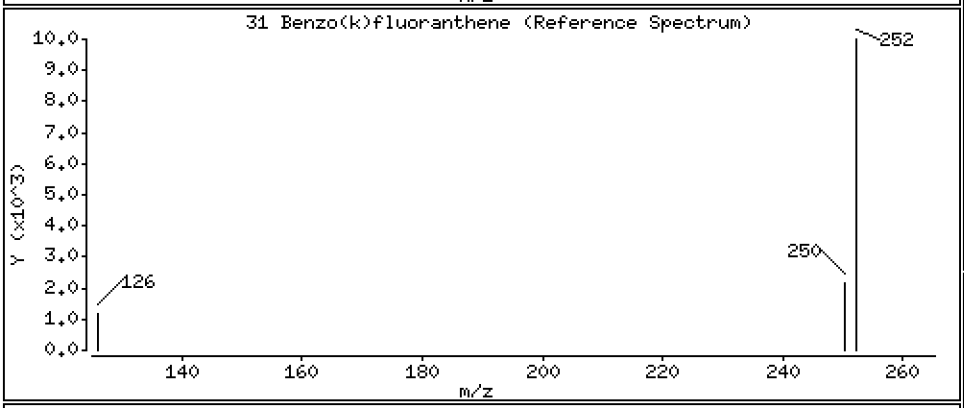
Column diameter: 0.25

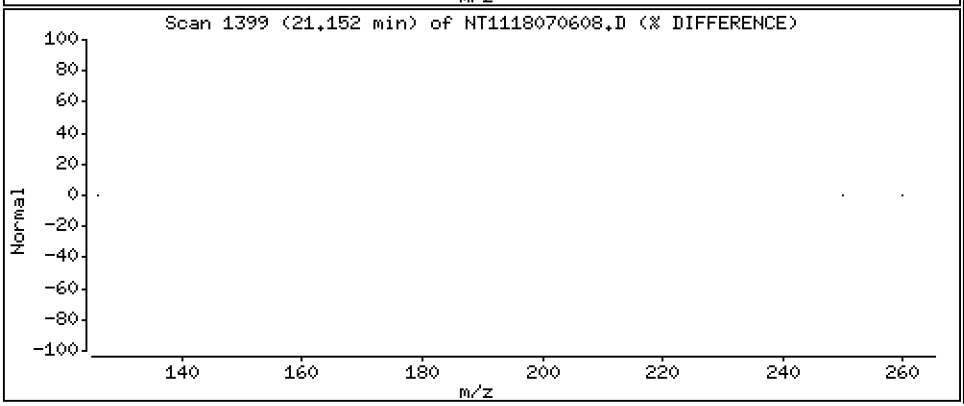
31 Benzo(k)fluoranthene

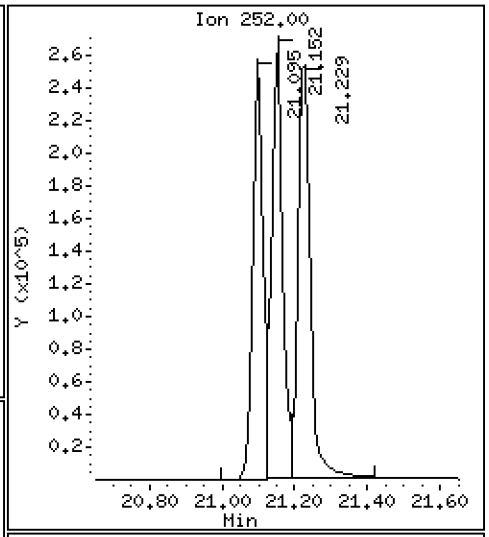
Concentration: 256 ng/mL

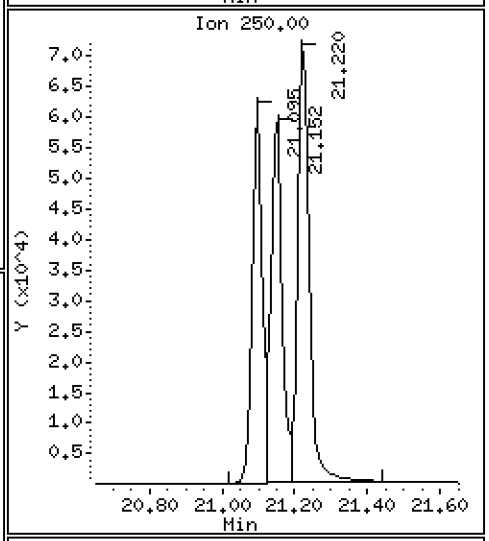


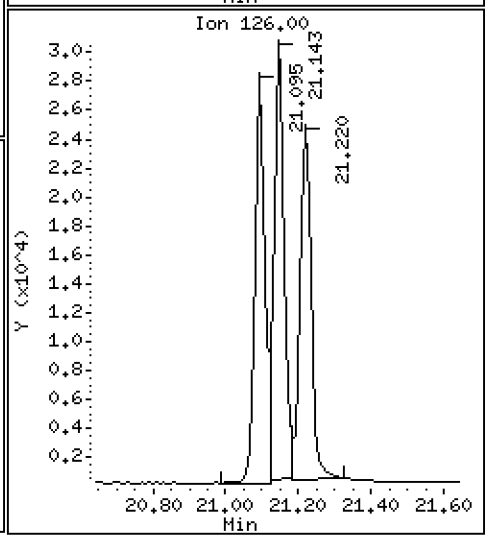












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Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

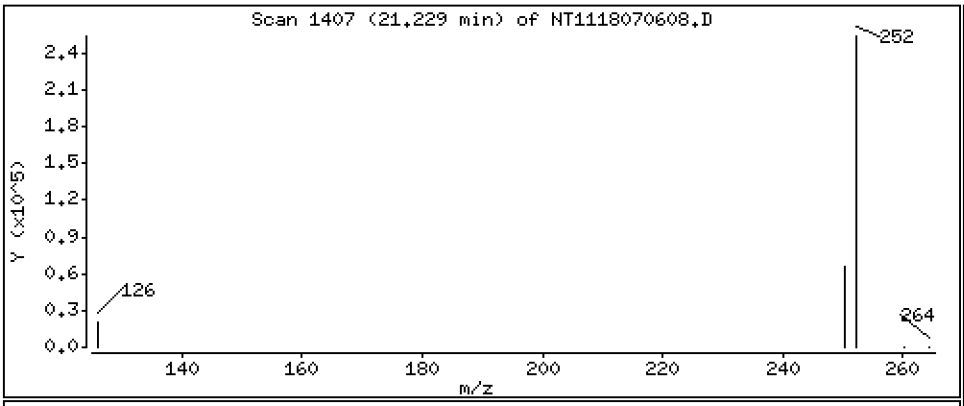
Operator: VTS

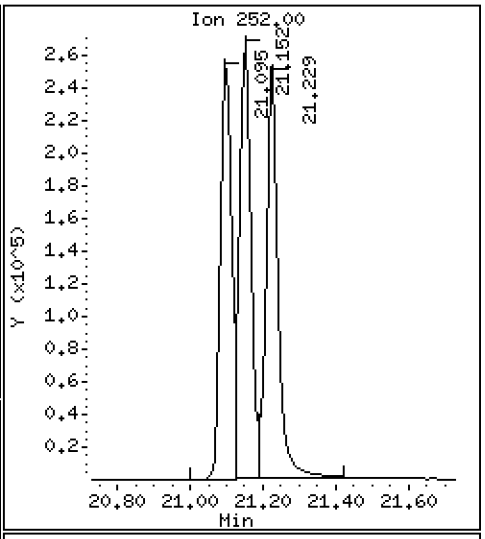
Column phase: Rxi-17Sil MS

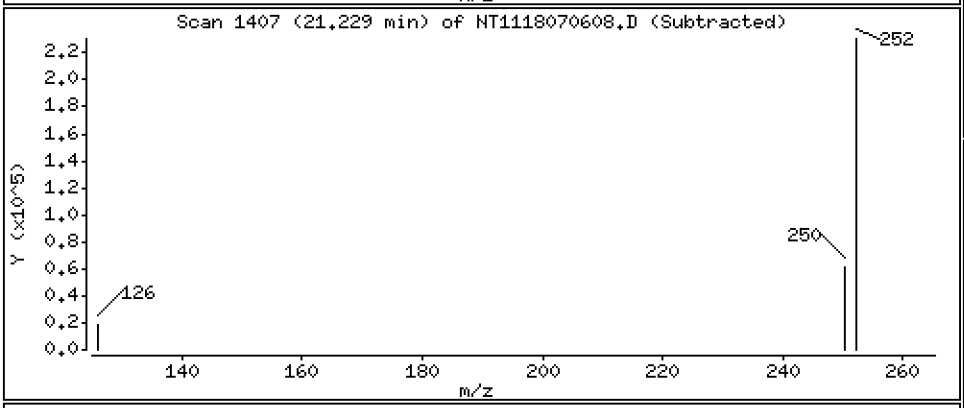
Column diameter: 0.25

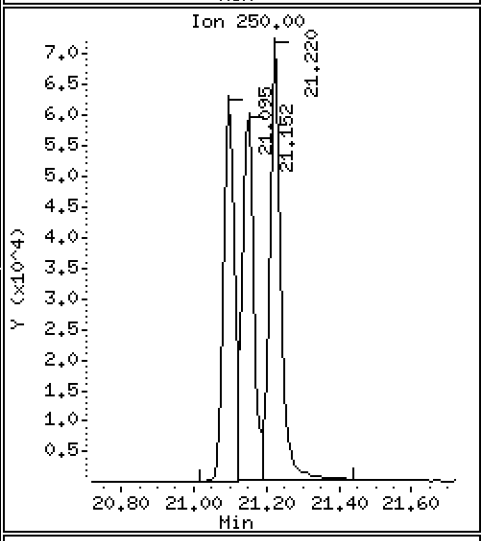
32 Benzo(j)fluoranthene

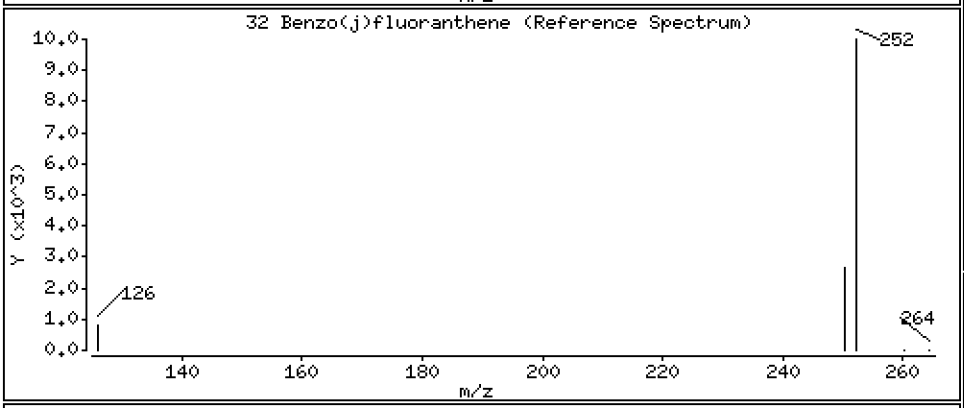
Concentration: 281 ng/mL

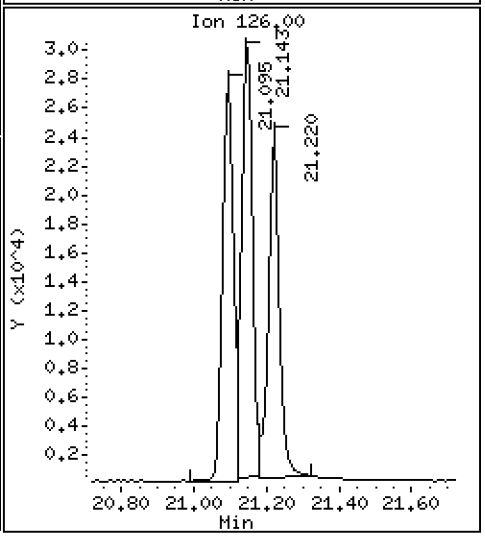


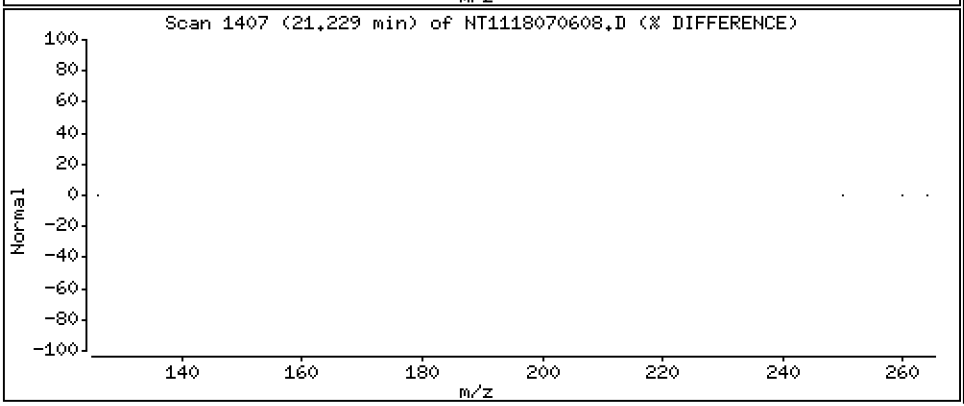












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Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

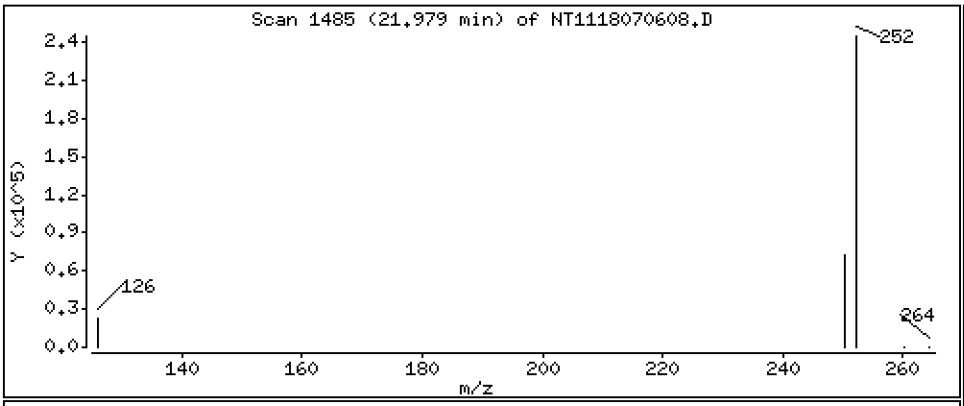
Operator: VTS

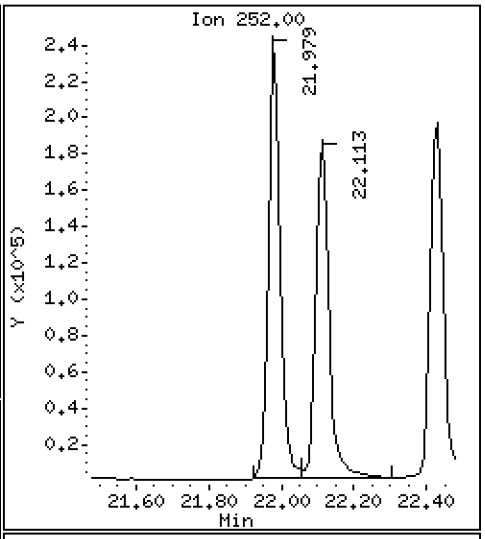
Column phase: Rxi-17Sil MS

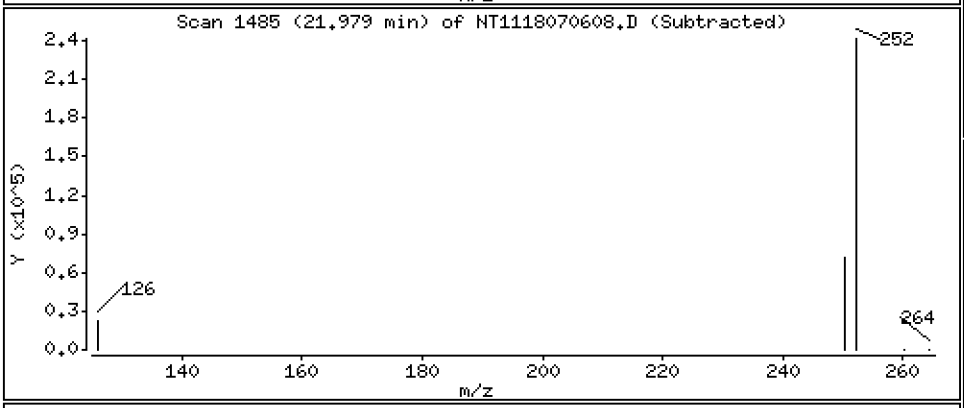
Column diameter: 0.25

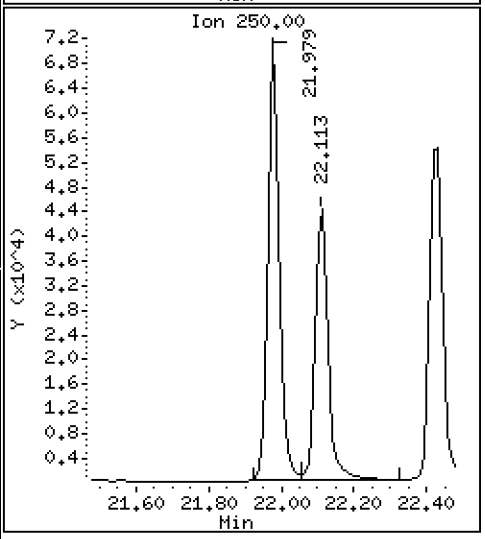
34 Benzo(e)pyrene

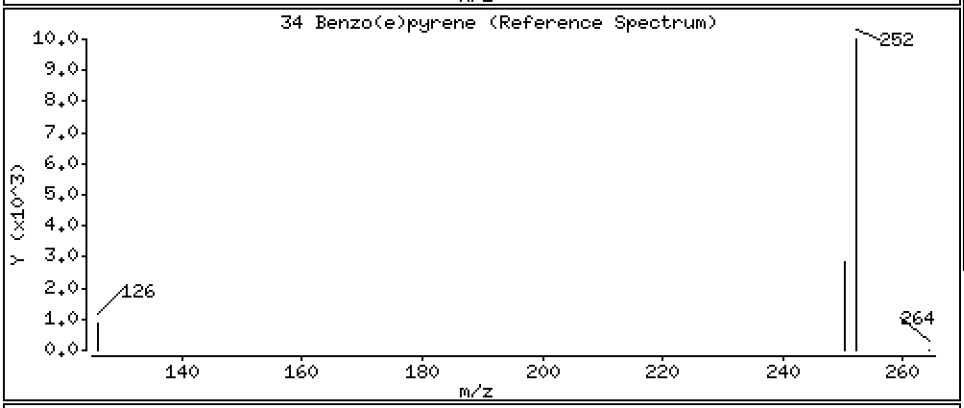
Concentration: 249 ng/mL

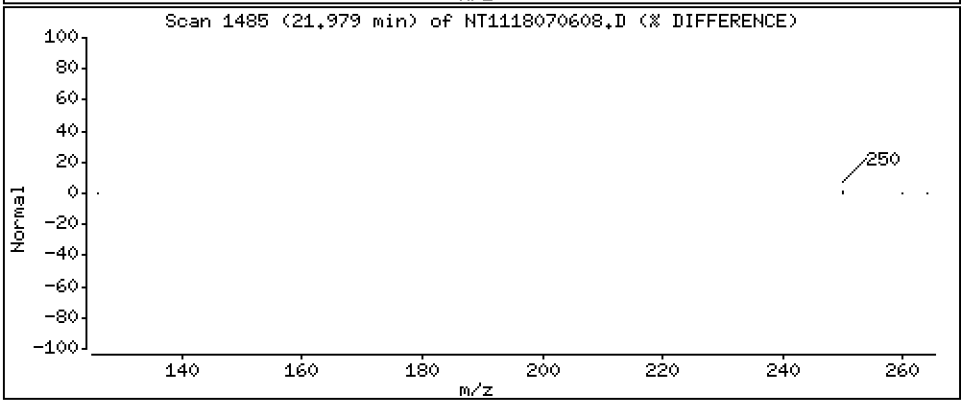












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Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

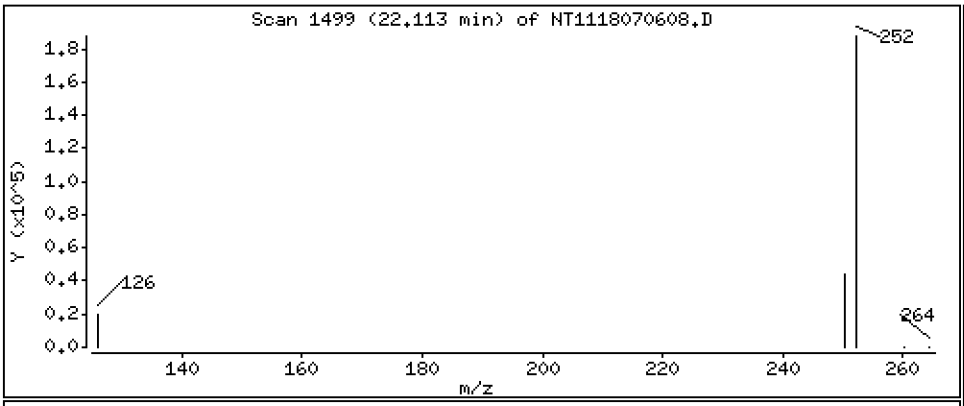
Operator: VTS

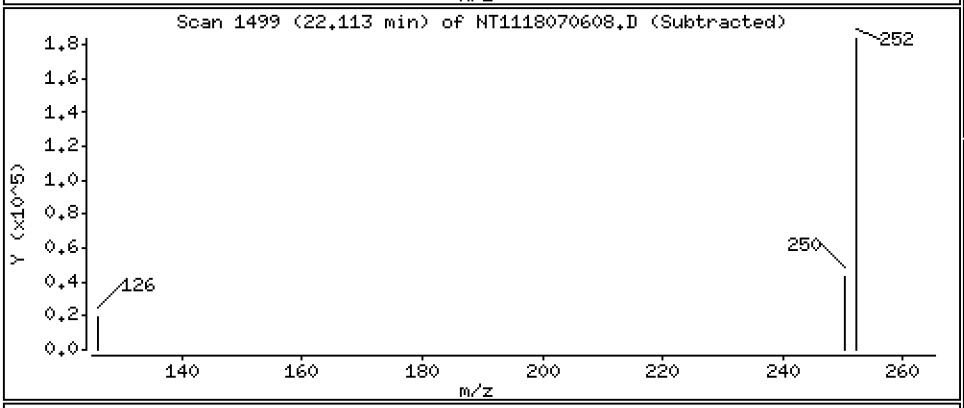
Column phase: Rxi-17Sil MS

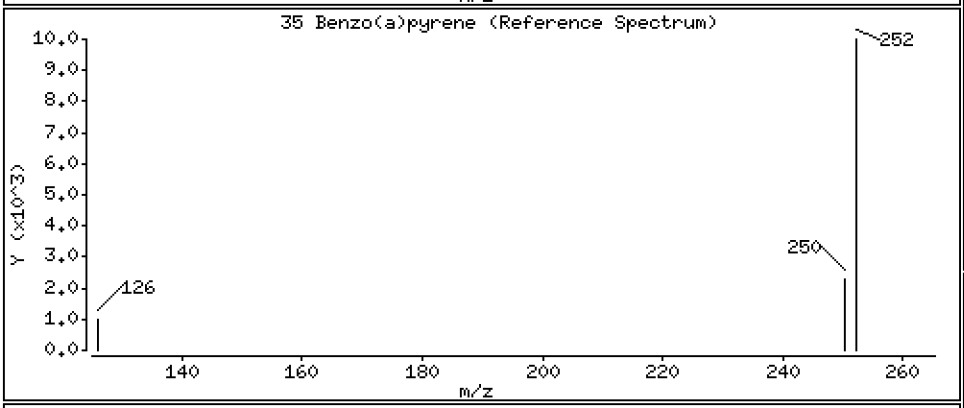
Column diameter: 0.25

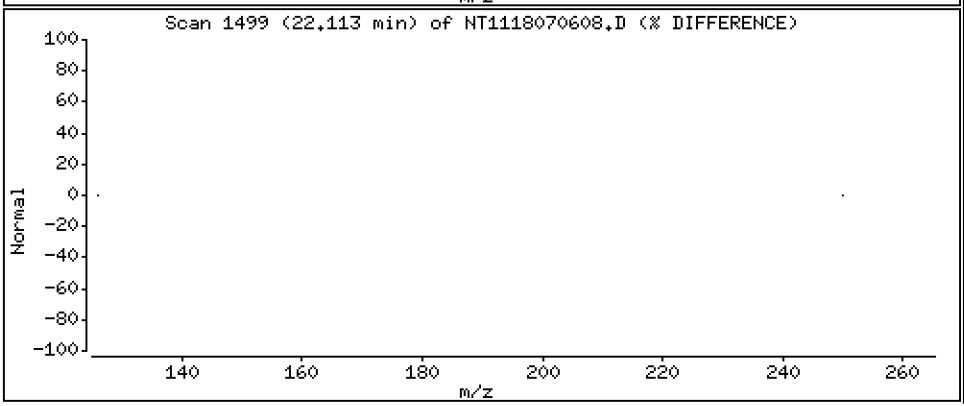
35 Benzo(a)pyrene

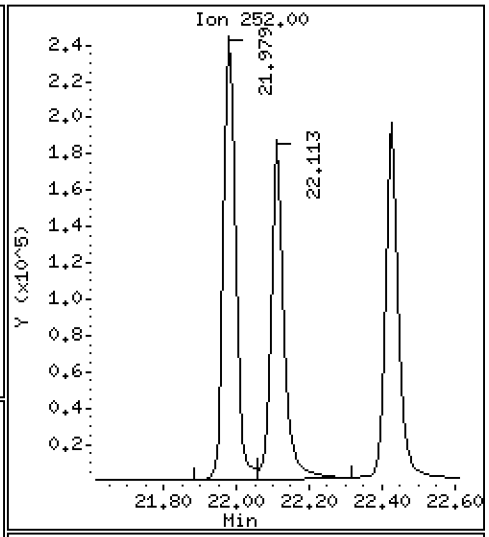
Concentration: 229 ng/mL

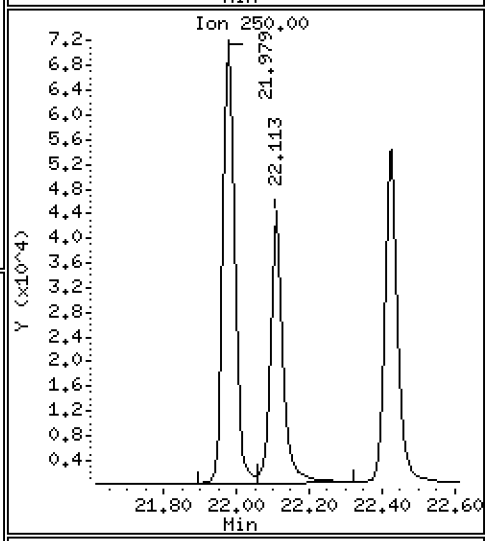


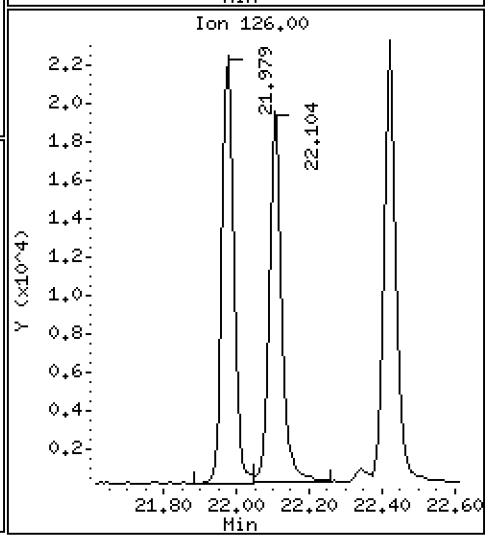












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070608.D

Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

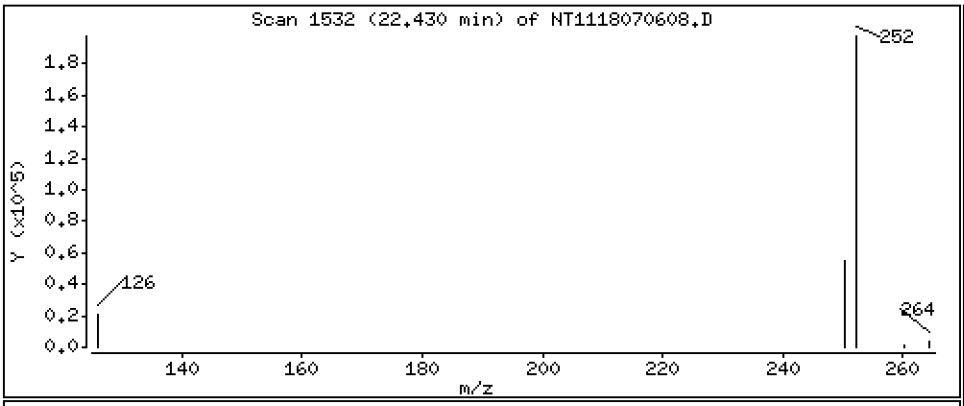
Operator: VTS

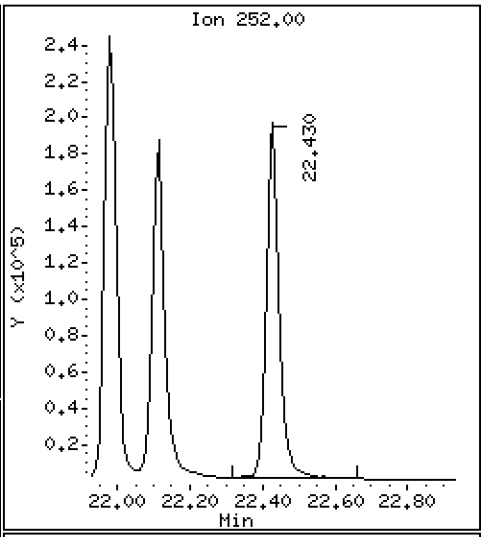
Column phase: Rxi-17Sil MS

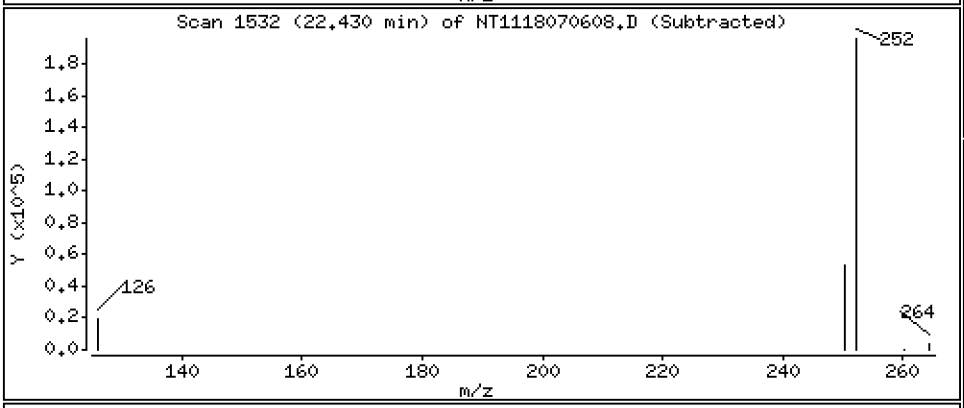
Column diameter: 0.25

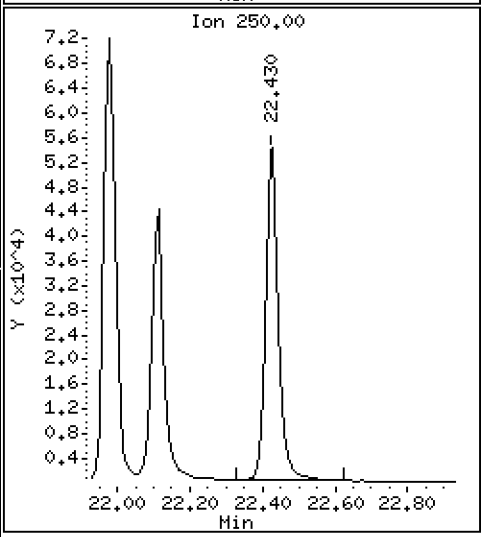
37 Perylene

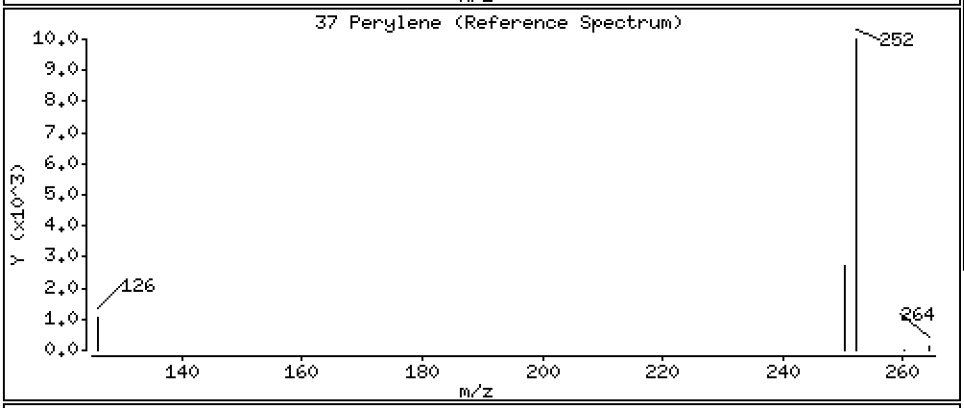
Concentration: 236 ng/mL

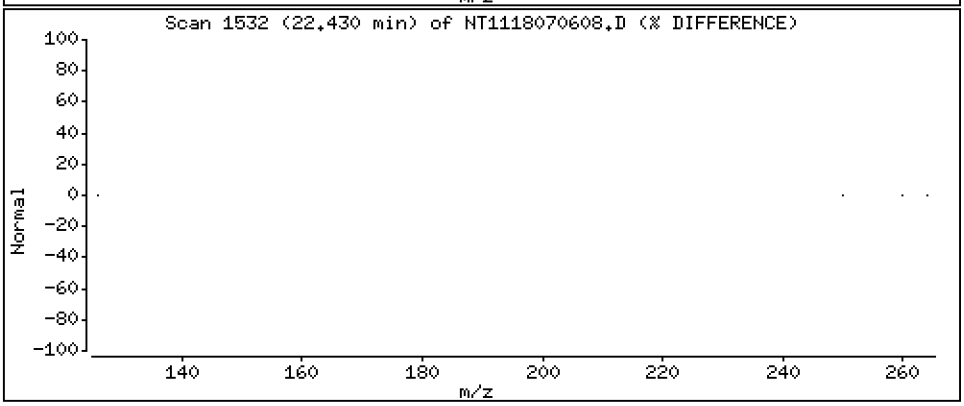












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070608.D

Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

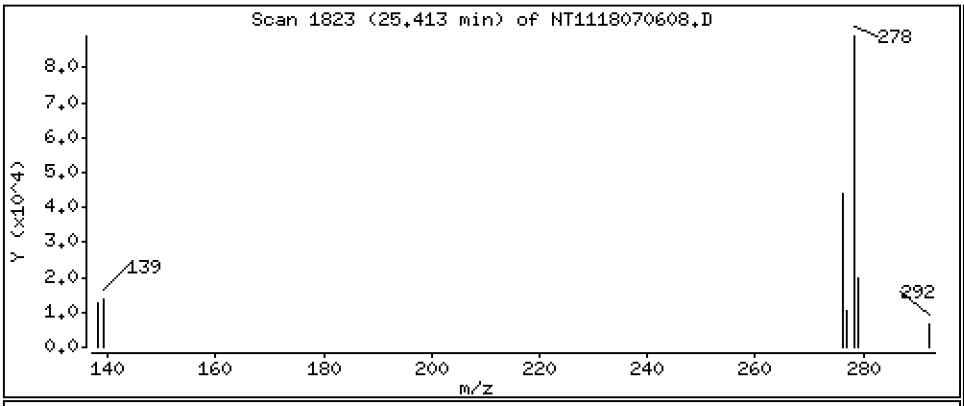
Operator: VTS

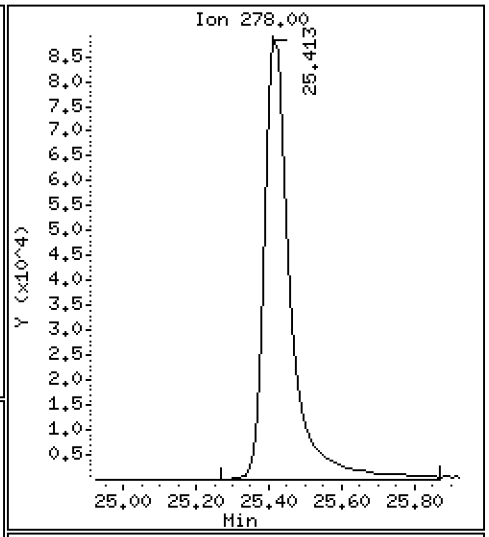
Column phase: Rxi-17Sil MS

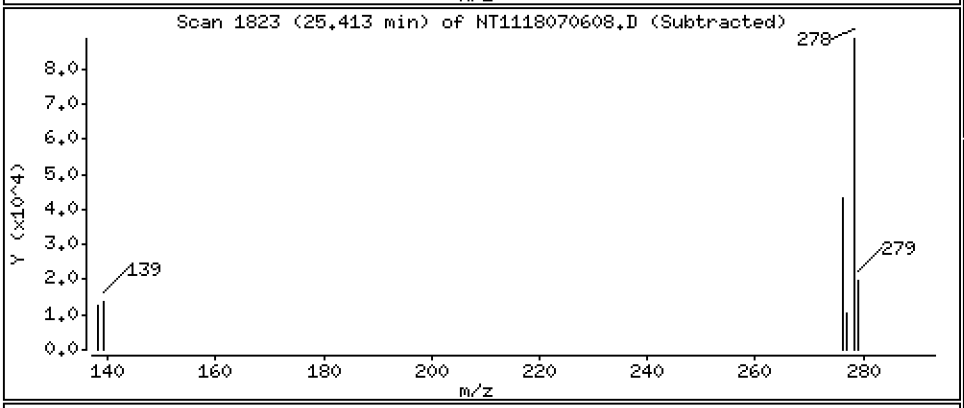
Column diameter: 0.25

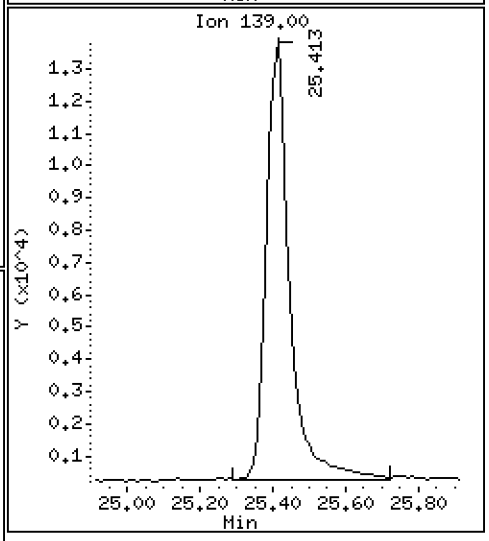
39 Dibenzo(a,h)anthracene

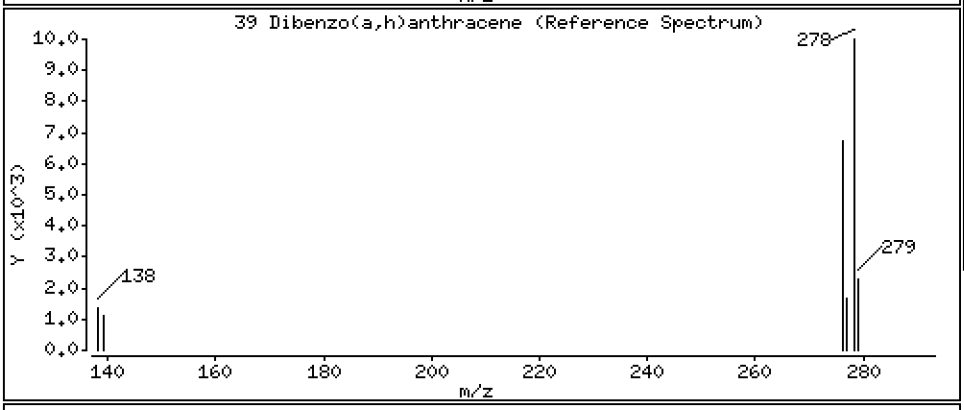
Concentration: 250 ng/mL

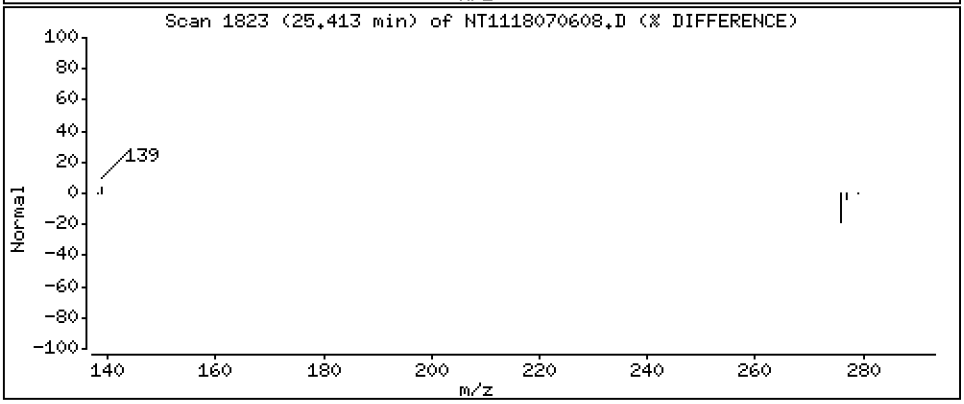












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070608.D

Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

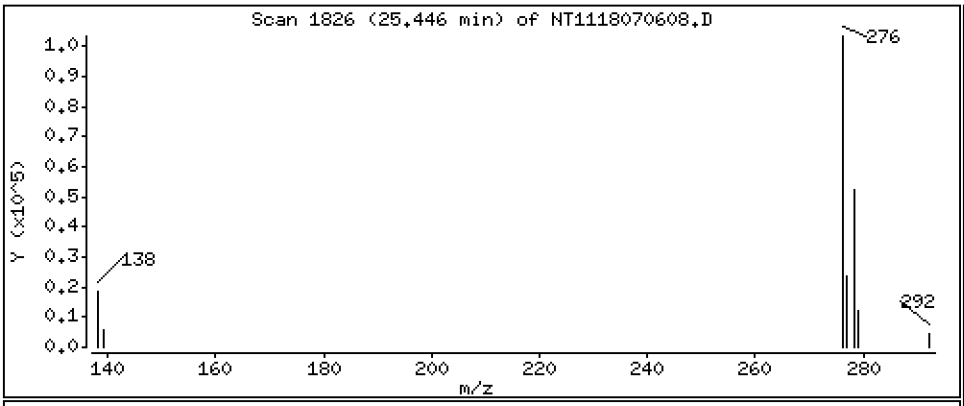
Operator: VTS

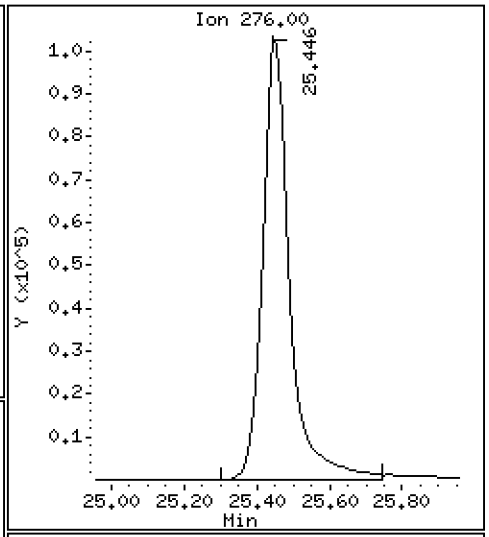
Column phase: Rxi-17Sil MS

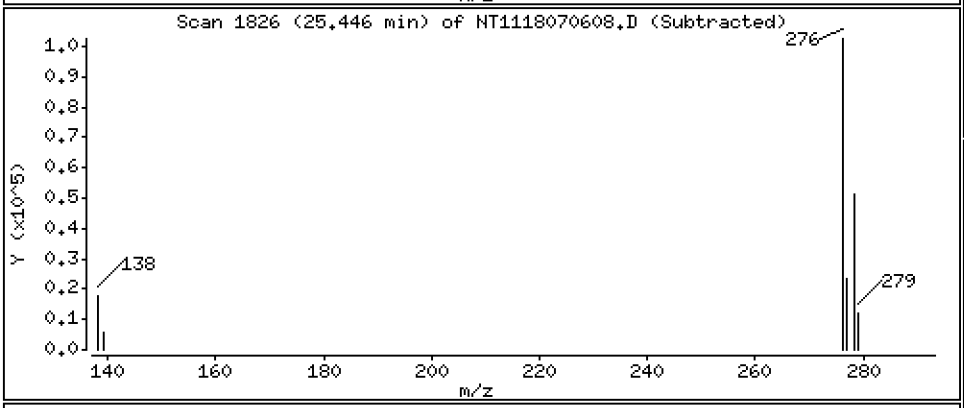
Column diameter: 0.25

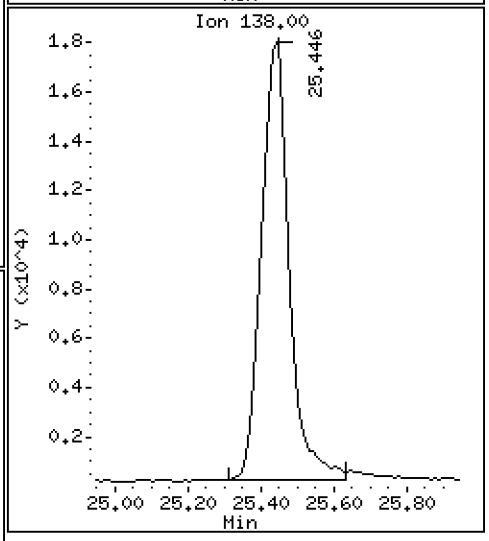
40 Indeno(1,2,3-cd)pyrene

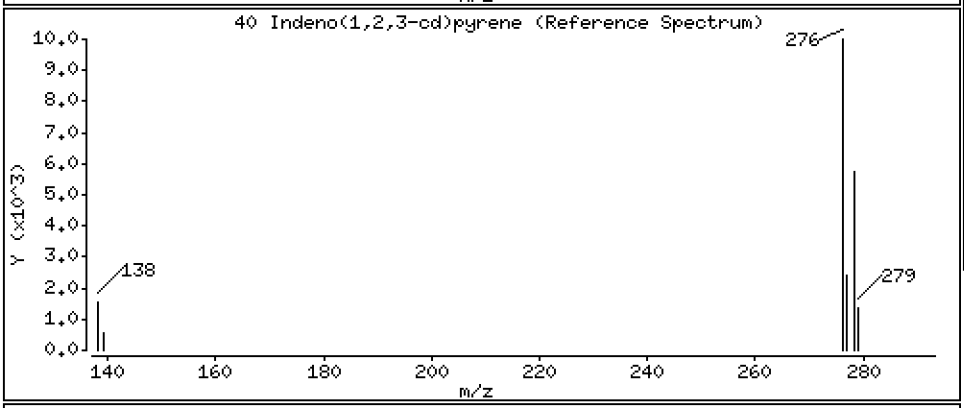
Concentration: 249 ng/mL

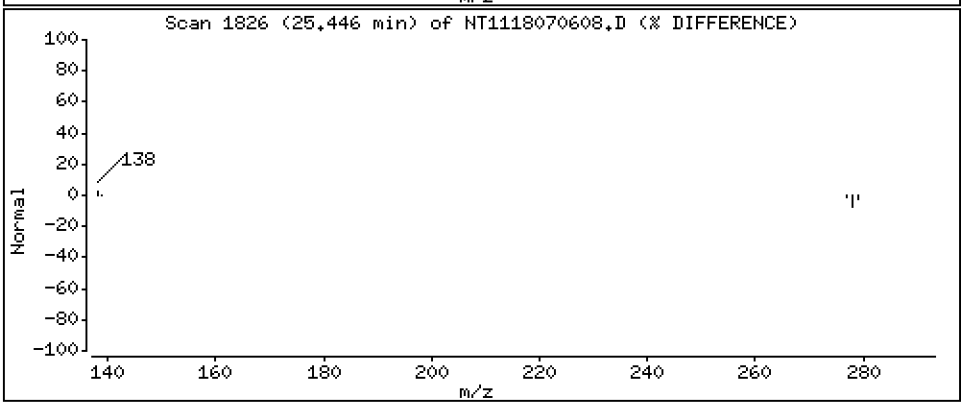












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070608.D

Date : 06-JUL-2018 16:37

Client ID:

Instrument: nt11.i

Sample Info: BGF0530-MSD1

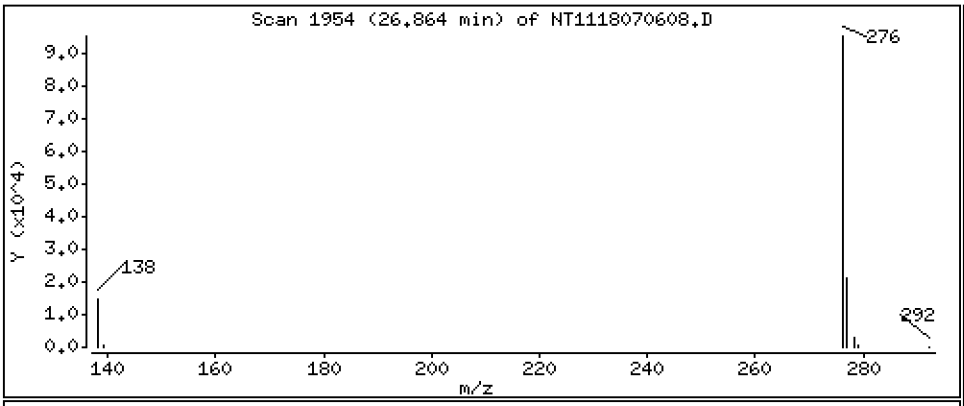
Operator: VTS

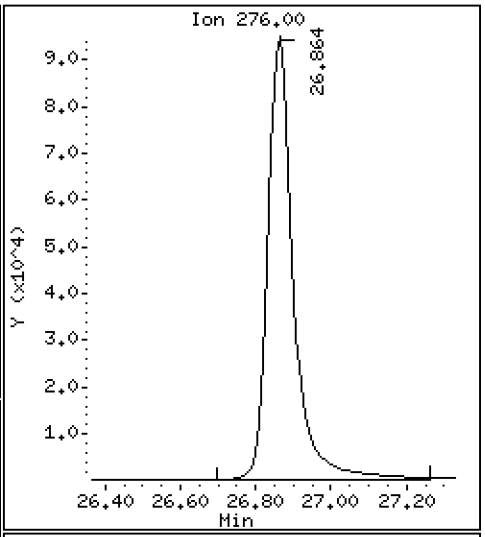
Column phase: Rxi-17Sil MS

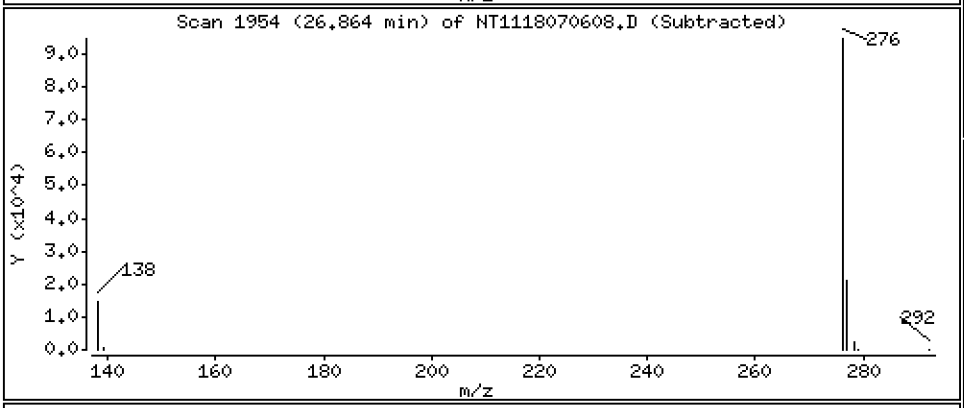
Column diameter: 0.25

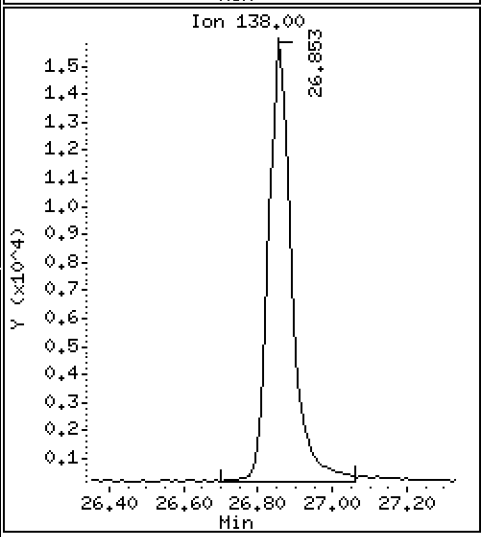
41 Benzo(g,h,i)perylene

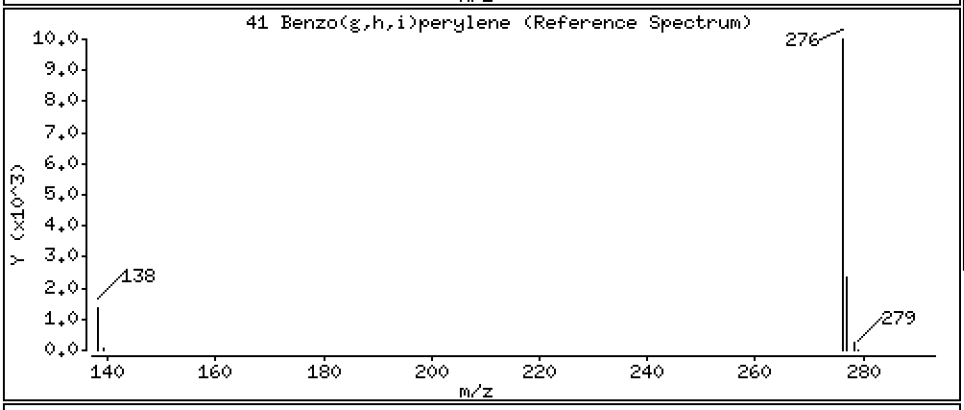
Concentration: 250 ng/mL

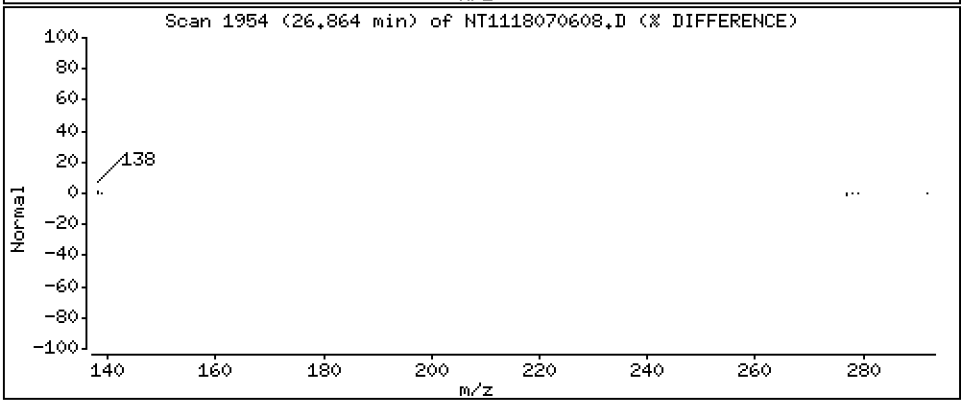












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180706.b\NT1118070608.D
Lab Smp Id: BGF0530-MSD1
Inj Date : 06-JUL-2018 16:37 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : BGF0530-MSD1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Meth Date : 06-Jul-2018 13:13 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	452361	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	592864	194.681	195
	3 Benzo(b)thiophene	134	8.897	8.897	(1.034)	512977	216.344	216
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	534181	206.966	207
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	605263	219.654	220
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	590628	215.521	216
	7 2-Chloronaphthalene	162	10.558	10.558	(0.907)	604420	235.866	236
	8 Biphenyl	154	10.527	10.527	(0.904)	774889	252.801	253
	9 2,6-Dimethylnaphthalene	156	10.579	10.579	(0.909)	602636	248.770	249
	10 Acenaphthylene	152	11.490	11.490	(0.987)	675761	230.556	231
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	246514	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	476256	237.568	238
	13 Dibenzofuran	168	11.908	11.908	(1.023)	648966	236.302	236
	14 2,3,5-Trimethylnaphthalene	170	11.996	11.996	(1.030)	418849	238.313	238
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.540	12.540	(1.077)	526219	237.605	238
	17 Dibenzothiophene	184	14.172	14.172	(0.988)	602369	237.528	238
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	407240	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	797250	249.611	250
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.435	14.435	(1.007)	682300	228.507	229
	22 Carbazole	167	15.113	15.113	(1.054)	876963	252.109	252
	23 1-Methylphenanthrene	192	15.384	15.384	(1.073)	825251	273.458	273
$	24 Fluoranthene-d10	212	16.449	16.449	(1.147)	586136	237.114	237
	25 Fluoranthene	202	16.487	16.487	(1.150)	802349	270.507	271
	26 Pyrene	202	16.987	16.987	(0.890)	800006	253.260	253
	27 Benzo(a)anthracene	228	19.004	19.004	(0.995)	641027	260.195	260
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	321313	200.000	
	29 Chrysene	228	19.145	19.145	(1.003)	676492	276.437	276
	30 Benzo(b)fluoranthene	252	21.094	21.104	(0.944)	542813	237.894	238
	31 Benzo(k)fluoranthene	252	21.152	21.152	(0.946)	604724	255.581	256
	32 Benzo(j)fluoranthene	252	21.229	21.229	(0.950)	604089	280.513	281
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	21.978	21.978	(0.983)	548059	249.027	249

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	35 Benzo(a)pyrene	252	22.113	22.113	(0.989)	459888	229.421	229
*	36 Perylene-d12	264	22.353	22.353	(1.000)	322591	200.000	
	37 Perylene	252	22.430	22.430	(1.003)	497043	236.260	236
$	38 Dibenzo(a,h)anthracene-d14	292	25.268	25.279	(1.130)	351181	227.491	227
	39 Dibenzo(a,h)anthracene	278	25.412	25.423	(1.137)	436183	250.084	250
	40 Indeno(1,2,3-cd)pyrene	276	25.446	25.457	(1.138)	520045	249.410	249
	41 Benzo(g,h,i)perylene	276	26.863	26.863	(1.202)	451228	250.191	250

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118070608.D
Lab Smp Id: BGF0530-MSD1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Misc Info:

Calibration Date: 06-JUL-2018
Calibration Time: 12:50
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	452361	4.88
11 Acenaphthene-d10	260137	130069	520274	246514	-5.24
18 Phenanthrene-d10	427391	213696	854782	407240	-4.71
28 Chrysene-d12	304596	152298	609192	321313	5.49
36 Perylene-d12	263091	131546	526182	322591	22.62

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118070608.D

Lab ID: BGF0530-MSD1
nt11.i, 20180706.b\LOWSIM.m,   06-JUL-2018 16:37

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180706.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270D-SIM

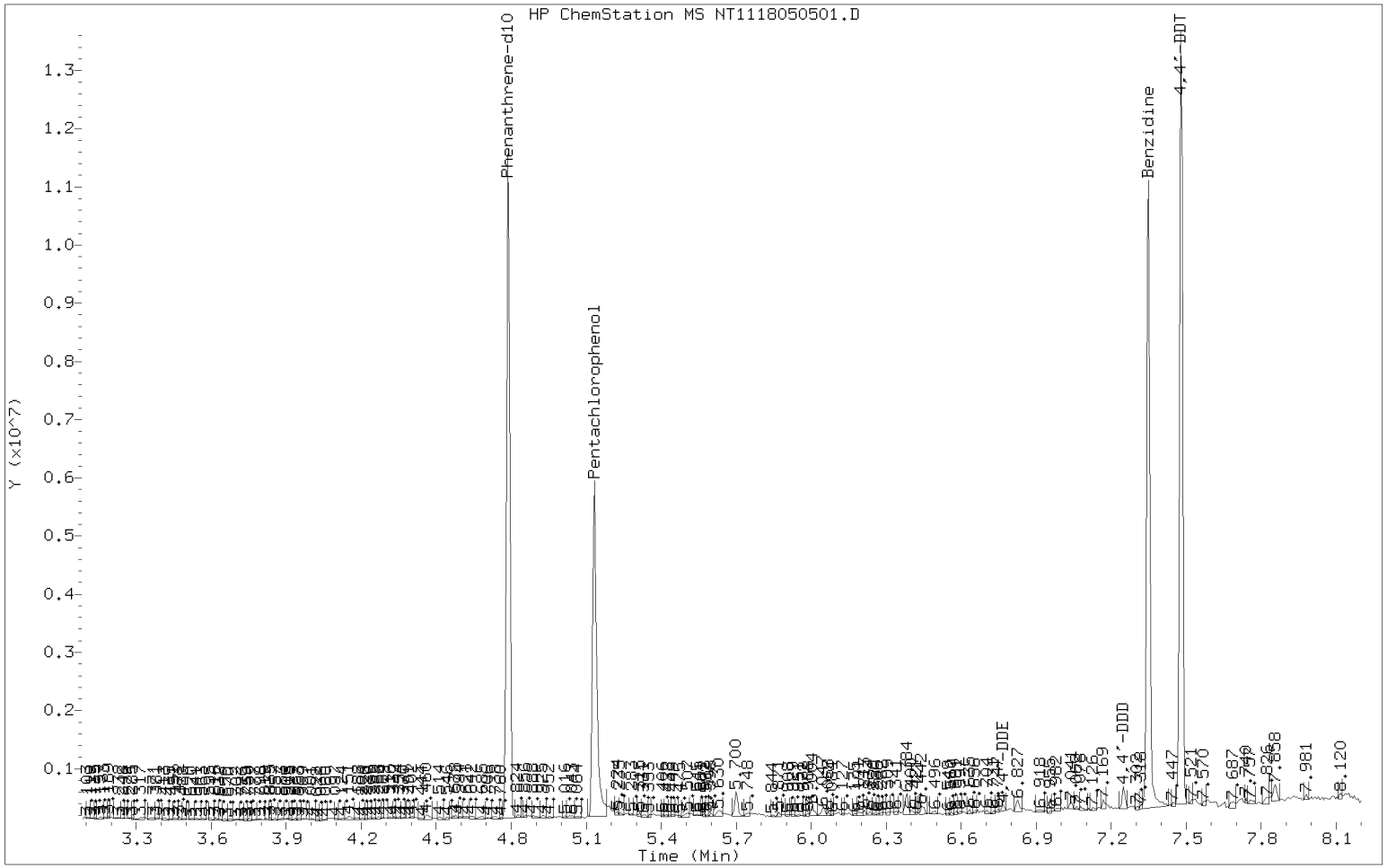
Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Lab File ID:	NT1118050501.D	Injection Date:	05/05/18
Instrument ID:	NT11	Injection Time:	11:56
Sequence:	SGE0100	Lab Sample ID:	SGE0100-TUN1

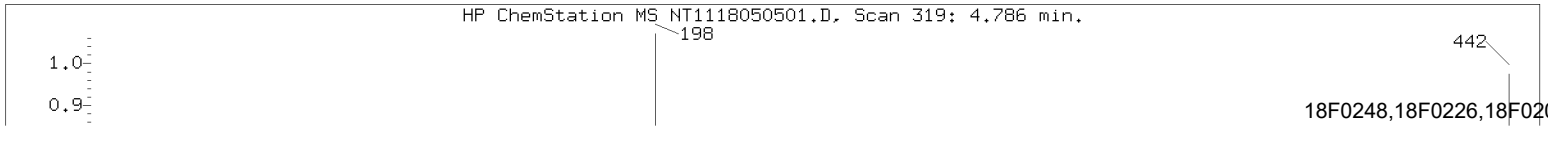
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10 - 80% of 198	51.7	PASS
68	Less than 2% of 69	0.692	PASS
69	Less than 100% of 198	56.4	PASS
70	Less than 2% of 69	0.404	PASS
127	10 - 80% of 198	56.5	PASS
197	Less than 2% of 198	0.984	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	8.08	PASS
275	10 - 60% of 198	27.6	PASS
365	1 - 100% of 198	3.35	PASS
441	0.1 - 24% of 442	16.1	PASS
442	50 - 200% of 198	99.4	PASS
443	15 - 24% of 442	21.5	PASS

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SGE0100-TUN1	NT1118050501.D	05/05/2018	11:56
Cal Standard	SGE0100-CAL4	NT1118050502.D	05/05/2018	12:16
Cal Standard	SGE0100-CAL6	NT1118050503.D	05/05/2018	12:52
Cal Standard	SGE0100-CAL1	NT1118050504.D	05/05/2018	13:27
Cal Standard	SGE0100-CAL5	NT1118050505.D	05/05/2018	14:03
Cal Standard	SGE0100-CAL2	NT1118050506.D	05/05/2018	14:39
Cal Standard	SGE0100-CAL3	NT1118050507.D	05/05/2018	15:15
Initial Cal Check	SGE0100-ICV1	NT1118050509.D	05/05/2018	16:26
Blank	BGE0007-BLK1	NT1118050510.D	05/05/2018	17:02
LCS	BGE0007-BS1	NT1118050511.D	05/05/2018	17:38
ZZZZZ	18D0403-01	NT1118050513.D	05/05/2018	18:50
Calibration Check	SGE0100-CCV1	NT1118050514.D	05/05/2018	19:26

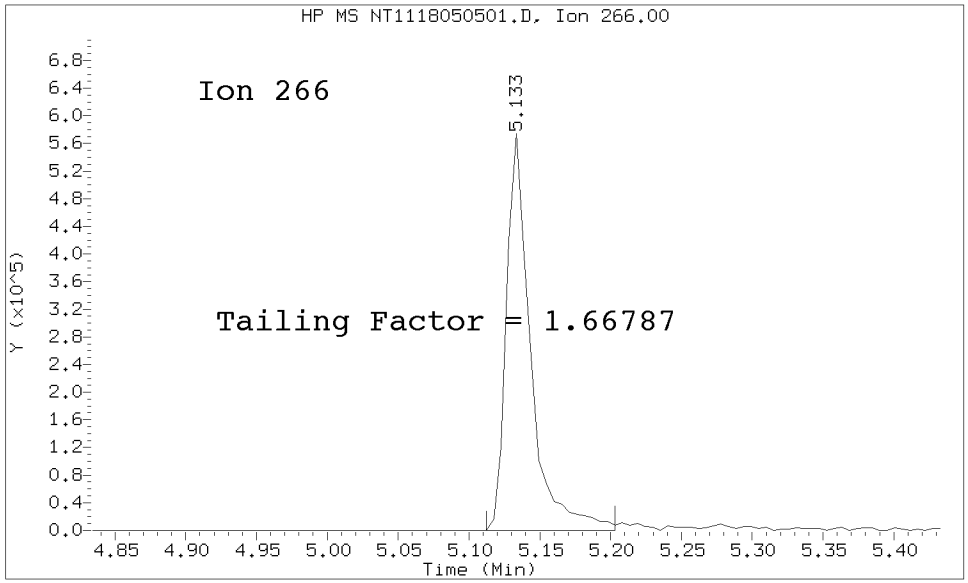
DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20180505.b/NT1118050501.D/NT1118050501.D
Method Used: \20180505.b\DFTPP.m Inst: nt11
Injection Date: 05-MAY-2018 11:56 Operator: VTS
Sample Info: SGE0100-TUN1 SGE0100-TUN1
Report Date: 05/08/2018 09:55



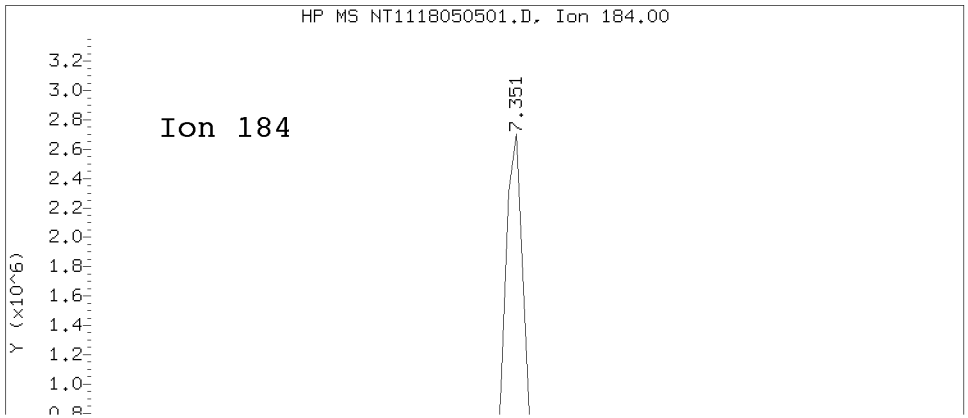


Datafile Analyzed: /20180505.b/NT1118050501.D/NT1118050501.D
Method Used: \20180505.b\DFTPP.m\sw846ddt.m Inst: nt11
Injection Date: 05-MAY-2018 11:56 Operator: VTS
Sample Info: SGE0100-TUN1
Report Date: 05/08/2018 09:55



Pentachlorophenol
==========
Exp. RT = 5.133
Found RT = 5.133

Tail Factor = 1.668 Maximum Allowed = 2.0



Benzidine
=========
 Exp. RT =   7.351
Found RT =   7.351

Tail Factor = 0.899 Maximum Allowed = 2.0

Tailing Factor = 0.89868

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.6678700	2.000	PASS
Benzidine	0.8986784	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1597043			N/A
4,4-DDE	5200	0.3	20.0	PASS
4,4-DDD	57467	3.5	20.0	PASS
4,4-DDD + DDE	62667	3.8	20.0	PASS

Tuning Sample, nt11.i/20180505.b/NT1118050501.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	51.72
68	Less than 2.00% of mass 69	0.39 (0.69)
69	Mass 69 relative abundance	56.44
70	Less than 2.00% of mass 69	0.23 (0.40)
127	10.00 - 80.00% of mass 198	56.53
197	Less than 2.00% of mass 198	0.98
199	5.00 - 9.00% of mass 198	8.08
275	10.00 - 60.00% of mass 198	27.63
365	Greater than 1.00% of mass 198	3.35
441	0.01 - 24.00% of mass 442	15.97 (16.06)
442	50.00 - 200.00% of mass 198	99.43
443	15.00 - 24.00% of mass 442	21.38 (21.50)

Data File: NT1118050501.D
Spectrum: Avg. Scans 318-320 (4.79), Background Scan 314
Location of Maximum: 198.00
Number of points: 270

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	1198	120.00	1211	192.00	10273	272.00	916
38.00	7784	122.00	10272	193.00	12674	273.00	16512
39.00	36976	123.00	16576	194.00	3258	274.00	45672
40.00	1021	124.00	2788	195.00	2249	275.00	234048
43.00	2736	125.00	8817	196.00	19720	276.00	36784
44.00	6421	126.00	1027	197.00	8334	277.00	17568
45.00	160	127.00	478912	198.00	847232	278.00	3032
49.00	5941	128.00	41944	199.00	68480	283.00	1968
50.00	115760	129.00	201280	200.00	4351	284.00	819
51.00	438208	130.00	23576	201.00	5430	285.00	3400
52.00	26776	131.00	3300	203.00	8110	292.00	678
53.00	686	132.00	3143	204.00	31040	293.00	3533
55.00	1654	133.00	2200	205.00	71072	295.00	2728
56.00	13468	134.00	4526	206.00	241792	296.00	59864
57.00	35480	135.00	16488	207.00	31360	297.00	11196
58.00	1833	136.00	7482	208.00	9375	303.00	8258
61.00	6901	137.00	7665	209.00	3451	304.00	2281
62.00	5951	138.00	1469	210.00	4401	311.00	840
63.00	24352	139.00	1049	211.00	13112	314.00	2713
64.00	3166	140.00	3003	212.00	3036	315.00	9005
65.00	11492	141.00	27632	215.00	2507	316.00	5095
67.00	4216	142.00	7938	216.00	5042	317.00	719
68.00	3308	143.00	7151	217.00	68592	321.00	2031
69.00	478144	144.00	858	218.00	9122	323.00	28224
70.00	1932	146.00	5005	219.00	1518	324.00	4914
72.00	1067	147.00	10385	220.00	1361	327.00	2523
73.00	1804	148.00	27712	221.00	33840	328.00	1770
74.00	53008	149.00	5140	222.00	12464	332.00	3167
75.00	80616	150.00	2838	223.00	17072	333.00	1819
76.00	30896	151.00	2751	224.00	135616	334.00	14428
77.00	539776	152.00	2164	225.00	34512	335.00	3671
78.00	37040	153.00	10720	226.00	7151	341.00	2530
79.00	37304	154.00	7088	227.00	60584	344.00	701
80.00	29712	155.00	12980	228.00	8639	346.00	5337
81.00	47896	156.00	24544	229.00	13094	347.00	809

82.00	11599	157.00	5264	230.00	1801	352.00	4968
83.00	9809	158.00	5241	231.00	2934	353.00	4733
84.00	1531	159.00	3480	232.00	3007	354.00	6964
85.00	4298	160.00	6069	234.00	2224	355.00	1309
86.00	12146	161.00	12485	235.00	3842	359.00	786
87.00	5143	162.00	1847	236.00	2904	365.00	28360
89.00	787	163.00	1574	237.00	4502	366.00	5542
91.00	9573	164.00	1007	239.00	3200	372.00	15393
92.00	12747	165.00	10499	240.00	1650	373.00	2933
93.00	59224	166.00	6711	241.00	1819	374.00	667
94.00	3553	167.00	41832	242.00	8892	377.00	2521
95.00	716	168.00	19520	243.00	6602	381.00	667
96.00	4135	169.00	3101	244.00	96392	383.00	2927
97.00	1110	171.00	4134	245.00	15211	390.00	669
98.00	41560	172.00	4440	246.00	25328	391.00	1170
99.00	34640	173.00	6002	247.00	5456	401.00	683
100.00	4829	174.00	10443	248.00	907	402.00	5241
101.00	24248	175.00	18472	249.00	5746	403.00	7932
102.00	676	176.00	6320	251.00	786	404.00	2464
103.00	7330	177.00	8727	252.00	2859	415.00	725
104.00	12949	178.00	6053	253.00	2854	421.00	6086
105.00	15894	179.00	37984	254.00	3585	422.00	10209
106.00	2250	180.00	30816	255.00	495744	423.00	50128
107.00	159040	181.00	11381	256.00	77584	424.00	8455
108.00	26528	182.00	1467	257.00	6229	433.00	853
109.00	4079	184.00	2857	258.00	29776	434.00	937
110.00	293568	185.00	16960	259.00	2721	441.00	135296
111.00	45000	186.00	139200	260.00	747	442.00	842368
112.00	6962	187.00	41448	261.00	2167	443.00	181120
113.00	890	188.00	2723	265.00	14548	444.00	17240
116.00	9664	189.00	8600	266.00	762	445.00	681
117.00	103288	190.00	2610	268.00	816		
118.00	7184	191.00	4759	271.00	1034		

Analytical Resources, Incorporated
Analytical Chemists and Consultants

MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270D-SIM

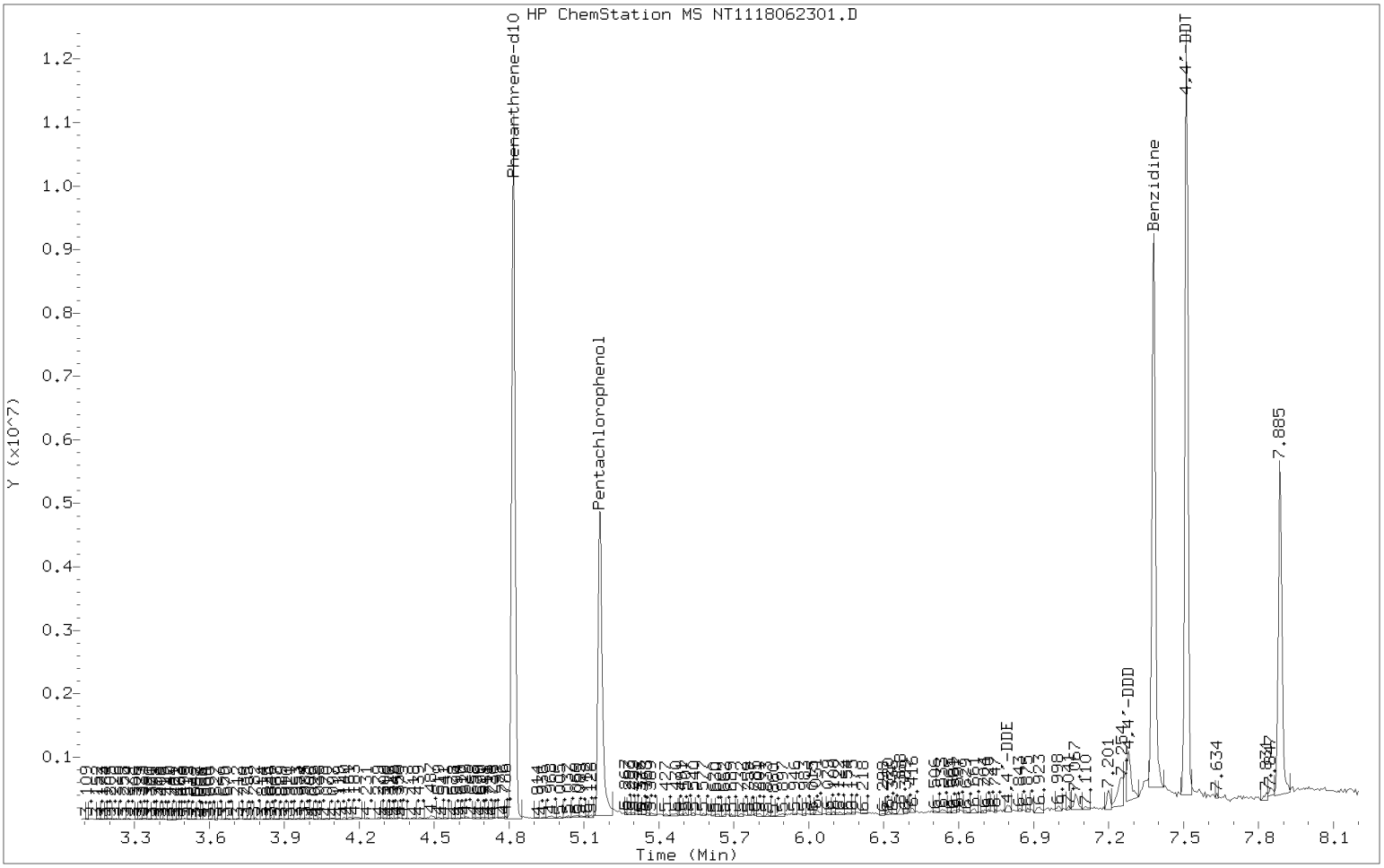
Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Lab File ID:	NT1118062301.D	Injection Date:	06/23/18
Instrument ID:	NT11	Injection Time:	10:12
Sequence:	SGF0298	Lab Sample ID:	SGF0298-TUN1

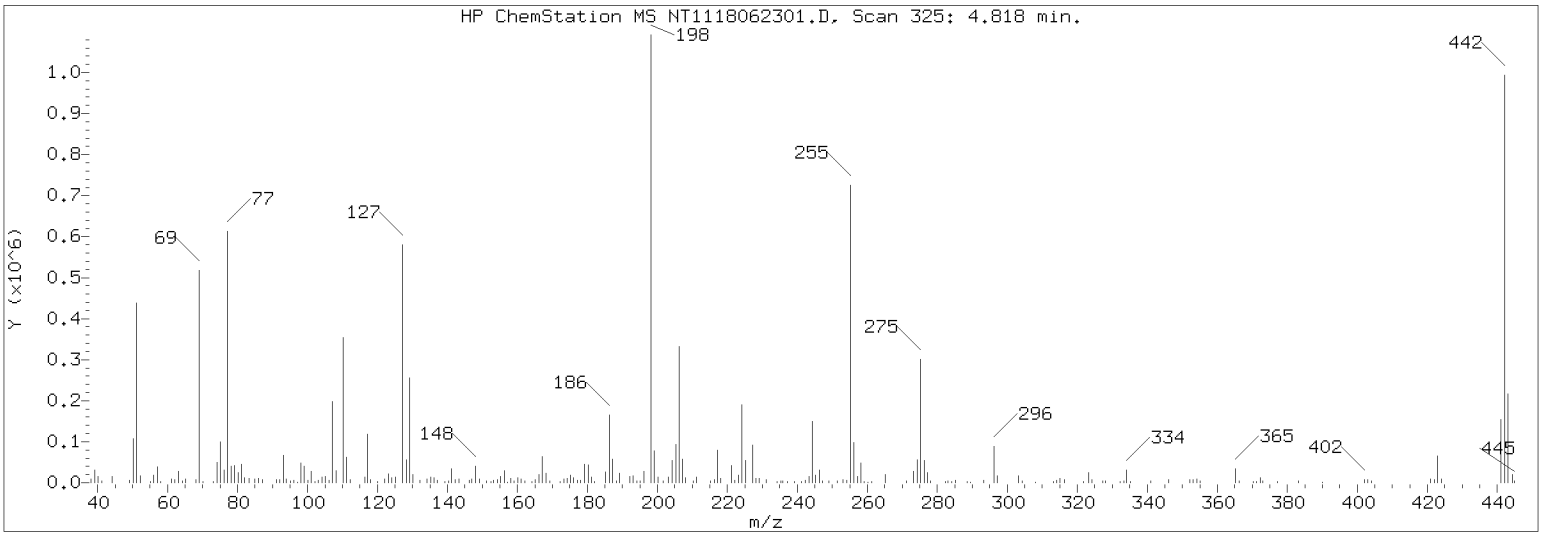
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10 - 80% of 198	38.7	PASS
68	Less than 2% of 69	1.91	PASS
69	Less than 100% of 198	46.9	PASS
70	Less than 2% of 69	0.527	PASS
127	10 - 80% of 198	52.4	PASS
197	Less than 2% of 198	0	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	7.71	PASS
275	10 - 60% of 198	25.6	PASS
365	1 - 100% of 198	3.94	PASS
441	0.1 - 24% of 442	16.2	PASS
442	50 - 200% of 198	83.2	PASS
443	15 - 24% of 442	21.7	PASS

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SGF0298-TUN1	NT1118062301.D	06/23/2018	10:12
Initial Cal Check	SGF0298-ICV1	NT1118062302.D	06/23/2018	10:32
Blank	BGF0416-BLK1	NT1118062303.D	06/23/2018	11:11
LCS	BGF0416-BS1	NT1118062304.D	06/23/2018	11:47
LDW18-SP-RB1	18F0185-01	NT1118062305.D	06/23/2018	12:23
LDW18-SP-30	18F0185-03	NT1118062306.D	06/23/2018	12:58
LDW18-SP-32	18F0185-04	NT1118062307.D	06/23/2018	13:35
LDW18-SP-35	18F0185-05	NT1118062308.D	06/23/2018	15:12
LDW18-SP-38	18F0185-06	NT1118062309.D	06/23/2018	15:48
LDW18-SP-42	18F0185-07	NT1118062310.D	06/23/2018	16:24
LDW18-SP-43	18F0185-08	NT1118062311.D	06/23/2018	17:00
Matrix Spike	BGF0416-MS1	NT1118062312.D	06/23/2018	17:37
Matrix Spike Dup	BGF0416-MSD1	NT1118062313.D	06/23/2018	18:13
Blank	BGF0455-BLK1	NT1118062314.D	06/23/2018	18:50
LCS	BGF0455-BS1	NT1118062315.D	06/23/2018	19:26
MRL Check	BGF0455-MRL1	NT1118062316.D	06/23/2018	20:02
MRL Check	BGF0455-MRL2	NT1118062317.D	06/23/2018	20:38
LDW18-SP-06	18F0208-01	NT1118062318.D	06/23/2018	21:14
LDW18-SP-33	18F0208-02	NT1118062319.D	06/23/2018	21:50
Calibration Check	SGF0298-CCV1	NT1118062322.D	06/23/2018	23:38

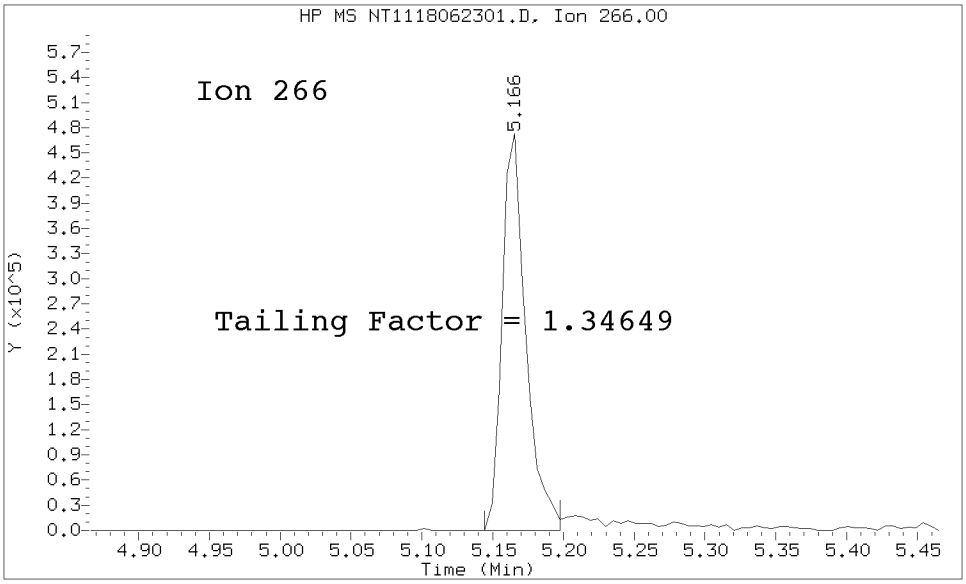
DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20180623.b/NT1118062301.D/NT1118062301.D
Method Used: \20180623.b\DFTPP.m Inst: nt11
Injection Date: 23-JUN-2018 10:12 Operator: VTS
Sample Info: SGF0298-TUN1 SGF0298-TUN1
Report Date: 06/26/2018 09:19



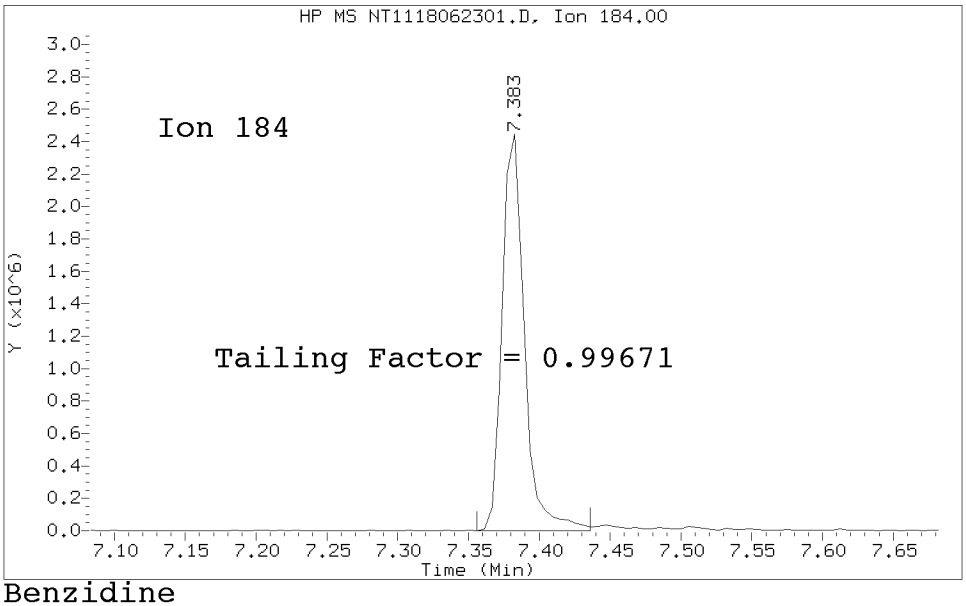


Datafile Analyzed: /20180623.b/NT1118062301.D/NT1118062301.D
Method Used: \20180623.b\DFTPP.m\sw846ddt.m Inst: nt11
Injection Date: 23-JUN-2018 10:12 Operator: VTS
Sample Info: SGF0298-TUN1
Report Date: 06/26/2018 09:19



Pentachlorophenol
==========
Exp. RT = 5.166
Found RT = 5.166

Tail Factor = 1.346 Maximum Allowed = 2.0



Benzidine
==========
Exp. RT = 7.383
Found RT = 7.383

Tail Factor = 0.997 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.3464912	2.000	PASS
Benzidine	0.9967141	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1571284			N/A
4,4-DDE	8138	0.5	20.0	PASS
4,4-DDD	68837	4.2	20.0	PASS
4,4-DDD + DDE	76975	4.7	20.0	PASS

Tuning Sample, nt11.i/20180623.b/NT1118062301.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	38.68
68	Less than 2.00% of mass 69	0.90 (1.91)
69	Mass 69 relative abundance	46.95
70	Less than 2.00% of mass 69	0.25 (0.53)
127	10.00 - 80.00% of mass 198	52.36
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.71
275	10.00 - 60.00% of mass 198	25.58
365	Greater than 1.00% of mass 198	3.94
441	0.01 - 24.00% of mass 442	13.49 (16.21)
442	50.00 - 200.00% of mass 198	83.24
443	15.00 - 24.00% of mass 442	18.10 (21.74)

Data File: NT1118062301.D
Spectrum: Avg. Scans 324-326 (4.82), Background Scan 318
Location of Maximum: 198.00
Number of points: 262

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	7377	123.00	13615	198.00	894016	279.00	873
39.00	26312	124.00	7313	199.00	68944	282.00	864
40.00	5343	125.00	9733	200.00	6300	283.00	3995
44.00	1439	127.00	468096	201.00	6334	284.00	1957
45.00	797	128.00	47024	202.00	967	285.00	4076
49.00	4448	129.00	198528	203.00	8171	286.00	784
50.00	95192	130.00	20128	204.00	38008	288.00	865
51.00	345792	131.00	1217	205.00	65952	289.00	704
52.00	18744	132.00	1960	206.00	264064	293.00	4780
55.00	85	133.00	909	207.00	40304	296.00	66624
56.00	14703	134.00	6667	208.00	7532	297.00	12462
57.00	29904	135.00	13513	209.00	695	298.00	887
58.00	2455	136.00	8227	210.00	9039	302.00	765
59.00	1342	137.00	5978	211.00	11927	303.00	9126
61.00	6352	139.00	1219	212.00	869	304.00	3621
62.00	6764	140.00	3474	215.00	3301	308.00	701
63.00	20496	141.00	25232	216.00	4867	313.00	894
64.00	2814	142.00	6529	217.00	67800	314.00	5167
65.00	11968	143.00	6683	218.00	8640	315.00	8973
68.00	8029	144.00	1052	221.00	34368	316.00	7879
69.00	419712	146.00	5706	222.00	9798	321.00	793
70.00	2212	147.00	13417	223.00	18024	322.00	1216
73.00	4859	148.00	26728	224.00	158976	323.00	18688
74.00	46992	149.00	6180	225.00	39280	324.00	5671
75.00	76176	151.00	3751	226.00	2493	327.00	3348
76.00	25464	152.00	2645	227.00	65784	328.00	3014
77.00	497408	153.00	7159	228.00	8828	332.00	2084
78.00	35248	154.00	4964	229.00	10747	333.00	2376
79.00	37480	155.00	12693	230.00	707	334.00	19152
80.00	24616	156.00	20768	231.00	6925	335.00	3963
81.00	38056	157.00	3205	234.00	2638	341.00	3342
82.00	10281	158.00	5722	235.00	4150	342.00	1232
83.00	8871	159.00	4035	236.00	3674	346.00	5471
85.00	7315	160.00	9192	237.00	2359	347.00	672
86.00	8931	161.00	11133	239.00	3574	350.00	1123
87.00	4572	162.00	2812	240.00	1671	352.00	8030
88.00	1668	164.00	2958	241.00	2253	353.00	5375
89.00	1272	165.00	7594	242.00	7719	354.00	7231
91.00	4437	166.00	11192	243.00	10479	355.00	1715
92.00	9642	167.00	48104	244.00	114664	365.00	35264
93.00	48792	168.00	20208	245.00	16536	366.00	2191
94.00	4647	169.00	2613	246.00	25912	370.00	852
95.00	2551	170.00	781	247.00	3935	371.00	2798
96.00	2655	172.00	2793	249.00	3034	372.00	12773
97.00	2082	173.00	6635	251.00	1386	373.00	3932
98.00	44424	174.00	9616	252.00	1143	377.00	1039
99.00	35056	175.00	20088	253.00	1743	383.00	3334
100.00	3113	176.00	8442	254.00	5263	384.00	973
101.00	20752	177.00	6444	255.00	565952	390.00	1563

102.00	840	178.00	3504	256.00	84720	401.00	1199
103.00	6222	179.00	39744	257.00	7424	402.00	8252
104.00	13889	180.00	29616	258.00	34520	403.00	7216
105.00	14214	181.00	12833	259.00	4948	404.00	1623
106.00	2964	182.00	2361	260.00	694	414.00	701
107.00	157504	184.00	4258	261.00	2118	421.00	8461
108.00	24144	185.00	22200	264.00	1066	422.00	7846
109.00	1653	186.00	131072	265.00	16129	423.00	52352
110.00	271936	187.00	43080	266.00	1059	424.00	6560
111.00	44576	188.00	3469	271.00	2085	428.00	685
112.00	4145	189.00	11920	272.00	690	441.00	120616
113.00	1138	191.00	1889	273.00	18704	442.00	744192
116.00	9358	192.00	11417	274.00	44040	443.00	161792
117.00	92272	193.00	12550	275.00	228672	444.00	16448
118.00	8703	194.00	4092	276.00	38768	445.00	1365
120.00	1015	195.00	1496	277.00	24040		
122.00	8685	196.00	23536	278.00	6409		

Analytical Resources, Incorporated
Analytical Chemists and Consultants

MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270D-SIM

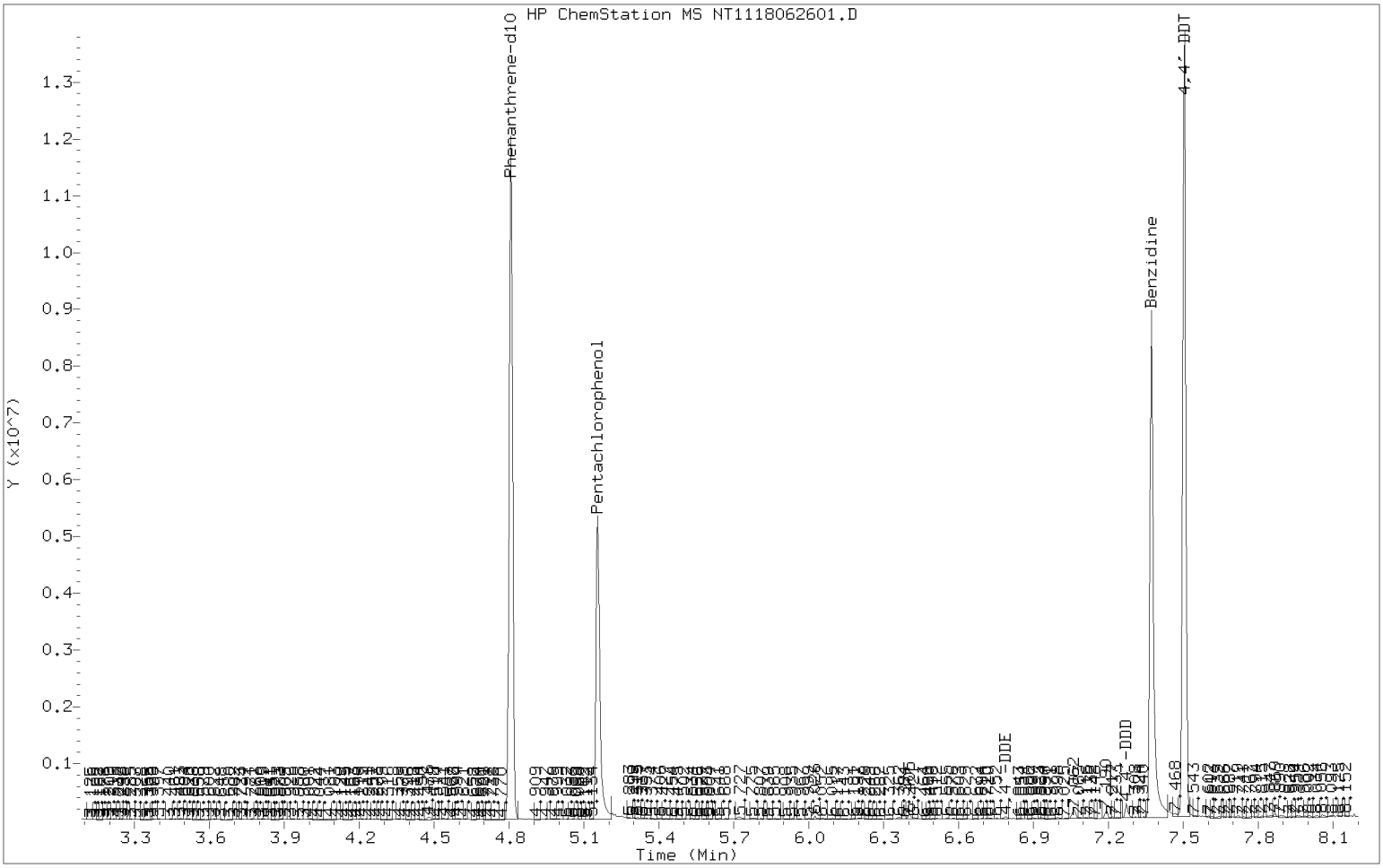
Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Lab File ID:	NT1118062601.D	Injection Date:	06/27/18
Instrument ID:	NT11	Injection Time:	07:53
Sequence:	SGF0327	Lab Sample ID:	SGF0327-TUN1

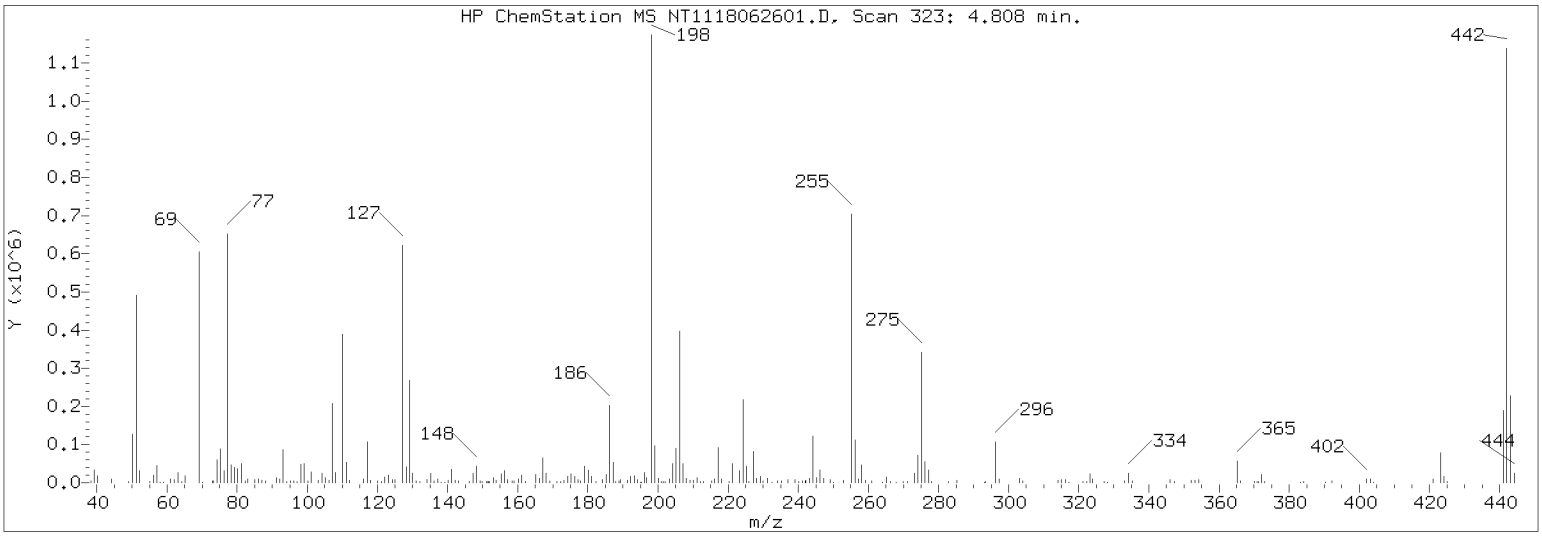
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10 - 80% of 198	40.2	PASS
68	Less than 2% of 69	0.55	PASS
69	Less than 100% of 198	49.6	PASS
70	Less than 2% of 69	0.382	PASS
127	10 - 80% of 198	52.4	PASS
197	Less than 2% of 198	1.17	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	7.88	PASS
275	10 - 60% of 198	29	PASS
365	1 - 100% of 198	4.41	PASS
441	0.1 - 24% of 442	15.9	PASS
442	50 - 200% of 198	93.1	PASS
443	15 - 24% of 442	21.6	PASS

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SGF0327-TUN1	NT1118062601.D	06/27/2018	7:53
Initial Cal Check	SGF0327-ICV1	NT1118062602.D	06/27/2018	8:13
LDW18-SP-24	18F0208-03	NT1118062603.D	06/27/2018	8:55
LDW18-SP-24-FD	18F0208-04	NT1118062604.D	06/27/2018	9:31
LDW18-SP-33	18F0208-02RE1	NT1118062605.D	06/27/2018	10:06
Calibration Check	SGF0327-CCV1	NT1118062607.D	06/27/2018	11:20

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20180627.b/NT1118062601.D/NT1118062601.D
Method Used: \20180627.b\DFTPP.m Inst: nt11
Injection Date: 27-JUN-2018 07:53 Operator: VTS
Sample Info: SGF0327-TUN1 SGF0327-TUN1
Report Date: 06/27/2018 14:21





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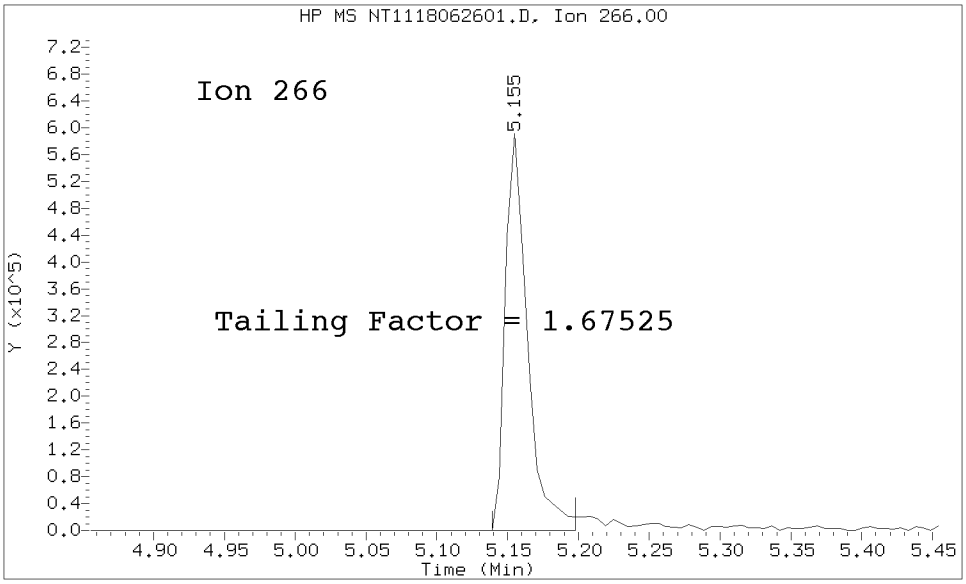
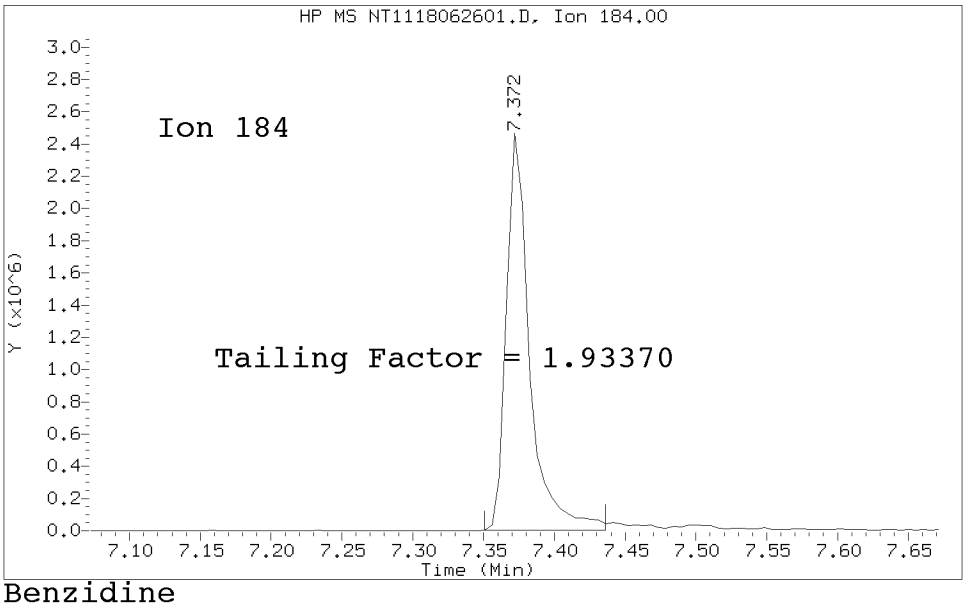
Method Used: \20180627.b\DFTPP.m\sw846ddt.m Inst: nt11
Injection Date: 27-JUN-2018 07:53 Operator: VTS
Sample Info: SGF0327-TUN1
Report Date: 06/27/2018 14:21



Pentachlorophenol
==========
Exp. RT = 5.155
Found RT = 5.155

Tail Factor = 1.675 Maximum Allowed = 2.0



Benzidine
==========
Exp. RT = 7.372
Found RT = 7.372

Tail Factor = 1.934 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.6752504	2.000	PASS
Benzidine	1.9337017	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1830633			N/A
4,4-DDE	6175	0.3	20.0	PASS
4,4-DDD	42303	2.3	20.0	PASS
4,4-DDD + DDE	48478	2.6	20.0	PASS

Tuning Sample, nt11.i/20180627.b/NT1118062601.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	40.16
68	Less than 2.00% of mass 69	0.27 (0.55)
69	Mass 69 relative abundance	49.56
70	Less than 2.00% of mass 69	0.19 (0.38)
127	10.00 - 80.00% of mass 198	52.43
197	Less than 2.00% of mass 198	1.17
199	5.00 - 9.00% of mass 198	7.88
275	10.00 - 60.00% of mass 198	28.98
365	Greater than 1.00% of mass 198	4.41
441	0.01 - 24.00% of mass 442	14.79 (15.89)
442	50.00 - 200.00% of mass 198	93.07
443	15.00 - 24.00% of mass 442	20.08 (21.58)

Data File: NT1118062601.D
Spectrum: Avg. Scans 322-324 (4.81), Background Scan 316
Location of Maximum: 198.00
Number of points: 259

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	5288	125.00	5852	195.00	2217	271.00	1856
39.00	31928	127.00	508608	196.00	25264	272.00	1403
40.00	7957	128.00	39272	197.00	11352	273.00	16840
44.00	12	129.00	203456	198.00	969984	274.00	51552
49.00	3558	130.00	17832	199.00	76392	275.00	281088
50.00	104776	131.00	1696	200.00	7939	276.00	40136
51.00	389504	132.00	2697	201.00	1942	277.00	25928
52.00	21760	134.00	6358	202.00	3325	278.00	3404
53.00	858	135.00	18688	203.00	7129	283.00	3276
55.00	1932	136.00	3457	204.00	43024	285.00	4061
56.00	15852	137.00	9337	205.00	71936	293.00	3394
57.00	33976	138.00	679	206.00	290944	294.00	952
58.00	690	139.00	723	207.00	38232	296.00	81584
61.00	6480	140.00	2348	208.00	8359	297.00	9452
62.00	5629	141.00	28408	209.00	3233	298.00	800
63.00	21432	142.00	7105	210.00	4258	301.00	1600
64.00	879	143.00	5062	211.00	9617	302.00	851
65.00	11630	146.00	2477	212.00	4119	303.00	9375
68.00	2645	147.00	13623	213.00	1978	304.00	2472
69.00	480768	148.00	29344	215.00	2397	314.00	5540
70.00	1835	149.00	7002	216.00	6333	315.00	6209
73.00	5090	150.00	2184	217.00	78000	316.00	4661
74.00	46576	151.00	5454	218.00	8697	317.00	671
75.00	78936	152.00	1045	220.00	1108	321.00	2047
76.00	27216	153.00	9423	221.00	43592	322.00	940
77.00	547392	154.00	6473	222.00	6079	323.00	22864
78.00	40520	155.00	18064	223.00	22680	324.00	5078
79.00	34856	156.00	23096	224.00	163072	327.00	4411
80.00	27512	157.00	6751	225.00	32768	328.00	673
81.00	41304	158.00	4452	226.00	4747	332.00	683
82.00	8395	159.00	2740	227.00	61064	333.00	2415
83.00	10725	160.00	7498	228.00	7868	334.00	19008
85.00	8294	161.00	15367	229.00	12207	335.00	1397
86.00	12186	162.00	4225	230.00	2406	341.00	1948
87.00	6305	164.00	810	231.00	8102	342.00	1717
88.00	2795	165.00	14021	232.00	1644	346.00	5035
91.00	10583	166.00	9164	234.00	2639	347.00	1065
92.00	9360	167.00	51480	235.00	4692	352.00	6358
93.00	61080	168.00	19064	236.00	3996	353.00	6258
94.00	4298	169.00	4972	237.00	5817	354.00	8547
95.00	3587	170.00	703	239.00	3415	365.00	42776
96.00	3611	171.00	869	240.00	2664	366.00	5887
97.00	1036	172.00	4375	241.00	2599	370.00	970
98.00	41056	173.00	4640	242.00	8713	371.00	4070
99.00	40416	174.00	12118	243.00	7907	372.00	17456
100.00	4384	175.00	20560	244.00	104344	373.00	3052
101.00	22328	176.00	7259	245.00	15463	383.00	3563
103.00	5568	177.00	7652	246.00	24896	384.00	1291
104.00	16034	178.00	3549	247.00	6288	390.00	777

105.00	12114	179.00	38024	249.00	6326	391.00	765
106.00	6328	180.00	25912	250.00	668	392.00	1406
107.00	166656	181.00	14094	252.00	900	397.00	817
108.00	23952	182.00	1188	253.00	5327	402.00	6884
110.00	318656	183.00	1319	255.00	574976	403.00	9616
111.00	47576	184.00	4572	256.00	88000	404.00	3105
112.00	4593	185.00	19720	257.00	6001	421.00	8668
113.00	991	186.00	146816	258.00	35000	422.00	6701
116.00	6769	187.00	40928	259.00	6348	423.00	60464
117.00	95000	188.00	4687	260.00	672	424.00	11584
118.00	7680	189.00	10817	261.00	1689	425.00	1777
120.00	1471	190.00	1424	264.00	823	441.00	143488
121.00	957	191.00	3401	265.00	11550	442.00	902784
122.00	11503	192.00	12692	266.00	1149	443.00	194816
123.00	14505	193.00	12745	268.00	830	444.00	16138
124.00	6506	194.00	4244	270.00	874		

Analytical Resources, Incorporated
Analytical Chemists and Consultants

MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270D-SIM

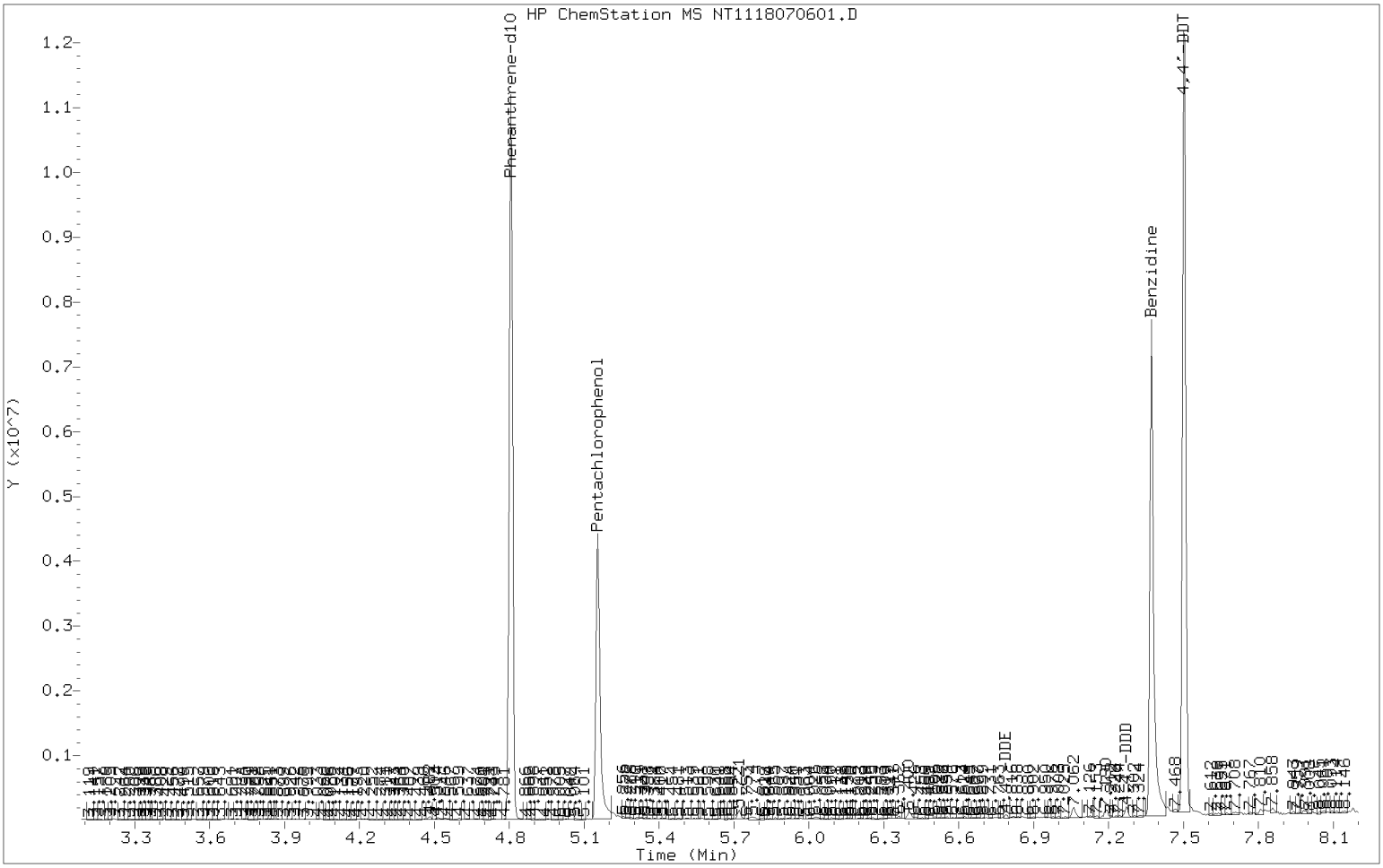
Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Lab File ID:	NT1118070601.D	Injection Date:	07/06/18
Instrument ID:	NT11	Injection Time:	12:29
Sequence:	SGG0067	Lab Sample ID:	SGG0067-TUN1

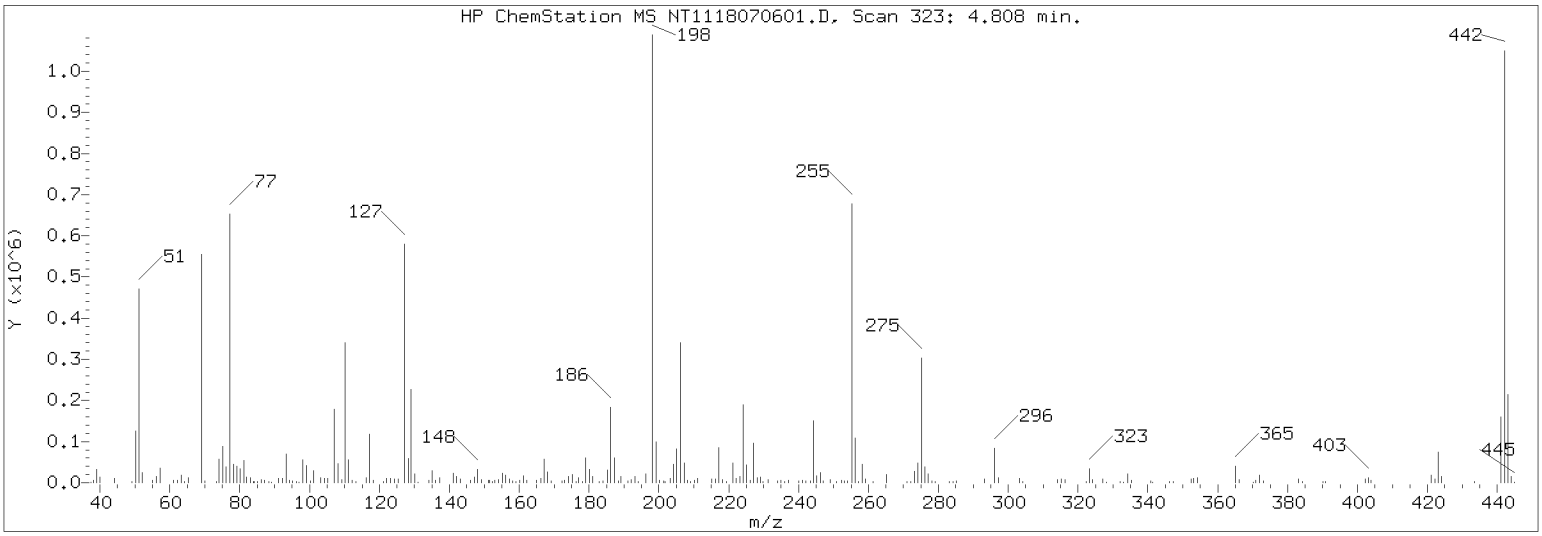
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10 - 80% of 198	42.1	PASS
68	Less than 2% of 69	0.402	PASS
69	Less than 100% of 198	49.7	PASS
70	Less than 2% of 69	0.476	PASS
127	10 - 80% of 198	51.7	PASS
197	Less than 2% of 198	0.332	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	7.97	PASS
275	10 - 60% of 198	27.6	PASS
365	1 - 100% of 198	3.41	PASS
441	0.1 - 24% of 442	14.7	PASS
442	50 - 200% of 198	90.3	PASS
443	15 - 24% of 442	20.5	PASS

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SGG0067-TUN1	NT1118070601.D	07/06/2018	12:29
Initial Cal Check	SGG0067-ICV1	NT1118070602.D	07/06/2018	12:50
Blank	BGF0530-BLK1	NT1118070603.D	07/06/2018	13:29
LCS	BGF0530-BS1	NT1118070604.D	07/06/2018	14:05
LDW18-SP-05	18F0226-01	NT1118070605.D	07/06/2018	14:42
LDW18-SP-57	18F0226-02	NT1118070606.D	07/06/2018	15:18
Matrix Spike	BGF0530-MS1	NT1118070607.D	07/06/2018	16:01
Matrix Spike Dup	BGF0530-MSD1	NT1118070608.D	07/06/2018	16:37
LDW18-SP-73	18F0226-03	NT1118070609.D	07/06/2018	17:14
LDW18-SP-74	18F0226-04	NT1118070610.D	07/06/2018	17:50
LDW18-SP-77	18F0226-05	NT1118070611.D	07/06/2018	18:27
LDW18-SP-78	18F0226-06	NT1118070612.D	07/06/2018	19:03
LDW18-SP-79	18F0226-07	NT1118070613.D	07/06/2018	19:39
LDW18-SP-84	18F0226-08	NT1118070614.D	07/06/2018	20:15
LDW18-SP-87	18F0226-09	NT1118070615.D	07/06/2018	20:51
LDW18-SP-01	18F0248-01	NT1118070616.D	07/06/2018	21:27
LDW18-SP-45	18F0248-02	NT1118070617.D	07/06/2018	22:03
LDW18-SP-47	18F0248-03	NT1118070618.D	07/06/2018	22:39
LDW18-SP-66	18F0248-04	NT1118070619.D	07/06/2018	23:15
LDW18-SP-70	18F0248-05	NT1118070620.D	07/06/2018	23:51
LDW18-SP-83	18F0248-06	NT1118070621.D	07/07/2018	0:26
Calibration Check	SGG0067-CCV1	NT1118070624.D	07/07/2018	2:14

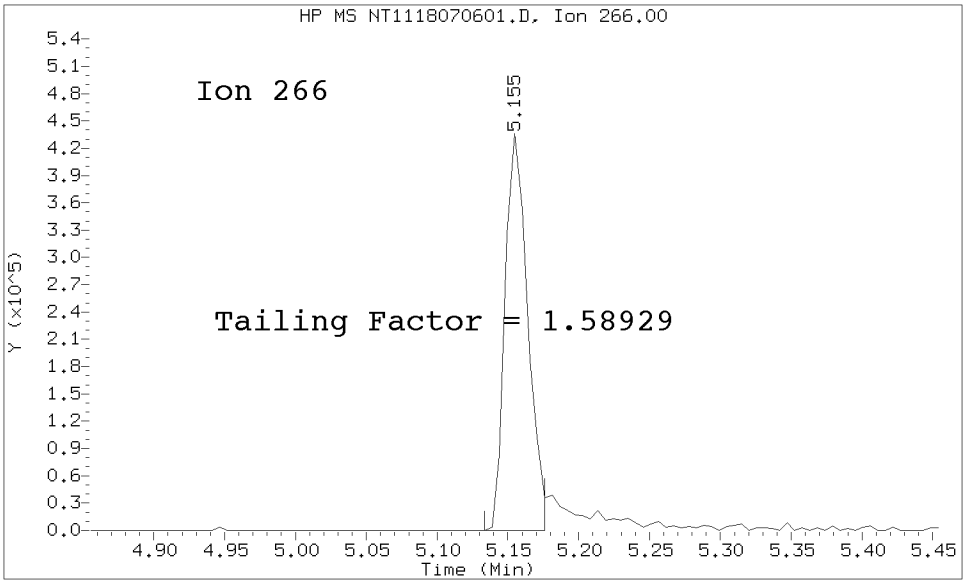
DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20180706.b/NT1118070601.D/NT1118070601.D
Method Used: \20180706.b\DFTPP.m Inst: nt11
Injection Date: 06-JUL-2018 12:29 Operator: VTS
Sample Info: SGG0067-TUN1 SGG0067-TUN1
Report Date: 07/07/2018 07:56



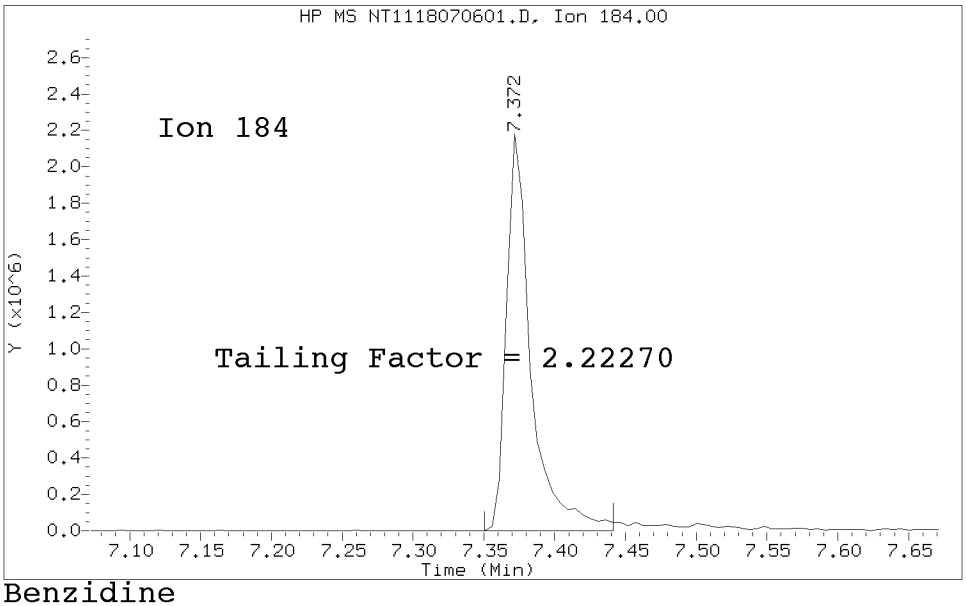


Datafile Analyzed: /20180706.b/NT1118070601.D/NT1118070601.D
Method Used: \20180706.b\DFTPP.m\sw846ddt.m Inst: nt11
Injection Date: 06-JUL-2018 12:29 Operator: VTS
Sample Info: SGG0067-TUN1
Report Date: 07/07/2018 07:56



Pentachlorophenol
==========
Exp. RT = 5.155
Found RT = 5.155

Tail Factor = 1.589 Maximum Allowed = 2.0



Benzidine
==========
Exp. RT = 7.372
Found RT = 7.372

The tailing factor for Benzidine EXCEEDED

Tail Factor = 2.223 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test	
Pentachlorophenol	1.5892857	2.000	PASS	
Benzidine	2.2226950	2.000	FAIL	[Failure]

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1642487			N/A
4,4-DDE	9094	0.6	20.0	PASS
4,4-DDD	28276	1.7	20.0	PASS
4,4-DDD + DDE	37370	2.2	20.0	PASS

Tuning Sample, nt11.i/20180706.b/NT1118070601.D, *** FAILED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	42.06
68	Less than 2.00% of mass 69	0.20 (0.40)
69	Mass 69 relative abundance	49.71
70	Less than 2.00% of mass 69	0.24 (0.48)
127	10.00 - 80.00% of mass 198	51.71
197	Less than 2.00% of mass 198	0.33
199	5.00 - 9.00% of mass 198	7.97
275	10.00 - 60.00% of mass 198	27.55
365	Greater than 1.00% of mass 198	3.41
441	0.01 - 24.00% of mass 442	13.27 (14.70)
442	50.00 - 200.00% of mass 198	90.27
443	15.00 - 24.00% of mass 442	18.47 (20.46)

Data File: NT1118070601.D
Spectrum: Avg. Scans 322-324 (4.81), Background Scan 316
Location of Maximum: 198.00
Number of points: 261

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	1445	120.00	715	191.00	4698	273.00	20424
38.00	4103	121.00	943	192.00	11561	274.00	43480
39.00	28336	122.00	9435	193.00	14802	275.00	251264
40.00	4997	123.00	12949	194.00	1981	276.00	33104
41.00	1290	124.00	7546	195.00	1477	277.00	20832
43.00	1045	125.00	6505	196.00	23360	278.00	3866
44.00	4320	127.00	471552	197.00	3031	279.00	1133
49.00	5021	128.00	44144	198.00	911872	283.00	2577
50.00	105128	129.00	189824	199.00	72640	284.00	783
51.00	383552	130.00	19080	200.00	5847	285.00	3018
52.00	24496	131.00	2097	201.00	1299	293.00	7769
55.00	3519	132.00	1204	202.00	2030	294.00	922
56.00	12045	133.00	680	203.00	8306	296.00	71600
57.00	29240	134.00	5517	204.00	37552	297.00	9189
58.00	1054	135.00	20288	205.00	66912	301.00	703
61.00	5297	136.00	3521	206.00	272064	303.00	11419
62.00	4946	137.00	8493	207.00	38320	304.00	3592
63.00	20984	138.00	893	208.00	6798	314.00	4393
64.00	979	140.00	774	209.00	1673	315.00	7118
65.00	12732	141.00	26472	210.00	5020	316.00	5844
68.00	1821	142.00	10673	211.00	10752	322.00	1980
69.00	453248	143.00	7558	212.00	1837	323.00	27256
70.00	2158	144.00	1866	215.00	5013	324.00	4211
73.00	2715	146.00	4193	216.00	5811	326.00	677
74.00	47944	147.00	13504	217.00	75760	327.00	5392
75.00	76856	148.00	28552	218.00	9411	328.00	1412
76.00	29600	149.00	5568	219.00	1126	332.00	1606
77.00	529600	151.00	5159	221.00	40064	333.00	1748
78.00	40144	152.00	949	222.00	12015	334.00	20744
79.00	33792	153.00	5366	223.00	15061	335.00	4894
80.00	29448	154.00	6215	224.00	148608	339.00	779
81.00	45992	155.00	17992	225.00	37296	341.00	4078
82.00	10512	156.00	21048	226.00	4660	346.00	4631
83.00	9304	157.00	7126	227.00	70352	347.00	1065
84.00	2673	158.00	3641	228.00	7352	352.00	6997
85.00	3657	159.00	3753	229.00	11347	353.00	7162
86.00	8975	160.00	7366	230.00	891	354.00	8398
87.00	5209	161.00	13665	231.00	5881	355.00	1297
88.00	1885	162.00	4721	234.00	4222	359.00	667
89.00	710	164.00	2180	235.00	4436	365.00	31128
91.00	8867	165.00	8636	236.00	1000	366.00	4467
92.00	9985	166.00	7027	237.00	4537	370.00	696
93.00	55144	167.00	45032	239.00	1213	371.00	2839
94.00	4573	168.00	21192	240.00	1451	372.00	14669
95.00	3258	169.00	3767	241.00	5117	373.00	3901
96.00	2020	170.00	1092	242.00	5296	383.00	3694
97.00	1665	171.00	1269	243.00	5228	384.00	895
98.00	44720	172.00	3596	244.00	118864	390.00	2337
99.00	40624	173.00	4956	245.00	13791	391.00	1006

100.00	3012	174.00	10180	246.00	19760	401.00	1626
101.00	21664	175.00	16520	247.00	3531	402.00	4790
103.00	7192	176.00	5664	249.00	5340	403.00	10534
104.00	11753	177.00	8442	251.00	884	404.00	2768
105.00	12399	178.00	3679	252.00	2734	421.00	9744
106.00	1097	179.00	42064	253.00	1537	422.00	6898
107.00	154944	180.00	29432	254.00	2145	423.00	52792
108.00	32192	181.00	12571	255.00	543296	424.00	10596
109.00	2474	182.00	839	256.00	85560	433.00	778
110.00	284032	183.00	1687	257.00	4830	441.00	120968
111.00	44400	184.00	1677	258.00	32064	442.00	823168
112.00	5043	185.00	21064	259.00	7474	443.00	168384
113.00	2077	186.00	133888	260.00	1016	444.00	15692
116.00	10224	187.00	45456	261.00	1733	445.00	1400
117.00	99104	188.00	5603	265.00	13457		
118.00	6946	189.00	8454	271.00	864		
119.00	1555	190.00	1282	272.00	2299		

Analytical Resources, Incorporated
Analytical Chemists and Consultants

MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270D-SIM

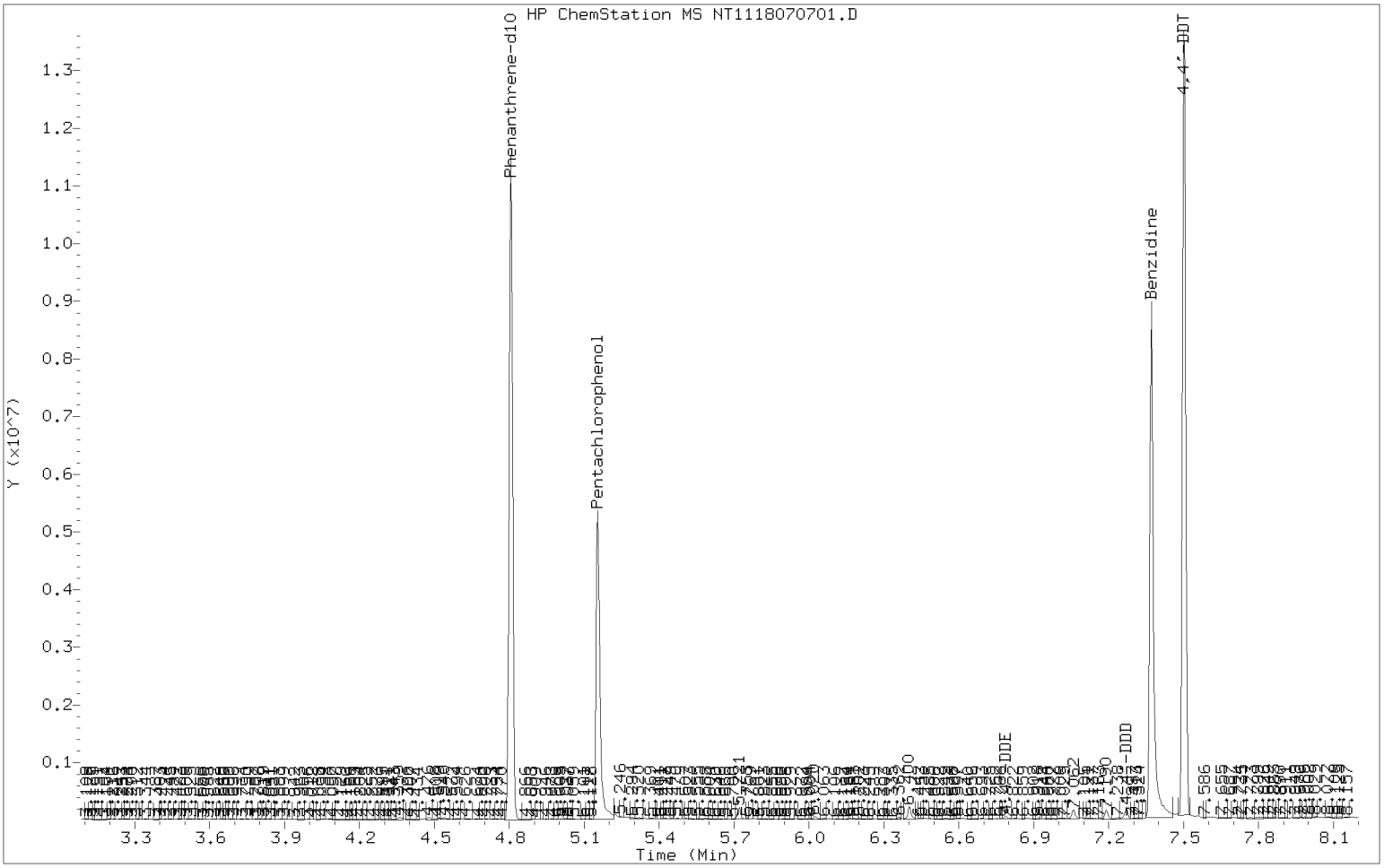
Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Lab File ID:	NT1118070701.D	Injection Date:	07/07/18
Instrument ID:	NT11	Injection Time:	08:34
Sequence:	SGG0076	Lab Sample ID:	SGG0076-TUN1

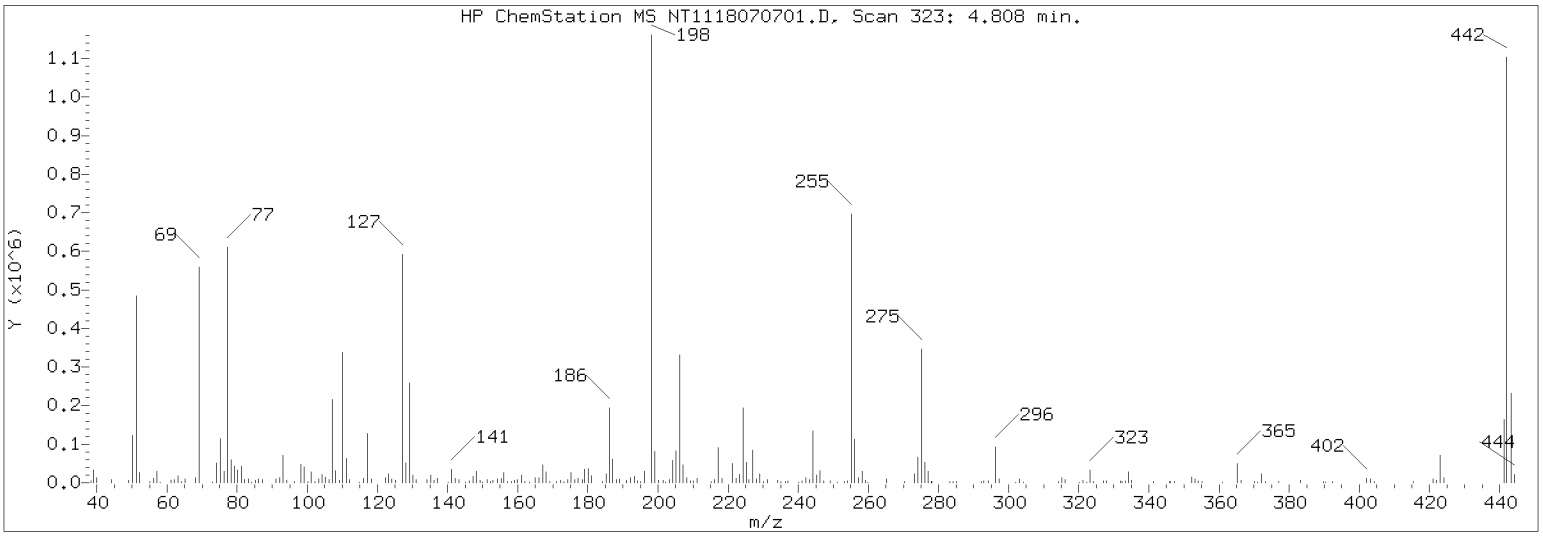
m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10 - 80% of 198	41.1	PASS
68	Less than 2% of 69	0.966	PASS
69	Less than 100% of 198	46.9	PASS
70	Less than 2% of 69	0.335	PASS
127	10 - 80% of 198	51.2	PASS
197	Less than 2% of 198	0.54	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	7.31	PASS
275	10 - 60% of 198	28.7	PASS
365	1 - 100% of 198	3.97	PASS
441	0.1 - 24% of 442	15.7	PASS
442	50 - 200% of 198	91.9	PASS
443	15 - 24% of 442	22.1	PASS

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SGG0076-TUN1	NT1118070701.D	07/07/2018	8:34
Initial Cal Check	SGG0076-ICV1	NT1118070702.D	07/07/2018	8:54
LDW18-SP-86	18F0248-07	NT1118070703.D	07/07/2018	9:44
LDW18-SP-88	18F0248-08	NT1118070704.D	07/07/2018	10:20
LDW18-SP-77	18F0226-05RE1	NT1118070706.D	07/07/2018	11:37
Calibration Check	SGG0076-CCV1	NT1118070707.D	07/07/2018	12:14

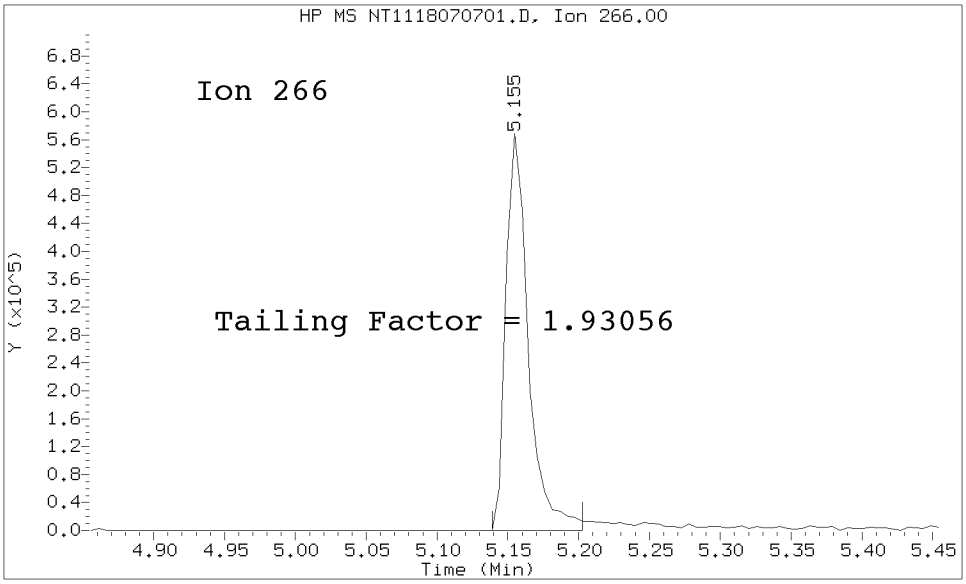
DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20180707.b/NT1118070701.D/NT1118070701.D
Method Used: \20180707.b\DFTPP.m Inst: nt11
Injection Date: 07-JUL-2018 08:34 Operator: VTS
Sample Info: SGG0076-TUN1 SGG0076-TUN1
Report Date: 07/07/2018 13:01



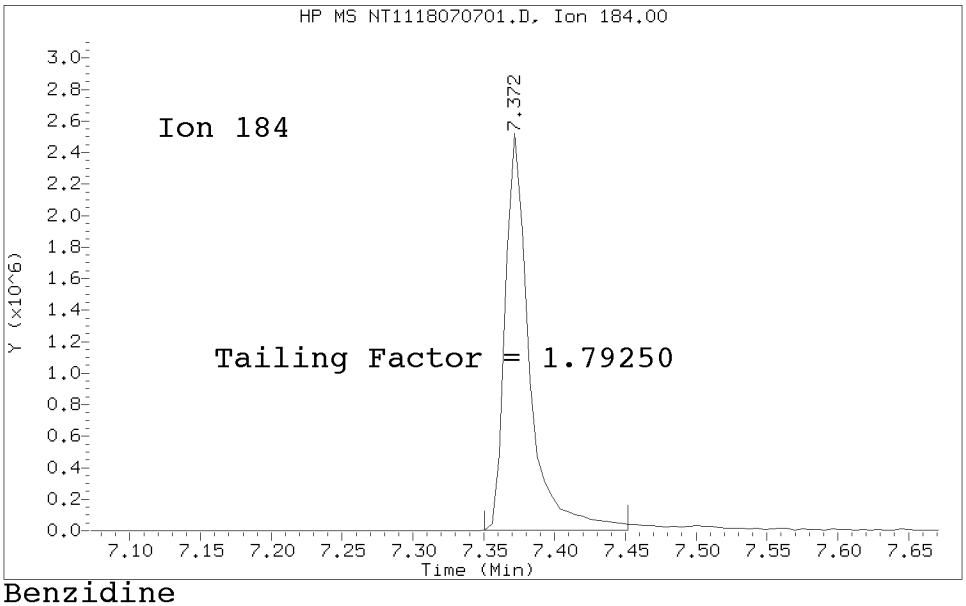


Datafile Analyzed: /20180707.b/NT1118070701.D/NT1118070701.D
Method Used: \20180707.b\DFTPP.m\sw846ddt.m Inst: nt11
Injection Date: 07-JUL-2018 08:34 Operator: VTS
Sample Info: SGG0076-TUN1
Report Date: 07/07/2018 13:01



Pentachlorophenol
==========
Exp. RT = 5.155
Found RT = 5.155

Tail Factor = 1.931 Maximum Allowed = 2.0



Benzidine
==========
Exp. RT = 7.372
Found RT = 7.372

Tail Factor = 1.793 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.9305556	2.000	PASS
Benzidine	1.7925000	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1915064			N/A
4,4-DDE	6155	0.3	20.0	PASS
4,4-DDD	32481	1.7	20.0	PASS
4,4-DDD + DDE	38636	2.0	20.0	PASS

Tuning Sample, nt11.i/20180707.b/NT1118070701.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	41.09
68	Less than 2.00% of mass 69	0.45 (0.97)
69	Mass 69 relative abundance	46.89
70	Less than 2.00% of mass 69	0.16 (0.34)
127	10.00 - 80.00% of mass 198	51.16
197	Less than 2.00% of mass 198	0.54
199	5.00 - 9.00% of mass 198	7.31
275	10.00 - 60.00% of mass 198	28.67
365	Greater than 1.00% of mass 198	3.97
441	0.01 - 24.00% of mass 442	14.47 (15.74)
442	50.00 - 200.00% of mass 198	91.94
443	15.00 - 24.00% of mass 442	20.32 (22.10)

Data File: NT1118070701.D
Spectrum: Avg. Scans 322-324 (4.81), Background Scan 316
Location of Maximum: 198.00
Number of points: 251

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	5044	124.00	7106	197.00	5172	275.00	274688
39.00	30512	125.00	5663	198.00	957952	276.00	36320
40.00	2466	126.00	855	199.00	70008	277.00	22936
44.00	3540	127.00	490112	200.00	5591	278.00	5295
50.00	102920	128.00	41896	201.00	3132	283.00	1957
51.00	393664	129.00	207680	202.00	680	284.00	1192
52.00	22496	130.00	16464	203.00	7394	285.00	4240
53.00	674	131.00	5598	204.00	42392	292.00	1296
55.00	1126	134.00	7258	205.00	65968	293.00	6153
56.00	10520	135.00	15724	206.00	269952	294.00	1406
57.00	24104	136.00	4843	207.00	41704	295.00	1187
58.00	742	137.00	9802	208.00	7969	296.00	69384
61.00	5865	140.00	2717	209.00	1535	297.00	8214
62.00	7658	141.00	24632	210.00	3251	302.00	666
63.00	19448	142.00	9015	211.00	10890	303.00	8742
64.00	3668	143.00	6228	212.00	1247	304.00	786
65.00	9685	145.00	1742	215.00	1342	308.00	802
68.00	4339	146.00	3721	216.00	5391	314.00	1952
69.00	449152	147.00	11365	217.00	76560	315.00	9638
70.00	1506	148.00	28624	218.00	9703	316.00	4917
73.00	2725	149.00	5356	219.00	1117	317.00	720
74.00	46488	150.00	737	220.00	800	320.00	710
75.00	85016	151.00	6037	221.00	40672	321.00	3128
76.00	26904	152.00	833	222.00	5249	322.00	687
77.00	501440	153.00	6246	223.00	17376	323.00	30056
78.00	40936	154.00	4907	224.00	153920	324.00	3838
79.00	35592	155.00	11574	225.00	43184	327.00	2519
80.00	25936	156.00	23240	226.00	5508	328.00	3535
81.00	38304	157.00	3318	227.00	61024	332.00	4637
82.00	9541	158.00	4766	228.00	9500	333.00	3051
83.00	8082	159.00	3376	229.00	17872	334.00	20576
84.00	2524	160.00	7275	230.00	1823	335.00	4592
85.00	4160	161.00	12931	231.00	6319	341.00	3281
86.00	9790	162.00	1380	234.00	3942	346.00	5166
87.00	5931	165.00	12794	235.00	3621	347.00	1944
91.00	8654	166.00	10641	236.00	2578	352.00	9870
92.00	9154	167.00	45904	237.00	5157	353.00	7751
93.00	64872	168.00	21496	239.00	1037	354.00	8114
94.00	5000	169.00	4870	240.00	2156	355.00	1045
96.00	2312	170.00	794	241.00	2542	361.00	686
98.00	41656	171.00	2529	242.00	7974	365.00	38008
99.00	36960	172.00	4199	243.00	7467	366.00	5071
100.00	2952	173.00	4916	244.00	111040	370.00	951
101.00	22000	174.00	10265	245.00	16896	371.00	1788
102.00	1172	175.00	23008	246.00	24056	372.00	15316
103.00	7023	176.00	4226	247.00	4478	373.00	4434
104.00	13218	177.00	9016	249.00	4214	377.00	1053
105.00	13307	178.00	2571	251.00	688	383.00	3617
106.00	5121	179.00	36576	253.00	3110	390.00	2724

107.00	163200	180.00	26688	254.00	1812	392.00	1366
108.00	25576	181.00	11725	255.00	564672	402.00	9464
109.00	1942	184.00	2393	256.00	96272	403.00	8975
110.00	277248	185.00	17448	257.00	8732	404.00	4164
111.00	47464	186.00	146816	258.00	24312	415.00	902
112.00	7179	187.00	44160	259.00	4122	421.00	7038
113.00	967	188.00	6139	260.00	671	422.00	4080
115.00	720	189.00	8192	261.00	672	423.00	53352
116.00	6315	191.00	4090	265.00	9824	424.00	10712
117.00	101360	192.00	12032	266.00	1110	441.00	138624
118.00	6967	193.00	11245	270.00	1692	442.00	880768
121.00	764	194.00	3183	272.00	1492	443.00	194624
122.00	10312	195.00	3946	273.00	19184	444.00	18056
123.00	16904	196.00	30056	274.00	50400		

INITIAL CALIBRATION DATA
EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BE00021	Instrument:	NT11
Calibration Date:	05/08/2018 8:54	Column (1):	RXi-17Sil-MS

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Naphthalene	10	1.943723	50	1.336355	100	1.33887	250	1.245806	500	1.216624	1000	1.022243
2-Methylnaphthalene	10	1.367371	50	1.291407	100	1.290285	250	1.177722	500	1.164291	1000	1.018656
Acenaphthylene	10	2.504204	50	2.549327	100	2.504305	250	2.392179	500	2.385695	1000	1.932065
Acenaphthene	10	1.729133	50	1.689904	100	1.697643	250	1.627259	500	1.657504	1000	1.35726
Dibenzofuran	10	2.413863	50	2.385961	100	2.363091	250	2.215113	500	2.235362	1000	1.755479
Fluorene	10	1.914247	50	1.870092	100	1.885697	250	1.81036	500	1.845021	1000	1.455378
Phenanthrene	10	1.797446	50	1.672081	100	1.688992	250	1.54903	500	1.507407	1000	1.196621
Anthracene	10	1.554995	50	1.56085	100	1.548649	250	1.5137	500	1.444685	1000	1.1756
Fluoranthene	10	1.544038	50	1.585024	100	1.604753	250	1.489338	500	1.436335	1000	1.080601
Pyrene	10	2.076517	50	2.005346	100	2.160512	250	2.071502	500	2.039593	1000	1.443756
Benzo(a)anthracene	10	1.602408	50	1.606835	100	1.65135	250	1.541525	500	1.534355	1000	1.264443
Chrysene	10	1.654283	50	1.603911	100	1.612703	250	1.537914	500	1.504235	1000	1.226376
Benzo(b)fluoranthene	10	1.43187	50	1.477099	100	1.499973	250	1.425612	500	1.457329	1000	1.195941
Benzo(k)fluoranthene	10	1.454503	50	1.512272	100	1.545998	250	1.497547	500	1.512828	1000	1.278388
Benzo(j)fluoranthene	10	1.327831	50	1.379274	100	1.416217	250	1.359274	500	1.384624	1000	1.143592
Benzo(a)pyrene	10	1.218487	50	1.247557	100	1.296044	250	1.270696	500	1.310143	1000	1.113786
Indeno(1,2,3-cd)pyrene	10	1.198966	50	1.277676	100	1.323881	250	1.333476	500	1.396024	1000	1.226306
Dibenzo(a,h)anthracene	10	0.9569378	50	1.060398	100	1.117072	250	1.125953	500	1.19235	1000	1.035293
Benzo(g,h,i)perylene	10	1.04174	50	1.109761	100	1.139242	250	1.153712	500	1.201594	1000	1.06288
1-Methylnaphthalene	10	1.336238	50	1.287264	100	1.270869	250	1.184337	500	1.188688	1000	1.002375
2-Methylnaphthalene-d10	10	1.161789	50	1.24287	100	1.217076	250	1.120869	500	1.125031	1000	0.9791203
Dibenzo[a,h]anthracene-d14	10	0.8863521	50	0.9171308	100	0.9707336	250	0.9918849	500	1.054637	1000	0.9217017
Fluoranthene-d10	10	1.27076	50	1.300506	100	1.319385	250	1.247004	500	1.216545	1000	0.9298199

INITIAL CALIBRATION DATA

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BE00021	Instrument:	NT11
Calibration Date:	05/08/2018 8:54	Column (1):	RXi-17Sil-MS

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Naphthalene	1.350604	23.2		0.9993	QCOD (0.99)	
2-Methylnaphthalene	1.218289	10.2			RSD (15)	
Acenaphthylene	2.377962	9.6			RSD (15)	
Acenaphthene	1.62645	8.4			RSD (15)	
Dibenzofuran	2.228145	11.0			RSD (15)	
Fluorene	1.796799	9.5			RSD (15)	
Phenanthrene	1.568596	13.4			RSD (15)	
Anthracene	1.466413	10.2			RSD (15)	
Fluoranthene	1.456682	13.3			RSD (15)	
Pyrene	1.966204	13.3			RSD (15)	
Benzo(a)anthracene	1.533486	9.1			RSD (15)	
Chrysene	1.523237	10.2			RSD (15)	
Benzo(b)fluoranthene	1.414637	7.8			RSD (15)	
Benzo(k)fluoranthene	1.466923	6.6			RSD (15)	
Benzo(j)fluoranthene	1.335135	7.4			RSD (15)	
Benzo(a)pyrene	1.242786	5.7			RSD (15)	
Indeno(1,2,3-cd)pyrene	1.292721	5.7			RSD (15)	
Dibenzo(a,h)anthracene	1.081334	7.6			RSD (15)	
Benzo(g,h,i)perylene	1.118155	5.3			RSD (15)	
1-Methylnaphthalene	1.211629	9.8			RSD (15)	
2-Methylnaphthalene-d10	1.141126	8.2			RSD (15)	
Dibenzo[a,h]anthracene-d14	0.9570734	6.4			RSD (15)	
Fluoranthene-d10	1.214003	11.9			RSD (15)	

Printed: 5/8/2018 9:24:14AM

ANALYSIS SEQUENCE

SGE0100

Instrument: NT11 Element Column ID: E006482
Calibration ID: BE00021 Tune File: 171116.U
EM Voltage: 2506

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SGE0100-TUN1	DFTPP	QC		1	F010313		
SGE0100-CAL4	250	QC		2	G003981	G003973	
SGE0100-CAL6	1000	QC		3	G003977	G003973	
SGE0100-CAL1	10	QC		4	G003978	G003973	
SGE0100-CAL5	500	QC		5	G003982	G003973	
SGE0100-CAL2	100	QC		6	G003979	G003973	
SGE0100-CAL3	50	QC		7	G003980	G003973	
SGE0100-ICV1	ICV 250	QC		8	G003981	G003973	
BGE0007-BLK1	Blank	QC		9		G003973	
BGE0007-BS1	LCS	QC		10		G003973	
18D0403-01	180414-14	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg	A 02	11		G003973	
SGE0100-CCV1	CCV 250	QC		12	G003981	G003973	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20180505.b

	Time	Filename	LabID	ClientId	DF										
1	1156	NT1118050501.D	SGE0100-TUN1		1	|NO ISTDS FOUND||									
2	1216	NT1118050502.D	SGE0100-CAL4		1	| 8.58	431321||11.62	260137||14.31	427391||19.06	304596||22.30	263091|				
3	1252	NT1118050503.D	SGE0100-CAL6		1	| 8.58	429844||11.62	266324||14.31	433305||19.06	328972||22.30	305713|				
4	1327	NT1118050504.D	SGE0100-CAL1		1	| 8.58	453542||11.62	284258||14.31	489172||19.06	384384||22.30	282777|				
5	1403	NT1118050505.D	SGE0100-CAL5		1	| 8.58	443757||11.62	271488||14.31	469305||19.06	325441||22.30	295168|				
6	1439	NT1118050506.D	SGE0100-CAL2		1	| 8.58	461506||11.62	290097||14.31	488462||19.06	391296||22.30	296817|				
7	1515	NT1118050507.D	SGE0100-CAL3		1	| 8.58	455490||11.62	285609||14.31	488135||19.06	364945||22.30	299320|				
8	1551	NT1118050508.D	SGE0100-SCV1		1	| 8.58	454395||11.62	287025||14.31	487541||19.06	402951||22.30	306381|				
9	1626	NT1118050509.D	SGE0100-ICV1		1	| 8.58	462898||11.62	283986||14.31	481805||19.06	366235||22.30	311961|				
10	1702	NT1118050510.D	BGE0007-BLK1		1	| 8.58	457995||11.62	275283||14.31	477659||19.06	356968||22.31	299812|				
11	1738	NT1118050511.D	BGE0007-BS1		1	| 8.58	453213||11.62	274869||14.31	459379||19.06	340554||22.31	313172|				
12	1814	NT1118050512.D	18D0403-01		1	|11.79	946072||14.32	168139||19.11	436748||22.37	434396|					
13	1850	NT1118050513.D	18D0403-01		10	| 8.59	454959||11.64	211770||14.32	390197||19.07	356337||22.31	367865|				
14	1926	NT1118050514.D	SGE0100-CCV1		1	| 8.58	434829||11.62	314492||14.31	520922||19.06	316561||22.31	327770|				

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20180505.b

Instrument: nt11.i Date: 05-MAY-2018

Time	Filename	LabID	DF	Manually Integrated Compounds
1156	NT1118050501.D	SGE0100-TUN1	1	NO MANUAL INTEGRATION
1216	NT1118050502.D	SGE0100-CAL4	1	NO MANUAL INTEGRATION
1252	NT1118050503.D	SGE0100-CAL6	1	NO MANUAL INTEGRATION
1327	NT1118050504.D	SGE0100-CAL1	1	NO MANUAL INTEGRATION
1403	NT1118050505.D	SGE0100-CAL5	1	NO MANUAL INTEGRATION
1439	NT1118050506.D	SGE0100-CAL2	1	NO MANUAL INTEGRATION
1515	NT1118050507.D	SGE0100-CAL3	1	NO MANUAL INTEGRATION
1551	NT1118050508.D	SGE0100-SCV1	1	NO MANUAL INTEGRATION
1626	NT1118050509.D	SGE0100-ICV1	1	NO MANUAL INTEGRATION
1702	NT1118050510.D	BGE0007-BLK1	1	NO MANUAL INTEGRATION
1738	NT1118050511.D	BGE0007-BS1	1	NO MANUAL INTEGRATION
1814	NT1118050512.D	18D0403-01	1	NO MANUAL INTEGRATION
1850	NT1118050513.D	18D0403-01	10	Acenaphthylene, Aceraphthene, Dibenzofuran, Anthracene, Dibenzo(a,h)anthracene, 1-Methylnaphthalene, Acenaphthene-d10, Benzo(b)thiophene, Carbazole, Biphenyl, 2-Methylnaphthalene-d10, Fluoranthene-d10,
1926	NT1118050514.D	SGE0100-CCV1	1	NO MANUAL INTEGRATION

Security Status Report

Date: 08-May-2018 09:02

NT1118050501.D	Data Locked	van, 08-May-2018 09:02
NT1118050502.D	Data Locked	van, 08-May-2018 09:02
NT1118050503.D	Data Locked	van, 08-May-2018 09:02
NT1118050504.D	Data Locked	van, 08-May-2018 09:02
NT1118050505.D	Data Locked	van, 08-May-2018 09:02
NT1118050506.D	Data Locked	van, 08-May-2018 09:02
NT1118050507.D	Data Locked	van, 08-May-2018 09:02
NT1118050508.D	Data Locked	van, 08-May-2018 09:02
NT1118050509.D	Data Locked	van, 08-May-2018 09:02
NT1118050510.D	Data Locked	van, 08-May-2018 09:02
NT1118050511.D	Data Locked	van, 08-May-2018 09:02
NT1118050512.D	Data Locked	van, 08-May-2018 09:02
NT1118050513.D	Data Locked	van, 08-May-2018 09:02
NT1118050514.D	Data Locked	van, 08-May-2018 09:02

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Extract Dilution Bench Sheet

Sequence: SGE0100
Analyst: VTS Date: 5.5.18

Sample ID	Primary Dilution				Secondary Dilution			
	Extract Volume (uL)	Diluent ID	Diluent Volume (uL)	Dilution Factor	Extract Volume (uL)	Diluent ID	Diluent Volume (uL)	Dilution Factor
18D0403-01	50	DCM|G002987	450	10				

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAY-2018 12:16
End Cal Date : 05-MAY-2018 15:15
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt11.i\20180505.b\lowsim.m
Last Edit : 08-May-2018 08:49 nt11.i

Calibration File Names:
Level 1: \\target\share\chem3\nt11.i\20180505.b\NT1118050504.D
Level 2: \\target\share\chem3\nt11.i\20180505.b\NT1118050506.D
Level 3: \\target\share\chem3\nt11.i\20180505.b\NT1118050507.D
Level 4: \\target\share\chem3\nt11.i\20180505.b\NT1118050502.D
Level 5: \\target\share\chem3\nt11.i\20180505.b\NT1118050505.D
Level 6: \\target\share\chem3\nt11.i\20180505.b\NT1118050503.D

Compound	10.0000 Level 1	50.0000 Level 2	100.0000 Level 3	250.0000 Level 4	500.0000 Level 5	1000.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
2 Naphthalene	44078	154184	304921	671678	1349714	2197026	QUAD	0.000e+000	0.66292	0.06088	0.99930
3 Benzo(b)thiophene	1.08219	1.11302	1.08181	1.04802	1.05172	0.91322	AVRG		1.04833		6.70708
5 2-Methylnaphthalene	1.36737	1.29141	1.29029	1.17772	1.16429	1.01866	AVRG		1.21829		10.19738
6 1-Methylnaphthalene	1.33624	1.28726	1.27087	1.18434	1.18869	1.00238	AVRG		1.21163		9.75263
7 2-Chloronaphthalene	2.18372	2.22681	2.19460	2.08976	2.07356	1.70576	AVRG		2.07904		9.26788
8 Biphenyl	2.61607	2.66625	2.65702	2.50303	2.47357	2.00512	AVRG		2.48685		10.01817
9 2,6-Dimethylnaphthalene	1.96983	2.07156	2.07395	2.00199	2.00840	1.66654	AVRG		1.96538		7.73587
10 Acenaphthylene	2.50420	2.54933	2.50430	2.39218	2.38570	1.93206	AVRG		2.37796		9.59600
12 Acenaphthene	1.72913	1.68990	1.69764	1.62726	1.65750	1.35726	AVRG		1.62645		8.38827
13 Dibenzofuran	2.41386	2.38596	2.36309	2.21511	2.23536	1.75548	AVRG		2.22814		11.01615
14 2,3,5-Trimethylnaphthalene	1.40774	1.47839	1.49583	1.46693	1.48965	1.21705	AVRG		1.42593		7.50998
16 Fluorene	1.91425	1.87009	1.88570	1.81036	1.84502	1.45538	AVRG		1.79680		9.51500
17 Dibenzothiophene	1.31680	1.32697	1.32125	1.25860	1.23814	1.01097	AVRG		1.24545		9.68106
19 Phenanthrene	1.79745	1.67208	1.68899	1.54903	1.50741	1.19662	AVRG		1.56860		13.37466

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAY-2018 12:16
End Cal Date : 05-MAY-2018 15:15
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt11.i\20180505.b\lowsim.m
Last Edit : 08-May-2018 08:49 nt11.i

Compound	10.0000 Level 1	50.0000 Level 2	100.0000 Level 3	250.0000 Level 4	500.0000 Level 5	1000.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
21 Anthracene	1.55499	1.56085	1.54865	1.51370	1.44469	1.17560	AVRG		1.46641		10.15184
22 Carbazole	1.84038	1.85032	1.83698	1.74032	1.66737	1.31464	AVRG		1.70834		12.04893
23 1-Methylphenanthrene	1.55520	1.58163	1.60563	1.53635	1.47192	1.14181	AVRG		1.48209		11.66134
25 Fluoranthene	1.54404	1.58502	1.60475	1.48934	1.43634	1.08060	AVRG		1.45668		13.34499
26 Pyrene	2.07652	2.00535	2.16051	2.07150	2.03959	1.44376	AVRG		1.96620		13.27971
27 Benzo(a)anthracene	1.60241	1.60683	1.65135	1.54153	1.53435	1.26444	AVRG		1.53349		9.05807
29 Chrysene	1.65428	1.60391	1.61270	1.53791	1.50423	1.22638	AVRG		1.52324		10.18685
30 Benzo(b)fluoranthene	1.43187	1.47710	1.49997	1.42561	1.45733	1.19594	AVRG		1.41464		7.82401
31 Benzo(k)fluoranthene	1.45450	1.51227	1.54600	1.49755	1.51283	1.27839	AVRG		1.46692		6.61313
32 Benzo(j)fluoranthene	1.32783	1.37927	1.41622	1.35927	1.38462	1.14359	AVRG		1.33514		7.36117
34 Benzo(e)pyrene	1.36369	1.41903	1.43682	1.38858	1.40240	1.17619	AVRG		1.36445		7.00536
35 Benzo(a)pyrene	1.21849	1.24756	1.29604	1.27070	1.31014	1.11379	AVRG		1.24279		5.73579
37 Perylene	1.25088	1.34037	1.36938	1.33175	1.37158	1.16191	AVRG		1.30431		6.31720
39 Dibenzo(a,h)anthracene	0.95694	1.06040	1.11707	1.12595	1.19235	1.03529	AVRG		1.08133		7.58381
40 Indeno(1,2,3-cd)pyrene	1.19897	1.27768	1.32388	1.33348	1.39602	1.22631	AVRG		1.29272		5.65607
41 Benzo(g,h,i)perylene	1.04174	1.10976	1.13924	1.15371	1.20159	1.06288	AVRG		1.11815		5.31146
$ 4 2-Methylnaphthalene-d10	1.16179	1.24287	1.21708	1.12087	1.12503	0.97912	AVRG		1.14113		8.17031
$ 15 Fluorene-d10	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
$ 20 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000
$ 24 Fluoranthene-d10	1.27076	1.30051	1.31939	1.24700	1.21654	0.92982	AVRG		1.21400		11.86073
$ 33 Benzo(e)pyrene-d12	+++++	+++++	+++++	+++++	+++++	+++++	AVRG		0.000e+000		0.000e+000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAY-2018 12:16
End Cal Date : 05-MAY-2018 15:15
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt11.i\20180505.b\lowsim.m
Last Edit : 08-May-2018 08:49 nt11.i

Compound	10.0000 Level 1	50.0000 Level 2	100.0000 Level 3	250.0000 Level 4	500.0000 Level 5	1000.0000 Level 6	Curve	Coefficients b	m1	m2	%RSD or R^2
$ 38 Dibenzo(a,h)anthracene-d14	0.88635	0.91713	0.97073	0.99188	1.05464	0.92170	AVRG		0.95707		6.40098

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAY-2018 12:16
End Cal Date : 05-MAY-2018 15:15
Quant Method : ISTD
Target Version : 4.14
Integrator : HP RTE
Method file : \\target\share\chem3\nt11.i\20180505.b\lowsim.m
Last Edit : 08-May-2018 08:49 nt11.i

Curve	Formula	Units
Averaged	Amt = Rsp/m1	Response
Quad	Amt = b + m1*Rsp + m2*Rsp^2	Response

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt11.i\20180505.b\lowsim.m
Batch File: \\target\share\chem3\nt11.i\20180505.b
Inst ID: nt11.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	NT1118050502	NT1118050503	NT1118050504	NT1118050505	NT1118050506	NT1118050507
INJ.DATE:	05-MAY-2018	05-MAY-2018	05-MAY-2018	05-MAY-2018	05-MAY-2018	05-MAY-2018
INJ.TIME:	12:16	12:52	13:27	14:03	14:39	15:15

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
*	1 Naphthalene-d8	8.581	8.581	8.581	8.581	8.581	8.581	8.581	8.331-8.831	8.581	0.000
	2 Naphthalene	8.617	8.617	8.617	8.617	8.617	8.618	8.618	8.368-8.868	8.617	0.000
	3 Benzo(b)thiophene	8.870	8.870	8.871	8.870	8.870	8.871	8.871	8.621-9.121	8.870	0.000
$	4 2-Methylnaphthalene-d1	9.560	9.561	9.561	9.561	9.561	9.561	9.561	9.311-9.811	9.561	0.000
	5 2-Methylnaphthalene	9.623	9.624	9.624	9.624	9.624	9.624	9.624	9.374-9.874	9.624	0.000
	6 1-Methylnaphthalene	9.886	9.876	9.876	9.876	9.876	9.876	9.876	9.626-10.126	9.877	0.004
	7 2-Chloronaphthalene	10.537	10.538	10.538	10.538	10.538	10.538	10.538	10.288-10.788	10.538	0.000
	8 Biphenyl	10.495	10.496	10.496	10.496	10.496	10.496	10.496	10.246-10.746	10.496	0.000
	9 2,6-Dimethylnaphthalen	10.558	10.559	10.559	10.559	10.559	10.559	10.559	10.309-10.809	10.559	0.000
	10 Acenaphthylene	11.463	11.464	11.464	11.464	11.464	11.464	11.464	11.214-11.714	11.464	0.000
*	11 Acenaphthene-d10	11.617	11.617	11.617	11.617	11.617	11.617	11.617	11.367-11.867	11.617	0.000
	12 Acenaphthene	11.680	11.680	11.681	11.680	11.680	11.681	11.681	11.431-11.931	11.680	0.000
	13 Dibenzofuran	11.883	11.883	11.883	11.883	11.883	11.883	11.883	11.633-12.133	11.883	0.000
	14 2,3,5-Trimethylnaphtha	11.971	11.971	11.971	11.971	11.971	11.971	11.971	11.721-12.221	11.971	0.000
$	15 Fluorene-d10	+++++	+++++	+++++	+++++	+++++	+++++	16.449	16.199-16.699	+++++	+++++
	16 Fluorene	12.515	12.515	12.515	12.515	12.515	12.502	12.502	12.252-12.752	12.513	0.005
	17 Dibenzothiophene	14.141	14.141	14.141	14.141	14.141	14.141	14.141	13.891-14.391	14.141	0.000

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt11.i\20180505.b\lowsim.m
Batch File: \\target\share\chem3\nt11.i\20180505.b
Inst ID: nt11.i

	Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
*	18 Phenanthrene-d10	14.309	14.309	14.309	14.309	14.309	14.309	14.309	14.059-14.559	14.309	0.000
	19 Phenanthrene	14.351	14.351	14.351	14.351	14.351	14.351	14.351	14.101-14.601	14.351	0.000
$	20 Anthracene-d10	+++++	+++++	+++++	+++++	+++++	+++++	14.309	14.059-14.559	+++++	+++++
	21 Anthracene	14.403	14.404	14.404	14.404	14.404	14.404	14.404	14.154-14.654	14.404	0.000
	22 Carbazole	15.077	15.077	15.077	15.077	15.077	15.077	15.077	14.827-15.327	15.077	0.000
	23 1-Methylphenanthrene	15.348	15.348	15.348	15.348	15.348	15.348	15.348	15.098-15.598	15.348	0.000
$	24 Fluoranthene-d10	16.420	16.420	16.420	16.420	16.420	16.420	16.420	16.170-16.670	16.420	0.000
	25 Fluoranthene	16.449	16.449	16.449	16.449	16.449	16.449	16.449	16.199-16.699	16.449	0.000
	26 Pyrene	16.958	16.958	16.958	16.958	16.958	16.958	16.958	16.708-17.208	16.958	0.000
	27 Benzo(a)anthracene	18.971	18.971	18.971	18.971	18.971	18.971	18.971	18.721-19.221	18.971	0.000
*	28 Chrysene-d12	19.062	19.062	19.063	19.062	19.062	19.063	19.063	18.813-19.313	19.062	0.000
	29 Chrysene	19.112	19.112	19.112	19.112	19.112	19.112	19.112	18.862-19.362	19.112	0.000
	30 Benzo(b)fluoranthene	21.056	21.056	21.047	21.056	21.047	21.047	21.047	20.797-21.297	21.052	0.005
	31 Benzo(k)fluoranthene	21.104	21.104	21.104	21.104	21.104	21.105	21.105	20.855-21.355	21.104	0.000
	32 Benzo(j)fluoranthene	21.181	21.181	21.172	21.181	21.172	21.172	21.172	20.922-21.422	21.176	0.005
$	33 Benzo(e)pyrene-d12	+++++	+++++	+++++	+++++	+++++	+++++	22.296	22.046-22.546	+++++	+++++
	34 Benzo(e)pyrene	21.931	21.931	21.931	21.931	21.931	21.931	21.931	21.681-22.181	21.931	0.000
	35 Benzo(a)pyrene	22.056	22.065	22.056	22.056	22.056	22.056	22.056	21.806-22.306	22.057	0.004
*	36 Perylene-d12	22.296	22.296	22.296	22.296	22.296	22.296	22.296	22.046-22.546	22.296	0.000
	37 Perylene	22.373	22.373	22.373	22.373	22.373	22.373	22.373	22.123-22.623	22.373	0.000
$	38 Dibenzo(a,h)anthracene	25.202	25.213	25.202	25.202	25.202	25.203	25.203	24.953-25.453	25.204	0.005
	39 Dibenzo(a,h)anthracene	25.346	25.357	25.346	25.346	25.346	25.347	25.347	25.097-25.597	25.348	0.005

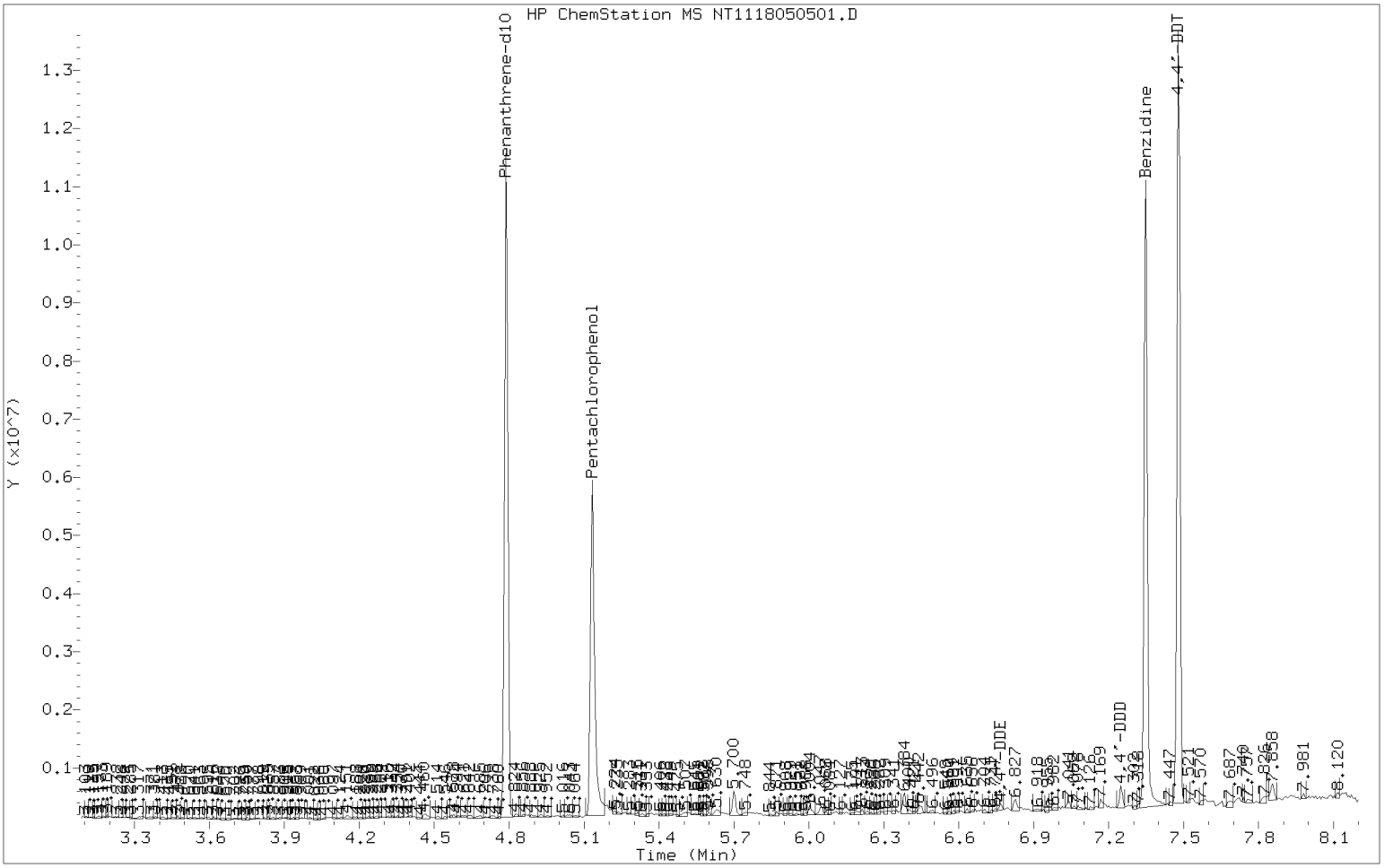
ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

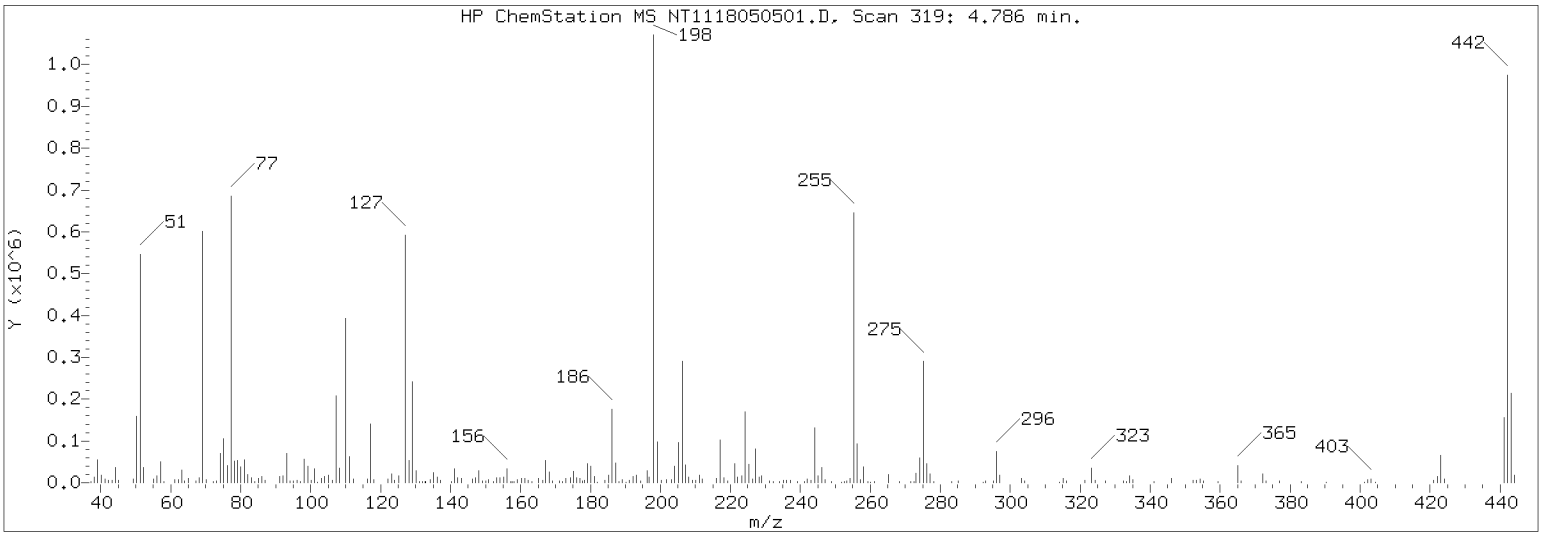
Method File: \\target\share\chem3\nt11.i\20180505.b\lowsim.m
Batch File: \\target\share\chem3\nt11.i\20180505.b
Inst ID: nt11.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
40 Indeno(1,2,3-cd)pyrene	25.379	25.391	25.380	25.380	25.380	25.380	25.380	25.130-25.630	25.381	0.005
41 Benzo(g,h,i)perylene	26.786	26.786	26.786	26.786	26.786	26.786	26.786	26.536-27.036	26.786	0.000

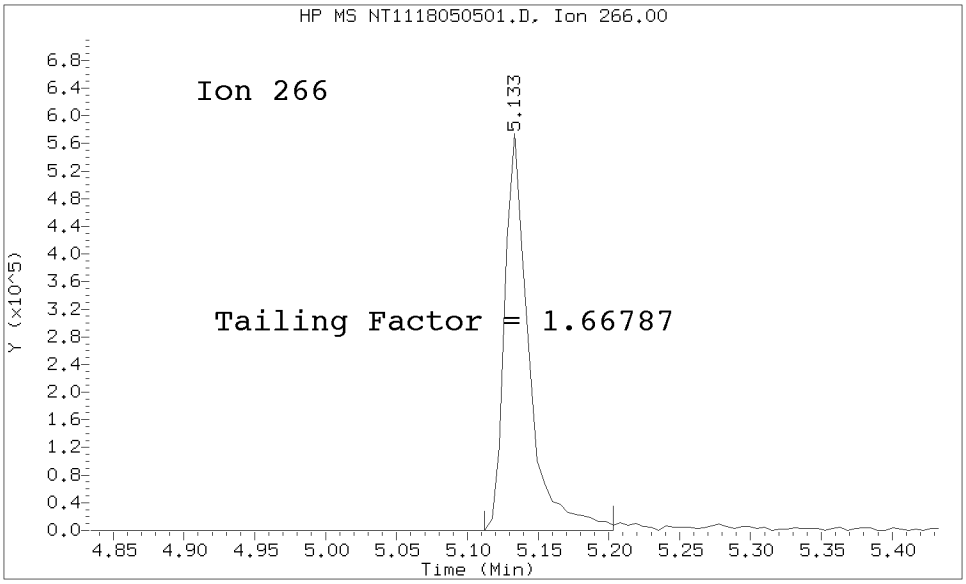
DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20180505.b/NT1118050501.D/NT1118050501.D
Method Used: \20180505.b\DFTPP.m Inst: nt11
Injection Date: 05-MAY-2018 11:56 Operator: VTS
Sample Info: SGE0100-TUN1 SGE0100-TUN1
Report Date: 05/08/2018 14:53



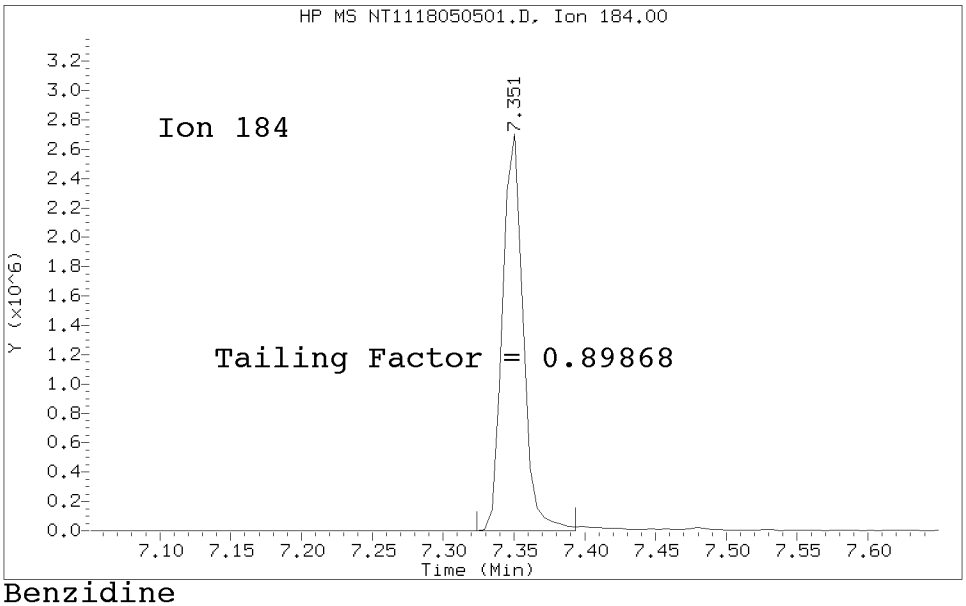


Datafile Analyzed: /20180505.b/NT1118050501.D/NT1118050501.D
Method Used: \20180505.b\DFTPP.m\sw846ddt.m Inst: nt11
Injection Date: 05-MAY-2018 11:56 Operator: VTS
Sample Info: SGE0100-TUN1
Report Date: 05/08/2018 14:53



Pentachlorophenol
==========
Exp. RT = 5.133
Found RT = 5.133

Tail Factor = 1.668 Maximum Allowed = 2.0



Benzidine
==========
Exp. RT = 7.351
Found RT = 7.351

Tail Factor = 0.899 Maximum Allowed = 2.0

Data File: \\target\share\chem3\nt11.i\20180505.b\NT1118050507.D

Date : 05-MAY-2018 15:15

Client ID:

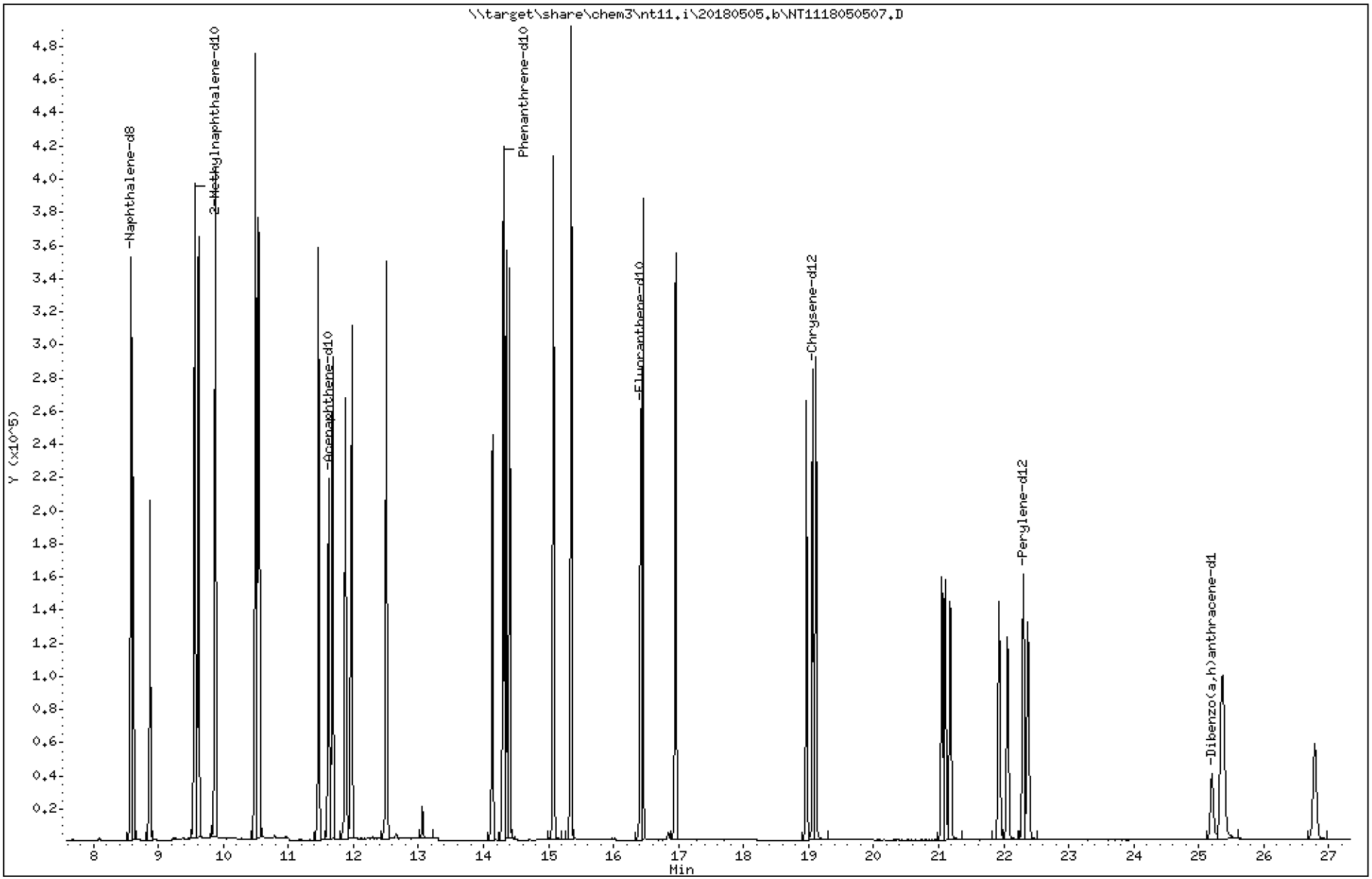
Instrument: nt11.i

Sample Info: SGE0100-CAL3

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180505.b\NT1118050507.D
Lab Smp Id: SGE0100-CAL3
Inj Date : 05-MAY-2018 15:15 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SGE0100-CAL3
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180505.b\lowsim.m
Meth Date : 08-May-2018 12:06 van Quant Type: ISTD
Cal Date : 05-MAY-2018 13:27 Cal File: NT1118050504.D
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
*	1 Naphthalene-d8	136	8.581	8.581	(1.000)	455490	200.000	
	2 Naphthalene	128	8.617	8.617	(1.004)	304921	100.000	94.2
	3 Benzo(b)thiophene	134	8.870	8.879	(1.034)	246376	100.000	103
$	4 2-Methylnaphthalene-d10	152	9.560	9.560	(1.114)	277183	100.000	107
	5 2-Methylnaphthalene	142	9.623	9.623	(1.121)	293856	100.000	106
	6 1-Methylnaphthalene	142	9.875	9.886	(1.151)	289434	100.000	105
	7 2-Chloronaphthalene	162	10.537	10.537	(0.907)	313399	100.000	106
	8 Biphenyl	154	10.495	10.495	(0.903)	379435	100.000	107
	9 2,6-Dimethylnaphthalene	156	10.558	10.558	(0.909)	296170	100.000	106
	10 Acenaphthylene	152	11.463	11.463	(0.987)	357626	100.000	105
*	11 Acenaphthene-d10	164	11.617	11.617	(1.000)	285609	200.000	
	12 Acenaphthene	153	11.680	11.680	(1.005)	242431	100.000	104
	13 Dibenzofuran	168	11.882	11.882	(1.023)	337460	100.000	106
	14 2,3,5-Trimethylnaphthalene	170	11.971	11.971	(1.030)	213611	100.000	105
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.502	12.514	(1.076)	269286	100.000	105
	17 Dibenzothiophene	184	14.141	14.140	(0.988)	322473	100.000	106
*	18 Phenanthrene-d10	188	14.309	14.309	(1.000)	488135	200.000	
	19 Phenanthrene	178	14.351	14.351	(1.003)	412228	100.000	108
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.403	14.403	(1.007)	377975	100.000	106
	22 Carbazole	167	15.077	15.076	(1.054)	448347	100.000	108
	23 1-Methylphenanthrene	192	15.348	15.347	(1.073)	391883	100.000	108
$	24 Fluoranthene-d10	212	16.420	16.420	(1.148)	322019	100.000	109
	25 Fluoranthene	202	16.449	16.448	(1.150)	391668	100.000	110
	26 Pyrene	202	16.958	16.958	(0.890)	394234	100.000	110
	27 Benzo(a)anthracene	228	18.971	18.971	(0.995)	301326	100.000	108
*	28 Chrysene-d12	240	19.062	19.062	(1.000)	364945	200.000	
	29 Chrysene	228	19.112	19.112	(1.003)	294274	100.000	106
	30 Benzo(b)fluoranthene	252	21.046	21.056	(0.944)	224486	100.000	106
	31 Benzo(k)fluoranthene	252	21.104	21.104	(0.947)	231374	100.000	105
	32 Benzo(j)fluoranthene	252	21.171	21.181	(0.950)	211951	100.000	106
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	21.930	21.930	(0.984)	215035	100.000	105

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	35 Benzo(a)pyrene	252	22.055	22.065	(0.989)	193966	100.000	104
*	36 Perylene-d12	264	22.295	22.295	(1.000)	299320	200.000	
	37 Perylene	252	22.372	22.372	(1.003)	204942	100.000	105
$	38 Dibenzo(a,h)anthracene-d14	292	25.202	25.202	(1.130)	145280	100.000	101
	39 Dibenzo(a,h)anthracene	278	25.346	25.346	(1.137)	167181	100.000	103
	40 Indeno(1,2,3-cd)pyrene	276	25.379	25.379	(1.138)	198132	100.000	102
	41 Benzo(g,h,i)perylene	276	26.786	26.786	(1.201)	170499	100.000	102

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118050507.D
Lab Smp Id: SGE0100-CAL3
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180505.b\lowsim.m
Misc Info:

Calibration Date: 05-MAY-2018
Calibration Time: 16:26
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	455490	5.60
11 Acenaphthene-d10	260137	130069	520274	285609	9.79
18 Phenanthrene-d10	427391	213696	854782	488135	14.21
28 Chrysene-d12	304596	152298	609192	364945	19.81
36 Perylene-d12	263091	131546	526182	299320	13.77

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.58	8.08	9.08	8.58	0.00
11 Acenaphthene-d10	11.62	11.12	12.12	11.62	0.00
18 Phenanthrene-d10	14.31	13.81	14.81	14.31	0.00
28 Chrysene-d12	19.06	18.56	19.56	19.06	0.00
36 Perylene-d12	22.30	21.80	22.80	22.30	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118050507.D

Lab ID: SGE0100-CAL3
nt11.i, 20180505.b\lowsim.m,   05-MAY-2018 15:15

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180505.b\lowsim.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.6678700	2.000	PASS
Benzidine	0.8986784	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1597043			N/A
4,4-DDE	5200	0.3	20.0	PASS
4,4-DDD	57467	3.5	20.0	PASS
4,4-DDD + DDE	62667	3.8	20.0	PASS

Tuning Sample, nt11.i/20180505.b/NT1118050501.D, *** PASSED ***

Data File: \\target\share\chem3\nt11.i\20180508.b\NT1118050803.D

Date : 08-MAY-2018 11:59

Client ID:

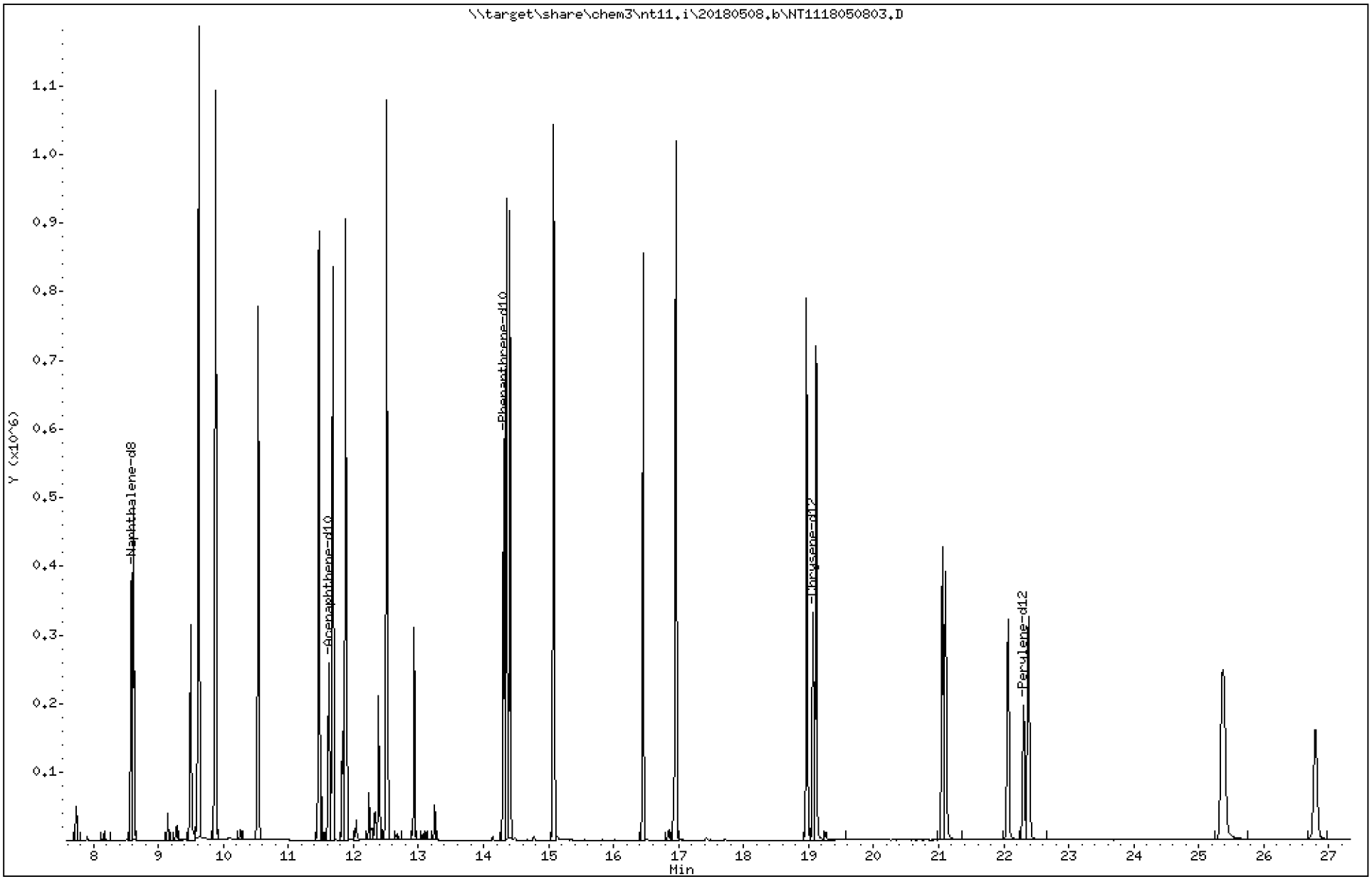
Instrument: nt11.i

Sample Info: SGE0126-SCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 08-MAY-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: SGE0126-SCV1

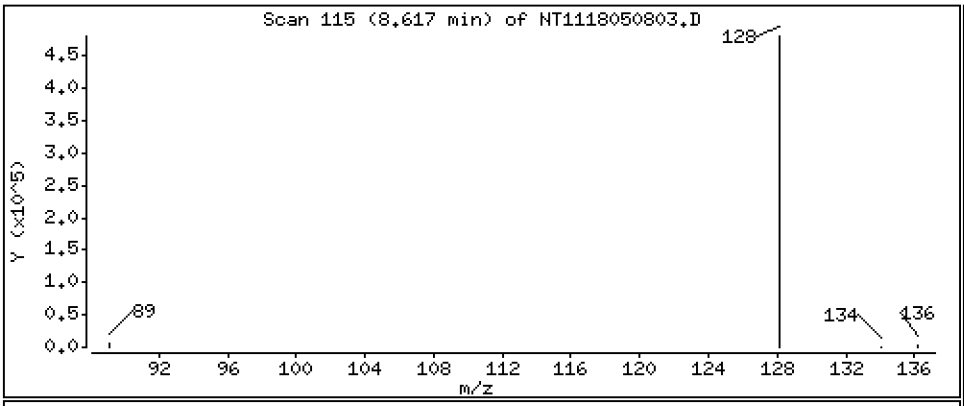
Operator: VTS

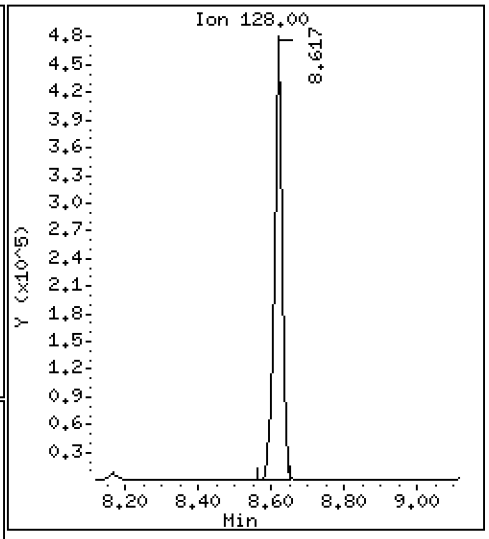
Column phase: Rxi-17Sil MS

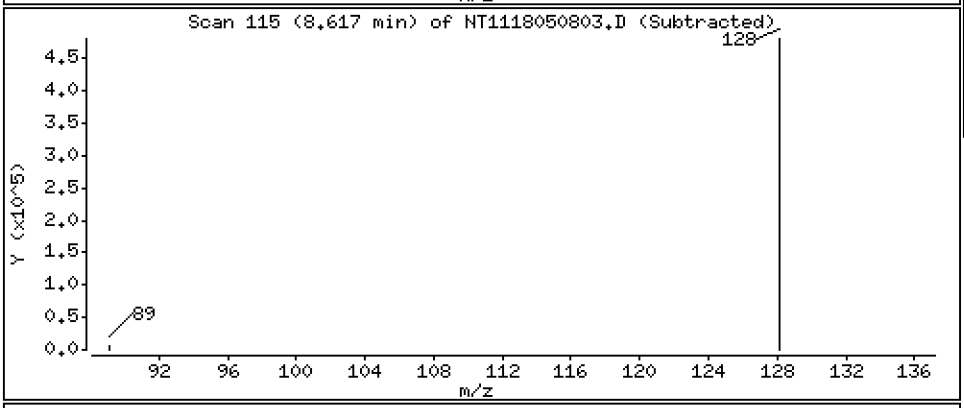
Column diameter: 0.25

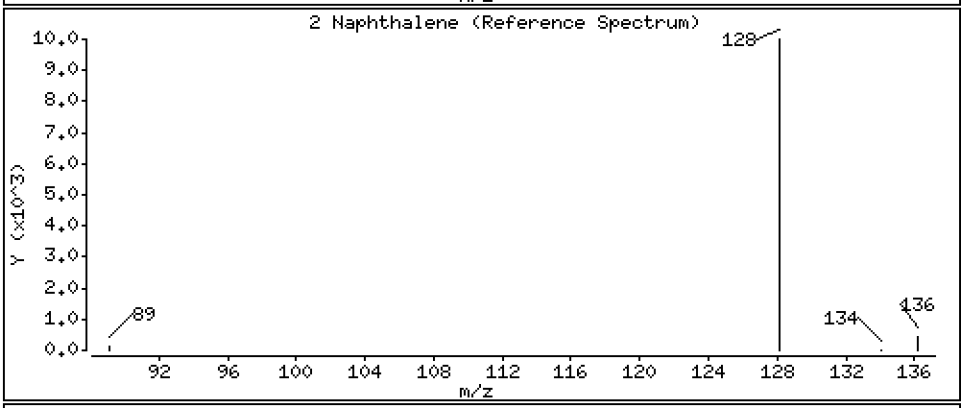
2 Naphthalene

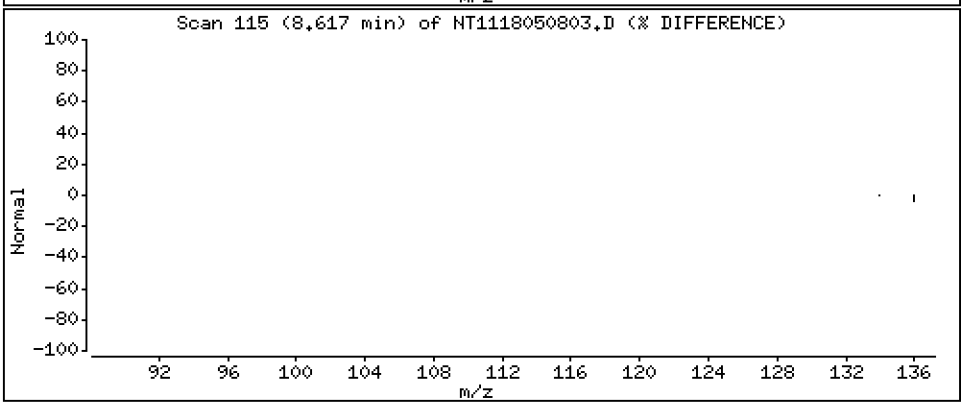
Concentration: 199 ng/mL











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Date : 08-MAY-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: SGE0126-SCV1

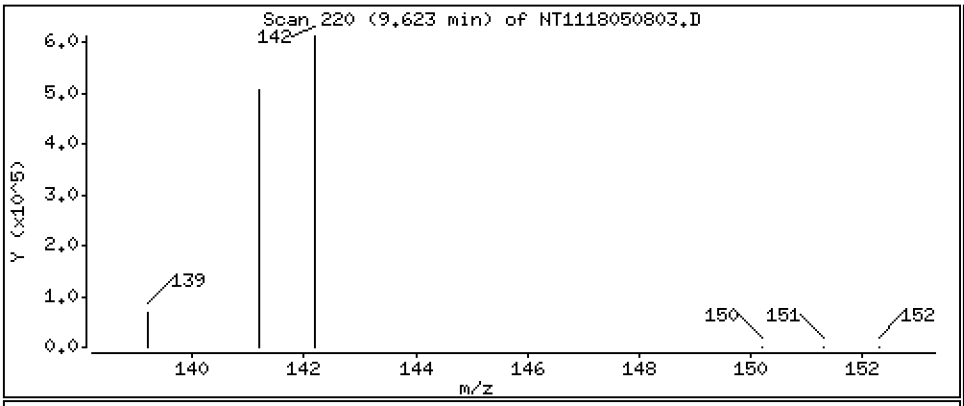
Operator: VTS

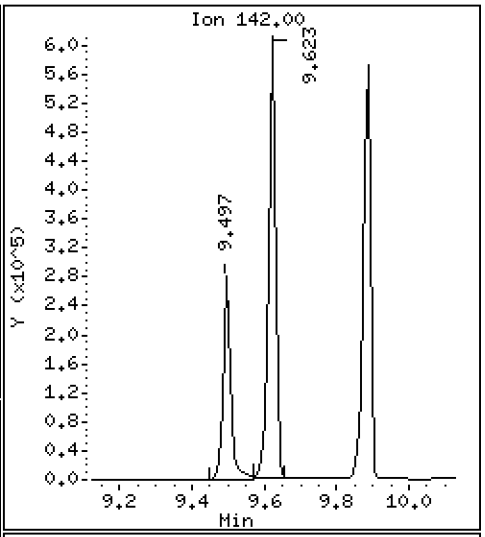
Column phase: Rxi-17Sil MS

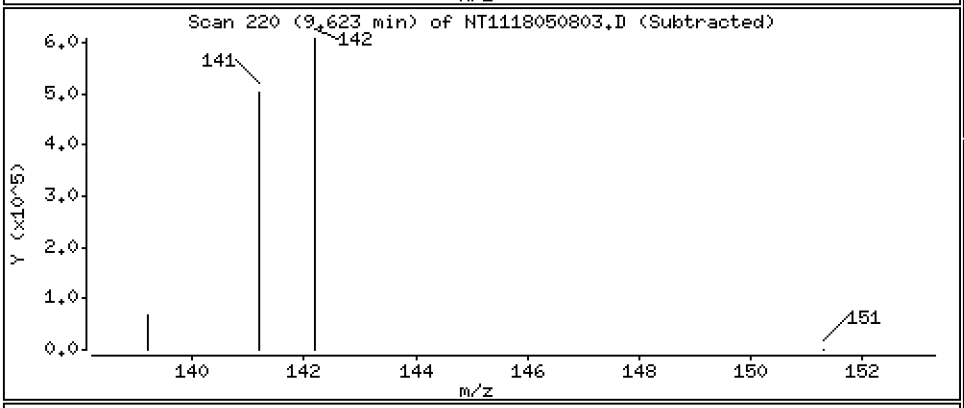
Column diameter: 0.25

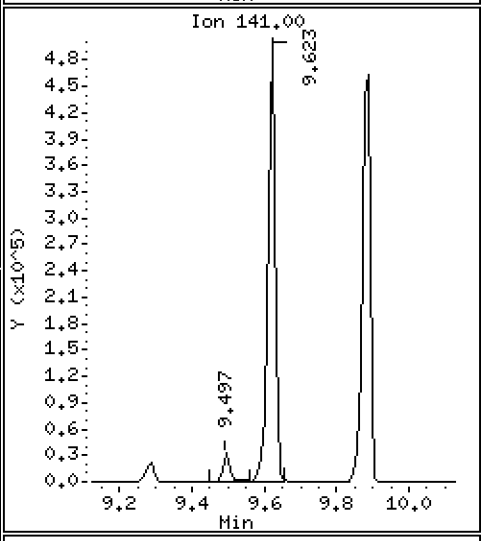
5 2-Methylnaphthalene

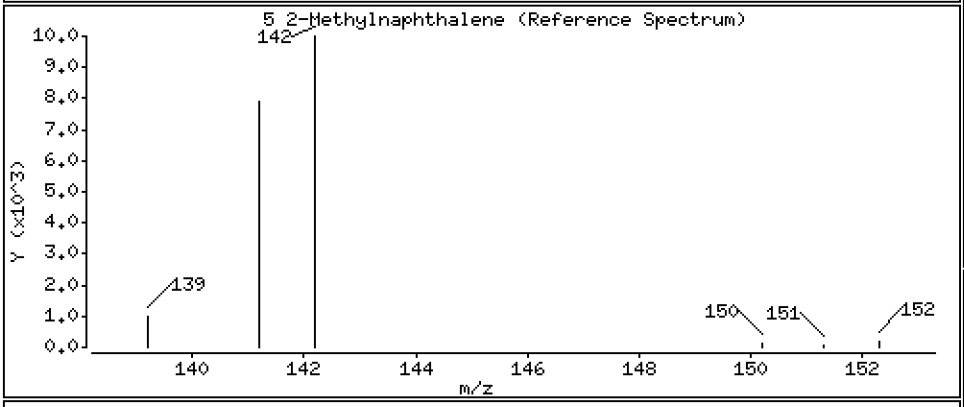
Concentration: 248 ng/mL

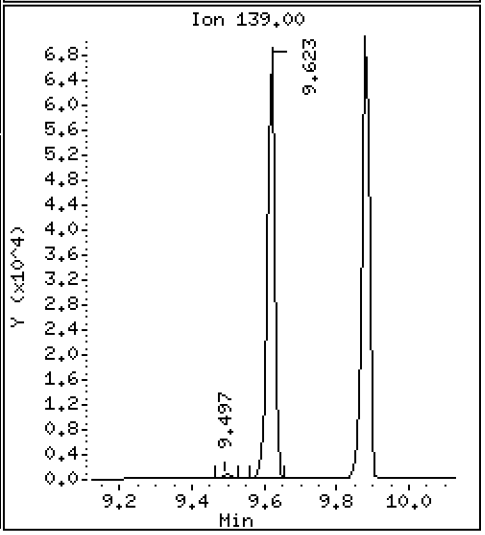


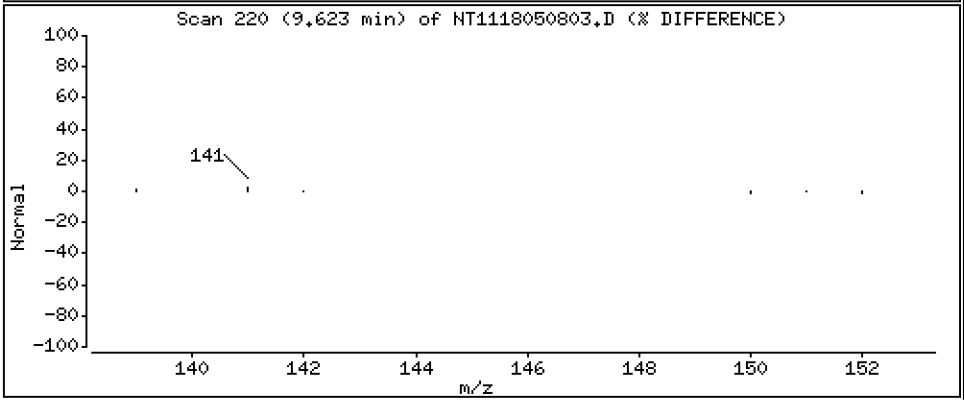












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Date : 08-MAY-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: SGE0126-SCV1

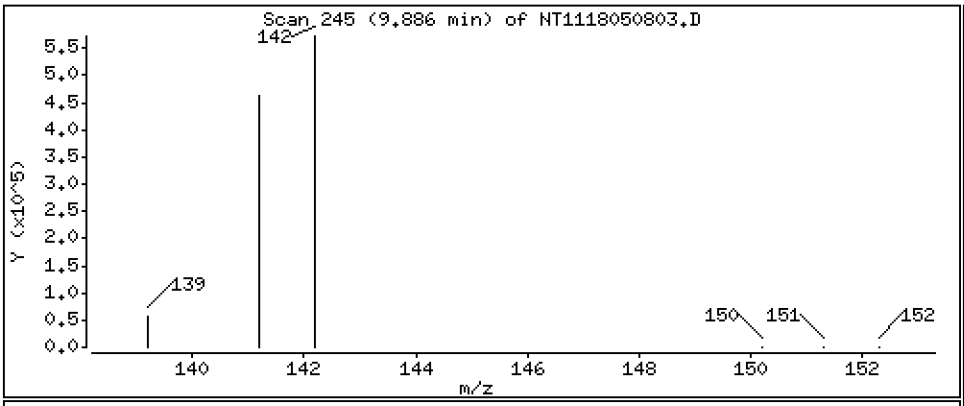
Operator: VTS

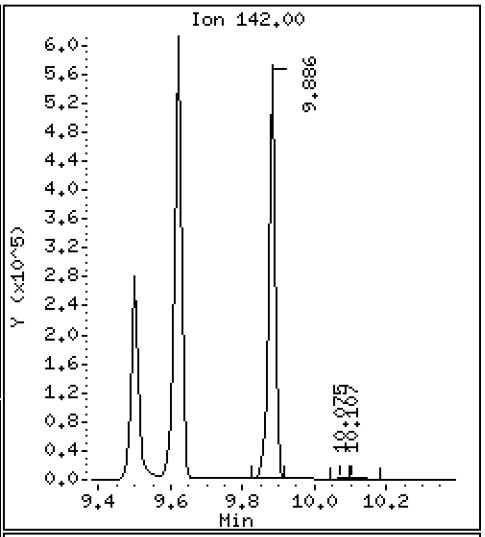
Column phase: Rxi-17Sil MS

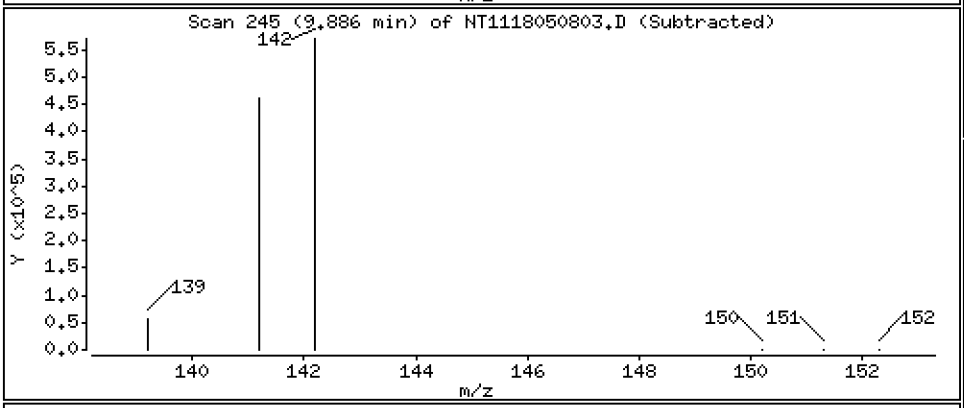
Column diameter: 0.25

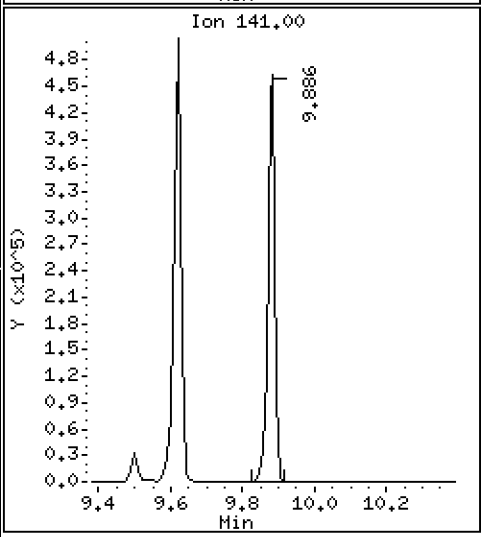
6 1-Methylnaphthalene

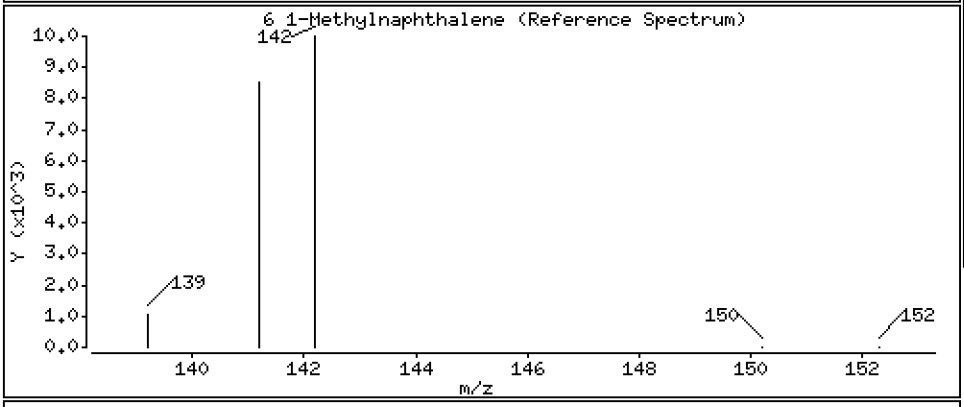
Concentration: 258 ng/mL

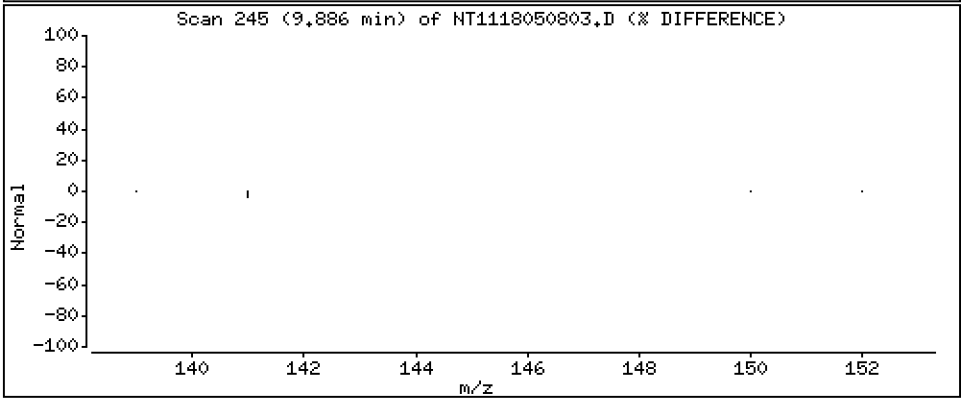












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Date : 08-MAY-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: SGE0126-SCV1

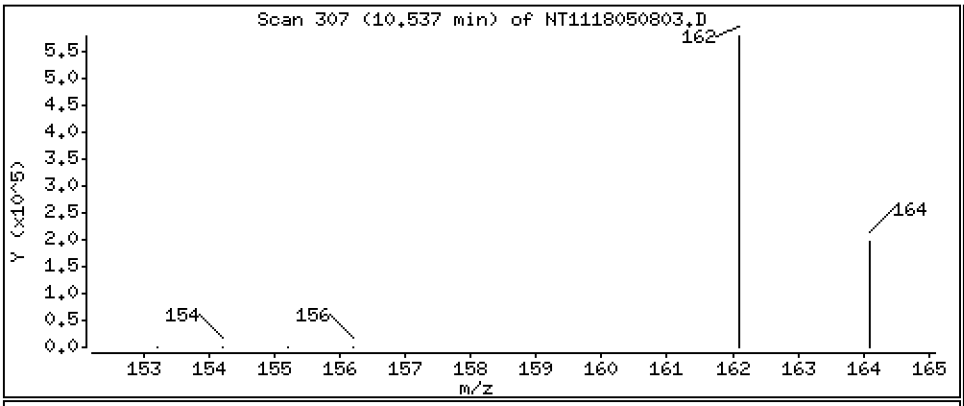
Operator: VTS

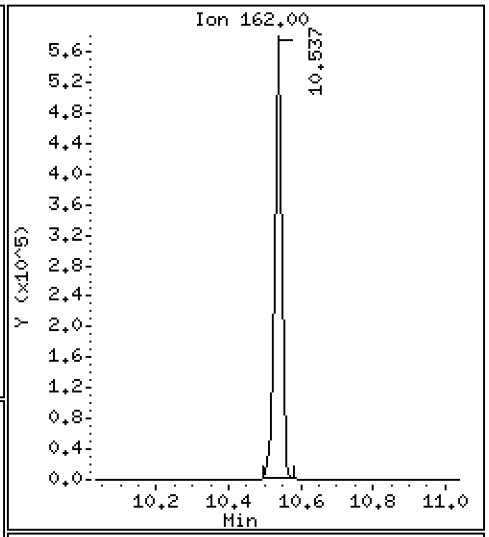
Column phase: Rxi-17Sil MS

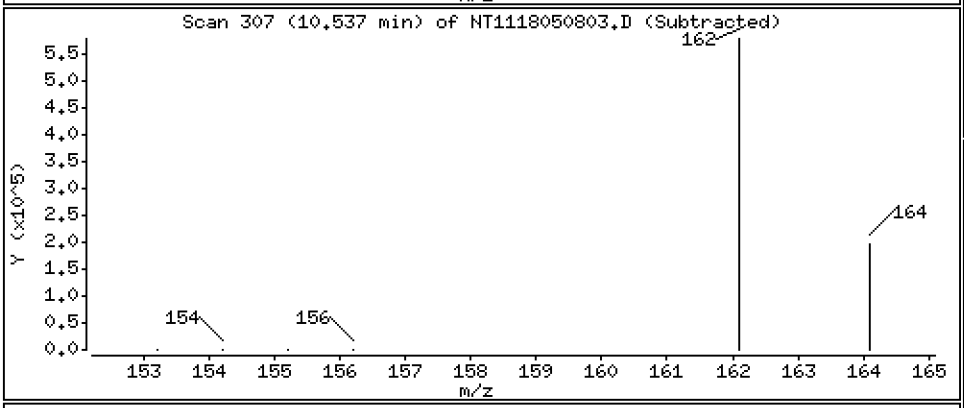
Column diameter: 0.25

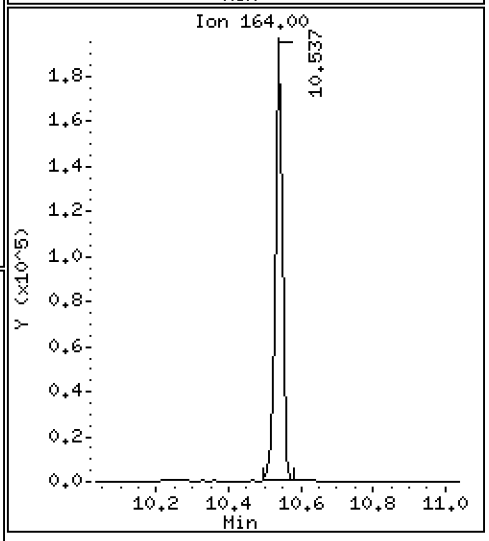
7 2-Chloronaphthalene

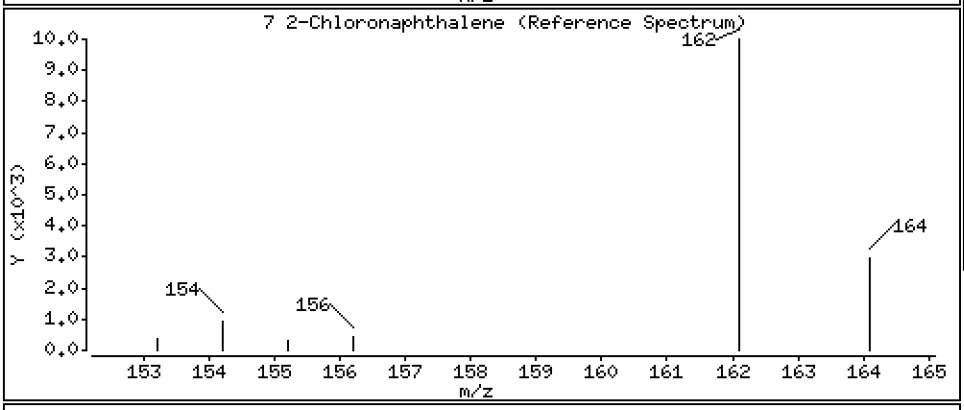
Concentration: 204 ng/mL

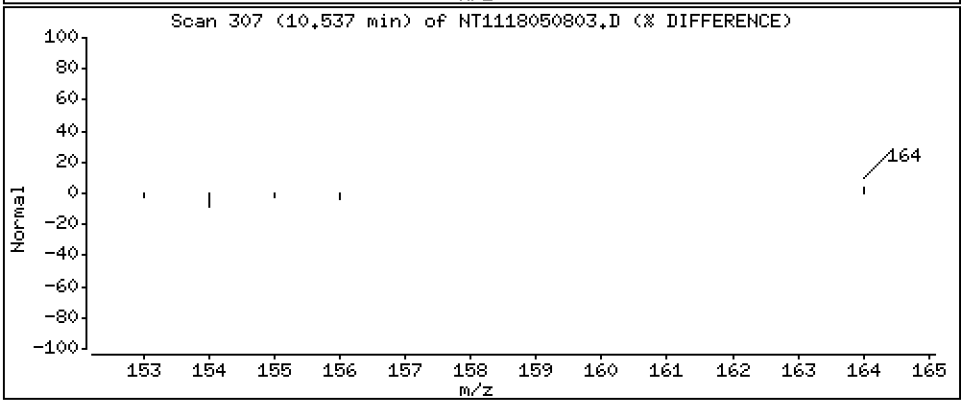












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Date : 08-MAY-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: SGE0126-SCV1

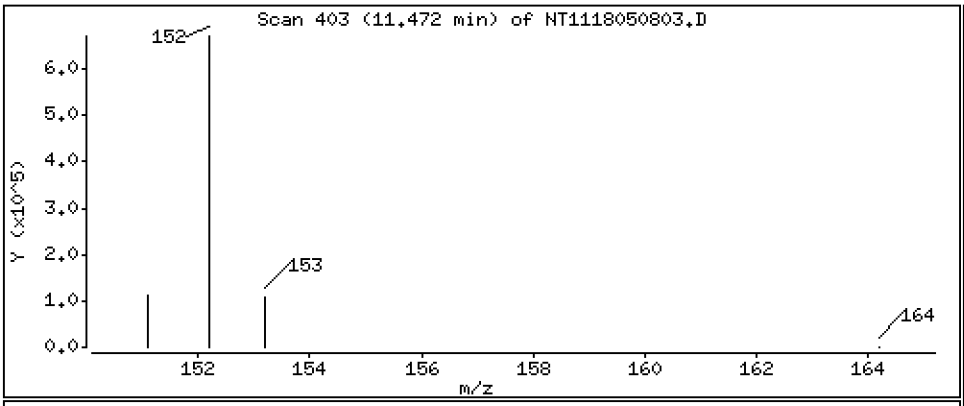
Operator: VTS

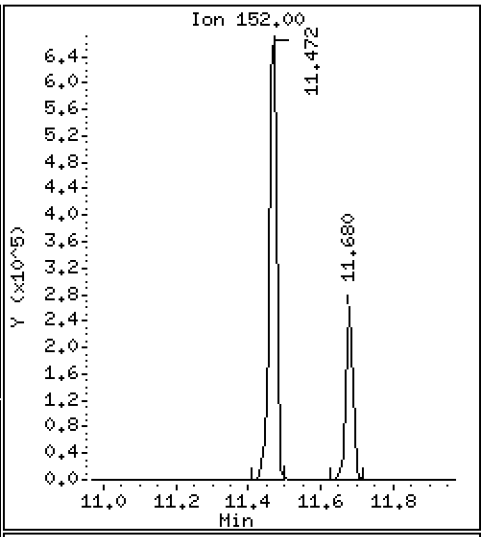
Column phase: Rxi-17Sil MS

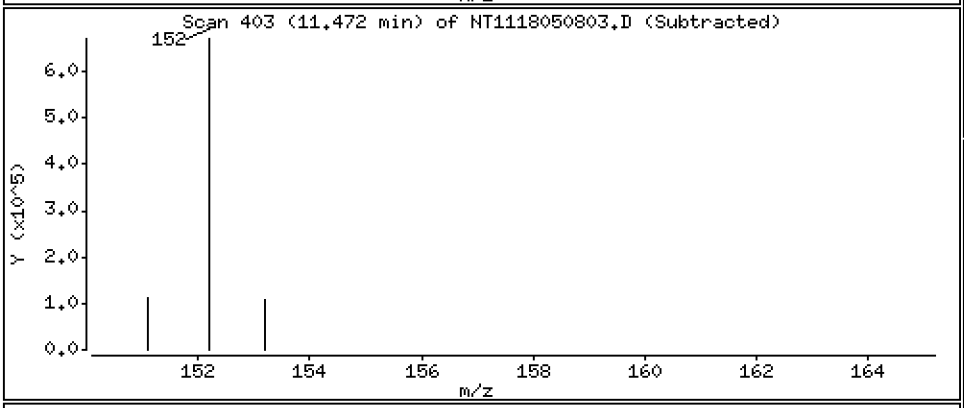
Column diameter: 0.25

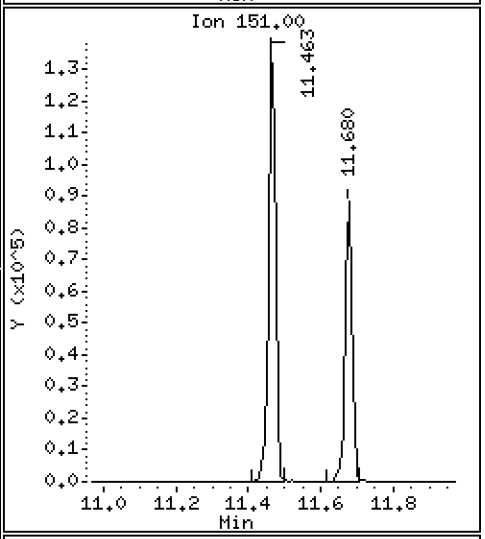
10 Acenaphthylene

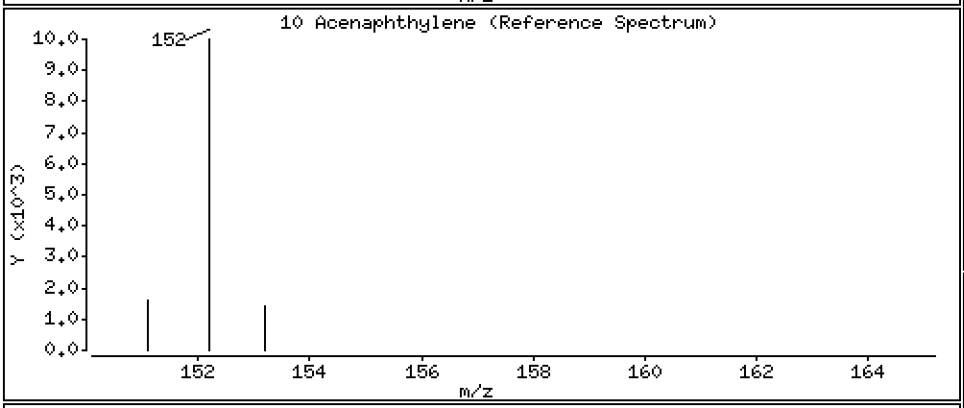
Concentration: 228 ng/mL

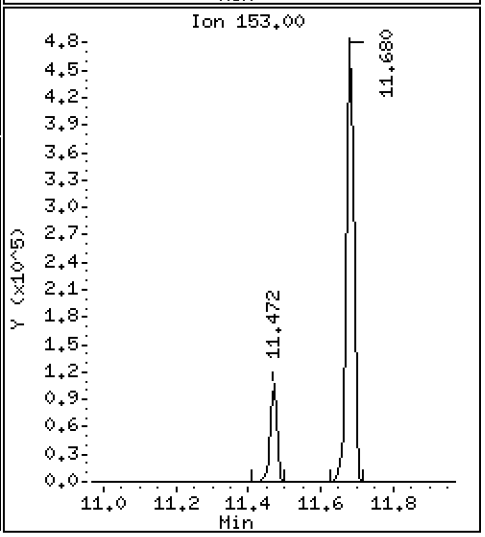


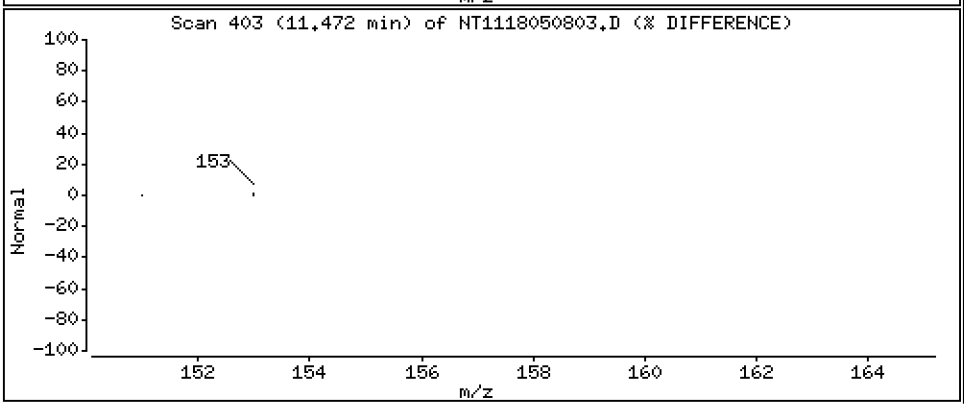












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Date : 08-MAY-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: SGE0126-SCV1

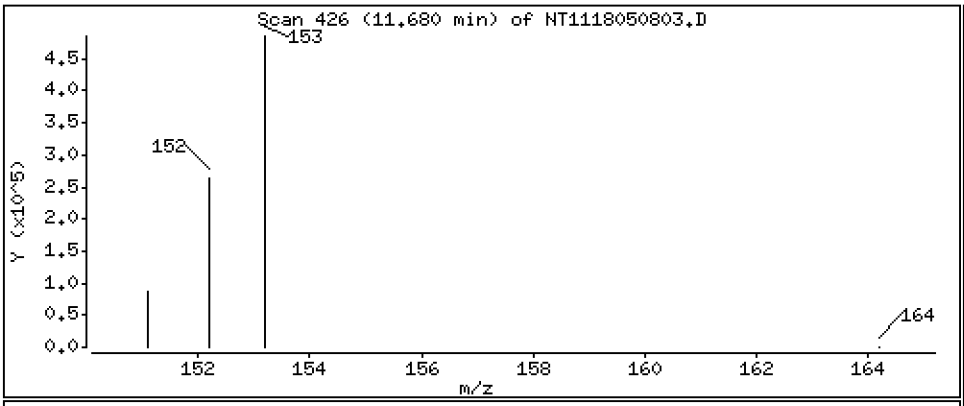
Operator: VTS

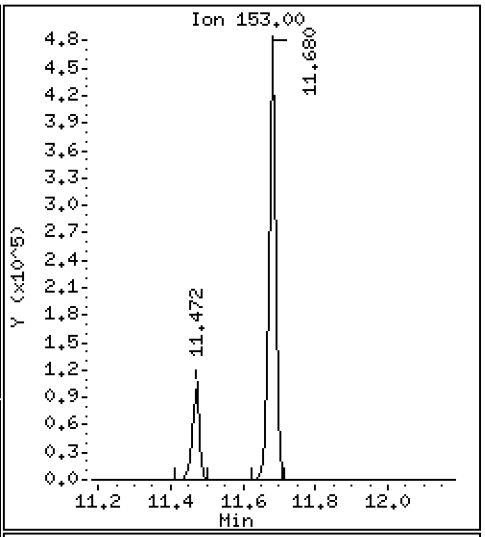
Column phase: Rxi-17Sil MS

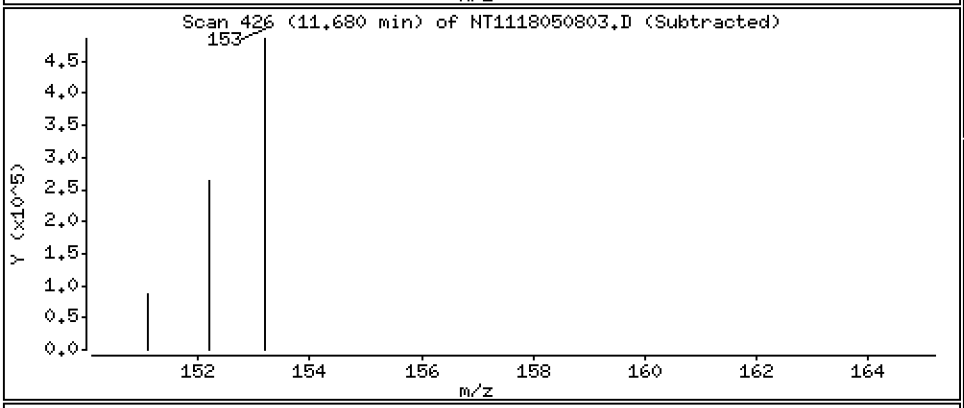
Column diameter: 0.25

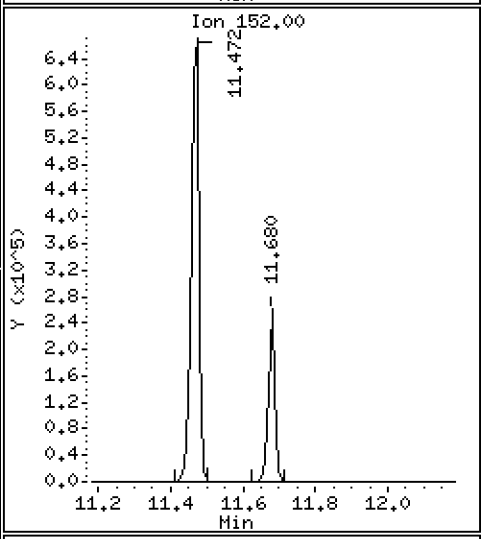
12 Acenaphthene

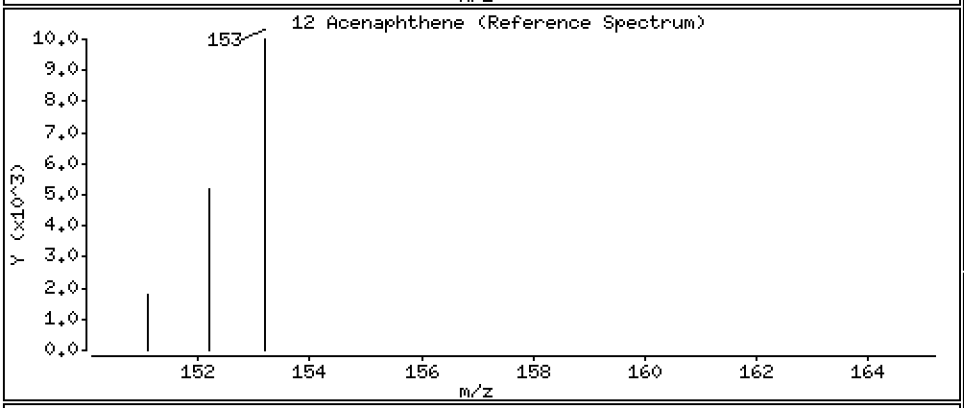
Concentration: 220 ng/mL

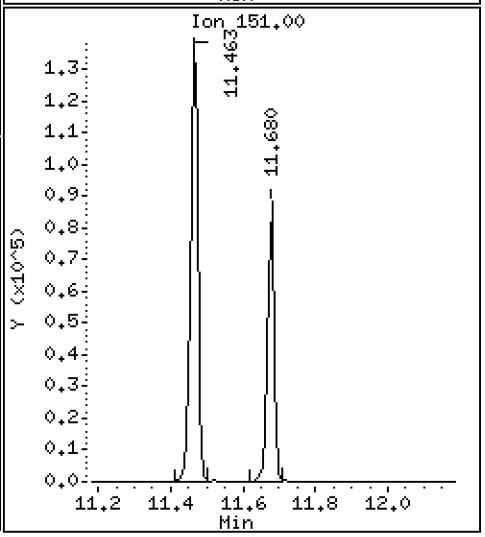


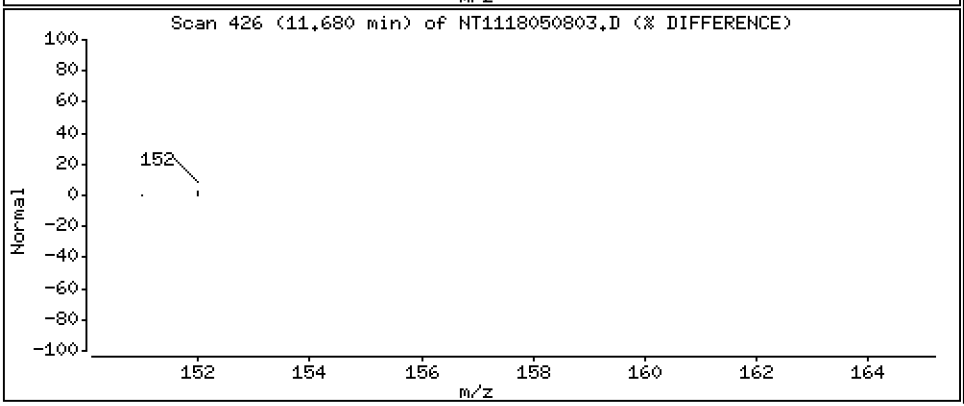












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Date : 08-MAY-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: SGE0126-SCV1

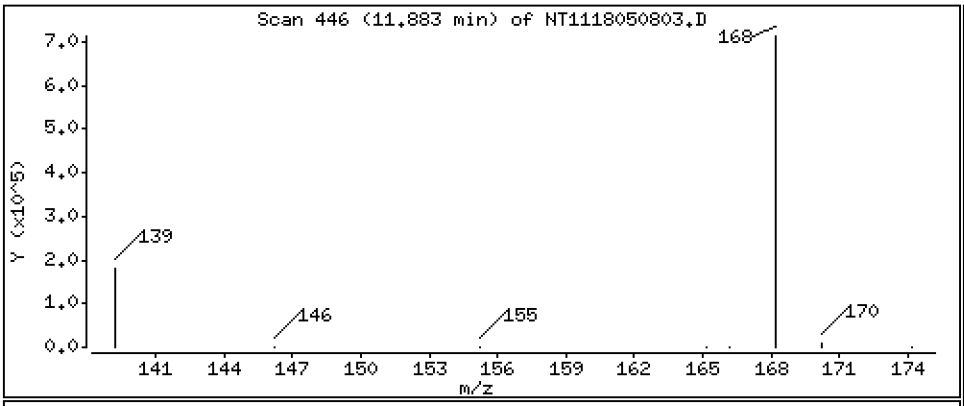
Operator: VTS

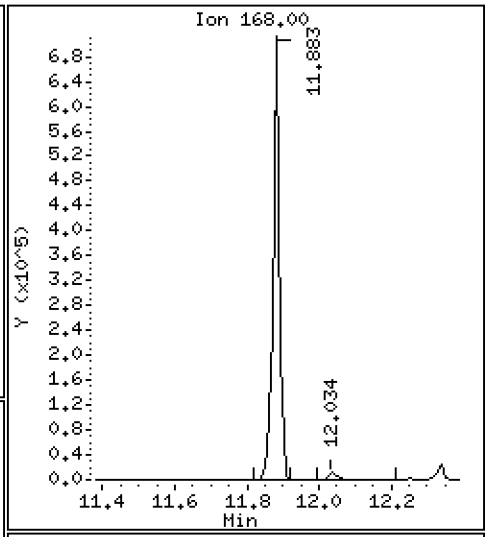
Column phase: Rxi-17Sil MS

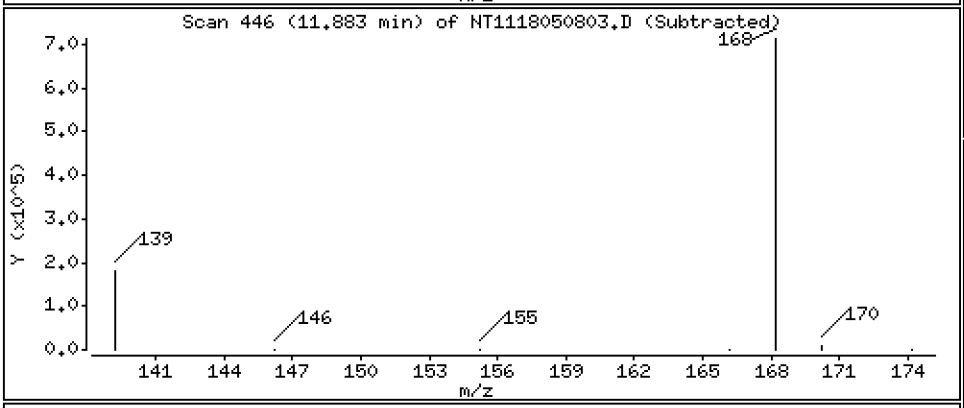
Column diameter: 0.25

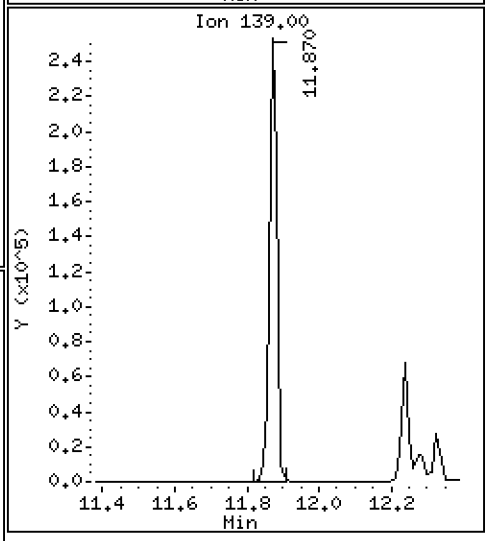
13 Dibenzofuran

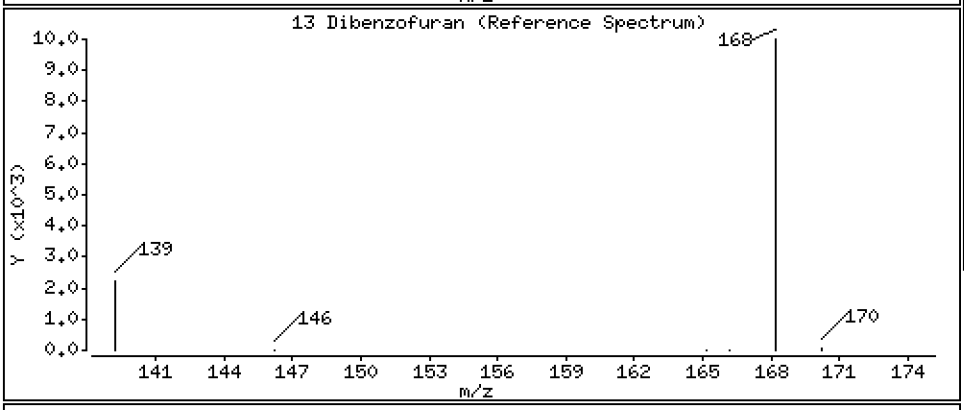
Concentration: 228 ng/mL

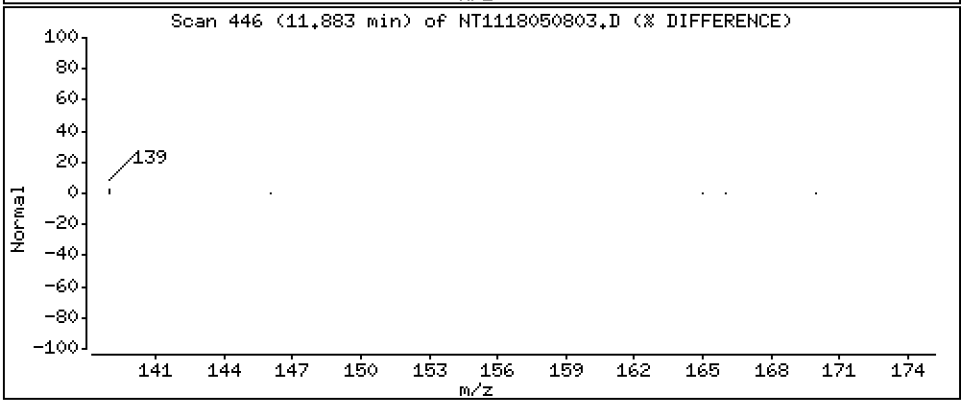












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Date : 08-MAY-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: SGE0126-SCV1

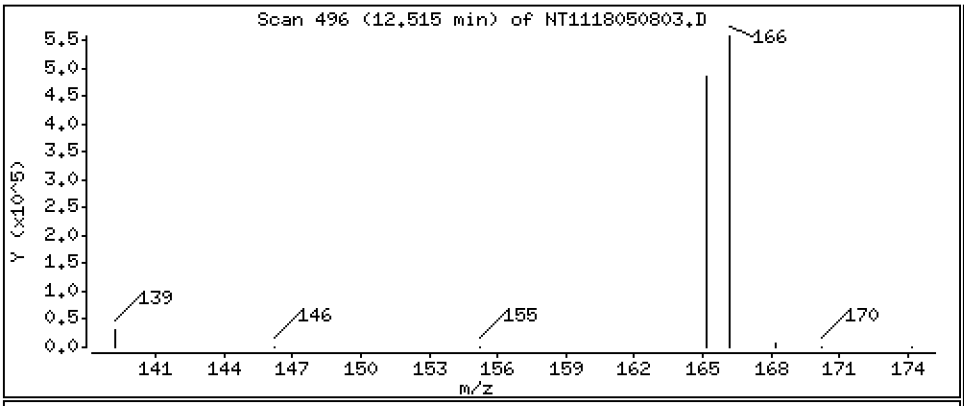
Operator: VTS

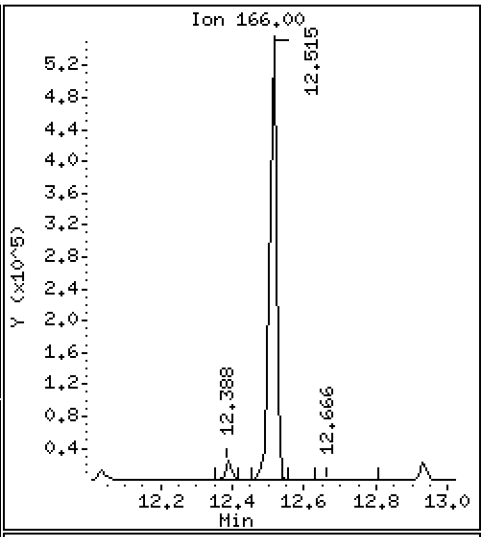
Column phase: Rxi-17Sil MS

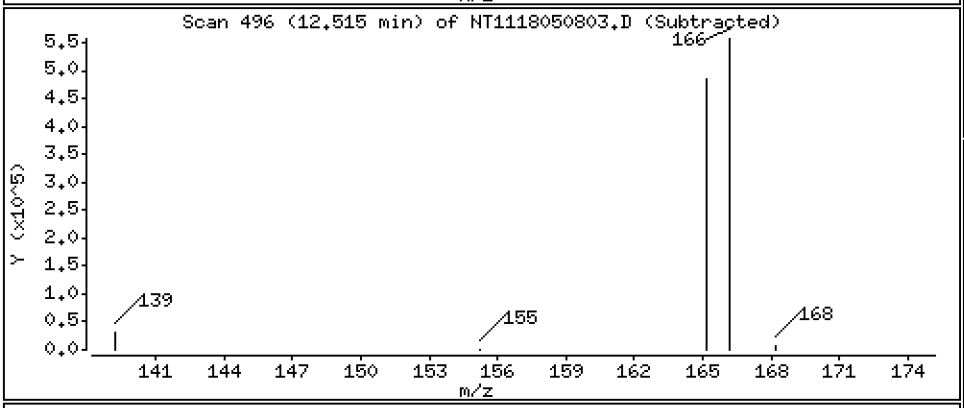
Column diameter: 0.25

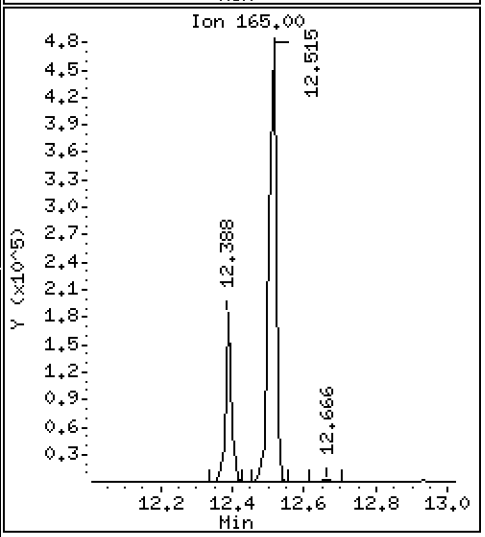
16 Fluorene

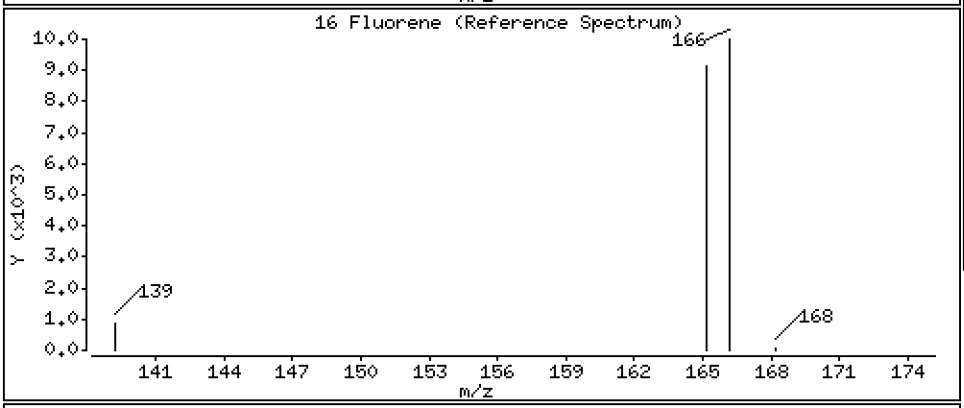
Concentration: 223 ng/mL

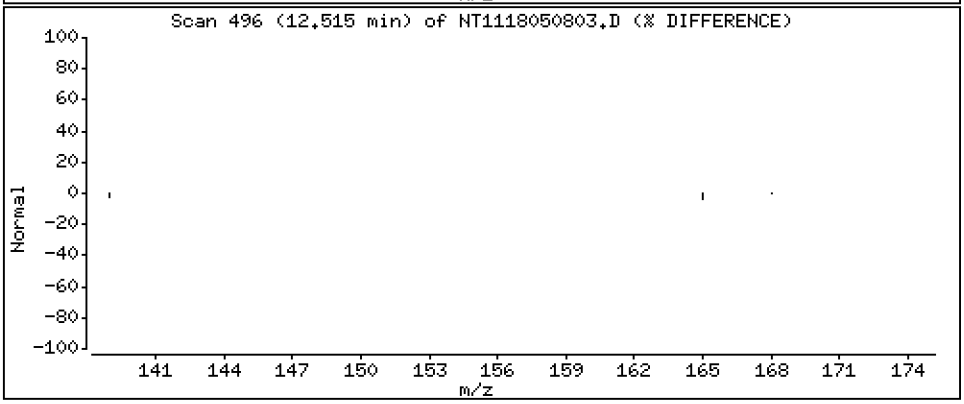












Data File: \\target\share\chem3\nt11.i\20180508.b\NT1118050803.D

Date : 08-MAY-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: SGE0126-SCV1

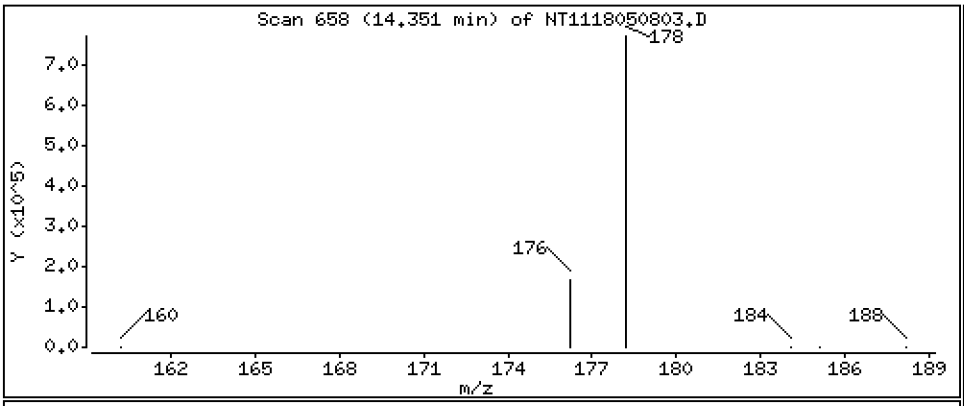
Operator: VTS

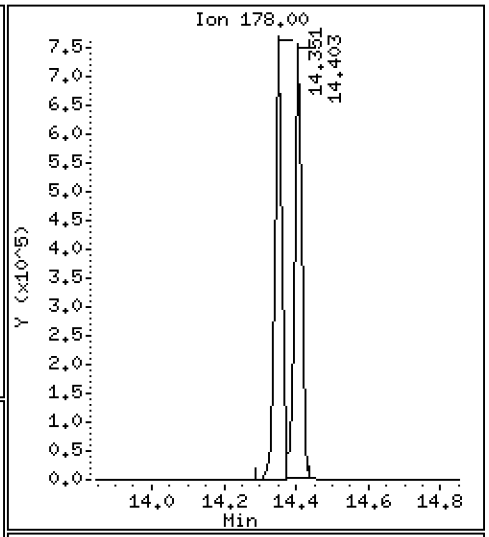
Column phase: Rxi-17Sil MS

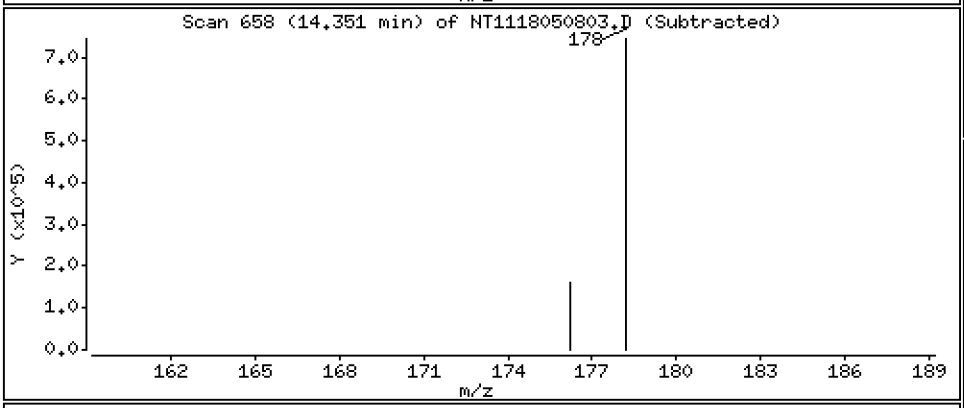
Column diameter: 0.25

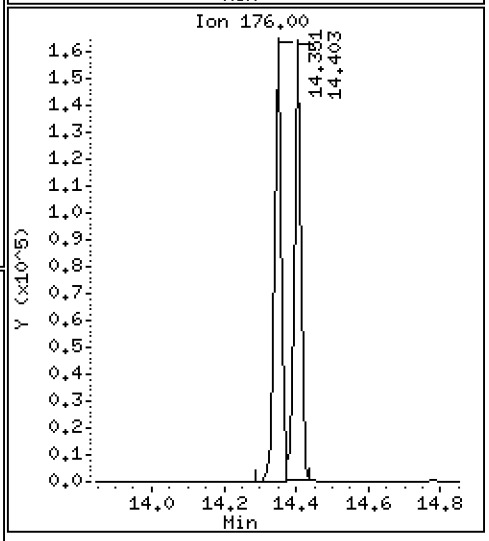
19 Phenanthrene

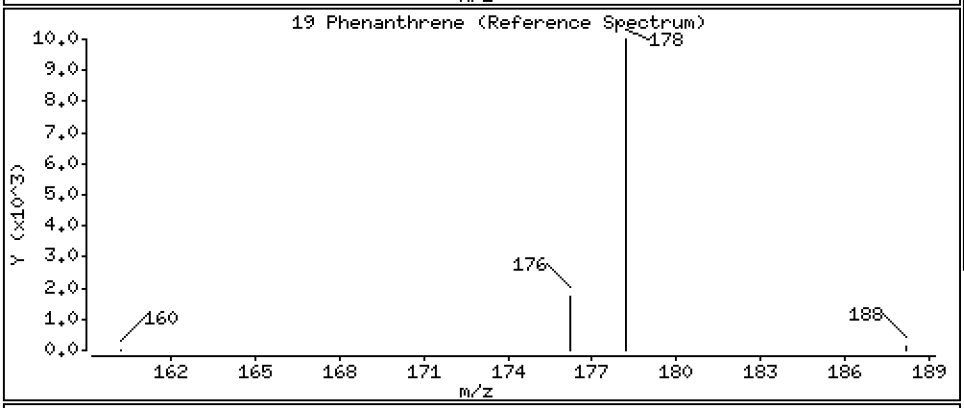
Concentration: 215 ng/mL

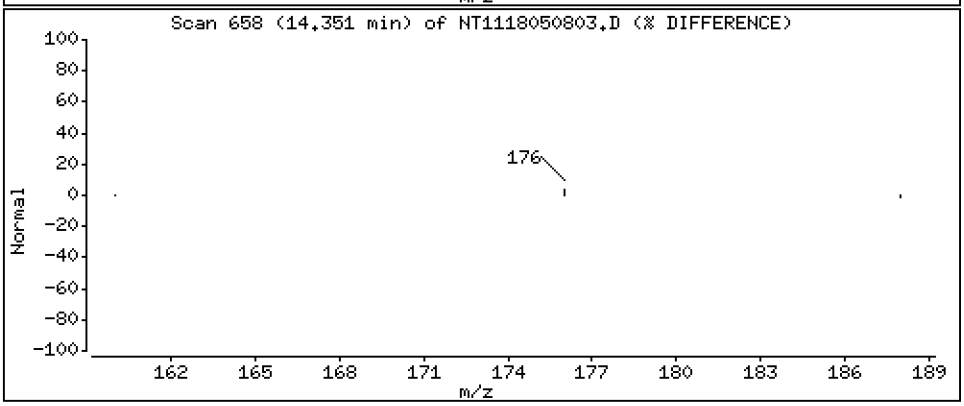












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Date : 08-MAY-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: SGE0126-SCV1

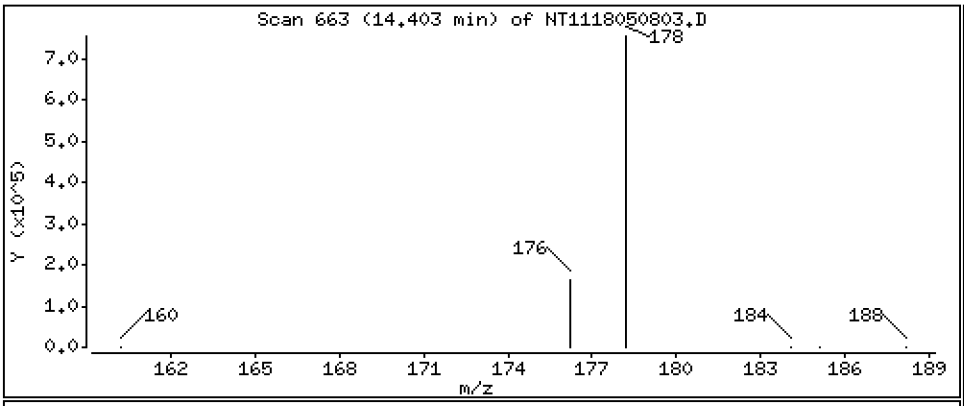
Operator: VTS

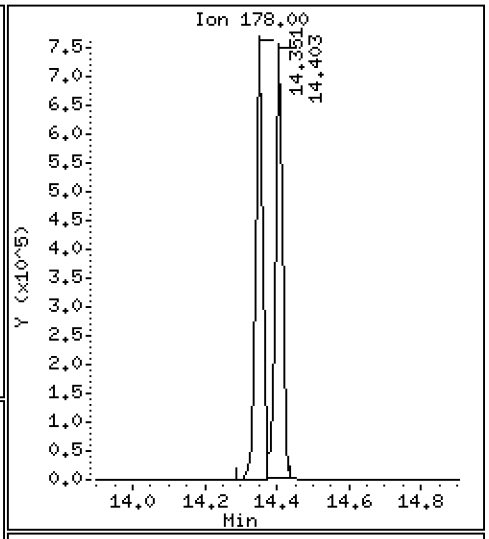
Column phase: Rxi-17Sil MS

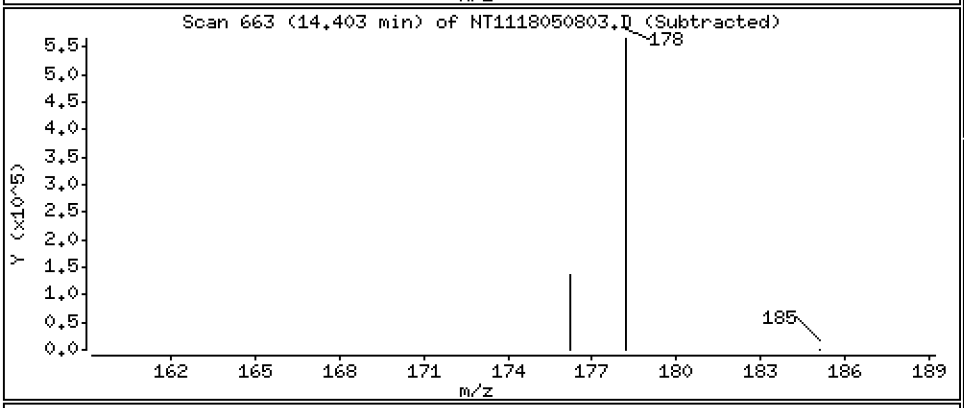
Column diameter: 0.25

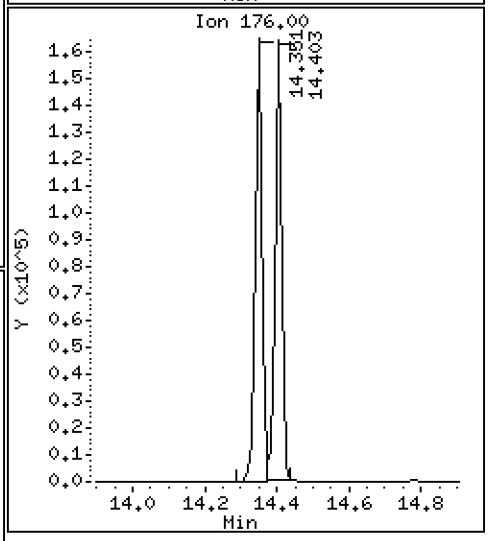
21 Anthracene

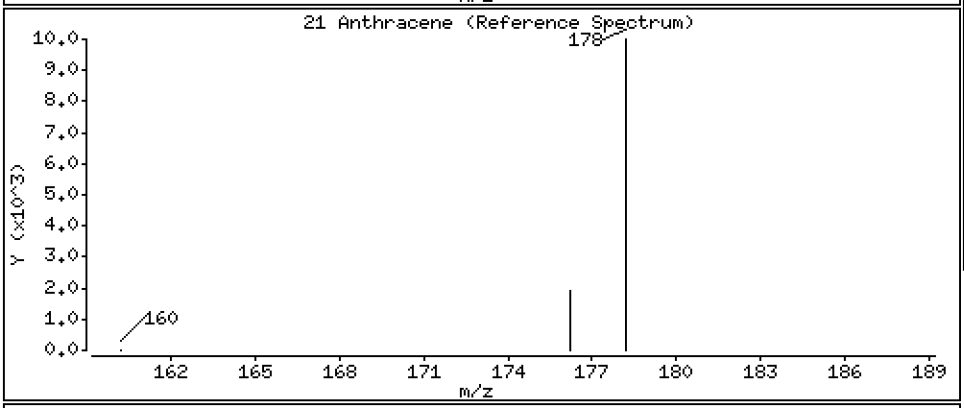
Concentration: 230 ng/mL

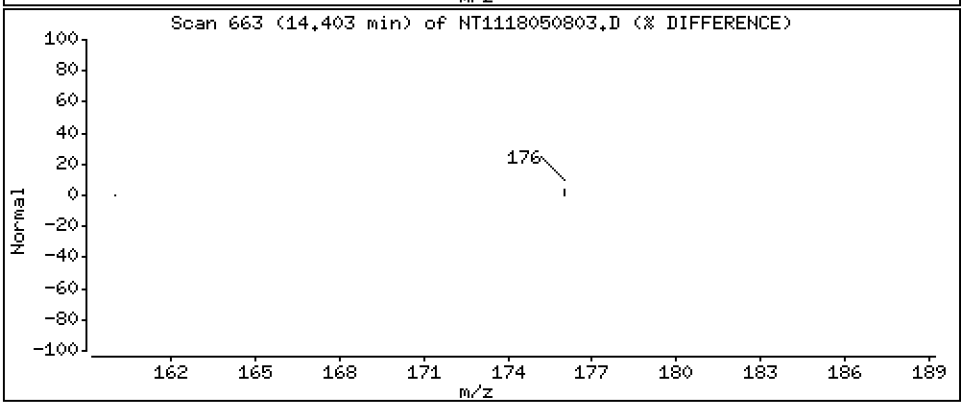












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Date : 08-MAY-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: SGE0126-SCV1

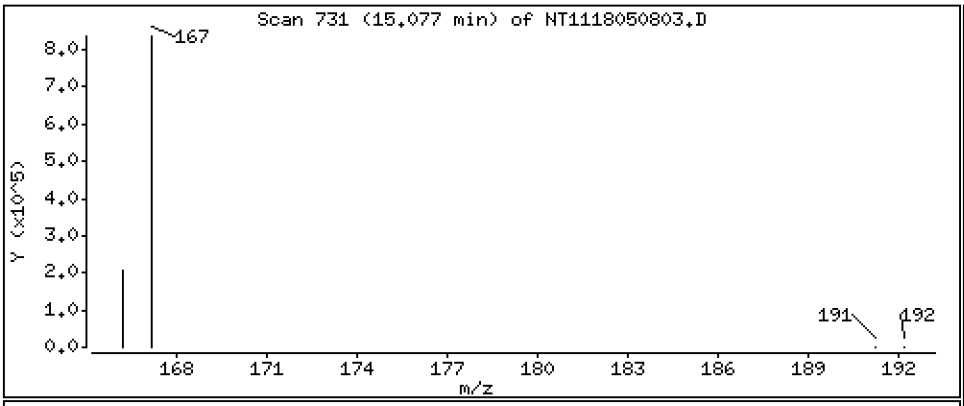
Operator: VTS

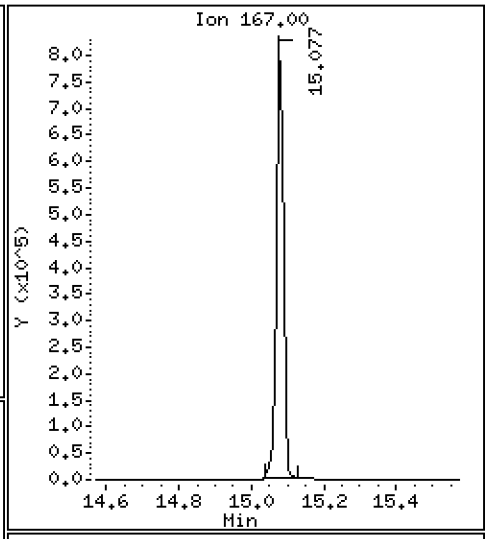
Column phase: Rxi-17Sil MS

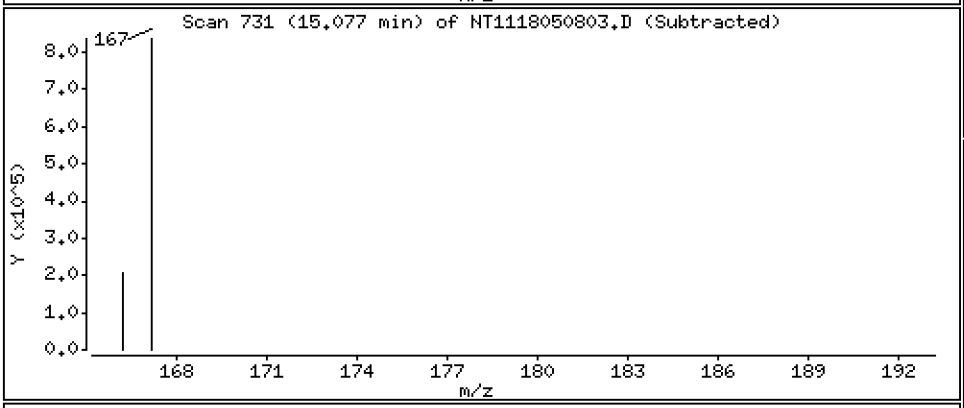
Column diameter: 0.25

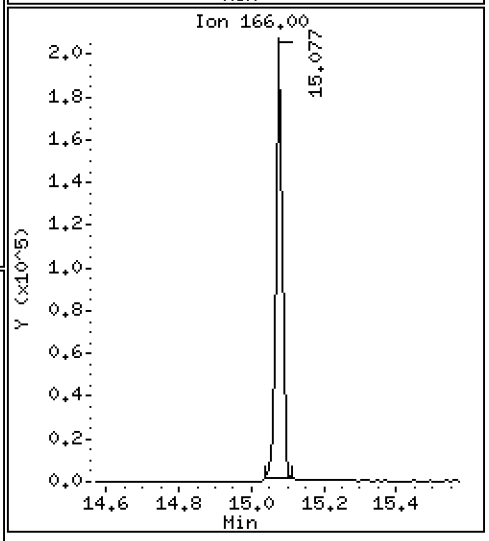
22 Carbazole

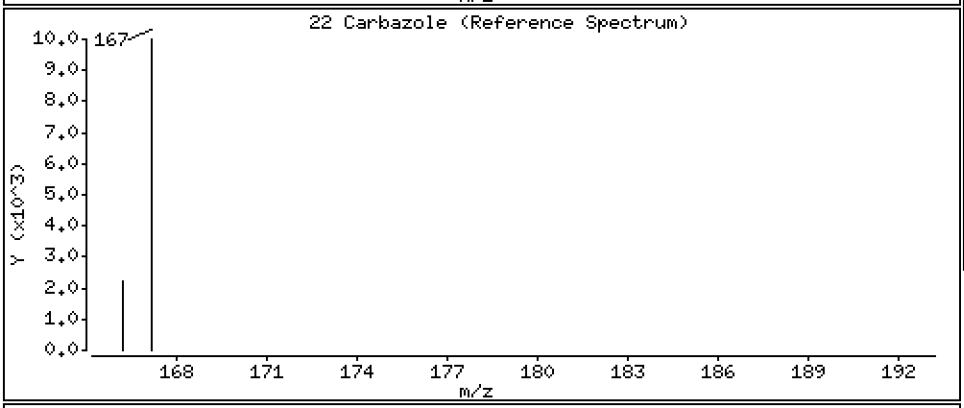
Concentration: 218 ng/mL

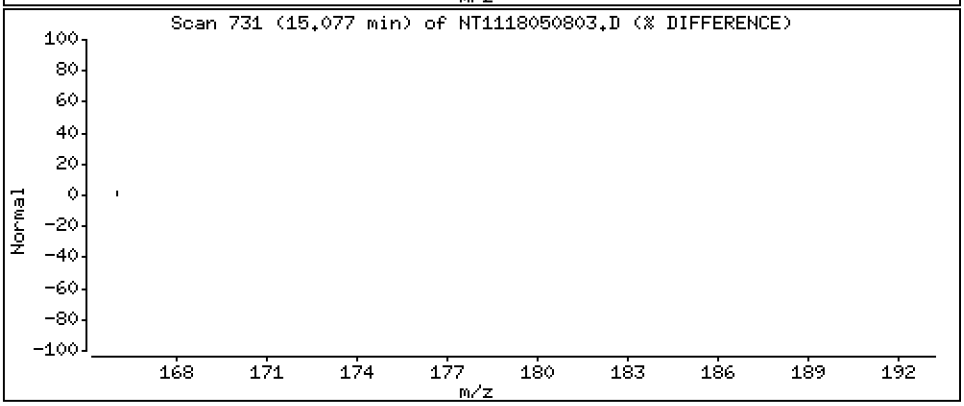












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Date : 08-MAY-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: SGE0126-SCV1

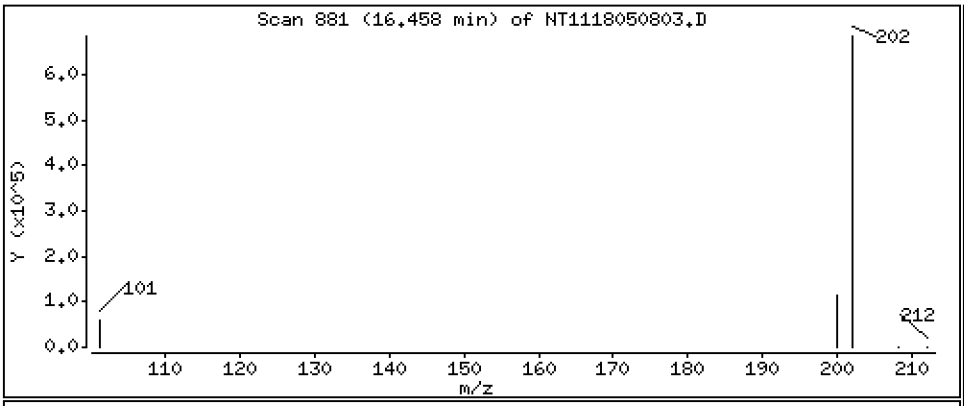
Operator: VTS

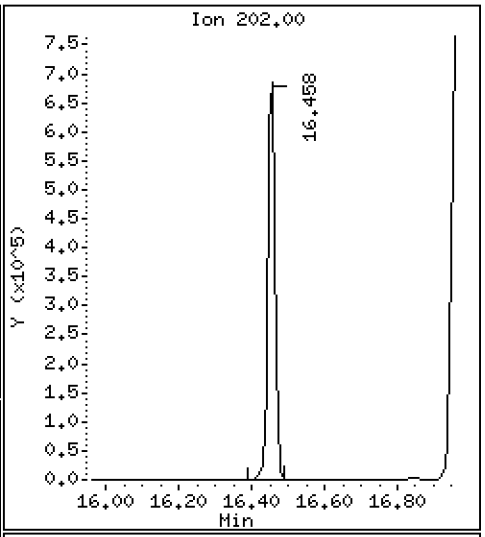
Column phase: Rxi-17Sil MS

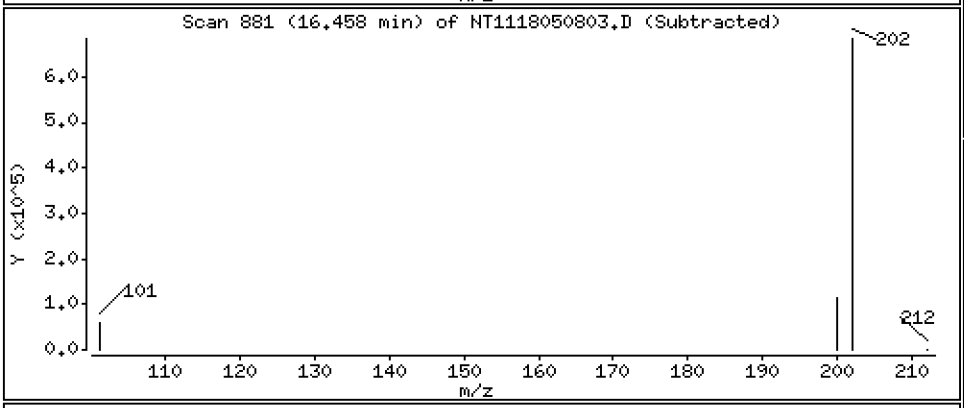
Column diameter: 0.25

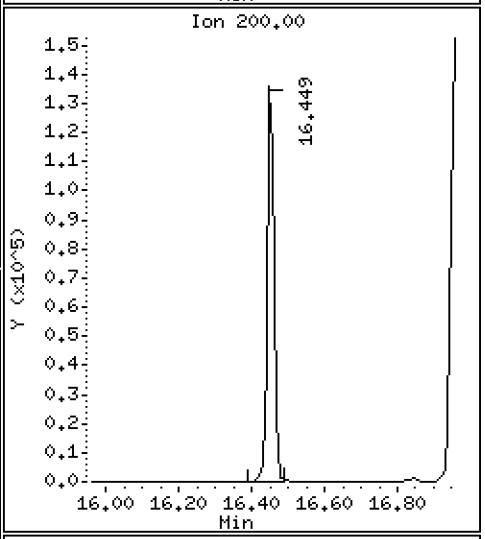
25 Fluoranthene

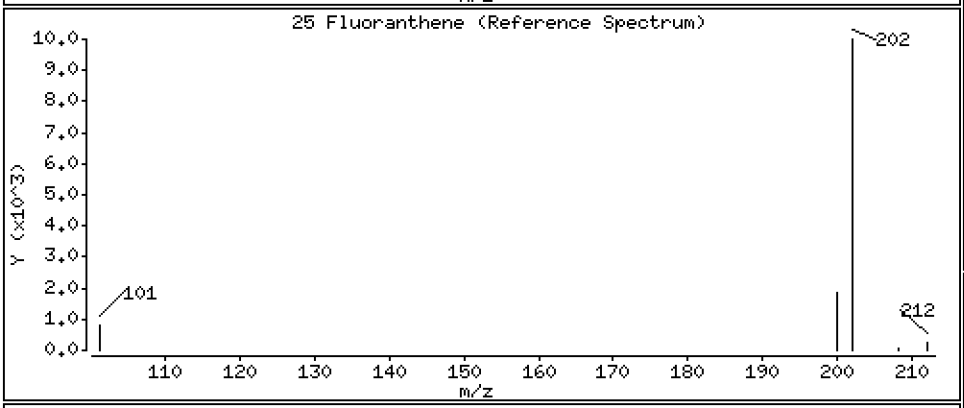
Concentration: 223 ng/mL

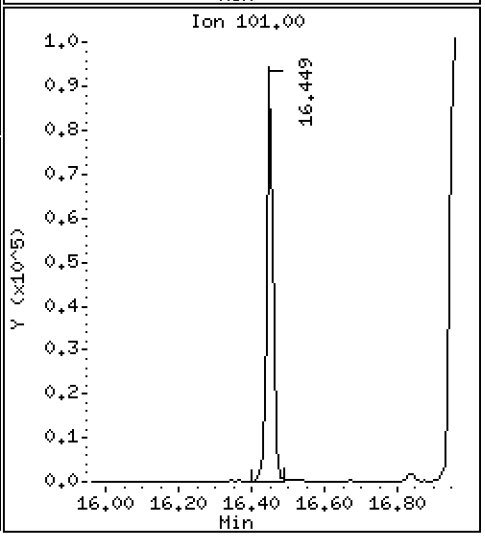


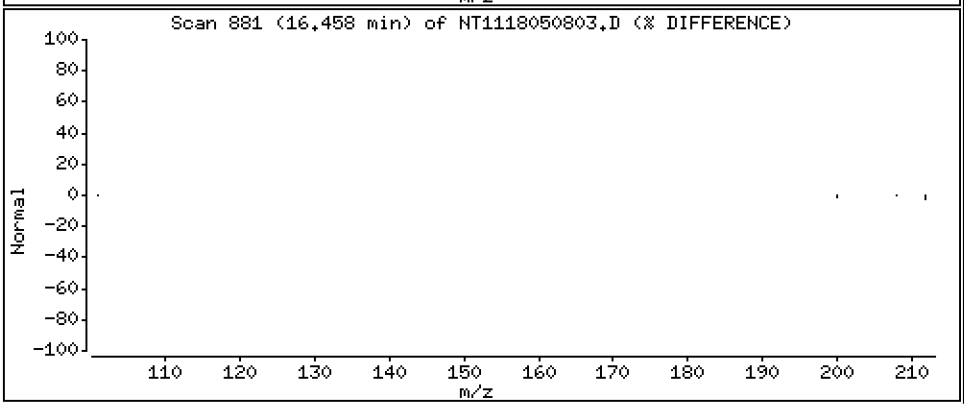












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Date : 08-MAY-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: SGE0126-SCV1

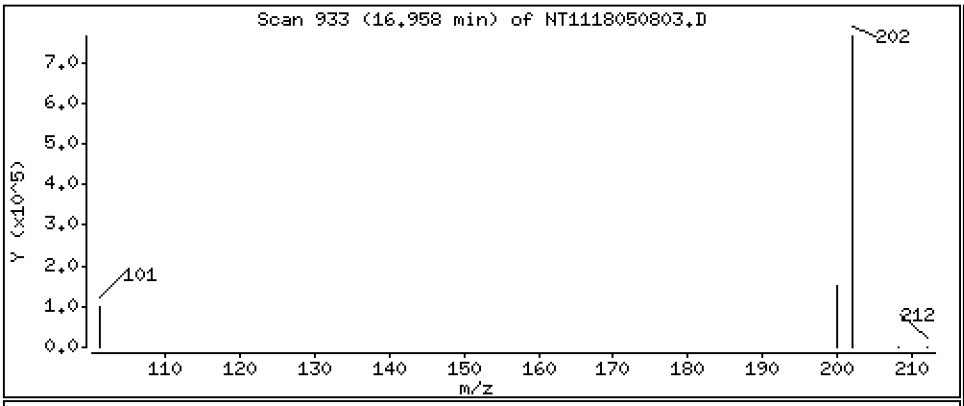
Operator: VTS

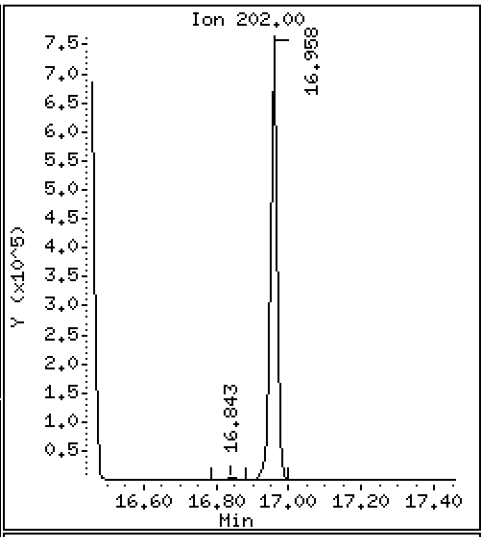
Column phase: Rxi-17Sil MS

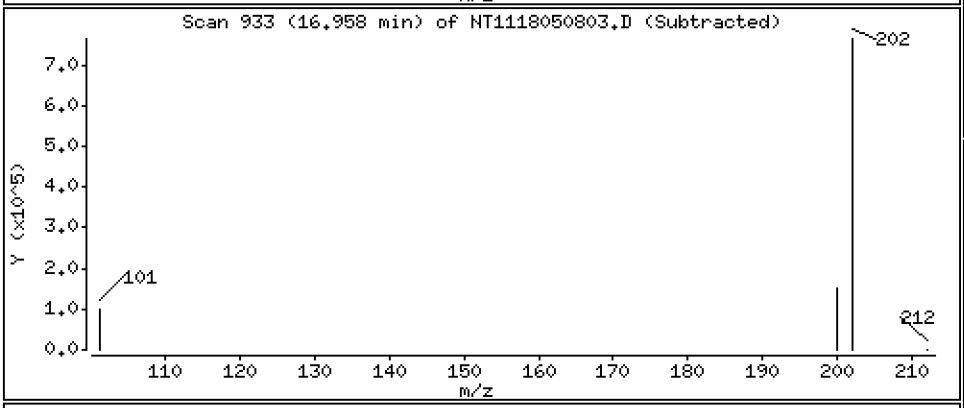
Column diameter: 0.25

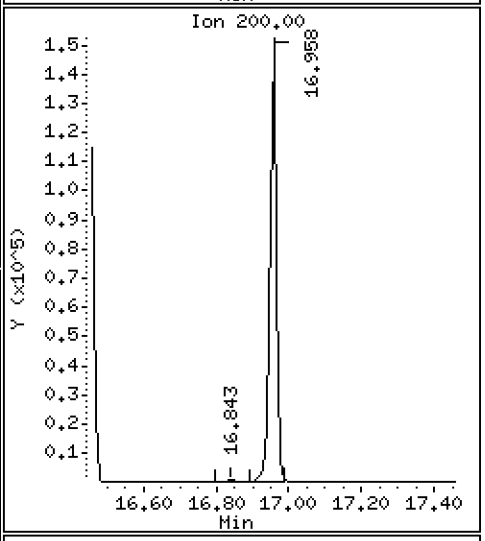
26 Pyrene

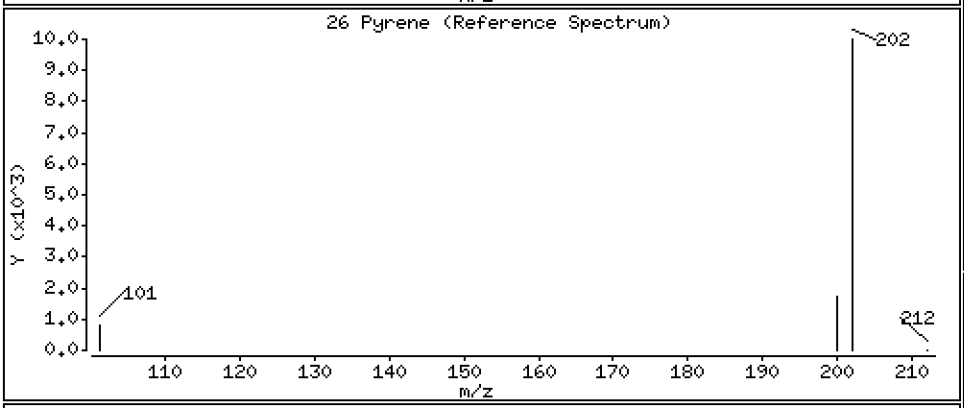
Concentration: 217 ng/mL

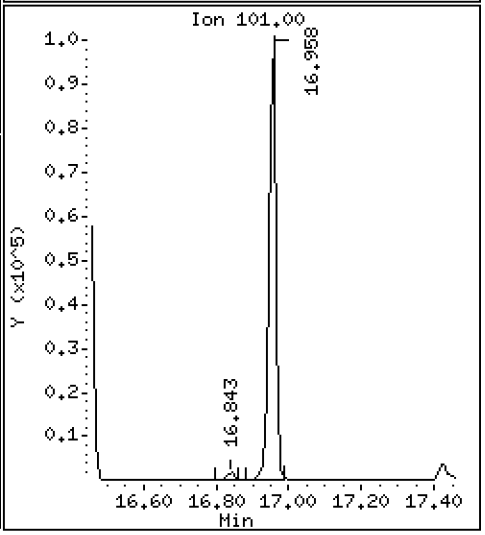


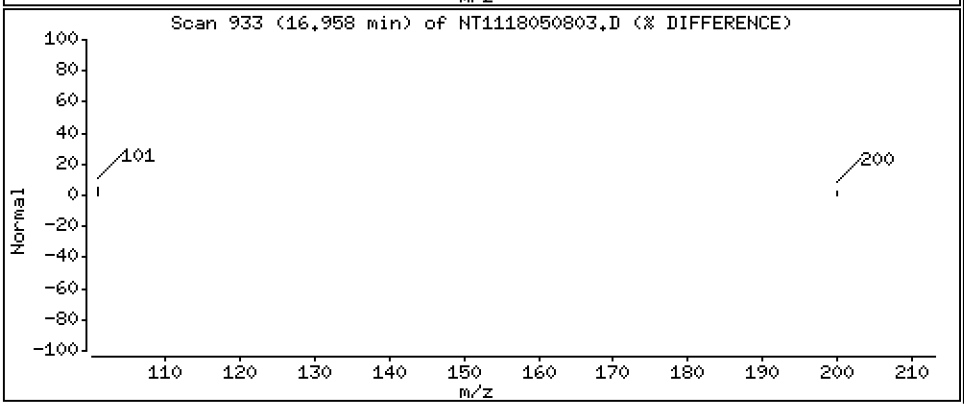












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Date : 08-MAY-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: SGE0126-SCV1

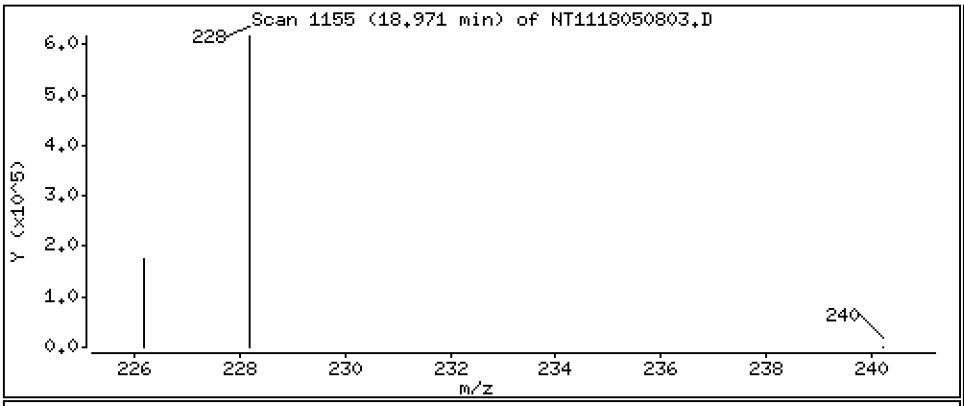
Operator: VTS

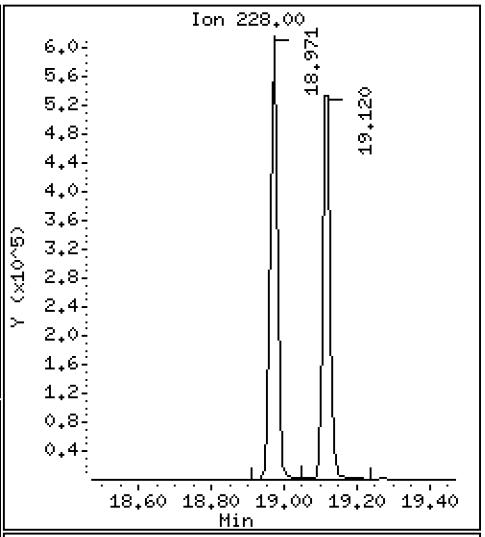
Column phase: Rxi-17Sil MS

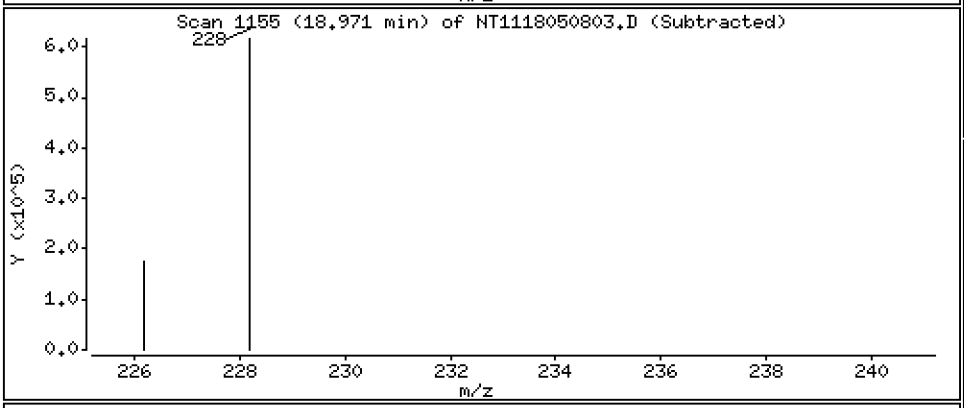
Column diameter: 0.25

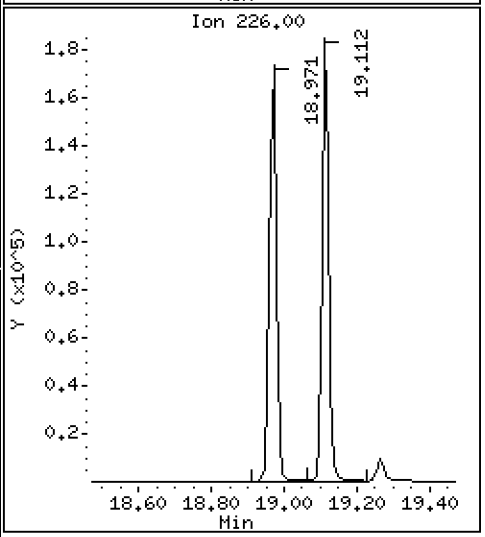
27 Benzo(a)anthracene

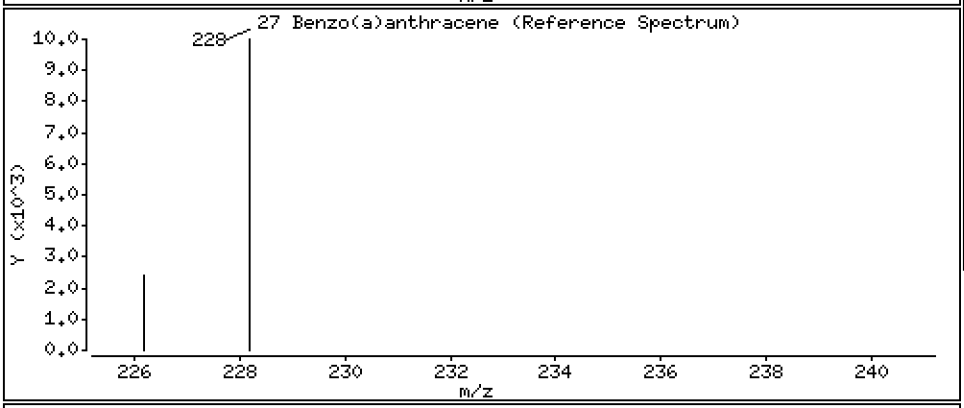
Concentration: 224 ng/mL

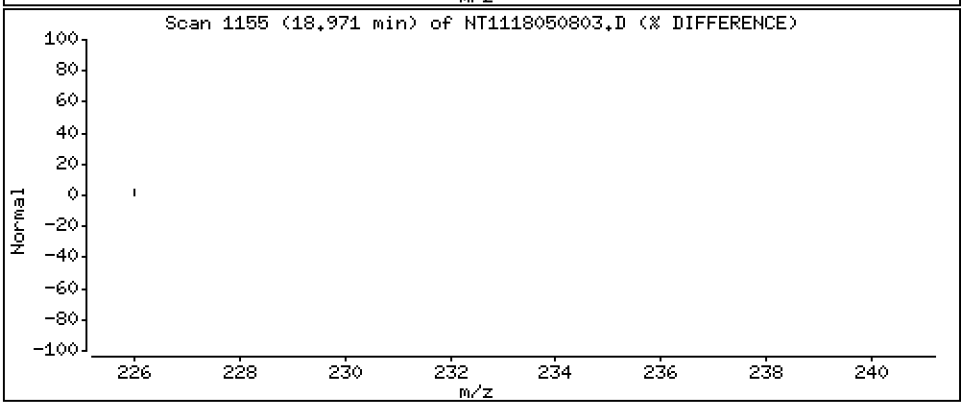












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Date : 08-MAY-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: SGE0126-SCV1

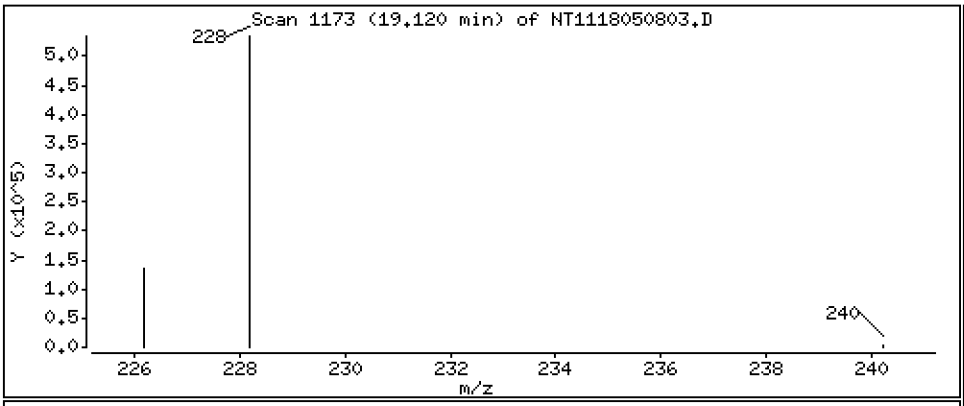
Operator: VTS

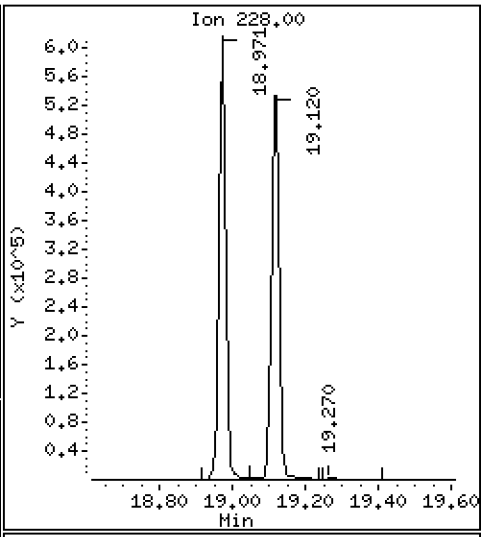
Column phase: Rxi-17Sil MS

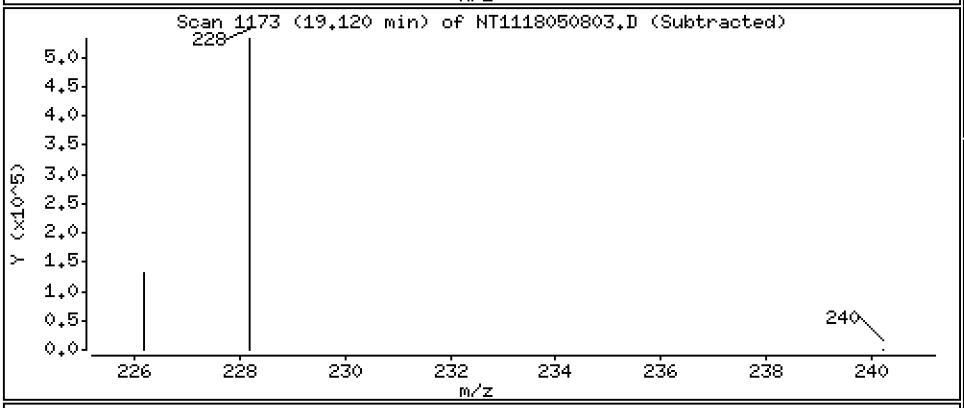
Column diameter: 0.25

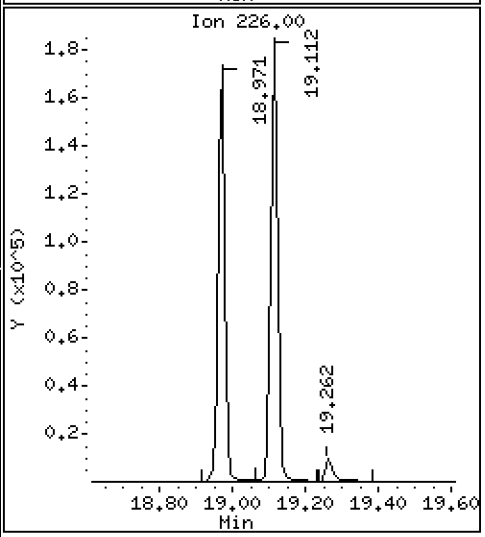
29 Chrysene

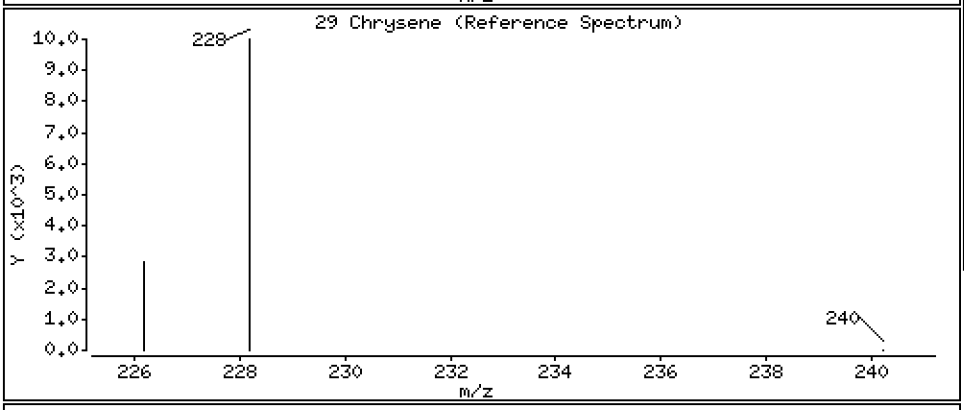
Concentration: 218 ng/mL

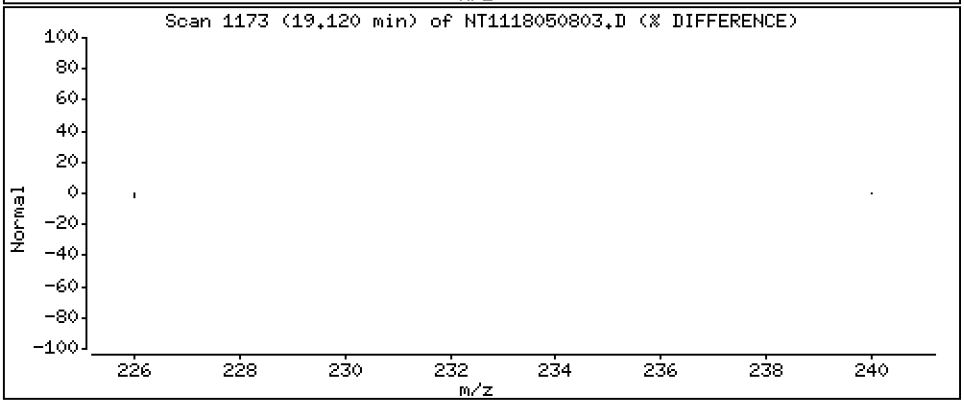












Data File: \\target\share\chem3\nt11.i\20180508.b\NT1118050803.D

Date : 08-MAY-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: SGE0126-SCV1

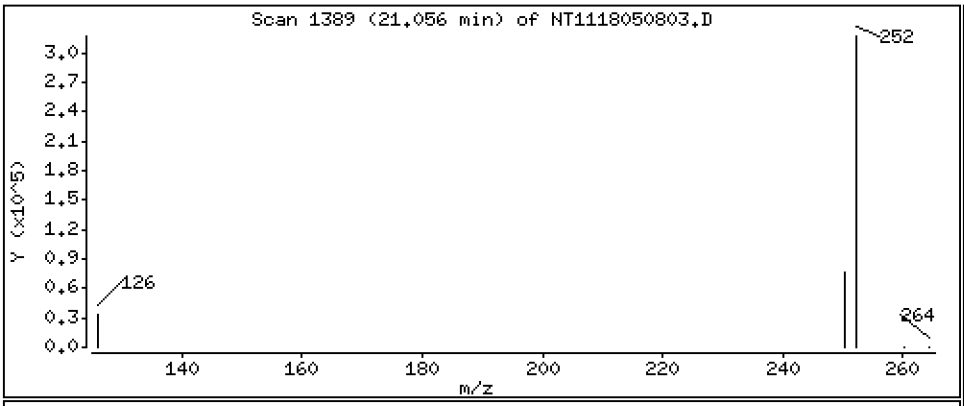
Operator: VTS

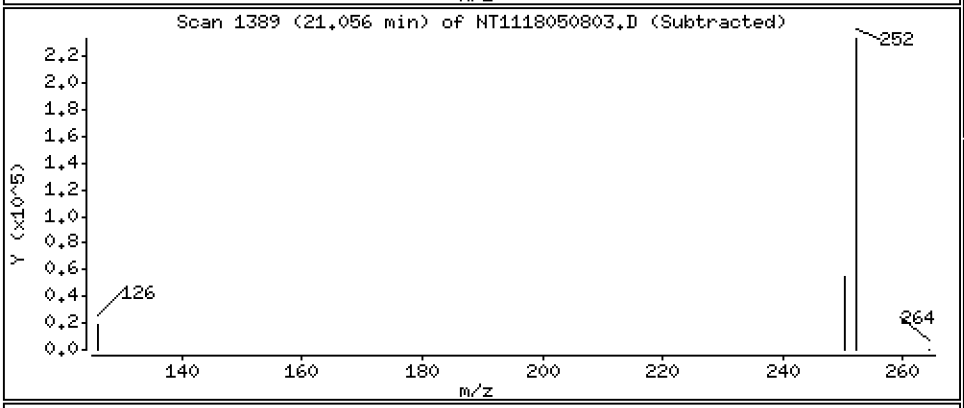
Column phase: Rxi-17Sil MS

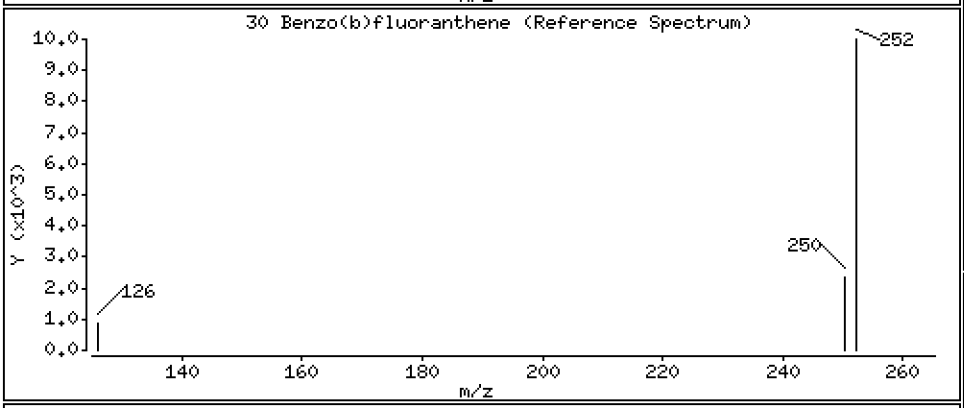
Column diameter: 0.25

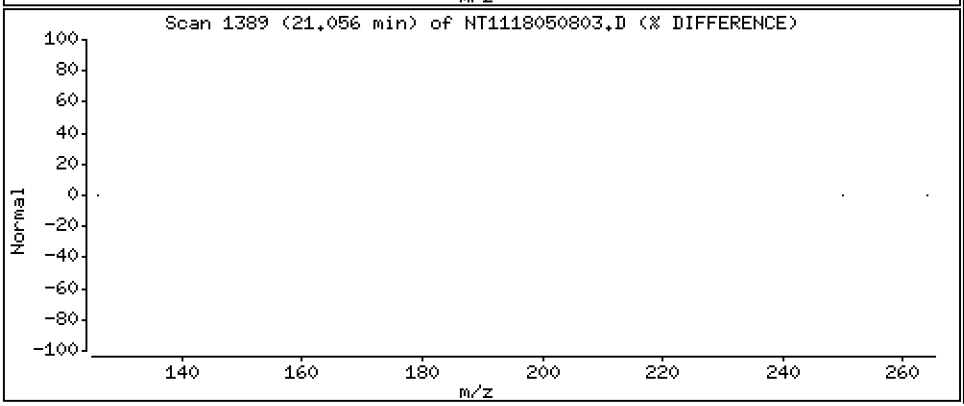
30 Benzo(b)fluoranthene

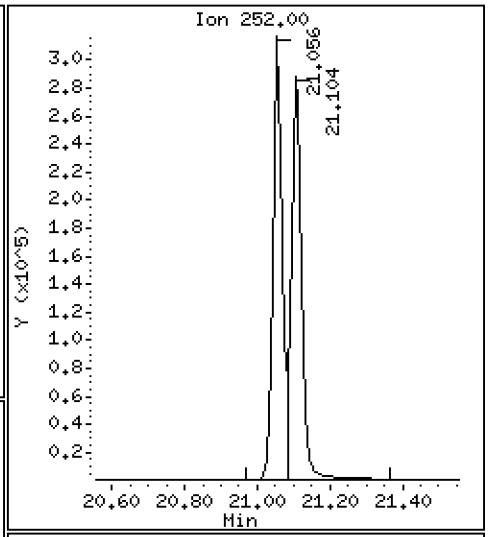
Concentration: 229 ng/mL

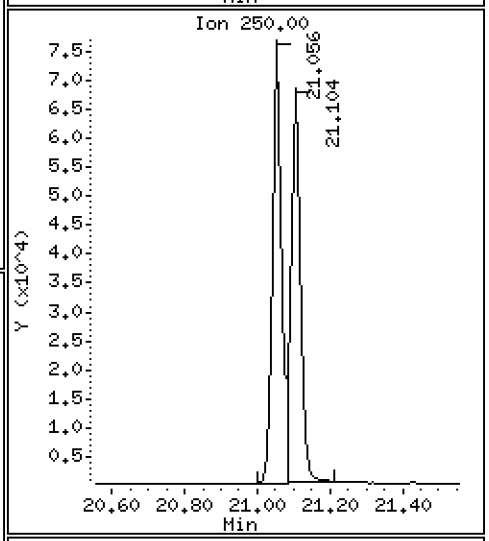


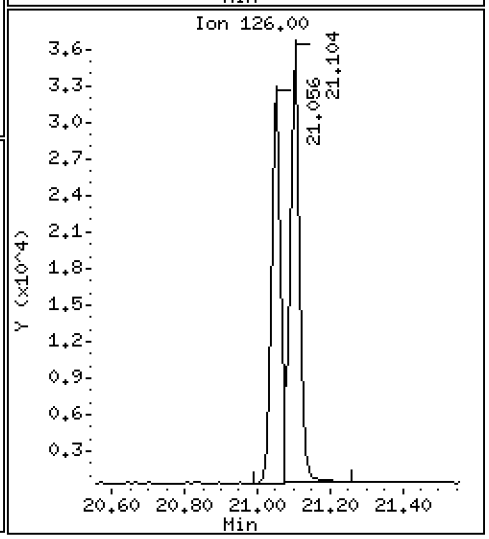












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Date : 08-MAY-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: SGE0126-SCV1

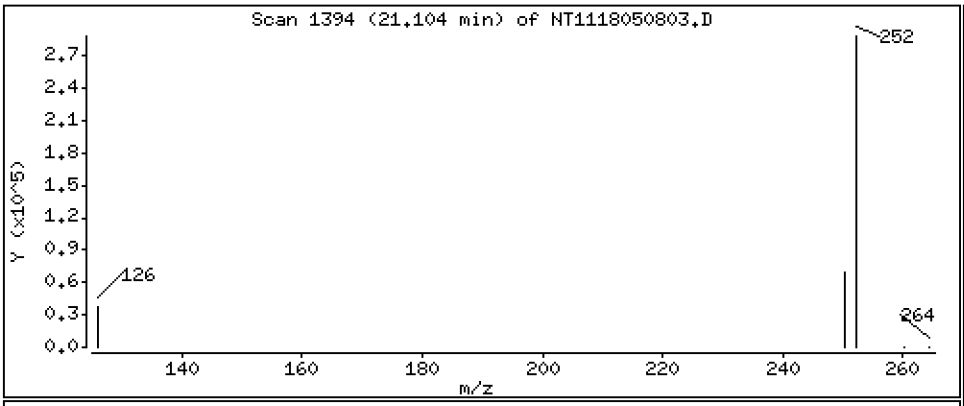
Operator: VTS

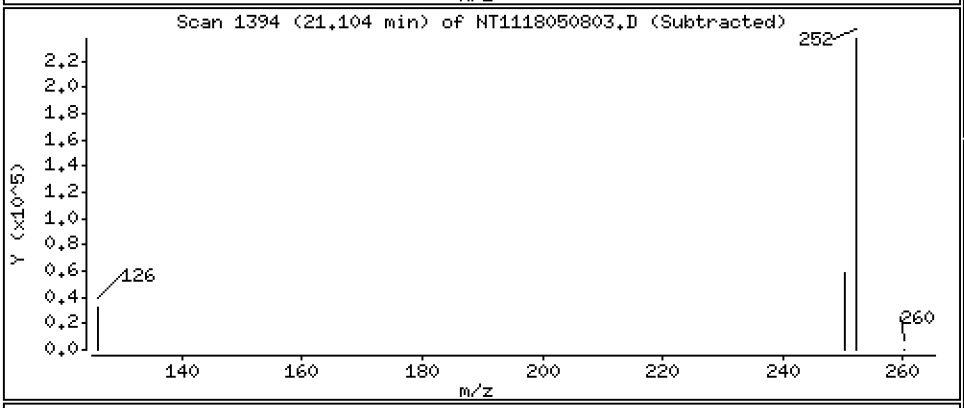
Column phase: Rxi-17Sil MS

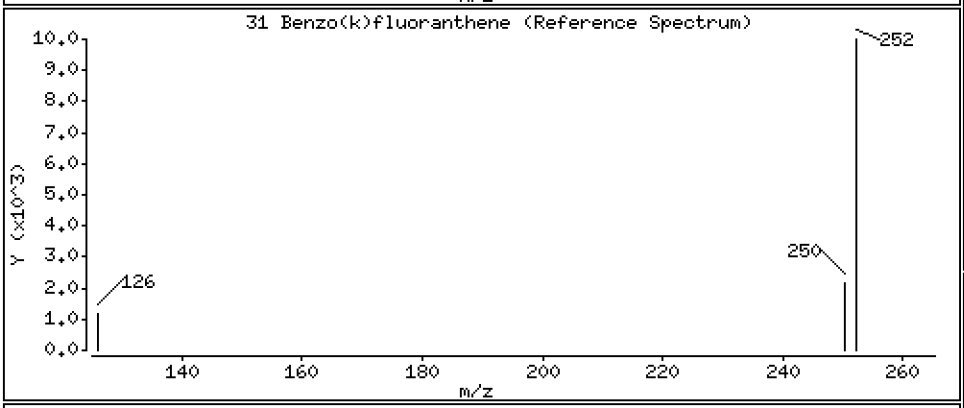
Column diameter: 0.25

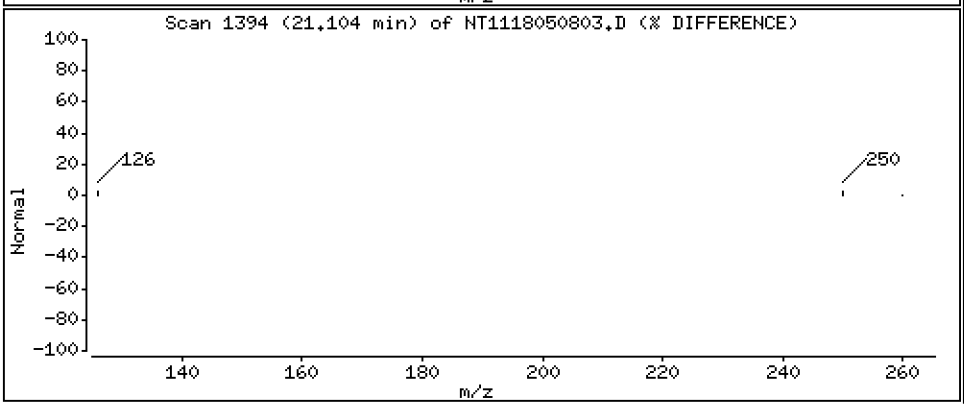
31 Benzo(k)fluoranthene

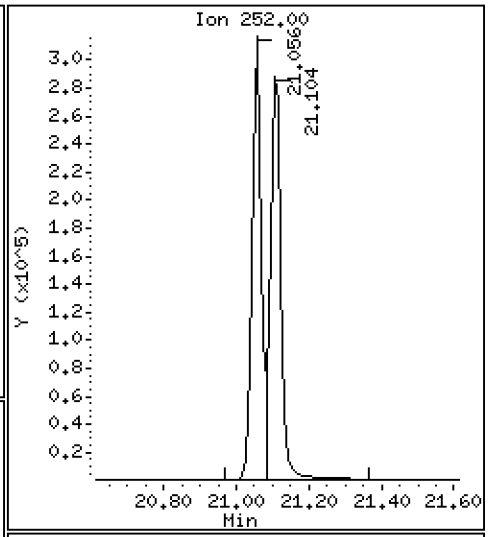
Concentration: 219 ng/mL

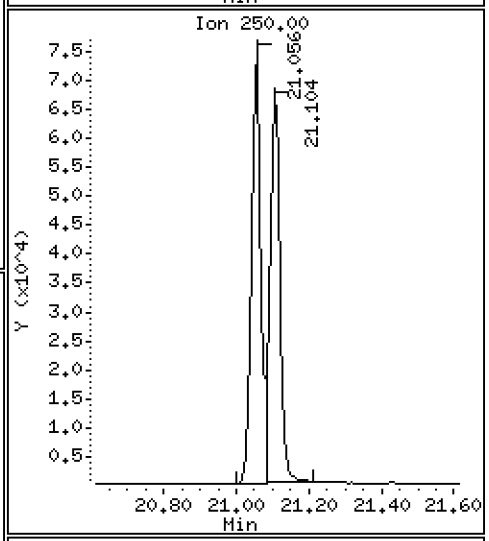


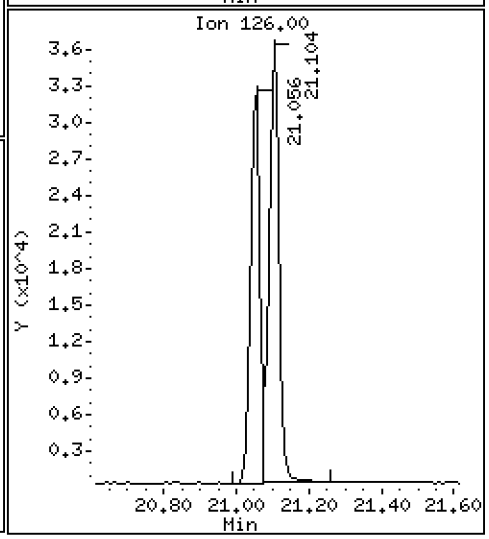












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Date : 08-MAY-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: SGE0126-SCV1

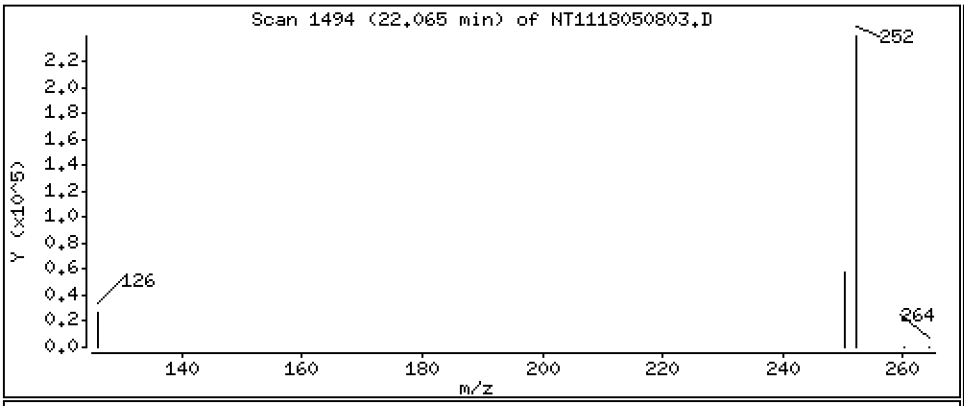
Operator: VTS

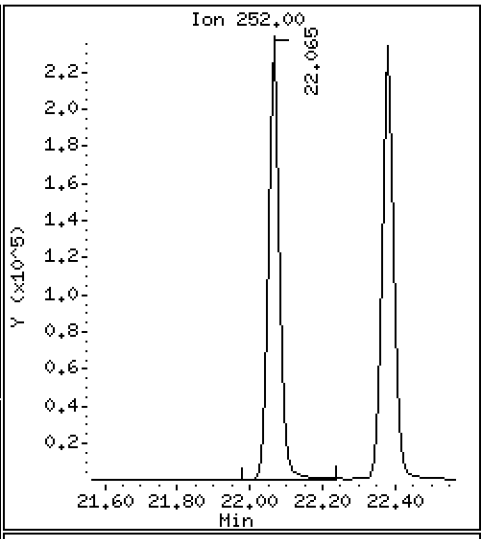
Column phase: Rxi-17Sil MS

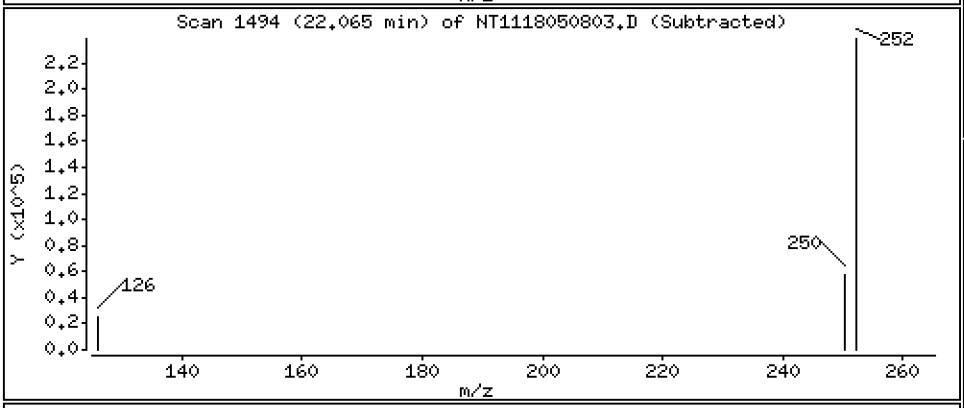
Column diameter: 0.25

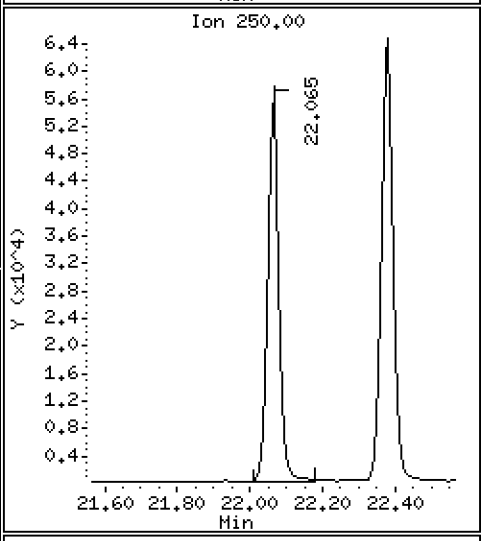
35 Benzo(a)pyrene

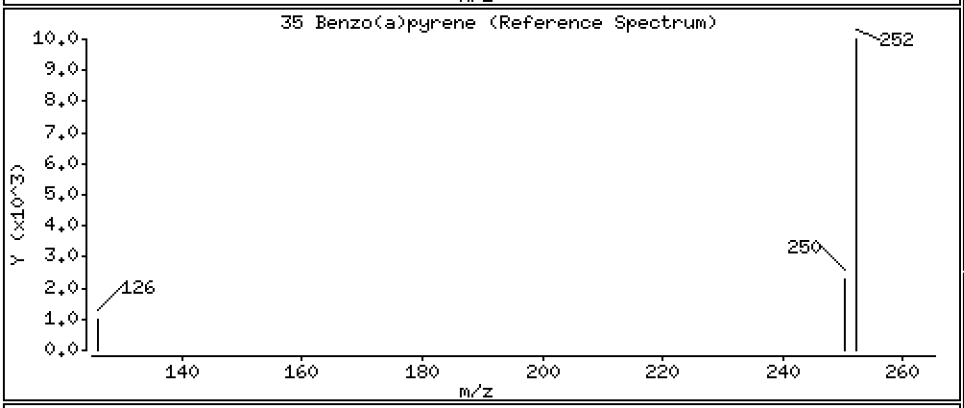
Concentration: 224 ng/mL

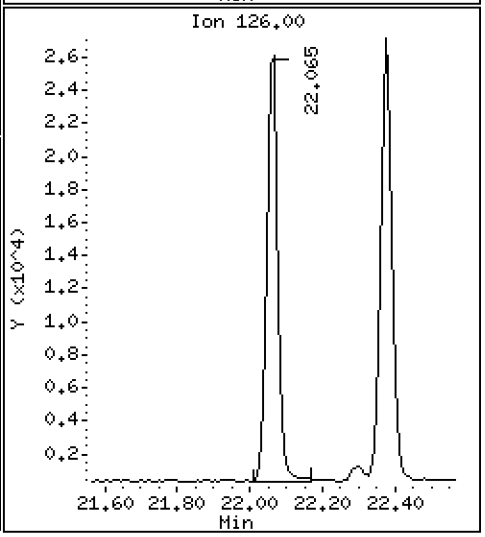


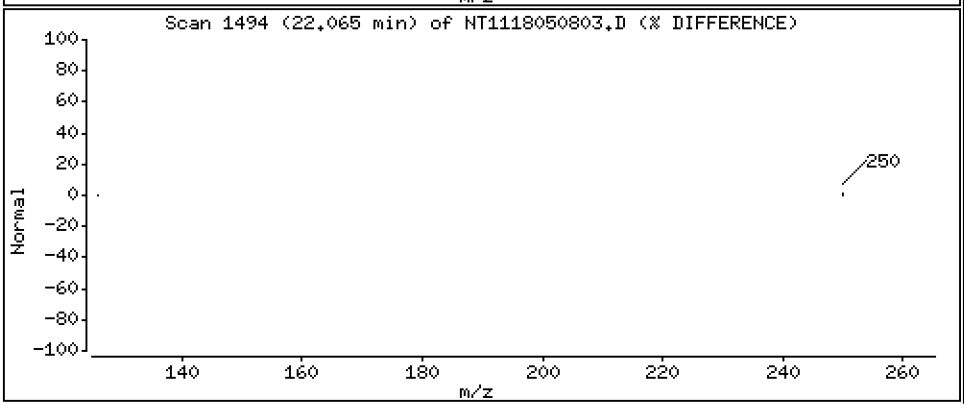












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Date : 08-MAY-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: SGE0126-SCV1

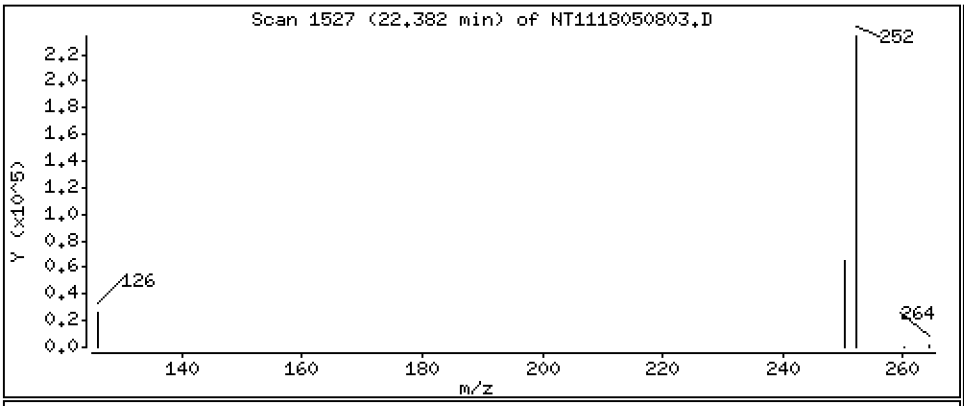
Operator: VTS

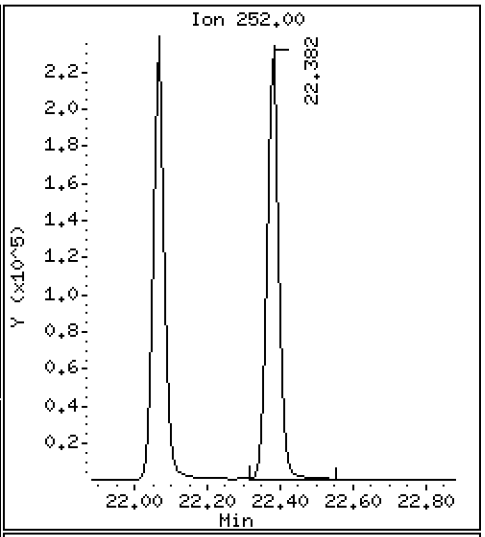
Column phase: Rxi-17Sil MS

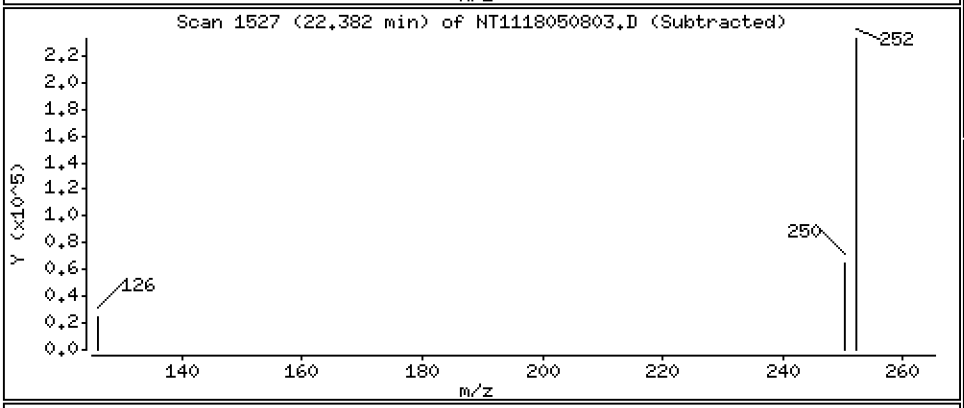
Column diameter: 0.25

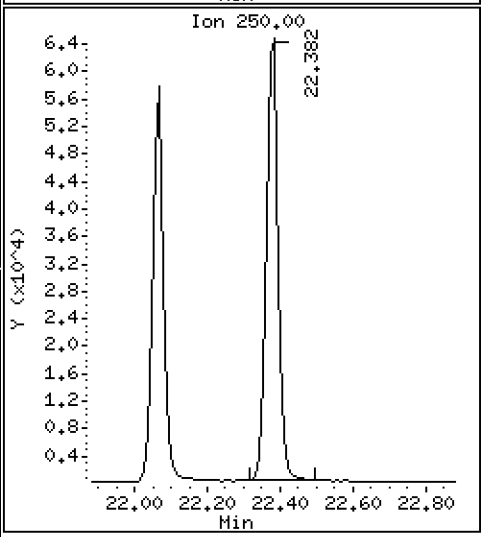
37 Perylene

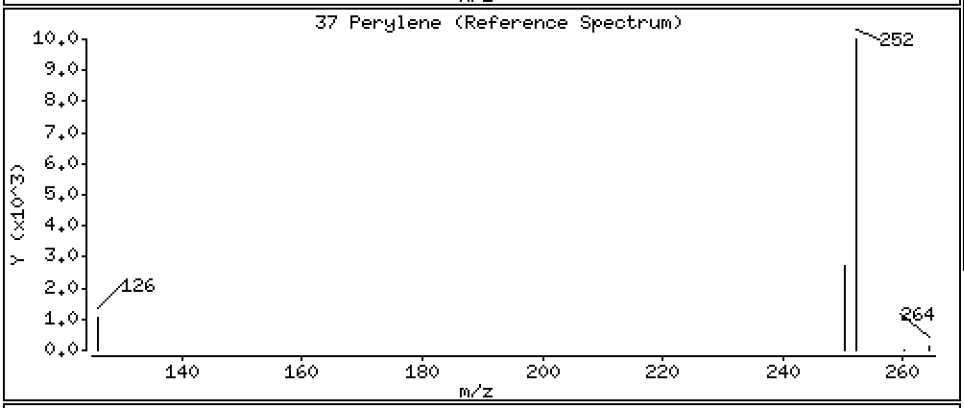
Concentration: 219 ng/mL

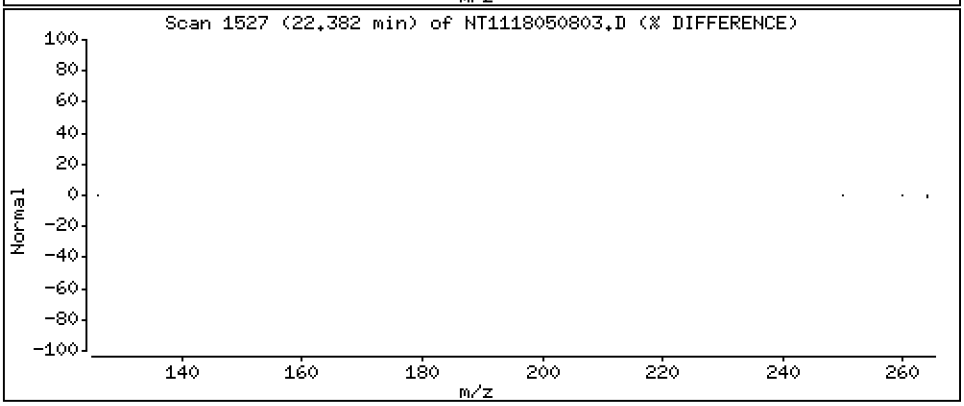












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Date : 08-MAY-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: SGE0126-SCV1

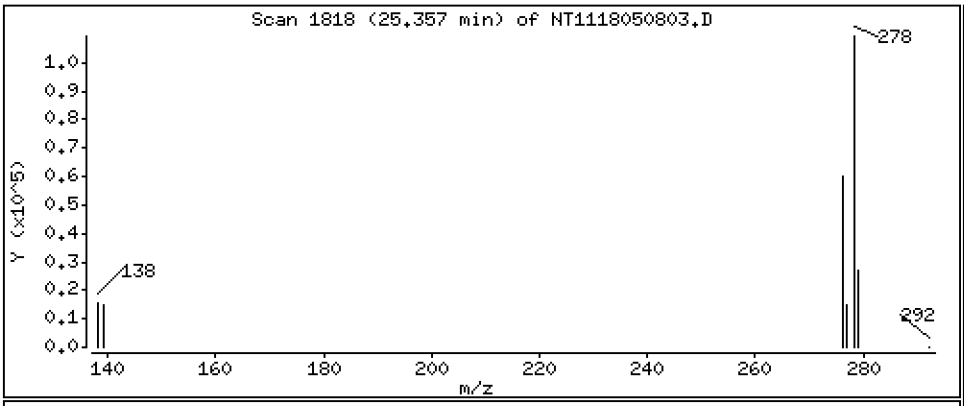
Operator: VTS

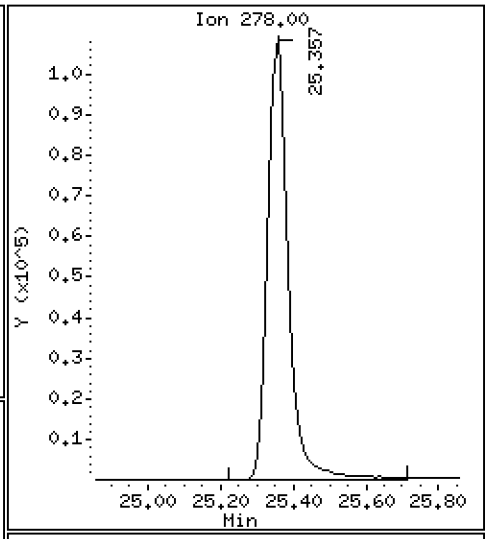
Column phase: Rxi-17Sil MS

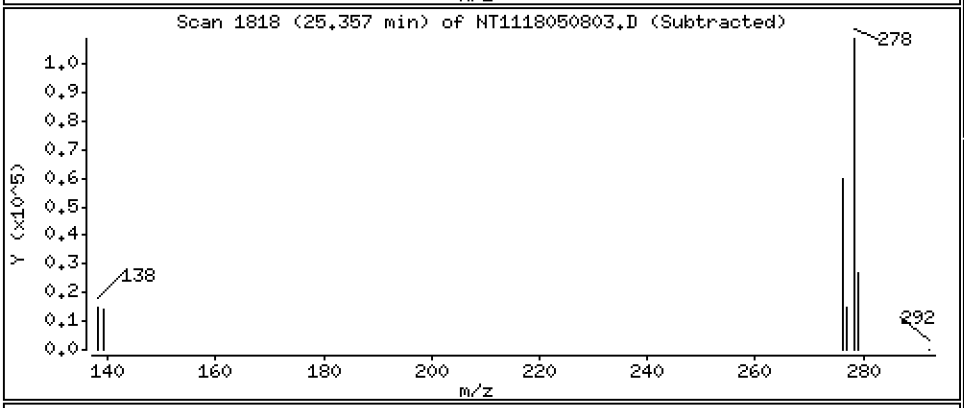
Column diameter: 0.25

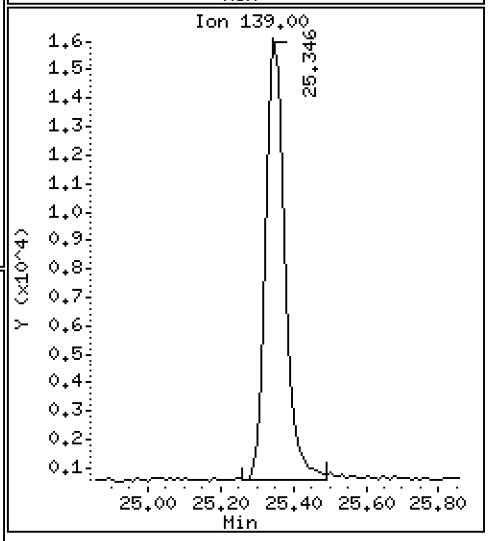
39 Dibenzo(a,h)anthracene

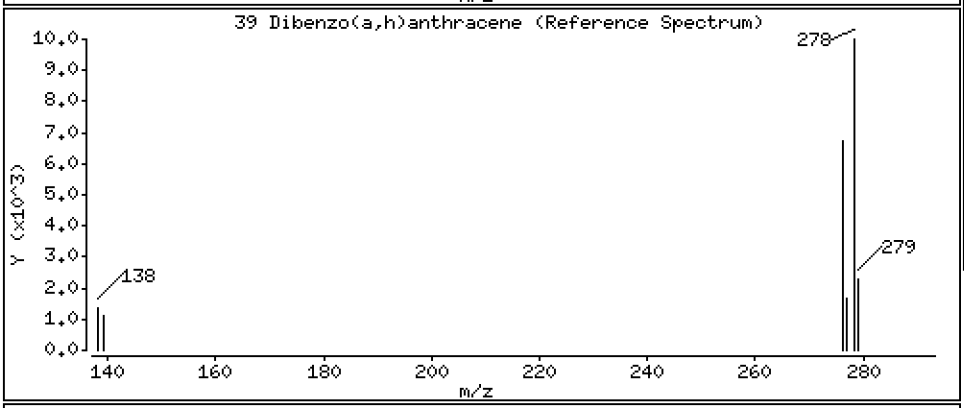
Concentration: 209 ng/mL

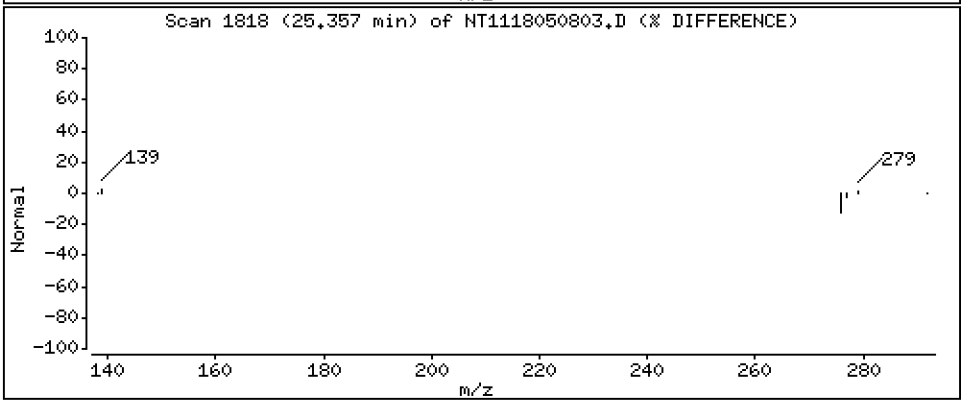












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Date : 08-MAY-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: SGE0126-SCV1

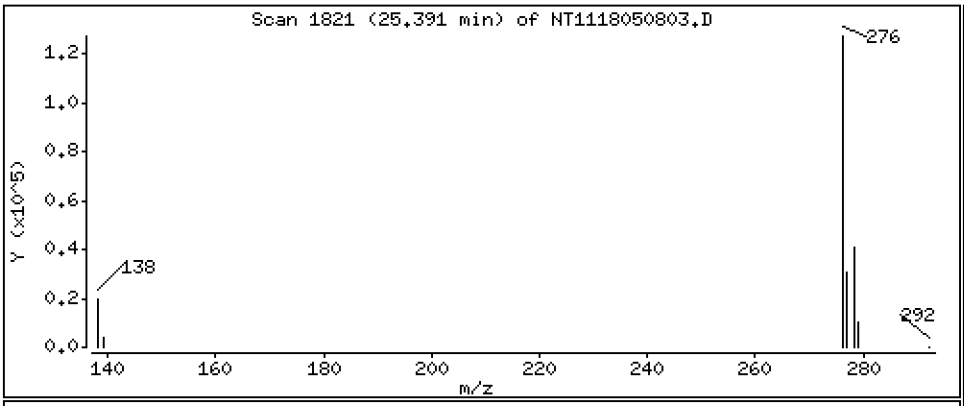
Operator: VTS

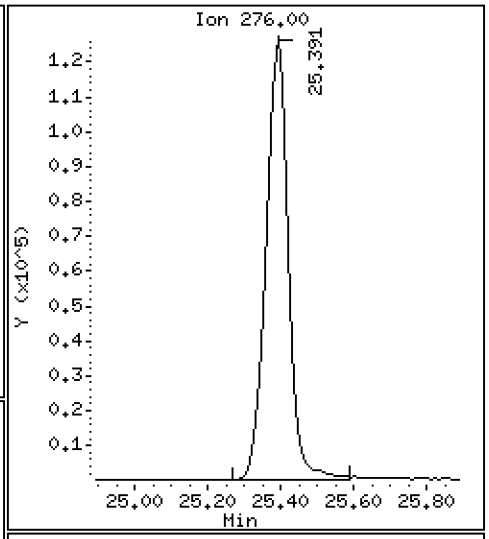
Column phase: Rxi-17Sil MS

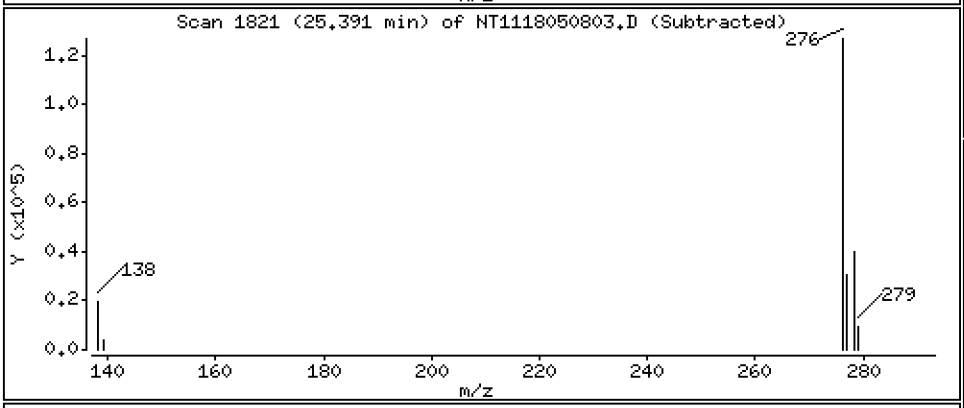
Column diameter: 0.25

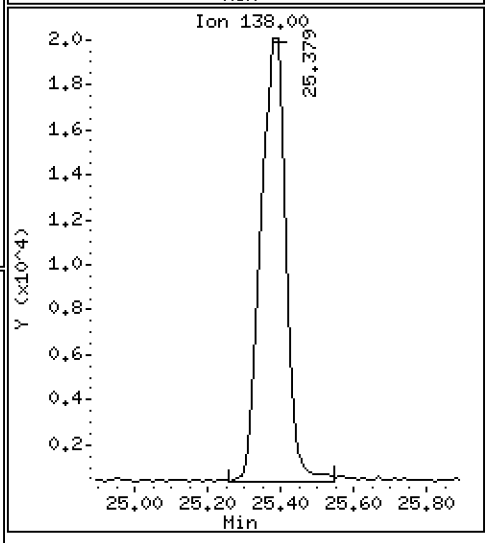
40 Indeno(1,2,3-cd)pyrene

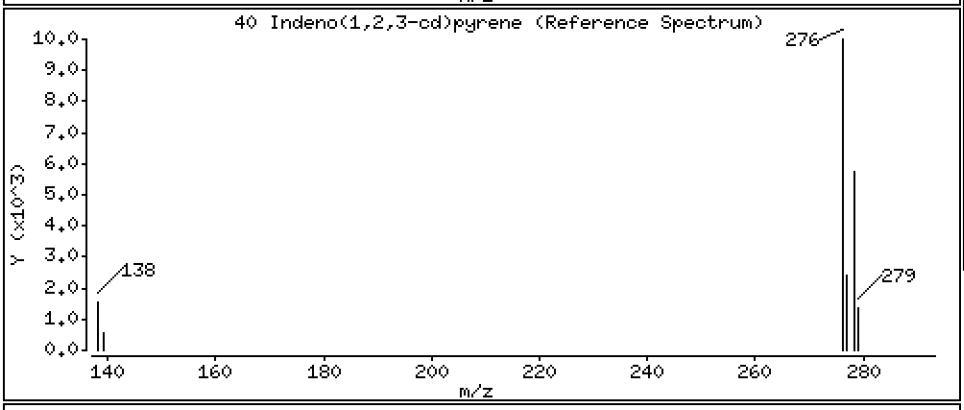
Concentration: 219 ng/mL

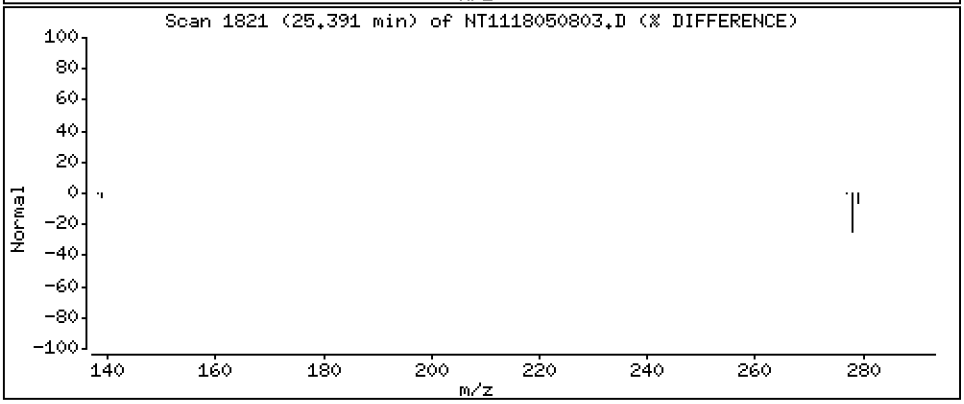












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Date : 08-MAY-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: SGE0126-SCV1

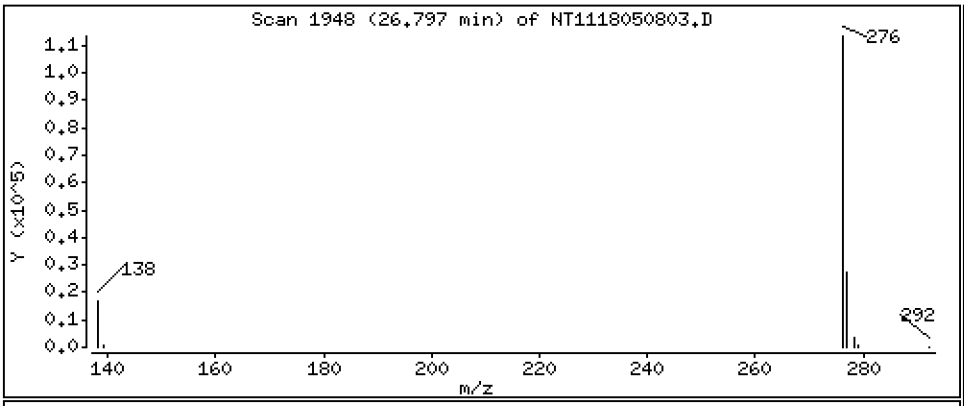
Operator: VTS

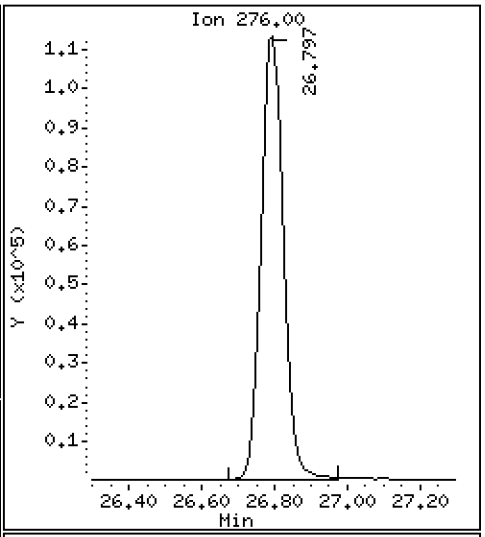
Column phase: Rxi-17Sil MS

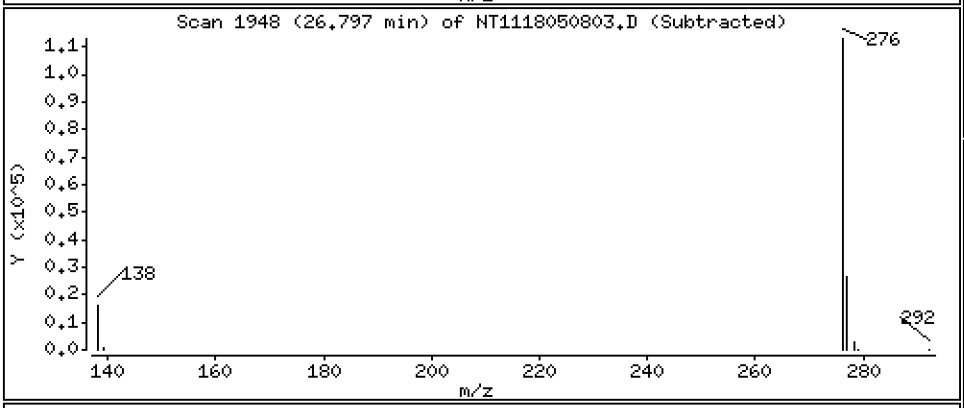
Column diameter: 0.25

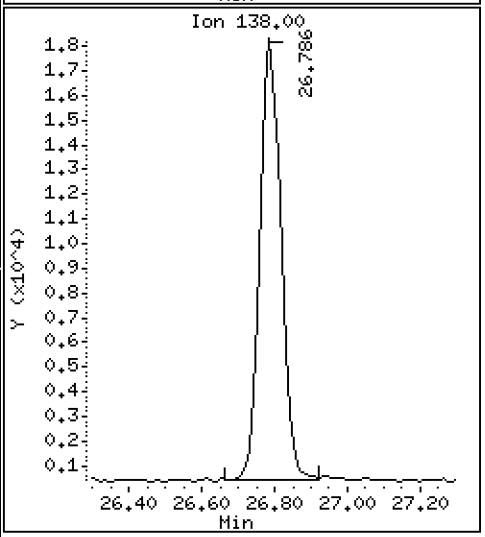
41 Benzo(g,h,i)perylene

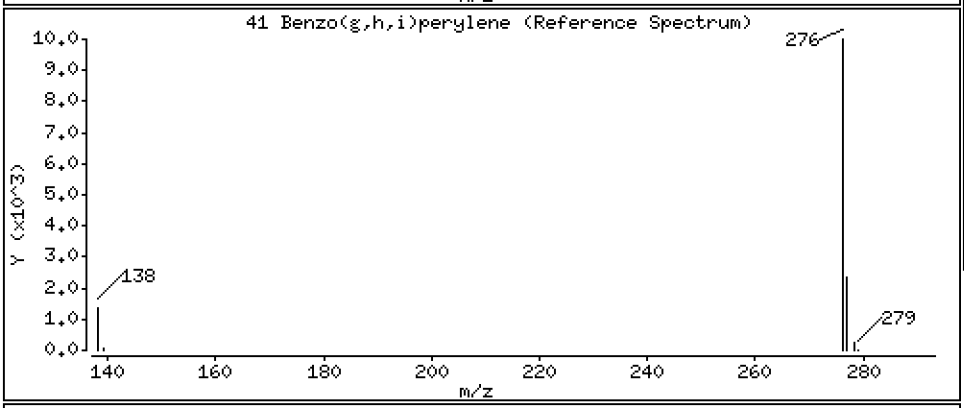
Concentration: 230 ng/mL

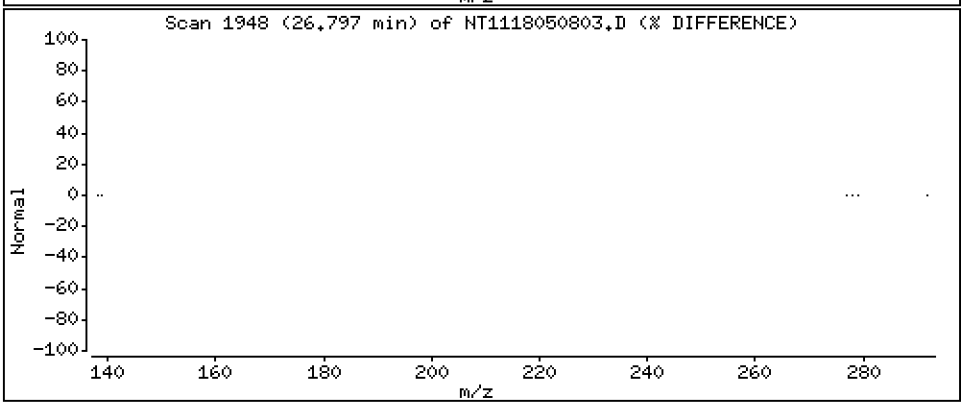












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180508.b\NT1118050803.D
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Inj Date : 08-MAY-2018 11:59 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SGE0126-SCV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180508.b\lowsim.m
Meth Date : 08-May-2018 12:26 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.590	8.590	(1.000)	535421	200.000	
	2 Naphthalene	128	8.617	8.617	(1.003)	716995	199.383	199
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	Compound Not Detected.					
	5 2-Methylnaphthalene	142	9.623	9.623	(1.120)	809606	248.232	248
	6 1-Methylnaphthalene	142	9.886	9.886	(1.151)	836954	258.028	258
	7 2-Chloronaphthalene	162	10.537	10.537	(0.907)	766517	204.318	204
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	11.472	11.472	(0.988)	979652	228.304	228
*	11 Acenaphthene-d10	164	11.617	11.617	(1.000)	360897	200.000	
	12 Acenaphthene	153	11.680	11.680	(1.005)	644862	219.722	220
	13 Dibenzofuran	168	11.882	11.882	(1.023)	915460	227.689	228
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.514	12.514	(1.077)	724571	223.475	223
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.308	14.308	(1.000)	604800	200.000	
	19 Phenanthrene	178	14.350	14.350	(1.003)	1019252	214.876	215
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.403	14.403	(1.007)	1019584	229.924	230
	22 Carbazole	167	15.076	15.076	(1.054)	1124332	217.640	218
	23 1-Methylphenanthrene	192	Compound Not Detected.					
$	24 Fluoranthene-d10	212	Compound Not Detected.					
	25 Fluoranthene	202	16.458	16.458	(1.150)	981461	222.806	223
	26 Pyrene	202	16.958	16.958	(0.889)	1026737	216.732	217
	27 Benzo(a)anthracene	228	18.970	18.971	(0.995)	828299	224.182	224
*	28 Chrysene-d12	240	19.070	19.070	(1.000)	481878	200.000	
	29 Chrysene	228	19.120	19.112	(1.003)	801359	218.350	218
	30 Benzo(b)fluoranthene	252	21.056	21.056	(0.944)	599600	228.793	229
	31 Benzo(k)fluoranthene	252	21.104	21.113	(0.946)	596253	219.406	219
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	35 Benzo(a)pyrene	252	22.065	22.065	(0.989)	516329	224.262	224
*	36 Perylene-d12	264	22.305	22.305	(1.000)	370514	200.000	
	37 Perylene	252	22.382	22.382	(1.003)	528539	218.736	219
$	38 Dibenzo(a,h)anthracene-d14	292	Compound Not Detected.					
	39 Dibenzo(a,h)anthracene	278	25.357	25.357	(1.137)	418581	208.951	209
	40 Indeno(1,2,3-cd)pyrene	276	25.390	25.390	(1.138)	524251	218.907	219
	41 Benzo(g,h,i)perylene	276	26.797	26.797	(1.201)	475602	229.597	230

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118050803.D
Lab Smp Id: SGE0126-SCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180508.b\lowsim.m
Misc Info:

Calibration Date: 08-MAY-2018
Calibration Time: 11:22
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	535421	24.14
11 Acenaphthene-d10	260137	130069	520274	360897	38.73
18 Phenanthrene-d10	427391	213696	854782	604800	41.51
28 Chrysene-d12	304596	152298	609192	481878	58.20
36 Perylene-d12	263091	131546	526182	370514	40.83

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.59	8.09	9.09	8.59	-0.00
11 Acenaphthene-d10	11.62	11.12	12.12	11.62	-0.00
18 Phenanthrene-d10	14.31	13.81	14.81	14.31	-0.00
28 Chrysene-d12	19.07	18.57	19.57	19.07	-0.00
36 Perylene-d12	22.31	21.81	22.81	22.31	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118050803.D

Lab ID: SGE0126-SCV1
nt11.i, 20180508.b\lowsim.m,   08-MAY-2018 11:59

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

** FIRST SURROGATE NOT FOUND. ICAL Check not performed **

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180508.b\lowsim.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	51.72
68	Less than 2.00% of mass 69	0.39 (0.69)
69	Mass 69 relative abundance	56.44
70	Less than 2.00% of mass 69	0.23 (0.40)
127	10.00 - 80.00% of mass 198	56.53
197	Less than 2.00% of mass 198	0.98
199	5.00 - 9.00% of mass 198	8.08
275	10.00 - 60.00% of mass 198	27.63
365	Greater than 1.00% of mass 198	3.35
441	0.01 - 24.00% of mass 442	15.97 (16.06)
442	50.00 - 200.00% of mass 198	99.43
443	15.00 - 24.00% of mass 442	21.38 (21.50)

Data File: NT1118050501.D
Spectrum: Avg. Scans 318-320 (4.79), Background Scan 314
Location of Maximum: 198.00
Number of points: 270

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	1198	120.00	1211	192.00	10273	272.00	916
38.00	7784	122.00	10272	193.00	12674	273.00	16512
39.00	36976	123.00	16576	194.00	3258	274.00	45672
40.00	1021	124.00	2788	195.00	2249	275.00	234048
43.00	2736	125.00	8817	196.00	19720	276.00	36784
44.00	6421	126.00	1027	197.00	8334	277.00	17568
45.00	160	127.00	478912	198.00	847232	278.00	3032
49.00	5941	128.00	41944	199.00	68480	283.00	1968
50.00	115760	129.00	201280	200.00	4351	284.00	819
51.00	438208	130.00	23576	201.00	5430	285.00	3400
52.00	26776	131.00	3300	203.00	8110	292.00	678
53.00	686	132.00	3143	204.00	31040	293.00	3533
55.00	1654	133.00	2200	205.00	71072	295.00	2728
56.00	13468	134.00	4526	206.00	241792	296.00	59864
57.00	35480	135.00	16488	207.00	31360	297.00	11196
58.00	1833	136.00	7482	208.00	9375	303.00	8258
61.00	6901	137.00	7665	209.00	3451	304.00	2281
62.00	5951	138.00	1469	210.00	4401	311.00	840
63.00	24352	139.00	1049	211.00	13112	314.00	2713
64.00	3166	140.00	3003	212.00	3036	315.00	9005
65.00	11492	141.00	27632	215.00	2507	316.00	5095
67.00	4216	142.00	7938	216.00	5042	317.00	719
68.00	3308	143.00	7151	217.00	68592	321.00	2031
69.00	478144	144.00	858	218.00	9122	323.00	28224
70.00	1932	146.00	5005	219.00	1518	324.00	4914
72.00	1067	147.00	10385	220.00	1361	327.00	2523
73.00	1804	148.00	27712	221.00	33840	328.00	1770
74.00	53008	149.00	5140	222.00	12464	332.00	3167
75.00	80616	150.00	2838	223.00	17072	333.00	1819
76.00	30896	151.00	2751	224.00	135616	334.00	14428
77.00	539776	152.00	2164	225.00	34512	335.00	3671
78.00	37040	153.00	10720	226.00	7151	341.00	2530
79.00	37304	154.00	7088	227.00	60584	344.00	701
80.00	29712	155.00	12980	228.00	8639	346.00	5337
81.00	47896	156.00	24544	229.00	13094	347.00	809
82.00	11599	157.00	5264	230.00	1801	352.00	4968
83.00	9809	158.00	5241	231.00	2934	353.00	4733
84.00	1531	159.00	3480	232.00	3007	354.00	6964
85.00	4298	160.00	6069	234.00	2224	355.00	1309
86.00	12146	161.00	12485	235.00	3842	359.00	786
87.00	5143	162.00	1847	236.00	2904	365.00	28360
89.00	787	163.00	1574	237.00	4502	366.00	5542
91.00	9573	164.00	1007	239.00	3200	372.00	15393
92.00	12747	165.00	10499	240.00	1650	373.00	2933
93.00	59224	166.00	6711	241.00	1819	374.00	667
94.00	3553	167.00	41832	242.00	8892	377.00	2521
95.00	716	168.00	19520	243.00	6602	381.00	667
96.00	4135	169.00	3101	244.00	96392	383.00	2927
97.00	1110	171.00	4134	245.00	15211	390.00	669

98.00	41560	172.00	4440	246.00	25328	391.00	1170
99.00	34640	173.00	6002	247.00	5456	401.00	683
100.00	4829	174.00	10443	248.00	907	402.00	5241
101.00	24248	175.00	18472	249.00	5746	403.00	7932
102.00	676	176.00	6320	251.00	786	404.00	2464
103.00	7330	177.00	8727	252.00	2859	415.00	725
104.00	12949	178.00	6053	253.00	2854	421.00	6086
105.00	15894	179.00	37984	254.00	3585	422.00	10209
106.00	2250	180.00	30816	255.00	495744	423.00	50128
107.00	159040	181.00	11381	256.00	77584	424.00	8455
108.00	26528	182.00	1467	257.00	6229	433.00	853
109.00	4079	184.00	2857	258.00	29776	434.00	937
110.00	293568	185.00	16960	259.00	2721	441.00	135296
111.00	45000	186.00	139200	260.00	747	442.00	842368
112.00	6962	187.00	41448	261.00	2167	443.00	181120
113.00	890	188.00	2723	265.00	14548	444.00	17240
116.00	9664	189.00	8600	266.00	762	445.00	681
117.00	103288	190.00	2610	268.00	816		
118.00	7184	191.00	4759	271.00	1034		

Data File: \\target\share\chem3\nt11.i\20180505.b\NT1118050502.D

Date : 05-MAY-2018 12:16

Client ID:

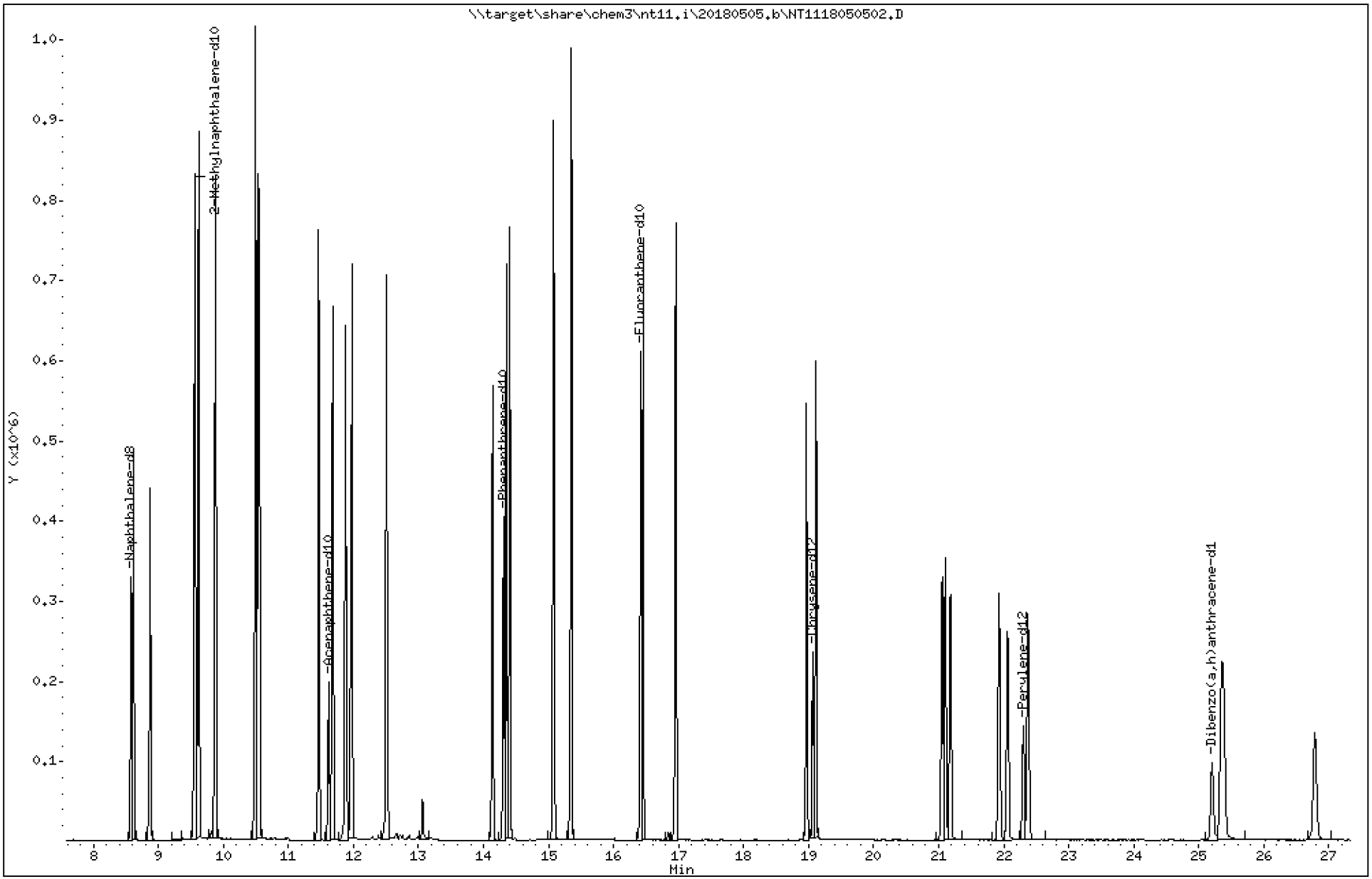
Instrument: nt11.i

Sample Info: SGE0100-CAL4

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180505.b\NT1118050502.D
Lab Smp Id: SGE0100-CAL4
Inj Date : 05-MAY-2018 12:16 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SGE0100-CAL4
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180505.b\lowsim.m
Meth Date : 08-May-2018 12:06 van Quant Type: ISTD
Cal Date : 17-MAR-2018 16:12 Cal File: NT1118031708.D
Als bottle: 2 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

			QUANT SIG					AMOUNTS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
*	1	Naphthalene-d8	136	8.581	8.581	(1.000)	431321	200.000	
	2	Naphthalene	128	8.617	8.617	(1.004)	671678	250.000	236
	3	Benzo(b)thiophene	134	8.870	8.879	(1.034)	565041	250.000	250
$	4	2-Methylnaphthalene-d10	152	9.560	9.560	(1.114)	604318	250.000	246
	5	2-Methylnaphthalene	142	9.623	9.623	(1.121)	634970	250.000	242
	6	1-Methylnaphthalene	142	9.886	9.886	(1.152)	638537	250.000	244
	7	2-Chloronaphthalene	162	10.537	10.537	(0.907)	679530	250.000	251
	8	Biphenyl	154	10.495	10.495	(0.903)	813913	250.000	252
	9	2,6-Dimethylnaphthalene	156	10.558	10.558	(0.909)	650989	250.000	255
	10	Acenaphthylene	152	11.463	11.463	(0.987)	777868	250.000	251
*	11	Acenaphthene-d10	164	11.617	11.617	(1.000)	260137	200.000	
	12	Acenaphthene	153	11.680	11.680	(1.005)	529138	250.000	250
	13	Dibenzofuran	168	11.882	11.882	(1.023)	720291	250.000	249
	14	2,3,5-Trimethylnaphthalene	170	11.971	11.971	(1.030)	477003	250.000	257
$	15	Fluorene-d10	174	Compound Not Detected.					
	16	Fluorene	166	12.514	12.514	(1.077)	588677	250.000	252
	17	Dibenzothiophene	184	14.140	14.140	(0.988)	672393	250.000	253
*	18	Phenanthrene-d10	188	14.308	14.309	(1.000)	427391	200.000	
	19	Phenanthrene	178	14.350	14.351	(1.003)	827552	250.000	247
$	20	Anthracene-d10	188	Compound Not Detected.					
	21	Anthracene	178	14.403	14.403	(1.007)	808677	250.000	258
	22	Carbazole	167	15.076	15.076	(1.054)	929749	250.000	255
	23	1-Methylphenanthrene	192	15.347	15.347	(1.073)	820778	250.000	259
$	24	Fluoranthene-d10	212	16.420	16.420	(1.148)	666198	250.000	257
	25	Fluoranthene	202	16.448	16.448	(1.150)	795662	250.000	256
	26	Pyrene	202	16.958	16.958	(0.890)	788714	250.000	263
	27	Benzo(a)anthracene	228	18.971	18.971	(0.995)	586928	250.000	251
*	28	Chrysene-d12	240	19.062	19.062	(1.000)	304596	200.000	
	29	Chrysene	228	19.112	19.112	(1.003)	585553	250.000	252
	30	Benzo(b)fluoranthene	252	21.056	21.056	(0.944)	468832	250.000	252
	31	Benzo(k)fluoranthene	252	21.104	21.104	(0.947)	492489	250.000	255
	32	Benzo(j)fluoranthene	252	21.181	21.181	(0.950)	447016	250.000	255
$	33	Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34	Benzo(e)pyrene	252	21.930	21.930	(0.984)	456653	250.000	254

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	35 Benzo(a)pyrene	252	22.055	22.065	(0.989)	417886	250.000	256
*	36 Perylene-d12	264	22.295	22.295	(1.000)	263091	200.000	
	37 Perylene	252	22.372	22.372	(1.003)	437965	250.000	255
$	38 Dibenzo(a,h)anthracene-d14	292	25.202	25.202	(1.130)	326195	250.000	259
	39 Dibenzo(a,h)anthracene	278	25.346	25.346	(1.137)	370285	250.000	260
	40 Indeno(1,2,3-cd)pyrene	276	25.379	25.379	(1.138)	438532	250.000	258
	41 Benzo(g,h,i)perylene	276	26.786	26.786	(1.201)	379414	250.000	258

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118050502.D
Lab Smp Id: SGE0100-CAL4
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180505.b\lowsim.m
Misc Info:

Calibration Date: 05-MAY-2018
Calibration Time: 16:26
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	431321	0.00
11 Acenaphthene-d10	260137	130069	520274	260137	0.00
18 Phenanthrene-d10	427391	213696	854782	427391	0.00
28 Chrysene-d12	304596	152298	609192	304596	0.00
36 Perylene-d12	263091	131546	526182	263091	0.00

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.58	8.08	9.08	8.58	-0.00
11 Acenaphthene-d10	11.62	11.12	12.12	11.62	-0.00
18 Phenanthrene-d10	14.31	13.81	14.81	14.31	-0.00
28 Chrysene-d12	19.06	18.56	19.56	19.06	-0.00
36 Perylene-d12	22.30	21.80	22.80	22.30	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118050502.D

Lab ID: SGE0100-CAL4
nt11.i, 20180505.b\lowsim.m,   05-MAY-2018 12:16

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180505.b\lowsim.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt11.i\20180505.b\NT1118050503.D

Date : 05-MAY-2018 12:52

Client ID:

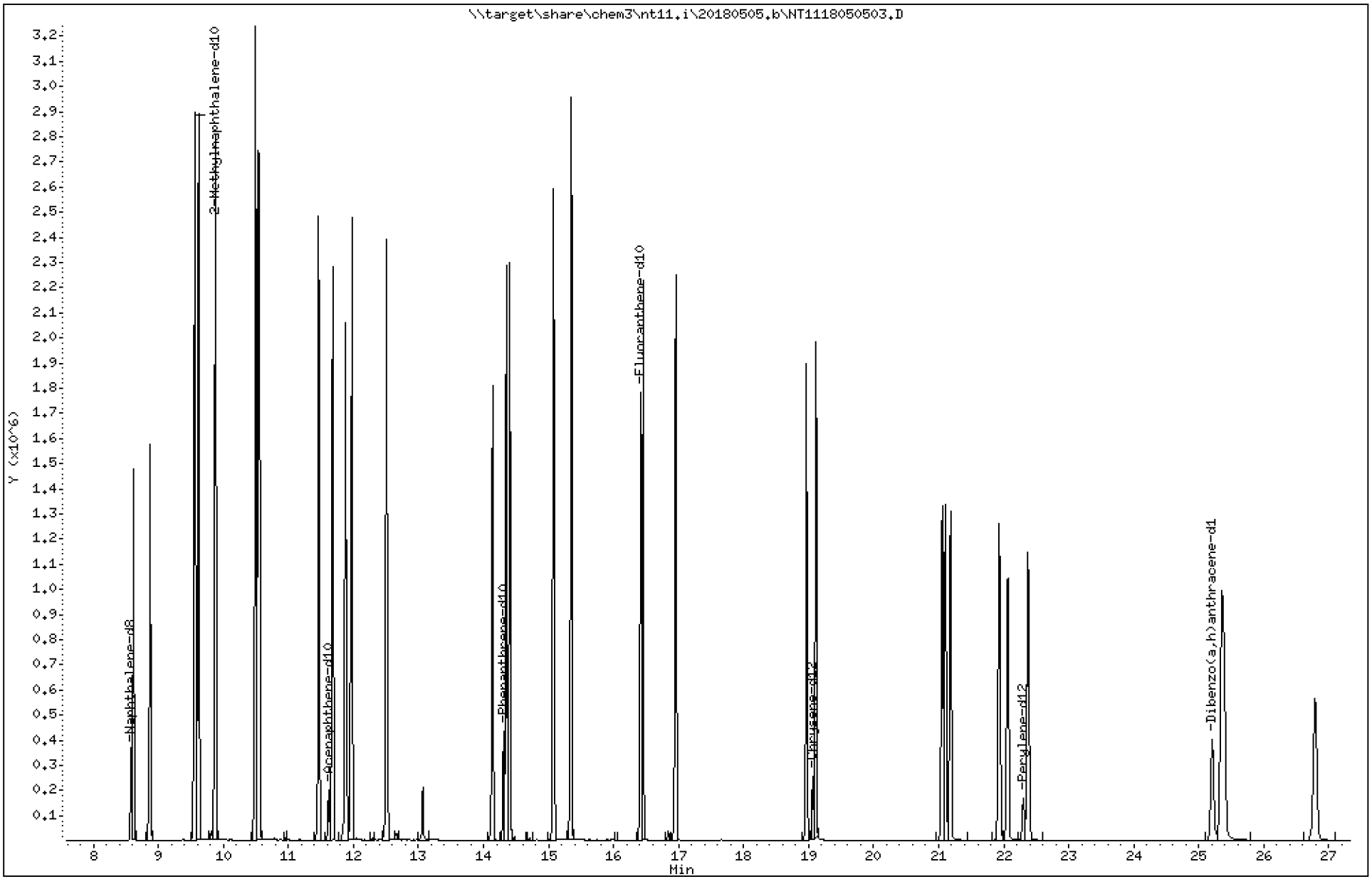
Instrument: nt11.i

Sample Info: SGE0100-CAL6

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180505.b\NT1118050503.D
Lab Smp Id: SGE0100-CAL6
Inj Date : 05-MAY-2018 12:52 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SGE0100-CAL6
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180505.b\lowsim.m
Meth Date : 08-May-2018 12:06 van Quant Type: ISTD
Cal Date : 17-MAR-2018 16:12 Cal File: NT1118031708.D
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
*	1 Naphthalene-d8	136	8.581	8.581	(1.000)	429844	200.000	
	2 Naphthalene	128	8.617	8.617	(1.004)	2197026	1000.00	996
	3 Benzo(b)thiophene	134	8.870	8.879	(1.034)	1962703	1000.00	871
$	4 2-Methylnaphthalene-d10	152	9.560	9.560	(1.114)	2104345	1000.00	858
	5 2-Methylnaphthalene	142	9.623	9.623	(1.121)	2189316	1000.00	836
	6 1-Methylnaphthalene	142	9.875	9.886	(1.151)	2154325	1000.00	827
	7 2-Chloronaphthalene	162	10.537	10.537	(0.907)	2271424	1000.00	820
	8 Biphenyl	154	10.495	10.495	(0.903)	2670059	1000.00	806
	9 2,6-Dimethylnaphthalene	156	10.558	10.558	(0.909)	2219194	1000.00	848
	10 Acenaphthylene	152	11.463	11.463	(0.987)	2572776	1000.00	812
*	11 Acenaphthene-d10	164	11.617	11.617	(1.000)	266324	200.000	
	12 Acenaphthene	153	11.680	11.680	(1.005)	1807354	1000.00	834
	13 Dibenzofuran	168	11.882	11.882	(1.023)	2337631	1000.00	788
	14 2,3,5-Trimethylnaphthalene	170	11.971	11.971	(1.030)	1620654	1000.00	854
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.514	12.514	(1.077)	1938011	1000.00	810
	17 Dibenzothiophene	184	14.140	14.140	(0.988)	2190283	1000.00	812
*	18 Phenanthrene-d10	188	14.309	14.309	(1.000)	433305	200.000	
	19 Phenanthrene	178	14.351	14.351	(1.003)	2592510	1000.00	763
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.403	14.403	(1.007)	2546967	1000.00	802
	22 Carbazole	167	15.076	15.076	(1.054)	2848197	1000.00	770
	23 1-Methylphenanthrene	192	15.347	15.347	(1.073)	2473764	1000.00	770
$	24 Fluoranthene-d10	212	16.420	16.420	(1.148)	2014478	1000.00	766
	25 Fluoranthene	202	16.448	16.448	(1.150)	2341149	1000.00	742
	26 Pyrene	202	16.958	16.958	(0.890)	2374776	1000.00	734
	27 Benzo(a)anthracene	228	18.971	18.971	(0.995)	2079831	1000.00	825
*	28 Chrysene-d12	240	19.062	19.062	(1.000)	328972	200.000	
	29 Chrysene	228	19.112	19.112	(1.003)	2017217	1000.00	805
	30 Benzo(b)fluoranthene	252	21.056	21.056	(0.944)	1828073	1000.00	845
	31 Benzo(k)fluoranthene	252	21.104	21.104	(0.947)	1954099	1000.00	871
	32 Benzo(j)fluoranthene	252	21.181	21.181	(0.950)	1748055	1000.00	857
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	21.930	21.930	(0.984)	1797880	1000.00	862

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	35 Benzo(a)pyrene	252	22.065	22.065	(0.990)	1702494	1000.00	896
*	36 Perylene-d12	264	22.295	22.295	(1.000)	305713	200.000	
	37 Perylene	252	22.372	22.372	(1.003)	1776053	1000.00	891
$	38 Dibenzo(a,h)anthracene-d14	292	25.213	25.202	(1.131)	1408881	1000.00	963
	39 Dibenzo(a,h)anthracene	278	25.357	25.346	(1.137)	1582512	1000.00	957
	40 Indeno(1,2,3-cd)pyrene	276	25.390	25.379	(1.139)	1874489	1000.00	949
	41 Benzo(g,h,i)perylene	276	26.786	26.786	(1.201)	1624681	1000.00	951

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118050503.D
Lab Smp Id: SGE0100-CAL6
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180505.b\lowsim.m
Misc Info:

Calibration Date: 05-MAY-2018
Calibration Time: 16:26
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	429844	-0.34
11 Acenaphthene-d10	260137	130069	520274	266324	2.38
18 Phenanthrene-d10	427391	213696	854782	433305	1.38
28 Chrysene-d12	304596	152298	609192	328972	8.00
36 Perylene-d12	263091	131546	526182	305713	16.20

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.58	8.08	9.08	8.58	0.00
11 Acenaphthene-d10	11.62	11.12	12.12	11.62	0.00
18 Phenanthrene-d10	14.31	13.81	14.81	14.31	0.00
28 Chrysene-d12	19.06	18.56	19.56	19.06	0.00
36 Perylene-d12	22.30	21.80	22.80	22.30	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118050503.D

Lab ID: SGE0100-CAL6
nt11.i, 20180505.b\lowsim.m,   05-MAY-2018 12:52

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180505.b\lowsim.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt11.i\20180505.b\NT1118050504.D

Date : 05-MAY-2018 13:27

Client ID:

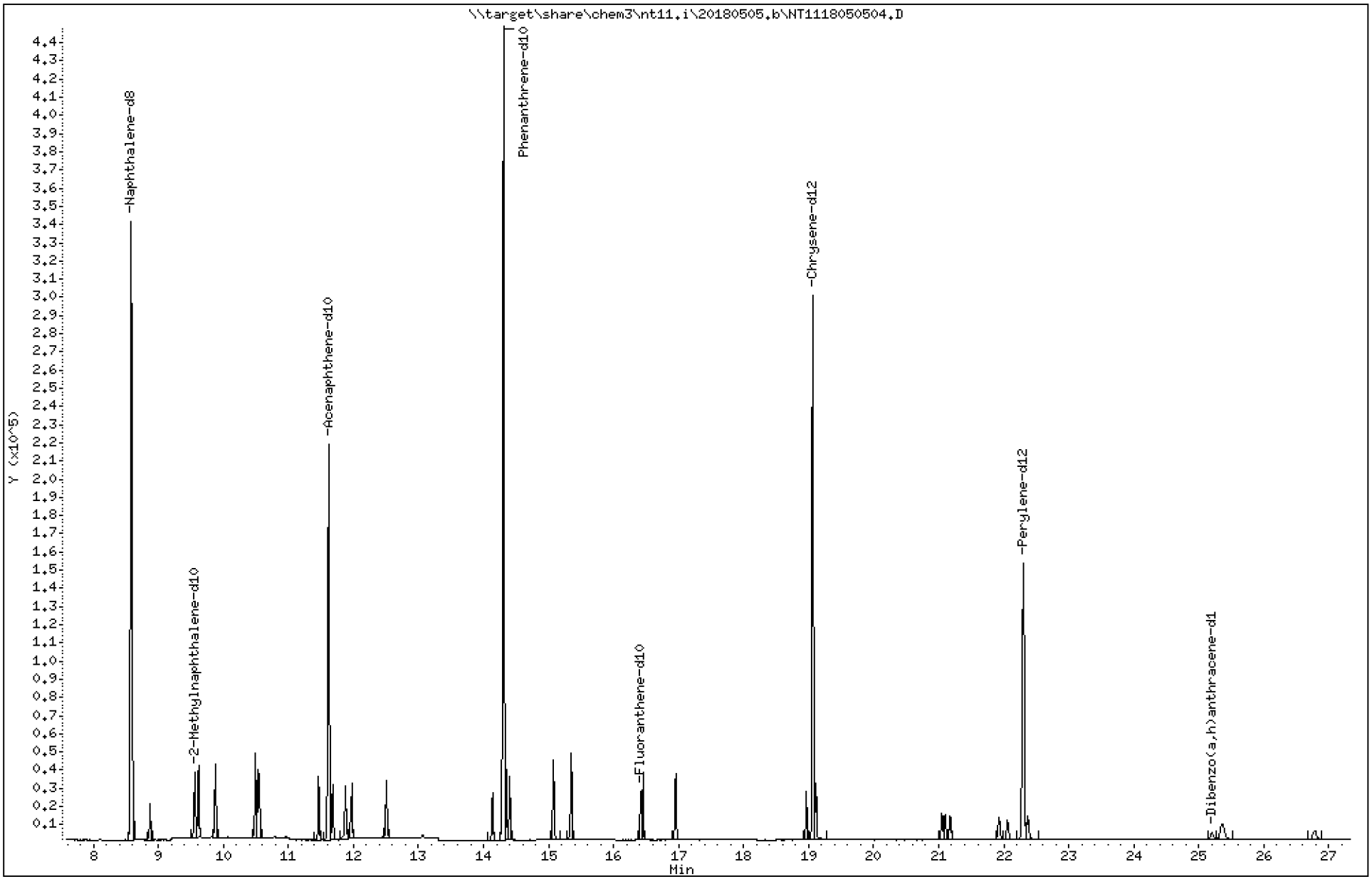
Instrument: nt11.i

Sample Info: SGE0100-CAL1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180505.b\NT1118050504.D
Lab Smp Id: SGE0100-CAL1
Inj Date : 05-MAY-2018 13:27 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SGE0100-CAL1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180505.b\lowsim.m
Meth Date : 08-May-2018 12:06 van Quant Type: ISTD
Cal Date : 17-MAR-2018 16:12 Cal File: NT1118031708.D
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
*	1 Naphthalene-d8	136	8.581	8.581	(1.000)	453542	200.000	
	2 Naphthalene	128	8.617	8.617	(1.004)	44078	10.0000	13.0
	3 Benzo(b)thiophene	134	8.870	8.879	(1.034)	24541	10.0000	10.3
$	4 2-Methylnaphthalene-d10	152	9.560	9.560	(1.114)	26346	10.0000	10.2
	5 2-Methylnaphthalene	142	9.623	9.623	(1.121)	31008	10.0000	11.2
	6 1-Methylnaphthalene	142	9.875	9.886	(1.151)	30302	10.0000	11.0
	7 2-Chloronaphthalene	162	10.537	10.537	(0.907)	31037	10.0000	10.5
	8 Biphenyl	154	10.495	10.495	(0.903)	37182	10.0000	10.5
	9 2,6-Dimethylnaphthalene	156	10.558	10.558	(0.909)	27997	10.0000	10.0
	10 Acenaphthylene	152	11.463	11.463	(0.987)	35592	10.0000	10.5
*	11 Acenaphthene-d10	164	11.617	11.617	(1.000)	284258	200.000	
	12 Acenaphthene	153	11.680	11.680	(1.005)	24576	10.0000	10.6
	13 Dibenzofuran	168	11.882	11.882	(1.023)	34308	10.0000	10.8
	14 2,3,5-Trimethylnaphthalene	170	11.971	11.971	(1.030)	20008	10.0000	9.87
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.514	12.514	(1.077)	27207	10.0000	10.7
	17 Dibenzothiophene	184	14.141	14.140	(0.988)	32207	10.0000	10.6
*	18 Phenanthrene-d10	188	14.309	14.309	(1.000)	489172	200.000	
	19 Phenanthrene	178	14.351	14.351	(1.003)	43963	10.0000	11.5
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.403	14.403	(1.007)	38033	10.0000	10.6
	22 Carbazole	167	15.076	15.076	(1.054)	45013	10.0000	10.8
	23 1-Methylphenanthrene	192	15.348	15.347	(1.073)	38038	10.0000	10.5
$	24 Fluoranthene-d10	212	16.420	16.420	(1.148)	31081	10.0000	10.5
	25 Fluoranthene	202	16.449	16.448	(1.150)	37765	10.0000	10.6
	26 Pyrene	202	16.958	16.958	(0.890)	39909	10.0000	10.6
	27 Benzo(a)anthracene	228	18.971	18.971	(0.995)	30797	10.0000	10.4
*	28 Chrysene-d12	240	19.062	19.062	(1.000)	384384	200.000	
	29 Chrysene	228	19.112	19.112	(1.003)	31794	10.0000	10.9
	30 Benzo(b)fluoranthene	252	21.046	21.056	(0.944)	20245	10.0000	10.1
	31 Benzo(k)fluoranthene	252	21.104	21.104	(0.947)	20565	10.0000	9.92
	32 Benzo(j)fluoranthene	252	21.171	21.181	(0.950)	18774	10.0000	9.95
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	21.930	21.930	(0.984)	19281	10.0000	9.99

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	35 Benzo(a)pyrene	252	22.055	22.065	(0.989)	17228	10.0000	9.80
*	36 Perylene-d12	264	22.295	22.295	(1.000)	282777	200.000	
	37 Perylene	252	22.372	22.372	(1.003)	17686	10.0000	9.59
$	38 Dibenzo(a,h)anthracene-d14	292	25.202	25.202	(1.130)	12532	10.0000	9.26
	39 Dibenzo(a,h)anthracene	278	25.346	25.346	(1.137)	13530	10.0000	8.85
	40 Indeno(1,2,3-cd)pyrene	276	25.379	25.379	(1.138)	16952	10.0000	9.27
	41 Benzo(g,h,i)perylene	276	26.786	26.786	(1.201)	14729	10.0000	9.32

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118050504.D
Lab Smp Id: SGE0100-CAL1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180505.b\lowsim.m
Misc Info:

Calibration Date: 05-MAY-2018
Calibration Time: 16:26
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	453542	5.15
11 Acenaphthene-d10	260137	130069	520274	284258	9.27
18 Phenanthrene-d10	427391	213696	854782	489172	14.46
28 Chrysene-d12	304596	152298	609192	384384	26.19
36 Perylene-d12	263091	131546	526182	282777	7.48

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.58	8.08	9.08	8.58	0.00
11 Acenaphthene-d10	11.62	11.12	12.12	11.62	0.00
18 Phenanthrene-d10	14.31	13.81	14.81	14.31	0.00
28 Chrysene-d12	19.06	18.56	19.56	19.06	0.00
36 Perylene-d12	22.30	21.80	22.80	22.30	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118050504.D

Lab ID: SGE0100-CAL1
nt11.i, 20180505.b\lowsim.m,   05-MAY-2018 13:27

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180505.b\lowsim.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt11.i\20180505.b\NT1118050505.D

Date : 05-MAY-2018 14:03

Client ID:

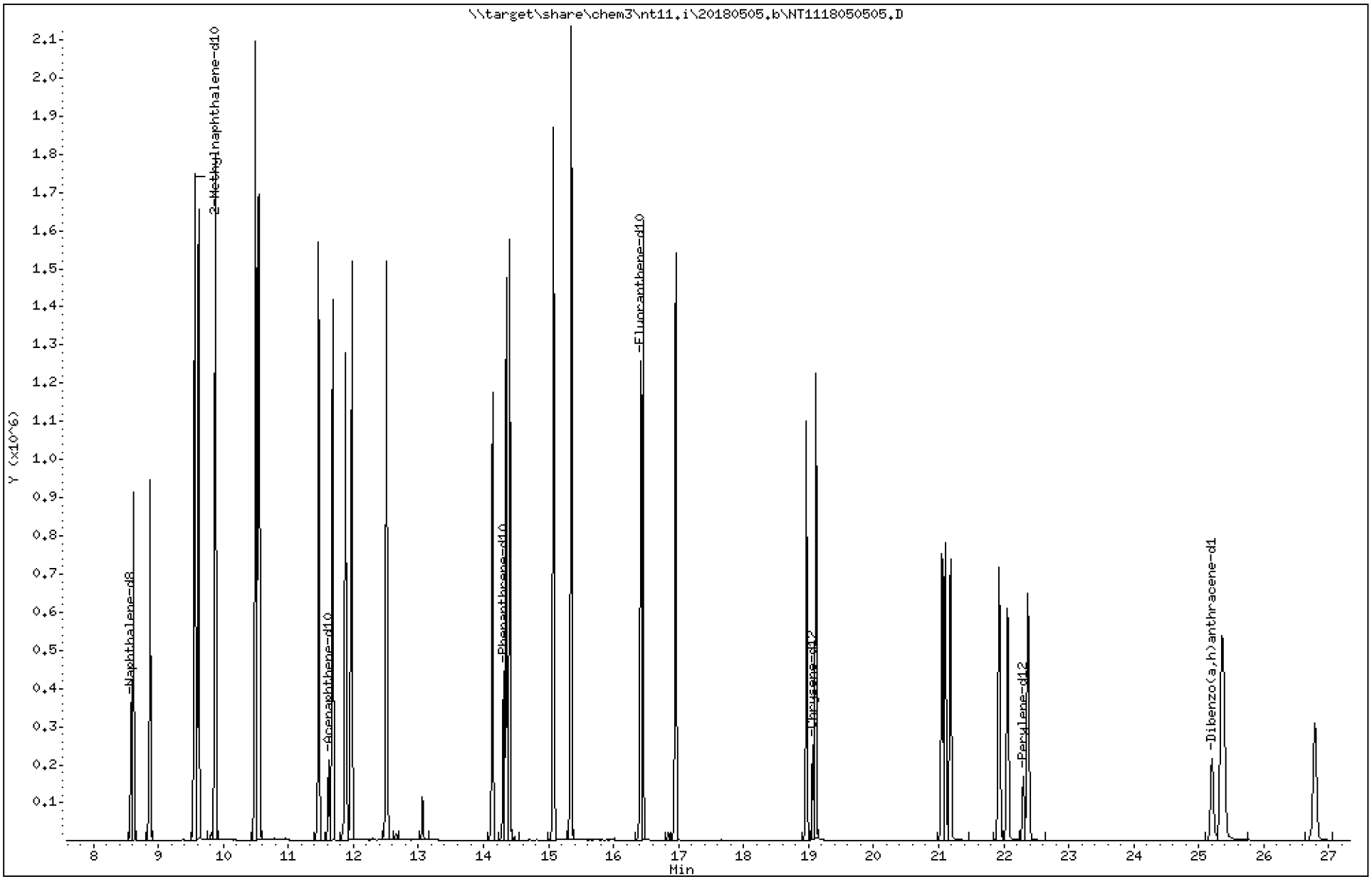
Instrument: nt11.i

Sample Info: SGE0100-CAL5

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180505.b\NT1118050505.D
Lab Smp Id: SGE0100-CAL5
Inj Date : 05-MAY-2018 14:03 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SGE0100-CAL5
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180505.b\lowsim.m
Meth Date : 08-May-2018 12:06 van Quant Type: ISTD
Cal Date : 05-MAY-2018 13:27 Cal File: NT1118050504.D
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
*	1 Naphthalene-d8	136	8.581	8.581	(1.000)	443757	200.000	
	2 Naphthalene	128	8.617	8.617	(1.004)	1349714	500.000	516
	3 Benzo(b)thiophene	134	8.870	8.879	(1.034)	1166773	500.000	502
$	4 2-Methylnaphthalene-d10	152	9.560	9.560	(1.114)	1248101	500.000	493
	5 2-Methylnaphthalene	142	9.623	9.623	(1.121)	1291656	500.000	478
	6 1-Methylnaphthalene	142	9.875	9.886	(1.151)	1318722	500.000	491
	7 2-Chloronaphthalene	162	10.537	10.537	(0.907)	1407364	500.000	499
	8 Biphenyl	154	10.495	10.495	(0.903)	1678862	500.000	497
	9 2,6-Dimethylnaphthalene	156	10.558	10.558	(0.909)	1363142	500.000	511
	10 Acenaphthylene	152	11.463	11.463	(0.987)	1619219	500.000	502
*	11 Acenaphthene-d10	164	11.617	11.617	(1.000)	271488	200.000	
	12 Acenaphthene	153	11.680	11.680	(1.005)	1124981	500.000	510
	13 Dibenzofuran	168	11.882	11.882	(1.023)	1517185	500.000	502
	14 2,3,5-Trimethylnaphthalene	170	11.971	11.971	(1.030)	1011052	500.000	522
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.514	12.514	(1.077)	1252253	500.000	513
	17 Dibenzothiophene	184	14.140	14.140	(0.988)	1452659	500.000	497
*	18 Phenanthrene-d10	188	14.309	14.309	(1.000)	469305	200.000	
	19 Phenanthrene	178	14.351	14.351	(1.003)	1768584	500.000	480
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.403	14.403	(1.007)	1694995	500.000	493
	22 Carbazole	167	15.076	15.076	(1.054)	1956265	500.000	488
	23 1-Methylphenanthrene	192	15.347	15.347	(1.073)	1726945	500.000	497
$	24 Fluoranthene-d10	212	16.420	16.420	(1.148)	1427326	500.000	501
	25 Fluoranthene	202	16.448	16.448	(1.150)	1685198	500.000	493
	26 Pyrene	202	16.958	16.958	(0.890)	1659418	500.000	519
	27 Benzo(a)anthracene	228	18.971	18.971	(0.995)	1248355	500.000	500
*	28 Chrysene-d12	240	19.062	19.062	(1.000)	325441	200.000	
	29 Chrysene	228	19.112	19.112	(1.003)	1223849	500.000	494
	30 Benzo(b)fluoranthene	252	21.056	21.056	(0.944)	1075392	500.000	515
	31 Benzo(k)fluoranthene	252	21.104	21.104	(0.947)	1116346	500.000	516
	32 Benzo(j)fluoranthene	252	21.181	21.181	(0.950)	1021742	500.000	519
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	21.930	21.930	(0.984)	1034858	500.000	514

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	35 Benzo(a)pyrene	252	22.055	22.065	(0.989)	966781	500.000	527
*	36 Perylene-d12	264	22.295	22.295	(1.000)	295168	200.000	
	37 Perylene	252	22.372	22.372	(1.003)	1012113	500.000	526
$	38 Dibenzo(a,h)anthracene-d14	292	25.202	25.202	(1.130)	778238	500.000	551
	39 Dibenzo(a,h)anthracene	278	25.346	25.346	(1.137)	879859	500.000	551
	40 Indeno(1,2,3-cd)pyrene	276	25.379	25.379	(1.138)	1030154	500.000	540
	41 Benzo(g,h,i)perylene	276	26.786	26.786	(1.201)	886680	500.000	537

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118050505.D
Lab Smp Id: SGE0100-CAL5
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180505.b\lowsim.m
Misc Info:

Calibration Date: 05-MAY-2018
Calibration Time: 16:26
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	443757	2.88
11 Acenaphthene-d10	260137	130069	520274	271488	4.36
18 Phenanthrene-d10	427391	213696	854782	469305	9.81
28 Chrysene-d12	304596	152298	609192	325441	6.84
36 Perylene-d12	263091	131546	526182	295168	12.19

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.58	8.08	9.08	8.58	0.00
11 Acenaphthene-d10	11.62	11.12	12.12	11.62	0.00
18 Phenanthrene-d10	14.31	13.81	14.81	14.31	0.00
28 Chrysene-d12	19.06	18.56	19.56	19.06	0.00
36 Perylene-d12	22.30	21.80	22.80	22.30	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118050505.D

Lab ID: SGE0100-CAL5
nt11.i, 20180505.b\lowsim.m,   05-MAY-2018 14:03

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180505.b\lowsim.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt11.i\20180505.b\NT1118050506.D

Date : 05-MAY-2018 14:39

Client ID:

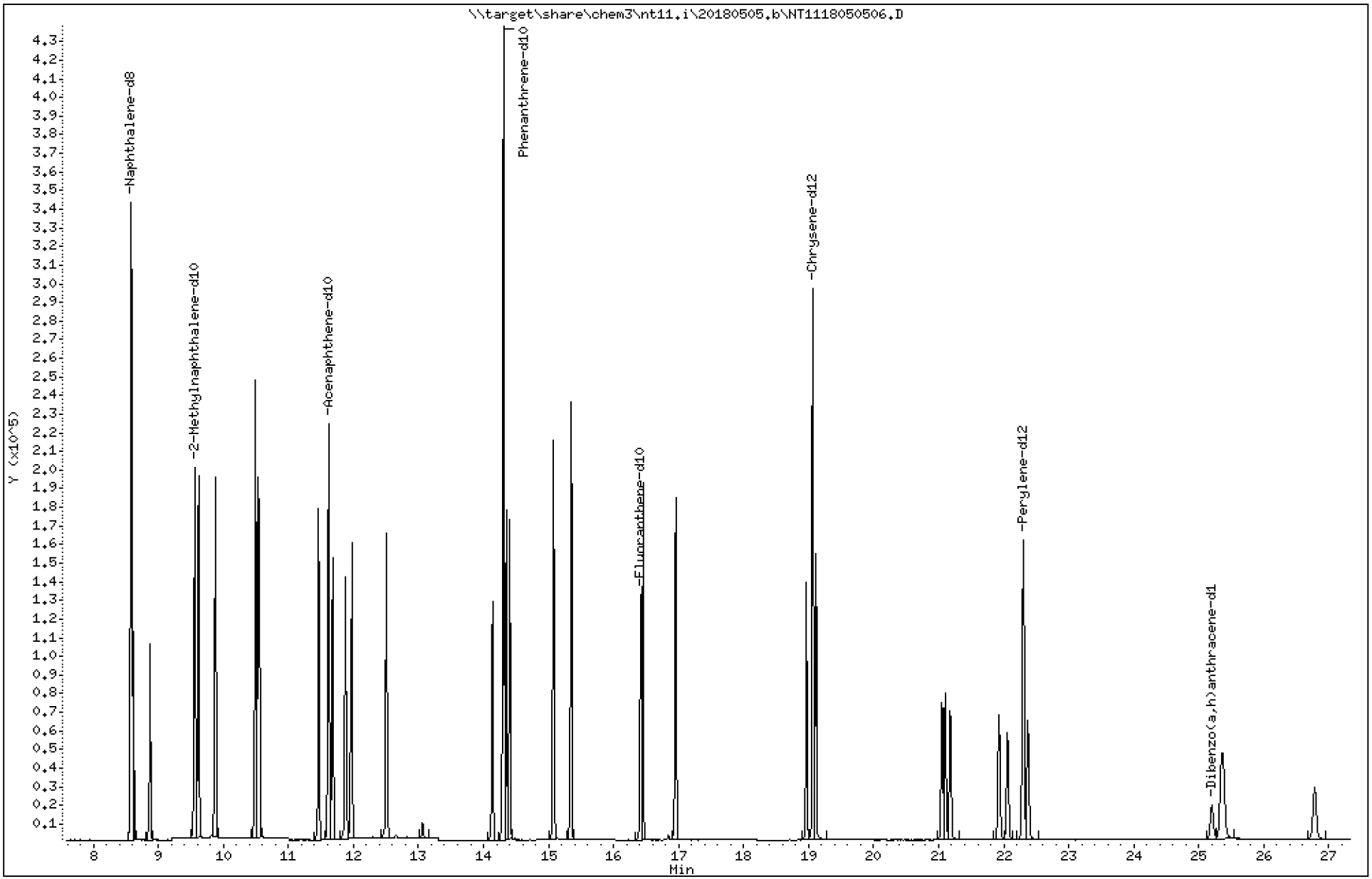
Instrument: nt11.i

Sample Info: SGE0100-CAL2

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180505.b\NT1118050506.D
Lab Smp Id: SGE0100-CAL2
Inj Date : 05-MAY-2018 14:39 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SGE0100-CAL2
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180505.b\lowsim.m
Meth Date : 08-May-2018 12:06 van Quant Type: ISTD
Cal Date : 05-MAY-2018 13:27 Cal File: NT1118050504.D
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
*	1 Naphthalene-d8	136	8.581	8.581	(1.000)	461506	200.000	
	2 Naphthalene	128	8.617	8.617	(1.004)	154184	50.0000	45.7
	3 Benzo(b)thiophene	134	8.870	8.879	(1.034)	128416	50.0000	53.1
$	4 2-Methylnaphthalene-d10	152	9.560	9.560	(1.114)	143398	50.0000	54.5
	5 2-Methylnaphthalene	142	9.623	9.623	(1.121)	148998	50.0000	53.0
	6 1-Methylnaphthalene	142	9.875	9.886	(1.151)	148520	50.0000	53.1
	7 2-Chloronaphthalene	162	10.537	10.537	(0.907)	161498	50.0000	53.6
	8 Biphenyl	154	10.495	10.495	(0.903)	193368	50.0000	53.6
	9 2,6-Dimethylnaphthalene	156	10.558	10.558	(0.909)	150238	50.0000	52.7
	10 Acenaphthylene	152	11.463	11.463	(0.987)	184888	50.0000	53.6
*	11 Acenaphthene-d10	164	11.617	11.617	(1.000)	290097	200.000	
	12 Acenaphthene	153	11.680	11.680	(1.005)	122559	50.0000	52.0
	13 Dibenzofuran	168	11.882	11.882	(1.023)	173040	50.0000	53.5
	14 2,3,5-Trimethylnaphthalene	170	11.971	11.971	(1.030)	107219	50.0000	51.8
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.514	12.514	(1.077)	135627	50.0000	52.0
	17 Dibenzothiophene	184	14.140	14.140	(0.988)	162043	50.0000	53.3
*	18 Phenanthrene-d10	188	14.309	14.309	(1.000)	488462	200.000	
	19 Phenanthrene	178	14.351	14.351	(1.003)	204187	50.0000	53.3
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.403	14.403	(1.007)	190604	50.0000	53.2
	22 Carbazole	167	15.076	15.076	(1.054)	225953	50.0000	54.2
	23 1-Methylphenanthrene	192	15.347	15.347	(1.073)	193142	50.0000	53.4
$	24 Fluoranthene-d10	212	16.420	16.420	(1.148)	158812	50.0000	53.6
	25 Fluoranthene	202	16.449	16.448	(1.150)	193556	50.0000	54.4
	26 Pyrene	202	16.958	16.958	(0.890)	196171	50.0000	51.0
	27 Benzo(a)anthracene	228	18.971	18.971	(0.995)	157187	50.0000	52.4
*	28 Chrysene-d12	240	19.062	19.062	(1.000)	391296	200.000	
	29 Chrysene	228	19.112	19.112	(1.003)	156901	50.0000	52.6
	30 Benzo(b)fluoranthene	252	21.046	21.056	(0.944)	109607	50.0000	52.2
	31 Benzo(k)fluoranthene	252	21.104	21.104	(0.947)	112217	50.0000	51.5
	32 Benzo(j)fluoranthene	252	21.171	21.181	(0.950)	102348	50.0000	51.7
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	21.930	21.930	(0.984)	105298	50.0000	52.0

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	35 Benzo(a)pyrene	252	22.055	22.065	(0.989)	92574	50.0000	50.2
*	36 Perylene-d12	264	22.295	22.295	(1.000)	296817	200.000	
	37 Perylene	252	22.372	22.372	(1.003)	99461	50.0000	51.4
$	38 Dibenzo(a,h)anthracene-d14	292	25.202	25.202	(1.130)	68055	50.0000	47.9
	39 Dibenzo(a,h)anthracene	278	25.346	25.346	(1.137)	78686	50.0000	49.0
	40 Indeno(1,2,3-cd)pyrene	276	25.379	25.379	(1.138)	94809	50.0000	49.4
	41 Benzo(g,h,i)perylene	276	26.786	26.786	(1.201)	82349	50.0000	49.6

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118050506.D
Lab Smp Id: SGE0100-CAL2
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180505.b\lowsim.m
Misc Info:

Calibration Date: 05-MAY-2018
Calibration Time: 16:26
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	461506	7.00
11 Acenaphthene-d10	260137	130069	520274	290097	11.52
18 Phenanthrene-d10	427391	213696	854782	488462	14.29
28 Chrysene-d12	304596	152298	609192	391296	28.46
36 Perylene-d12	263091	131546	526182	296817	12.82

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.58	8.08	9.08	8.58	0.00
11 Acenaphthene-d10	11.62	11.12	12.12	11.62	0.00
18 Phenanthrene-d10	14.31	13.81	14.81	14.31	0.00
28 Chrysene-d12	19.06	18.56	19.56	19.06	0.00
36 Perylene-d12	22.30	21.80	22.80	22.30	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118050506.D

Lab ID: SGE0100-CAL2
nt11.i, 20180505.b\lowsim.m,   05-MAY-2018 14:39

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180505.b\lowsim.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

INITIAL CALIBRATION CHECK

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	NT11	Calibration:	BE00021
Lab File ID:	NT1118050509.D	Calibration Date:	05/08/18 08:54
Sequence:	SGE0100	Injection Date:	05/05/18
Lab Sample ID:	SGE0100-ICV1	Injection Time:	16:26
Sequence Name:	ICV 250		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Naphthalene	A	250.00	237	1.3506040	1.2507		-5.2	20
1-Methylnaphthalene	A	250.00	250	1.2116290	1.2101620		0.0	20
2-Methylnaphthalene	A	250.00	253	1.2182890	1.2344540		1.2	20
Acenaphthylene	A	250.00	255	2.3779620	2.4234660		2.0	20
Acenaphthene	A	250.00	253	1.6264500	1.6474900		1.2	20
Dibenzofuran	A	250.00	253	2.2281450	2.2591090		1.2	20
Fluorene	A	250.00	252	1.7967990	1.8100980		0.8	20
Phenanthrene	A	250.00	247	1.5685960	1.5508650		-1.2	20
Anthracene	A	250.00	257	1.4664130	1.5101100		2.8	20
Fluoranthene	A	250.00	260	1.4566820	1.5144900		4.0	20
Pyrene	A	250.00	253	1.9662040	1.9869250		1.2	20
Benzo(a)anthracene	A	250.00	253	1.5334860	1.5525900		1.2	20
Chrysene	A	250.00	253	1.5232370	1.5411720		1.2	20
Benzo(b)fluoranthene	A	250.00	251	1.4146370	1.4226010		0.4	20
Benzo(k)fluoranthene	A	250.00	261	1.4669230	1.5294500		4.4	20
Benzo(j)fluoranthene	A	250.00	259	1.3351350	1.3846630		3.6	20
Benzo(a)pyrene	A	250.00	256	1.2427860	1.2749930		2.4	20
Indeno(1,2,3-cd)pyrene	A	250.00	259	1.2927210	1.3415880		3.6	20
Dibenzo(a,h)anthracene	A	250.00	258	1.0813340	1.1173580		3.2	20
Benzo(g,h,i)perylene	A	250.00	255	1.1181550	1.1409480		2.0	20
2-Methylnaphthalene-d10	A	250.00	255	1.1411260	1.1648600		2.0	20
Dibenzo[a,h]anthracene-d14	A	250.00	257	0.9570734	0.9839127		2.8	20
Fluoranthene-d10	A	250.00	260	1.2140030	1.2621940		4.0	20

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20180505.b\NT1118050509.D

Date : 05-MAY-2018 16:26

Client ID:

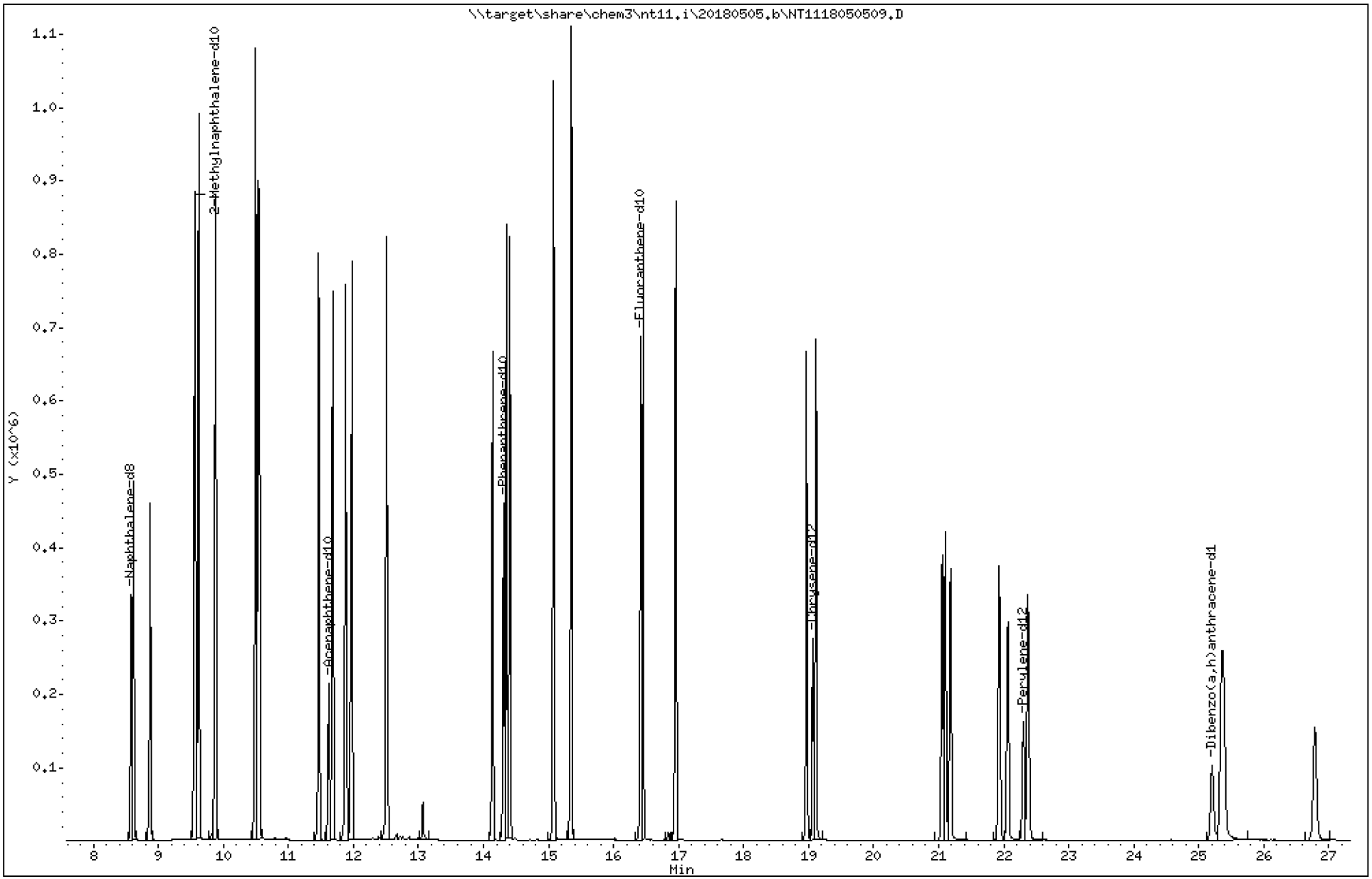
Instrument: nt11.i

Sample Info: SGE0100-ICV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180505.b\NT1118050509.D
Lab Smp Id: SGE0100-ICV1
Inj Date : 05-MAY-2018 16:26 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SGE0100-ICV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180505.b\lowsim.m
Meth Date : 08-May-2018 08:49 nt11.i Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
*	1 Naphthalene-d8	136	8.581	8.581	(1.000)	462898	200.000	
	2 Naphthalene	128	8.617	8.617	(1.004)	723683	250.000	237
	3 Benzo(b)thiophene	134	8.879	8.879	(1.035)	606964	250.000	250
$	4 2-Methylnaphthalene-d10	152	9.560	9.560	(1.114)	674014	250.000	255
	5 2-Methylnaphthalene	142	9.623	9.623	(1.121)	714283	250.000	253
	6 1-Methylnaphthalene	142	9.886	9.886	(1.152)	700227	250.000	250
	7 2-Chloronaphthalene	162	10.537	10.537	(0.907)	758131	250.000	257
	8 Biphenyl	154	10.495	10.495	(0.903)	915723	250.000	259
	9 2,6-Dimethylnaphthalene	156	10.558	10.558	(0.909)	727533	250.000	261
	10 Acenaphthylene	152	11.463	11.463	(0.987)	860288	250.000	255
*	11 Acenaphthene-d10	164	11.617	11.617	(1.000)	283986	200.000	
	12 Acenaphthene	153	11.680	11.680	(1.005)	584830	250.000	253
	13 Dibenzofuran	168	11.882	11.882	(1.023)	801944	250.000	253
	14 2,3,5-Trimethylnaphthalene	170	11.971	11.971	(1.030)	515788	250.000	255
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.514	12.514	(1.077)	642553	250.000	252
	17 Dibenzothiophene	184	14.140	14.140	(0.988)	766665	250.000	256
*	18 Phenanthrene-d10	188	14.309	14.309	(1.000)	481805	200.000	
	19 Phenanthrene	178	14.351	14.351	(1.003)	934018	250.000	247
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.403	14.403	(1.007)	909473	250.000	257
	22 Carbazole	167	15.076	15.076	(1.054)	1051016	250.000	255
	23 1-Methylphenanthrene	192	15.347	15.347	(1.073)	926101	250.000	259
$	24 Fluoranthene-d10	212	16.420	16.420	(1.148)	760164	250.000	260
	25 Fluoranthene	202	16.448	16.448	(1.150)	912111	250.000	260
	26 Pyrene	202	16.958	16.958	(0.890)	909602	250.000	253
	27 Benzo(a)anthracene	228	18.971	18.971	(0.995)	710766	250.000	253
*	28 Chrysene-d12	240	19.062	19.062	(1.000)	366235	200.000	
	29 Chrysene	228	19.112	19.112	(1.003)	705539	250.000	253
	30 Benzo(b)fluoranthene	252	21.056	21.056	(0.944)	554745	250.000	251
	31 Benzo(k)fluoranthene	252	21.104	21.104	(0.947)	596411	250.000	261
	32 Benzo(j)fluoranthene	252	21.181	21.181	(0.950)	539951	250.000	259
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	34 Benzo(e)pyrene	252	21.930	21.930	(0.984)	540788	250.000	254
	35 Benzo(a)pyrene	252	22.065	22.065	(0.990)	497185	250.000	256
*	36 Perylene-d12	264	22.295	22.295	(1.000)	311961	200.000	
	37 Perylene	252	22.372	22.372	(1.003)	520590	250.000	256
$	38 Dibenzo(a,h)anthracene-d14	292	25.202	25.202	(1.130)	383678	250.000	257
	39 Dibenzo(a,h)anthracene	278	25.346	25.346	(1.137)	435715	250.000	258
	40 Indeno(1,2,3-cd)pyrene	276	25.379	25.379	(1.138)	523154	250.000	259
	41 Benzo(g,h,i)perylene	276	26.786	26.786	(1.201)	444914	250.000	255

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118050509.D
Lab Smp Id: SGE0100-ICV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180505.b\lowsim.m
Misc Info:

Calibration Date: 05-MAY-2018
Calibration Time: 12:16
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	462898	7.32
11 Acenaphthene-d10	260137	130069	520274	283986	9.17
18 Phenanthrene-d10	427391	213696	854782	481805	12.73
28 Chrysene-d12	304596	152298	609192	366235	20.24
36 Perylene-d12	263091	131546	526182	311961	18.58

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.58	8.08	9.08	8.58	0.00
11 Acenaphthene-d10	11.62	11.12	12.12	11.62	0.00
18 Phenanthrene-d10	14.31	13.81	14.81	14.31	0.00
28 Chrysene-d12	19.06	18.56	19.56	19.06	0.00
36 Perylene-d12	22.30	21.80	22.80	22.30	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118050509.D

Lab ID: SGE0100-ICV1
nt11.i, 20180505.b\lowsim.m,   05-MAY-2018 16:26

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

On Column LOD for nt11.i, 20180505.b\lowsim.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20180505.b

Instrument: nt11.i Date: 05-MAY-2018 Method: 20180505.b\lowsim.m

INITIAL CAL: 05-MAY-2018

Compound	%RSD or R^2
Anthracene-d10	ND
Benzo(e)pyrene-d12	ND
Fluorene-d10	ND

ICV CAL: NT1118050509.D 05-MAY-2018 16:26

Compound	%D
NO Q-FLAGS	

INITIAL CALIBRATION CHECK

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	NT11	Calibration:	BE00021
Lab File ID:	NT1118062302.D	Calibration Date:	05/08/18 08:54
Sequence:	SGF0298	Injection Date:	06/23/18
Lab Sample ID:	SGF0298-ICV1	Injection Time:	10:32
Sequence Name:	ICV 250		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Naphthalene	A	250.00	206	1.3506040	1.1010060		-17.6	20
2-Methylnaphthalene	A	250.00	239	1.2182890	1.1652240		-4.4	20
Acenaphthylene	A	250.00	237	2.3779620	2.2517900		-5.2	20
Acenaphthene	A	250.00	228	1.6264500	1.4812860		-8.8	20
Fluorene	A	250.00	227	1.7967990	1.6342820		-9.2	20
Phenanthrene	A	250.00	227	1.5685960	1.4232330		-9.2	20
Anthracene	A	250.00	240	1.4664130	1.4089900		-4.0	20
Fluoranthene	A	250.00	217	1.4566820	1.2664070		-13.2	20
Pyrene	A	250.00	245	1.9662040	1.9277590		-2.0	20
Benzo(a)anthracene	A	250.00	240	1.5334860	1.4733550		-4.0	20
Chrysene	A	250.00	244	1.5232370	1.4880360		-2.4	20
Benzo(b)fluoranthene	A	250.00	214	1.4146370	1.2106300		-14.4	20
Benzo(k)fluoranthene	A	250.00	218	1.4669230	1.2813290		-12.8	20
Benzo(j)fluoranthene	A	250.00	220	1.3351350	1.1766980		-12.0	20
Benzo(a)pyrene	A	250.00	222	1.2427860	1.1059340		-11.2	20
Indeno(1,2,3-cd)pyrene	A	250.00	222	1.2927210	1.1457260		-11.2	20
Dibenzo(a,h)anthracene	A	250.00	223	1.0813340	0.9651974		-10.8	20
Benzo(g,h,i)perylene	A	250.00	217	1.1181550	0.9690524		-13.2	20
2-Methylnaphthalene-d10	A	250.00	241	1.1411260	1.1003620		-3.6	20
Dibenzo[a,h]anthracene-d14	A	250.00	223	0.9570734	0.8542185		-10.8	20
Fluoranthene-d10	A	250.00	210	1.2140030	1.0220870		-16.0	20

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062302.D

Date : 23-JUN-2018 10:32

Client ID:

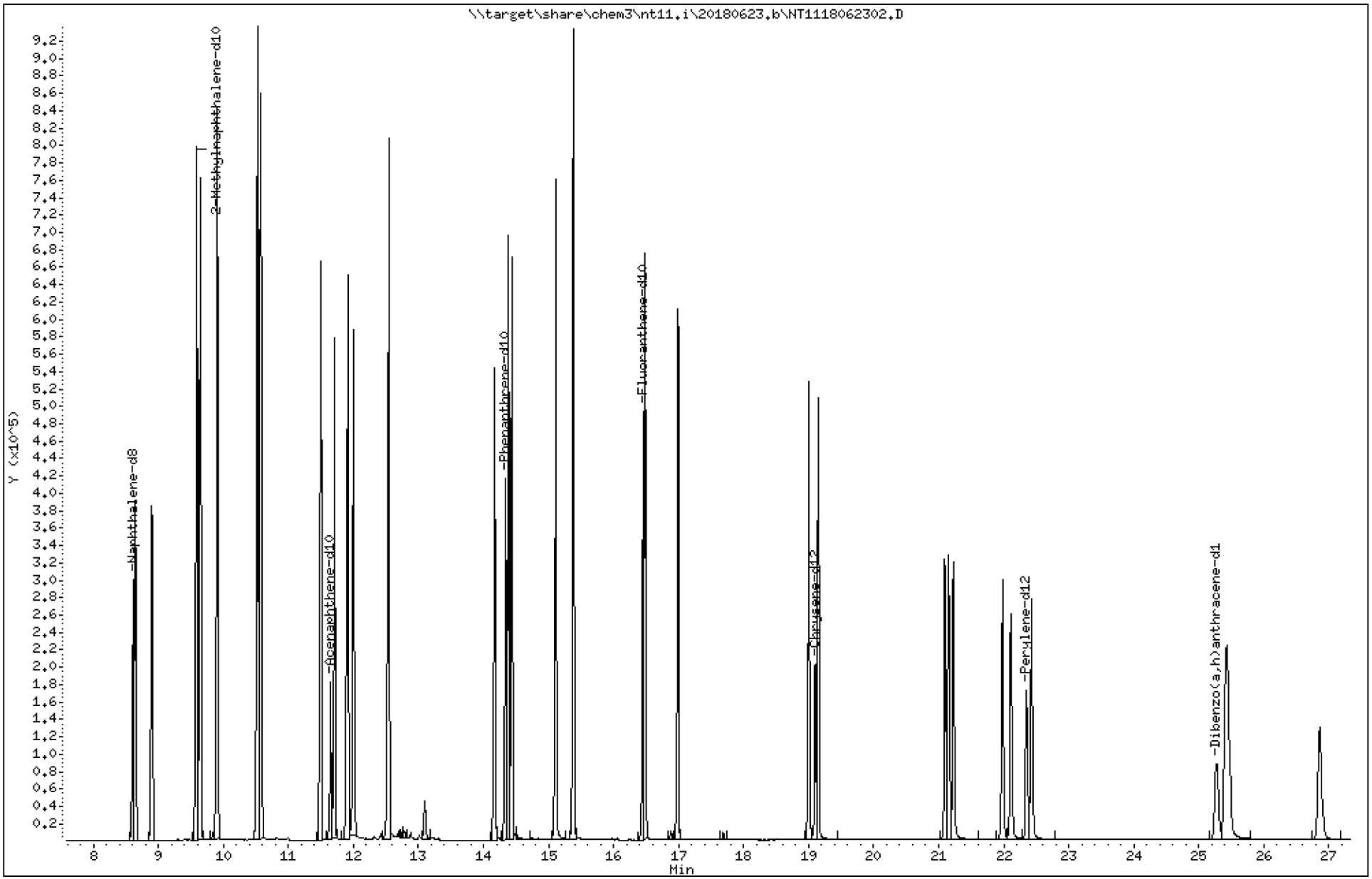
Instrument: nt11.i

Sample Info: SGF0298-ICV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180623.b\NT1118062302.D
Lab Smp Id: SGF0298-ICV1
Inj Date : 23-JUN-2018 10:32 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SGF0298-ICV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180623.b\lowsim.m
Meth Date : 23-Jun-2018 13:20 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	439848	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	605344	250.000	206
	3 Benzo(b)thiophene	134	8.897	8.897	(1.034)	528583	250.000	229
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	604990	250.000	241
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	640652	250.000	239
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	625904	250.000	235
	7 2-Chloronaphthalene	162	10.569	10.569	(0.908)	697194	250.000	242
	8 Biphenyl	154	10.527	10.527	(0.904)	843235	250.000	245
	9 2,6-Dimethylnaphthalene	156	10.579	10.579	(0.909)	664982	250.000	244
	10 Acenaphthylene	152	11.499	11.499	(0.988)	780521	250.000	237
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	277298	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	513447	250.000	228
	13 Dibenzofuran	168	11.908	11.908	(1.023)	717591	250.000	232
	14 2,3,5-Trimethylnaphthalene	170	12.009	12.009	(1.031)	463422	250.000	234
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.540	12.540	(1.077)	566479	250.000	227
	17 Dibenzothiophene	184	14.172	14.172	(0.988)	677222	250.000	229
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	475065	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	845160	250.000	227
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.435	14.435	(1.007)	836702	250.000	240
	22 Carbazole	167	15.113	15.113	(1.054)	890567	250.000	219
	23 1-Methylphenanthrene	192	15.384	15.384	(1.073)	835290	250.000	237
$	24 Fluoranthene-d10	212	16.449	16.449	(1.147)	606947	250.000	210
	25 Fluoranthene	202	16.487	16.487	(1.150)	752032	250.000	217
	26 Pyrene	202	16.996	16.996	(0.890)	756995	250.000	245
	27 Benzo(a)anthracene	228	19.004	19.004	(0.995)	578559	250.000	240
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	314145	200.000	
	29 Chrysene	228	19.145	19.145	(1.003)	584324	250.000	244
	30 Benzo(b)fluoranthene	252	21.104	21.104	(0.944)	488642	250.000	214
	31 Benzo(k)fluoranthene	252	21.152	21.152	(0.946)	517178	250.000	218
	32 Benzo(j)fluoranthene	252	21.229	21.229	(0.950)	474946	250.000	220
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	34 Benzo(e)pyrene	252	21.978	21.978	(0.983)	470286	250.000	213
	35 Benzo(a)pyrene	252	22.113	22.113	(0.989)	446384	250.000	222
*	36 Perylene-d12	264	22.353	22.353	(1.000)	322901	200.000	
	37 Perylene	252	22.430	22.430	(1.003)	466285	250.000	221
$	38 Dibenzo(a,h)anthracene-d14	292	25.268	25.268	(1.130)	344785	250.000	223
	39 Dibenzo(a,h)anthracene	278	25.412	25.412	(1.137)	389579	250.000	223
	40 Indeno(1,2,3-cd)pyrene	276	25.446	25.446	(1.138)	462445	250.000	222
	41 Benzo(g,h,i)perylene	276	26.863	26.863	(1.202)	391135	250.000	217

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118062302.D
Lab Smp Id: SGF0298-ICV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180623.b\lowsim.m
Misc Info:

Calibration Date: 14-JUN-2018
Calibration Time: 09:25
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	439848	1.98
11 Acenaphthene-d10	260137	130069	520274	277298	6.60
18 Phenanthrene-d10	427391	213696	854782	475065	11.15
28 Chrysene-d12	304596	152298	609192	314145	3.13
36 Perylene-d12	263091	131546	526182	322901	22.73

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118062302.D

Lab ID: SGF0298-ICV1
nt11.i, 20180623.b\lowsim.m,   23-JUN-2018 10:32

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

On Column LOD for nt11.i, 20180623.b\lowsim.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20180623.b

Instrument: nt11.i Date: 23-JUN-2018 Method: 20180623.b\lowsim.m

INITIAL CAL: 05-MAY-2018

Compound	%RSD or R^2
Anthracene-d10	ND
Benzo(e)pyrene-d12	ND
Fluorene-d10	ND

ICV CAL: NT1118062302.D 23-JUN-2018 10:32

Compound	%D
NO Q-FLAGS	

INITIAL CALIBRATION CHECK

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	NT11	Calibration:	BE00021
Lab File ID:	NT1118062602.D	Calibration Date:	05/08/18 08:54
Sequence:	SGF0327	Injection Date:	06/27/18
Lab Sample ID:	SGF0327-ICV1	Injection Time:	08:13
Sequence Name:	ICV 250		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Naphthalene	A	250.00	253	1.3506040	1.3236640		1.2	20
2-Methylnaphthalene	A	250.00	268	1.2182890	1.3076540		7.2	20
Acenaphthylene	A	250.00	290	2.3779620	2.7609870		16.0	20
Acenaphthene	A	250.00	282	1.6264500	1.8377040		12.8	20
Fluorene	A	250.00	275	1.7967990	1.9730850		10.0	20
Phenanthrene	A	250.00	284	1.5685960	1.7804700		13.6	20
Anthracene	A	250.00	282	1.4664130	1.6516440		12.8	20
Fluoranthene	A	250.00	294	1.4566820	1.7124940		17.6	20
Pyrene	A	250.00	282	1.9662040	2.2214720		12.8	20
Benzo(a)anthracene	A	250.00	290	1.5334860	1.7796430		16.0	20
Chrysene	A	250.00	298	1.5232370	1.8159920		19.2	20
Benzo(b)fluoranthene	A	250.00	255	1.4146370	1.4442730		2.0	20
Benzo(k)fluoranthene	A	250.00	286	1.4669230	1.6780860		14.4	20
Benzo(j)fluoranthene	A	250.00	297	1.3351350	1.5865070		18.8	20
Benzo(a)pyrene	A	250.00	275	1.2427860	1.3689390		10.0	20
Indeno(1,2,3-cd)pyrene	A	250.00	275	1.2927210	1.4196100		10.0	20
Dibenzo(a,h)anthracene	A	250.00	272	1.0813340	1.1760830		8.8	20
Benzo(g,h,i)perylene	A	250.00	271	1.1181550	1.2139820		8.4	20
2-Methylnaphthalene-d10	A	250.00	270	1.1411260	1.2330520		8.0	20
Dibenzo[a,h]anthracene-d14	A	250.00	266	0.9570734	1.0175480		6.4	20
Fluoranthene-d10	A	250.00	283	1.2140030	1.3723930		13.2	20

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20180627.b\NT1118062602.D

Date : 27-JUN-2018 08:13

Client ID:

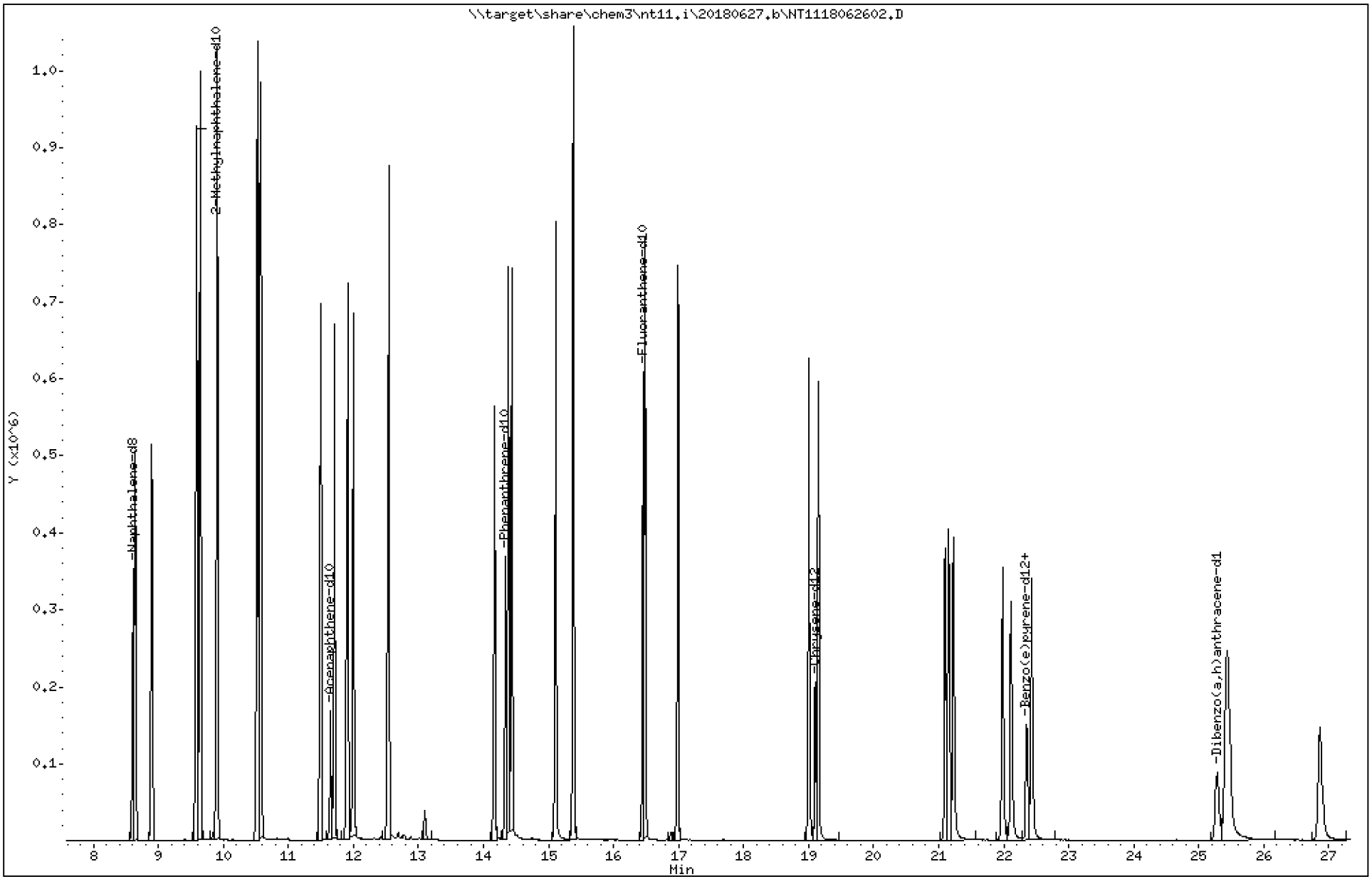
Instrument: nt11.i

Sample Info: SGF0327-ICV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180627.b\NT1118062602.D
Lab Smp Id: SGF0327-ICV1
Inj Date : 27-JUN-2018 08:13 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SGF0327-ICV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180627.b\lowsim.m
Meth Date : 27-Jun-2018 08:43 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	474060	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	784370	250.000	253
	3 Benzo(b)thiophene	134	8.897	8.897	(1.034)	675620	250.000	272
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	730676	250.000	270
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	774883	250.000	268
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	744629	250.000	259
	7 2-Chloronaphthalene	162	10.569	10.569	(0.908)	805358	250.000	310
	8 Biphenyl	154	10.527	10.527	(0.904)	972334	250.000	313
	9 2,6-Dimethylnaphthalene	156	10.579	10.579	(0.909)	768902	250.000	313
	10 Acenaphthylene	152	11.499	11.499	(0.988)	862453	250.000	290
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	249897	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	574046	250.000	282
	13 Dibenzofuran	168	11.908	11.908	(1.023)	791148	250.000	284
	14 2,3,5-Trimethylnaphthalene	170	11.996	11.996	(1.030)	502805	250.000	282
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.539	12.539	(1.077)	616335	250.000	275
	17 Dibenzothiophene	184	14.172	14.172	(0.988)	724960	250.000	283
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	411885	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	916686	250.000	284
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.435	14.435	(1.007)	850359	250.000	282
	22 Carbazole	167	15.113	15.113	(1.054)	970627	250.000	276
	23 1-Methylphenanthrene	192	15.384	15.384	(1.073)	919089	250.000	301
$	24 Fluoranthene-d10	212	16.449	16.449	(1.147)	706585	250.000	283
	25 Fluoranthene	202	16.487	16.487	(1.150)	881688	250.000	294
	26 Pyrene	202	16.987	16.987	(0.889)	886248	250.000	282
	27 Benzo(a)anthracene	228	19.004	19.004	(0.995)	709982	250.000	290
*	28 Chrysene-d12	240	19.103	19.103	(1.000)	319157	200.000	
	29 Chrysene	228	19.153	19.153	(1.003)	724483	250.000	298
	30 Benzo(b)fluoranthene	252	21.104	21.104	(0.944)	575669	250.000	255
	31 Benzo(k)fluoranthene	252	21.152	21.152	(0.946)	668864	250.000	286
	32 Benzo(j)fluoranthene	252	21.229	21.229	(0.950)	632362	250.000	297
	34 Benzo(e)pyrene	252	21.988	21.988	(0.984)	591186	250.000	272

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	35 Benzo(a)pyrene	252	22.113	22.113	(0.989)	545642	250.000	275
*	36 Perylene-d12	264	22.353	22.353	(1.000)	318870	200.000	
	37 Perylene	252	22.430	22.430	(1.003)	571979	250.000	275
$	38 Dibenzo(a,h)anthracene-d14	292	25.279	25.279	(1.131)	405582	250.000	266
	39 Dibenzo(a,h)anthracene	278	25.423	25.423	(1.137)	468772	250.000	272
	40 Indeno(1,2,3-cd)pyrene	276	25.457	25.457	(1.139)	565839	250.000	275
	41 Benzo(g,h,i)perylene	276	26.863	26.863	(1.202)	483878	250.000	271

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118062602.D
Lab Smp Id: SGF0327-ICV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180627.b\lowsim.m
Misc Info:

Calibration Date: 26-JUN-2018
Calibration Time: 09:36
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	474060	9.91
11 Acenaphthene-d10	260137	130069	520274	249897	-3.94
18 Phenanthrene-d10	427391	213696	854782	411885	-3.63
28 Chrysene-d12	304596	152298	609192	319157	4.78
36 Perylene-d12	263091	131546	526182	318870	21.20

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118062602.D

Lab ID: SGF0327-ICV1
nt11.i, 20180627.b\lowsim.m,   27-JUN-2018 08:13

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

On Column LOD for nt11.i, 20180627.b\lowsim.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20180627.b

Instrument: nt11.i Date: 27-JUN-2018 Method: 20180627.b\lowsim.m

INITIAL CAL: 05-MAY-2018

Compound	%RSD or R^2
Anthracene-d10	ND
Benzo(e)pyrene-d12	ND
Fluorene-d10	ND

ICV CAL: NT1118062602.D 27-JUN-2018 08:13

Compound	%D
2-Chloronaphthalene	24.0
2,6-Dimethylnaphthalene	25.2
1-Methylphenanthrene	20.4
Biphenyl	25.2

INITIAL CALIBRATION CHECK

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	NT11	Calibration:	BE00021
Lab File ID:	NT1118070602.D	Calibration Date:	05/08/18 08:54
Sequence:	SGG0067	Injection Date:	07/06/18
Lab Sample ID:	SGG0067-ICV1	Injection Time:	12:50
Sequence Name:	ICV 250		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF		
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT	
Naphthalene	A	250.00	250	1.3506040	1.3130780		0.0	20	
2-Methylnaphthalene	A	250.00	271	1.2182890	1.3219570		8.4	20	
Acenaphthylene	A	250.00	289	2.3779620	2.7508730		15.6	20	
Acenaphthene	A	250.00	284	1.6264500	1.8475770		13.6	20	
Fluorene	A	250.00	271	1.7967990	1.9459900		8.4	20	
Phenanthrene	A	250.00	288	1.5685960	1.8039160		15.2	20	
Anthracene	A	250.00	284	1.4664130	1.6674590		13.6	20	
Fluoranthene	A	250.00	304	1.4566820	1.7729420		21.6	20	*
Pyrene	A	250.00	288	1.9662040	2.2643120		15.2	20	
Benzo(a)anthracene	A	250.00	292	1.5334860	1.7924120		16.8	20	
Chrysene	A	250.00	303	1.5232370	1.8487760		21.2	20	*
Benzo(b)fluoranthene	A	250.00	247	1.4146370	1.3973390		-1.2	20	
Benzo(k)fluoranthene	A	250.00	280	1.4669230	1.6443570		12.0	20	
Benzo(j)fluoranthene	A	250.00	309	1.3351350	1.6490250		23.6	20	*
Benzo(a)pyrene	A	250.00	273	1.2427860	1.3550190		9.2	20	
Indeno(1,2,3-cd)pyrene	A	250.00	260	1.2927210	1.3442210		4.0	20	
Dibenzo(a,h)anthracene	A	250.00	256	1.0813340	1.1085600		2.4	20	
Benzo(g,h,i)perylene	A	250.00	269	1.1181550	1.2009190		7.6	20	
2-Methylnaphthalene-d10	A	250.00	274	1.1411260	1.2508910		9.6	20	
Dibenzo[a,h]anthracene-d14	A	250.00	248	0.9570734	0.9475631		-0.8	20	
Fluoranthene-d10	A	250.00	280	1.2140030	1.3609740		12.0	20	

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070602.D

Date : 06-JUL-2018 12:50

Client ID:

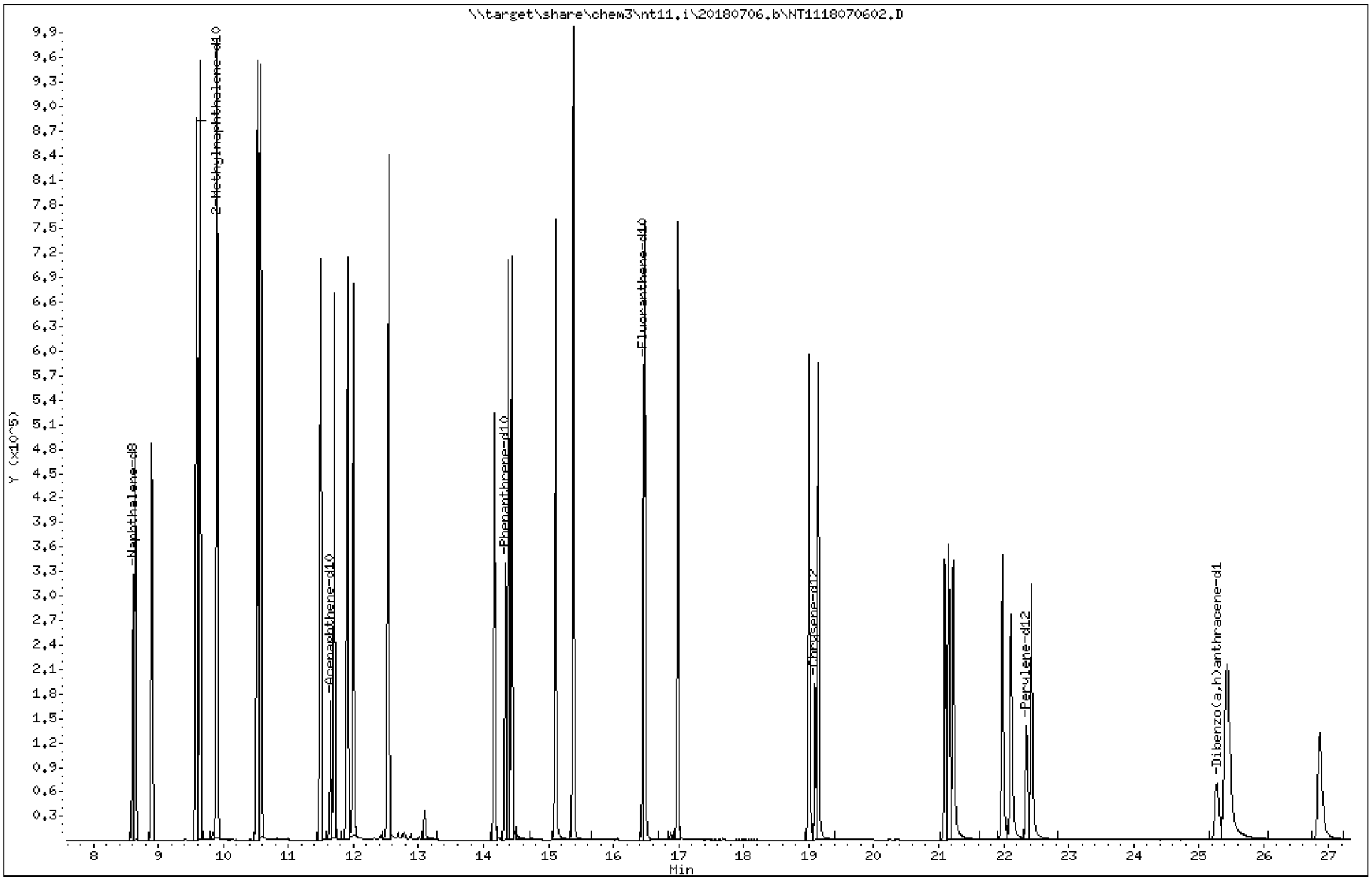
Instrument: nt11.i

Sample Info: SGG0067-ICV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180706.b\NT1118070602.D
Lab Smp Id: SGG0067-ICV1
Inj Date : 06-JUL-2018 12:50 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SGG0067-ICV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180706.b\lowsim.m
Meth Date : 06-Jul-2018 13:13 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 1	Naphthalene-d8	136	8.608	8.608	(1.000)	454410	200.000	
2	Naphthalene	128	8.644	8.644	(1.004)	745845	250.000	250
3	Benzo(b)thiophene	134	8.897	8.897	(1.034)	649405	250.000	273
$ 4	2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	710522	250.000	274
5	2-Methylnaphthalene	142	9.644	9.644	(1.120)	750888	250.000	271
6	1-Methylnaphthalene	142	9.907	9.907	(1.151)	730281	250.000	265
7	2-Chloronaphthalene	162	10.558	10.558	(0.907)	785247	250.000	307
8	Biphenyl	154	10.527	10.527	(0.904)	943426	250.000	309
9	2,6-Dimethylnaphthalene	156	10.579	10.579	(0.909)	744007	250.000	308
10	Acenaphthylene	152	11.490	11.490	(0.987)	845082	250.000	289
* 11	Acenaphthene-d10	164	11.644	11.644	(1.000)	245764	200.000	
12	Acenaphthene	153	11.707	11.707	(1.005)	567585	250.000	284
13	Dibenzofuran	168	11.908	11.908	(1.023)	772070	250.000	282
14	2,3,5-Trimethylnaphthalene	170	11.996	11.996	(1.030)	494115	250.000	282
$ 15	Fluorene-d10	174	Compound Not Detected.					
16	Fluorene	166	12.540	12.540	(1.077)	597818	250.000	271
17	Dibenzothiophene	184	14.172	14.172	(0.988)	700151	250.000	286
* 18	Phenanthrene-d10	188	14.340	14.340	(1.000)	393366	200.000	
19	Phenanthrene	178	14.382	14.382	(1.003)	886999	250.000	288
$ 20	Anthracene-d10	188	Compound Not Detected.					
21	Anthracene	178	14.435	14.435	(1.007)	819902	250.000	284
22	Carbazole	167	15.113	15.113	(1.054)	935899	250.000	279
23	1-Methylphenanthrene	192	15.384	15.384	(1.073)	900854	250.000	309
$ 24	Fluoranthene-d10	212	16.449	16.449	(1.147)	669201	250.000	280
25	Fluoranthene	202	16.487	16.487	(1.150)	871769	250.000	304
26	Pyrene	202	16.987	16.987	(0.890)	867056	250.000	288
27	Benzo(a)anthracene	228	19.004	19.004	(0.995)	686355	250.000	292
* 28	Chrysene-d12	240	19.095	19.095	(1.000)	306338	200.000	
29	Chrysene	228	19.145	19.145	(1.003)	707938	250.000	303
30	Benzo(b)fluoranthene	252	21.104	21.104	(0.944)	539729	250.000	247
31	Benzo(k)fluoranthene	252	21.152	21.152	(0.946)	635141	250.000	280
32	Benzo(j)fluoranthene	252	21.229	21.229	(0.950)	636944	250.000	309
$ 33	Benzo(e)pyrene-d12	264	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	34 Benzo(e)pyrene	252	21.978	21.978	(0.983)	569745	250.000	270
	35 Benzo(a)pyrene	252	22.113	22.113	(0.989)	523383	250.000	273
*	36 Perylene-d12	264	22.353	22.353	(1.000)	309004	200.000	
	37 Perylene	252	22.430	22.430	(1.003)	565839	250.000	281
$	38 Dibenzo(a,h)anthracene-d14	292	25.279	25.279	(1.131)	366001	250.000	248
	39 Dibenzo(a,h)anthracene	278	25.423	25.423	(1.137)	428187	250.000	256
	40 Indeno(1,2,3-cd)pyrene	276	25.457	25.457	(1.139)	519212	250.000	260
	41 Benzo(g,h,i)perylene	276	26.863	26.863	(1.202)	463861	250.000	269

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118070602.D
Lab Smp Id: SGG0067-ICV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180706.b\lowsim.m
Misc Info:

Calibration Date: 27-JUN-2018
Calibration Time: 08:13
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	454410	5.35
11 Acenaphthene-d10	260137	130069	520274	245764	-5.53
18 Phenanthrene-d10	427391	213696	854782	393366	-7.96
28 Chrysene-d12	304596	152298	609192	306338	0.57
36 Perylene-d12	263091	131546	526182	309004	17.45

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118070602.D

Lab ID: SGG0067-ICV1
nt11.i, 20180706.b\lowsim.m,   06-JUL-2018 12:50

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

On Column LOD for nt11.i, 20180706.b\lowsim.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20180706.b

Instrument: nt11.i Date: 06-JUL-2018 Method: 20180706.b\lowsim.m

INITIAL CAL: 05-MAY-2018

Compound	%RSD or R^2
Anthracene-d10	ND
Benzo(e)pyrene-d12	ND
Fluorene-d10	ND

ICV CAL: NT1118070602.D 06-JUL-2018 12:50

Compound	%D
Fluoranthene	21.7
Chrysene	21.4
Benzo(j)fluoranthene	23.5
2-Chloronaphthalene	22.9
2,6-Dimethylnaphthalene	23.2
1-Methylphenanthrene	23.6
Biphenyl	23.5

INITIAL CALIBRATION CHECK

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	NT11	Calibration:	BE00021
Lab File ID:	NT1118070702.D	Calibration Date:	05/08/18 08:54
Sequence:	SGG0076	Injection Date:	07/07/18
Lab Sample ID:	SGG0076-ICV1	Injection Time:	08:54
Sequence Name:	ICV 250		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF		
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT	
Naphthalene	A	250.00	252	1.3506040	1.3216440		0.8	20	
2-Methylnaphthalene	A	250.00	266	1.2182890	1.2973430		6.4	20	
Acenaphthylene	A	250.00	291	2.3779620	2.7700740		16.4	20	
Acenaphthene	A	250.00	285	1.6264500	1.8543380		14.0	20	
Fluorene	A	250.00	274	1.7967990	1.9680420		9.6	20	
Phenanthrene	A	250.00	287	1.5685960	1.8007560		14.8	20	
Anthracene	A	250.00	282	1.4664130	1.6539100		12.8	20	
Fluoranthene	A	250.00	306	1.4566820	1.7837570		22.4	20	*
Pyrene	A	250.00	273	1.9662040	2.1493900		9.2	20	
Benzo(a)anthracene	A	250.00	290	1.5334860	1.7782060		16.0	20	
Chrysene	A	250.00	304	1.5232370	1.8528190		21.6	20	*
Benzo(b)fluoranthene	A	250.00	258	1.4146370	1.4571380		3.2	20	
Benzo(k)fluoranthene	A	250.00	281	1.4669230	1.6497590		12.4	20	
Benzo(j)fluoranthene	A	250.00	302	1.3351350	1.6111970		20.8	20	*
Benzo(a)pyrene	A	250.00	279	1.2427860	1.3888230		11.6	20	
Indeno(1,2,3-cd)pyrene	A	250.00	282	1.2927210	1.4559210		12.8	20	
Dibenzo(a,h)anthracene	A	250.00	280	1.0813340	1.2107970		12.0	20	
Benzo(g,h,i)perylene	A	250.00	275	1.1181550	1.2305780		10.0	20	
2-Methylnaphthalene-d10	A	250.00	268	1.1411260	1.2254400		7.2	20	
Dibenzo[a,h]anthracene-d14	A	250.00	271	0.9570734	1.0381110		8.4	20	
Fluoranthene-d10	A	250.00	288	1.2140030	1.4006900		15.2	20	

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20180707.b\NT1118070702.D

Date : 07-JUL-2018 08:54

Client ID:

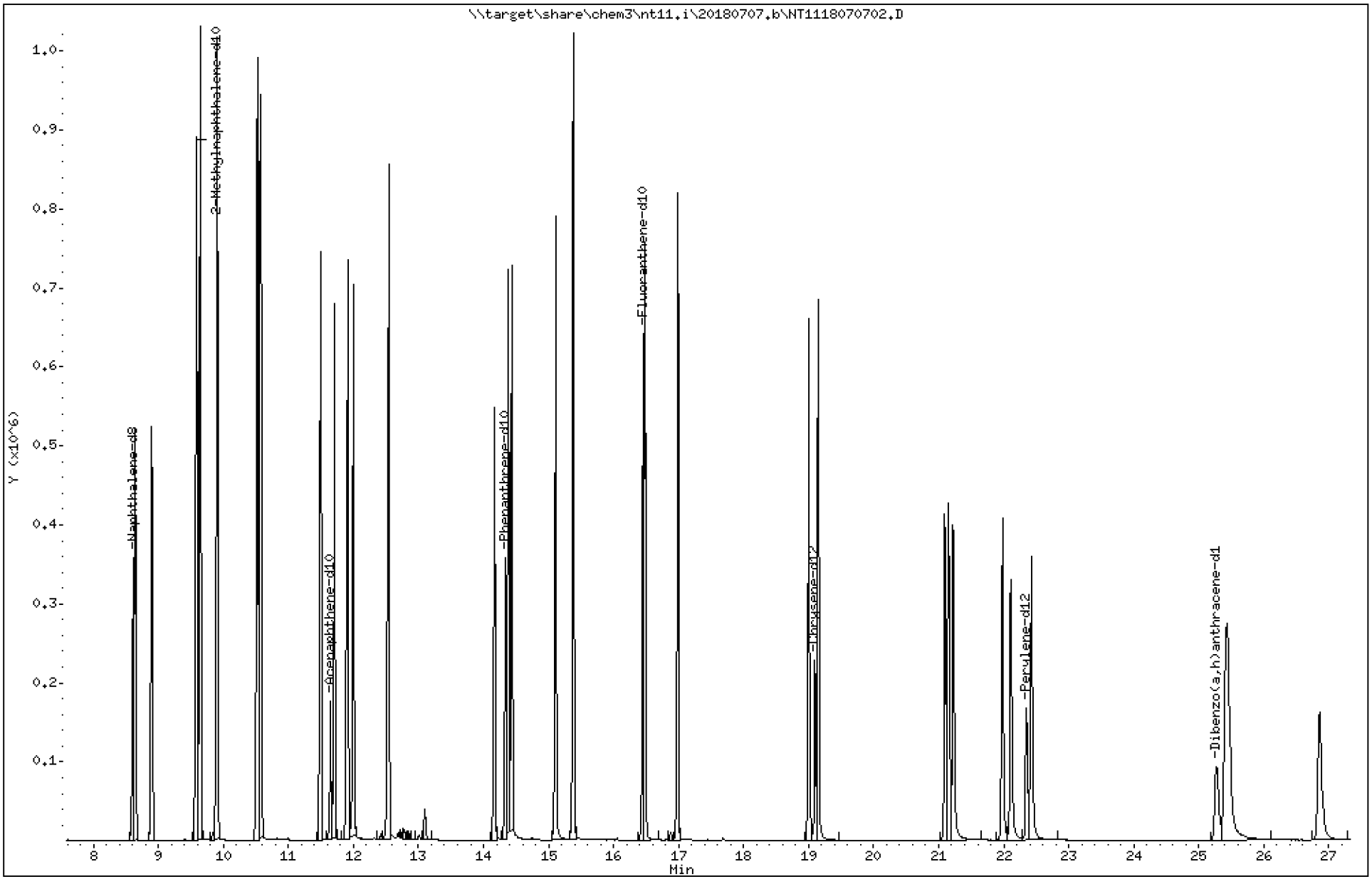
Instrument: nt11.i

Sample Info: SGG0076-ICV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180707.b\NT1118070702.D
Lab Smp Id: SGG0076-ICV1
Inj Date : 07-JUL-2018 08:54 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SGG0076-ICV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180707.b\lowsim.m
Meth Date : 07-Jul-2018 09:32 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 3 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	ON-COL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	480961	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	794574	250.000	252
	3 Benzo(b)thiophene	134	8.897	8.897	(1.034)	683618	250.000	271
$	4 2-Methylnaphthalene-d10	152	9.591	9.591	(1.114)	736736	250.000	268
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	779964	250.000	266
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	759279	250.000	261
	7 2-Chloronaphthalene	162	10.558	10.558	(0.907)	808166	250.000	312
	8 Biphenyl	154	10.526	10.526	(0.904)	981331	250.000	317
	9 2,6-Dimethylnaphthalene	156	10.579	10.579	(0.909)	766745	250.000	313
	10 Acenaphthylene	152	11.490	11.490	(0.987)	863245	250.000	291
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	249306	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	577872	250.000	285
	13 Dibenzofuran	168	11.907	11.907	(1.023)	798477	250.000	287
	14 2,3,5-Trimethylnaphthalene	170	11.996	11.996	(1.030)	508498	250.000	286
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.539	12.539	(1.077)	613306	250.000	274
	17 Dibenzothiophene	184	14.172	14.172	(0.988)	730719	250.000	284
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	413904	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	931675	250.000	287
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.434	14.434	(1.007)	855700	250.000	282
	22 Carbazole	167	15.112	15.112	(1.054)	1002930	250.000	284
	23 1-Methylphenanthrene	192	15.383	15.383	(1.073)	934710	250.000	305
$	24 Fluoranthene-d10	212	16.448	16.448	(1.147)	724689	250.000	288
	25 Fluoranthene	202	16.487	16.487	(1.150)	922880	250.000	306
	26 Pyrene	202	16.986	16.986	(0.890)	917682	250.000	273
	27 Benzo(a)anthracene	228	19.004	19.004	(0.995)	759205	250.000	290
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	341560	200.000	
	29 Chrysene	228	19.145	19.145	(1.003)	791061	250.000	304
	30 Benzo(b)fluoranthene	252	21.094	21.094	(0.944)	632090	250.000	258
	31 Benzo(k)fluoranthene	252	21.152	21.152	(0.946)	715647	250.000	281
	32 Benzo(j)fluoranthene	252	21.229	21.229	(0.950)	698919	250.000	302
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng/mL)	AMOUNTS ON-COL (ng/mL)
	34 Benzo(e)pyrene	252	21.978	21.978	(0.983)	642156	250.000	271
	35 Benzo(a)pyrene	252	22.113	22.113	(0.989)	602456	250.000	279
*	36 Perylene-d12	264	22.353	22.353	(1.000)	347031	200.000	
	37 Perylene	252	22.430	22.430	(1.003)	639362	250.000	283
$	38 Dibenzo(a,h)anthracene-d14	292	25.268	25.268	(1.130)	450321	250.000	271
	39 Dibenzo(a,h)anthracene	278	25.412	25.412	(1.137)	525230	250.000	280
	40 Indeno(1,2,3-cd)pyrene	276	25.456	25.456	(1.139)	631562	250.000	282
	41 Benzo(g,h,i)perylene	276	26.863	26.863	(1.202)	533811	250.000	275

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118070702.D
Lab Smp Id: SGG0076-ICV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180707.b\lowsim.m
Misc Info:

Calibration Date: 06-JUL-2018
Calibration Time: 12:50
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	480961	11.51
11 Acenaphthene-d10	260137	130069	520274	249306	-4.16
18 Phenanthrene-d10	427391	213696	854782	413904	-3.16
28 Chrysene-d12	304596	152298	609192	341560	12.14
36 Perylene-d12	263091	131546	526182	347031	31.91

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118070702.D

Lab ID: SGG0076-ICV1
nt11.i, 20180707.b\lowsim.m,   07-JUL-2018 08:54

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

On Column LOD for nt11.i, 20180707.b\lowsim.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20180707.b

Instrument: nt11.i Date: 07-JUL-2018 Method: 20180707.b\lowsim.m

INITIAL CAL: 05-MAY-2018

Compound	%RSD or R^2
Anthracene-d10	ND
Benzo(e)pyrene-d12	ND
Fluorene-d10	ND

ICV CAL: NT1118070702.D 07-JUL-2018 08:54

Compound	%D
Fluoranthene	22.5
Chrysene	21.6
Benzo(j)fluoranthene	20.7
2-Chloronaphthalene	24.7
2,6-Dimethylnaphthalene	25.2
1-Methylphenanthrene	21.9
Biphenyl	26.6

CONTINUING CALIBRATION CHECK
EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	NT11	Calibration:	BE00021
Lab File ID:	NT1118050514.D	Calibration Date:	05/08/18 08:54
Sequence:	SGE0100	Injection Date:	05/05/18
Lab Sample ID:	SGE0100-CCV1	Injection Time:	19:26
Sequence Name:	CCV 250		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Naphthalene	A	250.00	237	1.3506040	1.2527060		-5.0	50
1-Methylnaphthalene	A	250.00	265	1.2116290	1.2835610		5.9	50
2-Methylnaphthalene	A	250.00	264	1.2182890	1.2868860		5.6	50
Acenaphthylene	A	250.00	253	2.3779620	2.4075750		1.2	50
Acenaphthene	A	250.00	249	1.6264500	1.6192510		-0.4	50
Dibenzofuran	A	250.00	249	2.2281450	2.2218990		-0.3	50
Fluorene	A	250.00	251	1.7967990	1.8005340		0.2	50
Phenanthrene	A	250.00	241	1.5685960	1.5119020		-3.6	50
Anthracene	A	250.00	257	1.4664130	1.5063060		2.7	50
Fluoranthene	A	250.00	212	1.4566820	1.2334940		-15.3	50
Pyrene	A	250.00	253	1.9662040	1.9901580		1.2	50
Benzo(a)anthracene	A	250.00	260	1.5334860	1.5958300		4.1	50
Chrysene	A	250.00	258	1.5232370	1.5733080		3.3	50
Benzo(b)fluoranthene	A	250.00	259	1.4146370	1.4643150		3.5	50
Benzo(k)fluoranthene	A	250.00	237	1.4669230	1.3906950		-5.2	50
Benzo(j)fluoranthene	A	250.00	245	1.3351350	1.3062600		-2.2	50
Benzo(a)pyrene	A	250.00	255	1.2427860	1.2691850		2.1	50
Indeno(1,2,3-cd)pyrene	A	250.00	251	1.2927210	1.2970220		0.3	50
Dibenzo(a,h)anthracene	A	250.00	250	1.0813340	1.0823470		0.09	50
Benzo(g,h,i)perylene	A	250.00	242	1.1181550	1.0838800		-3.1	50
2-Methylnaphthalene-d10	A	250.00	266	1.1411260	1.2155030		6.5	50
Dibenzo[a,h]anthracene-d14	A	250.00	249	0.9570734	0.9545181		-0.3	50
Fluoranthene-d10	A	250.00	214	1.2140030	1.0367990		-14.6	50

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20180505.b\NT1118050514.D

Date : 05-MAY-2018 19:26

Client ID:

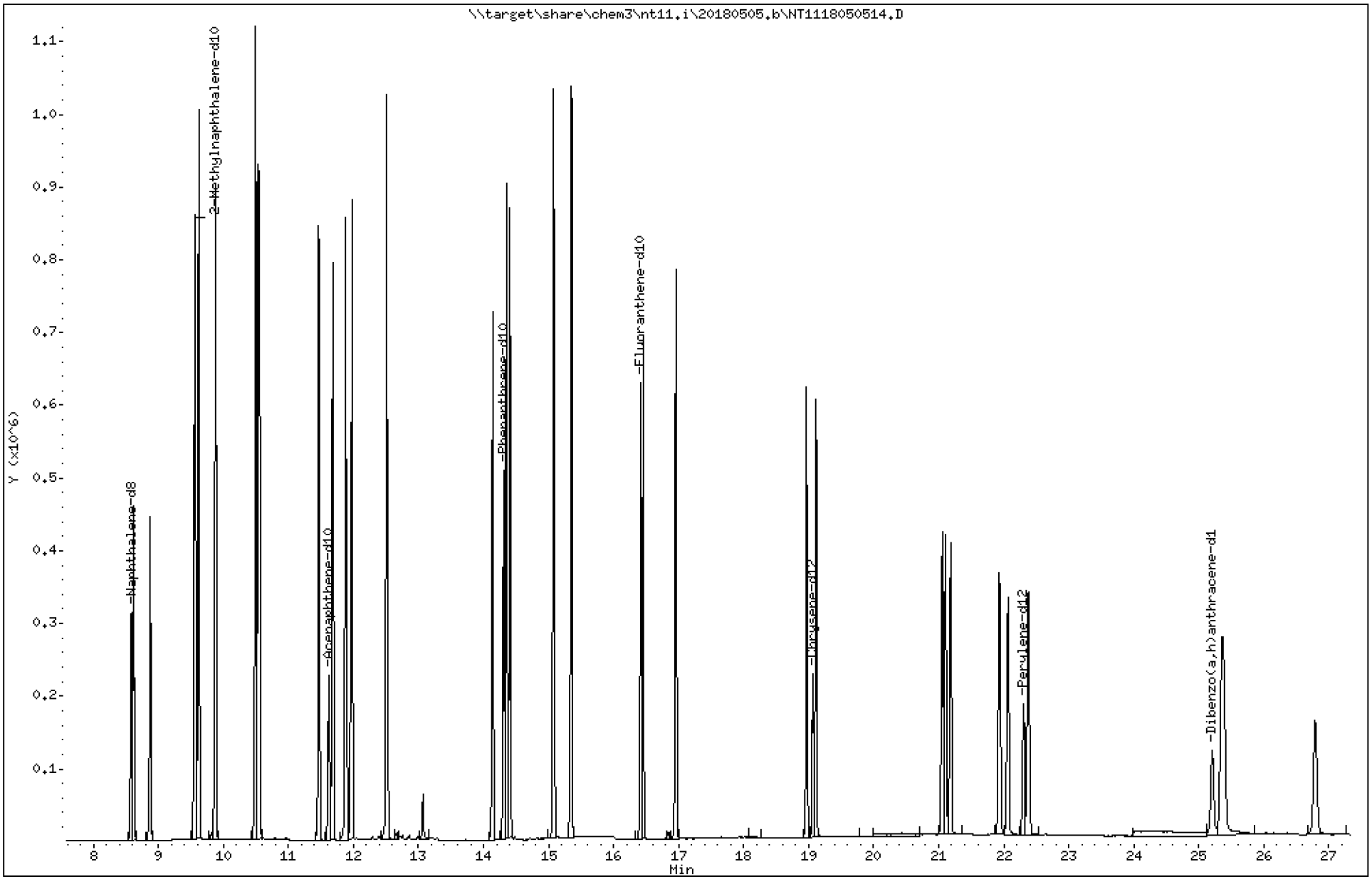
Instrument: nt11.i

Sample Info: SGE0100-CCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

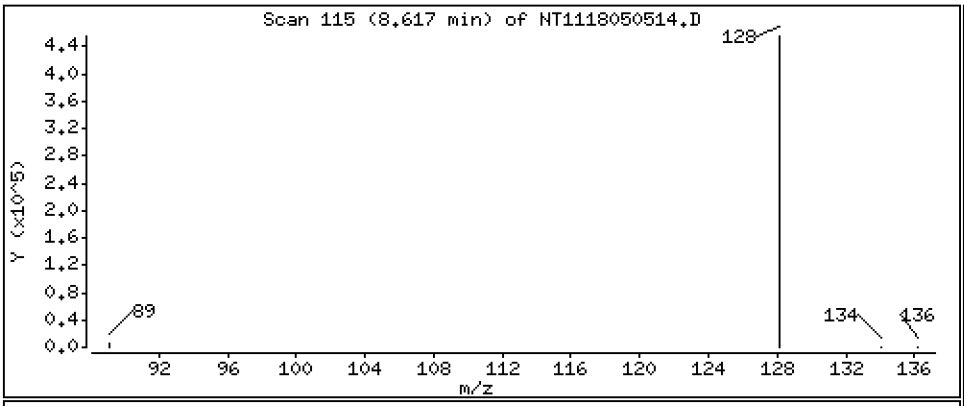
Operator: VTS

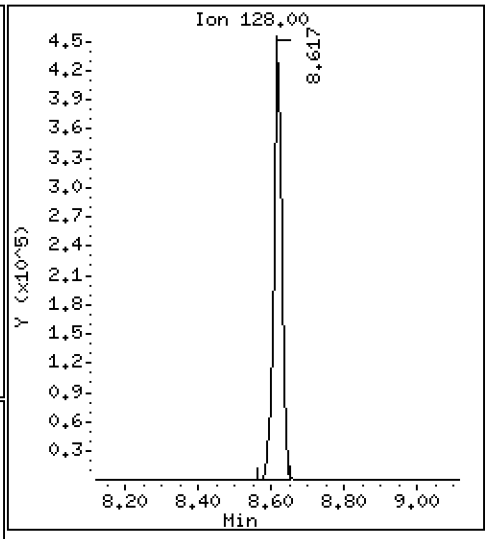
Column phase: Rxi-17Sil MS

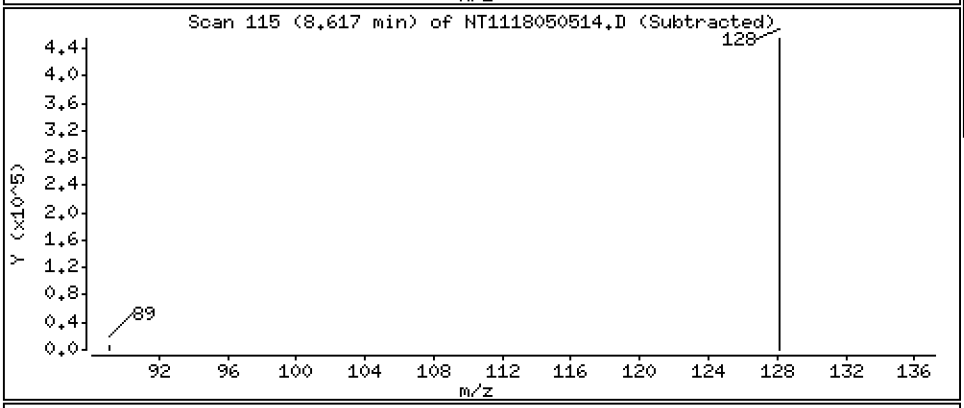
Column diameter: 0.25

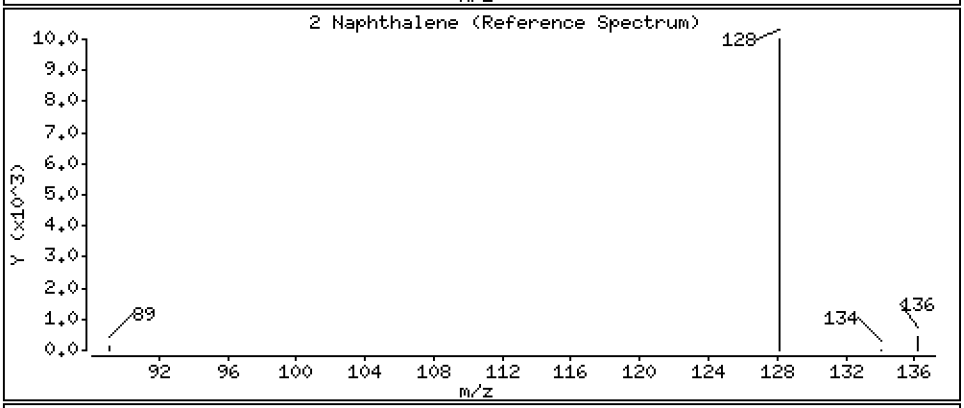
2 Naphthalene

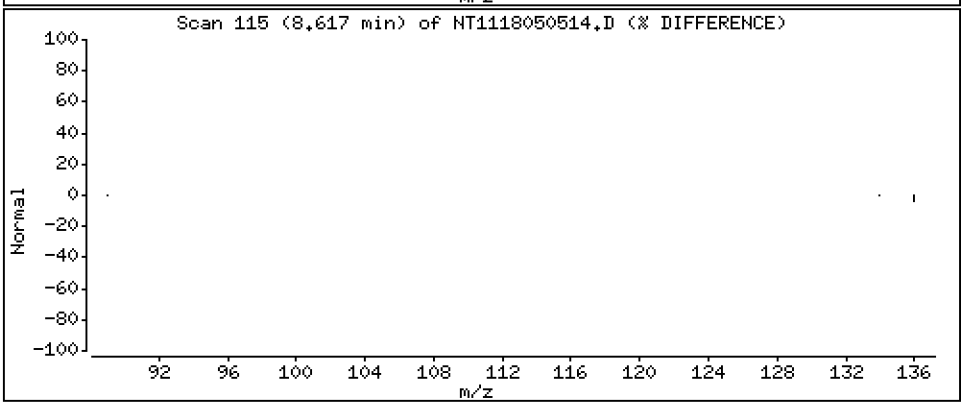
Concentration: 237 ng/mL











Data File: \\target\share\chem3\nt11.i\20180505.b\NT1118050514.D

Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

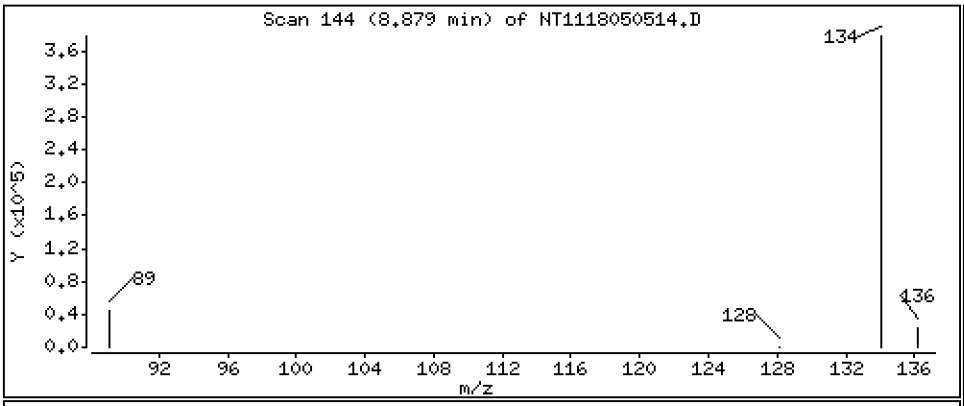
Operator: VTS

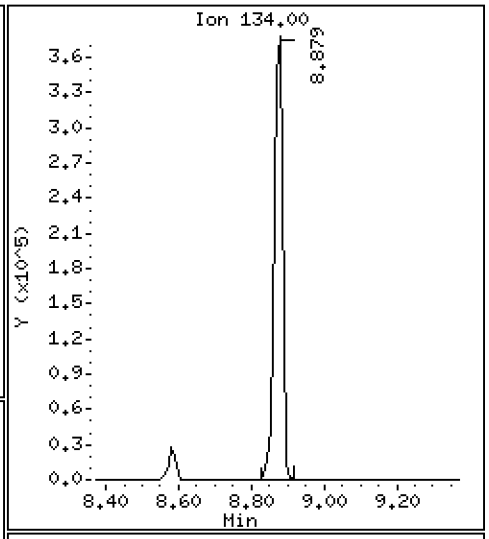
Column phase: Rxi-17Sil MS

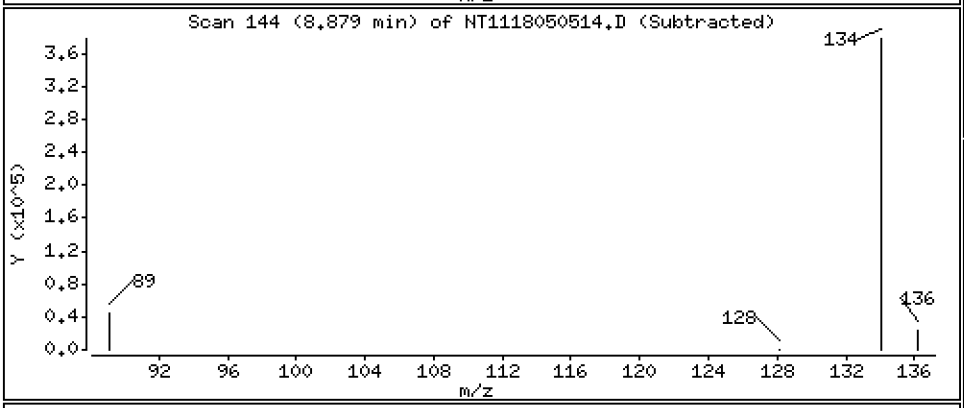
Column diameter: 0.25

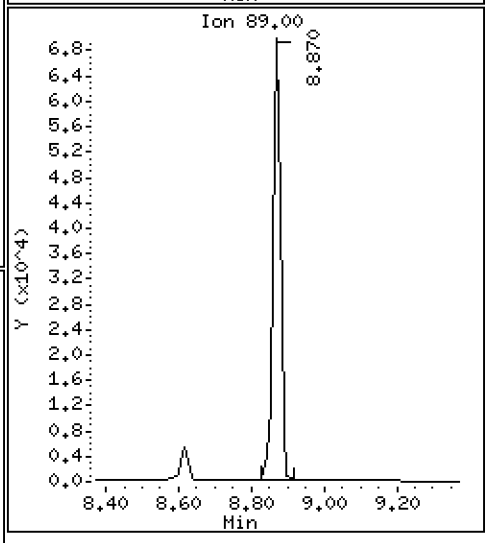
3 Benzo(b)thiophene

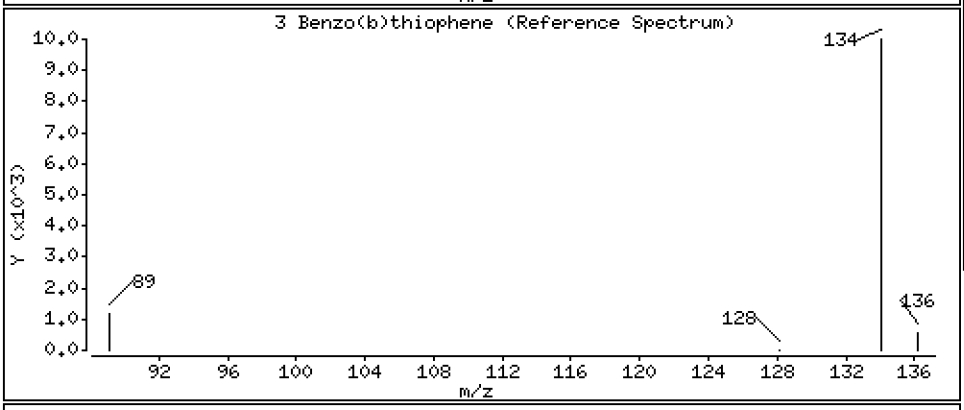
Concentration: 253 ng/mL

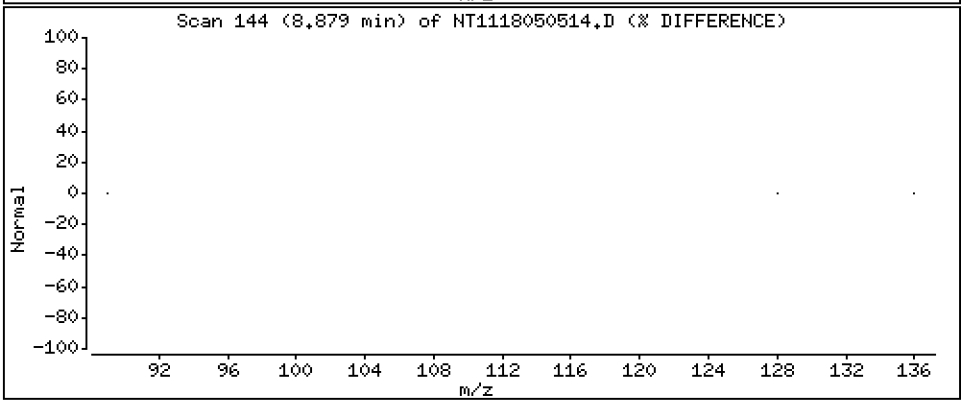












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Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

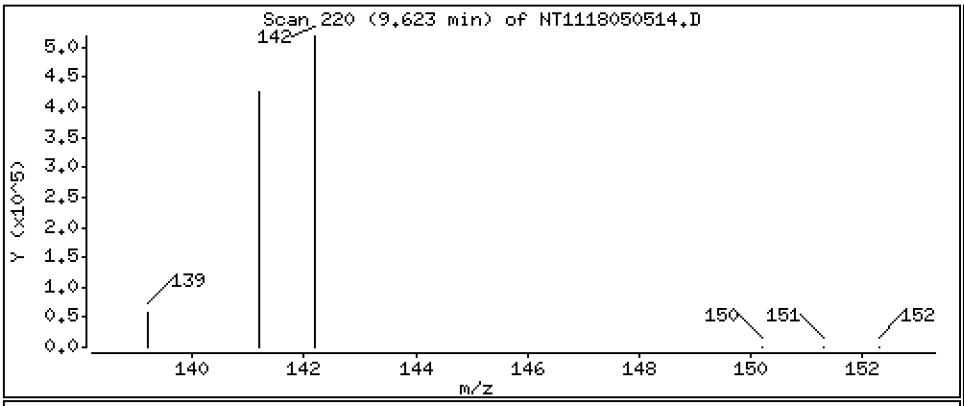
Operator: VTS

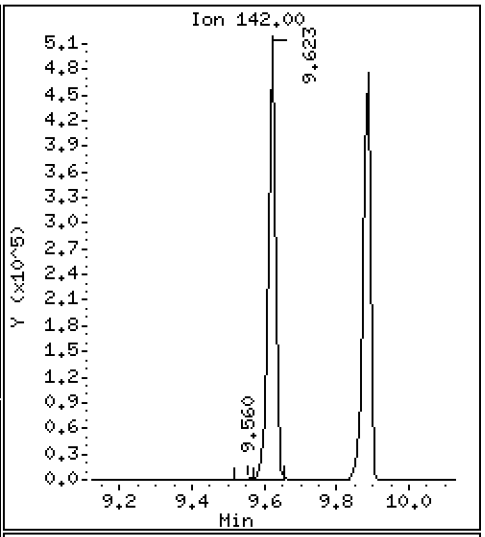
Column phase: Rxi-17Sil MS

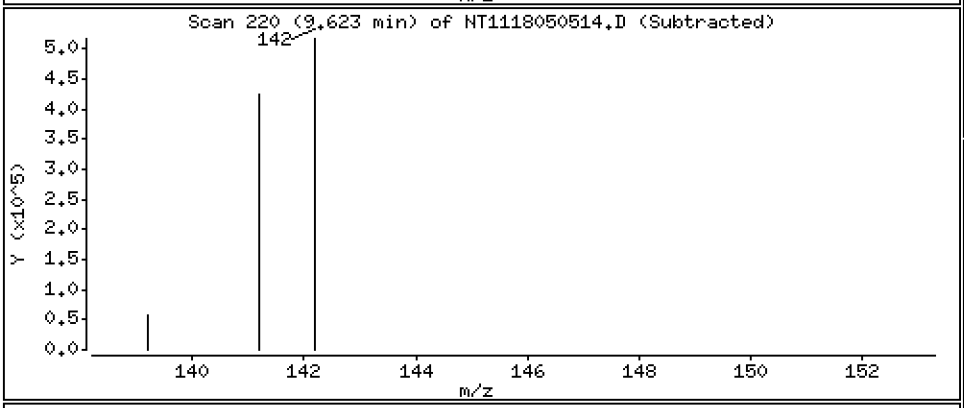
Column diameter: 0.25

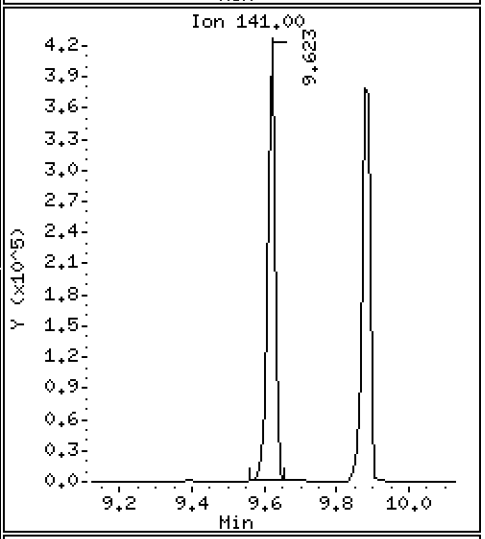
5 2-Methylnaphthalene

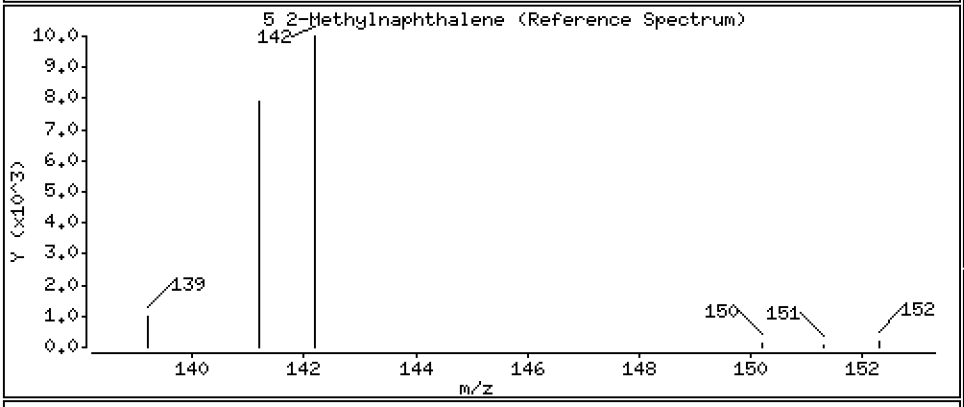
Concentration: 264 ng/mL

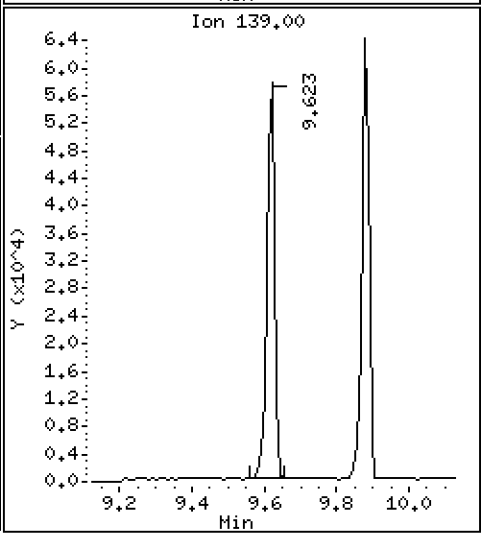


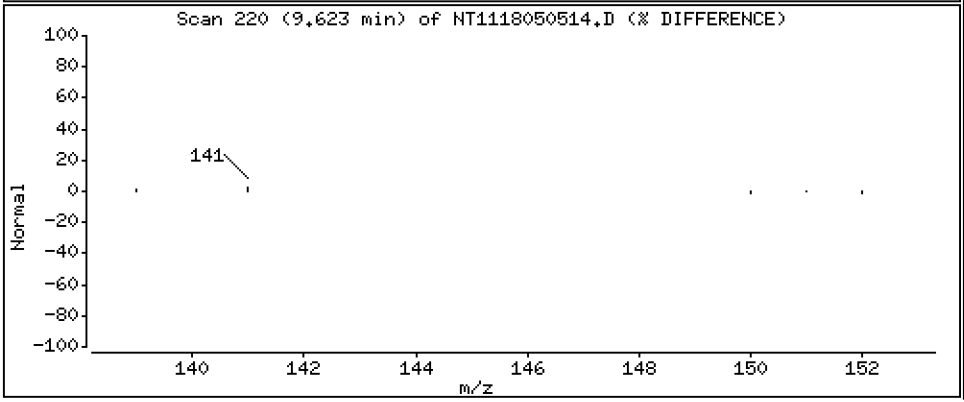












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Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

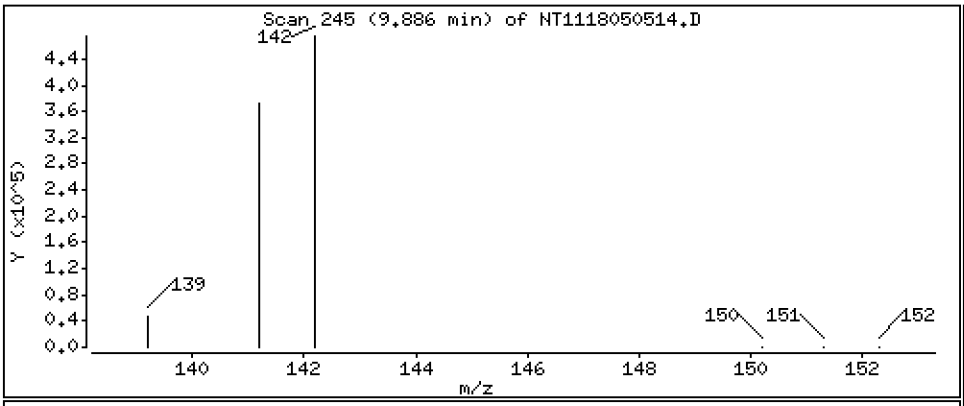
Operator: VTS

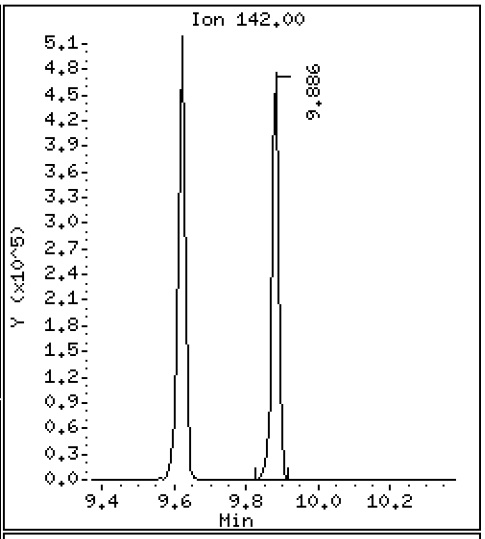
Column phase: Rxi-17Sil MS

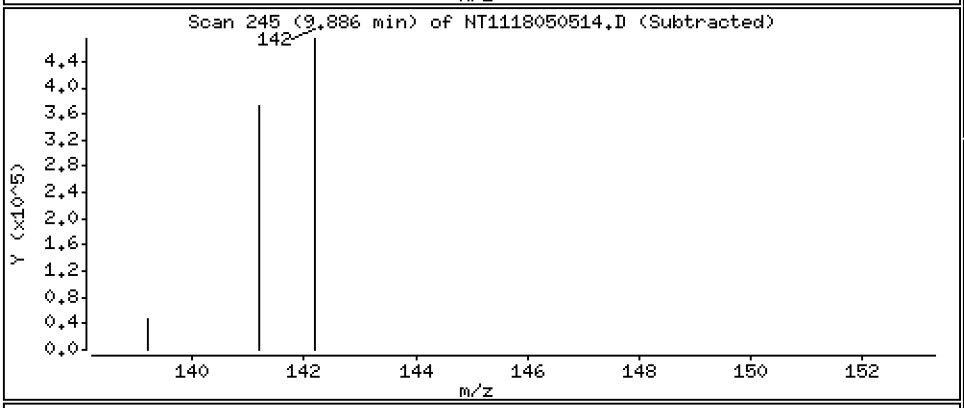
Column diameter: 0.25

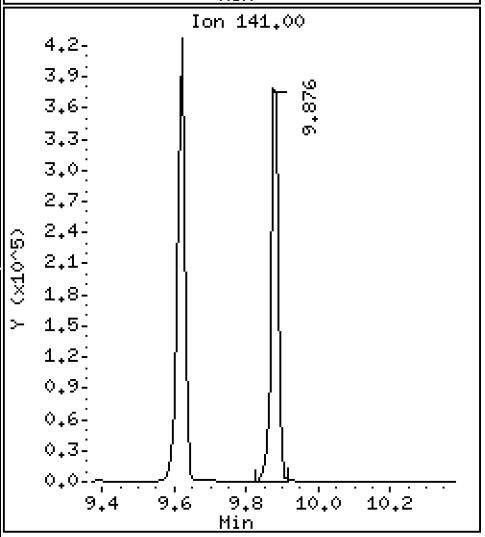
6 1-Methylnaphthalene

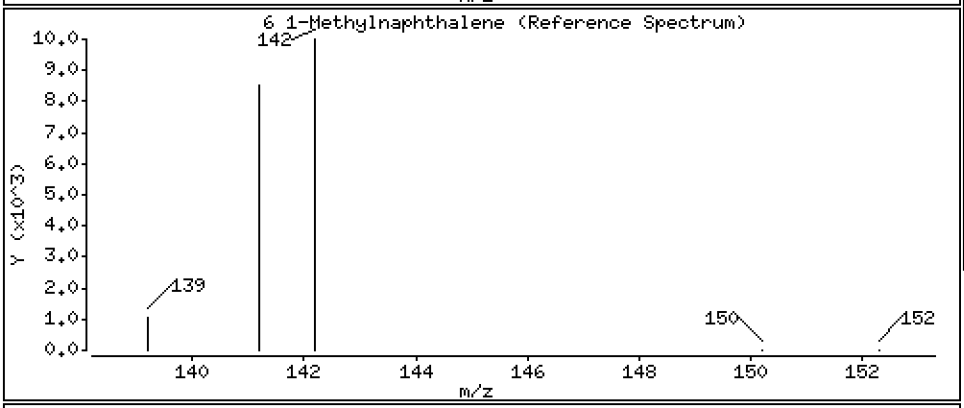
Concentration: 265 ng/mL

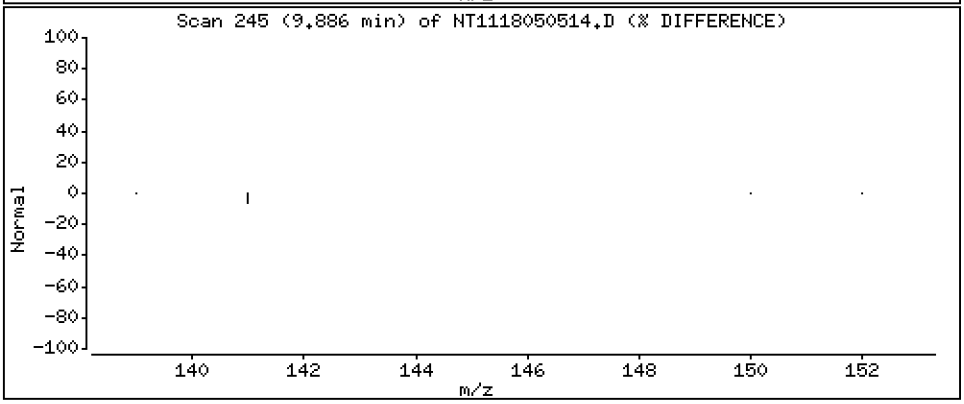












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Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

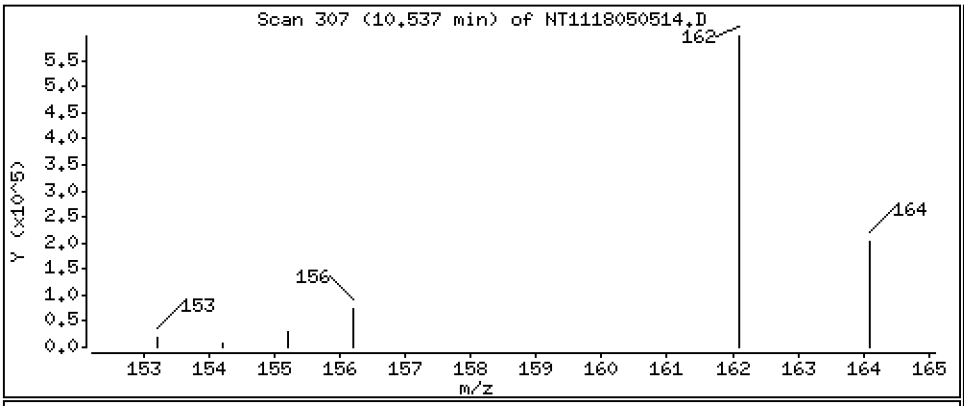
Operator: VTS

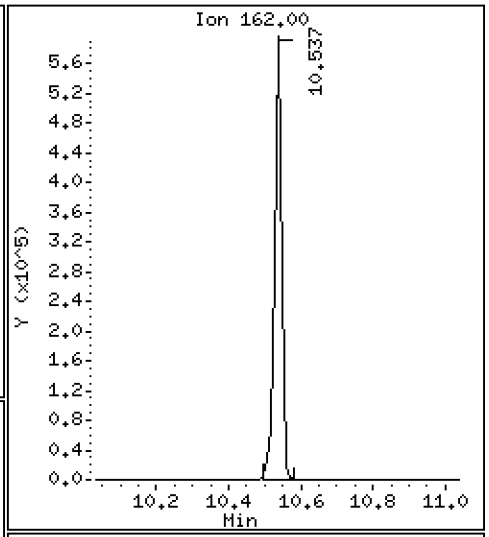
Column phase: Rxi-17Sil MS

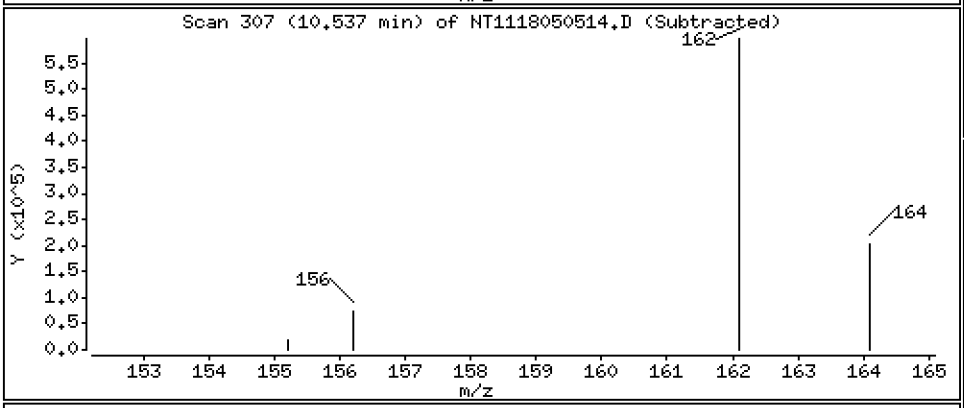
Column diameter: 0.25

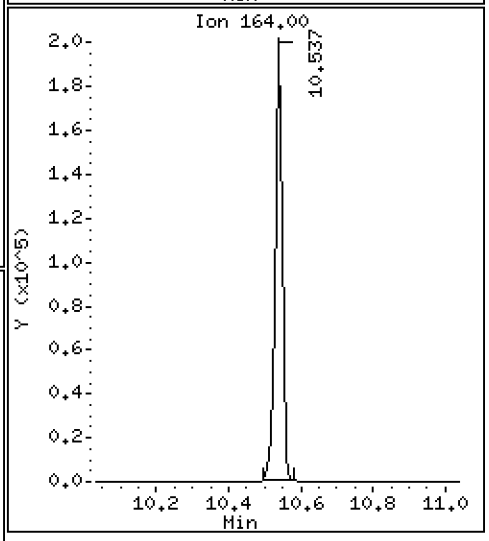
7 2-Chloronaphthalene

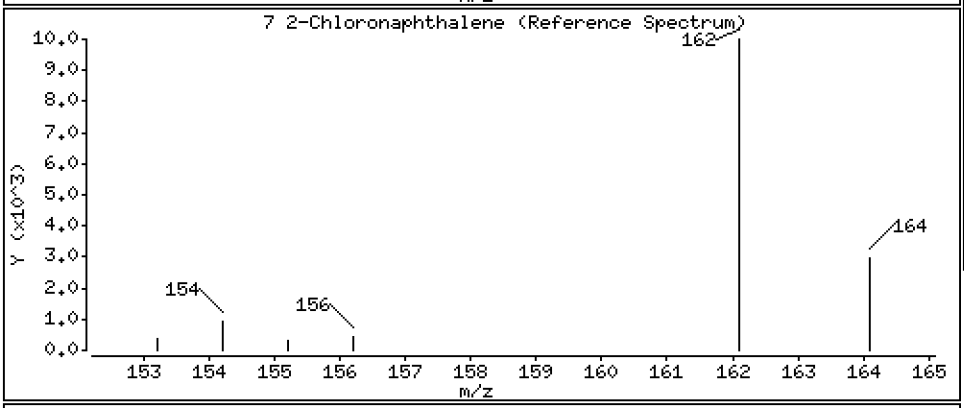
Concentration: 242 ng/mL

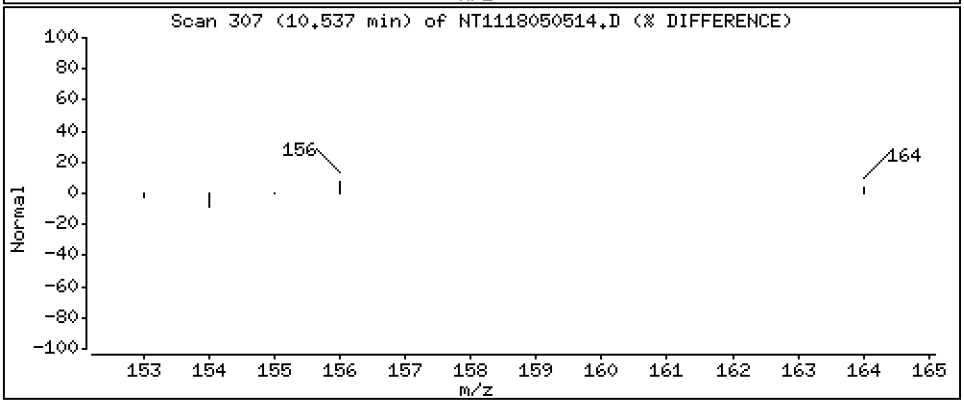












Data File: \\target\share\chem3\nt11.i\20180505.b\NT1118050514.D

Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

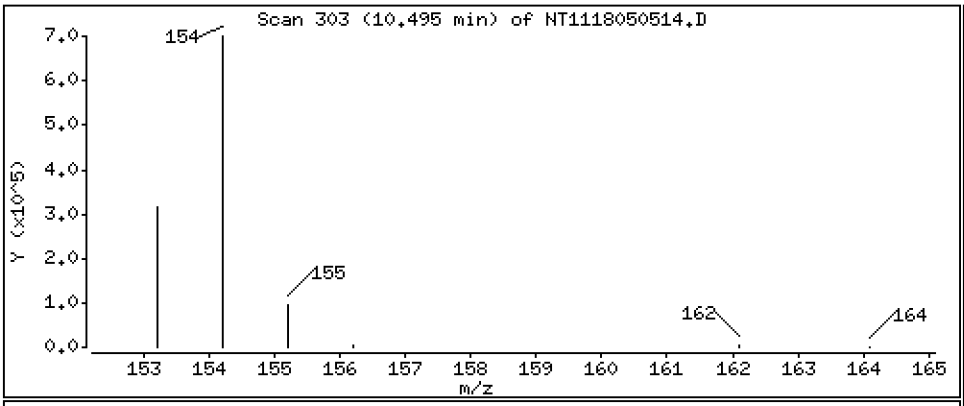
Operator: VTS

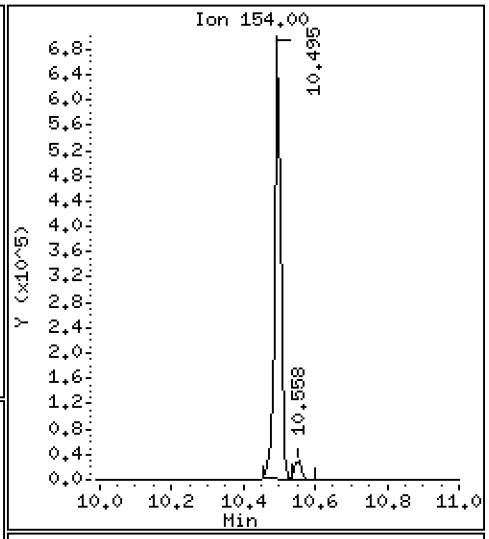
Column phase: Rxi-17Sil MS

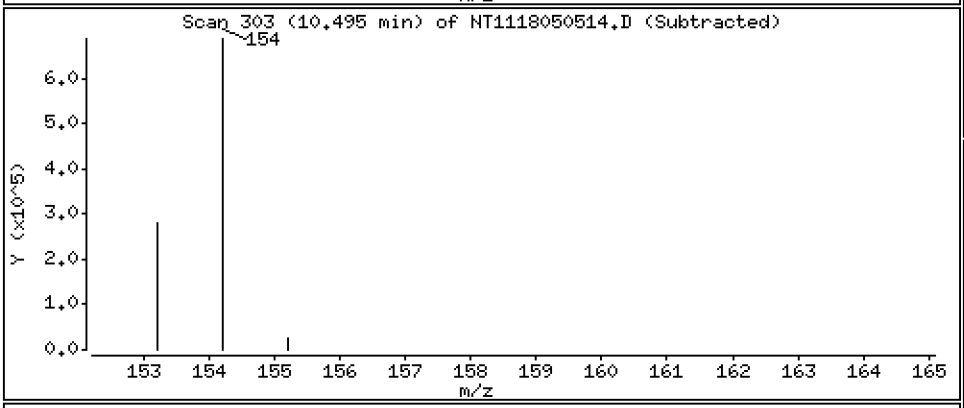
Column diameter: 0.25

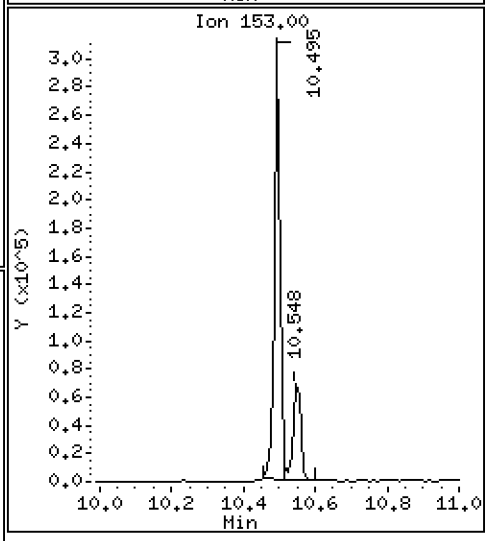
8 Biphenyl

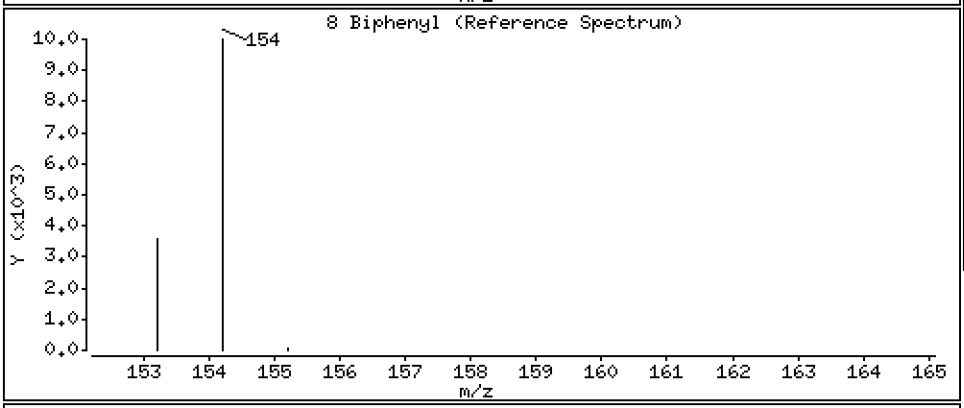
Concentration: 241 ng/mL

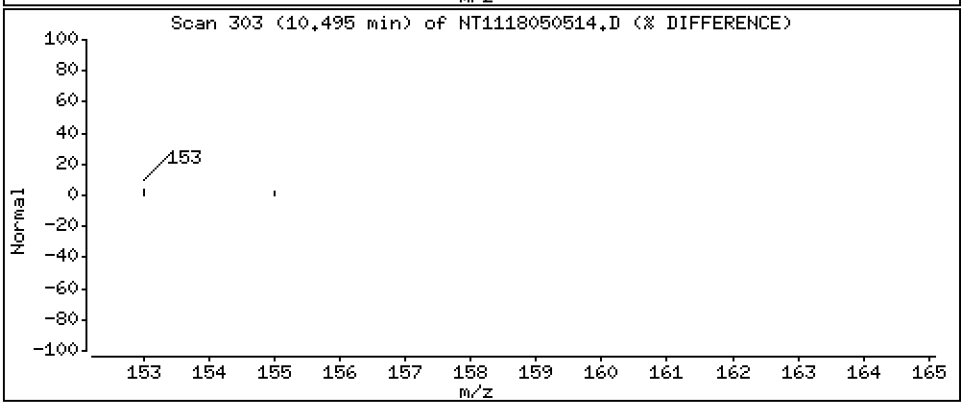












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Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

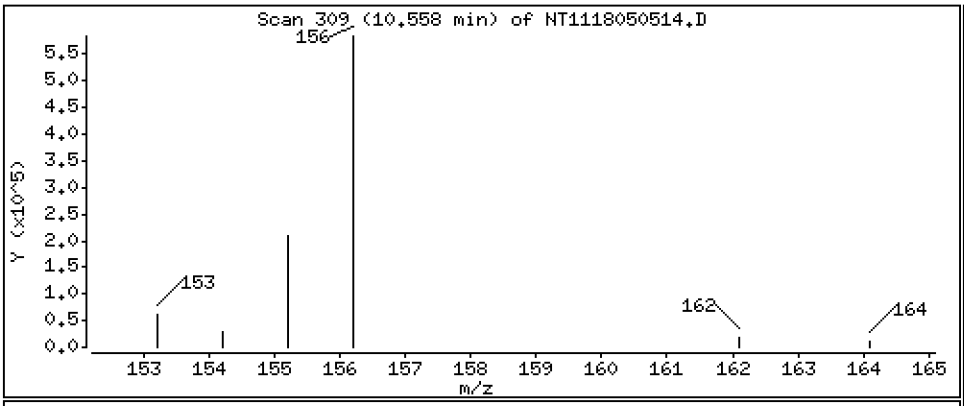
Operator: VTS

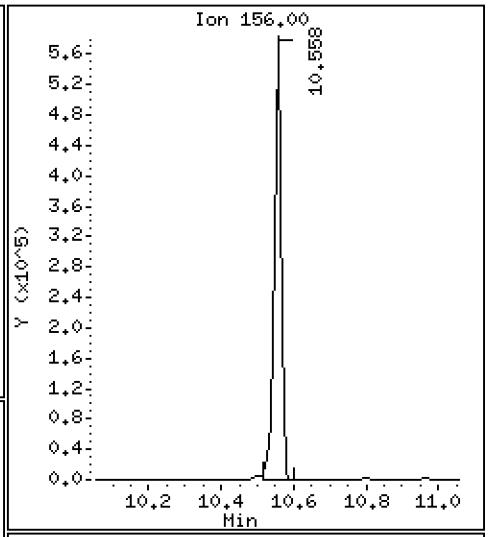
Column phase: Rxi-17Sil MS

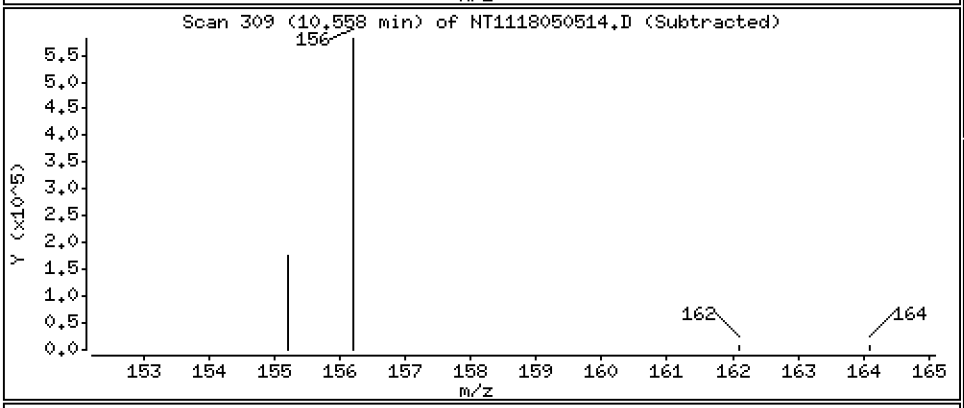
Column diameter: 0.25

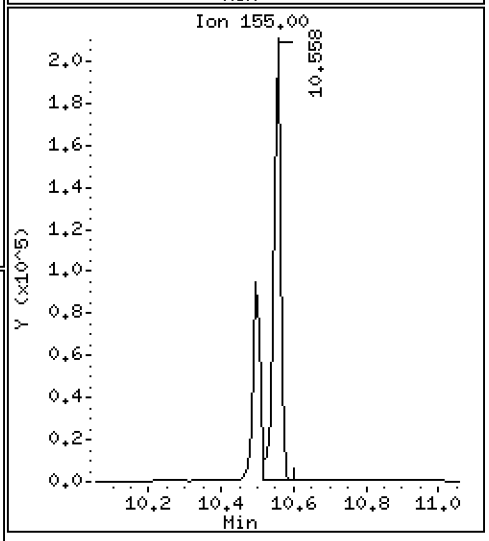
9 2,6-Dimethylnaphthalene

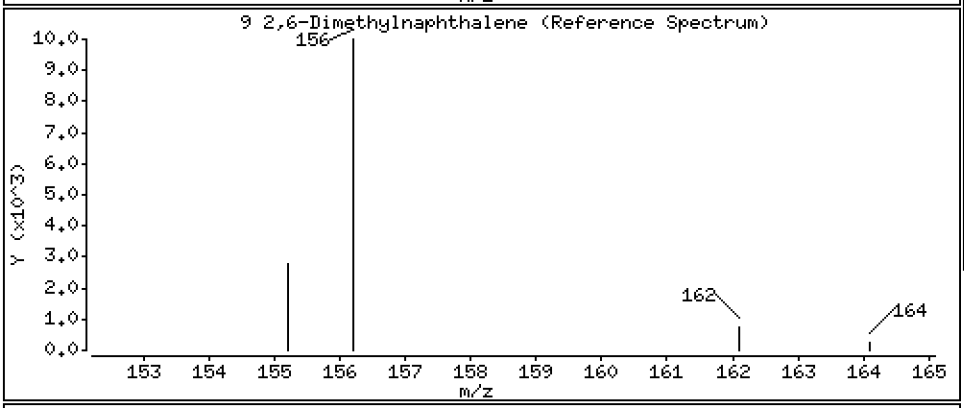
Concentration: 244 ng/mL

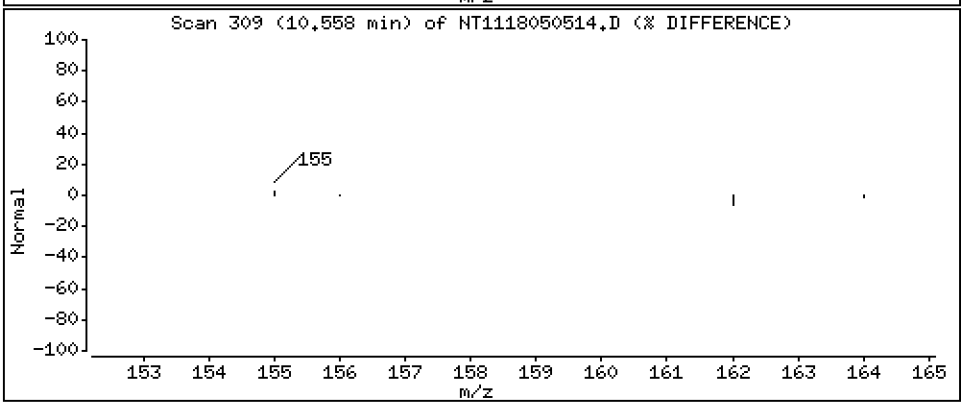












Data File: \\target\share\chem3\nt11.i\20180505.b\NT1118050514.D

Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

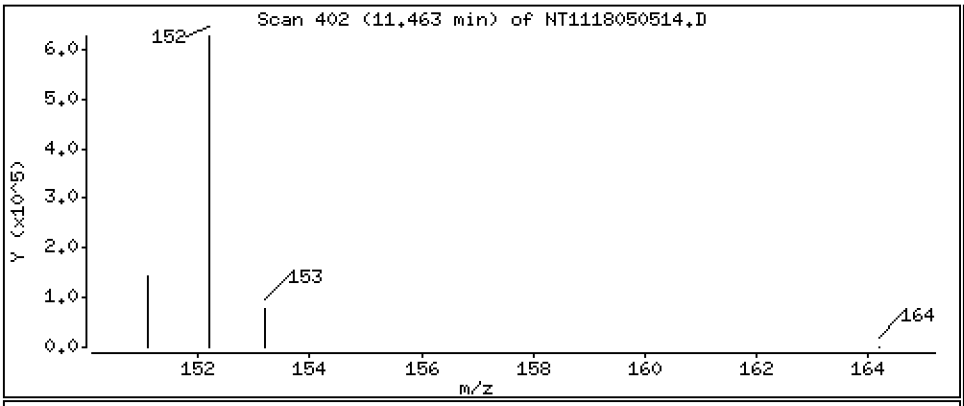
Operator: VTS

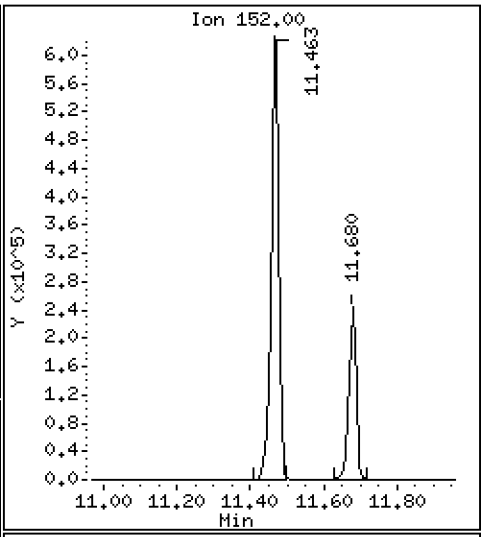
Column phase: Rxi-17Sil MS

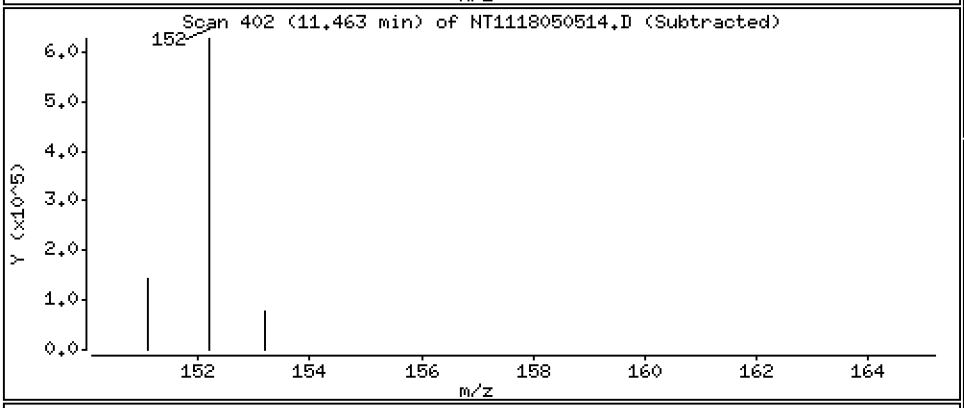
Column diameter: 0.25

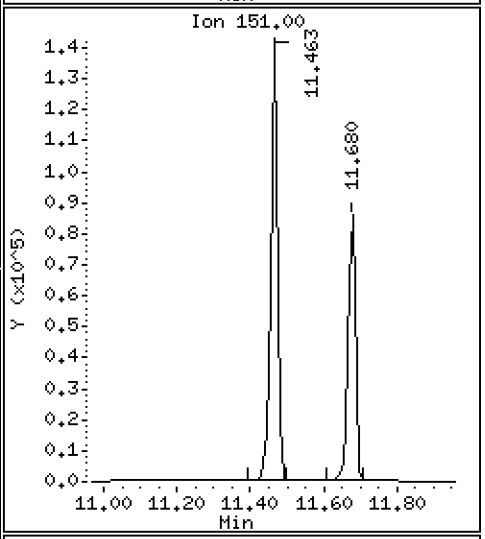
10 Acenaphthylene

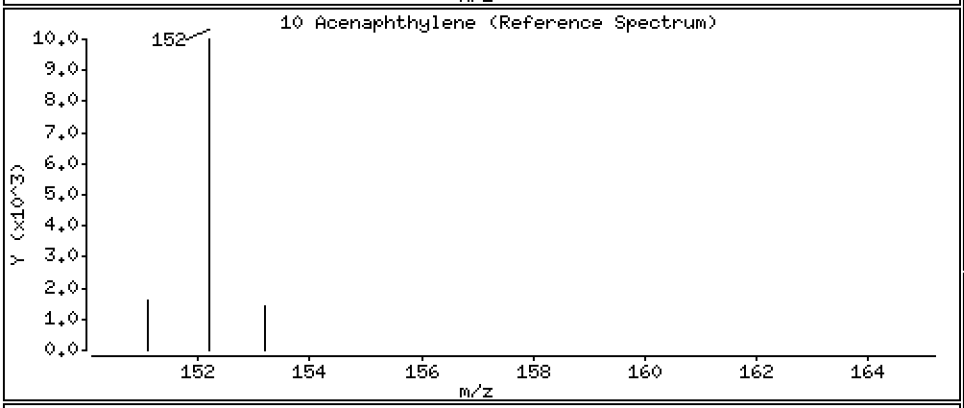
Concentration: 253 ng/mL

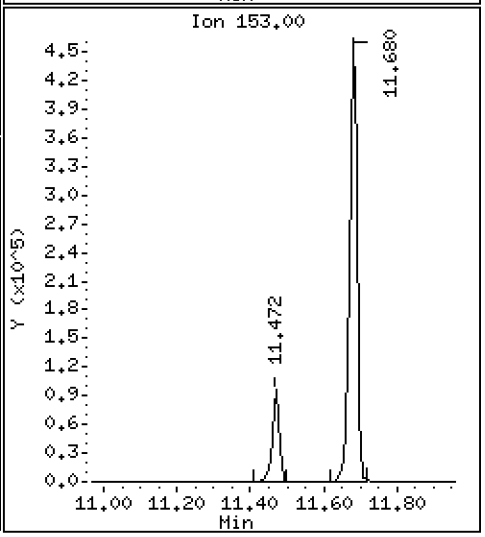


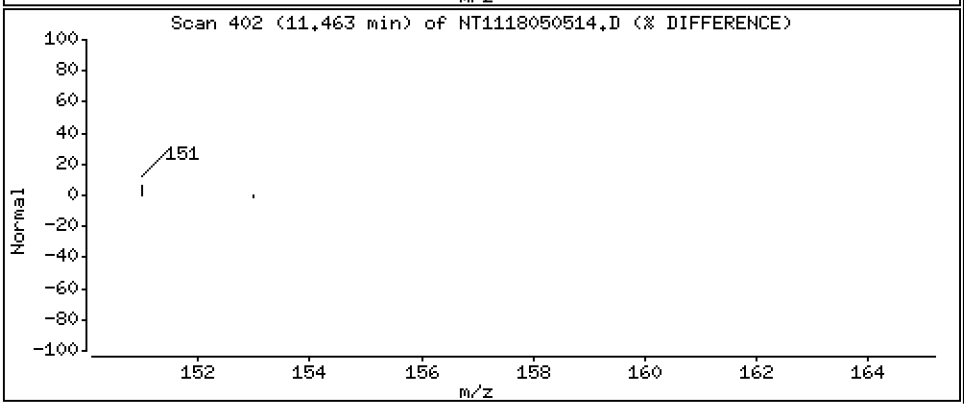












Data File: \\target\share\chem3\nt11.i\20180505.b\NT1118050514.D

Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

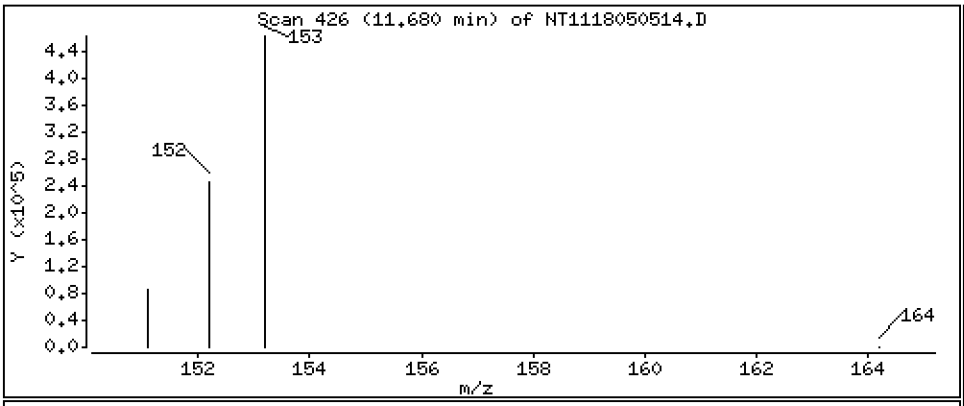
Operator: VTS

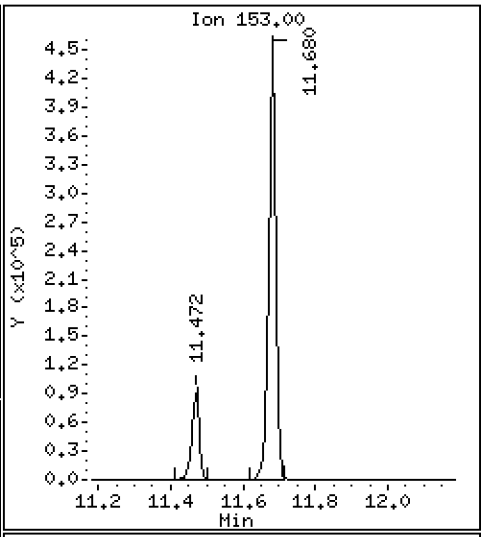
Column phase: Rxi-17Sil MS

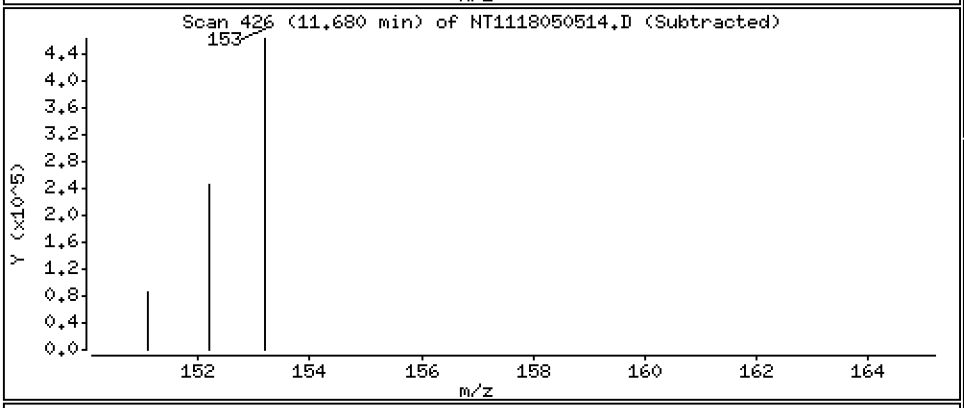
Column diameter: 0.25

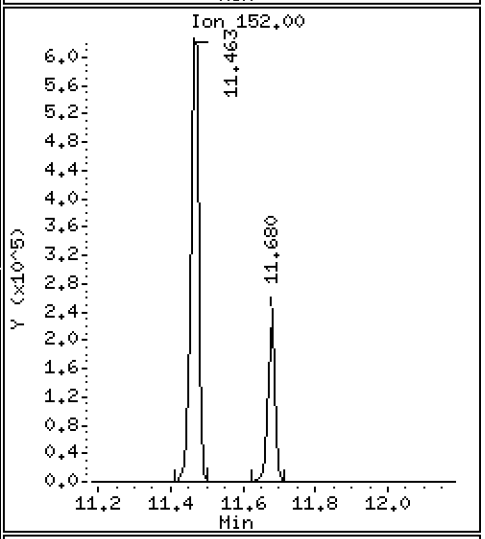
12 Acenaphthene

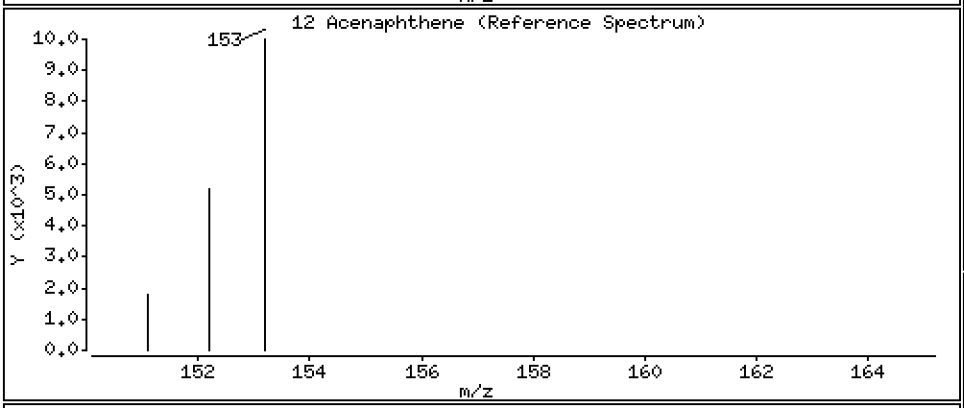
Concentration: 249 ng/mL

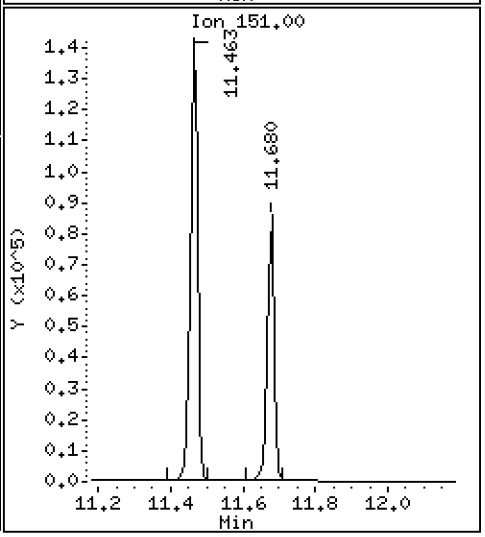


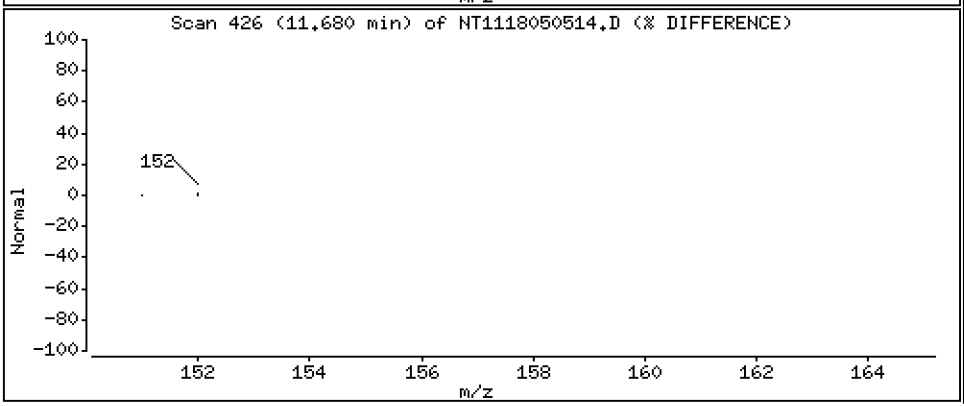












Data File: \\target\share\chem3\nt11.i\20180505.b\NT1118050514.D

Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

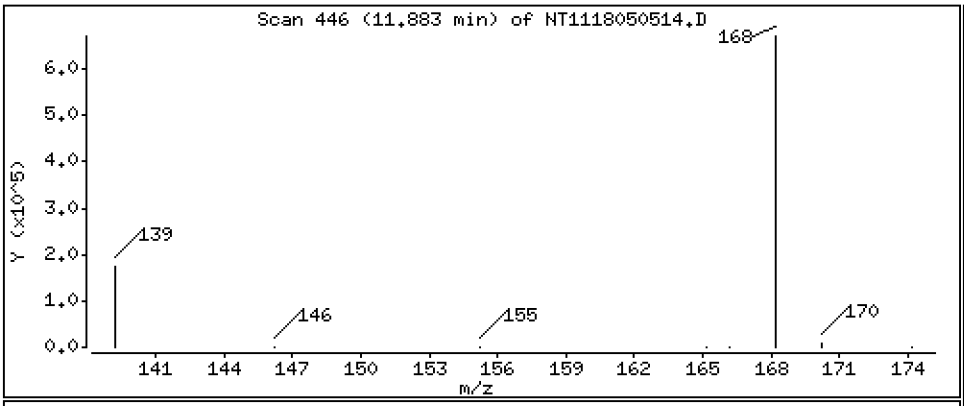
Operator: VTS

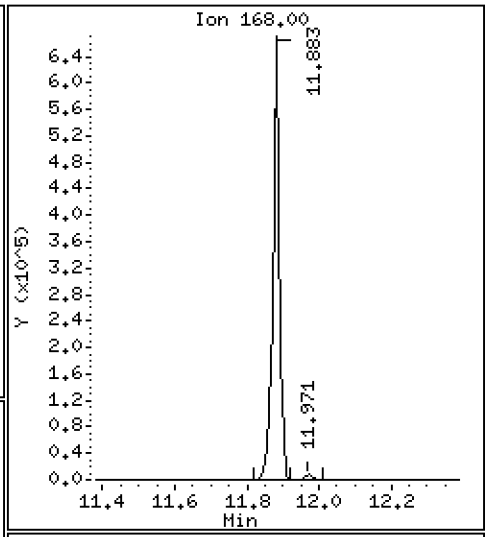
Column phase: Rxi-17Sil MS

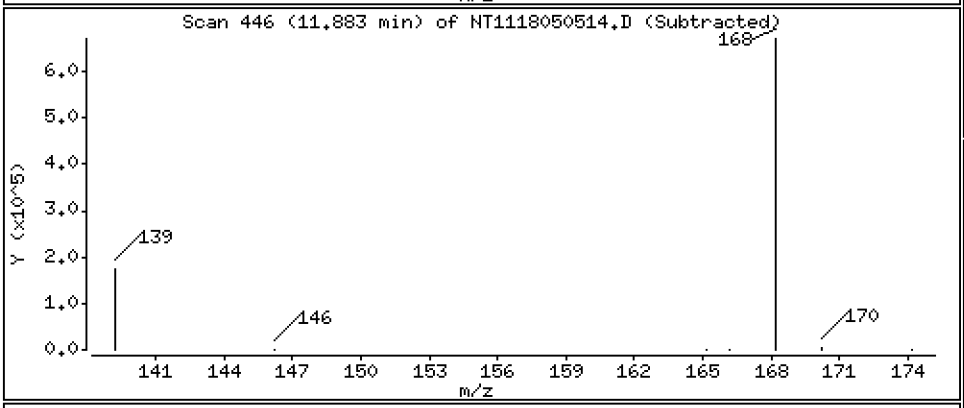
Column diameter: 0.25

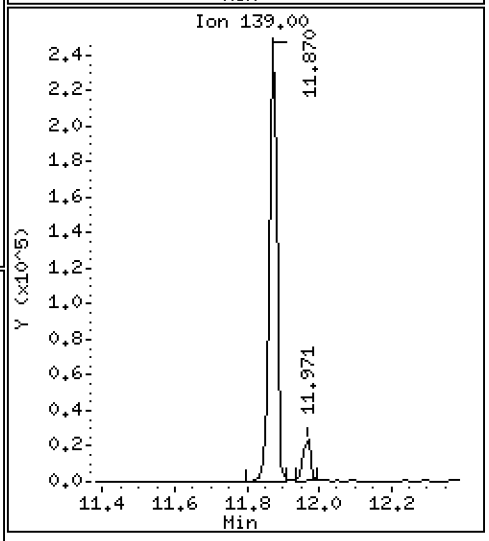
13 Dibenzofuran

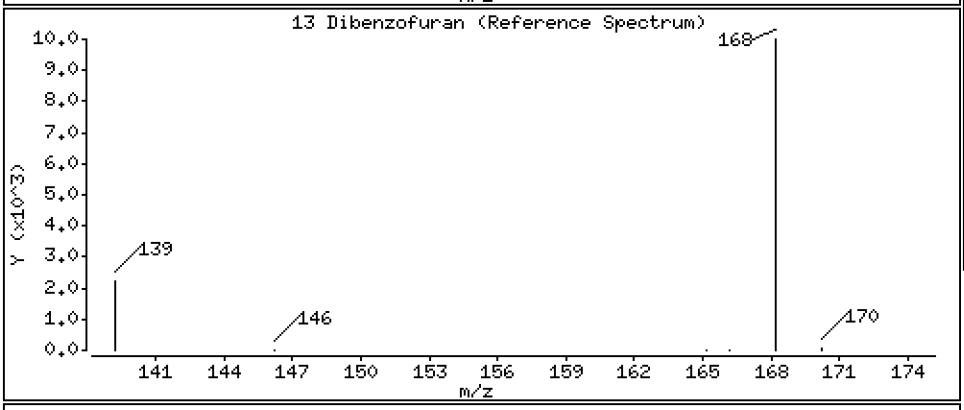
Concentration: 249 ng/mL

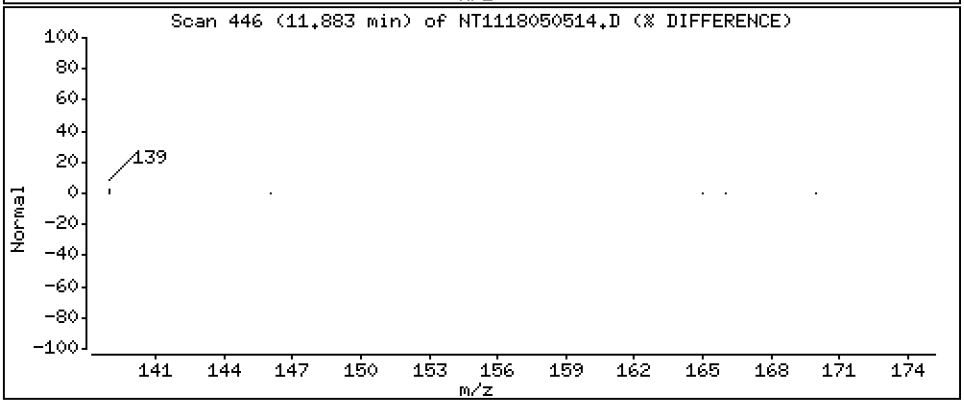












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Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

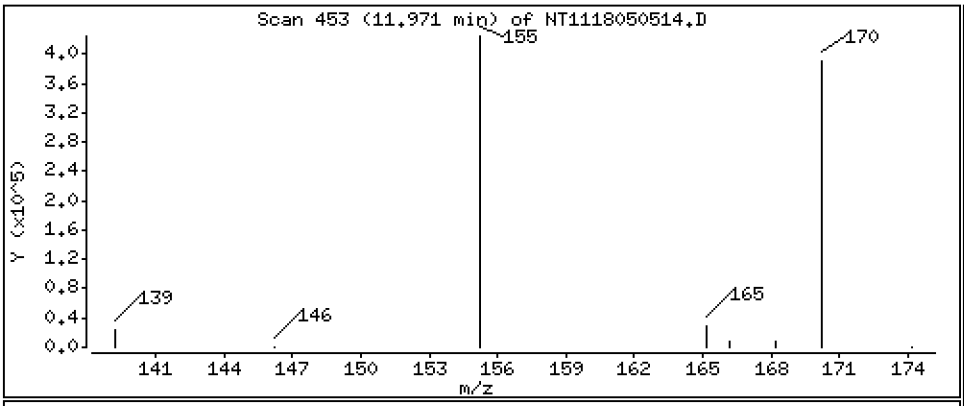
Operator: VTS

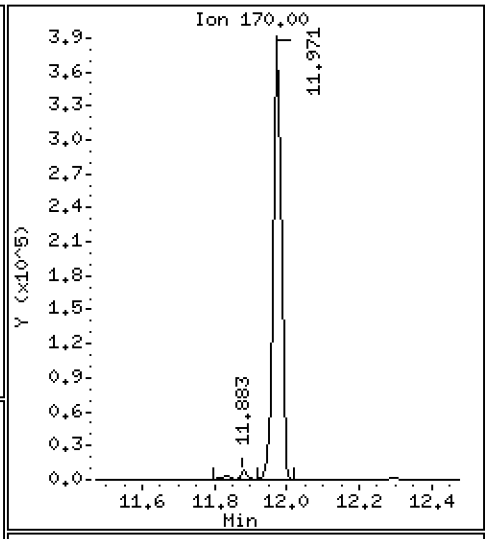
Column phase: Rxi-17Sil MS

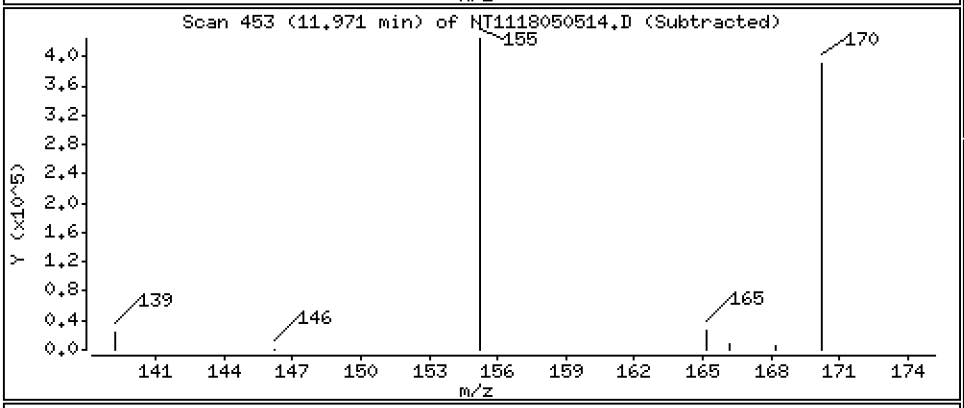
Column diameter: 0.25

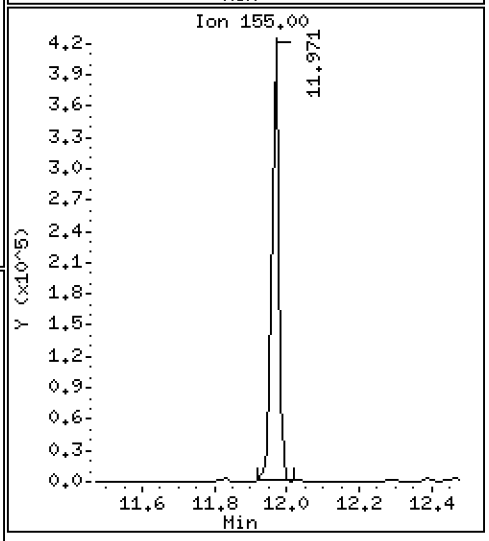
14 2,3,5-Trimethylnaphthalene

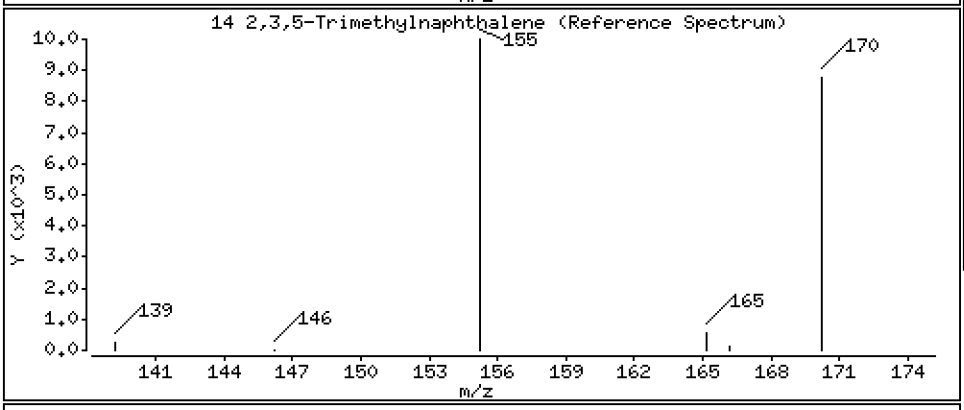
Concentration: 258 ng/mL

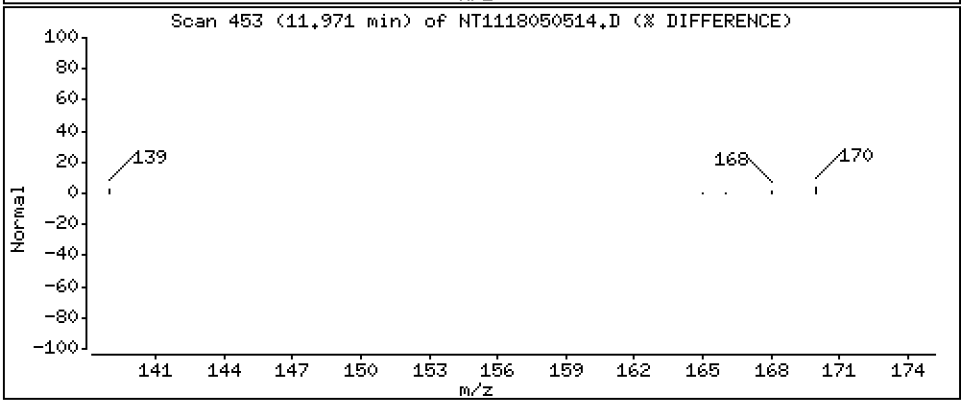












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Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

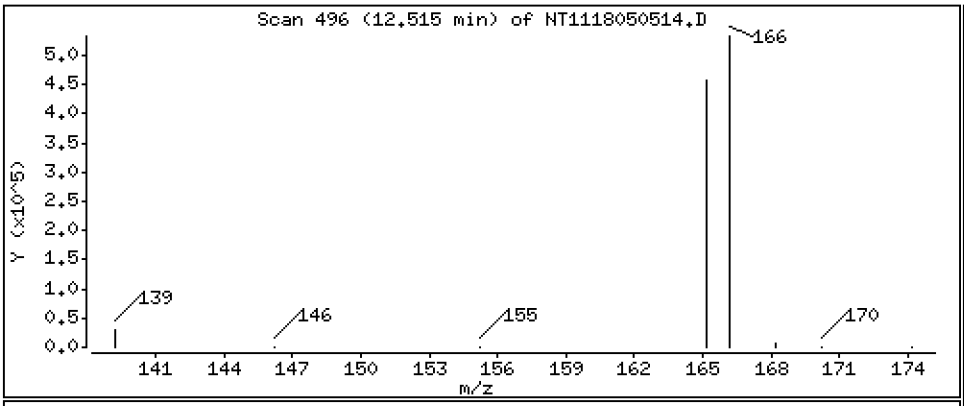
Operator: VTS

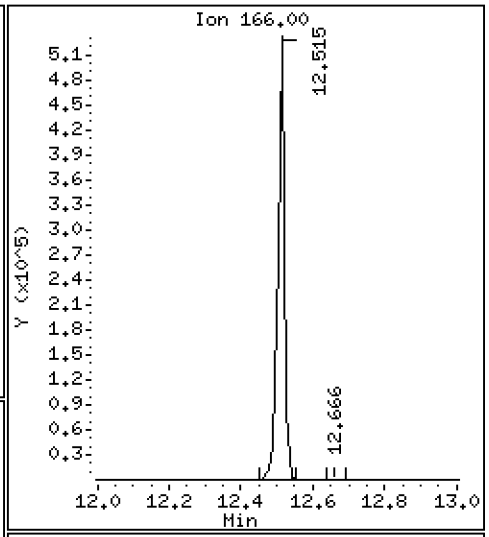
Column phase: Rxi-17Sil MS

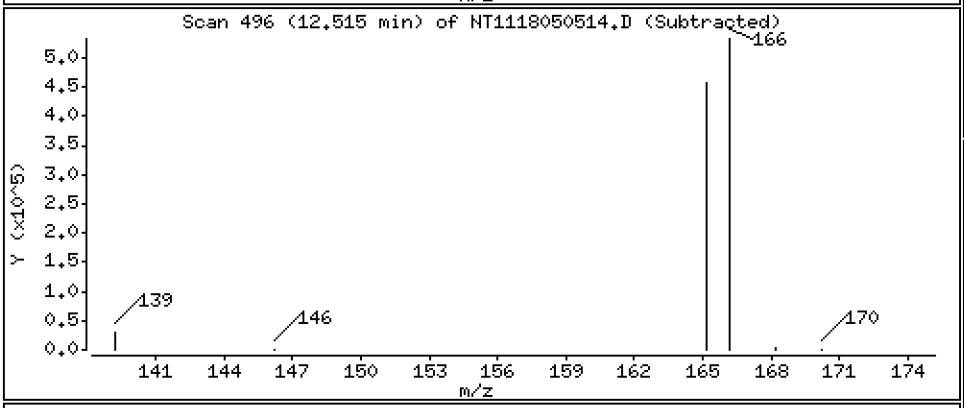
Column diameter: 0.25

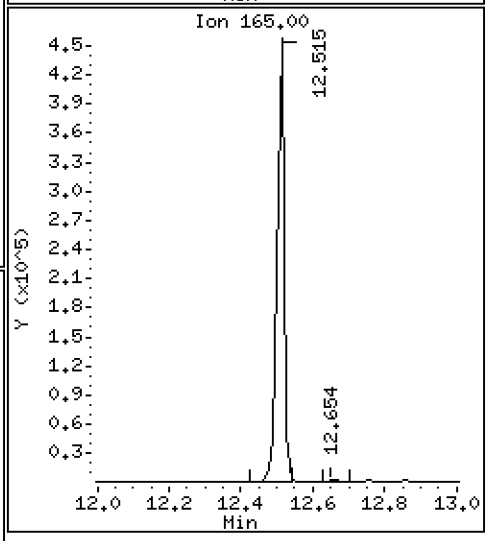
16 Fluorene

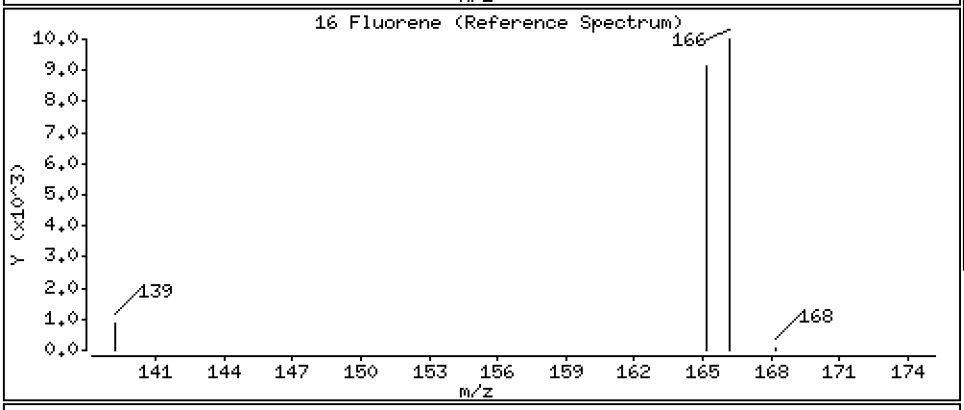
Concentration: 251 ng/mL

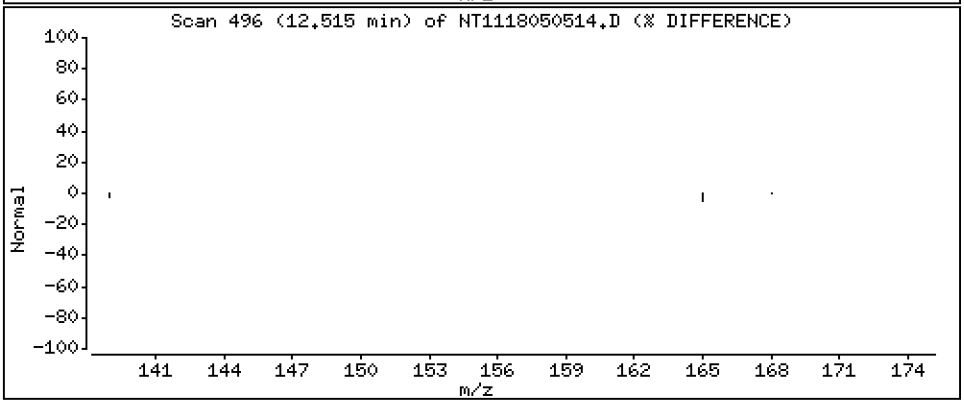












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Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

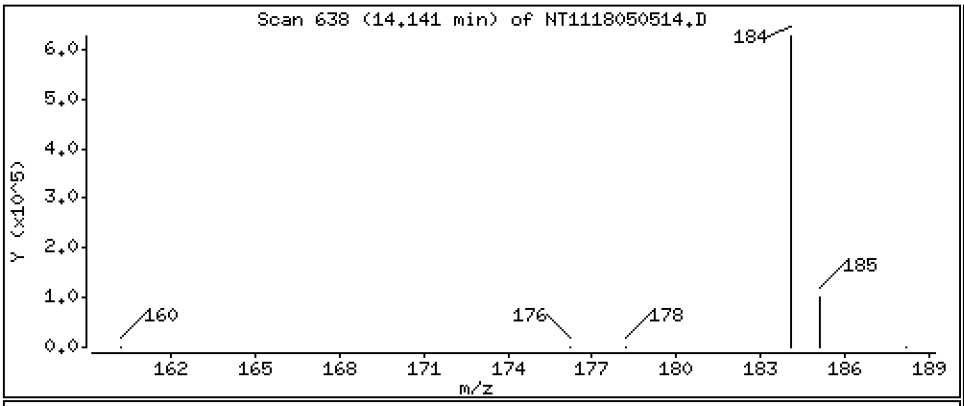
Operator: VTS

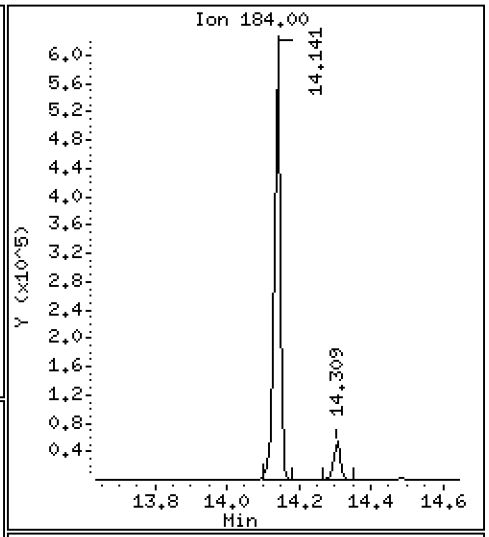
Column phase: Rxi-17Sil MS

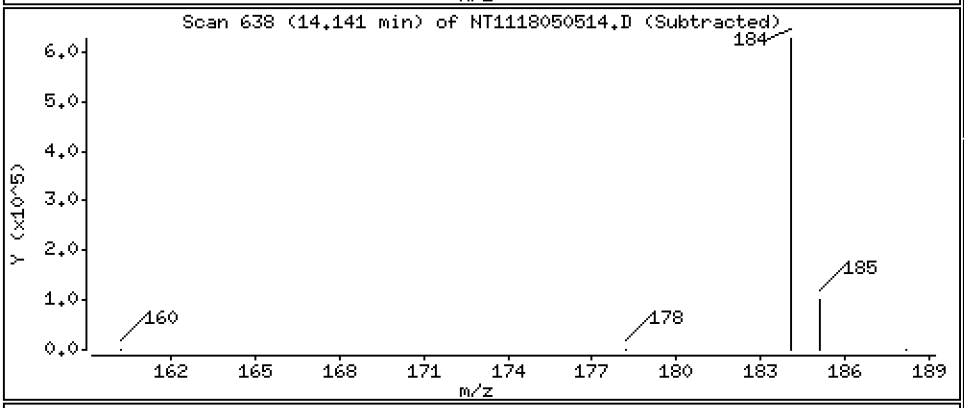
Column diameter: 0.25

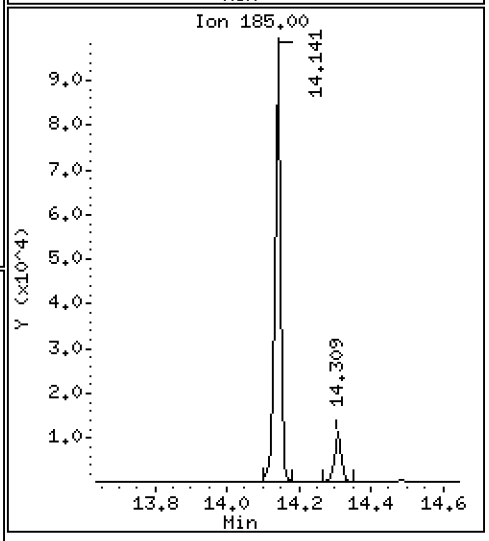
17 Dibenzothiophene

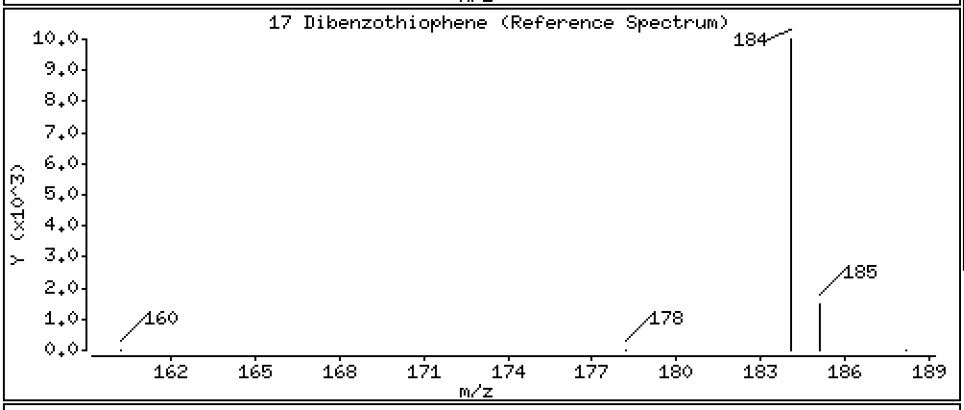
Concentration: 252 ng/mL

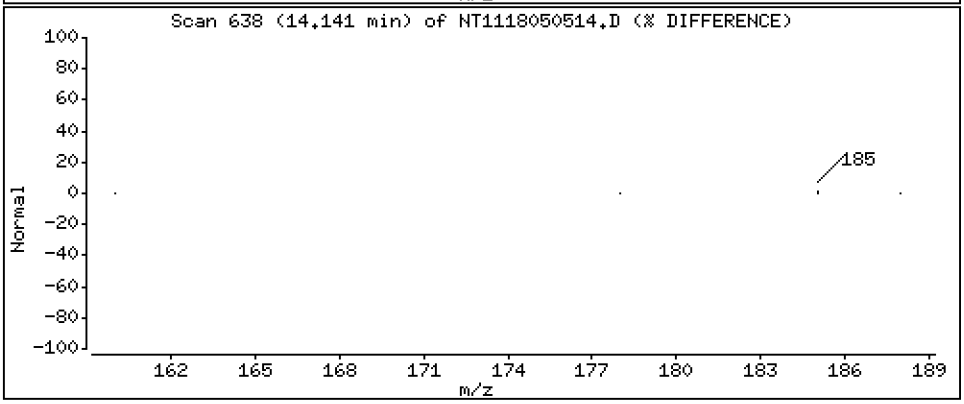












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Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

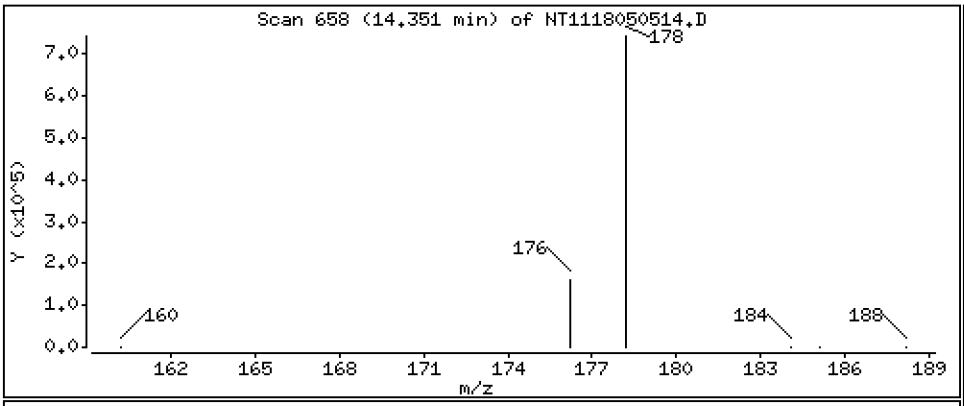
Operator: VTS

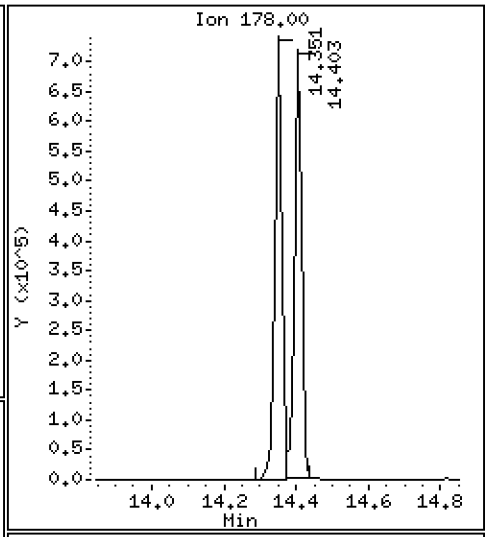
Column phase: Rxi-17Sil MS

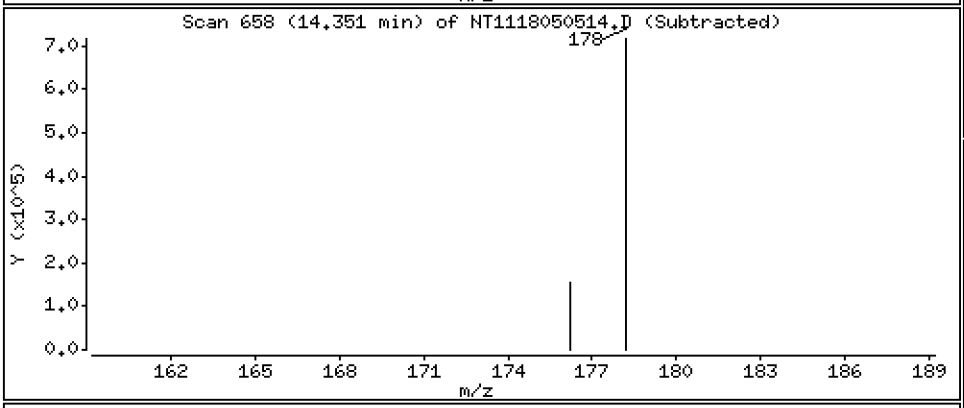
Column diameter: 0.25

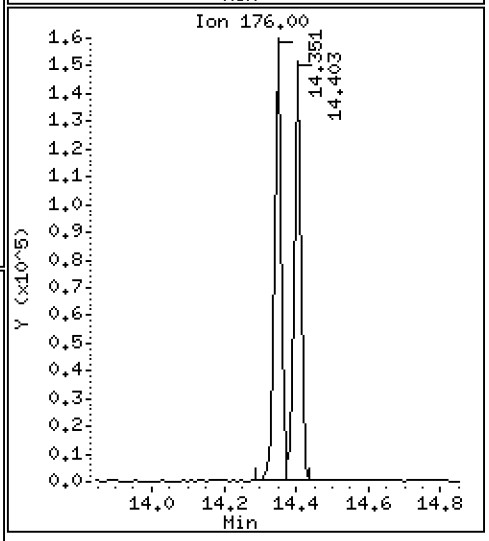
19 Phenanthrene

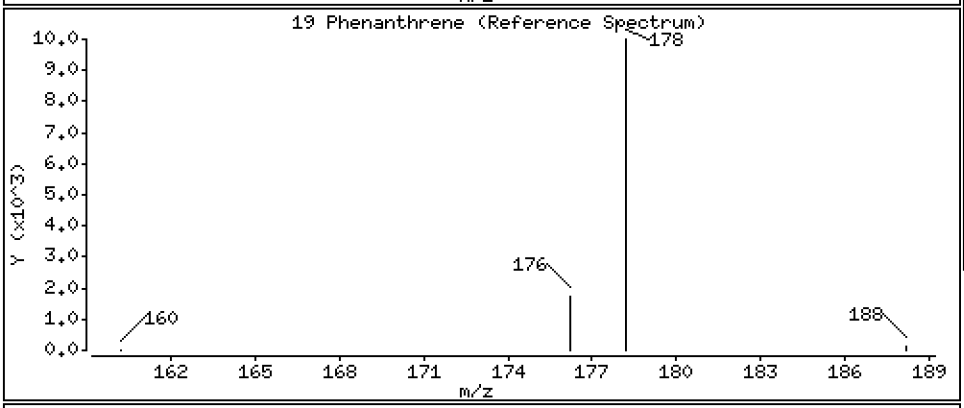
Concentration: 241 ng/mL

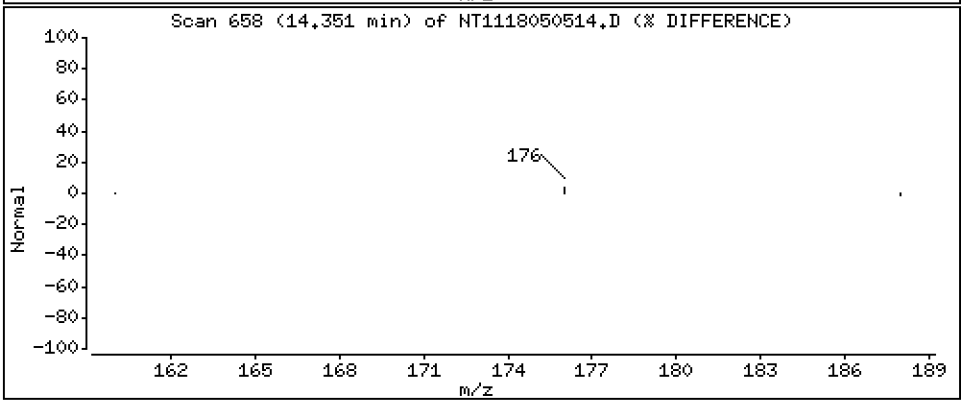












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Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

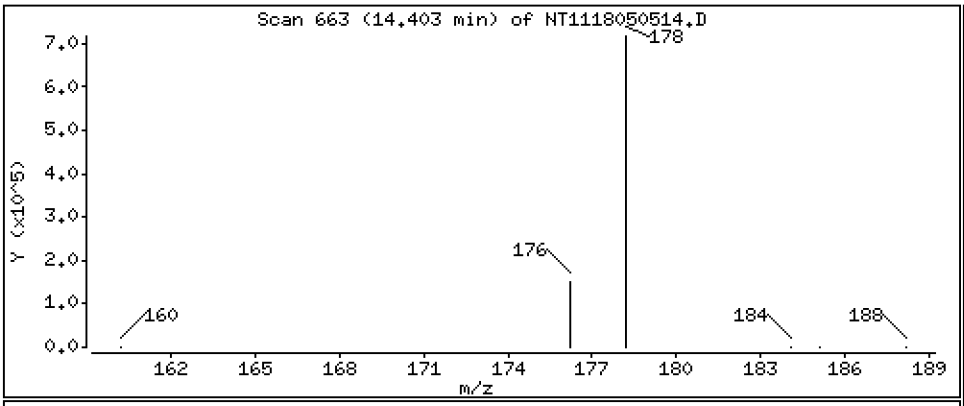
Operator: VTS

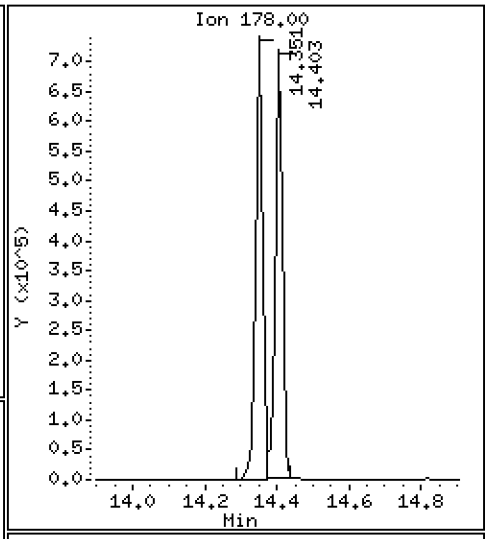
Column phase: Rxi-17Sil MS

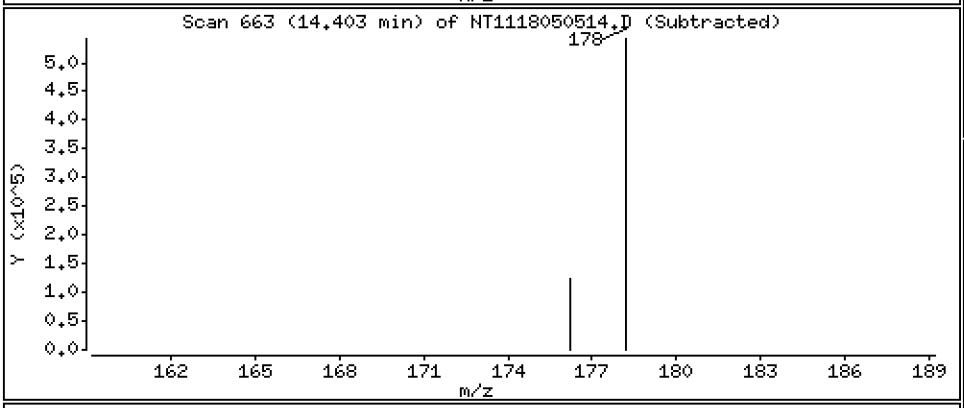
Column diameter: 0.25

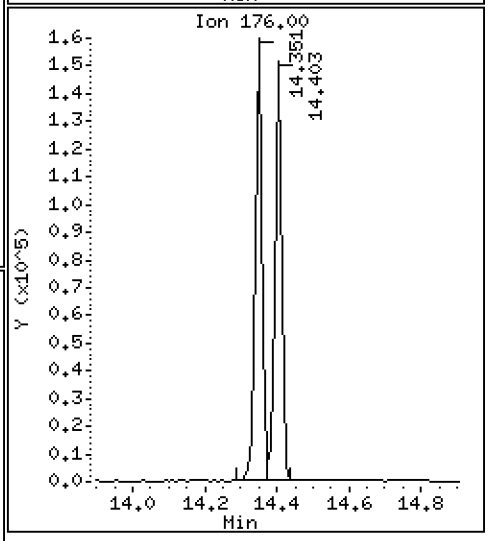
21 Anthracene

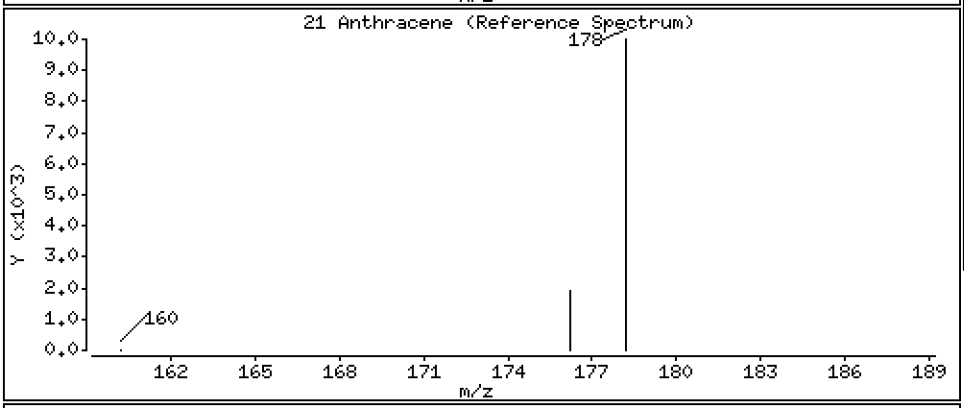
Concentration: 257 ng/mL

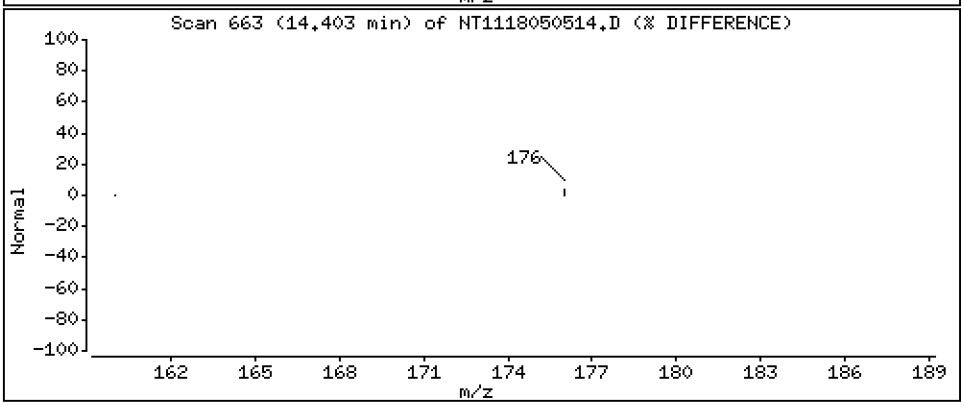












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Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

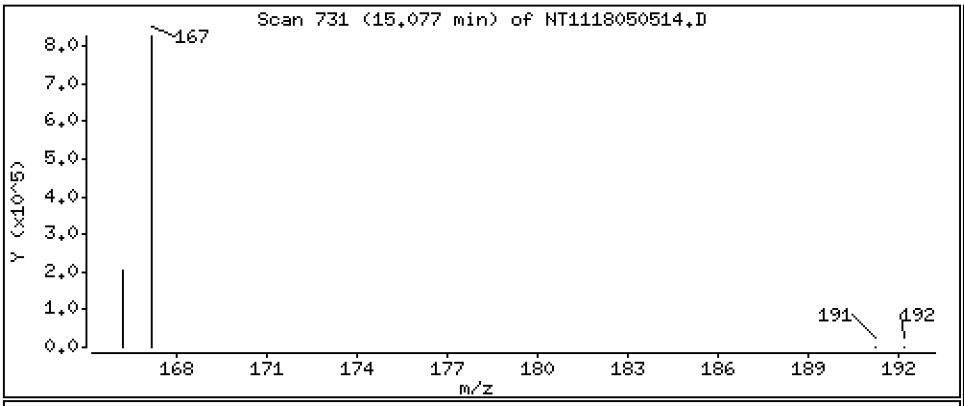
Operator: VTS

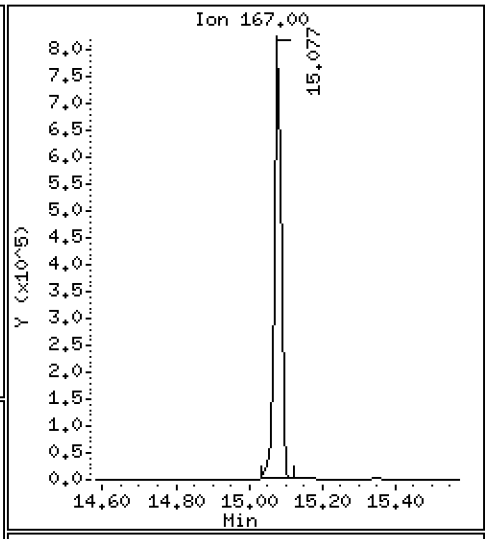
Column phase: Rxi-17Sil MS

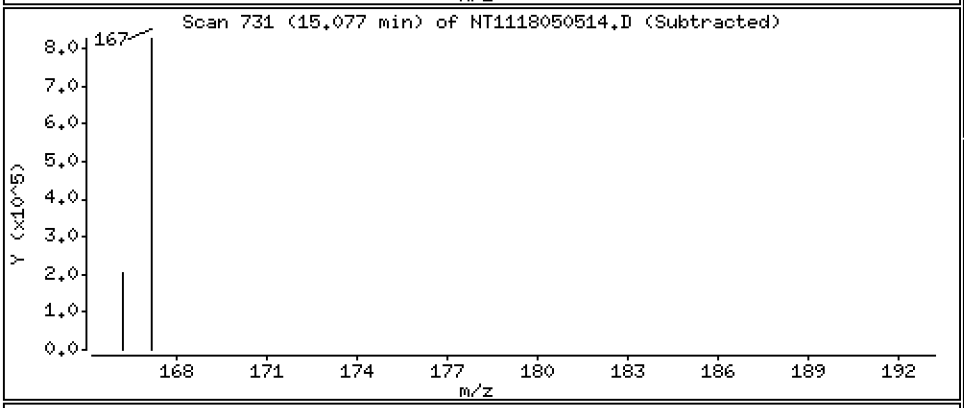
Column diameter: 0.25

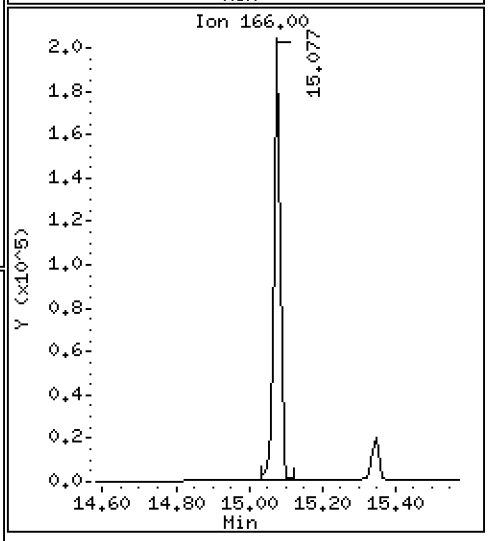
22 Carbazole

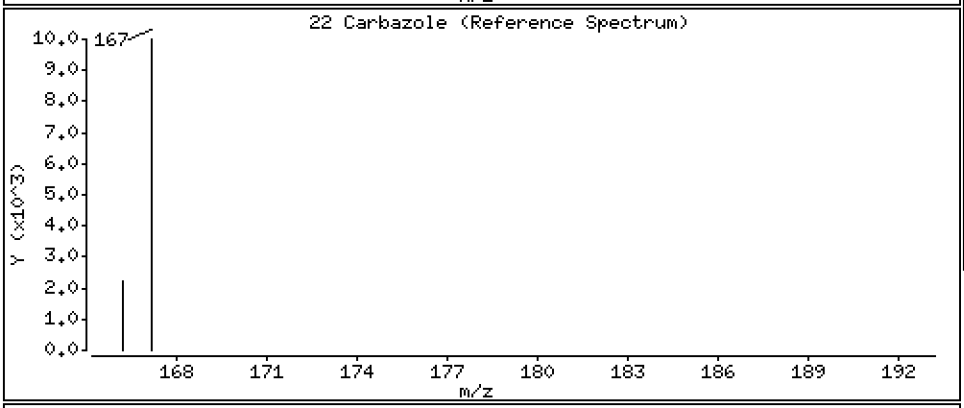
Concentration: 244 ng/mL

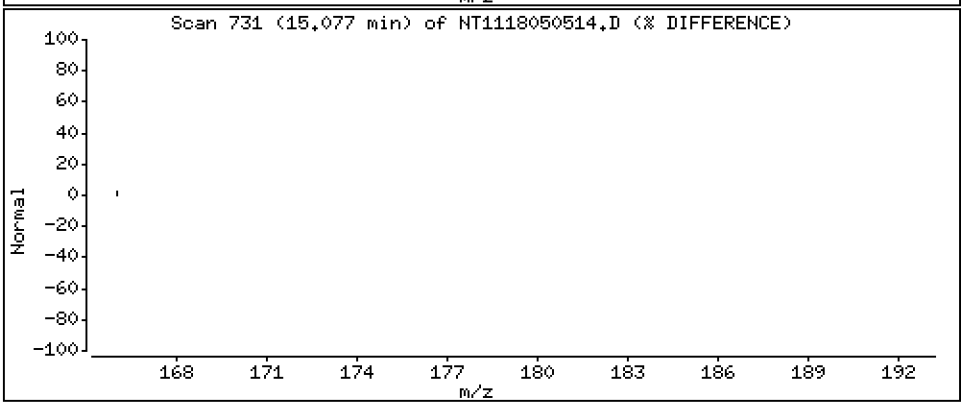












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Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

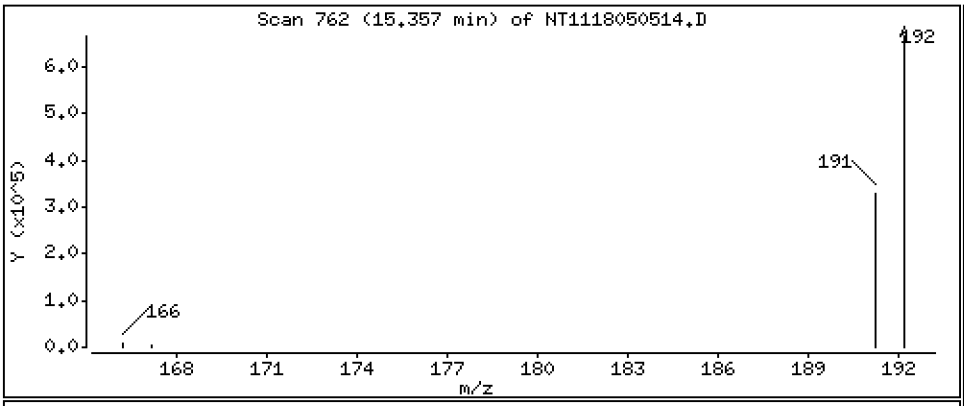
Operator: VTS

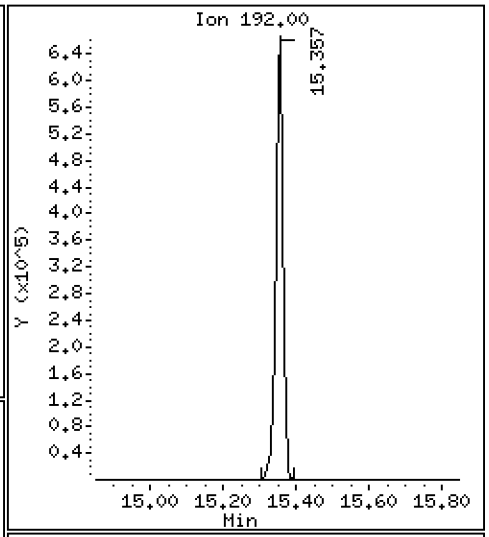
Column phase: Rxi-17Sil MS

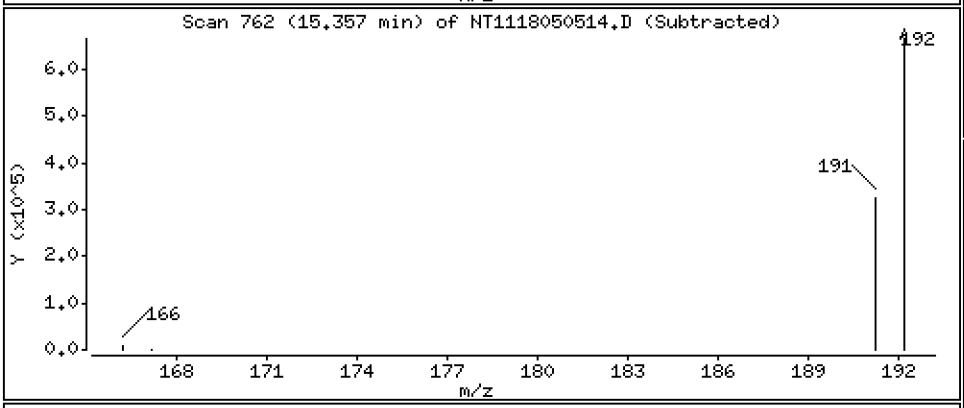
Column diameter: 0.25

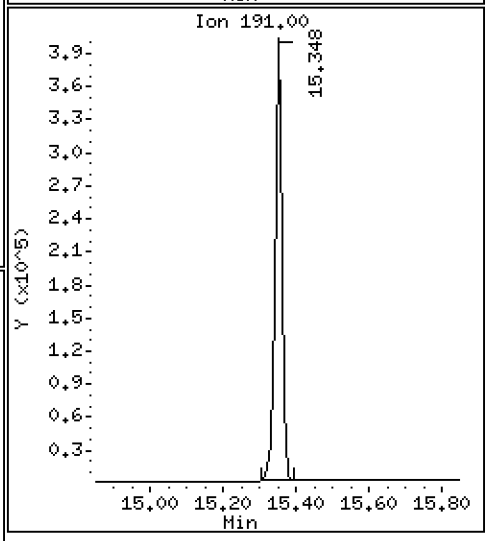
23 1-Methylphenanthrene

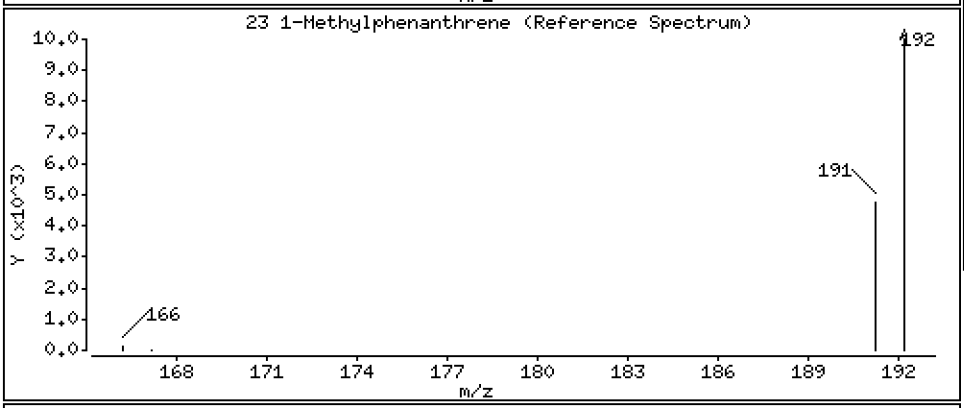
Concentration: 246 ng/mL

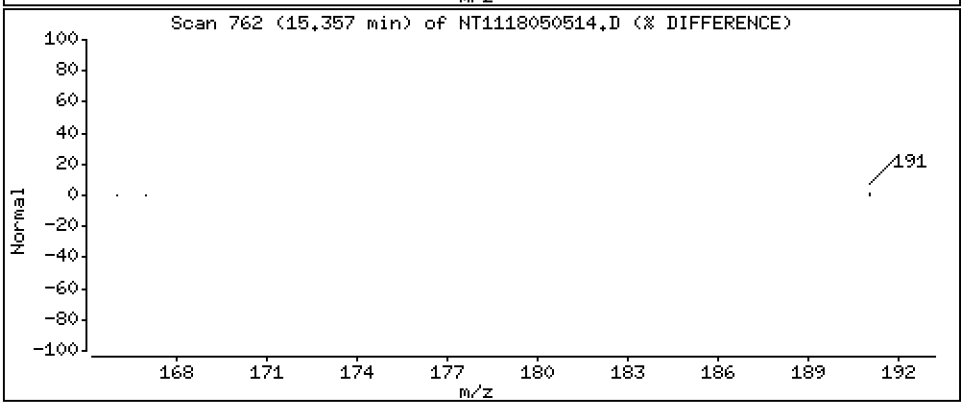












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Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

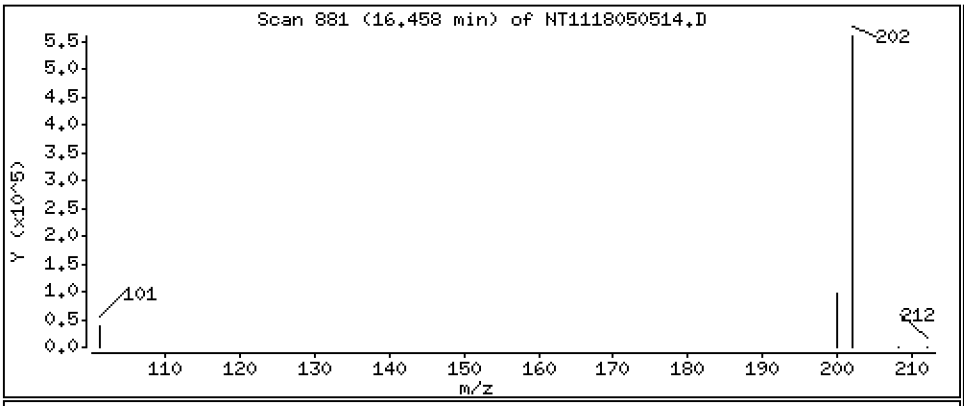
Operator: VTS

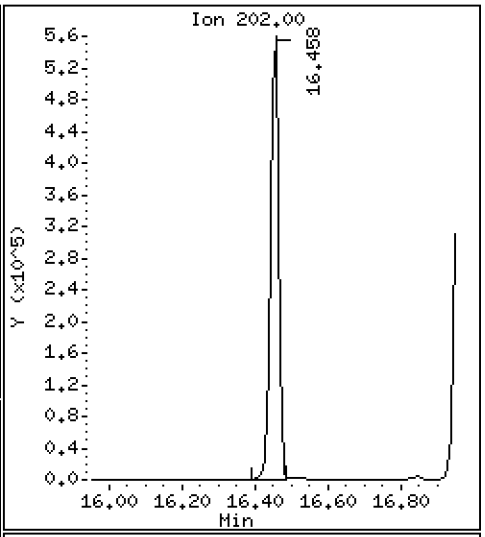
Column phase: Rxi-17Sil MS

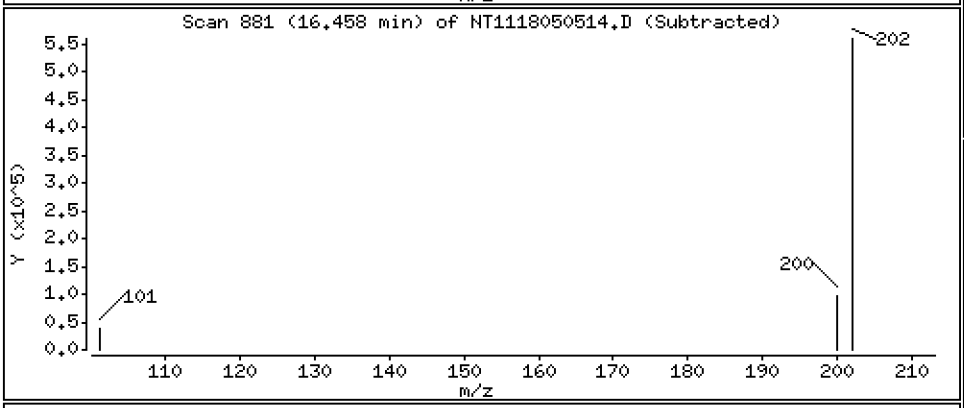
Column diameter: 0.25

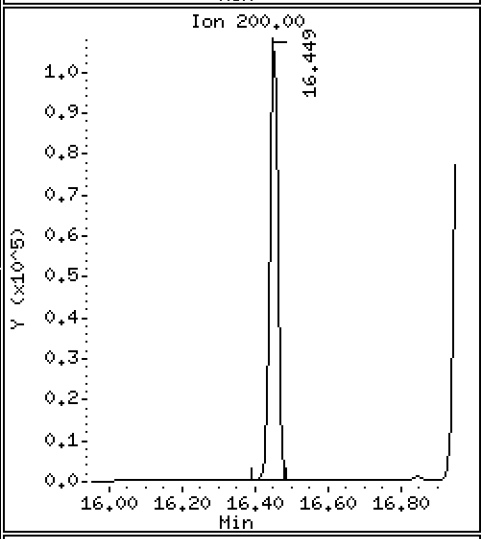
25 Fluoranthene

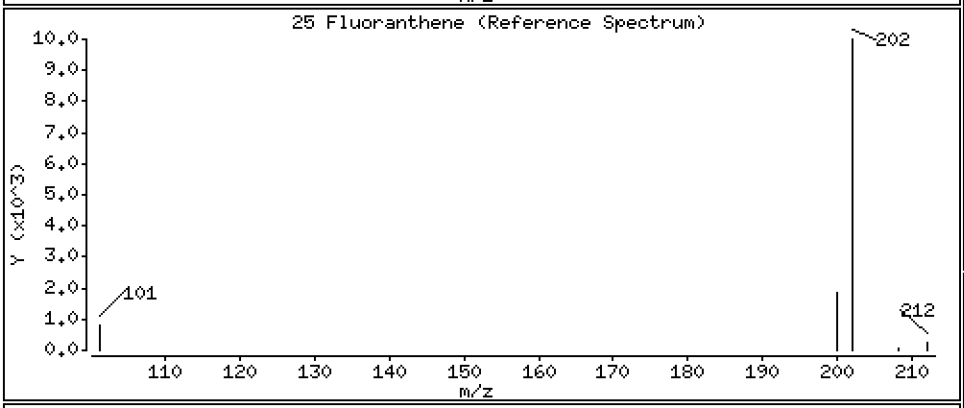
Concentration: 212 ng/mL

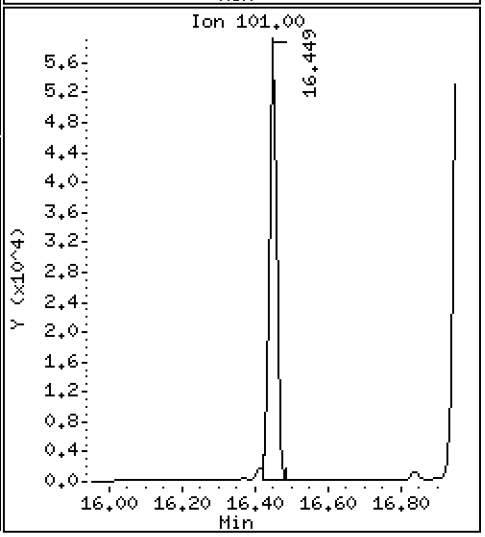


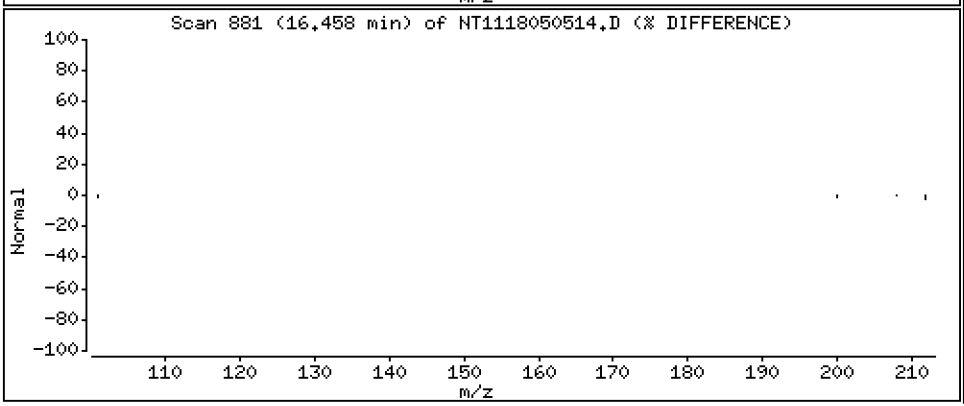












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Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

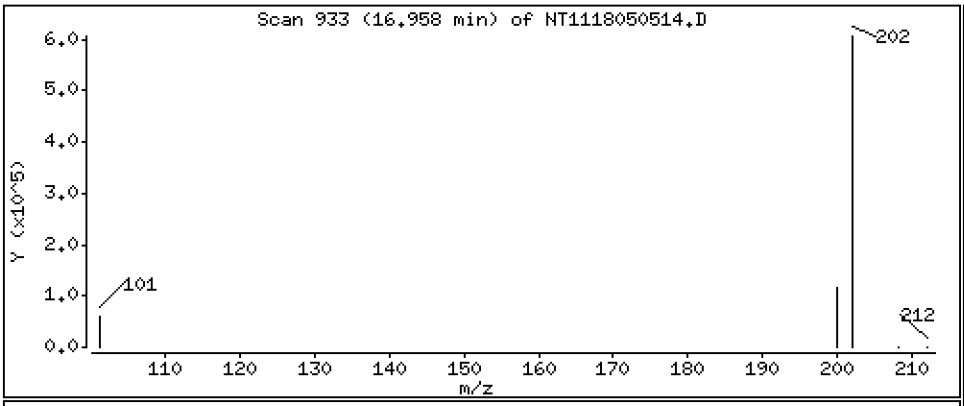
Operator: VTS

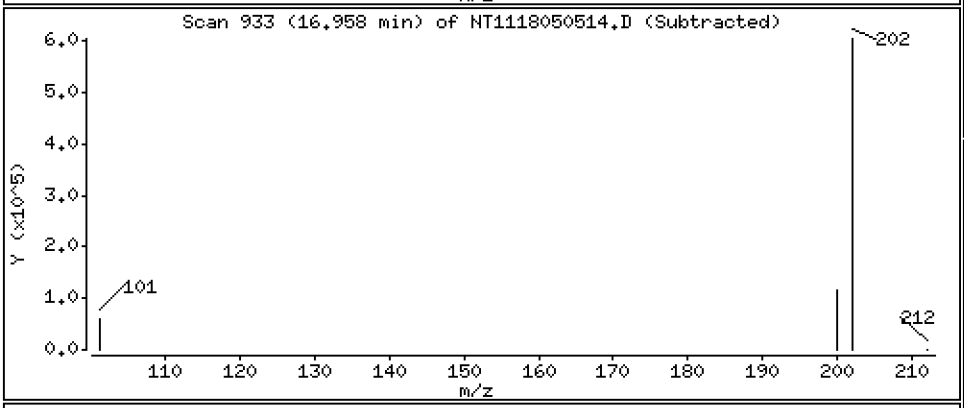
Column phase: Rxi-17Sil MS

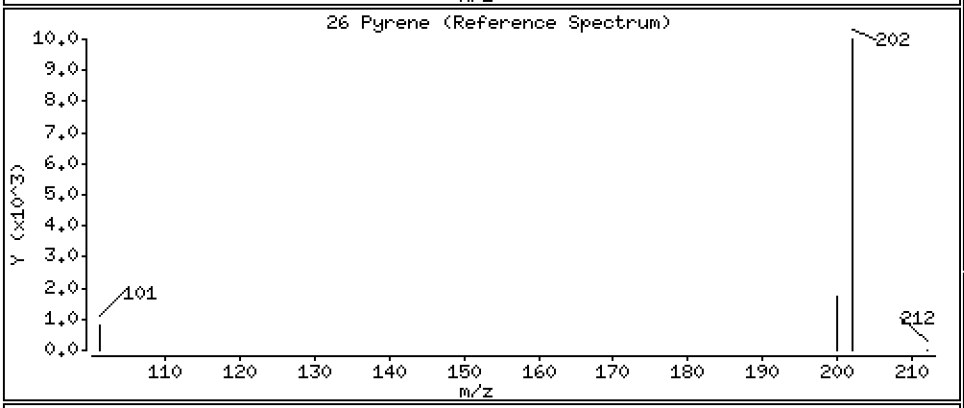
Column diameter: 0.25

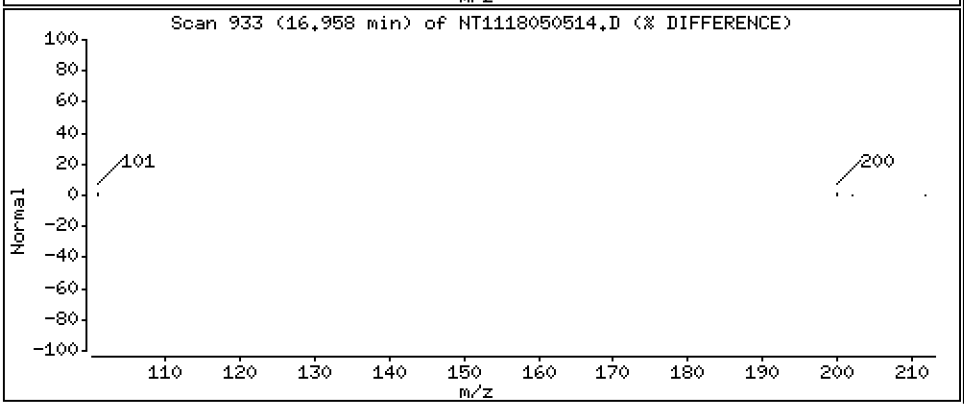
26 Pyrene

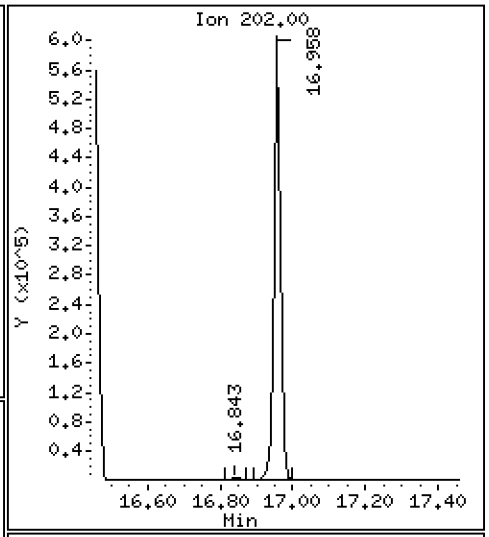
Concentration: 253 ng/mL

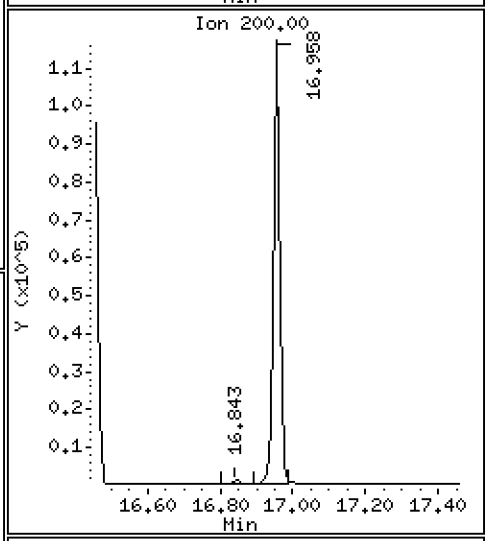


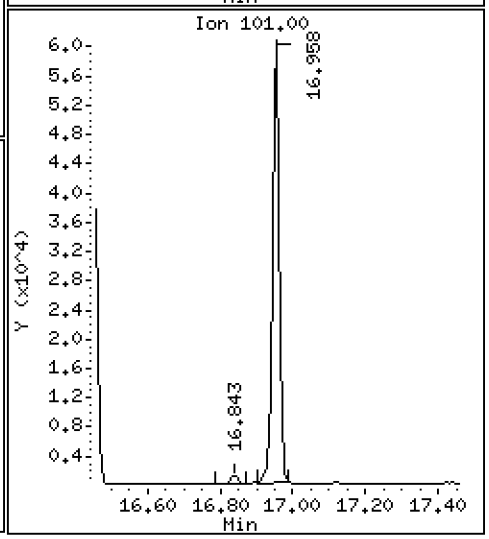












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Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

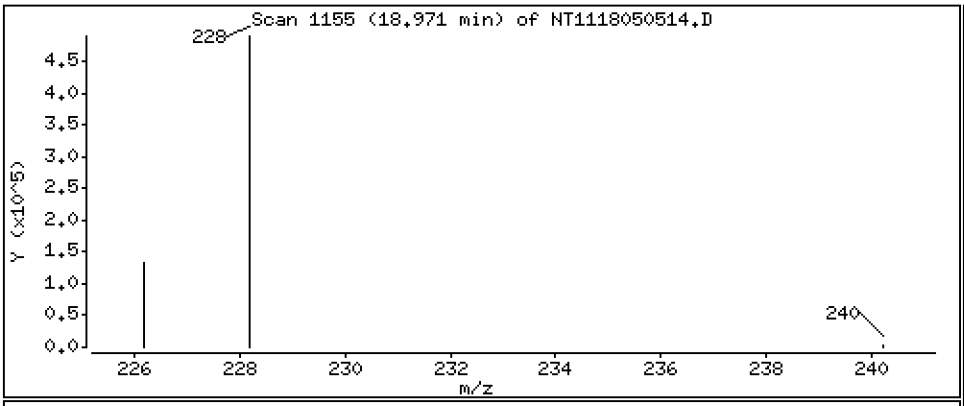
Operator: VTS

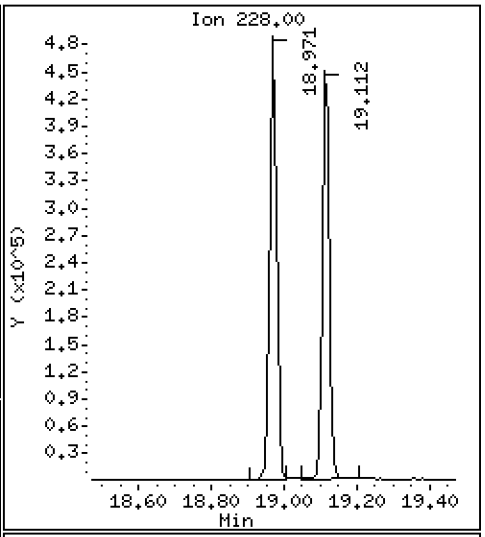
Column phase: Rxi-17Sil MS

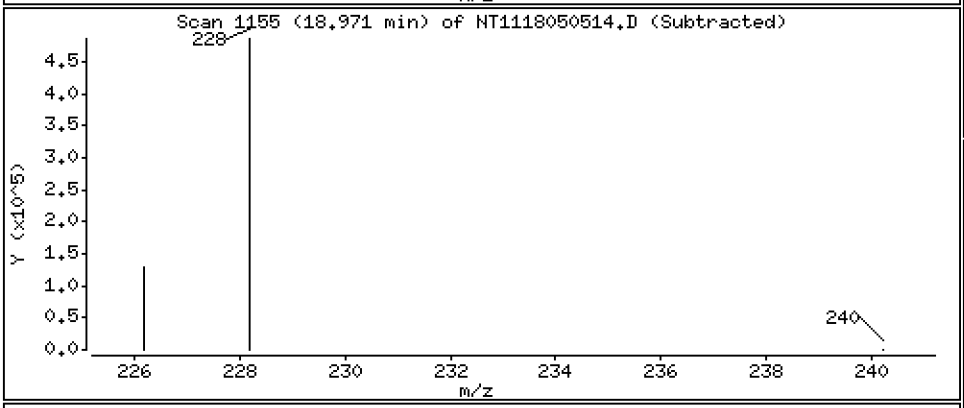
Column diameter: 0.25

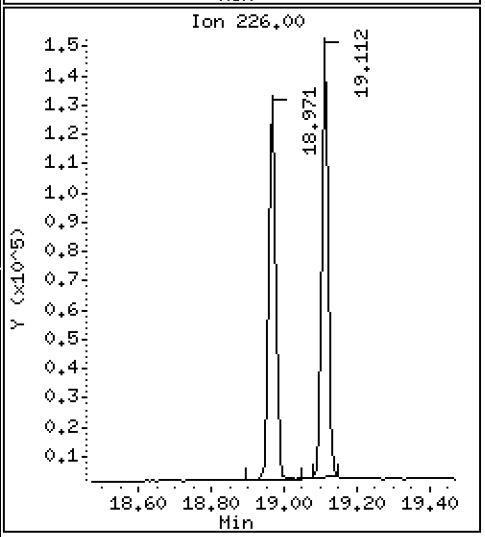
27 Benzo(a)anthracene

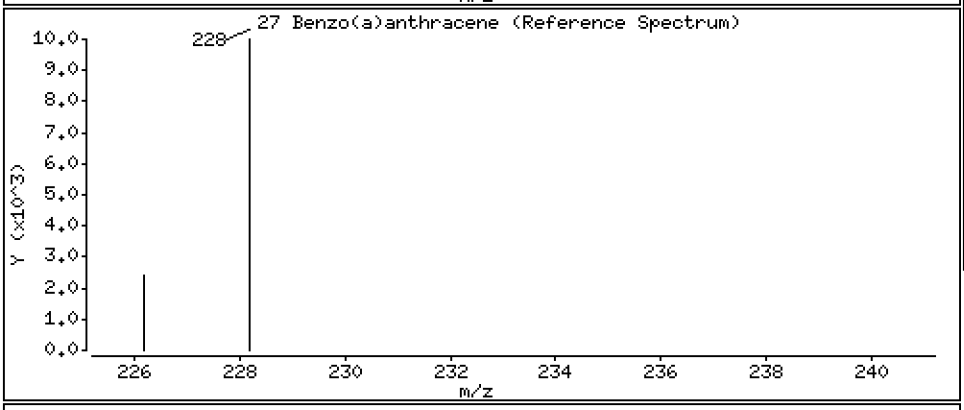
Concentration: 260 ng/mL

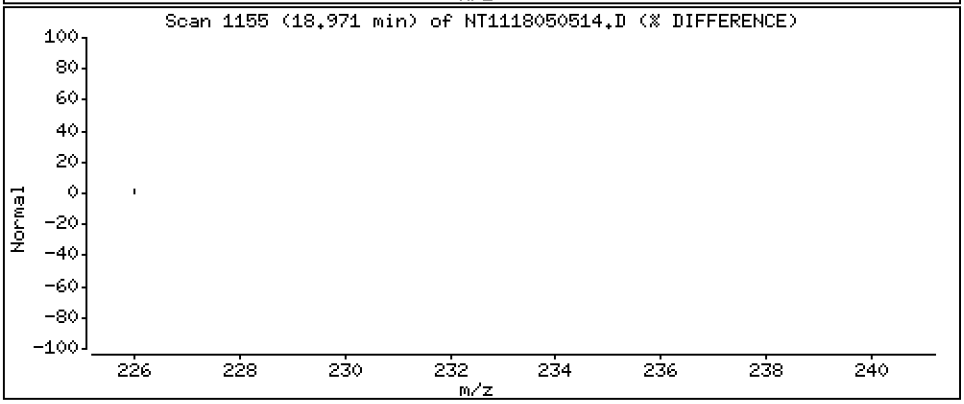












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Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

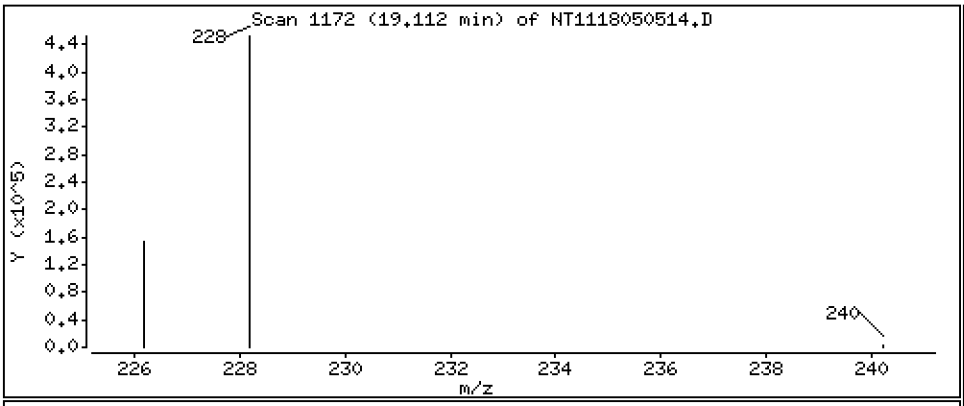
Operator: VTS

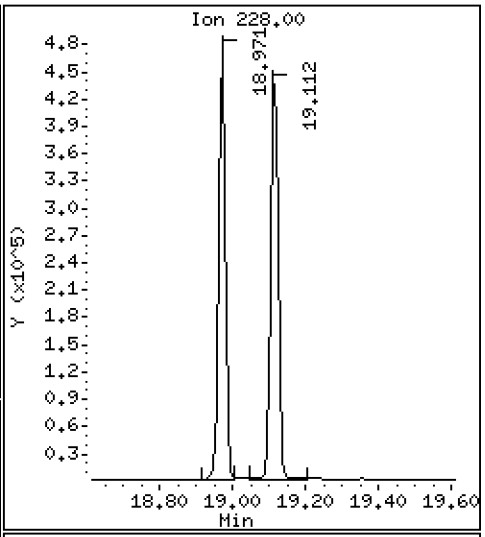
Column phase: Rxi-17Sil MS

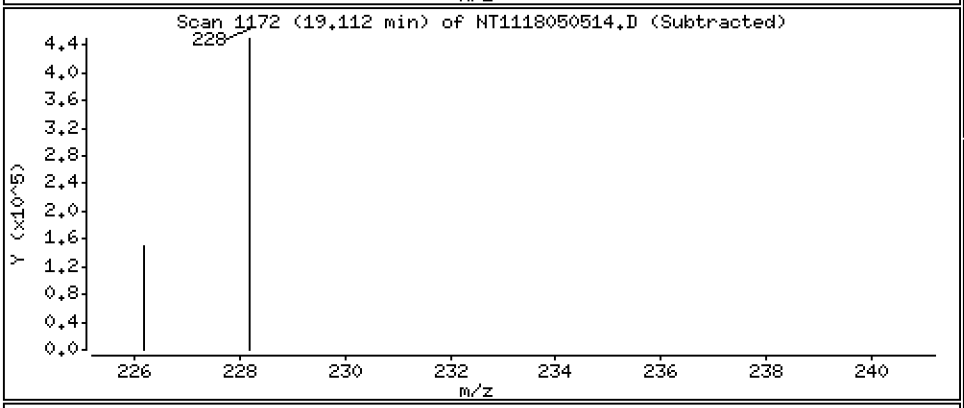
Column diameter: 0.25

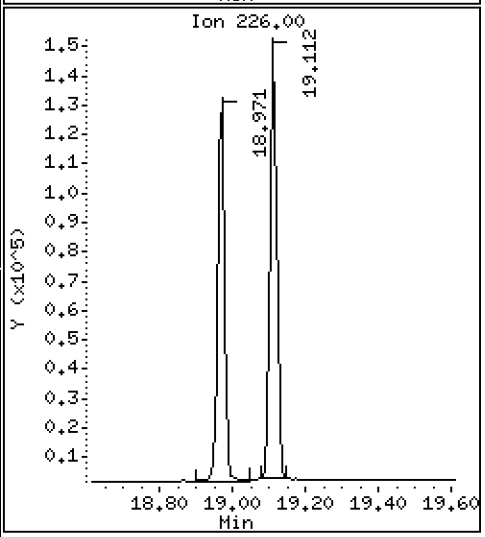
29 Chrysene

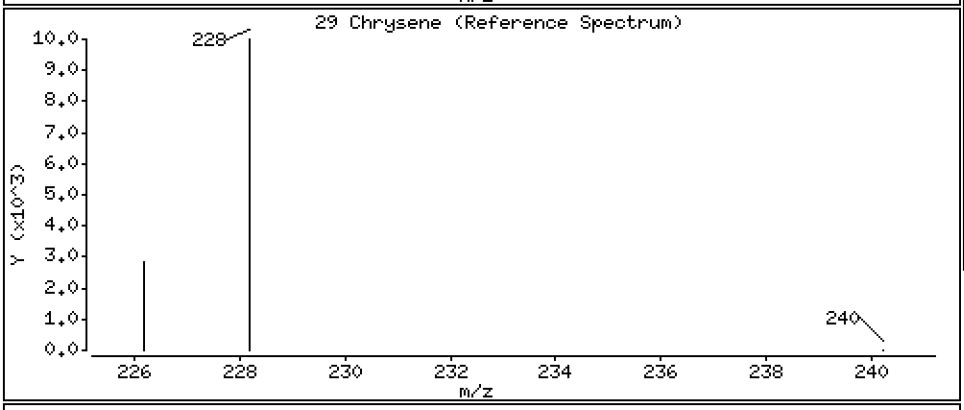
Concentration: 258 ng/mL

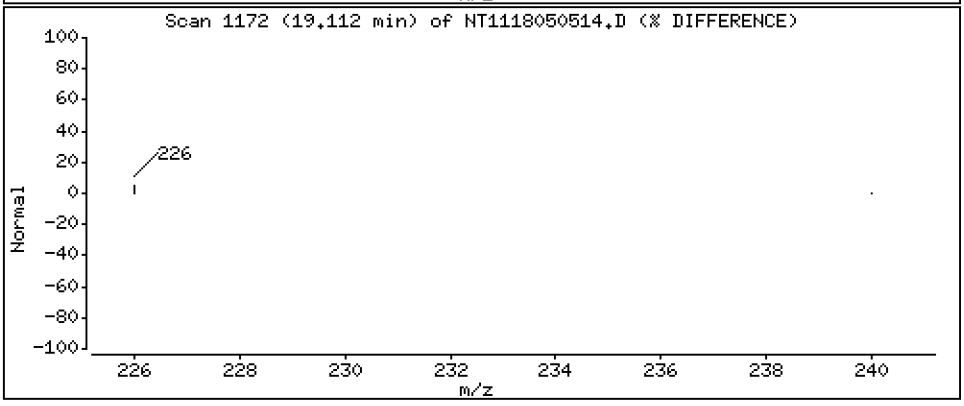












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Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

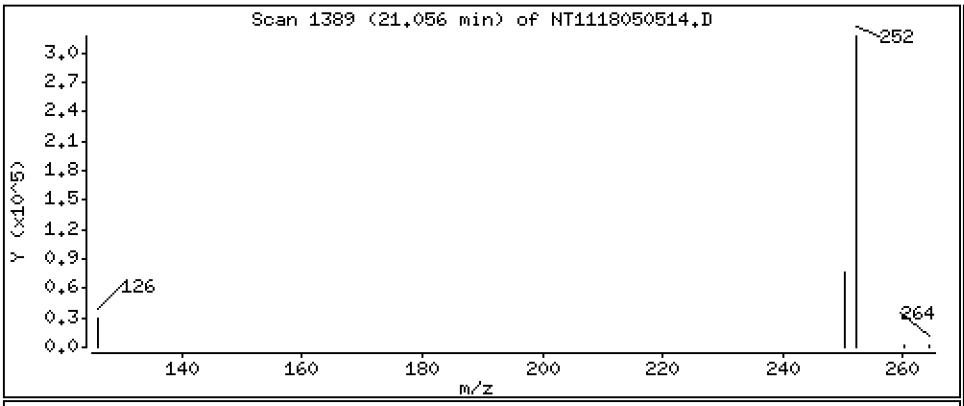
Operator: VTS

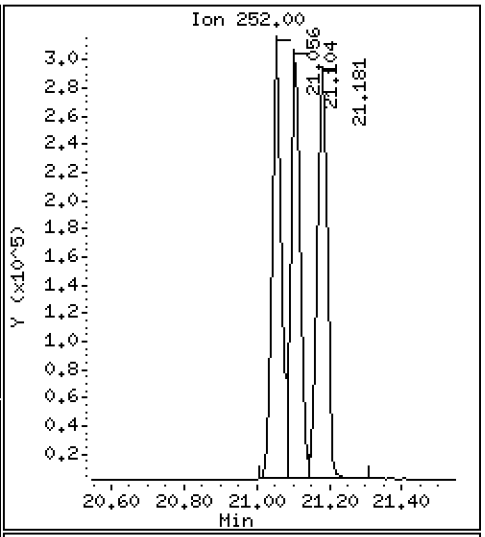
Column phase: Rxi-17Sil MS

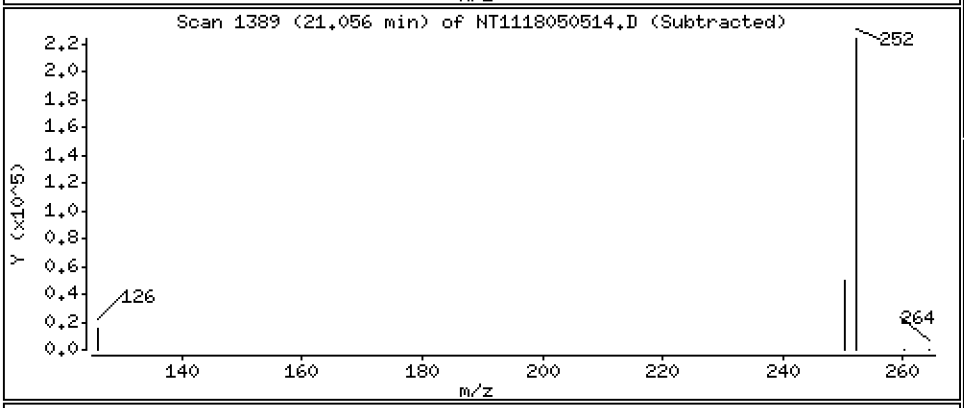
Column diameter: 0.25

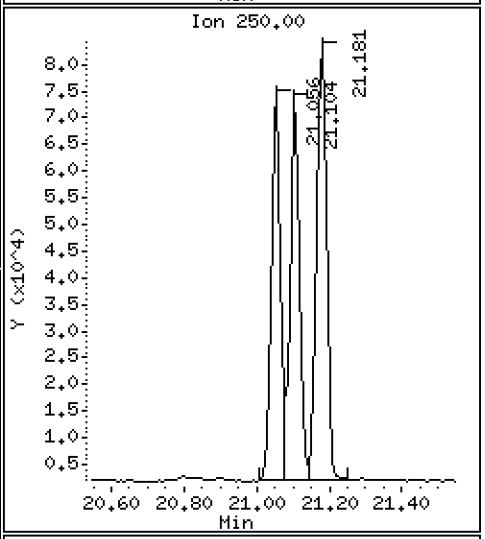
30 Benzo(b)fluoranthene

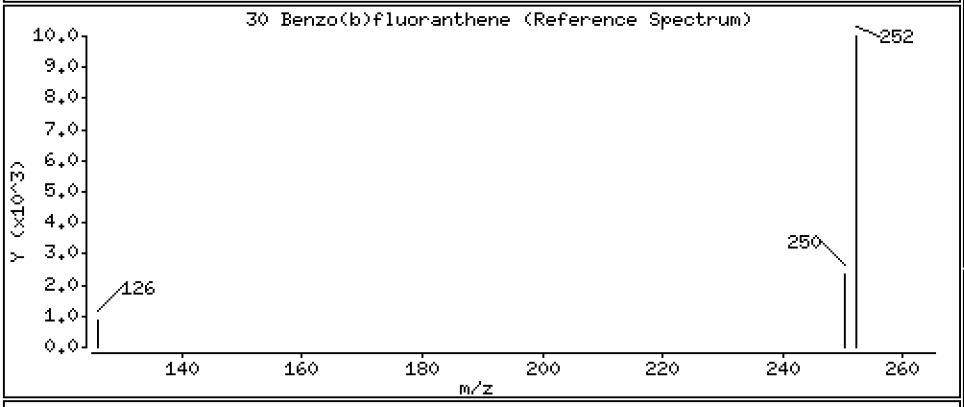
Concentration: 259 ng/mL

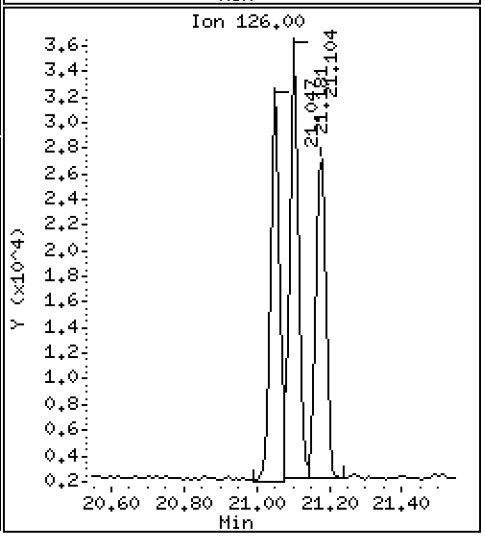


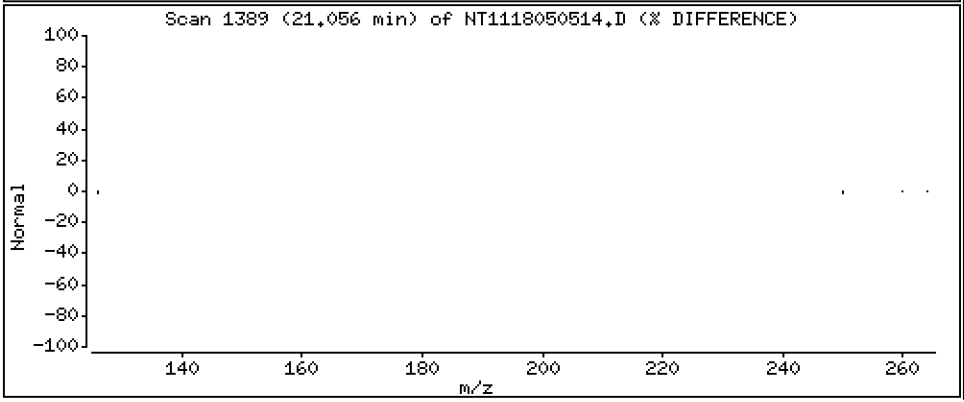












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Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

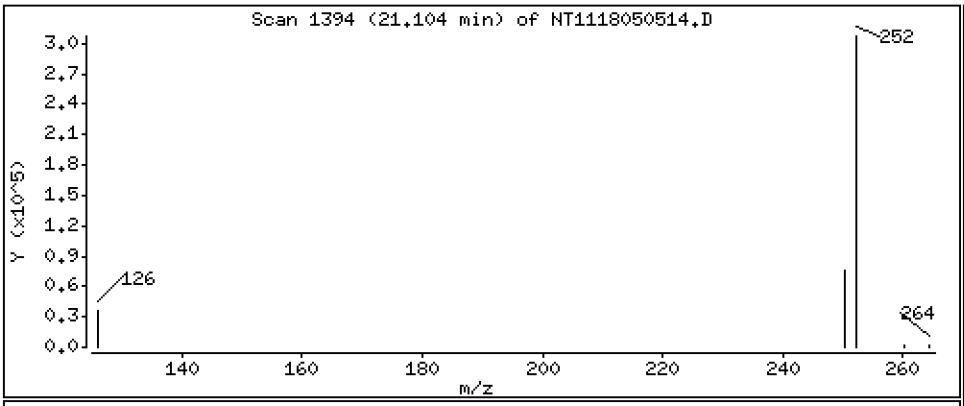
Operator: VTS

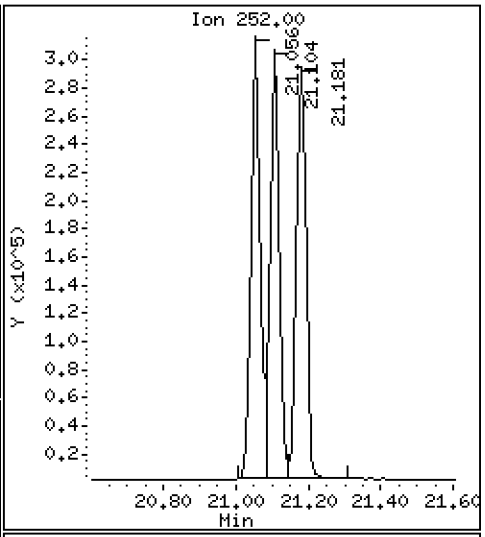
Column phase: Rxi-17Sil MS

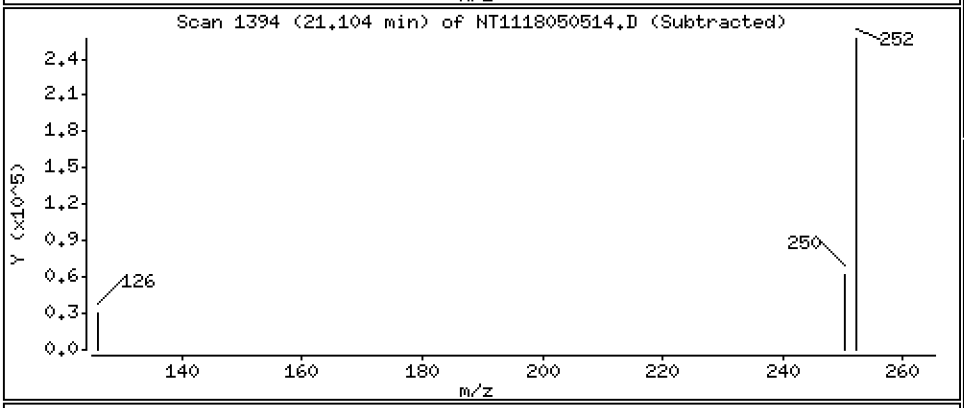
Column diameter: 0.25

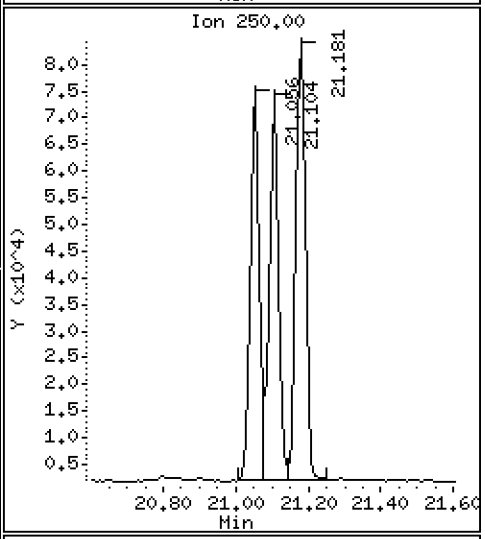
31 Benzo(k)fluoranthene

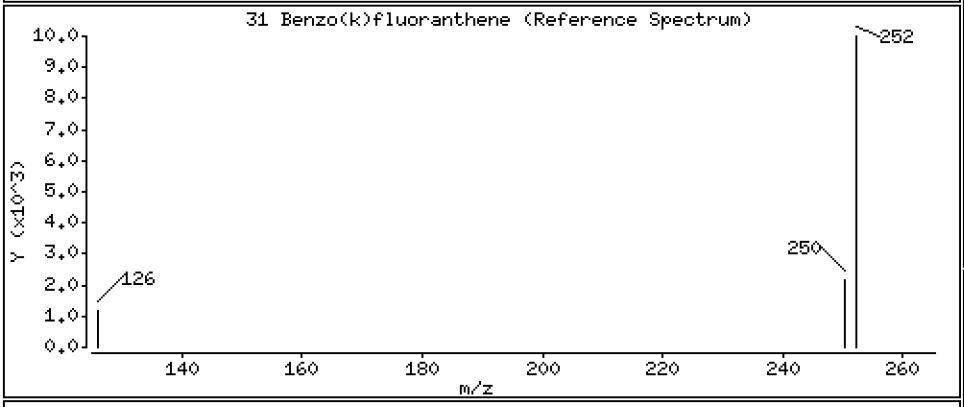
Concentration: 237 ng/mL

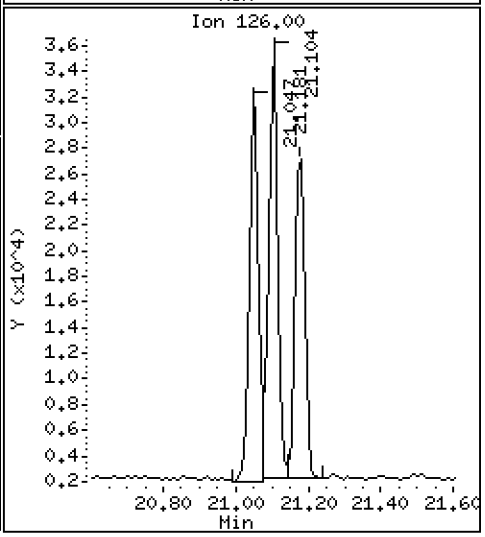


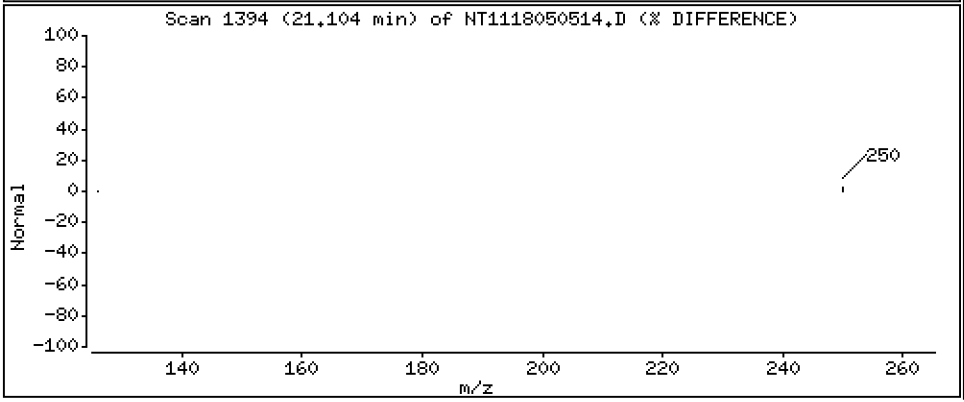












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Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

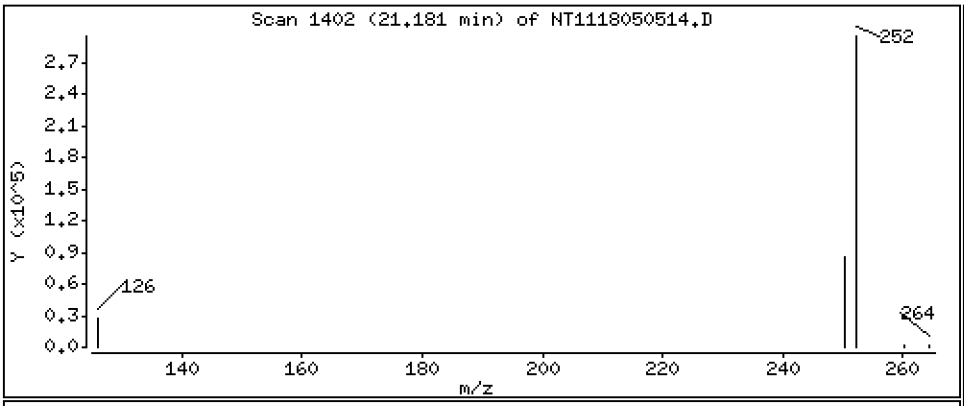
Operator: VTS

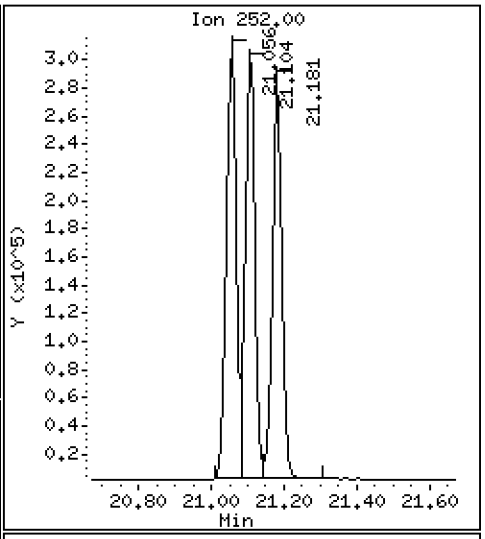
Column phase: Rxi-17Sil MS

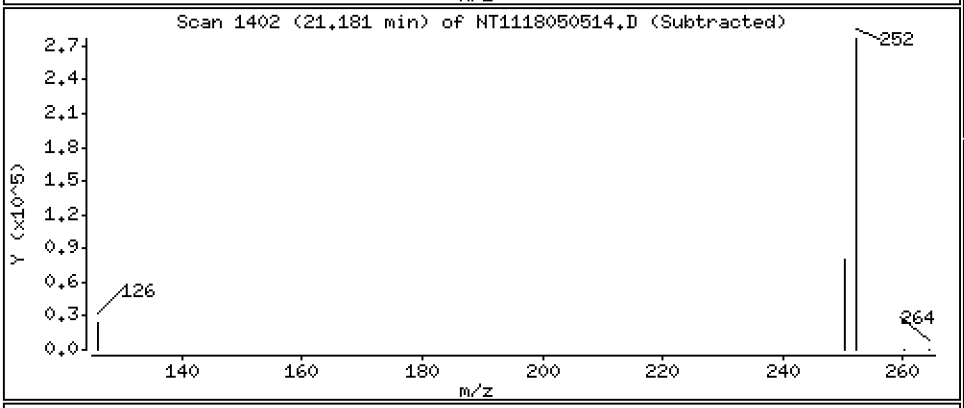
Column diameter: 0.25

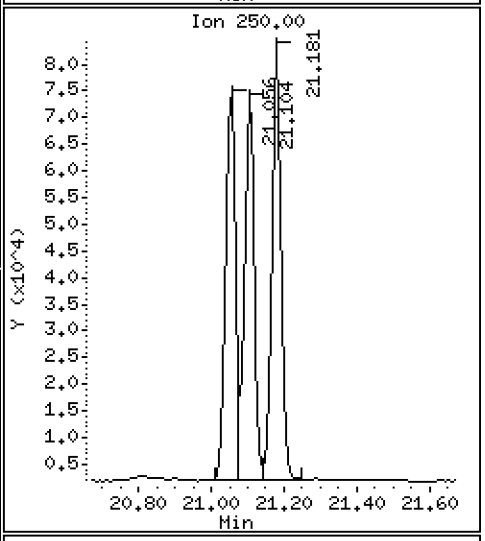
32 Benzo(j)fluoranthene

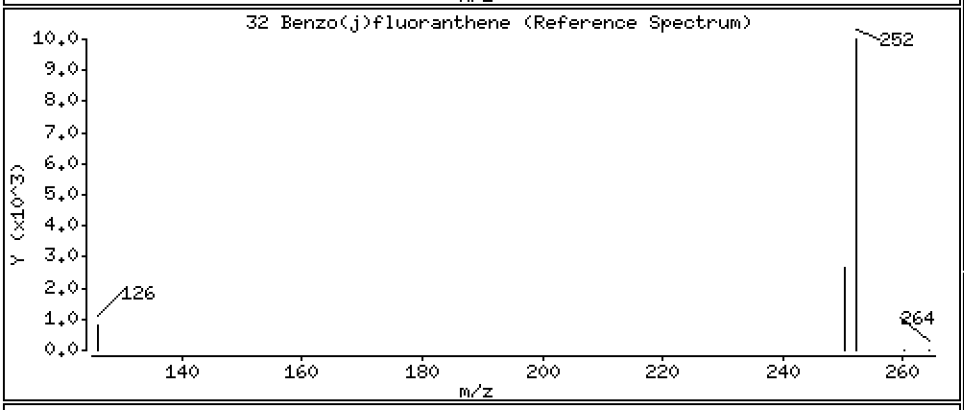
Concentration: 245 ng/mL

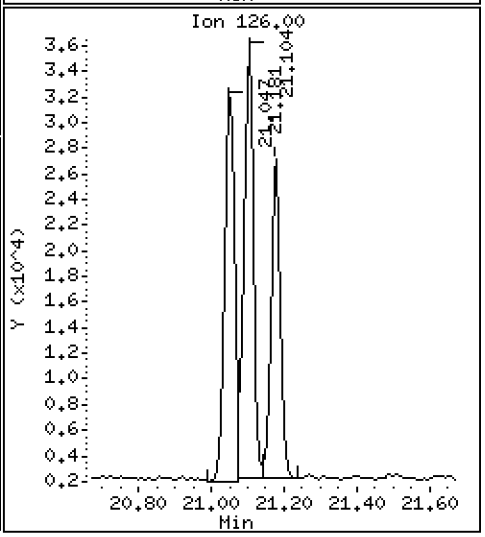


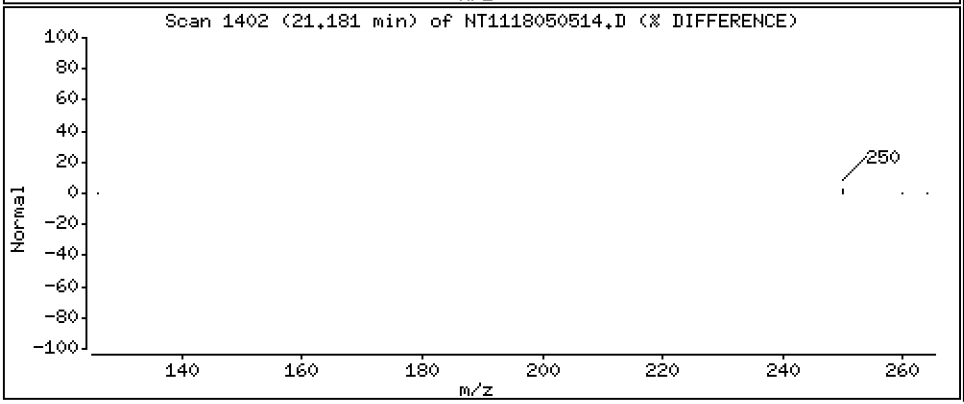












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Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

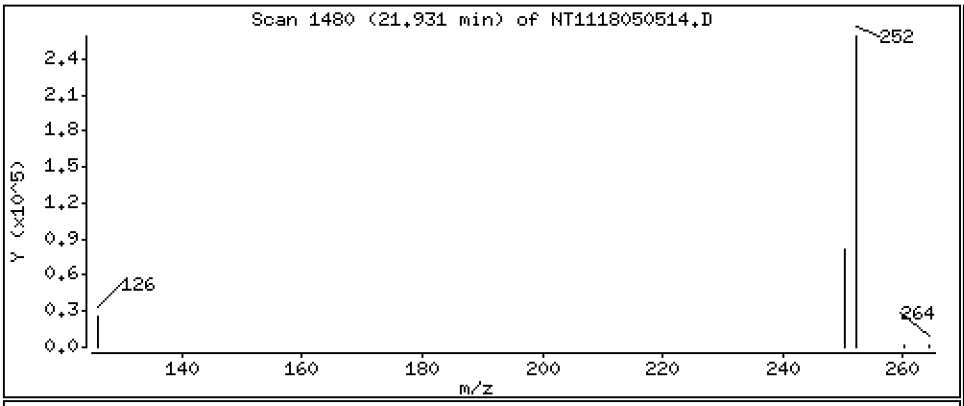
Operator: VTS

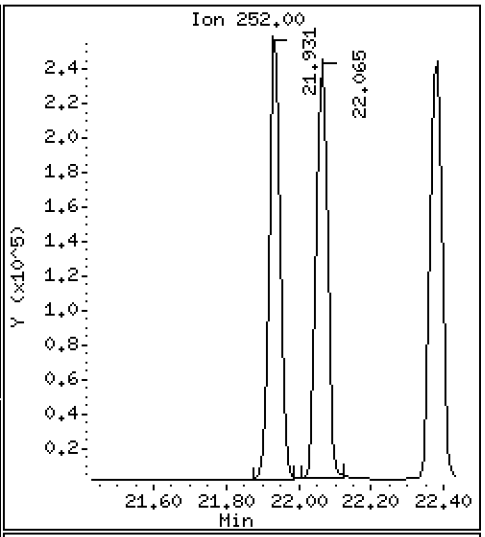
Column phase: Rxi-17Sil MS

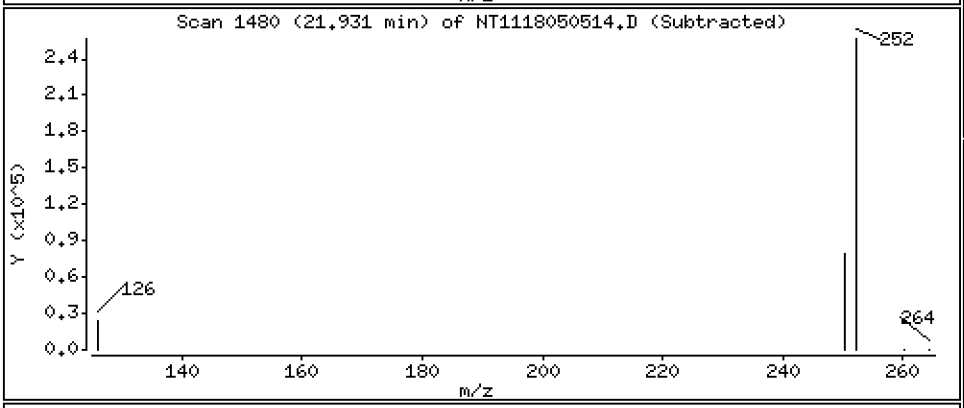
Column diameter: 0.25

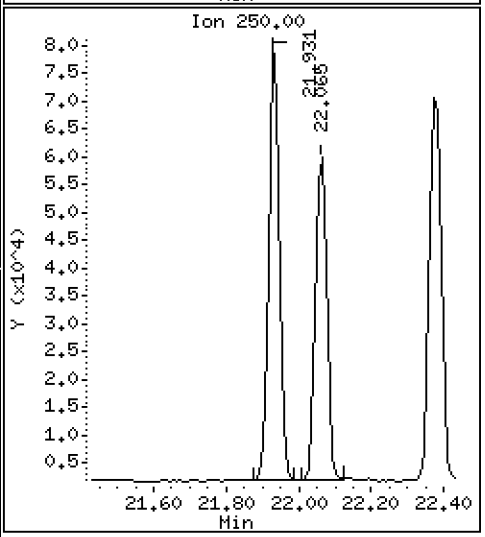
34 Benzo(e)pyrene

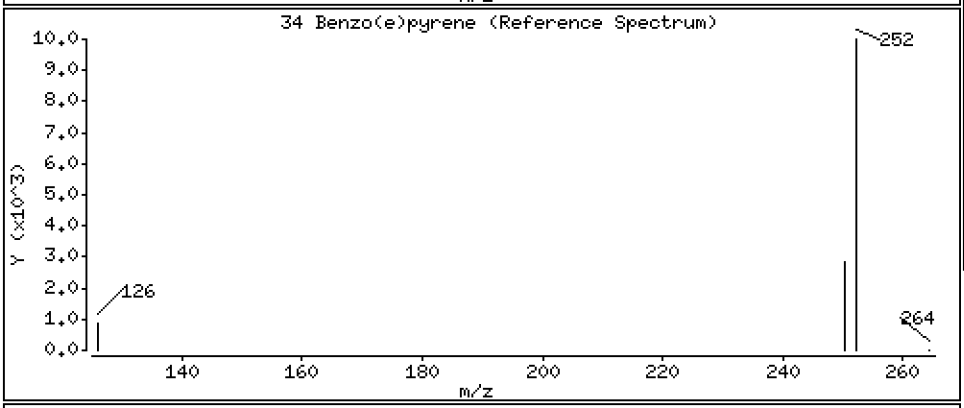
Concentration: 245 ng/mL

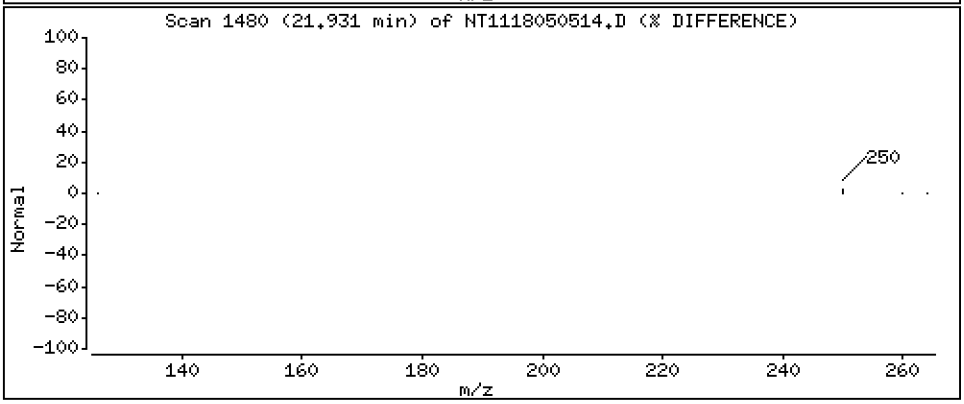












Data File: \\target\share\chem3\nt11.i\20180505.b\NT1118050514.D

Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

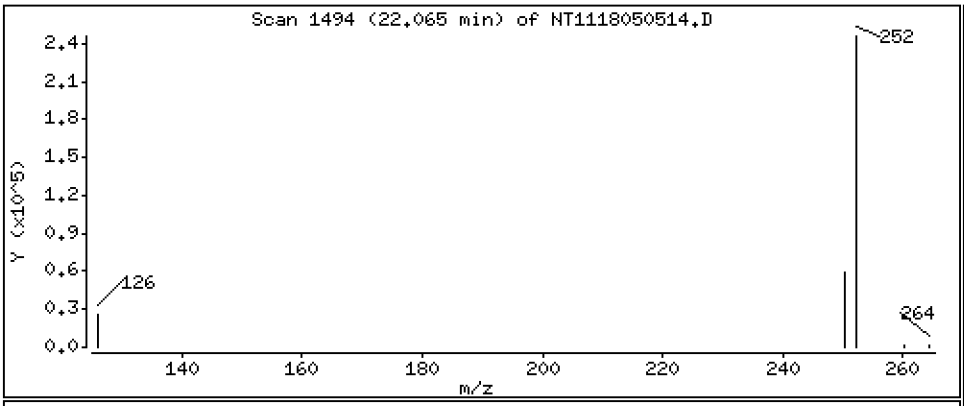
Operator: VTS

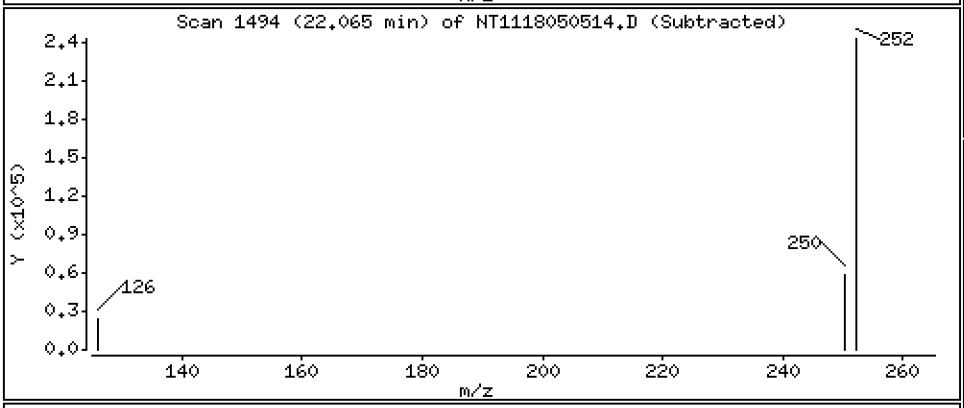
Column phase: Rxi-17Sil MS

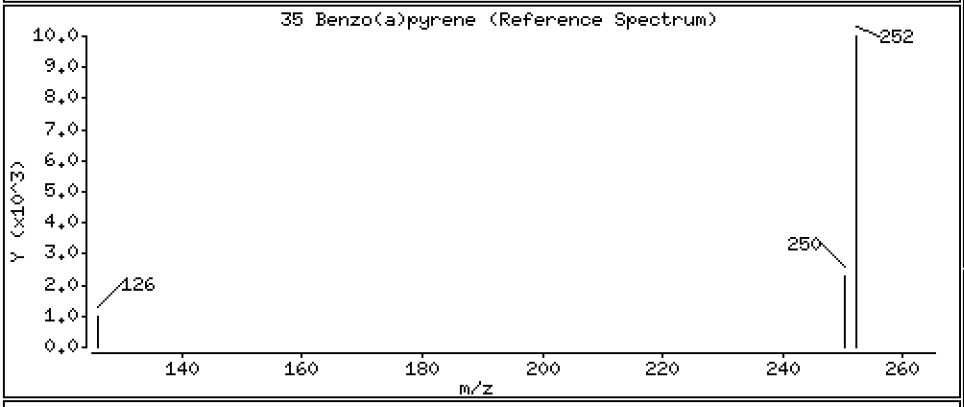
Column diameter: 0.25

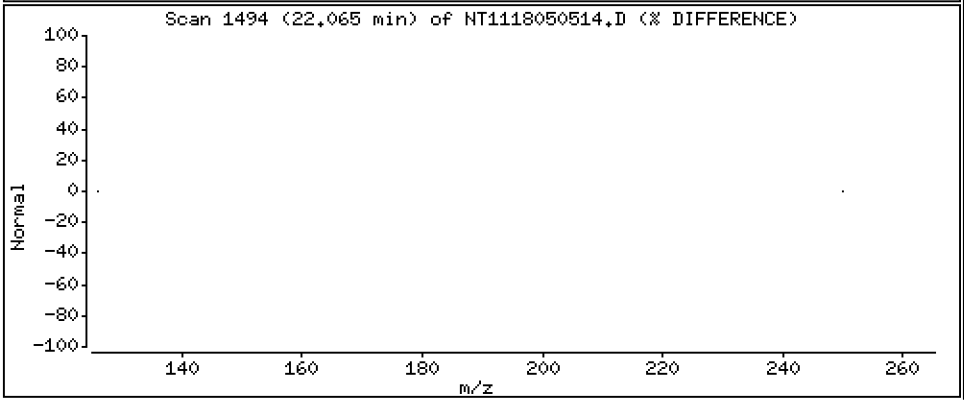
35 Benzo(a)pyrene

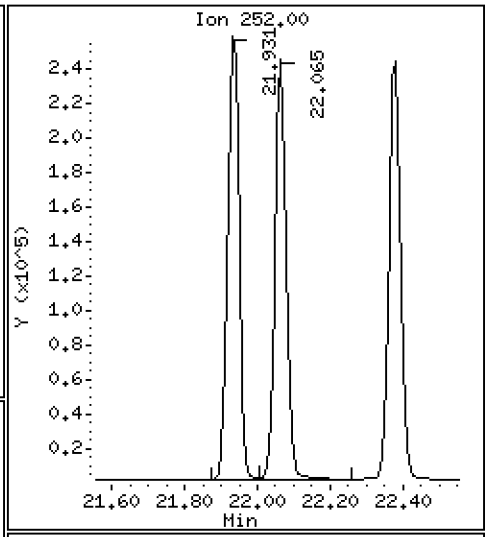
Concentration: 255 ng/mL

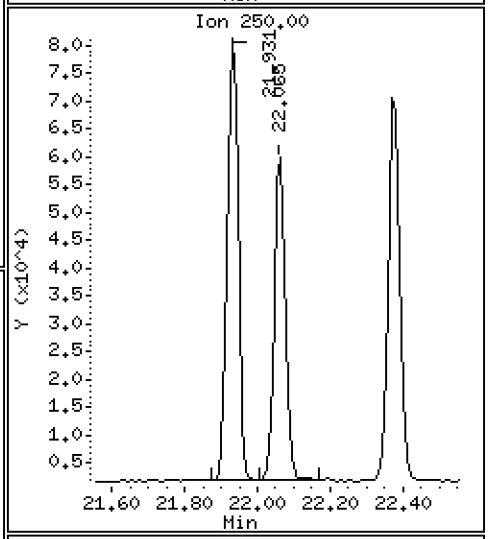


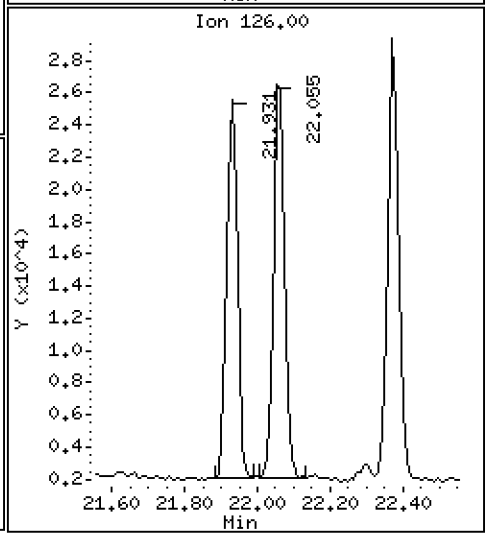












Data File: \\target\share\chem3\nt11.i\20180505.b\NT1118050514.D

Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

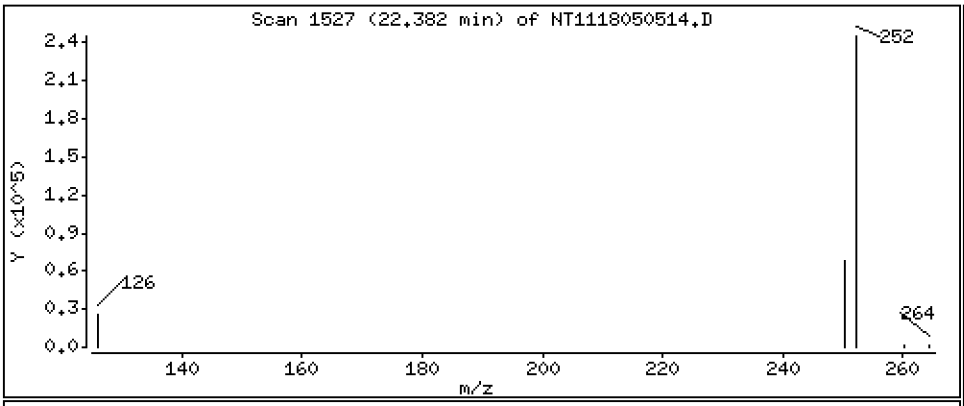
Operator: VTS

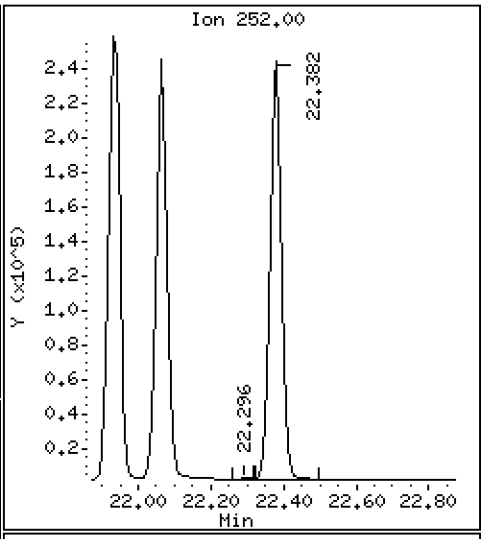
Column phase: Rxi-17Sil MS

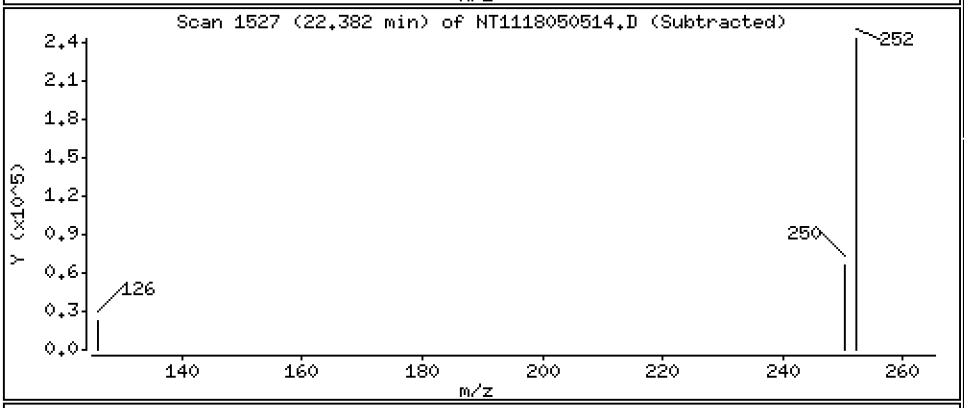
Column diameter: 0.25

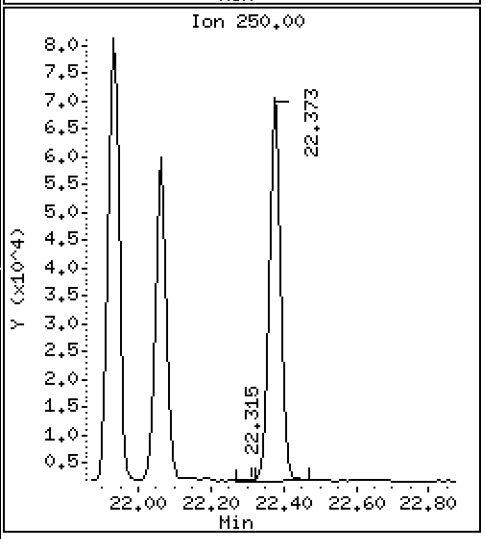
37 Perylene

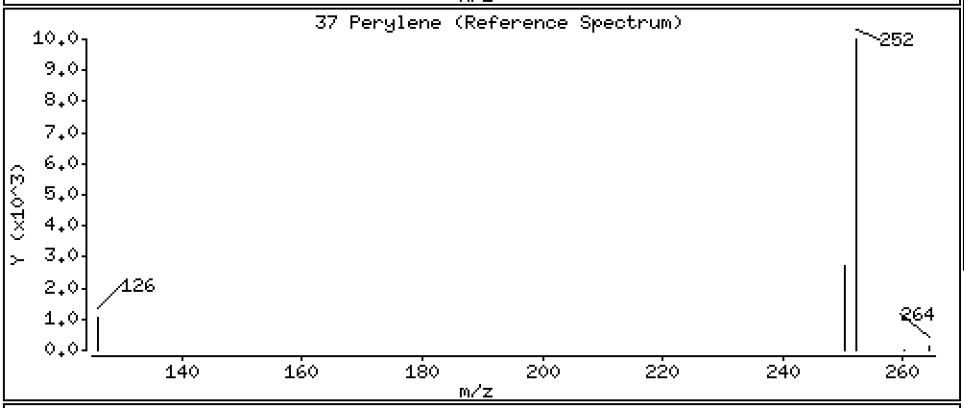
Concentration: 255 ng/mL

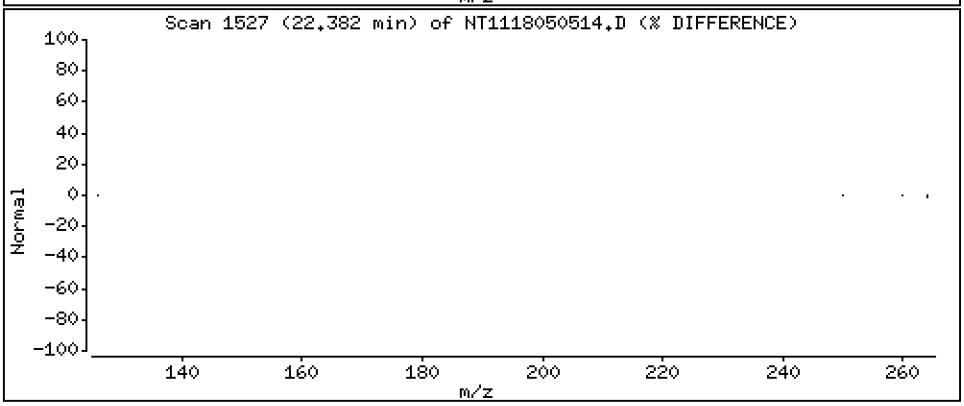












Data File: \\target\share\chem3\nt11.i\20180505.b\NT1118050514.D

Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

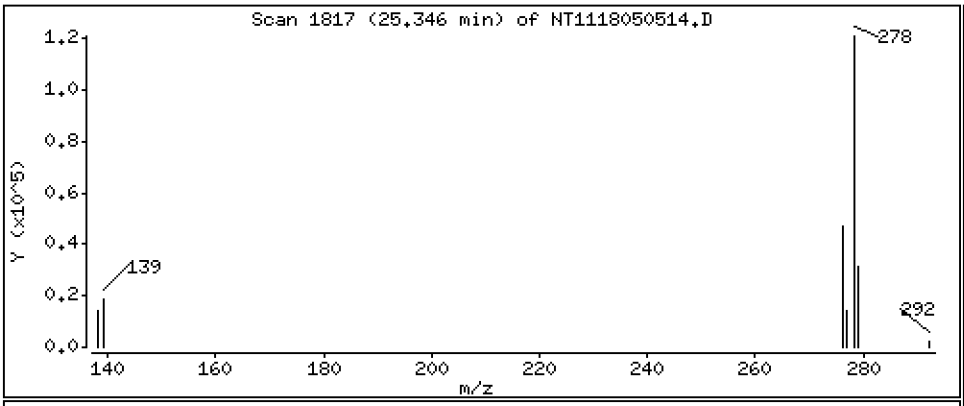
Operator: VTS

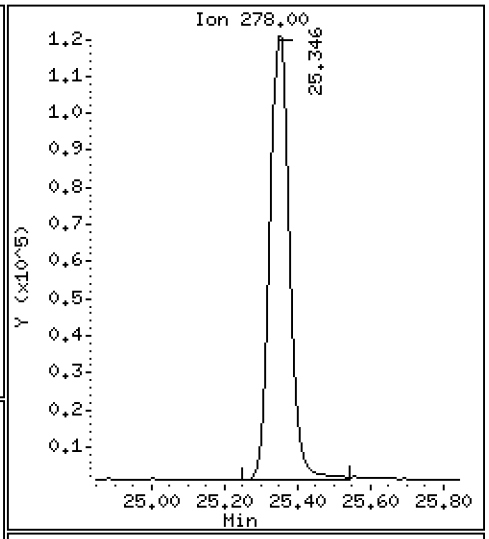
Column phase: Rxi-17Sil MS

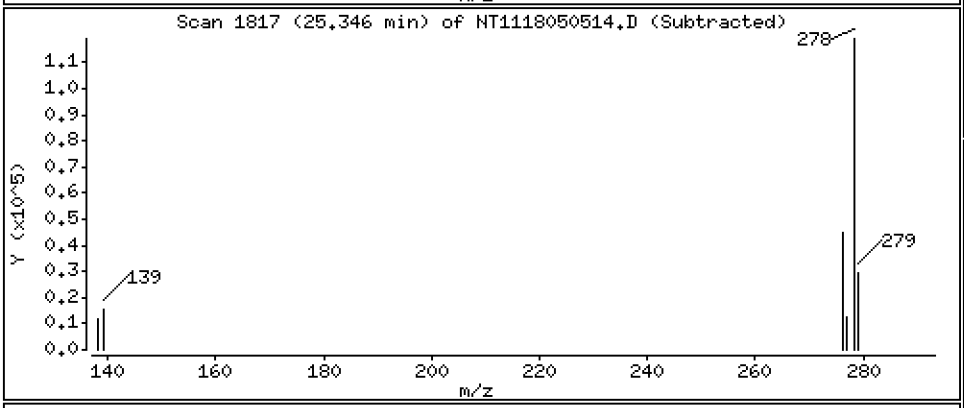
Column diameter: 0.25

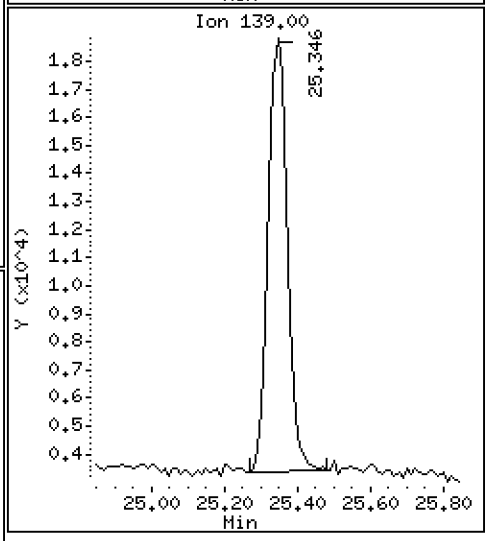
39 Dibenzo(a,h)anthracene

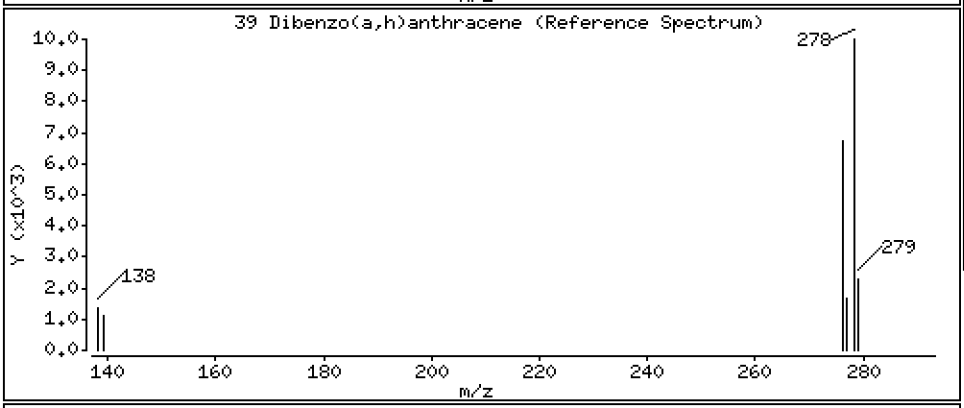
Concentration: 250 ng/mL

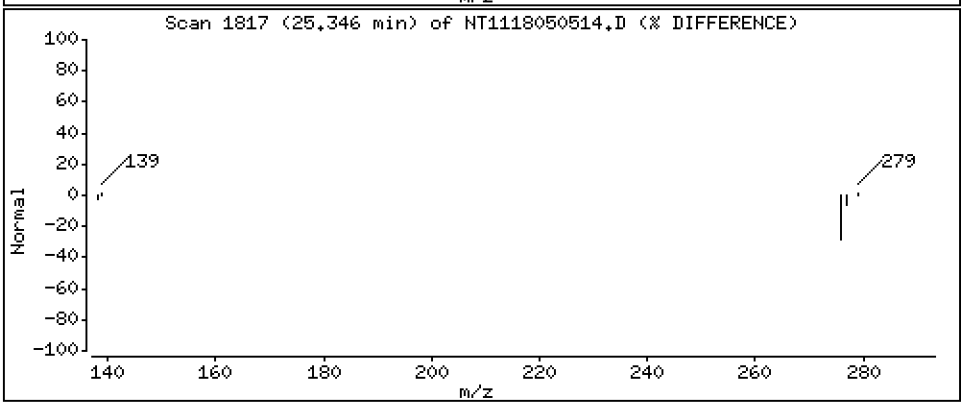












Data File: \\target\share\chem3\nt11.i\20180505.b\NT1118050514.D

Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

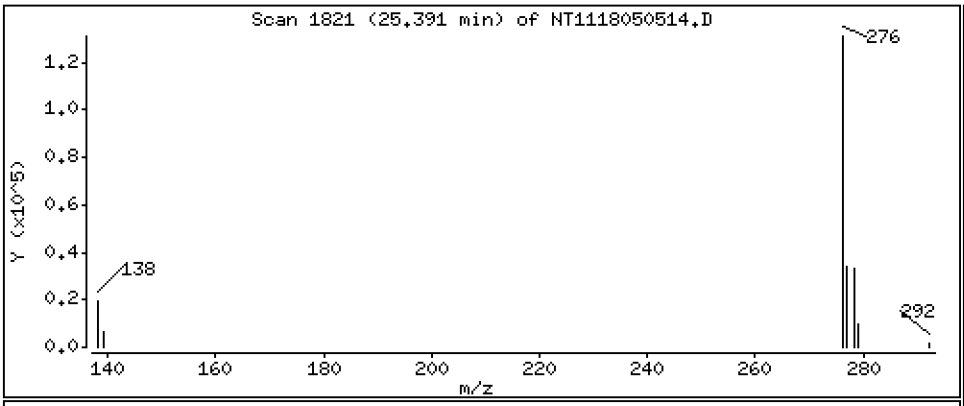
Operator: VTS

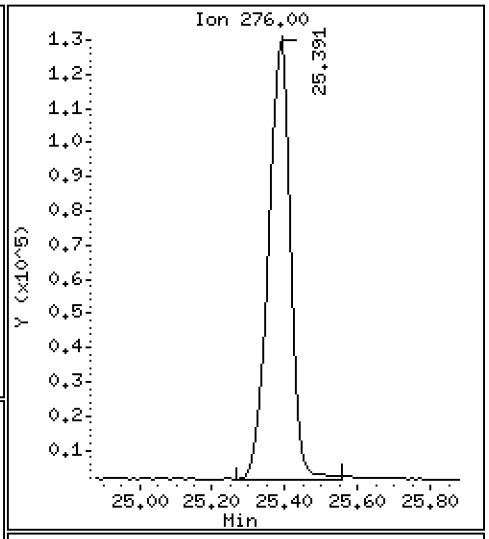
Column phase: Rxi-17Sil MS

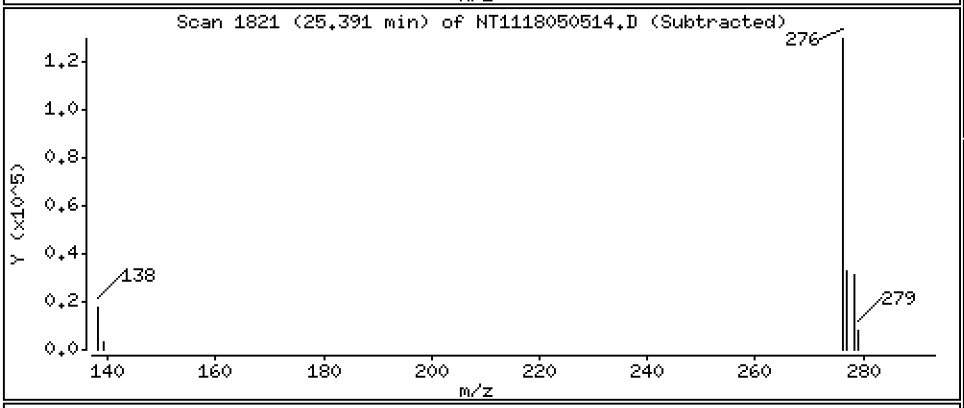
Column diameter: 0.25

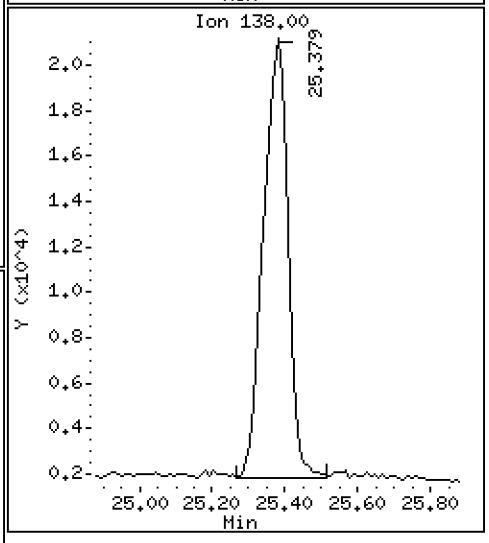
40 Indeno(1,2,3-cd)pyrene

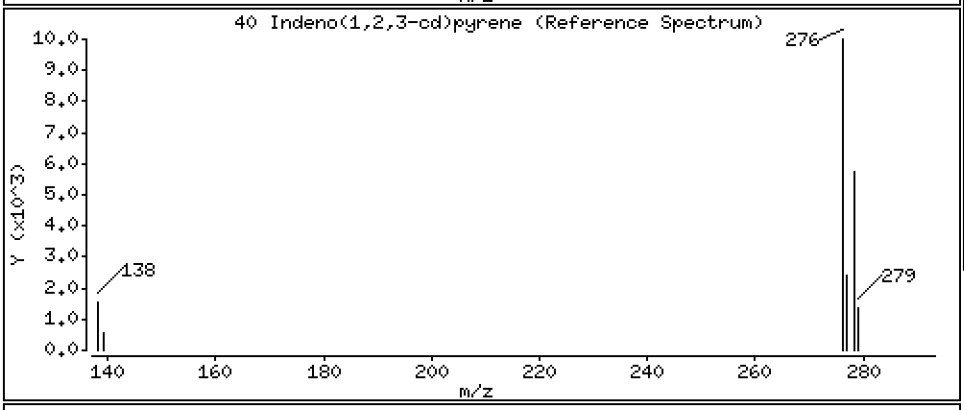
Concentration: 251 ng/mL

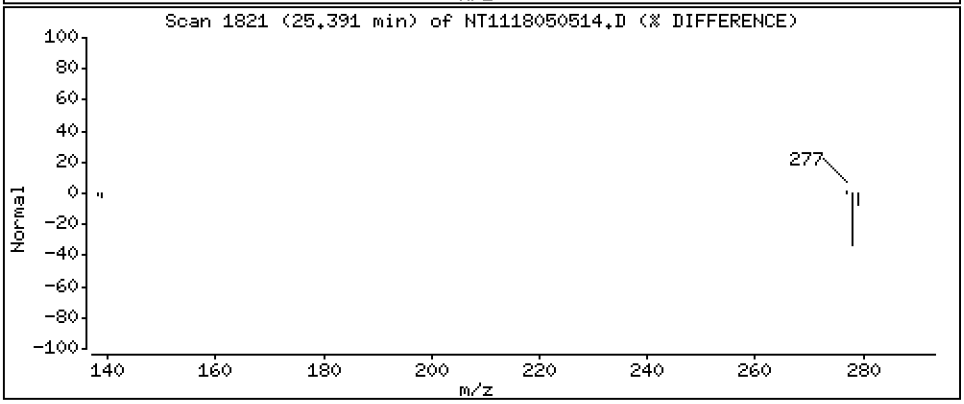












Data File: \\target\share\chem3\nt11.i\20180505.b\NT1118050514.D

Date : 05-MAY-2018 19:26

Client ID:

Instrument: nt11.i

Sample Info: SGE0100-CCV1

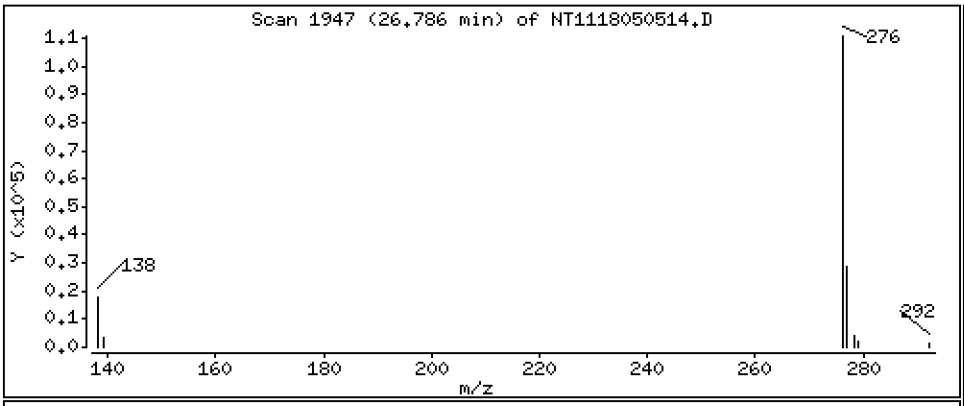
Operator: VTS

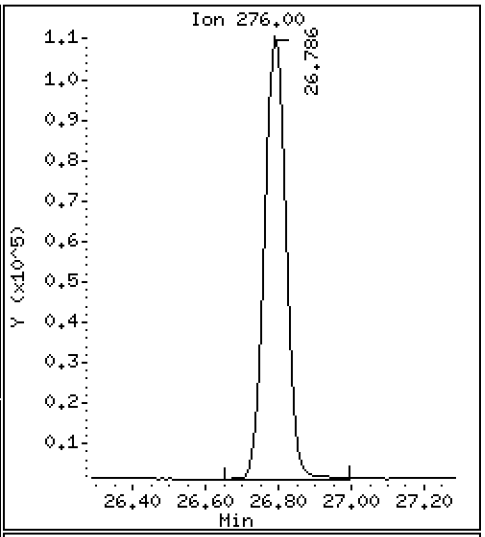
Column phase: Rxi-17Sil MS

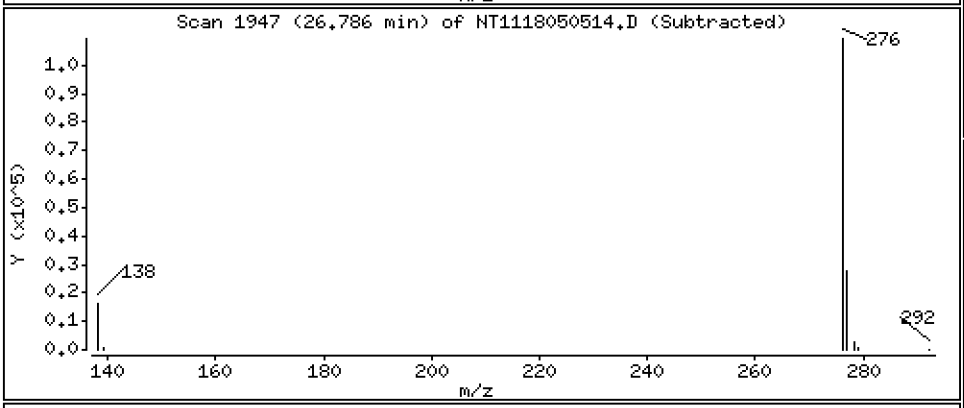
Column diameter: 0.25

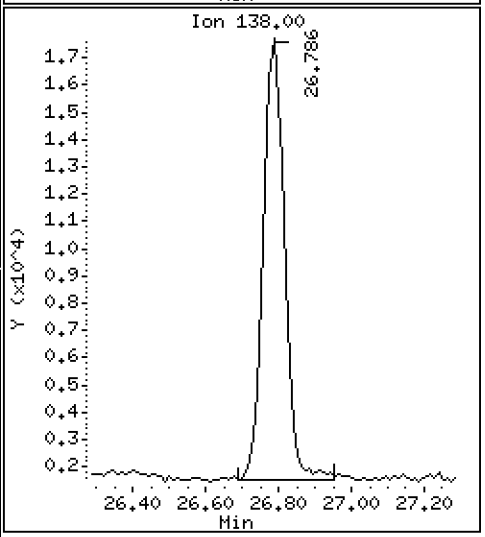
41 Benzo(g,h,i)perylene

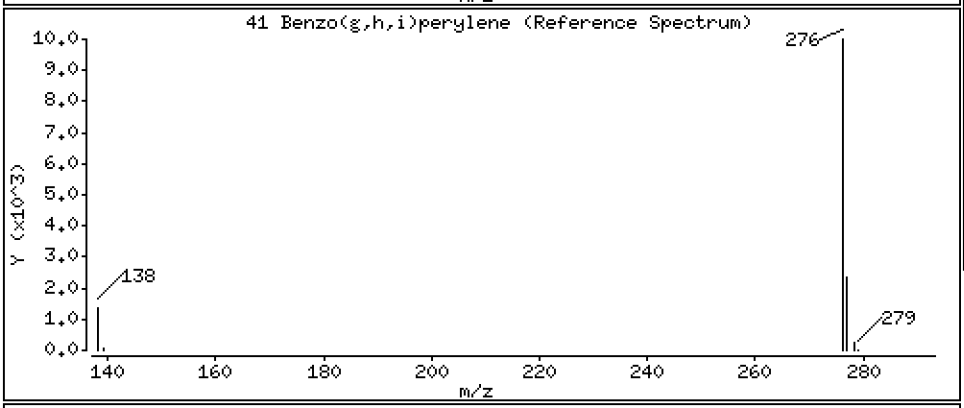
Concentration: 242 ng/mL

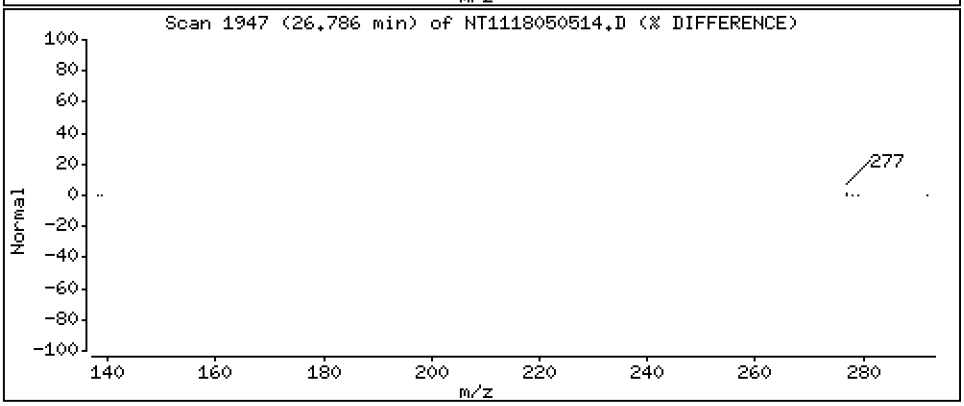












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180505.b\NT1118050514.D
Lab Smp Id: SGE0100-CCV1
Inj Date : 05-MAY-2018 19:26 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SGE0100-CCV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180505.b\lowsim.m
Meth Date : 08-May-2018 08:49 nt11.i Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14
Processing Host: VANS

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.581	8.581	(1.000)	434829	200.000	
	2 Naphthalene	128	8.617	8.617	(1.004)	680891	237.469	237
	3 Benzo(b)thiophene	134	8.879	8.879	(1.035)	576564	252.966	253
$	4 2-Methylnaphthalene-d10	152	9.560	9.560	(1.114)	660670	266.295	266
	5 2-Methylnaphthalene	142	9.623	9.623	(1.121)	699469	264.077	264
	6 1-Methylnaphthalene	142	9.886	9.886	(1.152)	697662	264.842	265
	7 2-Chloronaphthalene	162	10.537	10.537	(0.907)	791999	242.261	242
	8 Biphenyl	154	10.495	10.495	(0.903)	943524	241.282	241
	9 2,6-Dimethylnaphthalene	156	10.558	10.558	(0.909)	754660	244.189	244
	10 Acenaphthylene	152	11.463	11.463	(0.987)	946454	253.113	253
*	11 Acenaphthene-d10	164	11.617	11.617	(1.000)	314492	200.000	
	12 Acenaphthene	153	11.680	11.680	(1.005)	636552	248.893	249
	13 Dibenzofuran	168	11.882	11.882	(1.023)	873462	249.299	249
	14 2,3,5-Trimethylnaphthalene	170	11.971	11.971	(1.030)	578547	258.024	258
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.514	12.514	(1.077)	707817	250.520	251
	17 Dibenzothiophene	184	14.140	14.140	(0.988)	817870	252.124	252
*	18 Phenanthrene-d10	188	14.308	14.309	(1.000)	520922	200.000	
	19 Phenanthrene	178	14.350	14.351	(1.003)	984479	240.964	241
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.403	14.403	(1.007)	980835	256.801	257
	22 Carbazole	167	15.076	15.076	(1.054)	1085424	243.940	244
	23 1-Methylphenanthrene	192	15.356	15.347	(1.073)	948626	245.741	246
$	24 Fluoranthene-d10	212	16.420	16.420	(1.148)	675114	213.508	214
	25 Fluoranthene	202	16.458	16.448	(1.150)	803193	211.696	212
	26 Pyrene	202	16.958	16.958	(0.890)	787508	253.046	253
	27 Benzo(a)anthracene	228	18.970	18.971	(0.995)	631472	260.164	260
*	28 Chrysene-d12	240	19.062	19.062	(1.000)	316561	200.000	
	29 Chrysene	228	19.112	19.112	(1.003)	622560	258.218	258
	30 Benzo(b)fluoranthene	252	21.056	21.056	(0.944)	599948	258.779	259
	31 Benzo(k)fluoranthene	252	21.104	21.104	(0.946)	569785	237.009	237
	32 Benzo(j)fluoranthene	252	21.181	21.181	(0.950)	535191	244.593	245
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	34 Benzo(e)pyrene	252	21.930	21.930	(0.983)	548538	245.307	245
	35 Benzo(a)pyrene	252	22.065	22.065	(0.989)	520001	255.311	255
*	36 Perylene-d12	264	22.305	22.295	(1.000)	327770	200.000	
	37 Perylene	252	22.382	22.372	(1.003)	545938	255.401	255
$	38 Dibenzo(a,h)anthracene-d14	292	25.213	25.202	(1.130)	391078	249.333	249
	39 Dibenzo(a,h)anthracene	278	25.346	25.346	(1.136)	443451	250.234	250
	40 Indeno(1,2,3-cd)pyrene	276	25.390	25.379	(1.138)	531406	250.832	251
	41 Benzo(g,h,i)perylene	276	26.786	26.786	(1.201)	444079	242.337	242

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118050514.D
Lab Smp Id: SGE0100-CCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180505.b\lowsim.m
Misc Info:

Calibration Date: 05-MAY-2018
Calibration Time: 16:26
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	434829	0.81
11 Acenaphthene-d10	260137	130069	520274	314492	20.89
18 Phenanthrene-d10	427391	213696	854782	520922	21.88
28 Chrysene-d12	304596	152298	609192	316561	3.93
36 Perylene-d12	263091	131546	526182	327770	24.58

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.58	8.08	9.08	8.58	-0.00
11 Acenaphthene-d10	11.62	11.12	12.12	11.62	-0.00
18 Phenanthrene-d10	14.31	13.81	14.81	14.31	-0.00
28 Chrysene-d12	19.06	18.56	19.56	19.06	-0.00
36 Perylene-d12	22.30	21.80	22.80	22.31	0.04

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118050514.D

Lab ID: SGE0100-CCV1
nt11.i, 20180505.b\lowsim.m,   05-MAY-2018 19:26

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180505.b\lowsim.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

CONTINUING CALIBRATION CHECK
EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	NT11	Calibration:	BE00021
Lab File ID:	NT1118062322.D	Calibration Date:	05/08/18 08:54
Sequence:	SGF0298	Injection Date:	06/23/18
Lab Sample ID:	SGF0298-CCV1	Injection Time:	23:38
Sequence Name:	CCV 250		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Naphthalene	A	250.00	207	1.3506040	1.1098300		-17.1	50
2-Methylnaphthalene	A	250.00	228	1.2182890	1.1090750		-9.0	50
Acenaphthylene	A	250.00	238	2.3779620	2.2626250		-4.9	50
Acenaphthene	A	250.00	229	1.6264500	1.4885160		-8.5	50
Fluorene	A	250.00	222	1.7967990	1.5978660		-11.1	50
Phenanthrene	A	250.00	232	1.5685960	1.4549120		-7.2	50
Anthracene	A	250.00	225	1.4664130	1.3182940		-10.1	50
Fluoranthene	A	250.00	232	1.4566820	1.3494190		-7.4	50
Pyrene	A	250.00	227	1.9662040	1.7856870		-9.2	50
Benzo(a)anthracene	A	250.00	234	1.5334860	1.4371890		-6.3	50
Chrysene	A	250.00	241	1.5232370	1.4703600		-3.5	50
Benzo(b)fluoranthene	A	250.00	218	1.4146370	1.2346540		-12.7	50
Benzo(k)fluoranthene	A	250.00	224	1.4669230	1.3139560		-10.4	50
Benzo(j)fluoranthene	A	250.00	231	1.3351350	1.2324370		-7.7	50
Benzo(a)pyrene	A	250.00	224	1.2427860	1.1150910		-10.3	50
Indeno(1,2,3-cd)pyrene	A	250.00	230	1.2927210	1.1901920		-7.9	50
Dibenzo(a,h)anthracene	A	250.00	231	1.0813340	0.9999994		-7.5	50
Benzo(g,h,i)perylene	A	250.00	223	1.1181550	0.9983282		-10.7	50
2-Methylnaphthalene-d10	A	250.00	230	1.1411260	1.0488360		-8.1	50
Dibenzo[a,h]anthracene-d14	A	250.00	227	0.9570734	0.8685180		-9.3	50
Fluoranthene-d10	A	250.00	219	1.2140030	1.0627210		-12.5	50

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062322.D

Date : 23-JUN-2018 23:38

Client ID:

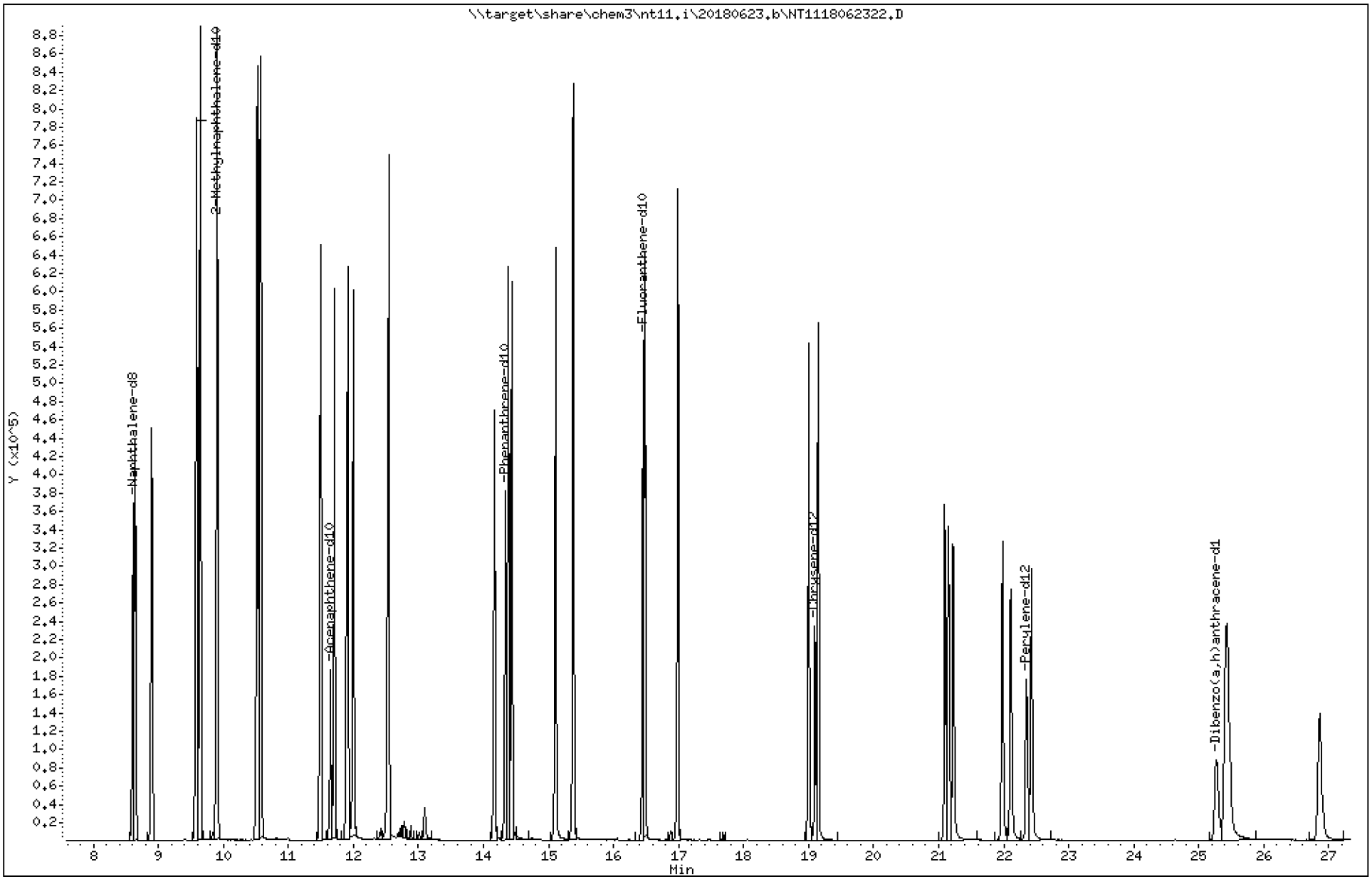
Instrument: nt11.i

Sample Info: SGF0298-CCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

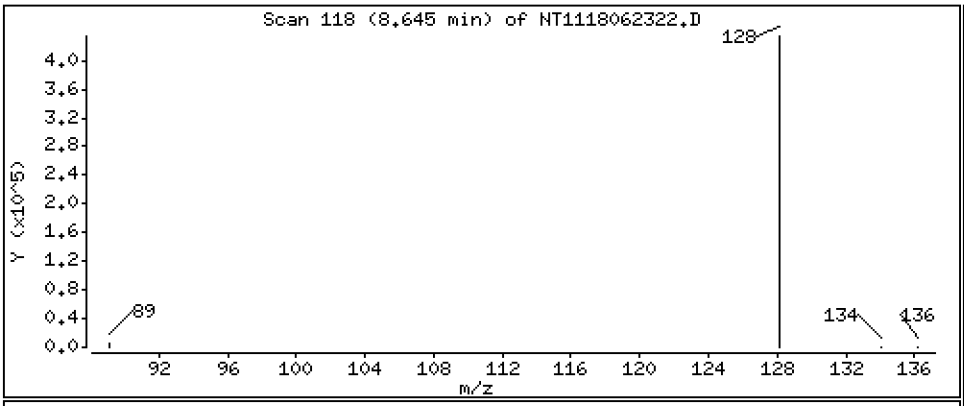
Operator: VTS

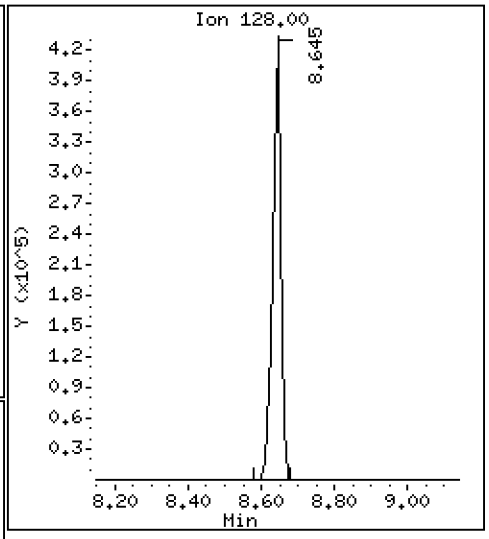
Column phase: Rxi-17Sil MS

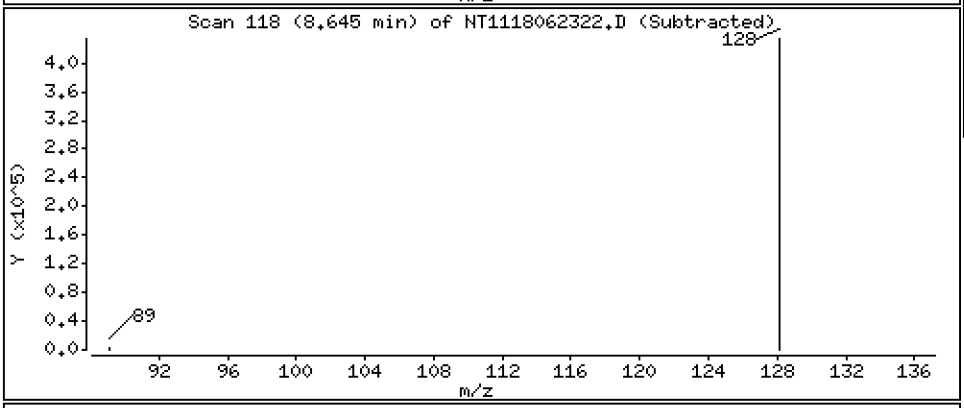
Column diameter: 0.25

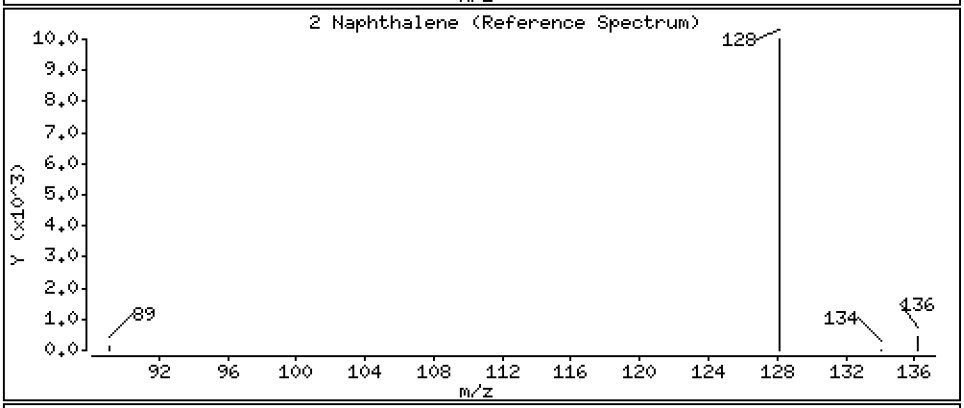
2 Naphthalene

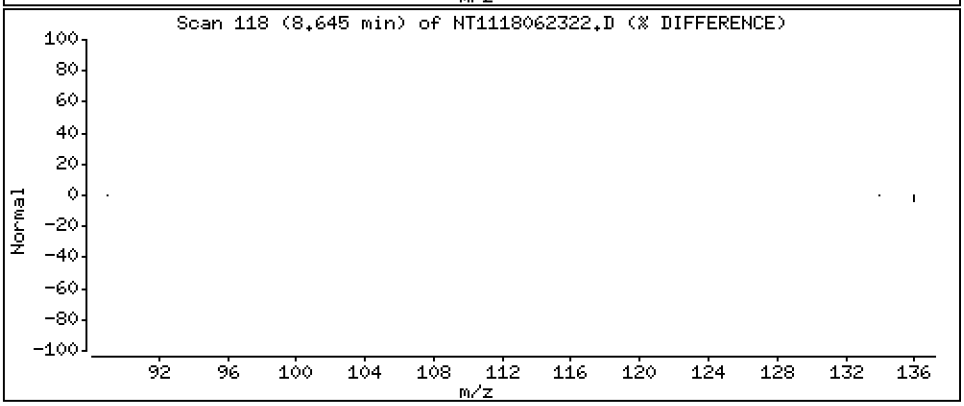
Concentration: 207 ng/mL











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Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

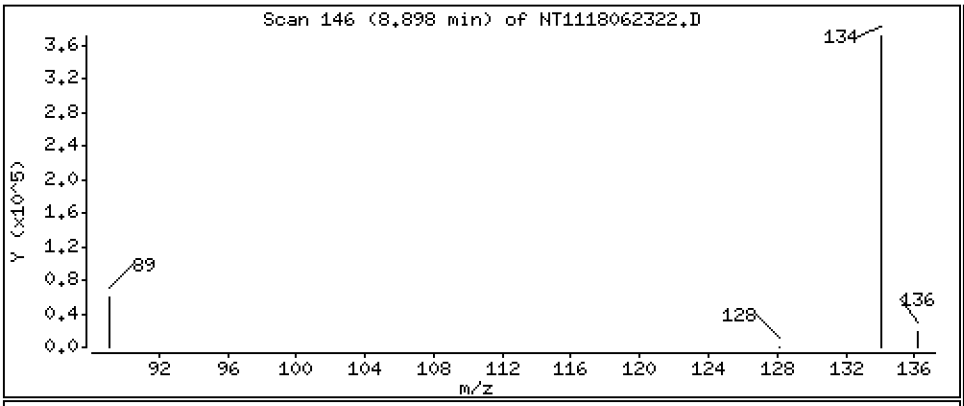
Operator: VTS

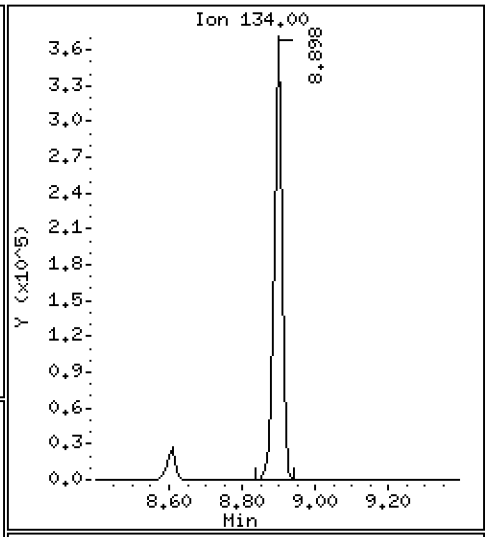
Column phase: Rxi-17Sil MS

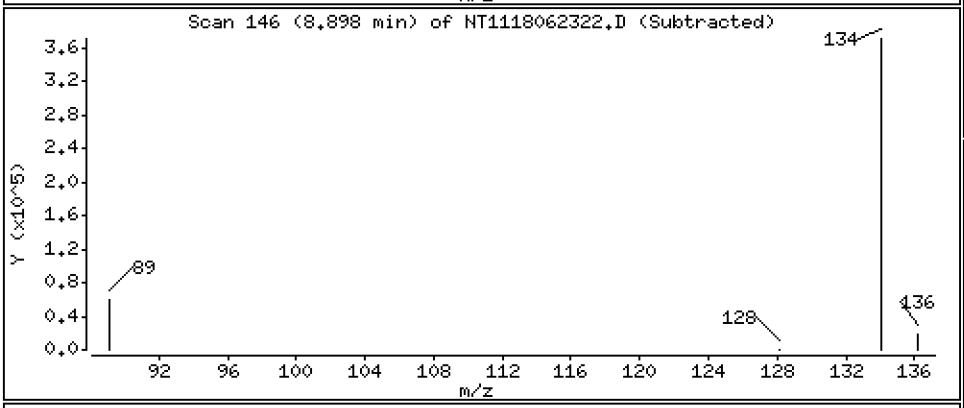
Column diameter: 0.25

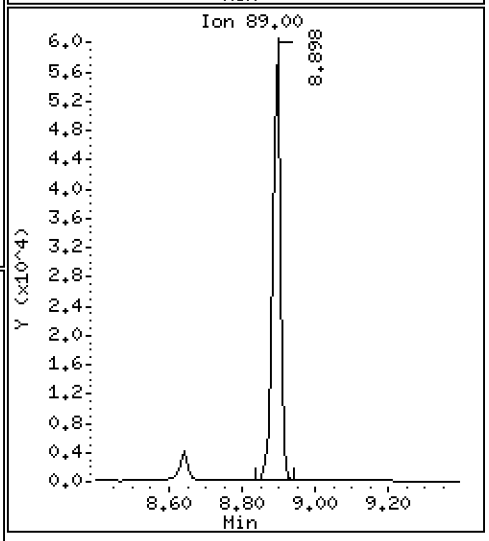
3 Benzo(b)thiophene

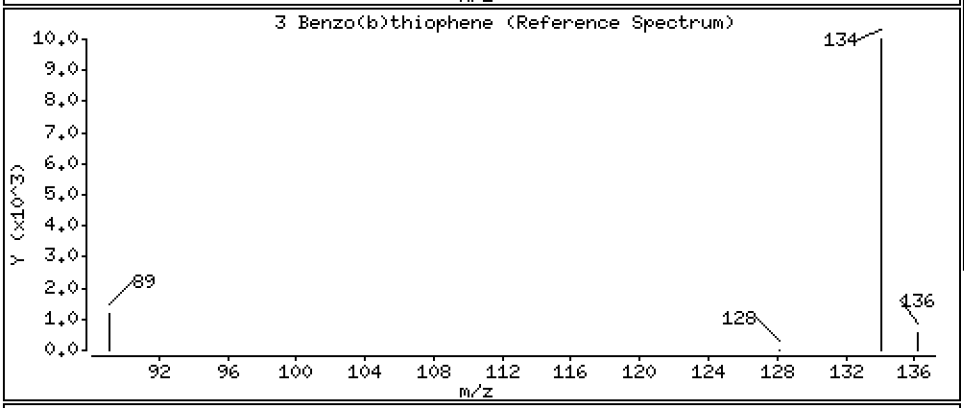
Concentration: 228 ng/mL

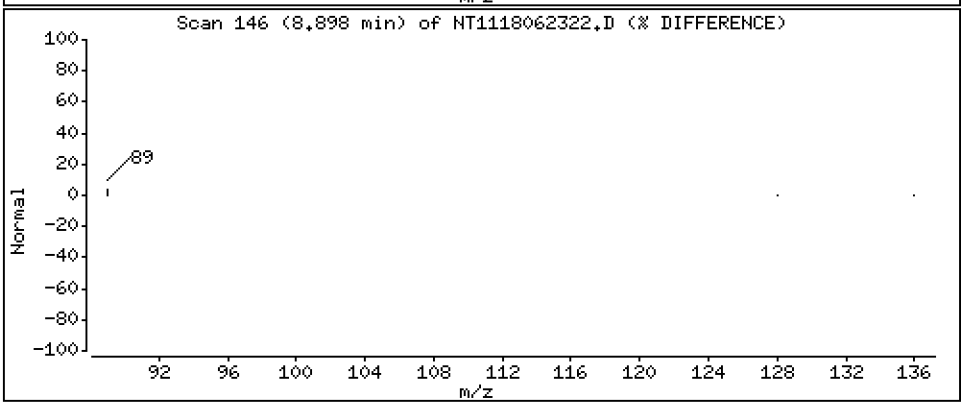












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Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

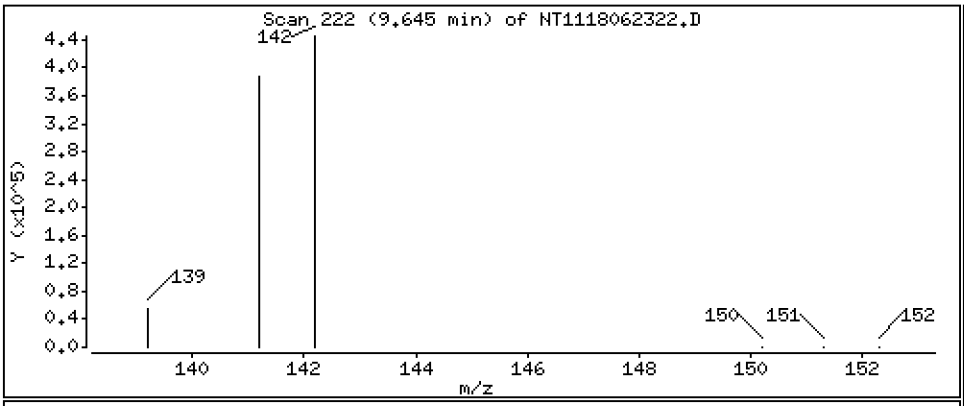
Operator: VTS

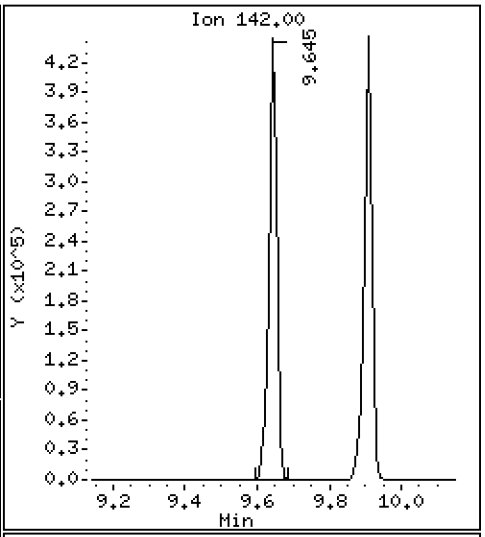
Column phase: Rxi-17Sil MS

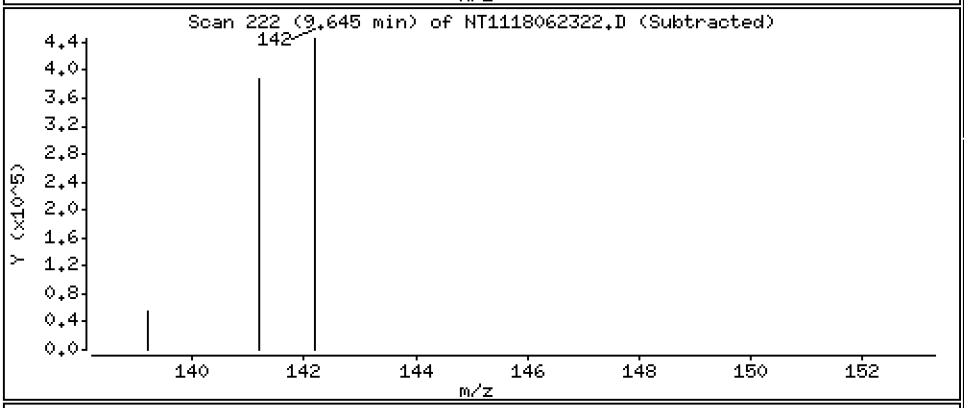
Column diameter: 0.25

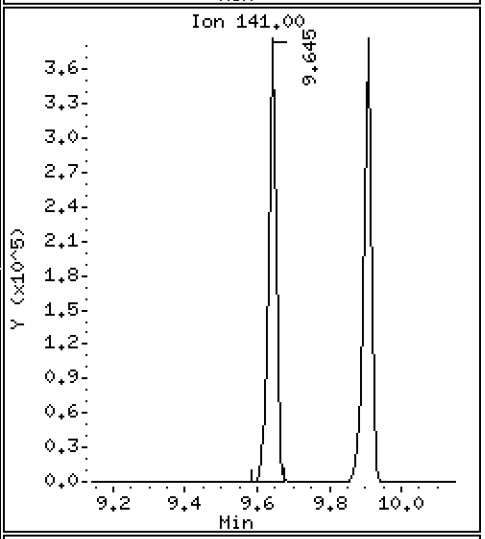
5 2-Methylnaphthalene

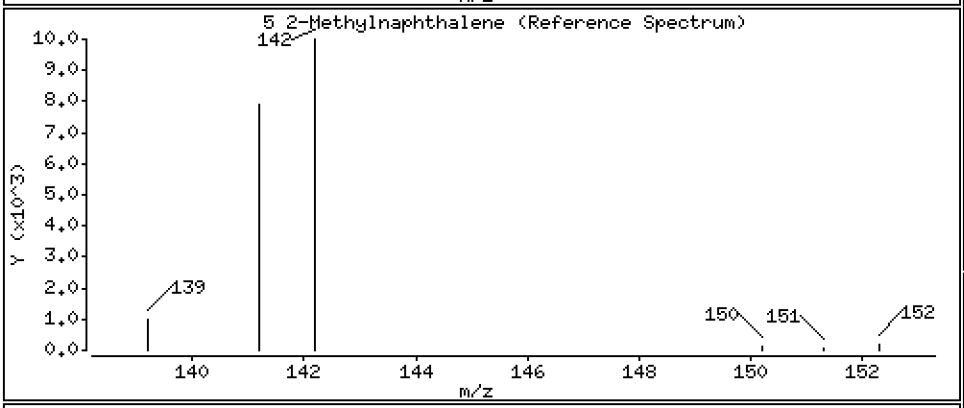
Concentration: 228 ng/mL

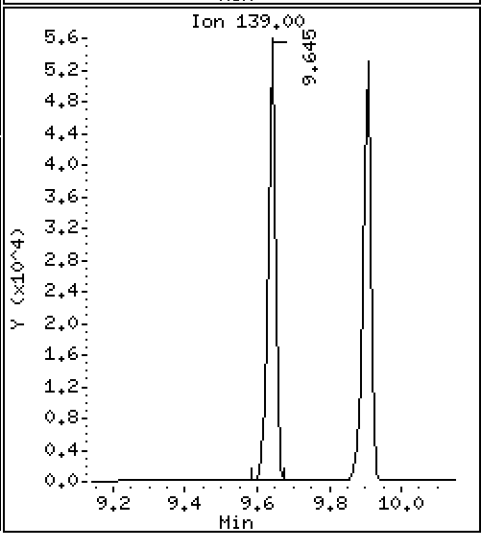


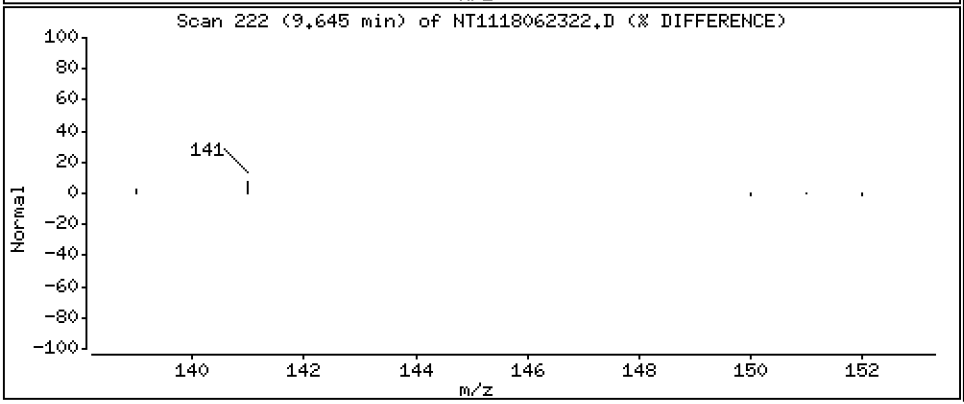












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Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

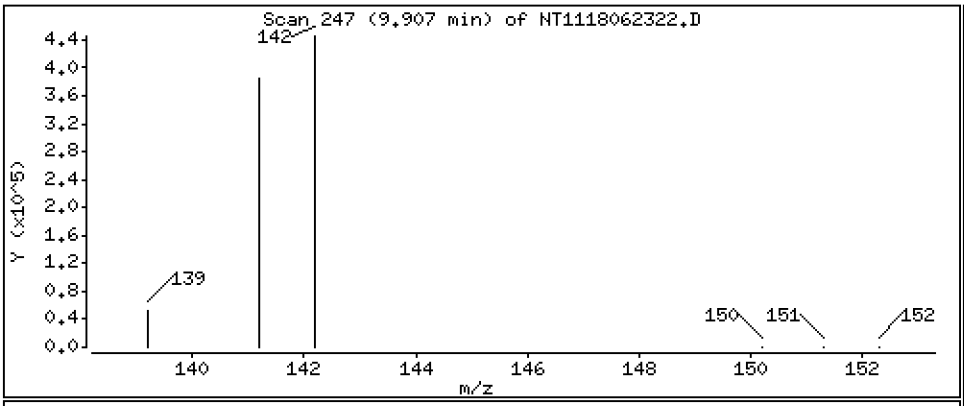
Operator: VTS

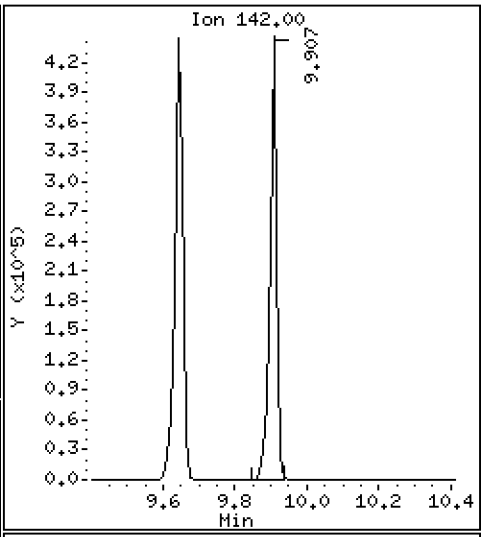
Column phase: Rxi-17Sil MS

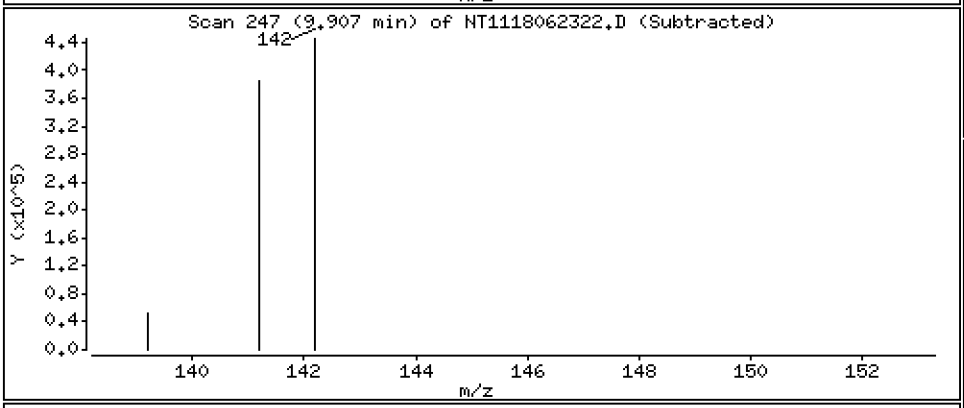
Column diameter: 0.25

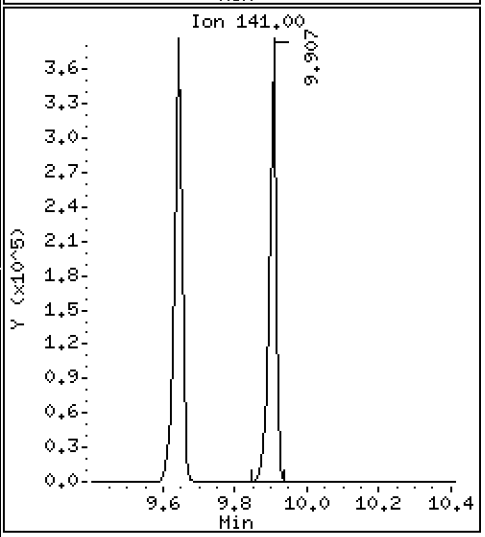
6 1-Methylnaphthalene

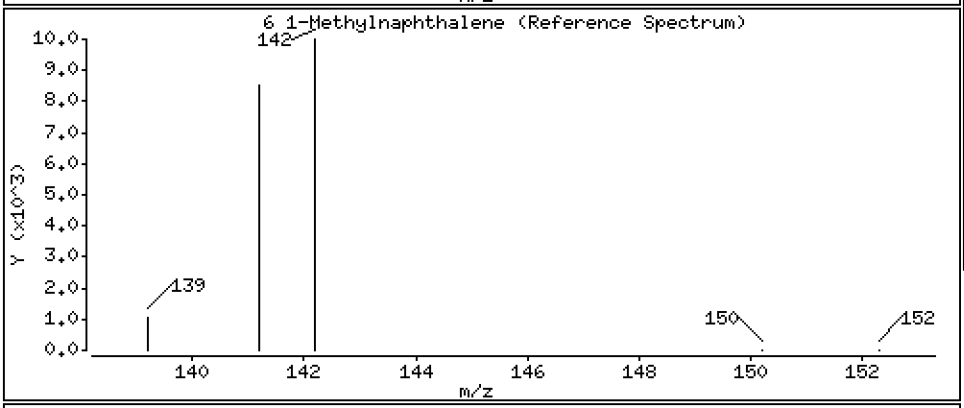
Concentration: 223 ng/mL

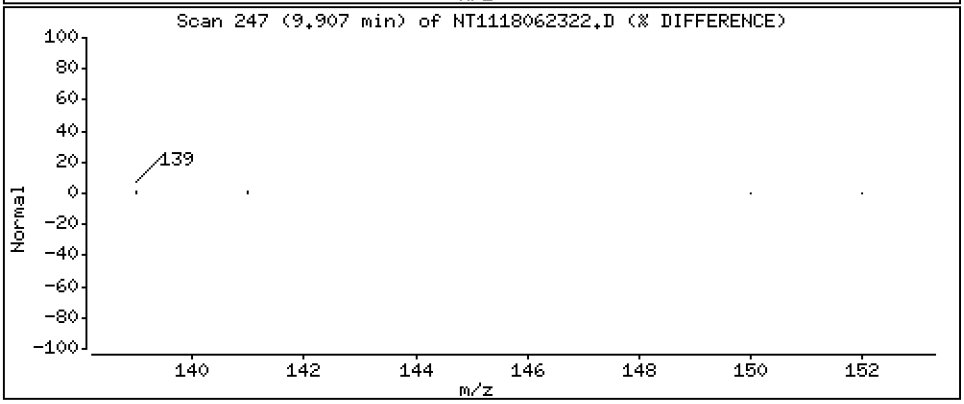












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Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

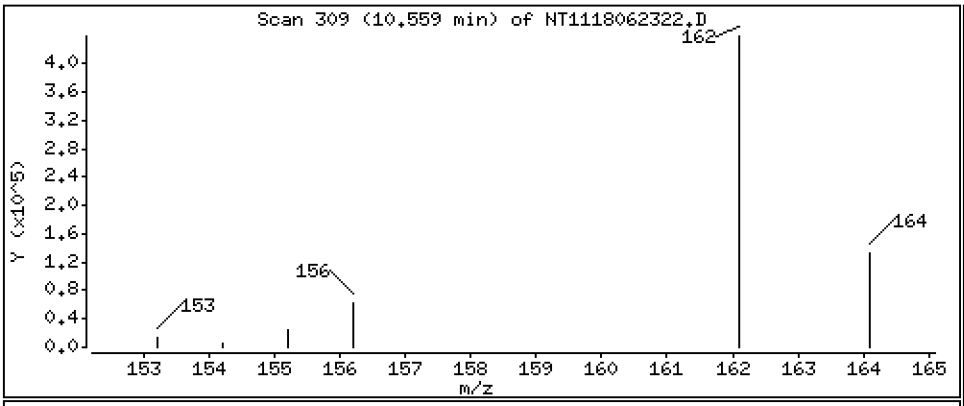
Operator: VTS

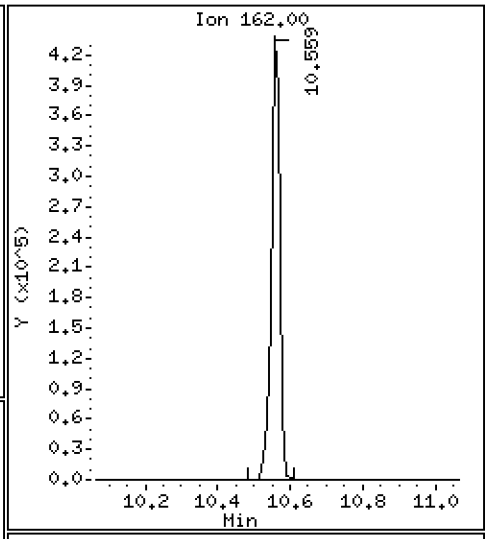
Column phase: Rxi-17Sil MS

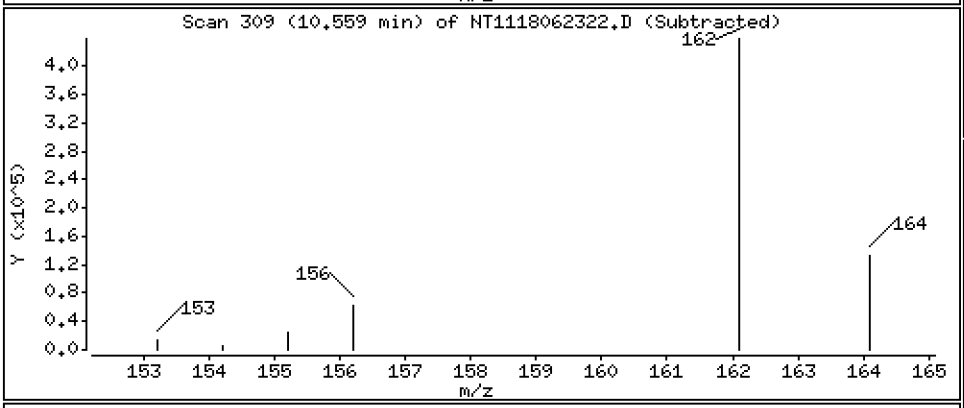
Column diameter: 0.25

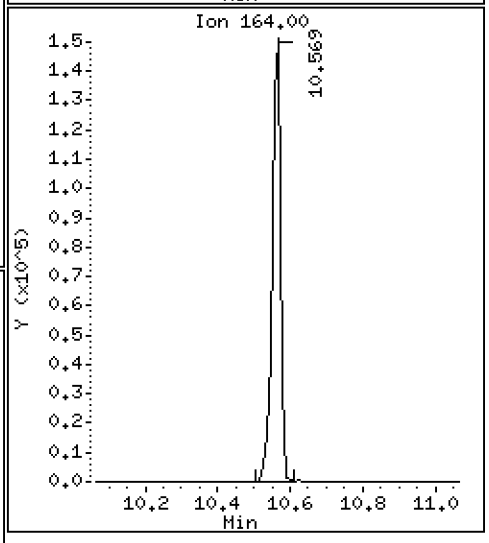
7 2-Chloronaphthalene

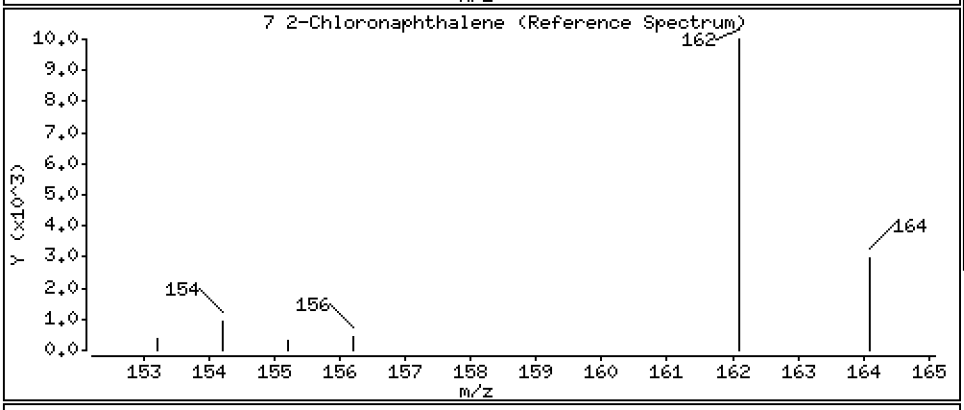
Concentration: 252 ng/mL

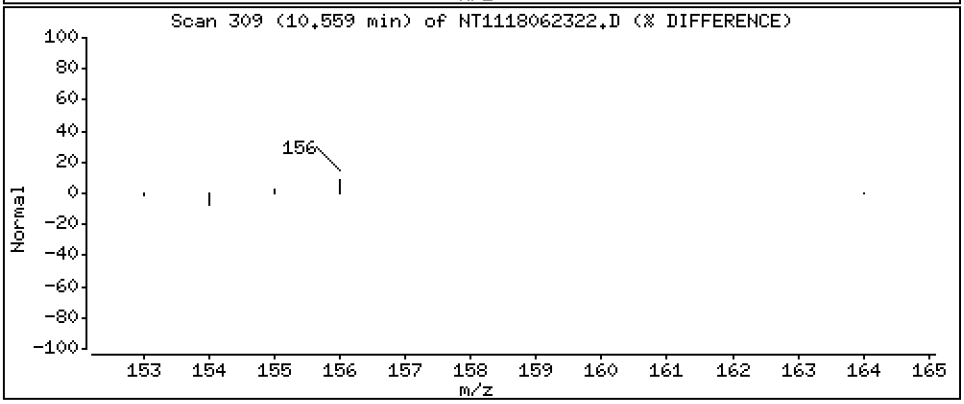












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Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

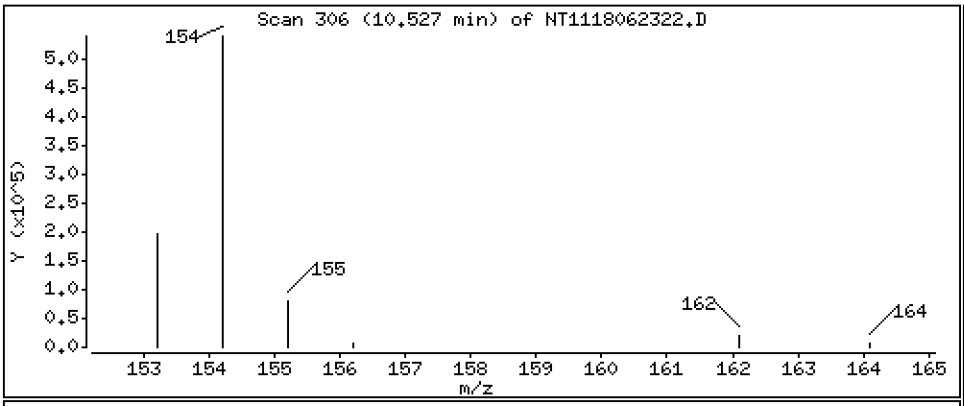
Operator: VTS

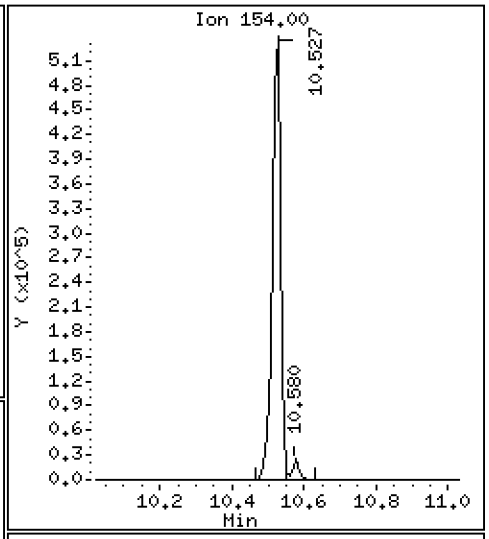
Column phase: Rxi-17Sil MS

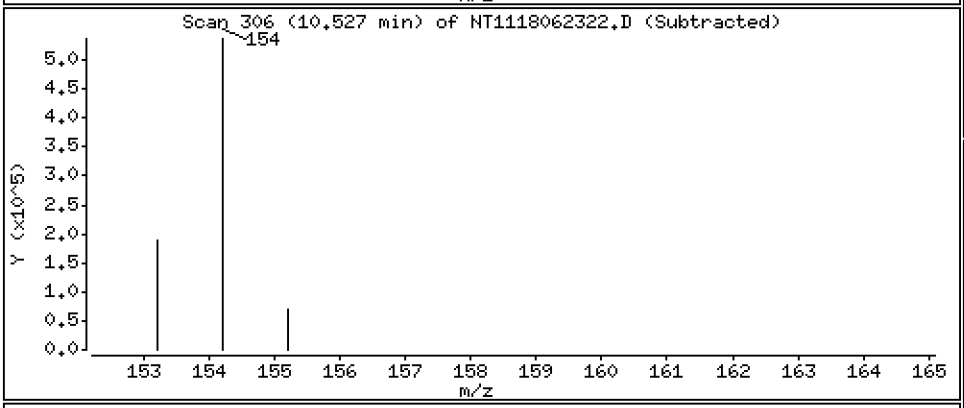
Column diameter: 0.25

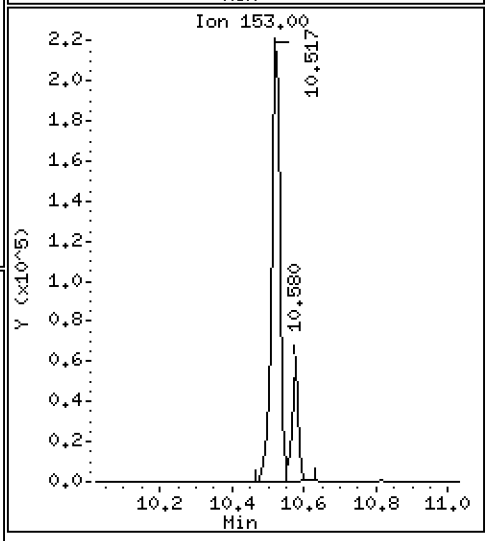
8 Biphenyl

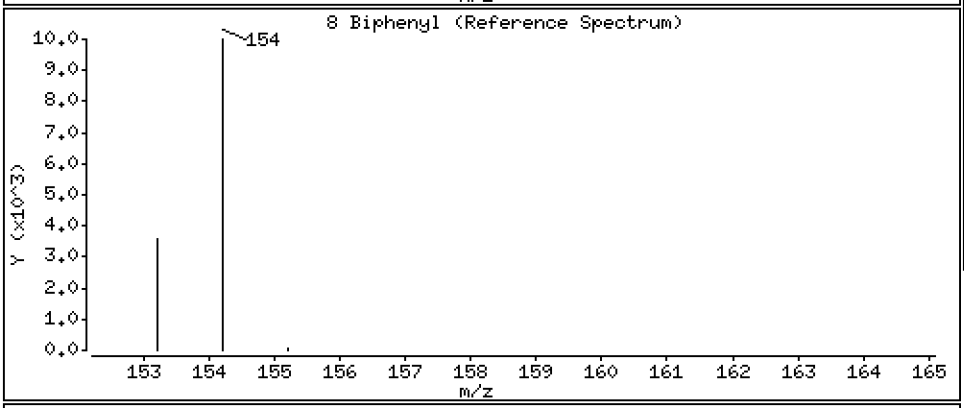
Concentration: 254 ng/mL

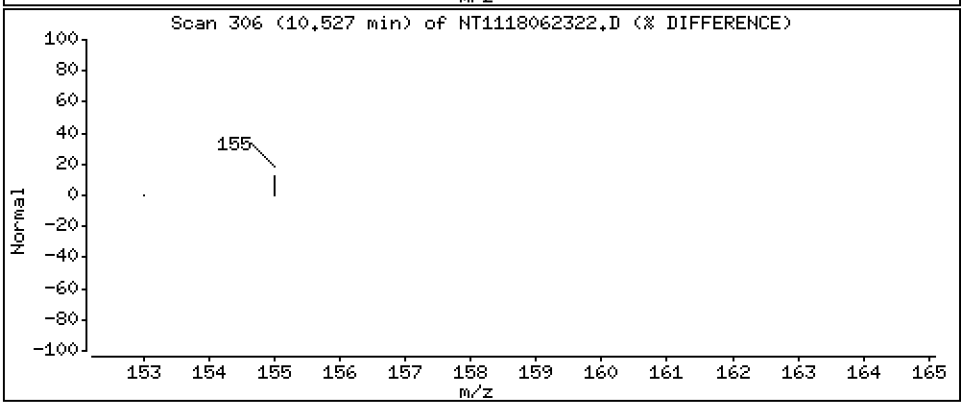












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Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

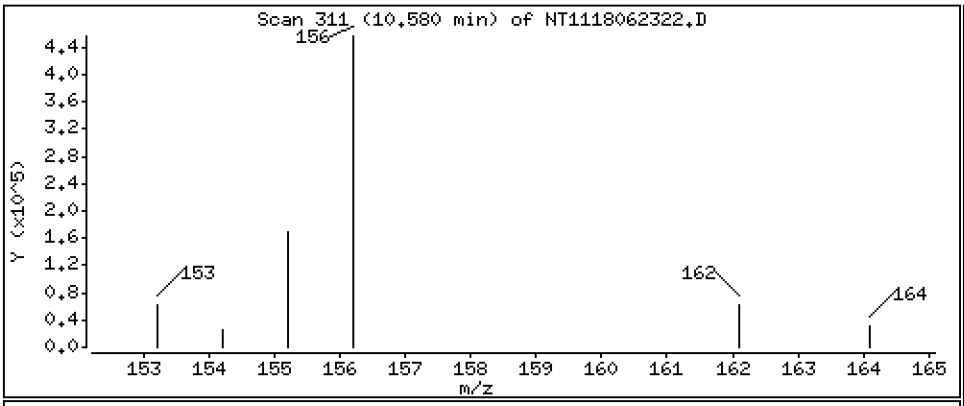
Operator: VTS

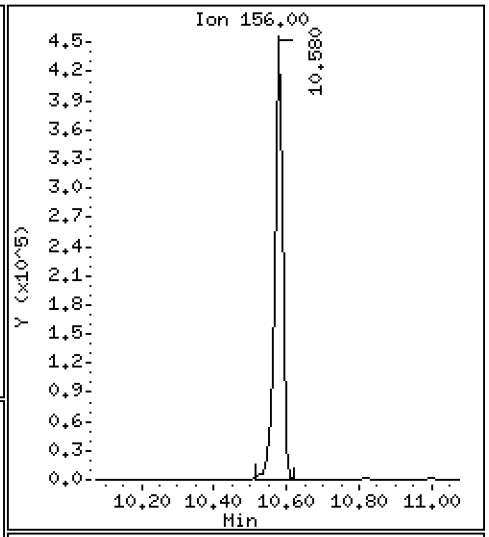
Column phase: Rxi-17Sil MS

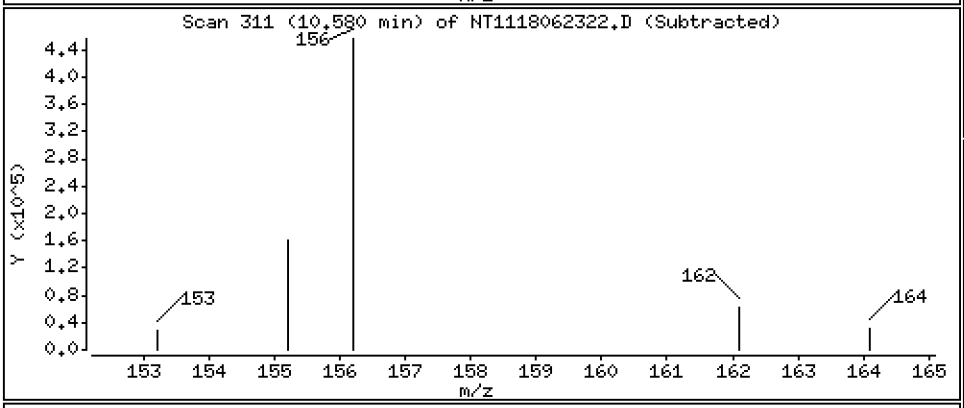
Column diameter: 0.25

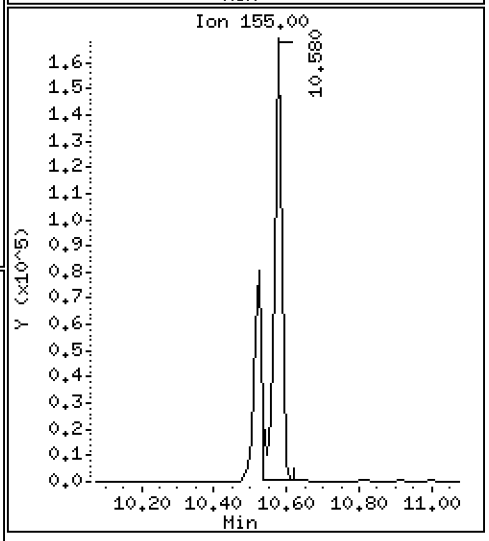
9 2,6-Dimethylnaphthalene

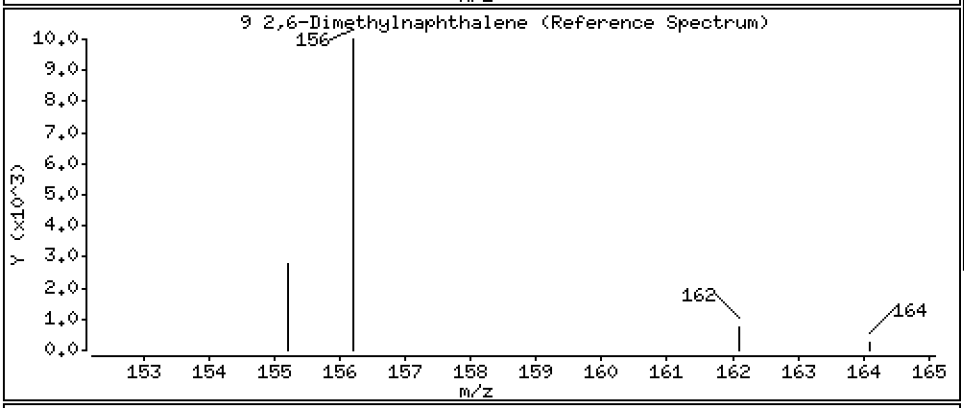
Concentration: 254 ng/mL

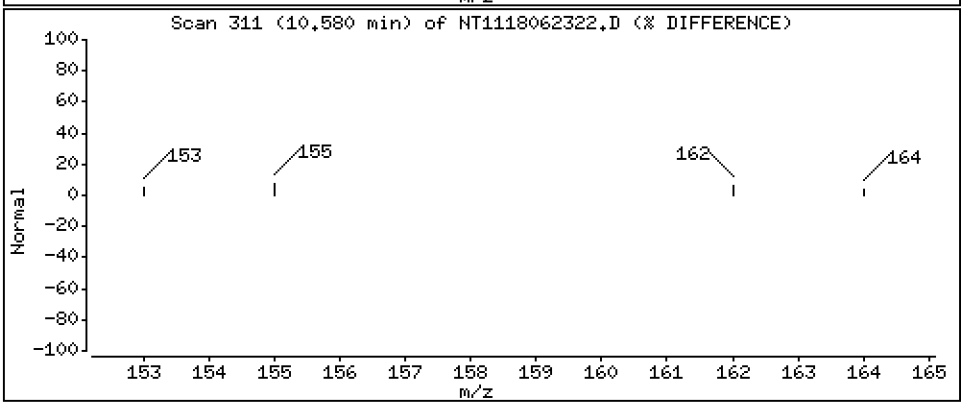












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Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

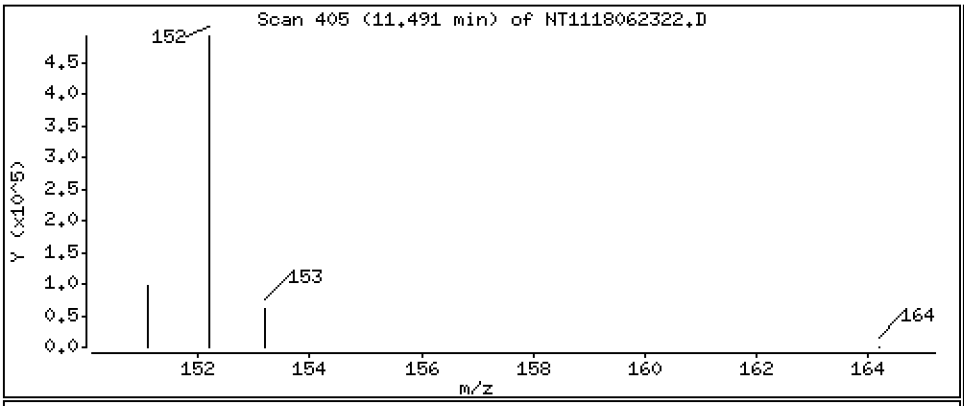
Operator: VTS

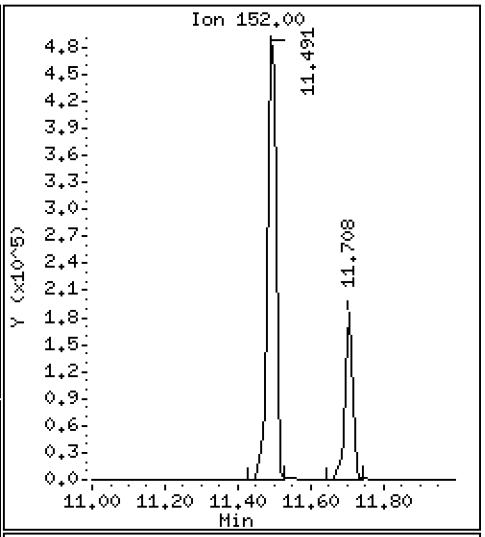
Column phase: Rxi-17Sil MS

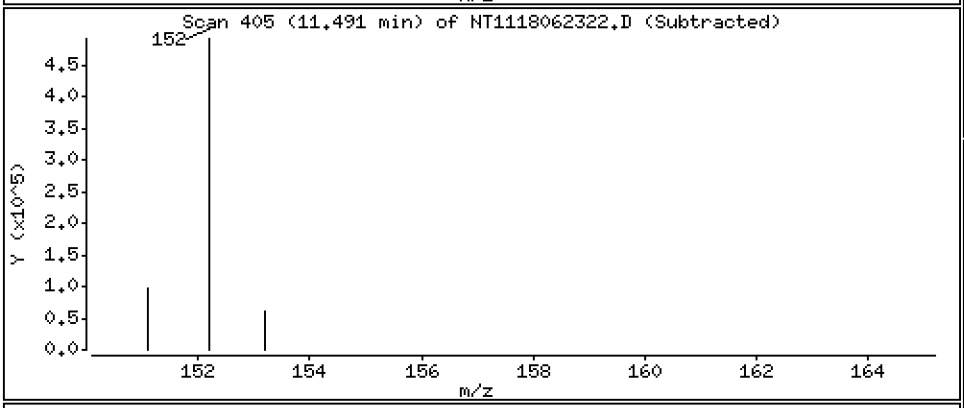
Column diameter: 0.25

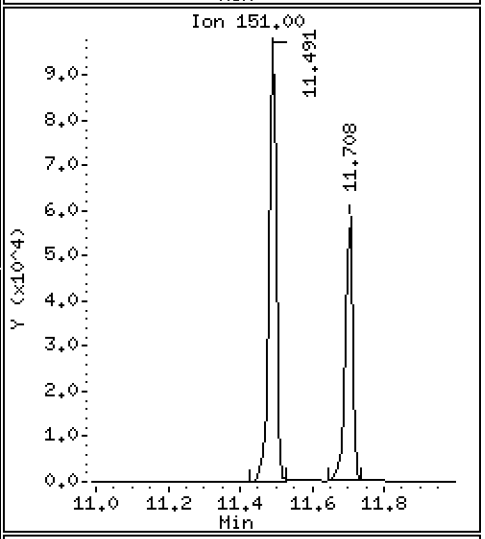
10 Acenaphthylene

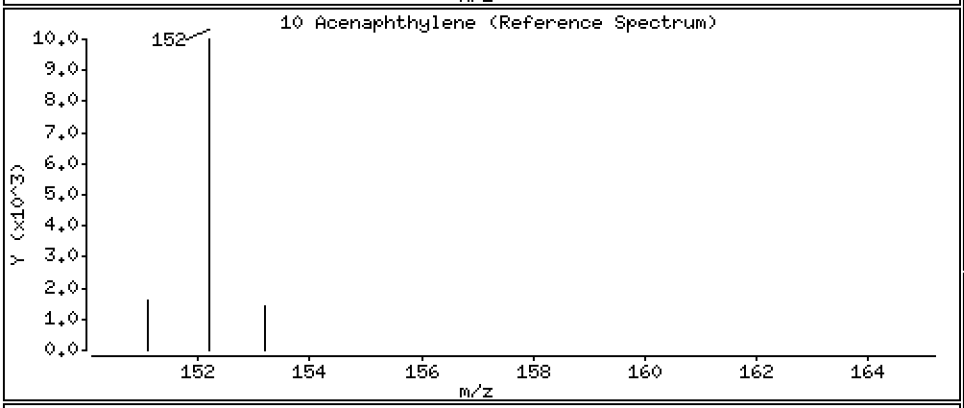
Concentration: 238 ng/mL

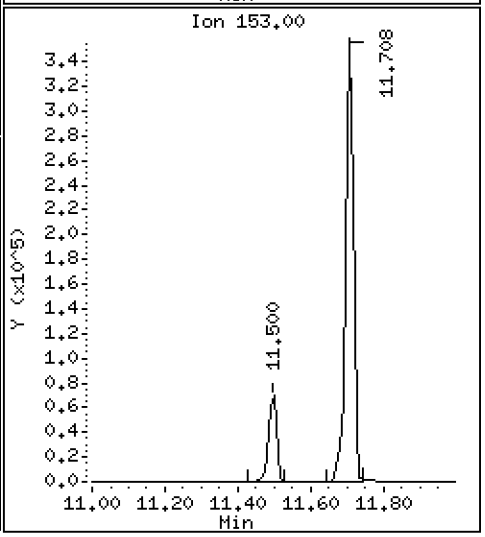


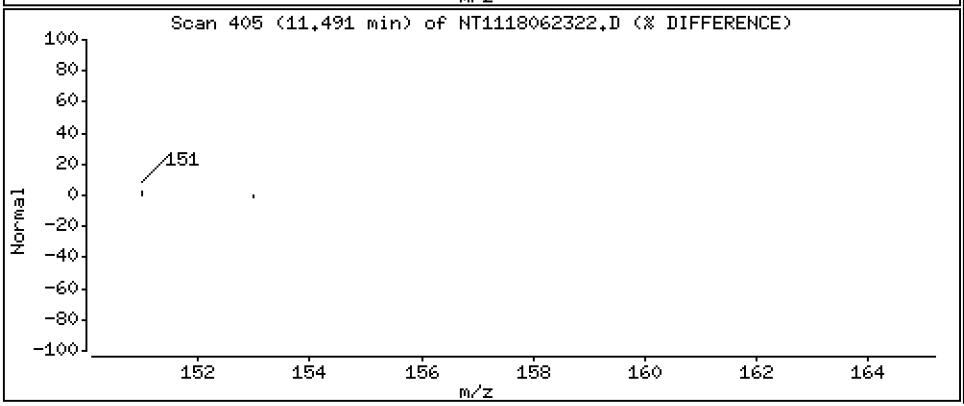












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Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

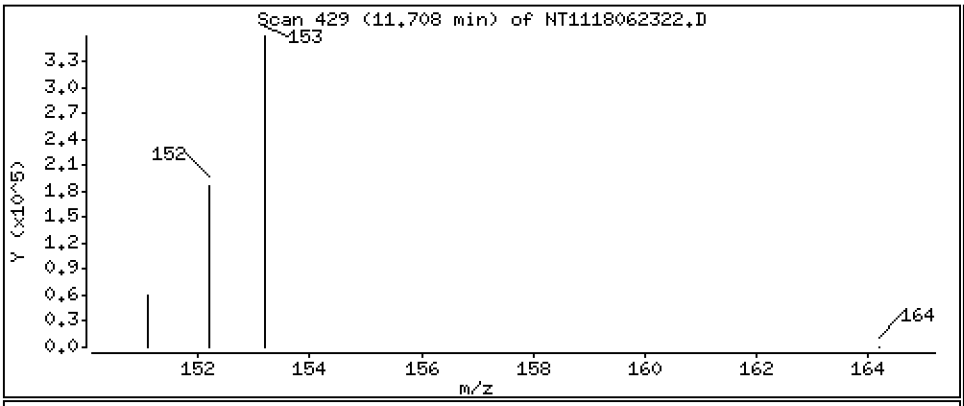
Operator: VTS

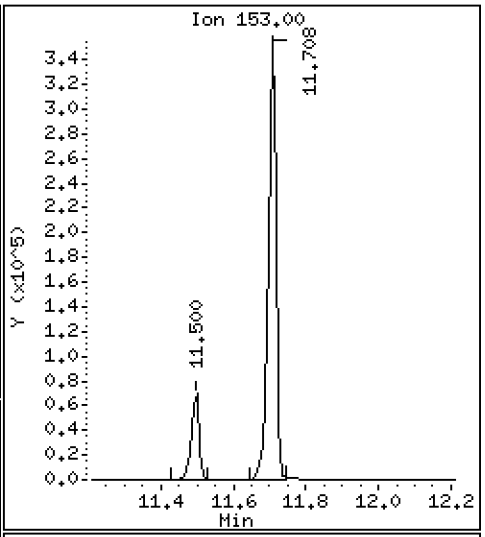
Column phase: Rxi-17Sil MS

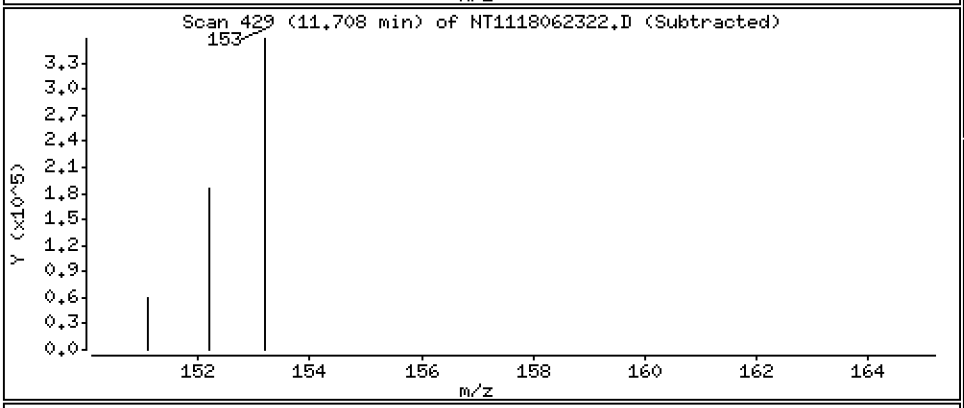
Column diameter: 0.25

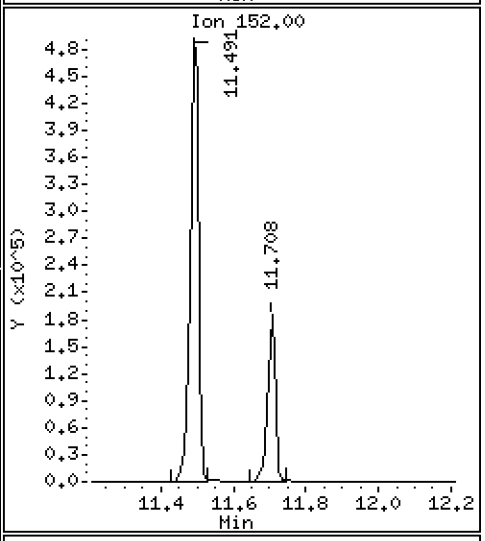
12 Acenaphthene

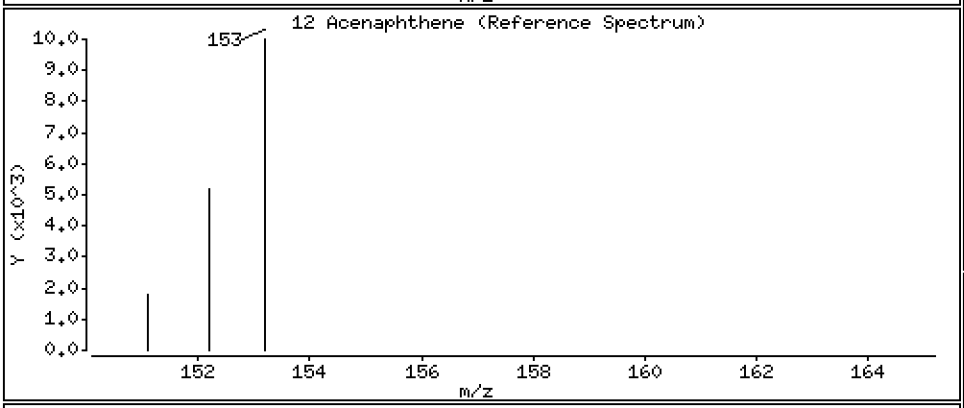
Concentration: 229 ng/mL

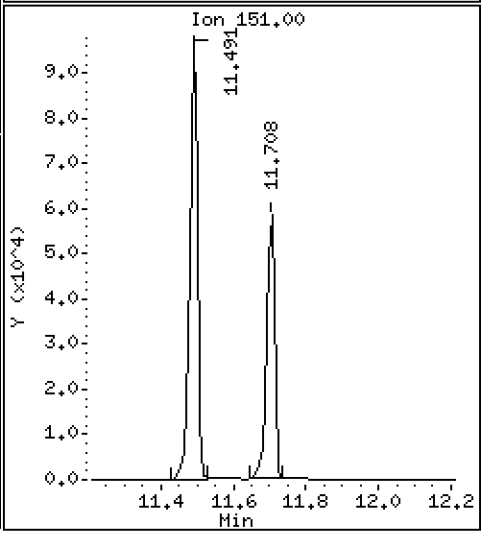


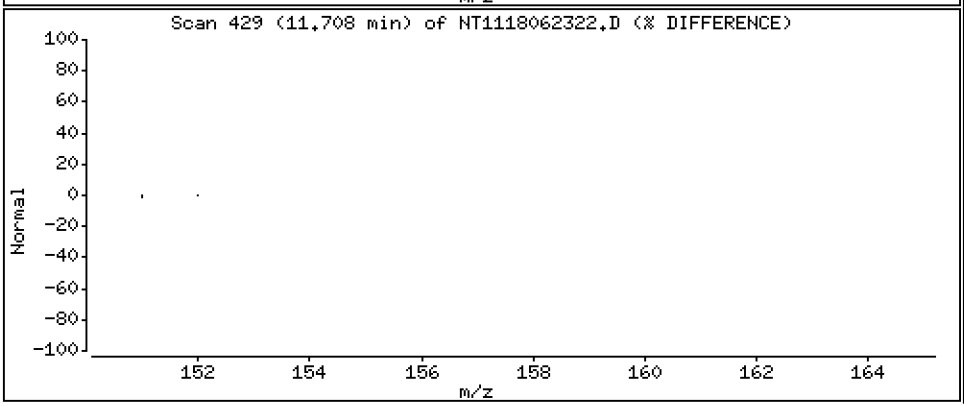












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Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

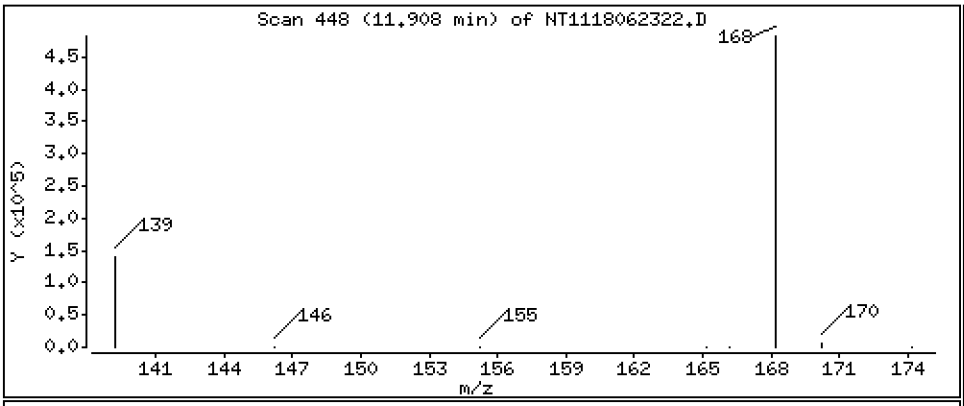
Operator: VTS

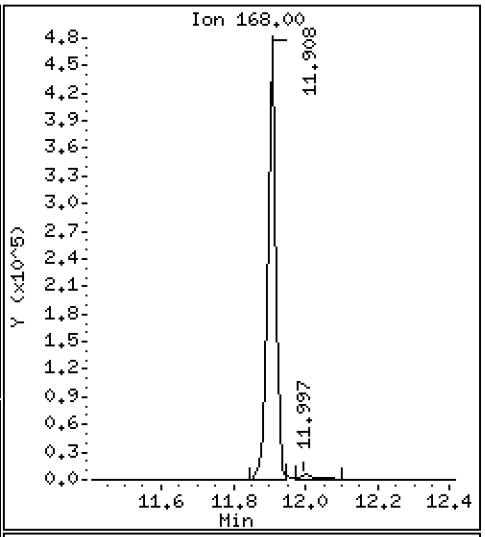
Column phase: Rxi-17Sil MS

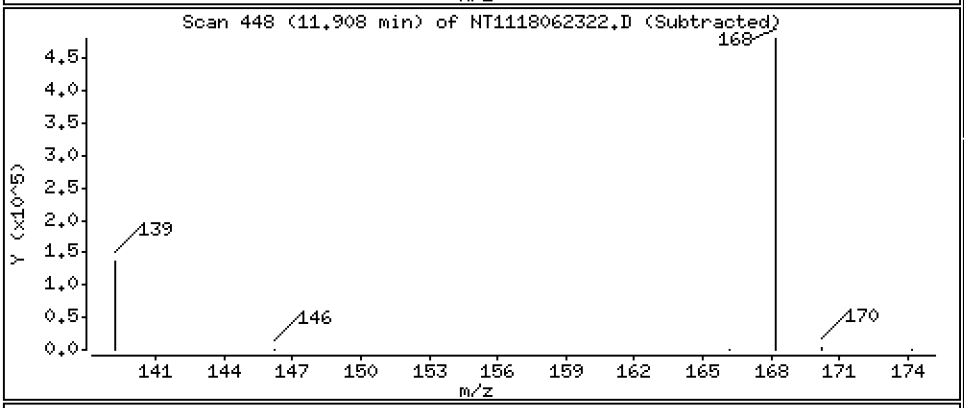
Column diameter: 0.25

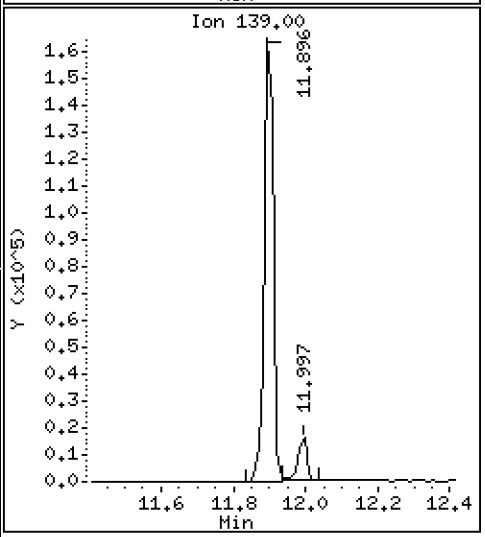
13 Dibenzofuran

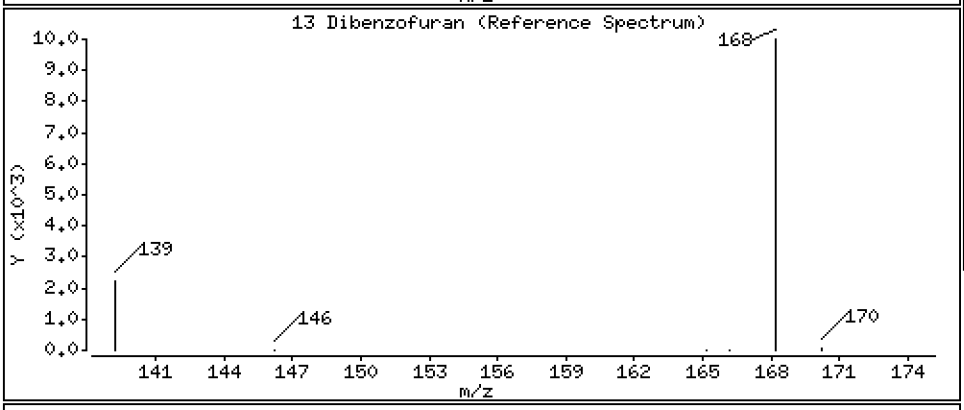
Concentration: 232 ng/mL

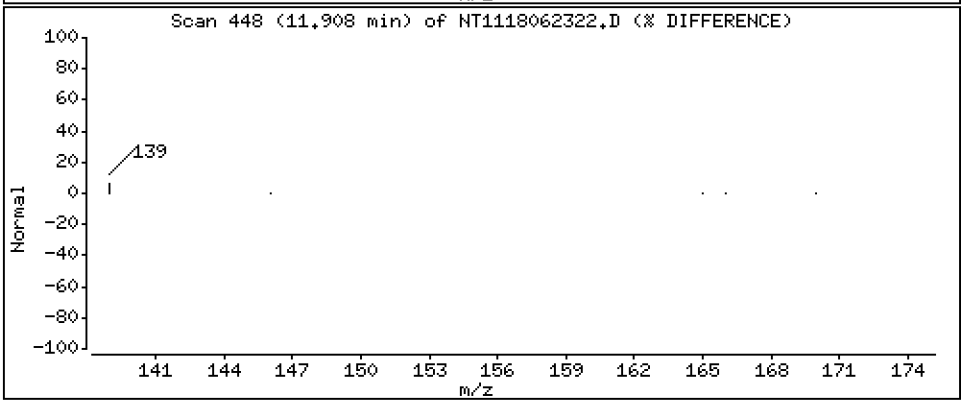












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Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

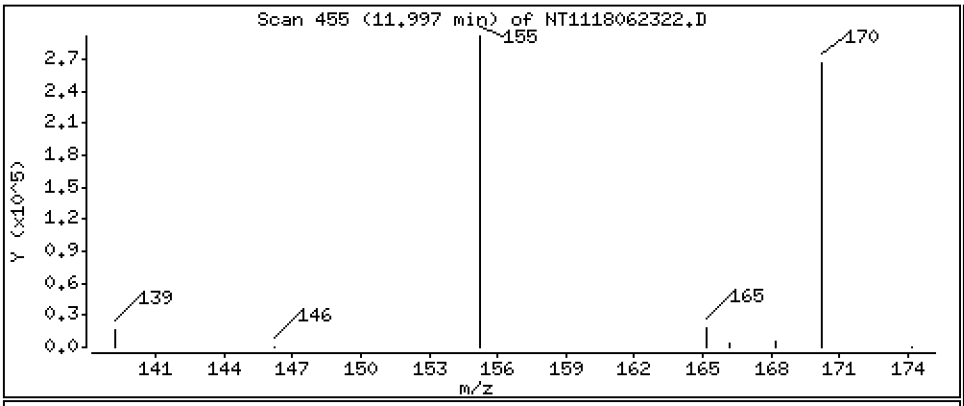
Operator: VTS

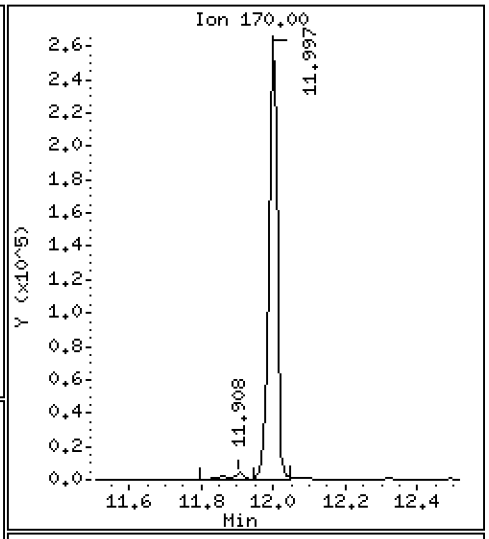
Column phase: Rxi-17Sil MS

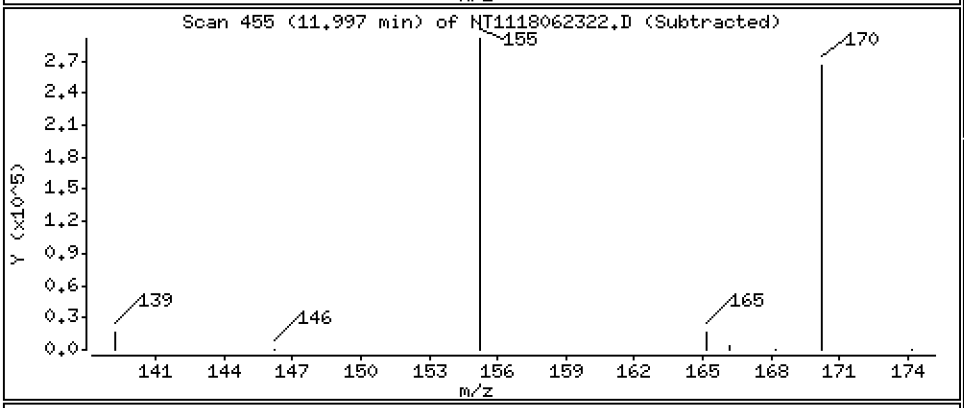
Column diameter: 0.25

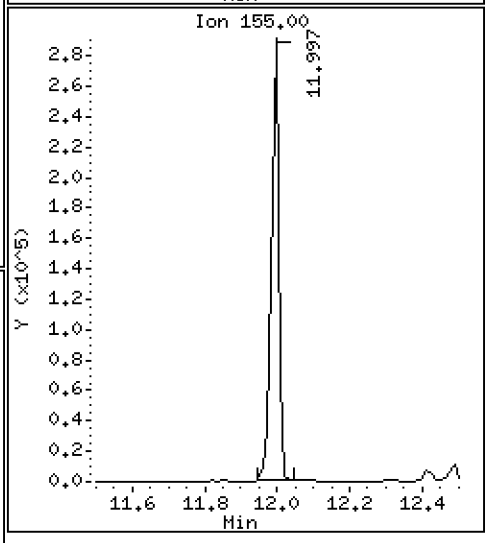
14 2,3,5-Trimethylnaphthalene

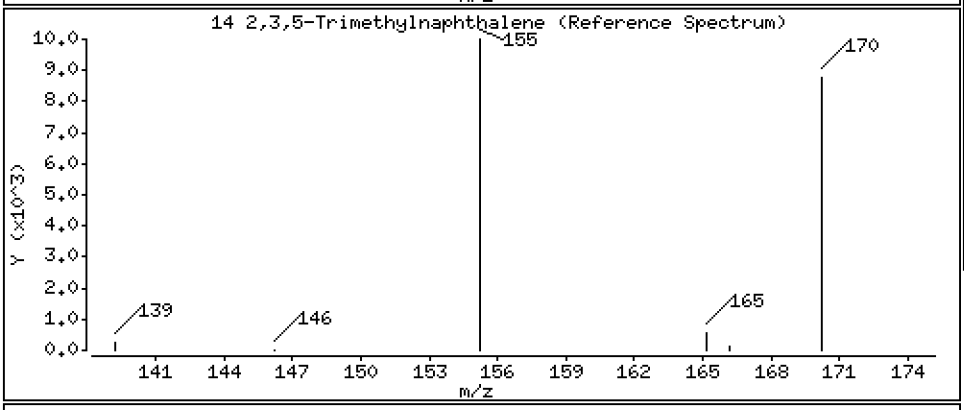
Concentration: 231 ng/mL

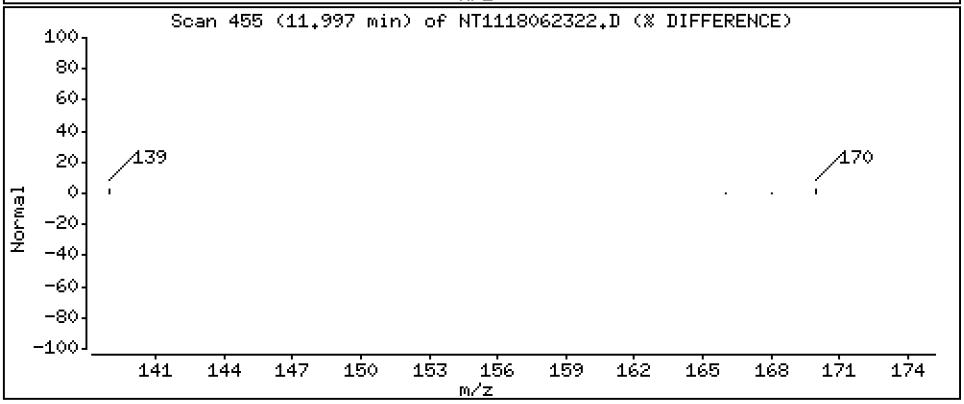












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Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

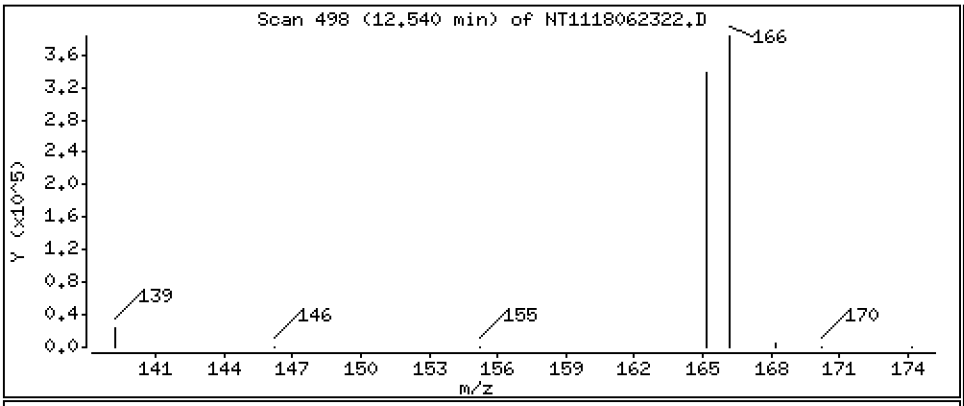
Operator: VTS

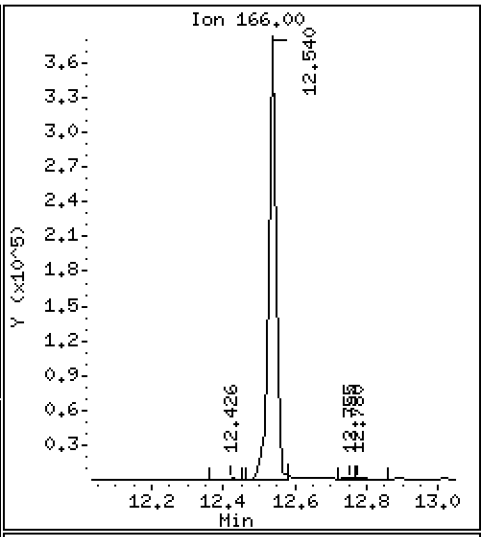
Column phase: Rxi-17Sil MS

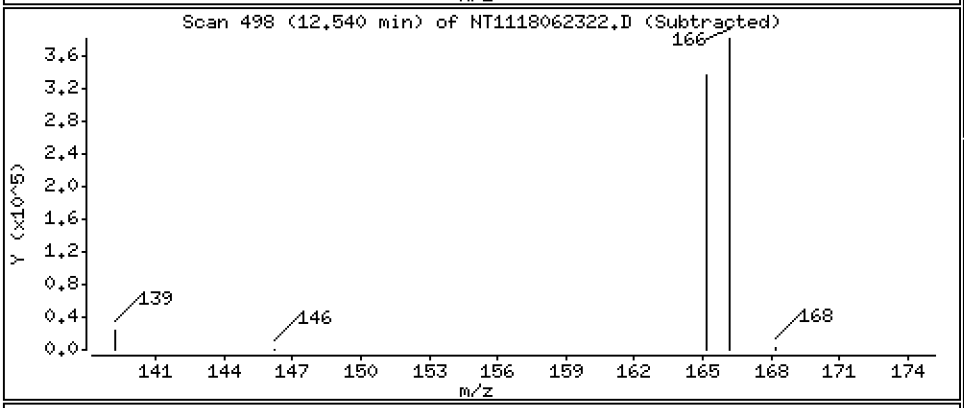
Column diameter: 0.25

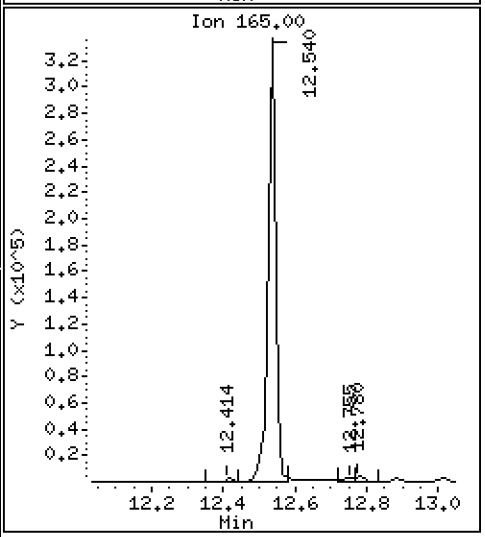
16 Fluorene

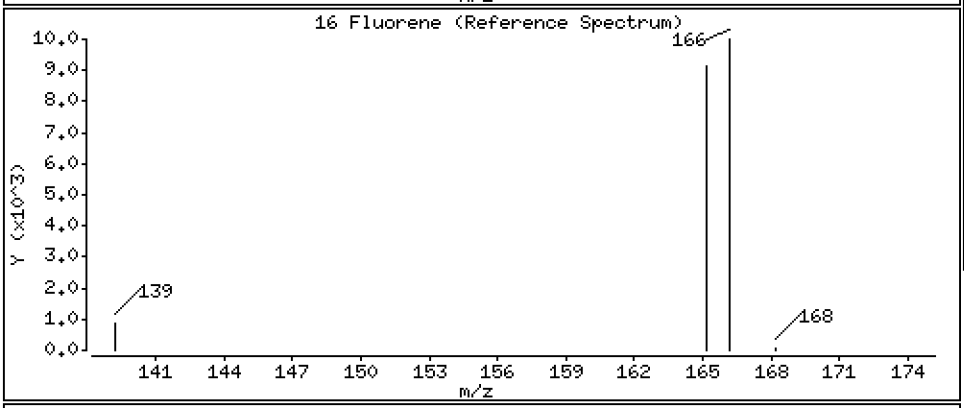
Concentration: 222 ng/mL

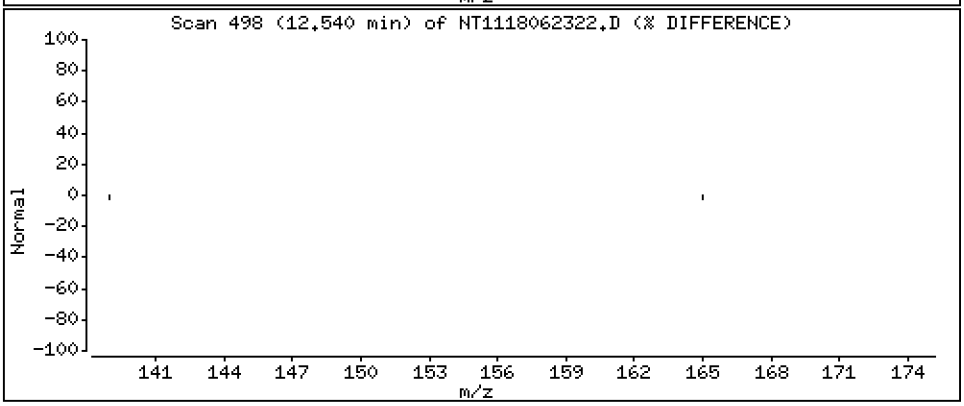












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Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

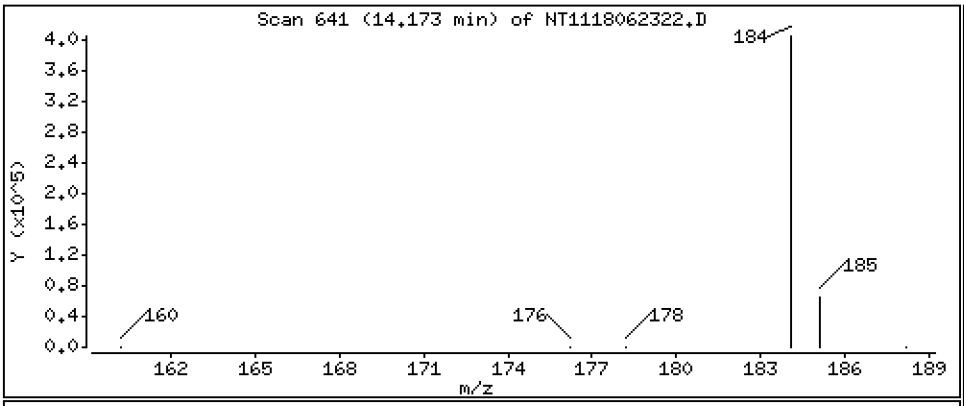
Operator: VTS

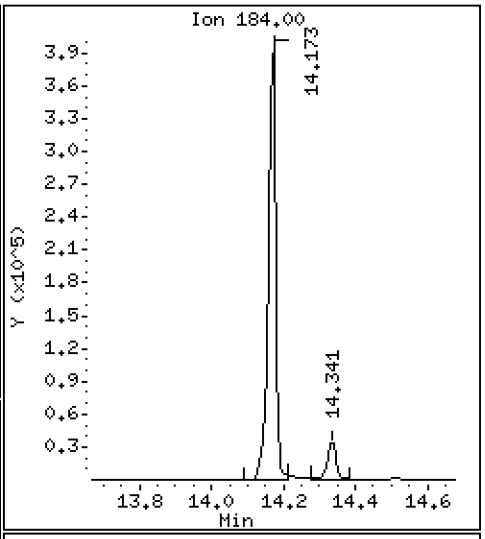
Column phase: Rxi-17Sil MS

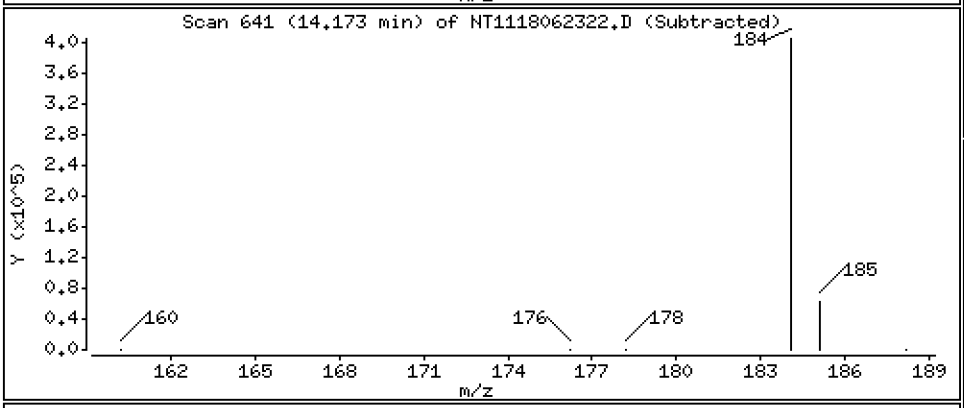
Column diameter: 0.25

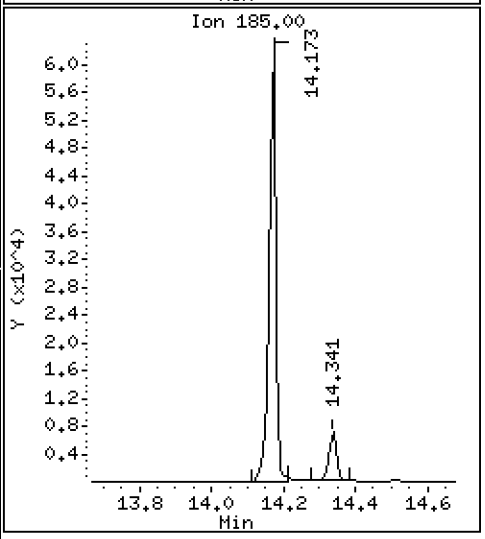
17 Dibenzothiophene

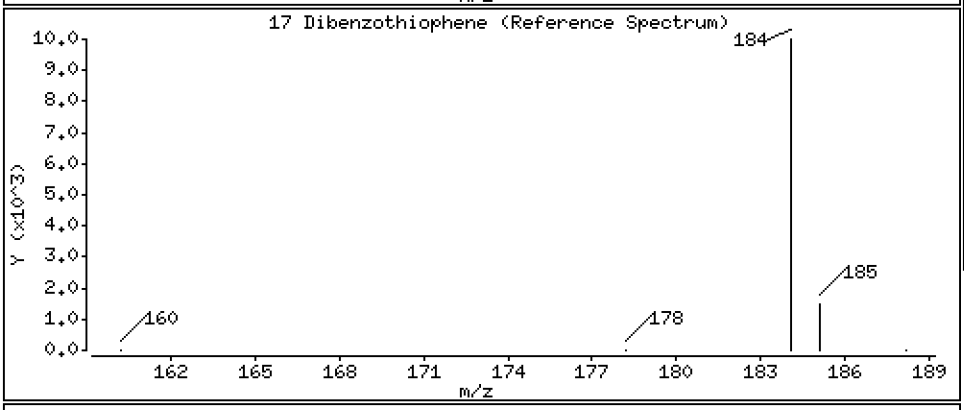
Concentration: 230 ng/mL

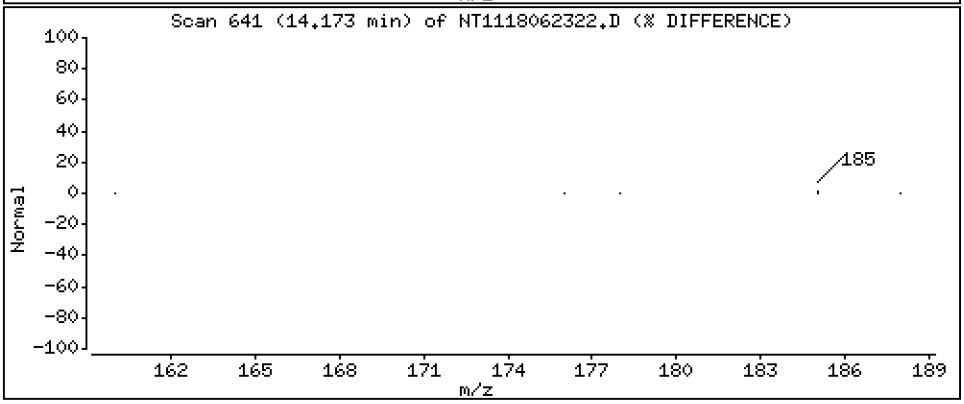












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Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

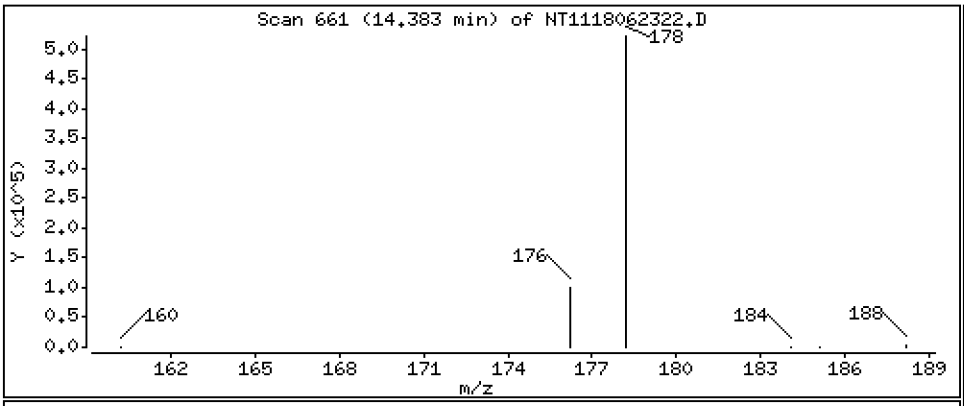
Operator: VTS

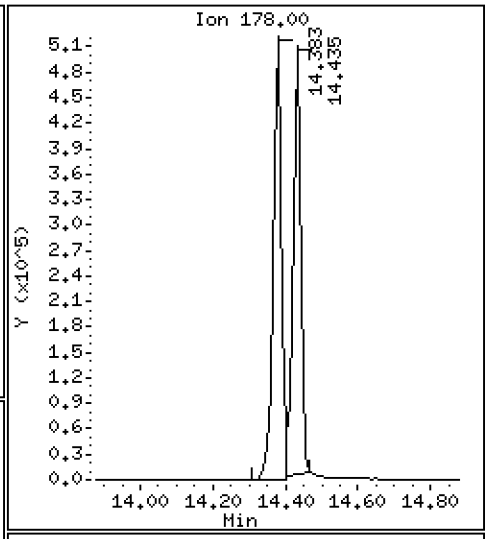
Column phase: Rxi-17Sil MS

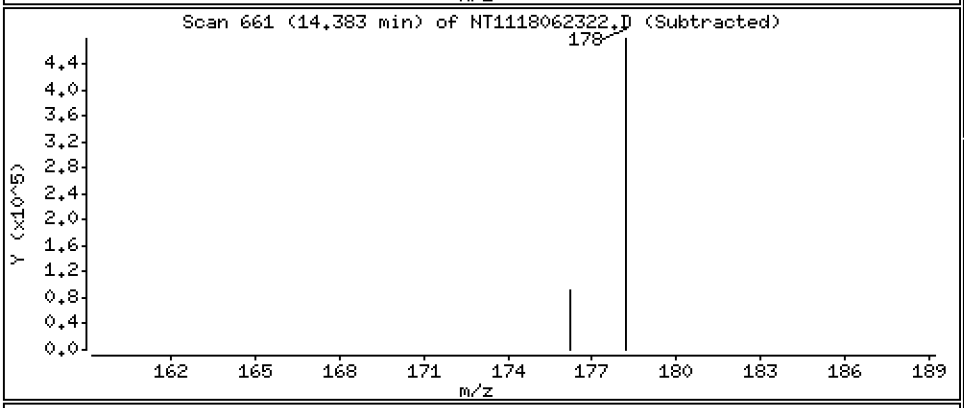
Column diameter: 0.25

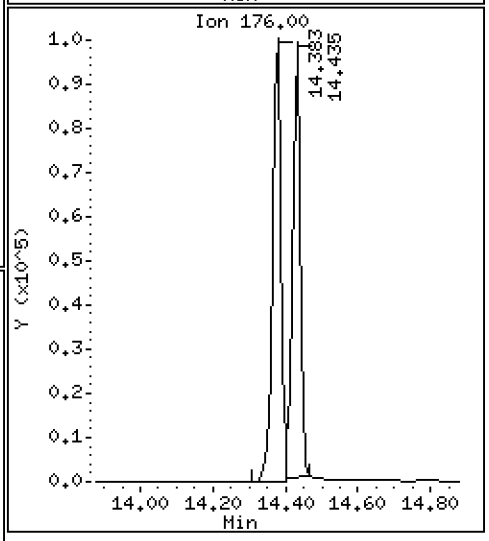
19 Phenanthrene

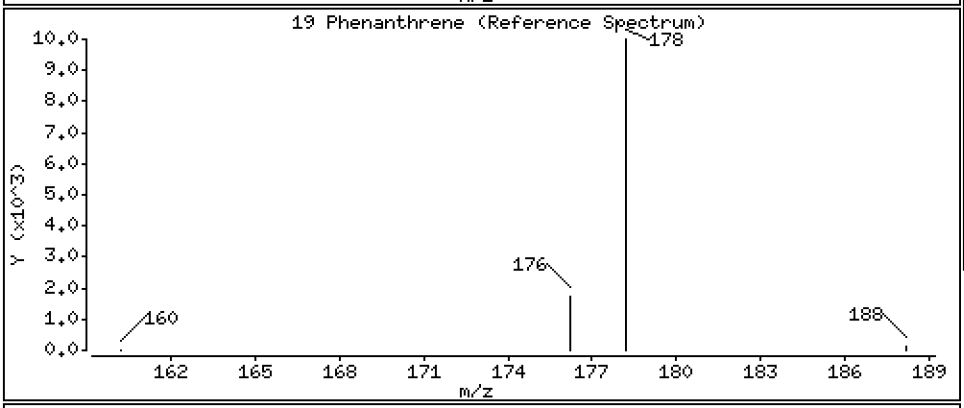
Concentration: 232 ng/mL

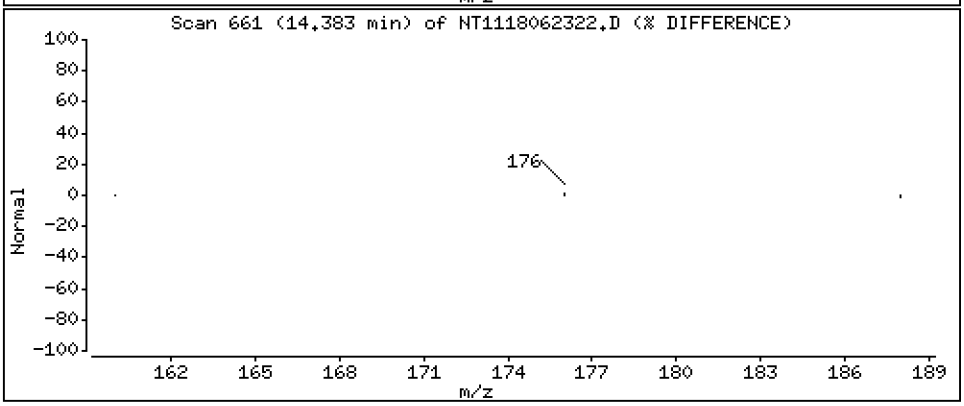












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Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

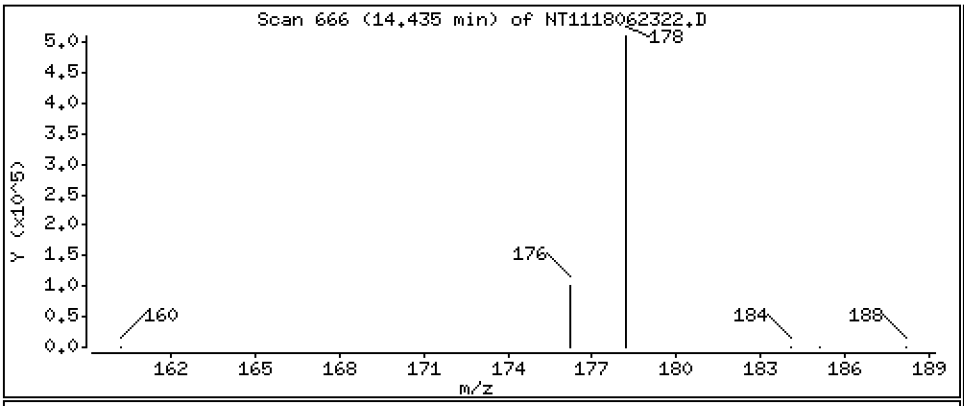
Operator: VTS

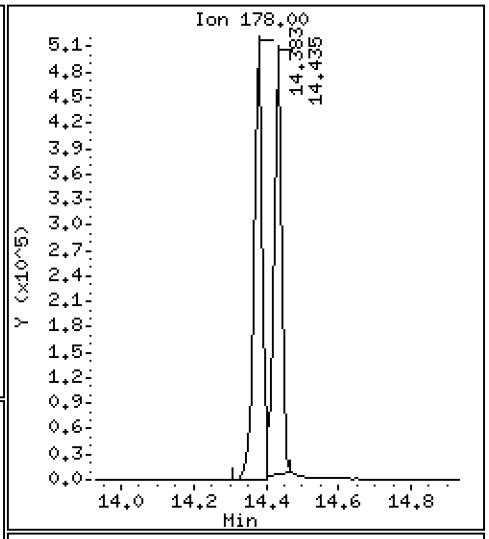
Column phase: Rxi-17Sil MS

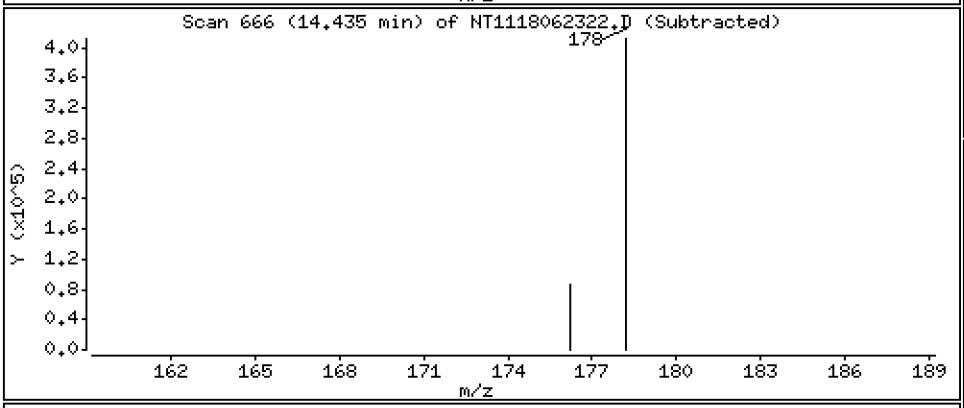
Column diameter: 0.25

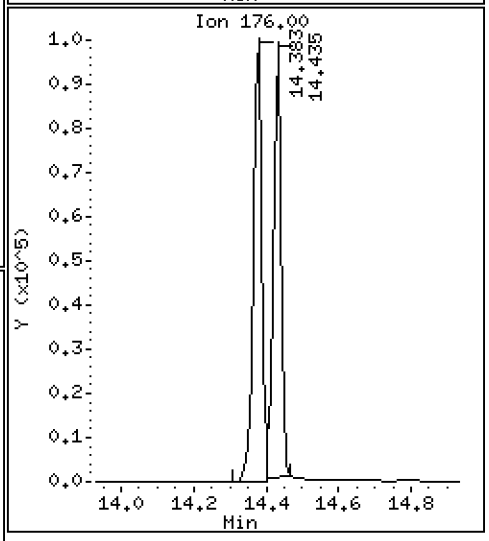
21 Anthracene

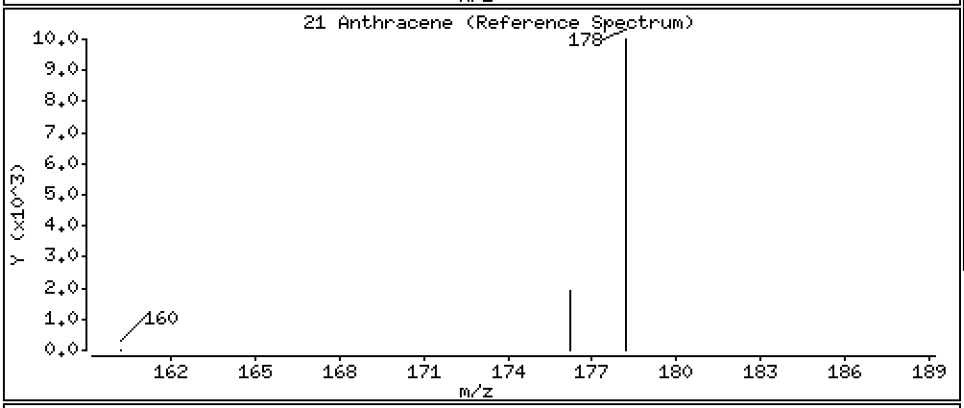
Concentration: 225 ng/mL

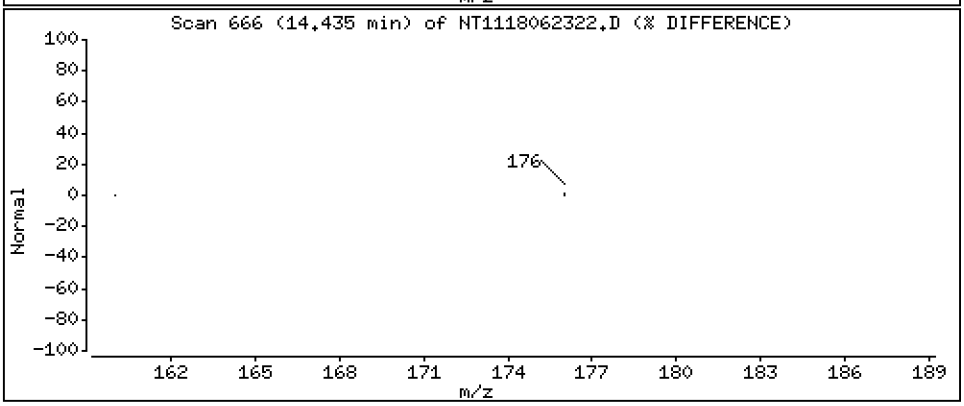












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Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

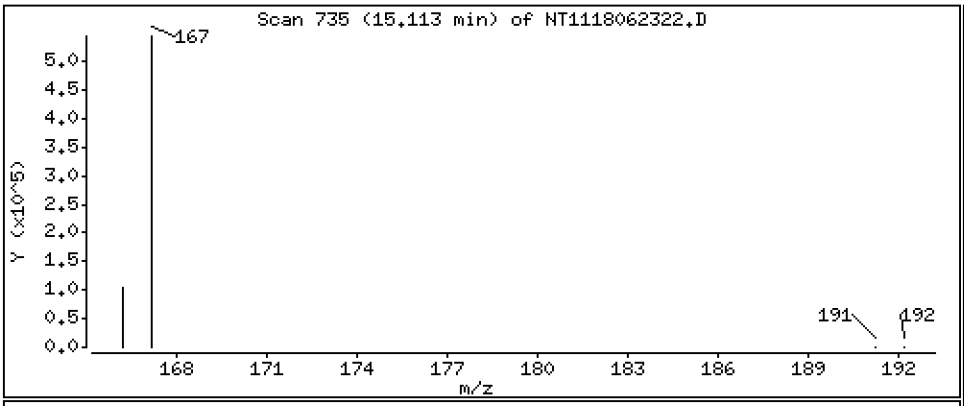
Operator: VTS

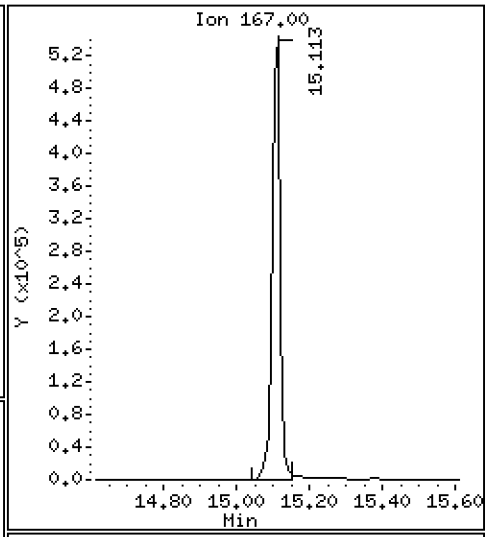
Column phase: Rxi-17Sil MS

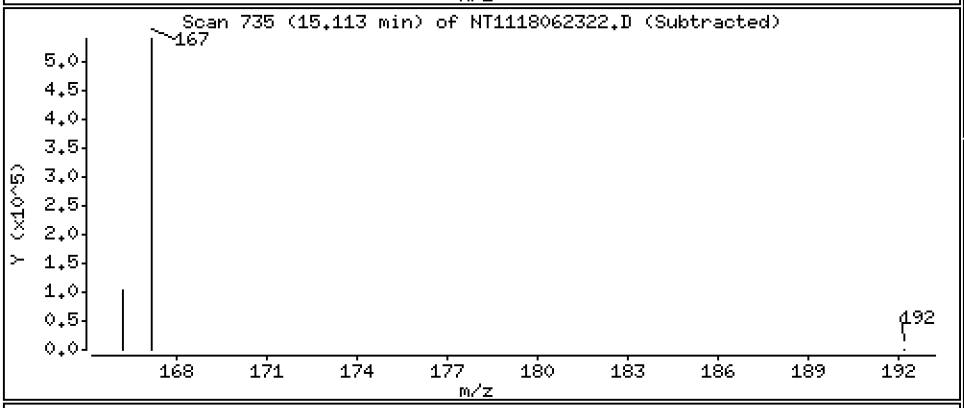
Column diameter: 0.25

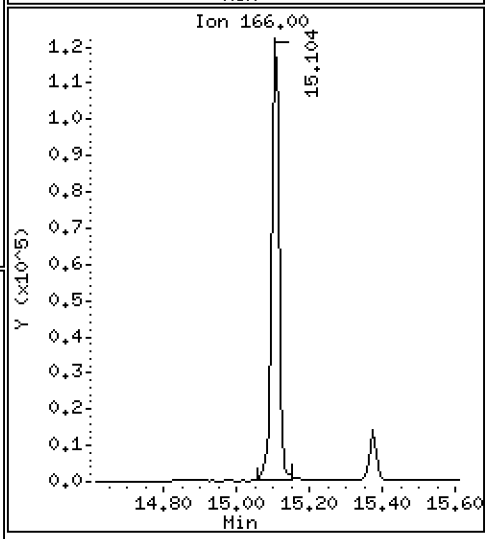
22 Carbazole

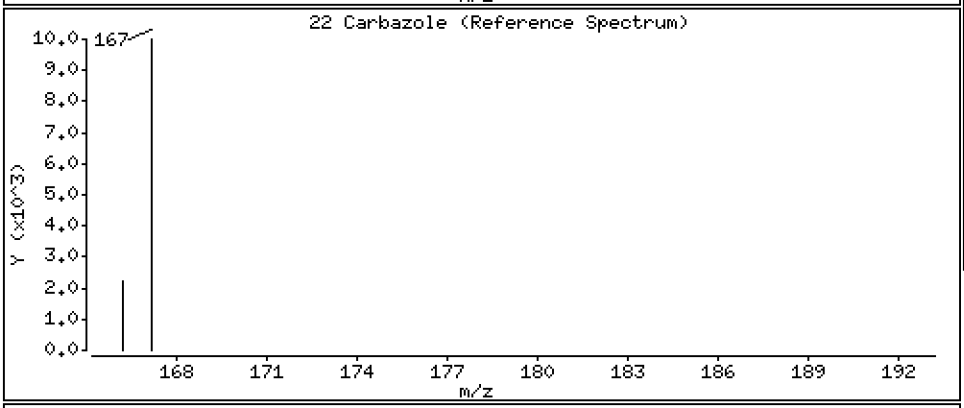
Concentration: 218 ng/mL

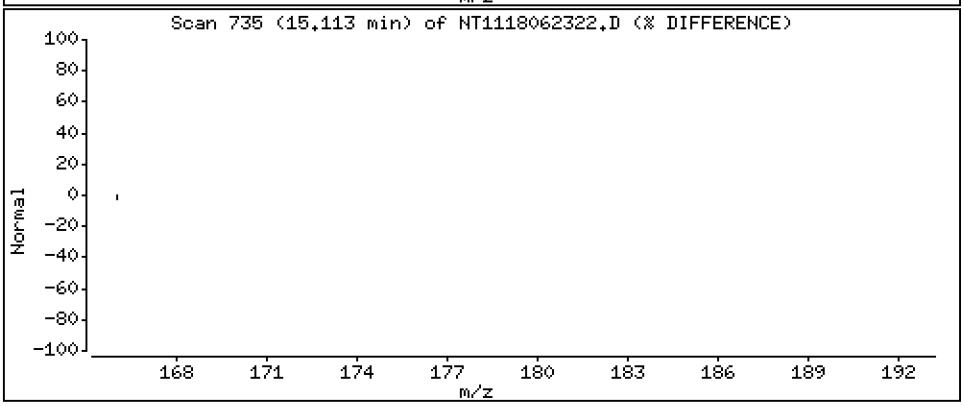












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062322.D

Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

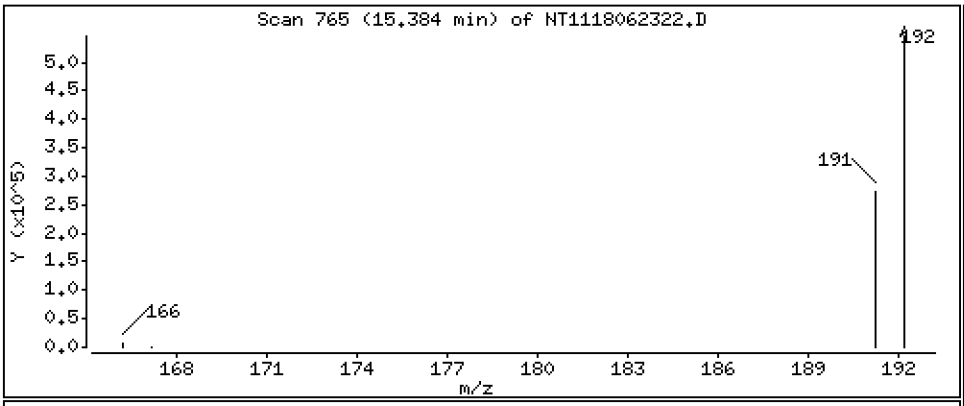
Operator: VTS

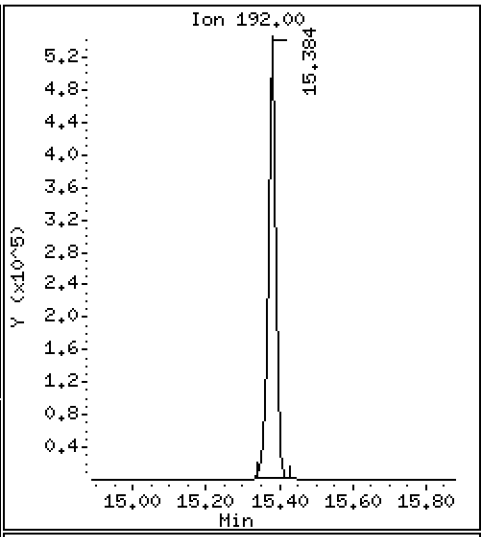
Column phase: Rxi-17Sil MS

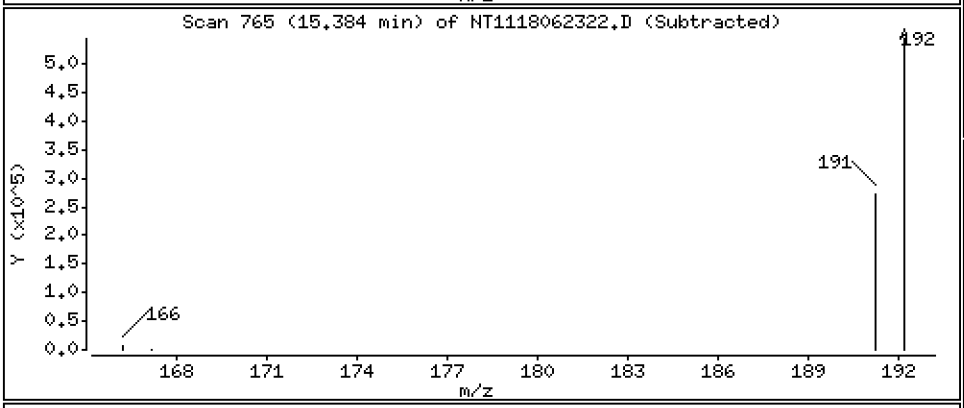
Column diameter: 0.25

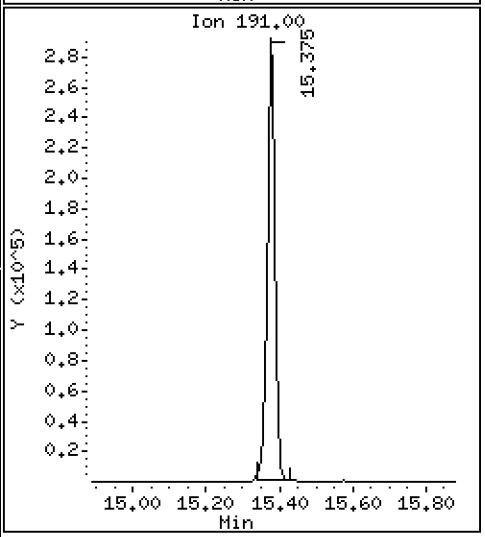
23 1-Methylphenanthrene

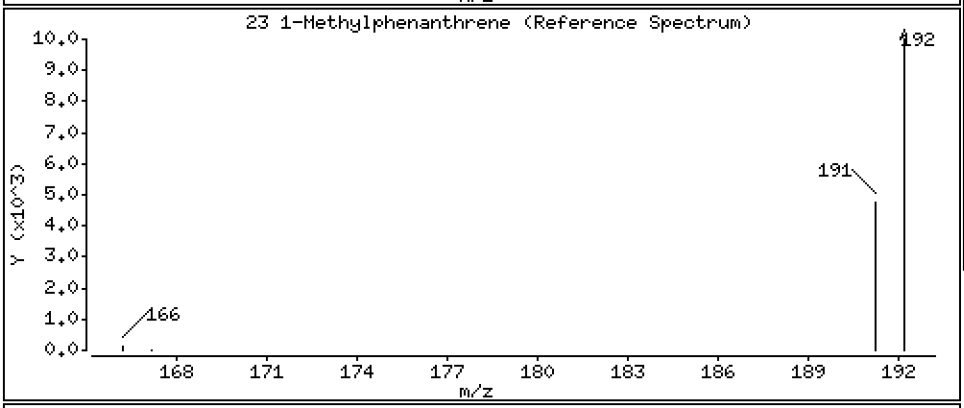
Concentration: 240 ng/mL

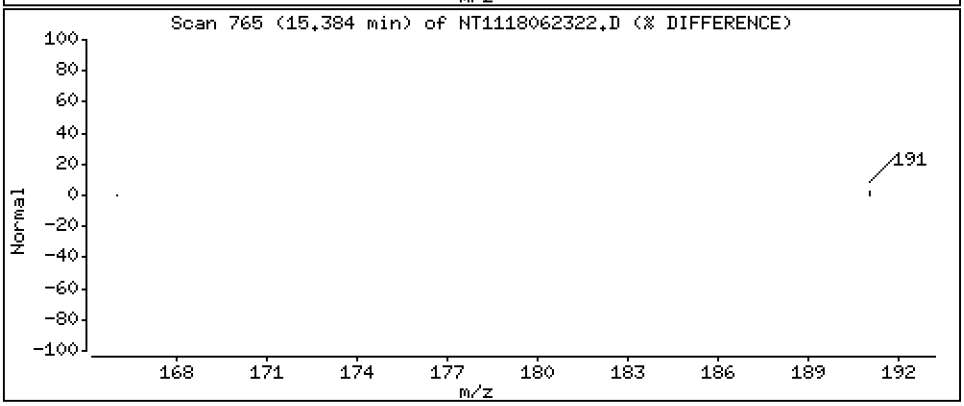












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Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

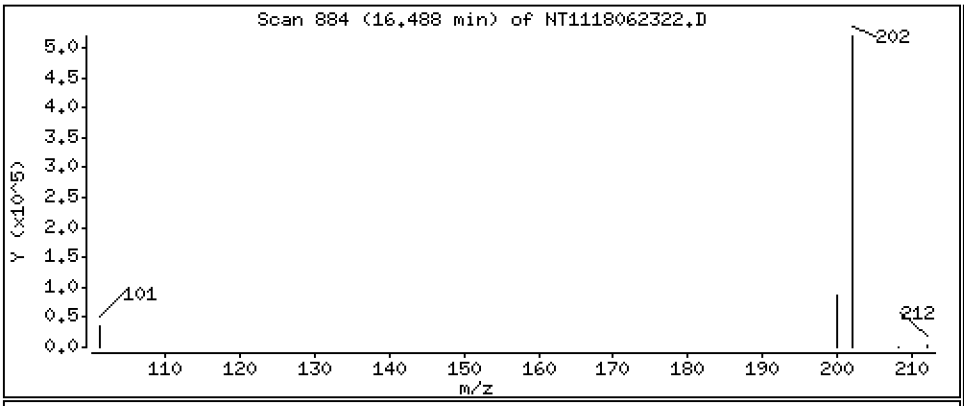
Operator: VTS

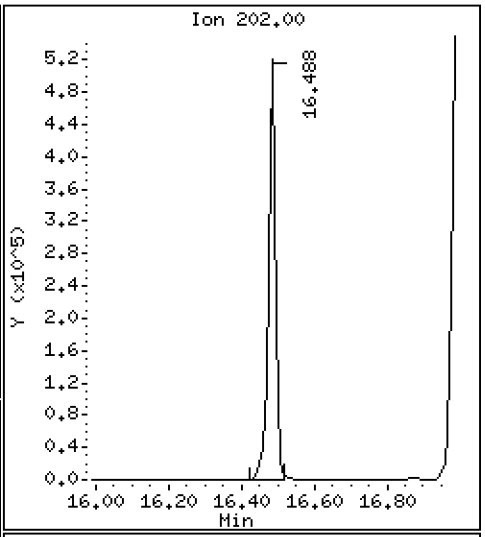
Column phase: Rxi-17Sil MS

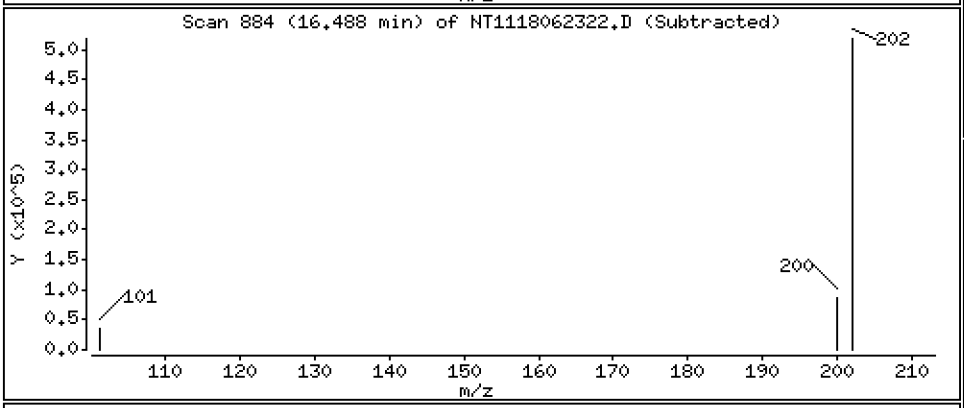
Column diameter: 0.25

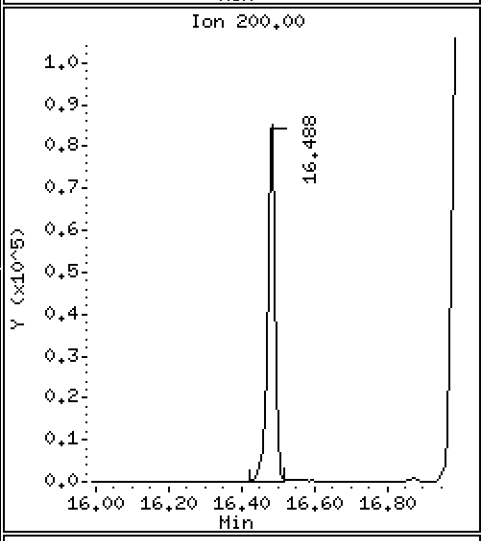
25 Fluoranthene

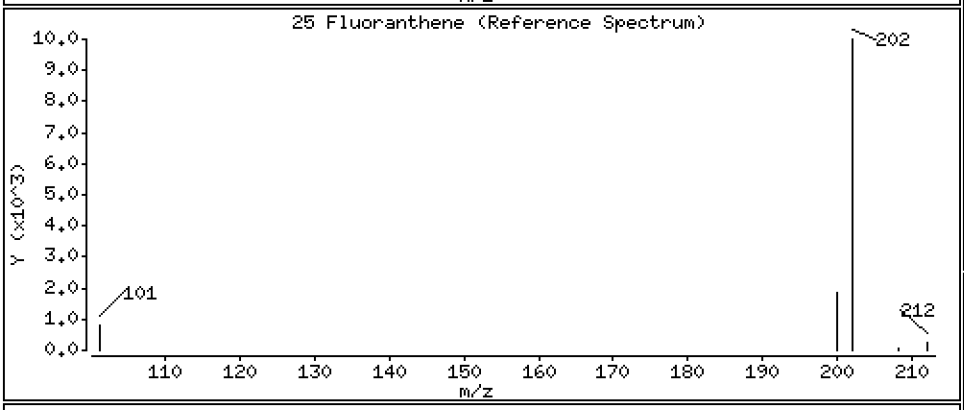
Concentration: 232 ng/mL

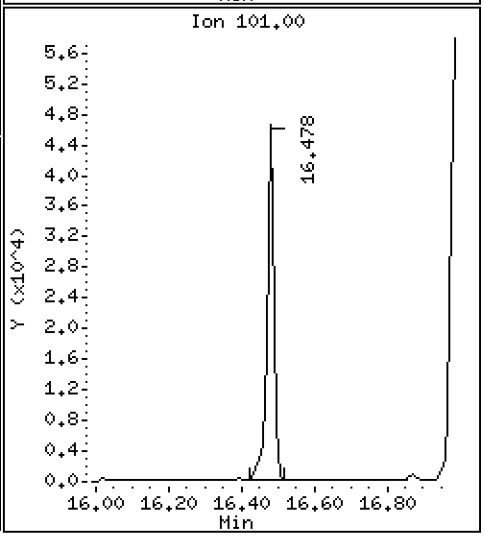


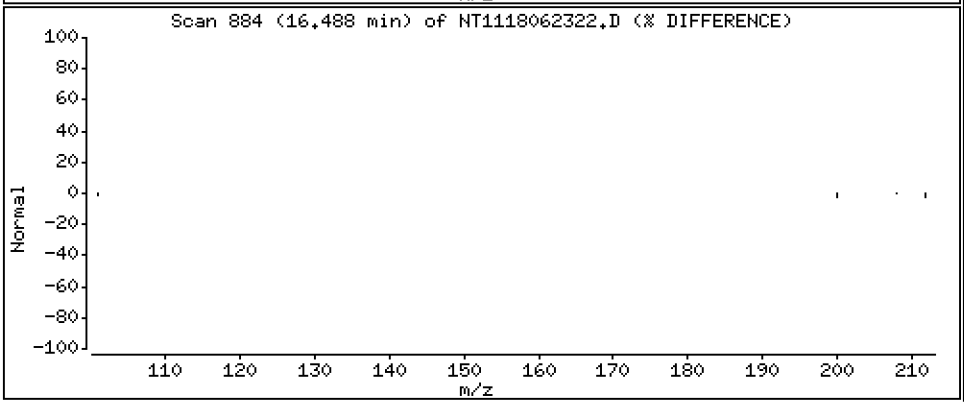












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Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

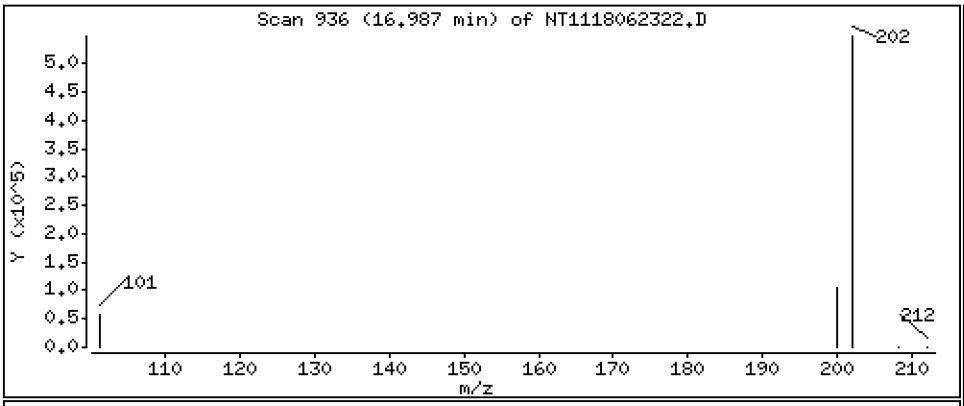
Operator: VTS

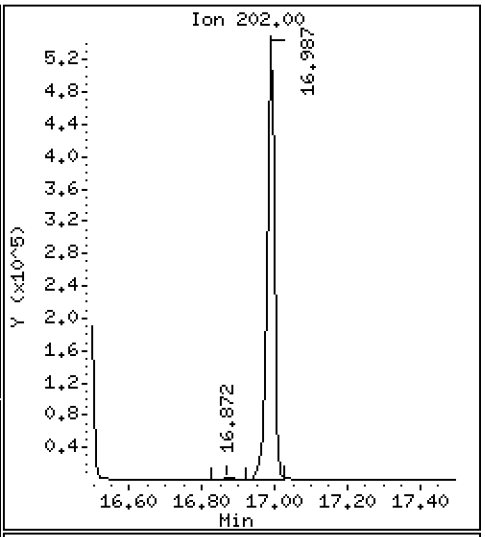
Column phase: Rxi-17Sil MS

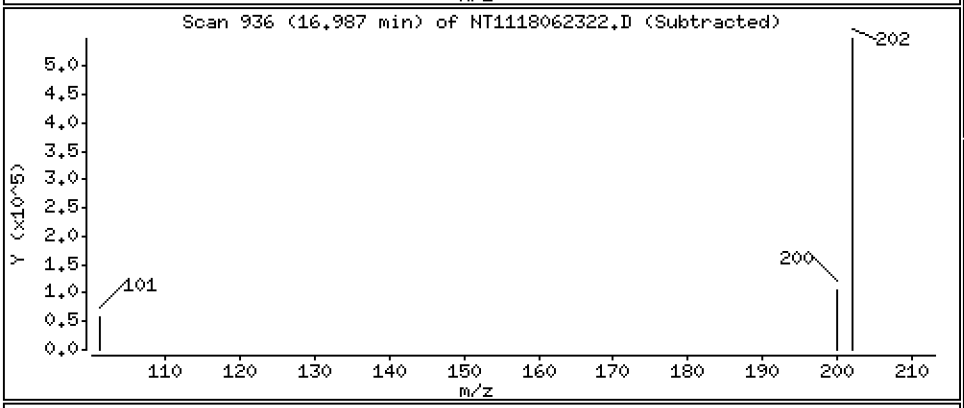
Column diameter: 0.25

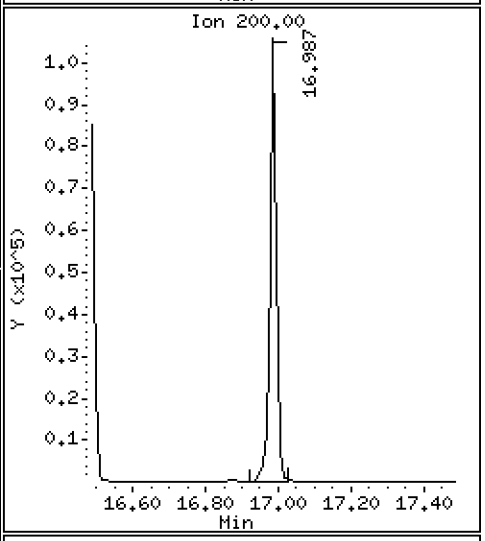
26 Pyrene

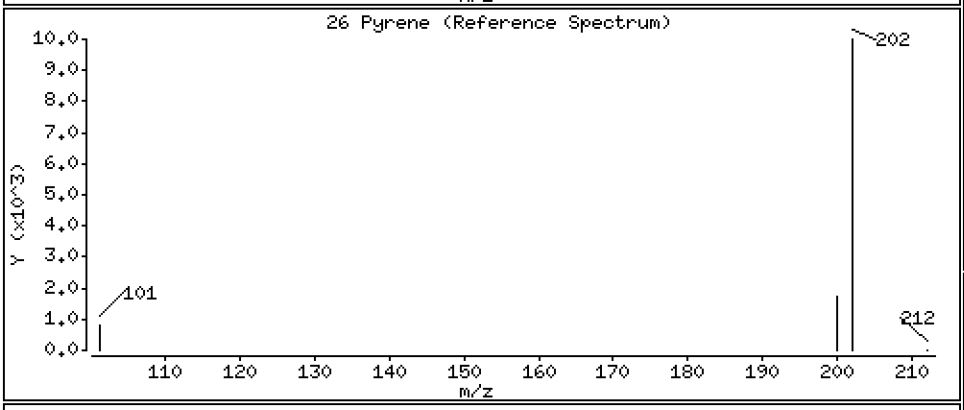
Concentration: 227 ng/mL

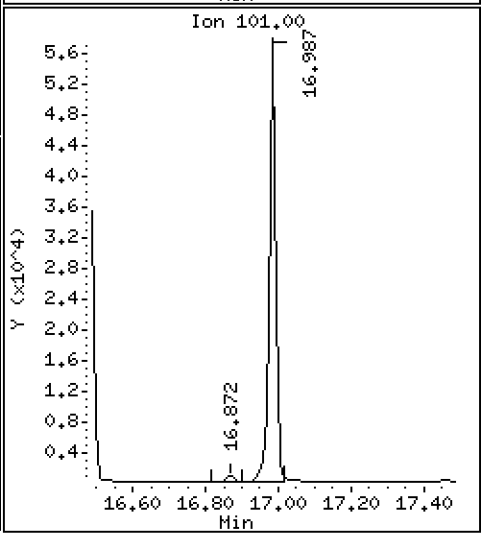


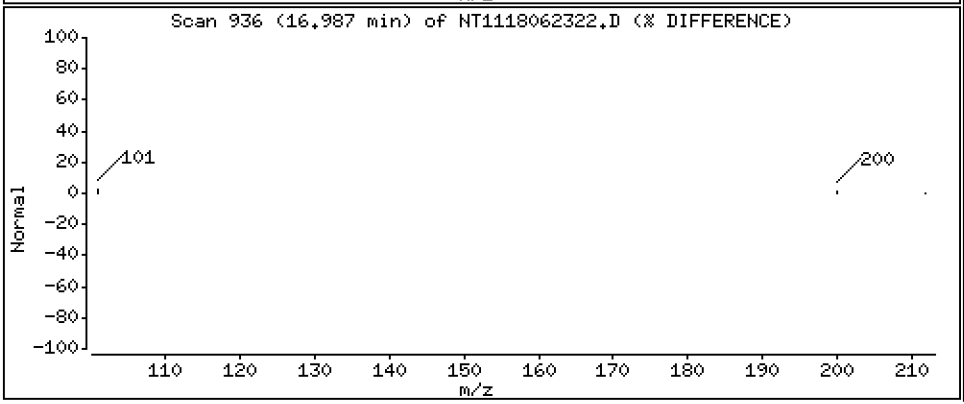












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Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

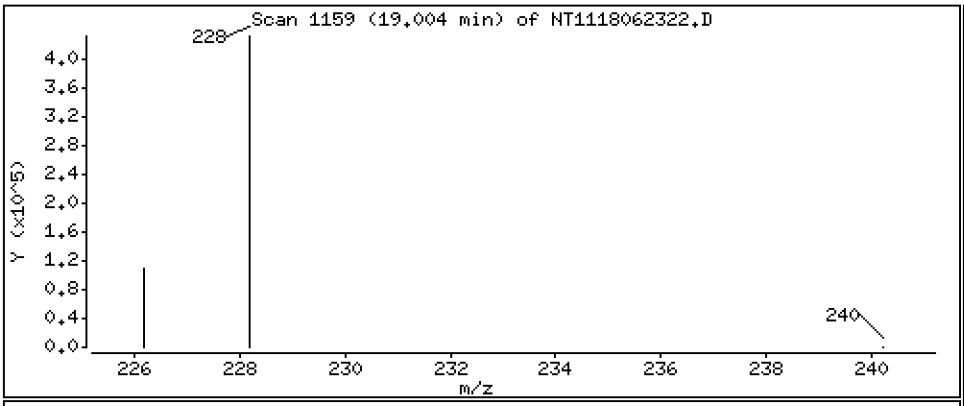
Operator: VTS

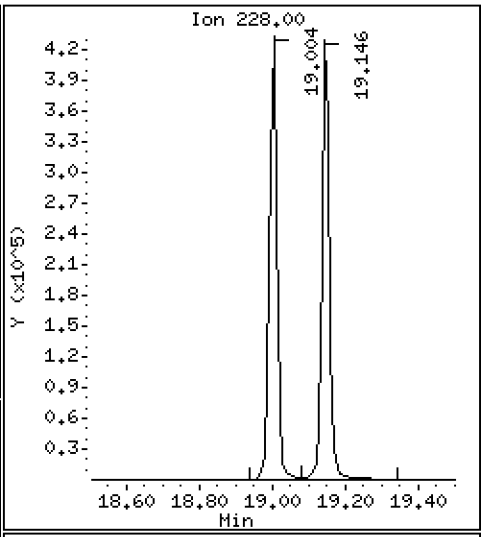
Column phase: Rxi-17Sil MS

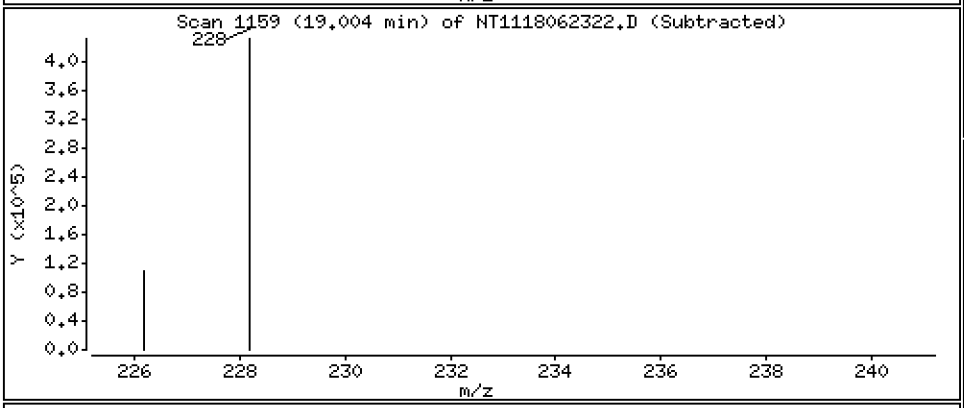
Column diameter: 0.25

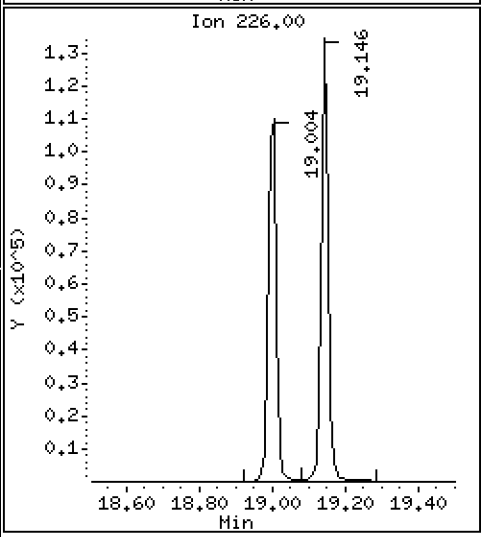
27 Benzo(a)anthracene

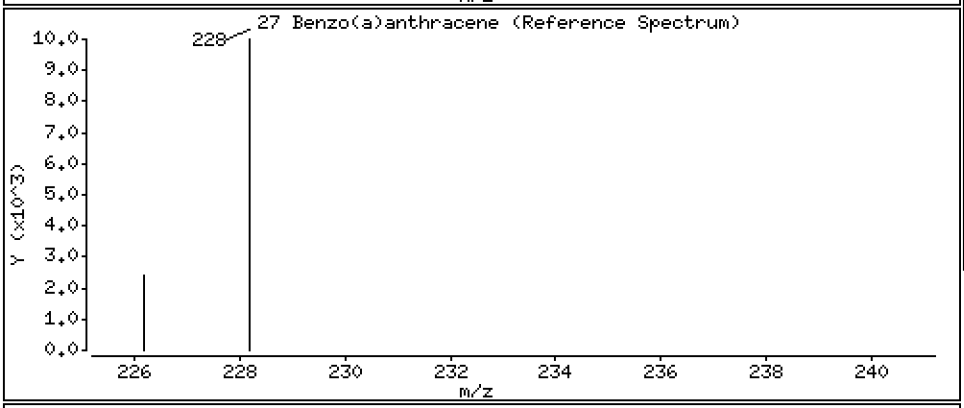
Concentration: 234 ng/mL

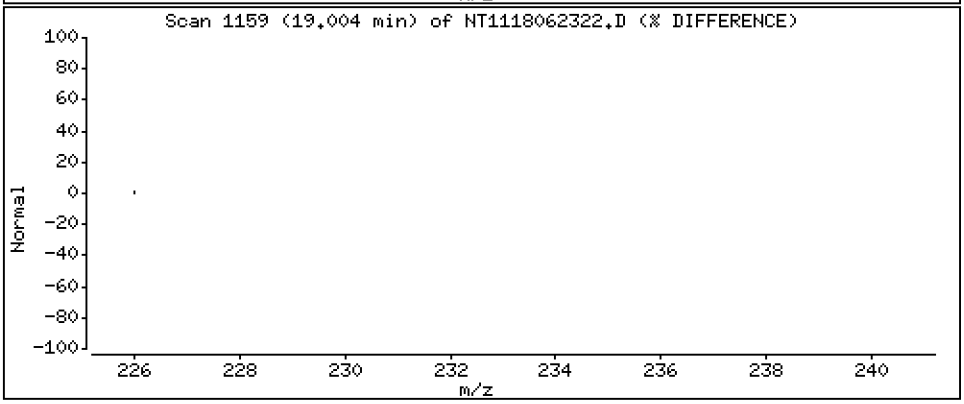












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Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

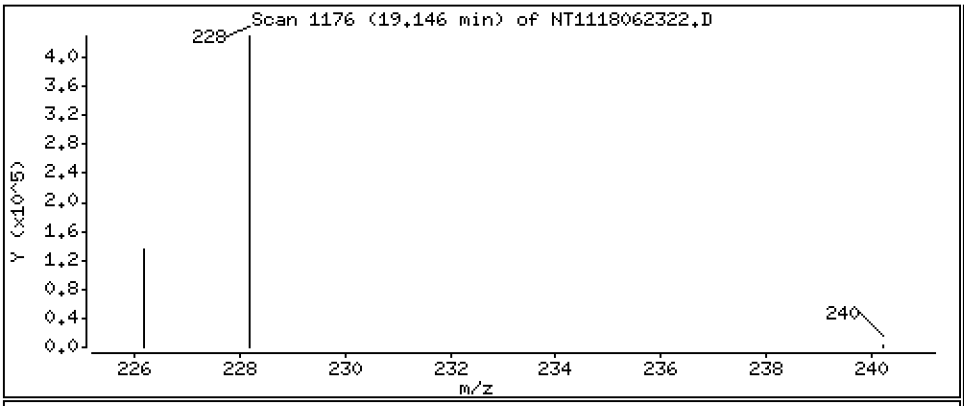
Operator: VTS

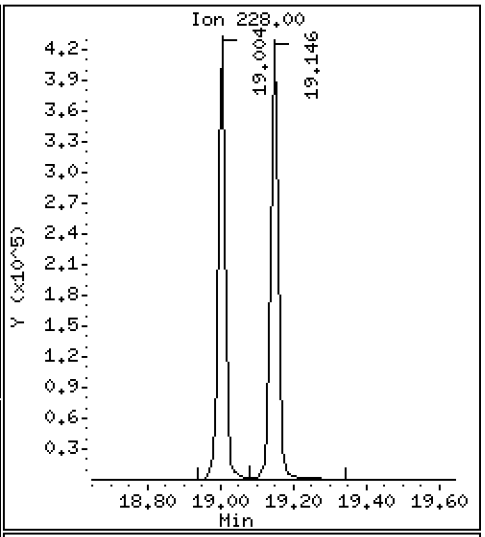
Column phase: Rxi-17Sil MS

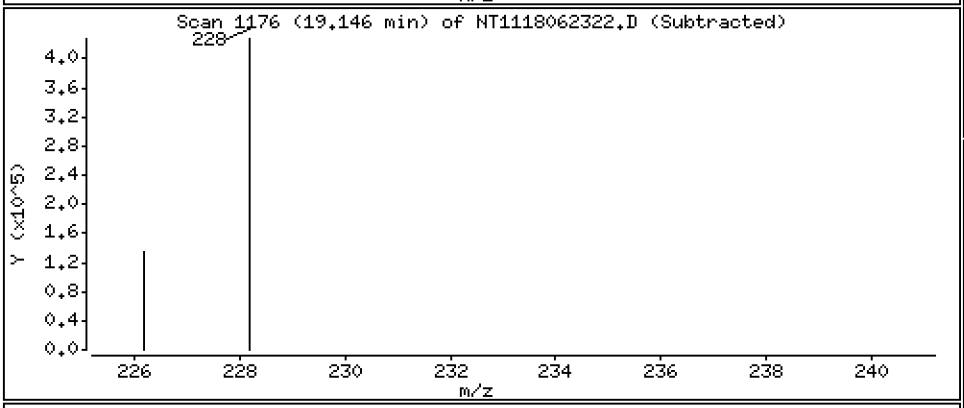
Column diameter: 0.25

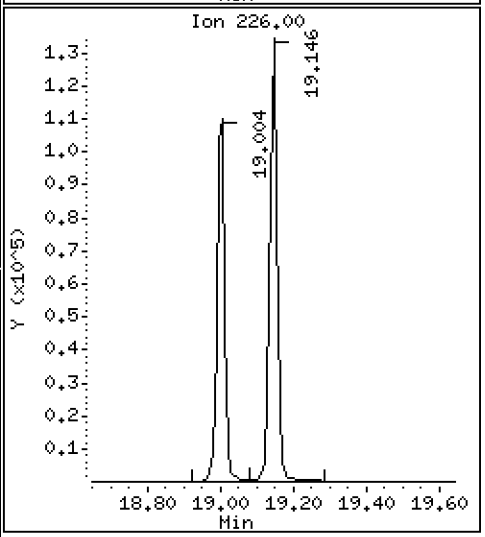
29 Chrysene

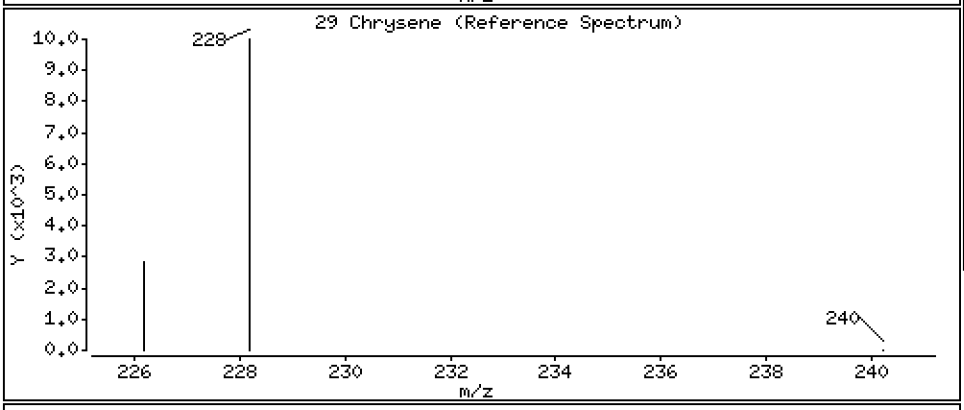
Concentration: 241 ng/mL

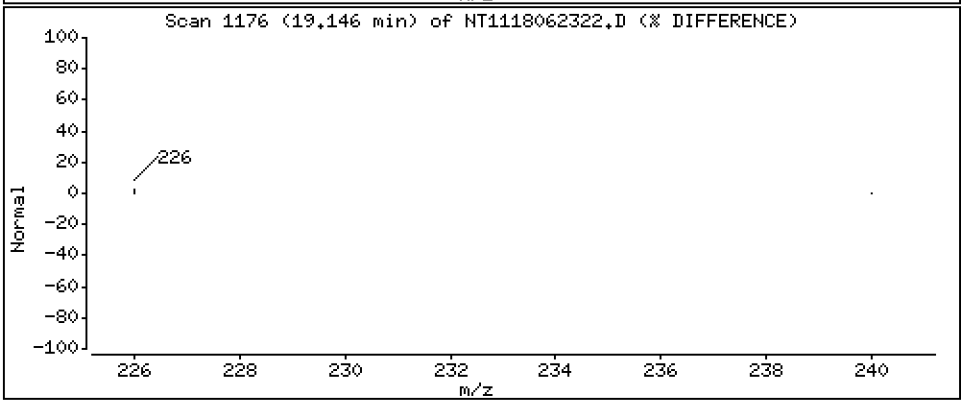












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Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

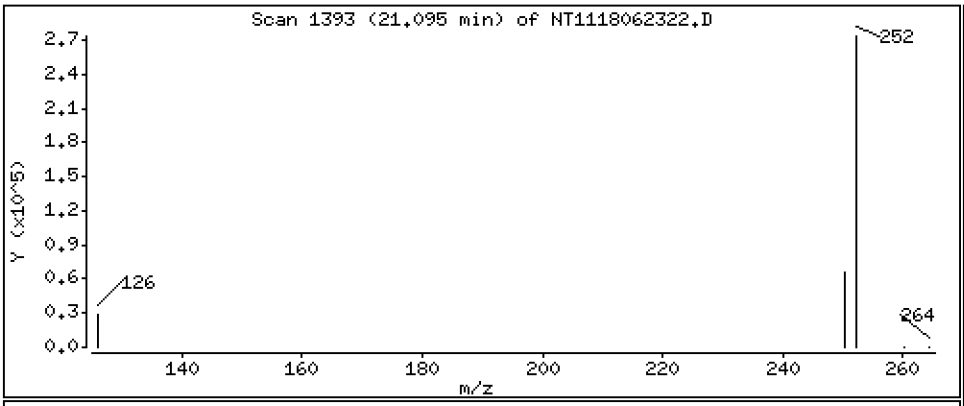
Operator: VTS

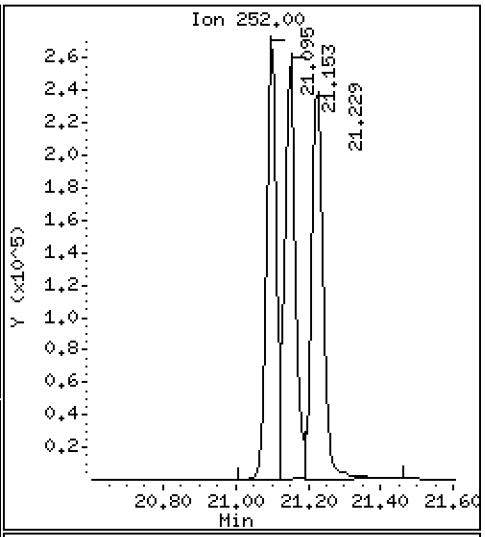
Column phase: Rxi-17Sil MS

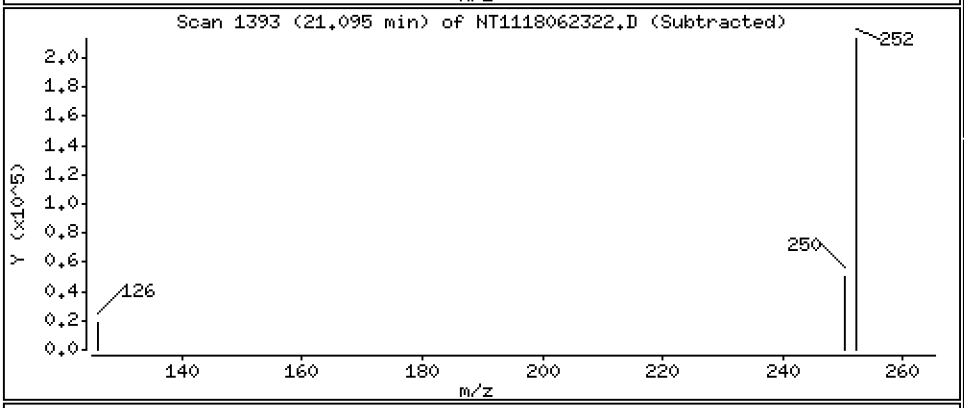
Column diameter: 0.25

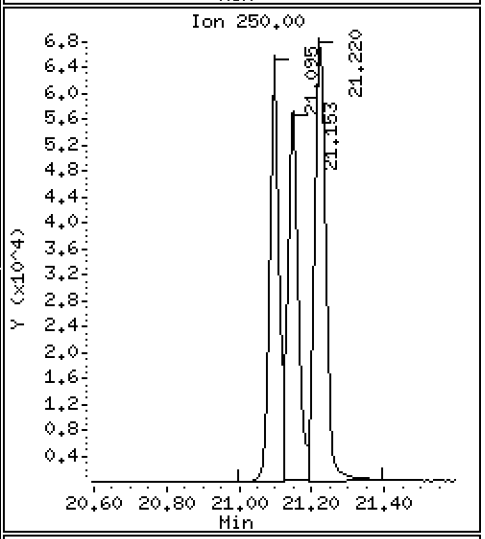
30 Benzo(b)fluoranthene

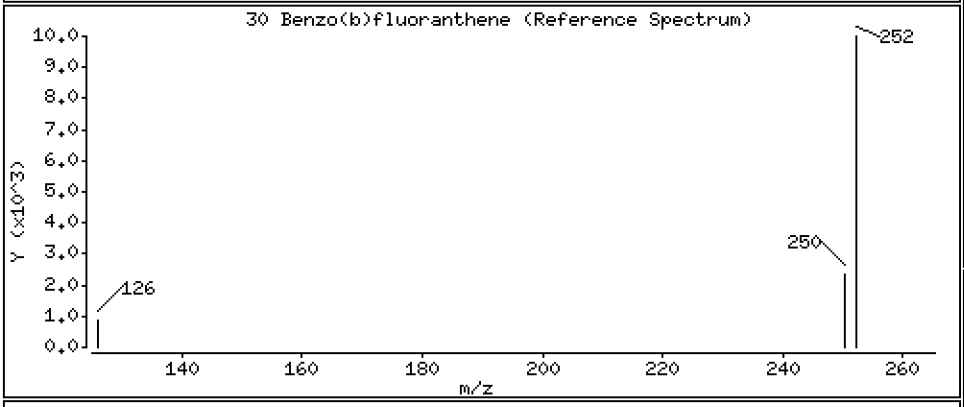
Concentration: 218 ng/mL

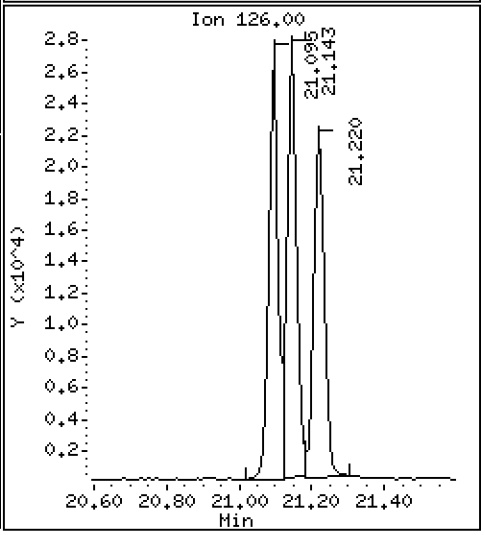


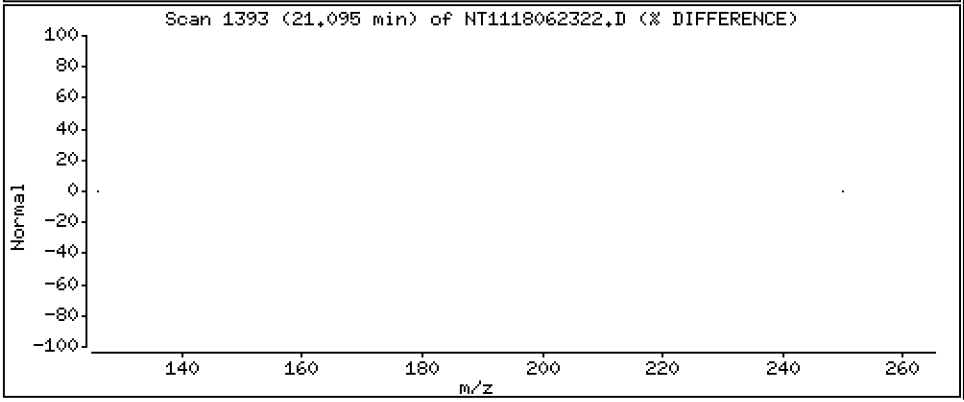












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Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

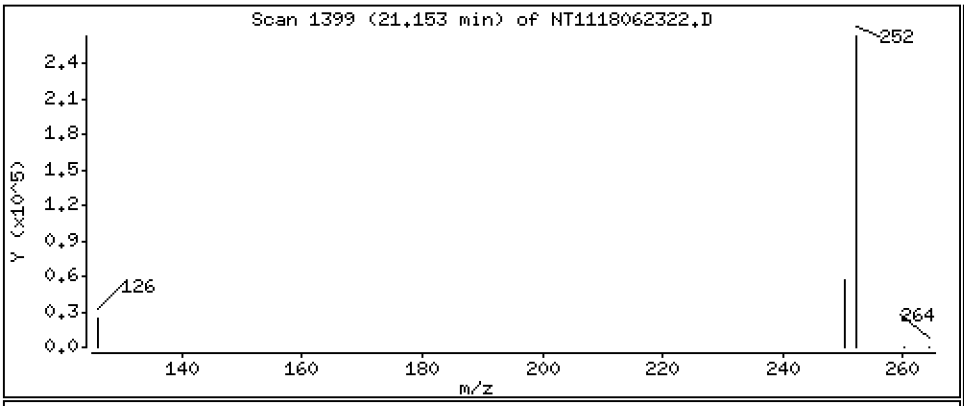
Operator: VTS

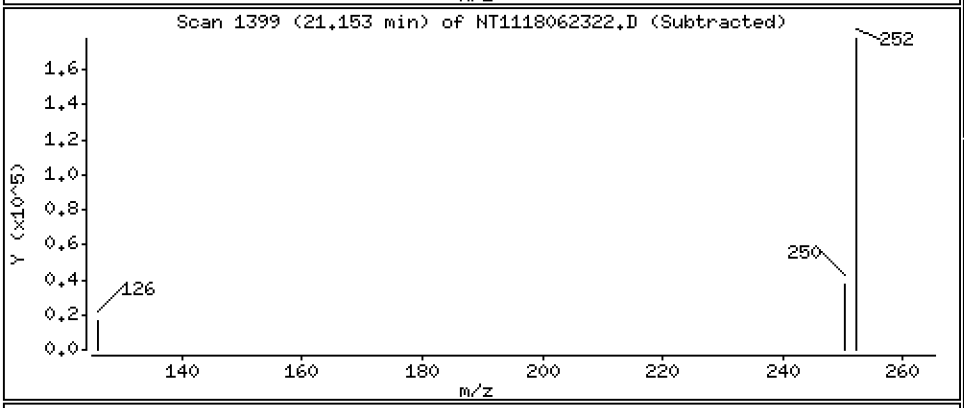
Column phase: Rxi-17Sil MS

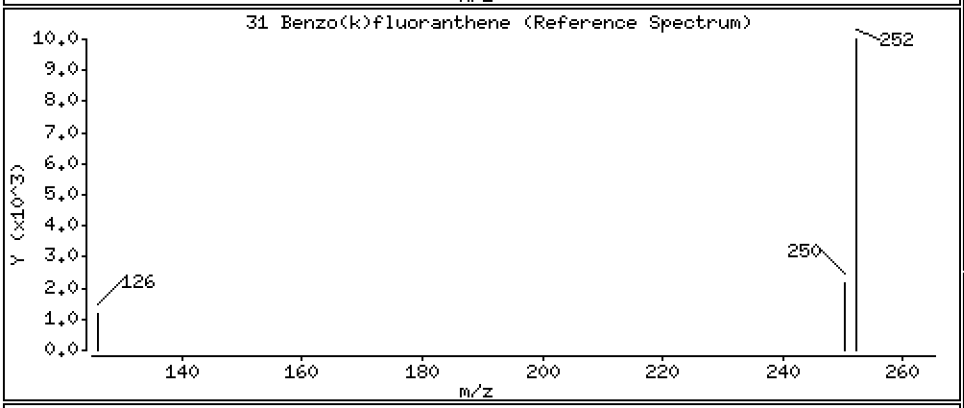
Column diameter: 0.25

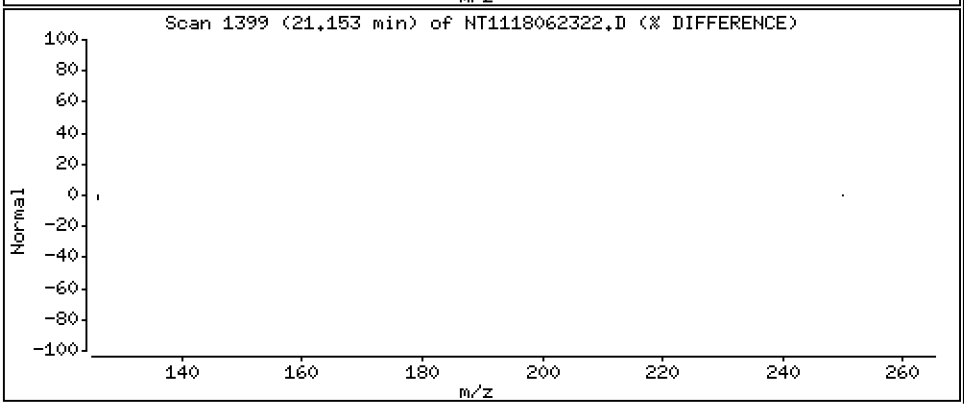
31 Benzo(k)fluoranthene

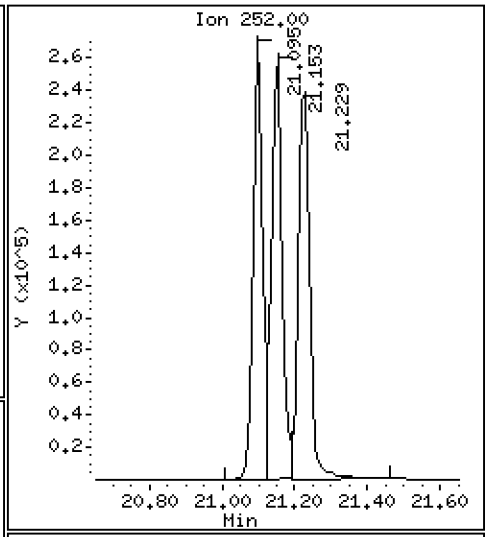
Concentration: 224 ng/mL

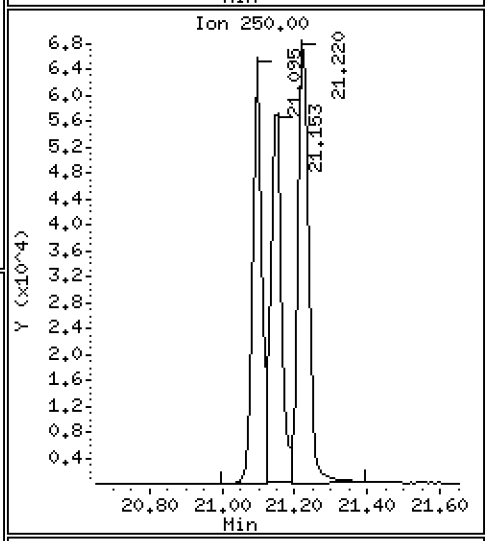


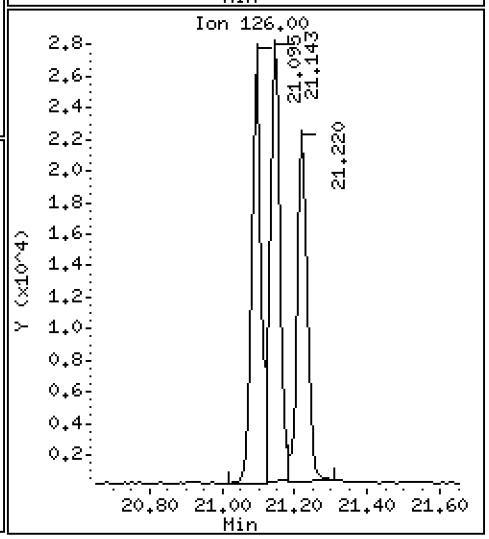












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Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

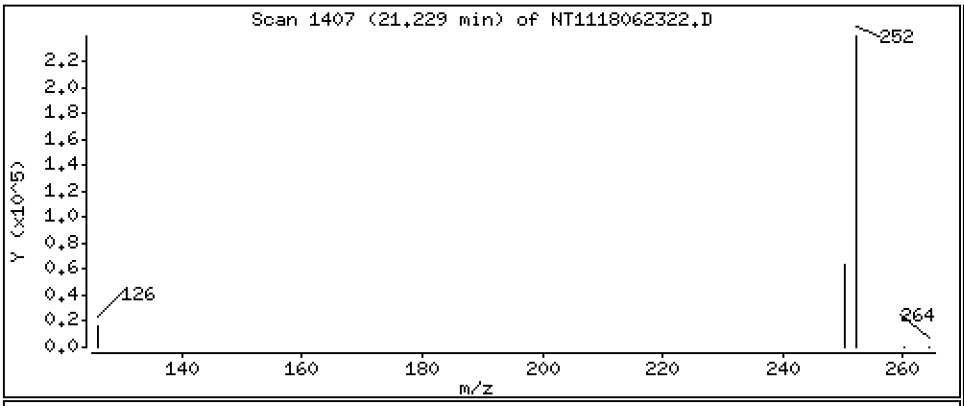
Operator: VTS

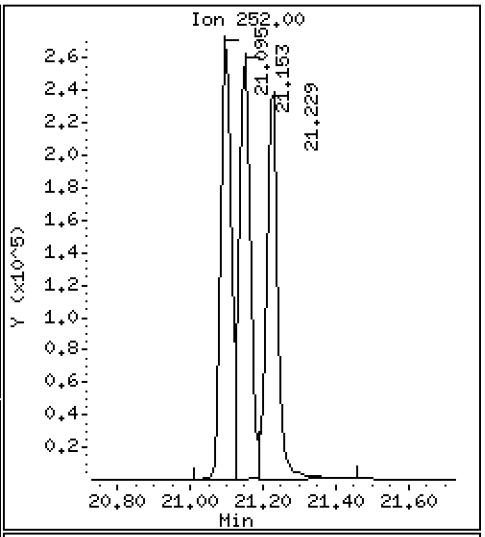
Column phase: Rxi-17Sil MS

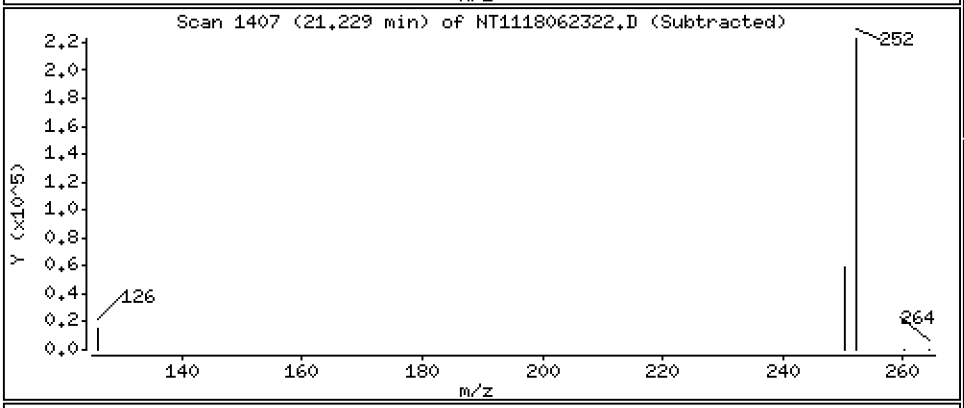
Column diameter: 0.25

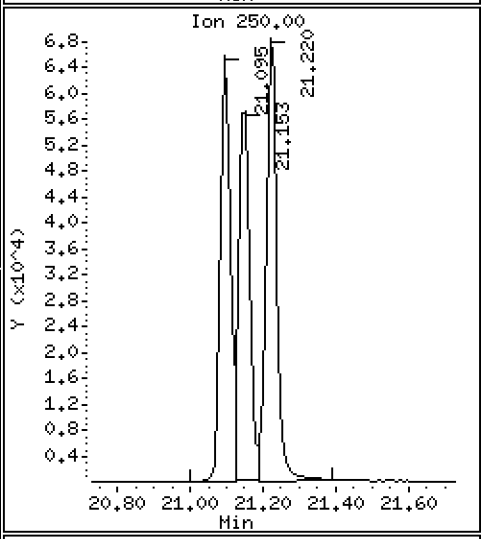
32 Benzo(j)fluoranthene

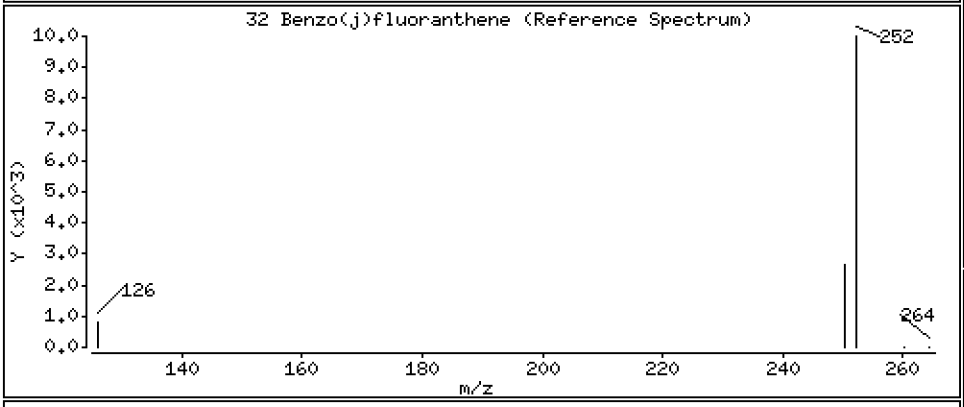
Concentration: 231 ng/mL

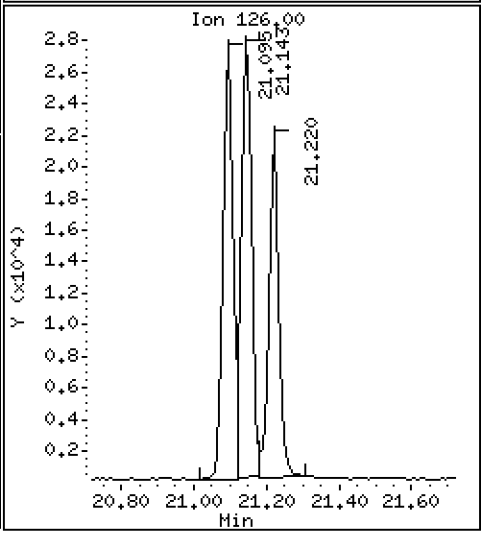


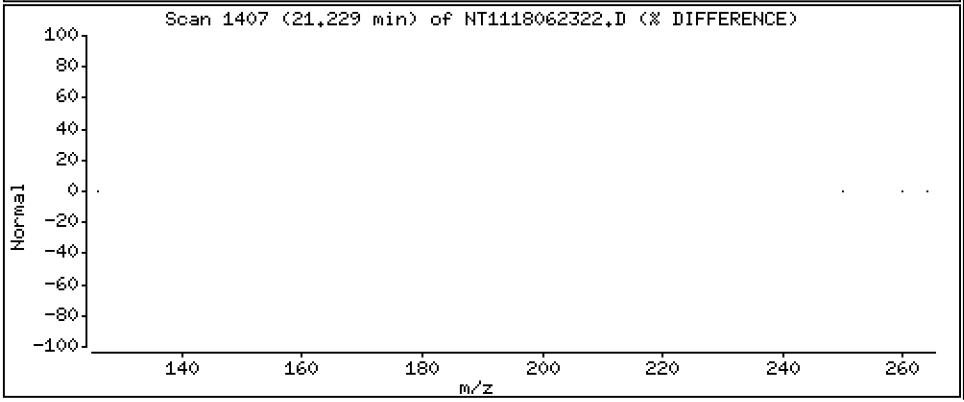












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Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

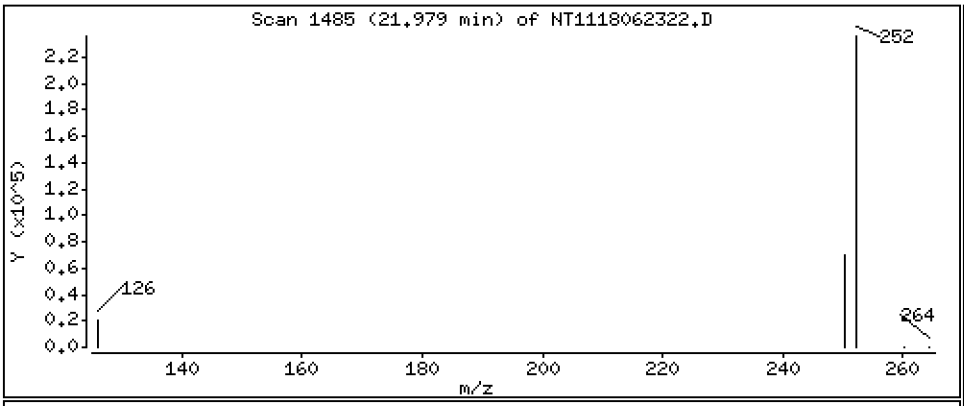
Operator: VTS

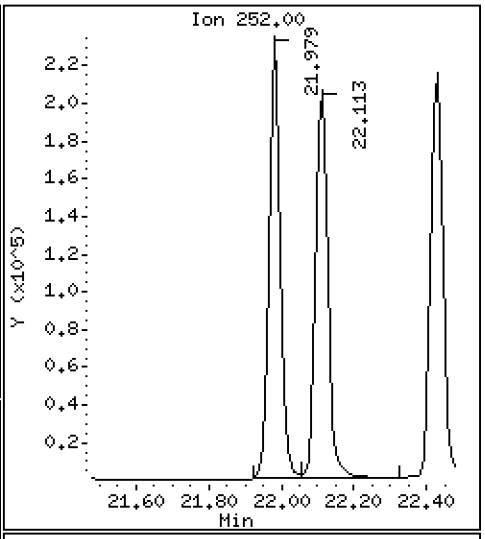
Column phase: Rxi-17Sil MS

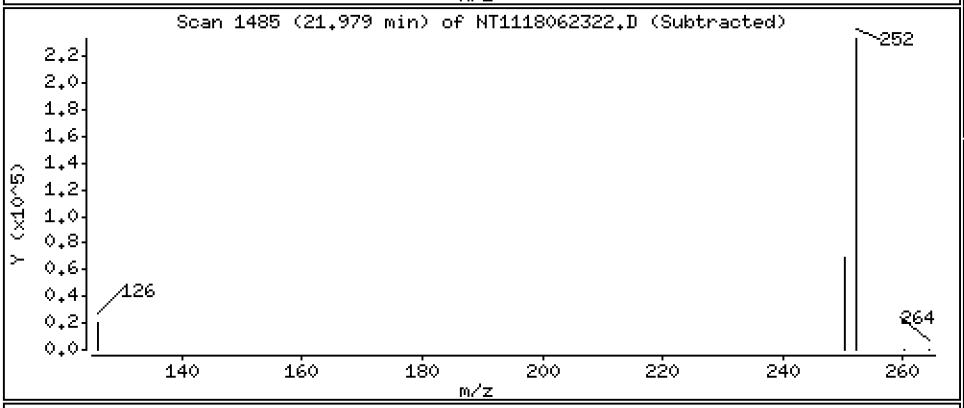
Column diameter: 0.25

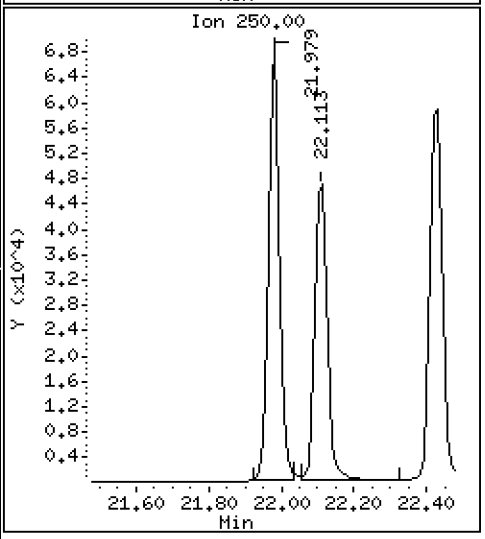
34 Benzo(e)pyrene

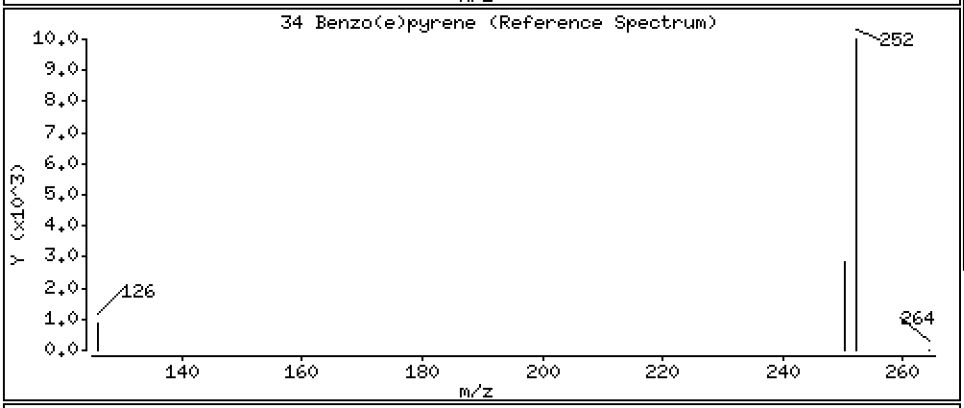
Concentration: 218 ng/mL

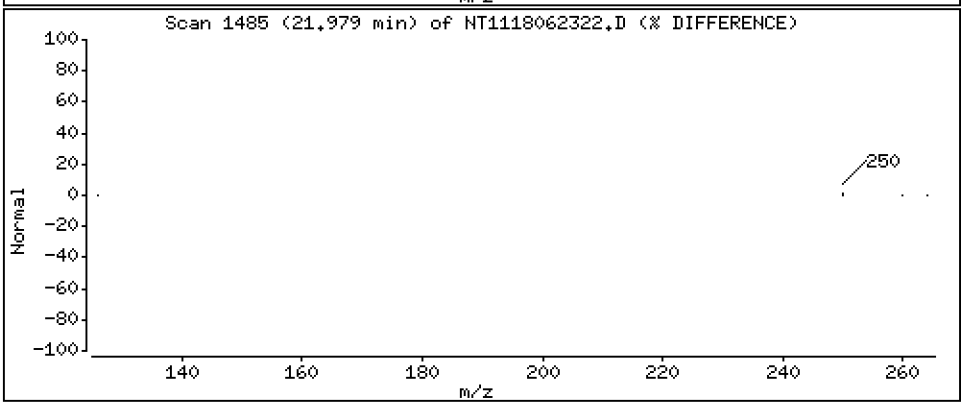












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Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

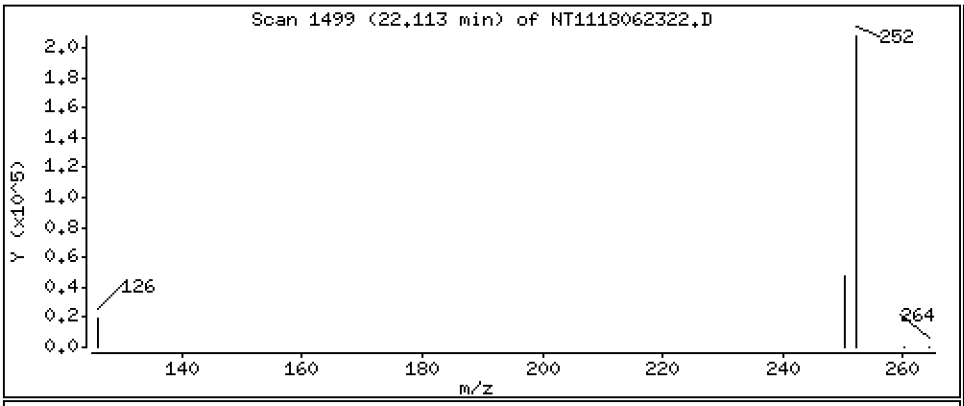
Operator: VTS

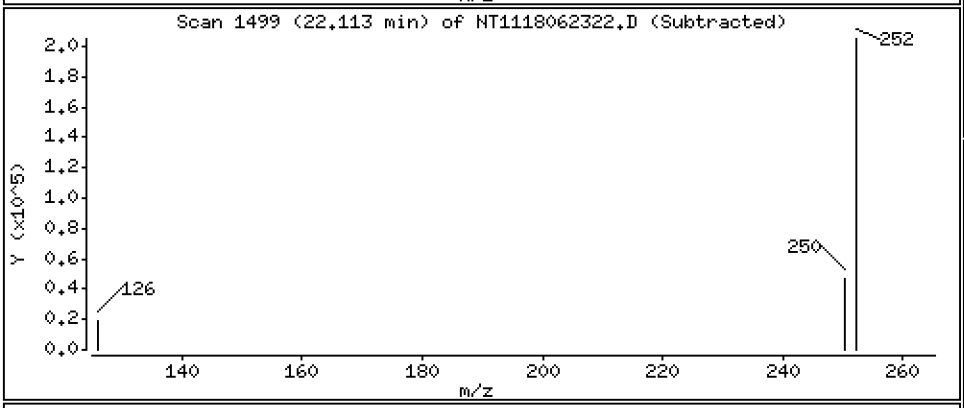
Column phase: Rxi-17Sil MS

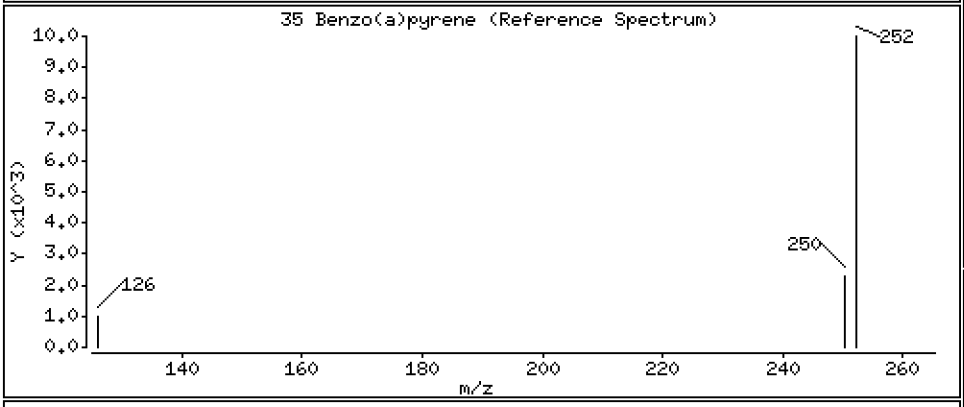
Column diameter: 0.25

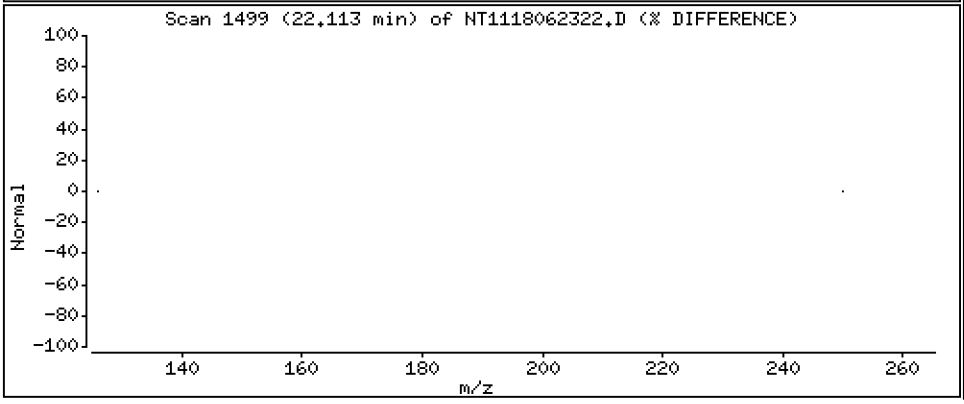
35 Benzo(a)pyrene

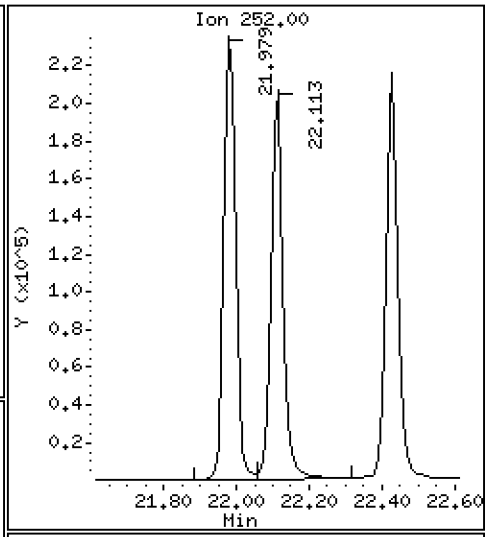
Concentration: 224 ng/mL

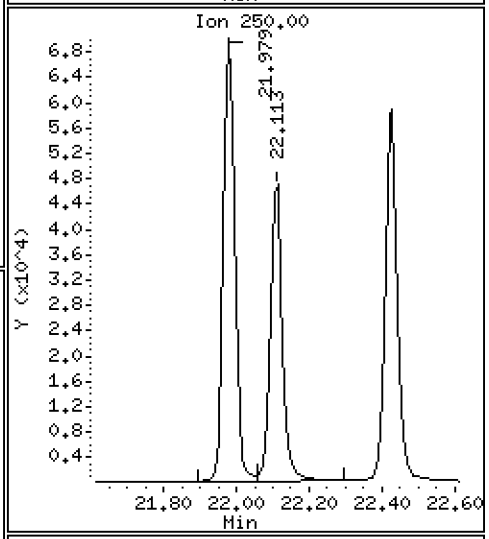


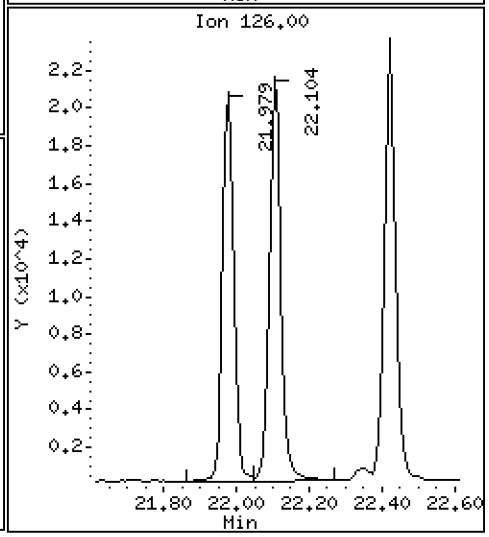












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062322.D

Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

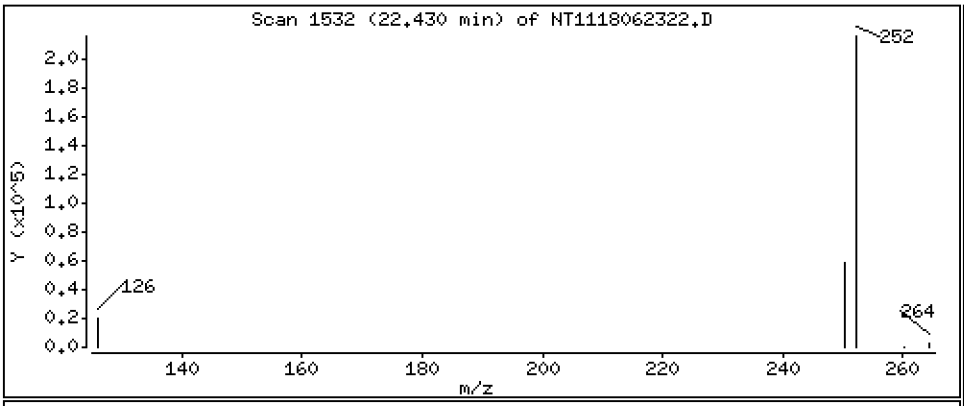
Operator: VTS

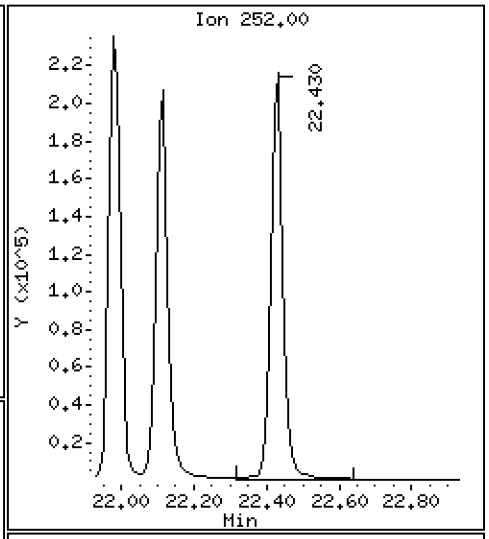
Column phase: Rxi-17Sil MS

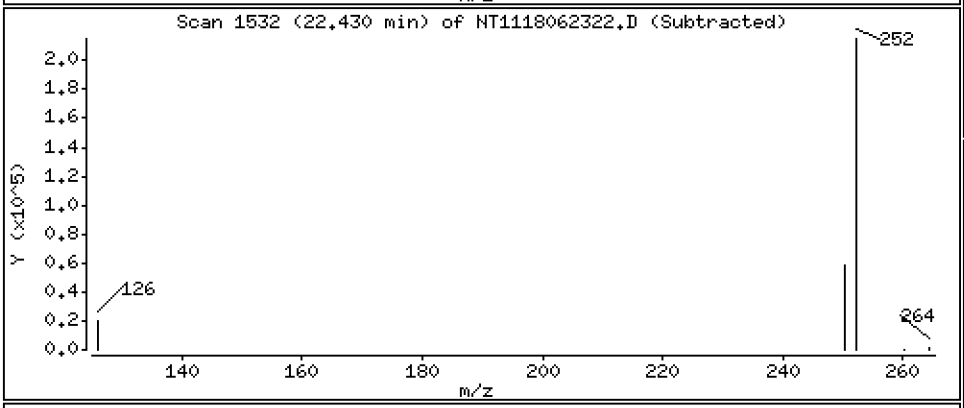
Column diameter: 0.25

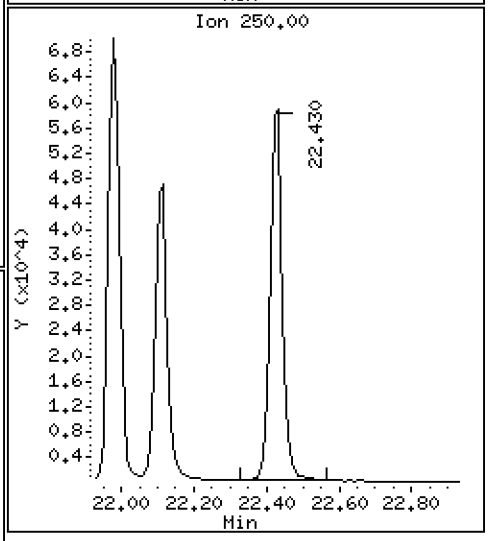
37 Perylene

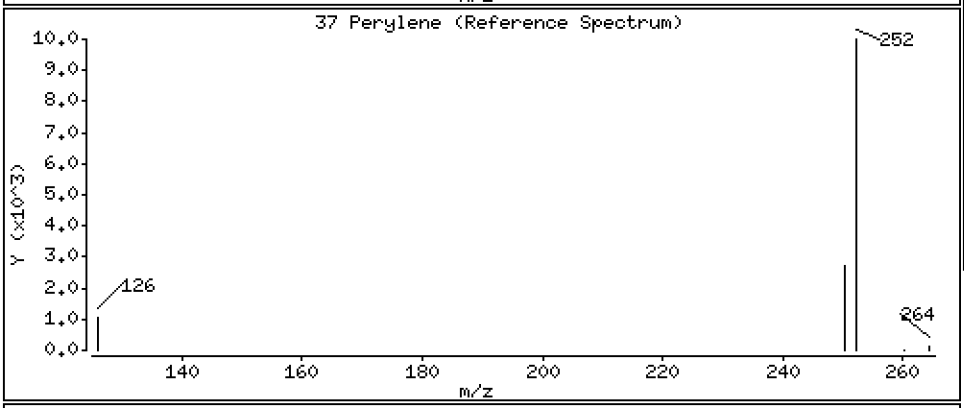
Concentration: 225 ng/mL

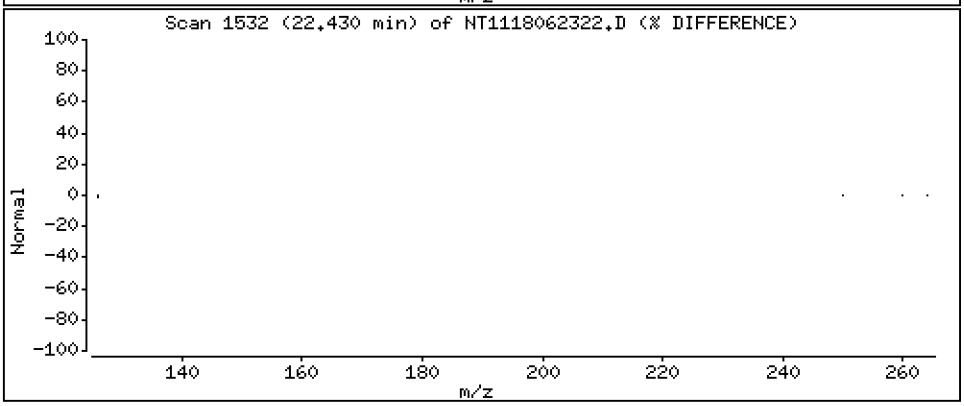












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062322.D

Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

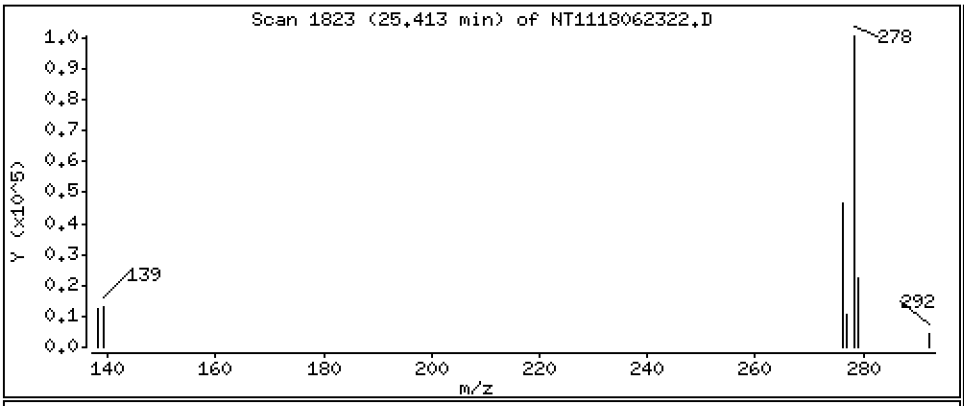
Operator: VTS

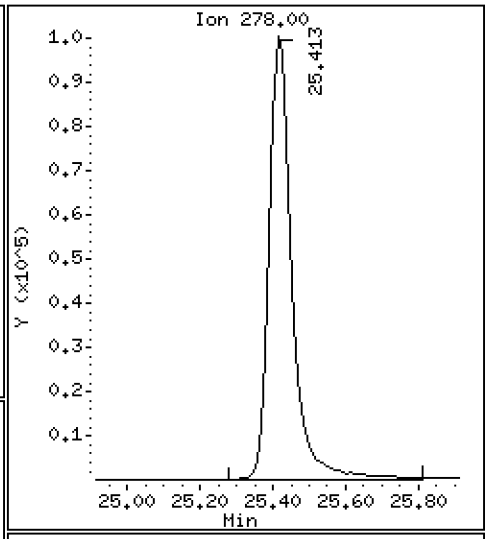
Column phase: Rxi-17Sil MS

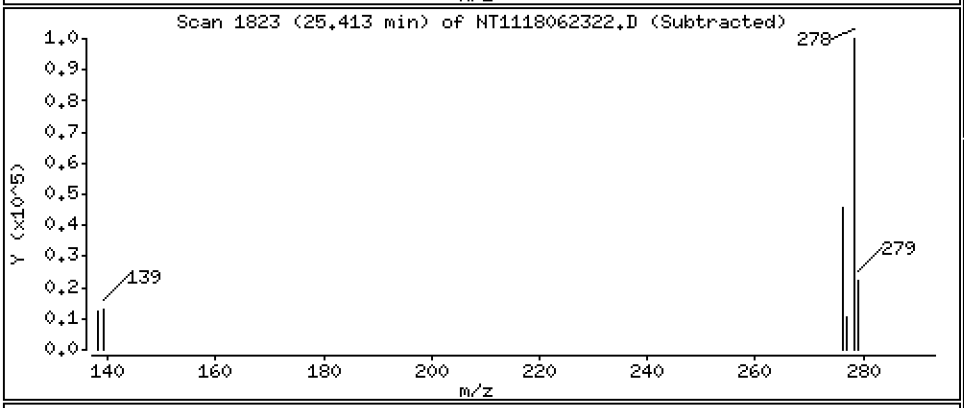
Column diameter: 0.25

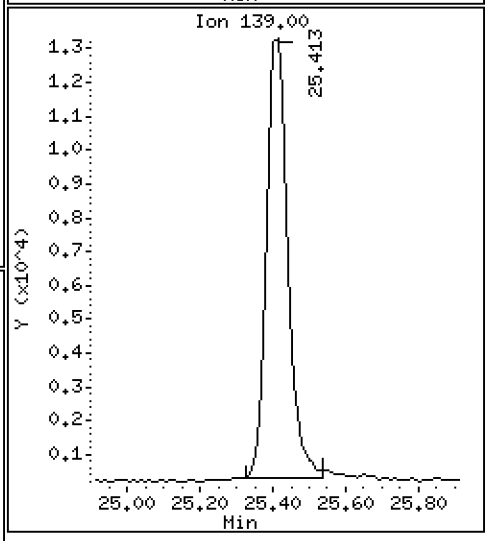
39 Dibenzo(a,h)anthracene

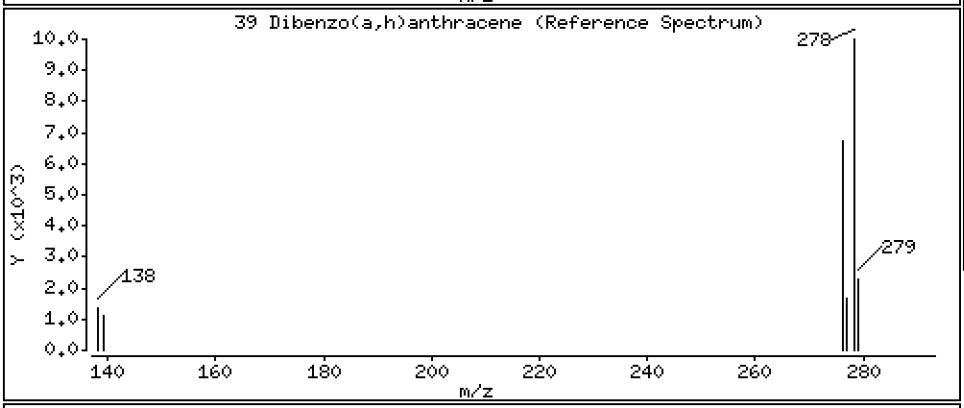
Concentration: 231 ng/mL

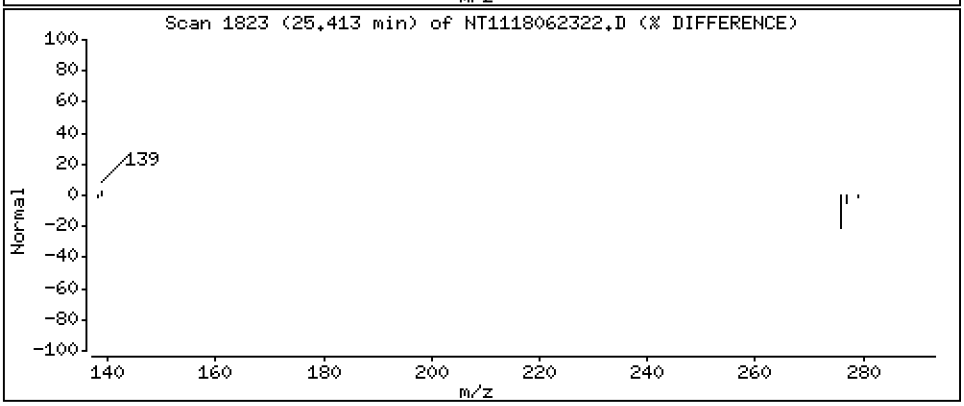












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Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

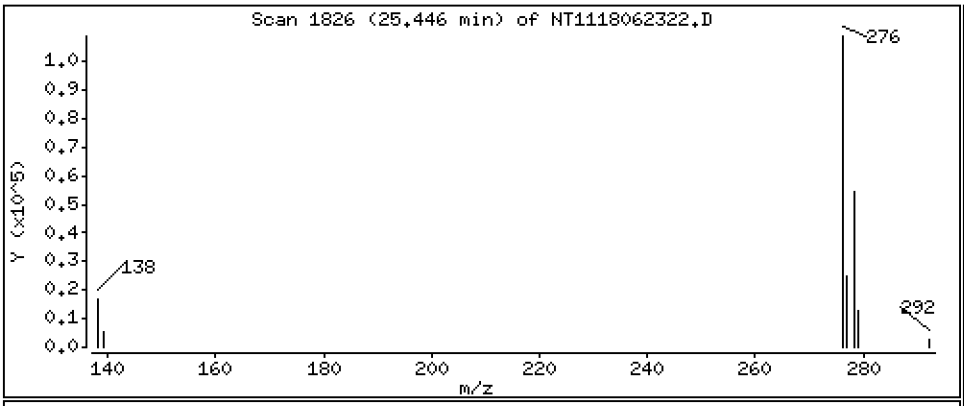
Operator: VTS

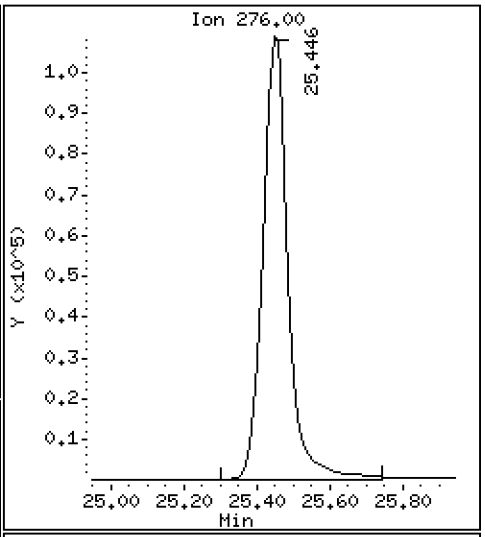
Column phase: Rxi-17Sil MS

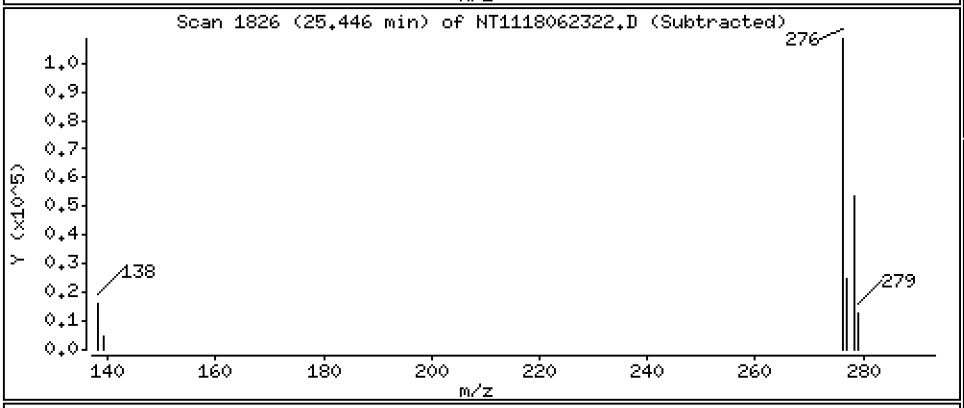
Column diameter: 0.25

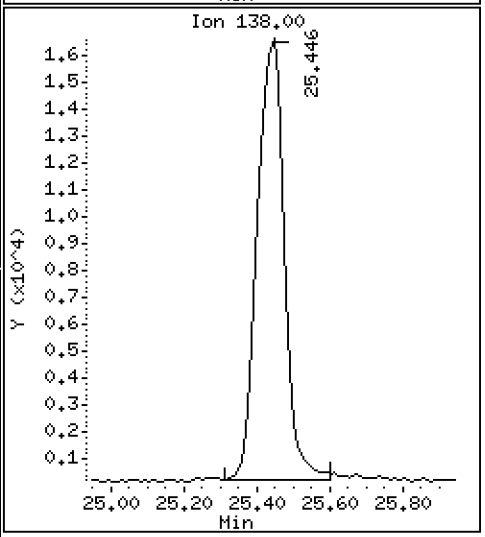
40 Indeno(1,2,3-cd)pyrene

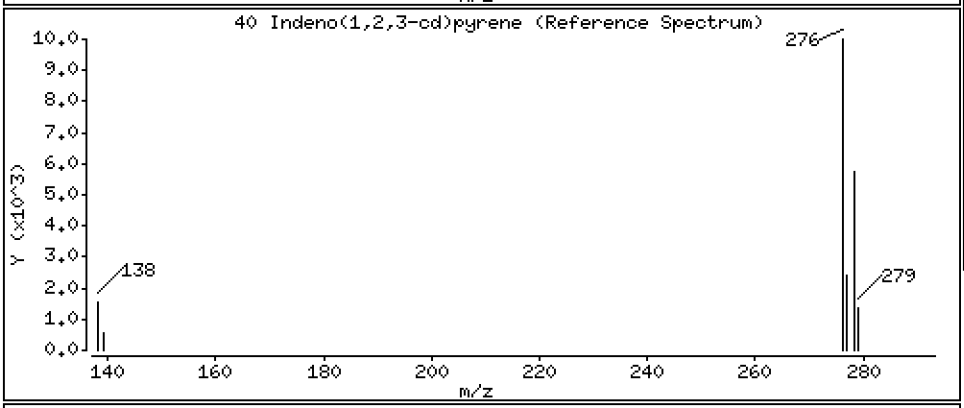
Concentration: 230 ng/mL

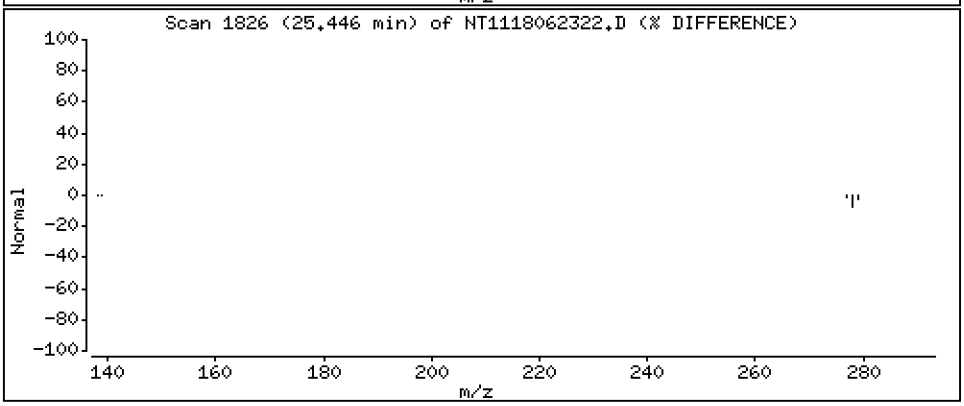












Data File: \\target\share\chem3\nt11.i\20180623.b\NT1118062322.D

Date : 23-JUN-2018 23:38

Client ID:

Instrument: nt11.i

Sample Info: SGF0298-CCV1

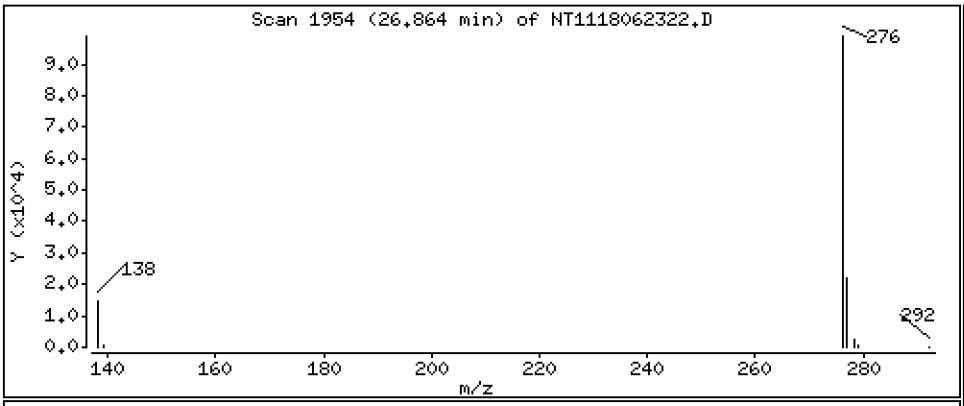
Operator: VTS

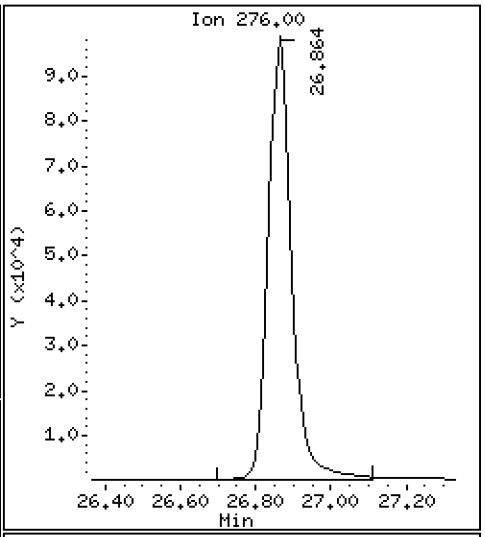
Column phase: Rxi-17Sil MS

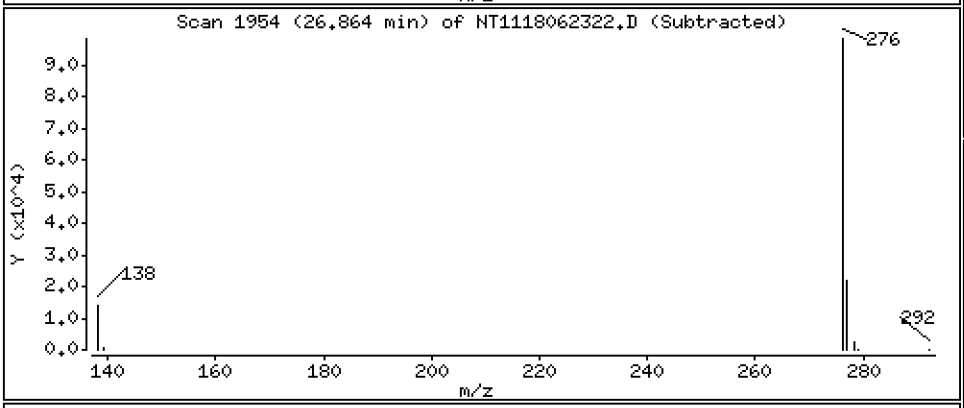
Column diameter: 0.25

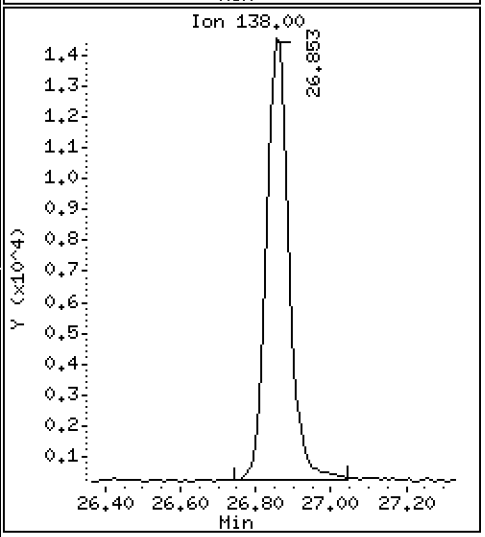
41 Benzo(g,h,i)perylene

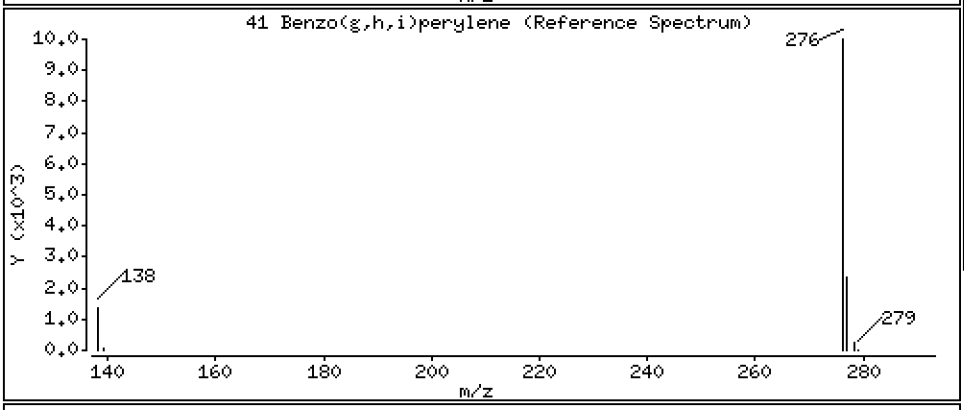
Concentration: 223 ng/mL

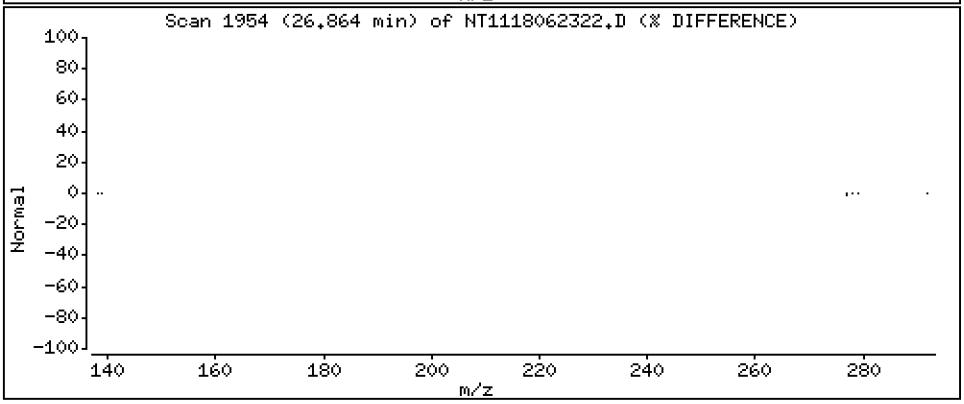












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180623.b\NT1118062322.D
Lab Smp Id: SGF0298-CCV1
Inj Date : 23-JUN-2018 23:38 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SGF0298-CCV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180623.b\LOWSIM.m
Meth Date : 23-Jun-2018 13:20 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	485226	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	673148	207.368	207
	3 Benzo(b)thiophene	134	8.897	8.897	(1.034)	579265	227.754	228
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	636153	229.781	230
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	672690	227.589	228
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	654306	222.586	223
	7 2-Chloronaphthalene	162	10.558	10.569	(0.907)	710327	252.131	252
	8 Biphenyl	154	10.527	10.527	(0.904)	857079	254.333	254
	9 2,6-Dimethylnaphthalene	156	10.579	10.579	(0.909)	677011	254.203	254
	10 Acenaphthylene	152	11.490	11.499	(0.987)	766518	237.874	238
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	271019	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	504270	228.798	229
	13 Dibenzofuran	168	11.908	11.908	(1.023)	699204	231.575	232
	14 2,3,5-Trimethylnaphthalene	170	11.996	12.009	(1.030)	445695	230.659	231
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.540	12.540	(1.077)	541315	222.321	222
	17 Dibenzothiophene	184	14.172	14.172	(0.988)	643763	230.389	230
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	448711	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	816044	231.881	232
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.435	14.435	(1.007)	739416	224.748	225
	22 Carbazole	167	15.113	15.113	(1.054)	836635	218.286	218
	23 1-Methylphenanthrene	192	15.384	15.384	(1.073)	797073	239.710	240
$	24 Fluoranthene-d10	212	16.449	16.449	(1.147)	596068	218.846	219
	25 Fluoranthene	202	16.487	16.487	(1.150)	756874	231.591	232
	26 Pyrene	202	16.987	16.996	(0.890)	766082	227.047	227
	27 Benzo(a)anthracene	228	19.004	19.004	(0.995)	616572	234.301	234
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	343210	200.000	
	29 Chrysene	228	19.145	19.145	(1.003)	630803	241.322	241
	30 Benzo(b)fluoranthene	252	21.094	21.104	(0.944)	531915	218.193	218
	31 Benzo(k)fluoranthene	252	21.152	21.152	(0.946)	566080	223.931	224
	32 Benzo(j)fluoranthene	252	21.229	21.229	(0.950)	530960	230.770	231
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	21.978	21.978	(0.983)	513119	218.224	218

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	35 Benzo(a)pyrene	252	22.113	22.113	(0.989)	480405	224.313	224
*	36 Perylene-d12	264	22.353	22.353	(1.000)	344657	200.000	
	37 Perylene	252	22.430	22.430	(1.003)	506085	225.157	225
$	38 Dibenzo(a,h)anthracene-d14	292	25.268	25.268	(1.130)	374176	226.868	227
	39 Dibenzo(a,h)anthracene	278	25.412	25.412	(1.137)	430821	231.196	231
	40 Indeno(1,2,3-cd)pyrene	276	25.446	25.446	(1.138)	512760	230.172	230
	41 Benzo(g,h,i)perylene	276	26.863	26.863	(1.202)	430101	223.209	223

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118062322.D
Lab Smp Id: SGF0298-CCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180623.b\LOWSIM.m
Misc Info:

Calibration Date: 23-JUN-2018
Calibration Time: 10:32
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	485226	12.50
11 Acenaphthene-d10	260137	130069	520274	271019	4.18
18 Phenanthrene-d10	427391	213696	854782	448711	4.99
28 Chrysene-d12	304596	152298	609192	343210	12.68
36 Perylene-d12	263091	131546	526182	344657	31.00

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118062322.D

Lab ID: SGF0298-CCV1
nt11.i, 20180623.b\LOWSIM.m,   23-JUN-2018 23:38

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180623.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

CONTINUING CALIBRATION CHECK
EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	NT11	Calibration:	BE00021
Lab File ID:	NT1118062607.D	Calibration Date:	05/08/18 08:54
Sequence:	SGF0327	Injection Date:	06/27/18
Lab Sample ID:	SGF0327-CCV1	Injection Time:	11:20
Sequence Name:	CCV 250		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Naphthalene	A	250.00	251	1.3506040	1.3179210		0.6	50
2-Methylnaphthalene	A	250.00	272	1.2182890	1.3252560		8.8	50
Acenaphthylene	A	250.00	291	2.3779620	2.7705430		16.5	50
Acenaphthene	A	250.00	284	1.6264500	1.8473130		13.6	50
Fluorene	A	250.00	274	1.7967990	1.9705670		9.7	50
Phenanthrene	A	250.00	287	1.5685960	1.8032530		15.0	50
Anthracene	A	250.00	282	1.4664130	1.6545510		12.8	50
Fluoranthene	A	250.00	300	1.4566820	1.7469600		19.9	50
Pyrene	A	250.00	278	1.9662040	2.1829380		11.0	50
Benzo(a)anthracene	A	250.00	291	1.5334860	1.7859680		16.5	50
Chrysene	A	250.00	305	1.5232370	1.8579560		22.0	50
Benzo(b)fluoranthene	A	250.00	255	1.4146370	1.4432700		2.0	50
Benzo(k)fluoranthene	A	250.00	285	1.4669230	1.6712200		13.9	50
Benzo(j)fluoranthene	A	250.00	296	1.3351350	1.5824420		18.5	50
Benzo(a)pyrene	A	250.00	278	1.2427860	1.3823460		11.2	50
Indeno(1,2,3-cd)pyrene	A	250.00	286	1.2927210	1.4768480		14.2	50
Dibenzo(a,h)anthracene	A	250.00	287	1.0813340	1.2420830		14.9	50
Benzo(g,h,i)perylene	A	250.00	278	1.1181550	1.2411780		11.0	50
2-Methylnaphthalene-d10	A	250.00	275	1.1411260	1.2567930		10.1	50
Dibenzo[a,h]anthracene-d14	A	250.00	277	0.9570734	1.0602830		10.8	50
Fluoranthene-d10	A	250.00	284	1.2140030	1.3811370		13.8	50

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20180627.b\NT1118062607.D

Date : 27-JUN-2018 11:20

Client ID:

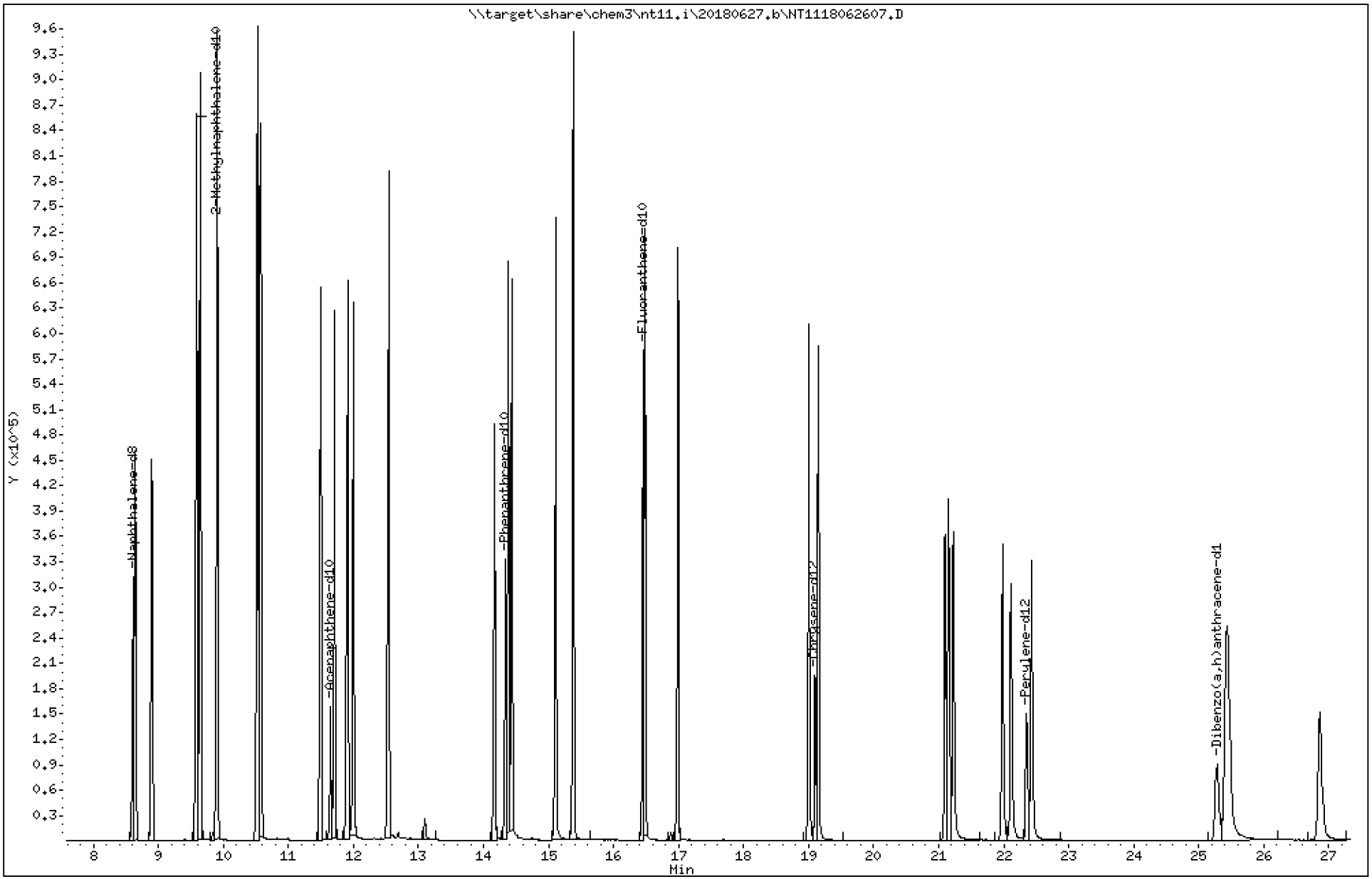
Instrument: nt11.i

Sample Info: SGF0327-CCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

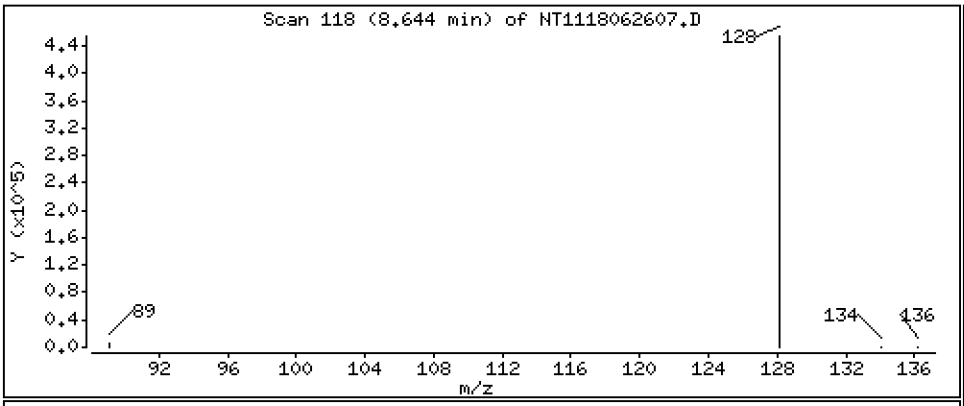
Operator: VTS

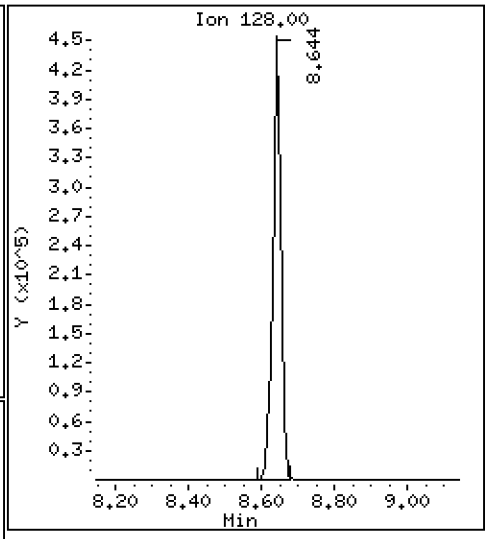
Column phase: Rxi-17Sil MS

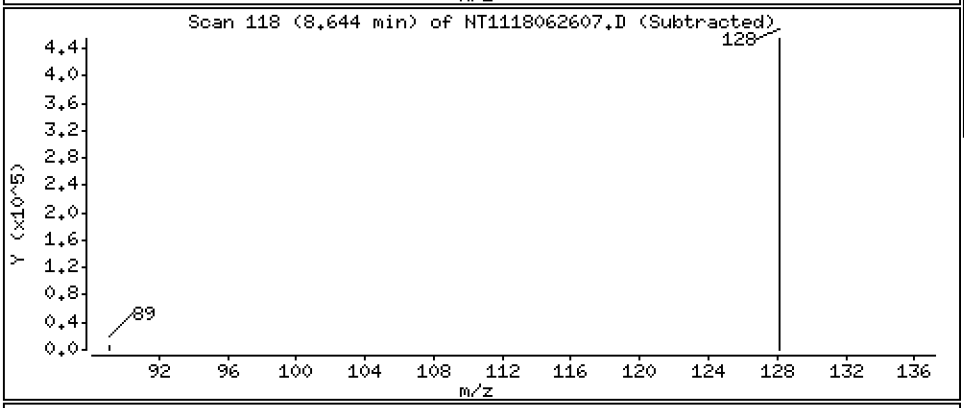
Column diameter: 0.25

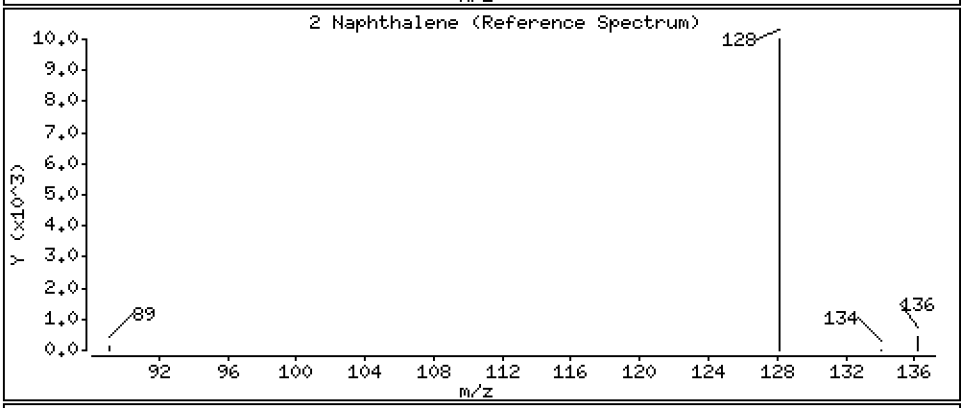
2 Naphthalene

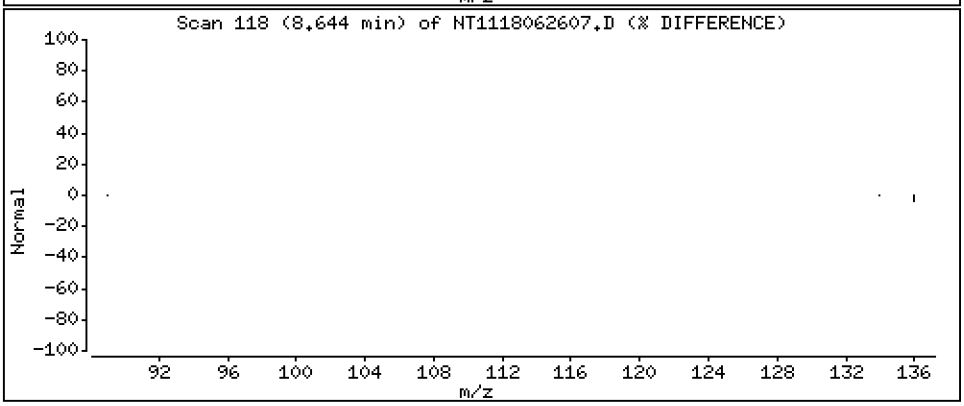
Concentration: 251 ng/mL











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Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

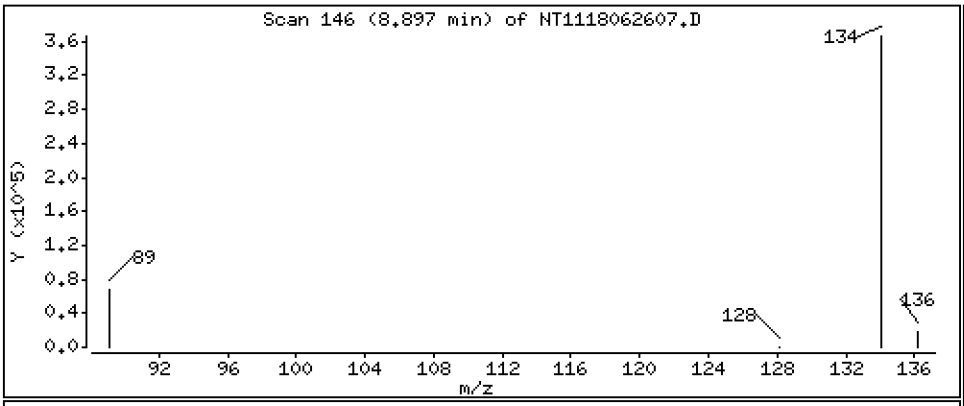
Operator: VTS

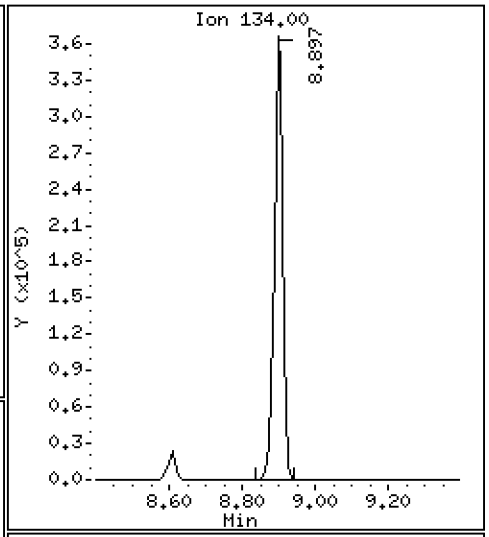
Column phase: Rxi-17Sil MS

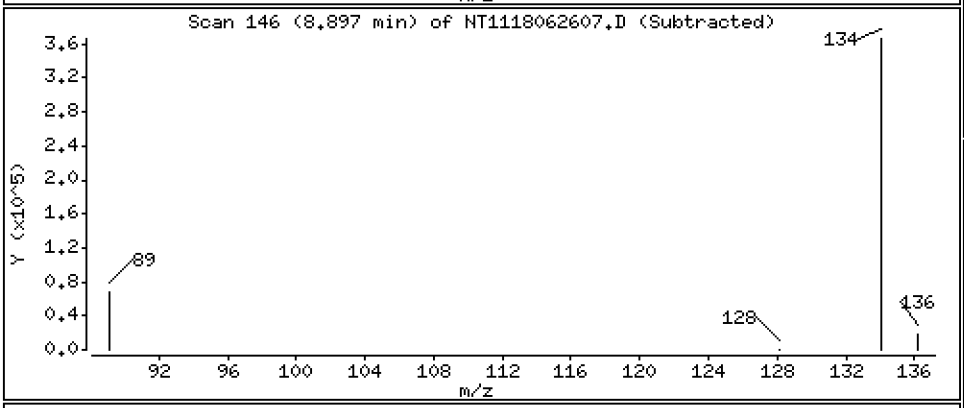
Column diameter: 0.25

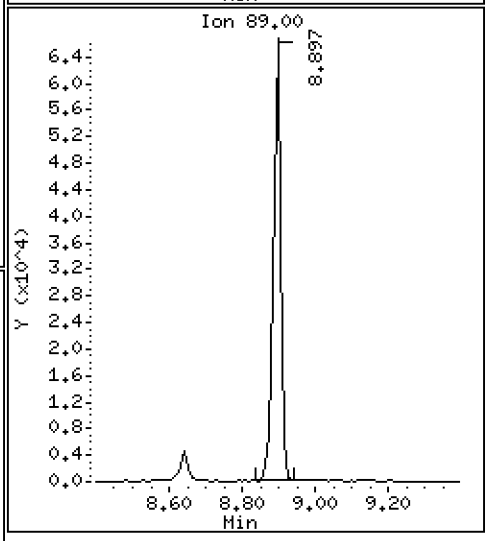
3 Benzo(b)thiophene

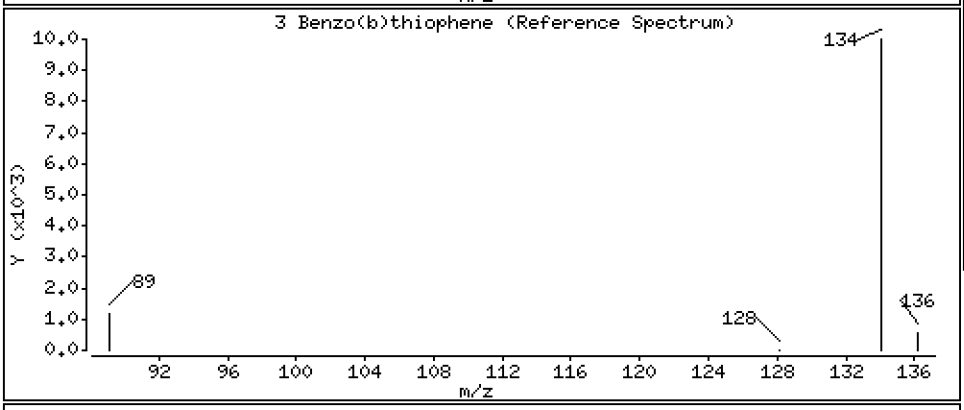
Concentration: 273 ng/mL

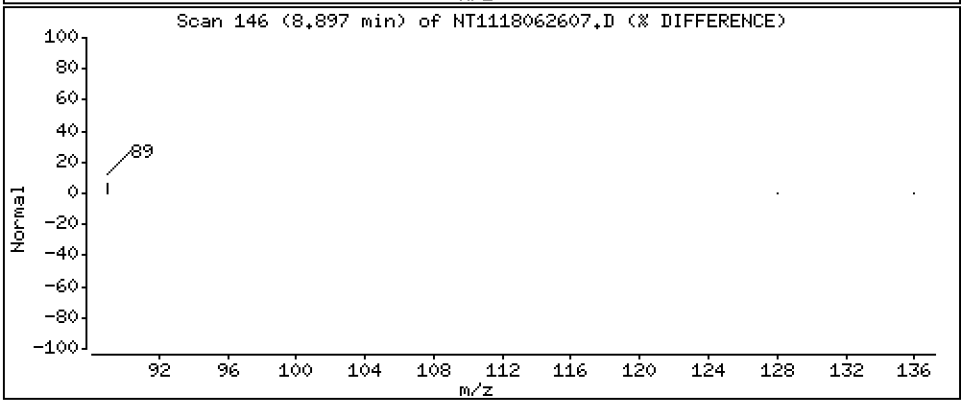












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Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

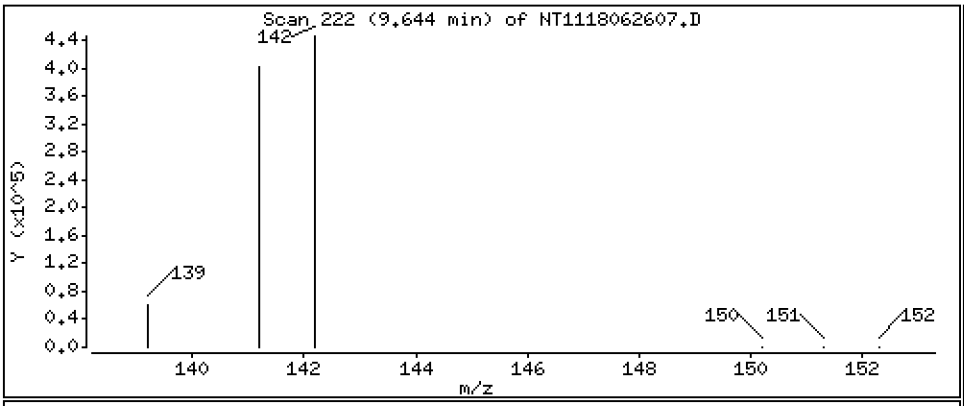
Operator: VTS

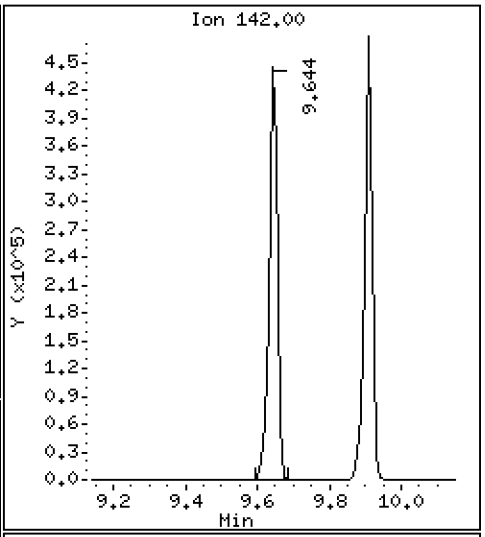
Column phase: Rxi-17Sil MS

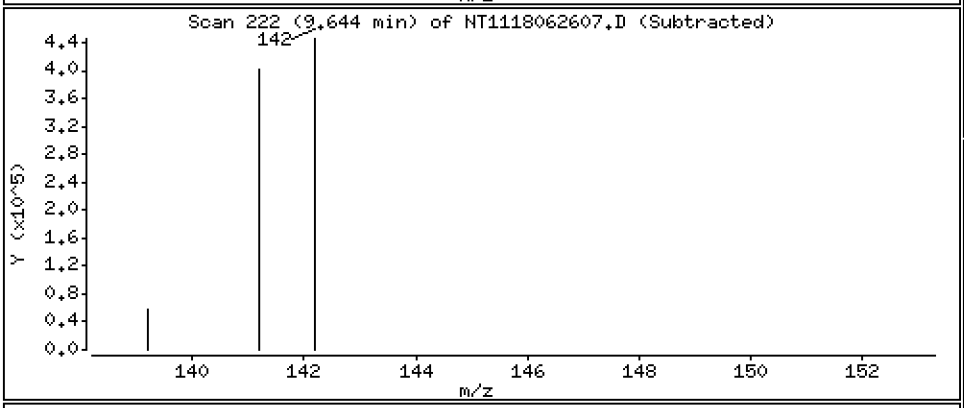
Column diameter: 0.25

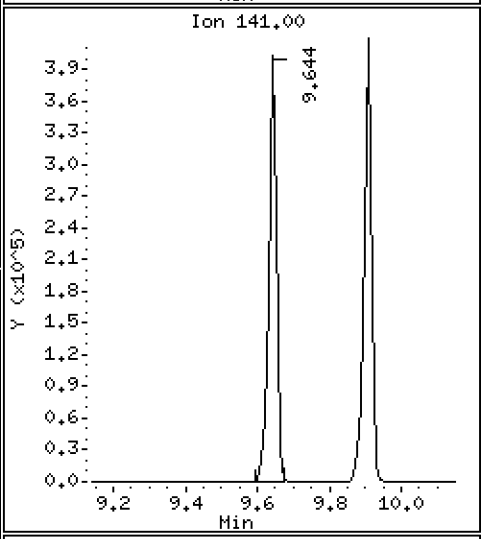
5 2-Methylnaphthalene

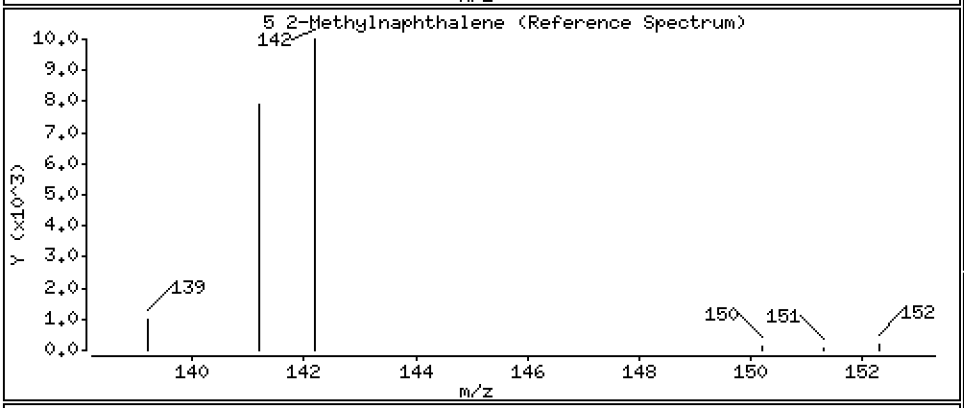
Concentration: 272 ng/mL

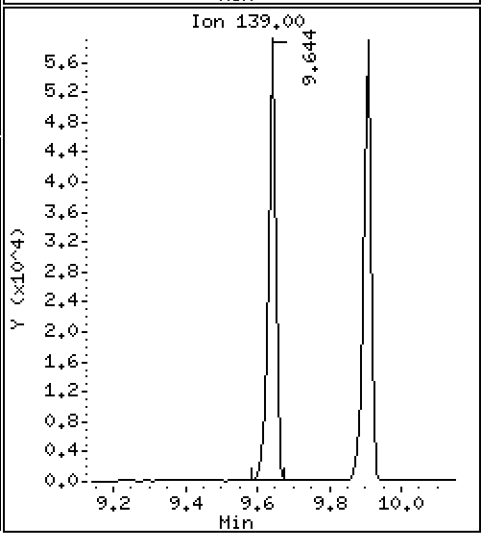


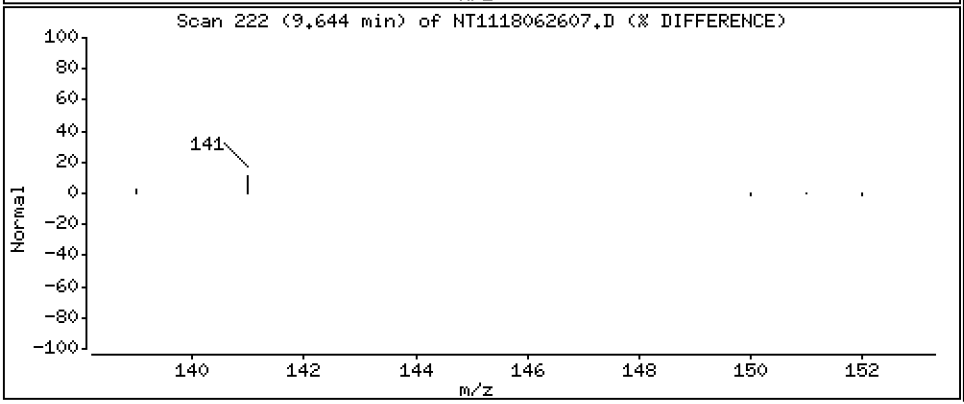












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Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

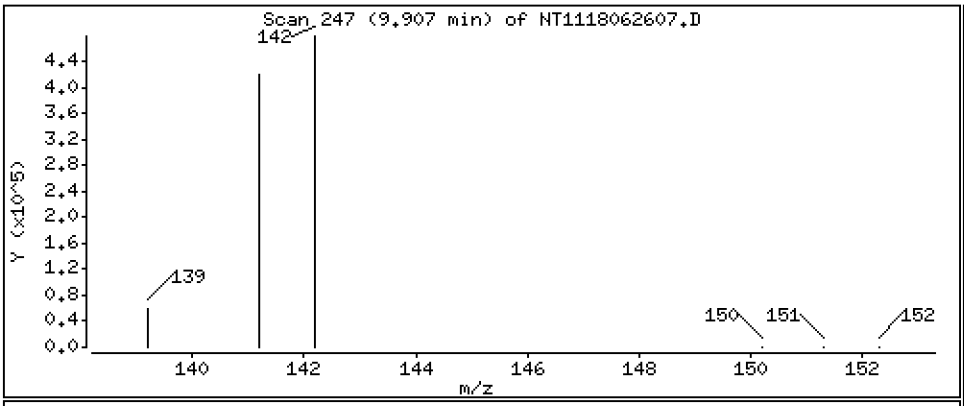
Operator: VTS

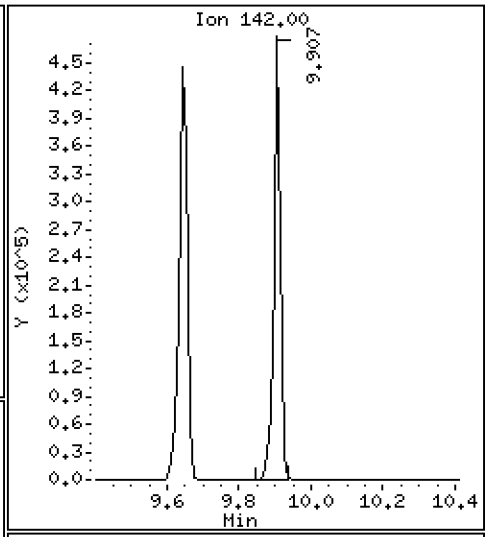
Column phase: Rxi-17Sil MS

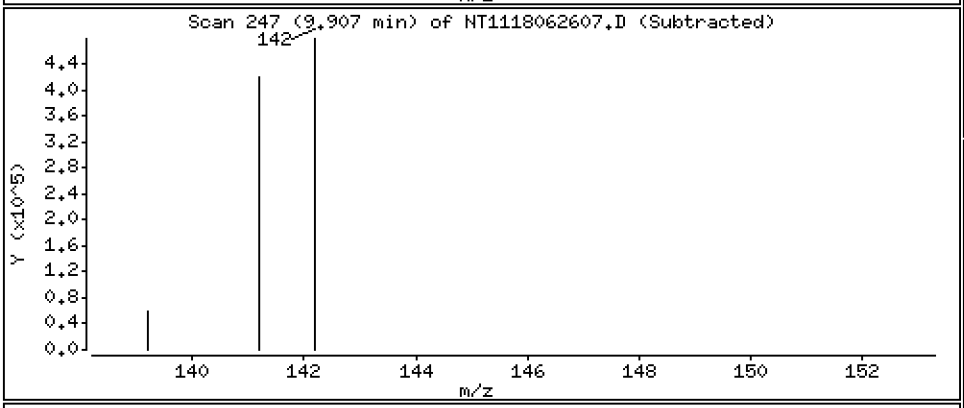
Column diameter: 0.25

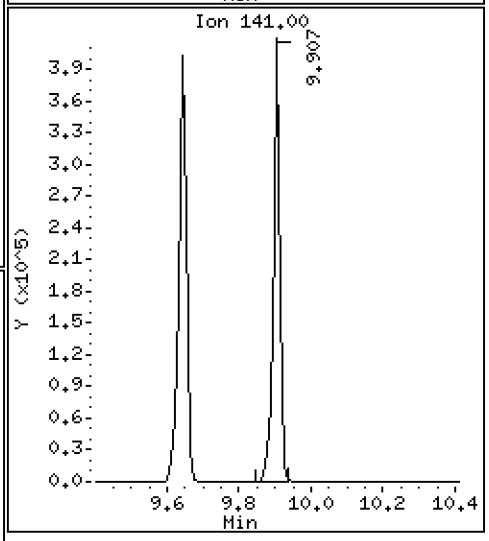
6 1-Methylnaphthalene

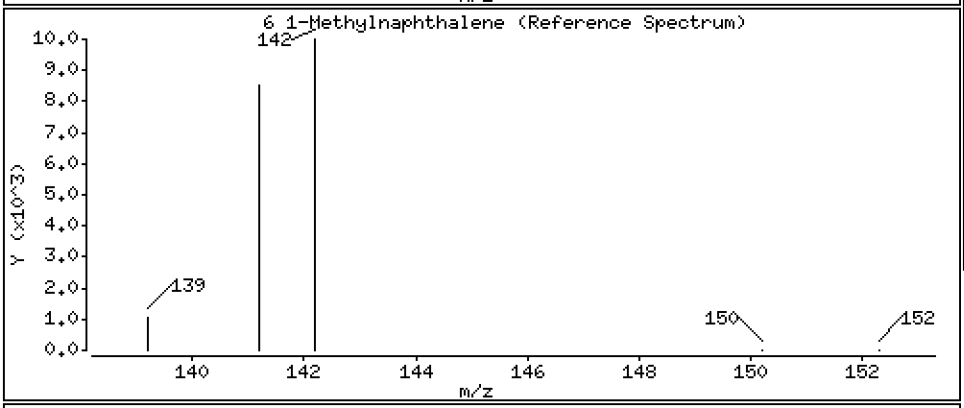
Concentration: 265 ng/mL

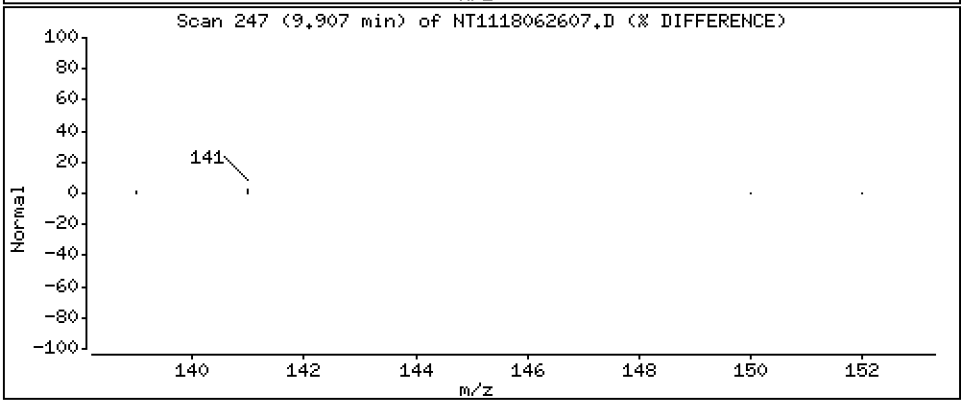












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Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

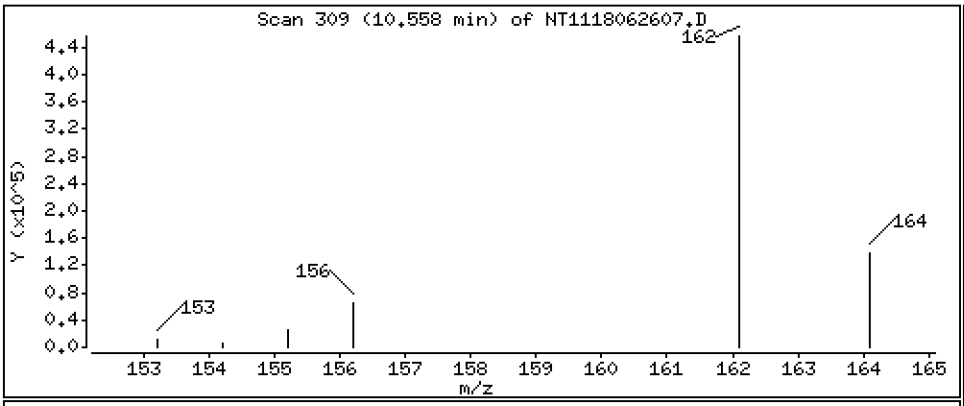
Operator: VTS

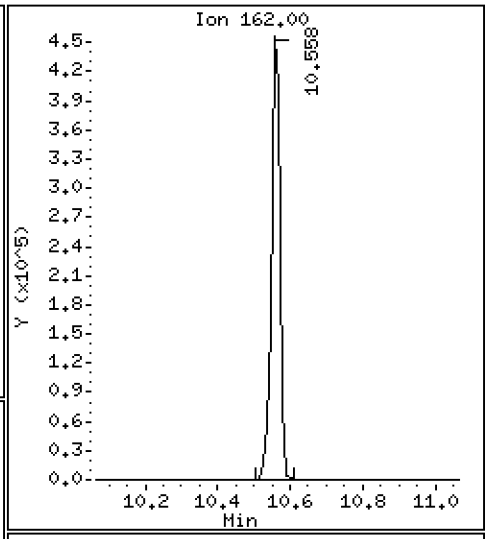
Column phase: Rxi-17Sil MS

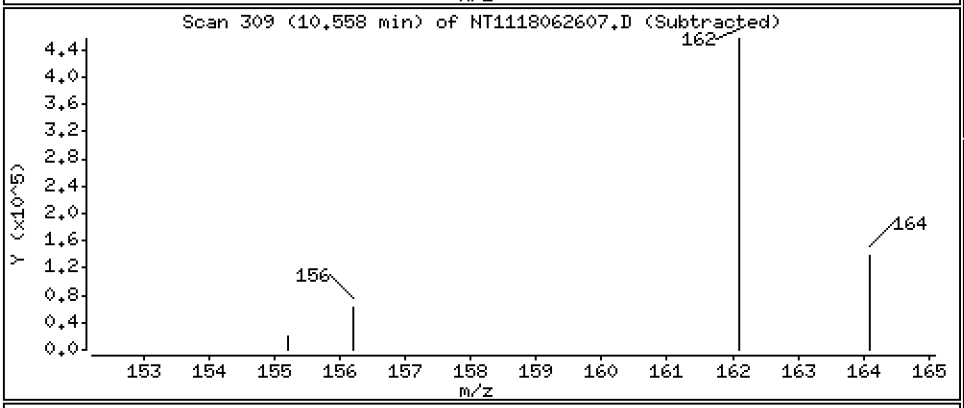
Column diameter: 0.25

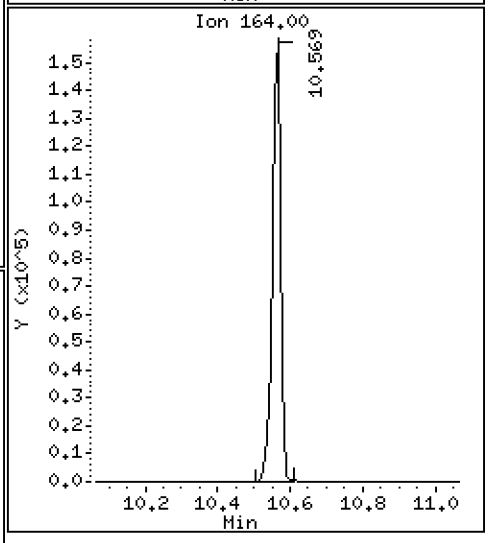
7 2-Chloronaphthalene

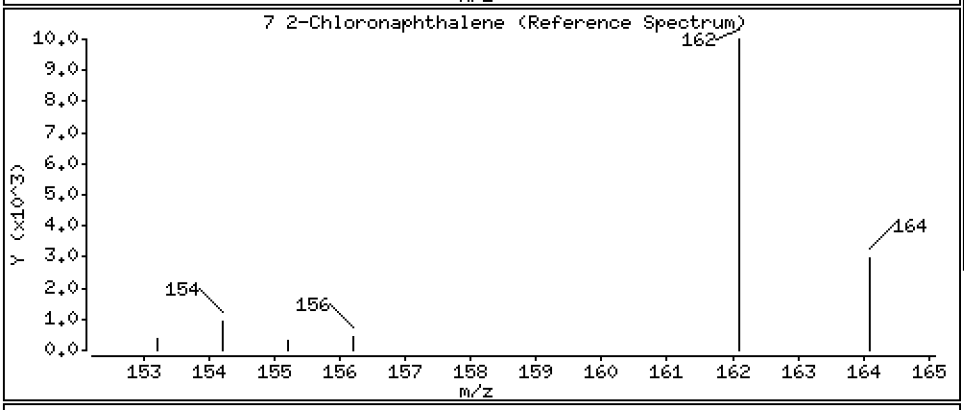
Concentration: 311 ng/mL

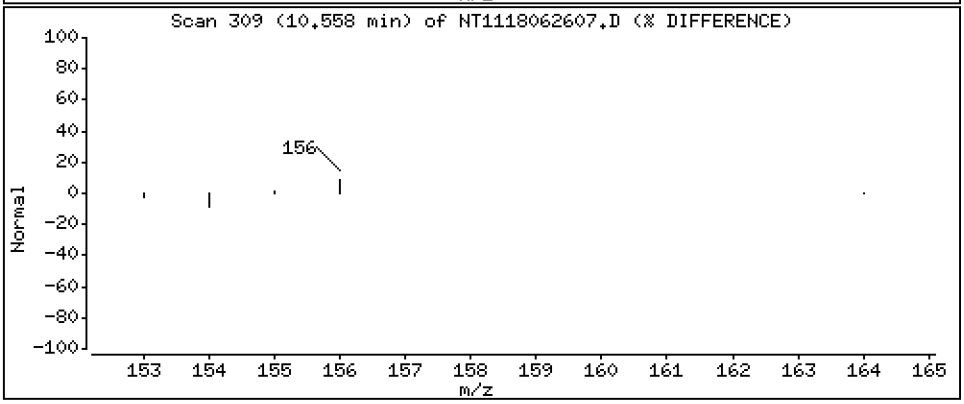












Data File: \\target\share\chem3\nt11.i\20180627.b\NT1118062607.D

Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

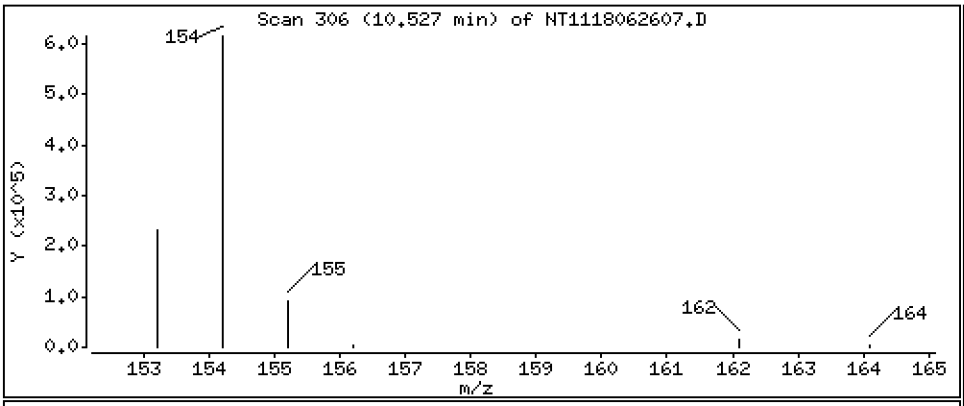
Operator: VTS

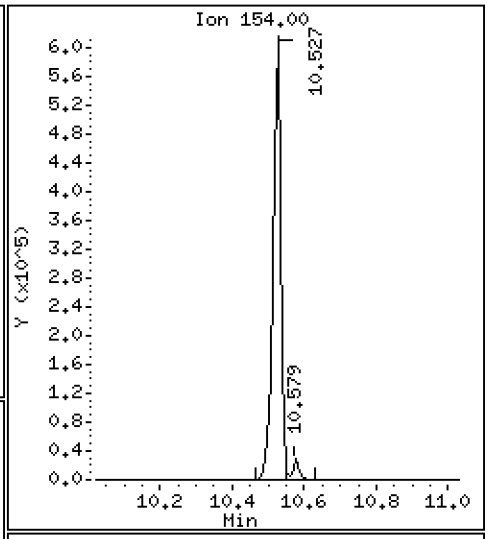
Column phase: Rxi-17Sil MS

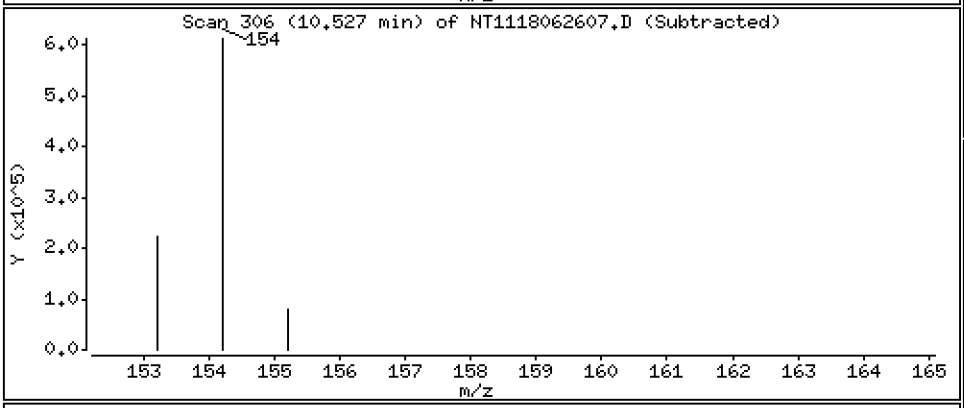
Column diameter: 0.25

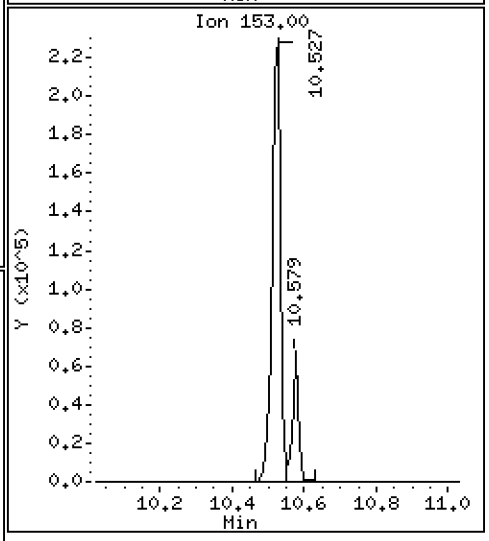
8 Biphenyl

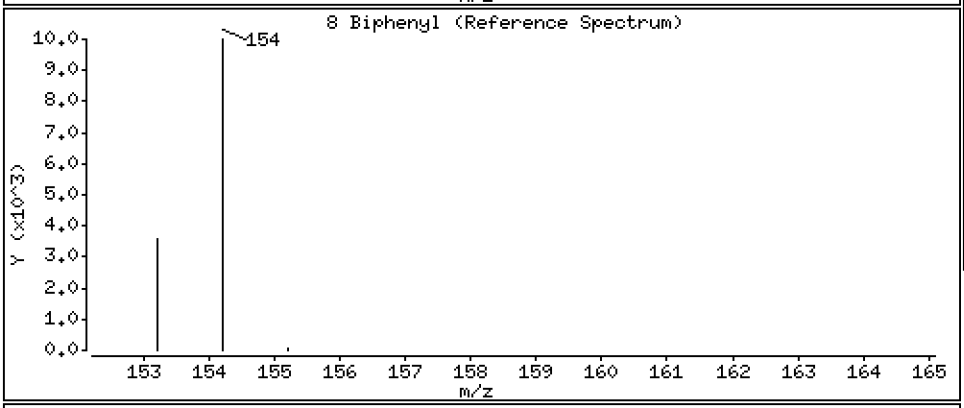
Concentration: 316 ng/mL

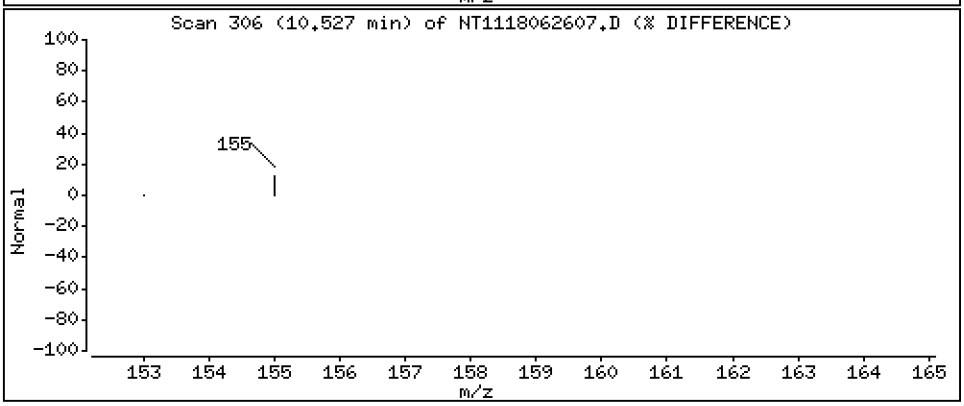












Data File: \\target\share\chem3\nt11.i\20180627.b\NT1118062607.D

Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

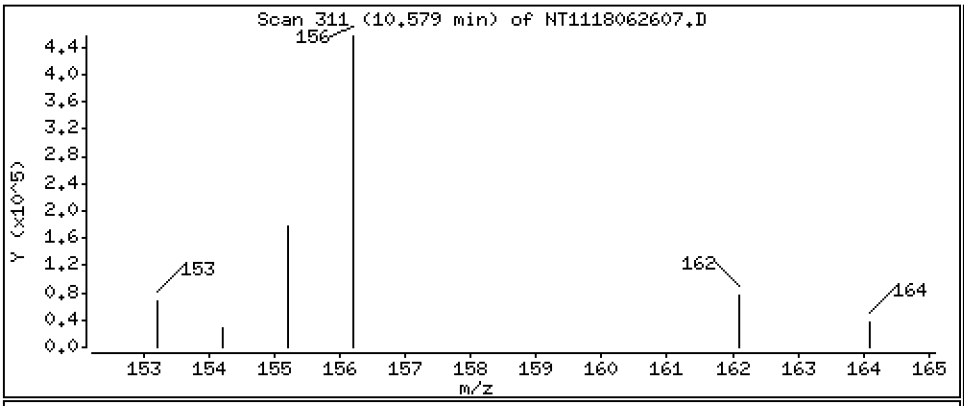
Operator: VTS

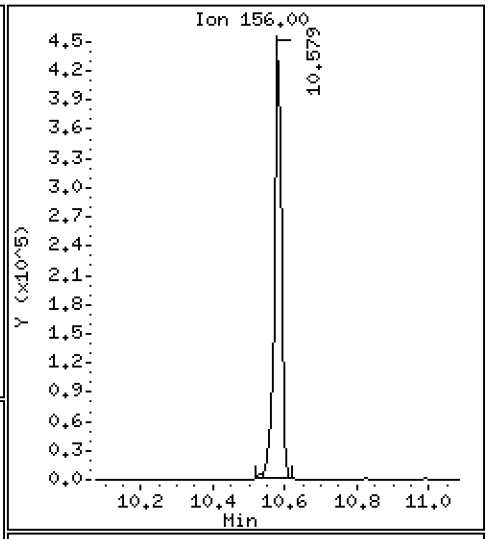
Column phase: Rxi-17Sil MS

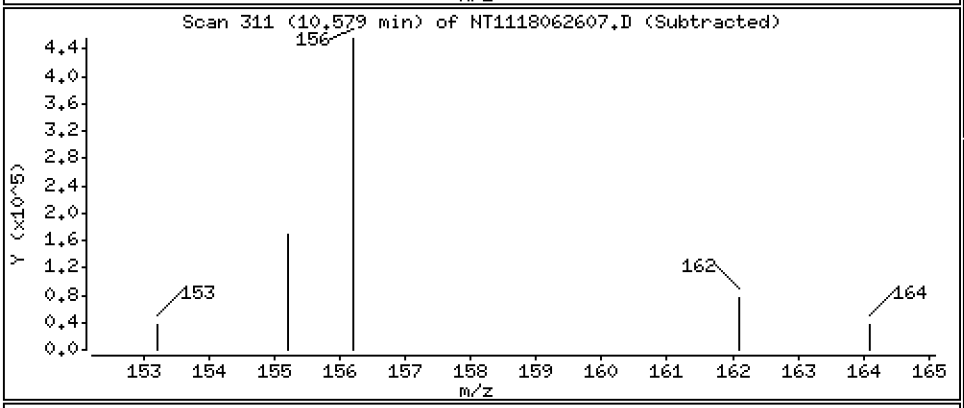
Column diameter: 0.25

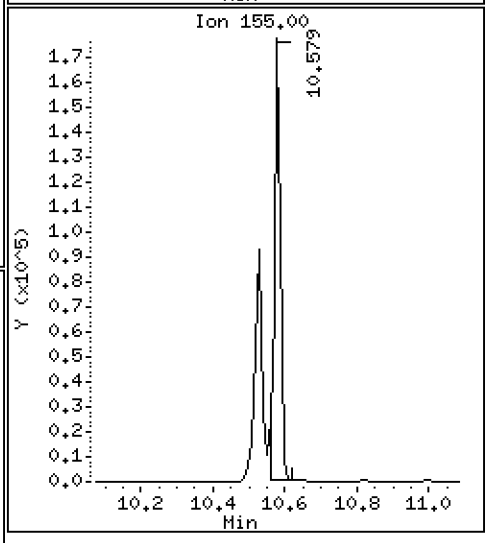
9 2,6-Dimethylnaphthalene

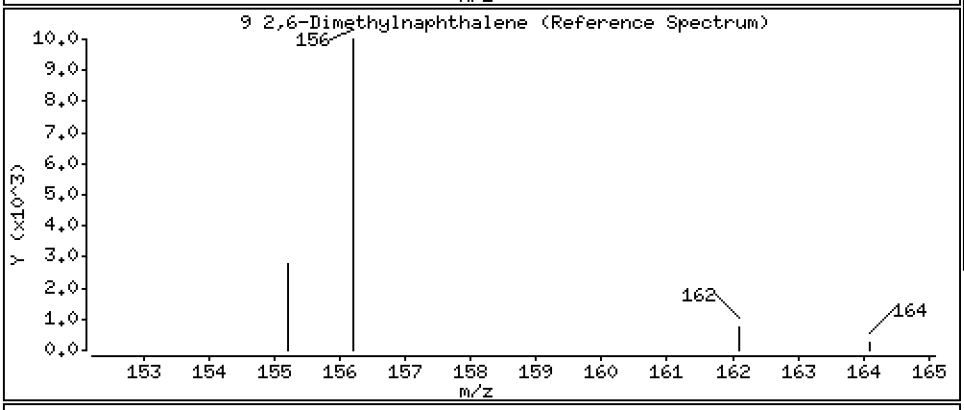
Concentration: 312 ng/mL

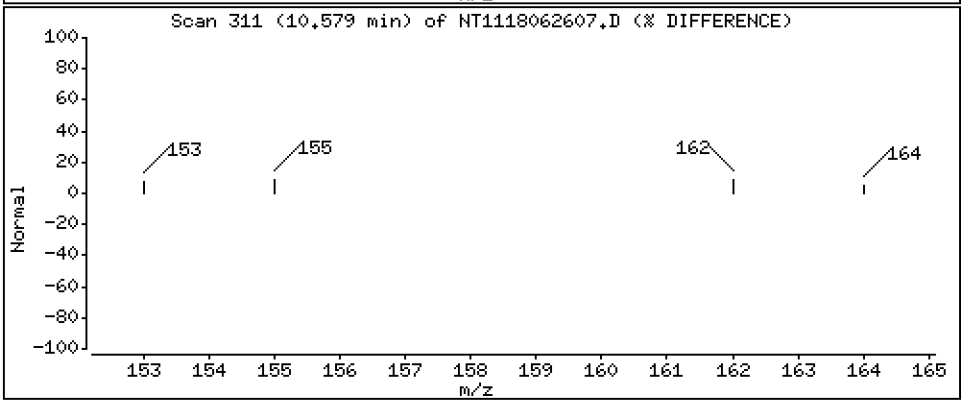












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Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

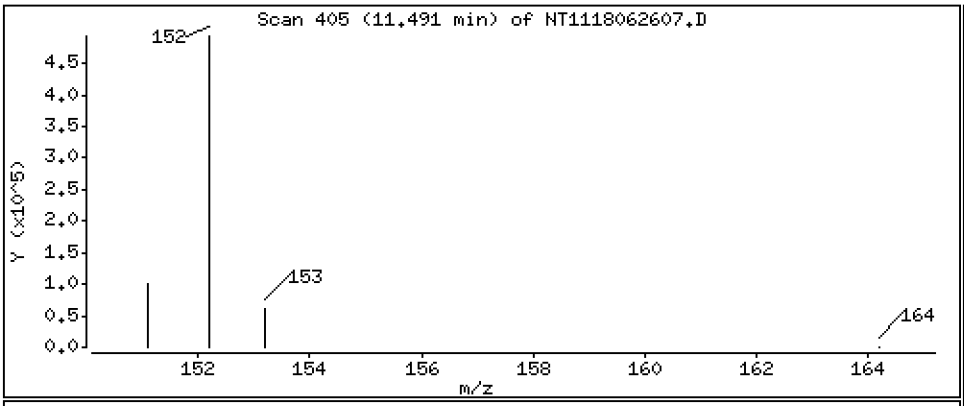
Operator: VTS

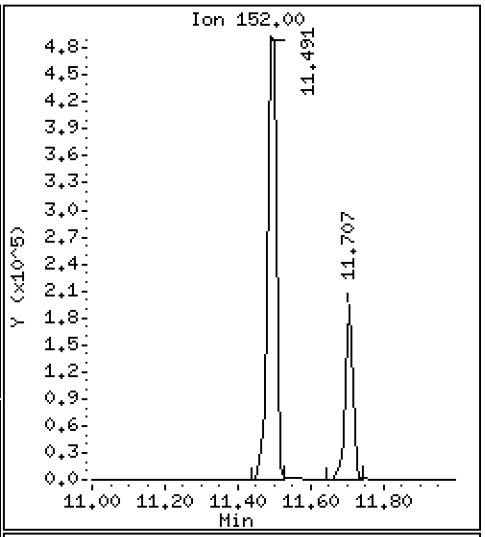
Column phase: Rxi-17Sil MS

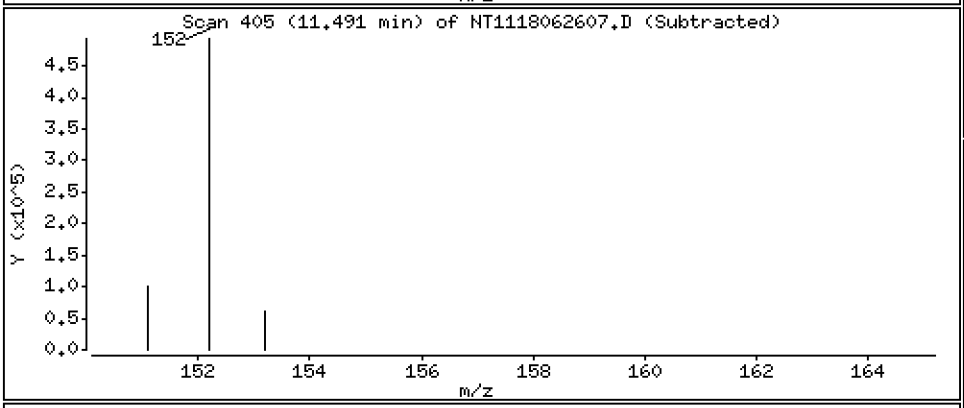
Column diameter: 0.25

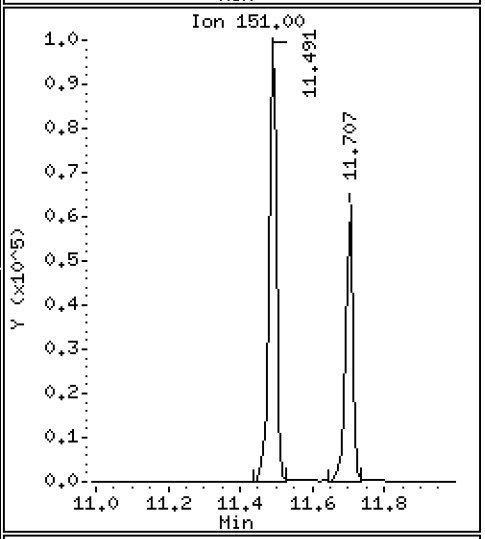
10 Acenaphthylene

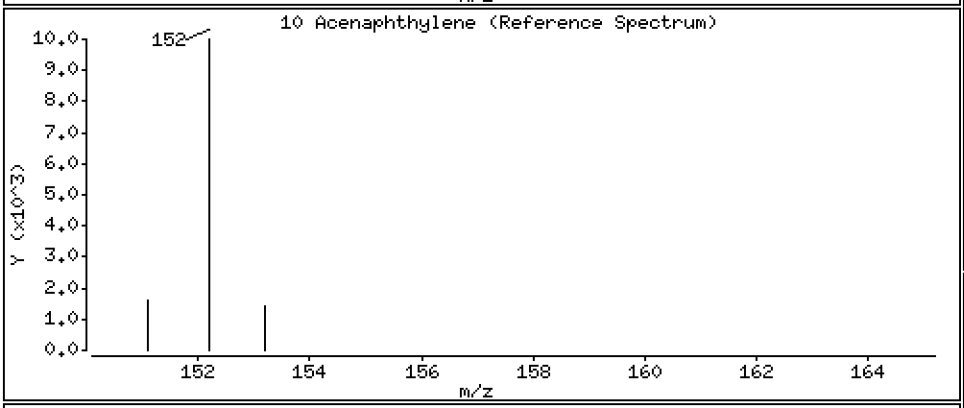
Concentration: 291 ng/mL

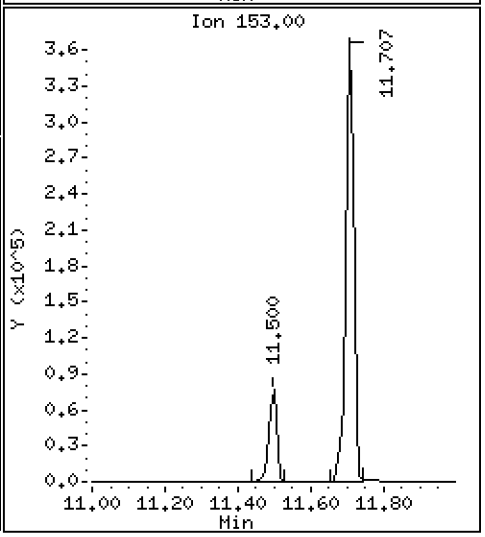


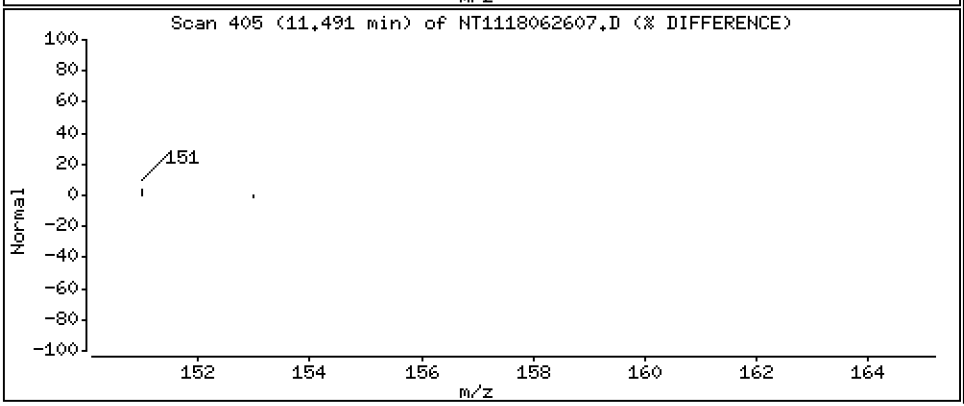












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Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

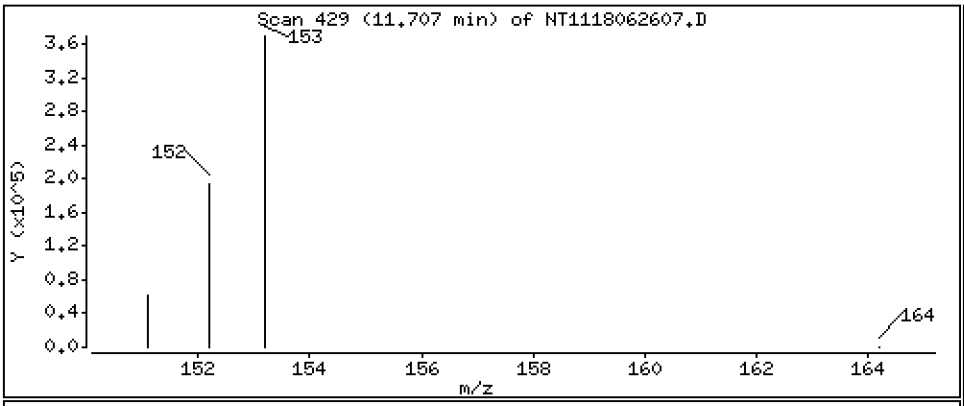
Operator: VTS

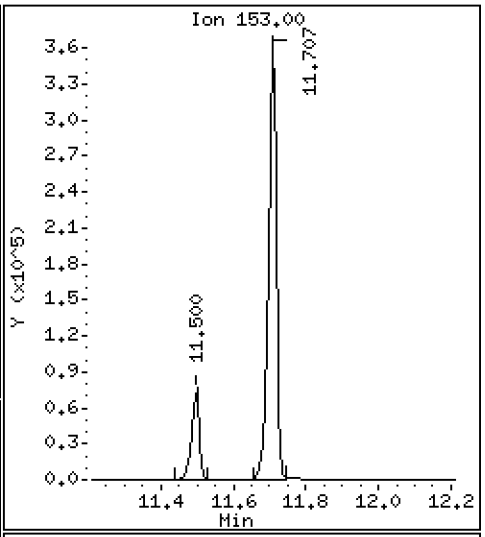
Column phase: Rxi-17Sil MS

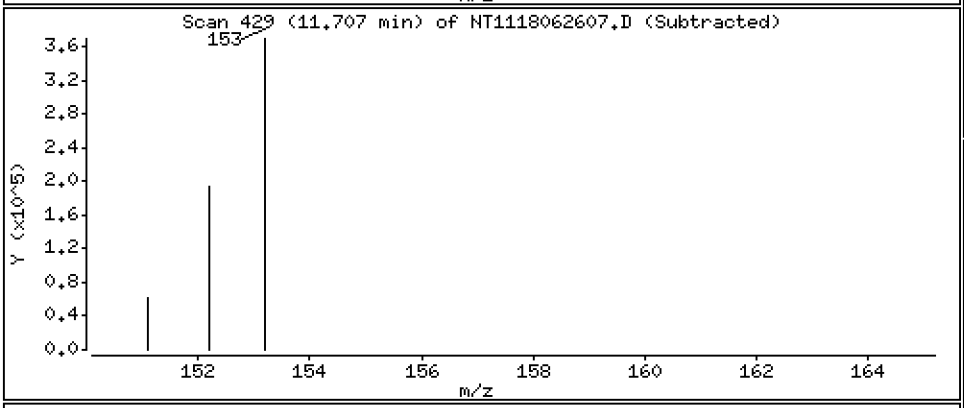
Column diameter: 0.25

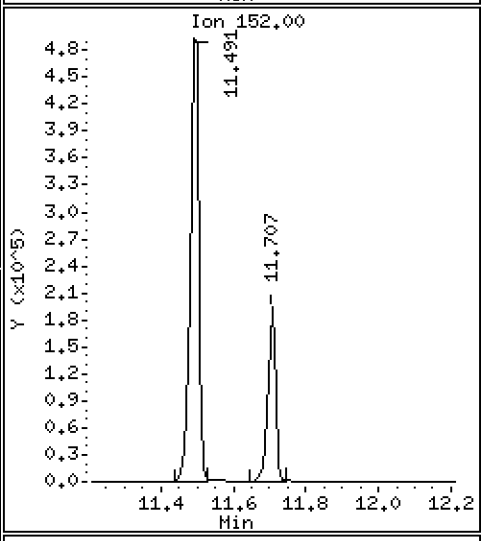
12 Acenaphthene

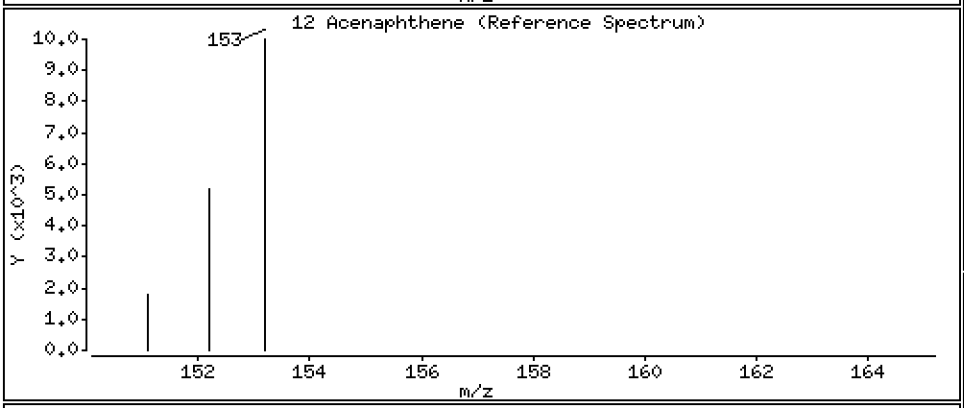
Concentration: 284 ng/mL

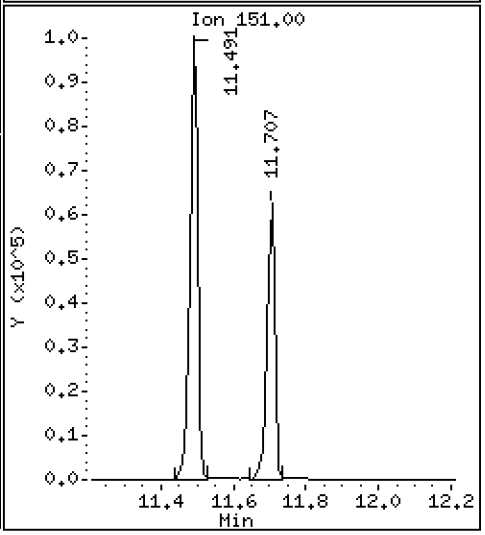


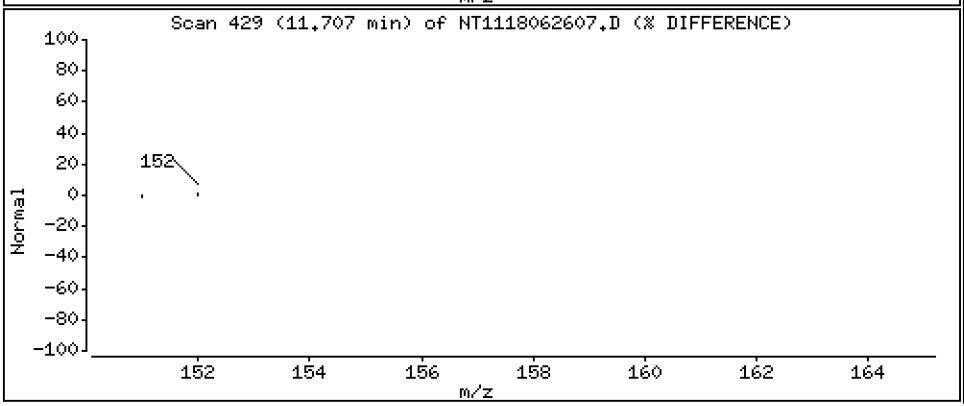












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Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

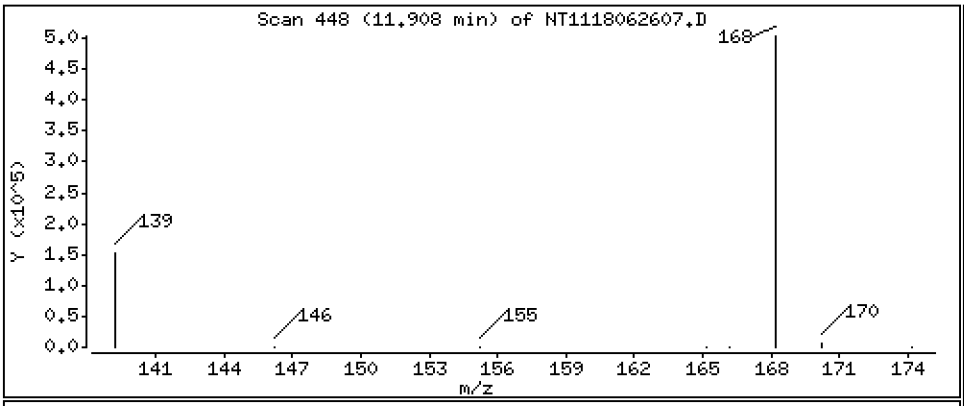
Operator: VTS

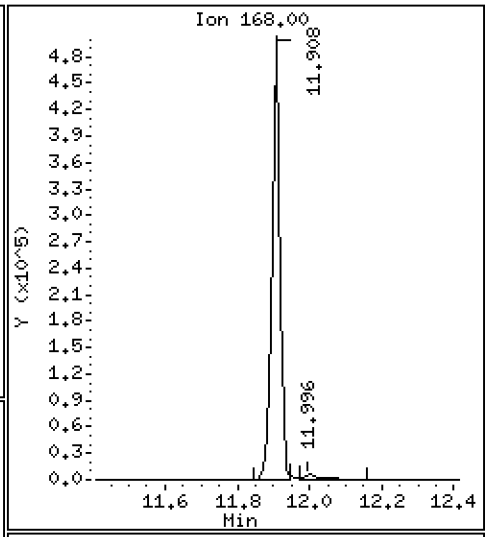
Column phase: Rxi-17Sil MS

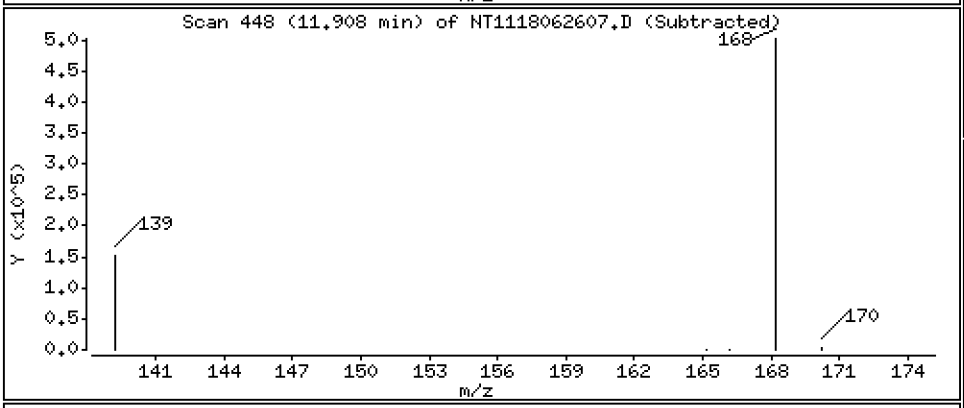
Column diameter: 0.25

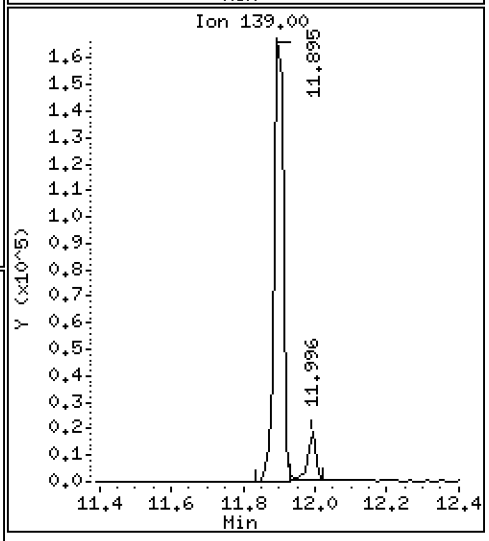
13 Dibenzofuran

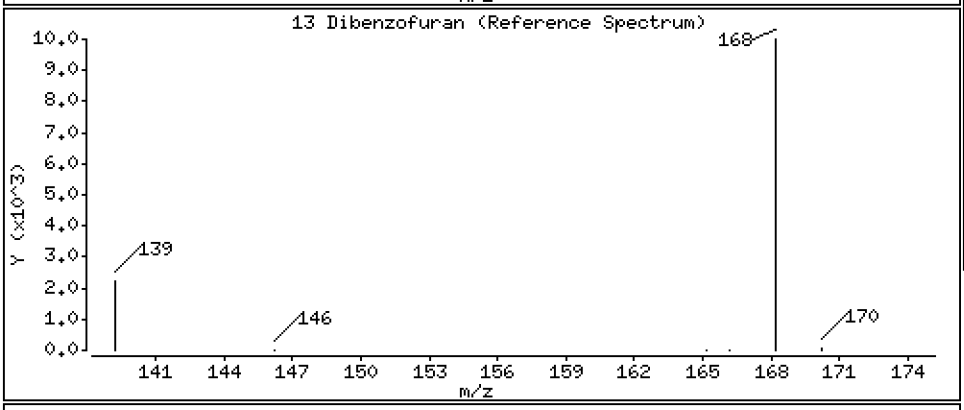
Concentration: 285 ng/mL

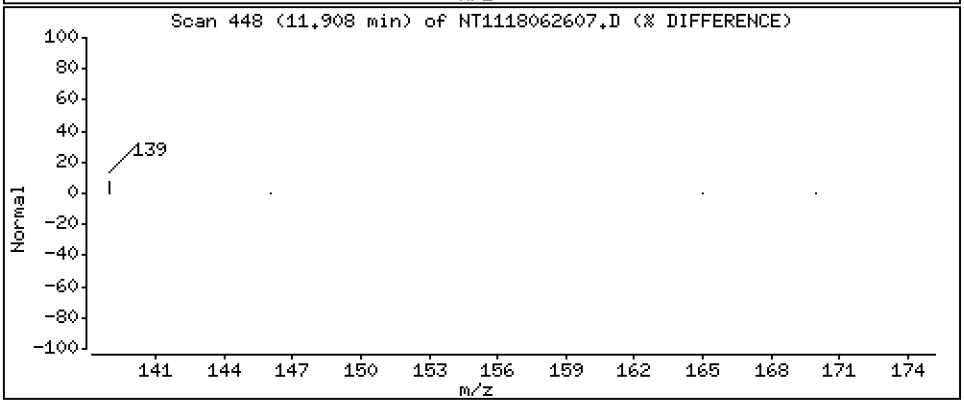












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Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

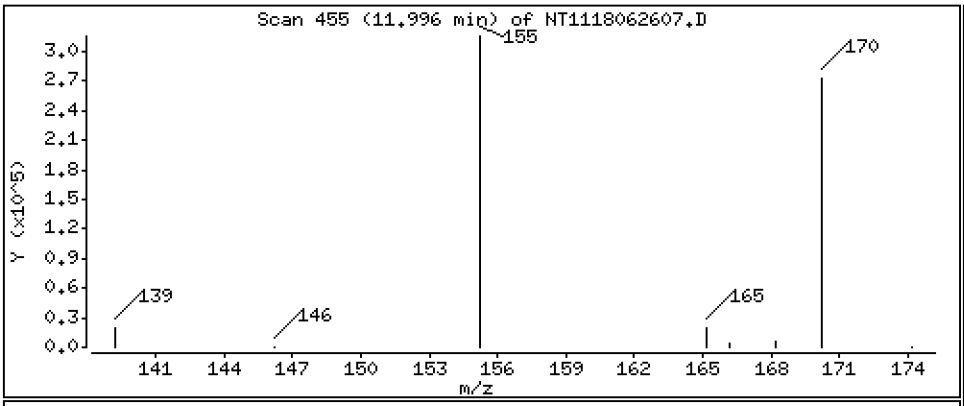
Operator: VTS

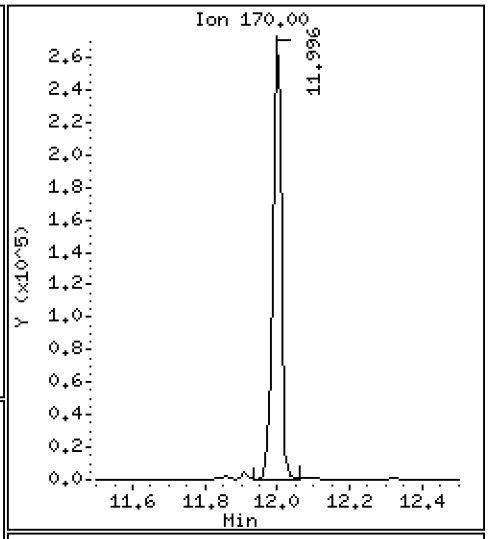
Column phase: Rxi-17Sil MS

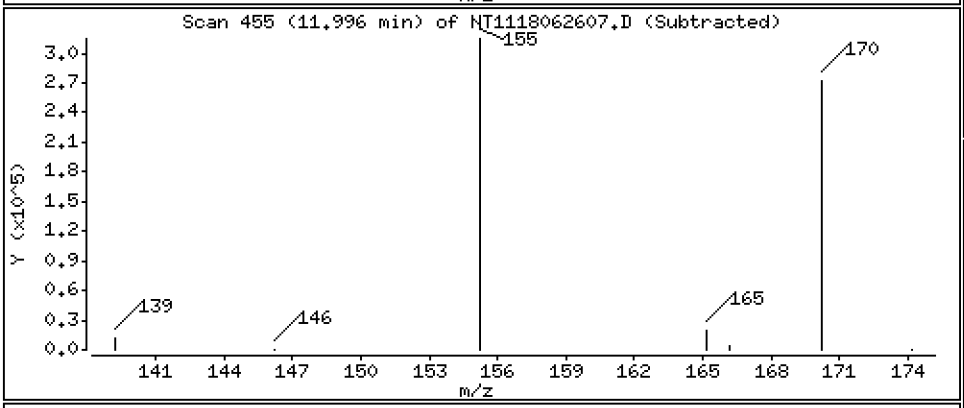
Column diameter: 0.25

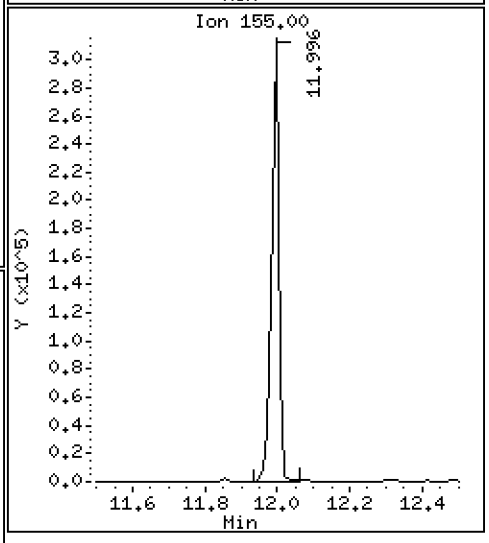
14 2,3,5-Trimethylnaphthalene

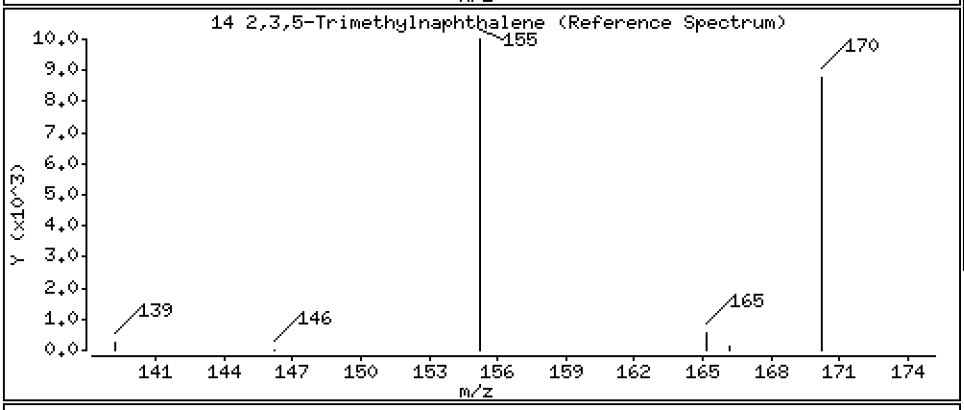
Concentration: 286 ng/mL

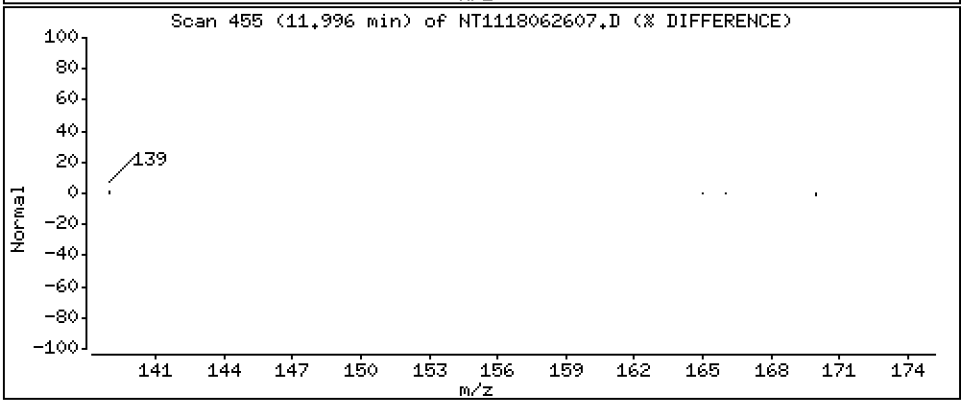












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Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

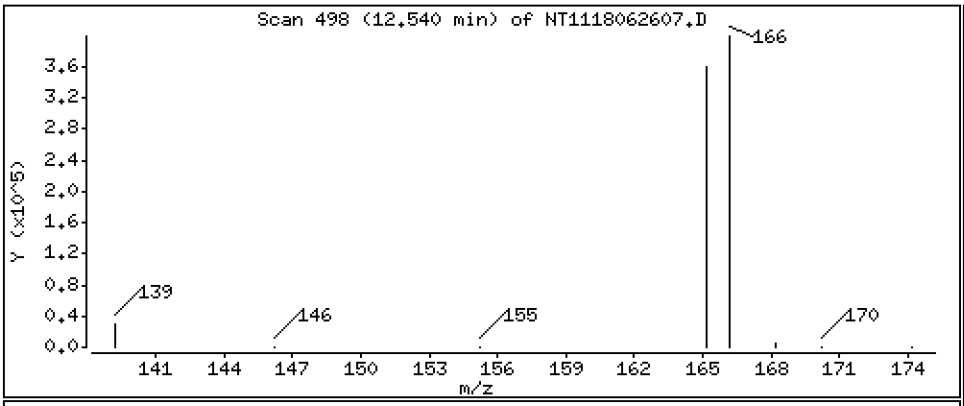
Operator: VTS

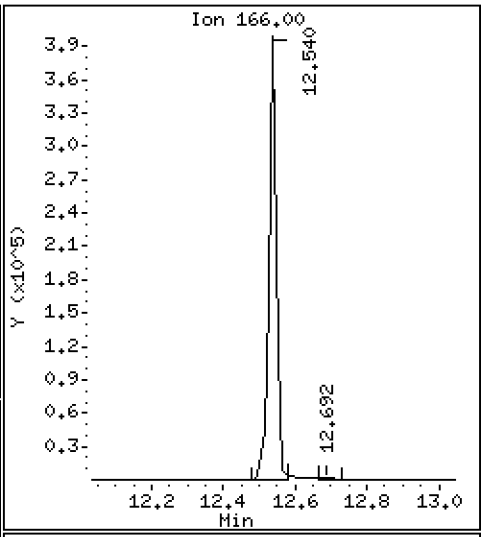
Column phase: Rxi-17Sil MS

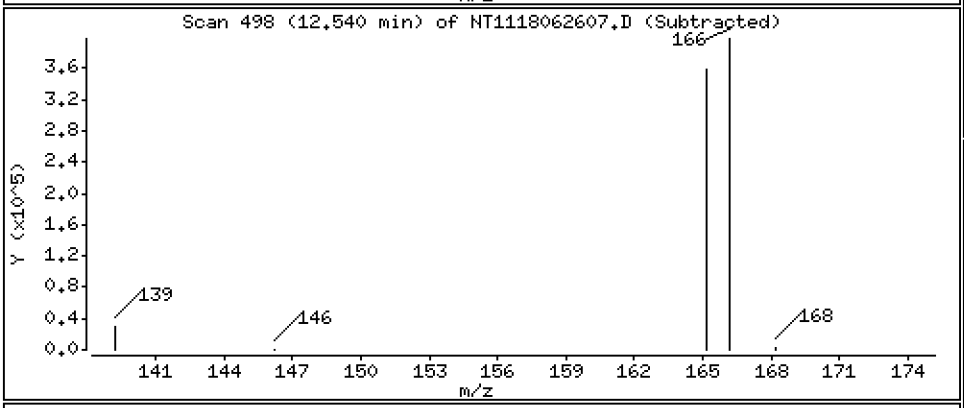
Column diameter: 0.25

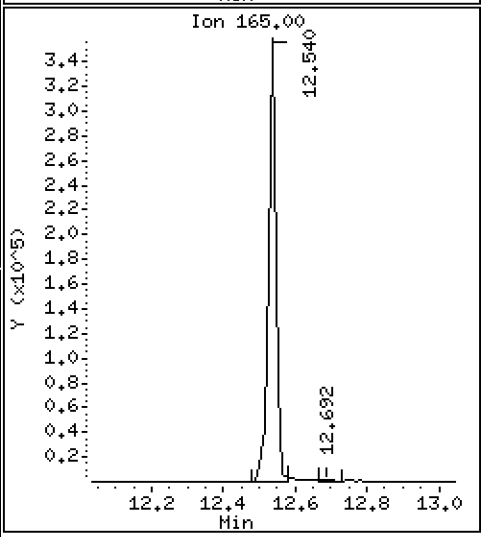
16 Fluorene

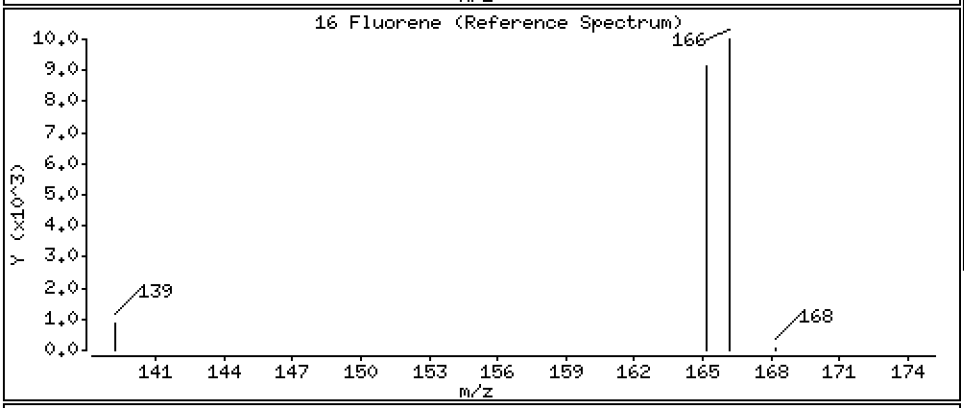
Concentration: 274 ng/mL

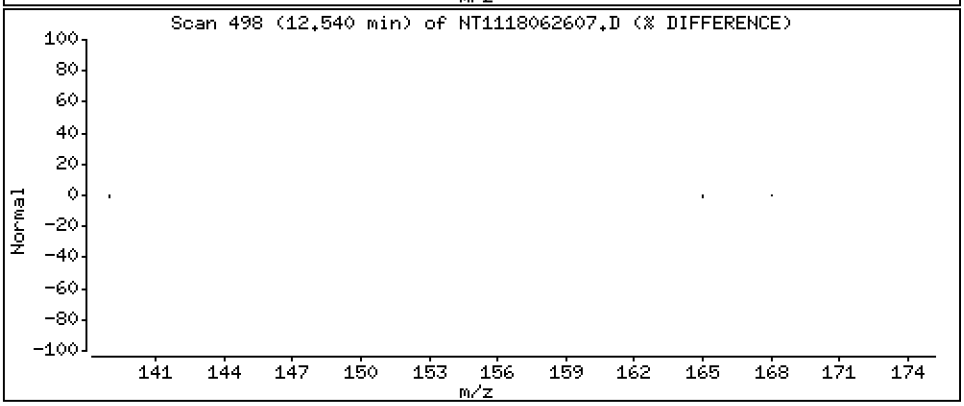












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Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

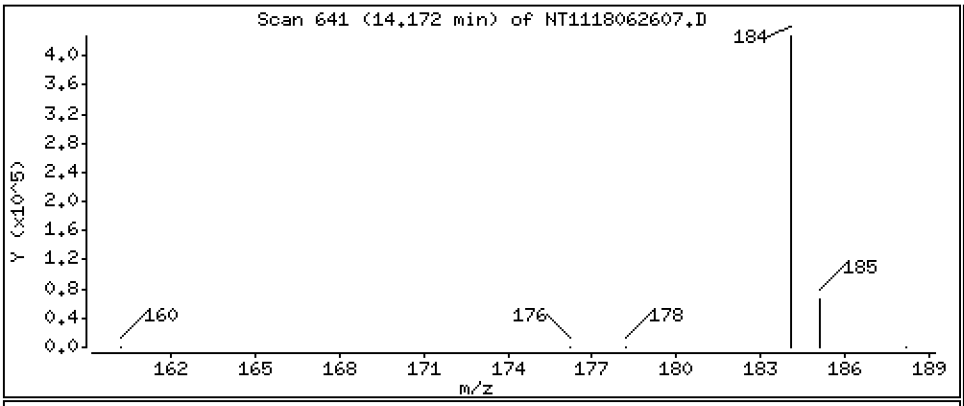
Operator: VTS

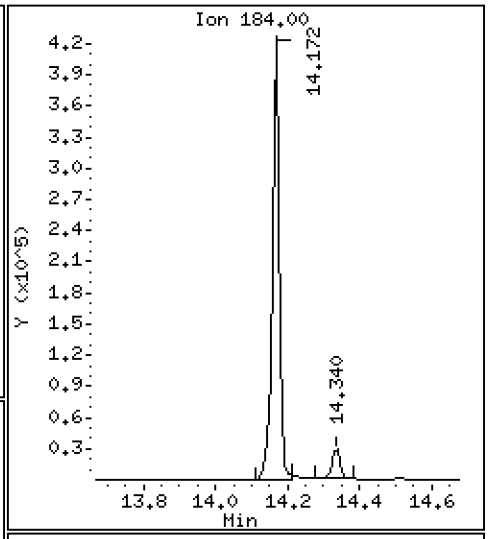
Column phase: Rxi-17Sil MS

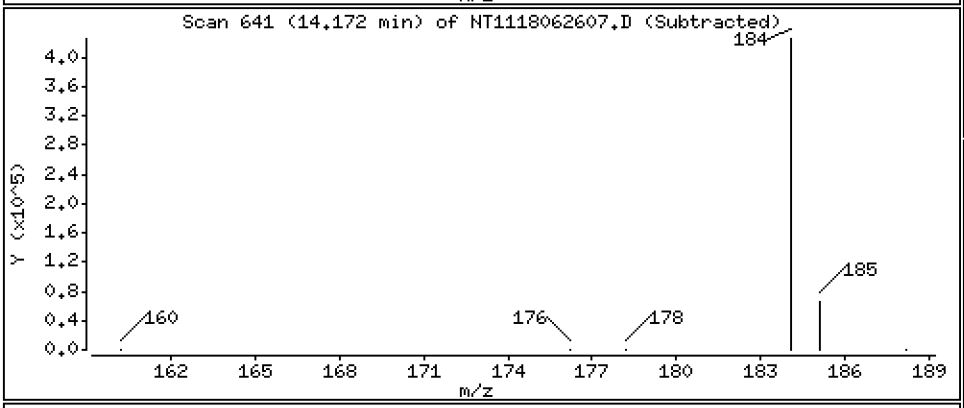
Column diameter: 0.25

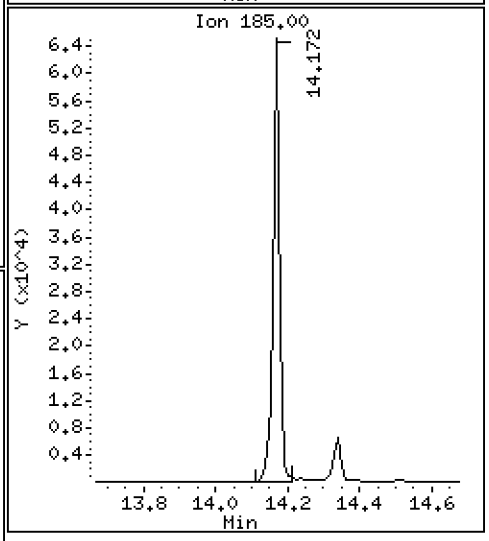
17 Dibenzothiophene

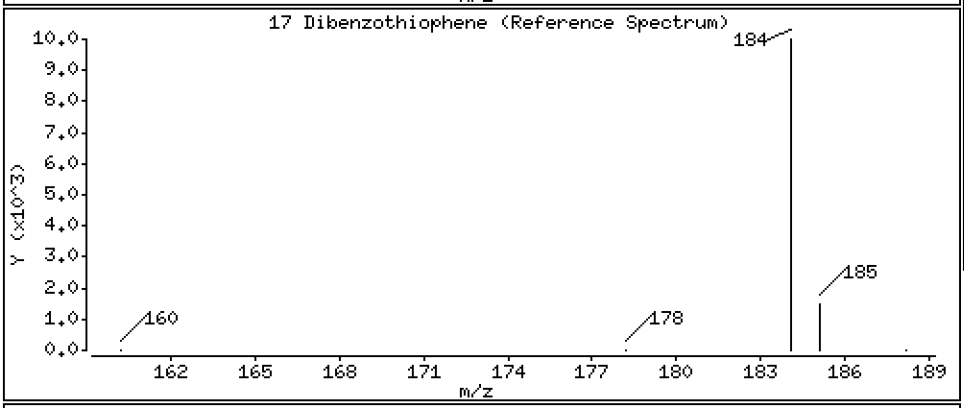
Concentration: 286 ng/mL

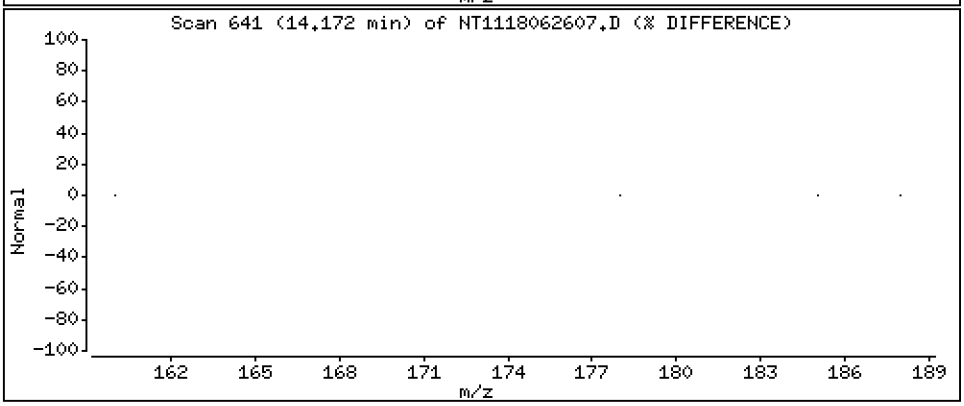












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Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

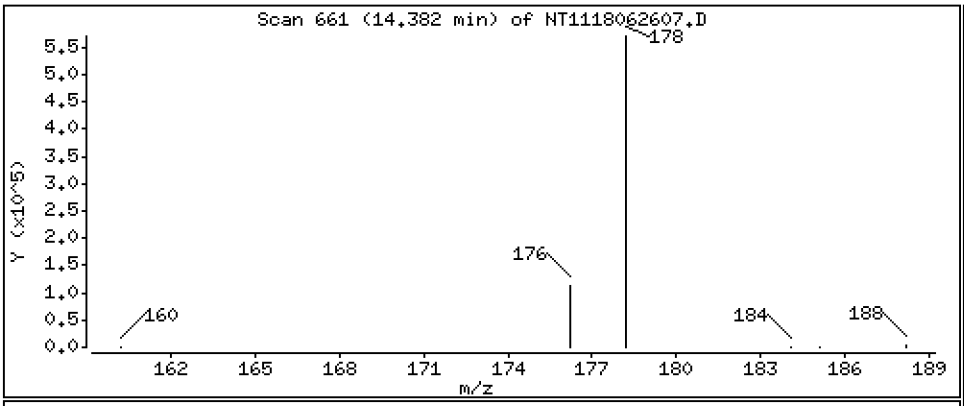
Operator: VTS

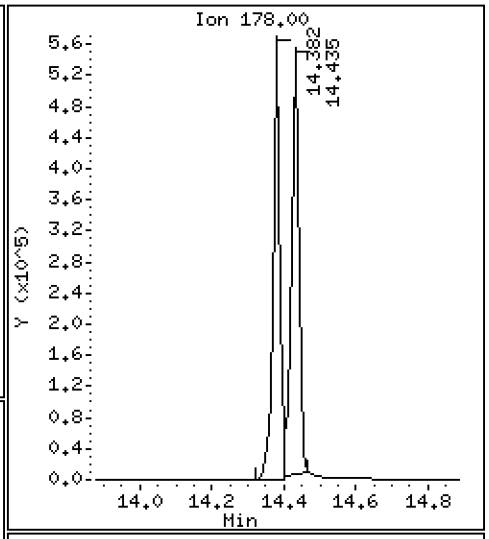
Column phase: Rxi-17Sil MS

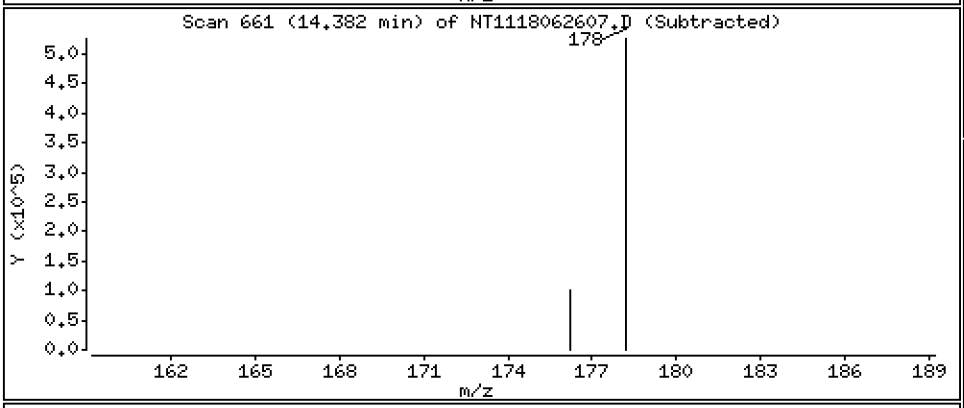
Column diameter: 0.25

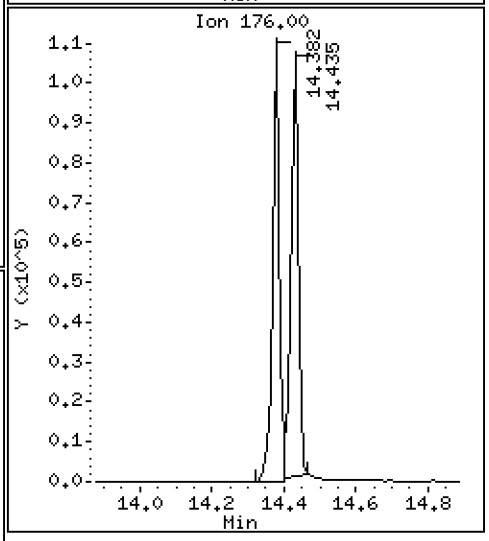
19 Phenanthrene

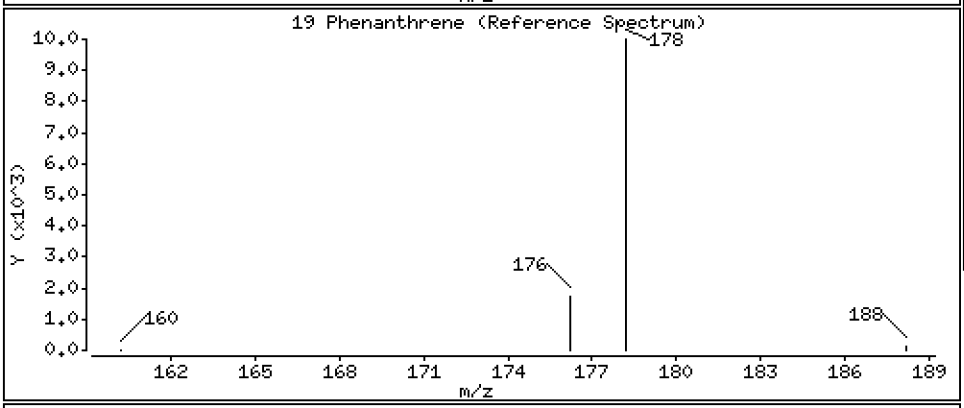
Concentration: 287 ng/mL

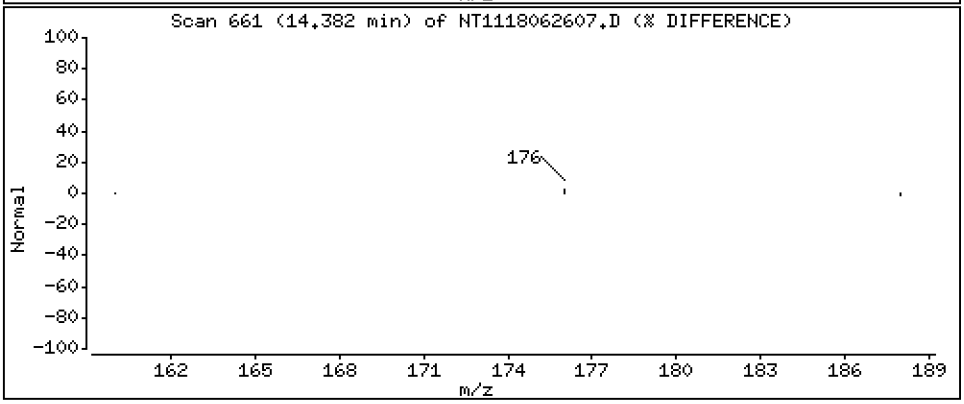












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Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

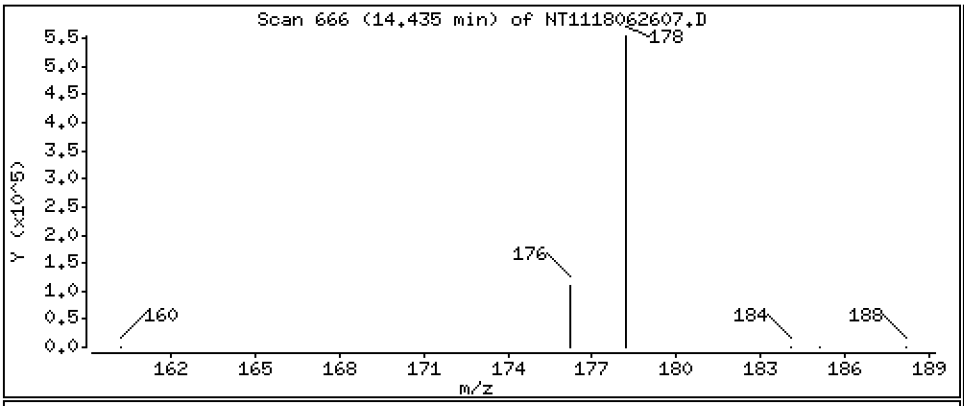
Operator: VTS

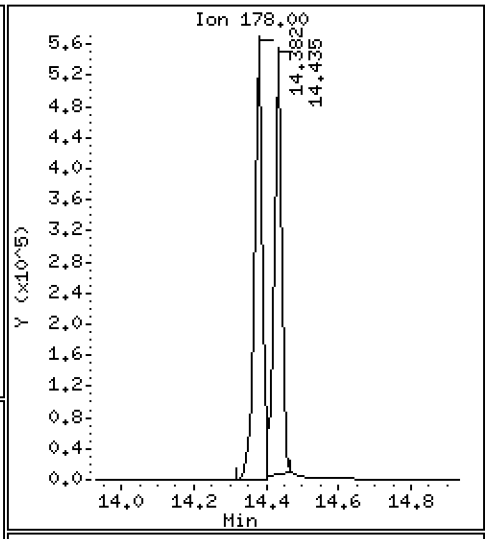
Column phase: Rxi-17Sil MS

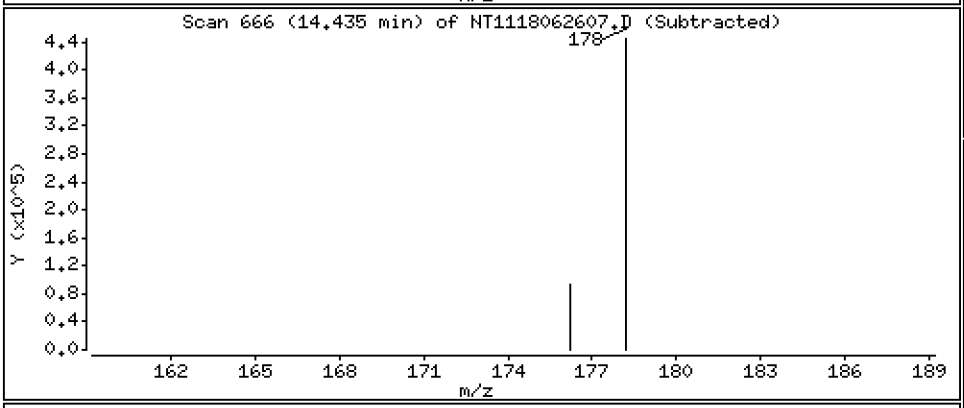
Column diameter: 0.25

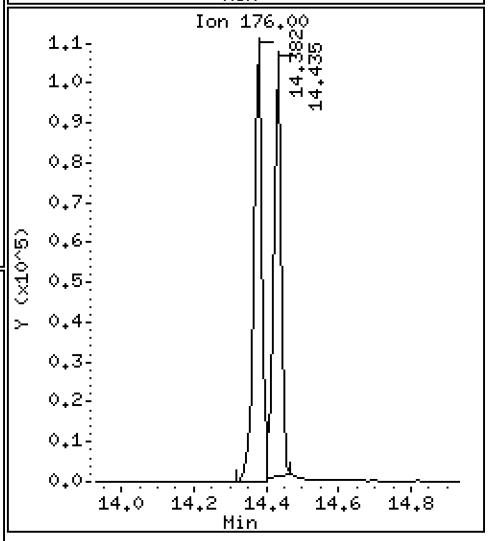
21 Anthracene

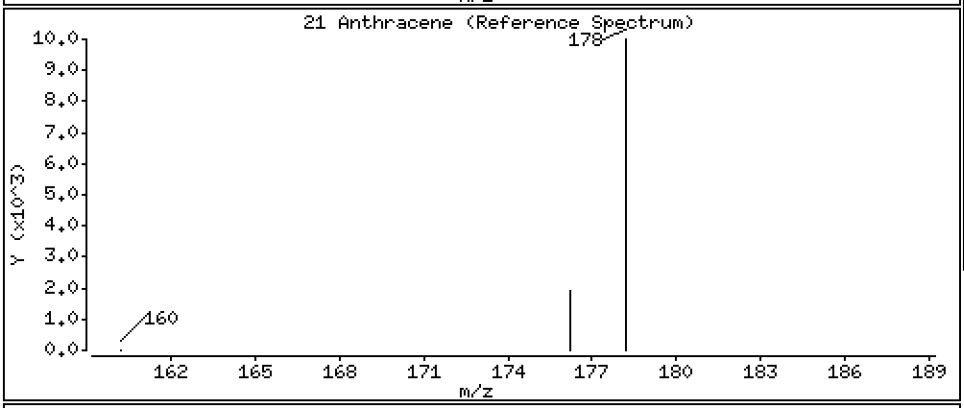
Concentration: 282 ng/mL

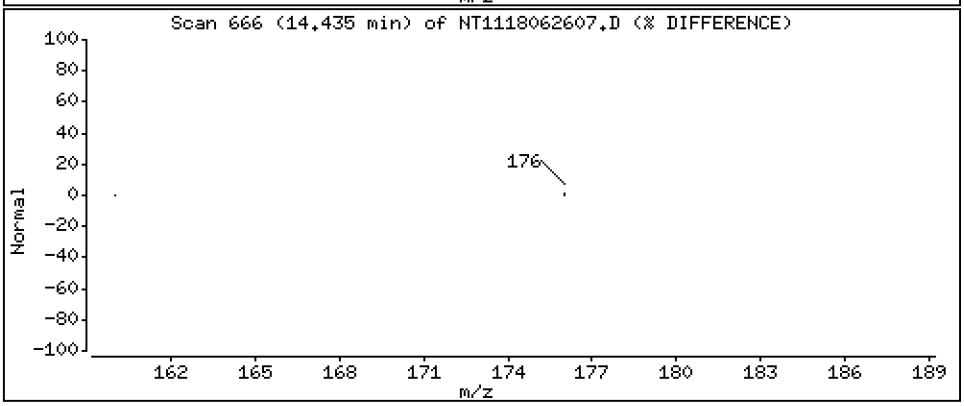












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Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

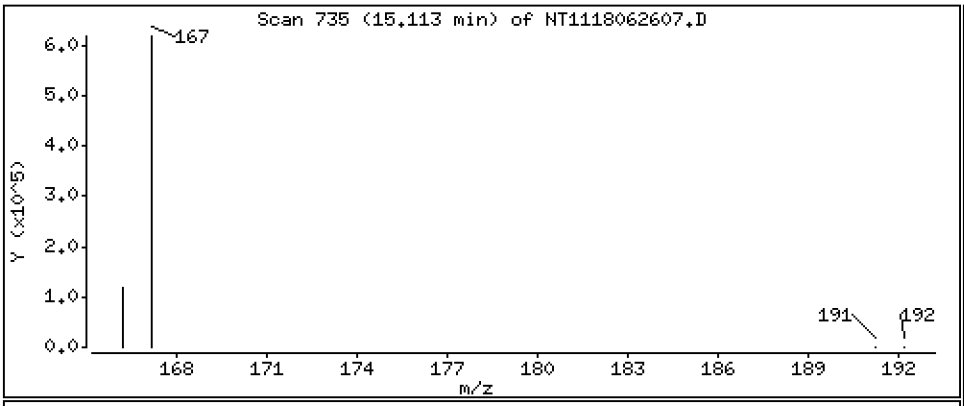
Operator: VTS

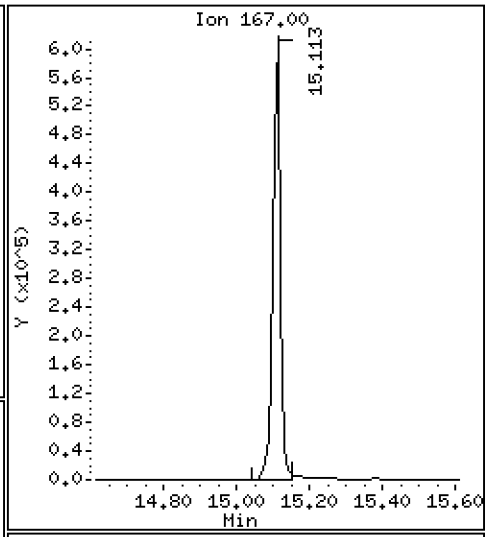
Column phase: Rxi-17Sil MS

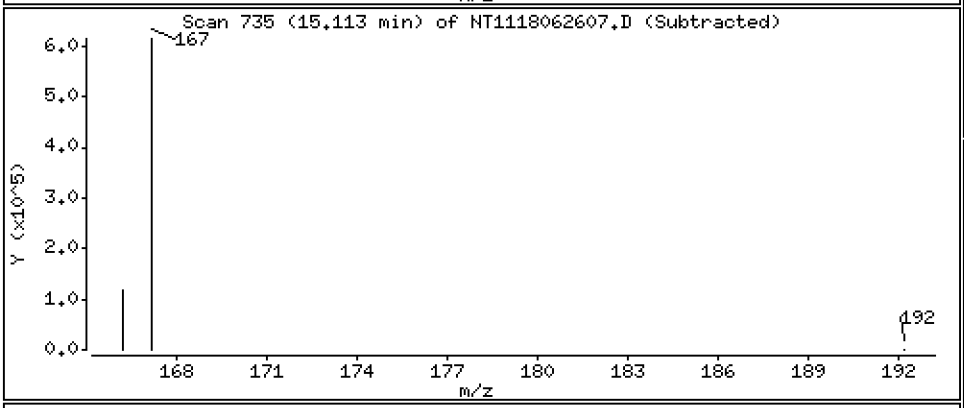
Column diameter: 0.25

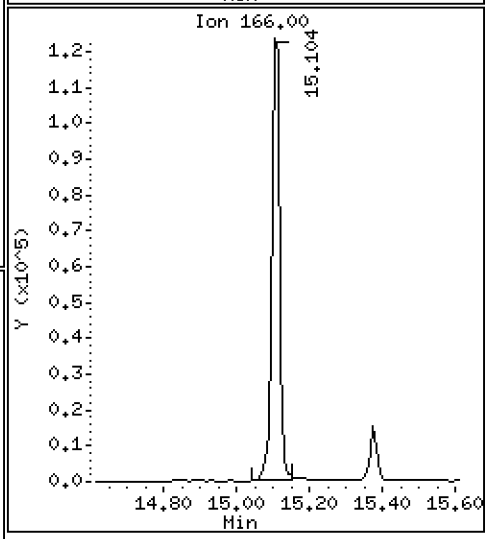
22 Carbazole

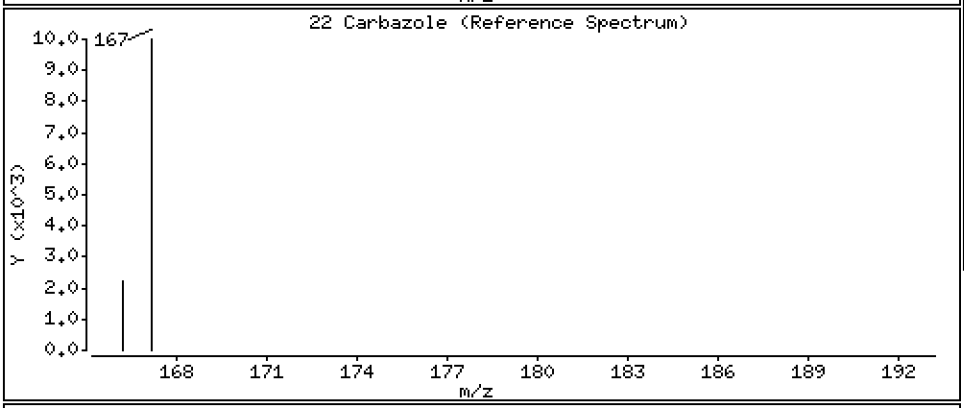
Concentration: 277 ng/mL

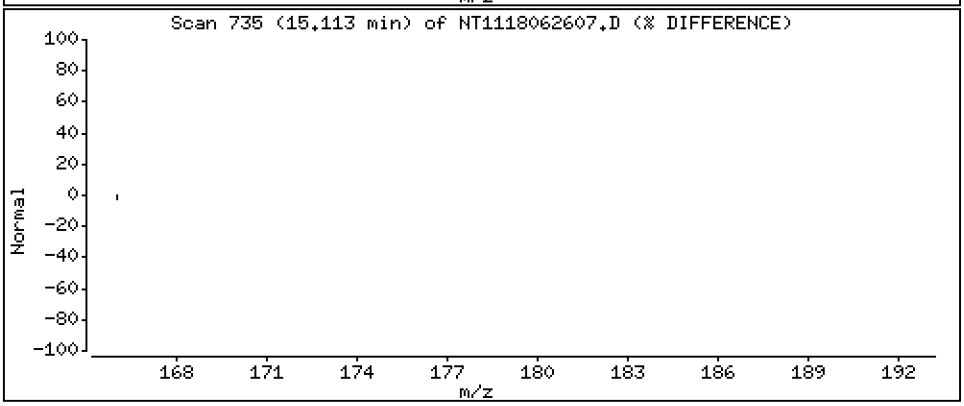












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Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

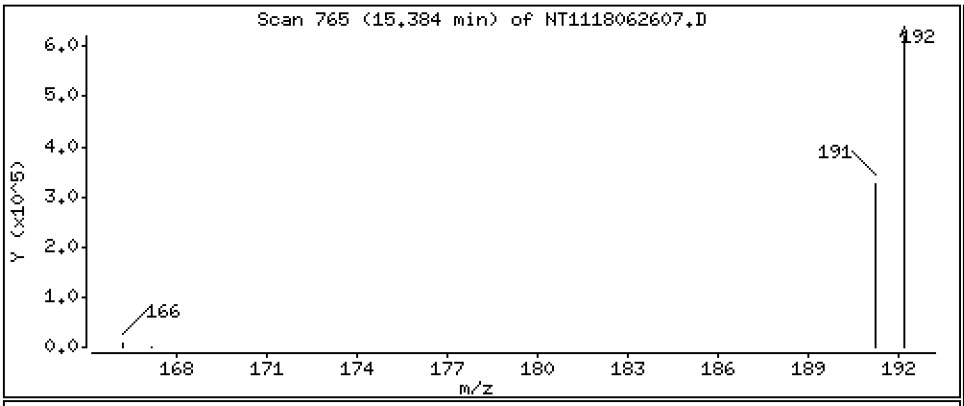
Operator: VTS

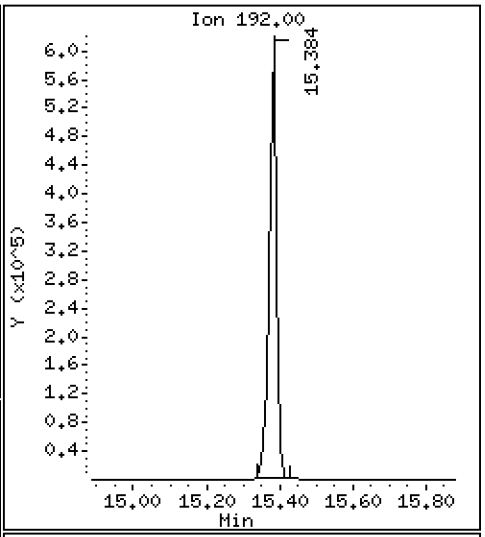
Column phase: Rxi-17Sil MS

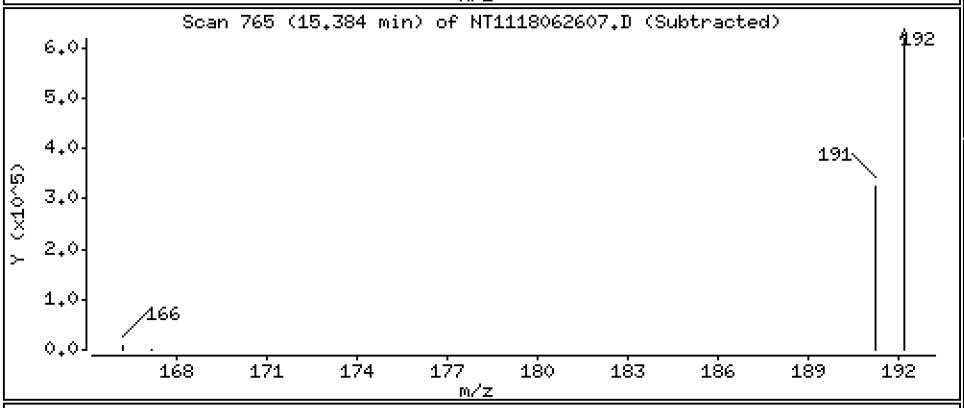
Column diameter: 0.25

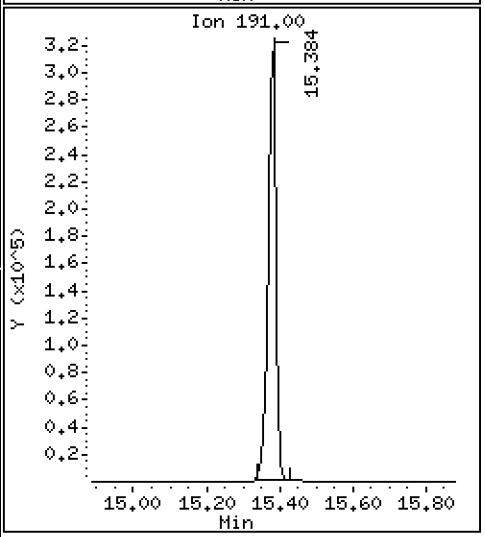
23 1-Methylphenanthrene

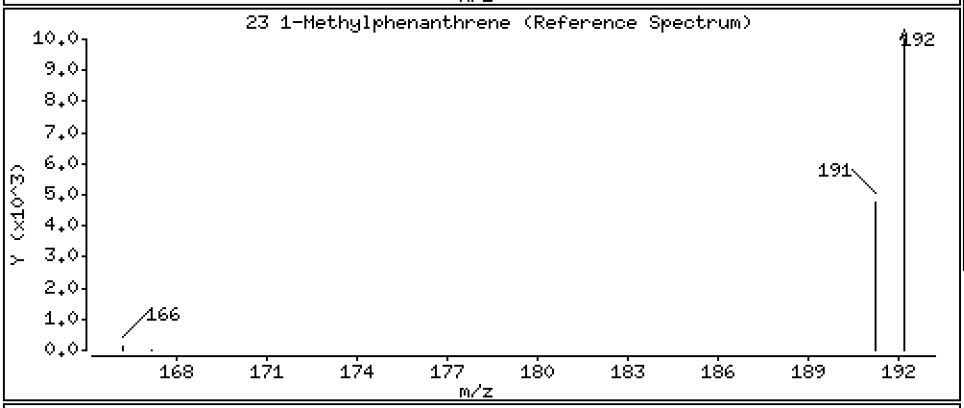
Concentration: 305 ng/mL

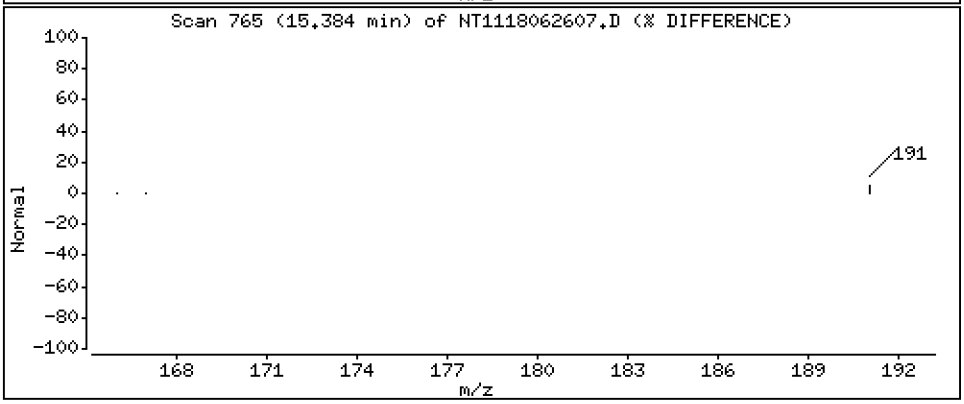












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Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

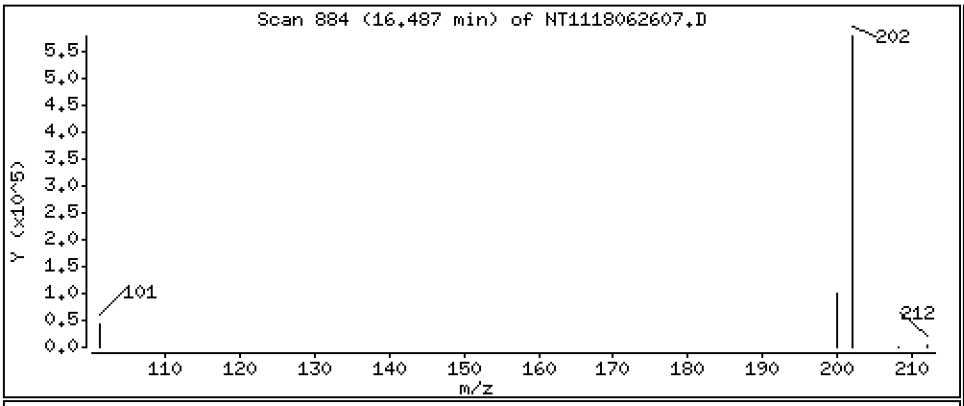
Operator: VTS

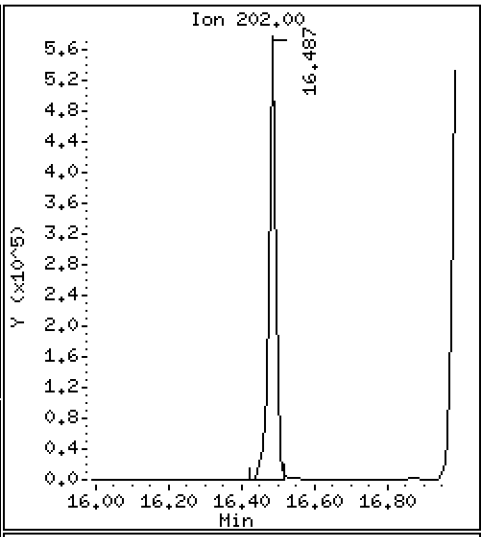
Column phase: Rxi-17Sil MS

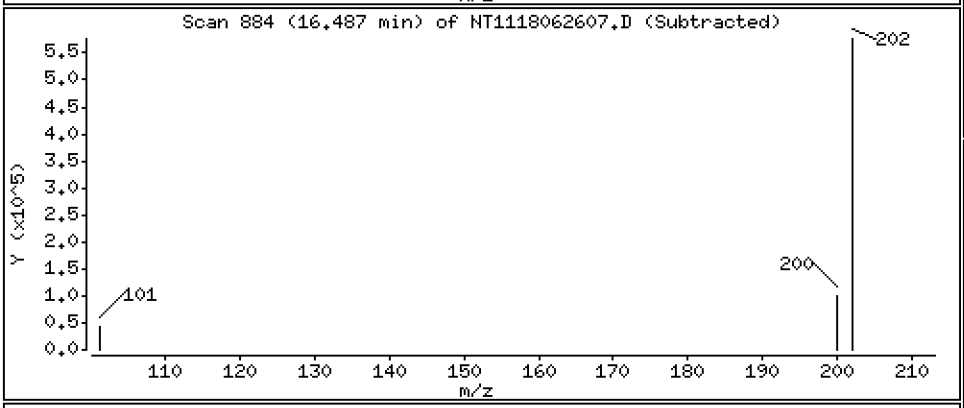
Column diameter: 0.25

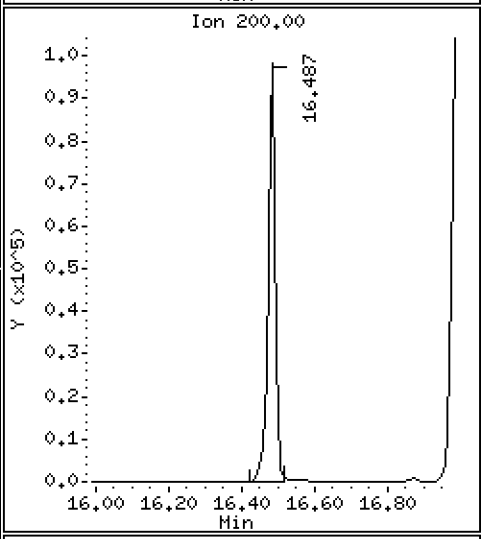
25 Fluoranthene

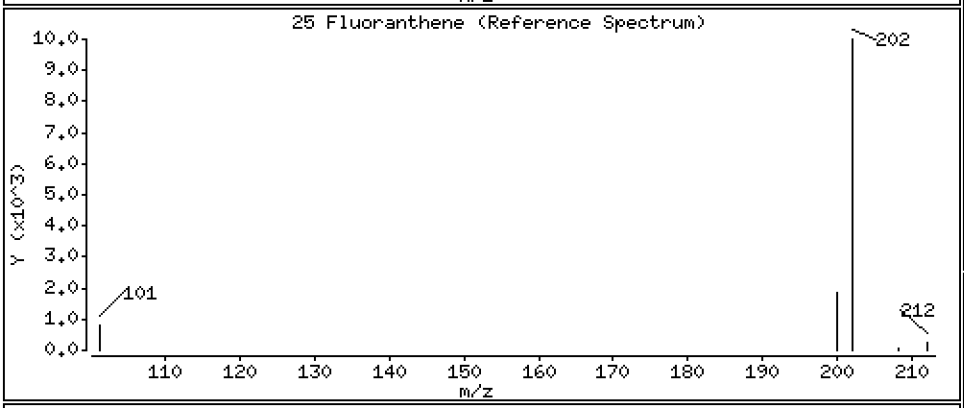
Concentration: 300 ng/mL

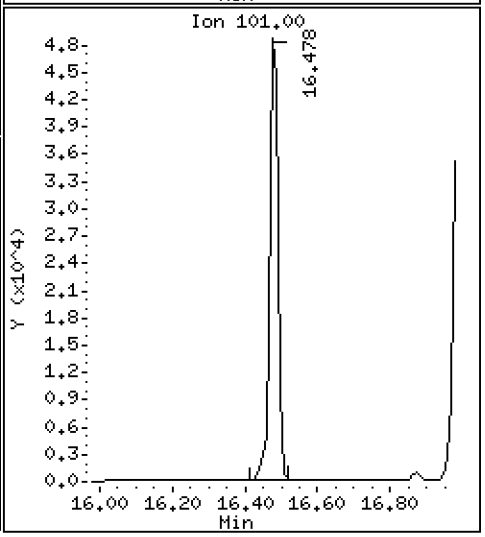


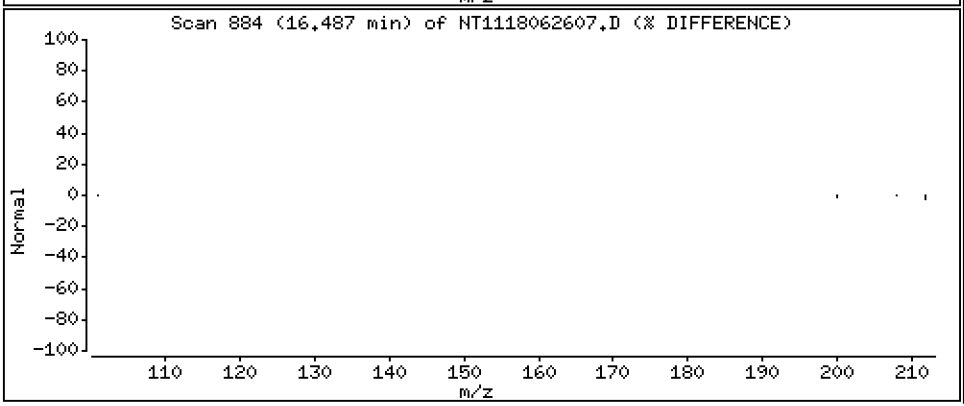












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Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

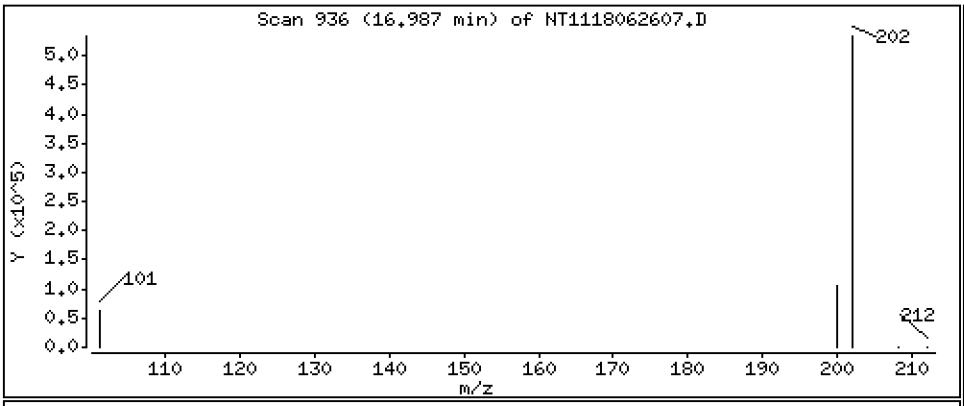
Operator: VTS

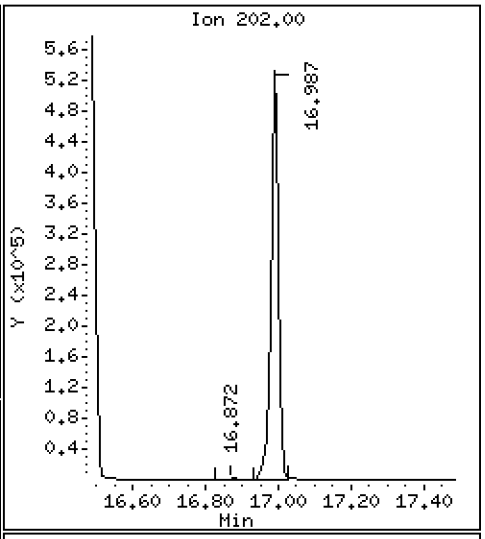
Column phase: Rxi-17Sil MS

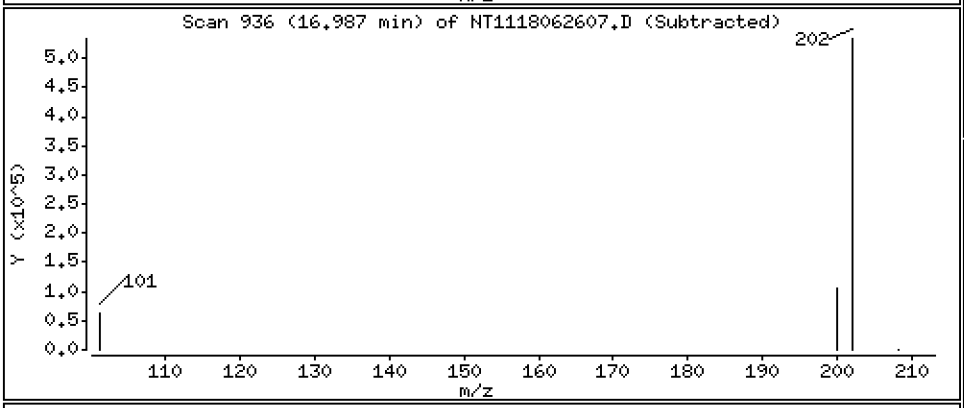
Column diameter: 0.25

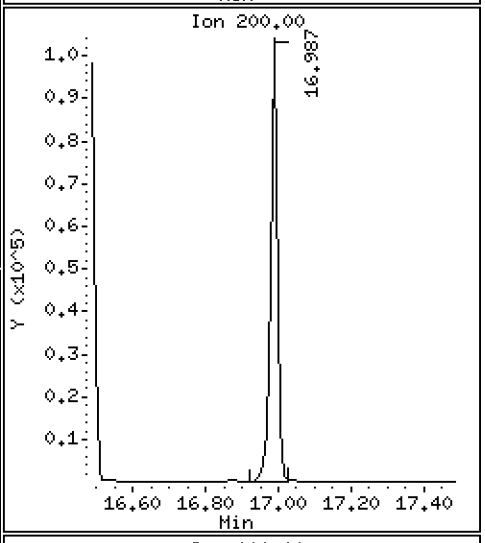
26 Pyrene

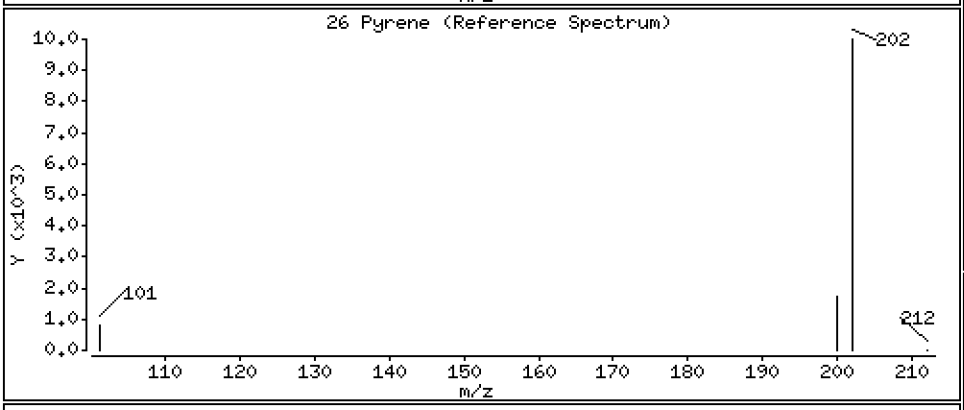
Concentration: 278 ng/mL

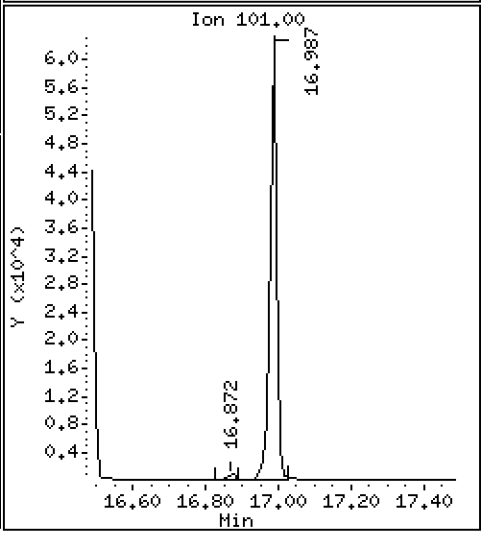


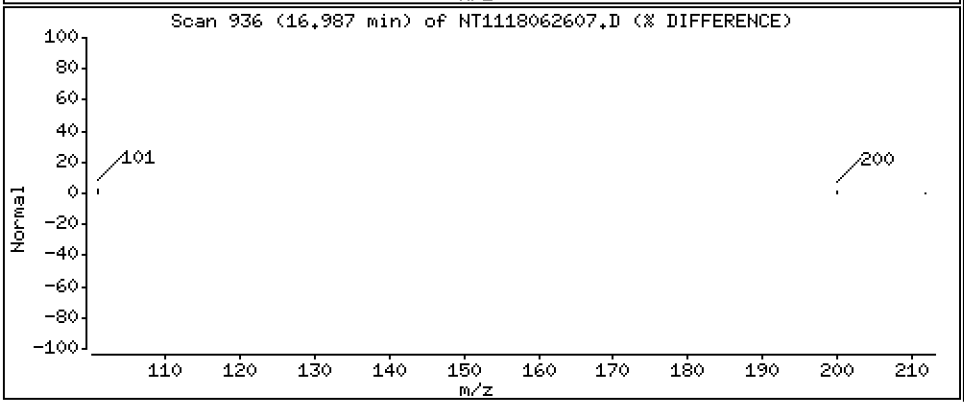












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Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

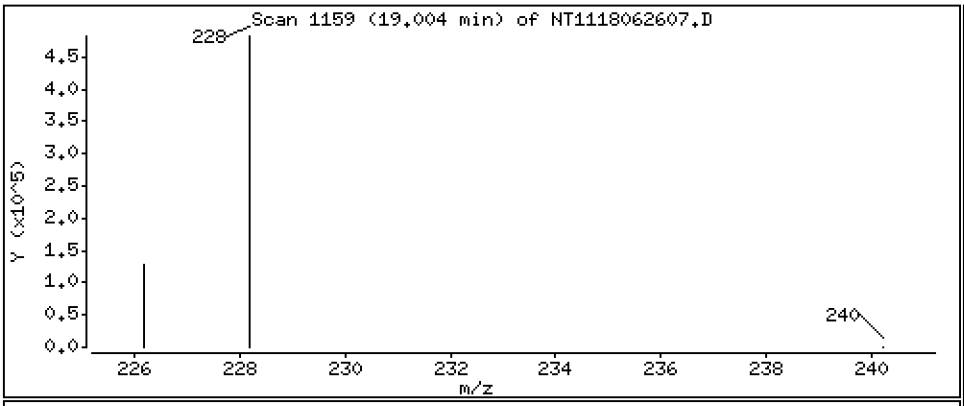
Operator: VTS

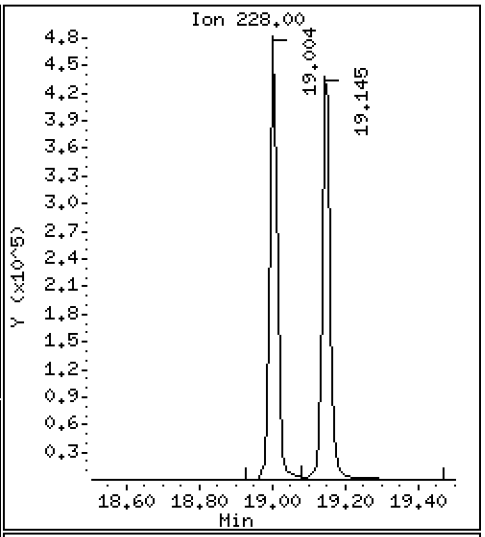
Column phase: Rxi-17Sil MS

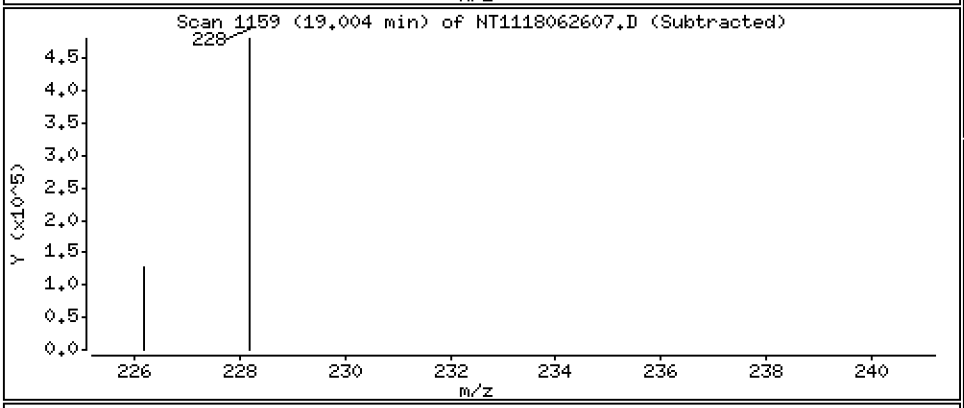
Column diameter: 0.25

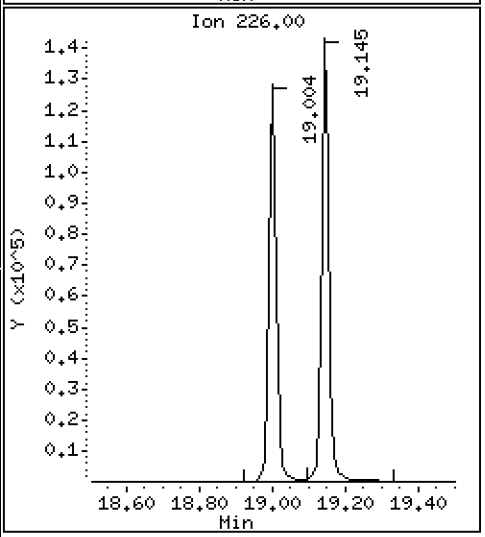
27 Benzo(a)anthracene

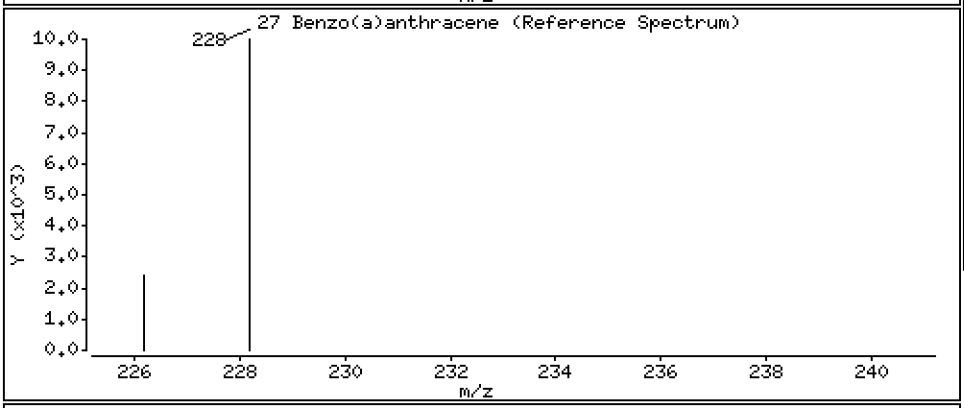
Concentration: 291 ng/mL

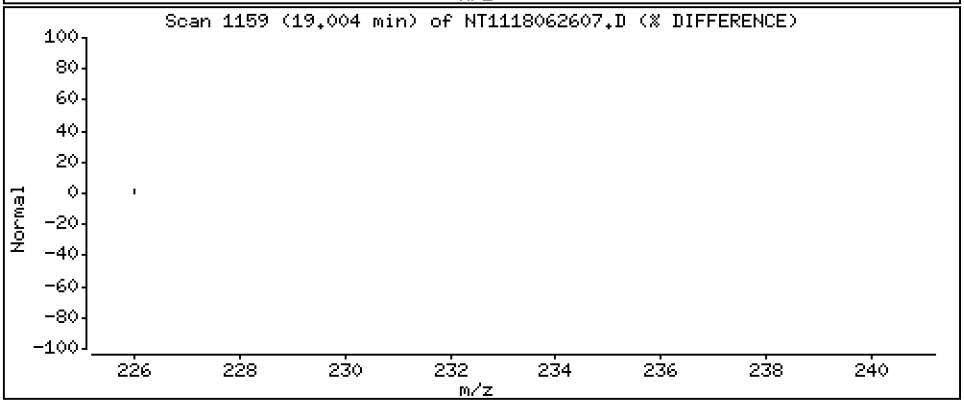












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Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

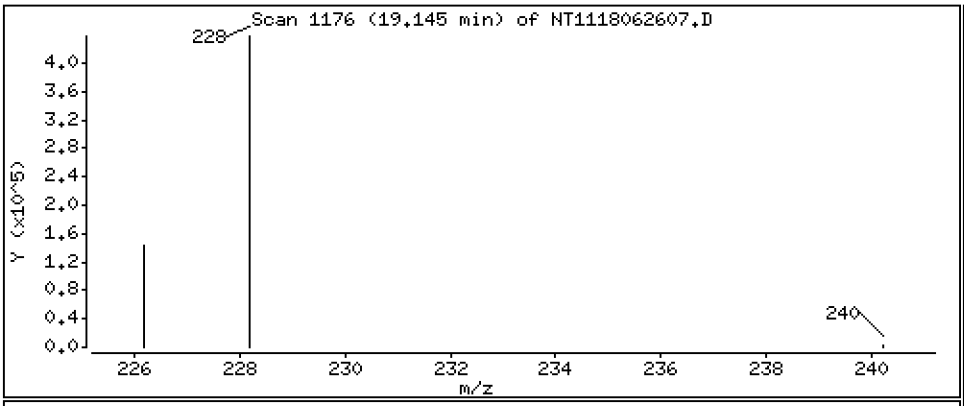
Operator: VTS

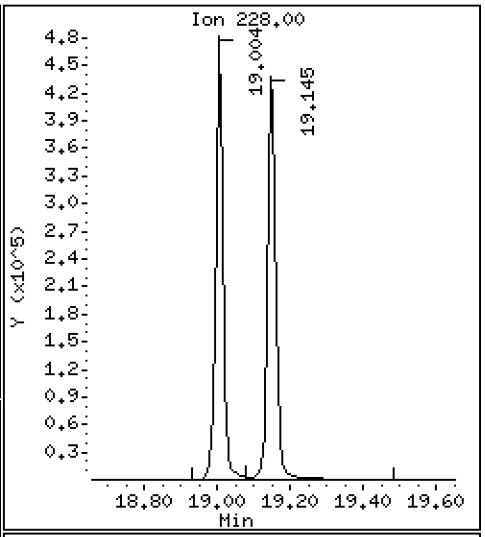
Column phase: Rxi-17Sil MS

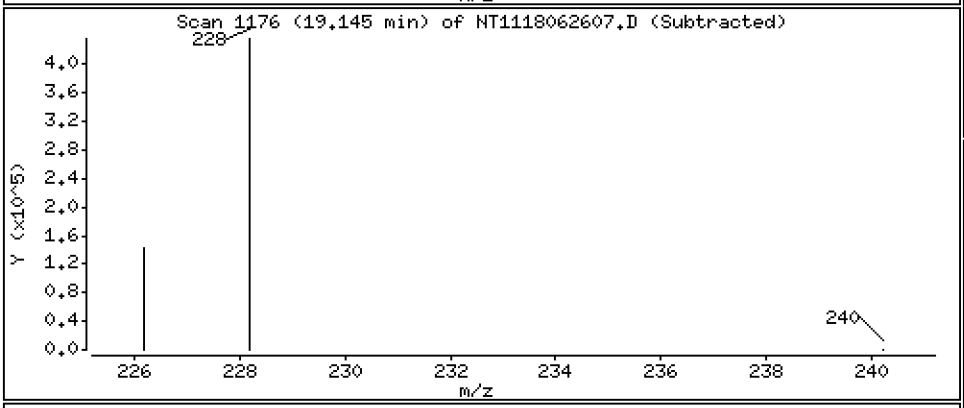
Column diameter: 0.25

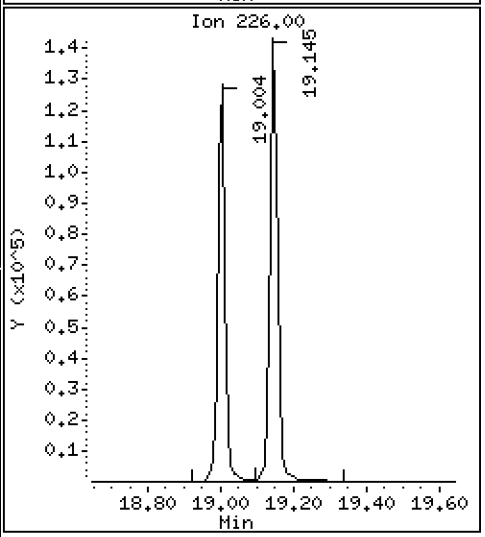
29 Chrysene

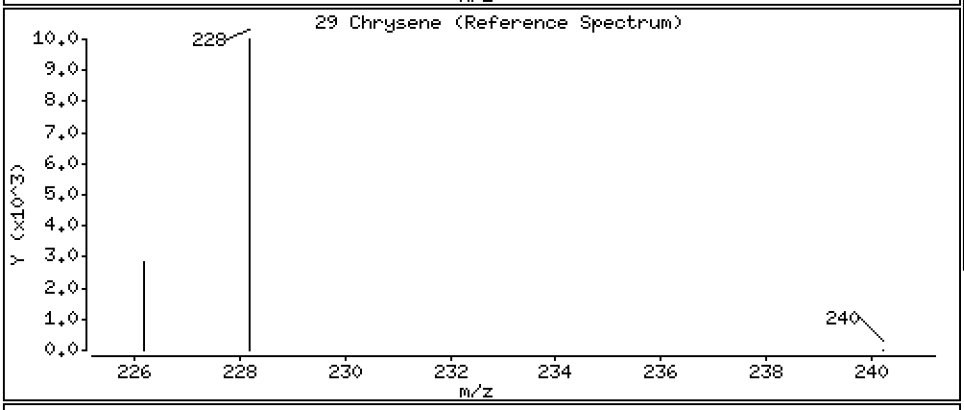
Concentration: 305 ng/mL

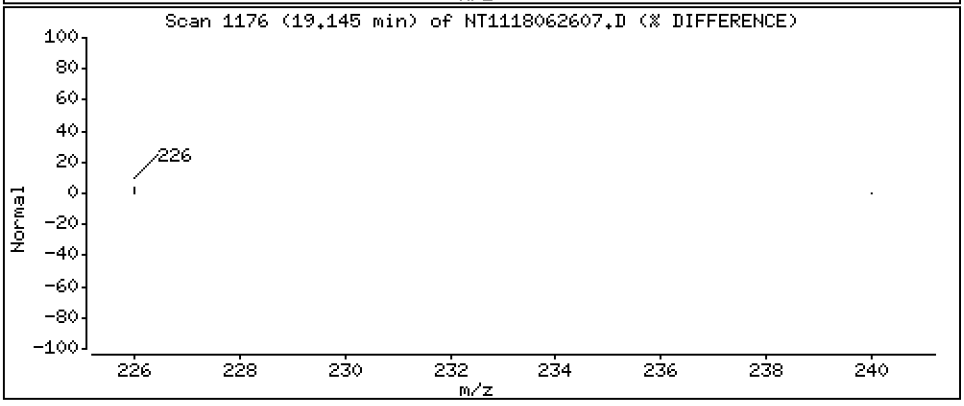












Data File: \\target\share\chem3\nt11.i\20180627.b\NT1118062607.D

Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

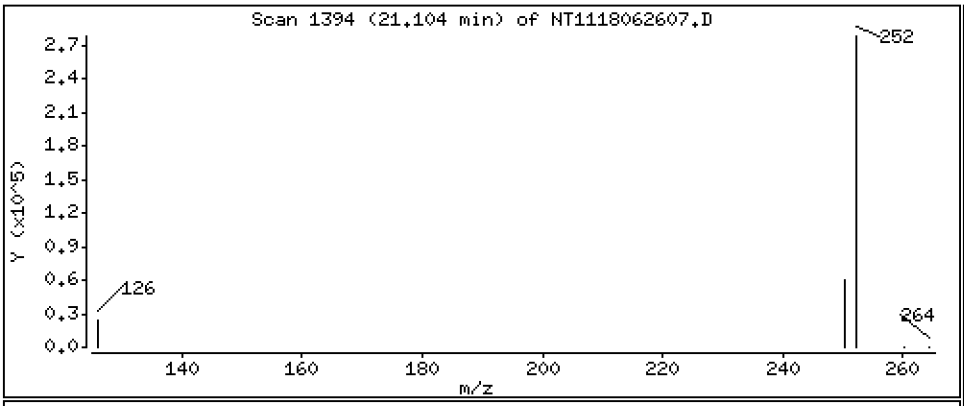
Operator: VTS

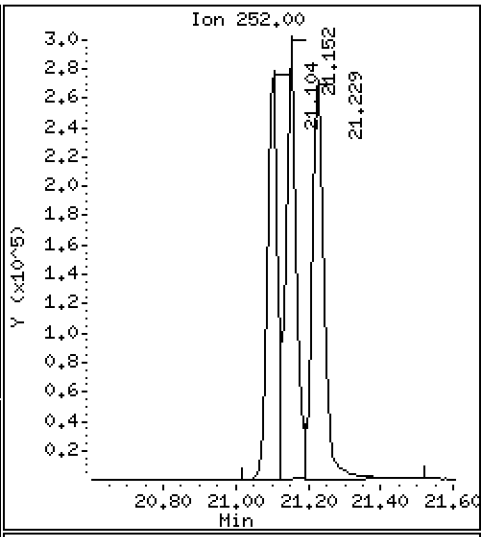
Column phase: Rxi-17Sil MS

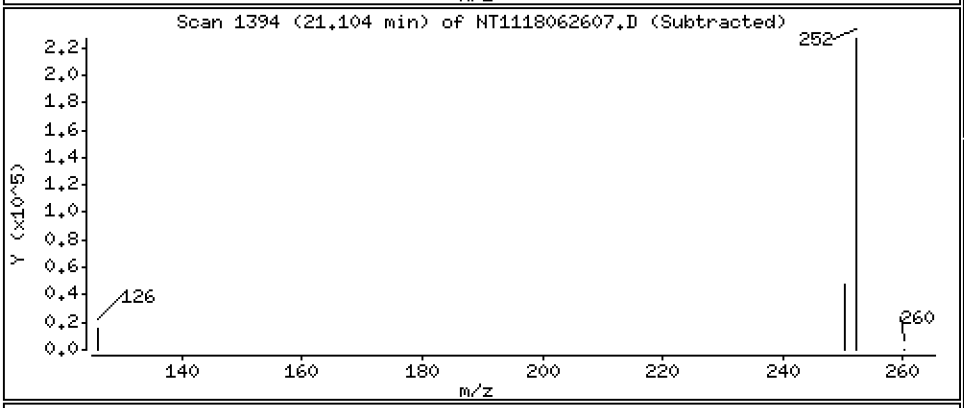
Column diameter: 0.25

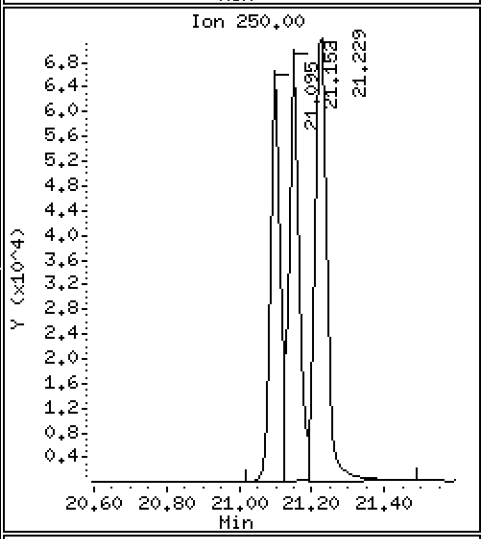
30 Benzo(b)fluoranthene

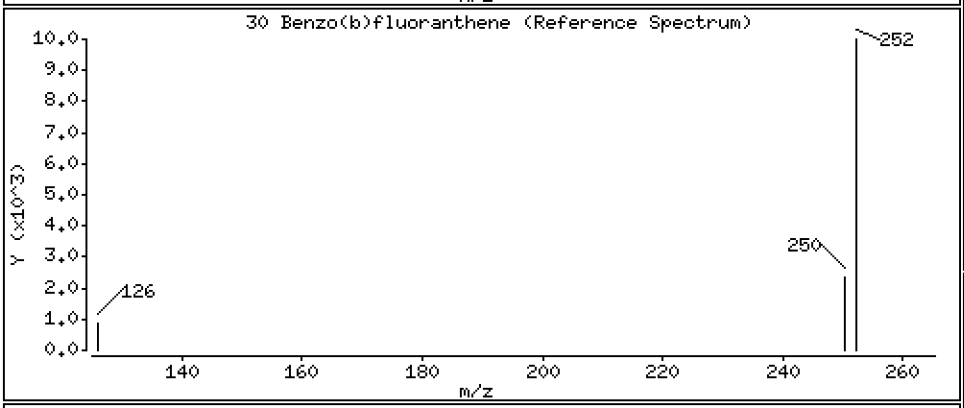
Concentration: 255 ng/mL

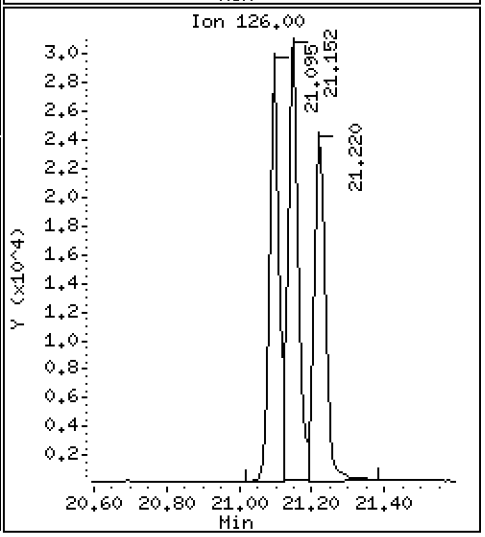


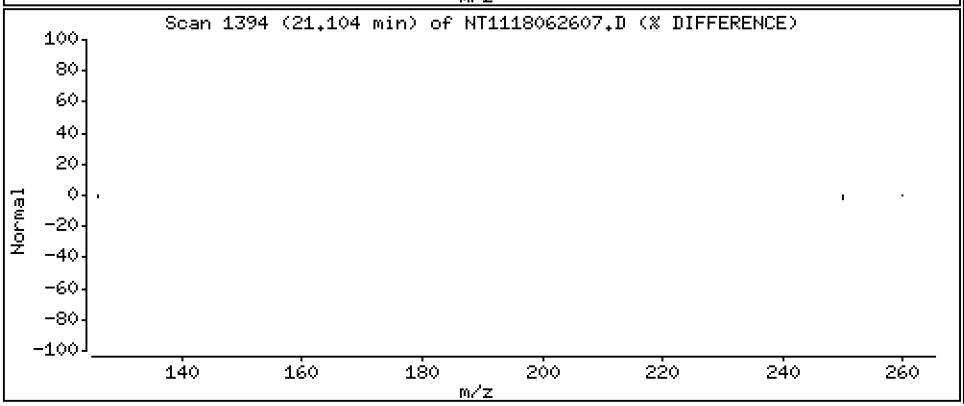












Data File: \\target\share\chem3\nt11.i\20180627.b\NT1118062607.D

Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

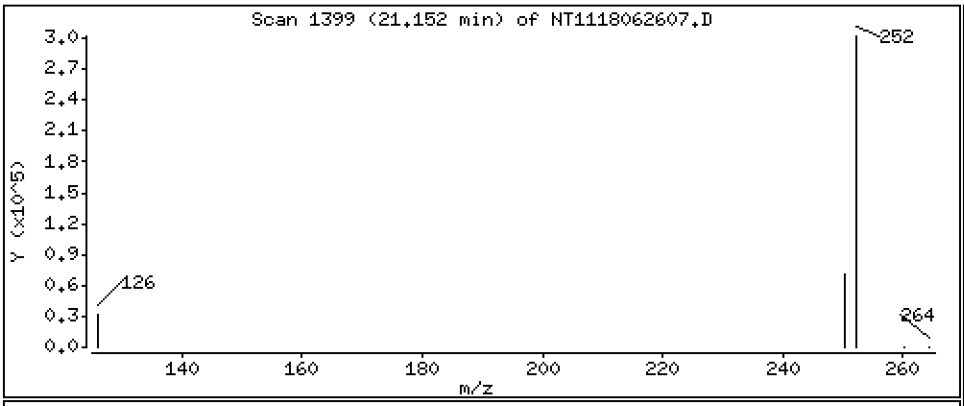
Operator: VTS

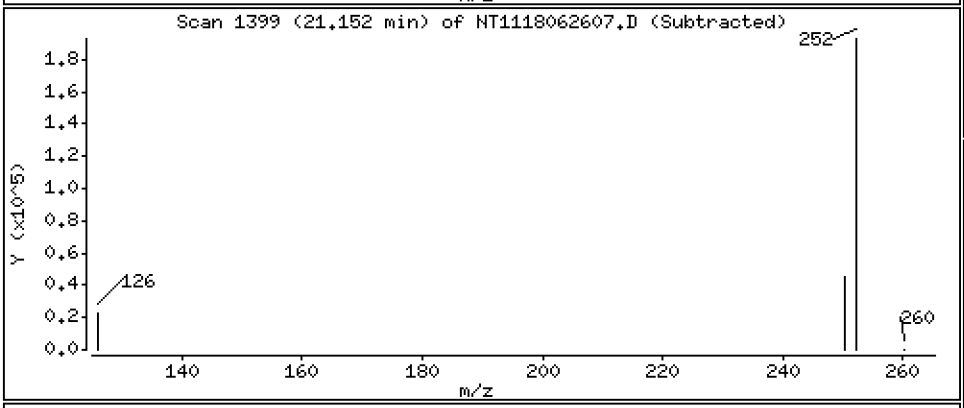
Column phase: Rxi-17Sil MS

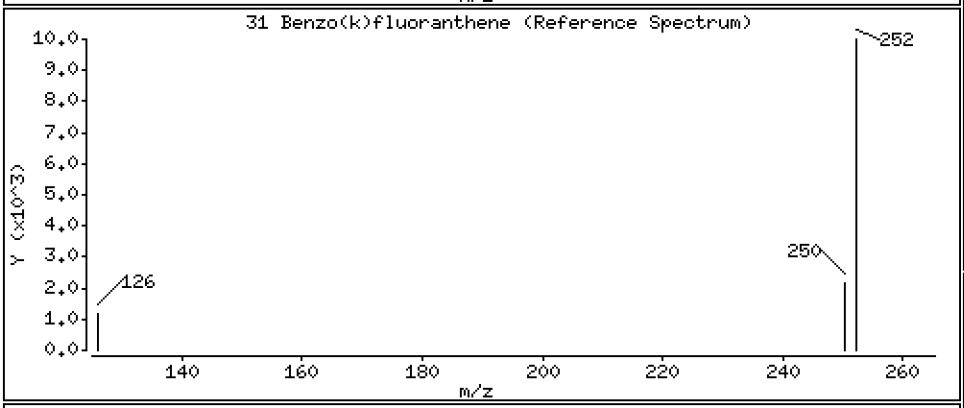
Column diameter: 0.25

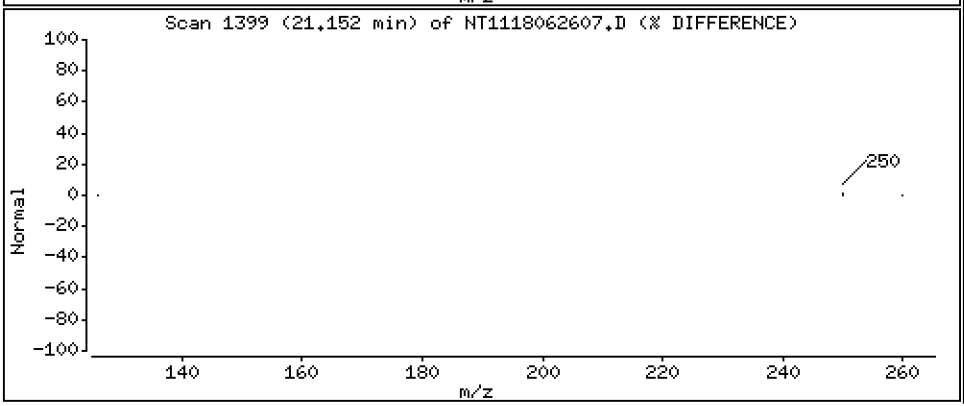
31 Benzo(k)fluoranthene

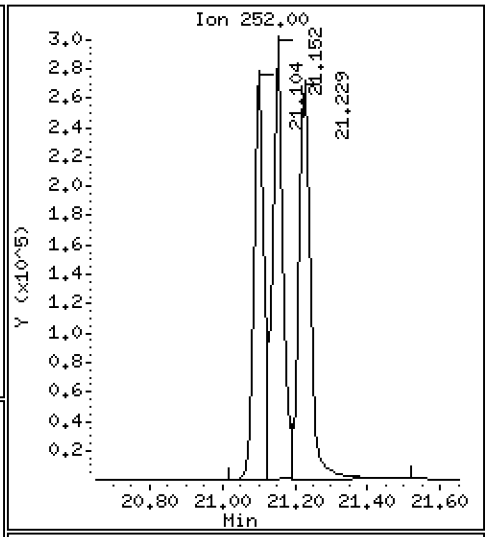
Concentration: 285 ng/mL

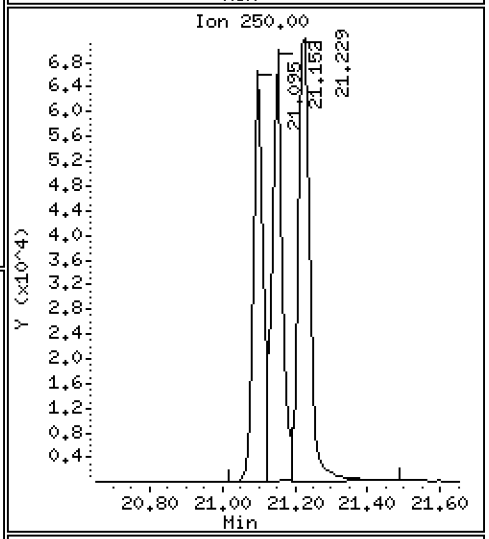


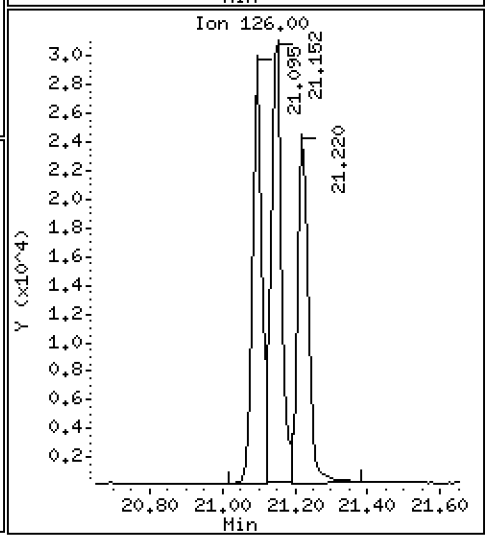












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Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

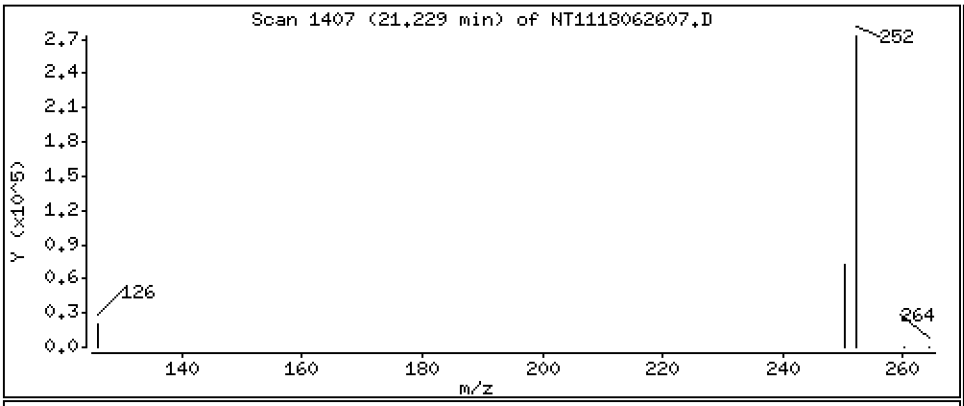
Operator: VTS

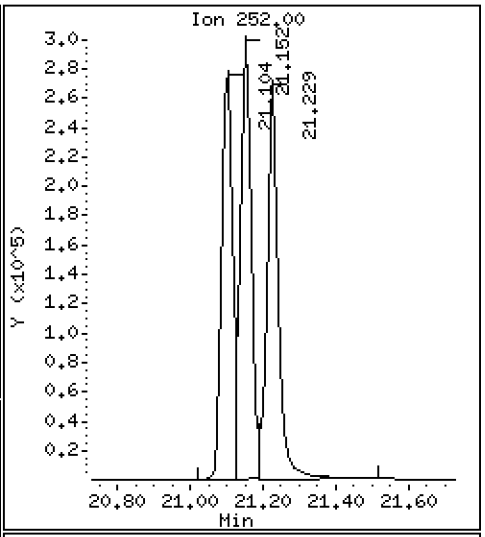
Column phase: Rxi-17Sil MS

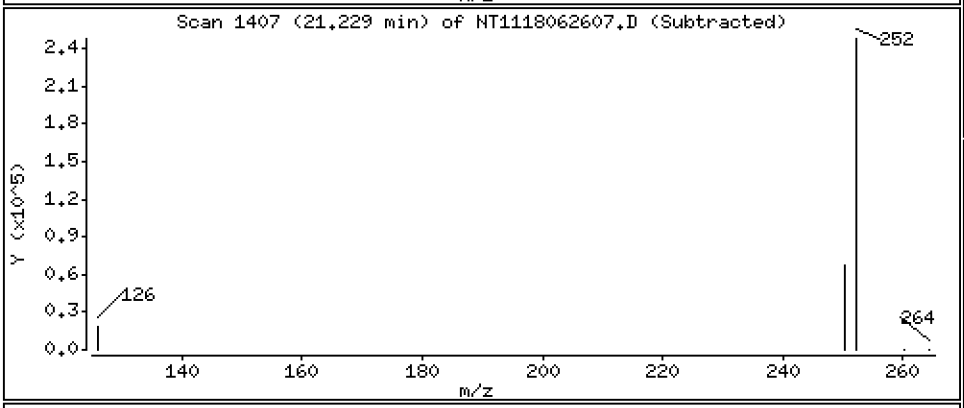
Column diameter: 0.25

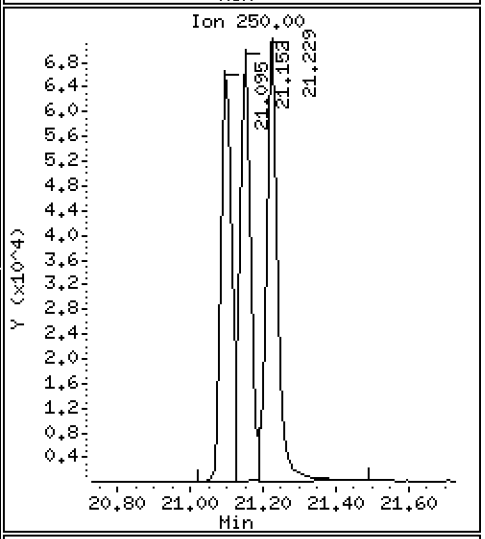
32 Benzo(j)fluoranthene

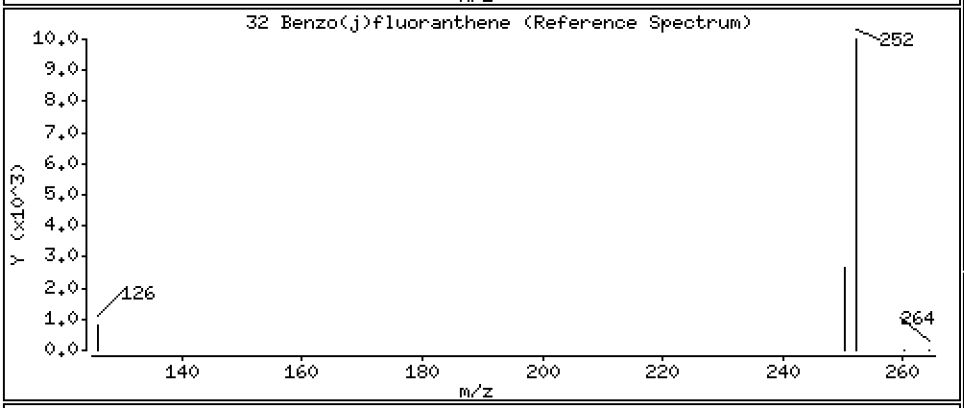
Concentration: 296 ng/mL

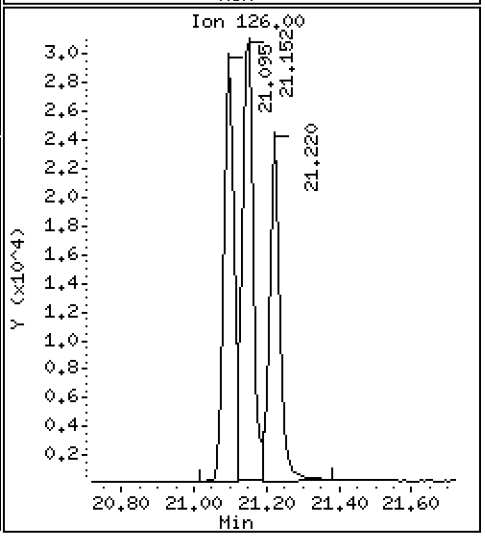


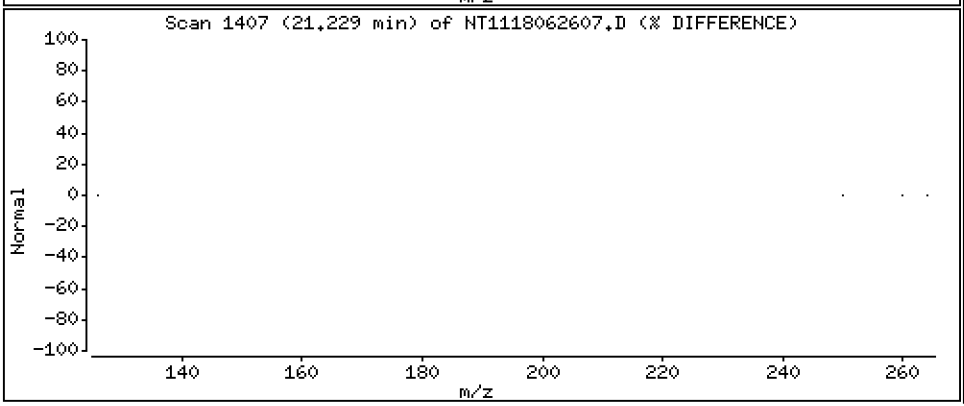












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Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

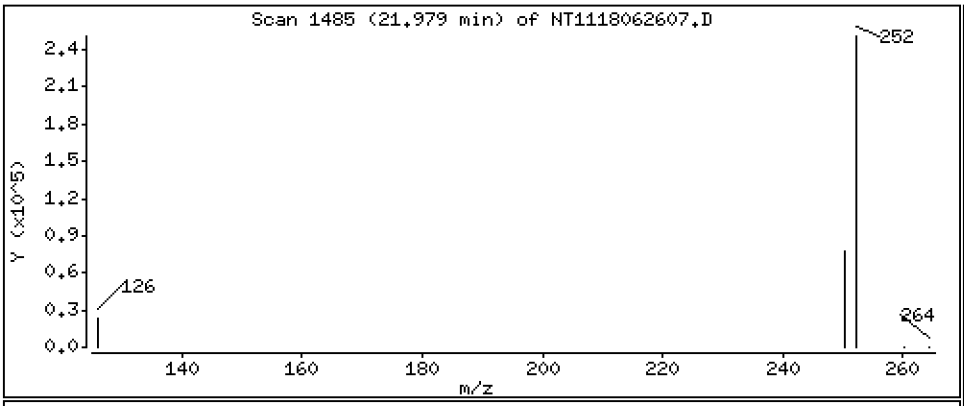
Operator: VTS

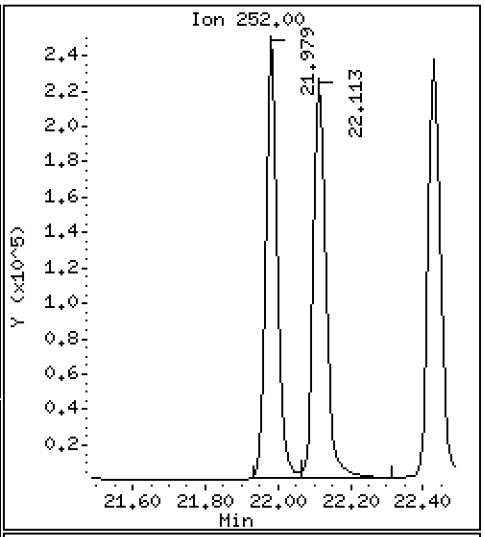
Column phase: Rxi-17Sil MS

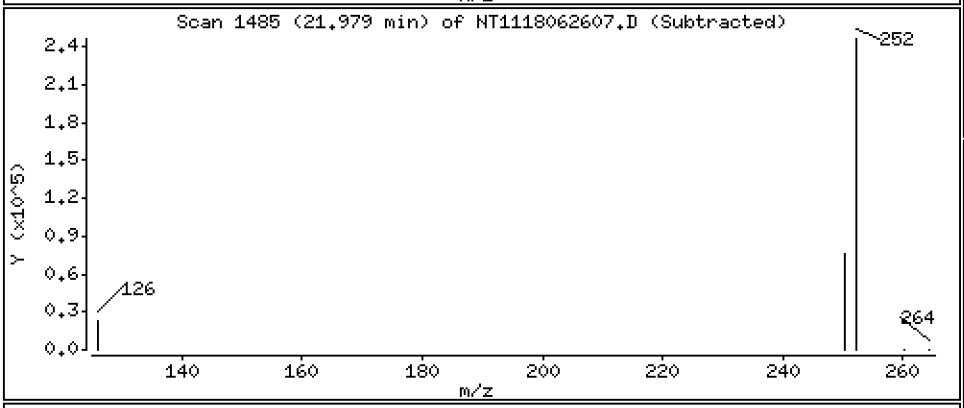
Column diameter: 0.25

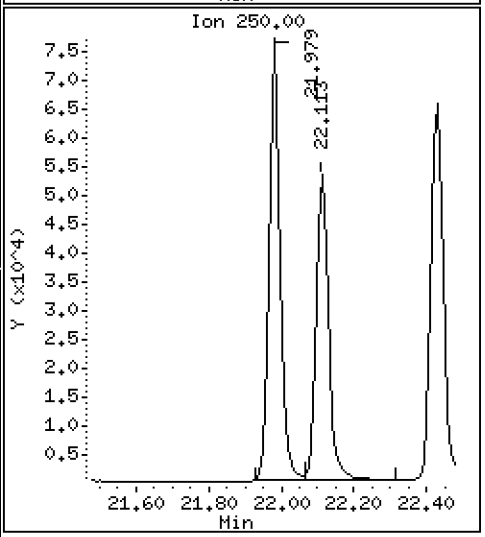
34 Benzo(e)pyrene

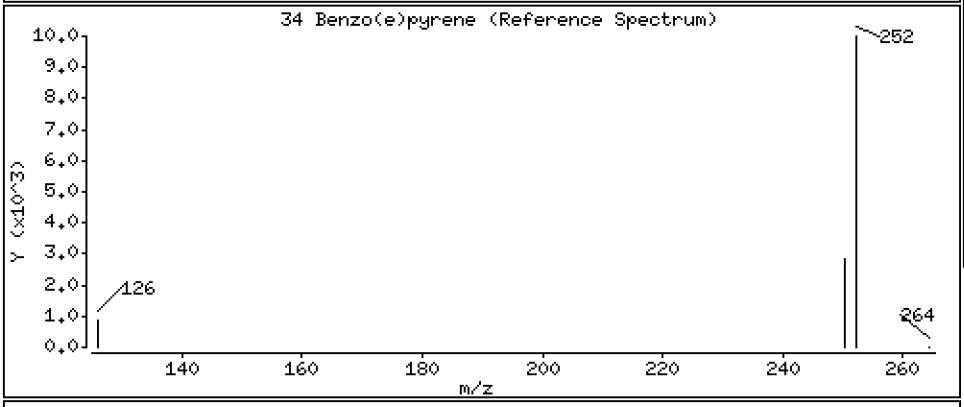
Concentration: 268 ng/mL

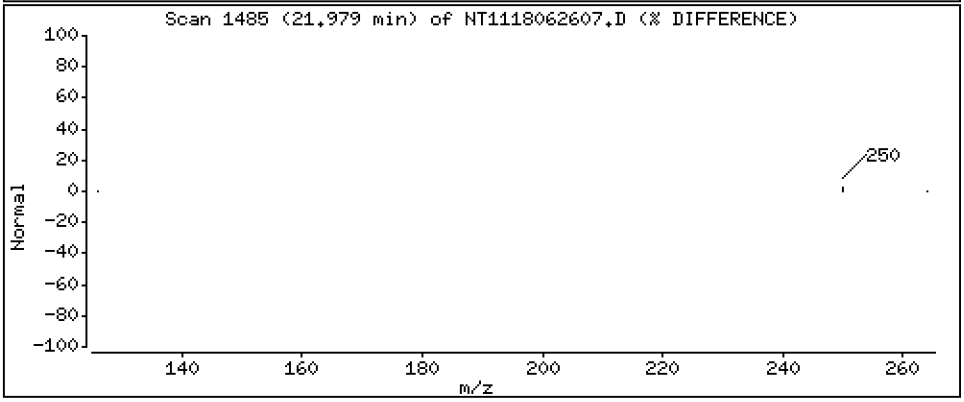












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Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

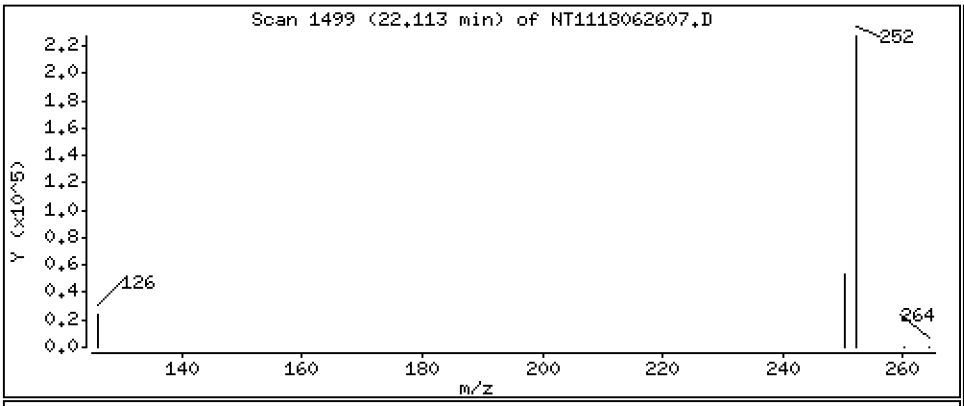
Operator: VTS

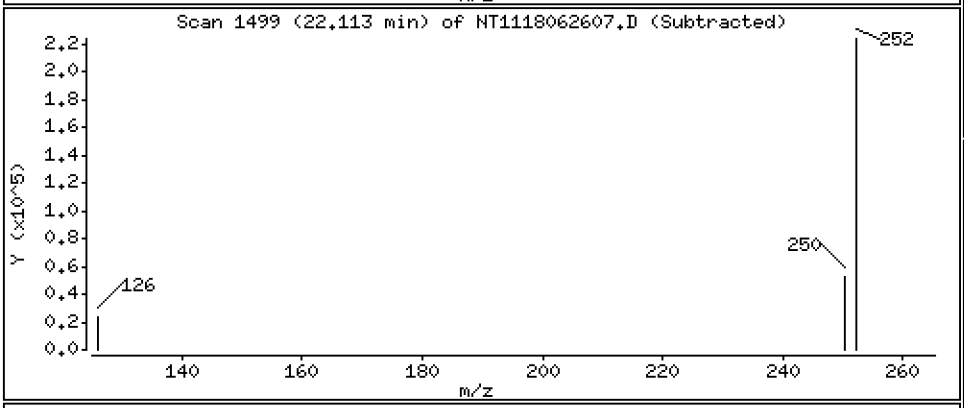
Column phase: Rxi-17Sil MS

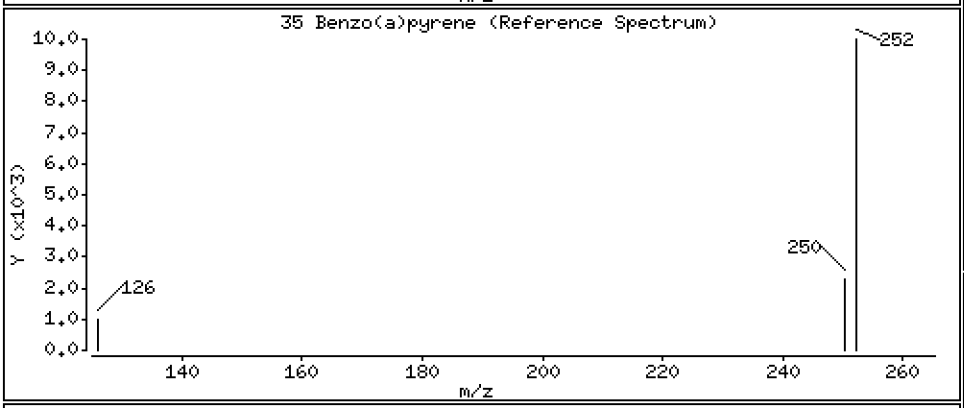
Column diameter: 0.25

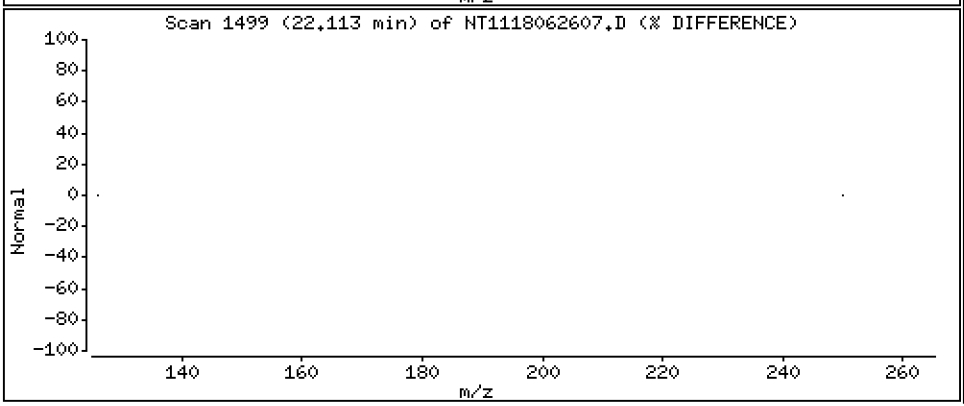
35 Benzo(a)pyrene

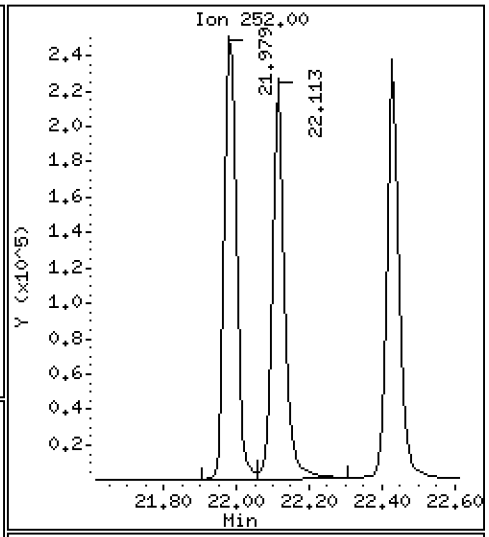
Concentration: 278 ng/mL

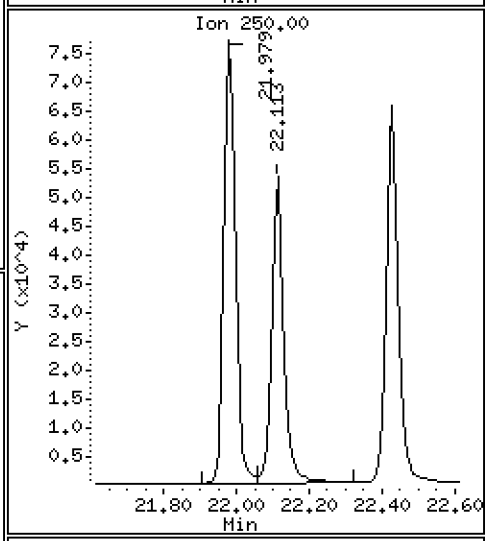


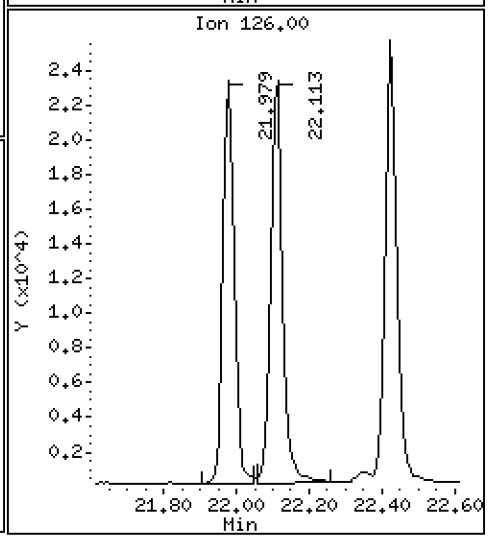












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Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

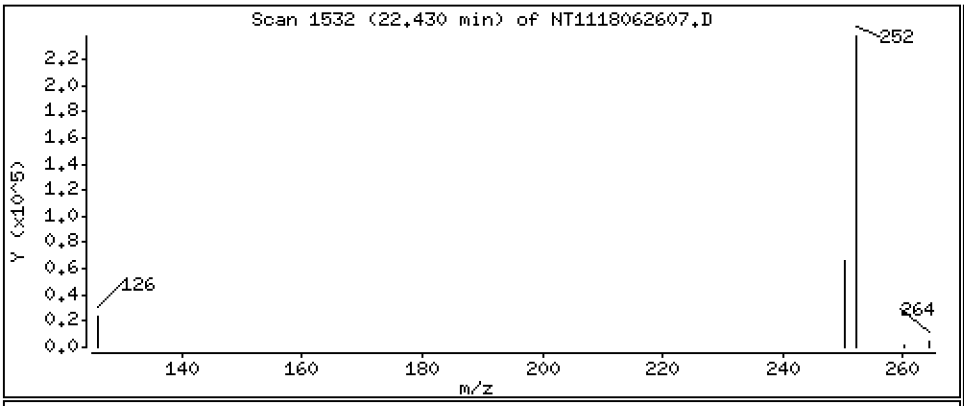
Operator: VTS

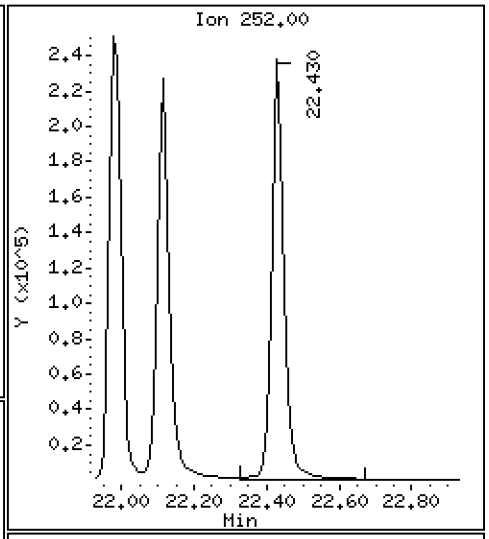
Column phase: Rxi-17Sil MS

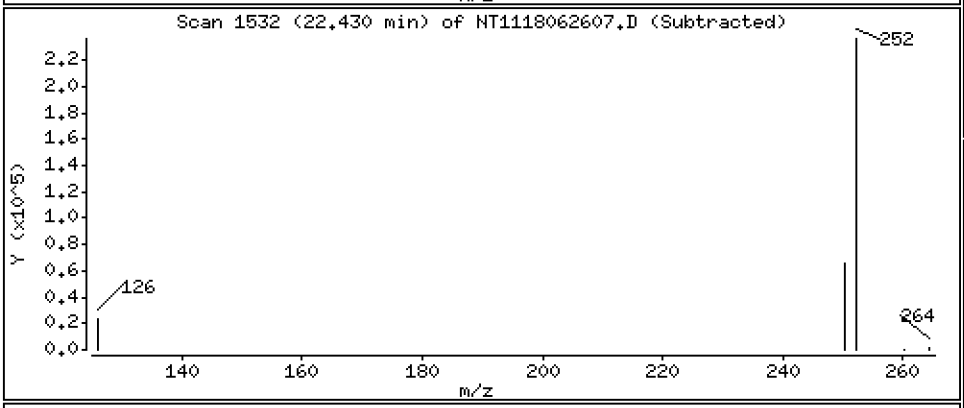
Column diameter: 0.25

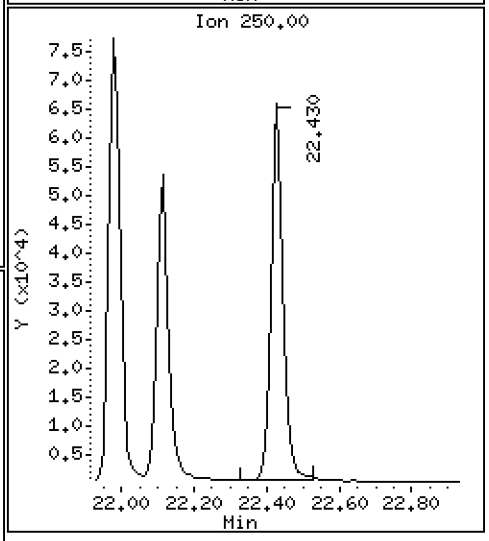
37 Perylene

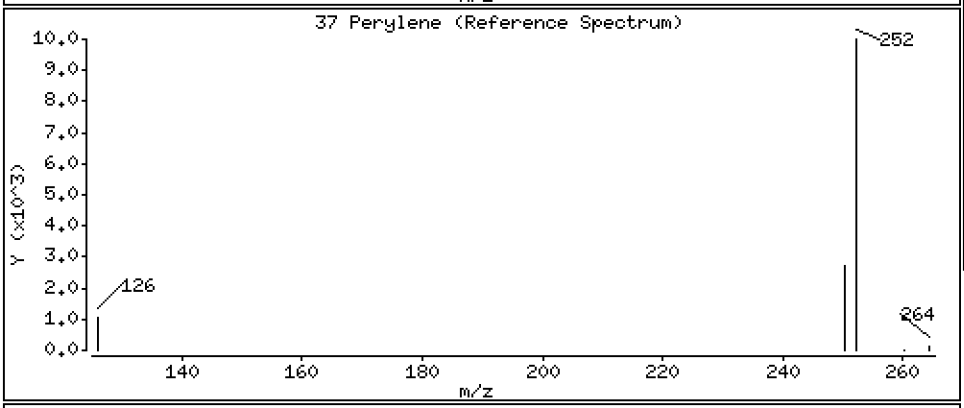
Concentration: 280 ng/mL

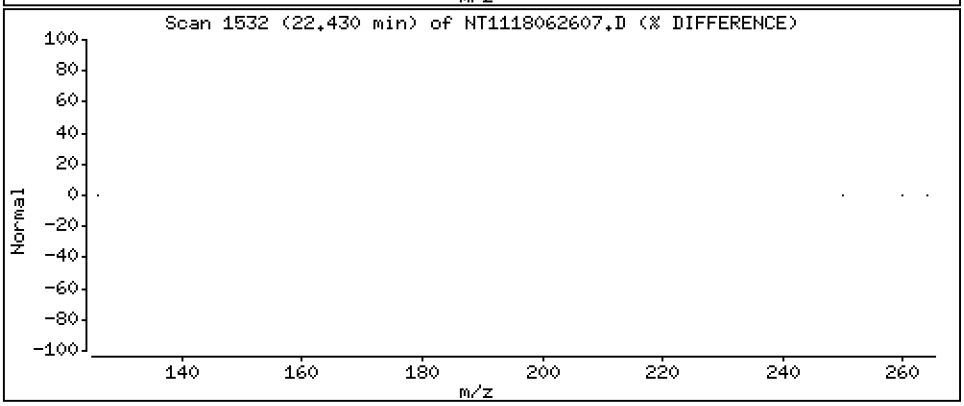












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Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

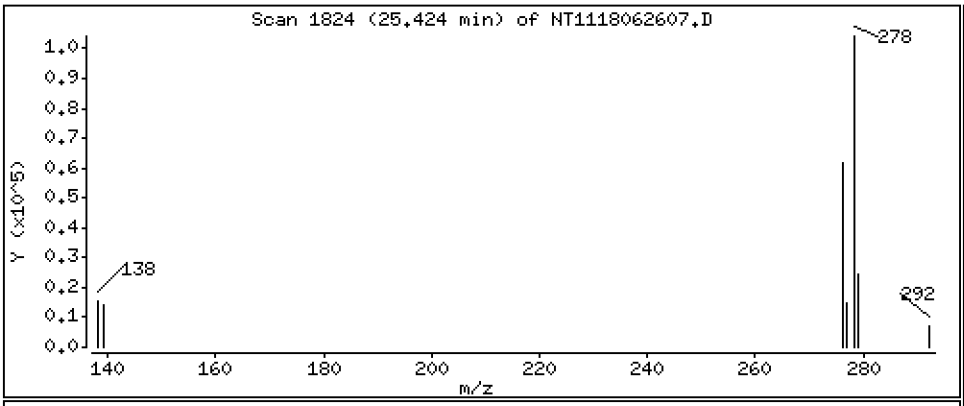
Operator: VTS

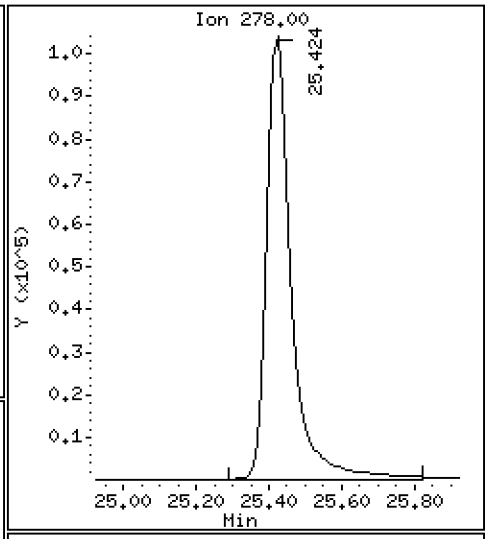
Column phase: Rxi-17Sil MS

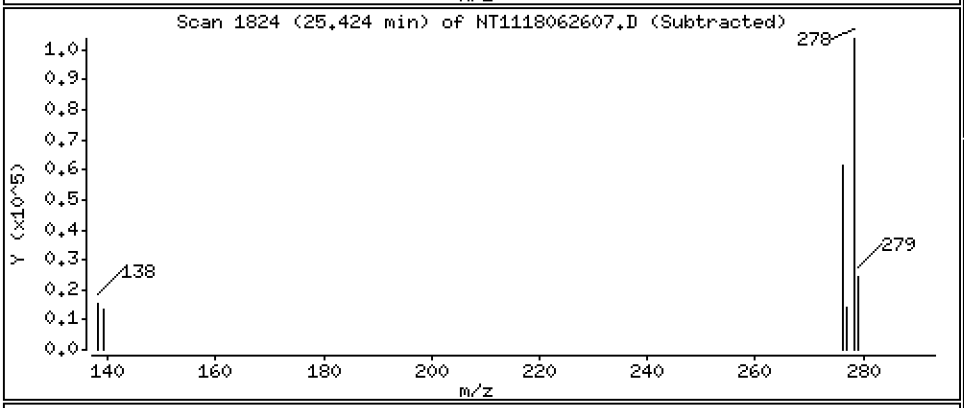
Column diameter: 0.25

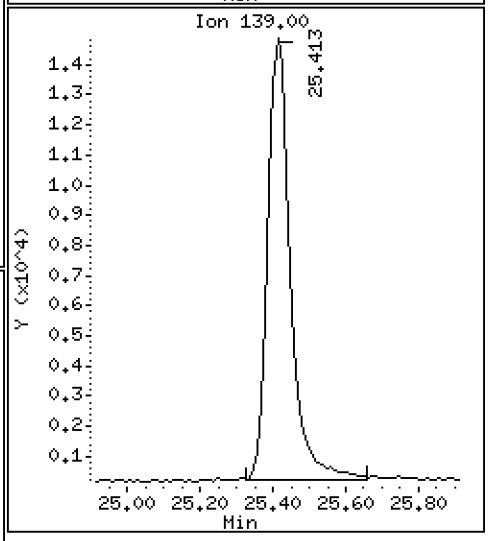
39 Dibenzo(a,h)anthracene

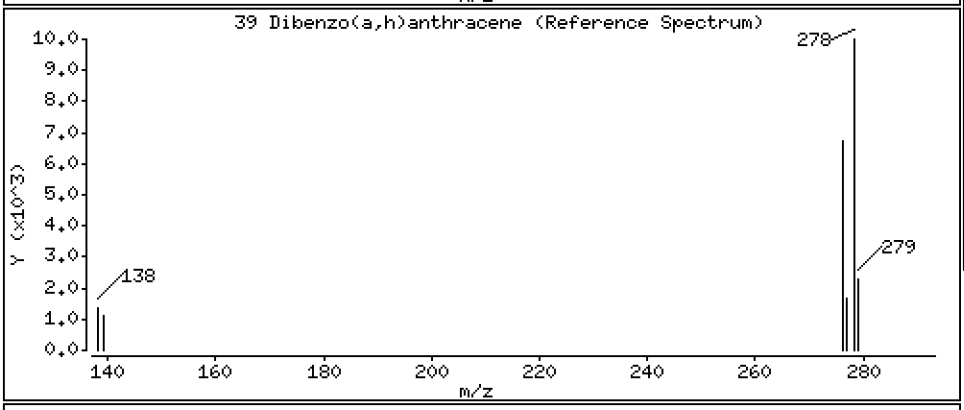
Concentration: 287 ng/mL

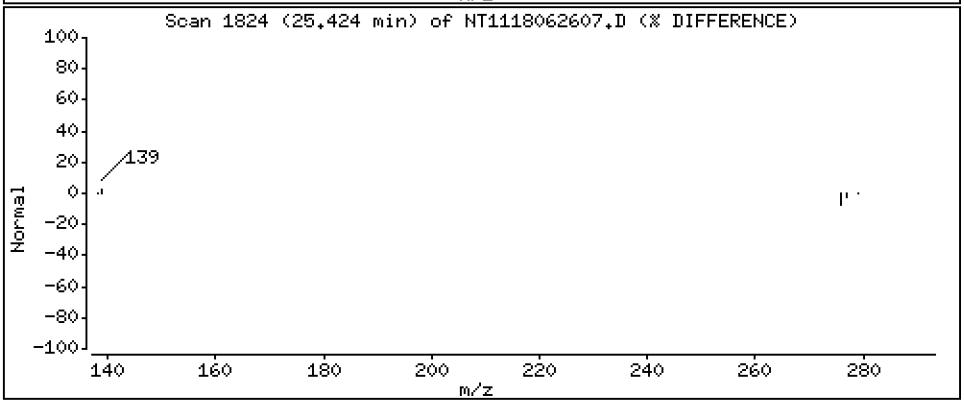












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Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

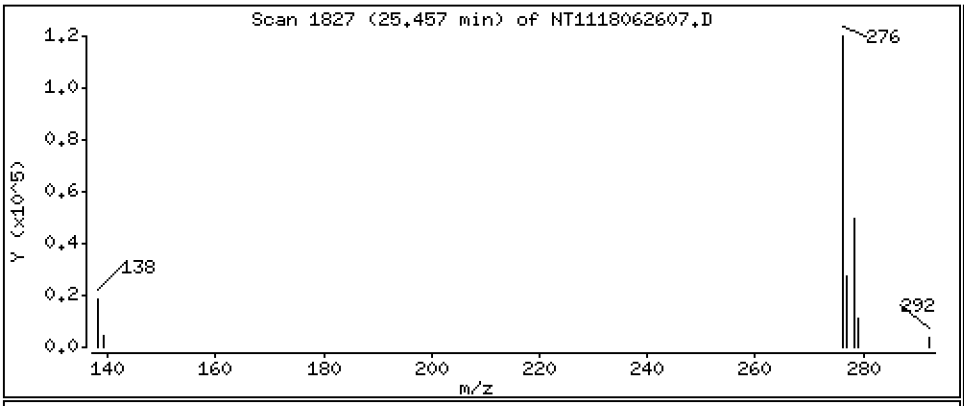
Operator: VTS

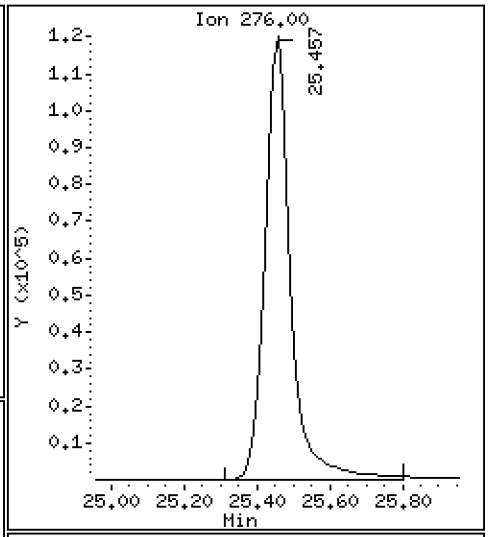
Column phase: Rxi-17Sil MS

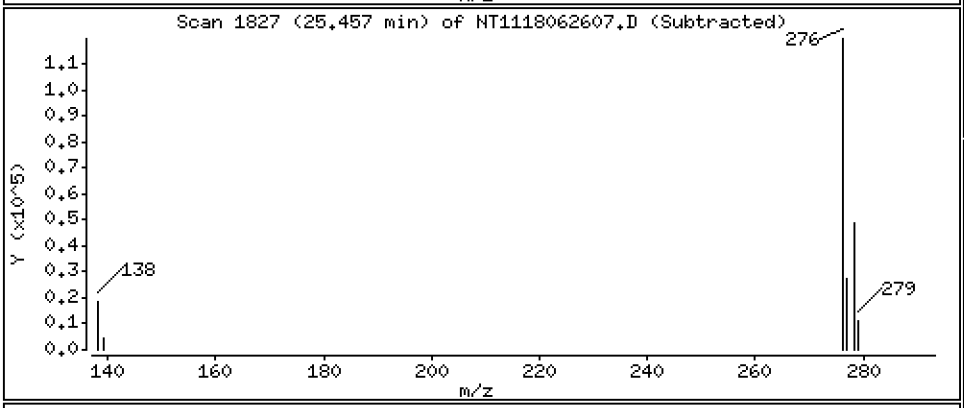
Column diameter: 0.25

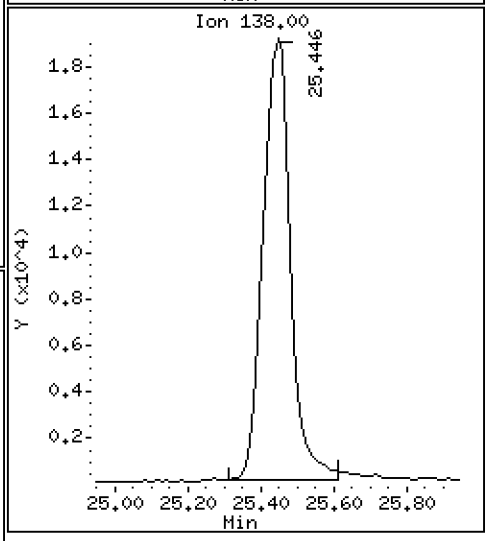
40 Indeno(1,2,3-cd)pyrene

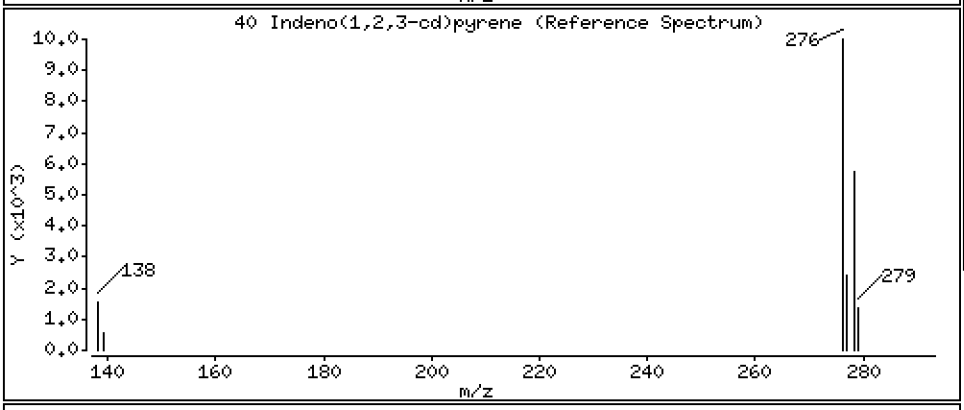
Concentration: 286 ng/mL

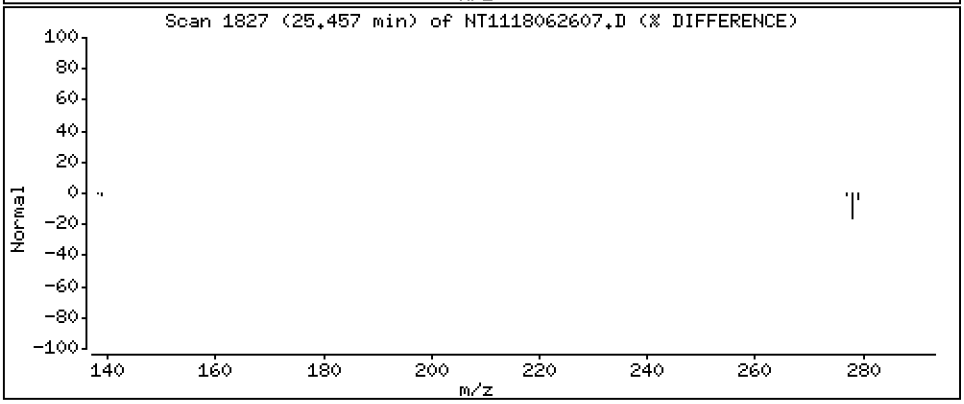












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Date : 27-JUN-2018 11:20

Client ID:

Instrument: nt11.i

Sample Info: SGF0327-CCV1

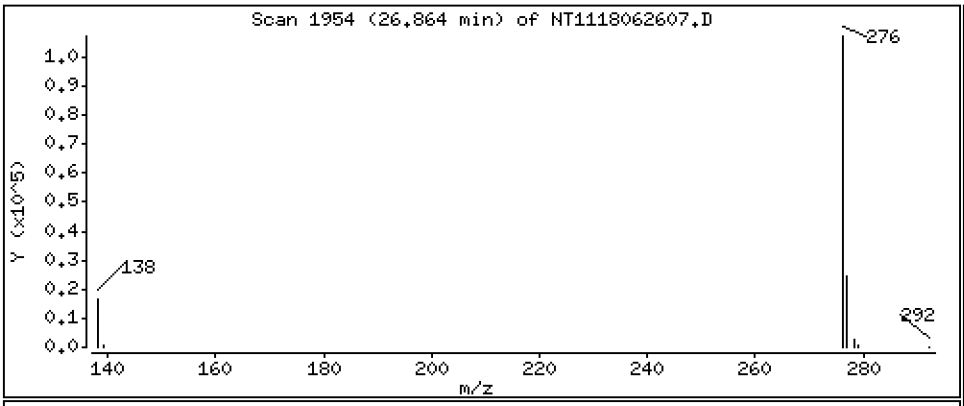
Operator: VTS

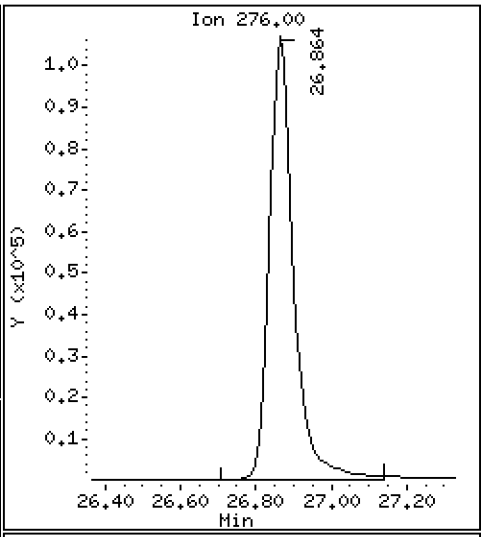
Column phase: Rxi-17Sil MS

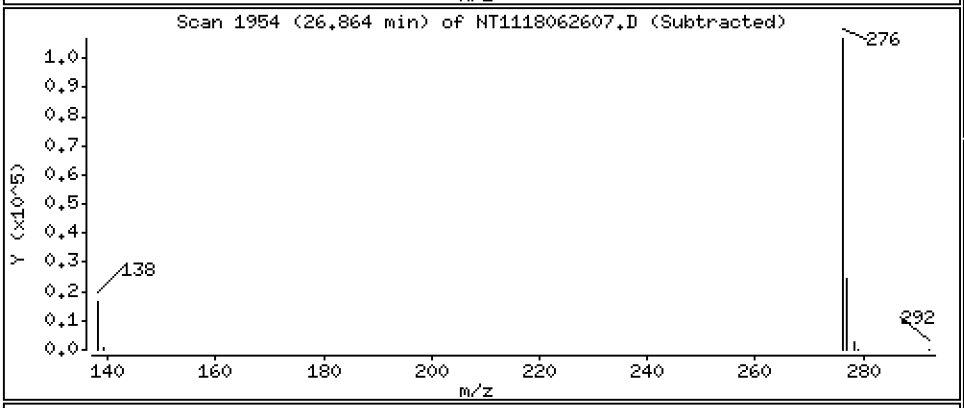
Column diameter: 0.25

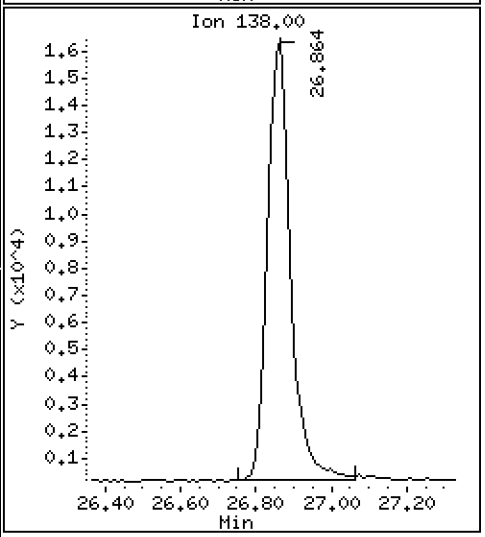
41 Benzo(g,h,i)perylene

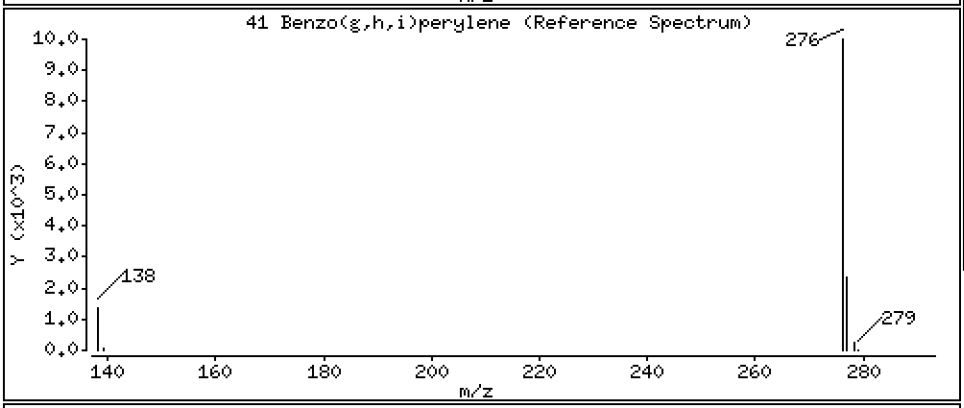
Concentration: 278 ng/mL

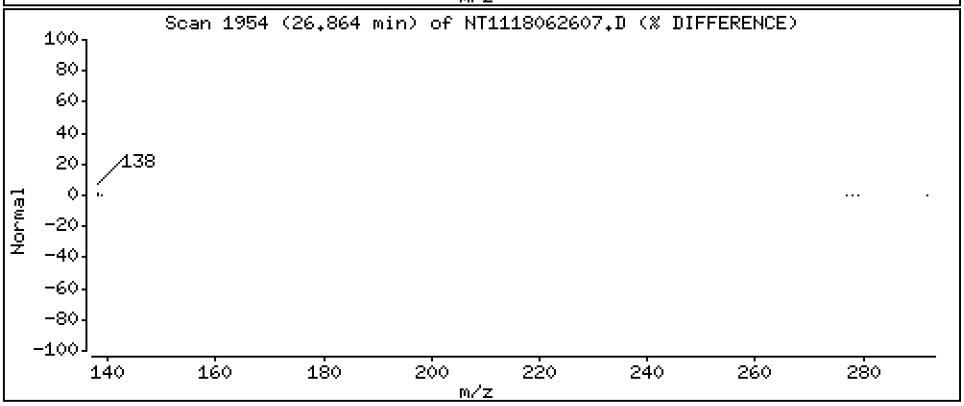












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180627.b\NT1118062607.D
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Inj Date : 27-JUN-2018 11:20 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SGF0327-CCV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180627.b\LOWSIM.m
Meth Date : 27-Jun-2018 08:43 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	426073	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	701913	251.467	251
	3 Benzo(b)thiophene	134	8.897	8.897	(1.034)	608832	272.613	273
$	4 2-Methylnaphthalene-d10	152	9.591	9.592	(1.114)	669357	275.341	275
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	705820	271.950	272
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	684783	265.295	265
	7 2-Chloronaphthalene	162	10.558	10.569	(0.907)	739140	311.058	311
	8 Biphenyl	154	10.526	10.527	(0.904)	896891	315.549	316
	9 2,6-Dimethylnaphthalene	156	10.579	10.579	(0.909)	699743	311.508	312
	10 Acenaphthylene	152	11.490	11.499	(0.987)	791641	291.273	291
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	228588	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	527842	283.949	284
	13 Dibenzofuran	168	11.907	11.908	(1.023)	725505	284.888	285
	14 2,3,5-Trimethylnaphthalene	170	11.996	11.996	(1.030)	465371	285.547	286
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.539	12.539	(1.077)	563060	274.177	274
	17 Dibenzothiophene	184	14.172	14.172	(0.988)	672468	286.407	286
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	377043	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	849880	287.399	287
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.434	14.435	(1.007)	779796	282.074	282
	22 Carbazole	167	15.112	15.113	(1.054)	890642	276.547	277
	23 1-Methylphenanthrene	192	15.383	15.384	(1.073)	852307	305.042	305
$	24 Fluoranthene-d10	212	16.448	16.449	(1.147)	650935	284.418	284
	25 Fluoranthene	202	16.487	16.487	(1.150)	823349	299.819	300
	26 Pyrene	202	16.986	16.987	(0.890)	826171	277.557	278
	27 Benzo(a)anthracene	228	19.004	19.004	(0.995)	675931	291.162	291
*	28 Chrysene-d12	240	19.095	19.103	(1.000)	302774	200.000	
	29 Chrysene	228	19.145	19.153	(1.003)	703176	304.935	305
	30 Benzo(b)fluoranthene	252	21.104	21.104	(0.944)	559534	255.060	255
	31 Benzo(k)fluoranthene	252	21.152	21.152	(0.946)	647907	284.817	285
	32 Benzo(j)fluoranthene	252	21.229	21.229	(0.950)	613489	296.307	296
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	21.978	21.988	(0.983)	566670	267.814	268

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	35 Benzo(a)pyrene	252	22.113	22.113	(0.989)	535915	278.074	278
*	36 Perylene-d12	264	22.353	22.353	(1.000)	310148	200.000	
	37 Perylene	252	22.430	22.430	(1.003)	566921	280.287	280
$	38 Dibenzo(a,h)anthracene-d14	292	25.279	25.279	(1.131)	411056	276.960	277
	39 Dibenzo(a,h)anthracene	278	25.423	25.423	(1.137)	481537	287.165	287
	40 Indeno(1,2,3-cd)pyrene	276	25.456	25.457	(1.139)	572552	285.608	286
	41 Benzo(g,h,i)perylene	276	26.863	26.863	(1.202)	481186	277.506	278

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118062607.D
Lab Smp Id: SGF0327-CCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180627.b\LOWSIM.m
Misc Info:

Calibration Date: 27-JUN-2018
Calibration Time: 08:13
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	426073	-1.22
11 Acenaphthene-d10	260137	130069	520274	228588	-12.13
18 Phenanthrene-d10	427391	213696	854782	377043	-11.78
28 Chrysene-d12	304596	152298	609192	302774	-0.60
36 Perylene-d12	263091	131546	526182	310148	17.89

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.04
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118062607.D

Lab ID: SGF0327-CCV1
nt11.i, 20180627.b\LOWSIM.m,   27-JUN-2018 11:20

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180627.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

CONTINUING CALIBRATION CHECK
EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	NT11	Calibration:	BE00021
Lab File ID:	NT1118070624.D	Calibration Date:	05/08/18 08:54
Sequence:	SGG0067	Injection Date:	07/07/18
Lab Sample ID:	SGG0067-CCV1	Injection Time:	02:14
Sequence Name:	CCV 250		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Naphthalene	A	250.00	251	1.3506040	1.3155510		0.4	50
2-Methylnaphthalene	A	250.00	268	1.2182890	1.3076340		7.3	50
Acenaphthylene	A	250.00	292	2.3779620	2.7821970		17.0	50
Acenaphthene	A	250.00	285	1.6264500	1.8557900		14.1	50
Fluorene	A	250.00	274	1.7967990	1.9698190		9.6	50
Phenanthrene	A	250.00	291	1.5685960	1.8231050		16.2	50
Anthracene	A	250.00	277	1.4664130	1.6230200		10.7	50
Fluoranthene	A	250.00	299	1.4566820	1.7415520		19.6	50
Pyrene	A	250.00	281	1.9662040	2.2081220		12.3	50
Benzo(a)anthracene	A	250.00	291	1.5334860	1.7844050		16.4	50
Chrysene	A	250.00	306	1.5232370	1.8619480		22.2	50
Benzo(b)fluoranthene	A	250.00	262	1.4146370	1.4798320		4.6	50
Benzo(k)fluoranthene	A	250.00	277	1.4669230	1.6252050		10.8	50
Benzo(j)fluoranthene	A	250.00	301	1.3351350	1.6077380		20.4	50
Benzo(a)pyrene	A	250.00	277	1.2427860	1.3781990		10.9	50
Indeno(1,2,3-cd)pyrene	A	250.00	284	1.2927210	1.4679270		13.6	50
Dibenzo(a,h)anthracene	A	250.00	278	1.0813340	1.2022780		11.2	50
Benzo(g,h,i)perylene	A	250.00	278	1.1181550	1.2423480		11.1	50
2-Methylnaphthalene-d10	A	250.00	274	1.1411260	1.2487200		9.4	50
Dibenzo[a,h]anthracene-d14	A	250.00	271	0.9570734	1.0377810		8.4	50
Fluoranthene-d10	A	250.00	285	1.2140030	1.3860320		14.2	50

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070624.D

Date : 07-JUL-2018 02:14

Client ID:

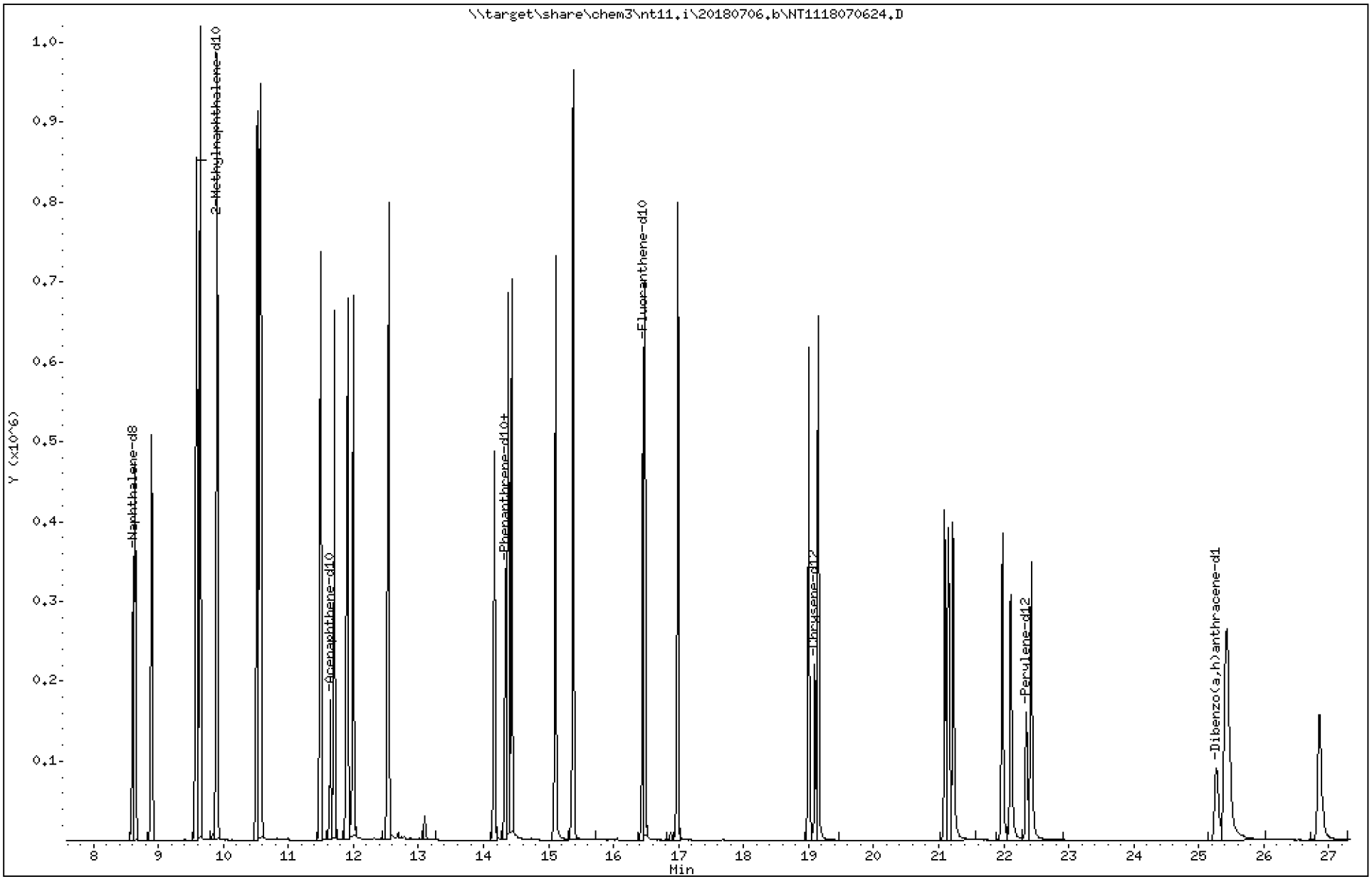
Instrument: nt11.i

Sample Info: SGG0067-CCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

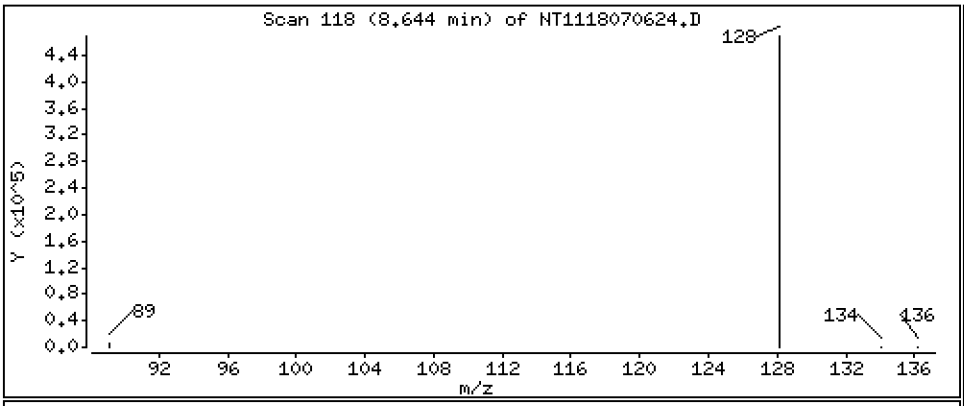
Operator: VTS

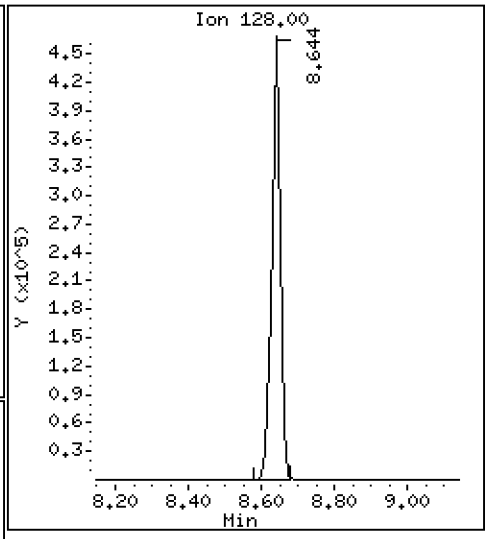
Column phase: Rxi-17Sil MS

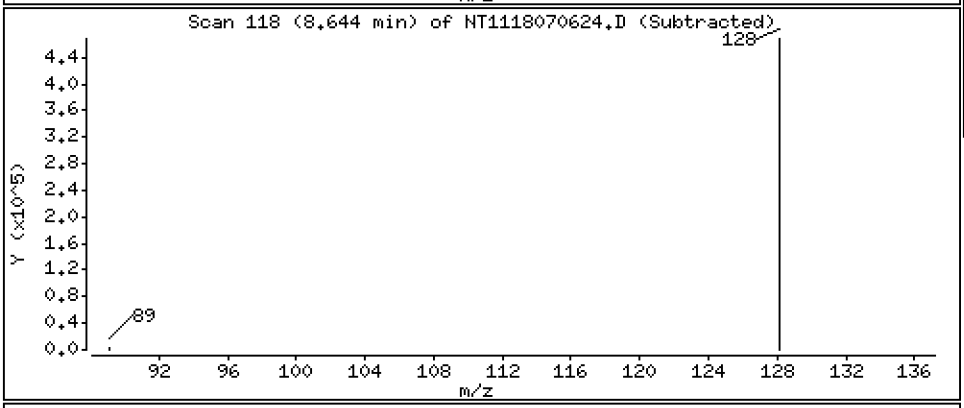
Column diameter: 0.25

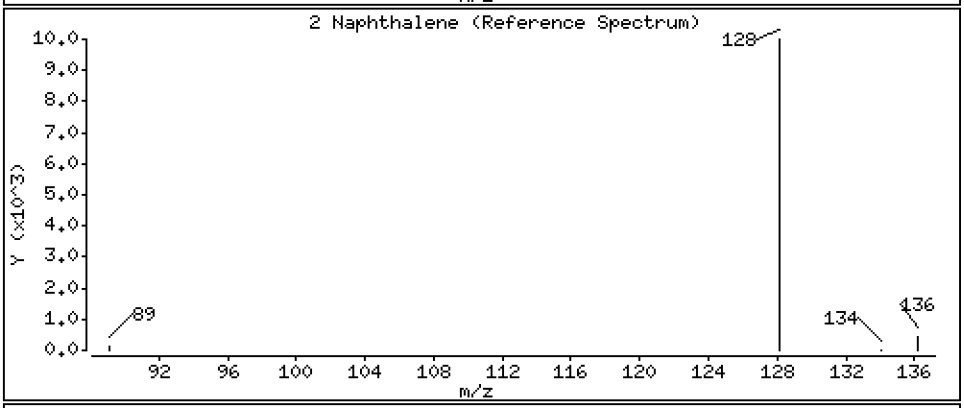
2 Naphthalene

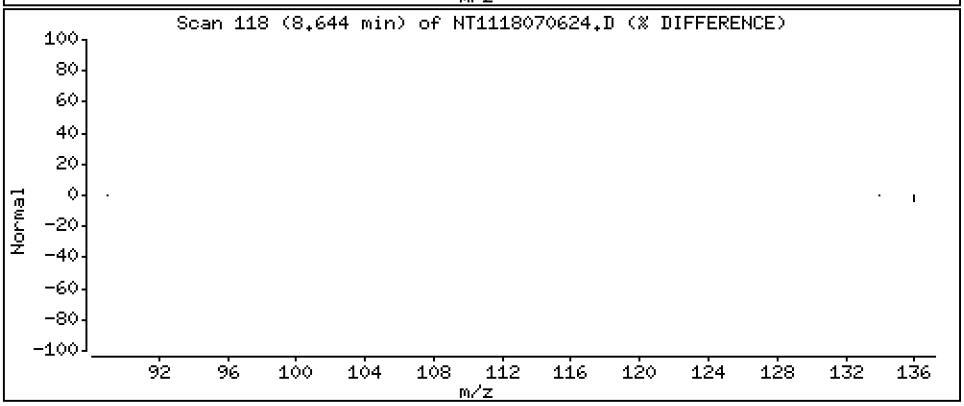
Concentration: 251 ng/mL











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Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

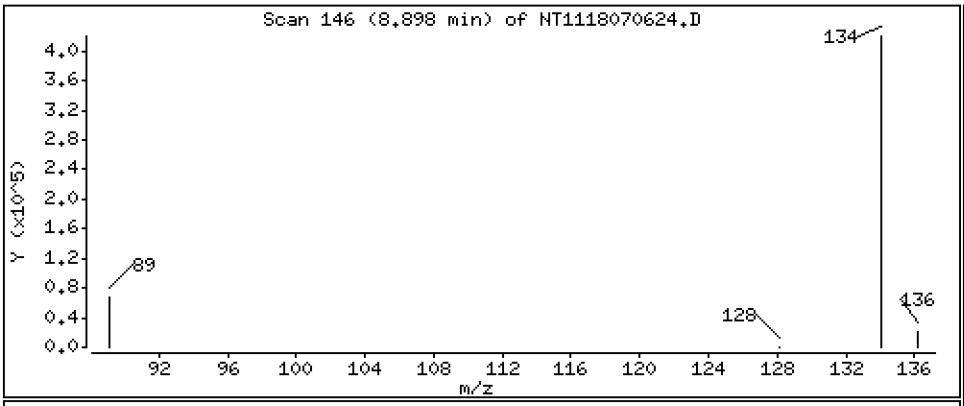
Operator: VTS

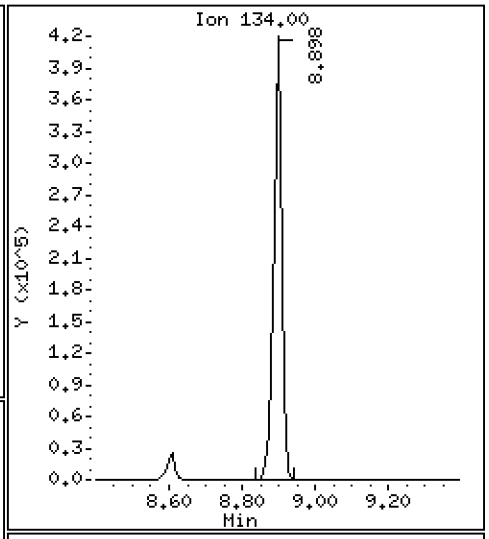
Column phase: Rxi-17Sil MS

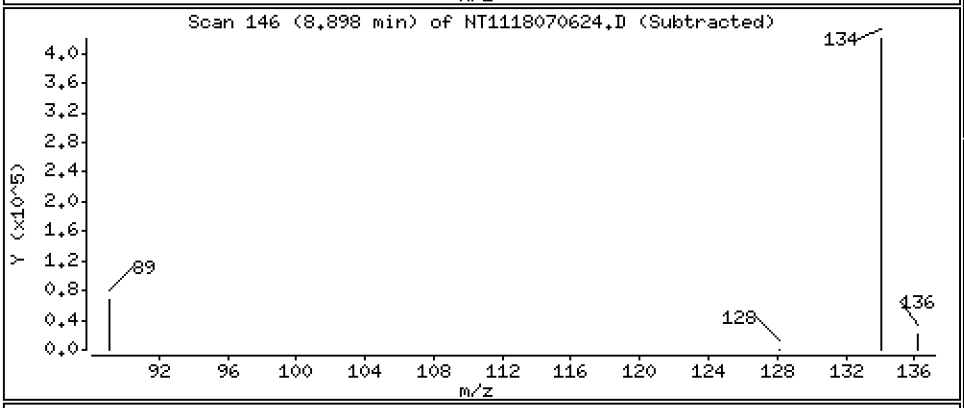
Column diameter: 0.25

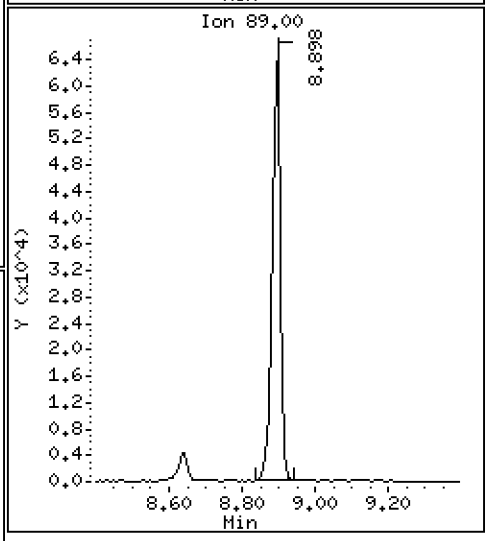
3 Benzo(b)thiophene

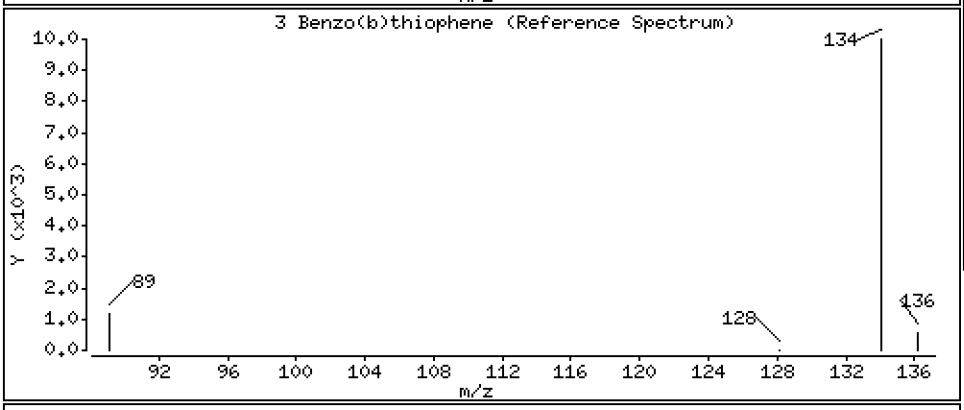
Concentration: 270 ng/mL

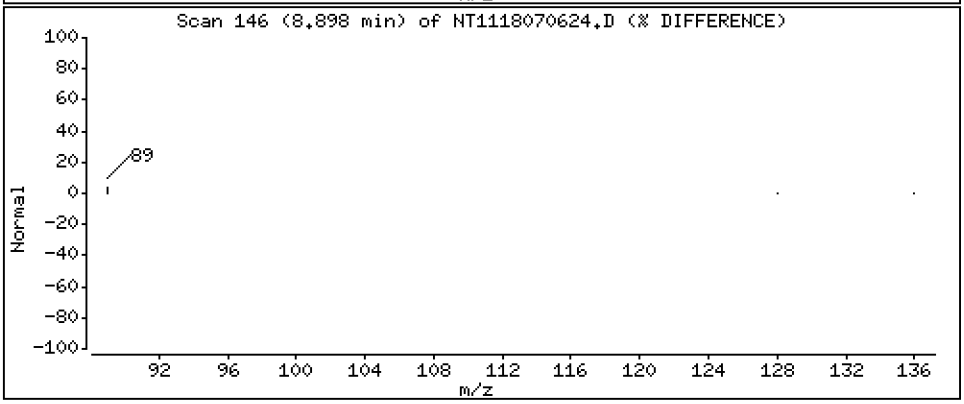












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Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

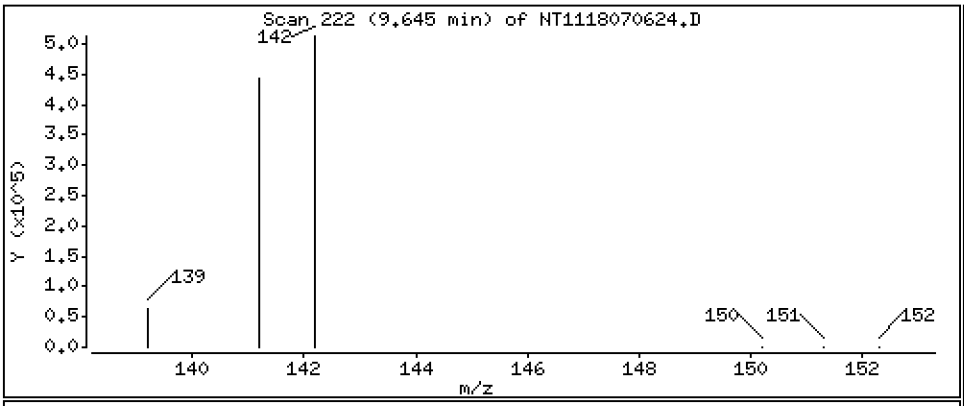
Operator: VTS

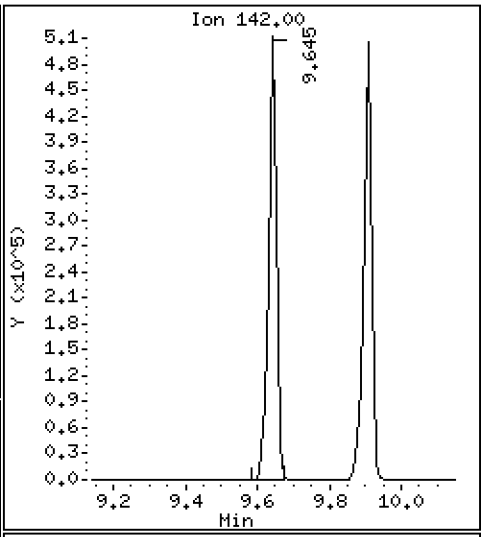
Column phase: Rxi-17Sil MS

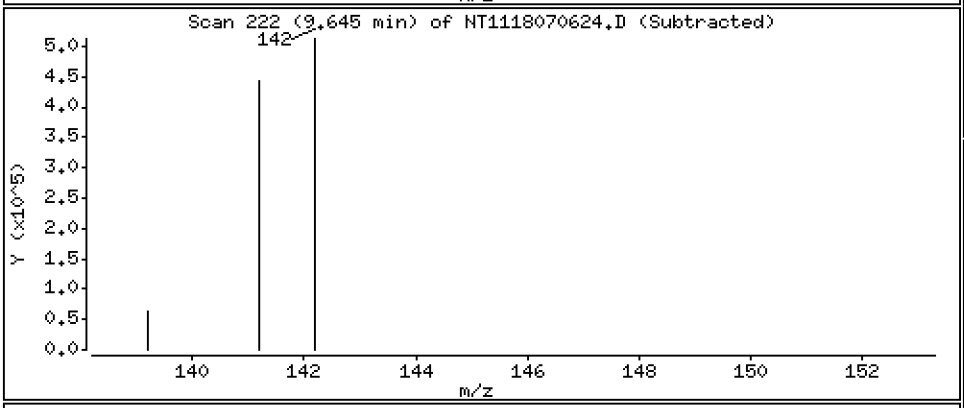
Column diameter: 0.25

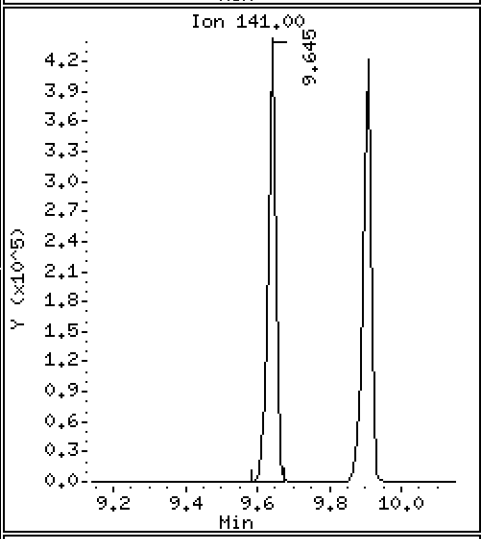
5 2-Methylnaphthalene

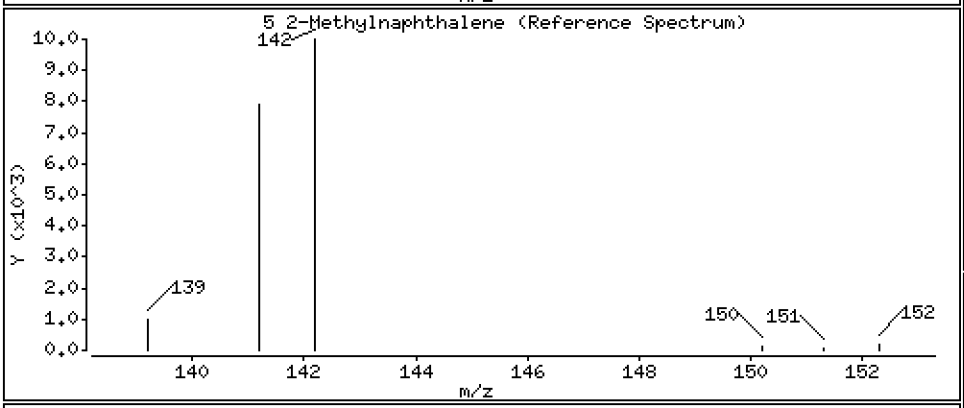
Concentration: 268 ng/mL

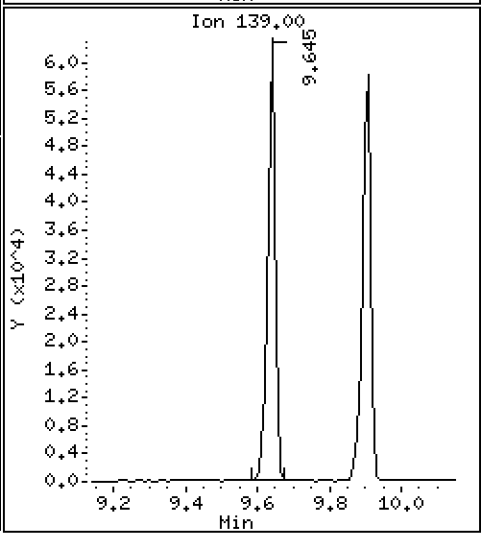


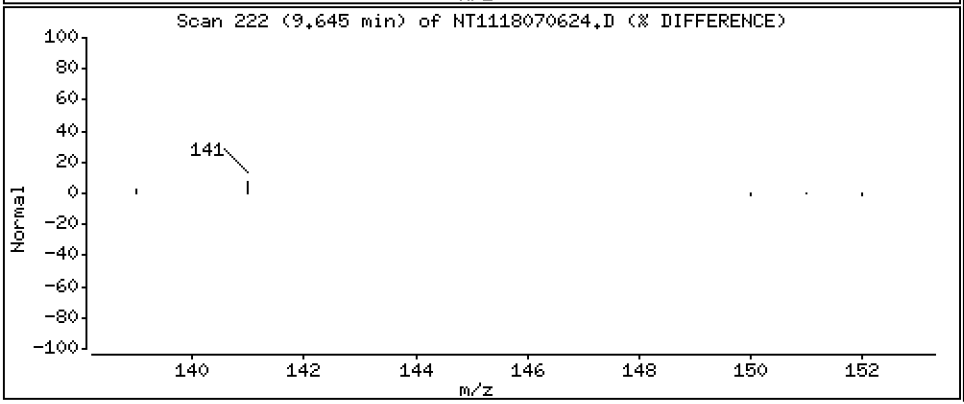












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Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

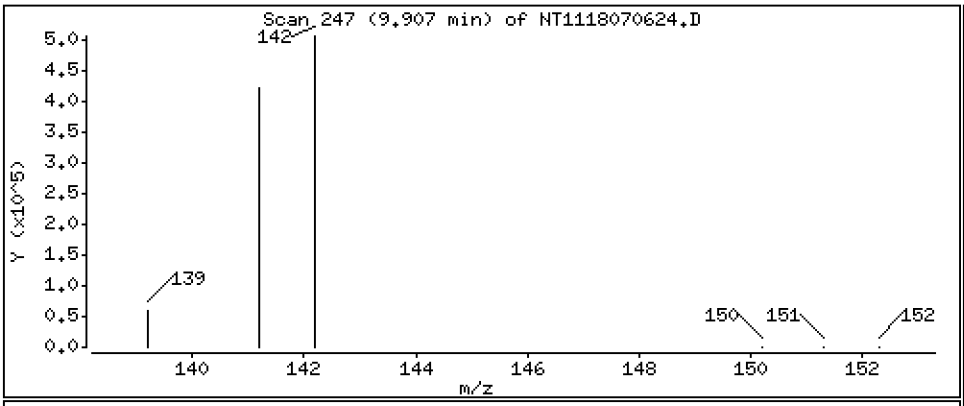
Operator: VTS

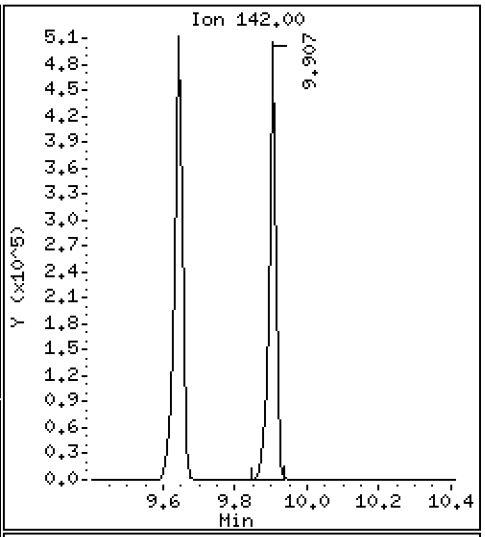
Column phase: Rxi-17Sil MS

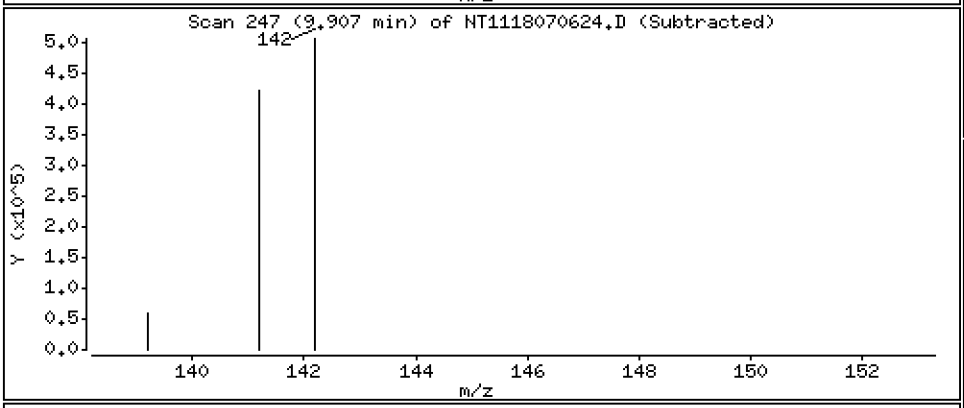
Column diameter: 0.25

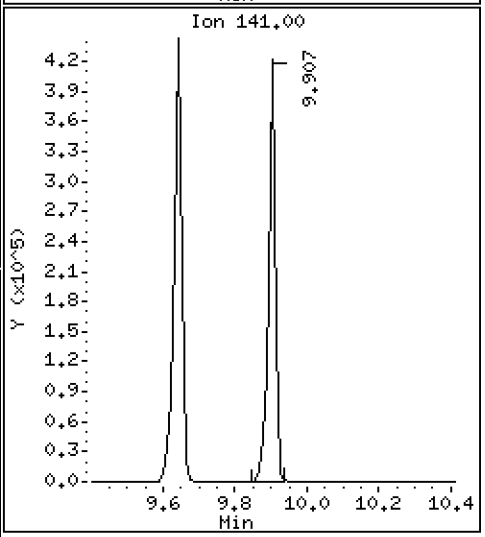
6 1-Methylnaphthalene

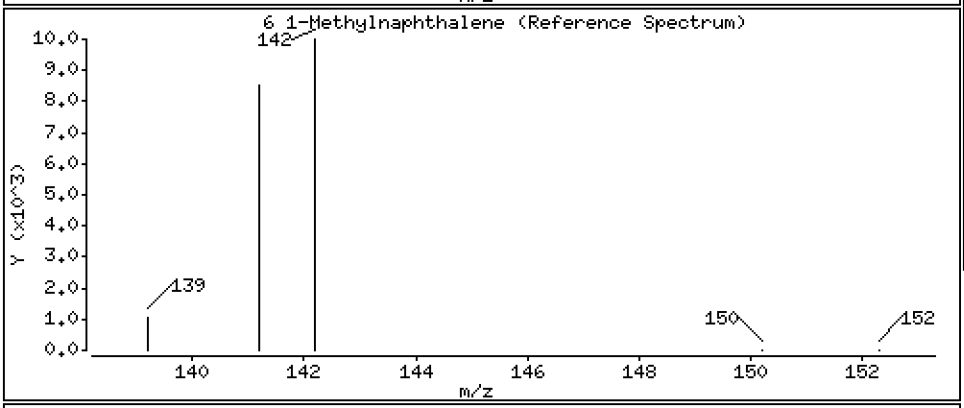
Concentration: 266 ng/mL

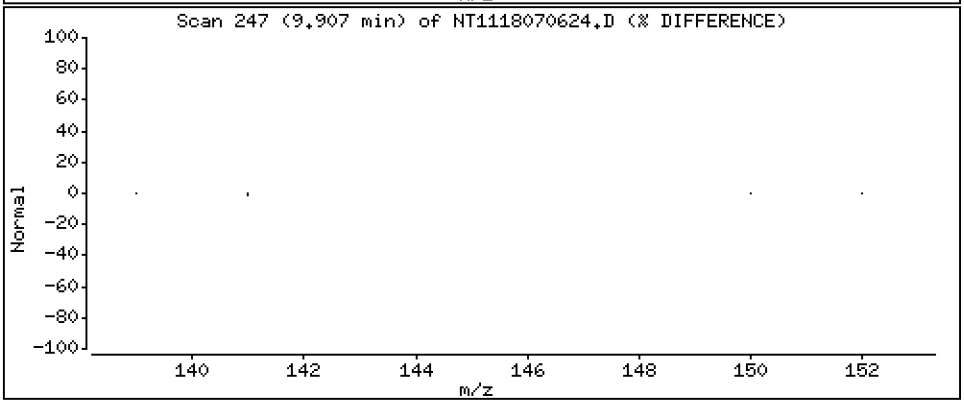












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070624.D

Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

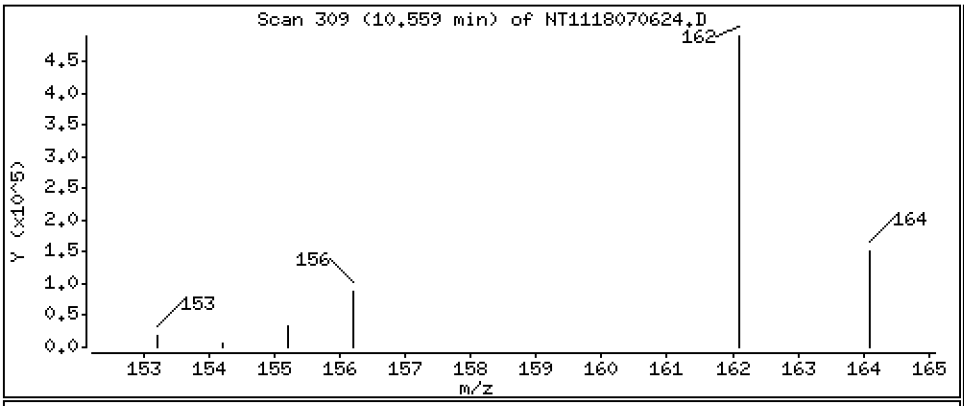
Operator: VTS

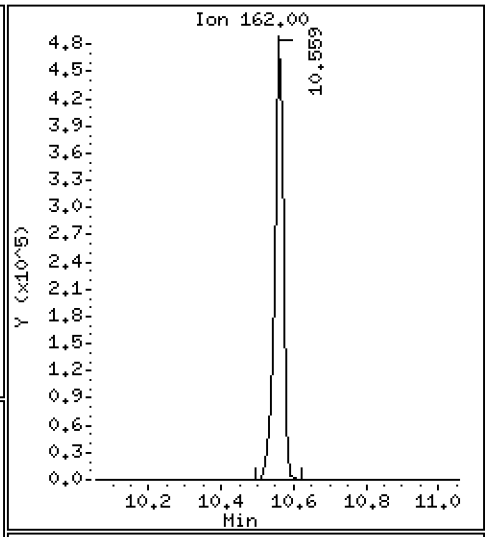
Column phase: Rxi-17Sil MS

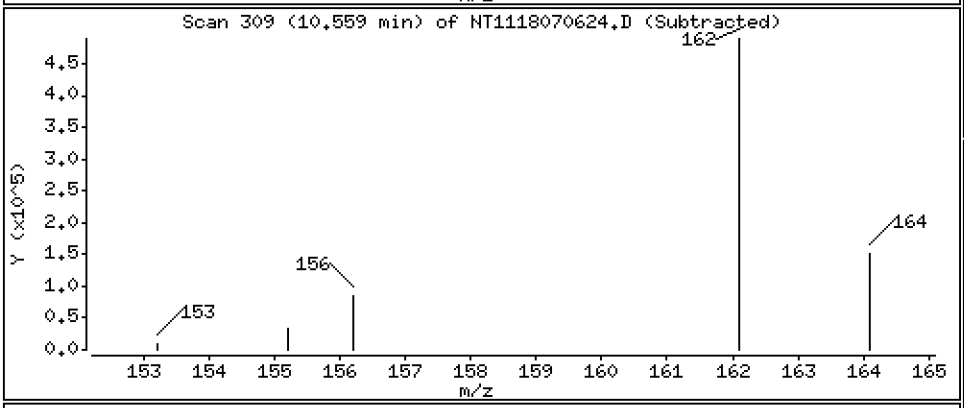
Column diameter: 0.25

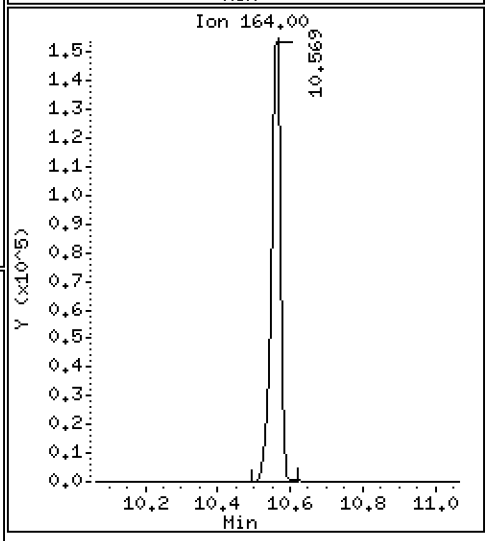
7 2-Chloronaphthalene

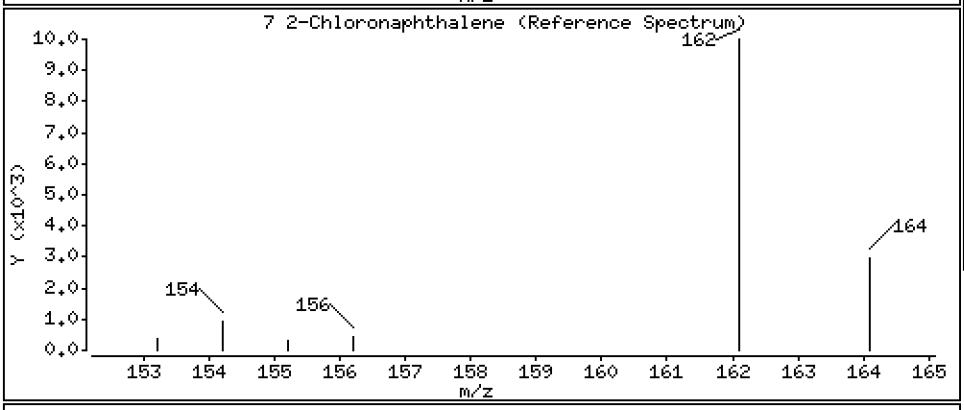
Concentration: 312 ng/mL

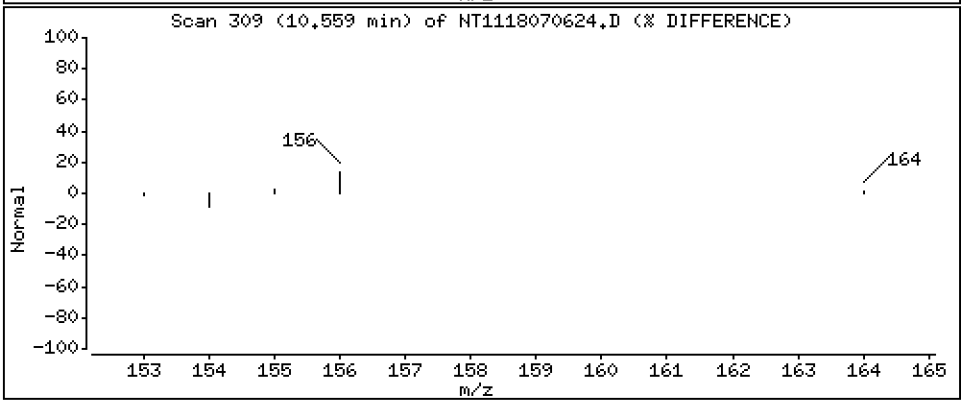












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Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

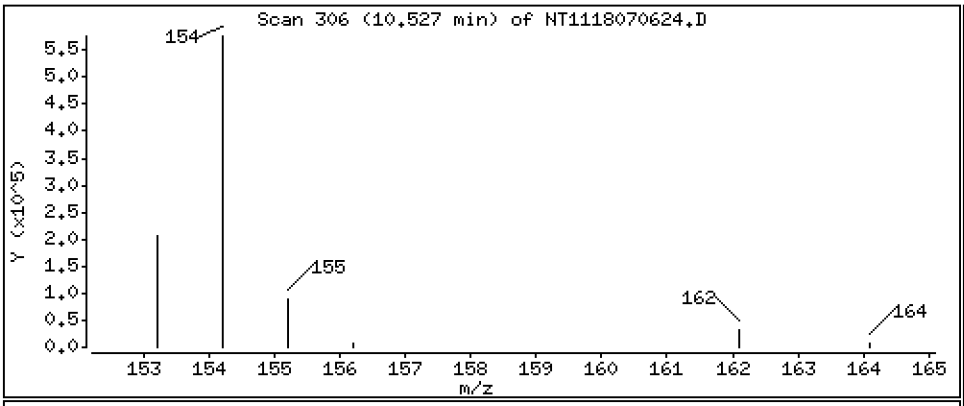
Operator: VTS

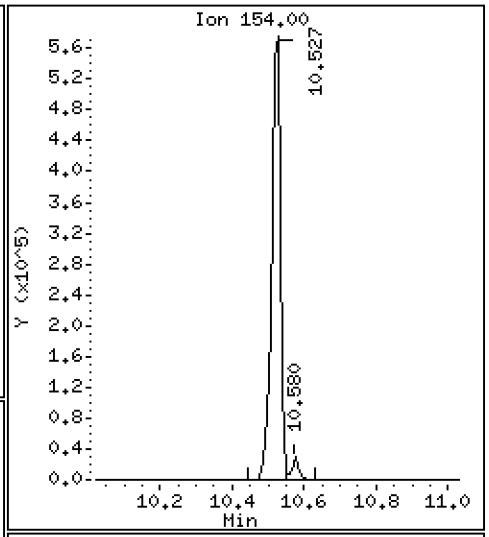
Column phase: Rxi-17Sil MS

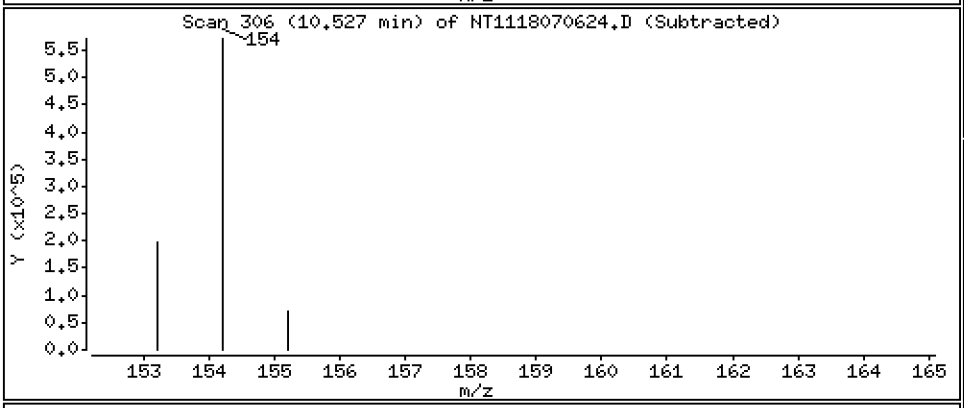
Column diameter: 0.25

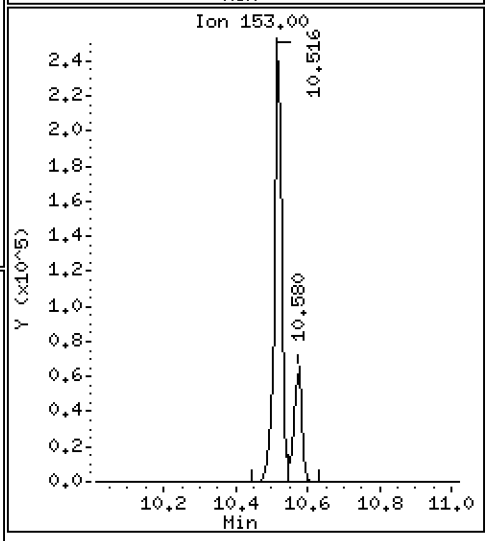
8 Biphenyl

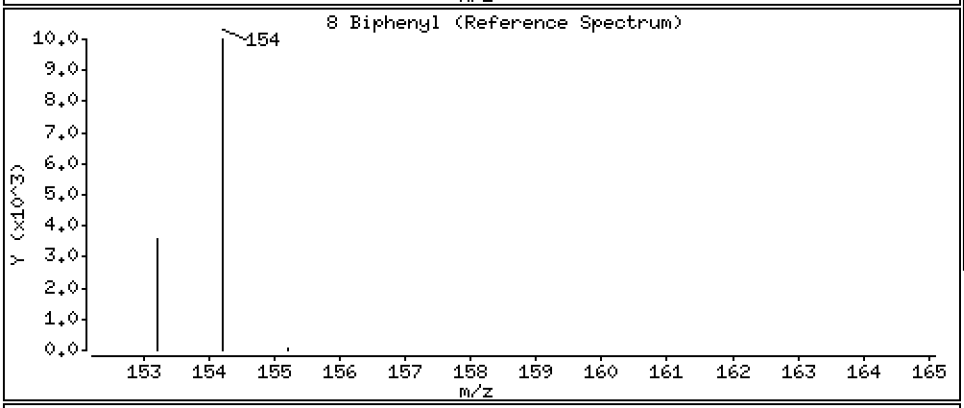
Concentration: 314 ng/mL

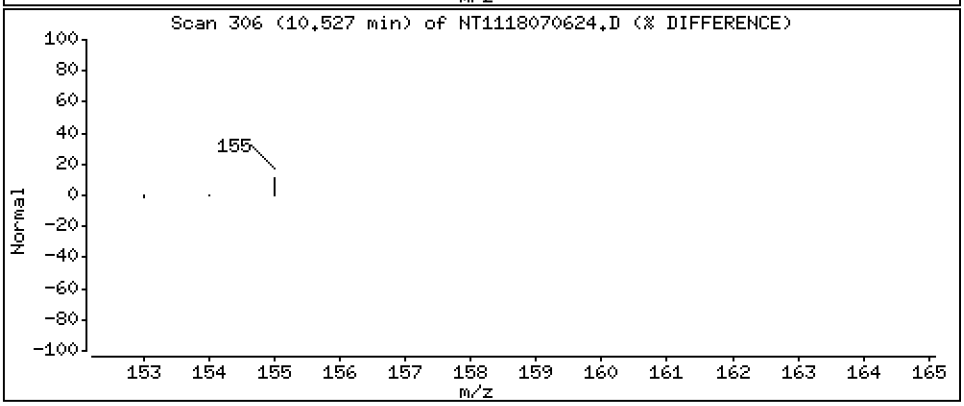












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Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

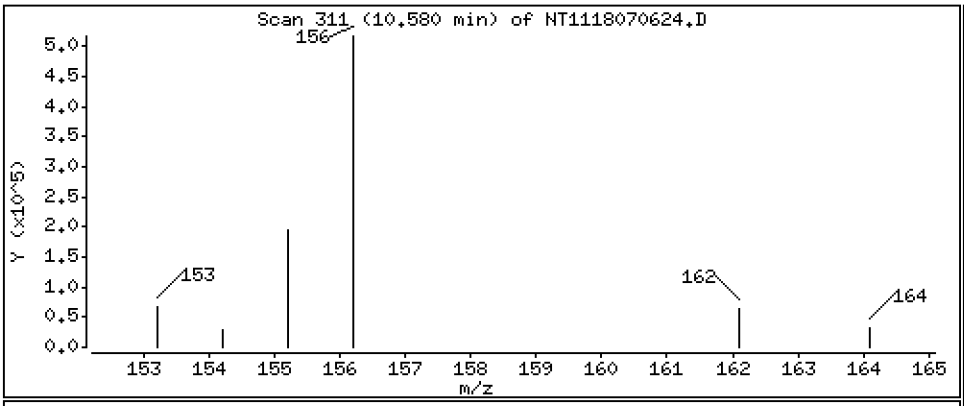
Operator: VTS

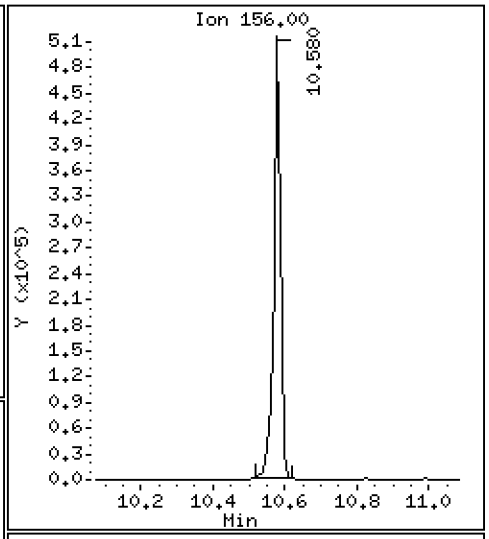
Column phase: Rxi-17Sil MS

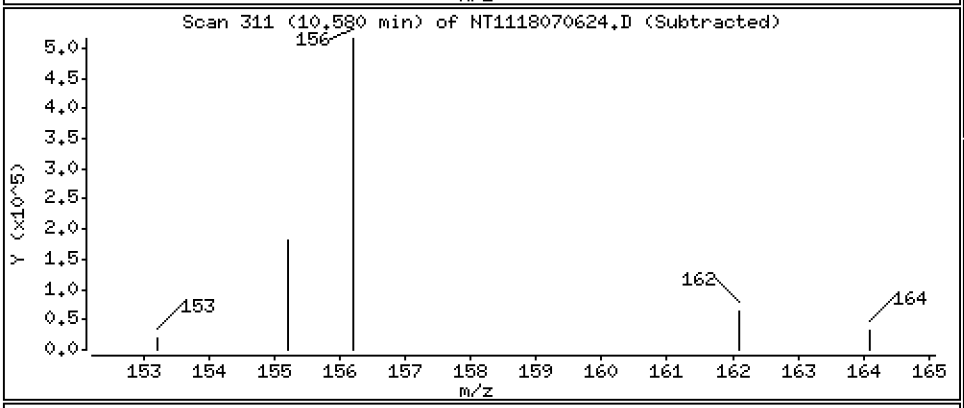
Column diameter: 0.25

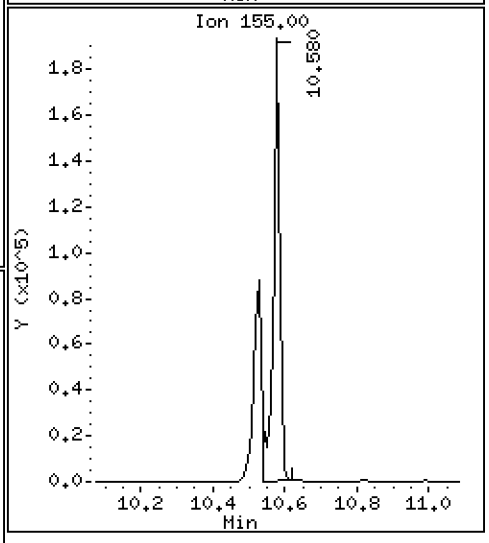
9 2,6-Dimethylnaphthalene

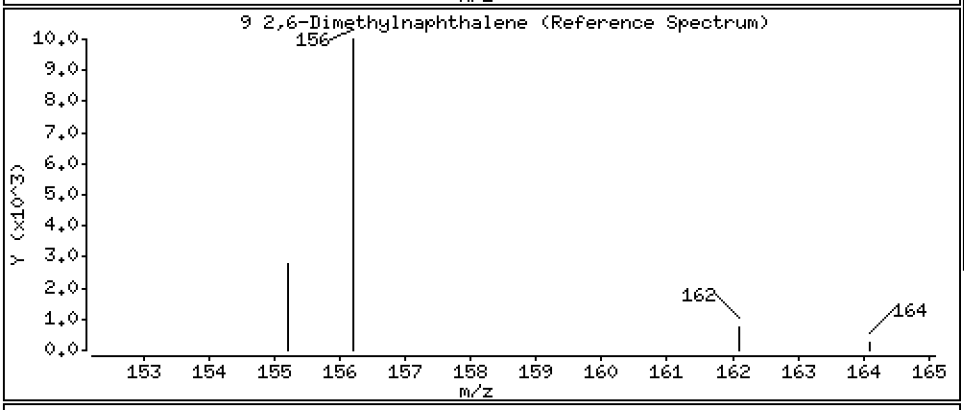
Concentration: 312 ng/mL

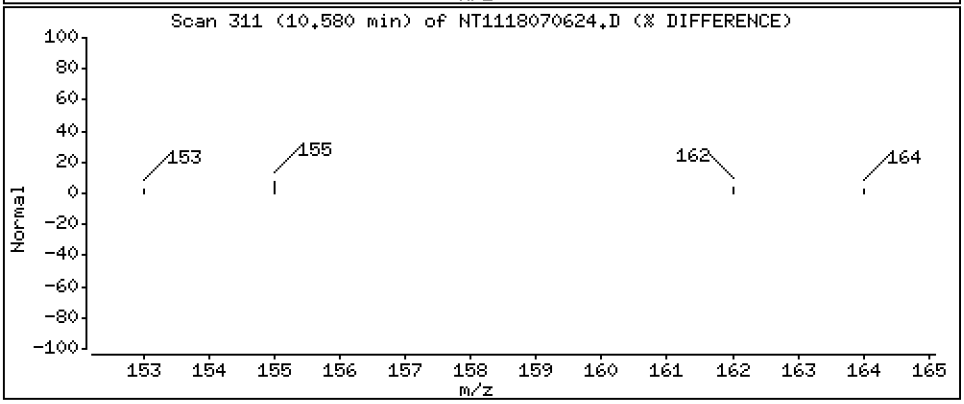












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070624.D

Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

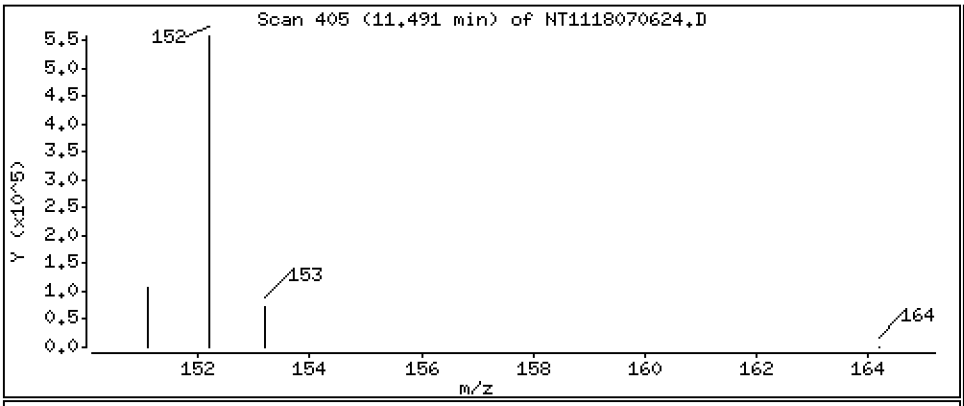
Operator: VTS

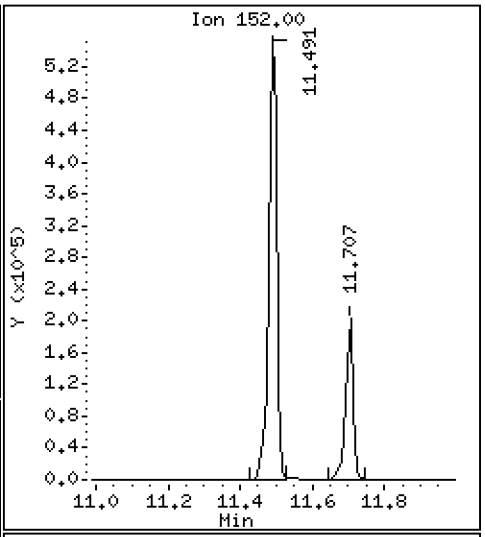
Column phase: Rxi-17Sil MS

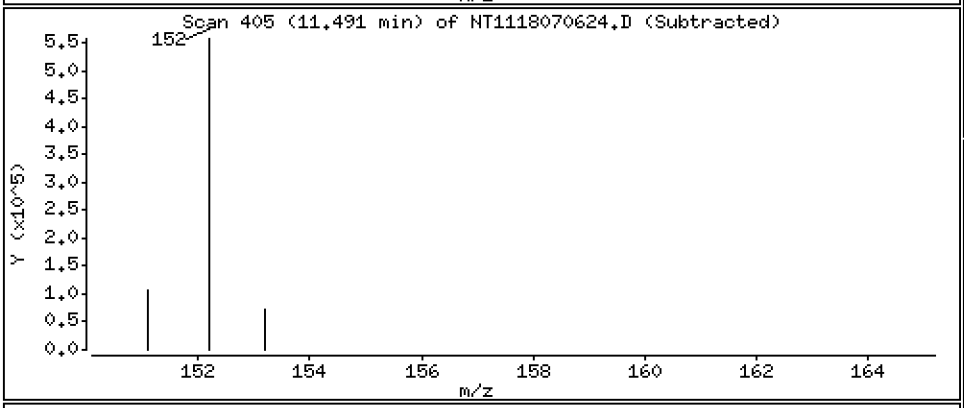
Column diameter: 0.25

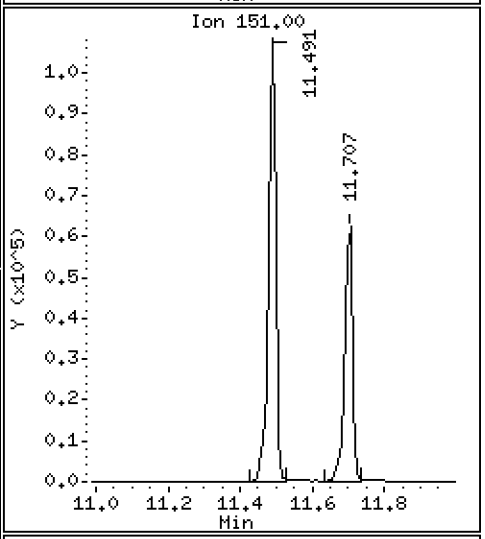
10 Acenaphthylene

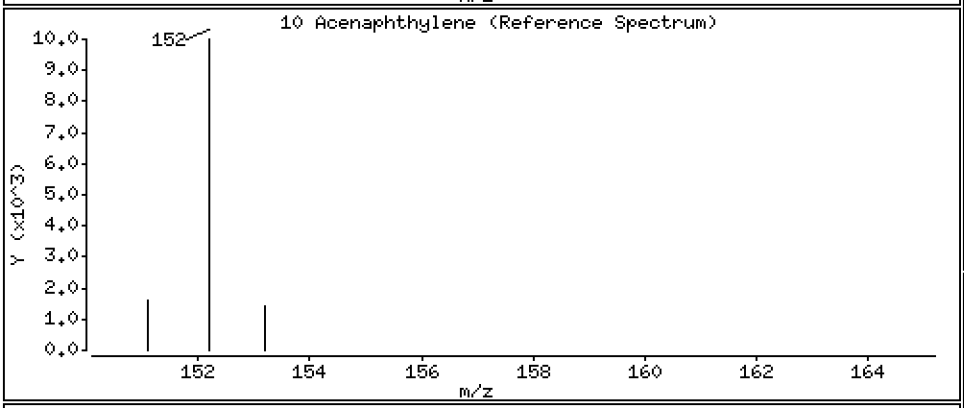
Concentration: 292 ng/mL

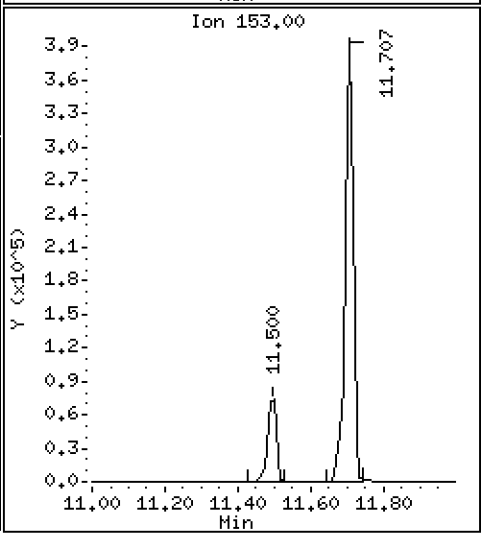


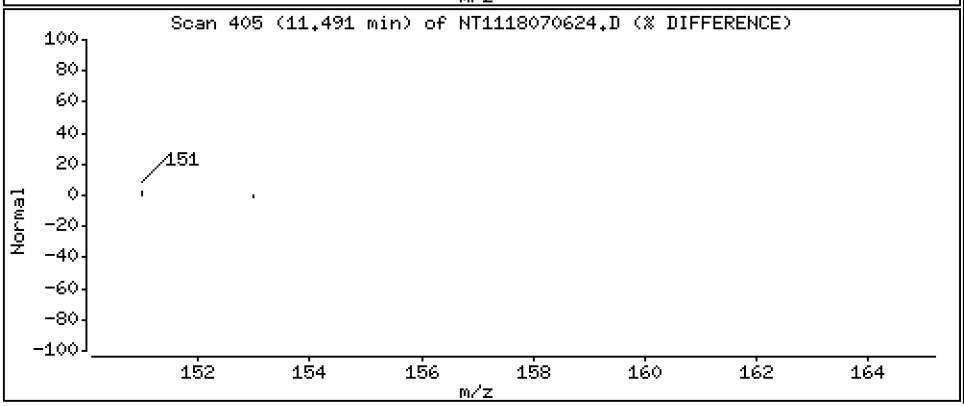












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Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

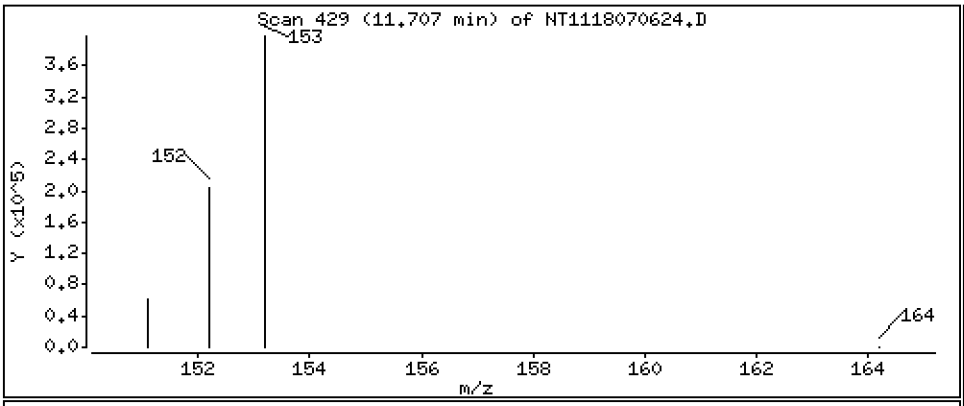
Operator: VTS

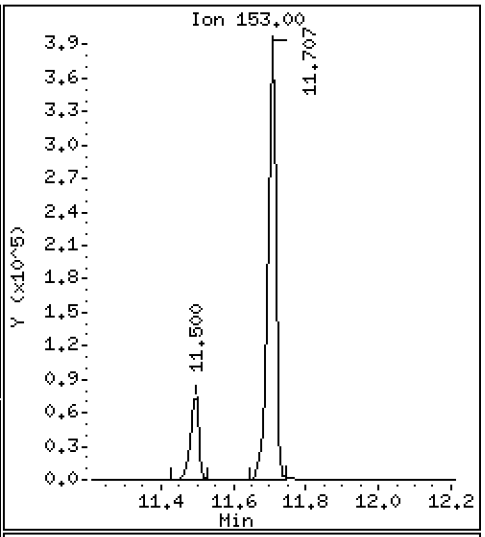
Column phase: Rxi-17Sil MS

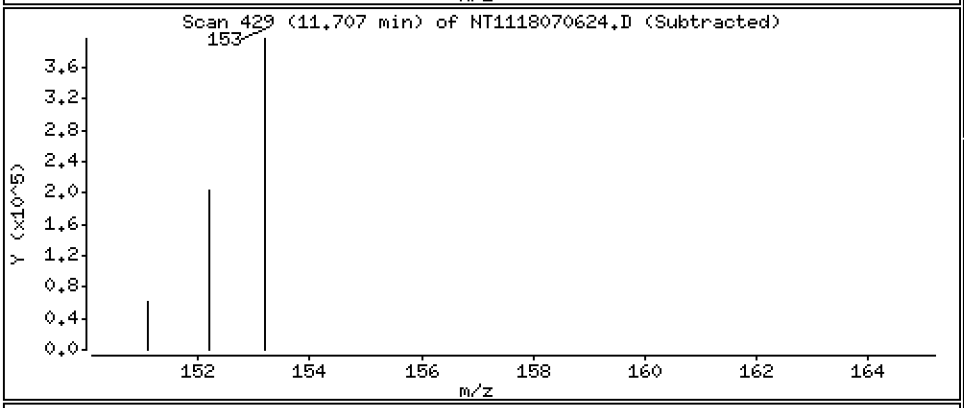
Column diameter: 0.25

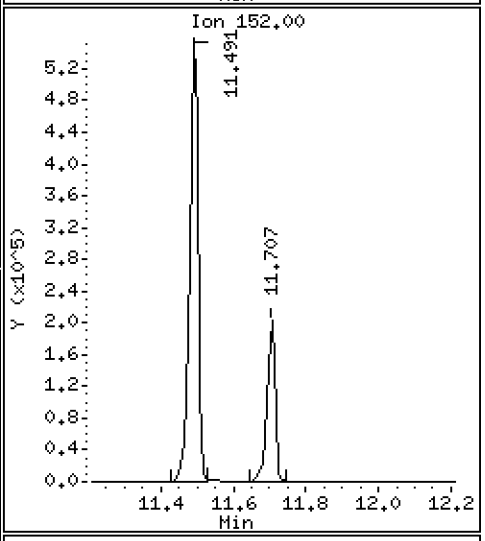
12 Acenaphthene

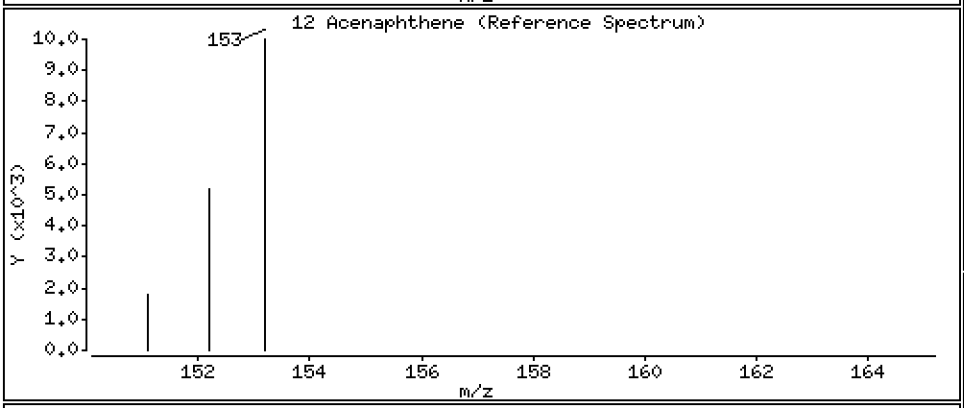
Concentration: 285 ng/mL

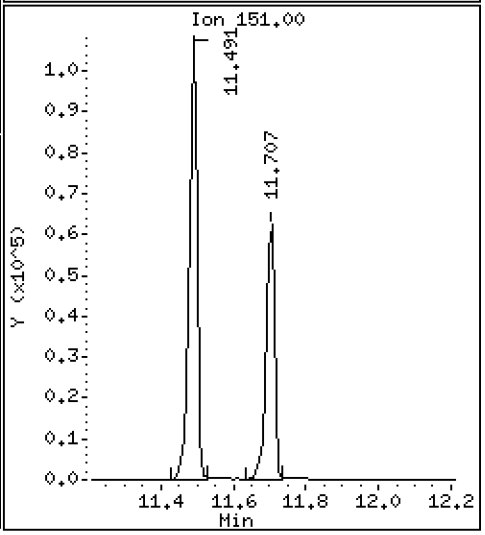


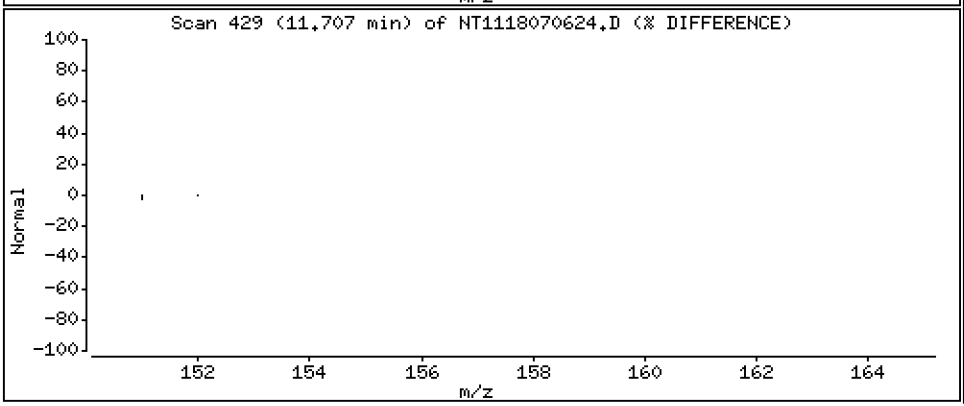












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Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

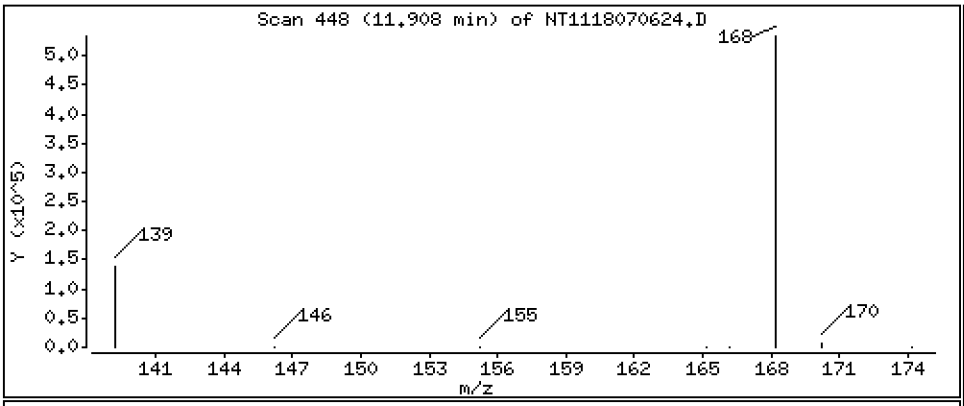
Operator: VTS

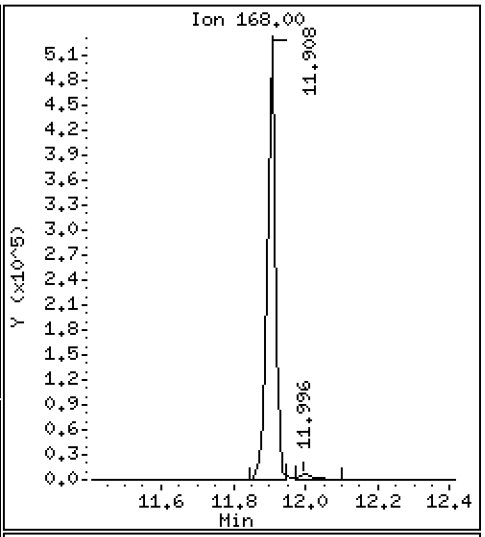
Column phase: Rxi-17Sil MS

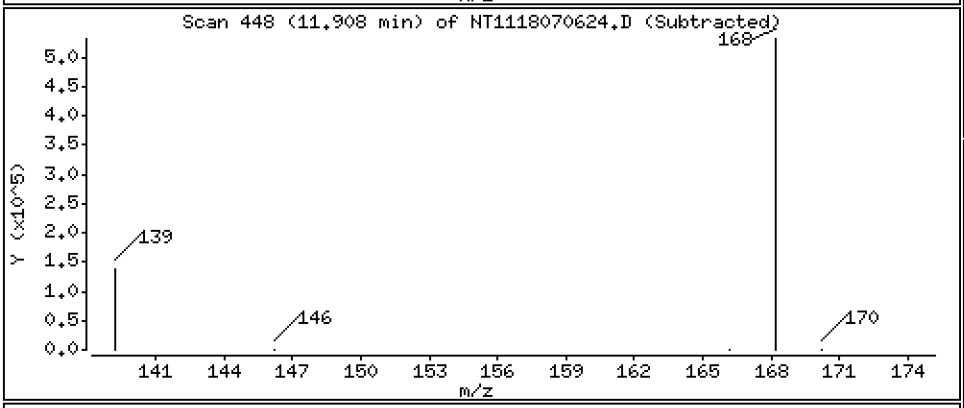
Column diameter: 0.25

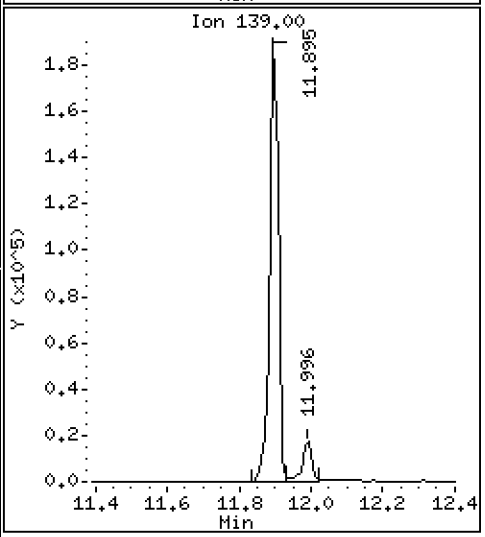
13 Dibenzofuran

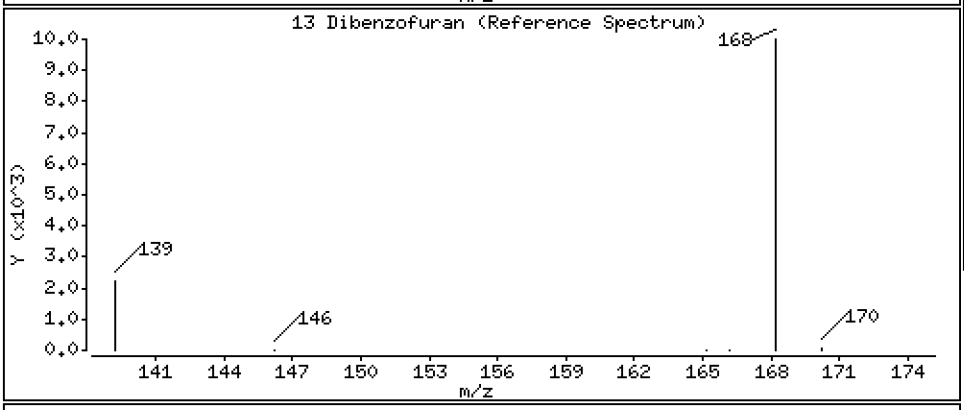
Concentration: 285 ng/mL

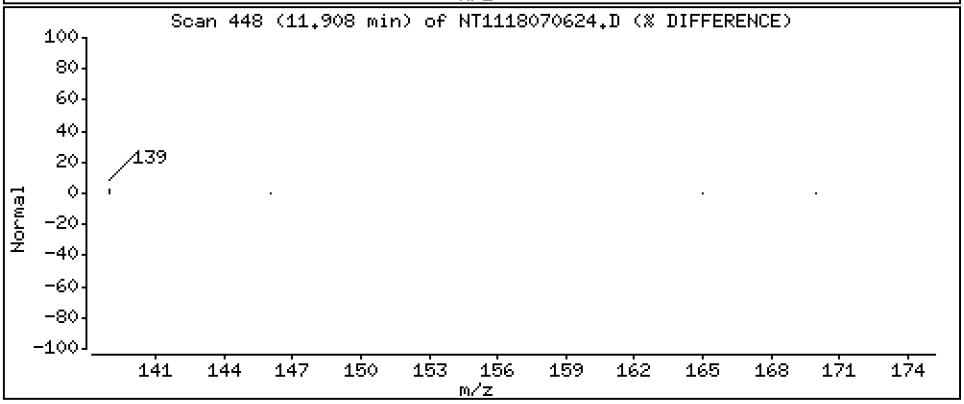












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Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

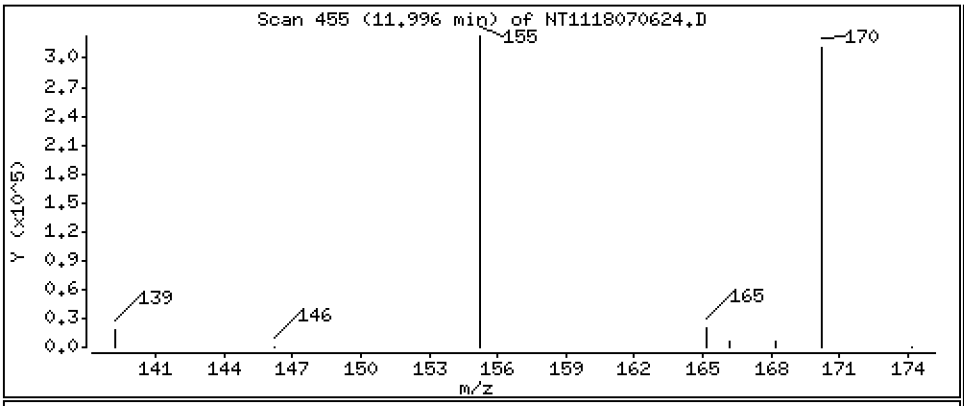
Operator: VTS

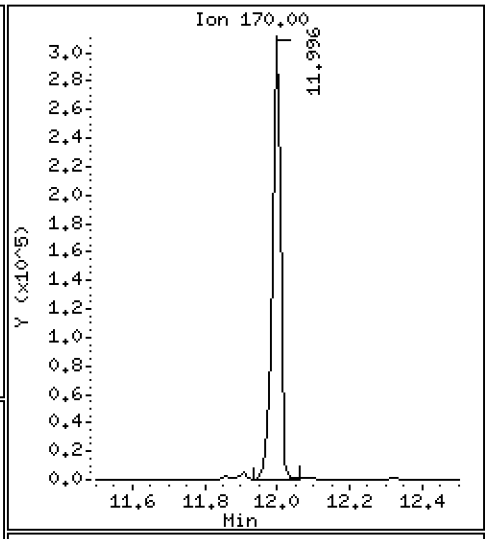
Column phase: Rxi-17Sil MS

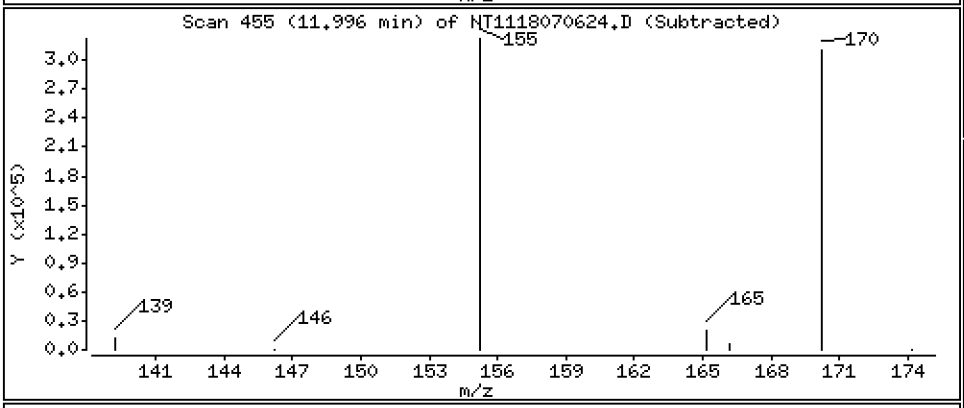
Column diameter: 0.25

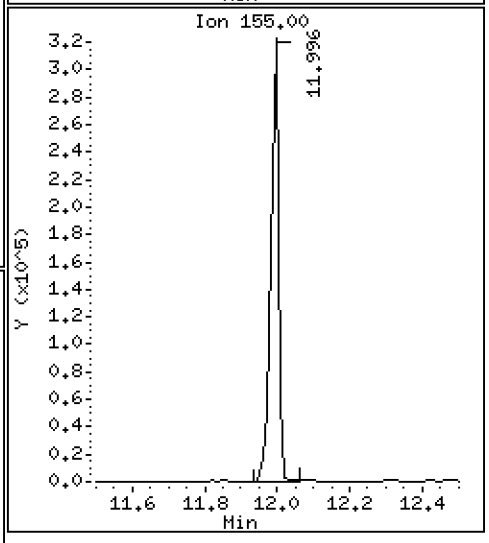
14 2,3,5-Trimethylnaphthalene

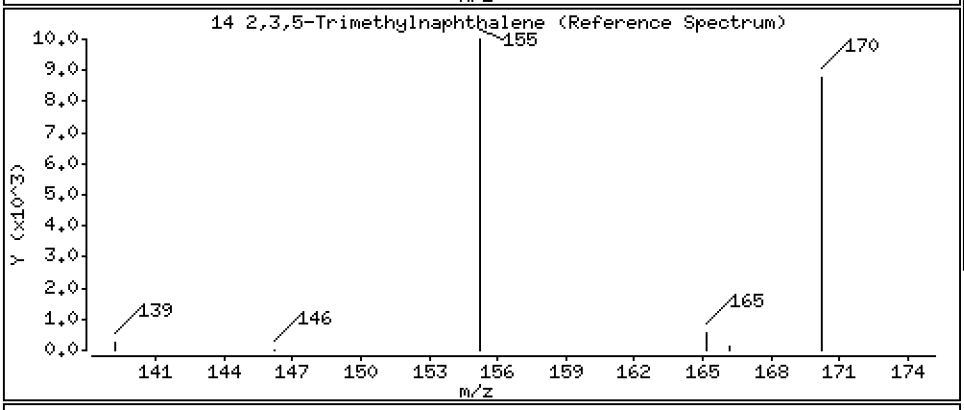
Concentration: 285 ng/mL

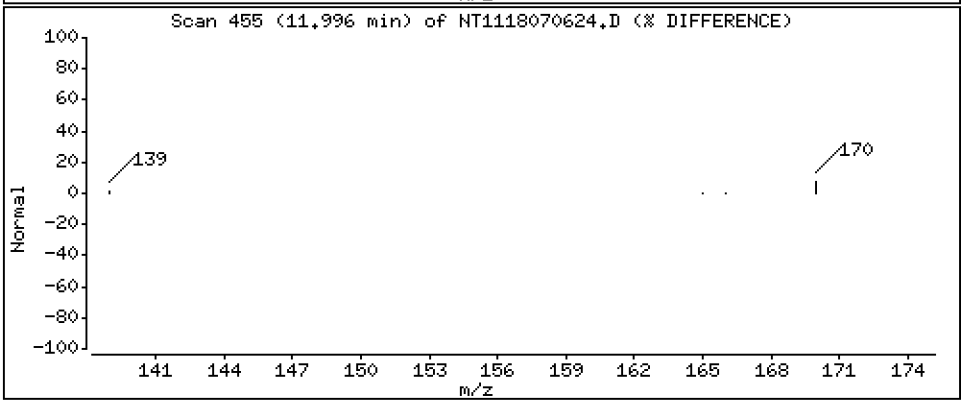












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070624.D

Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

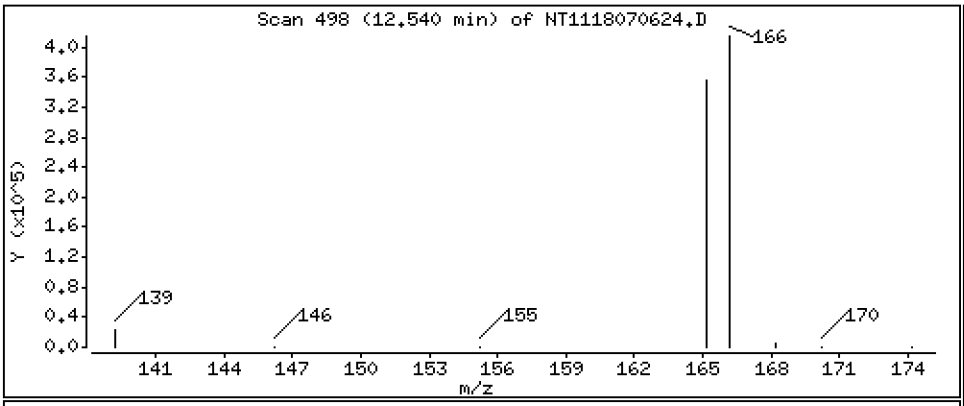
Operator: VTS

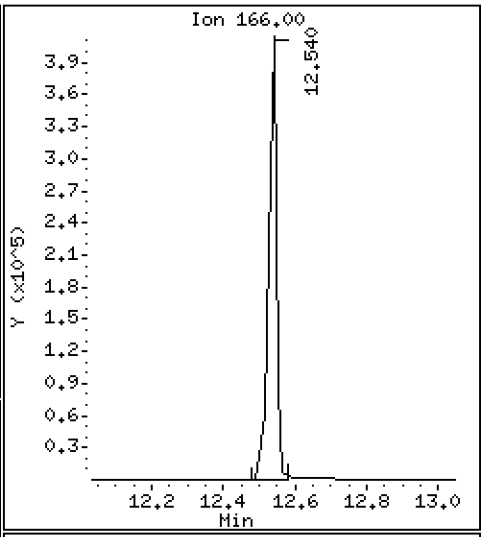
Column phase: Rxi-17Sil MS

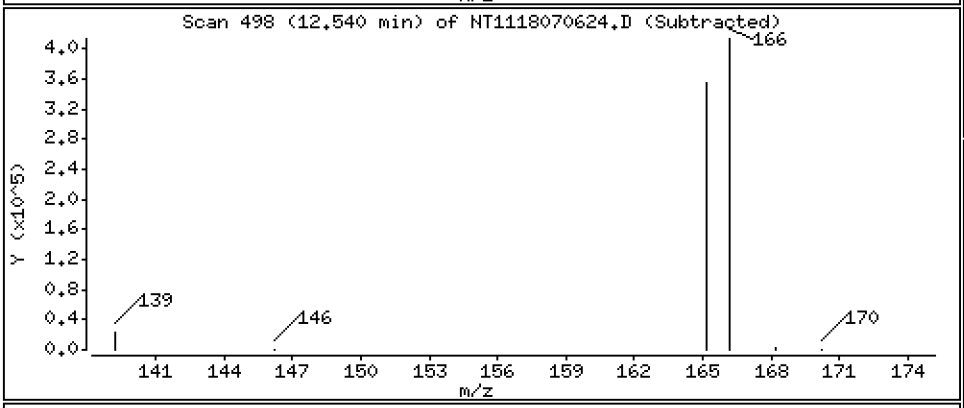
Column diameter: 0.25

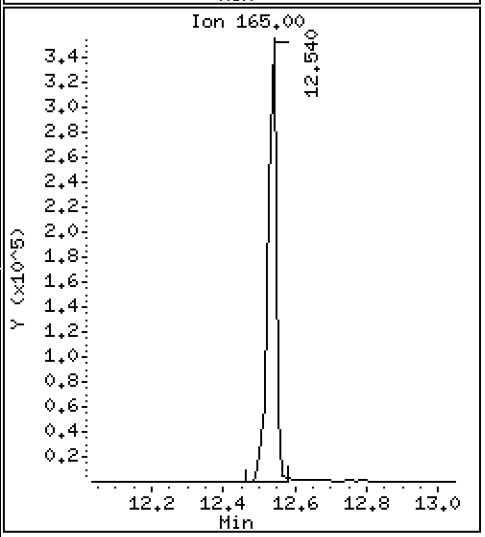
16 Fluorene

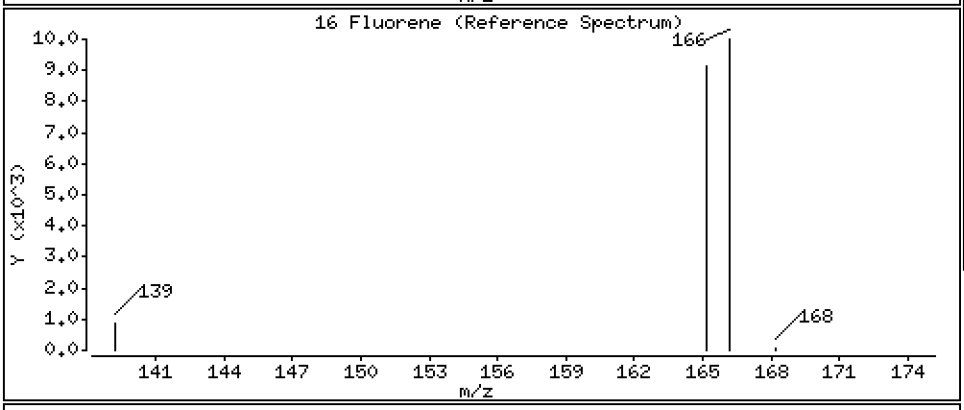
Concentration: 274 ng/mL

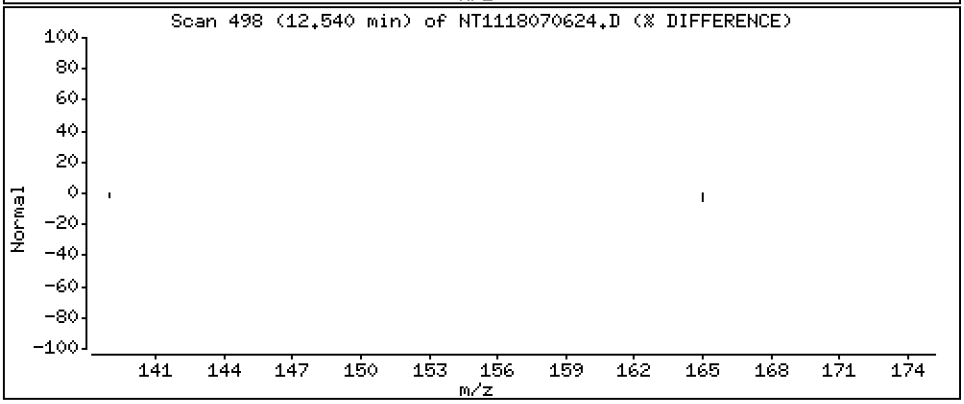












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070624.D

Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

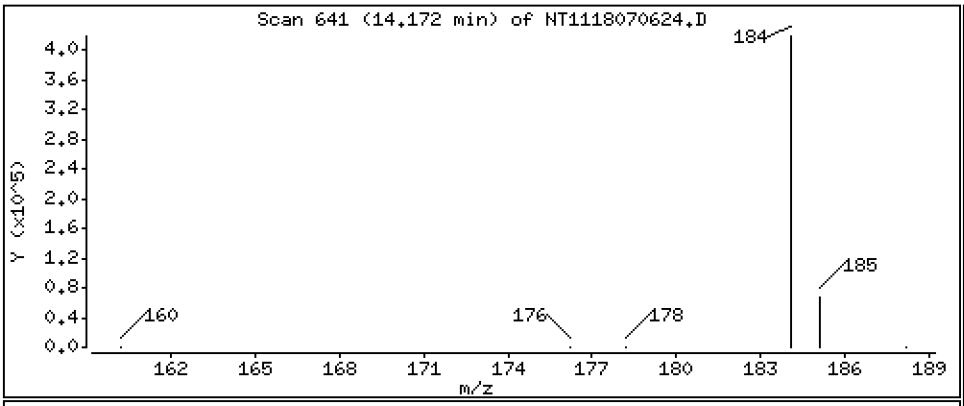
Operator: VTS

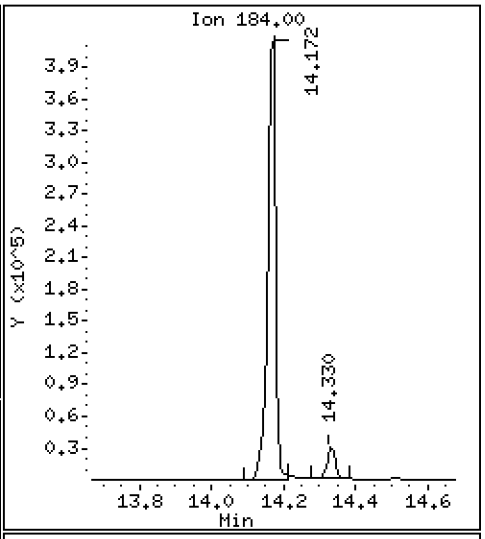
Column phase: Rxi-17Sil MS

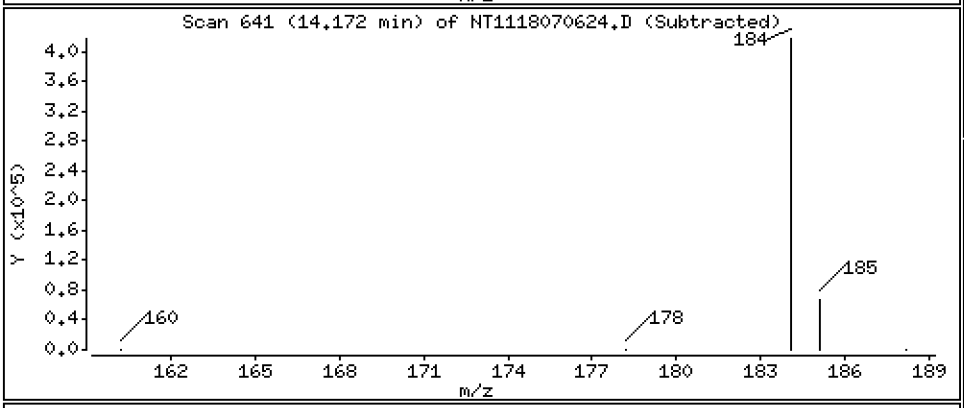
Column diameter: 0.25

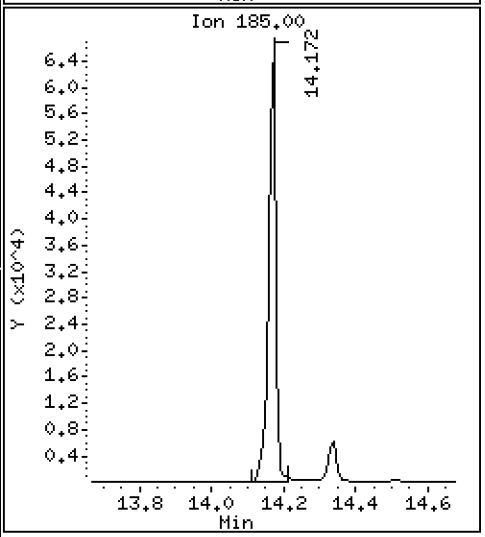
17 Dibenzothiophene

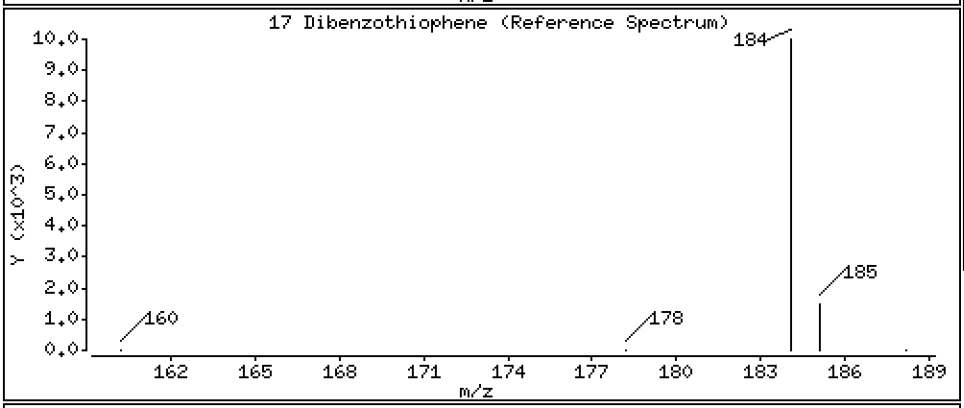
Concentration: 281 ng/mL

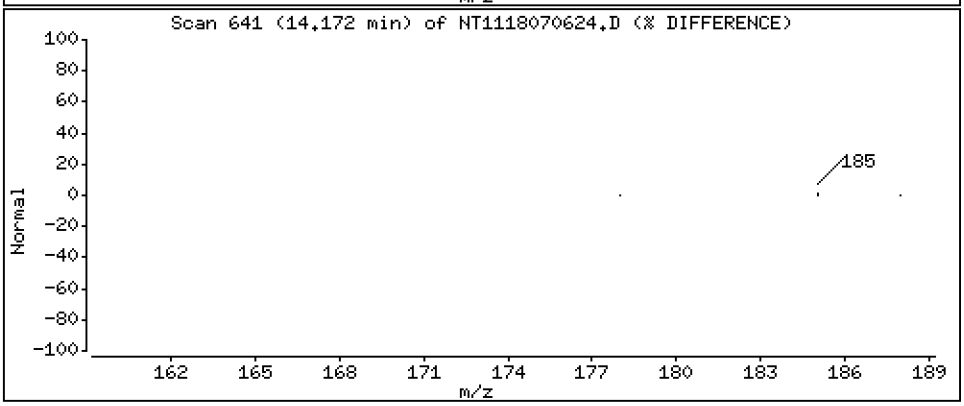












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Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

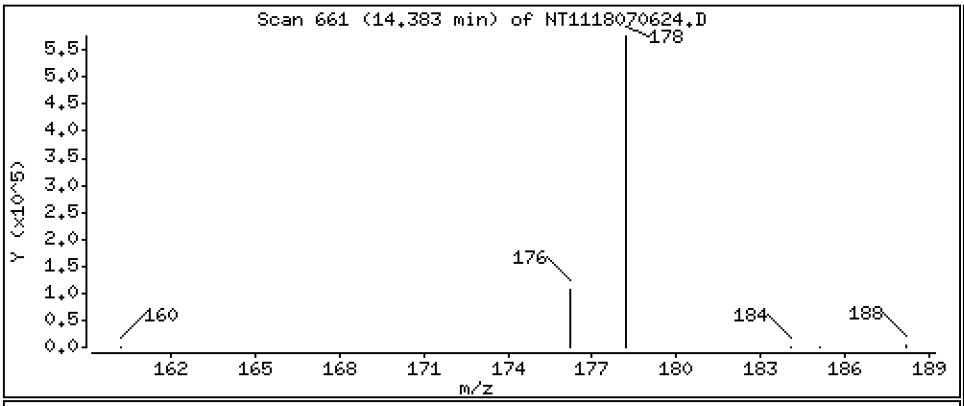
Operator: VTS

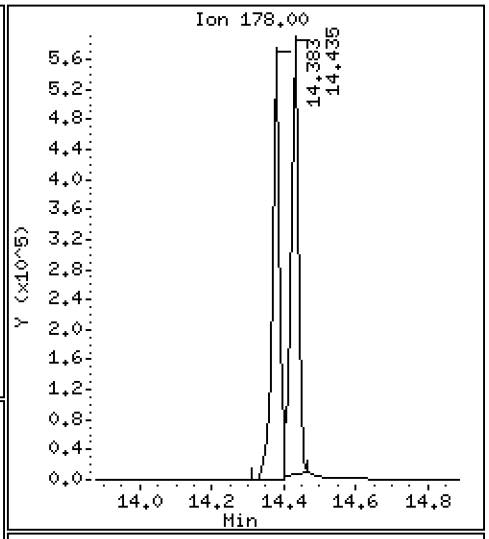
Column phase: Rxi-17Sil MS

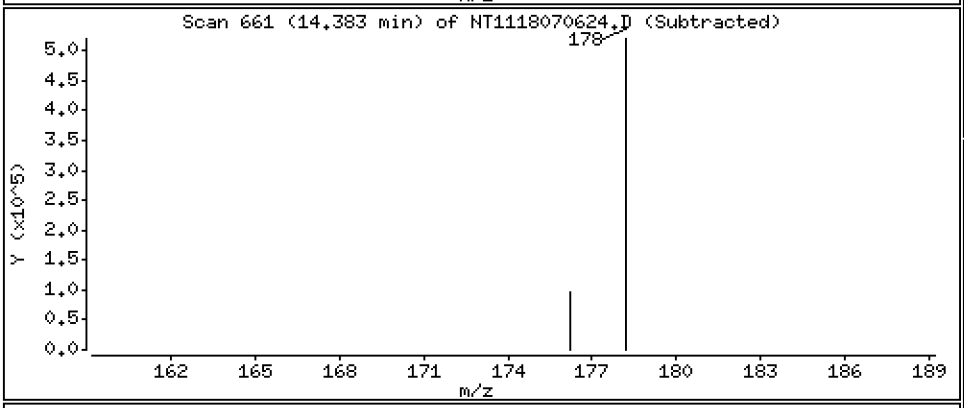
Column diameter: 0.25

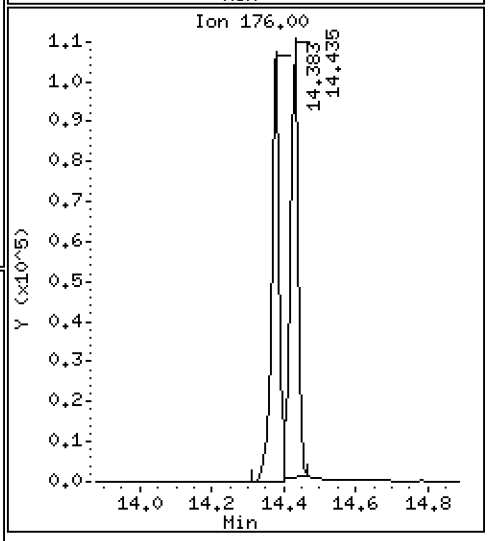
19 Phenanthrene

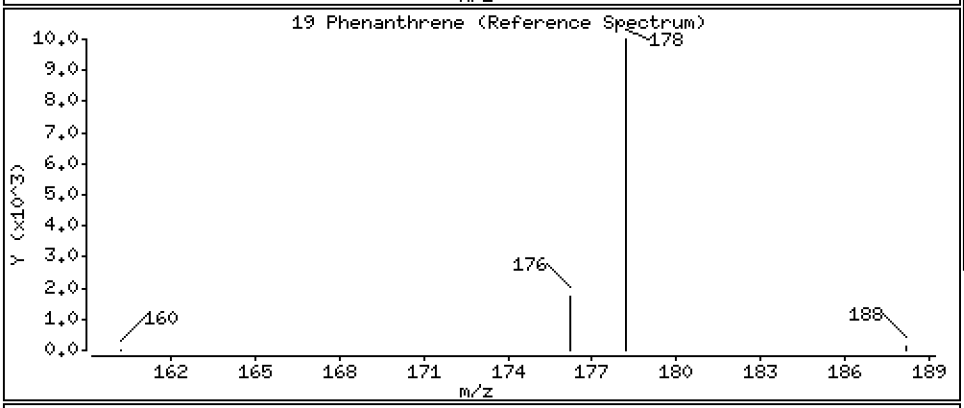
Concentration: 291 ng/mL

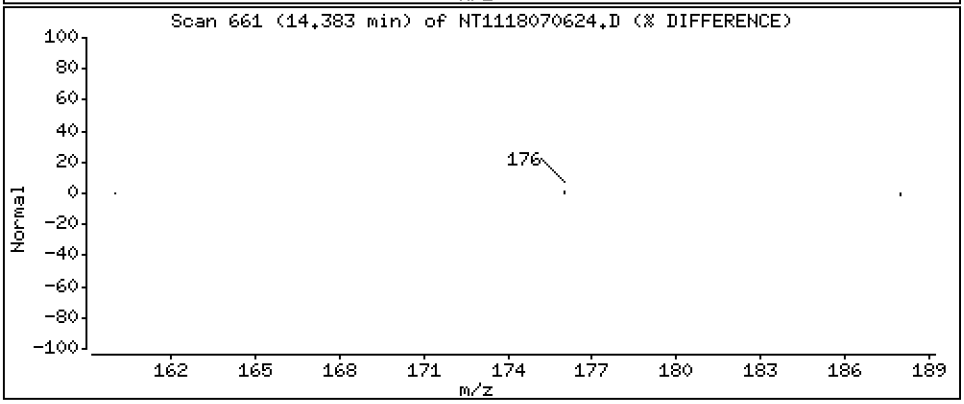












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Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

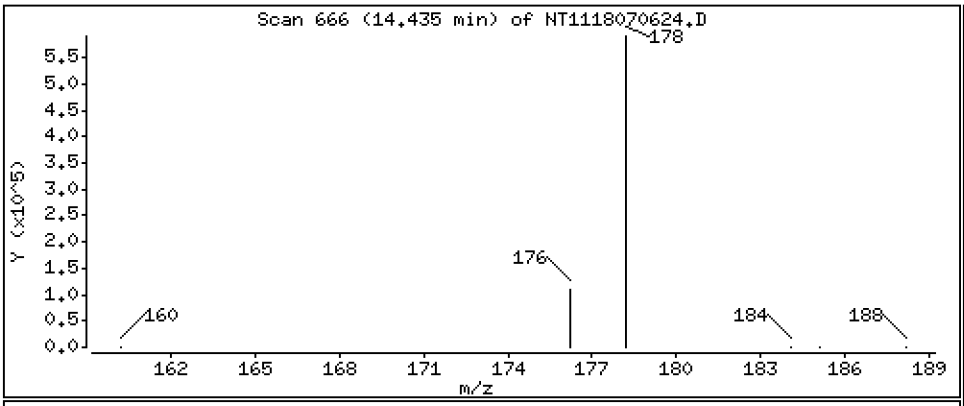
Operator: VTS

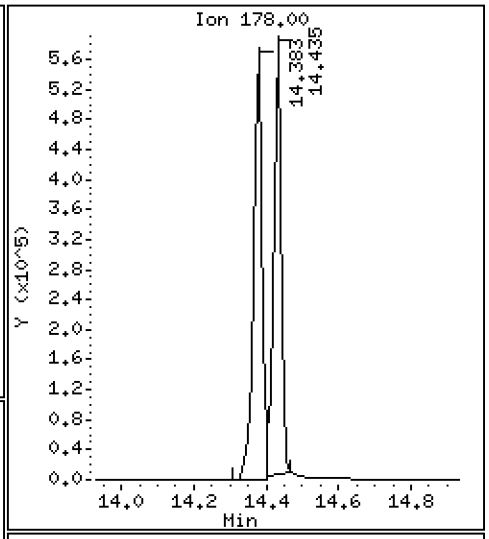
Column phase: Rxi-17Sil MS

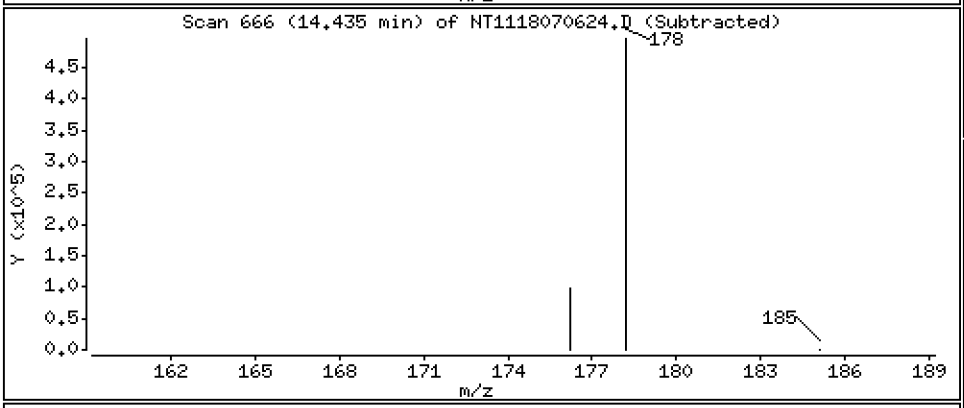
Column diameter: 0.25

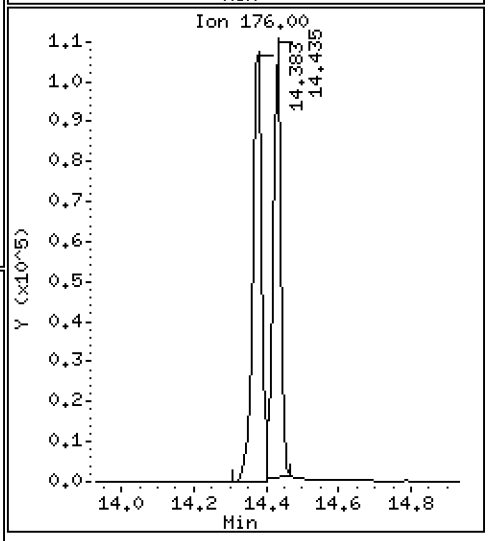
21 Anthracene

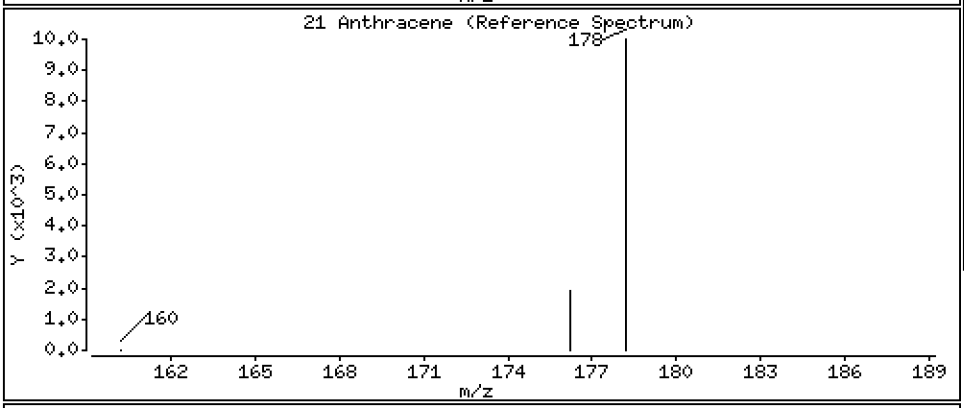
Concentration: 277 ng/mL

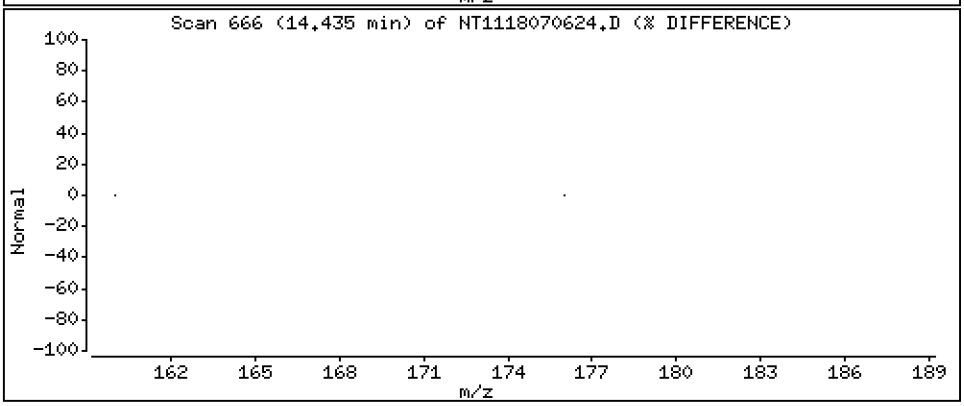












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070624.D

Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

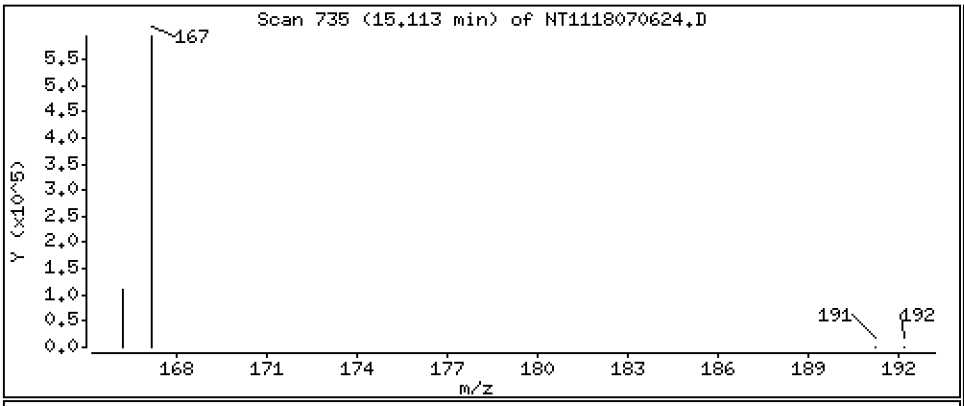
Operator: VTS

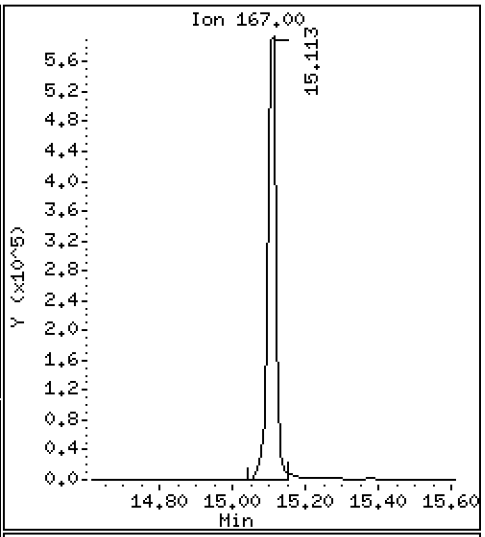
Column phase: Rxi-17Sil MS

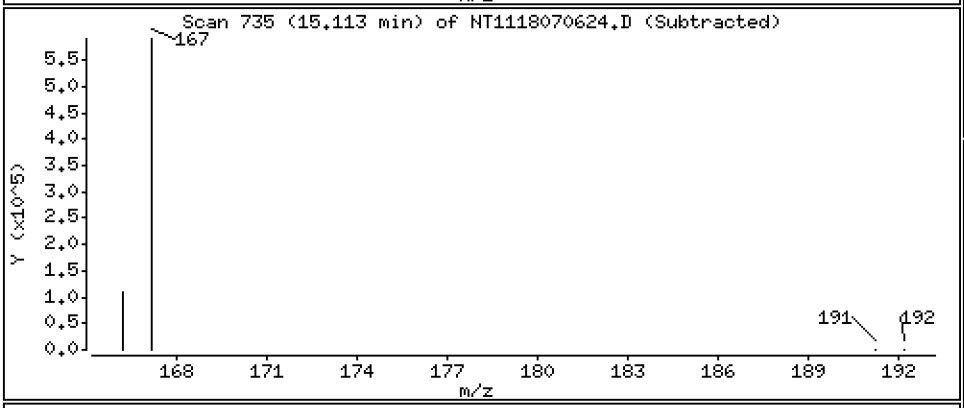
Column diameter: 0.25

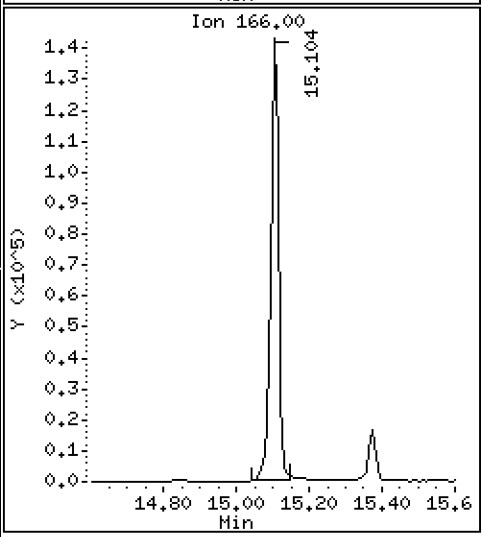
22 Carbazole

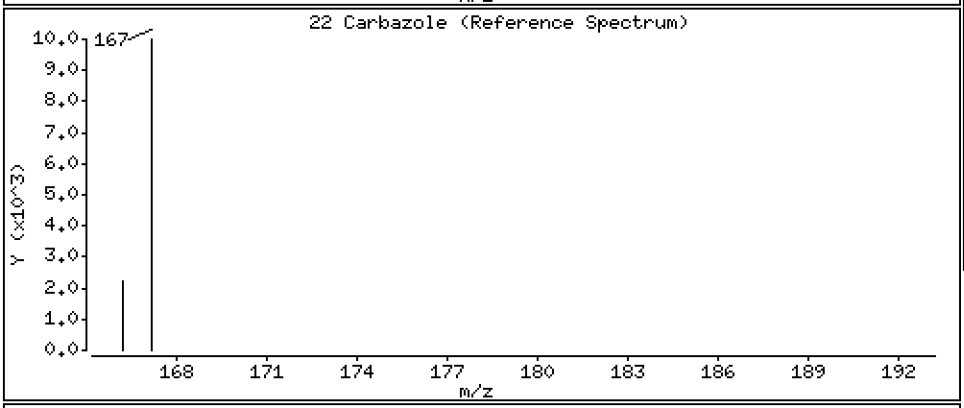
Concentration: 278 ng/mL

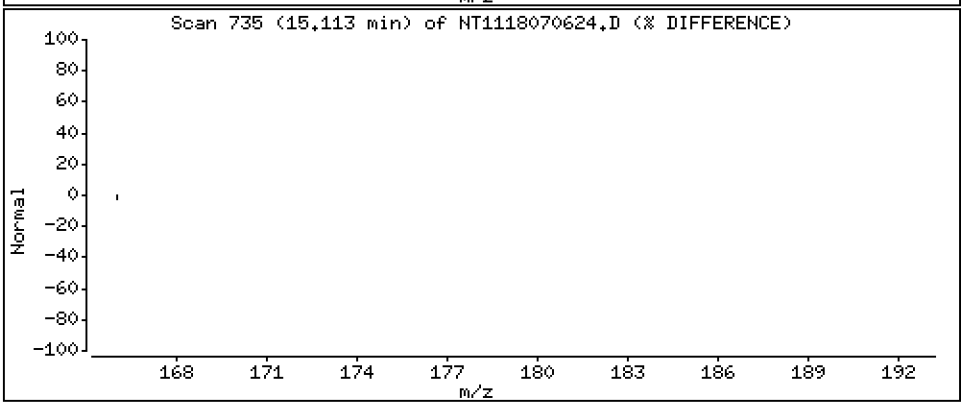












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070624.D

Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

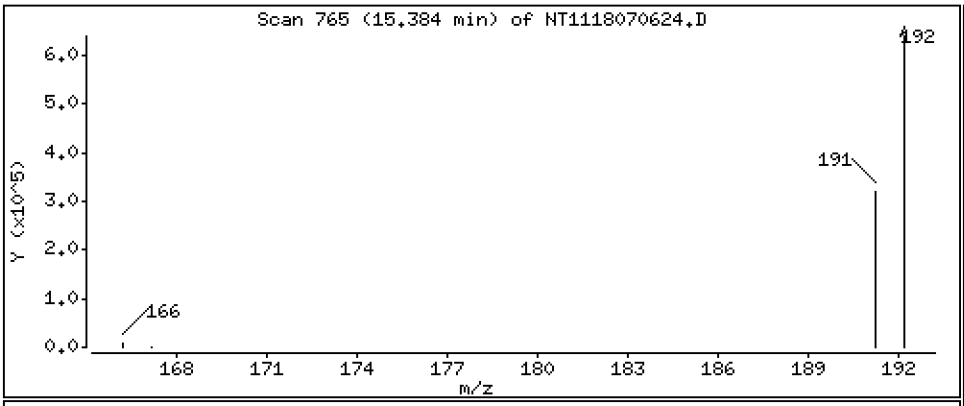
Operator: VTS

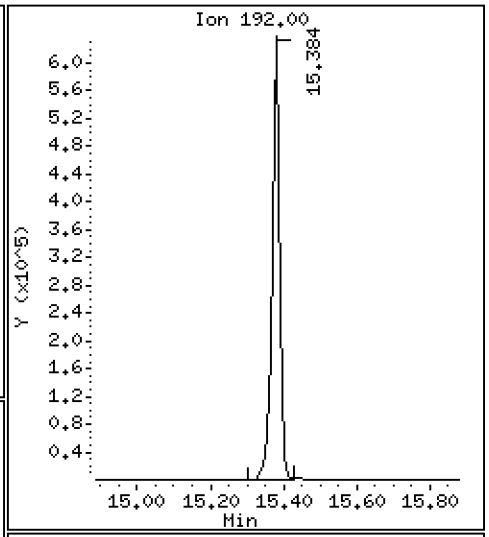
Column phase: Rxi-17Sil MS

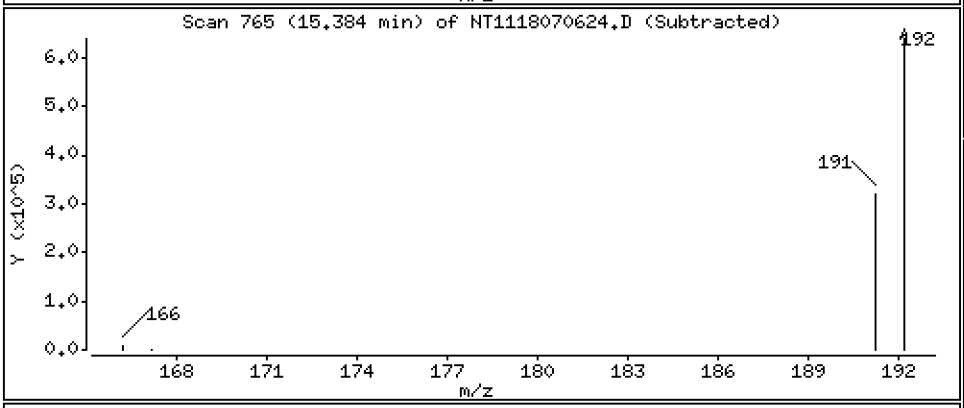
Column diameter: 0.25

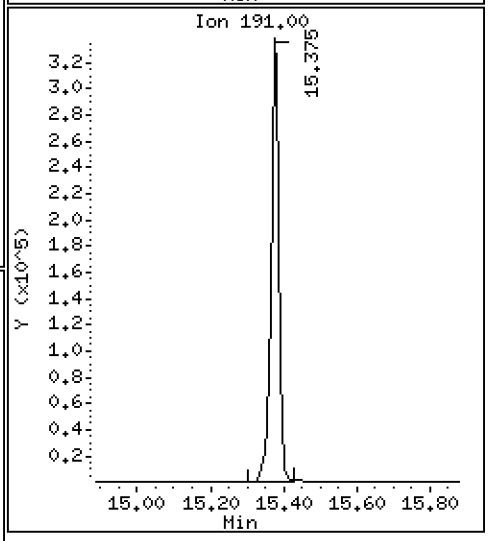
23 1-Methylphenanthrene

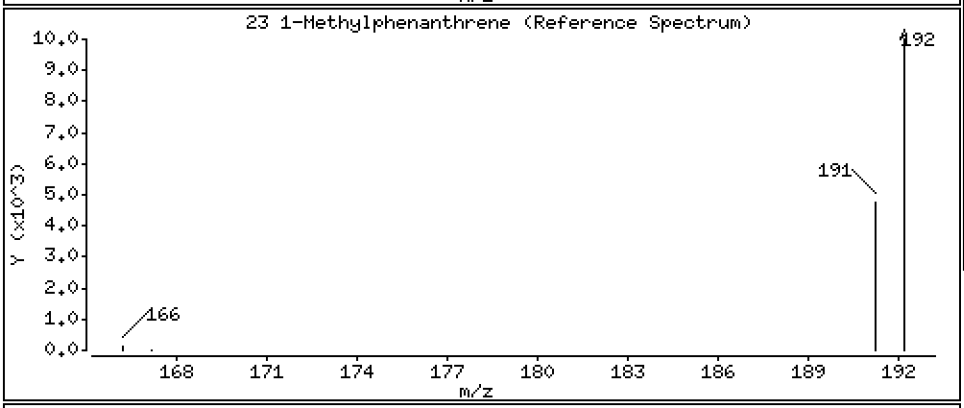
Concentration: 310 ng/mL

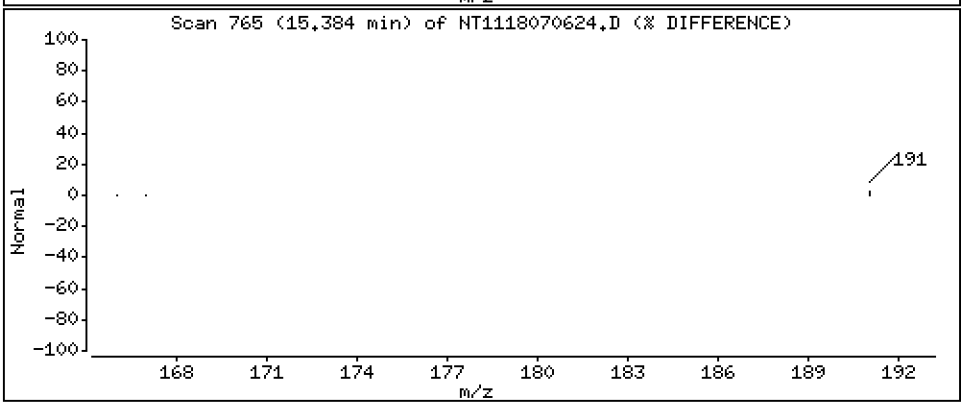












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070624.D

Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

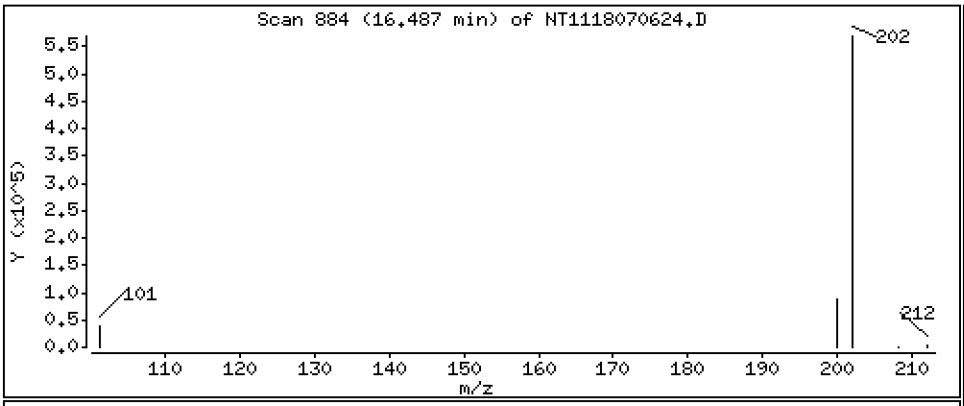
Operator: VTS

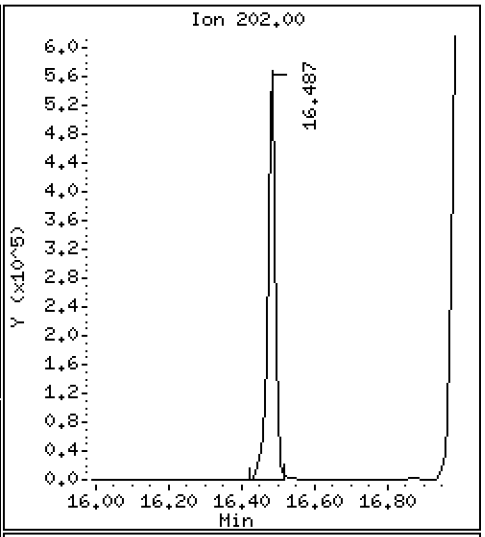
Column phase: Rxi-17Sil MS

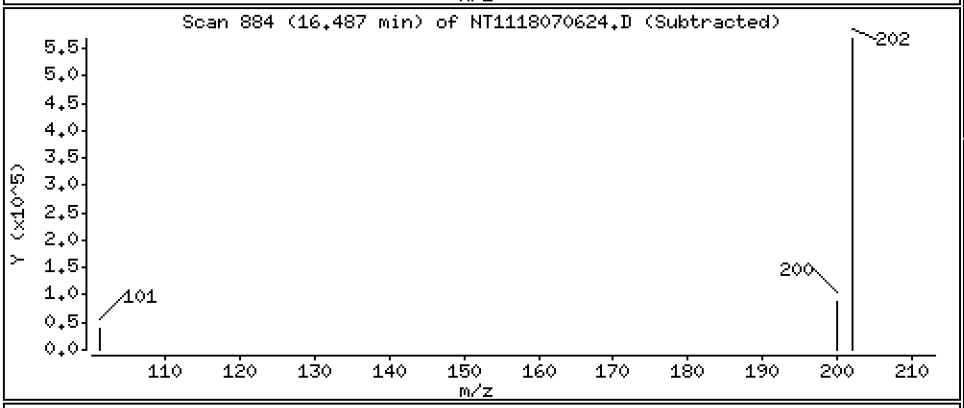
Column diameter: 0.25

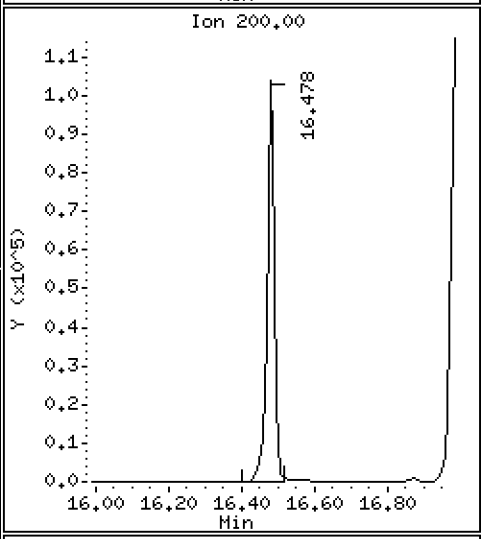
25 Fluoranthene

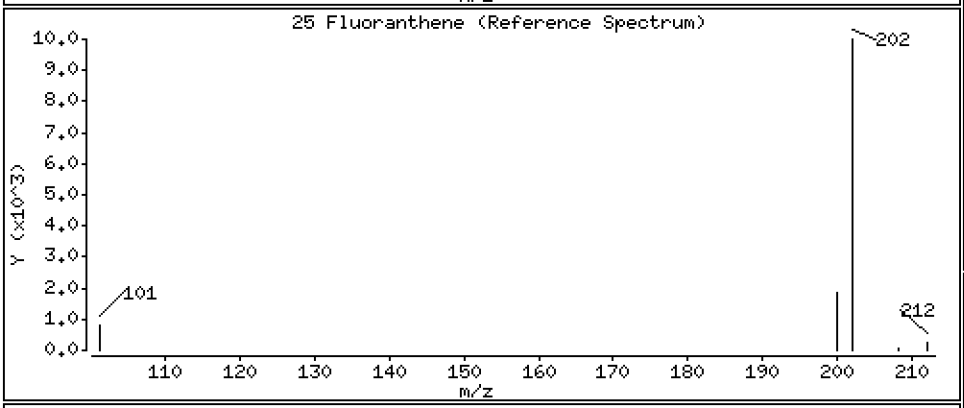
Concentration: 299 ng/mL

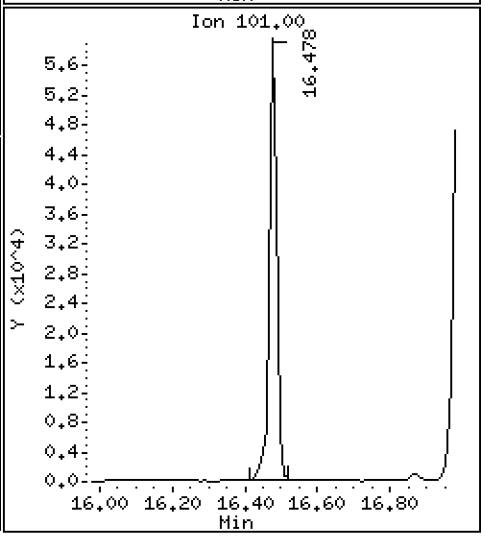


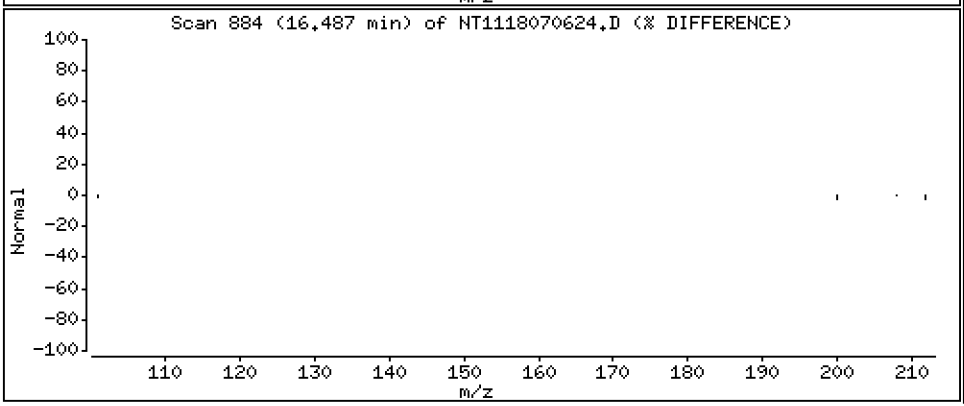












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Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

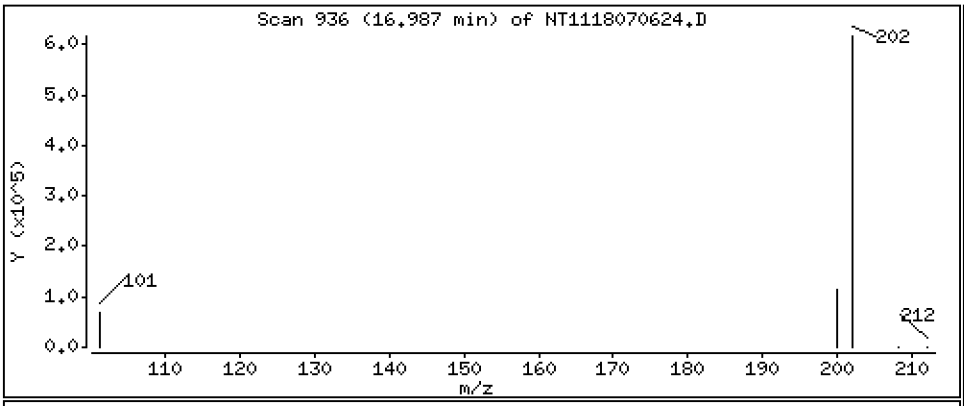
Operator: VTS

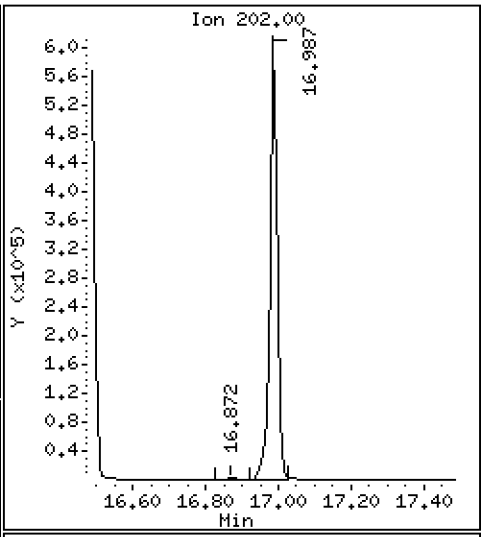
Column phase: Rxi-17Sil MS

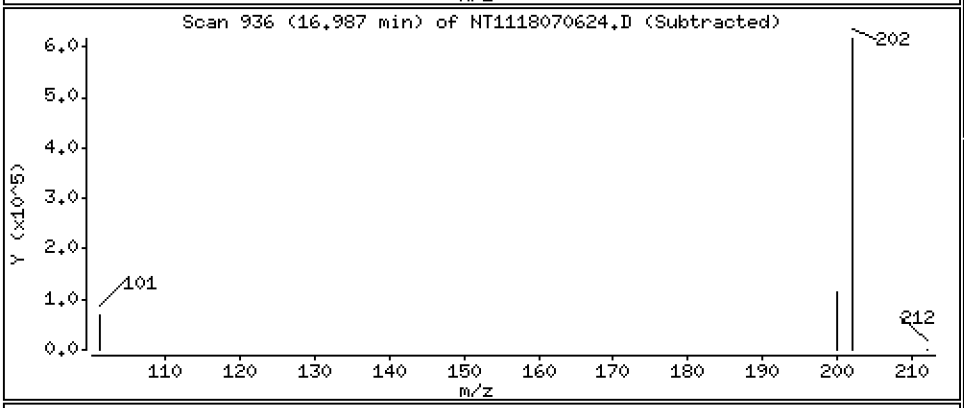
Column diameter: 0.25

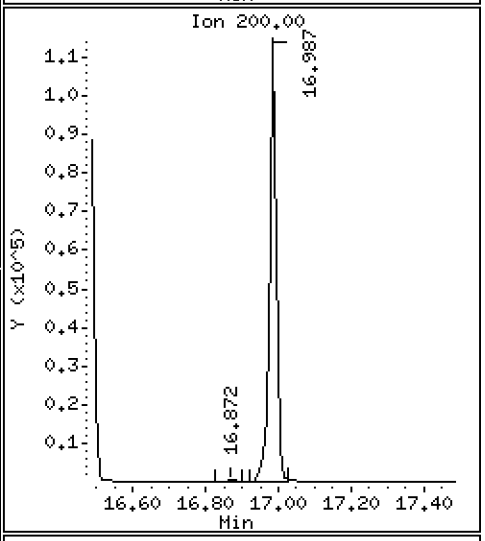
26 Pyrene

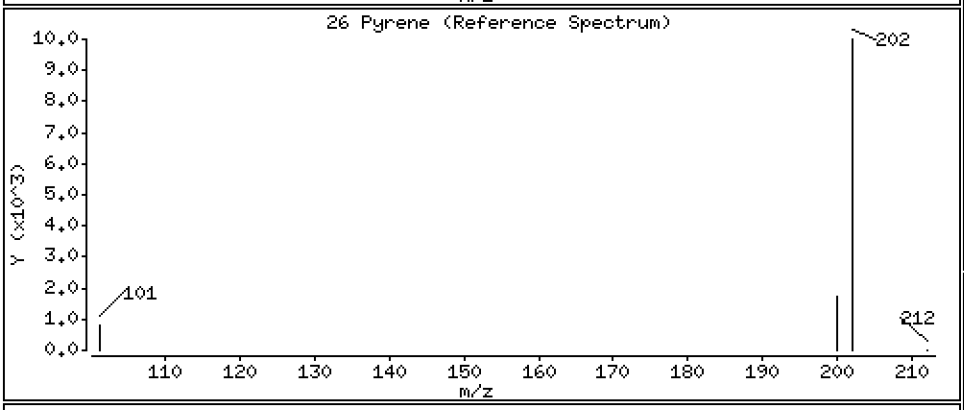
Concentration: 281 ng/mL

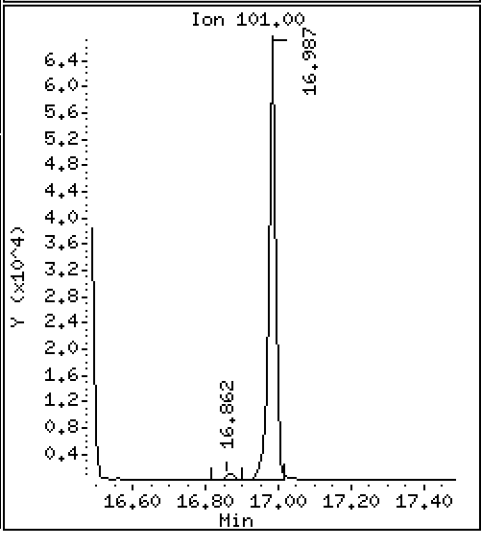


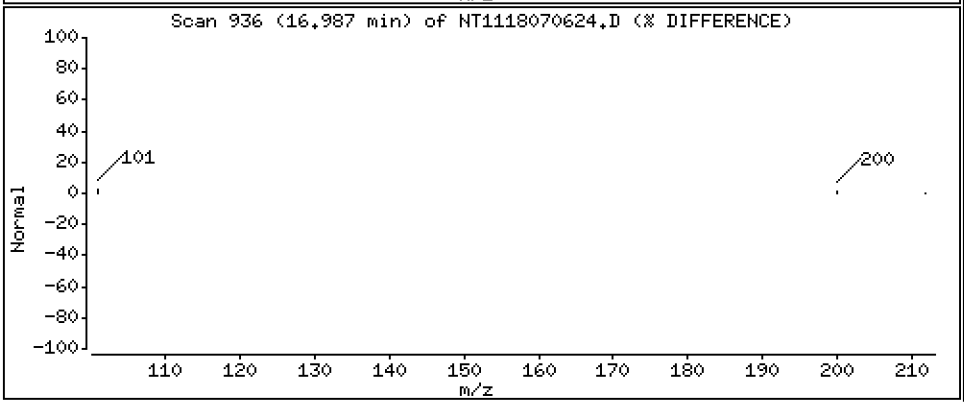












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070624.D

Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

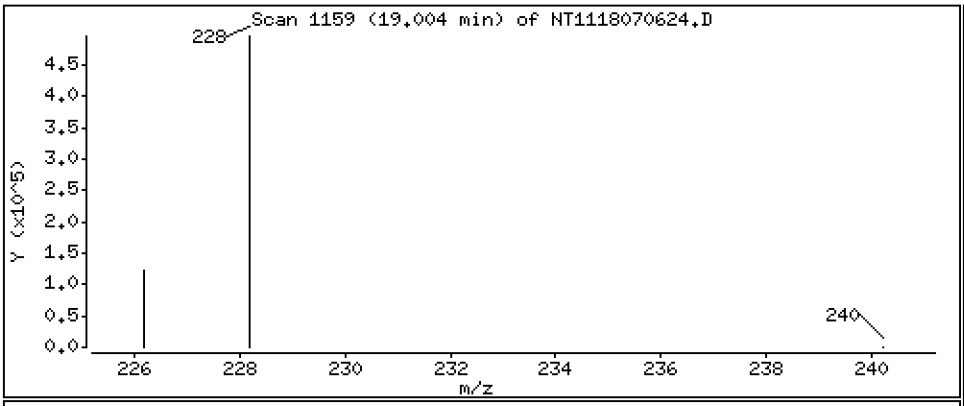
Operator: VTS

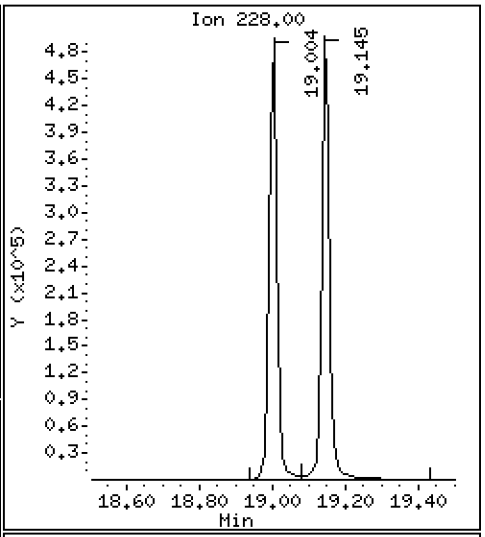
Column phase: Rxi-17Sil MS

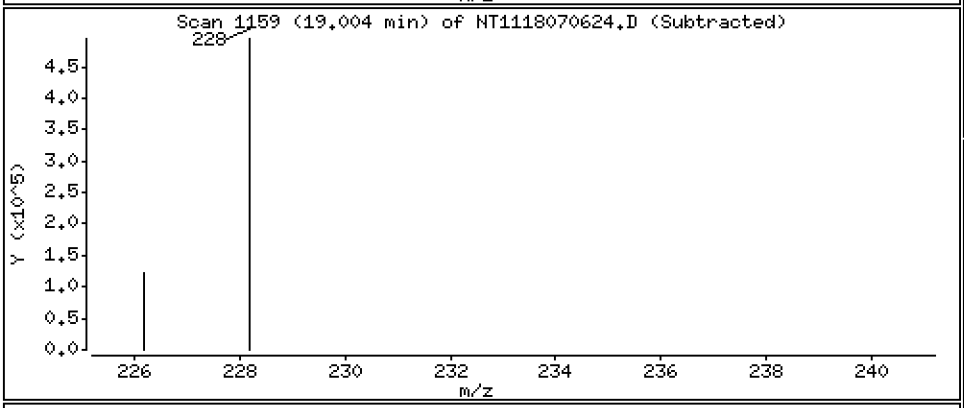
Column diameter: 0.25

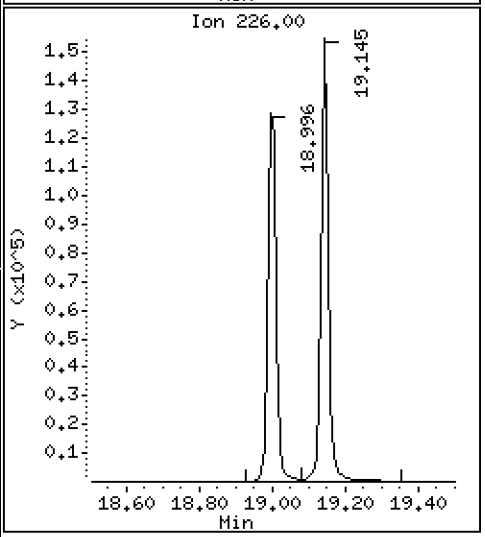
27 Benzo(a)anthracene

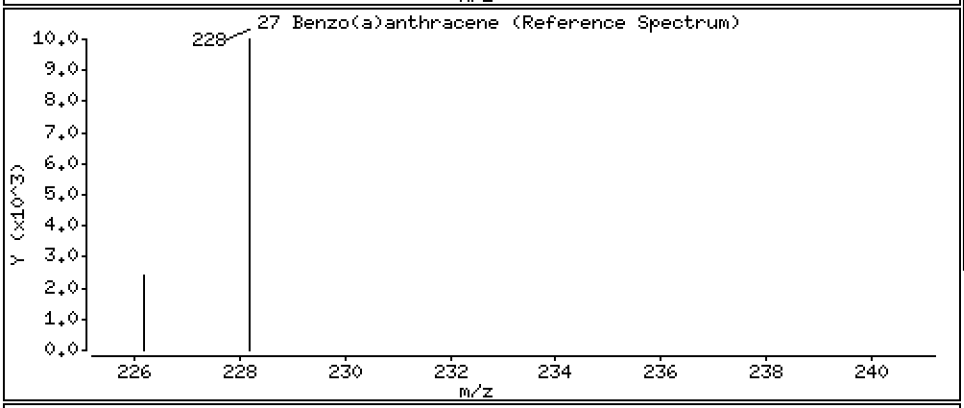
Concentration: 291 ng/mL

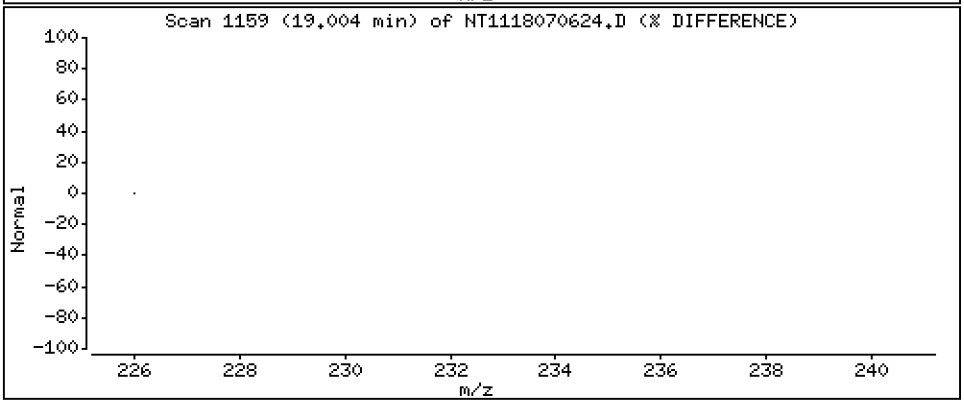












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070624.D

Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

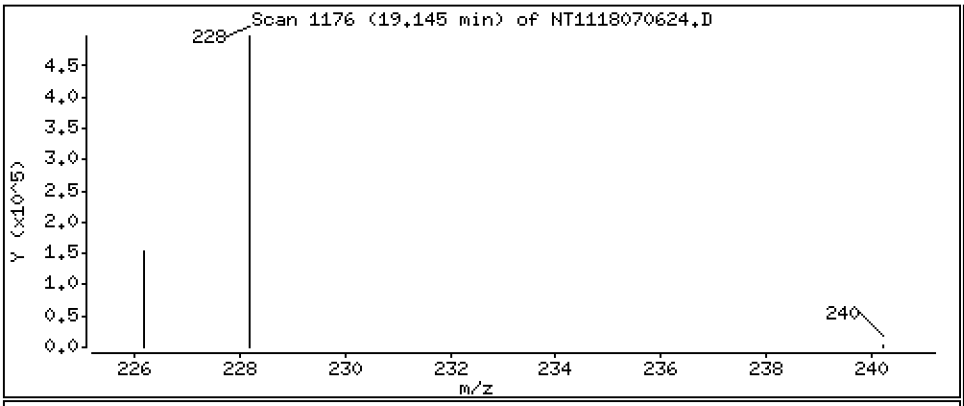
Operator: VTS

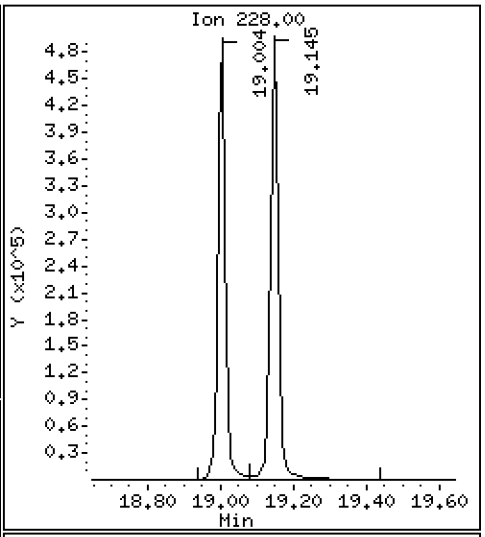
Column phase: Rxi-17Sil MS

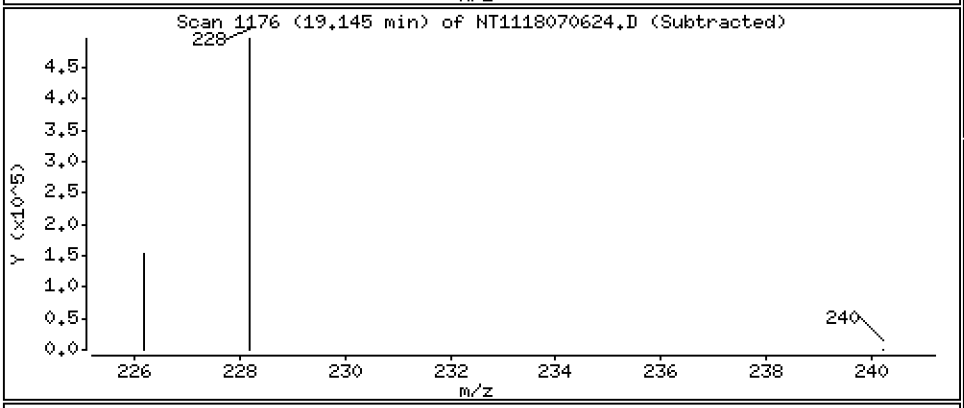
Column diameter: 0.25

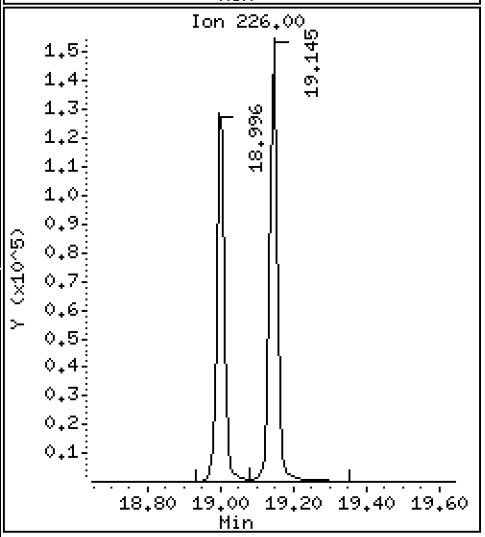
29 Chrysene

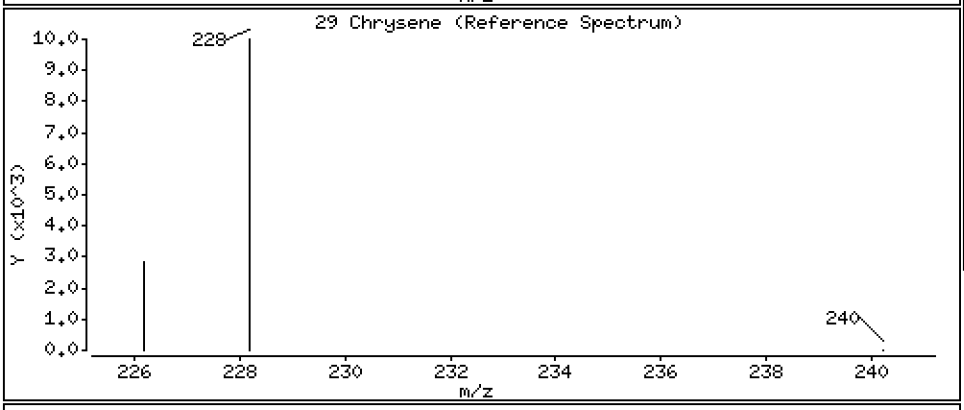
Concentration: 306 ng/mL

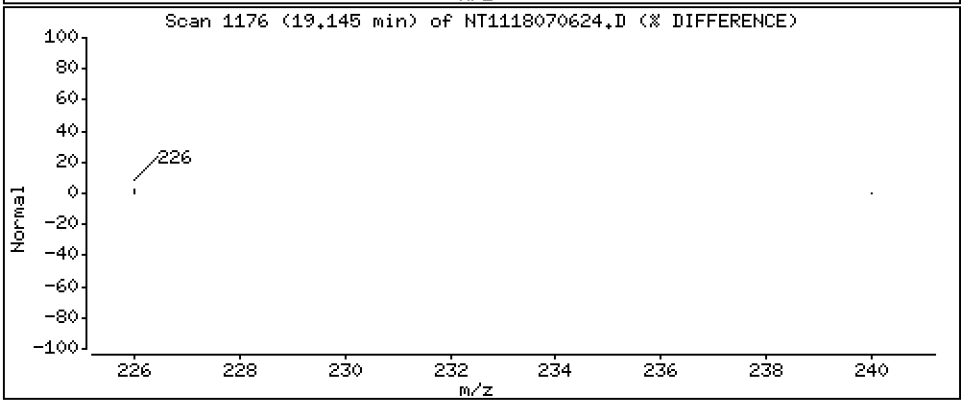












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Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

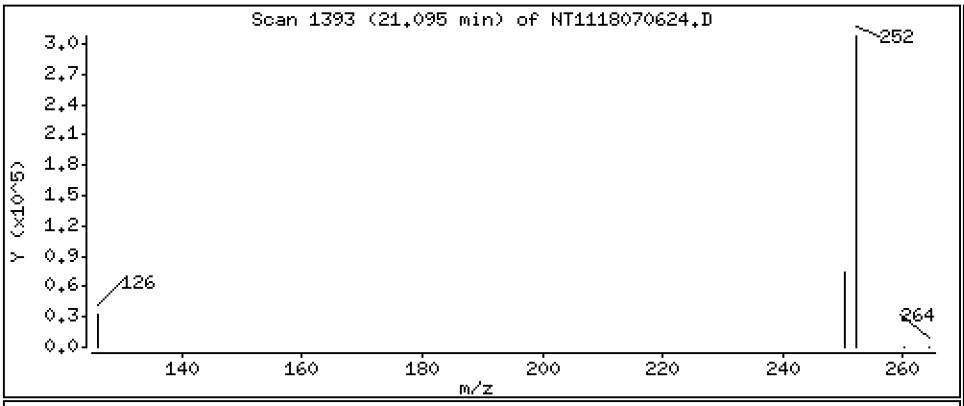
Operator: VTS

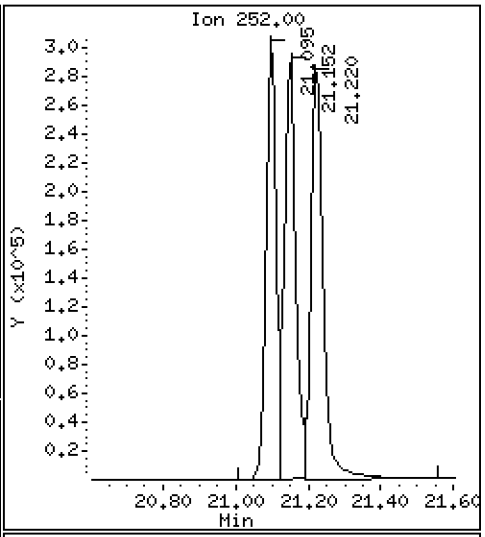
Column phase: Rxi-17Sil MS

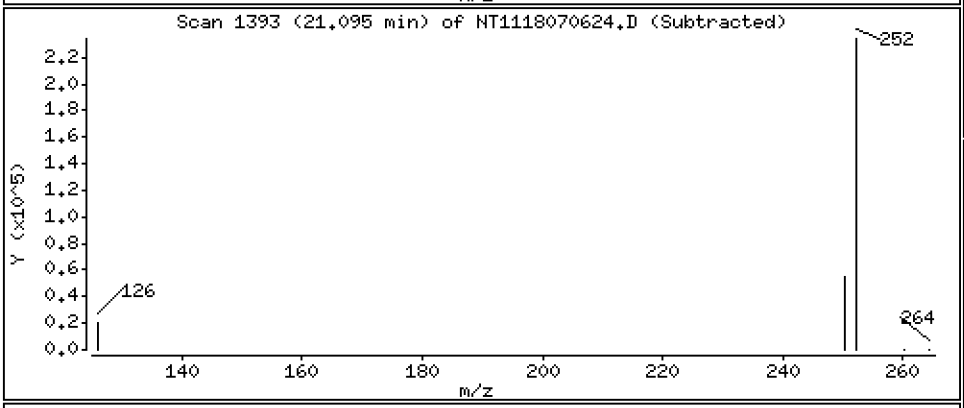
Column diameter: 0.25

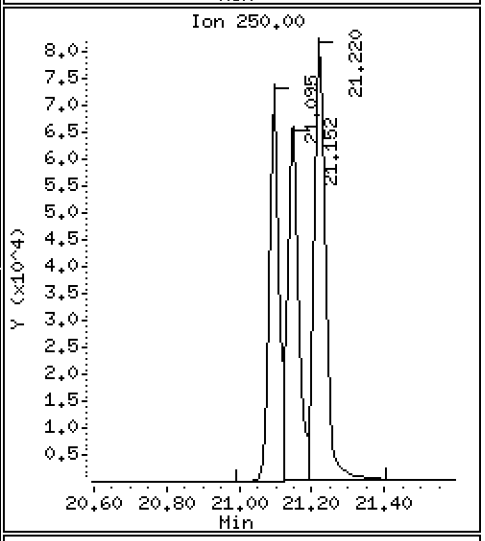
30 Benzo(b)fluoranthene

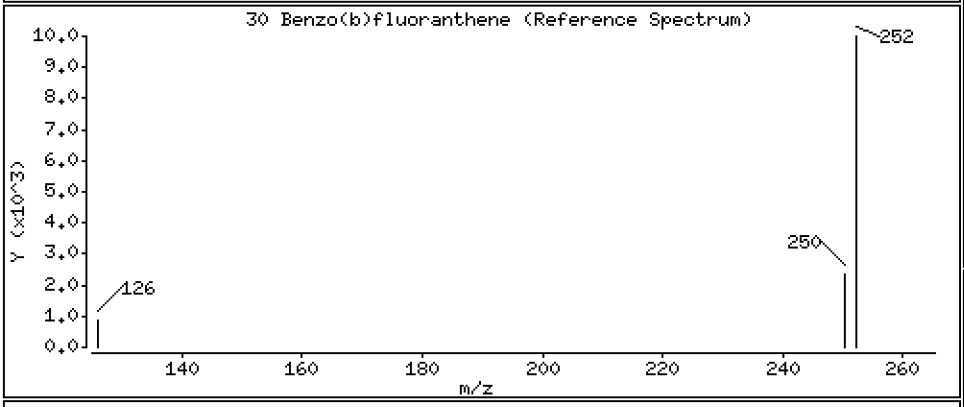
Concentration: 262 ng/mL

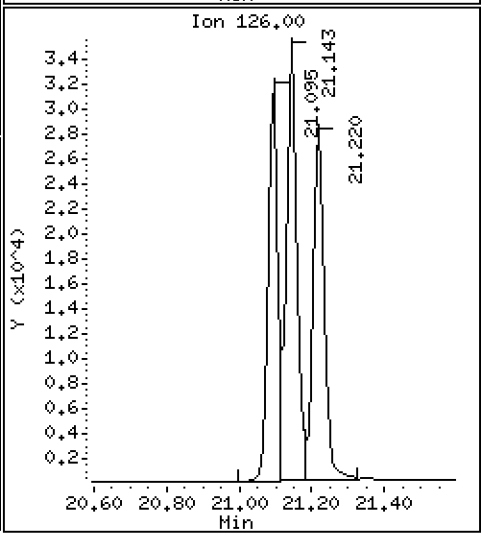


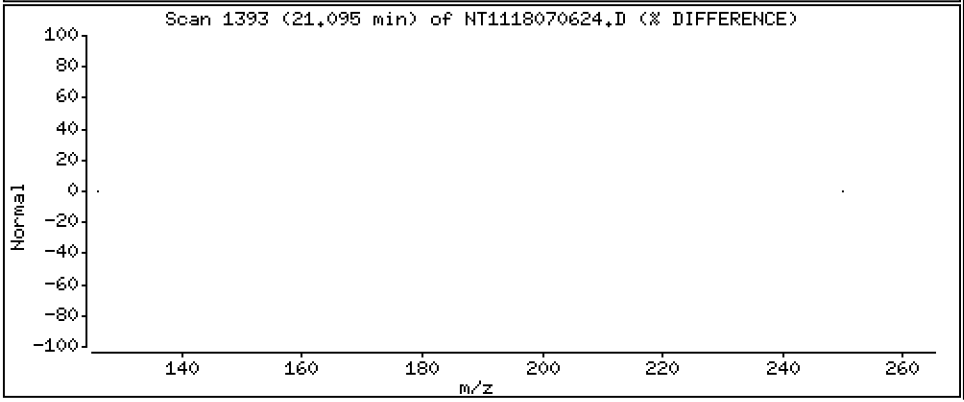












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Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

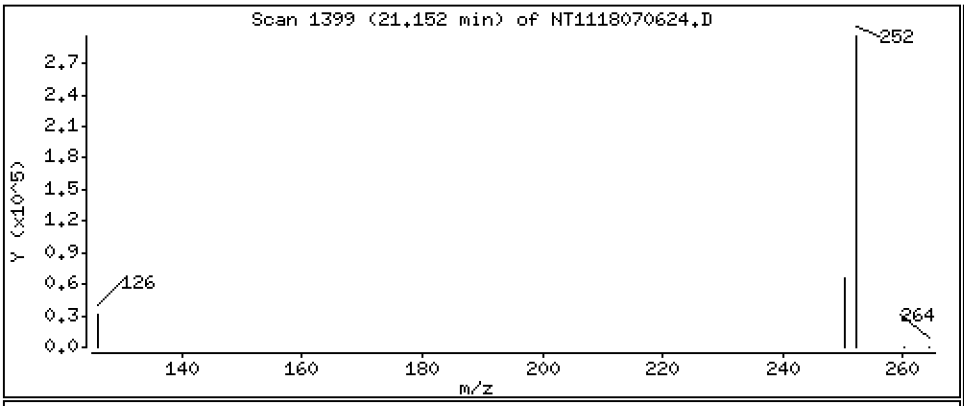
Operator: VTS

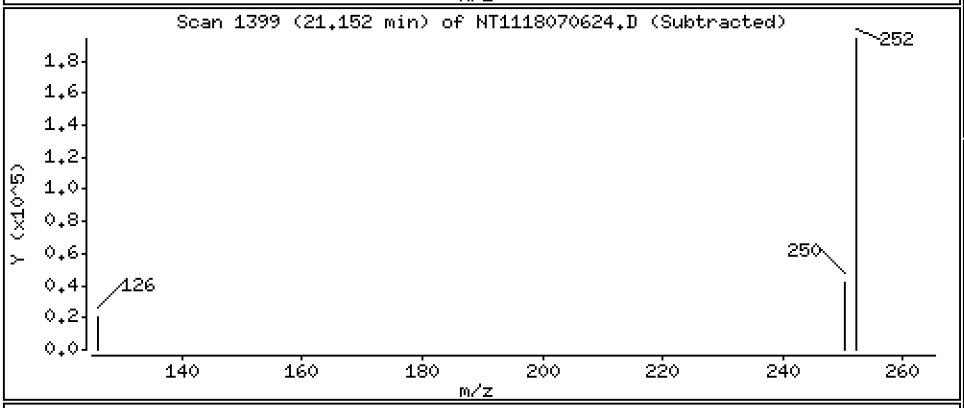
Column phase: Rxi-17Sil MS

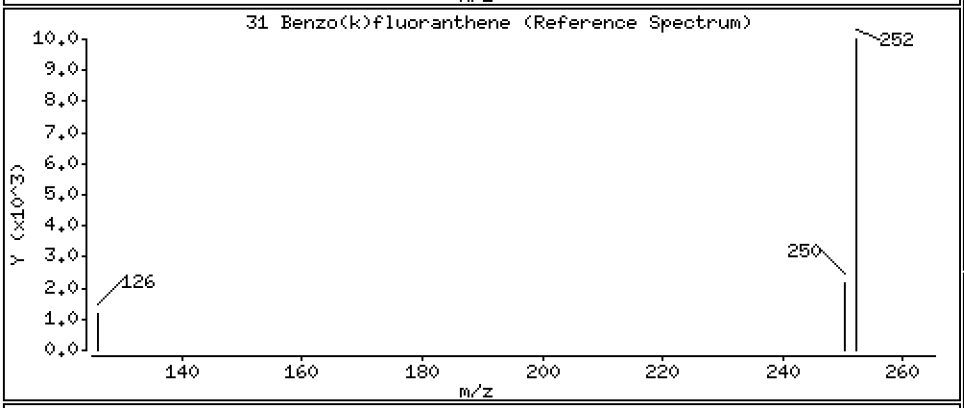
Column diameter: 0.25

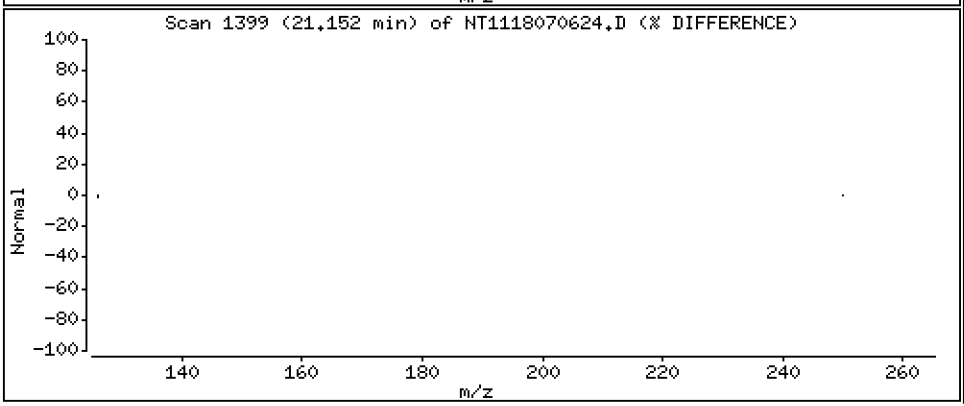
31 Benzo(k)fluoranthene

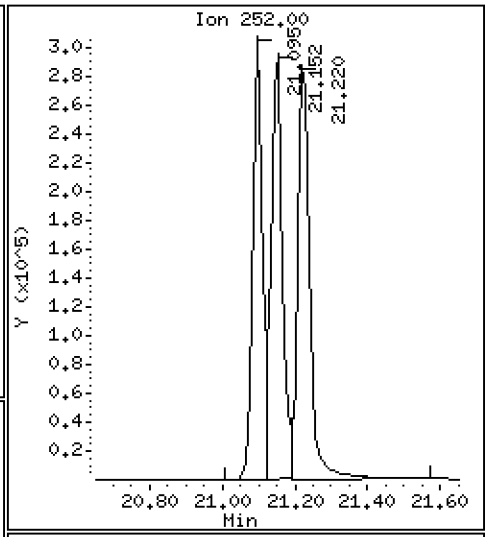
Concentration: 277 ng/mL

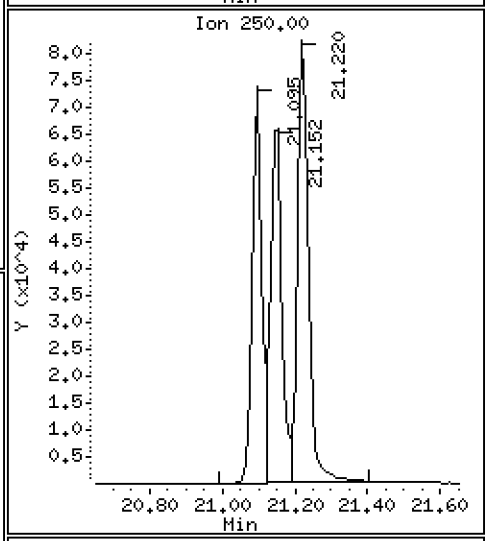


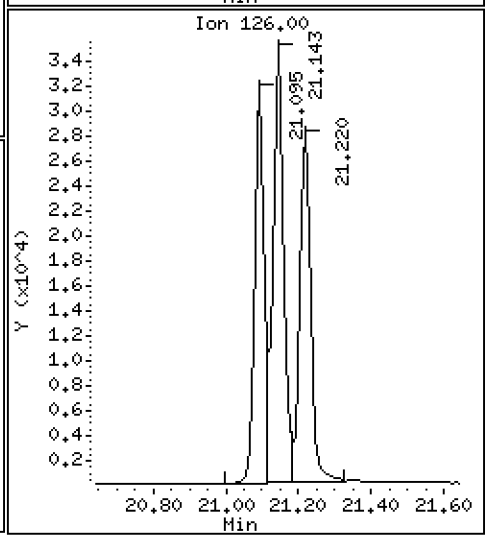












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070624.D

Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

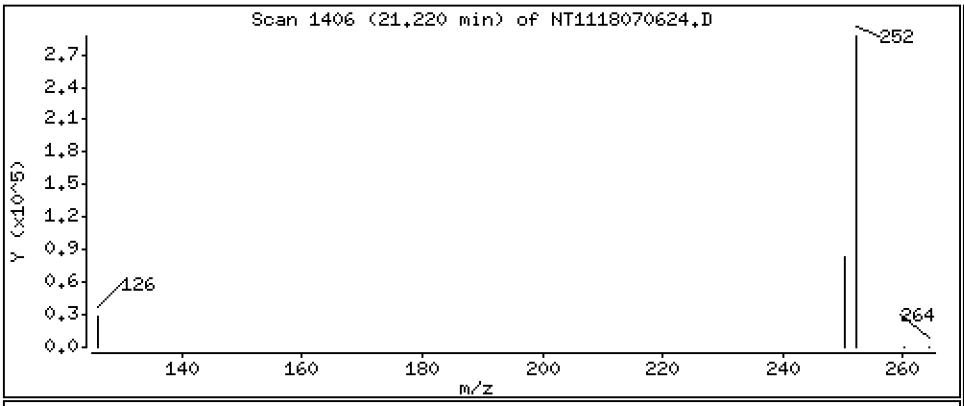
Operator: VTS

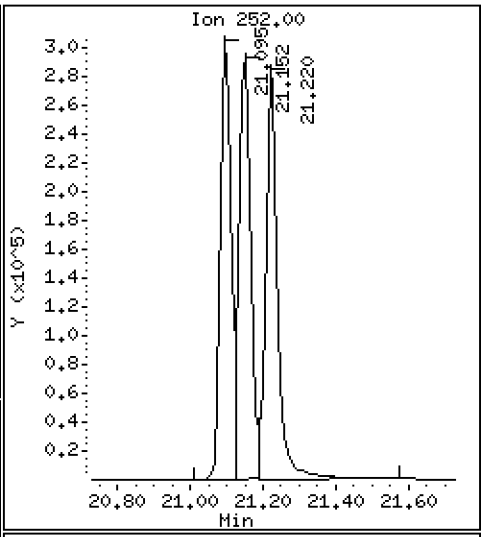
Column phase: Rxi-17Sil MS

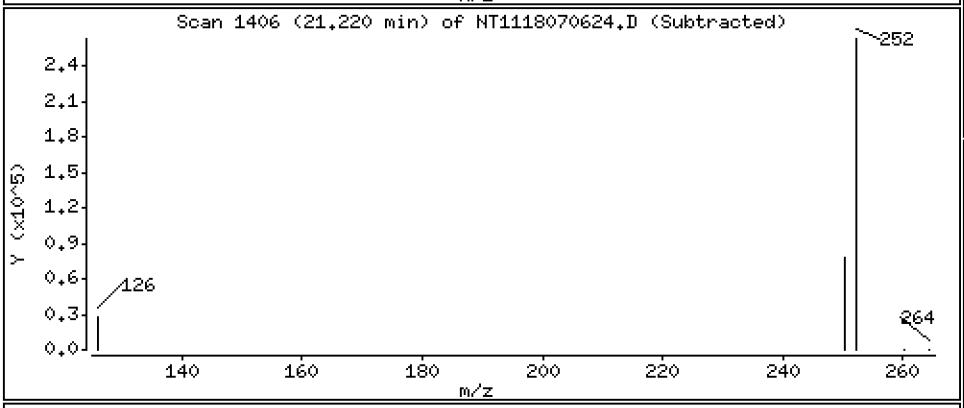
Column diameter: 0.25

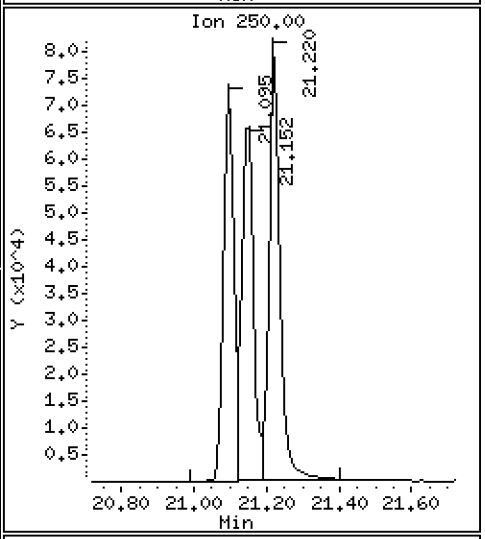
32 Benzo(j)fluoranthene

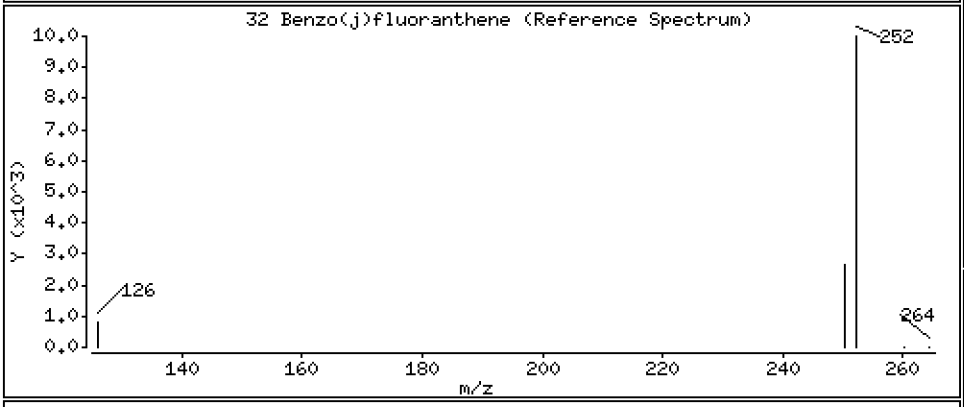
Concentration: 301 ng/mL

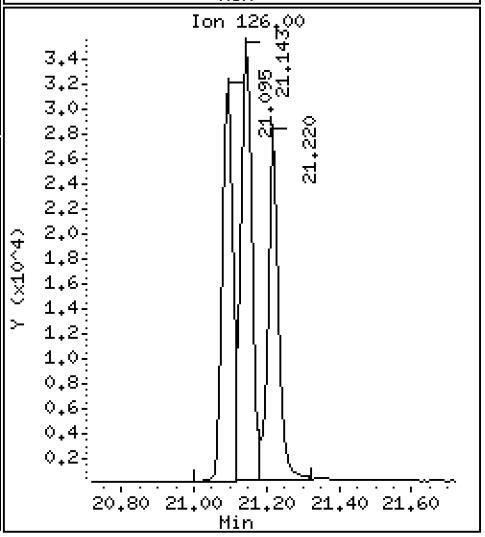


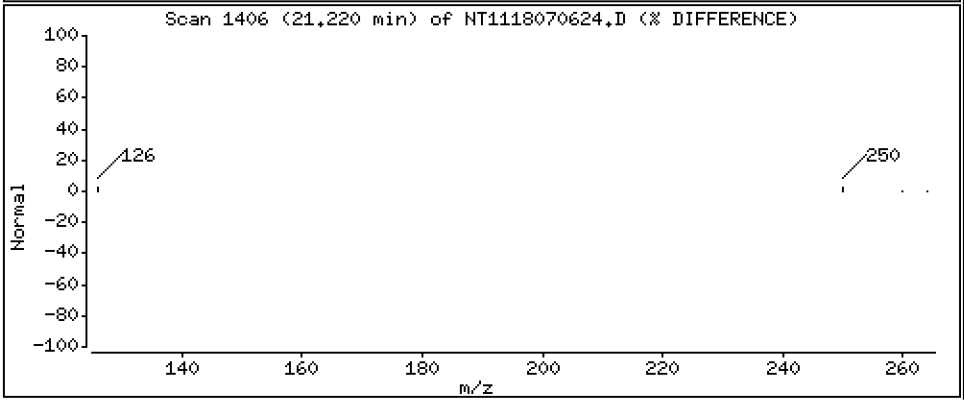












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Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

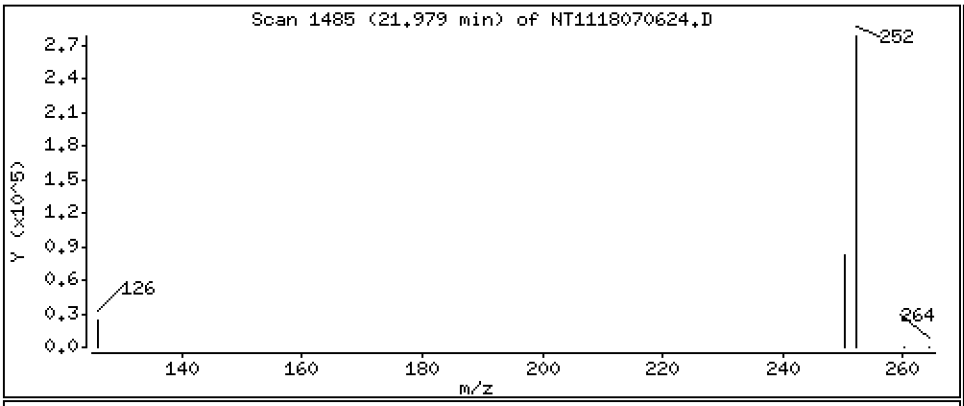
Operator: VTS

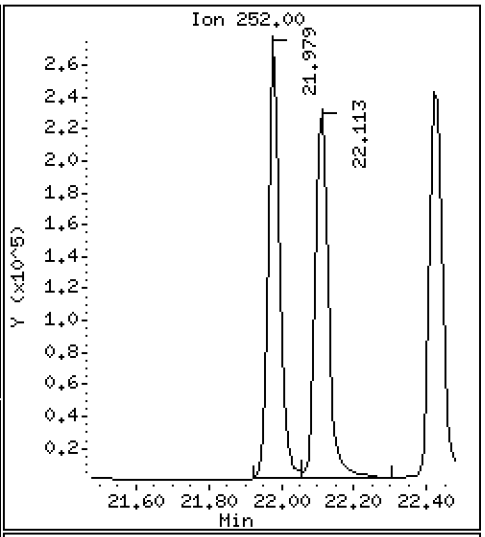
Column phase: Rxi-17Sil MS

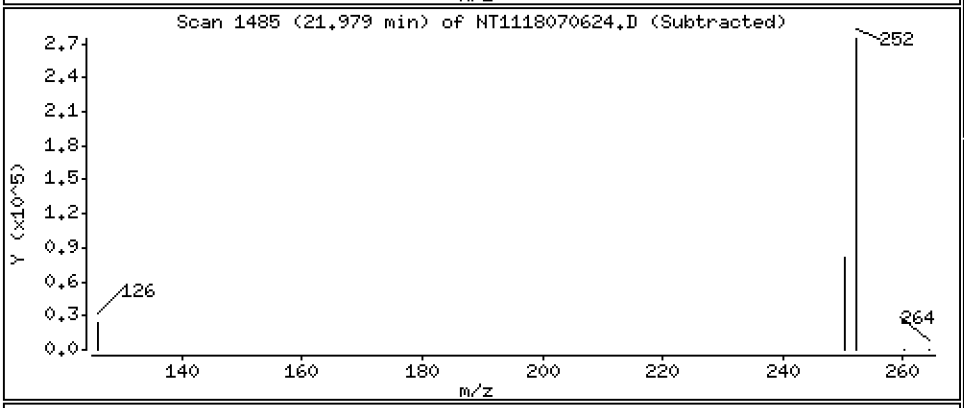
Column diameter: 0.25

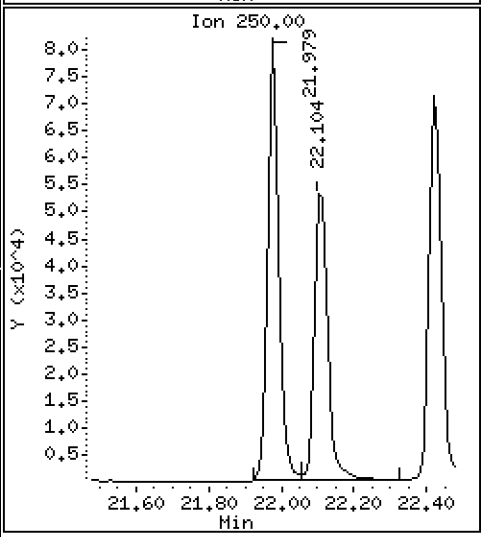
34 Benzo(e)pyrene

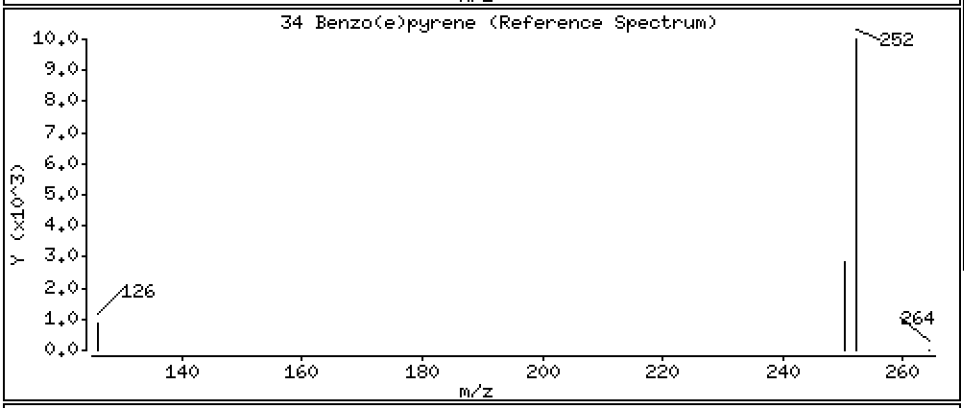
Concentration: 270 ng/mL

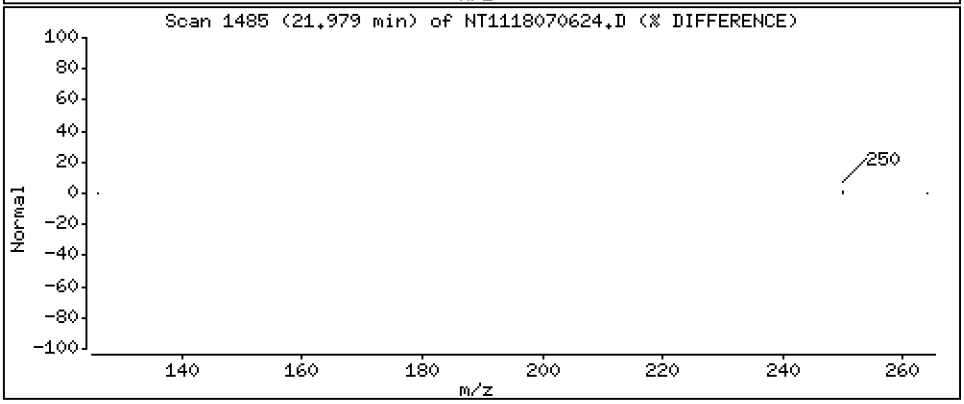












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Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

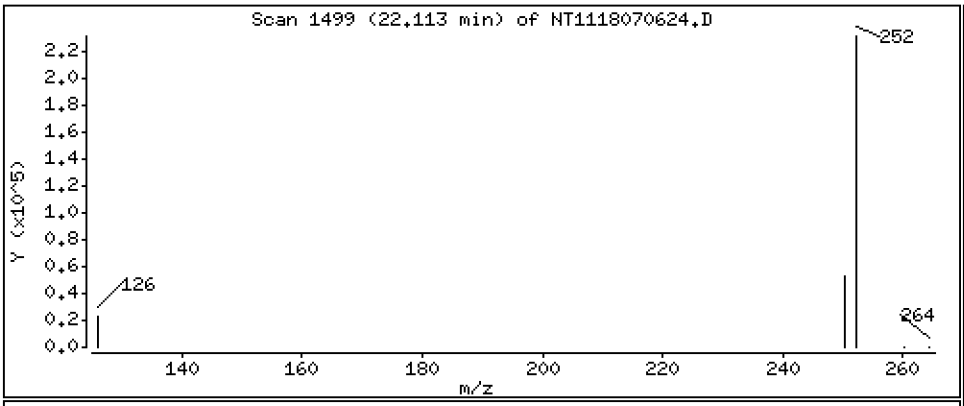
Operator: VTS

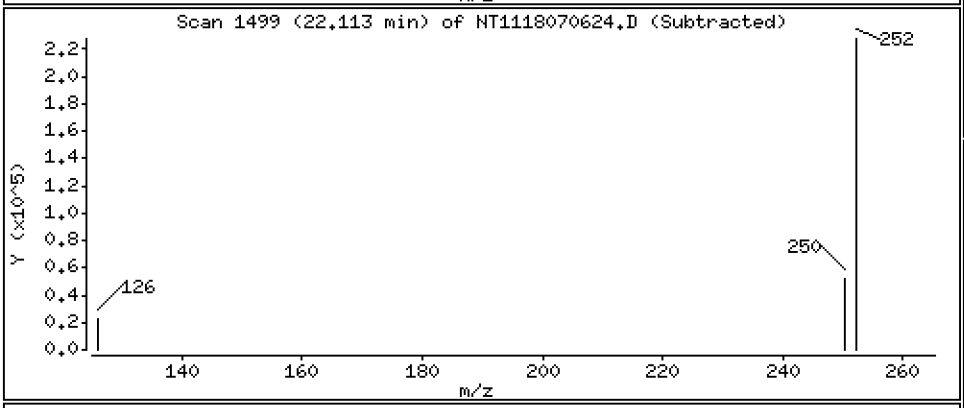
Column phase: Rxi-17Sil MS

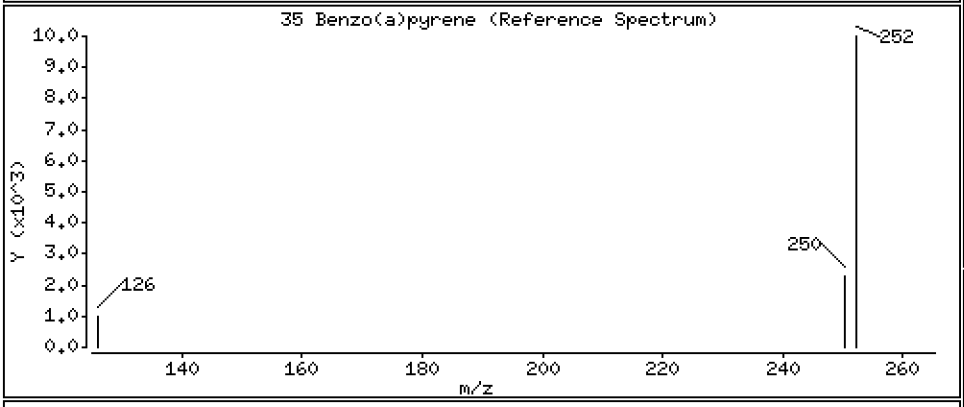
Column diameter: 0.25

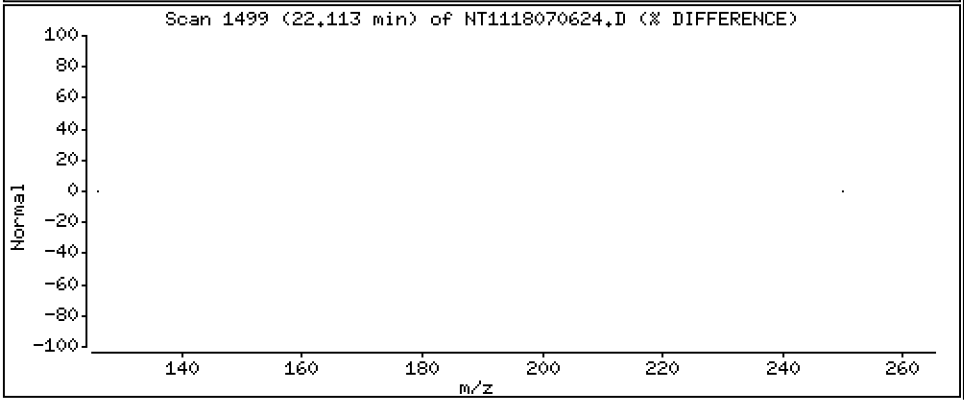
35 Benzo(a)pyrene

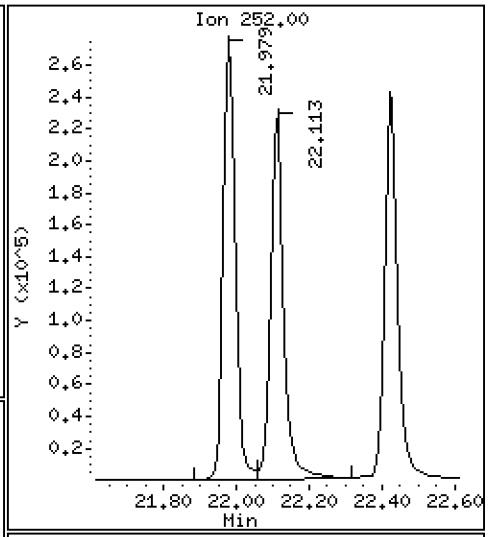
Concentration: 277 ng/mL

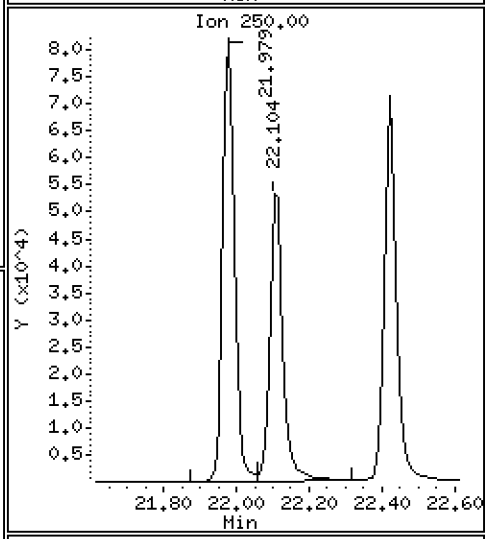


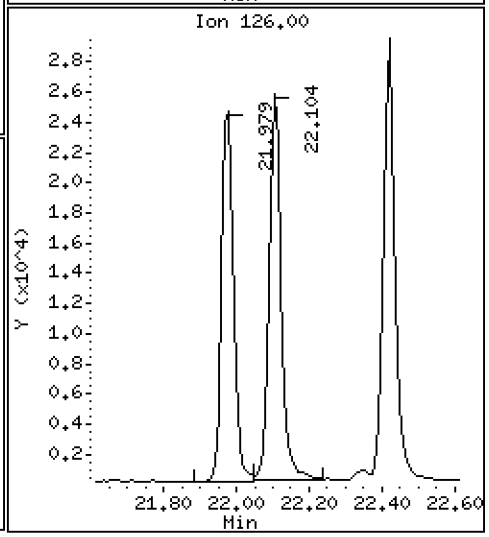












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Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

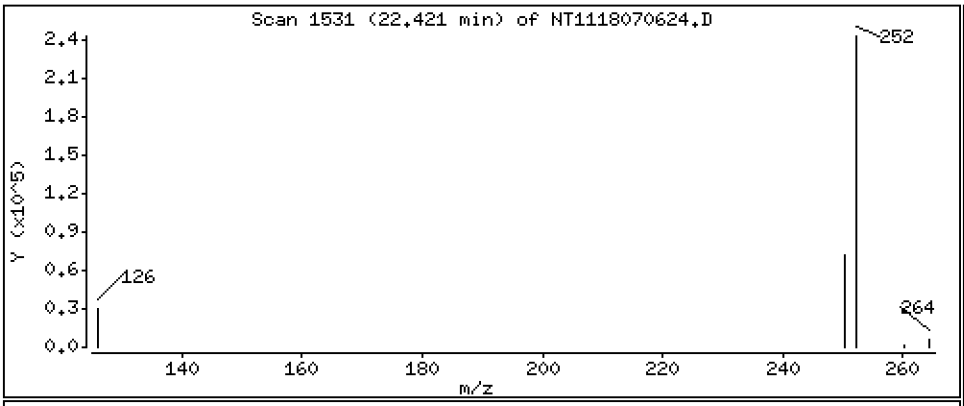
Operator: VTS

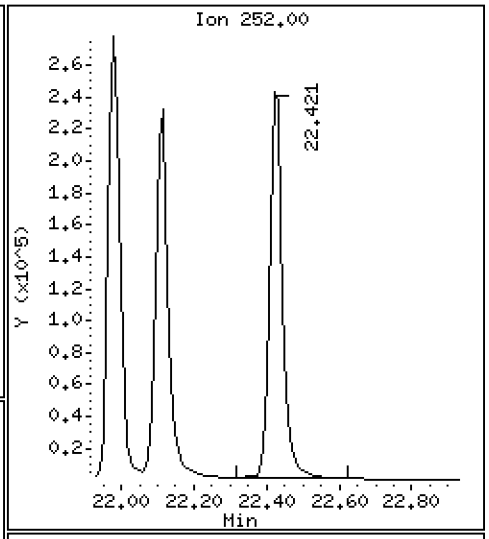
Column phase: Rxi-17Sil MS

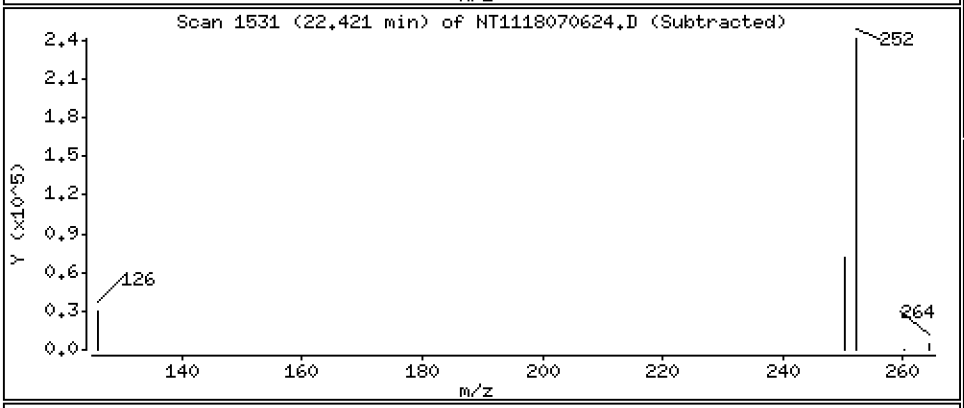
Column diameter: 0.25

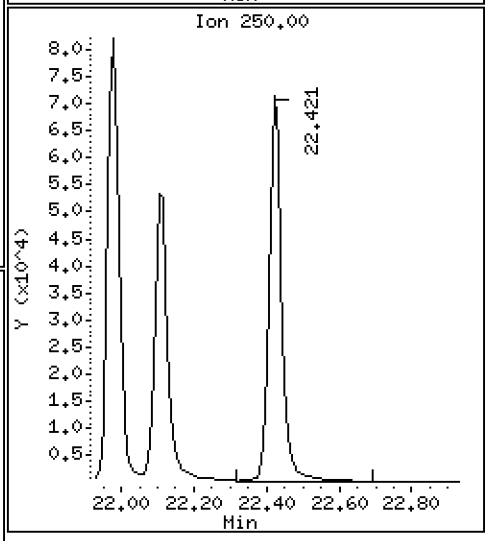
37 Perylene

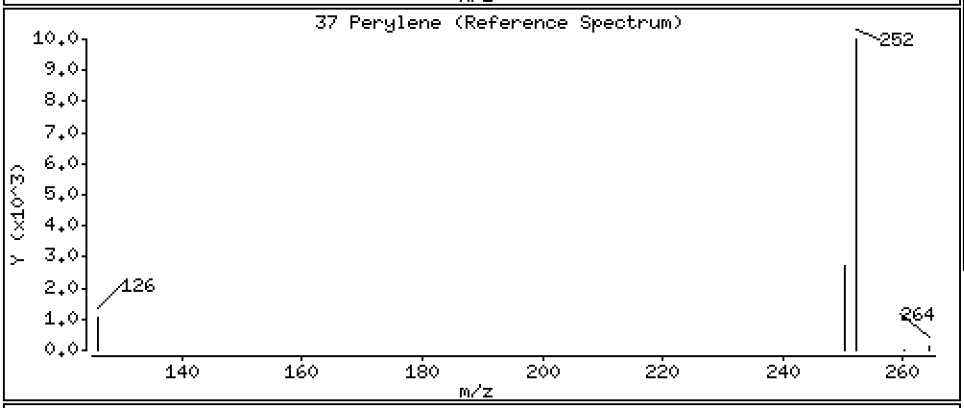
Concentration: 279 ng/mL

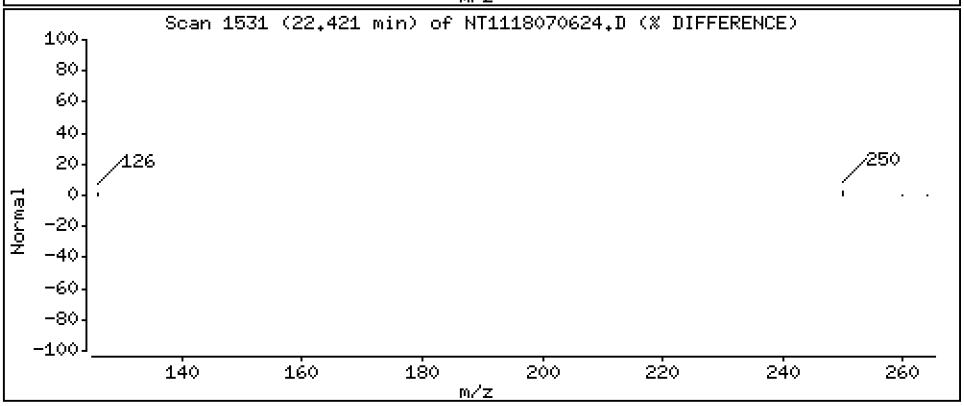












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Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

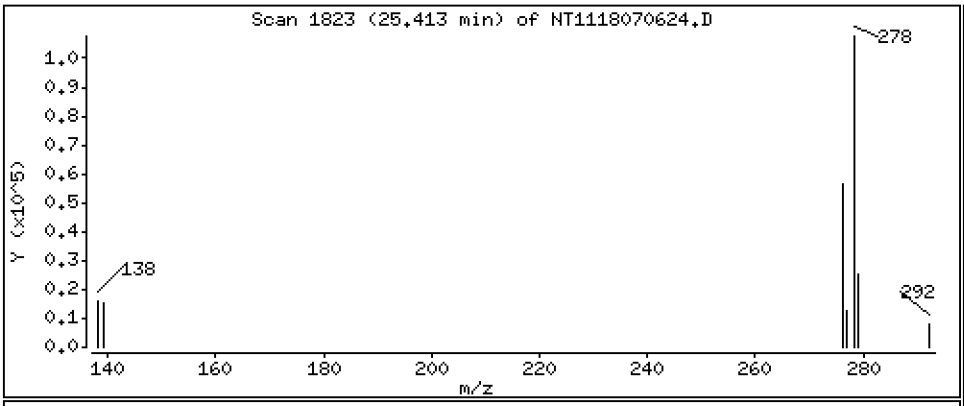
Operator: VTS

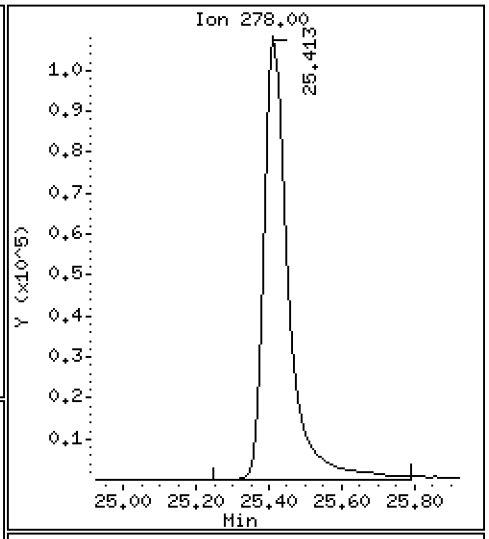
Column phase: Rxi-17Sil MS

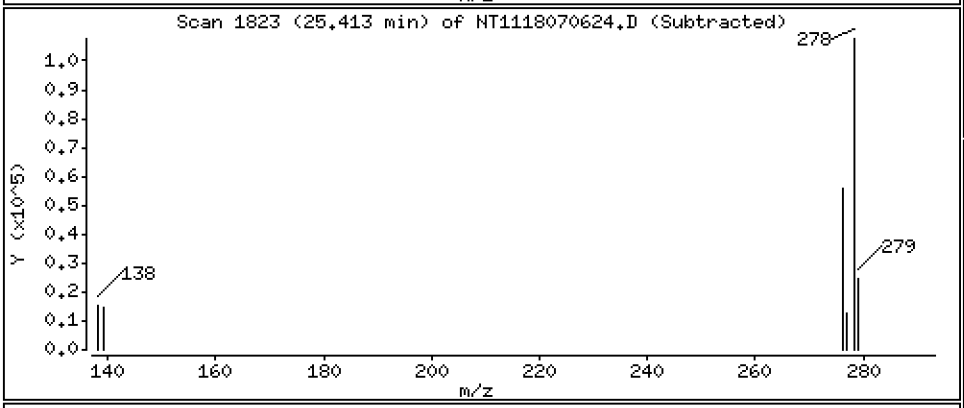
Column diameter: 0.25

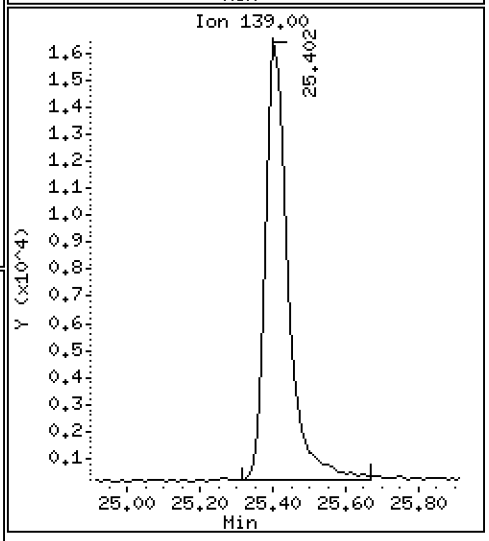
39 Dibenzo(a,h)anthracene

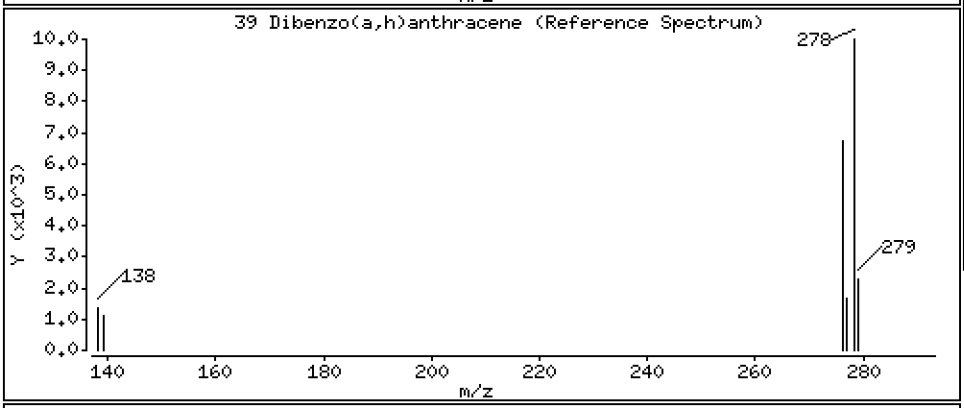
Concentration: 278 ng/mL

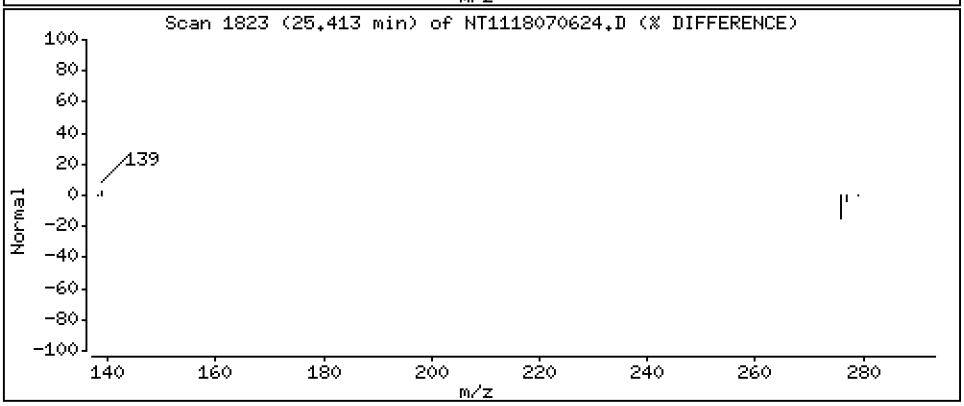












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070624.D

Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

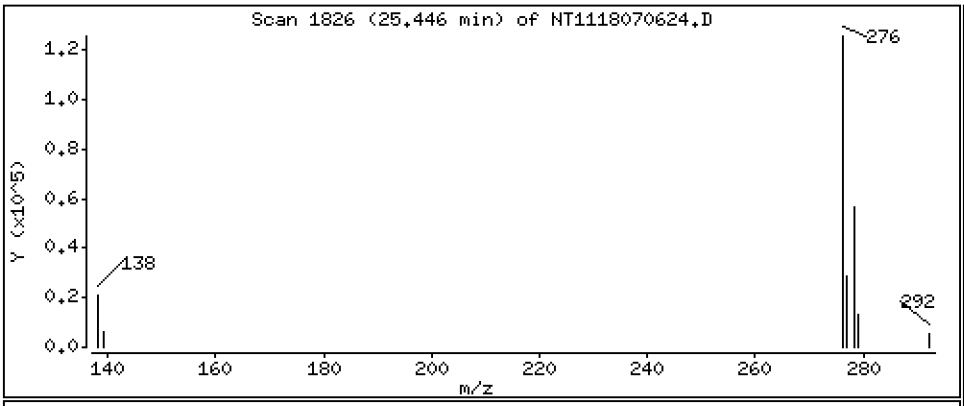
Operator: VTS

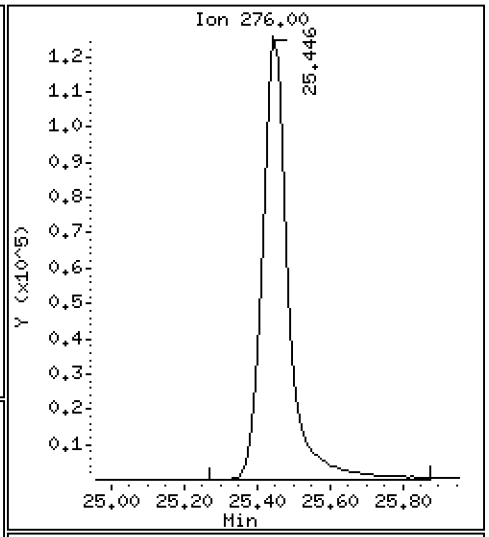
Column phase: Rxi-17Sil MS

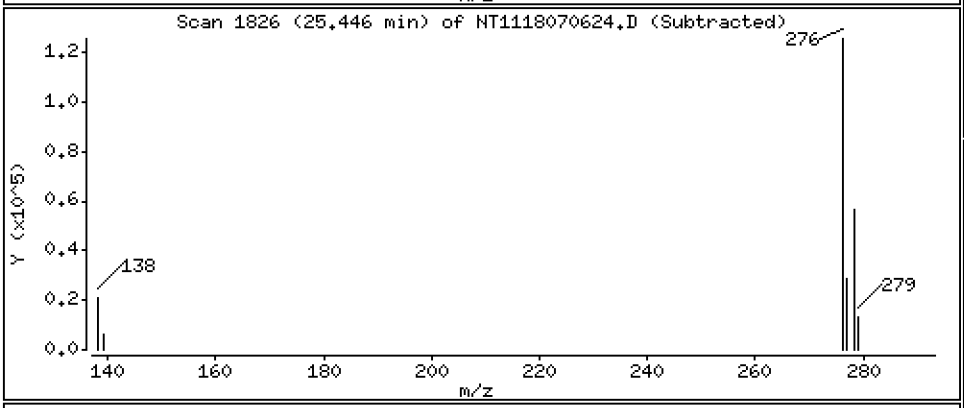
Column diameter: 0.25

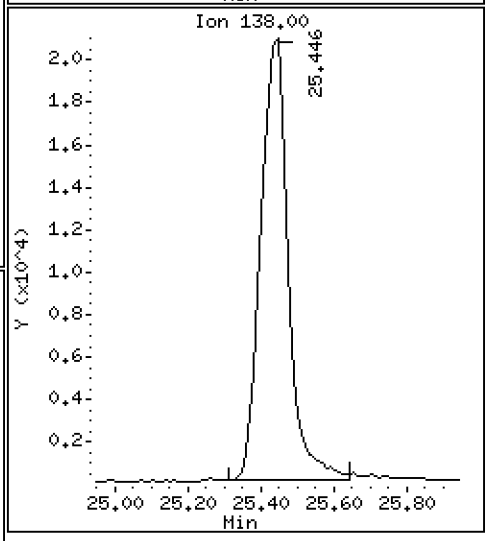
40 Indeno(1,2,3-cd)pyrene

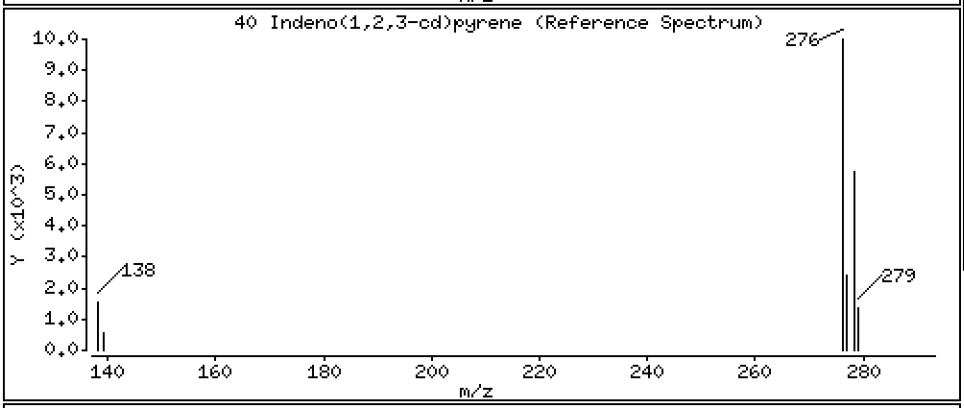
Concentration: 284 ng/mL

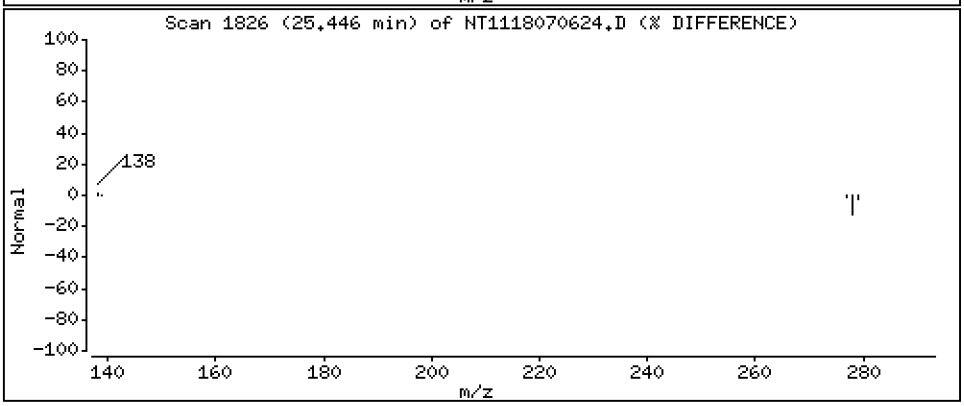












Data File: \\target\share\chem3\nt11.i\20180706.b\NT1118070624.D

Date : 07-JUL-2018 02:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0067-CCV1

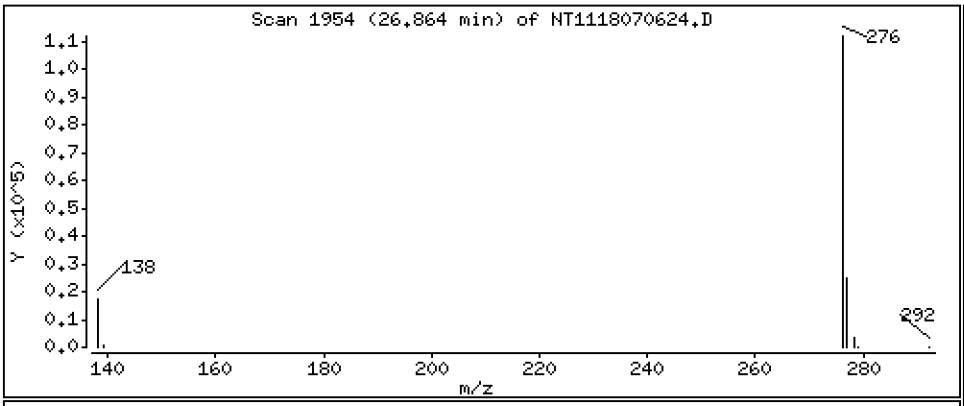
Operator: VTS

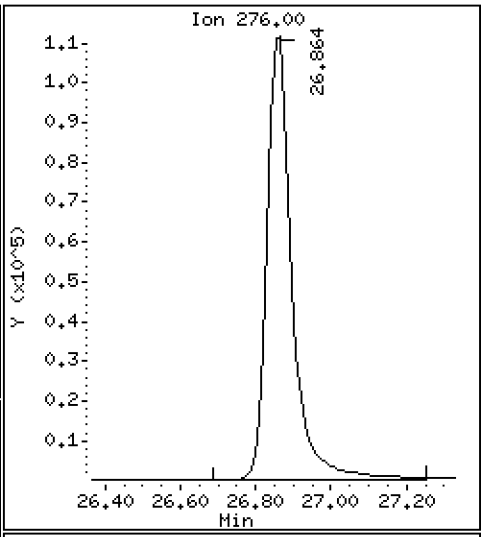
Column phase: Rxi-17Sil MS

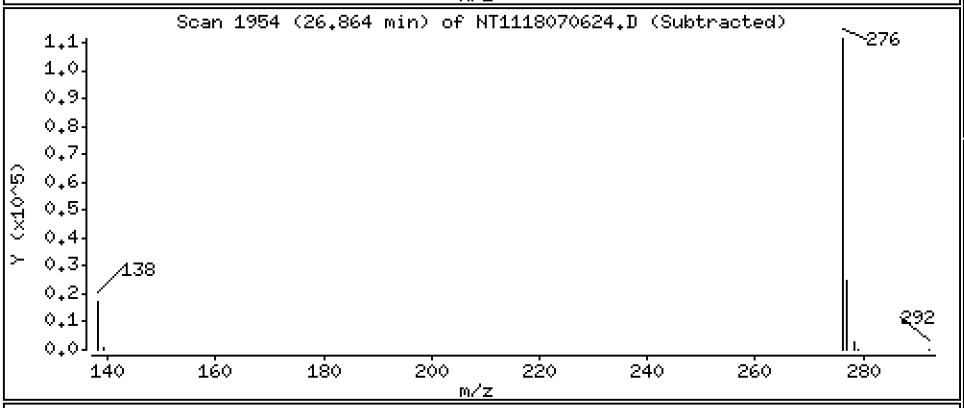
Column diameter: 0.25

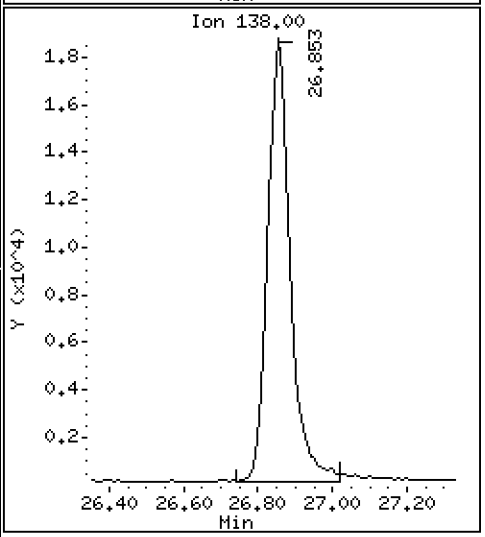
41 Benzo(g,h,i)perylene

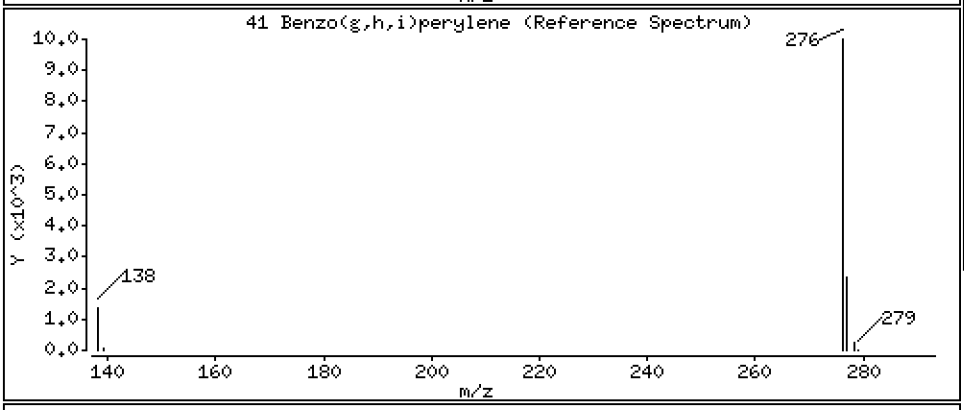
Concentration: 278 ng/mL

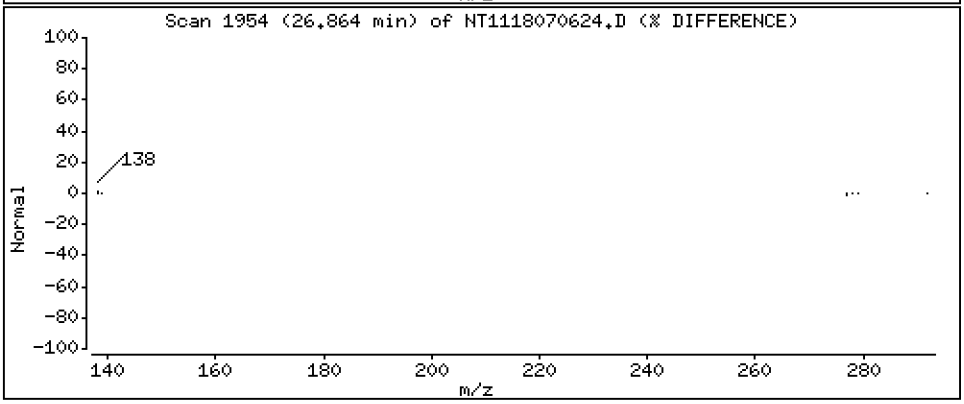












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180706.b\NT1118070624.D
Lab Smp Id: SGG0067-CCV1
Inj Date : 07-JUL-2018 02:14 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SGG0067-CCV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Meth Date : 06-Jul-2018 13:13 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	471505	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	775361	250.956	251
	3 Benzo(b)thiophene	134	8.897	8.897	(1.034)	668007	270.288	270
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	735972	273.572	274
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	770695	268.334	268
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	760792	266.342	266
	7 2-Chloronaphthalene	162	10.558	10.558	(0.907)	809388	311.859	312
	8 Biphenyl	154	10.526	10.527	(0.904)	974248	313.823	314
	9 2,6-Dimethylnaphthalene	156	10.579	10.579	(0.909)	766121	312.259	312
	10 Acenaphthylene	152	11.490	11.490	(0.987)	868289	292.498	292
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	249670	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	579169	285.252	285
	13 Dibenzofuran	168	11.907	11.908	(1.023)	791534	284.570	285
	14 2,3,5-Trimethylnaphthalene	170	11.996	11.996	(1.030)	506812	284.716	285
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.539	12.540	(1.077)	614756	274.073	274
	17 Dibenzothiophene	184	14.172	14.172	(0.988)	718286	281.491	281
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	409766	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	933808	290.563	291
	21 Anthracene	178	14.435	14.435	(1.007)	831323	276.699	277
	22 Carbazole	167	15.112	15.113	(1.054)	972598	277.878	278
	23 1-Methylphenanthrene	192	15.384	15.384	(1.073)	941312	309.994	310
$	24 Fluoranthene-d10	212	16.448	16.449	(1.147)	709936	285.426	285
	25 Fluoranthene	202	16.487	16.487	(1.150)	892036	298.890	299
	26 Pyrene	202	16.986	16.987	(0.890)	902120	280.759	281
	27 Benzo(a)anthracene	228	19.004	19.004	(0.995)	729012	290.907	291
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	326837	200.000	
	29 Chrysene	228	19.145	19.145	(1.003)	760692	305.591	306
	30 Benzo(b)fluoranthene	252	21.094	21.104	(0.944)	616189	261.521	262
	31 Benzo(k)fluoranthene	252	21.152	21.152	(0.946)	676721	276.975	277
	32 Benzo(j)fluoranthene	252	21.219	21.229	(0.949)	669448	301.044	301
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	21.978	21.978	(0.983)	614498	270.396	270
	35 Benzo(a)pyrene	252	22.113	22.113	(0.989)	573870	277.240	277

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
*	36 Perylene-d12	264	22.353	22.353	(1.000)	333113	200.000	
	37 Perylene	252	22.420	22.430	(1.003)	606860	279.348	279
$	38 Dibenzo(a,h)anthracene-d14	292	25.268	25.279	(1.130)	432123	271.082	271
	39 Dibenzo(a,h)anthracene	278	25.412	25.423	(1.137)	500618	277.962	278
	40 Indeno(1,2,3-cd)pyrene	276	25.445	25.457	(1.138)	611232	283.883	284
	41 Benzo(g,h,i)perylene	276	26.863	26.863	(1.202)	517303	277.768	278

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118070624.D
Lab Smp Id: SGG0067-CCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180706.b\LOWSIM.m
Misc Info:

Calibration Date: 06-JUL-2018
Calibration Time: 12:50
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	471505	9.32
11 Acenaphthene-d10	260137	130069	520274	249670	-4.02
18 Phenanthrene-d10	427391	213696	854782	409766	-4.12
28 Chrysene-d12	304596	152298	609192	326837	7.30
36 Perylene-d12	263091	131546	526182	333113	26.62

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118070624.D

Lab ID: SGG0067-CCV1
nt11.i, 20180706.b\LOWSIM.m,   07-JUL-2018 02:14

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180706.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

CONTINUING CALIBRATION CHECK
EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	NT11	Calibration:	BE00021
Lab File ID:	NT1118070707.D	Calibration Date:	05/08/18 08:54
Sequence:	SGG0076	Injection Date:	07/07/18
Lab Sample ID:	SGG0076-CCV1	Injection Time:	12:14
Sequence Name:	CCV 250		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Naphthalene	A	250.00	250	1.3506040	1.3098070		-0.1	50
2-Methylnaphthalene	A	250.00	268	1.2182890	1.3071900		7.3	50
Acenaphthylene	A	250.00	294	2.3779620	2.7973100		17.6	50
Acenaphthene	A	250.00	286	1.6264500	1.8604750		14.4	50
Fluorene	A	250.00	278	1.7967990	1.9950530		11.0	50
Phenanthrene	A	250.00	293	1.5685960	1.8379370		17.2	50
Anthracene	A	250.00	284	1.4664130	1.6656900		13.6	50
Fluoranthene	A	250.00	306	1.4566820	1.7837940		22.5	50
Pyrene	A	250.00	278	1.9662040	2.1850120		11.1	50
Benzo(a)anthracene	A	250.00	293	1.5334860	1.7965780		17.2	50
Chrysene	A	250.00	311	1.5232370	1.8957860		24.5	50
Benzo(b)fluoranthene	A	250.00	256	1.4146370	1.4473160		2.3	50
Benzo(k)fluoranthene	A	250.00	279	1.4669230	1.6395260		11.8	50
Benzo(j)fluoranthene	A	250.00	302	1.3351350	1.6104770		20.6	50
Benzo(a)pyrene	A	250.00	277	1.2427860	1.3748390		10.6	50
Indeno(1,2,3-cd)pyrene	A	250.00	280	1.2927210	1.4460910		11.9	50
Dibenzo(a,h)anthracene	A	250.00	278	1.0813340	1.2023770		11.2	50
Benzo(g,h,i)perylene	A	250.00	276	1.1181550	1.2326520		10.2	50
2-Methylnaphthalene-d10	A	250.00	272	1.1411260	1.2425980		8.9	50
Dibenzo[a,h]anthracene-d14	A	250.00	267	0.9570734	1.0220850		6.8	50
Fluoranthene-d10	A	250.00	288	1.2140030	1.3997740		15.3	50

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.i\20180707.b\NT1118070707.D

Date : 07-JUL-2018 12:14

Client ID:

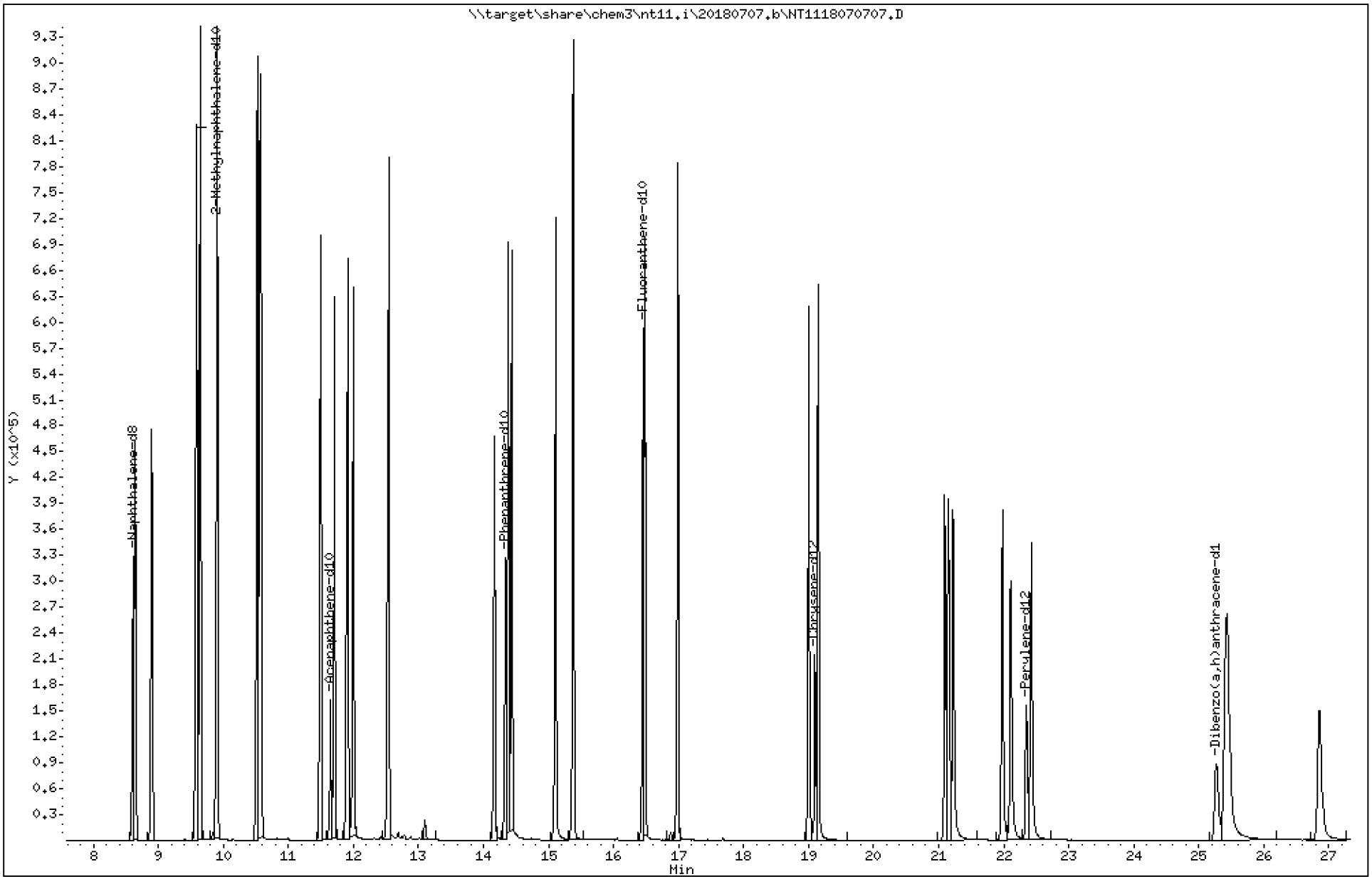
Instrument: nt11.i

Sample Info: SGG0076-CCV1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

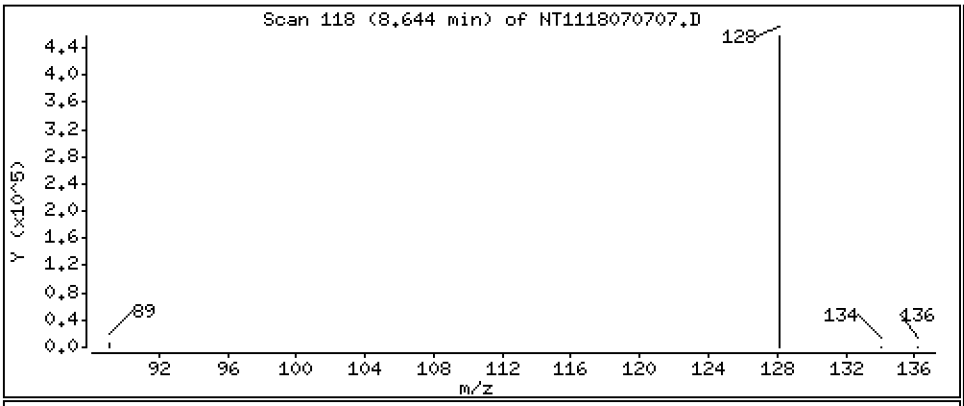
Operator: VTS

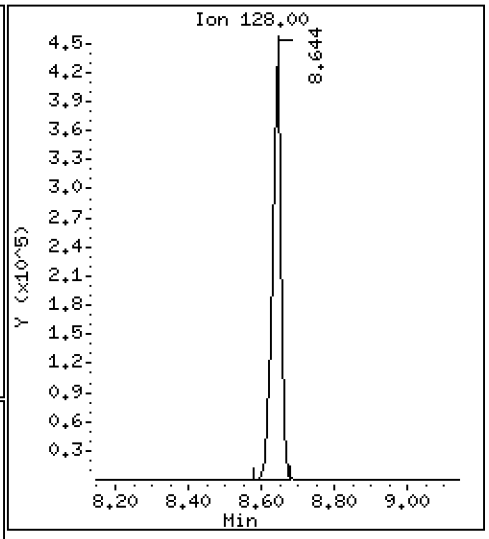
Column phase: Rxi-17Sil MS

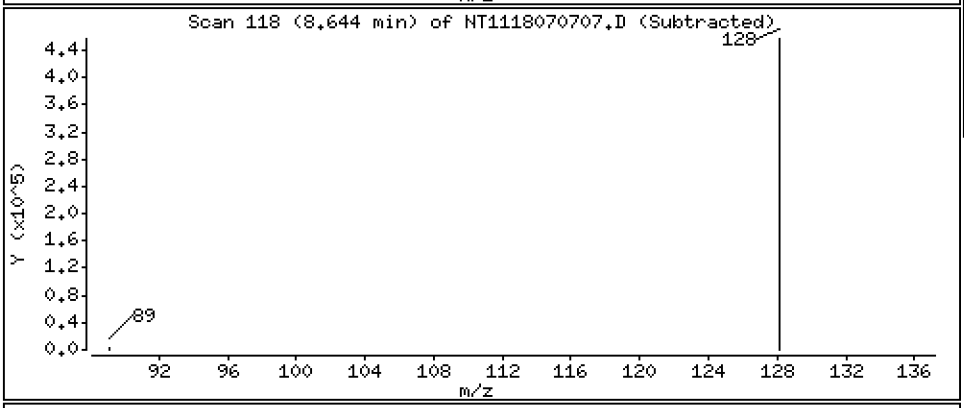
Column diameter: 0.25

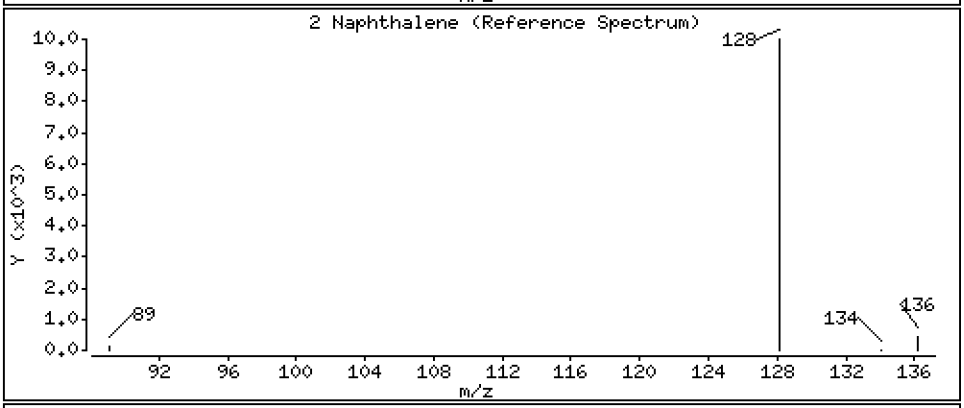
2 Naphthalene

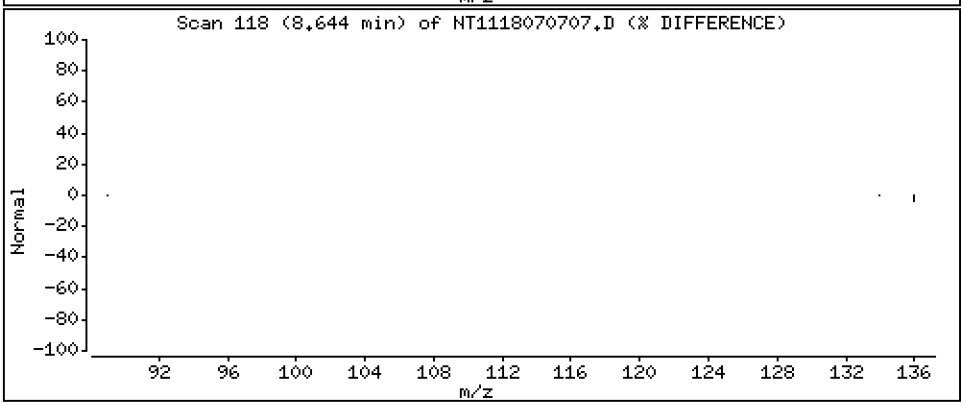
Concentration: 250 ng/mL











Data File: \\target\share\chem3\nt11.i\20180707.b\NT1118070707.D

Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

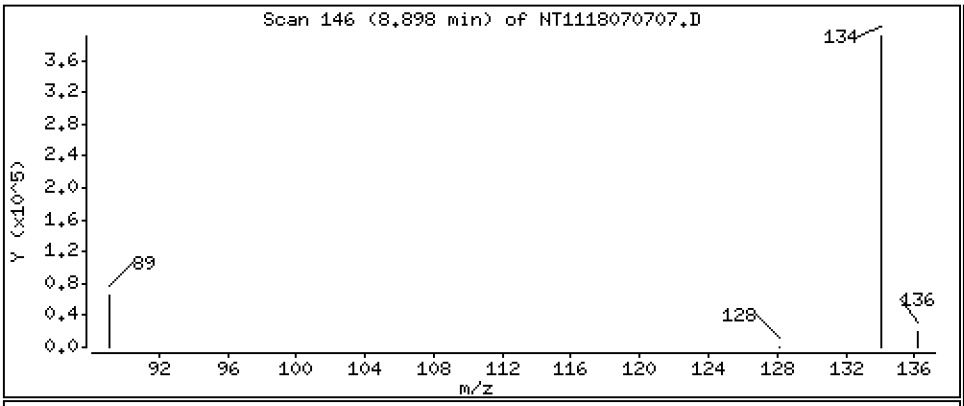
Operator: VTS

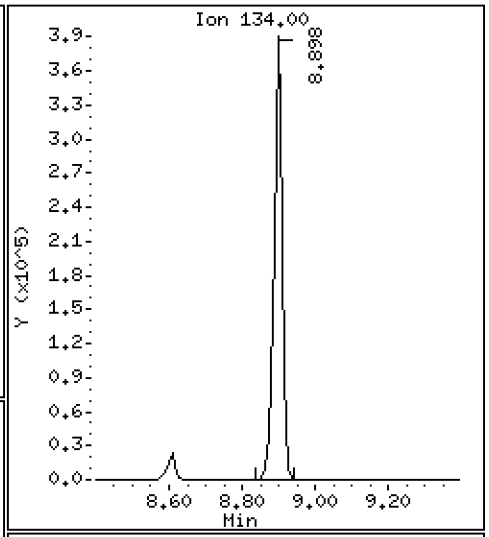
Column phase: Rxi-17Sil MS

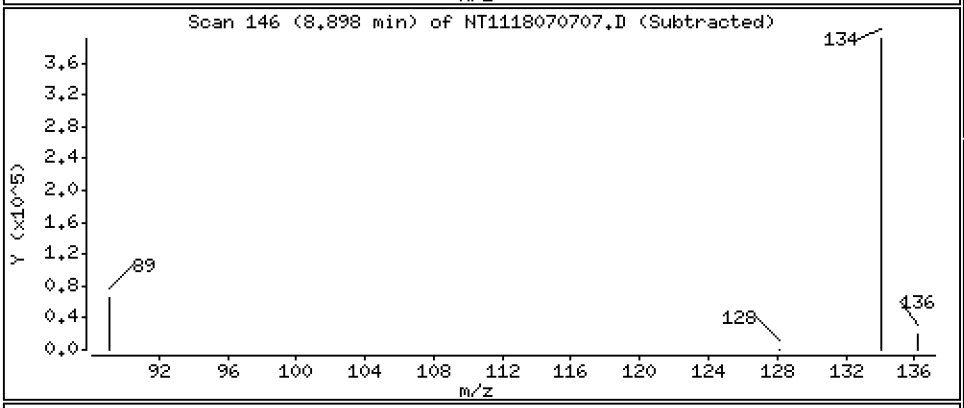
Column diameter: 0.25

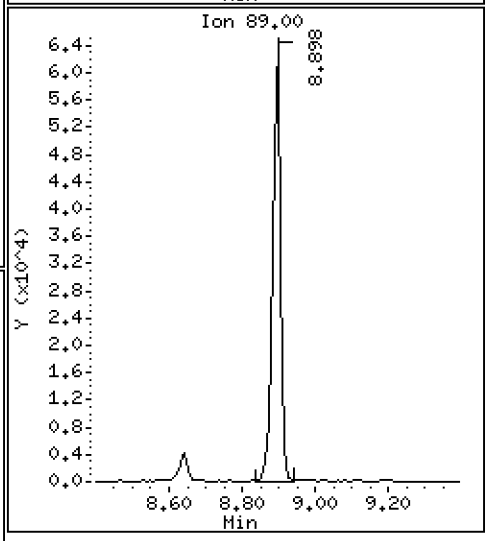
3 Benzo(b)thiophene

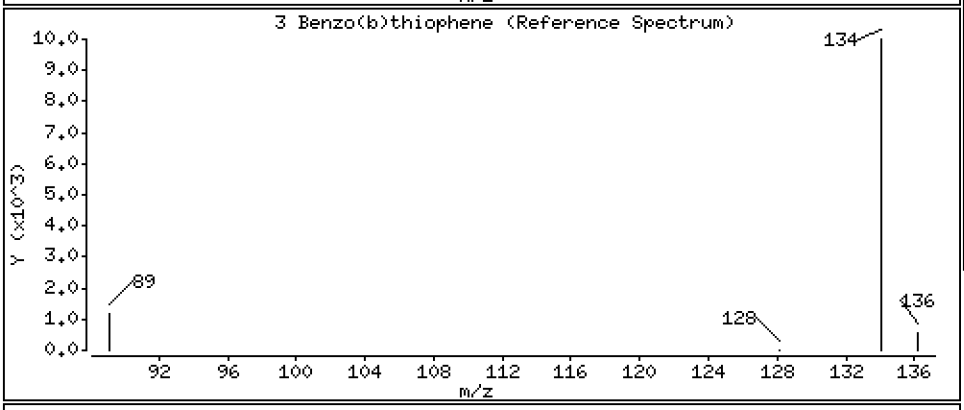
Concentration: 271 ng/mL

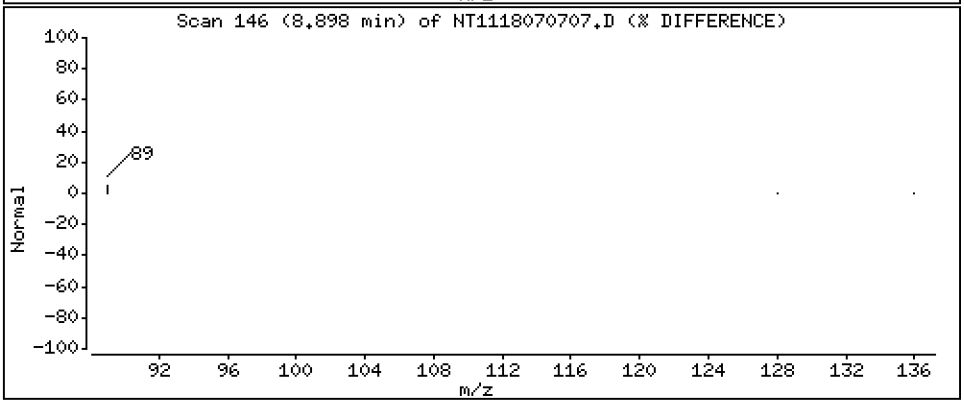












Data File: \\target\share\chem3\nt11.i\20180707.b\NT1118070707.D

Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

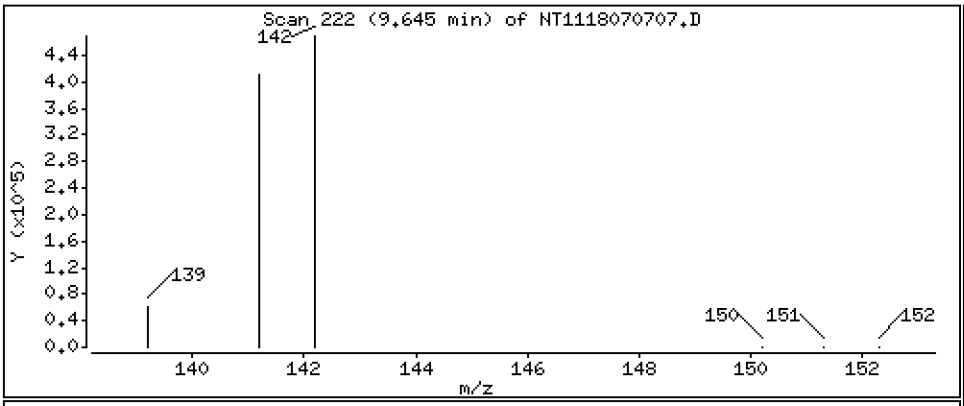
Operator: VTS

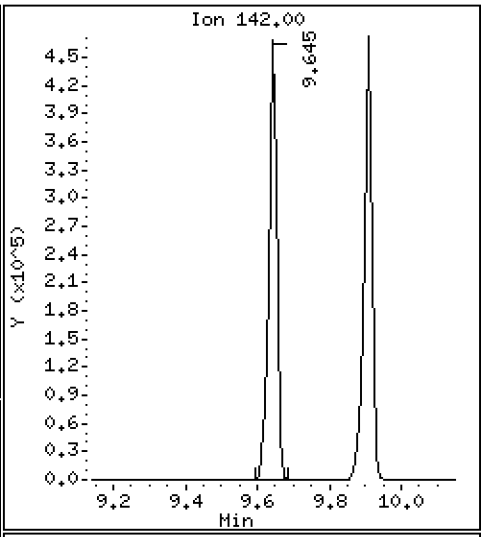
Column phase: Rxi-17Sil MS

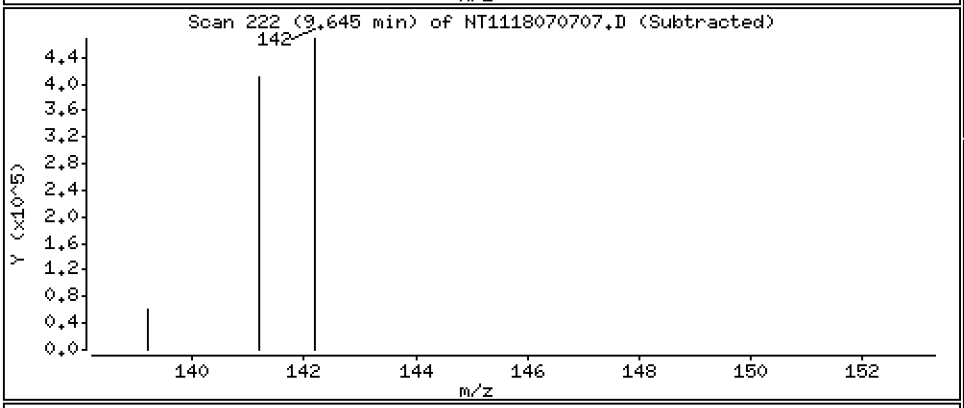
Column diameter: 0.25

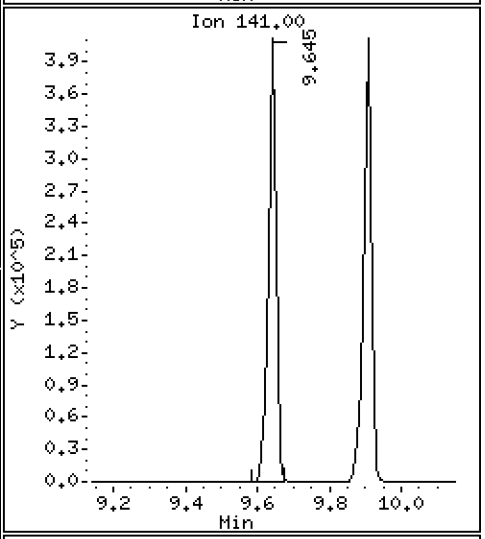
5 2-Methylnaphthalene

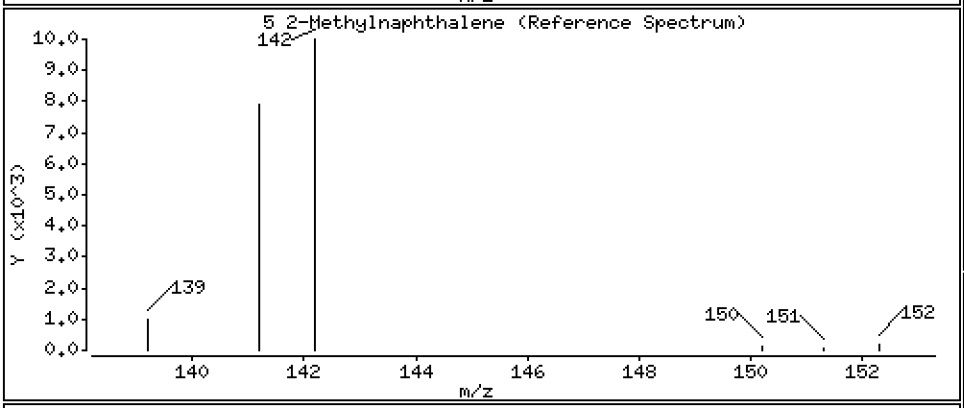
Concentration: 268 ng/mL

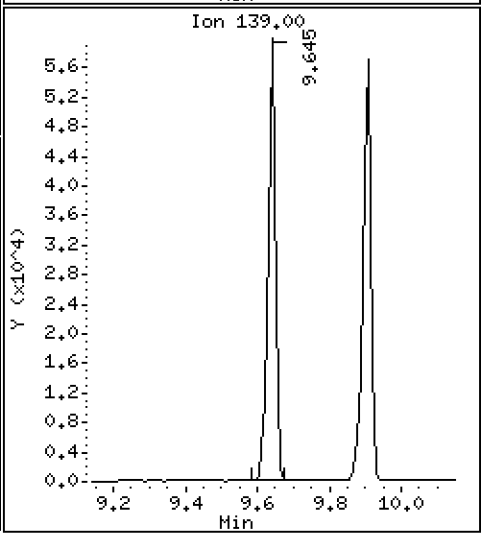


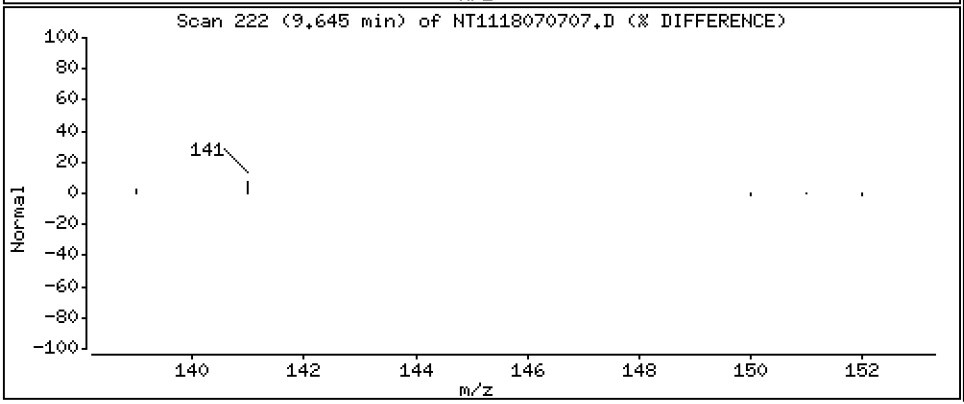












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Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

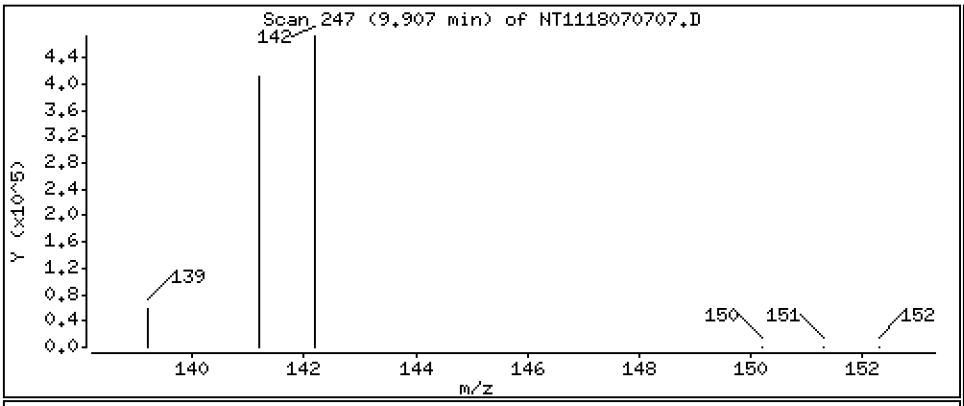
Operator: VTS

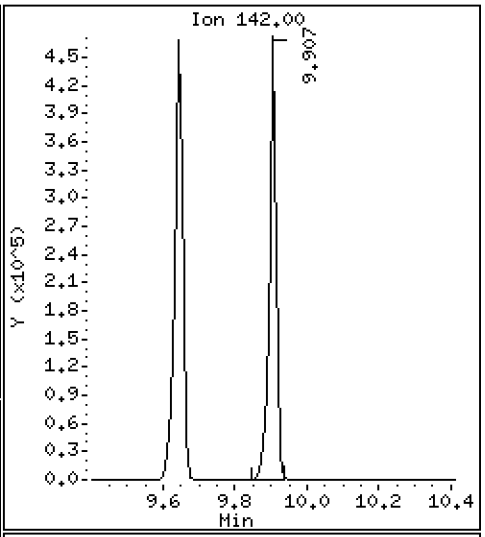
Column phase: Rxi-17Sil MS

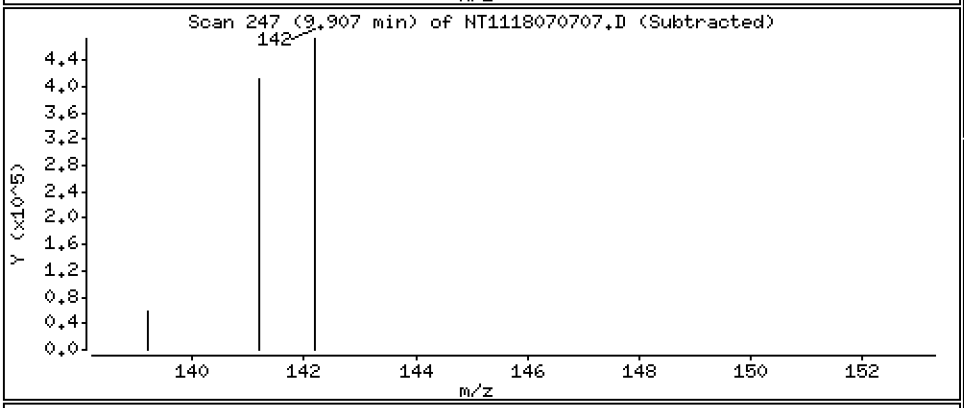
Column diameter: 0.25

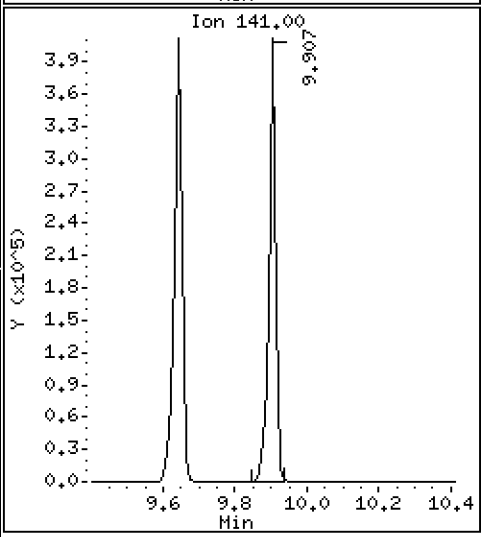
6 1-Methylnaphthalene

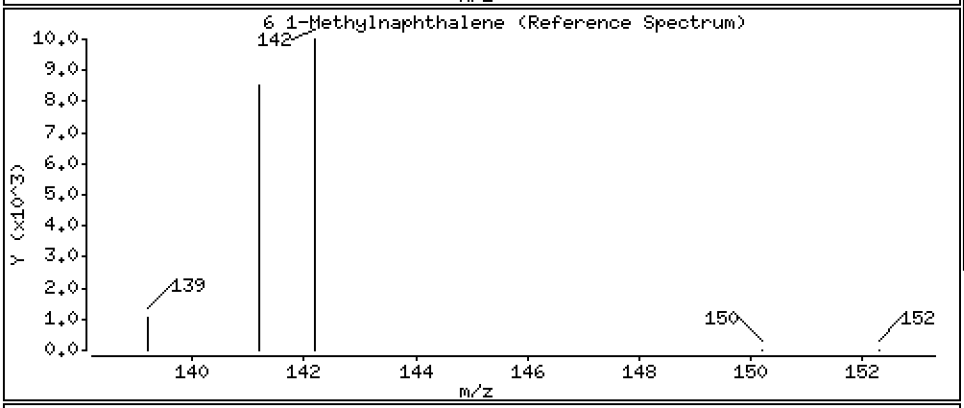
Concentration: 263 ng/mL

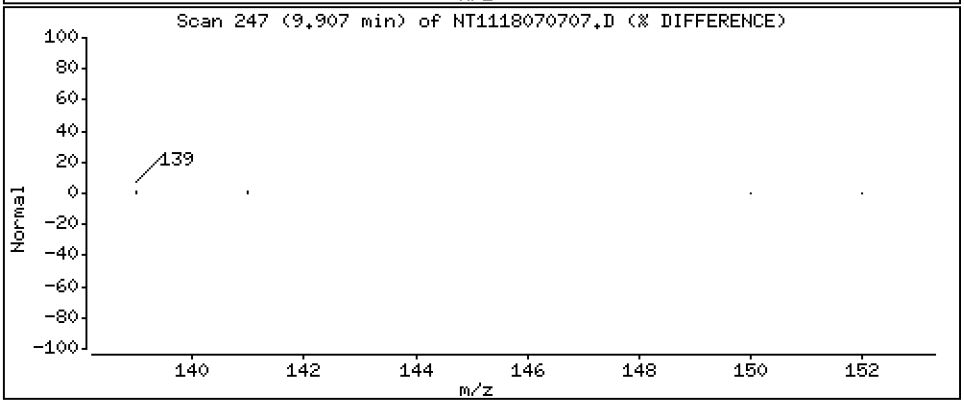












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Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

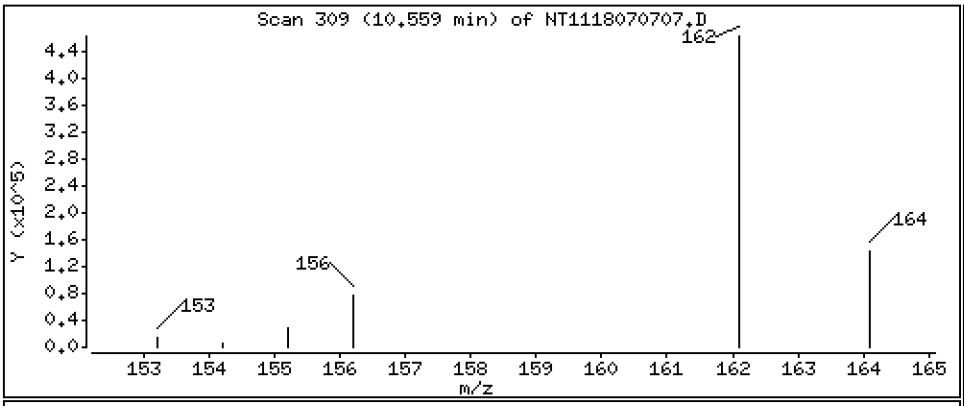
Operator: VTS

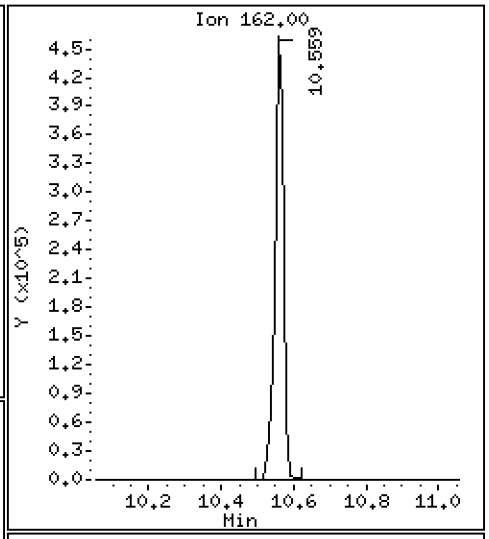
Column phase: Rxi-17Sil MS

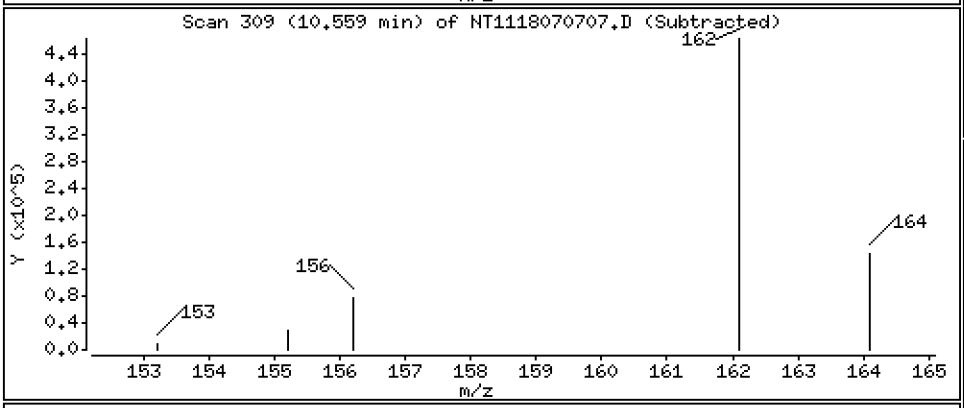
Column diameter: 0.25

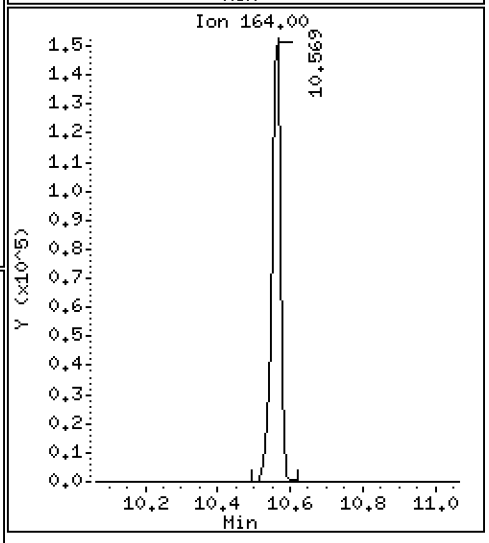
7 2-Chloronaphthalene

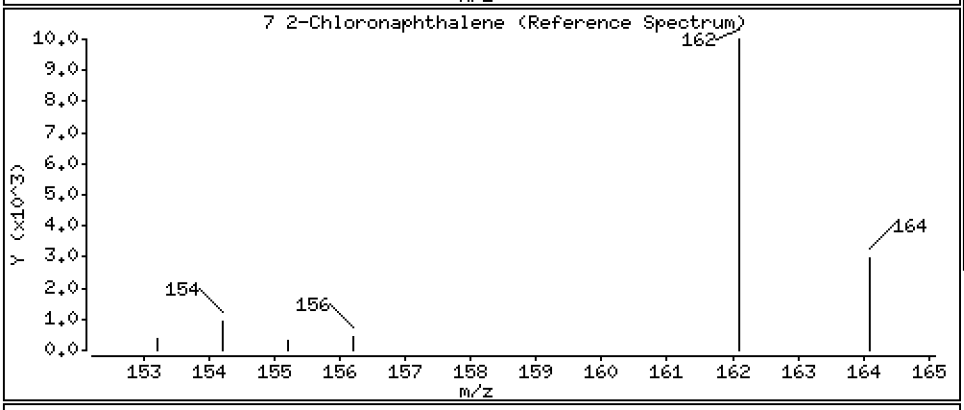
Concentration: 312 ng/mL

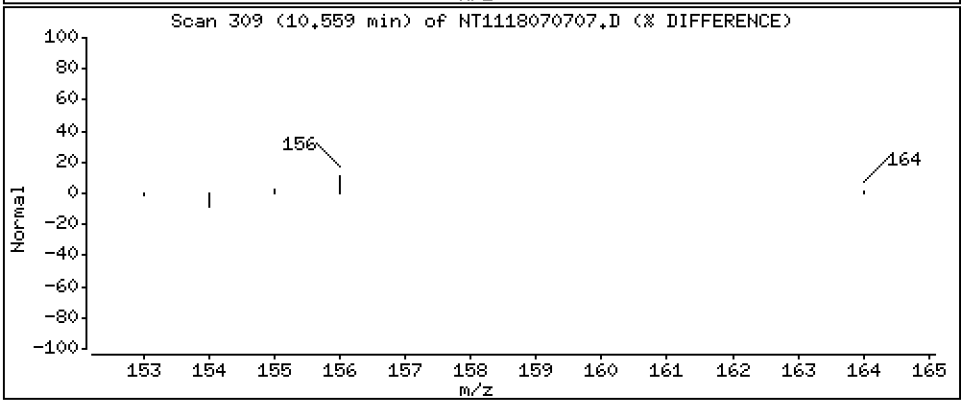












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Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

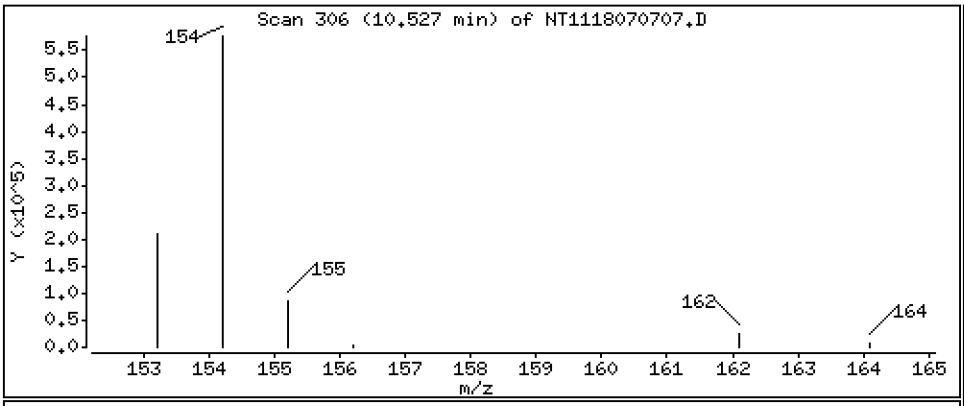
Operator: VTS

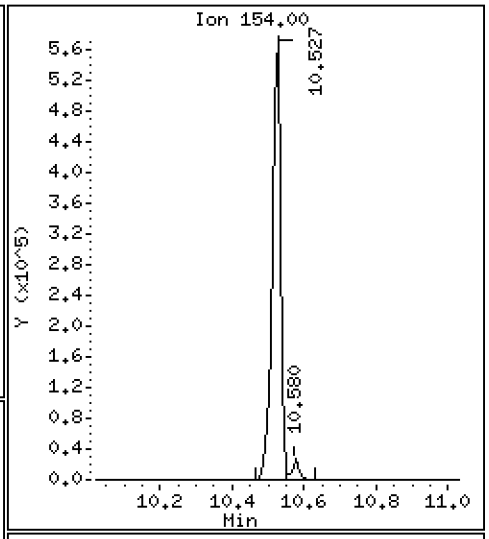
Column phase: Rxi-17Sil MS

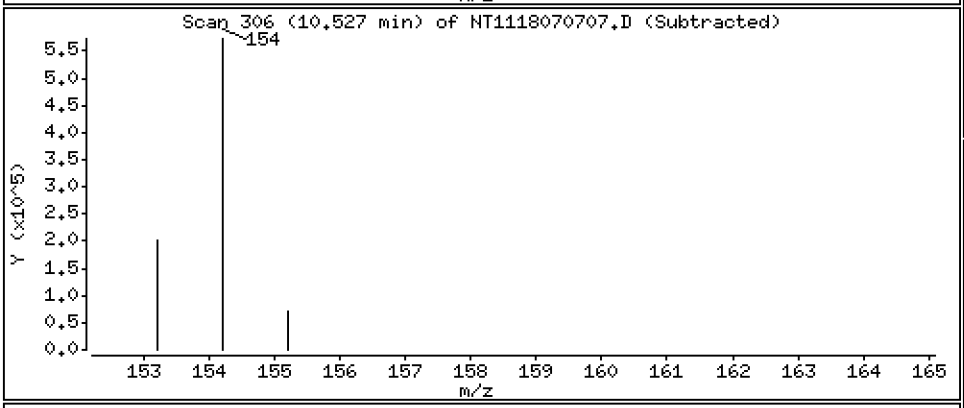
Column diameter: 0.25

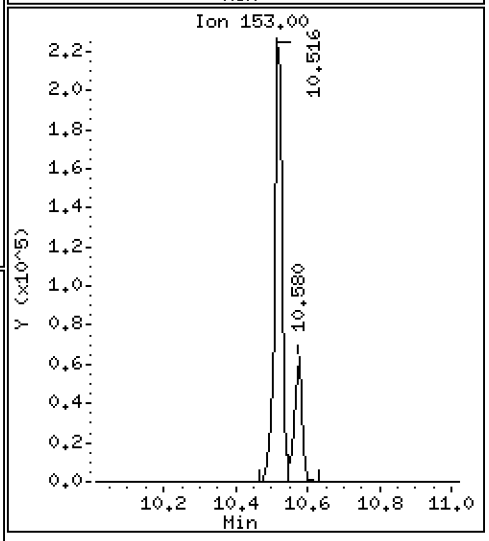
8 Biphenyl

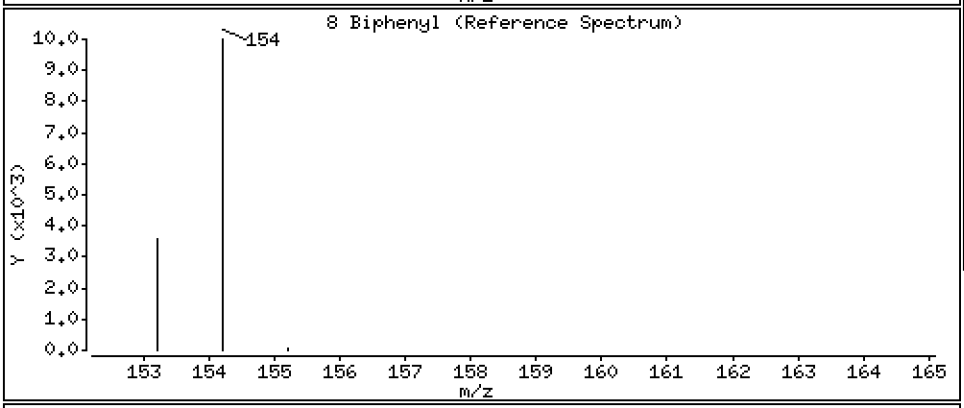
Concentration: 316 ng/mL

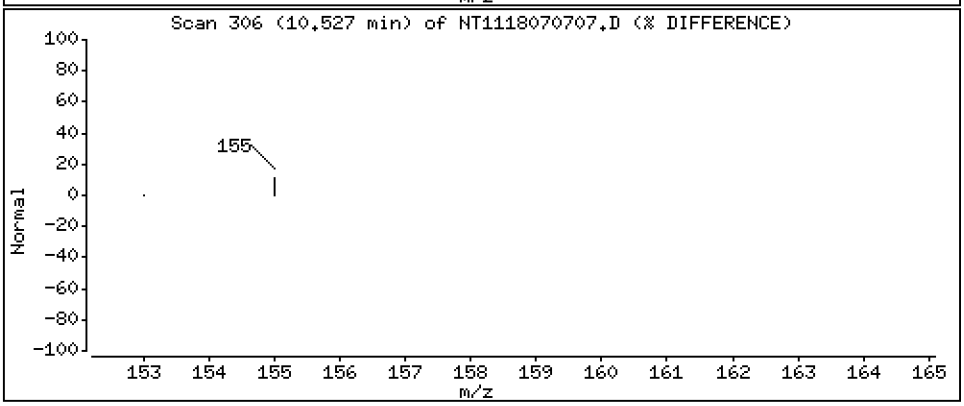












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Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

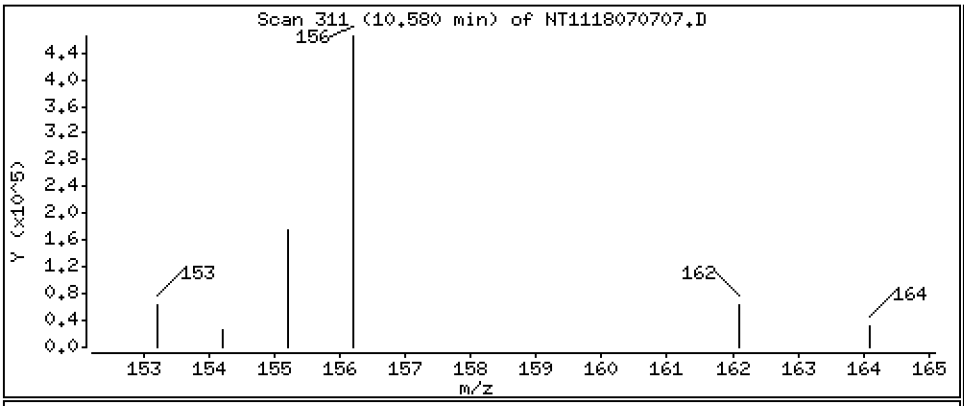
Operator: VTS

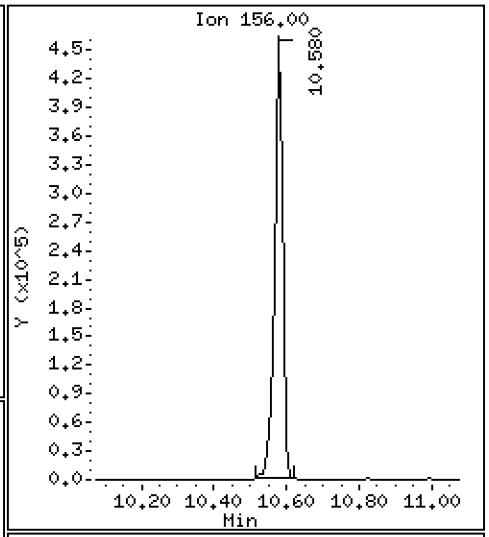
Column phase: Rxi-17Sil MS

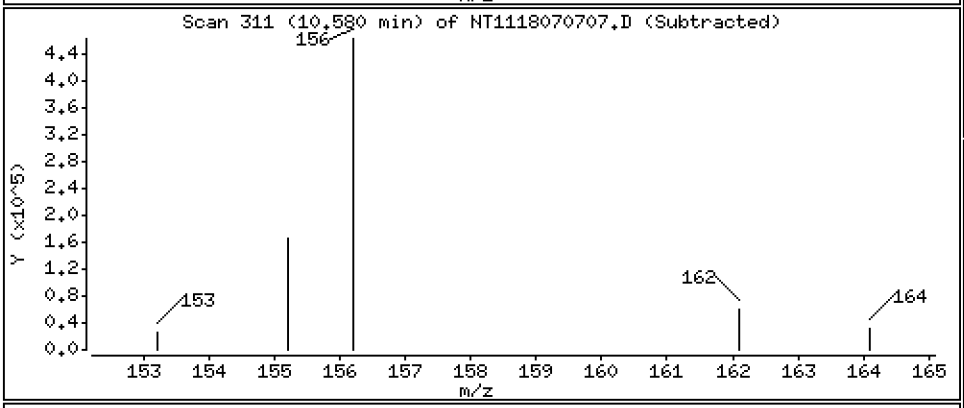
Column diameter: 0.25

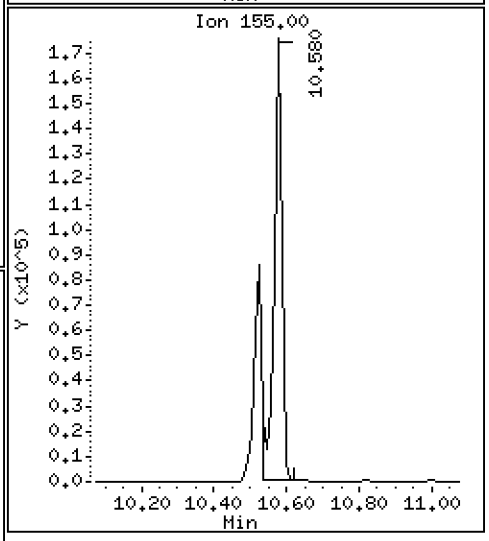
9 2,6-Dimethylnaphthalene

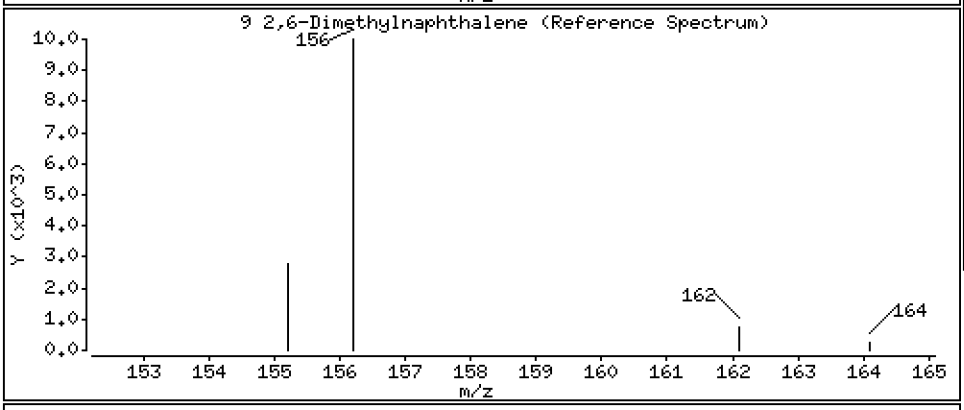
Concentration: 312 ng/mL

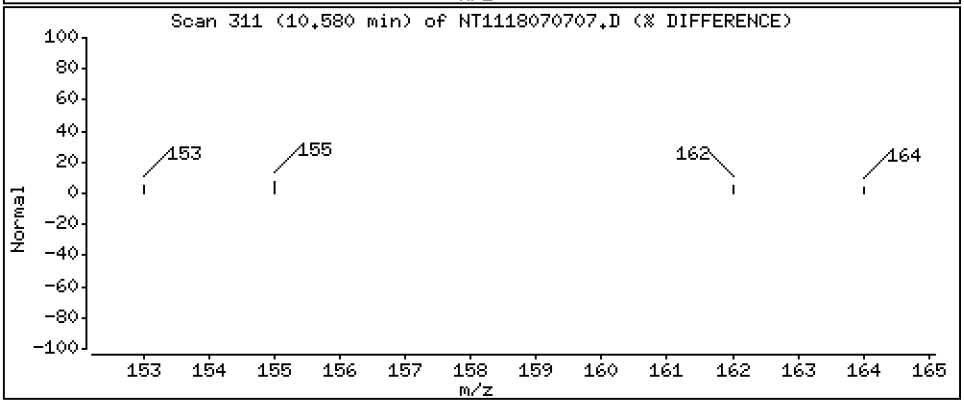












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Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

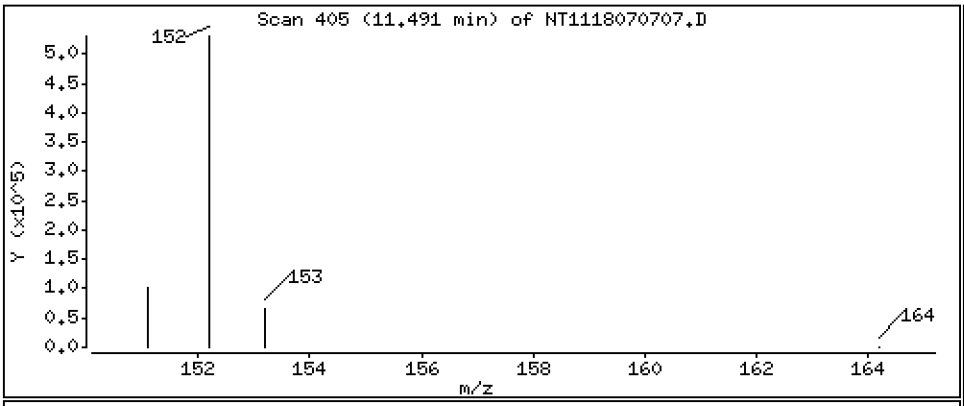
Operator: VTS

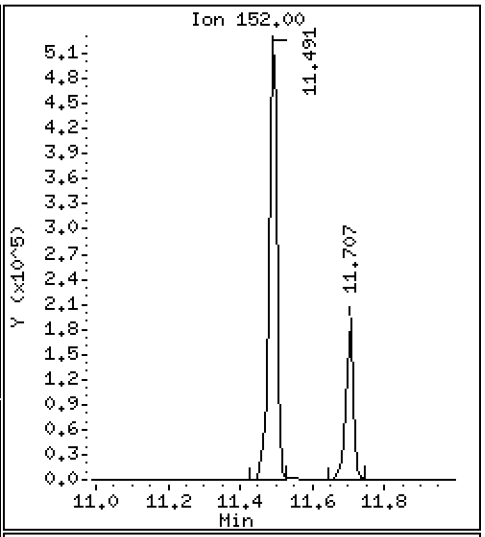
Column phase: Rxi-17Sil MS

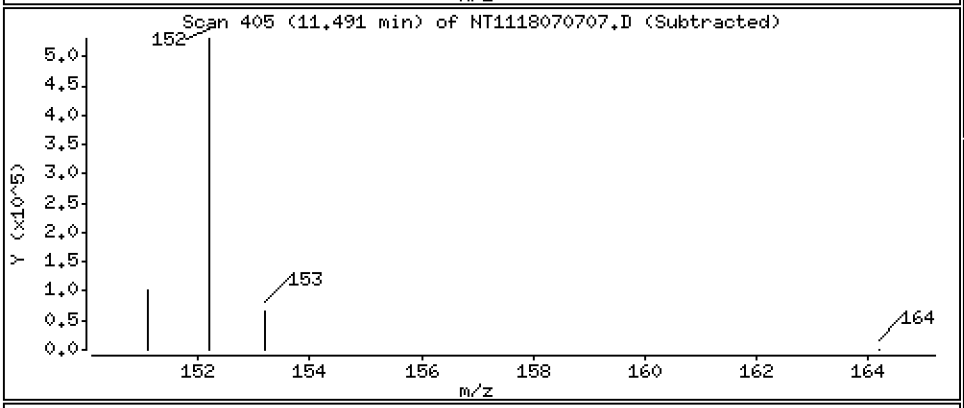
Column diameter: 0.25

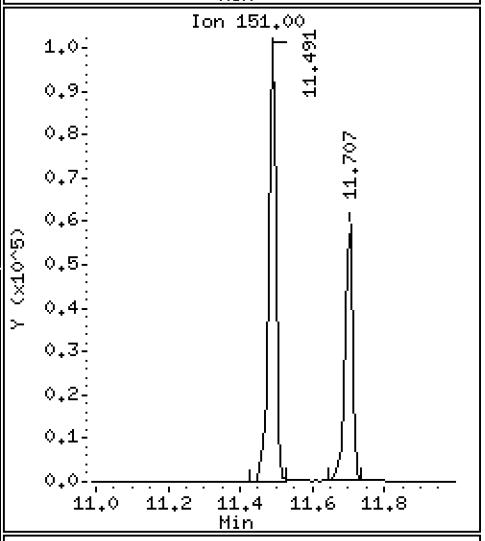
10 Acenaphthylene

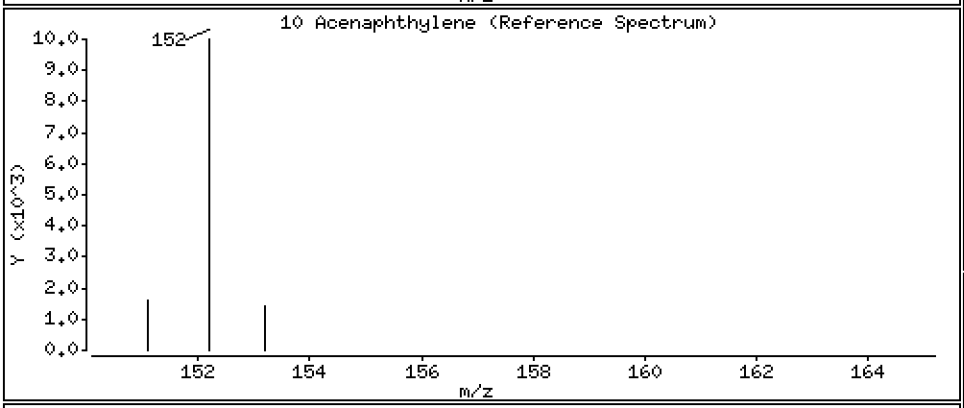
Concentration: 294 ng/mL

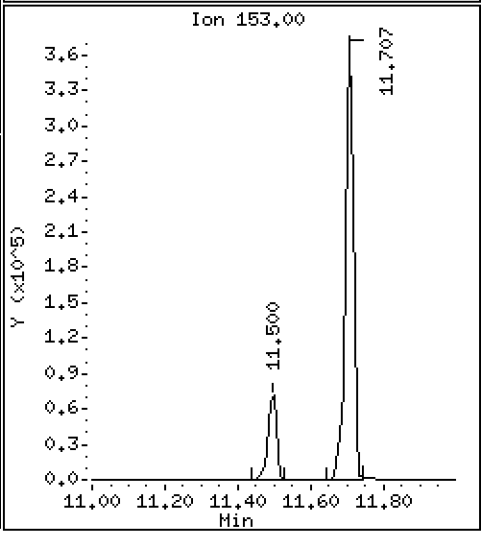


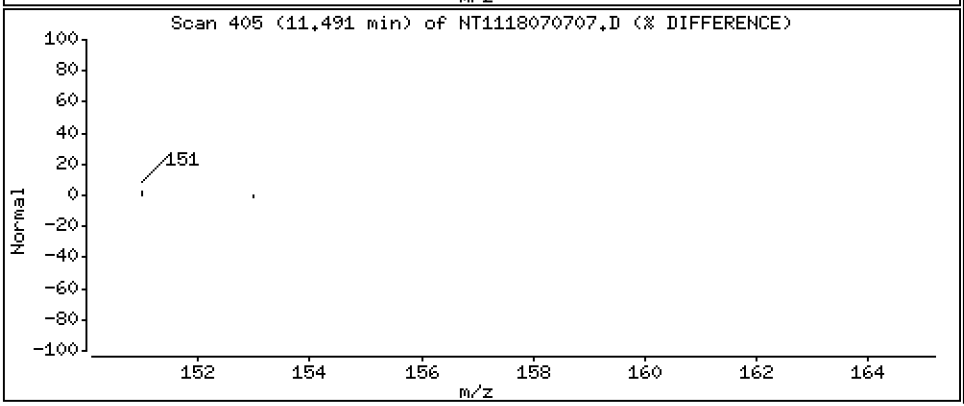












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Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

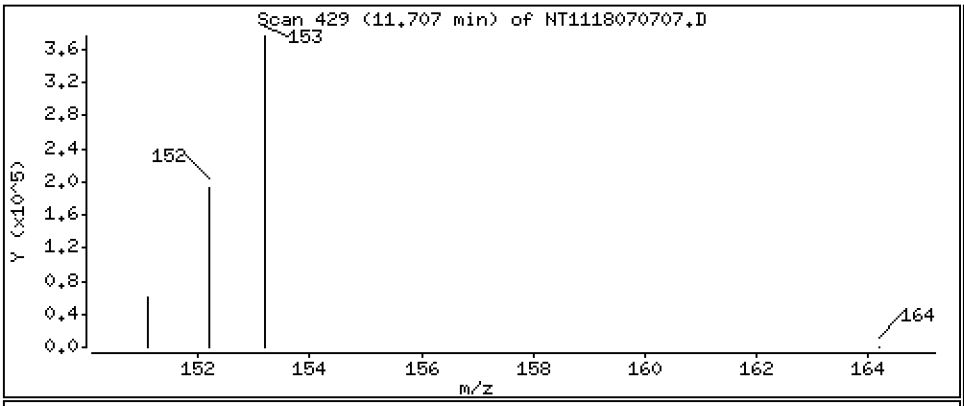
Operator: VTS

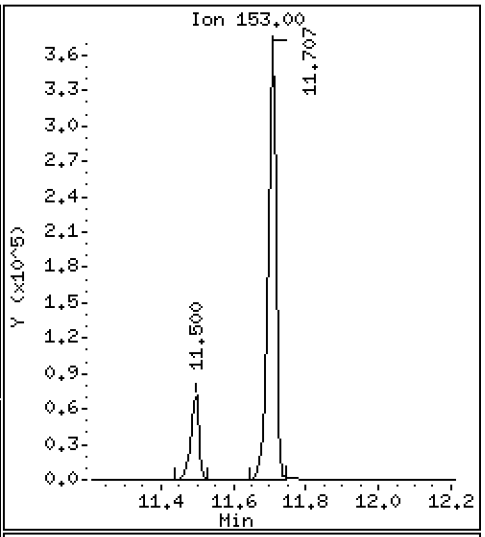
Column phase: Rxi-17Sil MS

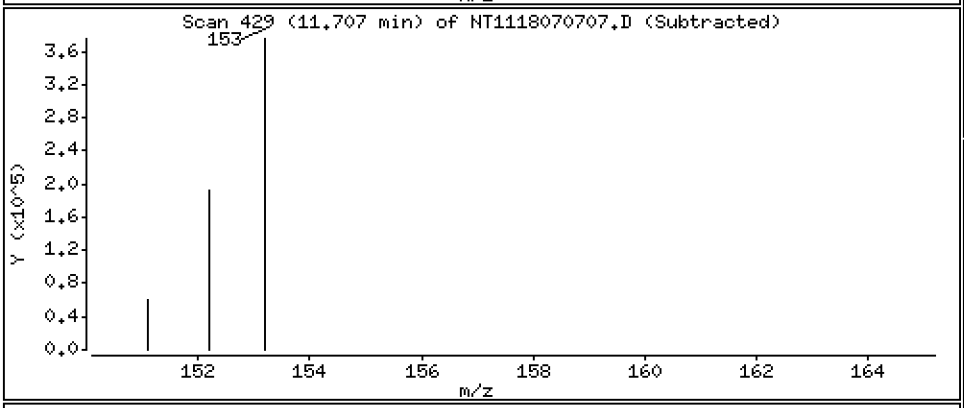
Column diameter: 0.25

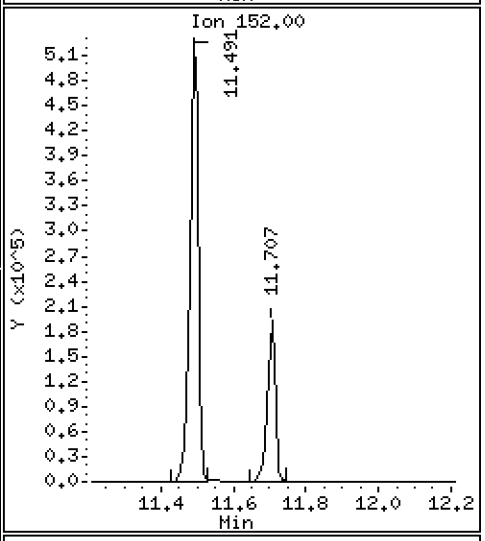
12 Acenaphthene

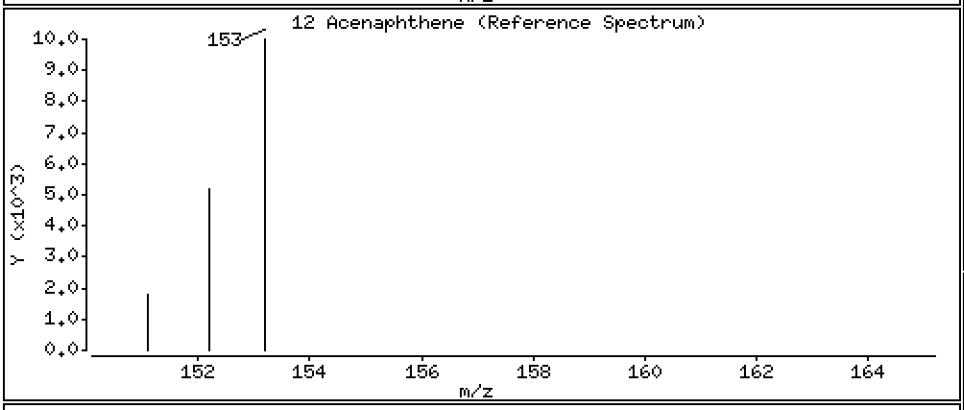
Concentration: 286 ng/mL

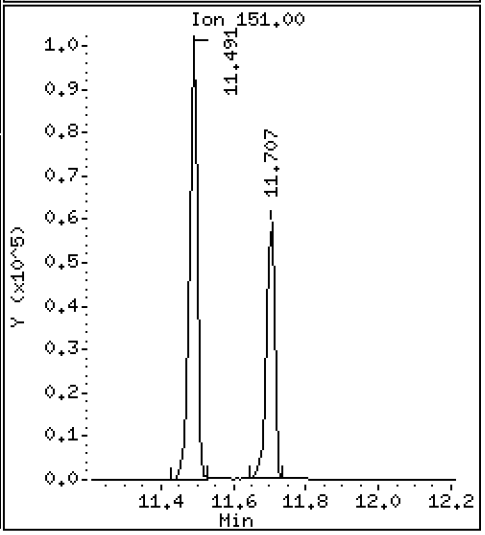


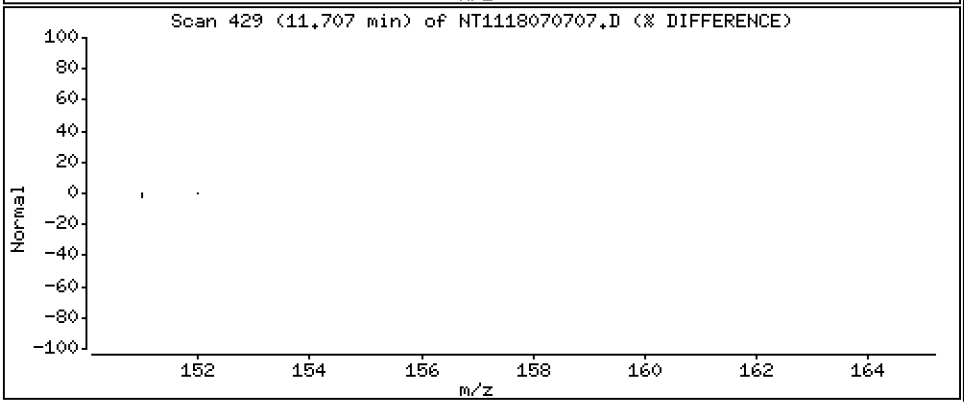












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Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

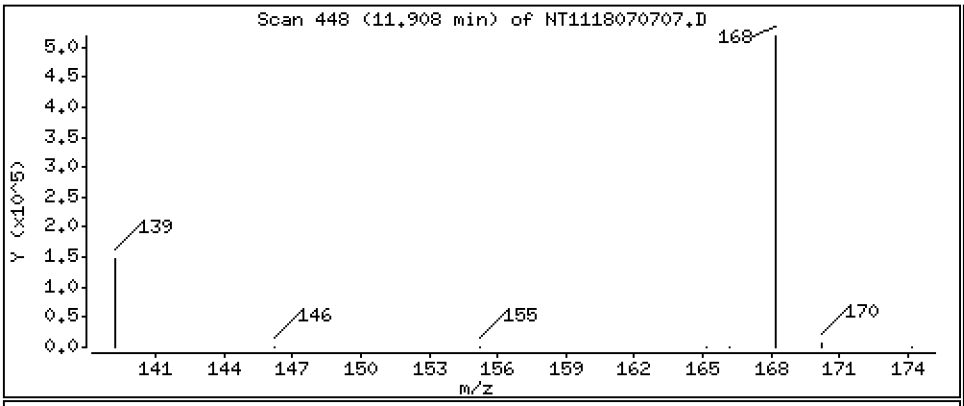
Operator: VTS

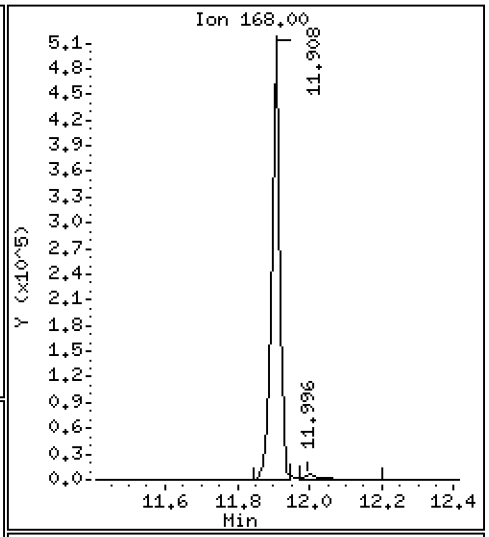
Column phase: Rxi-17Sil MS

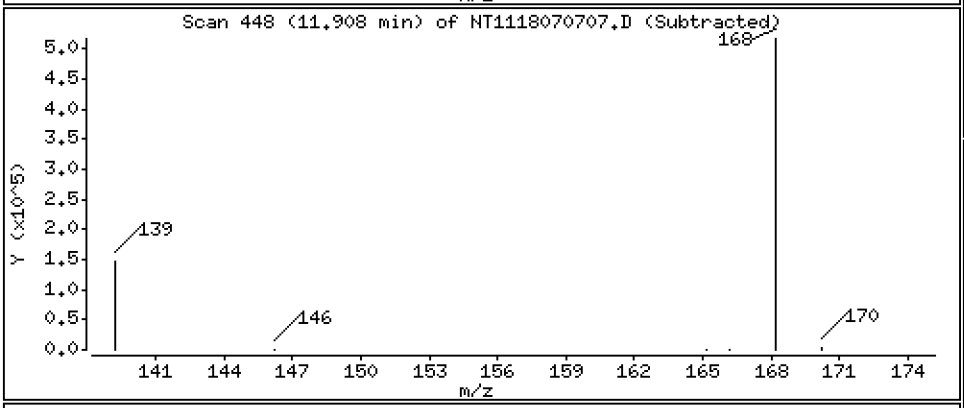
Column diameter: 0.25

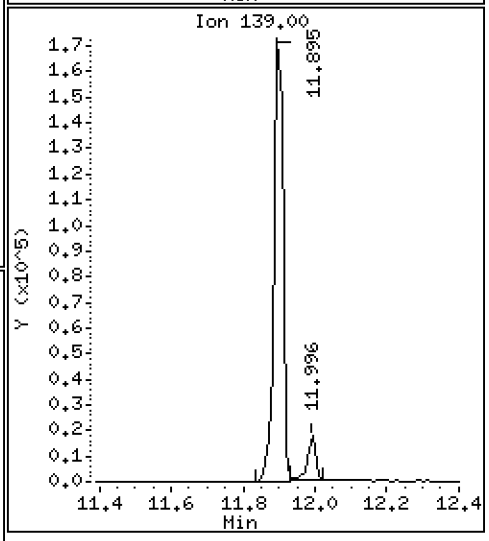
13 Dibenzofuran

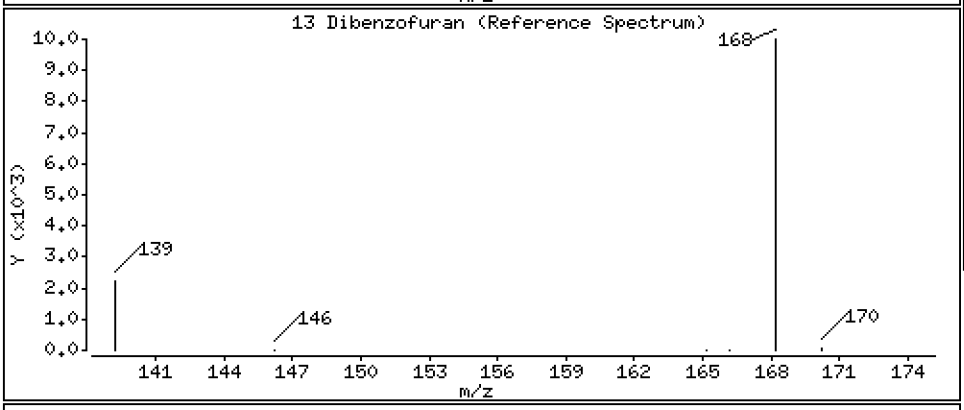
Concentration: 288 ng/mL

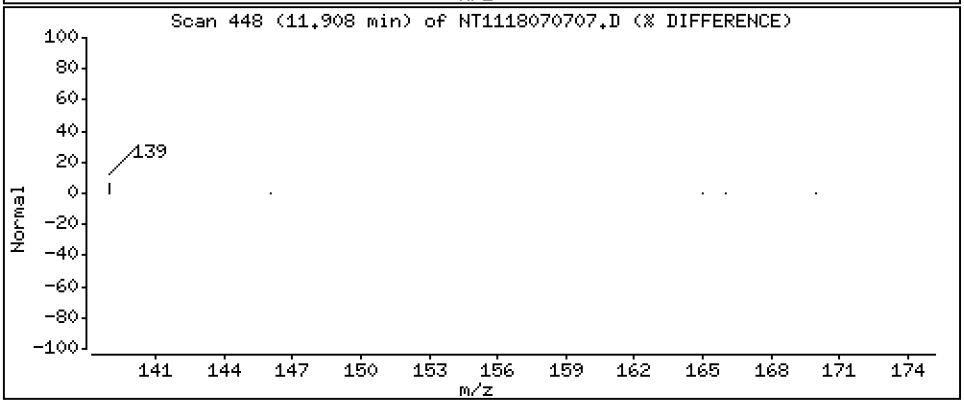












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Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

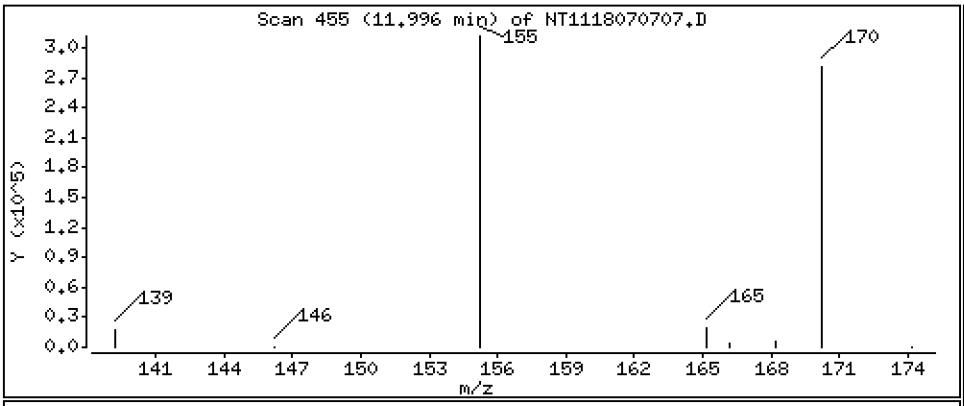
Operator: VTS

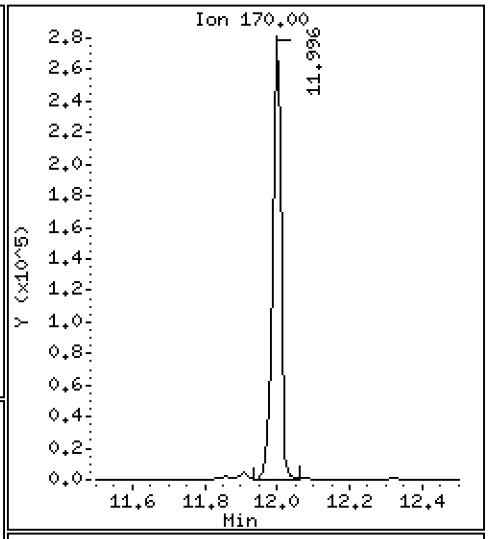
Column phase: Rxi-17Sil MS

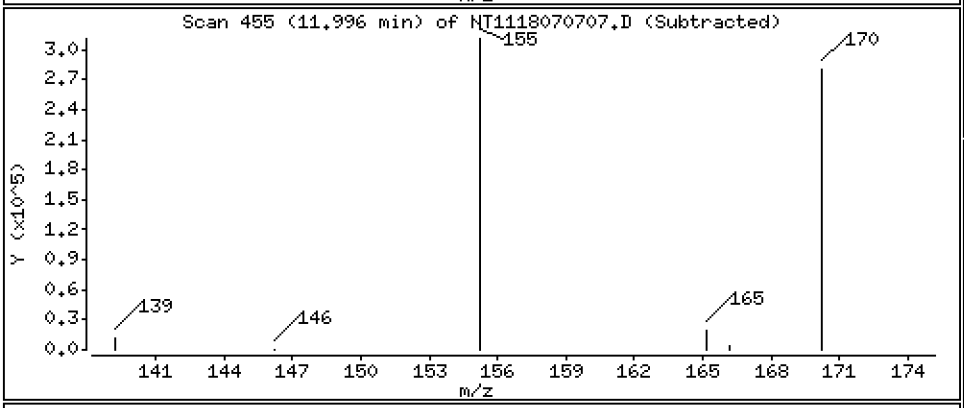
Column diameter: 0.25

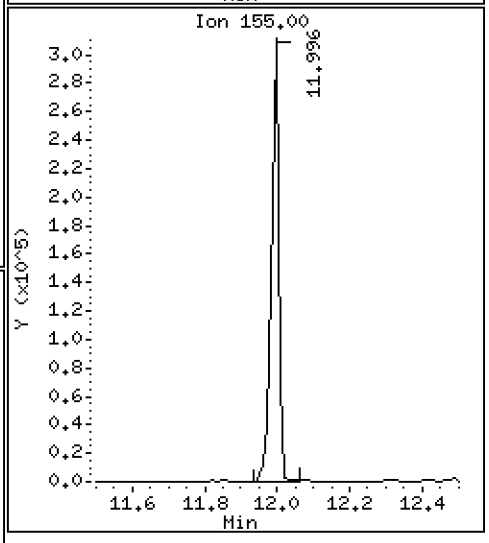
14 2,3,5-Trimethylnaphthalene

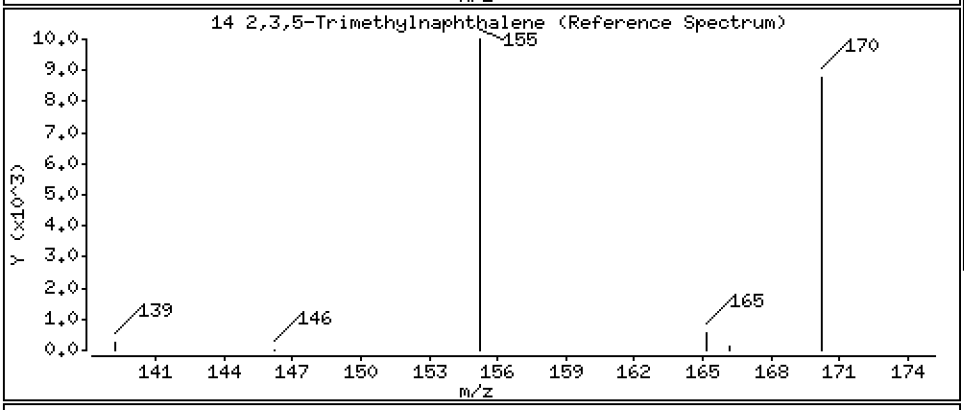
Concentration: 285 ng/mL

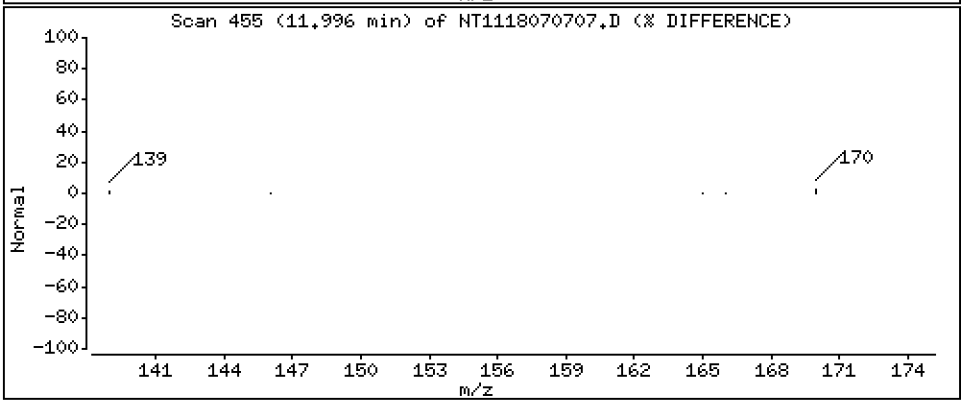












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Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

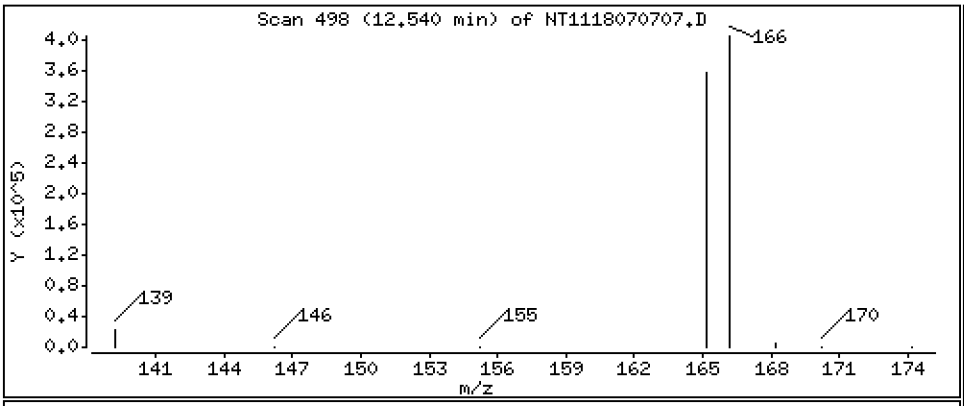
Operator: VTS

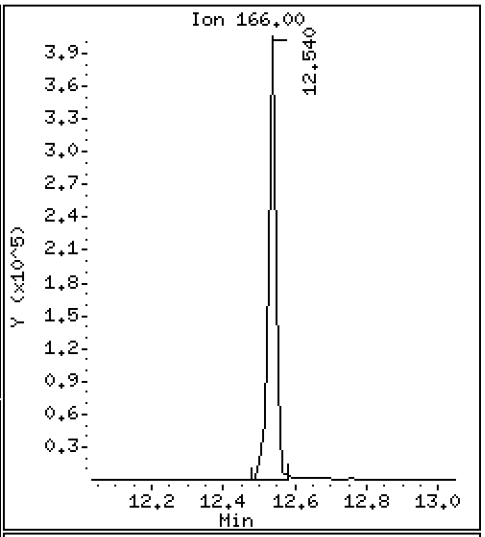
Column phase: Rxi-17Sil MS

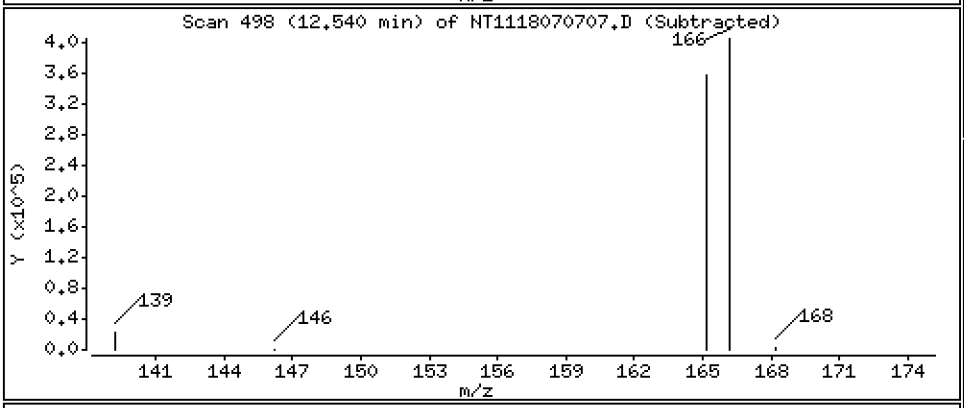
Column diameter: 0.25

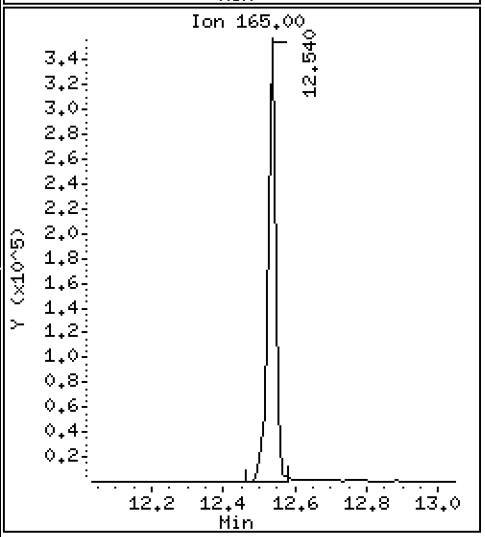
16 Fluorene

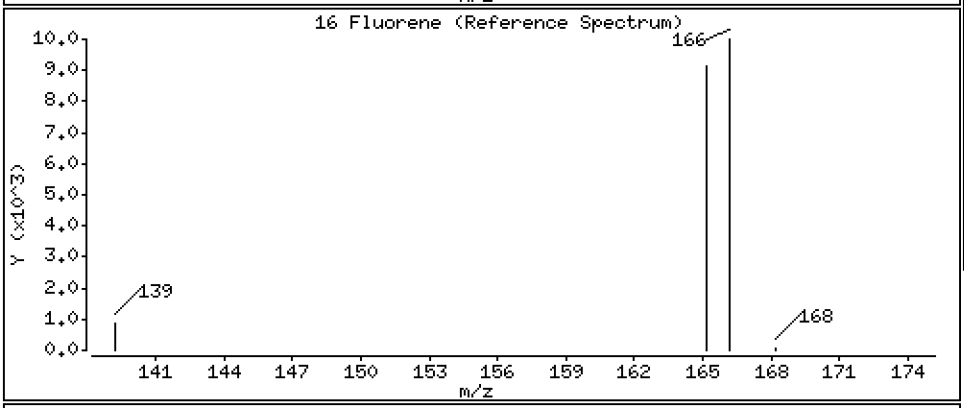
Concentration: 278 ng/mL

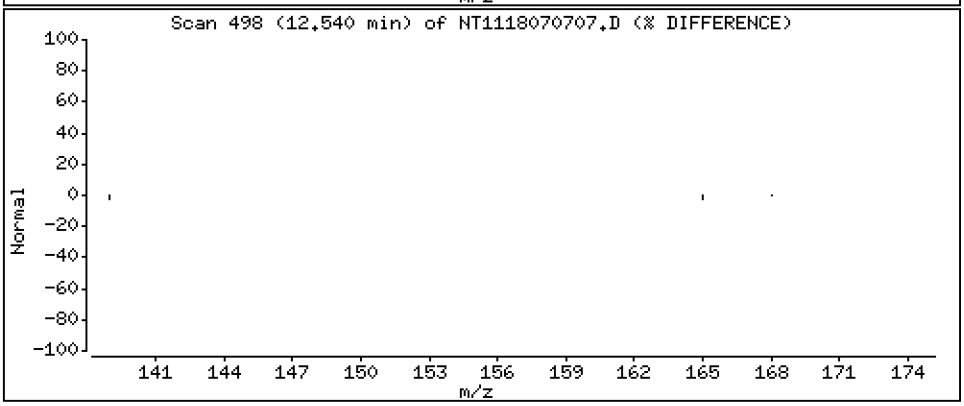












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Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

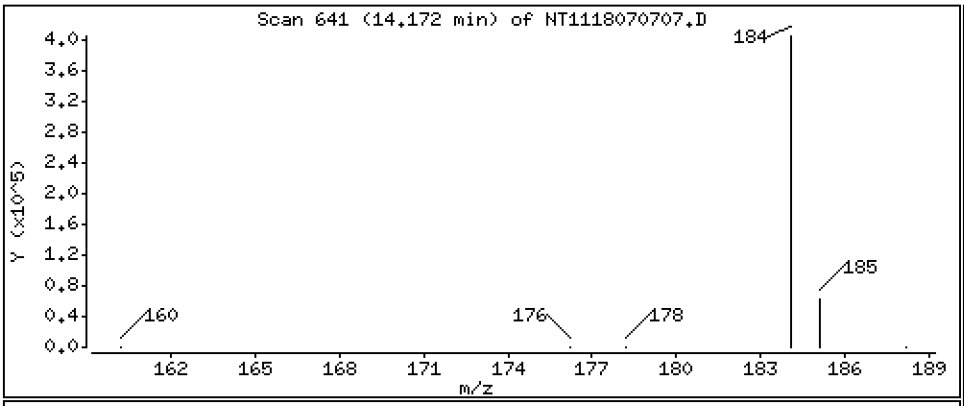
Operator: VTS

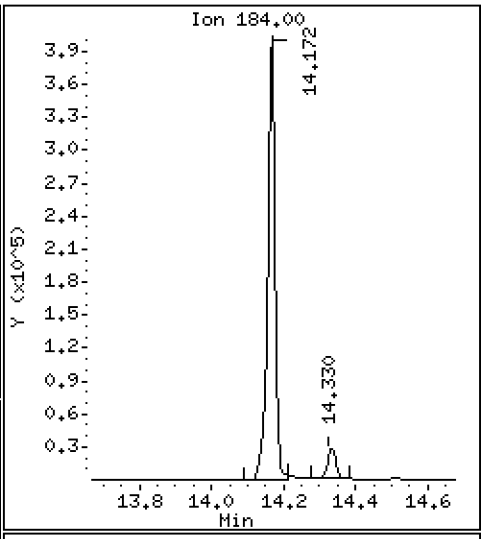
Column phase: Rxi-17Sil MS

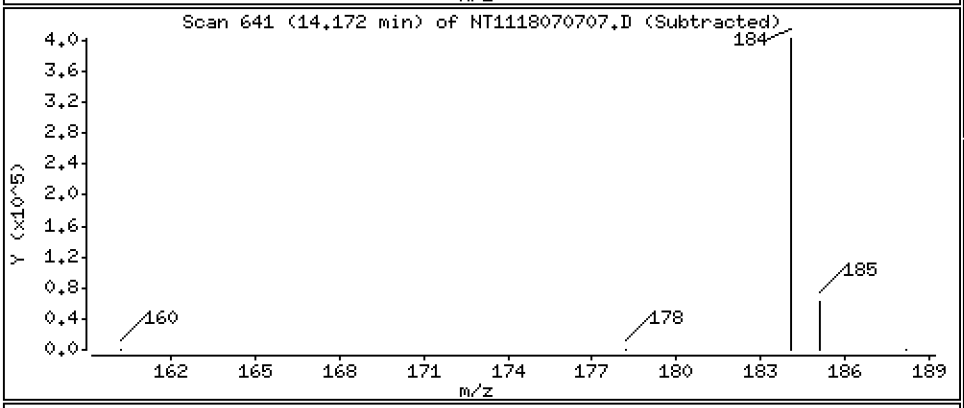
Column diameter: 0.25

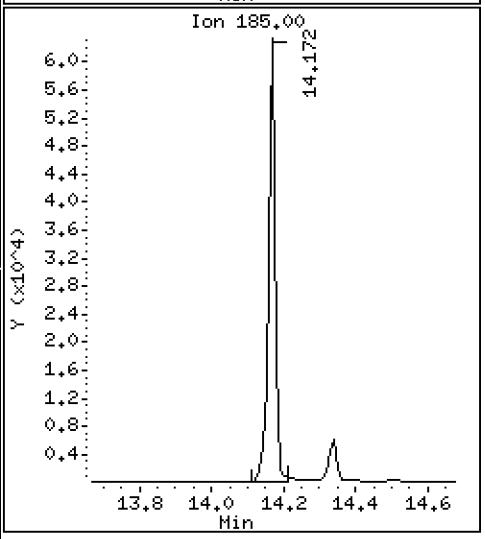
17 Dibenzothiophene

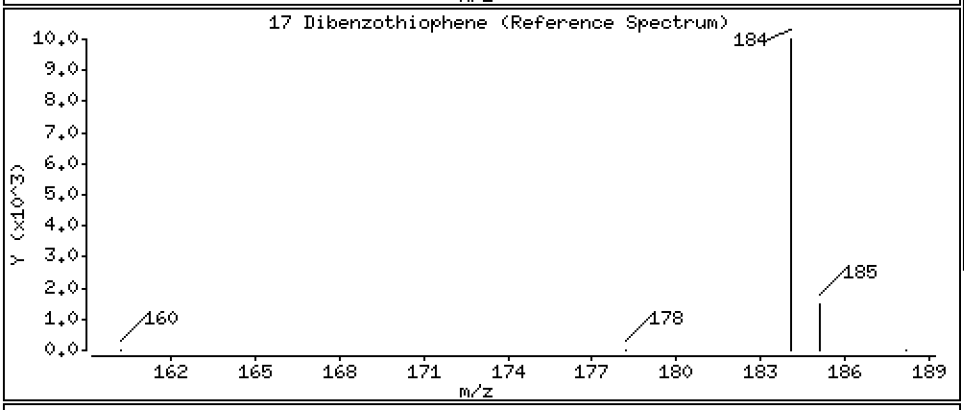
Concentration: 284 ng/mL

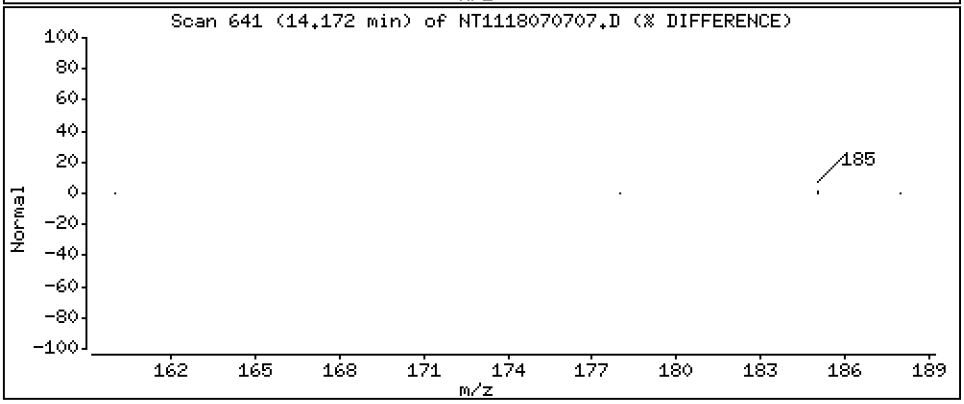












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Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

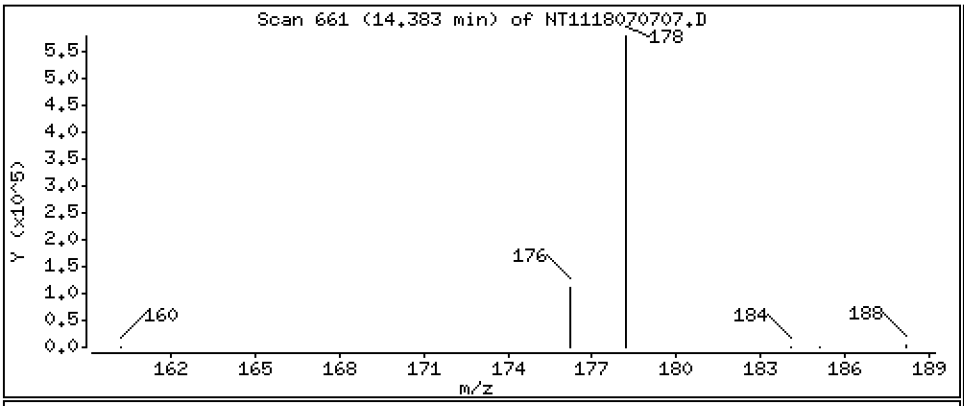
Operator: VTS

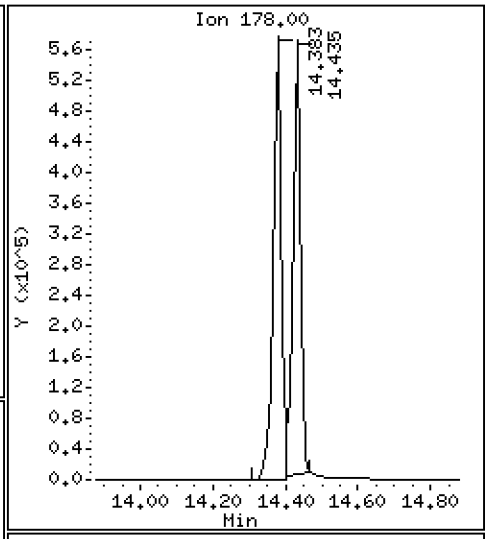
Column phase: Rxi-17Sil MS

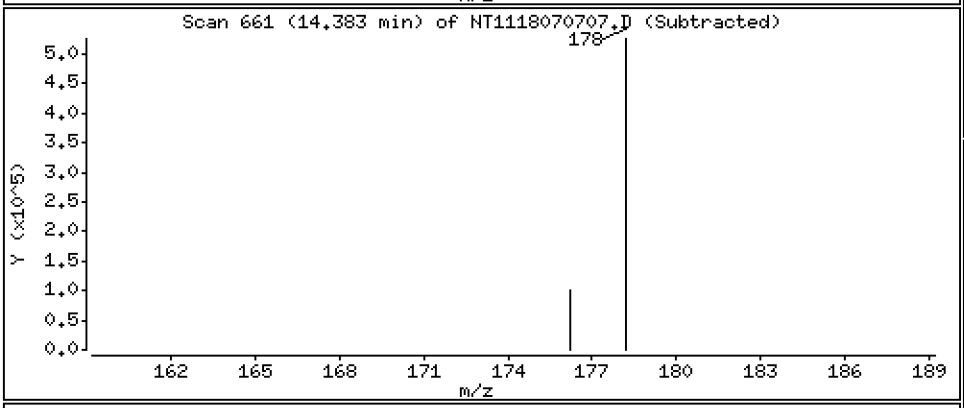
Column diameter: 0.25

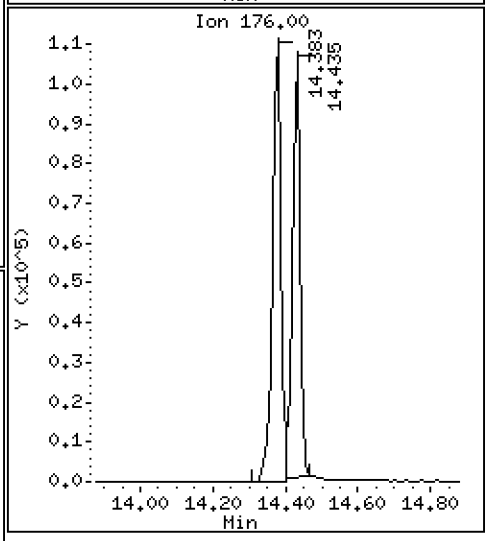
19 Phenanthrene

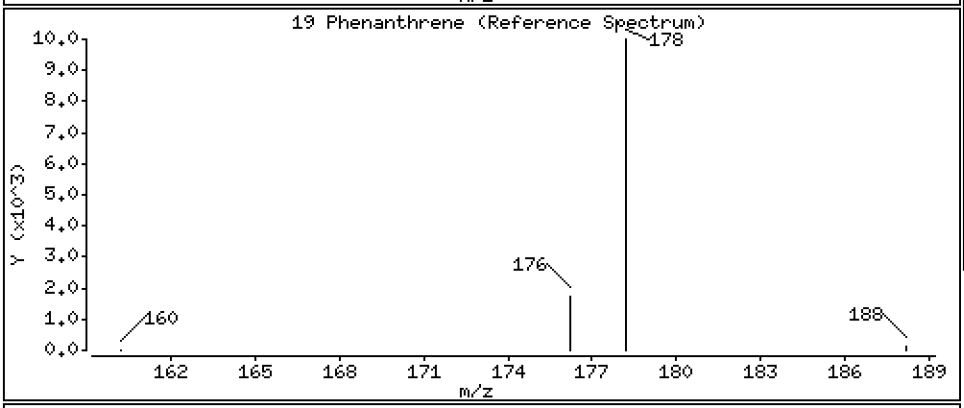
Concentration: 293 ng/mL

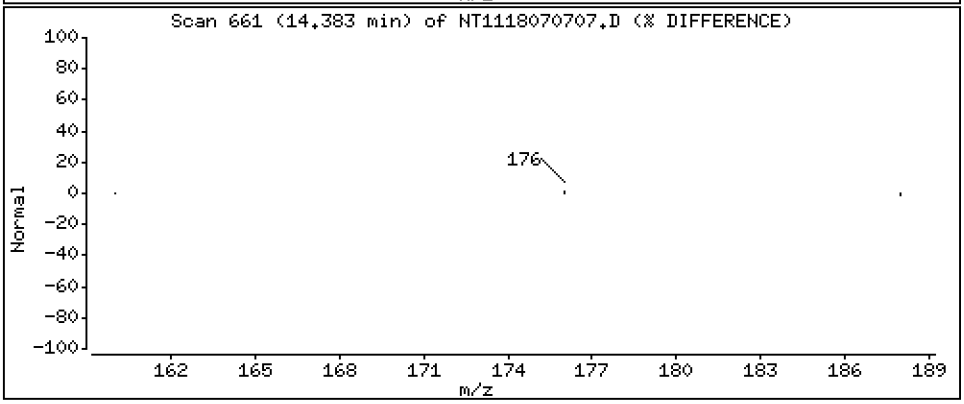












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Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

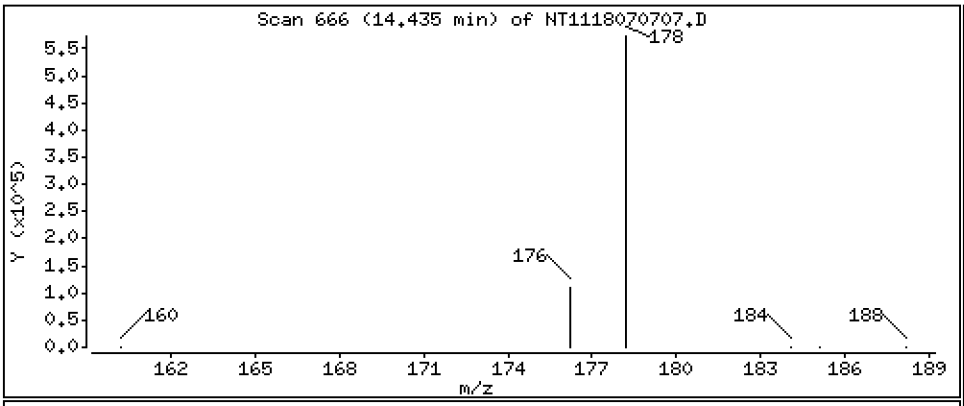
Operator: VTS

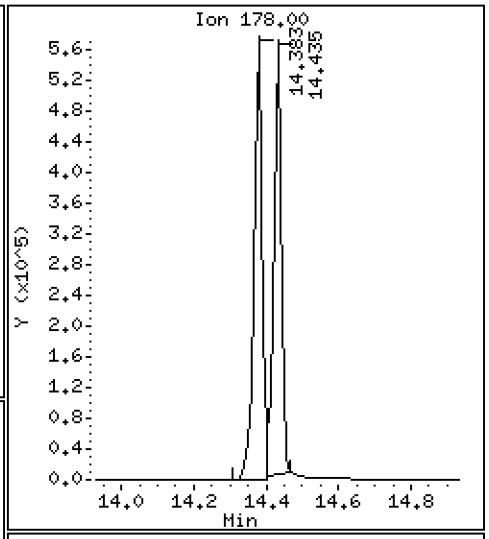
Column phase: Rxi-17Sil MS

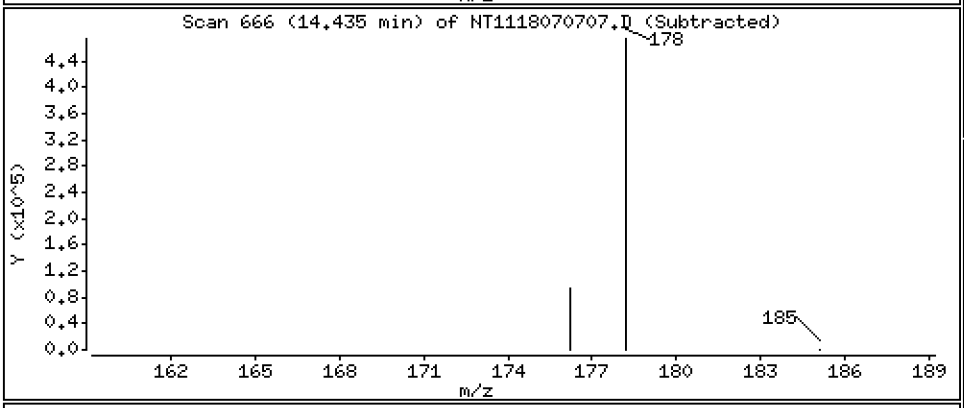
Column diameter: 0.25

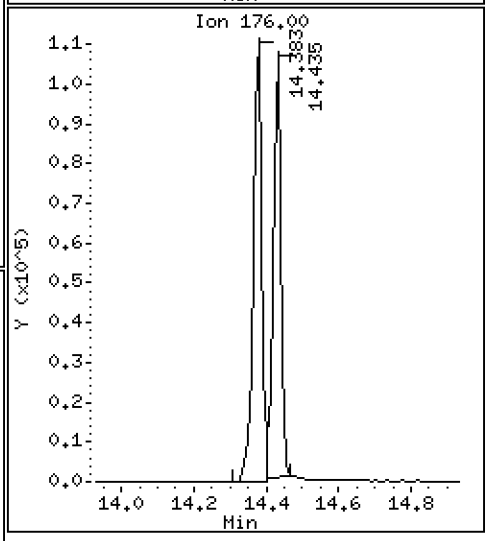
21 Anthracene

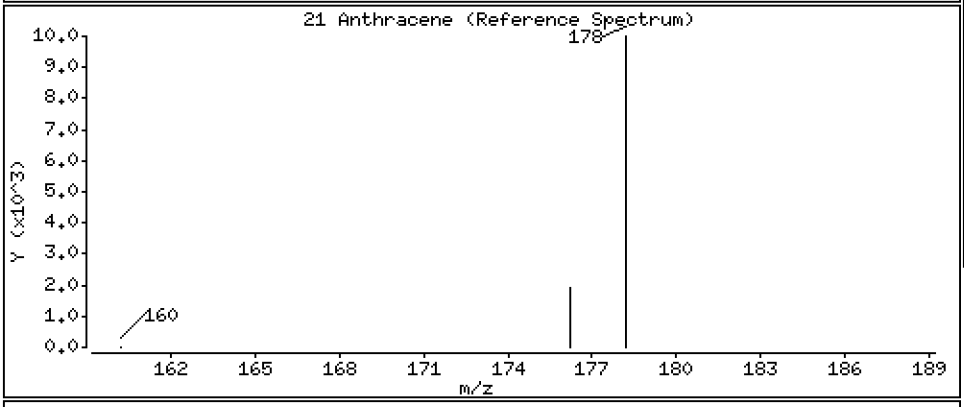
Concentration: 284 ng/mL

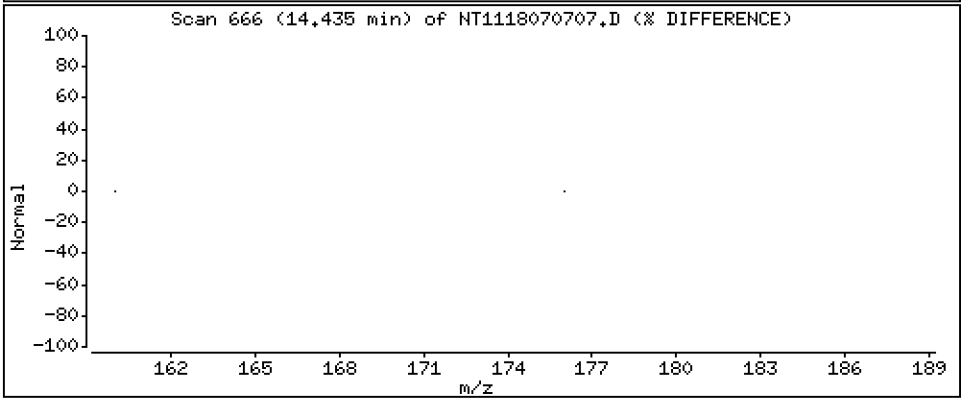












Data File: \\target\share\chem3\nt11.i\20180707.b\NT1118070707.D

Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

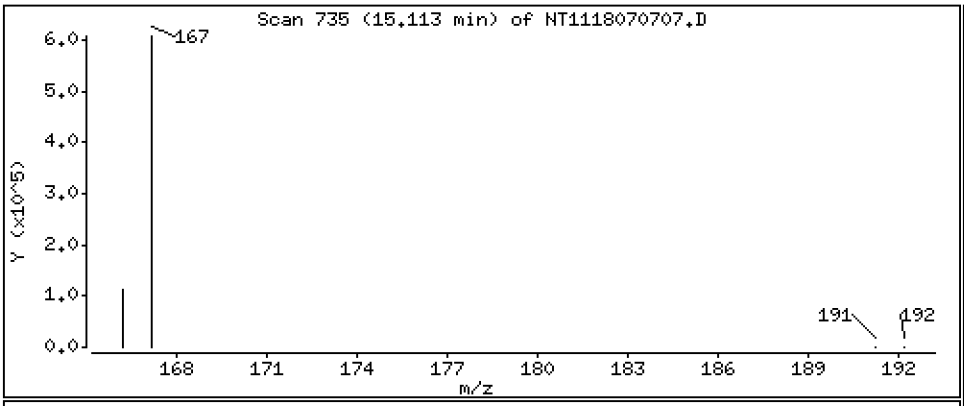
Operator: VTS

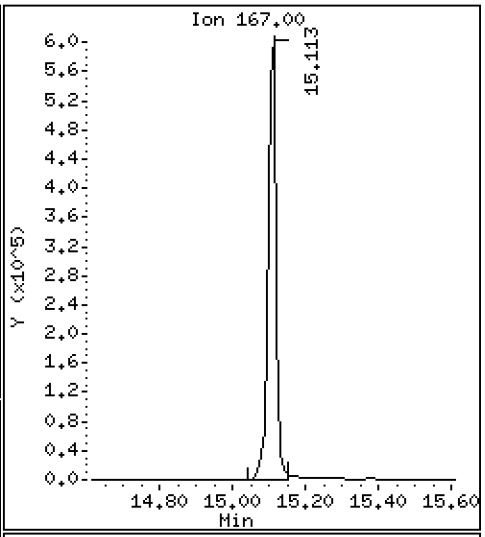
Column phase: Rxi-17Sil MS

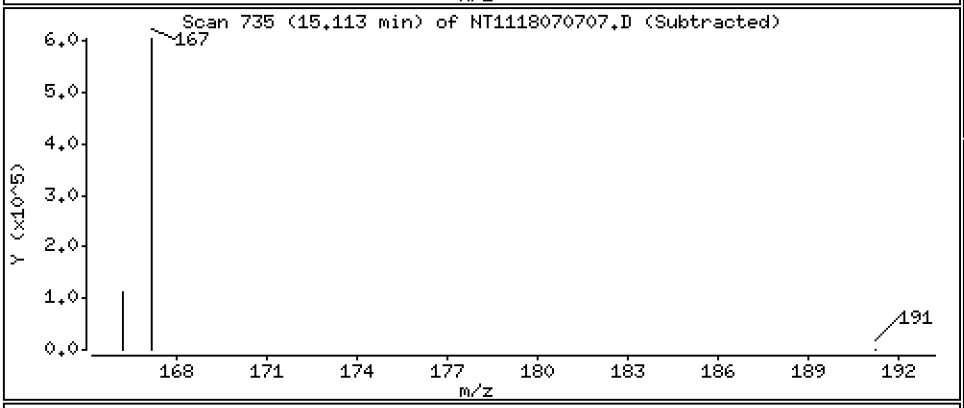
Column diameter: 0.25

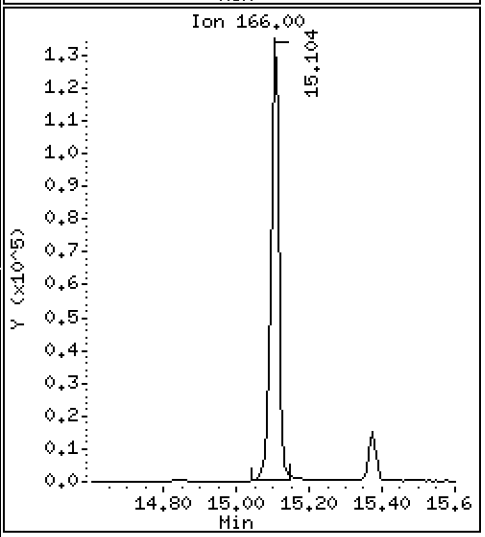
22 Carbazole

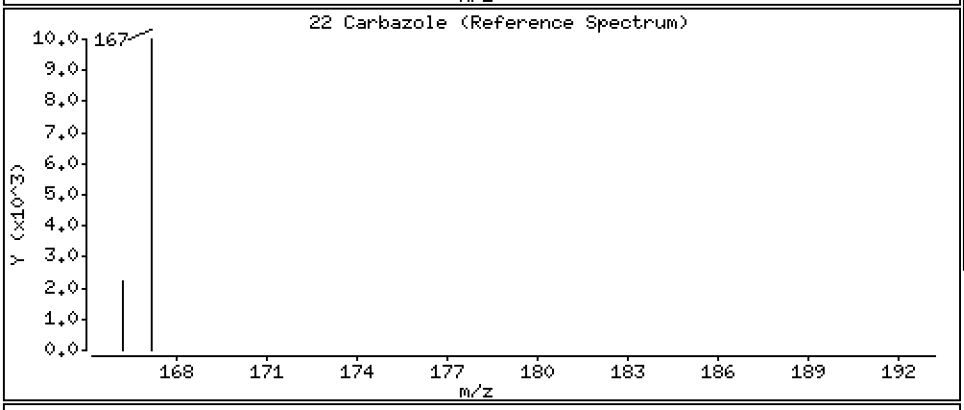
Concentration: 284 ng/mL

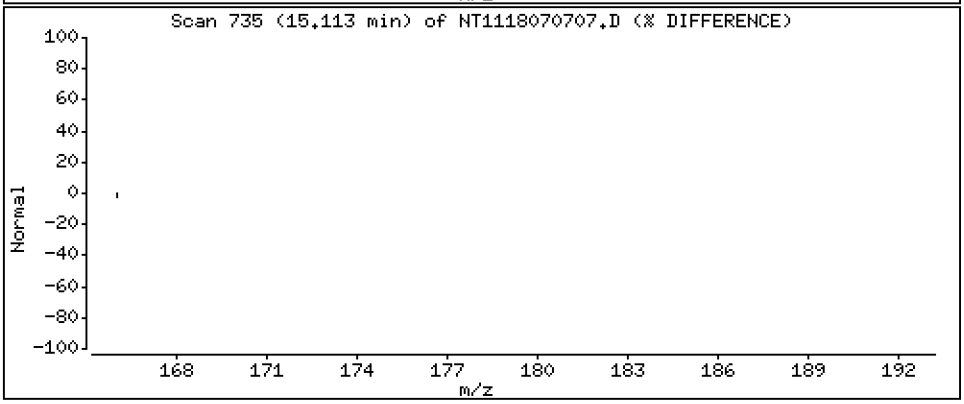












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Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

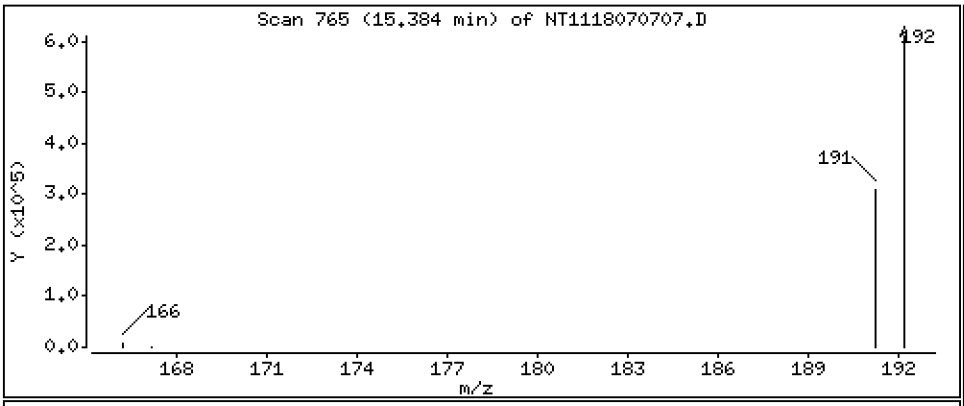
Operator: VTS

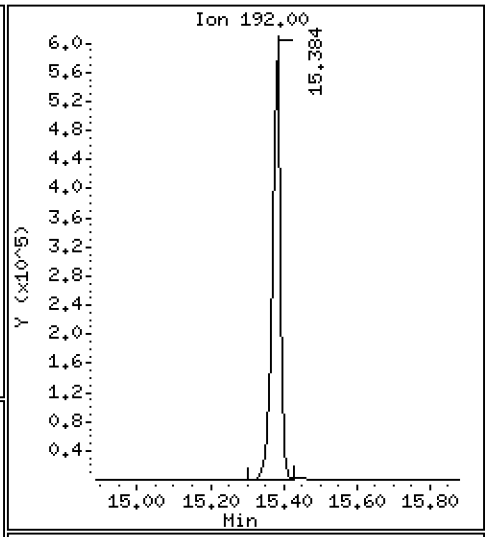
Column phase: Rxi-17Sil MS

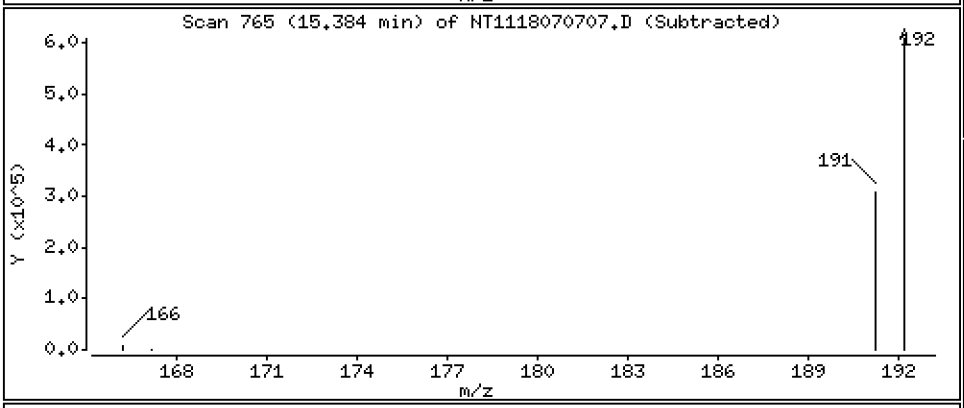
Column diameter: 0.25

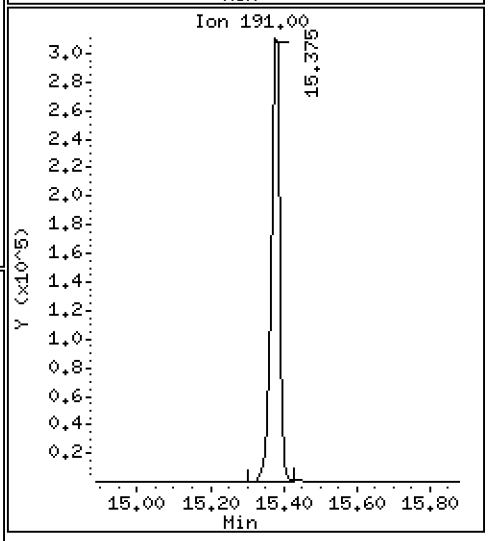
23 1-Methylphenanthrene

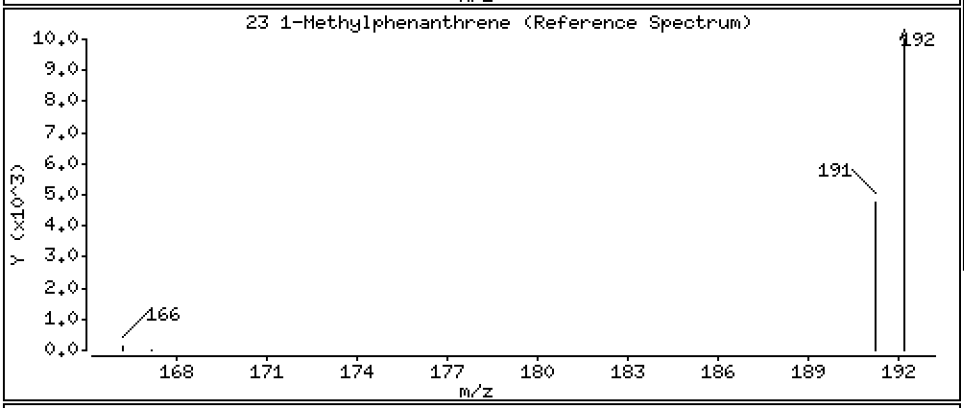
Concentration: 315 ng/mL

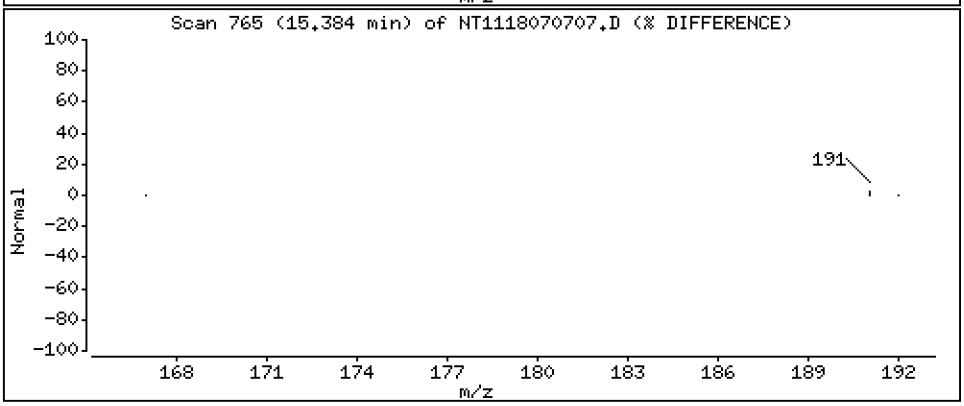












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Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

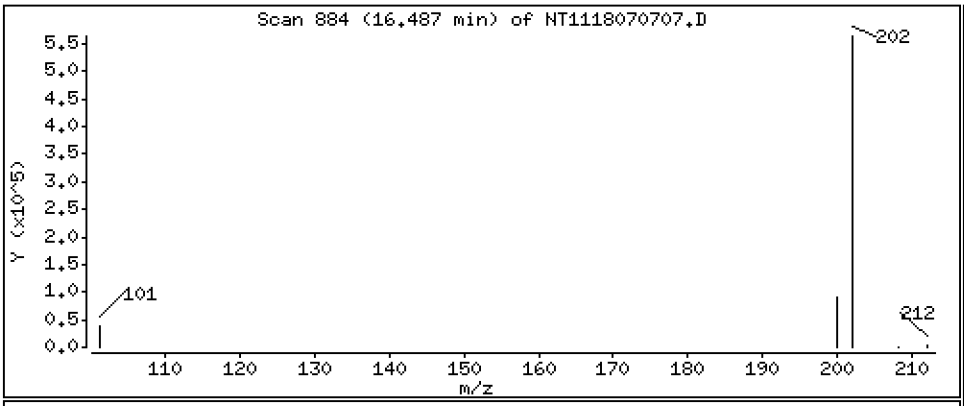
Operator: VTS

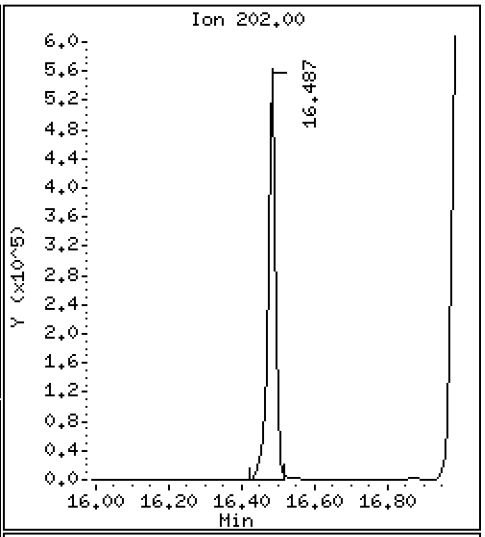
Column phase: Rxi-17Sil MS

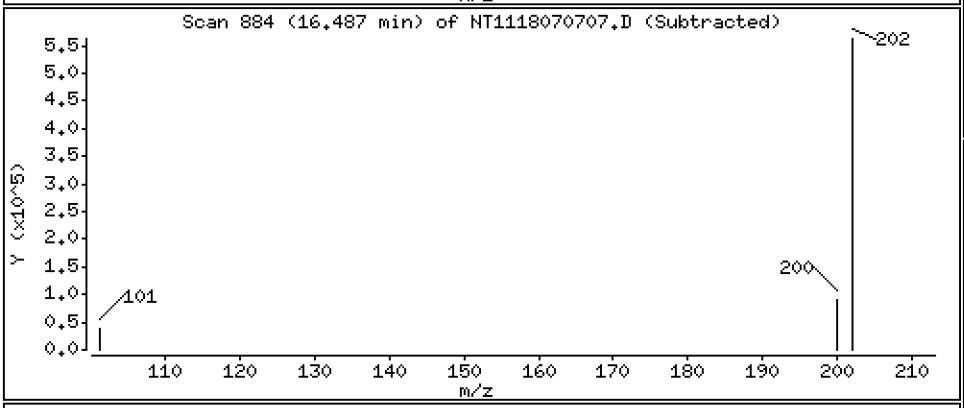
Column diameter: 0.25

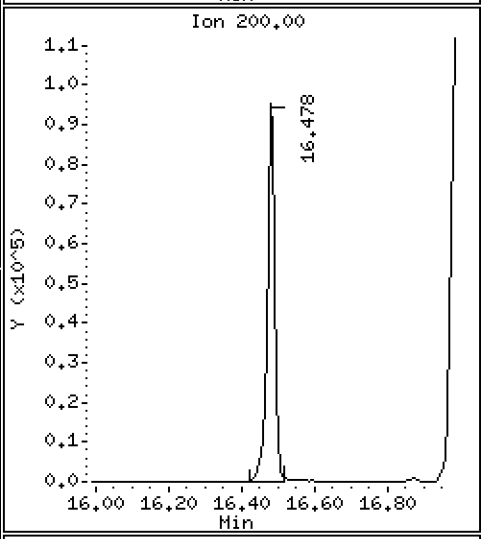
25 Fluoranthene

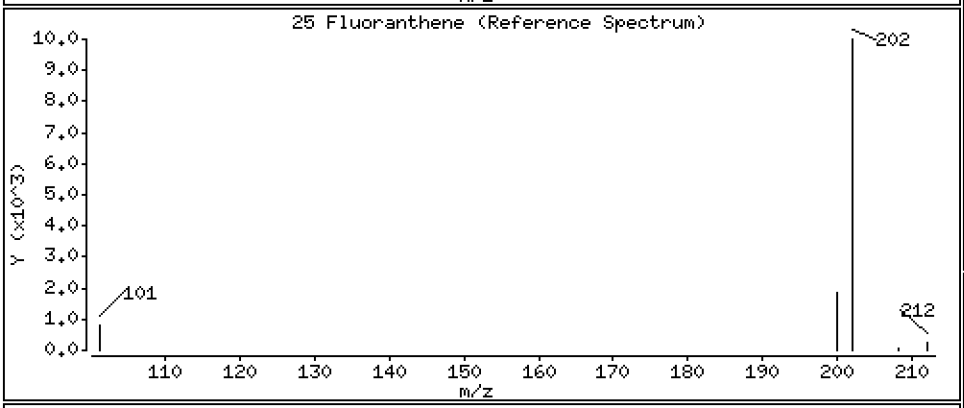
Concentration: 306 ng/mL

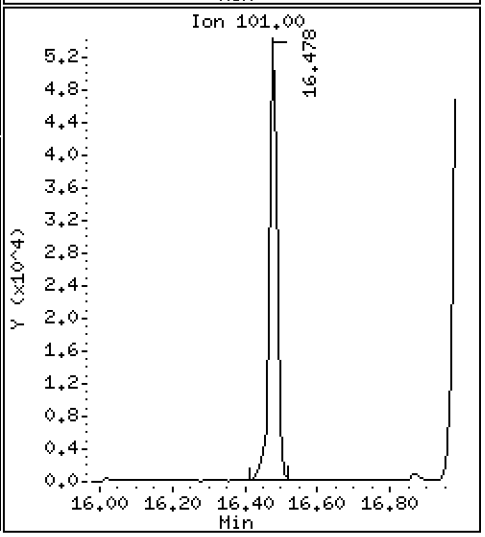


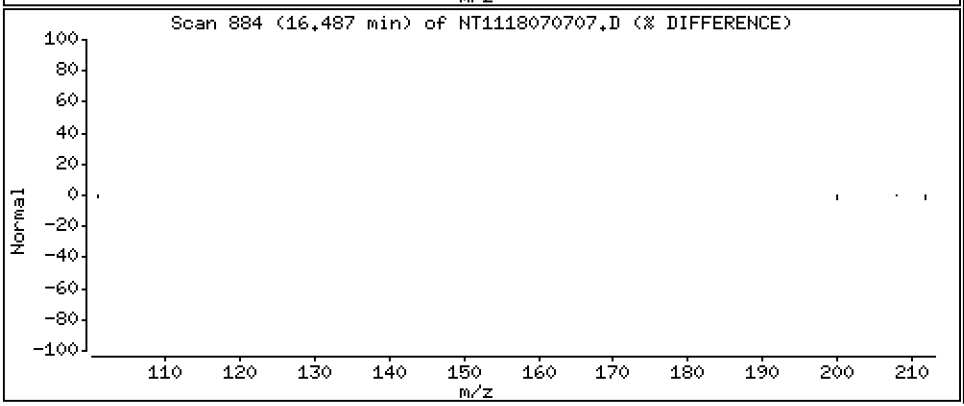












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Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

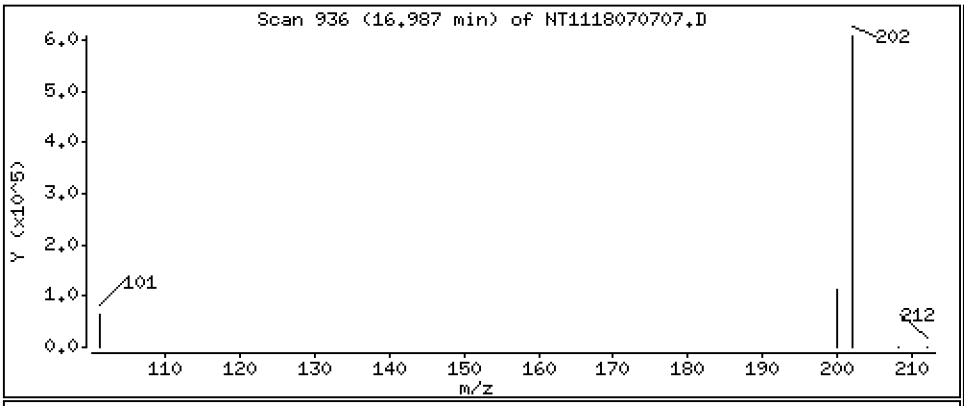
Operator: VTS

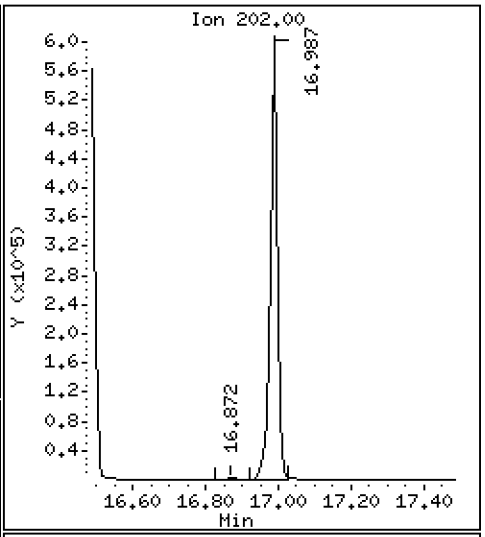
Column phase: Rxi-17Sil MS

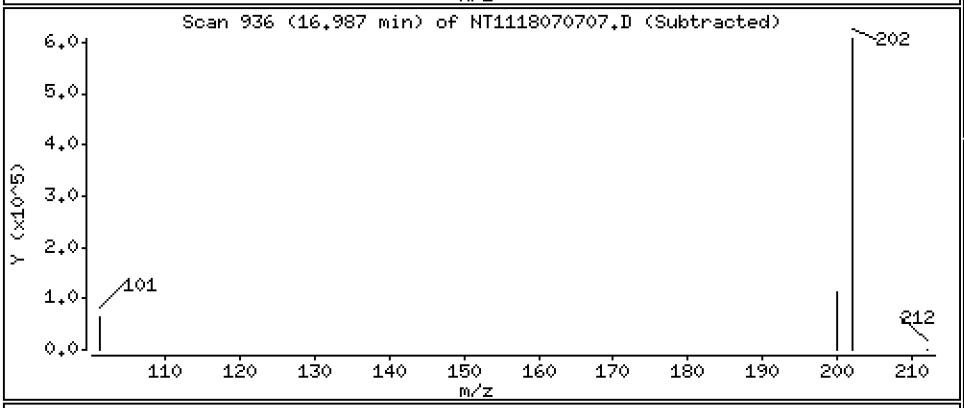
Column diameter: 0.25

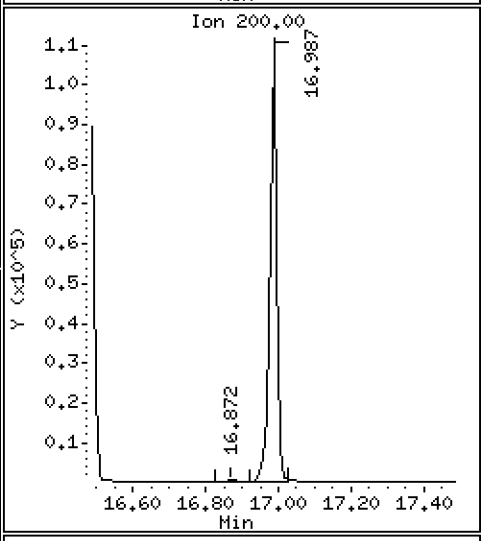
26 Pyrene

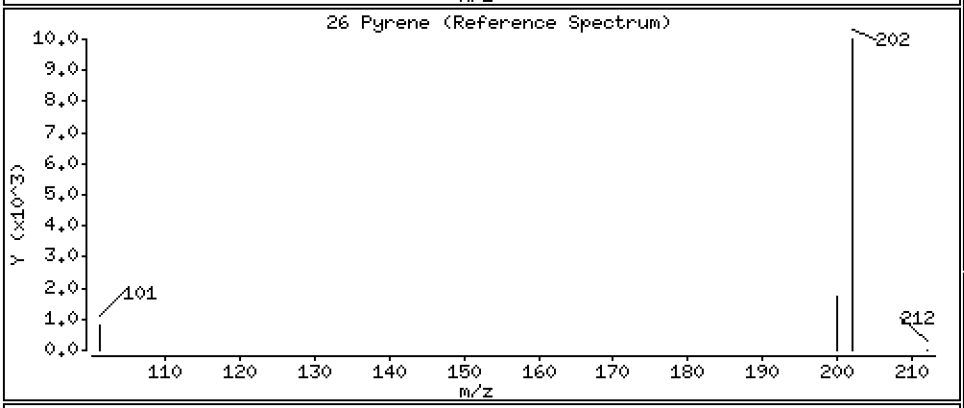
Concentration: 278 ng/mL

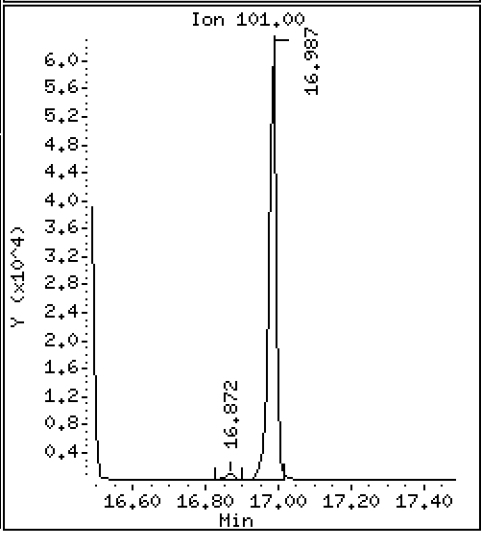


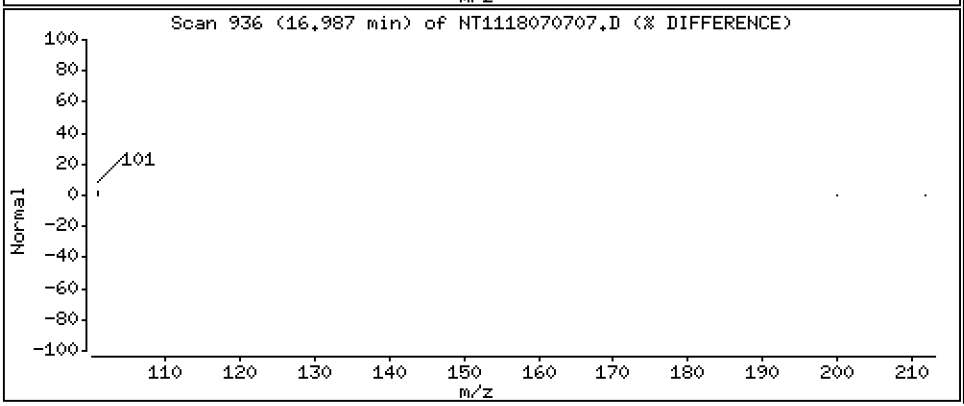












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Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

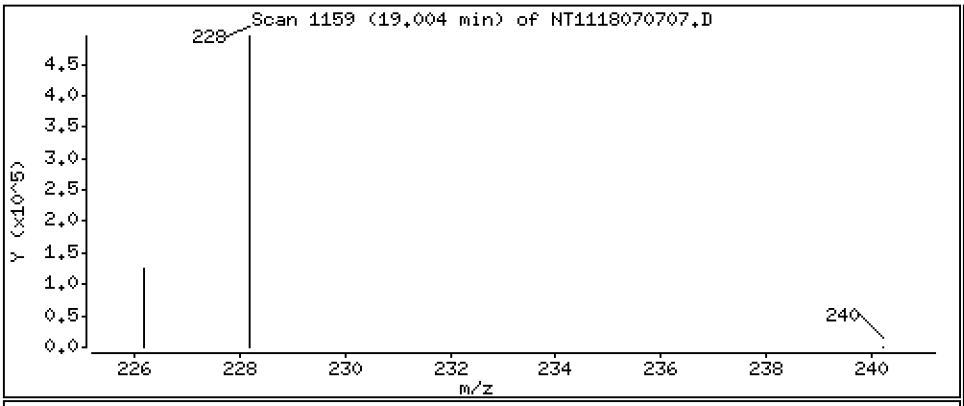
Operator: VTS

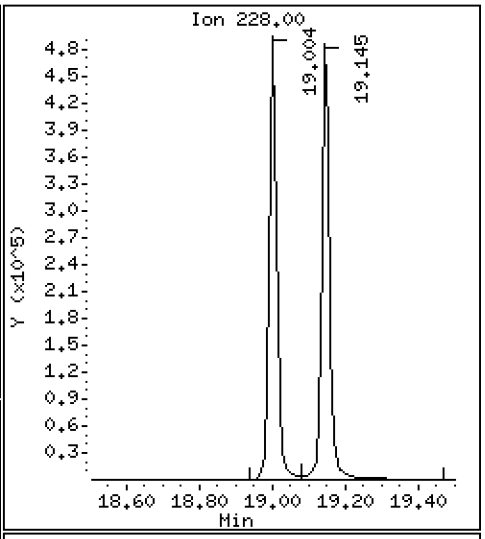
Column phase: Rxi-17Sil MS

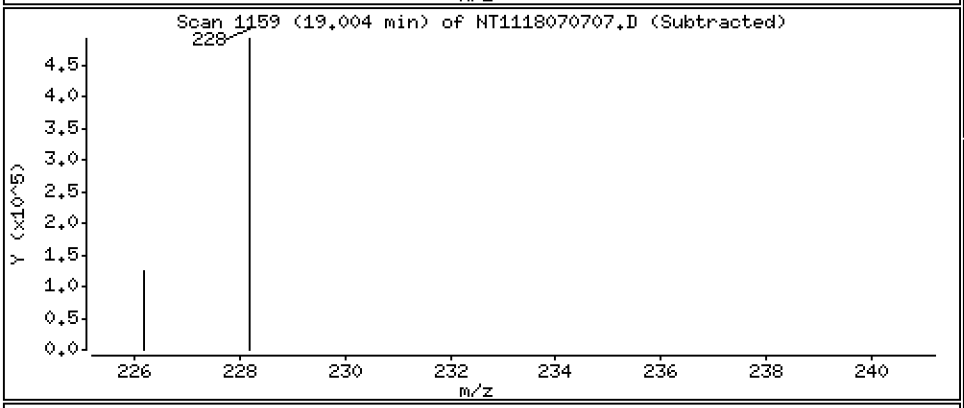
Column diameter: 0.25

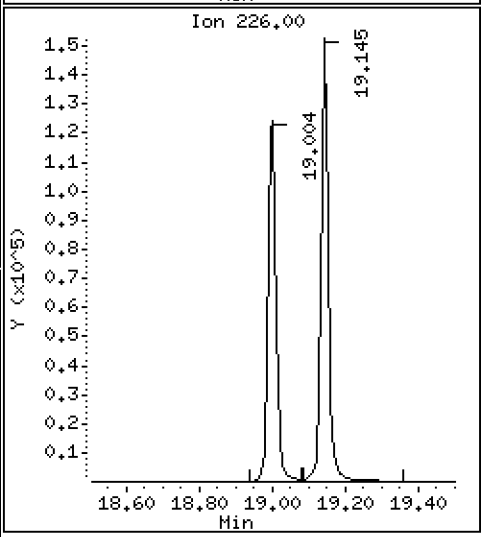
27 Benzo(a)anthracene

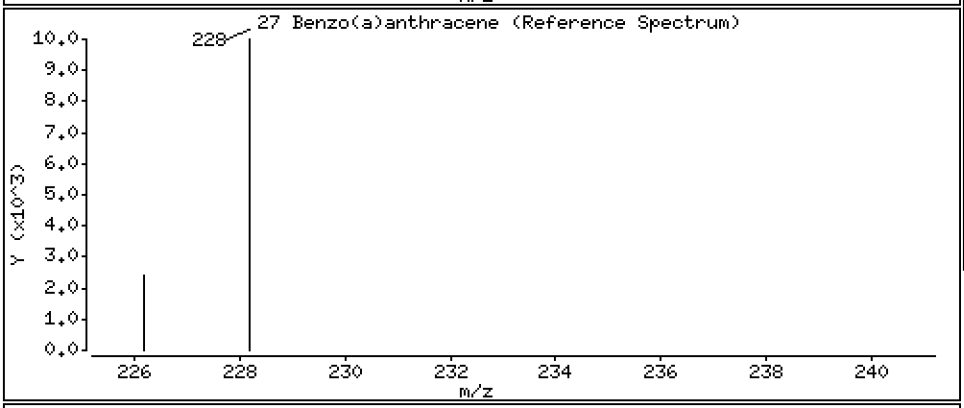
Concentration: 293 ng/mL

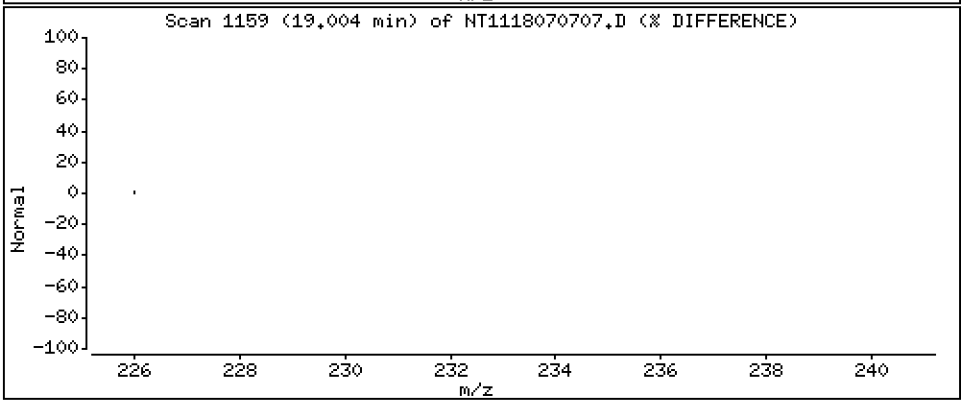












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Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

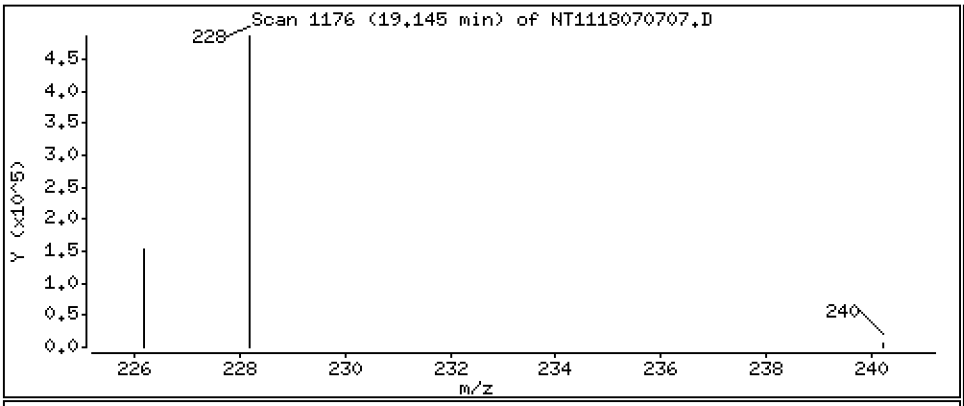
Operator: VTS

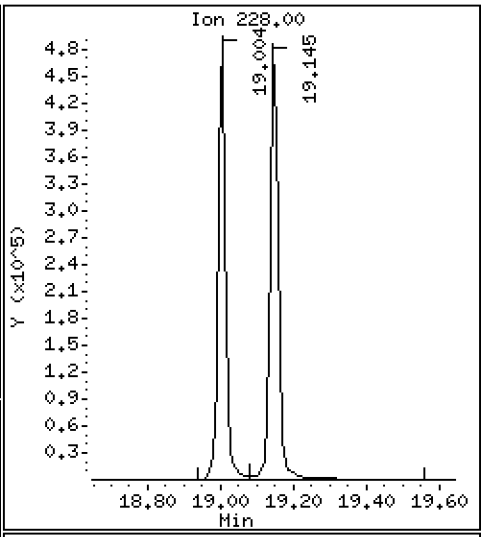
Column phase: Rxi-17Sil MS

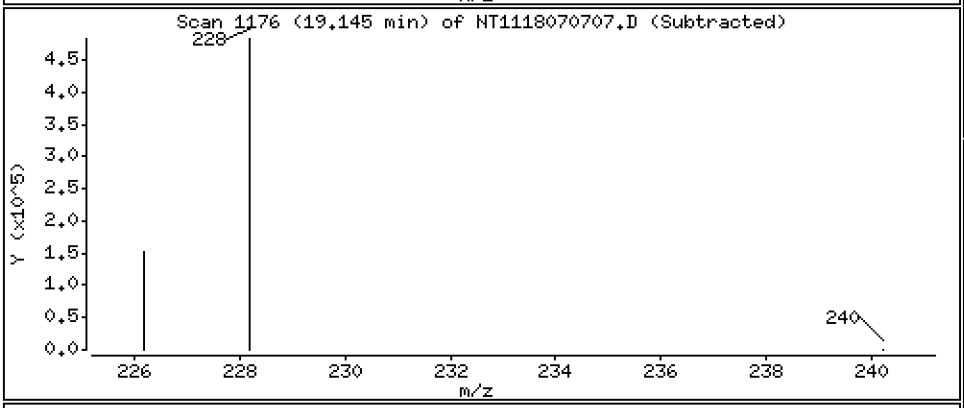
Column diameter: 0.25

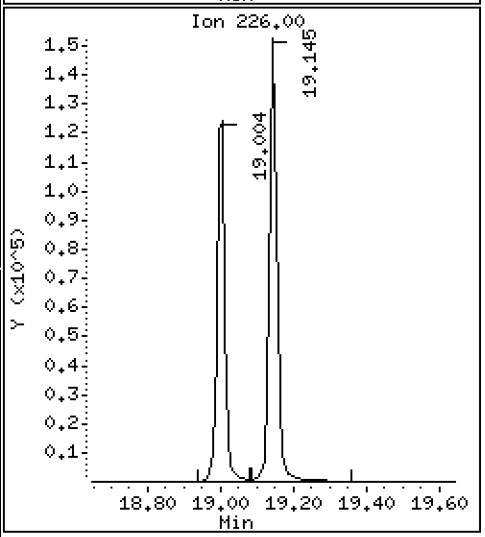
29 Chrysene

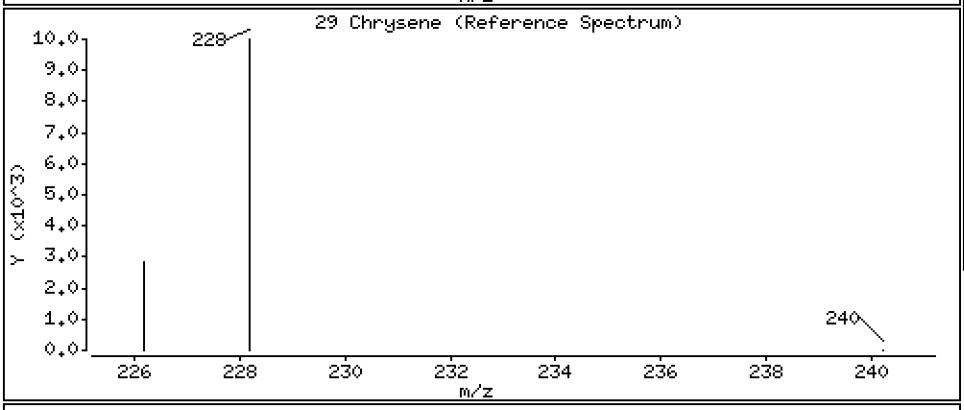
Concentration: 311 ng/mL

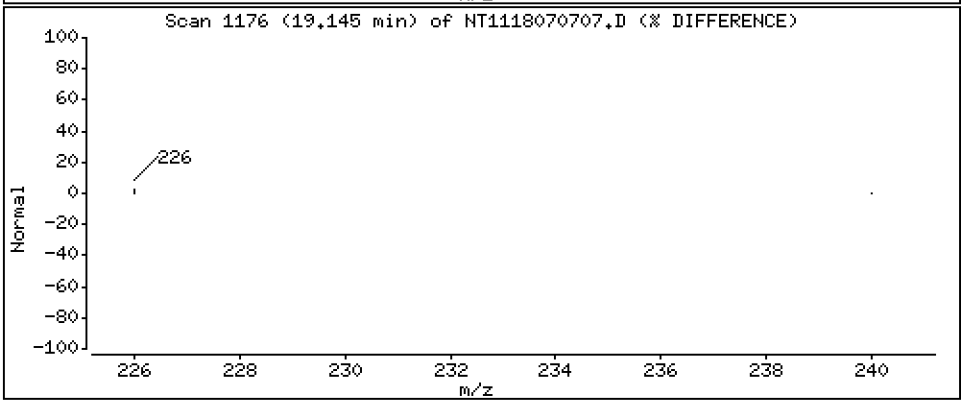












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Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

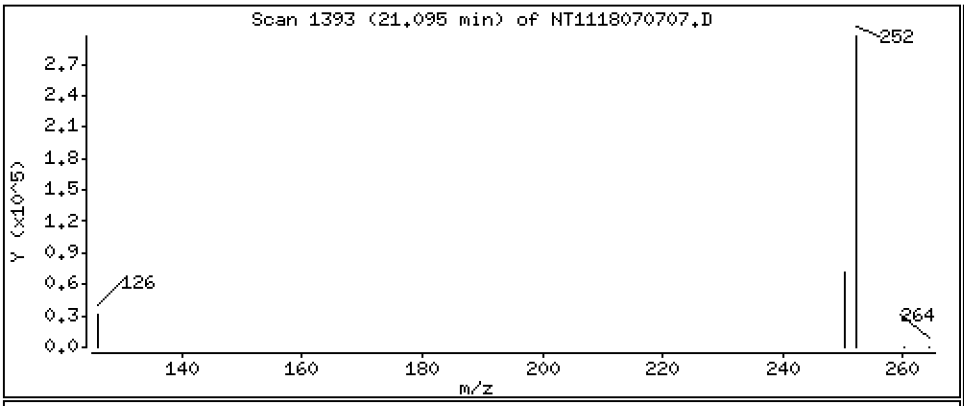
Operator: VTS

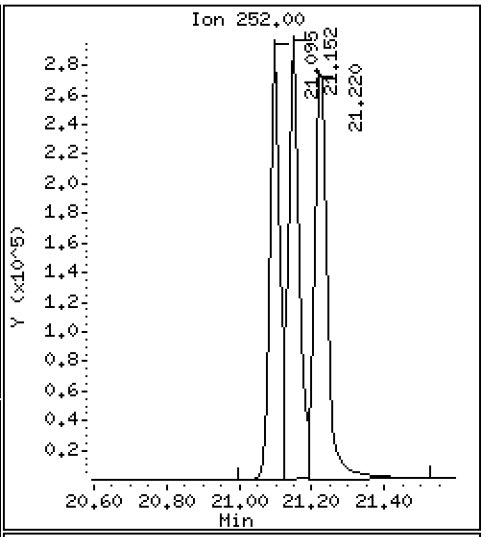
Column phase: Rxi-17Sil MS

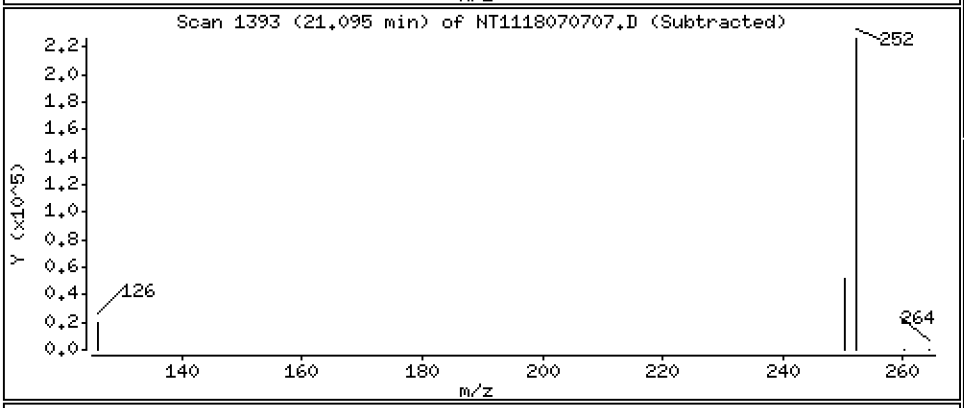
Column diameter: 0.25

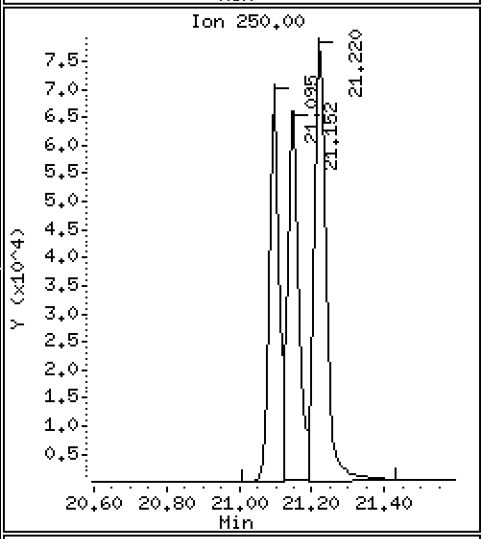
30 Benzo(b)fluoranthene

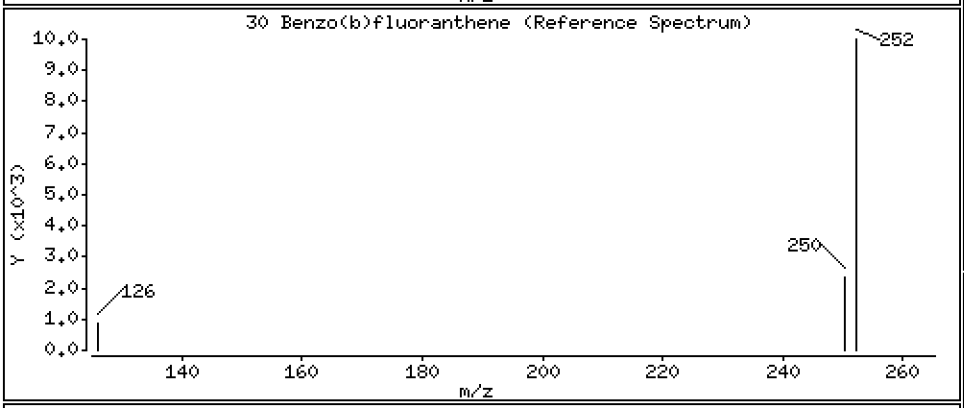
Concentration: 256 ng/mL

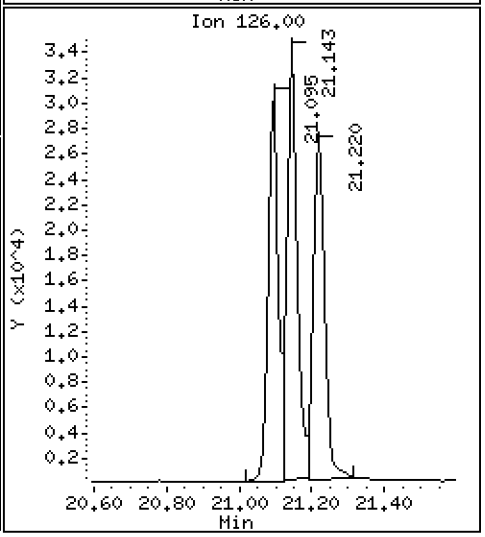


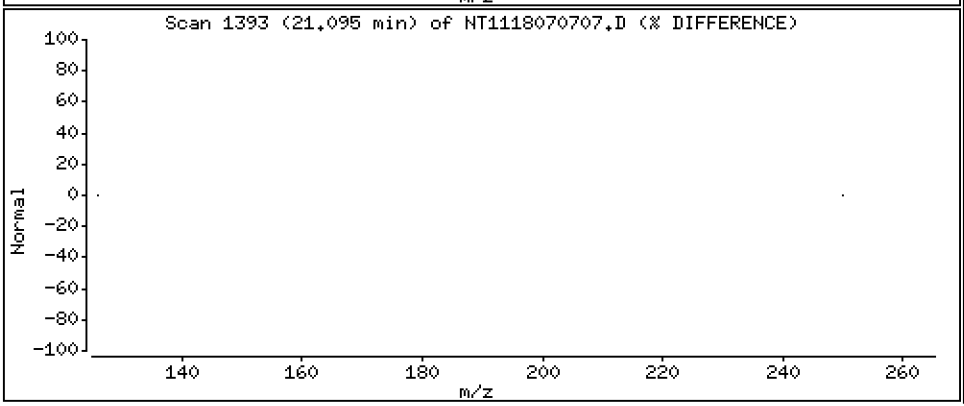












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Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

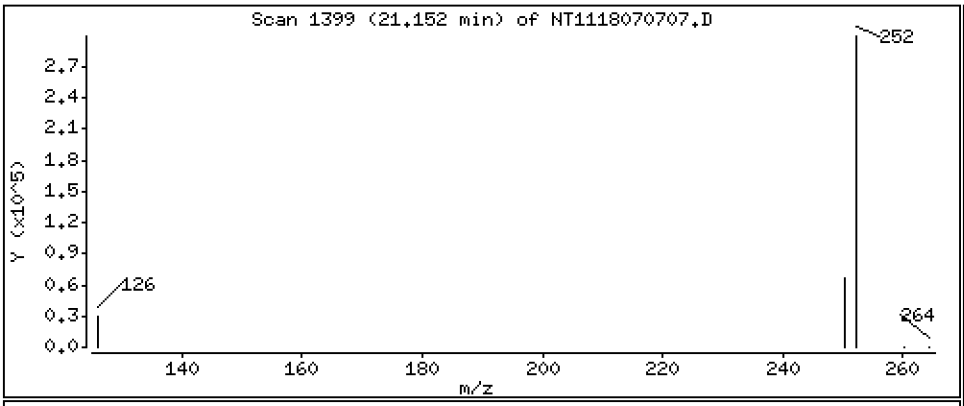
Operator: VTS

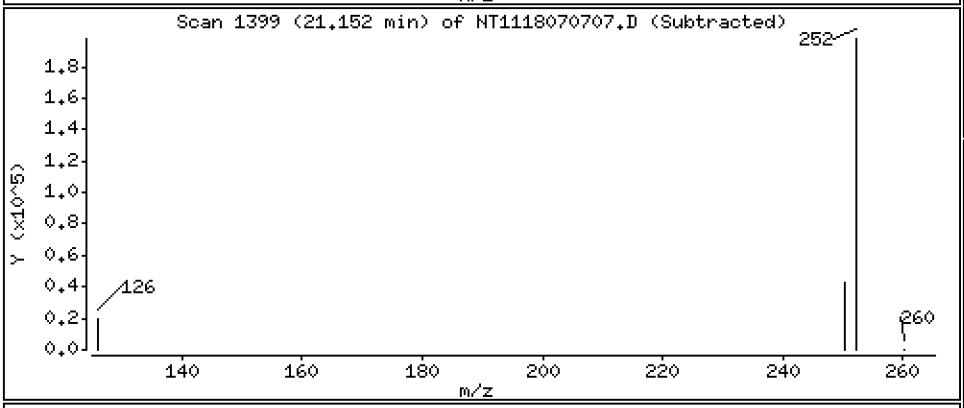
Column phase: Rxi-17Sil MS

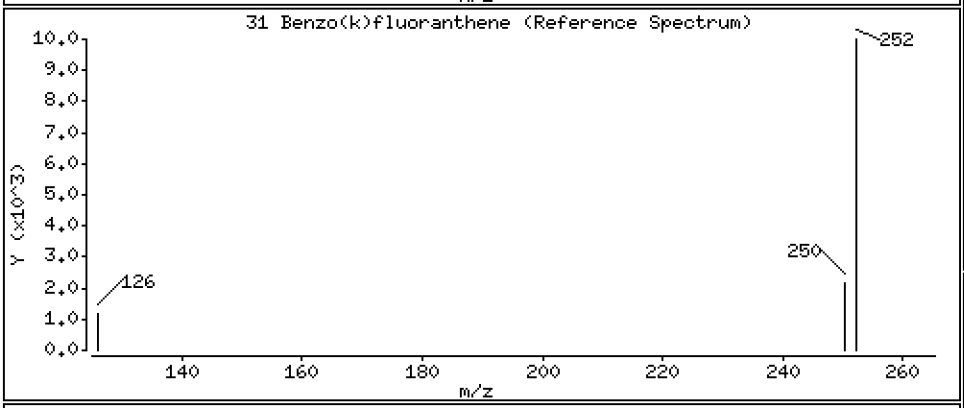
Column diameter: 0.25

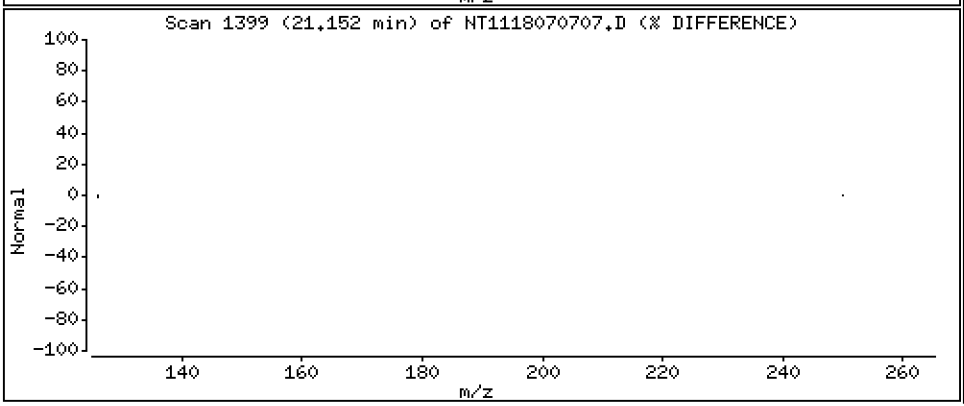
31 Benzo(k)fluoranthene

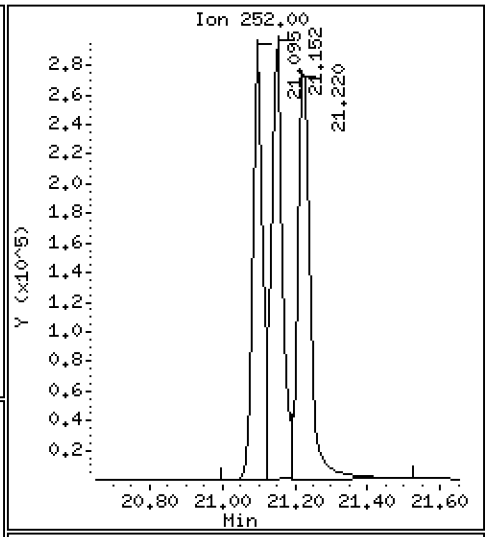
Concentration: 279 ng/mL

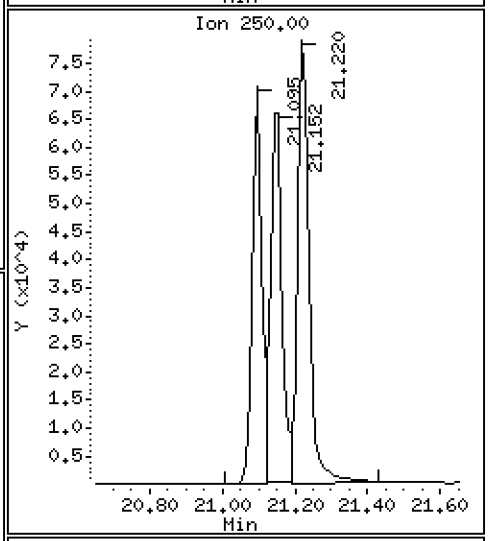


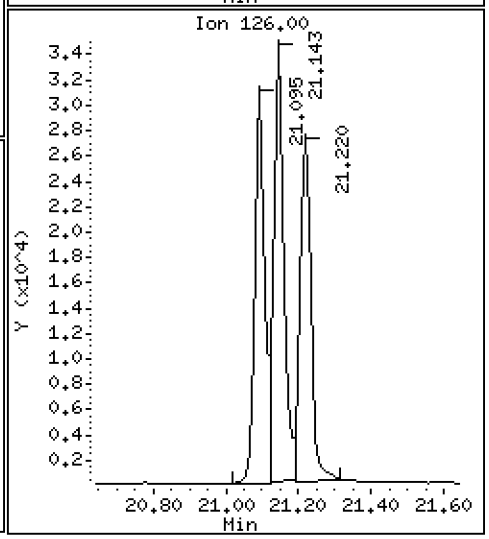












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Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

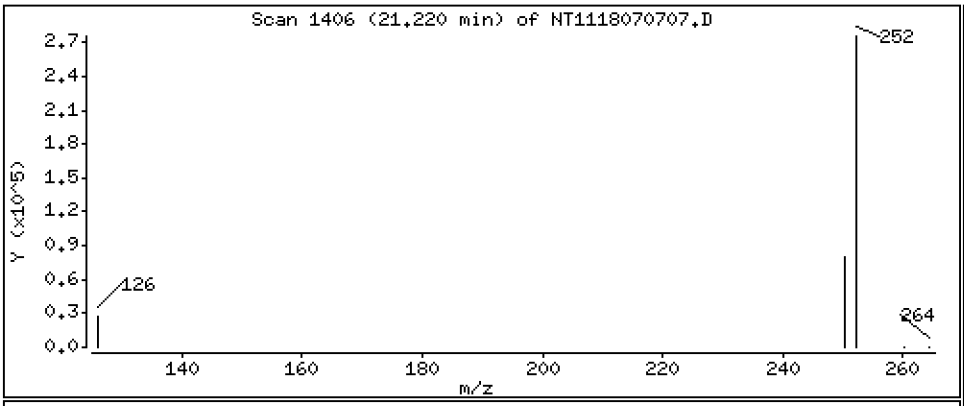
Operator: VTS

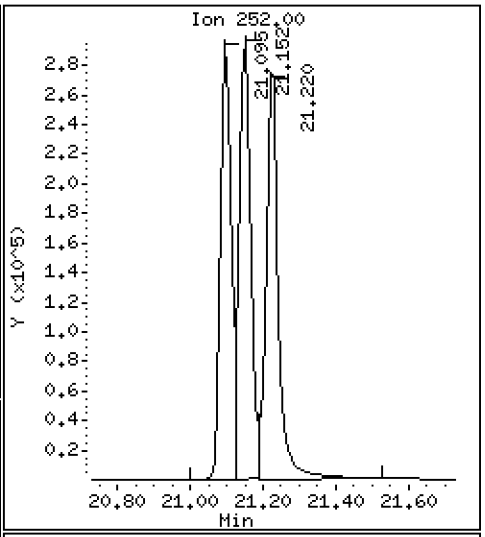
Column phase: Rxi-17Sil MS

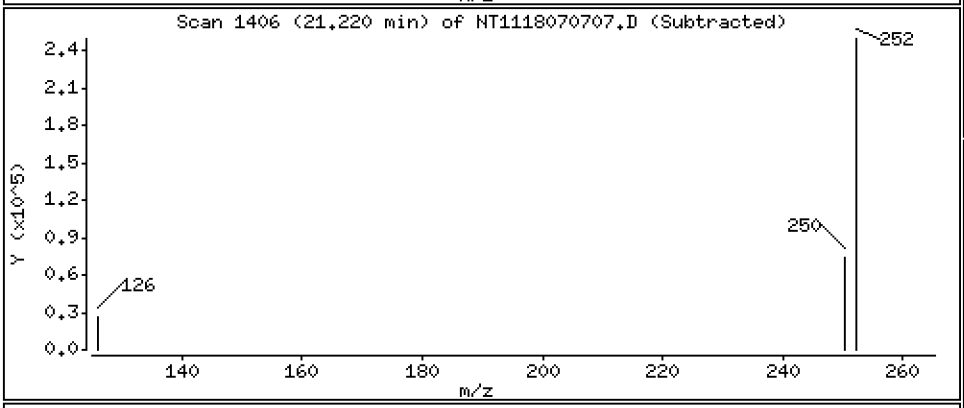
Column diameter: 0.25

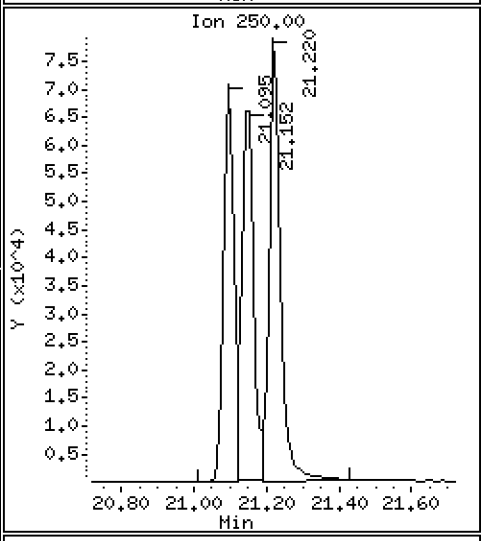
32 Benzo(j)fluoranthene

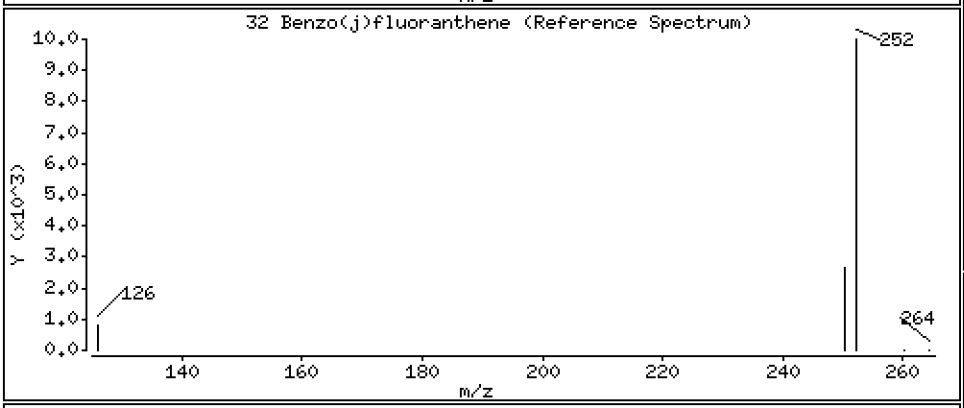
Concentration: 302 ng/mL

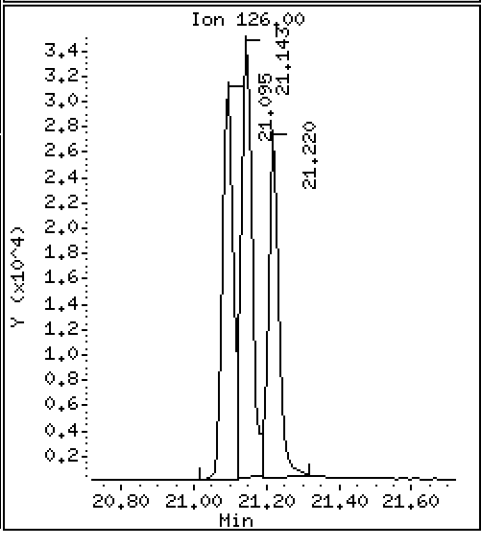


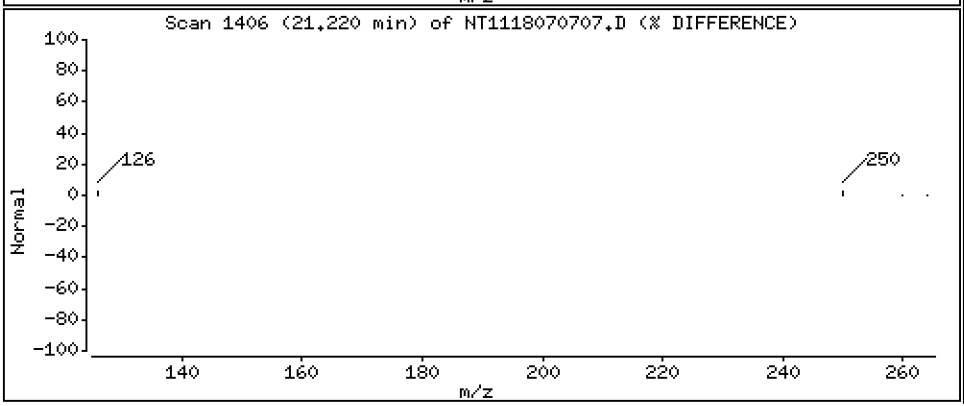












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Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

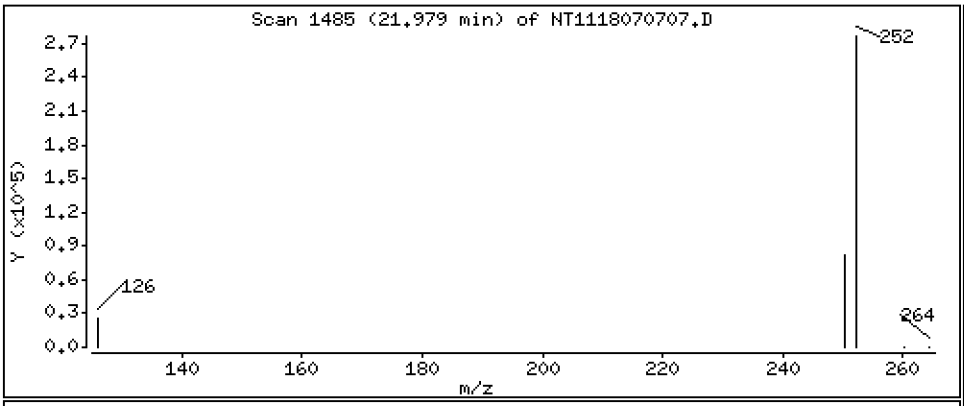
Operator: VTS

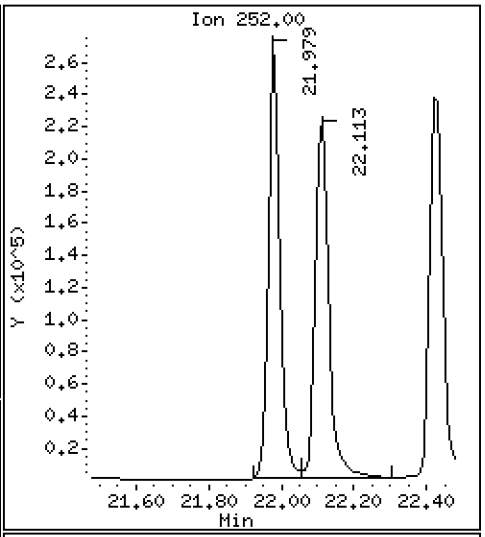
Column phase: Rxi-17Sil MS

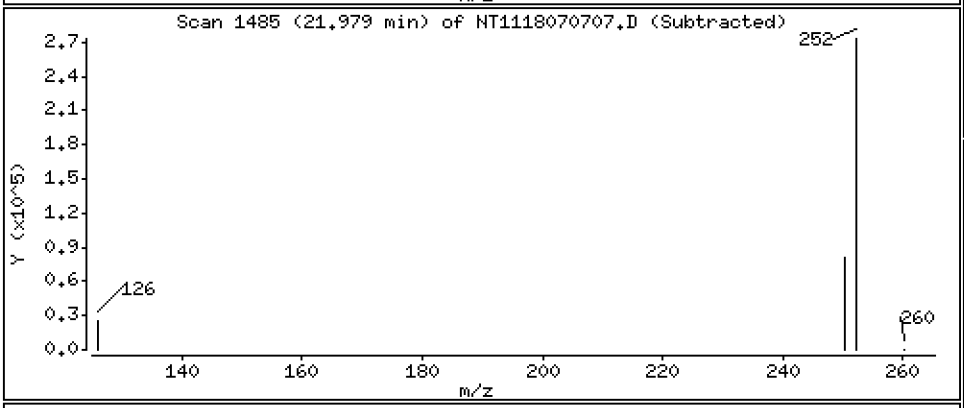
Column diameter: 0.25

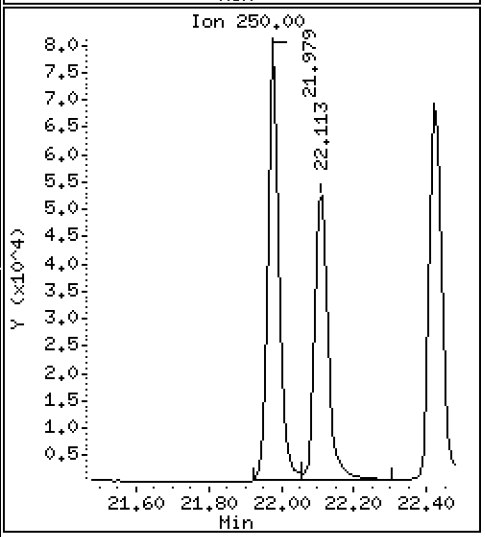
34 Benzo(e)pyrene

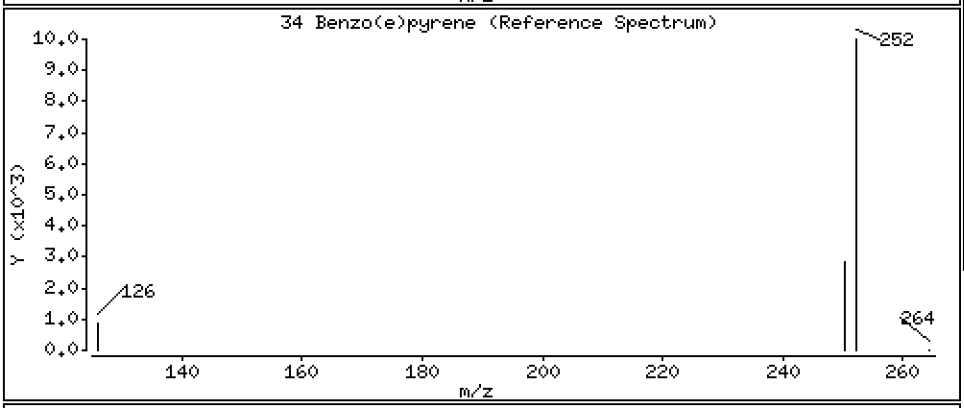
Concentration: 270 ng/mL

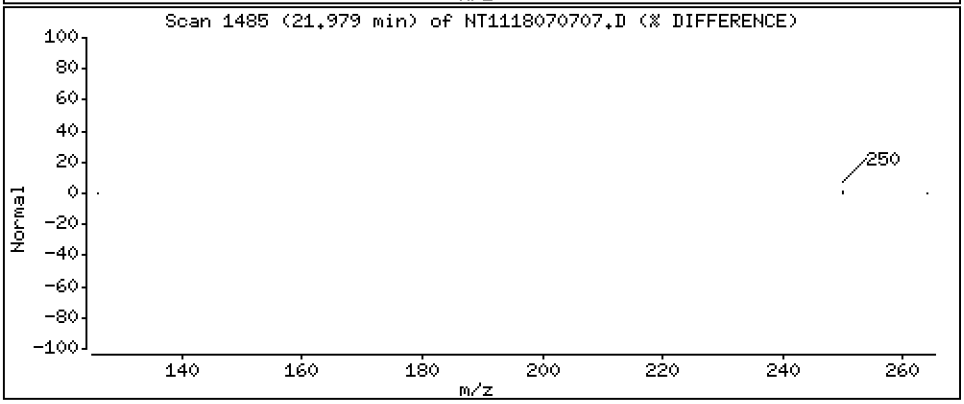












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Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

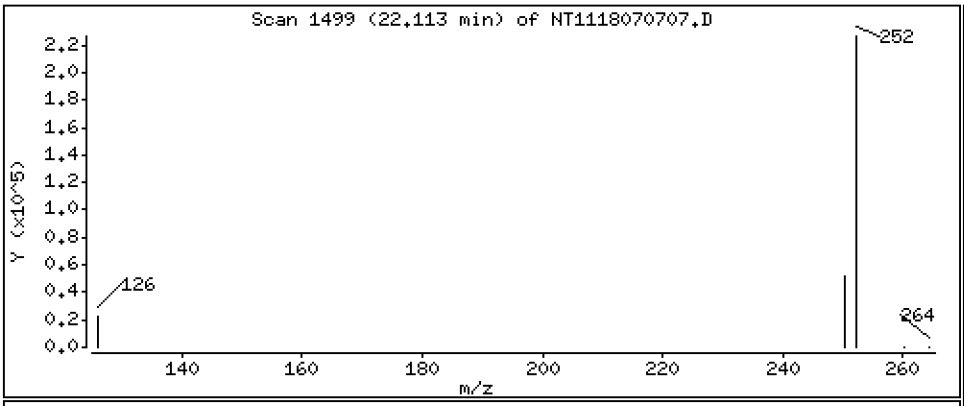
Operator: VTS

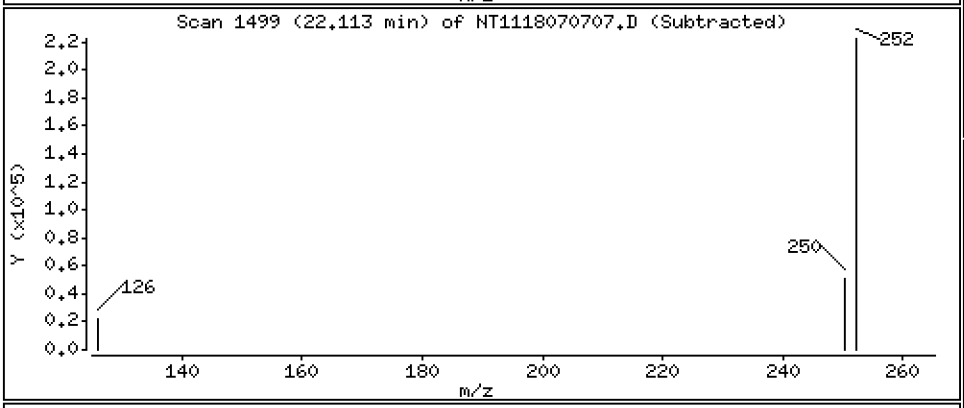
Column phase: Rxi-17Sil MS

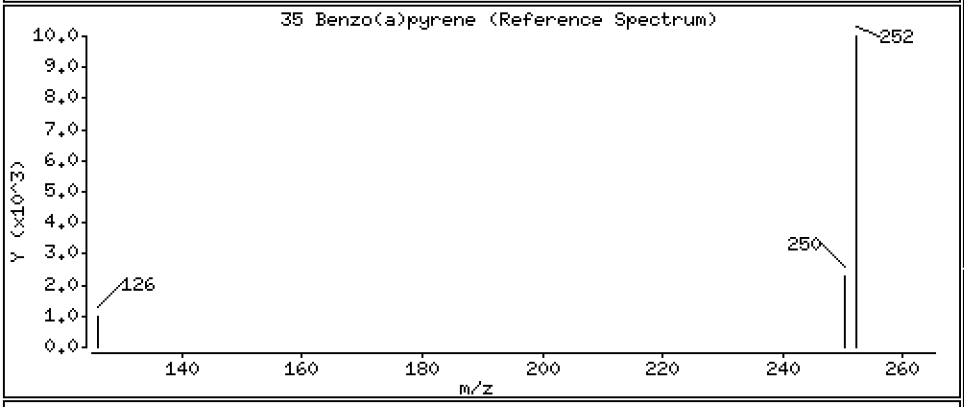
Column diameter: 0.25

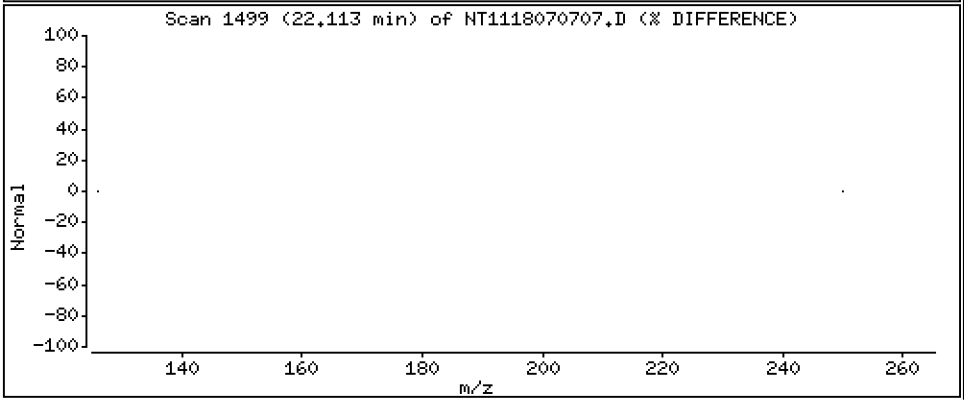
35 Benzo(a)pyrene

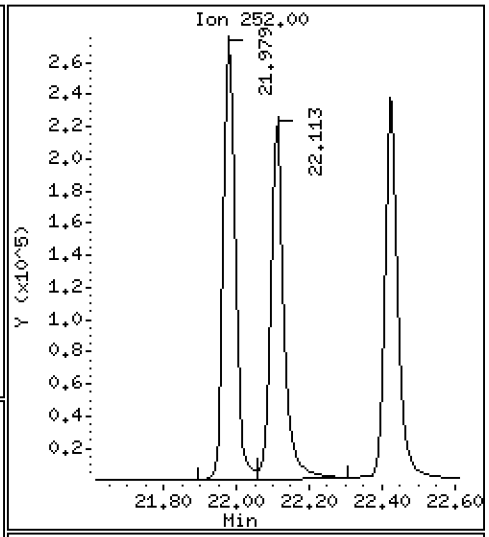
Concentration: 277 ng/mL

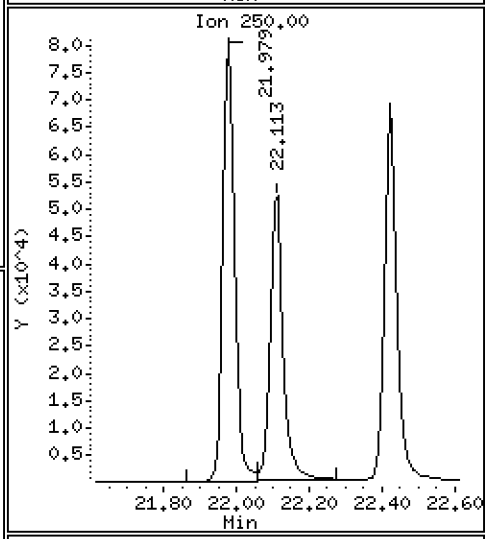


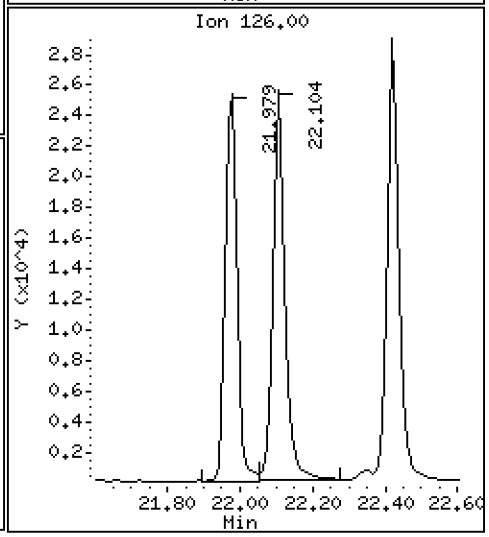












Data File: \\target\share\chem3\nt11.i\20180707.b\NT1118070707.D

Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

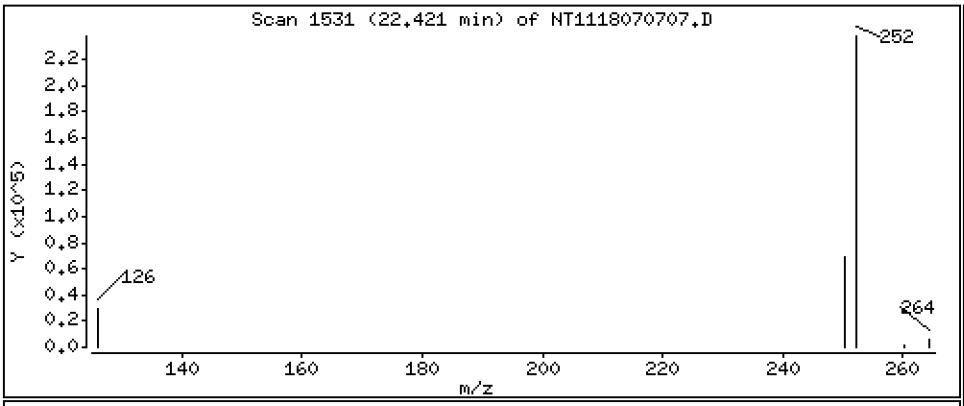
Operator: VTS

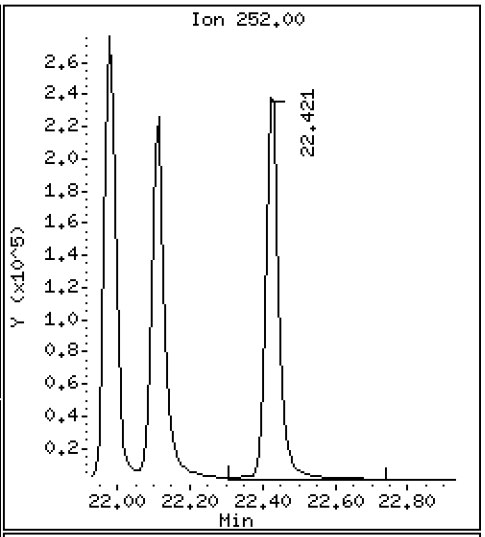
Column phase: Rxi-17Sil MS

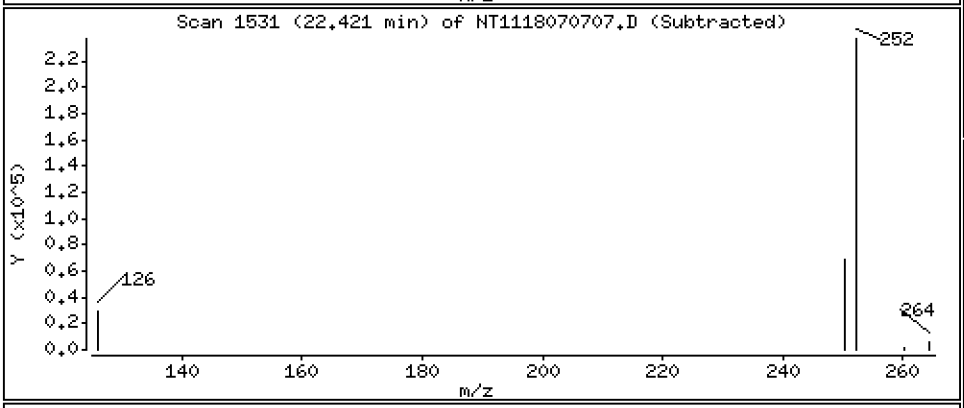
Column diameter: 0.25

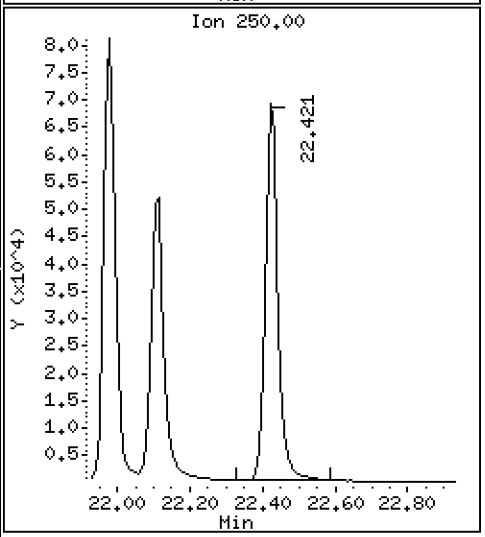
37 Perylene

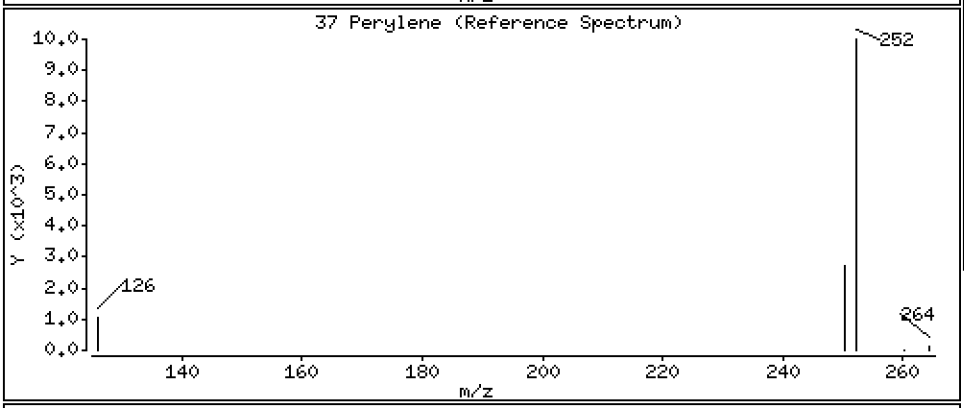
Concentration: 285 ng/mL

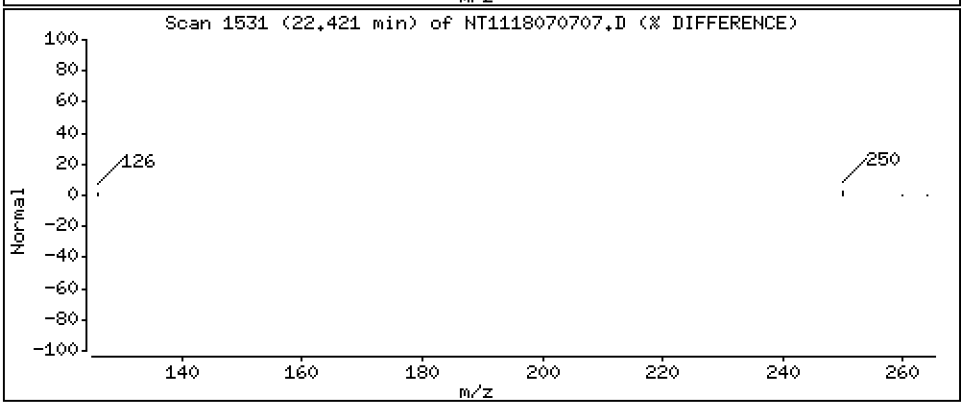












Data File: \\target\share\chem3\nt11.i\20180707.b\NT1118070707.D

Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

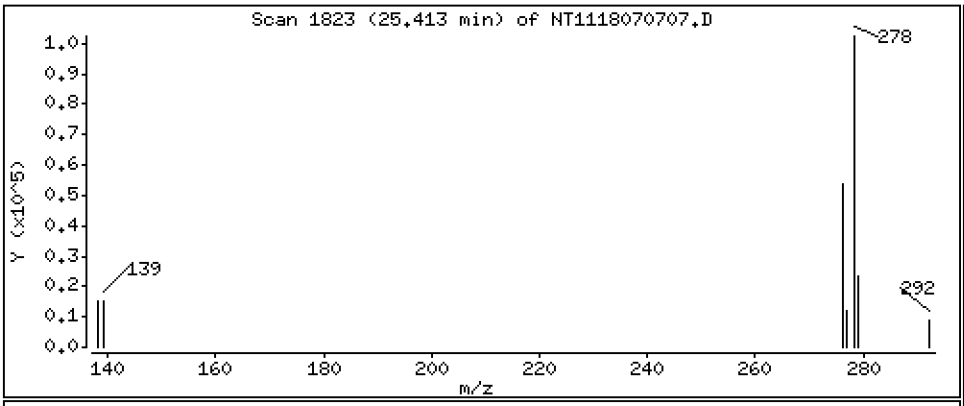
Operator: VTS

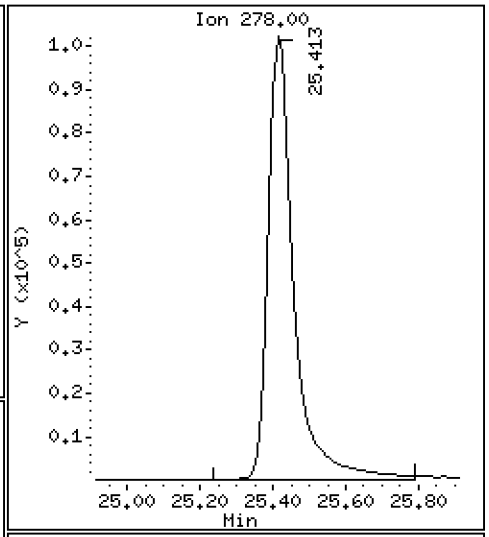
Column phase: Rxi-17Sil MS

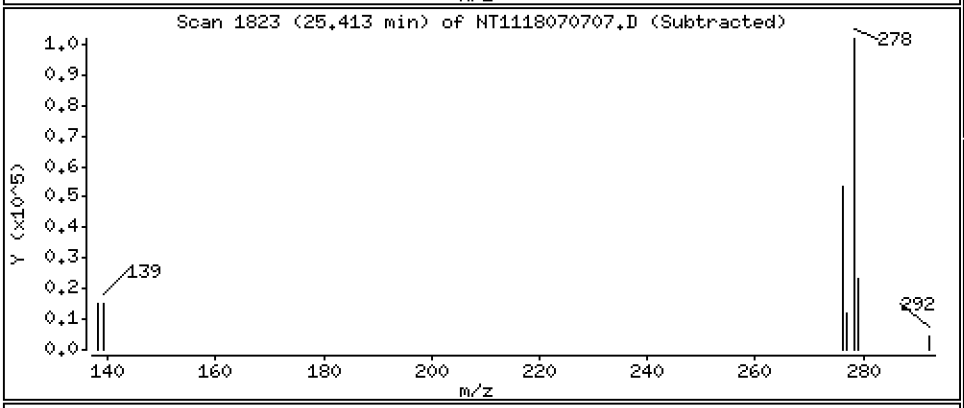
Column diameter: 0.25

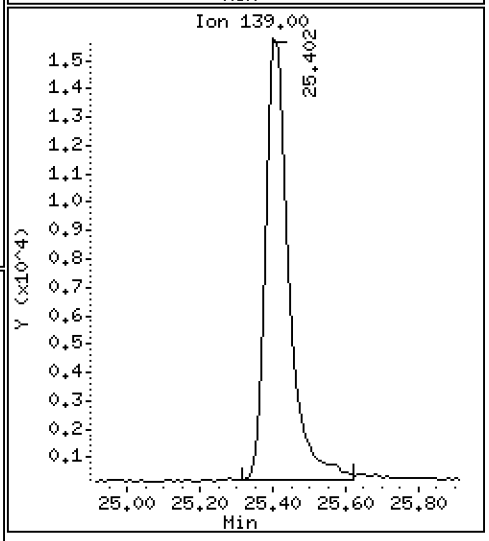
39 Dibenzo(a,h)anthracene

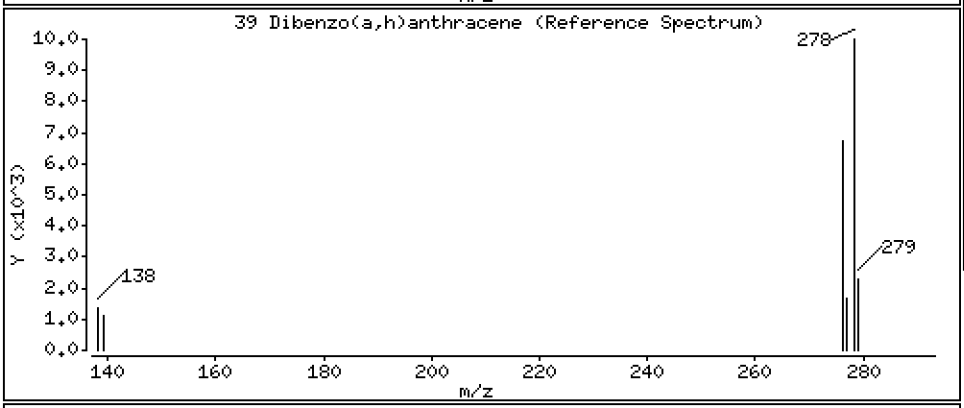
Concentration: 278 ng/mL

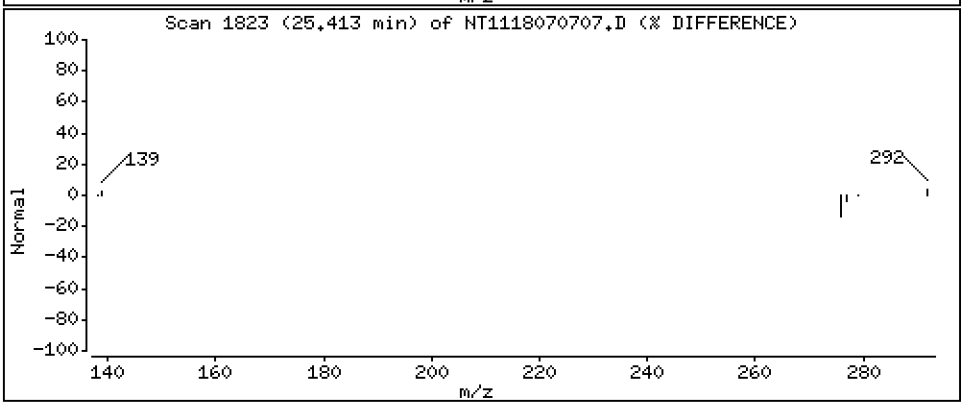












Data File: \\target\share\chem3\nt11.i\20180707.b\NT1118070707.D

Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

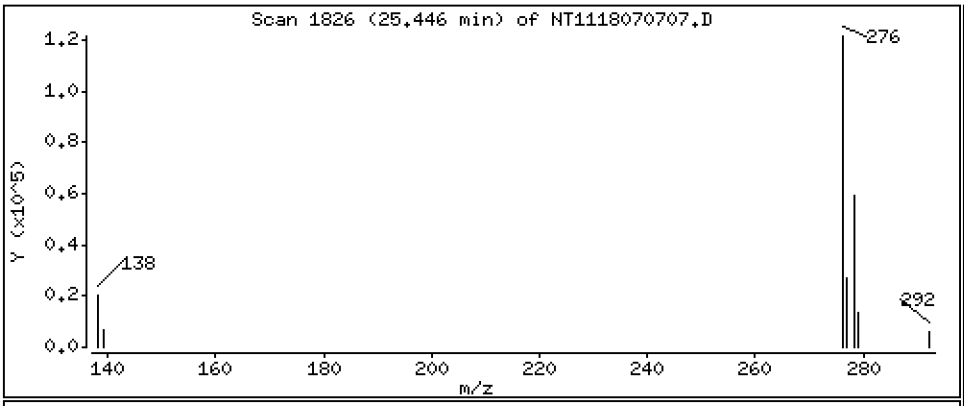
Operator: VTS

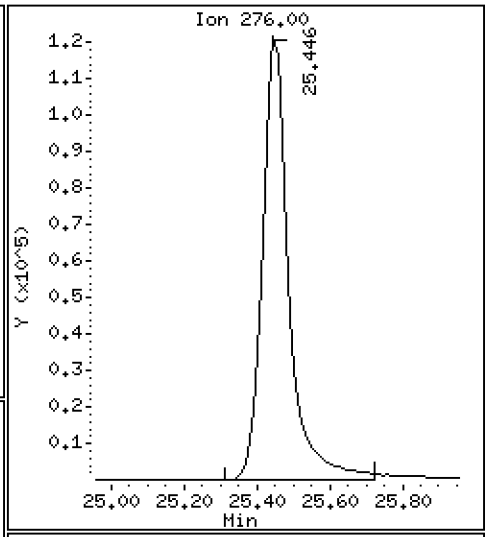
Column phase: Rxi-17Sil MS

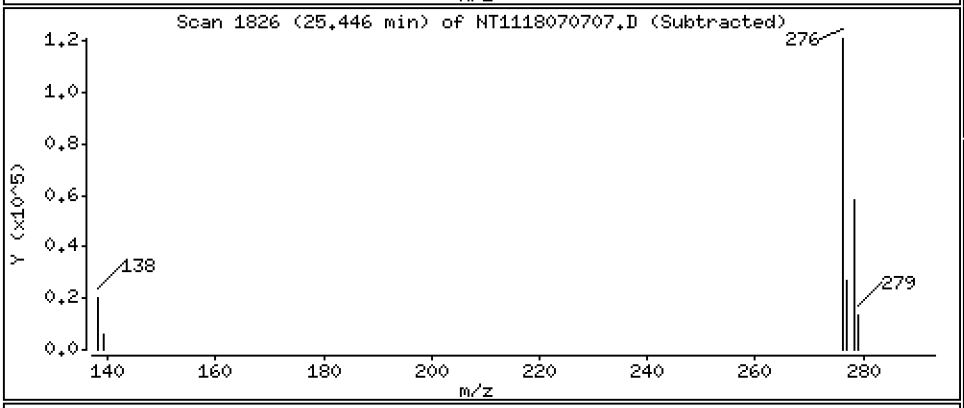
Column diameter: 0.25

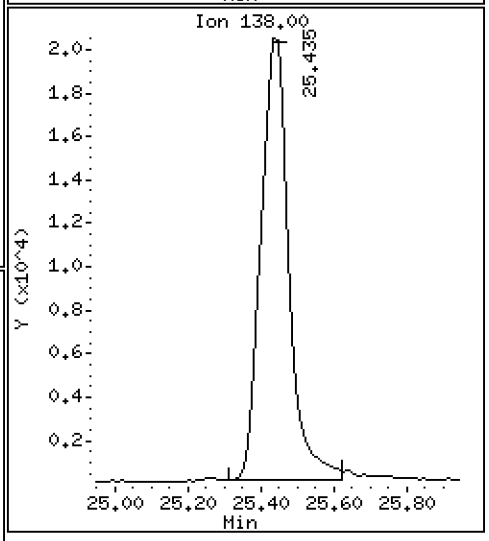
40 Indeno(1,2,3-cd)pyrene

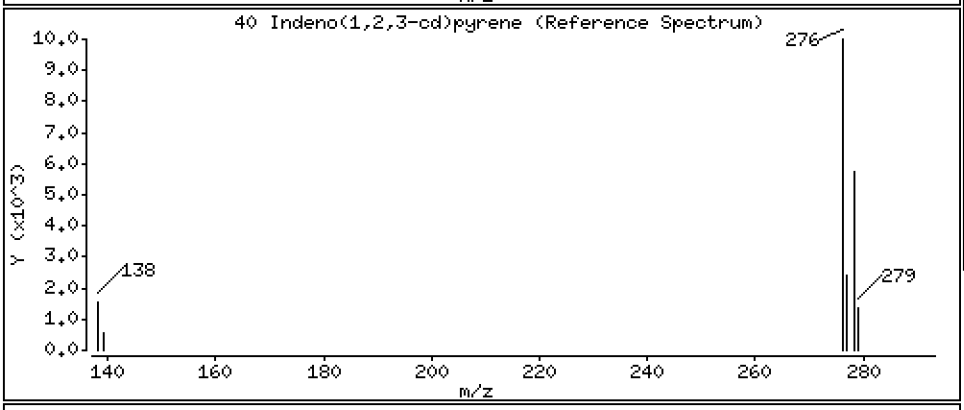
Concentration: 280 ng/mL

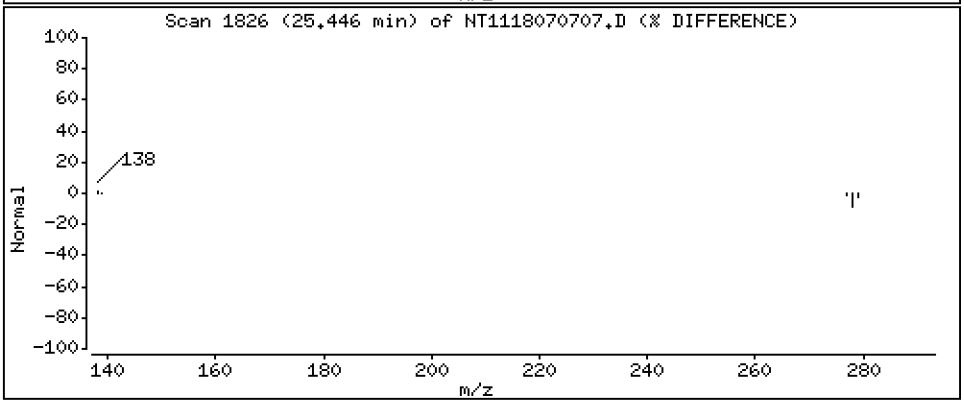












Data File: \\target\share\chem3\nt11.i\20180707.b\NT1118070707.D

Date : 07-JUL-2018 12:14

Client ID:

Instrument: nt11.i

Sample Info: SGG0076-CCV1

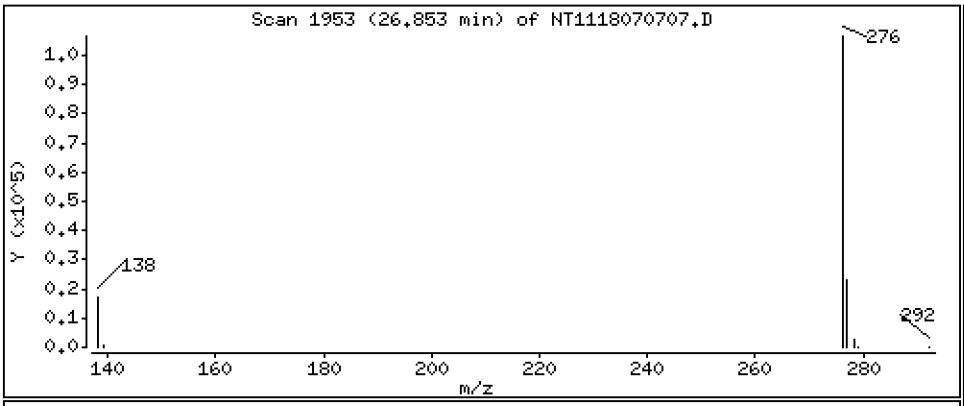
Operator: VTS

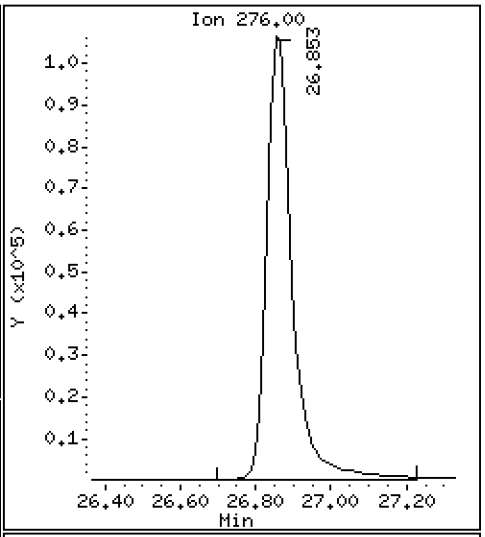
Column phase: Rxi-17Sil MS

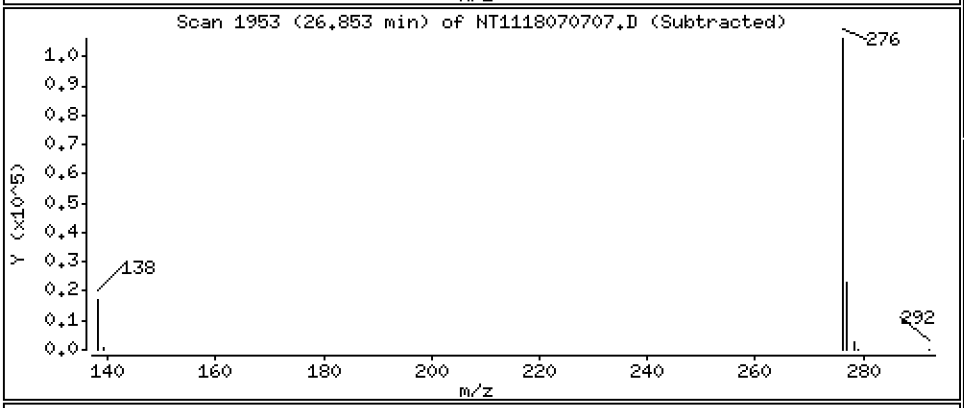
Column diameter: 0.25

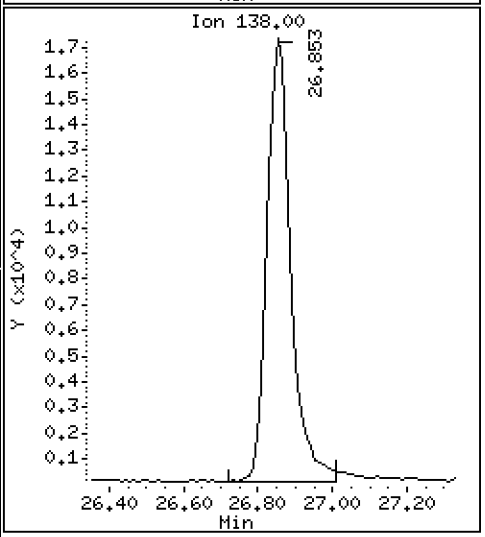
41 Benzo(g,h,i)perylene

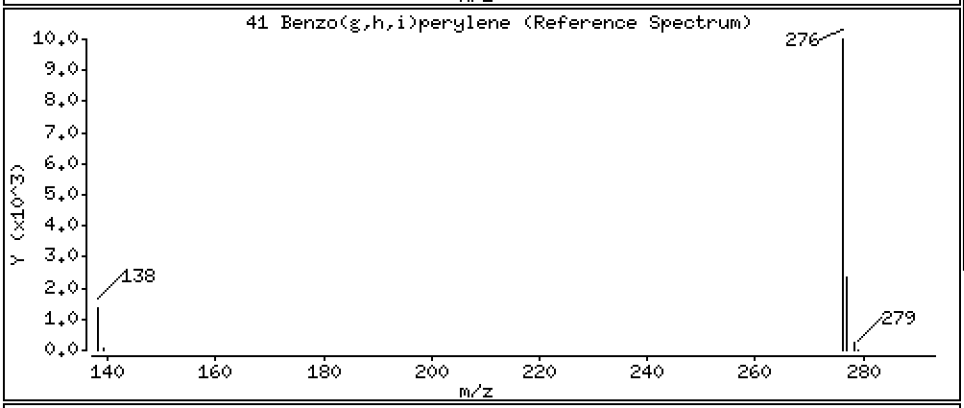
Concentration: 276 ng/mL

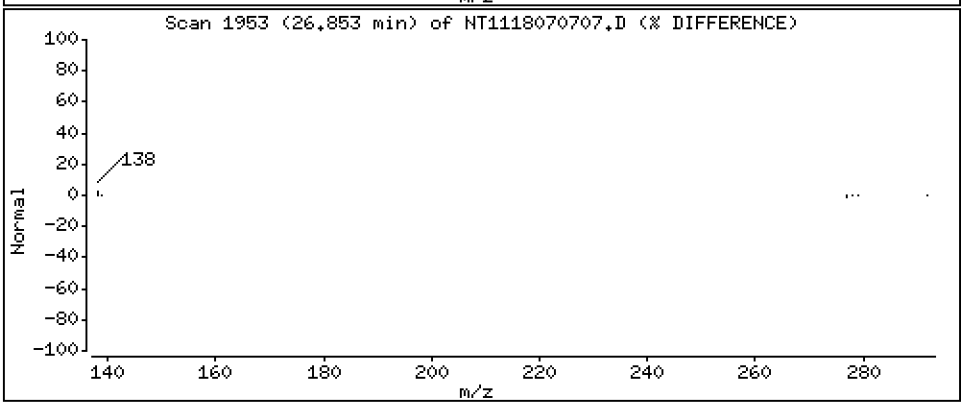












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180707.b\NT1118070707.D
Lab Smp Id: SGG0076-CCV1
Inj Date : 07-JUL-2018 12:14 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : SGG0076-CCV1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180707.b\LOWSIM.m
Meth Date : 07-Jul-2018 09:32 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	442572	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	724605	249.717	250
	3 Benzo(b)thiophene	134	8.897	8.897	(1.034)	628416	270.892	271
$	4 2-Methylnaphthalene-d10	152	9.592	9.591	(1.114)	687424	272.231	272
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	723157	268.243	268
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	705172	263.010	263
	7 2-Chloronaphthalene	162	10.558	10.558	(0.907)	754536	311.563	312
	8 Biphenyl	154	10.526	10.526	(0.904)	916290	316.310	316
	9 2,6-Dimethylnaphthalene	156	10.579	10.579	(0.909)	714537	312.109	312
	10 Acenaphthylene	152	11.490	11.490	(0.987)	814615	294.087	294
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	232971	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	541796	285.972	286
	13 Dibenzofuran	168	11.907	11.907	(1.023)	747366	287.951	288
	14 2,3,5-Trimethylnaphthalene	170	11.996	11.996	(1.030)	473870	285.292	285
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.539	12.539	(1.077)	580987	277.584	278
	17 Dibenzothiophene	184	14.172	14.172	(0.988)	683994	283.851	284
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	386959	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	889008	292.927	293
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.435	14.434	(1.007)	805692	283.973	284
	22 Carbazole	167	15.112	15.112	(1.054)	939828	284.342	284
	23 1-Methylphenanthrene	192	15.384	15.383	(1.073)	901877	314.512	315
$	24 Fluoranthene-d10	212	16.448	16.448	(1.147)	677069	288.256	288
	25 Fluoranthene	202	16.487	16.487	(1.150)	862819	306.140	306
	26 Pyrene	202	16.986	16.986	(0.890)	873535	277.821	278
	27 Benzo(a)anthracene	228	19.004	19.004	(0.995)	718245	292.891	293
*	28 Chrysene-d12	240	19.095	19.095	(1.000)	319828	200.000	
	29 Chrysene	228	19.145	19.145	(1.003)	757907	311.144	311
	30 Benzo(b)fluoranthene	252	21.094	21.094	(0.944)	597624	255.775	256
	31 Benzo(k)fluoranthene	252	21.152	21.152	(0.946)	676991	279.416	279
	32 Benzo(j)fluoranthene	252	21.219	21.229	(0.949)	664996	301.557	302
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	21.978	21.978	(0.983)	609574	270.485	270

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	35 Benzo(a)pyrene	252	22.113	22.113	(0.989)	567697	276.564	277
*	36 Perylene-d12	264	22.353	22.353	(1.000)	330335	200.000	
	37 Perylene	252	22.420	22.430	(1.003)	614728	285.350	285
$	38 Dibenzo(a,h)anthracene-d14	292	25.268	25.268	(1.130)	422038	266.982	267
	39 Dibenzo(a,h)anthracene	278	25.412	25.412	(1.137)	496484	277.985	278
	40 Indeno(1,2,3-cd)pyrene	276	25.445	25.456	(1.138)	597118	279.660	280
	41 Benzo(g,h,i)perylene	276	26.852	26.863	(1.201)	508985	275.600	276

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118070707.D
Lab Smp Id: SGG0076-CCV1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180707.b\LOWSIM.m
Misc Info:

Calibration Date: 07-JUL-2018
Calibration Time: 08:54
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	442572	2.61
11 Acenaphthene-d10	260137	130069	520274	232971	-10.44
18 Phenanthrene-d10	427391	213696	854782	386959	-9.46
28 Chrysene-d12	304596	152298	609192	319828	5.00
36 Perylene-d12	263091	131546	526182	330335	25.56

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	0.00
36 Perylene-d12	22.35	21.85	22.85	22.35	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118070707.D

Lab ID: SGG0076-CCV1
nt11.i, 20180707.b\LOWSIM.m,   07-JUL-2018 12:14

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180707.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGE0100	Instrument:	NT11
		Calibration:	BE00021

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
DFTPP	SGE0100-TUN1	NT1118050501.D	NA	05/05/18 11:56
250	SGE0100-CAL4	NT1118050502.D	NA	05/05/18 12:16
1000	SGE0100-CAL6	NT1118050503.D	NA	05/05/18 12:52
10	SGE0100-CAL1	NT1118050504.D	NA	05/05/18 13:27
500	SGE0100-CAL5	NT1118050505.D	NA	05/05/18 14:03
50	SGE0100-CAL2	NT1118050506.D	NA	05/05/18 14:39
100	SGE0100-CAL3	NT1118050507.D	NA	05/05/18 15:15
ICV 250	SGE0100-ICV1	NT1118050509.D	NA	05/05/18 16:26
ZZZZZ	BGE0007-BLK1	NT1118050510.D	Solid	05/05/18 17:02
ZZZZZ	BGE0007-BS1	NT1118050511.D	Solid	05/05/18 17:38
ZZZZZ	18D0403-01	NT1118050513.D	Solid	05/05/18 18:50
CCV 250	SGE0100-CCV1	NT1118050514.D	NA	05/05/18 19:26

Printed: 5/8/2018 9:24:14AM

ANALYSIS SEQUENCE

SGE0100

Instrument: NT11 Element Column ID: E006482
Calibration ID: BE00021 Tune File: 171116.U
EM Voltage: 2506

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SGE0100-TUN1	DFTPP	QC		1	F010313		
SGE0100-CAL4	250	QC		2	G003981	G003973	
SGE0100-CAL6	1000	QC		3	G003977	G003973	
SGE0100-CAL1	10	QC		4	G003978	G003973	
SGE0100-CAL5	500	QC		5	G003982	G003973	
SGE0100-CAL2	100	QC		6	G003979	G003973	
SGE0100-CAL3	50	QC		7	G003980	G003973	
SGE0100-ICV1	ICV 250	QC		8	G003981	G003973	
BGE0007-BLK1	Blank	QC		9		G003973	
BGE0007-BS1	LCS	QC		10		G003973	
18D0403-01	180414-14	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg	A 02	11		G003973	
SGE0100-CCV1	CCV 250	QC		12	G003981	G003973	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20180505.b

	Time	Filename	LabID	ClientId	DF										
1	1156	NT1118050501.D	SGE0100-TUN1		1	|NO ISTDS FOUND||									
2	1216	NT1118050502.D	SGE0100-CAL4		1	| 8.58	431321||11.62	260137||14.31	427391||19.06	304596||22.30	263091|				
3	1252	NT1118050503.D	SGE0100-CAL6		1	| 8.58	429844||11.62	266324||14.31	433305||19.06	328972||22.30	305713|				
4	1327	NT1118050504.D	SGE0100-CAL1		1	| 8.58	453542||11.62	284258||14.31	489172||19.06	384384||22.30	282777|				
5	1403	NT1118050505.D	SGE0100-CAL5		1	| 8.58	443757||11.62	271488||14.31	469305||19.06	325441||22.30	295168|				
6	1439	NT1118050506.D	SGE0100-CAL2		1	| 8.58	461506||11.62	290097||14.31	488462||19.06	391296||22.30	296817|				
7	1515	NT1118050507.D	SGE0100-CAL3		1	| 8.58	455490||11.62	285609||14.31	488135||19.06	364945||22.30	299320|				
8	1551	NT1118050508.D	SGE0100-SCV1		1	| 8.58	454395||11.62	287025||14.31	487541||19.06	402951||22.30	306381|				
9	1626	NT1118050509.D	SGE0100-ICV1		1	| 8.58	462898||11.62	283986||14.31	481805||19.06	366235||22.30	311961|				
10	1702	NT1118050510.D	BGE0007-BLK1		1	| 8.58	457995||11.62	275283||14.31	477659||19.06	356968||22.31	299812|				
11	1738	NT1118050511.D	BGE0007-BS1		1	| 8.58	453213||11.62	274869||14.31	459379||19.06	340554||22.31	313172|				
12	1814	NT1118050512.D	18D0403-01		1	|11.79	946072||14.32	168139||19.11	436748||22.37	434396|					
13	1850	NT1118050513.D	18D0403-01		10	| 8.59	454959||11.64	211770||14.32	390197||19.07	356337||22.31	367865|				
14	1926	NT1118050514.D	SGE0100-CCV1		1	| 8.58	434829||11.62	314492||14.31	520922||19.06	316561||22.31	327770|				

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20180505.b

Instrument: nt11.i Date: 05-MAY-2018

Time	Filename	LabID	DF	Manually Integrated Compounds
1156	NT1118050501.D	SGE0100-TUN1	1	NO MANUAL INTEGRATION
1216	NT1118050502.D	SGE0100-CAL4	1	NO MANUAL INTEGRATION
1252	NT1118050503.D	SGE0100-CAL6	1	NO MANUAL INTEGRATION
1327	NT1118050504.D	SGE0100-CAL1	1	NO MANUAL INTEGRATION
1403	NT1118050505.D	SGE0100-CAL5	1	NO MANUAL INTEGRATION
1439	NT1118050506.D	SGE0100-CAL2	1	NO MANUAL INTEGRATION
1515	NT1118050507.D	SGE0100-CAL3	1	NO MANUAL INTEGRATION
1551	NT1118050508.D	SGE0100-SCV1	1	NO MANUAL INTEGRATION
1626	NT1118050509.D	SGE0100-ICV1	1	NO MANUAL INTEGRATION
1702	NT1118050510.D	BGE0007-BLK1	1	NO MANUAL INTEGRATION
1738	NT1118050511.D	BGE0007-BS1	1	NO MANUAL INTEGRATION
1814	NT1118050512.D	18D0403-01	1	NO MANUAL INTEGRATION
1850	NT1118050513.D	18D0403-01	10	Acenaphthylene, Aceraphthene, Dibenzofuran, Anthracene, Dibenzo(a,h)anthracene, 1-Methylnaphthalene, Acenaphthene-d10, Benzo(b)thiophene, Carbazole, Biphenyl, 2-Methylnaphthalene-d10, Fluoranthene-d10,
1926	NT1118050514.D	SGE0100-CCV1	1	NO MANUAL INTEGRATION

Security Status Report

Date: 08-May-2018 09:02

NT1118050501.D	Data Locked	van, 08-May-2018 09:02
NT1118050502.D	Data Locked	van, 08-May-2018 09:02
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NT1118050513.D	Data Locked	van, 08-May-2018 09:02
NT1118050514.D	Data Locked	van, 08-May-2018 09:02

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Extract Dilution Bench Sheet

Sequence: SGE0100
Analyst: VTS Date: 5.5.18

Sample ID	Primary Dilution				Secondary Dilution			
	Extract Volume (uL)	Diluent ID	Diluent Volume (uL)	Dilution Factor	Extract Volume (uL)	Diluent ID	Diluent Volume (uL)	Dilution Factor
18D0403-01	50	DCM|G002987	450	10				

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGF0298	Instrument:	NT11
		Calibration:	BE00021

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
DFTPP	SGF0298-TUN1	NT1118062301.D	NA	06/23/18 10:12
ICV 250	SGF0298-ICV1	NT1118062302.D	NA	06/23/18 10:32
Blank	BGF0416-BLK1	NT1118062303.D	Water	06/23/18 11:11
LCS	BGF0416-BS1	NT1118062304.D	Water	06/23/18 11:47
LDW18-SP-RB1	18F0185-01	NT1118062305.D	Water	06/23/18 12:23
LDW18-SP-30	18F0185-03	NT1118062306.D	Water	06/23/18 12:58
LDW18-SP-32	18F0185-04	NT1118062307.D	Water	06/23/18 13:35
LDW18-SP-35	18F0185-05	NT1118062308.D	Water	06/23/18 15:12
LDW18-SP-38	18F0185-06	NT1118062309.D	Water	06/23/18 15:48
LDW18-SP-42	18F0185-07	NT1118062310.D	Water	06/23/18 16:24
LDW18-SP-43	18F0185-08	NT1118062311.D	Water	06/23/18 17:00
LDW18-SP-43	BGF0416-MS1	NT1118062312.D	Water	06/23/18 17:37
LDW18-SP-43	BGF0416-MSD1	NT1118062313.D	Water	06/23/18 18:13
Blank	BGF0455-BLK1	NT1118062314.D	Water	06/23/18 18:50
LCS	BGF0455-BS1	NT1118062315.D	Water	06/23/18 19:26
MRL Check	BGF0455-MRL1	NT1118062316.D	Water	06/23/18 20:02
MRL Check	BGF0455-MRL2	NT1118062317.D	Water	06/23/18 20:38
LDW18-SP-06	18F0208-01	NT1118062318.D	Water	06/23/18 21:14
LDW18-SP-33	18F0208-02	NT1118062319.D	Water	06/23/18 21:50
CCV 250	SGF0298-CCV1	NT1118062322.D	NA	06/23/18 23:38

Printed: 6/26/2018 8:43:04AM

ANALYSIS SEQUENCE

SGF0298

Instrument: NT11 Element Column ID: E002737
Calibration ID: BE00021 Tune File: 171116.U
EM Voltage: 2506

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SGF0298-TUN1	DFTPP	QC		1	F010313		
SGF0298-ICV1	ICV 250	QC		2	G003981	G003973	
BGF0416-BLK1	Blank	QC		3		G003973	
BGF0416-BS1	LCS	QC		4		G003973	
18F0185-01	LDW18-SP-RB1	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	D 01	5		G003973	
18F0185-03	LDW18-SP-30	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	D 01	6		G003973	
18F0185-04	LDW18-SP-32	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	D 01	7		G003973	
18F0185-05	LDW18-SP-35	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	D 01	8		G003973	
18F0185-06	LDW18-SP-38	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	D 01	9		G003973	
18F0185-07	LDW18-SP-42	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	D 01	10		G003973	
18F0185-08	LDW18-SP-43	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	E 01	11		G003973	
BGF0416-MS1	Matrix Spike	QC		12		G003973	
BGF0416-MSD1	Matrix Spike Dup	QC		13		G003973	
BGF0455-BLK1	Blank	QC		14		G003973	
BGF0455-BS1	LCS	QC		15		G003973	
BGF0455-MRL1	MRL Check	QC		16		G003973	
BGF0455-MRL2	LOD	QC		17		G003973	
18F0208-01	LDW18-SP-06	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	C 01	18		G003973	
18F0208-02	LDW18-SP-33	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	C 01	19		G003973	
SGF0298-CCV1	CCV 250	QC		20	G003981	G003973	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20180623.b

	Time	Filename	LabID	ClientId	DF									
1	1012	NT1118062301.D	SGF0298-TUN1		1	|NO ISTDS FOUND||								
2	1032	NT1118062302.D	SGF0298-ICV1		1	| 8.61	439848||11.64	277298||14.34	475065||19.10	314145||22.35	322901|			
3	1111	NT1118062303.D	BGF0416-BLK1		1	| 8.61	437861||11.64	267531||14.34	460495||19.10	282512||22.35	272776|			
4	1147	NT1118062304.D	BGF0416-BS1		1	| 8.61	435740||11.64	267913||14.34	458725||19.10	329128||22.35	319608|			
5	1223	NT1118062305.D	18F0185-01		1	| 8.61	424320||11.64	248415||14.34	424349||19.10	308989||22.35	321184|			
6	1258	NT1118062306.D	18F0185-03		1	| 8.61	413294||11.64	230773||14.34	390320||19.10	310693||22.35	314538|			
7	1335	NT1118062307.D	18F0185-04		1	| 8.61	430028||11.64	250484||14.34	419449||19.10	312031||22.35	308243|			
8	1512	NT1118062308.D	18F0185-05		1	| 8.62	445376||11.65	256055||14.34	443516||19.10	317075||22.36	323040|			
9	1548	NT1118062309.D	18F0185-06		1	| 8.61	438604||11.64	242489||14.34	403904||19.10	323995||22.35	323445|			
10	1624	NT1118062310.D	18F0185-07		1	| 8.61	433609||11.64	250692||14.34	420792||19.10	314264||22.35	314498|			
11	1700	NT1118062311.D	18F0185-08		1	| 8.61	440585||11.64	251575||14.34	442232||19.10	329868||22.35	315043|			
12	1737	NT1118062312.D	BGF0416-MS1		1	| 8.61	432165||11.64	238674||14.34	396531||19.10	321120||22.35	329991|			
13	1813	NT1118062313.D	BGF0416-MSD1		1	| 8.61	443613||11.64	257139||14.34	433203||19.10	329800||22.35	330775|			
14	1850	NT1118062314.D	BGF0455-BLK1		1	| 8.61	456808||11.64	259788||14.34	455065||19.10	343022||22.35	321640|			
15	1926	NT1118062315.D	BGF0455-BS1		1	| 8.61	447669||11.64	257845||14.34	432028||19.10	342568||22.35	333496|			
16	2002	NT1118062316.D	BGF0455-MRL1		1	| 8.61	447910||11.64	254646||14.34	432883||19.10	341572||22.35	326818|			
17	2038	NT1118062317.D	BGF0455-MRL2		1	| 8.61	439316||11.64	244791||14.34	417605||19.10	329932||22.35	315175|			
18	2114	NT1118062318.D	18F0208-01		1	| 8.61	437051||11.64	238277||14.34	398736||19.10	320270||22.35	321609|			
19	2150	NT1118062319.D	18F0208-02		1	| 8.61	439048||11.64	237424||14.34	401858||19.10	318605||22.35	323377|			
20	2226	NT1118062320.D	18F0208-03		1	| 8.61	443462||11.64	241903||14.34	397299||19.10	323201||22.35	322149|			

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20180623.b

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21	2302	NT1118062321.D	18F0208-04		1	8.61	432671	11.64	257057	14.34	395188	19.10	312110	22.35	326491
22	2338	NT1118062322.D	SGF0298-CCV1		1	8.61	485226	11.64	271019	14.34	448711	19.10	343210	22.35	344657

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20180623.b

Instrument: nt11.i Date: 23-JUN-2018

Time	Filename	LabID	DF	Manually Integrated Compounds
1012	NT1118062301.D	SGF0298-TUN1	1	NO MANUAL INTEGRATION
1032	NT1118062302.D	SGF0298-ICV1	1	NO MANUAL INTEGRATION
1111	NT1118062303.D	BGF0416-BLK1	1	NO MANUAL INTEGRATION
1147	NT1118062304.D	BGF0416-BS1	1	NO MANUAL INTEGRATION
1223	NT1118062305.D	18F0185-01	1	NO MANUAL INTEGRATION
1258	NT1118062306.D	18F0185-03	1	Dibenzofuran, 1-Methylnaphthalene,
1335	NT1118062307.D	18F0185-04	1	NO MANUAL INTEGRATION
1512	NT1118062308.D	18F0185-05	1	NO MANUAL INTEGRATION
1548	NT1118062309.D	18F0185-06	1	NO MANUAL INTEGRATION
1624	NT1118062310.D	18F0185-07	1	NO MANUAL INTEGRATION
1700	NT1118062311.D	18F0185-08	1	NO MANUAL INTEGRATION
1737	NT1118062312.D	BGF0416-MS1	1	NO MANUAL INTEGRATION
1813	NT1118062313.D	BGF0416-MSD1	1	NO MANUAL INTEGRATION
1850	NT1118062314.D	BGF0455-BLK1	1	NO MANUAL INTEGRATION
1926	NT1118062315.D	BGF0455-BS1	1	NO MANUAL INTEGRATION
2002	NT1118062316.D	BGF0455-MRL1	1	NO MANUAL INTEGRATION
2038	NT1118062317.D	BGF0455-MRL2	1	Benzo(e)pyrene, Benzo(b)thiophene, 2-Chloronaphthalene, 2,6-Dimethylnaphthalene, 2,3,5-Trimethylnaphthalene, D

Instrument: nt11.i Date: 23-JUN-2018

Time	Filename	LabID	DF	Manually Integrated Compounds
2114	NT1118062318.D	18F0208-01	1	NO MANUAL INTEGRATION
2150	NT1118062319.D	18F0208-02	1	2-Chloronaphthalene,
2226	NT1118062320.D	18F0208-03	1	NO MANUAL INTEGRATION
2302	NT1118062321.D	18F0208-04	1	Acenaphthylene, Aceraphthene, Dibenzofuran, 1-Methylnaphthalene, Biphenyl,
2338	NT1118062322.D	SGF0298-CCV1	1	NO MANUAL INTEGRATION

Security Status Report

Date: 26-Jun-2018 08:38

NT1118062301.D	Data Locked	van, 26-Jun-2018 08:38
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NT1118062322.D	Data Locked	van, 26-Jun-2018 08:38

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Date : 26-JUN-2018 11:59

Client ID:

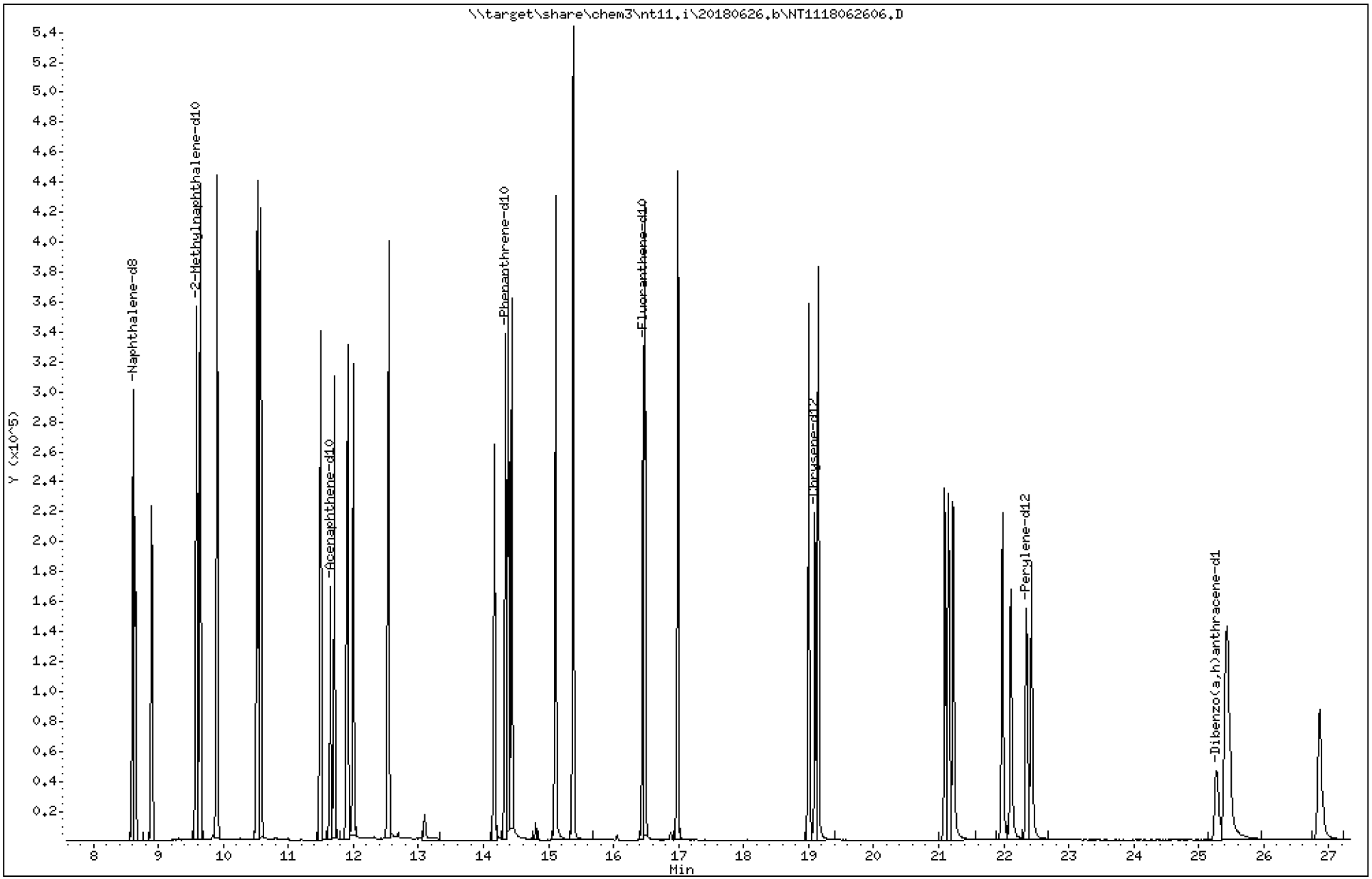
Instrument: nt11.i

Sample Info: BGF0416-BS1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

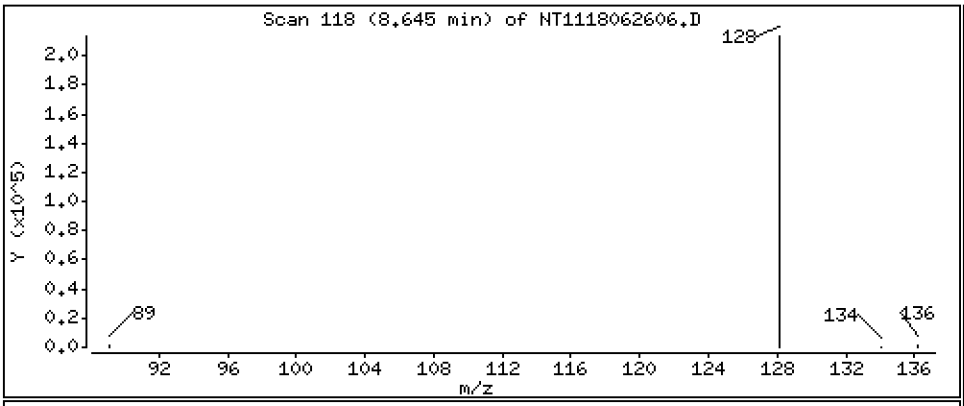
Operator: VTS

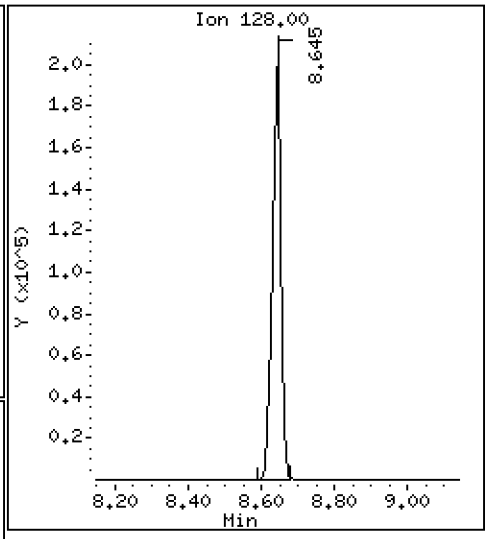
Column phase: Rxi-17Sil MS

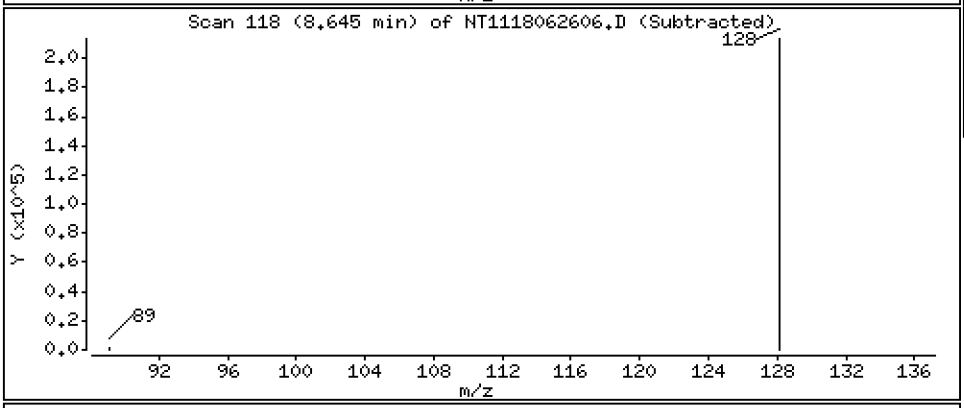
Column diameter: 0.25

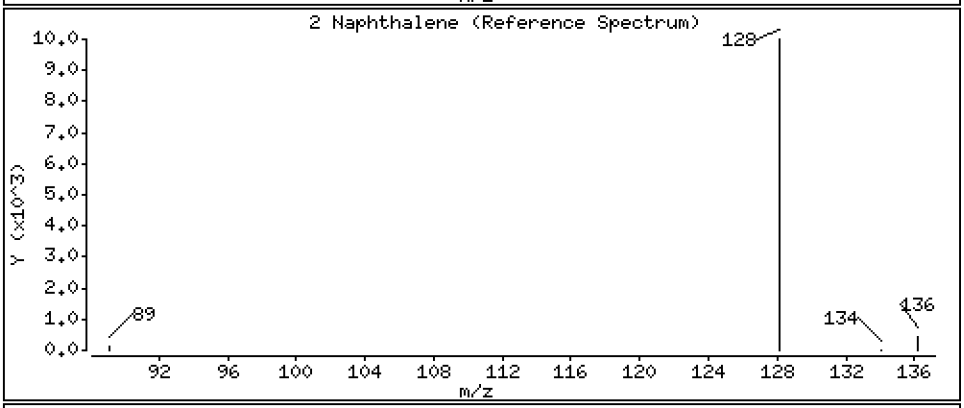
2 Naphthalene

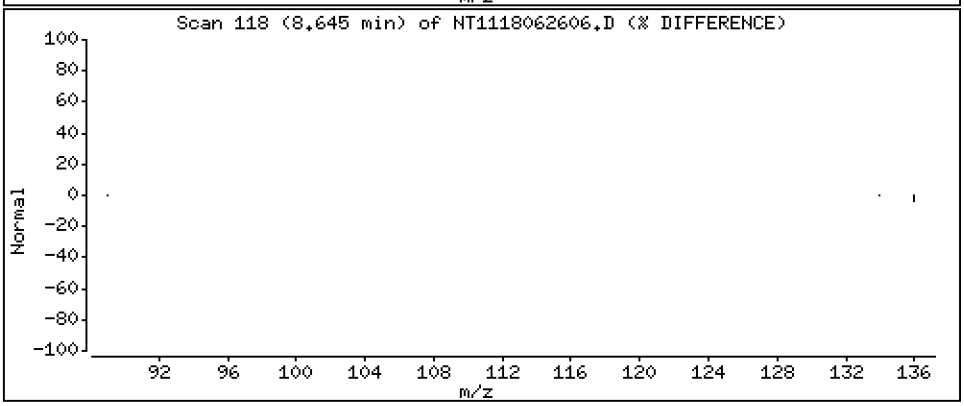
Concentration: 111 ng/mL











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Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

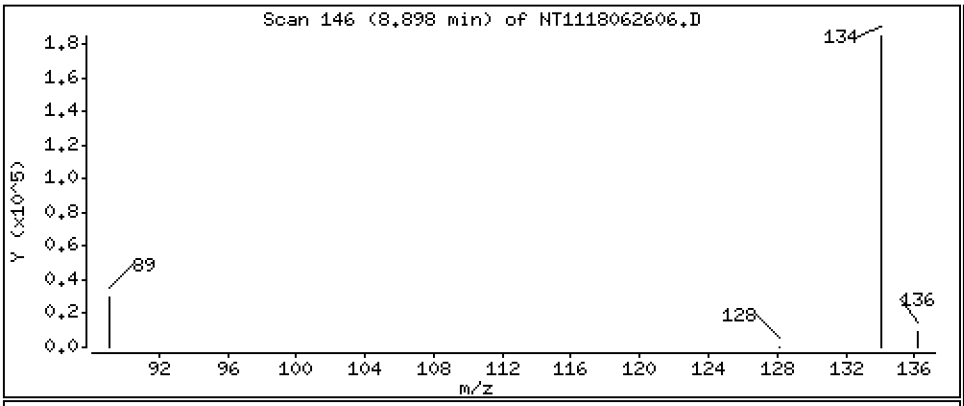
Operator: VTS

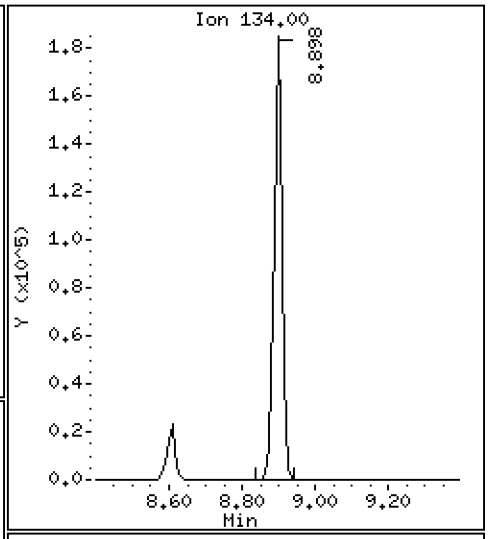
Column phase: Rxi-17Sil MS

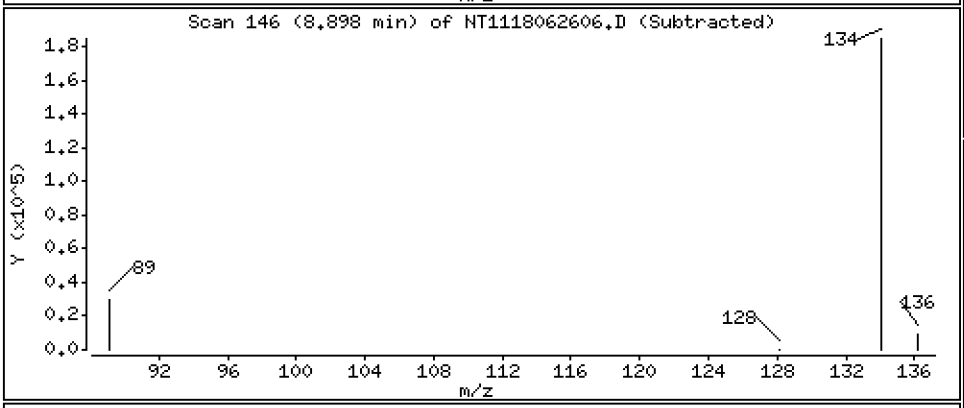
Column diameter: 0.25

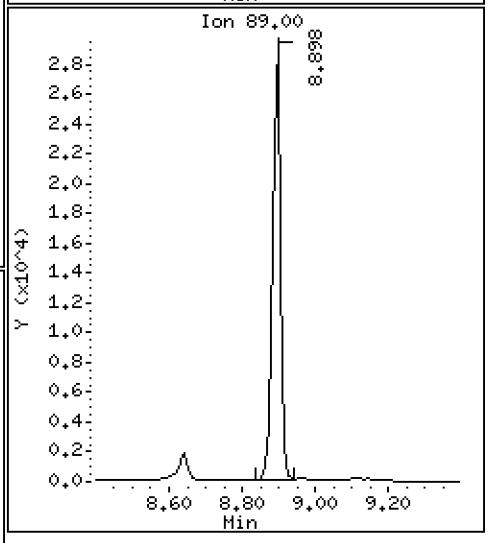
3 Benzo(b)thiophene

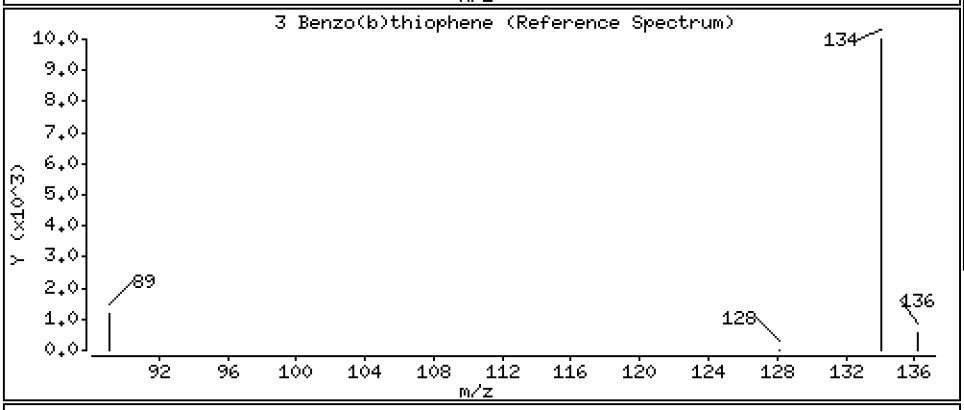
Concentration: 132 ng/mL

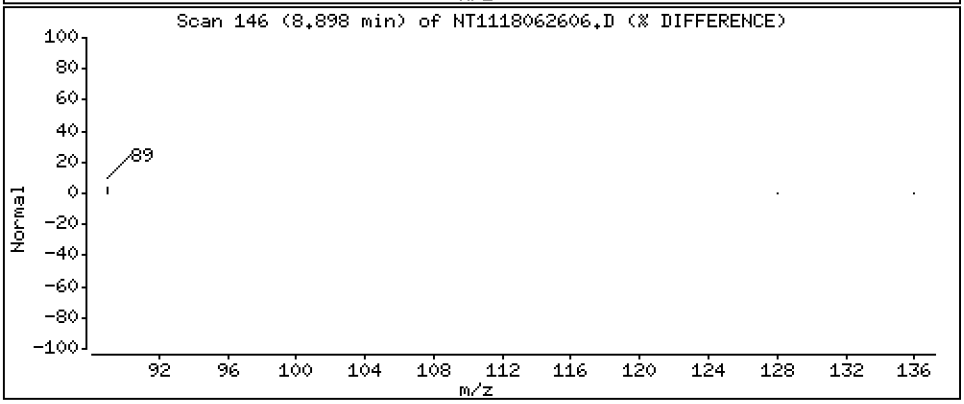












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Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

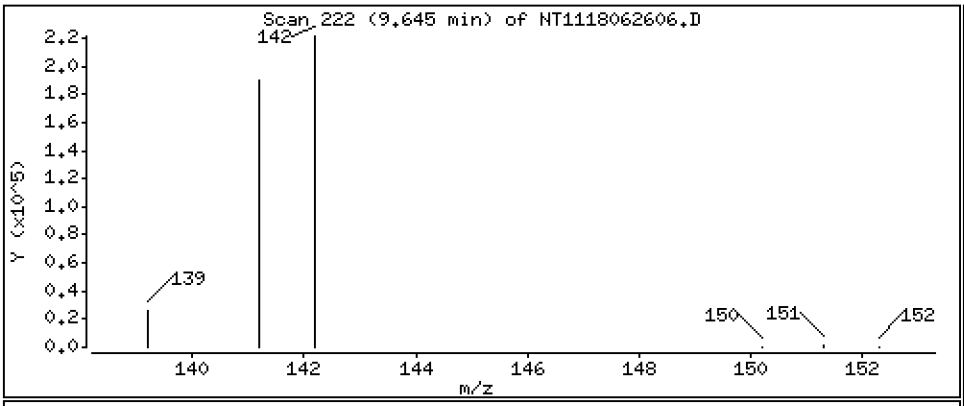
Operator: VTS

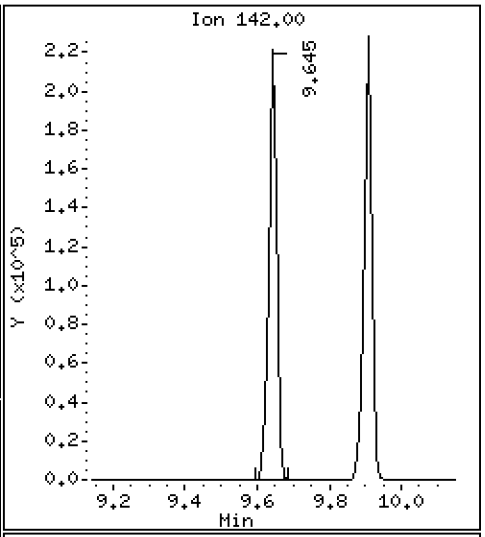
Column phase: Rxi-17Sil MS

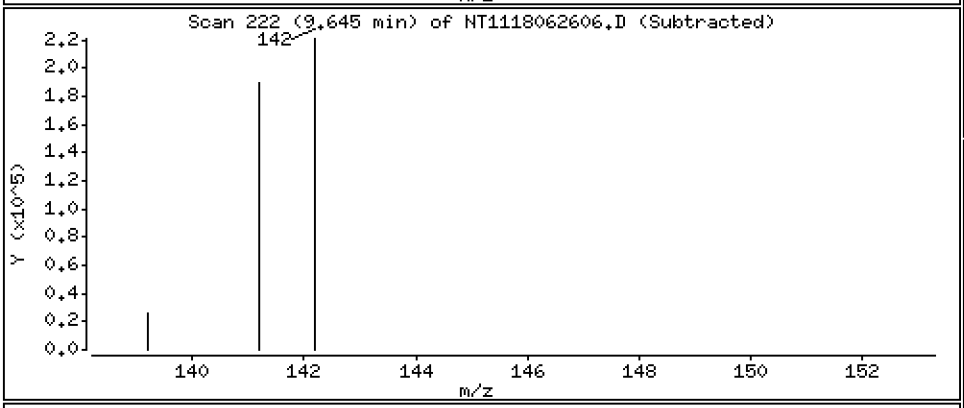
Column diameter: 0.25

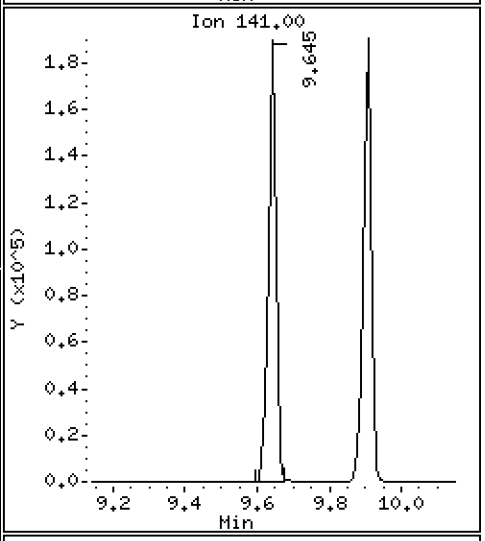
5 2-Methylnaphthalene

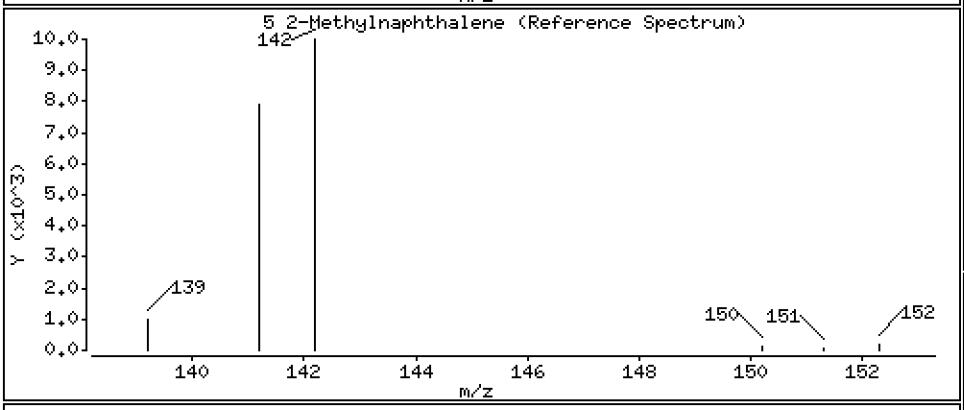
Concentration: 129 ng/mL

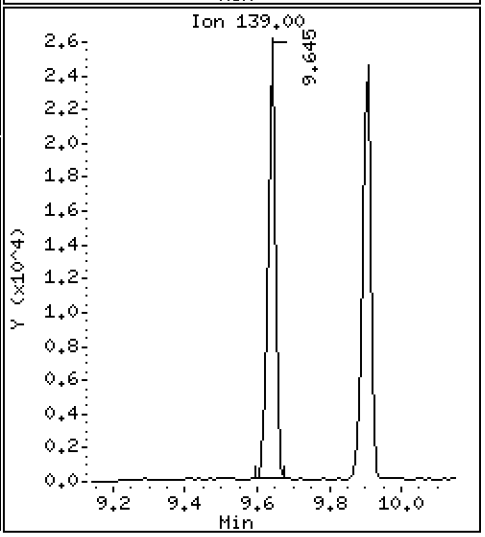


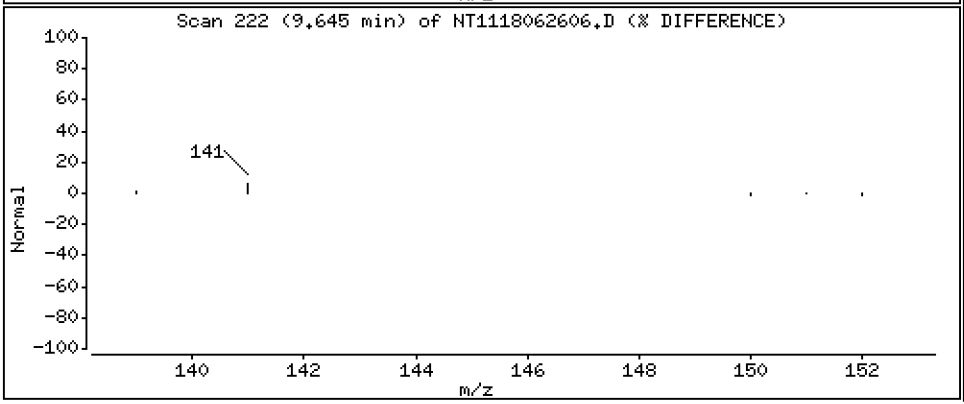












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Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

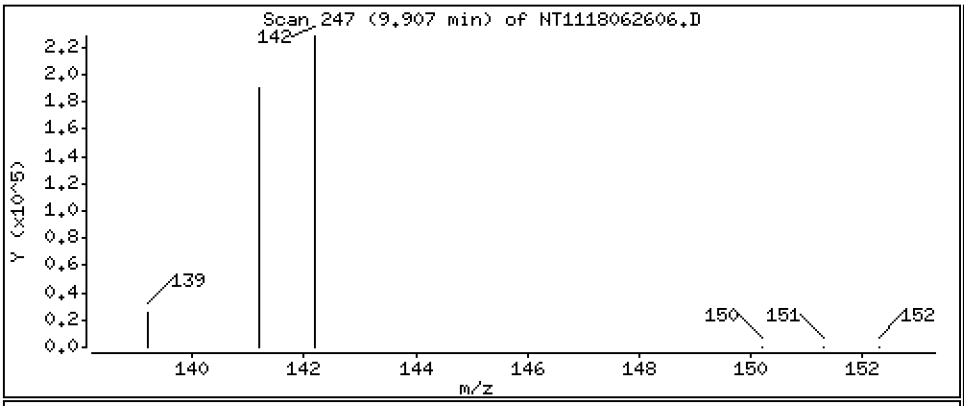
Operator: VTS

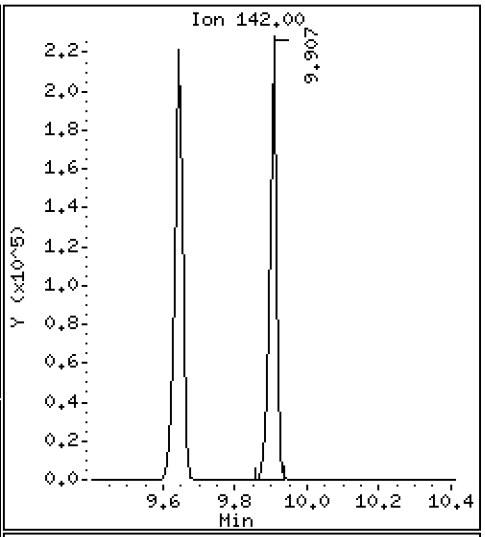
Column phase: Rxi-17Sil MS

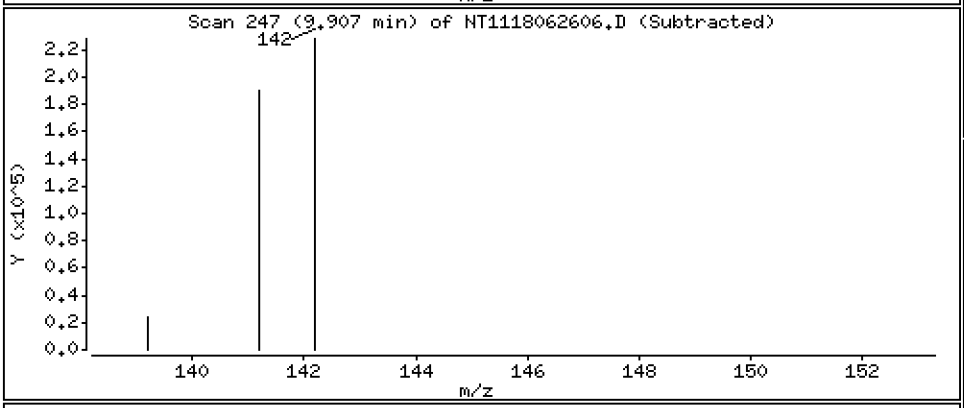
Column diameter: 0.25

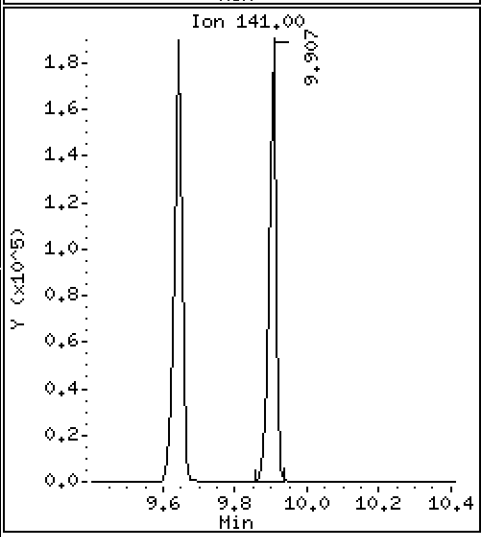
6 1-Methylnaphthalene

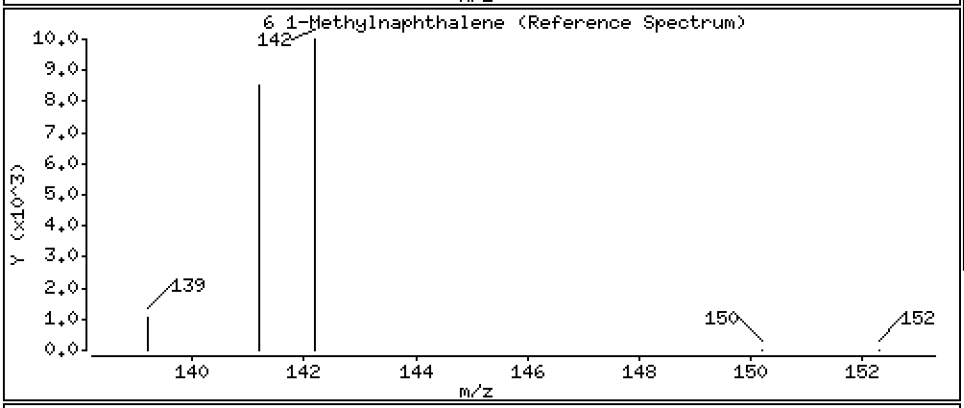
Concentration: 130 ng/mL

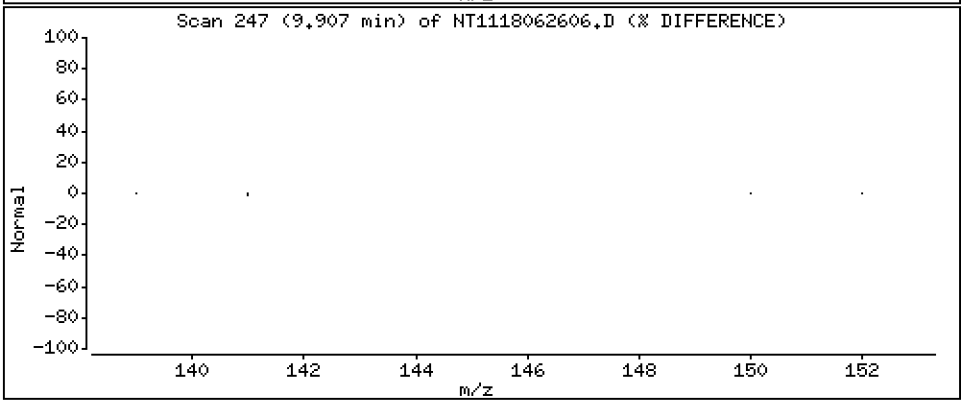












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Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

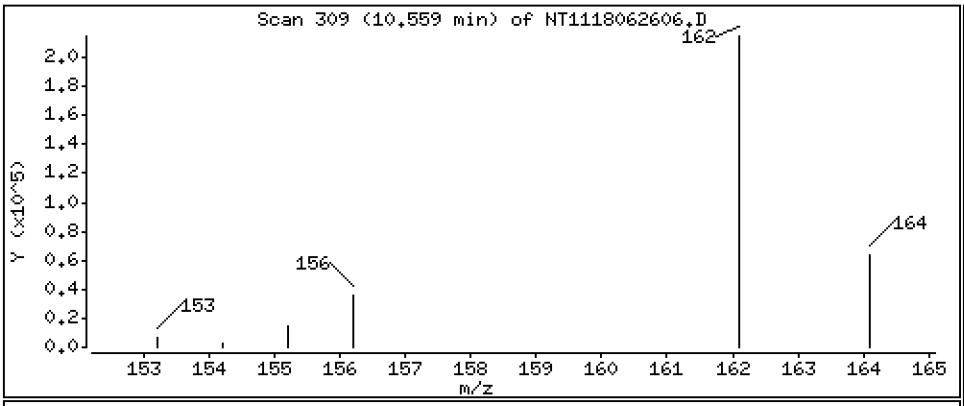
Operator: VTS

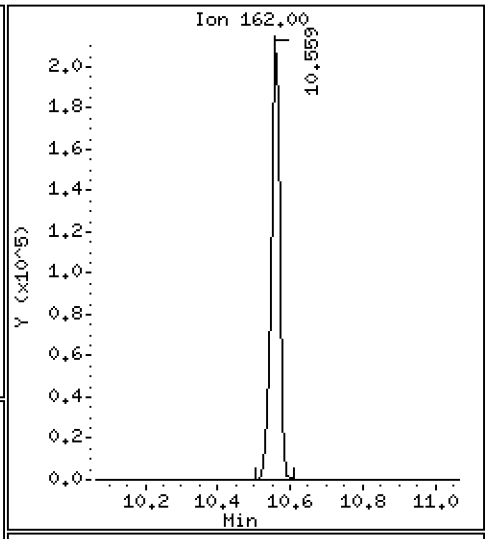
Column phase: Rxi-17Sil MS

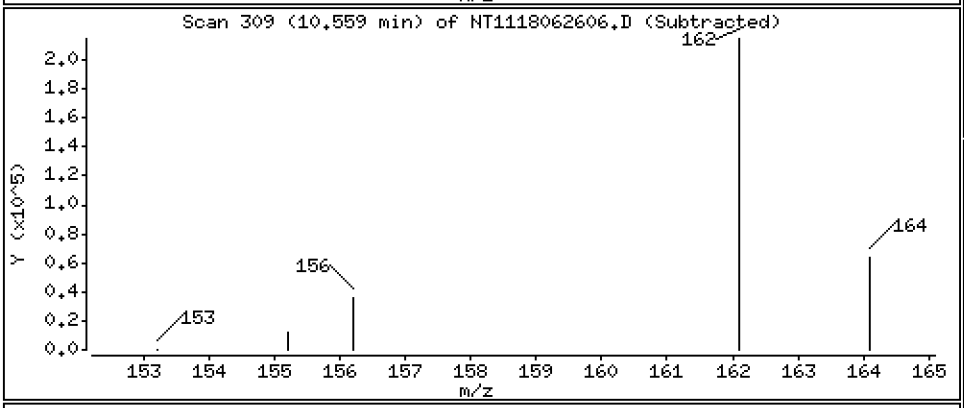
Column diameter: 0.25

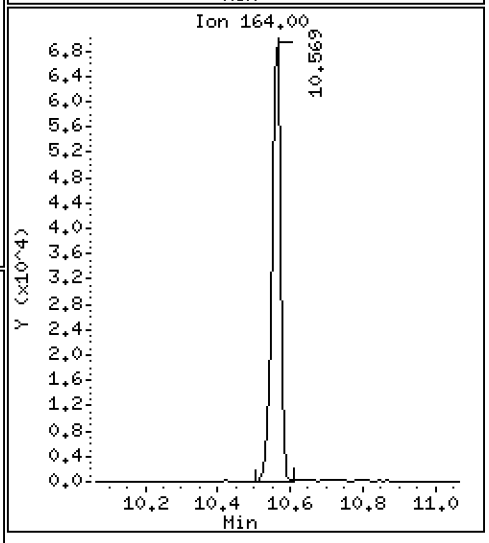
7 2-Chloronaphthalene

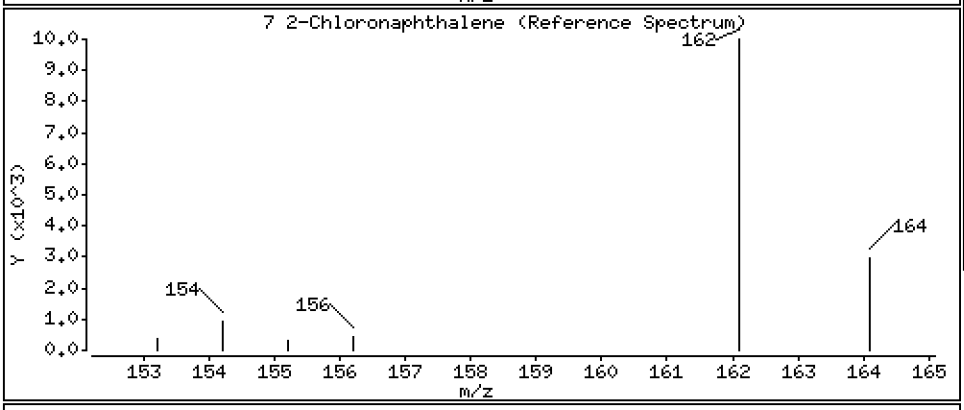
Concentration: 139 ng/mL

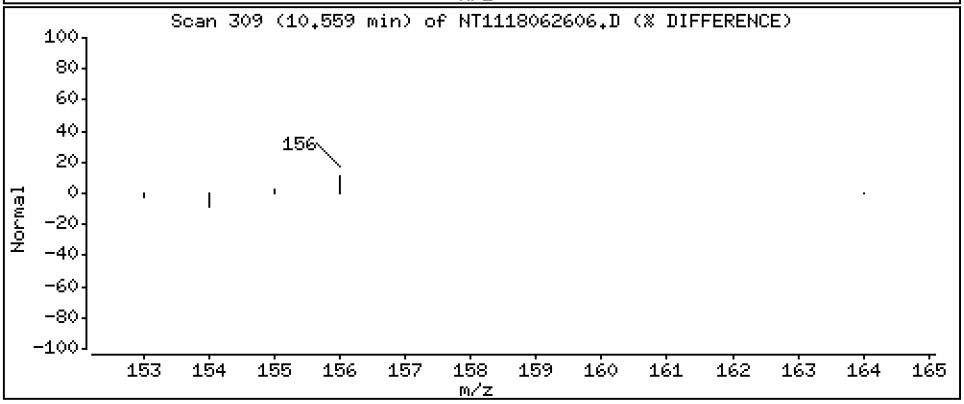












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Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

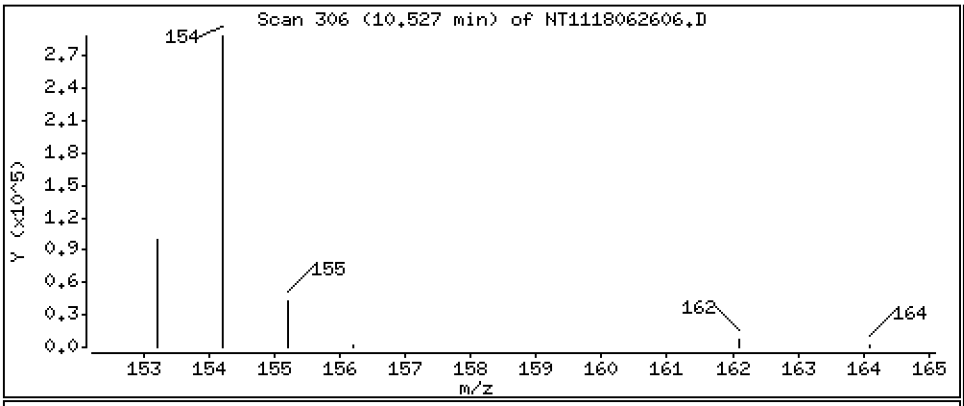
Operator: VTS

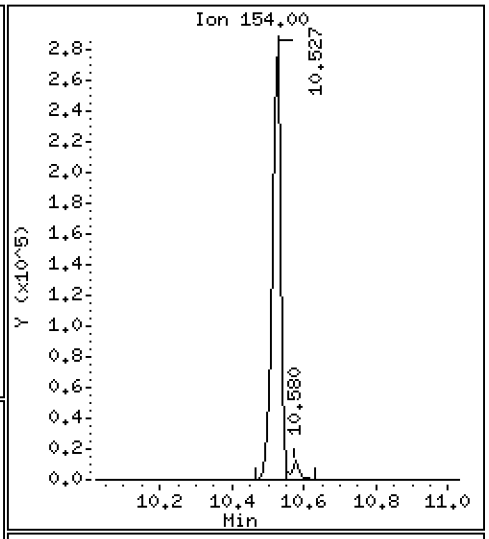
Column phase: Rxi-17Sil MS

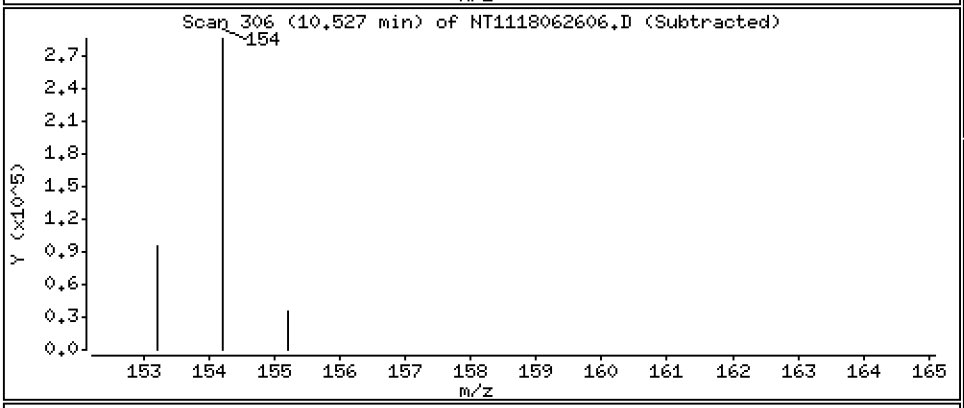
Column diameter: 0.25

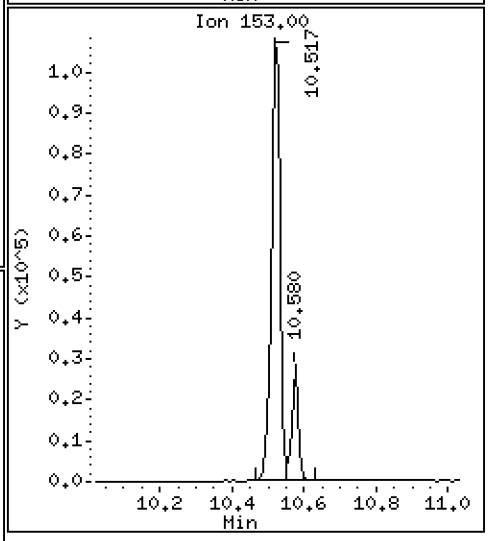
8 Biphenyl

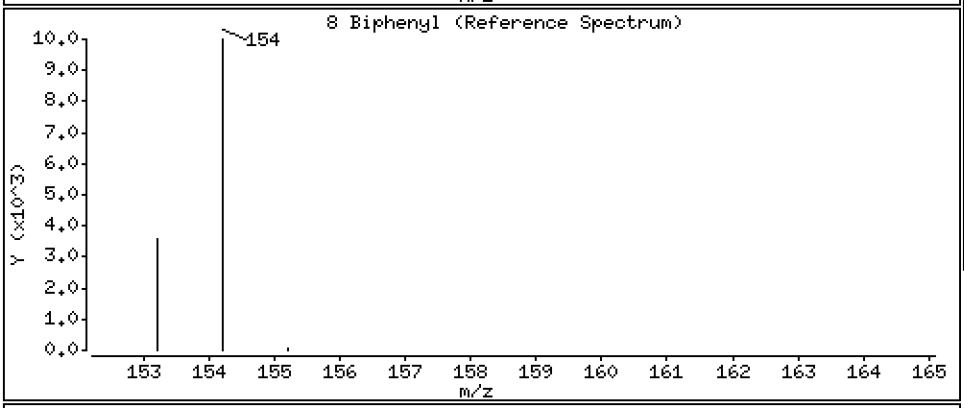
Concentration: 149 ng/mL

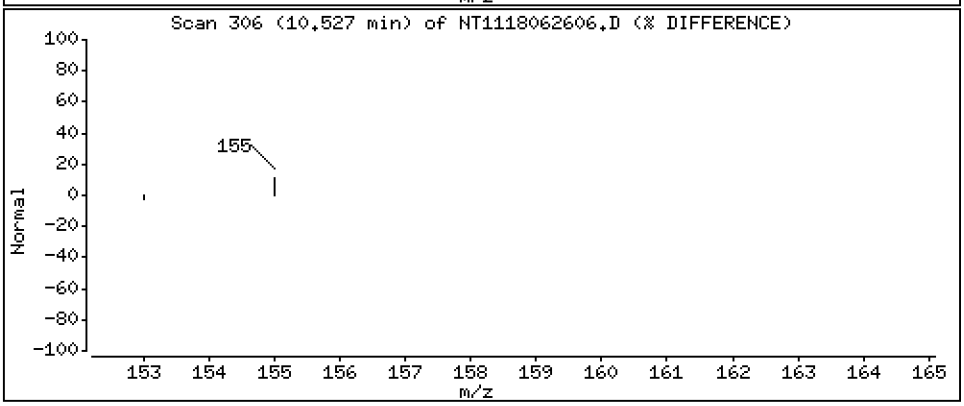












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Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

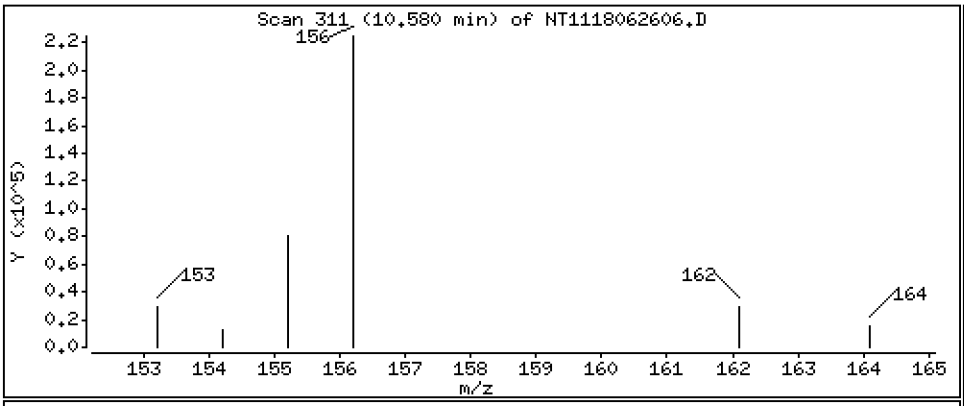
Operator: VTS

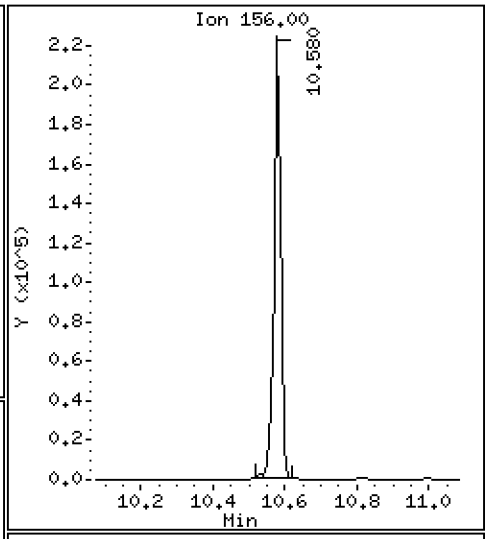
Column phase: Rxi-17Sil MS

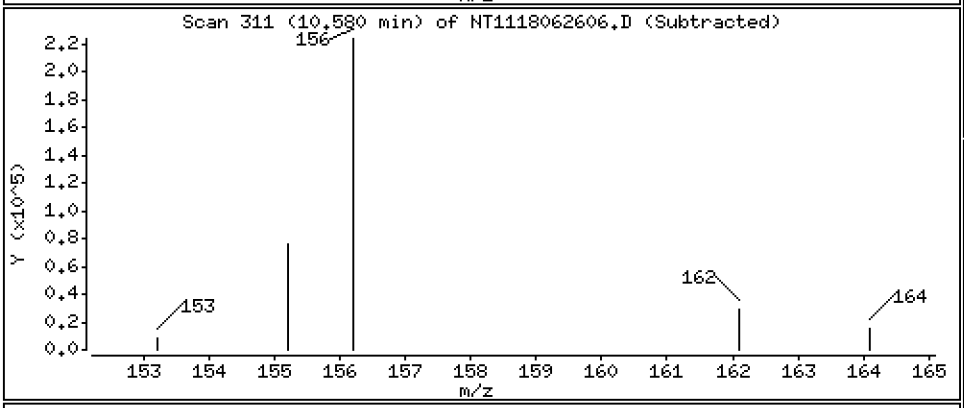
Column diameter: 0.25

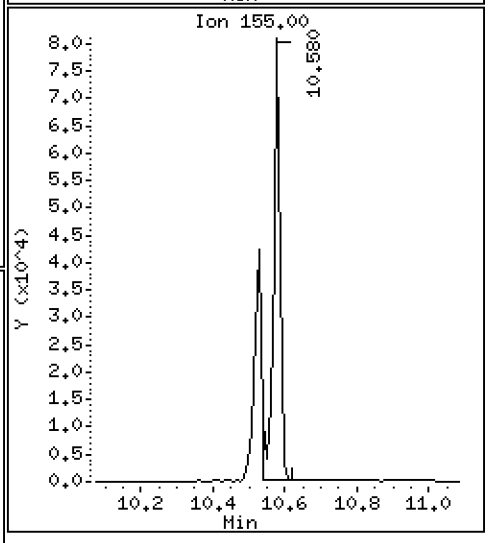
9 2,6-Dimethylnaphthalene

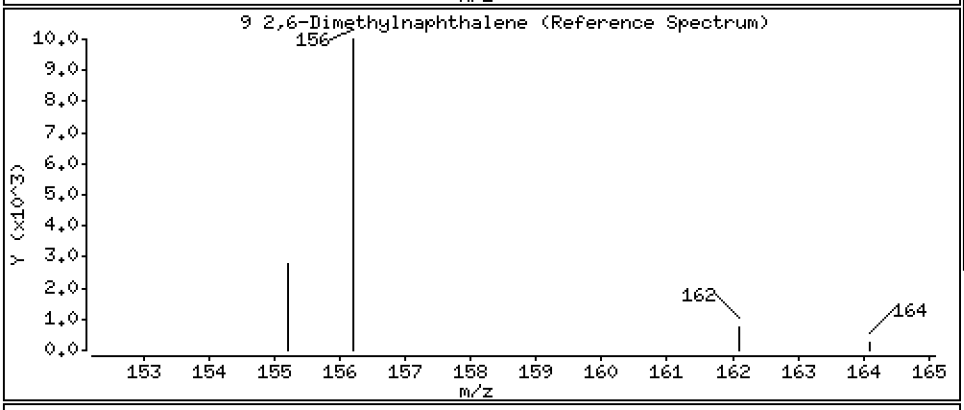
Concentration: 140 ng/mL

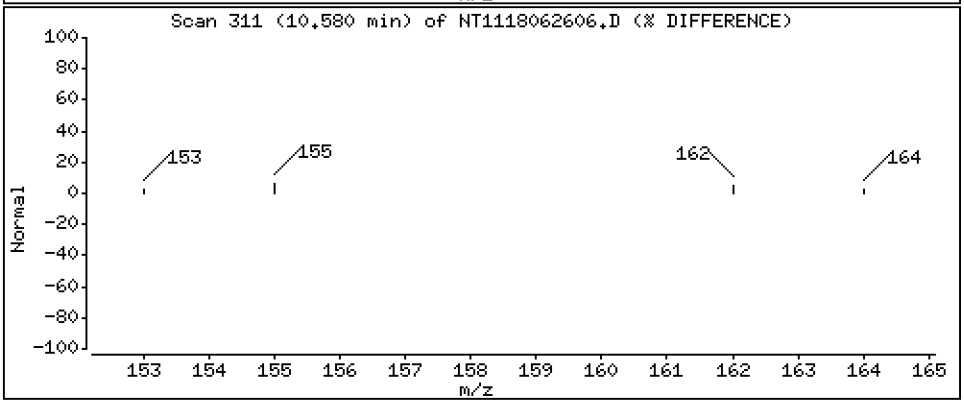












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Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

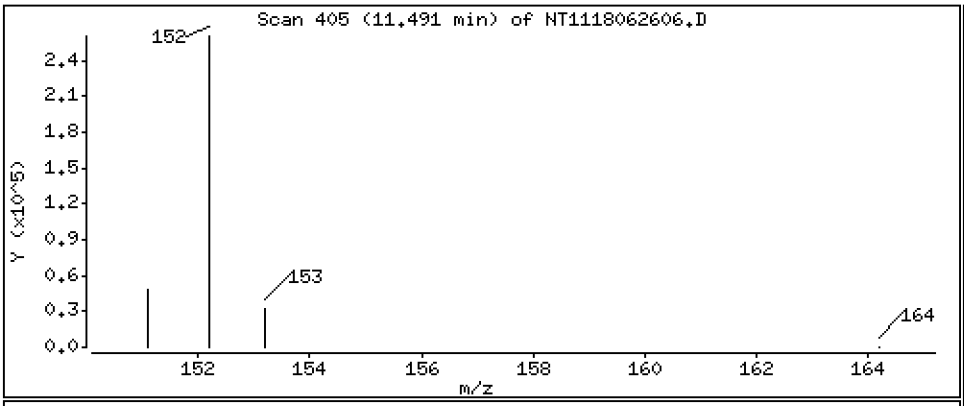
Operator: VTS

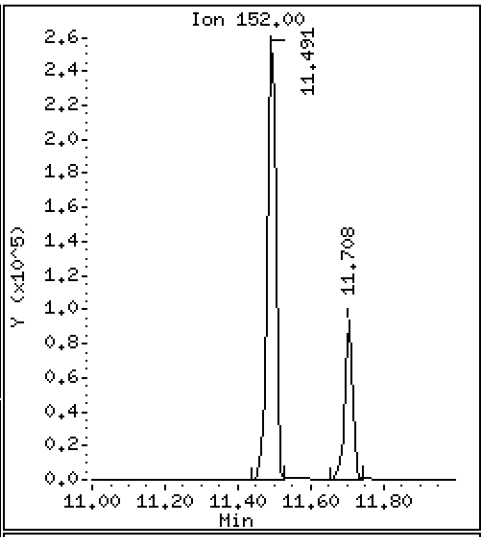
Column phase: Rxi-17Sil MS

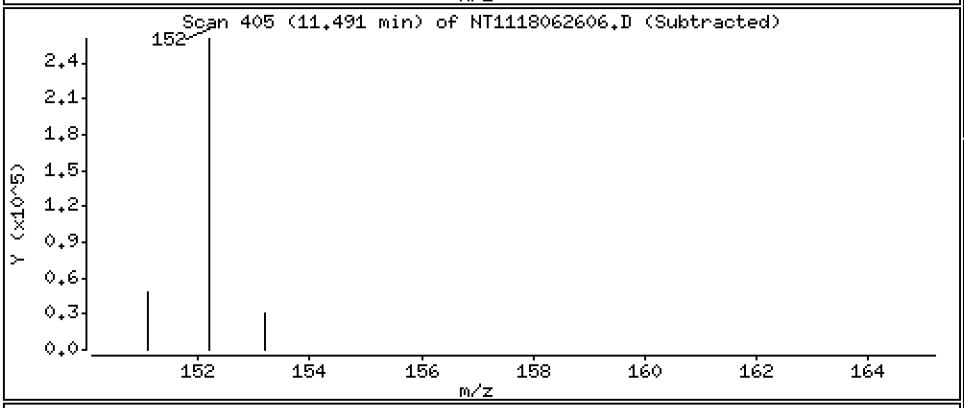
Column diameter: 0.25

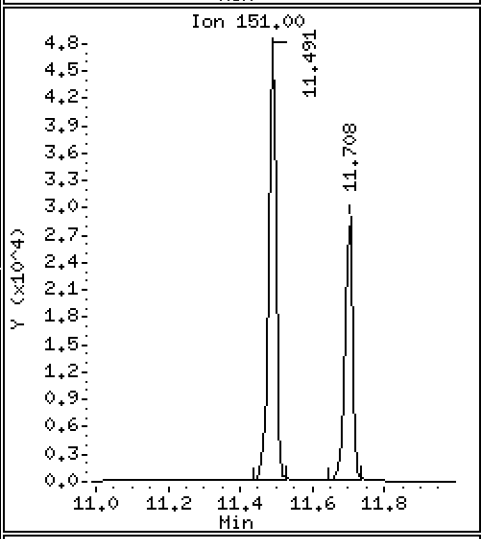
10 Acenaphthylene

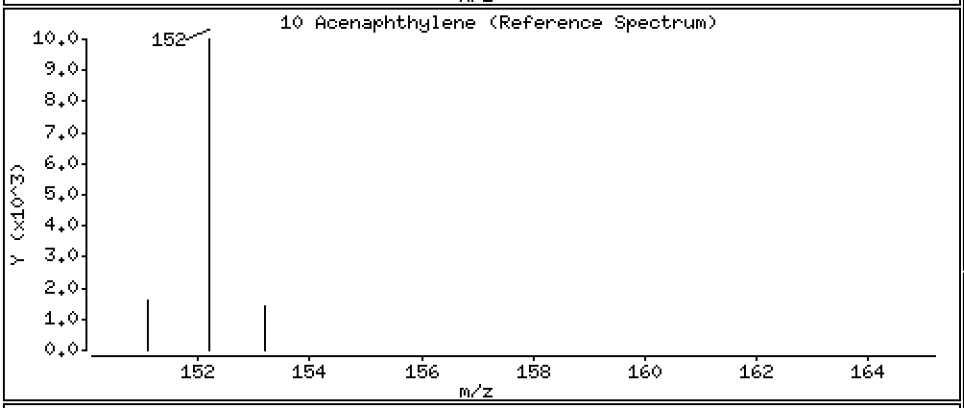
Concentration: 140 ng/mL

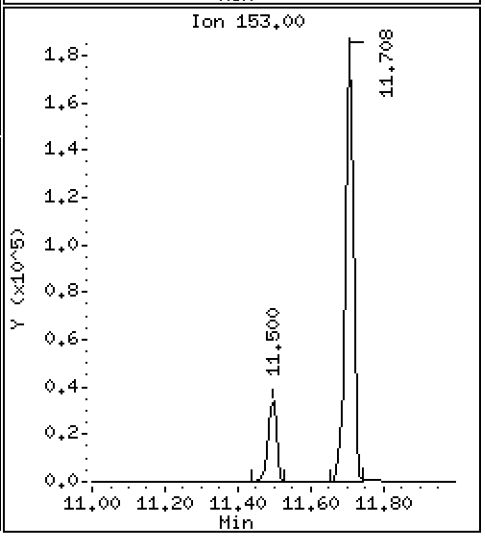


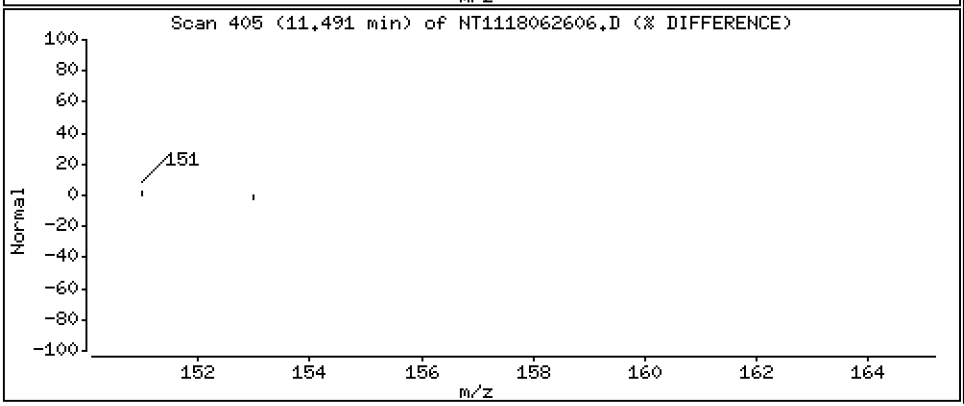












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Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

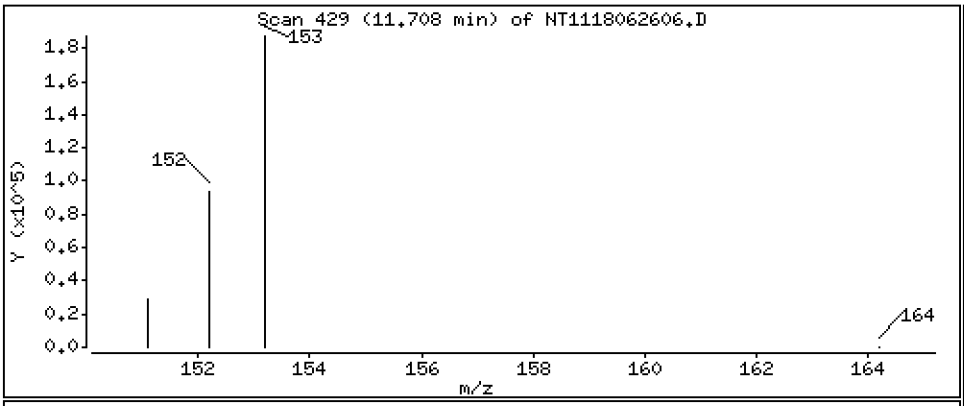
Operator: VTS

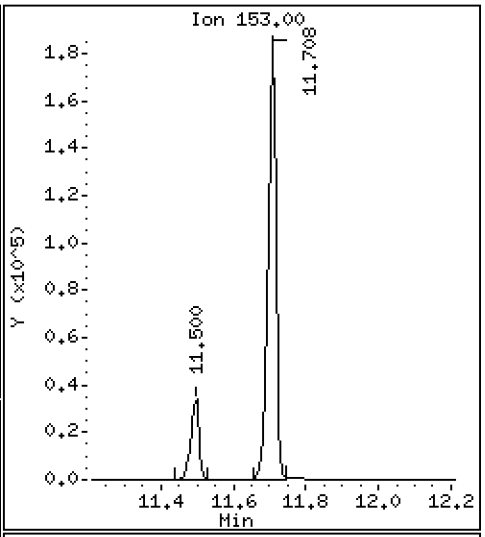
Column phase: Rxi-17Sil MS

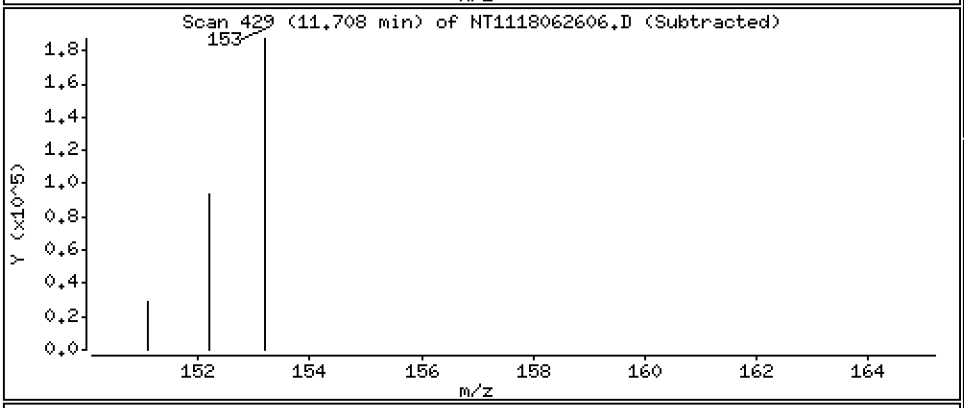
Column diameter: 0.25

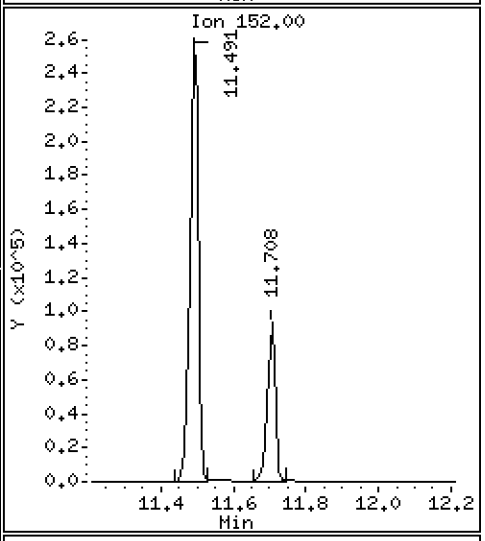
12 Acenaphthene

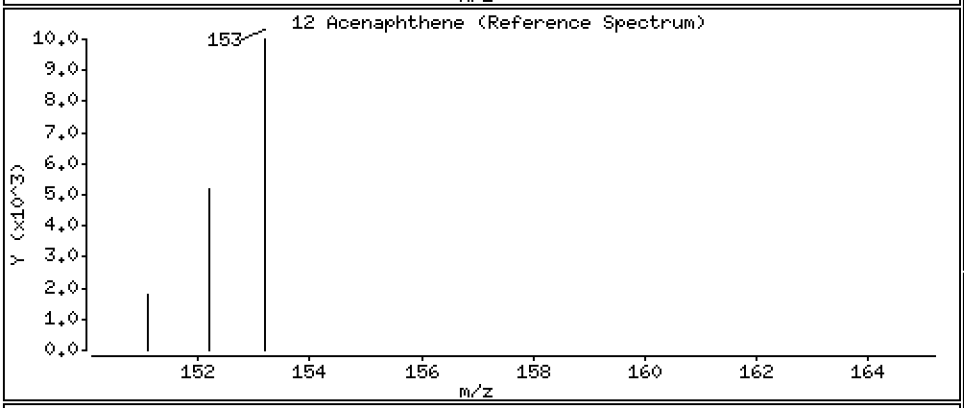
Concentration: 137 ng/mL

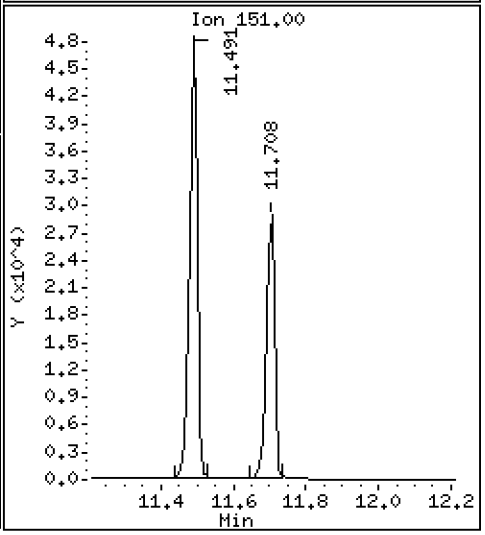


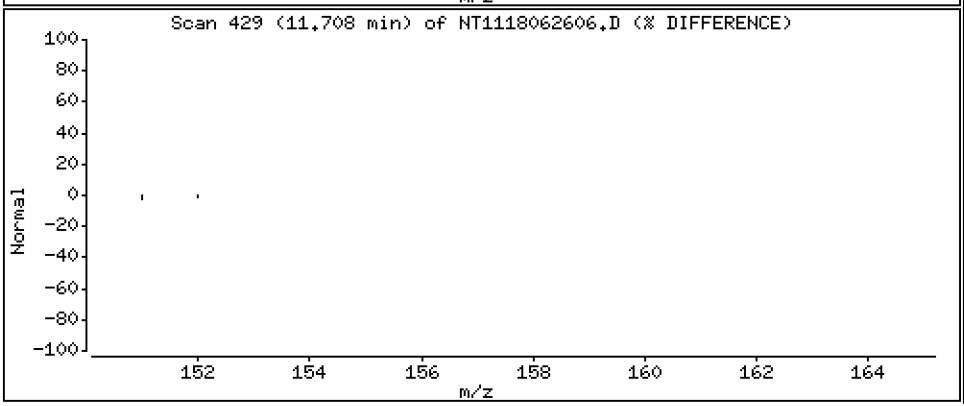












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Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

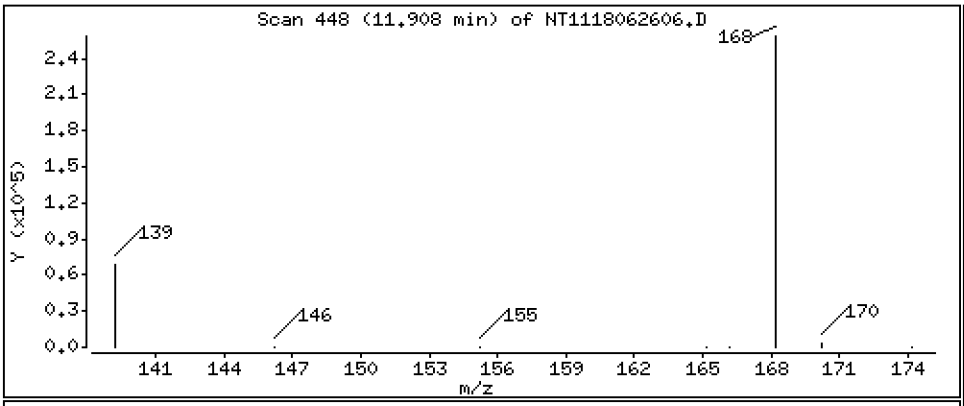
Operator: VTS

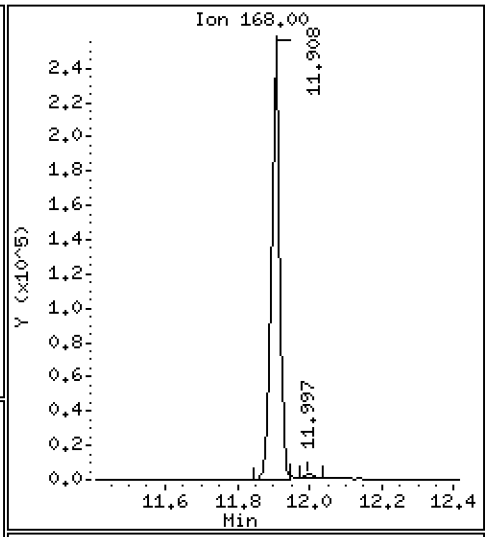
Column phase: Rxi-17Sil MS

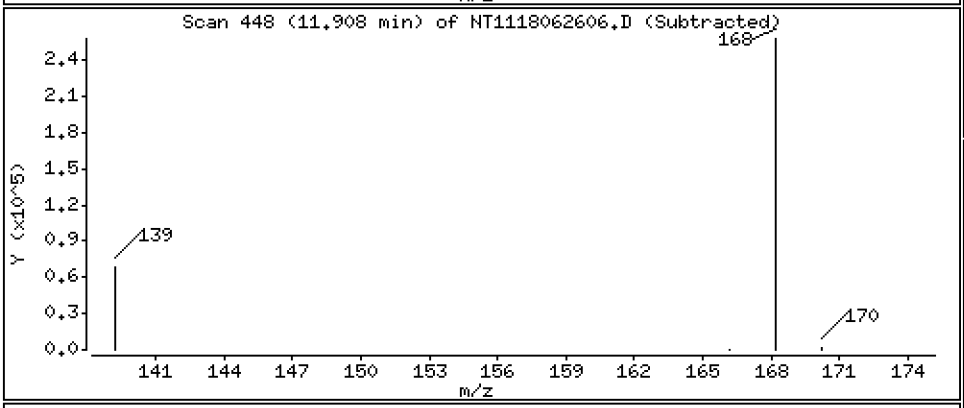
Column diameter: 0.25

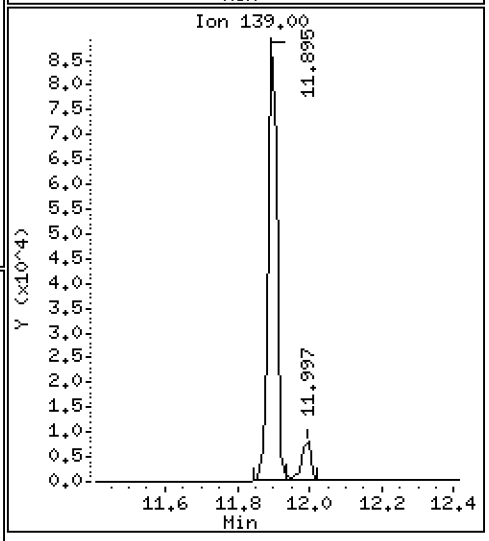
13 Dibenzofuran

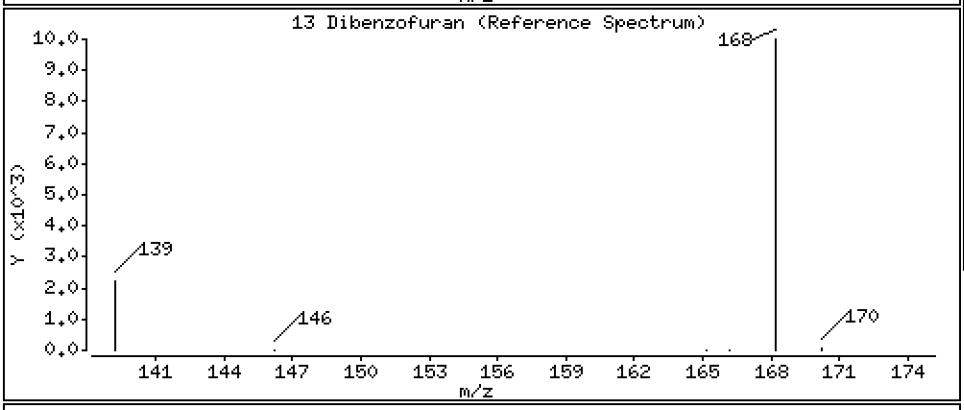
Concentration: 141 ng/mL

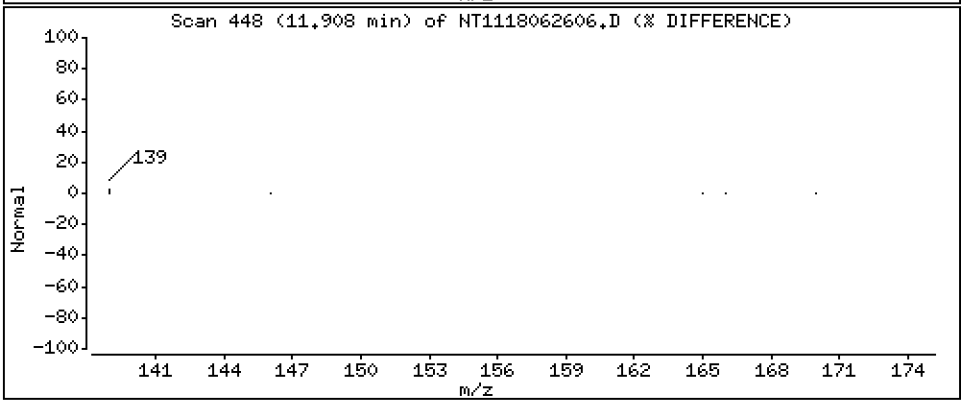












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Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

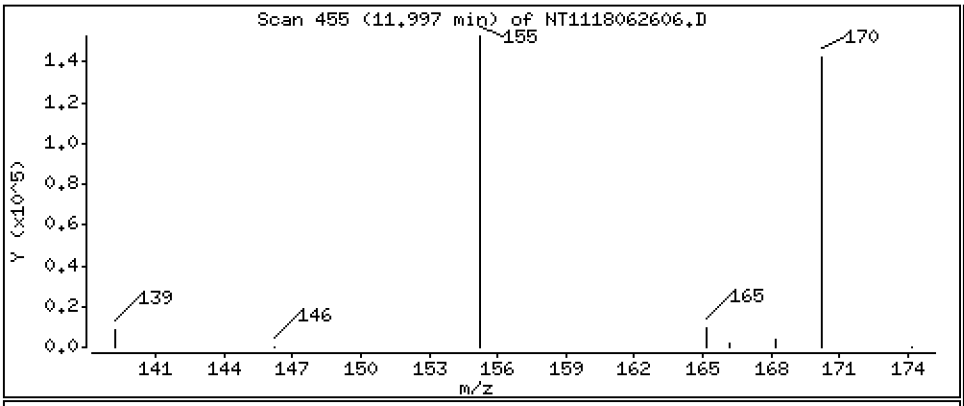
Operator: VTS

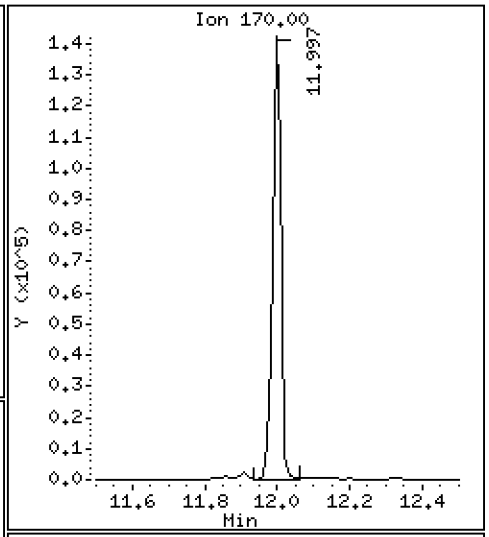
Column phase: Rxi-17Sil MS

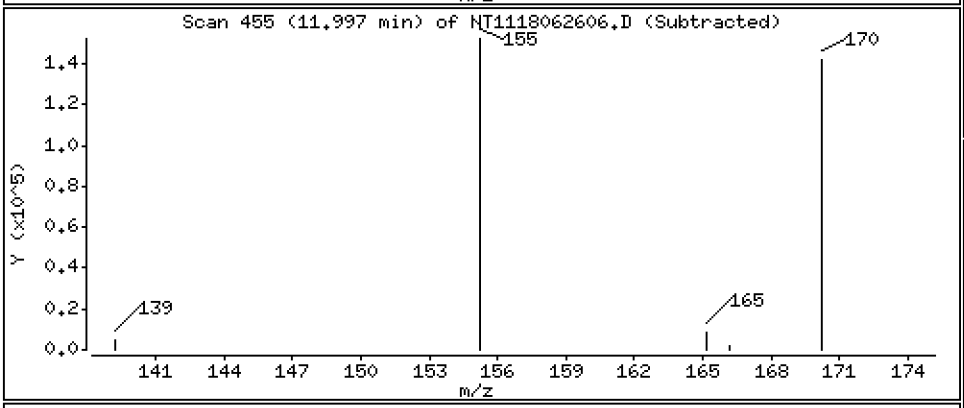
Column diameter: 0.25

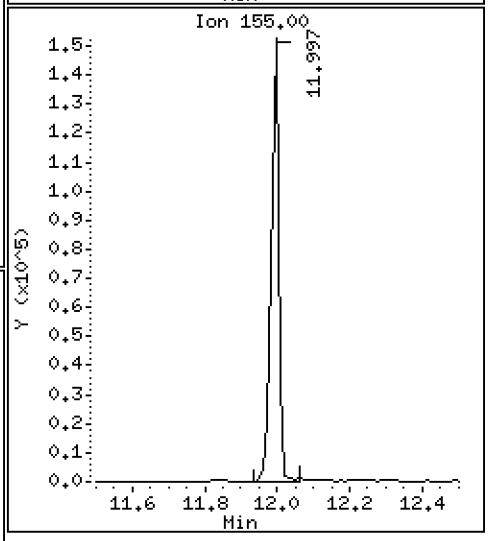
14 2,3,5-Trimethylnaphthalene

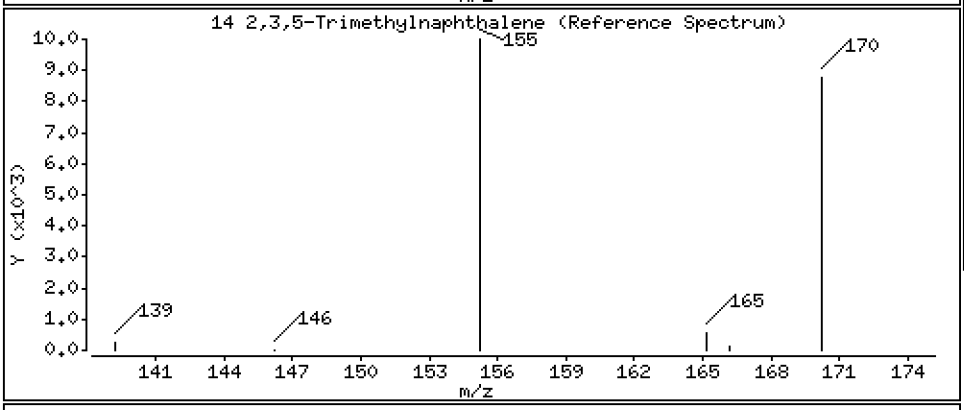
Concentration: 137 ng/mL

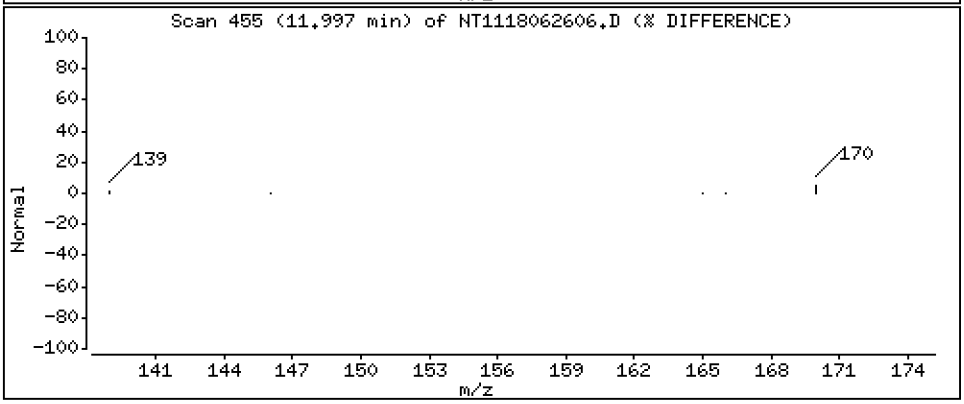












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Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

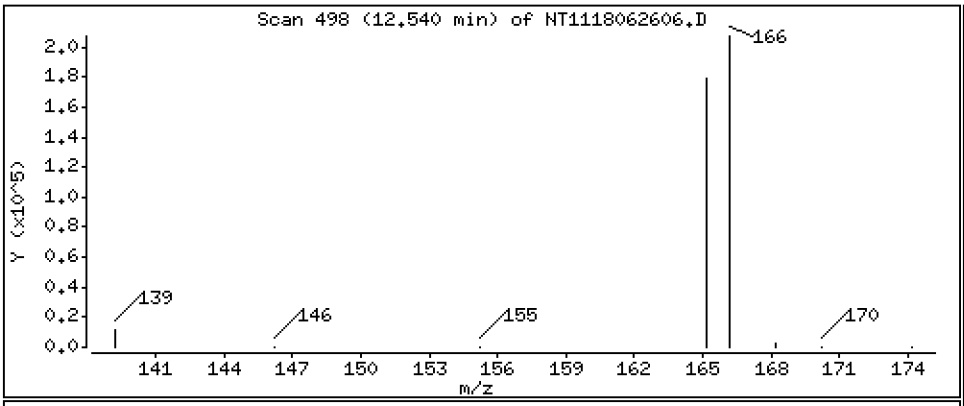
Operator: VTS

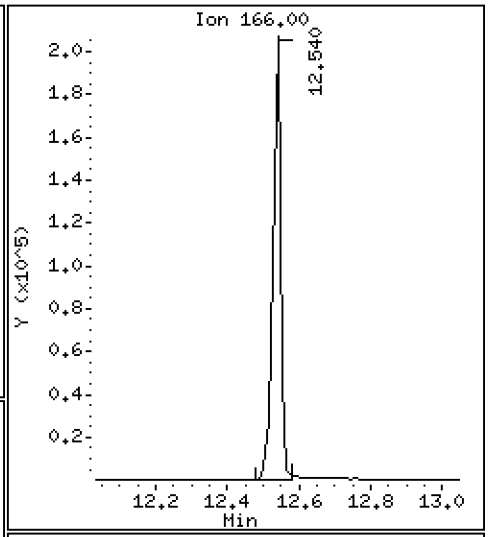
Column phase: Rxi-17Sil MS

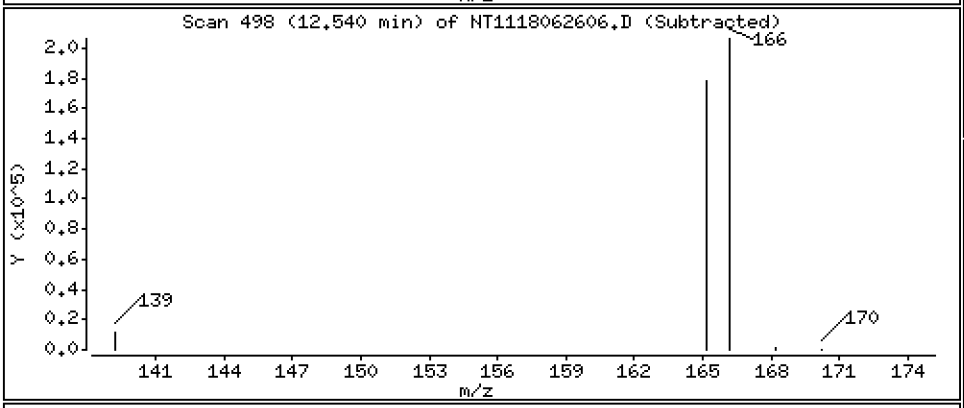
Column diameter: 0.25

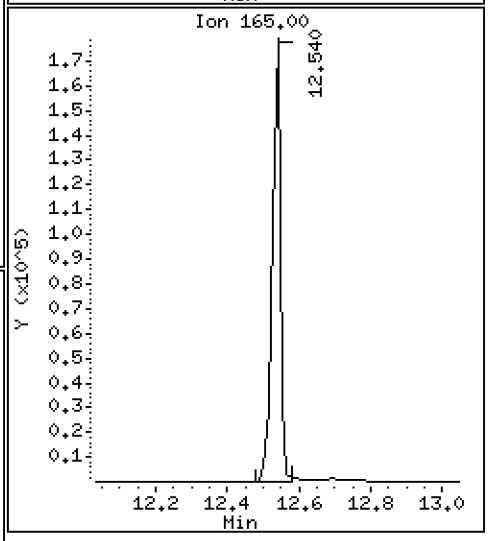
16 Fluorene

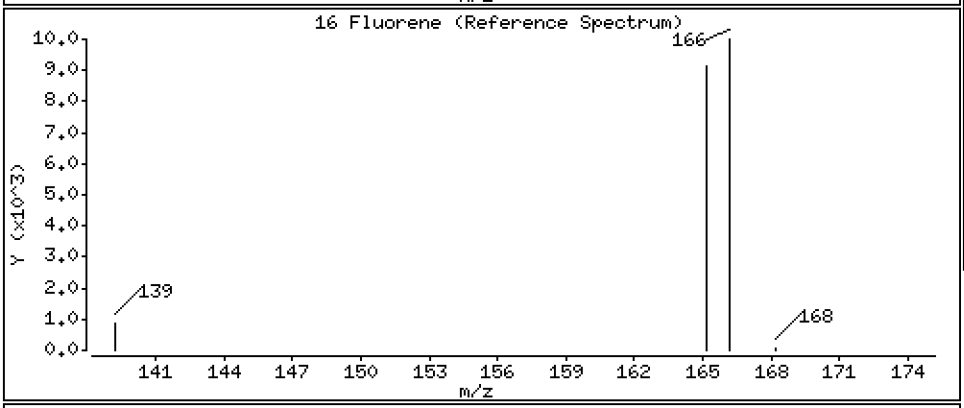
Concentration: 138 ng/mL

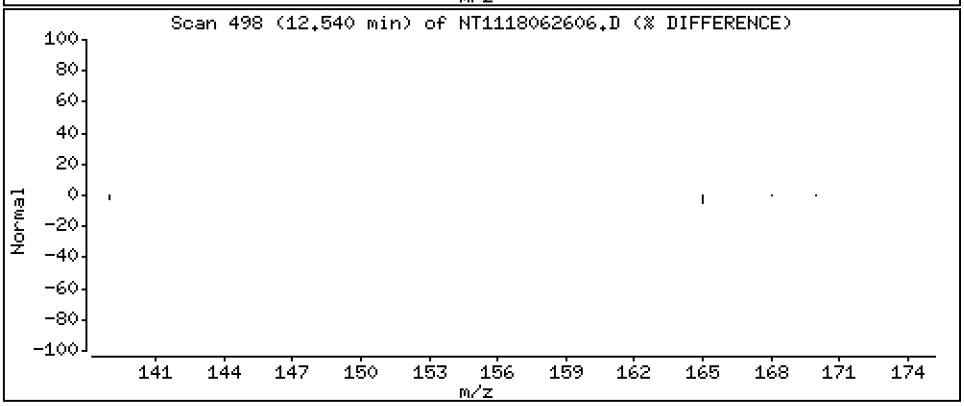












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Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

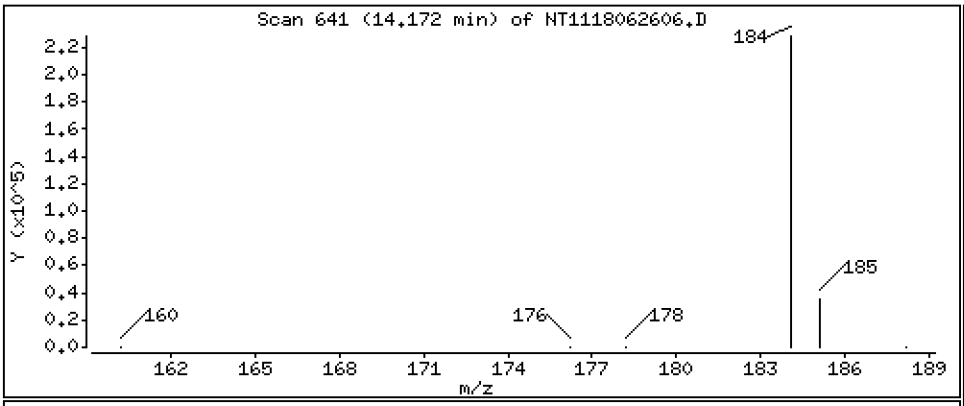
Operator: VTS

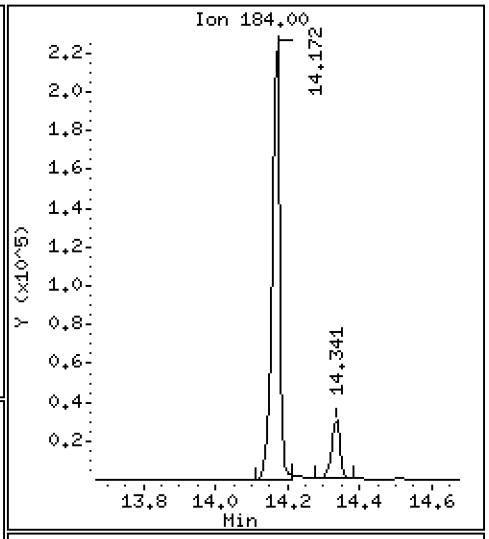
Column phase: Rxi-17Sil MS

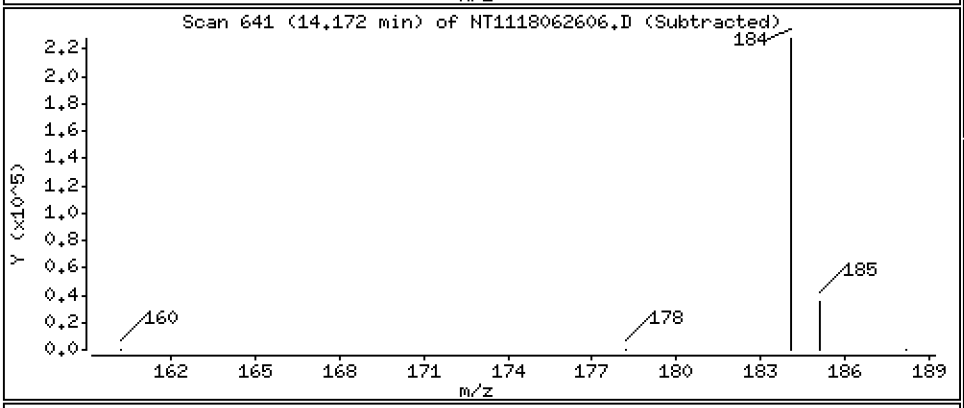
Column diameter: 0.25

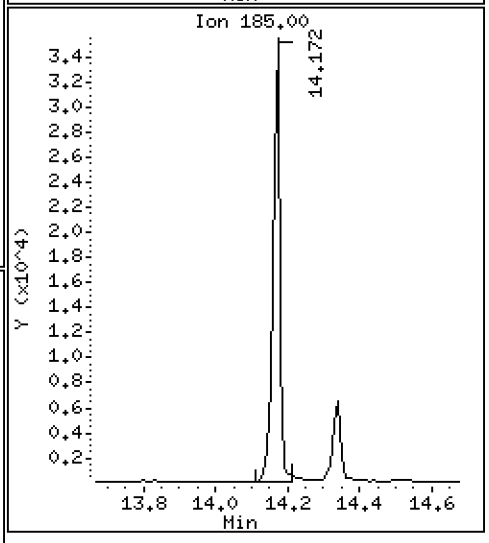
17 Dibenzothiophene

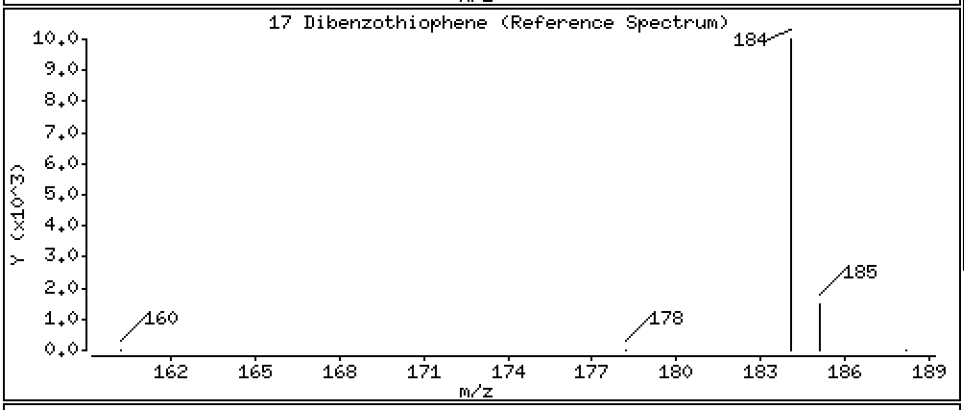
Concentration: 146 ng/mL

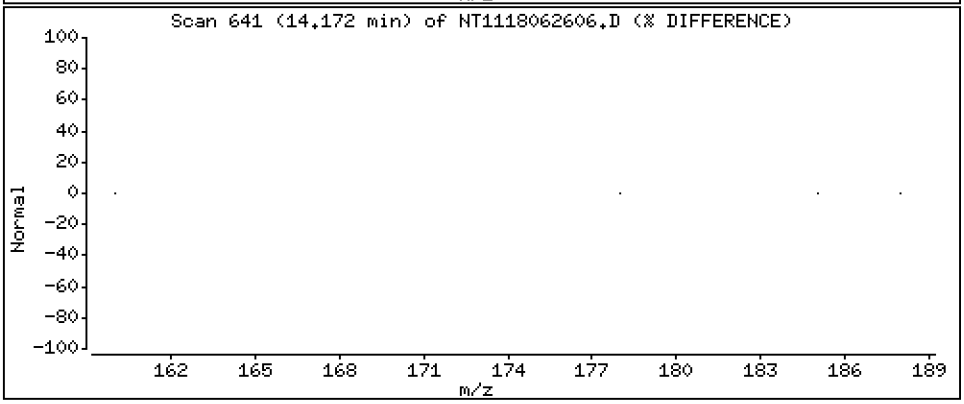












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Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

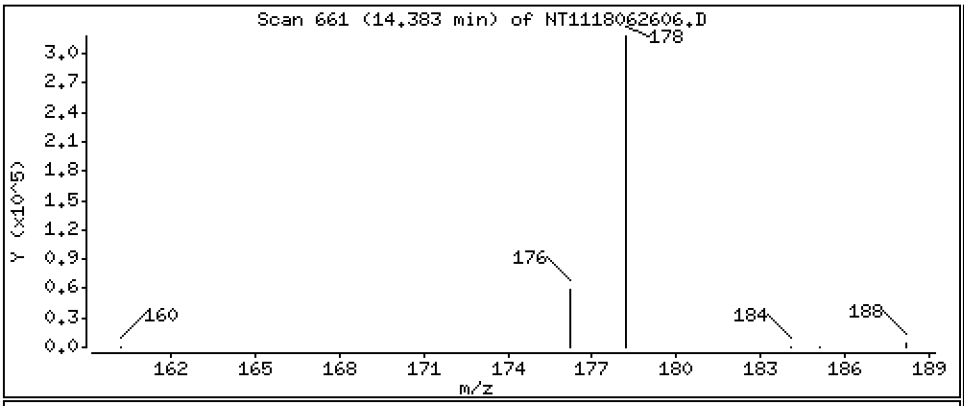
Operator: VTS

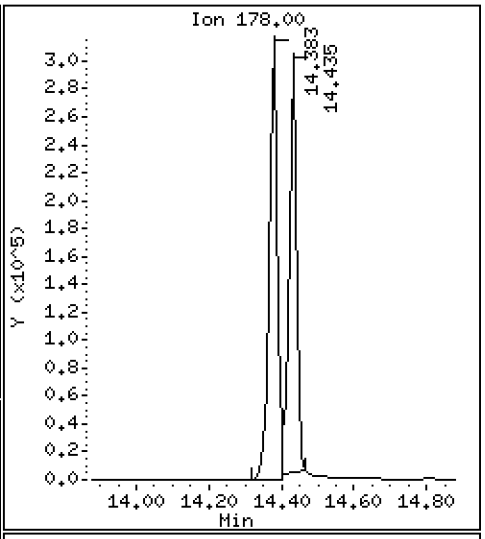
Column phase: Rxi-17Sil MS

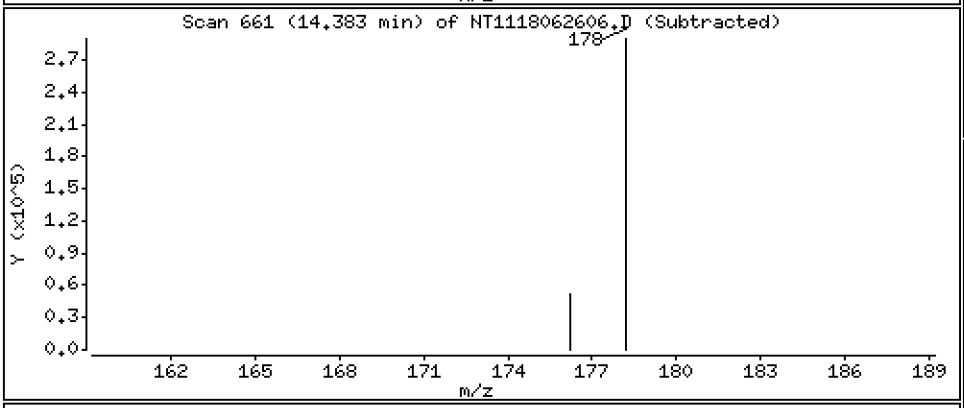
Column diameter: 0.25

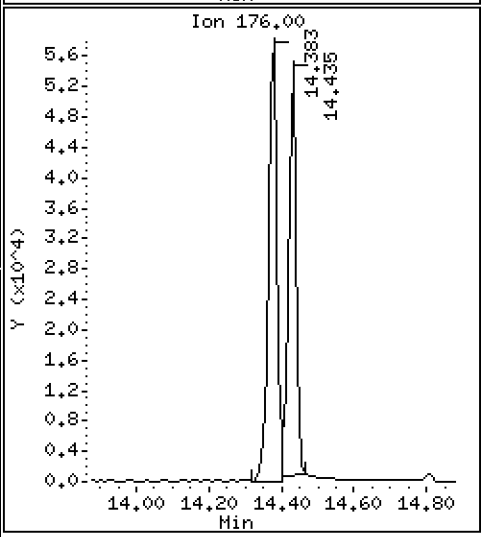
19 Phenanthrene

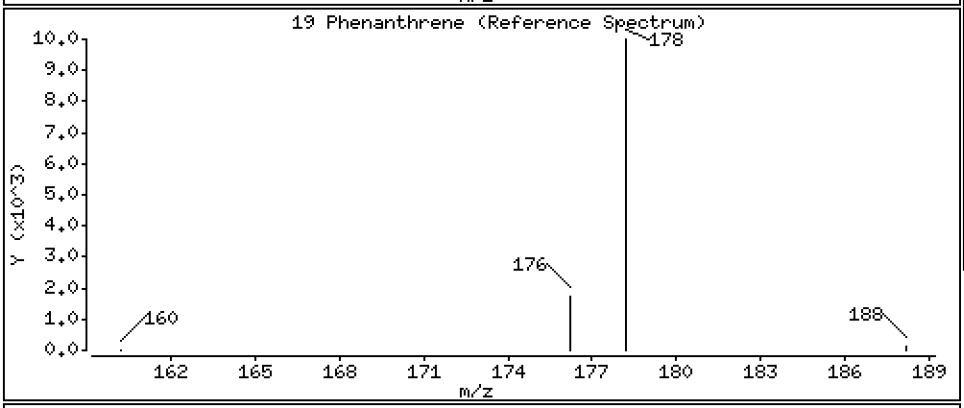
Concentration: 153 ng/mL

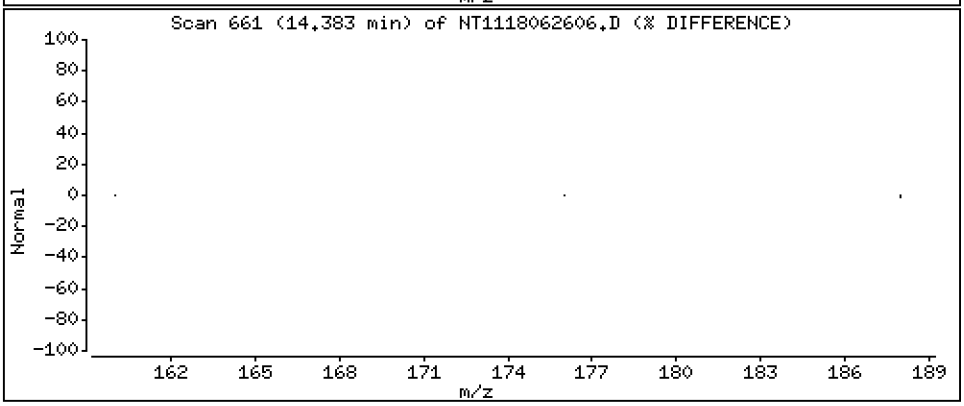












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Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

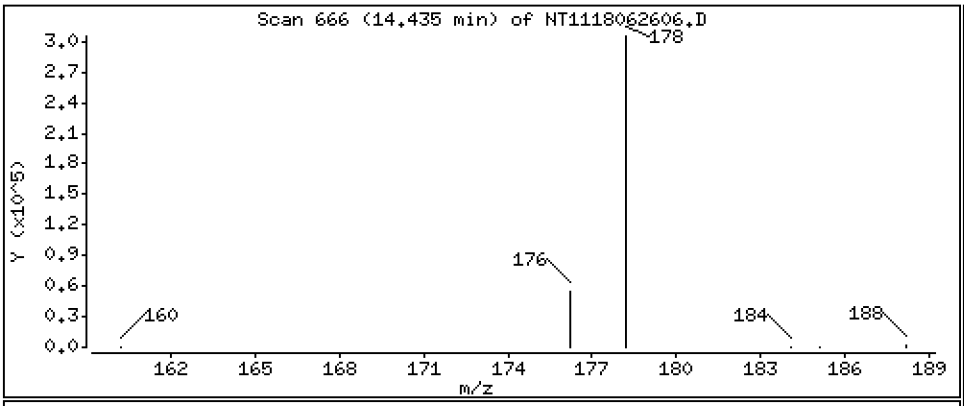
Operator: VTS

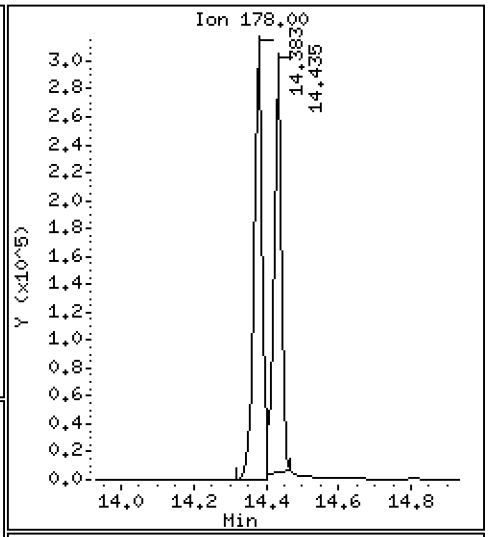
Column phase: Rxi-17Sil MS

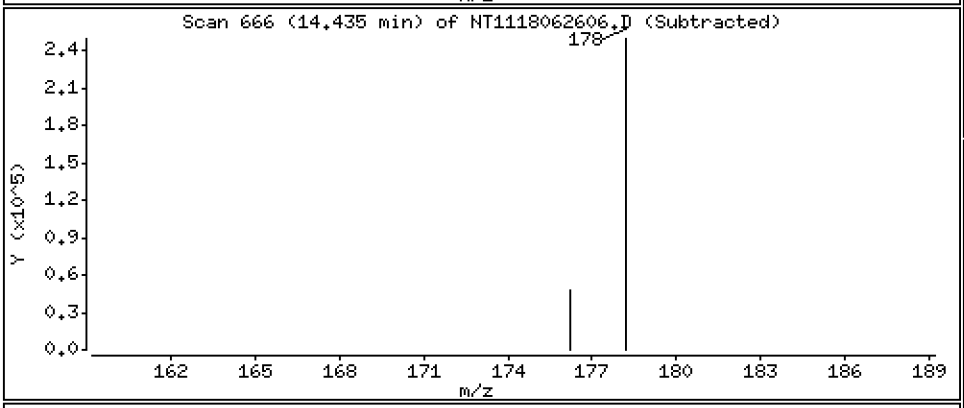
Column diameter: 0.25

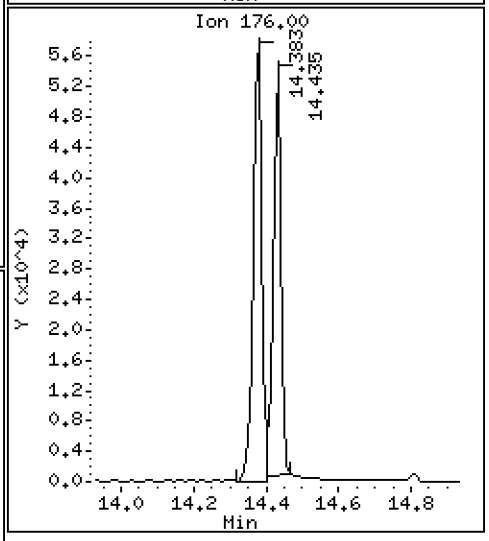
21 Anthracene

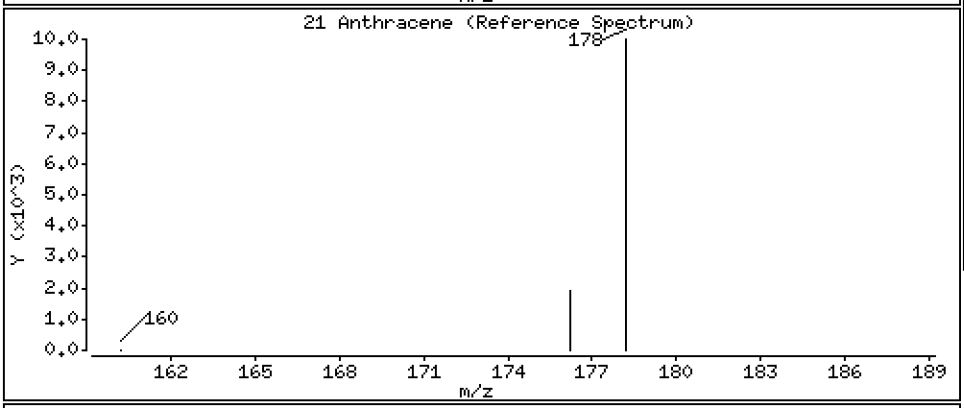
Concentration: 141 ng/mL

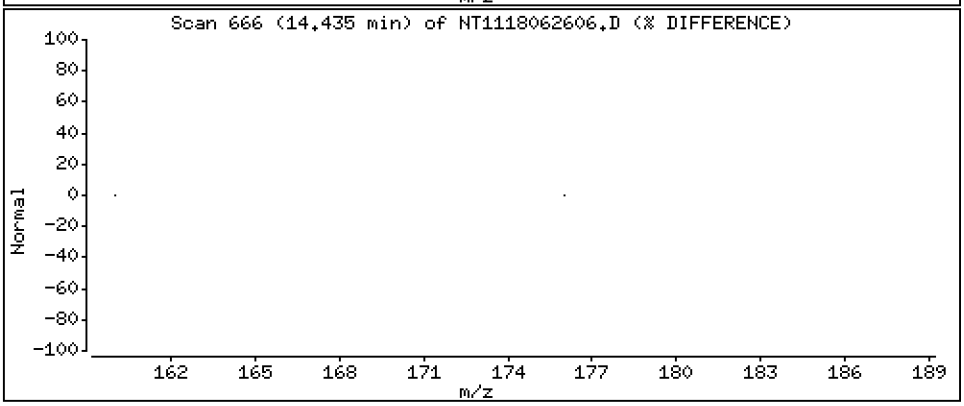












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Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

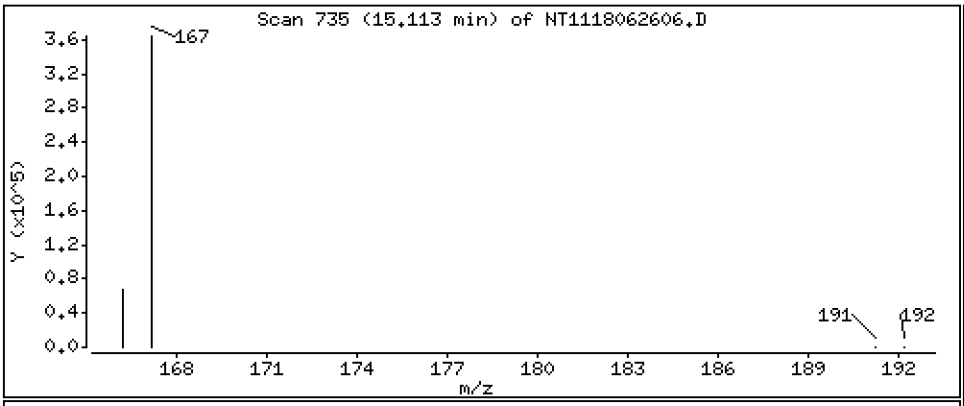
Operator: VTS

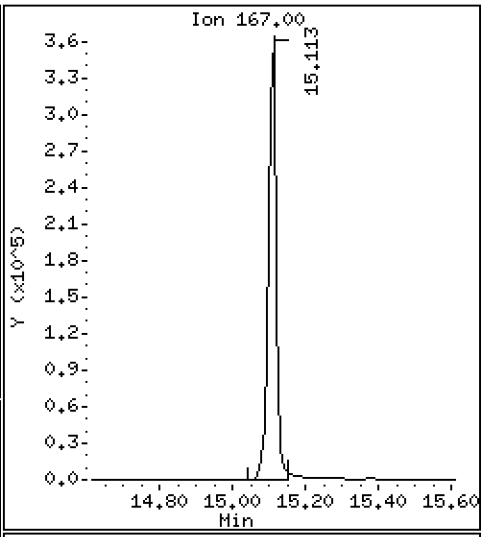
Column phase: Rxi-17Sil MS

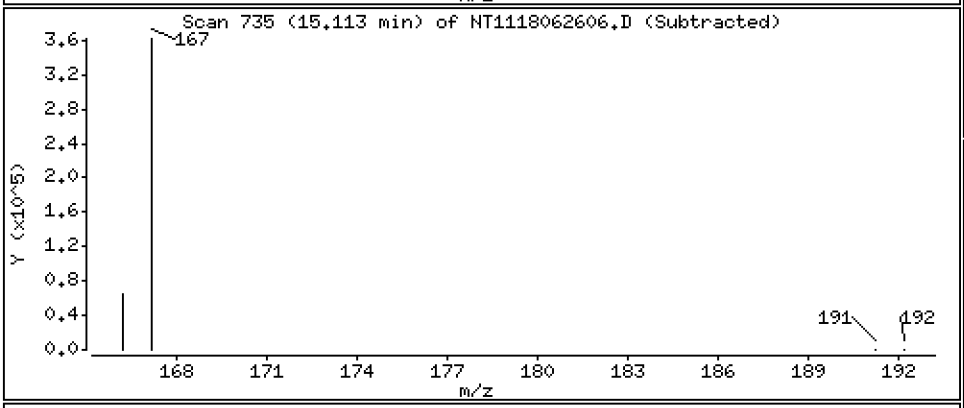
Column diameter: 0.25

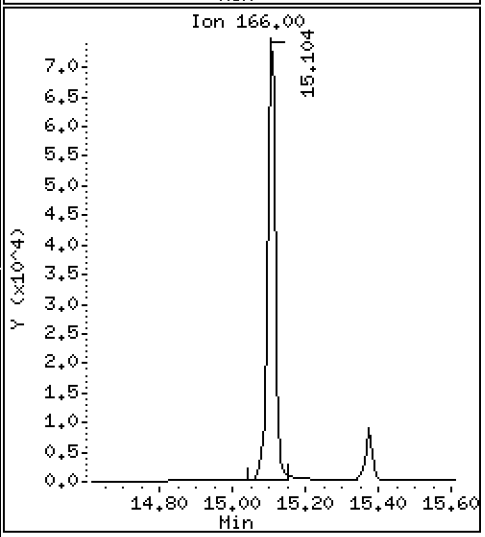
22 Carbazole

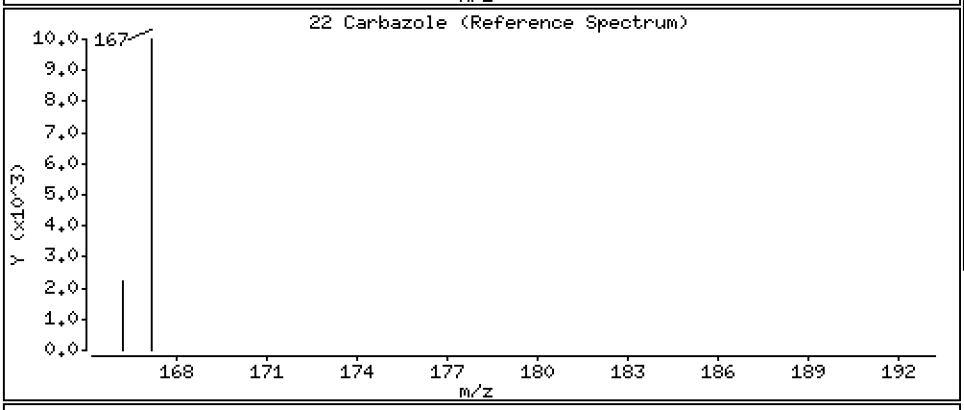
Concentration: 158 ng/mL

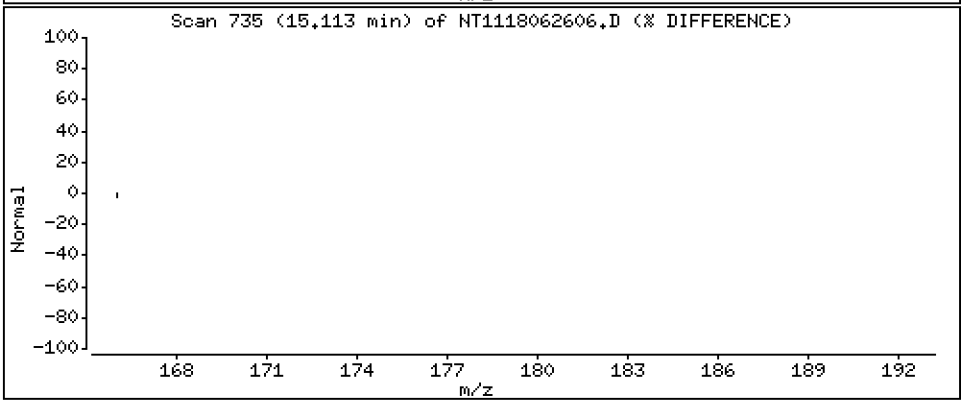












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Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

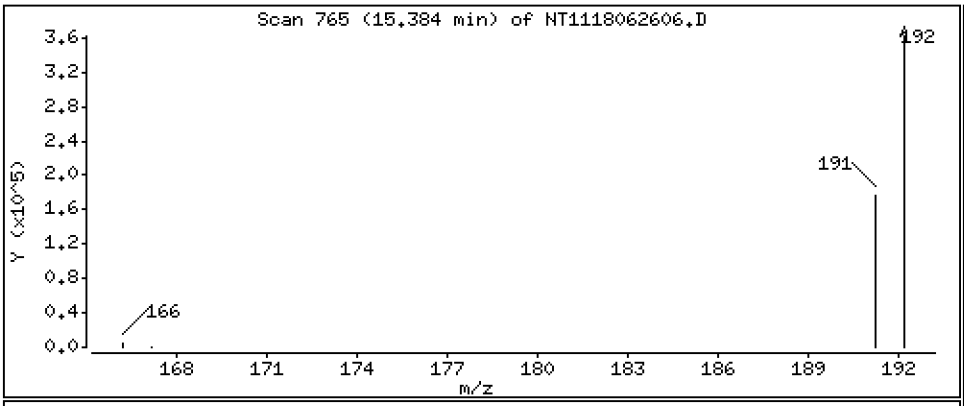
Operator: VTS

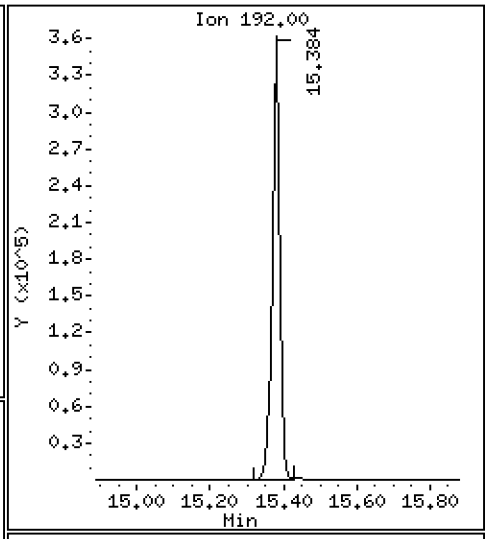
Column phase: Rxi-17Sil MS

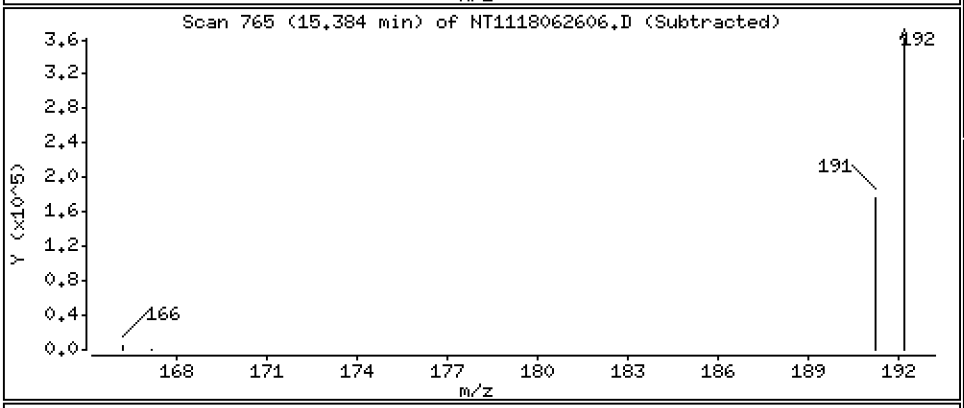
Column diameter: 0.25

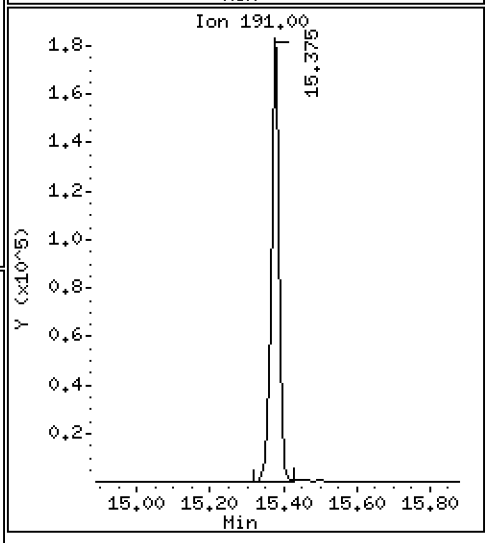
23 1-Methylphenanthrene

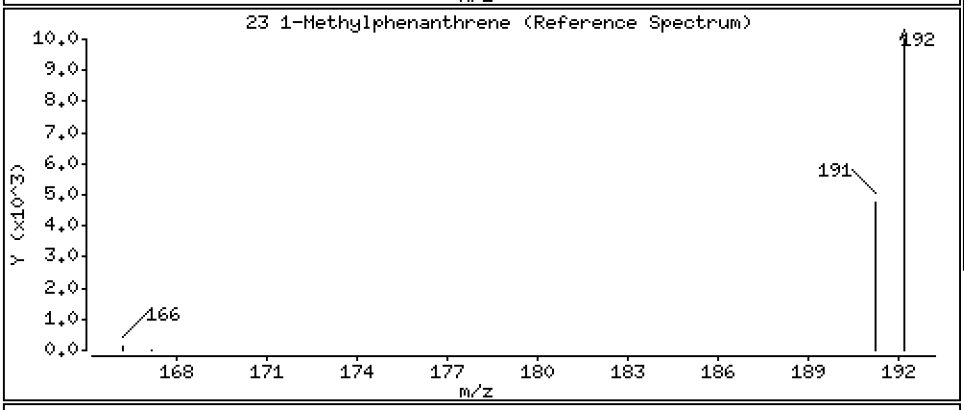
Concentration: 172 ng/mL

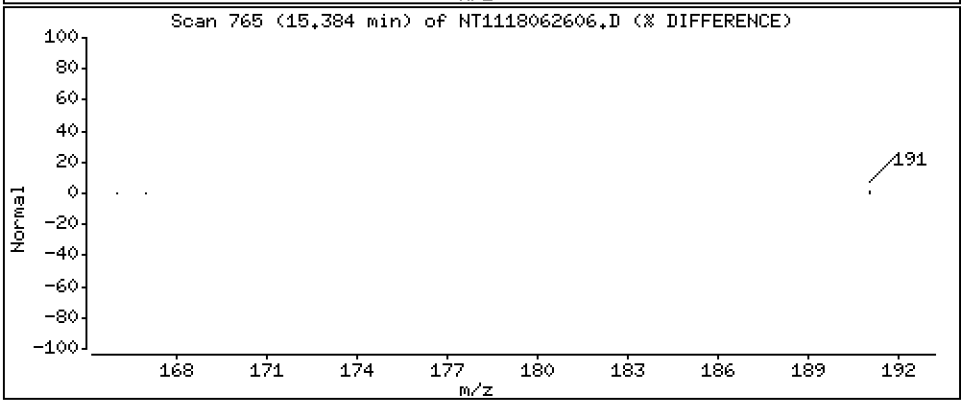












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Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

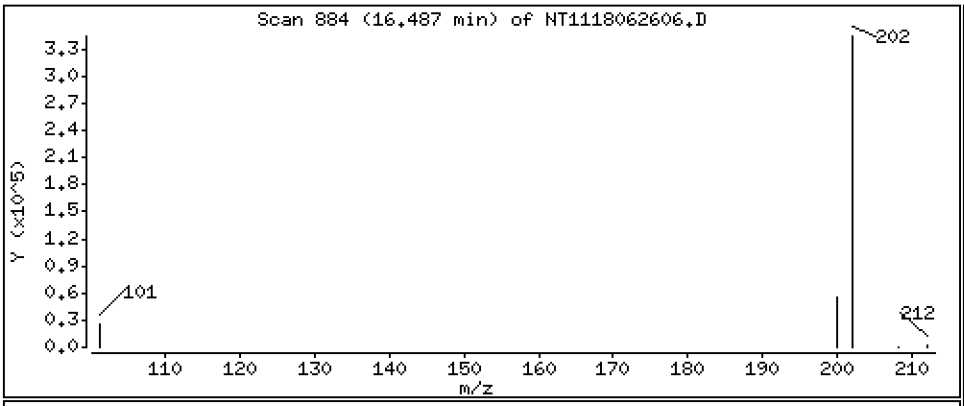
Operator: VTS

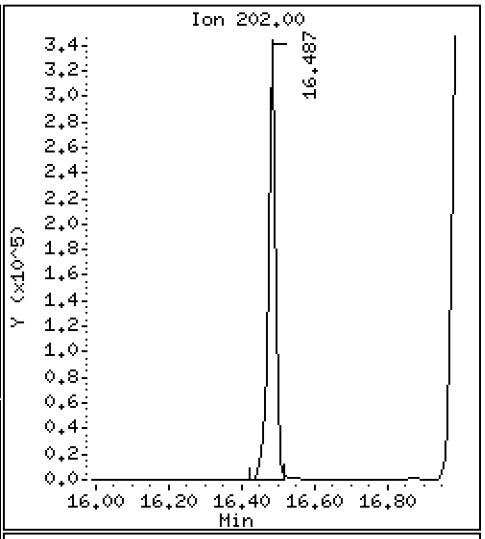
Column phase: Rxi-17Sil MS

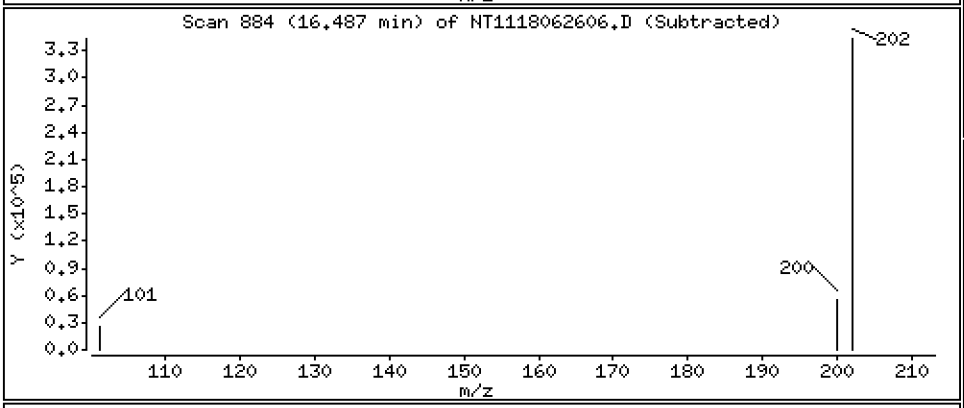
Column diameter: 0.25

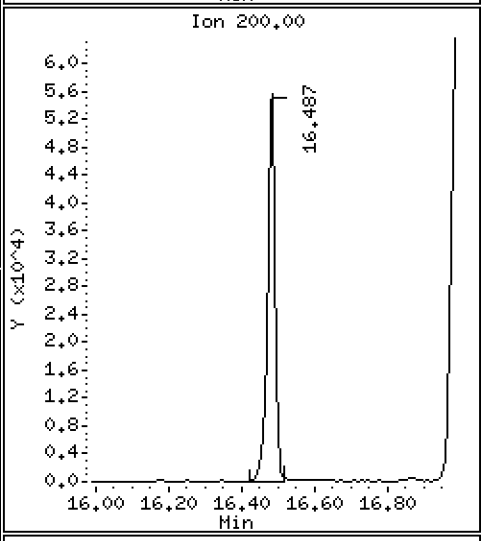
25 Fluoranthene

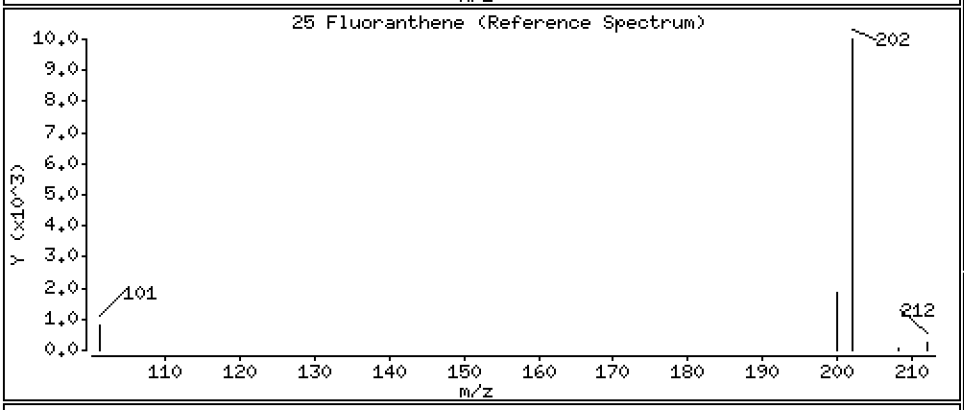
Concentration: 172 ng/mL

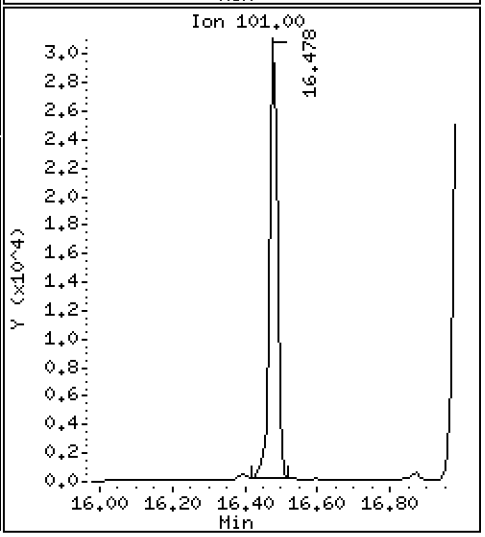


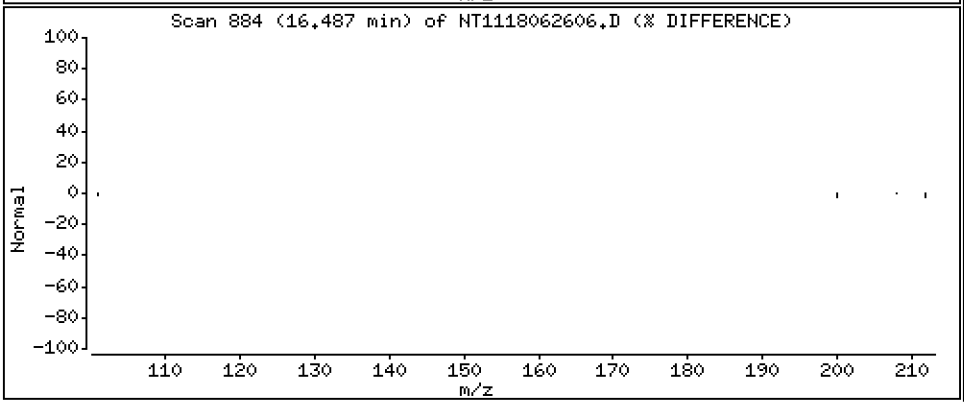












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Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

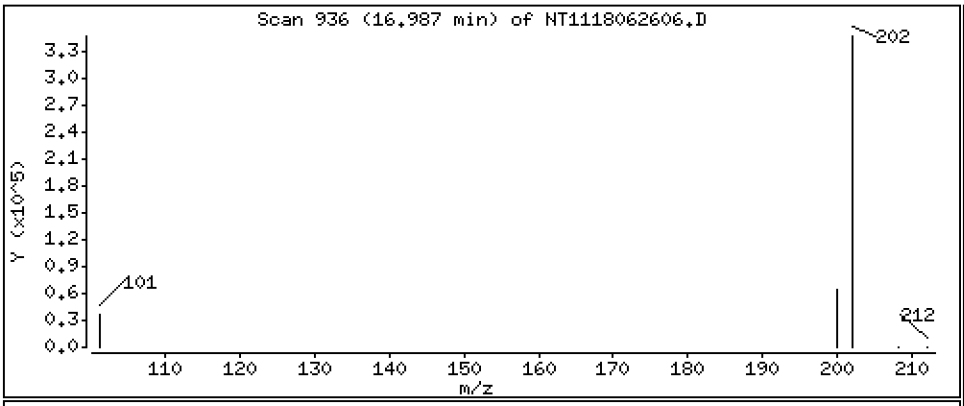
Operator: VTS

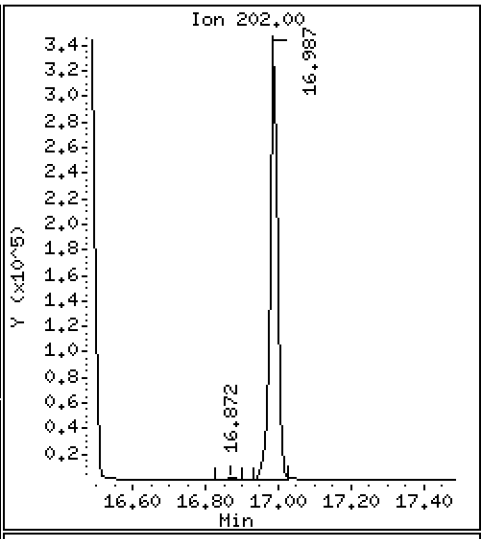
Column phase: Rxi-17Sil MS

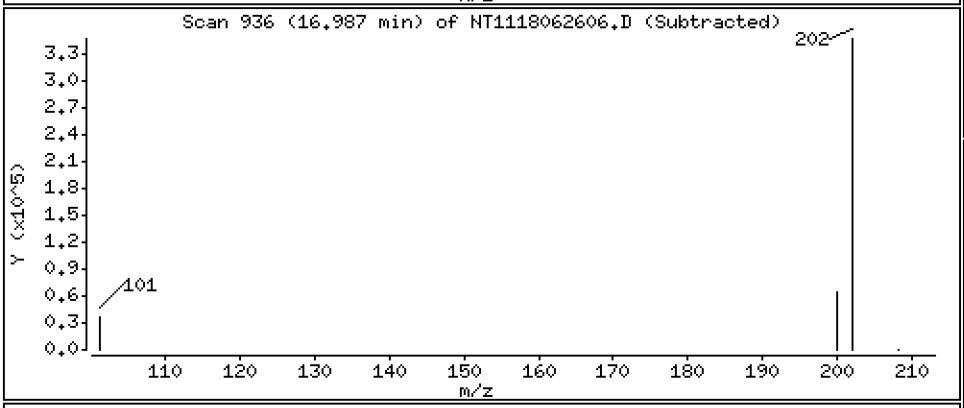
Column diameter: 0.25

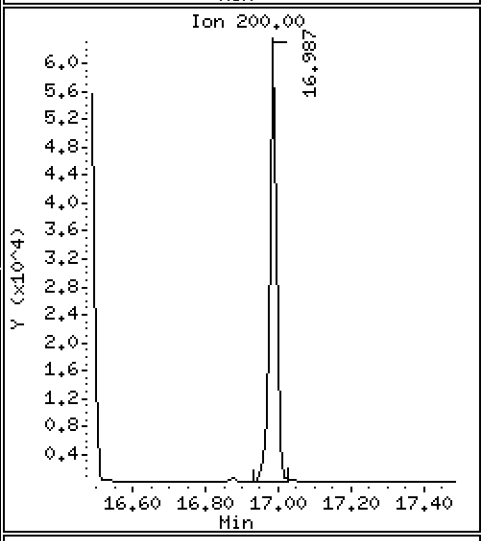
26 Pyrene

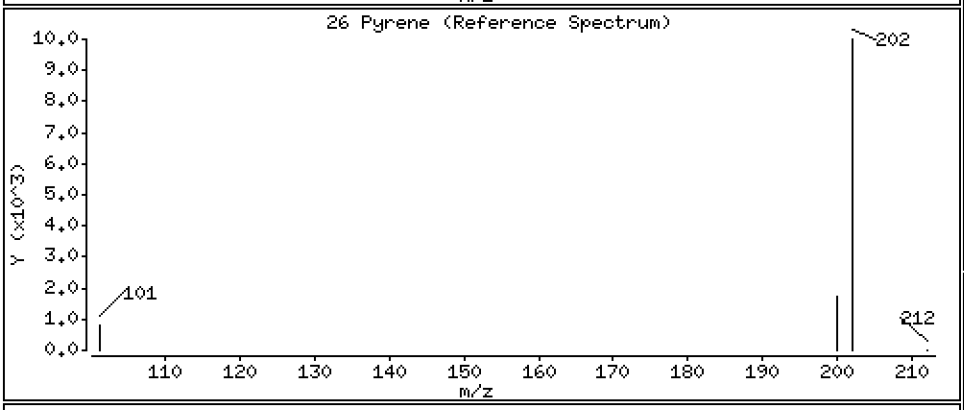
Concentration: 161 ng/mL

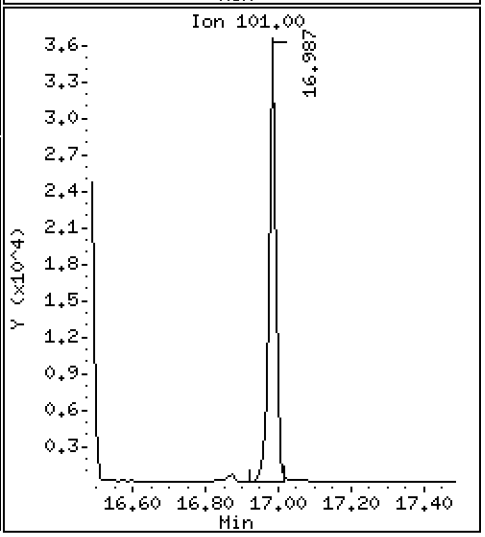


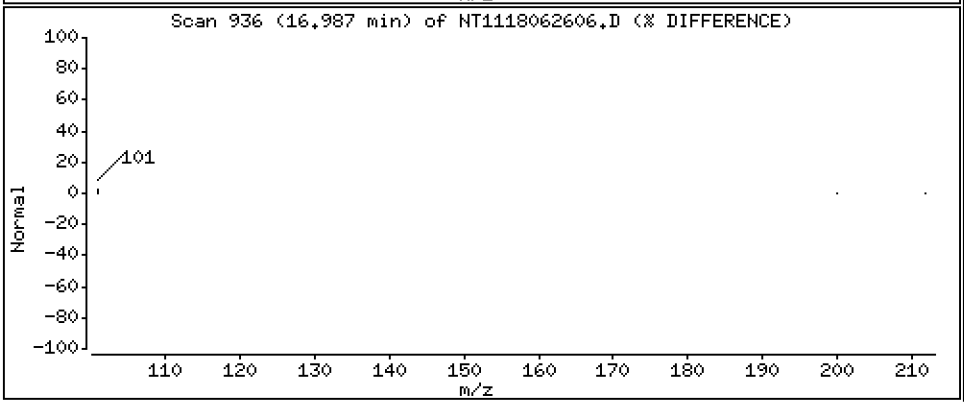












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Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

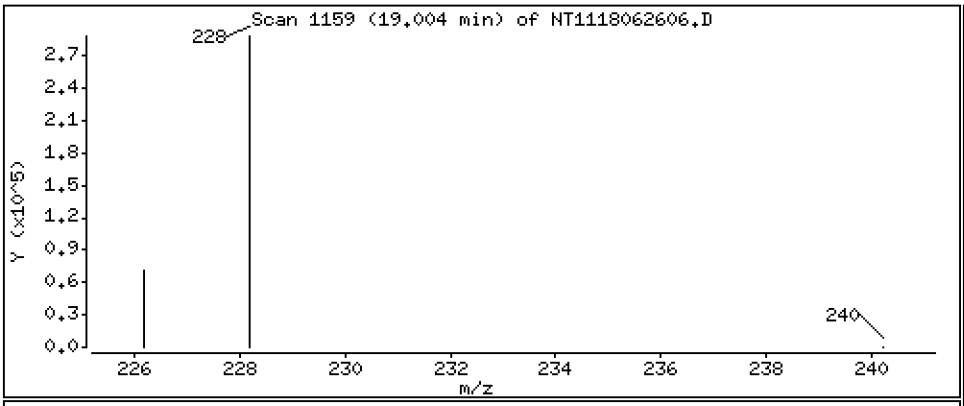
Operator: VTS

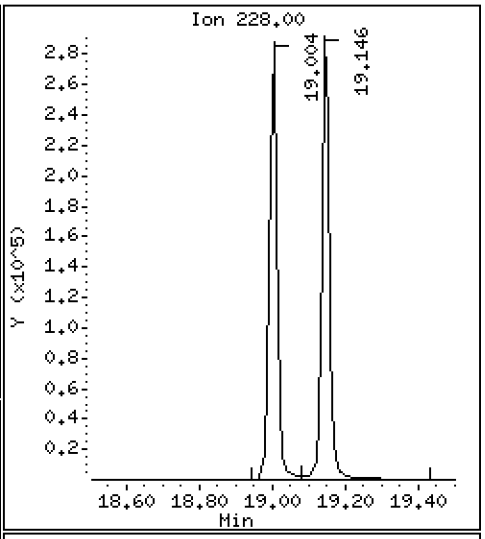
Column phase: Rxi-17Sil MS

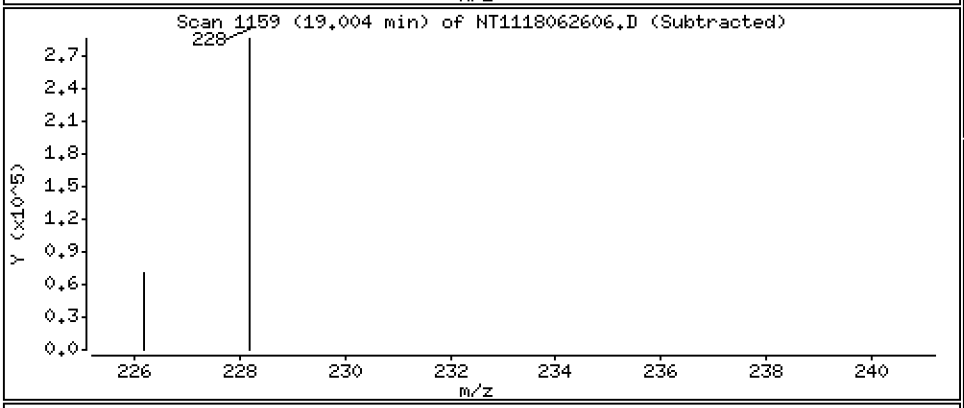
Column diameter: 0.25

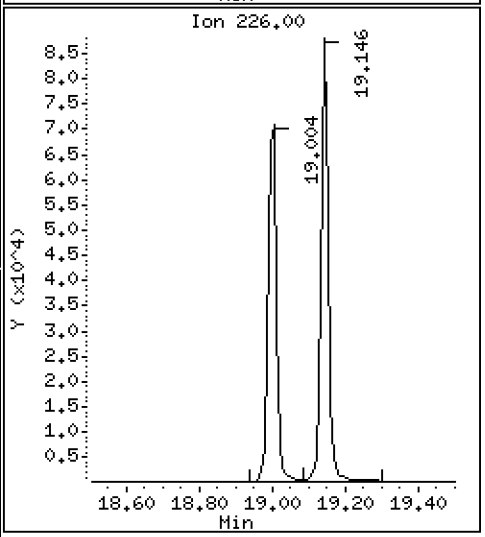
27 Benzo(a)anthracene

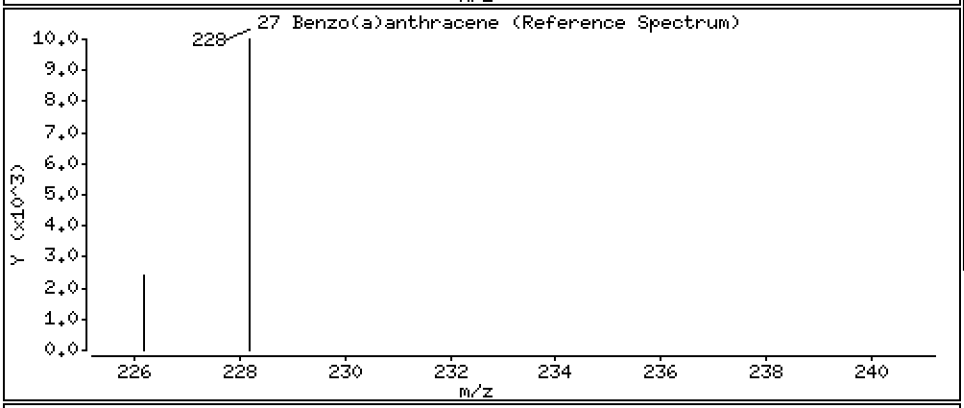
Concentration: 167 ng/mL

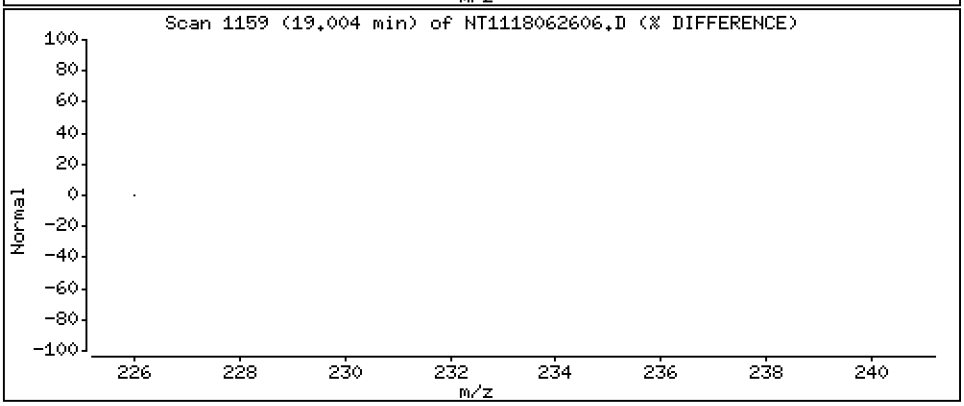












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Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

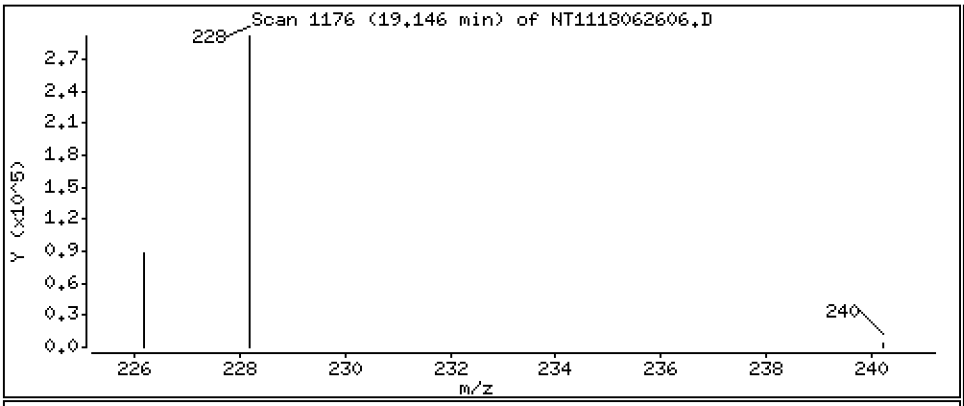
Operator: VTS

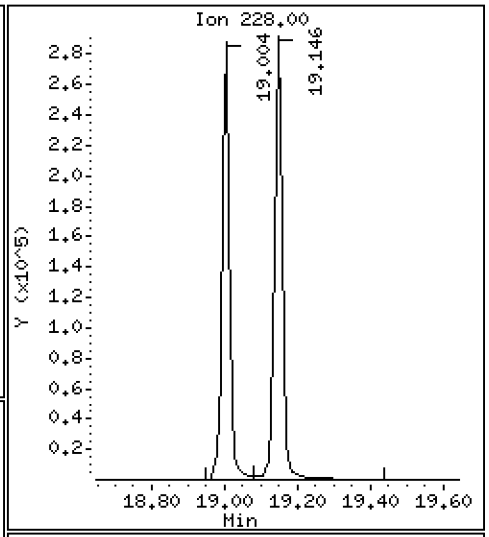
Column phase: Rxi-17Sil MS

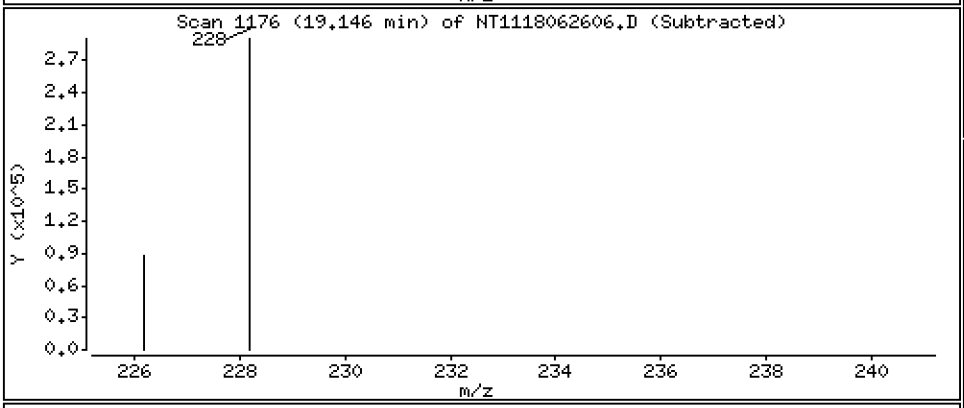
Column diameter: 0.25

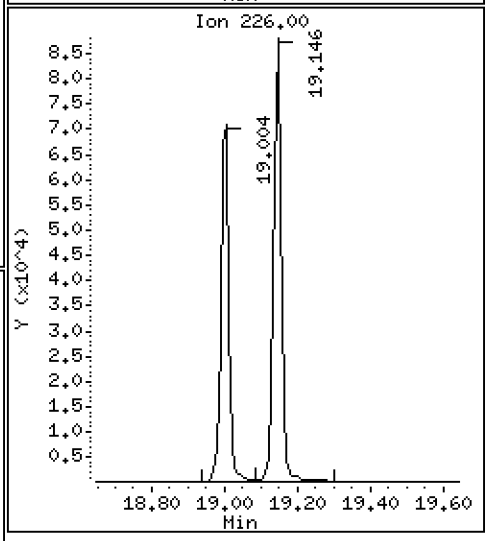
29 Chrysene

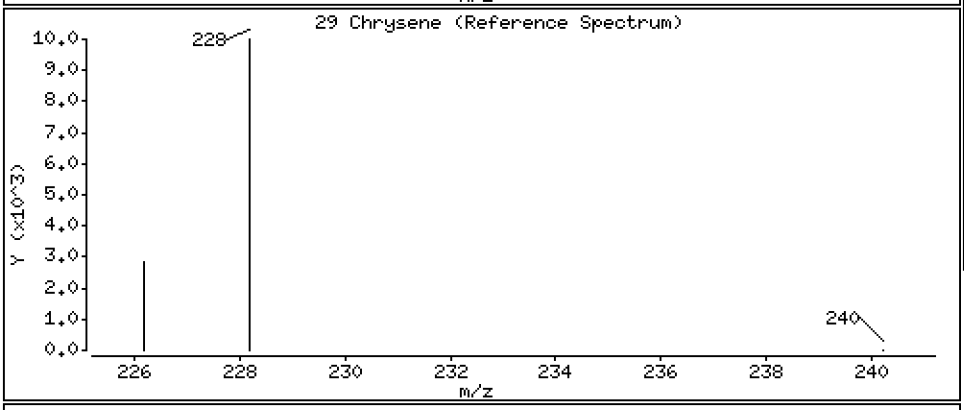
Concentration: 179 ng/mL

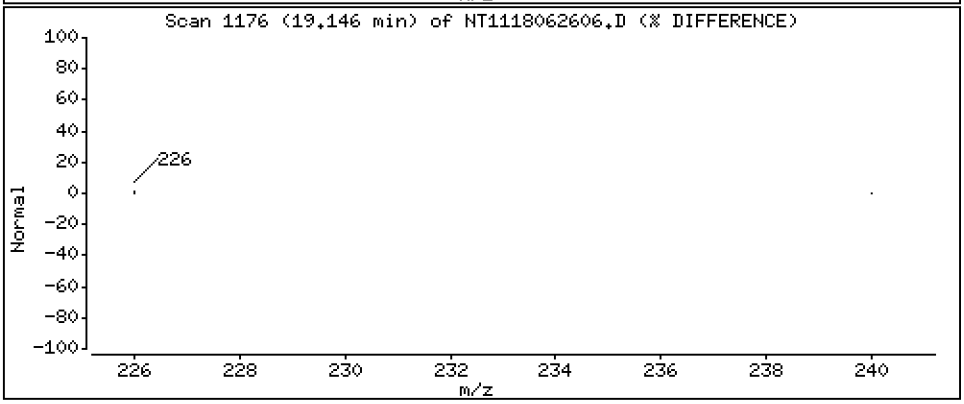












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Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

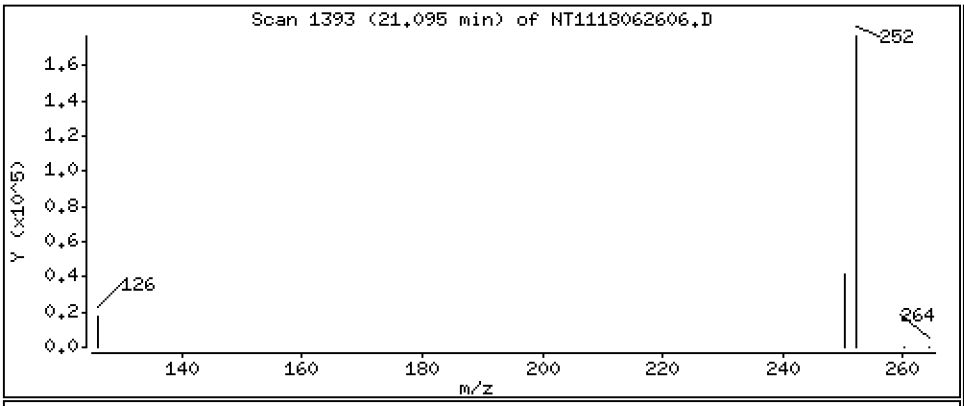
Operator: VTS

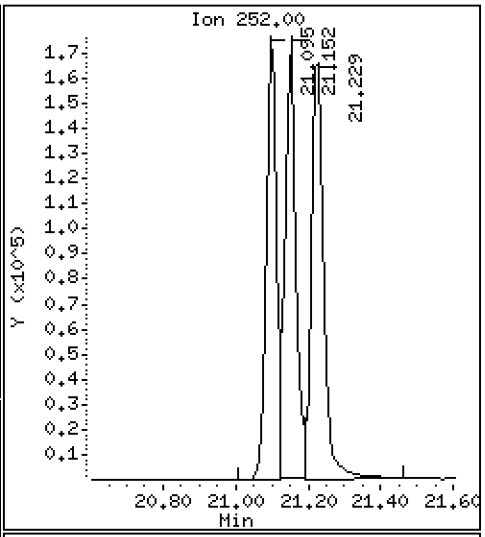
Column phase: Rxi-17Sil MS

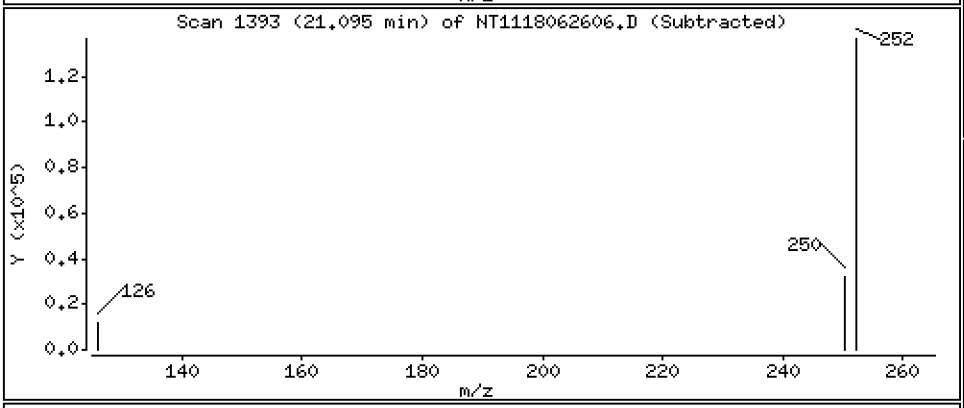
Column diameter: 0.25

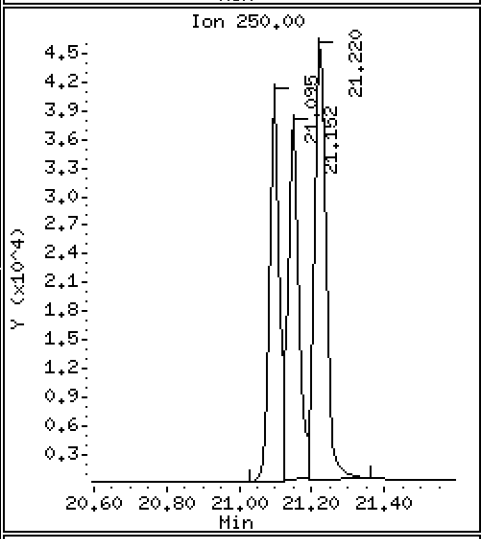
30 Benzo(b)fluoranthene

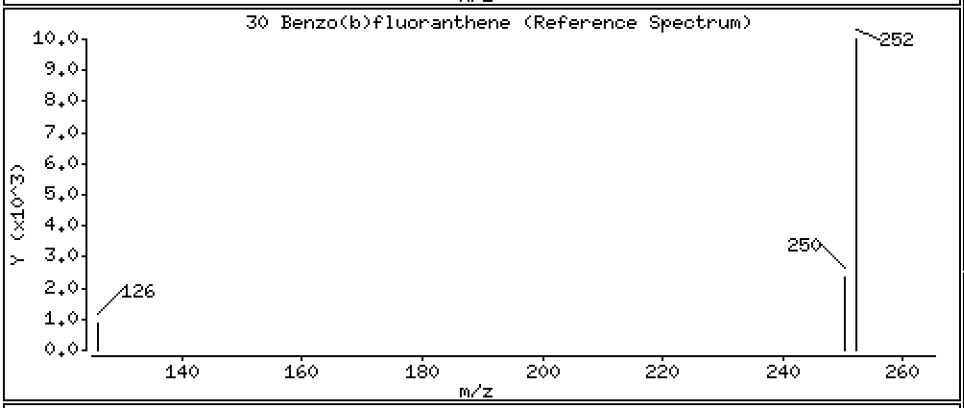
Concentration: 157 ng/mL

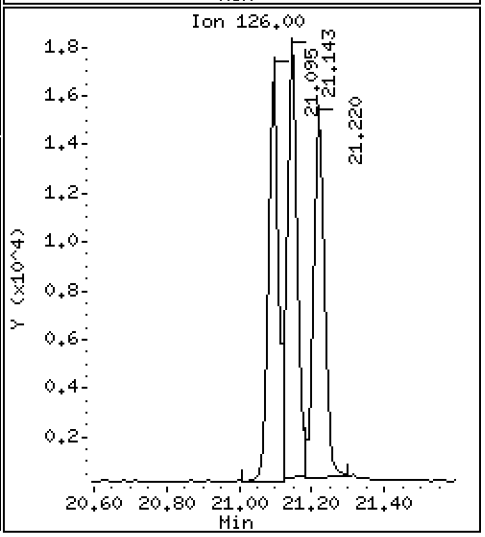


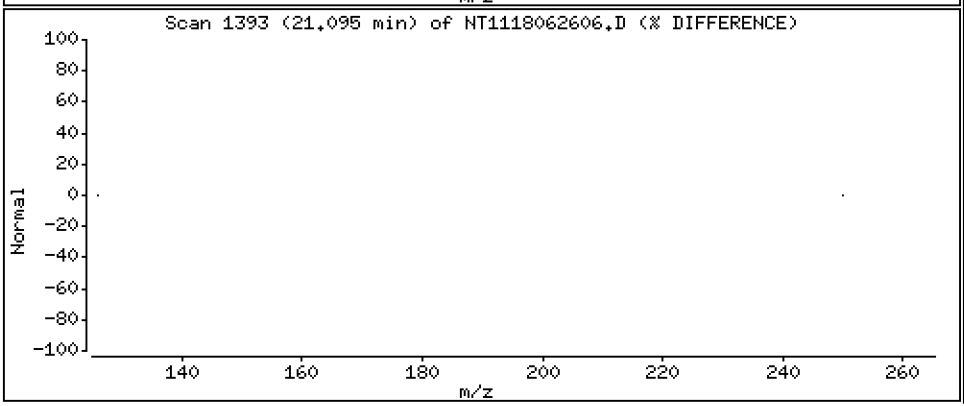












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Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

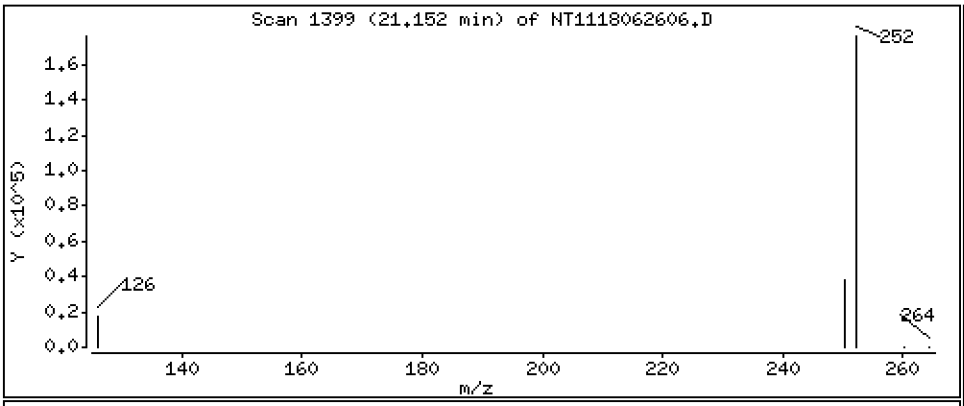
Operator: VTS

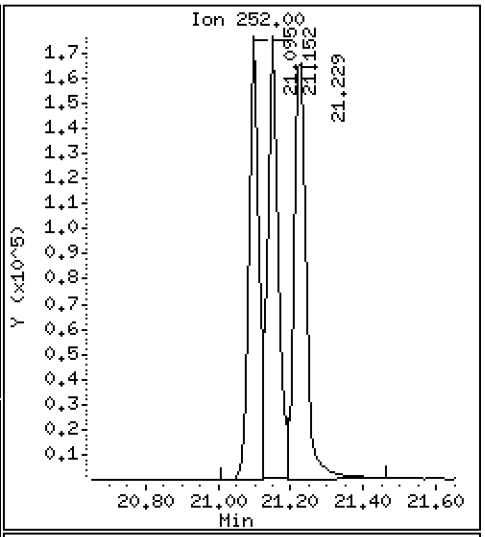
Column phase: Rxi-17Sil MS

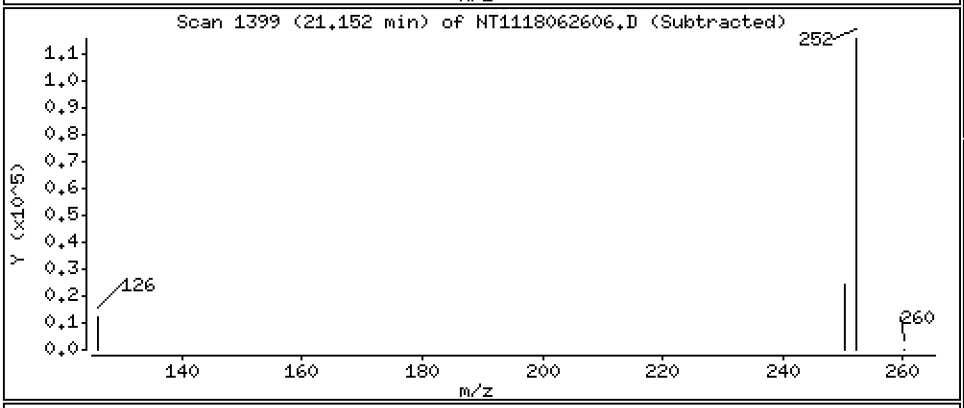
Column diameter: 0.25

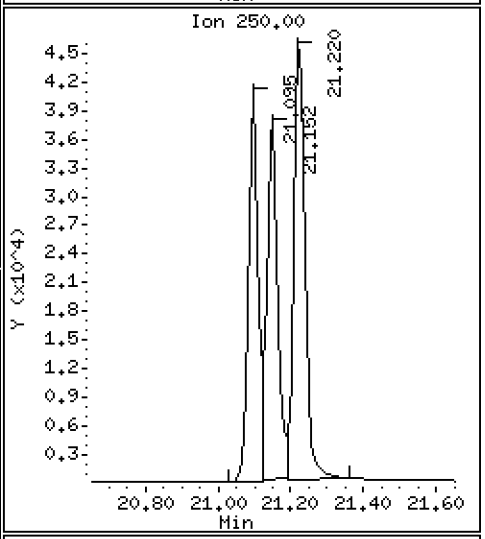
31 Benzo(k)fluoranthene

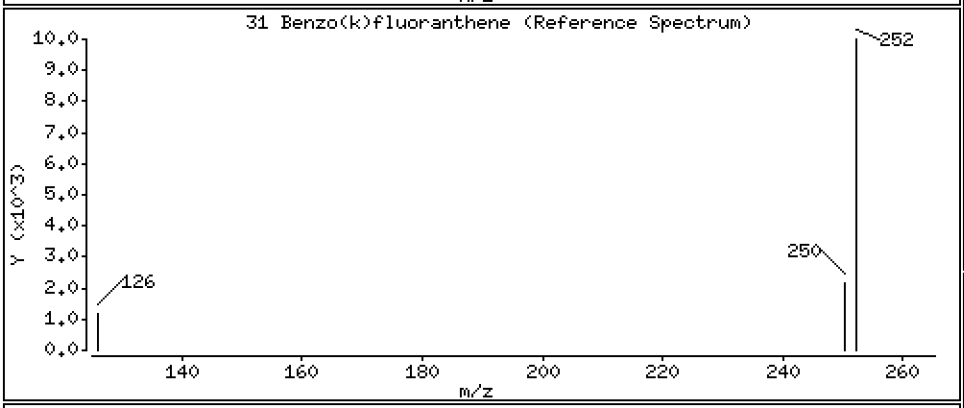
Concentration: 166 ng/mL

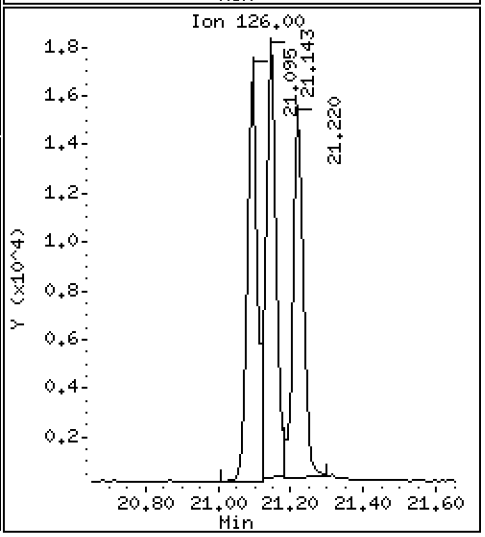


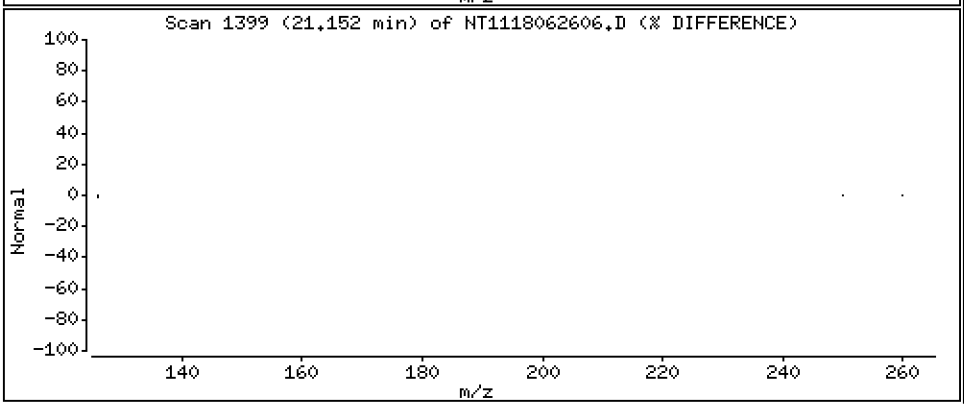












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Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

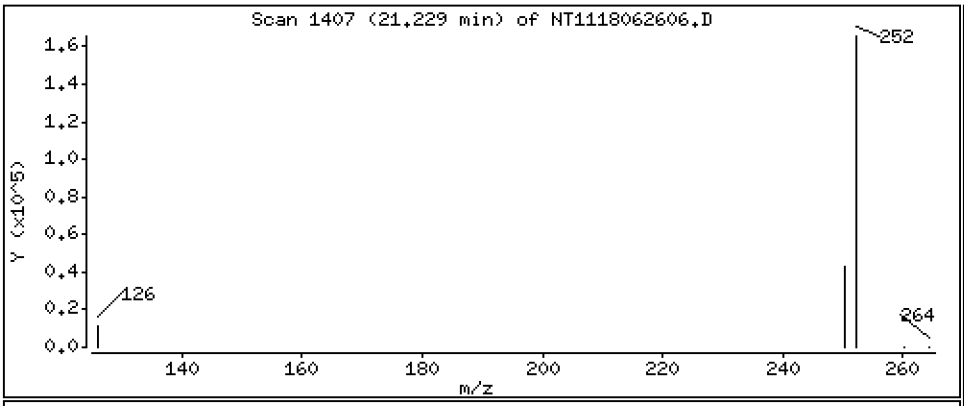
Operator: VTS

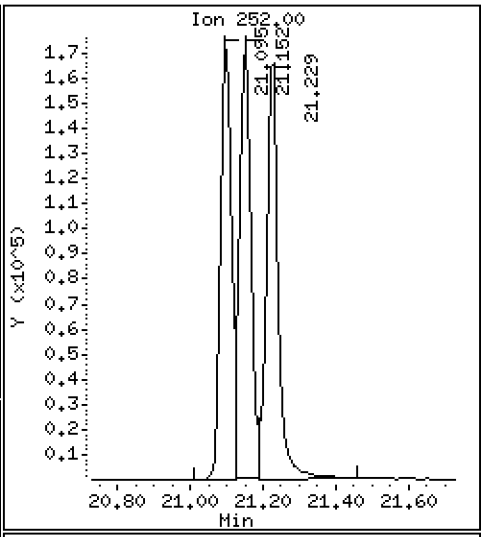
Column phase: Rxi-17Sil MS

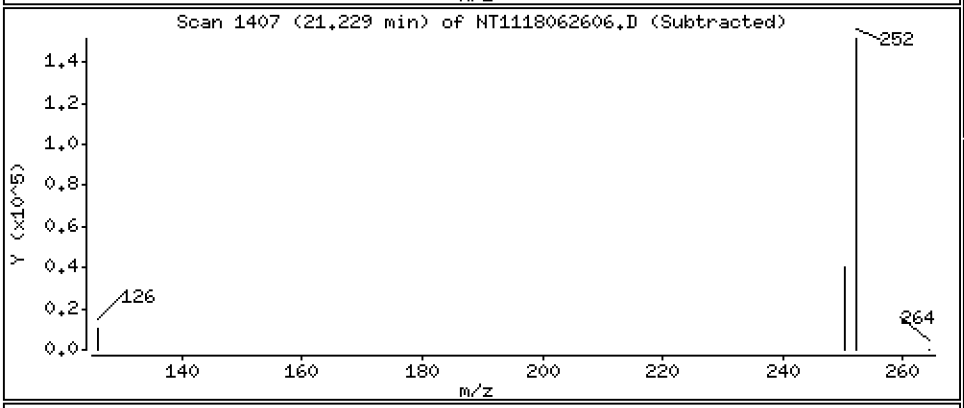
Column diameter: 0.25

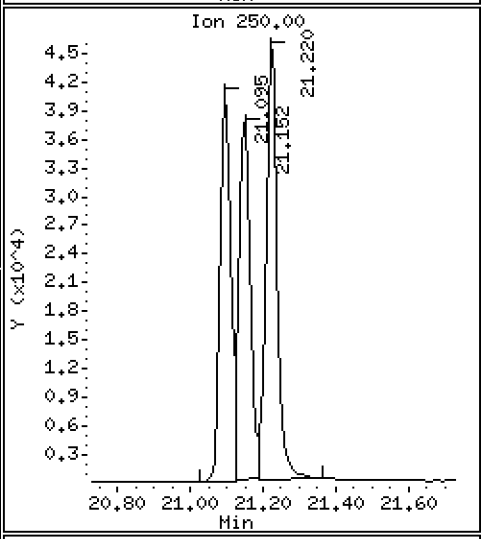
32 Benzo(j)fluoranthene

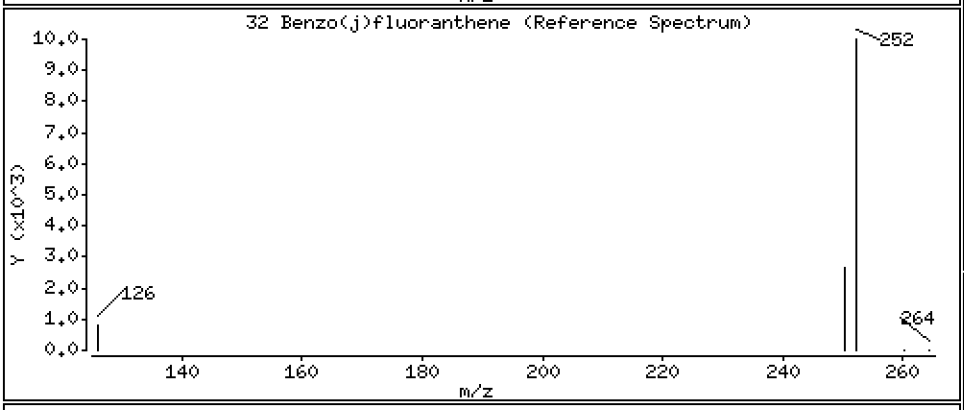
Concentration: 181 ng/mL

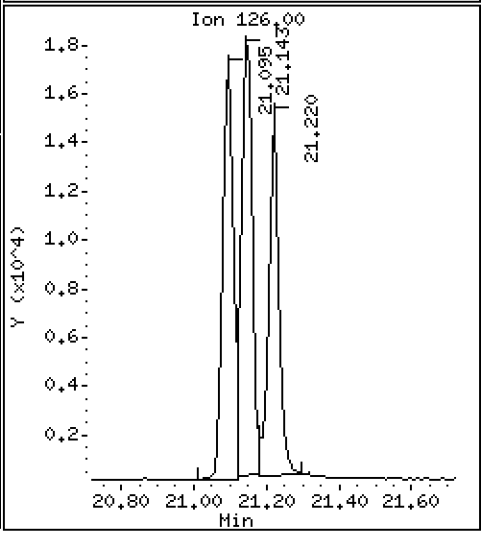


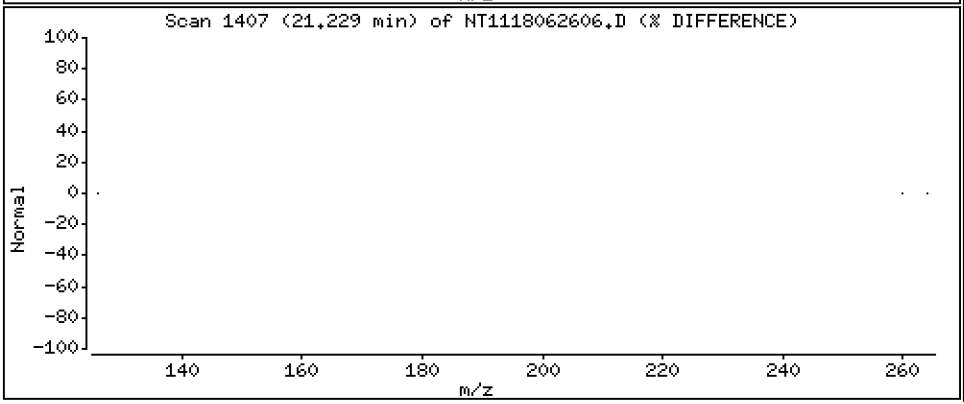












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Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

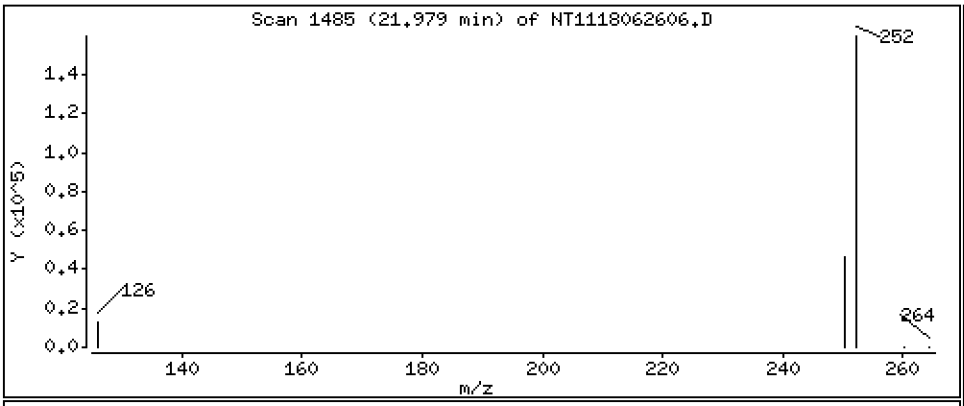
Operator: VTS

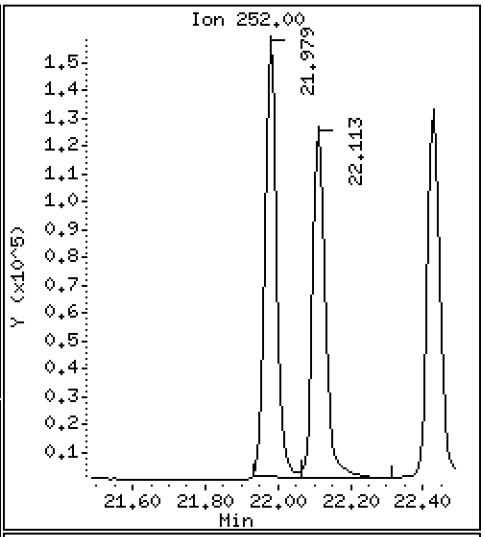
Column phase: Rxi-17Sil MS

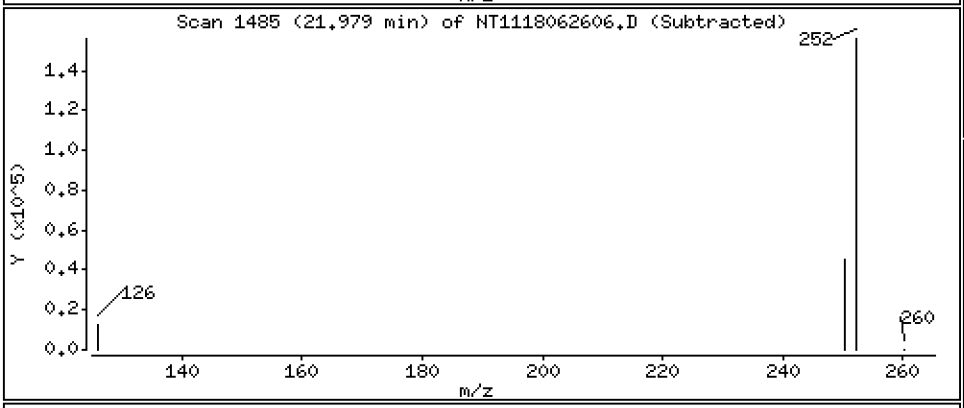
Column diameter: 0.25

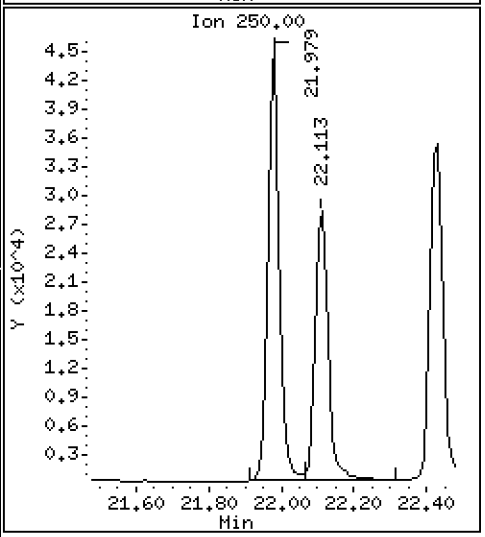
34 Benzo(e)pyrene

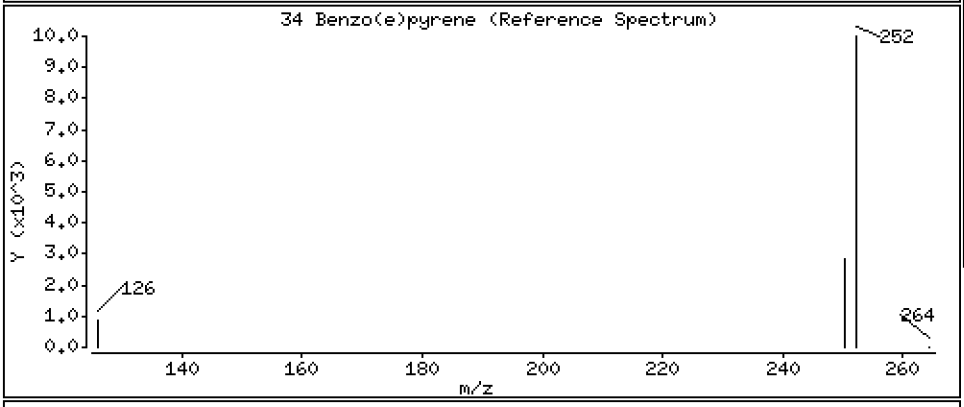
Concentration: 160 ng/mL

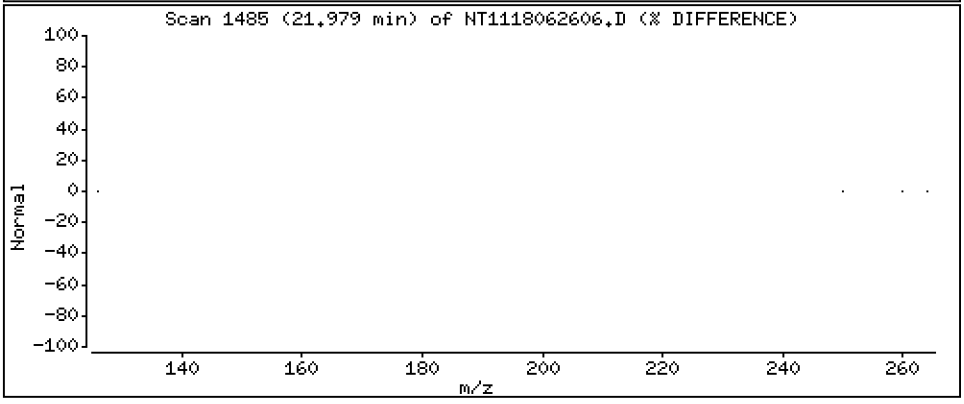












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Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

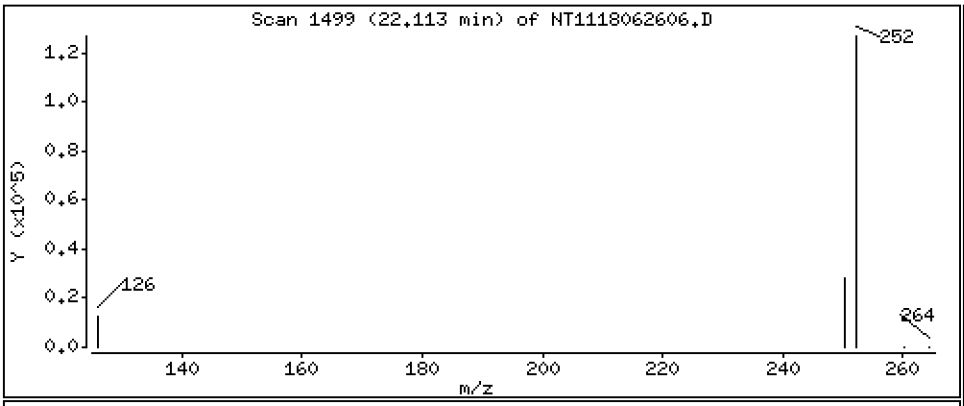
Operator: VTS

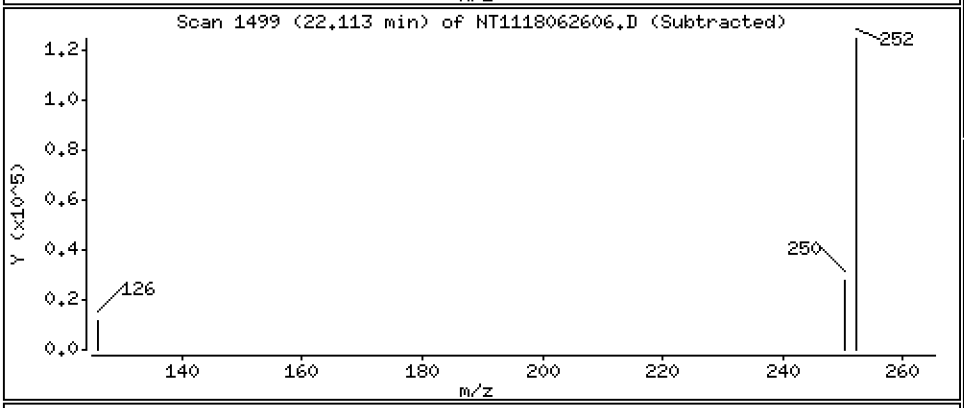
Column phase: Rxi-17Sil MS

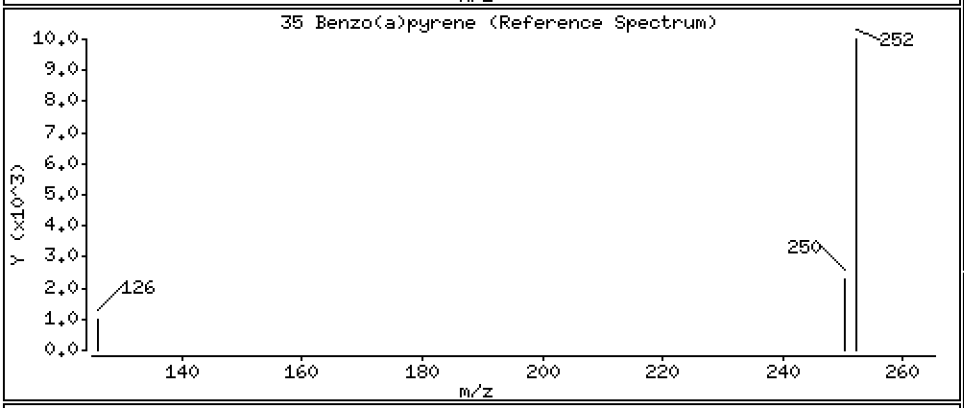
Column diameter: 0.25

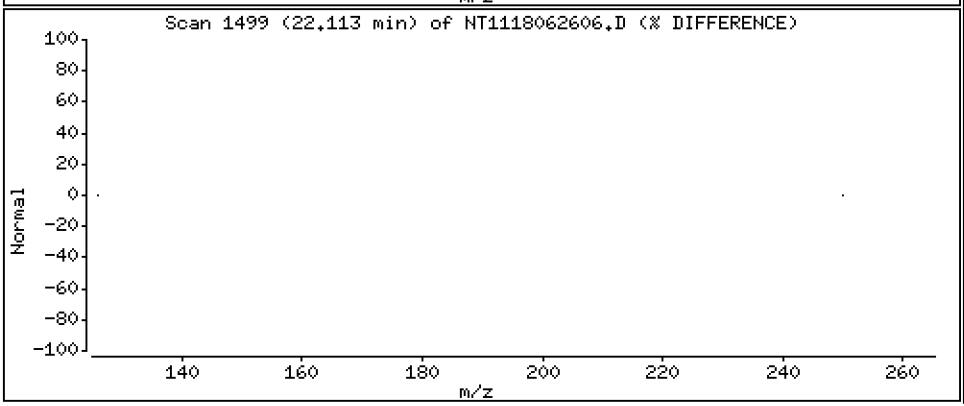
35 Benzo(a)pyrene

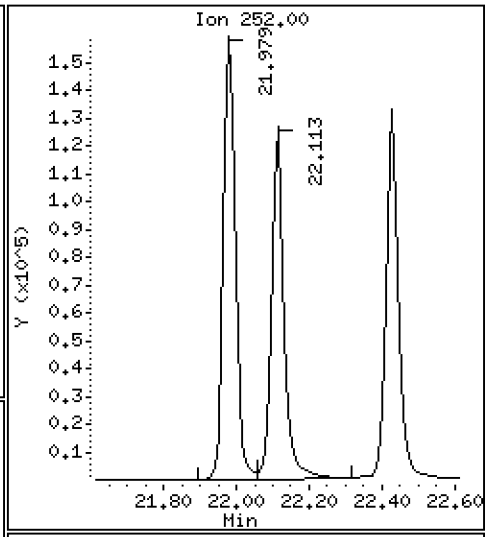
Concentration: 153 ng/mL

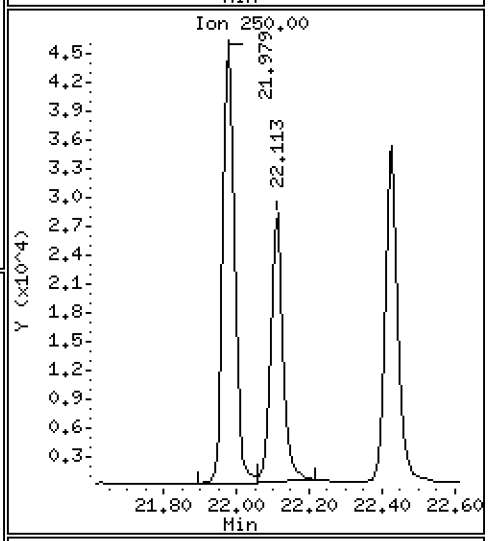


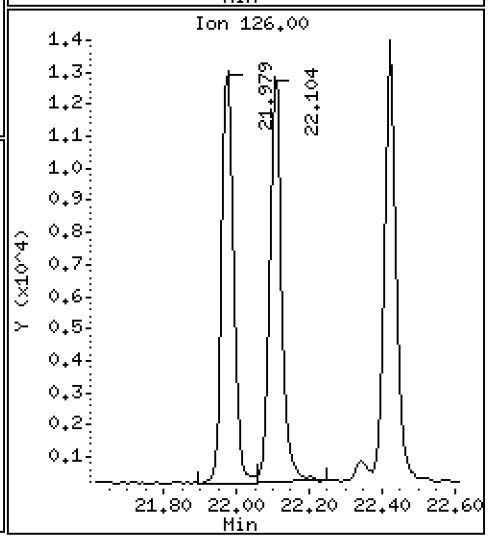












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Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

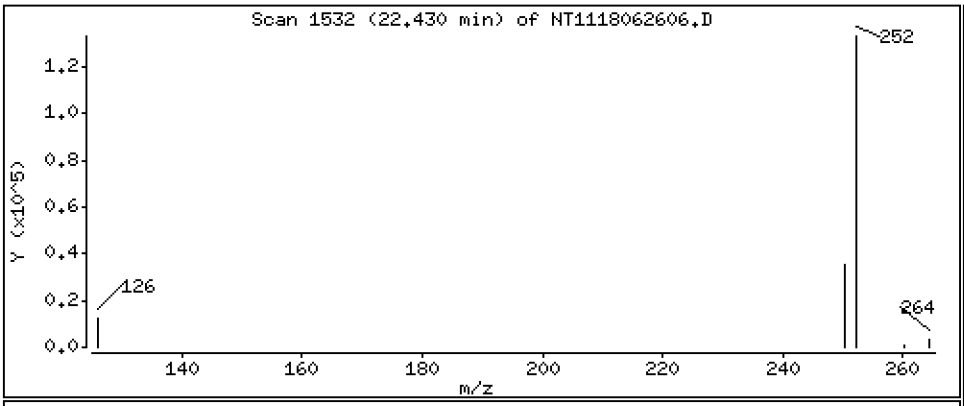
Operator: VTS

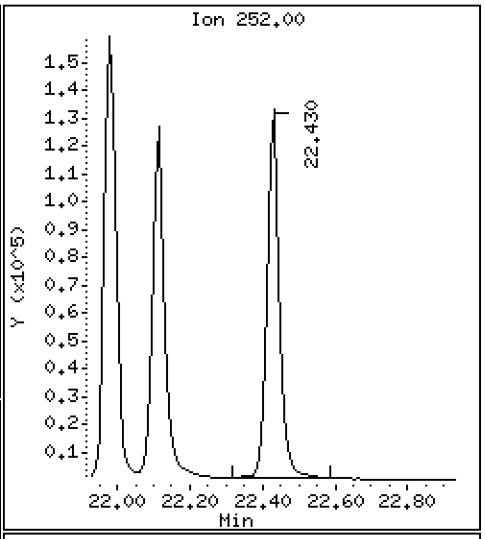
Column phase: Rxi-17Sil MS

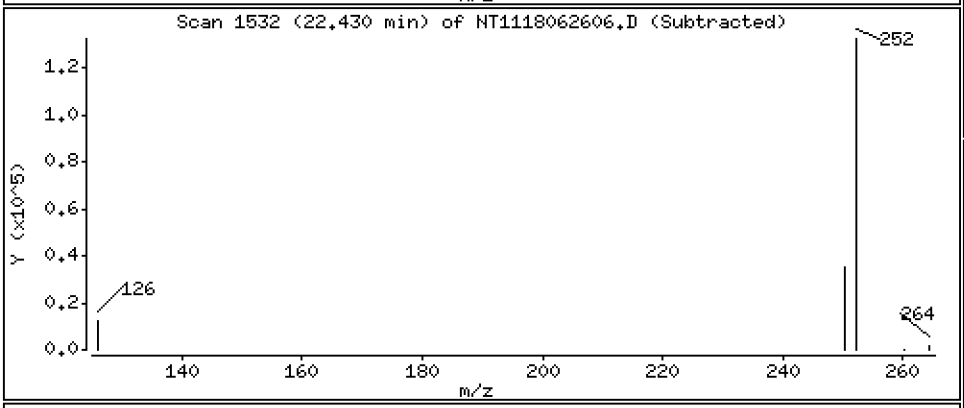
Column diameter: 0.25

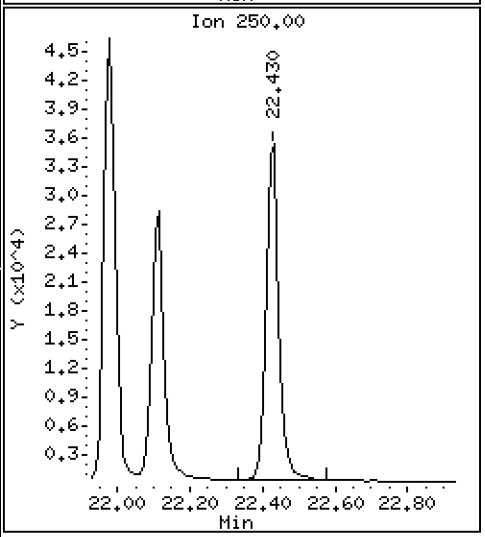
37 Perylene

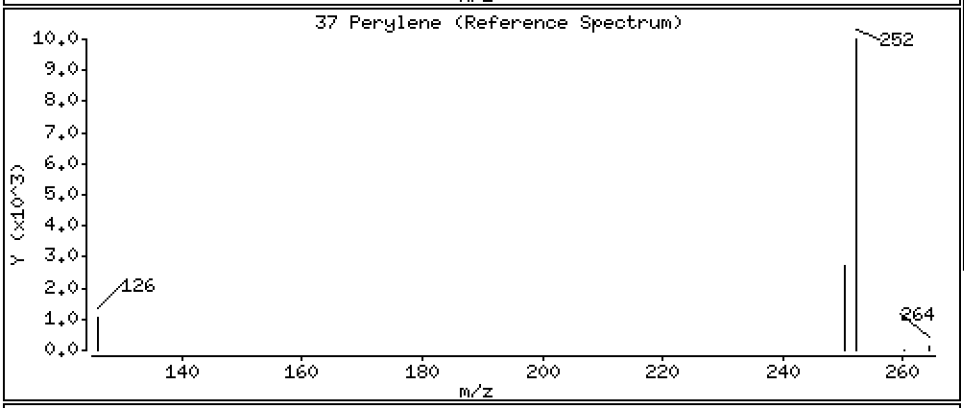
Concentration: 153 ng/mL

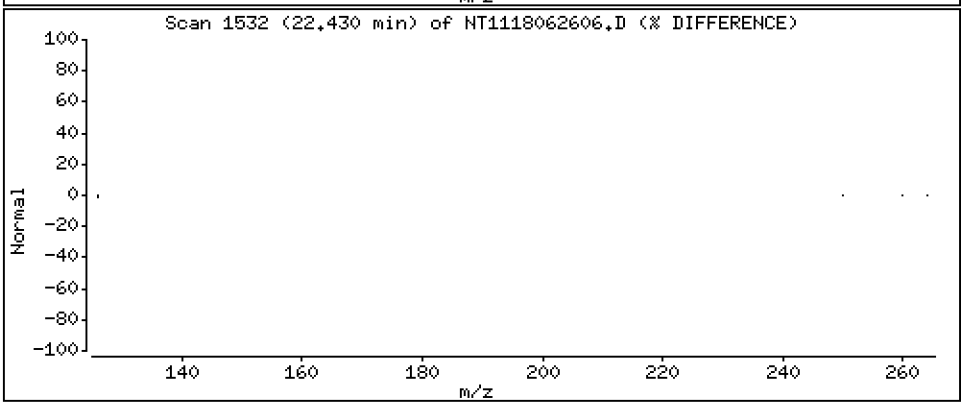












Data File: \\target\share\chem3\nt11.i\20180626.b\NT1118062606.D

Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

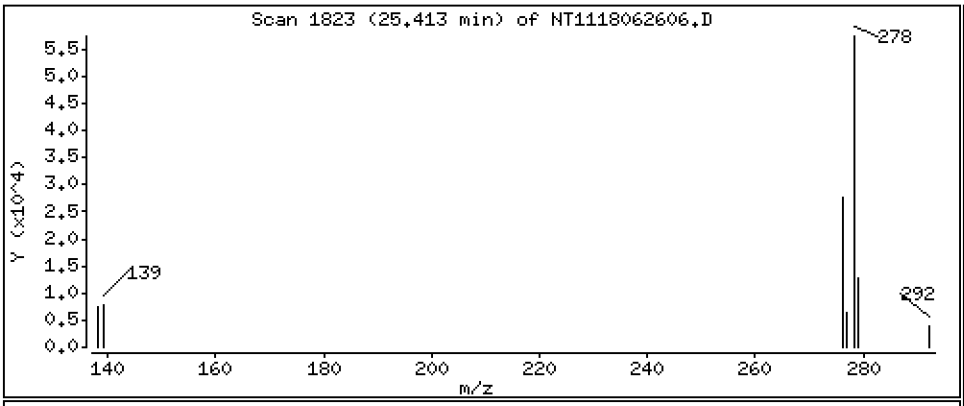
Operator: VTS

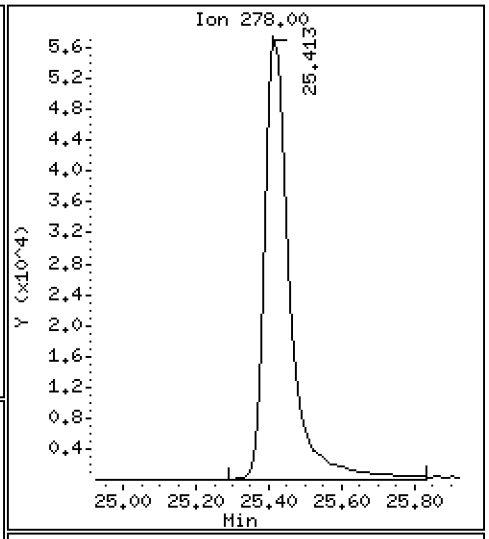
Column phase: Rxi-17Sil MS

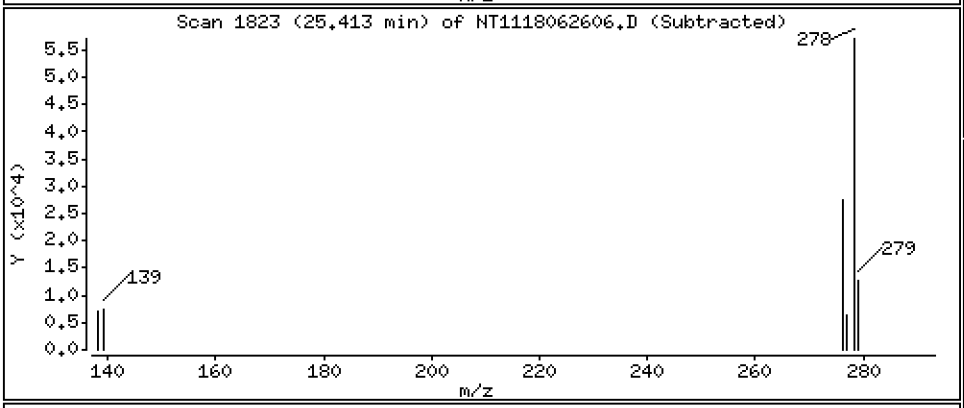
Column diameter: 0.25

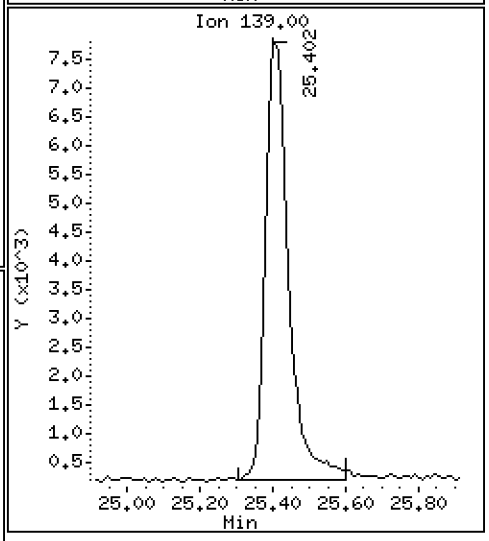
39 Dibenzo(a,h)anthracene

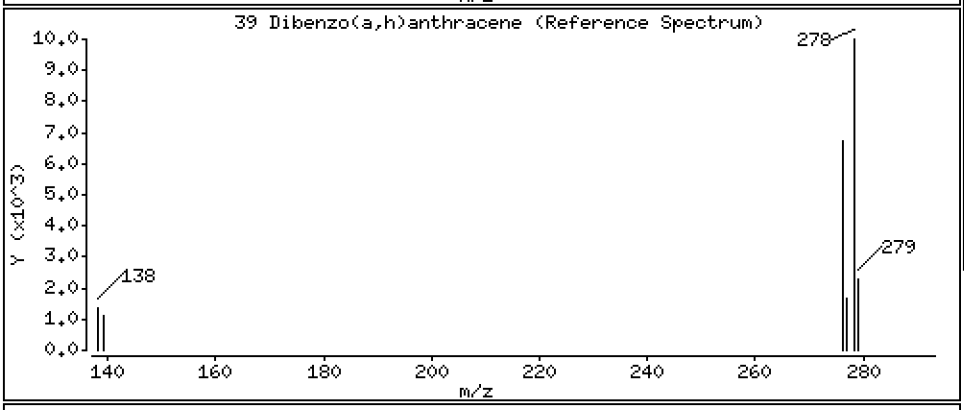
Concentration: 157 ng/mL

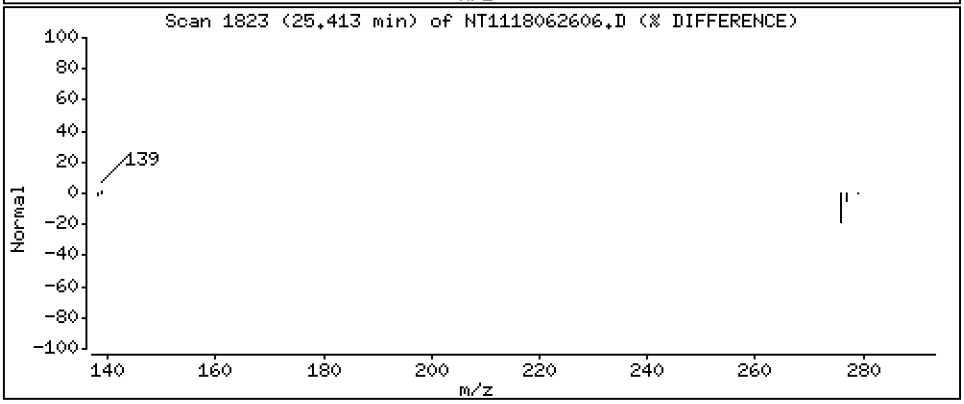












Data File: \\target\share\chem3\nt11.i\20180626.b\NT1118062606.D

Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

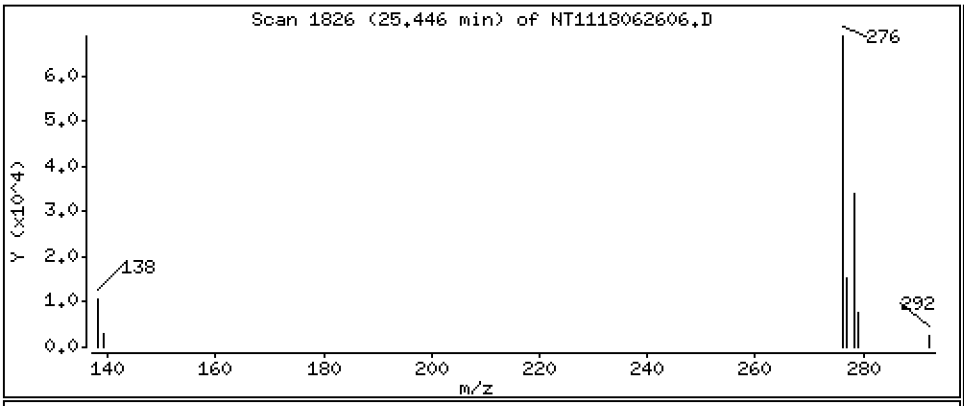
Operator: VTS

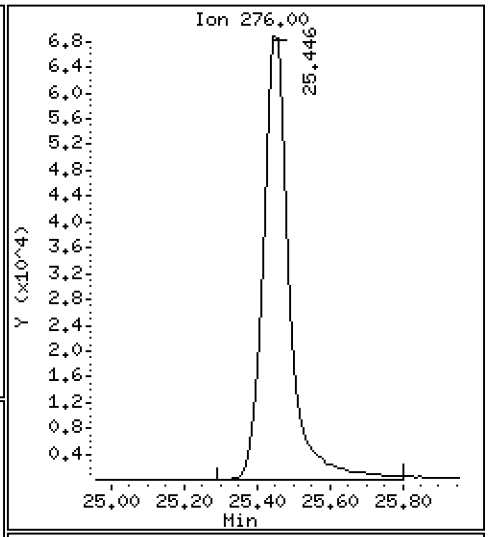
Column phase: Rxi-17Sil MS

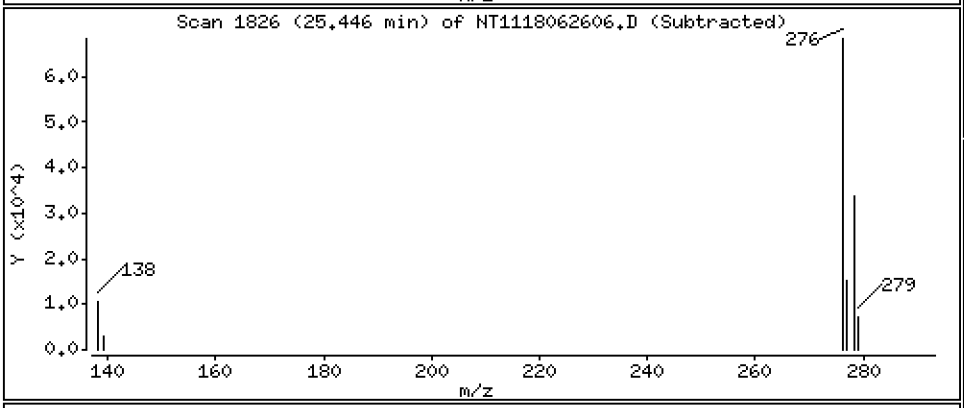
Column diameter: 0.25

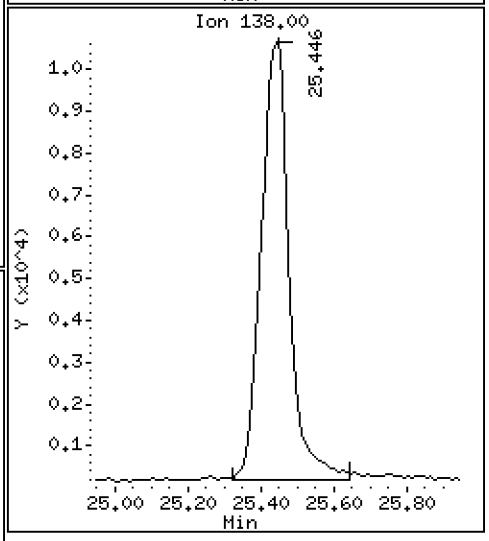
40 Indeno(1,2,3-cd)pyrene

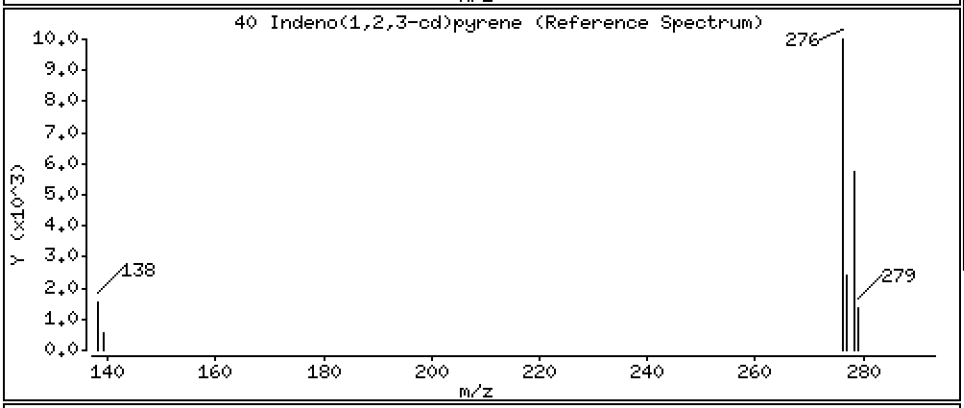
Concentration: 163 ng/mL

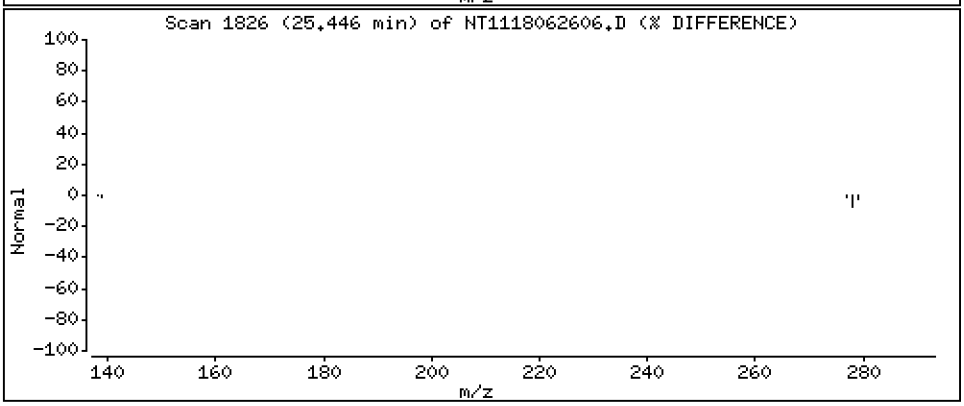












Data File: \\target\share\chem3\nt11.i\20180626.b\NT1118062606.D

Date : 26-JUN-2018 11:59

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-BS1

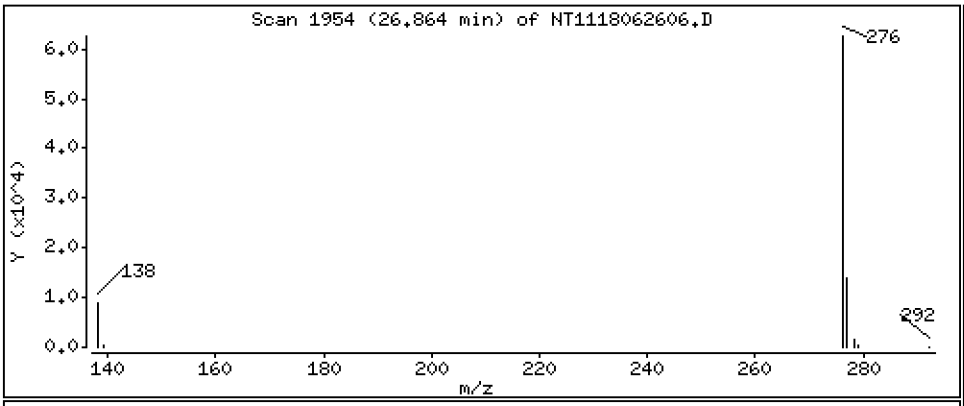
Operator: VTS

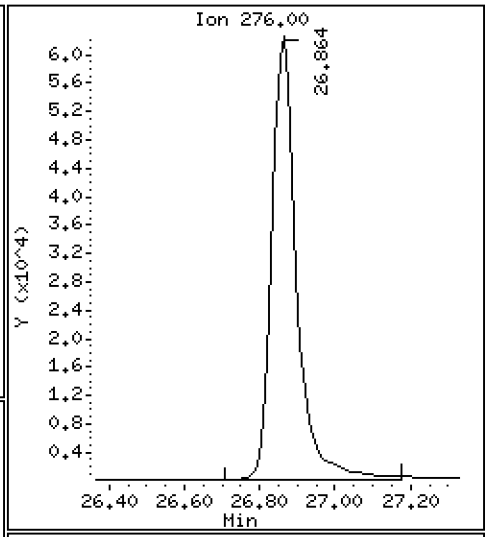
Column phase: Rxi-17Sil MS

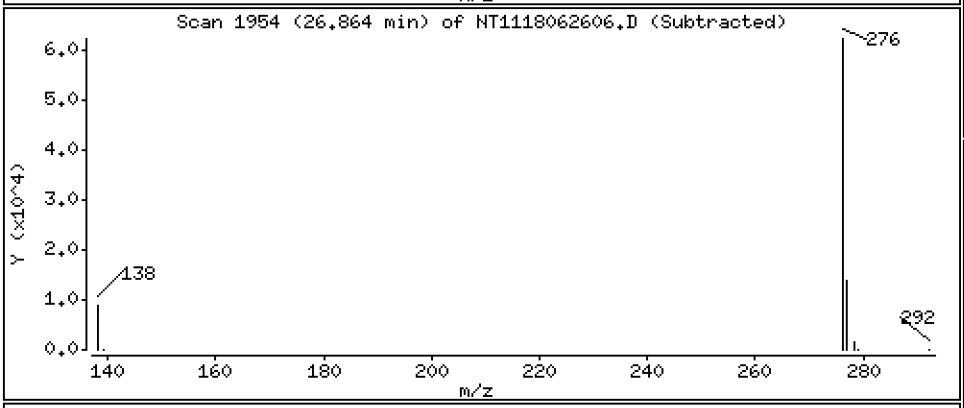
Column diameter: 0.25

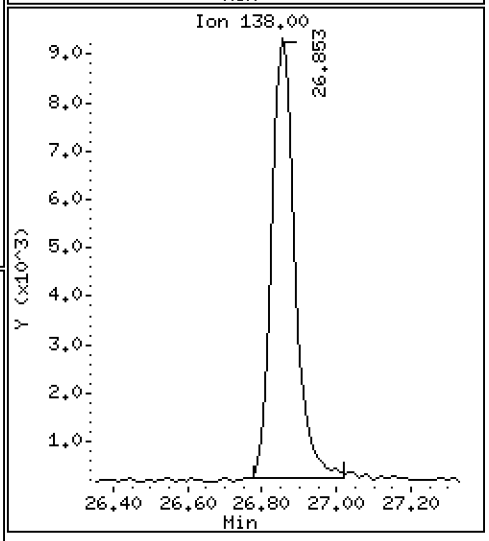
41 Benzo(g,h,i)perylene

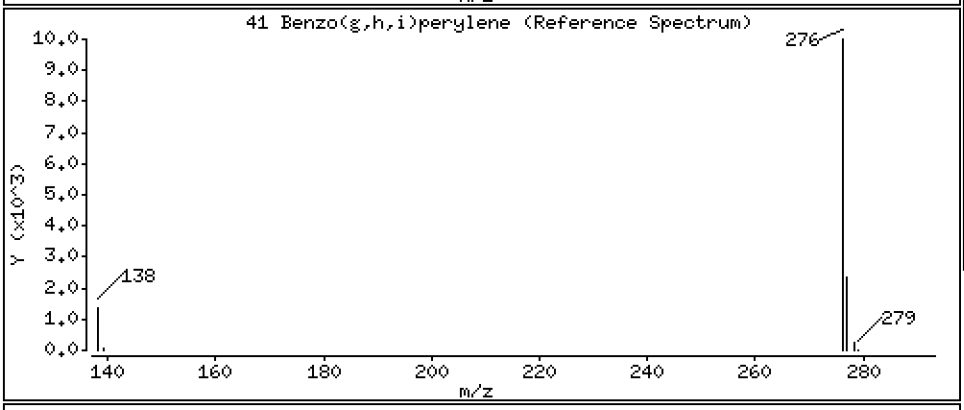
Concentration: 160 ng/mL

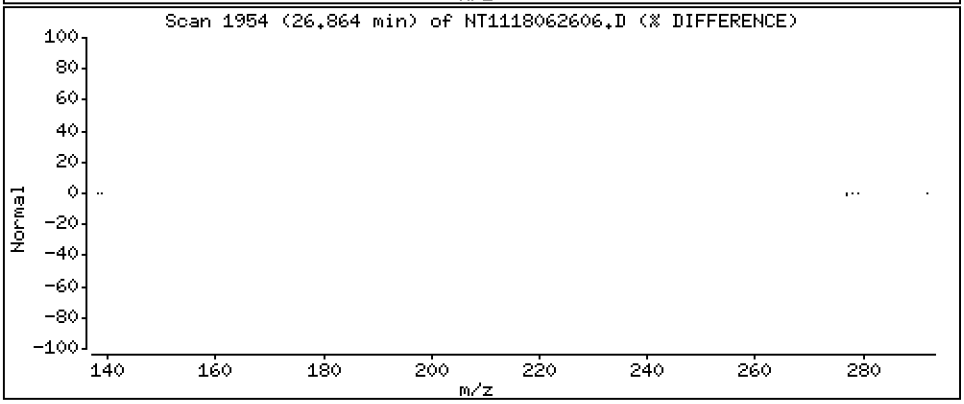












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180626.b\NT1118062606.D
Lab Smp Id: BGF0416-BS1
Inj Date : 26-JUN-2018 11:59 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : BGF0416-BS1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180626.b\LOWSIM.m
Meth Date : 26-Jun-2018 10:11 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	425020	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	331883	110.956	111
	3 Benzo(b)thiophene	134	8.897	8.897	(1.034)	293673	131.822	132
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	296542	122.285	122
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	334991	129.391	129
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	335805	130.418	130
	7 2-Chloronaphthalene	162	10.558	10.569	(0.907)	348291	138.798	139
	8 Biphenyl	154	10.527	10.527	(0.904)	447904	149.224	149
	9 2,6-Dimethylnaphthalene	156	10.579	10.579	(0.909)	333219	140.471	140
	10 Acenaphthylene	152	11.490	11.499	(0.987)	400971	139.705	140
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	241394	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	268245	136.645	137
	13 Dibenzofuran	168	11.908	11.908	(1.023)	378165	140.618	141
	14 2,3,5-Trimethylnaphthalene	170	11.996	11.996	(1.030)	235295	136.716	137
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.540	12.539	(1.077)	298359	137.576	138
	17 Dibenzothiophene	184	14.172	14.172	(0.988)	373130	146.081	146
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	410175	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	490956	152.613	153
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.435	14.435	(1.007)	423028	140.661	141
	22 Carbazole	167	15.113	15.112	(1.054)	552667	157.743	158
	23 1-Methylphenanthrene	192	15.384	15.384	(1.073)	523362	172.182	172
$	24 Fluoranthene-d10	212	16.449	16.449	(1.147)	387033	155.449	155
	25 Fluoranthene	202	16.487	16.487	(1.150)	512911	171.687	172
	26 Pyrene	202	16.987	16.987	(0.890)	514462	160.666	161
	27 Benzo(a)anthracene	228	19.004	19.004	(0.995)	416921	166.945	167
*	28 Chrysene-d12	240	19.095	19.103	(1.000)	325710	200.000	
	29 Chrysene	228	19.145	19.145	(1.003)	443807	178.906	179
	30 Benzo(b)fluoranthene	252	21.094	21.104	(0.944)	356644	157.369	157
	31 Benzo(k)fluoranthene	252	21.152	21.152	(0.946)	390537	166.183	166
	32 Benzo(j)fluoranthene	252	21.229	21.229	(0.950)	386534	180.715	181
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	21.978	21.988	(0.983)	350555	160.372	160

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	35 Benzo(a)pyrene	252	22.113	22.113	(0.989)	304687	153.034	153
*	36 Perylene-d12	264	22.353	22.353	(1.000)	320405	200.000	
	37 Perylene	252	22.430	22.430	(1.003)	318854	152.595	153
$	38 Dibenzo(a,h)anthracene-d14	292	25.268	25.279	(1.130)	218104	142.249	142
	39 Dibenzo(a,h)anthracene	278	25.412	25.423	(1.137)	271405	156.671	157
	40 Indeno(1,2,3-cd)pyrene	276	25.446	25.457	(1.138)	337427	162.932	163
	41 Benzo(g,h,i)perylene	276	26.863	26.863	(1.202)	287260	160.363	160

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118062606.D
Lab Smp Id: BGF0416-BS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180626.b\LOWSIM.m
Misc Info:

Calibration Date: 26-JUN-2018
Calibration Time: 09:36
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	425020	-1.46
11 Acenaphthene-d10	260137	130069	520274	241394	-7.21
18 Phenanthrene-d10	427391	213696	854782	410175	-4.03
28 Chrysene-d12	304596	152298	609192	325710	6.93
36 Perylene-d12	263091	131546	526182	320405	21.78

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.04
36 Perylene-d12	22.35	21.85	22.85	22.35	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118062606.D

Lab ID: BGF0416-BS1
nt11.i, 20180626.b\LOWSIM.m,   26-JUN-2018 11:59

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180626.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt11.i\20180626.b\NT1118062607.D

Date : 26-JUN-2018 12:36

Client ID:

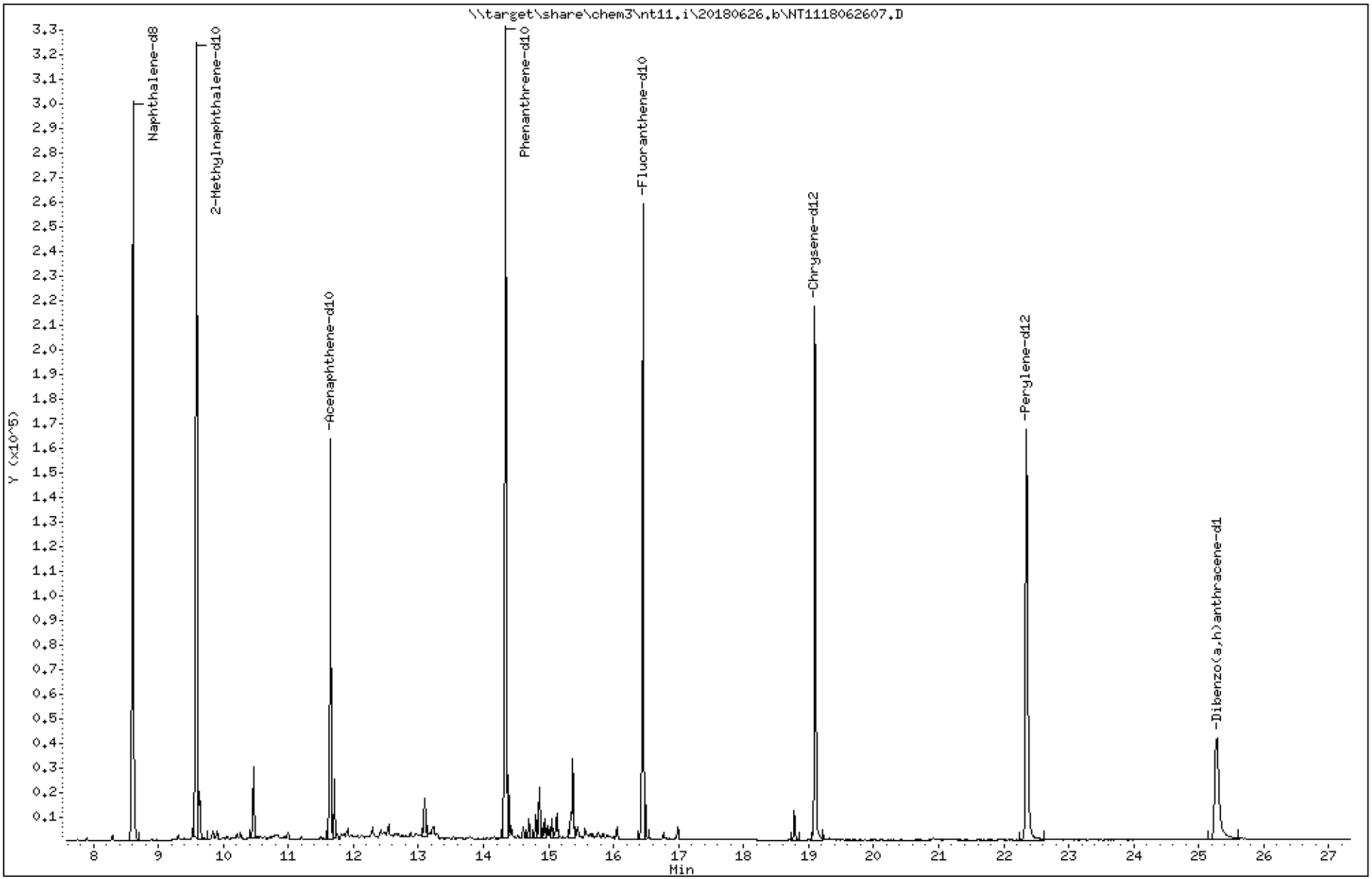
Instrument: nt11.i

Sample Info: 18F0185-06

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 26-JUN-2018 12:36

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-06

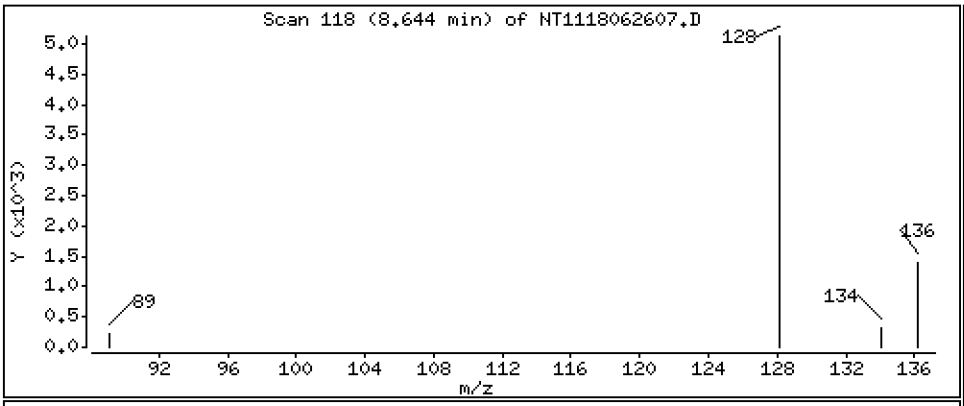
Operator: VTS

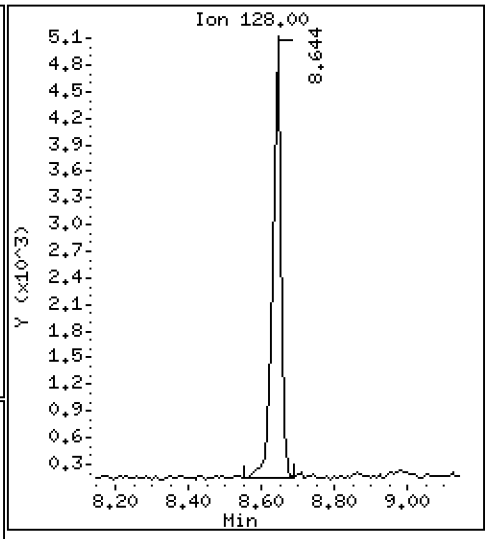
Column phase: Rxi-17Sil MS

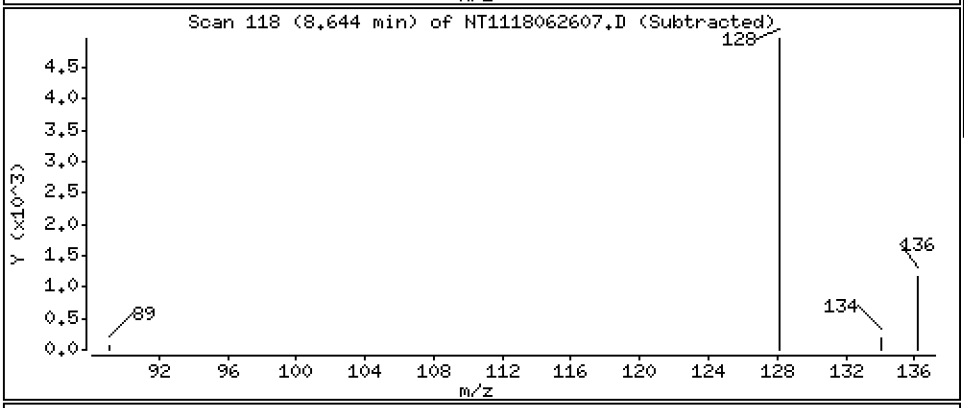
Column diameter: 0.25

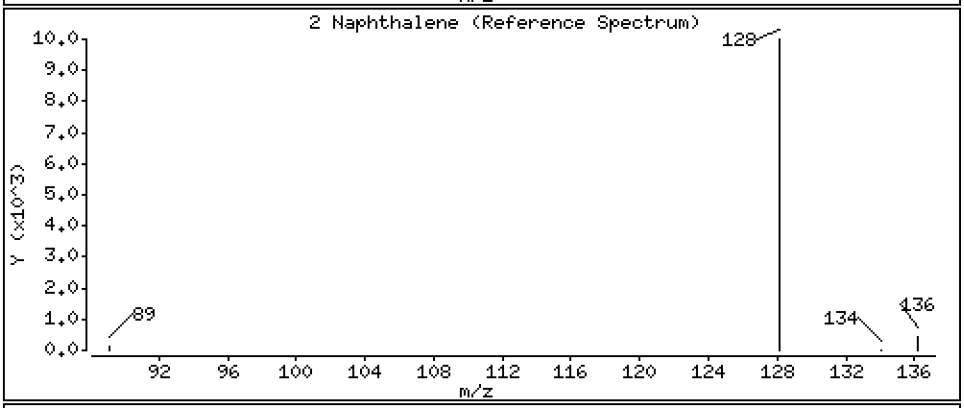
2 Naphthalene

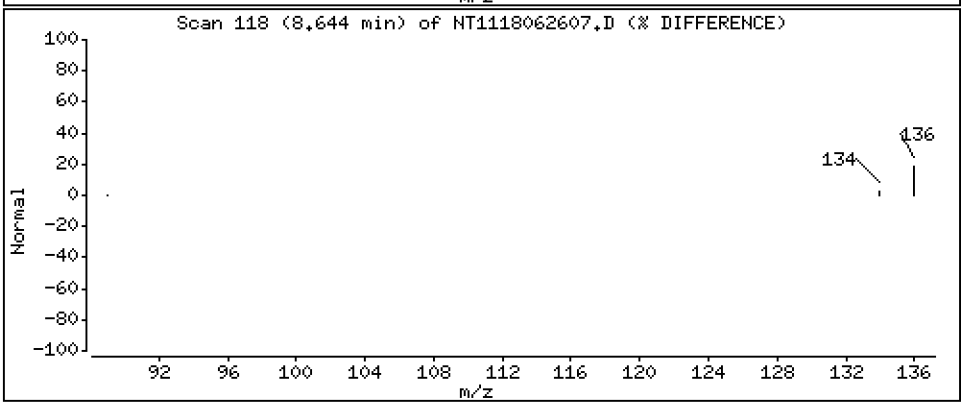
Concentration: 2.41 ng/mL











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Date : 26-JUN-2018 12:36

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-06

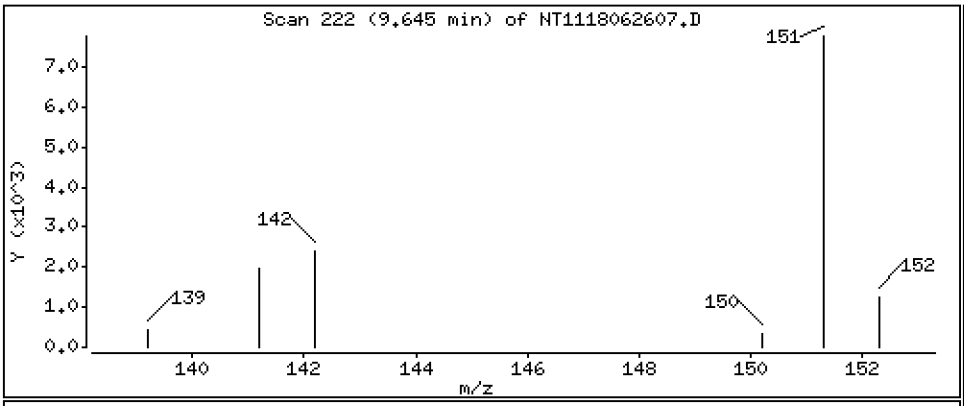
Operator: VTS

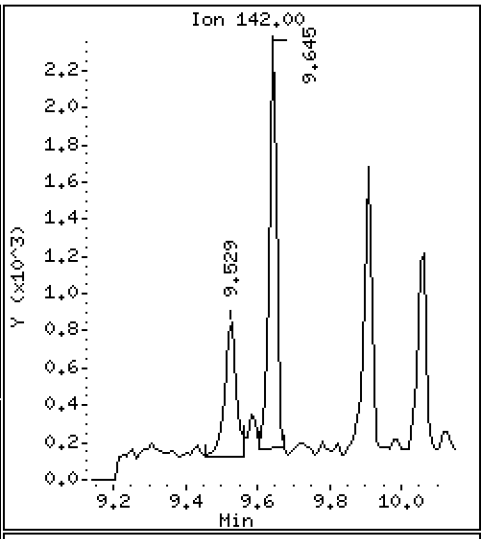
Column phase: Rxi-17Sil MS

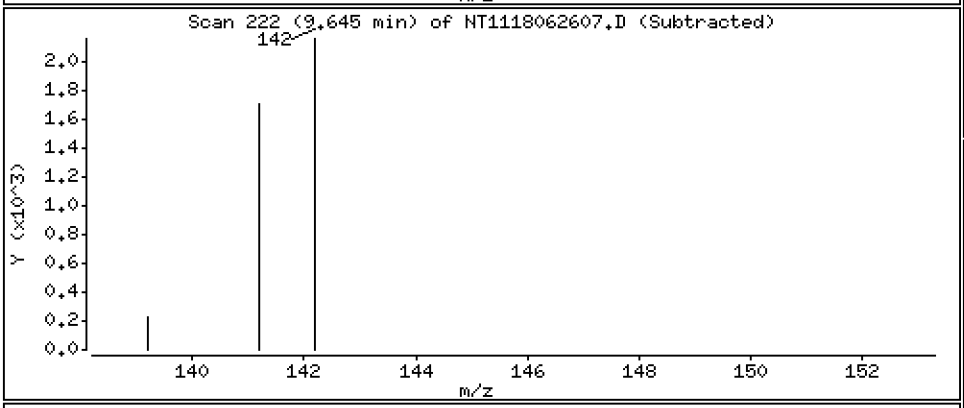
Column diameter: 0.25

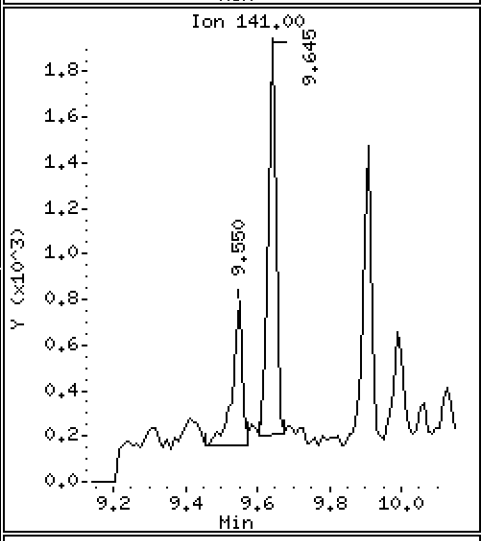
5 2-Methylnaphthalene

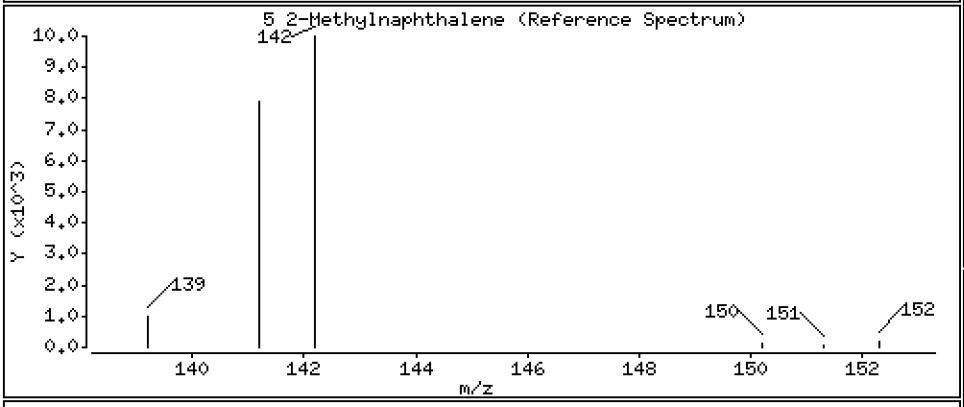
Concentration: 1.19 ng/mL

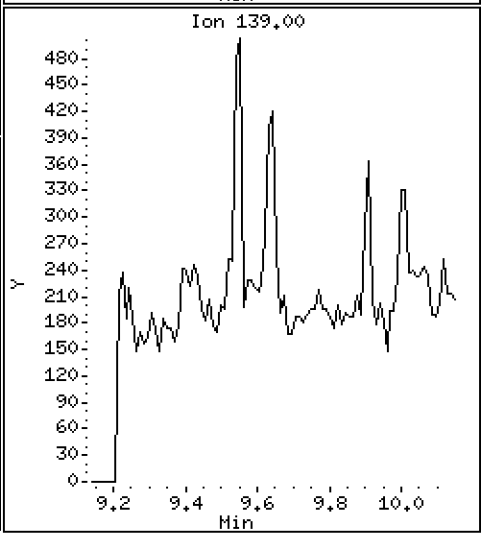


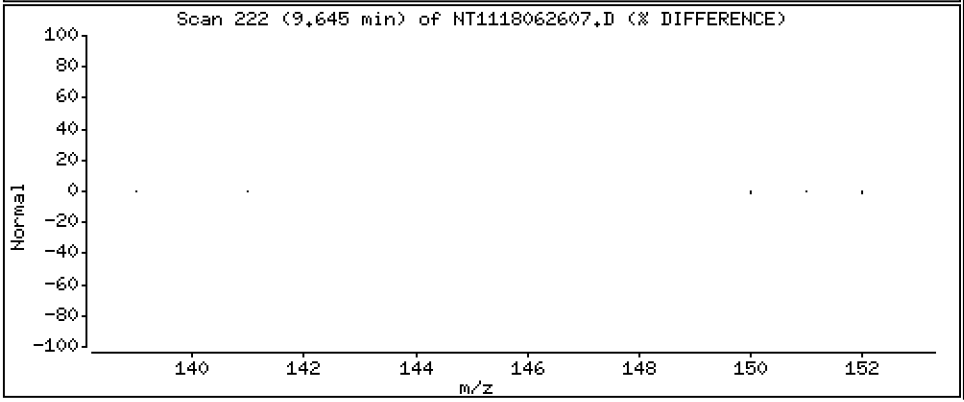












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Date : 26-JUN-2018 12:36

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-06

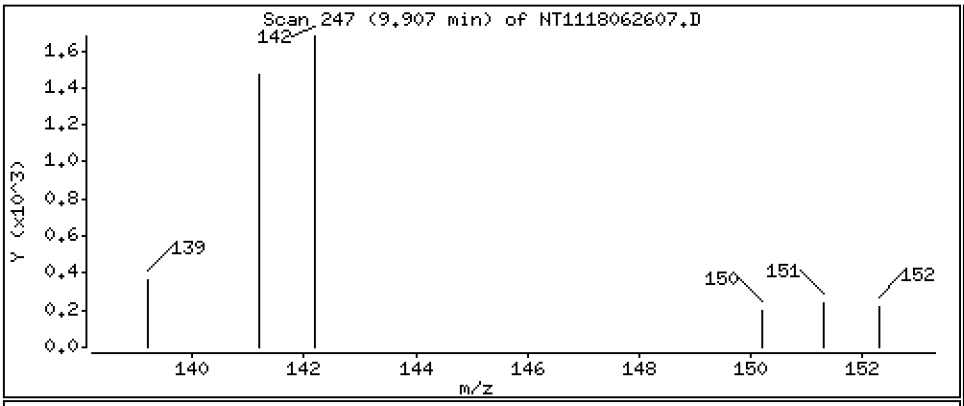
Operator: VTS

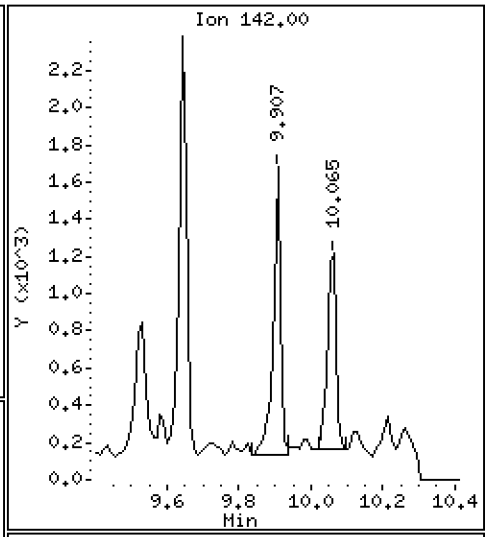
Column phase: Rxi-17Sil MS

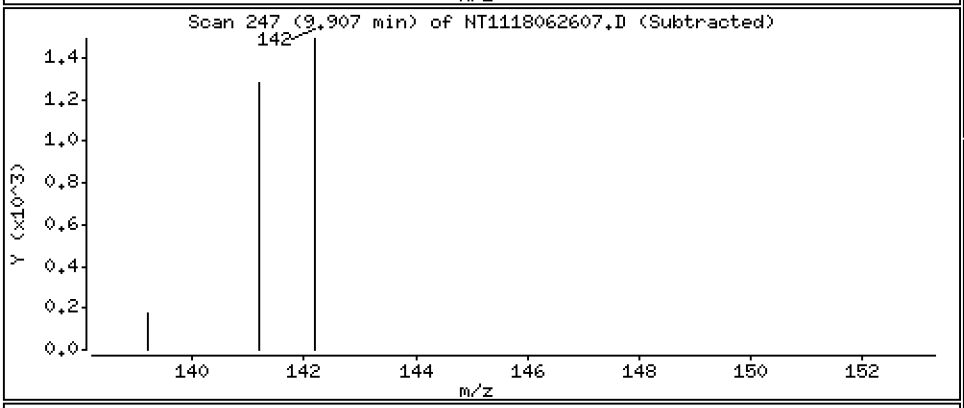
Column diameter: 0.25

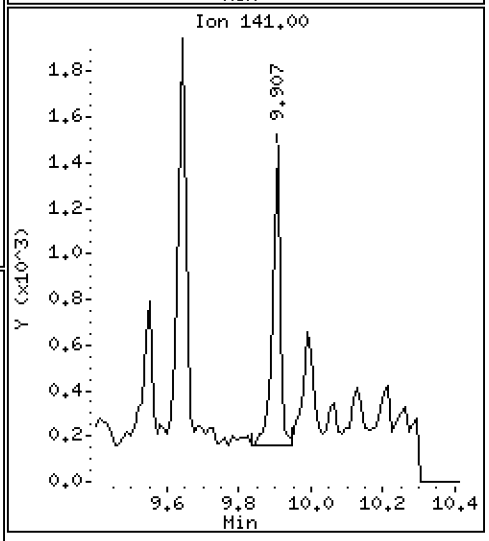
6 1-Methylnaphthalene

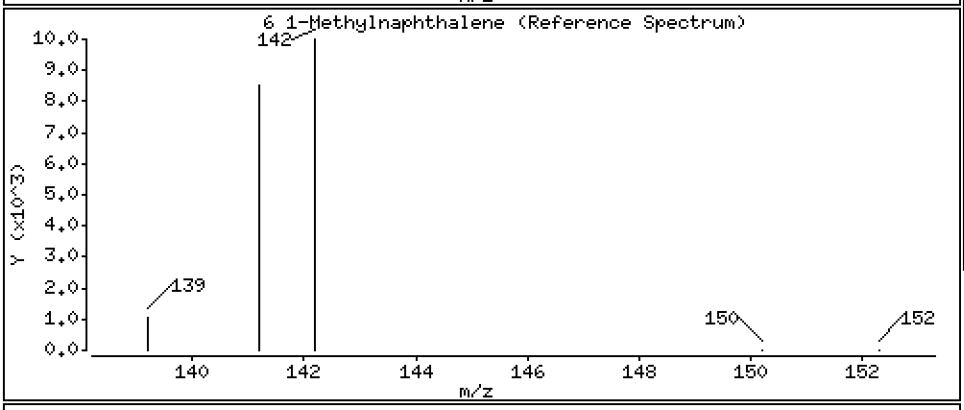
Concentration: 0.942 ng/mL

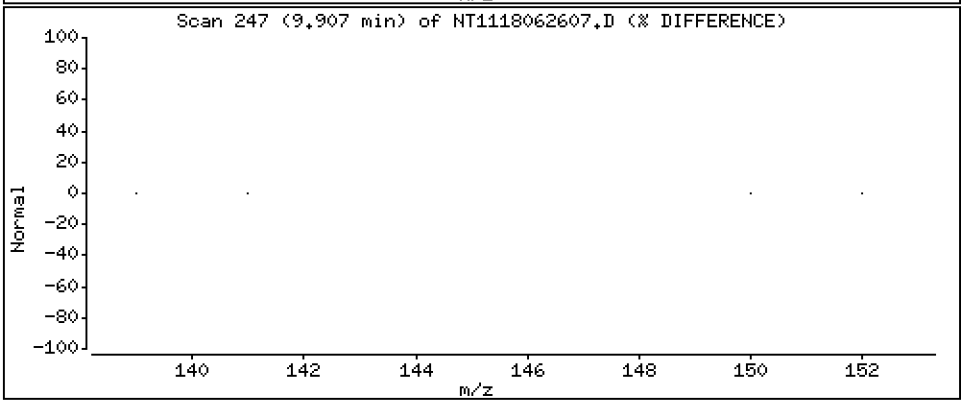












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Date : 26-JUN-2018 12:36

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-06

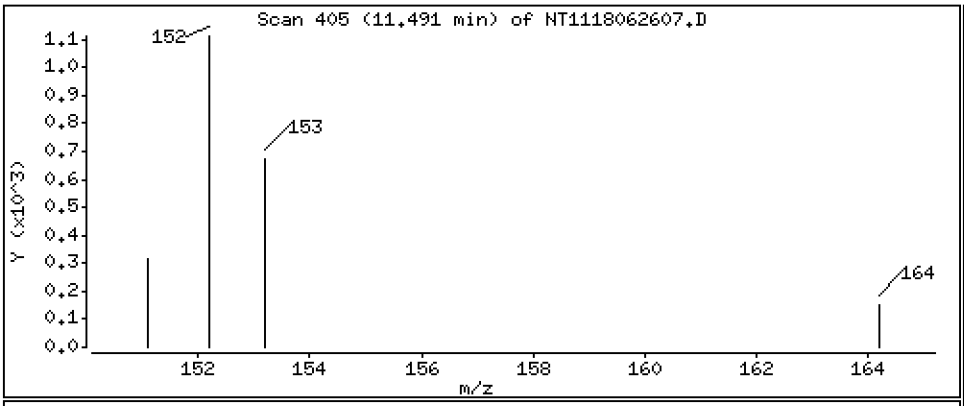
Operator: VTS

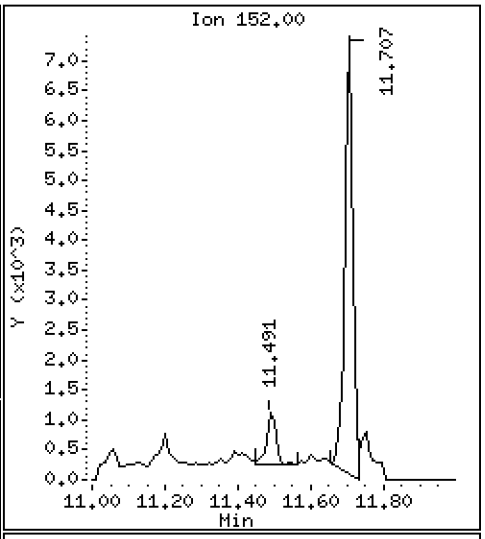
Column phase: Rxi-17Sil MS

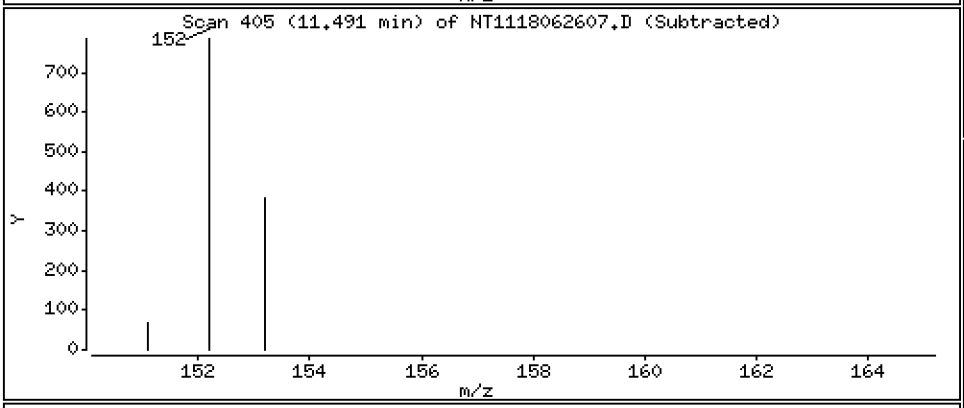
Column diameter: 0.25

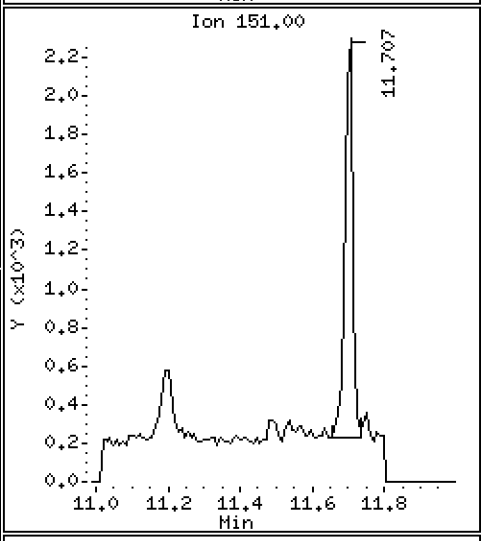
10 Acenaphthylene

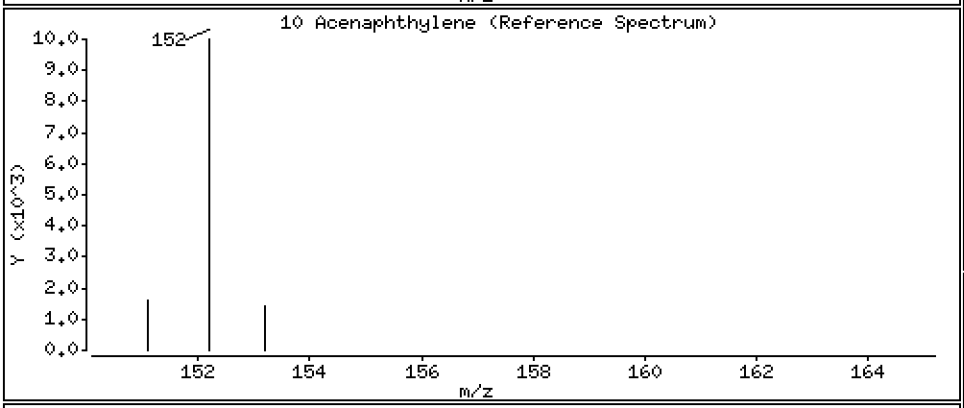
Concentration: 0.557 ng/mL

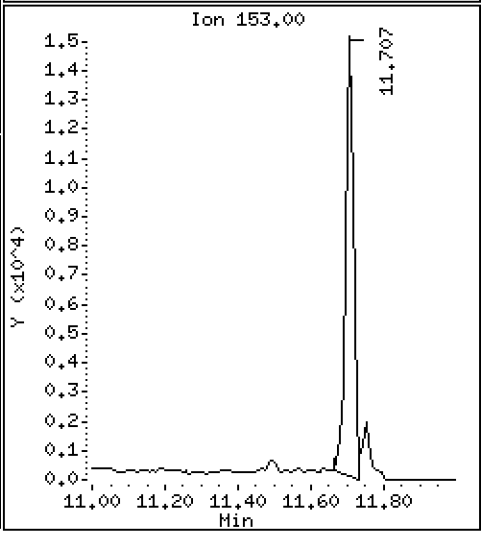


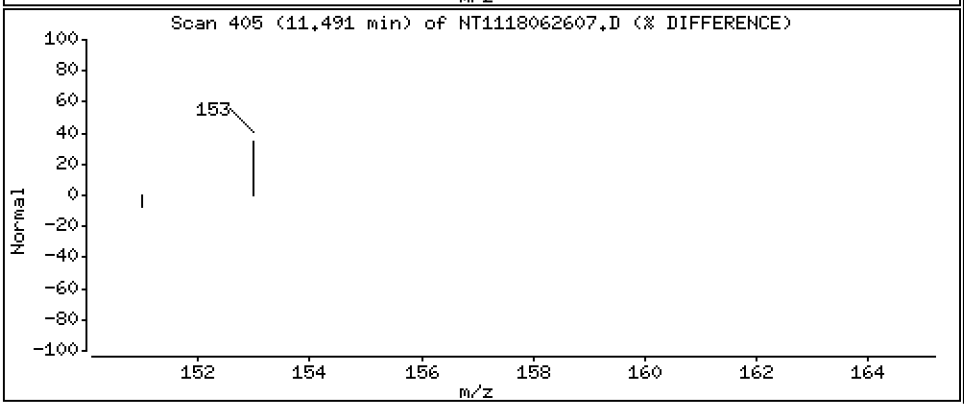












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Date : 26-JUN-2018 12:36

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-06

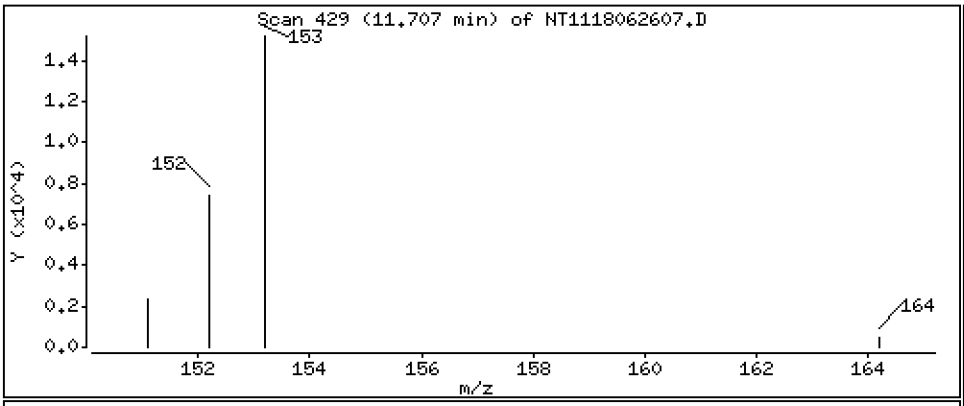
Operator: VTS

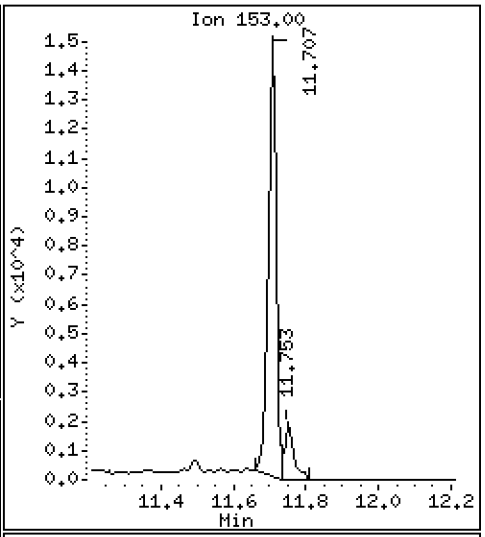
Column phase: Rxi-17Sil MS

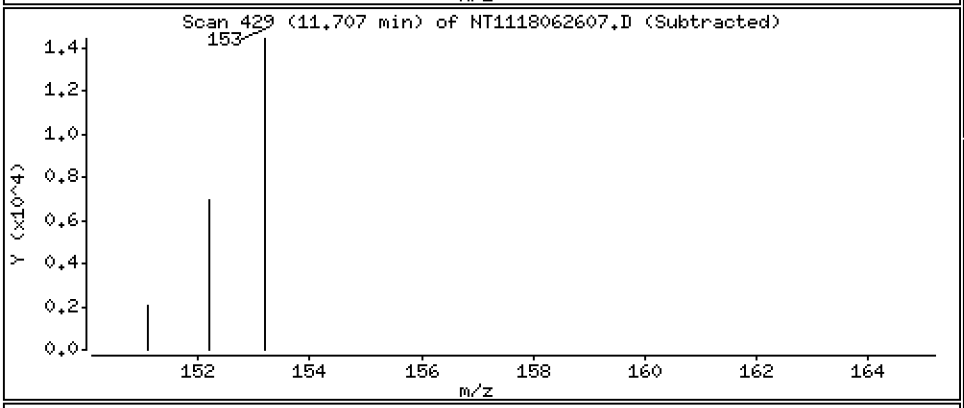
Column diameter: 0.25

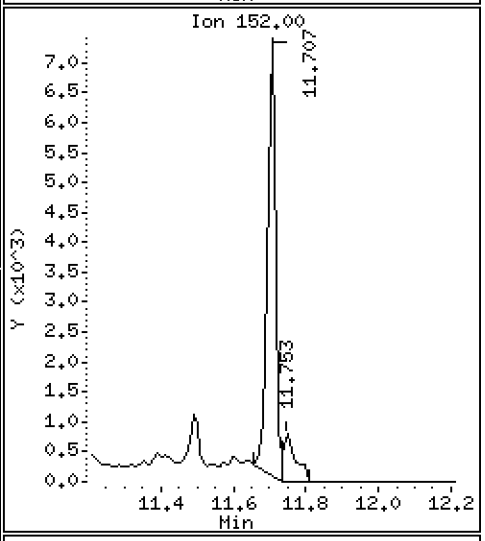
12 Acenaphthene

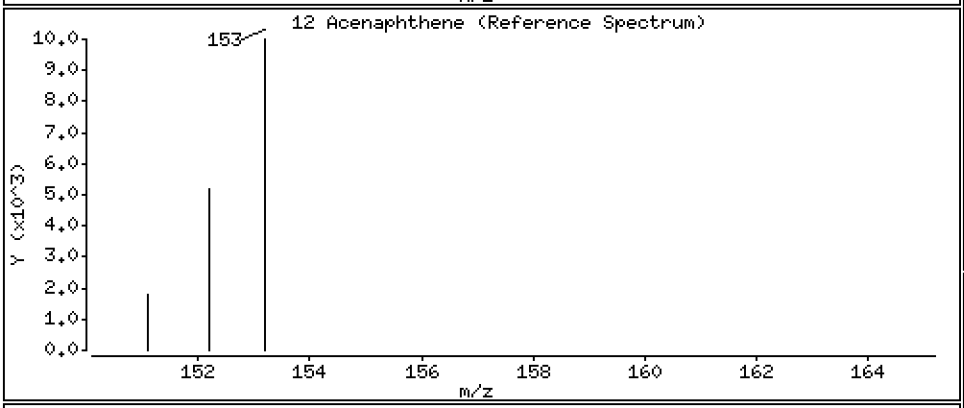
Concentration: 11.4 ng/mL

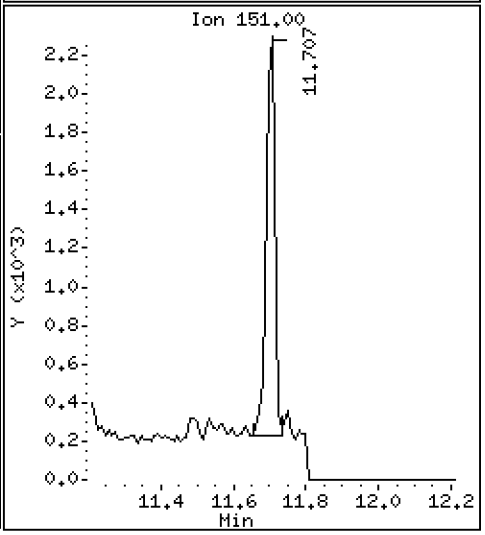


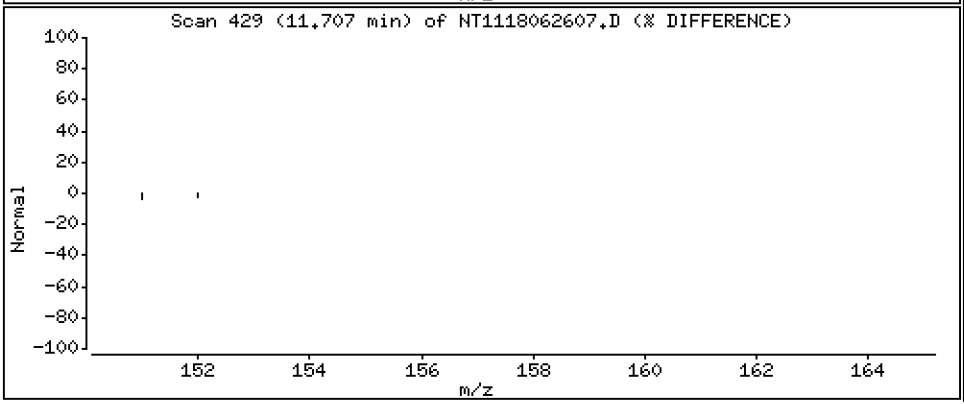












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Date : 26-JUN-2018 12:36

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-06

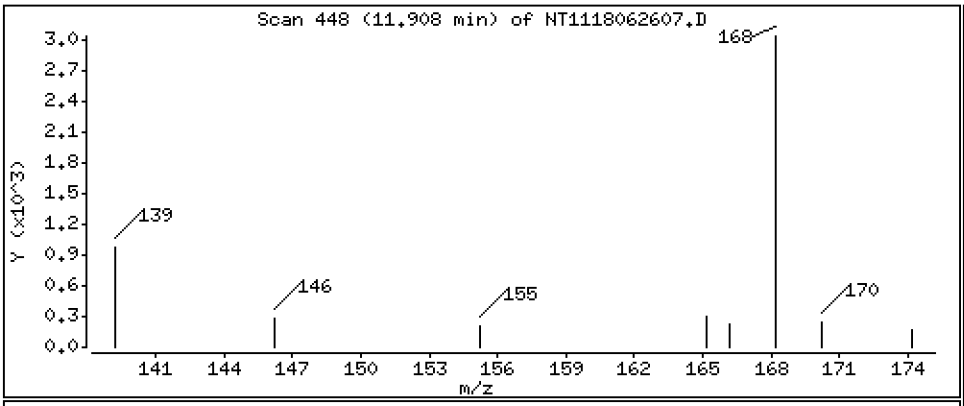
Operator: VTS

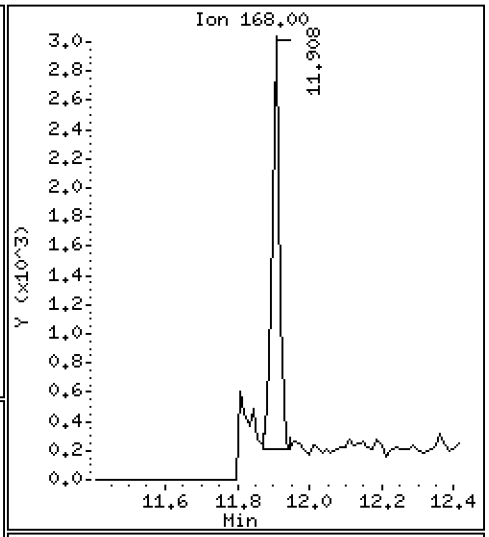
Column phase: Rxi-17Sil MS

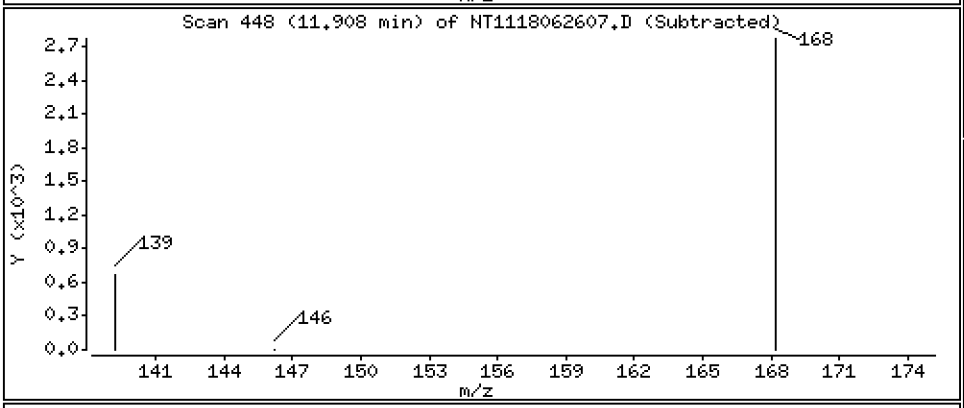
Column diameter: 0.25

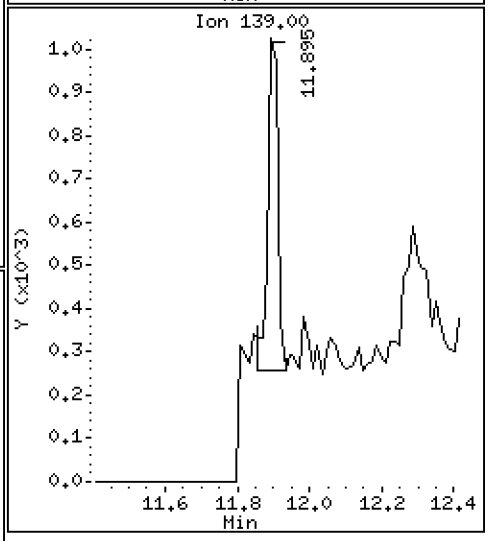
13 Dibenzofuran

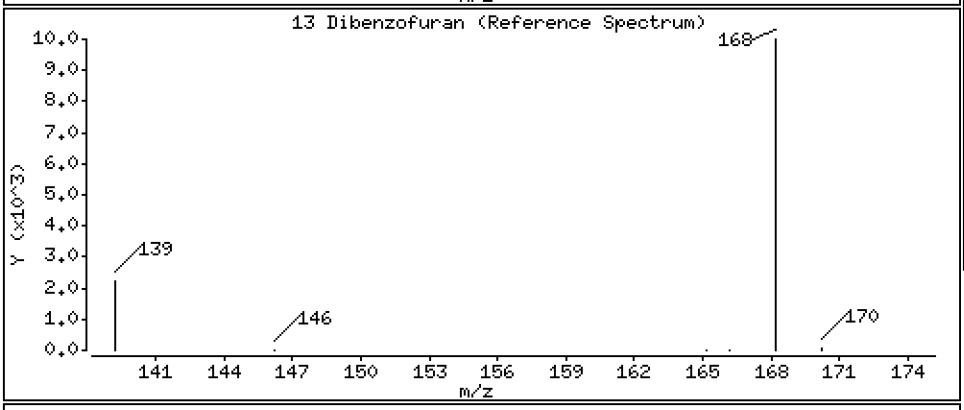
Concentration: 1.49 ng/mL

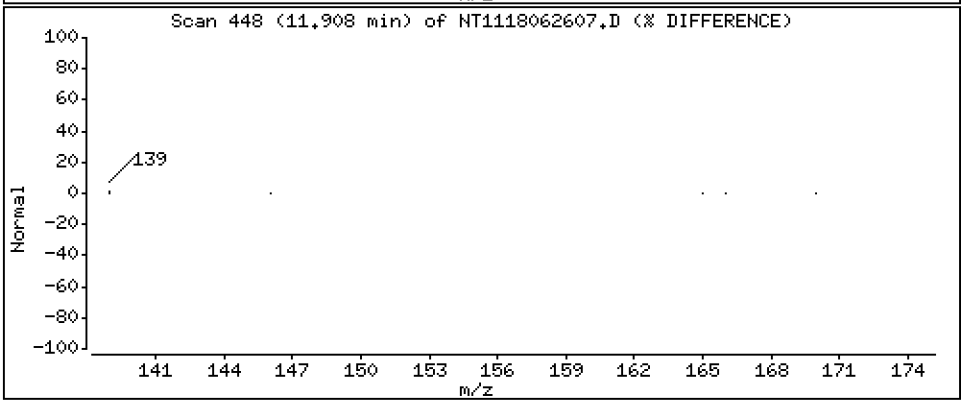












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Date : 26-JUN-2018 12:36

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-06

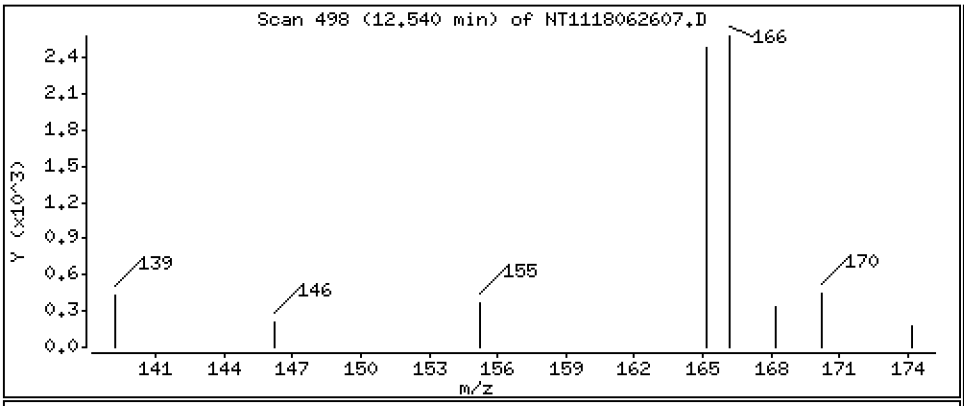
Operator: VTS

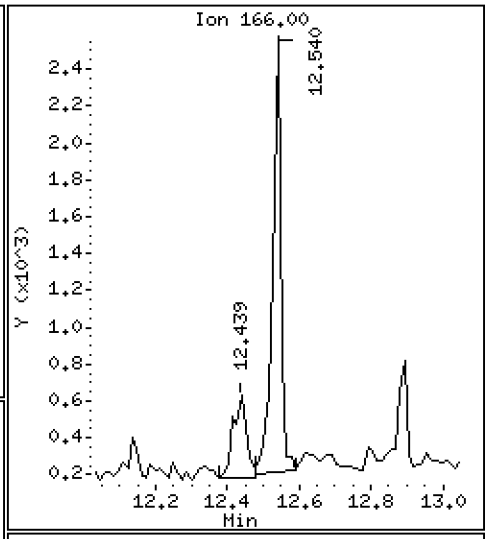
Column phase: Rxi-17Sil MS

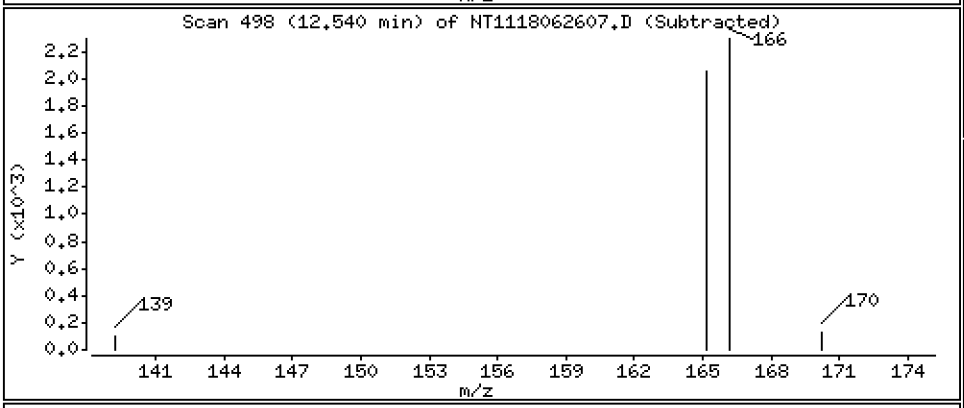
Column diameter: 0.25

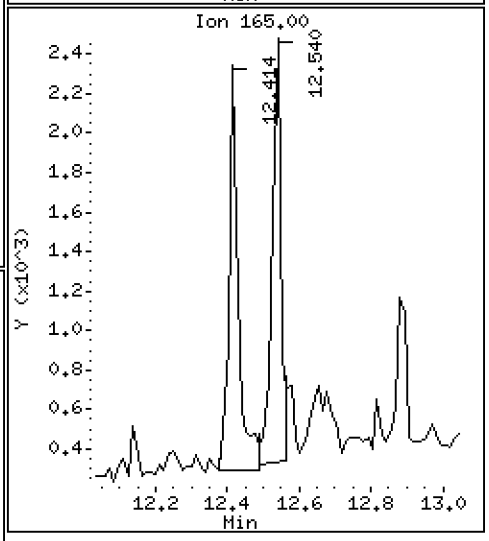
16 Fluorene

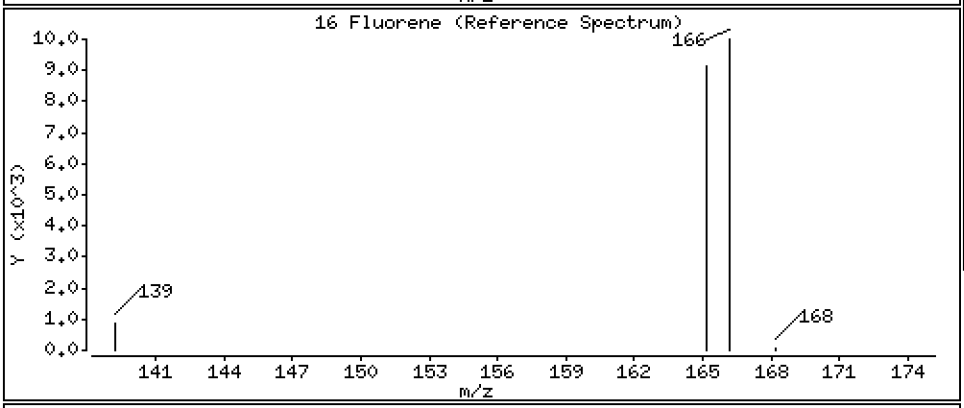
Concentration: 1.78 ng/mL

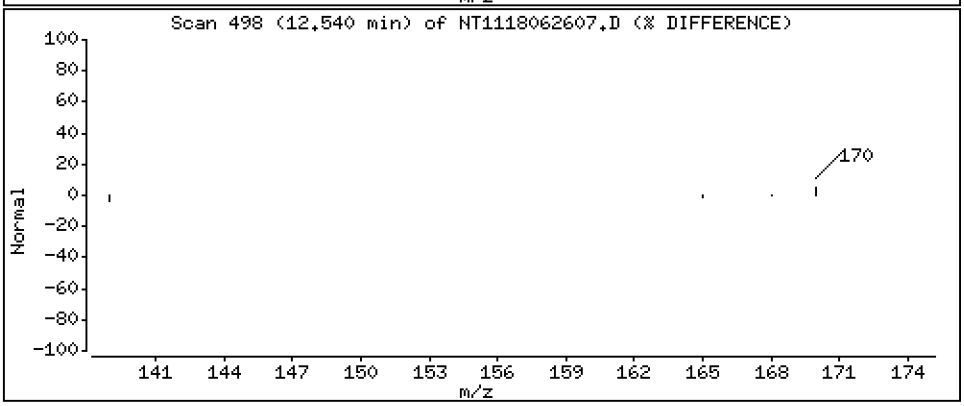












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Date : 26-JUN-2018 12:36

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-06

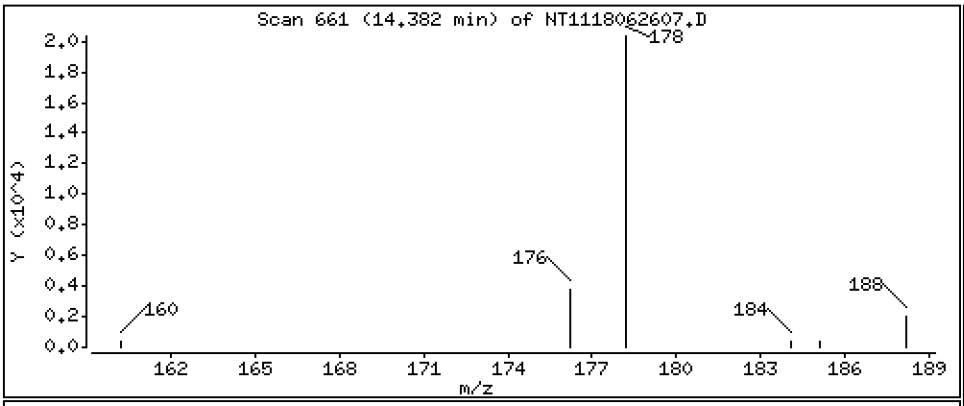
Operator: VTS

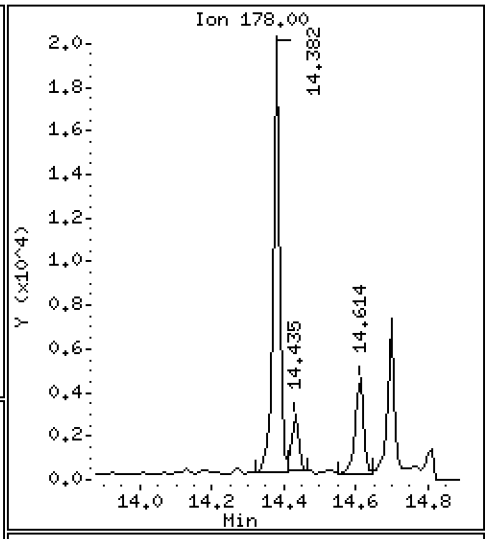
Column phase: Rxi-17Sil MS

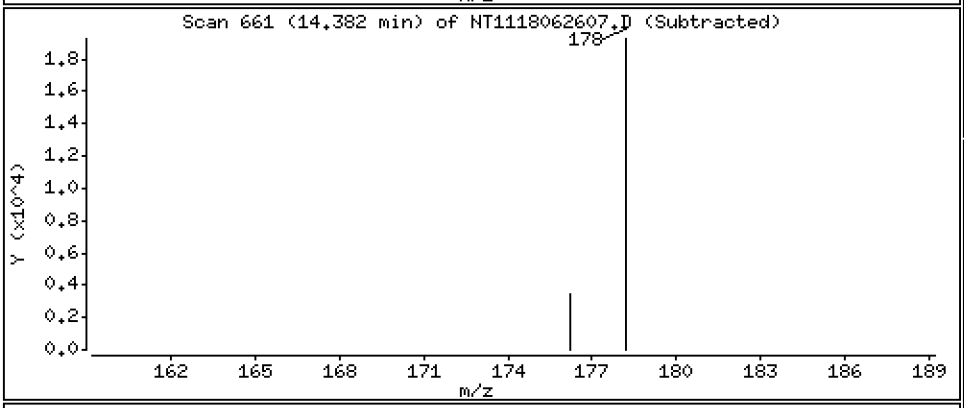
Column diameter: 0.25

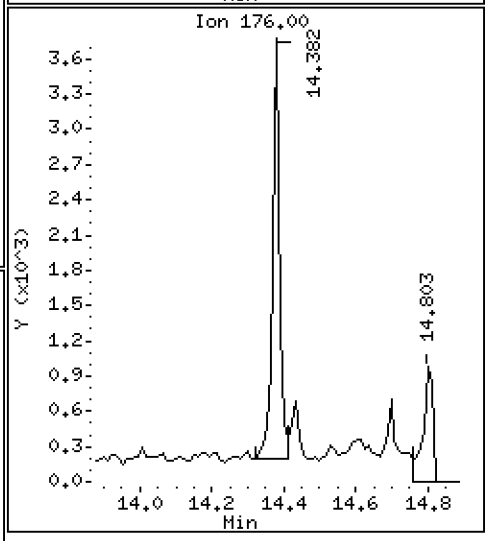
19 Phenanthrene

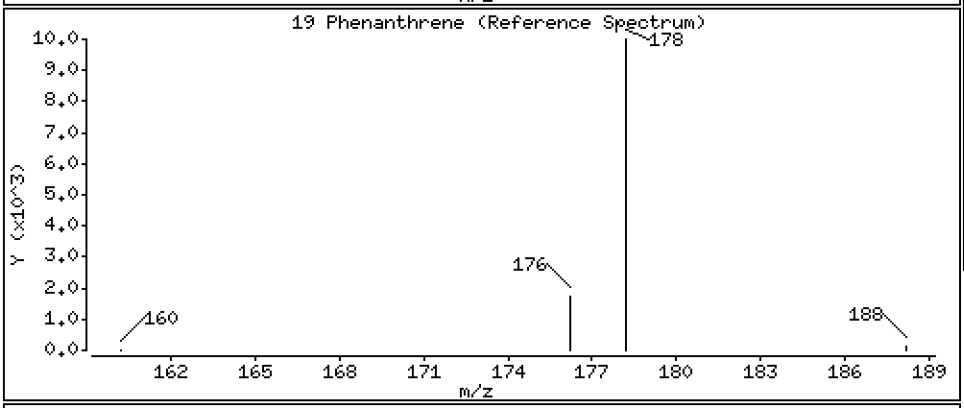
Concentration: 9.36 ng/mL

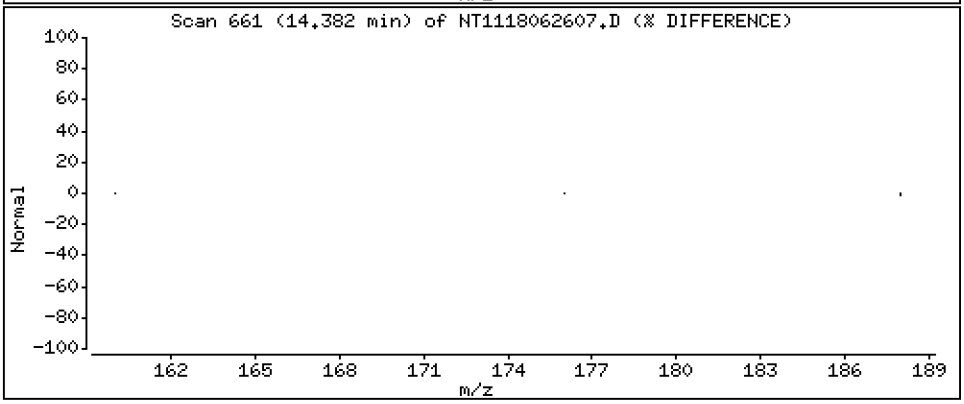












Data File: \\target\share\chem3\nt11.i\20180626.b\NT1118062607.D

Date : 26-JUN-2018 12:36

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-06

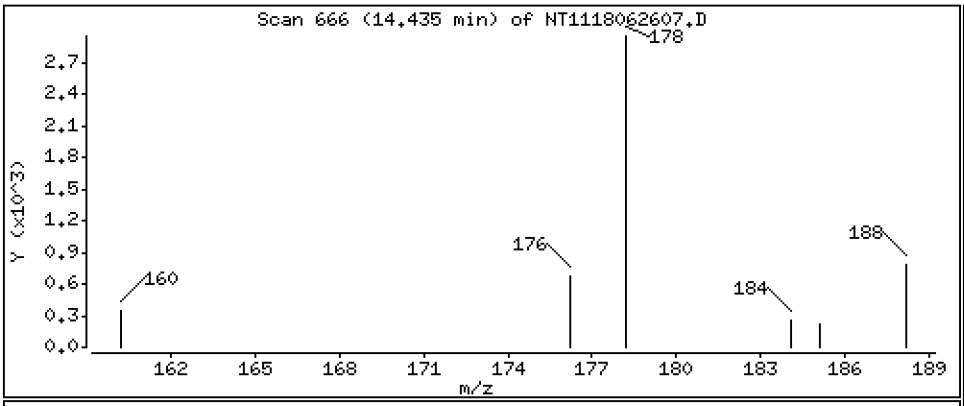
Operator: VTS

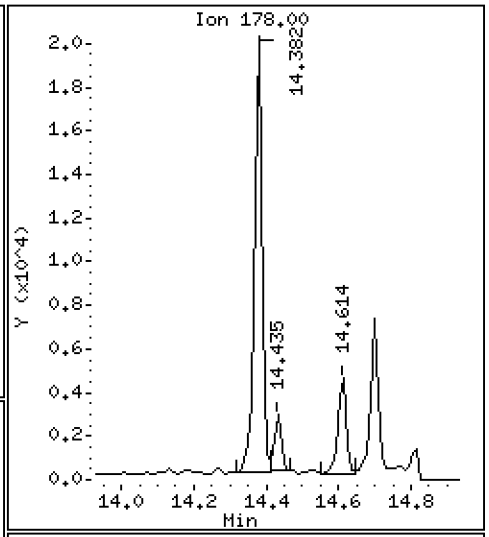
Column phase: Rxi-17Sil MS

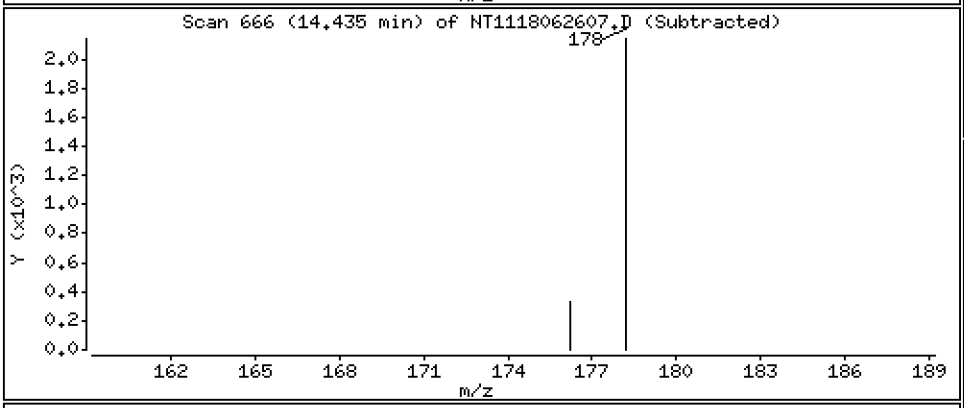
Column diameter: 0.25

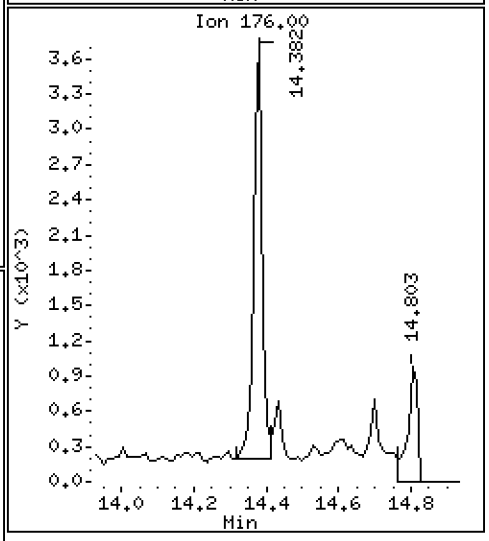
21 Anthracene

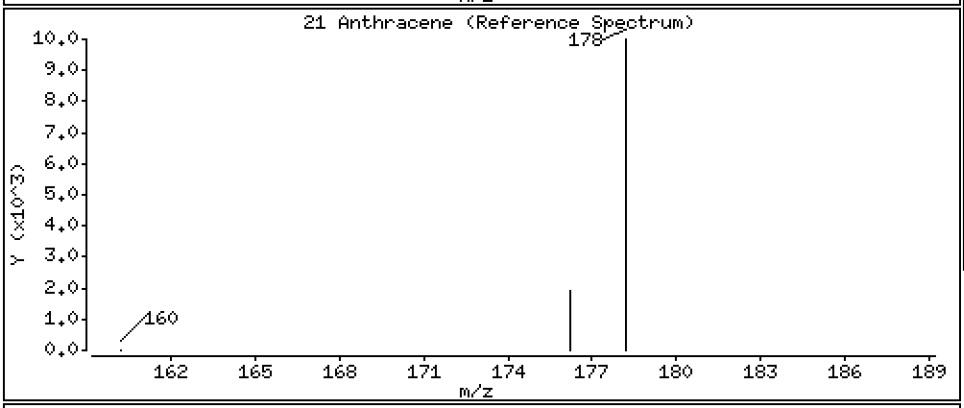
Concentration: 1.17 ng/mL

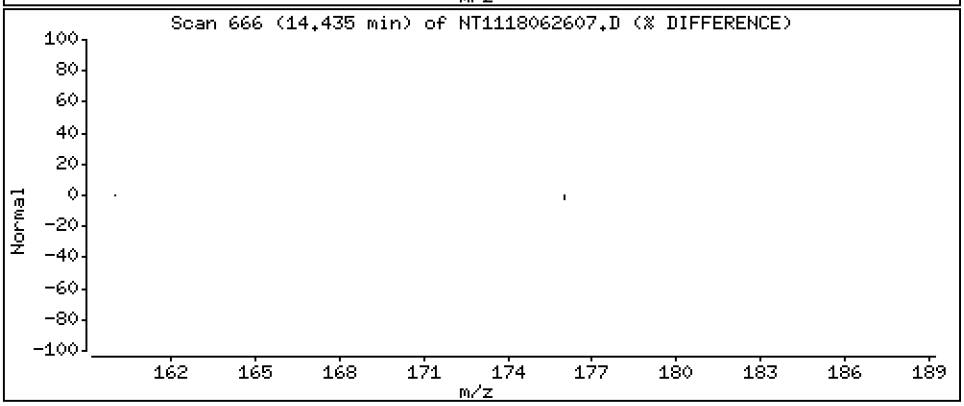












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Date : 26-JUN-2018 12:36

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-06

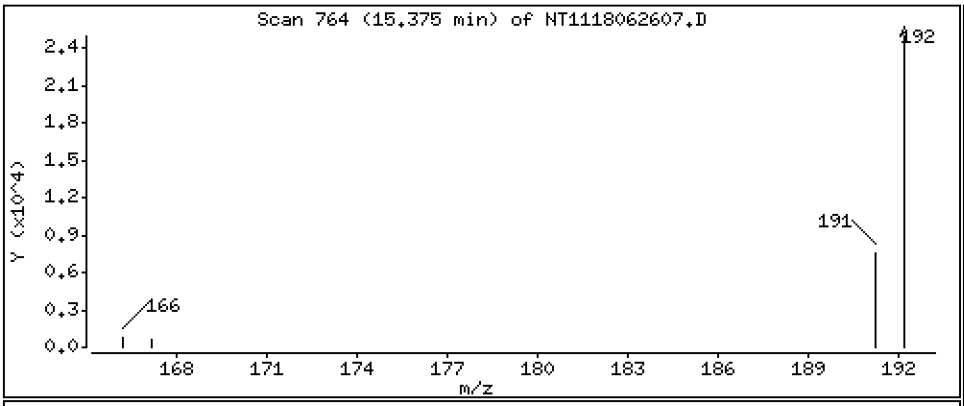
Operator: VTS

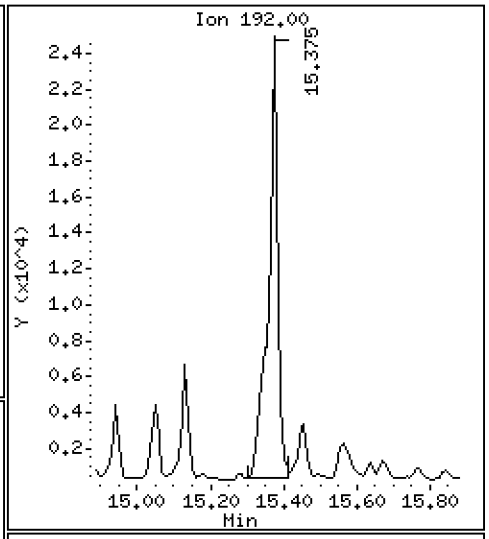
Column phase: Rxi-17Sil MS

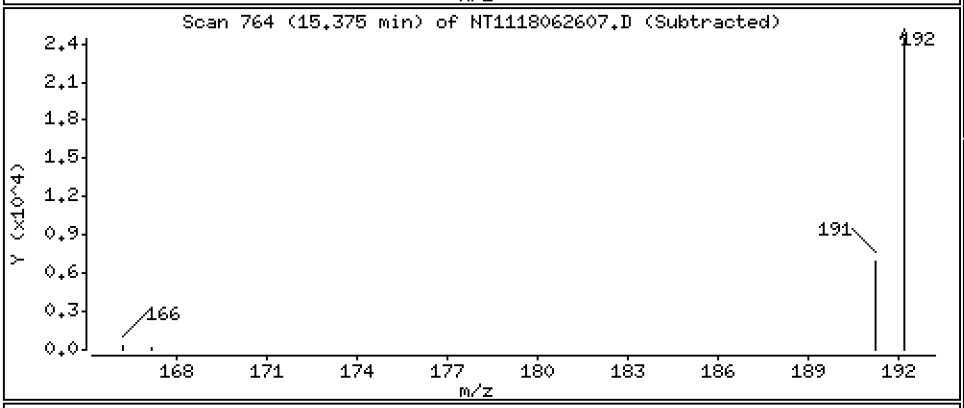
Column diameter: 0.25

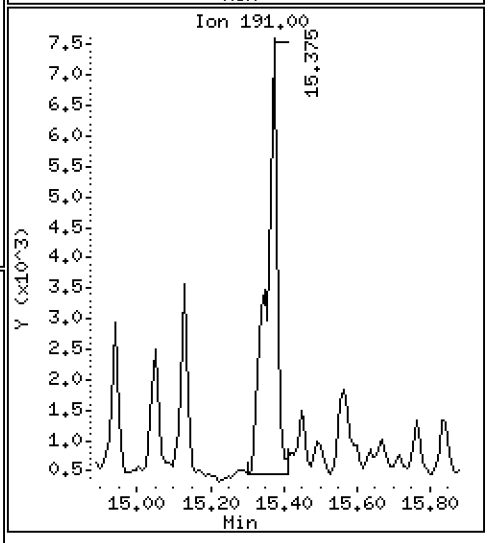
23 1-Methylphenanthrene

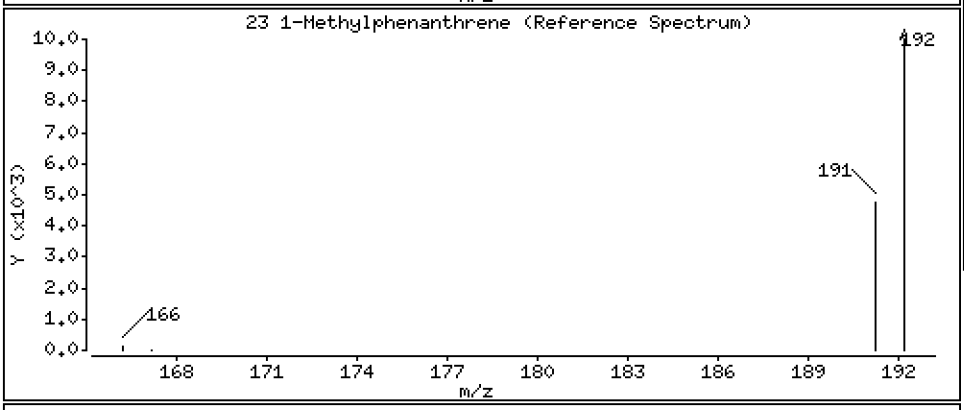
Concentration: 15.1 ng/mL

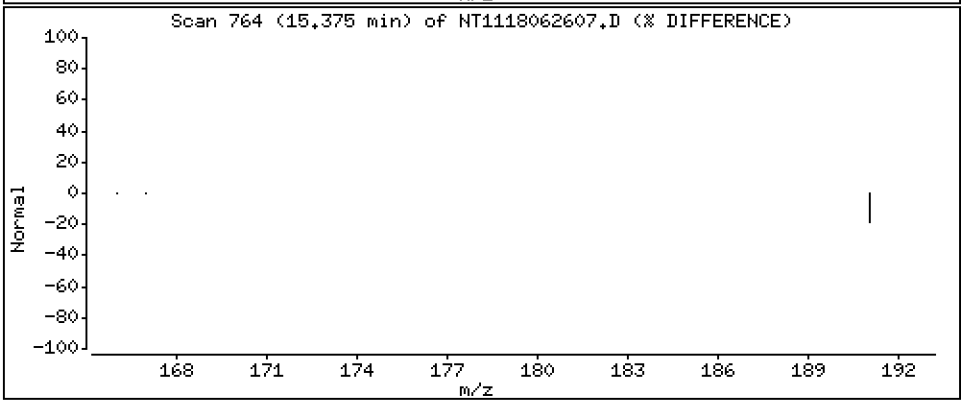












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Date : 26-JUN-2018 12:36

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-06

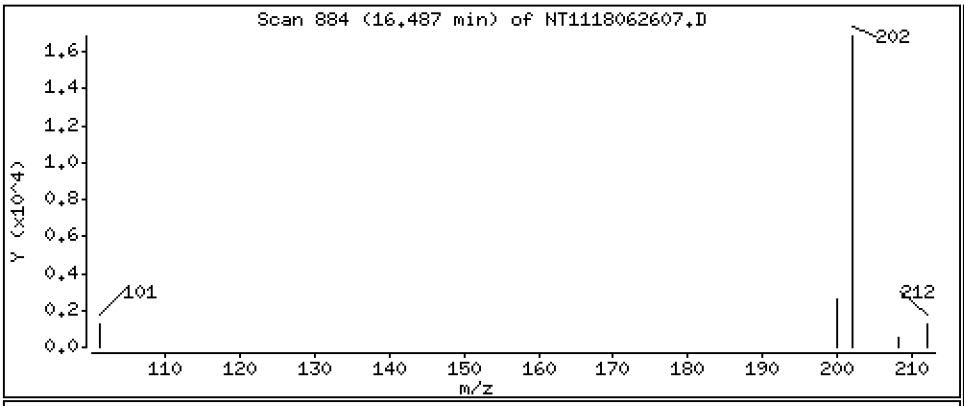
Operator: VTS

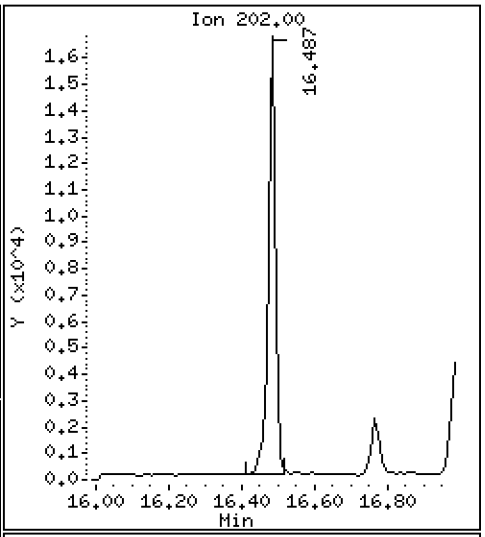
Column phase: Rxi-17Sil MS

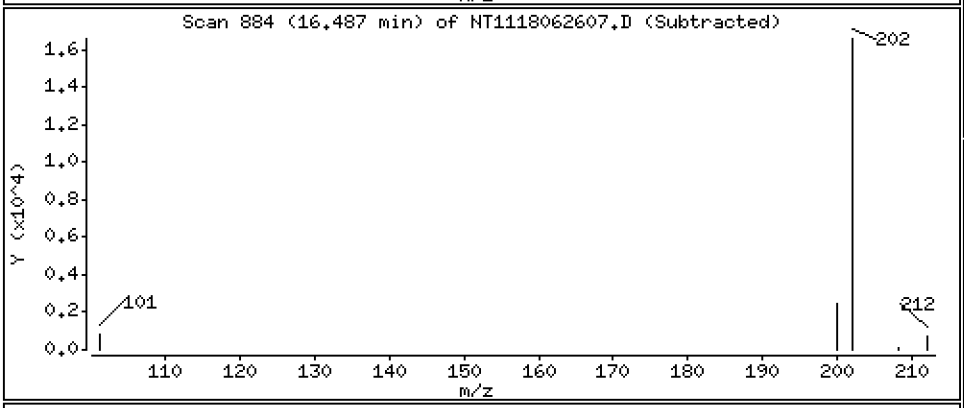
Column diameter: 0.25

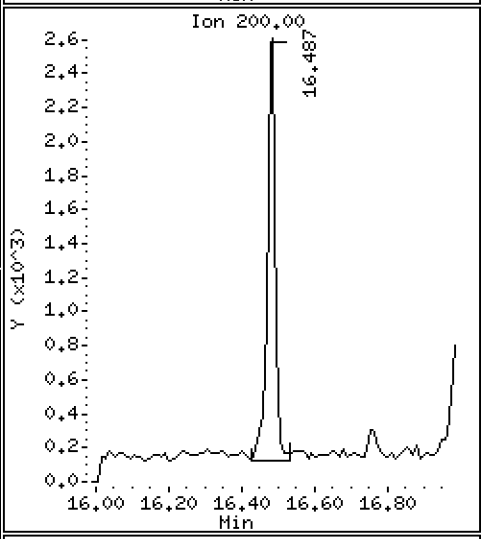
25 Fluoranthene

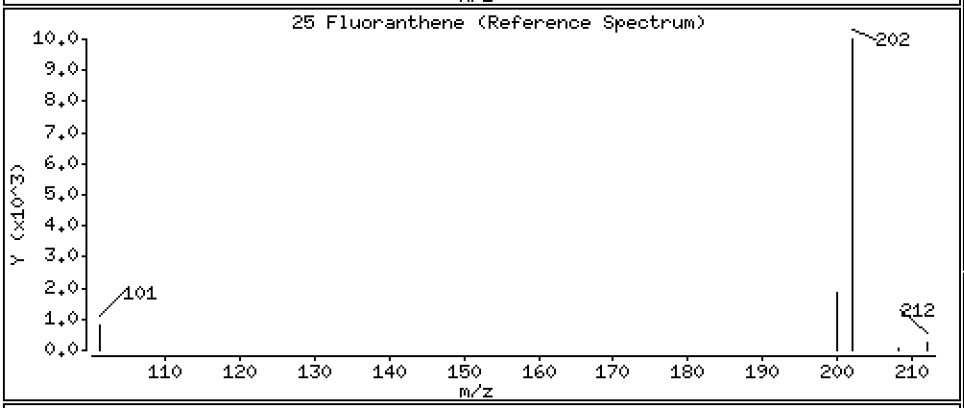
Concentration: 8.62 ng/mL

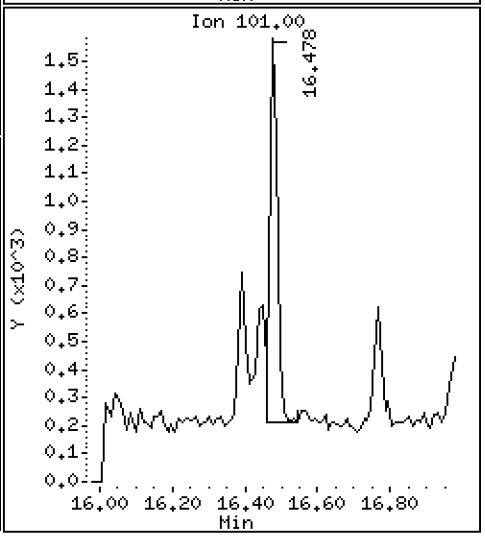


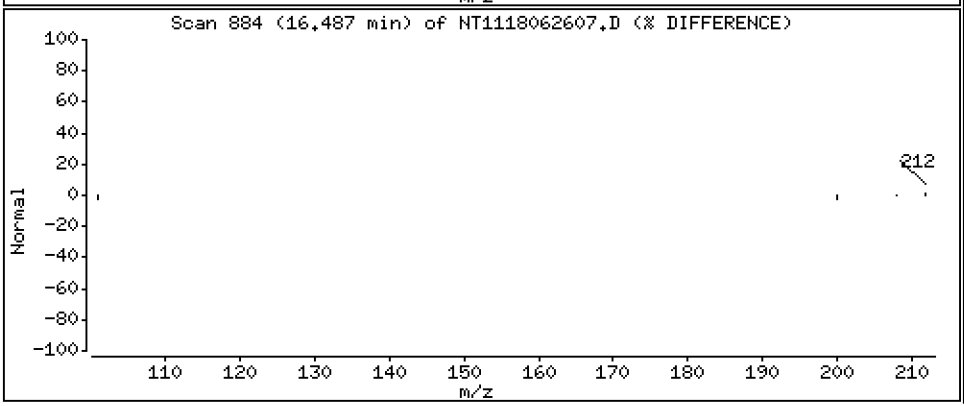












Data File: \\target\share\chem3\nt11.i\20180626.b\NT1118062607.D

Date : 26-JUN-2018 12:36

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-06

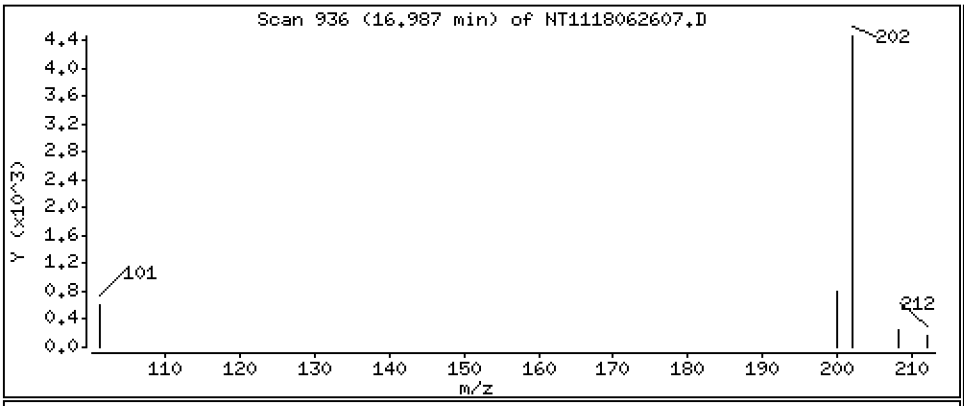
Operator: VTS

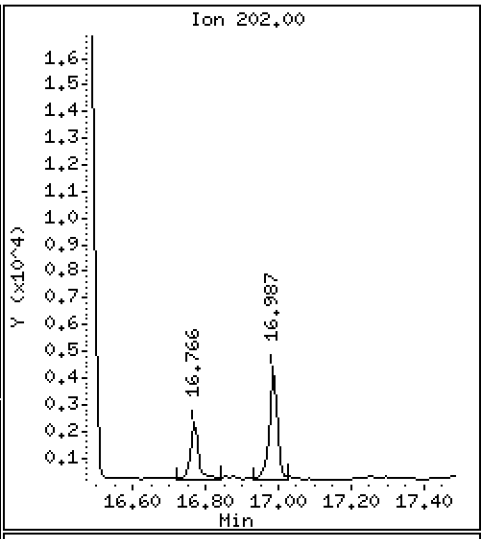
Column phase: Rxi-17Sil MS

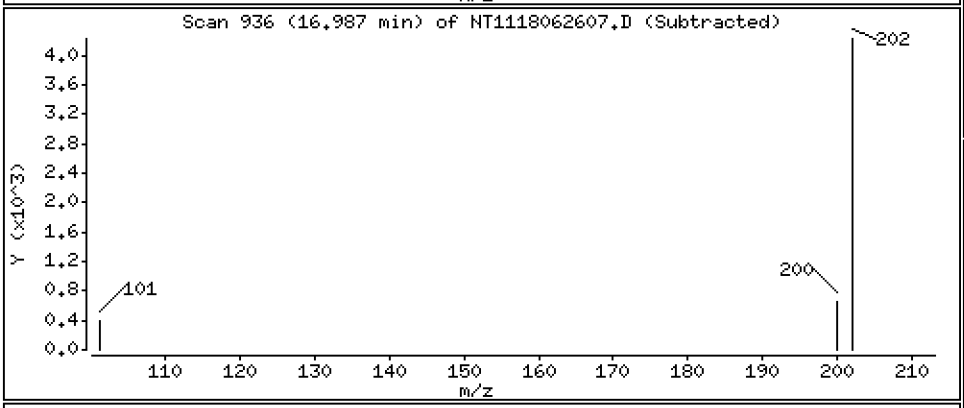
Column diameter: 0.25

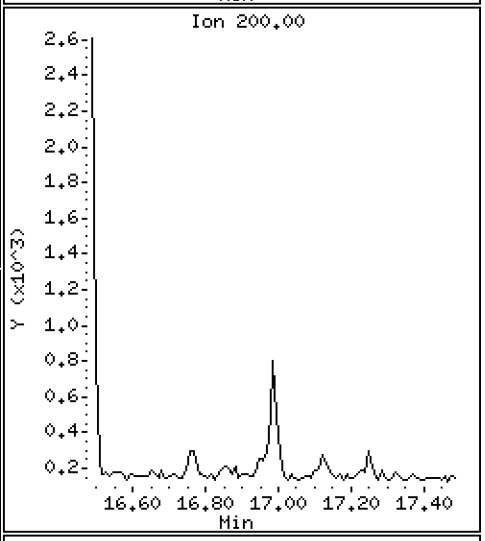
26 Pyrene

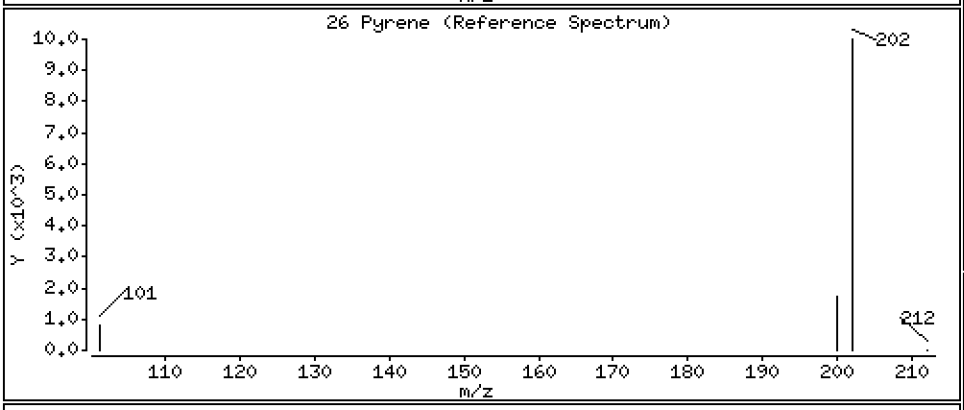
Concentration: 2.15 ng/mL

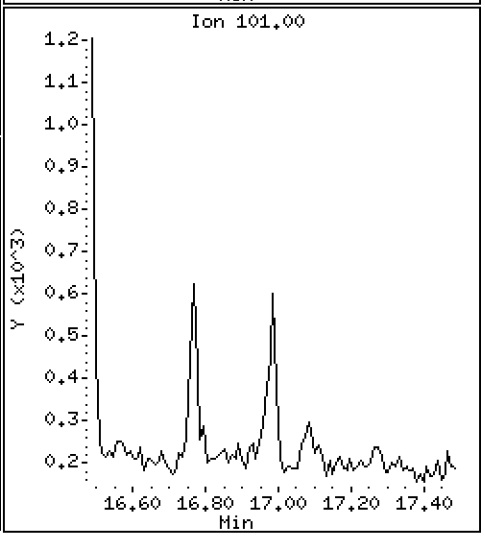


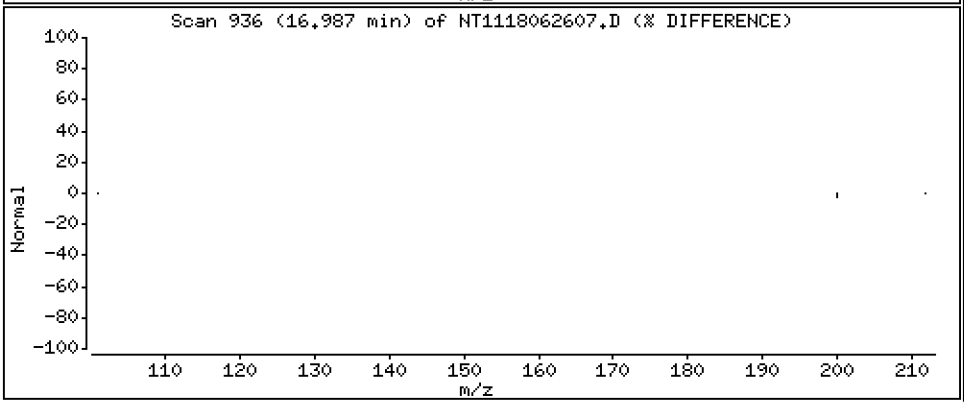












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180626.b\NT1118062607.D
Lab Smp Id: 18F0185-06
Inj Date : 26-JUN-2018 12:36 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0185-06
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180626.b\LOWSIM.m
Meth Date : 26-Jun-2018 10:11 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	436373	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	7907	2.40641	2.41
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.591	9.592	(1.114)	267313	107.364	107
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	3162	1.18955	1.19
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	2490	0.94189	0.942
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	11.490	11.499	(0.987)	1547	0.55740	0.557
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	233427	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	21712	11.4377	11.4
	13 Dibenzofuran	168	11.907	11.908	(1.023)	3863	1.48546	1.49
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.539	12.539	(1.077)	3739	1.78293	1.78
	17 Dibenzothiophene	184	Compound Not Detected.					
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	397319	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	29182	9.36472	9.36
$	20 Anthracene-d10	188	Compound Not Detected.					
	21 Anthracene	178	14.435	14.435	(1.007)	3406	1.16917	1.17
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	15.374	15.384	(1.072)	44566	15.1363	15.1
$	24 Fluoranthene-d10	212	16.448	16.449	(1.147)	316054	131.049	131
	25 Fluoranthene	202	16.487	16.487	(1.150)	24933	8.61590	8.62
	26 Pyrene	202	16.986	16.987	(0.890)	6798	2.14956	2.15
	27 Benzo(a)anthracene	228	Compound Not Detected.					
*	28 Chrysene-d12	240	19.095	19.103	(1.000)	321687	200.000	
	29 Chrysene	228	Compound Not Detected.					
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					

			QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	35	Benzo(a)pyrene	252	Compound Not Detected.					
*	36	Perylene-d12	264	22.353	22.353	(1.000)	333647	200.000	
	37	Perylene	252	Compound Not Detected.					
$	38	Dibenzo(a,h)anthracene-d14	292	25.279	25.279	(1.131)	190925	119.580	120
	39	Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	40	Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	41	Benzo(g,h,i)perylene	276	Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118062607.D
Lab Smp Id: 18F0185-06
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180626.b\LOWSIM.m
Misc Info:

Calibration Date: 26-JUN-2018
Calibration Time: 09:36
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	436373	1.17
11 Acenaphthene-d10	260137	130069	520274	233427	-10.27
18 Phenanthrene-d10	427391	213696	854782	397319	-7.04
28 Chrysene-d12	304596	152298	609192	321687	5.61
36 Perylene-d12	263091	131546	526182	333647	26.82

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.04
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118062607.D

Lab ID: 18F0185-06
nt11.i, 20180626.b\LOWSIM.m,   26-JUN-2018 12:36

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180626.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt11.i\20180626.b\NT1118062608.D

Date : 26-JUN-2018 13:12

Client ID:

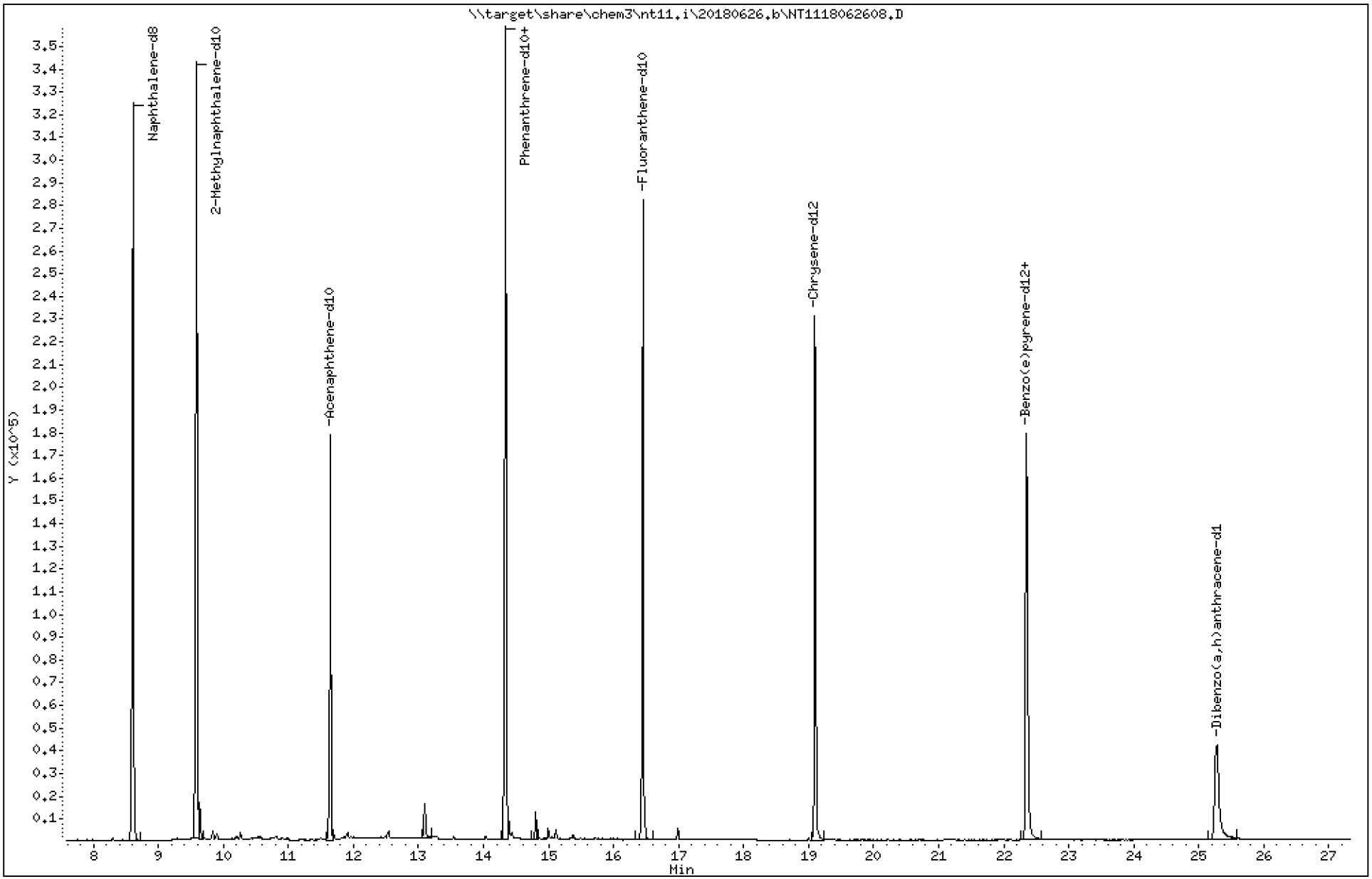
Instrument: nt11.i

Sample Info: 18F0185-07

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 26-JUN-2018 13:12

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-07

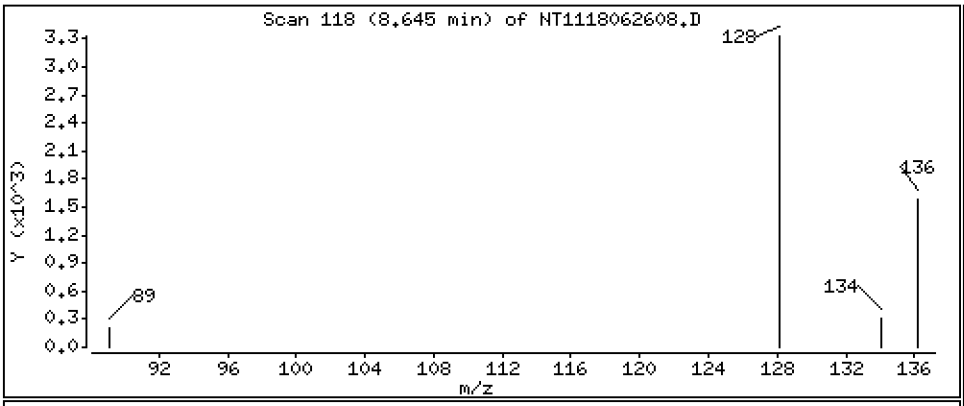
Operator: VTS

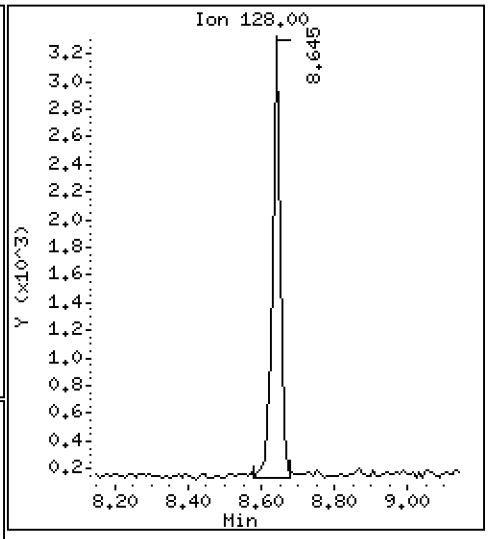
Column phase: Rxi-17Sil MS

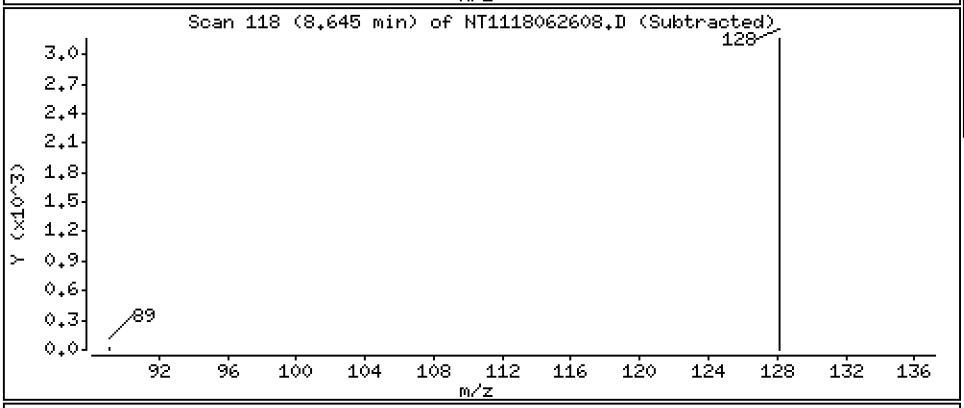
Column diameter: 0.25

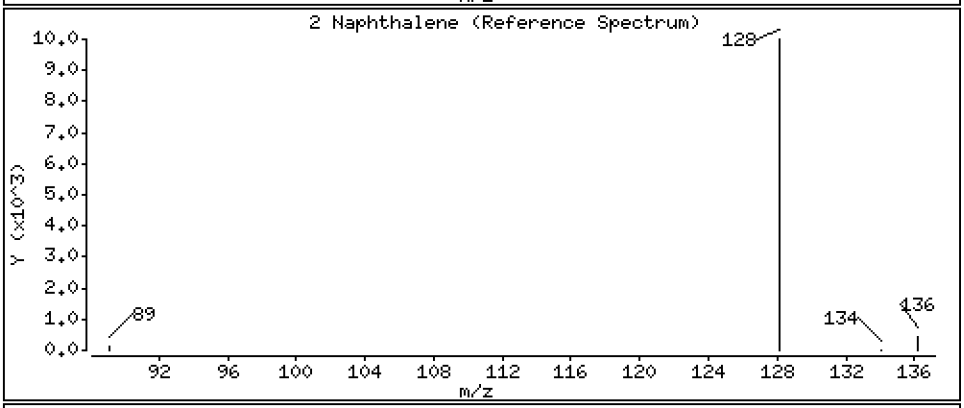
2 Naphthalene

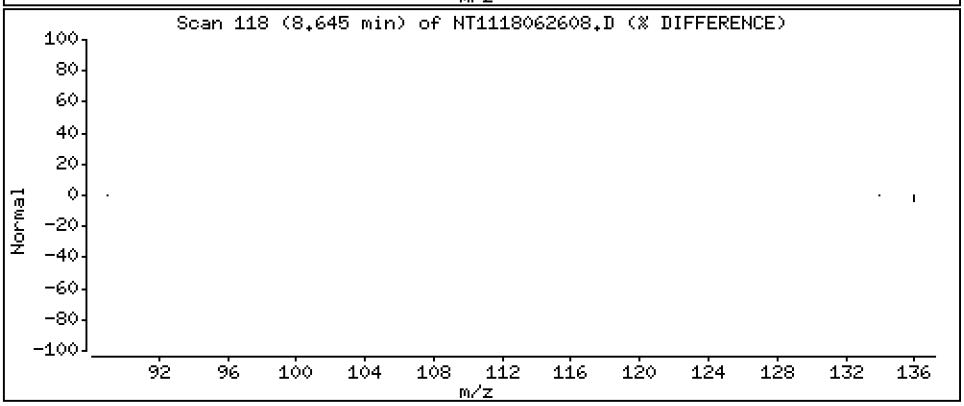
Concentration: 1.39 ng/mL











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Date : 26-JUN-2018 13:12

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-07

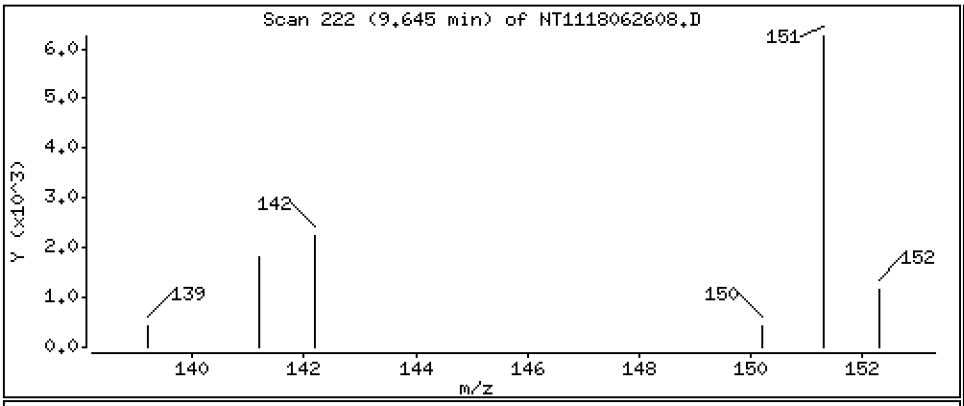
Operator: VTS

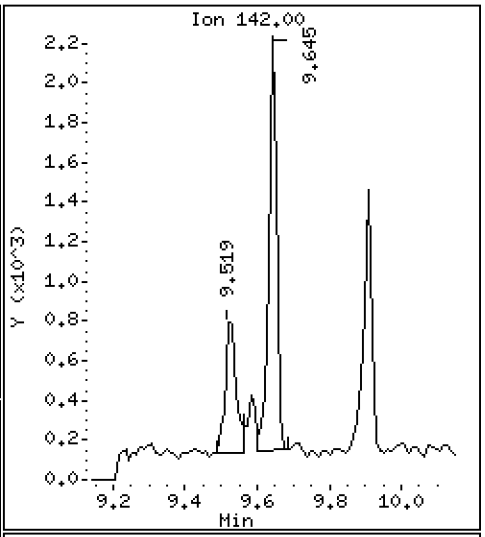
Column phase: Rxi-17Sil MS

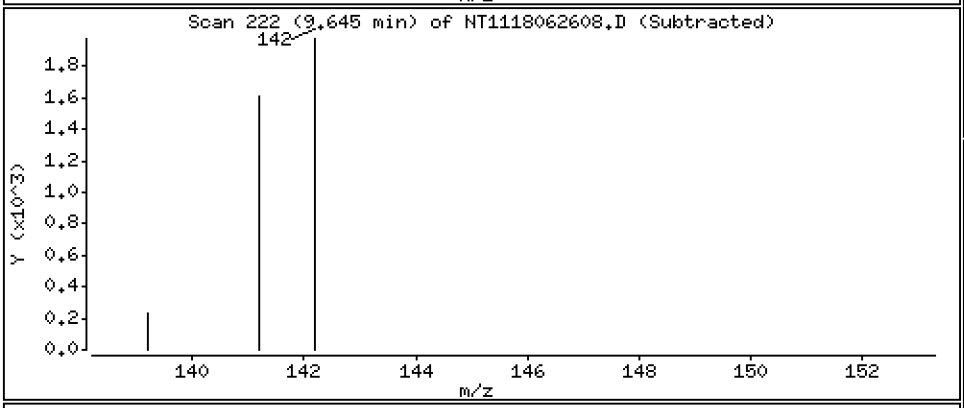
Column diameter: 0.25

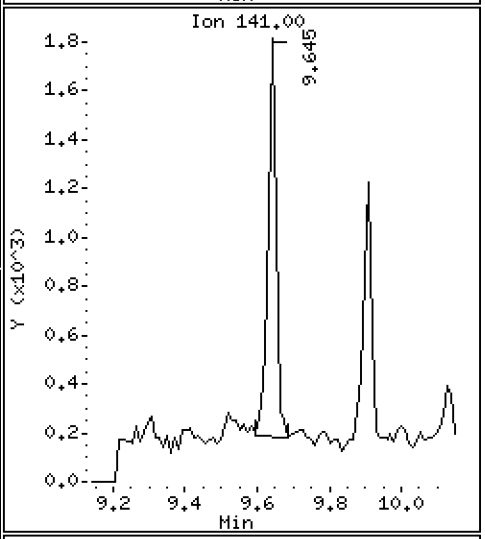
5 2-Methylnaphthalene

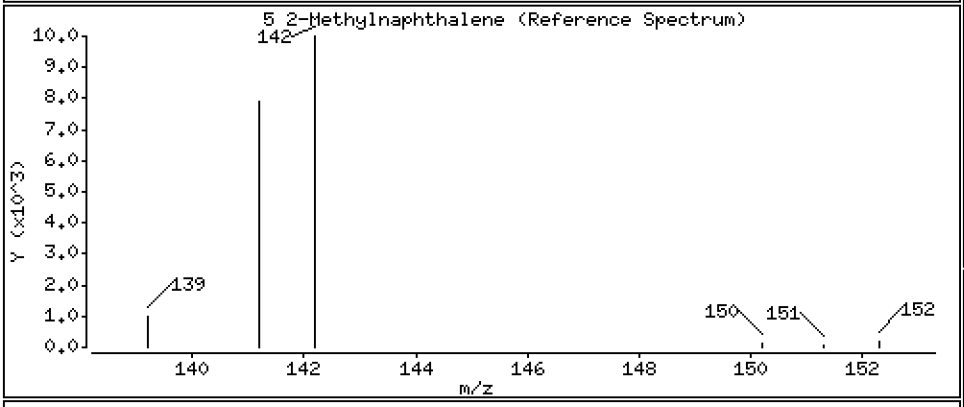
Concentration: 1.12 ng/mL

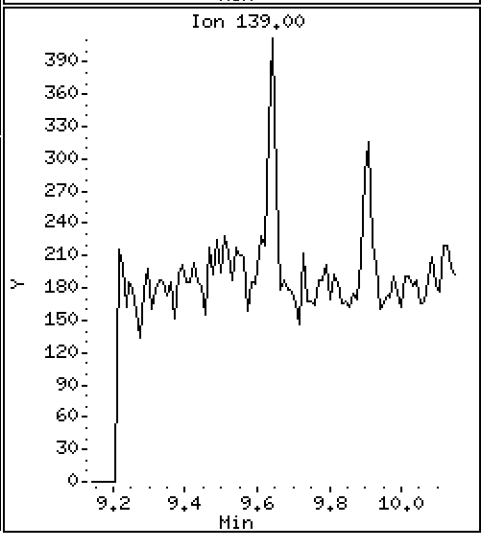


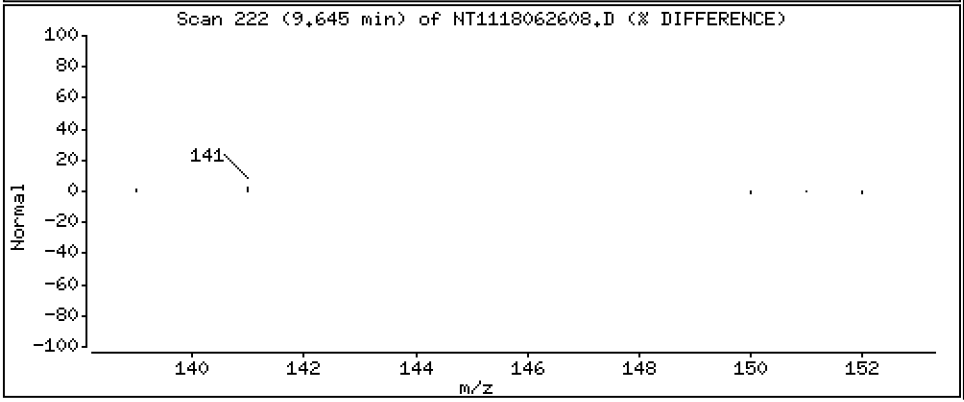












Data File: \\target\share\chem3\nt11.i\20180626.b\NT1118062608.D

Date : 26-JUN-2018 13:12

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-07

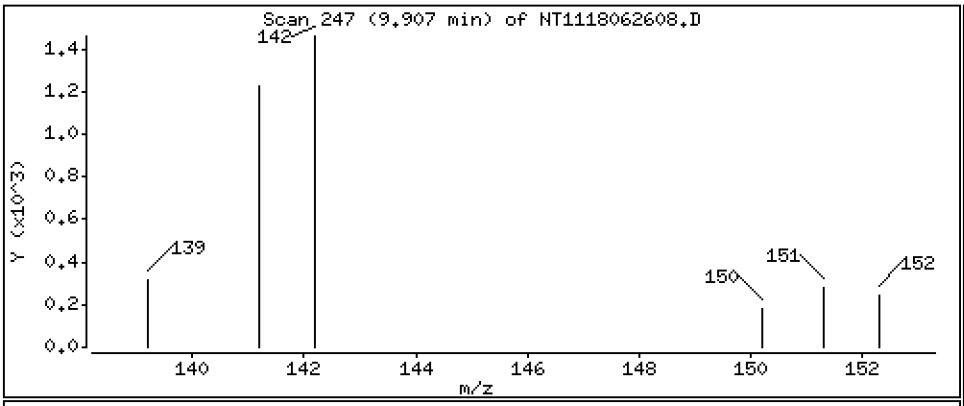
Operator: VTS

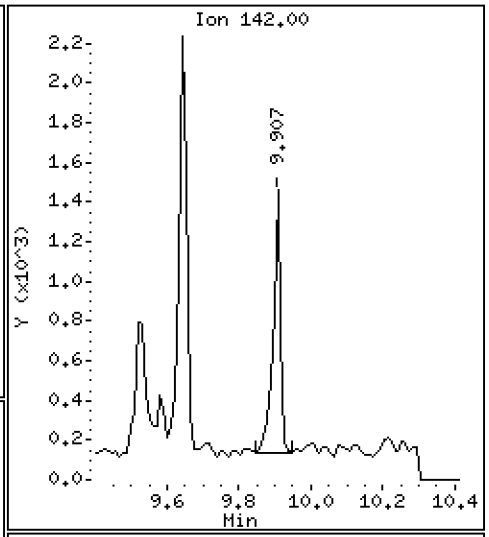
Column phase: Rxi-17Sil MS

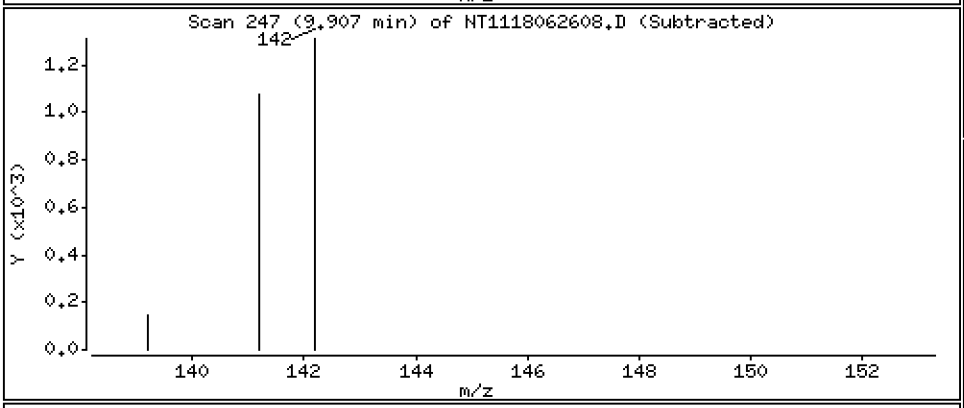
Column diameter: 0.25

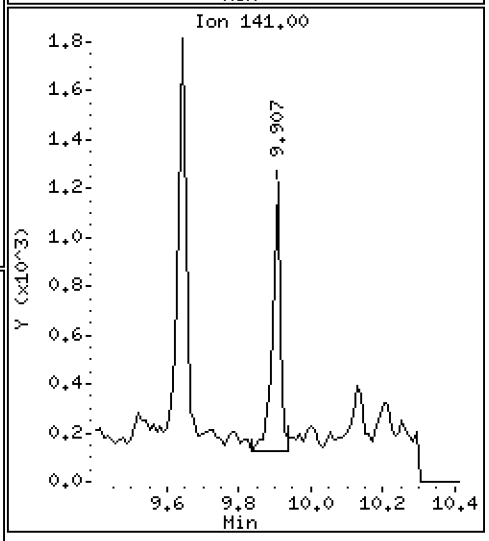
6 1-Methylnaphthalene

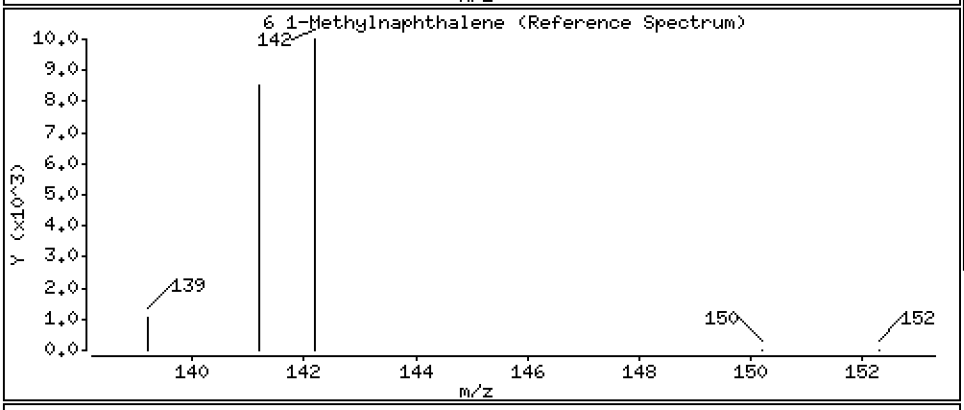
Concentration: 0.744 ng/mL

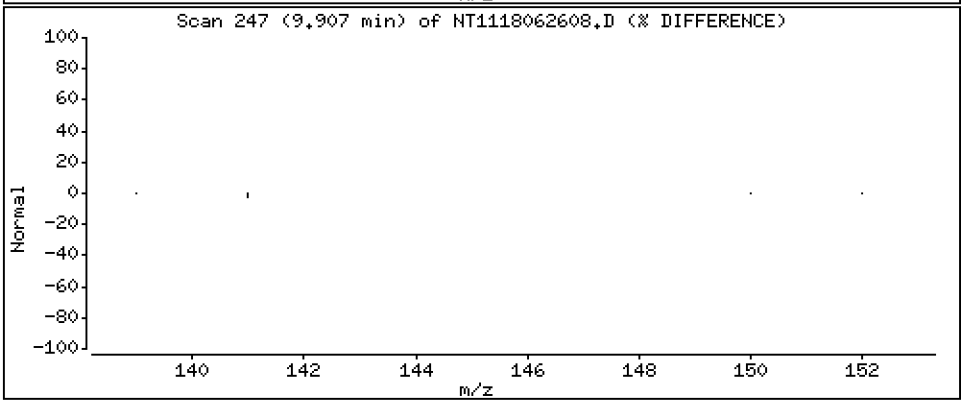












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Date : 26-JUN-2018 13:12

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-07

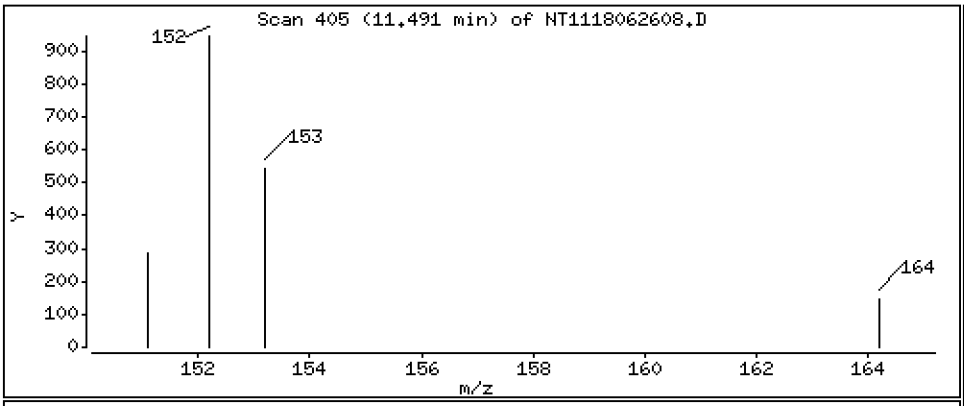
Operator: VTS

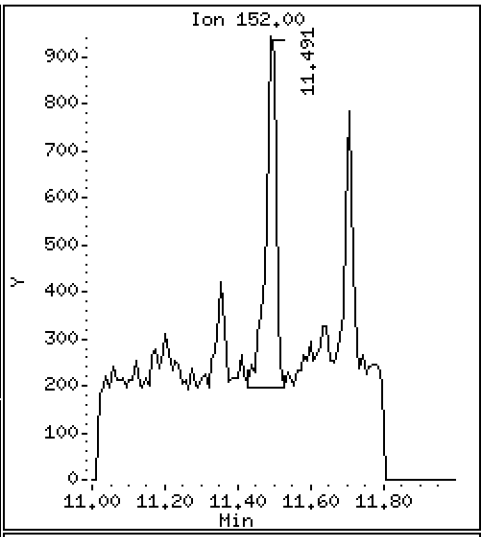
Column phase: Rxi-17Sil MS

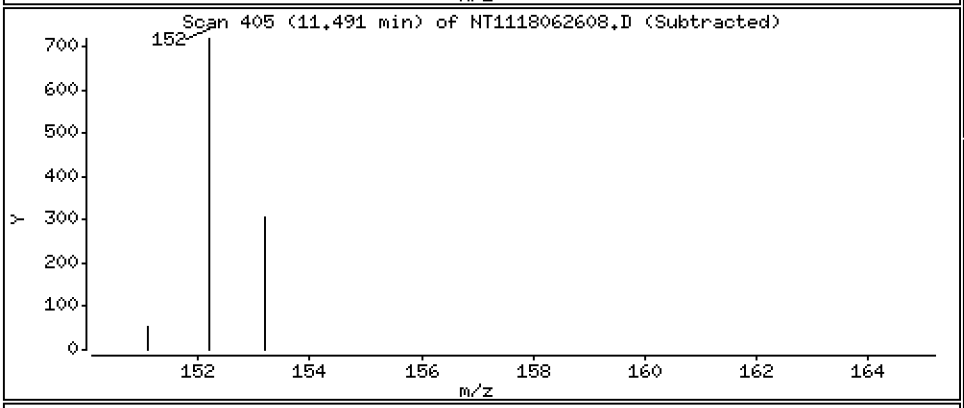
Column diameter: 0.25

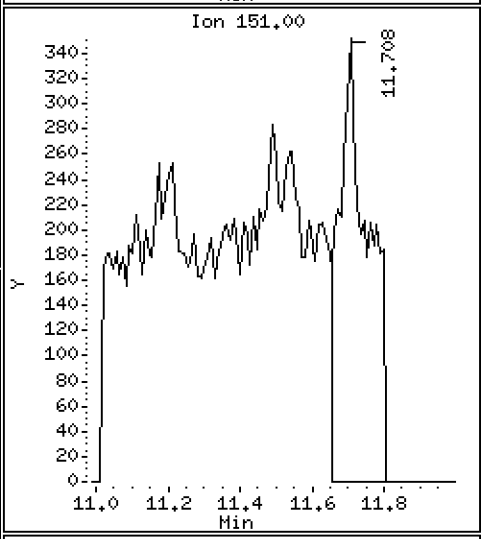
10 Acenaphthylene

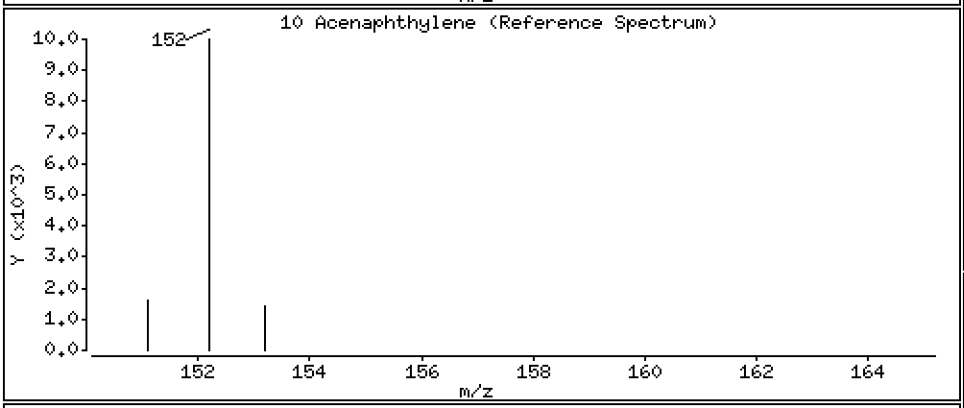
Concentration: 0.462 ng/mL

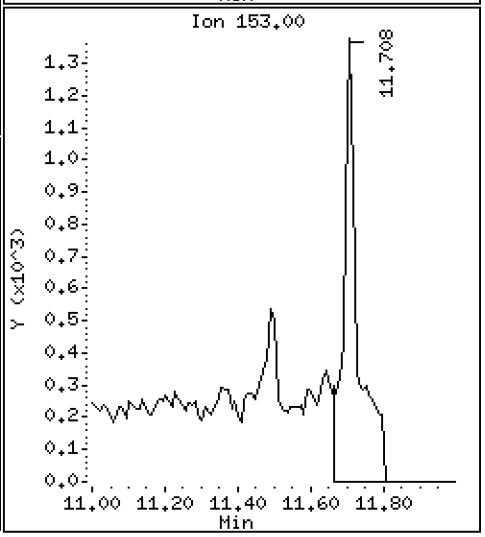


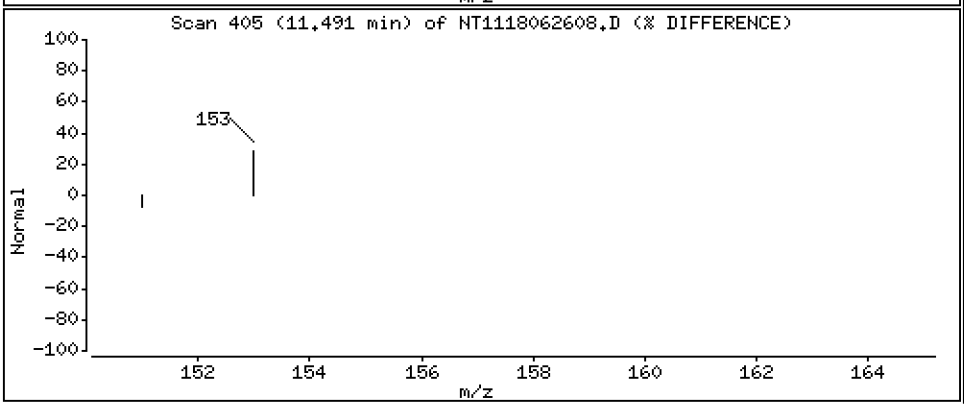












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Date : 26-JUN-2018 13:12

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-07

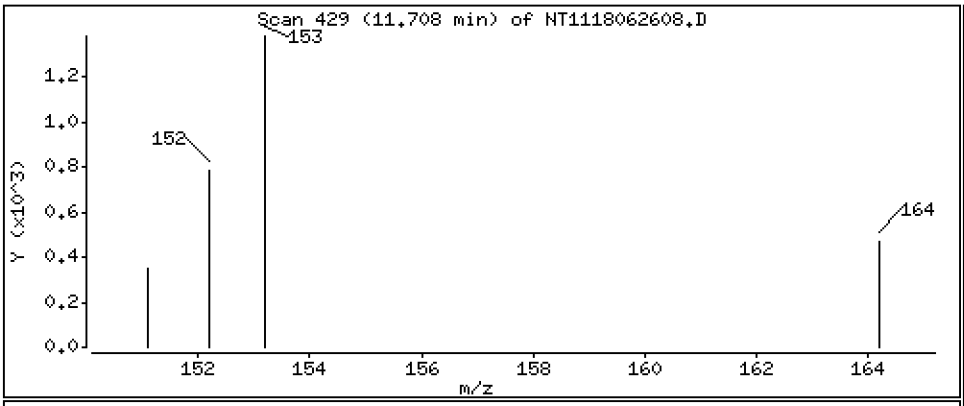
Operator: VTS

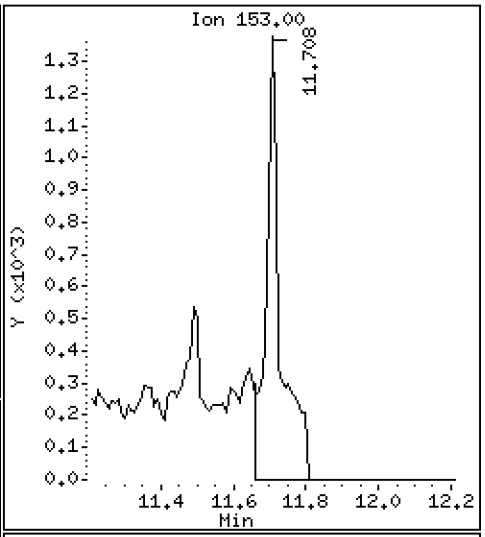
Column phase: Rxi-17Sil MS

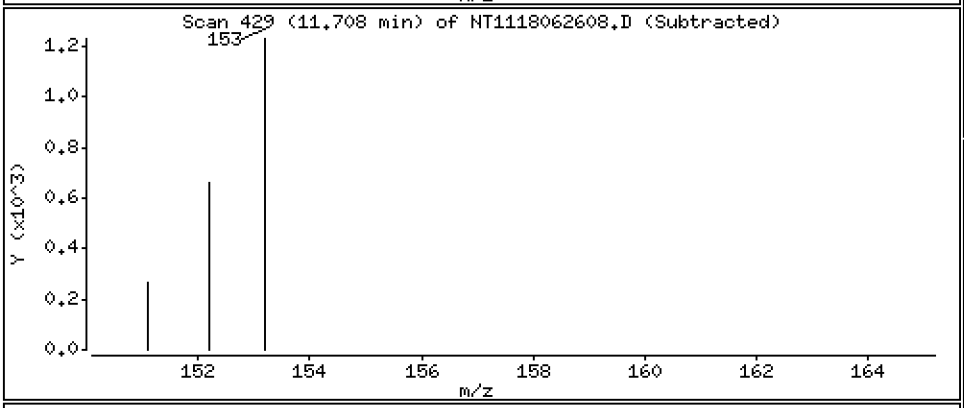
Column diameter: 0.25

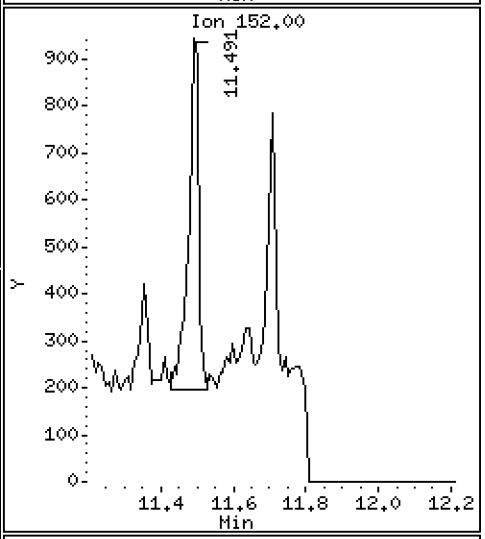
12 Acenaphthene

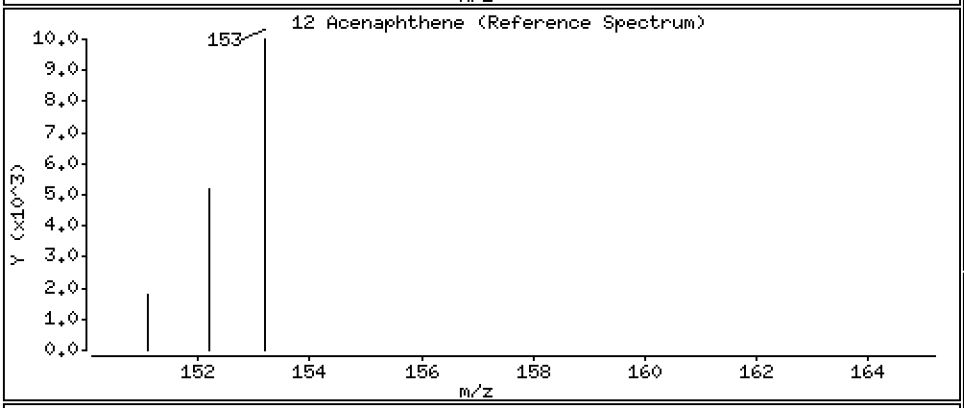
Concentration: 1.76 ng/mL

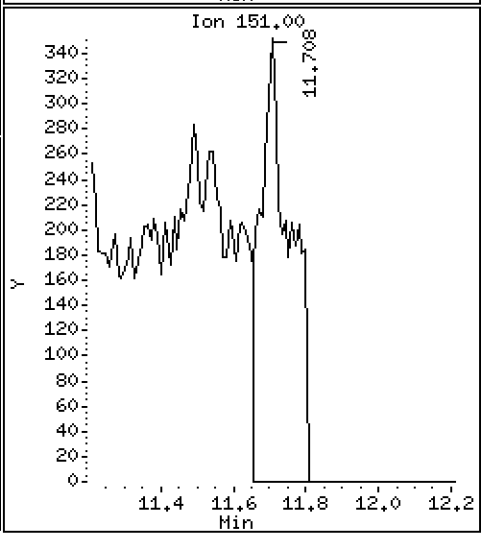


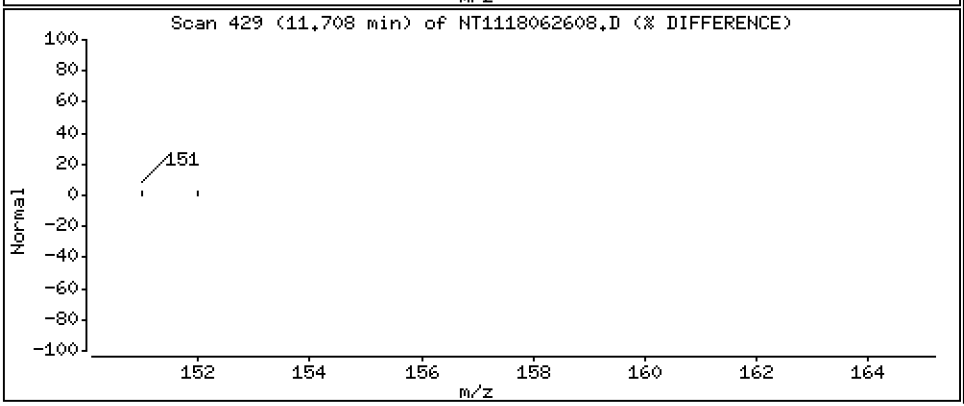












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Date : 26-JUN-2018 13:12

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-07

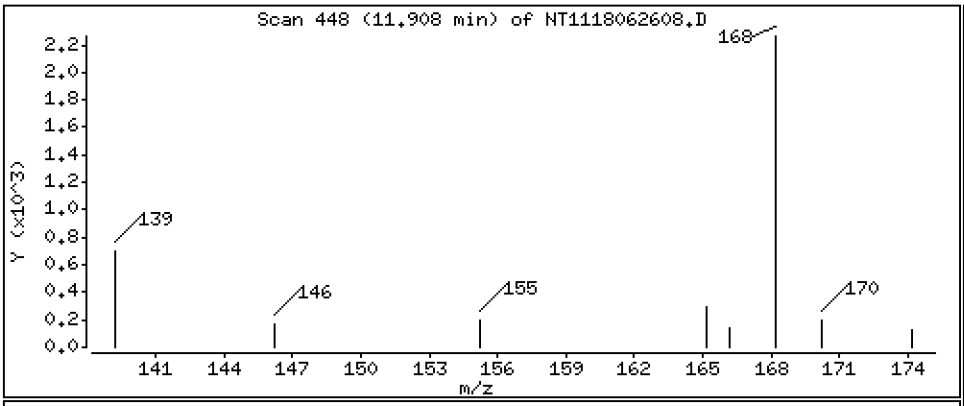
Operator: VTS

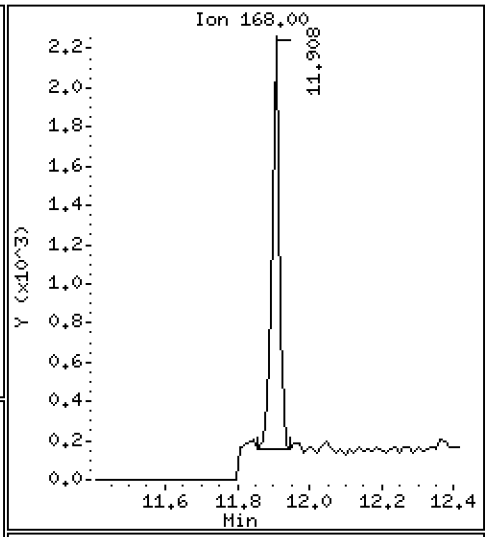
Column phase: Rxi-17Sil MS

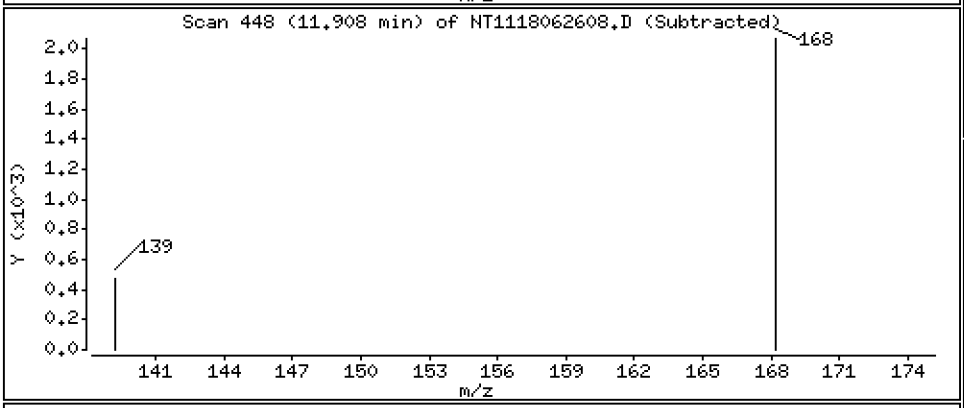
Column diameter: 0.25

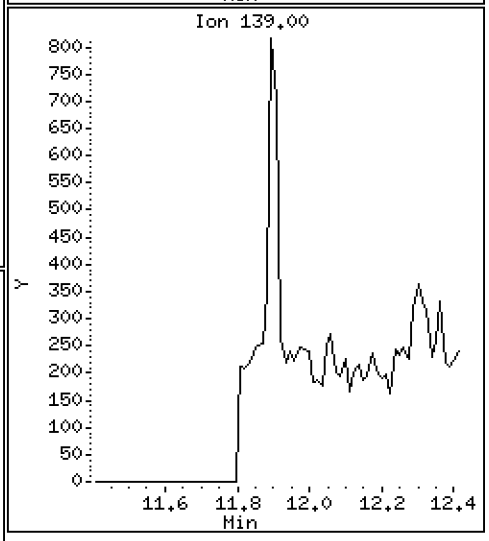
13 Dibenzofuran

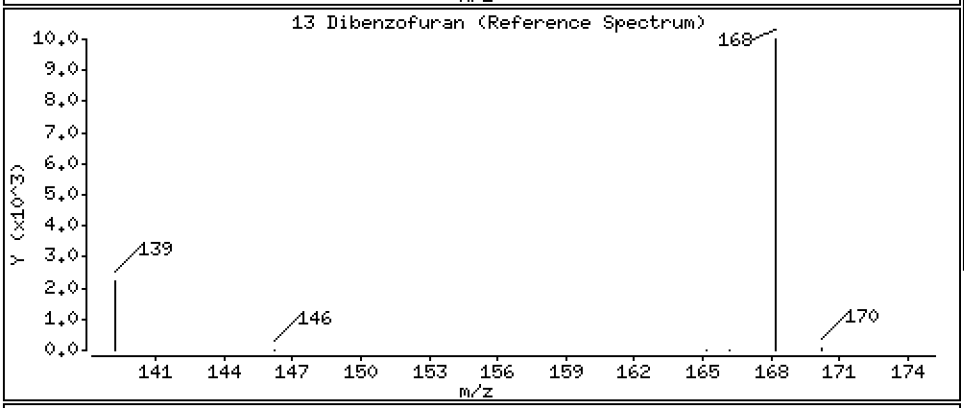
Concentration: 0.988 ng/mL

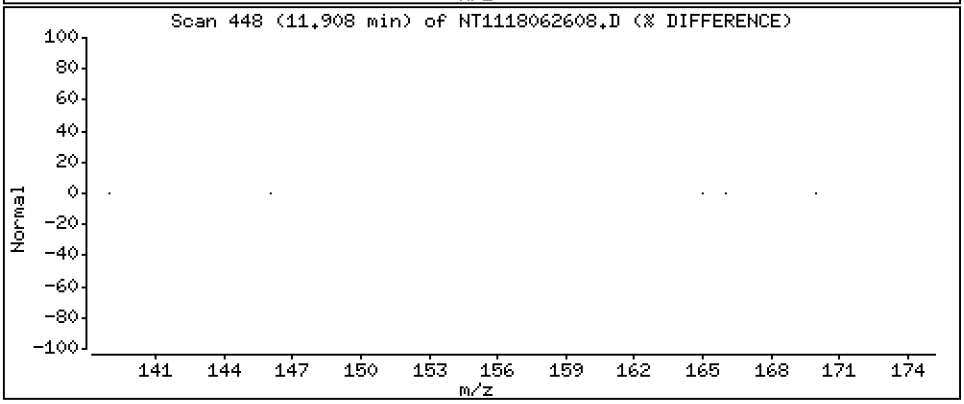












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Date : 26-JUN-2018 13:12

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-07

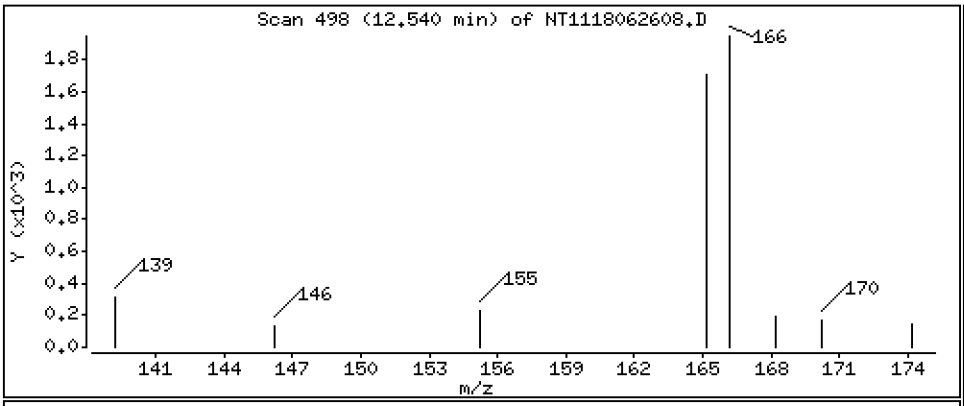
Operator: VTS

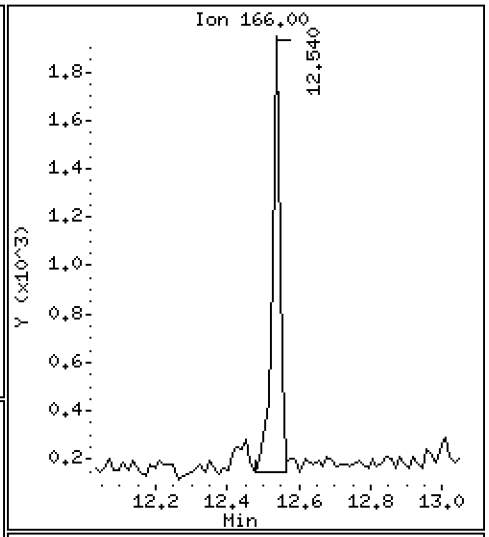
Column phase: Rxi-17Sil MS

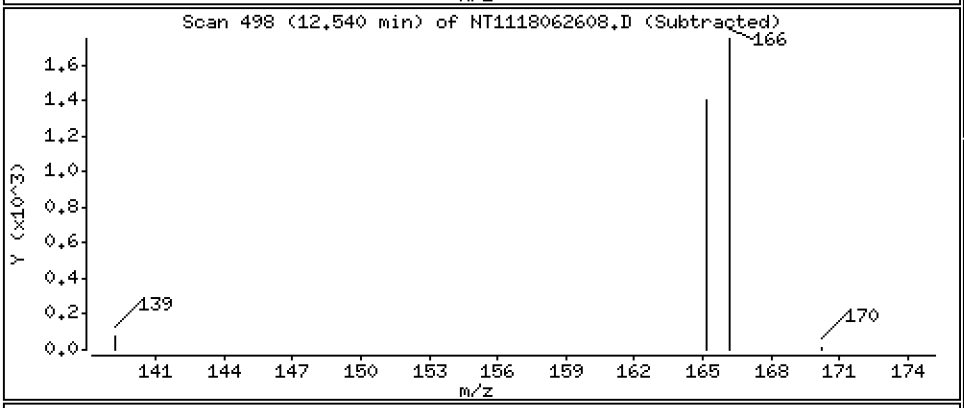
Column diameter: 0.25

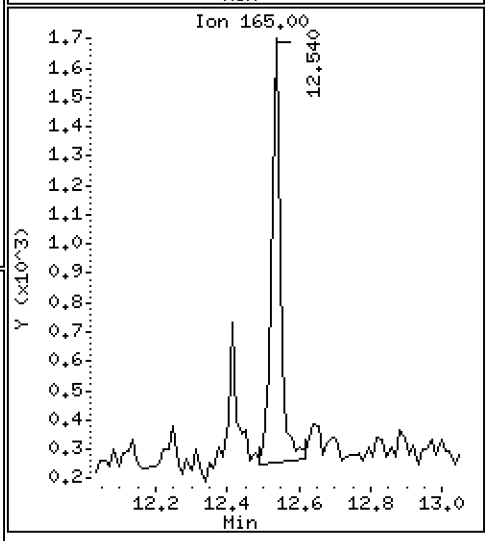
16 Fluorene

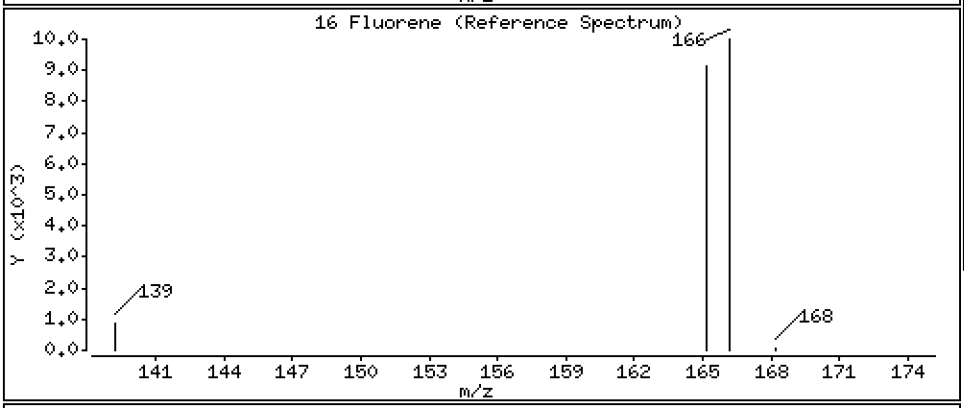
Concentration: 1.16 ng/mL

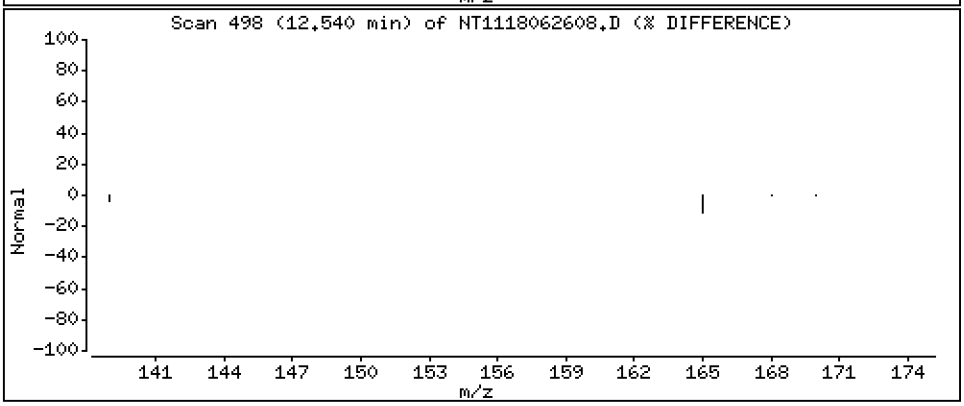












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Date : 26-JUN-2018 13:12

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-07

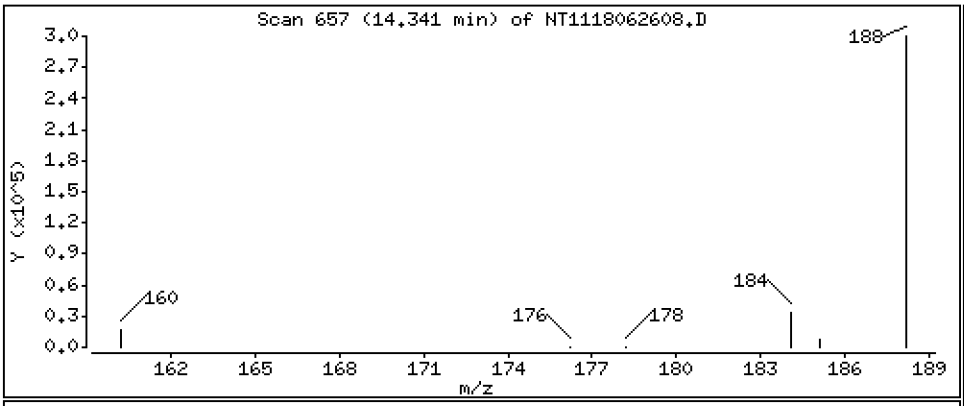
Operator: VTS

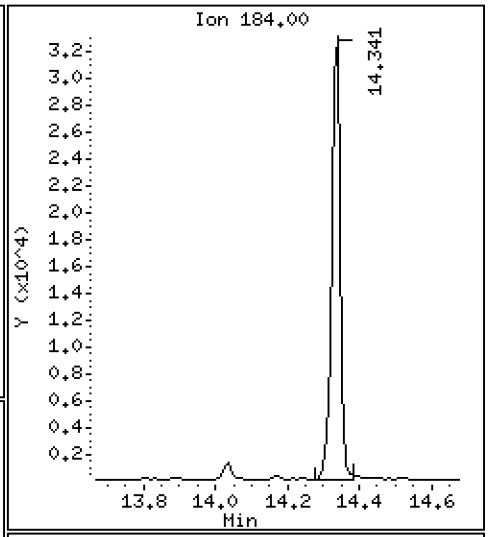
Column phase: Rxi-17Sil MS

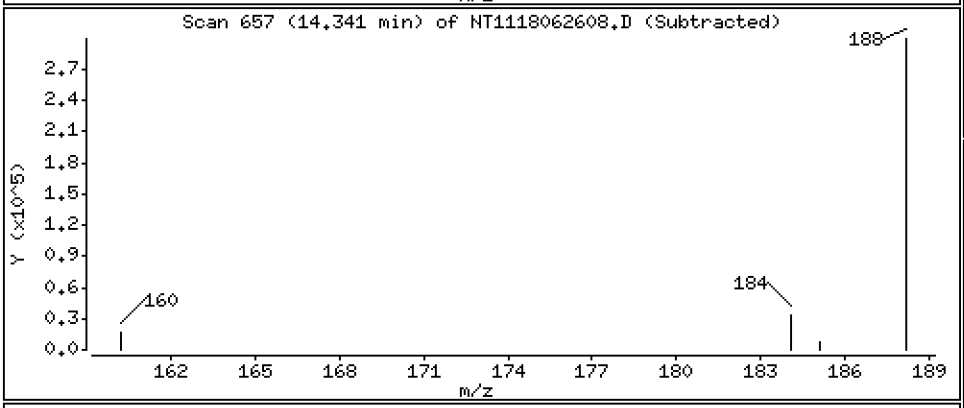
Column diameter: 0.25

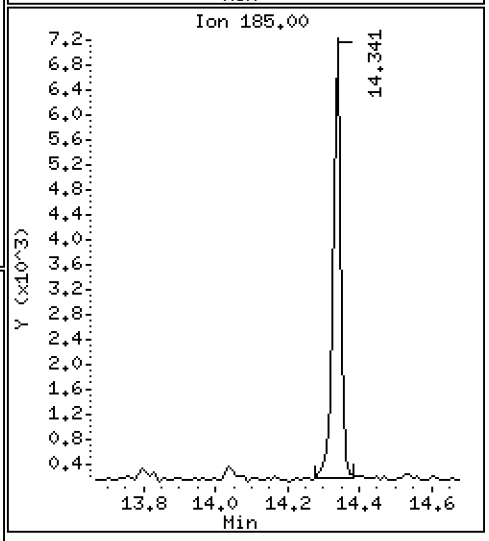
17 Dibenzothiophene

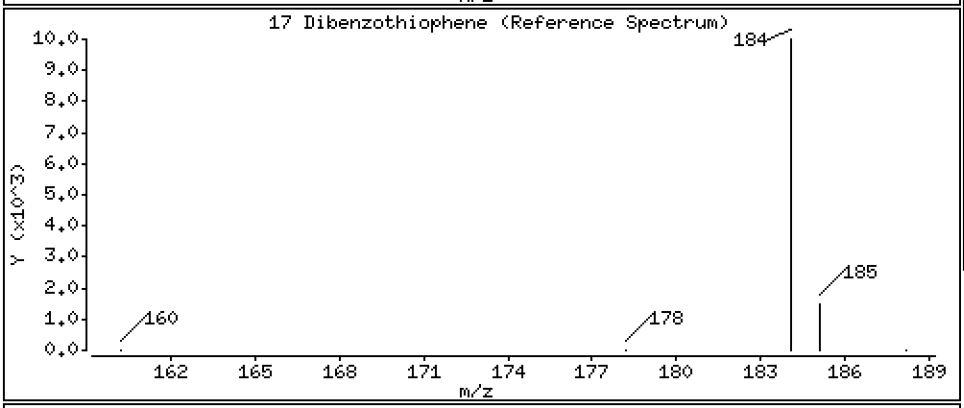
Concentration: 19.7 ng/mL

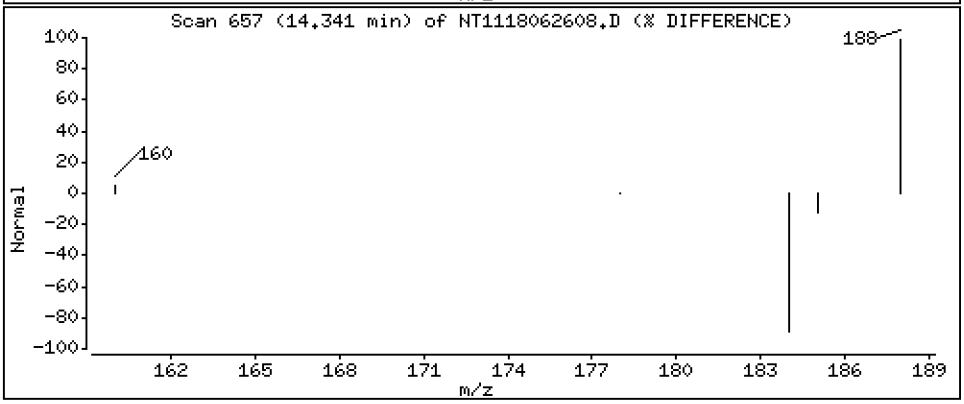












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Date : 26-JUN-2018 13:12

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-07

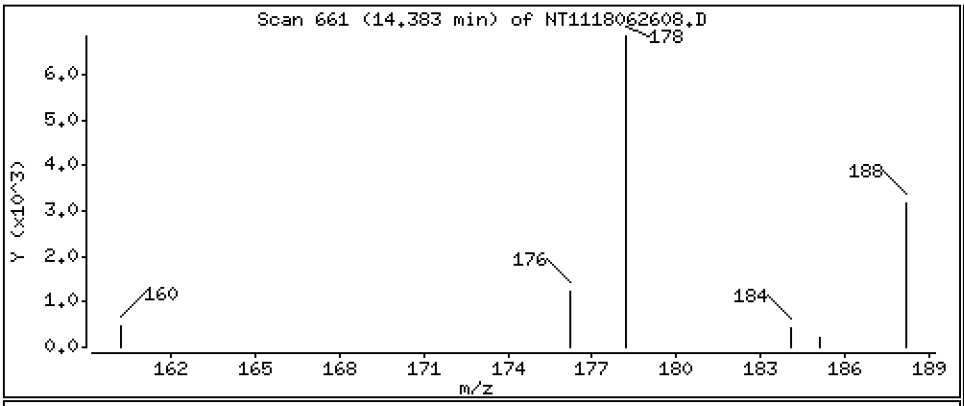
Operator: VTS

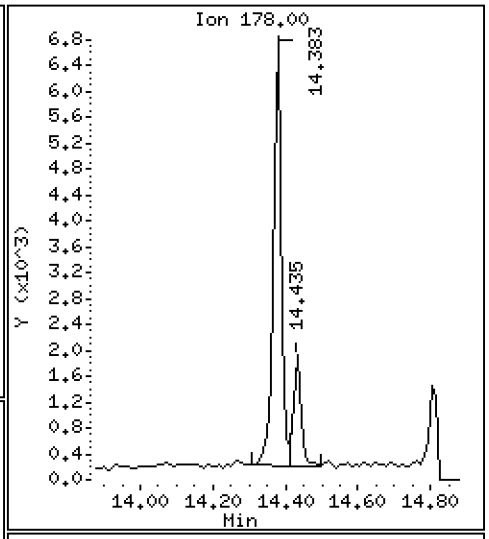
Column phase: Rxi-17Sil MS

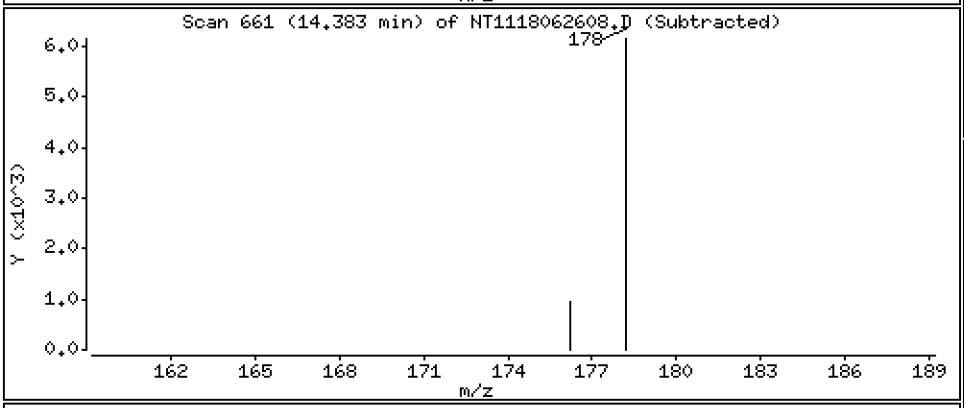
Column diameter: 0.25

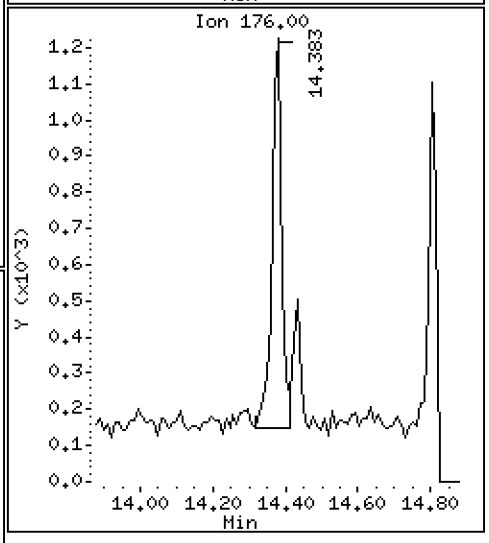
19 Phenanthrene

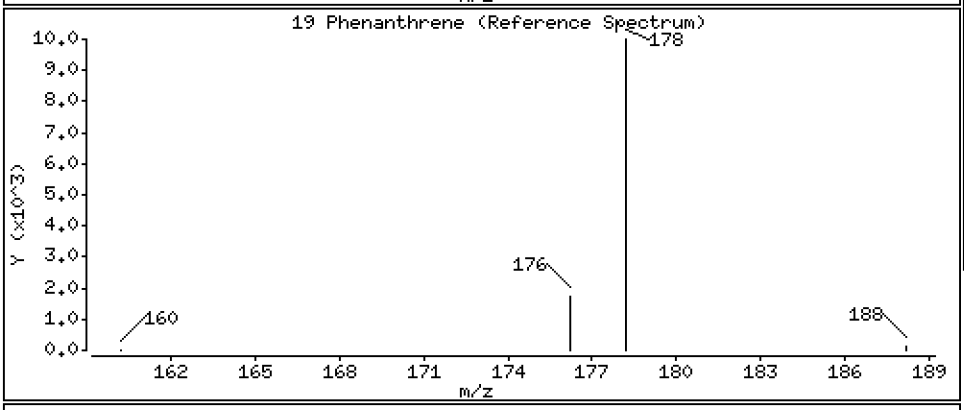
Concentration: 2.93 ng/mL

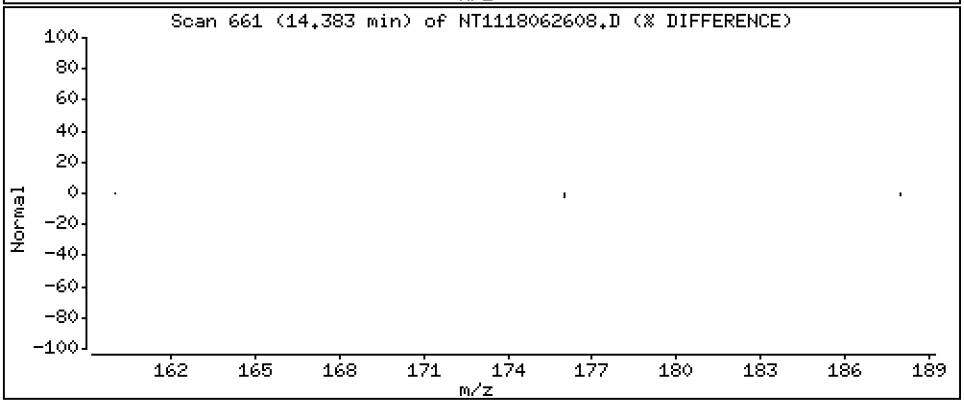












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Date : 26-JUN-2018 13:12

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-07

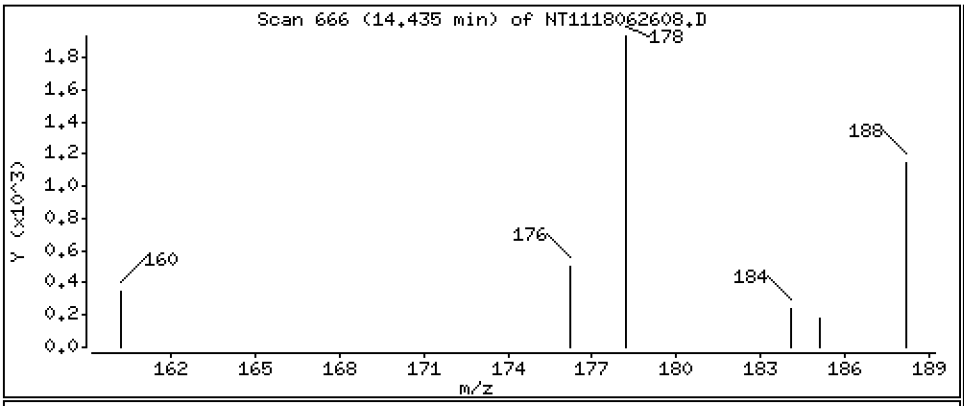
Operator: VTS

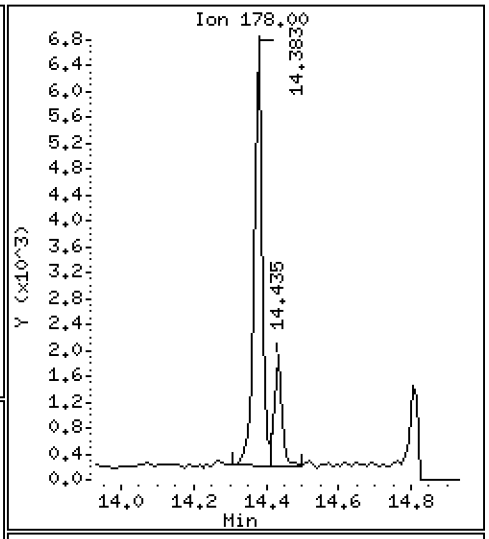
Column phase: Rxi-17Sil MS

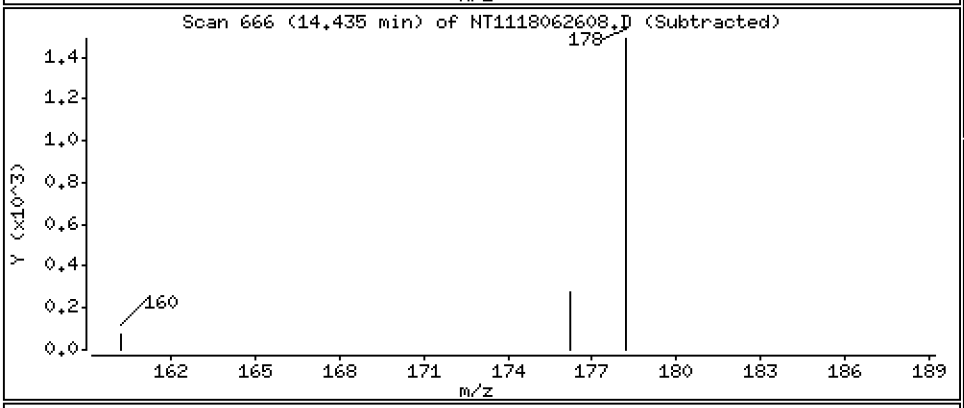
Column diameter: 0.25

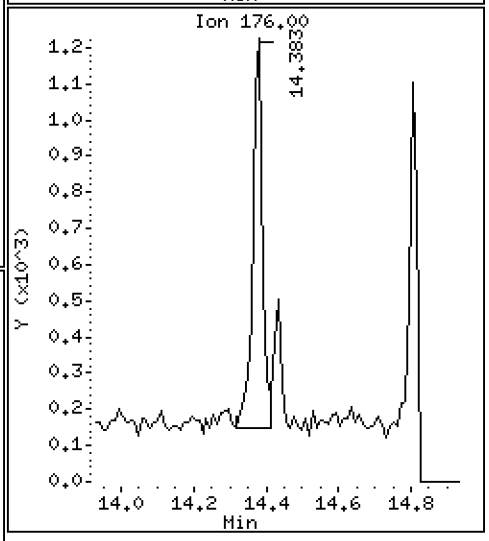
21 Anthracene

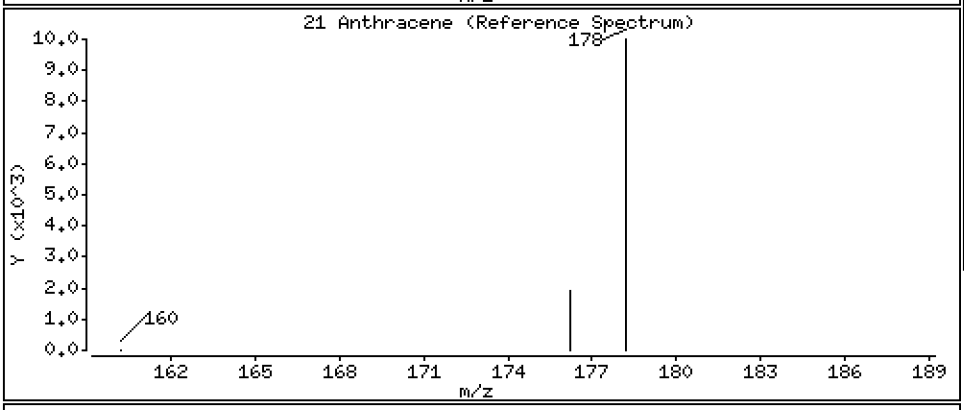
Concentration: 0.791 ng/mL

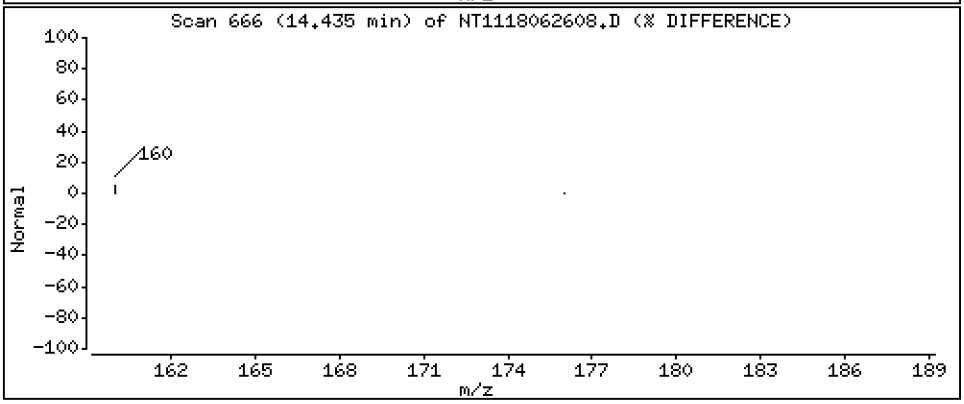












Data File: \\target\share\chem3\nt11.i\20180626.b\NT1118062608.D

Date : 26-JUN-2018 13:12

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-07

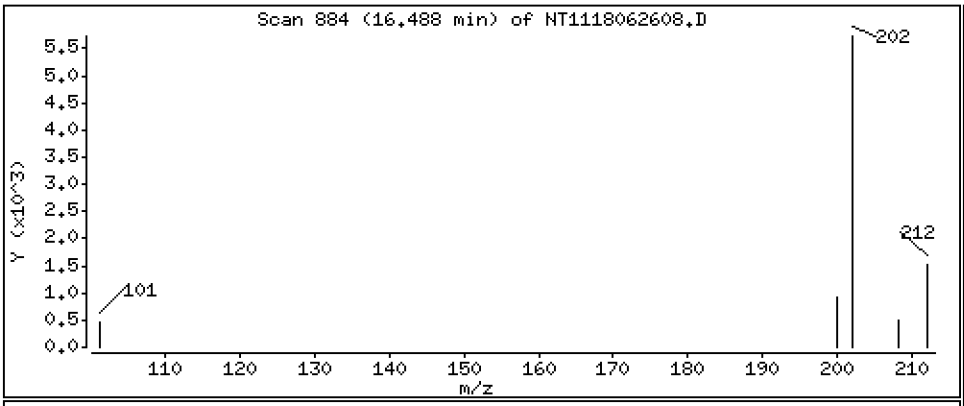
Operator: VTS

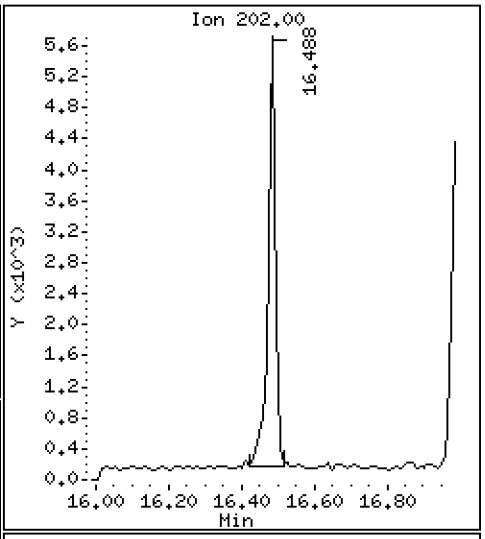
Column phase: Rxi-17Sil MS

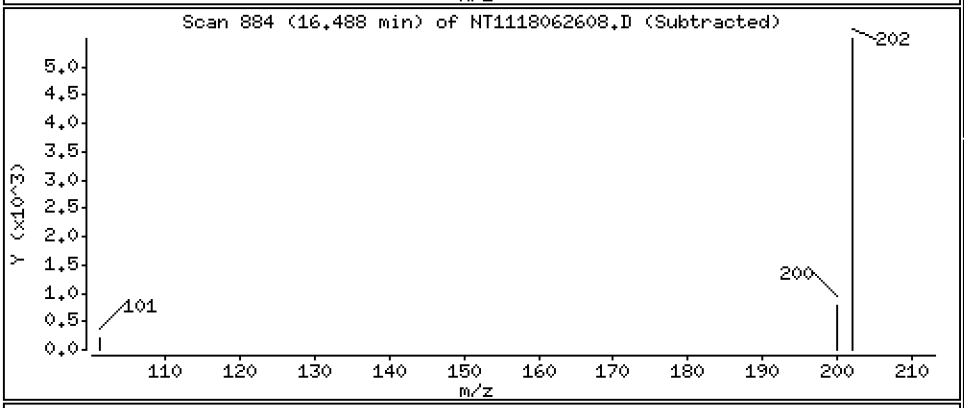
Column diameter: 0.25

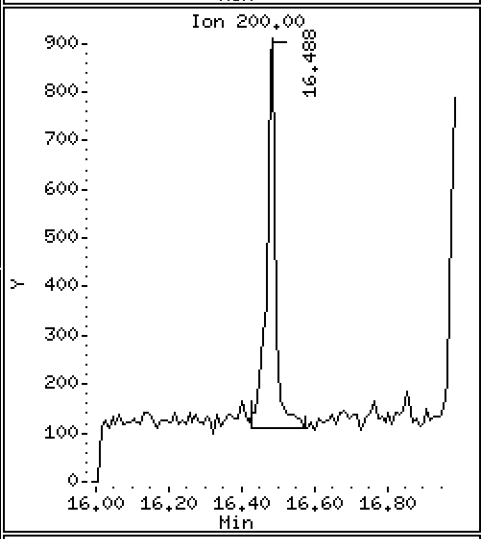
25 Fluoranthene

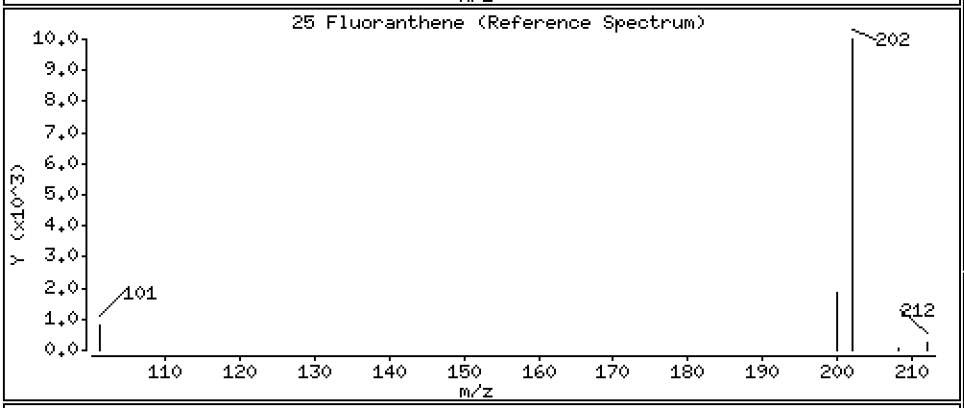
Concentration: 2.67 ng/mL

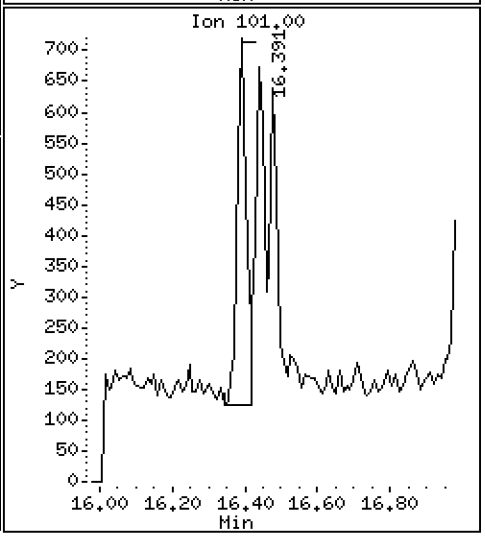


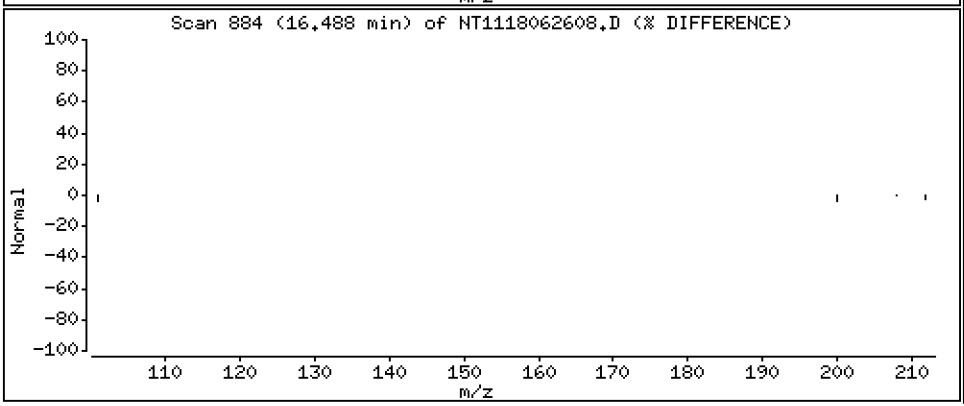












Data File: \\target\share\chem3\nt11.i\20180626.b\NT1118062608.D

Date : 26-JUN-2018 13:12

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-07

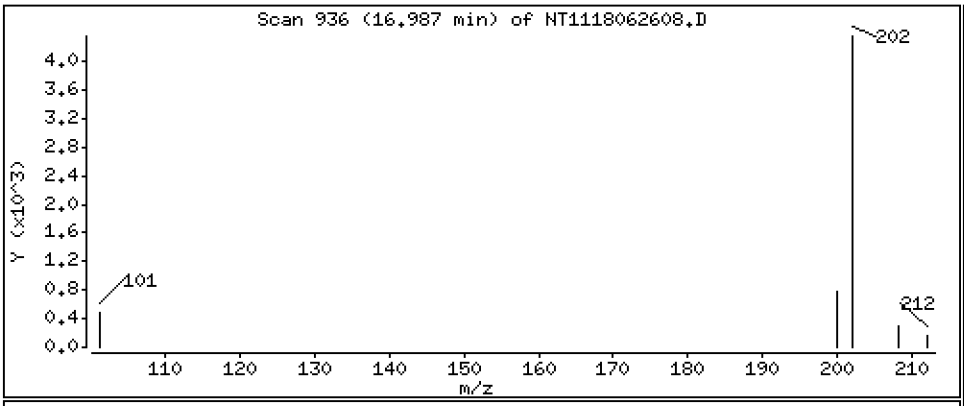
Operator: VTS

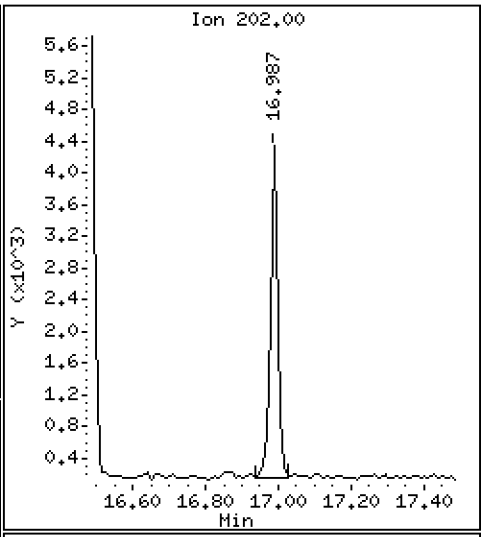
Column phase: Rxi-17Sil MS

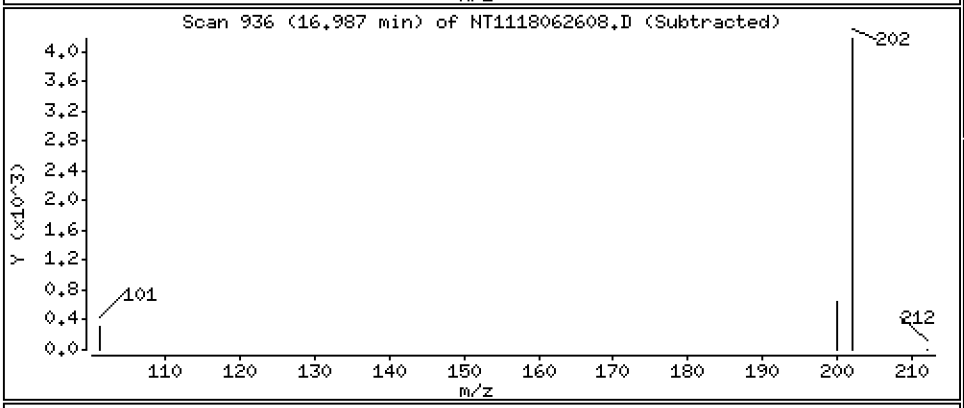
Column diameter: 0.25

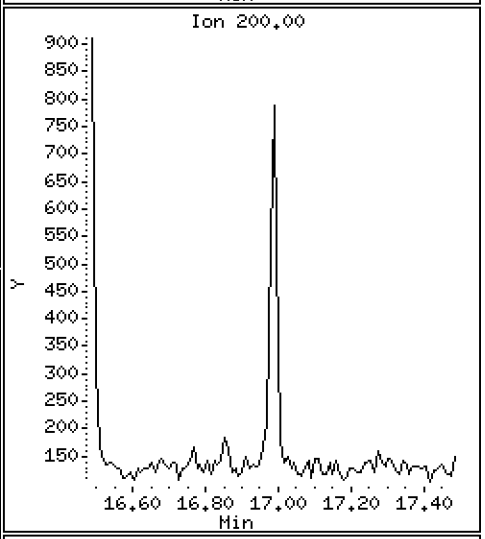
26 Pyrene

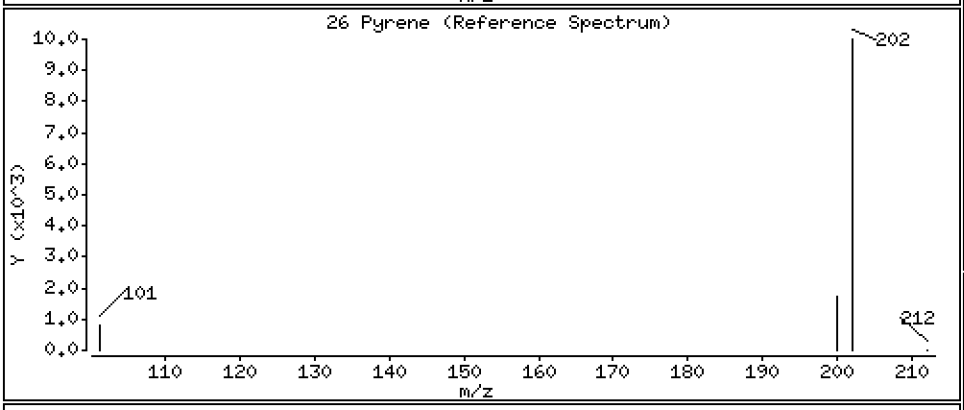
Concentration: 1.85 ng/mL

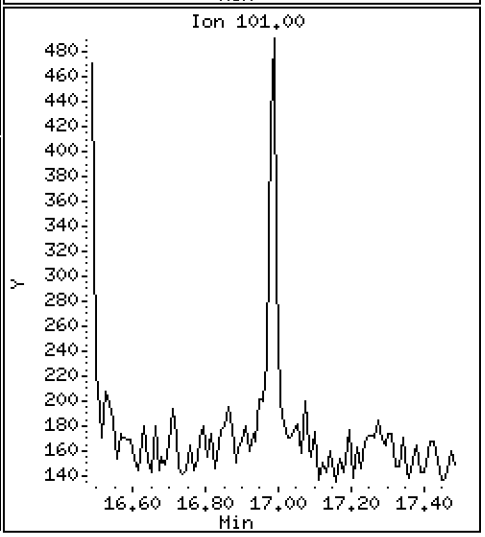


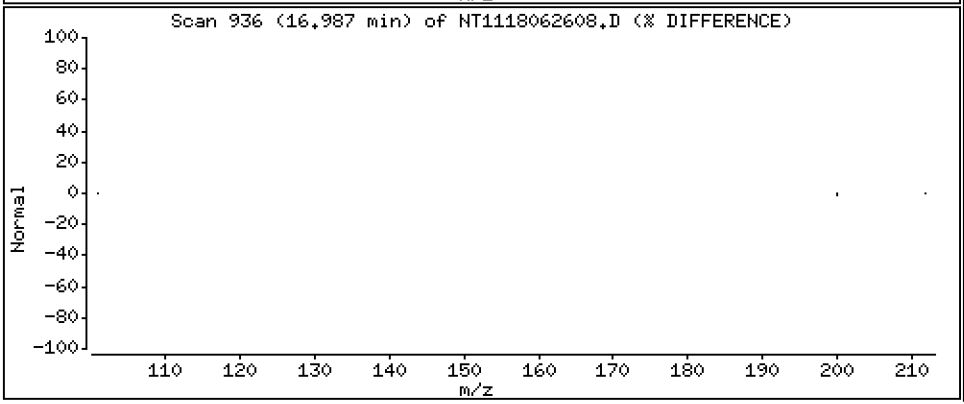












Data File: \\target\share\chem3\nt11.i\20180626.b\NT1118062608.D

Date : 26-JUN-2018 13:12

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-07

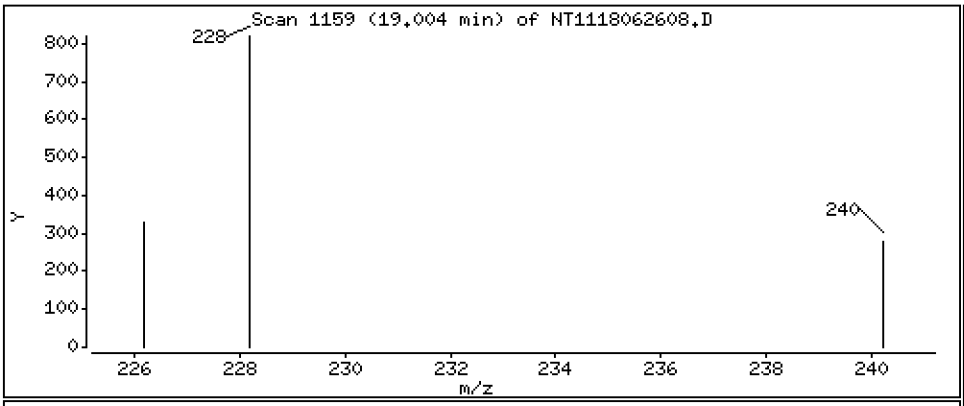
Operator: VTS

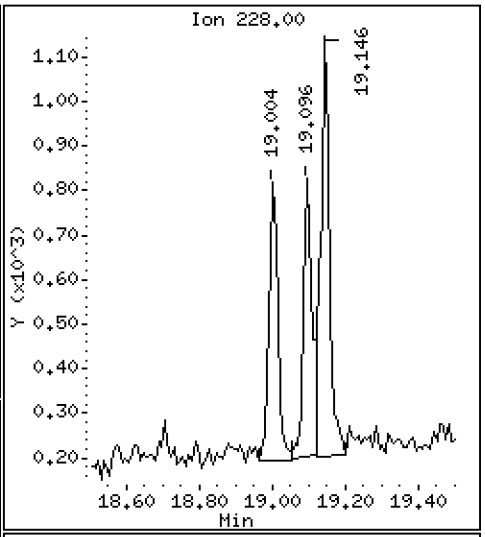
Column phase: Rxi-17Sil MS

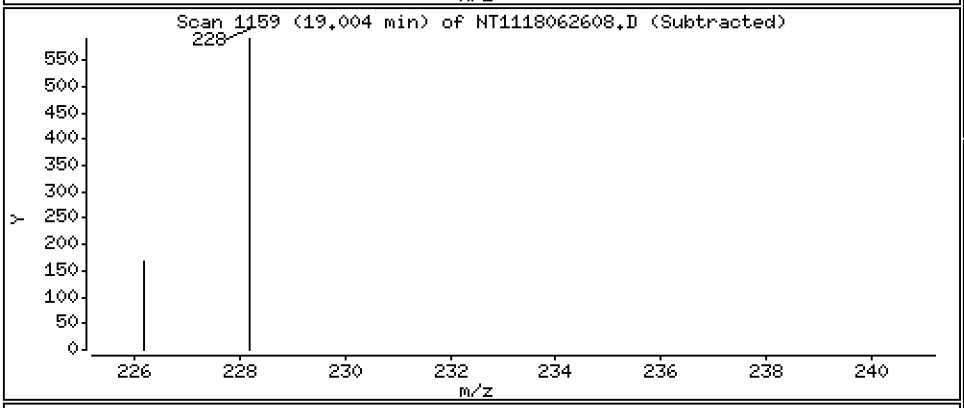
Column diameter: 0.25

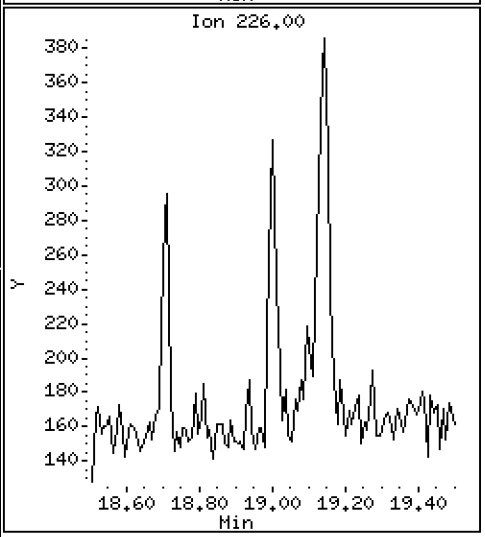
27 Benzo(a)anthracene

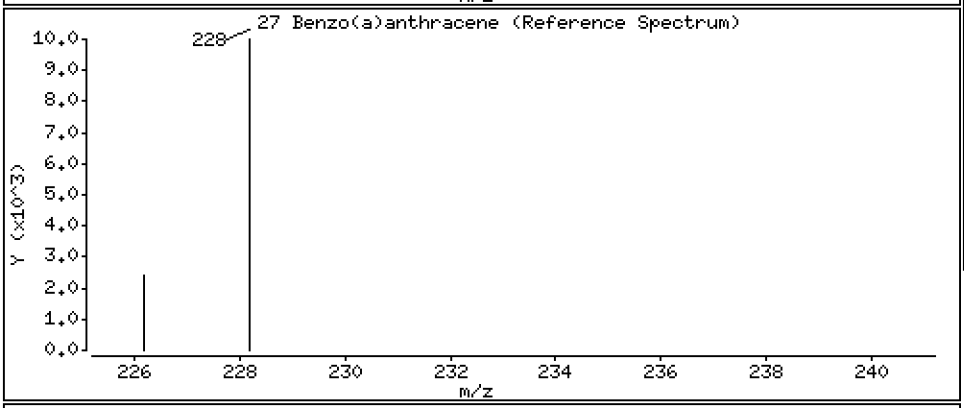
Concentration: 0.396 ng/mL

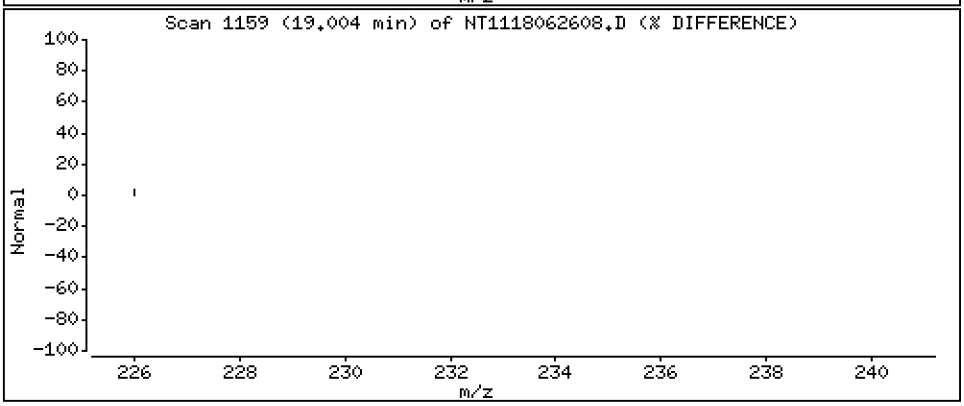












Data File: \\target\share\chem3\nt11.i\20180626.b\NT1118062608.D

Date : 26-JUN-2018 13:12

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-07

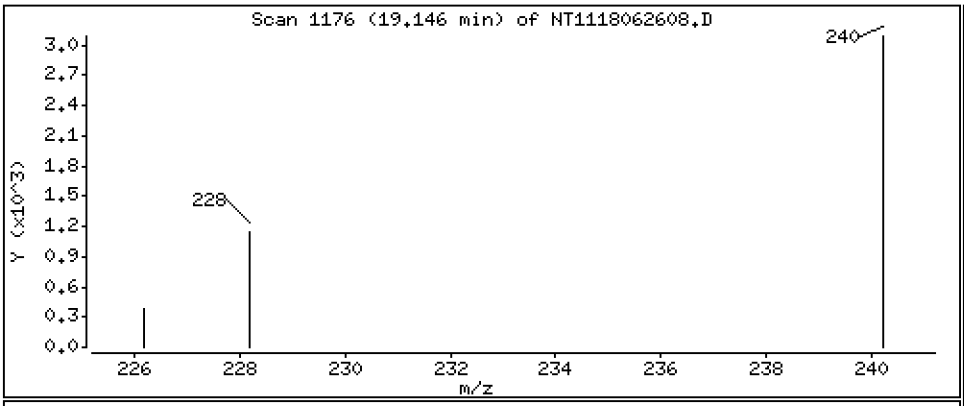
Operator: VTS

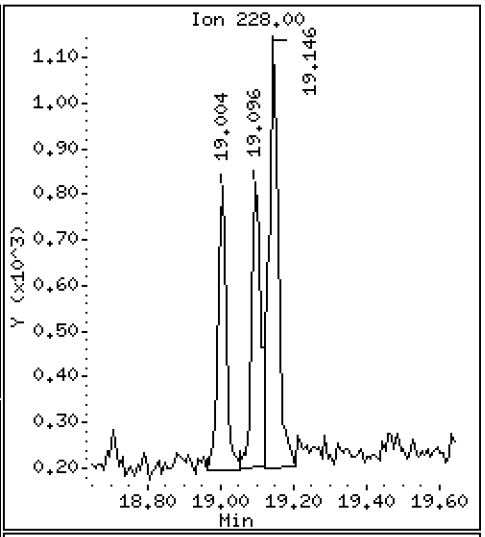
Column phase: Rxi-17Sil MS

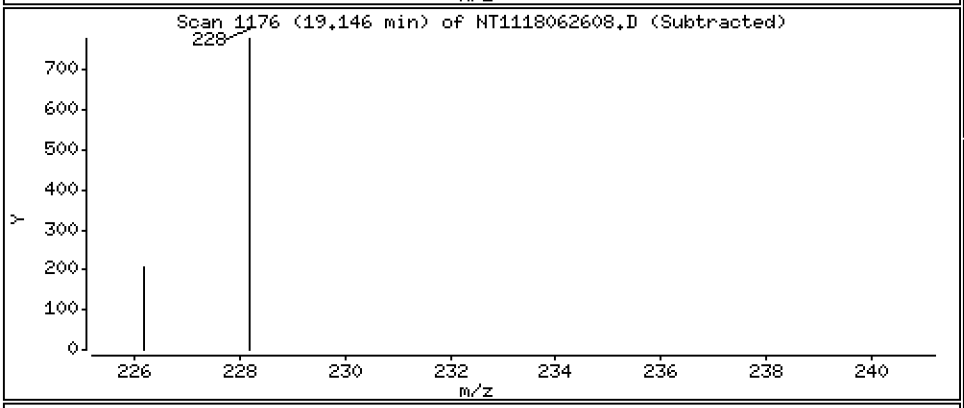
Column diameter: 0.25

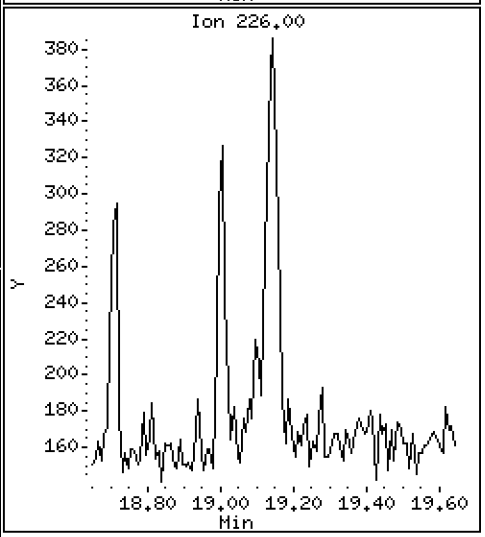
29 Chrysene

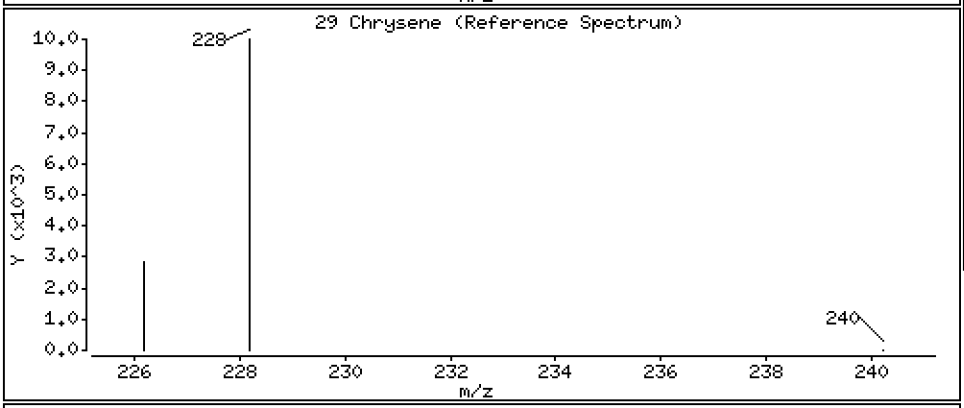
Concentration: 0.649 ng/mL

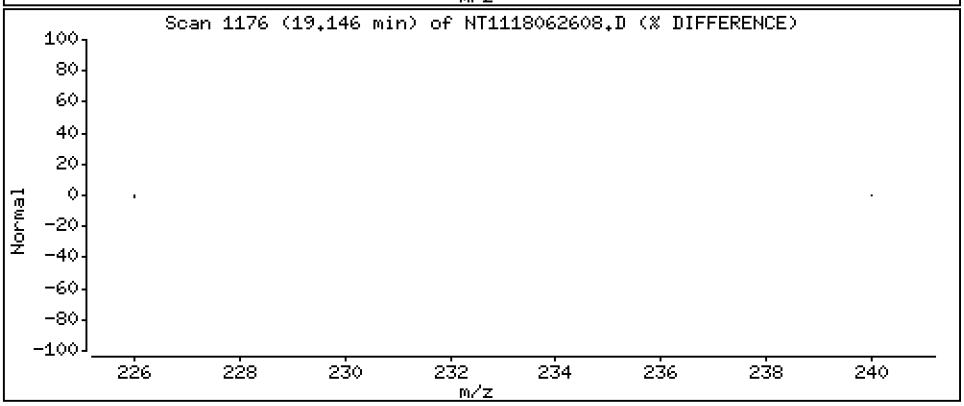












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Date : 26-JUN-2018 13:12

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-07

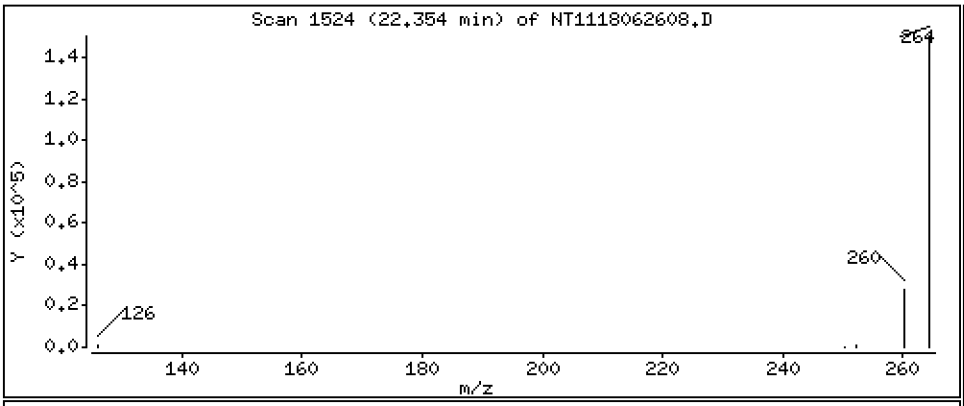
Operator: VTS

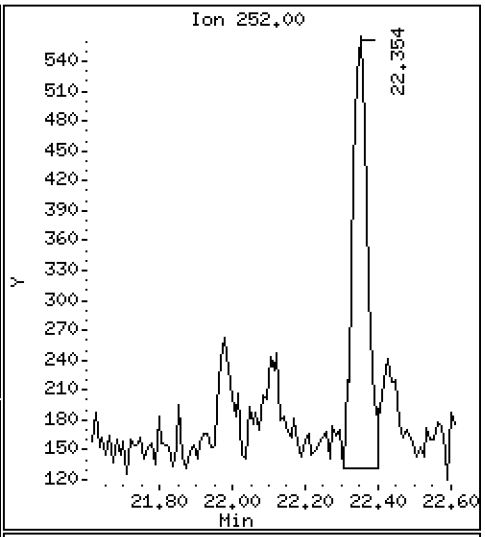
Column phase: Rxi-17Sil MS

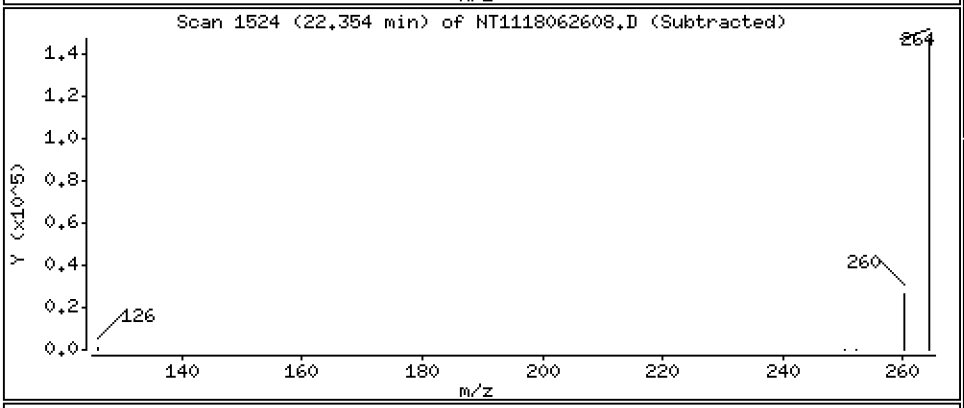
Column diameter: 0.25

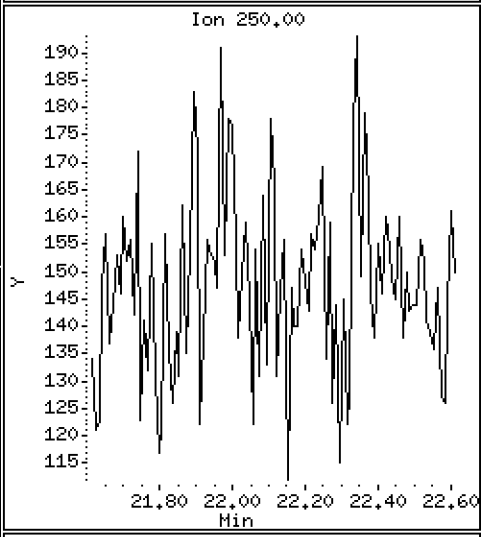
35 Benzo(a)pyrene

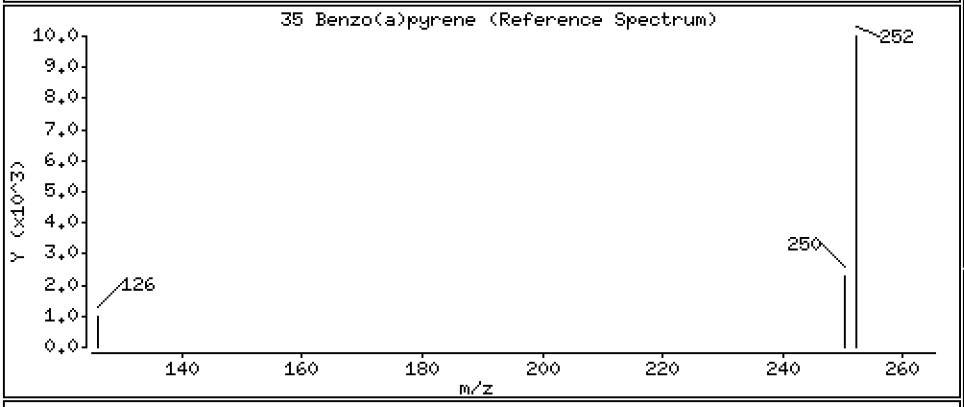
Concentration: 0.539 ng/mL

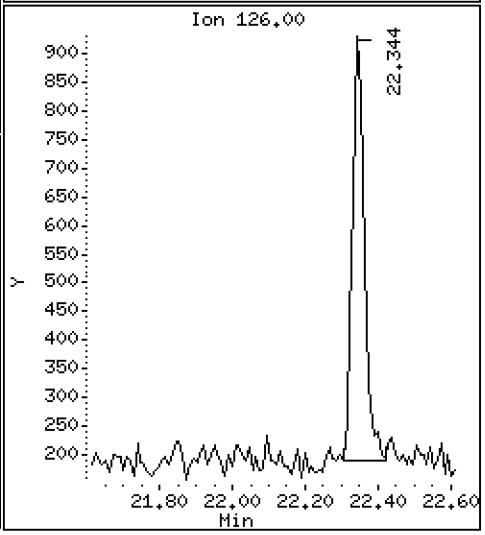


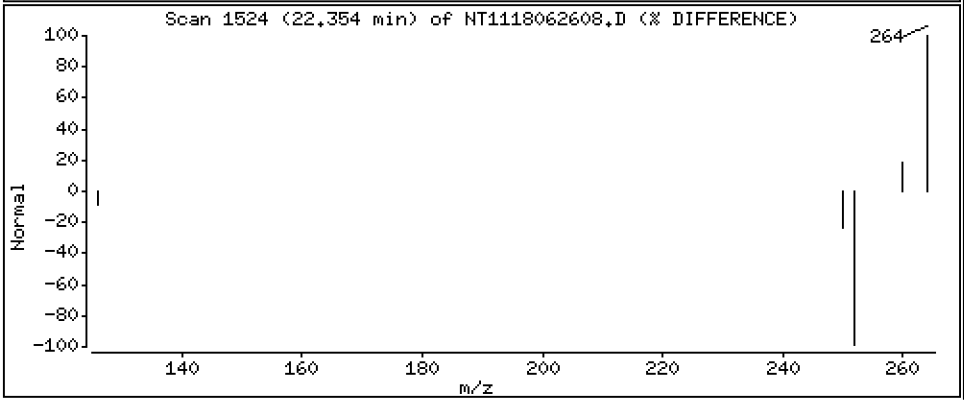












Data File: \\target\share\chem3\nt11.i\20180626.b\NT1118062608.D

Date : 26-JUN-2018 13:12

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-07

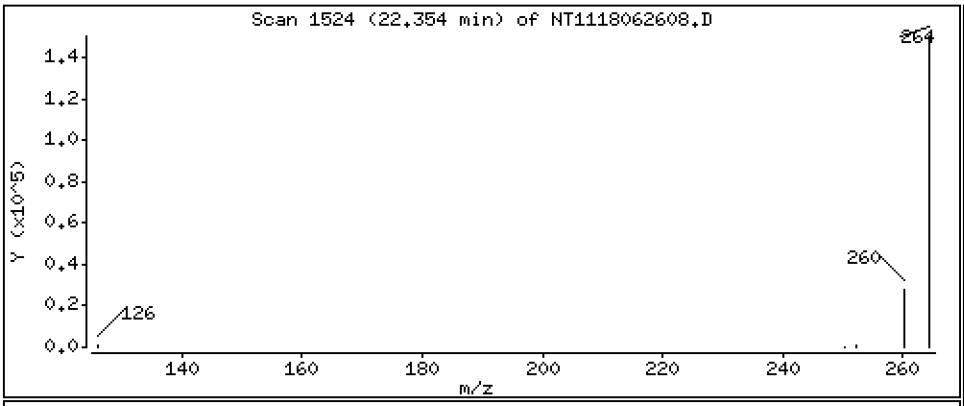
Operator: VTS

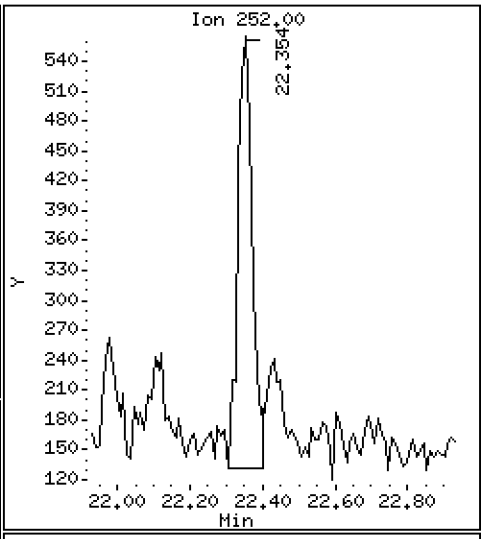
Column phase: Rxi-17Sil MS

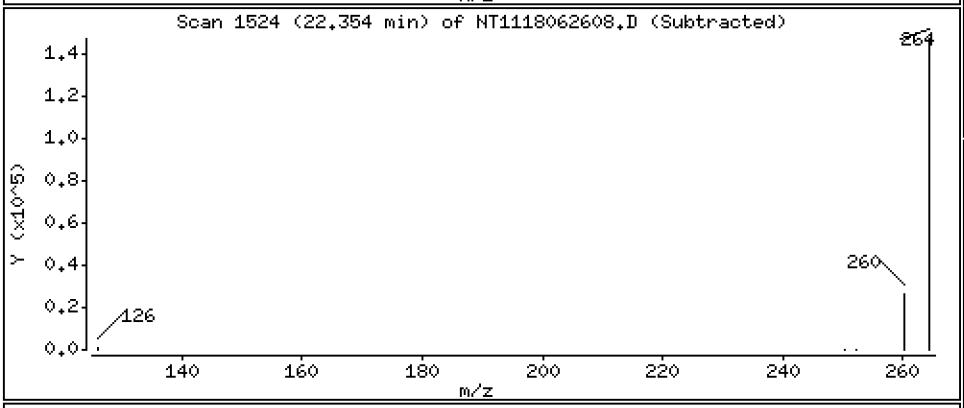
Column diameter: 0.25

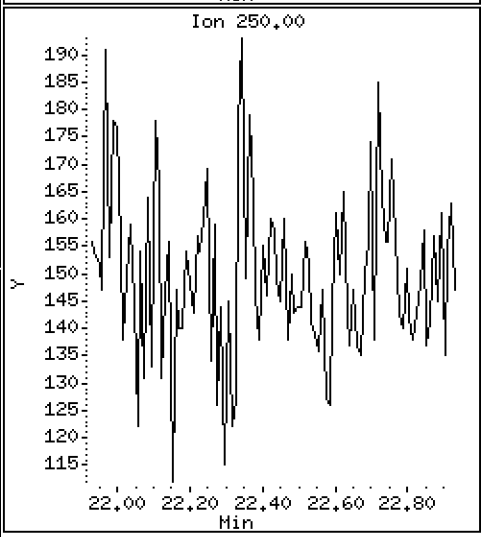
37 Perylene

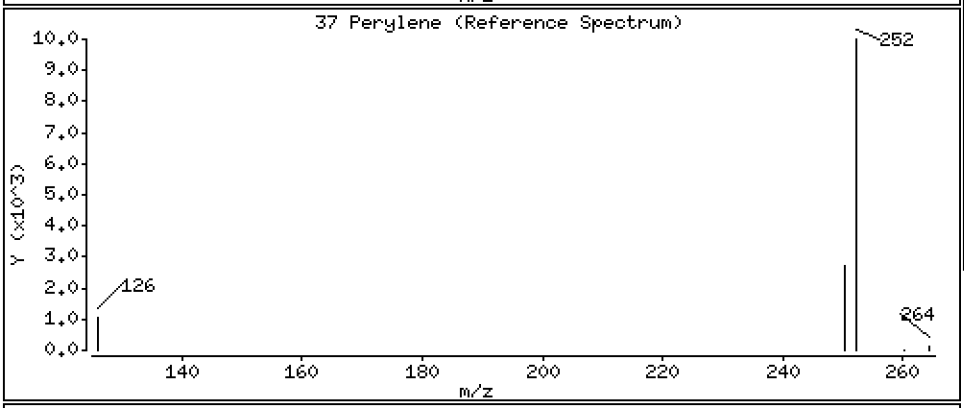
Concentration: 0.514 ng/mL

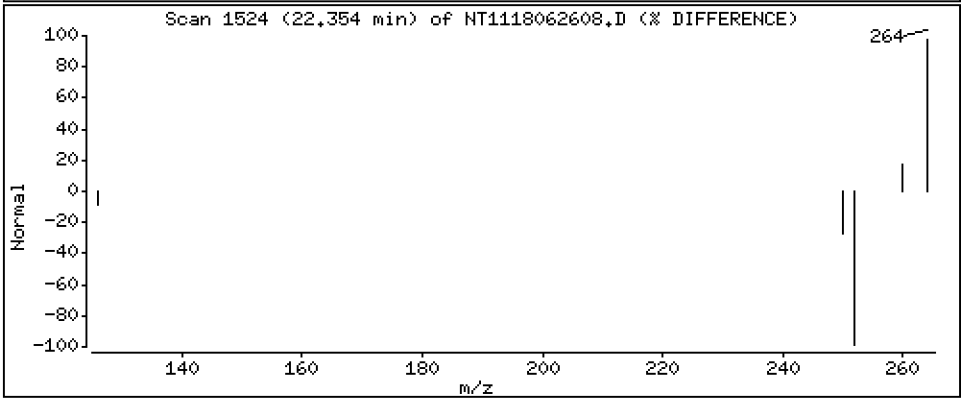












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180626.b\NT1118062608.D
Lab Smp Id: 18F0185-07
Inj Date : 26-JUN-2018 13:12 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0185-07
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180626.b\LOWSIM.m
Meth Date : 26-Jun-2018 10:11 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	465759	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	4867	1.38679	1.39
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	285094	107.281	107
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	3176	1.11944	1.12
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	2100	0.74425	0.744
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	11.490	11.499	(0.987)	1426	0.46239	0.462
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	259380	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	3716	1.76169	1.76
	13 Dibenzofuran	168	11.908	11.908	(1.023)	2854	0.98765	0.988
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.540	12.539	(1.077)	2703	1.15995	1.16
	17 Dibenzothiophene	184	14.340	14.172	(1.000)	53652	19.7363	19.7
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	436540	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	10033	2.93039	2.93
	21 Anthracene	178	14.435	14.435	(1.007)	2532	0.79107	0.791
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	Compound Not Detected.					
$	24 Fluoranthene-d10	212	16.449	16.449	(1.147)	336533	127.003	127
	25 Fluoranthene	202	16.487	16.487	(1.150)	8501	2.67369	2.67
	26 Pyrene	202	16.987	16.987	(0.890)	6307	1.85367	1.85
	27 Benzo(a)anthracene	228	19.004	19.004	(0.995)	1050	0.39568	0.396
*	28 Chrysene-d12	240	19.095	19.103	(1.000)	346092	200.000	
	29 Chrysene	228	19.145	19.145	(1.003)	1711	0.64911	0.649
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					
	35 Benzo(a)pyrene	252	22.353	22.113	(1.000)	1196	0.53937	0.539
*	36 Perylene-d12	264	22.353	22.353	(1.000)	356841	200.000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	37 Perylene	252	22.353	22.430	(1.000)	1196	0.51393	0.514
$	38 Dibenzo(a,h)anthracene-d14	292	25.280	25.279	(1.131)	193704	113.435	113
	39 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	40 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	41 Benzo(g,h,i)perylene	276	Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118062608.D
Lab Smp Id: 18F0185-07
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180626.b\LOWSIM.m
Misc Info:

Calibration Date: 26-JUN-2018
Calibration Time: 09:36
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	465759	7.98
11 Acenaphthene-d10	260137	130069	520274	259380	-0.29
18 Phenanthrene-d10	427391	213696	854782	436540	2.14
28 Chrysene-d12	304596	152298	609192	346092	13.62
36 Perylene-d12	263091	131546	526182	356841	35.63

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.04
36 Perylene-d12	22.35	21.85	22.85	22.35	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118062608.D

Lab ID: 18F0185-07
nt11.i, 20180626.b\LOWSIM.m,   26-JUN-2018 13:12

RT	CO-ELUTION COMPOUNDS
22.354	Perylene and Benzo(a)pyrene
22.354	Perylene-d12 and Benzo(a)pyrene
22.354	Benzo(e)pyrene-d12 and Benzo(a)pyrene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

On Column LOD for nt11.i, 20180626.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt11.i\20180626.b\NT1118062609.D

Date : 26-JUN-2018 13:49

Client ID:

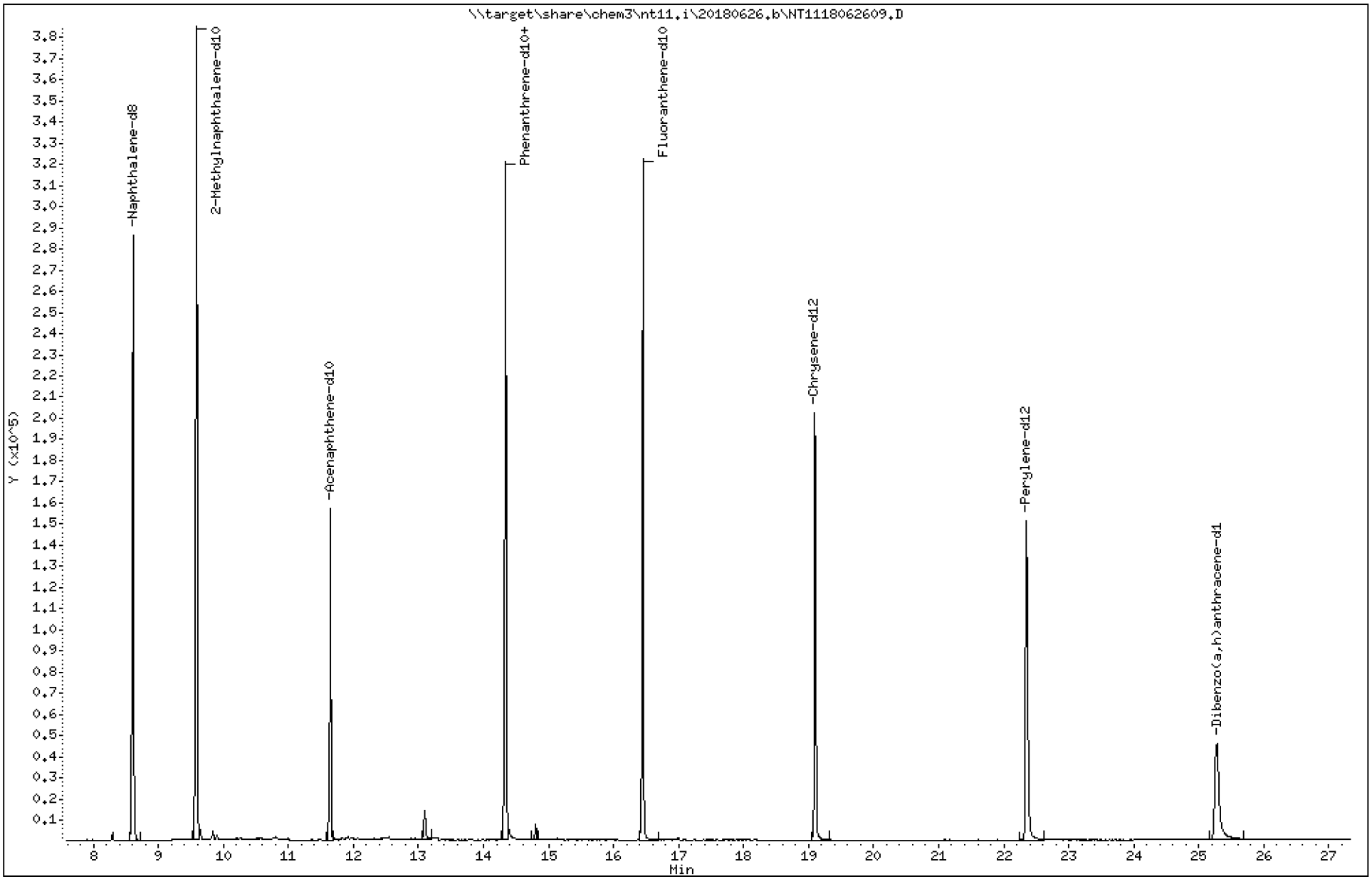
Instrument: nt11.i

Sample Info: 18F0185-08

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 26-JUN-2018 13:49

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-08

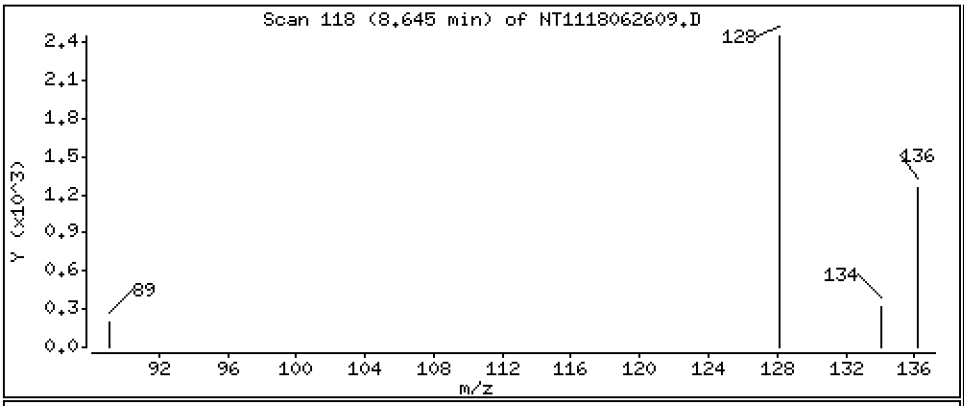
Operator: VTS

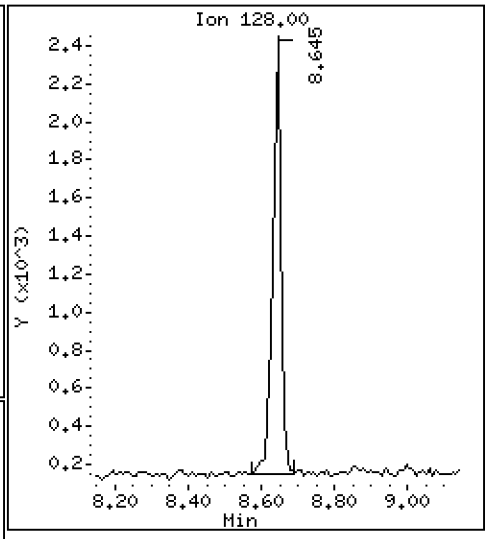
Column phase: Rxi-17Sil MS

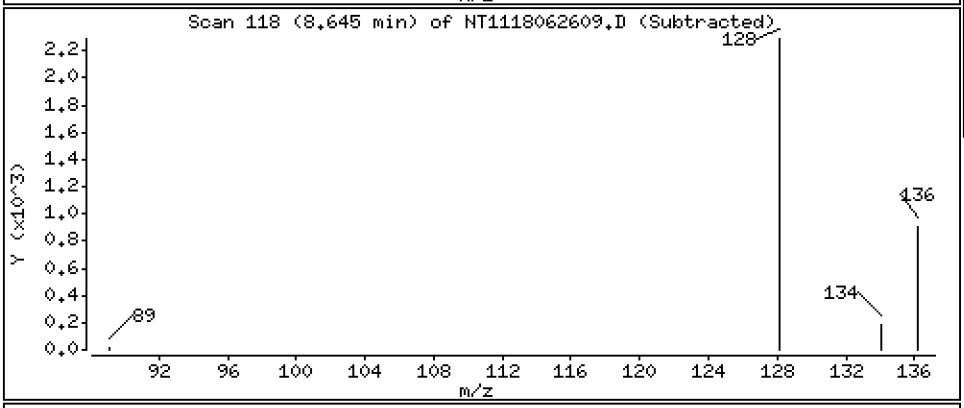
Column diameter: 0.25

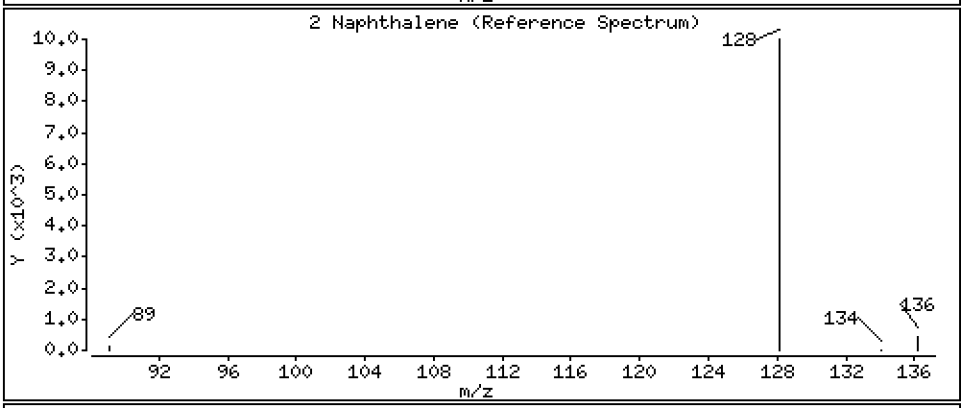
2 Naphthalene

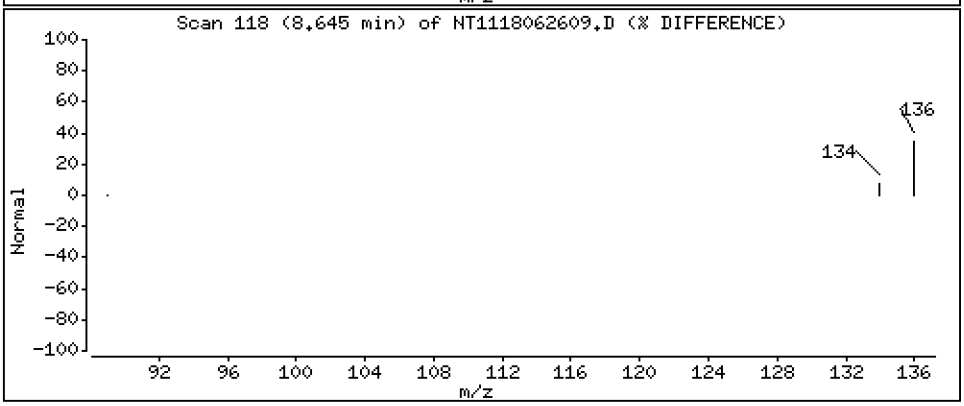
Concentration: 1.18 ng/mL











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Date : 26-JUN-2018 13:49

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-08

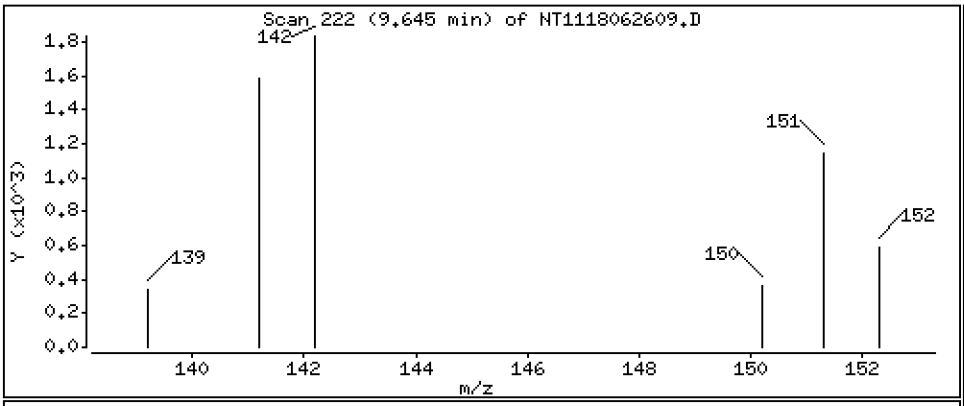
Operator: VTS

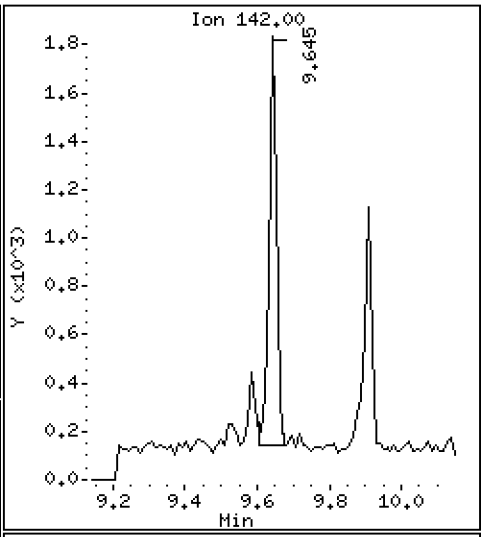
Column phase: Rxi-17Sil MS

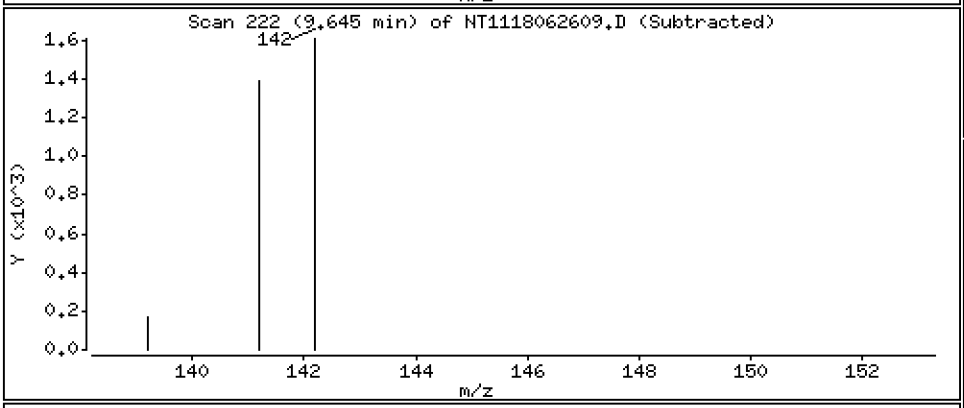
Column diameter: 0.25

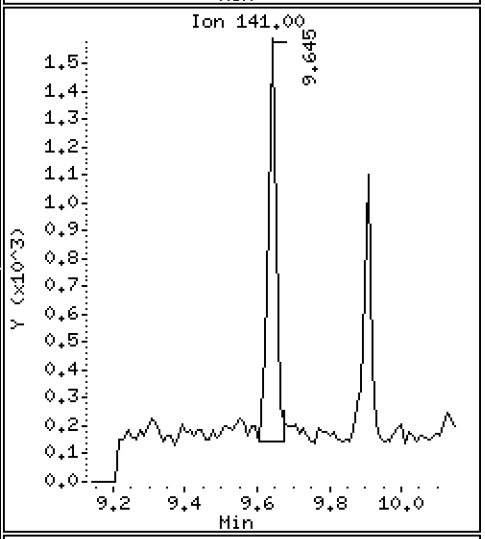
5 2-Methylnaphthalene

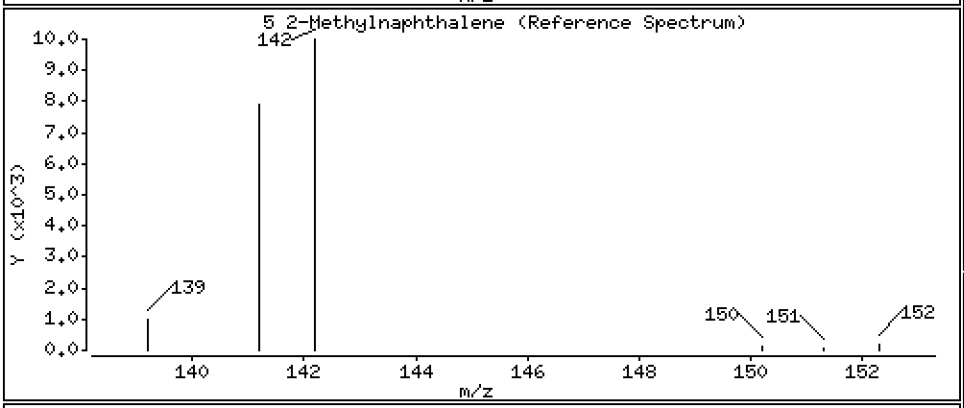
Concentration: 0.972 ng/mL

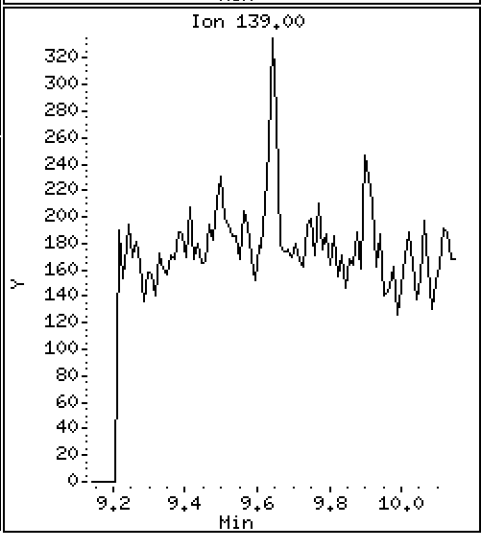


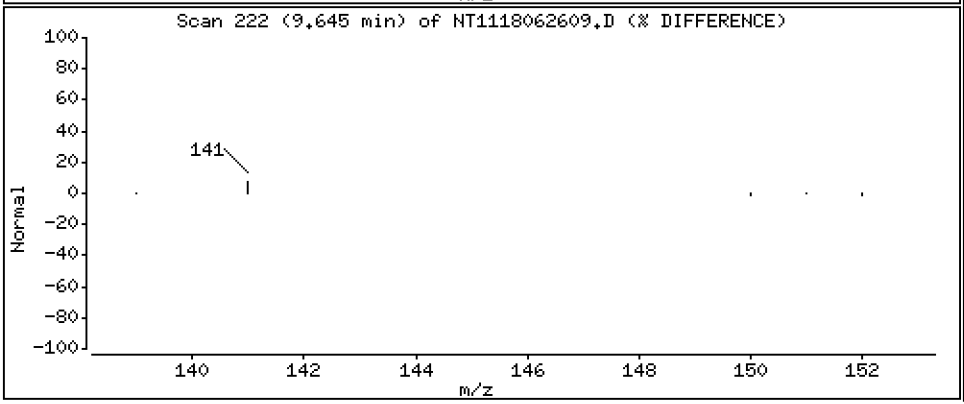












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Date : 26-JUN-2018 13:49

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-08

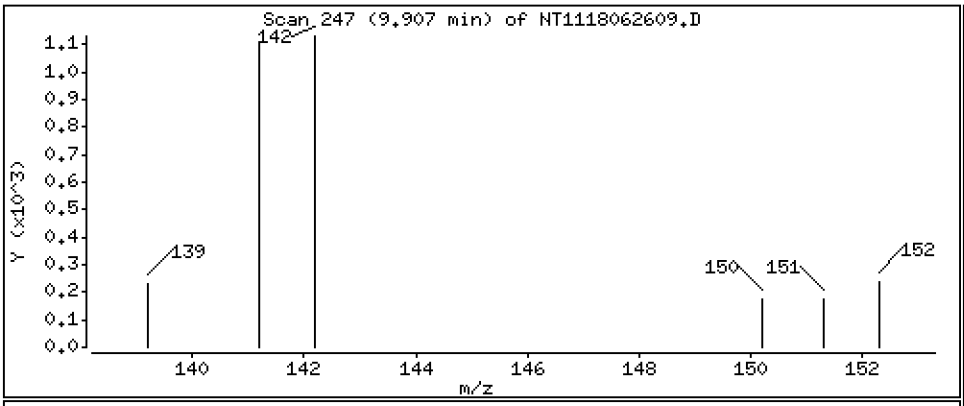
Operator: VTS

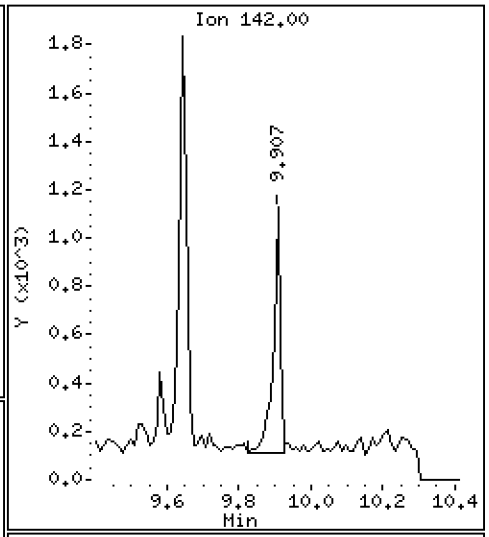
Column phase: Rxi-17Sil MS

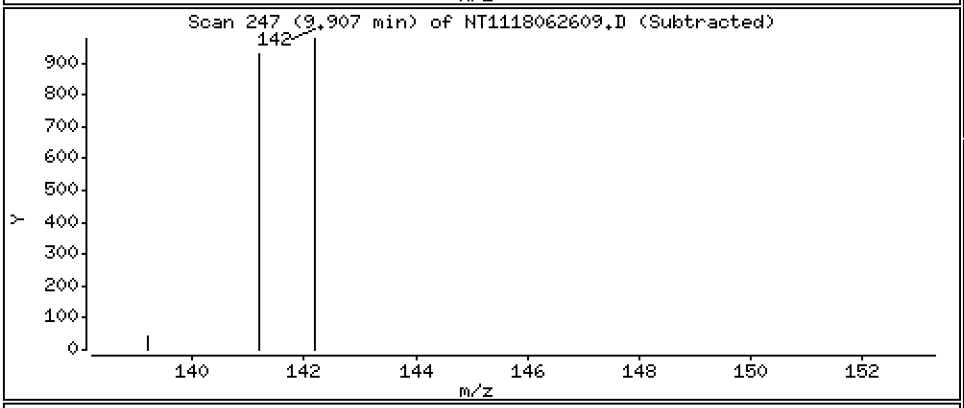
Column diameter: 0.25

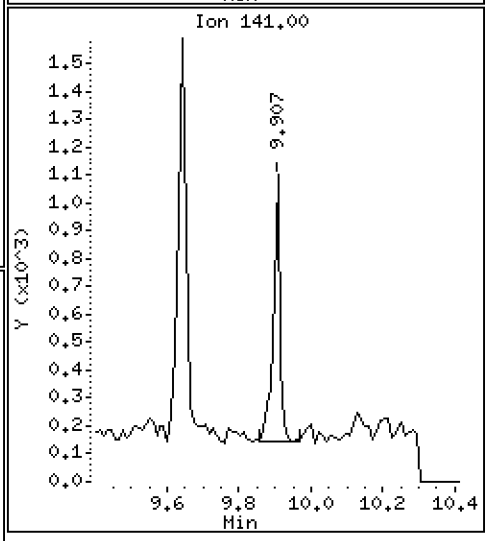
6 1-Methylnaphthalene

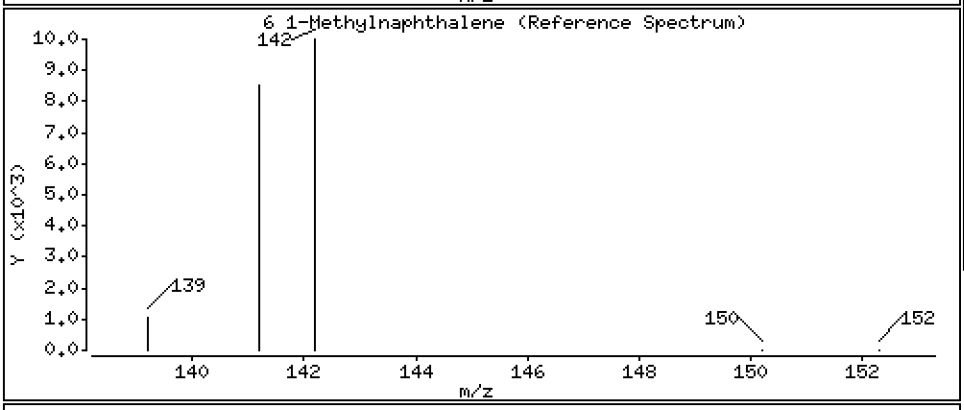
Concentration: 0.635 ng/mL

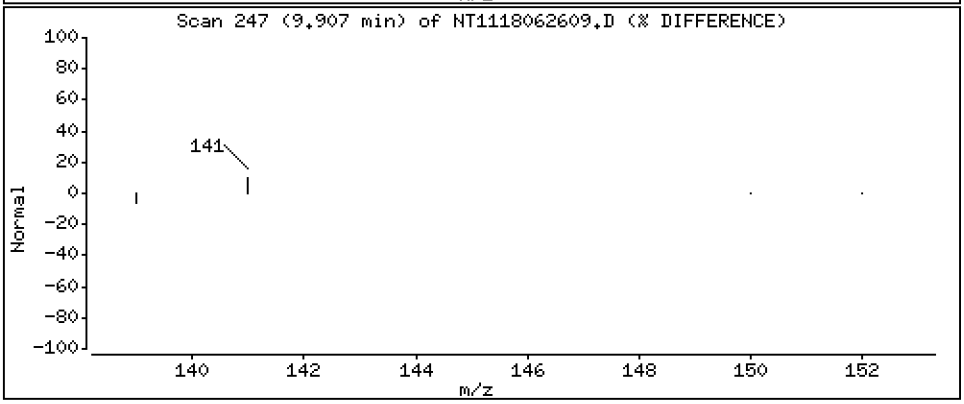












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Date : 26-JUN-2018 13:49

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-08

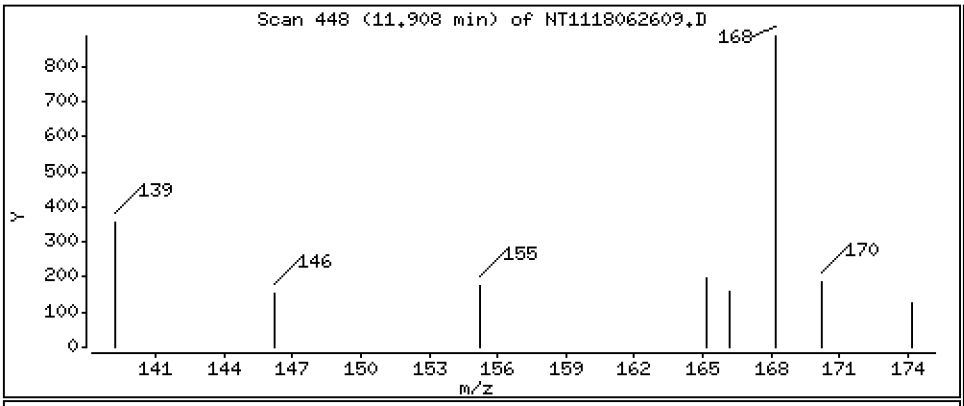
Operator: VTS

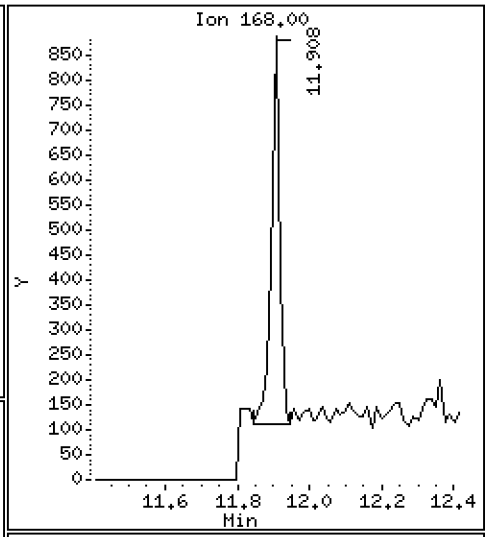
Column phase: Rxi-17Sil MS

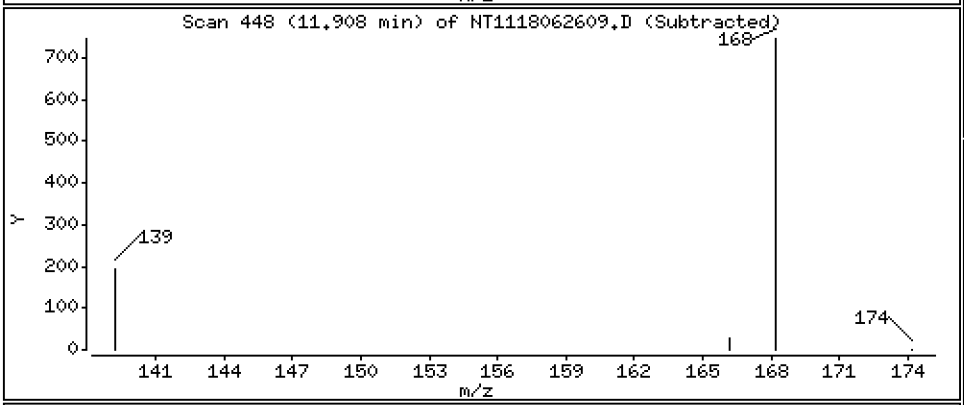
Column diameter: 0.25

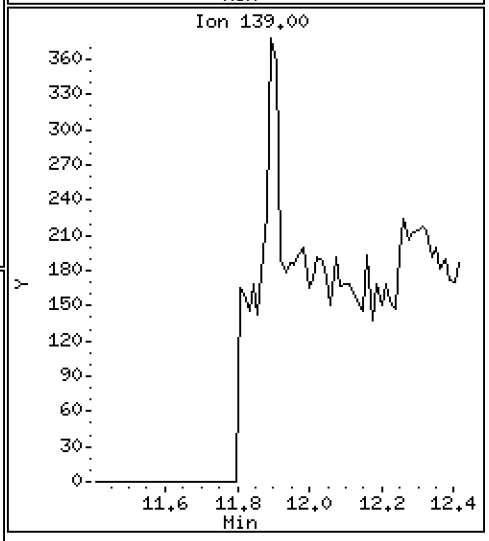
13 Dibenzofuran

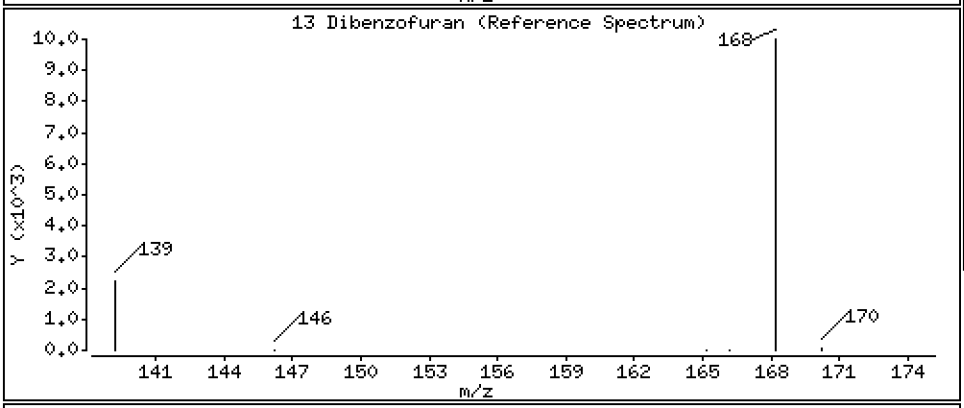
Concentration: 0.473 ng/mL

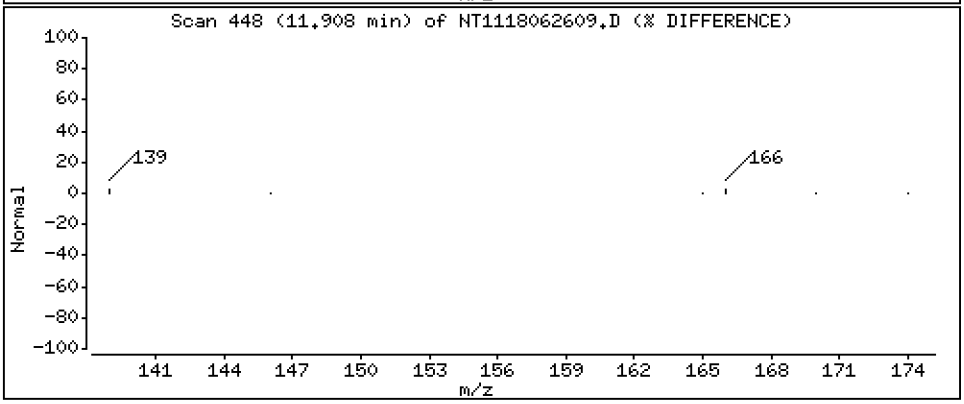












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Date : 26-JUN-2018 13:49

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-08

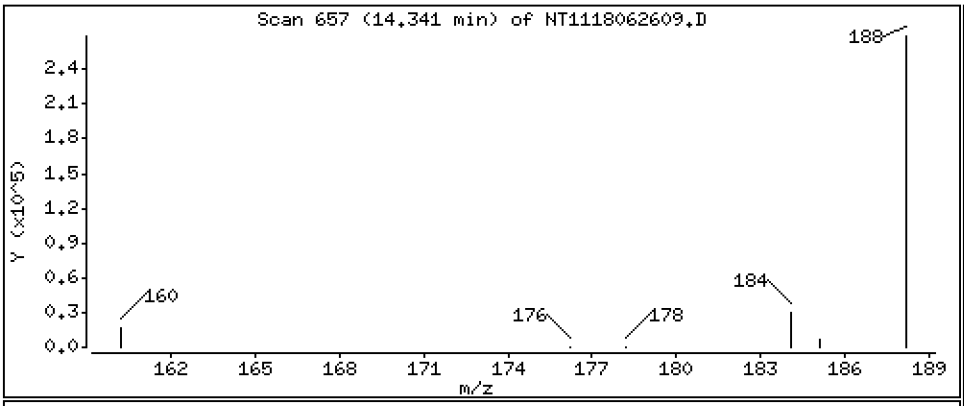
Operator: VTS

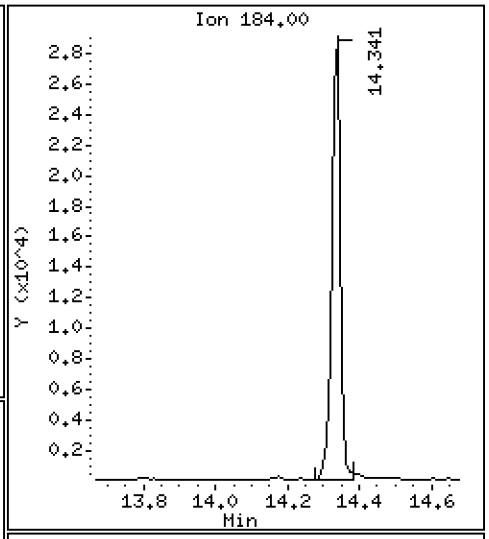
Column phase: Rxi-17Sil MS

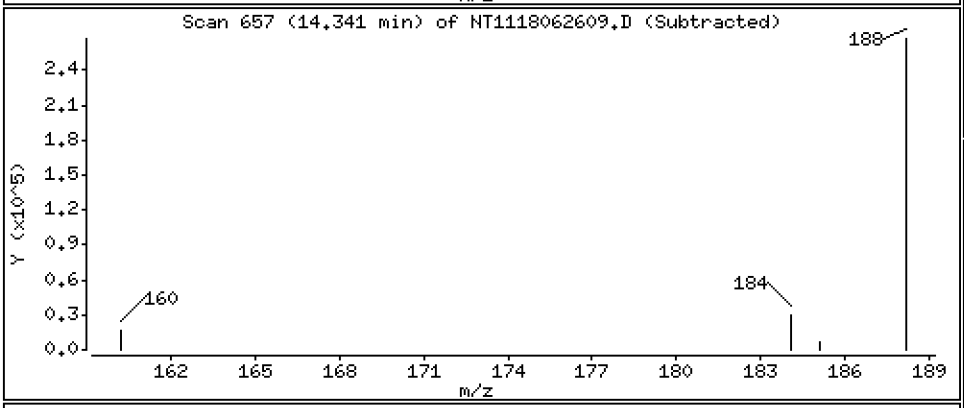
Column diameter: 0.25

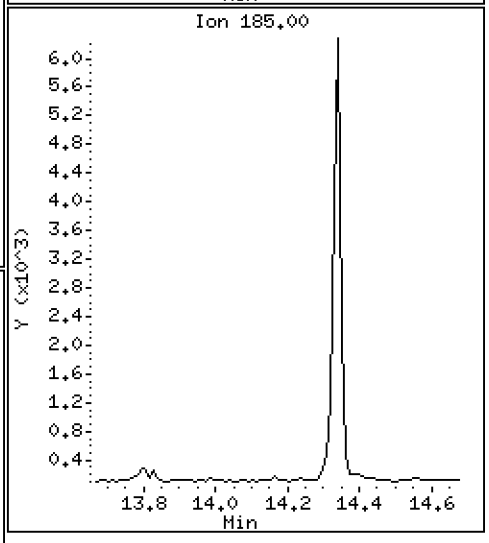
17 Dibenzothiophene

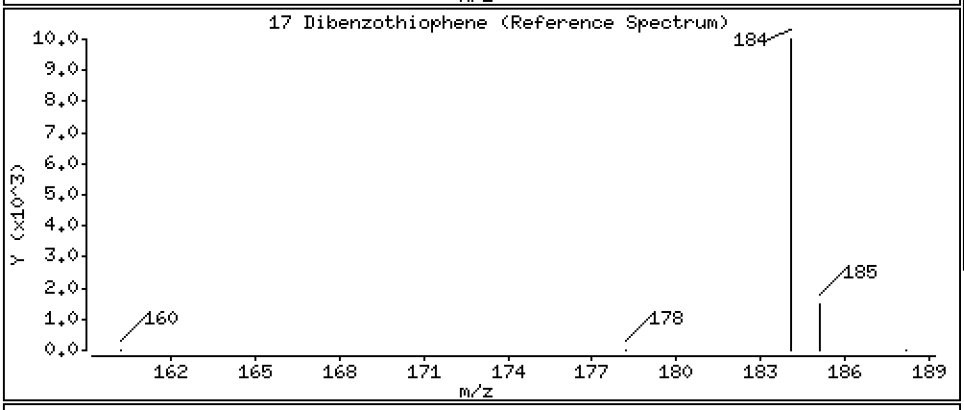
Concentration: 19.5 ng/mL

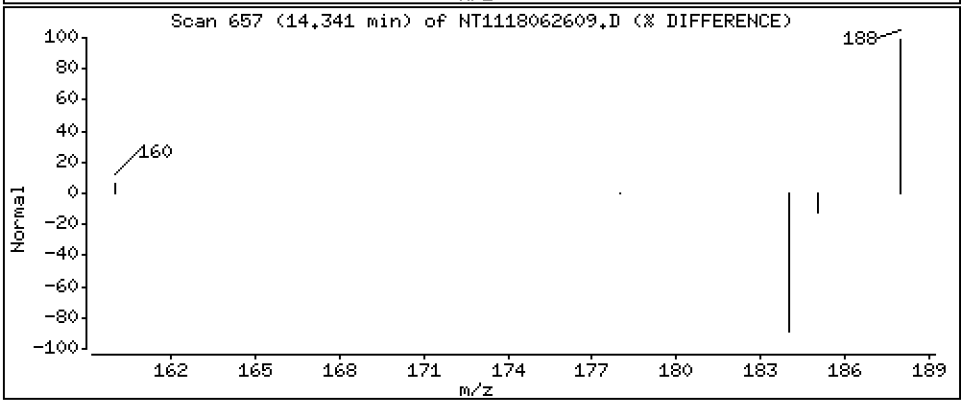












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Date : 26-JUN-2018 13:49

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-08

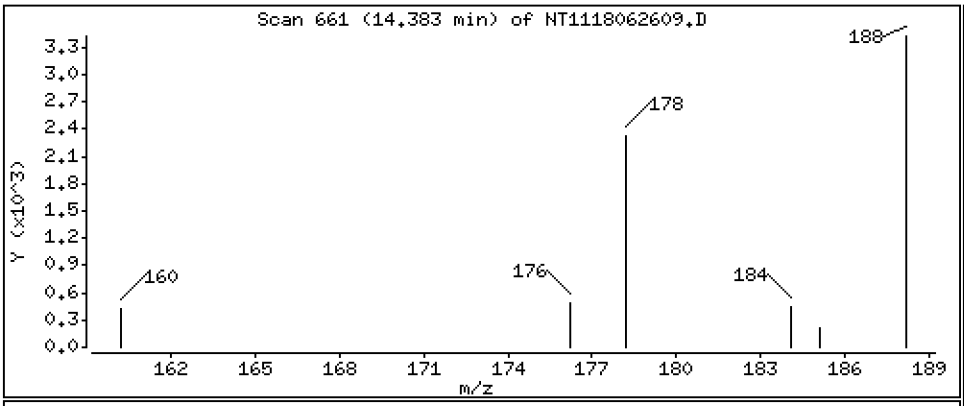
Operator: VTS

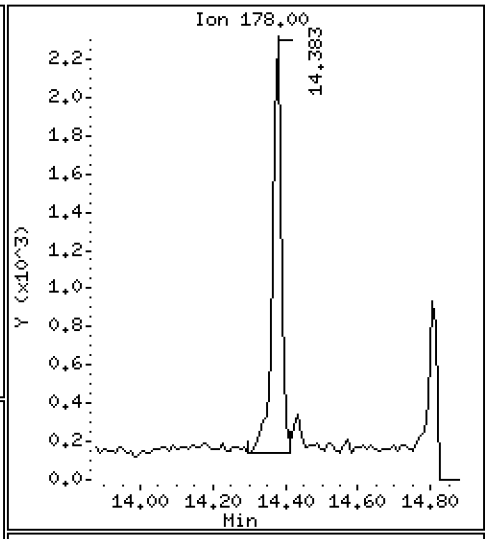
Column phase: Rxi-17Sil MS

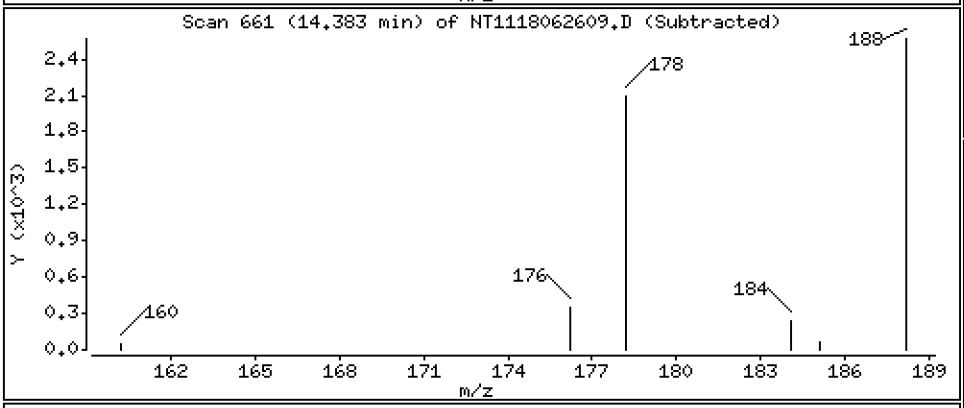
Column diameter: 0.25

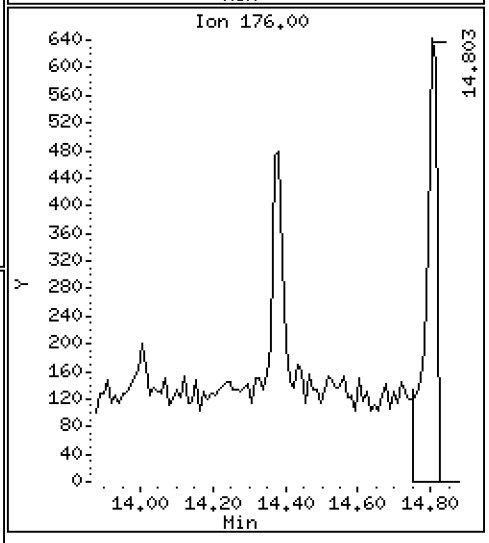
19 Phenanthrene

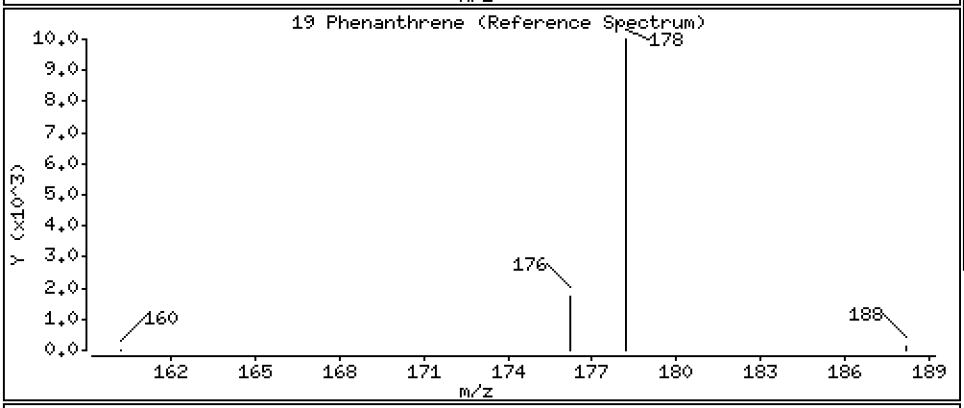
Concentration: 1.21 ng/mL

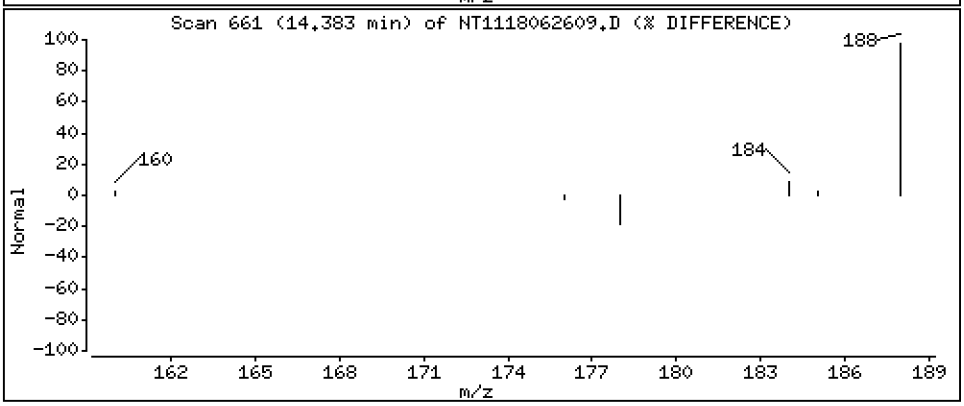












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Date : 26-JUN-2018 13:49

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-08

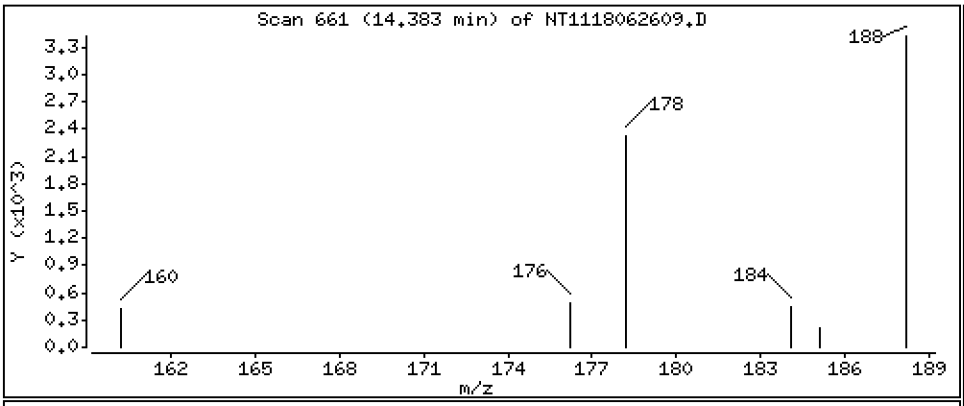
Operator: VTS

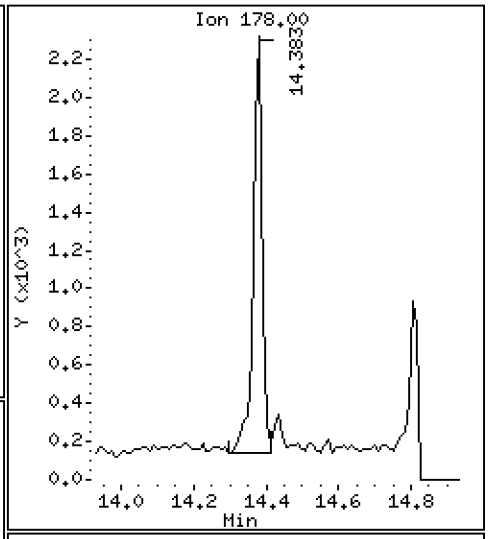
Column phase: Rxi-17Sil MS

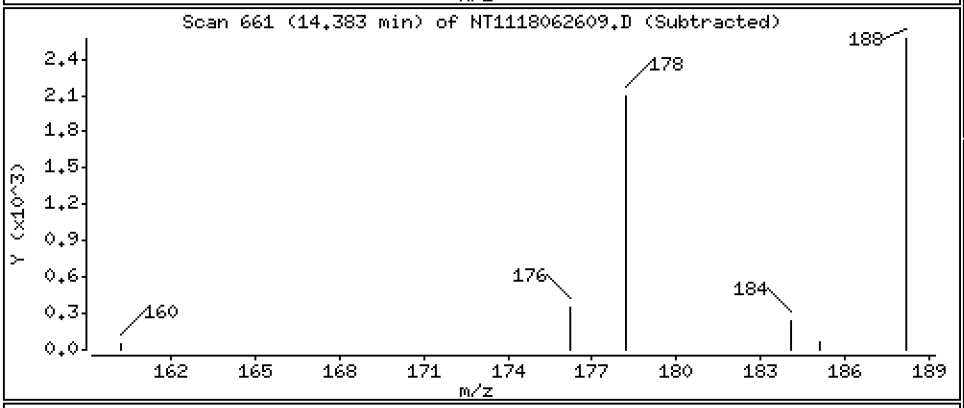
Column diameter: 0.25

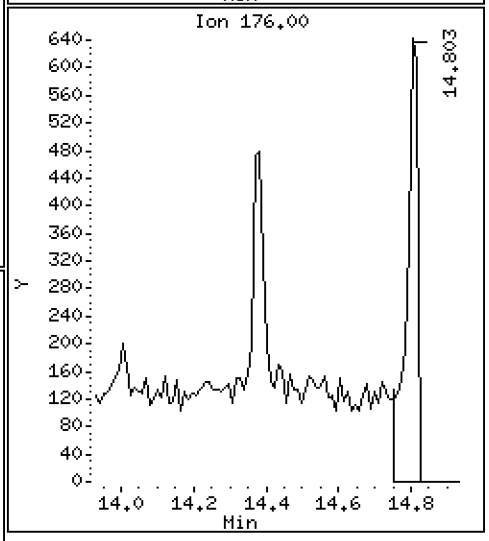
21 Anthracene

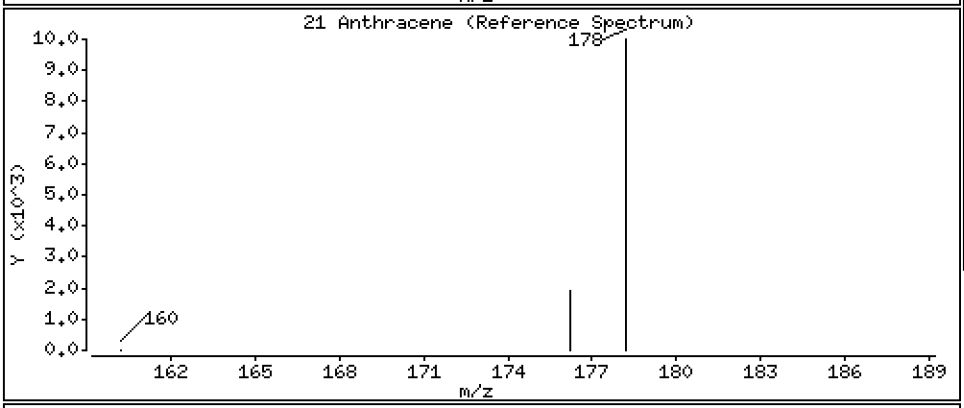
Concentration: 1.30 ng/mL

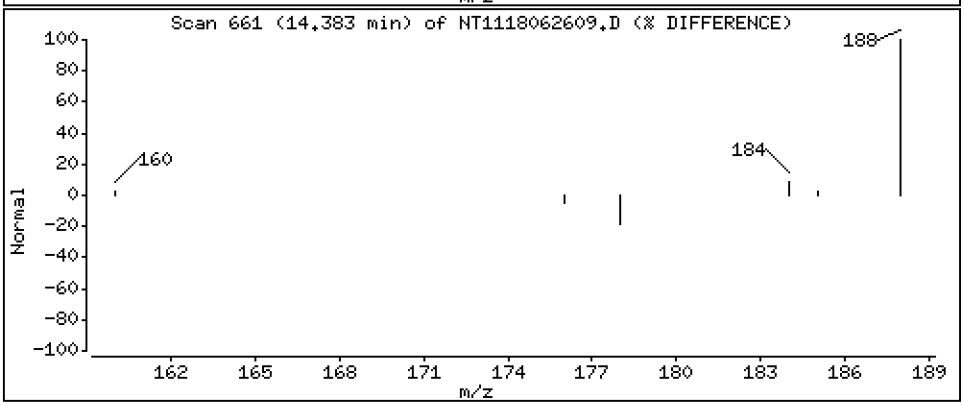












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Date : 26-JUN-2018 13:49

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-08

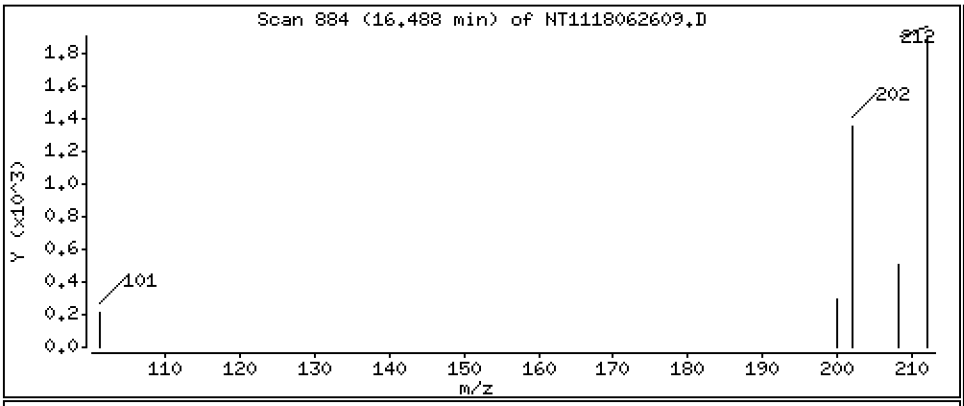
Operator: VTS

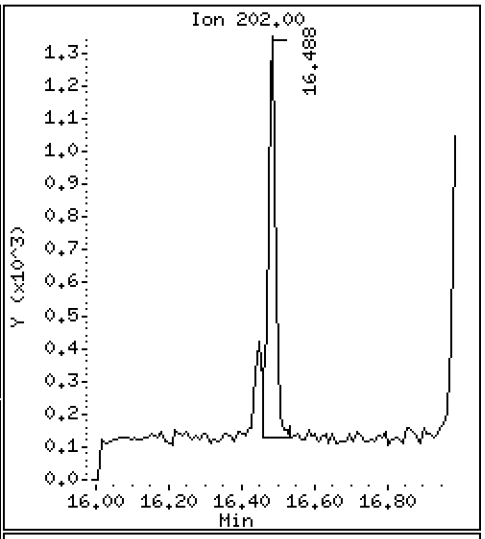
Column phase: Rxi-17Sil MS

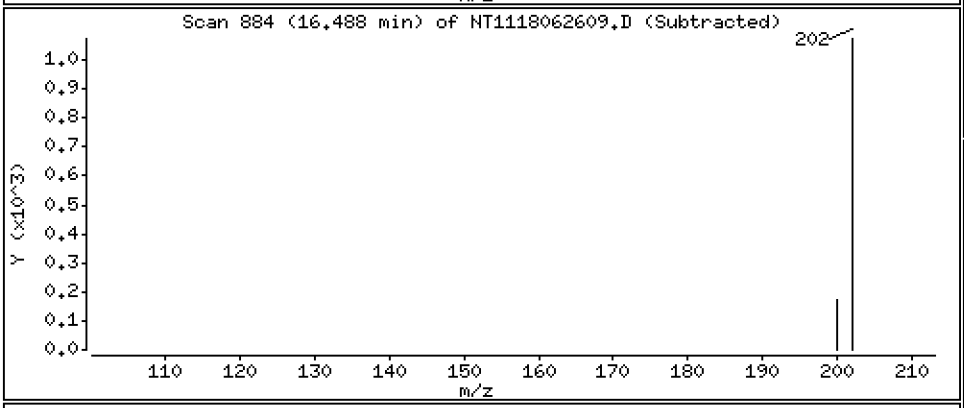
Column diameter: 0.25

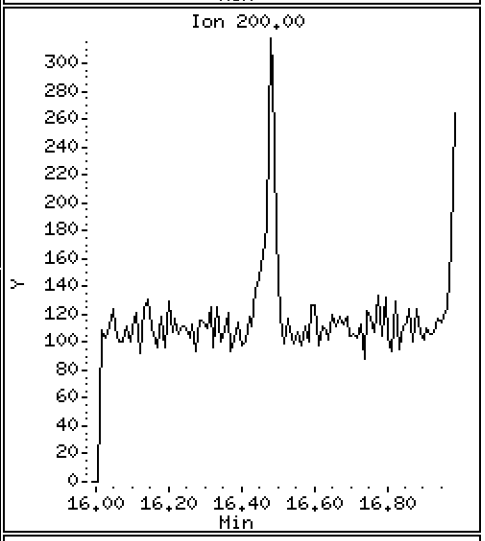
25 Fluoranthene

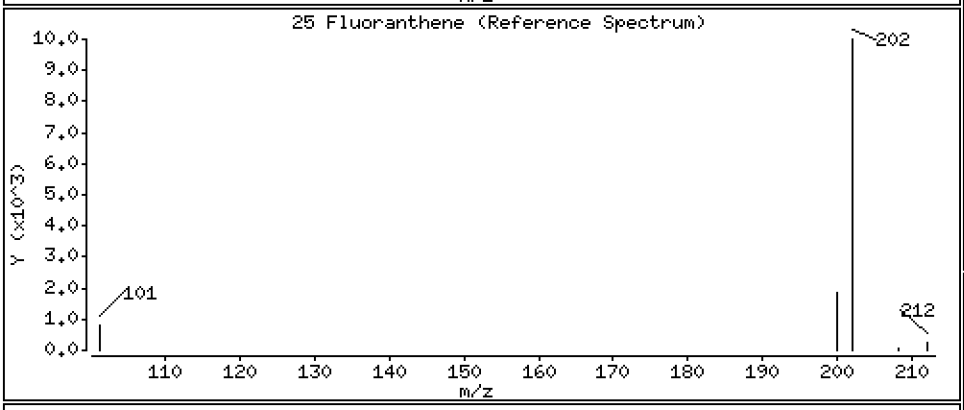
Concentration: 0.682 ng/mL

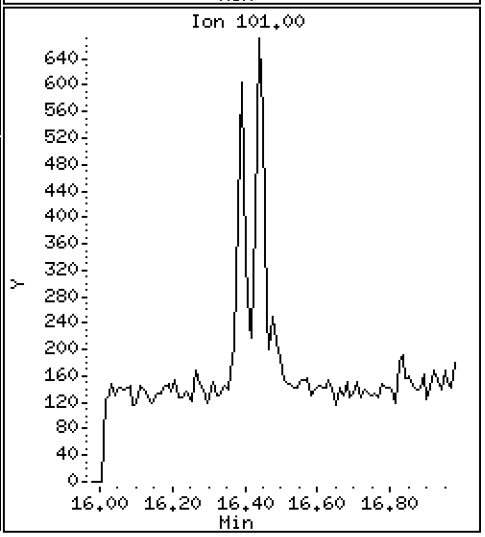


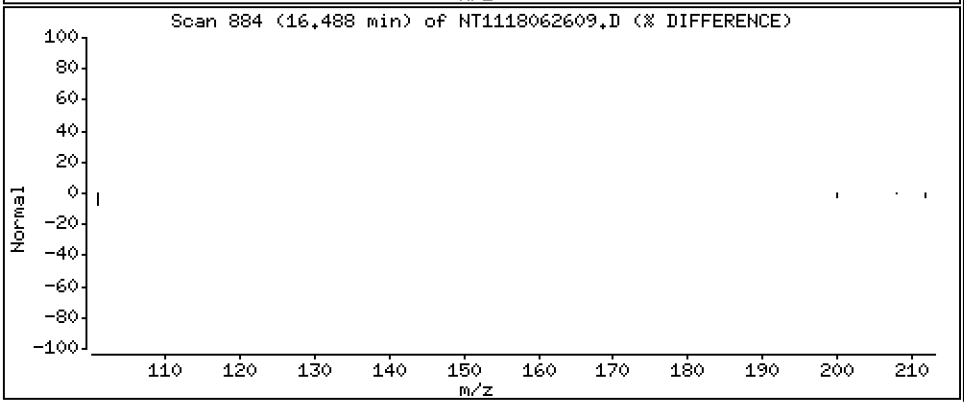












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Date : 26-JUN-2018 13:49

Client ID:

Instrument: nt11.i

Sample Info: 18F0185-08

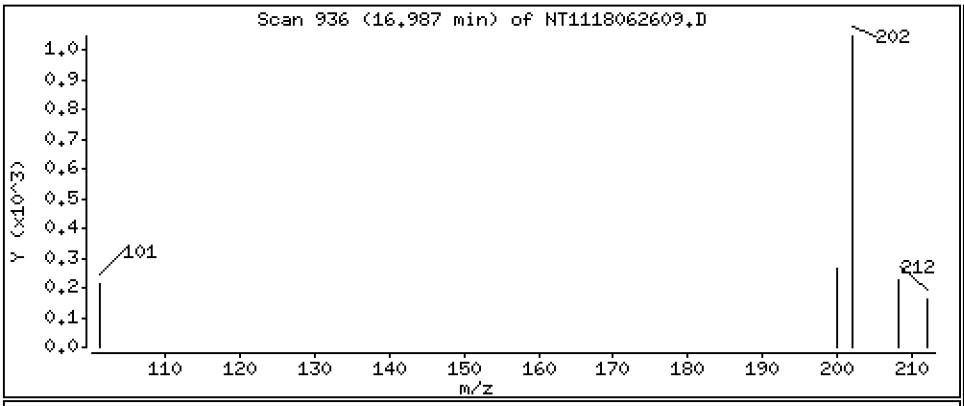
Operator: VTS

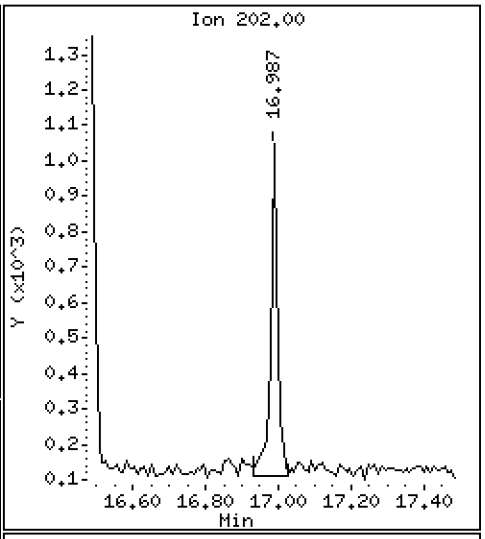
Column phase: Rxi-17Sil MS

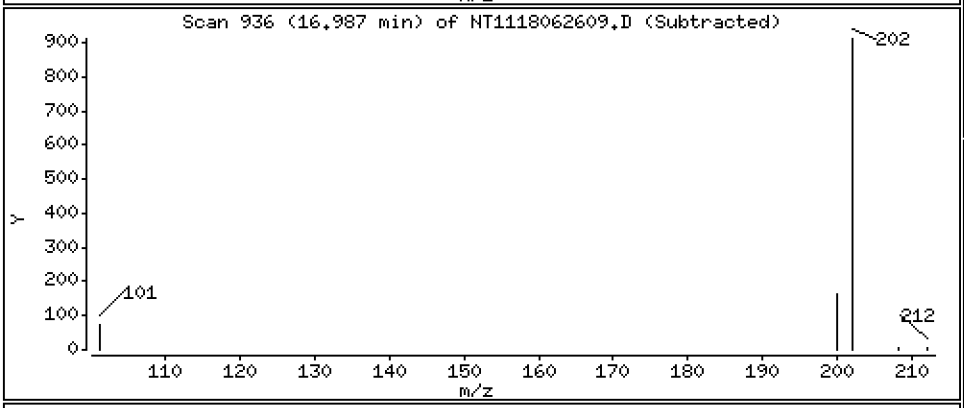
Column diameter: 0.25

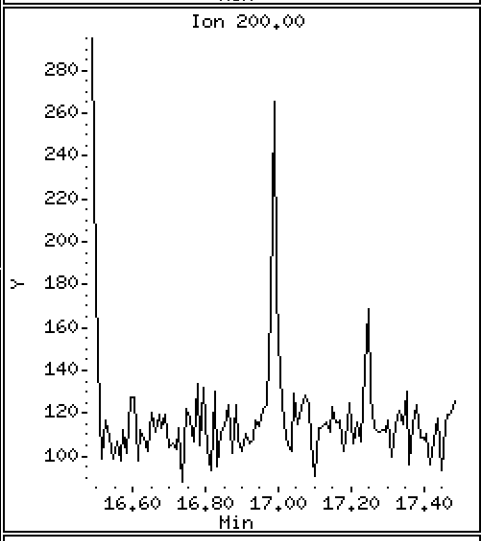
26 Pyrene

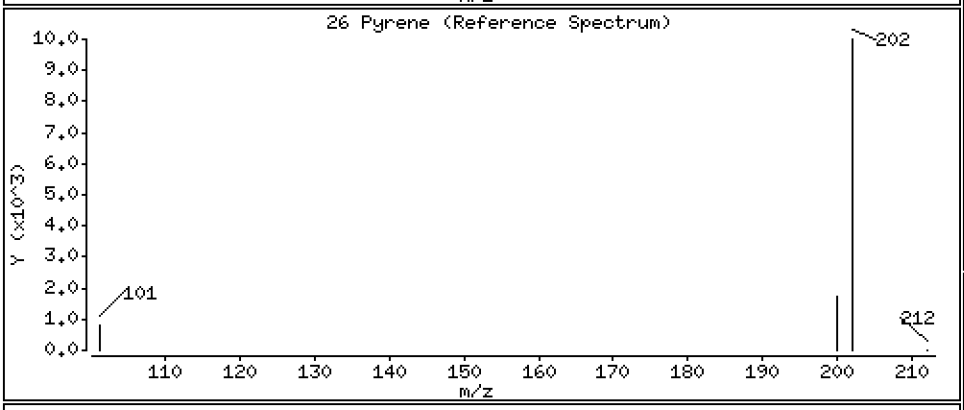
Concentration: 0.439 ng/mL

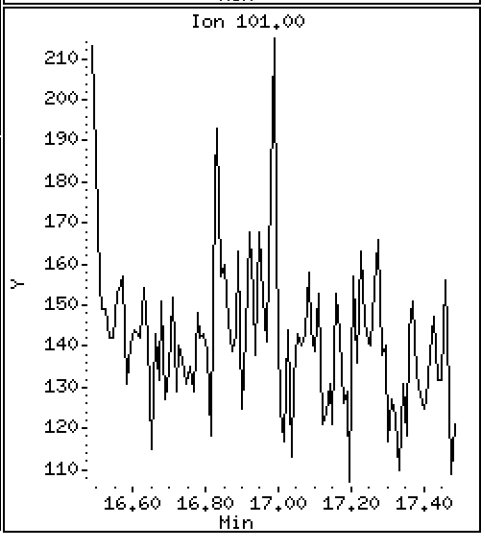


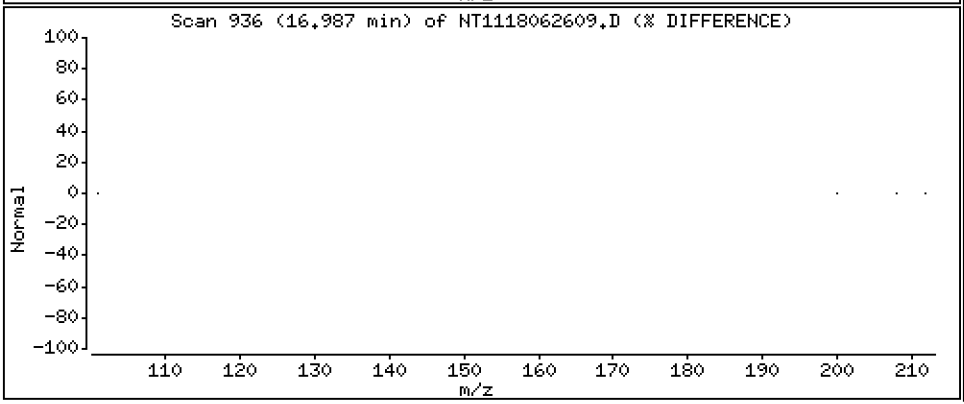












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180626.b\NT1118062609.D
Lab Smp Id: 18F0185-08
Inj Date : 26-JUN-2018 13:49 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : 18F0185-08
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180626.b\LOWSIM.m
Meth Date : 26-Jun-2018 10:11 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	413312	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	3691	1.18499	1.18
	3 Benzo(b)thiophene	134	Compound Not Detected.					
$	4 2-Methylnaphthalene-d10	152	9.592	9.592	(1.114)	310807	131.798	132
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	2448	0.97233	0.972
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	1591	0.63541	0.635
	7 2-Chloronaphthalene	162	Compound Not Detected.					
	8 Biphenyl	154	Compound Not Detected.					
	9 2,6-Dimethylnaphthalene	156	Compound Not Detected.					
	10 Acenaphthylene	152	Compound Not Detected.					
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	228320	200.000	
	12 Acenaphthene	153	Compound Not Detected.					
	13 Dibenzofuran	168	11.908	11.908	(1.023)	1202	0.47255	0.473
	14 2,3,5-Trimethylnaphthalene	170	Compound Not Detected.					
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	Compound Not Detected.					
	17 Dibenzothiophene	184	14.340	14.172	(1.000)	47249	19.5341	19.5
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	388421	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	3697	1.21357	1.21
	21 Anthracene	178	14.382	14.435	(1.003)	3697	1.29814	1.30
	22 Carbazole	167	Compound Not Detected.					
	23 1-Methylphenanthrene	192	Compound Not Detected.					
$	24 Fluoranthene-d10	212	16.449	16.449	(1.147)	365277	154.928	155
	25 Fluoranthene	202	16.487	16.487	(1.150)	1929	0.68186	0.682
	26 Pyrene	202	16.987	16.987	(0.890)	1337	0.43934	0.439
	27 Benzo(a)anthracene	228	Compound Not Detected.					
*	28 Chrysene-d12	240	19.095	19.103	(1.000)	309549	200.000	
	29 Chrysene	228	Compound Not Detected.					
	30 Benzo(b)fluoranthene	252	Compound Not Detected.					
	31 Benzo(k)fluoranthene	252	Compound Not Detected.					
	32 Benzo(j)fluoranthene	252	Compound Not Detected.					
$	33 Benzo(e)pyrene-d12	264	Compound Not Detected.					
	34 Benzo(e)pyrene	252	Compound Not Detected.					
	35 Benzo(a)pyrene	252	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	36 Perylene-d12	264	22.353	22.353	(1.000)	304592	200.000	
	37 Perylene	252	Compound Not Detected.					
$	38 Dibenzo(a,h)anthracene-d14	292	25.279	25.279	(1.131)	207258	142.193	142
	39 Dibenzo(a,h)anthracene	278	Compound Not Detected.					
	40 Indeno(1,2,3-cd)pyrene	276	Compound Not Detected.					
	41 Benzo(g,h,i)perylene	276	Compound Not Detected.					

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118062609.D
Lab Smp Id: 18F0185-08
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180626.b\LOWSIM.m
Misc Info:

Calibration Date: 26-JUN-2018
Calibration Time: 09:36
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	413312	-4.18
11 Acenaphthene-d10	260137	130069	520274	228320	-12.23
18 Phenanthrene-d10	427391	213696	854782	388421	-9.12
28 Chrysene-d12	304596	152298	609192	309549	1.63
36 Perylene-d12	263091	131546	526182	304592	15.77

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.04
36 Perylene-d12	22.35	21.85	22.85	22.35	0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118062609.D

Lab ID: 18F0185-08
nt11.i, 20180626.b\LOWSIM.m,   26-JUN-2018 13:49

RT	CO-ELUTION COMPOUNDS
14.383	Anthracene and Phenanthrene

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND
NONE			

On Column LOD for nt11.i, 20180626.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

Data File: \\target\share\chem3\nt11.i\20180626.b\NT1118062610.D

Date : 26-JUN-2018 14:25

Client ID:

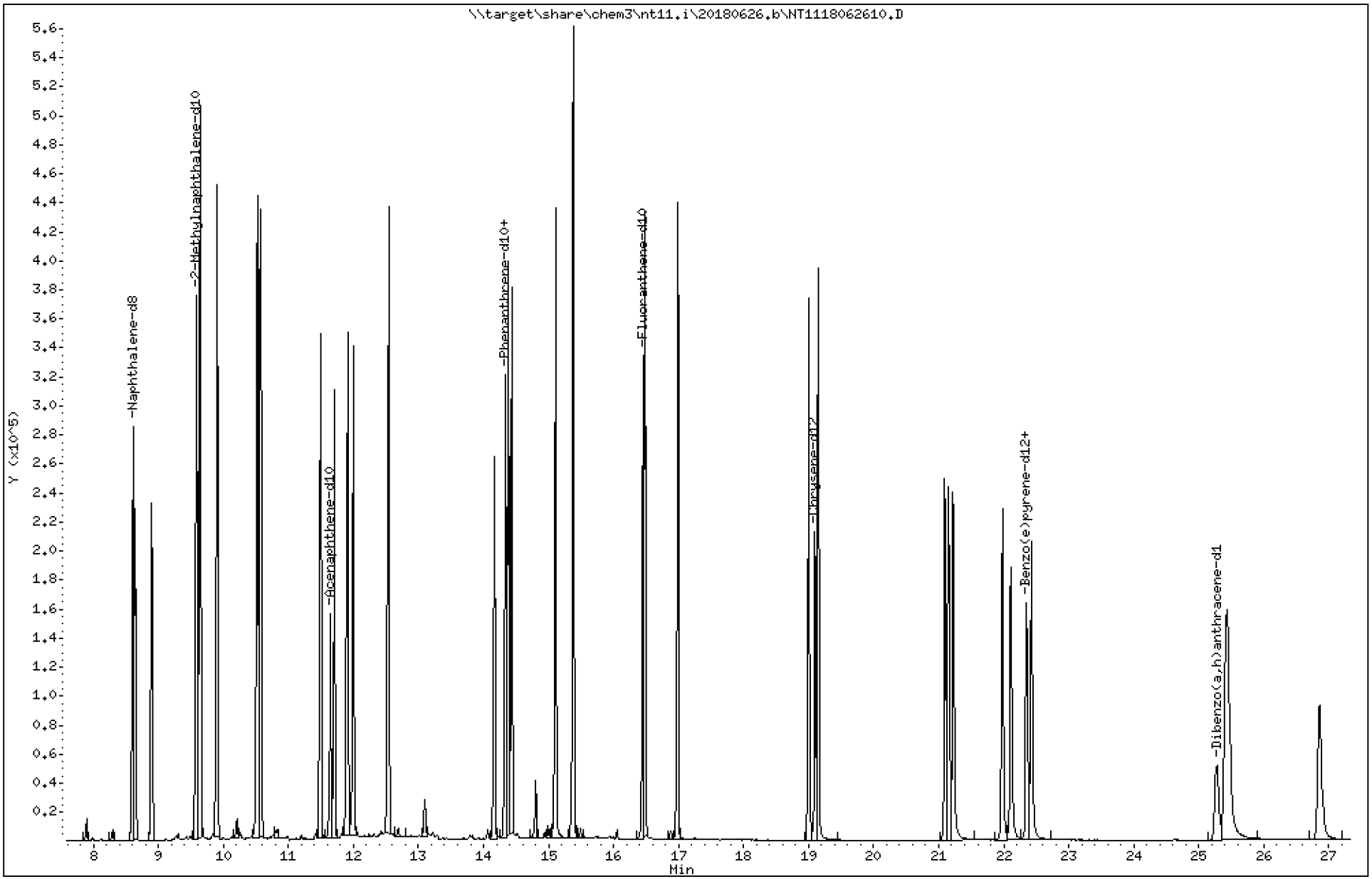
Instrument: nt11.i

Sample Info: BGF0416-MS1

Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25



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Date : 26-JUN-2018 14:25

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

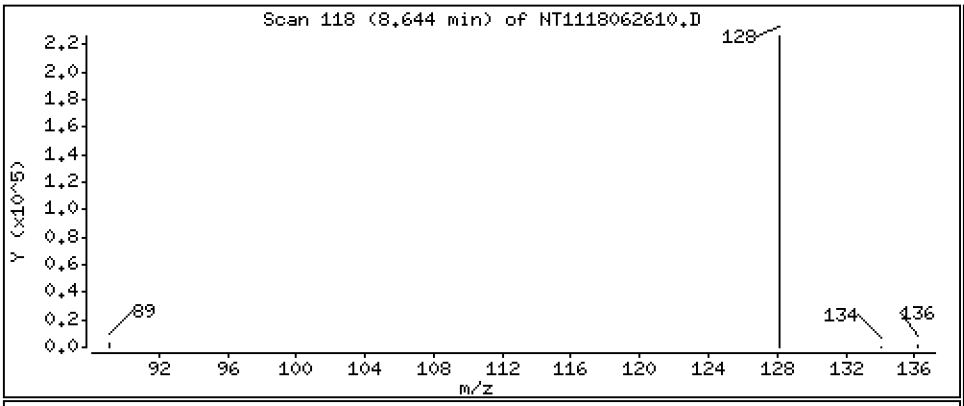
Operator: VTS

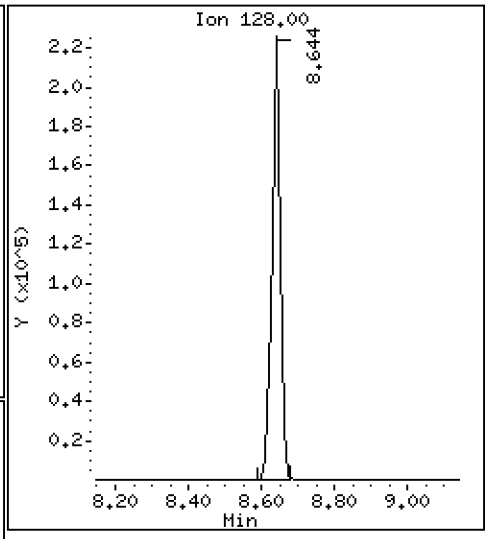
Column phase: Rxi-17Sil MS

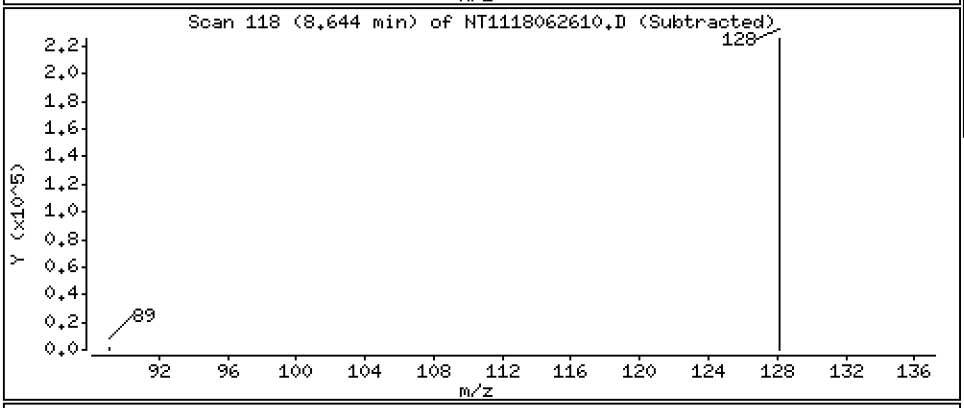
Column diameter: 0.25

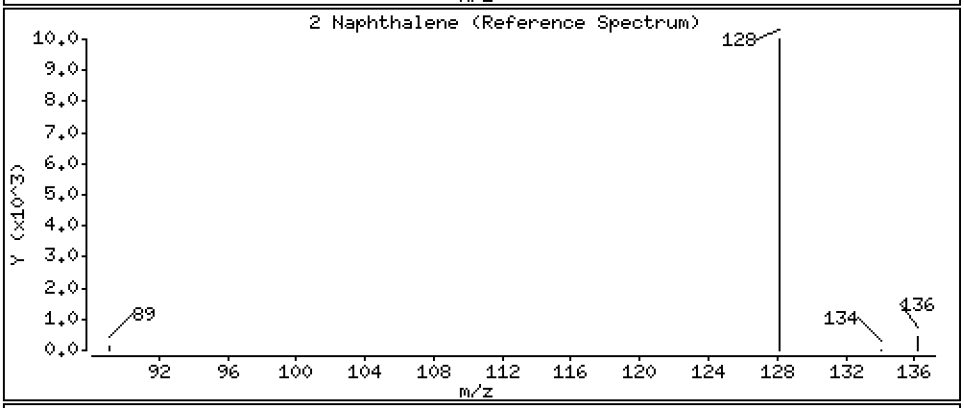
2 Naphthalene

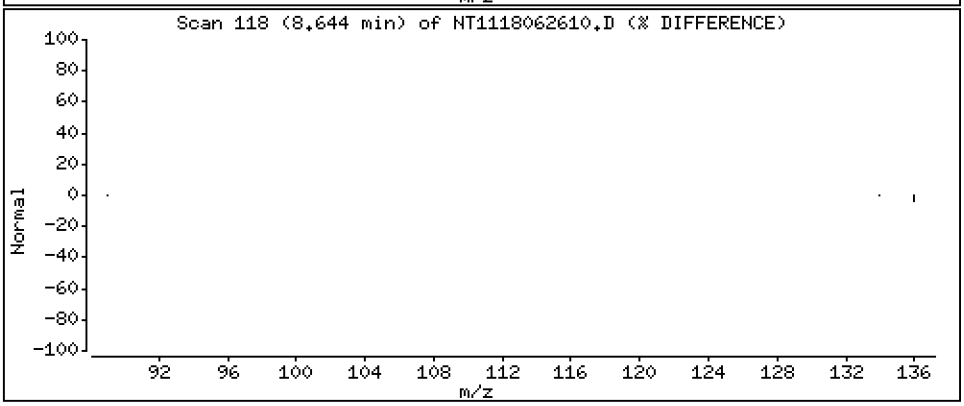
Concentration: 125 ng/mL











Data File: \\target\share\chem3\nt11.i\20180626.b\NT1118062610.D

Date : 26-JUN-2018 14:25

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

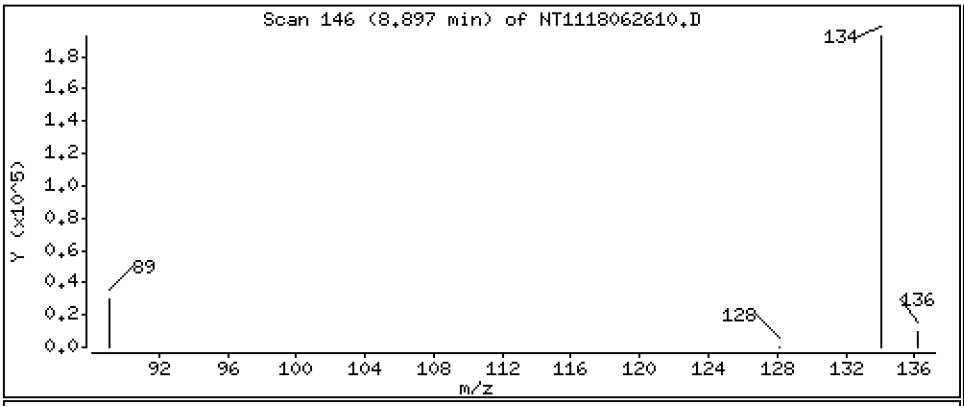
Operator: VTS

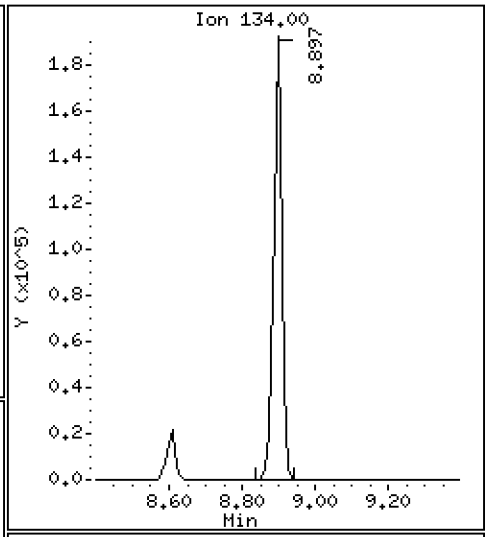
Column phase: Rxi-17Sil MS

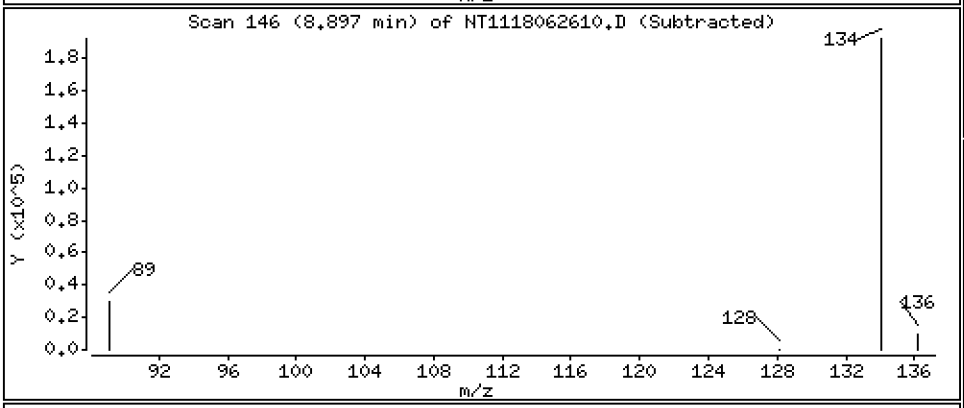
Column diameter: 0.25

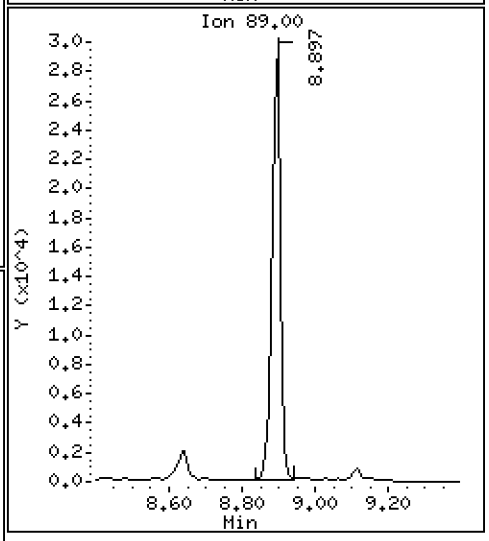
3 Benzo(b)thiophene

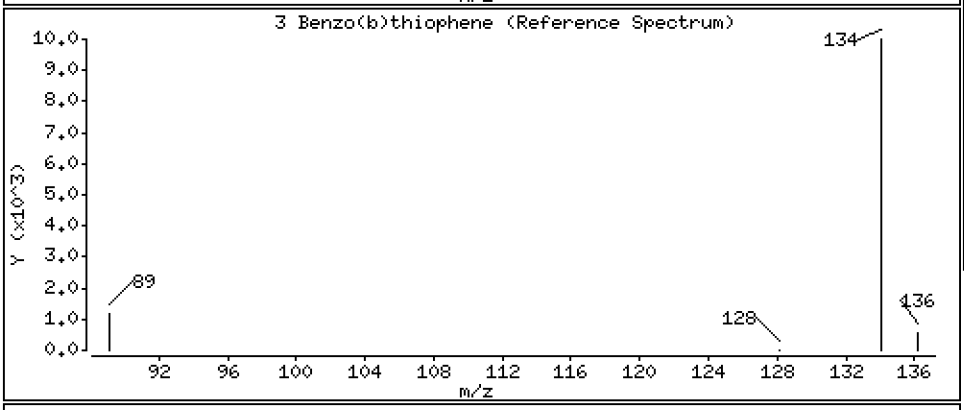
Concentration: 144 ng/mL

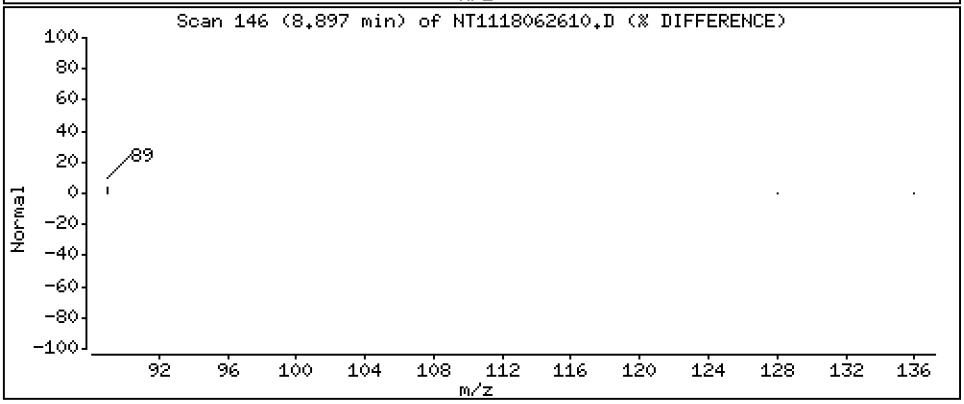












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Date : 26-JUN-2018 14:25

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

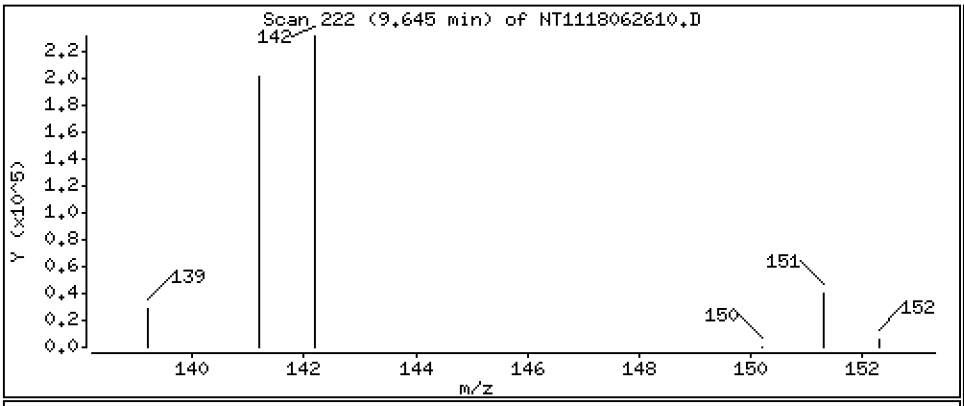
Operator: VTS

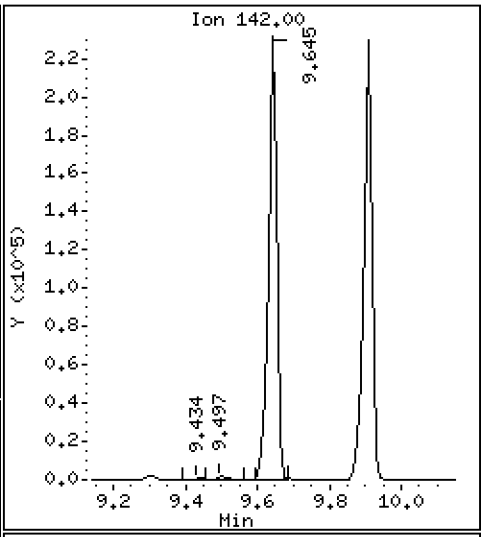
Column phase: Rxi-17Sil MS

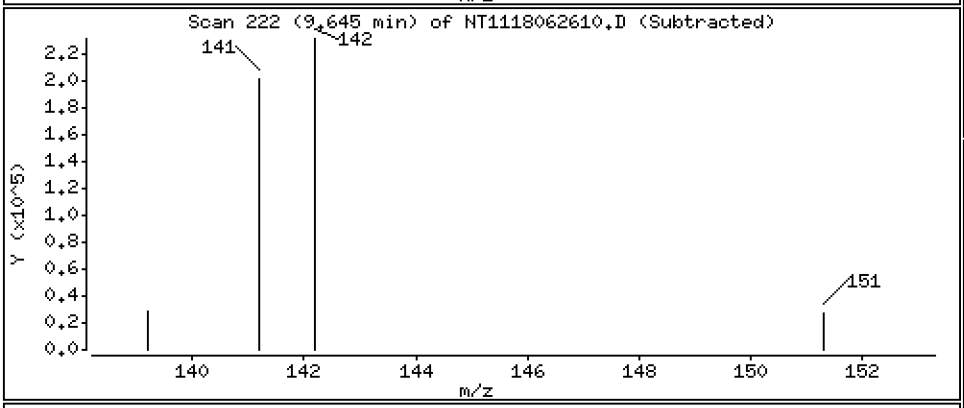
Column diameter: 0.25

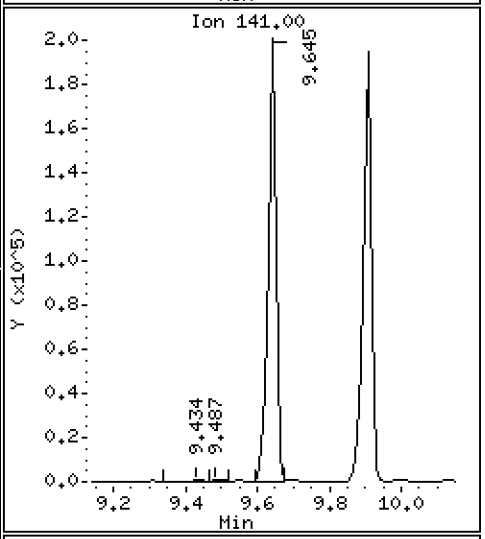
5 2-Methylnaphthalene

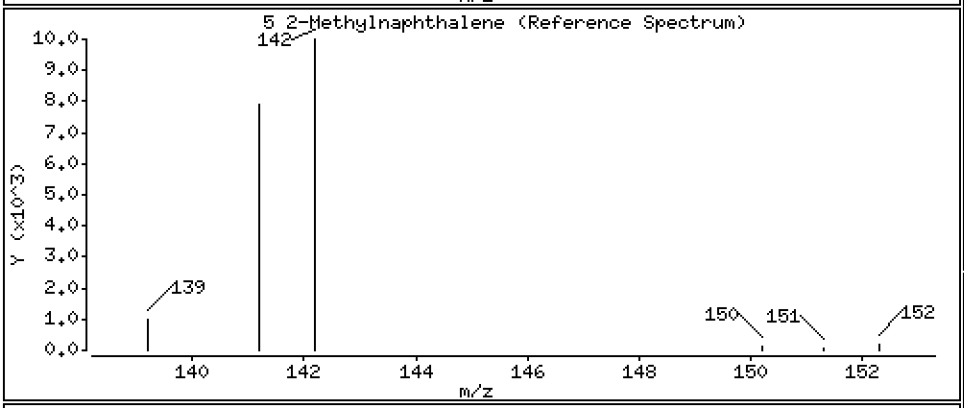
Concentration: 144 ng/mL

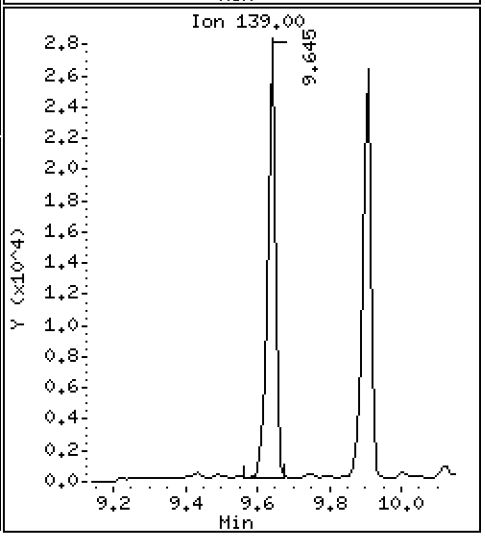


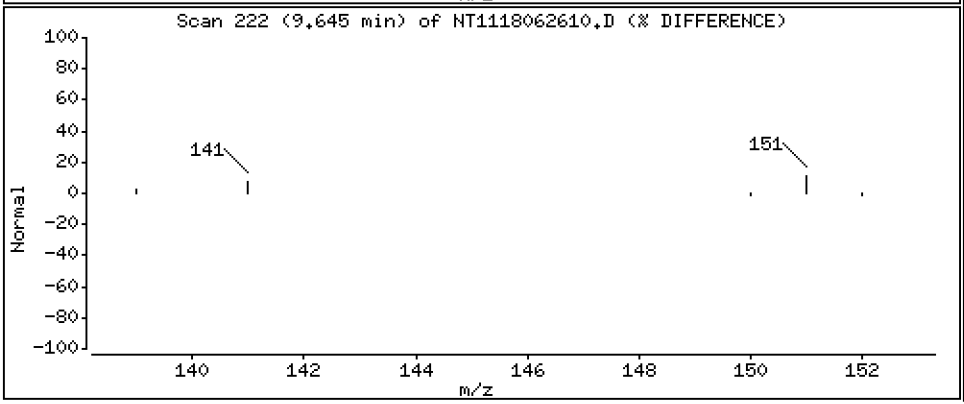












Data File: \\target\share\chem3\nt11.i\20180626.b\NT1118062610.D

Date : 26-JUN-2018 14:25

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

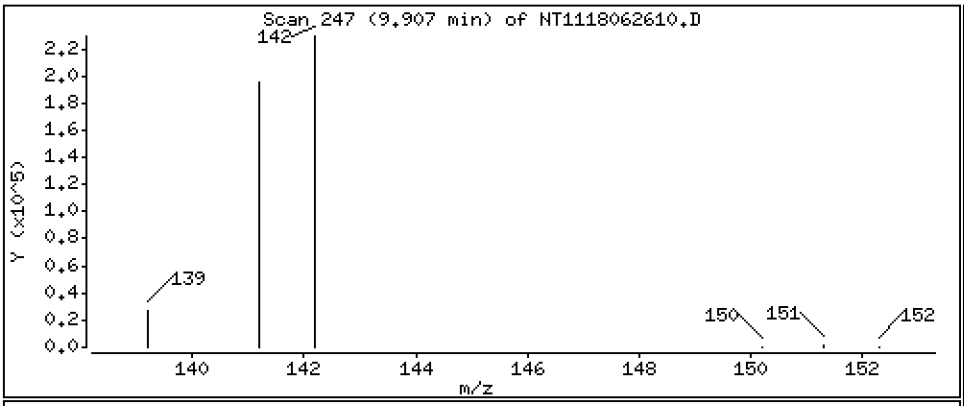
Operator: VTS

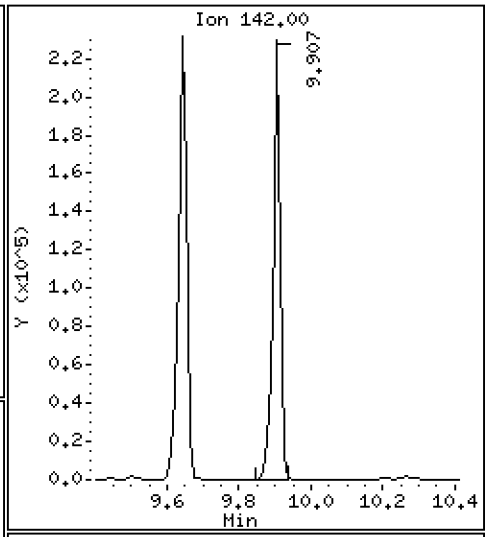
Column phase: Rxi-17Sil MS

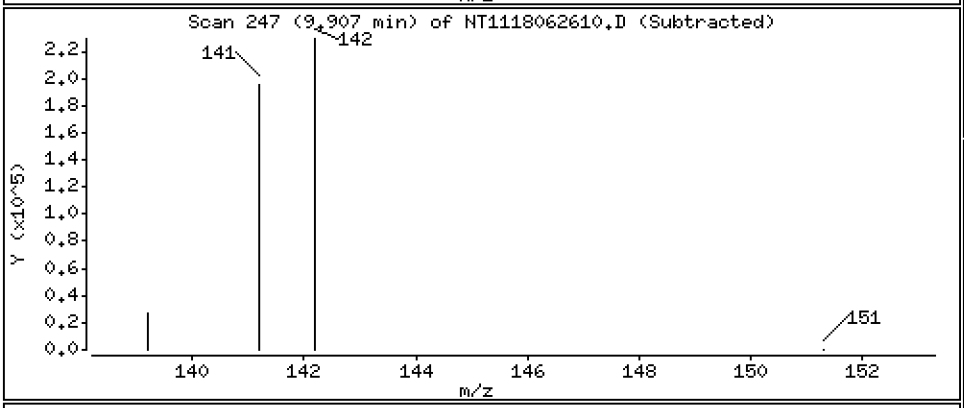
Column diameter: 0.25

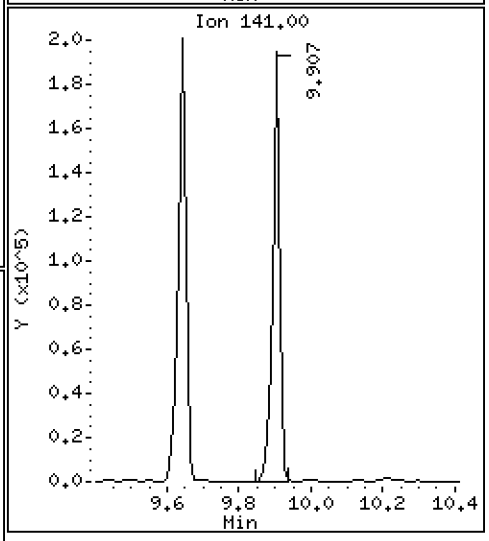
6 1-Methylnaphthalene

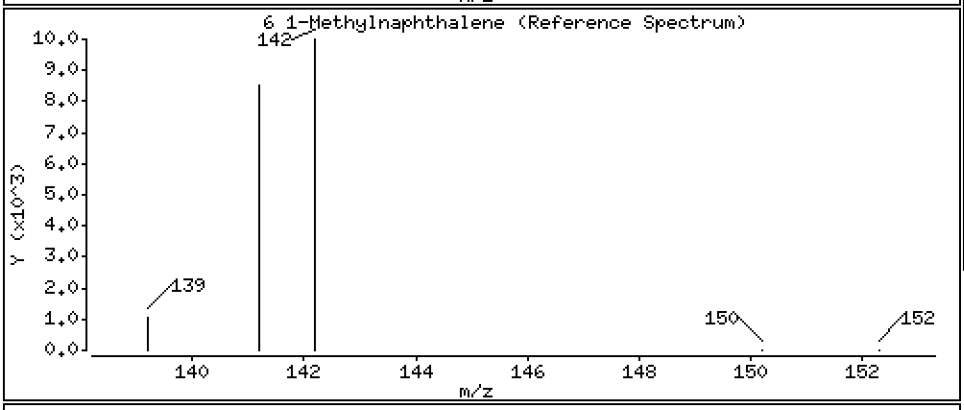
Concentration: 141 ng/mL

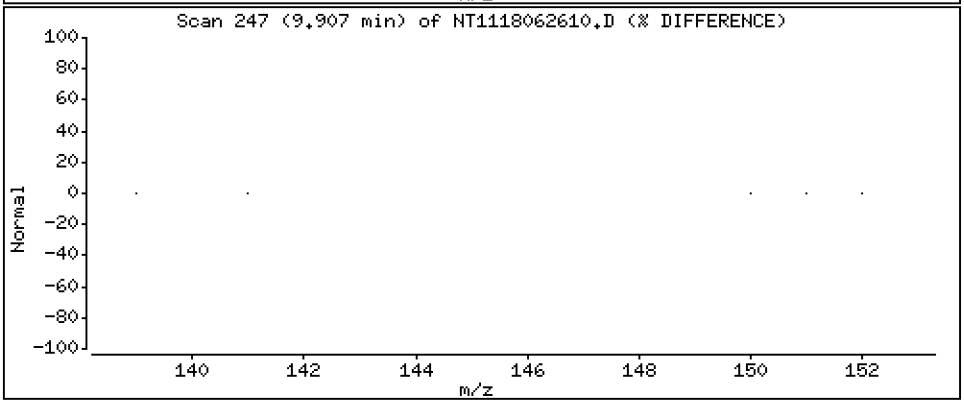












Data File: \\target\share\chem3\nt11.i\20180626.b\NT1118062610.D

Date : 26-JUN-2018 14:25

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

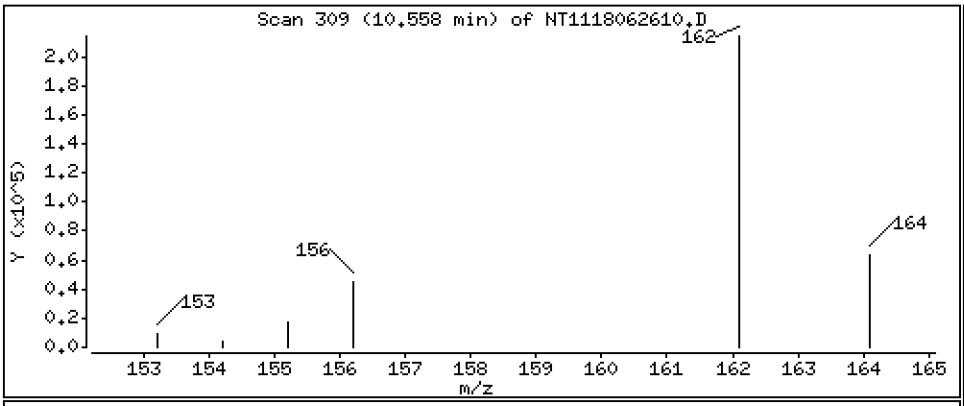
Operator: VTS

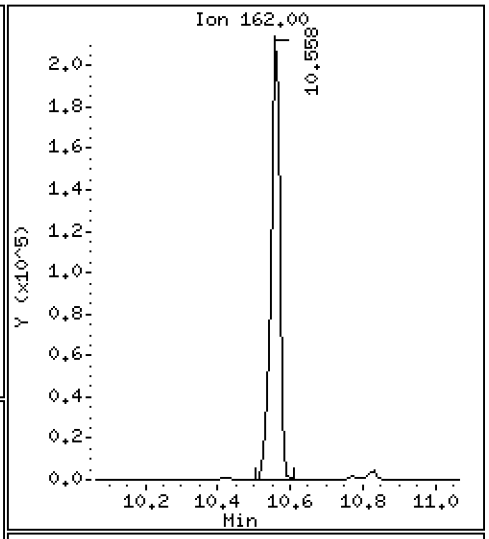
Column phase: Rxi-17Sil MS

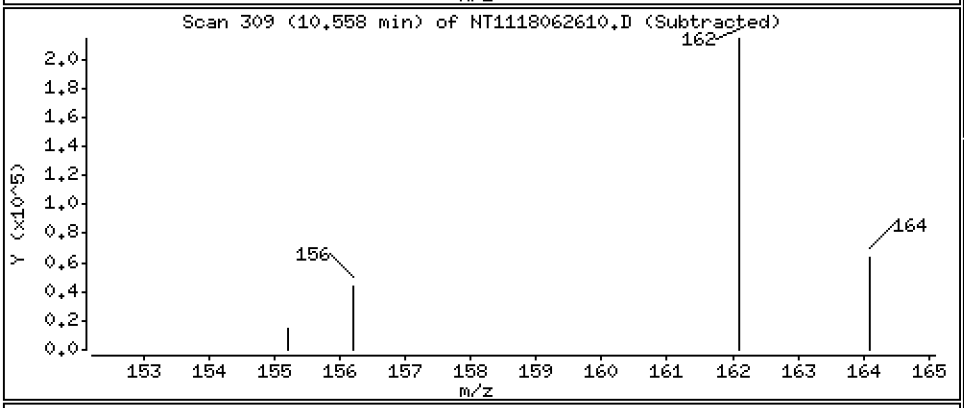
Column diameter: 0.25

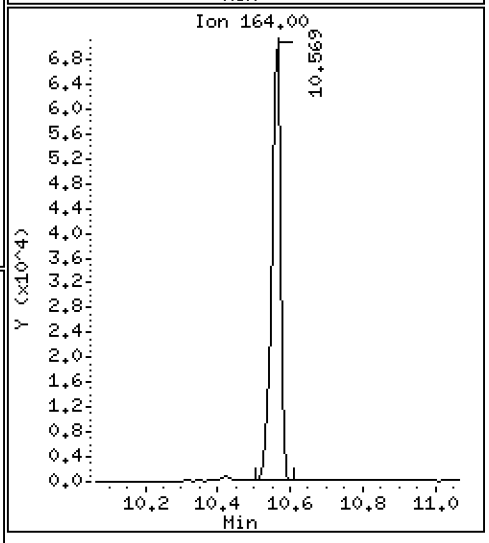
7 2-Chloronaphthalene

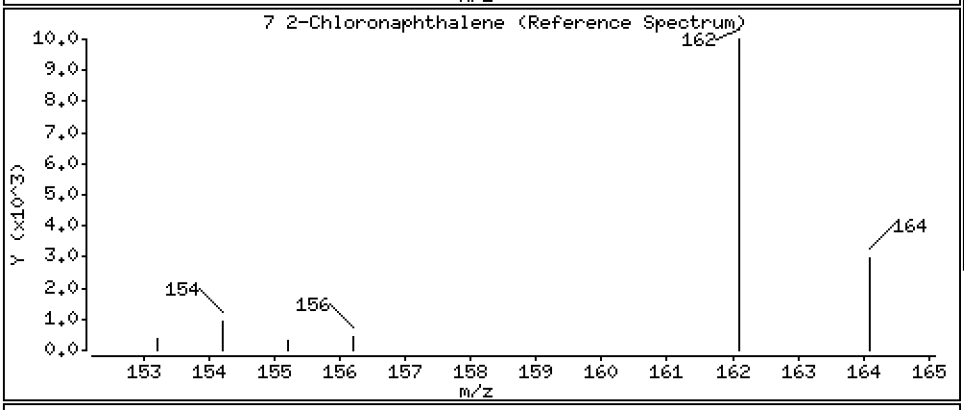
Concentration: 151 ng/mL

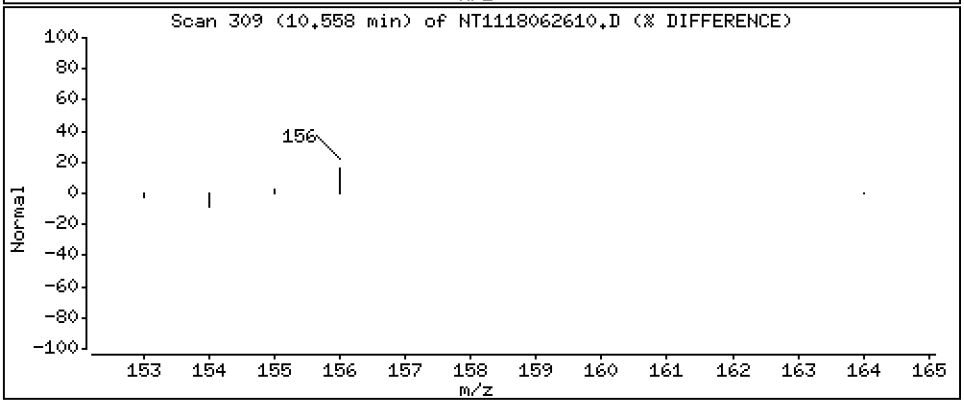












Data File: \\target\share\chem3\nt11.i\20180626.b\NT1118062610.D

Date : 26-JUN-2018 14:25

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

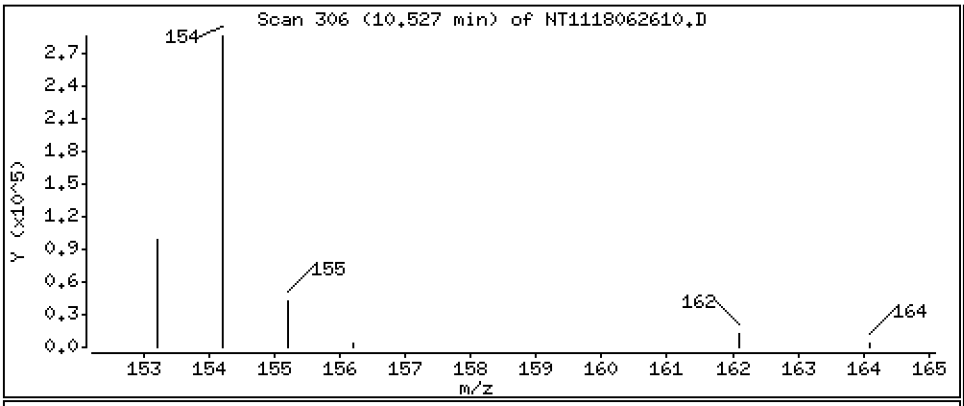
Operator: VTS

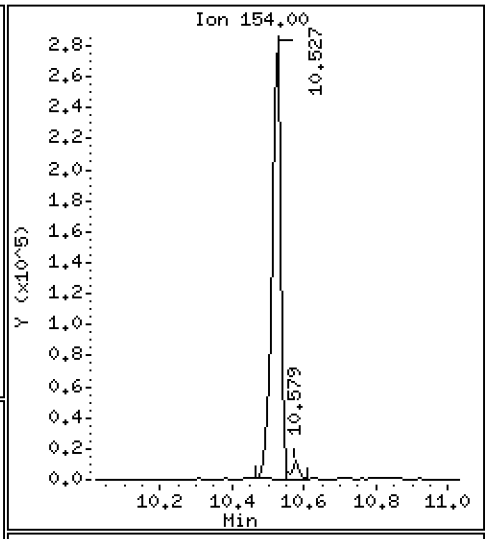
Column phase: Rxi-17Sil MS

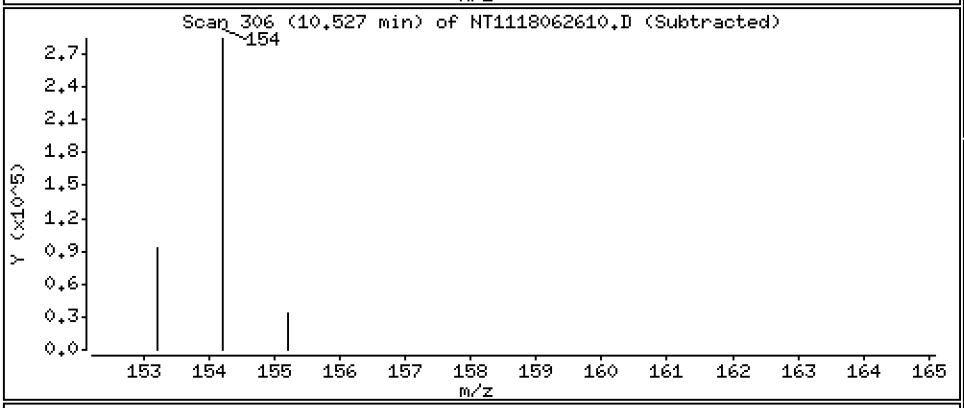
Column diameter: 0.25

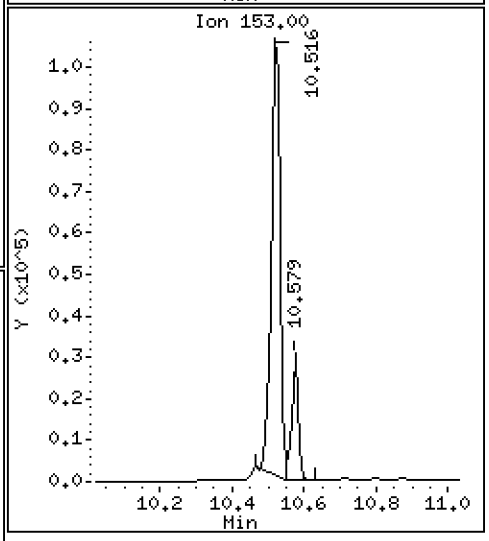
8 Biphenyl

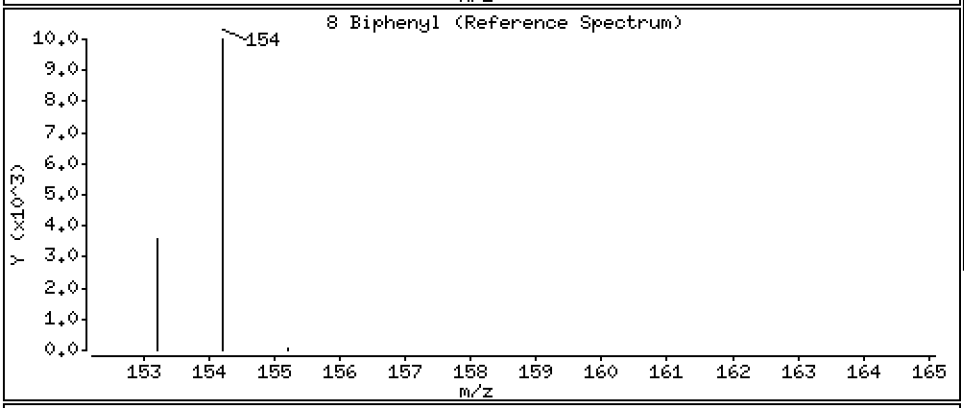
Concentration: 163 ng/mL

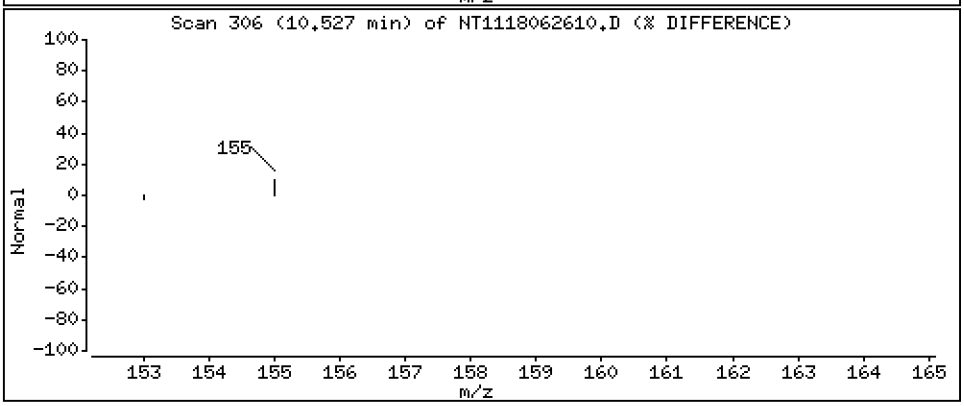












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Date : 26-JUN-2018 14:25

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

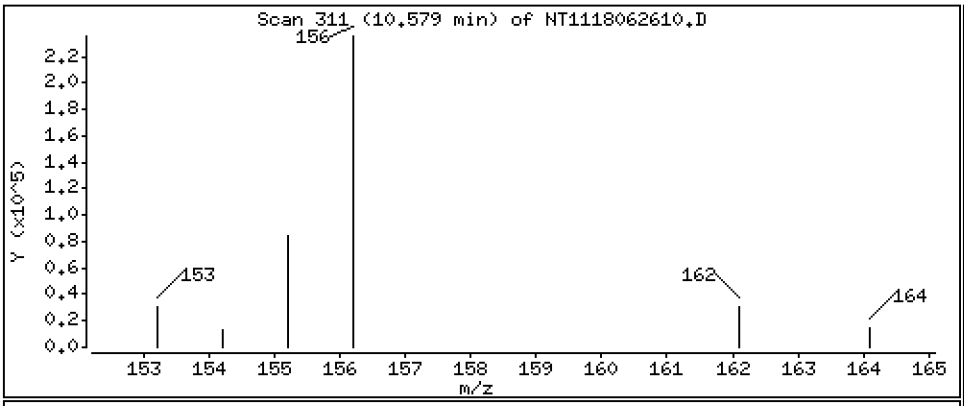
Operator: VTS

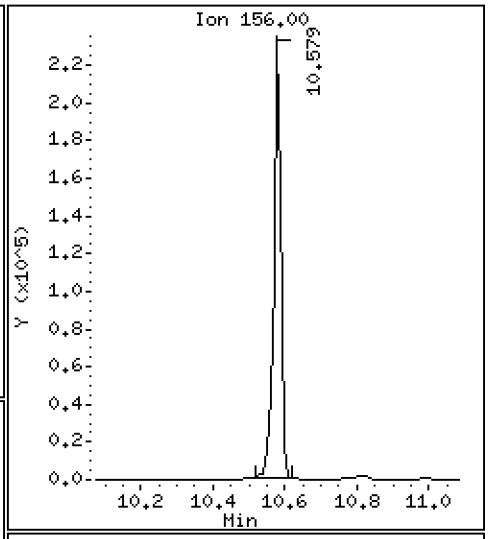
Column phase: Rxi-17Sil MS

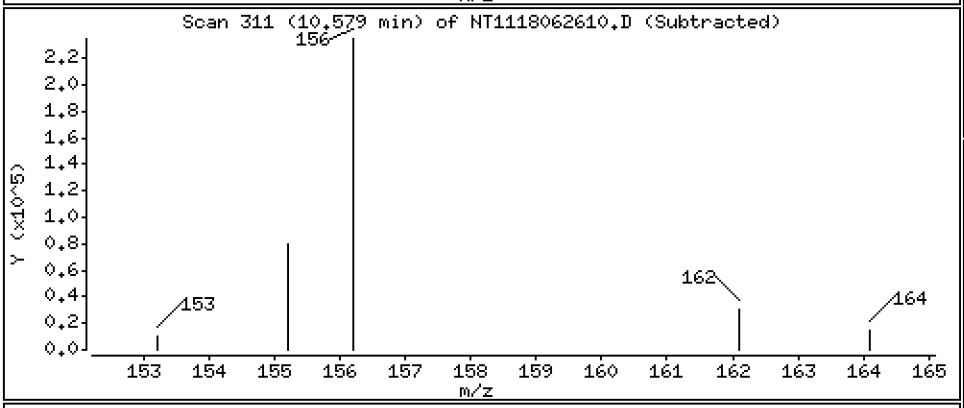
Column diameter: 0.25

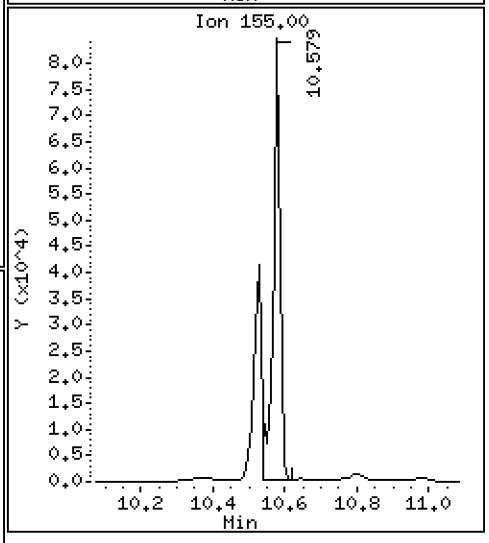
9 2,6-Dimethylnaphthalene

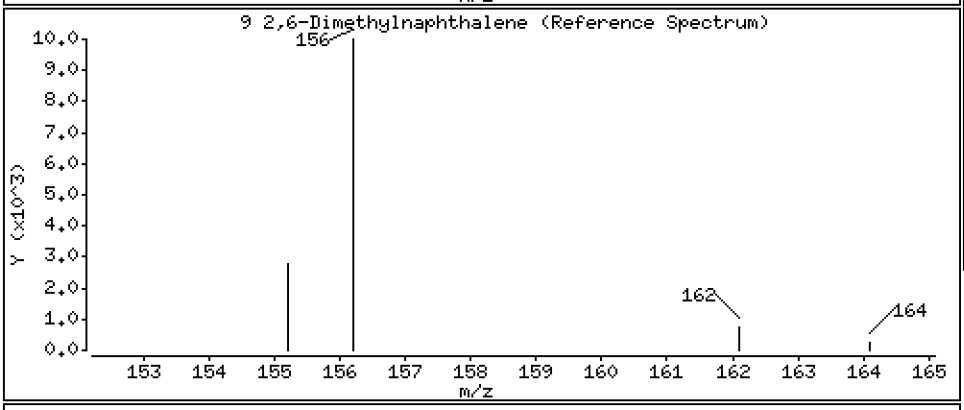
Concentration: 161 ng/mL

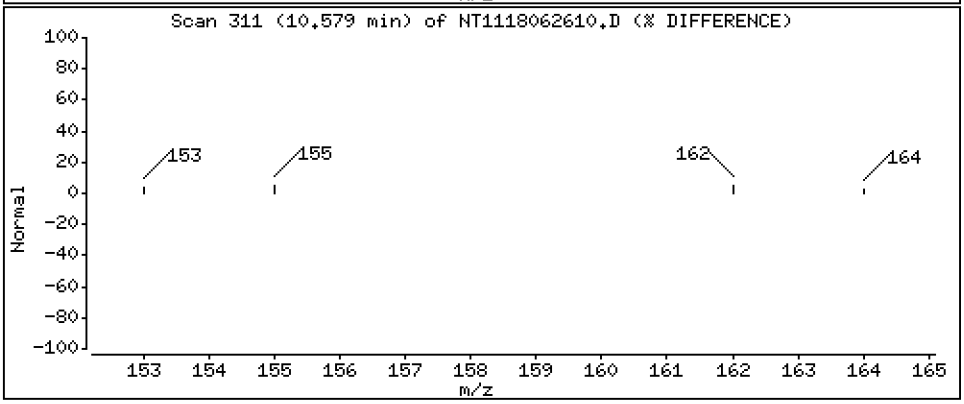












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Date : 26-JUN-2018 14:25

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

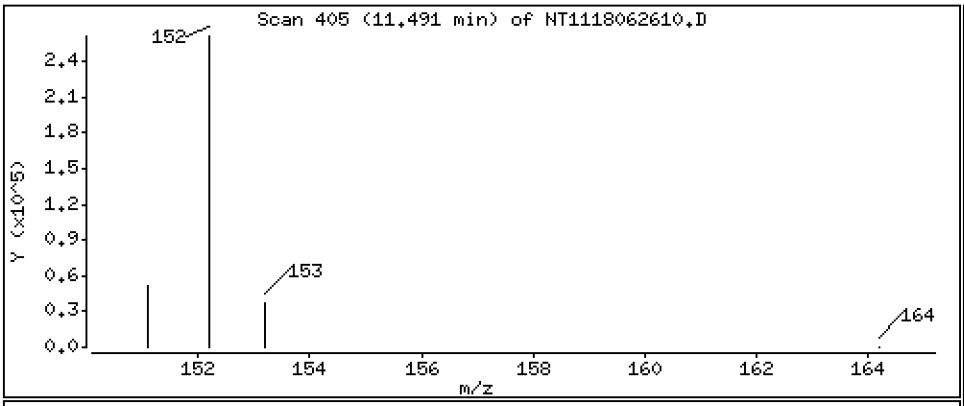
Operator: VTS

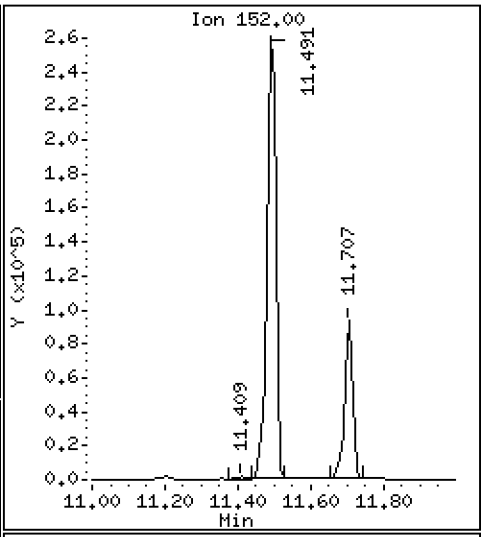
Column phase: Rxi-17Sil MS

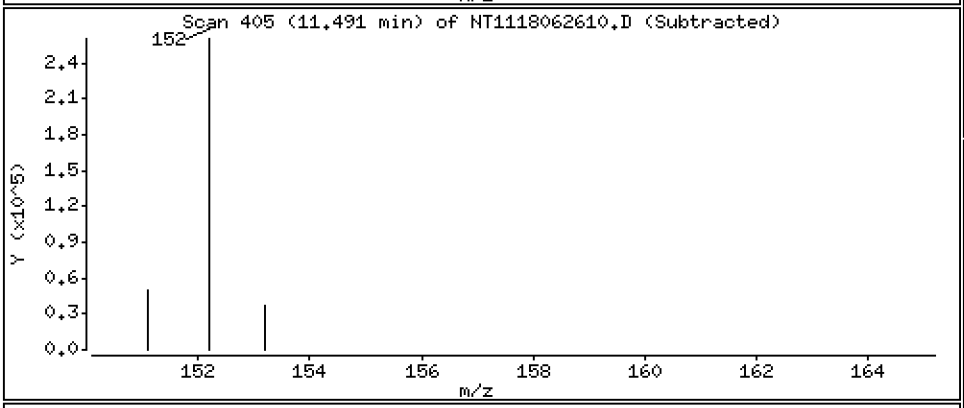
Column diameter: 0.25

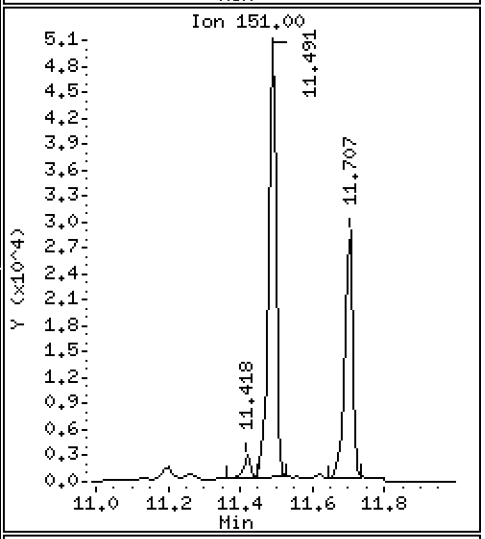
10 Acenaphthylene

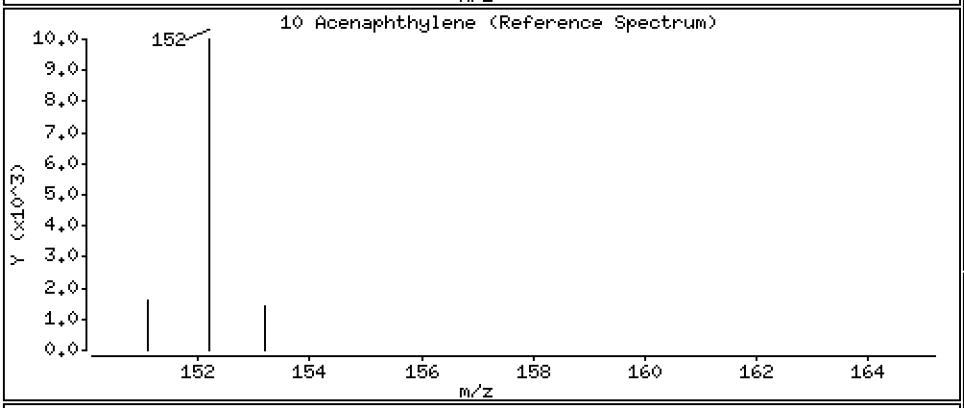
Concentration: 154 ng/mL

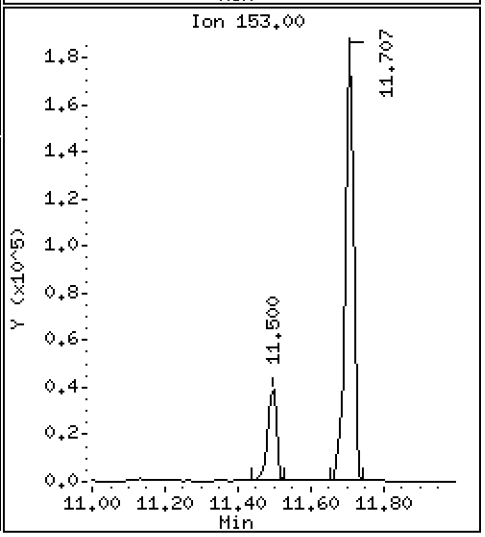


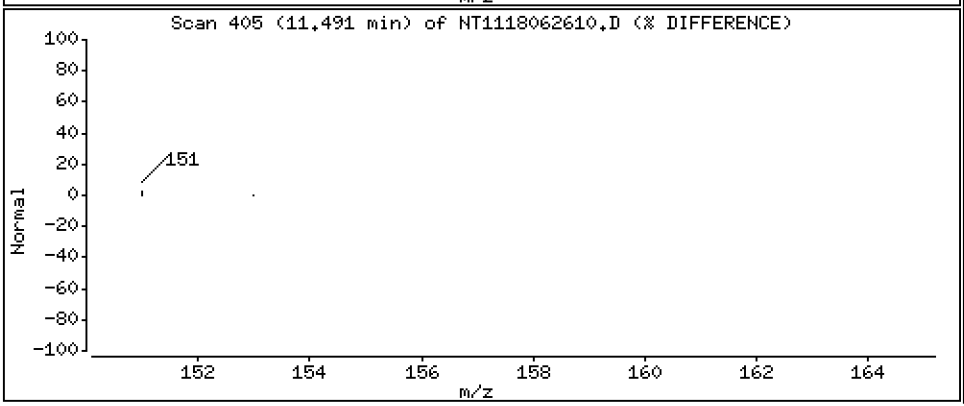












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Date : 26-JUN-2018 14:25

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

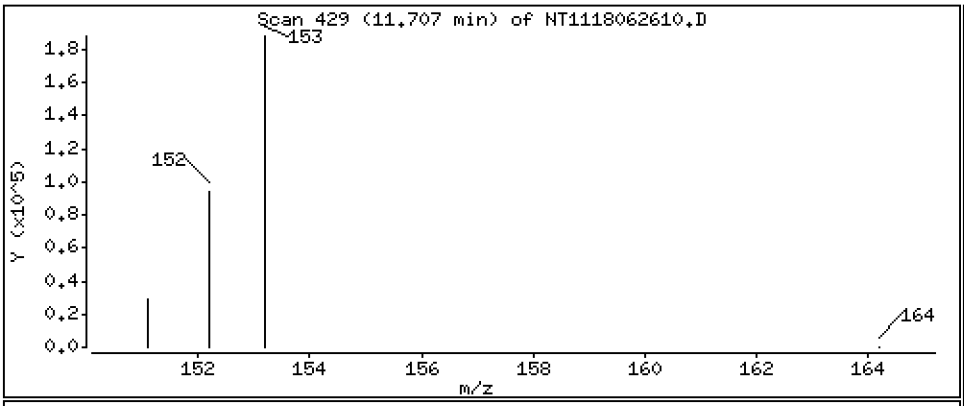
Operator: VTS

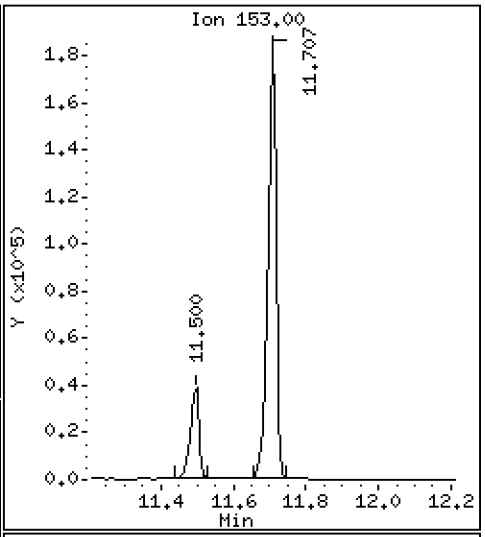
Column phase: Rxi-17Sil MS

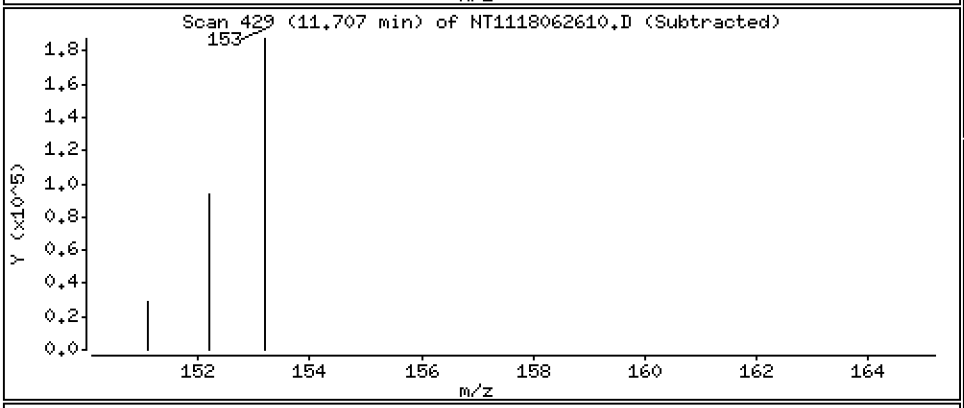
Column diameter: 0.25

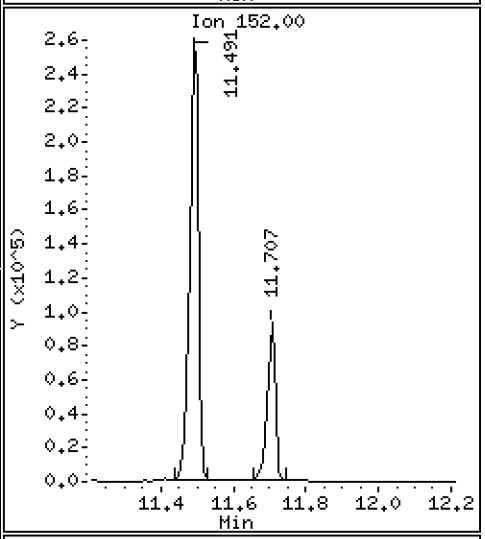
12 Acenaphthene

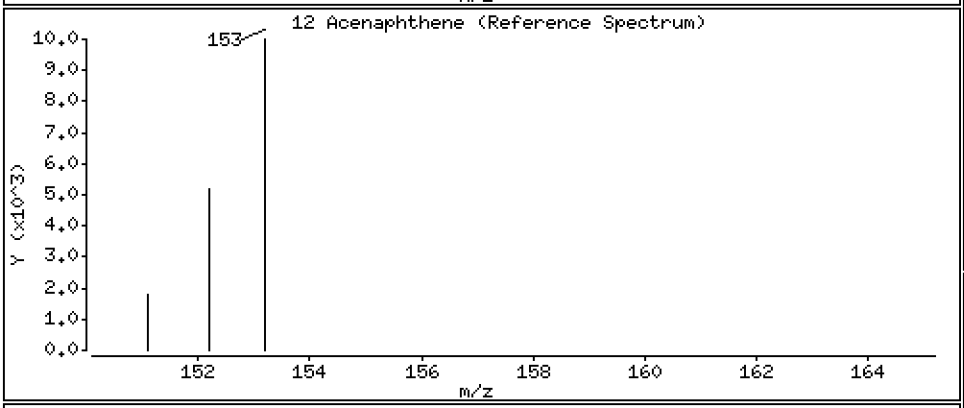
Concentration: 149 ng/mL

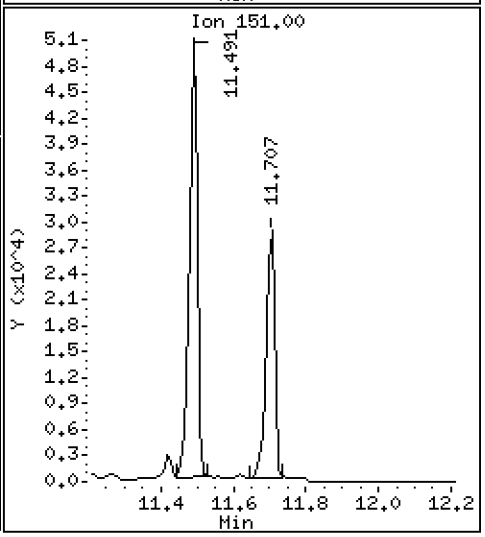


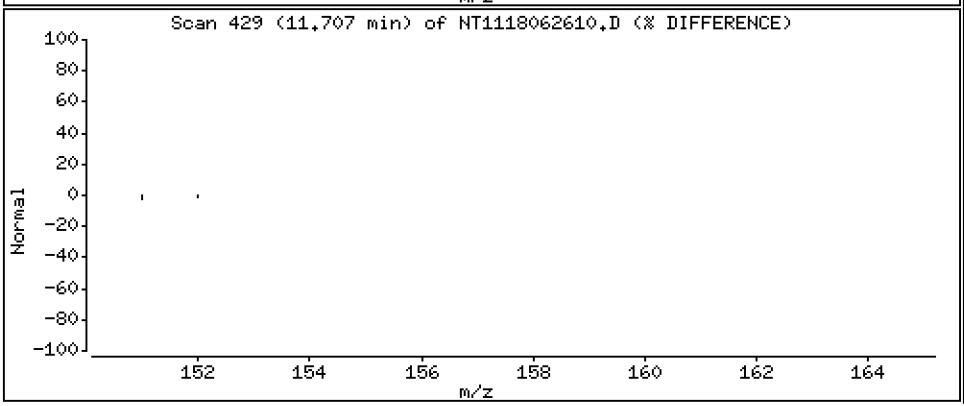












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Date : 26-JUN-2018 14:25

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

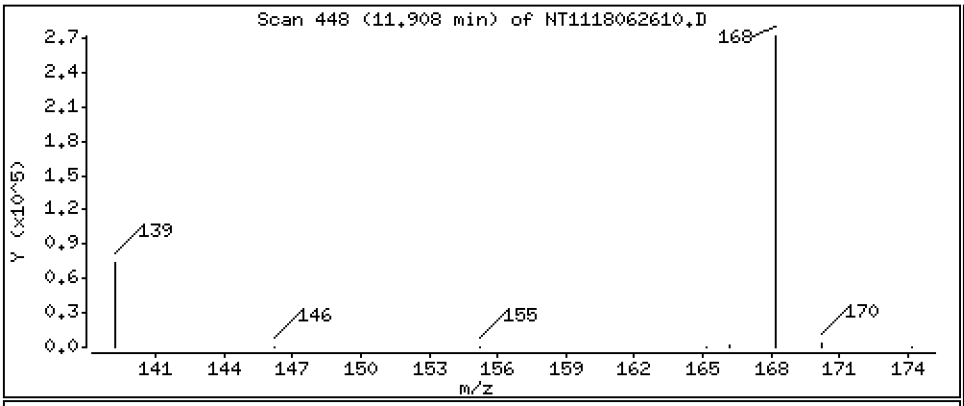
Operator: VTS

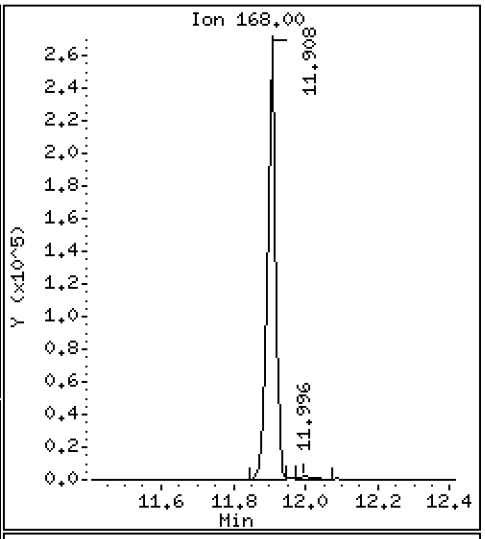
Column phase: Rxi-17Sil MS

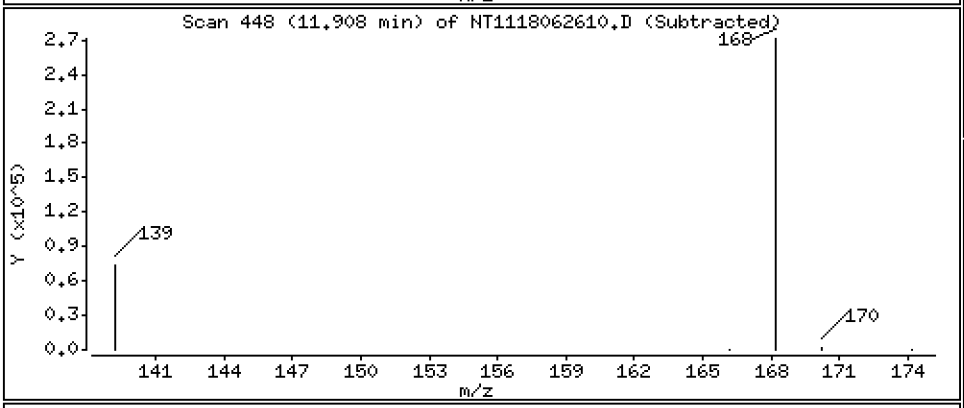
Column diameter: 0.25

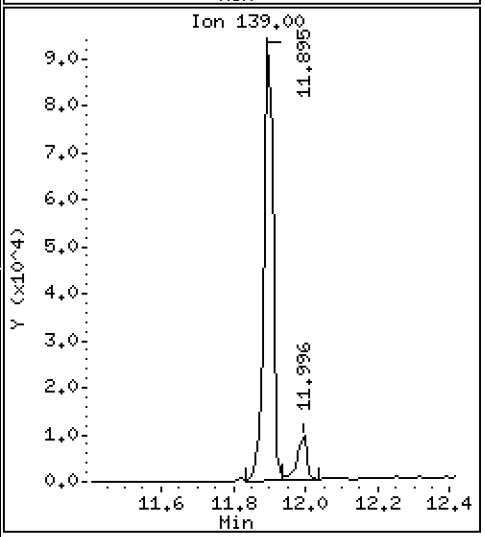
13 Dibenzofuran

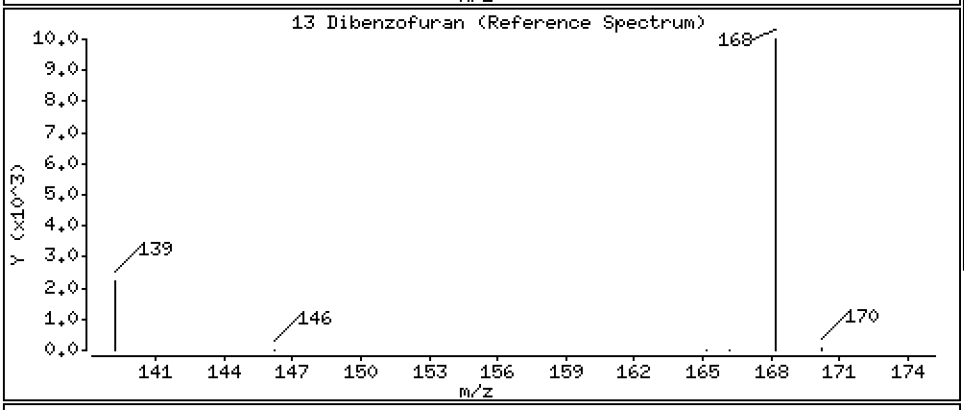
Concentration: 155 ng/mL

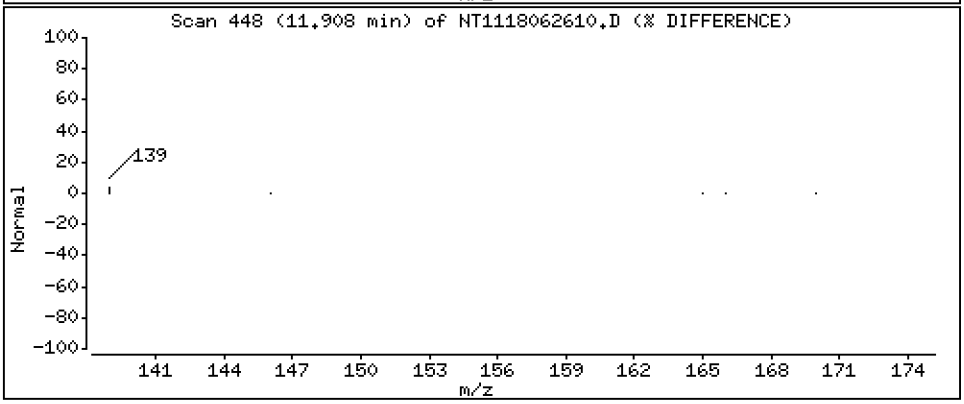












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Date : 26-JUN-2018 14:25

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

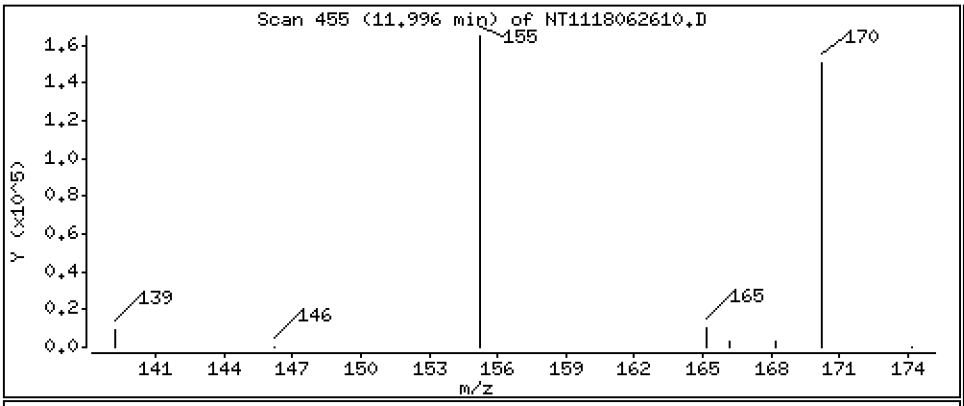
Operator: VTS

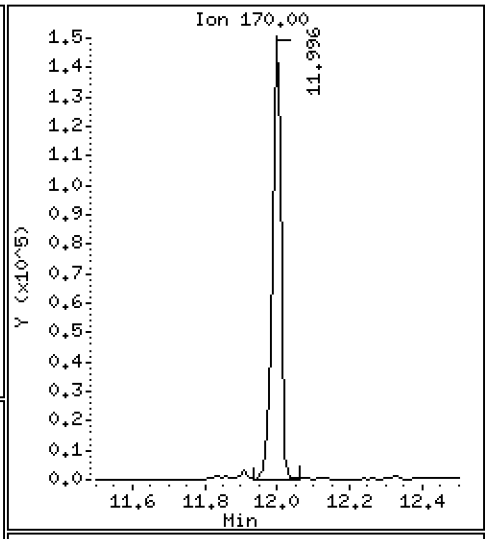
Column phase: Rxi-17Sil MS

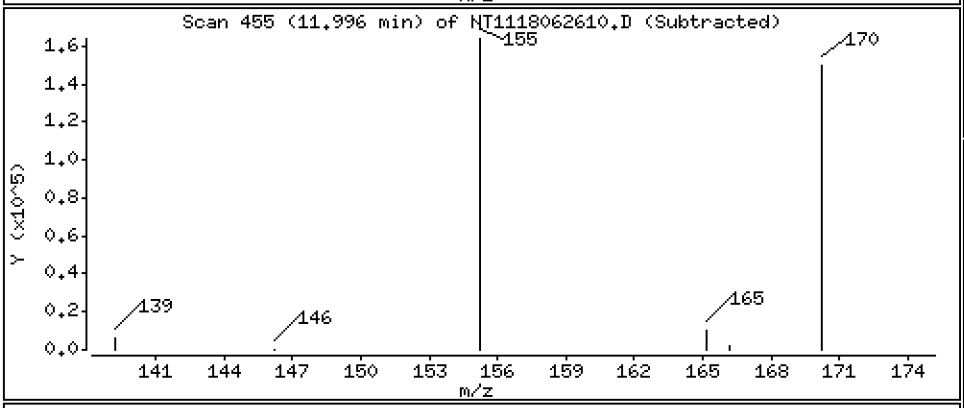
Column diameter: 0.25

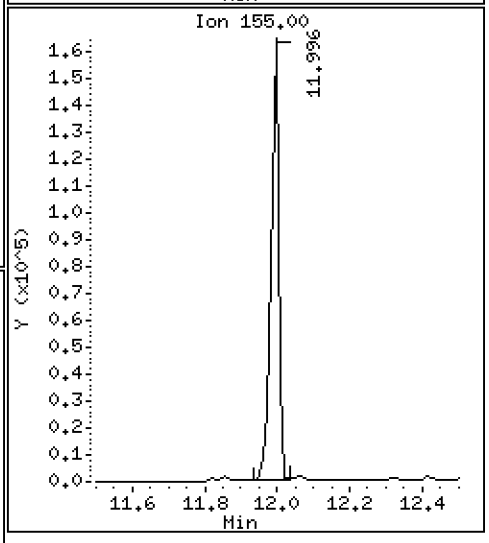
14 2,3,5-Trimethylnaphthalene

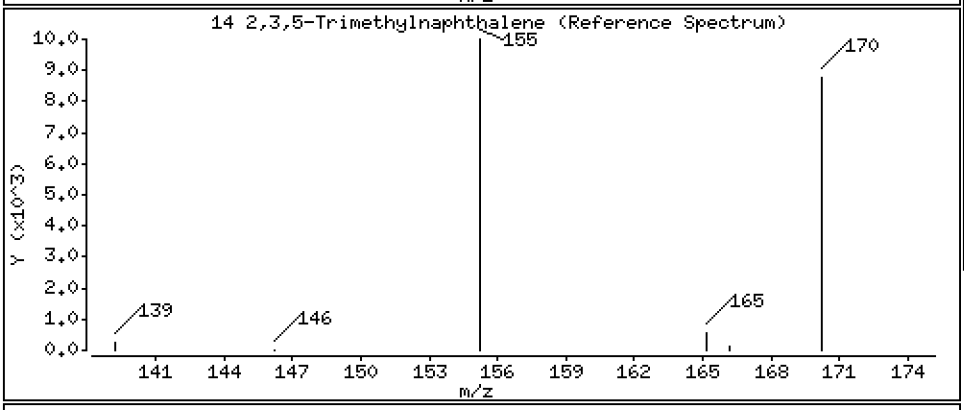
Concentration: 156 ng/mL

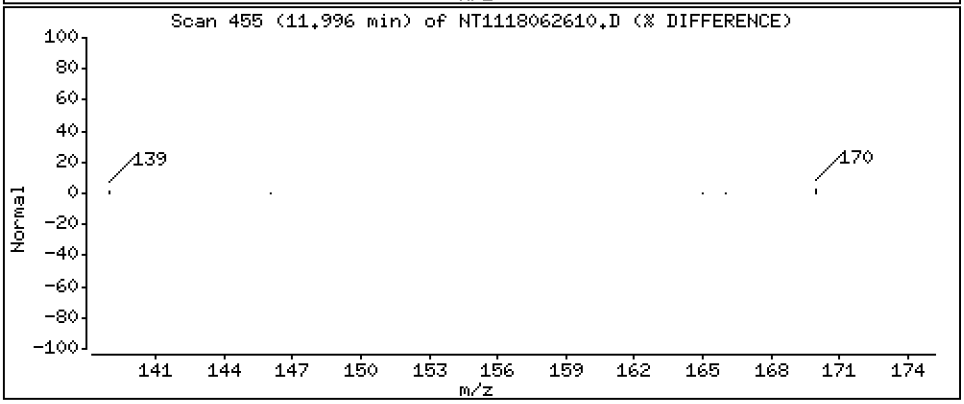












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Date : 26-JUN-2018 14:25

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

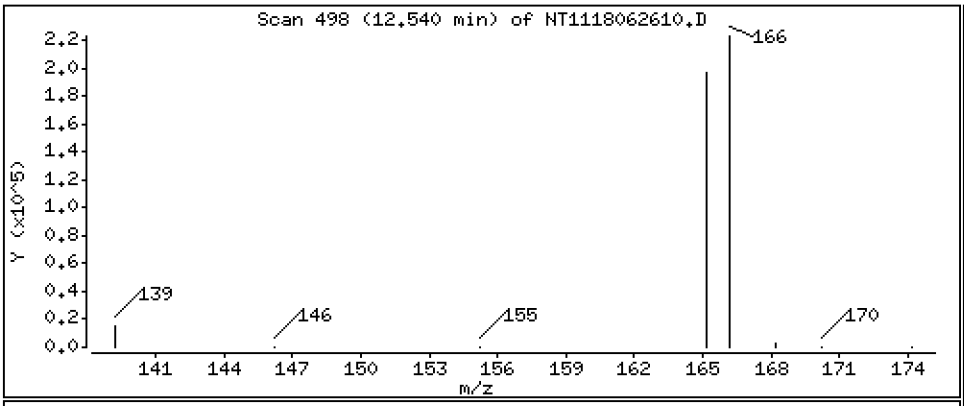
Operator: VTS

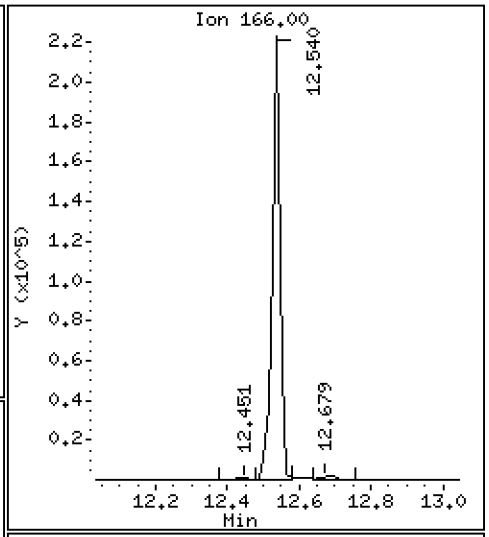
Column phase: Rxi-17Sil MS

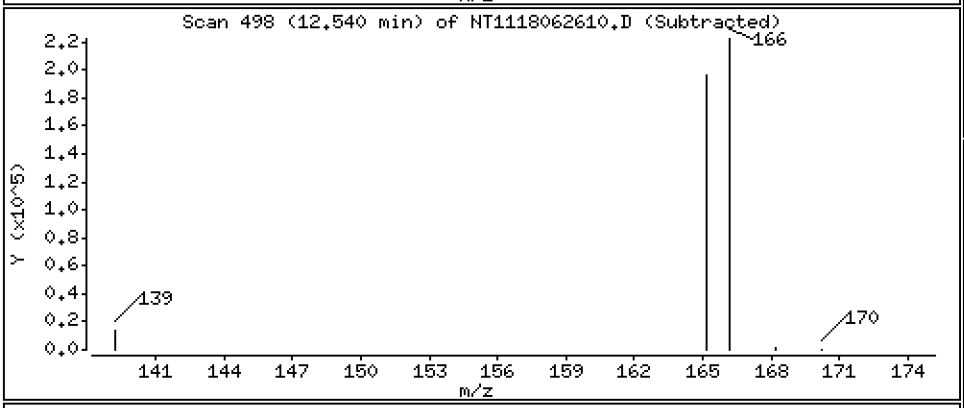
Column diameter: 0.25

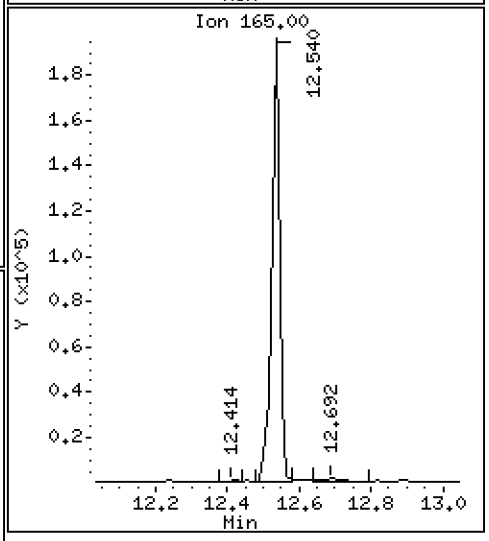
16 Fluorene

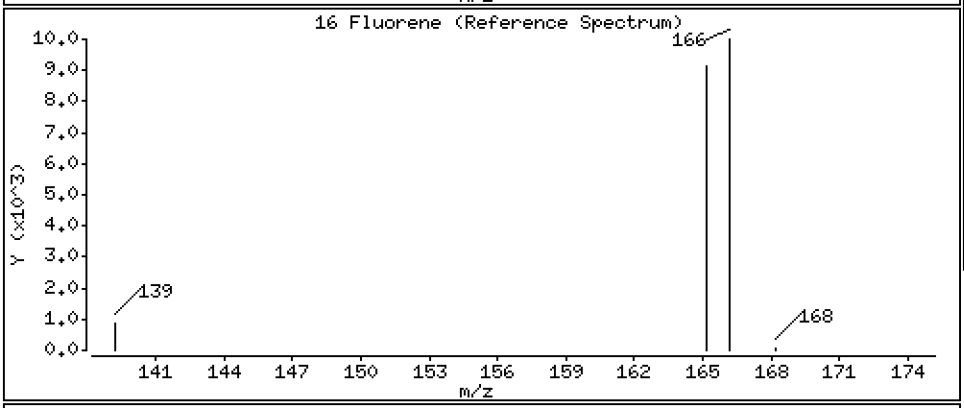
Concentration: 161 ng/mL

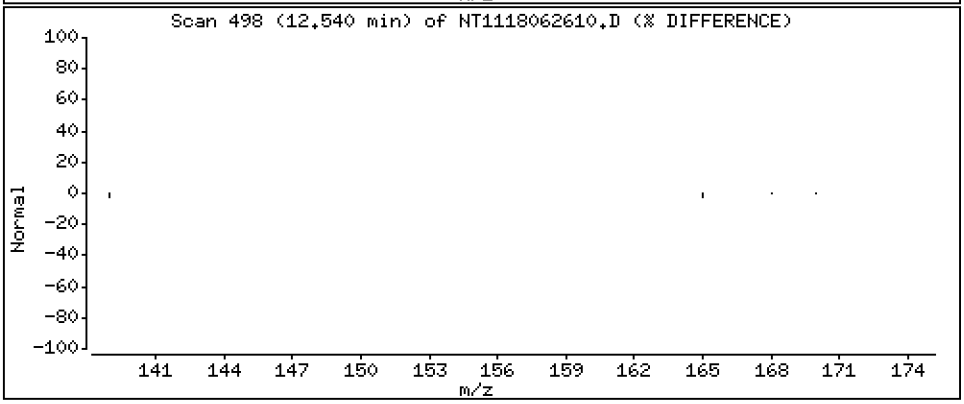












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Date : 26-JUN-2018 14:25

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

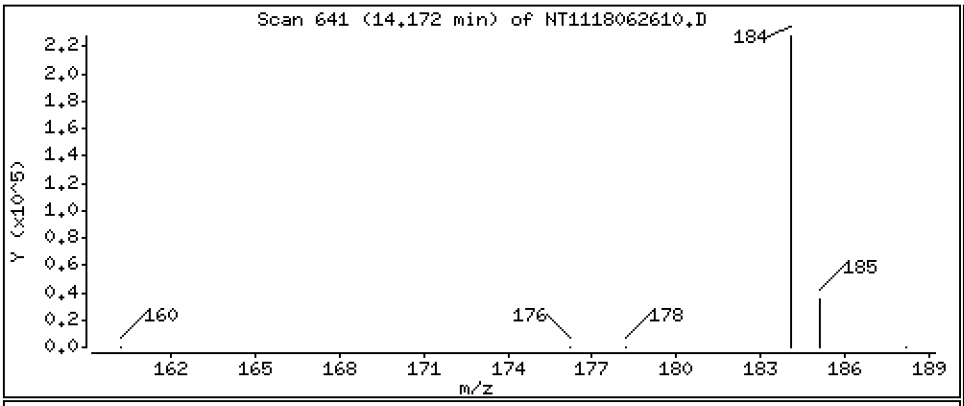
Operator: VTS

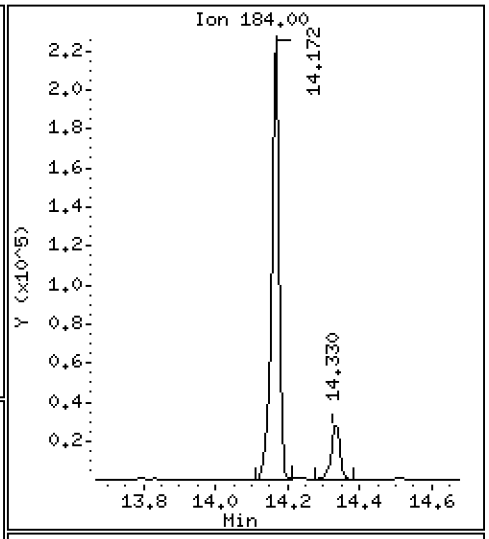
Column phase: Rxi-17Sil MS

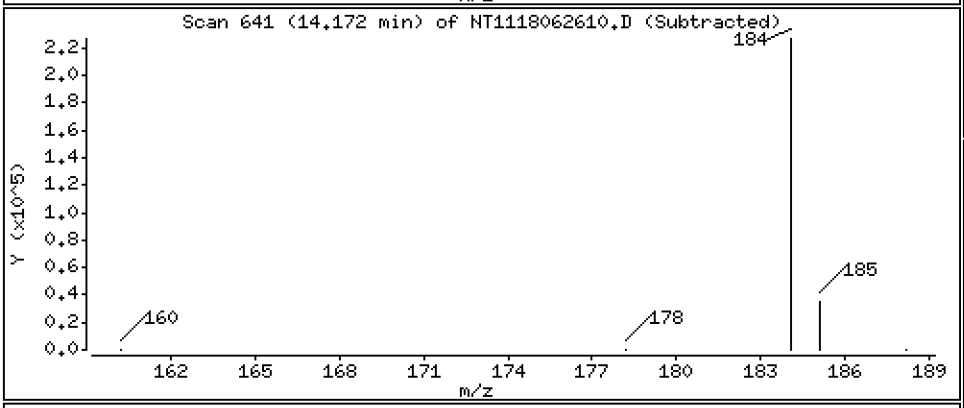
Column diameter: 0.25

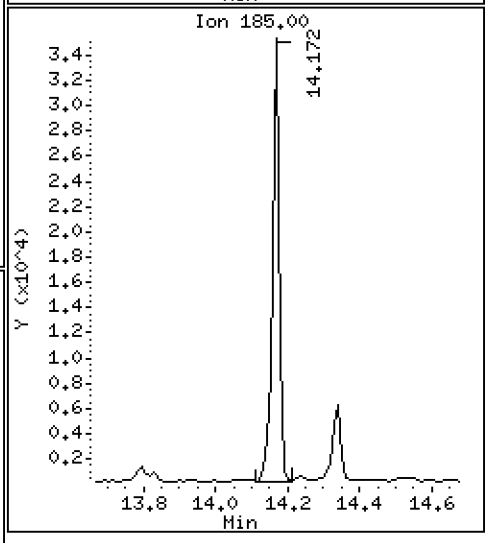
17 Dibenzothiophene

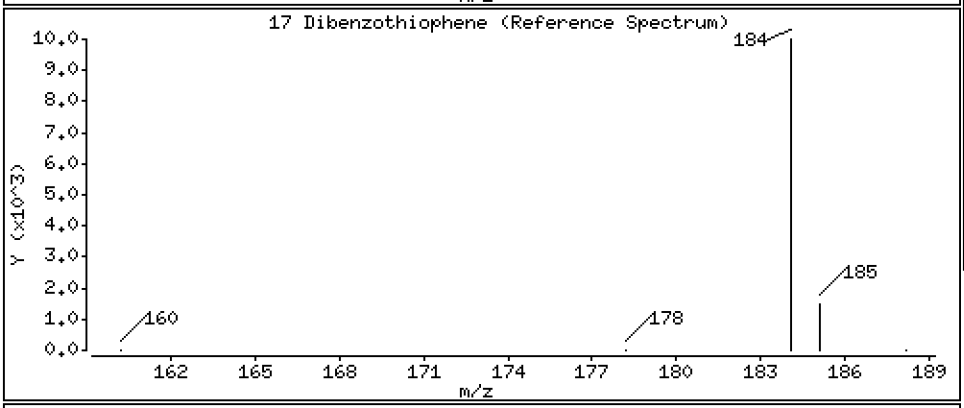
Concentration: 160 ng/mL

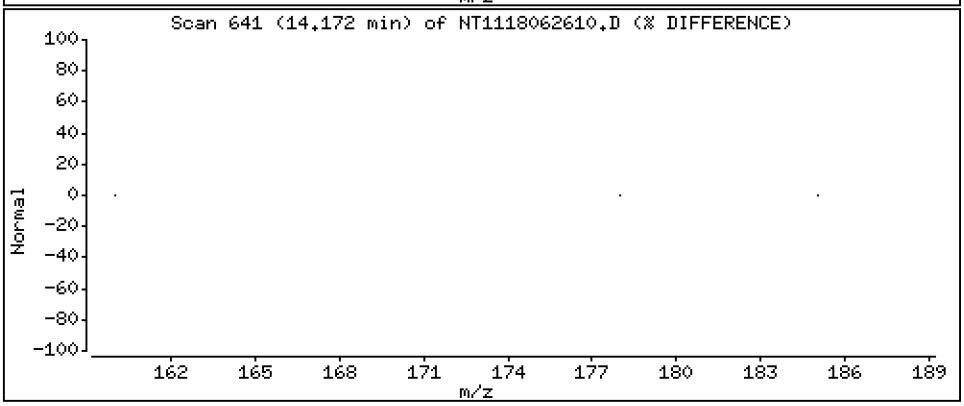












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Date : 26-JUN-2018 14:25

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

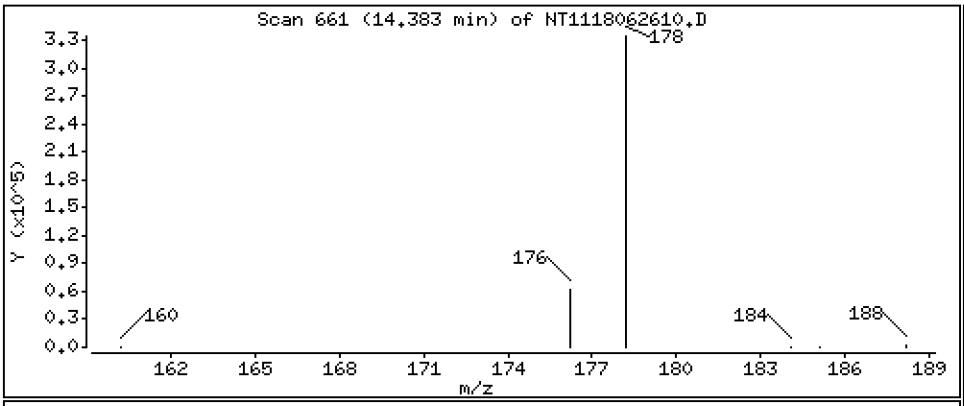
Operator: VTS

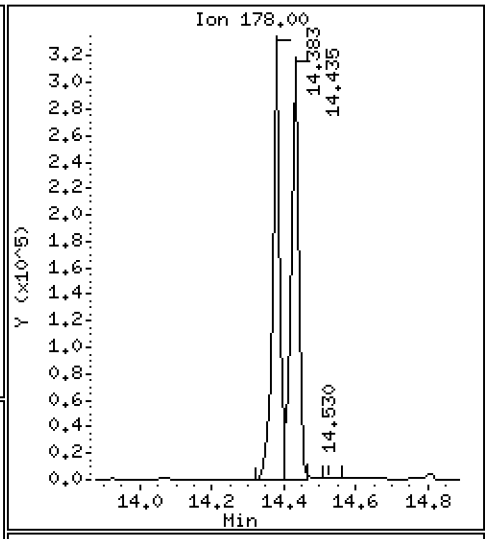
Column phase: Rxi-17Sil MS

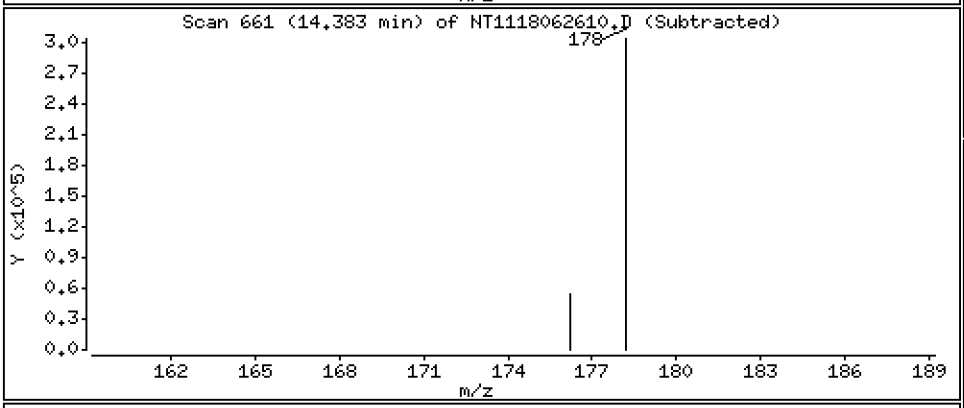
Column diameter: 0.25

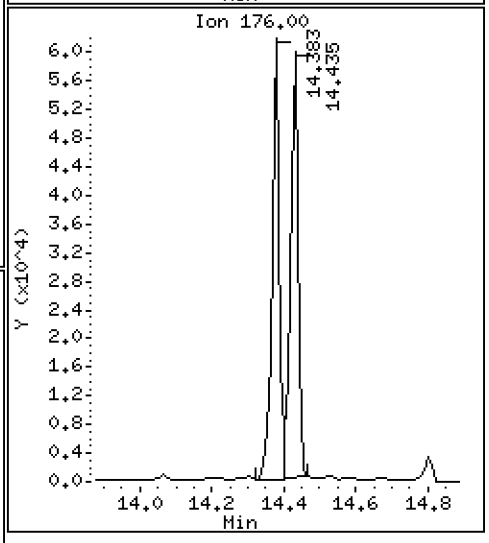
19 Phenanthrene

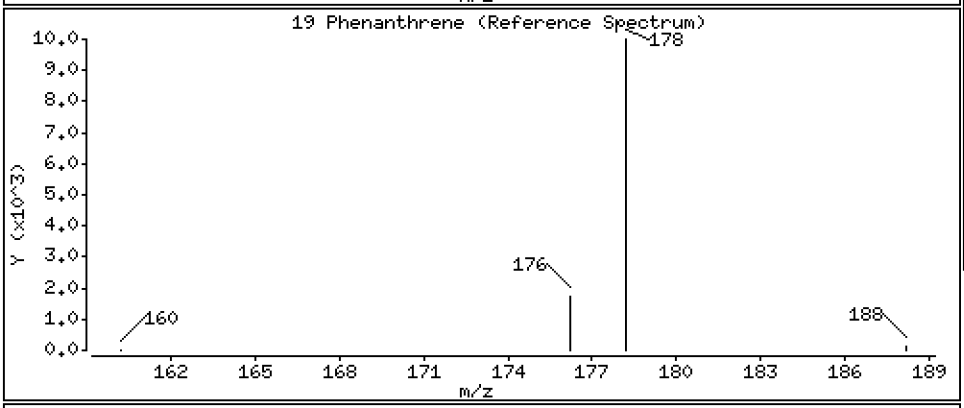
Concentration: 171 ng/mL

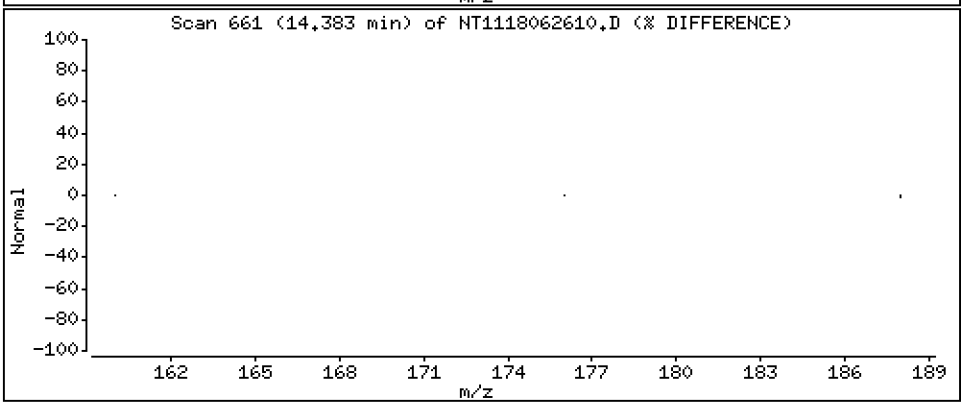












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Date : 26-JUN-2018 14:25

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

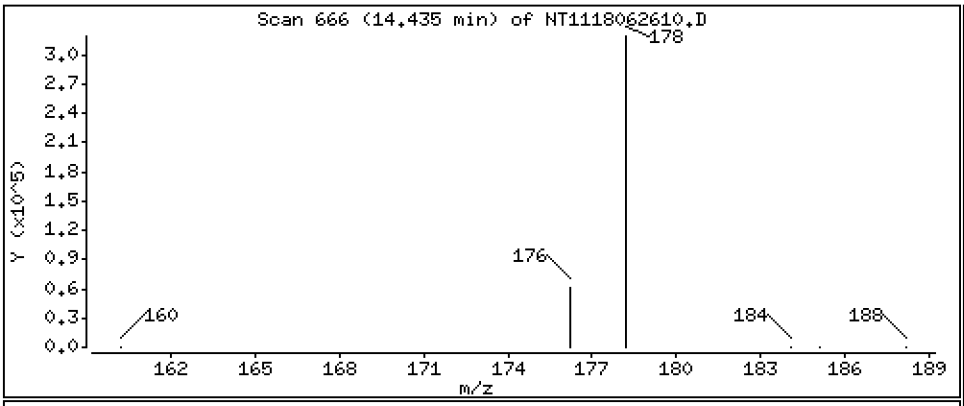
Operator: VTS

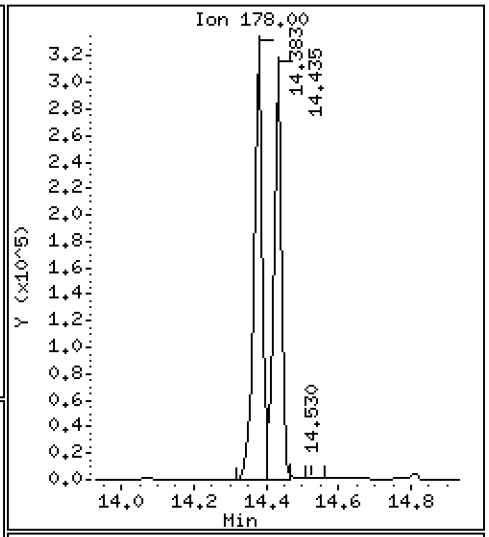
Column phase: Rxi-17Sil MS

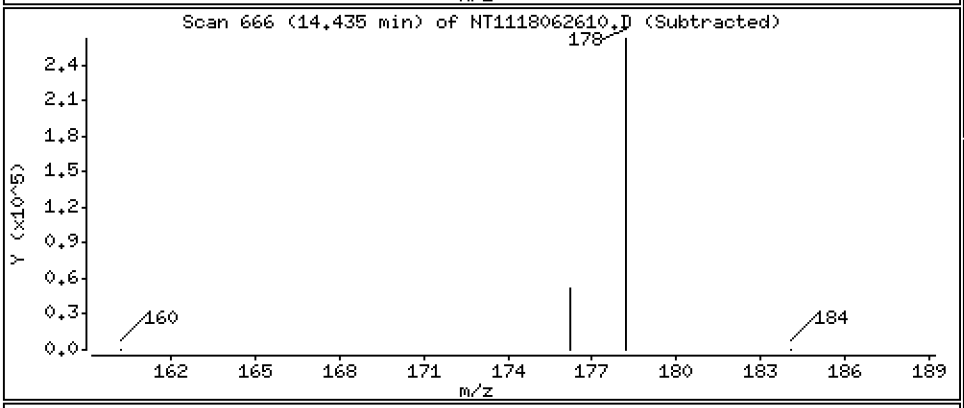
Column diameter: 0.25

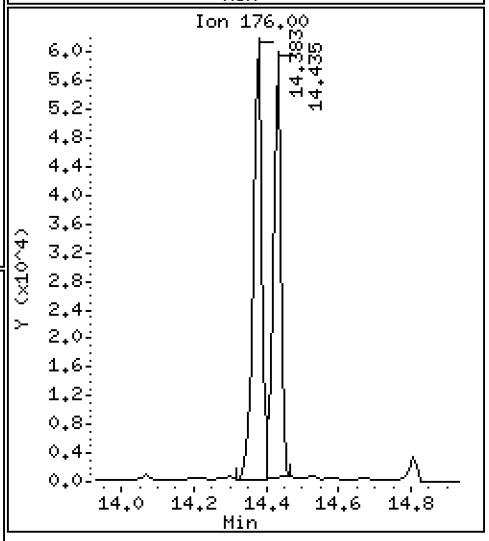
21 Anthracene

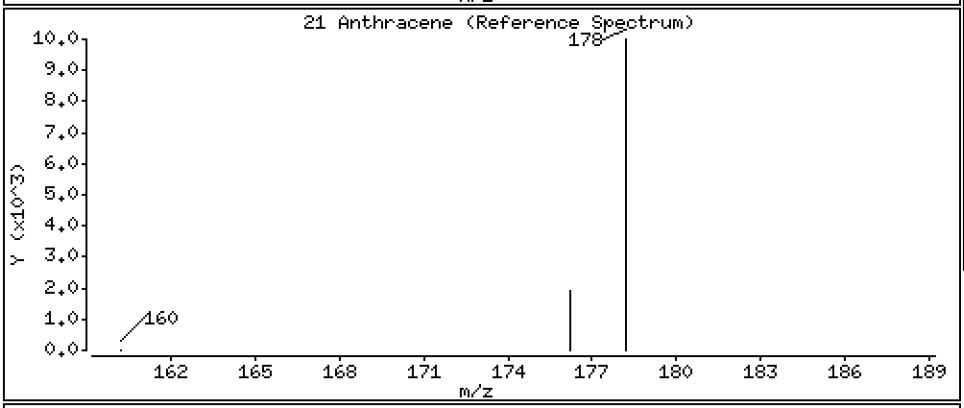
Concentration: 165 ng/mL

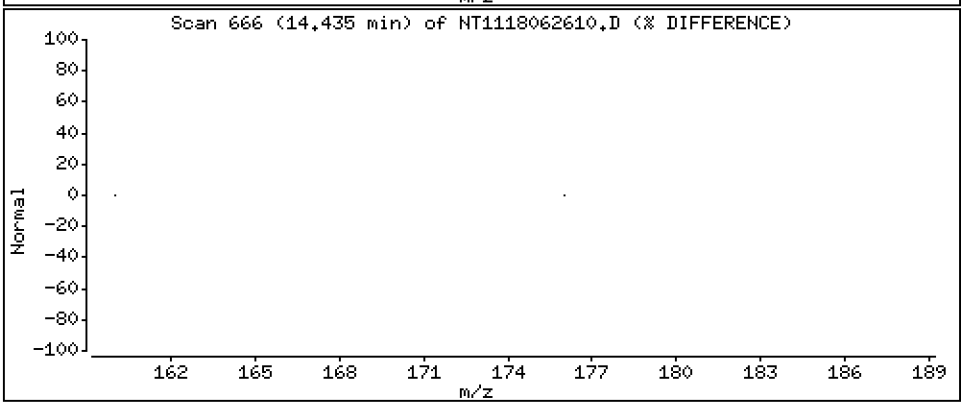












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Date : 26-JUN-2018 14:25

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

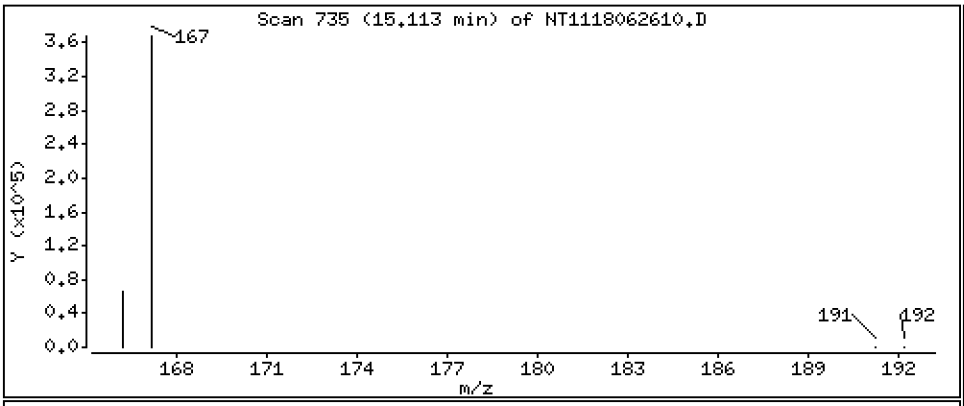
Operator: VTS

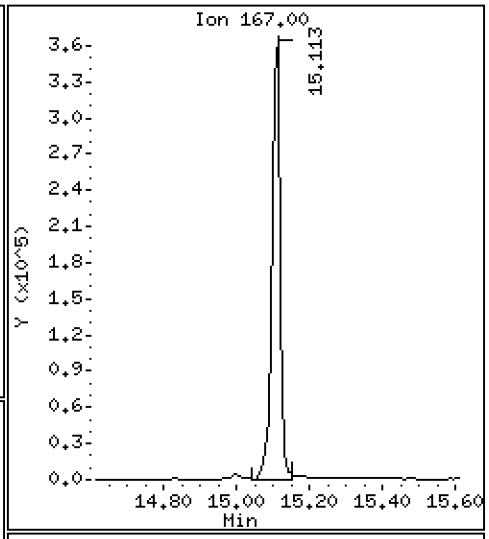
Column phase: Rxi-17Sil MS

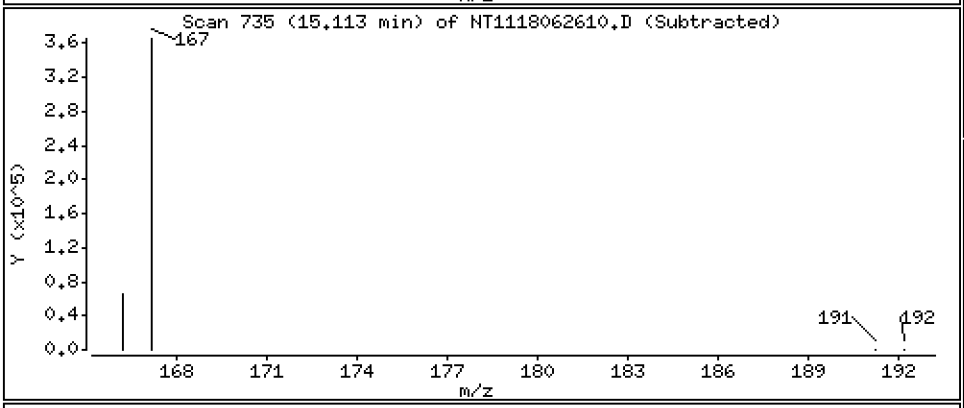
Column diameter: 0.25

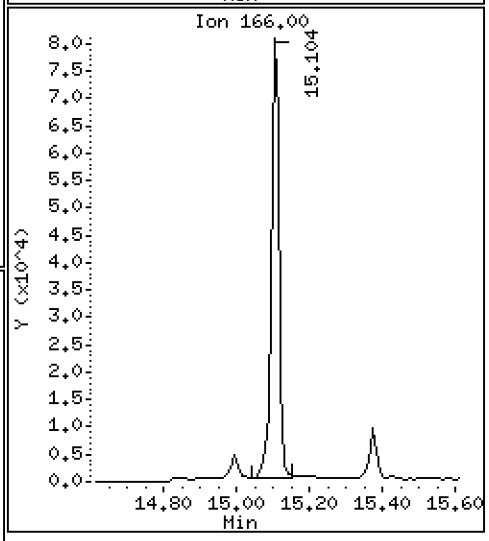
22 Carbazole

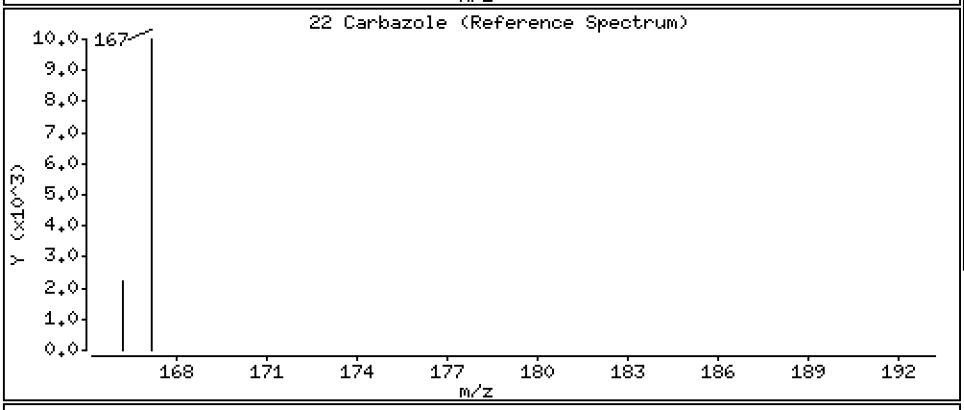
Concentration: 175 ng/mL

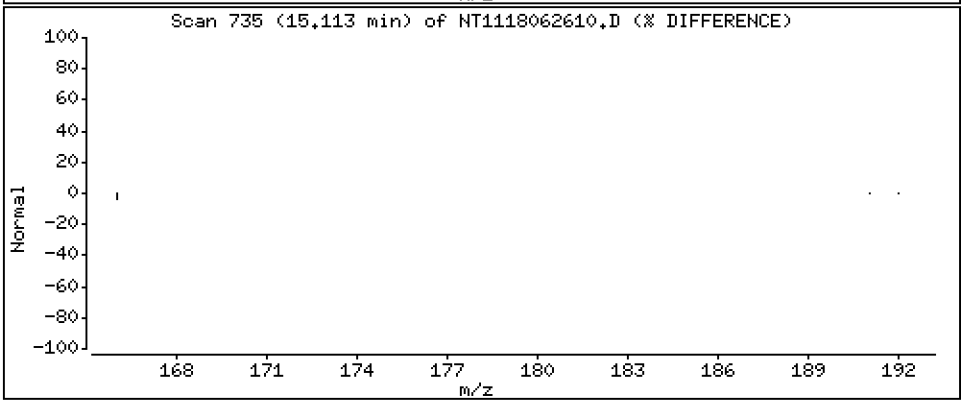












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Date : 26-JUN-2018 14:25

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

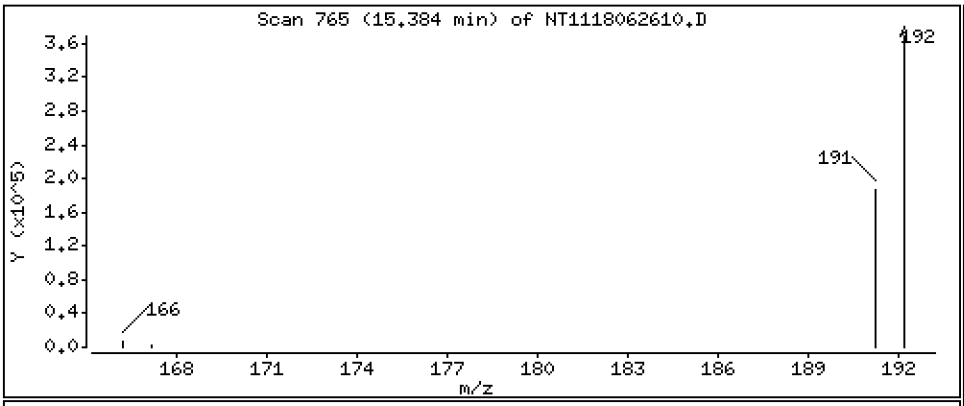
Operator: VTS

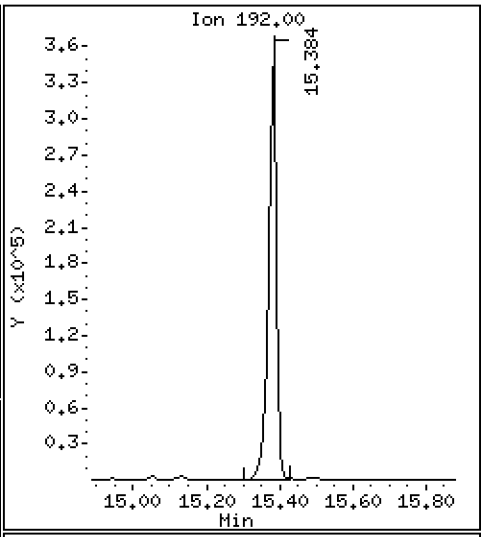
Column phase: Rxi-17Sil MS

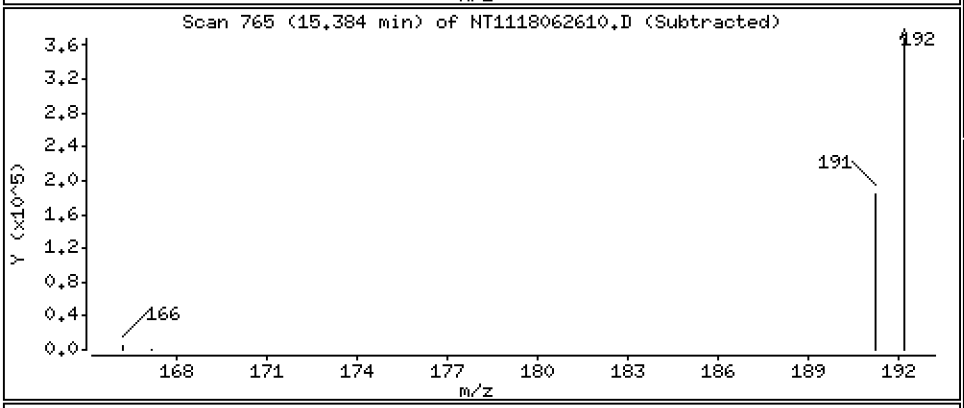
Column diameter: 0.25

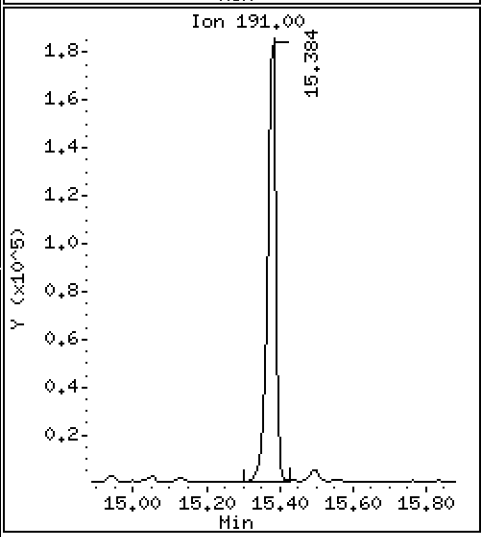
23 1-Methylphenanthrene

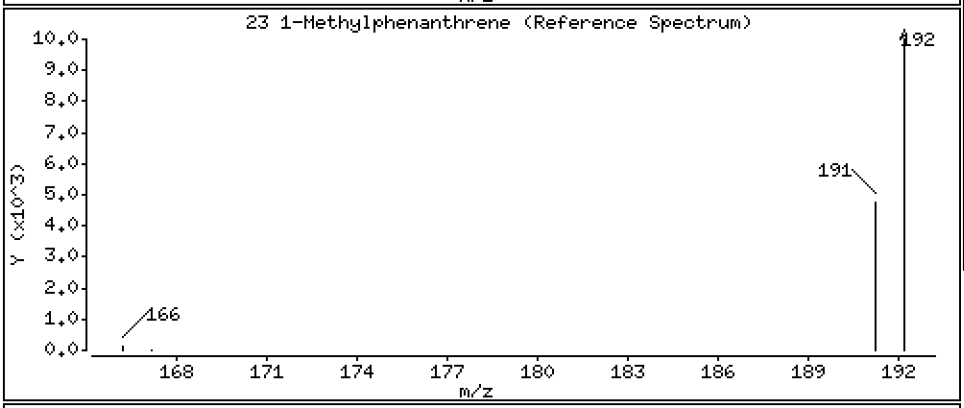
Concentration: 189 ng/mL

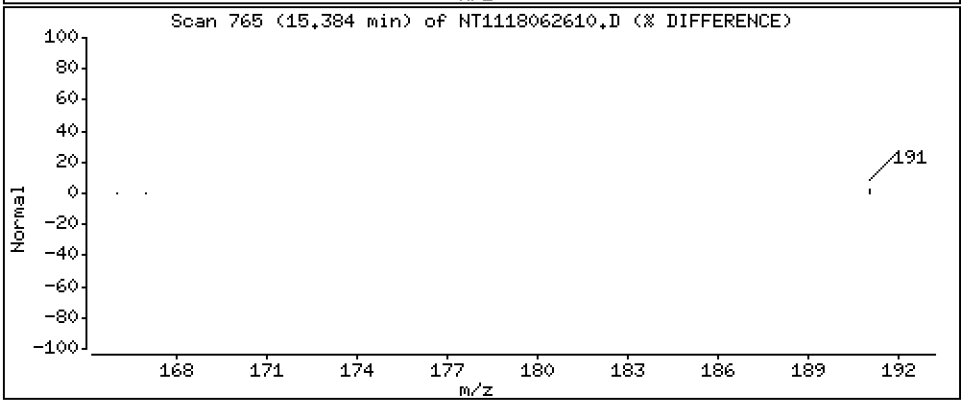












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Date : 26-JUN-2018 14:25

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

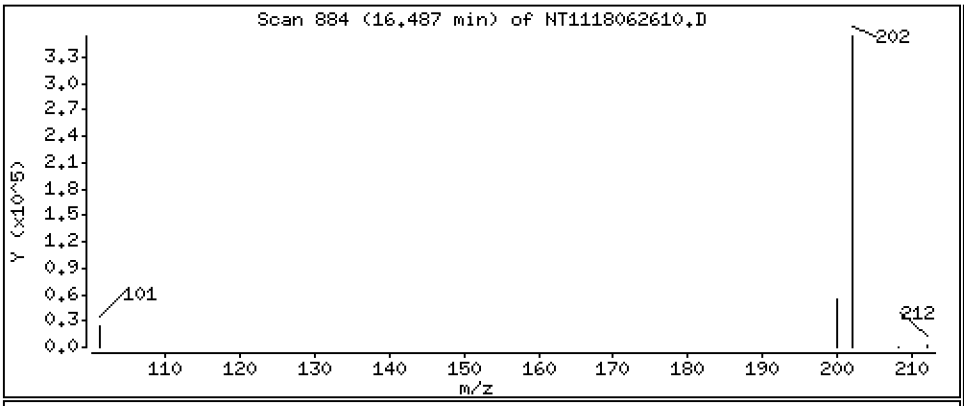
Operator: VTS

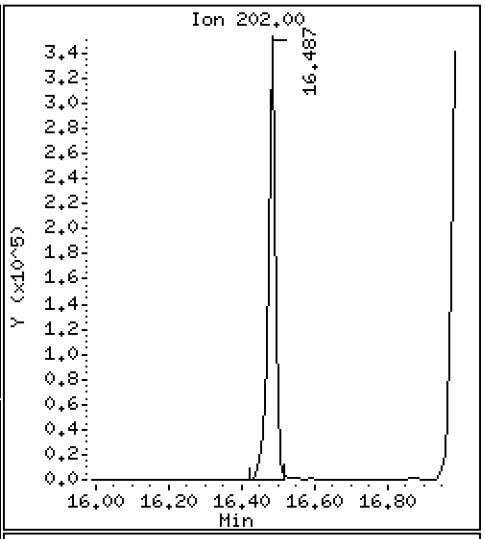
Column phase: Rxi-17Sil MS

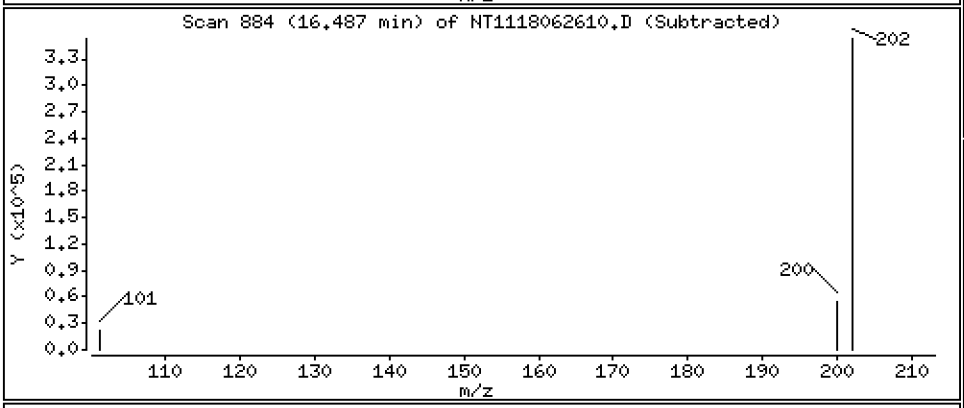
Column diameter: 0.25

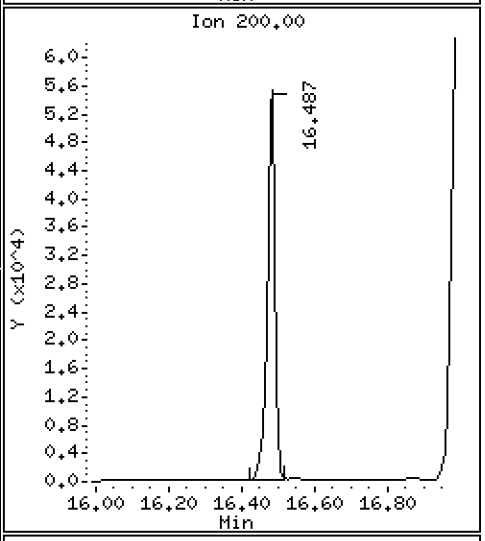
25 Fluoranthene

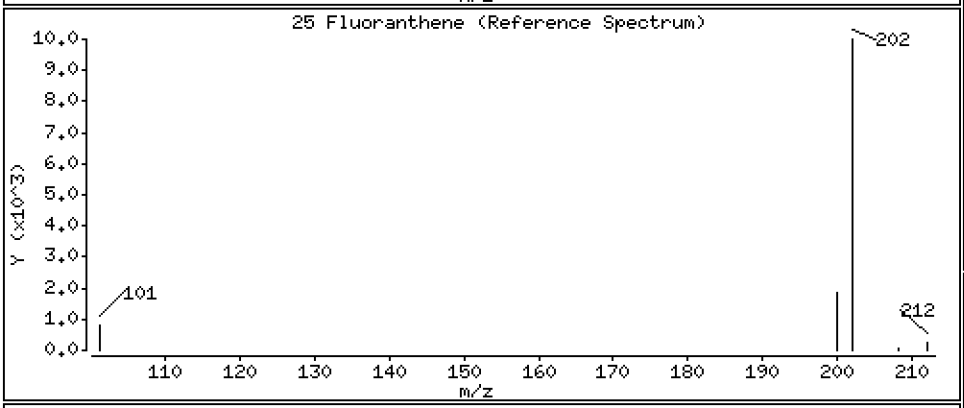
Concentration: 185 ng/mL

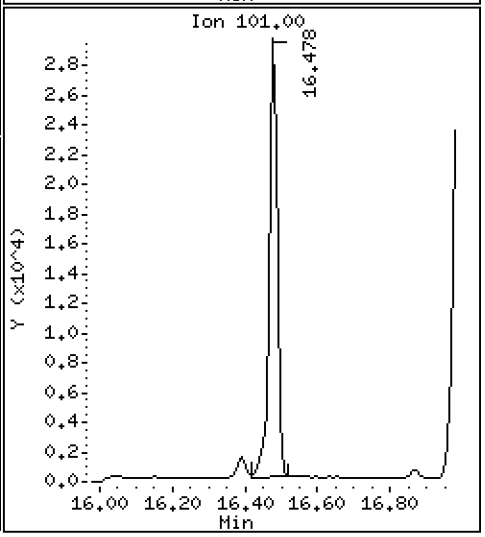


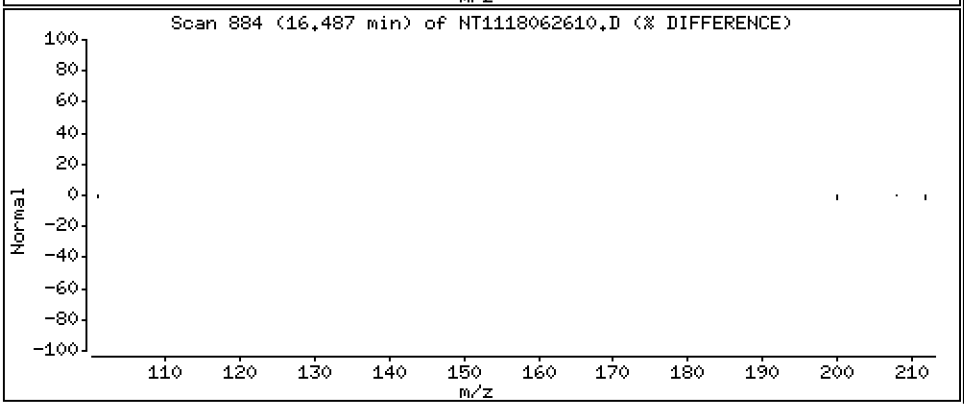












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Date : 26-JUN-2018 14:25

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

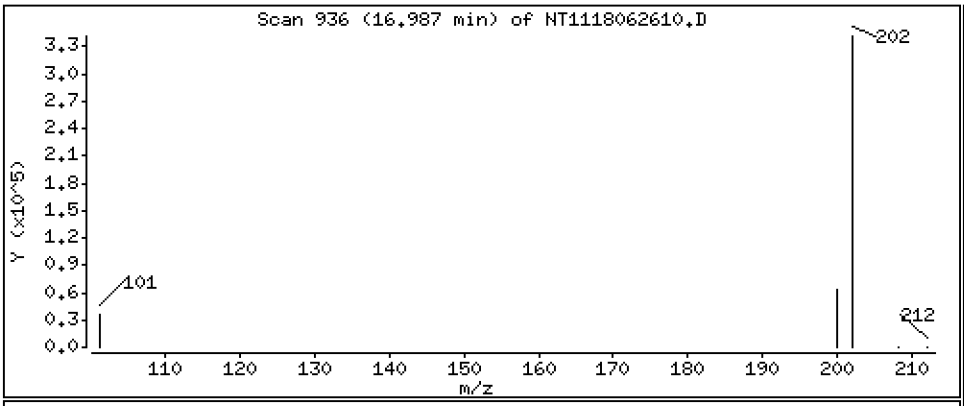
Operator: VTS

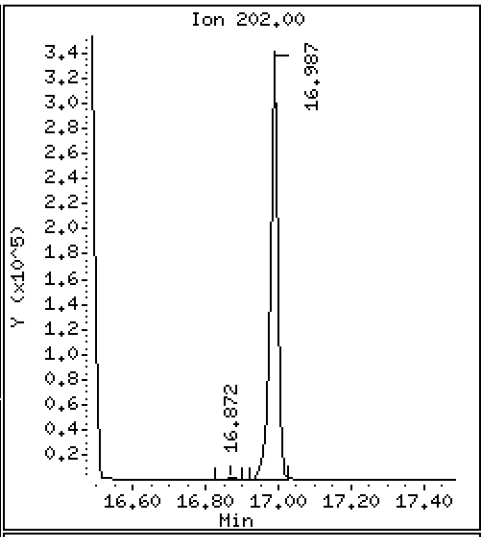
Column phase: Rxi-17Sil MS

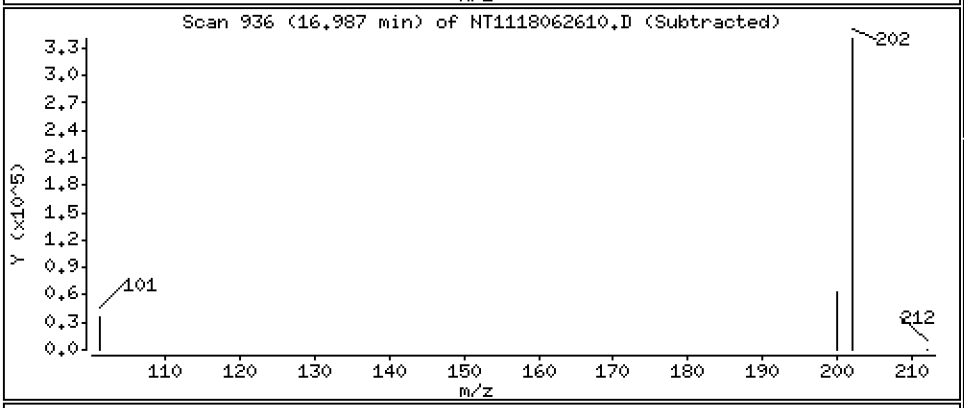
Column diameter: 0.25

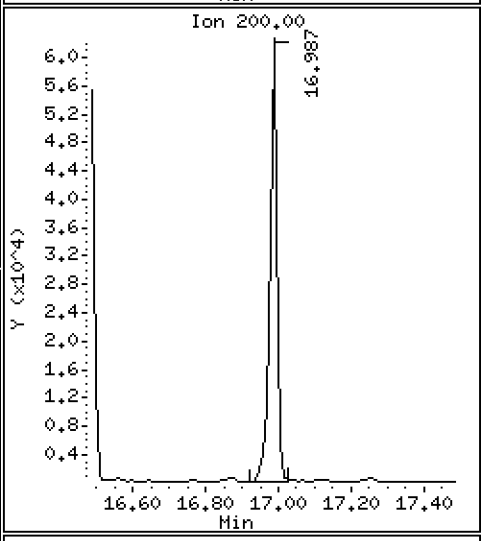
26 Pyrene

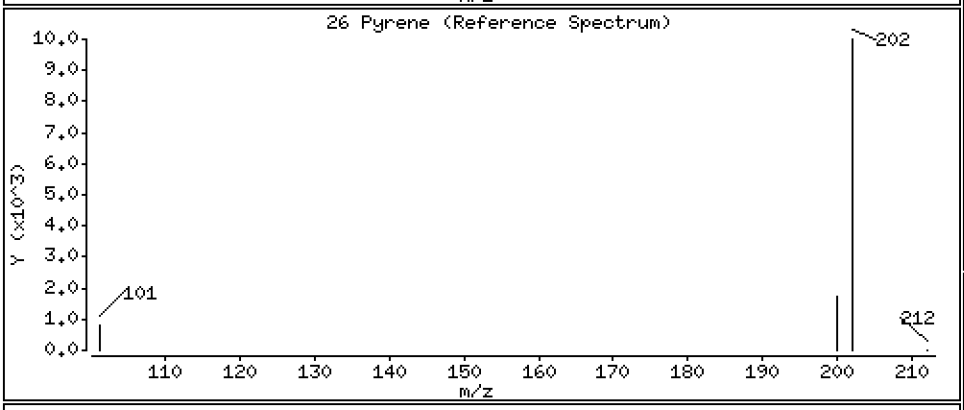
Concentration: 168 ng/mL

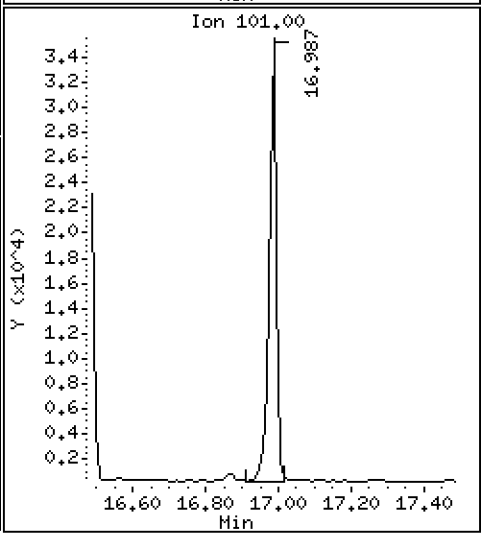


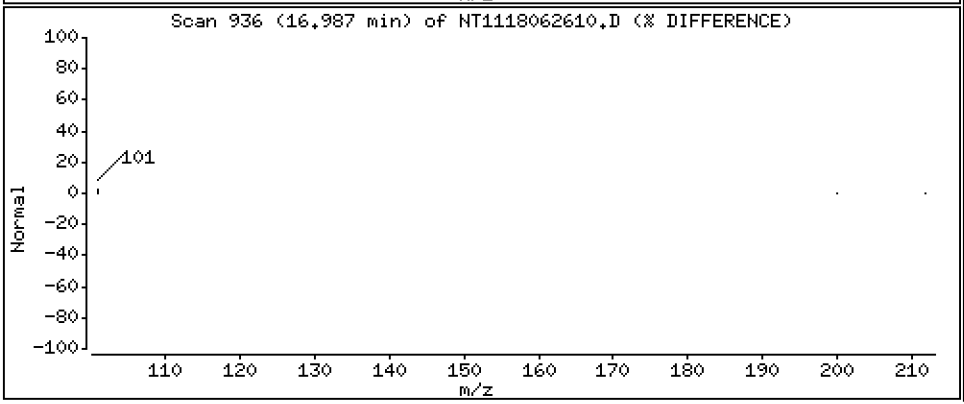












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Date : 26-JUN-2018 14:25

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

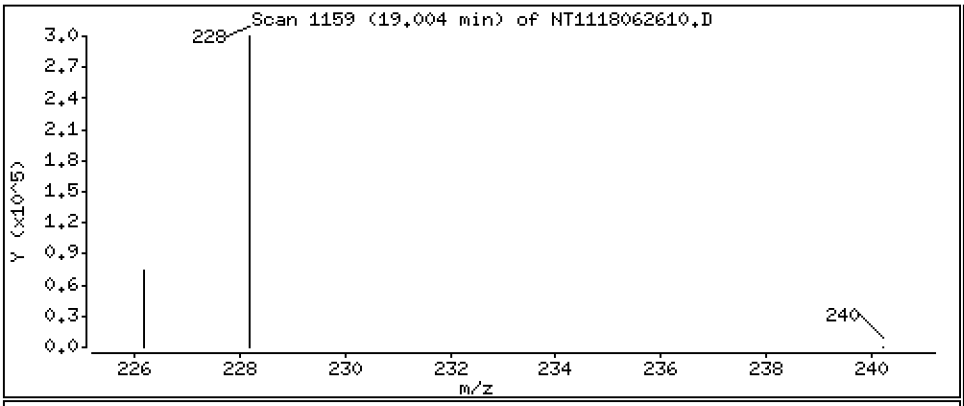
Operator: VTS

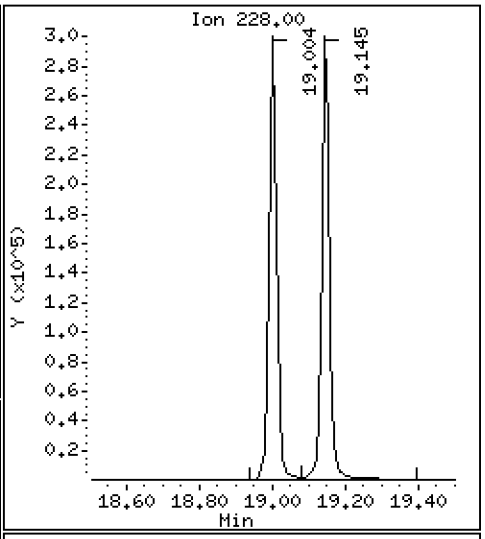
Column phase: Rxi-17Sil MS

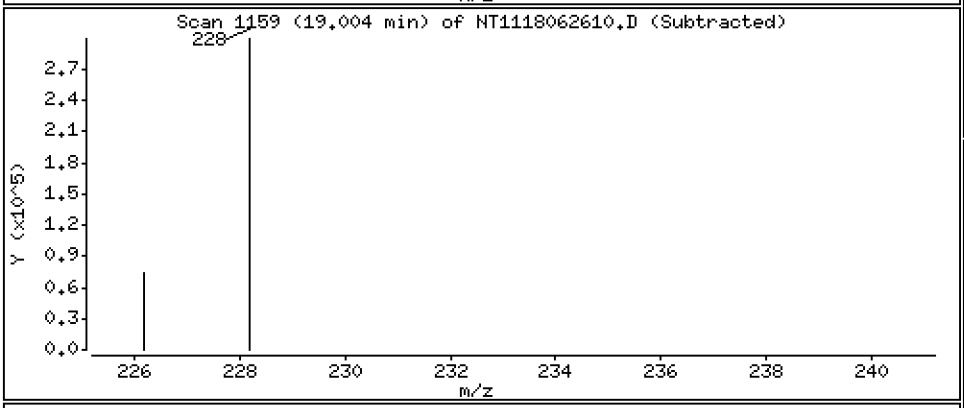
Column diameter: 0.25

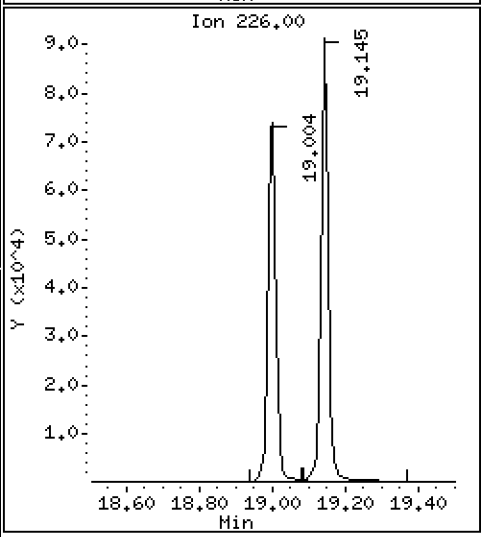
27 Benzo(a)anthracene

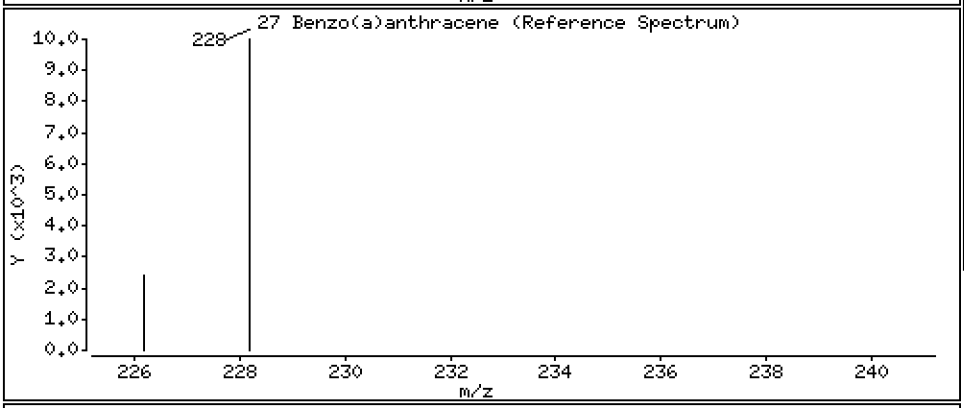
Concentration: 180 ng/mL

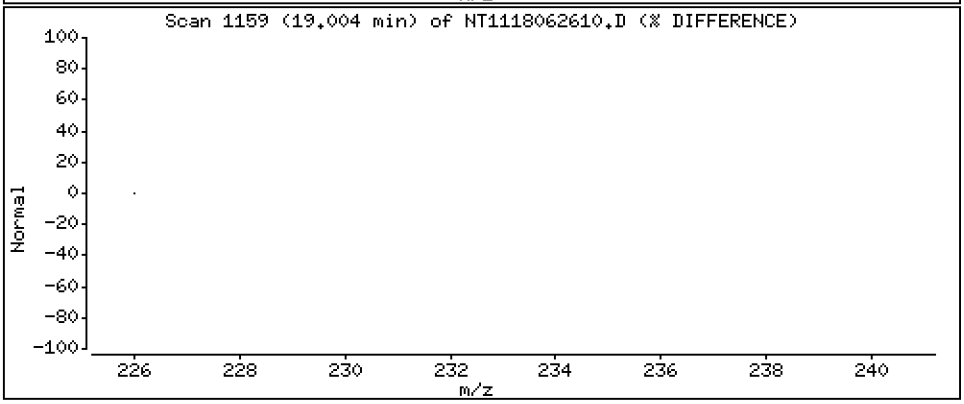












Data File: \\target\share\chem3\nt11.i\20180626.b\NT1118062610.D

Date : 26-JUN-2018 14:25

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

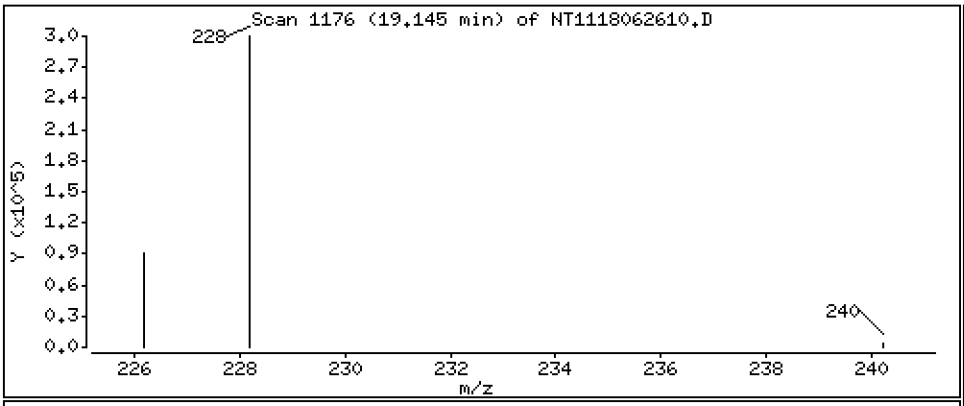
Operator: VTS

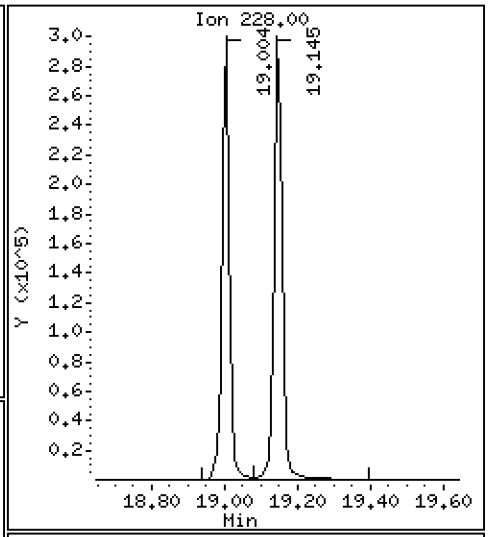
Column phase: Rxi-17Sil MS

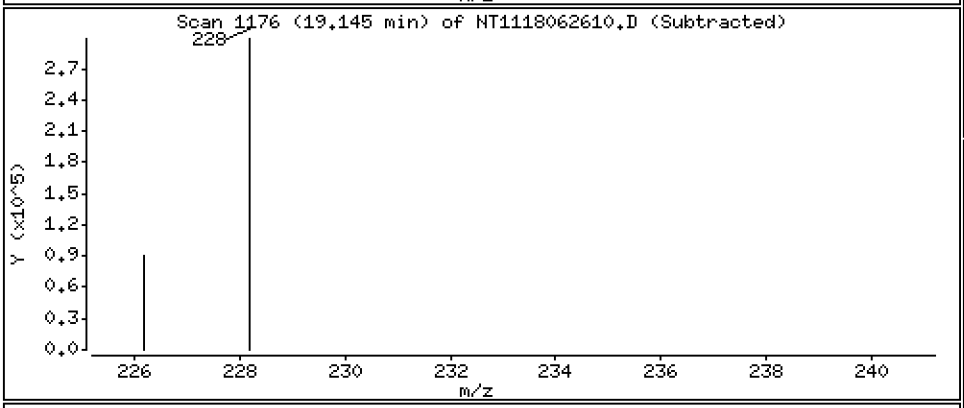
Column diameter: 0.25

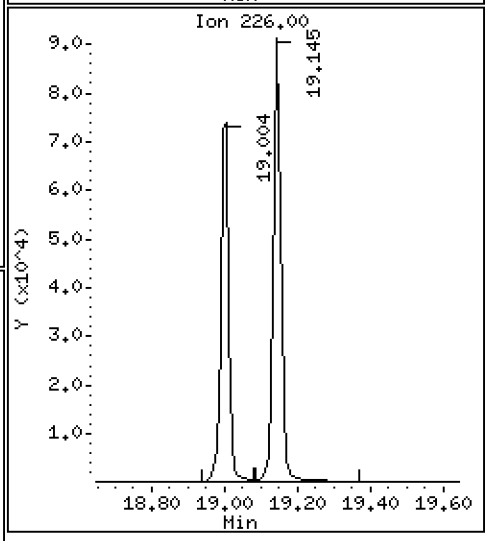
29 Chrysene

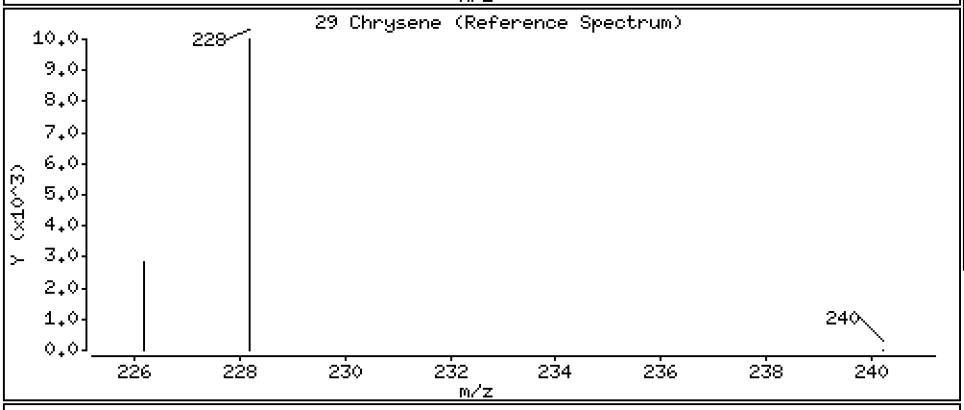
Concentration: 189 ng/mL

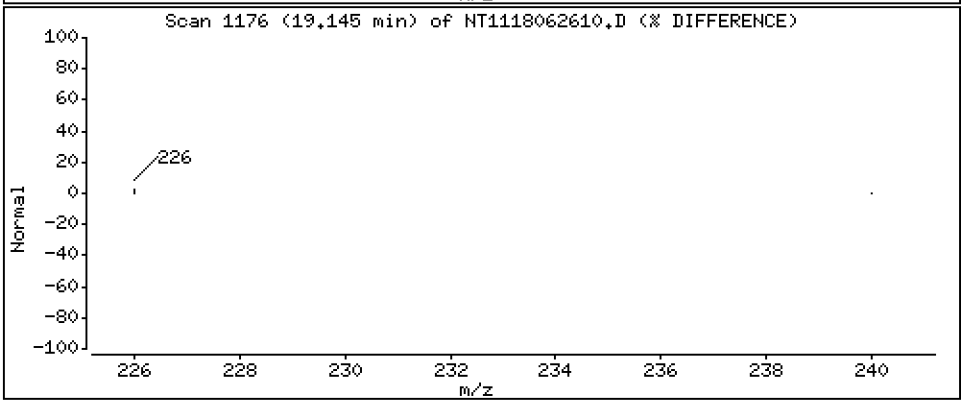












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Date : 26-JUN-2018 14:25

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

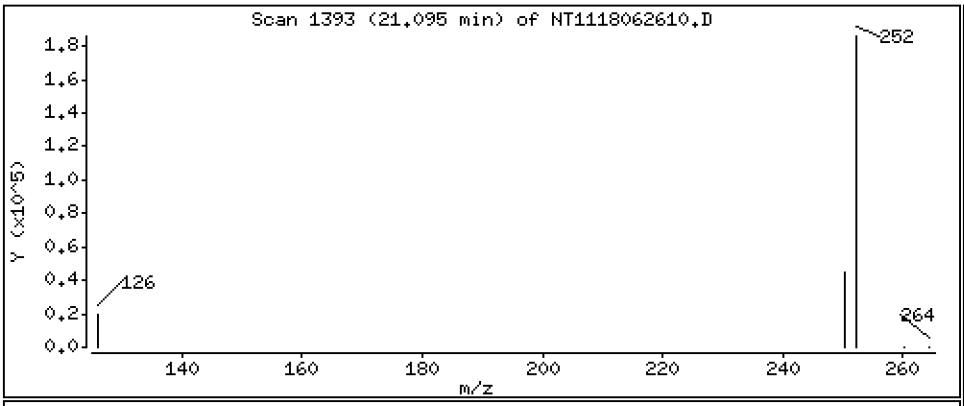
Operator: VTS

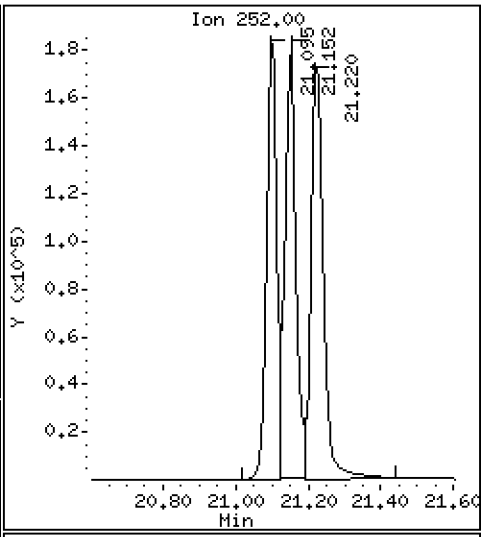
Column phase: Rxi-17Sil MS

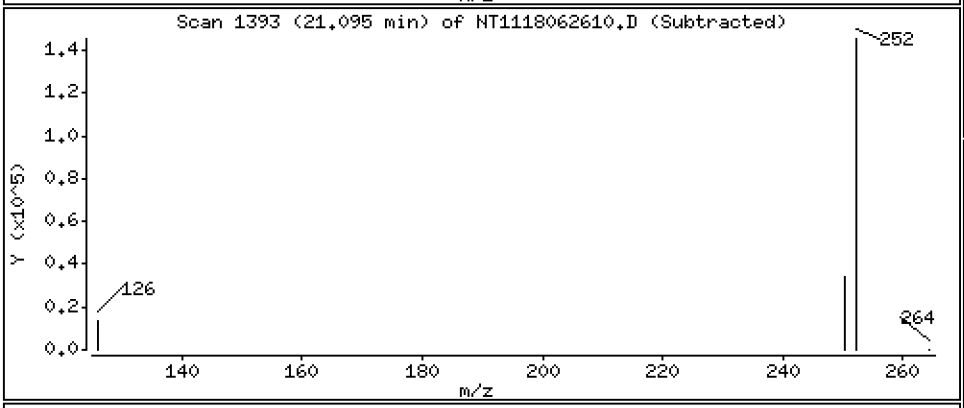
Column diameter: 0.25

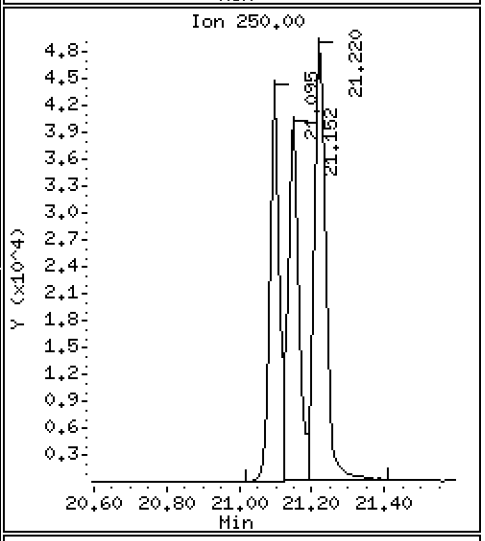
30 Benzo(b)fluoranthene

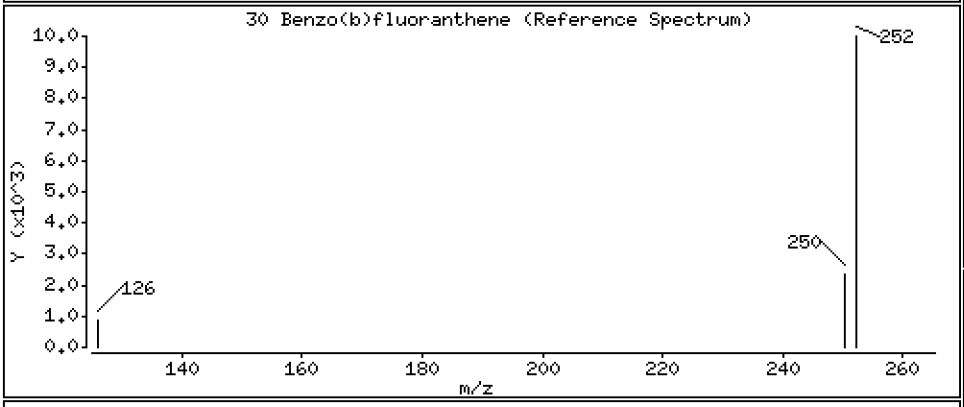
Concentration: 164 ng/mL

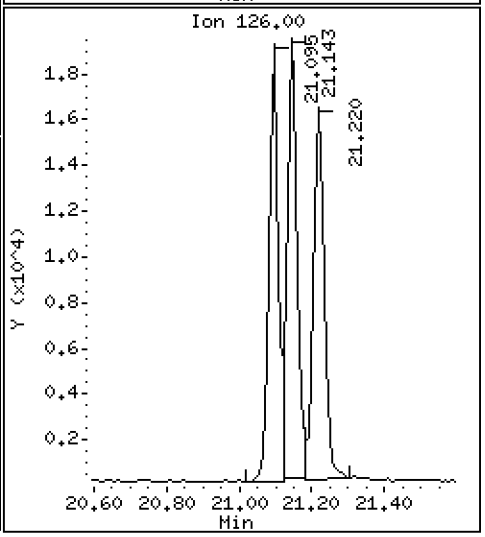


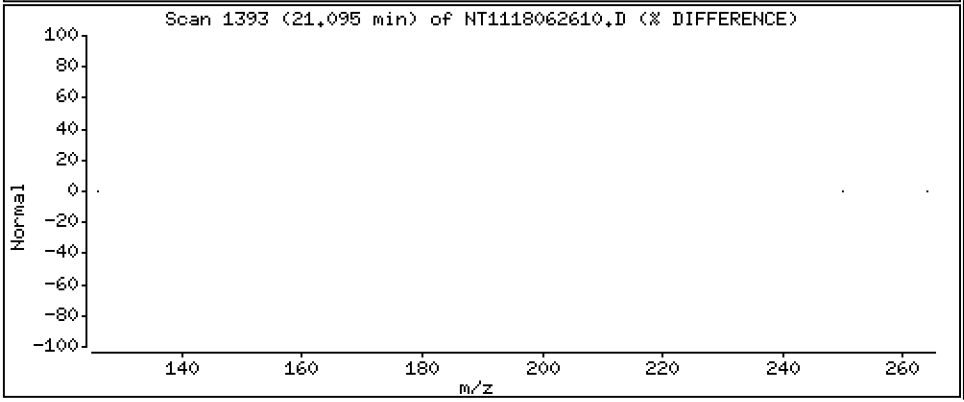












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Date : 26-JUN-2018 14:25

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

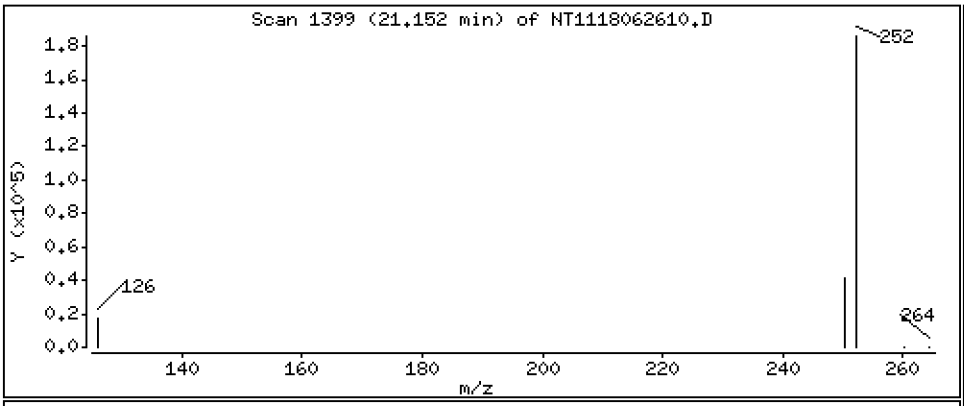
Operator: VTS

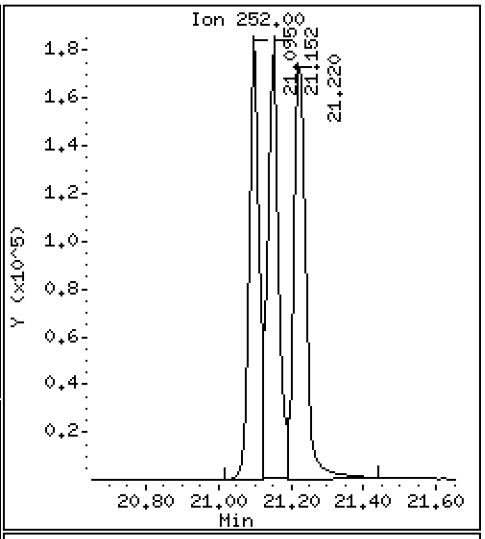
Column phase: Rxi-17Sil MS

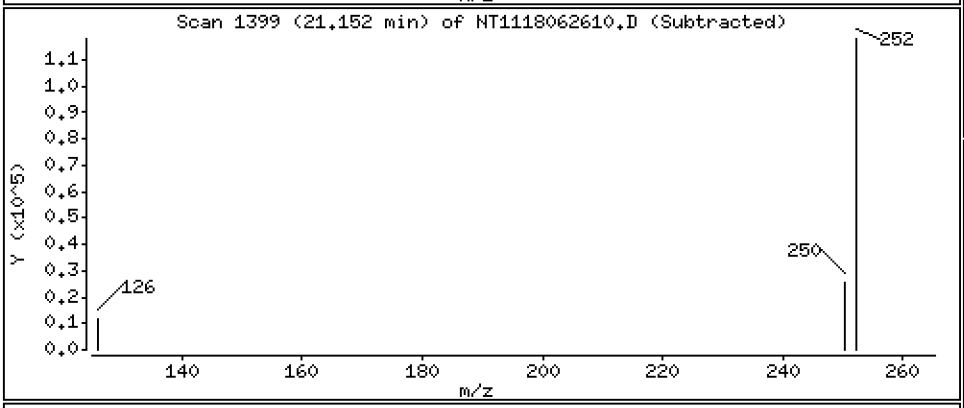
Column diameter: 0.25

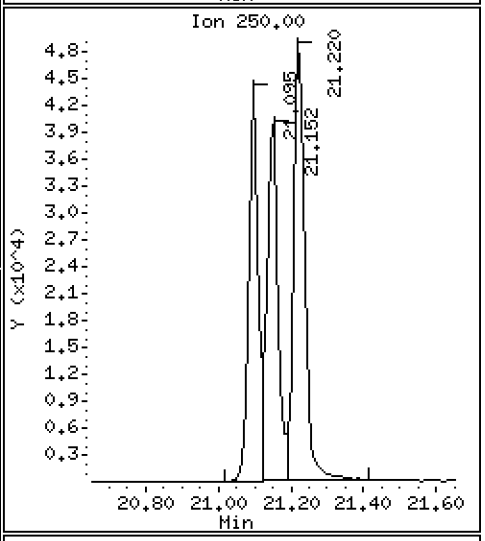
31 Benzo(k)fluoranthene

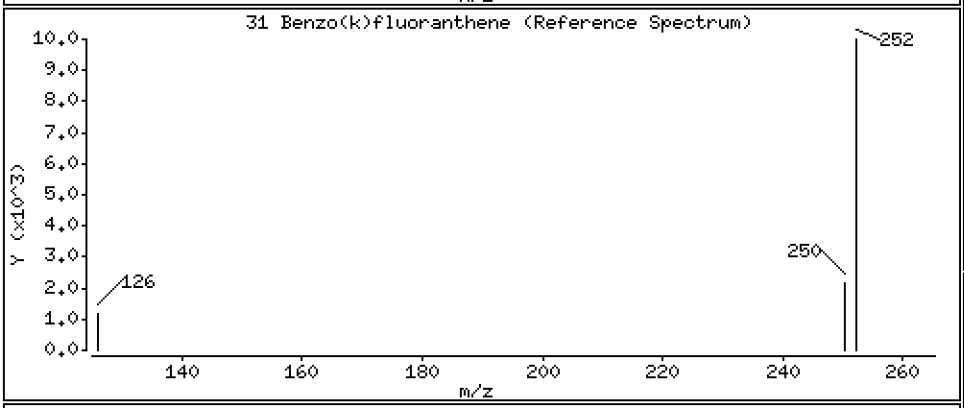
Concentration: 173 ng/mL

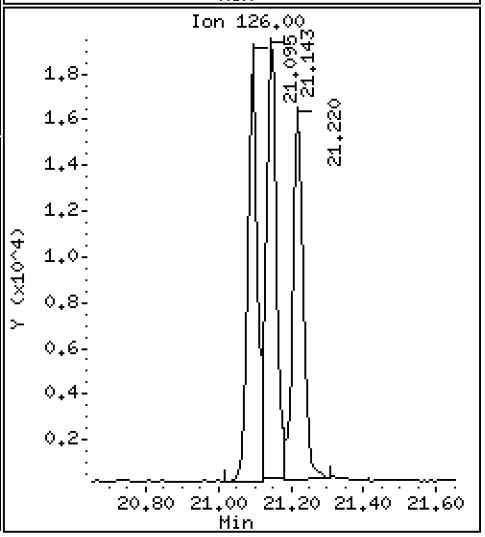


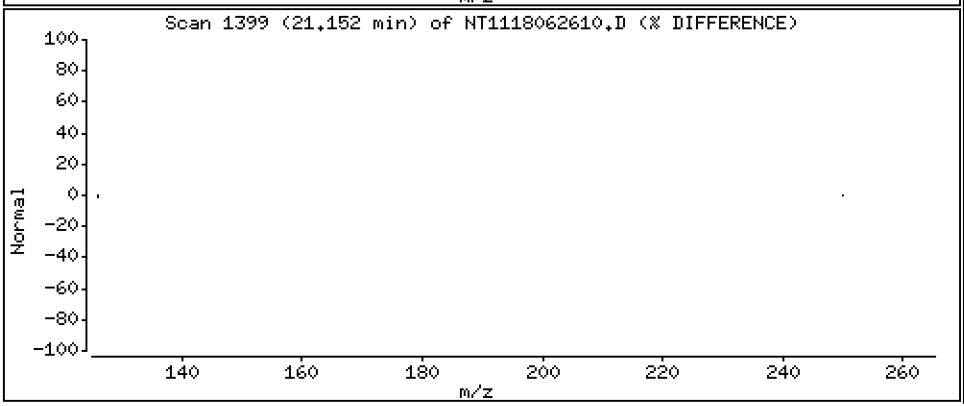












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Date : 26-JUN-2018 14:25

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

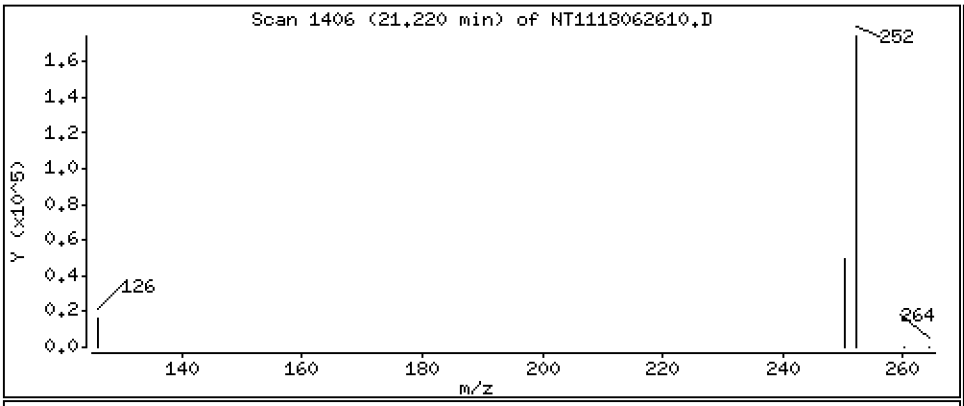
Operator: VTS

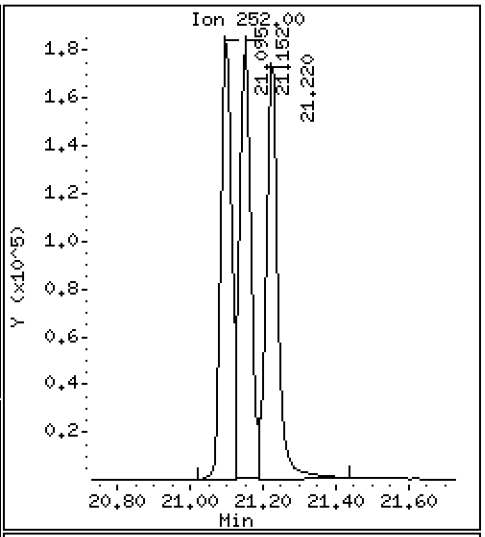
Column phase: Rxi-17Sil MS

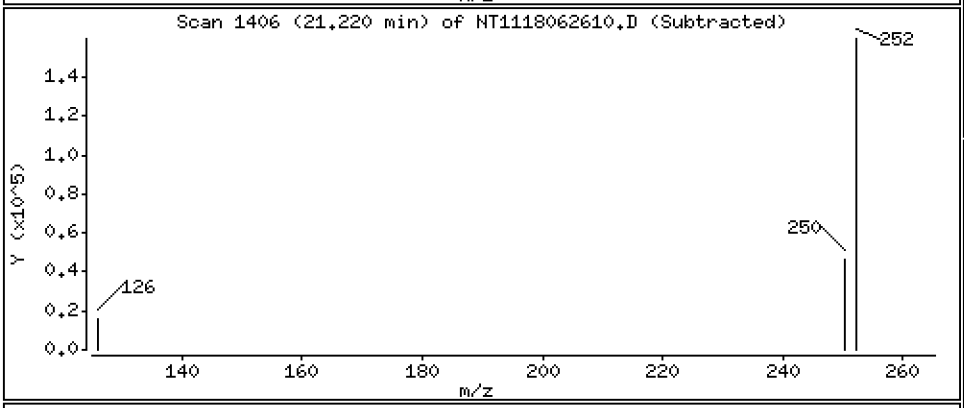
Column diameter: 0.25

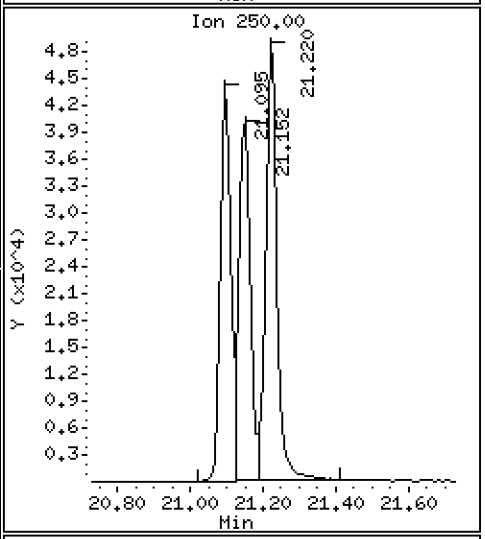
32 Benzo(j)fluoranthene

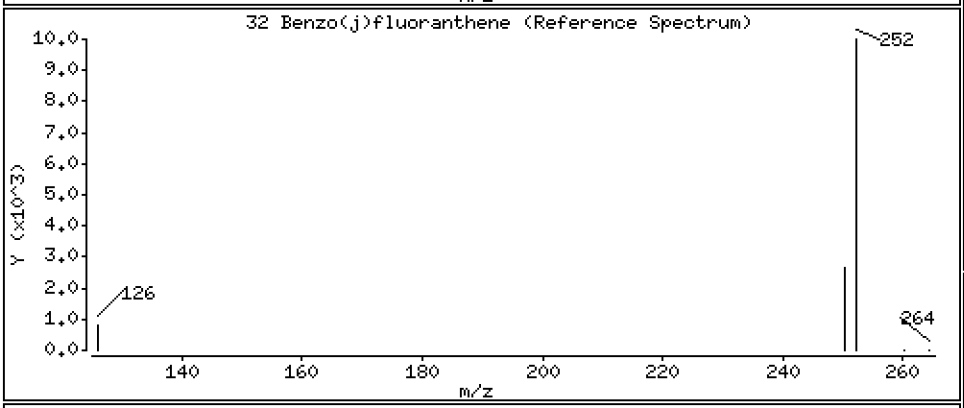
Concentration: 188 ng/mL

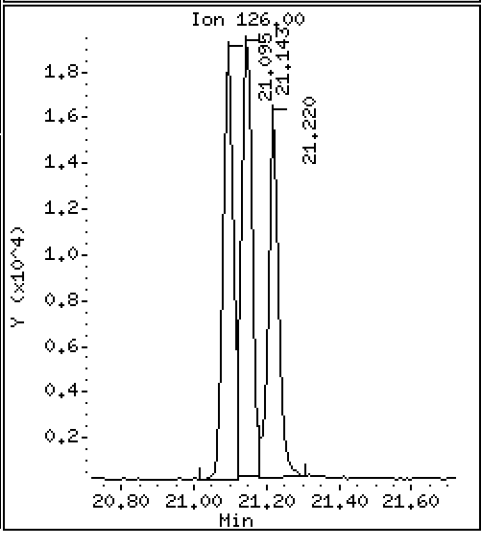


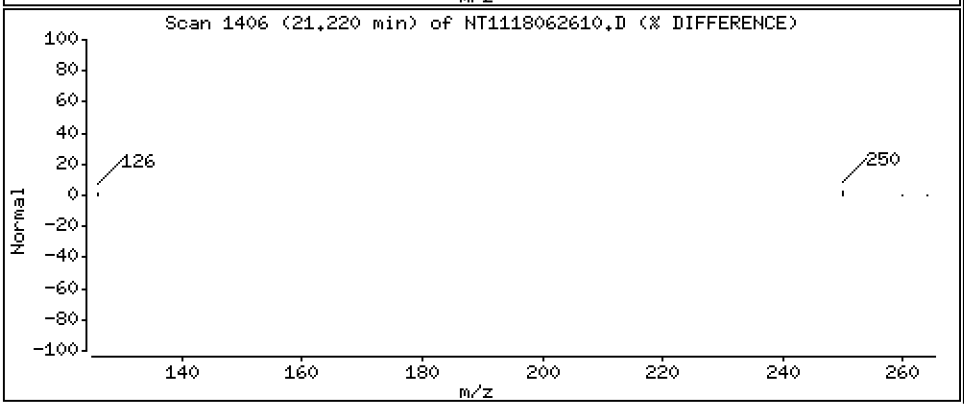












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Date : 26-JUN-2018 14:25

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

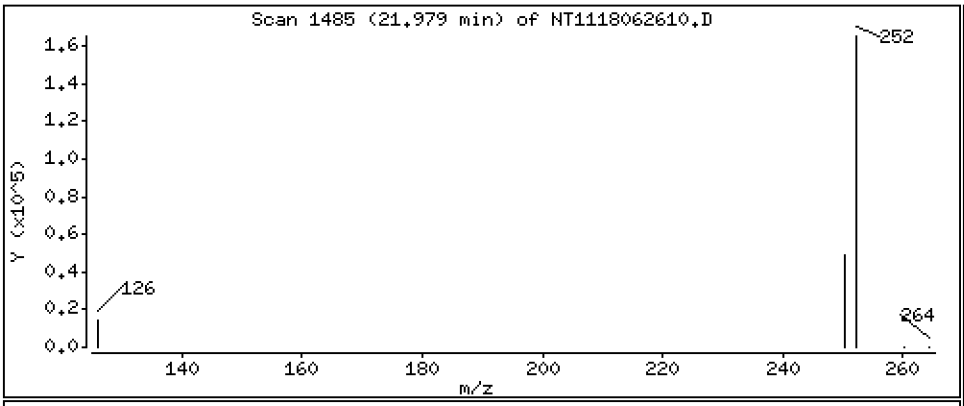
Operator: VTS

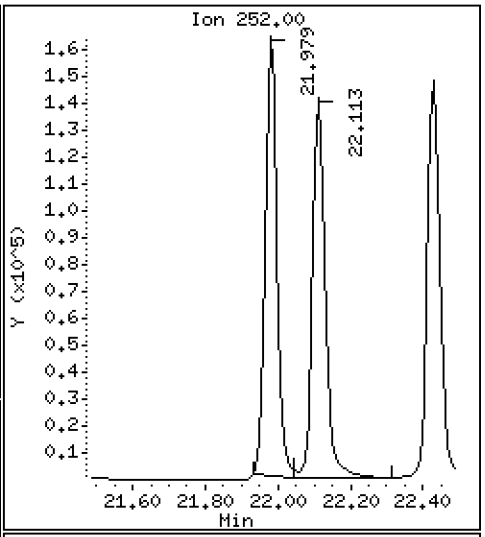
Column phase: Rxi-17Sil MS

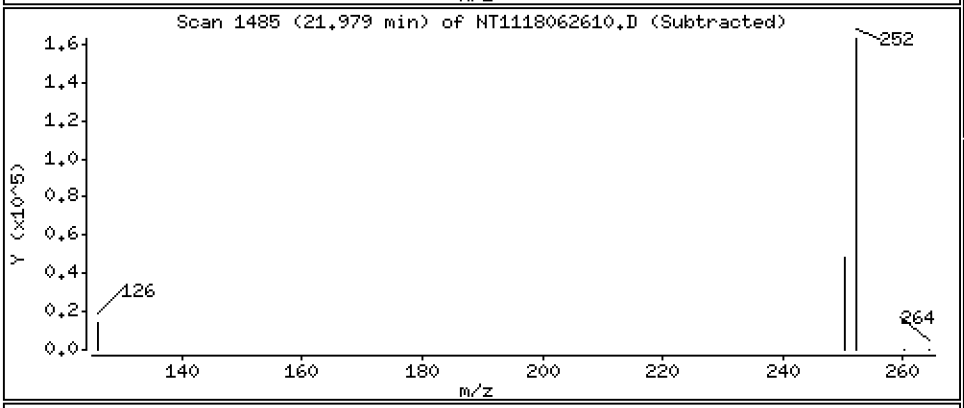
Column diameter: 0.25

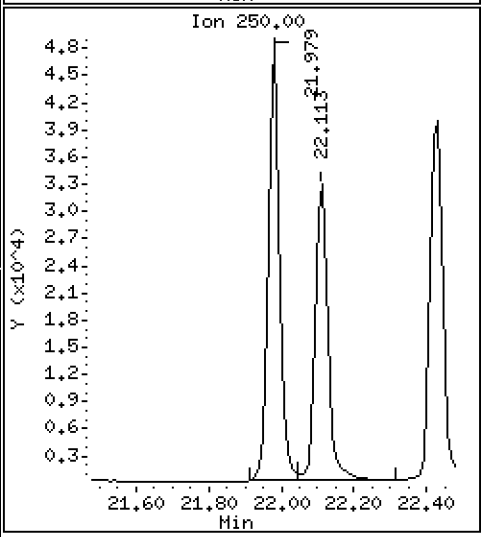
34 Benzo(e)pyrene

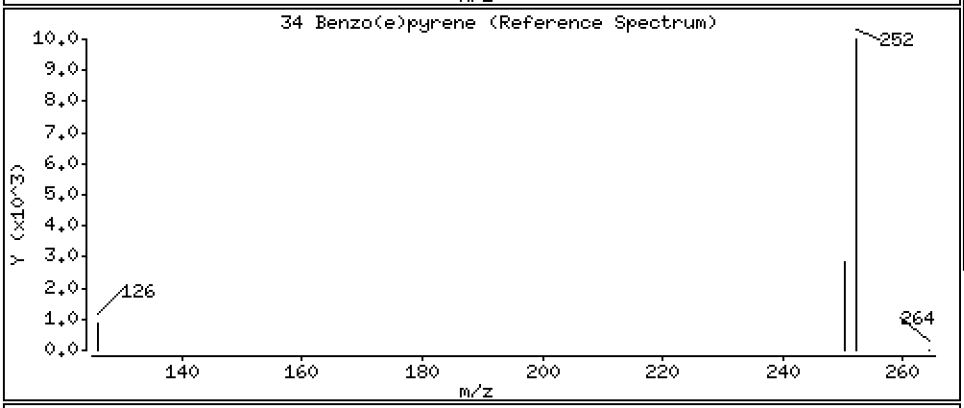
Concentration: 166 ng/mL

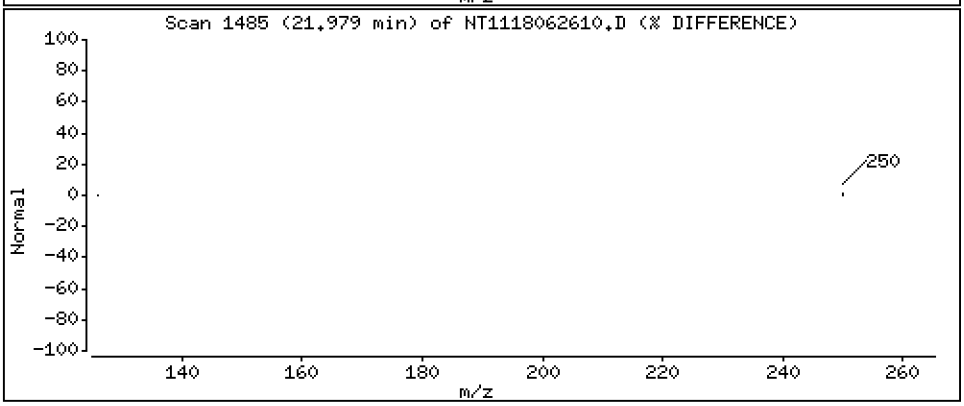












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Date : 26-JUN-2018 14:25

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

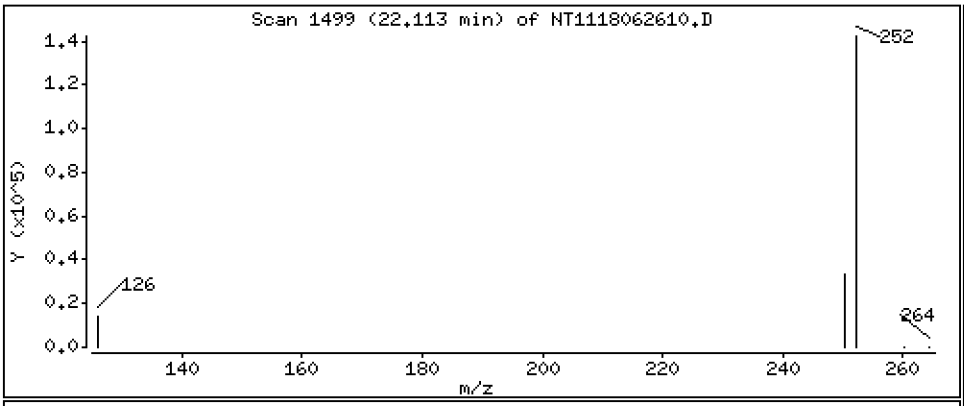
Operator: VTS

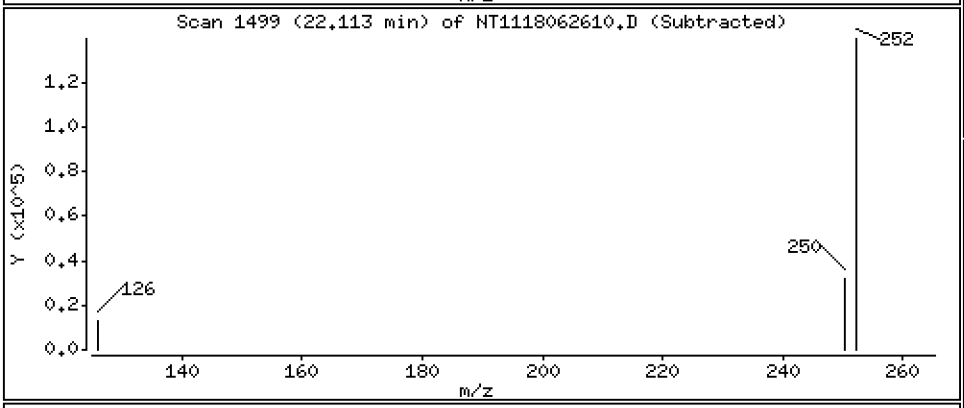
Column phase: Rxi-17Sil MS

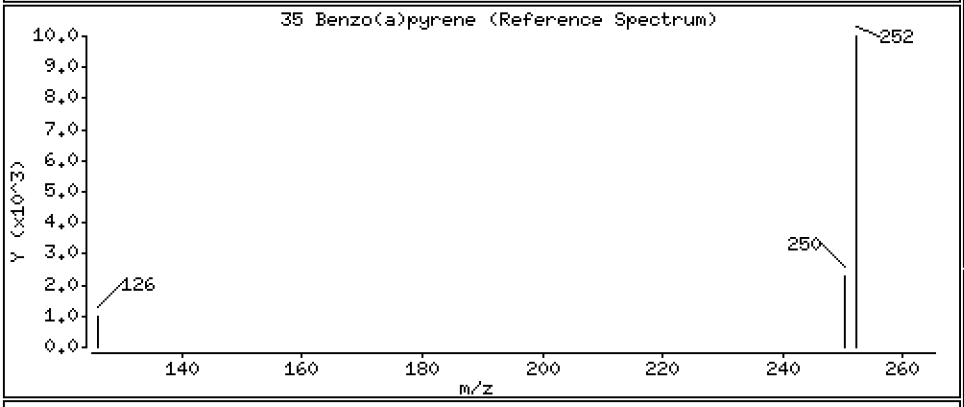
Column diameter: 0.25

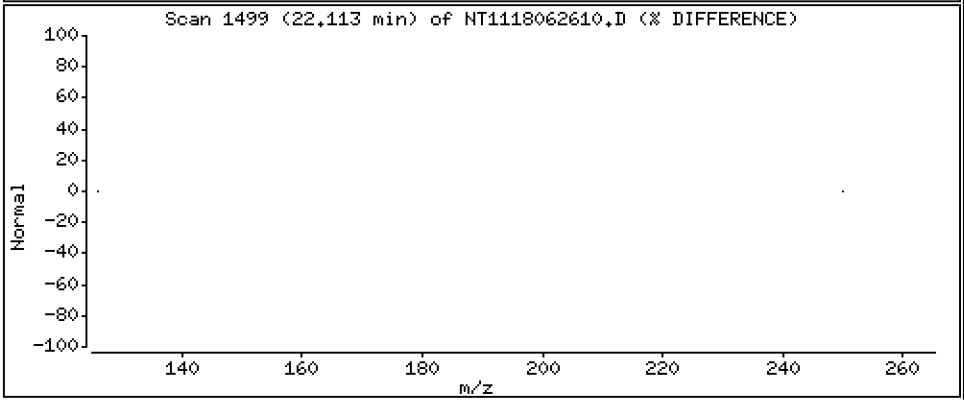
35 Benzo(a)pyrene

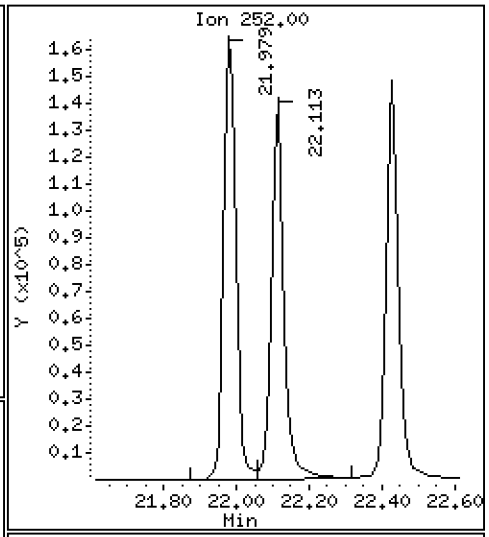
Concentration: 169 ng/mL

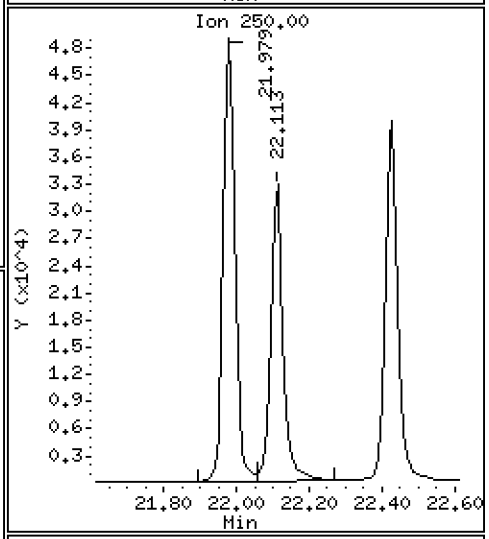


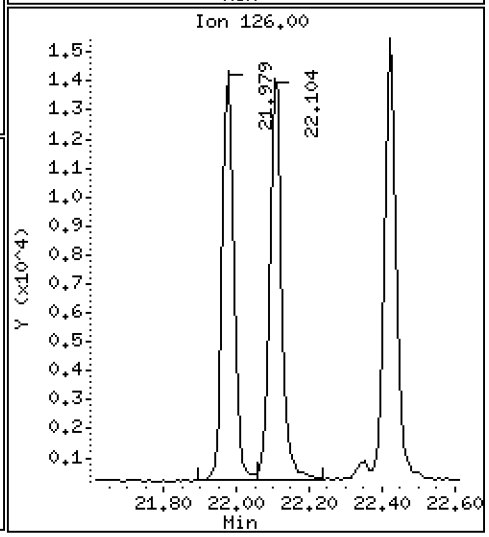












Date : 26-JUN-2018 14:25

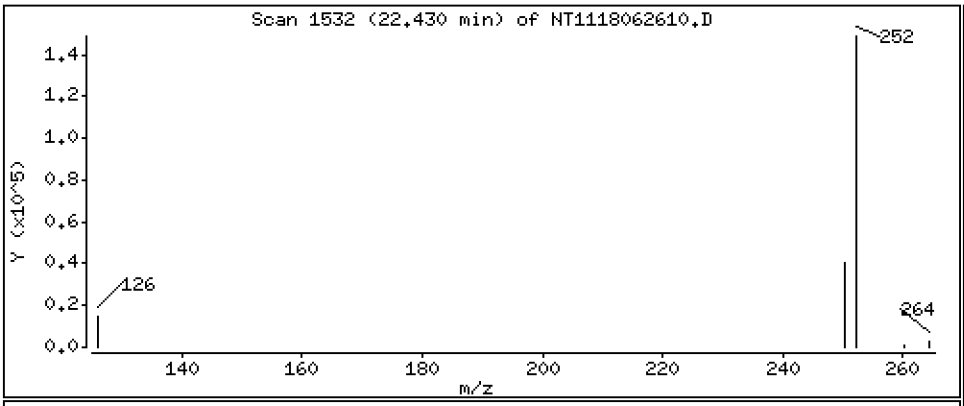
Client ID: Instrument: nt11.i

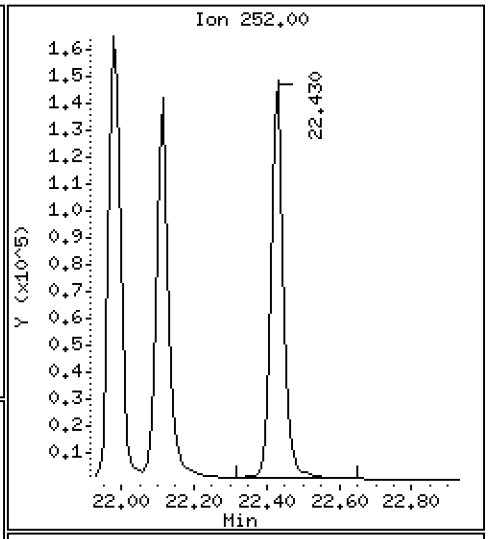
Sample Info: BGF0416-MS1

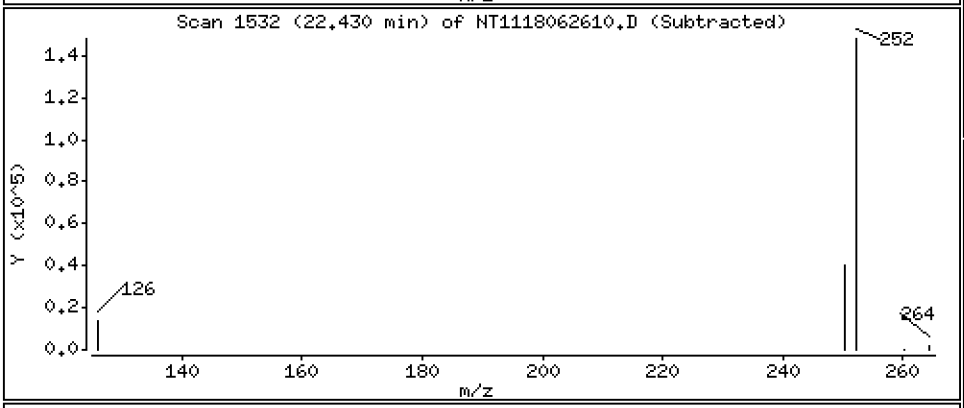
Operator: VTS

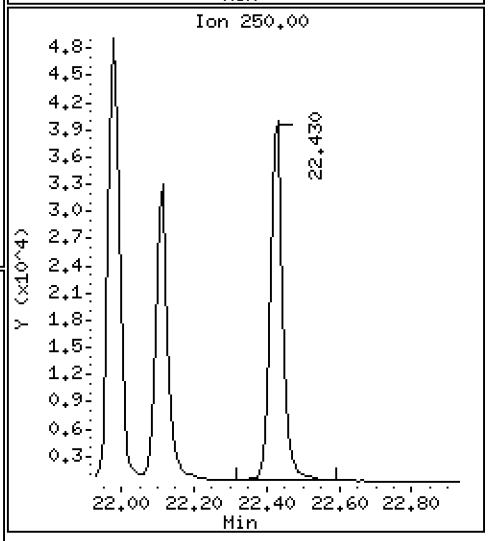
Column phase: Rxi-17Sil MS Column diameter: 0.25

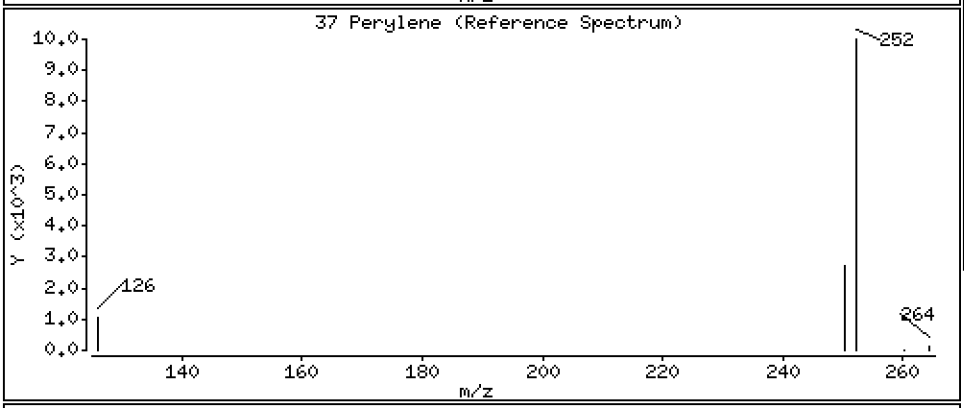
37 Perylene Concentration: 171 ng/mL

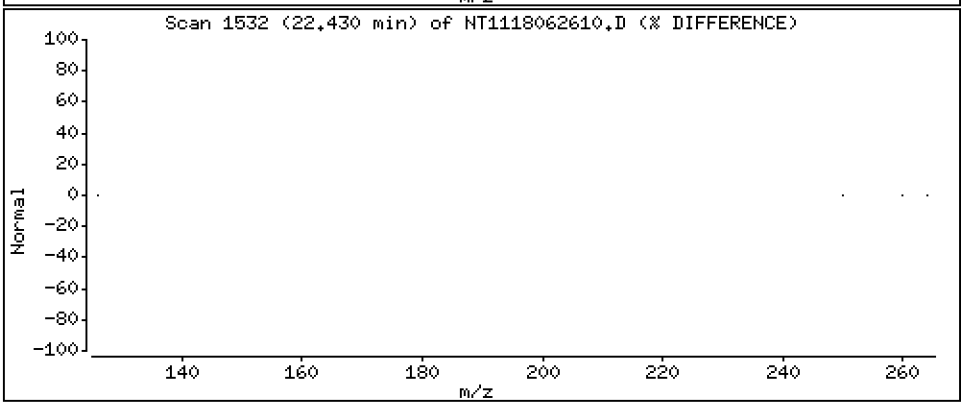












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Date : 26-JUN-2018 14:25

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

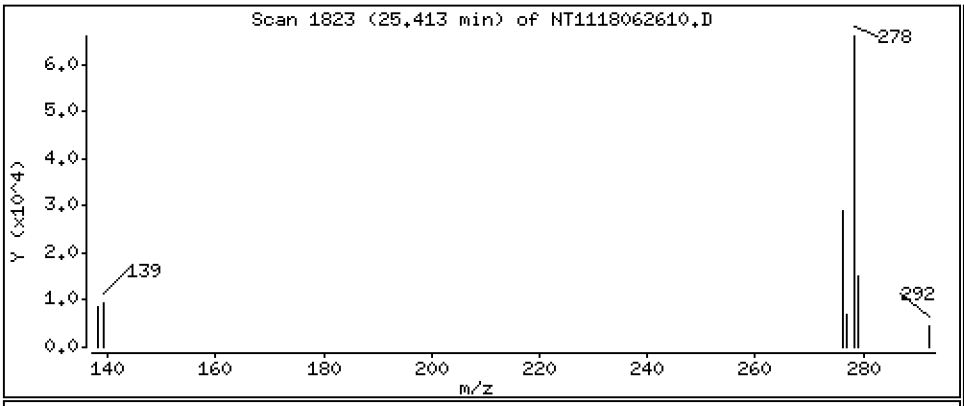
Operator: VTS

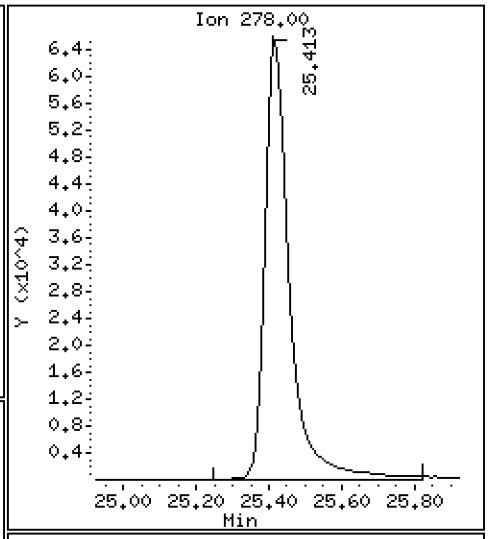
Column phase: Rxi-17Sil MS

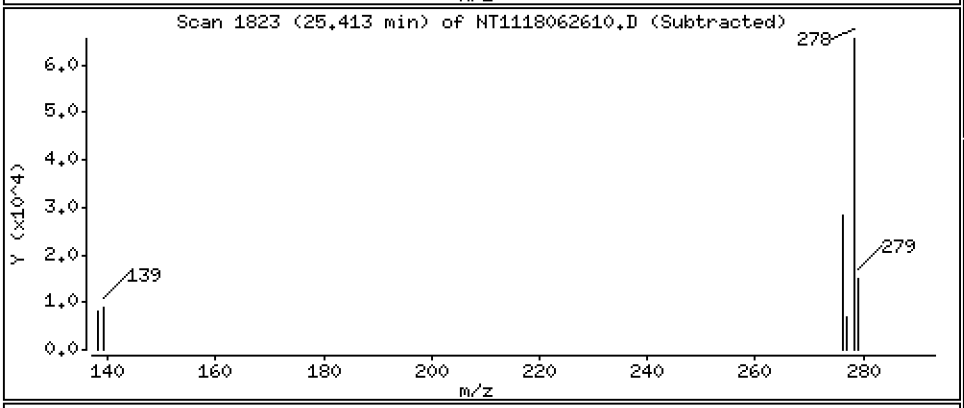
Column diameter: 0.25

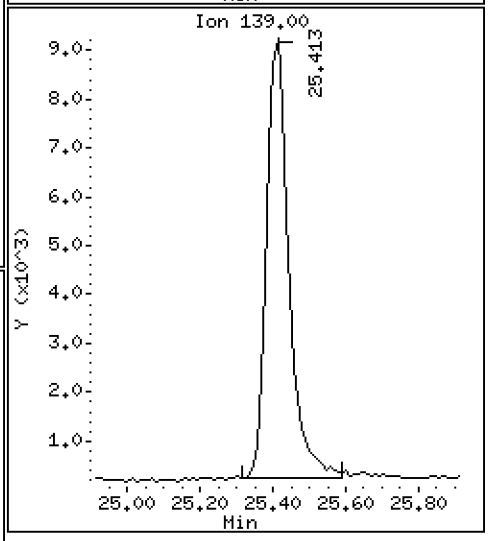
39 Dibenzo(a,h)anthracene

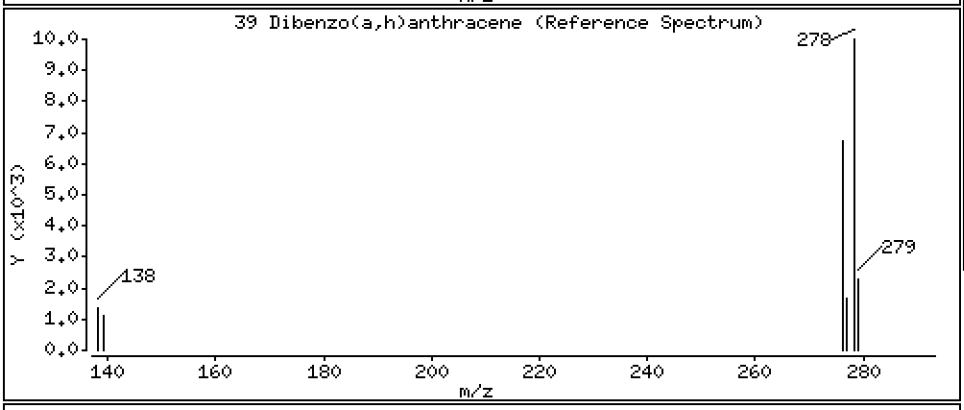
Concentration: 175 ng/mL

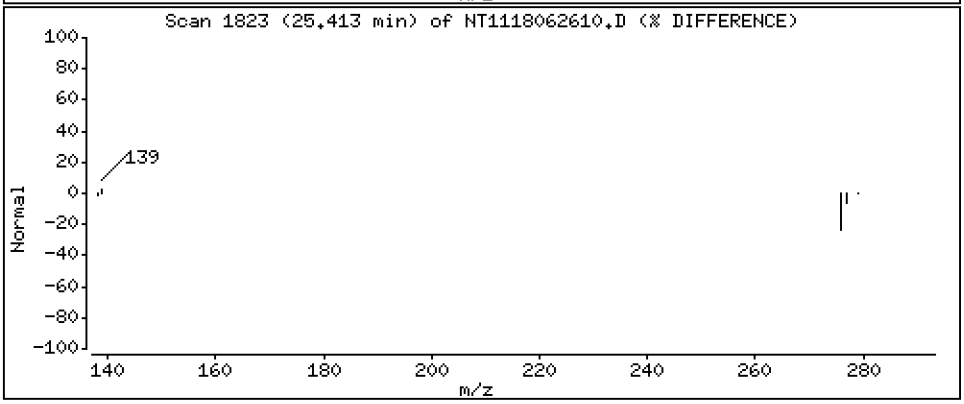












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Date : 26-JUN-2018 14:25

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

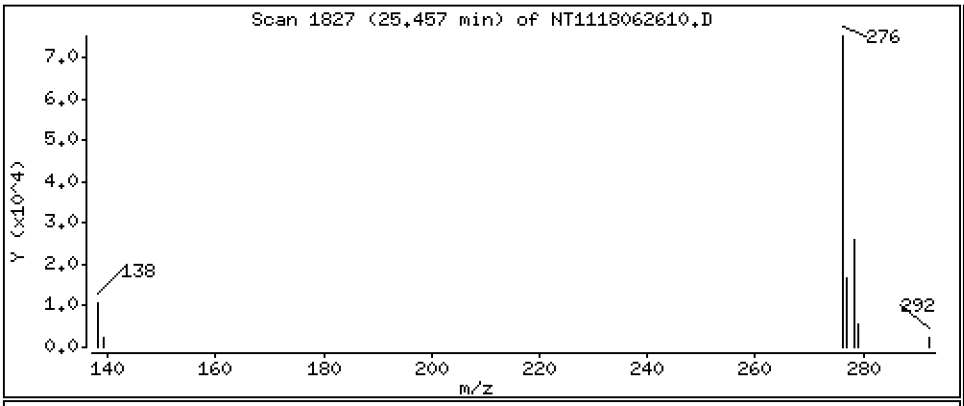
Operator: VTS

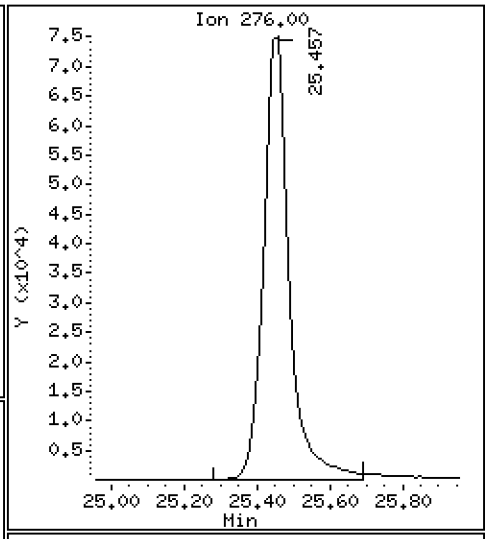
Column phase: Rxi-17Sil MS

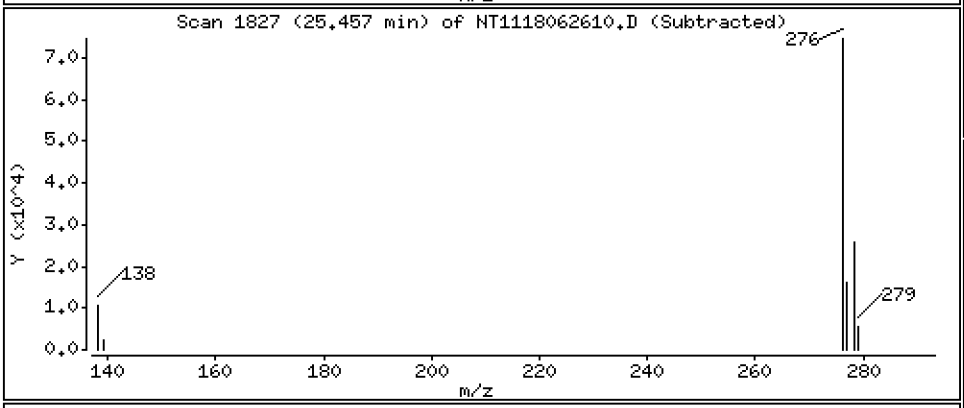
Column diameter: 0.25

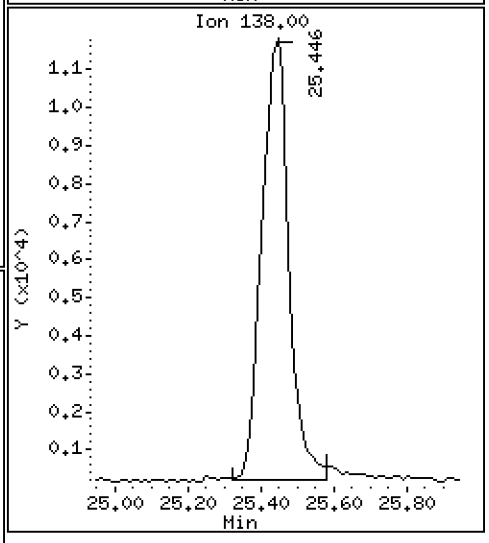
40 Indeno(1,2,3-cd)pyrene

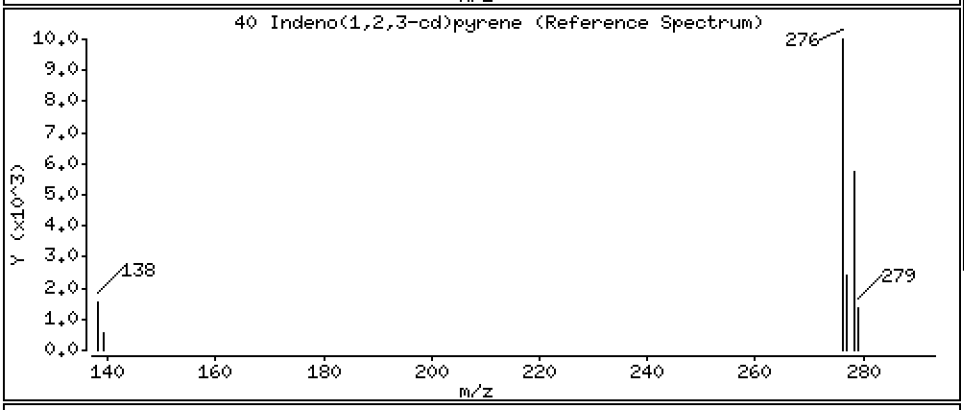
Concentration: 172 ng/mL

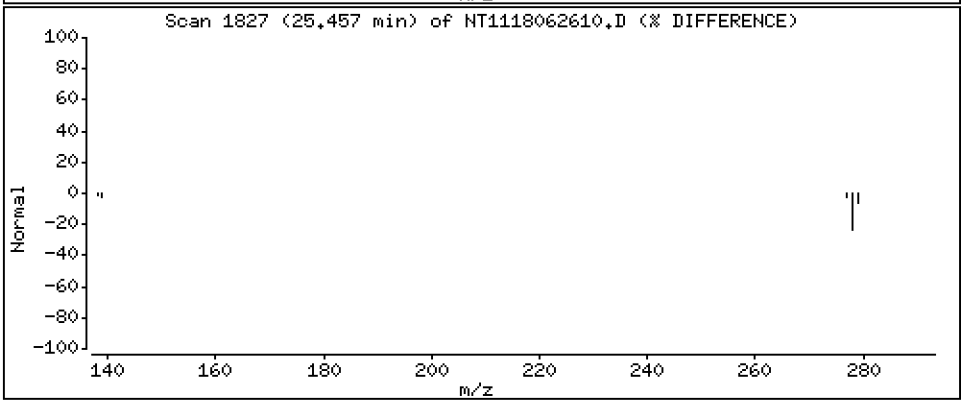












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Date : 26-JUN-2018 14:25

Client ID:

Instrument: nt11.i

Sample Info: BGF0416-MS1

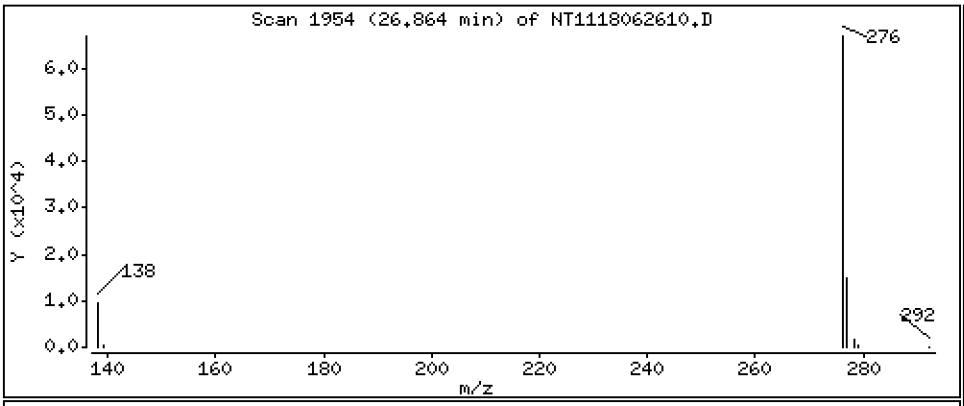
Operator: VTS

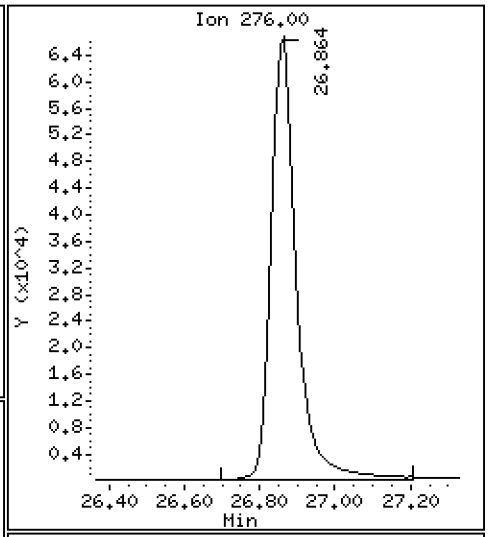
Column phase: Rxi-17Sil MS

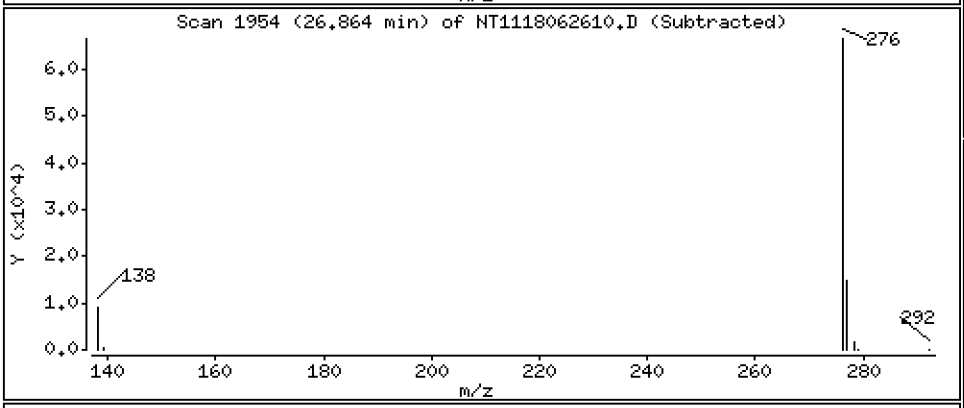
Column diameter: 0.25

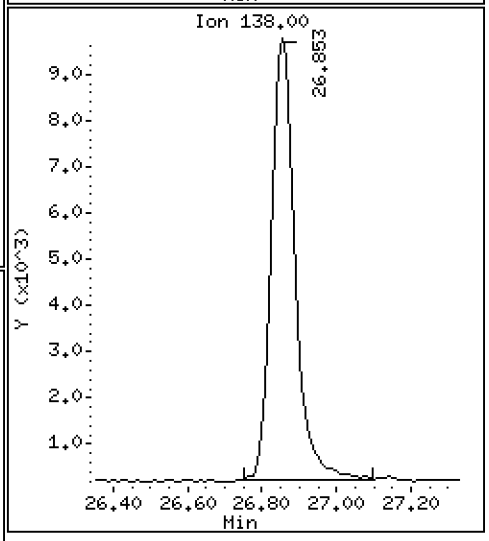
41 Benzo(g,h,i)perylene

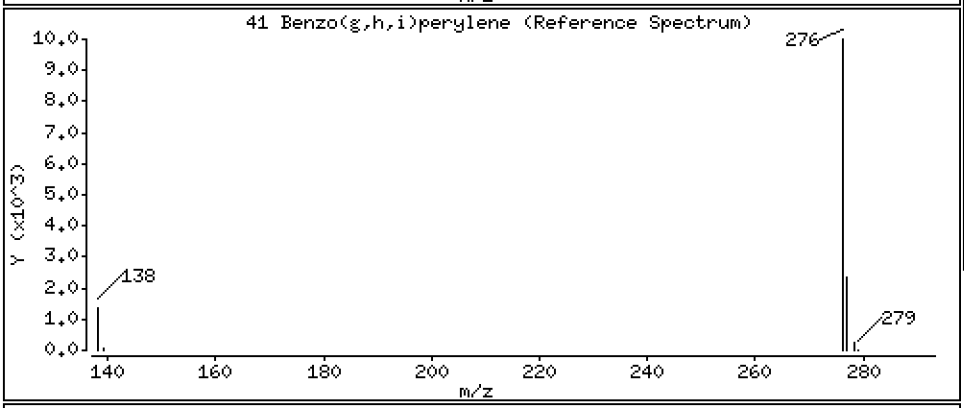
Concentration: 173 ng/mL

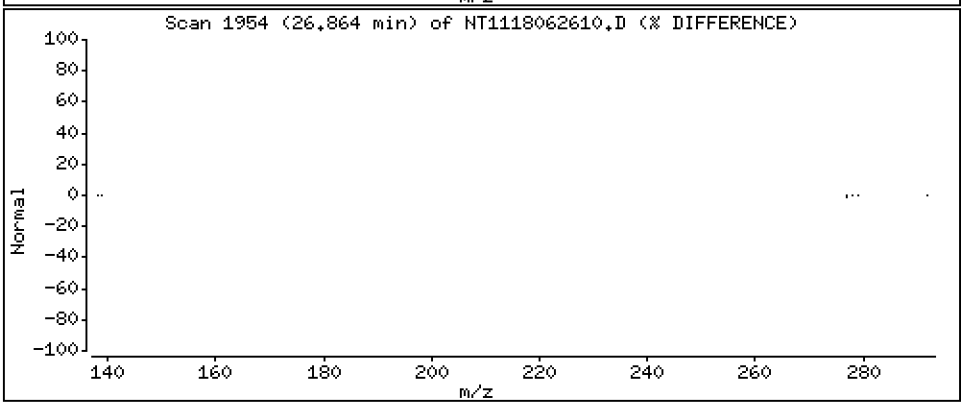












ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20180626.b\NT1118062610.D
Lab Smp Id: BGF0416-MS1
Inj Date : 26-JUN-2018 14:25 MS Autotune Date: 15-JAN-2015 16:59
Operator : VTS Inst ID: nt11.i
Smp Info : BGF0416-MS1
Misc Info :
Comment :
Method : \\target\share\chem3\nt11.i\20180626.b\LOWSIM.m
Meth Date : 26-Jun-2018 10:11 van Quant Type: ISTD
Cal Date : 05-MAY-2018 15:15 Cal File: NT1118050507.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: allpna.sub
Target Version: 4.14

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	FINAL (ng/mL)
*	1 Naphthalene-d8	136	8.608	8.608	(1.000)	415486	200.000	
	2 Naphthalene	128	8.644	8.644	(1.004)	363764	125.414	125
	3 Benzo(b)thiophene	134	8.897	8.897	(1.034)	313096	143.765	144
$	4 2-Methylnaphthalene-d10	152	9.591	9.592	(1.114)	331104	139.670	140
	5 2-Methylnaphthalene	142	9.644	9.644	(1.120)	365365	144.361	144
	6 1-Methylnaphthalene	142	9.907	9.907	(1.151)	355496	141.234	141
	7 2-Chloronaphthalene	162	10.558	10.569	(0.907)	362200	151.363	151
	8 Biphenyl	154	10.526	10.527	(0.904)	465692	162.699	163
	9 2,6-Dimethylnaphthalene	156	10.579	10.579	(0.909)	363470	160.678	161
	10 Acenaphthylene	152	11.490	11.499	(0.987)	421061	153.842	154
*	11 Acenaphthene-d10	164	11.644	11.644	(1.000)	230195	200.000	
	12 Acenaphthene	153	11.707	11.707	(1.005)	279304	149.201	149
	13 Dibenzofuran	168	11.907	11.908	(1.023)	397671	155.065	155
	14 2,3,5-Trimethylnaphthalene	170	11.996	11.996	(1.030)	256112	156.051	156
$	15 Fluorene-d10	174	Compound Not Detected.					
	16 Fluorene	166	12.539	12.539	(1.077)	333065	161.051	161
	17 Dibenzothiophene	184	14.172	14.172	(0.988)	385830	160.339	160
*	18 Phenanthrene-d10	188	14.340	14.340	(1.000)	386420	200.000	
	19 Phenanthrene	178	14.382	14.382	(1.003)	518020	170.925	171
	21 Anthracene	178	14.435	14.435	(1.007)	466079	164.503	165
	22 Carbazole	167	15.112	15.112	(1.054)	579042	175.431	175
	23 1-Methylphenanthrene	192	15.384	15.384	(1.073)	540098	188.611	189
$	24 Fluoranthene-d10	212	16.448	16.449	(1.147)	383169	163.358	163
	25 Fluoranthene	202	16.487	16.487	(1.150)	521262	185.209	185
	26 Pyrene	202	16.986	16.987	(0.890)	520192	168.086	168
	27 Benzo(a)anthracene	228	19.004	19.004	(0.995)	433415	179.565	180
*	28 Chrysene-d12	240	19.095	19.103	(1.000)	314799	200.000	
	29 Chrysene	228	19.145	19.145	(1.003)	453521	189.159	189
	30 Benzo(b)fluoranthene	252	21.094	21.104	(0.944)	375602	164.489	164
	31 Benzo(k)fluoranthene	252	21.152	21.152	(0.946)	410020	173.162	173
	32 Benzo(j)fluoranthene	252	21.219	21.229	(0.949)	404146	187.529	188
	34 Benzo(e)pyrene	252	21.978	21.988	(0.983)	366066	166.210	166
	35 Benzo(a)pyrene	252	22.113	22.113	(0.989)	339124	169.051	169
*	36 Perylene-d12	264	22.353	22.353	(1.000)	322831	200.000	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng/mL)	CONCENTRATIONS FINAL (ng/mL)
	37 Perylene	252	22.430	22.430	(1.003)	360235	171.104	171
$	38 Dibenzo(a,h)anthracene-d14	292	25.279	25.279	(1.131)	244012	157.950	158
	39 Dibenzo(a,h)anthracene	278	25.412	25.423	(1.137)	304785	174.618	175
	40 Indeno(1,2,3-cd)pyrene	276	25.457	25.457	(1.139)	359944	172.498	172
	41 Benzo(g,h,i)perylene	276	26.863	26.863	(1.202)	312670	173.236	173

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i
Lab File ID: NT1118062610.D
Lab Smp Id: BGF0416-MS1
Analysis Type: SV
Quant Type: ISTD
Operator: VTS
Method File: \\target\share\chem3\nt11.i\20180626.b\LOWSIM.m
Misc Info:

Calibration Date: 26-JUN-2018
Calibration Time: 09:36
Level:
Sample Type:

Test Mode:
Use Initial Calibration Level 4.

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	431321	215661	862642	415486	-3.67
11 Acenaphthene-d10	260137	130069	520274	230195	-11.51
18 Phenanthrene-d10	427391	213696	854782	386420	-9.59
28 Chrysene-d12	304596	152298	609192	314799	3.35
36 Perylene-d12	263091	131546	526182	322831	22.71

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Naphthalene-d8	8.61	8.11	9.11	8.61	-0.00
11 Acenaphthene-d10	11.64	11.14	12.14	11.64	-0.00
18 Phenanthrene-d10	14.34	13.84	14.84	14.34	-0.00
28 Chrysene-d12	19.10	18.60	19.60	19.10	-0.04
36 Perylene-d12	22.35	21.85	22.85	22.35	-0.00

AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - NT1118062610.D

Lab ID: BGF0416-MS1
nt11.i, 20180626.b\LOWSIM.m,   26-JUN-2018 14:25

RT	CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV RRT	DELTA	COMPOUND

NONE

On Column LOD for nt11.i, 20180626.b\LOWSIM.m, allpna.sub = 0.0000

Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

* Only compounds listed in the work order have been verified by the analyst *

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGF0327	Instrument:	NT11
		Calibration:	BE00021

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
DFTPP	SGF0327-TUN1	NT1118062601.D	NA	06/27/18 07:53
ICV 250	SGF0327-ICV1	NT1118062602.D	NA	06/27/18 08:13
LDW18-SP-24	18F0208-03	NT1118062603.D	Water	06/27/18 08:55
LDW18-SP-24-FD	18F0208-04	NT1118062604.D	Water	06/27/18 09:31
LDW18-SP-33	18F0208-02RE1	NT1118062605.D	Water	06/27/18 10:06
CCV 250	SGF0327-CCV1	NT1118062607.D	NA	06/27/18 11:20

Printed: 6/27/2018 1:52:13PM

ANALYSIS SEQUENCE

SGF0327

Instrument: NT11 Element Column ID: E002737
Calibration ID: BE00021 Tune File: 171116.U
EM Voltage: 2506

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SGF0327-TUN1	DFTPP	QC		1	F010313		
SGF0327-ICV1	ICV 250	QC		2	G003981	G003973	
18F0208-03	LDW18-SP-24	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	D 01	3		G003973	
18F0208-04	LDW18-SP-24-FD	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	D 01	4		G003973	
18F0208-02RE1	LDW18-SP-33	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	C 01	5		G003973	Added 6/26/2018 by VTS
SGF0327-CCV1	CCV 250	QC		6	G003981	G003973	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20180627.b

	Time	Filename	LabID	ClientId	DF											
1	0753	NT1118062601.D	SGF0327-TUN1		1	|NO ISTDS FOUND||										
2	0813	NT1118062602.D	SGF0327-ICV1		1	| 8.61	474060	||11.64	249897	||14.34	411885	||19.10	319157	||22.35	318870|	
3	0855	NT1118062603.D	18F0208-03		1	| 8.61	466900	||11.64	250417	||14.34	425760	||19.10	333102	||22.35	331601|	
4	0931	NT1118062604.D	18F0208-04		1	| 8.61	459730	||11.64	272986	||14.34	442415	||19.10	343040	||22.35	353146|	
5	1006	NT1118062605.D	18F0208-02RE1		2	| 8.61	444117	||11.64	235303	||14.34	394726	||19.10	311539	||22.35	314268|	
6	1042	NT1118062606.D	F010596,5		1	| 8.61	435614	||11.64	230965	||14.34	398985	||19.10	306990	||22.35	296719|	
7	1120	NT1118062607.D	SGF0327-CCV1		1	| 8.61	426073	||11.64	228588	||14.34	377043	||19.10	302774	||22.35	310148|	
8	1210	NT1118062608.D	G005858		1	| 8.61	422228	||11.64	220704	||14.34	378516	||19.10	276875	||22.35	263221|	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20180627.b

Instrument: nt11.i Date: 27-JUN-2018

Time	Filename	LabID	DF	Manually Integrated Compounds
0753	NT1118062601.D	SGF0327-TUN1	1	NO MANUAL INTEGRATION
0813	NT1118062602.D	SGF0327-ICV1	1	NO MANUAL INTEGRATION
0855	NT1118062603.D	18F0208-03	1	NO MANUAL INTEGRATION
0931	NT1118062604.D	18F0208-04	1	Acenaphthene, Dibenzofuran, 1-Methylnaphthalene,
1006	NT1118062605.D	18F0208-02RE1	2	2,3,5-Trimethylnaphthalene,
1042	NT1118062606.D	F010596,5	1	NO MANUAL INTEGRATION
1120	NT1118062607.D	SGF0327-CCV1	1	NO MANUAL INTEGRATION
1210	NT1118062608.D	G005858	1	NO MANUAL INTEGRATION

Security Status Report

Date: 27-Jun-2018 14:05

NT1118062601.D	Data Locked	van, 27-Jun-2018 14:03
NT1118062602.D	Data Locked	van, 27-Jun-2018 14:03
NT1118062603.D	Data Locked	van, 27-Jun-2018 14:03
NT1118062604.D	Data Locked	van, 27-Jun-2018 14:03
NT1118062605.D	Data Locked	van, 27-Jun-2018 14:03
NT1118062606.D	Data Locked	van, 27-Jun-2018 14:03
NT1118062607.D	Data Locked	van, 27-Jun-2018 14:03
NT1118062608.D	Data Locked	van, 27-Jun-2018 14:03

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Extract Dilution Bench Sheet

Sequence: SGF0327
Analyst: VTS Date: 6.27.18

Sample ID	Primary Dilution				Secondary Dilution			
	Extract Volume (uL)	Diluent ID	Diluent Volume (uL)	Dilution Factor	Extract Volume (uL)	Diluent ID	Diluent Volume (uL)	Dilution Factor
18F0208 -02	150	DCM/G005487	150	2				

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGG0067	Instrument:	NT11
		Calibration:	BE00021

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
DFTPP	SGG0067-TUN1	NT1118070601.D	NA	07/06/18 12:29
ICV 250	SGG0067-ICV1	NT1118070602.D	NA	07/06/18 12:50
Blank	BGF0530-BLK1	NT1118070603.D	Water	07/06/18 13:29
LCS	BGF0530-BS1	NT1118070604.D	Water	07/06/18 14:05
LDW18-SP-05	18F0226-01	NT1118070605.D	Water	07/06/18 14:42
LDW18-SP-57	18F0226-02	NT1118070606.D	Water	07/06/18 15:18
LDW18-SP-57	BGF0530-MS1	NT1118070607.D	Water	07/06/18 16:01
LDW18-SP-57	BGF0530-MSD1	NT1118070608.D	Water	07/06/18 16:37
LDW18-SP-73	18F0226-03	NT1118070609.D	Water	07/06/18 17:14
LDW18-SP-74	18F0226-04	NT1118070610.D	Water	07/06/18 17:50
LDW18-SP-77	18F0226-05	NT1118070611.D	Water	07/06/18 18:27
LDW18-SP-78	18F0226-06	NT1118070612.D	Water	07/06/18 19:03
LDW18-SP-79	18F0226-07	NT1118070613.D	Water	07/06/18 19:39
LDW18-SP-84	18F0226-08	NT1118070614.D	Water	07/06/18 20:15
LDW18-SP-87	18F0226-09	NT1118070615.D	Water	07/06/18 20:51
LDW18-SP-01	18F0248-01	NT1118070616.D	Water	07/06/18 21:27
LDW18-SP-45	18F0248-02	NT1118070617.D	Water	07/06/18 22:03
LDW18-SP-47	18F0248-03	NT1118070618.D	Water	07/06/18 22:39
LDW18-SP-66	18F0248-04	NT1118070619.D	Water	07/06/18 23:15
LDW18-SP-70	18F0248-05	NT1118070620.D	Water	07/06/18 23:51
LDW18-SP-83	18F0248-06	NT1118070621.D	Water	07/07/18 00:26
CCV 250	SGG0067-CCV1	NT1118070624.D	NA	07/07/18 02:14

Printed: 7/7/2018 8:15:20AM

ANALYSIS SEQUENCE

SGG0067

Instrument: NT11 Element Column ID: E002737
Calibration ID: BE00021 Tune File: 171116.U
EM Voltage: 2506

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SGG0067-TUN1	DFTPP	QC		1	F010313		
SGG0067-ICV1	ICV 250	QC		2	G003981	G003973	
BGF0530-BLK1	Blank	QC		3		G003973	
BGF0530-BS1	LCS	QC		4		G003973	
18F0226-01	LDW18-SP-05	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	D 01	5		G003973	
18F0226-02	LDW18-SP-57	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	I 01	6		G003973	
BGF0530-MS1	Matrix Spike	QC		7		G003973	
BGF0530-MSD1	Matrix Spike Dup	QC		8		G003973	
18F0226-03	LDW18-SP-73	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	D 01	9		G003973	
18F0226-04	LDW18-SP-74	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	D 01	10		G003973	
18F0226-05	LDW18-SP-77	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	E 01	11		G003973	
18F0226-06	LDW18-SP-78	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	E 01	12		G003973	
18F0226-07	LDW18-SP-79	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	E 01	13		G003973	
18F0226-08	LDW18-SP-84	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	D 01	14		G003973	
18F0226-09	LDW18-SP-87	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	E 01	15		G003973	
18F0248-01	LDW18-SP-01	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	D 01	16		G003973	
18F0248-02	LDW18-SP-45	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	D 01	17		G003973	
18F0248-03	LDW18-SP-47	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	D 01	18		G003973	
18F0248-04	LDW18-SP-66	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	D 01	19		G003973	
18F0248-05	LDW18-SP-70	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	D 01	20		G003973	
18F0248-06	LDW18-SP-83	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	E 01	21		G003973	
SGG0067-CCV1	CCV 250	QC		22	G003981	G003973	

ANALYSIS SEQUENCE

SGG0067

Instrument: NT11 Element Column ID: E002737
Calibration ID: BE00021 Tune File: 171116.U
EM Voltage: 2506

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20180706.b

	Time	Filename	LabID	ClientId	DF									
1	1229	NT1118070601.D	SGG0067-TUN1		1	|NO ISTDS FOUND||								
2	1250	NT1118070602.D	SGG0067-ICV1		1	| 8.61	454410||11.64	245764||14.34	393366||19.10	306338||22.35	309004|			
3	1329	NT1118070603.D	BGF0530-BLK1		1	| 8.61	445789||11.64	238290||14.34	408592||19.10	304324||22.35	300913|			
4	1405	NT1118070604.D	BGF0530-BS1		1	| 8.61	438406||11.64	238337||14.34	394472||19.10	312605||22.35	306914|			
5	1442	NT1118070605.D	18F0226-01		1	| 8.61	447587||11.64	237600||14.34	389839||19.10	302630||22.35	299721|			
6	1518	NT1118070606.D	18F0226-02		1	| 8.61	452932||11.64	237104||14.34	400608||19.10	295829||22.35	289532|			
7	1601	NT1118070607.D	BGF0530-MS1		1	| 8.61	449364||11.64	242505||14.34	388168||19.10	304681||22.35	320614|			
8	1637	NT1118070608.D	BGF0530-MSD1		1	| 8.61	452361||11.64	246514||14.34	407240||19.10	321313||22.35	322591|			
9	1714	NT1118070609.D	18F0226-03		1	| 8.61	477820||11.64	253956||14.34	415827||19.10	320863||22.35	316832|			
10	1750	NT1118070610.D	18F0226-04		1	| 8.61	471869||11.64	249887||14.34	415529||19.10	330617||22.35	334983|			
11	1827	NT1118070611.D	18F0226-05		1	| 8.61	478922||11.64	258949||14.34	425199||19.10	324174||22.35	322868|			
12	1903	NT1118070612.D	18F0226-06		1	| 8.61	475891||11.64	249984||14.34	404938||19.10	304414||22.35	296897|			
13	1939	NT1118070613.D	18F0226-07		1	| 8.61	464417||11.64	244697||14.34	404400||19.10	306435||22.35	308535|			
14	2015	NT1118070614.D	18F0226-08		1	| 8.61	468885||11.64	246655||14.34	410793||19.10	321818||22.35	318203|			
15	2051	NT1118070615.D	18F0226-09		1	| 8.61	470533||11.64	247524||14.34	404969||19.10	316453||22.35	321961|			
16	2127	NT1118070616.D	18F0248-01		1	| 8.61	482266||11.64	256229||14.34	423710||19.10	322758||22.35	324161|			
17	2203	NT1118070617.D	18F0248-02		1	| 8.61	482862||11.64	254348||14.34	416626||19.10	343287||22.35	337590|			
18	2239	NT1118070618.D	18F0248-03		1	| 8.61	465637||11.64	243202||14.34	397137||19.10	311192||22.35	311656|			
19	2315	NT1118070619.D	18F0248-04		1	| 8.61	458935||11.64	239425||14.34	386379||19.10	299543||22.35	292607|			
20	2351	NT1118070620.D	18F0248-05		1	| 8.61	462666||11.64	241188||14.34	399710||19.10	306329||22.35	299215|			

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20180706.b

	Time	Filename	LabID	ClientId	DF									
21	0026	NT1118070621.D	18F0248-06		1	8.61	467869	11.64	242636	14.34	402741	19.10	316848	22.35	309209
22	0102	NT1118070622.D	18F0248-07		1	8.61	470612	11.64	242725	14.34	402099	19.10	322810	22.35	324419
23	0138	NT1118070623.D	18F0248-08		1	8.61	458599	11.64	237248	14.34	390104	19.10	313472	22.35	309624
24	0214	NT1118070624.D	SGG0067-CCV1		1	8.61	471505	11.64	249670	14.34	409766	19.10	326837	22.35	333113

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20180706.b

Instrument: nt11.i Date: 06-JUL-2018

Time	Filename	LabID	DF	Manually Integrated Compounds
1229	NT1118070601.D	SGG0067-TUN1	1	NO MANUAL INTEGRATION
1250	NT1118070602.D	SGG0067-ICV1	1	NO MANUAL INTEGRATION
1329	NT1118070603.D	BGF0530-BLK1	1	NO MANUAL INTEGRATION
1405	NT1118070604.D	BGF0530-BS1	1	NO MANUAL INTEGRATION
1442	NT1118070605.D	18F0226-01	1	NO MANUAL INTEGRATION
1518	NT1118070606.D	18F0226-02	1	NO MANUAL INTEGRATION
1601	NT1118070607.D	BGF0530-MS1	1	NO MANUAL INTEGRATION
1637	NT1118070608.D	BGF0530-MSD1	1	NO MANUAL INTEGRATION
1714	NT1118070609.D	18F0226-03	1	Acenaphthene,
1750	NT1118070610.D	18F0226-04	1	Phenanthrene, Anthracene, 1-Methylphenanthrene,
1827	NT1118070611.D	18F0226-05	1	2,6-Dimethylnaphthalene, 1-Methylphenanthrene, Biphenyl,
1903	NT1118070612.D	18F0226-06	1	NO MANUAL INTEGRATION
1939	NT1118070613.D	18F0226-07	1	Fluorene,
2015	NT1118070614.D	18F0226-08	1	NO MANUAL INTEGRATION
2051	NT1118070615.D	18F0226-09	1	Dibenzothiophene,
2127	NT1118070616.D	18F0248-01	1	1-Methylphenanthrene, Dibenzothiophene,
2203	NT1118070617.D	18F0248-02	1	NO MANUAL INTEGRATION

Instrument: nt11.i Date: 06-JUL-2018

Time	Filename	LabID	DF	Manually Integrated Compounds
2239	NT1118070618.D	18F0248-03	1	Dibenzothiophene,
2315	NT1118070619.D	18F0248-04	1	NO MANUAL INTEGRATION
2351	NT1118070620.D	18F0248-05	1	NO MANUAL INTEGRATION
0026	NT1118070621.D	18F0248-06	1	NO MANUAL INTEGRATION
0102	NT1118070622.D	18F0248-07	1	NO MANUAL INTEGRATION
0138	NT1118070623.D	18F0248-08	1	NO MANUAL INTEGRATION
0214	NT1118070624.D	SGG0067-CCV1	1	NO MANUAL INTEGRATION

Security Status Report

Date: 07-Jul-2018 08:11

NT1118070602.D	Data Locked	van, 07-Jul-2018 08:11
NT1118070603.D	Data Locked	van, 07-Jul-2018 08:11
NT1118070604.D	Data Locked	van, 07-Jul-2018 08:11
NT1118070605.D	Data Locked	van, 07-Jul-2018 08:11
NT1118070606.D	Data Locked	van, 07-Jul-2018 08:11
NT1118070607.D	Data Locked	van, 07-Jul-2018 08:11
NT1118070608.D	Data Locked	van, 07-Jul-2018 08:11
NT1118070609.D	Data Locked	van, 07-Jul-2018 08:11
NT1118070610.D	Data Locked	van, 07-Jul-2018 08:11
NT1118070611.D	Data Locked	van, 07-Jul-2018 08:11
NT1118070612.D	Data Locked	van, 07-Jul-2018 08:11
NT1118070613.D	Data Locked	van, 07-Jul-2018 08:11
NT1118070614.D	Data Locked	van, 07-Jul-2018 08:11
NT1118070615.D	Data Locked	van, 07-Jul-2018 08:11
NT1118070616.D	Data Locked	van, 07-Jul-2018 08:11
NT1118070617.D	Data Locked	van, 07-Jul-2018 08:11
NT1118070618.D	Data Locked	van, 07-Jul-2018 08:11
NT1118070619.D	Data Locked	van, 07-Jul-2018 08:11
NT1118070620.D	Data Locked	van, 07-Jul-2018 08:11
NT1118070621.D	Data Locked	van, 07-Jul-2018 08:11
NT1118070622.D	Data Locked	van, 07-Jul-2018 08:11
NT1118070623.D	Data Locked	van, 07-Jul-2018 08:11
NT1118070624.D	Data Locked	van, 07-Jul-2018 08:11

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGG0076	Instrument:	NT11
		Calibration:	BE00021

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
DFTPP	SGG0076-TUN1	NT1118070701.D	NA	07/07/18 08:34
ICV 250	SGG0076-ICV1	NT1118070702.D	NA	07/07/18 08:54
LDW18-SP-86	18F0248-07	NT1118070703.D	Water	07/07/18 09:44
LDW18-SP-88	18F0248-08	NT1118070704.D	Water	07/07/18 10:20
LDW18-SP-77	18F0226-05RE1	NT1118070706.D	Water	07/07/18 11:37
CCV 250	SGG0076-CCV1	NT1118070707.D	NA	07/07/18 12:14

Printed: 7/7/2018 12:42:29PM

ANALYSIS SEQUENCE

SGG0076

Instrument: NT11 Element Column ID: E002737
Calibration ID: BE00021 Tune File: 171116.U
EM Voltage: 2506

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SGG0076-TUN1	DFTPP	QC		1	F010313		
SGG0076-ICV1	ICV 250	QC		2	G003981	G003973	
18F0248-07	LDW18-SP-86	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	D 01	3		G003973	
18F0248-08	LDW18-SP-88	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	D 01	4		G003973	
18F0226-05RE1	LDW18-SP-77	270D-SIM PAH Low (0.01 ug/L - 0.5 ug/k	E 01	5		G003973	Added 7/7/2018 by VTS
SGG0076-CCV1	CCV 250	QC		6	G003981	G003973	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20180707.b

	Time	Filename	LabID	ClientId	DF										
1	0834	NT1118070701.D	SGG0076-TUN1		1	|NO ISTDS FOUND||									
2	0854	NT1118070702.D	SGG0076-ICV1		1	| 8.61	480961||11.64	249306||14.34	413904||19.10	341560||22.35	347031|				
3	0944	NT1118070703.D	18F0248-07		1	| 8.61	462182||11.64	240105||14.34	410079||19.10	321109||22.35	318936|				
4	1020	NT1118070704.D	18F0248-08		1	| 8.61	447779||11.64	230638||14.34	376281||19.10	295002||22.35	290569|				
5	1056	NT1118070705.D	18F0226-05RE1		5	| 8.61	439828||11.64	229932||14.34	385739||19.10	301299||22.35	296733|				
6	1137	NT1118070706.D	18F0226-05RE1		10	| 8.61	405203||11.64	209304||14.34	354404||19.10	254707||22.35	244733|				
7	1214	NT1118070707.D	SGG0076-CCV1		1	| 8.61	442572||11.64	232971||14.34	386959||19.10	319828||22.35	330335|				

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20180707.b

Instrument: nt11.i Date: 07-JUL-2018

Time	Filename	LabID	DF	Manually Integrated Compounds
0834	NT1118070701.D	SGG0076-TUN1	1	NO MANUAL INTEGRATION
0854	NT1118070702.D	SGG0076-ICV1	1	NO MANUAL INTEGRATION
0944	NT1118070703.D	18F0248-07	1	NO MANUAL INTEGRATION
1020	NT1118070704.D	18F0248-08	1	NO MANUAL INTEGRATION
1056	NT1118070705.D	18F0226-05RE1	5	NO MANUAL INTEGRATION
1137	NT1118070706.D	18F0226-05RE1	10	2,6-Dimethylnaphthalene,
1214	NT1118070707.D	SGG0076-CCV1	1	NO MANUAL INTEGRATION

Security Status Report

Date: 07-Jul-2018 12:39

NT1118070701.D	Data Locked	van, 07-Jul-2018 12:39
NT1118070702.D	Data Locked	van, 07-Jul-2018 12:39
NT1118070703.D	Data Locked	van, 07-Jul-2018 12:39
NT1118070704.D	Data Locked	van, 07-Jul-2018 12:39
NT1118070705.D	Data Locked	van, 07-Jul-2018 12:39
NT1118070706.D	Data Locked	van, 07-Jul-2018 12:39
NT1118070707.D	Data Locked	van, 07-Jul-2018 12:39

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Extract Dilution Bench Sheet

Sequence: SG60076
Analyst: WD Date: 7.7.18

Sample ID	Primary Dilution				Secondary Dilution			
	Extract Volume (uL)	Diluent ID	Diluent Volume (uL)	Dilution Factor	Extract Volume (uL)	Diluent ID	Diluent Volume (uL)	Dilution Factor
18F0226-05	100	DCM	400	5	500	DCM	500	10

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG/WO:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGE0100	Instrument:	NT11
Calibration:	BE00021	Calibration Date:	05/05/2018

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SGE0100-ICV1 (Solid)			Lab File ID: NT1118050509.D			Analyzed: 05/05/18 16:26		
2-Methylnaphthalene-d10	250.00	102	80 - 120	9.56	9.56	0.0000	N/A	
Dibenzo[a,h]anthracene-d14	250.00	103	80 - 120	25.202	25.20383	-0.0018	N/A	
Fluoranthene-d10	250.00	104	80 - 120	16.42	16.42	0.0000	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0298
Instrument: NT11
Calibration: BE00021
Calibration Date: 05/05/2018

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SGF0298-ICV1 (Water)			Lab File ID: NT1118062302.D				Analyzed: 06/23/18 10:32	
2-Methylnaphthalene-d10	250.00	96.4	80 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	250.00	96.4	80 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	250.00	89.2	80 - 120	25.268	25.20383	0.0642	N/A	
Dibenzo[a,h]anthracene-d14	250.00	89.2	80 - 120	25.268	25.20383	0.0642	N/A	
Fluoranthene-d10	250.00	84.0	80 - 120	16.449	16.42	0.0290	N/A	
Fluoranthene-d10	250.00	84.0	80 - 120	16.449	16.42	0.0290	N/A	
BGF0416-BLK1 (Water)			Lab File ID: NT1118062303.D				Analyzed: 06/23/18 11:11	
2-Methylnaphthalene-d10	0.30000	51.4	42 - 120	9.591	9.56	0.0310	N/A	
2-Methylnaphthalene-d10	0.30000	51.4	42 - 120	9.591	9.56	0.0310	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	57.6	29 - 120	25.279	25.20383	0.0752	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	57.6	29 - 120	25.279	25.20383	0.0752	N/A	
Fluoranthene-d10	0.30000	57.0	57 - 120	16.448	16.42	0.0280	N/A	
Fluoranthene-d10	0.30000	57.0	57 - 120	16.448	16.42	0.0280	N/A	
BGF0416-BS1 (Water)			Lab File ID: NT1118062304.D				Analyzed: 06/23/18 11:47	
2-Methylnaphthalene-d10	0.30000	44.5	42 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	0.30000	44.5	42 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	49.7	29 - 120	25.268	25.20383	0.0642	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	49.7	29 - 120	25.268	25.20383	0.0642	N/A	
Fluoranthene-d10	0.30000	52.6	57 - 120	16.449	16.42	0.0290	N/A	*
Fluoranthene-d10	0.30000	52.6	57 - 120	16.449	16.42	0.0290	N/A	*
18F0185-01 (Water)			Lab File ID: NT1118062305.D				Analyzed: 06/23/18 12:23	
2-Methylnaphthalene-d10	0.30000	54.5	42 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	0.30000	54.5	42 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	38.2	29 - 120	25.268	25.20383	0.0642	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	38.2	29 - 120	25.268	25.20383	0.0642	N/A	
Fluoranthene-d10	0.30000	60.9	57 - 120	16.449	16.42	0.0290	N/A	
Fluoranthene-d10	0.30000	60.9	57 - 120	16.449	16.42	0.0290	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0298
Instrument: NT11
Calibration: BE00021
Calibration Date: 05/05/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
18F0185-03 (Water)			Lab File ID: NT1118062306.D			Analyzed: 06/23/18 12:58		
2-Methylnaphthalene-d10	0.30000	54.6	42 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	0.30000	54.6	42 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	64.4	29 - 120	25.268	25.20383	0.0642	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	64.4	29 - 120	25.268	25.20383	0.0642	N/A	
Fluoranthene-d10	0.30000	64.9	57 - 120	16.448	16.42	0.0280	N/A	
Fluoranthene-d10	0.30000	64.9	57 - 120	16.448	16.42	0.0280	N/A	
18F0185-04 (Water)			Lab File ID: NT1118062307.D			Analyzed: 06/23/18 13:35		
2-Methylnaphthalene-d10	0.30000	59.2	42 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	0.30000	59.2	42 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	67.3	29 - 120	25.268	25.20383	0.0642	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	67.3	29 - 120	25.268	25.20383	0.0642	N/A	
Fluoranthene-d10	0.30000	69.3	57 - 120	16.449	16.42	0.0290	N/A	
Fluoranthene-d10	0.30000	69.3	57 - 120	16.449	16.42	0.0290	N/A	
18F0185-05 (Water)			Lab File ID: NT1118062308.D			Analyzed: 06/23/18 15:12		
2-Methylnaphthalene-d10	0.30000	47.4	42 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	0.30000	47.4	42 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	57.1	29 - 120	25.279	25.20383	0.0752	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	57.1	29 - 120	25.279	25.20383	0.0752	N/A	
Fluoranthene-d10	0.30000	57.1	57 - 120	16.458	16.42	0.0380	N/A	
Fluoranthene-d10	0.30000	57.1	57 - 120	16.458	16.42	0.0380	N/A	
18F0185-06 (Water)			Lab File ID: NT1118062309.D			Analyzed: 06/23/18 15:48		
2-Methylnaphthalene-d10	0.30000	37.2	42 - 120	9.592	9.56	0.0320	N/A	*
2-Methylnaphthalene-d10	0.30000	37.2	42 - 120	9.592	9.56	0.0320	N/A	*
Dibenzo[a,h]anthracene-d14	0.30000	42.3	29 - 120	25.279	25.20383	0.0752	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	42.3	29 - 120	25.279	25.20383	0.0752	N/A	
Fluoranthene-d10	0.30000	45.4	57 - 120	16.449	16.42	0.0290	N/A	*
Fluoranthene-d10	0.30000	45.4	57 - 120	16.449	16.42	0.0290	N/A	*

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0298
Instrument: NT11
Calibration: BE00021
Calibration Date: 05/05/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
18F0185-07 (Water)			Lab File ID: NT1118062310.D			Analyzed: 06/23/18 16:24		
2-Methylnaphthalene-d10	0.30000	40.6	42 - 120	9.592	9.56	0.0320	N/A	*
2-Methylnaphthalene-d10	0.30000	40.6	42 - 120	9.592	9.56	0.0320	N/A	*
Dibenzo[a,h]anthracene-d14	0.30000	45.4	29 - 120	25.268	25.20383	0.0642	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	45.4	29 - 120	25.268	25.20383	0.0642	N/A	
Fluoranthene-d10	0.30000	47.1	57 - 120	16.448	16.42	0.0280	N/A	*
Fluoranthene-d10	0.30000	47.1	57 - 120	16.448	16.42	0.0280	N/A	*
18F0185-08 (Water)			Lab File ID: NT1118062311.D			Analyzed: 06/23/18 17:00		
2-Methylnaphthalene-d10	0.30000	44.4	42 - 120	9.591	9.56	0.0310	N/A	
2-Methylnaphthalene-d10	0.30000	44.4	42 - 120	9.591	9.56	0.0310	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	50.3	29 - 120	25.268	25.20383	0.0642	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	50.3	29 - 120	25.268	25.20383	0.0642	N/A	
Fluoranthene-d10	0.30000	51.0	57 - 120	16.448	16.42	0.0280	N/A	*
Fluoranthene-d10	0.30000	51.0	57 - 120	16.448	16.42	0.0280	N/A	*
BGF0416-MS1 (Water)			Lab File ID: NT1118062312.D			Analyzed: 06/23/18 17:37		
2-Methylnaphthalene-d10	0.30000	45.4	42 - 120	9.591	9.56	0.0310	N/A	
2-Methylnaphthalene-d10	0.30000	45.4	42 - 120	9.591	9.56	0.0310	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	53.0	29 - 120	25.268	25.20383	0.0642	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	53.0	29 - 120	25.268	25.20383	0.0642	N/A	
Fluoranthene-d10	0.30000	53.6	57 - 120	16.448	16.42	0.0280	N/A	*
Fluoranthene-d10	0.30000	53.6	57 - 120	16.448	16.42	0.0280	N/A	*
BGF0416-MSD1 (Water)			Lab File ID: NT1118062313.D			Analyzed: 06/23/18 18:13		
2-Methylnaphthalene-d10	0.30000	62.6	42 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	0.30000	62.6	42 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	69.7	29 - 120	25.268	25.20383	0.0642	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	69.7	29 - 120	25.268	25.20383	0.0642	N/A	
Fluoranthene-d10	0.30000	69.1	57 - 120	16.449	16.42	0.0290	N/A	
Fluoranthene-d10	0.30000	69.1	57 - 120	16.449	16.42	0.0290	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG/WO:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGF0298	Instrument:	NT11
Calibration:	BE00021	Calibration Date:	05/05/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
BGF0455-BLK1 (Water)			Lab File ID: NT1118062314.D			Analyzed: 06/23/18 18:50		
2-Methylnaphthalene-d10	0.30000	65.3	42 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	0.30000	65.3	42 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	69.0	29 - 120	25.268	25.20383	0.0642	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	69.0	29 - 120	25.268	25.20383	0.0642	N/A	
Fluoranthene-d10	0.30000	71.8	57 - 120	16.449	16.42	0.0290	N/A	
Fluoranthene-d10	0.30000	71.8	57 - 120	16.449	16.42	0.0290	N/A	
BGF0455-BS1 (Water)			Lab File ID: NT1118062315.D			Analyzed: 06/23/18 19:26		
2-Methylnaphthalene-d10	0.30000	69.0	42 - 120	9.591	9.56	0.0310	N/A	
2-Methylnaphthalene-d10	0.30000	69.0	42 - 120	9.591	9.56	0.0310	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	73.0	29 - 120	25.268	25.20383	0.0642	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	73.0	29 - 120	25.268	25.20383	0.0642	N/A	
Fluoranthene-d10	0.30000	77.2	57 - 120	16.448	16.42	0.0280	N/A	
Fluoranthene-d10	0.30000	77.2	57 - 120	16.448	16.42	0.0280	N/A	
BGF0455-MRL1 (Water)			Lab File ID: NT1118062316.D			Analyzed: 06/23/18 20:02		
2-Methylnaphthalene-d10	0.30000	69.5	42 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	0.30000	69.5	42 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	71.5	29 - 120	25.269	25.20383	0.0652	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	71.5	29 - 120	25.269	25.20383	0.0652	N/A	
Fluoranthene-d10	0.30000	75.5	57 - 120	16.449	16.42	0.0290	N/A	
Fluoranthene-d10	0.30000	75.5	57 - 120	16.449	16.42	0.0290	N/A	
BGF0455-MRL2 (Water)			Lab File ID: NT1118062317.D			Analyzed: 06/23/18 20:38		
2-Methylnaphthalene-d10	0.30000	66.4	42 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	0.30000	66.4	42 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	74.2	29 - 120	25.268	25.20383	0.0642	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	74.2	29 - 120	25.268	25.20383	0.0642	N/A	
Fluoranthene-d10	0.30000	79.4	57 - 120	16.448	16.42	0.0280	N/A	
Fluoranthene-d10	0.30000	79.4	57 - 120	16.448	16.42	0.0280	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG/WO:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGF0298	Instrument:	NT11
Calibration:	BE00021	Calibration Date:	05/05/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
18F0208-01 (Water)			Lab File ID: NT1118062318.D			Analyzed: 06/23/18 21:14		
2-Methylnaphthalene-d10	0.30000	67.9	42 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	0.30000	67.9	42 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	72.8	29 - 120	25.268	25.20383	0.0642	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	72.8	29 - 120	25.268	25.20383	0.0642	N/A	
Fluoranthene-d10	0.30000	74.2	57 - 120	16.448	16.42	0.0280	N/A	
Fluoranthene-d10	0.30000	74.2	57 - 120	16.448	16.42	0.0280	N/A	
18F0208-02 (Water)			Lab File ID: NT1118062319.D			Analyzed: 06/23/18 21:50		
2-Methylnaphthalene-d10	0.30000	65.4	42 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	0.30000	65.4	42 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	73.2	29 - 120	25.268	25.20383	0.0642	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	73.2	29 - 120	25.268	25.20383	0.0642	N/A	
Fluoranthene-d10	0.30000	74.3	57 - 120	16.449	16.42	0.0290	N/A	
Fluoranthene-d10	0.30000	74.3	57 - 120	16.449	16.42	0.0290	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG/WO:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGF0327	Instrument:	NT11
Calibration:	BE00021	Calibration Date:	05/05/2018

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SGF0327-ICV1 (Water)			Lab File ID: NT1118062602.D			Analyzed: 06/27/18 08:13		
2-Methylnaphthalene-d10	250.00	108	80 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	250.00	106	80 - 120	25.279	25.20383	0.0752	N/A	
Fluoranthene-d10	250.00	113	80 - 120	16.449	16.42	0.0290	N/A	
18F0208-03 (Water)			Lab File ID: NT1118062603.D			Analyzed: 06/27/18 08:55		
2-Methylnaphthalene-d10	0.30000	68.1	42 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	74.3	29 - 120	25.279	25.20383	0.0752	N/A	
Fluoranthene-d10	0.30000	77.5	57 - 120	16.449	16.42	0.0290	N/A	
18F0208-04 (Water)			Lab File ID: NT1118062604.D			Analyzed: 06/27/18 09:31		
2-Methylnaphthalene-d10	0.30000	70.3	42 - 120	9.591	9.56	0.0310	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	77.2	29 - 120	25.279	25.20383	0.0752	N/A	
Fluoranthene-d10	0.30000	75.8	57 - 120	16.448	16.42	0.0280	N/A	
18F0208-02RE1 (Water)			Lab File ID: NT1118062605.D			Analyzed: 06/27/18 10:06		
2-Methylnaphthalene-d10	0.30000	67.4	42 - 120	9.591	9.56	0.0310	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	70.2	29 - 120	25.279	25.20383	0.0752	N/A	
Fluoranthene-d10	0.30000	77.5	57 - 120	16.448	16.42	0.0280	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG/WO:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGG0067	Instrument:	NT11
Calibration:	BE00021	Calibration Date:	05/05/2018

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SGG0067-ICV1 (Water)			Lab File ID: NT1118070602.D			Analyzed: 07/06/18 12:50		
2-Methylnaphthalene-d10	250.00	110	80 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	250.00	110	80 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	250.00	99.2	80 - 120	25.279	25.20383	0.0752	N/A	
Dibenzo[a,h]anthracene-d14	250.00	99.2	80 - 120	25.279	25.20383	0.0752	N/A	
Fluoranthene-d10	250.00	112	80 - 120	16.449	16.42	0.0290	N/A	
Fluoranthene-d10	250.00	112	80 - 120	16.449	16.42	0.0290	N/A	
BGF0530-BLK1 (Water)			Lab File ID: NT1118070603.D			Analyzed: 07/06/18 13:29		
2-Methylnaphthalene-d10	0.30000	54.4	42 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	0.30000	54.4	42 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	55.4	29 - 120	25.279	25.20383	0.0752	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	55.4	29 - 120	25.279	25.20383	0.0752	N/A	
Fluoranthene-d10	0.30000	63.7	57 - 120	16.449	16.42	0.0290	N/A	
Fluoranthene-d10	0.30000	63.7	57 - 120	16.449	16.42	0.0290	N/A	
BGF0530-BS1 (Water)			Lab File ID: NT1118070604.D			Analyzed: 07/06/18 14:05		
2-Methylnaphthalene-d10	0.30000	60.5	42 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	0.30000	60.5	42 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	65.1	29 - 120	25.279	25.20383	0.0752	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	65.1	29 - 120	25.279	25.20383	0.0752	N/A	
Fluoranthene-d10	0.30000	71.6	57 - 120	16.449	16.42	0.0290	N/A	
Fluoranthene-d10	0.30000	71.6	57 - 120	16.449	16.42	0.0290	N/A	
18F0226-01 (Water)			Lab File ID: NT1118070605.D			Analyzed: 07/06/18 14:42		
2-Methylnaphthalene-d10	0.30000	59.4	42 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	0.30000	59.4	42 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	63.1	29 - 120	25.28	25.20383	0.0762	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	63.1	29 - 120	25.28	25.20383	0.0762	N/A	
Fluoranthene-d10	0.30000	70.0	57 - 120	16.449	16.42	0.0290	N/A	
Fluoranthene-d10	0.30000	70.0	57 - 120	16.449	16.42	0.0290	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG/WO:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGG0067	Instrument:	NT11
Calibration:	BE00021	Calibration Date:	05/05/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
18F0226-02 (Water)			Lab File ID: NT1118070606.D			Analyzed: 07/06/18 15:18		
2-Methylnaphthalene-d10	0.30000	55.9	42 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	0.30000	55.9	42 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	58.2	29 - 120	25.279	25.20383	0.0752	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	58.2	29 - 120	25.279	25.20383	0.0752	N/A	
Fluoranthene-d10	0.30000	64.1	57 - 120	16.448	16.42	0.0280	N/A	
Fluoranthene-d10	0.30000	64.1	57 - 120	16.448	16.42	0.0280	N/A	
BGF0530-MS1 (Water)			Lab File ID: NT1118070607.D			Analyzed: 07/06/18 16:01		
2-Methylnaphthalene-d10	0.30000	61.0	42 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	0.30000	61.0	42 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	69.8	29 - 120	25.279	25.20383	0.0752	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	69.8	29 - 120	25.279	25.20383	0.0752	N/A	
Fluoranthene-d10	0.30000	71.5	57 - 120	16.449	16.42	0.0290	N/A	
Fluoranthene-d10	0.30000	71.5	57 - 120	16.449	16.42	0.0290	N/A	
BGF0530-MSD1 (Water)			Lab File ID: NT1118070608.D			Analyzed: 07/06/18 16:37		
2-Methylnaphthalene-d10	0.30000	69.0	42 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	0.30000	69.0	42 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	75.8	29 - 120	25.268	25.20383	0.0642	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	75.8	29 - 120	25.268	25.20383	0.0642	N/A	
Fluoranthene-d10	0.30000	79.0	57 - 120	16.449	16.42	0.0290	N/A	
Fluoranthene-d10	0.30000	79.0	57 - 120	16.449	16.42	0.0290	N/A	
18F0226-03 (Water)			Lab File ID: NT1118070609.D			Analyzed: 07/06/18 17:14		
2-Methylnaphthalene-d10	0.30000	65.4	42 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	0.30000	65.4	42 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	70.4	29 - 120	25.268	25.20383	0.0642	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	70.4	29 - 120	25.268	25.20383	0.0642	N/A	
Fluoranthene-d10	0.30000	74.7	57 - 120	16.449	16.42	0.0290	N/A	
Fluoranthene-d10	0.30000	74.7	57 - 120	16.449	16.42	0.0290	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG/WO:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGG0067	Instrument:	NT11
Calibration:	BE00021	Calibration Date:	05/05/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
18F0226-04 (Water)			Lab File ID: NT1118070610.D			Analyzed: 07/06/18 17:50		
2-Methylnaphthalene-d10	0.30000	63.5	42 - 120	9.591	9.56	0.0310	N/A	
2-Methylnaphthalene-d10	0.30000	63.5	42 - 120	9.591	9.56	0.0310	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	70.8	29 - 120	25.268	25.20383	0.0642	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	70.8	29 - 120	25.268	25.20383	0.0642	N/A	
Fluoranthene-d10	0.30000	75.7	57 - 120	16.448	16.42	0.0280	N/A	
Fluoranthene-d10	0.30000	75.7	57 - 120	16.448	16.42	0.0280	N/A	
18F0226-05 (Water)			Lab File ID: NT1118070611.D			Analyzed: 07/06/18 18:27		
2-Methylnaphthalene-d10	0.30000	60.0	42 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	0.30000	60.0	42 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	65.7	29 - 120	25.268	25.20383	0.0642	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	65.7	29 - 120	25.268	25.20383	0.0642	N/A	
Fluoranthene-d10	0.30000	71.4	57 - 120	16.449	16.42	0.0290	N/A	
Fluoranthene-d10	0.30000	71.4	57 - 120	16.449	16.42	0.0290	N/A	
18F0226-06 (Water)			Lab File ID: NT1118070612.D			Analyzed: 07/06/18 19:03		
2-Methylnaphthalene-d10	0.30000	60.1	42 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	0.30000	60.1	42 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	68.3	29 - 120	25.268	25.20383	0.0642	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	68.3	29 - 120	25.268	25.20383	0.0642	N/A	
Fluoranthene-d10	0.30000	72.4	57 - 120	16.448	16.42	0.0280	N/A	
Fluoranthene-d10	0.30000	72.4	57 - 120	16.448	16.42	0.0280	N/A	
18F0226-07 (Water)			Lab File ID: NT1118070613.D			Analyzed: 07/06/18 19:39		
2-Methylnaphthalene-d10	0.30000	62.3	42 - 120	9.591	9.56	0.0310	N/A	
2-Methylnaphthalene-d10	0.30000	62.3	42 - 120	9.591	9.56	0.0310	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	70.0	29 - 120	25.268	25.20383	0.0642	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	70.0	29 - 120	25.268	25.20383	0.0642	N/A	
Fluoranthene-d10	0.30000	75.3	57 - 120	16.448	16.42	0.0280	N/A	
Fluoranthene-d10	0.30000	75.3	57 - 120	16.448	16.42	0.0280	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGG0067
Instrument: NT11
Calibration: BE00021
Calibration Date: 05/05/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
18F0226-08 (Water)			Lab File ID: NT1118070614.D			Analyzed: 07/06/18 20:15		
2-Methylnaphthalene-d10	0.30000	64.6	42 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	0.30000	64.6	42 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	70.7	29 - 120	25.268	25.20383	0.0642	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	70.7	29 - 120	25.268	25.20383	0.0642	N/A	
Fluoranthene-d10	0.30000	75.1	57 - 120	16.448	16.42	0.0280	N/A	
Fluoranthene-d10	0.30000	75.1	57 - 120	16.448	16.42	0.0280	N/A	
18F0226-09 (Water)			Lab File ID: NT1118070615.D			Analyzed: 07/06/18 20:51		
2-Methylnaphthalene-d10	0.30000	56.4	42 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	0.30000	56.4	42 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	64.4	29 - 120	25.279	25.20383	0.0752	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	64.4	29 - 120	25.279	25.20383	0.0752	N/A	
Fluoranthene-d10	0.30000	66.1	57 - 120	16.449	16.42	0.0290	N/A	
Fluoranthene-d10	0.30000	66.1	57 - 120	16.449	16.42	0.0290	N/A	
18F0248-01 (Water)			Lab File ID: NT1118070616.D			Analyzed: 07/06/18 21:27		
2-Methylnaphthalene-d10	0.30000	62.1	42 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	0.30000	62.1	42 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	65.4	29 - 120	25.268	25.20383	0.0642	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	65.4	29 - 120	25.268	25.20383	0.0642	N/A	
Fluoranthene-d10	0.30000	70.4	57 - 120	16.449	16.42	0.0290	N/A	
Fluoranthene-d10	0.30000	70.4	57 - 120	16.449	16.42	0.0290	N/A	
18F0248-02 (Water)			Lab File ID: NT1118070617.D			Analyzed: 07/06/18 22:03		
2-Methylnaphthalene-d10	0.30000	57.8	42 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	0.30000	57.8	42 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	64.2	29 - 120	25.268	25.20383	0.0642	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	64.2	29 - 120	25.268	25.20383	0.0642	N/A	
Fluoranthene-d10	0.30000	68.7	57 - 120	16.449	16.42	0.0290	N/A	
Fluoranthene-d10	0.30000	68.7	57 - 120	16.449	16.42	0.0290	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG/WO:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGG0067	Instrument:	NT11
Calibration:	BE00021	Calibration Date:	05/05/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
18F0248-03 (Water)			Lab File ID: NT1118070618.D			Analyzed: 07/06/18 22:39		
2-Methylnaphthalene-d10	0.30000	58.6	42 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	0.30000	58.6	42 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	66.3	29 - 120	25.268	25.20383	0.0642	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	66.3	29 - 120	25.268	25.20383	0.0642	N/A	
Fluoranthene-d10	0.30000	72.8	57 - 120	16.449	16.42	0.0290	N/A	
Fluoranthene-d10	0.30000	72.8	57 - 120	16.449	16.42	0.0290	N/A	
18F0248-04 (Water)			Lab File ID: NT1118070619.D			Analyzed: 07/06/18 23:15		
2-Methylnaphthalene-d10	0.30000	59.4	42 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	0.30000	59.4	42 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	62.5	29 - 120	25.268	25.20383	0.0642	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	62.5	29 - 120	25.268	25.20383	0.0642	N/A	
Fluoranthene-d10	0.30000	69.2	57 - 120	16.449	16.42	0.0290	N/A	
Fluoranthene-d10	0.30000	69.2	57 - 120	16.449	16.42	0.0290	N/A	
18F0248-05 (Water)			Lab File ID: NT1118070620.D			Analyzed: 07/06/18 23:51		
2-Methylnaphthalene-d10	0.30000	65.5	42 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	0.30000	65.5	42 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	68.9	29 - 120	25.268	25.20383	0.0642	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	68.9	29 - 120	25.268	25.20383	0.0642	N/A	
Fluoranthene-d10	0.30000	75.8	57 - 120	16.449	16.42	0.0290	N/A	
Fluoranthene-d10	0.30000	75.8	57 - 120	16.449	16.42	0.0290	N/A	
18F0248-06 (Water)			Lab File ID: NT1118070621.D			Analyzed: 07/07/18 00:26		
2-Methylnaphthalene-d10	0.30000	57.1	42 - 120	9.591	9.56	0.0310	N/A	
2-Methylnaphthalene-d10	0.30000	57.1	42 - 120	9.591	9.56	0.0310	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	61.4	29 - 120	25.268	25.20383	0.0642	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	61.4	29 - 120	25.268	25.20383	0.0642	N/A	
Fluoranthene-d10	0.30000	66.9	57 - 120	16.448	16.42	0.0280	N/A	
Fluoranthene-d10	0.30000	66.9	57 - 120	16.448	16.42	0.0280	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGG0076
Instrument: NT11
Calibration: BE00021
Calibration Date: 05/05/2018

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SGG0076-ICV1 (Water)			Lab File ID: NT1118070702.D				Analyzed: 07/07/18 08:54	
2-Methylnaphthalene-d10	250.00	107	80 - 120	9.591	9.56	0.0310	N/A	
2-Methylnaphthalene-d10	250.00	107	80 - 120	9.591	9.56	0.0310	N/A	
Dibenzo[a,h]anthracene-d14	250.00	108	80 - 120	25.268	25.20383	0.0642	N/A	
Dibenzo[a,h]anthracene-d14	250.00	108	80 - 120	25.268	25.20383	0.0642	N/A	
Fluoranthene-d10	250.00	115	80 - 120	16.448	16.42	0.0280	N/A	
Fluoranthene-d10	250.00	115	80 - 120	16.448	16.42	0.0280	N/A	
18F0248-07 (Water)			Lab File ID: NT1118070703.D				Analyzed: 07/07/18 09:44	
2-Methylnaphthalene-d10	0.30000	64.7	42 - 120	9.592	9.56	0.0320	N/A	
2-Methylnaphthalene-d10	0.30000	64.7	42 - 120	9.592	9.56	0.0320	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	71.2	29 - 120	25.279	25.20383	0.0752	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	71.2	29 - 120	25.279	25.20383	0.0752	N/A	
Fluoranthene-d10	0.30000	74.4	57 - 120	16.449	16.42	0.0290	N/A	
Fluoranthene-d10	0.30000	74.4	57 - 120	16.449	16.42	0.0290	N/A	
18F0248-08 (Water)			Lab File ID: NT1118070704.D				Analyzed: 07/07/18 10:20	
2-Methylnaphthalene-d10	0.30000	63.9	42 - 120	9.591	9.56	0.0310	N/A	
2-Methylnaphthalene-d10	0.30000	63.9	42 - 120	9.591	9.56	0.0310	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	70.9	29 - 120	25.268	25.20383	0.0642	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	70.9	29 - 120	25.268	25.20383	0.0642	N/A	
Fluoranthene-d10	0.30000	74.5	57 - 120	16.448	16.42	0.0280	N/A	
Fluoranthene-d10	0.30000	74.5	57 - 120	16.448	16.42	0.0280	N/A	
18F0226-05RE1 (Water)			Lab File ID: NT1118070706.D				Analyzed: 07/07/18 11:37	
2-Methylnaphthalene-d10	0.30000	59.6	42 - 120	9.591	9.56	0.0310	N/A	
2-Methylnaphthalene-d10	0.30000	59.6	42 - 120	9.591	9.56	0.0310	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	39.8	29 - 120	25.279	25.20383	0.0752	N/A	
Dibenzo[a,h]anthracene-d14	0.30000	39.8	29 - 120	25.279	25.20383	0.0752	N/A	
Fluoranthene-d10	0.30000	63.9	57 - 120	16.448	16.42	0.0280	N/A	
Fluoranthene-d10	0.30000	63.9	57 - 120	16.448	16.42	0.0280	N/A	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGE0100	Instrument:	NT11
		Calibration:	BE00021

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SGE0100-ICV1)		(Solid)	Lab File ID: NT1118050509.D				Analyzed: 05/05/18 16:26		
Naphthalene-d8	462898	8.581	431321	8.581	107	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	283986	11.617	260137	11.617	109	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	481805	14.309	427391	14.308	113	50 - 200	-0.0010	+/-0.50	
Chrysene-d12	366235	19.062	304596	19.062	120	50 - 200	0.0000	+/-0.50	
Perylene-d12	311961	22.295	263091	22.295	119	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0298
Instrument: NT11
Calibration: BE00021

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SGF0298-ICV1)		(Water)	Lab File ID: NT1118062302.D				Analyzed: 06/23/18 10:32		
Naphthalene-d8	439848	8.608	431321	8.608	102	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	277298	11.644	260137	11.644	107	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	475065	14.34	427391	14.34	111	50 - 200	0.0000	+/-0.50	
Chrysene-d12	314145	19.095	304596	19.095	103	50 - 200	0.0000	+/-0.50	
Perylene-d12	322901	22.353	263091	22.353	123	50 - 200	0.0000	+/-0.50	
Blank (BGF0416-BLK1)		(Water)	Lab File ID: NT1118062303.D				Analyzed: 06/23/18 11:11		
Naphthalene-d8	437861	8.608	431321	8.608	102	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	267531	11.644	260137	11.644	103	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	460495	14.34	427391	14.34	108	50 - 200	0.0000	+/-0.50	
Chrysene-d12	282512	19.103	304596	19.095	93	50 - 200	-0.0080	+/-0.50	
Perylene-d12	272776	22.353	263091	22.353	104	50 - 200	0.0000	+/-0.50	
LCS (BGF0416-BS1)		(Water)	Lab File ID: NT1118062304.D				Analyzed: 06/23/18 11:47		
Naphthalene-d8	435740	8.608	431321	8.608	101	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	267913	11.644	260137	11.644	103	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	458725	14.34	427391	14.34	107	50 - 200	0.0000	+/-0.50	
Chrysene-d12	329128	19.095	304596	19.095	108	50 - 200	0.0000	+/-0.50	
Perylene-d12	319608	22.353	263091	22.353	121	50 - 200	0.0000	+/-0.50	
LDW18-SP-RB1 (18F0185-01)		(Water)	Lab File ID: NT1118062305.D				Analyzed: 06/23/18 12:23		
Naphthalene-d8	424320	8.608	431321	8.608	98	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	248415	11.644	260137	11.644	95	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	424349	14.34	427391	14.34	99	50 - 200	0.0000	+/-0.50	
Chrysene-d12	308989	19.095	304596	19.095	101	50 - 200	0.0000	+/-0.50	
Perylene-d12	321184	22.353	263091	22.353	122	50 - 200	0.0000	+/-0.50	
LDW18-SP-30 (18F0185-03)		(Water)	Lab File ID: NT1118062306.D				Analyzed: 06/23/18 12:58		
Naphthalene-d8	413294	8.608	431321	8.608	96	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	230773	11.644	260137	11.644	89	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	390320	14.34	427391	14.34	91	50 - 200	0.0000	+/-0.50	
Chrysene-d12	310693	19.095	304596	19.095	102	50 - 200	0.0000	+/-0.50	
Perylene-d12	314538	22.353	263091	22.353	120	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0298
Instrument: NT11
Calibration: BE00021

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW18-SP-32 (18F0185-04)		(Water)	Lab File ID: NT1118062307.D				Analyzed: 06/23/18 13:35		
Naphthalene-d8	430028	8.608	431321	8.608	100	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	250484	11.644	260137	11.644	96	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	419449	14.34	427391	14.34	98	50 - 200	0.0000	+/-0.50	
Chrysene-d12	312031	19.095	304596	19.095	102	50 - 200	0.0000	+/-0.50	
Perylene-d12	308243	22.353	263091	22.353	117	50 - 200	0.0000	+/-0.50	
LDW18-SP-35 (18F0185-05)		(Water)	Lab File ID: NT1118062308.D				Analyzed: 06/23/18 15:12		
Naphthalene-d8	445376	8.617	431321	8.608	103	50 - 200	-0.0090	+/-0.50	
Acenaphthene-d10	256055	11.653	260137	11.644	98	50 - 200	-0.0090	+/-0.50	
Phenanthrene-d10	443516	14.34	427391	14.34	104	50 - 200	0.0000	+/-0.50	
Chrysene-d12	317075	19.103	304596	19.095	104	50 - 200	-0.0080	+/-0.50	
Perylene-d12	323040	22.363	263091	22.353	123	50 - 200	-0.0100	+/-0.50	
LDW18-SP-38 (18F0185-06)		(Water)	Lab File ID: NT1118062309.D				Analyzed: 06/23/18 15:48		
Naphthalene-d8	438604	8.608	431321	8.608	102	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	242489	11.644	260137	11.644	93	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	403904	14.34	427391	14.34	95	50 - 200	0.0000	+/-0.50	
Chrysene-d12	323995	19.095	304596	19.095	106	50 - 200	0.0000	+/-0.50	
Perylene-d12	323445	22.353	263091	22.353	123	50 - 200	0.0000	+/-0.50	
LDW18-SP-42 (18F0185-07)		(Water)	Lab File ID: NT1118062310.D				Analyzed: 06/23/18 16:24		
Naphthalene-d8	433609	8.608	431321	8.608	101	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	250692	11.644	260137	11.644	96	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	420792	14.34	427391	14.34	98	50 - 200	0.0000	+/-0.50	
Chrysene-d12	314264	19.095	304596	19.095	103	50 - 200	0.0000	+/-0.50	
Perylene-d12	314498	22.353	263091	22.353	120	50 - 200	0.0000	+/-0.50	
LDW18-SP-43 (18F0185-08)		(Water)	Lab File ID: NT1118062311.D				Analyzed: 06/23/18 17:00		
Naphthalene-d8	440585	8.608	431321	8.608	102	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	251575	11.644	260137	11.644	97	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	442232	14.34	427391	14.34	103	50 - 200	0.0000	+/-0.50	
Chrysene-d12	329868	19.095	304596	19.095	108	50 - 200	0.0000	+/-0.50	
Perylene-d12	315043	22.353	263091	22.353	120	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0298
Instrument: NT11
Calibration: BE00021

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Matrix Spike (BGF0416-MS1)		(Water)	Lab File ID: NT1118062312.D				Analyzed: 06/23/18 17:37		
Naphthalene-d8	432165	8.608	431321	8.608	100	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	238674	11.644	260137	11.644	92	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	396531	14.34	427391	14.34	93	50 - 200	0.0000	+/-0.50	
Chrysene-d12	321120	19.095	304596	19.095	105	50 - 200	0.0000	+/-0.50	
Perylene-d12	329991	22.353	263091	22.353	125	50 - 200	0.0000	+/-0.50	
Matrix Spike Dup (BGF0416-MSD1)		(Water)	Lab File ID: NT1118062313.D				Analyzed: 06/23/18 18:13		
Naphthalene-d8	443613	8.608	431321	8.608	103	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	257139	11.644	260137	11.644	99	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	433203	14.34	427391	14.34	101	50 - 200	0.0000	+/-0.50	
Chrysene-d12	329800	19.095	304596	19.095	108	50 - 200	0.0000	+/-0.50	
Perylene-d12	330775	22.353	263091	22.353	126	50 - 200	0.0000	+/-0.50	
Blank (BGF0455-BLK1)		(Water)	Lab File ID: NT1118062314.D				Analyzed: 06/23/18 18:50		
Naphthalene-d8	456808	8.608	431321	8.608	106	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	259788	11.644	260137	11.644	100	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	455065	14.34	427391	14.34	106	50 - 200	0.0000	+/-0.50	
Chrysene-d12	343022	19.095	304596	19.095	113	50 - 200	0.0000	+/-0.50	
Perylene-d12	321640	22.353	263091	22.353	122	50 - 200	0.0000	+/-0.50	
LCS (BGF0455-BS1)		(Water)	Lab File ID: NT1118062315.D				Analyzed: 06/23/18 19:26		
Naphthalene-d8	447669	8.608	431321	8.608	104	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	257845	11.644	260137	11.644	99	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	432028	14.34	427391	14.34	101	50 - 200	0.0000	+/-0.50	
Chrysene-d12	342568	19.095	304596	19.095	112	50 - 200	0.0000	+/-0.50	
Perylene-d12	333496	22.353	263091	22.353	127	50 - 200	0.0000	+/-0.50	
MRL Check (BGF0455-MRL1)		(Water)	Lab File ID: NT1118062316.D				Analyzed: 06/23/18 20:02		
Naphthalene-d8	447910	8.608	431321	8.608	104	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	254646	11.644	260137	11.644	98	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	432883	14.34	427391	14.34	101	50 - 200	0.0000	+/-0.50	
Chrysene-d12	341572	19.095	304596	19.095	112	50 - 200	0.0000	+/-0.50	
Perylene-d12	326818	22.353	263091	22.353	124	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0298
Instrument: NT11
Calibration: BE00021

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
MRL Check (BGF0455-MRL2)		(Water)	Lab File ID: NT1118062317.D				Analyzed: 06/23/18 20:38		
Naphthalene-d8	439316	8.608	431321	8.608	102	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	244791	11.644	260137	11.644	94	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	417605	14.34	427391	14.34	98	50 - 200	0.0000	+/-0.50	
Chrysene-d12	329932	19.095	304596	19.095	108	50 - 200	0.0000	+/-0.50	
Perylene-d12	315175	22.353	263091	22.353	120	50 - 200	0.0000	+/-0.50	
LDW18-SP-06 (18F0208-01)		(Water)	Lab File ID: NT1118062318.D				Analyzed: 06/23/18 21:14		
Naphthalene-d8	437051	8.608	431321	8.608	101	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	238277	11.644	260137	11.644	92	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	398736	14.34	427391	14.34	93	50 - 200	0.0000	+/-0.50	
Chrysene-d12	320270	19.095	304596	19.095	105	50 - 200	0.0000	+/-0.50	
Perylene-d12	321609	22.353	263091	22.353	122	50 - 200	0.0000	+/-0.50	
LDW18-SP-33 (18F0208-02)		(Water)	Lab File ID: NT1118062319.D				Analyzed: 06/23/18 21:50		
Naphthalene-d8	439048	8.608	431321	8.608	102	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	237424	11.644	260137	11.644	91	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	401858	14.34	427391	14.34	94	50 - 200	0.0000	+/-0.50	
Chrysene-d12	318605	19.095	304596	19.095	105	50 - 200	0.0000	+/-0.50	
Perylene-d12	323377	22.353	263091	22.353	123	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0327
Instrument: NT11
Calibration: BE00021

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SGF0327-ICV1)		(Water)	Lab File ID: NT1118062602.D				Analyzed: 06/27/18 08:13		
Naphthalene-d8	474060	8.608	431321	8.608	110	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	249897	11.644	260137	11.644	96	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	411885	14.34	427391	14.34	96	50 - 200	0.0000	+/-0.50	
Chrysene-d12	319157	19.103	304596	19.103	105	50 - 200	0.0000	+/-0.50	
Perylene-d12	318870	22.353	263091	22.353	121	50 - 200	0.0000	+/-0.50	
LDW18-SP-24 (18F0208-03)		(Water)	Lab File ID: NT1118062603.D				Analyzed: 06/27/18 08:55		
Naphthalene-d8	466900	8.608	431321	8.608	108	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	250417	11.644	260137	11.644	96	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	425760	14.34	427391	14.34	100	50 - 200	0.0000	+/-0.50	
Chrysene-d12	333102	19.104	304596	19.103	109	50 - 200	-0.0010	+/-0.50	
Perylene-d12	331601	22.353	263091	22.353	126	50 - 200	0.0000	+/-0.50	
LDW18-SP-24-FD (18F0208-04)		(Water)	Lab File ID: NT1118062604.D				Analyzed: 06/27/18 09:31		
Naphthalene-d8	459730	8.608	431321	8.608	107	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	272986	11.644	260137	11.644	105	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	442415	14.34	427391	14.34	104	50 - 200	0.0000	+/-0.50	
Chrysene-d12	343040	19.095	304596	19.103	113	50 - 200	0.0080	+/-0.50	
Perylene-d12	353146	22.353	263091	22.353	134	50 - 200	0.0000	+/-0.50	
LDW18-SP-33 (18F0208-02RE1)		(Water)	Lab File ID: NT1118062605.D				Analyzed: 06/27/18 10:06		
Naphthalene-d8	444117	8.608	431321	8.608	103	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	235303	11.644	260137	11.644	90	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	394726	14.34	427391	14.34	92	50 - 200	0.0000	+/-0.50	
Chrysene-d12	311539	19.095	304596	19.103	102	50 - 200	0.0080	+/-0.50	
Perylene-d12	314268	22.353	263091	22.353	119	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGG0067
Instrument: NT11
Calibration: BE00021

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SGG0067-ICV1)		(Water)	Lab File ID: NT1118070602.D				Analyzed: 07/06/18 12:50		
Naphthalene-d8	454410	8.608	431321	8.608	105	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	245764	11.644	260137	11.644	94	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	393366	14.34	427391	14.34	92	50 - 200	0.0000	+/-0.50	
Chrysene-d12	306338	19.095	304596	19.095	101	50 - 200	0.0000	+/-0.50	
Perylene-d12	309004	22.353	263091	22.353	117	50 - 200	0.0000	+/-0.50	
Blank (BGF0530-BLK1)		(Water)	Lab File ID: NT1118070603.D				Analyzed: 07/06/18 13:29		
Naphthalene-d8	445789	8.608	431321	8.608	103	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	238290	11.644	260137	11.644	92	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	408592	14.34	427391	14.34	96	50 - 200	0.0000	+/-0.50	
Chrysene-d12	304324	19.104	304596	19.095	100	50 - 200	-0.0090	+/-0.50	
Perylene-d12	300913	22.353	263091	22.353	114	50 - 200	0.0000	+/-0.50	
LCS (BGF0530-BS1)		(Water)	Lab File ID: NT1118070604.D				Analyzed: 07/06/18 14:05		
Naphthalene-d8	438406	8.608	431321	8.608	102	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	238337	11.644	260137	11.644	92	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	394472	14.34	427391	14.34	92	50 - 200	0.0000	+/-0.50	
Chrysene-d12	312605	19.095	304596	19.095	103	50 - 200	0.0000	+/-0.50	
Perylene-d12	306914	22.353	263091	22.353	117	50 - 200	0.0000	+/-0.50	
LDW18-SP-05 (18F0226-01)		(Water)	Lab File ID: NT1118070605.D				Analyzed: 07/06/18 14:42		
Naphthalene-d8	447587	8.608	431321	8.608	104	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	237600	11.644	260137	11.644	91	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	389839	14.34	427391	14.34	91	50 - 200	0.0000	+/-0.50	
Chrysene-d12	302630	19.095	304596	19.095	99	50 - 200	0.0000	+/-0.50	
Perylene-d12	299721	22.353	263091	22.353	114	50 - 200	0.0000	+/-0.50	
LDW18-SP-57 (18F0226-02)		(Water)	Lab File ID: NT1118070606.D				Analyzed: 07/06/18 15:18		
Naphthalene-d8	452932	8.608	431321	8.608	105	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	237104	11.644	260137	11.644	91	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	400608	14.34	427391	14.34	94	50 - 200	0.0000	+/-0.50	
Chrysene-d12	295829	19.095	304596	19.095	97	50 - 200	0.0000	+/-0.50	
Perylene-d12	289532	22.353	263091	22.353	110	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGG0067
Instrument: NT11
Calibration: BE00021

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Matrix Spike (BGF0530-MS1)		(Water)	Lab File ID: NT1118070607.D				Analyzed: 07/06/18 16:01		
Naphthalene-d8	449364	8.608	431321	8.608	104	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	242505	11.644	260137	11.644	93	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	388168	14.34	427391	14.34	91	50 - 200	0.0000	+/-0.50	
Chrysene-d12	304681	19.103	304596	19.095	100	50 - 200	-0.0080	+/-0.50	
Perylene-d12	320614	22.353	263091	22.353	122	50 - 200	0.0000	+/-0.50	
Matrix Spike Dup (BGF0530-MSD1)		(Water)	Lab File ID: NT1118070608.D				Analyzed: 07/06/18 16:37		
Naphthalene-d8	452361	8.608	431321	8.608	105	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	246514	11.644	260137	11.644	95	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	407240	14.34	427391	14.34	95	50 - 200	0.0000	+/-0.50	
Chrysene-d12	321313	19.095	304596	19.095	105	50 - 200	0.0000	+/-0.50	
Perylene-d12	322591	22.353	263091	22.353	123	50 - 200	0.0000	+/-0.50	
LDW18-SP-73 (18F0226-03)		(Water)	Lab File ID: NT1118070609.D				Analyzed: 07/06/18 17:14		
Naphthalene-d8	477820	8.608	431321	8.608	111	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	253956	11.644	260137	11.644	98	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	415827	14.34	427391	14.34	97	50 - 200	0.0000	+/-0.50	
Chrysene-d12	320863	19.095	304596	19.095	105	50 - 200	0.0000	+/-0.50	
Perylene-d12	316832	22.353	263091	22.353	120	50 - 200	0.0000	+/-0.50	
LDW18-SP-74 (18F0226-04)		(Water)	Lab File ID: NT1118070610.D				Analyzed: 07/06/18 17:50		
Naphthalene-d8	471869	8.608	431321	8.608	109	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	249887	11.644	260137	11.644	96	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	415529	14.34	427391	14.34	97	50 - 200	0.0000	+/-0.50	
Chrysene-d12	330617	19.095	304596	19.095	109	50 - 200	0.0000	+/-0.50	
Perylene-d12	334983	22.353	263091	22.353	127	50 - 200	0.0000	+/-0.50	
LDW18-SP-77 (18F0226-05)		(Water)	Lab File ID: NT1118070611.D				Analyzed: 07/06/18 18:27		
Naphthalene-d8	478922	8.608	431321	8.608	111	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	258949	11.644	260137	11.644	100	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	425199	14.34	427391	14.34	99	50 - 200	0.0000	+/-0.50	
Chrysene-d12	324174	19.095	304596	19.095	106	50 - 200	0.0000	+/-0.50	
Perylene-d12	322868	22.353	263091	22.353	123	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGG0067
Instrument: NT11
Calibration: BE00021

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW18-SP-78 (18F0226-06)		(Water)	Lab File ID: NT1118070612.D				Analyzed: 07/06/18 19:03		
Naphthalene-d8	475891	8.608	431321	8.608	110	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	249984	11.644	260137	11.644	96	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	404938	14.34	427391	14.34	95	50 - 200	0.0000	+/-0.50	
Chrysene-d12	304414	19.095	304596	19.095	100	50 - 200	0.0000	+/-0.50	
Perylene-d12	296897	22.353	263091	22.353	113	50 - 200	0.0000	+/-0.50	
LDW18-SP-79 (18F0226-07)		(Water)	Lab File ID: NT1118070613.D				Analyzed: 07/06/18 19:39		
Naphthalene-d8	464417	8.608	431321	8.608	108	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	244697	11.644	260137	11.644	94	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	404400	14.34	427391	14.34	95	50 - 200	0.0000	+/-0.50	
Chrysene-d12	306435	19.095	304596	19.095	101	50 - 200	0.0000	+/-0.50	
Perylene-d12	308535	22.353	263091	22.353	117	50 - 200	0.0000	+/-0.50	
LDW18-SP-84 (18F0226-08)		(Water)	Lab File ID: NT1118070614.D				Analyzed: 07/06/18 20:15		
Naphthalene-d8	468885	8.608	431321	8.608	109	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	246655	11.644	260137	11.644	95	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	410793	14.34	427391	14.34	96	50 - 200	0.0000	+/-0.50	
Chrysene-d12	321818	19.095	304596	19.095	106	50 - 200	0.0000	+/-0.50	
Perylene-d12	318203	22.353	263091	22.353	121	50 - 200	0.0000	+/-0.50	
LDW18-SP-87 (18F0226-09)		(Water)	Lab File ID: NT1118070615.D				Analyzed: 07/06/18 20:51		
Naphthalene-d8	470533	8.608	431321	8.608	109	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	247524	11.644	260137	11.644	95	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	404969	14.34	427391	14.34	95	50 - 200	0.0000	+/-0.50	
Chrysene-d12	316453	19.095	304596	19.095	104	50 - 200	0.0000	+/-0.50	
Perylene-d12	321961	22.353	263091	22.353	122	50 - 200	0.0000	+/-0.50	
LDW18-SP-01 (18F0248-01)		(Water)	Lab File ID: NT1118070616.D				Analyzed: 07/06/18 21:27		
Naphthalene-d8	482266	8.608	431321	8.608	112	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	256229	11.644	260137	11.644	98	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	423710	14.34	427391	14.34	99	50 - 200	0.0000	+/-0.50	
Chrysene-d12	322758	19.095	304596	19.095	106	50 - 200	0.0000	+/-0.50	
Perylene-d12	324161	22.353	263091	22.353	123	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGG0067
Instrument: NT11
Calibration: BE00021

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW18-SP-45 (18F0248-02)		(Water)	Lab File ID: NT1118070617.D				Analyzed: 07/06/18 22:03		
Naphthalene-d8	482862	8.608	431321	8.608	112	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	254348	11.644	260137	11.644	98	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	416626	14.34	427391	14.34	97	50 - 200	0.0000	+/-0.50	
Chrysene-d12	343287	19.095	304596	19.095	113	50 - 200	0.0000	+/-0.50	
Perylene-d12	337590	22.353	263091	22.353	128	50 - 200	0.0000	+/-0.50	
LDW18-SP-47 (18F0248-03)		(Water)	Lab File ID: NT1118070618.D				Analyzed: 07/06/18 22:39		
Naphthalene-d8	465637	8.608	431321	8.608	108	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	243202	11.644	260137	11.644	93	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	397137	14.34	427391	14.34	93	50 - 200	0.0000	+/-0.50	
Chrysene-d12	311192	19.095	304596	19.095	102	50 - 200	0.0000	+/-0.50	
Perylene-d12	311656	22.353	263091	22.353	118	50 - 200	0.0000	+/-0.50	
LDW18-SP-66 (18F0248-04)		(Water)	Lab File ID: NT1118070619.D				Analyzed: 07/06/18 23:15		
Naphthalene-d8	458935	8.608	431321	8.608	106	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	239425	11.644	260137	11.644	92	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	386379	14.34	427391	14.34	90	50 - 200	0.0000	+/-0.50	
Chrysene-d12	299543	19.095	304596	19.095	98	50 - 200	0.0000	+/-0.50	
Perylene-d12	292607	22.353	263091	22.353	111	50 - 200	0.0000	+/-0.50	
LDW18-SP-70 (18F0248-05)		(Water)	Lab File ID: NT1118070620.D				Analyzed: 07/06/18 23:51		
Naphthalene-d8	462666	8.608	431321	8.608	107	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	241188	11.644	260137	11.644	93	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	399710	14.34	427391	14.34	94	50 - 200	0.0000	+/-0.50	
Chrysene-d12	306329	19.095	304596	19.095	101	50 - 200	0.0000	+/-0.50	
Perylene-d12	299215	22.353	263091	22.353	114	50 - 200	0.0000	+/-0.50	
LDW18-SP-83 (18F0248-06)		(Water)	Lab File ID: NT1118070621.D				Analyzed: 07/07/18 00:26		
Naphthalene-d8	467869	8.608	431321	8.608	108	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	242636	11.644	260137	11.644	93	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	402741	14.34	427391	14.34	94	50 - 200	0.0000	+/-0.50	
Chrysene-d12	316848	19.095	304596	19.095	104	50 - 200	0.0000	+/-0.50	
Perylene-d12	309209	22.353	263091	22.353	118	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGG0076	Instrument:	NT11
		Calibration:	BE00021

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SGG0076-ICV1)		(Water)	Lab File ID: NT1118070702.D				Analyzed: 07/07/18 08:54		
Naphthalene-d8	480961	8.608	431321	8.608	112	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	249306	11.644	260137	11.644	96	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	413904	14.34	427391	14.34	97	50 - 200	0.0000	+/-0.50	
Chrysene-d12	341560	19.095	304596	19.095	112	50 - 200	0.0000	+/-0.50	
Perylene-d12	347031	22.353	263091	22.353	132	50 - 200	0.0000	+/-0.50	
LDW18-SP-86 (18F0248-07)		(Water)	Lab File ID: NT1118070703.D				Analyzed: 07/07/18 09:44		
Naphthalene-d8	462182	8.608	431321	8.608	107	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	240105	11.644	260137	11.644	92	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	410079	14.34	427391	14.34	96	50 - 200	0.0000	+/-0.50	
Chrysene-d12	321109	19.103	304596	19.095	105	50 - 200	-0.0080	+/-0.50	
Perylene-d12	318936	22.353	263091	22.353	121	50 - 200	0.0000	+/-0.50	
LDW18-SP-88 (18F0248-08)		(Water)	Lab File ID: NT1118070704.D				Analyzed: 07/07/18 10:20		
Naphthalene-d8	447779	8.608	431321	8.608	104	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	230638	11.644	260137	11.644	89	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	376281	14.34	427391	14.34	88	50 - 200	0.0000	+/-0.50	
Chrysene-d12	295002	19.095	304596	19.095	97	50 - 200	0.0000	+/-0.50	
Perylene-d12	290569	22.353	263091	22.353	110	50 - 200	0.0000	+/-0.50	
LDW18-SP-77 (18F0226-05RE1)		(Water)	Lab File ID: NT1118070706.D				Analyzed: 07/07/18 11:37		
Naphthalene-d8	405203	8.608	431321	8.608	94	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	209304	11.644	260137	11.644	80	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	354404	14.34	427391	14.34	83	50 - 200	0.0000	+/-0.50	
Chrysene-d12	254707	19.103	304596	19.095	84	50 - 200	-0.0080	+/-0.50	
Perylene-d12	244733	22.353	263091	22.353	93	50 - 200	0.0000	+/-0.50	

HOLDING TIME SUMMARY

Analysis: EPA 8270D-SIM

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW18-SP-RB1 18F0185-01	06/11/18 16:12	06/12/18 14:55	06/18/18 13:48	6	7	06/23/18 12:23	5	40	
LDW18-SP-30 18F0185-03	06/12/18 12:06	06/12/18 14:55	06/18/18 13:48	6	7	06/23/18 12:58	5	40	
LDW18-SP-32 18F0185-04	06/12/18 09:19	06/12/18 14:55	06/18/18 13:48	6	7	06/23/18 13:35	5	40	
LDW18-SP-35 18F0185-05	06/12/18 10:56	06/12/18 14:55	06/18/18 13:48	6	7	06/23/18 15:12	5	40	
LDW18-SP-38 18F0185-06	06/12/18 10:27	06/12/18 14:55	06/18/18 13:48	6	7	06/23/18 15:48	5	40	
LDW18-SP-42 18F0185-07	06/12/18 12:05	06/12/18 14:55	06/18/18 13:48	6	7	06/23/18 16:24	5	40	
LDW18-SP-43 18F0185-08	06/12/18 13:00	06/12/18 14:55	06/18/18 13:48	6	7	06/23/18 17:00	5	40	
LDW18-SP-06 18F0208-01	06/13/18 09:53	06/13/18 16:26	06/19/18 17:20	6	7	06/23/18 21:14	4	40	
LDW18-SP-33 18F0208-02	06/13/18 12:17	06/13/18 16:26	06/19/18 17:20	6	7	06/23/18 21:50	4	40	
LDW18-SP-33 18F0208-02RE1	06/13/18 12:17	06/13/18 16:26	06/19/18 17:20	6	7	06/27/18 10:06	8	40	
LDW18-SP-24 18F0208-03	06/13/18 12:35	06/13/18 16:26	06/19/18 17:20	6	7	06/27/18 08:55	8	40	
LDW18-SP-24-FD 18F0208-04	06/13/18 12:42	06/13/18 16:26	06/19/18 17:20	6	7	06/27/18 09:31	8	40	
LDW18-SP-05 18F0226-01	06/14/18 14:08	06/14/18 15:45	06/21/18 13:35	6	7	07/06/18 14:42	15	40	
LDW18-SP-57 18F0226-02	06/14/18 10:41	06/14/18 15:45	06/21/18 13:35	7	7	07/06/18 15:18	15	40	
LDW18-SP-73 18F0226-03	06/14/18 13:08	06/14/18 15:45	06/21/18 13:35	7	7	07/06/18 17:14	15	40	
LDW18-SP-74 18F0226-04	06/14/18 13:14	06/14/18 15:45	06/21/18 13:35	7	7	07/06/18 17:50	15	40	
LDW18-SP-77 18F0226-05	06/14/18 12:10	06/14/18 15:45	06/21/18 13:35	7	7	07/06/18 18:27	15	40	
LDW18-SP-77 18F0226-05RE1	06/14/18 12:10	06/14/18 15:45	06/21/18 13:35	7	7	07/07/18 11:37	16	40	
LDW18-SP-78 18F0226-06	06/14/18 12:04	06/14/18 15:45	06/21/18 13:35	7	7	07/06/18 19:03	15	40	
LDW18-SP-79 18F0226-07	06/14/18 09:50	06/14/18 15:45	06/21/18 13:35	7	7	07/06/18 19:39	15	40	
LDW18-SP-84 18F0226-08	06/14/18 09:53	06/14/18 15:45	06/21/18 13:35	7	7	07/06/18 20:15	15	40	
LDW18-SP-87 18F0226-09	06/14/18 11:11	06/14/18 15:45	06/21/18 13:35	7	7	07/06/18 20:51	15	40	

HOLDING TIME SUMMARY

Analysis: EPA 8270D-SIM

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW18-SP-01 18F0248-01	06/15/18 11:33	06/15/18 16:10	06/21/18 13:35	6	7	07/06/18 21:27	15	40	
LDW18-SP-45 18F0248-02	06/15/18 13:45	06/15/18 16:10	06/21/18 13:35	5	7	07/06/18 22:03	15	40	
LDW18-SP-47 18F0248-03	06/15/18 13:16	06/15/18 16:10	06/21/18 13:35	6	7	07/06/18 22:39	15	40	
LDW18-SP-66 18F0248-04	06/15/18 13:25	06/15/18 16:10	06/21/18 13:35	6	7	07/06/18 23:15	15	40	
LDW18-SP-70 18F0248-05	06/15/18 11:13	06/15/18 16:10	06/21/18 13:35	6	7	07/06/18 23:51	15	40	
LDW18-SP-83 18F0248-06	06/15/18 12:08	06/15/18 16:10	06/21/18 13:35	6	7	07/07/18 00:26	15	40	
LDW18-SP-86 18F0248-07	06/15/18 12:19	06/15/18 16:10	06/21/18 13:35	6	7	07/07/18 09:44	16	40	
LDW18-SP-88 18F0248-08	06/15/18 10:52	06/15/18 16:10	06/21/18 13:35	6	7	07/07/18 10:20	16	40	
Matrix Spike BGF0416-MS1	06/12/18 13:00	06/12/18 14:55	06/18/18 13:48	6	7	06/23/18 17:37	5	40	
Matrix Spike Dup BGF0416-MSD1	06/12/18 13:00	06/12/18 14:55	06/18/18 13:48	6	7	06/23/18 18:13	5	40	
Matrix Spike BGF0530-MS1	06/14/18 10:41	06/14/18 15:45	06/21/18 13:35	7	7	07/06/18 16:01	15	40	
Matrix Spike Dup BGF0530-MSD1	06/14/18 10:41	06/14/18 15:45	06/21/18 13:35	7	7	07/06/18 16:37	15	40	

* Indicates hold time exceedance.

METHOD DETECTION AND REPORTING LIMITS

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Matrix: Solid Instrument: NT11

Analyte	MDL	RL	Units
Naphthalene	0.44	0.60	ug/kg
1-Methylnaphthalene	0.11	0.50	ug/kg
2-Methylnaphthalene	0.13	0.50	ug/kg
Acenaphthylene	0.06	0.50	ug/kg
Acenaphthene	0.09	0.50	ug/kg
Dibenzofuran	0.13	0.50	ug/kg
Fluorene	0.07	0.50	ug/kg
Phenanthrene	0.11	0.50	ug/kg
Anthracene	0.07	0.50	ug/kg
Fluoranthene	0.08	0.50	ug/kg
Pyrene	0.09	0.50	ug/kg
Benzo(a)anthracene	0.07	0.50	ug/kg
Chrysene	0.07	0.50	ug/kg
Benzo(b)fluoranthene	0.07	0.50	ug/kg
Benzo(k)fluoranthene	0.10	0.50	ug/kg
Benzo(j)fluoranthene	0.10	0.50	ug/kg
Benzo(a)pyrene	0.09	0.50	ug/kg
Indeno(1,2,3-cd)pyrene	0.09	0.50	ug/kg
Dibenzo(a,h)anthracene	0.11	0.50	ug/kg
Benzo(g,h,i)perylene	0.09	0.50	ug/kg

METHOD DETECTION AND REPORTING LIMITS

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Matrix: Water Instrument: NT11

Analyte	MDL	RL	Units
Naphthalene	0.001	0.010	ug/L
2-Methylnaphthalene	0.001	0.010	ug/L
Acenaphthylene	0.002	0.010	ug/L
Acenaphthene	0.003	0.010	ug/L
Fluorene	0.002	0.010	ug/L
Phenanthrene	0.001	0.010	ug/L
Anthracene	0.001	0.010	ug/L
Fluoranthene	0.002	0.010	ug/L
Pyrene	0.001	0.010	ug/L
Benzo(a)anthracene	0.0008	0.010	ug/L
Chrysene	0.0009	0.010	ug/L
Benzo(b)fluoranthene	0.0005	0.010	ug/L
Benzo(k)fluoranthene	0.003	0.010	ug/L
Benzo(j)fluoranthene	0.002	0.010	ug/L
Benzo(a)pyrene	0.002	0.010	ug/L
Indeno(1,2,3-cd)pyrene	0.001	0.010	ug/L
Dibenzo(a,h)anthracene	0.001	0.010	ug/L
Benzo(g,h,i)perylene	0.001	0.010	ug/L

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Analytical Reference Material ARM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 93462
Lot Number: 031416
Description: PAH Standard
30 components
Expiration Date: 031421
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 822-275872-11

Solvent(s):	Lot#
Methylene chloride	72062

E002162 JR
Recd. 06/08/16

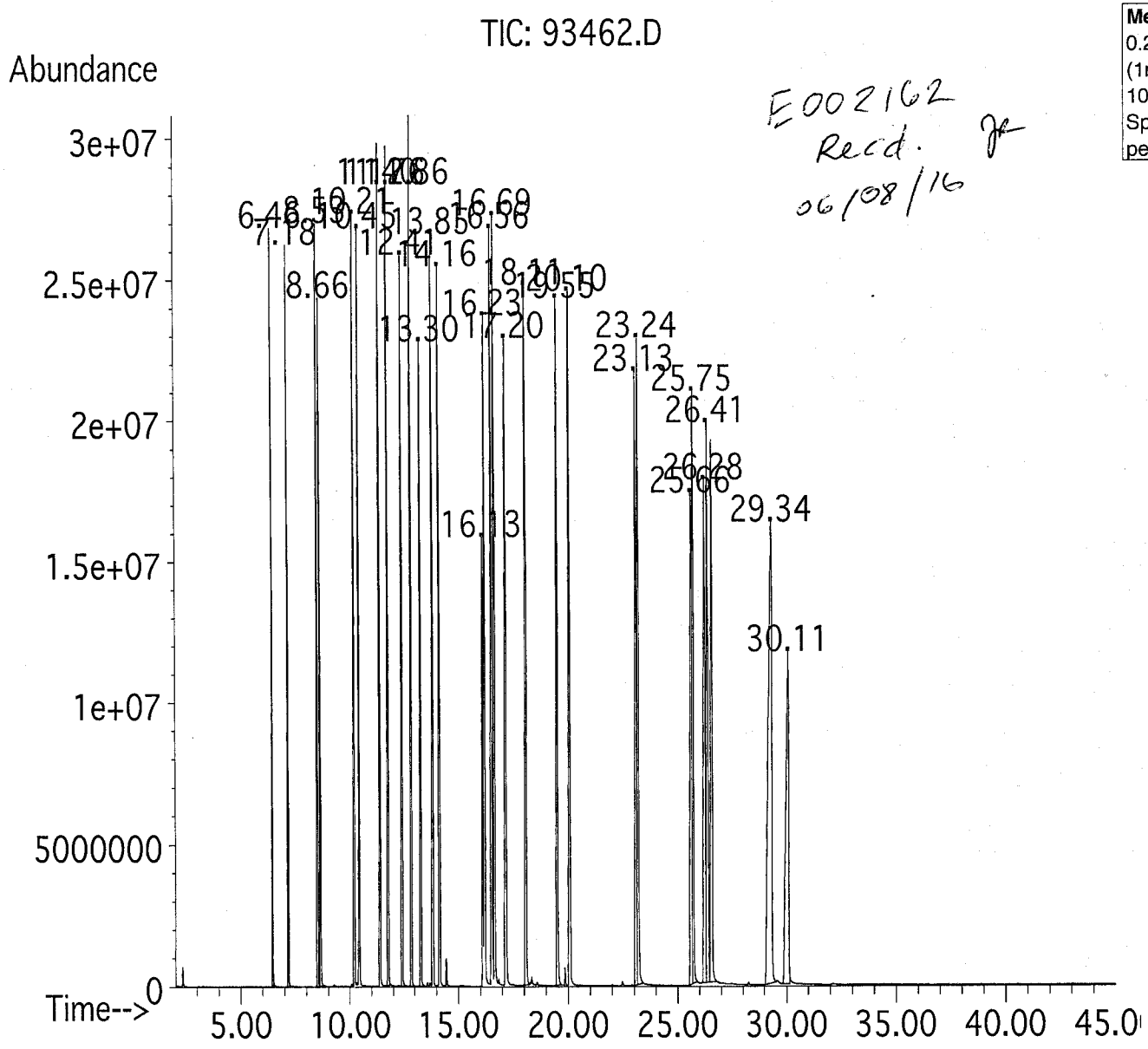
5E-05 Balance Uncertainty
Volume(s) shown below were combined and diluted to (mL): 10.0 0.002 Flask Uncertainty

Paul Barron		031416
Formulated By:	Paul Barron	DATE
Pedro Rentas		031416
Reviewed By:	Pedro L. Rentas	DATE

Compound	Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Uncertainty Pipette	Initial Conc.(ug/mL)	Final Conc.(ug/mL)	Expanded Uncertainty (+/-) (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acenaphthene	10007	020515	0.50	5.00	0.025	2001.4	1000.9	4.1	83-32-9	N/A	ipr-rat 600mg/kg
2. Acenaphthylene	10007	020515	0.50	5.00	0.025	2001.3	1000.8	4.1	208-96-8	N/A	N/A
3. Anthracene	10007	020515	0.50	5.00	0.025	2001.3	1000.8	4.1	120-12-7	0.2mg/m3 (8H)	ipr-mus 430mg/kg
4. Benzo(a)anthracene	10007	020515	0.50	5.00	0.025	2000.7	1000.5	4.0	56-55-3	N/A	N/A
5. Benzo(a)pyrene	10007	020515	0.50	5.00	0.025	2000.8	1000.6	4.0	50-32-8	0.2mg/m3 (8H)	scu-rat 50mg/kg
6. Benzo(b)fluoranthene	10007	020515	0.50	5.00	0.025	2000.9	1000.6	4.0	205-99-2	N/A	N/A
7. Benzo(k)fluoranthene	10007	020515	0.50	5.00	0.025	2001.5	1000.9	4.1	207-08-9	N/A	N/A
8. Benzo(g,h,i)perylene	10007	020515	0.50	5.00	0.025	2000.6	1000.5	4.1	191-24-2	N/A	N/A
9. Carbazole	10007	020515	0.50	5.00	0.025	2000.7	1000.6	4.1	86-74-8	N/A	ipr-mus 200mg/kg
10. Chrysene	10007	020515	0.50	5.00	0.025	2000.7	1000.5	4.1	218-01-9	0.2mg/m3	N/A
11. Dibenzo(a,h)anthracene	10007	020515	0.50	5.00	0.025	2000.9	1000.6	4.0	53-70-3	0.2mg/m3	N/A
12. Fluoranthene	10007	020515	0.50	5.00	0.025	2001.5	1000.9	4.1	206-44-0	N/A	orl-rat 2000mg/kg
13. Fluorene	10007	020515	0.50	5.00	0.025	2000.8	1000.6	4.1	86-73-7	N/A	ipr-mus 2 g/kg
14. Indeno(1,2,3-cd)pyrene	10007	020515	0.50	5.00	0.025	2000.5	1000.4	4.0	193-39-5	N/A	N/A
15. Naphthalene	10007	020515	0.50	5.00	0.025	2001.3	1000.8	4.1	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
16. Phenanthrene	10007	020515	0.50	5.00	0.025	2000.4	1000.4	4.0	85-01-8	0.2mg/m3/8H	orl-mus 700mg/kg
17. Pyrene	10007	020515	0.50	5.00	0.025	2000.8	1000.6	4.1	129-00-0	0.2mg/m3/8H	orl-rat 2700mg/kg
18. Benzo(e)pyrene	94851	031416	0.50	5.00	0.025	2001.9	1001.1	4.1	192-97-2	N/A	N/A
19. Biphenyl	94851	031416	0.50	5.00	0.025	2000.7	1000.5	4.1	92-52-4	0.2 ppm(1mg/m3/8H)	orl-rat 2400mg/kg
20. Decalin (49% cis, 51% trans)	94851	031416	0.50	5.00	0.025	2002.1	1001.2	4.2	91-17-8	N/A	N/A
21. Dibenzofuran	94851	031416	0.50	5.00	0.025	2001.3	1000.8	4.2	132-64-9	N/A	N/A
22. Dibenzothiophene	94851	031416	0.50	5.00	0.025	2001.3	1000.8	4.2	132-65-0	N/A	orl-mus 470 mg/kg
23. 2,6-Dimethylnaphthalene	94851	031416	0.50	5.00	0.025	2004.9	1002.6	4.2	581-42-0	N/A	N/A
24. 1-Methylnaphthalene	94851	031416	0.50	5.00	0.025	2003.5	1001.9	4.2	90-12-0	N/A	orl-rat 1840mg/kg
25. 2-Methylnaphthalene	94851	031416	0.50	5.00	0.025	2006.1	1003.2	4.3	91-57-6	N/A	orl-rat 1630mg/kg
26. 1-Methylphenanthrene	94851	031416	0.50	5.00	0.025	2004.4	1002.4	10.2	832-69-9	N/A	N/A
27. Pentachlorophenol	94851	031416	0.50	5.00	0.025	2006.6	1003.5	4.2	87-86-5	0.5mg/m3/8H (skin)	orl-rat 27mg/kg
28. Perylene	94851	031416	0.50	5.00	0.025	2002.1	1001.2	4.2	198-55-0	N/A	N/A
29. Thianaphthene	94851	031416	0.50	5.00	0.025	2003.9	1002.1	4.2	95-15-8	N/A	N/A
30. 2,3,5-Trimethylnaphthalene	94851	031416	0.50	5.00	0.025	2002.9	1001.6	4.3	2245-38-7	N/A	N/A

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 2687 of 6223



E002162
Recd. JF
06/08/16

Method GC8MSD-2Long: Column:SPB-5 (30m X 0.25mm ID X 0.25μm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (14min.), Rate = 10°C/min., Injector B= 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Gina McLane.

Retention Time (min.)	
Decahydronaphthalene (Decalin) (isomer)	6.46
Decahydronaphthalene (Decalin) (isomer)	7.18
Naphthalene	8.53
Thianaphthene	8.66
2-Methylnaphthalene	10.21
1-Methylnaphthalene	10.45
Biphenyl	11.4
2,6-Dimethylnaphthalene	11.76
Acenaphthylene	12.41
Acenaphthene	12.86
Dibenzofuran	13.3
2,3,5-Trimethylnaphthalene	13.85
Fluorene	14.16
Pentachlorophenol	16.13
Dibenzothiophene	16.23
Phenanthrene	16.56
Anthracene	16.69
Carbazole	17.2
1-Methylphenanthrene	18.11
Fluoranthene	19.55
Pyrene	20.1
Benzo(a)anthracene	23.13
Chrysene	23.24
Benzo(b)fluoranthene	25.66
Benzo(k)fluoranthene	25.75
Perylene	26.28
Benzo(a)pyrene	26.41
Benzo(e)pyrene	26.61
Indeno(1,2,3-cd)pyrene	29.34
Dibenzo(a,h)anthracene	29.34
Benzo(g,h,i)perylene	30.11

Certificate of Analysis

ULTRA SCIENTIFIC
Analytical Solutions

TRIPLE ISO CERTIFICATION ULTRA ISO 17025 • ISO GUIDE 34 • ISO 9001

PAH Mixture

Product Number: US-106N **Page:** 1 of 1

Lot Number: CP-1227 **Lot Issue Date:** 22-Mar-2016 **Expiration Date:** 30-Apr-2019

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
acenaphthene	000083-32-9	RM00070	1996 ± 10 µg/mL
acenaphthylene	000208-96-8	RM09993	1995 ± 10 µg/mL
anthracene	000120-12-7	RM03477	1997 ± 10 µg/mL
benz[a]anthracene	000056-55-3	RM06788	2001 ± 10 µg/mL
benzo[b]fluoranthene	000205-99-2	RM09988	2004 ± 10 µg/mL
benzo[k]fluoranthene	000207-08-9	RM10962	1997 ± 10 µg/mL
benzo[ghi]perylene	000191-24-2	RM09992	2009 ± 10 µg/mL
benzo[a]pyrene	000050-32-8	RM06930	1995 ± 10 µg/mL
chrysene	000218-01-9	RM11308	2005 ± 10 µg/mL
dibenz[a,h]anthracene	000053-70-3	RM06786	1996 ± 10 µg/mL
fluoranthene	000206-44-0	NT00940	1999 ± 10 µg/mL
fluorene	000086-73-7	RM09441	1997 ± 10 µg/mL
indeno[1,2,3-cd]pyrene	000193-39-5	RM03401	1999 ± 10 µg/mL
naphthalene	000091-20-3	RM10445	2007 ± 10 µg/mL
phenanthrene	000085-01-8	RM10495	2002 ± 10 µg/mL
pyrene	000129-00-0	RM03479	2004 ± 10 µg/mL

E00266 Recal 07/26/16

Matrix: methylene chloride/benzene (1:1)

Storage: Store at Room Temperature (15° to 30°C).

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO 9001
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Quality Assurance Manager

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Analytical Reference Material ARM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 70476
Lot Number: 110316
Description: Benzo(j)fluoranthene

Expiration Date: 110321
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 822-275872-11

Solvent(s): **Lot#**
Methylene chloride 76782

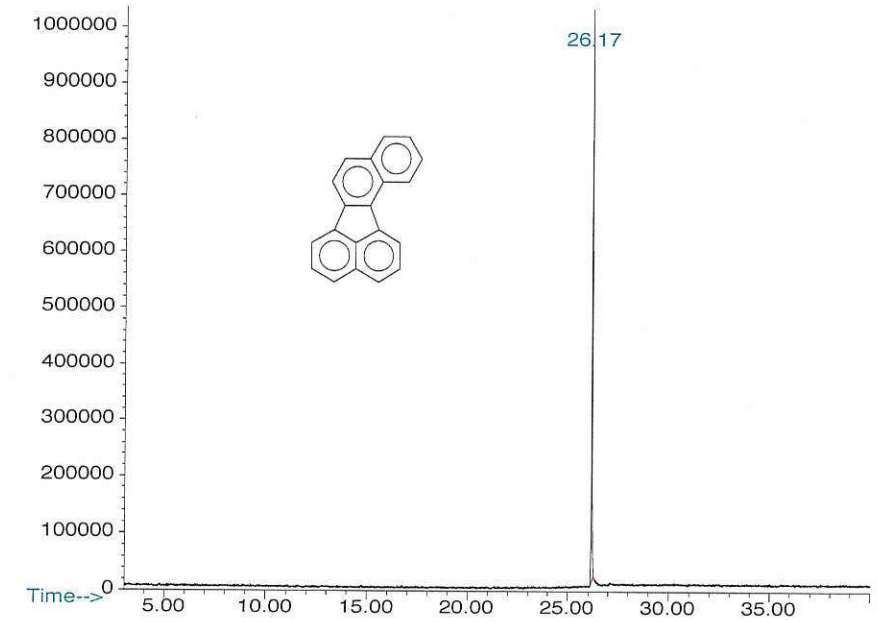
5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 25.0 0.001 Flask Uncertainty

Formulated By:	Bryan Njeba	110316 DATE
Reviewed By:	Pedro L. Rentas	110316 DATE

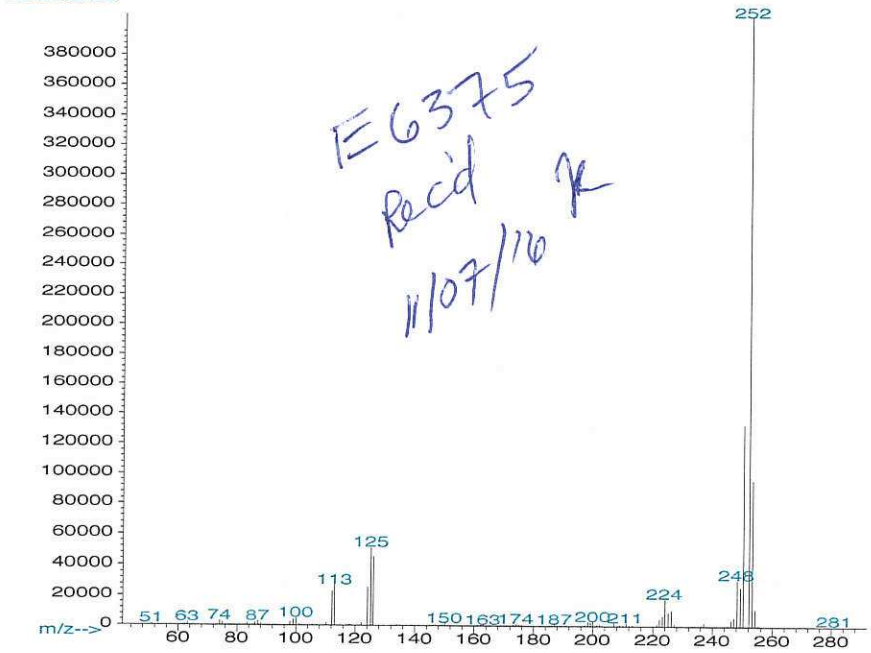
Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Benzo(j)fluoranthene	476	ER022108-01	1000	98	0.2	0.02551	0.02552	1000.5	5.7	205-82-3	0.2mg/m3	N/A

Method GC8MSD-2.M: Column:SBB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (14 min.), Rate = 10°C/min., Injector B= 250°C, Detector B = 290°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by Gina McLane.

TIC: 70476.D



Scan 1744 (26.160 min): 70476.D



E6375
Rec'd
11/07/16 K

- The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
- All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.
- Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).

Cambridge Isotope Laboratories, Inc.

50 Frontage Road, Andover, MA 01810-5413 USA
800.322.1174 (N.AMERICA) 978.749.8000 (INTERNATIONAL)
www.isotope.com

CERTIFICATE OF ANALYSIS

Product Name: DIBENZ[A,H]ANTHRACENE
(Isotopic Label & Enrichment Specification) (D14, 97%)

Lot Number: PR-14764/09163DA2

Catalog Number: DLM-677-0

I295

Product Information

Chemical Purity Specification:	≥ 98%
Labeled CAS Number:	NA
Unlabeled CAS Number:	53-70-3
Molecular Weight:	292.5
Chemical Formula:	C22D14
Storage:	Store at room temperature away from light and moisture.
Stability:	Stable if stored under recommended conditions.

Certification

Cambridge Isotope Laboratories, Inc. guarantees that this material meets or exceeds the specifications stated. Absolute identity as well as chemical and isotopic purities are assured by the use of unambiguous synthetic routes and multiple chemical analyses whenever possible.

Approved by: Deborah E. Costa

Deborah E. Costa, Quality Assurance

Quality Control Tests and Results

GC/MS for Chemical Purity	99.3%
GC/MS for Isotopic Enrichment	97.4%
Melting Point Range Determination	263-265°C
1H NMR for Chemical Purity	Pass

E006466

SVOA-d14-Dibenz(a,h)anthracene-NEAT
Solvent / Lot: NA
Prep: 11/9/2016 by VS
Exp: 5/8/2030
Location:

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31206 **Lot No.:** A0121299

Description : SV Internal Standard Mix 2mg/ml

SV Internal Standard Mix 2mg/ml 2000 µg/ml, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : July 31, 2022 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive.

IE 75,415
Recd
12/13/16

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 (Lot PR-18488) **Purity** 99%	2,015.2 µg/mL	+/- 11.7165 µg/mL +/- 90.7658 µg/mL +/- 100.7159 µg/mL	Gravimetric Unstressed Stressed
2	Naphthalene-d8 **CAS #** 1146-65-2 (Lot M-1452) **Purity** 99%	2,018.8 µg/mL	+/- 11.7375 µg/mL +/- 90.9280 µg/mL +/- 100.8958 µg/mL	Gravimetric Unstressed Stressed
3	Acenaphthene-d10 **CAS #** 15067-26-2 (Lot PR-25444) **Purity** 99%	2,013.5 µg/mL	+/- 11.7067 µg/mL +/- 90.6892 µg/mL +/- 100.6309 µg/mL	Gravimetric Unstressed Stressed
4	Phenanthrene-d10 **CAS #** 1517-22-2 (Lot PR-23065) **Purity** 99%	2,019.9 µg/mL	+/- 11.7439 µg/mL +/- 90.9775 µg/mL +/- 100.9508 µg/mL	Gravimetric Unstressed Stressed
5	Chrysene-d12 **CAS #** 1719-03-5 (Lot PR-26994) **Purity** 98%	2,013.4 µg/mL	+/- 11.7061 µg/mL +/- 90.6852 µg/mL +/- 100.6264 µg/mL	Gravimetric Unstressed Stressed
6	Perylene-d12 **CAS #** 1520-96-3 (Lot PR-24113) **Purity** 99%	2,013.2 µg/mL	+/- 11.7049 µg/mL +/- 90.6757 µg/mL +/- 100.6159 µg/mL	Gravimetric Unstressed Stressed

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Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101444
Description: 8270 Calibration Standard
Storage: -18 °C
Provided As: 1 mL in 2 mL Ampoule in MeCl2/Methanol (97:3)

Lot Number: CL11699
Certification Date: December 13, 2016
Expiration Date: March 31, 2018

Andrea L Gill
Andrea Gill, Certified Reference Materials Manager

F002713 AR
Recd. 03/29/17

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Acenaphthene	83-32-9	1000	± 1.952%
Acenaphthylene	208-96-8	1000	± 0.222%
Anthracene	120-12-7	1000	± 1.954%
Azobenzene	103-33-3	1000	± 2.059%
Benzo(a)anthracene	56-55-3	1000	± 1.913%
Benzo(b)fluoranthene	205-99-2	1000	± 1.914%
Benzo(k)fluoranthene	207-08-9	1000	± 2.093%
Benzo(g,h,i)perylene	191-24-2	1000	± 2.449%
Benzo(a)pyrene	50-32-8	1000	± 2.017%
Benzyl alcohol	100-51-6	1000	± 2.091%
Benzyl butyl phthalate	85-68-7	1000	± 2.388%
4-Bromophenyl phenyl ether	101-55-3	1000	± 2.102%
Carbazole	86-74-8	1000	± 2.095%
4-Chloroaniline	106-47-8	1000	± 1.935%
bis(2-Chloroethyl) ether	111-44-4	1000	± 1.874%
bis(2-Chloroethoxy)methane	111-91-1	1000	± 0.386%
bis(2-Chloroisopropyl) ether	108-60-1	1000	± 2.556%
4-Chloro-3-methylphenol	59-50-7	1000	± 1.313%

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This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101444
Lot Number: CL11699
Description: 8270 Calibration Standard
Certification Date: December 13, 2016
Storage: -18 °C
Expiration Date: March 31, 2018
Provided As: 1 mL in 2 mL Ampoule in MeCl2/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2-Chloronaphthalene	91-58-7	1000	± 2.040%
2-Chlorophenol	95-57-8	1000	± 1.794%
4-Chlorophenyl phenyl ether	7005-72-3	1000	± 2.769%
Chrysene	218-01-9	1000	± 1.760%
Dibenz(a,h)anthracene	53-70-3	1000	± 2.624%
Dibenzofuran	132-64-9	1000	± 1.209%
Di-n-butyl phthalate	84-74-2	1000	± 2.357%
1,2-Dichlorobenzene	95-50-1	1000	± 2.032%
1,3-Dichlorobenzene	541-73-1	1000	± 0.217%
1,4-Dichlorobenzene	106-46-7	1000	± 0.873%
2,4-Dichlorophenol	120-83-2	1000	± 2.249%
Diethyl phthalate	84-66-2	1000	± 2.181%
2,4-Dimethylphenol	105-67-9	1000	± 0.236%
Dimethyl phthalate	131-11-3	1000	± 2.339%
1,2-Dinitrobenzene	528-29-0	1000	± 0.295%
1,3-Dinitrobenzene	99-65-0	1000	± 0.217%
1,4-Dinitrobenzene	100-25-4	1000	± 2.670%
2,4-Dinitrophenol	51-28-5	1000	± 1.848%
2,4-Dinitrotoluene	121-14-2	1000	± 0.219%
2,6-Dinitrotoluene	606-20-2	1000	± 2.230%
Di-n-octyl phthalate	117-84-0	1000	± 1.803%

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Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101444
Description: 8270 Calibration Standard
Storage: -18 °C
Provided As: 1 mL in 2 mL Ampoule in MeCl2/Methanol (97:3)

Lot Number: CL11699
Certification Date: December 13, 2016
Expiration Date: March 31, 2018

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
bis(2-Ethylhexyl) adipate	103-23-1	1000	± 2.228%
bis(2-Ethylhexyl) phthalate	117-81-7	1000	± 1.937%
Fluoranthene	206-44-0	1000	± 2.052%
Fluorene	86-73-7	1000	± 3.234%
Hexachlorobenzene	118-74-1	1000	± 2.065%
Hexachlorobutadiene	87-68-3	1000	± 2.280%
Hexachlorocyclopentadiene	77-47-4	1000	± 1.896%
Hexachloroethane	67-72-1	1000	± 0.566%
Indeno(1,2,3-cd)pyrene	193-39-5	1000	± 2.431%
Isophorone	78-59-1	1000	± 1.468%
2-Methyl-4,6-dinitrophenol	534-52-1	1000	± 2.160%
1-Methylnaphthalene	90-12-0	1000	± 1.940%
2-Methylnaphthalene	91-57-6	1000	± 1.888%
2-Methylphenol	95-48-7	1000	± 2.054%
3-Methylphenol	108-39-4	500	± 0.573%
4-Methylphenol	106-44-5	500	± 0.573%
Naphthalene	91-20-3	1000	± 1.693%
2-Nitroaniline	88-74-4	1000	± 1.977%
3-Nitroaniline	99-09-2	1000	± 2.089%
4-Nitroaniline	100-01-6	1000	± 1.303%
Nitrobenzene	98-95-3	1000	± 2.254%

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Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101444
Lot Number: CL11699
Description: 8270 Calibration Standard
Certification Date: December 13, 2016
Storage: -18 °C
Expiration Date: March 31, 2018
Provided As: 1 mL in 2 mL Ampoule in MeCl2/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2-Nitrophenol	88-75-5	1000	± 0.994%
4-Nitrophenol	100-02-7	1000	± 2.305%
N-Nitrosodimethylamine	62-75-9	1000	± 0.448%
N-Nitrosodiphenylamine	86-30-6	1000	± 2.800%
N-Nitrosodi-n-propylamine	621-64-7	1000	± 0.400%
Pentachlorophenol	87-86-5	1000	± 2.242%
Phenanthrene	85-01-8	1000	± 2.173%
Phenol	108-95-2	1000	± 1.954%
Pyrene	129-00-0	1000	± 1.999%
Pyridine	110-86-1	1000	± 0.934%
1,2,4-Trichlorobenzene	120-82-1	1000	± 2.120%
2,3,4,6-Tetrachlorophenol	58-90-2	1000	± 2.630%
2,3,5,6-Tetrachlorophenol	935-95-5	1000	± 2.418%
2,4,5-Trichlorophenol	95-95-4	1000	± 1.978%
2,4,6-Trichlorophenol	88-06-2	1000	± 1.978%

Notes: The analytical uncertainty contribution to the expanded uncertainty for 3 and 4-Methylphenol is measured as the total of the two analytes. N-Nitrosodiphenylamine presents as Diphenylamine at 854 µg/mL.

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1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31[1] and ISO Guide 35.[2]

2. Quality Standards: Phenova is accredited by A2LA to ISO Guide 34[3] and ISO/IEC 17025[4] as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.

3. Intended Use: The product is manufactured for use in the calibration and calibration verification of chromatographic instrumentation performed in routine laboratory analysis.

4. Instruction: Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all certified analytes in the mixture.

5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Material Safety Data Sheet (MSDS) is available at www.phenomenex.com/mysupport.

6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.

7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.

8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.

9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98[5] and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

   $$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

   Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO Guide 34. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.

11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO Guide 34.

12. Period of Validity: The Certified Values and their uncertainties are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

[1] ISO Guide 31:2000(E) – Reference Materials – Contents of Certificates and Labels.
[2] ISO Guide 35:2006(E) – Reference Material – General and Statistical Principles for Certification.
[3] ISO Guide 34:2009(E) – General Requirements for the Competence of Reference Material Producers.
[4] ISO/IEC 17025:2005(E) – General Requirements for the Competence of Testing and Calibration Laboratories.
[5] ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)

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Reference Materials Producer
Cert #2495.01

SPEXertificate®
Certificate of Reference Material

Chemical Testing
Cert #2495.02

Catalog Number: S-2520 **Lot No.** EN160615017

Description: 1-Methylnaphthalene

Matrix: Methanol (Purge & Trap Grade)

Ship Date: 10-19-2017
Expiration Date: 10-18-2020

This **SPEXOrganics®** Certified Reference Material, CRM, is intended primarily for use as a calibration standard or quality contro standard for organic chromatography instrumentation such as GC, GC-MS, LC, and LC-MS. It can be employed in USEPA, ASTI and other methods relevant to the certified properties listed below.

Certified Compounds:

Compound	CAS #	Labeled	Purity	Certified†	Uncertainty
1-Methylnaphthalene	90-12-0	1000 µg/mL	95%	999 µg/mL	± 26 µg/mL

F009969
Recd. gR
10/27/17

Final Solution Verification:

Final solution integrity verified by Gas Chromatography/Mass Spectrometry. The mass spectrum of each compound was confirmed against the NIST mass spectral database.

† Certified concentration based on gravimetric weights and corrected for the purity of the compound(s) used to prepare the standard. Analytical balance calibration is verified daily with C1 weight set #23-190006 which is registered with Atlantic Scale, traceable to NIST and NJ Division of Weights and Measures.

This CRM is guaranteed stable and accurate to within the uncertainty listed for the certified value. This includes uncertainty components due to preparation, homogeneity, short term and long term stability. During the stated period of validity, the purchaser will be notified if this product is recalled due to any significant changes in the stability of the solution. For further information, contact the Sales Support Department at crmsales@spexcsp.com.

Date of Certification: 10-19-2017

Certifying Officer: Shannon Mone

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Report of Certification

Catalog Number: S-2520 **Lot No.** EN160615017

Description: 1-Methylnaphthalene

Matrix: Methanol (Purge & Trap Grade)

Ship Date: 10-19-2017

Expiration Date: 10-18-2020

This Certified Reference Material (CRM) has been prepared and certified under an ISO 9001:2008, ISO 17025:2005, and ISO Guide 34:2009 Quality System consistent with the following standards:

- ISO 9001:2008: Quality management systems - Requirements - Certified by UL-DQS
- ISO 17025:2005: General Requirements for the Competence of Testing and Calibration Laboratories - Accredited by A2LA
- ISO Guide 34:2009: General Requirements for the Competence of Reference Material Producers - Accredited by A2LA
- ISO Guide 31:2000: Reference Materials - Contents of Certificates and Labels
- ISO Guide 35:2006: Reference Materials - General and statistical principals for certification
- Guide to the Expression of Uncertainty in Measurement 1997
- EURACHEM/CITAC Guide: Qualifying Uncertainty in Analytical Measurements - Second Edition
- ASTM Guide D6362-98
- NIST Technical Note 1297
- ILAC-G12-2000: Guidelines for the requirements for the competence of reference material producers
- ISO/REMCO N280

Storage Requirements:

To ensure the stability of the product once it arrives in your laboratory, please store this product in ambient conditions (18°C to 27°C). Note: Shippir conditions may differ from storage conditions. The EXPIRATION DATE is calculated from the SHIPPED DATE using our stability data and is applica only if the product is unopened and stored under the prescribed conditions.

Instructions for Use:

Let material come to room temperature before use. Check for precipitate and if necessary sonicate for one minute. If compounds do not dissolve a one minute then sonicate further until the product is dissolved. A clear appearance is acceptable. The minimum recommended amount that shoulc removed from this vial is 5µL with a 25µL gas tight syringe. All solutions should be thoroughly mixed, by shaking, prior to use. All surfaces that cor in contact with the solution must be thoroughly cleaned prior to use. Dilutions should be performed only with Class A volumetric glassware.

Material Source:

All analytes and matrix materials are obtained and verified by SPEX CertiPrep from pre-qualified vendors as per ISO guidelines. Vendor identificati are proprietary, however sources of all materials used in the preparation and testing of SPEX CertiPrep CRMs are tracked and documented. For assistance, please contact sales support at crmsales@spexcsp.com.

Method of Preparation:

Clean laboratory procedures and techniques have been used throughout the preparation. All materials, equipment, and analytical instrumentation h been qualified prior to use. The highest purity solvents and Class A / calibrated volumetrics have been used in all preparations.

Homogeneity:

The homogeneity of this CRM has been confirmed by procedures consistent with ISO 17025:2005, ISO Guide 34:2009, and ASTM D6362-98 Appe X2. Random, replicate samples of the final, packaged material have been analyzed to prove homogeneity in accordance with our internal procedur 4300-HOMOGEN-1A. This is consistent with the intended use of this CRM. The Degree of Homogeneity, as expressed as maximum between-bott variation, is 1.2%

Statistical Estimator and Confidence Limits:

The Certified value 'X' as listed on the reverse of this document is at the 95% level of confidence and can be expressed as:

- $X = x \pm U$ where X=certified value, U=expanded uncertainty, x=property value
- $U = ku_c$ where k=2 is the coverage factor at the 95% confidence level
- u_c = combined standard uncertainty obtained by combining the individual compound standard uncertainty components u_i, where $u_c = \sqrt{\sum u_i^2}$

Legal Notice:

SPEX CertiPrep Certified Reference Materials are not for any cosmetic, drug, or household application and are to be used only by qualified individu who are trained in appropriate procedures. No claims against SPEX CertiPrep of any kind whatsoever, whether based on breech of warranty, alleg negligence, or otherwise, with respect to this Reference Material shall be greater than the purchase price. In no event shall SPEX CertiPrep be liab for any loss of profits or any incidental, special, or consequential damages.

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Phone: 1-732-549-7144 • Fax 1-732-603-9647

Accredited to 17025 & Guide 34 ISO Certified to 9001

Certificate of Analysis

Toxic Substances Mixture #2

Product Number US-104N **Page:** 1 of 1

Lot Number: CR-0659 **Lot Issue Date:** 20-Feb-2017 **Expiration Date:** 31-Mar-2020

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
aniline	000062-53-3	RM01326	2010 ± 10 µg/mL
benzyl alcohol	000100-51-6	RM10547	2009 ± 10 µg/mL
4-chloroaniline	000106-47-8	RM01886	1999 ± 10 µg/mL
dibenzofuran	000132-64-9	RM02077	2000 ± 10 µg/mL
2-methylnaphthalene	000091-57-6	RM01258	1994 ± 10 µg/mL
2-nitroaniline	000088-74-4	RM02402	2005 ± 10 µg/mL
3-nitroaniline	000099-09-2	RM00427	2008 ± 10 µg/mL
4-nitroaniline	000100-01-6	RM02425	2009 ± 10 µg/mL

Matrix: methylene chloride (dichloromethane)

Storage: Store at Room Temperature (15° to 30°C).

F010084
Rec'd
11/01/17

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ISO 9001 Registered TUV USA, Inc.

John Russo
President

Monica Bourgeois
Director of QA/RA

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110 Benner Circle
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Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 33913 **Lot No.:** A0131716

Description : SOM01.0 SIM Analysis Standard

SOM01.0 SIM Analysis Standard 2000µg/mL, Methylene chloride, 1mL /ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : September 30, 2023 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive.

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	2-Methylnaphthalene-d10 **CAS #** 7297-45-2 **Purity** 97%	(Lot AC-257)	2,000.1 µg/mL	+/- 11.8802 µg/mL +/- 90.1203 µg/mL +/- 99.9927 µg/mL		Gravimetric Unstressed Stressed
2	Fluoranthene-d10 **CAS #** 93951-69-0 **Purity** 98%	(Lot PR-20668)	2,001.2 µg/mL	+/- 11.8863 µg/mL +/- 90.1662 µg/mL +/- 100.0437 µg/mL		Gravimetric Unstressed Stressed

Solvent: Methylene chloride
CAS # 75-09-2
Purity 99%

F010455
SOMO 1.0 SIM DMC
Solvent / Lot: METHYLENE CHLORIDE
Prep: 11/9/2017 by VS
Exp: 9/30/2023
Location:

Column:
30m x 0.25mm x 0.25µm
Rtx-5 (cat.#10223)

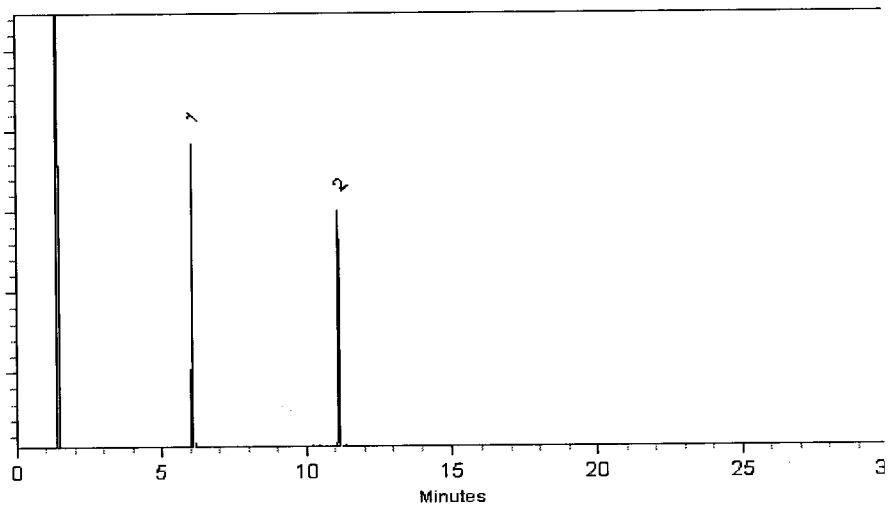
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



This chromatogram represents a general set of testing conditions chosen for product acceptance. For optimal results in your lab, conditions should be adjusted for your specific instrument, method, and application.

Gregory A. Dawson
Greg Dawson - Mix Technician

Date Mixed: 17-Oct-2017 **Balance:** B442140311

Diane Shaffer
Diane Shaffer - Operations Tech-ARM QC

Date Passed: 19-Oct-2017

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

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800-368-1131
www.absolutestandards.com

F010639
SVOA PAH STD-RMP-1000ug/ml
Solvent / Lot: DCM
Prep: 11/15/2017 by VS
Exp: 2/21/2022
Location:

RM

ISO 9001 QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 934
Lot Number: 022117
Description: PAH Standard
30 components
Expiration Date: 022122
Recommended Storage: Refrigerate (4 °C)
Nominal Concentration (µg/mL): 1000
NIST Test ID#: 822-275872-11

Methylene chloride 76782

5E-05 Balance Uncertainty
0.002 Flask Uncertainty

Volume(s) shown below were combined and diluted to (mL): 20.0

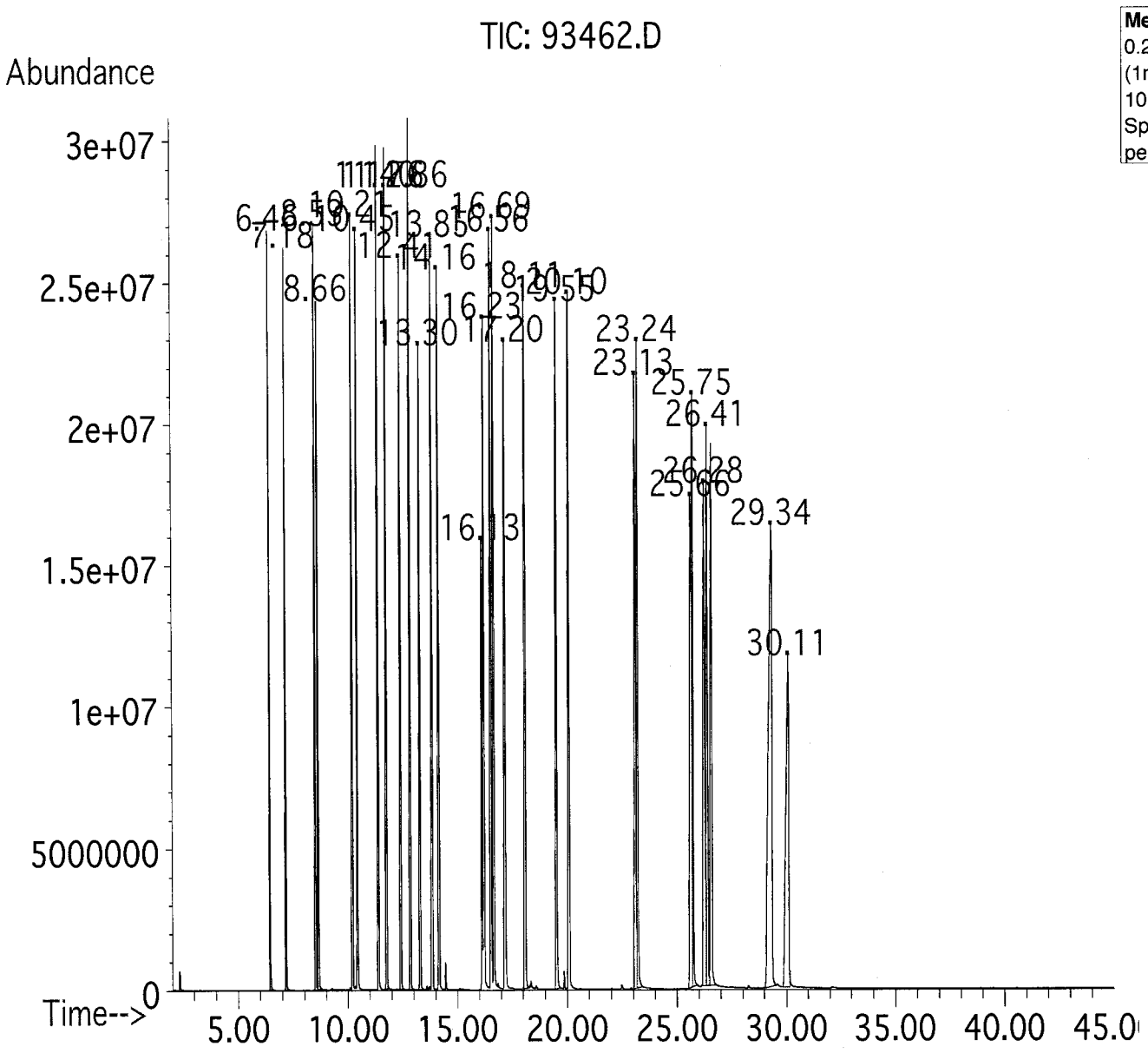
Gabriel Helland 022117
Formulated By: Gabriel Helland DATE

Pedro Rentas 022117
Reviewed By: Pedro L. Rentas DATE

Compound	Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Uncertainty Pipette	Initial Conc.(ug/mL)	Final Conc.(ug/mL)	Expanded Uncertainty (+/-) (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Acenaphthene	10007	080116	0.50	10.00	0.006	2005.2	1003.3	4.2	83-32-9	N/A	ipr-rat 600mg/kg
2. Acenaphthylene	10007	080116	0.50	10.00	0.006	2001.2	1001.4	4.2	208-96-8	N/A	N/A
3. Anthracene	10007	080116	0.50	10.00	0.006	2001.6	1001.5	4.2	120-12-7	0.2mg/m3 (8H)	ipr-mus 430mg/kg
4. Benzo(a)anthracene	10007	080116	0.50	10.00	0.006	2001.2	1001.3	4.2	56-55-3	N/A	N/A
5. Benzo(a)pyrene	10007	080116	0.50	10.00	0.006	2001.9	1001.7	4.2	50-32-8	0.2mg/m3 (8H)	scu-rat 50mg/kg
6. Benzo(b)fluoranthene	10007	080116	0.50	10.00	0.006	2000.8	1001.1	4.2	205-99-2	N/A	N/A
7. Benzo(k)fluoranthene	10007	080116	0.50	10.00	0.006	2000.2	1000.8	4.2	207-08-9	N/A	N/A
8. Benzo(g,h,i)perylene	10007	080116	0.50	10.00	0.006	2001.8	1001.6	4.2	191-24-2	N/A	N/A
9. Carbazole	10007	080116	0.50	10.00	0.006	2020.8	1011.2	4.3	86-74-8	N/A	ipr-mus 200mg/kg
10. Chrysene	10007	080116	0.50	10.00	0.006	2000.8	1001.1	4.3	218-01-9	0.2mg/m3	N/A
11. Dibenzo(a,h)anthracene	10007	080116	0.50	10.00	0.006	2001.5	1001.5	4.2	53-70-3	0.2mg/m3	N/A
12. Fluoranthene	10007	080116	0.50	10.00	0.006	2001.3	1001.4	4.3	206-44-0	N/A	orl-rat 2000mg/kg
13. Fluorene	10007	080116	0.50	10.00	0.006	2001.7	1001.6	4.3	86-73-7	N/A	ipr-mus 2 g/kg
14. Indeno(1,2,3-cd)pyrene	10007	080116	0.50	10.00	0.006	2000.8	1001.1	4.2	193-39-5	N/A	N/A
15. Naphthalene	10007	080116	0.50	10.00	0.006	2001.6	1001.5	4.2	91-20-3	10 ppm (50mg/m3/8H)	orl-rat 490mg/kg
16. Phenanthrene	10007	080116	0.50	10.00	0.006	2001.4	1001.4	4.2	85-01-8	0.2mg/m3/8H	orl-mus 700mg/kg
17. Pyrene	10007	080116	0.50	10.00	0.006	2000.5	1001.0	4.3	129-00-0	0.2mg/m3/8H	orl-rat 2700mg/kg
18. Benzo(e)pyrene	94851	031416	0.50	10.00	0.006	2001.9	1001.7	4.3	192-97-2	N/A	N/A
19. Biphenyl	94851	031416	0.50	10.00	0.006	2000.7	1001.1	4.3	92-52-4	0.2 ppm(1mg/m3/8H)	orl-rat 2400mg/kg
20. Decalin (49% cis, 51% trans)	94851	031416	0.50	10.00	0.006	2002.1	1001.8	4.4	91-17-8	N/A	N/A
21. Dibenzofuran	94851	031416	0.50	10.00	0.006	2001.3	1001.4	4.4	132-64-9	N/A	N/A
22. Dibenzothiophene	94851	031416	0.50	10.00	0.006	2001.3	1001.4	4.4	132-65-0	N/A	orl-mus 470 mg/kg
23. 2,6-Dimethylnaphthalene	94851	031416	0.50	10.00	0.006	2004.9	1003.2	4.4	581-42-0	N/A	N/A
24. 1-Methylnaphthalene	94851	031416	0.50	10.00	0.006	2003.5	1002.5	4.4	90-12-0	N/A	orl-rat 1840mg/kg
25. 2-Methylnaphthalene	94851	031416	0.50	10.00	0.006	2006.1	1003.8	4.4	91-57-6	N/A	orl-rat 1630mg/kg
26. 1-Methylphenanthrene	94851	031416	0.50	10.00	0.006	2004.4	1002.9	10.2	832-69-9	N/A	N/A
27. Pentachlorophenol	94851	031416	0.50	10.00	0.006	2006.6	1004.0	4.4	87-86-5	0.5mg/m3/8H (skin)	orl-rat 27mg/kg
28. Perylene	94851	031416	0.50	10.00	0.006	2002.1	1001.8	4.4	198-55-0	N/A	N/A
29. Thianaphthene	94851	031416	0.50	10.00	0.006	2003.9	1002.7	4.4	95-15-8	N/A	N/A
30. 2,3,5-Trimethylnaphthalene	94851	031416	0.50	10.00	0.006	2002.9	1002.2	4.5	2245-38-7	N/A	N/A

- **The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.**
- **Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).**
- **Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.**
- **All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.**
- **Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).**

18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 2704 of 5622



Method GC8MSD-2Long: Column:SPB-5 (30m X 0.25mm ID X 0.25μm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (14min.), Rate = 10°C/min., Injector B= 250°C, Detector B = 275°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by: Gina McLane.

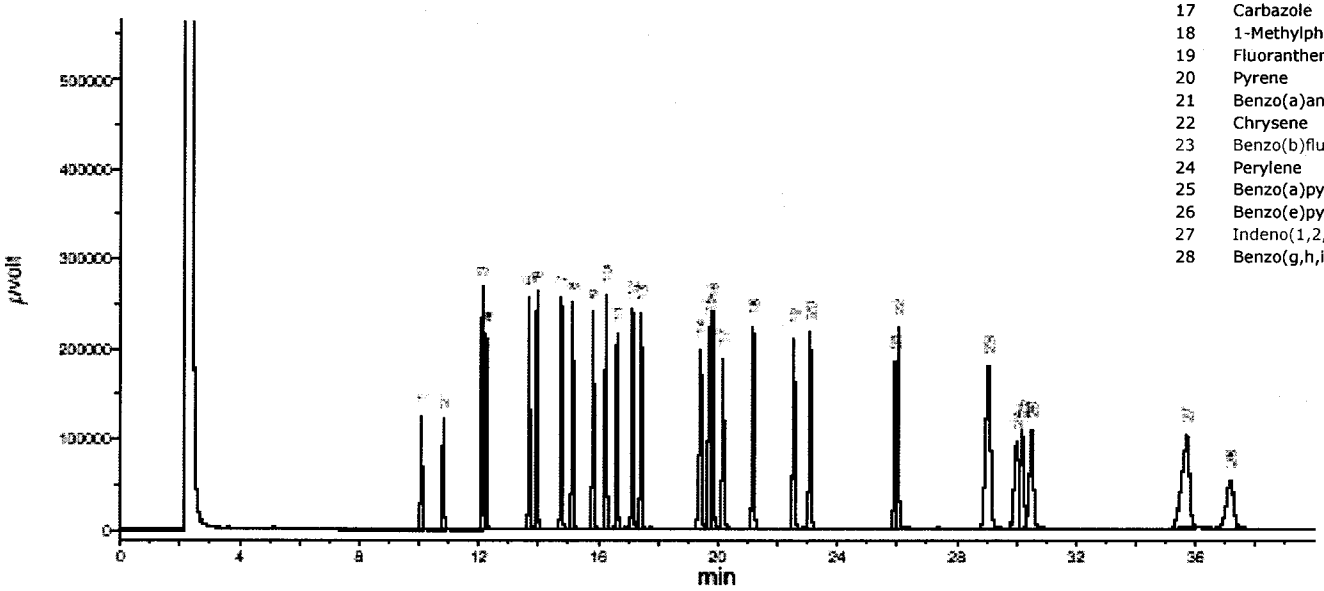
Retention Time (min.)	
Decahydronaphthalene (Decalin) (isomer)	6.46
Decahydronaphthalene (Decalin) (isomer)	7.18
Naphthalene	8.53
Thianaphthene	8.66
2-Methylnaphthalene	10.21
1-Methylnaphthalene	10.45
Biphenyl	11.4
2,6-Dimethylnaphthalene	11.76
Acenaphthylene	12.41
Acenaphthene	12.86
Dibenzofuran	13.3
2,3,5-Trimethylnaphthalene	13.85
Fluorene	14.16
Pentachlorophenol	16.13
Dibenzothiophene	16.23
Phenanthrene	16.56
Anthracene	16.69
Carbazole	17.2
1-Methylphenanthrene	18.11
Fluoranthene	19.55
Pyrene	20.1
Benzo(a)anthracene	23.13
Chrysene	23.24
Benzo(b)fluoranthene	25.66
Benzo(k)fluoranthene	25.75
Perylene	26.28
Benzo(a)pyrene	26.41
Benzo(e)pyrene	26.61
Indeno(1,2,3-cd)pyrene	29.34
Dibenzo(a,h)anthracene	29.34
Benzo(g,h,i)perylene	30.11

18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 2705 of 3553

Run 28, "P93462 L022117 [1000µg/mL in MeCl2]"

Run Length: 40.00 min, 23998 points at 10 points/second.
Created: Thu, Mar 16, 2017 at 10:15:46 AM.
Sampled: Sequence "031517-GC4M2", Method "GC4-M2".
Analyzed using Method "GC4-M2".

Comments
GC4-M2 Analysis by Melissa Stonier
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness.
Flow rates; Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL.
Hydrogen (detector) = 30 mL, Air (detector) =360 mLOven Temp 1 = 50°C (1 min).
Rate = 10°C/min, Oven Temp 2 = 300°C (14 min), Total Run Time = 40 Minutes. Injector Temp = 250°C.
FID Temp = 300°C, FID Signal = eDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 4



Peak No.	Name	FID RT (min.)
1	Decahydronaphthalene (Decalin) (isomer)	9.58
2	Decahydronaphthalene (Decalin) (isomer)	10.30
3	Naphthalene	11.58
4	Thianaphthene	11.71
5	2-Methylnaphthalene	13.14
6	1-Methylnaphthalene	13.39
7	Biphenyl	14.22
8	2,6-Dimethylnaphthalene	14.58
9	Acenaphthylene	15.24
10	Acenaphthene	15.67
11	Dibenzofuran	16.04
12	2,3,5-Trimethylnaphthalene	16.56
13	Fluorene	16.85
14	Pentachlorophenol/Dibenzothiophene	18.80
15	Phenanthrene	19.09
16	Anthracene	19.20
17	Carbazole	19.57
18	1-Methylphenanthrene	20.56
19	Fluoranthene	21.90
20	Pyrene	22.43
21	Benzo(a)anthracene	25.25
22	Chrysene	25.35
23	Benzo(b)fluoranthene/Benzo(k)fluoranthene	28.02
24	Perylene	28.82
25	Benzo(a)pyrene	28.99
26	Benzo(e)pyrene	29.26
27	Indeno(1,2,3-cd)pyrene/Dibenzo(a,h)anthracene	33.68
28	Benzo(g,h,i)perylene	34.92

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CERTIFIED WEIGHT REPORT

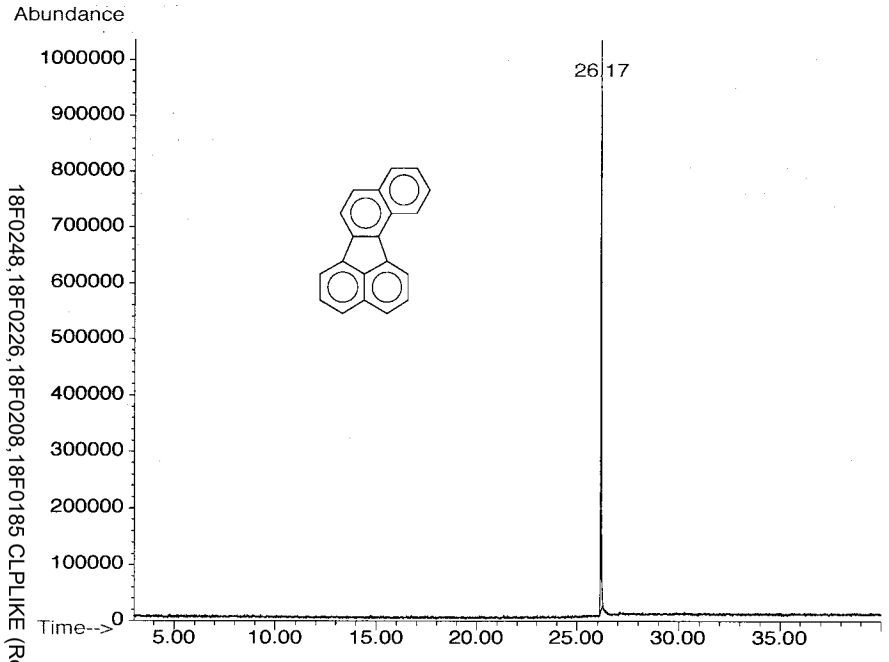
Part Number:	**70476**	**Solvent(s):**	**Lot#**
Lot Number:	110316	Methylene chloride	76782
Description:	Benzo(j)fluoranthene		
Expiration Date:	110321		
Recommended Storage:	Refrigerate (4 ºC)		
Nominal Concentration (µg/mL):	1000		
NIST Test ID#:	822-275872-11	5E-05 Balance Uncertainty	
Weight(s) shown below were combined and diluted to (mL):	25.0	0.001 Flask Uncertainty	

Bryan Njeba	110316	DATE
Formulated By:		
Pedro Rentas	110316	DATE
Reviewed By:		

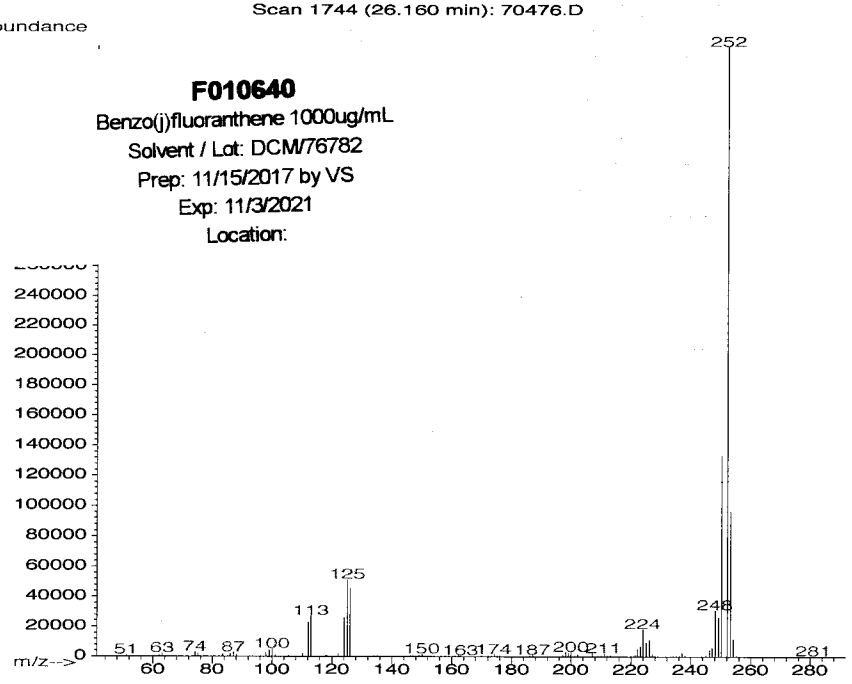
Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty (+/-) (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Benzo(j)fluoranthene	476	ER022108-01	1000	98	0.2	0.02551	0.02552	1000.5	5.7	205-82-3	0.2mg/m3	N/A

Method GC8MSD-2.M: Column:SBB-5 (30m X 0.25mm ID X 0.25µm film thickness) Temp 1 = 50°C (1min.), Temp 2 = 300°C (14 min.), Rate = 10°C/min., Injector B= 250°C, Detector B = 290°C, Split Ratio = 100:1, Scan Rate = 2. Analysis performed by Gina McLane.

TIC: 70476.D



Scan 1744 (26.160 min): 70476.D



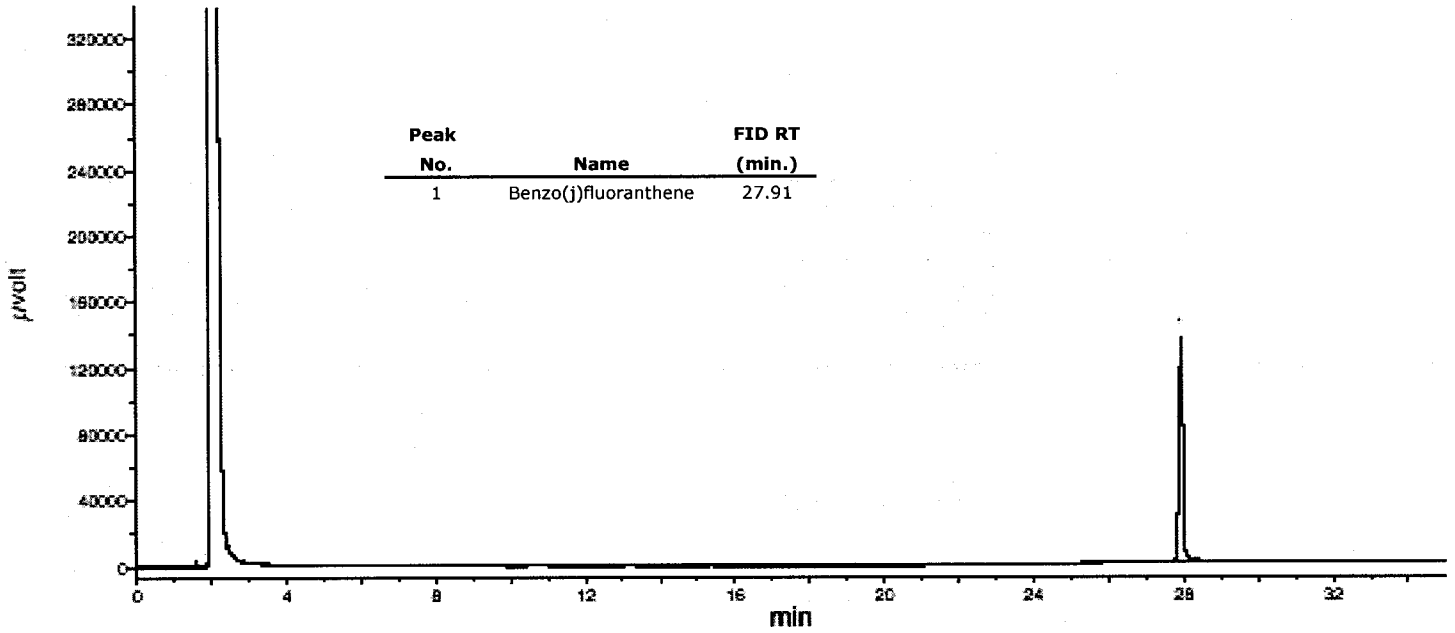
- **The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.**
- **Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).**
- **Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.**
- **All Standards, after opening ampule, should be stored with caps tight and under appropriate laboratory conditions.**
- **Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, DC, (1994).**

18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 2707 of 3223

Run 18, "P70476 L110316 [1000µg/mL in MeCl2]"

Run Length: 35.00 min, 20998 points at 10 points/second.
Created: Tue, Nov 8, 2016 at 2:59:30 AM.
Sampled: Sequence "110716-GC4M1", Method "GC4-M1".
Analyzed using Method "GC4-M1".

Comments
GC4-M1 Analysis by Melissa Stonier
Column ID SPB-5 30 meter x 0.53mm x 1.5um Film Thickness
Flow rates; Total Flow = 300 ml/min, Helium (carrier) = 6.5 mL, Helium (make-up) = 25 mL, Hydrogen (detector) = 30 mL, Air (detector) =360 mL
Oven Temp 1 = 50°C (1 min), Rate = 10°C/min, Oven Temp 2 = 300°C (9 min), Total Run Time = 35 Minutes.
Injector Temp = 200°C, FID Temp = 300°C, FID Signal = eDaq Channel 1.
Gas Chromatograph = HP 5890, Auto Sampler = HP 7673, Standard Injection = 0.5 uL, Range = 3



Peak No.	Name	FID RT (min.)
1	Benzo(j)fluoranthene	27.91

18F0248,18F0226,18F0208,18F0185 CLPLIKE (Rev0) - Page 2708 of 6513

Certificate of Analysis

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Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101444
Description: 8270 Calibration Standard
Storage: -18 °C
Provided As: 1 mL in 2 mL Ampoule in MeCl2/Methanol (97:3)

Lot Number: CL12095
Certification Date: November 29, 2017
Expiration Date: February 28, 2019

Andrea L Gill

Andrea Gill, Certified Reference Materials Manager

G001045 Recd. JR 02/02/18

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
Acenaphthene	83-32-9	1000	± 1.669%
Acenaphthylene	208-96-8	1000	± 0.410%
Anthracene	120-12-7	1000	± 4.619%
Azobenzene	103-33-3	1000	± 2.728%
Benzo(a)anthracene	56-55-3	1000	± 4.049%
Benzo(a)pyrene	50-32-8	1000	± 4.027%
Benzo(b)fluoranthene	205-99-2	1000	± 2.358%
Benzo(k)fluoranthene	207-08-9	1000	± 2.305%
Benzo(g,h,i)perylene	191-24-2	1000	± 5.955%
Benzyl alcohol	100-51-6	1000	± 2.599%
Benzyl butyl phthalate	85-68-7	1000	± 6.331%
bis(2-Chloroethoxy)methane	111-91-1	1000	± 1.443%
bis(2-Chloroethyl) ether	111-44-4	1000	± 2.590%
bis(2-Chloroisopropyl) ether	108-60-1	1000	± 2.536%
bis(2-Ethylhexyl) adipate	103-23-1	1000	± 5.547%
bis(2-Ethylhexyl) phthalate	117-81-7	1000	± 5.525%
4-Bromophenyl phenyl ether	101-55-3	1000	± 2.987%
Carbazole	86-74-8	1000	± 5.570%

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Certificate No. 2427.02

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Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101444
Lot Number: CL12095
Description: 8270 Calibration Standard
Certification Date: November 29, 2017
Storage: -18 °C
Expiration Date: February 28, 2019
Provided As: 1 mL in 2 mL Ampoule in MeCl2/Methanol (97:3)

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
4-Chloroaniline	106-47-8	1000	± 1.342%
4-Chloro-3-methylphenol	59-50-7	1000	± 1.206%
2-Chloronaphthalene	91-58-7	1000	± 1.240%
2-Chlorophenol	95-57-8	1000	± 2.640%
4-Chlorophenyl phenyl ether	7005-72-3	1000	± 2.399%
Chrysene	218-01-9	1000	± 3.792%
Dibenz(a,h)anthracene	53-70-3	1000	± 6.364%
Dibenzofuran	132-64-9	1000	± 0.296%
Di-n-butyl phthalate	84-74-2	1000	± 5.220%
1,2-Dichlorobenzene	95-50-1	1000	± 2.311%
1,3-Dichlorobenzene	541-73-1	1000	± 2.604%
1,4-Dichlorobenzene	106-46-7	1000	± 2.587%
2,4-Dichlorophenol	120-83-2	1000	± 1.841%
Diethyl phthalate	84-66-2	1000	± 3.162%
2,4-Dimethylphenol	105-67-9	1000	± 3.444%
Dimethyl phthalate	131-11-3	1000	± 2.543%
1,2-Dinitrobenzene	528-29-0	1000	± 0.295%
1,3-Dinitrobenzene	99-65-0	1000	± 2.277%
1,4-Dinitrobenzene	100-25-4	1000	± 2.532%
2,4-Dinitrophenol	51-28-5	1000	± 3.741%
2,4-Dinitrotoluene	121-14-2	1000	± 3.798%

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Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101444
Description: 8270 Calibration Standard
Storage: -18 °C
Provided As: 1 mL in 2 mL Ampoule in MeCl2/Methanol (97:3)

Lot Number: CL12095
Certification Date: November 29, 2017
Expiration Date: February 28, 2019

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2,6-Dinitrotoluene	606-20-2	1000	± 2.659%
Di-n-octyl phthalate	117-84-0	1000	± 3.976%
Fluoranthene	206-44-0	1000	± 6.133%
Fluorene	86-73-7	1000	± 0.239%
Hexachlorobenzene	118-74-1	1000	± 3.169%
Hexachlorobutadiene	87-68-3	1000	± 2.303%
Hexachlorocyclopentadiene	77-47-4	1000	± 2.394%
Hexachloroethane	67-72-1	1000	± 2.498%
Indeno(1,2,3-cd)pyrene	193-39-5	1000	± 6.236%
Isophorone	78-59-1	1000	± 1.697%
2-Methyl-4,6-dinitrophenol	534-52-1	1000	± 4.774%
1-Methylnaphthalene	90-12-0	1000	± 1.716%
2-Methylnaphthalene	91-57-6	1000	± 1.779%
2-Methylphenol	95-48-7	1000	± 2.628%
3-Methylphenol	108-39-4	500	± 3.497%
4-Methylphenol	106-44-5	500	± 3.497%
Naphthalene	91-20-3	1000	± 2.226%
2-Nitroaniline	88-74-4	1000	± 2.376%
3-Nitroaniline	99-09-2	1000	± 3.387%
4-Nitroaniline	100-01-6	1000	± 0.614%
Nitrobenzene	98-95-3	1000	± 2.608%

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phenova® Certified Reference Materials
Manufactured by Phenova, Inc.
Phenova's testing and calibration results are internationally recognized through the ILAC MRA. Phenova is an accredited ISO Guide 34 Reference Material Provider and ISO/IEC 17025 accredited Chemical Testing Laboratory.

ilac-MRA ACCREDITED
Chemical Testing Laboratory
Certificate No. 2427.03

IL11110613_us

Certificate of Analysis

Phenova Certified Reference Materials are sold by Phenomenex.
411 Madrid Ave., Torrance, CA 90501 USA ▪ Tel: 310-212-0555 ▪ Fax: 310-328-7768 ▪ info@phenomenex.com
Access your MSDS and digital C of A at www.phenomenex.com/mysupport. Re-order at www.phenomenex.com/standards

Certified Reference Material

This product is included in Phenova's ISO/IEC 17025 and ISO Guide 34 Scopes of Accreditation

Catalog No.: AL0-101444
Description: 8270 Calibration Standard
Storage: -18 °C
Provided As: 1 mL in 2 mL Ampoule in MeCl2/Methanol (97:3)

Lot Number: CL12095
Certification Date: November 29, 2017
Expiration Date: February 28, 2019

Component	CAS #	Certified Value µg/mL	Expanded Uncertainty
2-Nitrophenol	88-75-5	1000	± 2.508%
4-Nitrophenol	100-02-7	1000	± 3.759%
N-Nitrosodimethylamine	62-75-9	1000	± 4.339%
N-Nitrosodiphenylamine	86-30-6	1000	± 3.937%
N-Nitrosodi-n-propylamine	621-64-7	1000	± 6.662%
Pentachlorophenol	87-86-5	1000	± 4.539%
Phenanthrene	85-01-8	1000	± 4.566%
Phenol	108-95-2	1000	± 2.905%
Pyrene	129-00-0	1000	± 6.164%
Pyridine	110-86-1	1000	± 1.952%
2,3,4,6-Tetrachlorophenol	58-90-2	1000	± 2.126%
2,3,5,6-Tetrachlorophenol	935-95-5	1000	± 2.361%
1,2,4-Trichlorobenzene	120-82-1	1000	± 1.390%
2,4,5-Trichlorophenol	95-95-4	1000	± 1.249%
2,4,6-Trichlorophenol	88-06-2	1000	± 1.342%

Notes: The proper chemical name for Bis(2-Chloroiospropyl) ether is 2,2'-oxybis(1-chloropropane). The analytical uncertainty contribution to the expanded uncertainty for 3 and 4-Methylphenol is measured as the total of the two analytes. N-Nitrosodiphenylamine presents as Diphenylamine at 854 µg/mL.

ACCREDITED
Reference Material Producer
Certificate No. 2427.02

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Certified Reference Materials

Manufactured by Phenova, Inc.
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ilac-MRA ACCREDITED
Chemical Testing Laboratory
Certificate No. 2427.03

Certificate of Analysis

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1. Quality Document: This Certificate of Analysis has been created in accordance with ISO Guide 31[1] and ISO Guide 35.[2]

2. Quality Standards: Phenova is accredited by A2LA to ISO Guide 34[3] and ISO/IEC 17025[4] as a producer of Certified Reference Materials and Reference Materials. This ensures that our manufacturing processes have been accredited to and meet strict international standards.

3. Intended Use: The product is manufactured for use in the calibration and calibration verification of chromatographic instrumentation performed in routine laboratory analysis.

4. Instruction: Visually inspect the solution inside the ampoule for any un-dissolved material. If particulate is visible, sonicate the unopened ampoule until material is fully dissolved. Dilute as required, use only class A glassware and diluents compatible with all certified analytes in the mixture.

5. Hazardous Situation: The product is intended for use by experienced professional personnel. A Material Safety Data Sheet (MSDS) is available at www.phenomenex.com/mysupport.

6. Level of Homogeneity: The product has been certified to guarantee the certified values and their uncertainties at a volume of 2 µL.

7. Certified Value: Certified Value is based upon gravimetric and volumetric preparation using calibrated balances and Class A glassware.

8. Raw Materials and Purity: Phenova reference standard products are prepared from the highest quality starting materials. The purity of this material was verified using an ISO/IEC 17025 methodology.

9. Expanded Uncertainty: The expanded uncertainty (uCRM) as stated is determined in accordance with ISO/IEC Guide 98[5] and ISO Guide 35 incorporating Type A standard uncertainty at a 95% confidence level. The uncertainty contains elements of manufacturing (uM), homogeneity analysis (uH) and long-term stability testing (uLTS). The uncertainty is calculated based on the root-sum-of-squares equation times a coverage factor (k=2).

   $$uCRM = k\sqrt{uM^2 + uH^2 + uLTS^2}$$

   Transport conditions (short-term stability) have been tested such that there is no contribution to the uncertainty reported. The expanded uncertainty applies to the product as received.

10. Metrological Traceability: The property value (certified value and its uncertainty) are traceable through an unbroken chain of calibration to the SI base unit kg through a NIST traceable weight in accordance with ISO Guide 34. This is achieved through calibration of balances, verification of weights, use of national methodology for glassware calibration and product homogeneity and stability testing utilizing an ISO/IEC 17025 methodology.

11. Values Obtained During Product Testing: This product is subjected to verification, homogeneity and stability testing using an ISO/IEC 17025 chromatographic methodology. All values obtained during testing meet criteria in accordance with ISO Guide 34.

12. Period of Validity: The Certified Values and their uncertainties are guaranteed until the expiration date. This product will be monitored during the period of validity and customers notified of any significant changes in stability.

References:

[1] ISO Guide 31:2000(E) – Reference Materials – Contents of Certificates and Labels.
[2] ISO Guide 35:2006(E) – Reference Material – General and Statistical Principles for Certification.
[3] ISO Guide 34:2009(E) – General Requirements for the Competence of Reference Material Producers.
[4] ISO/IEC 17025:2005(E) – General Requirements for the Competence of Testing and Calibration Laboratories.
[5] ISO/IEC Guide 98-3:2008(E) – Uncertainty of Measurement – Part 3: Guide to Expression of Uncertainty in Measurement (GUM: 1995)

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 31206 **Lot No.:** A0134523

Description : SV Internal Standard Mix 2mg/ml

SV Internal Standard Mix 2mg/ml 2000 µg/ml, Methylene Chloride, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2023 **Storage:** 10°C or colder

Handling: Sonication required. Mix is photosensitive.

G002461
Reed JL
03/21/19

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	1,4-Dichlorobenzene-d4 **CAS #** 3855-82-1 **Purity** 99%	(Lot PR-18488)	2,001.4 µg/mL	+/- 11.6363 µg/mL +/- 90.1443 µg/mL +/- 100.0262 µg/mL		Gravimetric Unstressed Stressed
2	Naphthalene-d8 **CAS #** 1146-65-2 **Purity** 99%	(Lot M-1452)	2,003.9 µg/mL	+/- 11.6508 µg/mL +/- 90.2569 µg/mL +/- 100.1511 µg/mL		Gravimetric Unstressed Stressed
3	Acenaphthene-d10 **CAS #** 15067-26-2 **Purity** 99%	(Lot PR-25444)	2,005.7 µg/mL	+/- 11.6613 µg/mL +/- 90.3379 µg/mL +/- 100.2411 µg/mL		Gravimetric Unstressed Stressed
4	Phenanthrene-d10 **CAS #** 1517-22-2 **Purity** 99%	(Lot PR-23065)	2,018.9 µg/mL	+/- 11.7381 µg/mL +/- 90.9325 µg/mL +/- 100.9008 µg/mL		Gravimetric Unstressed Stressed
5	Chrysene-d12 **CAS #** 1719-03-5 **Purity** 99%	(Lot PR-27952)	2,013.3 µg/mL	+/- 11.7055 µg/mL +/- 90.6802 µg/mL +/- 100.6209 µg/mL		Gravimetric Unstressed Stressed
6	Perylene-d12 **CAS #** 1520-96-3 **Purity** 99%	(Lot PR-24113)	2,012.6 µg/mL	+/- 11.7014 µg/mL +/- 90.6487 µg/mL +/- 100.5859 µg/mL		Gravimetric Unstressed Stressed

Certificate of Analysis

SS TCL PAH MIX,1X1ML,2000UG/ML,MECL:BENZENE, 50:50

Certified Reference Material

Product ID 4S8905
Lot LRAB7863
Expiration Date February 2021
Storage Conditions Refrigerate
Solvent/Matrix METHYLENE CHLORIDE:BENZENE (50:50)

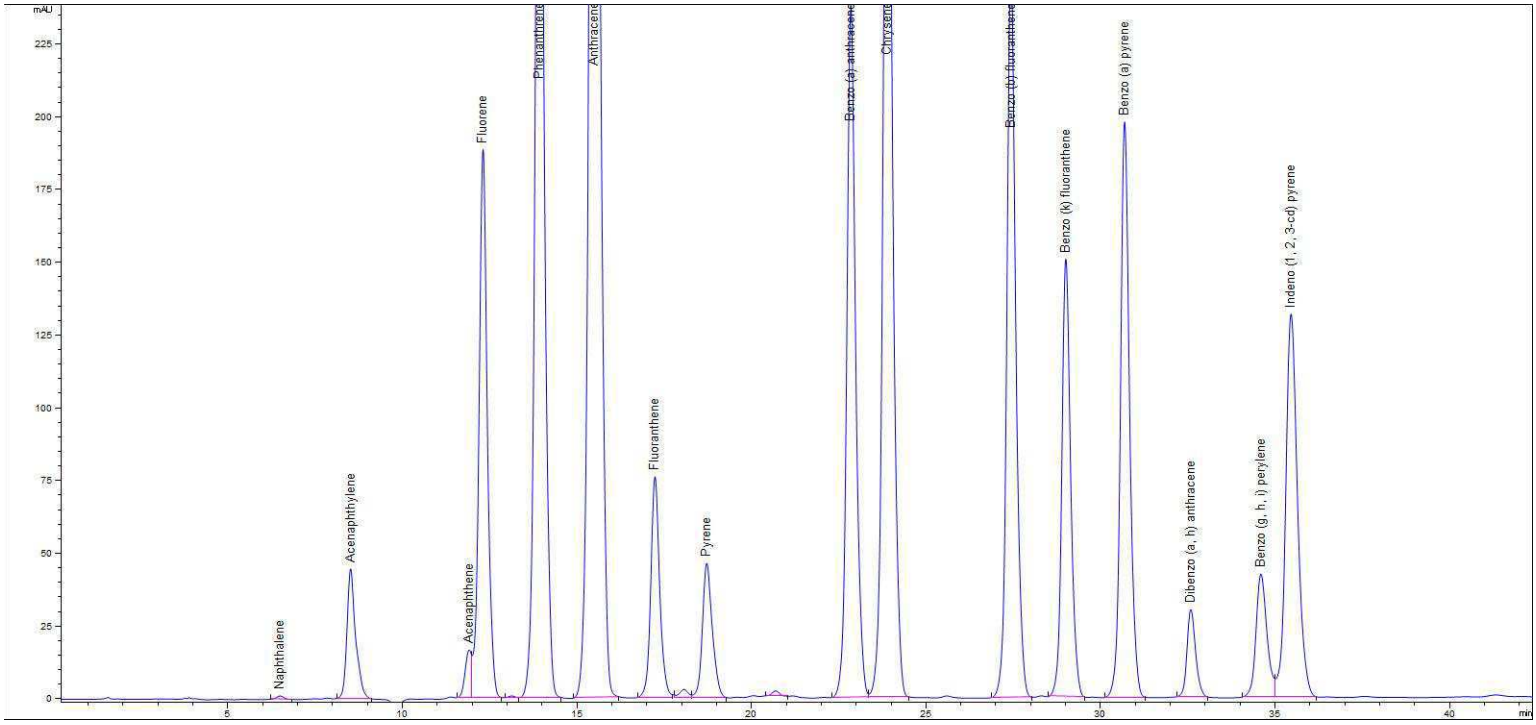
Analyte	*Units*	*Certified Value* [1,4]	*Raw Material Purity,%*	*Elution order*	*Raw Material Lot*	*CAS*
NAPHTHALENE, SS	µg/ml	2000 ± 60	100	1	MKBX4141V	91-20-3
ACENAPHTHYLENE, SS	µg/ml	2000 ± 60	96.2	2	LC12204	208-96-8
ACENAPHTHENE, SS	µg/ml	2000 ± 60	99.9	3	MKCC8329	83-32-9
FLUORENE, SS	µg/ml	2000 ± 60	99	4	01106CN	86-73-7
PHENANTHRENE, SS	µg/ml	2000 ± 60	98.7	5	LB46705	85-01-8
ANTHRACENE, SS	µg/ml	2000 ± 60	99.4	6	LB43311	120-12-7
FLUORANTHENE, SS	µg/ml	2000 ± 60	98.3	7	12301LZ	206-44-0
PYRENE, SS	µg/ml	2000 ± 60	98.3	8	09519HR	129-00-0
BENZO (A) ANTHRACENE, SS	µg/ml	2000 ± 60	99.9	9	LC04263	56-55-3
CHRYSENE, SS	µg/ml	2000 ± 60	99.3	10	LC06232	218-01-9
BENZO (B) FLUORANTHENE, SS	µg/ml	2000 ± 60	99.9	11	LC19281	205-99-2
BENZO (K) FLUORANTHENE, SS	µg/ml	2000 ± 60	99.2	12	BCBS8580V	207-08-9
BENZO (A) PYRENE, SS	µg/ml	2000 ± 60	99	13	SLBS0038V	50-32-8
DIBENZO (A,H) ANTHRACENE, SS	µg/ml	2000 ± 60	99.9	14	LC17257	53-70-3
BENZO (G,H,I) PERYLENE, SS	µg/ml	2000 ± 60	96.3	15	LB95652	191-24-2
INDENO (1,2,3-CD) PYRENE, SS	µg/ml	2000 ± 60	99.5	16	ER08210702	193-39-5

ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

SIGMA-ALDRICH®
2931 Soldier Springs Rd. Laramie, Wyoming 82070 USA
307-742-5452
rtctechgroup@sial.com www.sigma-aldrich.com

Lot **LRAB7863**
Expiration Date February 2021
Storage Conditions Refrigerate
Solvent/Matrix METHYLENE CHLORIDE:BENZENE (50:50)



Additional Information:

Column: Supelcosil-LC-PAH 25.0 cm x 4.6 mm x 5.0 um
Injection vol: 5.0 uL
Detector: UV-254 nm
Mobile Phases: A=DI Water B= ACN
Gradient: time (min) %B
0 60%
5 60%
30 100%
45 100%
46 60%
Post –run: 8.0 min

Certificate of Analysis

SS TCL PAH MIX,1X1ML,2000UG/ML,MECL:BENZENE, 50:50

Certified Reference Material

Product ID 4S8905
Lot LRAB7863
Expiration Date February 2021
Storage Conditions Refrigerate
Solvent/Matrix METHYLENE CHLORIDE:BENZENE (50:50)

1 Certified value - based on the robust mean of round robin, interlaboratory study and analytically verified by RTC with associated uncertainties from the preparation and analytical procedures.
2 The standard deviation is the robust statistical standard deviation from the round robin interlaboratory study.
3 Acceptance limits are based on Interlaboratory Study Results. These ranges are recommendations only.
4 Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a *t*-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u_{char}^2 + u_{\text{hom}\ ogeneity}^2 + u_{stability}^2}$$

5 ***k***: Coverage factor derived from a t-distribution table, based on the degrees of freedom of the data set. **Confidence interval = 95%**

Traceability: The standard was manufactured under an ISO/IEC 17025:2005 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were preformed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Homogeneity: Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared using a one-way analysis of variance approach as described by TNI EL-V3-2009 Appendix A.2. See Instructions for minimum sub-sample size.

Expiration is at end of month given on certificate and label.

THIS PRODUCT WAS DESIGNED, PRODUCED AND VERIFIED FOR ACCURACY AND STABILITY IN ACCORDANCE WITH ISO/IEC 17025:2005 (ANAB Cert AT-1467) and ISO GUIDE 34:2009 (ANAB Cert AR-1470).

MSDS reports for components comprising greater than 1.0% of the solution or 0.1% for components known to be carcinogens are available upon request.

Robert O'Brien - QC Supervisor

Mark Pooler - QA Supervisor

Certification Date April 08, 2018
Version 31047-482018

ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

SIGMA-ALDRICH®
2931 Soldier Springs Rd. Laramie, Wyoming 82070 USA
307-742-5452
rtctechgroup@sial.com www.sigma-aldrich.com

Dual Column

LDW18-SP-RB1

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-01	File ID:	18062306ECD5.D
Sampled:	06/11/18 16:12	Prepared:	06/18/18 11:10	Analyzed:	06/23/18 14:32
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0415	Sequence:	SGF0299	Calibration:	BF00046
Instrument:	ECD5	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
12674-11-2	Aroclor 1016	1	1	0.010	0.002	0.010	U
11104-28-2	Aroclor 1221	1	1	0.010	0.002	0.010	U
11141-16-5	Aroclor 1232	1	1	0.010	0.002	0.010	U
53469-21-9	Aroclor 1242	1	1	0.010	0.002	0.010	U
12672-29-6	Aroclor 1248	1	1	0.010	0.002	0.010	U
11097-69-1	Aroclor 1254	1	1	0.010	0.002	0.010	U
11096-82-5	Aroclor 1260	1	1	0.010	0.003	0.010	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0110*	*54.9*	*29 - 120*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0140*	*69.8*	*32 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180623.b/18062306ECD5.D
Data file 2: /20180623.b/20180623.b/18062306ECD5.D
Method: ecd5.i\20180623.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, VTS
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: 18F0185-01
Client ID:
Injection Date: 23-JUN-2018 14:32
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.445	-0.002	291688386	4.288	-0.003	1096675817	27.9	25.0	10.9	Tetrachloro-m-xylene
12.783	-0.001	192947809	12.972	-0.002	784522242	22.0	21.7	1.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	69.8	62.5
Decachlorobiphenyl	54.9	54.3

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	921367436	0.1
Hexabromobiphenyl	761926666	831871649	9.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4452408273	0.8
Hexabromobiphenyl	2171332320	2344779625	8.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.062	-0.007	1233021	5.1	1	6.003	-0.007	5059140	3.7
Aroclor-1016	2	6.506	0.037	4198856	5.3	2	6.671	0.028	8116421	2.6
Aroclor-1016	3	6.721	-0.007	3501830	15.8	3	7.033	0.011	4043884	5.4
Aroclor-1016	4	7.478	0.039	6664080	25.5	4	7.493	-0.045	13348238	14.9
	Total Col1Ave (4 peaks):				12.9	Total Col2Ave (4 peaks):				6.6 RPD = 64*
	Corrected Ave (3 peaks):				8.7	Corrected Ave (3 peaks):				3.9 RPD = 77*
Aroclor-1221	1	3.440	0.003	3021052	45.2	1	3.590	-0.002	2931734	17.6
Aroclor-1221	2	5.005	0.025	20061125	247.4	2	5.352	0.046	11057255	12.5
Aroclor-1221	3	5.104	0.019	515842	2.1	3	---			0.0
Aroclor-1221	NS	---			----	4	6.671	0.024	8116421	31.6
	Total Col1Ave (3 peaks):				98.2	Total Col2Ave (3 peaks):				20.6 RPD = 131*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	3.440	0.005	3021052	71.0	1	3.590	-0.000	2931734	27.8
Aroclor-1232	2	6.062	-0.009	1233021	11.9	2	6.003	-0.008	5059140	7.7
Aroclor-1232	3	6.506	0.036	4198856	12.4	3	6.671	0.027	8116421	5.7
Aroclor-1232	4	6.721	-0.010	3501830	37.2	4	7.196	-0.001	747419	2.6
	Total Col1Ave (4 peaks):				33.1	Total Col2Ave (4 peaks):				10.9 RPD = 101*
	Corrected Ave (3 peaks):				20.5	Corrected Ave (3 peaks):				5.3 RPD = 118*
Aroclor-1242	1	6.062	-0.007	1233021	6.4	1	6.003	-0.007	5059140	4.4
Aroclor-1242	2	6.506	0.037	4198856	6.5	2	6.671	0.028	8116421	3.0
Aroclor-1242	3	6.721	-0.008	3501830	19.6	3	7.493	-0.046	13348238	15.5
Aroclor-1242	4	8.096	0.000	644597	2.8	4	8.394	-0.011	67650	0.1
	Total Col1Ave (4 peaks):				8.8	Total Col2Ave (4 peaks):				5.8 RPD = 42*
	Corrected Ave (3 peaks):				5.2	Corrected Ave (3 peaks):				2.5 RPD = 71*
Aroclor-1248	1	6.950	-0.012	16511056	66.6	1	6.671	0.035	8116421	5.3
Aroclor-1248	2	7.278	0.017	7155069	25.1	2	7.127	-0.002	973696	0.9
Aroclor-1248	3	7.901	0.042	1717795	3.9	3	7.493	-0.044	13348238	11.5
Aroclor-1248	4	8.096	0.003	644597	1.9	4	8.018	0.031	7836999	5.7
	Total Col1Ave (4 peaks):				24.4	Total Col2Ave (4 peaks):				5.8 RPD = 123*
	Corrected Ave (3 peaks):				10.3	Corrected Ave (3 peaks):				4.0 RPD = 89*
Aroclor-1254	1	8.154	-0.024	4649650	8.7	1	8.305	0.007	427263	0.3
Aroclor-1254	2	8.261	0.006	1305138	7.7	2	8.816	0.005	28711446	24.4
Aroclor-1254	3	8.560	0.012	1385156	4.1	3	8.953	-0.006	1905336	0.7
Aroclor-1254	4	8.638	-0.045	1993684	3.0	4	9.425	-0.002	2493433	2.1
Aroclor-1254	5	9.716	0.004	342612	0.5	5	9.731	-0.002	1472085	1.0
	Total Col1Ave (5 peaks):				4.8	Total Col2Ave (5 peaks):				5.7 RPD = 17
	Corrected Ave (4 peaks):				3.8	Corrected Ave (4 peaks):				1.0 RPD = 115*
Aroclor-1260	1	9.947	0.008	199726	0.4	1	9.982	0.017	1521891	0.8
Aroclor-1260	2	10.254	-0.000	1233946	2.8	2	10.530	0.026	1084495	0.7
Aroclor-1260	3	10.662	0.038	4349952	4.0	3	10.810	0.033	3858877	1.0
Aroclor-1260	4	10.960	-0.062	431020	0.8	4	11.235	-0.058	5543485	5.2
Aroclor-1260	5	11.181	-0.031	2399855	8.2	NS	---			----
	Total Col1Ave (5 peaks):				3.3	Total Col2Ave (4 peaks):				1.9 RPD = 51*
	Corrected Ave (4 peaks):				2.0	Corrected Ave (3 peaks):				0.8 RPD = 82*
Aroclor-1262	1	9.947	0.005	199726	0.3	1	10.095	0.030	3277274	1.4
Aroclor-1262	2	10.254	-0.004	1233946	2.4	2	10.530	0.022	1084495	0.6
Aroclor-1262	3	10.662	0.035	4349952	3.8	3	10.810	0.030	3858877	0.9
Aroclor-1262	4	10.960	-0.067	431020	1.1	4	---			0.0
Aroclor-1262	5	11.181	-0.034	2399855	4.9	5	11.927	-0.013	20081676	29.6
	Total Col1Ave (5 peaks):				2.5	Total Col2Ave (4 peaks):				8.1 RPD = 106*
	Corrected Ave (4 peaks):				1.9	Corrected Ave (3 peaks):				1.0 RPD = 64*
Aroclor-1268	1	11.181	0.038	2399855	1.8	1	11.235	-0.060	5543485	1.2
Aroclor-1268	2	---			0.0	2	11.456	0.095	25755173	5.4
Aroclor-1268	3	11.598	-0.000	1202458	1.1	3	---			0.0

Aroclor-1268	4	12.368	-0.015	756066	0.2	4	12.607	0.039	125158	0.0
Total Col1Ave (3 peaks):				1.0	Total Col2Ave (3 peaks):				2.2	RPD = 71*
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks					

Total PCB Area Col1 (4.547 - 12.684) = 278289859 Col1 Total PCB = 0.0 ppm*

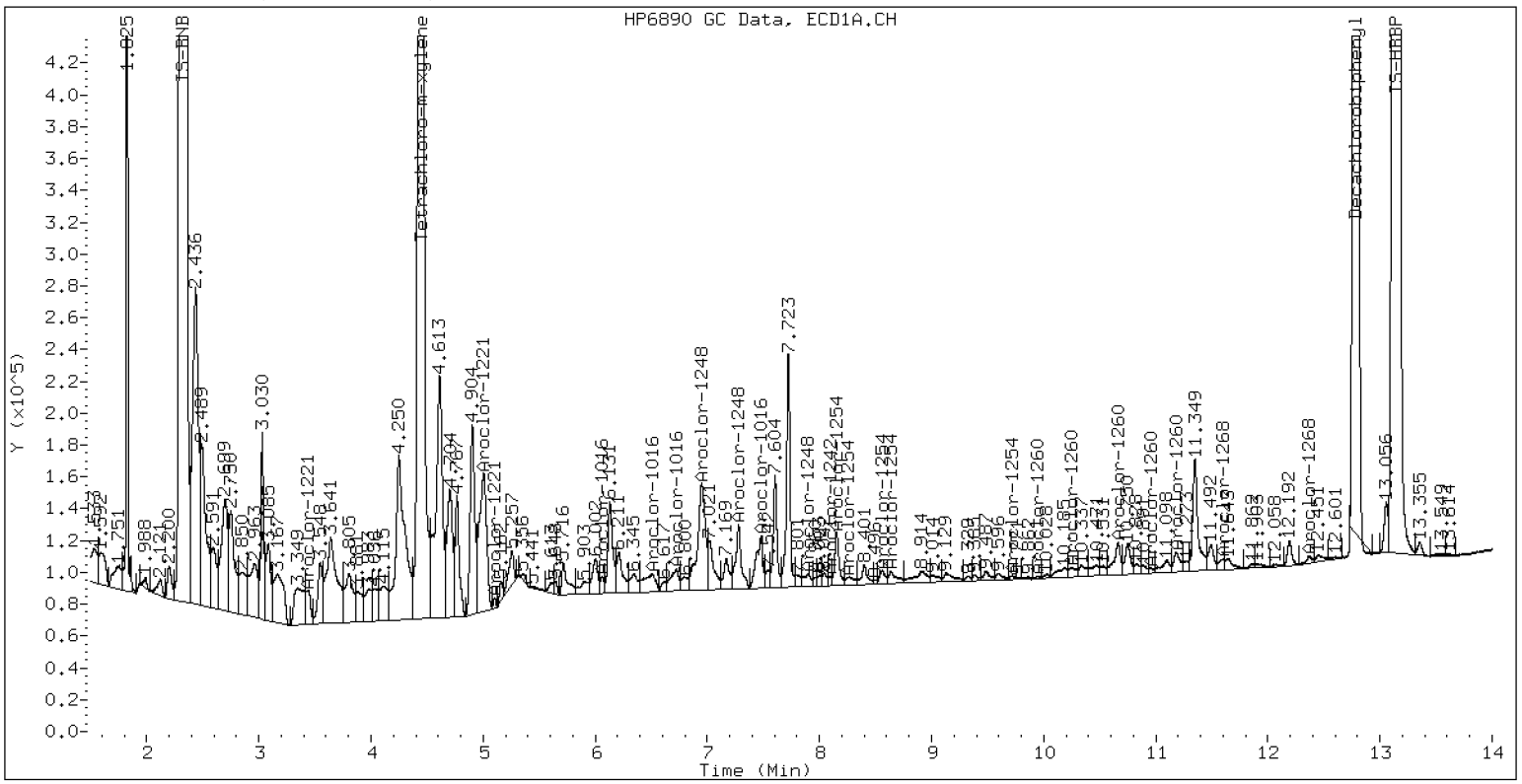
Total PCB Area Col2 (4.547 - 12.684) = 534114006 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

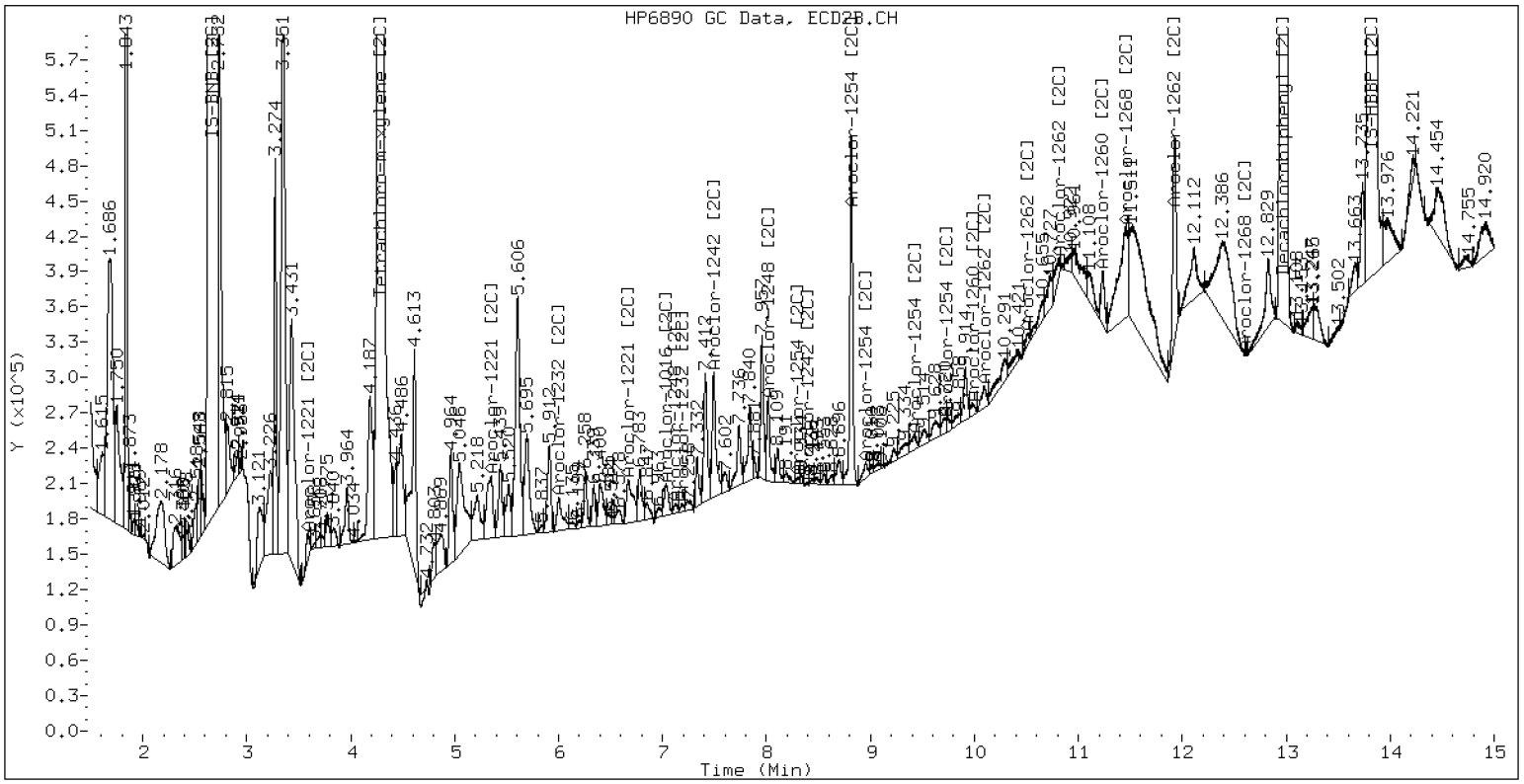
PCB Dual Column Chromatograms

ECD5-ZB5 /20180623.b/18062306ECD5.D 18F0185-01 23-JUN-2018 14:32 2ul VTS



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180623.b/20180623.b/18062306ECD5.D 18F0185-01

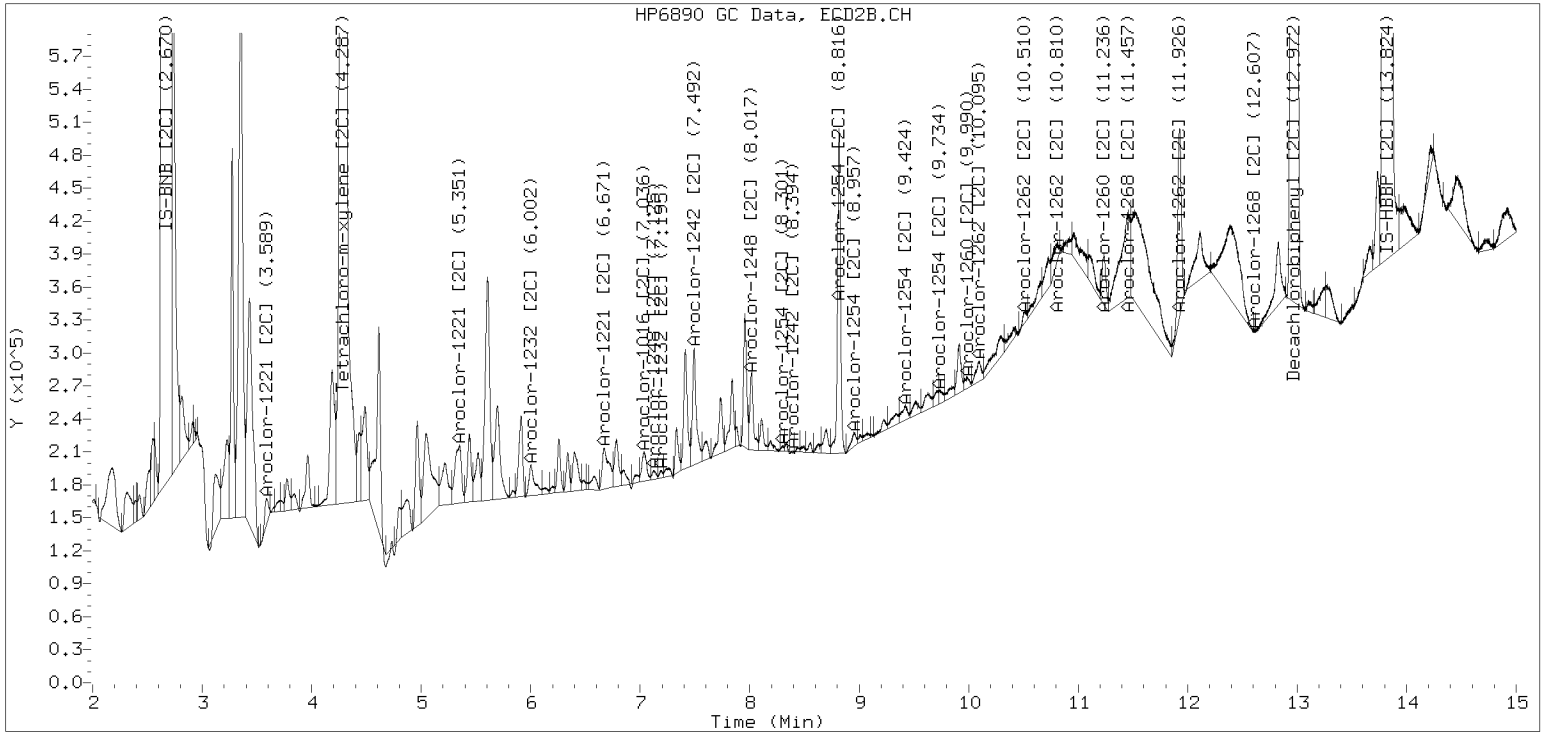


ZB-35 Manual Integration: YES

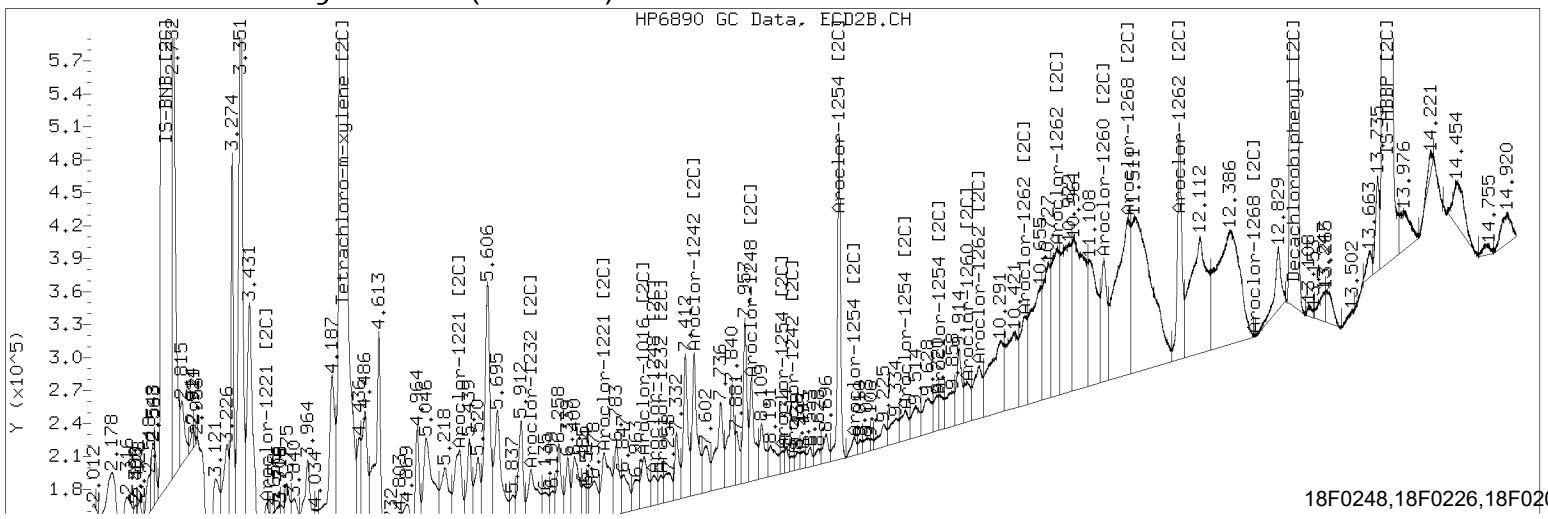
Manual Peak Adjustment, ZB-35

Datafile: ecd5.i/20180623.b/20180623.b/18062306.D Injection Date: 23-JUN-2018 14:33

Manual Integration (After)



Processed Integration (Before)



Dual Column

LDW18-SP-30

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-03	File ID:	18062307ECD5.D
Sampled:	06/12/18 12:06	Prepared:	06/18/18 11:10	Analyzed:	06/23/18 14:53
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0415	Sequence:	SGF0299	Calibration:	BF00046
Instrument:	ECD5	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
12674-11-2	Aroclor 1016	1	1	0.010	0.002	0.010	U
11104-28-2	Aroclor 1221	1	1	0.010	0.002	0.010	U
11141-16-5	Aroclor 1232	1	1	0.010	0.002	0.010	U
53469-21-9	Aroclor 1242	1	1	0.010	0.002	0.010	U
12672-29-6	Aroclor 1248	1	1	0.010	0.002	0.010	U
11097-69-1	Aroclor 1254	1	1	0.010	0.002	0.010	U
11096-82-5	Aroclor 1260	1	1	0.010	0.003	0.010	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0179*	*89.4*	*29 - 120*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0140*	*70.0*	*32 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180623.b/18062307ECD5.D
Data file 2: /20180623.b/20180623.b/18062307ECD5.D
Method: ecd5.i\20180623.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, VTS
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: 18F0185-03
Client ID:
Injection Date: 23-JUN-2018 14:53
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.444	-0.004	306379187	4.286	-0.006	1137273647	28.0	25.4	9.9	Tetrachloro-m-xylene
12.783	-0.002	317300893	12.972	-0.002	1531902270	35.8	39.7	10.4	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	70.0	63.4
Decachlorobiphenyl	89.4	99.2

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	965138495	4.9
Hexabromobiphenyl	761926666	840432815	10.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4556645218	3.1
Hexabromobiphenyl	2171332320	2508633459	15.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.063	-0.007	1284323	5.1	1	6.005	-0.004	14430870	10.2
Aroclor-1016	2	6.472	0.003	6258196	7.5	2	6.654	0.011	6047572	1.9
Aroclor-1016	3	6.722	-0.006	1591619	6.8	3	7.024	0.002	4295948	5.6
Aroclor-1016	4	7.479	0.040	6210111	22.7	4	7.531	-0.007	3755420	4.1
	Total Col1Ave (4 peaks):				10.5	Total Col2Ave (4 peaks):				5.4 RPD = 64*
	Corrected Ave (3 peaks):				6.5	Corrected Ave (3 peaks):				3.8 RPD = 51*
Aroclor-1221	1	3.439	0.001	2371862	33.9	1	3.615	0.023	1538320	9.0
Aroclor-1221	2	5.002	0.023	17114712	201.5	2	5.330	0.023	42390432	47.0
Aroclor-1221	3	5.099	0.014	692403	2.7	3	---			0.0
Aroclor-1221	NS	---			----	4	6.654	0.007	6047572	23.0
	Total Col1Ave (3 peaks):				79.4	Total Col2Ave (3 peaks):				26.3 RPD = 100*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	3.439	0.003	2371862	53.2	1	3.615	0.025	1538320	14.2
Aroclor-1232	2	6.063	-0.009	1284323	11.9	2	6.005	-0.006	14430870	21.4
Aroclor-1232	3	6.472	0.001	6258196	17.7	3	6.654	0.010	6047572	4.1
Aroclor-1232	4	6.722	-0.008	1591619	16.2	4	7.185	-0.011	8139056	27.2
	Total Col1Ave (4 peaks):				24.7	Total Col2Ave (4 peaks):				16.7 RPD = 39
	Corrected Ave (3 peaks):				15.2	Corrected Ave (3 peaks):				13.2 RPD = 14
Aroclor-1242	1	6.063	-0.007	1284323	6.3	1	6.005	-0.005	14430870	12.4
Aroclor-1242	2	6.472	0.002	6258196	9.3	2	6.654	0.010	6047572	2.2
Aroclor-1242	3	6.722	-0.007	1591619	8.5	3	7.539	0.001	4013162	4.5
Aroclor-1242	4	8.093	-0.003	2677358	11.2	4	8.398	-0.007	2965271	3.3
	Total Col1Ave (4 peaks):				8.8	Total Col2Ave (4 peaks):				5.6 RPD = 45*
	Corrected Ave (3 peaks):				8.0	Corrected Ave (3 peaks):				3.3 RPD = 83*
Aroclor-1248	1	6.954	-0.009	13409354	51.6	1	6.654	0.017	6047572	3.8
Aroclor-1248	2	7.278	0.017	6050294	20.2	2	7.126	-0.003	7525324	6.9
Aroclor-1248	3	7.865	0.006	2583245	5.6	3	7.539	0.003	4013162	3.4
Aroclor-1248	4	8.093	-0.000	2677358	7.7	4	8.016	0.029	12987208	9.2
	Total Col1Ave (4 peaks):				21.3	Total Col2Ave (4 peaks):				5.8 RPD = 114*
	Corrected Ave (3 peaks):				11.2	Corrected Ave (3 peaks):				4.7 RPD = 81*
Aroclor-1254	1	8.155	-0.023	6600284	11.8	1	8.300	0.003	8593660	5.2
Aroclor-1254	2	8.251	-0.004	727330	4.1	2	8.815	0.004	42637742	35.4
Aroclor-1254	3	8.565	0.017	2822902	7.9	3	8.956	-0.004	17638806	6.6
Aroclor-1254	4	8.686	0.003	3053400	4.4	4	9.431	0.005	10016121	8.4
Aroclor-1254	5	9.711	-0.002	694674	1.0	5	9.749	0.017	17644062	11.6
	Total Col1Ave (5 peaks):				5.8	Total Col2Ave (5 peaks):				13.5 RPD = 79*
	Corrected Ave (4 peaks):				4.3	Corrected Ave (4 peaks):				8.0 RPD = 59*
Aroclor-1260	1	9.951	0.011	820953	1.8	1	9.959	-0.006	4209098	2.1
Aroclor-1260	2	10.275	0.021	307546	0.7	2	---			0.0
Aroclor-1260	3	10.662	0.038	20517740	18.9	3	10.279	-0.498	33520083	8.5
Aroclor-1260	4	11.048	0.026	192288	0.4	4	11.234	-0.058	148013274	130.5
Aroclor-1260	5	11.186	-0.026	945685	3.2	NS	---			----
	Total Col1Ave (5 peaks):				5.0	Total Col2Ave (3 peaks):				47.0 RPD = 162*
	Corrected Ave (4 peaks):				1.5	Corrected Ave: < 3 Peaks				
Aroclor-1262	1	9.951	0.008	820953	1.3	1	10.088	0.023	18228304	7.5
Aroclor-1262	2	10.275	0.017	307546	0.6	2	---			0.0
Aroclor-1262	3	10.662	0.035	20517740	17.5	3	10.279	-0.501	33520083	7.6
Aroclor-1262	4	11.048	0.021	192288	0.5	4	---			0.0
Aroclor-1262	5	11.186	-0.029	945685	1.9	5	11.930	-0.010	31342145	43.2
	Total Col1Ave (5 peaks):				4.4	Total Col2Ave (3 peaks):				19.4 RPD = 127*
	Corrected Ave (4 peaks):				1.1	Corrected Ave: < 3 Peaks				
Aroclor-1268	1	11.106	-0.036	143969	0.1	1	---			0.0
Aroclor-1268	2	11.186	-0.027	945685	0.7	2	---			0.0
Aroclor-1268	3	11.646	0.048	1137893	1.1	3	---			0.0

Aroclor-1268	4	12.370	-0.013	911133	0.3	4	---	0.0

Total Col1Ave (4 peaks): 0.5 Col2Ave: <3 Quant Peaks

Total PCB Area Col1 (4.547 - 12.684) = 251315126 Col1 Total PCB = 0.0 ppm*

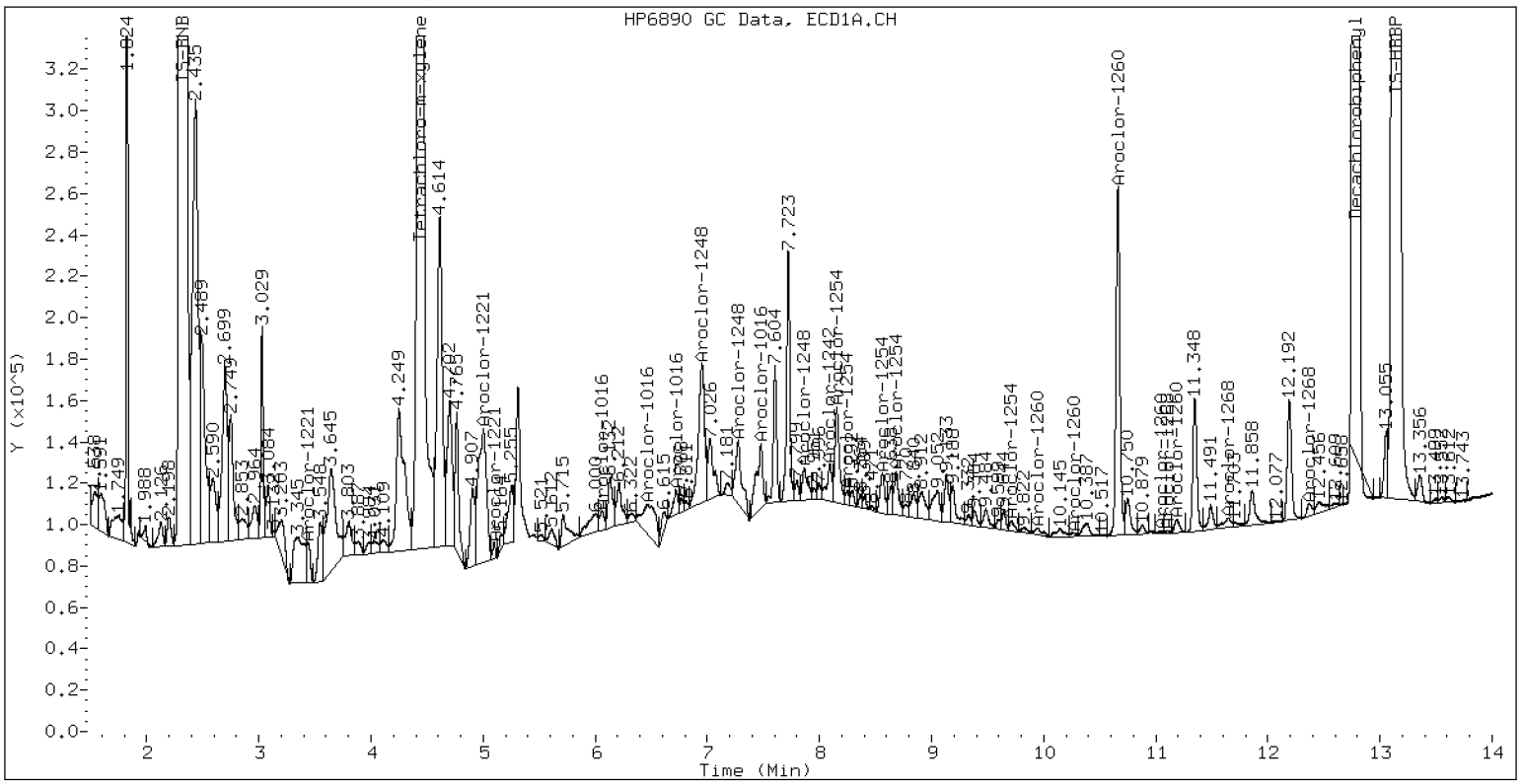
Total PCB Area Col2 (4.547 - 12.684) = 2694286493 Col2 Total PCB = 0.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

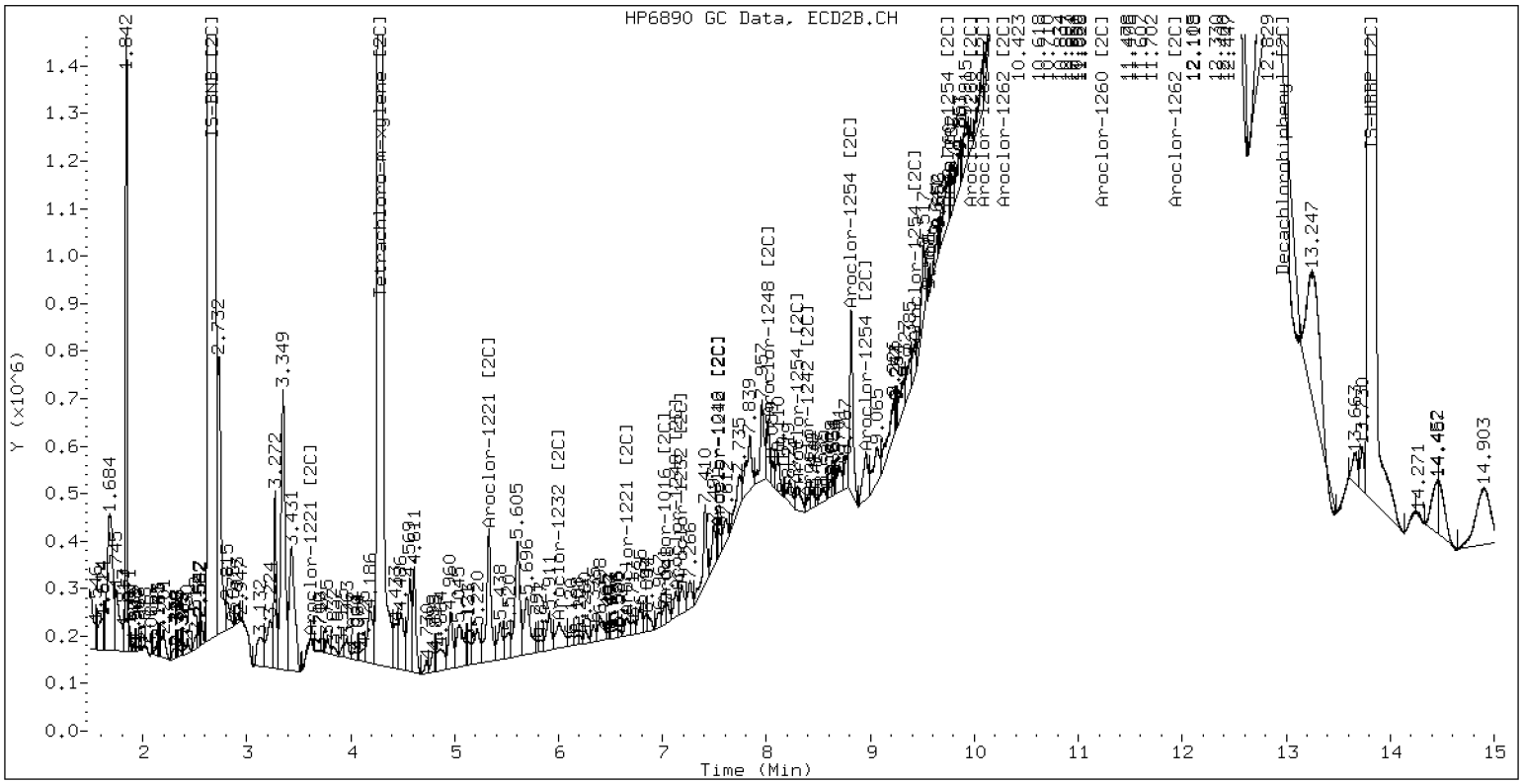
PCB Dual Column Chromatograms

ECD5-ZB5 /20180623.b/18062307ECD5.D 18F0185-03 23-JUN-2018 14:53 2ul VTS



ZB-5 Manual Integration: YES

ECD5-ZB35 /20180623.b/20180623.b/18062307ECD5.D 18F0185-03

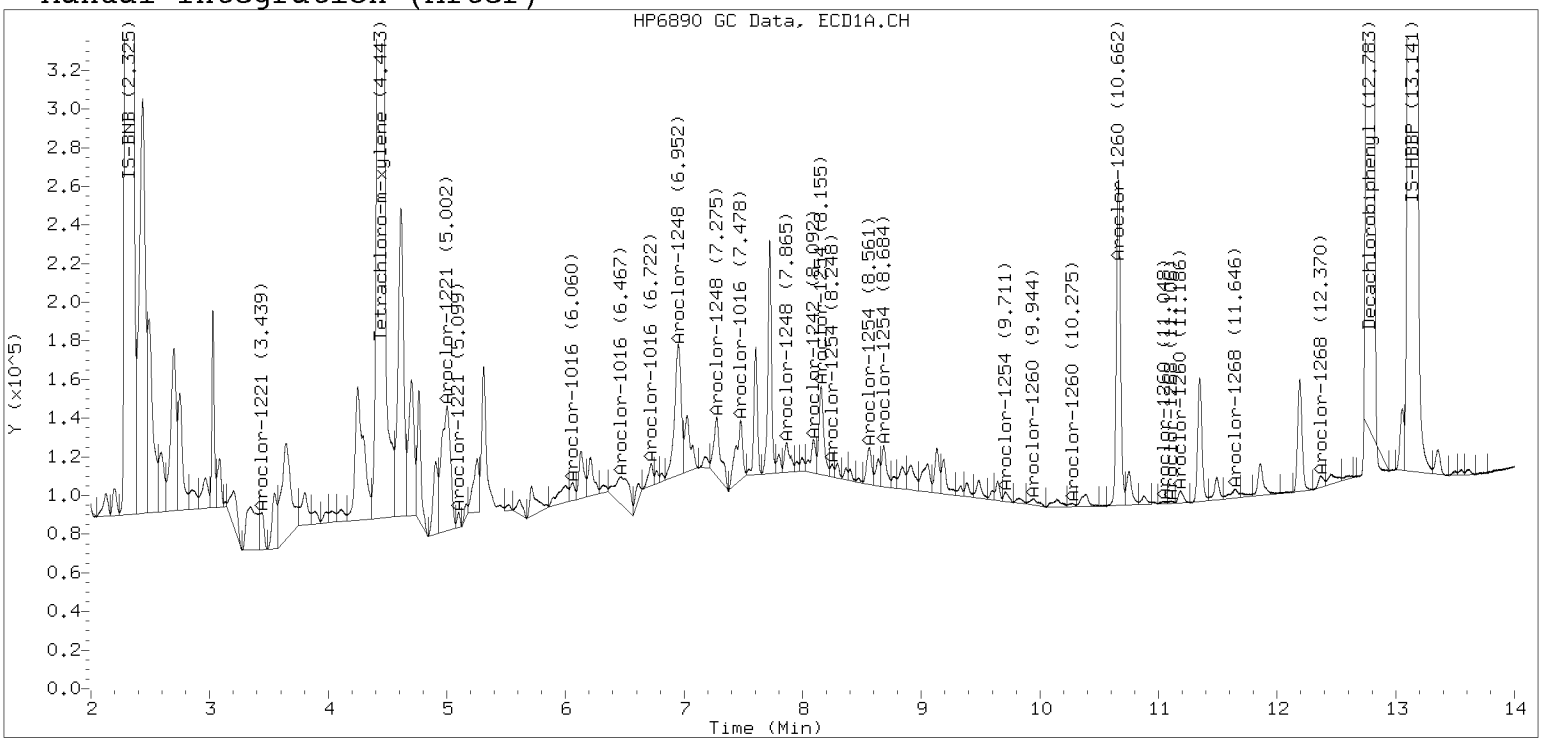


ZB-35 Manual Integration: YES

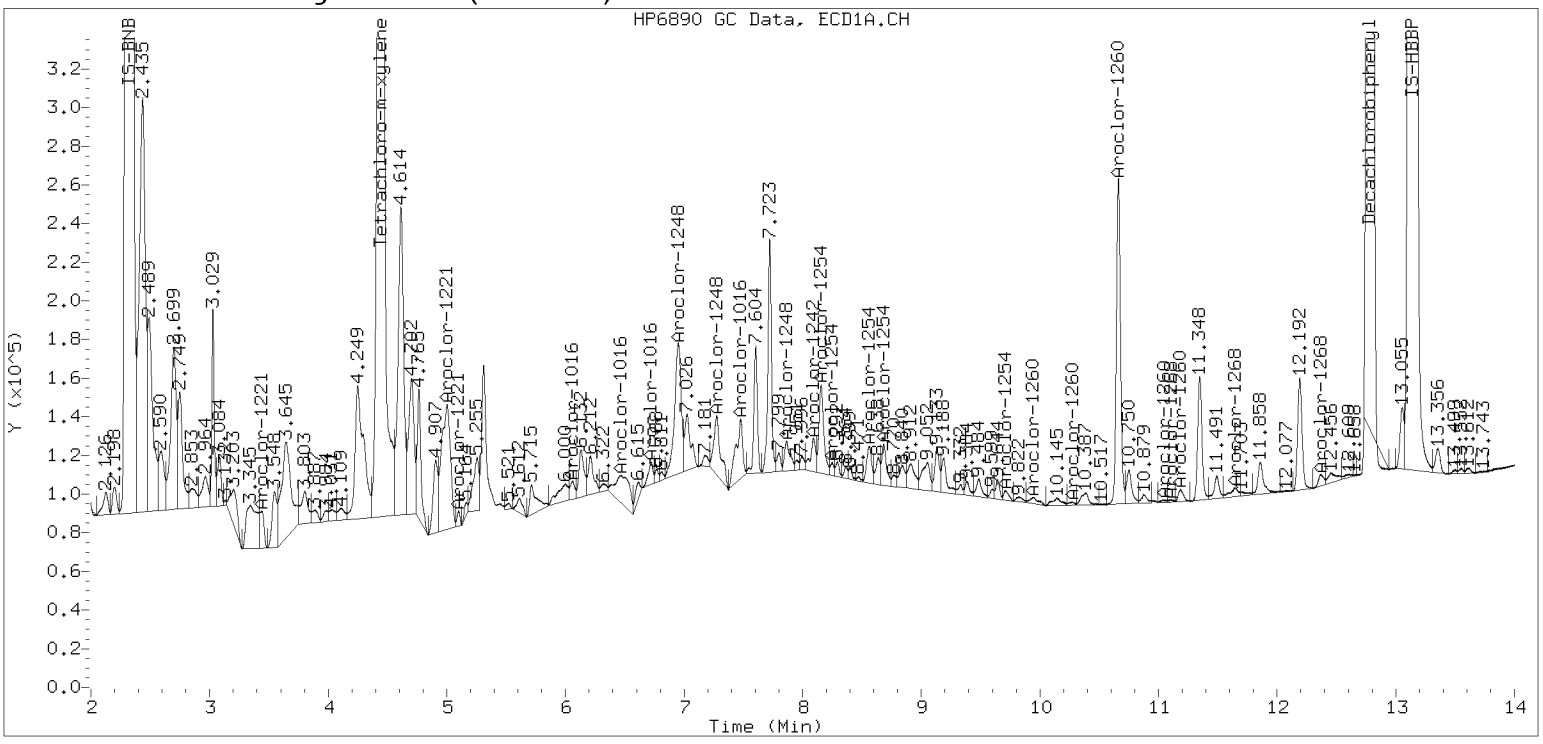
Manual Peak Adjustment, ZB-5

Datafile: ecd5.i/20180623.b/18062307ECD5.D Injection Date: 23-JUN-2018 14:5

Manual Integration (After)



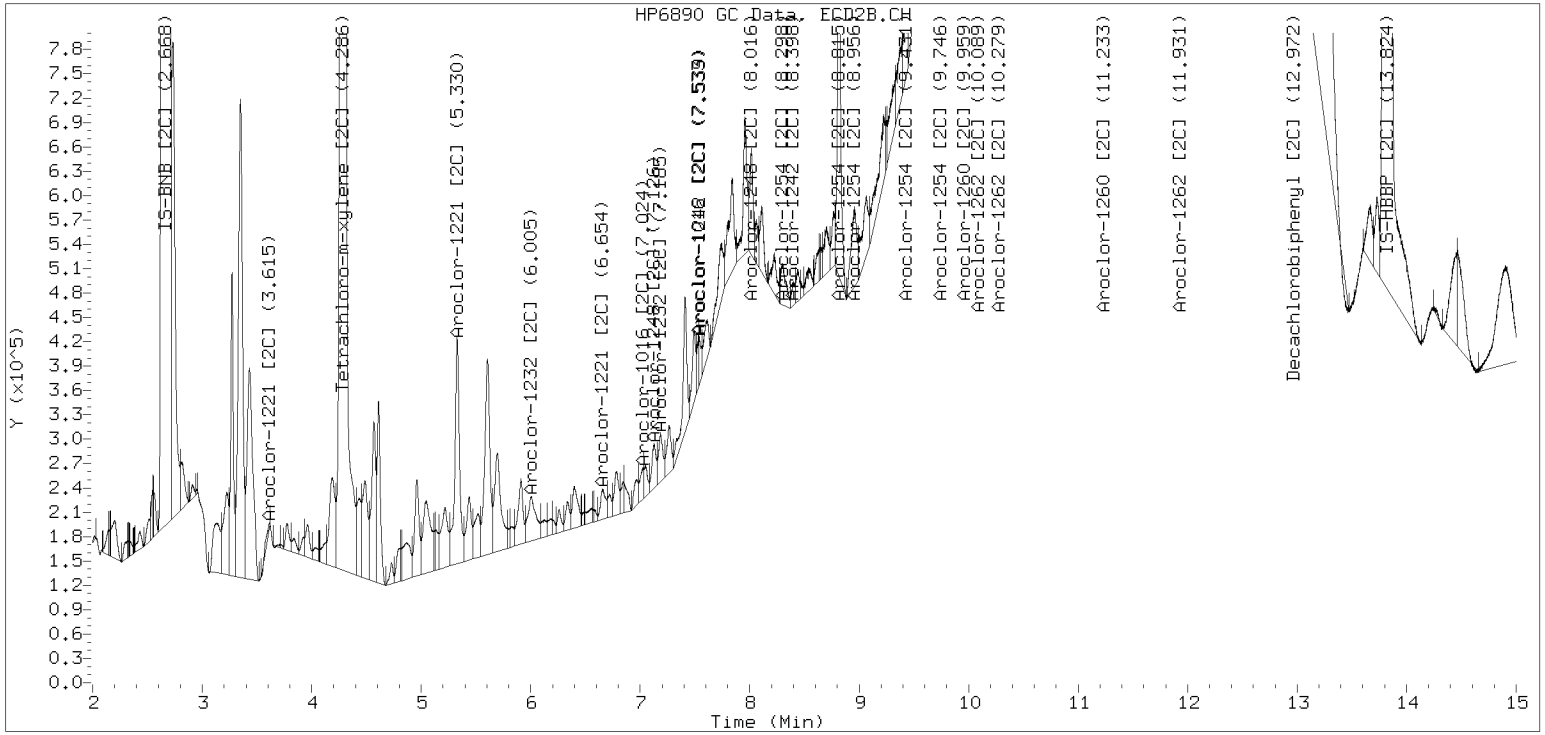
Processed Integration (Before)



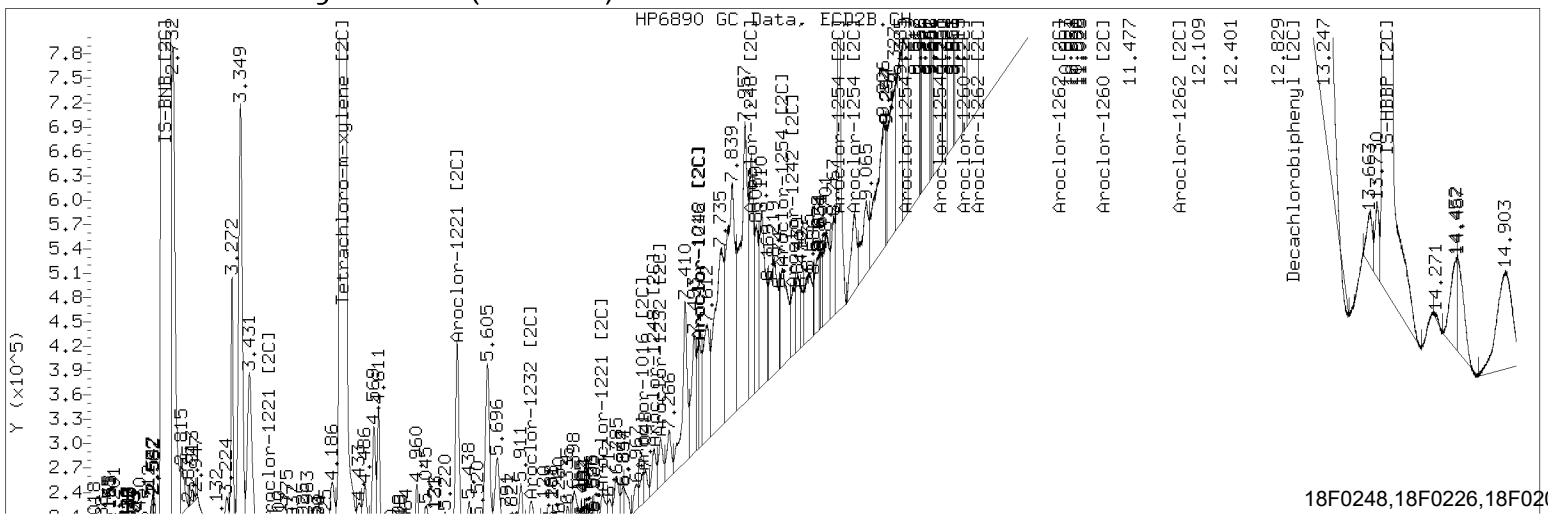
Manual Peak Adjustment, ZB-35

Datafile: ecd5.i/20180623.b/20180623.b/18062307.D Injection Date: 23-JUN-2018 14:53

Manual Integration (After)



Processed Integration (Before)



Dual Column

LDW18-SP-32

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-04	File ID:	18062308ECD5.D
Sampled:	06/12/18 09:19	Prepared:	06/18/18 11:10	Analyzed:	06/23/18 15:13
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0415	Sequence:	SGF0299	Calibration:	BF00046
Instrument:	ECD5	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
12674-11-2	Aroclor 1016	1	1	0.010	0.002	0.010	U
11104-28-2	Aroclor 1221	1	1	0.010	0.002	0.010	U
11141-16-5	Aroclor 1232	1	1	0.010	0.002	0.010	U
53469-21-9	Aroclor 1242	1	1	0.010	0.002	0.010	U
12672-29-6	Aroclor 1248	1	1	0.010	0.002	0.010	U
11097-69-1	Aroclor 1254	1	1	0.010	0.002	0.010	U
11096-82-5	Aroclor 1260	1	1	0.010	0.003	0.010	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0174*	*87.0*	*29 - 120*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0146*	*72.9*	*32 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180623.b/18062308ECD5.D
Data file 2: /20180623.b/20180623.b/18062308ECD5.D
Method: ecd5.i\20180623.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, VTS
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: 18F0185-04
Client ID:
Injection Date: 23-JUN-2018 15:13
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.443	-0.005	308481612	4.283	-0.008	1053929200	29.1	23.2	22.7	Tetrachloro-m-xylene
12.783	-0.001	310113835	12.973	-0.001	1285553319	34.8	35.8	2.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	72.9	58.0
Decachlorobiphenyl	87.0	89.4

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	933154637	1.4
Hexabromobiphenyl	761926666	844054178	10.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4614836932	4.4
Hexabromobiphenyl	2171332320	2336426526	7.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	ZB5 Col Area	Amount	Peak#	RT	Shift	ZB35 Col Area	Amount	
Aroclor-1016	1	6.059	-0.010	815775	3.3	1	5.999	-0.010	4962115	3.5	
Aroclor-1016	2	6.449	-0.020	1973971	2.4	2	6.670	0.027	4769361	1.5	
Aroclor-1016	3	6.721	-0.007	2115871	9.4	3	7.034	0.011	4109994	5.3	
Aroclor-1016	4	7.475	0.037	6659718	25.1	4	7.577	0.039	5113008	5.5	
	Total Col1Ave (4 peaks):				10.1	Total Col2Ave (4 peaks):				3.9	RPD = 88*
	Corrected Ave (3 peaks):				5.1	Corrected Ave (3 peaks):				3.4	RPD = 39
Aroclor-1221	1	3.437	-0.000	2836793	41.9	1	3.591	-0.001	2637837	15.3	
Aroclor-1221	2	5.001	0.021	20561654	250.3	2	5.323	0.016	10152533	11.1	
Aroclor-1221	3	5.100	0.015	479403	1.9	3	---			0.0	
Aroclor-1221	NS	---			----	4	6.670	0.023	4769361	17.9	
	Total Col1Ave (3 peaks):				98.1	Total Col2Ave (3 peaks):				14.8	RPD = 148*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks					
Aroclor-1232	1	3.437	0.002	2836793	65.8	1	3.591	0.001	2637837	24.1	
Aroclor-1232	2	6.059	-0.012	815775	7.8	2	5.999	-0.012	4962115	7.3	
Aroclor-1232	3	6.449	-0.022	1973971	5.8	3	6.670	0.026	4769361	3.2	
Aroclor-1232	4	6.721	-0.010	2115871	22.2	4	7.183	-0.013	3137842	10.4	
	Total Col1Ave (4 peaks):				25.4	Total Col2Ave (4 peaks):				11.2	RPD = 77*
	Corrected Ave (3 peaks):				11.9	Corrected Ave (3 peaks):				6.9	RPD = 53*
Aroclor-1242	1	6.059	-0.010	815775	4.2	1	5.999	-0.011	4962115	4.2	
Aroclor-1242	2	6.449	-0.021	1973971	3.0	2	6.670	0.027	4769361	1.7	
Aroclor-1242	3	6.721	-0.008	2115871	11.7	3	7.577	0.038	5113008	5.7	
Aroclor-1242	4	8.088	-0.008	4694688	20.3	4	8.436	0.031	20136117	21.8	
	Total Col1Ave (4 peaks):				9.8	Total Col2Ave (4 peaks):				8.4	RPD = 16
	Corrected Ave (3 peaks):				6.3	Corrected Ave (3 peaks):				3.9	RPD = 47*
Aroclor-1248	1	6.952	-0.011	12801924	51.0	1	6.670	0.034	4769361	3.0	
Aroclor-1248	2	7.277	0.016	6859576	23.7	2	7.123	-0.005	1664523	1.5	
Aroclor-1248	3	7.864	0.005	910920	2.0	3	7.577	0.041	5113008	4.3	
Aroclor-1248	4	8.088	-0.005	4694688	13.9	4	8.016	0.028	7497575	5.2	
	Total Col1Ave (4 peaks):				22.7	Total Col2Ave (4 peaks):				3.5	RPD = 147*
	Corrected Ave (3 peaks):				13.2	Corrected Ave (3 peaks):				2.9	RPD = 128*
Aroclor-1254	1	8.160	-0.019	7127824	13.1	1	8.327	0.030	20363029	12.3	
Aroclor-1254	2	8.295	0.040	7585804	44.1	2	8.815	0.004	24918739	20.4	
Aroclor-1254	3	8.564	0.016	1791208	5.2	3	8.955	-0.004	3448674	1.3	
Aroclor-1254	4	8.681	-0.002	1226834	1.8	4	9.430	0.004	4012889	3.3	
Aroclor-1254	5	9.711	-0.002	498827	0.7	5	9.731	-0.001	1159258	0.8	
	Total Col1Ave (5 peaks):				13.0	Total Col2Ave (5 peaks):				7.6	RPD = 52*
	Corrected Ave (4 peaks):				5.2	Corrected Ave (4 peaks):				4.4	RPD = 17
Aroclor-1260	1	9.938	-0.001	635346	1.4	1	10.004	0.039	19842	0.0	
Aroclor-1260	2	10.260	0.006	240762	0.5	2	10.504	-0.001	419574	0.3	
Aroclor-1260	3	10.662	0.037	5127499	4.7	3	10.788	0.011	1383893	0.4	
Aroclor-1260	4	11.033	0.010	195714	0.4	4	11.235	-0.057	13960208	13.2	
Aroclor-1260	5	11.181	-0.031	1508139	5.1	NS	---			----	
	Total Col1Ave (5 peaks):				2.4	Total Col2Ave (4 peaks):				3.5	RPD = 36
	Corrected Ave (4 peaks):				1.7	Corrected Ave (3 peaks):				0.2	RPD = 156*
Aroclor-1262	1	9.938	-0.004	635346	1.0	1	10.092	0.027	1582423	0.7	
Aroclor-1262	2	10.260	0.002	240762	0.5	2	10.504	-0.005	419574	0.2	
Aroclor-1262	3	10.662	0.034	5127499	4.4	3	10.788	0.008	1383893	0.3	
Aroclor-1262	4	11.033	0.005	195714	0.5	4	11.360	0.005	1534682	0.5	
Aroclor-1262	5	11.181	-0.034	1508139	3.1	5	11.923	-0.017	20465584	30.3	
	Total Col1Ave (5 peaks):				1.9	Total Col2Ave (5 peaks):				6.4	RPD = 109*
	Corrected Ave (4 peaks):				1.3	Corrected Ave (4 peaks):				0.4	RPD = 94*
Aroclor-1268	1	11.181	0.038	1508139	1.1	1	11.360	0.066	1534682	0.3	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	11.644	0.046	1927905	1.0	3	11.727	0.027	1565147	0.4	

Aroclor-1268	4	12.371	-0.012	1014338	0.3	4	12.614	0.047	32927	0.0

Total Col1Ave (3 peaks): 1.1 Total Col2Ave (3 peaks): 0.3 RPD = 123*

Corrected Ave: < 3 Peaks Corrected Ave: < 3 Peaks

Total PCB Area Col1 (4.547 - 12.684) = 245048761 Col1 Total PCB = 0.0 ppm*

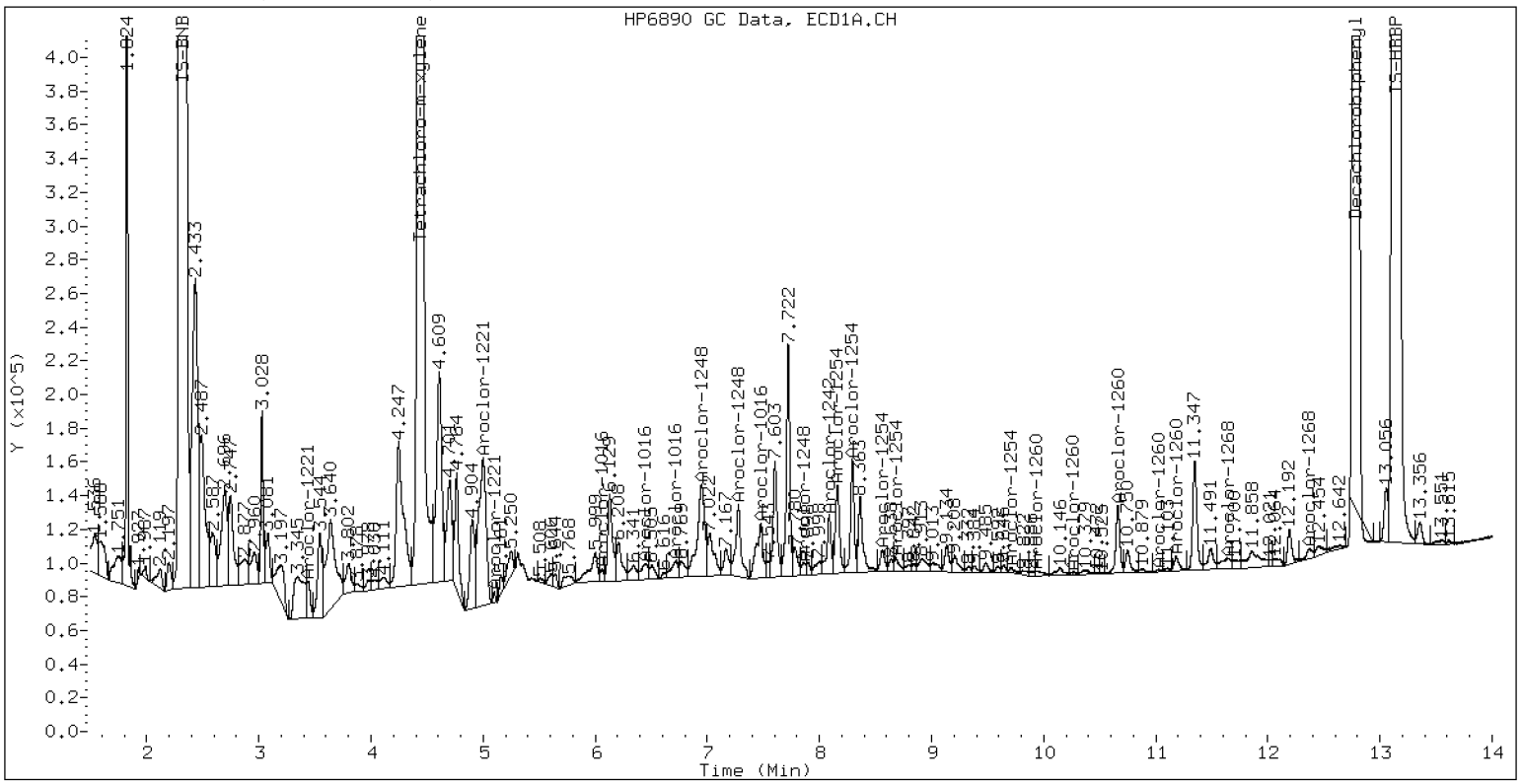
Total PCB Area Col2 (4.547 - 12.684) = 467307467 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

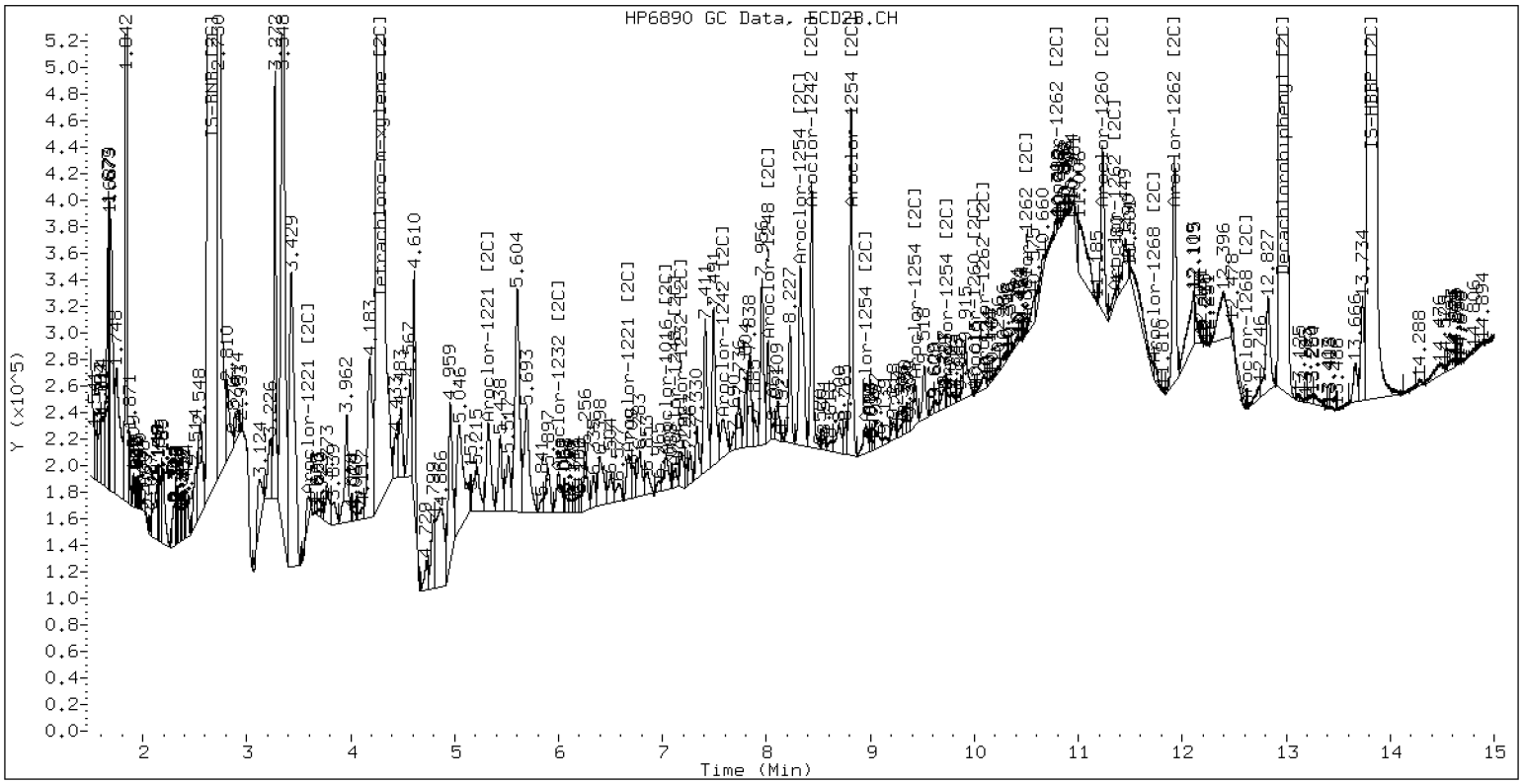
PCB Dual Column Chromatograms

ECD5-ZB5 /20180623.b/18062308ECD5.D 18F0185-04 23-JUN-2018 15:13 2ul VTS



ZB-5 Manual Integration: YES

ECD5-ZB35 /20180623.b/20180623.b/18062308ECD5.D 18F0185-04

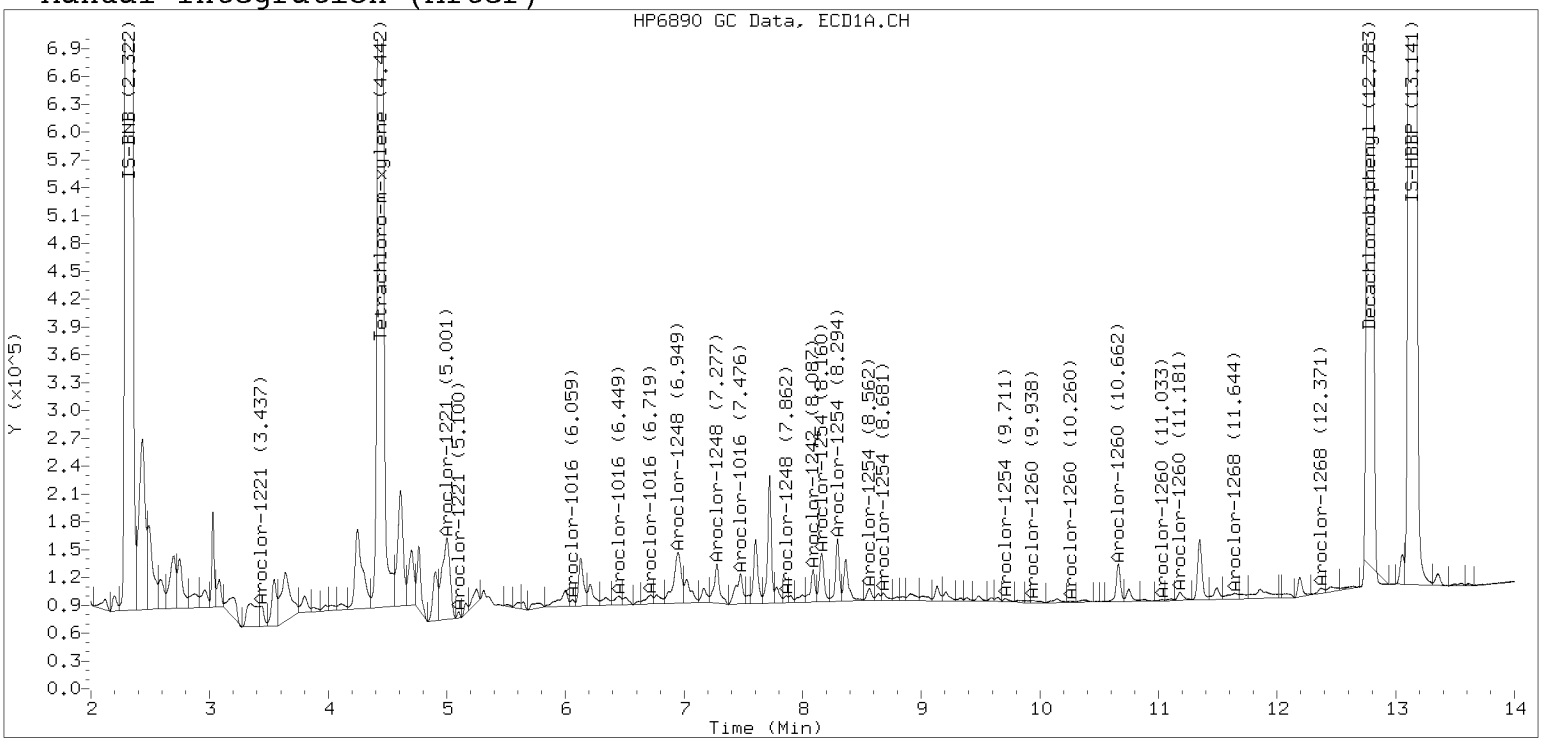


ZB-35 Manual Integration: YES

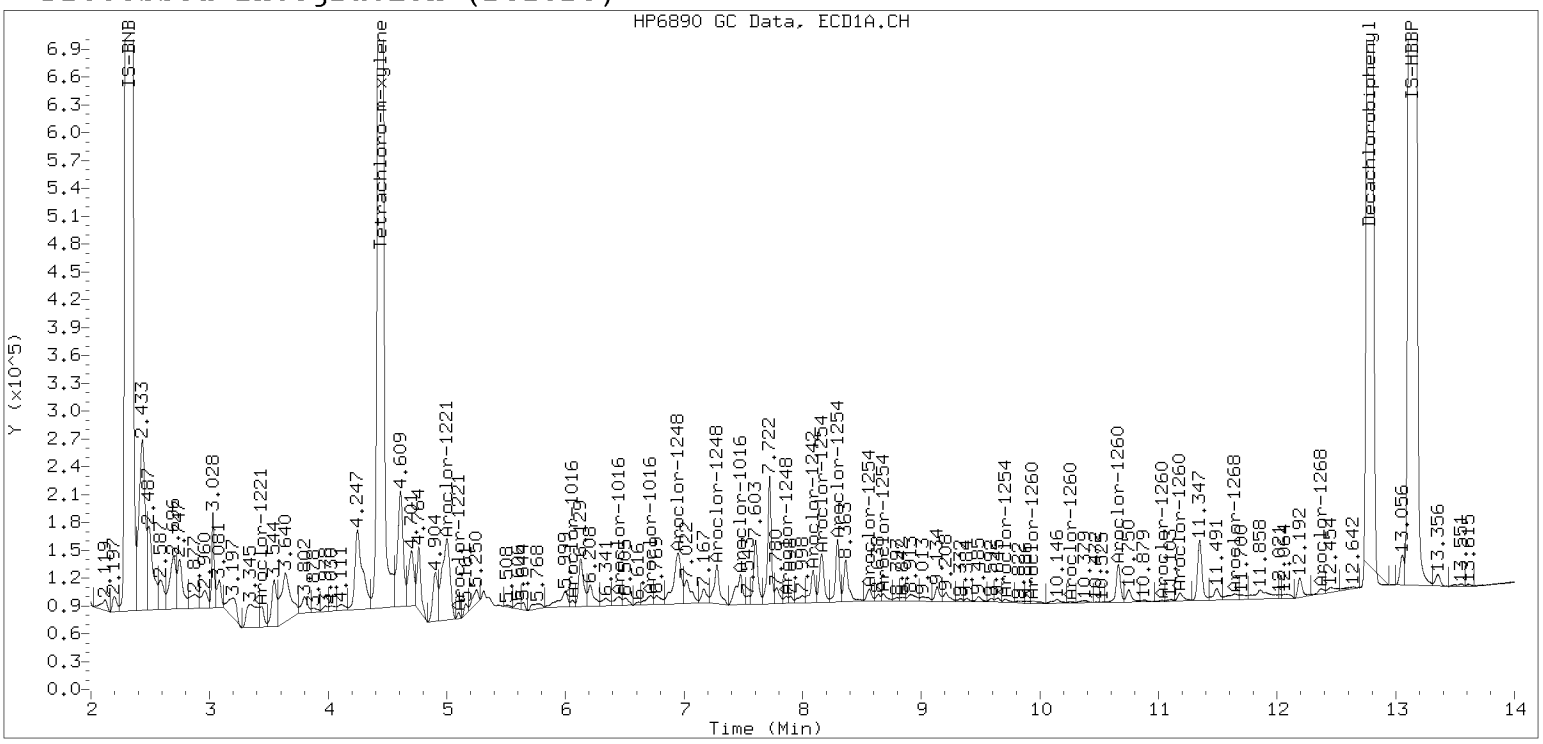
Manual Peak Adjustment, ZB-5

Datafile: ecd5.i/20180623.b/18062308ECD5.D Injection Date: 23-JUN-2018 15:1

Manual Integration (After)



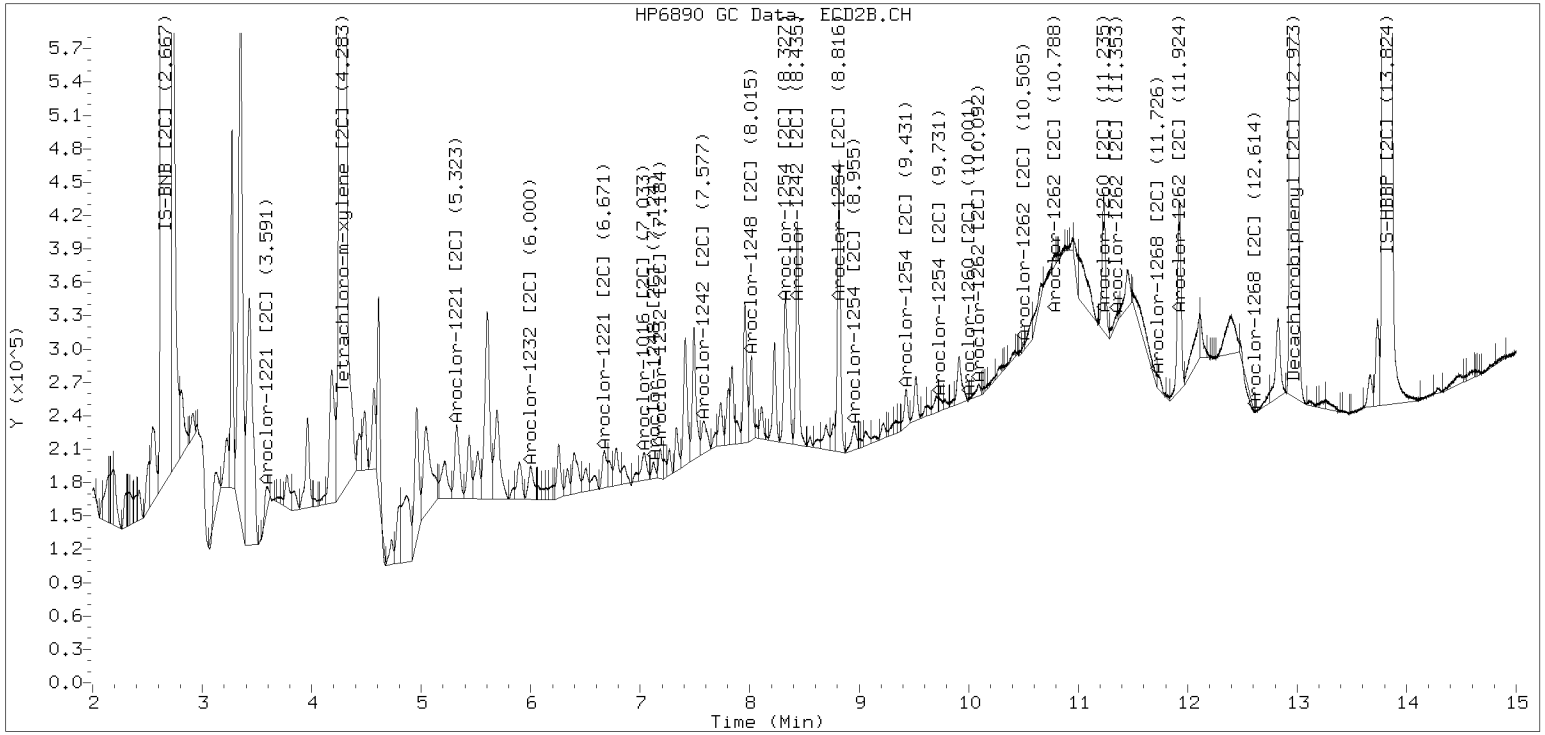
Processed Integration (Before)



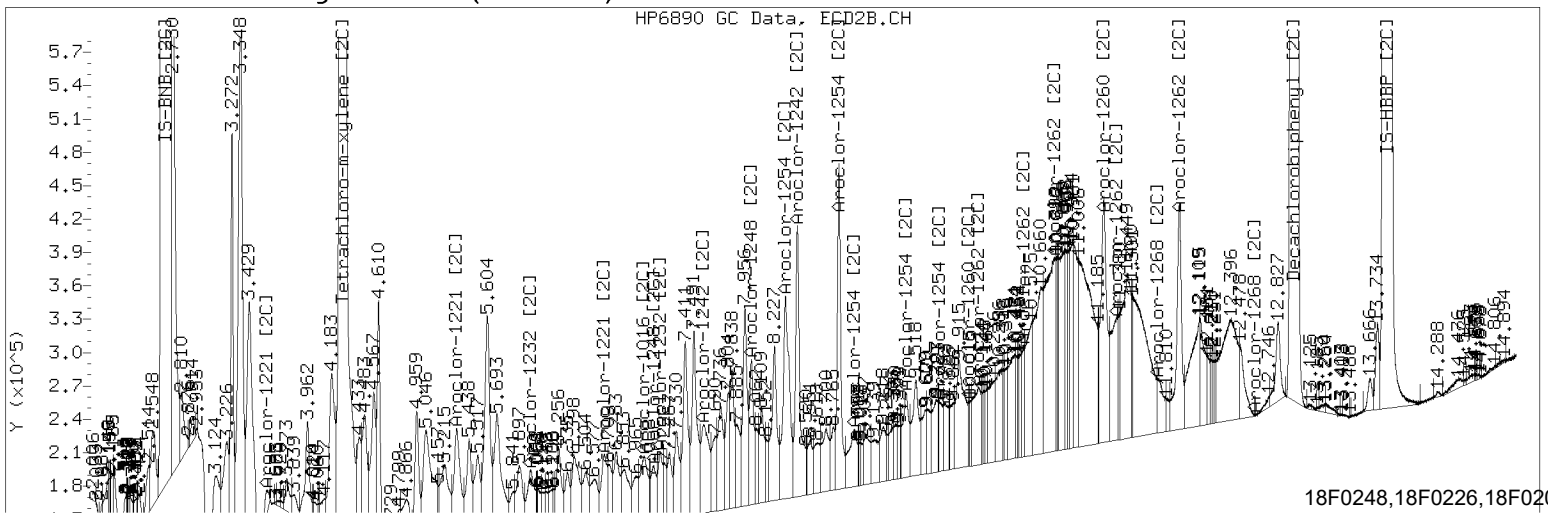
Manual Peak Adjustment, ZB-35

Datafile: ecd5.i/20180623.b/20180623.b/18062308.D Injection Date: 23-JUN-2018 15:13

Manual Integration (After)



Processed Integration (Before)



Dual Column

LDW18-SP-35

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-05	File ID:	18062309ECD5.D
Sampled:	06/12/18 10:56	Prepared:	06/18/18 11:10	Analyzed:	06/23/18 15:33
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0415	Sequence:	SGF0299	Calibration:	BF00046
Instrument:	ECD5	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
12674-11-2	Aroclor 1016	1	1	0.010	0.002	0.010	U
11104-28-2	Aroclor 1221	1	1	0.010	0.002	0.010	U
11141-16-5	Aroclor 1232	1	1	0.010	0.002	0.010	U
53469-21-9	Aroclor 1242	1	1	0.010	0.002	0.010	U
12672-29-6	Aroclor 1248	1	1	0.010	0.002	0.010	U
11097-69-1	Aroclor 1254	1	1	0.010	0.002	0.010	U
11096-82-5	Aroclor 1260	1	1	0.010	0.003	0.010	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0181*	*90.5*	*29 - 120*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0149*	*74.5*	*32 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180623.b/18062309ECD5.D
Data file 2: /20180623.b/20180623.b/18062309ECD5.D
Method: ecd5.i\20180623.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, VTS
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: 18F0185-05
Client ID:
Injection Date: 23-JUN-2018 15:33
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.446	-0.002	326227817	4.286	-0.005	1199772276	29.8	26.5	11.8	Tetrachloro-m-xylene
12.783	-0.001	329192834	12.973	-0.000	1362193335	36.2	37.2	2.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	74.5	66.2
Decachlorobiphenyl	90.5	92.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	965666402	4.9
Hexabromobiphenyl	761926666	861584588	13.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4602351411	4.2
Hexabromobiphenyl	2171332320	2382085725	9.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.065	-0.005	731791	2.9	1	6.001	-0.008	6346075	4.5
Aroclor-1016	2	6.468	-0.001	2530640	3.0	2	6.658	0.016	4220360	1.3
Aroclor-1016	3	6.719	-0.009	2439551	10.5	3	7.029	0.006	5088886	6.5
Aroclor-1016	4	7.479	0.041	6147114	22.4	4	7.492	-0.046	12265548	13.3
	Total Col1Ave (4 peaks):				9.7	Total Col2Ave (4 peaks):				6.4 RPD = 41*
	Corrected Ave (3 peaks):				5.5	Corrected Ave (3 peaks):				4.1 RPD = 29
Aroclor-1221	1	3.346	-0.091	14049704	200.8	1	3.617	0.025	548734	3.2
Aroclor-1221	2	5.003	0.023	18699645	220.0	2	5.331	0.025	21131928	23.2
Aroclor-1221	3	---			0.0	3	---			0.0
Aroclor-1221	NS	---			----	4	6.658	0.012	4220360	15.9
	Col1Ave: <3 Quant Peaks					Col2Ave: 14.1				
Aroclor-1232	1	3.346	-0.090	14049704	314.9	1	3.617	0.027	548734	5.0
Aroclor-1232	2	6.065	-0.007	731791	6.8	2	6.001	-0.009	6346075	9.3
Aroclor-1232	3	6.468	-0.002	2530640	7.1	3	6.658	0.015	4220360	2.9
Aroclor-1232	4	6.719	-0.012	2439551	24.7	4	7.188	-0.008	2120645	7.0
	Total Col1Ave (4 peaks):				88.4	Total Col2Ave (4 peaks):				6.0 RPD = 174*
	Corrected Ave (3 peaks):				12.9	Corrected Ave (3 peaks):				5.0 RPD = 89*
Aroclor-1242	1	6.065	-0.005	731791	3.6	1	6.001	-0.008	6346075	5.4
Aroclor-1242	2	6.468	-0.001	2530640	3.7	2	6.658	0.015	4220360	1.5
Aroclor-1242	3	6.719	-0.010	2439551	13.0	3	7.492	-0.047	12265548	13.8
Aroclor-1242	4	8.154	0.059	6465618	27.1	4	8.394	-0.011	1259348	1.4
	Total Col1Ave (4 peaks):				11.9	Total Col2Ave (4 peaks):				5.5 RPD = 73*
	Corrected Ave (3 peaks):				6.8	Corrected Ave (3 peaks):				2.8 RPD = 85*
Aroclor-1248	1	6.952	-0.011	17096365	65.8	1	6.658	0.022	4220360	2.7
Aroclor-1248	2	7.275	0.013	6371749	21.3	2	7.128	-0.001	3383774	3.1
Aroclor-1248	3	7.866	0.007	1202289	2.6	3	7.492	-0.045	12265548	10.2
Aroclor-1248	4	8.154	0.061	6465618	18.5	4	8.017	0.029	6643732	4.7
	Total Col1Ave (4 peaks):				27.0	Total Col2Ave (4 peaks):				5.2 RPD = 136*
	Corrected Ave (3 peaks):				14.1	Corrected Ave (3 peaks):				3.5 RPD = 121*
Aroclor-1254	1	8.154	-0.024	6465618	11.5	1	8.297	-0.000	1722052	1.0
Aroclor-1254	2	8.291	0.036	899859	5.1	2	8.816	0.005	20112363	16.5
Aroclor-1254	3	8.561	0.013	1037847	2.9	3	8.958	-0.001	1527642	0.6
Aroclor-1254	4	8.684	0.001	2640545	3.8	4	9.425	-0.001	2162646	1.8
Aroclor-1254	5	9.711	-0.001	672140	1.0	5	9.735	0.002	1720691	1.1
	Total Col1Ave (5 peaks):				4.9	Total Col2Ave (5 peaks):				4.2 RPD = 14
	Corrected Ave (4 peaks):				3.2	Corrected Ave (4 peaks):				1.1 RPD = 95*
Aroclor-1260	1	9.938	-0.001	773178	1.6	1	10.019	0.054	58294	0.0
Aroclor-1260	2	10.258	0.004	426318	0.9	2	10.504	-0.001	774967	0.5
Aroclor-1260	3	10.662	0.038	5824720	5.2	3	10.778	0.002	1323028	0.4
Aroclor-1260	4	11.029	0.006	2768807	5.1	4	11.346	0.054	1027516	1.0
Aroclor-1260	5	11.184	-0.027	1633757	5.4	NS	---			----
	Total Col1Ave (5 peaks):				3.7	Total Col2Ave (4 peaks):				0.5 RPD = 156*
	Corrected Ave (4 peaks):				3.2	Corrected Ave (3 peaks):				0.3 RPD = 168*
Aroclor-1262	1	9.938	-0.004	773178	1.2	1	10.091	0.026	1085961	0.5
Aroclor-1262	2	10.258	0.000	426318	0.8	2	10.504	-0.004	774967	0.4
Aroclor-1262	3	10.662	0.034	5824720	4.9	3	10.778	-0.001	1323028	0.3
Aroclor-1262	4	11.029	0.001	2768807	6.9	4	11.346	-0.008	1027516	0.4
Aroclor-1262	5	11.184	-0.030	1633757	3.2	5	11.925	-0.015	21766747	31.6
	Total Col1Ave (5 peaks):				3.4	Total Col2Ave (5 peaks):				6.6 RPD = 64*
	Corrected Ave (4 peaks):				2.5	Corrected Ave (4 peaks):				0.4 RPD = 147*
Aroclor-1268	1	11.184	0.041	1633757	1.2	1	11.346	0.052	1027516	0.2
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	11.646	0.047	1053479	0.9	3	11.753	-0.001	685004	0.2
Aroclor-1268	4	12.372	-0.011	691269	0.2	4	12.554	-0.014	472074	0.0

Total Col1Ave (3 peaks): 0.8 Total Col2Ave (3 peaks): 0.1 RPD = 137*
Corrected Ave: < 3 Peaks Corrected Ave: < 3 Peaks

Total PCB Area Col1 (4.547 - 12.684) = 196512720 Col1 Total PCB = 0.0 ppm*

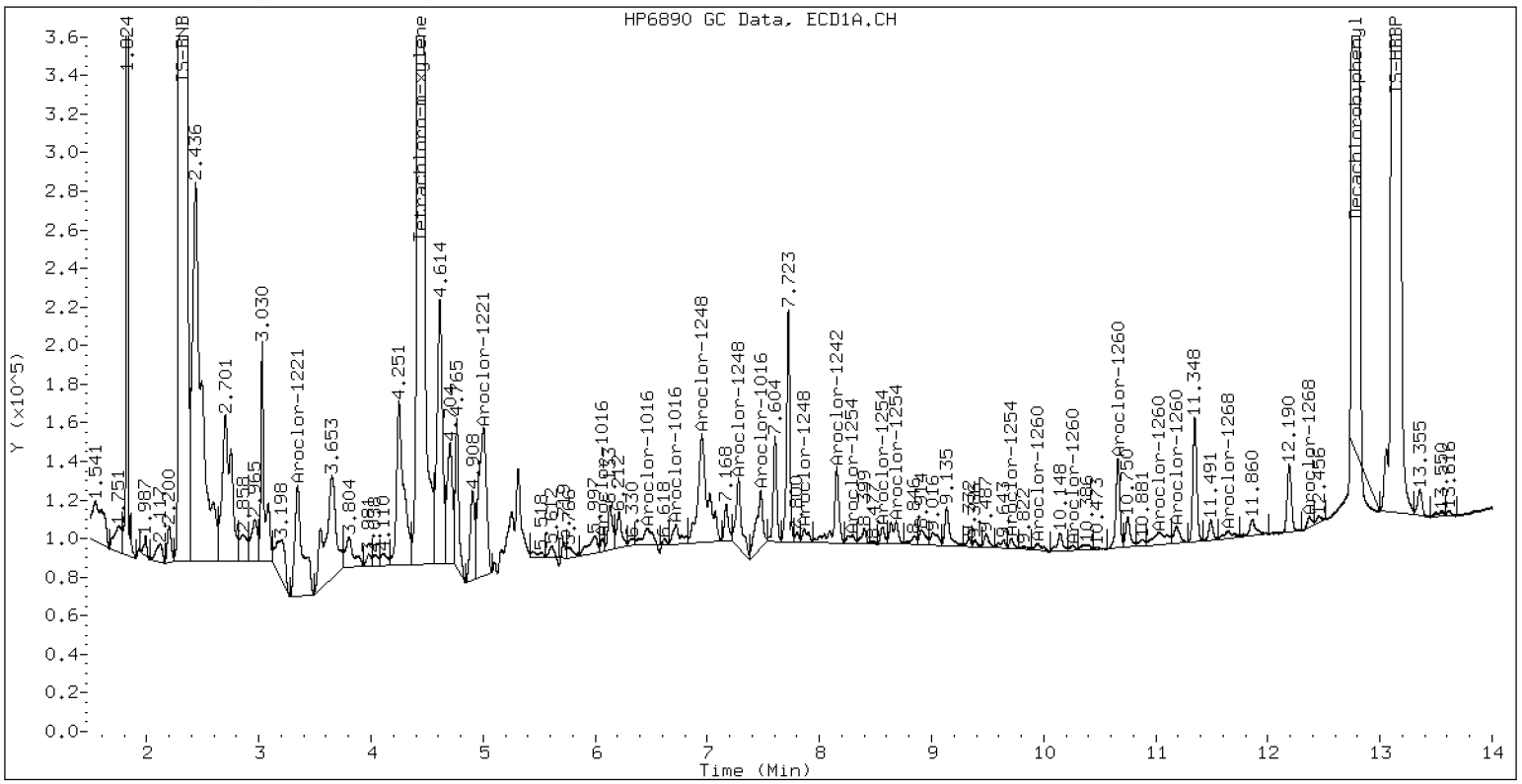
Total PCB Area Col2 (4.547 - 12.684) = 393151712 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

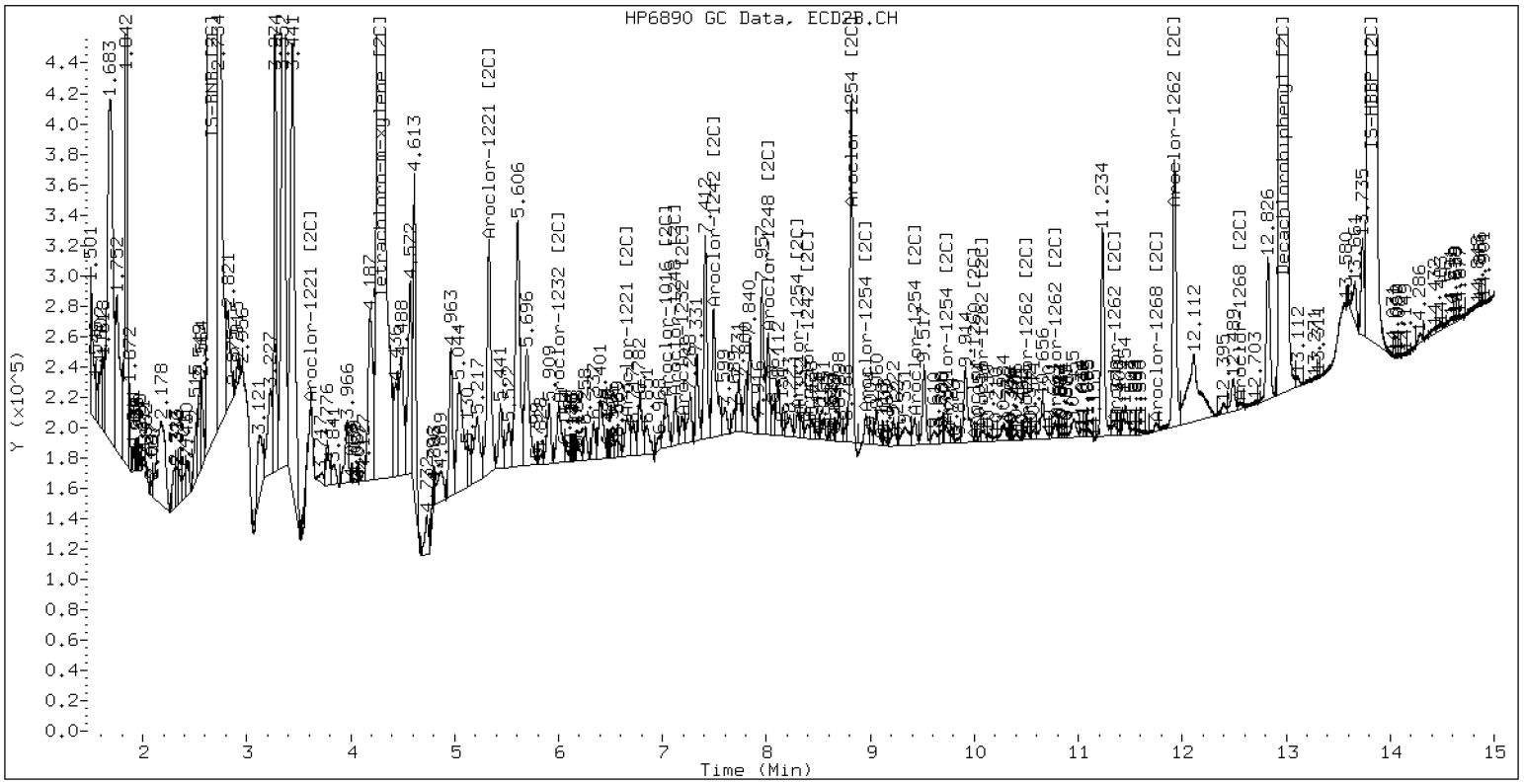
PCB Dual Column Chromatograms

ECD5-ZB5 /20180623.b/18062309ECD5.D 18F0185-05 23-JUN-2018 15:33 2ul VTS



ZB-5 Manual Integration: YES

ECD5-ZB35 /20180623.b/20180623.b/18062309ECD5.D 18F0185-05

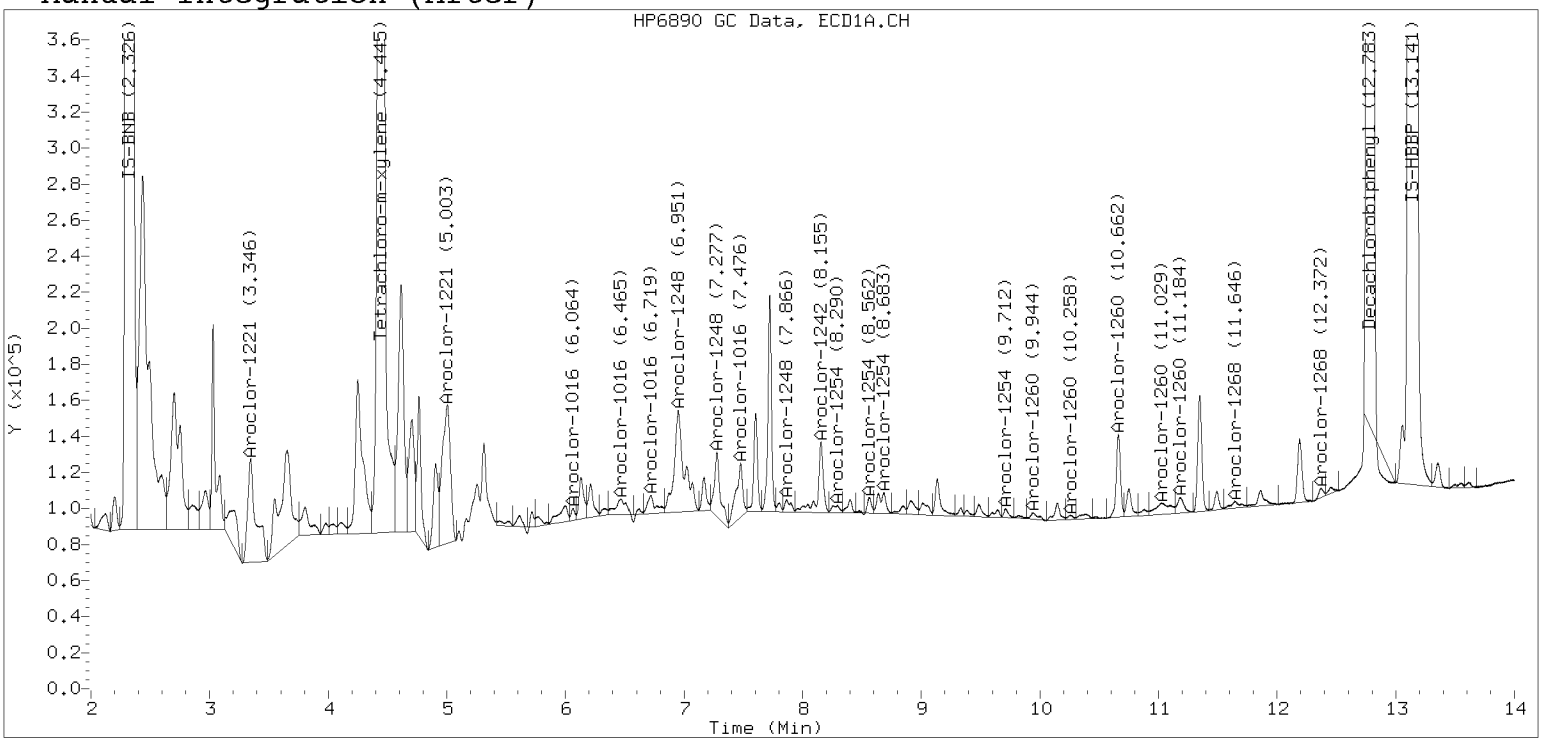


ZB-35 Manual Integration: YES

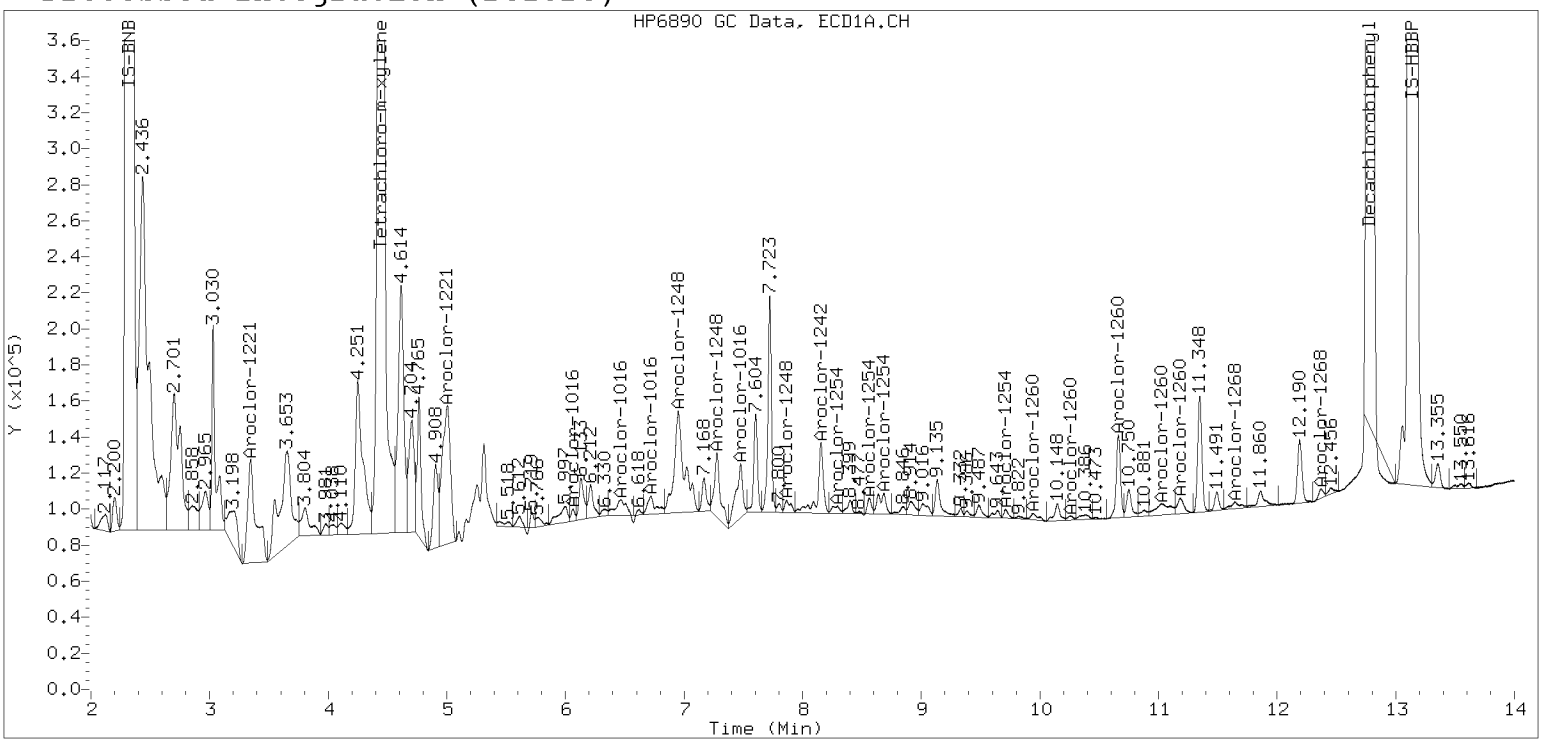
Manual Peak Adjustment, ZB-5

Datafile: ecd5.i/20180623.b/18062309ECD5.D Injection Date: 23-JUN-2018 15:3

Manual Integration (After)



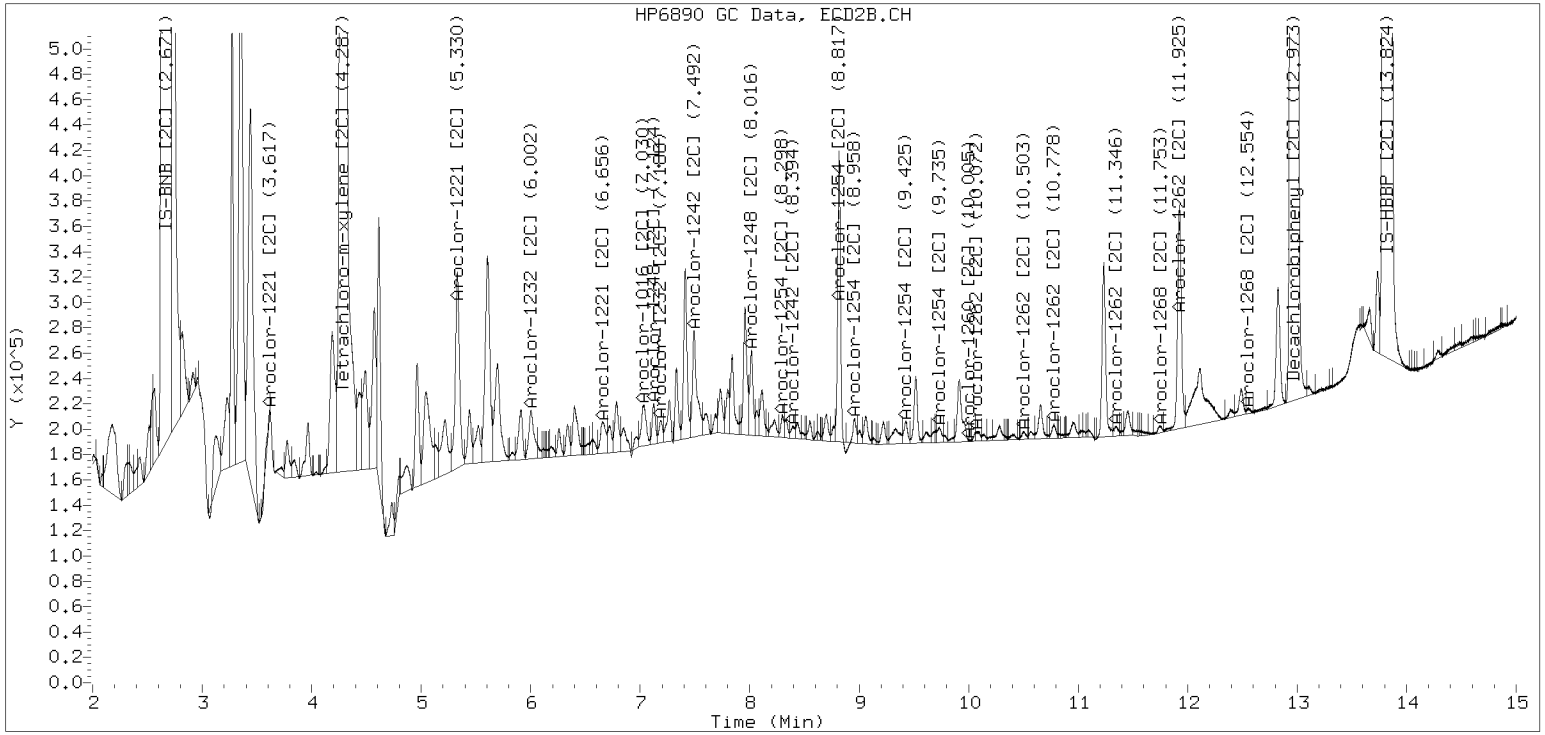
Processed Integration (Before)



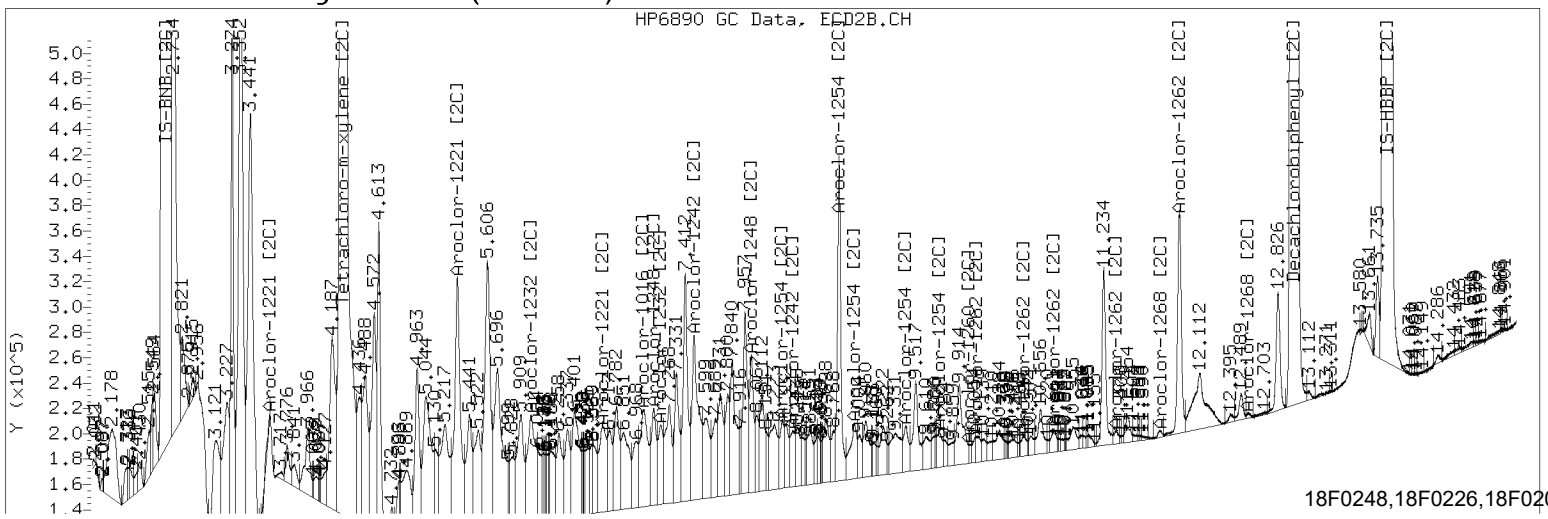
Manual Peak Adjustment, ZB-35

Datafile: ecd5.i/20180623.b/20180623.b/18062309.D Injection Date: 23-JUN-2018 15:33

Manual Integration (After)



Processed Integration (Before)



Dual Column

LDW18-SP-38

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-06	File ID:	18062310ECD5.D
Sampled:	06/12/18 10:27	Prepared:	06/18/18 11:10	Analyzed:	06/23/18 15:54
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0415	Sequence:	SGF0299	Calibration:	BF00046
Instrument:	ECD5	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
12674-11-2	Aroclor 1016	1	1	0.010	0.002	0.010	U
11104-28-2	Aroclor 1221	1	1	0.010	0.002	0.010	U
11141-16-5	Aroclor 1232	1	1	0.010	0.002	0.010	U
53469-21-9	Aroclor 1242	1	1	0.010	0.002	0.010	U
12672-29-6	Aroclor 1248	1	1	0.010	0.002	0.010	U
11097-69-1	Aroclor 1254	1	1	0.010	0.002	0.010	U
11096-82-5	Aroclor 1260	1	1	0.010	0.003	0.010	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0179*	*89.5*	*29 - 120*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0142*	*71.1*	*32 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180623.b/18062310ECD5.D
Data file 2: /20180623.b/20180623.b/18062310ECD5.D
Method: ecd5.i\20180623.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, VTS
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: 18F0185-06
Client ID:
Injection Date: 23-JUN-2018 15:54
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.443	-0.004	314937372	4.285	-0.006	1152408595	28.5	25.3	11.9	Tetrachloro-m-xylene
12.783	-0.001	326934361	12.973	-0.000	1370689206	35.8	36.5	1.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	71.1	63.2
Decachlorobiphenyl	89.5	91.3

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	975731985	6.0
Hexabromobiphenyl	761926666	864820075	13.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4631266122	4.8
Hexabromobiphenyl	2171332320	2439010402	12.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.062	-0.007	1509986	5.9	1	5.999	-0.010	4989158	3.5
Aroclor-1016	2	6.465	-0.003	993115	1.2	2	6.668	0.026	4628361	1.4
Aroclor-1016	3	6.723	-0.004	2008884	8.6	3	7.030	0.007	6573412	8.4
Aroclor-1016	4	7.479	0.041	5466248	19.7	4	7.491	-0.047	11124997	12.0
	Total Col1Ave (4 peaks):				8.8	Total Col2Ave (4 peaks):				6.3 RPD = 33
	Corrected Ave (3 peaks):				5.2	Corrected Ave (3 peaks):				4.4 RPD = 16
Aroclor-1221	1	3.346	-0.091	9711232	137.3	1	3.592	-0.000	1122358	6.5
Aroclor-1221	2	5.004	0.024	18926522	220.4	2	5.319	0.013	12831218	14.0
Aroclor-1221	3	5.103	0.018	793336	3.1	3	---			0.0
Aroclor-1221	NS	---			----	4	6.668	0.022	4628361	17.3
	Total Col1Ave (3 peaks):				120.3	Total Col2Ave (3 peaks):				12.6 RPD = 162*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	3.346	-0.089	9711232	215.4	1	3.592	0.001	1122358	10.2
Aroclor-1232	2	6.062	-0.009	1509986	13.8	2	5.999	-0.012	4989158	7.3
Aroclor-1232	3	6.465	-0.005	993115	2.8	3	6.668	0.025	4628361	3.1
Aroclor-1232	4	6.723	-0.007	2008884	20.2	4	7.186	-0.010	6581993	21.6
	Total Col1Ave (4 peaks):				63.0	Total Col2Ave (4 peaks):				10.6 RPD = 143*
	Corrected Ave (3 peaks):				12.3	Corrected Ave (3 peaks):				6.9 RPD = 56*
Aroclor-1242	1	6.062	-0.007	1509986	7.4	1	5.999	-0.011	4989158	4.2
Aroclor-1242	2	6.465	-0.004	993115	1.5	2	6.668	0.025	4628361	1.6
Aroclor-1242	3	6.723	-0.005	2008884	10.6	3	7.491	-0.048	11124997	12.4
Aroclor-1242	4	8.091	-0.004	1225349	5.1	4	8.412	0.007	202410	0.2
	Total Col1Ave (4 peaks):				6.1	Total Col2Ave (4 peaks):				4.6 RPD = 28
	Corrected Ave (3 peaks):				4.6	Corrected Ave (3 peaks):				2.0 RPD = 78*
Aroclor-1248	1	6.951	-0.012	14522595	55.3	1	6.668	0.032	4628361	2.9
Aroclor-1248	2	7.277	0.016	4265644	14.1	2	7.127	-0.002	4063595	3.7
Aroclor-1248	3	7.866	0.007	1156544	2.5	3	7.491	-0.045	11124997	9.2
Aroclor-1248	4	8.091	-0.002	1225349	3.5	4	8.018	0.031	5842318	4.1
	Total Col1Ave (4 peaks):				18.8	Total Col2Ave (4 peaks):				5.0 RPD = 117*
	Corrected Ave (3 peaks):				6.7	Corrected Ave (3 peaks):				3.5 RPD = 61*
Aroclor-1254	1	8.158	-0.020	4609446	8.1	1	8.301	0.004	2268517	1.4
Aroclor-1254	2	8.257	0.002	481584	2.7	2	8.816	0.005	25274938	20.6
Aroclor-1254	3	8.562	0.014	1350699	3.7	3	8.957	-0.002	4802258	1.8
Aroclor-1254	4	8.684	0.001	1750499	2.5	4	9.428	0.002	3403375	2.8
Aroclor-1254	5	9.707	-0.006	970055	1.4	5	9.731	-0.002	2057221	1.3
	Total Col1Ave (5 peaks):				3.7	Total Col2Ave (5 peaks):				5.6 RPD = 41*
	Corrected Ave (4 peaks):				2.6	Corrected Ave (4 peaks):				1.8 RPD = 34
Aroclor-1260	1	9.941	0.002	616052	1.3	1	9.955	-0.010	4378961	2.3
Aroclor-1260	2	10.256	0.002	660602	1.4	2	10.502	-0.003	1486404	0.9
Aroclor-1260	3	10.662	0.038	10240766	9.2	3	10.775	-0.002	2090160	0.5
Aroclor-1260	4	11.024	0.001	405445	0.7	4	11.350	0.058	1644795	1.5
Aroclor-1260	5	11.190	-0.022	1396981	4.6	NS	---			----
	Total Col1Ave (5 peaks):				3.4	Total Col2Ave (4 peaks):				1.3 RPD = 91*
	Corrected Ave (4 peaks):				2.0	Corrected Ave (3 peaks):				1.0 RPD = 70*
Aroclor-1262	1	9.941	-0.001	616052	0.9	1	10.089	0.024	2713076	1.2
Aroclor-1262	2	10.256	-0.001	660602	1.2	2	10.502	-0.007	1486404	0.7
Aroclor-1262	3	10.662	0.034	10240766	8.5	3	10.775	-0.005	2090160	0.5
Aroclor-1262	4	11.024	-0.003	405445	1.0	4	11.350	-0.005	1644795	0.6
Aroclor-1262	5	11.190	-0.025	1396981	2.8	5	11.925	-0.015	20999341	29.7
	Total Col1Ave (5 peaks):				2.9	Total Col2Ave (5 peaks):				6.5 RPD = 77*
	Corrected Ave (4 peaks):				1.5	Corrected Ave (4 peaks):				0.7 RPD = 68*
Aroclor-1268	1	11.105	-0.038	92953	0.1	1	11.350	0.056	1644795	0.3
Aroclor-1268	2	11.190	-0.023	1396981	1.1	2	---			0.0
Aroclor-1268	3	11.646	0.047	1665502	1.5	3	11.748	-0.005	1960899	0.5

Aroclor-1268	4	12.371	-0.013	896315	0.3	4	12.565	-0.002	253620	0.0

Total Col1Ave (4 peaks): 0.7 Total Col2Ave (3 peaks): 0.3 RPD = 87*

Corrected Ave (3 peaks): 0.5 Corrected Ave: < 3 Peaks

Total PCB Area Col1 (4.547 - 12.684) = 230718779 Col1 Total PCB = 0.0 ppm*

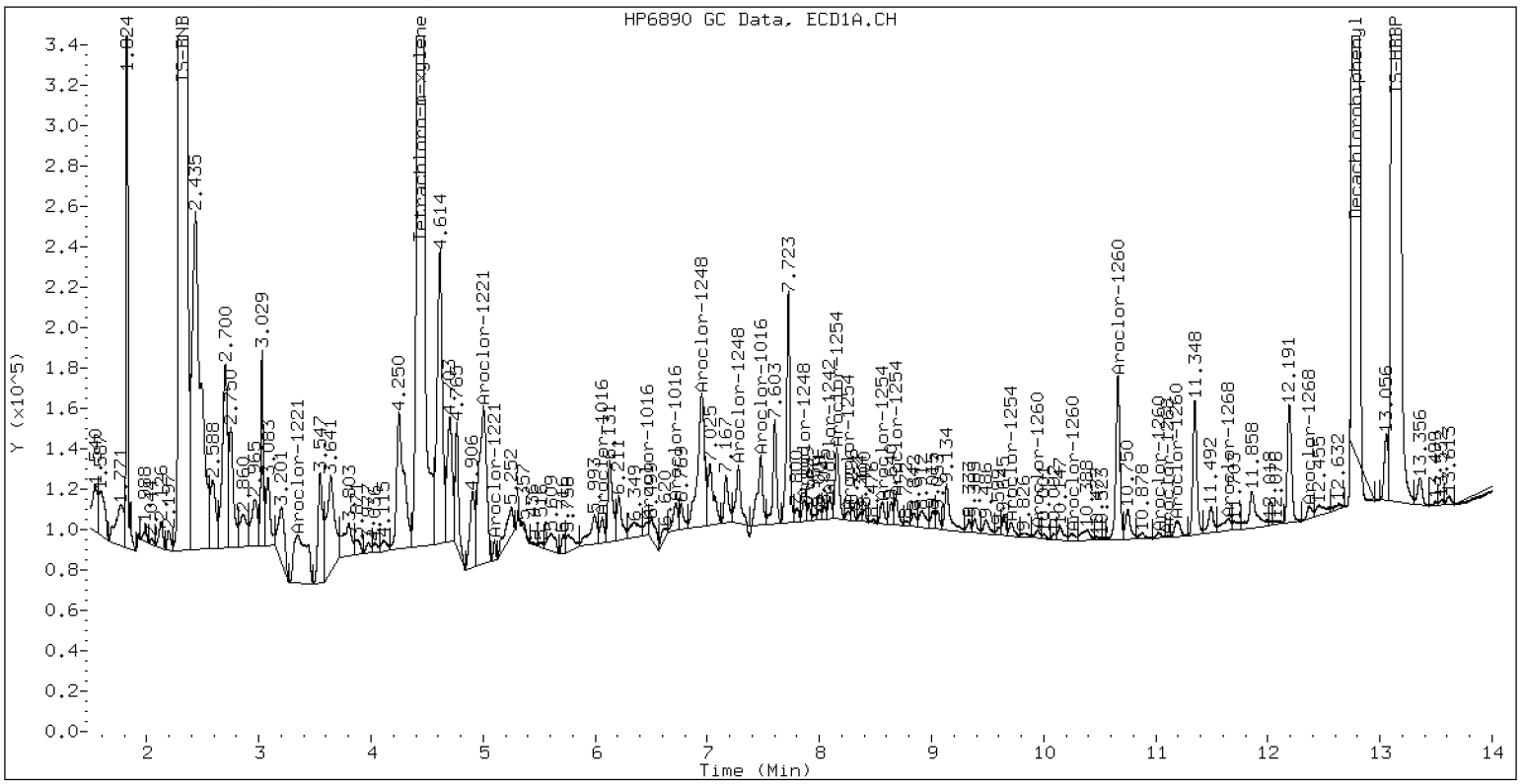
Total PCB Area Col2 (4.547 - 12.684) = 445965689 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

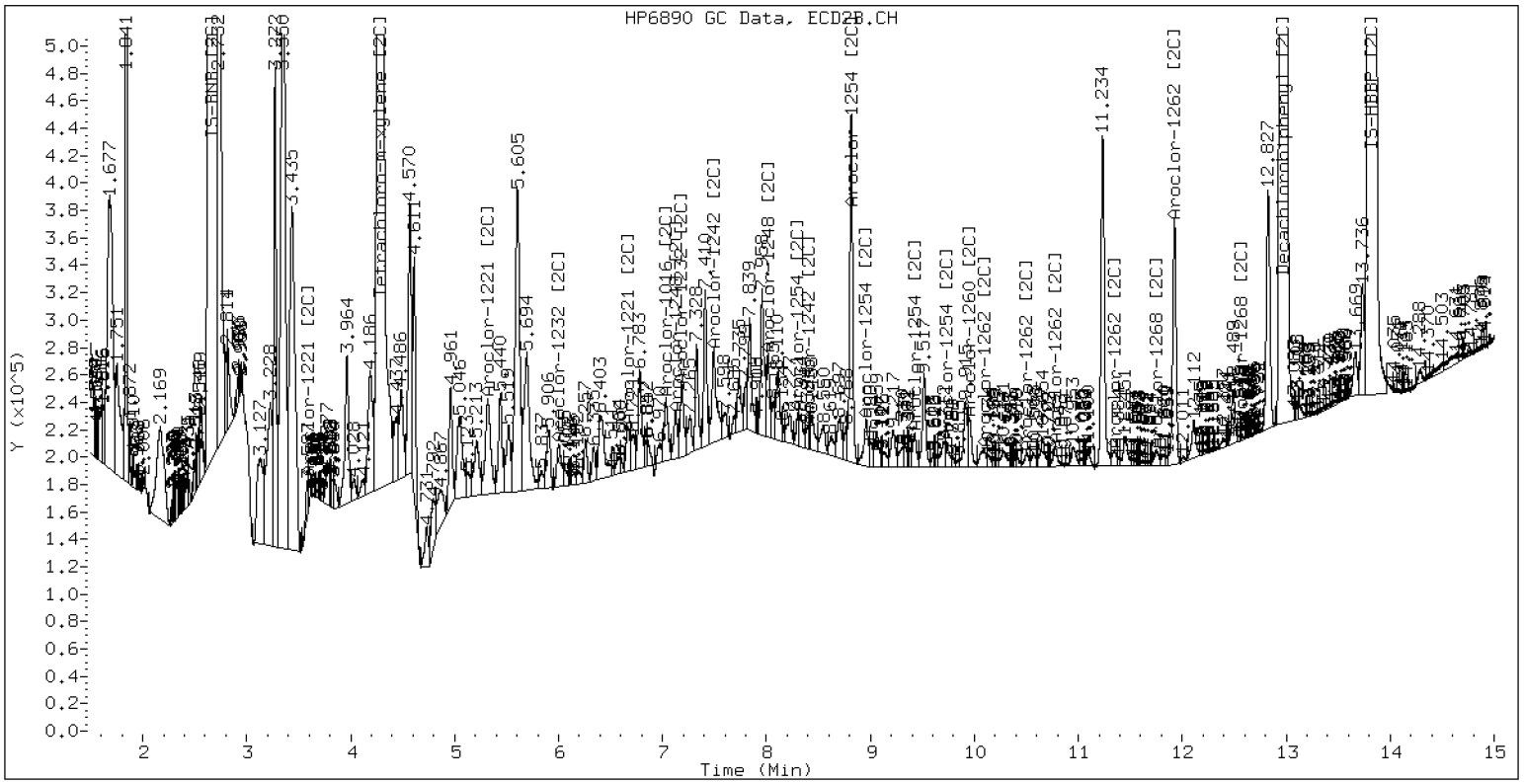
PCB Dual Column Chromatograms

ECD5-ZB5 /20180623.b/18062310ECD5.D 18F0185-06 23-JUN-2018 15:54 2ul VTS



ZB-5 Manual Integration: YES

ECD5-ZB35 /20180623.b/20180623.b/18062310ECD5.D 18F0185-06

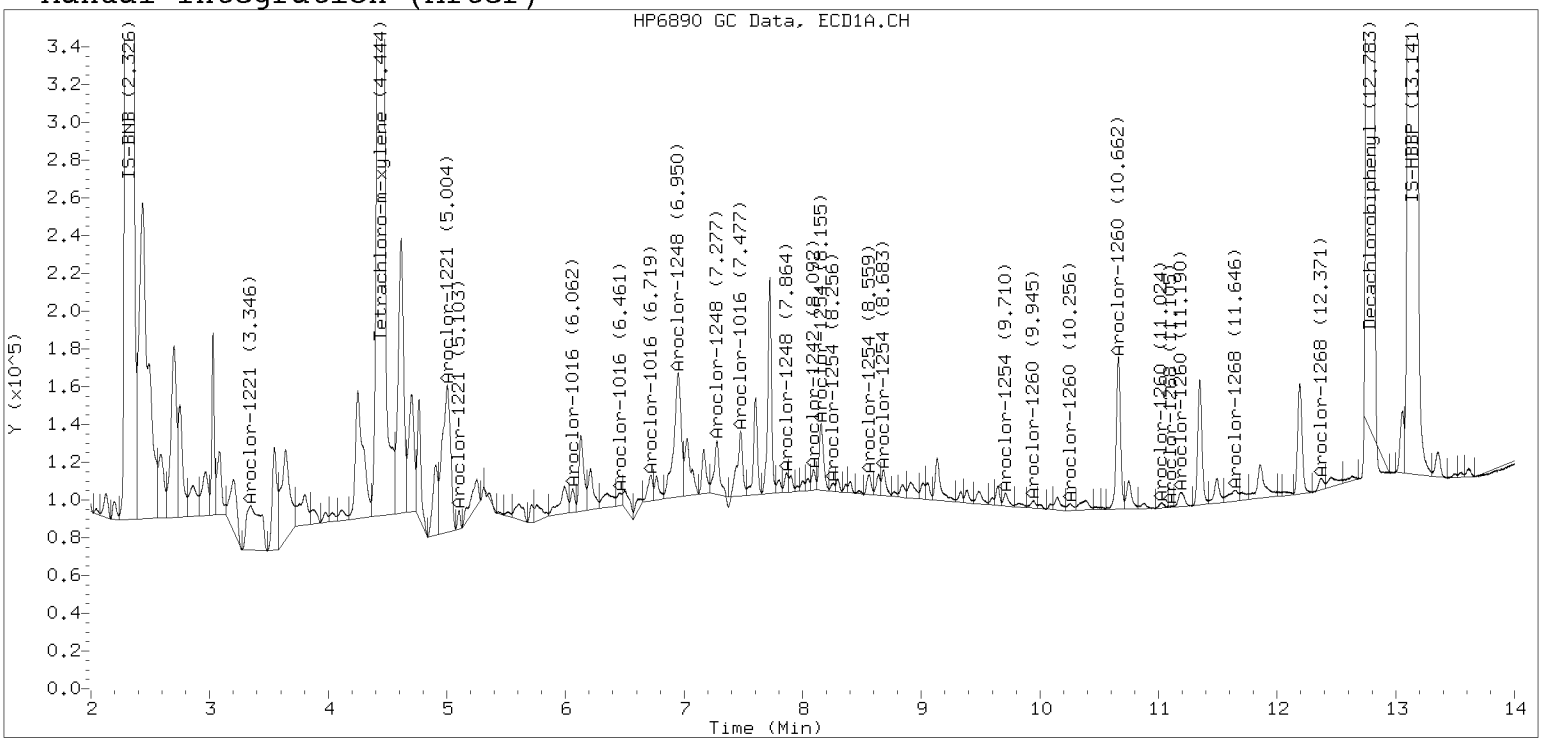


ZB-35 Manual Integration: YES

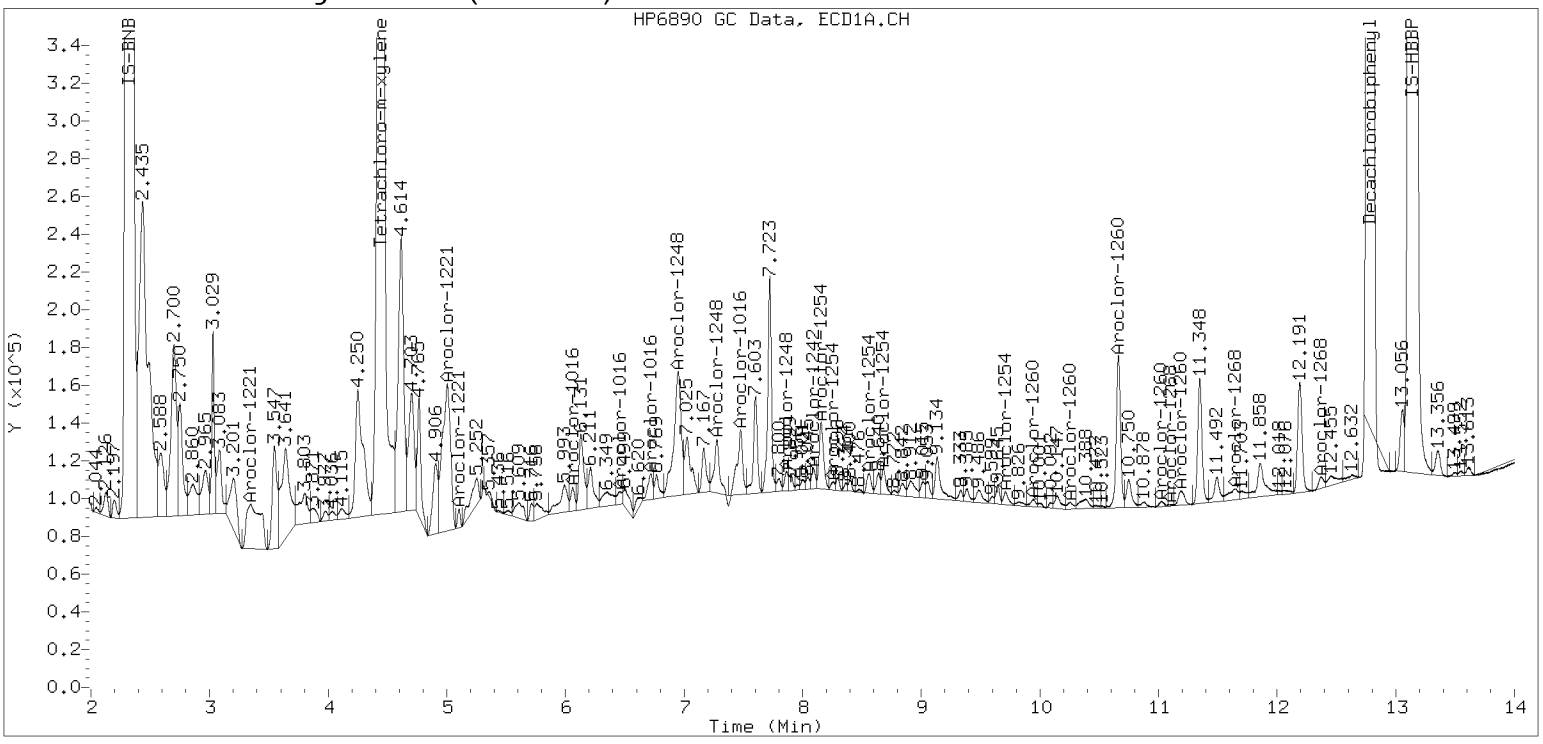
Manual Peak Adjustment, ZB-5

Datafile: ecd5.i/20180623.b/18062310ECD5.D Injection Date: 23-JUN-2018 15:5

Manual Integration (After)



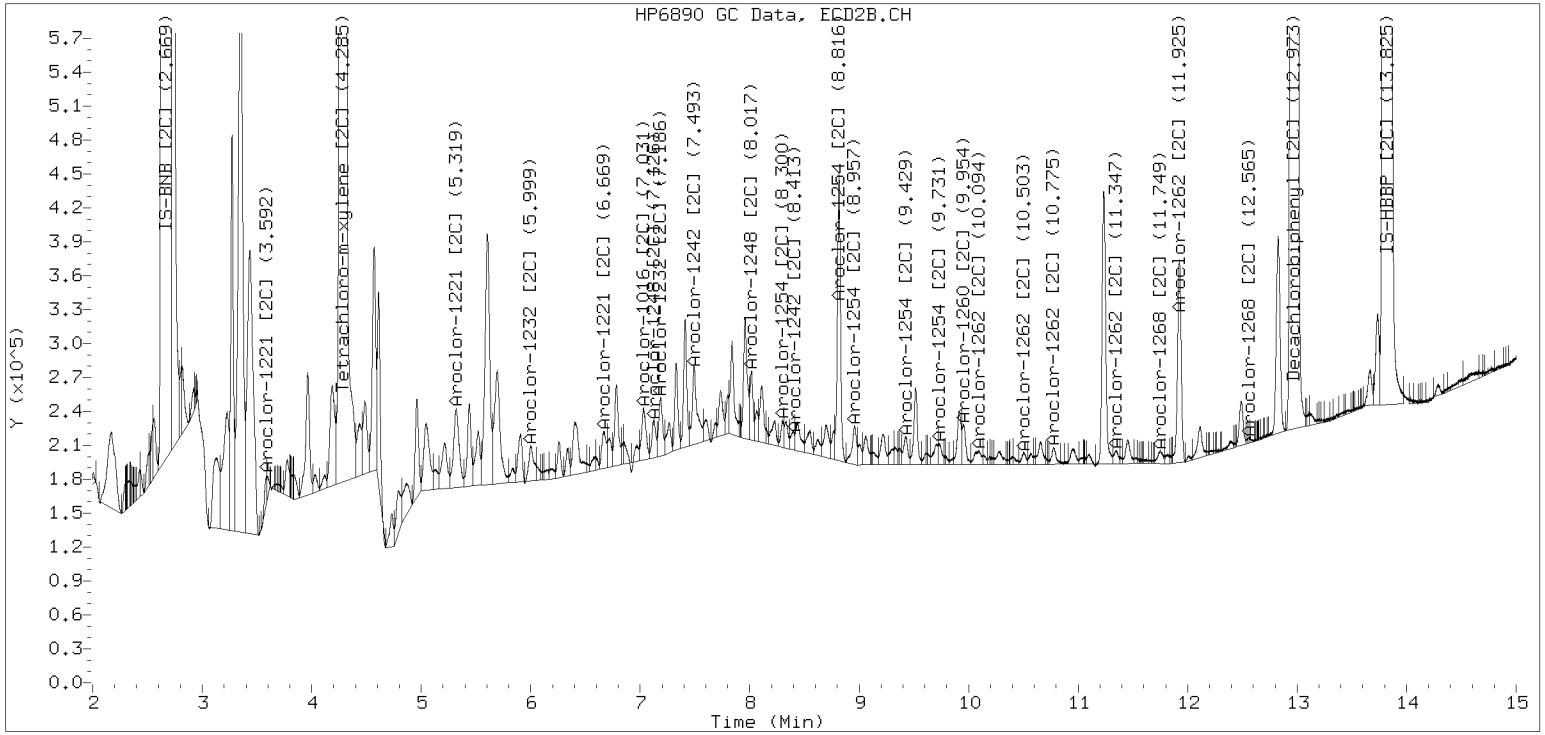
Processed Integration (Before)



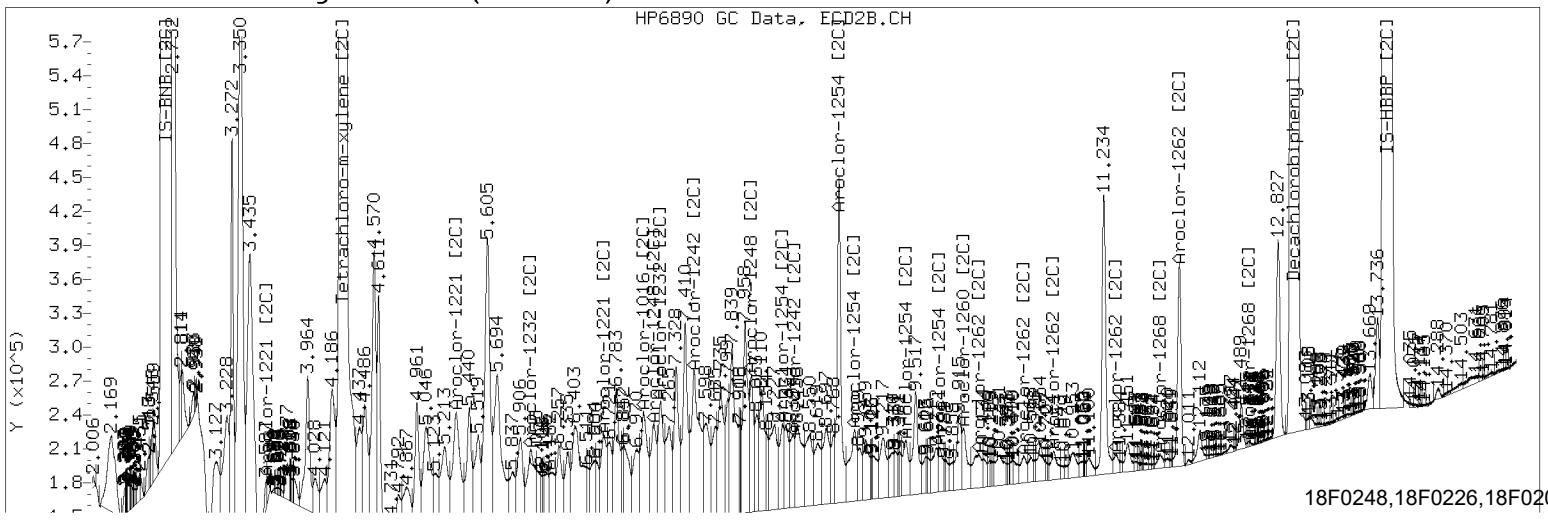
Manual Peak Adjustment, ZB-35

Datafile: ecd5.i/20180623.b/20180623.b/18062310.D Injection Date: 23-JUN-2018 15:54

Manual Integration (After)



Processed Integration (Before)



Dual Column

LDW18-SP-42

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-07	File ID:	18062311ECD5.D
Sampled:	06/12/18 12:05	Prepared:	06/18/18 11:10	Analyzed:	06/23/18 16:14
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0415	Sequence:	SGF0299	Calibration:	BF00046
Instrument:	ECD5	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
12674-11-2	Aroclor 1016	1	1	0.010	0.002	0.010	U
11104-28-2	Aroclor 1221	1	1	0.010	0.002	0.010	U
11141-16-5	Aroclor 1232	1	1	0.010	0.002	0.010	U
53469-21-9	Aroclor 1242	1	1	0.010	0.002	0.010	U
12672-29-6	Aroclor 1248	1	1	0.010	0.002	0.010	U
11097-69-1	Aroclor 1254	1	1	0.010	0.002	0.010	U
11096-82-5	Aroclor 1260	1	1	0.010	0.003	0.010	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0170*	*85.1*	*29 - 120*	
Tetrachlorometaxylene	*1*	*0.020000*			*32 - 120*	*NRS*

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180623.b/18062311ECD5.D
Data file 2: /20180623.b/20180623.b/18062311ECD5.D
Method: ecd5.i\20180623.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, VTS
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: 18F0185-07
Client ID:
Injection Date: 23-JUN-2018 16:14
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.441	-0.006	532656049	4.285	-0.006	1098585654	48.7	23.6	69.3*	Tetrachloro-m-xylene
12.782	-0.002	307776193	12.973	-0.001	1308073167	34.0	35.1	3.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	121.7	59.1
Decachlorobiphenyl	85.1	87.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	964797214	4.8
Hexabromobiphenyl	761926666	856743627	12.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4720690651	6.8
Hexabromobiphenyl	2171332320	2418056413	11.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.130	0.061	4836792	19.1	1	6.003	-0.006	4278966	2.9
Aroclor-1016	2	6.504	0.035	1119359	1.3	2	6.671	0.028	3241809	1.0
Aroclor-1016	3	6.707	-0.021	1716417	7.4	3	7.041	0.019	4746306	5.9
Aroclor-1016	4	7.477	0.039	6742161	24.6	4	7.492	-0.045	14946169	15.8
	Total Col1Ave (4 peaks):				13.1	Total Col2Ave (4 peaks):				6.4 RPD = 69*
	Corrected Ave (3 peaks):				9.3	Corrected Ave (3 peaks):				3.3 RPD = 96*
Aroclor-1221	1	3.437	0.000	2799506	40.0	1	3.609	0.017	1894943	10.7
Aroclor-1221	2	5.001	0.022	20638549	243.0	2	5.327	0.021	15517735	16.6
Aroclor-1221	3	5.102	0.017	474288	1.9	3	---			0.0
Aroclor-1221	NS	---			----	4	6.671	0.024	3241809	11.9
	Total Col1Ave (3 peaks):				95.0	Total Col2Ave (3 peaks):				13.1 RPD = 152*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	3.437	0.002	2799506	62.8	1	3.609	0.018	1894943	16.9
Aroclor-1232	2	6.130	0.059	4836792	44.7	2	6.003	-0.008	4278966	6.1
Aroclor-1232	3	6.504	0.033	1119359	3.2	3	6.671	0.027	3241809	2.1
Aroclor-1232	4	6.707	-0.024	1716417	17.4	4	7.190	-0.007	3446700	11.1
	Total Col1Ave (4 peaks):				32.0	Total Col2Ave (4 peaks):				9.1 RPD = 112*
	Corrected Ave (3 peaks):				21.8	Corrected Ave (3 peaks):				6.5 RPD = 109*
Aroclor-1242	1	6.130	0.060	4836792	23.9	1	6.003	-0.007	4278966	3.5
Aroclor-1242	2	6.504	0.035	1119359	1.7	2	6.671	0.027	3241809	1.1
Aroclor-1242	3	6.707	-0.022	1716417	9.2	3	7.492	-0.046	14946169	16.4
Aroclor-1242	4	8.153	0.058	7632718	32.0	4	8.395	-0.010	1283996	1.4
	Total Col1Ave (4 peaks):				16.7	Total Col2Ave (4 peaks):				5.6 RPD = 99*
	Corrected Ave (3 peaks):				11.6	Corrected Ave (3 peaks):				2.0 RPD = 141*
Aroclor-1248	1	6.950	-0.013	19915923	76.7	1	6.671	0.034	3241809	2.0
Aroclor-1248	2	7.277	0.016	7497981	25.1	2	7.123	-0.005	3652605	3.2
Aroclor-1248	3	7.861	0.002	1688033	3.7	3	7.492	-0.044	14946169	12.2
Aroclor-1248	4	8.153	0.060	7632718	21.8	4	8.016	0.029	7423422	5.1
	Total Col1Ave (4 peaks):				31.8	Total Col2Ave (4 peaks):				5.6 RPD = 140*
	Corrected Ave (3 peaks):				16.9	Corrected Ave (3 peaks):				3.4 RPD = 132*
Aroclor-1254	1	8.153	-0.025	7632718	13.6	1	8.300	0.003	1358705	0.8
Aroclor-1254	2	8.300	0.045	4173471	23.5	2	8.814	0.002	35430721	28.4
Aroclor-1254	3	8.563	0.015	1435185	4.0	3	8.956	-0.004	3391526	1.2
Aroclor-1254	4	8.683	0.000	3076916	4.4	4	9.425	-0.001	2495461	2.0
Aroclor-1254	5	9.712	-0.000	880892	1.3	5	9.723	-0.009	2185210	1.4
	Total Col1Ave (5 peaks):				9.4	Total Col2Ave (5 peaks):				6.8 RPD = 32
	Corrected Ave (4 peaks):				5.8	Corrected Ave (4 peaks):				1.4 RPD = 124*
Aroclor-1260	1	9.940	0.001	599972	1.3	1	9.954	-0.011	2008230	1.1
Aroclor-1260	2	10.263	0.009	524287	1.2	2	10.503	-0.001	650942	0.4
Aroclor-1260	3	10.662	0.037	23195701	20.9	3	10.778	0.001	1753182	0.5
Aroclor-1260	4	11.025	0.003	494288	0.9	4	11.235	-0.057	69685015	63.7
Aroclor-1260	5	11.185	-0.026	1458891	4.8	NS	---			----
	Total Col1Ave (5 peaks):				5.8	Total Col2Ave (4 peaks):				16.4 RPD = 95*
	Corrected Ave (4 peaks):				2.0	Corrected Ave (3 peaks):				0.6 RPD = 105*
Aroclor-1262	1	9.940	-0.002	599972	0.9	1	10.062	-0.003	478579	0.2
Aroclor-1262	2	10.263	0.005	524287	1.0	2	10.503	-0.005	650942	0.3
Aroclor-1262	3	10.662	0.034	23195701	19.4	3	10.778	-0.002	1753182	0.4
Aroclor-1262	4	11.025	-0.002	494288	1.2	4	11.347	-0.008	1797244	0.6
Aroclor-1262	5	11.185	-0.029	1458891	2.9	5	11.925	-0.015	19898262	28.4
	Total Col1Ave (5 peaks):				5.1	Total Col2Ave (5 peaks):				6.0 RPD = 16
	Corrected Ave (4 peaks):				1.5	Corrected Ave (4 peaks):				0.4 RPD = 118*
Aroclor-1268	1	11.185	0.042	1458891	1.0	1	11.347	0.052	1797244	0.4
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	11.645	0.046	1767502	1.6	3	11.751	-0.003	872392	0.2

Aroclor-1268	4	12.371	-0.012	668819	0.2	4	12.552	-0.016	242282	0.0

Total Col1Ave (3 peaks): 0.9 Total Col2Ave (3 peaks): 0.2 RPD = 128*

Corrected Ave: < 3 Peaks Corrected Ave: < 3 Peaks

Total PCB Area Col1 (4.547 - 12.684) = 273566281 Col1 Total PCB = 0.0 ppm*

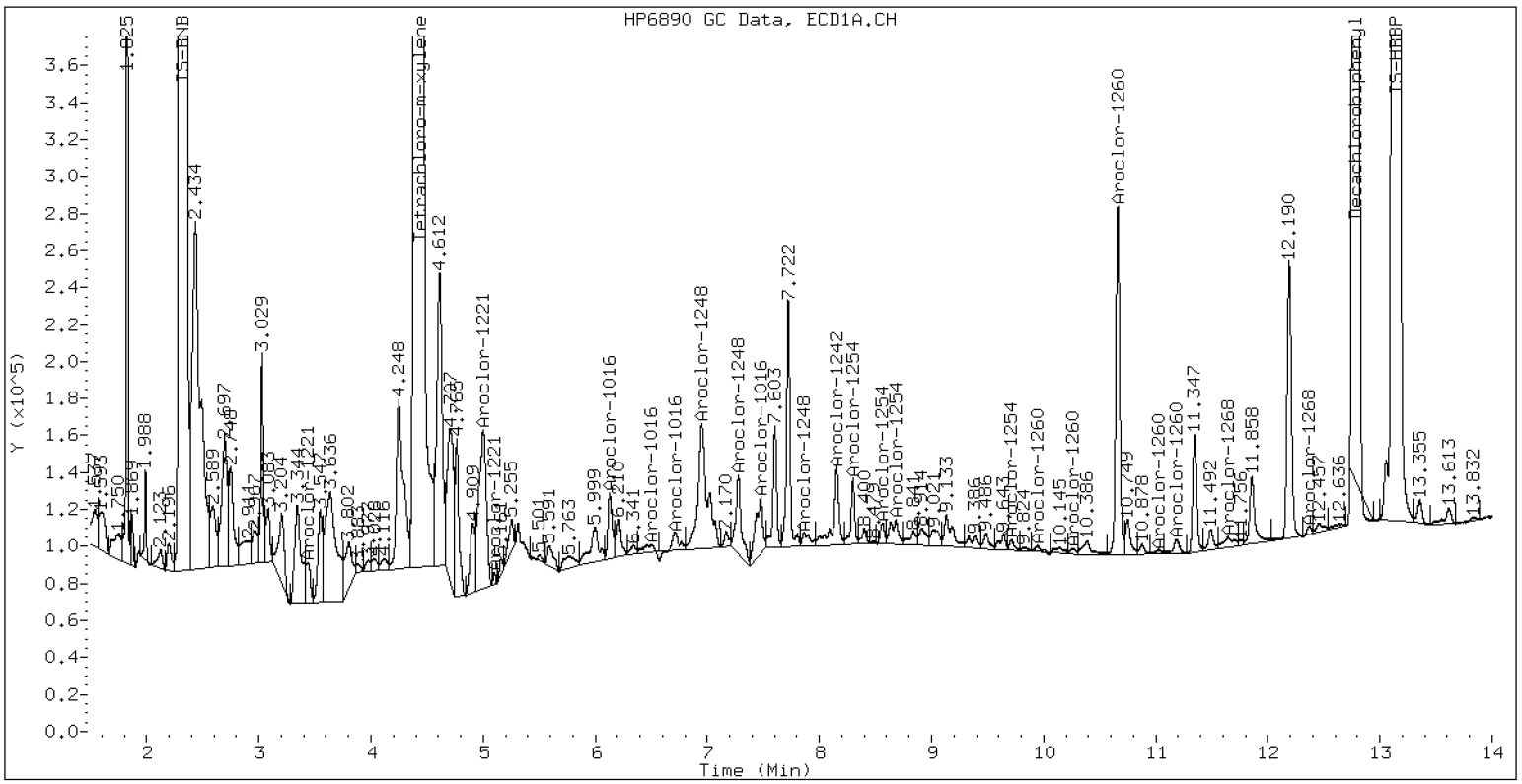
Total PCB Area Col2 (4.547 - 12.684) = 1523566051 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

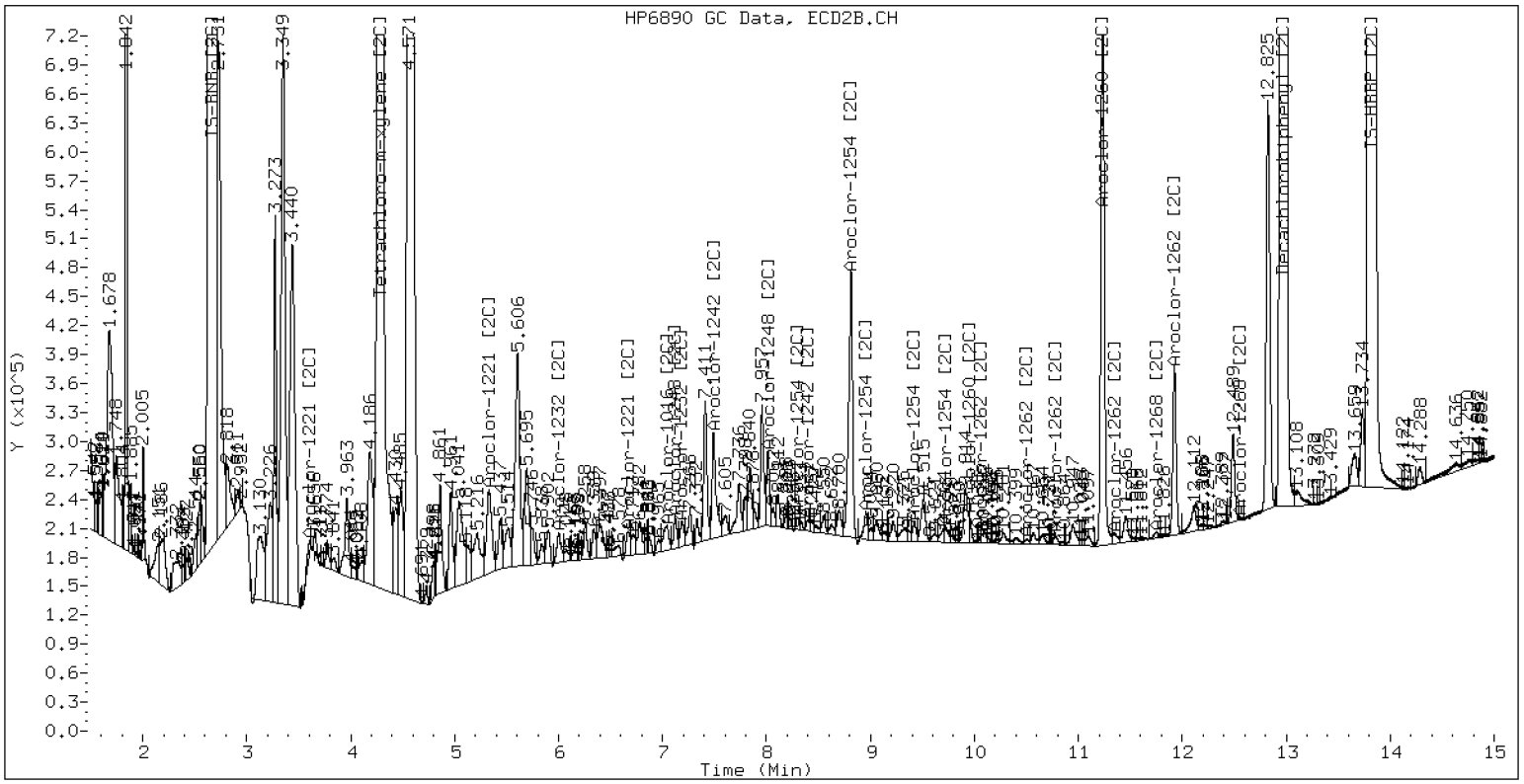
PCB Dual Column Chromatograms

ECD5-ZB5 /20180623.b/18062311ECD5.D 18F0185-07 23-JUN-2018 16:14 2ul VTS



ZB-5 Manual Integration: YES

ECD5-ZB35 /20180623.b/20180623.b/18062311ECD5.D 18F0185-07

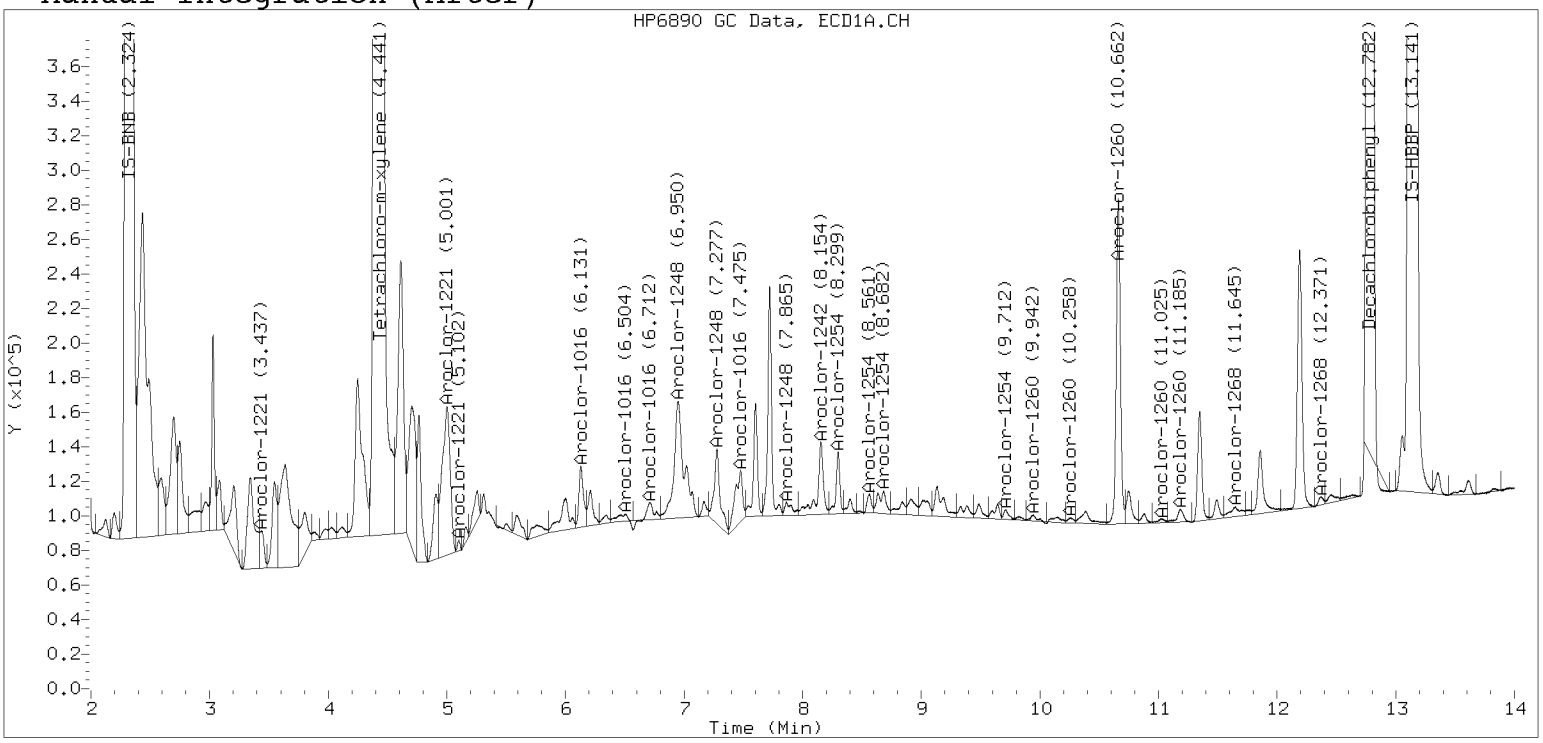


ZB-35 Manual Integration: YES

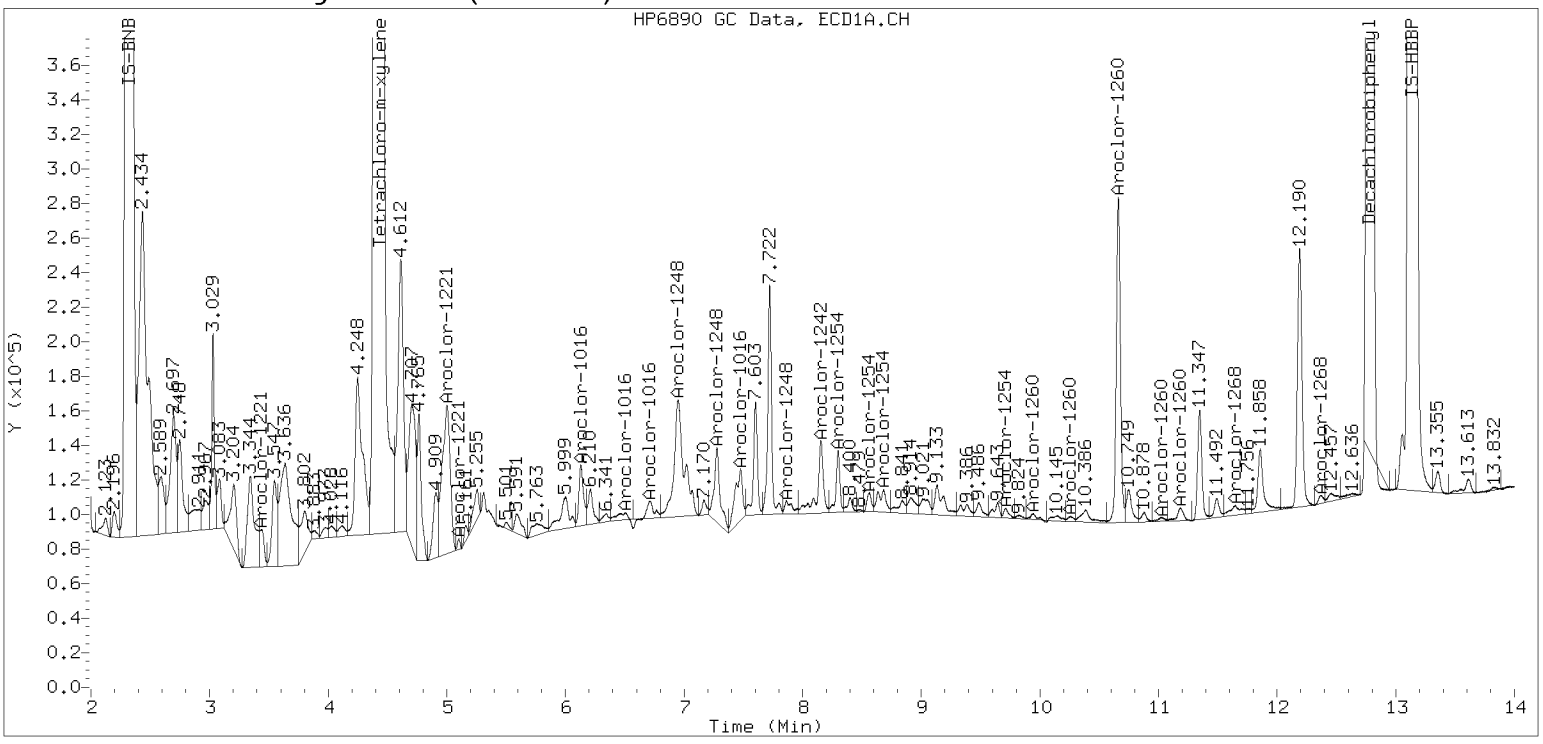
Manual Peak Adjustment, ZB-5

Datafile: ecd5.i/20180623.b/18062311ECD5.D Injection Date: 23-JUN-2018 16:1

Manual Integration (After)



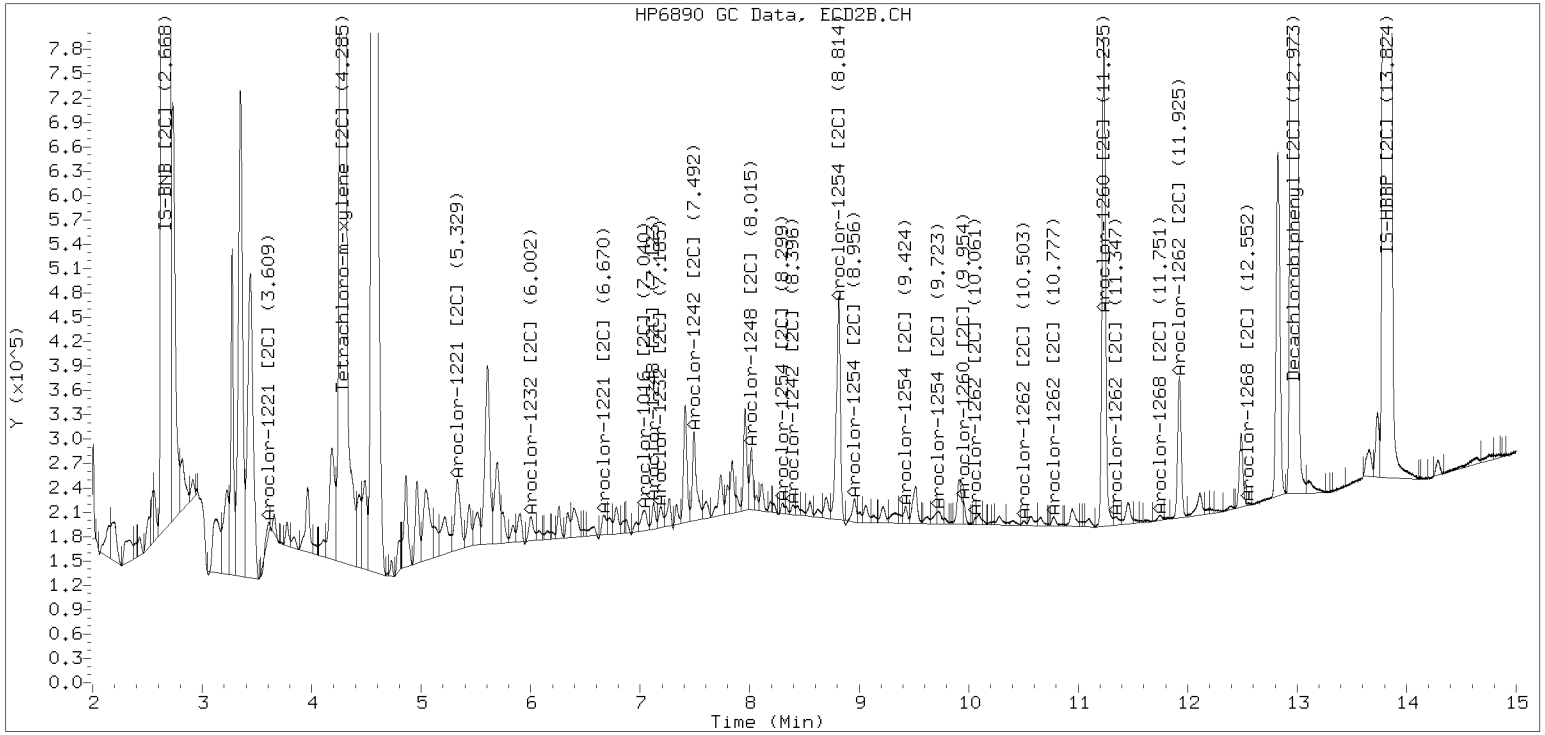
Processed Integration (Before)



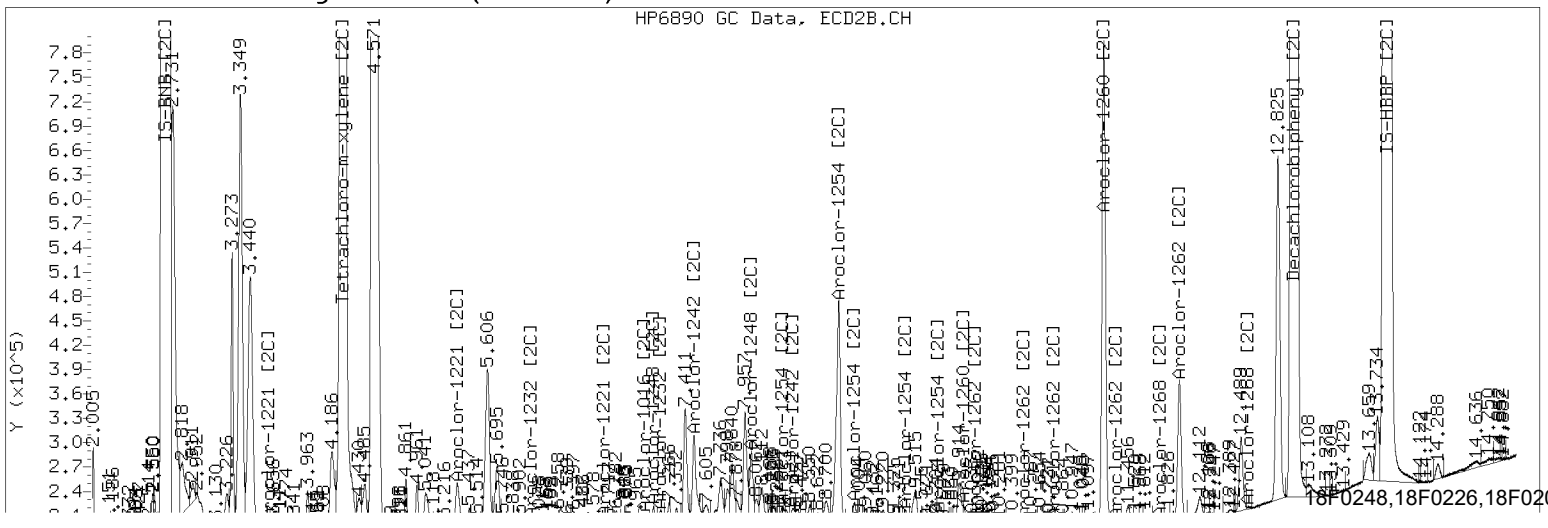
Manual Peak Adjustment, ZB-35

Datafile: ecd5.i/20180623.b/20180623.b/18062311.D Injection Date: 23-JUN-2018 16:14

Manual Integration (After)



Processed Integration (Before)



LDW18-SP-43

Dual Column

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-08	File ID:	18062312ECD5.D
Sampled:	06/12/18 13:00	Prepared:	06/18/18 11:10	Analyzed:	06/23/18 16:34
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0415	Sequence:	SGF0299	Calibration:	BF00046
Instrument:	ECD5	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
12674-11-2	Aroclor 1016	1	1	0.010	0.002	0.010	U
11104-28-2	Aroclor 1221	1	1	0.010	0.002	0.010	U
11141-16-5	Aroclor 1232	1	1	0.010	0.002	0.010	U
53469-21-9	Aroclor 1242	1	1	0.010	0.002	0.010	U
12672-29-6	Aroclor 1248	1	1	0.010	0.002	0.010	U
11097-69-1	Aroclor 1254	1	1	0.010	0.002	0.010	U
11096-82-5	Aroclor 1260	1	1	0.010	0.003	0.010	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0182*	*91.1*	*29 - 120*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0142*	*71.1*	*32 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180623.b/18062312ECD5.D
Data file 2: /20180623.b/20180623.b/18062312ECD5.D
Method: ecd5.i\20180623.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, VTS
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: 18F0185-08
Client ID:
Injection Date: 23-JUN-2018 16:34
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.445	-0.002	315867197	4.288	-0.004	1162581646	28.4	24.7	14.0	Tetrachloro-m-xylene
12.783	-0.001	336433020	12.972	-0.001	1435912685	36.4	36.4	0.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	71.1	61.8
Decachlorobiphenyl	91.1	91.0

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	979632069	6.5
Hexabromobiphenyl	761926666	874530498	14.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4779572354	8.2
Hexabromobiphenyl	2171332320	2562693361	18.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.058	-0.011	505284	2.0	1	6.002	-0.007	16811691	11.4
Aroclor-1016	2	6.505	0.036	2622264	3.1	2	6.672	0.029	14031986	4.1
Aroclor-1016	3	6.719	-0.009	1838947	7.8	3	7.029	0.007	18850947	23.3
Aroclor-1016	4	7.477	0.039	6080512	21.9	4	7.491	-0.047	28736291	30.0
	Total Col1Ave (4 peaks):				8.7	Total Col2Ave (4 peaks):				17.2 RPD = 66*
	Corrected Ave (3 peaks):				4.3	Corrected Ave (3 peaks):				12.9 RPD = 100*
Aroclor-1221	1	3.438	0.001	2910170	41.0	1	3.589	-0.004	3190479	17.8
Aroclor-1221	2	5.003	0.023	20288272	235.3	2	5.327	0.021	24998837	26.4
Aroclor-1221	3	5.105	0.020	155396	0.6	3	---			0.0
Aroclor-1221	NS	---			----	4	6.672	0.025	14031986	50.8
	Total Col1Ave (3 peaks):				92.3	Total Col2Ave (3 peaks):				31.7 RPD = 98*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	3.438	0.003	2910170	64.3	1	3.589	-0.002	3190479	28.2
Aroclor-1232	2	6.058	-0.013	505284	4.6	2	6.002	-0.009	16811691	23.7
Aroclor-1232	3	6.505	0.034	2622264	7.3	3	6.672	0.028	14031986	9.1
Aroclor-1232	4	6.719	-0.012	1838947	18.4	4	7.189	-0.008	8654609	27.6
	Total Col1Ave (4 peaks):				23.6	Total Col2Ave (4 peaks):				22.1 RPD = 7
	Corrected Ave (3 peaks):				10.1	Corrected Ave (3 peaks):				20.1 RPD = 66*
Aroclor-1242	1	6.058	-0.011	505284	2.5	1	6.002	-0.008	16811691	13.7
Aroclor-1242	2	6.505	0.035	2622264	3.8	2	6.672	0.028	14031986	4.8
Aroclor-1242	3	6.719	-0.010	1838947	9.7	3	7.491	-0.048	28736291	31.1
Aroclor-1242	4	8.090	-0.005	577975	2.4	4	8.390	-0.015	7080373	7.4
	Total Col1Ave (4 peaks):				4.6	Total Col2Ave (4 peaks):				14.3 RPD = 103*
	Corrected Ave (3 peaks):				2.9	Corrected Ave (3 peaks):				8.7 RPD = 100*
Aroclor-1248	1	6.948	-0.015	15099183	57.3	1	6.672	0.035	14031986	8.5
Aroclor-1248	2	7.278	0.017	7918147	26.1	2	7.120	-0.009	9665790	8.5
Aroclor-1248	3	7.861	0.002	602078	1.3	3	7.491	-0.046	28736291	23.1
Aroclor-1248	4	8.090	-0.003	577975	1.6	4	8.016	0.029	15280324	10.3
	Total Col1Ave (4 peaks):				21.6	Total Col2Ave (4 peaks):				12.6 RPD = 53*
	Corrected Ave (3 peaks):				9.7	Corrected Ave (3 peaks):				9.1 RPD = 6
Aroclor-1254	1	8.153	-0.025	4558943	8.0	1	8.300	0.003	6634674	3.9
Aroclor-1254	2	8.258	0.003	507077	2.8	2	8.816	0.005	28211391	22.3
Aroclor-1254	3	8.563	0.015	1200682	3.3	3	8.959	-0.001	11041284	4.0
Aroclor-1254	4	8.683	0.000	1315342	1.9	4	9.426	-0.001	5441344	4.4
Aroclor-1254	5	9.710	-0.003	939555	1.3	5	9.703	-0.030	9416092	5.9
	Total Col1Ave (5 peaks):				3.5	Total Col2Ave (5 peaks):				8.1 RPD = 80*
	Corrected Ave (4 peaks):				2.3	Corrected Ave (4 peaks):				4.5 RPD = 64*
Aroclor-1260	1	9.946	0.007	657511	1.4	1	9.953	-0.012	4370861	2.2
Aroclor-1260	2	10.253	-0.001	397008	0.9	2	10.496	-0.009	2654896	1.5
Aroclor-1260	3	10.661	0.037	13378494	11.8	3	10.779	0.002	1959868	0.5
Aroclor-1260	4	11.024	0.001	150623	0.3	4	11.345	0.052	2157023	1.9
Aroclor-1260	5	11.181	-0.030	1213108	3.9	NS	---			----
	Total Col1Ave (5 peaks):				3.7	Total Col2Ave (4 peaks):				1.5 RPD = 84*
	Corrected Ave (4 peaks):				1.6	Corrected Ave (3 peaks):				1.3 RPD = 23
Aroclor-1262	1	9.946	0.004	657511	1.0	1	10.091	0.026	5004533	2.0
Aroclor-1262	2	10.253	-0.005	397008	0.7	2	10.496	-0.012	2654896	1.2
Aroclor-1262	3	10.661	0.034	13378494	11.0	3	10.779	-0.001	1959868	0.4
Aroclor-1262	4	11.024	-0.003	150623	0.4	4	11.345	-0.010	2157023	0.7
Aroclor-1262	5	11.181	-0.033	1213108	2.4	5	11.926	-0.014	22502534	30.3
	Total Col1Ave (5 peaks):				3.1	Total Col2Ave (5 peaks):				6.9 RPD = 77*
	Corrected Ave (4 peaks):				1.1	Corrected Ave (4 peaks):				1.1 RPD = 2
Aroclor-1268	1	11.181	0.039	1213108	0.8	1	11.345	0.050	2157023	0.4
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	11.645	0.047	1369925	1.2	3	11.757	0.004	659348	0.2

Aroclor-1268	4	12.373	-0.011	997196	0.3	4	12.571	0.003	341871	0.0
Total Col1Ave (3 peaks):				0.8	Total Col2Ave (3 peaks):				0.2	RPD = 118*
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks					

Total PCB Area Col1 (4.547 - 12.684) = 239669031 Col1 Total PCB = 0.0 ppm*

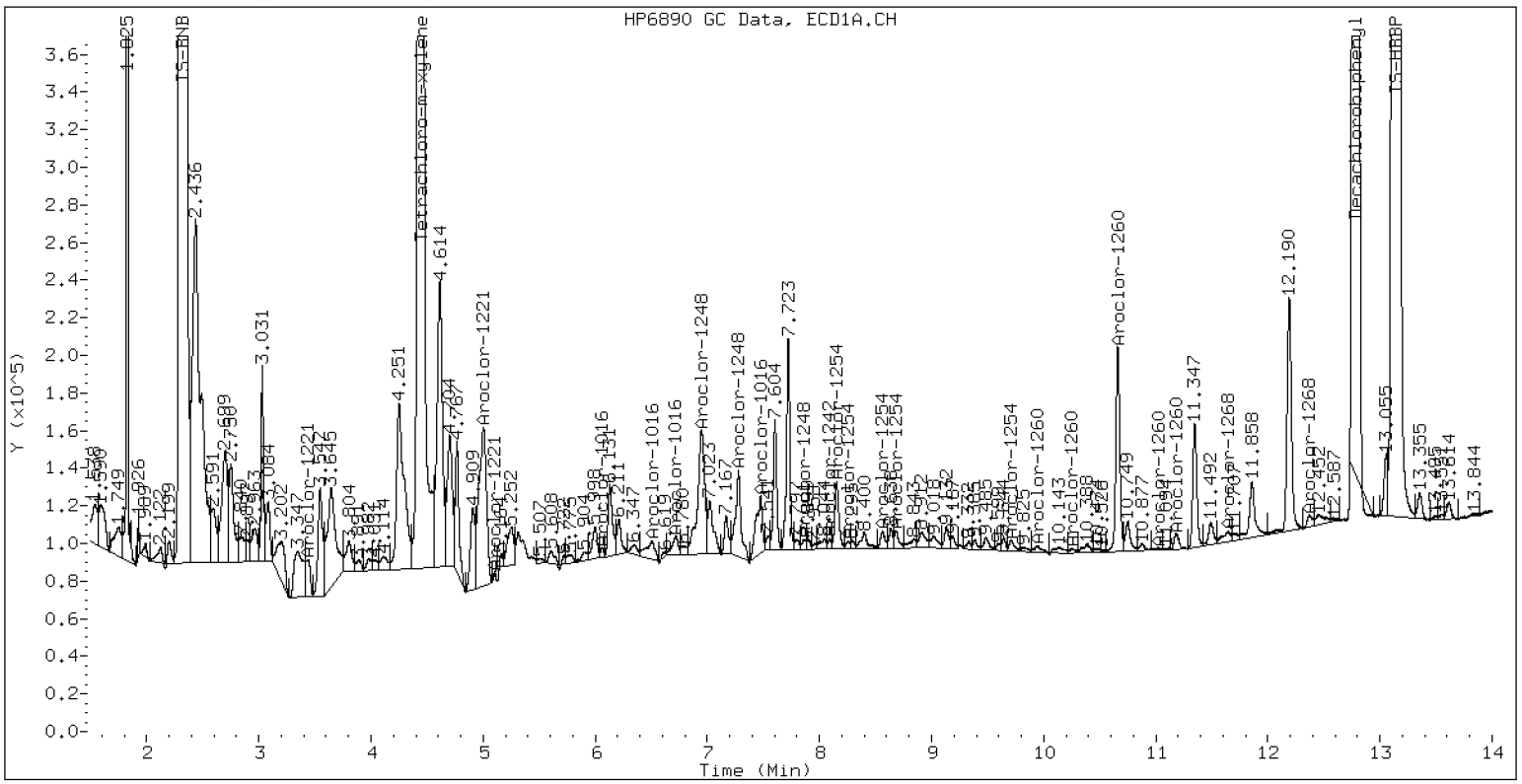
Total PCB Area Col2 (4.547 - 12.684) = 1047599837 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

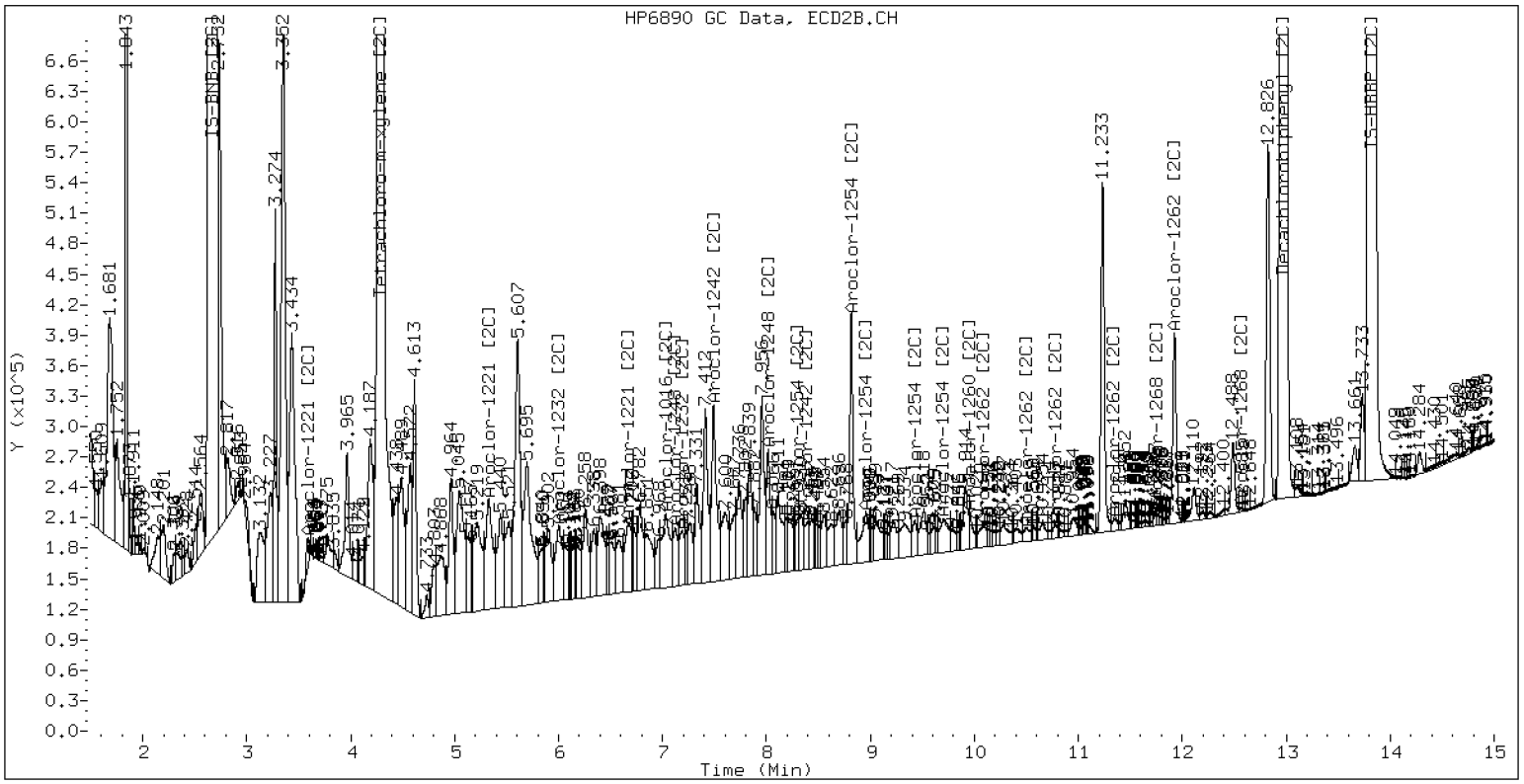
PCB Dual Column Chromatograms

ECD5-ZB5 /20180623.b/18062312ECD5.D 18F0185-08 23-JUN-2018 16:34 2ul VTS



ZB-5 Manual Integration: YES

ECD5-ZB35 /20180623.b/20180623.b/18062312ECD5.D 18F0185-08

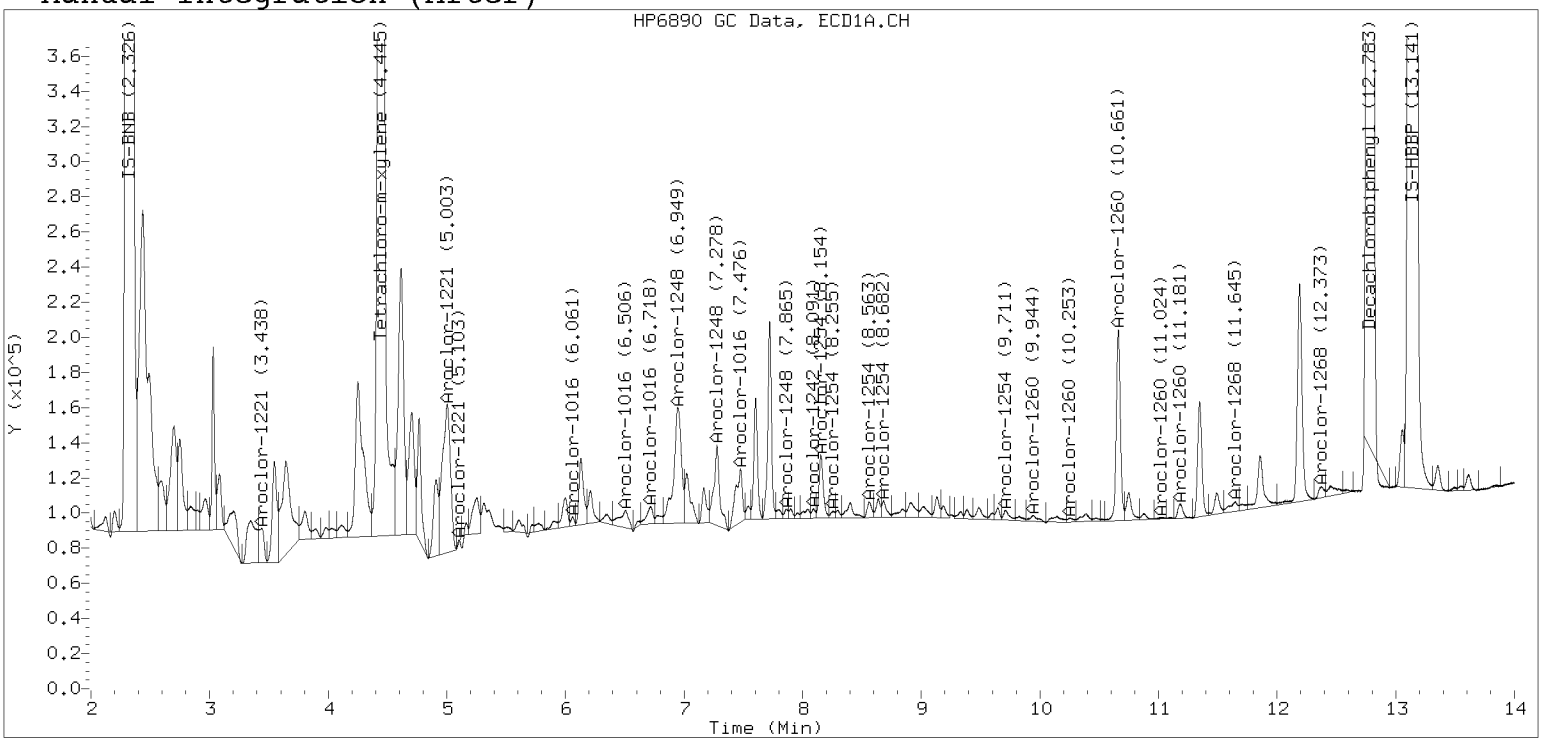


ZB-35 Manual Integration: NO

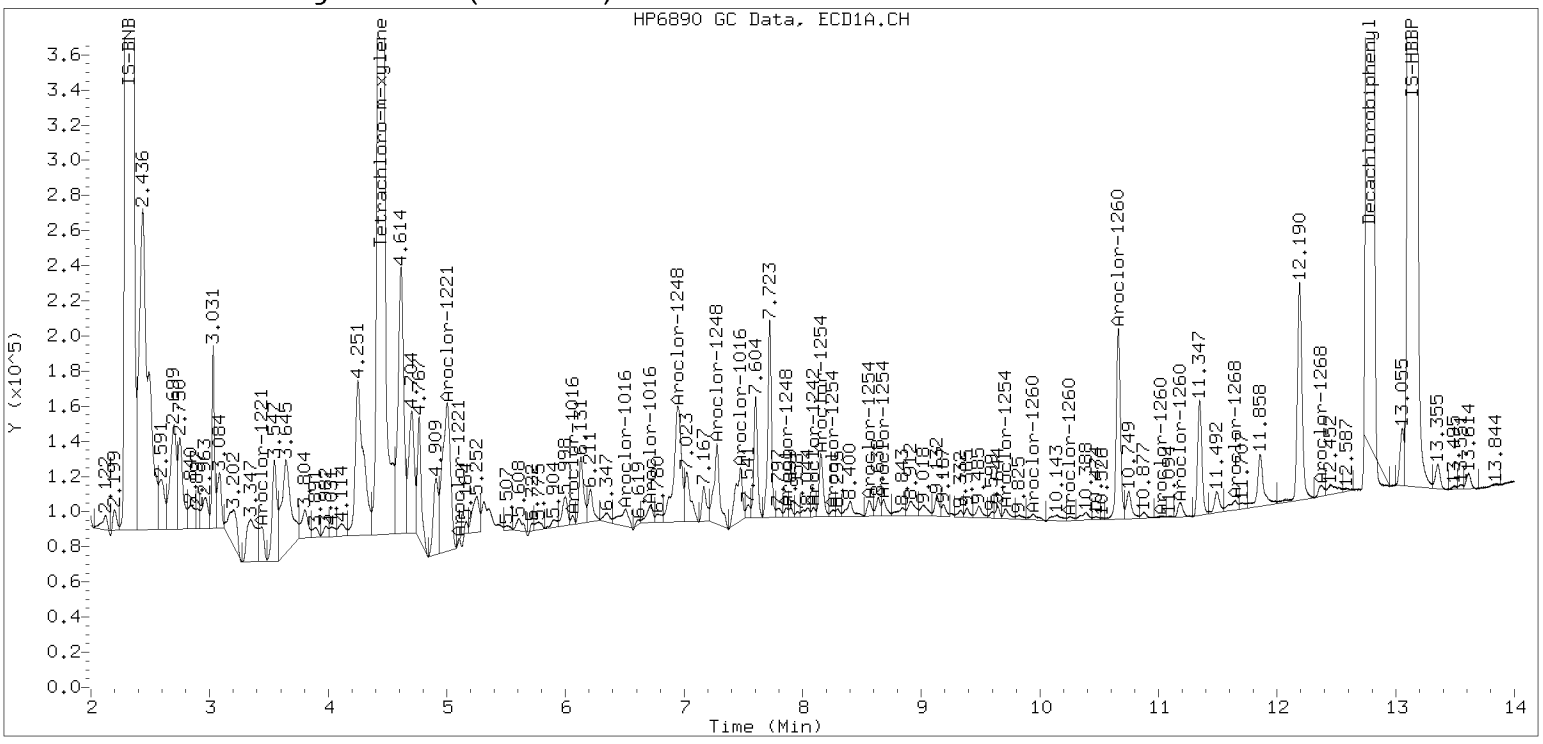
Manual Peak Adjustment, ZB-5

Datafile: ecd5.i/20180623.b/18062312ECD5.D Injection Date: 23-JUN-2018 16:3

Manual Integration (After)



Processed Integration (Before)



LDW18-SP-06

Dual Column

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-01	File ID:	18062509ECD5.D
Sampled:	06/13/18 09:53	Prepared:	06/19/18 13:07	Analyzed:	06/25/18 16:03
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0451	Sequence:	SGF0341	Calibration:	BF00046
Instrument:	ECD5	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
12674-11-2	Aroclor 1016	1	1	0.010	0.002	0.010	U
11104-28-2	Aroclor 1221	1	1	0.010	0.002	0.010	U
11141-16-5	Aroclor 1232	1	1	0.010	0.002	0.010	U
53469-21-9	Aroclor 1242	1	1	0.010	0.002	0.010	U
12672-29-6	Aroclor 1248	1	1	0.010	0.002	0.010	U
11097-69-1	Aroclor 1254	1	1	0.010	0.002	0.010	U
11096-82-5	Aroclor 1260	1	1	0.010	0.003	0.010	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0156*	*77.9*	*29 - 120*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0130*	*65.0*	*32 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180625.b/18062509ECD5.D
Data file 2: /20180625.b/20180625.b/18062509ECD5.D
Method: ecd5.i\20180625.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: 18F0208-01
Client ID:
Injection Date: 25-JUN-2018 16:03
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.444	-0.004	292875312	4.289	-0.002	1035084610	26.0	21.8	17.6	Tetrachloro-m-xylene
12.782	-0.007	287965944	12.973	-0.001	1223632233	31.2	33.2	6.4	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	65.0	54.5
Decachlorobiphenyl	77.9	83.1

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	993882250	8.0
Hexabromobiphenyl	761926666	875417067	14.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4825321275	9.2
Hexabromobiphenyl	2171332320	2391844013	10.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.066	-0.006	1936705	7.4	1	6.009	-0.002	6766230	4.5
Aroclor-1016	2	6.483	0.011	53759423	62.3	2	6.669	0.025	1819155	0.5
Aroclor-1016	3	6.706	-0.025	1780638	7.4	3	7.031	0.007	5511897	6.7
Aroclor-1016	4	7.507	0.066	17257609	61.1	4	7.499	-0.040	76023207	78.5
	Total Col1Ave (4 peaks):				34.6	Total Col2Ave (4 peaks):				22.6 RPD = 42*
	Corrected Ave (3 peaks):				25.3	Corrected Ave (3 peaks):				3.9 RPD = 146*
Aroclor-1221	1	3.415	-0.022	20519329	284.9	1	3.572	-0.020	20774181	114.9
Aroclor-1221	2	4.981	0.001	78299416	895.0	2	5.327	0.020	12124034	12.7
Aroclor-1221	3	5.102	0.017	715931	2.7	3	---			0.0
Aroclor-1221	NS	---			----	4	6.669	0.022	1819155	6.5
	Total Col1Ave (3 peaks):				394.2	Total Col2Ave (3 peaks):				44.7 RPD = 159*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	3.415	-0.020	20519329	446.8	1	3.572	-0.018	20774181	181.6
Aroclor-1232	2	6.066	-0.005	1936705	17.4	2	6.009	-0.002	6766230	9.5
Aroclor-1232	3	6.483	0.012	53759423	147.5	3	6.669	0.025	1819155	1.2
Aroclor-1232	4	6.706	-0.024	1780638	17.5	4	7.190	-0.006	3708448	11.7
	Total Col1Ave (4 peaks):				157.3	Total Col2Ave (4 peaks):				51.0 RPD = 102*
	Corrected Ave (3 peaks):				60.8	Corrected Ave (3 peaks):				7.4 RPD = 156*
Aroclor-1242	1	6.066	-0.007	1936705	9.3	1	6.009	-0.002	6766230	5.5
Aroclor-1242	2	6.483	0.010	53759423	77.3	2	6.669	0.026	1819155	0.6
Aroclor-1242	3	6.706	-0.026	1780638	9.2	3	7.499	-0.040	76023207	81.4
Aroclor-1242	4	8.106	0.006	13679295	55.7	4	8.399	-0.007	2449240	2.5
	Total Col1Ave (4 peaks):				37.9	Total Col2Ave (4 peaks):				22.5 RPD = 51*
	Corrected Ave (3 peaks):				24.7	Corrected Ave (3 peaks):				2.9 RPD = 158*
Aroclor-1248	1	6.945	-0.025	17519566	65.5	1	6.669	0.029	1819155	1.1
Aroclor-1248	2	7.271	0.003	7863530	25.5	2	7.126	-0.006	6000454	5.2
Aroclor-1248	3	7.863	-0.003	4607297	9.7	3	7.499	-0.040	76023207	60.5
Aroclor-1248	4	8.106	0.006	13679295	38.0	4	8.023	0.033	32018689	21.4
	Total Col1Ave (4 peaks):				34.7	Total Col2Ave (4 peaks):				22.0 RPD = 45*
	Corrected Ave (3 peaks):				24.4	Corrected Ave (3 peaks):				9.2 RPD = 90*
Aroclor-1254	1	8.155	-0.025	5971813	10.3	1	8.295	-0.001	18094030	10.4
Aroclor-1254	2	8.224	-0.033	4427188	24.2	2	8.816	0.006	27842127	21.8
Aroclor-1254	3	8.572	0.021	4203712	11.4	3	8.961	0.002	10737248	3.8
Aroclor-1254	4	8.675	-0.010	9720096	13.6	4	9.428	0.001	4618997	3.7
Aroclor-1254	5	9.710	-0.004	2221177	3.1	5	9.739	0.006	5155577	3.2
	Total Col1Ave (5 peaks):				12.5	Total Col2Ave (5 peaks):				8.6 RPD = 37
	Corrected Ave (4 peaks):				9.6	Corrected Ave (4 peaks):				5.3 RPD = 58*
Aroclor-1260	1	9.936	-0.007	718259	1.5	1	9.959	-0.007	8644012	4.6
Aroclor-1260	2	10.250	-0.008	603886	1.3	2	10.502	-0.004	3382086	2.0
Aroclor-1260	3	10.661	0.032	26061919	23.0	3	10.777	-0.001	4373628	1.2
Aroclor-1260	4	11.020	-0.006	387118	0.7	4	11.343	0.051	4039188	3.7
Aroclor-1260	5	11.190	-0.026	811354	2.6	NS	---			----
	Total Col1Ave (5 peaks):				5.8	Total Col2Ave (4 peaks):				2.9 RPD = 68*
	Corrected Ave (4 peaks):				1.5	Corrected Ave (3 peaks):				2.3 RPD = 40*
Aroclor-1262	1	9.936	-0.006	718259	1.1	1	10.051	-0.013	5685137	2.5
Aroclor-1262	2	10.250	-0.008	603886	1.1	2	10.502	-0.007	3382086	1.7
Aroclor-1262	3	10.661	0.033	26061919	21.4	3	10.777	-0.003	4373628	1.0
Aroclor-1262	4	11.020	-0.007	387118	0.9	4	11.343	-0.012	4039188	1.4
Aroclor-1262	5	11.190	-0.025	811354	1.6	5	11.925	-0.015	24385406	35.2
	Total Col1Ave (5 peaks):				5.2	Total Col2Ave (5 peaks):				8.4 RPD = 46*
	Corrected Ave (4 peaks):				1.2	Corrected Ave (4 peaks):				1.6 RPD = 33
Aroclor-1268	1	11.123	-0.020	136944	0.1	1	11.343	0.048	4039188	0.9
Aroclor-1268	2	11.190	-0.023	811354	0.6	2	---			0.0
Aroclor-1268	3	11.642	0.044	613434	0.5	3	11.745	-0.008	4423499	1.2

Aroclor-1268	4	12.368	-0.015	716313	0.2	4	12.558	-0.009	402361	0.0

Total Col1Ave (4 peaks): 0.4 Total Col2Ave (3 peaks): 0.7 RPD = 60*

Corrected Ave (3 peaks): 0.3 Corrected Ave: < 3 Peaks

Total PCB Area Col1 (4.548 - 12.689) = 617051497 Col1 Total PCB = 0.1 ppm*

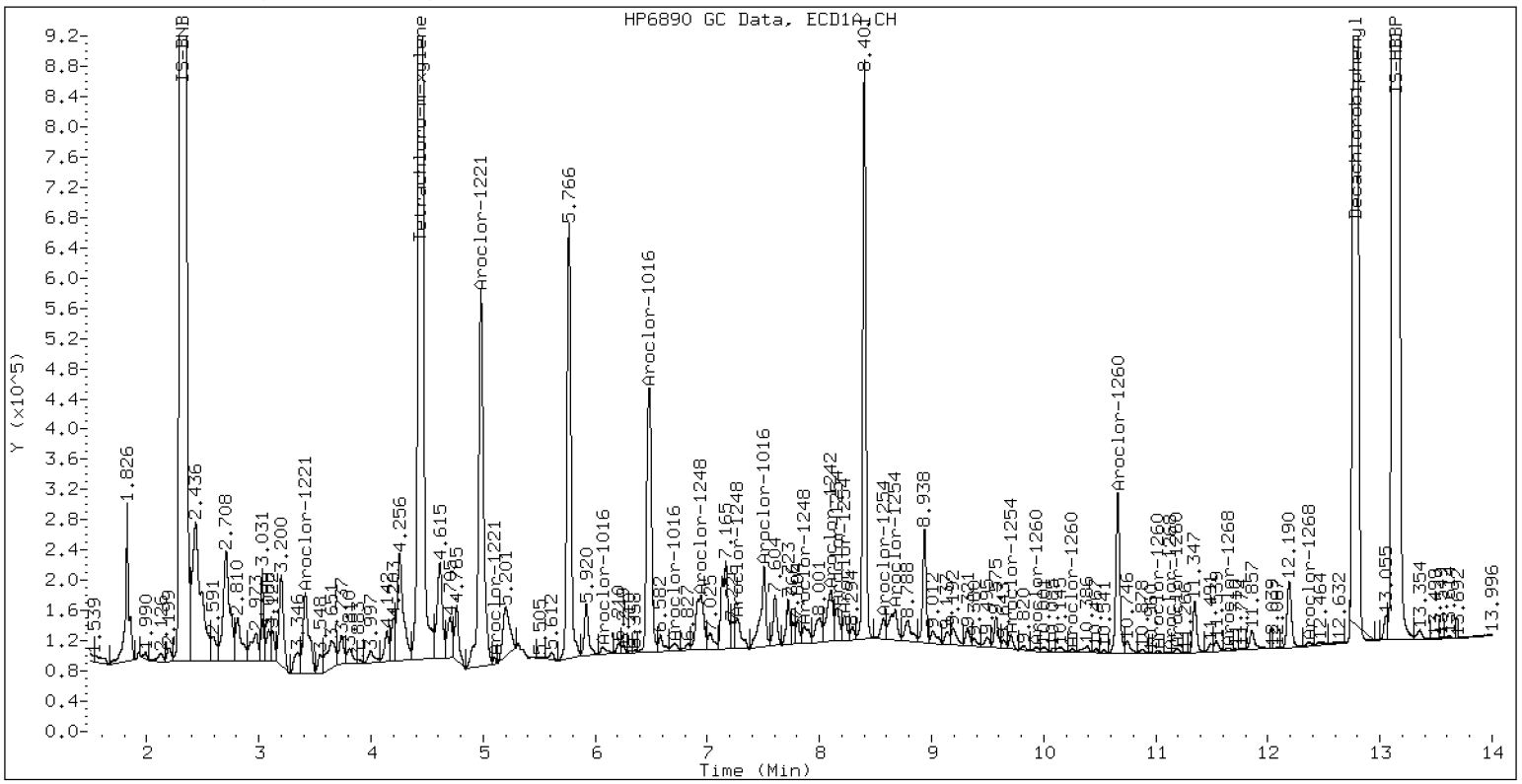
Total PCB Area Col2 (4.548 - 12.689) = 1556297857 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

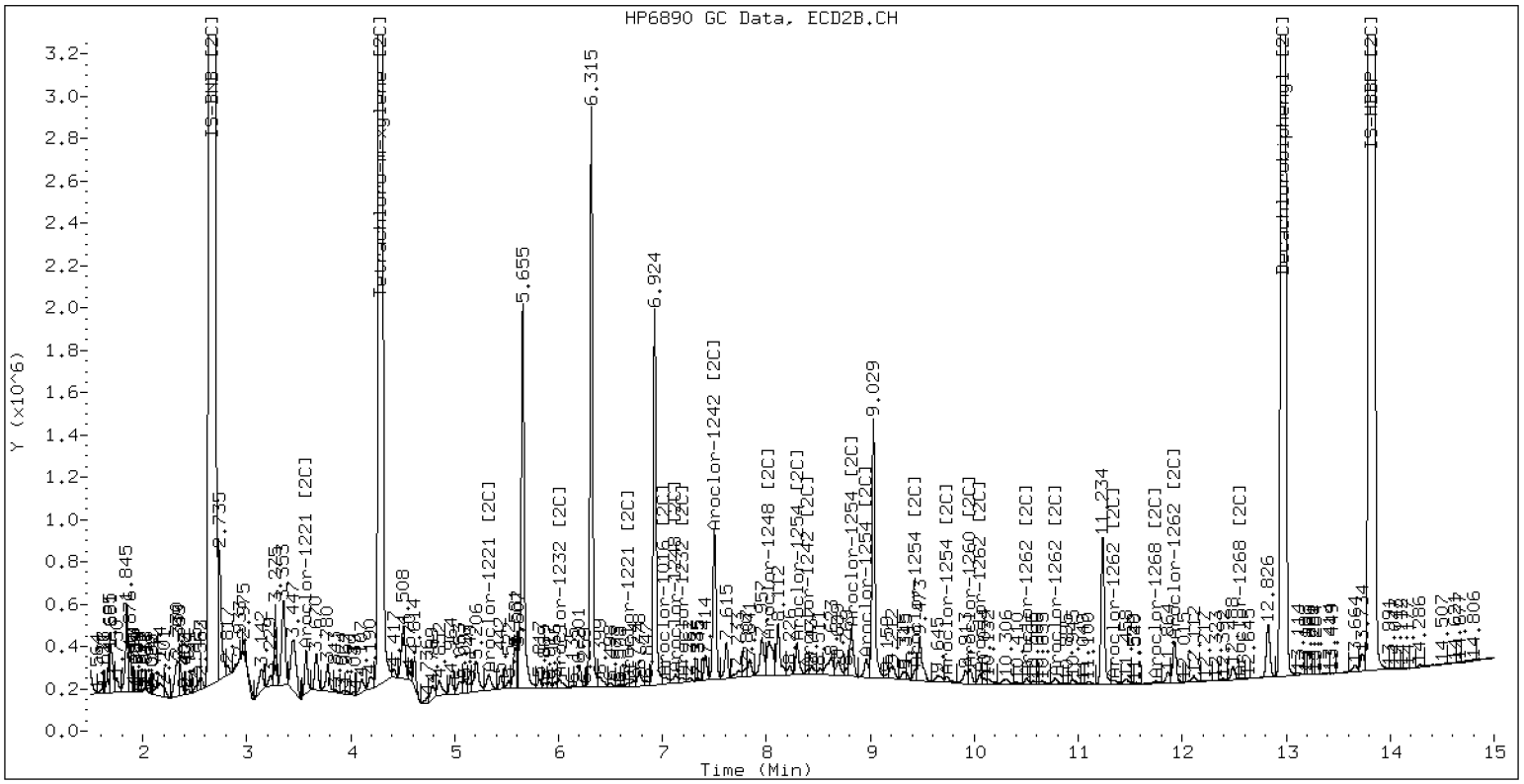
PCB Dual Column Chromatograms

ECD5-ZB5 /20180625.b/18062509ECD5.D 18F0208-01 25-JUN-2018 16:03 2ul JGR



ZB-5 Manual Integration: YES

ECD5-ZB35 /20180625.b/20180625.b/18062509ECD5.D 18F0208-01



ZB-35 Manual Integration: YES

LDW18-SP-33

Dual Column

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-02	File ID:	18062510ECD5.D
Sampled:	06/13/18 12:17	Prepared:	06/19/18 13:07	Analyzed:	06/25/18 16:24
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0451	Sequence:	SGF0341	Calibration:	BF00046
Instrument:	ECD5	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
12674-11-2	Aroclor 1016	1	1	0.010	0.002	0.010	U
11104-28-2	Aroclor 1221	1	1	0.010	0.002	0.010	U
11141-16-5	Aroclor 1232	1	1	0.010	0.002	0.010	U
53469-21-9	Aroclor 1242	1	1	0.010	0.002	0.010	U
12672-29-6	Aroclor 1248	1	1	0.010	0.002	0.010	U
11097-69-1	Aroclor 1254	1	1	0.010	0.002	0.010	U
11096-82-5	Aroclor 1260	1	1	0.010	0.003	0.010	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0142*	*71.2*	*29 - 120*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.00892*	*44.6*	*32 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180625.b/18062510ECD5.D
Data file 2: /20180625.b/20180625.b/18062510ECD5.D
Method: ecd5.i\20180625.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: 18F0208-02
Client ID:
Injection Date: 25-JUN-2018 16:24
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.447	-0.002	209886252	4.288	-0.004	889737271	17.8	21.0	16.2	Tetrachloro-m-xylene
12.782	-0.007	266183082	12.973	-0.001	1139921296	28.5	29.5	3.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	44.6	52.5
Decachlorobiphenyl	71.2	73.8

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1036802474	12.7
Hexabromobiphenyl	761926666	886035937	16.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4304294378	-2.6
Hexabromobiphenyl	2171332320	2508964752	15.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.050	-0.022	1591105	5.8	1	5.996	-0.015	12284716	9.2
Aroclor-1016	2	6.480	0.007	9993943	11.1	2	6.666	0.022	7427932	2.4
Aroclor-1016	3	6.692	-0.039	7418087	29.7	3	7.029	0.005	9327402	12.8
Aroclor-1016	4	7.418	-0.023	4799154	16.3	4	7.542	0.003	2168827	2.5
	Total Col1Ave (4 peaks):				15.7	Total Col2Ave (4 peaks):				6.7 RPD = 80*
	Corrected Ave (3 peaks):				11.1	Corrected Ave (3 peaks):				4.7 RPD = 81*
Aroclor-1221	1	3.427	-0.010	6661390	88.7	1	3.569	-0.024	7138279	44.3
Aroclor-1221	2	5.002	0.023	33501554	367.1	2	5.322	0.015	18687034	21.9
Aroclor-1221	3	5.106	0.021	542713	2.0	3	5.384	0.010	592826	4.0
Aroclor-1221	NS	---			----	4	6.666	0.019	7427932	29.9
	Total Col1Ave (3 peaks):				152.6	Total Col2Ave (4 peaks):				25.0 RPD = 144*
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				18.6
Aroclor-1232	1	3.427	-0.008	6661390	139.0	1	3.569	-0.022	7138279	69.9
Aroclor-1232	2	6.050	-0.021	1591105	13.7	2	5.996	-0.015	12284716	19.2
Aroclor-1232	3	6.480	0.009	9993943	26.3	3	6.666	0.022	7427932	5.4
Aroclor-1232	4	6.692	-0.038	7418087	70.1	4	7.167	-0.030	25661118	90.8
	Total Col1Ave (4 peaks):				62.3	Total Col2Ave (4 peaks):				46.3 RPD = 29
	Corrected Ave (3 peaks):				36.7	Corrected Ave (3 peaks):				31.5 RPD = 15
Aroclor-1242	1	6.050	-0.023	1591105	7.3	1	5.996	-0.015	12284716	11.1
Aroclor-1242	2	6.480	0.007	9993943	13.8	2	6.666	0.022	7427932	2.8
Aroclor-1242	3	6.692	-0.040	7418087	36.8	3	7.542	0.003	2168827	2.6
Aroclor-1242	4	8.152	0.052	11693469	45.6	4	8.441	0.035	4132740	4.8
	Total Col1Ave (4 peaks):				25.9	Total Col2Ave (4 peaks):				5.3 RPD = 131*
	Corrected Ave (3 peaks):				19.3	Corrected Ave (3 peaks):				3.4 RPD = 140*
Aroclor-1248	1	6.936	-0.034	15098455	54.1	1	6.666	0.026	7427932	5.0
Aroclor-1248	2	7.219	-0.049	16461787	51.3	2	7.118	-0.014	8314918	8.1
Aroclor-1248	3	7.903	0.037	9324956	18.8	3	7.542	0.003	2168827	1.9
Aroclor-1248	4	8.152	0.052	11693469	31.1	4	8.019	0.029	170357135	127.7
	Total Col1Ave (4 peaks):				38.8	Total Col2Ave (4 peaks):				35.7 RPD = 8
	Corrected Ave (3 peaks):				33.7	Corrected Ave (3 peaks):				5.0 RPD = 148*
Aroclor-1254	1	8.152	-0.029	11693469	19.4	1	8.288	-0.008	1771126	1.1
Aroclor-1254	2	8.261	0.004	2818498	14.7	2	8.817	0.006	25034369	22.0
Aroclor-1254	3	8.572	0.021	4040727	10.5	3	8.960	0.001	8070153	3.2
Aroclor-1254	4	8.679	-0.006	3841239	5.2	4	9.407	-0.020	44391226	39.5
Aroclor-1254	5	9.710	-0.004	1319734	1.8	5	9.682	-0.051	16742277	11.6
	Total Col1Ave (5 peaks):				10.3	Total Col2Ave (5 peaks):				15.5 RPD = 40*
	Corrected Ave (4 peaks):				8.1	Corrected Ave (4 peaks):				9.5 RPD = 16
Aroclor-1260	1	9.948	0.005	268960	0.6	1	9.962	-0.004	383505	0.2
Aroclor-1260	2	10.267	0.008	848130	1.8	2	10.512	0.007	2523848	1.4
Aroclor-1260	3	10.659	0.030	9047485	7.9	3	10.786	0.008	4190164	1.1
Aroclor-1260	4	11.048	0.022	735102	1.3	4	11.346	0.054	2469148	2.2
Aroclor-1260	5	11.210	-0.006	1440461	4.6	NS	---			----
	Total Col1Ave (5 peaks):				3.2	Total Col2Ave (4 peaks):				1.2 RPD = 91*
	Corrected Ave (4 peaks):				2.1	Corrected Ave (3 peaks):				0.9 RPD = 79*
Aroclor-1262	1	9.948	0.006	268960	0.4	1	10.049	-0.015	4290639	1.8
Aroclor-1262	2	10.267	0.009	848130	1.6	2	10.512	0.004	2523848	1.2
Aroclor-1262	3	10.659	0.032	9047485	7.3	3	10.786	0.006	4190164	1.0
Aroclor-1262	4	11.048	0.021	735102	1.8	4	11.346	-0.009	2469148	0.8
Aroclor-1262	5	11.210	-0.005	1440461	2.8	5	11.926	-0.014	26667406	36.7
	Total Col1Ave (5 peaks):				2.8	Total Col2Ave (5 peaks):				8.3 RPD = 100*
	Corrected Ave (4 peaks):				1.6	Corrected Ave (4 peaks):				1.2 RPD = 31
Aroclor-1268	1	11.119	-0.024	337151	0.2	1	11.346	0.051	2469148	0.5
Aroclor-1268	2	11.210	-0.003	1440461	1.1	2	---			0.0
Aroclor-1268	3	11.591	-0.007	249208	0.2	3	11.739	-0.014	11996046	3.0

Aroclor-1268	4	12.369	-0.014	1586117	0.5		4	12.552	-0.015	1088737	0.1
	Total Col1Ave (4 peaks):				0.5		Total Col2Ave (3 peaks):				1.2 RPD = 82*
	Corrected Ave (3 peaks):				0.3				Corrected Ave: < 3 Peaks		

Total PCB Area Col1 (4.548 - 12.689) = 644835888 Col1 Total PCB = 0.1 ppm*

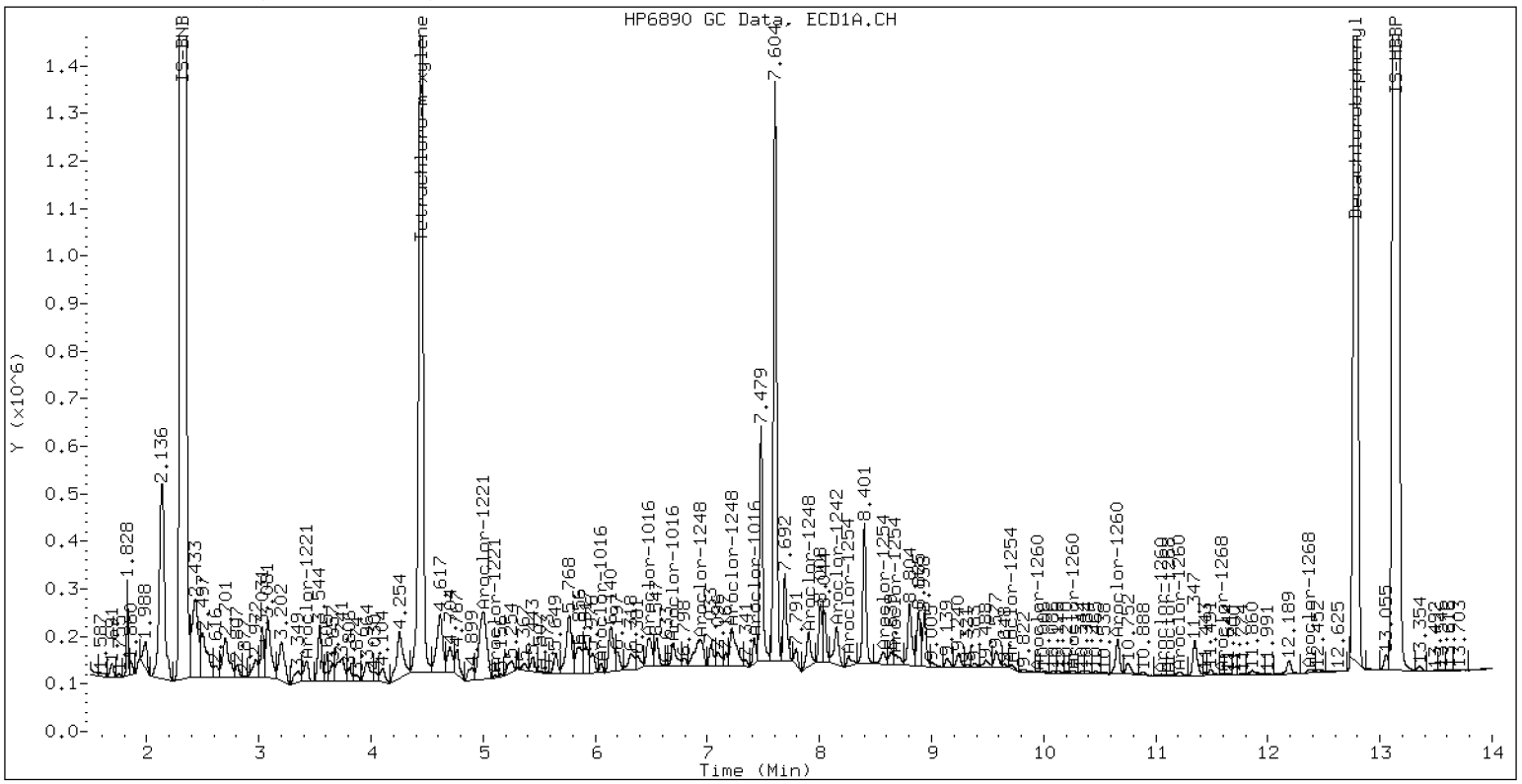
Total PCB Area Col2 (4.548 - 12.689) = 1806449046 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

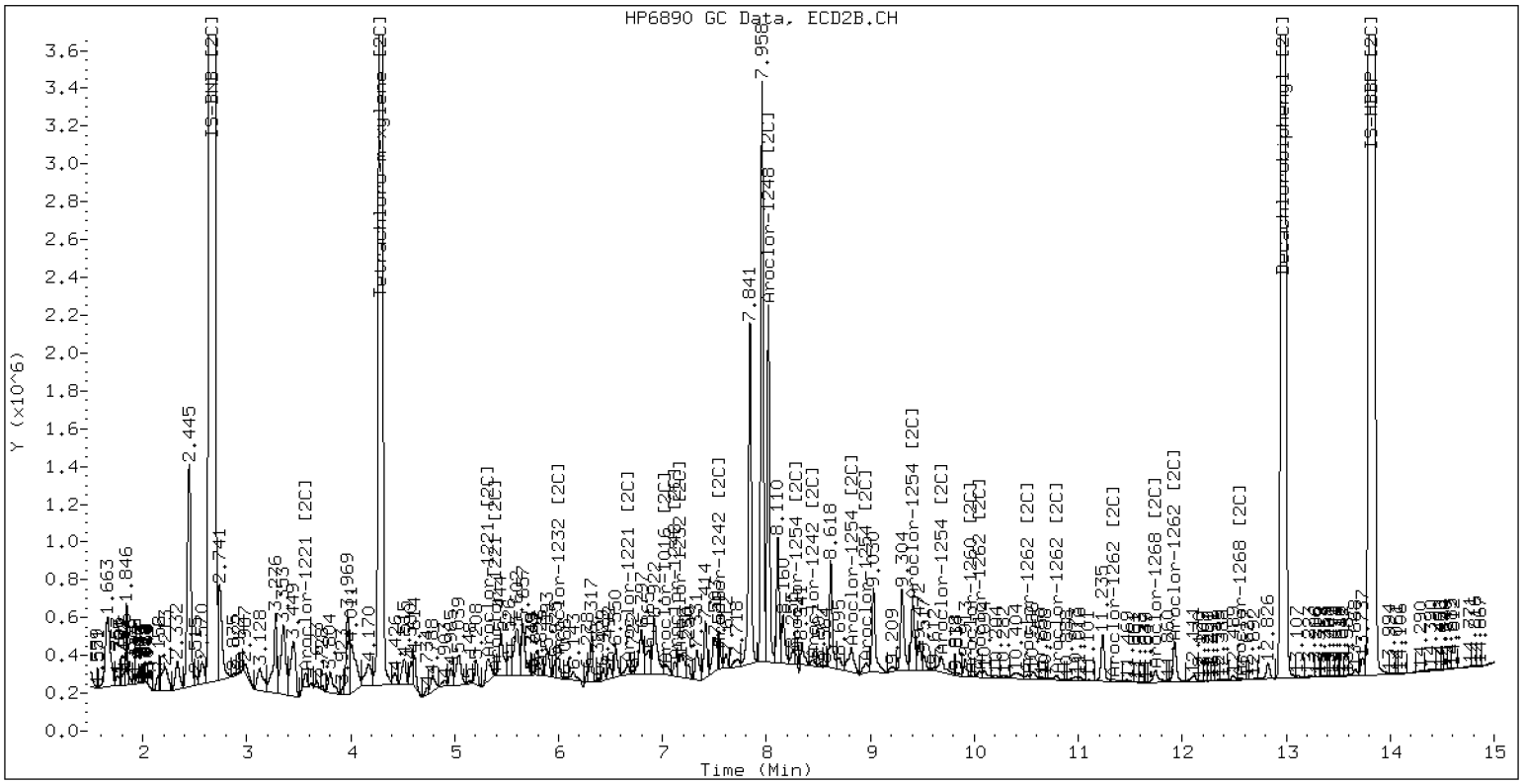
PCB Dual Column Chromatograms

ECD5-ZB5 /20180625.b/18062510ECD5.D 18F0208-02 25-JUN-2018 16:24 2ul JGR



ZB-5 Manual Integration: YES

ECD5-ZB35 /20180625.b/20180625.b/18062510ECD5.D 18F0208-02



ZB-35 Manual Integration: YES

LDW18-SP-24

Dual Column

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-03	File ID:	18062511ECD5.D
Sampled:	06/13/18 12:35	Prepared:	06/19/18 13:07	Analyzed:	06/25/18 16:44
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0451	Sequence:	SGF0341	Calibration:	BF00046
Instrument:	ECD5	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
12674-11-2	Aroclor 1016	1	1	0.010	0.002	0.010	U
11104-28-2	Aroclor 1221	1	1	0.010	0.002	0.010	U
11141-16-5	Aroclor 1232	1	1	0.010	0.002	0.010	U
53469-21-9	Aroclor 1242	1	1	0.010	0.002	0.010	U
12672-29-6	Aroclor 1248	1	1	0.010	0.002	0.010	U
11097-69-1	Aroclor 1254	1	1	0.010	0.002	0.010	U
11096-82-5	Aroclor 1260	1	1	0.010	0.003	0.010	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0157*	*78.5*	*29 - 120*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0140*	*70.1*	*32 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180625.b/18062511ECD5.D
Data file 2: /20180625.b/20180625.b/18062511ECD5.D
Method: ecd5.i\20180625.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: 18F0208-03
Client ID:
Injection Date: 25-JUN-2018 16:44
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.444	-0.004	303421071	4.288	-0.004	1030075792	28.0	22.0	24.2	Tetrachloro-m-xylene
12.782	-0.007	292589293	12.973	-0.001	1284756178	31.4	33.6	6.8	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	70.1	55.0
Decachlorobiphenyl	78.5	84.1

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	954704522	3.8
Hexabromobiphenyl	761926666	882500571	15.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4759630997	7.7
Hexabromobiphenyl	2171332320	2481877361	14.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.064	-0.008	987517	3.9	1	6.008	-0.003	8435111	5.7
Aroclor-1016	2	6.470	-0.002	2206595	2.7	2	6.655	0.011	2607730	0.8
Aroclor-1016	3	6.722	-0.010	1499787	6.5	3	7.037	0.014	3967037	4.9
Aroclor-1016	4	7.478	0.037	5430206	20.0	4	7.492	-0.046	13687523	14.3
	Total Col1Ave (4 peaks):				8.3	Total Col2Ave (4 peaks):				6.4 RPD = 25
	Corrected Ave (3 peaks):				4.4	Corrected Ave (3 peaks):				3.8 RPD = 14
Aroclor-1221	1	3.346	-0.091	13872790	200.5	1	---			0.0
Aroclor-1221	2	5.007	0.027	22214686	264.4	2	5.332	0.026	63498607	67.4
Aroclor-1221	3	5.102	0.017	781584	3.1	3	---			0.0
Aroclor-1221	NS	---			----	4	6.655	0.009	2607730	9.5
	Total Col1Ave (3 peaks):				156.0	Col2Ave: <3 Quant Peaks				
Aroclor-1232	1	3.346	-0.089	13872790	314.5	1	---			0.0
Aroclor-1232	2	6.064	-0.007	987517	9.2	2	6.008	-0.003	8435111	12.0
Aroclor-1232	3	6.470	-0.001	2206595	6.3	3	6.655	0.012	2607730	1.7
Aroclor-1232	4	6.722	-0.009	1499787	15.4	4	7.188	-0.008	6324057	20.2
	Total Col1Ave (4 peaks):				86.3	Total Col2Ave (3 peaks):				11.3 RPD = 154*
	Corrected Ave (3 peaks):				10.3	Corrected Ave: < 3 Peaks				
Aroclor-1242	1	6.064	-0.009	987517	4.9	1	6.008	-0.003	8435111	6.9
Aroclor-1242	2	6.470	-0.003	2206595	3.3	2	6.655	0.012	2607730	0.9
Aroclor-1242	3	6.722	-0.011	1499787	8.1	3	7.492	-0.046	13687523	14.9
Aroclor-1242	4	8.091	-0.009	735077	3.1	4	8.391	-0.015	678761	0.7
	Total Col1Ave (4 peaks):				4.9	Total Col2Ave (4 peaks):				5.8 RPD = 19
	Corrected Ave (3 peaks):				3.8	Corrected Ave (3 peaks):				2.8 RPD = 28
Aroclor-1248	1	6.953	-0.017	10571094	41.1	1	6.655	0.015	2607730	1.6
Aroclor-1248	2	7.278	0.010	5315683	18.0	2	7.122	-0.010	2916344	2.6
Aroclor-1248	3	7.869	0.003	442959	1.0	3	7.492	-0.046	13687523	11.0
Aroclor-1248	4	8.091	-0.009	735077	2.1	4	8.017	0.027	12679494	8.6
	Total Col1Ave (4 peaks):				15.6	Total Col2Ave (4 peaks):				5.9 RPD = 89*
	Corrected Ave (3 peaks):				7.0	Corrected Ave (3 peaks):				4.2 RPD = 49*
Aroclor-1254	1	8.155	-0.025	4593893	8.3	1	8.298	0.002	874982	0.5
Aroclor-1254	2	8.298	0.041	1111515	6.3	2	8.816	0.006	15445630	12.3
Aroclor-1254	3	8.559	0.008	1337495	3.8	3	8.958	-0.000	5255751	1.9
Aroclor-1254	4	8.682	-0.004	1295641	1.9	4	9.426	-0.001	1616313	1.3
Aroclor-1254	5	9.711	-0.004	696260	1.0	5	9.726	-0.006	2175290	1.4
	Total Col1Ave (5 peaks):				4.3	Total Col2Ave (5 peaks):				3.5 RPD = 20
	Corrected Ave (4 peaks):				3.3	Corrected Ave (4 peaks):				1.3 RPD = 88*
Aroclor-1260	1	9.936	-0.006	745811	1.5	1	9.914	-0.052	7071035	3.6
Aroclor-1260	2	10.253	-0.005	401158	0.9	2	10.496	-0.009	1093419	0.6
Aroclor-1260	3	10.662	0.033	7214296	6.3	3	10.780	0.002	1559981	0.4
Aroclor-1260	4	11.027	0.000	207176	0.4	4	11.348	0.056	1216068	1.1
Aroclor-1260	5	11.181	-0.034	907194	2.9	NS	---			----
	Total Col1Ave (5 peaks):				2.4	Total Col2Ave (4 peaks):				1.4 RPD = 51*
	Corrected Ave (4 peaks):				1.4	Corrected Ave (3 peaks):				0.7 RPD = 67*
Aroclor-1262	1	9.936	-0.006	745811	1.1	1	10.096	0.031	4627371	1.9
Aroclor-1262	2	10.253	-0.005	401158	0.7	2	10.496	-0.012	1093419	0.5
Aroclor-1262	3	10.662	0.034	7214296	5.9	3	10.780	0.000	1559981	0.4
Aroclor-1262	4	11.027	-0.000	207176	0.5	4	11.348	-0.007	1216068	0.4
Aroclor-1262	5	11.181	-0.033	907194	1.8	5	11.926	-0.014	23794699	33.1
	Total Col1Ave (5 peaks):				2.0	Total Col2Ave (5 peaks):				7.3 RPD = 114*
	Corrected Ave (4 peaks):				1.0	Corrected Ave (4 peaks):				0.8 RPD = 24
Aroclor-1268	1	11.181	0.038	907194	0.6	1	11.348	0.053	1216068	0.2
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	11.645	0.046	786212	0.7	3	11.751	-0.003	1290070	0.3
Aroclor-1268	4	12.369	-0.014	784972	0.2	4	12.561	-0.007	732025	0.1

Total Col1Ave (3 peaks): 0.5 Total Col2Ave (3 peaks): 0.2 RPD = 85*
Corrected Ave: < 3 Peaks Corrected Ave: < 3 Peaks

Total PCB Area Col1 (4.548 - 12.689) = 195921580 Col1 Total PCB = 0.0 ppm*

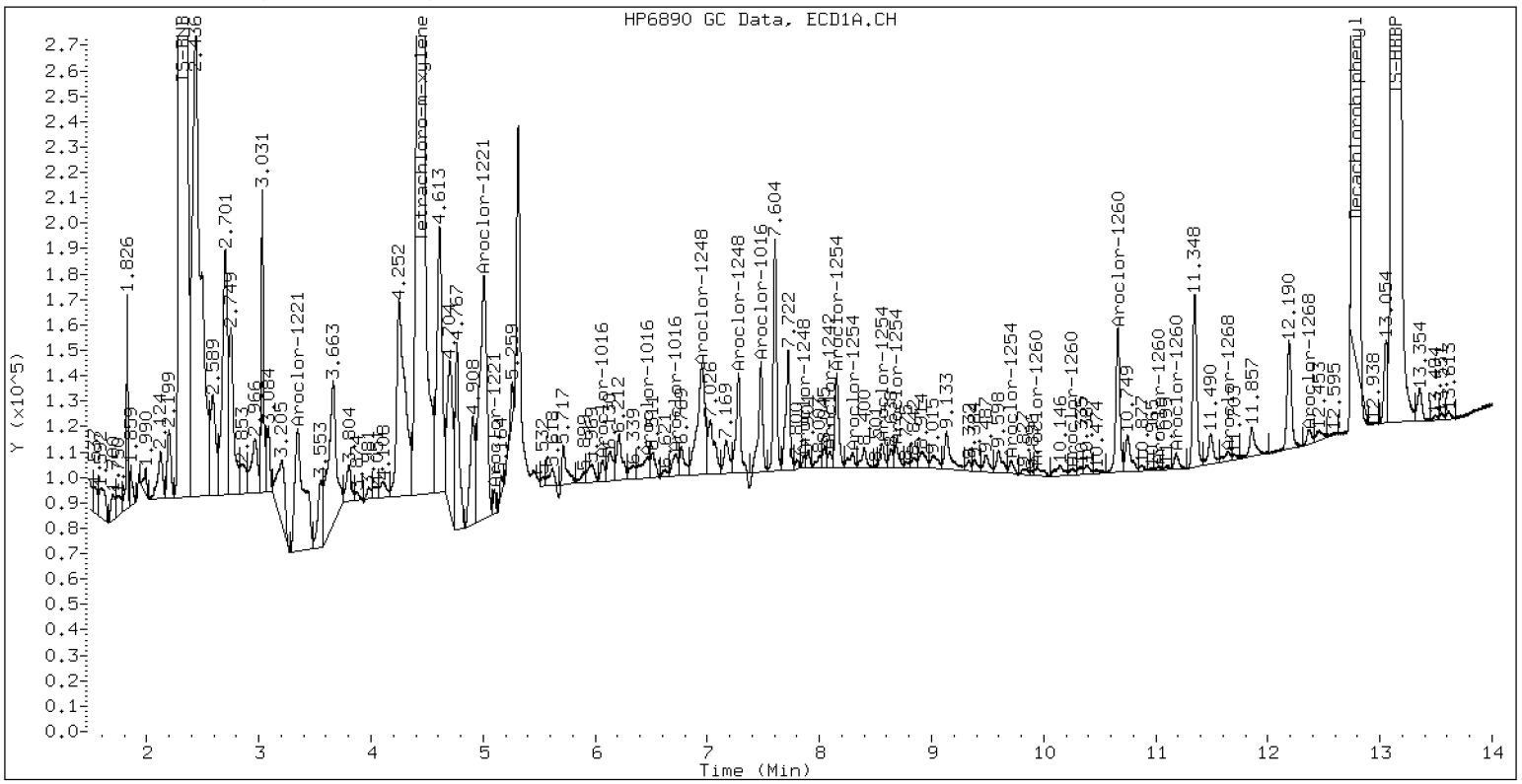
Total PCB Area Col2 (4.548 - 12.689) = 518092067 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

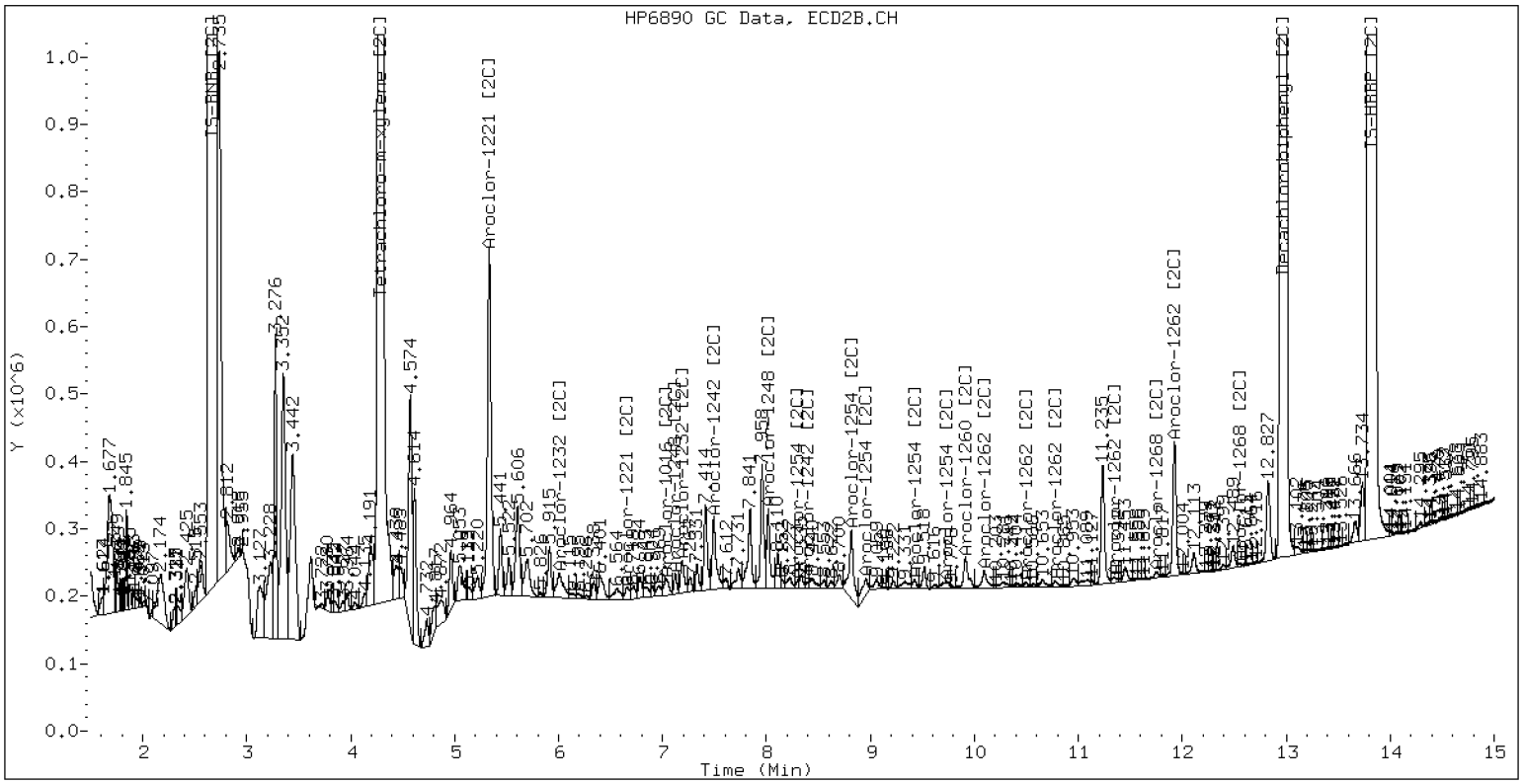
PCB Dual Column Chromatograms

ECD5-ZB5 /20180625.b/18062511ECD5.D 18F0208-03 25-JUN-2018 16:44 2ul JGR



ZB-5 Manual Integration: YES

ECD5-ZB35 /20180625.b/20180625.b/18062511ECD5.D 18F0208-03



ZB-35 Manual Integration: YES

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Dual Column

LDW18-SP-24-FD

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-04	File ID:	18062512ECD5.D
Sampled:	06/13/18 12:42	Prepared:	06/19/18 13:07	Analyzed:	06/25/18 17:04
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0451	Sequence:	SGF0341	Calibration:	BF00046
Instrument:	ECD5	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
12674-11-2	Aroclor 1016	1	1	0.010	0.002	0.010	U
11104-28-2	Aroclor 1221	1	1	0.010	0.002	0.010	U
11141-16-5	Aroclor 1232	1	1	0.010	0.002	0.010	U
53469-21-9	Aroclor 1242	1	1	0.010	0.002	0.010	U
12672-29-6	Aroclor 1248	1	1	0.010	0.002	0.010	U
11097-69-1	Aroclor 1254	1	1	0.010	0.002	0.010	U
11096-82-5	Aroclor 1260	1	1	0.010	0.003	0.010	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0147*	*73.5*	*29 - 120*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0118*	*58.9*	*32 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180625.b/18062512ECD5.D
Data file 2: /20180625.b/20180625.b/18062512ECD5.D
Method: ecd5.i\20180625.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: 18F0208-04
Client ID:
Injection Date: 25-JUN-2018 17:04
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.445	-0.003	266813854	4.288	-0.003	958909361	23.6	19.8	17.5	Tetrachloro-m-xylene
12.783	-0.006	272261964	12.973	-0.000	1183267244	29.4	31.0	5.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	58.9	49.5
Decachlorobiphenyl	73.5	77.5

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	998132509	8.5
Hexabromobiphenyl	761926666	877248765	15.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4924122436	11.4
Hexabromobiphenyl	2171332320	2480369185	14.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.067	-0.005	2280169	8.7	1	6.007	-0.003	7888083	5.2
Aroclor-1016	2	6.483	0.011	38490100	44.4	2	6.657	0.012	3217471	0.9
Aroclor-1016	3	6.695	-0.036	1043211	4.3	3	7.042	0.018	8189950	9.8
Aroclor-1016	4	7.505	0.063	17526933	61.8	4	7.498	-0.041	70106797	70.9
	Total Col1Ave (4 peaks):				29.8	Total Col2Ave (4 peaks):				21.7 RPD = 32
	Corrected Ave (3 peaks):				19.2	Corrected Ave (3 peaks):				5.3 RPD = 113*
Aroclor-1221	1	3.413	-0.024	12942160	178.9	1	3.574	-0.018	9006334	48.8
Aroclor-1221	2	4.986	0.007	46195919	525.8	2	5.333	0.027	53477214	54.8
Aroclor-1221	3	5.104	0.019	1045651	4.0	3	---			0.0
Aroclor-1221	NS	---			----	4	6.657	0.010	3217471	11.3
	Total Col1Ave (3 peaks):				236.2	Total Col2Ave (3 peaks):				38.3 RPD = 144*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	3.413	-0.022	12942160	280.6	1	3.574	-0.017	9006334	77.1
Aroclor-1232	2	6.067	-0.004	2280169	20.4	2	6.007	-0.003	7888083	10.8
Aroclor-1232	3	6.483	0.012	38490100	105.1	3	6.657	0.013	3217471	2.0
Aroclor-1232	4	6.695	-0.035	1043211	10.2	4	7.189	-0.008	10377111	32.1
	Total Col1Ave (4 peaks):				104.1	Total Col2Ave (4 peaks):				30.5 RPD = 109*
	Corrected Ave (3 peaks):				45.3	Corrected Ave (3 peaks):				15.0 RPD = 101*
Aroclor-1242	1	6.067	-0.006	2280169	10.9	1	6.007	-0.003	7888083	6.3
Aroclor-1242	2	6.483	0.010	38490100	55.1	2	6.657	0.013	3217471	1.1
Aroclor-1242	3	6.695	-0.037	1043211	5.4	3	7.498	-0.041	70106797	73.5
Aroclor-1242	4	8.095	-0.005	11861459	40.1	4	8.400	-0.006	2901886	2.9
	Total Col1Ave (4 peaks):				29.9	Total Col2Ave (4 peaks):				21.0 RPD = 35
	Corrected Ave (3 peaks):				21.4	Corrected Ave (3 peaks):				3.4 RPD = 145*
Aroclor-1248	1	6.945	-0.025	12468241	46.4	1	6.657	0.017	3217471	1.9
Aroclor-1248	2	7.275	0.007	8722757	28.2	2	7.125	-0.007	6573784	5.6
Aroclor-1248	3	7.858	-0.008	2196049	4.6	3	7.498	-0.041	70106797	54.6
Aroclor-1248	4	8.095	-0.005	11861459	32.8	4	8.020	0.030	21966570	14.4
	Total Col1Ave (4 peaks):				28.0	Total Col2Ave (4 peaks):				19.1 RPD = 38
	Corrected Ave (3 peaks):				21.9	Corrected Ave (3 peaks):				7.3 RPD = 100*
Aroclor-1254	1	8.153	-0.028	5762993	9.9	1	8.296	0.000	16207206	9.2
Aroclor-1254	2	8.222	-0.035	3353061	18.2	2	8.816	0.005	35391398	27.2
Aroclor-1254	3	8.571	0.020	4800069	13.0	3	8.960	0.001	12822901	4.5
Aroclor-1254	4	8.675	-0.011	4395277	6.1	4	9.472	0.046	29695934	23.1
Aroclor-1254	5	9.708	-0.007	783980	1.1	5	9.728	-0.005	2819051	1.7
	Total Col1Ave (5 peaks):				9.7	Total Col2Ave (5 peaks):				13.1 RPD = 30
	Corrected Ave (4 peaks):				7.5	Corrected Ave (4 peaks):				9.6 RPD = 24
Aroclor-1260	1	9.989	0.046	1157920	2.4	1	9.948	-0.018	7731186	4.0
Aroclor-1260	2	10.252	-0.007	295467	0.6	2	10.511	0.006	1978212	1.1
Aroclor-1260	3	10.662	0.033	25535575	22.5	3	10.782	0.004	2524218	0.6
Aroclor-1260	4	11.021	-0.005	120299	0.2	4	11.319	0.028	480000	0.4
Aroclor-1260	5	11.187	-0.028	936045	3.0	NS	---			----
	Total Col1Ave (5 peaks):				5.8	Total Col2Ave (4 peaks):				1.5 RPD = 115*
	Corrected Ave (4 peaks):				1.6	Corrected Ave (3 peaks):				0.7 RPD = 72*
Aroclor-1262	1	9.989	0.047	1157920	1.8	1	10.051	-0.013	5120583	2.1
Aroclor-1262	2	10.252	-0.006	295467	0.5	2	10.511	0.003	1978212	1.0
Aroclor-1262	3	10.662	0.034	25535575	20.9	3	10.782	0.002	2524218	0.6
Aroclor-1262	4	11.021	-0.006	120299	0.3	4	11.352	-0.003	622796	0.2
Aroclor-1262	5	11.187	-0.027	936045	1.8	5	11.926	-0.014	24970020	34.8
	Total Col1Ave (5 peaks):				5.1	Total Col2Ave (5 peaks):				7.7 RPD = 42*
	Corrected Ave (4 peaks):				1.1	Corrected Ave (4 peaks):				1.0 RPD = 13
Aroclor-1268	1	11.115	-0.028	54445	0.0	1	11.319	0.025	480000	0.1
Aroclor-1268	2	11.187	-0.026	936045	0.7	2	11.352	-0.009	622796	0.1
Aroclor-1268	3	11.594	-0.004	156177	0.1	3	11.746	-0.007	1440197	0.4

Aroclor-1268	4	12.372	-0.011	942482	0.3		4	12.557	-0.011	464790	0.0
	Total Col1Ave (4 peaks):			0.3			Total Col2Ave (4 peaks):			0.2	RPD = 61*
	Corrected Ave (3 peaks):			0.2			Corrected Ave (3 peaks):			0.1	RPD = 56*

Total PCB Area Col1 (4.548 - 12.689) = 541009590 Col1 Total PCB = 0.1 ppm*

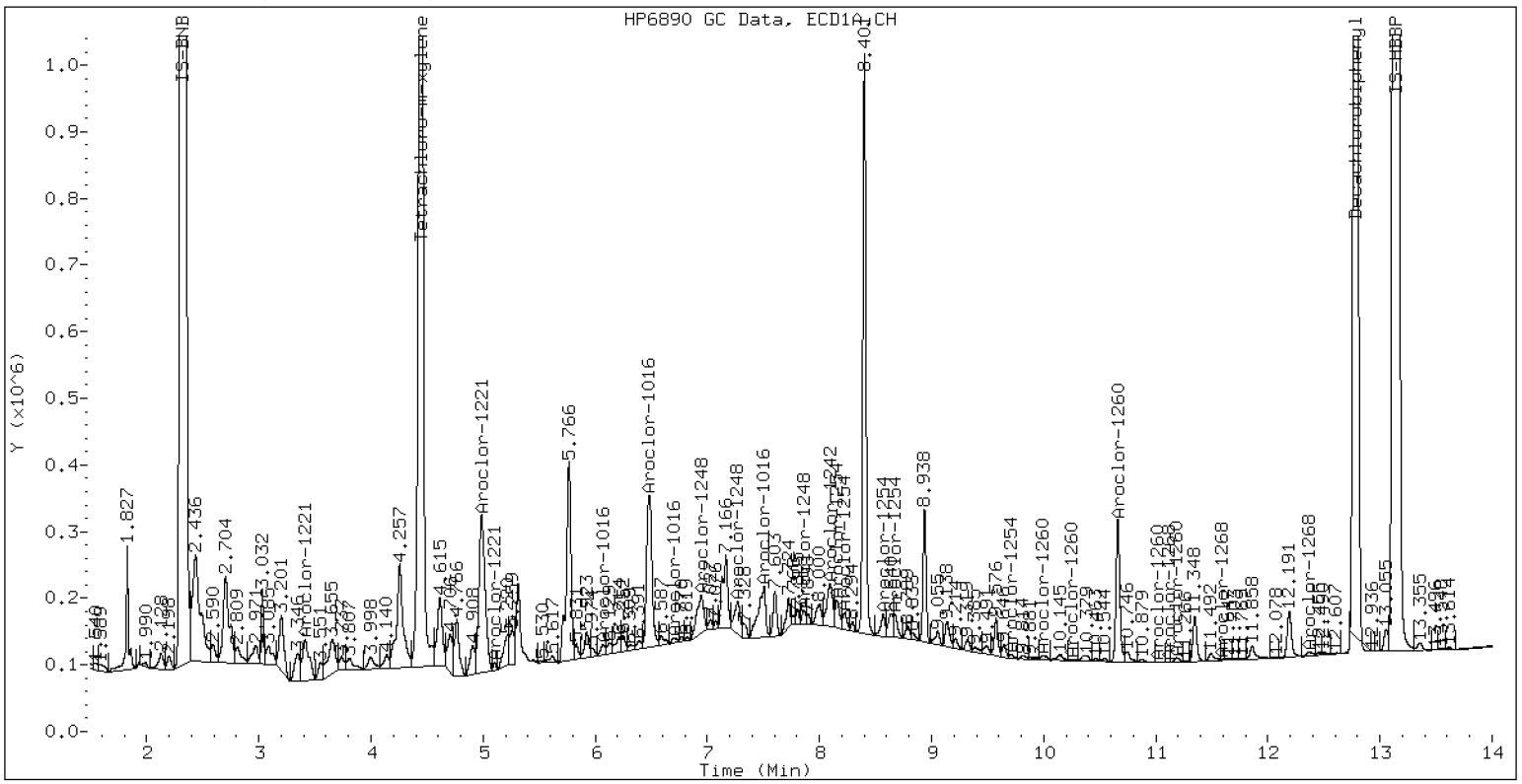
Total PCB Area Col2 (4.548 - 12.689) = 1452922245 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

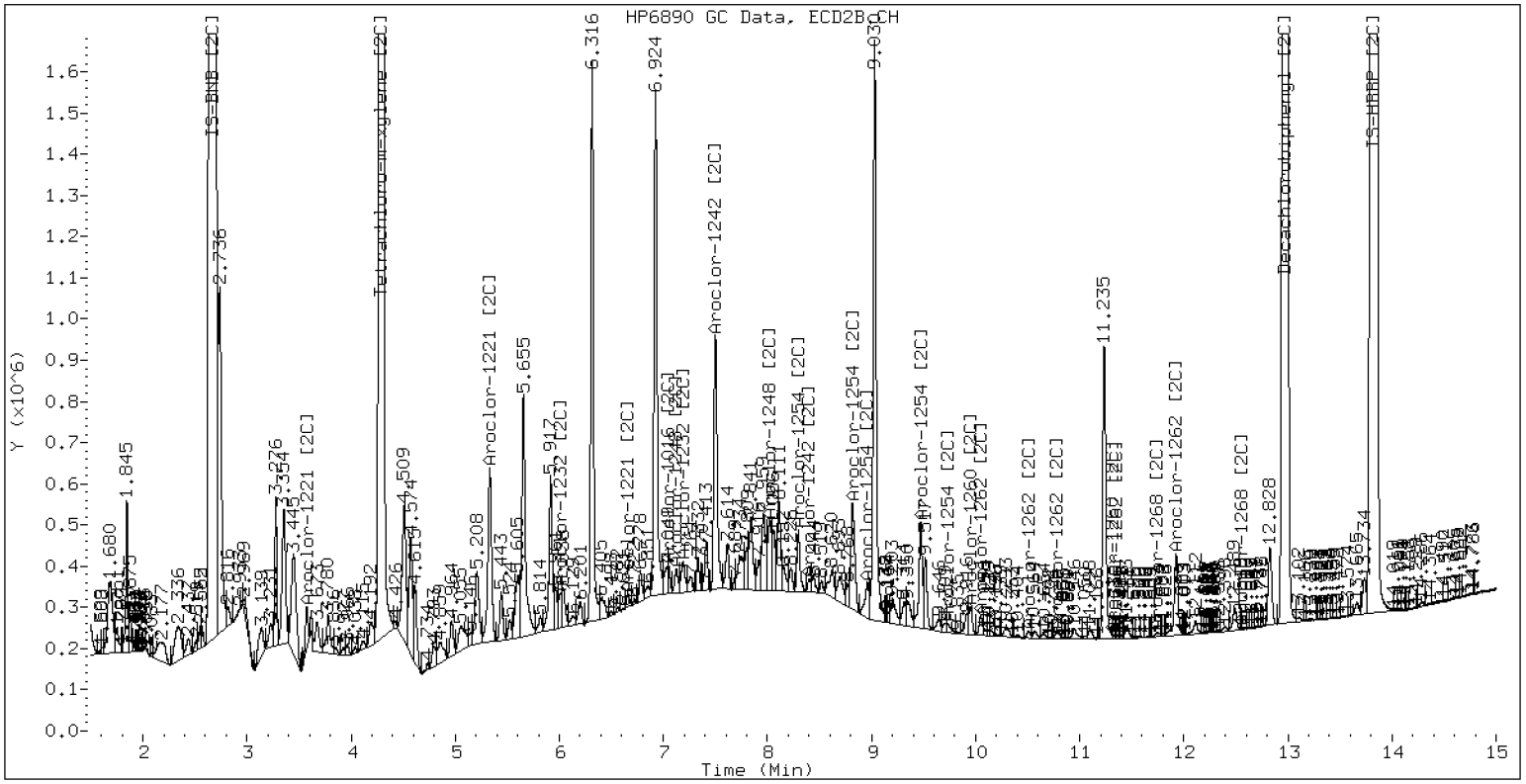
PCB Dual Column Chromatograms

ECD5-ZB5 /20180625.b/18062512ECD5.D 18F0208-04 25-JUN-2018 17:04 2ul JGR



ZB-5 Manual Integration: YES

ECD5-ZB35 /20180625.b/20180625.b/18062512ECD5.D 18F0208-04



ZB-35 Manual Integration: YES

LDW18-SP-05

Dual Column

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-01	File ID:	18062806ECD5.D
Sampled:	06/14/18 14:08	Prepared:	06/21/18 11:20	Analyzed:	06/28/18 08:31
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0512	Sequence:	SGF0393	Calibration:	BF00046
Instrument:	ECD5	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
12674-11-2	Aroclor 1016	1	1	0.010	0.002	0.010	U
11104-28-2	Aroclor 1221	1	1	0.010	0.002	0.010	U
11141-16-5	Aroclor 1232	1	1	0.010	0.002	0.010	U
53469-21-9	Aroclor 1242	1	1	0.010	0.002	0.010	U
12672-29-6	Aroclor 1248	1	1	0.010	0.002	0.010	U
11097-69-1	Aroclor 1254	1	1	0.010	0.002	0.010	U
11096-82-5	Aroclor 1260	1	1	0.010	0.003	0.010	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0172*	*86.2*	*29 - 120*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0153*	*76.3*	*32 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062806.D
Data file 2: /20180628.b/20180628.b/18062806.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: 18F0226-01
Client ID:
Injection Date: 28-JUN-2018 08:31
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.439	-0.002	339390317	4.283	-0.007	1263478611	30.5	24.1	23.6	Tetrachloro-m-xylene
12.778	-0.001	326363263	12.970	-0.001	1668118252	34.5	40.3	15.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	76.3	60.2
Decachlorobiphenyl	86.2	100.8

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	980511211	6.6
Hexabromobiphenyl	761926666	896457840	17.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5329421824	20.6
Hexabromobiphenyl	2171332320	2689333015	23.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.057	-0.005	2399857	9.3	1	5.999	-0.011	7152473	4.3
Aroclor-1016	2	6.464	0.002	4151344	4.9	2	6.667	0.034	3662740	1.0
Aroclor-1016	3	6.715	-0.007	4282286	18.1	3	7.026	0.005	5526061	6.1
Aroclor-1016	4	7.472	0.040	10186959	36.6	4	7.491	-0.046	16422503	15.4
	Total Col1Ave (4 peaks):				17.2	Total Col2Ave (4 peaks):				6.7 RPD = 88*
	Corrected Ave (3 peaks):				10.8	Corrected Ave (3 peaks):				3.8 RPD = 96*
Aroclor-1221	1	3.433	-0.004	2530364	35.6	1	3.585	-0.007	3794176	19.0
Aroclor-1221	2	5.001	0.022	23388690	271.0	2	5.312	0.006	17889921	17.0
Aroclor-1221	3	5.096	0.010	981354	3.8	3	5.435	0.061	16493980	88.9
Aroclor-1221	NS	---			----	4	6.667	0.020	3662740	11.9
	Total Col1Ave (3 peaks):				103.5	Total Col2Ave (4 peaks):				34.2 RPD = 101*
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				16.0
Aroclor-1232	1	3.433	-0.003	2530364	55.8	1	3.585	-0.005	3794176	30.0
Aroclor-1232	2	6.057	-0.014	2399857	21.8	2	5.999	-0.012	7152473	9.1
Aroclor-1232	3	6.464	-0.006	4151344	11.5	3	6.667	0.024	3662740	2.1
Aroclor-1232	4	6.715	-0.015	4282286	42.8	4	7.186	-0.011	3091892	8.8
	Total Col1Ave (4 peaks):				33.0	Total Col2Ave (4 peaks):				12.5 RPD = 90*
	Corrected Ave (3 peaks):				25.4	Corrected Ave (3 peaks):				6.7 RPD = 117*
Aroclor-1242	1	6.057	-0.000	2399857	11.6	1	5.999	-0.010	7152473	5.2
Aroclor-1242	2	6.464	0.007	4151344	6.1	2	6.667	0.026	3662740	1.1
Aroclor-1242	3	6.715	-0.002	4282286	22.5	3	7.491	-0.046	16422503	15.9
Aroclor-1242	4	8.087	0.001	1166969	4.8	4	8.386	-0.017	951623	0.9
	Total Col1Ave (4 peaks):				11.3	Total Col2Ave (4 peaks):				5.8 RPD = 64*
	Corrected Ave (3 peaks):				7.5	Corrected Ave (3 peaks):				2.4 RPD = 102*
Aroclor-1248	1	6.946	-0.015	21119727	80.0	1	6.667	0.031	3662740	2.0
Aroclor-1248	2	7.273	0.013	8354063	27.5	2	7.119	-0.011	3063772	2.4
Aroclor-1248	3	7.861	0.005	1745265	3.7	3	7.491	-0.046	16422503	11.8
Aroclor-1248	4	8.087	-0.003	1166969	3.3	4	8.012	0.024	11697115	7.1
	Total Col1Ave (4 peaks):				28.6	Total Col2Ave (4 peaks):				5.8 RPD = 132*
	Corrected Ave (3 peaks):				11.5	Corrected Ave (3 peaks):				3.8 RPD = 100*
Aroclor-1254	1	8.149	-0.025	7484231	13.1	1	8.298	-0.001	1017667	0.5
Aroclor-1254	2	8.254	0.004	2939608	16.3	2	8.812	0.001	25577614	18.1
Aroclor-1254	3	8.552	0.008	2573705	7.1	3	8.955	-0.000	1648301	0.5
Aroclor-1254	4	8.677	-0.001	2519234	3.6	4	9.419	-0.008	2599383	1.9
Aroclor-1254	5	9.705	-0.002	1326055	1.9	5	9.729	-0.005	4465155	2.5
	Total Col1Ave (5 peaks):				8.4	Total Col2Ave (5 peaks):				4.7 RPD = 56*
	Corrected Ave (4 peaks):				6.4	Corrected Ave (4 peaks):				1.4 RPD = 130*
Aroclor-1260	1	9.935	0.002	833309	1.7	1	9.912	-0.051	9491727	4.5
Aroclor-1260	2	10.251	0.003	458036	1.0	2	10.503	0.001	1197854	0.6
Aroclor-1260	3	10.656	0.038	31749246	27.4	3	10.776	0.001	2402234	0.6
Aroclor-1260	4	11.020	0.003	310315	0.6	4	11.233	-0.055	109568595	90.1
Aroclor-1260	5	11.177	-0.029	1024229	3.2	NS	---			----
	Total Col1Ave (5 peaks):				6.8	Total Col2Ave (4 peaks):				23.9 RPD = 112*
	Corrected Ave (4 peaks):				1.6	Corrected Ave (3 peaks):				1.9 RPD = 16
Aroclor-1262	1	9.935	-0.007	833309	1.2	1	10.092	0.028	8165173	3.1
Aroclor-1262	2	10.251	-0.007	458036	0.8	2	10.503	-0.005	1197854	0.5
Aroclor-1262	3	10.656	0.029	31749246	25.4	3	10.776	-0.003	2402234	0.5
Aroclor-1262	4	11.020	-0.008	310315	0.7	4	11.346	-0.009	2484740	0.8
Aroclor-1262	5	11.177	-0.038	1024229	2.0	5	11.922	-0.018	26692603	34.3
	Total Col1Ave (5 peaks):				6.0	Total Col2Ave (5 peaks):				7.9 RPD = 26
	Corrected Ave (4 peaks):				1.2	Corrected Ave (4 peaks):				1.2 RPD = 4
Aroclor-1268	1	11.177	0.034	1024229	0.7	1	11.346	0.051	2484740	0.5
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	11.642	0.043	868337	0.8	3	11.744	-0.009	1492619	0.3

Aroclor-1268	4	12.362	-0.021	758929	0.2		4	12.553	-0.014	694430	0.0
	Total Col1Ave (3 peaks):			0.6		Total Col2Ave (3 peaks):				0.3	RPD = 64*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks					

Total PCB Area Col1 (4.541 - 12.680) = 387381645 Col1 Total PCB = 0.1 ppm*

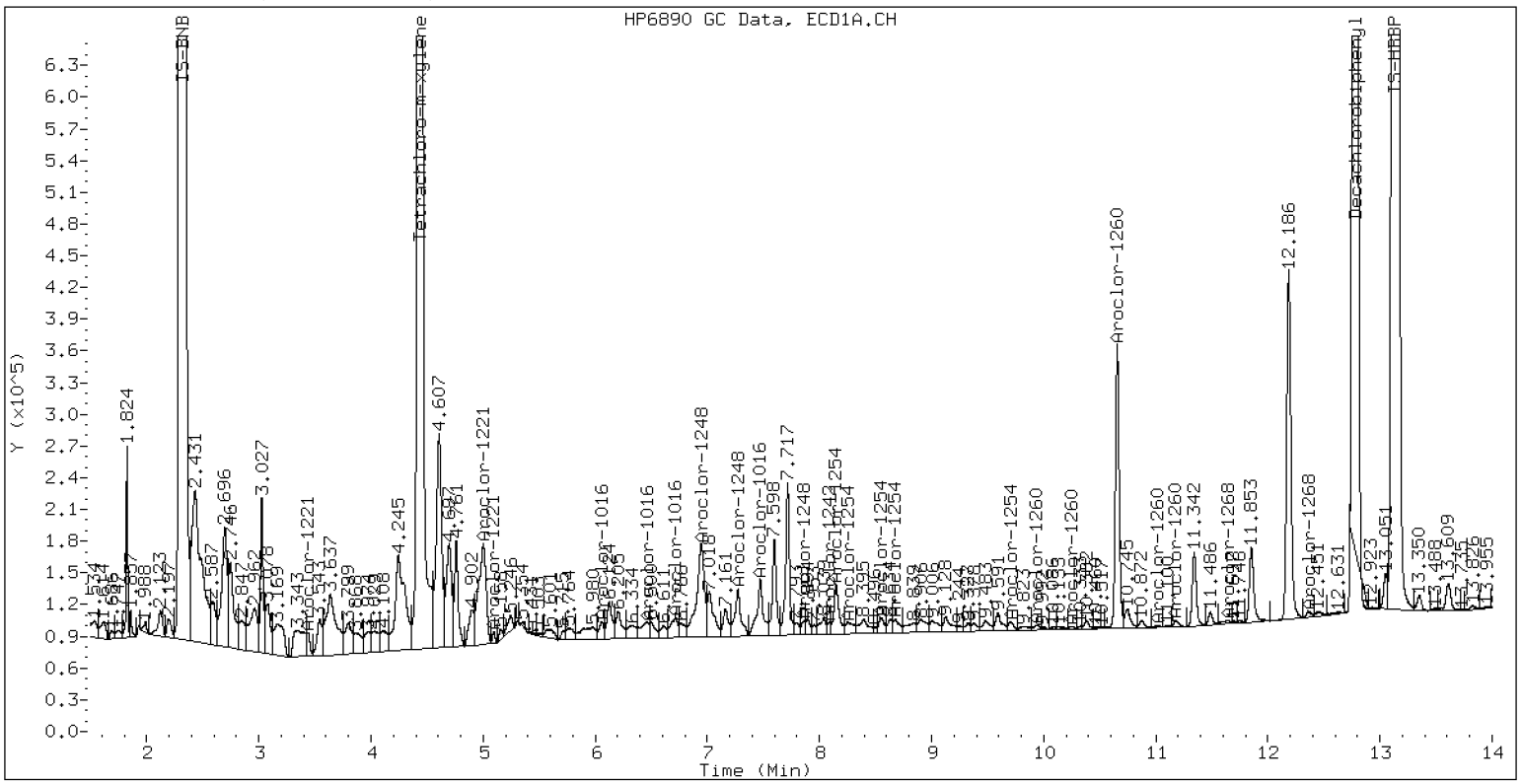
Total PCB Area Col2 (4.541 - 12.680) = 707637557 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

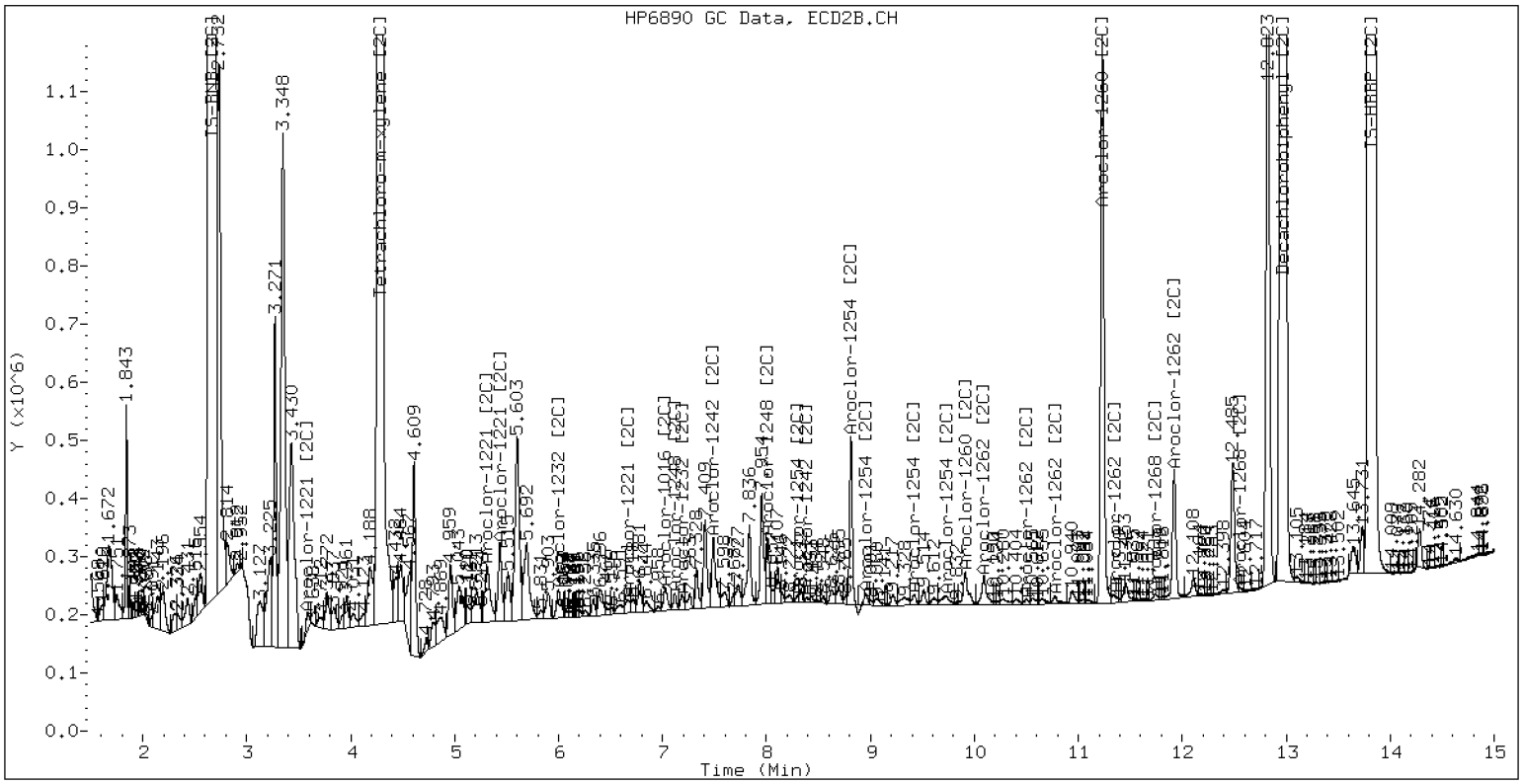
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062806.D 18F0226-01 28-JUN-2018 08:31 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062806.D 18F0226-01



ZB-35 Manual Integration: YES

Dual Column

LDW18-SP-57

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-02	File ID:	18062807ECD5.D
Sampled:	06/14/18 10:41	Prepared:	06/21/18 11:20	Analyzed:	06/28/18 08:51
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0512	Sequence:	SGF0393	Calibration:	BF00046
Instrument:	ECD5	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
12674-11-2	Aroclor 1016	1	1	0.010	0.002	0.010	U
11104-28-2	Aroclor 1221	1	1	0.010	0.002	0.010	U
11141-16-5	Aroclor 1232	1	1	0.010	0.002	0.010	U
53469-21-9	Aroclor 1242	1	1	0.010	0.002	0.010	U
12672-29-6	Aroclor 1248	1	1	0.010	0.002	0.010	U
11097-69-1	Aroclor 1254	1	1	0.010	0.002	0.010	U
11096-82-5	Aroclor 1260	1	1	0.010	0.003	0.010	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0162*	*81.1*	*29 - 120*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0151*	*75.3*	*32 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062807.D
Data file 2: /20180628.b/20180628.b/18062807.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: 18F0226-02
Client ID:
Injection Date: 28-JUN-2018 08:51
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.440	-0.001	345608956	4.284	-0.007	1268858709	30.1	23.8	23.7	Tetrachloro-m-xylene
12.778	-0.002	319726187	12.972	0.000	1633105548	32.5	37.8	15.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	75.3	59.4
Decachlorobiphenyl	81.1	94.5

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1011151673	9.9
Hexabromobiphenyl	761926666	933380226	22.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5426103322	22.8
Hexabromobiphenyl	2171332320	2806316294	29.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.059	-0.003	2726857	10.3	1	6.006	-0.003	11171797	6.6
Aroclor-1016	2	6.456	-0.006	9114413	10.4	2	6.615	-0.018	220303	0.1
Aroclor-1016	3	6.716	-0.006	5189726	21.3	3	7.027	0.006	9055577	9.9
Aroclor-1016	4	7.473	0.041	13281366	~~46.3~~	4	7.530	-0.008	5582933	5.1
	Total Col1Ave (4 peaks):				22.1	Total Col2Ave (4 peaks):				5.4 RPD = 121*
	Corrected Ave (3 peaks):				14.0	Corrected Ave (3 peaks):				3.9 RPD = 112*
Aroclor-1221	1	3.435	-0.002	3115828	42.5	1	3.614	0.022	1894026	9.3
Aroclor-1221	2	5.000	0.021	24650034	~~277~~ 0	2	5.329	0.023	49861780	~~46.4~~
Aroclor-1221	3	5.096	0.011	1101118	4.1	3	---			0.0
Aroclor-1221	NS	---			----	4	6.663	0.017	4883397	15.6
	Total Col1Ave (3 peaks):				107.9	Total Col2Ave (3 peaks):				23.8 RPD = 128*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	3.435	-0.000	3115828	~~66.7~~	1	3.614	0.023	1894026	14.7
Aroclor-1232	2	6.059	-0.012	2726857	24.1	2	6.006	-0.004	11171797	13.9
Aroclor-1232	3	6.456	-0.014	9114413	24.6	3	6.663	0.020	4883397	2.8
Aroclor-1232	4	6.716	-0.015	5189726	~~50.3~~	4	7.186	-0.011	5339331	15.0
	Total Col1Ave (4 peaks):				41.4	Total Col2Ave (4 peaks):				11.6 RPD = 112*
	Corrected Ave (3 peaks):				33.0	Corrected Ave (3 peaks):				10.5 RPD = 104*
Aroclor-1242	1	6.059	0.002	2726857	12.8	1	6.006	-0.002	11171797	8.0
Aroclor-1242	2	6.456	-0.001	9114413	12.9	2	6.663	0.022	4883397	1.5
Aroclor-1242	3	6.716	-0.002	5189726	~~26.4~~	3	7.530	-0.007	5582933	5.3
Aroclor-1242	4	8.087	0.002	4290900	17.2	4	8.402	-0.002	5178433	4.8
	Total Col1Ave (4 peaks):				17.3	Total Col2Ave (4 peaks):				4.9 RPD = 112*
	Corrected Ave (3 peaks):				14.3	Corrected Ave (3 peaks):				3.9 RPD = 115*
Aroclor-1248	1	6.948	-0.013	24596232	~~90.4~~	1	6.663	0.027	4883397	2.6
Aroclor-1248	2	7.273	0.013	14038386	~~44.8~~	2	7.122	-0.008	5938667	4.6
Aroclor-1248	3	7.859	0.003	7635511	15.8	3	7.530	-0.007	5582933	3.9
Aroclor-1248	4	8.087	-0.002	4290900	11.7	4	8.014	0.025	14335176	8.5
	Total Col1Ave (4 peaks):				40.7	Total Col2Ave (4 peaks):				4.9 RPD = 157*
	Corrected Ave (3 peaks):				24.1	Corrected Ave (3 peaks):				3.7 RPD = 147*
Aroclor-1254	1	8.150	-0.023	10913112	18.6	1	8.297	-0.002	2949882	1.5
Aroclor-1254	2	8.252	0.002	2006180	10.8	2	8.814	0.003	34050248	~~23.~~7
Aroclor-1254	3	8.553	0.010	5876896	15.7	3	8.955	-0.001	4036307	1.3
Aroclor-1254	4	8.678	-0.001	4801693	6.6	4	9.423	-0.004	3089520	2.2
Aroclor-1254	5	9.705	-0.002	1890160	2.6	5	9.731	-0.003	2328542	1.3
	Total Col1Ave (5 peaks):				10.8	Total Col2Ave (5 peaks):				6.0 RPD = 58*
	Corrected Ave (4 peaks):				8.9	Corrected Ave (4 peaks):				1.6 RPD = 140*
Aroclor-1260	1	9.936	0.002	1118575	2.2	1	9.958	-0.005	2407596	1.1
Aroclor-1260	2	10.250	0.002	574283	1.2	2	10.504	0.002	1124855	0.6
Aroclor-1260	3	10.657	0.038	13459132	11.1	3	10.770	-0.005	2370374	0.5
Aroclor-1260	4	11.018	0.001	362095	0.6	4	11.232	-0.057	43041610	~~33.~~9
Aroclor-1260	5	11.179	-0.026	1481993	4.5	NS	---			----
	Total Col1Ave (5 peaks):				3.9	Total Col2Ave (4 peaks):				9.0 RPD = 79*
	Corrected Ave (4 peaks):				2.1	Corrected Ave (3 peaks):				0.7 RPD = 97*
Aroclor-1262	1	9.936	-0.006	1118575	1.6	1	10.090	0.026	7488853	2.8
Aroclor-1262	2	10.250	-0.008	574283	1.0	2	10.504	-0.005	1124855	0.5
Aroclor-1262	3	10.657	0.029	13459132	10.4	3	10.770	-0.010	2370374	0.5
Aroclor-1262	4	11.018	-0.009	362095	0.8	4	11.347	-0.008	2353743	0.7
Aroclor-1262	5	11.179	-0.036	1481993	2.7	5	11.922	-0.018	27970965	34.4
	Total Col1Ave (5 peaks):				3.3	Total Col2Ave (5 peaks):				7.8 RPD = 81*
	Corrected Ave (4 peaks):				1.5	Corrected Ave (4 peaks):				1.1 RPD = 33
Aroclor-1268	1	11.179	0.036	1481993	1.0	1	11.347	0.053	2353743	0.4
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	11.641	0.043	901919	0.8	3	11.747	-0.007	1473604	0.3

Aroclor-1268	4	12.366	-0.017	905919	0.2		4	12.558	-0.010	847733	0.1
	Total Col1Ave (3 peaks):			0.7		Total Col2Ave (3 peaks):				0.3	RPD = 84*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks					

Total PCB Area Col1 (4.541 - 12.680) = 420298078 Col1 Total PCB = 0.1 ppm*

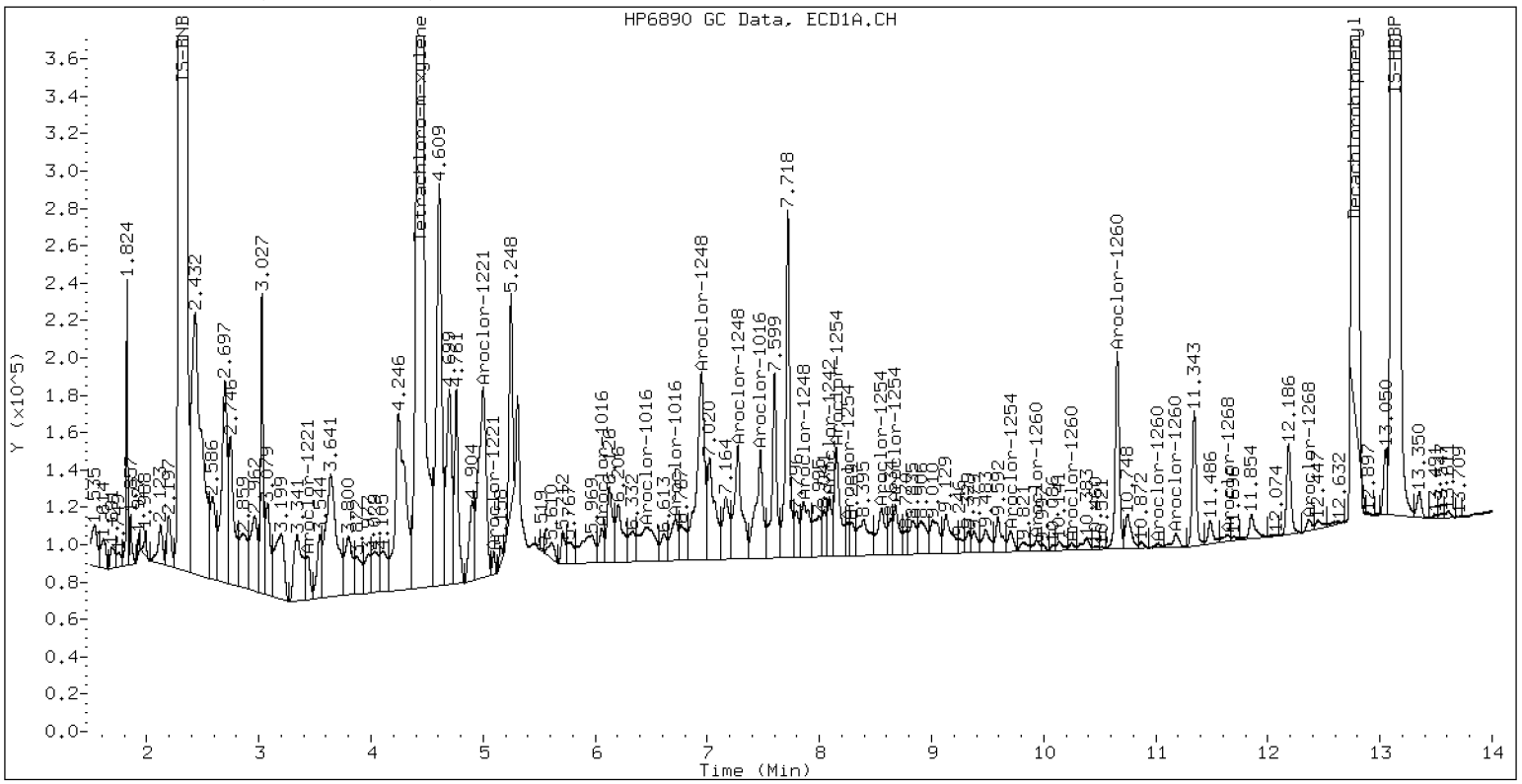
Total PCB Area Col2 (4.541 - 12.680) = 812723474 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

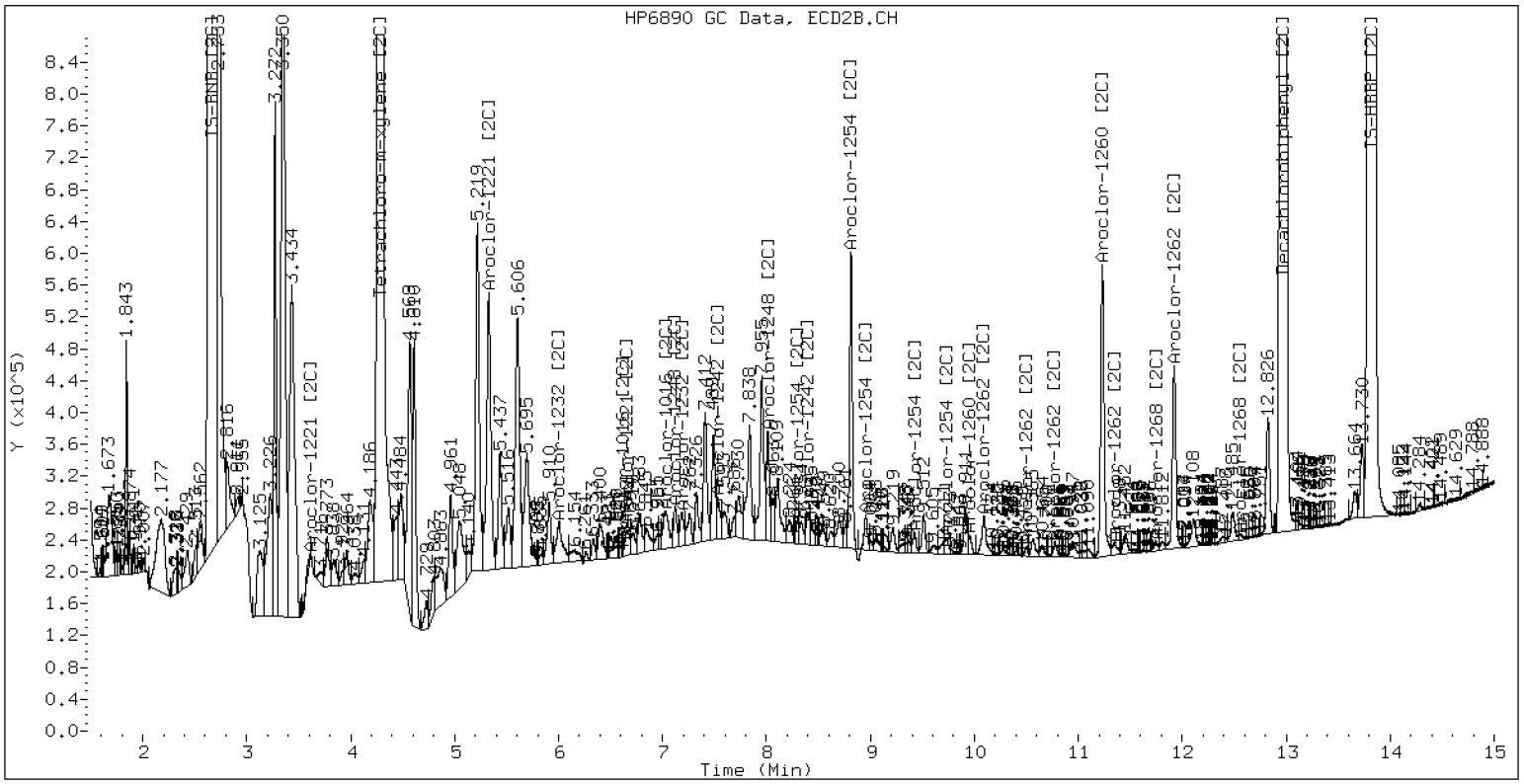
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062807.D 18F0226-02 28-JUN-2018 08:51 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062807.D 18F0226-02



ZB-35 Manual Integration: YES

Dual Column

LDW18-SP-73

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-03	File ID:	18062810ECD5.D
Sampled:	06/14/18 13:08	Prepared:	06/21/18 11:20	Analyzed:	06/28/18 09:52
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0512	Sequence:	SGF0393	Calibration:	BF00046
Instrument:	ECD5	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
12674-11-2	Aroclor 1016	1	1	0.010	0.002	0.010	U
11104-28-2	Aroclor 1221	1	1	0.010	0.002	0.010	U
11141-16-5	Aroclor 1232	1	1	0.010	0.002	0.010	U
53469-21-9	Aroclor 1242	1	1	0.010	0.002	0.010	U
12672-29-6	Aroclor 1248	1	1	0.010	0.002	0.010	U
11097-69-1	Aroclor 1254	1	1	0.010	0.002	0.010	U
11096-82-5	Aroclor 1260	1	1	0.010	0.003	0.010	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0169*	*84.5*	*29 - 120*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0155*	*77.4*	*32 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062810.D
Data file 2: /20180628.b/20180628.b/18062810.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: 18F0226-03
Client ID:
Injection Date: 28-JUN-2018 09:52
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.441	0.000	362137627	4.286	-0.005	1394193166	31.0	25.9	17.7	Tetrachloro-m-xylene
12.777	-0.002	335686284	12.971	-0.001	1761101014	33.8	38.6	13.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	77.4	64.9
Decachlorobiphenyl	84.5	96.4

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1030779391	12.0
Hexabromobiphenyl	761926666	941084591	23.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5459049994	23.6
Hexabromobiphenyl	2171332320	2966990205	36.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.058	-0.005	2519128	9.3	1	6.002	-0.008	8266445	4.9
Aroclor-1016	2	6.498	0.036	8191382	9.2	2	6.656	0.023	3703818	1.0
Aroclor-1016	3	6.715	-0.007	5757371	23.2	3	7.032	0.011	8382302	9.1
Aroclor-1016	4	7.464	0.032	5763902	19.7	4	7.489	-0.049	12253850	11.2
	Total Col1Ave (4 peaks):				15.3	Total Col2Ave (4 peaks):				6.5 RPD = 81*
	Corrected Ave (3 peaks):				12.7	Corrected Ave (3 peaks):				5.0 RPD = 88*
Aroclor-1221	1	3.433	-0.004	2275634	30.5	1	3.592	0.000	2931289	14.3
Aroclor-1221	2	4.963	-0.016	15495971	170.8	2	5.331	0.025	11500954	10.6
Aroclor-1221	3	5.095	0.010	767303	2.8	3	---			0.0
Aroclor-1221	NS	---			----	4	6.656	0.009	3703818	11.8
	Total Col1Ave (3 peaks):				68.0	Total Col2Ave (3 peaks):				12.2 RPD = 139*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	3.433	-0.002	2275634	47.8	1	3.592	0.002	2931289	22.6
Aroclor-1232	2	6.058	-0.014	2519128	21.8	2	6.002	-0.009	8266445	10.2
Aroclor-1232	3	6.498	0.028	8191382	21.7	3	6.656	0.012	3703818	2.1
Aroclor-1232	4	6.715	-0.016	5757371	54.7	4	7.192	-0.005	3291087	9.2
	Total Col1Ave (4 peaks):				36.5	Total Col2Ave (4 peaks):				11.0 RPD = 107*
	Corrected Ave (3 peaks):				30.4	Corrected Ave (3 peaks):				7.2 RPD = 124*
Aroclor-1242	1	6.058	0.000	2519128	11.6	1	6.002	-0.007	8266445	5.9
Aroclor-1242	2	6.498	0.041	8191382	11.4	2	6.656	0.015	3703818	1.1
Aroclor-1242	3	6.715	-0.003	5757371	28.8	3	7.489	-0.048	12253850	11.6
Aroclor-1242	4	8.089	0.004	1755313	6.9	4	8.396	-0.008	1919709	1.8
	Total Col1Ave (4 peaks):				14.7	Total Col2Ave (4 peaks):				5.1 RPD = 97*
	Corrected Ave (3 peaks):				10.0	Corrected Ave (3 peaks):				2.9 RPD = 109*
Aroclor-1248	1	6.947	-0.014	24736937	89.2	1	6.656	0.020	3703818	2.0
Aroclor-1248	2	7.273	0.014	6996731	21.9	2	7.122	-0.007	4351558	3.3
Aroclor-1248	3	7.860	0.004	3092242	6.3	3	7.489	-0.048	12253850	8.6
Aroclor-1248	4	8.089	-0.001	1755313	4.7	4	7.978	-0.010	8013215	4.7
	Total Col1Ave (4 peaks):				30.5	Total Col2Ave (4 peaks):				4.7 RPD = 147*
	Corrected Ave (3 peaks):				11.0	Corrected Ave (3 peaks):				3.3 RPD = 107*
Aroclor-1254	1	8.150	-0.023	6353269	10.6	1	8.299	-0.000	2511462	1.3
Aroclor-1254	2	8.293	0.043	2818892	14.8	2	8.813	0.002	20869574	14.4
Aroclor-1254	3	8.553	0.010	2330383	6.1	3	8.955	-0.000	2279961	0.7
Aroclor-1254	4	8.677	-0.001	2430011	3.3	4	9.420	-0.007	3109229	2.2
Aroclor-1254	5	9.704	-0.003	2350892	3.2	5	9.732	-0.003	4516453	2.5
	Total Col1Ave (5 peaks):				7.6	Total Col2Ave (5 peaks):				4.2 RPD = 57*
	Corrected Ave (4 peaks):				5.8	Corrected Ave (4 peaks):				1.7 RPD = 111*
Aroclor-1260	1	9.939	0.006	1809409	3.5	1	9.918	-0.045	167429090	71.6
Aroclor-1260	2	10.256	0.008	761471	1.5	2	10.511	0.009	830880	0.4
Aroclor-1260	3	10.657	0.039	94125790	77.3	3	10.779	0.003	2753688	0.6
Aroclor-1260	4	11.024	0.007	583271	1.0	4	11.232	-0.057	365418854	272.3
Aroclor-1260	5	11.181	-0.024	1291047	3.9	NS	---			----
	Total Col1Ave (5 peaks):				17.4	Total Col2Ave (4 peaks):				86.2 RPD = 133*
	Corrected Ave (4 peaks):				2.5	Corrected Ave (3 peaks):				24.2 RPD = 163*
Aroclor-1262	1	9.939	-0.003	1809409	2.6	1	10.093	0.028	10140931	3.5
Aroclor-1262	2	10.256	-0.002	761471	1.3	2	10.511	0.003	830880	0.3
Aroclor-1262	3	10.657	0.030	94125790	71.8	3	10.779	-0.001	2753688	0.5
Aroclor-1262	4	11.024	-0.003	583271	1.3	4	---			0.0
Aroclor-1262	5	11.181	-0.033	1291047	2.3	5	11.922	-0.018	29071871	33.9
	Total Col1Ave (5 peaks):				15.9	Total Col2Ave (4 peaks):				9.6 RPD = 50*
	Corrected Ave (4 peaks):				1.9	Corrected Ave (3 peaks):				1.5 RPD = 25
Aroclor-1268	1	11.181	0.039	1291047	0.8	1	11.232	-0.063	365418854	62.5
Aroclor-1268	2	---			0.0	2	11.460	0.099	9847764	1.6
Aroclor-1268	3	11.592	-0.007	396024	0.3	3	11.740	-0.014	2275099	0.5

Aroclor-1268	4	12.363	-0.020	1220619	0.3	4	12.618	0.051	485087	0.0

Total Col1Ave (3 peaks): 0.5 Total Col2Ave (4 peaks): 16.2 RPD = 188*

Corrected Ave: < 3 Peaks Corrected Ave (3 peaks): 0.7

Total PCB Area Col1 (4.541 - 12.680) = 606165274 Col1 Total PCB = 0.1 ppm*

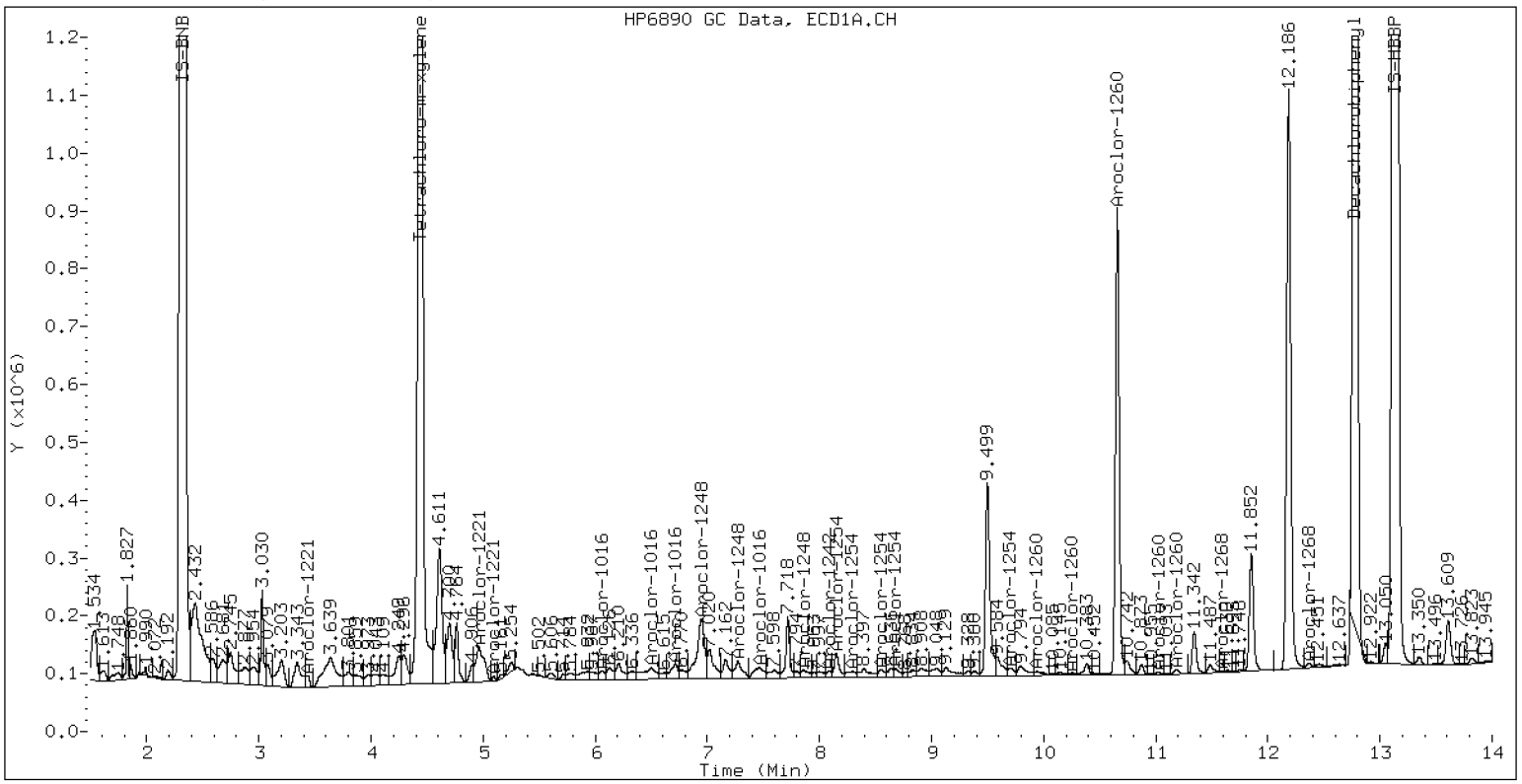
Total PCB Area Col2 (4.541 - 12.680) = 1166504328 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

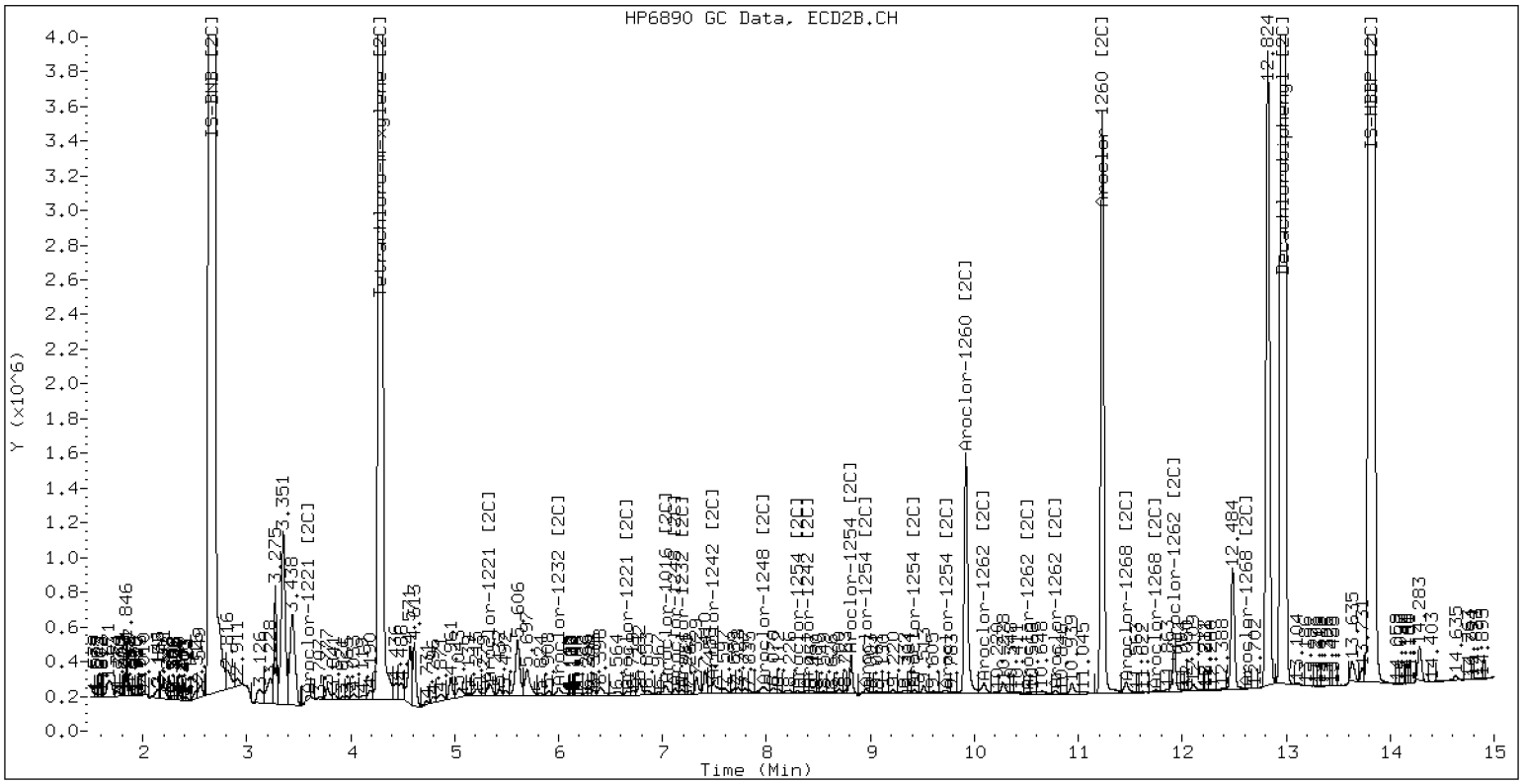
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062810.D 18F0226-03 28-JUN-2018 09:52 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062810.D 18F0226-03



ZB-35 Manual Integration: YES

Dual Column

LDW18-SP-74

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-04	File ID:	18062811ECD5.D
Sampled:	06/14/18 13:14	Prepared:	06/21/18 11:20	Analyzed:	06/28/18 10:12
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	860 mL / 0.5 mL
Batch:	BGF0512	Sequence:	SGF0393	Calibration:	BF00046
Instrument:	ECD5	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
12674-11-2	Aroclor 1016	1	1	0.012	0.003	0.012	U
11104-28-2	Aroclor 1221	1	1	0.012	0.003	0.012	U
11141-16-5	Aroclor 1232	1	1	0.012	0.003	0.012	U
53469-21-9	Aroclor 1242	1	1	0.012	0.003	0.012	U
12672-29-6	Aroclor 1248	1	1	0.012	0.003	0.012	U
11097-69-1	Aroclor 1254	1	1	0.012	0.003	0.012	U
11096-82-5	Aroclor 1260	1	1	0.012	0.003	0.012	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.023256*	*0.0190*	*81.7*	*29 - 120*	
Tetrachlorometaxylene	*1*	*0.023256*	*0.0179*	*76.8*	*32 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062811.D
Data file 2: /20180628.b/20180628.b/18062811.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: 18F0226-04
Client ID:
Injection Date: 28-JUN-2018 10:12
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.441	0.000	350756087	4.287	-0.003	1360772045	30.7	25.4	18.7	Tetrachloro-m-xylene
12.777	-0.003	313940663	12.971	-0.001	1715401717	32.7	39.1	17.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	76.8	63.6
Decachlorobiphenyl	81.7	97.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1007041124	9.4
Hexabromobiphenyl	761926666	909835038	19.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5431099929	22.9
Hexabromobiphenyl	2171332320	2854143608	31.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount	
Aroclor-1016	1	6.058	-0.004	1904454	7.2	1	6.003	-0.007	4827751	2.9	
Aroclor-1016	2	6.465	0.002	3769092	4.3	2	6.658	0.026	3411514	0.9	
Aroclor-1016	3	6.715	-0.007	6057726	25.0	3	7.024	0.003	4441231	4.8	
Aroclor-1016	4	7.444	0.012	5599317	19.6	4	7.530	-0.007	963110	0.9	
	Total Col1Ave (4 peaks):				14.0	Total Col2Ave (4 peaks):				2.4	RPD = 142*
	Corrected Ave (3 peaks):				10.4	Corrected Ave (3 peaks):				1.5	RPD = 148*
Aroclor-1221	1	3.437	-0.000	4356172	59.7	1	3.587	-0.005	3440685	16.9	
Aroclor-1221	2	4.967	-0.013	21332213	240.7	2	5.329	0.023	9342151	8.7	
Aroclor-1221	3	5.097	0.012	424894	1.6	3	---			0.0	
Aroclor-1221	NS	---			----	4	6.658	0.012	3411514	10.9	
	Total Col1Ave (3 peaks):				100.6	Total Col2Ave (3 peaks):				12.2	RPD = 157*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks					
Aroclor-1232	1	3.437	0.002	4356172	93.6	1	3.587	-0.003	3440685	26.7	
Aroclor-1232	2	6.058	-0.013	1904454	16.9	2	6.003	-0.008	4827751	6.0	
Aroclor-1232	3	6.465	-0.006	3769092	10.2	3	6.658	0.015	3411514	2.0	
Aroclor-1232	4	6.715	-0.016	6057726	58.9	4	7.187	-0.009	2099382	5.9	
	Total Col1Ave (4 peaks):				44.9	Total Col2Ave (4 peaks):				10.1	RPD = 126*
	Corrected Ave (3 peaks):				28.7	Corrected Ave (3 peaks):				4.6	RPD = 145*
Aroclor-1242	1	6.058	0.001	1904454	9.0	1	6.003	-0.006	4827751	3.5	
Aroclor-1242	2	6.465	0.007	3769092	5.4	2	6.658	0.017	3411514	1.0	
Aroclor-1242	3	6.715	-0.003	6057726	31.0	3	7.545	0.007	3240470	3.1	
Aroclor-1242	4	8.087	0.002	2154712	8.7	4	8.413	0.010	446096	0.4	
	Total Col1Ave (4 peaks):				13.5	Total Col2Ave (4 peaks):				2.0	RPD = 148*
	Corrected Ave (3 peaks):				7.7	Corrected Ave (3 peaks):				1.5	RPD = 134*
Aroclor-1248	1	6.946	-0.014	22345684	82.5	1	6.658	0.022	3411514	1.8	
Aroclor-1248	2	7.273	0.014	7841756	25.1	2	7.123	-0.006	3016515	2.3	
Aroclor-1248	3	7.859	0.003	3418737	7.1	3	7.545	0.008	3240470	2.3	
Aroclor-1248	4	8.087	-0.003	2154712	5.9	4	7.979	-0.009	6654457	4.0	
	Total Col1Ave (4 peaks):				30.2	Total Col2Ave (4 peaks):				2.6	RPD = 168*
	Corrected Ave (3 peaks):				12.7	Corrected Ave (3 peaks):				2.1	RPD = 142*
Aroclor-1254	1	8.150	-0.023	7945730	13.6	1	8.300	0.001	3974005	2.0	
Aroclor-1254	2	8.250	0.001	1501035	8.1	2	8.814	0.003	29193011	20.3	
Aroclor-1254	3	8.561	0.018	3552438	9.5	3	8.957	0.002	4354388	1.4	
Aroclor-1254	4	8.675	-0.003	2981645	4.1	4	9.425	-0.002	3527305	2.5	
Aroclor-1254	5	9.705	-0.002	2256032	3.1	5	9.723	-0.011	6044705	3.3	
	Total Col1Ave (5 peaks):				7.7	Total Col2Ave (5 peaks):				5.9	RPD = 26
	Corrected Ave (4 peaks):				6.2	Corrected Ave (4 peaks):				2.3	RPD = 92*
Aroclor-1260	1	9.943	0.009	2737033	5.5	1	9.915	-0.048	14751061	6.6	
Aroclor-1260	2	10.249	0.001	1091269	2.3	2	10.500	-0.002	2082929	1.0	
Aroclor-1260	3	10.656	0.038	13480036	11.5	3	10.775	0.000	4371972	1.0	
Aroclor-1260	4	11.017	0.001	656448	1.2	4	11.341	0.052	2600888	2.0	
Aroclor-1260	5	11.177	-0.028	1351870	4.2	NS	---			----	
	Total Col1Ave (5 peaks):				4.9	Total Col2Ave (4 peaks):				2.6	RPD = 60*
	Corrected Ave (4 peaks):				3.3	Corrected Ave (3 peaks):				1.3	RPD = 84*
Aroclor-1262	1	9.943	0.000	2737033	4.0	1	10.092	0.027	8649115	3.1	
Aroclor-1262	2	10.249	-0.009	1091269	1.9	2	10.500	-0.008	2082929	0.9	
Aroclor-1262	3	10.656	0.029	13480036	10.6	3	10.775	-0.005	4371972	0.9	
Aroclor-1262	4	11.017	-0.010	656448	1.5	4	11.341	-0.014	2600888	0.8	
Aroclor-1262	5	11.177	-0.037	1351870	2.5	5	11.923	-0.018	28268480	34.2	
	Total Col1Ave (5 peaks):				4.1	Total Col2Ave (5 peaks):				8.0	RPD = 63*
	Corrected Ave (4 peaks):				2.5	Corrected Ave (4 peaks):				1.4	RPD = 56*
Aroclor-1268	1	11.177	0.035	1351870	0.9	1	11.341	0.046	2600888	0.5	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	11.641	0.043	1080519	0.9	3	11.746	-0.008	1438725	0.3	

Aroclor-1268	4	12.362	-0.021	872447	0.2	4	12.555	-0.013	784155	0.0	
Total Col1Ave (3 peaks):				0.7	Total Col2Ave (3 peaks):				0.3	RPD =	86*
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						

Total PCB Area Col1 (4.541 - 12.680) = 345826957 Col1 Total PCB = 0.1 ppm*

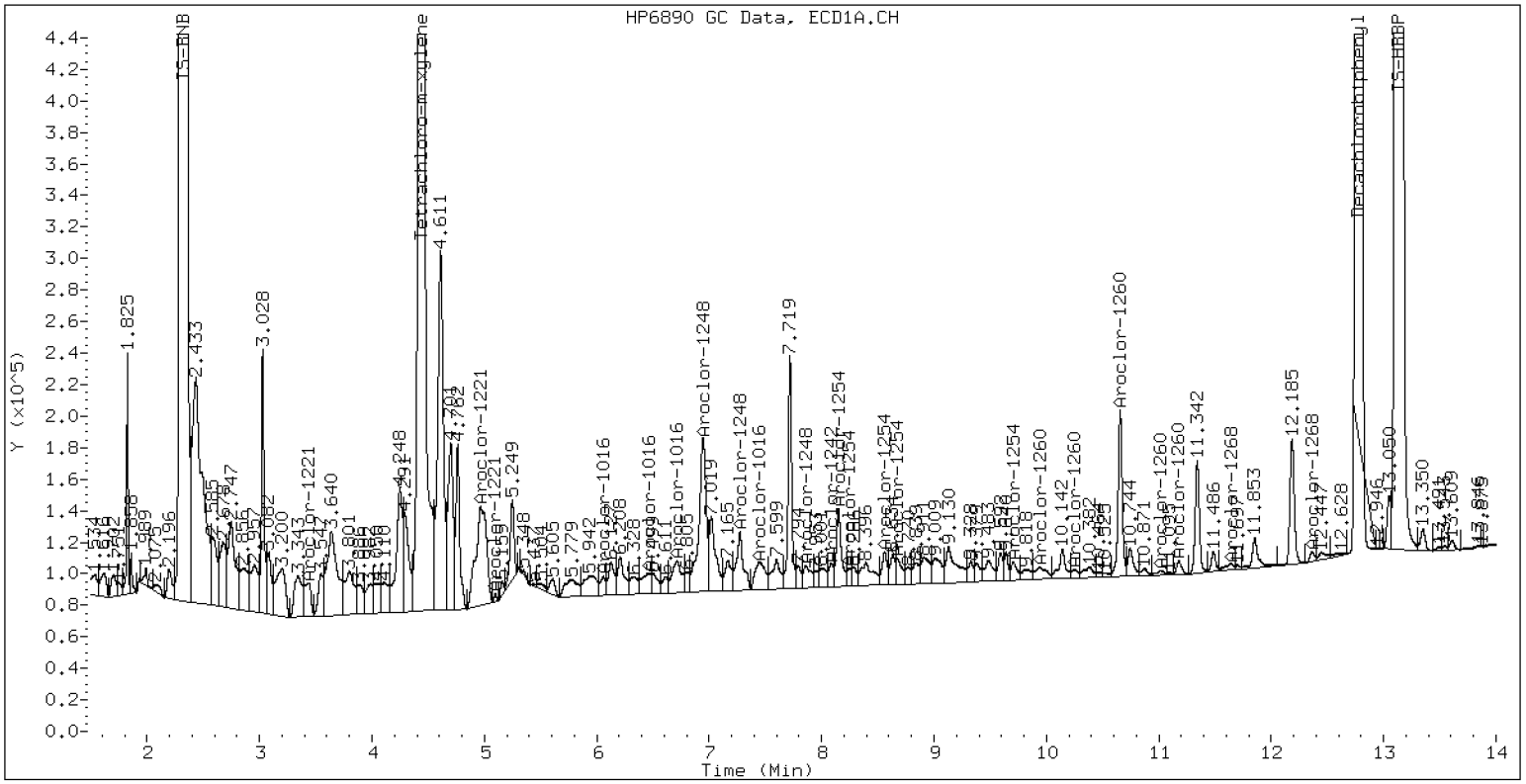
Total PCB Area Col2 (4.541 - 12.680) = 608287293 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

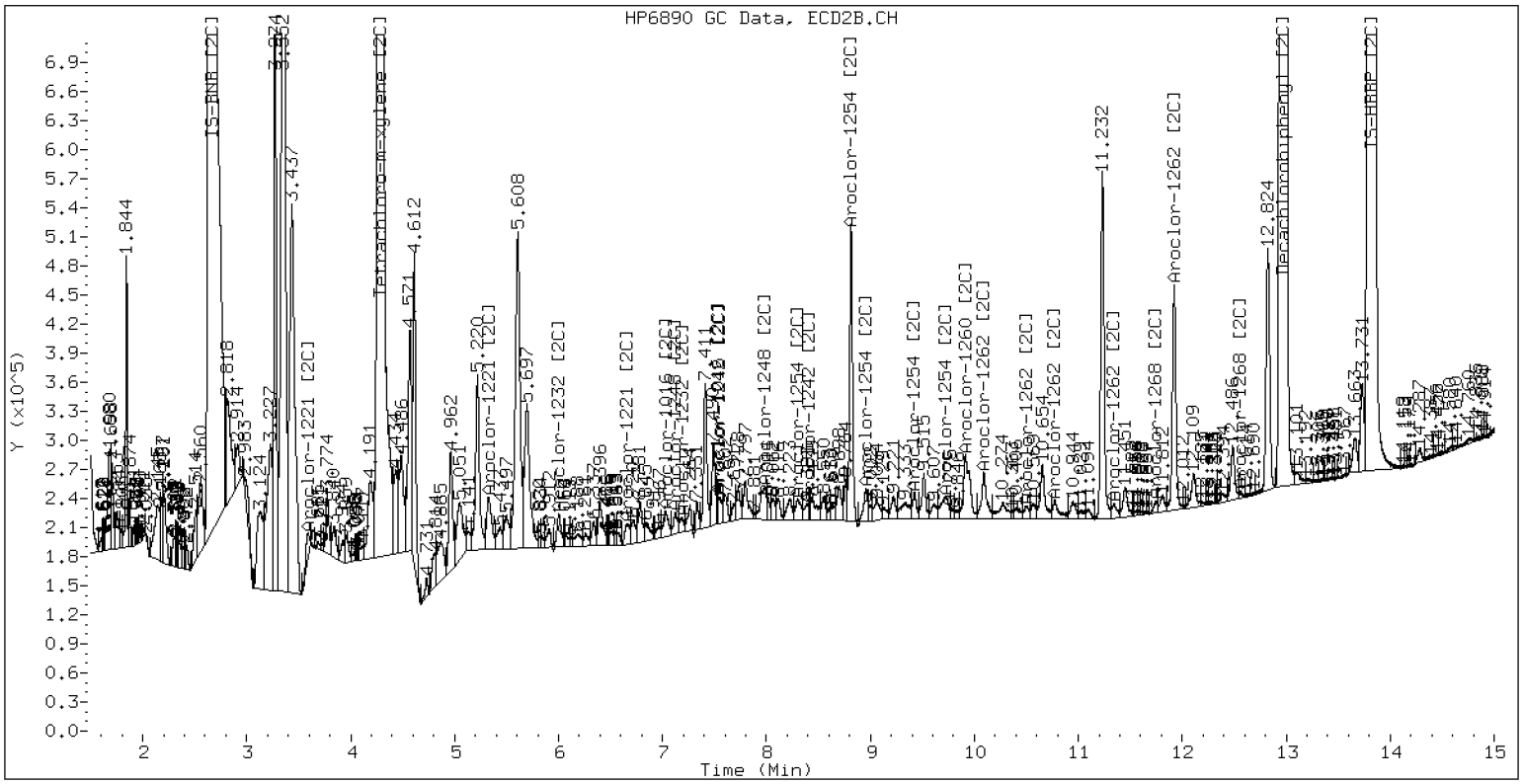
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062811.D 18F0226-04 28-JUN-2018 10:12 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062811.D 18F0226-04



ZB-35 Manual Integration: YES

Dual Column

LDW18-SP-77

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-05	File ID:	18062812ECD5.D
Sampled:	06/14/18 12:10	Prepared:	06/21/18 11:20	Analyzed:	06/28/18 10:33
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0512	Sequence:	SGF0393	Calibration:	BF00046
Instrument:	ECD5	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
12674-11-2	Aroclor 1016	1	1	0.010	0.002	0.010	U
11104-28-2	Aroclor 1221	1	1	0.010	0.002	0.010	U
11141-16-5	Aroclor 1232	1	1	0.010	0.002	0.010	U
53469-21-9	Aroclor 1242	1	1	0.010	0.002	0.010	U
12672-29-6	Aroclor 1248	1	1	0.010	0.002	0.010	U
11097-69-1	Aroclor 1254	1	1	0.010	0.002	0.010	U
11096-82-5	Aroclor 1260	1	1	0.010	0.003	0.010	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0164*	*81.9*	*29 - 120*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0114*	*57.2*	*32 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062812.D
Data file 2: /20180628.b/20180628.b/18062812.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: 18F0226-05
Client ID:
Injection Date: 28-JUN-2018 10:33
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.442	0.001	268251832	4.287	-0.003	1342762118	22.9	30.5	28.7	Tetrachloro-m-xylene
12.778	-0.002	319562686	12.971	-0.000	1681574473	32.8	37.5	13.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	57.2	76.3
Decachlorobiphenyl	81.9	93.8

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1034339798	12.4
Hexabromobiphenyl	761926666	924140914	21.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4468288379	1.1
Hexabromobiphenyl	2171332320	2912449315	34.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.058	-0.004	3518163	12.9	1	6.002	-0.008	9286949	6.7
Aroclor-1016	2	6.435	-0.027	6370859	7.1	2	6.651	0.019	4397859	1.4
Aroclor-1016	3	6.694	-0.028	13629079	54.7	3	7.027	0.006	1980139	2.6
Aroclor-1016	4	7.454	0.023	9287945	31.6	4	7.550	0.012	10462336	11.7
	Total Col1Ave (4 peaks):				26.6	Total Col2Ave (4 peaks):				5.6 RPD = 130*
	Corrected Ave (3 peaks):				17.2	Corrected Ave (3 peaks):				3.6 RPD = 131*
Aroclor-1221	1	3.436	-0.001	2896927	38.6	1	3.568	-0.024	1557747	9.3
Aroclor-1221	2	4.972	-0.008	14118742	155.1	2	5.318	0.012	11258975	12.7
Aroclor-1221	3	5.095	0.010	434366	1.6	3	---			0.0
Aroclor-1221	NS	---			----	4	6.651	0.005	4397859	17.0
	Total Col1Ave (3 peaks):				65.1	Total Col2Ave (3 peaks):				13.0 RPD = 133*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	3.436	0.001	2896927	60.6	1	3.568	-0.023	1557747	14.7
Aroclor-1232	2	6.058	-0.013	3518163	30.4	2	6.002	-0.009	9286949	14.0
Aroclor-1232	3	6.435	-0.035	6370859	16.8	3	6.651	0.008	4397859	3.1
Aroclor-1232	4	6.694	-0.036	13629079	129.1	4	7.157	-0.039	23111630	78.8
	Total Col1Ave (4 peaks):				59.2	Total Col2Ave (4 peaks):				27.6 RPD = 73*
	Corrected Ave (3 peaks):				35.9	Corrected Ave (3 peaks):				10.6 RPD = 109*
Aroclor-1242	1	6.058	0.001	3518163	16.2	1	6.002	-0.007	9286949	8.1
Aroclor-1242	2	6.435	-0.022	6370859	8.8	2	6.651	0.010	4397859	1.6
Aroclor-1242	3	6.694	-0.023	13629079	67.9	3	7.550	0.012	10462336	12.1
Aroclor-1242	4	8.151	0.066	13165224	51.5	4	8.398	-0.006	2765177	3.1
	Total Col1Ave (4 peaks):				36.1	Total Col2Ave (4 peaks):				6.2 RPD = 141*
	Corrected Ave (3 peaks):				25.5	Corrected Ave (3 peaks):				4.3 RPD = 143*
Aroclor-1248	1	6.947	-0.013	22497982	80.8	1	6.651	0.015	4397859	2.8
Aroclor-1248	2	7.279	0.020	8305391	25.9	2	7.157	0.028	23111630	21.6
Aroclor-1248	3	7.900	0.044	4802962	9.7	3	7.550	0.013	10462336	9.0
Aroclor-1248	4	8.151	0.061	13165224	35.1	4	7.983	-0.005	2964506	2.1
	Total Col1Ave (4 peaks):				37.9	Total Col2Ave (4 peaks):				8.9 RPD = 124*
	Corrected Ave (3 peaks):				23.6	Corrected Ave (3 peaks):				4.7 RPD = 134*
Aroclor-1254	1	8.151	-0.022	13165224	21.9	1	8.278	-0.021	2800242	1.7
Aroclor-1254	2	8.300	0.050	4433223	23.3	2	8.815	0.004	26266597	22.2
Aroclor-1254	3	8.562	0.019	4418873	11.5	3	8.955	-0.000	3332634	1.3
Aroclor-1254	4	8.636	-0.042	7271951	9.8	4	9.433	0.006	1409730	1.2
Aroclor-1254	5	9.708	0.001	2384086	3.2	5	9.728	-0.007	1449563	1.0
	Total Col1Ave (5 peaks):				13.9	Total Col2Ave (5 peaks):				5.5 RPD = 87*
	Corrected Ave (4 peaks):				11.6	Corrected Ave (4 peaks):				1.3 RPD = 160*
Aroclor-1260	1	9.943	0.010	3324044	6.6	1	10.003	0.040	416851	0.2
Aroclor-1260	2	10.244	-0.004	963967	2.0	2	10.467	-0.035	1387945	0.7
Aroclor-1260	3	10.657	0.039	5550546	4.6	3	10.781	0.006	1518544	0.3
Aroclor-1260	4	11.028	0.011	882261	1.5	4	11.314	0.025	699223	0.5
Aroclor-1260	5	11.181	-0.025	1218417	3.7	NS	---			----
	Total Col1Ave (5 peaks):				3.7	Total Col2Ave (4 peaks):				0.4 RPD = 158*
	Corrected Ave (4 peaks):				3.0	Corrected Ave (3 peaks):				0.3 RPD = 158*
Aroclor-1262	1	9.943	0.001	3324044	4.8	1	10.040	-0.024	253351	0.1
Aroclor-1262	2	10.244	-0.014	963967	1.7	2	10.467	-0.041	1387945	0.6
Aroclor-1262	3	10.657	0.029	5550546	4.3	3	10.781	0.002	1518544	0.3
Aroclor-1262	4	11.028	0.001	882261	2.0	4	11.347	-0.008	348161	0.1
Aroclor-1262	5	11.181	-0.034	1218417	2.3	5	11.923	-0.017	28512473	33.8
	Total Col1Ave (5 peaks):				3.0	Total Col2Ave (5 peaks):				7.0 RPD = 79*
	Corrected Ave (4 peaks):				2.6	Corrected Ave (4 peaks):				0.3 RPD = 163*
Aroclor-1268	1	11.181	0.038	1218417	0.8	1	11.314	0.019	699223	0.1
Aroclor-1268	2	---			0.0	2	11.373	0.011	544793	0.1
Aroclor-1268	3	11.641	0.043	1740063	1.5	3	11.743	-0.011	2417933	0.5

Aroclor-1268	4	12.366	-0.018	985322	0.3	4	12.550	-0.018	669724	0.0	
Total Col1Ave (3 peaks):				0.8	Total Col2Ave (4 peaks):				0.2	RPD =	126*
Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				0.1		

Total PCB Area Col1 (4.541 - 12.680) = 356769280 Col1 Total PCB = 0.1 ppm*

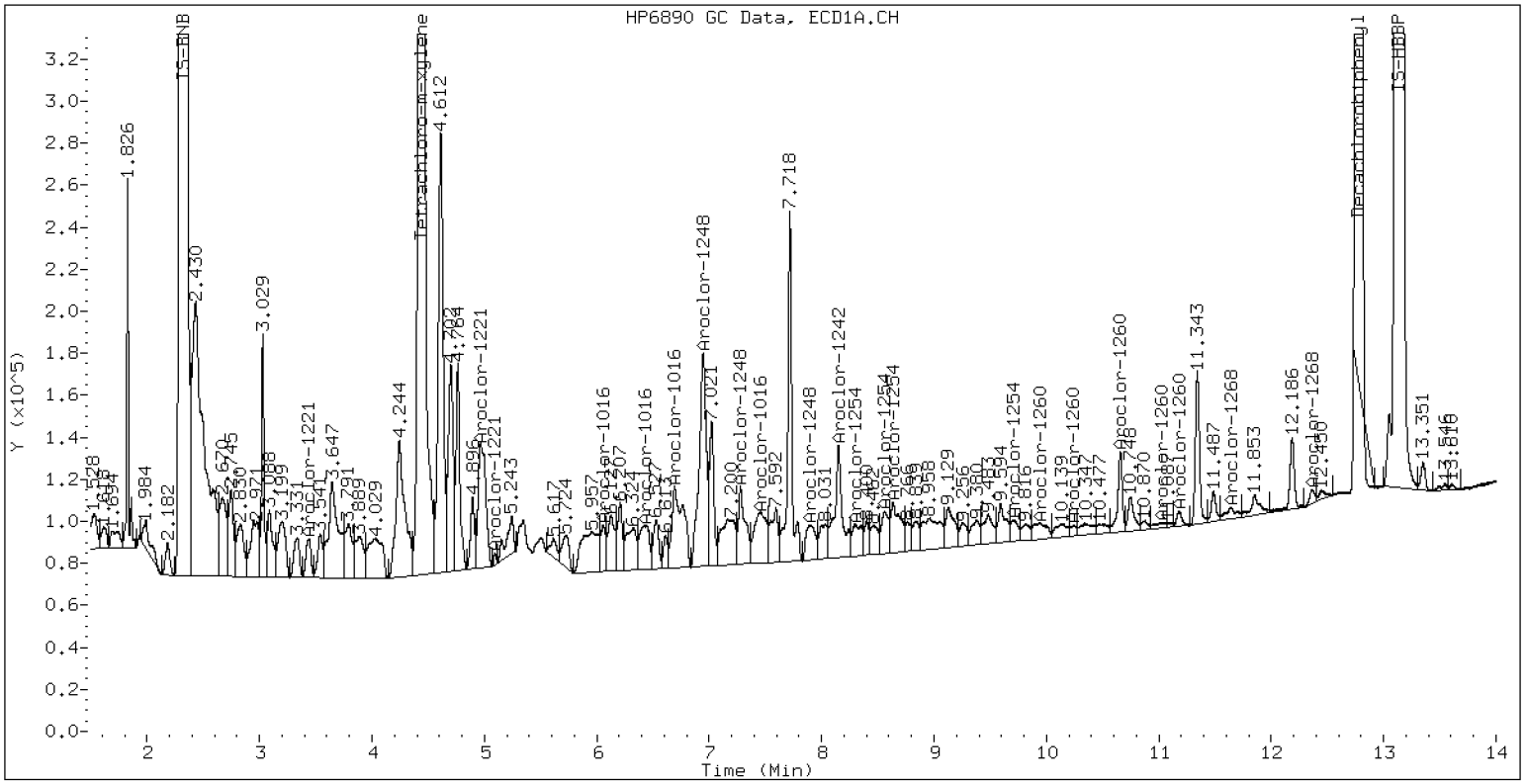
Total PCB Area Col2 (4.541 - 12.680) = 471631803 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

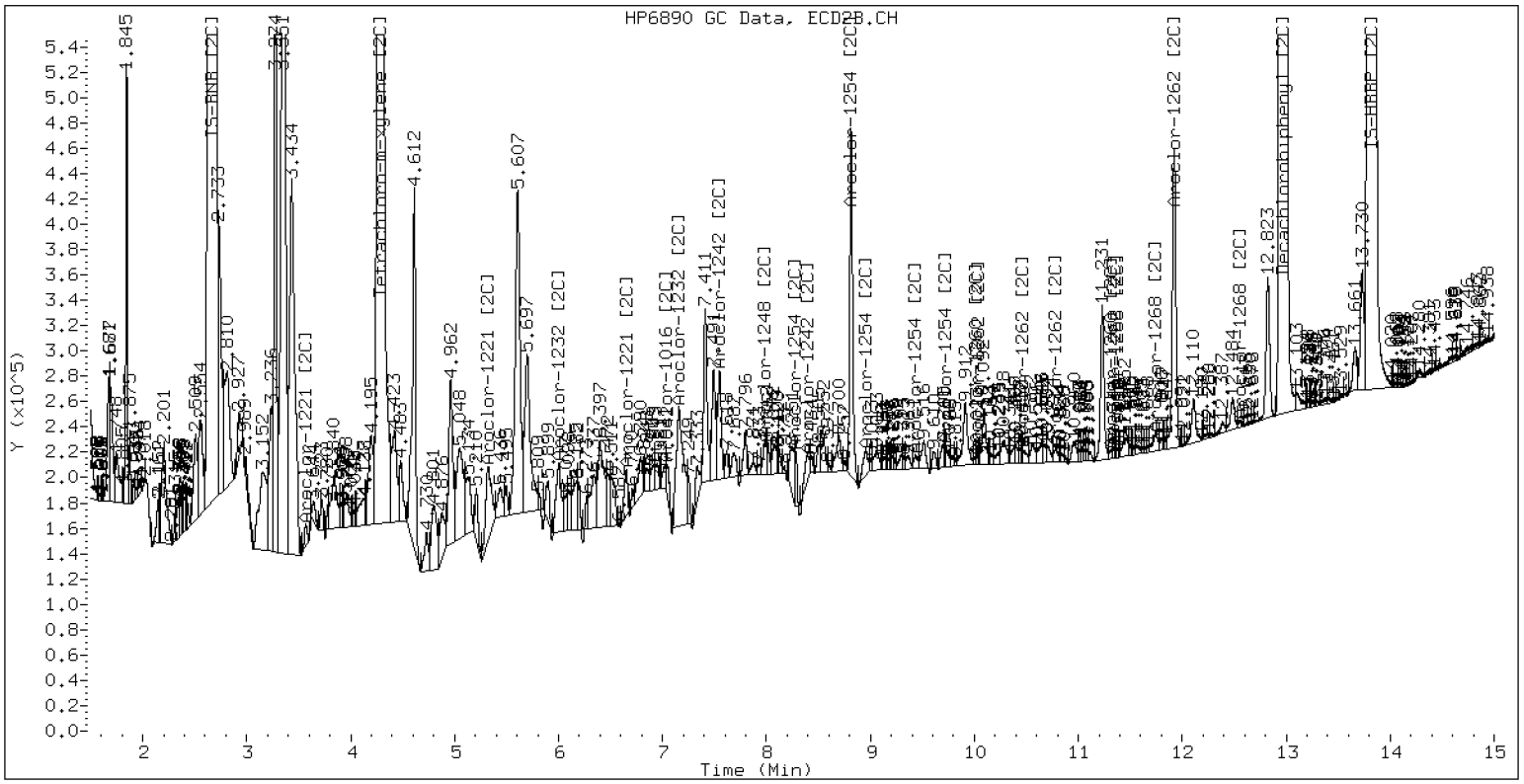
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062812.D 18F0226-05 28-JUN-2018 10:33 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062812.D 18F0226-05



ZB-35 Manual Integration: YES

LDW18-SP-78

Dual Column

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-06	File ID:	18062813ECD5.D
Sampled:	06/14/18 12:04	Prepared:	06/21/18 11:20	Analyzed:	06/28/18 10:53
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0512	Sequence:	SGF0393	Calibration:	BF00046
Instrument:	ECD5	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
12674-11-2	Aroclor 1016	1	1	0.010	0.002	0.010	U
11104-28-2	Aroclor 1221	1	1	0.010	0.002	0.010	U
11141-16-5	Aroclor 1232	1	1	0.010	0.002	0.010	U
53469-21-9	Aroclor 1242	1	1	0.010	0.002	0.010	U
12672-29-6	Aroclor 1248	1	1	0.010	0.002	0.010	U
11097-69-1	Aroclor 1254	1	1	0.010	0.002	0.010	U
11096-82-5	Aroclor 1260	1	1	0.010	0.003	0.010	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0149*	*74.3*	*29 - 120*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0139*	*69.4*	*32 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062813.D
Data file 2: /20180628.b/20180628.b/18062813.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: 18F0226-06
Client ID:
Injection Date: 28-JUN-2018 10:53
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.440	-0.001	326598254	4.286	-0.004	1314649441	27.7	24.4	12.8	Tetrachloro-m-xylene
12.778	-0.002	283953717	12.969	-0.002	1521512367	29.7	34.3	14.4	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	69.4	61.1
Decachlorobiphenyl	74.3	85.8

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1037783674	12.8
Hexabromobiphenyl	761926666	904898410	18.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5467797702	23.8
Hexabromobiphenyl	2171332320	2879710025	32.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount	
Aroclor-1016	1	6.059	-0.003	2372502	8.7	1	6.005	-0.005	6606778	3.9	
Aroclor-1016	2	6.442	-0.020	9683983	10.8	2	6.653	0.020	4592104	1.2	
Aroclor-1016	3	6.715	-0.007	5576455	22.3	3	7.028	0.007	4764382	5.1	
Aroclor-1016	4	7.436	0.004	6651547	22.6	4	7.534	-0.004	7027970	6.4	
	Total Col1Ave (4 peaks):				16.1	Total Col2Ave (4 peaks):				4.2	RPD = 118*
	Corrected Ave (3 peaks):				13.9	Corrected Ave (3 peaks):				3.4	RPD = 121*
Aroclor-1221	1	3.433	-0.004	3487872	46.4	1	3.585	-0.007	5368870	26.2	
Aroclor-1221	2	4.962	-0.018	13649596	149.4	2	5.325	0.019	8140597	7.5	
Aroclor-1221	3	5.096	0.011	356702	1.3	3	5.396	0.022	752851	4.0	
Aroclor-1221	NS	---			----	4	6.653	0.006	4592104	14.5	
	Total Col1Ave (3 peaks):				65.7	Total Col2Ave (4 peaks):				13.1	RPD = 134*
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				8.7	
Aroclor-1232	1	3.433	-0.002	3487872	72.7	1	3.585	-0.006	5368870	41.4	
Aroclor-1232	2	6.059	-0.012	2372502	20.4	2	6.005	-0.006	6606778	8.1	
Aroclor-1232	3	6.442	-0.028	9683983	25.4	3	6.653	0.009	4592104	2.6	
Aroclor-1232	4	6.715	-0.016	5576455	52.6	4	7.196	-0.001	3700573	10.3	
	Total Col1Ave (4 peaks):				42.8	Total Col2Ave (4 peaks):				15.6	RPD = 93*
	Corrected Ave (3 peaks):				32.8	Corrected Ave (3 peaks):				7.0	RPD = 130*
Aroclor-1242	1	6.059	0.002	2372502	10.9	1	6.005	-0.004	6606778	4.7	
Aroclor-1242	2	6.442	-0.016	9683983	13.3	2	6.653	0.012	4592104	1.4	
Aroclor-1242	3	6.715	-0.003	5576455	27.7	3	7.534	-0.003	7027970	6.6	
Aroclor-1242	4	8.085	-0.001	5360776	20.9	4	8.392	-0.012	2907465	2.7	
	Total Col1Ave (4 peaks):				18.2	Total Col2Ave (4 peaks):				3.9	RPD = 130*
	Corrected Ave (3 peaks):				15.0	Corrected Ave (3 peaks):				2.9	RPD = 135*
Aroclor-1248	1	6.949	-0.011	25234039	90.4	1	6.653	0.016	4592104	2.4	
Aroclor-1248	2	7.267	0.007	8274054	25.7	2	7.126	-0.004	8082066	6.2	
Aroclor-1248	3	7.862	0.006	6205867	12.5	3	7.534	-0.003	7027970	4.9	
Aroclor-1248	4	8.085	-0.005	5360776	14.3	4	7.985	-0.003	9088014	5.4	
	Total Col1Ave (4 peaks):				35.7	Total Col2Ave (4 peaks):				4.7	RPD = 153*
	Corrected Ave (3 peaks):				17.5	Corrected Ave (3 peaks):				4.2	RPD = 122*
Aroclor-1254	1	8.157	-0.017	9194160	15.2	1	8.298	-0.001	12902484	6.6	
Aroclor-1254	2	8.289	0.040	7408995	38.7	2	8.814	0.003	26067811	18.0	
Aroclor-1254	3	8.547	0.003	5236977	13.6	3	8.956	0.000	9907770	3.1	
Aroclor-1254	4	8.675	-0.003	7876779	10.6	4	9.425	-0.002	5931584	4.2	
Aroclor-1254	5	9.703	-0.004	3214162	4.3	5	9.730	-0.004	4529637	2.5	
	Total Col1Ave (5 peaks):				16.5	Total Col2Ave (5 peaks):				6.9	RPD = 82*
	Corrected Ave (4 peaks):				10.9	Corrected Ave (4 peaks):				4.1	RPD = 91*
Aroclor-1260	1	9.935	0.002	1193849	2.4	1	9.960	-0.003	5796448	2.6	
Aroclor-1260	2	10.246	-0.002	764338	1.6	2	10.500	-0.002	2522699	1.3	
Aroclor-1260	3	10.656	0.038	5802738	5.0	3	10.773	-0.002	2570819	0.6	
Aroclor-1260	4	11.018	0.001	444951	0.8	4	11.343	0.055	2346110	1.8	
Aroclor-1260	5	11.179	-0.027	1047854	3.3	NS	---			----	
	Total Col1Ave (5 peaks):				2.6	Total Col2Ave (4 peaks):				1.5	RPD = 51*
	Corrected Ave (4 peaks):				2.0	Corrected Ave (3 peaks):				1.2	RPD = 50*
Aroclor-1262	1	9.935	-0.007	1193849	1.8	1	10.092	0.027	5997510	2.2	
Aroclor-1262	2	10.246	-0.012	764338	1.4	2	10.500	-0.009	2522699	1.0	
Aroclor-1262	3	10.656	0.028	5802738	4.6	3	10.773	-0.007	2570819	0.5	
Aroclor-1262	4	11.018	-0.009	444951	1.1	4	11.343	-0.012	2346110	0.7	
Aroclor-1262	5	11.179	-0.036	1047854	2.0	5	11.923	-0.017	28985096	34.8	
	Total Col1Ave (5 peaks):				2.2	Total Col2Ave (5 peaks):				7.8	RPD = 114*
	Corrected Ave (4 peaks):				1.5	Corrected Ave (4 peaks):				1.1	RPD = 34
Aroclor-1268	1	11.179	0.036	1047854	0.7	1	11.343	0.049	2346110	0.4	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	11.642	0.043	1053355	0.9	3	11.744	-0.009	2907356	0.6	

Aroclor-1268	4	12.364	-0.019	1127511	0.3		4	12.548	-0.019	685666	0.0
	Total Col1Ave (3 peaks):			0.6			Total Col2Ave (3 peaks):			0.4	RPD = 56*
	Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				

Total PCB Area Col1 (4.541 - 12.680) = 353985244 Col1 Total PCB = 0.1 ppm*

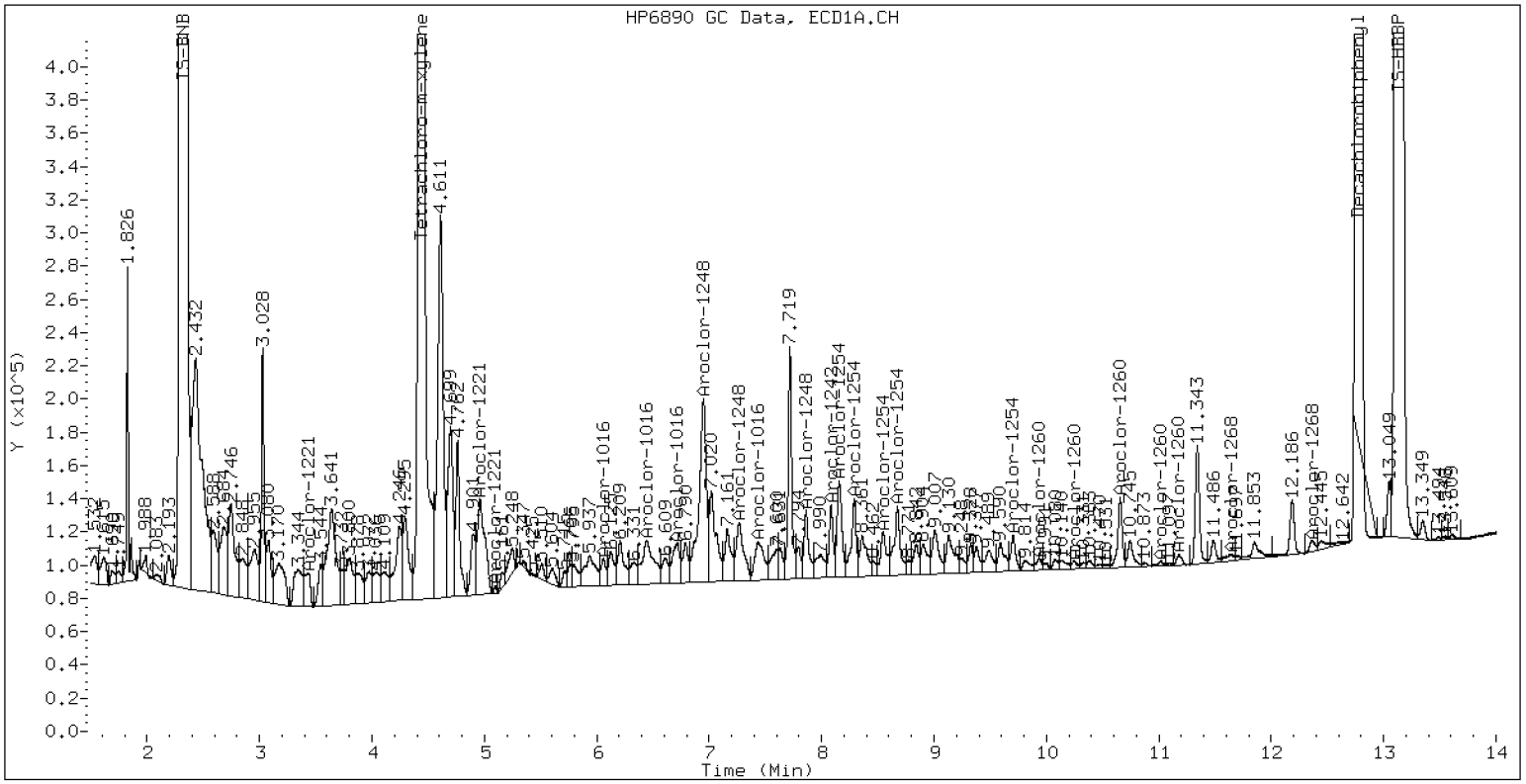
Total PCB Area Col2 (4.541 - 12.680) = 573759946 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

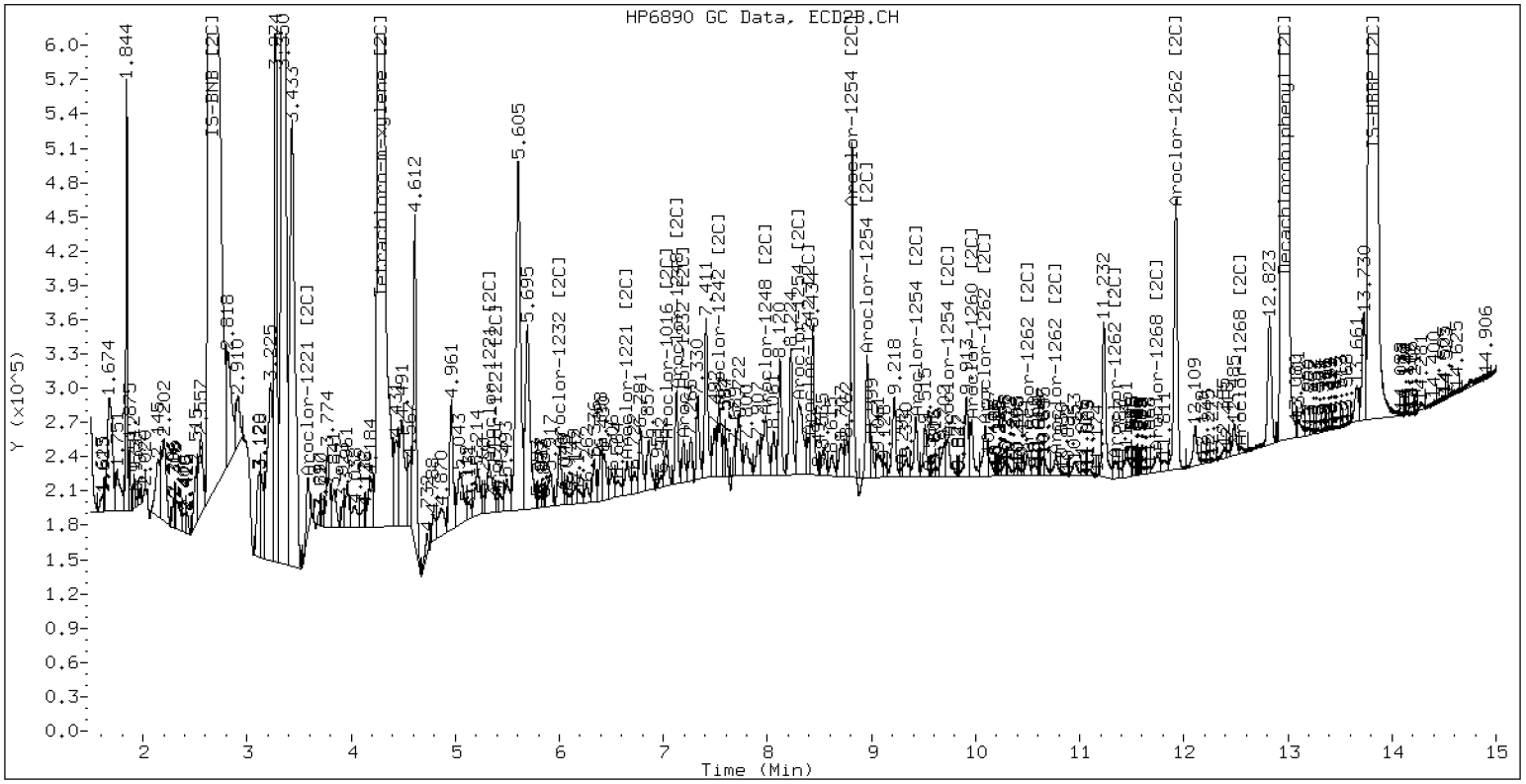
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062813.D 18F0226-06 28-JUN-2018 10:53 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062813.D 18F0226-06



ZB-35 Manual Integration: YES

Dual Column

LDW18-SP-79

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-07	File ID:	18062814ECD5.D
Sampled:	06/14/18 09:50	Prepared:	06/21/18 11:20	Analyzed:	06/28/18 11:13
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0512	Sequence:	SGF0393	Calibration:	BF00046
Instrument:	ECD5	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
12674-11-2	Aroclor 1016	1	1	0.010	0.002	0.010	U
11104-28-2	Aroclor 1221	1	1	0.010	0.002	0.010	U
11141-16-5	Aroclor 1232	1	1	0.010	0.002	0.010	U
53469-21-9	Aroclor 1242	1	1	0.010	0.002	0.010	U
12672-29-6	Aroclor 1248	1	1	0.010	0.002	0.010	U
11097-69-1	Aroclor 1254	1	1	0.010	0.002	0.010	U
11096-82-5	Aroclor 1260	1	1	0.010	0.003	0.010	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0133*	*66.6*	*29 - 120*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0152*	*75.9*	*32 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062814.D
Data file 2: /20180628.b/20180628.b/18062814.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: 18F0226-07
Client ID:
Injection Date: 28-JUN-2018 11:13
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.440	-0.001	347441801	4.286	-0.004	1287895561	30.4	23.9	23.6	Tetrachloro-m-xylene
12.777	-0.003	257228845	12.970	-0.001	1364204656	26.6	30.4	13.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	75.9	59.9
Decachlorobiphenyl	66.6	75.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1009218074	9.7
Hexabromobiphenyl	761926666	915099405	20.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5463557832	23.7
Hexabromobiphenyl	2171332320	2919878342	34.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.055	-0.007	2295172	8.7	1	6.002	-0.007	6859350	4.1
Aroclor-1016	2	6.464	0.001	3829481	4.4	2	6.676	0.043	1520345	0.4
Aroclor-1016	3	6.715	-0.007	4638108	19.1	3	7.025	0.004	4920284	5.3
Aroclor-1016	4	7.443	0.012	6428104	22.4	4	7.491	-0.047	18958385	17.3
	Total Col1Ave (4 peaks):				13.6	Total Col2Ave (4 peaks):				6.8 RPD = 67*
	Corrected Ave (3 peaks):				10.7	Corrected Ave (3 peaks):				3.3 RPD = 107*
Aroclor-1221	1	3.436	-0.001	3754892	51.3	1	3.589	-0.004	3022369	14.8
Aroclor-1221	2	4.994	0.014	24426195	275.0	2	5.331	0.025	9896608	9.1
Aroclor-1221	3	5.095	0.010	925291	3.5	3	---			0.0
Aroclor-1221	NS	---			----	4	6.676	0.029	1520345	4.8
	Total Col1Ave (3 peaks):				109.9	Total Col2Ave (3 peaks):				9.6 RPD = 168*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	3.436	0.001	3754892	80.5	1	3.589	-0.002	3022369	23.3
Aroclor-1232	2	6.055	-0.016	2295172	20.3	2	6.002	-0.008	6859350	8.5
Aroclor-1232	3	6.464	-0.007	3829481	10.3	3	6.676	0.032	1520345	0.9
Aroclor-1232	4	6.715	-0.015	4638108	45.0	4	7.192	-0.004	4347566	12.1
	Total Col1Ave (4 peaks):				39.0	Total Col2Ave (4 peaks):				11.2 RPD = 111*
	Corrected Ave (3 peaks):				25.2	Corrected Ave (3 peaks):				7.1 RPD = 112*
Aroclor-1242	1	6.055	-0.002	2295172	10.8	1	6.002	-0.006	6859350	4.9
Aroclor-1242	2	6.464	0.006	3829481	5.4	2	6.676	0.034	1520345	0.5
Aroclor-1242	3	6.715	-0.002	4638108	23.7	3	7.491	-0.046	18958385	17.9
Aroclor-1242	4	8.088	0.003	1884912	7.6	4	8.395	-0.008	2318632	2.1
	Total Col1Ave (4 peaks):				11.9	Total Col2Ave (4 peaks):				6.4 RPD = 61*
	Corrected Ave (3 peaks):				7.9	Corrected Ave (3 peaks):				2.5 RPD = 104*
Aroclor-1248	1	6.946	-0.015	20051838	73.8	1	6.676	0.039	1520345	0.8
Aroclor-1248	2	7.273	0.014	10034633	32.1	2	7.124	-0.005	3628048	2.8
Aroclor-1248	3	7.860	0.004	3233081	6.7	3	7.491	-0.046	18958385	13.3
Aroclor-1248	4	8.088	-0.002	1884912	5.2	4	7.980	-0.008	3639433	2.1
	Total Col1Ave (4 peaks):				29.5	Total Col2Ave (4 peaks):				4.8 RPD = 144*
	Corrected Ave (3 peaks):				14.7	Corrected Ave (3 peaks):				1.9 RPD = 154*
Aroclor-1254	1	8.150	-0.024	7598753	12.9	1	8.296	-0.003	2632170	1.3
Aroclor-1254	2	8.248	-0.002	3239255	17.4	2	8.813	0.003	28656469	19.8
Aroclor-1254	3	8.557	0.014	3012161	8.1	3	8.957	0.001	3232504	1.0
Aroclor-1254	4	8.677	-0.001	3028530	4.2	4	9.426	-0.001	1444441	1.0
Aroclor-1254	5	9.708	0.001	1223092	1.7	5	9.705	-0.030	3752015	2.1
	Total Col1Ave (5 peaks):				8.9	Total Col2Ave (5 peaks):				5.0 RPD = 55*
	Corrected Ave (4 peaks):				6.7	Corrected Ave (4 peaks):				1.4 RPD = 133*
Aroclor-1260	1	9.943	0.010	1559978	3.1	1	9.912	-0.050	9624722	4.2
Aroclor-1260	2	10.253	0.005	518340	1.1	2	10.486	-0.016	677680	0.3
Aroclor-1260	3	10.656	0.038	17226429	14.5	3	10.775	-0.000	943659	0.2
Aroclor-1260	4	11.020	0.004	276148	0.5	4	11.231	-0.057	54587309	41.3
Aroclor-1260	5	11.178	-0.028	1220659	3.8	NS	---			----
	Total Col1Ave (5 peaks):				4.6	Total Col2Ave (4 peaks):				11.5 RPD = 86*
	Corrected Ave (4 peaks):				2.1	Corrected Ave (3 peaks):				1.6 RPD = 29
Aroclor-1262	1	9.943	0.001	1559978	2.3	1	10.092	0.028	7030060	2.5
Aroclor-1262	2	10.253	-0.005	518340	0.9	2	10.486	-0.022	677680	0.3
Aroclor-1262	3	10.656	0.029	17226429	13.5	3	10.775	-0.005	943659	0.2
Aroclor-1262	4	11.020	-0.007	276148	0.6	4	11.341	-0.014	1495028	0.4
Aroclor-1262	5	11.178	-0.037	1220659	2.3	5	11.923	-0.017	29117198	34.5
	Total Col1Ave (5 peaks):				3.8	Total Col2Ave (5 peaks):				7.6 RPD = 63*
	Corrected Ave (4 peaks):				1.5	Corrected Ave (4 peaks):				0.8 RPD = 58*
Aroclor-1268	1	11.178	0.035	1220659	0.8	1	11.341	0.047	1495028	0.3
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	11.642	0.043	1114124	0.9	3	11.750	-0.004	1902173	0.4

Aroclor-1268	4	12.363	-0.020	819155	0.2		4	12.554	-0.014	527689	0.0
	Total Col1Ave (3 peaks):			0.7		Total Col2Ave (3 peaks):				0.2	RPD = 96*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks					

Total PCB Area Col1 (4.541 - 12.680) = 343253330 Col1 Total PCB = 0.1 ppm*

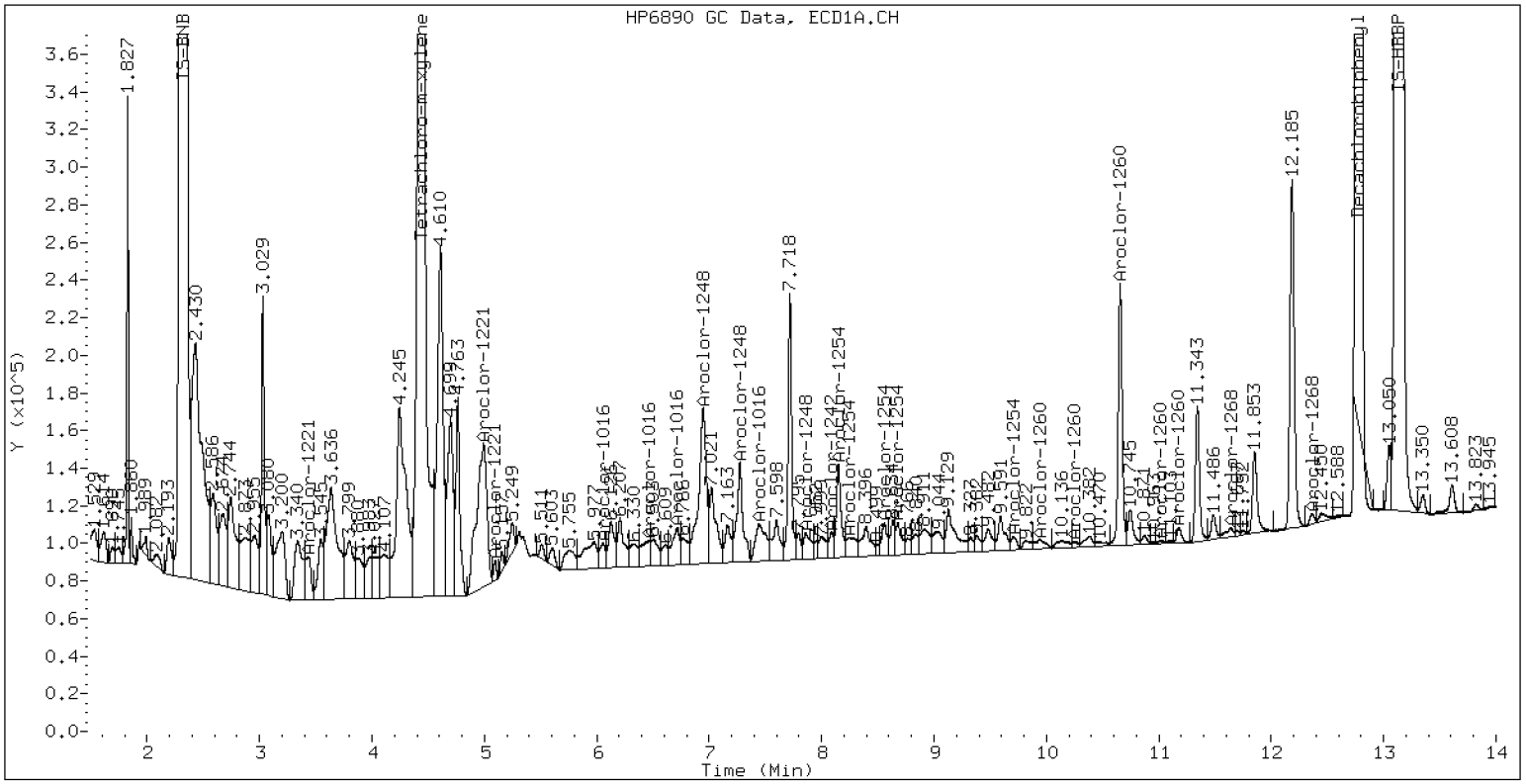
Total PCB Area Col2 (4.541 - 12.680) = 608096299 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

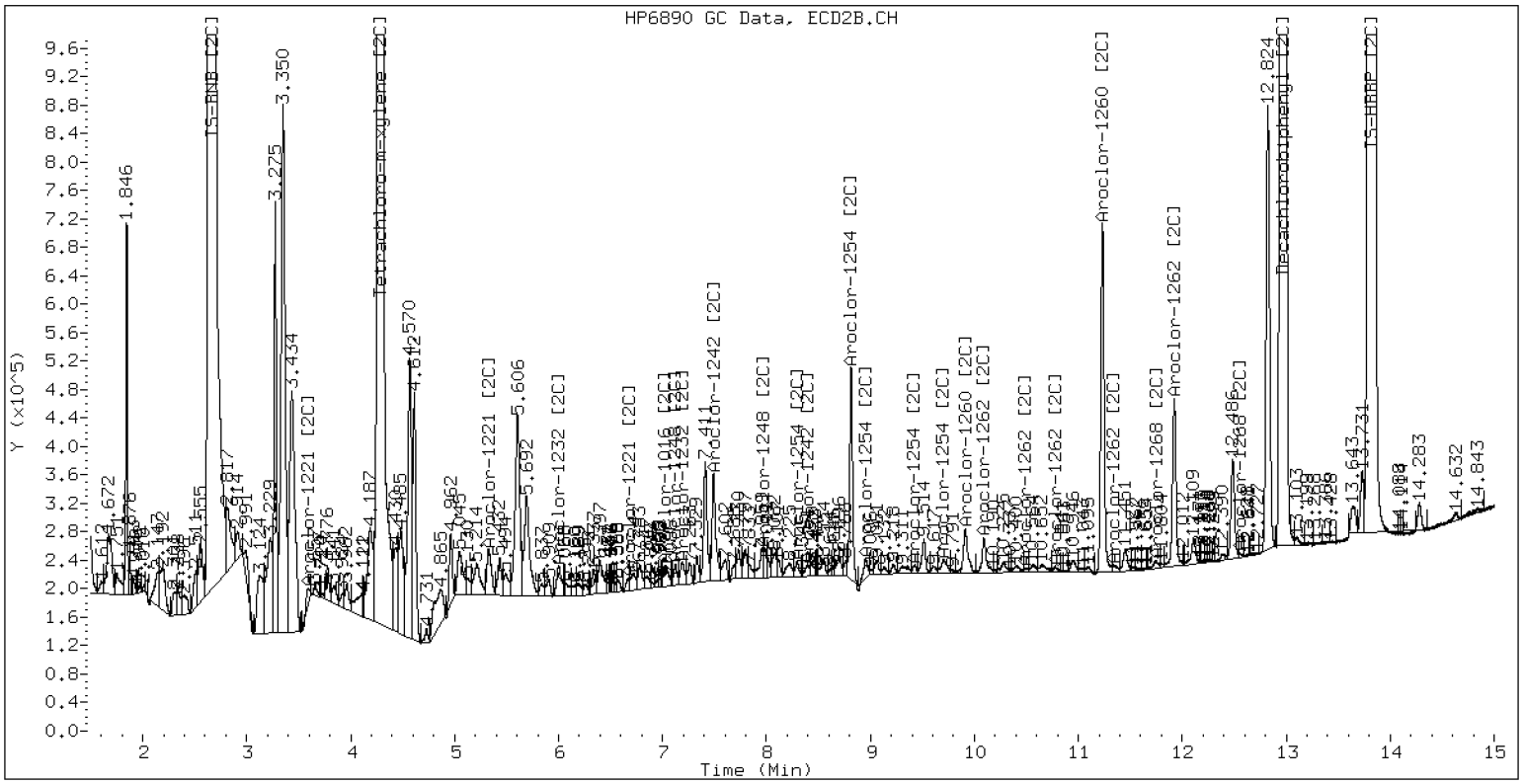
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062814.D 18F0226-07 28-JUN-2018 11:13 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062814.D 18F0226-07



ZB-35 Manual Integration: YES

Dual Column

LDW18-SP-84

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-08	File ID:	18062815ECD5.D
Sampled:	06/14/18 09:53	Prepared:	06/21/18 11:20	Analyzed:	06/28/18 11:33
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0512	Sequence:	SGF0393	Calibration:	BF00046
Instrument:	ECD5	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
12674-11-2	Aroclor 1016	1	1	0.010	0.002	0.010	U
11104-28-2	Aroclor 1221	1	1	0.010	0.002	0.010	U
11141-16-5	Aroclor 1232	1	1	0.010	0.002	0.010	U
53469-21-9	Aroclor 1242	1	1	0.010	0.002	0.010	U
12672-29-6	Aroclor 1248	1	1	0.010	0.002	0.010	U
11097-69-1	Aroclor 1254	1	1	0.010	0.002	0.010	U
11096-82-5	Aroclor 1260	1	1	0.010	0.003	0.010	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0181*	*90.4*	*29 - 120*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0154*	*77.0*	*32 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062815.D
Data file 2: /20180628.b/20180628.b/18062815.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: 18F0226-08
Client ID:
Injection Date: 28-JUN-2018 11:33
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.440	-0.001	343982949	4.285	-0.005	1308276744	30.8	24.6	22.5	Tetrachloro-m-xylene
12.777	-0.002	343299428	12.971	-0.000	1853815735	36.1	41.6	13.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	77.0	61.4
Decachlorobiphenyl	90.4	103.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	984678206	7.0
Hexabromobiphenyl	761926666	899960225	18.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5408733968	22.4
Hexabromobiphenyl	2171332320	2898565202	33.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount	
Aroclor-1016	1	6.057	-0.006	1829860	7.1	1	6.000	-0.009	6006271	3.6	
Aroclor-1016	2	6.498	0.036	6822185	8.0	2	6.669	0.036	3713219	1.0	
Aroclor-1016	3	6.716	-0.006	4893792	20.6	3	7.028	0.006	9350797	10.2	
Aroclor-1016	4	7.455	0.024	6079808	21.7	4	7.489	-0.049	18993983	17.5	
	Total Col1Ave (4 peaks):				14.4	Total Col2Ave (4 peaks):				8.1	RPD = 56*
	Corrected Ave (3 peaks):				11.9	Corrected Ave (3 peaks):				4.9	RPD = 83*
Aroclor-1221	1	3.431	-0.006	3126747	43.8	1	3.584	-0.008	4970914	24.5	
Aroclor-1221	2	4.995	0.015	18475302	213.2	2	5.326	0.019	9265019	8.7	
Aroclor-1221	3	5.098	0.013	274208	1.1	3	---			0.0	
Aroclor-1221	NS	---			----	4	6.669	0.022	3713219	11.9	
	Total Col1Ave (3 peaks):				86.0	Total Col2Ave (3 peaks):				15.0	RPD = 141*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks					
Aroclor-1232	1	3.431	-0.004	3126747	68.7	1	3.584	-0.007	4970914	38.8	
Aroclor-1232	2	6.057	-0.015	1829860	16.6	2	6.000	-0.010	6006271	7.5	
Aroclor-1232	3	6.498	0.028	6822185	18.9	3	6.669	0.025	3713219	2.1	
Aroclor-1232	4	6.716	-0.015	4893792	48.7	4	7.193	-0.004	2544190	7.2	
	Total Col1Ave (4 peaks):				38.2	Total Col2Ave (4 peaks):				13.9	RPD = 93*
	Corrected Ave (3 peaks):				28.1	Corrected Ave (3 peaks):				5.6	RPD = 133*
Aroclor-1242	1	6.057	-0.001	1829860	8.8	1	6.000	-0.008	6006271	4.3	
Aroclor-1242	2	6.498	0.040	6822185	9.9	2	6.669	0.028	3713219	1.1	
Aroclor-1242	3	6.716	-0.002	4893792	25.6	3	7.489	-0.048	18993983	18.1	
Aroclor-1242	4	8.086	0.001	2367089	9.7	4	8.385	-0.019	1754611	1.6	
	Total Col1Ave (4 peaks):				13.5	Total Col2Ave (4 peaks):				6.3	RPD = 73*
	Corrected Ave (3 peaks):				9.5	Corrected Ave (3 peaks):				2.4	RPD = 120*
Aroclor-1248	1	6.945	-0.015	21264225	80.2	1	6.669	0.033	3713219	2.0	
Aroclor-1248	2	7.273	0.014	9990844	32.8	2	7.122	-0.007	4779886	3.7	
Aroclor-1248	3	7.862	0.006	3537336	7.5	3	7.489	-0.048	18993983	13.5	
Aroclor-1248	4	8.086	-0.003	2367089	6.6	4	8.008	0.020	1169558	0.7	
	Total Col1Ave (4 peaks):				31.8	Total Col2Ave (4 peaks):				5.0	RPD = 146*
	Corrected Ave (3 peaks):				15.6	Corrected Ave (3 peaks):				2.1	RPD = 152*
Aroclor-1254	1	8.150	-0.023	6984934	12.2	1	8.298	-0.001	3698423	1.9	
Aroclor-1254	2	8.290	0.040	3693680	20.3	2	8.813	0.002	23018766	16.1	
Aroclor-1254	3	8.553	0.009	3581490	9.8	3	8.956	0.000	3725837	1.2	
Aroclor-1254	4	8.677	-0.001	3759590	5.3	4	9.424	-0.003	3667716	2.6	
Aroclor-1254	5	9.702	-0.005	3239765	4.6	5	9.735	0.000	3254862	1.8	
	Total Col1Ave (5 peaks):				10.5	Total Col2Ave (5 peaks):				4.7	RPD = 76*
	Corrected Ave (4 peaks):				8.0	Corrected Ave (4 peaks):				1.9	RPD = 124*
Aroclor-1260	1	9.935	0.002	1498370	3.0	1	9.918	-0.045	183014098	80.1	
Aroclor-1260	2	10.248	0.000	690563	1.4	2	10.507	0.005	3351192	1.7	
Aroclor-1260	3	10.656	0.038	11252488	9.7	3	10.777	0.001	3993479	0.9	
Aroclor-1260	4	11.019	0.002	475962	0.8	4	11.232	-0.056	35225526	26.9	
Aroclor-1260	5	11.179	-0.026	1221390	3.8	NS	---			----	
	Total Col1Ave (5 peaks):				3.8	Total Col2Ave (4 peaks):				27.4	RPD = 152*
	Corrected Ave (4 peaks):				2.3	Corrected Ave (3 peaks):				9.8	RPD = 124*
Aroclor-1262	1	9.935	-0.007	1498370	2.2	1	10.092	0.027	13823417	4.9	
Aroclor-1262	2	10.248	-0.010	690563	1.2	2	10.507	-0.002	3351192	1.4	
Aroclor-1262	3	10.656	0.028	11252488	9.0	3	10.777	-0.003	3993479	0.8	
Aroclor-1262	4	11.019	-0.008	475962	1.1	4	11.347	-0.008	2520256	0.7	
Aroclor-1262	5	11.179	-0.035	1221390	2.3	5	11.923	-0.017	29787957	35.5	
	Total Col1Ave (5 peaks):				3.2	Total Col2Ave (5 peaks):				8.7	RPD = 93*
	Corrected Ave (4 peaks):				1.7	Corrected Ave (4 peaks):				2.0	RPD = 12
Aroclor-1268	1	11.179	0.037	1221390	0.8	1	11.347	0.052	2520256	0.4	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	11.640	0.041	900577	0.8	3	11.743	-0.010	1894888	0.4	

Aroclor-1268	4	12.362	-0.021	1259112	0.4		4	12.631	0.063	294201	0.0
	Total Col1Ave (3 peaks):			0.7		Total Col2Ave (3 peaks):				0.3	RPD = 77*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks					

Total PCB Area Col1 (4.541 - 12.680) = 474452616 Col1 Total PCB = 0.1 ppm*

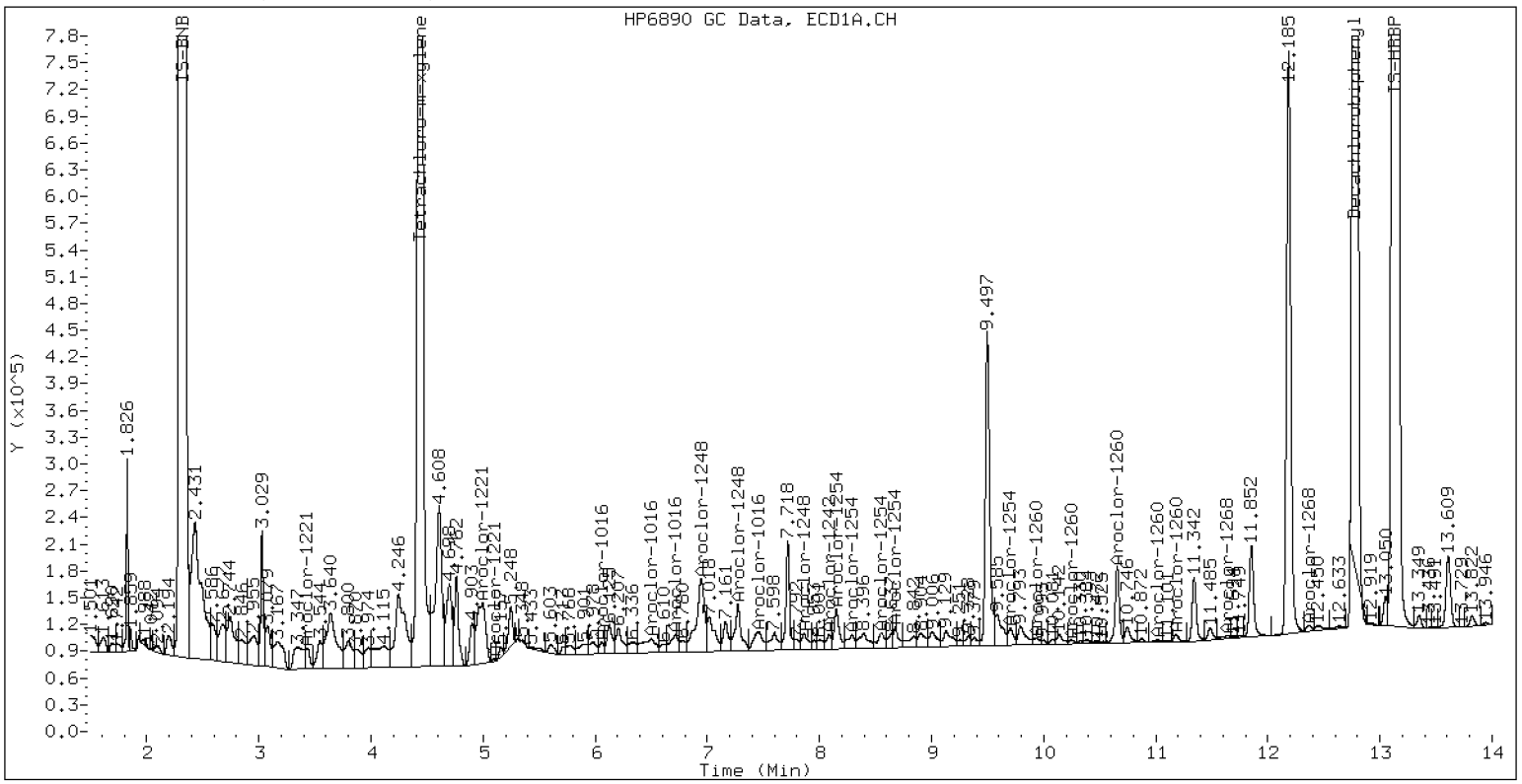
Total PCB Area Col2 (4.541 - 12.680) = 796271863 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

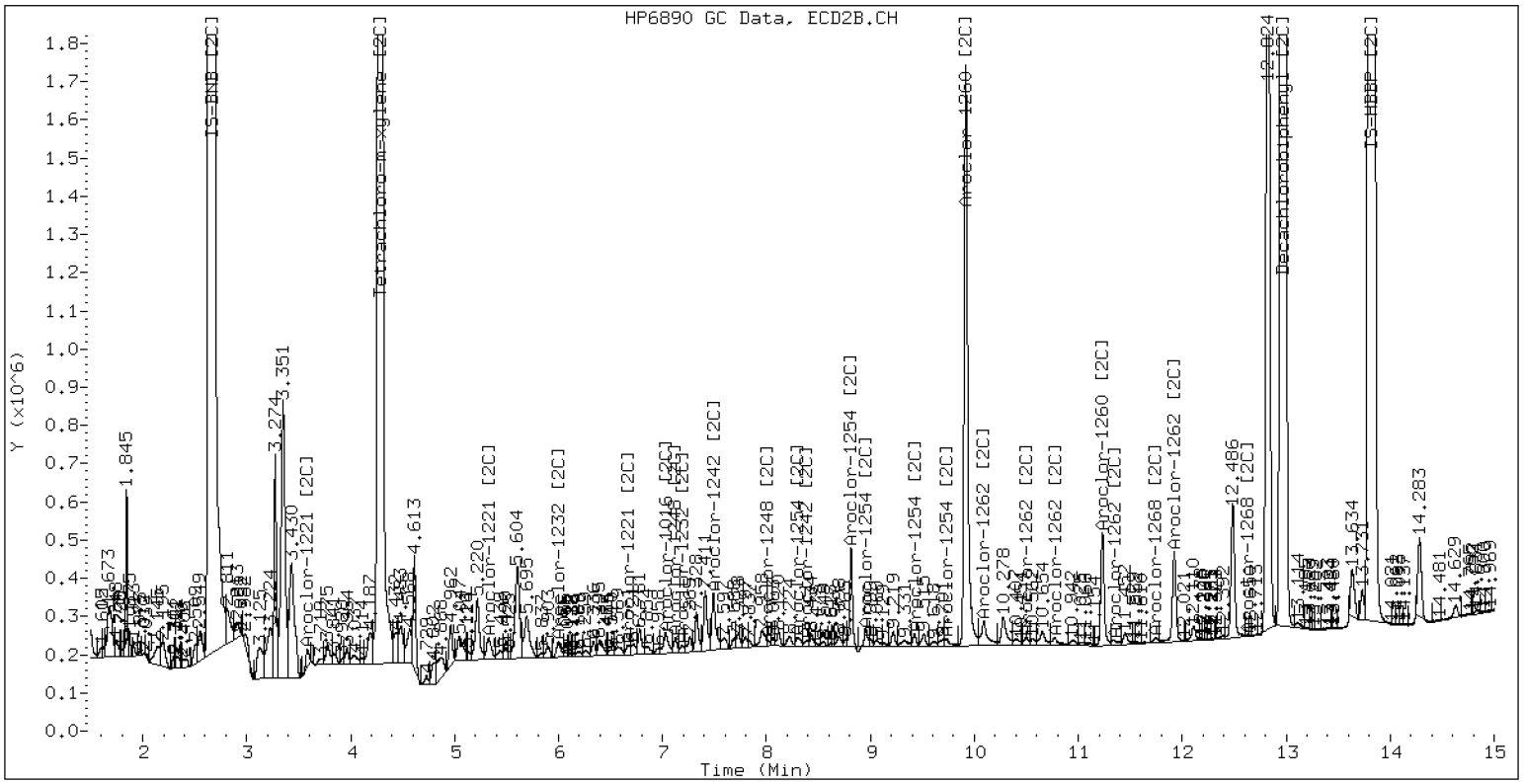
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062815.D 18F0226-08 28-JUN-2018 11:33 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062815.D 18F0226-08



ZB-35 Manual Integration: YES

LDW18-SP-87

Dual Column

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-09	File ID:	18062818ECD5.D
Sampled:	06/14/18 11:11	Prepared:	06/21/18 11:20	Analyzed:	06/28/18 12:34
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0512	Sequence:	SGF0393	Calibration:	BF00046
Instrument:	ECD5	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
12674-11-2	Aroclor 1016	1	1	0.010	0.002	0.010	U
11104-28-2	Aroclor 1221	1	1	0.010	0.002	0.010	U
11141-16-5	Aroclor 1232	1	1	0.010	0.002	0.010	U
53469-21-9	Aroclor 1242	1	1	0.010	0.002	0.010	U
12672-29-6	Aroclor 1248	1	1	0.010	0.002	0.010	U
11097-69-1	Aroclor 1254	1	1	0.010	0.002	0.010	U
11096-82-5	Aroclor 1260	1	1	0.010	0.003	0.010	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0156*	*78.0*	*29 - 120*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0136*	*67.8*	*32 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062818.D
Data file 2: /20180628.b/20180628.b/18062818.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: 18F0226-09
Client ID:
Injection Date: 28-JUN-2018 12:34
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.442	0.001	312134253	4.287	-0.003	1225929906	27.1	22.6	18.5	Tetrachloro-m-xylene
12.777	-0.003	306143364	12.970	-0.001	1722021870	31.2	36.7	16.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	67.8	56.4
Decachlorobiphenyl	78.0	91.7

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1014054599	10.2
Hexabromobiphenyl	761926666	930015903	22.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5521284131	25.0
Hexabromobiphenyl	2171332320	3049164963	40.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.058	-0.004	1991071	7.5	1	6.002	-0.008	5138380	3.0
Aroclor-1016	2	6.502	0.039	7315805	8.3	2	6.673	0.040	1327731	0.3
Aroclor-1016	3	6.712	-0.010	4716314	19.3	3	7.035	0.014	7006850	7.5
Aroclor-1016	4	7.451	0.019	5674646	19.7	4	7.491	-0.047	22544340	20.3
	Total Col1Ave (4 peaks):				13.7	Total Col2Ave (4 peaks):				7.8 RPD = 55*
	Corrected Ave (3 peaks):				11.7	Corrected Ave (3 peaks):				3.6 RPD = 106*
Aroclor-1221	1	3.437	-0.000	4394655	59.8	1	3.589	-0.003	2879766	13.9
Aroclor-1221	2	4.998	0.018	23380914	261.9	2	5.331	0.025	8521790	7.8
Aroclor-1221	3	5.099	0.014	377658	1.4	3	---			0.0
Aroclor-1221	NS	---			----	4	6.673	0.026	1327731	4.2
	Total Col1Ave (3 peaks):				107.7	Total Col2Ave (3 peaks):				8.6 RPD = 170*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	3.437	0.002	4394655	93.8	1	3.589	-0.001	2879766	22.0
Aroclor-1232	2	6.058	-0.013	1991071	17.5	2	6.002	-0.009	5138380	6.3
Aroclor-1232	3	6.502	0.031	7315805	19.7	3	6.673	0.029	1327731	0.7
Aroclor-1232	4	6.712	-0.018	4716314	45.6	4	7.185	-0.011	4608027	12.7
	Total Col1Ave (4 peaks):				44.1	Total Col2Ave (4 peaks):				10.4 RPD = 124*
	Corrected Ave (3 peaks):				27.6	Corrected Ave (3 peaks):				6.6 RPD = 123*
Aroclor-1242	1	6.058	0.001	1991071	9.3	1	6.002	-0.007	5138380	3.6
Aroclor-1242	2	6.502	0.044	7315805	10.3	2	6.673	0.032	1327731	0.4
Aroclor-1242	3	6.712	-0.005	4716314	24.0	3	7.491	-0.046	22544340	21.1
Aroclor-1242	4	8.090	0.005	2043165	8.1	4	8.390	-0.014	941389	0.9
	Total Col1Ave (4 peaks):				12.9	Total Col2Ave (4 peaks):				6.5 RPD = 66*
	Corrected Ave (3 peaks):				9.3	Corrected Ave (3 peaks):				1.6 RPD = 140*
Aroclor-1248	1	6.948	-0.013	22462213	82.3	1	6.673	0.037	1327731	0.7
Aroclor-1248	2	7.274	0.015	9532439	30.4	2	7.125	-0.004	5123936	3.9
Aroclor-1248	3	7.864	0.008	3418363	7.1	3	7.491	-0.046	22544340	15.7
Aroclor-1248	4	8.090	0.001	2043165	5.6	4	7.961	-0.027	7164878	4.2
	Total Col1Ave (4 peaks):				31.3	Total Col2Ave (4 peaks):				6.1 RPD = 135*
	Corrected Ave (3 peaks):				14.3	Corrected Ave (3 peaks):				2.9 RPD = 132*
Aroclor-1254	1	8.150	-0.023	8002582	13.6	1	8.295	-0.004	2961003	1.5
Aroclor-1254	2	8.249	-0.001	1365893	7.3	2	8.814	0.003	22156185	15.2
Aroclor-1254	3	8.559	0.016	3526986	9.4	3	8.958	0.002	111119	0.0
Aroclor-1254	4	8.678	0.000	2629909	3.6	4	9.429	0.002	1081554	0.8
Aroclor-1254	5	9.707	0.000	1354330	1.9	5	9.736	0.001	1039897	0.6
	Total Col1Ave (5 peaks):				7.1	Total Col2Ave (5 peaks):				3.6 RPD = 66*
	Corrected Ave (4 peaks):				5.5	Corrected Ave (4 peaks):				0.7 RPD = 155*
Aroclor-1260	1	9.941	0.008	1445348	2.8	1	9.912	-0.051	10057539	4.2
Aroclor-1260	2	10.251	0.004	636488	1.3	2	10.501	-0.001	754323	0.4
Aroclor-1260	3	10.656	0.038	11079626	9.2	3	10.772	-0.004	1540718	0.3
Aroclor-1260	4	11.018	0.001	362162	0.6	4	11.346	0.057	1729180	1.3
Aroclor-1260	5	11.177	-0.028	1590292	4.8	NS	---			----
	Total Col1Ave (5 peaks):				3.8	Total Col2Ave (4 peaks):				1.5 RPD = 84*
	Corrected Ave (4 peaks):				2.4	Corrected Ave (3 peaks):				0.6 RPD = 115*
Aroclor-1262	1	9.941	-0.001	1445348	2.1	1	10.091	0.026	7679757	2.6
Aroclor-1262	2	10.251	-0.006	636488	1.1	2	10.501	-0.007	754323	0.3
Aroclor-1262	3	10.656	0.028	11079626	8.6	3	10.772	-0.008	1540718	0.3
Aroclor-1262	4	11.018	-0.010	362162	0.8	4	11.346	-0.009	1729180	0.5
Aroclor-1262	5	11.177	-0.038	1590292	2.9	5	11.923	-0.018	30530907	34.6
	Total Col1Ave (5 peaks):				3.1	Total Col2Ave (5 peaks):				7.7 RPD = 85*
	Corrected Ave (4 peaks):				1.7	Corrected Ave (4 peaks):				0.9 RPD = 62*
Aroclor-1268	1	11.177	0.034	1590292	1.0	1	11.346	0.051	1729180	0.3
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	11.640	0.041	1354174	1.1	3	11.747	-0.006	1891901	0.4

Aroclor-1268	4	12.362	-0.021	1067206	0.3	4	12.551	-0.017	749482	0.0	
Total Col1Ave (3 peaks):				0.8	Total Col2Ave (3 peaks):				0.2	RPD =	110*
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						

Total PCB Area Col1 (4.541 - 12.680) = 331252043 Col1 Total PCB = 0.1 ppm*

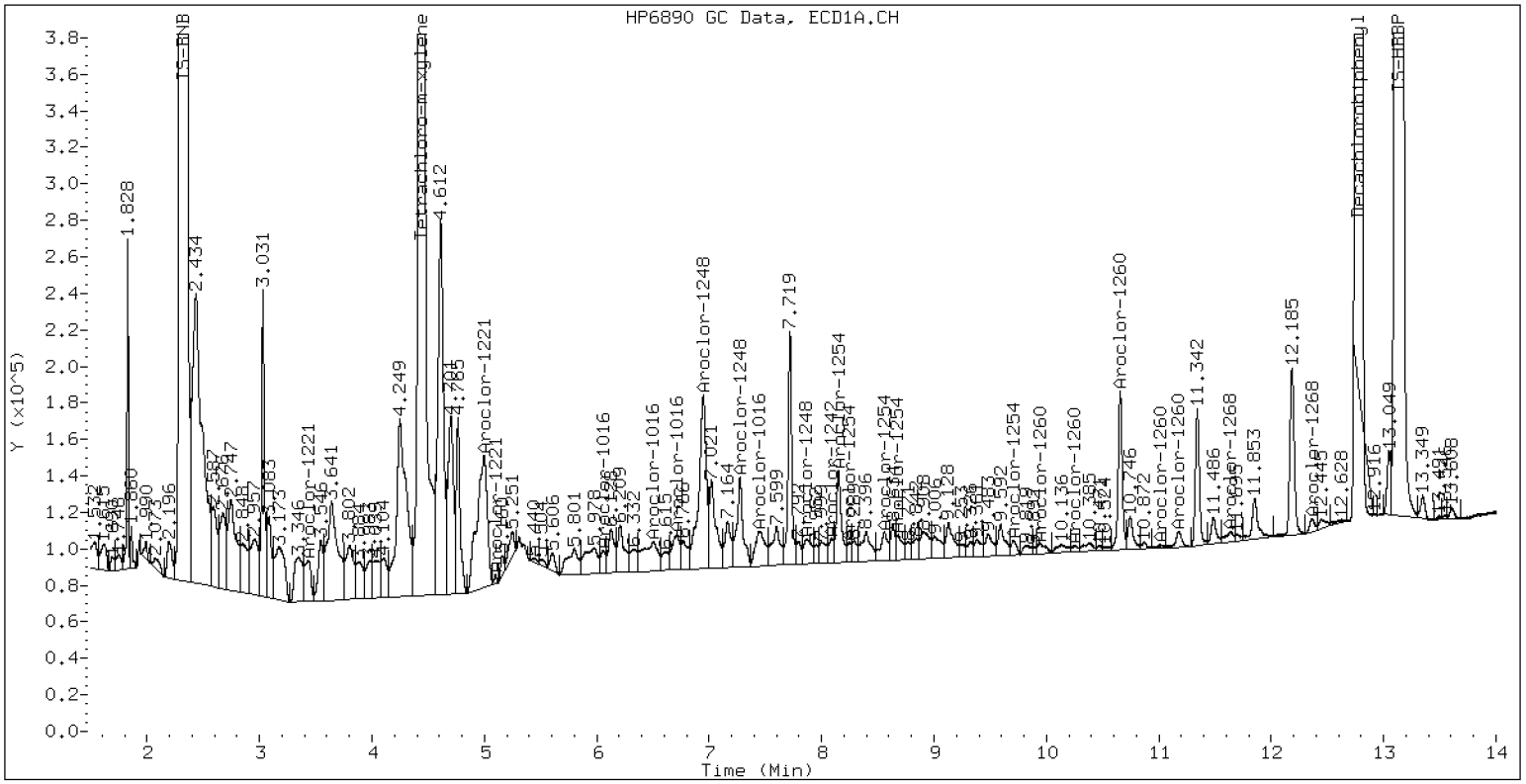
Total PCB Area Col2 (4.541 - 12.680) = 530192156 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

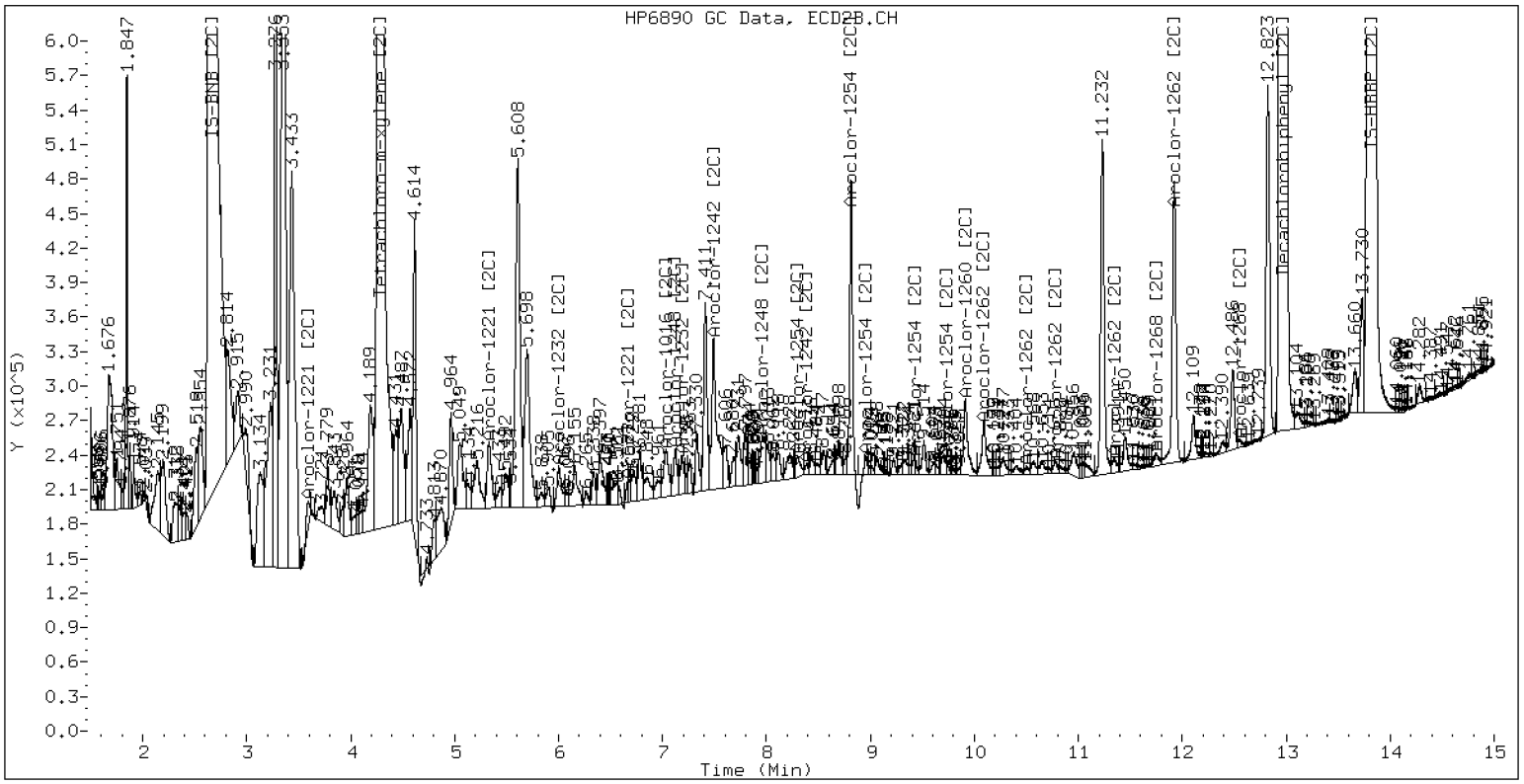
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062818.D 18F0226-09 28-JUN-2018 12:34 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062818.D 18F0226-09



ZB-35 Manual Integration: YES

Dual Column

LDW18-SP-01

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-01	File ID:	18062819ECD5.D
Sampled:	06/15/18 11:33	Prepared:	06/21/18 11:20	Analyzed:	06/28/18 12:55
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0512	Sequence:	SGF0393	Calibration:	BF00046
Instrument:	ECD5	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
12674-11-2	Aroclor 1016	1	1	0.010	0.002	0.010	U
11104-28-2	Aroclor 1221	1	1	0.010	0.002	0.010	U
11141-16-5	Aroclor 1232	1	1	0.010	0.002	0.010	U
53469-21-9	Aroclor 1242	1	1	0.010	0.002	0.010	U
12672-29-6	Aroclor 1248	1	1	0.010	0.002	0.010	U
11097-69-1	Aroclor 1254	1	1	0.010	0.002	0.010	U
11096-82-5	Aroclor 1260	1	1	0.010	0.003	0.010	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0175*	*87.3*	*29 - 120*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0129*	*64.6*	*32 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062819ECD5.D
Data file 2: /20180628.b/20180628.b/18062819ECD5.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: 18F0248-01
Client ID:
Injection Date: 28-JUN-2018 12:55
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.440	-0.001	302754886	4.287	-0.003	1276938670	25.8	24.4	5.8	Tetrachloro-m-xylene
12.777	-0.000	334105907	12.971	-0.001	1883543413	34.9	40.5	14.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	64.6	60.9
Decachlorobiphenyl	87.3	101.1

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1033824090	12.3
Hexabromobiphenyl	761926666	906267797	18.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5325374885	20.5
Hexabromobiphenyl	2171332320	3024971119	39.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.060	-0.004	2565308	9.4	1	6.003	-0.006	8755513	5.3
Aroclor-1016	2	6.458	-0.006	8244404	9.2	2	6.642	0.009	5808993	1.5
Aroclor-1016	3	6.716	-0.007	4498788	18.1	3	7.023	0.001	5866624	6.5
Aroclor-1016	4	7.436	0.003	5369221	18.3	4	7.524	-0.014	7985316	7.5
Total Col1Ave (4 peaks):		13.7			Total Col2Ave (4 peaks):		5.2	RPD = 90*		
Corrected Ave (3 peaks):		12.2			Corrected Ave (3 peaks):		4.4	RPD = 93*		
Aroclor-1221	1	3.436	-0.001	3583878	47.8	1	3.583	-0.010	3465169	17.4
Aroclor-1221	2	4.963	-0.017	13560236	149.0	2	5.325	0.018	11985758	11.4
Aroclor-1221	3	5.093	0.008	535295	2.0	3	---			0.0
Aroclor-1221	NS	---			----	4	6.642	-0.005	5808993	18.9
Total Col1Ave (3 peaks):		66.3			Total Col2Ave (3 peaks):		15.9	RPD = 123*		
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks					
Aroclor-1232	1	3.436	0.000	3583878	75.0	1	3.583	-0.008	3465169	27.4
Aroclor-1232	2	6.060	-0.012	2565308	22.1	2	6.003	-0.008	8755513	11.1
Aroclor-1232	3	6.458	-0.012	8244404	21.7	3	6.642	-0.002	5808993	3.4
Aroclor-1232	4	6.716	-0.015	4498788	42.6	4	7.191	-0.005	7284334	20.8
Total Col1Ave (4 peaks):		40.4			Total Col2Ave (4 peaks):		15.7	RPD = 88*		
Corrected Ave (3 peaks):		28.8			Corrected Ave (3 peaks):		11.8	RPD = 84*		
Aroclor-1242	1	6.060	-0.005	2565308	11.8	1	6.003	-0.006	8755513	6.4
Aroclor-1242	2	6.458	-0.007	8244404	11.4	2	6.642	0.000	5808993	1.8
Aroclor-1242	3	6.716	-0.008	4498788	22.4	3	7.524	-0.014	7985316	7.7
Aroclor-1242	4	8.089	-0.001	2597440	10.2	4	8.397	-0.007	2686027	2.5
Total Col1Ave (4 peaks):		13.9			Total Col2Ave (4 peaks):		4.6	RPD = 100*		
Corrected Ave (3 peaks):		11.1			Corrected Ave (3 peaks):		3.6	RPD = 103*		
Aroclor-1248	1	6.948	-0.013	21664066	77.9	1	6.642	0.005	5808993	3.2
Aroclor-1248	2	7.269	0.010	7646434	23.9	2	7.128	-0.002	8087032	6.4
Aroclor-1248	3	7.862	0.006	3295617	6.7	3	7.524	-0.013	7985316	5.8
Aroclor-1248	4	8.089	-0.000	2597440	6.9	4	7.986	-0.003	7995671	4.8
Total Col1Ave (4 peaks):		28.8			Total Col2Ave (4 peaks):		5.0	RPD = 141*		
Corrected Ave (3 peaks):		12.5			Corrected Ave (3 peaks):		4.6	RPD = 93*		
Aroclor-1254	1	8.152	-0.021	8306580	13.8	1	8.291	-0.008	1793131	0.9
Aroclor-1254	2	8.288	0.040	3479103	18.3	2	8.813	0.003	27198009	19.3
Aroclor-1254	3	8.556	0.015	3530719	9.2	3	8.957	0.002	5534551	1.8
Aroclor-1254	4	8.676	-0.000	4051664	5.5	4	9.424	-0.003	2744581	2.0
Aroclor-1254	5	9.704	-0.001	2119207	2.9	5	9.733	-0.001	3238777	1.8
Total Col1Ave (5 peaks):		9.9			Total Col2Ave (5 peaks):		5.2	RPD = 63*		
Corrected Ave (4 peaks):		7.8			Corrected Ave (4 peaks):		1.6	RPD = 131*		
Aroclor-1260	1	9.940	0.007	2058901	4.2	1	9.958	-0.005	2225046	0.9
Aroclor-1260	2	10.248	0.000	727064	1.5	2	10.498	-0.004	1216520	0.6
Aroclor-1260	3	10.656	0.038	8769826	7.5	3	10.777	0.001	1803116	0.4
Aroclor-1260	4	11.014	-0.002	664564	1.2	4	11.342	0.054	2044880	1.5
Aroclor-1260	5	11.181	-0.024	1103034	3.4	NS	---			----
Total Col1Ave (5 peaks):		3.6			Total Col2Ave (4 peaks):		0.8	RPD = 123*		
Corrected Ave (4 peaks):		2.6			Corrected Ave (3 peaks):		0.6	RPD = 121*		
Aroclor-1262	1	9.940	-0.002	2058901	3.0	1	10.092	0.027	10522074	3.6
Aroclor-1262	2	10.248	-0.009	727064	1.3	2	10.498	-0.010	1216520	0.5
Aroclor-1262	3	10.656	0.028	8769826	6.9	3	10.777	-0.003	1803116	0.3
Aroclor-1262	4	11.014	-0.013	664564	1.6	4	11.342	-0.013	2044880	0.6
Aroclor-1262	5	11.181	-0.033	1103034	2.1	5	11.923	-0.017	28923968	33.0
Total Col1Ave (5 peaks):		3.0			Total Col2Ave (5 peaks):		7.6	RPD = 87*		
Corrected Ave (4 peaks):		2.0			Corrected Ave (4 peaks):		1.2	RPD = 46*		
Aroclor-1268	1	11.181	0.038	1103034	0.7	1	11.342	0.048	2044880	0.3
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	11.641	0.042	1284299	1.1	3	11.746	-0.008	1402255	0.3

Aroclor-1268	4	12.365	-0.019	1018744	0.3	4	12.555	-0.013	2987786	0.2	
Total Col1Ave (3 peaks):					0.7	Total Col2Ave (3 peaks):				0.3	RPD = 90*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks					

Total PCB Area Col1 (4.542 - 12.677) = 316390645 Col1 Total PCB = 0.1 ppm*

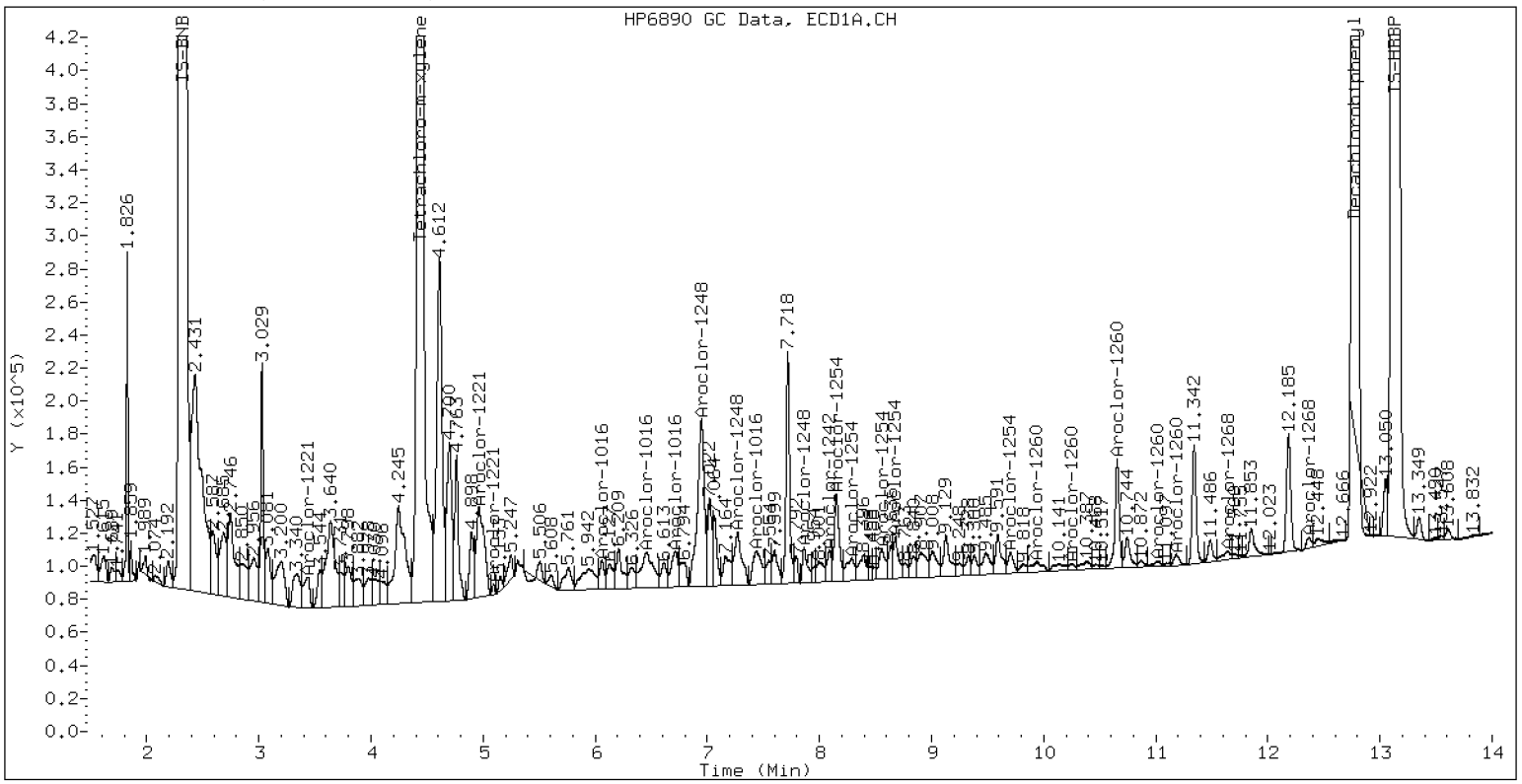
Total PCB Area Col2 (4.542 - 12.677) = 506953470 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

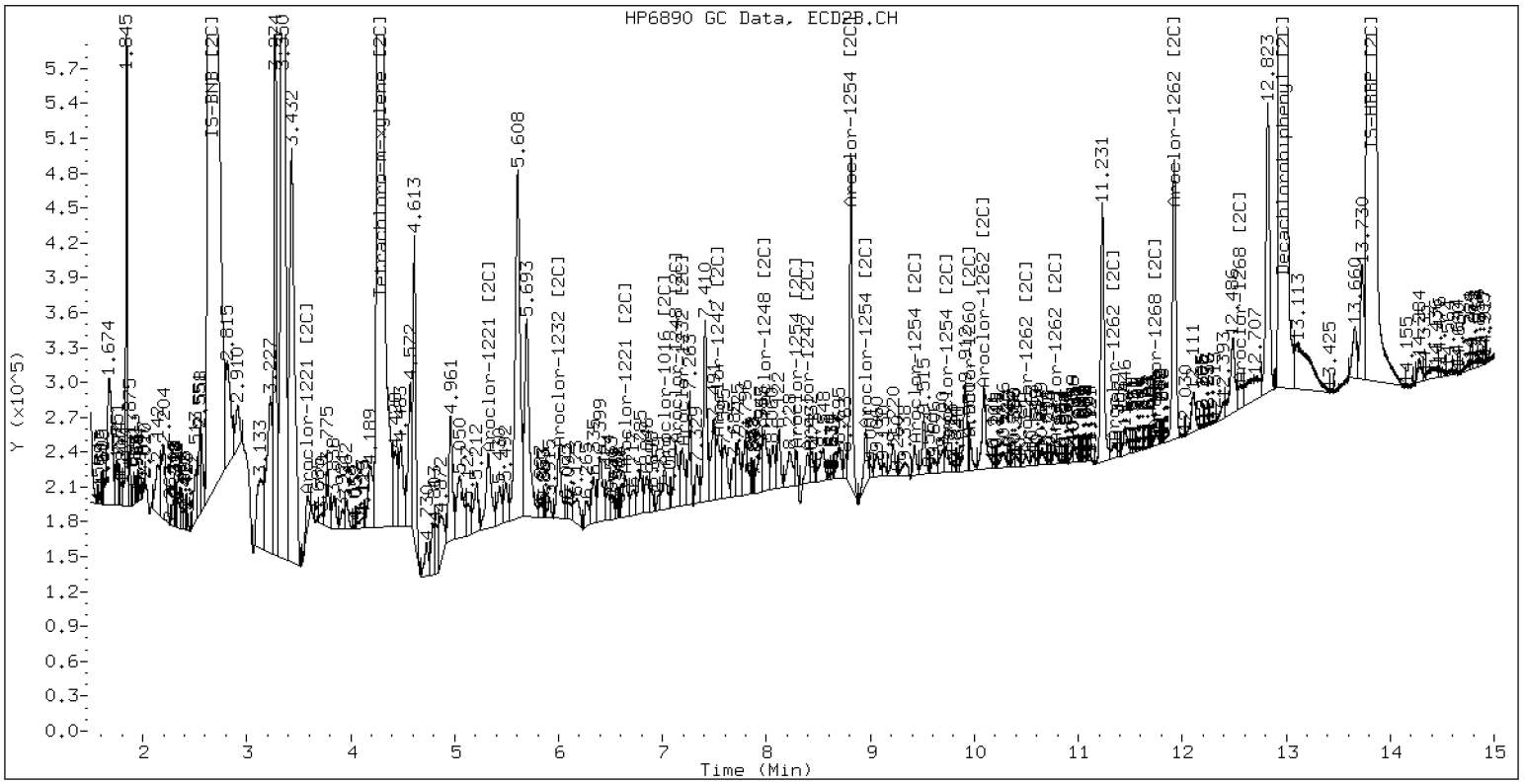
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062819ECD5.D 18F0248-01 28-JUN-2018 12:55 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062819ECD5.D 18F0248-01



ZB-35 Manual Integration: YES

Dual Column

LDW18-SP-45

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-02	File ID:	18062820ECD5.D
Sampled:	06/15/18 13:45	Prepared:	06/21/18 11:20	Analyzed:	06/28/18 13:15
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0512	Sequence:	SGF0393	Calibration:	BF00046
Instrument:	ECD5	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
12674-11-2	Aroclor 1016	1	1	0.010	0.002	0.010	U
11104-28-2	Aroclor 1221	1	1	0.010	0.002	0.010	U
11141-16-5	Aroclor 1232	1	1	0.010	0.002	0.010	U
53469-21-9	Aroclor 1242	1	1	0.010	0.002	0.010	U
12672-29-6	Aroclor 1248	1	1	0.010	0.002	0.010	U
11097-69-1	Aroclor 1254	1	1	0.010	0.002	0.010	U
11096-82-5	Aroclor 1260	1	1	0.010	0.003	0.010	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0159*	*79.6*	*29 - 120*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0145*	*72.4*	*32 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062820ECD5.D
Data file 2: /20180628.b/20180628.b/18062820ECD5.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: 18F0248-02
Client ID:
Injection Date: 28-JUN-2018 13:15
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.442	0.001	332464446	4.289	-0.002	1295018011	28.9	23.7	20.1	Tetrachloro-m-xylene
12.777	-0.001	307431021	12.971	-0.000	1761465075	31.8	37.6	16.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	72.4	59.2
Decachlorobiphenyl	79.6	93.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1012641444	10.0
Hexabromobiphenyl	761926666	915216990	20.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5557062182	25.8
Hexabromobiphenyl	2171332320	3045873561	40.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.059	-0.005	2260227	8.5	1	6.005	-0.004	5716056	3.3
Aroclor-1016	2	6.447	-0.017	4090954	4.7	2	6.654	0.021	4578155	1.2
Aroclor-1016	3	6.717	-0.006	5609545	23.0	3	7.030	0.009	5845719	6.2
Aroclor-1016	4	7.442	0.010	8120972	28.2	4	7.492	-0.046	14178769	12.7
	Total Col1Ave (4 peaks):				16.1	Total Col2Ave (4 peaks):				5.8 RPD = 93*
	Corrected Ave (3 peaks):				12.1	Corrected Ave (3 peaks):				3.6 RPD = 109*
Aroclor-1221	1	3.438	0.000	3934064	53.6	1	3.593	0.001	3210726	15.4
Aroclor-1221	2	4.967	-0.013	7456740	83.7	2	5.326	0.020	9650287	8.8
Aroclor-1221	3	5.095	0.010	886283	3.3	3	---			0.0
Aroclor-1221	NS	---			----	4	6.654	0.008	4578155	14.3
	Total Col1Ave (3 peaks):				46.9	Total Col2Ave (3 peaks):				12.8 RPD = 114*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	3.438	0.002	3934064	84.1	1	3.593	0.003	3210726	24.4
Aroclor-1232	2	6.059	-0.012	2260227	19.9	2	6.005	-0.006	5716056	6.9
Aroclor-1232	3	6.447	-0.023	4090954	11.0	3	6.654	0.011	4578155	2.6
Aroclor-1232	4	6.717	-0.014	5609545	54.3	4	7.186	-0.010	2366716	6.5
	Total Col1Ave (4 peaks):				42.3	Total Col2Ave (4 peaks):				10.1 RPD = 123*
	Corrected Ave (3 peaks):				28.4	Corrected Ave (3 peaks):				5.3 RPD = 137*
Aroclor-1242	1	6.059	-0.006	2260227	10.6	1	6.005	-0.004	5716056	4.0
Aroclor-1242	2	6.447	-0.017	4090954	5.8	2	6.654	0.013	4578155	1.4
Aroclor-1242	3	6.717	-0.007	5609545	28.5	3	7.592	0.055	6502241	6.0
Aroclor-1242	4	8.085	-0.005	3843156	15.4	4	8.387	-0.016	822149	0.7
	Total Col1Ave (4 peaks):				15.1	Total Col2Ave (4 peaks):				3.0 RPD = 133*
	Corrected Ave (3 peaks):				10.6	Corrected Ave (3 peaks):				2.0 RPD = 135*
Aroclor-1248	1	6.948	-0.013	23014793	84.5	1	6.654	0.018	4578155	2.4
Aroclor-1248	2	7.273	0.014	10344712	33.0	2	7.122	-0.008	3245261	2.4
Aroclor-1248	3	7.860	0.004	4162513	8.6	3	7.492	-0.046	14178769	9.8
Aroclor-1248	4	8.085	-0.004	3843156	10.5	4	8.013	0.025	1835340	1.1
	Total Col1Ave (4 peaks):				34.1	Total Col2Ave (4 peaks):				3.9 RPD = 159*
	Corrected Ave (3 peaks):				17.4	Corrected Ave (3 peaks):				2.0 RPD = 159*
Aroclor-1254	1	8.153	-0.020	9906386	16.8	1	8.326	0.027	5468261	2.7
Aroclor-1254	2	8.291	0.043	5930469	31.8	2	8.814	0.003	27315547	18.6
Aroclor-1254	3	8.558	0.017	4610766	12.3	3	8.955	-0.001	5159807	1.6
Aroclor-1254	4	8.675	-0.001	3801832	5.2	4	9.429	0.002	2735646	1.9
Aroclor-1254	5	9.706	0.002	2209549	3.1	5	9.697	-0.037	4374014	2.4
	Total Col1Ave (5 peaks):				13.8	Total Col2Ave (5 peaks):				5.4 RPD = 87*
	Corrected Ave (4 peaks):				9.3	Corrected Ave (4 peaks):				2.1 RPD = 125*
Aroclor-1260	1	9.941	0.008	2940737	5.9	1	9.911	-0.052	9980364	4.2
Aroclor-1260	2	10.250	0.002	1123472	2.3	2	10.502	-0.000	1245992	0.6
Aroclor-1260	3	10.656	0.038	5928963	5.0	3	10.772	-0.004	2268931	0.5
Aroclor-1260	4	11.017	0.001	638317	1.1	4	11.232	-0.057	16195130	11.8
Aroclor-1260	5	11.176	-0.029	1515965	4.7	NS	---			----
	Total Col1Ave (5 peaks):				3.8	Total Col2Ave (4 peaks):				4.2 RPD = 11
	Corrected Ave (4 peaks):				3.3	Corrected Ave (3 peaks):				1.7 RPD = 61*
Aroclor-1262	1	9.941	-0.001	2940737	4.3	1	10.097	0.032	9329509	3.2
Aroclor-1262	2	10.250	-0.008	1123472	2.0	2	10.502	-0.007	1245992	0.5
Aroclor-1262	3	10.656	0.028	5928963	4.6	3	10.772	-0.008	2268931	0.4
Aroclor-1262	4	11.017	-0.010	638317	1.5	4	11.347	-0.008	1712428	0.5
Aroclor-1262	5	11.176	-0.038	1515965	2.8	5	11.922	-0.019	30764773	34.9
	Total Col1Ave (5 peaks):				3.6	Total Col2Ave (5 peaks):				7.9 RPD = 89*
	Corrected Ave (4 peaks):				2.6	Corrected Ave (4 peaks):				1.1 RPD = 80*
Aroclor-1268	1	11.176	0.033	1515965	1.0	1	11.347	0.053	1712428	0.3
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	11.642	0.044	1139200	1.0	3	11.746	-0.008	1885414	0.4

Aroclor-1268	4	12.365	-0.018	1169805	0.3	4	12.546	-0.022	717467	0.0	
Total Col1Ave (3 peaks):				0.8	Total Col2Ave (3 peaks):				0.2	RPD =	105*
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						

Total PCB Area Col1 (4.542 - 12.677) = 361684446 Col1 Total PCB = 0.1 ppm*

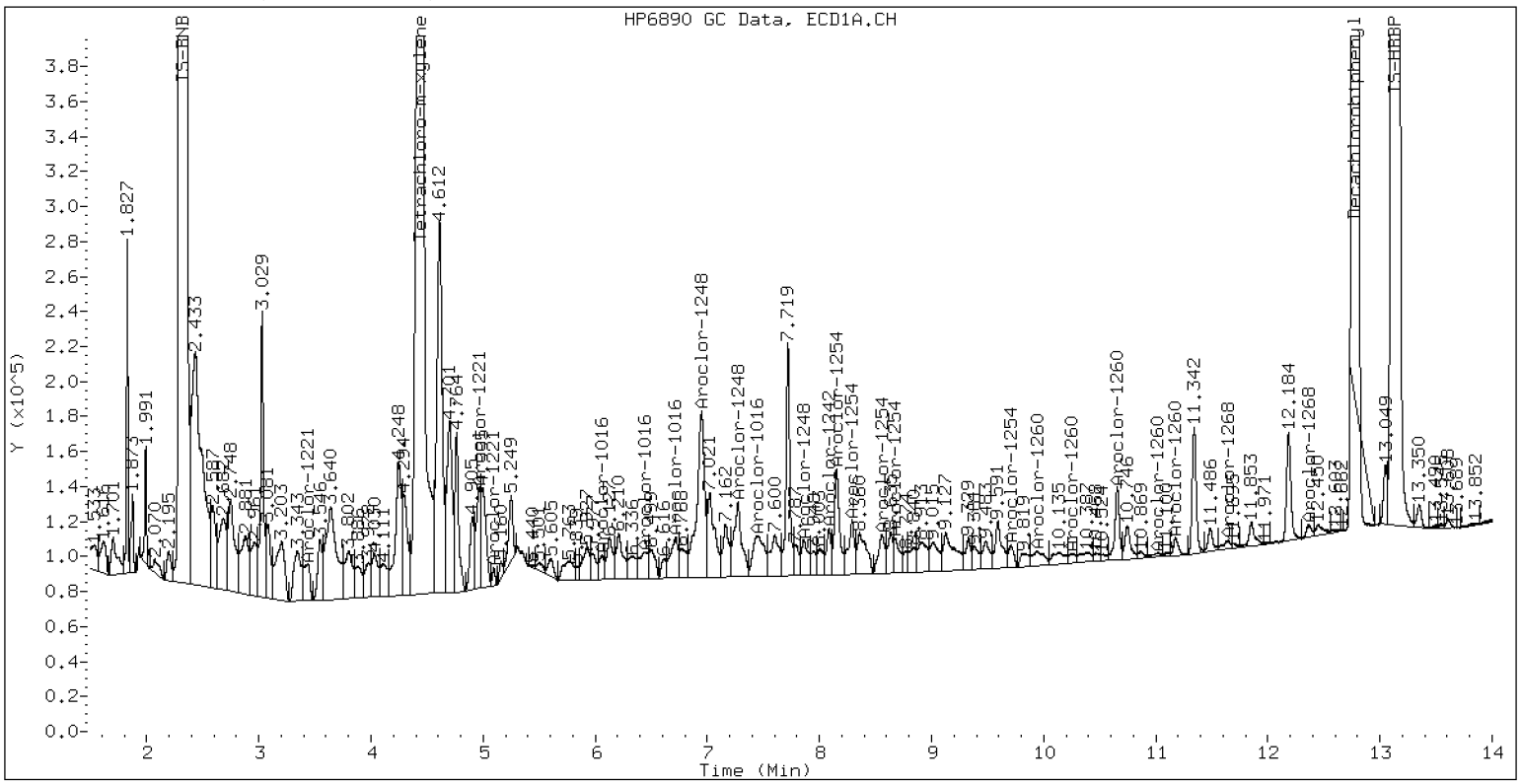
Total PCB Area Col2 (4.542 - 12.677) = 645690505 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

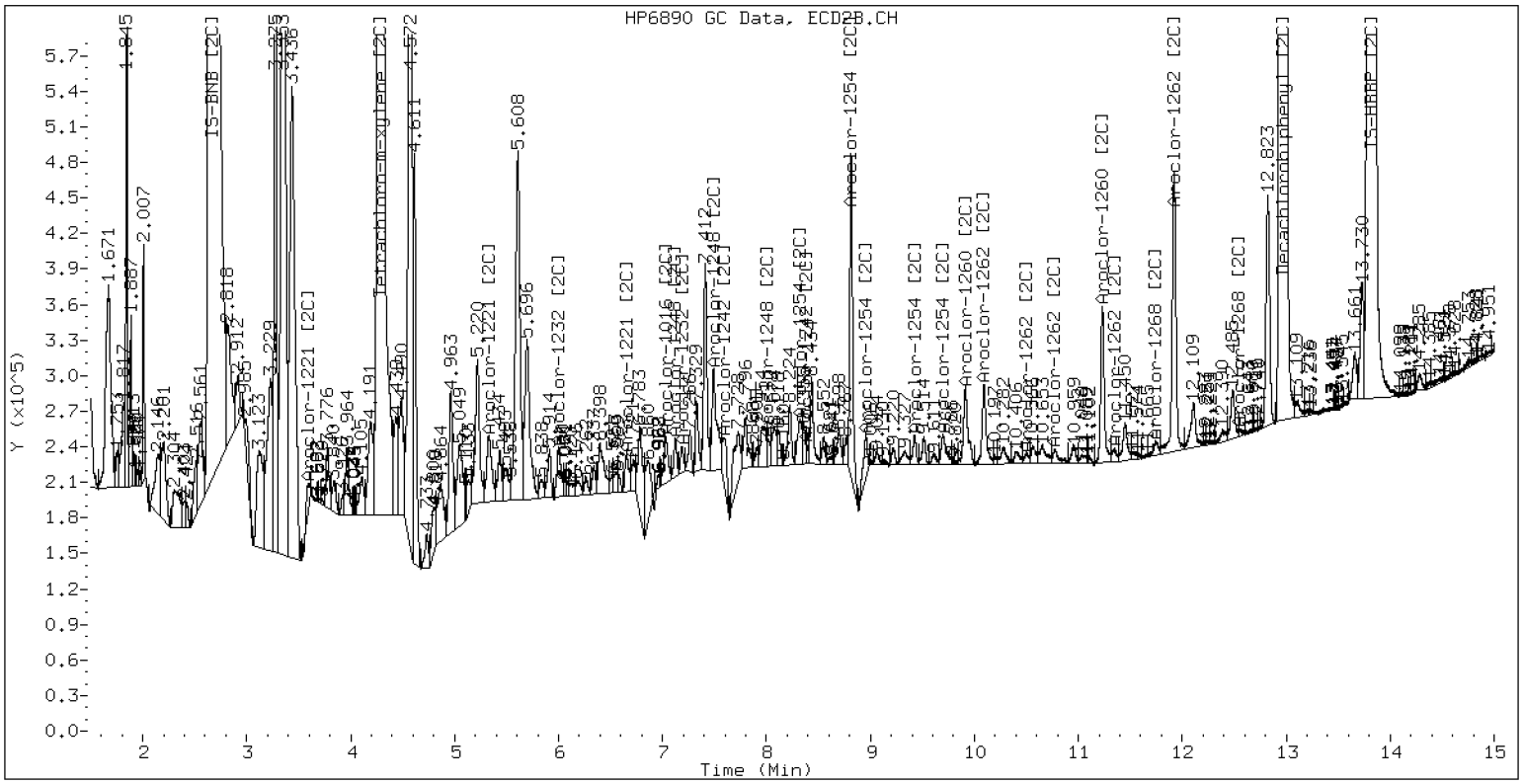
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062820ECD5.D 18F0248-02 28-JUN-2018 13:15 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062820ECD5.D 18F0248-02



ZB-35 Manual Integration: YES

Dual Column

LDW18-SP-47

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-03	File ID:	18062821ECD5.D
Sampled:	06/15/18 13:16	Prepared:	06/21/18 11:20	Analyzed:	06/28/18 13:35
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0512	Sequence:	SGF0393	Calibration:	BF00046
Instrument:	ECD5	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
12674-11-2	Aroclor 1016	1	1	0.010	0.002	0.010	U
11104-28-2	Aroclor 1221	1	1	0.010	0.002	0.010	U
11141-16-5	Aroclor 1232	1	1	0.010	0.002	0.010	U
53469-21-9	Aroclor 1242	1	1	0.010	0.002	0.010	U
12672-29-6	Aroclor 1248	1	1	0.010	0.002	0.010	U
11097-69-1	Aroclor 1254	1	1	0.010	0.002	0.010	U
11096-82-5	Aroclor 1260	1	1	0.010	0.003	0.010	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0163*	*81.6*	*29 - 120*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0139*	*69.6*	*32 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062821ECD5.D
Data file 2: /20180628.b/20180628.b/18062821ECD5.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: 18F0248-03
Client ID:
Injection Date: 28-JUN-2018 13:35
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.441	-0.001	338773728	4.287	-0.003	1385490682	27.8	24.6	12.1	Tetrachloro-m-xylene
12.778	0.000	324344104	12.970	-0.001	1804542217	32.6	37.2	13.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	69.6	61.6
Decachlorobiphenyl	81.6	93.1

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1073368631	16.6
Hexabromobiphenyl	761926666	941353627	23.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5711059712	29.3
Hexabromobiphenyl	2171332320	3149127214	45.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.058	-0.006	2463857	8.7	1	6.003	-0.006	5276463	3.0
Aroclor-1016	2	6.505	0.041	6954603	7.5	2	6.650	0.017	4034799	1.0
Aroclor-1016	3	6.715	-0.008	5090205	19.7	3	7.028	0.007	6164479	6.4
Aroclor-1016	4	7.463	0.031	7450450	24.4	4	7.490	-0.048	9767420	8.5
	Total Col1Ave (4 peaks):				15.1	Total Col2Ave (4 peaks):				4.7 RPD = 105*
	Corrected Ave (3 peaks):				12.0	Corrected Ave (3 peaks):				3.4 RPD = 111*
Aroclor-1221	1	3.441	0.004	3963785	51.0	1	3.602	0.010	3209067	15.0
Aroclor-1221	2	4.963	-0.017	13263172	140.4	2	5.329	0.023	8674276	7.7
Aroclor-1221	3	5.095	0.010	531855	1.9	3	---			0.0
Aroclor-1221	NS	---			----	4	6.650	0.003	4034799	12.2
	Total Col1Ave (3 peaks):				64.4	Total Col2Ave (3 peaks):				11.6 RPD = 139*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	3.441	0.006	3963785	79.9	1	3.602	0.012	3209067	23.7
Aroclor-1232	2	6.058	-0.013	2463857	20.5	2	6.003	-0.008	5276463	6.2
Aroclor-1232	3	6.505	0.034	6954603	17.7	3	6.650	0.006	4034799	2.2
Aroclor-1232	4	6.715	-0.015	5090205	46.5	4	7.184	-0.012	3419503	9.1
	Total Col1Ave (4 peaks):				41.1	Total Col2Ave (4 peaks):				10.3 RPD = 120*
	Corrected Ave (3 peaks):				28.2	Corrected Ave (3 peaks):				5.8 RPD = 131*
Aroclor-1242	1	6.058	-0.006	2463857	10.9	1	6.003	-0.006	5276463	3.6
Aroclor-1242	2	6.505	0.040	6954603	9.3	2	6.650	0.008	4034799	1.2
Aroclor-1242	3	6.715	-0.008	5090205	24.4	3	7.490	-0.048	9767420	8.8
Aroclor-1242	4	8.088	-0.002	2400562	9.0	4	8.393	-0.011	1127139	1.0
	Total Col1Ave (4 peaks):				13.4	Total Col2Ave (4 peaks):				3.6 RPD = 114*
	Corrected Ave (3 peaks):				9.7	Corrected Ave (3 peaks):				1.9 RPD = 134*
Aroclor-1248	1	6.945	-0.015	22897304	79.3	1	6.650	0.013	4034799	2.0
Aroclor-1248	2	7.273	0.014	9228716	27.8	2	7.120	-0.009	4188098	3.1
Aroclor-1248	3	7.857	0.001	5798283	11.3	3	7.490	-0.047	9767420	6.6
Aroclor-1248	4	8.088	-0.002	2400562	6.2	4	7.980	-0.008	4996592	2.8
	Total Col1Ave (4 peaks):				31.1	Total Col2Ave (4 peaks):				3.6 RPD = 158*
	Corrected Ave (3 peaks):				15.1	Corrected Ave (3 peaks):				2.6 RPD = 140*
Aroclor-1254	1	8.150	-0.022	8627542	13.8	1	8.299	0.000	2986393	1.5
Aroclor-1254	2	8.291	0.043	4335464	21.9	2	8.815	0.004	24868477	16.5
Aroclor-1254	3	8.557	0.016	3548061	8.9	3	8.956	0.001	5287608	1.6
Aroclor-1254	4	8.635	-0.041	6929367	9.0	4	9.421	-0.006	2163574	1.5
Aroclor-1254	5	9.705	0.000	2058115	2.7	5	9.718	-0.016	3493820	1.8
	Total Col1Ave (5 peaks):				11.3	Total Col2Ave (5 peaks):				4.6 RPD = 85*
	Corrected Ave (4 peaks):				8.6	Corrected Ave (4 peaks):				1.6 RPD = 138*
Aroclor-1260	1	9.943	0.011	3073023	6.0	1	9.913	-0.050	10140310	4.1
Aroclor-1260	2	10.250	0.002	1065011	2.1	2	10.503	0.001	1644550	0.7
Aroclor-1260	3	10.657	0.039	4666517	3.8	3	10.776	0.001	1607767	0.3
Aroclor-1260	4	11.025	0.009	537497	0.9	4	11.233	-0.056	12459852	8.7
Aroclor-1260	5	11.180	-0.025	1627519	4.9	NS	---			----
	Total Col1Ave (5 peaks):				3.5	Total Col2Ave (4 peaks):				3.5 RPD = 2
	Corrected Ave (4 peaks):				2.9	Corrected Ave (3 peaks):				1.7 RPD = 52*
Aroclor-1262	1	9.943	0.001	3073023	4.3	1	10.090	0.026	6724657	2.2
Aroclor-1262	2	10.250	-0.008	1065011	1.8	2	10.503	-0.005	1644550	0.6
Aroclor-1262	3	10.657	0.029	4666517	3.6	3	10.776	-0.004	1607767	0.3
Aroclor-1262	4	11.025	-0.003	537497	1.2	4	11.348	-0.007	1937743	0.5
Aroclor-1262	5	11.180	-0.035	1627519	3.0	5	11.922	-0.018	29126236	32.0
	Total Col1Ave (5 peaks):				2.8	Total Col2Ave (5 peaks):				7.1 RPD = 88*
	Corrected Ave (4 peaks):				2.4	Corrected Ave (4 peaks):				0.9 RPD = 90*
Aroclor-1268	1	11.180	0.037	1627519	1.1	1	11.348	0.053	1937743	0.3
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	11.640	0.041	1198877	1.0	3	11.742	-0.012	1471795	0.3

Aroclor-1268	4	12.362	-0.021	1089432	0.3	4	12.548	-0.020	772724	0.0	
Total Col1Ave (3 peaks):				0.8	Total Col2Ave (3 peaks):				0.2	RPD =	113*
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks						

Total PCB Area Col1 (4.542 - 12.677) = 330133581 Col1 Total PCB = 0.1 ppm*

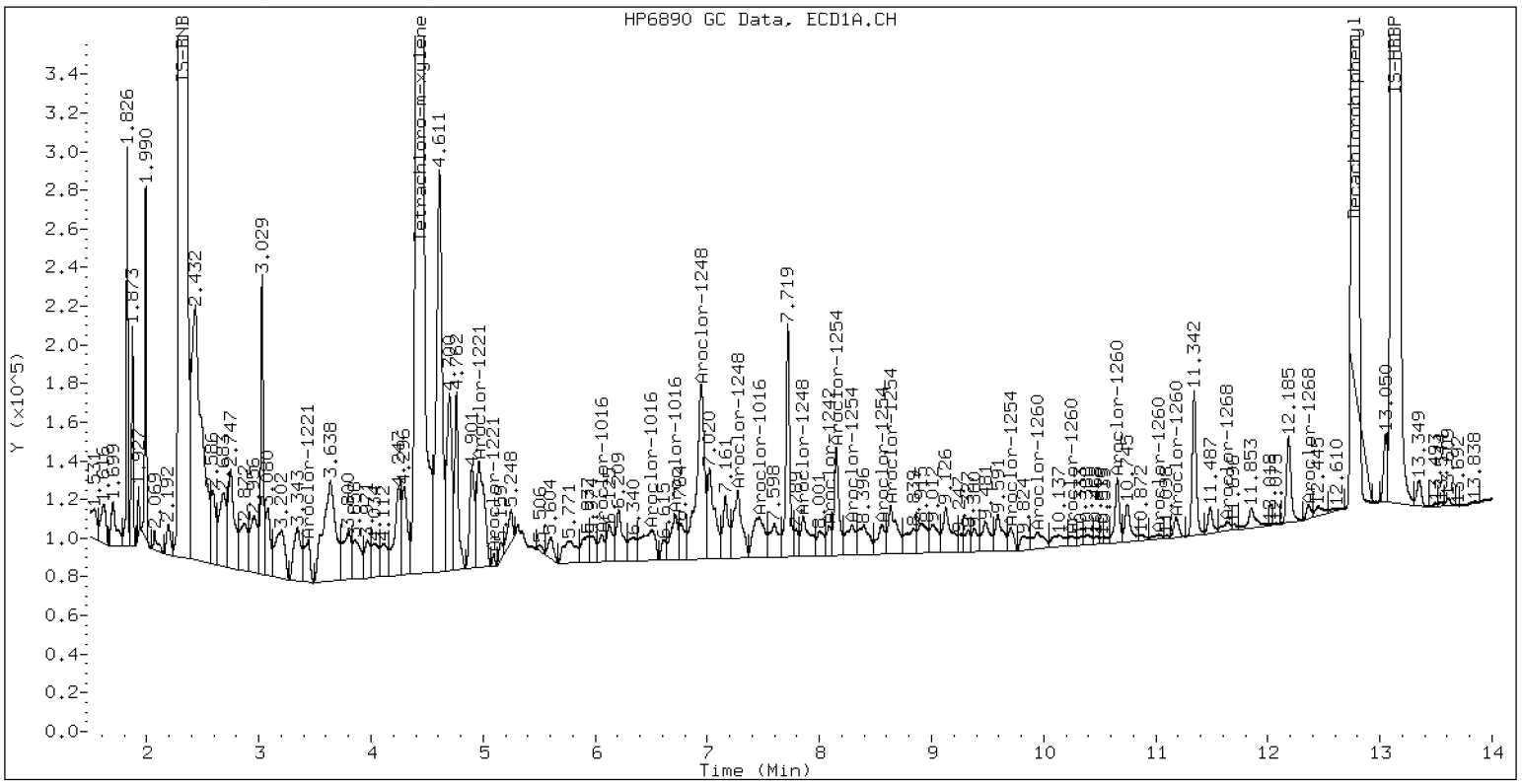
Total PCB Area Col2 (4.542 - 12.677) = 538876579 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

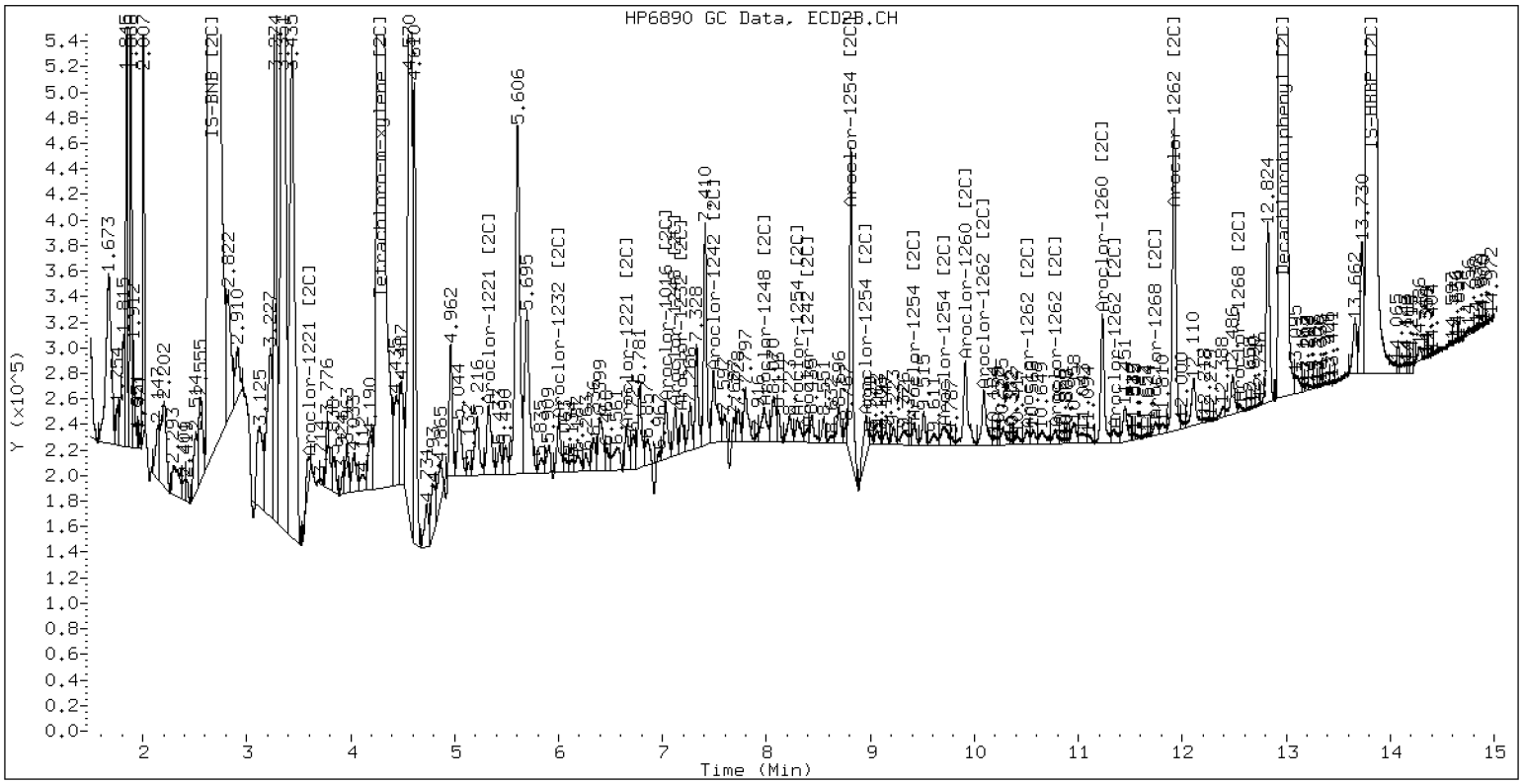
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062821ECD5.D 18F0248-03 28-JUN-2018 13:35 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062821ECD5.D 18F0248-03



ZB-35 Manual Integration: YES

Dual Column

LDW18-SP-66

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-04	File ID:	18062822ECD5.D
Sampled:	06/15/18 13:25	Prepared:	06/21/18 11:20	Analyzed:	06/28/18 13:55
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0512	Sequence:	SGF0393	Calibration:	BF00046
Instrument:	ECD5	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
12674-11-2	Aroclor 1016	1	1	0.010	0.002	0.010	U
11104-28-2	Aroclor 1221	1	1	0.010	0.002	0.010	U
11141-16-5	Aroclor 1232	1	1	0.010	0.002	0.010	U
53469-21-9	Aroclor 1242	1	1	0.010	0.002	0.010	U
12672-29-6	Aroclor 1248	1	1	0.010	0.002	0.010	U
11097-69-1	Aroclor 1254	1	1	0.010	0.002	0.010	U
11096-82-5	Aroclor 1260	1	1	0.010	0.003	0.010	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0165*	*82.3*	*29 - 120*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0158*	*79.0*	*32 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062822ECD5.D
Data file 2: /20180628.b/20180628.b/18062822ECD5.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: 18F0248-04
Client ID:
Injection Date: 28-JUN-2018 13:55
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.440	-0.001	365866012	4.285	-0.005	1351451098	31.6	24.3	26.3	Tetrachloro-m-xylene
12.777	-0.000	329428544	12.970	-0.001	1880426112	32.9	38.3	15.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	79.0	60.7
Decachlorobiphenyl	82.3	95.8

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1020697489	10.9
Hexabromobiphenyl	761926666	947531700	24.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5656957814	28.0
Hexabromobiphenyl	2171332320	3189991838	46.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.057	-0.007	1891519	7.1	1	5.998	-0.011	6974433	4.0
Aroclor-1016	2	6.499	0.035	6431394	7.3	2	6.654	0.021	4314515	1.1
Aroclor-1016	3	6.715	-0.008	4914376	20.0	3	7.032	0.011	6372369	6.6
Aroclor-1016	4	7.450	0.017	6082644	21.0	4	7.490	-0.048	20670185	18.2
	Total Col1Ave (4 peaks):				13.8	Total Col2Ave (4 peaks):				7.5 RPD = 60*
	Corrected Ave (3 peaks):				11.4	Corrected Ave (3 peaks):				3.9 RPD = 98*
Aroclor-1221	1	3.434	-0.003	4201340	56.8	1	3.588	-0.004	4190727	19.8
Aroclor-1221	2	4.995	0.015	23068469	256.8	2	5.326	0.020	7865747	7.0
Aroclor-1221	3	5.098	0.013	355211	1.3	3	5.391	0.017	112296	0.6
Aroclor-1221	NS	---			----	4	6.654	0.007	4314515	13.2
	Total Col1Ave (3 peaks):				105.0	Total Col2Ave (4 peaks):				10.1 RPD = 165*
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				6.9
Aroclor-1232	1	3.434	-0.001	4201340	89.1	1	3.588	-0.002	4190727	31.2
Aroclor-1232	2	6.057	-0.014	1891519	16.5	2	5.998	-0.013	6974433	8.3
Aroclor-1232	3	6.499	0.029	6431394	17.2	3	6.654	0.011	4314515	2.4
Aroclor-1232	4	6.715	-0.016	4914376	47.2	4	7.187	-0.010	1937866	5.2
	Total Col1Ave (4 peaks):				42.5	Total Col2Ave (4 peaks):				11.8 RPD = 113*
	Corrected Ave (3 peaks):				27.0	Corrected Ave (3 peaks):				5.3 RPD = 134*
Aroclor-1242	1	6.057	-0.007	1891519	8.8	1	5.998	-0.011	6974433	4.8
Aroclor-1242	2	6.499	0.034	6431394	9.0	2	6.654	0.013	4314515	1.3
Aroclor-1242	3	6.715	-0.008	4914376	24.8	3	7.490	-0.048	20670185	18.9
Aroclor-1242	4	8.090	-0.001	1792567	7.1	4	8.392	-0.012	1038972	0.9
	Total Col1Ave (4 peaks):				12.4	Total Col2Ave (4 peaks):				6.5 RPD = 63*
	Corrected Ave (3 peaks):				8.3	Corrected Ave (3 peaks):				2.3 RPD = 112*
Aroclor-1248	1	6.947	-0.014	21656823	78.8	1	6.654	0.018	4314515	2.2
Aroclor-1248	2	7.274	0.015	11111705	35.2	2	7.122	-0.008	3333303	2.5
Aroclor-1248	3	7.863	0.007	3029341	6.2	3	7.490	-0.047	20670185	14.0
Aroclor-1248	4	8.090	-0.000	1792567	4.8	4	7.956	-0.032	9922798	5.7
	Total Col1Ave (4 peaks):				31.3	Total Col2Ave (4 peaks):				6.1 RPD = 135*
	Corrected Ave (3 peaks):				15.4	Corrected Ave (3 peaks):				3.4 RPD = 127*
Aroclor-1254	1	8.150	-0.022	6610251	11.1	1	8.294	-0.005	2424857	1.2
Aroclor-1254	2	8.289	0.041	3081076	16.4	2	8.813	0.002	29317766	19.6
Aroclor-1254	3	8.557	0.016	3097014	8.2	3	8.953	-0.002	2485034	0.8
Aroclor-1254	4	8.677	0.001	2620572	3.6	4	9.425	-0.002	2906112	2.0
Aroclor-1254	5	9.706	0.001	1395590	1.9	5	9.721	-0.014	2235239	1.2
	Total Col1Ave (5 peaks):				8.2	Total Col2Ave (5 peaks):				4.9 RPD = 50*
	Corrected Ave (4 peaks):				6.2	Corrected Ave (4 peaks):				1.3 RPD = 132*
Aroclor-1260	1	9.942	0.010	1690344	3.3	1	9.913	-0.049	11116161	4.4
Aroclor-1260	2	10.246	-0.002	637894	1.3	2	10.501	-0.000	1759703	0.8
Aroclor-1260	3	10.657	0.039	5783193	4.7	3	10.774	-0.002	2167311	0.4
Aroclor-1260	4	11.017	0.001	359698	0.6	4	11.338	0.050	359293	0.2
Aroclor-1260	5	11.178	-0.027	1446949	4.3	NS	---			----
	Total Col1Ave (5 peaks):				2.8	Total Col2Ave (4 peaks):				1.5 RPD = 63*
	Corrected Ave (4 peaks):				2.4	Corrected Ave (3 peaks):				0.5 RPD = 131*
Aroclor-1262	1	9.942	0.000	1690344	2.4	1	10.091	0.026	7691981	2.5
Aroclor-1262	2	10.246	-0.012	637894	1.1	2	10.501	-0.007	1759703	0.7
Aroclor-1262	3	10.657	0.029	5783193	4.4	3	10.774	-0.006	2167311	0.4
Aroclor-1262	4	11.017	-0.010	359698	0.8	4	11.347	-0.008	777917	0.2
Aroclor-1262	5	11.178	-0.037	1446949	2.6	5	11.923	-0.018	29027559	31.4
	Total Col1Ave (5 peaks):				2.3	Total Col2Ave (5 peaks):				7.0 RPD = 103*
	Corrected Ave (4 peaks):				1.7	Corrected Ave (4 peaks):				0.9 RPD = 59*
Aroclor-1268	1	11.178	0.035	1446949	0.9	1	11.338	0.044	359293	0.1
Aroclor-1268	2	---			0.0	2	11.376	0.014	316639	0.0
Aroclor-1268	3	11.640	0.041	1232152	1.0	3	11.737	-0.017	1523758	0.3

Aroclor-1268	4	12.366	-0.018	1021734	0.3	4	12.559	-0.008	292123	0.0	
Total Col1Ave (3 peaks):					0.7	Total Col2Ave (4 peaks):				0.1	RPD = 150*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				0.0	

Total PCB Area Col1 (4.542 - 12.677) = 315863555 Col1 Total PCB = 0.1 ppm*

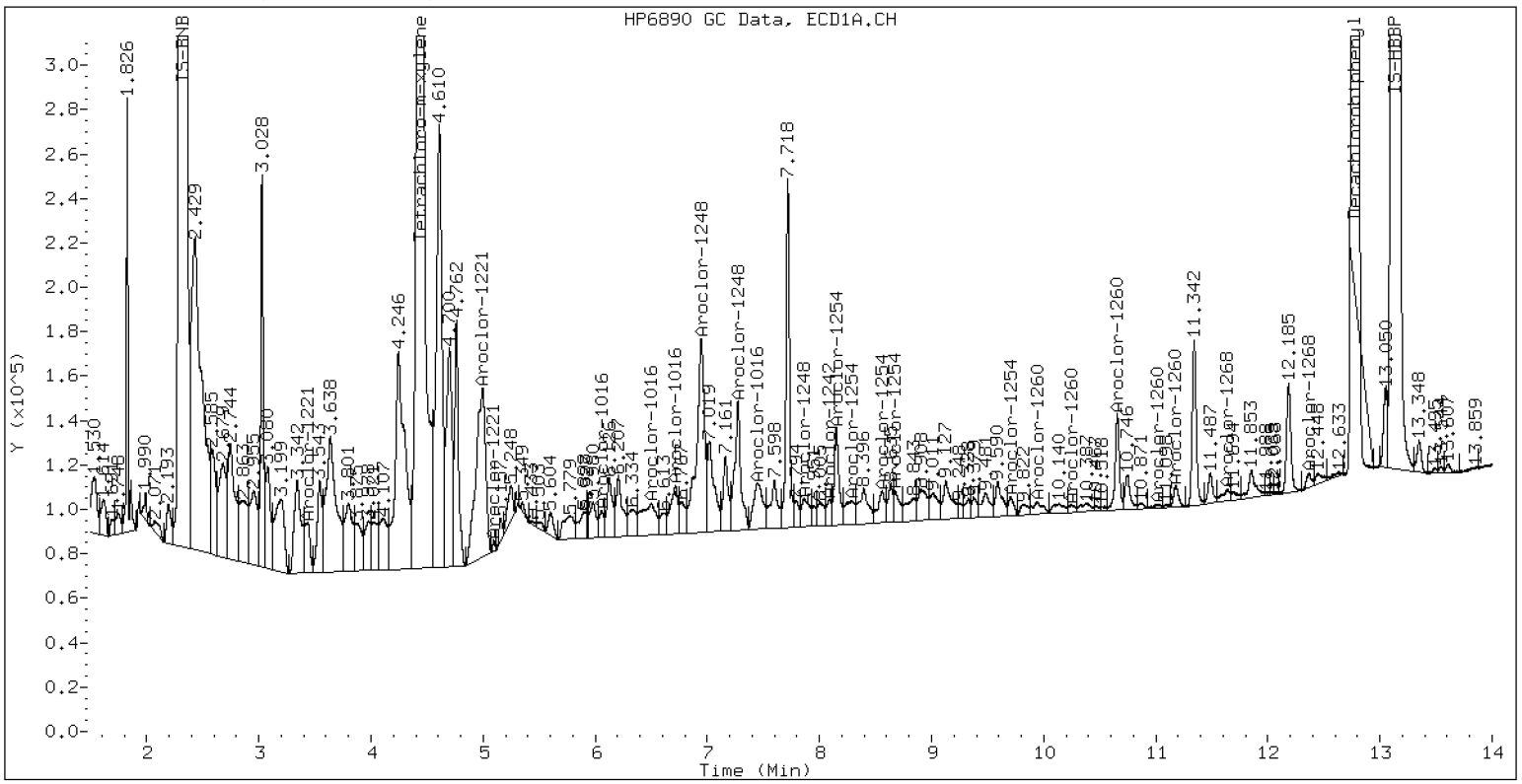
Total PCB Area Col2 (4.542 - 12.677) = 507846780 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

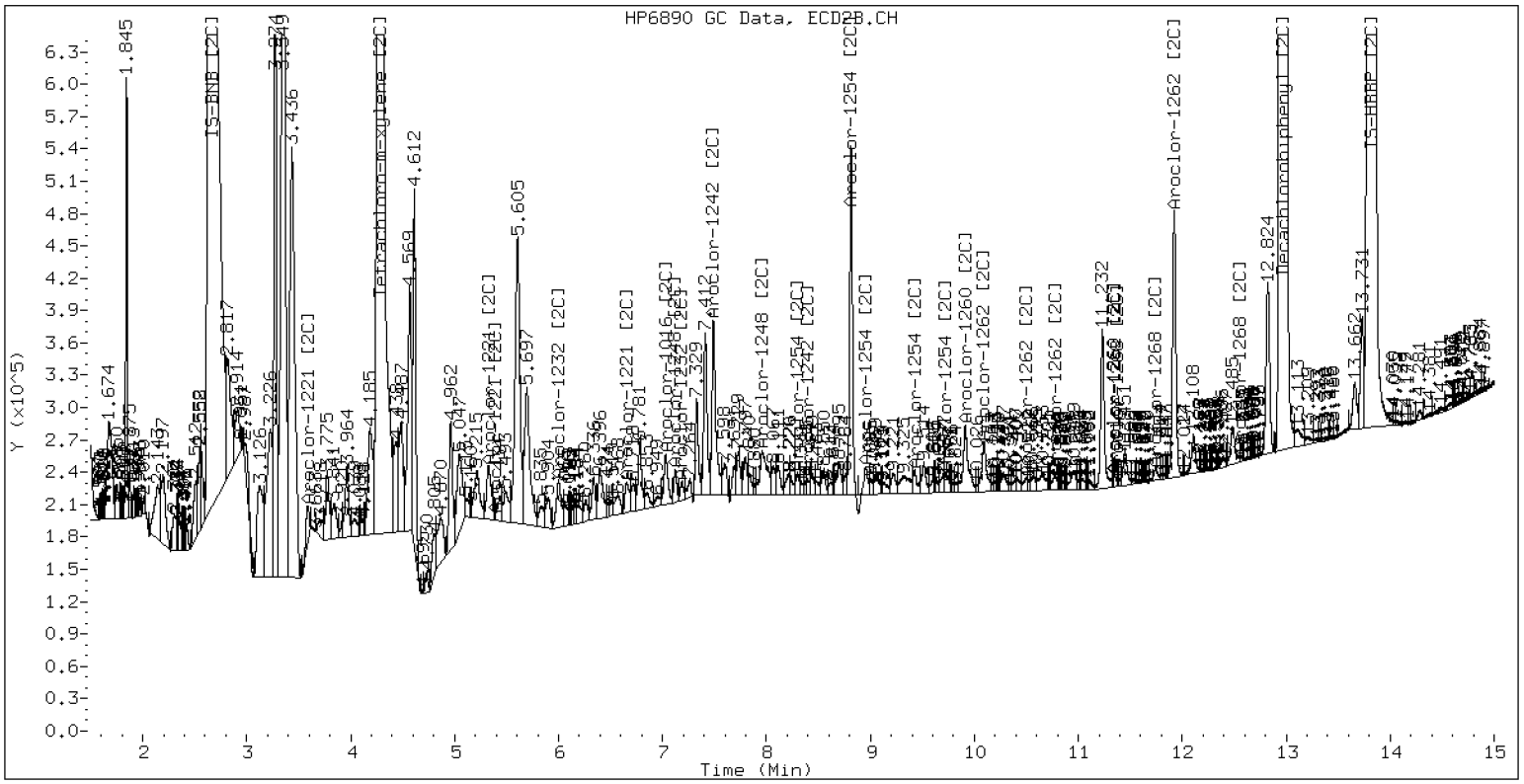
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062822ECD5.D 18F0248-04 28-JUN-2018 13:55 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062822ECD5.D 18F0248-04



ZB-35 Manual Integration: YES

Dual Column

LDW18-SP-70

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-05	File ID:	18062823ECD5.D
Sampled:	06/15/18 11:13	Prepared:	06/21/18 11:20	Analyzed:	06/28/18 14:16
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0512	Sequence:	SGF0393	Calibration:	BF00046
Instrument:	ECD5	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
12674-11-2	Aroclor 1016	1	1	0.010	0.002	0.010	U
11104-28-2	Aroclor 1221	1	1	0.010	0.002	0.010	U
11141-16-5	Aroclor 1232	1	1	0.010	0.002	0.010	U
53469-21-9	Aroclor 1242	1	1	0.010	0.002	0.010	U
12672-29-6	Aroclor 1248	1	1	0.010	0.002	0.010	U
11097-69-1	Aroclor 1254	1	1	0.010	0.002	0.010	U
11096-82-5	Aroclor 1260	1	1	0.010	0.003	0.010	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0140*	*69.9*	*29 - 120*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0133*	*66.6*	*32 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062823ECD5.D
Data file 2: /20180628.b/20180628.b/18062823ECD5.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: 18F0248-05
Client ID:
Injection Date: 28-JUN-2018 14:16
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.442	0.000	311670704	4.287	-0.003	1330273535	26.7	24.0	10.5	Tetrachloro-m-xylene
12.777	-0.000	276242780	12.970	-0.001	1550574406	28.0	32.5	14.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	66.6	60.0
Decachlorobiphenyl	69.9	81.2

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1030996694	12.0
Hexabromobiphenyl	761926666	936231728	22.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5630250817	27.4
Hexabromobiphenyl	2171332320	3103132337	42.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.057	-0.007	1961367	7.2	1	6.003	-0.006	7462050	4.3
Aroclor-1016	2	6.502	0.038	6510093	7.3	2	6.654	0.021	3497388	0.9
Aroclor-1016	3	6.717	-0.006	4903205	19.8	3	7.029	0.008	5940742	6.2
Aroclor-1016	4	7.453	0.021	5928918	20.3	4	7.489	-0.048	13582941	12.0
	Total Col1Ave (4 peaks):				13.6	Total Col2Ave (4 peaks):				5.8 RPD = 80*
	Corrected Ave (3 peaks):				11.4	Corrected Ave (3 peaks):				3.8 RPD = 100*
Aroclor-1221	1	3.435	-0.002	3777589	50.6	1	3.588	-0.004	3476910	16.5
Aroclor-1221	2	4.967	-0.012	7403785	81.6	2	5.328	0.022	8524885	7.6
Aroclor-1221	3	5.099	0.014	311735	1.1	3	---			0.0
Aroclor-1221	NS	---			----	4	6.654	0.007	3497388	10.8
	Total Col1Ave (3 peaks):				44.4	Total Col2Ave (3 peaks):				11.6 RPD = 117*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	3.435	-0.000	3777589	79.3	1	3.588	-0.002	3476910	26.0
Aroclor-1232	2	6.057	-0.014	1961367	17.0	2	6.003	-0.007	7462050	8.9
Aroclor-1232	3	6.502	0.031	6510093	17.2	3	6.654	0.011	3497388	1.9
Aroclor-1232	4	6.717	-0.014	4903205	46.6	4	7.182	-0.014	2447077	6.6
	Total Col1Ave (4 peaks):				40.0	Total Col2Ave (4 peaks):				10.9 RPD = 114*
	Corrected Ave (3 peaks):				26.9	Corrected Ave (3 peaks):				5.8 RPD = 129*
Aroclor-1242	1	6.057	-0.007	1961367	9.1	1	6.003	-0.005	7462050	5.2
Aroclor-1242	2	6.502	0.037	6510093	9.0	2	6.654	0.013	3497388	1.0
Aroclor-1242	3	6.717	-0.007	4903205	24.5	3	7.489	-0.048	13582941	12.5
Aroclor-1242	4	8.090	-0.001	2228882	8.7	4	8.394	-0.009	2594935	2.3
	Total Col1Ave (4 peaks):				12.8	Total Col2Ave (4 peaks):				5.2 RPD = 84*
	Corrected Ave (3 peaks):				8.9	Corrected Ave (3 peaks):				2.8 RPD = 104*
Aroclor-1248	1	6.946	-0.014	19381770	69.9	1	6.654	0.018	3497388	1.8
Aroclor-1248	2	7.273	0.014	8835098	27.7	2	7.121	-0.008	4229766	3.1
Aroclor-1248	3	7.862	0.006	4177801	8.5	3	7.489	-0.048	13582941	9.3
Aroclor-1248	4	8.090	-0.000	2228882	6.0	4	7.984	-0.004	7538321	4.3
	Total Col1Ave (4 peaks):				28.0	Total Col2Ave (4 peaks):				4.6 RPD = 143*
	Corrected Ave (3 peaks):				14.0	Corrected Ave (3 peaks):				3.1 RPD = 128*
Aroclor-1254	1	8.150	-0.022	8381135	14.0	1	8.294	-0.005	5129773	2.5
Aroclor-1254	2	8.250	0.002	3701574	19.5	2	8.814	0.003	30491602	20.5
Aroclor-1254	3	8.555	0.014	4325378	11.3	3	8.959	0.004	1971183	0.6
Aroclor-1254	4	8.677	0.001	3631987	4.9	4	9.425	-0.002	2809843	1.9
Aroclor-1254	5	9.706	0.002	2205657	3.0	5	9.735	0.001	2551679	1.4
	Total Col1Ave (5 peaks):				10.5	Total Col2Ave (5 peaks):				5.4 RPD = 65*
	Corrected Ave (4 peaks):				8.3	Corrected Ave (4 peaks):				1.6 RPD = 135*
Aroclor-1260	1	9.942	0.010	3356429	6.5	1	9.912	-0.051	11994268	4.9
Aroclor-1260	2	10.249	0.001	1026035	2.1	2	10.501	-0.001	1314661	0.6
Aroclor-1260	3	10.656	0.038	6213488	5.1	3	10.771	-0.004	1006142	0.2
Aroclor-1260	4	11.023	0.006	616335	1.1	4	11.344	0.056	2239536	1.6
Aroclor-1260	5	11.178	-0.027	1309500	4.0	NS	---			----
	Total Col1Ave (3 peaks):				3.8	Total Col2Ave (4 peaks):				1.8 RPD = 69*
	Corrected Ave (4 peaks):				3.1	Corrected Ave (3 peaks):				0.8 RPD = 117*
Aroclor-1262	1	9.942	0.000	3356429	4.8	1	10.090	0.026	9679302	3.2
Aroclor-1262	2	10.249	-0.009	1026035	1.8	2	10.517	0.009	362086	0.1
Aroclor-1262	3	10.656	0.028	6213488	4.8	3	10.780	-0.000	1224063	0.2
Aroclor-1262	4	11.023	-0.005	616335	1.4	4	11.344	-0.011	2239536	0.6
Aroclor-1262	5	11.178	-0.036	1309500	2.4	5	11.923	-0.017	29688459	33.1
	Total Col1Ave (5 peaks):				3.0	Total Col2Ave (5 peaks):				7.5 RPD = 85*
	Corrected Ave (4 peaks):				2.6	Corrected Ave (4 peaks):				1.0 RPD = 85*
Aroclor-1268	1	11.178	0.036	1309500	0.9	1	11.344	0.050	2239536	0.4
Aroclor-1268	2	---			0.0	2	---			0.0
Aroclor-1268	3	11.640	0.041	1320613	1.1	3	11.749	-0.004	1665764	0.3

Aroclor-1268	4	12.364	-0.019	969652	0.3	4	12.556	-0.012	745049	0.0
Total Col1Ave (3 peaks):				0.7	Total Col2Ave (3 peaks):				0.2	RPD = 99*
Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks					

Total PCB Area Col1 (4.542 - 12.677) = 321860309 Col1 Total PCB = 0.1 ppm*

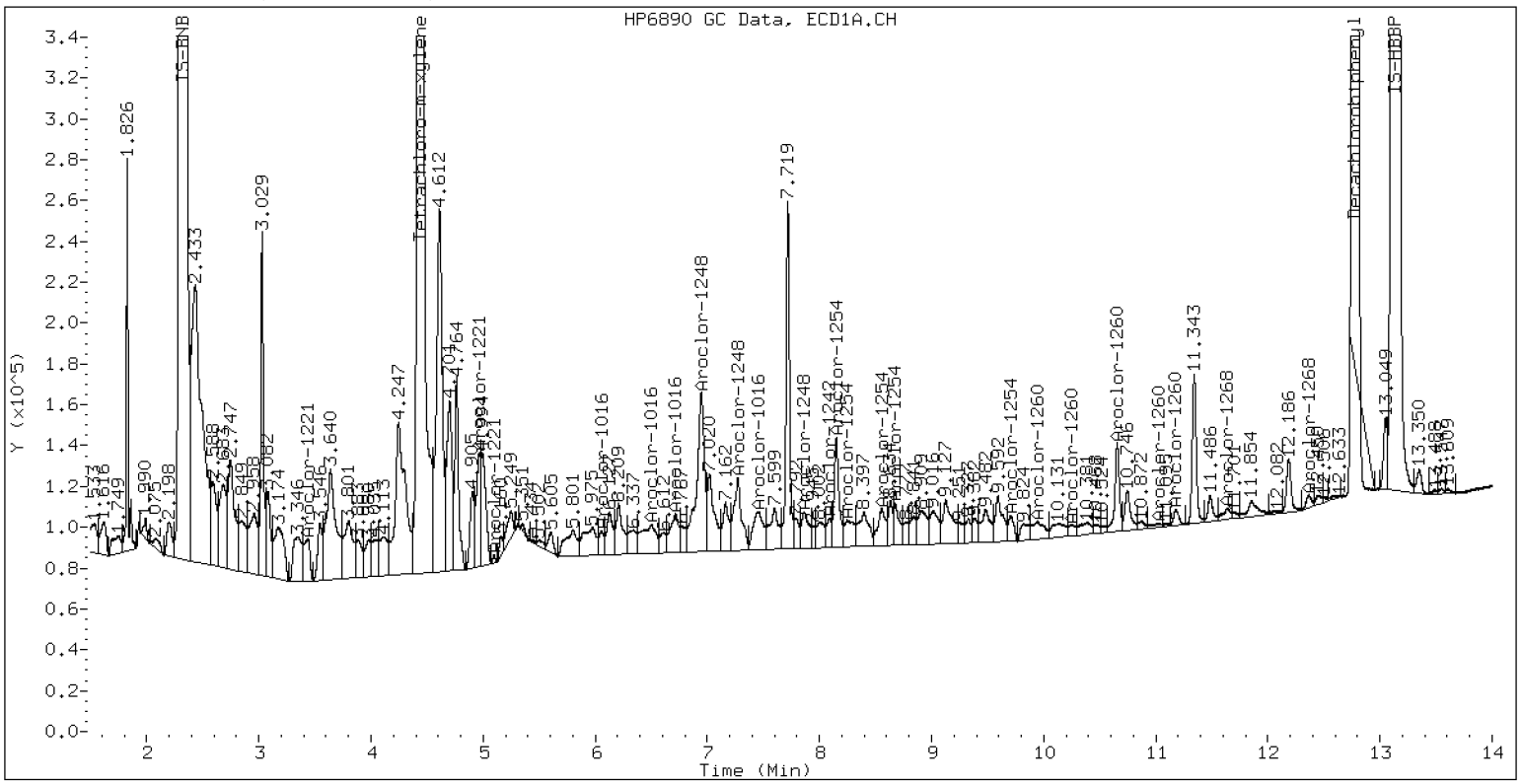
Total PCB Area Col2 (4.542 - 12.677) = 447051659 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

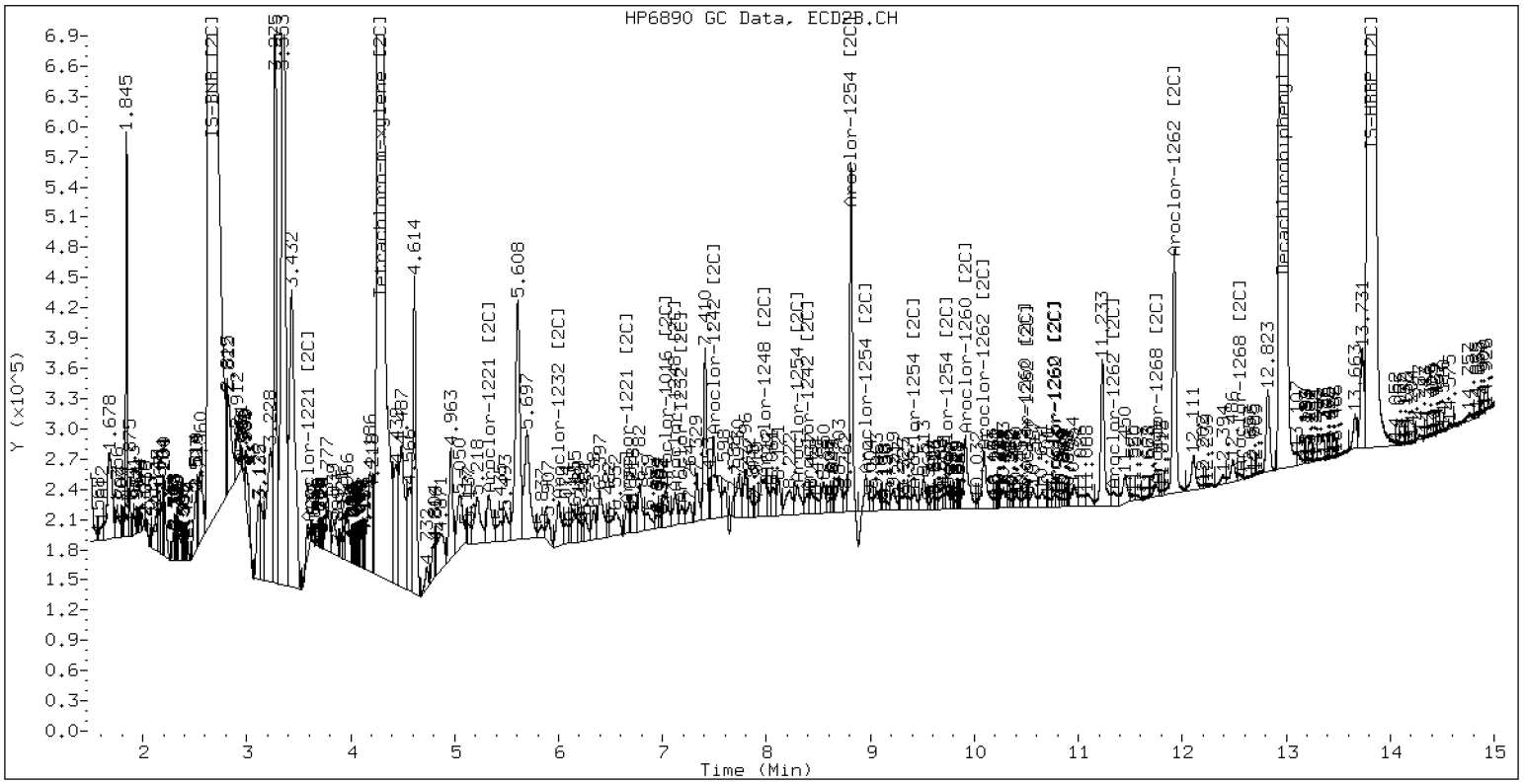
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062823ECD5.D 18F0248-05 28-JUN-2018 14:16 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062823ECD5.D 18F0248-05



ZB-35 Manual Integration: YES

LDW18-SP-83

Dual Column

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-06	File ID:	18062824ECD5.D
Sampled:	06/15/18 12:08	Prepared:	06/21/18 11:20	Analyzed:	06/28/18 14:36
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0512	Sequence:	SGF0393	Calibration:	BF00046
Instrument:	ECD5	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
12674-11-2	Aroclor 1016	1	1	0.010	0.002	0.010	U
11104-28-2	Aroclor 1221	1	1	0.010	0.002	0.010	U
11141-16-5	Aroclor 1232	1	1	0.010	0.002	0.010	U
53469-21-9	Aroclor 1242	1	1	0.010	0.002	0.010	U
12672-29-6	Aroclor 1248	1	1	0.010	0.002	0.010	U
11097-69-1	Aroclor 1254	1	1	0.010	0.002	0.010	U
11096-82-5	Aroclor 1260	1	1	0.010	0.003	0.010	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0152*	*76.2*	*29 - 120*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0141*	*70.3*	*32 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062824ECD5.D
Data file 2: /20180628.b/20180628.b/18062824ECD5.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: 18F0248-06
Client ID:
Injection Date: 28-JUN-2018 14:36
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.438	-0.003	321289773	4.283	-0.007	1231317799	28.1	22.5	22.0	Tetrachloro-m-xylene
12.776	-0.001	298105064	12.969	-0.002	1742266500	30.5	36.6	18.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	70.3	56.4
Decachlorobiphenyl	76.2	91.4

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1007602300	9.5
Hexabromobiphenyl	761926666	926680623	21.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5548491495	25.6
Hexabromobiphenyl	2171332320	3097003815	42.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.056	-0.007	1968659	7.4	1	6.000	-0.009	6873963	4.0
Aroclor-1016	2	6.498	0.034	6456259	7.4	2	6.656	0.023	3635384	0.9
Aroclor-1016	3	6.713	-0.010	4649605	19.2	3	7.030	0.008	6159763	6.6
Aroclor-1016	4	7.442	0.010	5638197	19.7	4	7.490	-0.048	19306791	17.3
	Total Col1Ave (4 peaks):				13.4	Total Col2Ave (4 peaks):				7.2 RPD = 60*
	Corrected Ave (3 peaks):				11.3	Corrected Ave (3 peaks):				3.8 RPD = 99*
Aroclor-1221	1	3.432	-0.005	4178695	57.2	1	3.588	-0.004	4469573	21.5
Aroclor-1221	2	4.994	0.014	22523157	254.0	2	5.327	0.020	8132347	7.4
Aroclor-1221	3	5.095	0.010	400939	1.5	3	---			0.0
Aroclor-1221	NS	---			----	4	6.656	0.009	3635384	11.3
	Total Col1Ave (3 peaks):				104.2	Total Col2Ave (3 peaks):				13.4 RPD = 154*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	3.432	-0.003	4178695	89.8	1	3.588	-0.002	4469573	34.0
Aroclor-1232	2	6.056	-0.015	1968659	17.4	2	6.000	-0.010	6873963	8.4
Aroclor-1232	3	6.498	0.028	6456259	17.5	3	6.656	0.012	3635384	2.0
Aroclor-1232	4	6.713	-0.017	4649605	45.2	4	7.185	-0.011	2864758	7.9
	Total Col1Ave (4 peaks):				42.5	Total Col2Ave (4 peaks):				13.1 RPD = 106*
	Corrected Ave (3 peaks):				26.7	Corrected Ave (3 peaks):				6.1 RPD = 126*
Aroclor-1242	1	6.056	-0.008	1968659	9.3	1	6.000	-0.008	6873963	4.8
Aroclor-1242	2	6.498	0.034	6456259	9.2	2	6.656	0.015	3635384	1.1
Aroclor-1242	3	6.713	-0.010	4649605	23.8	3	7.490	-0.047	19306791	18.0
Aroclor-1242	4	8.086	-0.004	2230950	9.0	4	8.392	-0.011	2484830	2.2
	Total Col1Ave (4 peaks):				12.8	Total Col2Ave (4 peaks):				6.5 RPD = 65*
	Corrected Ave (3 peaks):				9.1	Corrected Ave (3 peaks):				2.7 RPD = 108*
Aroclor-1248	1	6.944	-0.017	20386795	75.2	1	6.656	0.020	3635384	1.9
Aroclor-1248	2	7.272	0.013	9664539	31.0	2	7.120	-0.009	4168177	3.1
Aroclor-1248	3	7.861	0.005	3718131	7.7	3	7.490	-0.047	19306791	13.4
Aroclor-1248	4	8.086	-0.004	2230950	6.1	4	7.977	-0.011	3543388	2.1
	Total Col1Ave (4 peaks):				30.0	Total Col2Ave (4 peaks):				5.1 RPD = 142*
	Corrected Ave (3 peaks):				14.9	Corrected Ave (3 peaks):				2.4 RPD = 145*
Aroclor-1254	1	8.149	-0.023	8511968	14.5	1	8.299	0.000	4666328	2.3
Aroclor-1254	2	8.248	-0.000	1505155	8.1	2	8.813	0.003	34226342	23.3
Aroclor-1254	3	8.554	0.013	3605425	9.7	3	8.952	-0.003	7152901	2.2
Aroclor-1254	4	8.675	-0.002	3149437	4.4	4	9.423	-0.004	2866098	2.0
Aroclor-1254	5	9.704	-0.000	2051912	2.9	5	9.732	-0.002	1903241	1.0
	Total Col1Ave (5 peaks):				7.9	Total Col2Ave (5 peaks):				6.2 RPD = 25
	Corrected Ave (4 peaks):				6.2	Corrected Ave (4 peaks):				1.9 RPD = 107*
Aroclor-1260	1	9.938	0.006	1863128	3.7	1	9.957	-0.006	2081185	0.9
Aroclor-1260	2	10.248	-0.000	687098	1.4	2	10.493	-0.009	1372962	0.6
Aroclor-1260	3	10.655	0.038	7111342	5.9	3	10.777	0.001	2082971	0.4
Aroclor-1260	4	11.016	0.000	420750	0.7	4	11.295	0.006	553350	0.4
Aroclor-1260	5	11.177	-0.028	1481226	4.5	NS	---			----
	Total Col1Ave (5 peaks):				3.3	Total Col2Ave (4 peaks):				0.6 RPD = 140*
	Corrected Ave (4 peaks):				2.6	Corrected Ave (3 peaks):				0.5 RPD = 137*
Aroclor-1262	1	9.938	-0.004	1863128	2.7	1	10.091	0.027	6724029	2.3
Aroclor-1262	2	10.248	-0.010	687098	1.2	2	10.493	-0.015	1372962	0.5
Aroclor-1262	3	10.655	0.028	7111342	5.5	3	10.777	-0.003	2082971	0.4
Aroclor-1262	4	11.016	-0.011	420750	1.0	4	11.336	-0.019	1675300	0.4
Aroclor-1262	5	11.177	-0.038	1481226	2.7	5	11.922	-0.018	29727548	33.2
	Total Col1Ave (5 peaks):				2.6	Total Col2Ave (5 peaks):				7.4 RPD = 95*
	Corrected Ave (4 peaks):				1.9	Corrected Ave (4 peaks):				0.9 RPD = 71*
Aroclor-1268	1	11.177	0.034	1481226	1.0	1	11.295	0.000	553350	0.1
Aroclor-1268	2	---			0.0	2	11.379	0.018	263645	0.0
Aroclor-1268	3	11.637	0.038	1339669	1.1	3	11.740	-0.014	1415141	0.3

Aroclor-1268	4	12.361	-0.022	1164890	0.3	4	12.554	-0.014	781102	0.0	
Total Col1Ave (3 peaks):					0.8	Total Col2Ave (4 peaks):				0.1	RPD = 150*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				0.1	

Total PCB Area Col1 (4.542 - 12.677) = 320855956 Col1 Total PCB = 0.1 ppm*

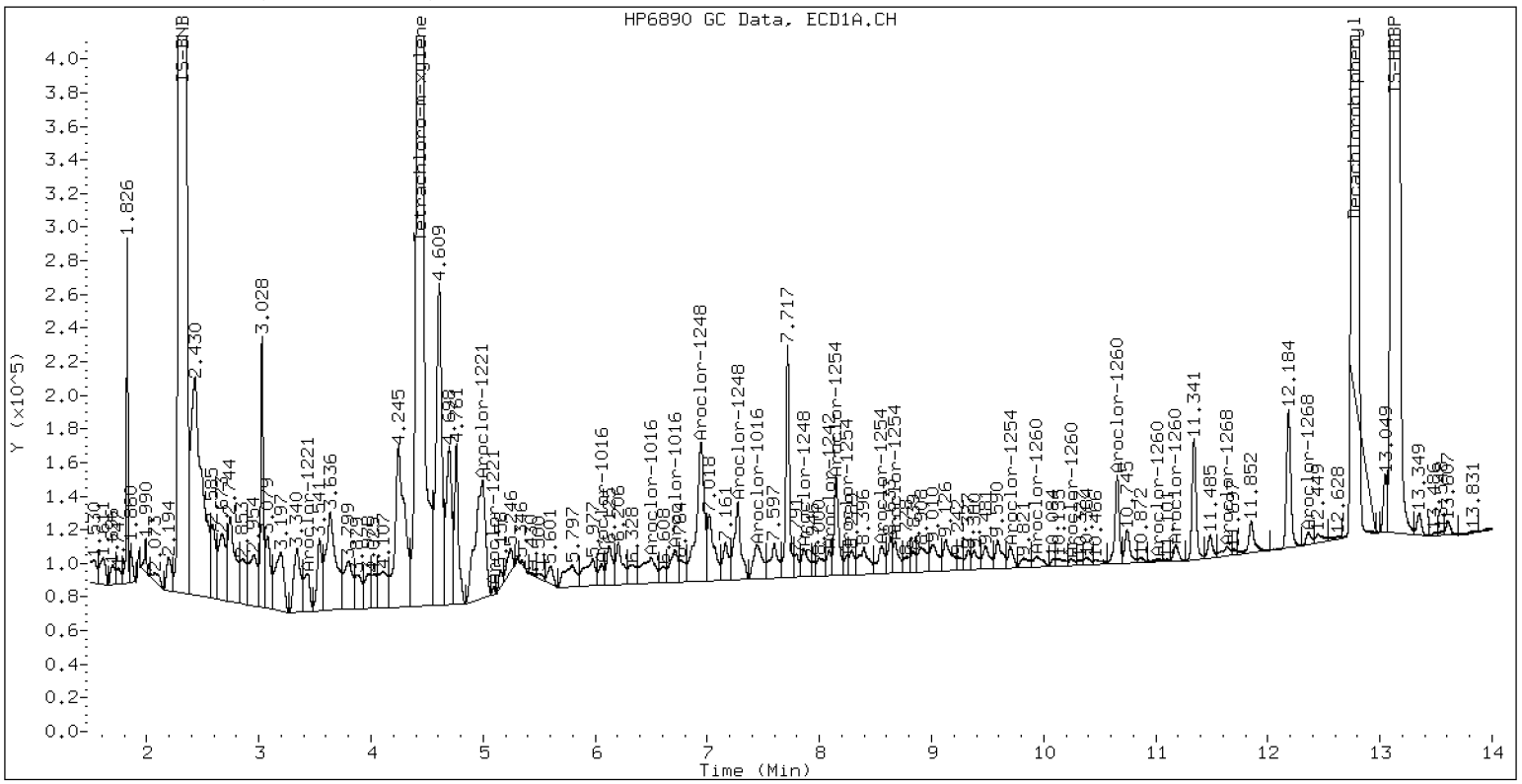
Total PCB Area Col2 (4.542 - 12.677) = 500510362 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

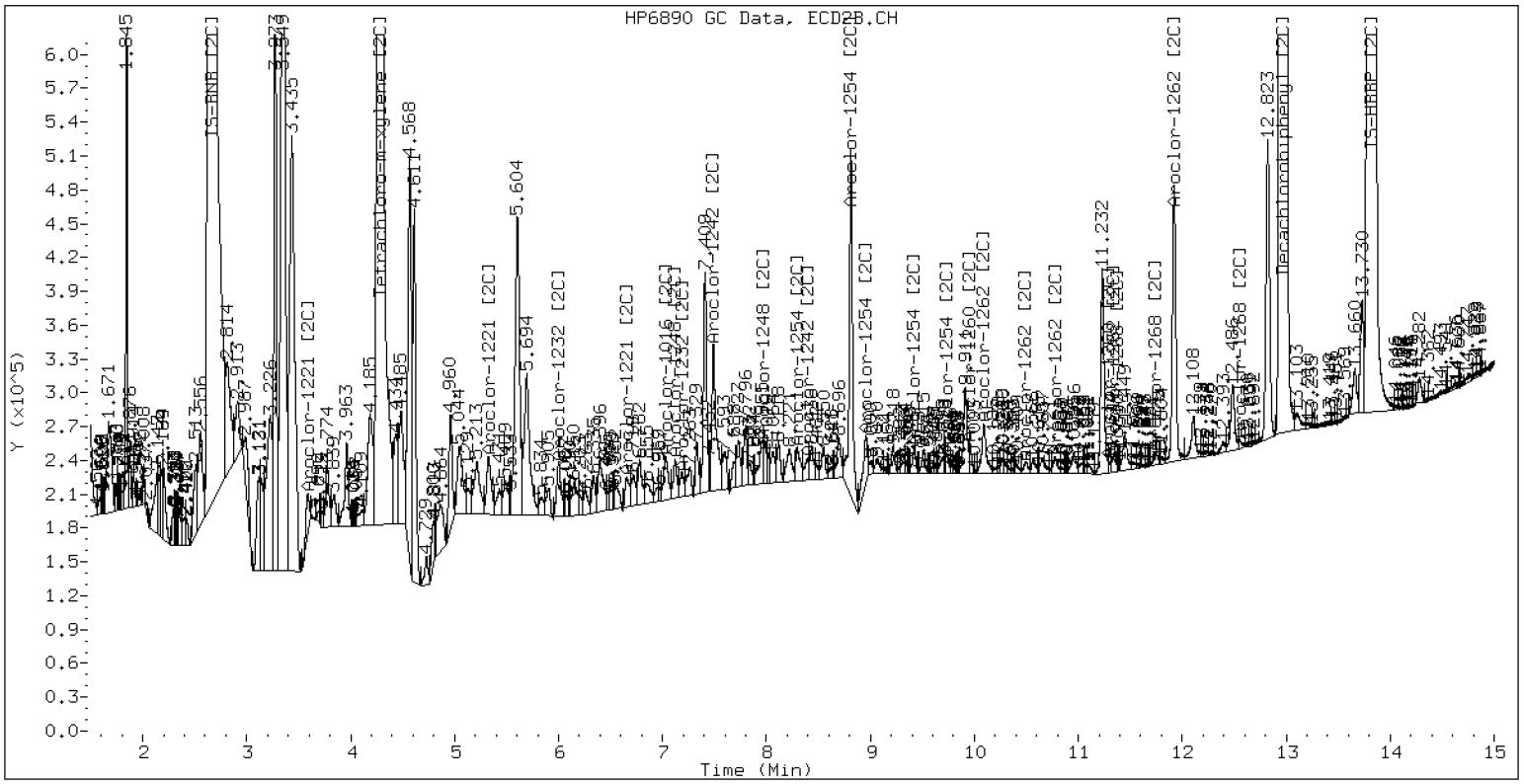
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062824ECD5.D 18F0248-06 28-JUN-2018 14:36 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062824ECD5.D 18F0248-06



ZB-35 Manual Integration: YES

Dual Column

LDW18-SP-86

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-07	File ID:	18062825ECD5.D
Sampled:	06/15/18 12:19	Prepared:	06/21/18 11:20	Analyzed:	06/28/18 14:56
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0512	Sequence:	SGF0393	Calibration:	BF00046
Instrument:	ECD5	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
12674-11-2	Aroclor 1016	1	1	0.010	0.002	0.010	U
11104-28-2	Aroclor 1221	1	1	0.010	0.002	0.010	U
11141-16-5	Aroclor 1232	1	1	0.010	0.002	0.010	U
53469-21-9	Aroclor 1242	1	1	0.010	0.002	0.010	U
12672-29-6	Aroclor 1248	1	1	0.010	0.002	0.010	U
11097-69-1	Aroclor 1254	1	1	0.010	0.002	0.010	U
11096-82-5	Aroclor 1260	1	1	0.010	0.003	0.010	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0174*	*86.9*	*29 - 120*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0142*	*71.2*	*32 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062825ECD5.D
Data file 2: /20180628.b/20180628.b/18062825ECD5.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: 18F0248-07
Client ID:
Injection Date: 28-JUN-2018 14:56
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.441	-0.000	333541260	4.288	-0.002	1367158618	28.5	24.4	15.3	Tetrachloro-m-xylene
12.776	-0.002	345155000	12.970	-0.001	1991153848	34.8	40.9	16.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	71.2	61.1
Decachlorobiphenyl	86.9	102.3

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1032834213	12.2
Hexabromobiphenyl	761926666	940803239	23.5

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5686372816	28.7
Hexabromobiphenyl	2171332320	3161406723	45.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount	
Aroclor-1016	1	6.057	-0.007	1631653	6.0	1	6.004	-0.005	5932703	3.4	
Aroclor-1016	2	6.498	0.034	6255390	7.0	2	6.648	0.015	4704493	1.2	
Aroclor-1016	3	6.715	-0.008	4486265	18.0	3	7.027	0.005	5288176	5.5	
Aroclor-1016	4	7.434	0.001	5415920	18.5	4	7.490	-0.048	15983021	14.0	
	Total Col1Ave (4 peaks):				12.4	Total Col2Ave (4 peaks):				6.0	RPD = 69*
	Corrected Ave (3 peaks):				10.3	Corrected Ave (3 peaks):				3.3	RPD = 102*
Aroclor-1221	1	3.434	-0.003	3966379	53.0	1	3.587	-0.005	4140049	19.4	
Aroclor-1221	2	4.965	-0.014	21006389	231.1	2	5.327	0.021	8871341	7.9	
Aroclor-1221	3	5.098	0.013	270841	1.0	3	---			0.0	
Aroclor-1221	NS	---			----	4	6.648	0.002	4704493	14.3	
	Total Col1Ave (3 peaks):				95.0	Total Col2Ave (3 peaks):				13.9	RPD = 149*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks					
Aroclor-1232	1	3.434	-0.002	3966379	83.1	1	3.587	-0.003	4140049	30.7	
Aroclor-1232	2	6.057	-0.014	1631653	14.1	2	6.004	-0.006	5932703	7.0	
Aroclor-1232	3	6.498	0.027	6255390	16.5	3	6.648	0.005	4704493	2.6	
Aroclor-1232	4	6.715	-0.016	4486265	42.5	4	7.187	-0.010	2144694	5.7	
	Total Col1Ave (4 peaks):				39.1	Total Col2Ave (4 peaks):				11.5	RPD = 109*
	Corrected Ave (3 peaks):				24.4	Corrected Ave (3 peaks):				5.1	RPD = 131*
Aroclor-1242	1	6.057	-0.007	1631653	7.5	1	6.004	-0.004	5932703	4.1	
Aroclor-1242	2	6.498	0.033	6255390	8.7	2	6.648	0.007	4704493	1.4	
Aroclor-1242	3	6.715	-0.009	4486265	22.4	3	7.490	-0.047	15983021	14.5	
Aroclor-1242	4	8.089	-0.002	1815802	7.1	4	8.403	-0.001	259308	0.2	
	Total Col1Ave (4 peaks):				11.4	Total Col2Ave (4 peaks):				5.0	RPD = 77*
	Corrected Ave (3 peaks):				7.8	Corrected Ave (3 peaks):				1.9	RPD = 122*
Aroclor-1248	1	6.945	-0.016	23678607	85.2	1	6.648	0.012	4704493	2.4	
Aroclor-1248	2	7.272	0.013	8524483	26.7	2	7.126	-0.004	5320307	3.9	
Aroclor-1248	3	7.859	0.003	2853280	5.8	3	7.490	-0.047	15983021	10.8	
Aroclor-1248	4	8.089	-0.001	1815802	4.9	4	7.970	-0.019	3394288	1.9	
	Total Col1Ave (4 peaks):				30.6	Total Col2Ave (4 peaks):				4.8	RPD = 146*
	Corrected Ave (3 peaks):				12.4	Corrected Ave (3 peaks):				2.7	RPD = 128*
Aroclor-1254	1	8.149	-0.024	8365114	13.9	1	8.301	0.002	2127474	1.0	
Aroclor-1254	2	8.251	0.003	3441372	18.1	2	8.814	0.003	29057419	19.3	
Aroclor-1254	3	8.556	0.015	3540651	9.3	3	8.954	-0.002	1103558	0.3	
Aroclor-1254	4	8.678	0.001	3219494	4.3	4	9.420	-0.007	2828187	1.9	
Aroclor-1254	5	9.704	-0.000	2160925	2.9	5	9.702	-0.032	2817015	1.5	
	Total Col1Ave (5 peaks):				9.7	Total Col2Ave (5 peaks):				4.8	RPD = 67*
	Corrected Ave (4 peaks):				7.6	Corrected Ave (4 peaks):				1.2	RPD = 146*
Aroclor-1260	1	9.939	0.006	1864738	3.6	1	9.958	-0.005	1770601	0.7	
Aroclor-1260	2	10.248	-0.000	1020323	2.0	2	10.496	-0.006	1969786	0.9	
Aroclor-1260	3	10.655	0.037	5256728	4.3	3	10.772	-0.004	2600406	0.5	
Aroclor-1260	4	11.016	0.000	766615	1.3	4	11.343	0.055	2500028	1.7	
Aroclor-1260	5	11.179	-0.027	1861074	5.6	NS	---			----	
	Total Col1Ave (5 peaks):				3.4	Total Col2Ave (4 peaks):				1.0	RPD = 111*
	Corrected Ave (4 peaks):				2.8	Corrected Ave (3 peaks):				0.7	RPD = 120*
Aroclor-1262	1	9.939	-0.003	1864738	2.6	1	10.092	0.027	6615517	2.2	
Aroclor-1262	2	10.248	-0.010	1020323	1.8	2	10.496	-0.012	1969786	0.7	
Aroclor-1262	3	10.655	0.027	5256728	4.0	3	10.772	-0.008	2600406	0.5	
Aroclor-1262	4	11.016	-0.011	766615	1.7	4	11.343	-0.012	2500028	0.7	
Aroclor-1262	5	11.179	-0.036	1861074	3.4	5	11.920	-0.020	28046181	30.7	
	Total Col1Ave (5 peaks):				2.7	Total Col2Ave (5 peaks):				6.9	RPD = 88*
	Corrected Ave (4 peaks):				2.4	Corrected Ave (4 peaks):				1.0	RPD = 81*
Aroclor-1268	1	11.179	0.036	1861074	1.2	1	11.343	0.049	2500028	0.4	
Aroclor-1268	2	---			0.0	2	---			0.0	
Aroclor-1268	3	11.638	0.040	2347401	1.9	3	11.747	-0.007	4272018	0.8	

Aroclor-1268	4	12.362	-0.021	1710846	0.5		4	12.556	-0.012	1249425	0.1
	Total Col1Ave (3 peaks):			1.2			Total Col2Ave (3 peaks):			0.4	RPD = 93*
	Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				

Total PCB Area Col1 (4.542 - 12.677) = 334682597 Col1 Total PCB = 0.1 ppm*

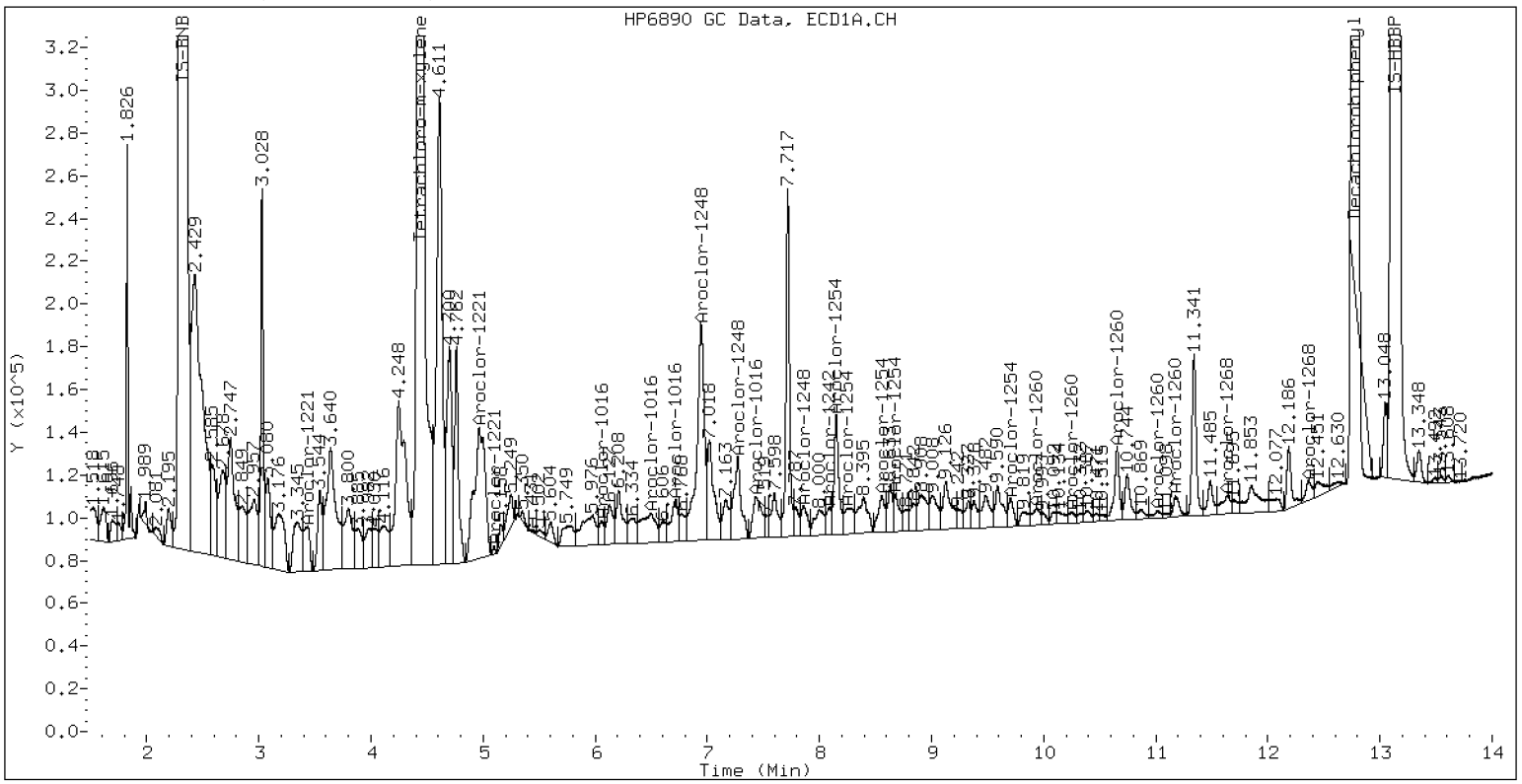
Total PCB Area Col2 (4.542 - 12.677) = 489445520 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

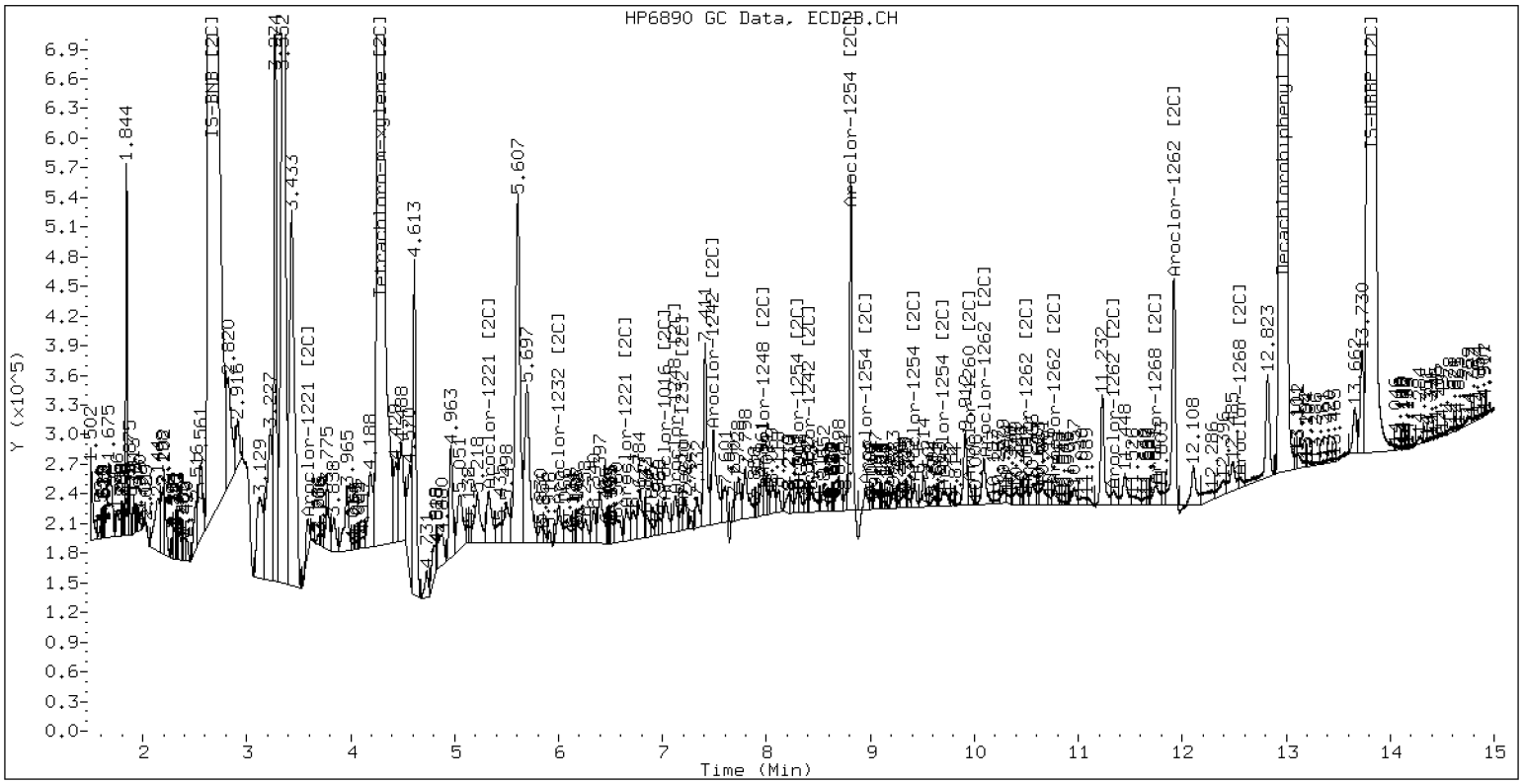
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062825ECD5.D 18F0248-07 28-JUN-2018 14:56 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062825ECD5.D 18F0248-07



ZB-35 Manual Integration: YES

Dual Column

LDW18-SP-88

ORGANIC ANALYSIS DATA SHEET

EPA 8082A

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-08	File ID:	18062826ECD5.D
Sampled:	06/15/18 10:52	Prepared:	06/21/18 11:20	Analyzed:	06/28/18 15:16
% Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0512	Sequence:	SGF0393	Calibration:	BF00046
Instrument:	ECD5	Column 1:	ZB5	Column 2:	ZB35

CAS NO.	COMPOUND	Col #	DILUTION	CONC. (ug/L)	MDL	RL	Q
12674-11-2	Aroclor 1016	1	1	0.010	0.002	0.010	U
11104-28-2	Aroclor 1221	1	1	0.010	0.002	0.010	U
11141-16-5	Aroclor 1232	1	1	0.010	0.002	0.010	U
53469-21-9	Aroclor 1242	1	1	0.010	0.002	0.010	U
12672-29-6	Aroclor 1248	1	1	0.010	0.002	0.010	U
11097-69-1	Aroclor 1254	1	1	0.010	0.002	0.010	U
11096-82-5	Aroclor 1260	1	1	0.010	0.003	0.010	U

SURROGATES	Col #	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	*1*	*0.020000*	*0.0167*	*83.5*	*29 - 120*	
Tetrachlorometaxylene	*1*	*0.020000*	*0.0150*	*75.0*	*32 - 120*	

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062826ECD5.D
Data file 2: /20180628.b/20180628.b/18062826ECD5.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: 18F0248-08
Client ID:
Injection Date: 28-JUN-2018 15:16
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.442	0.000	348357622	4.287	-0.003	1254456879	30.0	22.1	30.1	Tetrachloro-m-xylene
12.777	-0.000	336322078	12.969	-0.002	1978345620	33.4	39.8	17.4	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	75.0	55.4
Decachlorobiphenyl	83.5	99.4

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1024108409	11.3
Hexabromobiphenyl	761926666	954113025	25.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5753153662	30.2
Hexabromobiphenyl	2171332320	3233563588	48.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.057	-0.007	1547579	5.8	1	6.000	-0.010	5910893	3.3
Aroclor-1016	2	6.433	-0.031	2992959	3.4	2	6.655	0.022	3987170	1.0
Aroclor-1016	3	6.716	-0.007	6113209	24.8	3	7.031	0.010	2008158	2.1
Aroclor-1016	4	7.439	0.007	4510014	15.5	4	7.492	-0.045	21427713	18.6
	Total Col1Ave (4 peaks):				12.4	Total Col2Ave (4 peaks):				6.2 RPD = 66*
	Corrected Ave (3 peaks):				8.2	Corrected Ave (3 peaks):				2.1 RPD = 118*
Aroclor-1221	1	3.436	-0.001	4843749	65.3	1	3.587	-0.006	4490644	20.8
Aroclor-1221	2	4.997	0.017	25155565	279.1	2	5.330	0.024	10191577	8.9
Aroclor-1221	3	5.099	0.014	316109	1.2	3	---			0.0
Aroclor-1221	NS	---			----	4	6.655	0.008	3987170	12.0
	Total Col1Ave (3 peaks):				115.2	Total Col2Ave (3 peaks):				13.9 RPD = 157*
	Corrected Ave: < 3 Peaks					Corrected Ave: < 3 Peaks				
Aroclor-1232	1	3.436	0.001	4843749	102.4	1	3.587	-0.004	4490644	32.9
Aroclor-1232	2	6.057	-0.015	1547579	13.5	2	6.000	-0.011	5910893	6.9
Aroclor-1232	3	6.502	0.031	3501939	9.3	3	6.655	0.011	3987170	2.2
Aroclor-1232	4	6.716	-0.015	6113209	58.5	4	7.181	-0.016	2012733	5.3
	Total Col1Ave (4 peaks):				45.9	Total Col2Ave (4 peaks):				11.8 RPD = 118*
	Corrected Ave (3 peaks):				27.1	Corrected Ave (3 peaks):				4.8 RPD = 140*
Aroclor-1242	1	6.057	-0.008	1547579	7.2	1	6.000	-0.009	5910893	4.0
Aroclor-1242	2	6.502	0.037	3501939	4.9	2	6.655	0.013	3987170	1.1
Aroclor-1242	3	6.716	-0.008	6113209	30.7	3	7.492	-0.045	21427713	19.2
Aroclor-1242	4	8.086	-0.005	2753265	10.9	4	8.436	0.032	6563929	5.7
	Total Col1Ave (4 peaks):				13.4	Total Col2Ave (4 peaks):				7.5 RPD = 56*
	Corrected Ave (3 peaks):				7.7	Corrected Ave (3 peaks):				3.6 RPD = 72*
Aroclor-1248	1	6.947	-0.014	21931714	79.6	1	6.655	0.018	3987170	2.0
Aroclor-1248	2	7.273	0.014	11482824	36.2	2	7.121	-0.008	4310951	3.1
Aroclor-1248	3	7.863	0.007	4378243	9.0	3	7.492	-0.045	21427713	14.3
Aroclor-1248	4	8.086	-0.004	2753265	7.4	4	8.013	0.025	2536825	1.4
	Total Col1Ave (4 peaks):				33.0	Total Col2Ave (4 peaks):				5.2 RPD = 145*
	Corrected Ave (3 peaks):				17.5	Corrected Ave (3 peaks):				2.2 RPD = 156*
Aroclor-1254	1	8.150	-0.022	8544648	14.3	1	8.317	0.018	6578734	3.2
Aroclor-1254	2	8.287	0.039	4398220	23.3	2	8.814	0.004	29434450	19.3
Aroclor-1254	3	8.552	0.011	4641541	12.2	3	8.957	0.002	758334	0.2
Aroclor-1254	4	8.675	-0.001	3837595	5.2	4	9.427	-0.000	3223557	2.1
Aroclor-1254	5	9.703	-0.002	3236255	4.4	5	9.735	0.001	2070429	1.1
	Total Col1Ave (5 peaks):				11.9	Total Col2Ave (5 peaks):				5.2 RPD = 79*
	Corrected Ave (4 peaks):				9.1	Corrected Ave (4 peaks):				1.7 RPD = 138*
Aroclor-1260	1	9.934	0.001	2112400	4.0	1	9.960	-0.002	3528925	1.4
Aroclor-1260	2	10.247	-0.001	1195901	2.4	2	10.496	-0.006	2169729	1.0
Aroclor-1260	3	10.656	0.038	7214617	5.8	3	10.772	-0.004	3105426	0.6
Aroclor-1260	4	11.013	-0.003	480897	0.8	4	11.309	0.021	329064	0.2
Aroclor-1260	5	11.176	-0.029	1406651	4.2	NS	---			----
	Total Col1Ave (5 peaks):				3.4	Total Col2Ave (4 peaks):				0.8 RPD = 125*
	Corrected Ave (4 peaks):				2.8	Corrected Ave (3 peaks):				0.6 RPD = 130*
Aroclor-1262	1	9.934	-0.008	2112400	2.9	1	10.092	0.028	14756175	4.7
Aroclor-1262	2	10.247	-0.011	1195901	2.0	2	10.496	-0.013	2169729	0.8
Aroclor-1262	3	10.656	0.028	7214617	5.4	3	10.772	-0.008	3105426	0.5
Aroclor-1262	4	11.013	-0.014	480897	1.1	4	11.345	-0.010	3828442	1.0
Aroclor-1262	5	11.176	-0.039	1406651	2.5	5	11.922	-0.018	32119640	34.3
	Total Col1Ave (5 peaks):				2.8	Total Col2Ave (5 peaks):				8.3 RPD = 99*
	Corrected Ave (4 peaks):				2.1	Corrected Ave (4 peaks):				1.8 RPD = 19
Aroclor-1268	1	11.176	0.033	1406651	0.9	1	11.309	0.015	329064	0.1
Aroclor-1268	2	---			0.0	2	11.345	-0.016	3828442	0.6
Aroclor-1268	3	11.638	0.040	1239946	1.0	3	11.746	-0.008	5359030	1.0

Aroclor-1268	4	12.363	-0.020	1230776	0.3		4	12.565	-0.003	191291	0.0
	Total Col1Ave (3 peaks):				0.7		Total Col2Ave (4 peaks):				0.4 RPD = 56*
	Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				0.2

Total PCB Area Col1 (4.542 - 12.677) = 352303805 Col1 Total PCB = 0.1 ppm*

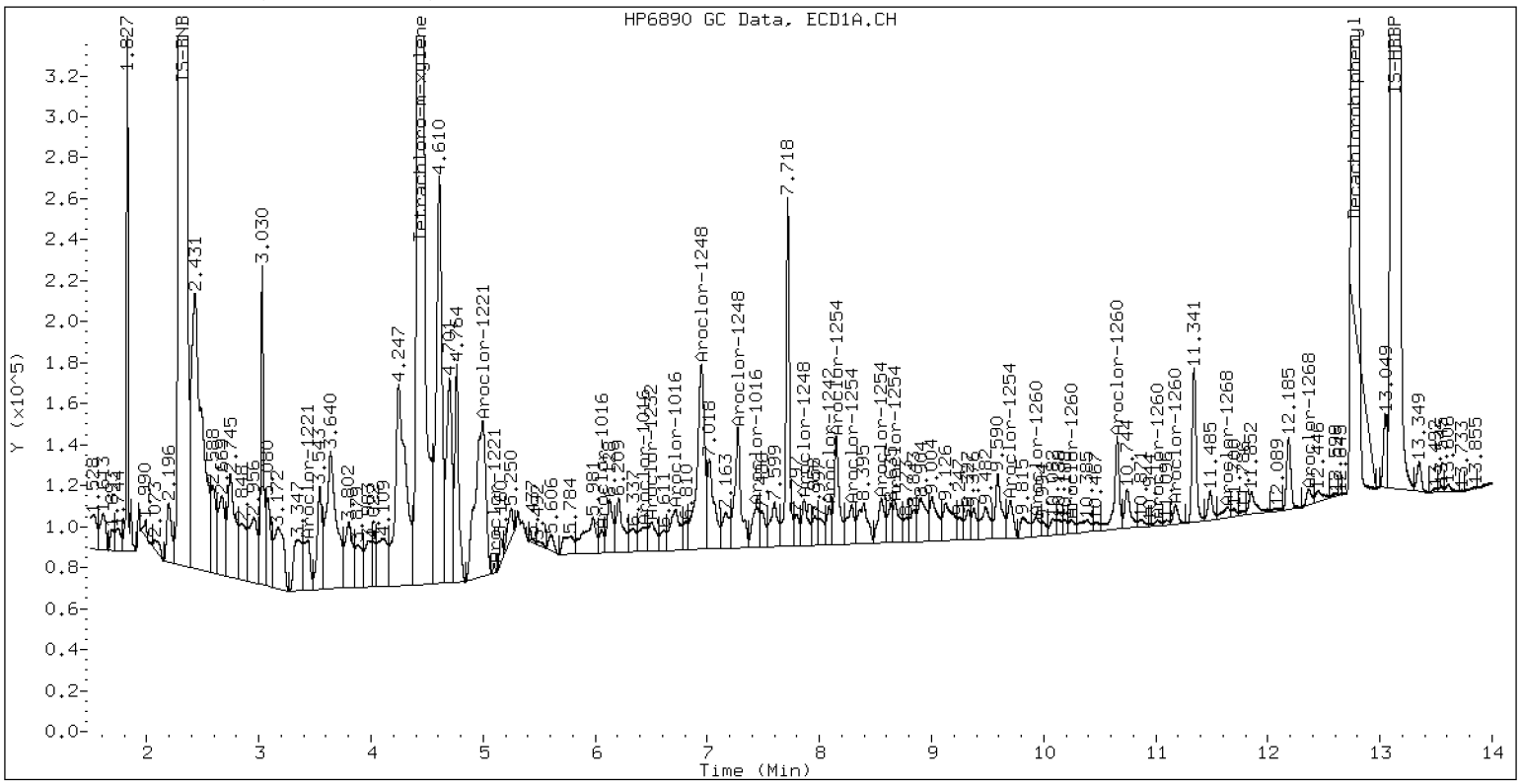
Total PCB Area Col2 (4.542 - 12.677) = 474410550 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

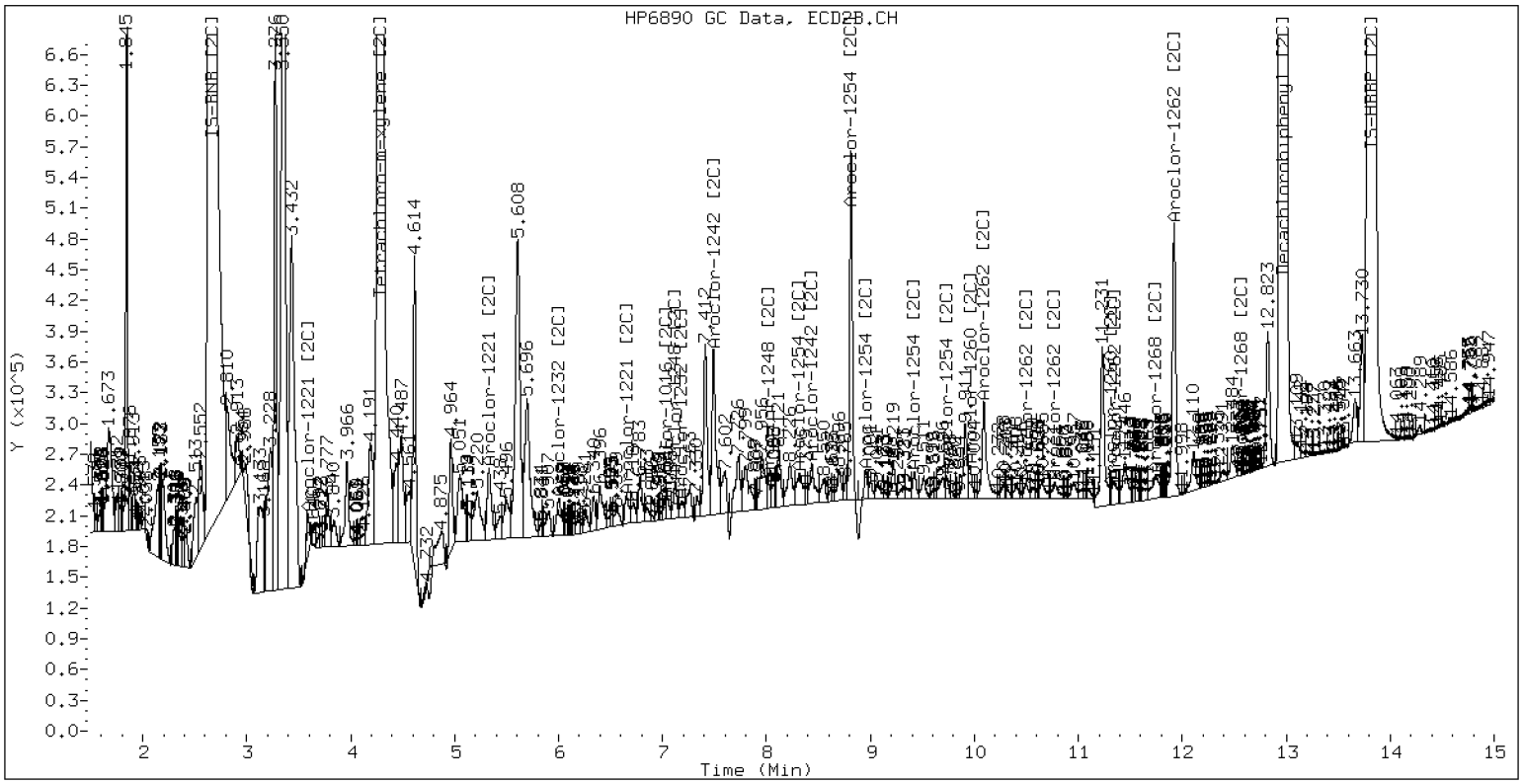
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062826ECD5.D 18F0248-08 28-JUN-2018 15:16 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062826ECD5.D 18F0248-08



ZB-35 Manual Integration: YES

Analytical Resources, Incorporated
Analytical Chemists and Consultants

PREPARATION BATCH SUMMARY

EPA 8082A

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGF0415 Batch Matrix: Water Preparation: EPA 3510C SepF

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-RB1	18F0185-01	18062306ECD5.D	06/18/18 11:10	
LDW18-SP-30	18F0185-03	18062307ECD5.D	06/18/18 11:10	
LDW18-SP-32	18F0185-04	18062308ECD5.D	06/18/18 11:10	
LDW18-SP-35	18F0185-05	18062309ECD5.D	06/18/18 11:10	
LDW18-SP-38	18F0185-06	18062310ECD5.D	06/18/18 11:10	
LDW18-SP-42	18F0185-07	18062311ECD5.D	06/18/18 11:10	
LDW18-SP-43	18F0185-08	18062312ECD5.D	06/18/18 11:10	
Blank	BGF0415-BLK1	18062304ECD5.D	06/18/18 11:10	
LCS	BGF0415-BS1	18062305ECD5.D	06/18/18 11:10	
LDW18-SP-43	BGF0415-MS1	18062313ECD5.D	06/18/18 11:10	
LDW18-SP-43	BGF0415-MSD1	18062314ECD5.D	06/18/18 11:10	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BGF0415

Prepared using: EPA 3510C SepF

8082A PCB Water 0.01 in Water (Version:7 Aroclors)

Matrix: Water **Date Prepared:** 6/18/18 **Balance ID:** _____ **Set Up By:** CCT 6/18/18

Analysis: 8082A PCB Water 0.01

Lab Number & Container	Initial (mL) (Target) Actual	(REQ) Acid C/U (1:1)	(REQ) Sulfur C/U (1:1) Transfer Rinse	(REQ) Silica Gel C/U (1:1) Transfer Rinse	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
18F0185-01 F	(1,000.00) 1,000	4mL	4mL	1mL	0.5	0.5	
18F0185-03 F	(1,000.00)	4mL	4mL	1mL	0.5	0.5	
18F0185-04 F	(1,000.00)	4mL	4mL	1mL	0.5	0.5	
18F0185-05 F	(1,000.00)	4mL	4mL	1mL	0.5	0.5	
18F0185-06 F	(1,000.00)	4mL	4mL	1mL	0.5	0.5	
18F0185-07 F	(1,000.00)	4mL	4mL	1mL	0.5	0.5	
18F0185-08 K	(1,000.00) "	4mL	4mL	1mL	0.5	0.5	

Batch QC

Lab Number	Initial (mL) (Target) Actual	(REQ) Acid C/U (1:1)	(REQ) Sulfur C/U (1:1) Transfer Rinse	(REQ) Silica Gel C/U (1:1) Transfer Rinse	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
BGF0415-BLK1	(1,000.00) 1,000	4mL	4mL	1mL	0.5	0.5	
BGF0415-BS1	(1,000.00)	4mL	4mL	1mL	0.5	0.5	
BGF0415-MS1	(1,000.00)	4mL	4mL	1mL	0.5	0.5	Use 18F0185-08 L
BGF0415-MSD1	(1,000.00) "	4mL	4mL	1mL	0.5	0.5	Use 18F0185-08 M

mw 6/19/18
Client ID verified By Date

mw 6/23/18
Preparation Reviewed By Date

6/18/18 11:10
Extraction Date and Time

Printed: 6/18/2018 8:36:03AM

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BGF0415

Prepared using: EPA 3510C SepF

8082A PCB Water 0.01 in Water (Version:7 Aroclors)

Prep Steps

Verify pH is 5-9
Y / N
6/18/18
Analyst/Date

KD 100°C
1 2 (3) 4 (5) 6
BH 6/19/18
Analyst/Date

TurboVap Pre Cleanups
(1) 2 3 4 5
6/22/18
Analyst/Date

TurboVap Post Cleanups
1 2 (3) 4 5
6/23/18
Analyst/Date

Vialing
6/23/18
Analyst/Date

Reagents Used

Station/Reagent	Standard ID
Separatory Funnel Analyst: RR Date: 6/18/18	
Hexane	GBBA645
Anhydrous Sodium Sulfate	GBB5382
KD Analyst: BH Date: 6/19/18	
Hexane	GBBA645
Vialing Analyst: WW Date: 6/22/18 / 6/23/18	
Hexane	GBBA645
Concentrated Sulfuric Acid	GBBA416
Tetrabutylammonium hydrogensulfate (TBAS)	GBB5431
Sodium Sulfite	FBB9142
Silica Gel (SPE) Darts	GBB1699

Surrogates & Spike Standards Used

Type	Standard ID	Vol uL	Analyst	Witness
Surrogate 0.2µg/mL	D F011115 Exp: 11/24/2018	100µL	CG	WW
Spike 0.2µg/mL	QLS 23 F010992 Exp: 11/24/2018	250µL	CG	WW
QLS Spike 0.2µg/mL	QLS 23 F010992 Exp: 11/24/2018	50µL		

(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.

If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator inthe Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).

ORGANICS PREPARATION BENCH SHEET

Batch: BGF0415

Prepared using: EPA 3510C SepF

8082A PCB Water 0.01 in Water (Version:7 Aroclors)

Prep Instructions	
SPECIAL INSTRUCTIONS: 1. Rinse all Non-scratched glassware with HEXANE ONLY! (NO DCM!) 2. Verify pH is 5-9. 3. Adjust pH (if necessary=Analyst Notes). 4. Add Surr/Spike. 5. Add 60 mL Hexane to 1.0L sample bottle and perform a bottle rinse. 6. Extract 3X with 60mL Hexane. 7. Non-scratched KD (NO Drying Column) at 100°. RINSE SNYDER COLUMNS WITH HEXANE ONLY! 8. TurboVap. 9. Clean-ups=Transfer Rinse. 10. TurboVap. 11. Vial with Hexane. 12. Rinse syringe 3X w/ DCM followed by 3X w/ Hexane. Archive: Y / N	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

Extraction Parameter: UL PCB

Element Batch: BGF0415 Work Order(s): 18F0185

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Received in 32oz jar(s)=Homogenized in Pyrex dish=	
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
☒ Received in 1.0L Bottle(s)=No Bottle Rinse=	CG 6/18/18
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
☐ Share Samples Y / N	
☐ Multiple Jars Y / N	
☐ Sample Pre-Screens indicate analyte activity=	
☐ Sample weights/volumes reduced based on Pre-Screen=	

PREPARATION BATCH SUMMARY

EPA 8082A

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGF0451 Batch Matrix: Water Preparation: EPA 3510C SepF

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-06	18F0208-01	18062509ECD5.D	06/19/18 13:07	
LDW18-SP-33	18F0208-02	18062510ECD5.D	06/19/18 13:07	
LDW18-SP-24	18F0208-03	18062511ECD5.D	06/19/18 13:07	
LDW18-SP-24-FD	18F0208-04	18062512ECD5.D	06/19/18 13:07	
Blank	BGF0451-BLK1	18062506ECD5.D	06/19/18 13:07	
LCS	BGF0451-BS1	18062507ECD5.D	06/19/18 13:07	
LCS Dup	BGF0451-BSD1	18062508ECD5.D	06/19/18 13:07	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BGF0451

Prepared using: EPA 3510C SepF

8082A PCB Water 0.01 in Water (Version:7 Aroclors)
8082A PCB Water 0.01 in Water

Matrix: Water **Date Prepared:** 6/19/18 **Balance ID:** _____ **Set Up By:** CCT 6/19/18

Analysis: 8082A PCB Water 0.01

Lab Number & Container	Initial (mL) (Target) Actual	(REQ) Acid C/U (1:1)	(REQ) Sulfur C/U (1:1) Transfer Rinse	(REQ) Silica Gel C/U (1:1) Transfer Rinse	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
18F0208-01 B	(1,000.00) 1000	4mL	4mL	1mL	0.5	0.5	
18F0208-02 B	(1,000.00)	4mL	4mL	1mL	0.5	0.5	
18F0208-03 C	(1,000.00)	4mL	4mL	1mL	0.5	0.5	
18F0208-04 C	(1,000.00)	4mL	4mL	1mL	0.5	0.5	
18F0246-01 A	(1,000.00)	4mL	4mL	1mL	0.5	0.5	
18F0246-02 A	(1,000.00)	4mL	4mL	1mL	0.5	0.5	
18F0246-03 A	(1,000.00)	4mL	4mL	1mL	0.5	0.5	
18F0255-01 A	(1,000.00)	4mL	4mL	1mL	0.5	0.5	
18F0255-02 A	(1,000.00)	4mL	4mL	1mL	0.5	0.5	
18F0255-03 A	(1,000.00)	4mL	4mL	1mL	0.5	0.5	
18F0255-04 A	(1,000.00)	4mL	4mL	1mL	0.5	0.5	
18F0255-05 A	(1,000.00)	4mL	4mL	1mL	0.5	0.5	
18F0255-06 A	(1,000.00)	4mL	4mL	1mL	0.5	0.5	

Batch QC

Lab Number	Initial (mL) (Target) Actual	(REQ) Acid C/U (1:1)	(REQ) Sulfur C/U (1:1) Transfer Rinse	(REQ) Silica Gel C/U (1:1) Transfer Rinse	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
BGF0451-BLK1	(1,000.00) 1000	4mL	4mL	1mL	0.5	0.5	
BGF0451-BS1	(1,000.00)	4mL	4mL	1mL	0.5	0.5	
BGF0451-BSD1	(1,000.00)	4mL	4mL	1mL	0.5	0.5	

RL 6/19/18
Client ID verified By Date

SR 6/25/18
Preparation Reviewed By Date

6/19/18 13:07
Extraction Date and Time

Printed: 6/19/2018 10:19:53AM

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BGF0451

Prepared using: EPA 3510C SepF

8082A PCB Water 0.01 in Water (Version:7 Aroclors)
8082A PCB Water 0.01 in Water

Prep Steps

Verify pH is 5-9
Y / N
6/19/18
Analyst/Date

KD 100°C
1 2 (3) 4 (5) 6
BH 6/21/18
Analyst/Date

TurboVap Pre Cleanups
(1) 2 3 4 5
SC 6/25/18
Analyst/Date

TurboVap Post Cleanups
1 2 (3) 4 5
SC 6/25/18
Analyst/Date

Vialing
SC 6/25/18
Analyst/Date

Reagents Used

Station/Reagent	Standard ID
Separatory Funnel Analyst: [illegible] Date: 6/19/18	
Hexane	6009645
Anhydrous Sodium Sulfate	6005382
KD Analyst: BH Date: 6/21/18	
Hexane	6009645
Vialing Analyst: SC Date: 6/25/18	
Hexane	6006645
Concentrated Sulfuric Acid	6004414
Tetrabutylammonium hydrogensulfate (TBAS)	6005431
Sodium Sulfite	F009142
Silica Gel (SPE) Darts	6001699

Surrogates & Spike Standards Used

Type	Standard ID	Vol uL	Analyst	Witness
Surrogate 0.2µg/mL	D F011115 Exp: 11/24/2018	100µL	[illegible]	BH
Spike 0.2µg/mL	QLS 23 F010992 Exp: 11/24/2018	250µL	[illegible]	BH
~~QLS Spike~~ 0.2µg/mL	QLS 23 F010992 Exp: 11/24/2018	50µL		

(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.

If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator inthe Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

Extraction Parameter: CLPCB

Element Batch: BGF0457 Work Order(s): 18F0208, 18F0246, 18F0255

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Received in 32oz jar(s)=Homogenized in Pyrex dish=	
☐ Other (Details)=	
Aqueous:	
☑ No Anomalies	KM 6/19/18
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
☒ Received in 1.0L Bottle(s)=No Bottle Rinse=	CLS 6/19/18
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
☐ Share Samples Y / N	
☐ Multiple Jars Y / N	
☐ Sample Pre-Screens indicate analyte activity=	
☐ Sample weights/volumes reduced based on Pre-Screen=	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BGF0451

Prepared using: EPA 3510C SepF

8082A PCB Water 0.01 in Water (Version:7 Aroclors)
8082A PCB Water 0.01 in Water

Prep Instructions	
SPECIAL INSTRUCTIONS: 1. Rinse all Non-scratched glassware with HEXANE ONLY! (NO DCM!) 2. Verify pH is 5-9. 3. Adjust pH (if necessary=Analyst Notes). 4. Add Surr/Spike. 5. Add 60 mL Hexane to 1.0L sample bottle and perform a bottle rinse. 6. Extract 3X with 60mL Hexane. 7. Non-scratched KD (NO Drying Column) at 100°. RINSE SNYDER COLUMNS WITH HEXANE ONLY! 8. TurboVap. 9. Clean-ups=Transfer Rinse. 10. TurboVap. 11. Vial with Hexane. 12. Rinse syringe 3X w/ DCM followed by 3X w/ Hexane. Archive [Y] N – Except 18F0208.	

PREPARATION BATCH SUMMARY

EPA 8082A

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGF0512 Batch Matrix: Water Preparation: EPA 3510C SepF

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-05	18F0226-01	18062806ECD5.D	06/21/18 11:20	
LDW18-SP-57	18F0226-02	18062807ECD5.D	06/21/18 11:20	
LDW18-SP-73	18F0226-03	18062810ECD5.D	06/21/18 11:20	
LDW18-SP-74	18F0226-04	18062811ECD5.D	06/21/18 11:20	
LDW18-SP-77	18F0226-05	18062812ECD5.D	06/21/18 11:20	
LDW18-SP-78	18F0226-06	18062813ECD5.D	06/21/18 11:20	
LDW18-SP-79	18F0226-07	18062814ECD5.D	06/21/18 11:20	
LDW18-SP-84	18F0226-08	18062815ECD5.D	06/21/18 11:20	
LDW18-SP-87	18F0226-09	18062818ECD5.D	06/21/18 11:20	
LDW18-SP-01	18F0248-01	18062819ECD5.D	06/21/18 11:20	
LDW18-SP-45	18F0248-02	18062820ECD5.D	06/21/18 11:20	
LDW18-SP-47	18F0248-03	18062821ECD5.D	06/21/18 11:20	
LDW18-SP-66	18F0248-04	18062822ECD5.D	06/21/18 11:20	
LDW18-SP-70	18F0248-05	18062823ECD5.D	06/21/18 11:20	
LDW18-SP-83	18F0248-06	18062824ECD5.D	06/21/18 11:20	
LDW18-SP-86	18F0248-07	18062825ECD5.D	06/21/18 11:20	
LDW18-SP-88	18F0248-08	18062826ECD5.D	06/21/18 11:20	
Blank	BGF0512-BLK1	18062804ECD5.D	06/21/18 11:20	
Blank	BGF0512-BLK1	18062804ECD5.D	06/21/18 11:20	
LCS	BGF0512-BS1	18062805ECD5.D	06/21/18 11:20	
LCS	BGF0512-BS1	18062805ECD5.D	06/21/18 11:20	
LDW18-SP-57	BGF0512-MS1	18062808ECD5.D	06/21/18 11:20	
LDW18-SP-57	BGF0512-MS1	18062808ECD5.D	06/21/18 11:20	
LDW18-SP-57	BGF0512-MSD1	18062809ECD5.D	06/21/18 11:20	
LDW18-SP-57	BGF0512-MSD1	18062809ECD5.D	06/21/18 11:20	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BGF0512

Prepared using: EPA 3510C SepF

8082A PCB Water 0.01 in Water (Version:7 Aroclors)

Matrix: Water **Date Prepared:** 6/20/18 **Balance ID:** _____ **Set Up By:** CC 6/20/18

Analysis: 8082A PCB Water 0.01

Lab Number & Container	Initial (mL) (Target) Actual	(REQ) Acid C/U (1:1)	(REQ) Sulfur C/U (1:1) Transfer Rinse	(REQ) Silica Gel C/U (1:1) Transfer Rinse	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
18F0226-01 B	(1,000.00) 1000	4mL	4mL	1mL	0.5 ____	0.5 ____	
18F0226-02 C	(1,000.00) 1000	4mL	4mL	1mL	0.5 ____	0.5 ____	
18F0226-03 B	(1,000.00) 1000	4mL	4mL	1mL	0.5 ____	0.5 ____	
18F0226-04 B	(1,000.00) 860	4mL	4mL	1mL	0.5 ____	0.5 ____	
18F0226-05 C	(1,000.00) 1000	4mL	4mL	1mL	0.5 ____	0.5 ____	
18F0226-06 C	(1,000.00) 1000	4mL	4mL	1mL	0.5 ____	0.5 ____	
18F0226-07 C	(1,000.00) 1000	4mL	4mL	1mL	0.5 ____	0.5 ____	
18F0226-08 B	(1,000.00) 1000	4mL	4mL	1mL	0.5 ____	0.5 ____	
18F0226-09 C	(1,000.00) 1000	4mL	4mL	1mL	0.5 ____	0.5 ____	
18F0248-01 F	(1,000.00) 1000	4mL	4mL	1mL	0.5 ____	0.5 ____	
18F0248-02 F	(1,000.00) 1000	4mL	4mL	1mL	0.5 ____	0.5 ____	
18F0248-03 F	(1,000.00) 1000	4mL	4mL	1mL	0.5 ____	0.5 ____	
18F0248-04 F	(1,000.00) 1000	4mL	4mL	1mL	0.5 ____	0.5 ____	
18F0248-05 F	(1,000.00) 1000	4mL	4mL	1mL	0.5 ____	0.5 ____	
18F0248-06 F	(1,000.00) 1000	4mL	4mL	1mL	0.5 ____	0.5 ____	
18F0248-07 F	(1,000.00) 1000	4mL	4mL	1mL	0.5 ____	0.5 ____	
18F0248-08 F	(1,000.00) 1000	4mL	4mL	1mL	0.5 ____	0.5 ____	

Batch QC

Lab Number	Initial (mL) (Target) Actual	(REQ) Acid C/U (1:1)	(REQ) Sulfur C/U (1:1) Transfer Rinse	(REQ) Silica Gel C/U (1:1) Transfer Rinse	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
BGF0512-BLK1	(1,000.00) 1000	4mL	4mL	1mL	0.5 ____	0.5 ____	
BGF0512-BS1	(1,000.00) 1000	4mL	4mL	1mL	0.5 ____	0.5 ____	
BGF0512-MS1	(1,000.00) 1000	4mL	4mL	1mL	0.5 ____	0.5 ____	Use 18F0226-02 D
BGF0512-MSD1	(1,000.00) 1000	4mL	4mL	1mL	0.5 ____	0.5 ____	Use 18F0226-02 E

CC 6/21/18
Client ID verified By Date

MW 6/27/18
Preparation Reviewed By Date

6/21/18 1120
Extraction Date and Time

Printed: 6/20/2018 12:48:54PM

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BGF0512

Prepared using: EPA 3510C SepF

8082A PCB Water 0.01 in Water (Version:7 Aroclors)

Prep Steps

Verify pH is 5-9
Y / N
CLT 6/21/18
Analyst/Date

KD 100°C
1 2 (3) 4 (5) 6
BH 6/26/18
Analyst/Date

TurboVap Pre Cleanups
(1) 2 3 4 5
ww 6/26/18
Analyst/Date

TurboVap Post Cleanups ww 6/27/18
~~1 2 3 4 5~~ (3)
~~AD 6/27/18~~ ww 6/27/18
Analyst/Date

Vialing
~~AD 6/27/18~~ ww 6/27/18
Analyst/Date

ww 6/27/18

Reagents Used

Station/Reagent	Standard ID
Separatory Funnel Analyst: CLT / Date: 6/21/18	
Hexane	G004645
Anhydrous Sodium Sulfate	G005582
KD Analyst: BH Date: 6/26/18	
Hexane	G004645
Vialing Analyst: ww / ww Date: 6/26/18 / 6/27/18	
Hexane	G004645
Concentrated Sulfuric Acid	G004410
Tetrabutylammonium hydrogensulfate (TBAS)	G005431
Sodium Sulfite	F004142
Silica Gel (SPE) Darts	G001699

Surrogates & Spike Standards Used

Type	Standard ID	Vol uL	Analyst	Witness
Surrogate 0.2µg/mL	D F011115 Exp: 11/24/2018	100µL		ww
Spike 0.2µg/mL	QLS 23 F010992 Exp: 11/24/2018	250µL		ww
~~QLS Spike~~ 0.2µg/mL	QLS 23 F010992 Exp: 11/24/2018	50uL		

(V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards.

If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator inthe Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).

ORGANICS PREPARATION BENCH SHEET

Batch: BGF0512

Prepared using: EPA 3510C SepF

8082A PCB Water 0.01 in Water (Version:7 Aroclors)

Prep Instructions	
SPECIAL INSTRUCTIONS: 1. Rinse all Non-scratched glassware with HEXANE ONLY! (NO DCM!) 2. Verify pH is 5-9. 3. Adjust pH (if necessary=Analyst Notes). 4. Add Surr/Spike. 5. Add 60 mL Hexane to 1.0L sample bottle and perform a bottle rinse. 6. Extract 3X with 60mL Hexane. 7. Non-scratched KD (NO Drying Column) at 100°. RINSE SNYDER COLUMNS WITH HEXANE ONLY! 8. TurboVap. 9. Clean-ups=Transfer Rinse. 10. TurboVap. 11. Vial with Hexane. 12. Rinse syringe 3X w/ DCM followed by 3X w/ Hexane. Archive: Y (N)	

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Organic Extractions Laboratory Analyst Notes

Extraction Parameter: LLPCB

Element Batch: BGP0512 Work Order(s): 18F0226, 18F0248

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Received in 32oz jar(s)=Homogenized in Pyrex dish=	
☐ Other (Details)=	
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
☒ Received in 1.0L Bottle(s)=No Bottle Rinse=	CET 5/20/18
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
☐ Share Samples Y / N	
☐ Multiple Jars Y / N	
☐ Sample Pre-Screens indicate analyte activity=	
☐ Sample weights/volumes reduced based on Pre-Screen=	

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Cleanup Batch:	CGF0155	Cleanup Type:	Sulfuric Acid
Cleanup Method:	EPA 3665A Sulfuric Acid Cleanup	Analysis:	EPA 8082A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARE	OBSERVATIONS
LDW18-SP-38	18F0185-06	18062310ECD5.D	06/22/2018	
LDW18-SP-30	18F0185-03	18062307ECD5.D	06/22/2018	
LDW18-SP-32	18F0185-04	18062308ECD5.D	06/22/2018	
LDW18-SP-35	18F0185-05	18062309ECD5.D	06/22/2018	
LDW18-SP-RB1	18F0185-01	18062306ECD5.D	06/22/2018	
LDW18-SP-43	18F0185-08	18062312ECD5.D	06/22/2018	
LDW18-SP-42	18F0185-07	18062311ECD5.D	06/22/2018	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CGF0155

Matrix: Water **Cleanup using: Organics - EPA 3665A Sulfuric Acid Cleanup** **Printed: 6/23/2018 11:38:05AM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
18F0185-01	F	LDW18-SP-RB1	F 01	0.5	0.5	8082A PCB Water 0.01	6/22/2018	WPW	
18F0185-03	F	LDW18-SP-30	F 01	0.5	0.5	8082A PCB Water 0.01	6/22/2018	WPW	
18F0185-04	F	LDW18-SP-32	F 01	0.5	0.5	8082A PCB Water 0.01	6/22/2018	WPW	
18F0185-05	F	LDW18-SP-35	F 01	0.5	0.5	8082A PCB Water 0.01	6/22/2018	WPW	
18F0185-06	F	LDW18-SP-38	F 01	0.5	0.5	8082A PCB Water 0.01	6/22/2018	WPW	
18F0185-07	F	LDW18-SP-42	F 01	0.5	0.5	8082A PCB Water 0.01	6/22/2018	WPW	
18F0185-08	K	LDW18-SP-43	K 01	0.5	0.5	8082A PCB Water 0.01	6/22/2018	WPW	
BGF0415-BLK1	-	Blank	-	0.5	0.5	-	6/22/2018	WPW	
BGF0415-BS1	-	LCS	-	0.5	0.5	-	6/22/2018	WPW	
BGF0415-MS1	-	Matrix Spike	-	0.5	0.5	-	6/22/2018	WPW	
BGF0415-MSD1	-	Matrix Spike Dup	-	0.5	0.5	-	6/22/2018	WPW	

Cleanup Reviewed By Date

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Cleanup Batch:	CGF0156	Cleanup Type:	Sulfur
Cleanup Method:	EPA 3660B Sulfur Cleanup	Analysis:	EPA 8082A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARE	OBSERVATIONS
LDW18-SP-30	18F0185-03	18062307ECD5.D	06/22/2018	
LDW18-SP-43	18F0185-08	18062312ECD5.D	06/22/2018	
LDW18-SP-42	18F0185-07	18062311ECD5.D	06/22/2018	
LDW18-SP-38	18F0185-06	18062310ECD5.D	06/22/2018	
LDW18-SP-35	18F0185-05	18062309ECD5.D	06/22/2018	
LDW18-SP-32	18F0185-04	18062308ECD5.D	06/22/2018	
LDW18-SP-RB1	18F0185-01	18062306ECD5.D	06/22/2018	

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CLEANUP BENCH SHEET

CGF0156

Matrix: Water **Cleanup using: Organics - EPA 3660B Sulfur Cleanup** **Printed: 6/23/2018 11:38:43AM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
18F0185-01	F	LDW18-SP-RB1	F 01	0.5	0.5	8082A PCB Water 0.01	6/22/2018	WPW	
18F0185-03	F	LDW18-SP-30	F 01	0.5	0.5	8082A PCB Water 0.01	6/22/2018	WPW	
18F0185-04	F	LDW18-SP-32	F 01	0.5	0.5	8082A PCB Water 0.01	6/22/2018	WPW	
18F0185-05	F	LDW18-SP-35	F 01	0.5	0.5	8082A PCB Water 0.01	6/22/2018	WPW	
18F0185-06	F	LDW18-SP-38	F 01	0.5	0.5	8082A PCB Water 0.01	6/22/2018	WPW	
18F0185-07	F	LDW18-SP-42	F 01	0.5	0.5	8082A PCB Water 0.01	6/22/2018	WPW	
18F0185-08	K	LDW18-SP-43	K 01	0.5	0.5	8082A PCB Water 0.01	6/22/2018	WPW	
BGF0415-BLK1	-	Blank	-	0.5	0.5	-	6/22/2018	WPW	
BGF0415-BS1	-	LCS	-	0.5	0.5	-	6/22/2018	WPW	
BGF0415-MS1	-	Matrix Spike	-	0.5	0.5	-	6/22/2018	WPW	
BGF0415-MSD1	-	Matrix Spike Dup	-	0.5	0.5	-	6/22/2018	WPW	

Cleanup Reviewed By Date

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Cleanup Batch:	CGF0157	Cleanup Type:	Silica Gel
Cleanup Method:	EPA 3630C Silica Gel Cleanup	Analysis:	EPA 8082A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARE	OBSERVATIONS
LDW18-SP-32	18F0185-04	18062308ECD5.D	06/22/2018	
LDW18-SP-30	18F0185-03	18062307ECD5.D	06/22/2018	
LDW18-SP-35	18F0185-05	18062309ECD5.D	06/22/2018	
LDW18-SP-38	18F0185-06	18062310ECD5.D	06/22/2018	
LDW18-SP-42	18F0185-07	18062311ECD5.D	06/22/2018	
LDW18-SP-43	18F0185-08	18062312ECD5.D	06/22/2018	
LDW18-SP-RB1	18F0185-01	18062306ECD5.D	06/22/2018	

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CLEANUP BENCH SHEET

CGF0157

Matrix: Water **Cleanup using: Organics - EPA 3630C Silica Gel Cleanup** **Printed: 6/23/2018 11:39:21AM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
18F0185-01	F	LDW18-SP-RB1	F 01	0.5	0.5	8082A PCB Water 0.01	6/22/2018	WPW	
18F0185-03	F	LDW18-SP-30	F 01	0.5	0.5	8082A PCB Water 0.01	6/22/2018	WPW	
18F0185-04	F	LDW18-SP-32	F 01	0.5	0.5	8082A PCB Water 0.01	6/22/2018	WPW	
18F0185-05	F	LDW18-SP-35	F 01	0.5	0.5	8082A PCB Water 0.01	6/22/2018	WPW	
18F0185-06	F	LDW18-SP-38	F 01	0.5	0.5	8082A PCB Water 0.01	6/22/2018	WPW	
18F0185-07	F	LDW18-SP-42	F 01	0.5	0.5	8082A PCB Water 0.01	6/22/2018	WPW	
18F0185-08	K	LDW18-SP-43	K 01	0.5	0.5	8082A PCB Water 0.01	6/22/2018	WPW	
BGF0415-BLK1	-	Blank	-	0.5	0.5	-	6/22/2018	WPW	
BGF0415-BS1	-	LCS	-	0.5	0.5	-	6/22/2018	WPW	
BGF0415-MS1	-	Matrix Spike	-	0.5	0.5	-	6/22/2018	WPW	
BGF0415-MSD1	-	Matrix Spike Dup	-	0.5	0.5	-	6/22/2018	WPW	

Cleanup Reviewed By Date

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Cleanup Batch:	CGF0162	Cleanup Type:	Sulfuric Acid
Cleanup Method:	EPA 3665A Sulfuric Acid Cleanup	Analysis:	EPA 8082A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARE	OBSERVATIONS
LDW18-SP-33	18F0208-02	18062510ECD5.D	06/25/2018	
LDW18-SP-24	18F0208-03	18062511ECD5.D	06/25/2018	
LDW18-SP-06	18F0208-01	18062509ECD5.D	06/25/2018	
LDW18-SP-24-FD	18F0208-04	18062512ECD5.D	06/25/2018	

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CLEANUP BENCH SHEET

CGF0162

Matrix: Water **Cleanup using: Organics - EPA 3665A Sulfuric Acid Cleanup** **Printed: 6/25/2018 9:23:27AM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
18F0255-06	A	10143	A 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0255-05	A	10142	A 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0255-01	A	10138	A 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0255-02	A	10139	A 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0255-03	A	10140	A 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0255-04	A	10141	A 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0246-01	A	CellB-Und-20180615	A 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0246-02	A	CellE-Und-20180615	A 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0246-03	A	FiltD-Und-20180615	A 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0208-02	B	LDW18-SP-33	B 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0208-01	B	LDW18-SP-06	B 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0208-03	C	LDW18-SP-24	C 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0208-04	C	LDW18-SP-24-FD	C 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
BGF0451-BSD1	-	LCS Dup	-	0.5	0.5	-	6/25/2018	SDP	
BGF0451-BS1	-	LCS	-	0.5	0.5	-	6/25/2018	SDP	
BGF0451-BLK1	-	Blank	-	0.5	0.5	-	6/25/2018	SDP	

Cleanup Reviewed By Date

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Cleanup Batch:	CGF0163	Cleanup Type:	Sulfur
Cleanup Method:	EPA 3660B Sulfur Cleanup	Analysis:	EPA 8082A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARE	OBSERVATIONS
LDW18-SP-33	18F0208-02	18062510ECD5.D	06/25/2018	
LDW18-SP-24-FD	18F0208-04	18062512ECD5.D	06/25/2018	
LDW18-SP-24	18F0208-03	18062511ECD5.D	06/25/2018	
LDW18-SP-06	18F0208-01	18062509ECD5.D	06/25/2018	

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CLEANUP BENCH SHEET

CGF0163

Matrix: Water **Cleanup using: Organics - EPA 3660B Sulfur Cleanup** **Printed: 6/25/2018 9:24:47AM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
18F0255-06	A	10143	A 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0255-05	A	10142	A 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0255-01	A	10138	A 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0255-02	A	10139	A 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0255-03	A	10140	A 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0255-04	A	10141	A 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0246-01	A	CellB-Und-20180615	A 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0246-02	A	CellE-Und-20180615	A 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0246-03	A	FiltD-Und-20180615	A 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0208-02	B	LDW18-SP-33	B 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0208-01	B	LDW18-SP-06	B 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0208-03	C	LDW18-SP-24	C 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0208-04	C	LDW18-SP-24-FD	C 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
BGF0451-BSD1	-	LCS Dup	-	0.5	0.5	-	6/25/2018	SDP	
BGF0451-BS1	-	LCS	-	0.5	0.5	-	6/25/2018	SDP	
BGF0451-BLK1	-	Blank	-	0.5	0.5	-	6/25/2018	SDP	

Cleanup Reviewed By Date

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Cleanup Batch:	CGF0165	Cleanup Type:	Silica Gel
Cleanup Method:	EPA 3630C Silica Gel Cleanup	Analysis:	EPA 8082A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARE	OBSERVATIONS
LDW18-SP-33	18F0208-02	18062510ECD5.D	06/25/2018	
LDW18-SP-06	18F0208-01	18062509ECD5.D	06/25/2018	
LDW18-SP-24	18F0208-03	18062511ECD5.D	06/25/2018	
LDW18-SP-24-FD	18F0208-04	18062512ECD5.D	06/25/2018	

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CLEANUP BENCH SHEET

CGF0165

Matrix: Water **Cleanup using: Organics - EPA 3630C Silica Gel Cleanup** **Printed: 6/25/2018 11:57:34AM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
18F0255-06	A	10143	A 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0255-05	A	10142	A 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0255-01	A	10138	A 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0255-02	A	10139	A 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0255-03	A	10140	A 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0255-04	A	10141	A 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0246-01	A	CellB-Und-20180615	A 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0246-02	A	CellE-Und-20180615	A 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0246-03	A	FiltD-Und-20180615	A 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0208-02	B	LDW18-SP-33	B 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0208-01	B	LDW18-SP-06	B 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0208-03	C	LDW18-SP-24	C 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
18F0208-04	C	LDW18-SP-24-FD	C 01	0.5	0.5	8082A PCB Water 0.01	6/25/2018	SDP	
BGF0451-BSD1	-	LCS Dup	-	0.5	0.5	-	6/25/2018	SDP	
BGF0451-BS1	-	LCS	-	0.5	0.5	-	6/25/2018	SDP	
BGF0451-BLK1	-	Blank	-	0.5	0.5	-	6/25/2018	SDP	

Cleanup Reviewed By Date

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Cleanup Batch:	CGF0179	Cleanup Type:	Sulfuric Acid
Cleanup Method:	EPA 3665A Sulfuric Acid Cleanup	Analysis:	EPA 8082A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARE	OBSERVATIONS
LDW18-SP-05	18F0226-01	18062806ECD5.D	06/26/2018	
LDW18-SP-77	18F0226-05	18062812ECD5.D	06/26/2018	
LDW18-SP-88	18F0248-08	18062826ECD5.D	06/26/2018	
LDW18-SP-87	18F0226-09	18062818ECD5.D	06/26/2018	
LDW18-SP-86	18F0248-07	18062825ECD5.D	06/26/2018	
LDW18-SP-84	18F0226-08	18062815ECD5.D	06/26/2018	
LDW18-SP-83	18F0248-06	18062824ECD5.D	06/26/2018	
LDW18-SP-70	18F0248-05	18062823ECD5.D	06/26/2018	
LDW18-SP-78	18F0226-06	18062813ECD5.D	06/26/2018	
LDW18-SP-01	18F0248-01	18062819ECD5.D	06/26/2018	
LDW18-SP-73	18F0226-03	18062810ECD5.D	06/26/2018	
LDW18-SP-66	18F0248-04	18062822ECD5.D	06/26/2018	
LDW18-SP-57	18F0226-02	18062807ECD5.D	06/26/2018	
LDW18-SP-47	18F0248-03	18062821ECD5.D	06/26/2018	
LDW18-SP-45	18F0248-02	18062820ECD5.D	06/26/2018	
LDW18-SP-74	18F0226-04	18062811ECD5.D	06/26/2018	
LDW18-SP-79	18F0226-07	18062814ECD5.D	06/26/2018	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CGF0179

Matrix: Water **Cleanup using: Organics - EPA 3665A Sulfuric Acid Cleanup** **Printed: 6/27/2018 4:05:31PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
18F0248-08	F	LDW18-SP-88	F 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0248-07	F	LDW18-SP-86	F 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0248-05	F	LDW18-SP-70	F 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0248-06	F	LDW18-SP-83	F 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0248-03	F	LDW18-SP-47	F 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0248-04	F	LDW18-SP-66	F 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0248-01	F	LDW18-SP-01	F 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0248-02	F	LDW18-SP-45	F 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0226-04	B	LDW18-SP-74	B 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0226-05	C	LDW18-SP-77	C 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0226-06	C	LDW18-SP-78	C 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0226-07	C	LDW18-SP-79	C 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0226-08	B	LDW18-SP-84	B 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0226-09	C	LDW18-SP-87	C 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0226-01	B	LDW18-SP-05	B 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0226-02	C	LDW18-SP-57	C 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0226-03	B	LDW18-SP-73	B 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
BGF0512-MSD1	-	Matrix Spike Dup	-	0.5	0.5	-	6/26/2018	WPW	
BGF0512-MS1	-	Matrix Spike	-	0.5	0.5	-	6/26/2018	WPW	
BGF0512-BS1	-	LCS	-	0.5	0.5	-	6/26/2018	WPW	
BGF0512-BLK1	-	Blank	-	0.5	0.5	-	6/26/2018	WPW	

Cleanup Reviewed By Date

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Cleanup Batch:	CGF0180	Cleanup Type:	Sulfur
Cleanup Method:	EPA 3660B Sulfur Cleanup	Analysis:	EPA 8082A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARE	OBSERVATIONS
LDW18-SP-70	18F0248-05	18062823ECD5.D	06/26/2018	
LDW18-SP-88	18F0248-08	18062826ECD5.D	06/26/2018	
LDW18-SP-79	18F0226-07	18062814ECD5.D	06/26/2018	
LDW18-SP-84	18F0226-08	18062815ECD5.D	06/26/2018	
LDW18-SP-87	18F0226-09	18062818ECD5.D	06/26/2018	
LDW18-SP-74	18F0226-04	18062811ECD5.D	06/26/2018	
LDW18-SP-78	18F0226-06	18062813ECD5.D	06/26/2018	
LDW18-SP-77	18F0226-05	18062812ECD5.D	06/26/2018	
LDW18-SP-01	18F0248-01	18062819ECD5.D	06/26/2018	
LDW18-SP-83	18F0248-06	18062824ECD5.D	06/26/2018	
LDW18-SP-66	18F0248-04	18062822ECD5.D	06/26/2018	
LDW18-SP-57	18F0226-02	18062807ECD5.D	06/26/2018	
LDW18-SP-47	18F0248-03	18062821ECD5.D	06/26/2018	
LDW18-SP-45	18F0248-02	18062820ECD5.D	06/26/2018	
LDW18-SP-05	18F0226-01	18062806ECD5.D	06/26/2018	
LDW18-SP-73	18F0226-03	18062810ECD5.D	06/26/2018	
LDW18-SP-86	18F0248-07	18062825ECD5.D	06/26/2018	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CGF0180

Matrix: Water **Cleanup using: Organics - EPA 3660B Sulfur Cleanup** **Printed: 6/27/2018 4:06:38PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
18F0248-08	F	LDW18-SP-88	F 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0248-07	F	LDW18-SP-86	F 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0248-05	F	LDW18-SP-70	F 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0248-06	F	LDW18-SP-83	F 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0248-03	F	LDW18-SP-47	F 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0248-04	F	LDW18-SP-66	F 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0248-01	F	LDW18-SP-01	F 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0248-02	F	LDW18-SP-45	F 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0226-04	B	LDW18-SP-74	B 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0226-05	C	LDW18-SP-77	C 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0226-06	C	LDW18-SP-78	C 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0226-07	C	LDW18-SP-79	C 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0226-08	B	LDW18-SP-84	B 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0226-09	C	LDW18-SP-87	C 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0226-01	B	LDW18-SP-05	B 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0226-02	C	LDW18-SP-57	C 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
18F0226-03	B	LDW18-SP-73	B 01	0.5	0.5	8082A PCB Water 0.01	6/26/2018	WPW	
BGF0512-MSD1	-	Matrix Spike Dup	-	0.5	0.5	-	6/26/2018	WPW	
BGF0512-MS1	-	Matrix Spike	-	0.5	0.5	-	6/26/2018	WPW	
BGF0512-BS1	-	LCS	-	0.5	0.5	-	6/26/2018	WPW	
BGF0512-BLK1	-	Blank	-	0.5	0.5	-	6/26/2018	WPW	

Cleanup Reviewed By Date

CLEANUP BATCH SUMMARY

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Cleanup Batch:	CGF0181	Cleanup Type:	Silica Gel
Cleanup Method:	EPA 3630C Silica Gel Cleanup	Analysis:	EPA 8082A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARE	OBSERVATIONS
LDW18-SP-70	18F0248-05	18062823ECD5.D	06/27/2018	
LDW18-SP-78	18F0226-06	18062813ECD5.D	06/27/2018	
LDW18-SP-83	18F0248-06	18062824ECD5.D	06/27/2018	
LDW18-SP-86	18F0248-07	18062825ECD5.D	06/27/2018	
LDW18-SP-74	18F0226-04	18062811ECD5.D	06/27/2018	
LDW18-SP-88	18F0248-08	18062826ECD5.D	06/27/2018	
LDW18-SP-79	18F0226-07	18062814ECD5.D	06/27/2018	
LDW18-SP-77	18F0226-05	18062812ECD5.D	06/27/2018	
LDW18-SP-01	18F0248-01	18062819ECD5.D	06/27/2018	
LDW18-SP-73	18F0226-03	18062810ECD5.D	06/27/2018	
LDW18-SP-66	18F0248-04	18062822ECD5.D	06/27/2018	
LDW18-SP-57	18F0226-02	18062807ECD5.D	06/27/2018	
LDW18-SP-47	18F0248-03	18062821ECD5.D	06/27/2018	
LDW18-SP-45	18F0248-02	18062820ECD5.D	06/27/2018	
LDW18-SP-05	18F0226-01	18062806ECD5.D	06/27/2018	
LDW18-SP-84	18F0226-08	18062815ECD5.D	06/27/2018	
LDW18-SP-87	18F0226-09	18062818ECD5.D	06/27/2018	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

CLEANUP BENCH SHEET

CGF0181

Matrix: Water **Cleanup using: Organics - EPA 3630C Silica Gel Cleanup** **Printed: 6/27/2018 4:07:33PM**

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
18F0248-08	F	LDW18-SP-88	F 01	0.5	0.5	8082A PCB Water 0.01	6/27/2018	WPW	
18F0248-07	F	LDW18-SP-86	F 01	0.5	0.5	8082A PCB Water 0.01	6/27/2018	WPW	
18F0248-05	F	LDW18-SP-70	F 01	0.5	0.5	8082A PCB Water 0.01	6/27/2018	WPW	
18F0248-06	F	LDW18-SP-83	F 01	0.5	0.5	8082A PCB Water 0.01	6/27/2018	WPW	
18F0248-03	F	LDW18-SP-47	F 01	0.5	0.5	8082A PCB Water 0.01	6/27/2018	WPW	
18F0248-04	F	LDW18-SP-66	F 01	0.5	0.5	8082A PCB Water 0.01	6/27/2018	WPW	
18F0248-01	F	LDW18-SP-01	F 01	0.5	0.5	8082A PCB Water 0.01	6/27/2018	WPW	
18F0248-02	F	LDW18-SP-45	F 01	0.5	0.5	8082A PCB Water 0.01	6/27/2018	WPW	
18F0226-04	B	LDW18-SP-74	B 01	0.5	0.5	8082A PCB Water 0.01	6/27/2018	WPW	
18F0226-05	C	LDW18-SP-77	C 01	0.5	0.5	8082A PCB Water 0.01	6/27/2018	WPW	
18F0226-06	C	LDW18-SP-78	C 01	0.5	0.5	8082A PCB Water 0.01	6/27/2018	WPW	
18F0226-07	C	LDW18-SP-79	C 01	0.5	0.5	8082A PCB Water 0.01	6/27/2018	WPW	
18F0226-08	B	LDW18-SP-84	B 01	0.5	0.5	8082A PCB Water 0.01	6/27/2018	WPW	
18F0226-09	C	LDW18-SP-87	C 01	0.5	0.5	8082A PCB Water 0.01	6/27/2018	WPW	
18F0226-01	B	LDW18-SP-05	B 01	0.5	0.5	8082A PCB Water 0.01	6/27/2018	WPW	
18F0226-02	C	LDW18-SP-57	C 01	0.5	0.5	8082A PCB Water 0.01	6/27/2018	WPW	
18F0226-03	B	LDW18-SP-73	B 01	0.5	0.5	8082A PCB Water 0.01	6/27/2018	WPW	
BGF0512-MSD1	-	Matrix Spike Dup	-	0.5	0.5	-	6/27/2018	WPW	
BGF0512-MS1	-	Matrix Spike	-	0.5	0.5	-	6/27/2018	WPW	
BGF0512-BS1	-	LCS	-	0.5	0.5	-	6/27/2018	WPW	
BGF0512-BLK1	-	Blank	-	0.5	0.5	-	6/27/2018	WPW	

Cleanup Reviewed By Date

Form I

METHOD BLANK DATA SHEET

EPA 8082A

Blank

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC			Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Laboratory ID:	BGF0415-BLK1	File ID:	18062304ECD5.D
Sampled:	N/A	Prepared:	06/18/18 11:10	Analyzed:	06/23/18 13:52
Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0415	Sequence:	SGF0299	Calibration:	BF00046
Instrument:	ECD5	Column:	ZB5	Cleanups:	Silica Gel, Sulfur, Sulfuric Acid

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
12674-11-2	Aroclor 1016	1	0.010	U	0.002	0.010
11104-28-2	Aroclor 1221	1	0.010	U	0.002	0.010
11141-16-5	Aroclor 1232	1	0.010	U	0.002	0.010
53469-21-9	Aroclor 1242	1	0.010	U	0.002	0.010
12672-29-6	Aroclor 1248	1	0.010	U	0.002	0.010
11097-69-1	Aroclor 1254	1	0.010	U	0.002	0.010
11096-82-5	Aroclor 1260	1	0.010	U	0.003	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	0.020000	0.0180	90.1	29 - 120	
Tetrachlorometaxylene	0.020000	0.0145	72.7	32 - 120	
Decachlorobiphenyl [2C]	0.020000	0.0178	88.9	29 - 120	
Tetrachlorometaxylene [2C]	0.020000	0.0113	56.3	32 - 120	

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180623.b/18062304ECD5.D
Data file 2: /20180623.b/20180623.b/18062304ECD5.D
Method: ecd5.i\20180623.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, VTS
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: BGF0415-BLK1
Client ID:
Injection Date: 23-JUN-2018 13:52
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.443	-0.004	301087741	4.283	-0.009	980628026	29.1	22.5	25.4	Tetrachloro-m-xylene
12.783	-0.001	304164423	12.972	-0.002	1207137673	36.0	35.6	1.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	72.7	56.3
Decachlorobiphenyl	90.1	88.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	913504775	-0.7
Hexabromobiphenyl	761926666	799473028	4.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4425734241	0.2
Hexabromobiphenyl	2171332320	2205460028	1.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.130	0.061	8315405	34.6	1	5.999	-0.010	3801330	2.8
Aroclor-1016	2	6.504	0.035	3243964	4.1	2	6.672	0.029	5151270	1.6
Aroclor-1016	3	6.714	-0.014	7621216	34.6	3	7.034	0.011	4523035	6.0
Aroclor-1016	4	7.476	0.038	9337981	36.0	4	7.490	-0.047	14332818	16.1
Total Col1Ave (4 peaks):					27.3	Total Col2Ave (4 peaks):				6.6 RPD = 122*
Corrected Ave (3 peaks):					24.5	Corrected Ave (3 peaks):				3.5 RPD = 150*
Aroclor-1221	1	3.352	-0.085	10081845	152.3	1	3.583	-0.009	2624396	15.8
Aroclor-1221	2	5.004	0.025	24214107	301.1	2	5.316	0.010	6290041	7.2
Aroclor-1221	3	---			0.0	3	---			0.0
Aroclor-1221	NS	---			----	4	6.672	0.025	5151270	20.2
Col1Ave: <3 Quant Peaks						Col2Ave: 14.4				
Aroclor-1232	1	3.352	-0.084	10081845	238.8	1	3.583	-0.007	2624396	25.0
Aroclor-1232	2	6.130	0.059	8315405	81.3	2	5.999	-0.011	3801330	5.8
Aroclor-1232	3	6.504	0.033	3243964	9.7	3	6.672	0.028	5151270	3.6
Aroclor-1232	4	6.714	-0.016	7621216	81.7	4	7.183	-0.013	519236	1.8
Total Col1Ave (4 peaks):					102.9	Total Col2Ave (4 peaks):				9.1 RPD = 168*
Corrected Ave (3 peaks):					57.6	Corrected Ave (3 peaks):				3.7 RPD = 176*
Aroclor-1242	1	6.130	0.061	8315405	43.3	1	5.999	-0.010	3801330	3.4
Aroclor-1242	2	6.504	0.035	3243964	5.1	2	6.672	0.029	5151270	1.9
Aroclor-1242	3	6.714	-0.015	7621216	43.0	3	7.490	-0.048	14332818	16.7
Aroclor-1242	4	8.154	0.058	5942422	26.3	4	8.437	0.032	346454	0.4
Total Col1Ave (4 peaks):					29.4	Total Col2Ave (4 peaks):				5.6 RPD = 136*
Corrected Ave (3 peaks):					24.8	Corrected Ave (3 peaks):				1.9 RPD = 172*
Aroclor-1248	1	6.948	-0.014	25688384	104.5	1	6.672	0.036	5151270	3.4
Aroclor-1248	2	7.278	0.016	8018443	28.3	2	7.122	-0.006	740984	0.7
Aroclor-1248	3	7.900	0.042	2489655	5.7	3	7.490	-0.046	14332818	12.4
Aroclor-1248	4	8.154	0.061	5942422	18.0	4	8.015	0.027	5958757	4.3
Total Col1Ave (4 peaks):					39.1	Total Col2Ave (4 peaks):				5.2 RPD = 153*
Corrected Ave (3 peaks):					17.3	Corrected Ave (3 peaks):				2.8 RPD = 144*
Aroclor-1254	1	8.154	-0.024	5942422	11.2	1	8.334	0.037	1576693	1.0
Aroclor-1254	2	8.264	0.009	1911494	11.4	2	8.816	0.005	18360783	15.7
Aroclor-1254	3	8.555	0.007	1841084	5.4	3	8.957	-0.002	1709899	0.7
Aroclor-1254	4	8.638	-0.045	3175043	4.8	4	9.419	-0.007	1964957	1.7
Aroclor-1254	5	9.719	0.006	676916	1.0	5	9.702	-0.030	2877923	1.9
Total Col1Ave (5 peaks):					6.8	Total Col2Ave (5 peaks):				4.2 RPD = 47*
Corrected Ave (4 peaks):					5.6	Corrected Ave (4 peaks):				1.3 RPD = 124*
Aroclor-1260	1	9.954	0.015	846510	1.9	1	9.912	-0.053	8081311	4.6
Aroclor-1260	2	10.257	0.003	459435	1.1	2	10.499	-0.005	1077597	0.7
Aroclor-1260	3	10.662	0.038	3979994	3.8	3	10.777	0.000	1042912	0.3
Aroclor-1260	4	11.021	-0.001	319824	0.6	4	11.233	-0.059	8394311	8.4
Aroclor-1260	5	11.182	-0.030	994268	3.5	NS	---			----
Total Col1Ave (5 peaks):					2.2	Total Col2Ave (4 peaks):				3.5 RPD = 46*
Corrected Ave (4 peaks):					1.8	Corrected Ave (3 peaks):				1.9 RPD = 5
Aroclor-1262	1	9.954	0.012	846510	1.4	1	10.092	0.028	1444304	0.7
Aroclor-1262	2	10.257	-0.001	459435	0.9	2	10.499	-0.009	1077597	0.6
Aroclor-1262	3	10.662	0.034	3979994	3.6	3	10.777	-0.003	1042912	0.3
Aroclor-1262	4	11.021	-0.006	319824	0.9	4	11.452	0.097	5371323	2.0
Aroclor-1262	5	11.182	-0.033	994268	2.1	5	11.925	-0.015	20530124	32.2
Total Col1Ave (5 peaks):					1.8	Total Col2Ave (5 peaks):				7.1 RPD = 120*
Corrected Ave (4 peaks):					1.3	Corrected Ave (4 peaks):				0.9 RPD = 40
Aroclor-1268	1	11.182	0.039	994268	0.8	1	11.233	-0.061	8394311	1.9
Aroclor-1268	2	---			0.0	2	11.452	0.090	5371323	1.2
Aroclor-1268	3	11.649	0.051	1036324	1.0	3	11.742	-0.011	3181210	0.9
Aroclor-1268	4	12.370	-0.013	907731	0.3	4	12.488	-0.080	2891915	0.2

Total Col1Ave (3 peaks):	0.7	Total Col2Ave (4 peaks):	1.1	RPD = 43*
Corrected Ave: < 3 Peaks		Corrected Ave (3 peaks):	0.8	

Total PCB Area Col1 (4.547 - 12.684) = 258498285 Col1 Total PCB = 0.0 ppm*

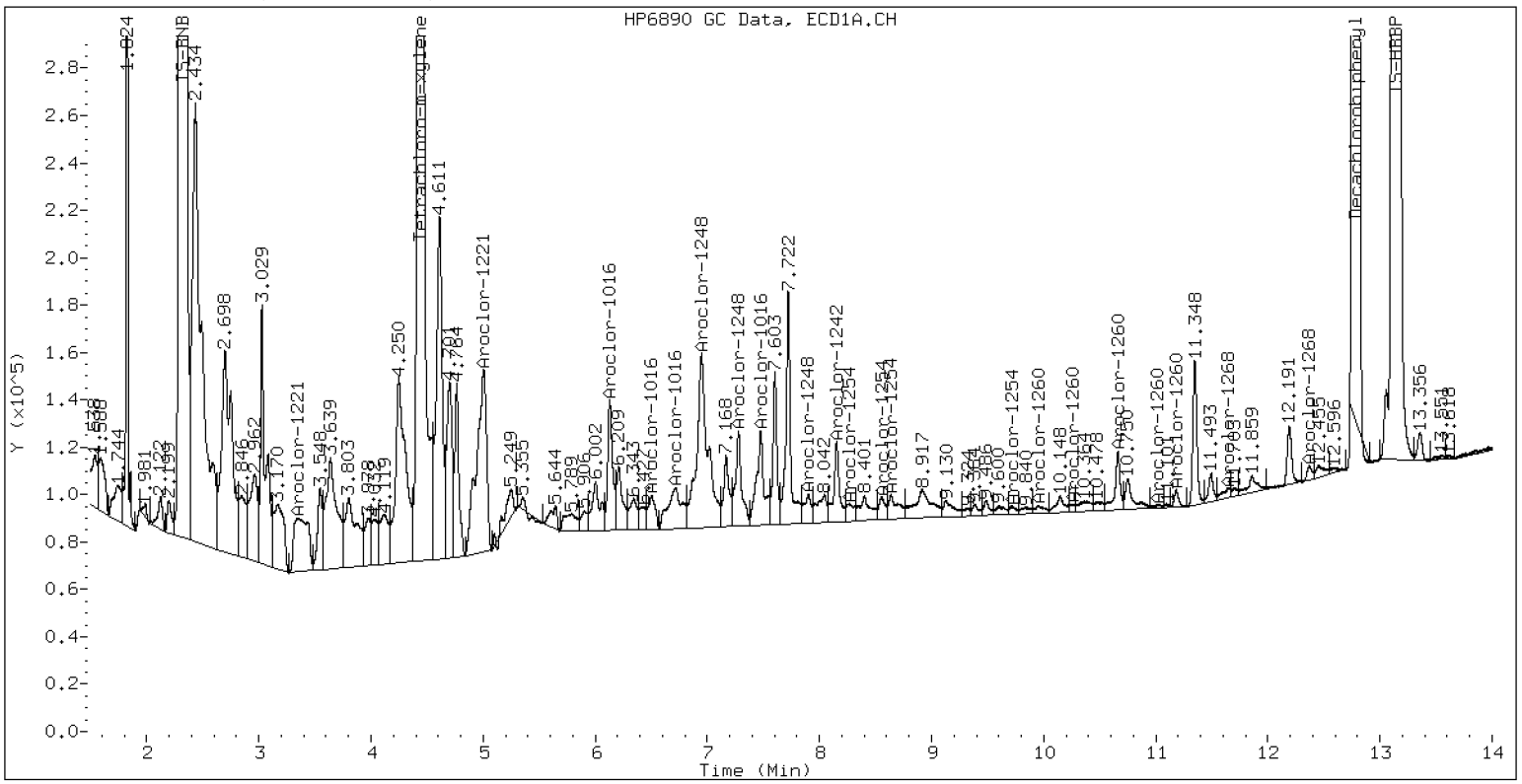
Total PCB Area Col2 (4.547 - 12.684) = 398856046 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

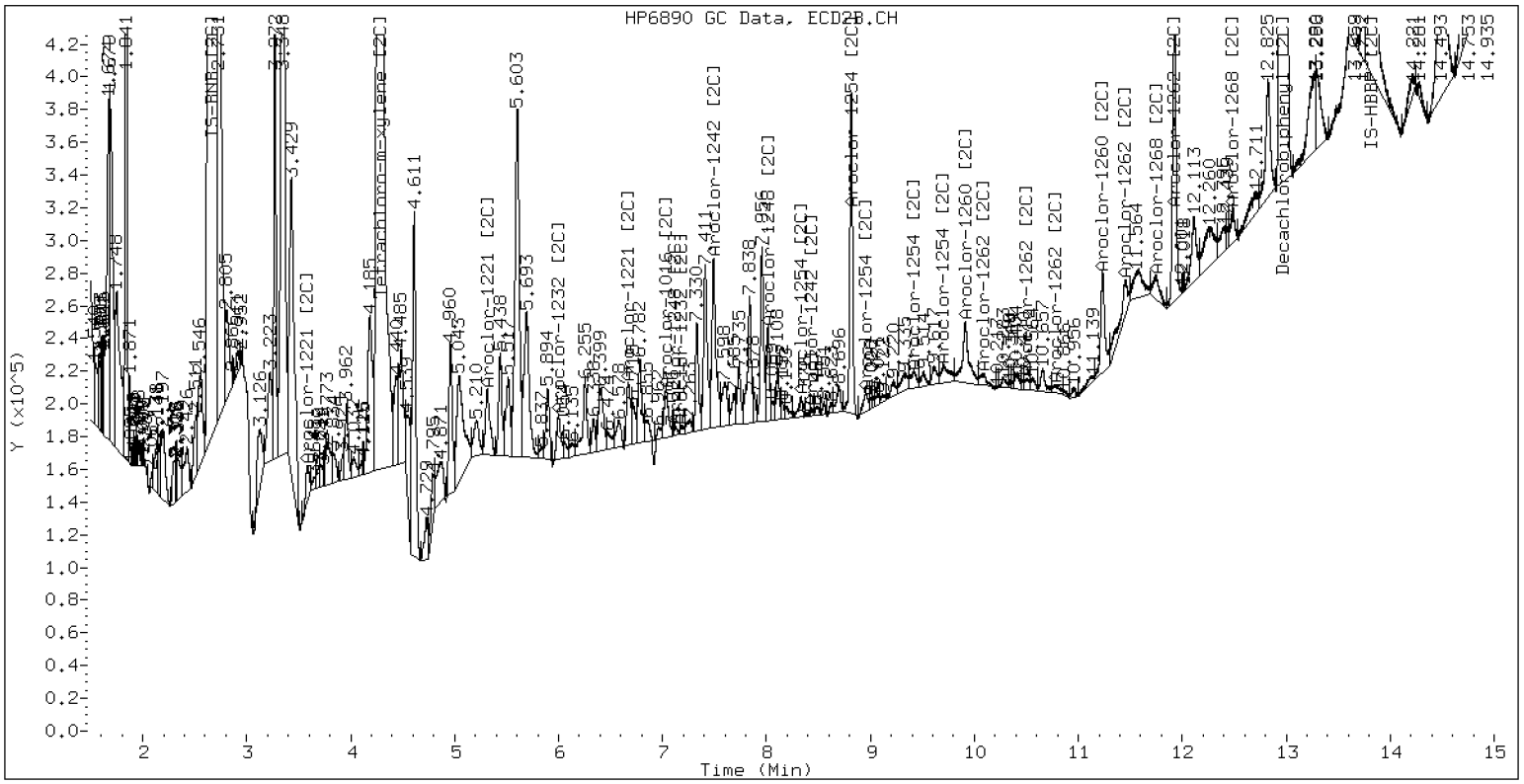
PCB Dual Column Chromatograms

ECD5-ZB5 /20180623.b/18062304ECD5.D BGF0415-BLK1 23-JUN-2018 13:52 2ul VTS



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180623.b/20180623.b/18062304ECD5.D BGF0415-BLK1

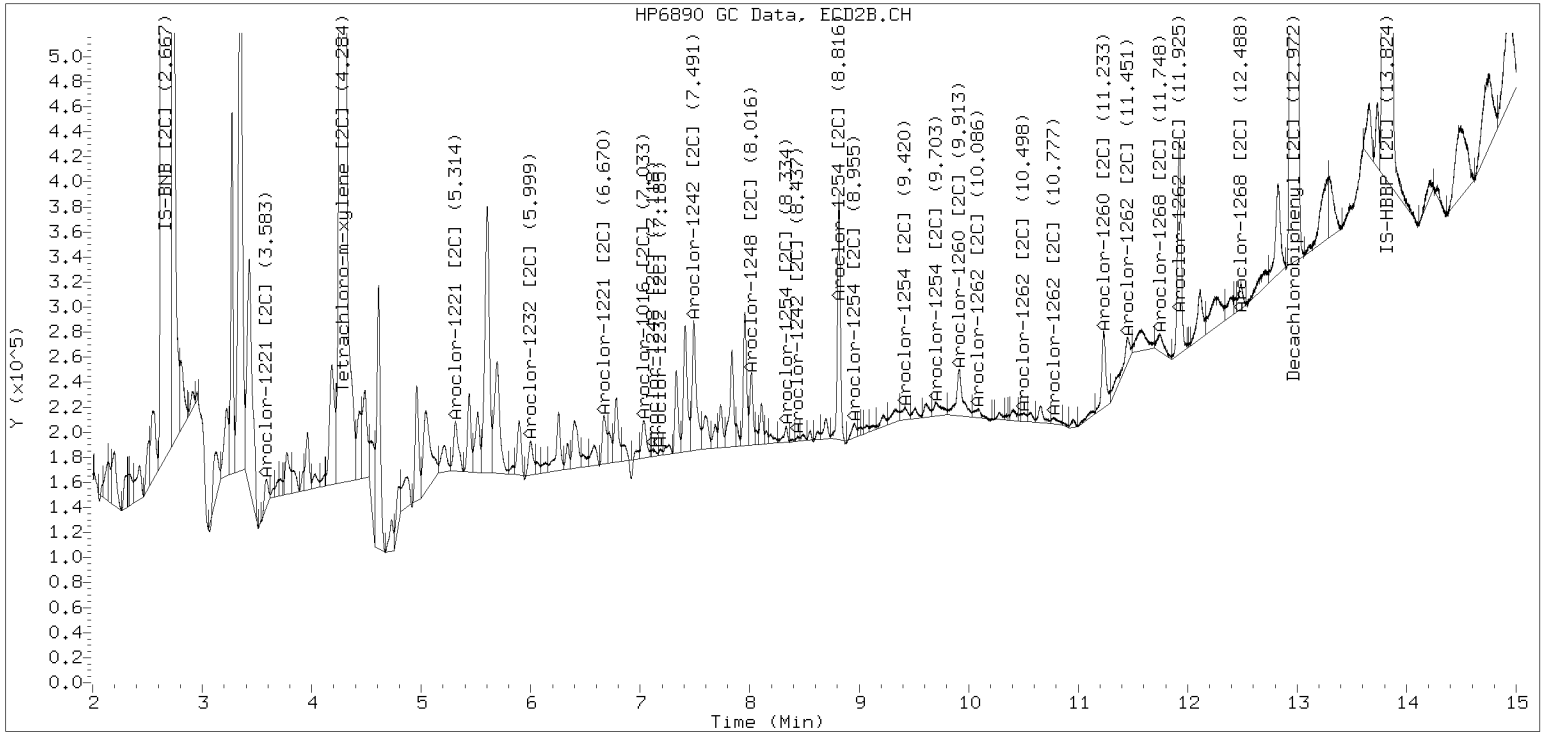


ZB-35 Manual Integration: YES

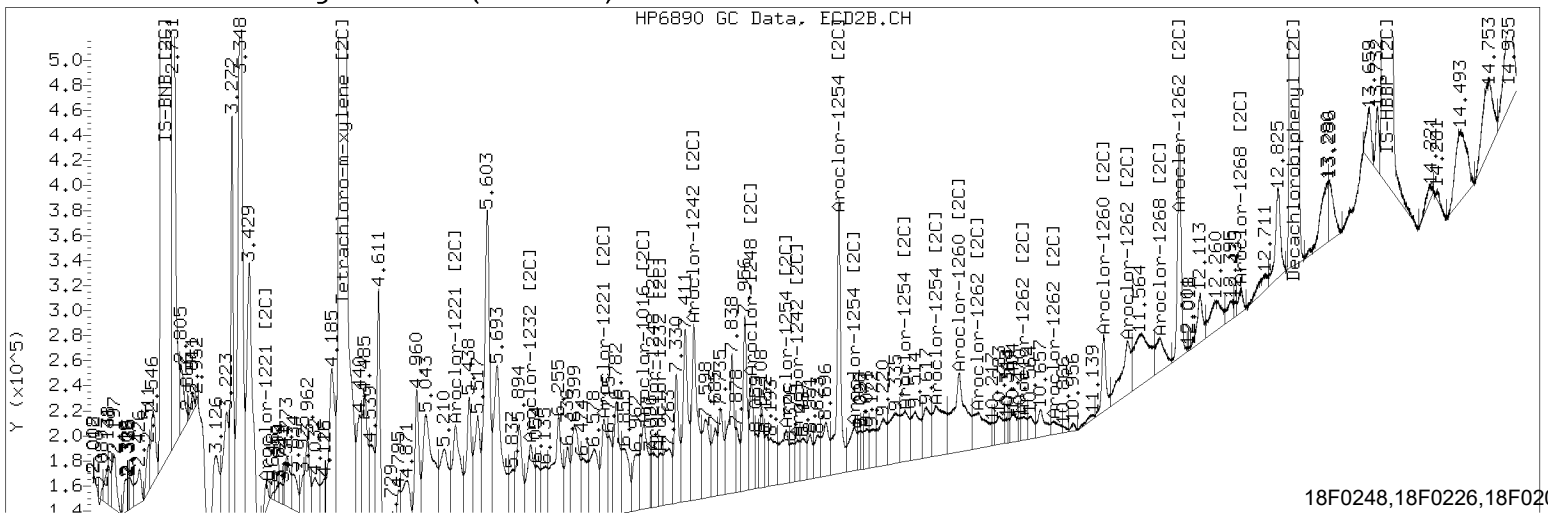
Manual Peak Adjustment, ZB-35

Datafile: ecd5.i/20180623.b/20180623.b/18062304.D Injection Date: 23-JUN-2018 13:52

Manual Integration (After)



Processed Integration (Before)



Form I

METHOD BLANK DATA SHEET

EPA 8082A

Blank

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC			Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Laboratory ID:	BGF0451-BLK1	File ID:	18062506ECD5.D
Sampled:	N/A	Prepared:	06/19/18 13:07	Analyzed:	06/25/18 15:02
Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0451	Sequence:	SGF0341	Calibration:	BF00046
Instrument:	ECD5	Column:	ZB5	Cleanups:	Silica Gel, Sulfur, Sulfuric Acid

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
12674-11-2	Aroclor 1016	1	0.010	U	0.002	0.010
11104-28-2	Aroclor 1221	1	0.010	U	0.002	0.010
11141-16-5	Aroclor 1232	1	0.010	U	0.002	0.010
53469-21-9	Aroclor 1242	1	0.010	U	0.002	0.010
12672-29-6	Aroclor 1248	1	0.010	U	0.002	0.010
11097-69-1	Aroclor 1254	1	0.010	U	0.002	0.010
11096-82-5	Aroclor 1260	1	0.010	U	0.003	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	0.020000	0.0139	69.6	29 - 120	
Tetrachlorometaxylene	0.020000	0.0115	57.3	32 - 120	
Decachlorobiphenyl [2C]	0.020000	0.0149	74.6	29 - 120	
Tetrachlorometaxylene [2C]	0.020000	0.0113	56.3	32 - 120	

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180625.b/18062506ECD5.D
Data file 2: /20180625.b/20180625.b/18062506ECD5.D
Method: ecd5.i\20180625.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: BGF0541-BLK1
Client ID:
Injection Date: 25-JUN-2018 15:02
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.446	-0.003	262480850	4.290	-0.002	1055534118	22.9	22.5	1.8	Tetrachloro-m-xylene
12.781	-0.008	243842418	12.973	-0.001	1009336487	27.8	29.8	7.0	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	57.3	56.3
Decachlorobiphenyl	69.6	74.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1009705681	9.7
Hexabromobiphenyl	761926666	830378450	9.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4764034832	7.8
Hexabromobiphenyl	2171332320	2197781977	1.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.043	-0.029	134345	0.5	1	6.003	-0.007	9049781	6.1
Aroclor-1016	2	6.488	0.016	35312968	~~40.3~~	2	6.672	0.027	6637367	2.0
Aroclor-1016	3	6.716	-0.016	2695705	11.1	3	7.033	0.009	9149279	11.3
Aroclor-1016	4	7.422	-0.020	837635	2.9	4	7.562	0.023	395888	0.4
Total Col1Ave (4 peaks):					~~13.7~~	Total Col2Ave (4 peaks):				5.0 RPD = 94*
Corrected Ave (3 peaks):					4.8	Corrected Ave (3 peaks):				2.8 RPD = 52*
Aroclor-1221	1	3.414	-0.023	16064501	219.5	1	3.607	0.015	57050	0.3
Aroclor-1221	2	4.981	0.001	52332094	5~~88.8~~	2	5.319	0.013	8027768	8.5
Aroclor-1221	3	5.105	0.020	252026	0.9	3	5.376	0.002	683241	4.1
Aroclor-1221	NS	---			----	4	6.672	0.025	6637367	~~24.1~~
Total Col1Ave (3 peaks):					~~269.~~8	Total Col2Ave (4 peaks):				~~9.3~~ RPD = 187*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				4.3
Aroclor-1232	1	3.414	-0.021	16064501	~~344.~~3	1	3.574	-0.016	5214034	~~46.2~~
Aroclor-1232	2	6.043	-0.028	134345	1.2	2	6.003	-0.007	9049781	12.8
Aroclor-1232	3	6.488	0.018	35312968	~~95.3~~	3	6.672	0.028	6637367	4.3
Aroclor-1232	4	6.716	-0.015	2695705	26.2	4	7.202	0.006	63817	0.2
Total Col1Ave (4 peaks):					~~116.~~7	Total Col2Ave (4 peaks):				15.9 RPD = 152*
Corrected Ave (3 peaks):					40.9	Corrected Ave (3 peaks):				5.8 RPD = 150*
Aroclor-1242	1	6.043	-0.030	134345	0.6	1	6.003	-0.007	9049781	7.4
Aroclor-1242	2	6.488	0.016	35312968	~~50.0~~	2	6.672	0.028	6637367	2.3
Aroclor-1242	3	6.716	-0.017	2695705	13.7	3	7.562	0.023	395888	0.4
Aroclor-1242	4	8.108	0.008	3444050	13.8	4	8.403	-0.003	84934	0.1
Total Col1Ave (4 peaks):					19.5	Total Col2Ave (4 peaks):				2.6 RPD = 154*
Corrected Ave (3 peaks):					9.4	Corrected Ave (3 peaks):				0.9 RPD = 164*
Aroclor-1248	1	6.942	-0.028	14748437	~~54.3~~	1	6.672	0.032	6637367	4.0
Aroclor-1248	2	7.342	0.074	524718	1.7	2	7.118	-0.014	4424231	3.9
Aroclor-1248	3	7.899	0.033	1407251	2.9	3	7.562	0.023	395888	0.3
Aroclor-1248	4	8.108	0.008	3444050	9.4	4	8.018	0.029	29464778	20.0
Total Col1Ave (4 peaks):					~~17.1~~	Total Col2Ave (4 peaks):				7.0 RPD = 83*
Corrected Ave (3 peaks):					4.7	Corrected Ave (3 peaks):				2.7 RPD = 52*
Aroclor-1254	1	8.150	-0.031	6481631	11.0	1	8.294	-0.002	6234025	3.6
Aroclor-1254	2	8.223	-0.035	2035058	10.9	2	8.817	0.007	4548411	3.6
Aroclor-1254	3	8.573	0.022	1100398	2.9	3	8.964	0.006	2165510	0.8
Aroclor-1254	4	8.639	-0.047	4779873	6.6	4	9.404	-0.022	46716419	~~37.6~~
Aroclor-1254	5	9.732	0.018	1138736	1.6	5	9.681	-0.051	20876750	13.1
Total Col1Ave (5 peaks):					6.6	Total Col2Ave (5 peaks):				~~11.8~~ RPD = 56*
Corrected Ave (4 peaks):					5.5	Corrected Ave (4 peaks):				5.3 RPD = 4
Aroclor-1260	1	9.943	0.000	256888	0.6	1	9.915	-0.050	6296211	3.6
Aroclor-1260	2	10.269	0.010	724137	1.6	2	10.502	-0.003	1270126	0.8
Aroclor-1260	3	10.656	0.027	3115839	2.9	3	10.797	0.019	2587061	0.8
Aroclor-1260	4	11.055	0.028	417992	0.8	4	11.330	0.039	387543	0.4
Aroclor-1260	5	11.201	-0.015	1477476	5.0	NS	---			----
Total Col1Ave (5 peaks):					2.2	Total Col2Ave (4 peaks):				1.4 RPD = 44*
Corrected Ave (4 peaks):					1.5	Corrected Ave (3 peaks):				0.7 RPD = 77*
Aroclor-1262	1	9.943	0.001	256888	0.4	1	10.094	0.029	7377325	3.5
Aroclor-1262	2	10.269	0.011	724137	1.4	2	10.502	-0.006	1270126	0.7
Aroclor-1262	3	10.656	0.029	3115839	2.7	3	10.797	0.017	2587061	0.7
Aroclor-1262	4	11.055	0.027	417992	1.1	4	11.345	-0.010	1109662	0.4
Aroclor-1262	5	11.201	-0.014	1477476	3.0	5	11.927	-0.013	25182730	39.6
Total Col1Ave (5 peaks):					1.7	Total Col2Ave (5 peaks):				9.0 RPD = 135*
Corrected Ave (4 peaks):					1.4	Corrected Ave (4 peaks):				1.3 RPD = 6
Aroclor-1268	1	11.201	0.058	1477476	1.1	1	11.330	0.036	387543	0.1
Aroclor-1268	2	---			0.0	2	11.345	-0.016	1109662	0.2
Aroclor-1268	3	11.586	-0.013	576088	0.5	3	11.744	-0.010	3571047	1.0

Aroclor-1268	4	12.367	-0.017	1630649	0.5		4	12.561	-0.007	462831	0.0
	Total Col1Ave (3 peaks):				0.7		Total Col2Ave (4 peaks):				0.3 RPD = 69*
	Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				0.1

Total PCB Area Col1 (4.548 - 12.689) = 445341895 Col1 Total PCB = 0.1 ppm*

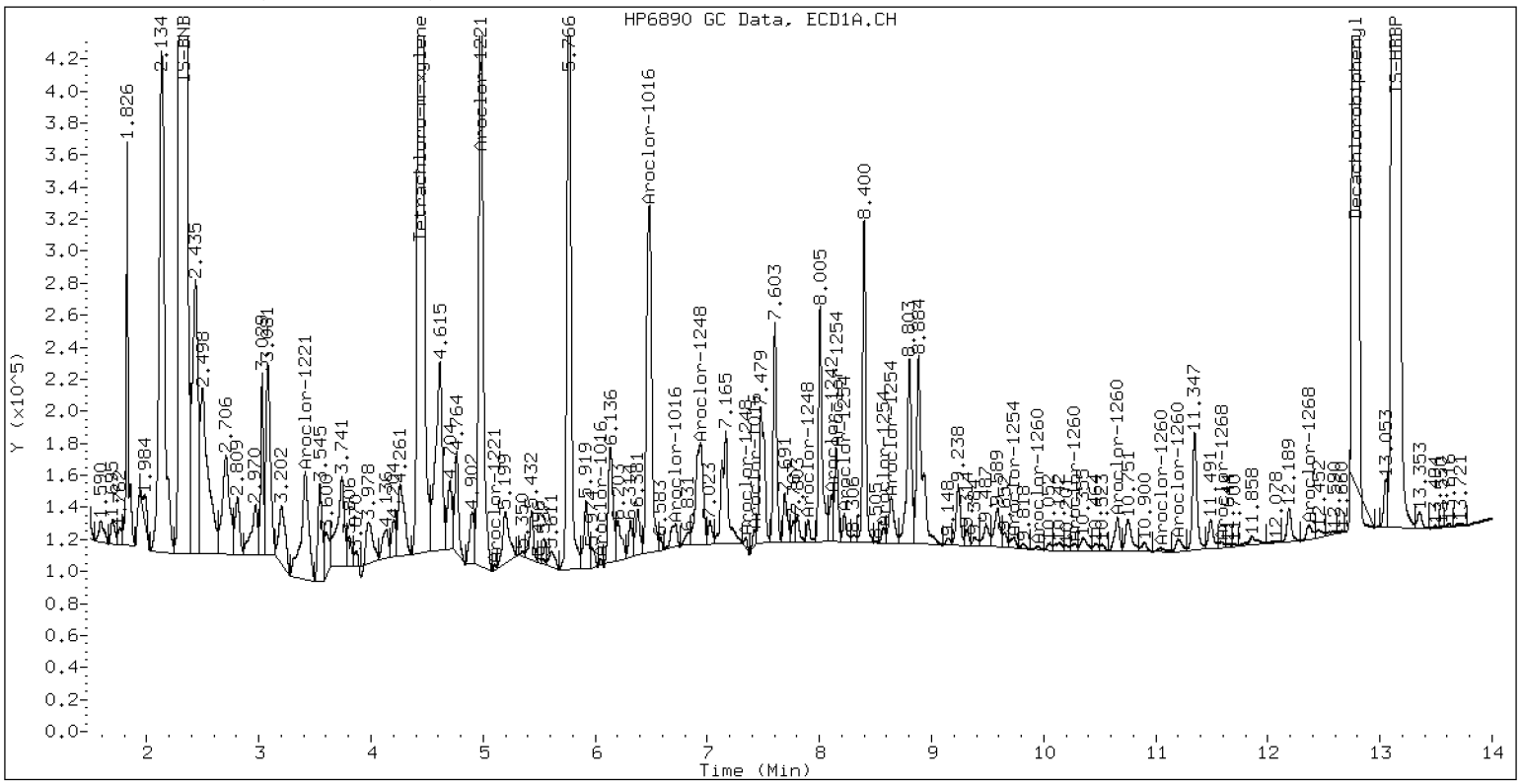
Total PCB Area Col2 (4.548 - 12.689) = 1000679631 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

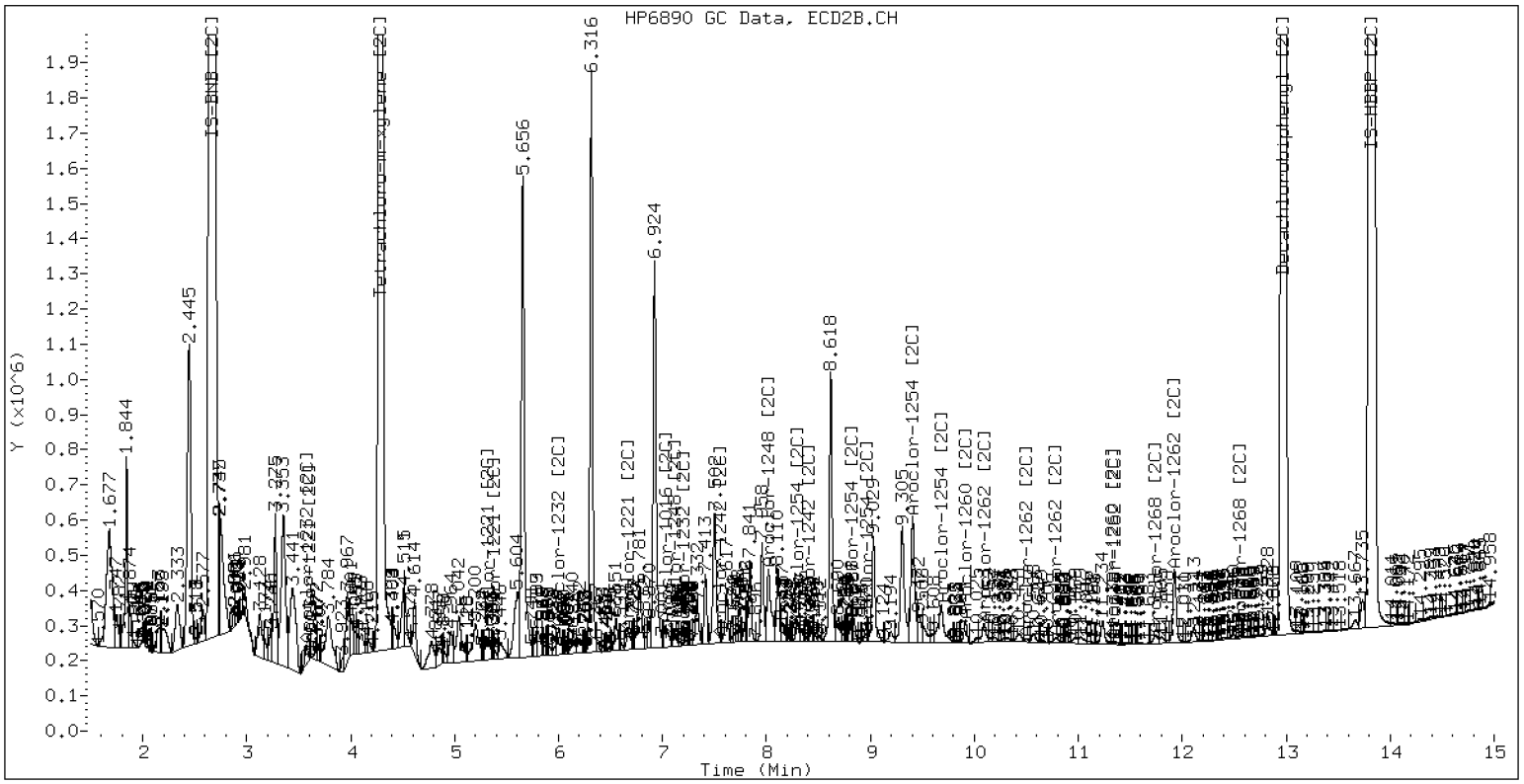
PCB Dual Column Chromatograms

ECD5-ZB5 /20180625.b/18062506ECD5.D BGF0541-BLK1 25-JUN-2018 15:02 2ul JGR



ZB-5 Manual Integration: YES

ECD5-ZB35 /20180625.b/20180625.b/18062506ECD5.D BGF0541-BLK1



ZB-35 Manual Integration: YES

Form I

METHOD BLANK DATA SHEET

EPA 8082A

Blank

Laboratory:	Analytical Resources, Inc.			SDG:	18F0185
Client:	Windward Environmental, LLC			Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Laboratory ID:	BGF0512-BLK1	File ID:	18062804ECD5.D
Sampled:	N/A	Prepared:	06/21/18 11:20	Analyzed:	06/28/18 07:51
Solids:		Preparation:	EPA 3510C SepF	Initial/Final:	1000 mL / 0.5 mL
Batch:	BGF0512	Sequence:	SGF0393	Calibration:	BF00046
Instrument:	ECD5	Column:	ZB5	Cleanups:	Silica Gel, Sulfur, Sulfuric Acid

CAS NO.	COMPOUND	DILUTION	CONC. (ug/L)	Q	DL	RL
12674-11-2	Aroclor 1016	1	0.010	U	0.002	0.010
11104-28-2	Aroclor 1221	1	0.010	U	0.002	0.010
11141-16-5	Aroclor 1232	1	0.010	U	0.002	0.010
53469-21-9	Aroclor 1242	1	0.010	U	0.002	0.010
12672-29-6	Aroclor 1248	1	0.010	U	0.002	0.010
11097-69-1	Aroclor 1254	1	0.010	U	0.002	0.010
11096-82-5	Aroclor 1260	1	0.010	U	0.003	0.010

SURROGATES	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Decachlorobiphenyl	0.020000	0.0181	90.7	29 - 120	
Tetrachlorometaxylene	0.020000	0.0149	74.3	32 - 120	
Decachlorobiphenyl [2C]	0.020000	0.0195	97.4	29 - 120	
Tetrachlorometaxylene [2C]	0.020000	0.0107	53.4	32 - 120	

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062804.D
Data file 2: /20180628.b/20180628.b/18062804.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: BGF0512-BLK1
Client ID:
Injection Date: 28-JUN-2018 07:51
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.456	0.015	333092323	4.284	-0.006	1218848694	29.7	21.4	32.8	Tetrachloro-m-xylene
12.786	0.007	342538290	12.971	0.000	1613470411	36.3	39.0	7.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	74.3	53.4
Decachlorobiphenyl	90.7	97.4

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	988151310	7.4
Hexabromobiphenyl	761926666	894507658	17.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5798295598	31.2
Hexabromobiphenyl	2171332320	2691285468	23.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.070	0.008	1881330	7.2	1	5.998	-0.011	7104723	4.0
Aroclor-1016	2	6.437	-0.025	2275695	2.7	2	6.669	0.036	3677556	0.9
Aroclor-1016	3	6.726	0.004	4541390	19.1	3	7.032	0.011	5963388	6.1
Aroclor-1016	4	7.485	0.053	8550776	~~30.5~~	4	7.489	-0.049	22104751	~~19.0~~
Total Col1Ave (4 peaks):					~~14.9~~	Total Col2Ave (4 peaks):				~~7.5~~ RPD = 66*
Corrected Ave (3 peaks):					9.7	Corrected Ave (3 peaks):				3.6 RPD = 91*
Aroclor-1221	1	3.449	0.012	3337744	46.6	1	3.588	-0.004	3578071	16.5
Aroclor-1221	2	5.019	0.040	29239732	~~336.2~~	2	5.312	0.006	23233945	~~20.2~~
Aroclor-1221	3	5.116	0.031	490429	1.9	3	---			0.0
Aroclor-1221	NS	---			----	4	6.669	0.022	3677556	11.0
Total Col1Ave (3 peaks):					~~120.~~2	Total Col2Ave (3 peaks):				~~15.9~~ RPD = 156*
Corrected Ave: < 3 Peaks						Corrected Ave: < 3 Peaks				
Aroclor-1232	1	3.449	0.014	3337744	~~73.~~1	1	3.588	-0.003	3578071	~~26.0~~
Aroclor-1232	2	6.070	-0.001	1881330	17.0	2	5.998	-0.013	7104723	8.3
Aroclor-1232	3	6.437	-0.034	2275695	6.3	3	6.669	0.025	3677556	2.0
Aroclor-1232	4	6.726	-0.004	4541390	~~45.0~~	4	7.189	-0.007	1492116	3.9
Total Col1Ave (4 peaks):					~~35.~~3	Total Col2Ave (4 peaks):				~~10.0~~ RPD = 111*
Corrected Ave (3 peaks):					~~22.~~8	Corrected Ave (3 peaks):				4.7 RPD = 131*
Aroclor-1242	1	6.070	0.013	1881330	9.1	1	5.998	-0.011	7104723	4.8
Aroclor-1242	2	6.437	-0.021	2275695	3.3	2	6.669	0.028	3677556	1.0
Aroclor-1242	3	6.726	0.009	4541390	~~23.~~7	3	7.489	-0.048	22104751	~~19.~~7
Aroclor-1242	4	8.051	-0.034	3382377	~~13.~~8	4	8.411	0.008	333272	0.3
Total Col1Ave (4 peaks):					~~12.~~5	Total Col2Ave (4 peaks):				~~6.5~~ RPD = 64*
Corrected Ave (3 peaks):					8.7	Corrected Ave (3 peaks):				2.0 RPD = 124*
Aroclor-1248	1	6.960	-0.000	21211413	7~~9.8~~	1	6.669	0.033	3677556	1.8
Aroclor-1248	2	7.286	0.027	8990665	~~29.~~4	2	7.151	0.022	241471	0.2
Aroclor-1248	3	7.908	0.052	2775425	5.9	3	7.489	-0.048	22104751	~~14.~~6
Aroclor-1248	4	8.051	-0.038	3382377	9.4	4	8.013	0.025	14512205	8.1
Total Col1Ave (4 peaks):					~~31.1~~	Total Col2Ave (4 peaks):				~~6.2~~ RPD = 134*
Corrected Ave (3 peaks):					~~14.~~9	Corrected Ave (3 peaks):				3.4 RPD = 126*
Aroclor-1254	1	8.161	-0.012	7213772	12.5	1	8.264	-0.035	422155	0.2
Aroclor-1254	2	8.268	0.018	2284314	12.5	2	8.813	0.003	24146319	15.7
Aroclor-1254	3	8.564	0.021	2745460	7.5	3	8.951	-0.004	514519	0.2
Aroclor-1254	4	8.711	0.033	1308174	1.8	4	9.424	-0.003	830996	0.5
Aroclor-1254	5	9.719	0.012	934733	1.3	5	9.733	-0.001	922321	0.5
Total Col1Ave (5 peaks):					7.2	Total Col2Ave (5 peaks):				3.4 RPD = 71*
Corrected Ave (4 peaks):					5.8	Corrected Ave (4 peaks):				0.3 RPD = 178*
Aroclor-1260	1	9.954	0.020	791180	1.6	1	9.956	-0.007	1059137	0.5
Aroclor-1260	2	10.252	0.004	293761	0.6	2	10.499	-0.003	196464	0.1
Aroclor-1260	3	10.667	0.048	4008635	3.5	3	10.781	0.006	712502	0.2
Aroclor-1260	4	11.045	0.028	86622	0.2	4	11.233	-0.055	11472214	9.4
Aroclor-1260	5	11.186	-0.020	1133739	3.6	NS	---			----
Total Col1Ave (5 peaks):					1.9	Total Col2Ave (4 peaks):				2.5 RPD = 30
Corrected Ave (4 peaks):					1.5	Corrected Ave (3 peaks):				0.3 RPD = 140*
Aroclor-1262	1	9.954	0.011	791180	1.2	1	10.093	0.028	7450442	2.9
Aroclor-1262	2	10.252	-0.006	293761	0.5	2	10.507	-0.001	179422	0.1
Aroclor-1262	3	10.667	0.039	4008635	3.2	3	10.781	0.001	712502	0.2
Aroclor-1262	4	11.045	0.017	86622	0.2	4	11.347	-0.008	1133251	0.3
Aroclor-1262	5	11.186	-0.029	1133739	2.2	5	11.922	-0.018	27386892	35.2
Total Col1Ave (5 peaks):					1.5	Total Col2Ave (5 peaks):				7.7 RPD = 136*
Corrected Ave (4 peaks):					1.0	Corrected Ave (4 peaks):				0.9 RPD = 17
Aroclor-1268	1	11.107	-0.035	168143	0.1	1	11.347	0.052	1133251	0.2
Aroclor-1268	2	11.186	-0.027	1133739	0.8	2	---			0.0
Aroclor-1268	3	11.650	0.051	1180219	1.0	3	11.746	-0.007	1966445	0.5

Aroclor-1268	4	12.373	-0.010	994498	0.3	4	12.550	-0.018	671941	0.0

Total Col1Ave (4 peaks): 0.6 Total Col2Ave (3 peaks): 0.2 RPD = 82*

Corrected Ave (3 peaks): 0.4 Corrected Ave: < 3 Peaks

Total PCB Area Col1 (4.541 - 12.680) = 332902225 Col1 Total PCB = 0.1 ppm*

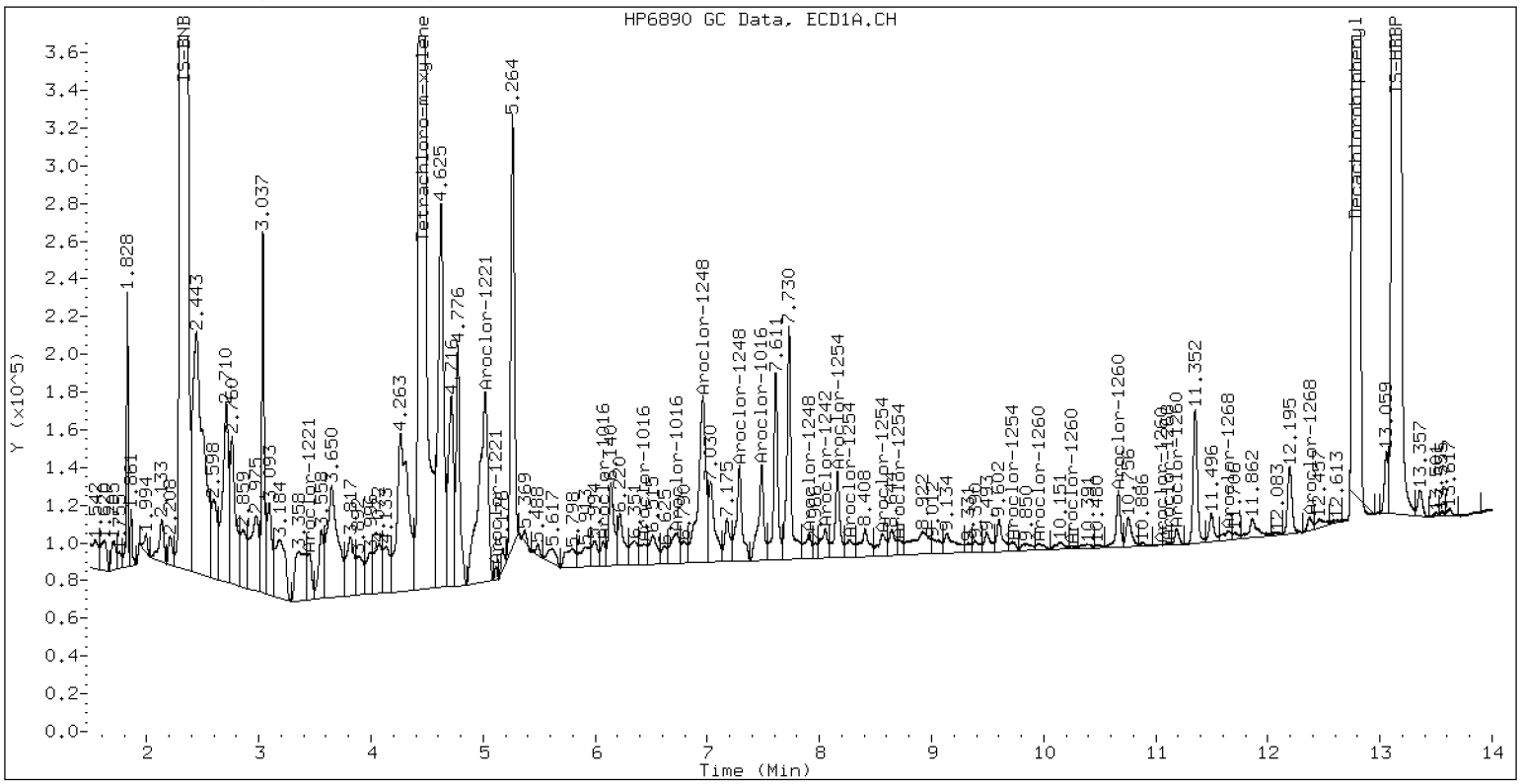
Total PCB Area Col2 (4.541 - 12.680) = 782006696 Col2 Total PCB = 0.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

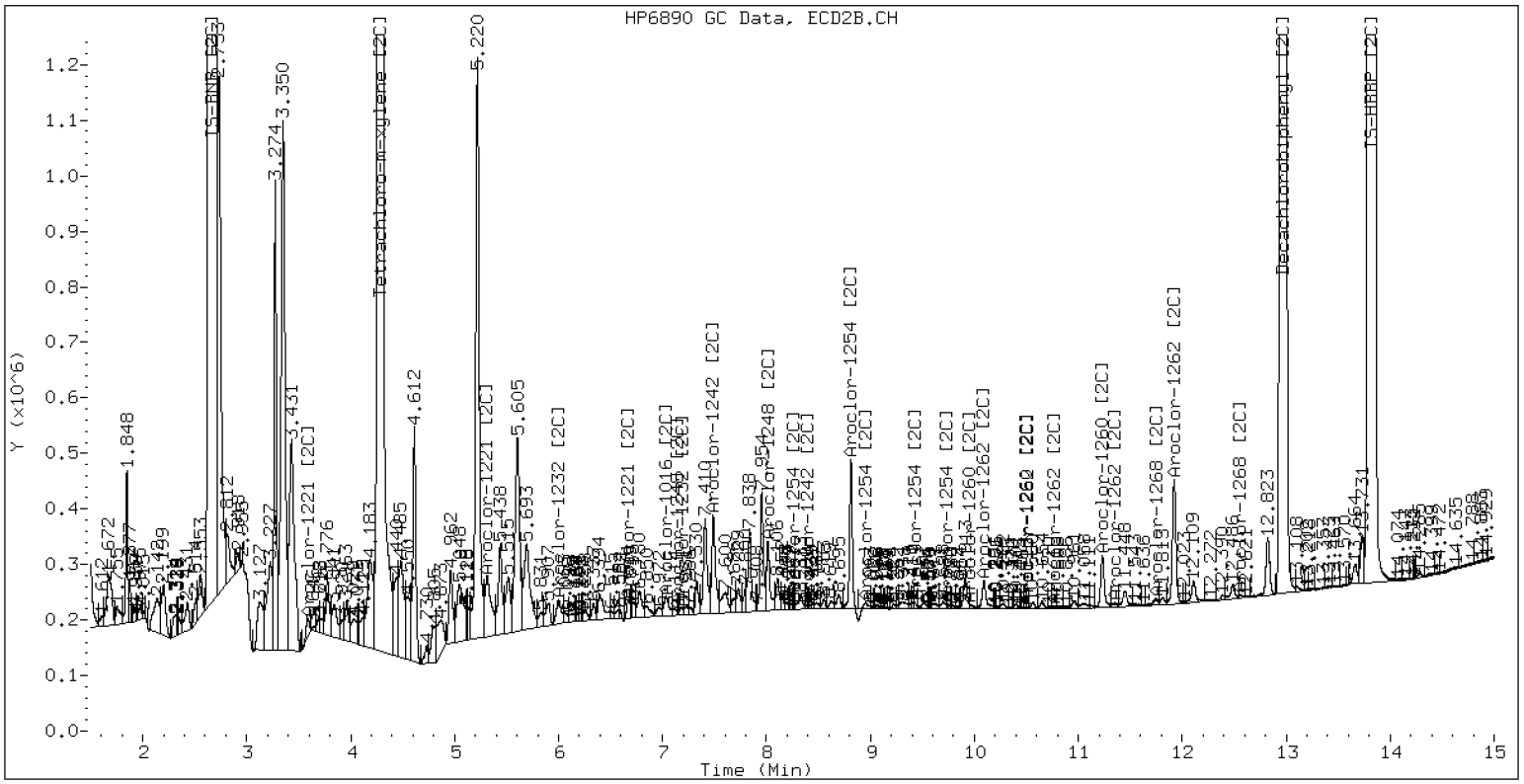
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062804.D BGF0512-BLK1 28-JUN-2018 07:51 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062804.D BGF0512-BLK1



ZB-35 Manual Integration: YES

LCS / LCS DUPLICATE RECOVERY

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/23/18 14:12
Batch:	BGF0415	Laboratory ID:	BGF0415-BS1
Preparation:	EPA 3510C SepF	Sequence Name:	LCS
Initial/Final:	1000 mL / 0.5 mL		

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	Q	LCS % REC. #	QC LIMITS REC.
Aroclor 1016	0.0500	0.057		115	54 - 120
Aroclor 1260	0.0500	0.051		103	51 - 128

* Indicates values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180623.b/18062305ECD5.D
Data file 2: /20180623.b/20180623.b/18062305ECD5.D
Method: ecd5.i\20180623.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, VTS
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: BGF0415-BS1
Client ID:
Injection Date: 23-JUN-2018 14:12
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.442	-0.005	327888396	4.285	-0.006	1202651817	29.8	26.7	10.9	Tetrachloro-m-xylene
12.783	-0.002	316504187	12.972	-0.002	1269707365	36.8	36.9	0.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	74.4	66.7
Decachlorobiphenyl	92.0	92.3

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	971626151	5.6
Hexabromobiphenyl	761926666	814849631	6.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4580988517	3.7
Hexabromobiphenyl	2171332320	2234841784	2.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.065	-0.004	32750646	128.3	1	6.007	-0.003	142213064	100.2
Aroclor-1016	2	6.463	-0.006	85052804	100.9	2	6.641	-0.002	297215823	91.1
Aroclor-1016	3	6.725	-0.003	25771709	110.2	3	7.020	-0.003	82187425	105.9
Aroclor-1016	4	7.435	-0.003	33237704	120.5	4	7.536	-0.002	112103365	121.9
Total Col1Ave (4 peaks):		114.9				Total Col2Ave (4 peaks):		104.8	RPD = 9	
Corrected Ave (3 peaks):		110.5				Corrected Ave (3 peaks):		99.1	RPD = 11	
Aroclor-1221	1	3.346	-0.091	9683332	137.5	1	3.584	-0.008	2952801	17.2
Aroclor-1221	2	4.981	0.002	24645469	288.2	2	5.300	-0.006	74535092	82.2
Aroclor-1221	3	5.076	-0.009	11908532	46.3	3	5.438	0.064	14818839	92.9
Aroclor-1221	NS	---			----	4	6.641	-0.006	297215823	1123.7
Total Col1Ave (3 peaks):		157.3				Total Col2Ave (4 peaks):		329.0	RPD = 71*	
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):		64.1		
Aroclor-1232	1	3.346	-0.089	9683332	215.7	1	3.584	-0.006	2952801	27.2
Aroclor-1232	2	6.065	-0.006	32750646	300.9	2	6.007	-0.004	142213064	209.3
Aroclor-1232	3	6.463	-0.007	85052804	238.6	3	6.641	-0.003	297215823	201.9
Aroclor-1232	4	6.725	-0.005	25771709	259.8	4	7.193	-0.003	65906045	219.1
Total Col1Ave (4 peaks):		253.7				Total Col2Ave (4 peaks):		164.4	RPD = 43*	
Corrected Ave (3 peaks):		238.0				Corrected Ave (3 peaks):		146.1	RPD = 48*	
Aroclor-1242	1	6.065	-0.004	32750646	160.4	1	6.007	-0.003	142213064	121.3
Aroclor-1242	2	6.463	-0.006	85052804	125.1	2	6.641	-0.002	297215823	106.9
Aroclor-1242	3	6.725	-0.004	25771709	136.6	3	7.536	-0.003	112103365	126.4
Aroclor-1242	4	8.097	0.002	5827847	24.3	4	8.401	-0.004	12042376	13.1
Total Col1Ave (4 peaks):		111.6				Total Col2Ave (4 peaks):		91.9	RPD = 19	
Corrected Ave (3 peaks):		95.3				Corrected Ave (3 peaks):		80.4	RPD = 17	
Aroclor-1248	1	6.961	-0.001	36780897	140.7	1	6.641	0.005	297215823	187.9
Aroclor-1248	2	7.263	0.002	43256750	143.8	2	7.128	-0.001	81768775	74.7
Aroclor-1248	3	7.867	0.008	21431757	46.2	3	7.536	-0.001	112103365	93.9
Aroclor-1248	4	8.097	0.004	5827847	16.6	4	7.986	-0.002	23537877	16.6
Total Col1Ave (4 peaks):		86.8				Total Col2Ave (4 peaks):		93.3	RPD = 7	
Corrected Ave (3 peaks):		67.8				Corrected Ave (3 peaks):		61.7	RPD = 9	
Aroclor-1254	1	8.175	-0.003	25005710	44.2	1	8.297	-0.000	61874042	37.6
Aroclor-1254	2	---			0.0	2	8.815	0.003	36118254	29.8
Aroclor-1254	3	8.546	-0.002	4260334	11.8	3	8.960	0.001	28806173	10.8
Aroclor-1254	4	8.669	-0.013	20248922	29.0	4	9.426	-0.001	221954248	185.8
Aroclor-1254	5	9.709	-0.004	80109074	115.6	5	9.741	0.009	62508660	40.9
Total Col1Ave (4 peaks):		50.2				Total Col2Ave (5 peaks):		61.0	RPD = 19	
Corrected Ave (3 peaks):		28.4				Corrected Ave (4 peaks):		29.8	RPD = 5	
Aroclor-1260	1	9.937	-0.002	44807371	100.5	1	9.963	-0.001	182274589	103.5
Aroclor-1260	2	10.252	-0.002	43971667	101.5	2	10.504	-0.001	159158460	102.0
Aroclor-1260	3	10.623	-0.002	111321124	105.6	3	10.775	-0.002	346839435	99.0
Aroclor-1260	4	11.021	-0.001	52689829	103.2	4	11.290	-0.002	98976315	97.9
Aroclor-1260	5	11.209	-0.002	29463692	102.4	NS	---			----
Total Col1Ave (5 peaks):		102.6				Total Col2Ave (4 peaks):		100.6	RPD = 2	
Corrected Ave (4 peaks):		101.9				Corrected Ave (3 peaks):		99.6	RPD = 2	
Aroclor-1262	1	9.937	-0.005	44807371	73.2	1	10.061	-0.004	153071580	71.0
Aroclor-1262	2	10.252	-0.006	43971667	87.4	2	10.504	-0.004	159158460	85.0
Aroclor-1262	3	10.623	-0.005	111321124	98.1	3	10.775	-0.005	346839435	88.6
Aroclor-1262	4	11.021	-0.006	52689829	138.3	4	11.346	-0.009	229063452	85.0
Aroclor-1262	5	11.209	-0.005	29463692	61.9	5	11.935	-0.006	55532503	85.9
Total Col1Ave (5 peaks):		91.8				Total Col2Ave (5 peaks):		83.1	RPD = 10	
Corrected Ave (4 peaks):		80.1				Corrected Ave (4 peaks):		81.7	RPD = 2	
Aroclor-1268	1	11.137	-0.006	25126497	18.8	1	11.290	-0.005	98976315	22.5
Aroclor-1268	2	11.209	-0.004	29463692	24.0	2	11.346	-0.015	229063452	50.0
Aroclor-1268	3	11.609	0.011	13124205	12.5	3	11.748	-0.005	9685993	2.7

Aroclor-1268	4	12.376	-0.008	8586968	2.7		4	12.562	-0.006	20150070	1.6
	Total Col1Ave (4 peaks):			14.5			Total Col2Ave (4 peaks):			19.2	RPD = 28
	Corrected Ave (3 peaks):			11.3			Corrected Ave (3 peaks):			8.9	RPD = 24

Total PCB Area Col1 (4.547 - 12.684) = 1415520563 Col1 Total PCB = 0.3 ppm*

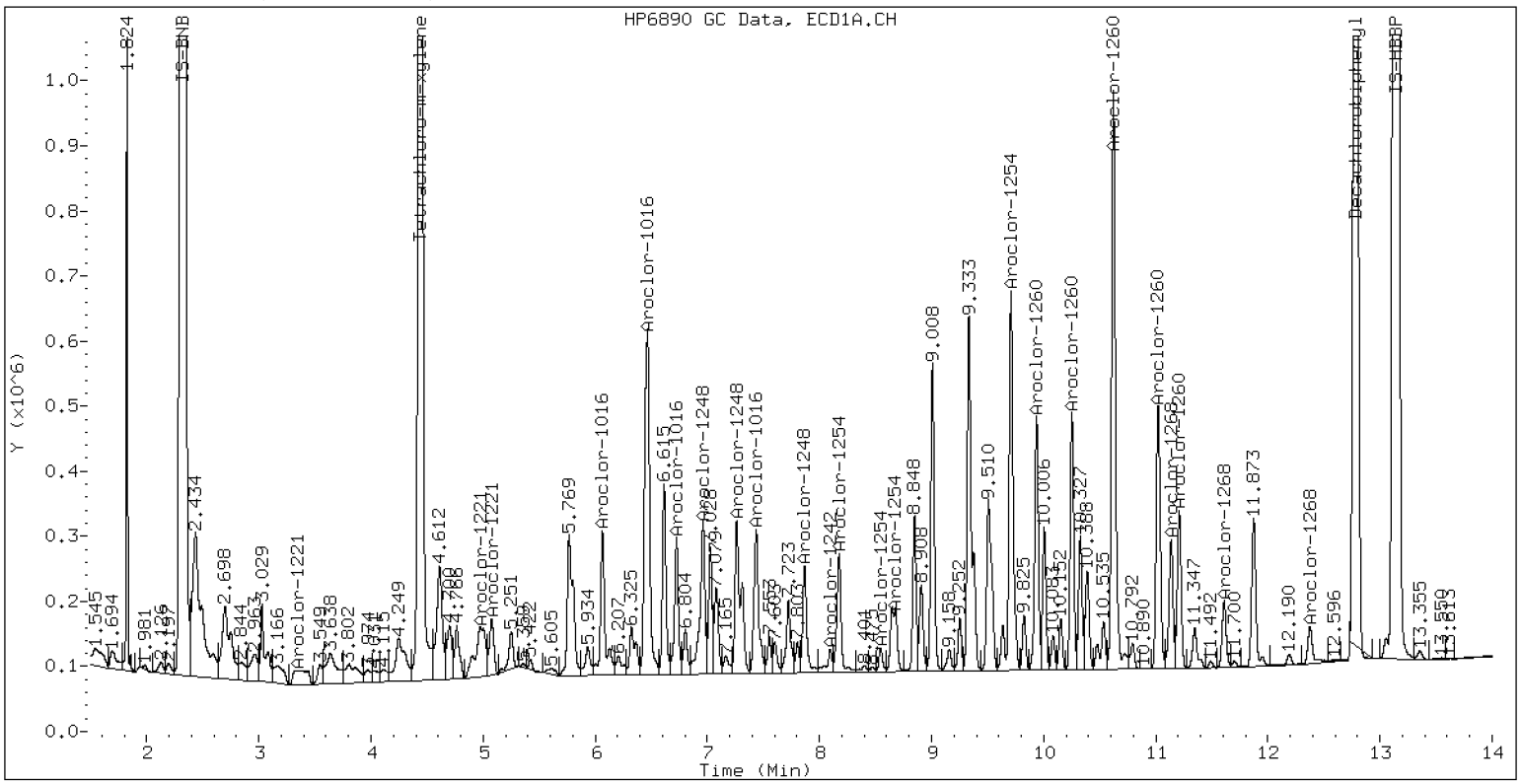
Total PCB Area Col2 (4.547 - 12.684) = 4684723015 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

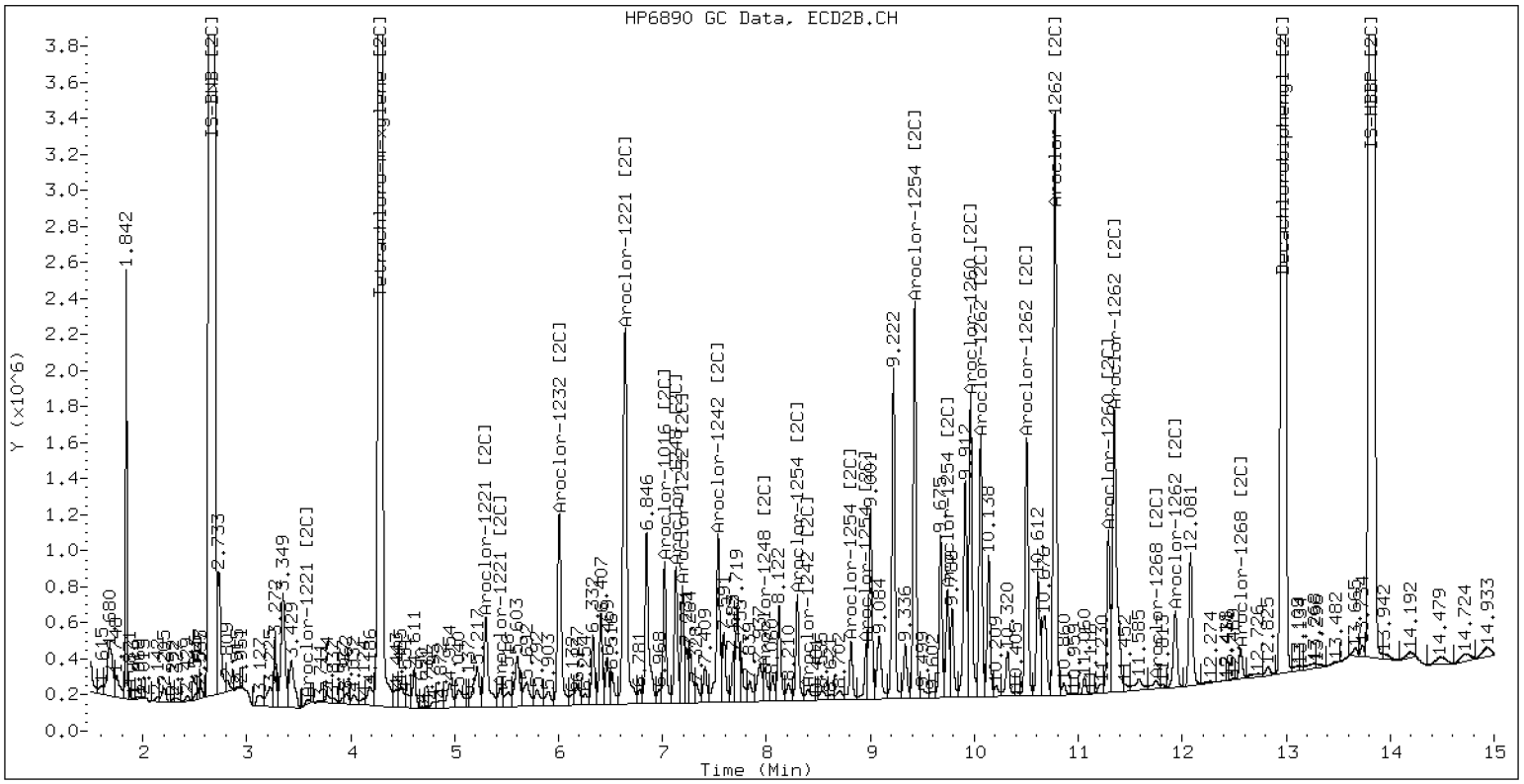
PCB Dual Column Chromatograms

ECD5-ZB5 /20180623.b/18062305ECD5.D BGF0415-BS1 23-JUN-2018 14:12 2ul VTS



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180623.b/20180623.b/18062305ECD5.D BGF0415-BS1



ZB-35 Manual Integration: NO

LCS / LCS DUPLICATE RECOVERY

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/25/18 15:23
Batch:	BGF0451	Laboratory ID:	BGF0451-BS1
Preparation:	EPA 3510C SepF	Sequence Name:	LCS
Initial/Final:	1000 mL / 0.5 mL		

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	Q	LCS % REC. #	QC LIMITS REC.
Aroclor 1016 [2C]	0.0500	0.052		103	54 - 120
Aroclor 1260 [2C]	0.0500	0.048		95.1	51 - 128

* Indicates values outside of QC limits

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	Q	LCSD % REC. #	% RPD #	QC LIMITS	
						RPD	REC.
Aroclor 1016	0.0500	0.046		92.0	11.1	30	54 - 120
Aroclor 1260 [2C]	0.0500	0.046		91.4	3.87	30	51 - 128

* Indicates values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180625.b/18062507ECD5.D
Data file 2: /20180625.b/20180625.b/18062507ECD5.D
Method: ecd5.i\20180625.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: BGF0541-BS1
Client ID:
Injection Date: 25-JUN-2018 15:23
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col RT	ZB5 Col Shift	ZB5 Col Response	ZB35 Col RT	ZB35 Col Shift	ZB35 Col Response	ZB5 on col	ZB35 on col	RPD	Compound/Flag
4.443	-0.005	298524825	4.288	-0.004	1082588747	25.5	22.9	10.6	Tetrachloro-m-xylene
12.781	-0.008	254738068	12.972	-0.001	1053229661	27.6	29.0	5.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	63.7	57.3
Decachlorobiphenyl	68.9	72.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1032578421	12.2
Hexabromobiphenyl	761926666	875728855	14.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4794584451	8.5
Hexabromobiphenyl	2171332320	2357153574	8.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.066	-0.006	24775593	91.3	1	6.008	-0.003	131190680	88.3
Aroclor-1016	2	6.470	-0.003	112688777	125.8	2	6.644	-0.000	267347777	78.3
Aroclor-1016	3	6.726	-0.006	23282553	93.6	3	7.022	-0.001	78070165	96.1
Aroclor-1016	4	7.436	-0.006	29383855	100.2	4	7.536	-0.003	144285445	149.9
Total Col1Ave (4 peaks):		102.7				Total Col2Ave (4 peaks):		103.2		RPD = 0
Corrected Ave (3 peaks):		95.1				Corrected Ave (3 peaks):		87.6		RPD = 8
Aroclor-1221	1	3.416	-0.021	26106831	348.9	1	3.581	-0.011	4035576	22.5
Aroclor-1221	2	4.979	-0.001	64718415	712.1	2	5.303	-0.003	56324455	59.3
Aroclor-1221	3	5.076	-0.009	11325236	41.4	3	5.363	-0.011	9258857	55.4
Aroclor-1221	NS	---			----	4	6.644	-0.002	267347777	965.8
Total Col1Ave (3 peaks):		367.4				Total Col2Ave (4 peaks):		275.7		RPD = 29
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):		45.7		
Aroclor-1232	1	3.416	-0.019	26106831	547.2	1	3.581	-0.010	4035576	35.5
Aroclor-1232	2	6.066	-0.005	24775593	214.2	2	6.008	-0.003	131190680	184.5
Aroclor-1232	3	6.470	-0.001	112688777	297.5	3	6.644	0.001	267347777	173.5
Aroclor-1232	4	6.726	-0.005	23282553	220.9	4	7.195	-0.002	58814037	186.8
Total Col1Ave (4 peaks):		319.9				Total Col2Ave (4 peaks):		145.1		RPD = 75*
Corrected Ave (3 peaks):		244.2				Corrected Ave (3 peaks):		131.2		RPD = 60*
Aroclor-1242	1	6.066	-0.007	24775593	114.2	1	6.008	-0.003	131190680	106.9
Aroclor-1242	2	6.470	-0.003	112688777	156.0	2	6.644	0.001	267347777	91.9
Aroclor-1242	3	6.726	-0.007	23282553	116.1	3	7.536	-0.003	144285445	155.4
Aroclor-1242	4	8.100	0.000	11562503	45.3	4	8.403	-0.003	14720974	15.4
Total Col1Ave (4 peaks):		107.9				Total Col2Ave (4 peaks):		92.4		RPD = 15
Corrected Ave (3 peaks):		91.9				Corrected Ave (3 peaks):		71.4		RPD = 25
Aroclor-1248	1	6.962	-0.008	36573941	131.6	1	6.644	0.004	267347777	161.5
Aroclor-1248	2	7.262	-0.007	25397902	79.4	2	7.130	-0.002	74885572	65.3
Aroclor-1248	3	7.866	0.000	20412249	41.4	3	7.536	-0.003	144285445	115.5
Aroclor-1248	4	8.100	-0.000	11562503	30.9	4	7.988	-0.002	27737486	18.7
Total Col1Ave (4 peaks):		70.8				Total Col2Ave (4 peaks):		90.2		RPD = 24
Corrected Ave (3 peaks):		50.6				Corrected Ave (3 peaks):		66.5		RPD = 27
Aroclor-1254	1	8.175	-0.006	26688428	44.4	1	8.298	0.002	70620601	41.0
Aroclor-1254	2	---			0.0	2	8.814	0.004	32061158	25.3
Aroclor-1254	3	8.546	-0.005	6253661	16.3	3	8.962	0.003	28573837	10.2
Aroclor-1254	4	8.674	-0.011	11209362	15.1	4	9.427	0.001	224364017	179.4
Aroclor-1254	5	9.707	-0.007	70938918	96.3	5	9.743	0.010	59181714	37.0
Total Col1Ave (4 peaks):		43.1				Total Col2Ave (5 peaks):		58.6		RPD = 31
Corrected Ave (3 peaks):		25.3				Corrected Ave (4 peaks):		28.4		RPD = 11
Aroclor-1260	1	9.936	-0.007	43671527	91.1	1	9.964	-0.001	178195335	95.9
Aroclor-1260	2	10.251	-0.007	42684769	91.7	2	10.504	-0.002	159163594	96.7
Aroclor-1260	3	10.622	-0.007	103697712	91.5	3	10.776	-0.002	351711915	95.1
Aroclor-1260	4	11.020	-0.007	48707126	88.7	4	11.290	-0.001	98537436	92.4
Aroclor-1260	5	11.207	-0.008	27173503	87.9	NS	---			----
Total Col1Ave (5 peaks):		90.2				Total Col2Ave (4 peaks):		95.1		RPD = 5
Corrected Ave (4 peaks):		89.8				Corrected Ave (3 peaks):		94.5		RPD = 5
Aroclor-1262	1	9.936	-0.006	43671527	66.4	1	10.061	-0.003	152826773	67.3
Aroclor-1262	2	10.251	-0.007	42684769	78.9	2	10.504	-0.005	159163594	80.6
Aroclor-1262	3	10.622	-0.006	103697712	85.0	3	10.776	-0.004	351711915	85.2
Aroclor-1262	4	11.020	-0.007	48707126	119.0	4	11.347	-0.008	229422891	80.8
Aroclor-1262	5	11.207	-0.007	27173503	53.1	5	11.933	-0.007	57340796	84.1
Total Col1Ave (5 peaks):		80.5				Total Col2Ave (5 peaks):		79.6		RPD = 1
Corrected Ave (4 peaks):		70.9				Corrected Ave (4 peaks):		78.2		RPD = 10
Aroclor-1268	1	11.135	-0.008	23262147	16.2	1	11.290	-0.004	98537436	21.2
Aroclor-1268	2	11.207	-0.006	27173503	20.6	2	11.347	-0.014	229422891	47.5
Aroclor-1268	3	11.608	0.010	12840578	11.4	3	11.749	-0.004	5598257	1.5

Aroclor-1268	4	12.375	-0.009	6204152	1.8	4	12.562	-0.005	17917854	1.4	
Total Col1Ave (4 peaks):		12.5			Total Col2Ave (4 peaks):		17.9		RPD =	36	
Corrected Ave (3 peaks):		9.8			Corrected Ave (3 peaks):		8.0		RPD =	20	

Total PCB Area Col1 (4.548 - 12.689) = 1570290353 Col1 Total PCB = 0.3 ppm*

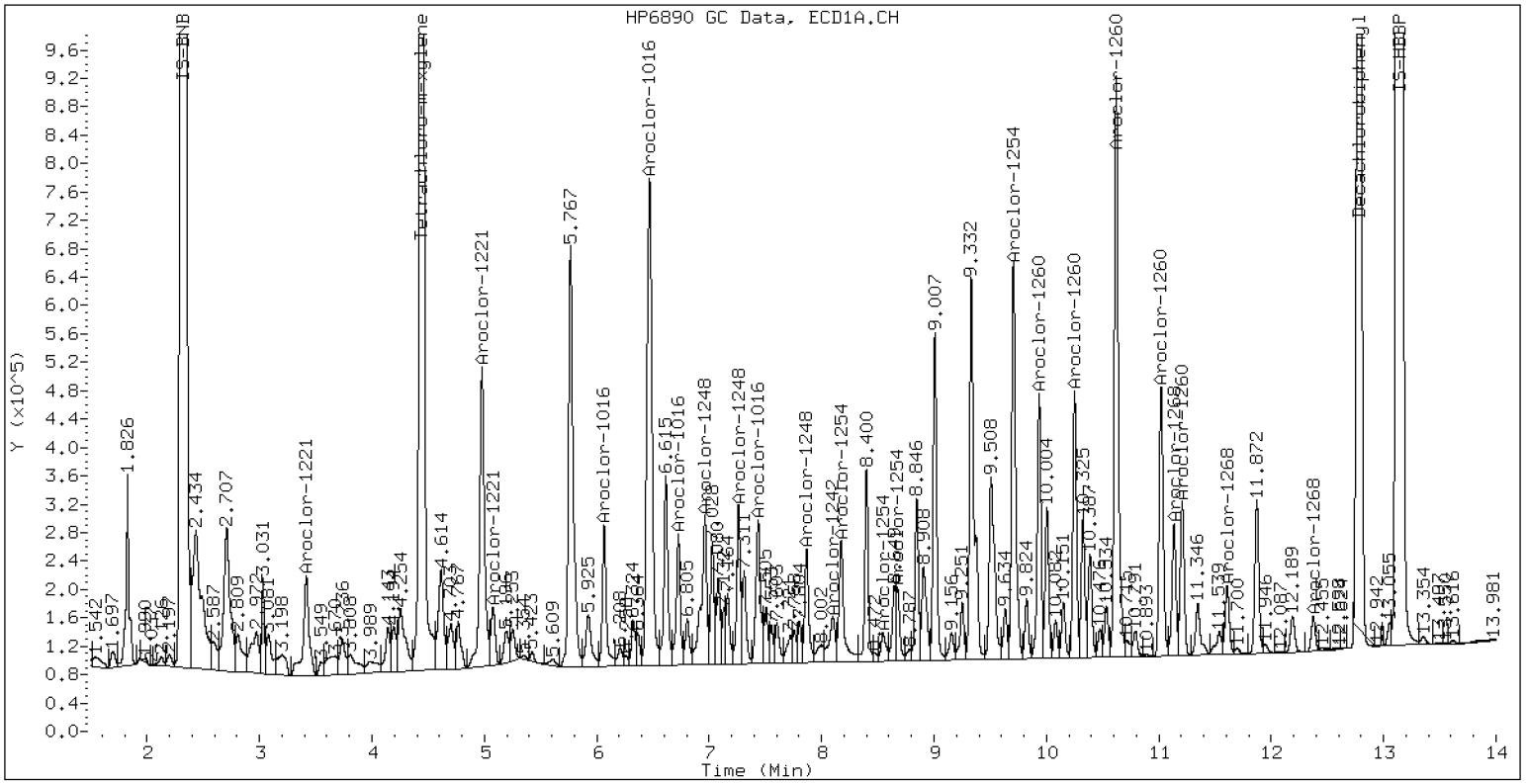
Total PCB Area Col2 (4.548 - 12.689) = 5136304055 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

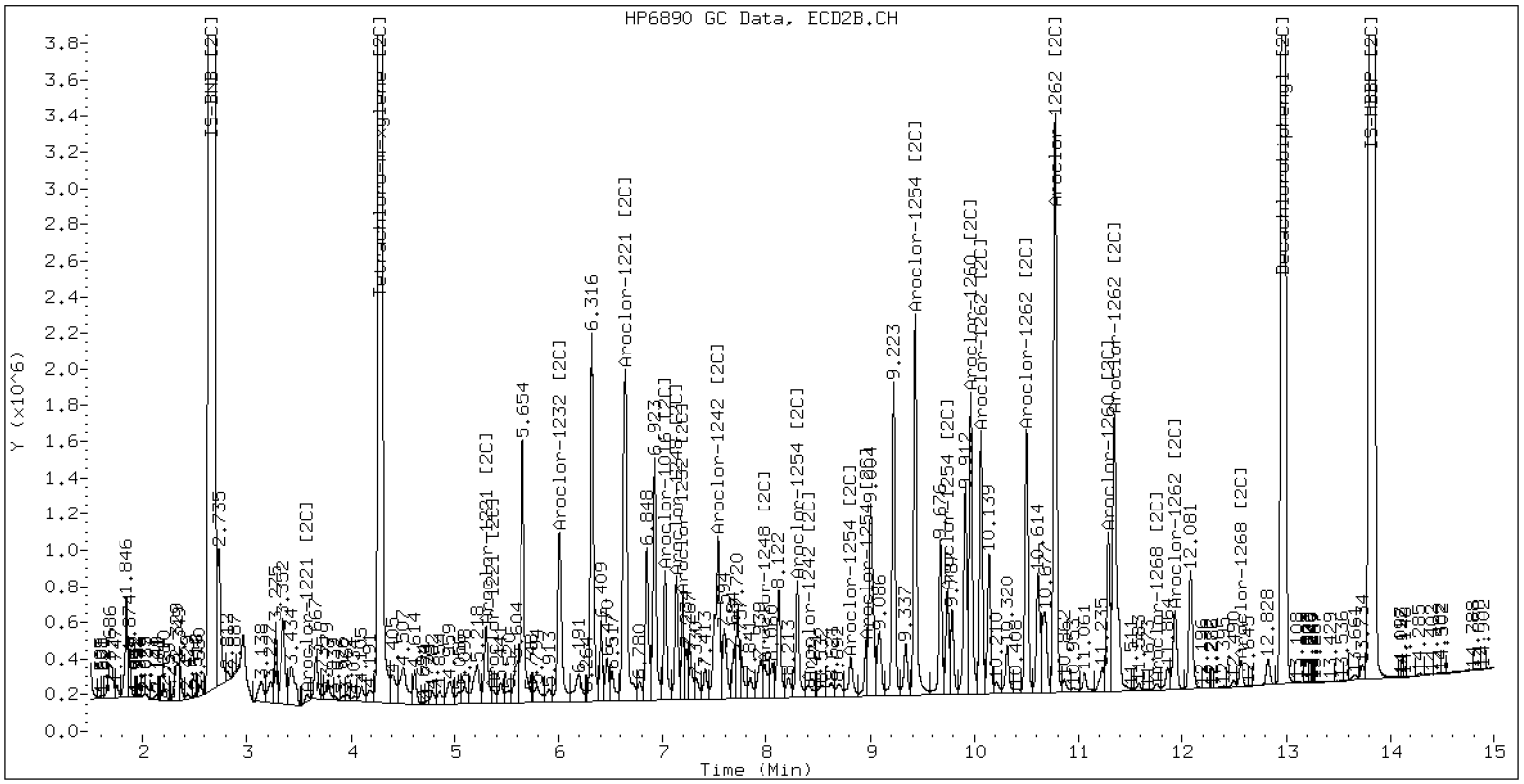
PCB Dual Column Chromatograms

ECD5-ZB5 /20180625.b/18062507ECD5.D BGF0541-BS1 25-JUN-2018 15:23 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180625.b/20180625.b/18062507ECD5.D BGF0541-BS1



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180625.b/18062508ECD5.D
Data file 2: /20180625.b/20180625.b/18062508ECD5.D
Method: ecd5.i\20180625.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: BGF0541-BSD1
Client ID:
Injection Date: 25-JUN-2018 15:43
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.444	-0.005	291191871	4.287	-0.005	1036295080	24.9	21.2	16.2	Tetrachloro-m-xylene
12.782	-0.007	261606910	12.973	-0.001	1088916520	27.6	29.1	5.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	62.3	53.0
Decachlorobiphenyl	69.1	72.7

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1029736599	11.9
Hexabromobiphenyl	761926666	897186227	17.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4964608588	12.4
Hexabromobiphenyl	2171332320	2431360424	12.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.066	-0.006	24567603	90.8	1	6.008	-0.003	125791226	81.8
Aroclor-1016	2	6.466	-0.006	76225711	85.3	2	6.642	-0.002	253526450	71.7
Aroclor-1016	3	6.726	-0.006	22614398	91.2	3	7.022	-0.001	70700132	84.1
Aroclor-1016	4	7.436	-0.006	29404866	100.6	4	7.537	-0.002	99283525	99.6
	Total Col1Ave (4 peaks):				92.0	Total Col2Ave (4 peaks):				84.3 RPD = 9
	Corrected Ave (3 peaks):				89.1	Corrected Ave (3 peaks):				79.2 RPD = 12
Aroclor-1221	1	3.422	-0.015	5798212	77.7	1	3.591	-0.001	2497197	13.4
Aroclor-1221	2	4.993	0.013	20074574	221.5	2	5.303	-0.003	65700497	66.8
Aroclor-1221	3	5.077	-0.008	9695135	35.5	3	5.441	0.067	13350244	77.2
Aroclor-1221	NS	---			----	4	6.642	-0.005	253526450	884.5
	Total Col1Ave (3 peaks):				111.6	Total Col2Ave (4 peaks):				260.5 RPD = 80*
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				52.5
Aroclor-1232	1	3.422	-0.013	5798212	121.9	1	3.591	0.001	2497197	21.2
Aroclor-1232	2	6.066	-0.005	24567603	213.0	2	6.008	-0.003	125791226	170.9
Aroclor-1232	3	6.466	-0.004	76225711	201.8	3	6.642	-0.002	253526450	158.9
Aroclor-1232	4	6.726	-0.005	22614398	215.1	4	7.195	-0.002	57335979	175.9
	Total Col1Ave (4 peaks):				187.9	Total Col2Ave (4 peaks):				131.7 RPD = 35
	Corrected Ave (3 peaks):				178.9	Corrected Ave (3 peaks):				117.0 RPD = 42*
Aroclor-1242	1	6.066	-0.007	24567603	113.5	1	6.008	-0.003	125791226	99.0
Aroclor-1242	2	6.466	-0.006	76225711	105.8	2	6.642	-0.002	253526450	84.2
Aroclor-1242	3	6.726	-0.007	22614398	113.1	3	7.537	-0.002	99283525	103.3
Aroclor-1242	4	8.097	-0.003	4003922	15.7	4	8.403	-0.003	14295457	14.4
	Total Col1Ave (4 peaks):				87.0	Total Col2Ave (4 peaks):				75.2 RPD = 15
	Corrected Ave (3 peaks):				78.2	Corrected Ave (3 peaks):				65.8 RPD = 17
Aroclor-1248	1	6.962	-0.007	32712683	118.1	1	6.642	0.002	253526450	147.9
Aroclor-1248	2	7.263	-0.005	25420852	79.7	2	7.130	-0.002	71382532	60.1
Aroclor-1248	3	7.867	0.001	18633549	37.9	3	7.537	-0.002	99283525	76.7
Aroclor-1248	4	8.097	-0.003	4003922	10.7	4	7.988	-0.002	25633014	16.7
	Total Col1Ave (4 peaks):				61.6	Total Col2Ave (4 peaks):				75.4 RPD = 20
	Corrected Ave (3 peaks):				42.8	Corrected Ave (3 peaks):				51.2 RPD = 18
Aroclor-1254	1	8.175	-0.005	22046748	36.8	1	8.299	0.003	57293255	32.1
Aroclor-1254	2	8.252	-0.005	1588667	8.4	2	8.815	0.005	21379680	16.3
Aroclor-1254	3	8.546	-0.005	4906241	12.9	3	8.961	0.003	23506141	8.1
Aroclor-1254	4	8.676	-0.009	10651094	14.4	4	9.427	0.001	202794432	156.6
Aroclor-1254	5	9.708	-0.006	70355083	95.8	5	9.743	0.010	56567168	34.1
	Total Col1Ave (5 peaks):				33.6	Total Col2Ave (5 peaks):				49.5 RPD = 38
	Corrected Ave (4 peaks):				18.1	Corrected Ave (4 peaks):				22.7 RPD = 22
Aroclor-1260	1	9.937	-0.006	43456901	88.5	1	9.965	-0.001	173815398	90.7
Aroclor-1260	2	10.252	-0.006	42252909	88.6	2	10.504	-0.001	156293202	92.1
Aroclor-1260	3	10.621	-0.008	100452709	86.5	3	10.775	-0.002	360666768	94.6
Aroclor-1260	4	11.020	-0.007	48871229	86.9	4	11.290	-0.001	97225740	88.4
Aroclor-1260	5	11.209	-0.007	27106192	85.6	NS	---			----
	Total Col1Ave (5 peaks):				87.2	Total Col2Ave (4 peaks):				91.4 RPD = 5
	Corrected Ave (4 peaks):				86.9	Corrected Ave (3 peaks):				90.4 RPD = 4
Aroclor-1262	1	9.937	-0.005	43456901	64.5	1	10.062	-0.003	147500723	62.9
Aroclor-1262	2	10.252	-0.006	42252909	76.3	2	10.504	-0.004	156293202	76.7
Aroclor-1262	3	10.621	-0.007	100452709	80.4	3	10.775	-0.005	360666768	84.7
Aroclor-1262	4	11.020	-0.007	48871229	116.5	4	11.347	-0.008	227155253	77.5
Aroclor-1262	5	11.209	-0.006	27106192	51.7	5	11.933	-0.008	59195835	84.1
	Total Col1Ave (5 peaks):				77.9	Total Col2Ave (5 peaks):				77.2 RPD = 1
	Corrected Ave (4 peaks):				68.2	Corrected Ave (4 peaks):				75.3 RPD = 10
Aroclor-1268	1	11.135	-0.008	23394741	15.9	1	11.290	-0.004	97225740	20.3
Aroclor-1268	2	11.209	-0.005	27106192	20.1	2	11.347	-0.014	227155253	45.6
Aroclor-1268	3	11.609	0.010	12942762	11.2	3	11.751	-0.003	3774946	1.0

Aroclor-1268	4	12.375	-0.008	6558441	1.9	4	12.563	-0.004	17733873	1.3	
Total Col1Ave (4 peaks):		12.3			Total Col2Ave (4 peaks):		17.0		RPD =	33	
Corrected Ave (3 peaks):		9.6			Corrected Ave (3 peaks):		7.5		RPD =	25	

Total PCB Area Col1 (4.548 - 12.689) = 1327522376 Col1 Total PCB = 0.2 ppm*

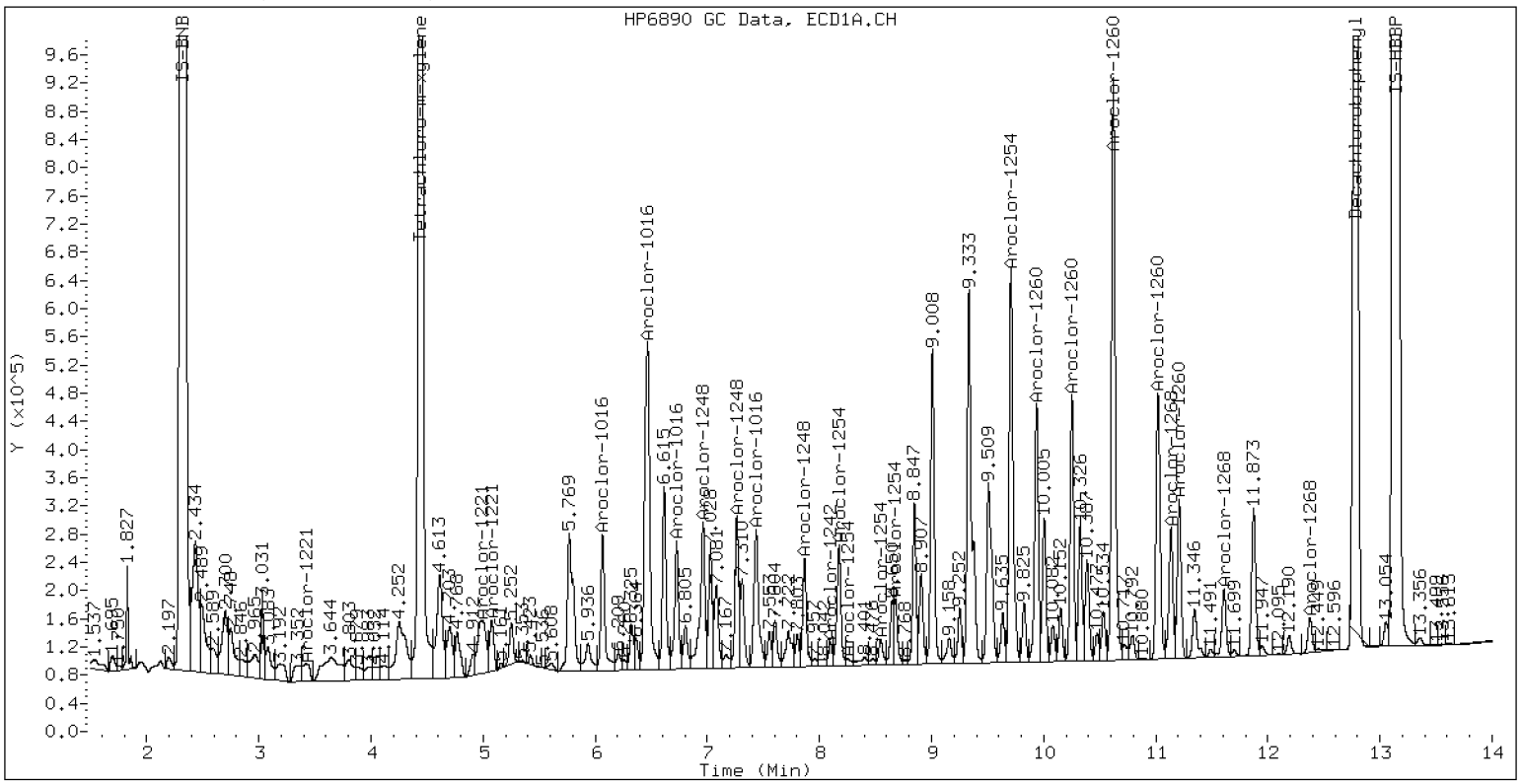
Total PCB Area Col2 (4.548 - 12.689) = 4320749508 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

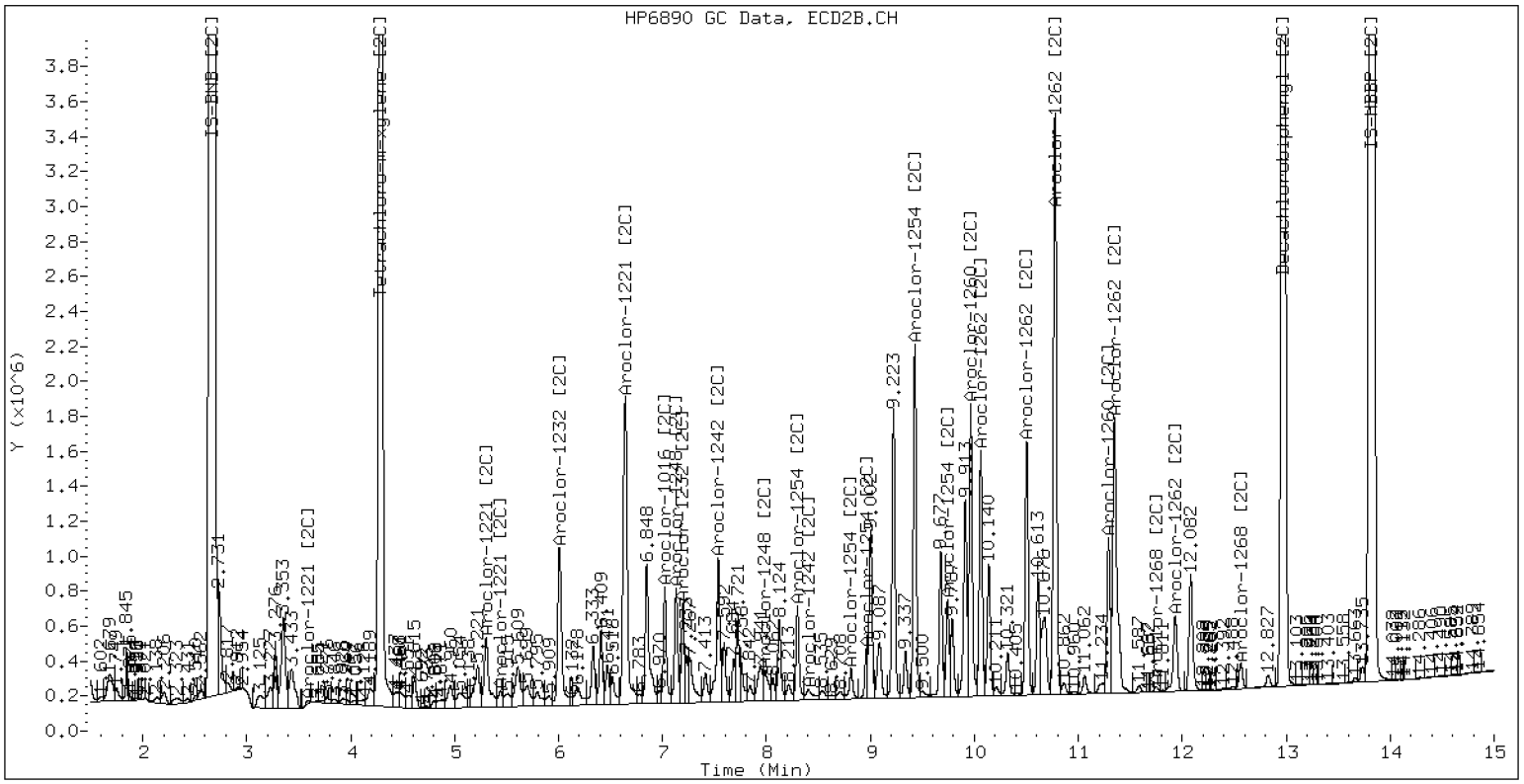
PCB Dual Column Chromatograms

ECD5-ZB5 /20180625.b/18062508ECD5.D BGF0541-BSD1 25-JUN-2018 15:43 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180625.b/20180625.b/18062508ECD5.D BGF0541-BSD1



ZB-35 Manual Integration: NO

LCS / LCS DUPLICATE RECOVERY

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/28/18 08:11
Batch:	BGF0512	Laboratory ID:	BGF0512-BS1
Preparation:	EPA 3510C SepF	Sequence Name:	LCS
Initial/Final:	1000 mL / 0.5 mL		

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	Q	LCS % REC. #	QC LIMITS REC.
Aroclor 1016	0.0500	0.059		117	54 - 120
Aroclor 1260 [2C]	0.0500	0.058		116	51 - 128

* Indicates values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062805.D
Data file 2: /20180628.b/20180628.b/18062805.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: BGF0512-BS1
Client ID:
Injection Date: 28-JUN-2018 08:11
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.443	0.002	327762543	4.285	-0.005	1271743783	29.2	24.5	17.8	Tetrachloro-m-xylene
12.780	0.001	329821756	12.970	-0.001	1615514840	35.4	39.7	11.4	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	73.1	61.1
Decachlorobiphenyl	88.4	99.2

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	988983766	7.5
Hexabromobiphenyl	761926666	883419202	15.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5282315803	19.6
Hexabromobiphenyl	2171332320	2646285766	21.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.064	0.001	27483549	105.8	1	6.004	-0.005	156035533	95.3
Aroclor-1016	2	6.464	0.002	94290757	109.9	2	6.641	0.008	356494587	94.8
Aroclor-1016	3	6.723	0.001	28188724	118.4	3	7.019	-0.003	94765121	105.9
Aroclor-1016	4	7.433	0.001	37950718	135.1	4	7.535	-0.003	131912780	124.4
Total Col1Ave (4 peaks):		117.3				Total Col2Ave (4 peaks):			105.1	RPD = 11
Corrected Ave (3 peaks):		111.3				Corrected Ave (3 peaks):			98.7	RPD = 12
Aroclor-1221	1	3.433	-0.004	5941987	82.9	1	3.588	-0.004	3706605	18.7
Aroclor-1221	2	4.972	-0.007	15655747	179.8	2	5.301	-0.005	75986372	72.6
Aroclor-1221	3	5.076	-0.009	12506607	47.7	3	5.360	-0.014	6774602	36.8
Aroclor-1221	NS	---			----	4	6.641	-0.006	356494587	1168.9
Total Col1Ave (3 peaks):		103.5				Total Col2Ave (4 peaks):			324.3	RPD = 103*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):			42.7	
Aroclor-1232	1	3.433	-0.003	5941987	130.0	1	3.588	-0.003	3706605	29.6
Aroclor-1232	2	6.064	-0.008	27483549	248.1	2	6.004	-0.006	156035533	199.2
Aroclor-1232	3	6.464	-0.006	94290757	259.9	3	6.641	-0.003	356494587	210.0
Aroclor-1232	4	6.723	-0.008	28188724	279.2	4	7.192	-0.004	78358633	225.9
Total Col1Ave (4 peaks):		229.3				Total Col2Ave (4 peaks):			166.2	RPD = 32
Corrected Ave (3 peaks):		212.7				Corrected Ave (3 peaks):			146.3	RPD = 37
Aroclor-1242	1	6.064	0.006	27483549	132.2	1	6.004	-0.005	156035533	115.4
Aroclor-1242	2	6.464	0.007	94290757	136.3	2	6.641	-0.001	356494587	111.2
Aroclor-1242	3	6.723	0.005	28188724	146.8	3	7.535	-0.003	131912780	129.0
Aroclor-1242	4	8.095	0.010	4893461	20.0	4	8.399	-0.005	9784321	9.3
Total Col1Ave (4 peaks):		108.8				Total Col2Ave (4 peaks):			91.2	RPD = 18
Corrected Ave (3 peaks):		96.2				Corrected Ave (3 peaks):			78.6	RPD = 20
Aroclor-1248	1	6.959	-0.001	42371477	159.2	1	6.641	0.004	356494587	195.4
Aroclor-1248	2	7.260	0.001	29791957	97.3	2	7.126	-0.003	94509642	74.8
Aroclor-1248	3	7.864	0.008	23705592	50.2	3	7.535	-0.002	131912780	95.8
Aroclor-1248	4	8.095	0.005	4893461	13.7	4	7.984	-0.004	28630421	17.5
Total Col1Ave (4 peaks):		80.1				Total Col2Ave (4 peaks):			95.9	RPD = 18
Corrected Ave (3 peaks):		53.7				Corrected Ave (3 peaks):			62.7	RPD = 15
Aroclor-1254	1	8.173	-0.000	26501772	46.1	1	8.295	-0.004	78235234	41.2
Aroclor-1254	2	8.252	0.002	2173286	11.9	2	8.813	0.002	36251092	25.9
Aroclor-1254	3	8.543	0.000	5740549	15.7	3	8.958	0.002	32109777	10.4
Aroclor-1254	4	8.675	-0.003	13112689	18.5	4	9.425	-0.002	288828089	209.7
Aroclor-1254	5	9.706	-0.001	87137667	123.5	5	9.739	0.004	78686729	44.6
Total Col1Ave (5 peaks):		43.1				Total Col2Ave (5 peaks):			66.4	RPD = 42*
Corrected Ave (4 peaks):		23.0				Corrected Ave (4 peaks):			30.5	RPD = 28
Aroclor-1260	1	9.935	0.001	52983340	109.6	1	9.962	-0.001	250070373	119.9
Aroclor-1260	2	10.250	0.002	50950062	108.4	2	10.502	-0.000	208988889	113.1
Aroclor-1260	3	10.620	0.002	124247683	108.7	3	10.773	-0.003	491856856	118.5
Aroclor-1260	4	11.018	0.001	59178920	106.9	4	11.288	-0.001	133082129	111.2
Aroclor-1260	5	11.207	0.002	33078775	106.1	NS	---			----
Total Col1Ave (5 peaks):		107.9				Total Col2Ave (4 peaks):			115.7	RPD = 7
Corrected Ave (4 peaks):		107.5				Corrected Ave (3 peaks):			114.3	RPD = 6
Aroclor-1262	1	9.935	-0.007	52983340	79.8	1	10.058	-0.007	207528948	81.3
Aroclor-1262	2	10.250	-0.008	50950062	93.4	2	10.502	-0.006	208988889	94.2
Aroclor-1262	3	10.620	-0.008	124247683	100.9	3	10.773	-0.007	491856856	106.1
Aroclor-1262	4	11.018	-0.009	59178920	143.3	4	11.343	-0.012	315561595	98.9
Aroclor-1262	5	11.207	-0.008	33078775	64.1	5	11.931	-0.009	73773282	96.3
Total Col1Ave (5 peaks):		96.3				Total Col2Ave (5 peaks):			95.4	RPD = 1
Corrected Ave (4 peaks):		84.6				Corrected Ave (4 peaks):			92.7	RPD = 9
Aroclor-1268	1	11.134	-0.009	28467119	19.6	1	11.288	-0.007	133082129	25.5
Aroclor-1268	2	11.207	-0.006	33078775	24.9	2	11.343	-0.019	315561595	58.2
Aroclor-1268	3	11.607	0.008	15257596	13.4	3	11.746	-0.008	5304076	1.2

Aroclor-1268	4	12.373	-0.011	8457032	2.5		4	12.559	-0.008	24499428	1.7
	Total Col1Ave (4 peaks):			15.1			Total Col2Ave (4 peaks):			21.7	RPD = 36
	Corrected Ave (3 peaks):			11.8			Corrected Ave (3 peaks):			9.5	RPD = 22

Total PCB Area Col1 (4.541 - 12.680) = 1636667513 Col1 Total PCB = 0.3 ppm*

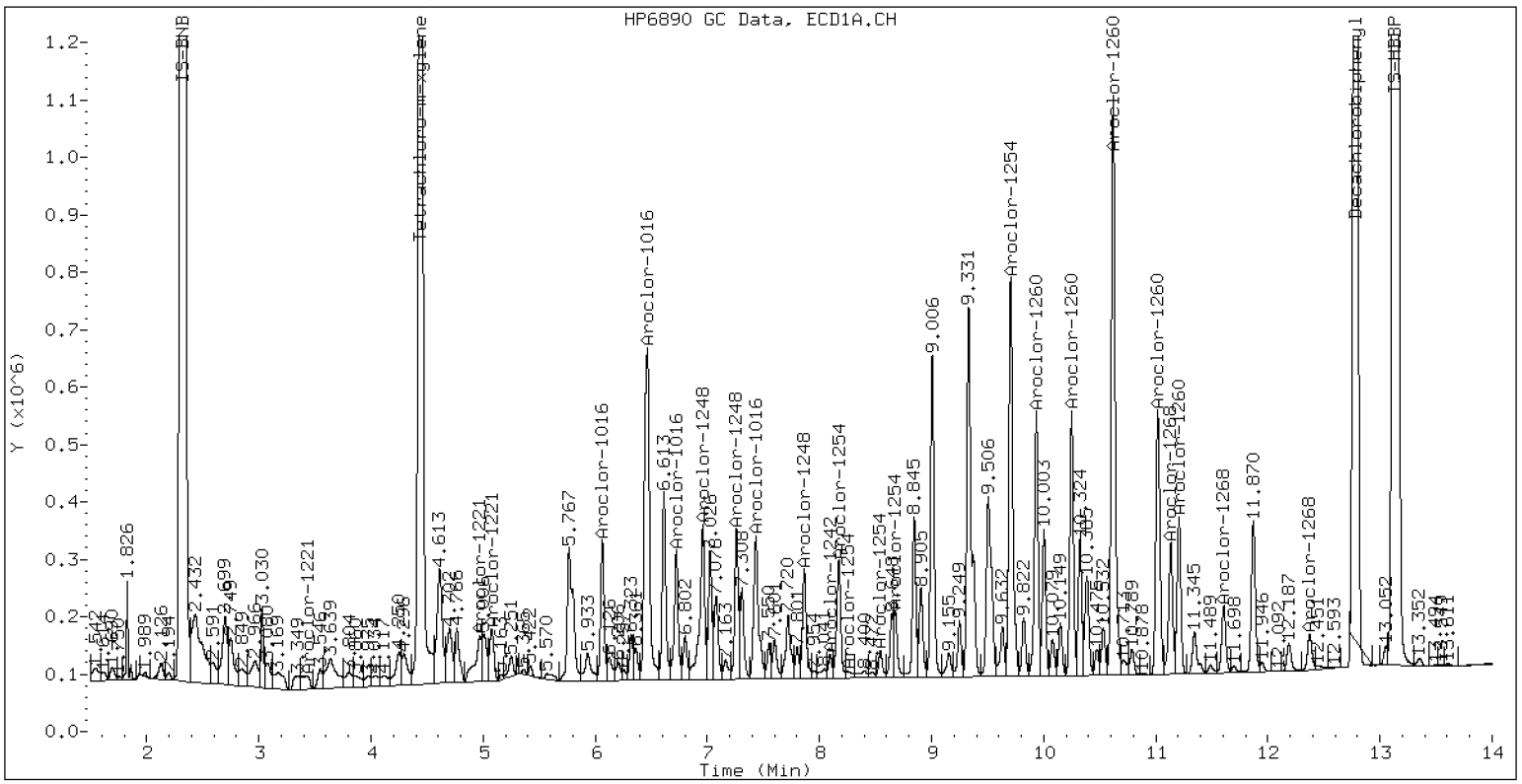
Total PCB Area Col2 (4.541 - 12.680) = 5710278122 Col2 Total PCB = 0.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

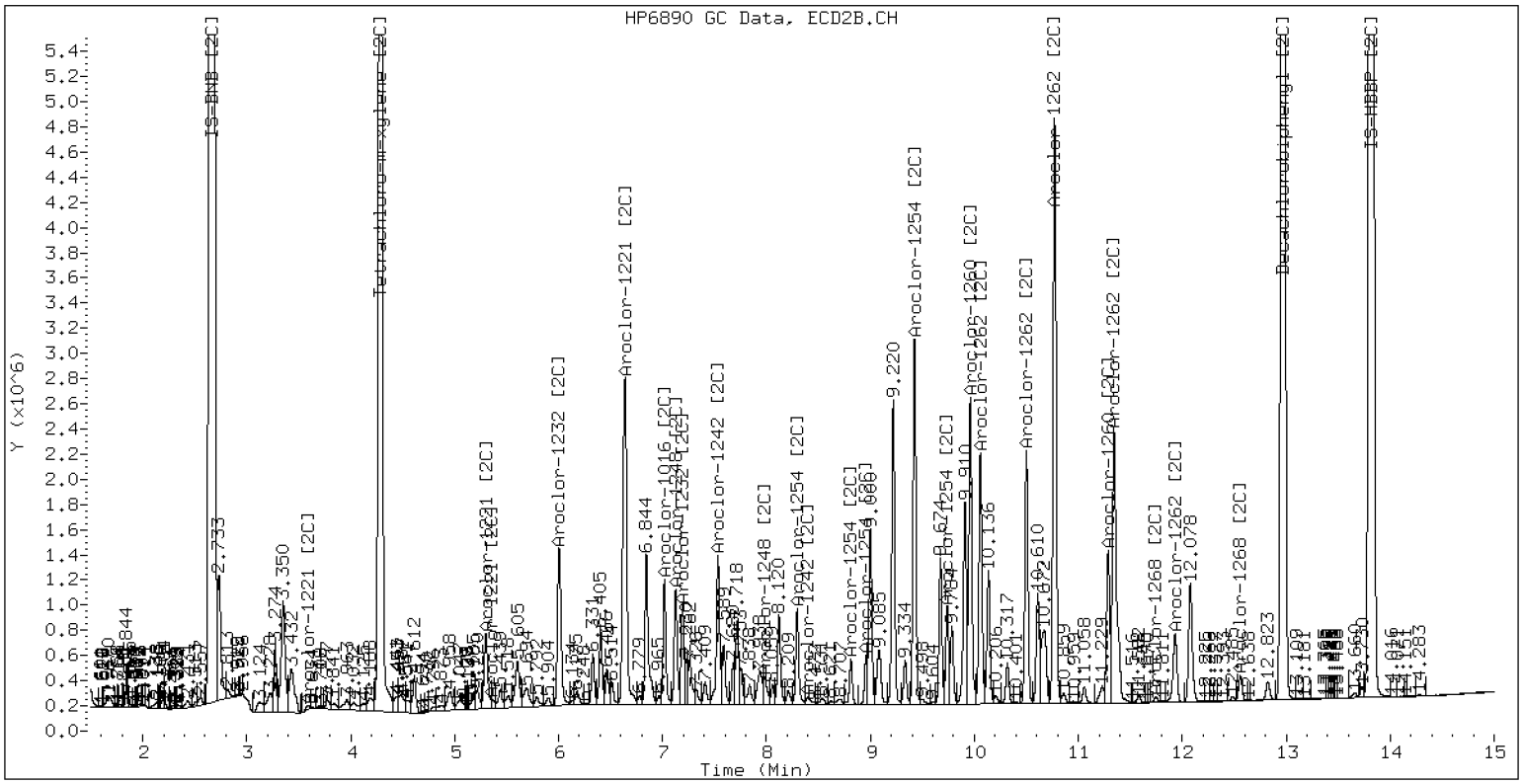
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062805.D BGF0512-BS1 28-JUN-2018 08:11 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062805.D BGF0512-BS1



ZB-35 Manual Integration: YES

MS / MS DUPLICATE RECOVERY
EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/23/18 16:55
Batch:	BGF0415	Laboratory ID:	BGF0415-MS1
Preparation:	EPA 3510C SepF	Sequence Name:	Matrix Spike
Initial/Final:	1000 mL / 0.5 mL	Source Sample:	LDW18-SP-43

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	Q	MS CONCENTRATION (ug/L)	Q	MS % REC. #	QC LIMITS REC.
Aroclor 1016 [2C]	0.0500	ND	U	0.053		106	54 - 120
Aroclor 1260	0.0500	ND	U	0.053		106	51 - 128

* Values outside of QC limits

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.

MS / MS DUPLICATE RECOVERY
EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/23/18 17:15
Batch:	BGF0415	Laboratory ID:	BGF0415-MSD1
Preparation:	EPA 3510C SepF	Sequence Name:	Matrix Spike Dup
Initial/Final:	1000 mL / 0.5 mL	Source Sample:	LDW18-SP-43

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	Q	MSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor 1016 [2C]	0.0500	0.055		110	4.86	30	54 - 120
Aroclor 1260 [2C]	0.0500	0.054		108	1.57	30	51 - 128

* Values outside of QC limits

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180623.b/18062313ECD5.D
Data file 2: /20180623.b/20180623.b/18062313ECD5.D
Method: ecd5.i\20180623.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, VTS
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: BGF0415-MS1
Client ID:
Injection Date: 23-JUN-2018 16:55
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.443	-0.004	309536409	4.285	-0.006	1153608861	28.6	25.3	12.2	Tetrachloro-m-xylene
12.783	-0.001	330144712	12.973	-0.000	1428087961	36.4	36.9	1.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	71.5	63.3
Decachlorobiphenyl	90.9	92.1

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	954276858	3.7
Hexabromobiphenyl	761926666	860147224	12.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4630137694	4.8
Hexabromobiphenyl	2171332320	2517944749	16.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.065	-0.004	22136337	88.3	1	6.006	-0.003	138693607	96.7
Aroclor-1016	2	6.466	-0.003	78968320	95.4	2	6.641	-0.002	289671439	87.9
Aroclor-1016	3	6.726	-0.001	21929050	95.4	3	7.020	-0.003	86498833	110.3
Aroclor-1016	4	7.437	-0.001	31394660	115.9	4	7.535	-0.002	117623829	126.6
Total Col1Ave (4 peaks):					98.7	Total Col2Ave (4 peaks):				105.4 RPD = 6
Corrected Ave (3 peaks):					93.0	Corrected Ave (3 peaks):				98.3 RPD = 5
Aroclor-1221	1	3.438	0.001	3406598	49.3	1	3.586	-0.006	3804109	21.9
Aroclor-1221	2	4.998	0.018	21637072	257.6	2	5.301	-0.005	74507114	81.3
Aroclor-1221	3	5.077	-0.008	10728492	42.4	3	5.439	0.066	15207388	94.3
Aroclor-1221	NS	---			----	4	6.641	-0.006	289671439	1083.6
Total Col1Ave (3 peaks):					116.4	Total Col2Ave (4 peaks):				320.3 RPD = 93*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				65.8
Aroclor-1232	1	3.438	0.003	3406598	77.3	1	3.586	-0.005	3804109	34.7
Aroclor-1232	2	6.065	-0.006	22136337	207.1	2	6.006	-0.005	138693607	202.0
Aroclor-1232	3	6.466	-0.004	78968320	225.6	3	6.641	-0.003	289671439	194.7
Aroclor-1232	4	6.726	-0.004	21929050	225.1	4	7.193	-0.003	69001013	226.9
Total Col1Ave (4 peaks):					183.7	Total Col2Ave (4 peaks):				164.6 RPD = 11
Corrected Ave (3 peaks):					169.8	Corrected Ave (3 peaks):				143.8 RPD = 17
Aroclor-1242	1	6.065	-0.004	22136337	110.4	1	6.006	-0.004	138693607	117.0
Aroclor-1242	2	6.466	-0.003	78968320	118.3	2	6.641	-0.002	289671439	103.1
Aroclor-1242	3	6.726	-0.002	21929050	118.3	3	7.535	-0.003	117623829	131.2
Aroclor-1242	4	8.095	-0.001	4741521	20.1	4	8.401	-0.004	28112796	30.4
Total Col1Ave (4 peaks):					91.8	Total Col2Ave (4 peaks):				95.4 RPD = 4
Corrected Ave (3 peaks):					82.9	Corrected Ave (3 peaks):				83.5 RPD = 1
Aroclor-1248	1	6.961	-0.001	33970088	132.3	1	6.641	0.005	289671439	181.1
Aroclor-1248	2	7.261	0.000	28207743	95.5	2	7.128	-0.000	85816082	77.5
Aroclor-1248	3	7.868	0.009	20268308	44.5	3	7.535	-0.001	117623829	97.5
Aroclor-1248	4	8.095	0.002	4741521	13.7	4	7.986	-0.001	34118715	23.8
Total Col1Ave (4 peaks):					71.5	Total Col2Ave (4 peaks):				95.0 RPD = 28
Corrected Ave (3 peaks):					51.2	Corrected Ave (3 peaks):				66.3 RPD = 26
Aroclor-1254	1	8.176	-0.002	23513852	42.4	1	8.298	0.001	76662017	46.0
Aroclor-1254	2	8.249	-0.006	983307	5.6	2	8.815	0.004	41171372	33.6
Aroclor-1254	3	8.545	-0.003	4619669	13.1	3	8.960	0.001	35791967	13.3
Aroclor-1254	4	8.679	-0.003	21035988	30.7	4	9.426	-0.000	241238980	199.8
Aroclor-1254	5	9.709	-0.003	77623566	114.0	5	9.742	0.010	68032496	44.0
Total Col1Ave (5 peaks):					41.2	Total Col2Ave (5 peaks):				67.3 RPD = 48*
Corrected Ave (4 peaks):					22.9	Corrected Ave (4 peaks):				34.2 RPD = 40
Aroclor-1260	1	9.938	-0.001	47968841	101.9	1	9.964	-0.000	208373753	105.0
Aroclor-1260	2	10.252	-0.002	46627586	101.9	2	10.504	-0.001	185584639	105.6
Aroclor-1260	3	10.623	-0.001	135298279	121.6	3	10.776	-0.001	425140173	107.7
Aroclor-1260	4	11.021	-0.001	55616202	103.2	4	11.291	-0.001	119260129	104.7
Aroclor-1260	5	11.210	-0.001	31678268	104.3	NS	---			----
Total Col1Ave (5 peaks):					106.6	Total Col2Ave (4 peaks):				105.7 RPD = 1
Corrected Ave (4 peaks):					102.8	Corrected Ave (3 peaks):				105.1 RPD = 2
Aroclor-1262	1	9.938	-0.004	47968841	74.2	1	10.061	-0.003	174526666	71.9
Aroclor-1262	2	10.252	-0.006	46627586	87.8	2	10.504	-0.004	185584639	87.9
Aroclor-1262	3	10.623	-0.005	135298279	112.9	3	10.776	-0.004	425140173	96.4
Aroclor-1262	4	11.021	-0.006	55616202	138.3	4	11.348	-0.007	270058910	89.0
Aroclor-1262	5	11.210	-0.005	31678268	63.1	5	11.935	-0.005	61556755	84.5
Total Col1Ave (5 peaks):					95.3	Total Col2Ave (5 peaks):				85.9 RPD = 10
Corrected Ave (4 peaks):					84.5	Corrected Ave (4 peaks):				83.3 RPD = 1
Aroclor-1268	1	11.137	-0.006	26960845	19.1	1	11.291	-0.004	119260129	24.0
Aroclor-1268	2	11.210	-0.003	31678268	24.5	2	11.348	-0.013	270058910	52.4
Aroclor-1268	3	11.610	0.011	14364224	13.0	3	11.750	-0.004	4868566	1.2

Aroclor-1268	4	12.376	-0.008	8377429	2.5		4	12.561	-0.006	22116893	1.6
	Total Col1Ave (4 peaks):			14.8			Total Col2Ave (4 peaks):			19.8	RPD = 29
	Corrected Ave (3 peaks):			11.5			Corrected Ave (3 peaks):			8.9	RPD = 25

Total PCB Area Col1 (4.547 - 12.684) = 1454958972 Col1 Total PCB = 0.3 ppm*

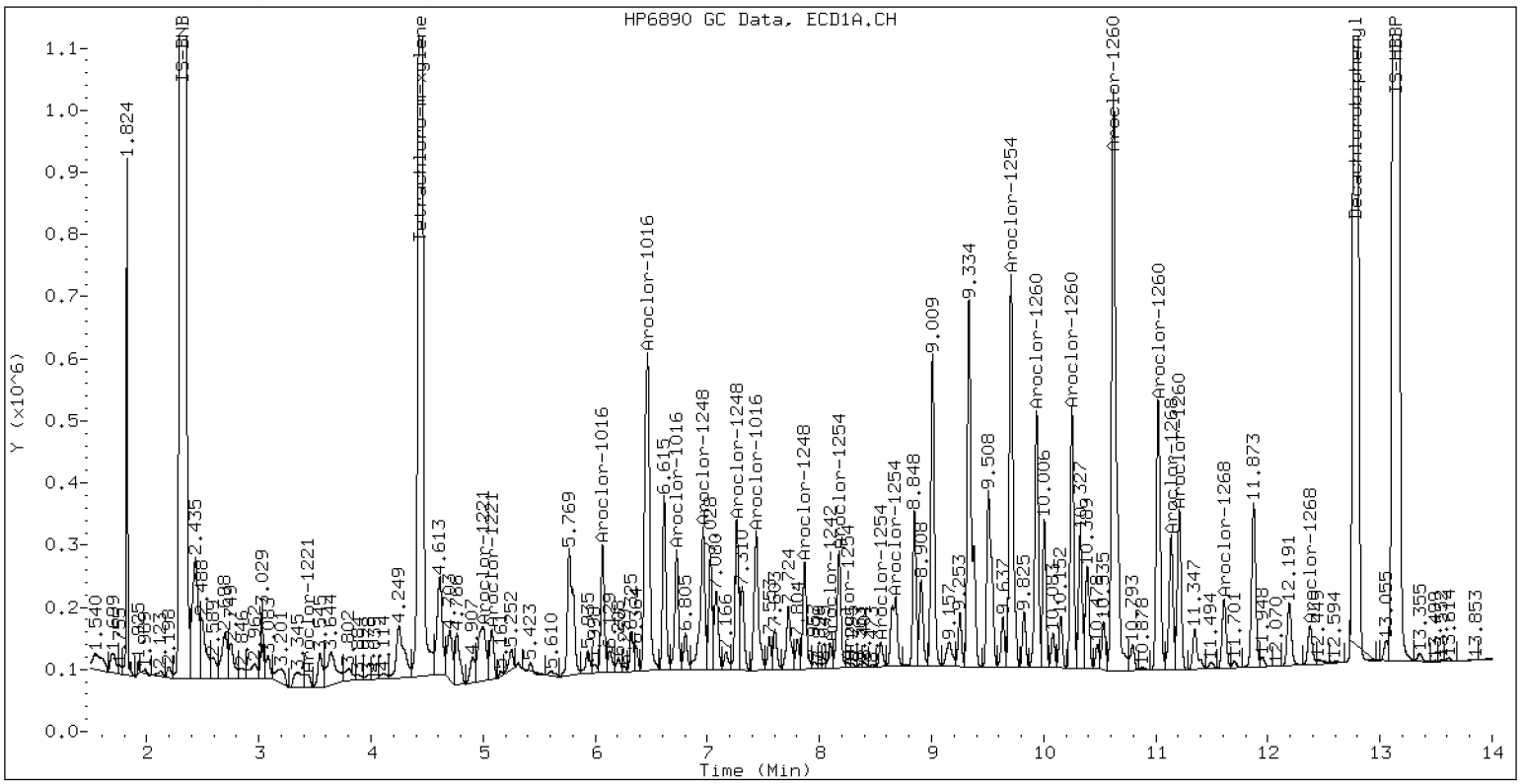
Total PCB Area Col2 (4.547 - 12.684) = 5336882067 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

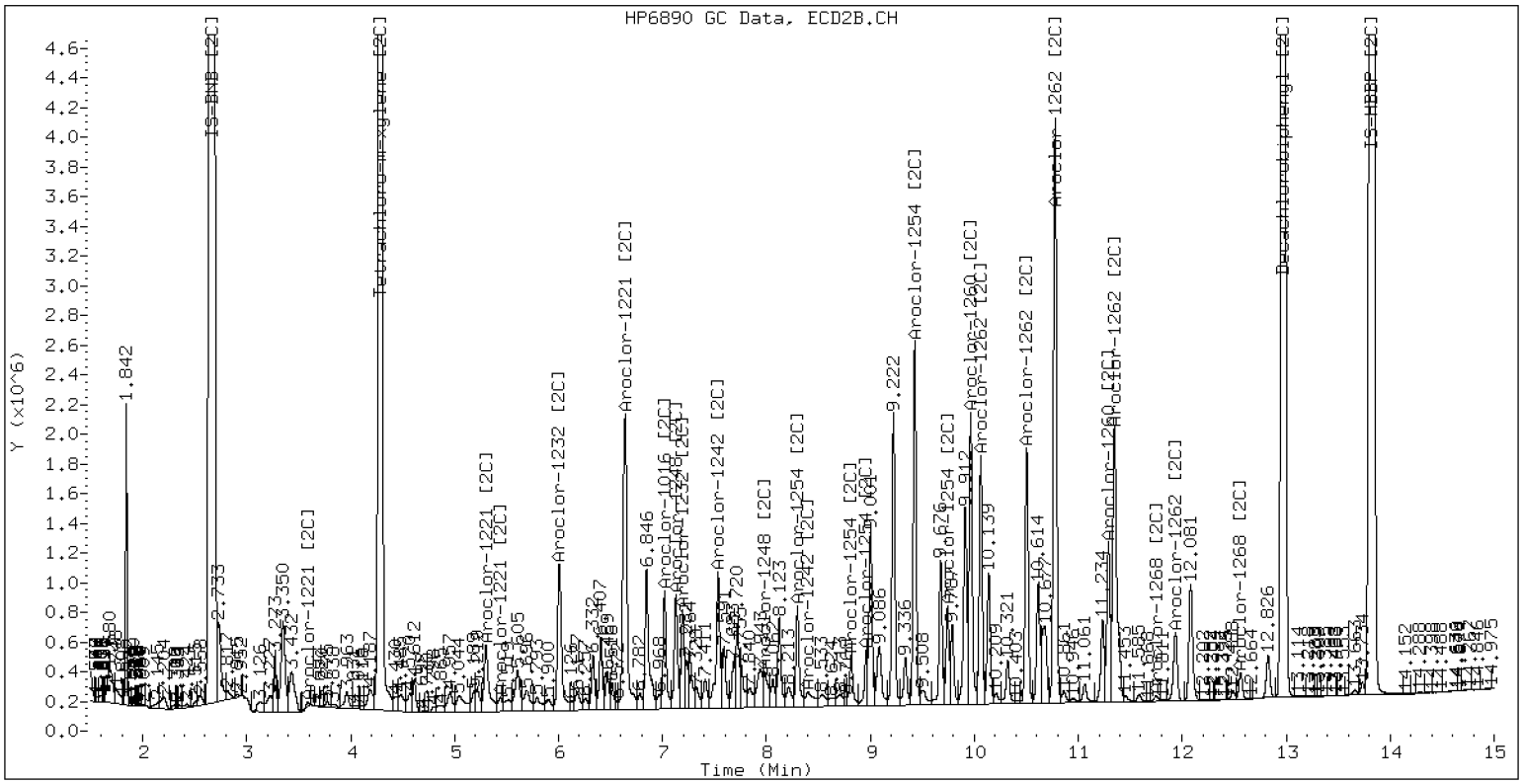
PCB Dual Column Chromatograms

ECD5-ZB5 /20180623.b/18062313ECD5.D BGF0415-MS1 23-JUN-2018 16:55 2ul VTS



ZB-5 Manual Integration: YES

ECD5-ZB35 /20180623.b/20180623.b/18062313ECD5.D BGF0415-MS1

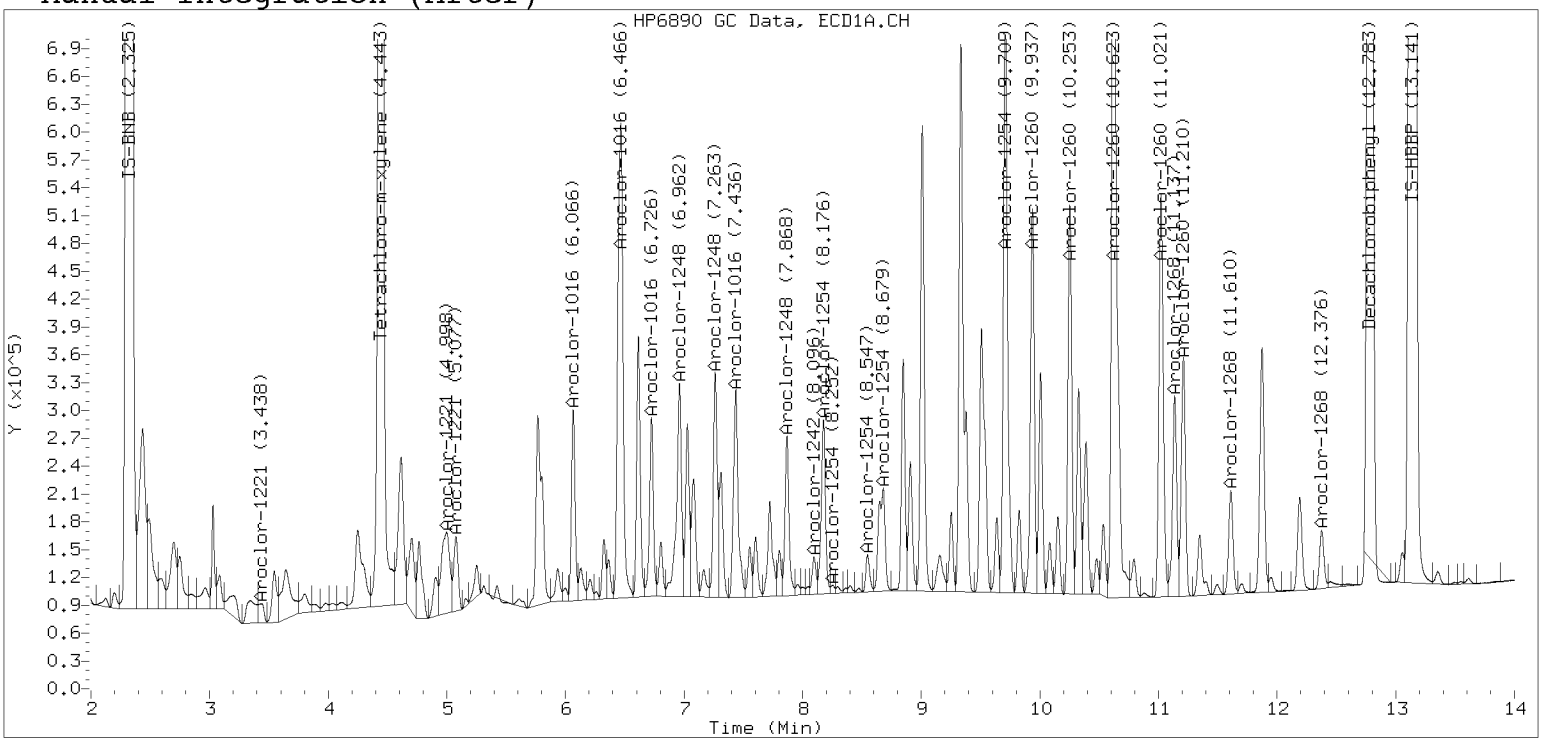


ZB-35 Manual Integration: NO

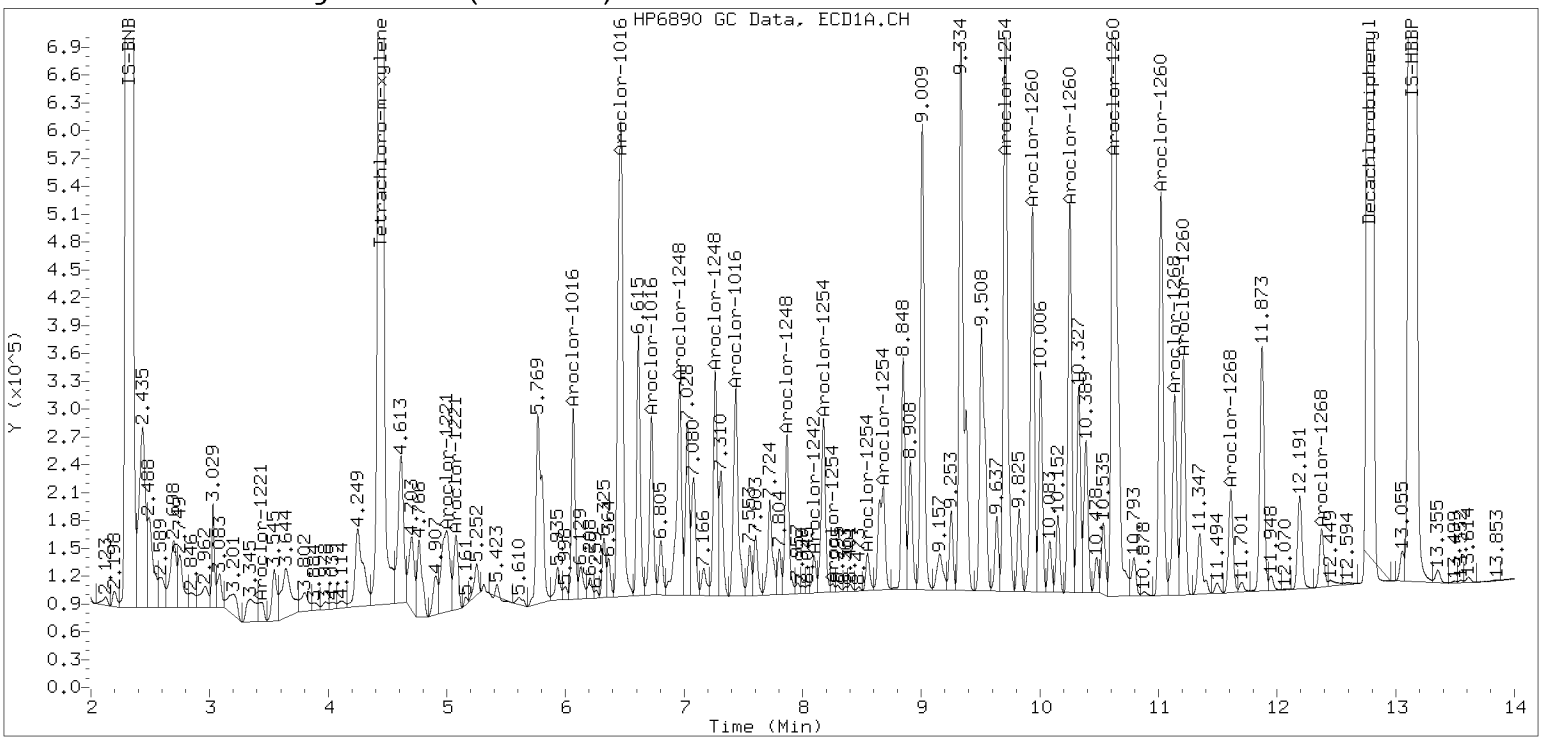
Manual Peak Adjustment, ZB-5

Datafile: ecd5.i/20180623.b/18062313ECD5.D Injection Date: 23-JUN-2018 16:5

Manual Integration (After)



Processed Integration (Before)



Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180623.b/18062314ECD5.D
Data file 2: /20180623.b/20180623.b/18062314ECD5.D
Method: ecd5.i\20180623.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, VTS
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: BGF0415-MSD1
Client ID:
Injection Date: 23-JUN-2018 17:15
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.445	-0.002	322777105	4.288	-0.003	1201790502	28.9	25.7	12.0	Tetrachloro-m-xylene
12.783	-0.001	343780984	12.973	-0.000	1498953449	37.2	37.5	0.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	72.4	64.2
Decachlorobiphenyl	92.9	93.7

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	983330139	6.9
Hexabromobiphenyl	761926666	876659686	15.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4756872647	7.7
Hexabromobiphenyl	2171332320	2598936774	19.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.066	-0.003	23301600	90.2	1	6.007	-0.002	149688598	101.6
Aroclor-1016	2	6.466	-0.003	81497983	95.5	2	6.642	-0.001	328510986	97.0
Aroclor-1016	3	6.726	-0.002	23336717	98.6	3	7.021	-0.002	90490216	112.3
Aroclor-1016	4	7.437	-0.001	31219547	111.8	4	7.537	-0.001	125562273	131.5
Total Col1Ave (4 peaks):					99.0	Total Col2Ave (4 peaks):				110.6 RPD = 11
Corrected Ave (3 peaks):					94.8	Corrected Ave (3 peaks):				103.6 RPD = 9
Aroclor-1221	1	3.435	-0.002	3295579	46.2	1	3.588	-0.004	3522690	19.8
Aroclor-1221	2	4.976	-0.003	20102414	232.3	2	5.304	-0.003	82205421	87.3
Aroclor-1221	3	5.079	-0.006	11277102	43.3	3	5.441	0.067	18939681	114.3
Aroclor-1221	NS	---			----	4	6.642	-0.005	328510986	1196.1
Total Col1Ave (3 peaks):					107.3	Total Col2Ave (4 peaks):				354.4 RPD = 107*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				73.8
Aroclor-1232	1	3.435	-0.001	3295579	72.5	1	3.588	-0.002	3522690	31.2
Aroclor-1232	2	6.066	-0.006	23301600	211.5	2	6.007	-0.004	149688598	212.2
Aroclor-1232	3	6.466	-0.005	81497983	225.9	3	6.642	-0.002	328510986	214.9
Aroclor-1232	4	6.726	-0.004	23336717	232.5	4	7.194	-0.003	72537295	232.2
Total Col1Ave (4 peaks):					185.6	Total Col2Ave (4 peaks):				172.6 RPD = 7
Corrected Ave (3 peaks):					170.0	Corrected Ave (3 peaks):				152.8 RPD = 11
Aroclor-1242	1	6.066	-0.004	23301600	112.7	1	6.007	-0.003	149688598	122.9
Aroclor-1242	2	6.466	-0.003	81497983	118.5	2	6.642	-0.001	328510986	113.8
Aroclor-1242	3	6.726	-0.003	23336717	122.2	3	7.537	-0.002	125562273	136.3
Aroclor-1242	4	8.096	0.001	3890274	16.0	4	8.401	-0.004	22093989	23.2
Total Col1Ave (4 peaks):					92.4	Total Col2Ave (4 peaks):				99.1 RPD = 7
Corrected Ave (3 peaks):					82.4	Corrected Ave (3 peaks):				86.7 RPD = 5
Aroclor-1248	1	6.962	-0.001	31788719	120.1	1	6.642	0.006	328510986	200.0
Aroclor-1248	2	7.262	0.001	27533998	90.4	2	7.129	0.001	91462640	80.4
Aroclor-1248	3	7.867	0.008	19841290	42.3	3	7.537	0.000	125562273	101.3
Aroclor-1248	4	8.096	0.003	3890274	10.9	4	7.986	-0.001	31450121	21.3
Total Col1Ave (4 peaks):					65.9	Total Col2Ave (4 peaks):				100.8 RPD = 42*
Corrected Ave (3 peaks):					47.9	Corrected Ave (3 peaks):				67.7 RPD = 34
Aroclor-1254	1	8.177	-0.001	23002376	40.2	1	8.297	-0.000	78380026	45.8
Aroclor-1254	2	8.256	0.001	761309	4.2	2	8.815	0.004	45323857	36.0
Aroclor-1254	3	8.546	-0.002	4585824	12.6	3	8.960	0.001	37331050	13.5
Aroclor-1254	4	8.676	-0.006	21313972	30.2	4	9.426	-0.001	251993763	203.1
Aroclor-1254	5	9.709	-0.003	81341964	116.0	5	9.741	0.009	70805643	44.6
Total Col1Ave (5 peaks):					40.6	Total Col2Ave (5 peaks):				68.6 RPD = 51*
Corrected Ave (4 peaks):					21.8	Corrected Ave (4 peaks):				35.0 RPD = 46*
Aroclor-1260	1	9.937	-0.002	50101027	104.4	1	9.964	-0.001	218423434	106.6
Aroclor-1260	2	10.254	-0.000	48486632	104.0	2	10.503	-0.001	196133315	108.1
Aroclor-1260	3	10.622	-0.002	131115224	115.6	3	10.775	-0.001	443474473	108.8
Aroclor-1260	4	11.022	-0.001	57394274	104.5	4	11.290	-0.003	124749023	106.1
Aroclor-1260	5	11.210	-0.002	33145714	107.1	NS	---			----
Total Col1Ave (5 peaks):					107.1	Total Col2Ave (4 peaks):				107.4 RPD = 0
Corrected Ave (4 peaks):					105.0	Corrected Ave (3 peaks):				107.0 RPD = 2
Aroclor-1262	1	9.937	-0.005	50101027	76.1	1	10.061	-0.004	183487890	73.2
Aroclor-1262	2	10.254	-0.004	48486632	89.6	2	10.503	-0.005	196133315	90.0
Aroclor-1262	3	10.622	-0.005	131115224	107.4	3	10.775	-0.004	443474473	97.4
Aroclor-1262	4	11.022	-0.006	57394274	140.0	4	11.347	-0.008	284851153	90.9
Aroclor-1262	5	11.210	-0.005	33145714	64.8	5	11.933	-0.008	59044296	78.5
Total Col1Ave (5 peaks):					95.6	Total Col2Ave (5 peaks):				86.0 RPD = 11
Corrected Ave (4 peaks):					84.4	Corrected Ave (4 peaks):				83.2 RPD = 2
Aroclor-1268	1	11.137	-0.006	28290194	19.6	1	11.290	-0.005	124749023	24.4
Aroclor-1268	2	11.210	-0.004	33145714	25.1	2	11.347	-0.014	284851153	53.5
Aroclor-1268	3	11.609	0.010	15864432	14.1	3	11.750	-0.004	8120689	1.9

Aroclor-1268	4	12.376	-0.007	9230675	2.7		4	12.562	-0.006	23328141	1.6
	Total Col1Ave (4 peaks):			15.4			Total Col2Ave (4 peaks):			20.4	RPD = 28
	Corrected Ave (3 peaks):			12.1			Corrected Ave (3 peaks):			9.3	RPD = 26

Total PCB Area Col1 (4.547 - 12.684) = 1485509341 Col1 Total PCB = 0.3 ppm*

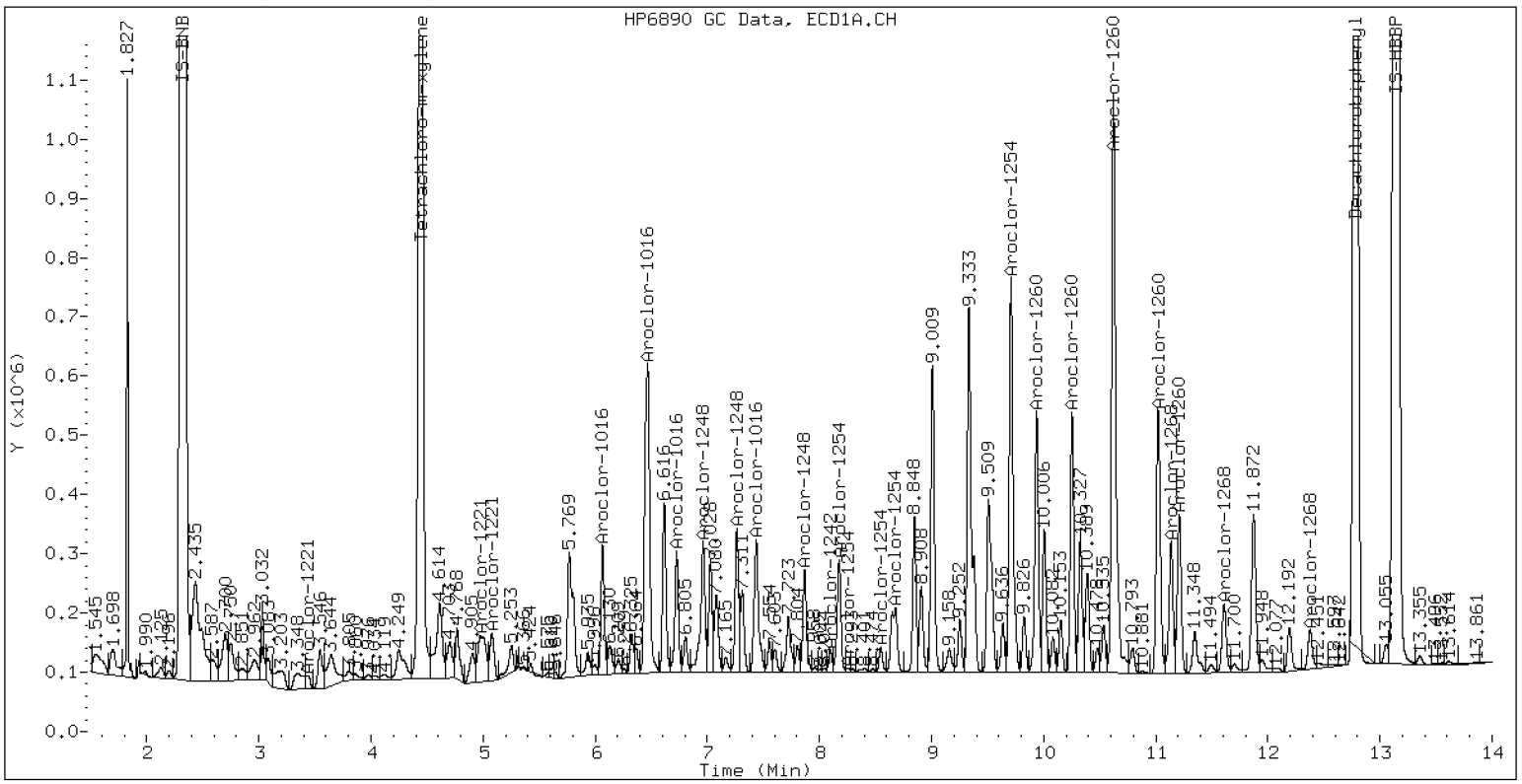
Total PCB Area Col2 (4.547 - 12.684) = 5583683031 Col2 Total PCB = 0.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

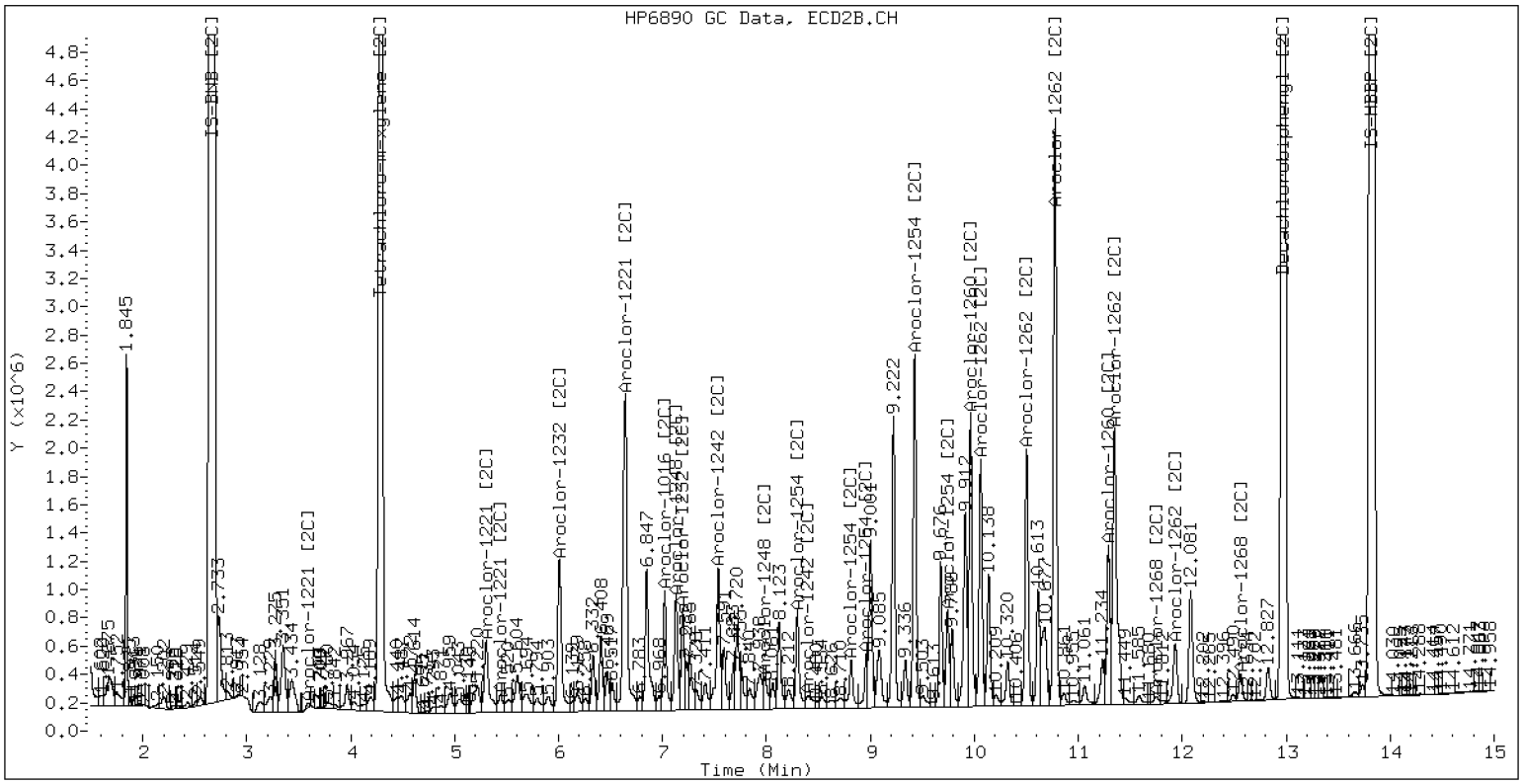
PCB Dual Column Chromatograms

ECD5-ZB5 /20180623.b/18062314ECD5.D BGF0415-MSD1 23-JUN-2018 17:15 2ul VTS



ZB-5 Manual Integration: YES

ECD5-ZB35 /20180623.b/20180623.b/18062314ECD5.D BGF0415-MSD1

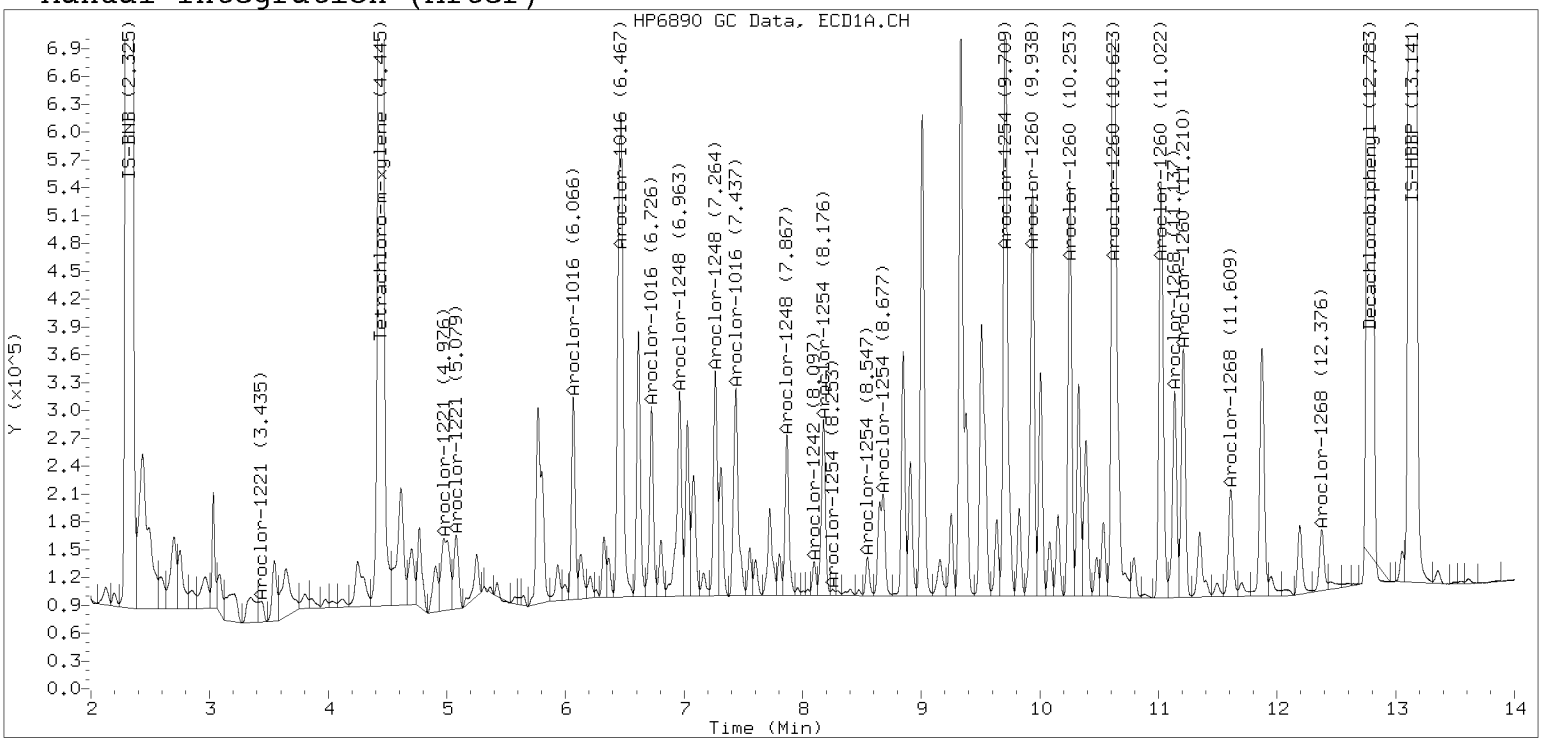


ZB-35 Manual Integration: NO

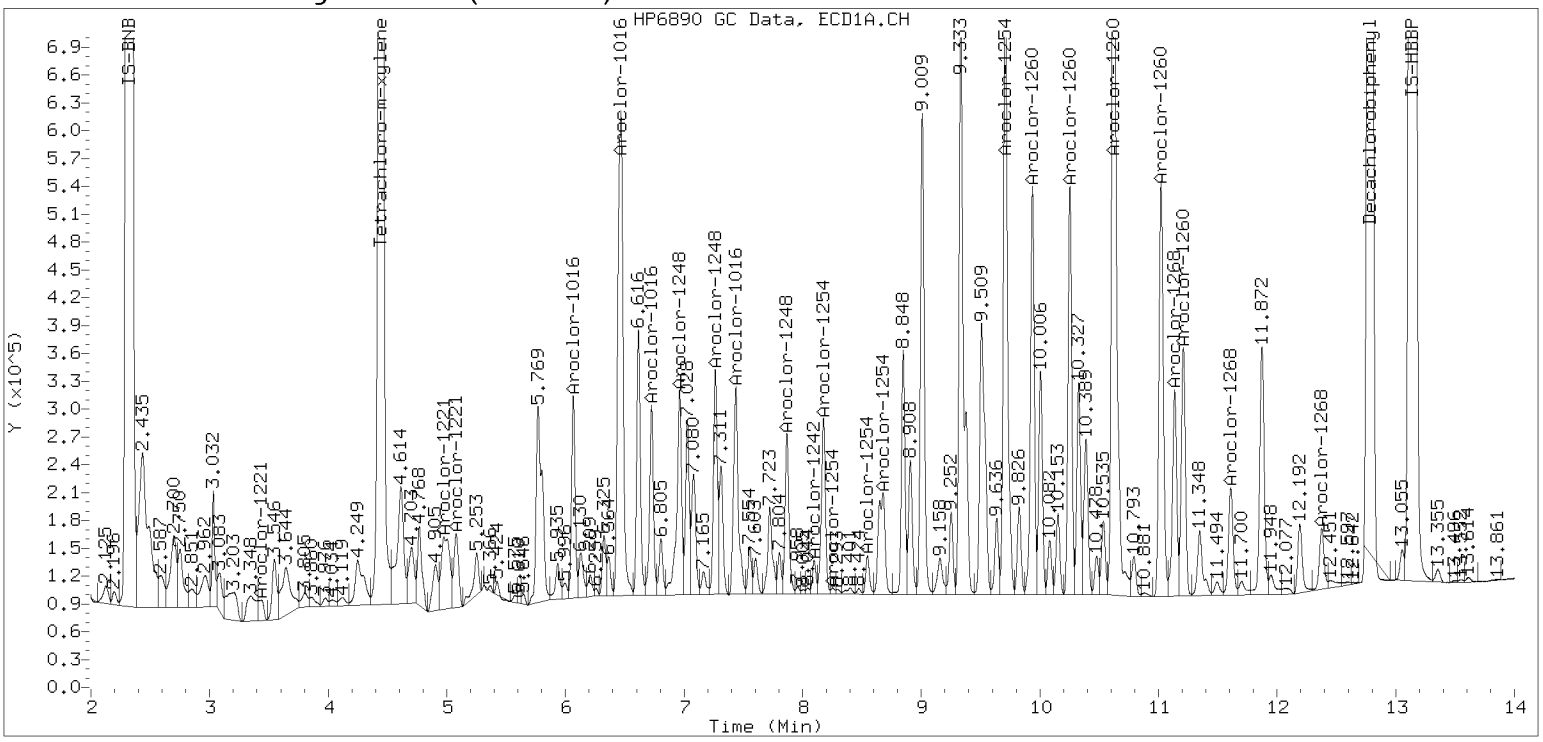
Manual Peak Adjustment, ZB-5

Datafile: ecd5.i/20180623.b/18062314ECD5.D Injection Date: 23-JUN-2018 17:1

Manual Integration (After)



Processed Integration (Before)



MS / MS DUPLICATE RECOVERY
EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/28/18 09:12
Batch:	BGF0512	Laboratory ID:	BGF0512-MS1
Preparation:	EPA 3510C SepF	Sequence Name:	Matrix Spike
Initial/Final:	1000 mL / 0.5 mL	Source Sample:	LDW18-SP-57

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	Q	MS CONCENTRATION (ug/L)	Q	MS % REC. #	QC LIMITS REC.
Aroclor 1016	0.0500	ND	U	0.059		118	54 - 120
Aroclor 1260 [2C]	0.0500	ND	U	0.057		114	51 - 128

* Values outside of QC limits

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.

MS / MS DUPLICATE RECOVERY
EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/28/18 09:32
Batch:	BGF0512	Laboratory ID:	BGF0512-MSD1
Preparation:	EPA 3510C SepF	Sequence Name:	Matrix Spike Dup
Initial/Final:	1000 mL / 0.5 mL	Source Sample:	LDW18-SP-57

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	Q	MSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Aroclor 1016	0.0500	0.055		110	6.28	30	54 - 120
Aroclor 1260 [2C]	0.0500	0.055		110	2.39	30	51 - 128

* Values outside of QC limits

[2C] indicates second-column analyte, present if quantification on any batch samples used second column data.

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062808.D
Data file 2: /20180628.b/20180628.b/18062808.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: BGF0512-MS1
Client ID:
Injection Date: 28-JUN-2018 09:12
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.439	-0.002	353831876	4.284	-0.006	1373243608	31.0	26.0	17.3	Tetrachloro-m-xylene
12.778	-0.002	324849881	12.971	-0.000	1678109979	34.2	39.5	14.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	77.4	65.1
Decachlorobiphenyl	85.5	98.7

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1007445993	9.5
Hexabromobiphenyl	761926666	899721630	18.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5354701256	21.2
Hexabromobiphenyl	2171332320	2762867222	27.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.062	-0.001	30609048	115.6	1	6.005	-0.004	154194363	92.9
Aroclor-1016	2	6.461	-0.001	93875121	107.4	2	6.641	0.008	350768316	92.0
Aroclor-1016	3	6.721	-0.001	28840049	118.9	3	7.020	-0.002	93891319	103.5
Aroclor-1016	4	7.431	-0.000	36232518	126.7	4	7.535	-0.003	131914207	122.7
	Total Col1Ave (4 peaks):				117.1	Total Col2Ave (4 peaks):				102.8 RPD = 13
	Corrected Ave (3 peaks):				114.0	Corrected Ave (3 peaks):				96.2 RPD = 17
Aroclor-1221	1	3.431	-0.006	3842788	52.6	1	3.589	-0.003	3511083	17.5
Aroclor-1221	2	4.966	-0.013	16861543	190.1	2	5.301	-0.006	78379112	73.9
Aroclor-1221	3	5.073	-0.012	12558011	47.1	3	5.432	0.058	8400025	45.0
Aroclor-1221	NS	---			----	4	6.641	-0.006	350768316	1134.6
	Total Col1Ave (3 peaks):				96.6	Total Col2Ave (4 peaks):				317.8 RPD = 107*
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				45.5
Aroclor-1232	1	3.431	-0.004	3842788	82.5	1	3.589	-0.002	3511083	27.7
Aroclor-1232	2	6.062	-0.009	30609048	271.2	2	6.005	-0.005	154194363	194.2
Aroclor-1232	3	6.461	-0.009	93875121	254.0	3	6.641	-0.003	350768316	203.9
Aroclor-1232	4	6.721	-0.010	28840049	280.4	4	7.191	-0.006	84773773	241.1
	Total Col1Ave (4 peaks):				222.0	Total Col2Ave (4 peaks):				166.7 RPD = 28
	Corrected Ave (3 peaks):				202.6	Corrected Ave (3 peaks):				141.9 RPD = 35
Aroclor-1242	1	6.062	0.004	30609048	144.5	1	6.005	-0.003	154194363	112.5
Aroclor-1242	2	6.461	0.003	93875121	133.2	2	6.641	-0.001	350768316	108.0
Aroclor-1242	3	6.721	0.003	28840049	147.4	3	7.535	-0.002	131914207	127.2
Aroclor-1242	4	8.091	0.005	8072694	32.4	4	8.398	-0.006	19770568	18.5
	Total Col1Ave (4 peaks):				114.4	Total Col2Ave (4 peaks):				91.5 RPD = 22
	Corrected Ave (3 peaks):				103.4	Corrected Ave (3 peaks):				79.6 RPD = 26
Aroclor-1248	1	6.957	-0.003	41200223	152.0	1	6.641	0.004	350768316	189.7
Aroclor-1248	2	7.258	-0.002	31057427	99.6	2	7.126	-0.003	98510273	77.0
Aroclor-1248	3	7.862	0.006	25736364	53.5	3	7.535	-0.002	131914207	94.5
Aroclor-1248	4	8.091	0.001	8072694	22.1	4	7.985	-0.003	28849107	17.4
	Total Col1Ave (4 peaks):				81.8	Total Col2Ave (4 peaks):				94.6 RPD = 15
	Corrected Ave (3 peaks):				58.4	Corrected Ave (3 peaks):				63.0 RPD = 8
Aroclor-1254	1	8.171	-0.003	29213146	49.8	1	8.295	-0.004	78073612	40.5
Aroclor-1254	2	8.246	-0.003	2401129	12.9	2	8.812	0.001	43270680	30.5
Aroclor-1254	3	8.541	-0.002	8955825	24.0	3	8.955	-0.000	35985991	11.5
Aroclor-1254	4	8.673	-0.006	28197880	39.0	4	9.423	-0.004	294116847	210.6
Aroclor-1254	5	9.703	-0.004	88651580	123.4	5	9.739	0.005	80679989	45.1
	Total Col1Ave (5 peaks):				49.8	Total Col2Ave (5 peaks):				67.7 RPD = 30
	Corrected Ave (4 peaks):				31.4	Corrected Ave (4 peaks):				31.9 RPD = 2
Aroclor-1260	1	9.932	-0.002	54562294	110.8	1	9.961	-0.002	256124260	117.6
Aroclor-1260	2	10.247	-0.001	52006169	108.7	2	10.503	0.001	211510069	109.6
Aroclor-1260	3	10.616	-0.002	140927531	121.1	3	10.773	-0.002	493209579	113.8
Aroclor-1260	4	11.014	-0.002	59926523	106.3	4	11.286	-0.002	140263040	112.3
Aroclor-1260	5	11.204	-0.002	33540030	105.6	NS	---			----
	Total Col1Ave (5 peaks):				110.5	Total Col2Ave (4 peaks):				113.3 RPD = 3
	Corrected Ave (4 peaks):				107.8	Corrected Ave (3 peaks):				111.9 RPD = 4
Aroclor-1262	1	9.932	-0.010	54562294	80.7	1	10.059	-0.006	215039242	80.7
Aroclor-1262	2	10.247	-0.011	52006169	93.6	2	10.503	-0.005	211510069	91.3
Aroclor-1262	3	10.616	-0.011	140927531	112.4	3	10.773	-0.007	493209579	101.9
Aroclor-1262	4	11.014	-0.013	59926523	142.5	4	11.344	-0.011	322547449	96.9
Aroclor-1262	5	11.204	-0.011	33540030	63.9	5	11.932	-0.008	75047128	93.9
	Total Col1Ave (5 peaks):				98.6	Total Col2Ave (5 peaks):				92.9 RPD = 6
	Corrected Ave (4 peaks):				87.7	Corrected Ave (4 peaks):				90.7 RPD = 3
Aroclor-1268	1	11.131	-0.012	28850471	19.5	1	11.286	-0.008	140263040	25.8
Aroclor-1268	2	11.204	-0.009	33540030	24.8	2	11.344	-0.018	322547449	57.0
Aroclor-1268	3	11.604	0.005	14973409	12.9	3	11.746	-0.008	5534874	1.2

Aroclor-1268	4	12.371	-0.013	8288567	2.4	4	12.560	-0.008	25063284	1.6
Total Col1Ave (4 peaks):		14.9			Total Col2Ave (4 peaks):		21.4		RPD =	36
Corrected Ave (3 peaks):		11.6			Corrected Ave (3 peaks):		9.5		RPD =	19

Total PCB Area Col1 (4.541 - 12.680) = 1690679452 Col1 Total PCB = 0.3 ppm*

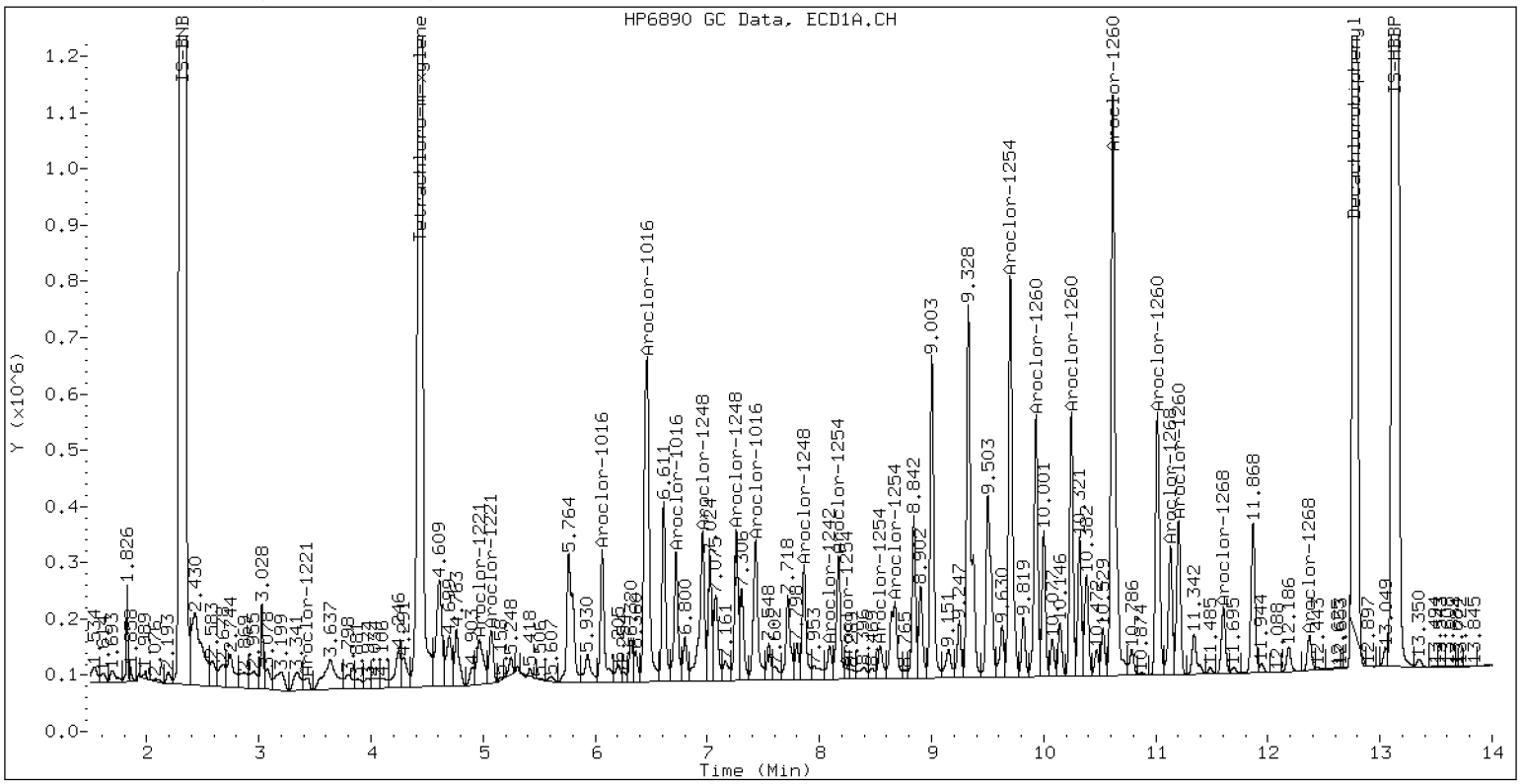
Total PCB Area Col2 (4.541 - 12.680) = 5830591318 Col2 Total PCB = 0.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

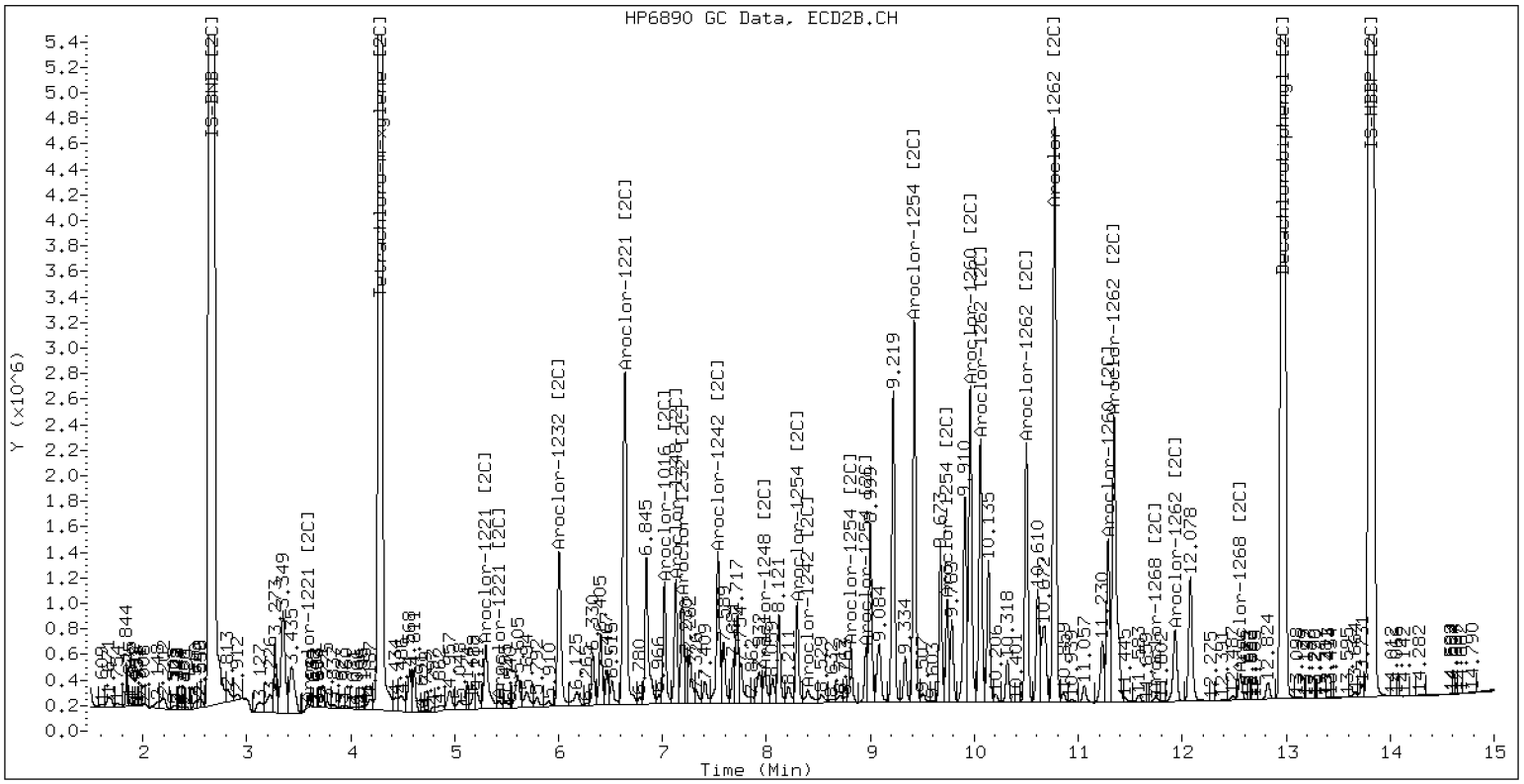
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062808.D BGF0512-MS1 28-JUN-2018 09:12 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062808.D BGF0512-MS1



ZB-35 Manual Integration: YES

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062809.D
Data file 2: /20180628.b/20180628.b/18062809.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: BGF0512-MSD1
Client ID:
Injection Date: 28-JUN-2018 09:32
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.440	-0.002	339934667	4.284	-0.006	1260952906	29.6	23.6	22.4	Tetrachloro-m-xylene
12.778	-0.002	324885645	12.971	0.000	1665463623	33.8	38.0	11.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	73.9	59.0
Decachlorobiphenyl	84.5	95.1

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1013693234	10.2
Hexabromobiphenyl	761926666	911081273	19.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5425075369	22.8
Hexabromobiphenyl	2171332320	2844429366	31.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.061	-0.001	26738885	100.4	1	6.007	-0.002	152714381	90.9
Aroclor-1016	2	6.461	-0.001	92816682	105.5	2	6.640	0.007	311539811	80.7
Aroclor-1016	3	6.721	-0.001	27924548	114.4	3	7.017	-0.004	88652584	96.5
Aroclor-1016	4	7.431	-0.000	34462156	119.7	4	7.533	-0.005	109177391	100.3
Total Col1Ave (4 peaks):					110.0	Total Col2Ave (4 peaks):				92.1 RPD = 18
Corrected Ave (3 peaks):					106.8	Corrected Ave (3 peaks):				89.3 RPD = 18
Aroclor-1221	1	3.432	-0.005	4184544	57.0	1	3.587	-0.005	4176193	20.5
Aroclor-1221	2	4.969	-0.010	22383927	250.9	2	5.301	-0.005	78080655	72.7
Aroclor-1221	3	5.072	-0.013	11620712	43.3	3	5.433	0.059	10916589	57.8
Aroclor-1221	NS	---			----	4	6.640	-0.007	311539811	994.6
Total Col1Ave (3 peaks):					117.0	Total Col2Ave (4 peaks):				286.4 RPD = 84*
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks):				50.3
Aroclor-1232	1	3.432	-0.003	4184544	89.3	1	3.587	-0.004	4176193	32.5
Aroclor-1232	2	6.061	-0.010	26738885	235.5	2	6.007	-0.003	152714381	189.8
Aroclor-1232	3	6.461	-0.009	92816682	249.6	3	6.640	-0.004	311539811	178.7
Aroclor-1232	4	6.721	-0.010	27924548	269.8	4	7.192	-0.005	77742136	218.2
Total Col1Ave (4 peaks):					211.1	Total Col2Ave (4 peaks):				154.8 RPD = 31
Corrected Ave (3 peaks):					191.5	Corrected Ave (3 peaks):				133.7 RPD = 36
Aroclor-1242	1	6.061	0.004	26738885	125.5	1	6.007	-0.001	152714381	110.0
Aroclor-1242	2	6.461	0.004	92816682	130.9	2	6.640	-0.001	311539811	94.6
Aroclor-1242	3	6.721	0.004	27924548	141.9	3	7.533	-0.004	109177391	103.9
Aroclor-1242	4	8.092	0.007	5807502	23.2	4	8.398	-0.006	14635949	13.5
Total Col1Ave (4 peaks):					105.4	Total Col2Ave (4 peaks):				80.5 RPD = 27
Corrected Ave (3 peaks):					93.2	Corrected Ave (3 peaks):				70.7 RPD = 27
Aroclor-1248	1	6.958	-0.003	39790480	145.9	1	6.640	0.004	311539811	166.3
Aroclor-1248	2	7.259	-0.001	31383538	100.0	2	7.126	-0.003	93730584	72.3
Aroclor-1248	3	7.862	0.006	23130880	47.8	3	7.533	-0.004	109177391	77.2
Aroclor-1248	4	8.092	0.002	5807502	15.8	4	7.986	-0.003	24596808	14.6
Total Col1Ave (4 peaks):					77.4	Total Col2Ave (4 peaks):				82.6 RPD = 7
Corrected Ave (3 peaks):					54.5	Corrected Ave (3 peaks):				54.7 RPD = 0
Aroclor-1254	1	8.171	-0.003	27254993	46.2	1	8.295	-0.004	75002501	38.4
Aroclor-1254	2	8.246	-0.004	1700994	9.1	2	8.812	0.001	40715433	28.4
Aroclor-1254	3	8.542	-0.001	6708623	17.9	3	8.959	0.003	33227293	10.5
Aroclor-1254	4	8.673	-0.005	25829559	35.5	4	9.424	-0.003	288561088	204.0
Aroclor-1254	5	9.703	-0.004	87059486	120.4	5	9.740	0.006	80296325	44.3
Total Col1Ave (5 peaks):					45.8	Total Col2Ave (5 peaks):				65.1 RPD = 35
Corrected Ave (4 peaks):					27.2	Corrected Ave (4 peaks):				30.4 RPD = 11
Aroclor-1260	1	9.933	-0.001	53953672	108.2	1	9.962	-0.001	252053572	112.4
Aroclor-1260	2	10.247	-0.001	51697777	106.7	2	10.501	-0.001	217306408	109.4
Aroclor-1260	3	10.617	-0.001	129504326	109.9	3	10.772	-0.003	506894720	113.6
Aroclor-1260	4	11.016	-0.001	59608253	104.4	4	11.289	-0.000	137874162	107.2
Aroclor-1260	5	11.204	-0.001	33731736	104.9	NS	---			----
Total Col1Ave (5 peaks):					106.8	Total Col2Ave (4 peaks):				110.7 RPD = 4
Corrected Ave (4 peaks):					106.0	Corrected Ave (3 peaks):				109.7 RPD = 3
Aroclor-1262	1	9.933	-0.010	53953672	78.8	1	10.060	-0.004	216552534	79.0
Aroclor-1262	2	10.247	-0.011	51697777	91.9	2	10.501	-0.007	217306408	91.1
Aroclor-1262	3	10.617	-0.010	129504326	102.0	3	10.772	-0.008	506894720	101.7
Aroclor-1262	4	11.016	-0.011	59608253	139.9	4	11.345	-0.010	321767017	93.9
Aroclor-1262	5	11.204	-0.010	33731736	63.4	5	11.932	-0.008	74169574	90.1
Total Col1Ave (5 peaks):					95.2	Total Col2Ave (5 peaks):				91.2 RPD = 4
Corrected Ave (4 peaks):					84.0	Corrected Ave (4 peaks):				88.5 RPD = 5
Aroclor-1268	1	11.132	-0.011	28846317	19.3	1	11.289	-0.006	137874162	24.6
Aroclor-1268	2	11.204	-0.009	33731736	24.6	2	11.345	-0.016	321767017	55.2
Aroclor-1268	3	11.604	0.006	15233198	13.0	3	11.747	-0.006	5815750	1.3

Aroclor-1268	4	12.371	-0.012	8381110	2.4	4	12.560	-0.008	25280912	1.6
Total Col1Ave (4 peaks):		14.8			Total Col2Ave (4 peaks):		20.7	RPD =	33	
Corrected Ave (3 peaks):		11.5			Corrected Ave (3 peaks):		9.2	RPD =	23	

Total PCB Area Col1 (4.541 - 12.680) = 1648076500 Col1 Total PCB = 0.3 ppm*

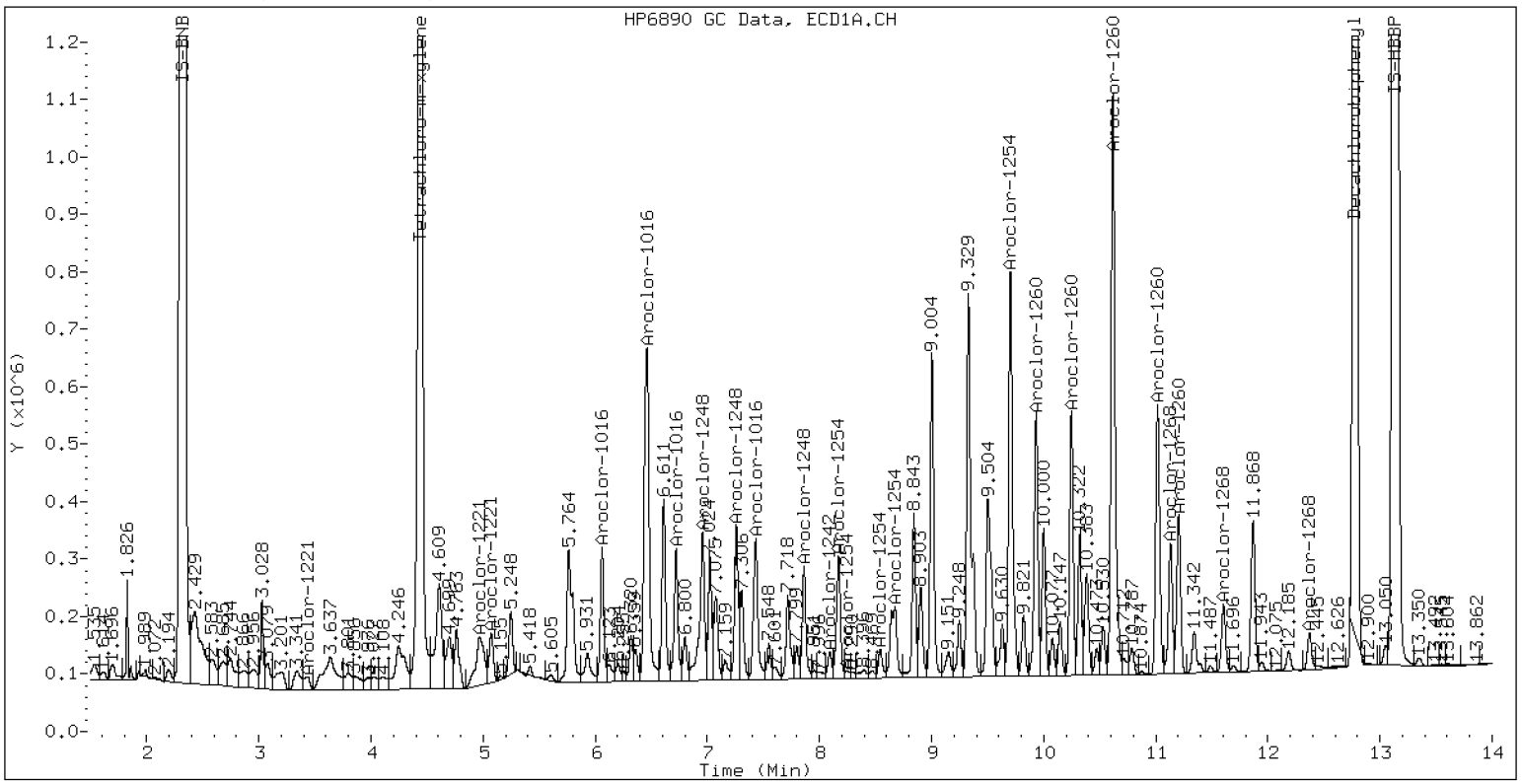
Total PCB Area Col2 (4.541 - 12.680) = 5710445098 Col2 Total PCB = 0.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

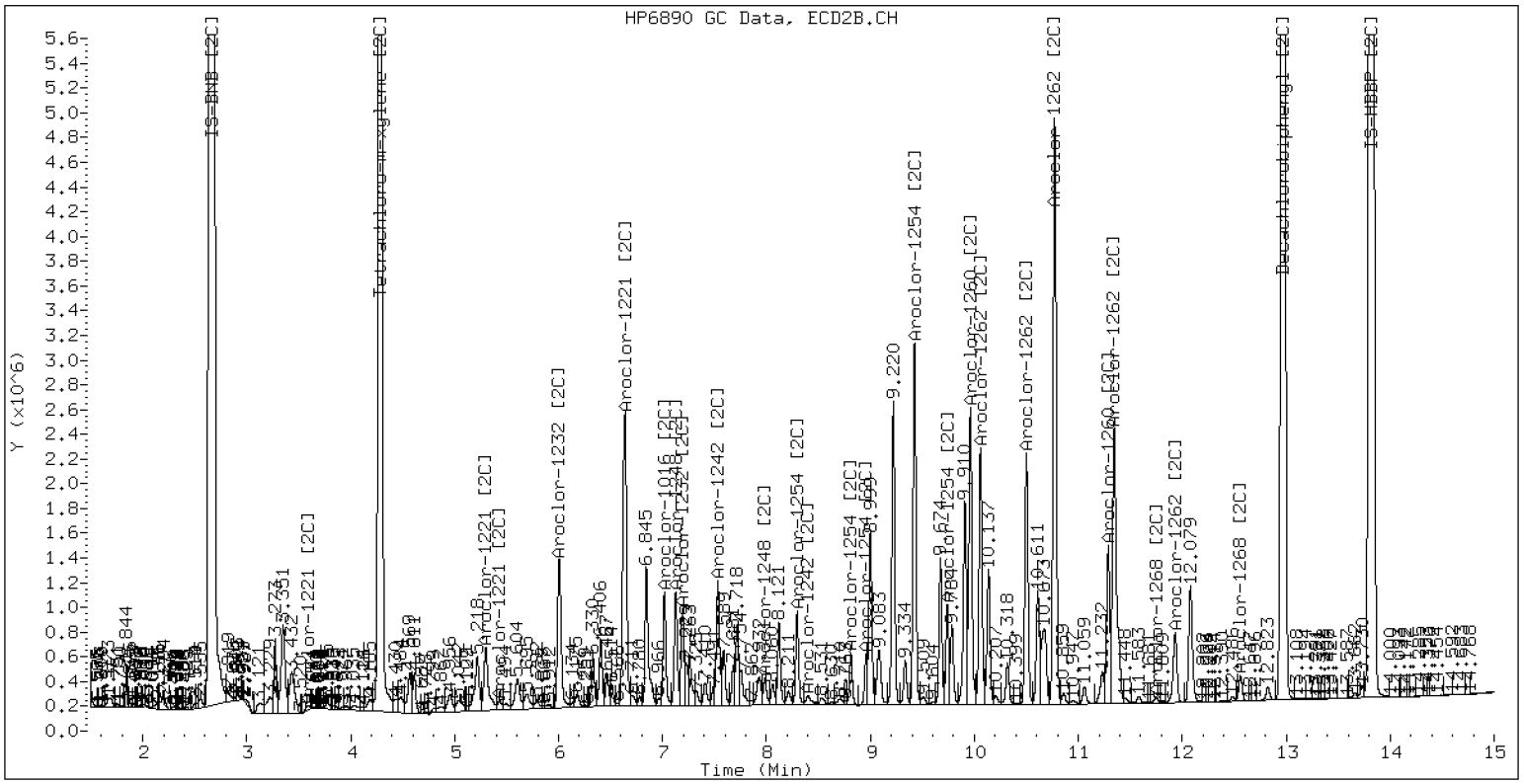
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062809.D BGF0512-MSD1 28-JUN-2018 09:32 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062809.D BGF0512-MSD1



ZB-35 Manual Integration: YES

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00046	Instrument:	ECD5
Calibration Date:	06/14/2018 0:00	Column (1):	ZB5

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Aroclor 1016	250	3.241311E-02	20	3.775354E-02	50	3.369398E-02	1000	3.026123E-02	100	3.279057E-02	500	3.171222E-02
Aroclor-1016 (1)	250	2.041005E-02	20	2.469861E-02	50	2.175505E-02	1000	1.859507E-02	100	2.091015E-02	500	1.976194E-02
Aroclor-1016 (2)	250	6.854908E-02	20	7.746624E-02	50	7.005473E-02	1000	0.0640351	100	6.895945E-02	500	6.741859E-02
Aroclor-1016 (3)	250	1.879136E-02	20	0.0218034	50	1.970836E-02	1000	1.783429E-02	100	0.0190295	500	1.841682E-02
Aroclor-1016 (4)	250	2.190192E-02	20	2.704588E-02	50	2.325778E-02	1000	2.058044E-02	100	2.226318E-02	500	2.125151E-02
Aroclor 1260	250	5.238043E-02	20	6.000156E-02	50	5.626946E-02	1000	4.911615E-02	100	5.282918E-02	500	5.128565E-02
Aroclor-1260 (1)	250	4.274057E-02	20	4.988071E-02	50	4.548878E-02	1000	3.956786E-02	100	4.353331E-02	500	4.152386E-02
Aroclor-1260 (2)	250	4.163166E-02	20	0.0481094	50	4.385915E-02	1000	3.885893E-02	100	4.217797E-02	500	4.063252E-02
Aroclor-1260 (3)	250	0.1004958	20	0.1141961	50	0.1116666	1000	9.519617E-02	100	0.1006086	500	9.892953E-02
Aroclor-1260 (4)	250	4.923736E-02	20	5.614022E-02	50	5.123298E-02	1000	4.624325E-02	100	4.968531E-02	500	0.0483167
Aroclor-1260 (5)	250	2.779675E-02	20	3.168136E-02	50	2.909979E-02	1000	2.571451E-02	100	2.814077E-02	500	2.702568E-02
Decachlorobiphenyl	40	0.8272383	3.2	0.9528297	8	0.8677625	160	0.7767124	16	0.8349767	80	0.8068029
Tetrachlorometaxylene	40	0.9181462	3.2	0.9544027	8	0.9040482	160	0.8552834	16	0.9076395	80	0.9044438

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00046	Instrument:	ECD5
Calibration Date:	06/14/2018 0:00	Column (1):	ZB5

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
		RF		RF		RF		RF		RF		RF
Aroclor-1221 (1)							250	5.79776E-03				
Aroclor-1221 (2)							250	7.04172E-03				
Aroclor-1221 (3)							250	2.119045E-02				
Aroclor 1232									250	1.254327E-02		
Aroclor-1232 (1)									250	3.696606E-03		
Aroclor-1232 (2)									250	8.962282E-03		
Aroclor-1232 (3)									250	2.934677E-02		
Aroclor-1232 (4)									250	8.167413E-03		
Aroclor 1242	250	2.702218E-02										
Aroclor-1242 (1)	250	1.681522E-02										
Aroclor-1242 (2)	250	5.595904E-02										
Aroclor-1242 (3)	250	1.553512E-02										
Aroclor-1242 (4)	250	1.977933E-02										
Aroclor 1248			250	2.836947E-02								
Aroclor-1248 (1)			250	2.152821E-02								
Aroclor-1248 (2)			250	2.477328E-02								
Aroclor-1248 (3)			250	3.819724E-02								
Aroclor-1248 (4)			250	2.897916E-02								
Aroclor 1254					250	4.108204E-02						
Aroclor-1254 (1)					250	4.653754E-02						
Aroclor-1254 (2)					250	1.474753E-02						
Aroclor-1254 (3)					250	2.963797E-02						
Aroclor-1254 (4)					250	5.742733E-02						
Aroclor-1254 (5)					250	5.705982E-02						
Aroclor 1262							250	6.101164E-02				
Aroclor-1262 (1)							250	6.009199E-02				
Aroclor-1262 (2)							250	4.939839E-02				
Aroclor-1262 (3)							250	0.1114566				

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00046	Instrument:	ECD5
Calibration Date:	06/14/2018 0:00	Column (1):	ZB5

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
		RF		RF		RF		RF		RF		RF
Aroclor-1262 (4)							250	3.740434E-02				
Aroclor-1262 (5)							250	4.670675E-02				
Aroclor 1268									250	0.1667893		
Aroclor-1268 (1)									250	0.1314571		
Aroclor-1268 (2)									250	0.1203919		
Aroclor-1268 (3)									250	0.1029749		
Aroclor-1268 (4)									250	0.3123331		

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00046	Instrument:	ECD5
Calibration Date:	06/14/2018 0:00	Column (1):	ZB5

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Aroclor 1016	3.310411E-02	7.7			RSD (20)	
Aroclor-1016 (1)	2.102181E-02	10.0			RSD (20)	
Aroclor-1016 (2)	6.941387E-02	6.4			RSD (20)	
Aroclor-1016 (3)	1.926396E-02	7.2			RSD (20)	
Aroclor-1016 (4)	2.271679E-02	10.2			RSD (20)	
Aroclor-1221 (1)	5.79776E-03	0.0			RSD (20)	
Aroclor-1221 (2)	7.04172E-03	0.0			RSD (20)	
Aroclor-1221 (3)	2.119045E-02	0.0			RSD (20)	
Aroclor 1232	1.254327E-02	0.0			RSD (20)	
Aroclor-1232 (1)	3.696606E-03	0.0			RSD (20)	
Aroclor-1232 (2)	8.962282E-03	0.0			RSD (20)	
Aroclor-1232 (3)	2.934677E-02	0.0			RSD (20)	
Aroclor-1232 (4)	8.167413E-03	0.0			RSD (20)	
Aroclor 1242	2.702218E-02	0.0			RSD (20)	
Aroclor-1242 (1)	1.681522E-02	0.0			RSD (20)	
Aroclor-1242 (2)	5.595904E-02	0.0			RSD (20)	
Aroclor-1242 (3)	1.553512E-02	0.0			RSD (20)	
Aroclor-1242 (4)	1.977933E-02	0.0			RSD (20)	
Aroclor 1248	2.836947E-02	0.0			RSD (20)	
Aroclor-1248 (1)	2.152821E-02	0.0			RSD (20)	
Aroclor-1248 (2)	2.477328E-02	0.0			RSD (20)	
Aroclor-1248 (3)	3.819724E-02	0.0			RSD (20)	
Aroclor-1248 (4)	2.897916E-02	0.0			RSD (20)	
Aroclor 1254	4.108204E-02	0.0			RSD (20)	
Aroclor-1254 (1)	4.653754E-02	0.0			RSD (20)	
Aroclor-1254 (2)	1.474753E-02	0.0			RSD (20)	
Aroclor-1254 (3)	2.963797E-02	0.0			RSD (20)	
Aroclor-1254 (4)	5.742733E-02	0.0			RSD (20)	
Aroclor-1254 (5)	5.705982E-02	0.0			RSD (20)	
Aroclor 1260	5.364707E-02	7.2			RSD (20)	
Aroclor-1260 (1)	4.378918E-02	8.2			RSD (20)	

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00046	Instrument:	ECD5
Calibration Date:	06/14/2018 0:00	Column (1):	ZB5

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Aroclor-1260 (2)	4.254494E-02	7.5			RSD (20)	
Aroclor-1260 (3)	0.1035155	7.3			RSD (20)	
Aroclor-1260 (4)	5.014264E-02	6.7			RSD (20)	
Aroclor-1260 (5)	2.824314E-02	7.2			RSD (20)	
Aroclor 1262	6.101164E-02	0.0			RSD (20)	
Aroclor-1262 (1)	6.009199E-02	0.0			RSD (20)	
Aroclor-1262 (2)	4.939839E-02	0.0			RSD (20)	
Aroclor-1262 (3)	0.1114566	0.0			RSD (20)	
Aroclor-1262 (4)	3.740434E-02	0.0			RSD (20)	
Aroclor-1262 (5)	4.670675E-02	0.0			RSD (20)	
Aroclor 1268	0.1667893	0.0			RSD (20)	
Aroclor-1268 (1)	0.1314571	0.0			RSD (20)	
Aroclor-1268 (2)	0.1203919	0.0			RSD (20)	
Aroclor-1268 (3)	0.1029749	0.0			RSD (20)	
Aroclor-1268 (4)	0.3123331	0.0			RSD (20)	
Decachlorobiphenyl	0.8443871	7.2			RSD (20)	
Tetrachlorometaxylene	0.9073273	3.5			RSD (20)	

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00046	Instrument:	ECD5
Calibration Date:	06/14/2018 0:00	Column (2):	ZB35

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Aroclor 1016 [2C]	250	2.905018E-02	20	2.823185E-02	50	2.668623E-02	1000	2.689826E-02	100	2.758818E-02	500	2.857024E-02
Aroclor-1016 (1) [2C]	250	2.591645E-02	20	0.0264795	50	0.0244019	1000	2.224159E-02	100	2.479721E-02	500	2.488385E-02
Aroclor-1016 (2) [2C]	250	5.989908E-02	20	5.675976E-02	50	5.496505E-02	1000	5.456327E-02	100	5.736126E-02	500	5.817857E-02
Aroclor-1016 (3) [2C]	250	1.379604E-02	20	1.342118E-02	50	1.240926E-02	1000	0.0145266	100	1.260872E-02	500	1.455422E-02
Aroclor-1016 (4) [2C]	250	1.658917E-02	20	1.626698E-02	50	1.496874E-02	1000	1.626157E-02	100	1.558553E-02	500	1.666432E-02
Aroclor 1260 [2C]	250	7.136736E-02	20	7.211014E-02	50	7.005933E-02	1000	6.729747E-02	100	0.0699603	500	7.004766E-02
Aroclor-1260 (1) [2C]	250	6.432054E-02	20	6.401036E-02	50	6.423906E-02	1000	5.993498E-02	100	6.248216E-02	500	6.334864E-02
Aroclor-1260 (2) [2C]	250	5.684015E-02	20	5.852968E-02	50	5.534561E-02	1000	5.315189E-02	100	5.564014E-02	500	0.055616
Aroclor-1260 (3) [2C]	250	0.1274521	20	0.1286678	50	0.1244998	1000	0.1215458	100	0.1263421	500	0.1243353
Aroclor-1260 (4) [2C]	250	3.685667E-02	20	3.723279E-02	50	3.615298E-02	1000	3.455723E-02	100	3.537683E-02	500	3.689083E-02
Decachlorobiphenyl [2C]	40	1.226656	3.2	1.260919	8	1.20974	160	1.218351	16	1.212951	80	1.258933
Tetrachlorometaxylene [2C]	40	0.8281083	3.2	0.7209338	8	0.7718861	160	0.7724712	16	0.8144361	80	0.8177874

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00046	Instrument:	ECD5
Calibration Date:	06/14/2018 0:00	Column (2):	ZB35

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
		RF		RF		RF		RF		RF		RF
Aroclor-1221 (1) [2C]							250	2.998016E-03				
Aroclor-1221 (2) [2C]							250	1.584214E-02				
Aroclor-1221 (3) [2C]							250	2.786608E-03				
Aroclor-1221 (4) [2C]							250	4.618983E-03				
Aroclor 1232 [2C]									250	1.118002E-02		
Aroclor-1232 (1) [2C]									250	1.896774E-03		
Aroclor-1232 (2) [2C]									250	1.186355E-02		
Aroclor-1232 (3) [2C]									250	2.570593E-02		
Aroclor-1232 (4) [2C]									250	5.253817E-03		
Aroclor 1242 [2C]	250	2.512638E-02										
Aroclor-1242 (1) [2C]	250	2.047991E-02										
Aroclor-1242 (2) [2C]	250	4.853858E-02										
Aroclor-1242 (3) [2C]	250	1.548838E-02										
Aroclor-1242 (4) [2C]	250	1.599864E-02										
Aroclor 1248 [2C]			250	0.0230971								
Aroclor-1248 (1) [2C]			250	2.762974E-02								
Aroclor-1248 (2) [2C]			250	1.912446E-02								
Aroclor-1248 (3) [2C]			250	2.084512E-02								
Aroclor-1248 (4) [2C]			250	2.478909E-02								
Aroclor 1254 [2C]					250	2.881808E-02						
Aroclor-1254 (1) [2C]					250	2.876751E-02						
Aroclor-1254 (2) [2C]					250	2.117203E-02						
Aroclor-1254 (3) [2C]					250	4.657135E-02						
Aroclor-1254 (4) [2C]					250	2.086193E-02						
Aroclor-1254 (5) [2C]					250	2.671757E-02						
Aroclor 1262 [2C]							250	8.078552E-02				
Aroclor-1262 (1) [2C]							250	7.712675E-02				
Aroclor-1262 (2) [2C]							250	6.705619E-02				

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00046	Instrument:	ECD5
Calibration Date:	06/14/2018 0:00	Column (2):	ZB35

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
		RF		RF		RF		RF		RF		RF
Aroclor-1262 (3) [2C]							250	0.1401779				
Aroclor-1262 (4) [2C]							250	9.641384E-02				
Aroclor-1262 (5) [2C]							250	2.315292E-02				
Aroclor 1268 [2C]									250	0.2233798		
Aroclor-1268 (1) [2C]									250	0.1576381		
Aroclor-1268 (2) [2C]									250	0.1638948		
Aroclor-1268 (3) [2C]									250	0.1285169		
Aroclor-1268 (4) [2C]									250	0.4434698		

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00046	Instrument:	ECD5
Calibration Date:	06/14/2018 0:00	Column (2):	ZB35

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Aroclor 1016 [2C]	2.783749E-02	3.4			RSD (20)	
Aroclor-1016 (1) [2C]	2.478675E-02	5.9			RSD (20)	
Aroclor-1016 (2) [2C]	0.0569545	3.5			RSD (20)	
Aroclor-1016 (3) [2C]	1.355267E-02	6.8			RSD (20)	
Aroclor-1016 (4) [2C]	1.605605E-02	4.1			RSD (20)	
Aroclor-1221 (1) [2C]	2.998016E-03	0.0			RSD (20)	
Aroclor-1221 (2) [2C]	1.584214E-02	0.0			RSD (20)	
Aroclor-1221 (3) [2C]	2.786608E-03	0.0			RSD (20)	
Aroclor-1221 (4) [2C]	4.618983E-03	0.0			RSD (20)	
Aroclor 1232 [2C]	1.118002E-02	0.0			RSD (20)	
Aroclor-1232 (1) [2C]	1.896774E-03	0.0			RSD (20)	
Aroclor-1232 (2) [2C]	1.186355E-02	0.0			RSD (20)	
Aroclor-1232 (3) [2C]	2.570593E-02	0.0			RSD (20)	
Aroclor-1232 (4) [2C]	5.253817E-03	0.0			RSD (20)	
Aroclor 1242 [2C]	2.512638E-02	0.0			RSD (20)	
Aroclor-1242 (1) [2C]	2.047991E-02	0.0			RSD (20)	
Aroclor-1242 (2) [2C]	4.853858E-02	0.0			RSD (20)	
Aroclor-1242 (3) [2C]	1.548838E-02	0.0			RSD (20)	
Aroclor-1242 (4) [2C]	1.599864E-02	0.0			RSD (20)	
Aroclor 1248 [2C]	0.0230971	0.0			RSD (20)	
Aroclor-1248 (1) [2C]	2.762974E-02	0.0			RSD (20)	
Aroclor-1248 (2) [2C]	1.912446E-02	0.0			RSD (20)	
Aroclor-1248 (3) [2C]	2.084512E-02	0.0			RSD (20)	
Aroclor-1248 (4) [2C]	2.478909E-02	0.0			RSD (20)	
Aroclor 1254 [2C]	2.881808E-02	0.0			RSD (20)	
Aroclor-1254 (1) [2C]	2.876751E-02	0.0			RSD (20)	
Aroclor-1254 (2) [2C]	2.117203E-02	0.0			RSD (20)	
Aroclor-1254 (3) [2C]	4.657135E-02	0.0			RSD (20)	
Aroclor-1254 (4) [2C]	2.086193E-02	0.0			RSD (20)	
Aroclor-1254 (5) [2C]	2.671757E-02	0.0			RSD (20)	
Aroclor 1260 [2C]	7.014038E-02	2.3			RSD (20)	

INITIAL CALIBRATION DATA

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00046	Instrument:	ECD5
Calibration Date:	06/14/2018 0:00	Column (2):	ZB35

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Aroclor-1260 (1) [2C]	6.305596E-02	2.7			RSD (20)	
Aroclor-1260 (2) [2C]	5.585391E-02	3.2			RSD (20)	
Aroclor-1260 (3) [2C]	0.1254738	2.0			RSD (20)	
Aroclor-1260 (4) [2C]	3.617789E-02	2.9			RSD (20)	
Aroclor 1262 [2C]	8.078552E-02	0.0			RSD (20)	
Aroclor-1262 (1) [2C]	7.712675E-02	0.0			RSD (20)	
Aroclor-1262 (2) [2C]	6.705619E-02	0.0			RSD (20)	
Aroclor-1262 (3) [2C]	0.1401779	0.0			RSD (20)	
Aroclor-1262 (4) [2C]	9.641384E-02	0.0			RSD (20)	
Aroclor-1262 (5) [2C]	2.315292E-02	0.0			RSD (20)	
Aroclor 1268 [2C]	0.2233798	0.0			RSD (20)	
Aroclor-1268 (1) [2C]	0.1576381	0.0			RSD (20)	
Aroclor-1268 (2) [2C]	0.1638948	0.0			RSD (20)	
Aroclor-1268 (3) [2C]	0.1285169	0.0			RSD (20)	
Aroclor-1268 (4) [2C]	0.4434698	0.0			RSD (20)	
Decachlorobiphenyl [2C]	1.231258	1.9			RSD (20)	
Tetrachlorometaxylene [2C]	0.7876038	5.1			RSD (20)	

Printed: 6/20/2018 1:23:01PM

ANALYSIS SEQUENCE

SGF0252

Instrument: ECD5 Element Column ID: f10906f10907
Calibration ID: BF00046

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SGF0252-CAL1	0.25PPM AR1660	QC		1	F011204	G002633	
SGF0252-CAL2	0.02PPM AR1660	QC		2	F011207	G002633	
SGF0252-CAL3	0.05PPM AR1660	QC		3	F011206	G002633	
SGF0252-CAL4	1.0PPM AR1660	QC		4	F010993	G002633	
SGF0252-CAL5	0.1PPM AR1660	QC		5	F011205	G002633	
SGF0252-CAL6	0.5PPM AR1660	QC		6	F011203	G002633	
SGF0252-CAL7	0.25PPM AR1242	QC		7	F011118	G002633	
SGF0252-CAL8	0.25PPM AR1248	QC		8	G000809	G002633	
SGF0252-CAL9	0.25PPM AR1254	QC		9	F011624	G002633	
SGF0252-CALA	0.25PPM AR2162	QC		10	G002629	G002633	
SGF0252-CALB	0.25PPM AR3268	QC		11	F011625	G002633	
SGF0252-SCV1	AR1660SCV1	QC		12	G003406	G002633	
SGF0252-SCV2	AR1242SCV2	QC		13	G003409	G002633	
SGF0252-SCV3	AR1248SCV3	QC		14	G003410	G002633	
SGF0252-SCV4	AR1254SCV4	QC		15	G003411	G002633	
SGF0252-SCV5	AR2162SCV5	QC		16	G003407	G002633	
SGF0252-SCV6	AR3268SCV6	QC		17	G003408	G002633	

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd5.i\20180614.b
2.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	14-JUN-2018 17:57	18061401.D	1	RINSE	
2	14-JUN-2018 18:18	18061402.D	1	RINSE	
3	14-JUN-2018 18:38	18061403.D	1	RINSE	
4	14-JUN-2018 18:58	18061404.D	1	RINSE	
5	14-JUN-2018 19:19	18061405.D	1	RINSE	
6	14-JUN-2018 19:39	18061406.D	1	IB	
7	14-JUN-2018 19:59	18061407.D	1	0.25PPMAR1660	
8	14-JUN-2018 20:20	18061408.D	1	0.02PPMAR1660	
9	14-JUN-2018 20:40	18061409.D	1	0.05PPMAR1660	
10	14-JUN-2018 21:01	18061410.D	1	1PPMAR1660	
11	14-JUN-2018 21:21	18061411.D	1	0.1PPMAR1660	
12	14-JUN-2018 21:41	18061412.D	1	0.5PPMAR1660	
13	14-JUN-2018 22:02	18061413.D	1	AR1242	
14	14-JUN-2018 22:22	18061414.D	1	AR1248	
15	14-JUN-2018 22:42	18061415.D	1	AR1254	
16	14-JUN-2018 23:03	18061416.D	1	AR2162	
17	14-JUN-2018 23:23	18061417.D	1	AR3268	
18	14-JUN-2018 23:43	18061418.D	1	AR1660SCV1	
19	15-JUN-2018 00:04	18061419.D	1	AR1242SCV2	
20	15-JUN-2018 00:24	18061420.D	1	AR1248SCV3	
21	15-JUN-2018 00:44	18061421.D	1	AR1254SCV4	
22	15-JUN-2018 01:05	18061422.D	1	AR2162SCV5	
23	15-JUN-2018 01:25	18061423.D	1	AR3268SCV6	
24	15-JUN-2018 01:46	18061424.D	1	0.1PPM DDTS	
25	15-JUN-2018 02:06	18061425.D	1	DDT BD	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd5.i\20180614.b

ARI Job No.: RINS Method: PCB.m Instrument: ecd5.i Date: 14-JUN-2018

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1757	18061401.D	RINSE		1	NO MANUAL INTEGRATION
1818	18061402.D	RINSE		1	NO MANUAL INTEGRATION
1838	18061403.D	RINSE		1	NO MANUAL INTEGRATION
1858	18061404.D	RINSE		1	NO MANUAL INTEGRATION
1919	18061405.D	RINSE		1	NO MANUAL INTEGRATION
1939	18061406.D	IB		1	NO MANUAL INTEGRATION
1959	18061407.D	0.25PPMAR1660		1	NO MANUAL INTEGRATION
2020	18061408.D	0.02PPMAR1660		1	NO MANUAL INTEGRATION
2040	18061409.D	0.05PPMAR1660		1	NO MANUAL INTEGRATION
2101	18061410.D	1PPMAR1660		1	NO MANUAL INTEGRATION
2121	18061411.D	0.1PPMAR1660		1	NO MANUAL INTEGRATION
2141	18061412.D	0.5PPMAR1660		1	NO MANUAL INTEGRATION
2202	18061413.D	AR1242		1	NO MANUAL INTEGRATION
2222	18061414.D	AR1248		1	NO MANUAL INTEGRATION
2242	18061415.D	AR1254		1	NO MANUAL INTEGRATION
2303	18061416.D	AR2162		1	NO MANUAL INTEGRATION
2323	18061417.D	AR3268		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd5.i\20180614.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2343	18061418.D	AR1660SCV1		1	NO MANUAL INTEGRATION
0004	18061419.D	AR1242SCV2		1	NO MANUAL INTEGRATION
0024	18061420.D	AR1248SCV3		1	NO MANUAL INTEGRATION
0044	18061421.D	AR1254SCV4		1	NO MANUAL INTEGRATION
0105	18061422.D	AR2162SCV5		1	NO MANUAL INTEGRATION
0125	18061423.D	AR3268SCV6		1	NO MANUAL INTEGRATION
0146	18061424.D	0.1PPM DDTS		1	NO MANUAL INTEGRATION
0206	18061425.D	DDT BD		1	NO MANUAL INTEGRATION
1757	18061401.D	RINSE		1	NO MANUAL INTEGRATION
1818	18061402.D	RINSE		1	NO MANUAL INTEGRATION
1838	18061403.D	RINSE		1	NO MANUAL INTEGRATION
1858	18061404.D	RINSE		1	NO MANUAL INTEGRATION
1919	18061405.D	RINSE		1	NO MANUAL INTEGRATION
1939	18061406.D	IB		1	NO MANUAL INTEGRATION
1959	18061407.D	0.25PPMAR1660		1	NO MANUAL INTEGRATION
2020	18061408.D	0.02PPMAR1660		1	NO MANUAL INTEGRATION
2040	18061409.D	0.05PPMAR1660		1	NO MANUAL INTEGRATION
2101	18061410.D	1PPMAR1660		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd5.i\20180614.b\20180614.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2121	18061411.D	0.1PPMAR1660		1	NO MANUAL INTEGRATION
2141	18061412.D	0.5PPMAR1660		1	NO MANUAL INTEGRATION
2202	18061413.D	AR1242		1	NO MANUAL INTEGRATION
2222	18061414.D	AR1248		1	NO MANUAL INTEGRATION
2242	18061415.D	AR1254		1	NO MANUAL INTEGRATION
2303	18061416.D	AR2162		1	NO MANUAL INTEGRATION
2323	18061417.D	AR3268		1	NO MANUAL INTEGRATION
2343	18061418.D	AR1660SCV1		1	NO MANUAL INTEGRATION
0004	18061419.D	AR1242SCV2		1	NO MANUAL INTEGRATION
0024	18061420.D	AR1248SCV3		1	NO MANUAL INTEGRATION
0044	18061421.D	AR1254SCV4		1	NO MANUAL INTEGRATION
0105	18061422.D	AR2162SCV5		1	NO MANUAL INTEGRATION
0125	18061423.D	AR3268SCV6		1	NO MANUAL INTEGRATION
0146	18061424.D	0.1PPM DDTS		1	NO MANUAL INTEGRATION
0206	18061425.D	DDT BD		1	NO MANUAL INTEGRATION

Security Status Report

Date: 20-Jun-2018 13:21

18061401.D	Data Locked	jrains, 20-Jun-2018 13:05
18061402.D	Data Locked	jrains, 20-Jun-2018 13:05
18061403.D	Data Locked	jrains, 20-Jun-2018 13:05
18061404.D	Data Locked	jrains, 20-Jun-2018 13:05
18061405.D	Data Locked	jrains, 20-Jun-2018 13:05
18061406.D	Data Locked	jrains, 20-Jun-2018 13:05
18061407.D	Data Locked	jrains, 20-Jun-2018 13:05
18061408.D	Data Locked	jrains, 20-Jun-2018 13:05
18061409.D	Data Locked	jrains, 20-Jun-2018 13:05
18061410.D	Data Locked	jrains, 20-Jun-2018 13:05
18061411.D	Data Locked	jrains, 20-Jun-2018 13:05
18061412.D	Data Locked	jrains, 20-Jun-2018 13:05
18061413.D	Data Locked	jrains, 20-Jun-2018 13:05
18061414.D	Data Locked	jrains, 20-Jun-2018 13:05
18061415.D	Data Locked	jrains, 20-Jun-2018 13:05
18061416.D	Data Locked	jrains, 20-Jun-2018 13:05
18061417.D	Data Locked	jrains, 20-Jun-2018 13:05
18061418.D	Data Locked	jrains, 20-Jun-2018 13:05
18061419.D	Data Locked	jrains, 20-Jun-2018 13:05
18061420.D	Data Locked	jrains, 20-Jun-2018 13:05
18061421.D	Data Locked	jrains, 20-Jun-2018 13:05
18061422.D	Data Locked	jrains, 20-Jun-2018 13:05
18061423.D	Data Locked	jrains, 20-Jun-2018 13:05
18061424.D	Data Locked	jrains, 20-Jun-2018 13:05
18061425.D	Data Locked	jrains, 20-Jun-2018 13:05

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-JUN-2018 19:59
End Cal Date : 15-JUN-2018 01:46
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd5.i\20180614.b\PCB.m\PCB2.m
Last Edit : 20-Jun-2018 08:04 jrains
Curve Type : Average

Calibration File Names:
Level 1: \\target\share\chem4\ecd5.i\20180614.b\20180614.b\18061408.D
Level 2: \\target\share\chem4\ecd5.i\20180614.b\20180614.b\18061409.D
Level 3: \\target\share\chem4\ecd5.i\20180614.b\20180614.b\18061411.D
Level 4: \\target\share\chem4\ecd5.i\20180614.b\20180614.b\18061407.D
Level 5: \\target\share\chem4\ecd5.i\20180614.b\20180614.b\18061412.D
Level 6: \\target\share\chem4\ecd5.i\20180614.b\20180614.b\18061410.D
Level 7: \\target\share\chem4\ecd5.i\20180614.b\20180614.b\18061417.D
Level 8: \\target\share\chem4\ecd5.i\20180614.b\20180614.b\18061424.D

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
1 Aroclor-1221 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00300	+++++	0.00300	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.01584	+++++	0.01584	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.00279	+++++	0.00279	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.00462	+++++	0.00462	0.000
4 Aroclor-1232 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00190	+++++	0.00190	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.01186	+++++	0.01186	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02571	+++++	0.02571	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.00525	+++++	0.00525	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-JUN-2018 19:59
End Cal Date : 15-JUN-2018 01:46
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd5.i\20180614.b\PCB.m\PCB2.m
Last Edit : 20-Jun-2018 08:04 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
3 Aroclor-1242 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++	0.02048	+++++	0.02048	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.04854	+++++	0.04854	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.01549	+++++	0.01549	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.01600	+++++	0.01600	0.000
6 Aroclor-1248 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++	0.02763	+++++	0.02763	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.01912	+++++	0.01912	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02085	+++++	0.02085	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.02479	+++++	0.02479	0.000
7 Aroclor-1016 [2C](1)	0.02648	0.02440	0.02480	0.02592	0.02488	0.02224	+++++	+++++	0.02479	5.923
(2)	0.05676	0.05497	0.05736	0.05990	0.05818	0.05456	+++++	+++++	0.05695	3.516
(3)	0.01342	0.01241	0.01261	0.01380	0.01455	0.01453	+++++	+++++	0.01355	6.784

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-JUN-2018 19:59
End Cal Date : 15-JUN-2018 01:46
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd5.i\20180614.b\PCB.m\PCB2.m
Last Edit : 20-Jun-2018 08:04 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
(4)	0.01627	0.01497	0.01559	0.01659	0.01666	0.01626				
	#####	#####							0.01606	4.079
8 Aroclor-1254 [2C](1)	#####	#####	#####	#####	#####	#####				
	0.02877	#####							0.02877	0.000
(2)	#####	#####	#####	#####	#####	#####				
	0.02117	#####							0.02117	0.000
(3)	#####	#####	#####	#####	#####	#####				
	0.04657	#####							0.04657	0.000
(4)	#####	#####	#####	#####	#####	#####				
	0.02086	#####							0.02086	0.000
(5)	#####	#####	#####	#####	#####	#####				
	0.02672	#####							0.02672	0.000
10 Aroclor-1262 [2C](1)	#####	#####	#####	#####	#####	#####				
	0.07713	#####							0.07713	0.000
(2)	#####	#####	#####	#####	#####	#####				
	0.06706	#####							0.06706	0.000
(3)	#####	#####	#####	#####	#####	#####				
	0.14018	#####							0.14018	0.000
(4)	#####	#####	#####	#####	#####	#####				
	0.09641	#####							0.09641	0.000
(5)	#####	#####	#####	#####	#####	#####				
	0.02315	#####							0.02315	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-JUN-2018 19:59
End Cal Date : 15-JUN-2018 01:46
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd5.i\20180614.b\PCB.m\PCB2.m
Last Edit : 20-Jun-2018 08:04 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
9 Aroclor-1260 [2C](1)	0.06401	0.06424	0.06248	0.06432	0.06335	0.05993	+++++	+++++	0.06306	2.660
(2)	0.05853	0.05535	0.05564	0.05684	0.05562	0.05315	+++++	+++++	0.05585	3.182
(3)	0.12867	0.12450	0.12634	0.12745	0.12434	0.12155	+++++	+++++	0.12547	2.033
(4)	0.03723	0.03615	0.03538	0.03686	0.03689	0.03456	+++++	+++++	0.03618	2.859
11 Aroclor-1268 [2C](1)	+++++	+++++	+++++	+++++	+++++	+++++	0.15764	+++++	0.15764	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.16389	+++++	0.16389	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.12852	+++++	0.12852	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.44347	+++++	0.44347	0.000
41 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	411	411	0.000
42 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	+++++	685	685	0.000
44 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	+++++	405	405	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-JUN-2018 19:59
End Cal Date : 15-JUN-2018 01:46
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd5.i\20180614.b\PCB.m\PCB2.m
Last Edit : 20-Jun-2018 08:04 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
45 4,4-DDD/2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	531					531	0.000
46 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	561					561	0.000
48 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
49 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
$ 2 Tetrachloro-m-xylene [2C]	0.72093	0.77189	0.81444	0.82811	0.81779	0.77247		
	+++++	+++++					0.78760	5.139
$ 13 Decachlorobiphenyl [2C]	1.26092	1.20974	1.21295	1.22666	1.25893	1.21835		
	+++++	+++++					1.23126	1.863

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-JUN-2018 19:59
End Cal Date : 15-JUN-2018 01:46
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd5.i\20180614.b\PCB.m
Last Edit : 20-Jun-2018 08:07 jrains
Curve Type : Average

Calibration File Names:
Level 1: \\target\share\chem4\ecd5.i\20180614.b\18061408.D
Level 2: \\target\share\chem4\ecd5.i\20180614.b\18061409.D
Level 3: \\target\share\chem4\ecd5.i\20180614.b\18061411.D
Level 4: \\target\share\chem4\ecd5.i\20180614.b\18061407.D
Level 5: \\target\share\chem4\ecd5.i\20180614.b\18061412.D
Level 6: \\target\share\chem4\ecd5.i\20180614.b\18061410.D
Level 7: \\target\share\chem4\ecd5.i\20180614.b\18061417.D
Level 8: \\target\share\chem4\ecd5.i\20180614.b\18061424.D

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
2 Aroclor-1221(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00580	+++++	0.00580	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.00704	+++++	0.00704	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.02119	+++++	0.02119	0.000
3 Aroclor-1242(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.01682	+++++	0.01682	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++	0.05596	+++++	0.05596	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++	0.01554	+++++	0.01554	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++	0.01978	+++++	0.01978	0.000
4 Aroclor-1232(1)	+++++	+++++	+++++	+++++	+++++	+++++	0.00370	+++++	0.00370	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-JUN-2018 19:59
End Cal Date : 15-JUN-2018 01:46
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd5.i\20180614.b\PCB.m
Last Edit : 20-Jun-2018 08:07 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
(2)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.00896	+++++							0.00896	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.02935	+++++							0.02935	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.00817	+++++							0.00817	0.000
7 Aroclor-1016(1)	0.02470	0.02176	0.02091	0.02041	0.01976	0.01860				
	+++++	+++++							0.02102	9.960
(2)	0.07747	0.07005	0.06896	0.06855	0.06742	0.06404				
	+++++	+++++							0.06941	6.414
(3)	0.02180	0.01971	0.01903	0.01879	0.01842	0.01783				
	+++++	+++++							0.01926	7.225
(4)	0.02705	0.02326	0.02226	0.02190	0.02125	0.02058				
	+++++	+++++							0.02272	10.156
6 Aroclor-1248(1)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.02153	+++++							0.02153	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.02477	+++++							0.02477	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.03820	+++++							0.03820	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.02898	+++++							0.02898	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-JUN-2018 19:59
End Cal Date : 15-JUN-2018 01:46
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd5.i\20180614.b\PCB.m
Last Edit : 20-Jun-2018 08:07 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	___ RRF	% RSD
8 Aroclor-1254(1)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.04654	+++++							0.04654	0.000
(2)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.01475	+++++							0.01475	0.000
(3)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.02964	+++++							0.02964	0.000
(4)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.05743	+++++							0.05743	0.000
(5)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.05706	+++++							0.05706	0.000
9 Aroclor-1260(1)	0.04988	0.04549	0.04353	0.04274	0.04152	0.03957				
	+++++	+++++							0.04379	8.177
(2)	0.04811	0.04386	0.04218	0.04163	0.04063	0.03886				
	+++++	+++++							0.04254	7.500
(3)	0.11420	0.11167	0.10061	0.10050	0.09893	0.09520				
	+++++	+++++							0.10352	7.336
(4)	0.05614	0.05123	0.04969	0.04924	0.04832	0.04624				
	+++++	+++++							0.05014	6.717
(5)	0.03168	0.02910	0.02814	0.02780	0.02703	0.02571				
	+++++	+++++							0.02824	7.194
10 Aroclor-1262(1)	+++++	+++++	+++++	+++++	+++++	+++++				
	0.06009	+++++							0.06009	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-JUN-2018 19:59
End Cal Date : 15-JUN-2018 01:46
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd5.i\20180614.b\PCB.m
Last Edit : 20-Jun-2018 08:07 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	250.000 Level 7	0.000e+00 Level 8	RRF	% RSD
(2)	*****	*****	*****	*****	*****	*****	0.04940	*****	0.04940	0.000
(3)	*****	*****	*****	*****	*****	*****	0.11146	*****	0.11146	0.000
(4)	*****	*****	*****	*****	*****	*****	0.03740	*****	0.03740	0.000
(5)	*****	*****	*****	*****	*****	*****	0.04671	*****	0.04671	0.000
11 Aroclor-1268(1)	*****	*****	*****	*****	*****	*****	0.13146	*****	0.13146	0.000
(2)	*****	*****	*****	*****	*****	*****	0.12039	*****	0.12039	0.000
(3)	*****	*****	*****	*****	*****	*****	0.10297	*****	0.10297	0.000
(4)	*****	*****	*****	*****	*****	*****	0.31233	*****	0.31233	0.000
42 2,4-DDE	*****	*****	*****	*****	*****	*****	*****	565	565	0.000
43 2,4-DDD	*****	*****	*****	*****	*****	*****	*****	935	935	0.000
44 2,4-DDT	*****	*****	*****	*****	*****	*****	*****	567	567	0.000

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 14-JUN-2018 19:59
End Cal Date : 15-JUN-2018 01:46
Quant Method : ISTD
Origin : Disabled
Target Version : 4.14
Integrator : HP Genie
Method file : \\target\share\chem4\ecd5.i\20180614.b\PCB.m
Last Edit : 20-Jun-2018 08:07 jrains
Curve Type : Average

Compound	20.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
	250.000 Level 7	0.000e+00 Level 8						
46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	834					834	0.000
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	604					604	0.000
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	745					745	0.000
49 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
50 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++					+++++	+++++
$ 1 Tetrachloro-m-xylene	0.95440	0.90405	0.90764	0.91815	0.90444	0.85528		
	+++++	+++++					0.90733	3.506
$ 13 Decachlorobiphenyl	0.95283	0.86776	0.83498	0.82724	0.80680	0.77671		
	+++++	+++++					0.84439	7.239

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd5.i\20180614.b\PCB.m
Batch File: \\target\share\chem4\ecd5.i\20180614.b
Inst ID: ecd5.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	18061407	18061408	18061409	18061410	18061411	18061412
INJ.DATE:	14-JUN-2018	14-JUN-2018	14-JUN-2018	14-JUN-2018	14-JUN-2018	14-JUN-2018
INJ.TIME:	19:59	20:20	20:40	21:01	21:21	21:41

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 41 IS-BNB	2.330	2.330	2.331	2.332	2.333	2.331	2.330	2.230-2.430	2.331	0.001
$ 1 Tetrachloro-m-xylene	4.449	4.449	4.450	4.450	4.451	4.449	4.449	4.349-4.549	4.450	0.001
2 Aroclor-1221	+++++	+++++	+++++	+++++	+++++	+++++	3.437	3.337-3.537	+++++	+++++
3 Aroclor-1242	+++++	+++++	+++++	+++++	+++++	+++++	6.073	5.973-6.173	+++++	+++++
4 Aroclor-1232	+++++	+++++	+++++	+++++	+++++	+++++	3.435	3.335-3.535	+++++	+++++
7 Aroclor-1016	6.071	6.072	6.071	6.072	6.073	6.072	6.071	5.971-6.171	6.072	0.001
6 Aroclor-1248	+++++	+++++	+++++	+++++	+++++	+++++	6.970	6.870-7.070	+++++	+++++
8 Aroclor-1254	+++++	+++++	+++++	+++++	+++++	+++++	8.181	8.081-8.281	+++++	+++++
9 Aroclor-1260	9.942	9.943	9.943	9.943	9.943	9.943	9.942	9.842-10.042	9.943	0.000
10 Aroclor-1262	+++++	+++++	+++++	+++++	+++++	+++++	9.942	9.842-10.042	+++++	+++++
11 Aroclor-1268	+++++	+++++	+++++	+++++	+++++	+++++	11.143	11.043-11.243	+++++	+++++
$ 13 Decachlorobiphenyl	12.789	12.788	12.788	12.789	12.788	12.789	12.789	12.689-12.889	12.789	0.000
* 12 IS-HBBP	13.149	13.147	13.147	13.148	13.148	13.148	13.149	13.049-13.249	13.148	0.001
42 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	8.148	8.098-8.198	+++++	+++++
43 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	8.574	8.524-8.624	+++++	+++++
44 2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	8.694	8.644-8.744	+++++	+++++
46 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	9.143	9.043-9.243	+++++	+++++

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd5.i\20180614.b\PCB.m
Batch File: \\target\share\chem4\ecd5.i\20180614.b
Inst ID: ecd5.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
47 4,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	9.196	9.096-9.296	+++++	+++++
48 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	9.653	9.553-9.753	+++++	+++++
49 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	1.842	1.742-1.942	+++++	+++++
50 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	6.708	6.608-6.808	+++++	+++++

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd5.i\20180614.b\PCB.m\PCB2.m
Batch File: \\target\share\chem4\ecd5.i\20180614.b\20180614.b
Inst ID: ecd5.i

ID:	RT01	RT02	RT03	RT04	RT05	RT06
FILENAME:	18061407	18061408	18061409	18061410	18061411	18061412
INJ.DATE:	14-JUN-2018	14-JUN-2018	14-JUN-2018	14-JUN-2018	14-JUN-2018	14-JUN-2018
INJ.TIME:	19:59	20:20	20:40	21:01	21:21	21:41

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 40 IS-BNB [2C]	2.671	2.672	2.673	2.672	2.674	2.672	2.673	2.573-2.773	2.672	0.001
$ 2 Tetrachloro-m-xylene [	4.290	4.291	4.291	4.296	4.293	4.294	4.290	4.190-4.390	4.292	0.002
1 Aroclor-1221 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	3.592	3.492-3.692	+++++	+++++
4 Aroclor-1232 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	3.590	3.490-3.690	+++++	+++++
3 Aroclor-1242 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	6.012	5.912-6.112	+++++	+++++
6 Aroclor-1248 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	6.644	6.544-6.744	+++++	+++++
7 Aroclor-1016 [2C]	6.010	6.011	6.010	6.011	6.013	6.011	6.011	5.911-6.111	6.011	0.001
8 Aroclor-1254 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	8.302	8.202-8.402	+++++	+++++
10 Aroclor-1262 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	10.065	9.965-10.165	+++++	+++++
9 Aroclor-1260 [2C]	9.967	9.968	9.968	9.968	9.968	9.968	9.968	9.868-10.068	9.968	0.000
11 Aroclor-1268 [2C]	+++++	+++++	+++++	+++++	+++++	+++++	11.295	11.195-11.395	+++++	+++++
$ 13 Decachlorobiphenyl [2C	12.977	12.976	12.976	12.980	12.976	12.977	12.977	12.877-13.077	12.977	0.001
* 12 IS-HBBP [2C]	13.828	13.828	13.827	13.828	13.827	13.828	13.828	13.728-13.928	13.828	0.000
41 2,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	8.389	8.339-8.439	+++++	+++++
42 2,4-DDD	+++++	+++++	+++++	+++++	+++++	+++++	8.774	8.724-8.824	+++++	+++++
44 4,4-DDE	+++++	+++++	+++++	+++++	+++++	+++++	9.064	8.964-9.164	+++++	+++++
45 4,4-DDD/2,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	9.524	9.424-9.624	+++++	+++++

Reviewer 1 _____ Date:_____
Reviewer 2 _____ Date:_____

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem4\ecd5.i\20180614.b\PCB.m\PCB2.m
Batch File: \\target\share\chem4\ecd5.i\20180614.b\20180614.b
Inst ID: ecd5.i

Compound	RT01	RT02	RT03	RT04	RT05	RT06	EXPEC RT	RT WINDOW	AVG RT	STD DEV
46 4,4-DDT	+++++	+++++	+++++	+++++	+++++	+++++	9.957	9.857-10.057	+++++	+++++
48 Hexachlorobutadiene	+++++	+++++	+++++	+++++	+++++	+++++	1.703	1.603-1.803	+++++	+++++
49 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	7.178	7.078-7.278	+++++	+++++

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180614.b/18061406.D
Data file 2: /20180614.b/20180614.b/18061406.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: IB
Client ID:
Injection Date: 14-JUN-2018 19:39
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.447	-0.001	406339734	4.289	-0.000	1735959026	40.8	42.5	4.1	Tetrachloro-m-xylene
12.789	0.000	296023707	12.977	0.000	1234321293	38.6	38.9	0.8	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	102.0	106.3
Decachlorobiphenyl	96.4	97.2

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	877717358	-4.6
Hexabromobiphenyl	761926666	727088842	-4.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4147618795	-6.1
Hexabromobiphenyl	2171332320	2062241976	-5.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.068	-0.004	249040	1.1	1	6.016	0.004	113385	0.1
Aroclor-1016	2	6.447	-0.025	209145	0.3	2	6.619	-0.026	387708	0.1
Aroclor-1016	3	6.788	0.056	260262	1.2	3	7.017	-0.008	133197	0.2
Aroclor-1016	4	7.393	-0.049	278441	1.1	4	7.533	-0.007	435654	0.5
Total Col1Ave (4 peaks):					0.9	Total Col2Ave (4 peaks):				0.2 RPD = 120*
Corrected Ave (3 peaks):					0.8	Corrected Ave (3 peaks):				0.1 RPD = 143*
Aroclor-1221	1	3.396	-0.041	520537	8.2	1	3.593	0.001	70438	0.5
Aroclor-1221	2	4.971	-0.009	5489635	71.1	2	5.320	0.013	2768315	3.4
Aroclor-1221	3	---			0.0	3	5.374	-0.000	32819	0.2
Aroclor-1221	NS	---			----	4	6.619	-0.028	387708	1.6
Col1Ave: <3 Quant Peaks						Col2Ave: 1.4				
Aroclor-1232	1	3.396	-0.039	520537	12.8	1	3.593	0.003	70438	0.7
Aroclor-1232	2	6.068	-0.003	249040	2.5	2	6.016	0.005	113385	0.2
Aroclor-1232	3	6.447	-0.024	209145	0.6	3	6.619	-0.025	387708	0.3
Aroclor-1232	4	6.788	0.057	260262	2.9	4	7.201	0.005	89549	0.3
Total Col1Ave (4 peaks):					4.7	Total Col2Ave (4 peaks):				0.4 RPD = 170*
Corrected Ave (3 peaks):					2.0	Corrected Ave (3 peaks):				0.3 RPD = 153*
Aroclor-1242	1	6.068	-0.005	249040	1.3	1	6.016	0.004	113385	0.1
Aroclor-1242	2	6.447	-0.026	209145	0.3	2	6.619	-0.026	387708	0.2
Aroclor-1242	3	6.788	0.055	260262	1.5	3	7.533	-0.007	435654	0.5
Aroclor-1242	4	8.092	-0.008	99453	0.5	4	8.438	0.030	784804	0.9
Total Col1Ave (4 peaks):					0.9	Total Col2Ave (4 peaks):				0.4 RPD = 71*
Corrected Ave (3 peaks):					0.7	Corrected Ave (3 peaks):				0.3 RPD = 91*
Aroclor-1248	1	7.026	0.056	461235	2.0	1	6.619	-0.025	387708	0.3
Aroclor-1248	2	7.229	-0.039	441838	1.6	2	7.141	0.008	114219	0.1
Aroclor-1248	3	7.866	0.001	284050	0.7	3	7.533	-0.007	435654	0.4
Aroclor-1248	4	8.092	-0.008	99453	0.3	4	8.065	0.072	2977771	2.3
Total Col1Ave (4 peaks):					1.1	Total Col2Ave (4 peaks):				0.8 RPD = 38
Corrected Ave (3 peaks):					0.9	Corrected Ave (3 peaks):				0.3 RPD = 107*
Aroclor-1254	1	8.185	0.005	49568	0.1	1	8.296	-0.006	1039706	0.7
Aroclor-1254	2	8.266	0.009	66765	0.4	2	8.815	-0.001	1591066	1.4
Aroclor-1254	3	8.528	-0.023	75199	0.2	3	8.951	-0.012	720700	0.3
Aroclor-1254	4	8.695	0.010	289496	0.5	4	9.417	-0.013	335394	0.3
Aroclor-1254	5	9.704	-0.010	506744	0.8	5	9.738	0.001	687310	0.5
Total Col1Ave (5 peaks):					0.4	Total Col2Ave (5 peaks):				0.7 RPD = 47*
Corrected Ave (4 peaks):					0.3	Corrected Ave (4 peaks):				0.5 RPD = 40*
Aroclor-1260	1	9.943	0.000	102388	0.3	1	9.989	0.021	1091621	0.7
Aroclor-1260	2	10.265	0.007	118415	0.3	2	10.506	-0.003	248749	0.2
Aroclor-1260	3	10.668	0.039	570167	0.6	3	10.798	0.018	361050	0.1
Aroclor-1260	4	11.049	0.023	97129	0.2	4	11.307	0.012	164947	0.2
Aroclor-1260	5	11.221	0.005	83064	0.3	NS	---			----
Total Col1Ave (5 peaks):					0.3	Total Col2Ave (4 peaks):				0.3 RPD = 19
Corrected Ave (4 peaks):					0.3	Corrected Ave (3 peaks):				0.2 RPD = 57*
Aroclor-1262	1	9.943	0.001	102388	0.2	1	10.062	-0.002	793680	0.4
Aroclor-1262	2	10.265	0.007	118415	0.3	2	10.506	-0.003	248749	0.1
Aroclor-1262	3	10.668	0.041	570167	0.6	3	10.798	0.018	361050	0.1
Aroclor-1262	4	11.049	0.022	97129	0.3	4	11.365	0.010	374380	0.2
Aroclor-1262	5	11.221	0.006	83064	0.2	5	11.930	-0.010	30958435	51.9
Total Col1Ave (5 peaks):					0.3	Total Col2Ave (5 peaks):				10.5 RPD = 189*
Corrected Ave (4 peaks):					0.2	Corrected Ave (4 peaks):				0.2 RPD = 16
Aroclor-1268	1	11.143	0.000	69995	0.1	1	11.307	0.012	164947	0.0
Aroclor-1268	2	11.221	0.008	83064	0.1	2	11.365	0.003	374380	0.1
Aroclor-1268	3	11.601	0.002	1336753	1.4	3	11.754	0.001	1085422	0.3
Aroclor-1268	4	12.373	-0.010	3670000	1.3	4	12.568	0.000	2192156	0.2

Total Col1Ave (4 peaks):	0.7	Total Col2Ave (4 peaks):	0.2	RPD = 126*
Corrected Ave (3 peaks):	0.5	Corrected Ave (3 peaks):	0.1	RPD = 127*

Total PCB Area Col1 (4.548 - 12.689) = 51227356 Col1 Total PCB = 0.0 ppm*

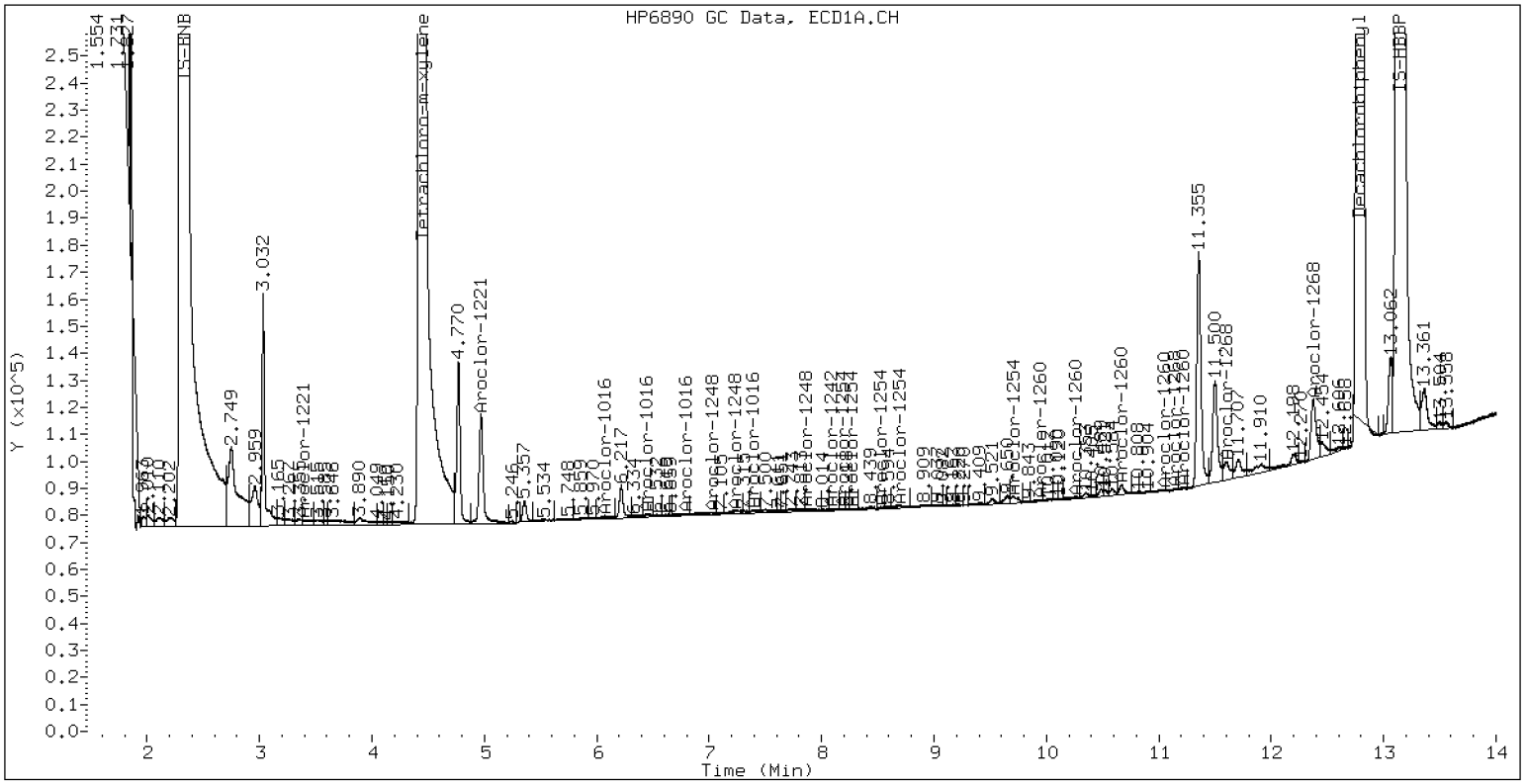
Total PCB Area Col2 (4.548 - 12.689) = 43330876 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

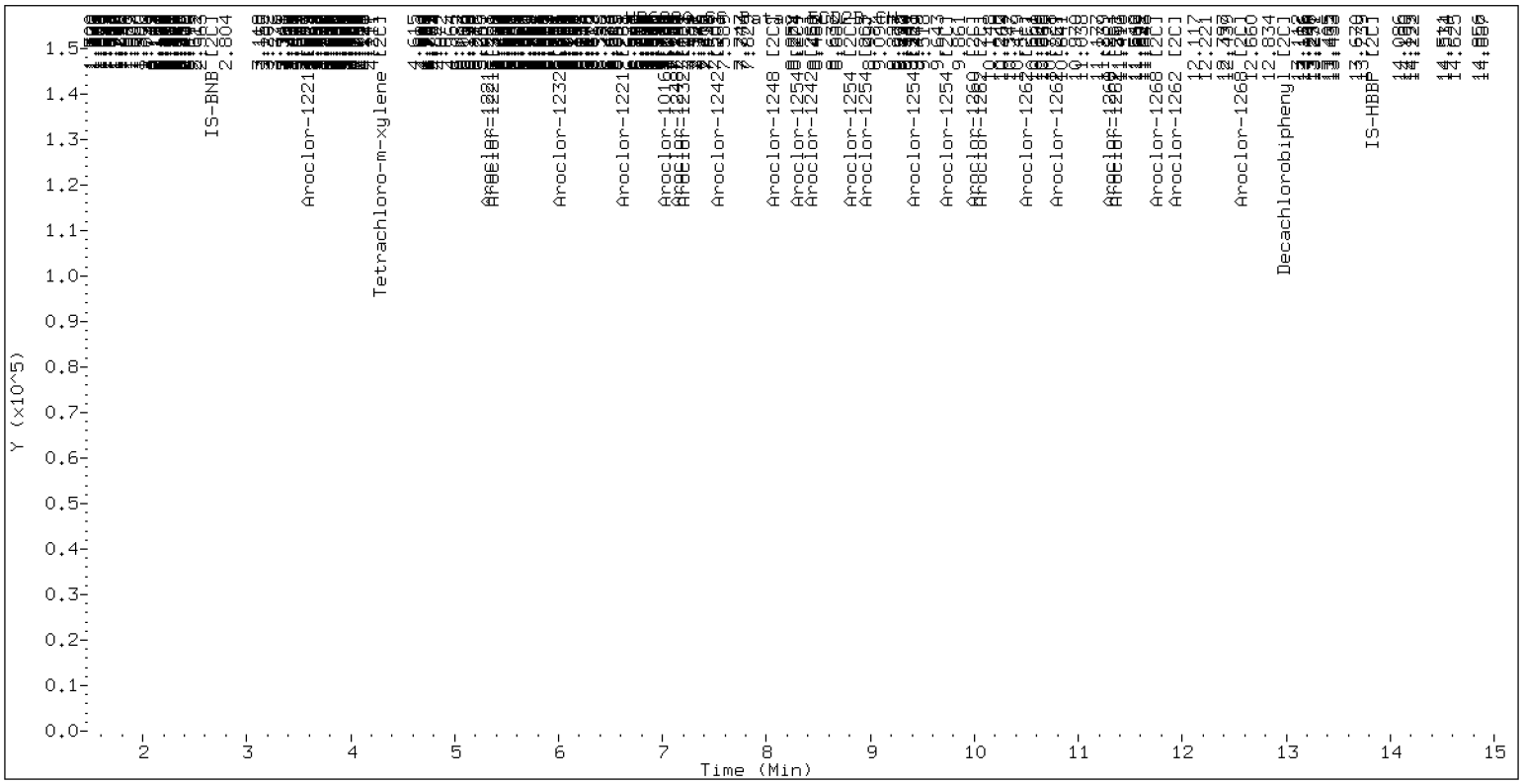
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061406.D IB 14-JUN-2018 19:39 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061406.D IB



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180614.b/18061407.D
Data file 2: /20180614.b/20180614.b/18061407.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: AR1660.sub
Quant Method: Internal Std

ARI ID: 0.25PPMAR1660
Client ID:
Injection Date: 14-JUN-2018 19:59
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.449	0.000	422432746	4.290	0.000	1829403595	40.5	42.1	3.8	Tetrachloro-m-xylene
12.789	-0.000	315147510	12.977	-0.001	1331739405	39.2	39.9	1.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	101.2	105.1
Decachlorobiphenyl	98.0	99.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	920186193	0.0
Hexabromobiphenyl	761926666	761926666	0.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4418272337	0.0
Hexabromobiphenyl	2171332320	2171332320	0.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.071	-0.001	58690778	242.7	1	6.010	-0.001	357831098	261.4
Aroclor-1016	2	6.472	0.000	197118539	246.9	2	6.644	-0.001	827032714	262.9
Aroclor-1016	3	6.731	-0.000	54036093	243.9	3	7.024	-0.000	190483265	254.5
Aroclor-1016	4	7.441	-0.000	62980749	241.0	4	7.540	-0.001	229048309	258.3
Total Col1Ave (4 peaks):					243.6	Total Col2Ave (4 peaks):				259.3 RPD = 6
Corrected Ave (3 peaks):					242.5	Corrected Ave (3 peaks):				258.1 RPD = 6
CalAmt %D:					-2.5	CalAmt %D:				3.7
Aroclor-1260	1	9.942	-0.001	101766176	244.0	1	9.967	-0.001	436441400	255.0
Aroclor-1260	2	10.258	-0.001	99125852	244.6	2	10.507	-0.001	385683947	254.4
Aroclor-1260	3	10.628	-0.001	239282596	242.7	3	10.780	-0.001	864814953	253.9
Aroclor-1260	4	11.027	-0.000	117235207	245.5	4	11.294	-0.000	250087683	254.7
Aroclor-1260	5	11.214	-0.001	66184644	246.0	NS	---			----
Total Col1Ave (5 peaks):					244.6	Total Col2Ave (4 peaks):				254.5 RPD = 4
Corrected Ave (4 peaks):					244.2	Corrected Ave (3 peaks):				254.3 RPD = 4
CalAmt %D:					-2.2	CalAmt %D:				1.8

Total PCB Area Col1 (4.548 - 12.689) = 2811215679 Col1 Total PCB = 0.5 ppm*

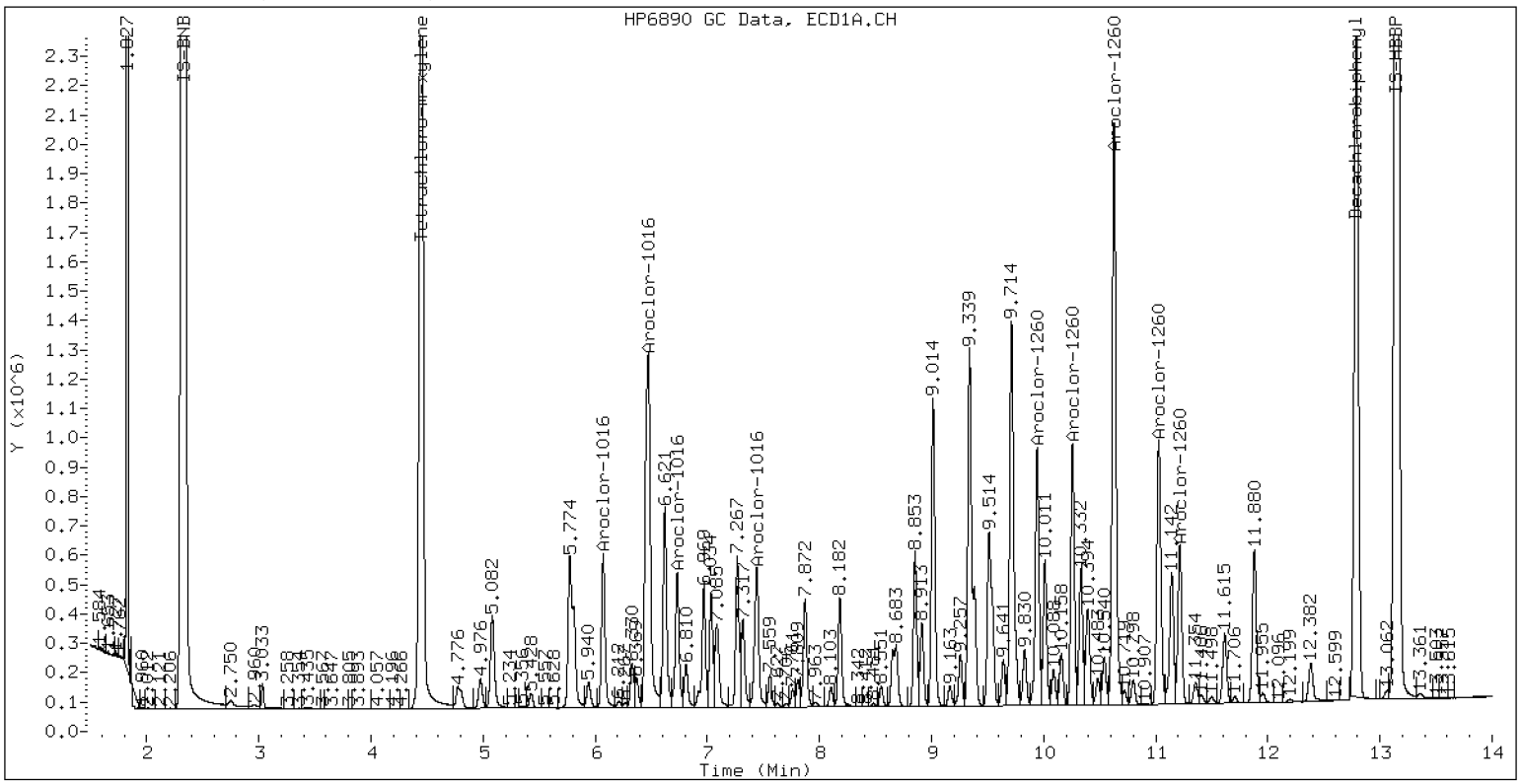
Total PCB Area Col2 (4.548 - 12.689) = 4161289964 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

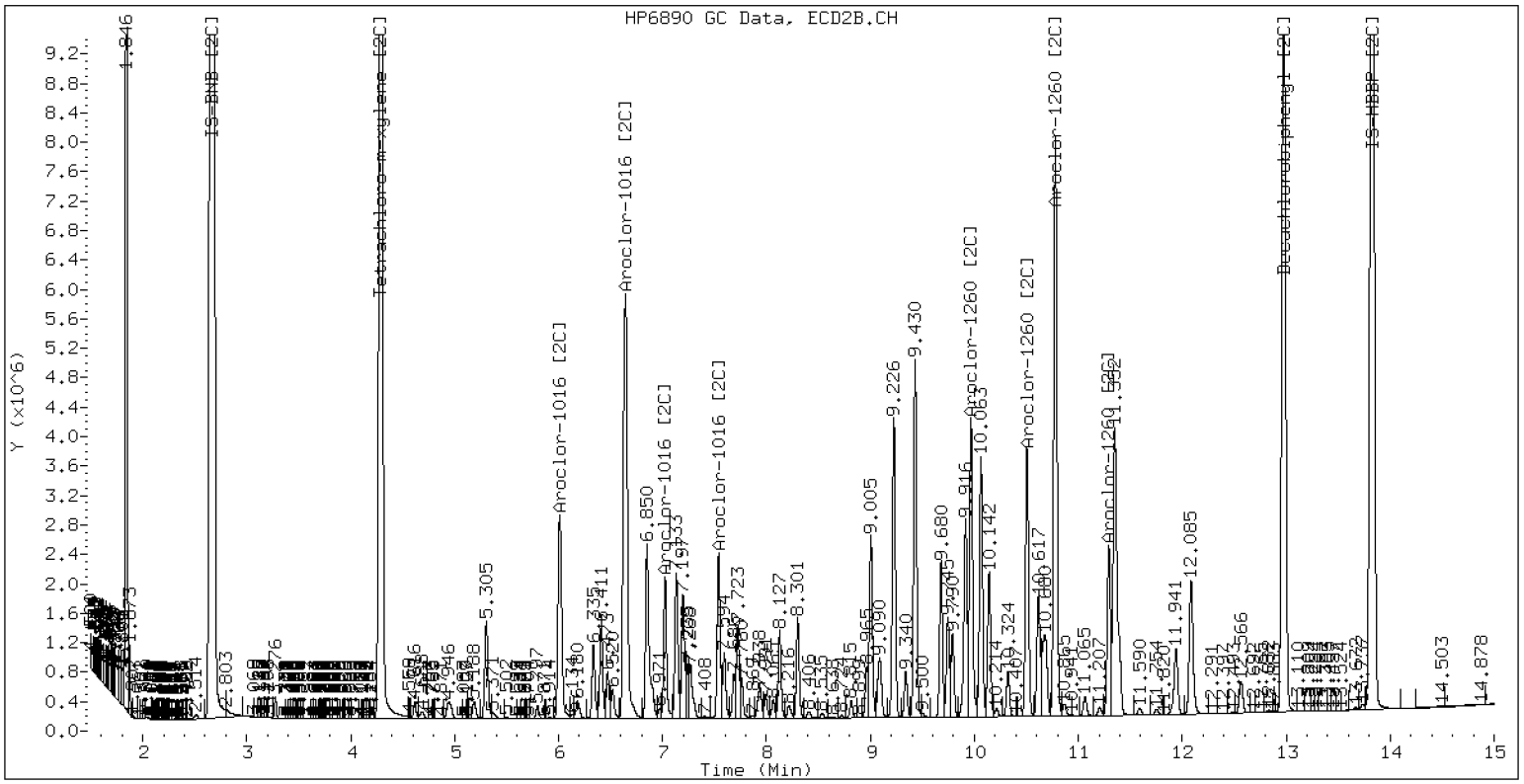
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061407.D 0.25PPMAR1660 14-JUN-2018 19:59 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061407.D 0.25PPMAR1660



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180614.b/18061408.D
Data file 2: /20180614.b/20180614.b/18061408.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: AR1660.sub
Quant Method: Internal Std

ARI ID: 0.02PPMAR1660
Client ID:
Injection Date: 14-JUN-2018 20:20
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.449	0.001	35577545	4.291	0.001	132411032	3.4	2.9	13.9	Tetrachloro-m-xylene
12.788	-0.001	29270223	12.976	-0.001	111397028	3.6	3.3	9.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	8.4	7.3
Decachlorobiphenyl	9.0	8.2

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	931932090	1.3
Hexabromobiphenyl	761926666	767981423	0.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4591649365	3.9
Hexabromobiphenyl	2171332320	2208646851	1.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.072	-0.000	5754357	23.5	1	6.011	-0.000	30396138	21.4
Aroclor-1016	2	6.472	-0.001	18048321	22.3	2	6.645	-0.000	65155218	19.9
Aroclor-1016	3	6.732	0.000	5079821	22.6	3	7.025	-0.000	15406343	19.8
Aroclor-1016	4	7.442	0.001	6301232	23.8	4	7.540	-0.001	18673074	20.3
	Total Col1Ave (4 peaks):				23.1	Total Col2Ave (4 peaks):				20.3 RPD = 13
	Corrected Ave (3 peaks):				22.8	Corrected Ave (3 peaks):				20.0 RPD = 13
			CalAmt %D:		15.3			CalAmt %D:		1.7
Aroclor-1260	1	9.943	0.001	9576865	22.8	1	9.968	0.000	35344067	20.3
Aroclor-1260	2	10.258	0.000	9236780	22.6	2	10.508	-0.001	32317847	21.0
Aroclor-1260	3	10.628	-0.001	21925121	22.1	3	10.780	-0.001	71045417	20.5
Aroclor-1260	4	11.027	0.000	10778657	22.4	4	11.295	0.000	20558524	20.6
Aroclor-1260	5	11.216	0.000	6082673	22.4	NS	---			----
	Total Col1Ave (5 peaks):				22.5	Total Col2Ave (4 peaks):				20.6 RPD = 9
	Corrected Ave (4 peaks):				22.4	Corrected Ave (3 peaks):				20.5 RPD = 9
			CalAmt %D:		12.3			CalAmt %D:		2.9

Total PCB Area Col1 (4.548 - 12.689) = 280652907 Col1 Total PCB = 0.0 ppm*

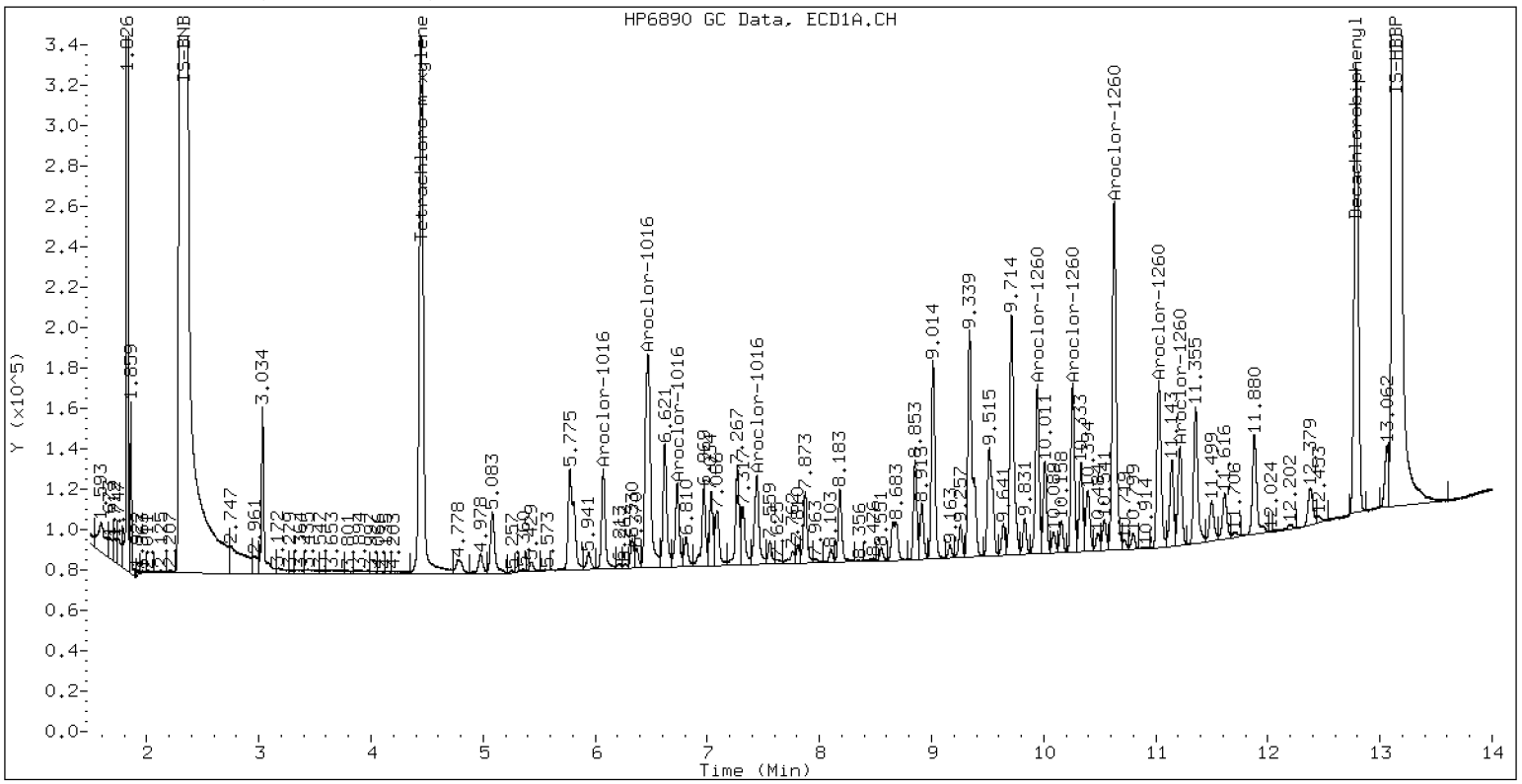
Total PCB Area Col2 (4.548 - 12.689) = 73133709 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

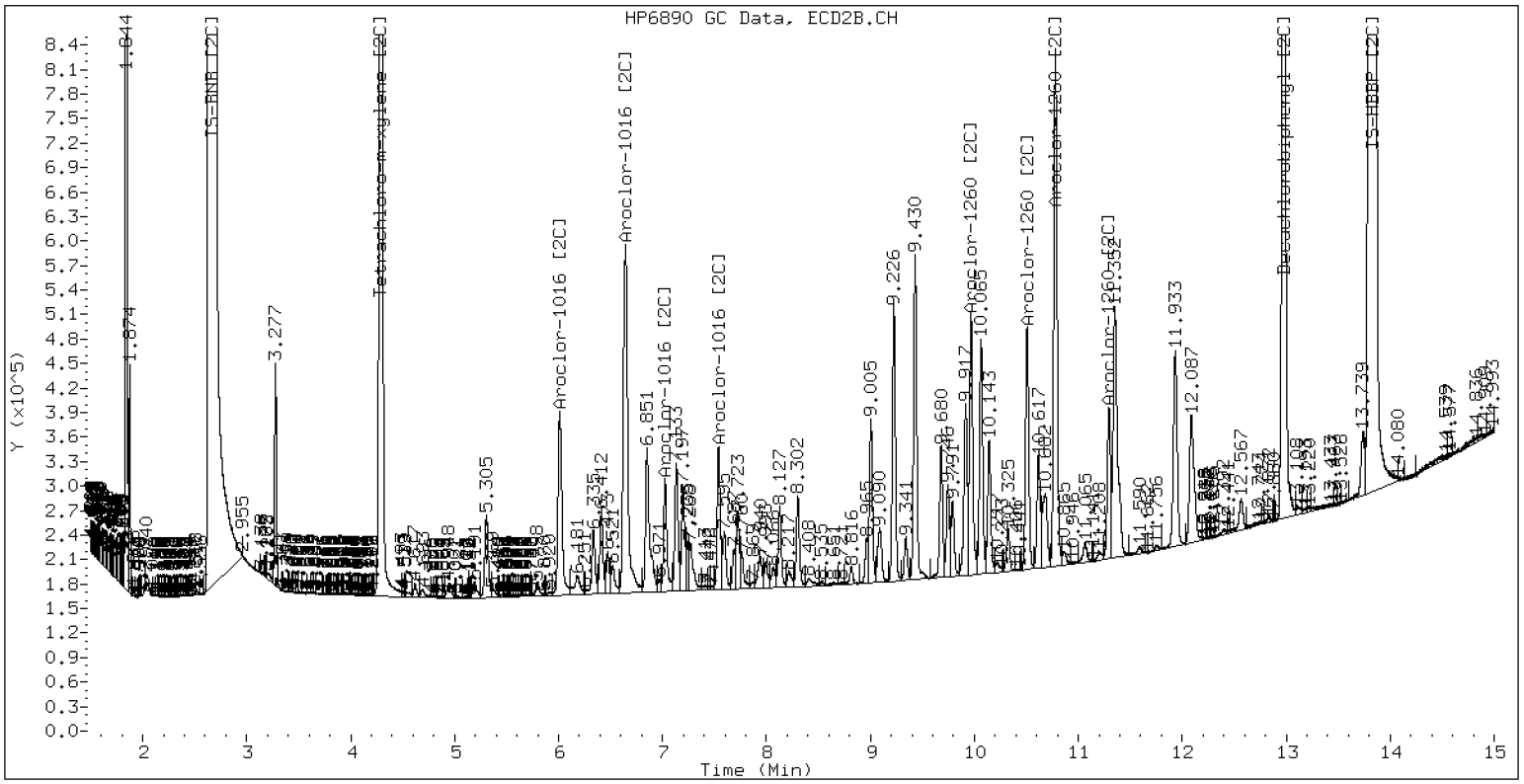
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061408.D 0.02PPMAR1660 14-JUN-2018 20:20 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061408.D 0.02PPMAR1660



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180614.b/18061409.D
Data file 2: /20180614.b/20180614.b/18061409.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: AR1660.sub
Quant Method: Internal Std

ARI ID: 0.05PPMAR1660
Client ID:
Injection Date: 14-JUN-2018 20:40
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.450	0.001	87278637	4.291	0.001	370393786	8.0	7.8	1.7	Tetrachloro-m-xylene
12.788	-0.001	68766610	12.976	-0.001	278176406	8.2	7.9	4.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	19.9	19.6
Decachlorobiphenyl	20.6	19.7

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	965420253	4.9
Hexabromobiphenyl	761926666	792458888	4.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4798554633	8.6
Hexabromobiphenyl	2171332320	2299472544	5.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.071	-0.000	13126728	51.7	1	6.010	-0.001	73183664	49.2
Aroclor-1016	2	6.472	-0.000	42270159	50.5	2	6.645	-0.000	164845459	48.3
Aroclor-1016	3	6.732	0.000	11891777	51.2	3	7.024	-0.000	37216586	45.8
Aroclor-1016	4	7.441	-0.000	14033463	51.2	4	7.540	-0.000	44892702	46.6
	Total Col1Ave (4 peaks):				51.1	Total Col2Ave (4 peaks):				47.5 RPD = 7
	Corrected Ave (3 peaks):				50.9	Corrected Ave (3 peaks):				46.9 RPD = 8
		CalAmt %D:			2.3		CalAmt %D:			-5.1
Aroclor-1260	1	9.943	-0.000	22529992	51.9	1	9.968	0.000	92322479	50.9
Aroclor-1260	2	10.258	-0.000	21722856	51.5	2	10.508	-0.000	79541083	49.5
Aroclor-1260	3	10.628	-0.001	55306984	53.9	3	10.779	-0.001	178927367	49.6
Aroclor-1260	4	11.027	0.001	25375018	51.1	4	11.294	0.000	51957997	50.0
Aroclor-1260	5	11.216	-0.000	14412736	51.5	NS	---			----
	Total Col1Ave (5 peaks):				52.0	Total Col2Ave (4 peaks):				50.0 RPD = 4
	Corrected Ave (4 peaks):				51.5	Corrected Ave (3 peaks):				49.7 RPD = 4
		CalAmt %D:			4.0		CalAmt %D:			0.0

Total PCB Area Col1 (4.548 - 12.689) = 641961132 Col1 Total PCB = 0.1 ppm*

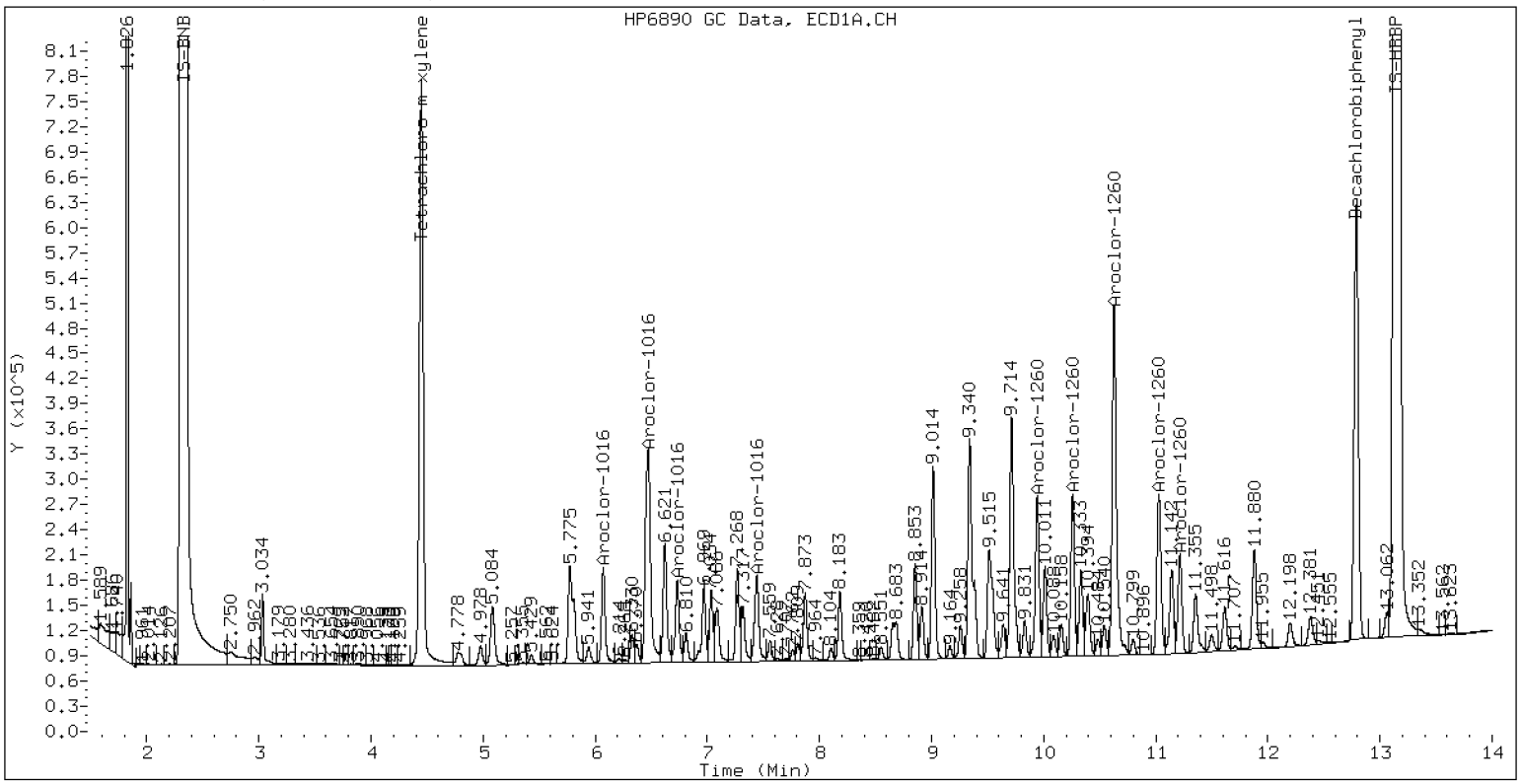
Total PCB Area Col2 (4.548 - 12.689) = 2030326755 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

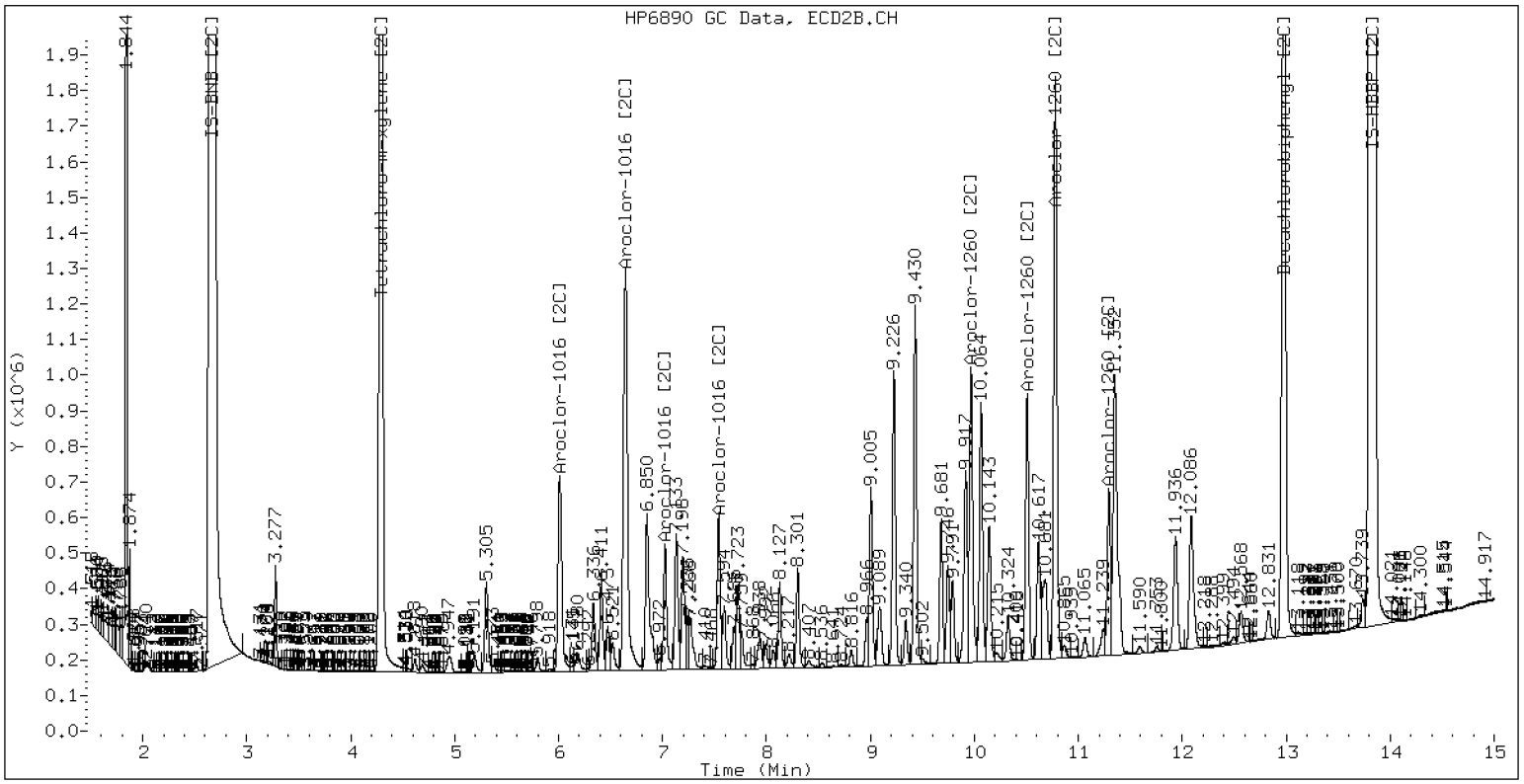
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061409.D 0.05PPMAR1660 14-JUN-2018 20:40 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061409.D 0.05PPMAR1660



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180614.b/18061410.D
Data file 2: /20180614.b/20180614.b/18061410.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: AR1660.sub
Quant Method: Internal Std

ARI ID: 1PPMAR1660
Client ID:
Injection Date: 14-JUN-2018 21:01
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.450	0.002	1585393984	4.296	0.006	6976489041	150.8	156.9	4.0	Tetrachloro-m-xylen
12.789	0.000	1208097798	12.980	0.002	5645118695	147.2	158.3	7.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	377.1	392.3
Decachlorobiphenyl	367.9	395.8

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	926823834	0.7
Hexabromobiphenyl	761926666	777699832	2.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4515694495	2.2
Hexabromobiphenyl	2171332320	2316704298	6.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.072	0.000	215429400	884.6	1	6.011	-0.000	1255452933	897.3
Aroclor-1016	2	6.472	-0.000	741865734	922.5	2	6.645	-0.000	3079889287	958.0
Aroclor-1016	3	6.731	-0.000	206615589	925.8	3	7.024	-0.001	819971084	1071.9
Aroclor-1016	4	7.441	-0.001	238430490	906.0	4	7.540	-0.001	917903354	1012.8
	Total Col1Ave (4 peaks):				909.7	Total Col2Ave (4 peaks):				985.0 RPD = 8
	Corrected Ave (3 peaks):				904.3	Corrected Ave (3 peaks):				956.0 RPD = 6
		CalAmt %D:			-9.0		CalAmt %D:			-1.5
Aroclor-1260	1	9.943	0.000	384648948	903.6	1	9.968	0.000	1735644803	950.5
Aroclor-1260	2	10.258	-0.000	377757312	913.4	2	10.508	-0.000	1539215022	951.6
Aroclor-1260	3	10.629	-0.000	925425487	919.6	3	10.783	0.002	3519819978	968.7
Aroclor-1260	4	11.027	0.001	449542089	922.2	4	11.294	-0.000	1000736042	955.2
Aroclor-1260	5	11.216	0.000	249977124	910.5	NS	---			----
	Total Col1Ave (5 peaks):				913.9	Total Col2Ave (4 peaks):				956.5 RPD = 5
	Corrected Ave (4 peaks):				911.8	Corrected Ave (3 peaks):				952.4 RPD = 4
		CalAmt %D:			-8.6		CalAmt %D:			-4.3

Total PCB Area Col1 (4.548 - 12.689) = 10517106654 Col1 Total PCB = 1.9 ppm*

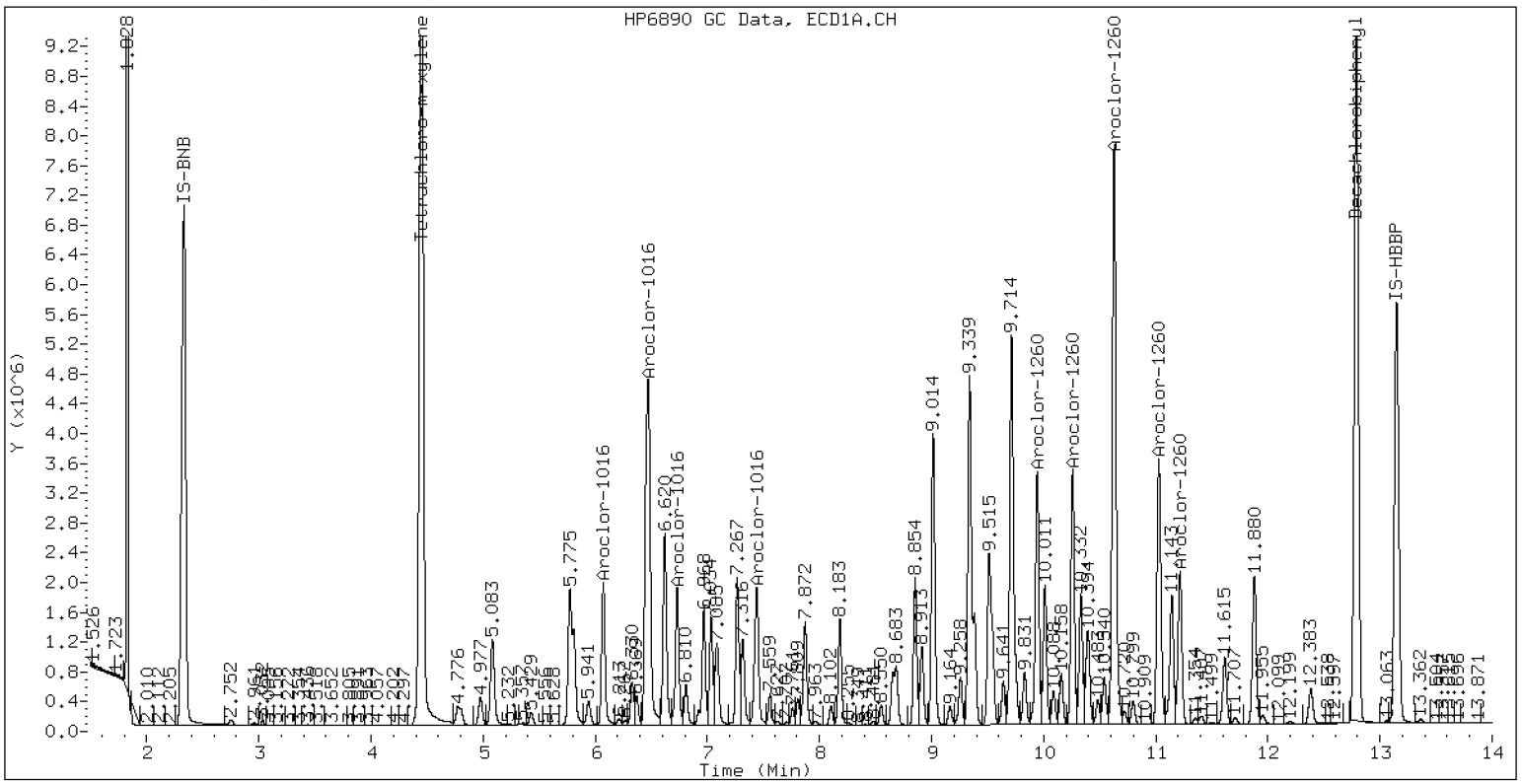
Total PCB Area Col2 (4.548 - 12.689) = 21158827247 Col2 Total PCB = 2.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

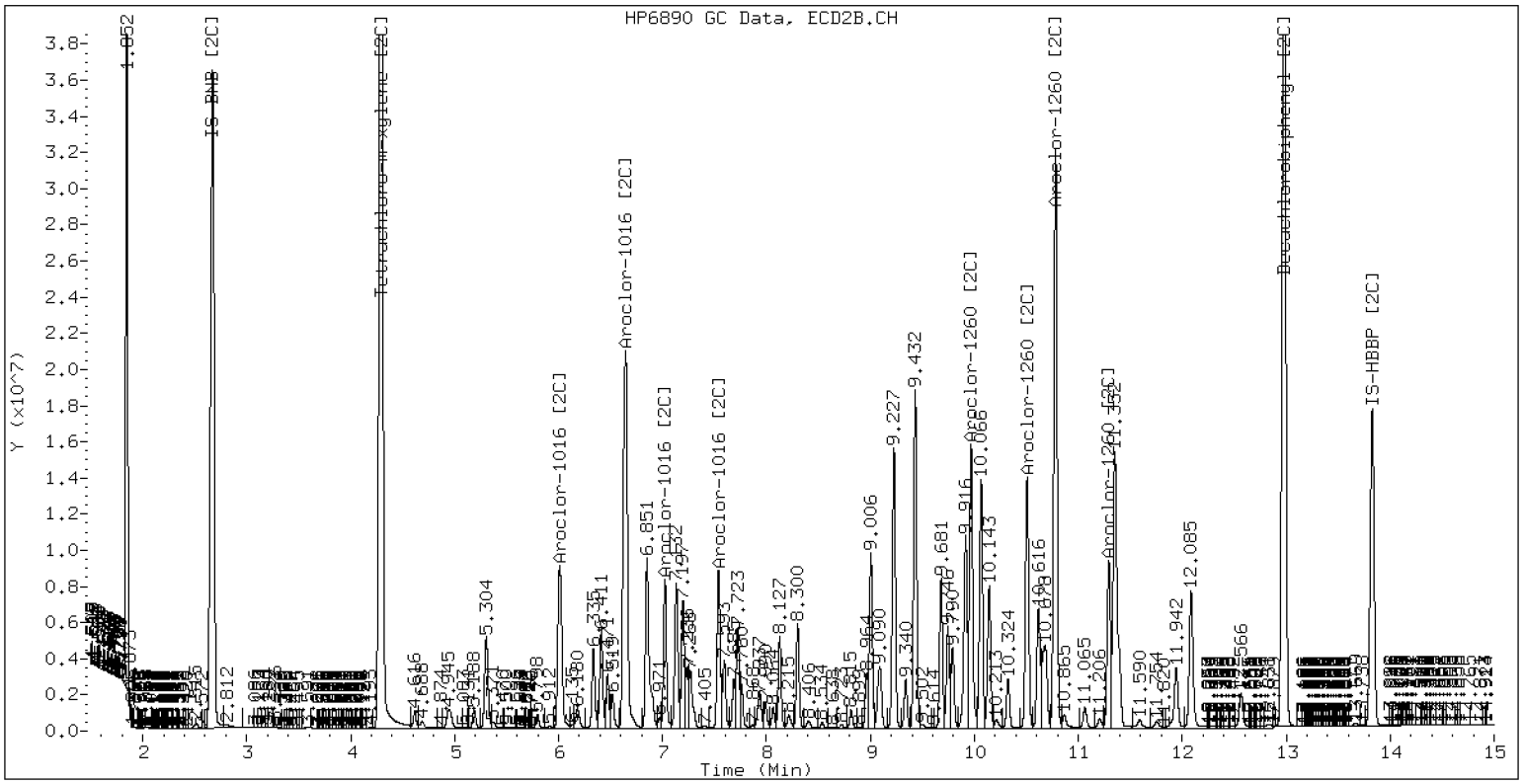
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061410.D 1PPMAR1660 14-JUN-2018 21:01 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061410.D 1PPMAR1660



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180614.b/18061411.D
Data file 2: /20180614.b/20180614.b/18061411.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: AR1660.sub
Quant Method: Internal Std

ARI ID: 0.1PPMAR1660
Client ID:
Injection Date: 14-JUN-2018 21:21
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.451	0.003	179066707	4.293	0.003	820367994	16.0	16.5	3.3	Tetrachloro-m-xylene
12.788	-0.001	135302061	12.976	-0.001	583034109	15.8	15.8	0.4	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	40.0	41.4
Decachlorobiphenyl	39.6	39.4

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	986441689	7.2
Hexabromobiphenyl	761926666	810214783	6.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5036417002	14.0
Hexabromobiphenyl	2171332320	2403370353	10.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.073	0.001	25783297	99.5	1	6.013	0.001	156111406	100.0
Aroclor-1016	2	6.473	0.000	85030603	99.3	2	6.646	0.001	361118983	100.7
Aroclor-1016	3	6.732	0.001	23464363	98.8	3	7.026	0.001	79378506	93.0
Aroclor-1016	4	7.442	0.000	27451665	98.0	4	7.541	0.000	98119034	97.1
	Total Col1Ave (4 peaks):				98.9	Total Col2Ave (4 peaks):				97.7 RPD = 1
	Corrected Ave (3 peaks):				98.7	Corrected Ave (3 peaks):				96.7 RPD = 2
			CalAmt %D:		-1.1			CalAmt %D:		-2.3
Aroclor-1260	1	9.943	0.000	44089159	99.4	1	9.968	0.000	187709750	99.1
Aroclor-1260	2	10.258	-0.000	42716523	99.1	2	10.508	-0.000	167154803	99.6
Aroclor-1260	3	10.628	-0.001	101893184	97.2	3	10.779	-0.001	379558386	100.7
Aroclor-1260	4	11.028	0.001	50319721	99.1	4	11.295	0.000	106279502	97.8
Aroclor-1260	5	11.216	-0.000	28500085	99.6	NS	---			----
	Total Col1Ave (5 peaks):				98.9	Total Col2Ave (4 peaks):				99.3 RPD = 0
	Corrected Ave (4 peaks):				98.7	Corrected Ave (3 peaks):				98.8 RPD = 0
			CalAmt %D:		-1.1			CalAmt %D:		-0.7

Total PCB Area Col1 (4.548 - 12.689) = 1230275241 Col1 Total PCB = 0.2 ppm*

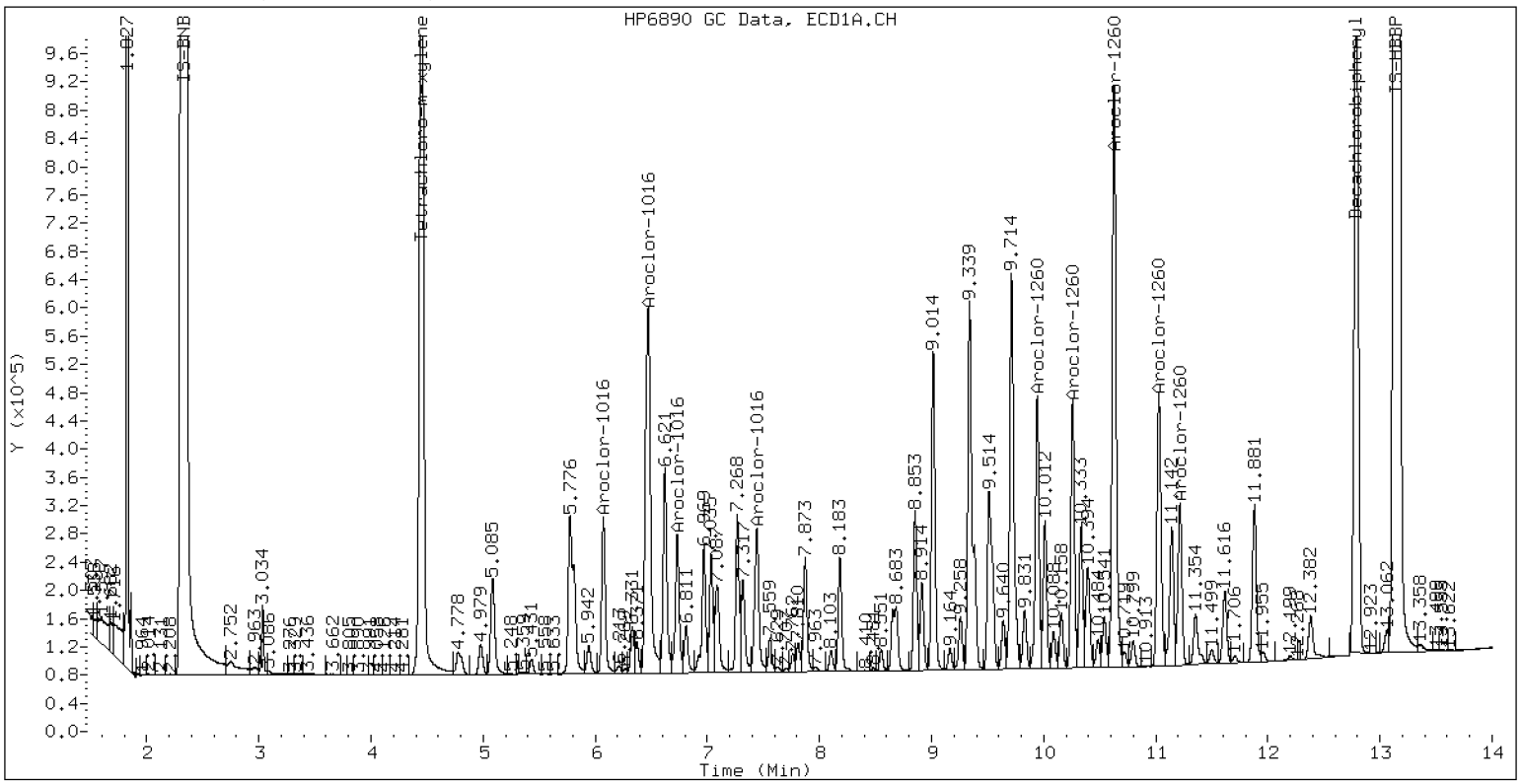
Total PCB Area Col2 (4.548 - 12.689) = 4139787508 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

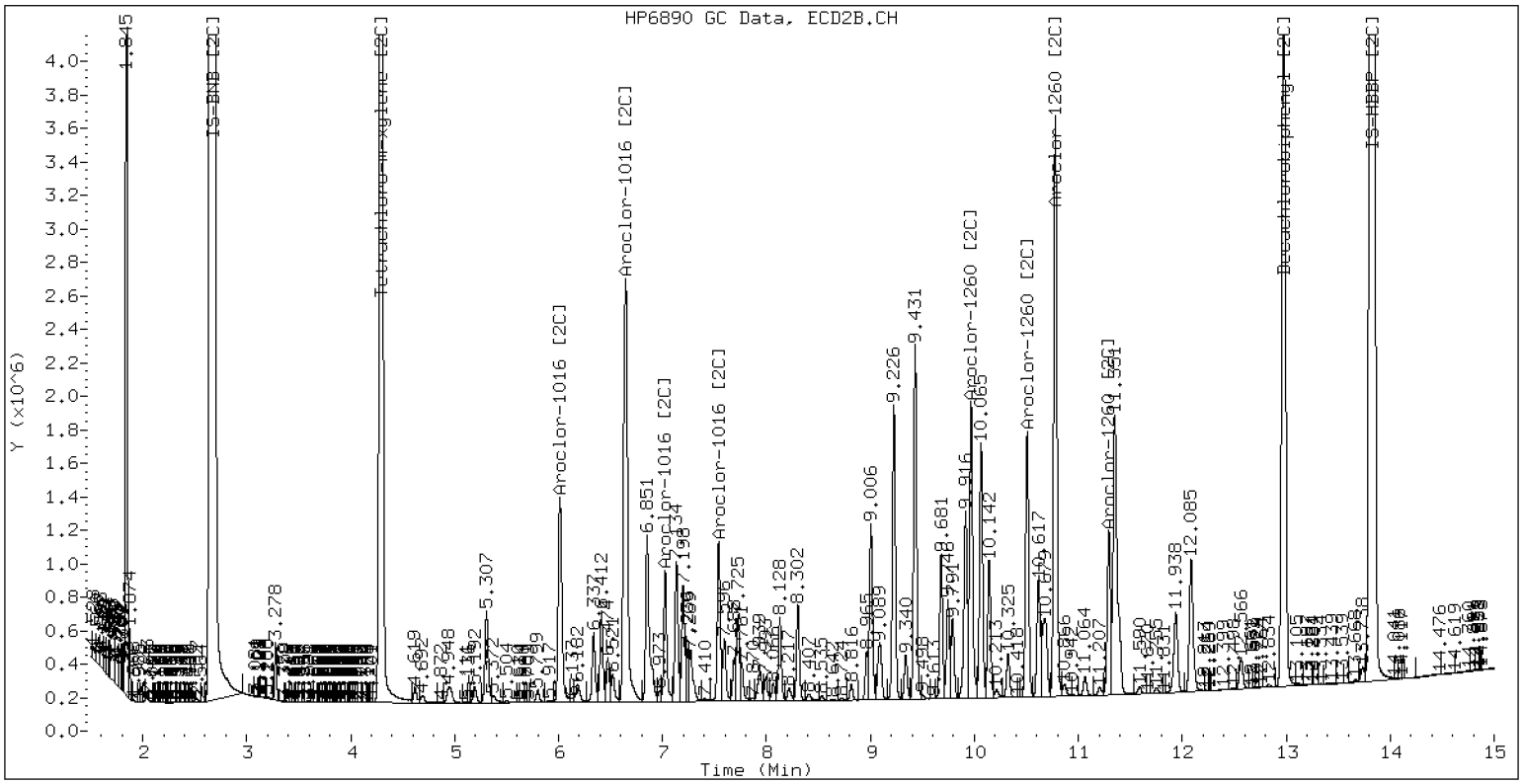
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061411.D 0.1PPMAR1660 14-JUN-2018 21:21 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061411.D 0.1PPMAR1660



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180614.b/18061412.D
Data file 2: /20180614.b/20180614.b/18061412.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: AR1660.sub
Quant Method: Internal Std

ARI ID: 0.5PPMAR1660
Client ID:
Injection Date: 14-JUN-2018 21:41
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.449	0.001	869095629	4.294	0.004	3985198683	79.7	83.1	4.1	Tetrachloro-m-xylene
12.789	0.000	634056936	12.977	0.000	2983519632	76.4	81.8	6.8	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	199.4	207.7
Decachlorobiphenyl	191.1	204.5

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	960917265	4.4
Hexabromobiphenyl	761926666	785888387	3.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4873148621	10.3
Hexabromobiphenyl	2171332320	2369878553	9.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.072	0.000	118684942	470.0	1	6.011	0.000	757891907	502.0
Aroclor-1016	2	6.472	0.000	404898040	485.6	2	6.645	0.000	1771954759	510.7
Aroclor-1016	3	6.731	0.000	110606453	478.0	3	7.025	0.000	443280319	537.0
Aroclor-1016	4	7.442	0.000	127630923	467.7	4	7.541	0.000	507548087	518.9
Total Col1Ave (4 peaks):					475.4	Total Col2Ave (4 peaks):				517.1 RPD = 8
Corrected Ave (3 peaks):					471.9	Corrected Ave (3 peaks):				510.5 RPD = 8
CalAmt %D:					-4.9	CalAmt %D:				3.4
Aroclor-1260	1	9.943	0.000	203956999	474.1	1	9.968	0.000	938303833	502.3
Aroclor-1260	2	10.258	0.000	199578918	477.5	2	10.508	0.000	823769846	497.9
Aroclor-1260	3	10.629	0.000	485922281	477.8	3	10.780	0.000	1841621717	495.5
Aroclor-1260	4	11.027	0.000	237322140	481.8	4	11.294	0.000	546417518	509.9
Aroclor-1260	5	11.216	0.000	132744765	478.4	NS	---			----
Total Col1Ave (5 peaks):					477.9	Total Col2Ave (4 peaks):				501.4 RPD = 5
Corrected Ave (4 peaks):					477.0	Corrected Ave (3 peaks):				498.6 RPD = 4
CalAmt %D:					-4.4	CalAmt %D:				0.3

Total PCB Area Col1 (4.548 - 12.689) = 5644113552 Col1 Total PCB = 1.0 ppm*

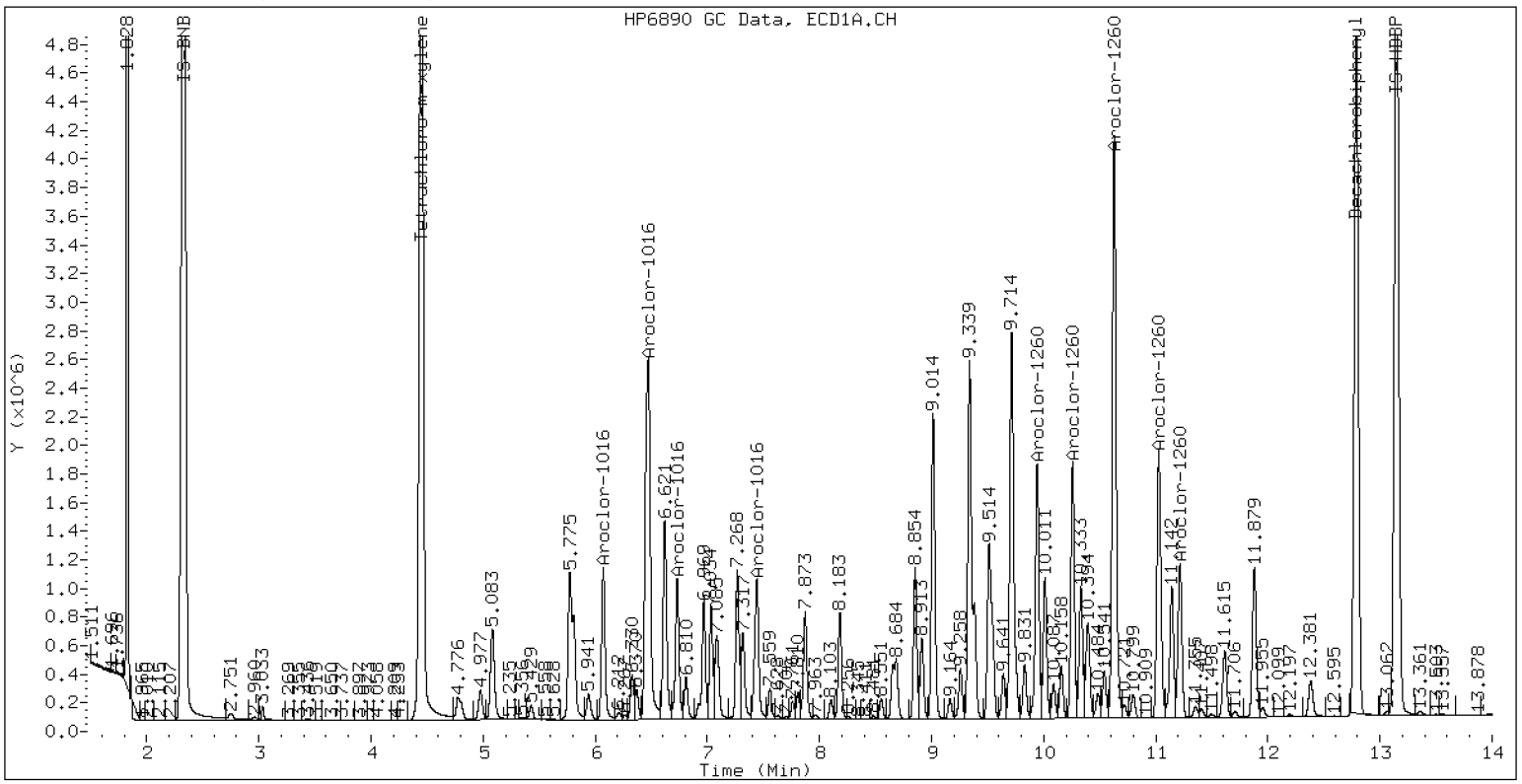
Total PCB Area Col2 (4.548 - 12.689) = 12011591170 Col2 Total PCB = 1.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

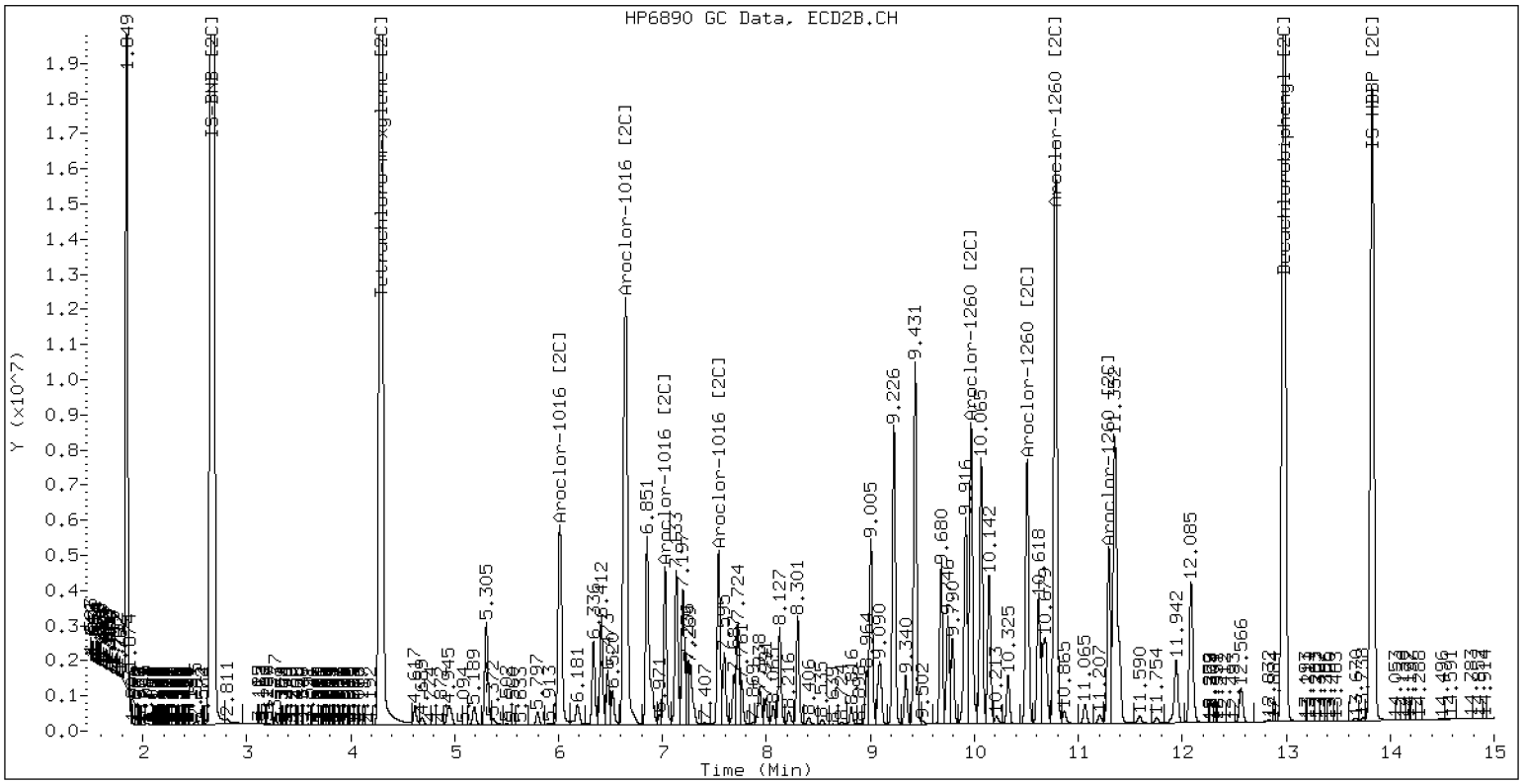
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061412.D 0.5PPMAR1660 14-JUN-2018 21:41 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061412.D 0.5PPMAR1660



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180614.b/18061413.D
Data file 2: /20180614.b/20180614.b/18061413.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: AR1242.sub
Quant Method: Internal Std

ARI ID: AR1242
Client ID:
Injection Date: 14-JUN-2018 22:02
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.452	0.004	404801723	4.293	0.004	1856377296	37.2	38.9	4.5	Tetrachloro-m-xylene
12.789	0.000	286301515	12.976	-0.001	1311505329	34.1	35.2	3.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	93.0	97.3
Decachlorobiphenyl	85.3	88.0

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	959207845	4.2
Hexabromobiphenyl	761926666	795450927	4.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4846225261	9.7
Hexabromobiphenyl	2171332320	2420470767	11.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	6.073	0.000	50404052	250.0	1	6.012	0.000	310157130	250.0
Aroclor-1242	2	6.473	0.000	167738612	250.0	2	6.645	0.000	735090198	250.0
Aroclor-1242	3	6.732	0.000	46566894	250.0	3	7.541	0.000	234563089	250.0
Aroclor-1242	4	8.100	0.000	59289037	250.0	4	8.408	0.000	242290741	250.0

Total Col1Ave (4 peaks): 250.0 Total Col2Ave (4 peaks): 250.0 RPD = 0

Corrected Ave (3 peaks): 250.0 Corrected Ave (3 peaks): 250.0 RPD = 0

Total PCB Area Col1 (4.548 - 12.689) = 1198165589 Col1 Total PCB = 0.2 ppm*

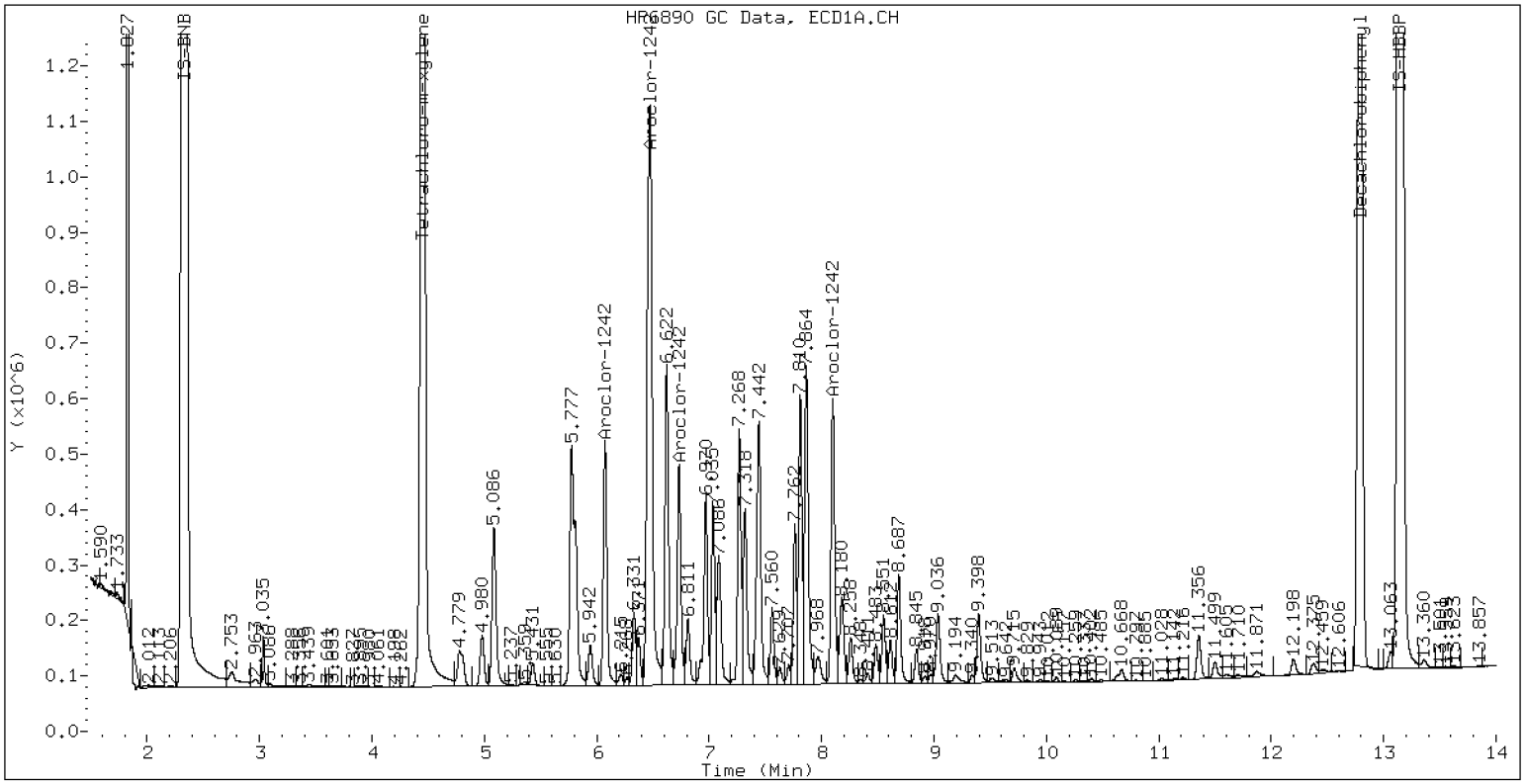
Total PCB Area Col2 (4.548 - 12.689) = 4447481386 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

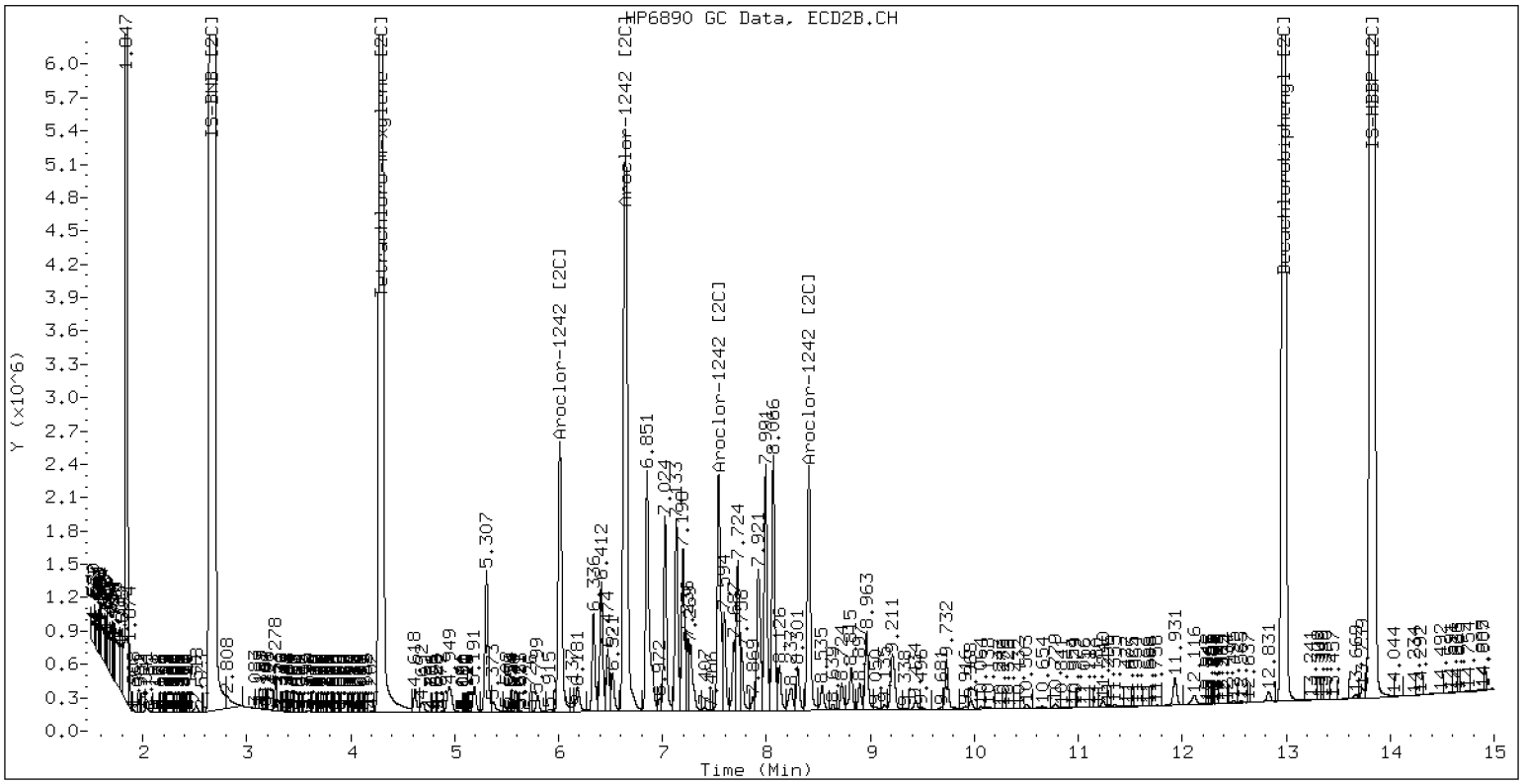
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061413.D AR1242 14-JUN-2018 22:02 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061413.D AR1242



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180614.b/18061414.D
Data file 2: /20180614.b/20180614.b/18061414.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: AR1248.sub
Quant Method: Internal Std

ARI ID: AR1248
Client ID:
Injection Date: 14-JUN-2018 22:22
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.452	0.004	407396261	4.295	0.005	1900893854	36.9	38.5	4.1	Tetrachloro-m-xylene
12.789	0.000	335582429	12.978	0.001	1558430561	40.2	41.6	3.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	92.3	96.2
Decachlorobiphenyl	100.4	104.1

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	973390491	5.8
Hexabromobiphenyl	761926666	791683111	3.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5019942319	13.6
Hexabromobiphenyl	2171332320	2431939270	12.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	6.970	0.000	65485475	250.0	1	6.644	0.000	433436481	250.0
Aroclor-1248	2	7.268	0.000	75356496	250.0	2	7.134	0.000	300011511	250.0
Aroclor-1248	3	7.866	0.000	116190054	250.0	3	7.541	0.000	327003998	250.0
Aroclor-1248	4	8.100	0.000	88150131	250.0	4	7.993	0.000	388874278	250.0

Total Col1Ave (4 peaks): 250.0 Total Col2Ave (4 peaks): 250.0 RPD = 0

Corrected Ave (3 peaks): 250.0 Corrected Ave (3 peaks): 250.0 RPD = 0

Total PCB Area Col1 (4.548 - 12.689) = 1401127588 Col1 Total PCB = 0.2 ppm*

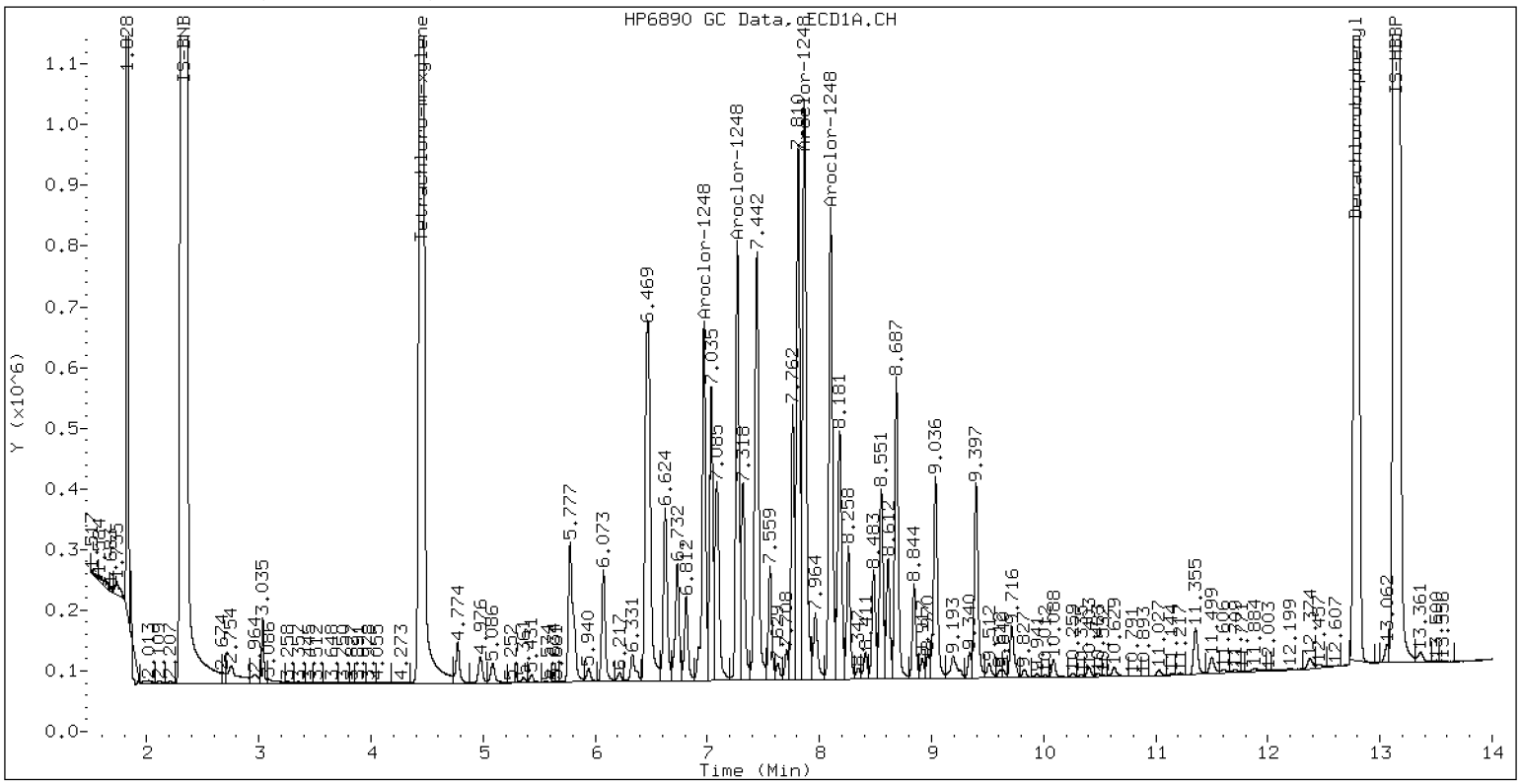
Total PCB Area Col2 (4.548 - 12.689) = 5263696873 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

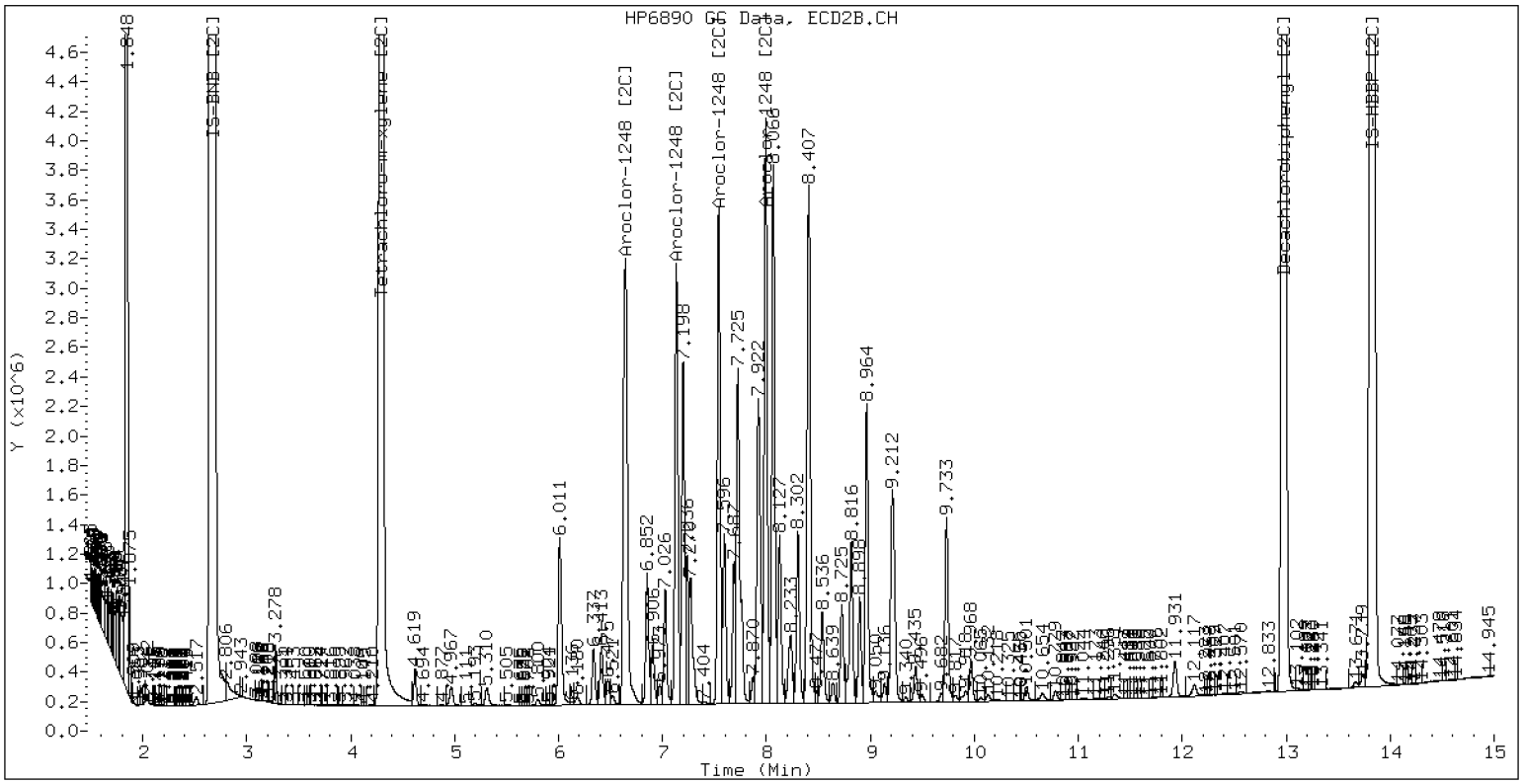
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061414.D AR1248 14-JUN-2018 22:22 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061414.D AR1248



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180614.b/18061415.D
Data file 2: /20180614.b/20180614.b/18061415.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: AR1254.sub
Quant Method: Internal Std

ARI ID: AR1254
Client ID:
Injection Date: 14-JUN-2018 22:42
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.449	0.001	460549659	4.292	0.002	2137036851	40.5	41.8	3.0	Tetrachloro-m-xylene
12.789	-0.000	332092021	12.977	0.000	1547154853	39.0	40.4	3.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	101.3	104.4
Decachlorobiphenyl	97.5	100.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1001656946	8.9
Hexabromobiphenyl	761926666	806842287	5.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5196568217	17.6
Hexabromobiphenyl	2171332320	2489846587	14.7

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1254	1	8.181	0.000	145670800	250.0	1	8.302	0.000	467163557	250.0
Aroclor-1254	2	8.257	0.000	46162395	250.0	2	8.815	0.000	343818436	250.0
Aroclor-1254	3	8.551	0.000	92772132	250.0	3	8.963	0.000	756284838	250.0
Aroclor-1254	4	8.686	0.000	179757847	250.0	4	9.431	0.000	338782630	250.0
Aroclor-1254	5	9.714	0.000	178607388	250.0	5	9.737	0.000	433874046	250.0

Total Col1Ave (5 peaks): 250.0 Total Col2Ave (5 peaks): 250.0 RPD = 0

Corrected Ave (4 peaks): 250.0 Corrected Ave (4 peaks): 250.0 RPD = 0

Total PCB Area Col1 (4.548 - 12.689) = 1860166077 Col1 Total PCB = 0.3 ppm*

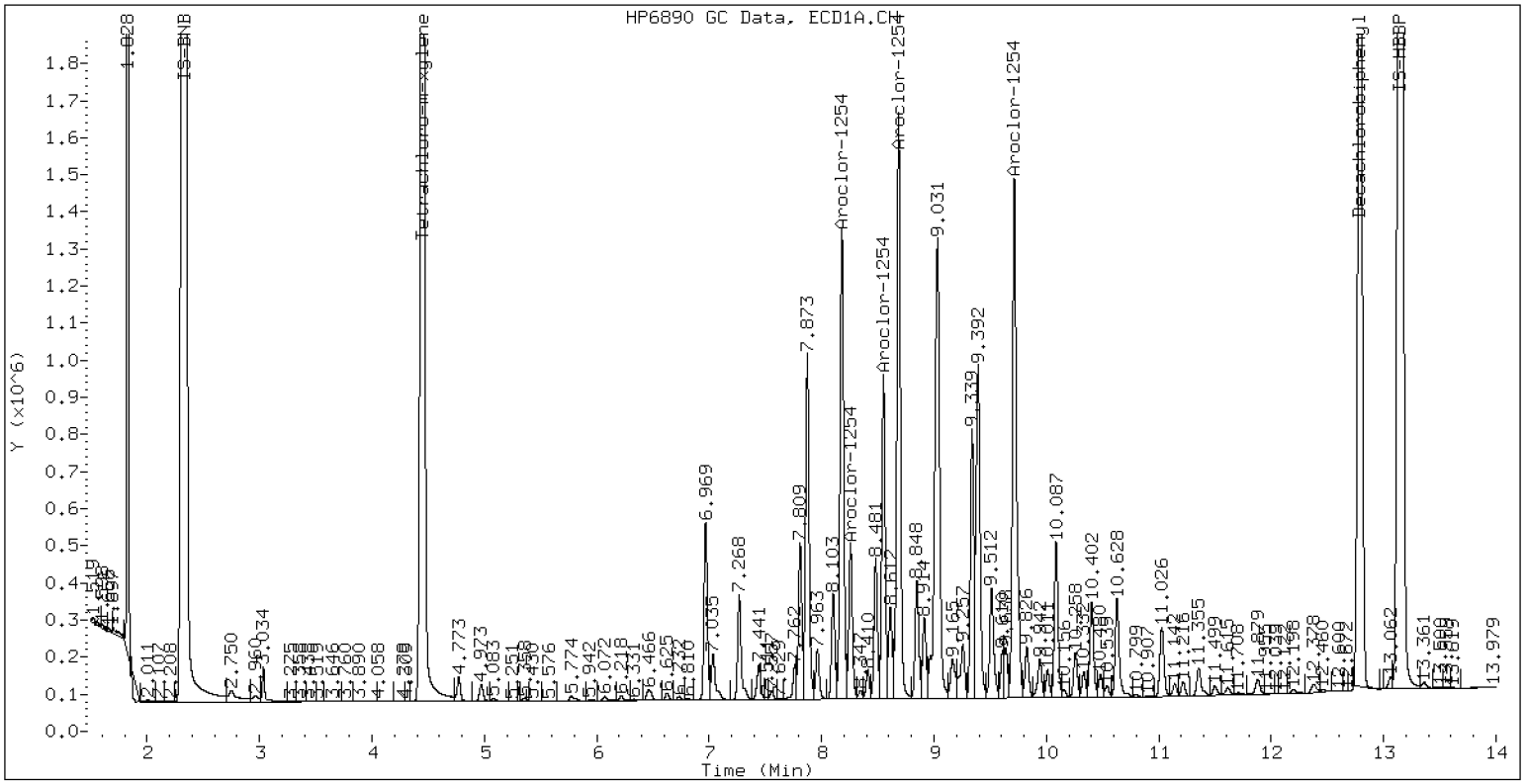
Total PCB Area Col2 (4.548 - 12.689) = 1933701796 Col2 Total PCB = 0.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

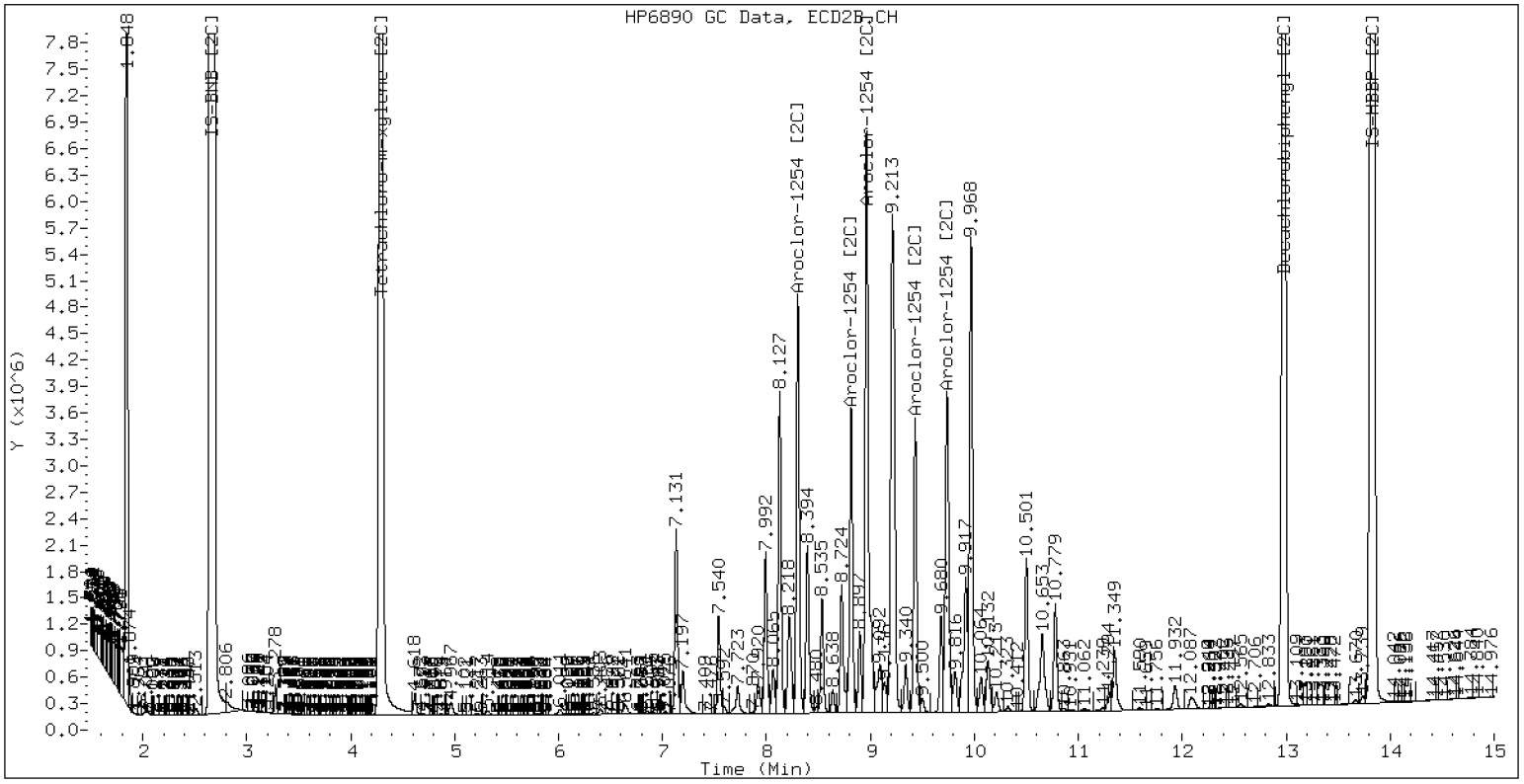
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061415.D AR1254 14-JUN-2018 22:42 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061415.D AR1254



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180614.b/18061416.D
Data file 2: /20180614.b/20180614.b/18061416.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: AR2162.sub
Quant Method: Internal Std

ARI ID: AR2162
Client ID:
Injection Date: 14-JUN-2018 23:03
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.451	0.002	470749231	4.293	0.003	2174840436	41.3	45.3	9.2	Tetrachloro-m-xylene
12.789	-0.000	341892552	12.977	-0.001	1603430876	39.6	41.3	4.0	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	103.4	113.4
Decachlorobiphenyl	99.1	103.1

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1004001205	9.1
Hexabromobiphenyl	761926666	817496986	7.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4871783538	10.3
Hexabromobiphenyl	2171332320	2525289830	16.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1221	1	3.437	0.000	18190488	250.0	1	3.592	0.000	45642764	250.0	
Aroclor-1221	2	4.980	0.000	22093422	250.0	2	5.306	0.000	241185882	250.0	
Aroclor-1221	3	5.085	0.000	66485102	250.0	3	5.374	0.000	42424223	250.0	
Aroclor-1221	NS	---			----	4	6.647	0.000	70320884	250.0	
Total Col1Ave (3 peaks): 250.0						Total Col2Ave (4 peaks): 250.0			RPD = 0		
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks): 250.0					
Aroclor-1262	1	9.942	0.000	153515666	250.0	1	10.065	0.000	608648100	250.0	
Aroclor-1262	2	10.258	0.000	126197033	250.0	2	10.508	0.000	529176028	250.0	
Aroclor-1262	3	10.628	0.000	284735853	250.0	3	10.780	0.000	1106218536	250.0	
Aroclor-1262	4	11.027	0.000	95556057	250.0	4	11.355	0.000	760852770	250.0	
Aroclor-1262	5	11.215	0.000	119320745	250.0	5	11.940	0.000	182712020	250.0	
Total Col1Ave (5 peaks): 250.0						Total Col2Ave (5 peaks): 250.0			RPD = 0		
Corrected Ave (4 peaks): 250.0						Corrected Ave (4 peaks): 250.0			RPD = 0		

Total PCB Area Col1 (4.548 - 12.689) = 2231287985 Col1 Total PCB = 0.4 ppm*

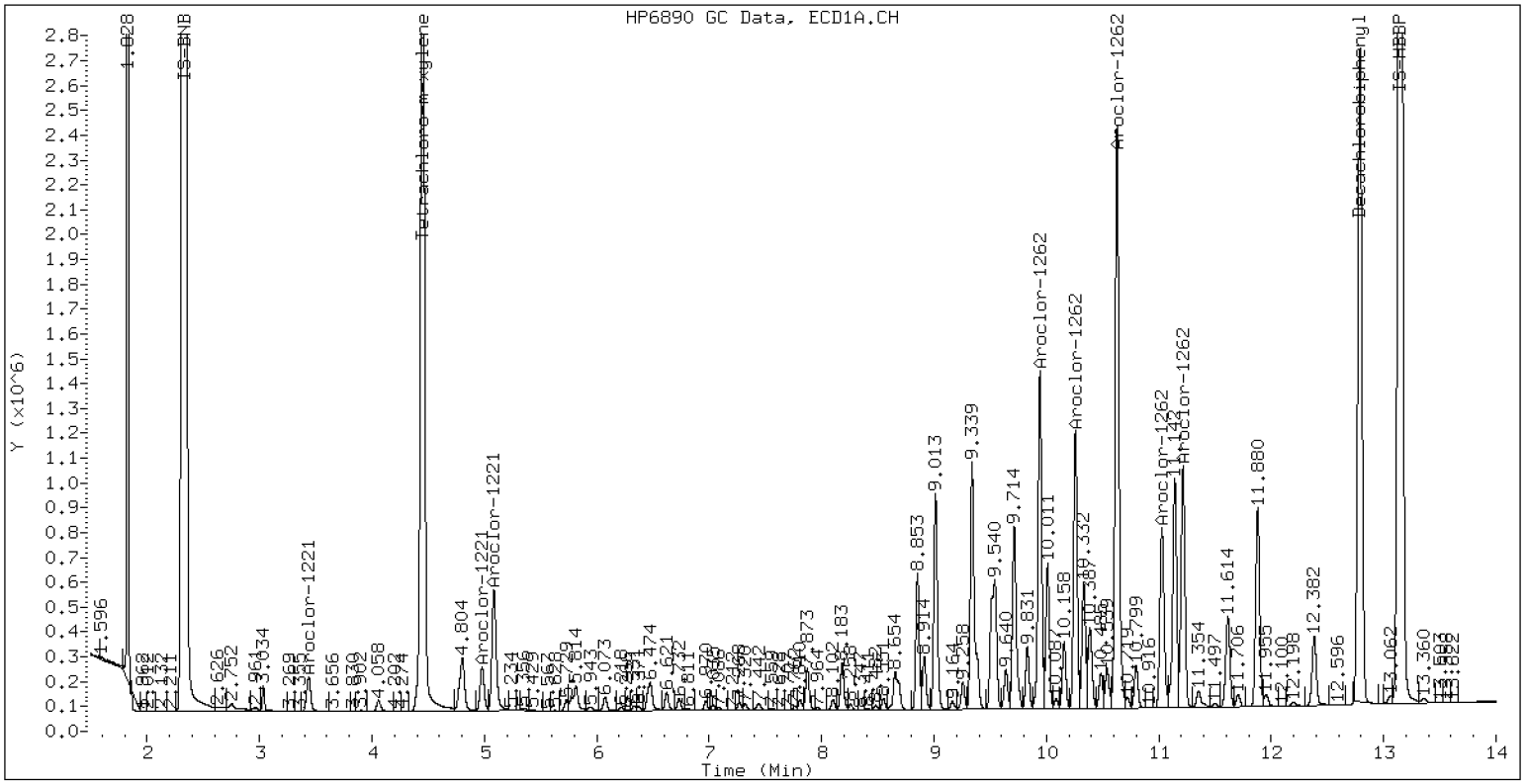
Total PCB Area Col2 (4.548 - 12.689) = 6381712872 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

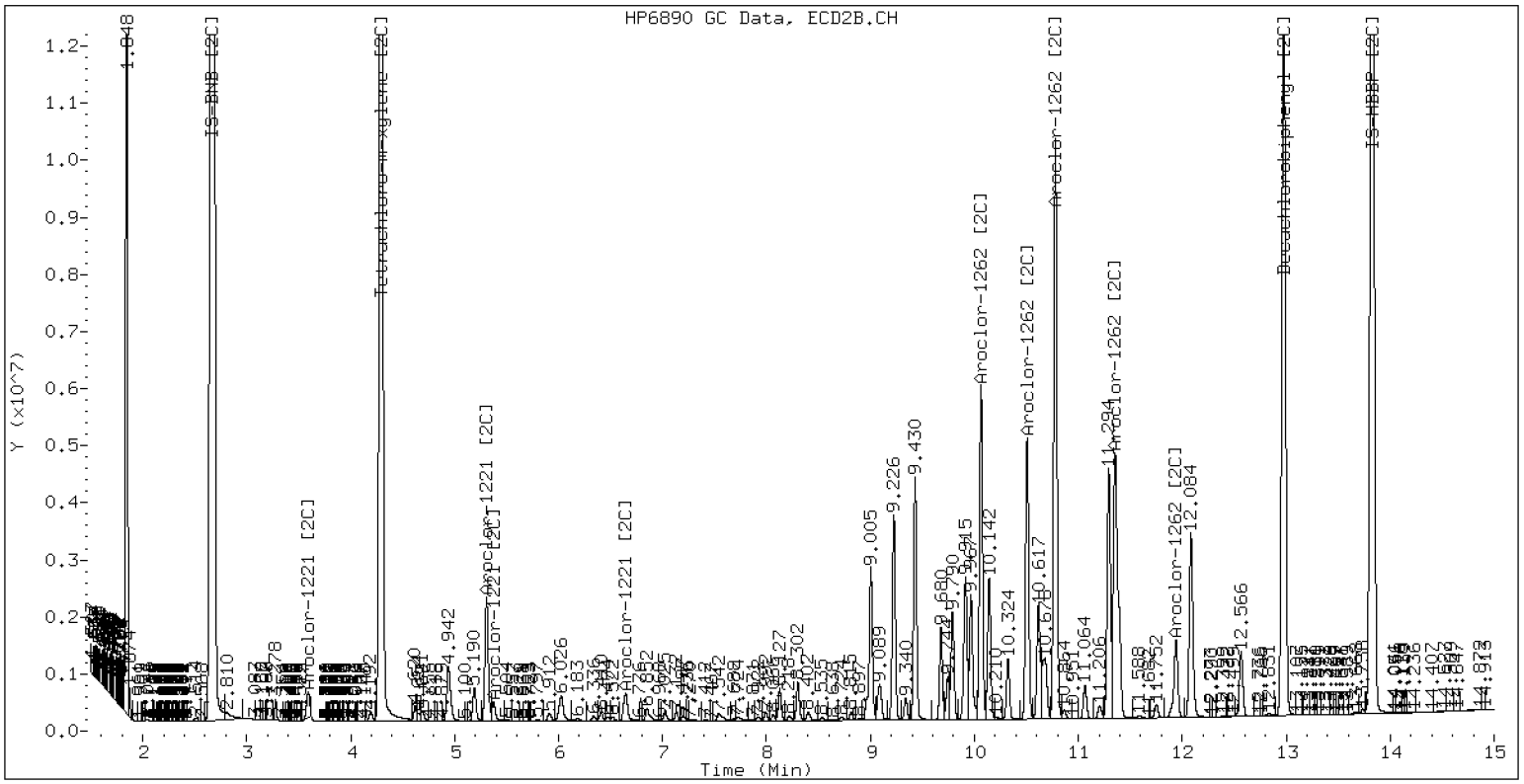
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061416.D AR2162 14-JUN-2018 23:03 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061416.D AR2162



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180614.b/18061417.D
Data file 2: /20180614.b/20180614.b/18061417.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: AR3268.sub
Quant Method: Internal Std

ARI ID: AR3268
Client ID:
Injection Date: 14-JUN-2018 23:23
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.448	0.000	459316288	4.290	0.000	2151914354	40.3	42.9	6.3	Tetrachloro-m-xylene
12.789	0.000	483385074	12.977	0.000	2292328443	55.4	57.7	4.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	100.7	107.2
Decachlorobiphenyl	138.4	144.2

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1005695143	9.3
Hexabromobiphenyl	761926666	827173439	8.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5097328527	15.4
Hexabromobiphenyl	2171332320	2582560142	18.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1232	1	3.435	0.000	11617677	250.0	1	3.590	0.000	30214000	250.0	
Aroclor-1232	2	6.071	0.000	28166632	250.0	2	6.011	0.000	188976299	250.0	
Aroclor-1232	3	6.471	0.000	92230940	250.0	3	6.644	0.000	409473694	250.0	
Aroclor-1232	4	6.731	0.000	25668522	250.0	4	7.196	0.000	83688863	250.0	
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0	RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0	RPD = 0
Aroclor-1268	1	11.143	0.000	339805654	250.0	1	11.295	0.000	1272217699	250.0	
Aroclor-1268	2	11.213	0.000	311203099	250.0	2	11.361	0.000	1322712654	250.0	
Aroclor-1268	3	11.599	0.000	266181498	250.0	3	11.754	0.000	1037195610	250.0	
Aroclor-1268	4	12.383	0.000	807355209	250.0	4	12.568	0.000	3579023345	250.0	
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				250.0	RPD = 0
Corrected Ave (3 peaks):					250.0	Corrected Ave (3 peaks):				250.0	RPD = 0

Total PCB Area Col1 (4.548 - 12.689) = 2933645913 Col1 Total PCB = 0.5 ppm*

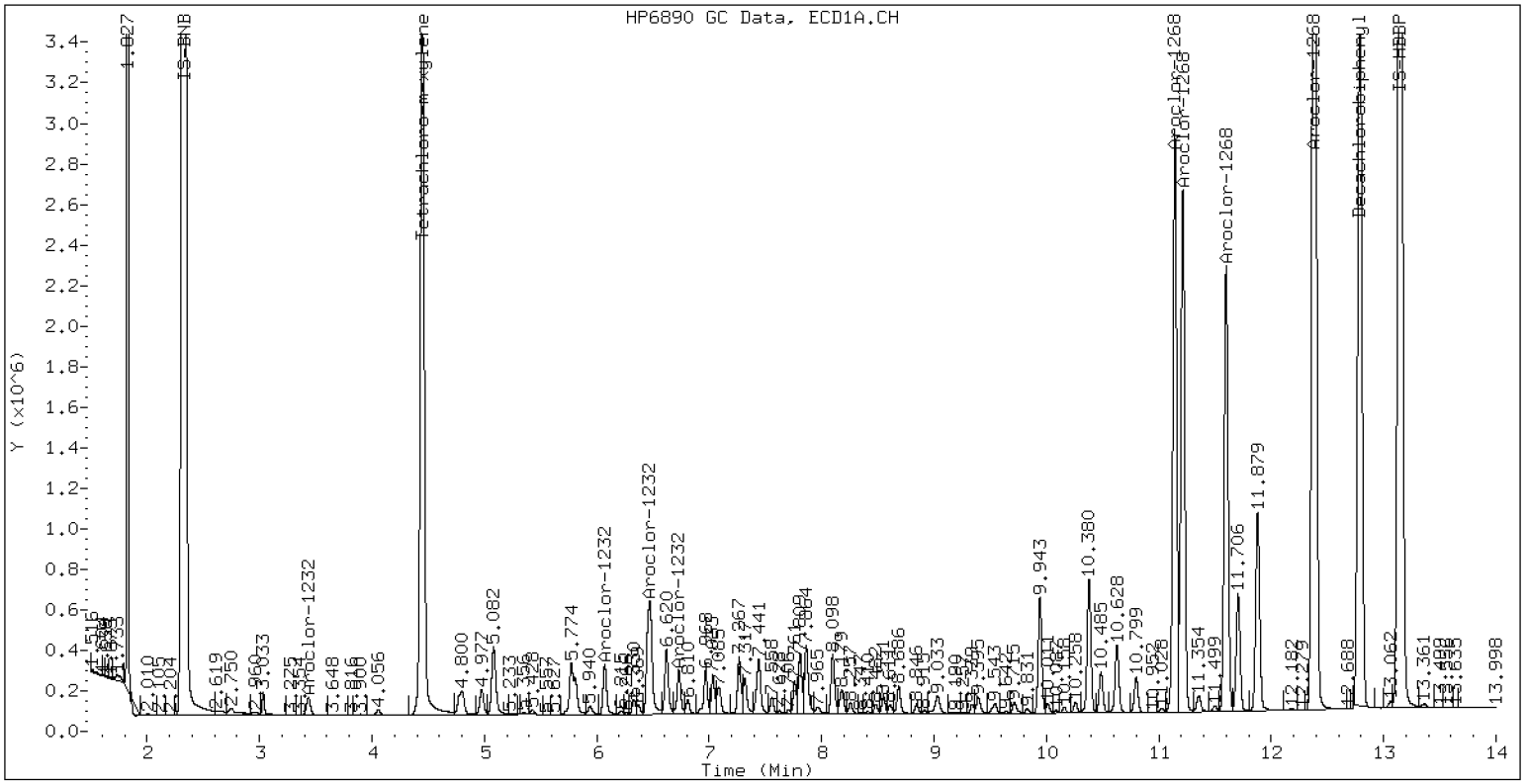
Total PCB Area Col2 (4.548 - 12.689) = 11759339769 Col2 Total PCB = 1.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

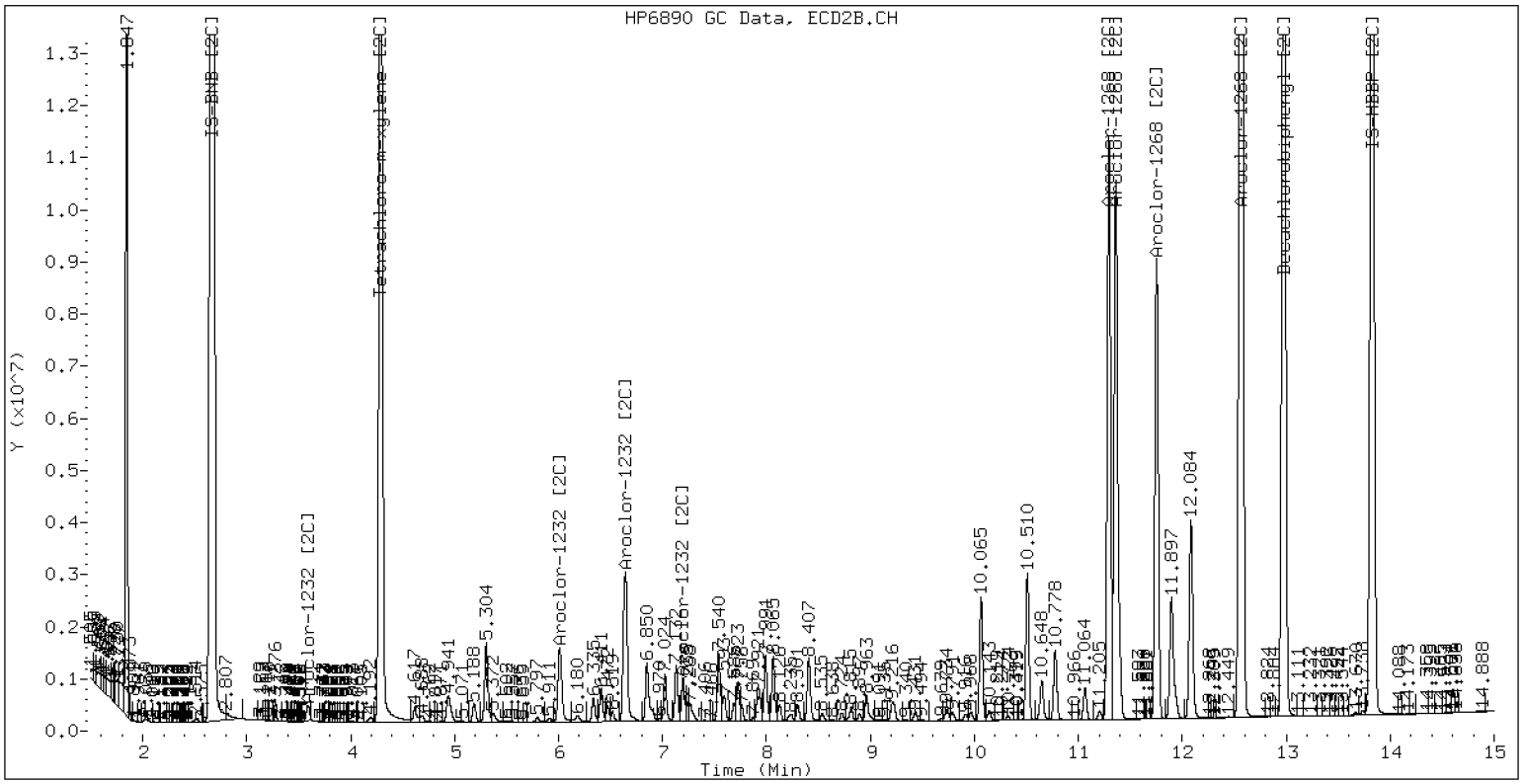
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061417.D AR3268 14-JUN-2018 23:23 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061417.D AR3268



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180614.b/18061418.D
Data file 2: /20180614.b/20180614.b/18061418.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: AR1660SCV1
Client ID:
Injection Date: 14-JUN-2018 23:43
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.450	0.002	473418484	4.292	0.002	2241893136	40.8	42.6	4.3	Tetrachloro-m-xylene
12.789	-0.000	342219353	12.977	-0.000	1623202239	39.1	40.6	3.8	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	102.1	106.6
Decachlorobiphenyl	97.8	101.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1022182035	11.1
Hexabromobiphenyl	761926666	828985199	8.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5339227039	20.8
Hexabromobiphenyl	2171332320	2595051394	19.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.072	0.000	65622266	244.3	1	6.012	0.000	442646155	267.6
Aroclor-1016	2	6.472	-0.000	219436168	247.4	2	6.645	0.000	1025267509	269.7
Aroclor-1016	3	6.731	-0.000	60093838	244.1	3	7.024	-0.000	236930858	261.9
Aroclor-1016	4	7.441	-0.000	78031346	268.8	4	7.540	-0.001	295237756	275.5
Total Col1Ave (4 peaks): 251.2						Total Col2Ave (4 peaks): 268.7 RPD = 7				
Corrected Ave (3 peaks): 245.3						Corrected Ave (3 peaks): 266.4 RPD = 8				
Aroclor-1221	1	3.435	-0.002	753329	10.2	1	3.589	-0.003	1506300	7.5
Aroclor-1221	2	4.978	-0.002	14450320	160.6	2	5.306	-0.000	191881328	181.5
Aroclor-1221	3	5.084	-0.001	49063076	181.2	3	5.371	-0.003	16264257	87.5
Aroclor-1221	NS	---			----	4	6.645	-0.001	1025267509	3325.8
Total Col1Ave (3 peaks): 117.3						Total Col2Ave (4 peaks): 900.6 RPD = 154*				
Corrected Ave: < 3 Peaks						Corrected Ave (3 peaks): 92.2				
Aroclor-1232	1	3.435	-0.000	753329	15.9	1	3.589	-0.002	1506300	11.9
Aroclor-1232	2	6.072	0.001	65622266	573.1	2	6.012	0.001	442646155	559.1
Aroclor-1232	3	6.472	0.001	219436168	585.2	3	6.645	0.002	1025267509	597.6
Aroclor-1232	4	6.731	0.001	60093838	575.8	4	7.197	0.001	208071982	593.4
Total Col1Ave (4 peaks): 437.5						Total Col2Ave (4 peaks): 440.5 RPD = 1				
Corrected Ave (3 peaks): 388.3						Corrected Ave (3 peaks): 388.1 RPD = 0				
Aroclor-1242	1	6.072	-0.001	65622266	305.4	1	6.012	-0.000	442646155	323.8
Aroclor-1242	2	6.472	-0.001	219436168	306.9	2	6.645	0.000	1025267509	316.5
Aroclor-1242	3	6.731	-0.001	60093838	302.7	3	7.540	-0.001	295237756	285.6
Aroclor-1242	4	8.103	0.003	6850206	27.1	4	8.406	-0.002	12121957	11.4
Total Col1Ave (4 peaks): 235.5						Total Col2Ave (4 peaks): 234.3 RPD = 1				
Corrected Ave (3 peaks): 211.8						Corrected Ave (3 peaks): 204.5 RPD = 3				
Aroclor-1248	1	6.969	-0.001	51821043	188.4	1	6.645	0.001	1025267509	556.0
Aroclor-1248	2	7.267	-0.001	61144355	193.2	2	7.133	-0.001	254683736	199.5
Aroclor-1248	3	7.872	0.006	46358569	95.0	3	7.540	-0.001	295237756	212.2
Aroclor-1248	4	8.103	0.003	6850206	18.5	4	7.991	-0.002	48817926	29.5
Total Col1Ave (4 peaks): 123.8						Total Col2Ave (4 peaks): 249.3 RPD = 67*				
Corrected Ave (3 peaks): 100.6						Corrected Ave (3 peaks): 147.1 RPD = 38				
Aroclor-1254	1	8.182	0.002	42035446	70.7	1	8.301	-0.001	150041496	78.1
Aroclor-1254	2	---			0.0	2	8.815	-0.000	20394162	14.4
Aroclor-1254	3	8.551	-0.000	6273747	16.6	3	8.965	0.002	49911700	16.1
Aroclor-1254	4	8.655	-0.030	40507722	55.2	4	9.430	-0.001	618655050	444.3
Aroclor-1254	5	9.713	-0.001	185881603	255.0	5	9.746	0.009	164149061	92.1
Total Col1Ave (4 peaks): 99.4						Total Col2Ave (5 peaks): 129.0 RPD = 26				
Corrected Ave (3 peaks): 47.5						Corrected Ave (4 peaks): 50.2 RPD = 5				
Aroclor-1260	1	9.942	-0.000	118021951	260.1	1	9.967	-0.001	534894500	261.5
Aroclor-1260	2	10.258	-0.001	116935525	265.2	2	10.508	-0.000	488736471	269.8
Aroclor-1260	3	10.628	-0.001	282988006	263.8	3	10.779	-0.001	1119415624	275.0
Aroclor-1260	4	11.027	0.000	140156213	269.7	4	11.294	-0.000	304717937	259.7
Aroclor-1260	5	11.216	-0.000	74278131	253.8	NS	---			----
Total Col1Ave (5 peaks): 262.5						Total Col2Ave (4 peaks): 266.5 RPD = 1				
Corrected Ave (4 peaks): 260.7						Corrected Ave (3 peaks): 263.6 RPD = 1				
Aroclor-1262	1	9.942	0.000	118021951	189.5	1	10.064	-0.000	473412101	189.2
Aroclor-1262	2	10.258	-0.000	116935525	228.4	2	10.508	-0.000	488736471	224.7
Aroclor-1262	3	10.628	-0.000	282988006	245.0	3	10.779	-0.001	1119415624	246.2
Aroclor-1262	4	11.027	-0.000	140156213	361.6	4	11.350	-0.004	730038547	233.4
Aroclor-1262	5	11.216	0.001	74278131	153.5	5	11.940	0.000	141343759	188.2
Total Col1Ave (5 peaks): 235.6						Total Col2Ave (5 peaks): 216.3 RPD = 9				
Corrected Ave (4 peaks): 204.1						Corrected Ave (4 peaks): 208.9 RPD = 2				
Aroclor-1268	1	11.142	-0.001	61956709	45.5	1	11.294	-0.001	304717937	59.6
Aroclor-1268	2	11.216	0.002	74278131	59.5	2	11.350	-0.011	730038547	137.3
Aroclor-1268	3	11.615	0.016	33899340	31.8	3	11.753	-0.001	7856006	1.9

Aroclor-1268	4	12.382	-0.001	16699195	5.2	4	12.566	-0.002	51849987	3.6	
Total Col1Ave (4 peaks):				35.5	Total Col2Ave (4 peaks):				50.6	RPD =	35
Corrected Ave (3 peaks):				27.5	Corrected Ave (3 peaks):				21.7	RPD =	24

Total PCB Area Col1 (4.548 - 12.689) = 3196307442 Col1 Total PCB = 0.6 ppm*

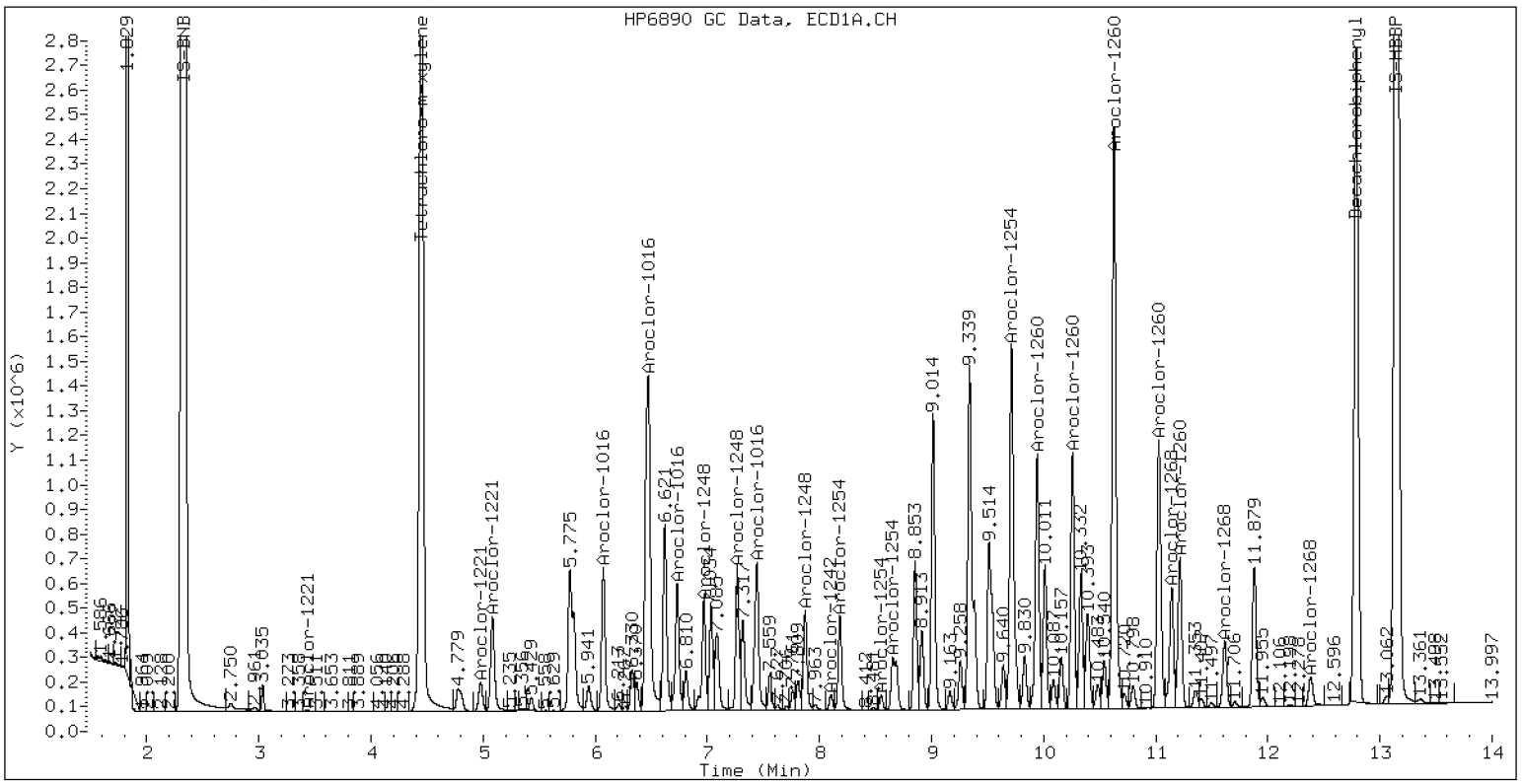
Total PCB Area Col2 (4.548 - 12.689) = 11348533307 Col2 Total PCB = 1.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

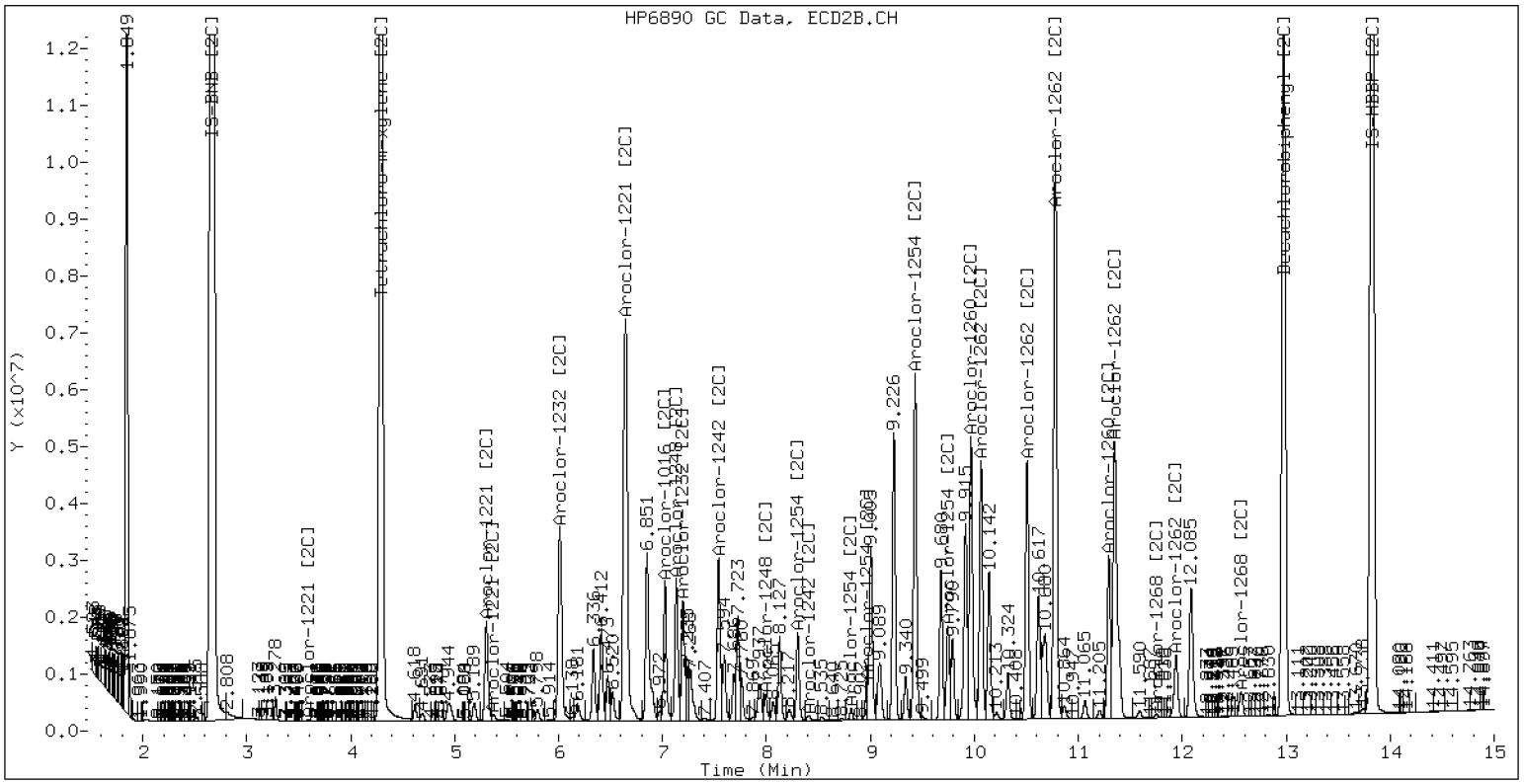
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061418.D AR1660SCV1 14-JUN-2018 23:43 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061418.D AR1660SCV1



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180614.b/18061419.D
Data file 2: /20180614.b/20180614.b/18061419.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: AR1242SCV2
Client ID:
Injection Date: 15-JUN-2018 00:04
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.452	0.004	448647064	4.294	0.004	2115106515	39.6	41.7	5.2	Tetrachloro-m-xylene
12.789	0.000	309679390	12.976	-0.002	1471571139	35.0	36.4	3.8	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	99.0	104.3
Decachlorobiphenyl	87.5	90.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	998974299	8.6
Hexabromobiphenyl	761926666	838049144	10.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5148832203	16.5
Hexabromobiphenyl	2171332320	2628248100	21.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

	ZB5 Col				ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.073	0.002	51165688	194.9	1	6.012	0.001	330236945	207.0
Aroclor-1016	2	6.473	0.001	169413916	195.5	2	6.646	0.001	777097133	212.0
Aroclor-1016	3	6.733	0.001	46655319	194.0	3	7.025	-0.000	176867562	202.8
Aroclor-1016	4	7.442	0.001	64600327	227.7	4	7.541	0.000	244478667	236.6
	Total Col1Ave (4 peaks):				203.0	Total Col2Ave (4 peaks):				214.6 RPD = 6
	Corrected Ave (3 peaks):				194.8	Corrected Ave (3 peaks):				207.3 RPD = 6
Aroclor-1221	1	3.438	0.001	648364	9.0	1	3.594	0.002	1021954	5.3
Aroclor-1221	2	4.980	-0.000	11972284	136.2	2	5.307	0.000	145009888	142.2
Aroclor-1221	3	5.085	0.000	37385873	141.3	3	5.373	-0.001	12083666	67.4
Aroclor-1221	NS	---			----	4	6.646	-0.001	777097133	2614.0
	Total Col1Ave (3 peaks):				95.5	Total Col2Ave (4 peaks):				707.2 RPD = 152*
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				71.6
Aroclor-1232	1	3.438	0.003	648364	14.0	1	3.594	0.003	1021954	8.4
Aroclor-1232	2	6.073	0.002	51165688	457.2	2	6.012	0.002	330236945	432.5
Aroclor-1232	3	6.473	0.002	169413916	462.3	3	6.646	0.002	777097133	469.7
Aroclor-1232	4	6.733	0.002	46655319	457.5	4	7.198	0.001	159128001	470.6
	Total Col1Ave (4 peaks):				347.7	Total Col2Ave (4 peaks):				345.3 RPD = 1
	Corrected Ave (3 peaks):				309.6	Corrected Ave (3 peaks):				303.5 RPD = 2
Aroclor-1242	1	6.073	0.000	51165688	243.7	1	6.012	0.000	330236945	250.5
Aroclor-1242	2	6.473	0.000	169413916	242.4	2	6.646	0.001	777097133	248.8
Aroclor-1242	3	6.733	0.000	46655319	240.5	3	7.541	0.000	244478667	245.3
Aroclor-1242	4	8.100	-0.000	56569371	229.0	4	8.407	-0.001	247228315	240.1
	Total Col1Ave (4 peaks):				238.9	Total Col2Ave (4 peaks):				246.2 RPD = 3
	Corrected Ave (3 peaks):				237.3	Corrected Ave (3 peaks):				244.7 RPD = 3
Aroclor-1248	1	6.970	-0.000	42550543	158.3	1	6.646	0.002	777097133	437.0
Aroclor-1248	2	7.268	-0.000	49462148	159.9	2	7.134	-0.000	201557210	163.8
Aroclor-1248	3	7.865	-0.001	70982778	148.8	3	7.541	-0.000	244478667	182.2
Aroclor-1248	4	8.100	-0.000	56569371	156.3	4	7.992	-0.001	223572386	140.1
	Total Col1Ave (4 peaks):				155.8	Total Col2Ave (4 peaks):				230.8 RPD = 39
	Corrected Ave (3 peaks):				154.5	Corrected Ave (3 peaks):				162.0 RPD = 5
Aroclor-1254	1	8.180	-0.001	28350302	48.8	1	8.302	-0.000	66496392	35.9
Aroclor-1254	2	8.258	0.001	12458993	67.7	2	8.816	0.000	60670897	44.5
Aroclor-1254	3	8.551	0.000	18477034	49.9	3	8.963	-0.000	107968263	36.0
Aroclor-1254	4	8.686	0.001	30222733	42.1	4	9.432	0.001	24172967	18.0
Aroclor-1254	5	9.715	0.001	12980561	18.2	5	9.734	-0.003	66508421	38.7
	Total Col1Ave (5 peaks):				45.3	Total Col2Ave (5 peaks):				34.6 RPD = 27
	Corrected Ave (4 peaks):				39.8	Corrected Ave (4 peaks):				32.2 RPD = 21
Aroclor-1260	1	9.940	-0.003	613557	1.3	1	9.968	0.000	35919208	17.3
Aroclor-1260	2	10.260	0.001	601512	1.3	2	10.500	-0.009	11747085	6.4
Aroclor-1260	3	10.629	-0.000	1622038	1.5	3	10.779	-0.001	6345994	1.5
Aroclor-1260	4	11.027	0.001	1329059	2.5	4	11.294	0.000	1300546	1.1
Aroclor-1260	5	11.216	0.000	184128	0.6	NS	---			----
	Total Col1Ave (5 peaks):				1.5	Total Col2Ave (4 peaks):				6.6 RPD = 127*
	Corrected Ave (4 peaks):				1.2	Corrected Ave (3 peaks):				3.0 RPD = 86*
Aroclor-1262	1	9.940	-0.002	613557	1.0	1	10.064	-0.000	2430007	1.0
Aroclor-1262	2	10.260	0.002	601512	1.2	2	10.500	-0.009	11747085	5.3
Aroclor-1262	3	10.629	0.001	1622038	1.4	3	10.779	-0.001	6345994	1.4
Aroclor-1262	4	11.027	0.000	1329059	3.4	4	11.349	-0.006	4299518	1.4
Aroclor-1262	5	11.216	0.001	184128	0.4	5	11.930	-0.010	26211928	34.5
	Total Col1Ave (5 peaks):				1.5	Total Col2Ave (5 peaks):				8.7 RPD = 143*
	Corrected Ave (4 peaks):				1.0	Corrected Ave (4 peaks):				2.3 RPD = 79*
Aroclor-1268	1	11.144	0.001	156044	0.1	1	11.294	-0.000	1300546	0.3
Aroclor-1268	2	11.216	0.003	184128	0.1	2	11.349	-0.012	4299518	0.8
Aroclor-1268	3	11.605	0.006	669753	0.6	3	11.758	0.004	672382	0.2

Aroclor-1268	4	12.376	-0.007	1622965	0.5	4	12.564	-0.004	3236040	0.2
Total Col1Ave (4 peaks):		0.3			Total Col2Ave (4 peaks):		0.4	RPD = 4		
Corrected Ave (3 peaks):		0.3			Corrected Ave (3 peaks):		0.2	RPD = 18		

Total PCB Area Col1 (4.548 - 12.689) = 1269976916 Col1 Total PCB = 0.2 ppm*

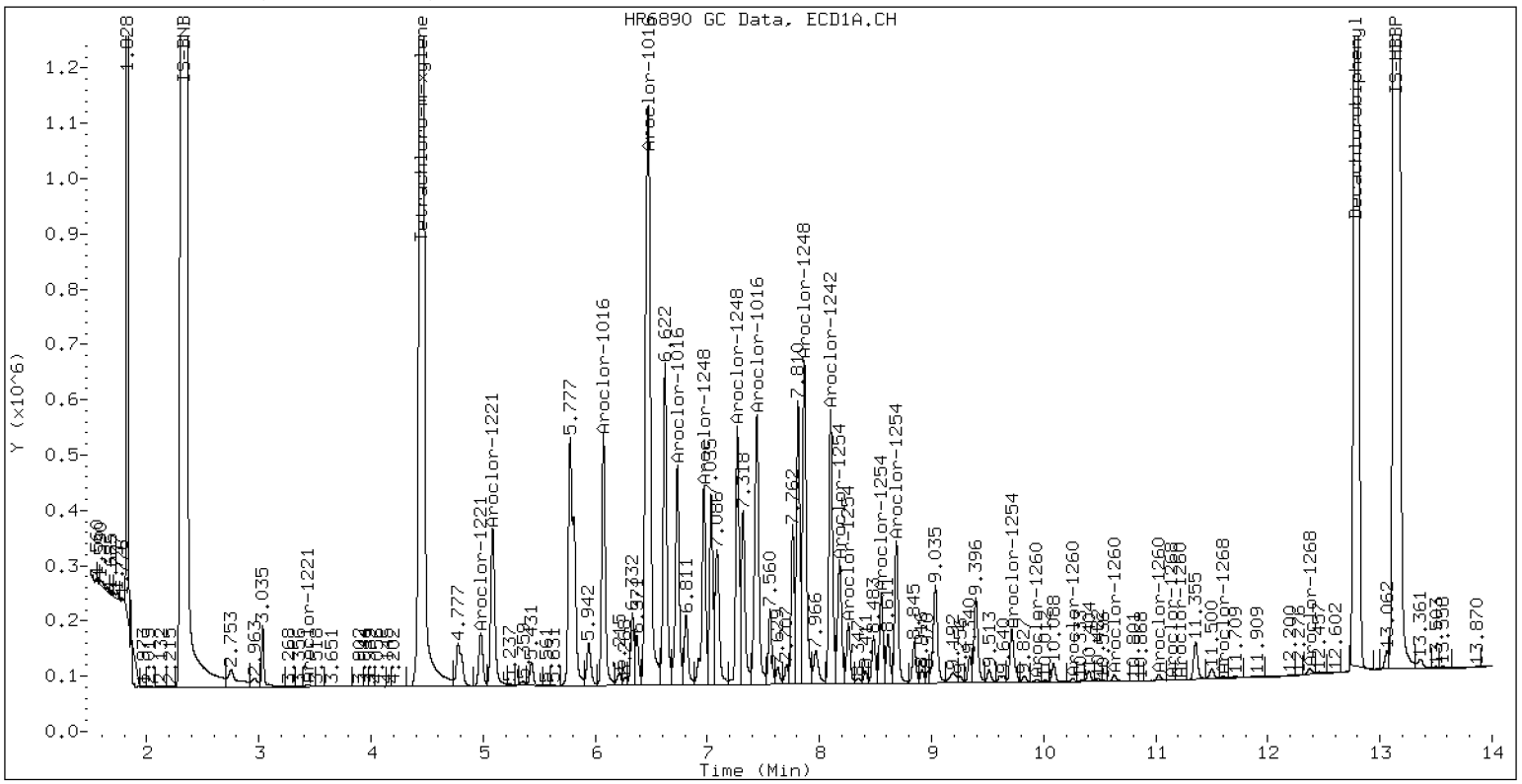
Total PCB Area Col2 (4.548 - 12.689) = 4937148201 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

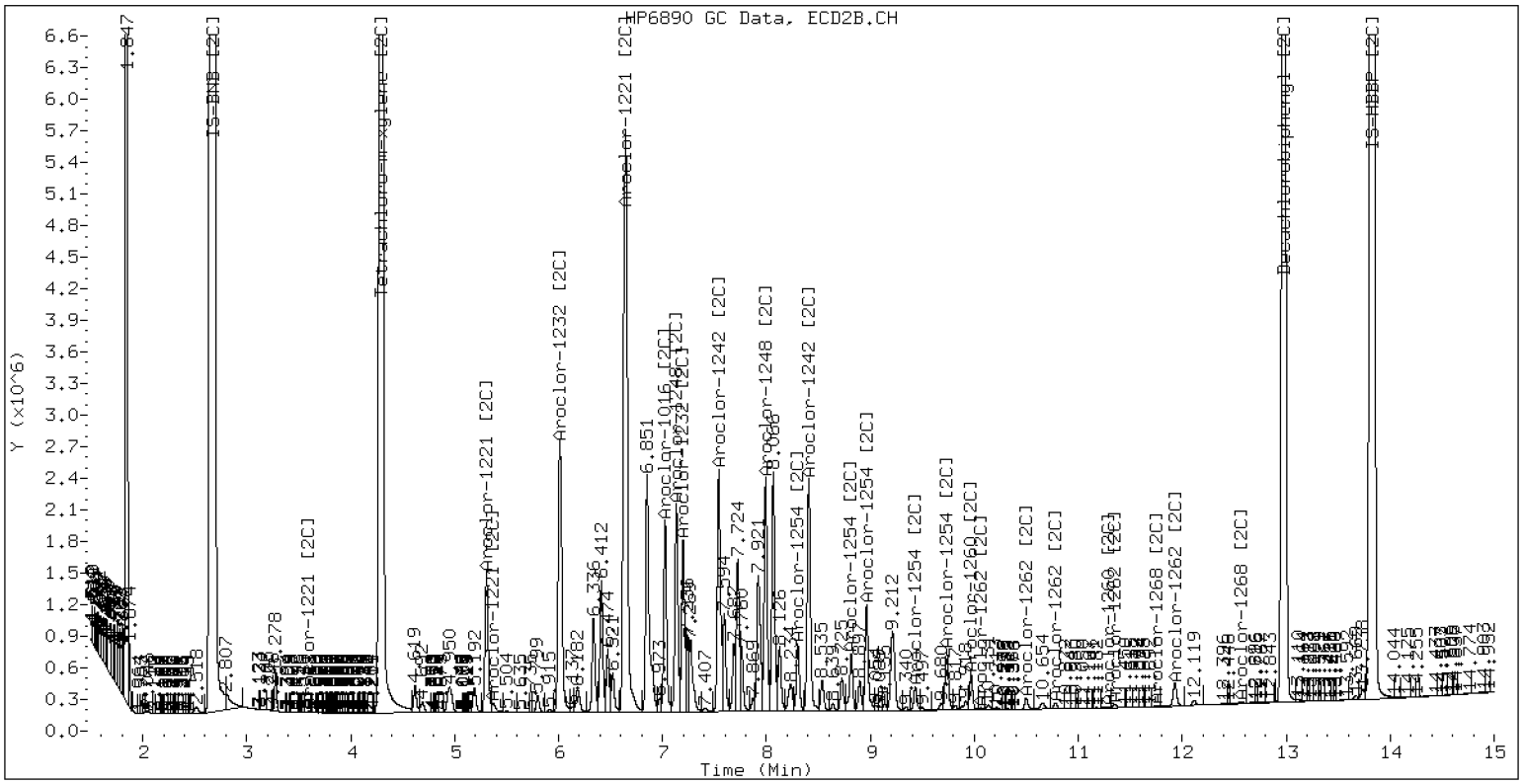
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061419.D AR1242SCV2 15-JUN-2018 00:04 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061419.D AR1242SCV2



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180614.b/18061420.D
Data file 2: /20180614.b/20180614.b/18061420.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: AR1248SCV3
Client ID:
Injection Date: 15-JUN-2018 00:24
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.450	0.001	468510005	4.293	0.003	2239557374	40.7	42.3	3.9	Tetrachloro-m-xylene
12.789	0.000	328752547	12.976	-0.001	1586512410	37.2	38.8	4.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	101.7	105.8
Decachlorobiphenyl	92.9	96.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1015278979	10.3
Hexabromobiphenyl	761926666	838009746	10.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5374391096	21.6
Hexabromobiphenyl	2171332320	2659286703	22.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.072	0.000	26129391	97.9	1	6.010	-0.002	174793578	105.0
Aroclor-1016	2	6.468	-0.004	116520627	132.3	2	6.642	-0.003	530494656	138.6
Aroclor-1016	3	6.731	-0.000	29081893	119.0	3	7.025	-0.000	99424324	109.2
Aroclor-1016	4	7.441	-0.000	98625320	342.1	4	7.541	0.000	370812179	343.8
	Total Col1Ave (4 peaks):	172.8				Total Col2Ave (4 peaks):	174.1		RPD = 1	
	Corrected Ave (3 peaks):	116.4				Corrected Ave (3 peaks):	117.6		RPD = 1	
Aroclor-1221	1	3.437	0.000	373851	5.1	1	3.583	-0.009	250526	1.2
Aroclor-1221	2	4.974	-0.005	6768875	75.7	2	5.307	0.000	29962623	28.2
Aroclor-1221	3	5.084	-0.002	8436205	31.4	3	5.372	-0.002	2274288	12.1
Aroclor-1221	NS	---			----	4	6.642	-0.005	530494656	1709.6
	Total Col1Ave (3 peaks):	37.4				Total Col2Ave (4 peaks):	437.8		RPD = 169*	
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):	13.8			
Aroclor-1232	1	3.437	0.002	373851	8.0	1	3.583	-0.007	250526	2.0
Aroclor-1232	2	6.072	0.001	26129391	229.7	2	6.010	-0.001	174793578	219.3
Aroclor-1232	3	6.468	-0.002	116520627	312.9	3	6.642	-0.002	530494656	307.2
Aroclor-1232	4	6.731	0.001	29081893	280.6	4	7.198	0.001	256272834	726.1
	Total Col1Ave (4 peaks):	207.8				Total Col2Ave (4 peaks):	313.6		RPD = 41*	
	Corrected Ave (3 peaks):	172.8				Corrected Ave (3 peaks):	176.2		RPD = 2	
Aroclor-1242	1	6.072	-0.001	26129391	122.4	1	6.010	-0.002	174793578	127.0
Aroclor-1242	2	6.468	-0.004	116520627	164.1	2	6.642	-0.003	530494656	162.7
Aroclor-1242	3	6.731	-0.001	29081893	147.5	3	7.541	0.000	370812179	356.4
Aroclor-1242	4	8.099	-0.000	93366976	372.0	4	8.406	-0.002	454655639	423.0
	Total Col1Ave (4 peaks):	201.5				Total Col2Ave (4 peaks):	267.3		RPD = 28	
	Corrected Ave (3 peaks):	144.7				Corrected Ave (3 peaks):	215.4		RPD = 39	
Aroclor-1248	1	6.969	-0.001	72323005	264.7	1	6.642	-0.002	530494656	285.8
Aroclor-1248	2	7.268	-0.001	84561072	269.0	2	7.133	-0.001	344866787	268.4
Aroclor-1248	3	7.865	-0.001	124932882	257.7	3	7.541	-0.000	370812179	264.8
Aroclor-1248	4	8.099	-0.001	93366976	253.9	4	7.992	-0.001	448306258	269.2
	Total Col1Ave (4 peaks):	261.3				Total Col2Ave (4 peaks):	272.1		RPD = 4	
	Corrected Ave (3 peaks):	258.8				Corrected Ave (3 peaks):	267.5		RPD = 3	
Aroclor-1254	1	8.179	-0.001	56926536	96.4	1	8.302	0.000	137123176	71.0
Aroclor-1254	2	8.257	-0.000	26426275	141.2	2	8.815	-0.000	135251118	95.1
Aroclor-1254	3	8.551	-0.000	38044046	101.1	3	8.963	0.000	232424428	74.3
Aroclor-1254	4	8.686	0.000	61255224	84.0	4	9.434	0.003	32015833	22.8
Aroclor-1254	5	9.715	0.000	12913756	17.8	5	9.732	-0.005	147571464	82.2
	Total Col1Ave (5 peaks):	88.1				Total Col2Ave (5 peaks):	69.1		RPD = 24	
	Corrected Ave (4 peaks):	74.9				Corrected Ave (4 peaks):	62.6		RPD = 18	
Aroclor-1260	1	9.943	0.000	2076955	4.5	1	9.968	0.000	35584517	17.0
Aroclor-1260	2	10.259	0.001	1565334	3.5	2	10.501	-0.007	15660143	8.4
Aroclor-1260	3	10.628	-0.001	3878694	3.6	3	10.779	-0.001	13500914	3.2
Aroclor-1260	4	11.027	0.000	1603222	3.1	4	11.295	0.000	4718343	3.9
Aroclor-1260	5	11.216	-0.000	1407680	4.8	NS	---			----
	Total Col1Ave (5 peaks):	3.9				Total Col2Ave (4 peaks):	8.1		RPD = 71*	
	Corrected Ave (4 peaks):	3.7				Corrected Ave (3 peaks):	5.2		RPD = 35	
Aroclor-1262	1	9.943	0.001	2076955	3.3	1	10.064	-0.001	7319029	2.9
Aroclor-1262	2	10.259	0.001	1565334	3.0	2	10.501	-0.007	15660143	7.0
Aroclor-1262	3	10.628	0.000	3878694	3.3	3	10.779	-0.001	13500914	2.9
Aroclor-1262	4	11.027	-0.000	1603222	4.1	4	11.354	-0.001	8515709	2.7
Aroclor-1262	5	11.216	0.001	1407680	2.9	5	11.929	-0.011	27872624	36.2
	Total Col1Ave (5 peaks):	3.3				Total Col2Ave (5 peaks):	10.3		RPD = 103*	
	Corrected Ave (4 peaks):	3.1				Corrected Ave (4 peaks):	3.9		RPD = 21	
Aroclor-1268	1	11.142	-0.000	1348077	1.0	1	11.295	0.000	4718343	0.9
Aroclor-1268	2	11.216	0.002	1407680	1.1	2	11.354	-0.007	8515709	1.6
Aroclor-1268	3	11.611	0.012	1159544	1.1	3	11.756	0.002	458405	0.1

Aroclor-1268	4	12.378	-0.005	2152578	0.7		4	12.561	-0.007	2814847	0.2
	Total Col1Ave (4 peaks):			1.0			Total Col2Ave (4 peaks):			0.7	RPD = 32
	Corrected Ave (3 peaks):			0.9			Corrected Ave (3 peaks):			0.4	RPD = 77*

Total PCB Area Col1 (4.548 - 12.689) = 1549071616 Col1 Total PCB = 0.3 ppm*

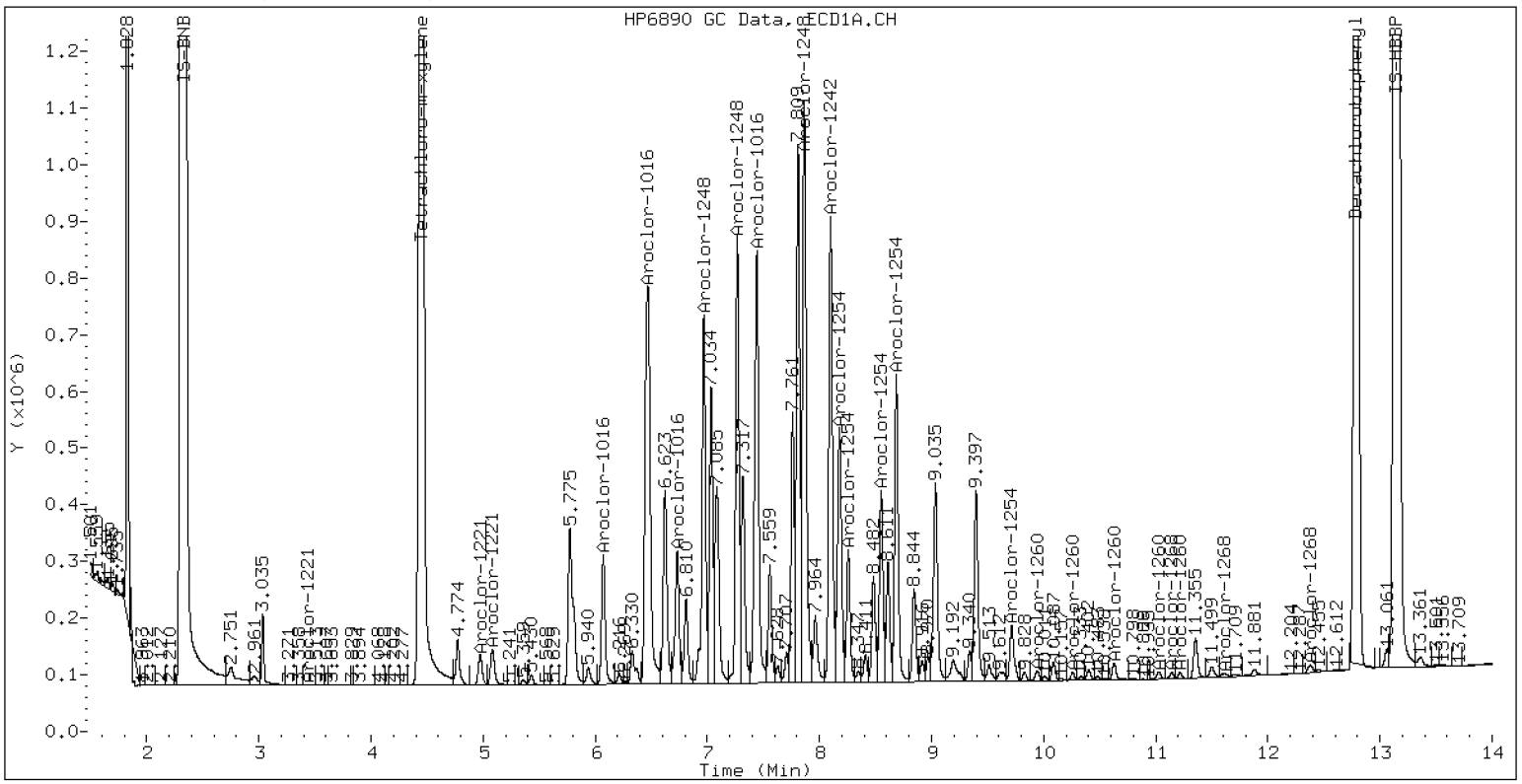
Total PCB Area Col2 (4.548 - 12.689) = 6151056667 Col2 Total PCB = 0.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

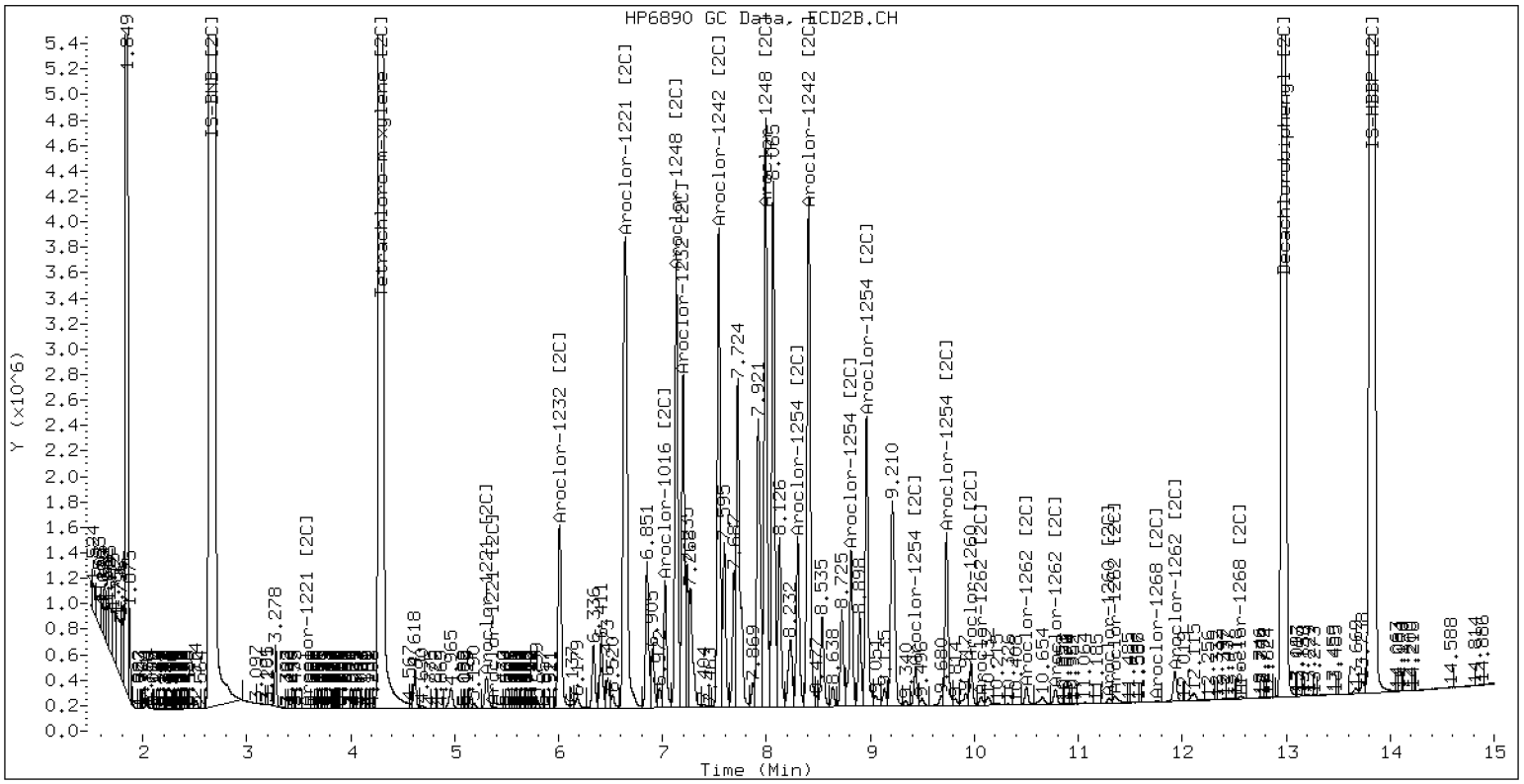
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061420.D AR1248SCV3 15-JUN-2018 00:24 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061420.D AR1248SCV3



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180614.b/18061421.D
Data file 2: /20180614.b/20180614.b/18061421.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: AR1254SCV4
Client ID:
Injection Date: 15-JUN-2018 00:44
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.452	0.003	465455310	4.295	0.005	2243067800	39.9	41.9	4.8	Tetrachloro-m-xylene
12.789	-0.000	334630393	12.977	0.000	1626338799	37.8	39.7	4.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	99.8	104.7
Decachlorobiphenyl	94.5	99.3

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1028184397	11.7
Hexabromobiphenyl	761926666	838505518	10.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5440484659	23.1
Hexabromobiphenyl	2171332320	2659953790	22.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.073	0.001	1002122	3.7	1	6.011	-0.000	5120781	3.0
Aroclor-1016	2	6.462	-0.010	3943921	4.4	2	6.636	-0.009	14482844	3.7
Aroclor-1016	3	6.732	0.001	911879	3.7	3	7.026	0.001	2243927	2.4
Aroclor-1016	4	7.442	0.001	14386086	49.3	4	7.542	0.001	116165494	106.4
	Total Col1Ave (4 peaks):				15.3	Total Col2Ave (4 peaks):				28.9 RPD = 62*
	Corrected Ave (3 peaks):				3.9	Corrected Ave (3 peaks):				3.1 RPD = 25
Aroclor-1221	1	3.454	0.017	337312	4.5	1	3.591	-0.001	33669	0.2
Aroclor-1221	2	4.975	-0.005	5805693	64.1	2	5.320	0.013	4830290	4.5
Aroclor-1221	3	5.084	-0.001	889053	3.3	3	5.417	0.044	35478	0.2
Aroclor-1221	NS	---			----	4	6.636	-0.011	14482844	46.1
	Total Col1Ave (3 peaks):				24.0	Total Col2Ave (4 peaks):				12.7 RPD = 61*
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				1.6
Aroclor-1232	1	3.418	-0.017	93426	2.0	1	3.591	0.001	33669	0.3
Aroclor-1232	2	6.073	0.002	1002122	8.7	2	6.011	0.001	5120781	6.3
Aroclor-1232	3	6.462	-0.008	3943921	10.5	3	6.636	-0.008	14482844	8.3
Aroclor-1232	4	6.732	0.002	911879	8.7	4	7.197	0.000	73962085	207.0
	Total Col1Ave (4 peaks):				7.5	Total Col2Ave (4 peaks):				55.5 RPD = 153*
	Corrected Ave (3 peaks):				6.5	Corrected Ave (3 peaks):				5.0 RPD = 26
Aroclor-1242	1	6.073	-0.000	1002122	4.6	1	6.011	-0.000	5120781	3.7
Aroclor-1242	2	6.462	-0.010	3943921	5.5	2	6.636	-0.009	14482844	4.4
Aroclor-1242	3	6.732	-0.000	911879	4.6	3	7.542	0.001	116165494	110.3
Aroclor-1242	4	8.103	0.004	33393493	131.4	4	8.394	-0.013	240470735	221.0
	Total Col1Ave (4 peaks):				36.5	Total Col2Ave (4 peaks):				84.8 RPD = 80*
	Corrected Ave (3 peaks):				4.9	Corrected Ave (3 peaks):				39.5 RPD = 156*
Aroclor-1248	1	6.970	-0.000	51262421	185.3	1	6.636	-0.008	14482844	7.7
Aroclor-1248	2	7.268	0.000	33881533	106.4	2	7.131	-0.002	211962349	163.0
Aroclor-1248	3	7.874	0.008	108747546	221.5	3	7.542	0.001	116165494	81.9
Aroclor-1248	4	8.103	0.003	33393493	89.7	4	7.992	-0.000	198879875	118.0
	Total Col1Ave (4 peaks):				150.7	Total Col2Ave (4 peaks):				92.7 RPD = 48*
	Corrected Ave (3 peaks):				127.1	Corrected Ave (3 peaks):				69.2 RPD = 59*
Aroclor-1254	1	8.181	0.001	152581855	255.1	1	8.302	-0.000	512883486	262.2
Aroclor-1254	2	8.258	0.000	53205579	280.7	2	8.816	0.000	396143221	275.1
Aroclor-1254	3	8.551	0.000	100384556	263.5	3	8.964	0.001	796626142	251.5
Aroclor-1254	4	8.686	0.000	184058800	249.4	4	9.430	-0.000	347083983	244.6
Aroclor-1254	5	9.715	0.000	182158552	248.4	5	9.737	-0.001	486039064	267.5
	Total Col1Ave (5 peaks):				259.4	Total Col2Ave (5 peaks):				260.2 RPD = 0
	Corrected Ave (4 peaks):				254.1	Corrected Ave (4 peaks):				256.5 RPD = 1
Aroclor-1260	1	9.941	-0.001	9313281	20.3	1	9.968	-0.000	614168095	292.9
Aroclor-1260	2	10.259	0.001	10393012	23.3	2	10.499	-0.009	188782123	101.7
Aroclor-1260	3	10.628	-0.001	22211448	20.5	3	10.779	-0.002	103960922	24.9
Aroclor-1260	4	11.026	-0.001	21443122	40.8	4	11.293	-0.001	12219918	10.2
Aroclor-1260	5	11.215	-0.000	979089	3.3	NS	---			----
	Total Col1Ave (5 peaks):				21.6	Total Col2Ave (4 peaks):				107.4 RPD = 133*
	Corrected Ave (4 peaks):				16.8	Corrected Ave (3 peaks):				45.6 RPD = 92*
Aroclor-1262	1	9.941	-0.001	9313281	14.8	1	10.064	-0.000	26594556	10.4
Aroclor-1262	2	10.259	0.001	10393012	20.1	2	10.499	-0.009	188782123	84.7
Aroclor-1262	3	10.628	0.000	22211448	19.0	3	10.779	-0.001	103960922	22.3
Aroclor-1262	4	11.026	-0.001	21443122	54.7	4	11.348	-0.007	66495533	20.7
Aroclor-1262	5	11.215	0.001	979089	2.0	5	11.930	-0.010	27863095	36.2
	Total Col1Ave (5 peaks):				22.1	Total Col2Ave (5 peaks):				34.9 RPD = 45*
	Corrected Ave (4 peaks):				14.0	Corrected Ave (4 peaks):				22.4 RPD = 46*
Aroclor-1268	1	11.143	-0.000	815111	0.6	1	11.293	-0.001	12219918	2.3
Aroclor-1268	2	11.215	0.002	979089	0.8	2	11.348	-0.013	66495533	12.2
Aroclor-1268	3	11.613	0.014	1079722	1.0	3	11.754	0.000	786967	0.2

Aroclor-1268	4	12.376	-0.008	1537068	0.5		4	12.563	-0.004	1376074	0.1
	Total Col1Ave (4 peaks):			0.7			Total Col2Ave (4 peaks):			3.7	RPD = 136*
	Corrected Ave (3 peaks):			0.6			Corrected Ave (3 peaks):			0.9	RPD = 35

Total PCB Area Col1 (4.548 - 12.689) = 1912760083 Col1 Total PCB = 0.3 ppm*

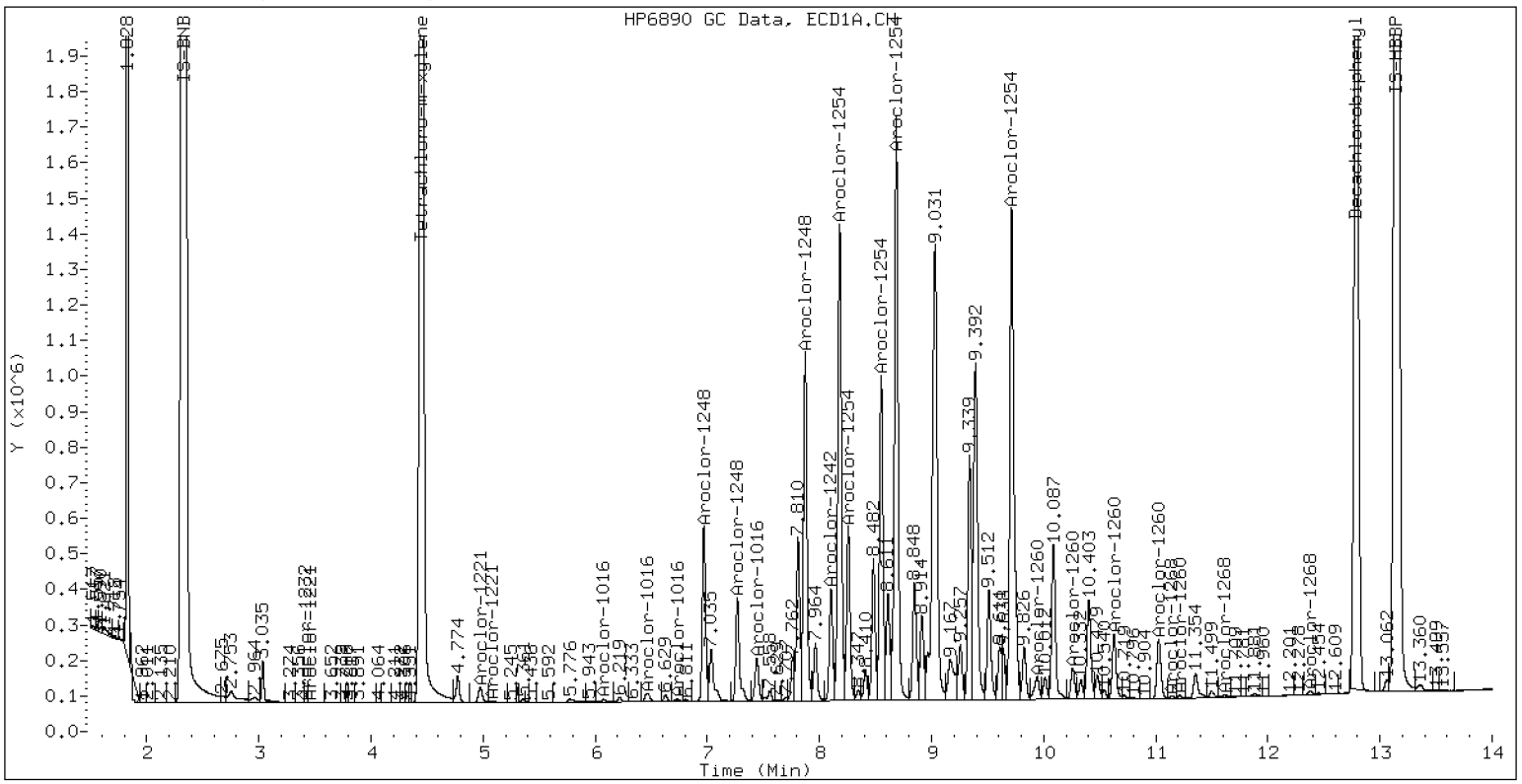
Total PCB Area Col2 (4.548 - 12.689) = 90465791 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

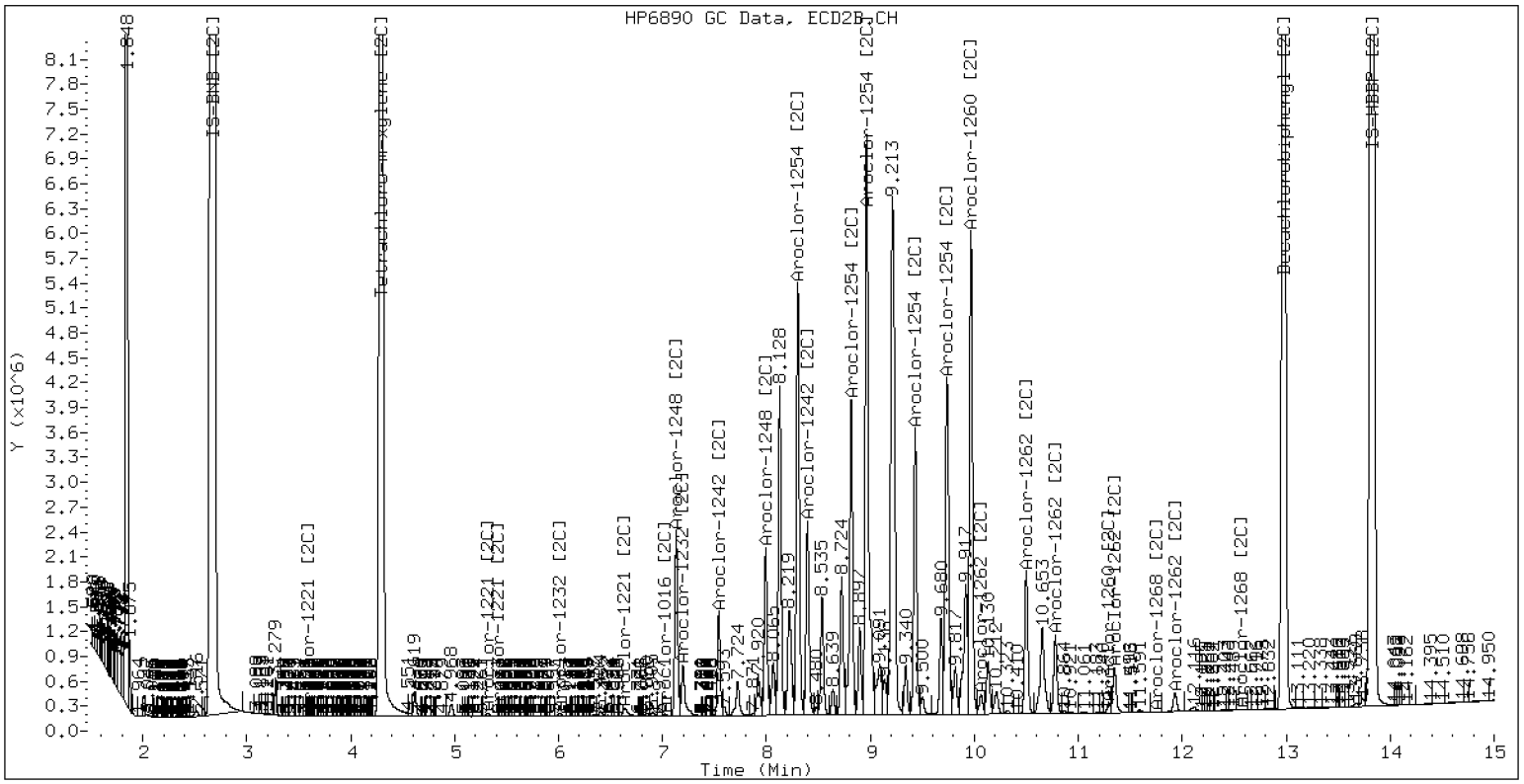
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061421.D AR1254SCV4 15-JUN-2018 00:44 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061421.D AR1254SCV4



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180614.b/18061422.D
Data file 2: /20180614.b/20180614.b/18061422.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: AR2162SCV5
Client ID:
Injection Date: 15-JUN-2018 01:05
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.451	0.003	479029764	4.294	0.004	2283821759	42.2	46.8	10.4	Tetrachloro-m-xylene
12.789	-0.000	330352002	12.976	-0.001	1583986880	37.2	38.6	3.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	105.6	117.1
Decachlorobiphenyl	93.0	96.4

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1000390090	8.7
Hexabromobiphenyl	761926666	841506371	10.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4953445338	12.1
Hexabromobiphenyl	2171332320	2669487036	22.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.073	0.001	6900315	26.2	1	6.026	0.015	71101016	46.3
Aroclor-1016	2	6.474	0.002	19250967	22.2	2	6.646	0.001	75005226	21.3
Aroclor-1016	3	6.733	0.001	5767310	23.9	3	7.025	-0.000	18947948	22.6
Aroclor-1016	4	7.442	0.001	4121135	14.5	4	7.542	0.002	24619805	24.8
	Total Col1Ave (4 peaks):				21.7	Total Col2Ave (4 peaks):				28.7 RPD = 28
	Corrected Ave (3 peaks):				20.2	Corrected Ave (3 peaks):				22.9 RPD = 12
Aroclor-1221	1	3.438	0.001	18582274	256.3	1	3.592	-0.000	47327194	255.0
Aroclor-1221	2	4.980	0.001	22573968	256.4	2	5.307	0.000	257741696	262.8
Aroclor-1221	3	5.086	0.000	68313551	257.8	3	5.374	0.000	45138229	261.6
Aroclor-1221	NS	---			----	4	6.646	-0.001	75005226	262.3
	Total Col1Ave (3 peaks):				256.8	Total Col2Ave (4 peaks):				260.4 RPD = 1
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				259.6
Aroclor-1232	1	3.438	0.003	18582274	402.0	1	3.592	0.002	47327194	403.0
Aroclor-1232	2	6.073	0.002	6900315	61.6	2	6.026	0.015	71101016	96.8
Aroclor-1232	3	6.474	0.003	19250967	52.5	3	6.646	0.003	75005226	47.1
Aroclor-1232	4	6.733	0.002	5767310	56.5	4	7.197	0.001	9156672	28.1
	Total Col1Ave (4 peaks):				143.1	Total Col2Ave (4 peaks):				143.8 RPD = 0
	Corrected Ave (3 peaks):				56.8	Corrected Ave (3 peaks):				57.4 RPD = 1
Aroclor-1242	1	6.073	-0.000	6900315	32.8	1	6.026	0.014	71101016	56.1
Aroclor-1242	2	6.474	0.001	19250967	27.5	2	6.646	0.001	75005226	25.0
Aroclor-1242	3	6.733	0.000	5767310	29.7	3	7.542	0.001	24619805	25.7
Aroclor-1242	4	8.102	0.002	5080481	20.5	4	8.402	-0.006	19389022	19.6
	Total Col1Ave (4 peaks):				27.6	Total Col2Ave (4 peaks):				31.6 RPD = 13
	Corrected Ave (3 peaks):				25.9	Corrected Ave (3 peaks):				23.4 RPD = 10
Aroclor-1248	1	6.970	0.000	4604981	17.1	1	6.646	0.002	75005226	43.8
Aroclor-1248	2	7.268	-0.000	3791847	12.2	2	7.132	-0.002	17058001	14.4
Aroclor-1248	3	7.874	0.008	20465888	42.8	3	7.542	0.001	24619805	19.1
Aroclor-1248	4	8.102	0.002	5080481	14.0	4	7.992	-0.001	16198057	10.6
	Total Col1Ave (4 peaks):				21.6	Total Col2Ave (4 peaks):				22.0 RPD = 2
	Corrected Ave (3 peaks):				14.5	Corrected Ave (3 peaks):				14.7 RPD = 2
Aroclor-1254	1	8.183	0.002	22361947	38.4	1	8.301	-0.000	76144607	42.7
Aroclor-1254	2	8.258	0.000	2784171	15.1	2	8.815	-0.000	17308469	13.2
Aroclor-1254	3	8.551	-0.000	5448380	14.7	3	9.005	0.042	339300841	117.7
Aroclor-1254	4	8.655	-0.030	29945637	41.7	4	9.430	-0.000	486443559	376.6
Aroclor-1254	5	9.714	-0.000	98819680	138.5	5	9.745	0.007	81956095	49.5
	Total Col1Ave (5 peaks):				49.7	Total Col2Ave (5 peaks):				119.9 RPD = 83*
	Corrected Ave (4 peaks):				27.5	Corrected Ave (4 peaks):				55.8 RPD = 68*
Aroclor-1260	1	9.943	0.001	168307468	365.4	1	9.968	0.000	272025069	129.3
Aroclor-1260	2	10.258	0.000	138842067	310.2	2	10.508	0.000	598943858	321.4
Aroclor-1260	3	10.628	-0.001	309870468	284.6	3	10.779	-0.001	1241946052	296.6
Aroclor-1260	4	11.027	0.001	104371757	197.9	4	11.294	-0.000	551494920	456.8
Aroclor-1260	5	11.215	-0.001	131165019	441.5	NS	---			----
	Total Col1Ave (5 peaks):				319.9	Total Col2Ave (4 peaks):				301.0 RPD = 6
	Corrected Ave (4 peaks):				289.5	Corrected Ave (3 peaks):				249.1 RPD = 15
Aroclor-1262	1	9.943	0.001	168307468	266.3	1	10.065	0.001	689872076	268.1
Aroclor-1262	2	10.258	0.000	138842067	267.2	2	10.508	0.000	598943858	267.7
Aroclor-1262	3	10.628	0.000	309870468	264.3	3	10.779	-0.000	1241946052	265.5
Aroclor-1262	4	11.027	0.000	104371757	265.3	4	11.355	-0.000	858866023	267.0
Aroclor-1262	5	11.215	0.000	131165019	267.0	5	11.941	0.001	206785528	267.7
	Total Col1Ave (5 peaks):				266.0	Total Col2Ave (5 peaks):				267.2 RPD = 0
	Corrected Ave (4 peaks):				265.7	Corrected Ave (4 peaks):				267.0 RPD = 0
Aroclor-1268	1	11.143	-0.000	128773114	93.1	1	11.294	-0.001	551494920	104.8
Aroclor-1268	2	11.215	0.002	131165019	103.6	2	11.355	-0.007	858866023	157.0
Aroclor-1268	3	11.614	0.015	52601728	48.6	3	11.754	0.000	29843089	7.0

Aroclor-1268	4	12.382	-0.001	41322531	12.6		4	12.566	-0.002	153693288	10.4
	Total Col1Ave (4 peaks):			64.5		Total Col2Ave (4 peaks):				69.8	RPD = 8
	Corrected Ave (3 peaks):			51.4		Corrected Ave (3 peaks):				40.7	RPD = 23

Total PCB Area Col1 (4.548 - 12.689) = 2424257132 Col1 Total PCB = 0.4 ppm*

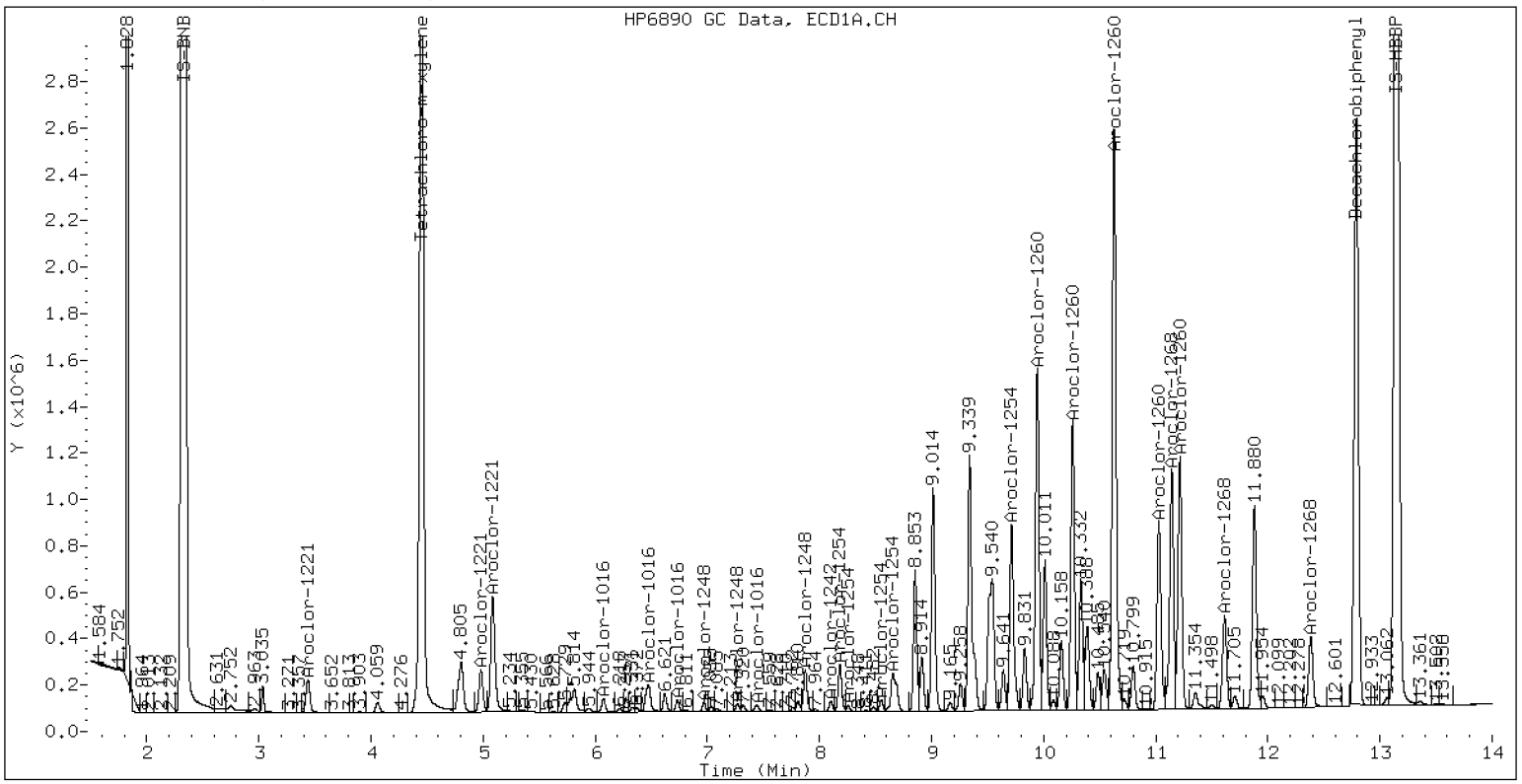
Total PCB Area Col2 (4.548 - 12.689) = 9410630105 Col2 Total PCB = 1.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

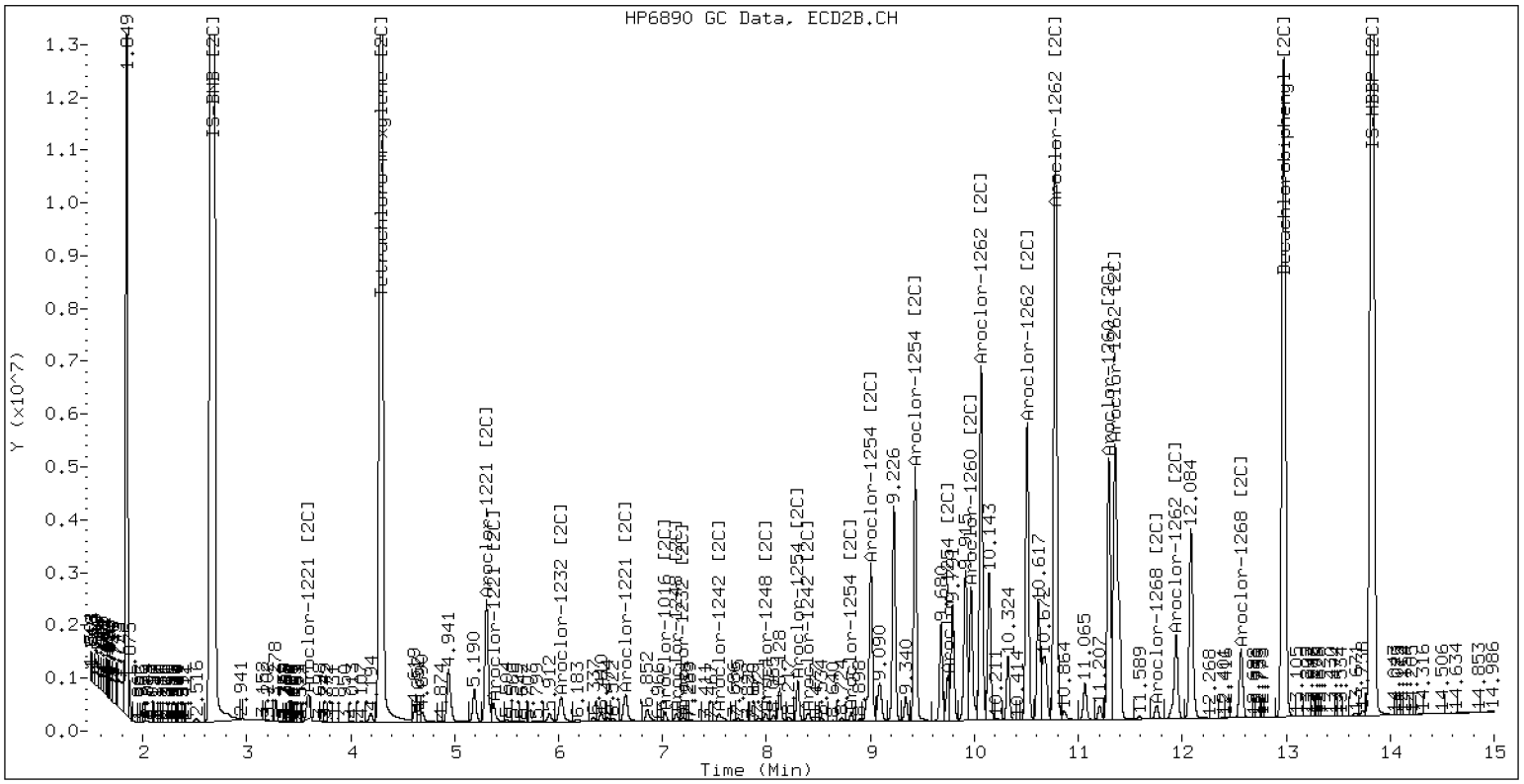
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061422.D AR2162SCV5 15-JUN-2018 01:05 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061422.D AR2162SCV5



ZB-35 Manual Integration: NO

Analytical Resources Inc.
Dual Column 608/8082 PCB

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Data file 2: /20180614.b/20180614.b/18061423.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: AR3268SCV6
Client ID:
Injection Date: 15-JUN-2018 01:25
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.451	0.003	490960964	4.295	0.005	2388918141	41.9	45.4	7.9	Tetrachloro-m-xylene
12.790	0.001	457142261	12.976	-0.001	2215400175	51.7	53.8	4.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	104.7	113.4
Decachlorobiphenyl	129.2	134.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1033233784	12.3
Hexabromobiphenyl	761926666	838362051	10.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5349110856	21.1
Hexabromobiphenyl	2171332320	2673123880	23.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.073	0.001	31659464	116.6	1	6.014	0.002	221772037	133.8
Aroclor-1016	2	6.472	0.000	101967837	113.7	2	6.646	0.001	475818344	124.9
Aroclor-1016	3	6.732	0.001	28671859	115.2	3	7.025	0.001	108164869	119.4
Aroclor-1016	4	7.442	0.000	35280991	120.3	4	7.541	0.001	139937277	130.3
	Total Col1Ave (4 peaks):	116.5				Total Col2Ave (4 peaks):	127.1		RPD = 9	
	Corrected Ave (3 peaks):	115.2				Corrected Ave (3 peaks):	124.9		RPD = 8	
Aroclor-1221	1	3.438	0.001	11299480	150.9	1	3.593	0.000	29517277	147.2
Aroclor-1221	2	4.980	0.000	17344639	190.7	2	5.307	0.001	208999602	197.3
Aroclor-1221	3	5.086	0.001	54408323	198.8	3	5.375	0.001	27027493	145.1
Aroclor-1221	NS	---			----	4	6.646	-0.001	475818344	1540.6
	Total Col1Ave (3 peaks):	180.1				Total Col2Ave (4 peaks):	507.6		RPD = 95*	
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):	163.2			
Aroclor-1232	1	3.438	0.003	11299480	236.7	1	3.593	0.002	29517277	232.7
Aroclor-1232	2	6.073	0.002	31659464	273.5	2	6.014	0.003	221772037	279.6
Aroclor-1232	3	6.472	0.002	101967837	269.0	3	6.646	0.002	475818344	276.8
Aroclor-1232	4	6.732	0.002	28671859	271.8	4	7.199	0.002	81789776	232.8
	Total Col1Ave (4 peaks):	262.8				Total Col2Ave (4 peaks):	255.5		RPD = 3	
	Corrected Ave (3 peaks):	259.2				Corrected Ave (3 peaks):	247.5		RPD = 5	
Aroclor-1242	1	6.073	-0.000	31659464	145.8	1	6.014	0.002	221772037	162.0
Aroclor-1242	2	6.472	-0.000	101967837	141.1	2	6.646	0.001	475818344	146.6
Aroclor-1242	3	6.732	-0.000	28671859	142.9	3	7.541	0.001	139937277	135.1
Aroclor-1242	4	8.099	-0.000	31449415	123.1	4	8.408	-0.000	132911416	124.2
	Total Col1Ave (4 peaks):	138.2				Total Col2Ave (4 peaks):	142.0		RPD = 3	
	Corrected Ave (3 peaks):	135.7				Corrected Ave (3 peaks):	135.3		RPD = 0	
Aroclor-1248	1	6.970	0.000	22994495	82.7	1	6.646	0.002	475818344	257.6
Aroclor-1248	2	7.268	0.000	28007484	87.5	2	7.134	0.000	102494385	80.2
Aroclor-1248	3	7.864	-0.002	37737705	76.5	3	7.541	0.000	139937277	100.4
Aroclor-1248	4	8.099	-0.000	31449415	84.0	4	7.992	-0.001	122734085	74.0
	Total Col1Ave (4 peaks):	82.7				Total Col2Ave (4 peaks):	128.0		RPD = 43*	
	Corrected Ave (3 peaks):	81.1				Corrected Ave (3 peaks):	84.9		RPD = 5	
Aroclor-1254	1	8.180	-0.001	11363488	18.9	1	8.302	0.000	26063001	13.5
Aroclor-1254	2	8.258	0.000	5124076	26.9	2	8.816	0.001	25021714	17.7
Aroclor-1254	3	8.552	0.001	6923872	18.1	3	8.963	-0.000	47888583	15.4
Aroclor-1254	4	8.687	0.001	11952470	16.1	4	9.432	0.001	21625261	15.5
Aroclor-1254	5	9.715	0.001	4543540	6.2	5	9.734	-0.003	24004872	13.4
	Total Col1Ave (5 peaks):	17.2				Total Col2Ave (5 peaks):	15.1		RPD = 13	
	Corrected Ave (4 peaks):	14.8				Corrected Ave (4 peaks):	14.5		RPD = 2	
Aroclor-1260	1	9.943	0.000	86916636	189.4	1	9.968	-0.000	14770548	7.0
Aroclor-1260	2	10.258	-0.000	8591531	19.3	2	10.509	0.001	389834987	208.9
Aroclor-1260	3	10.628	-0.001	57664224	53.2	3	10.779	-0.002	238660754	56.9
Aroclor-1260	4	11.029	0.003	2052869	3.9	4	11.295	0.001	1416887151	1172.1
Aroclor-1260	5	11.214	-0.002	370950716	1253.3	NS	---			----
	Total Col1Ave (5 peaks):	303.8				Total Col2Ave (4 peaks):	361.2		RPD = 17	
	Corrected Ave (4 peaks):	66.4				Corrected Ave (3 peaks):	90.9		RPD = 31	
Aroclor-1262	1	9.943	0.001	86916636	138.0	1	10.065	0.000	354299759	137.5
Aroclor-1262	2	10.258	0.000	8591531	16.6	2	10.509	0.001	389834987	174.0
Aroclor-1262	3	10.628	0.001	57664224	49.4	3	10.779	-0.001	238660754	51.0
Aroclor-1262	4	11.029	0.002	2052869	5.2	4	11.361	0.006	1645085160	510.6
Aroclor-1262	5	11.214	-0.001	370950716	757.9	5	11.896	-0.044	389436785	503.4
	Total Col1Ave (5 peaks):	193.4				Total Col2Ave (5 peaks):	275.3		RPD = 35	
	Corrected Ave (4 peaks):	52.3				Corrected Ave (4 peaks):	216.5		RPD = 122*	
Aroclor-1268	1	11.142	-0.000	367683089	266.9	1	11.295	0.000	1416887151	269.0
Aroclor-1268	2	11.214	0.001	370950716	294.0	2	11.361	-0.000	1645085160	300.4
Aroclor-1268	3	11.599	0.000	257524021	238.6	3	11.753	-0.000	1052201725	245.0

```
Aroclor-1268 4  12.383  -0.001 730269906   223.1      4   12.568   0.000 3407152826   229.9
      Total Col1Ave (4 peaks):   255.7       Total Col2Ave (4 peaks):   261.1   RPD = 2
      Corrected Ave (3 peaks):   242.9       Corrected Ave (3 peaks):   248.0   RPD = 2
```

Total PCB Area Col1 (4.548 - 12.689) = 3036965730 Col1 Total PCB = 0.5 ppm*

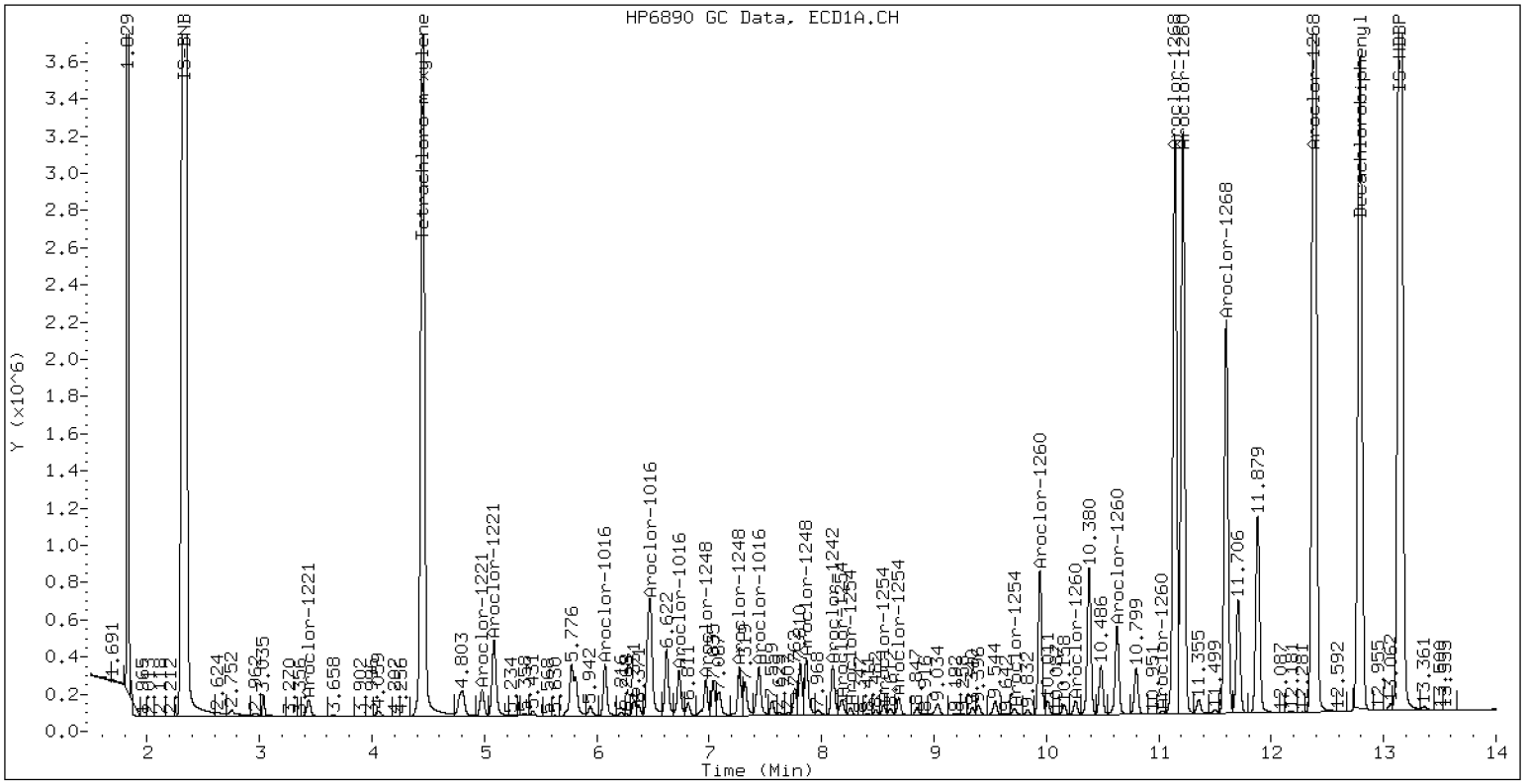
Total PCB Area Col2 (4.548 - 12.689) = 2998883511 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

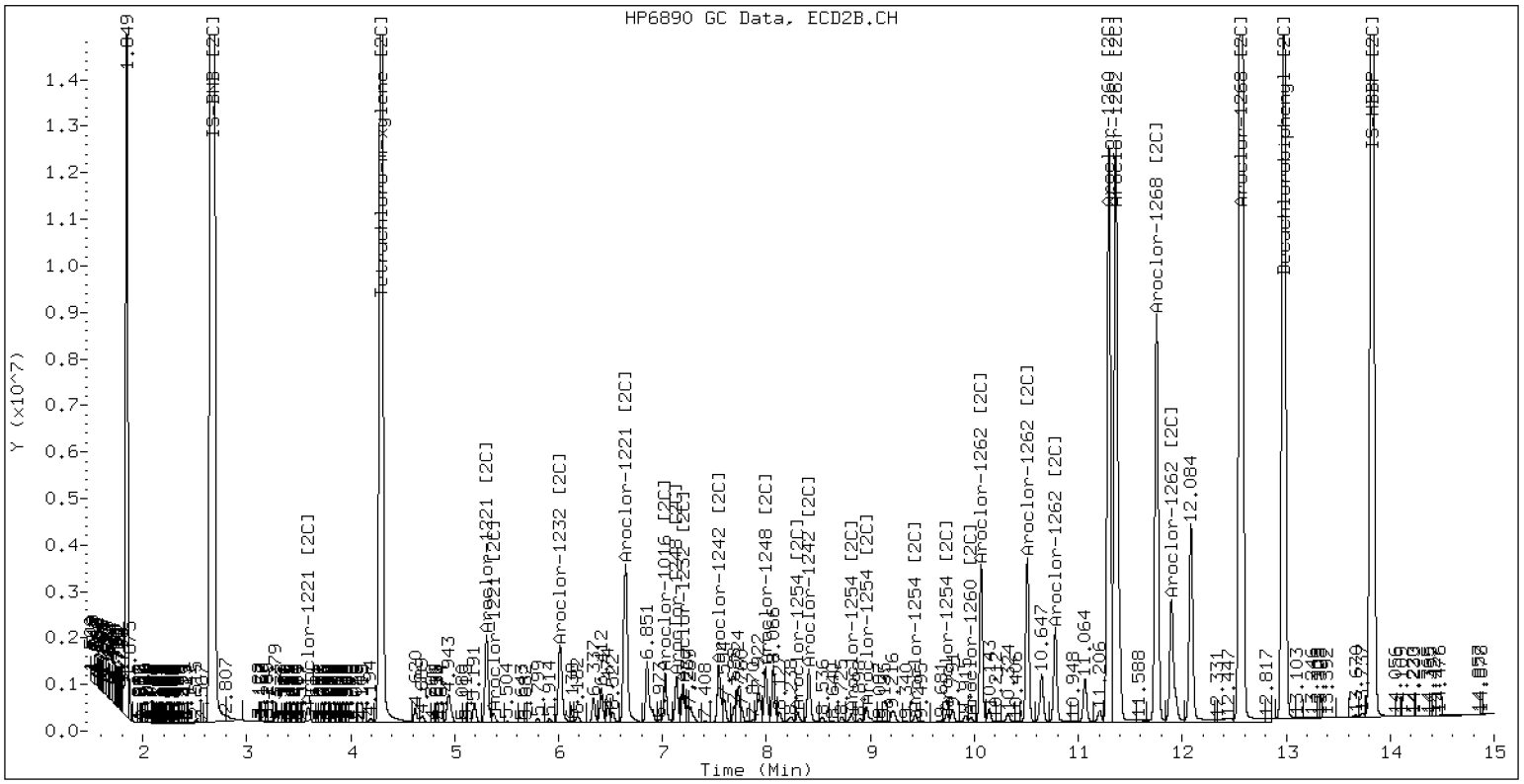
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061423.D AR3268SCV6 15-JUN-2018 01:25 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061423.D AR3268SCV6



ZB-35 Manual Integration: NO

Analytical Resources Inc.
8082 DDT SCREEN REPORT

Data file 1: /20180614.b/18061424.D ARI ID: 0.1PPM DDTS

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
8.148	0.000	725525636	8.389	0.000	2826430987	0.100	0.100	0.0	2,4-DDE
8.574	0.000	1199755352	8.774	0.000	4709646584	0.100	0.100	0.0	2,4-DDD
8.694	0.000	727947226	9.524	0.000	7305940425	0.100	0.200#	66.7*	2,4-DDT
9.143	0.000	1070942336	9.064	0.000	2787305752	0.100	0.100	0.0	4,4-DDE
9.196	0.000	775934037	9.524	0.000	7305940425	0.100	0.200#	66.7*	4,4-DDD
9.653	0.000	956663090	9.957	0.000	3855417367	0.100	0.100	0.0	4,4-DDT

# Indicates value is from co-eluting peaks
* Indicates RPD > 40%

7E

8082 DDT BREAKDOWN VERIFICATION SUMMARY

Lab ID: DDT BD

Analysis Date: 15-JUN-2018 02:06 Init. Calib. Date: 14-JUN-2018

GC Column: ZB5 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4-DDE	9.146	73858903
4,4-DDD	9.293	143311308
4,4-DDT	9.654	902420617

Col 1: 4,4-DDT Percent Breakdown = 19.4 %

GC Column: ZB35 ID: 0.53(mm)

COMPOUND	RT	AREA
4,4-DDT [2C]	9.958	4254754903
4,4-DDE [2C]	9.068	7709132
4,4-DDD/2,4-DDT [2C]	9.525	284670552

Col 2: 4,4-DDT Percent Breakdown = 6.4 %

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00046
Laboratory ID: SGF0252-SCV1
Sequence: SGF0252
Sequence Name: AR1660SCV1
Standard ID: G003406

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1016	250.00	251	0.5	20.00
Aroclor 1016 [2C]	250.00	269	7.5	20.00
Aroclor 1260	250.00	263	5.0	20.00
Aroclor 1260 [2C]	250.00	266	6.6	20.00
Decachlorobiphenyl	40.000	39.1	-2.2	20.00
Tetrachlorometaxylene	40.000	40.8	2.1	20.00
Decachlorobiphenyl [2C]	40.000	40.6	1.6	20.00
Tetrachlorometaxylene [2C]	40.000	42.7	6.6	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180614.b/18061418.D
Data file 2: /20180614.b/20180614.b/18061418.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: AR1660SCV1
Client ID:
Injection Date: 14-JUN-2018 23:43
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.450	0.002	473418484	4.292	0.002	2241893136	40.8	42.6	4.3	Tetrachloro-m-xylene
12.789	-0.000	342219353	12.977	-0.000	1623202239	39.1	40.6	3.8	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	102.1	106.6
Decachlorobiphenyl	97.8	101.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1022182035	11.1
Hexabromobiphenyl	761926666	828985199	8.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5339227039	20.8
Hexabromobiphenyl	2171332320	2595051394	19.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.072	0.000	65622266	244.3	1	6.012	0.000	442646155	267.6
Aroclor-1016	2	6.472	-0.000	219436168	247.4	2	6.645	0.000	1025267509	269.7
Aroclor-1016	3	6.731	-0.000	60093838	244.1	3	7.024	-0.000	236930858	261.9
Aroclor-1016	4	7.441	-0.000	78031346	268.8	4	7.540	-0.001	295237756	275.5
	Total Col1Ave (4 peaks):				251.2	Total Col2Ave (4 peaks):				268.7 RPD = 7
	Corrected Ave (3 peaks):				245.3	Corrected Ave (3 peaks):				266.4 RPD = 8
Aroclor-1221	1	3.435	-0.002	753329	10.2	1	3.589	-0.003	1506300	7.5
Aroclor-1221	2	4.978	-0.002	14450320	160.6	2	5.306	-0.000	191881328	181.5
Aroclor-1221	3	5.084	-0.001	49063076	181.2	3	5.371	-0.003	16264257	87.5
Aroclor-1221	NS	---			----	4	6.645	-0.001	1025267509	3325.8
	Total Col1Ave (3 peaks):				117.3	Total Col2Ave (4 peaks):				900.6 RPD = 154*
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				92.2
Aroclor-1232	1	3.435	-0.000	753329	15.9	1	3.589	-0.002	1506300	11.9
Aroclor-1232	2	6.072	0.001	65622266	573.1	2	6.012	0.001	442646155	559.1
Aroclor-1232	3	6.472	0.001	219436168	585.2	3	6.645	0.002	1025267509	597.6
Aroclor-1232	4	6.731	0.001	60093838	575.8	4	7.197	0.001	208071982	593.4
	Total Col1Ave (4 peaks):				437.5	Total Col2Ave (4 peaks):				440.5 RPD = 1
	Corrected Ave (3 peaks):				388.3	Corrected Ave (3 peaks):				388.1 RPD = 0
Aroclor-1242	1	6.072	-0.001	65622266	305.4	1	6.012	-0.000	442646155	323.8
Aroclor-1242	2	6.472	-0.001	219436168	306.9	2	6.645	0.000	1025267509	316.5
Aroclor-1242	3	6.731	-0.001	60093838	302.7	3	7.540	-0.001	295237756	285.6
Aroclor-1242	4	8.103	0.003	6850206	27.1	4	8.406	-0.002	12121957	11.4
	Total Col1Ave (4 peaks):				235.5	Total Col2Ave (4 peaks):				234.3 RPD = 1
	Corrected Ave (3 peaks):				211.8	Corrected Ave (3 peaks):				204.5 RPD = 3
Aroclor-1248	1	6.969	-0.001	51821043	188.4	1	6.645	0.001	1025267509	556.0
Aroclor-1248	2	7.267	-0.001	61144355	193.2	2	7.133	-0.001	254683736	199.5
Aroclor-1248	3	7.872	0.006	46358569	95.0	3	7.540	-0.001	295237756	212.2
Aroclor-1248	4	8.103	0.003	6850206	18.5	4	7.991	-0.002	48817926	29.5
	Total Col1Ave (4 peaks):				123.8	Total Col2Ave (4 peaks):				249.3 RPD = 67*
	Corrected Ave (3 peaks):				100.6	Corrected Ave (3 peaks):				147.1 RPD = 38
Aroclor-1254	1	8.182	0.002	42035446	70.7	1	8.301	-0.001	150041496	78.1
Aroclor-1254	2	---			0.0	2	8.815	-0.000	20394162	14.4
Aroclor-1254	3	8.551	-0.000	6273747	16.6	3	8.965	0.002	49911700	16.1
Aroclor-1254	4	8.655	-0.030	40507722	55.2	4	9.430	-0.001	618655050	444.3
Aroclor-1254	5	9.713	-0.001	185881603	255.0	5	9.746	0.009	164149061	92.1
	Total Col1Ave (4 peaks):				99.4	Total Col2Ave (5 peaks):				129.0 RPD = 26
	Corrected Ave (3 peaks):				47.5	Corrected Ave (4 peaks):				50.2 RPD = 5
Aroclor-1260	1	9.942	-0.000	118021951	260.1	1	9.967	-0.001	534894500	261.5
Aroclor-1260	2	10.258	-0.001	116935525	265.2	2	10.508	-0.000	488736471	269.8
Aroclor-1260	3	10.628	-0.001	282988006	263.8	3	10.779	-0.001	1119415624	275.0
Aroclor-1260	4	11.027	0.000	140156213	269.7	4	11.294	-0.000	304717937	259.7
Aroclor-1260	5	11.216	-0.000	74278131	253.8	NS	---			----
	Total Col1Ave (5 peaks):				262.5	Total Col2Ave (4 peaks):				266.5 RPD = 1
	Corrected Ave (4 peaks):				260.7	Corrected Ave (3 peaks):				263.6 RPD = 1
Aroclor-1262	1	9.942	0.000	118021951	189.5	1	10.064	-0.000	473412101	189.2
Aroclor-1262	2	10.258	-0.000	116935525	228.4	2	10.508	-0.000	488736471	224.7
Aroclor-1262	3	10.628	-0.000	282988006	245.0	3	10.779	-0.001	1119415624	246.2
Aroclor-1262	4	11.027	-0.000	140156213	361.6	4	11.350	-0.004	730038547	233.4
Aroclor-1262	5	11.216	0.001	74278131	153.5	5	11.940	0.000	141343759	188.2
	Total Col1Ave (5 peaks):				235.6	Total Col2Ave (5 peaks):				216.3 RPD = 9
	Corrected Ave (4 peaks):				204.1	Corrected Ave (4 peaks):				208.9 RPD = 2
Aroclor-1268	1	11.142	-0.001	61956709	45.5	1	11.294	-0.001	304717937	59.6
Aroclor-1268	2	11.216	0.002	74278131	59.5	2	11.350	-0.011	730038547	137.3
Aroclor-1268	3	11.615	0.016	33899340	31.8	3	11.753	-0.001	7856006	1.9

Aroclor-1268	4	12.382	-0.001	16699195	5.2	4	12.566	-0.002	51849987	3.6	
Total Col1Ave (4 peaks):				35.5	Total Col2Ave (4 peaks):				50.6	RPD =	35
Corrected Ave (3 peaks):				27.5	Corrected Ave (3 peaks):				21.7	RPD =	24

Total PCB Area Col1 (4.548 - 12.689) = 3196307442 Col1 Total PCB = 0.6 ppm*

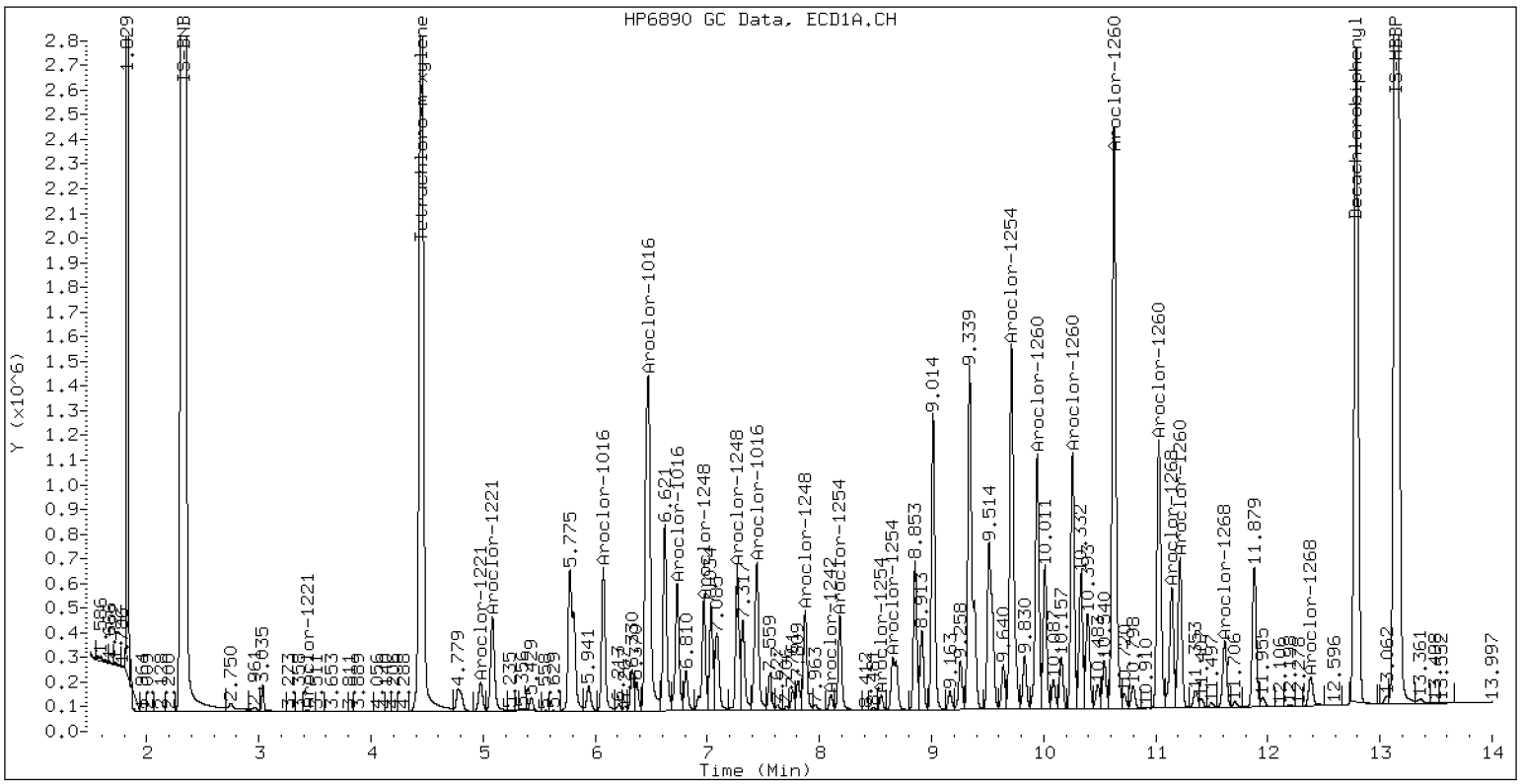
Total PCB Area Col2 (4.548 - 12.689) = 11348533307 Col2 Total PCB = 1.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

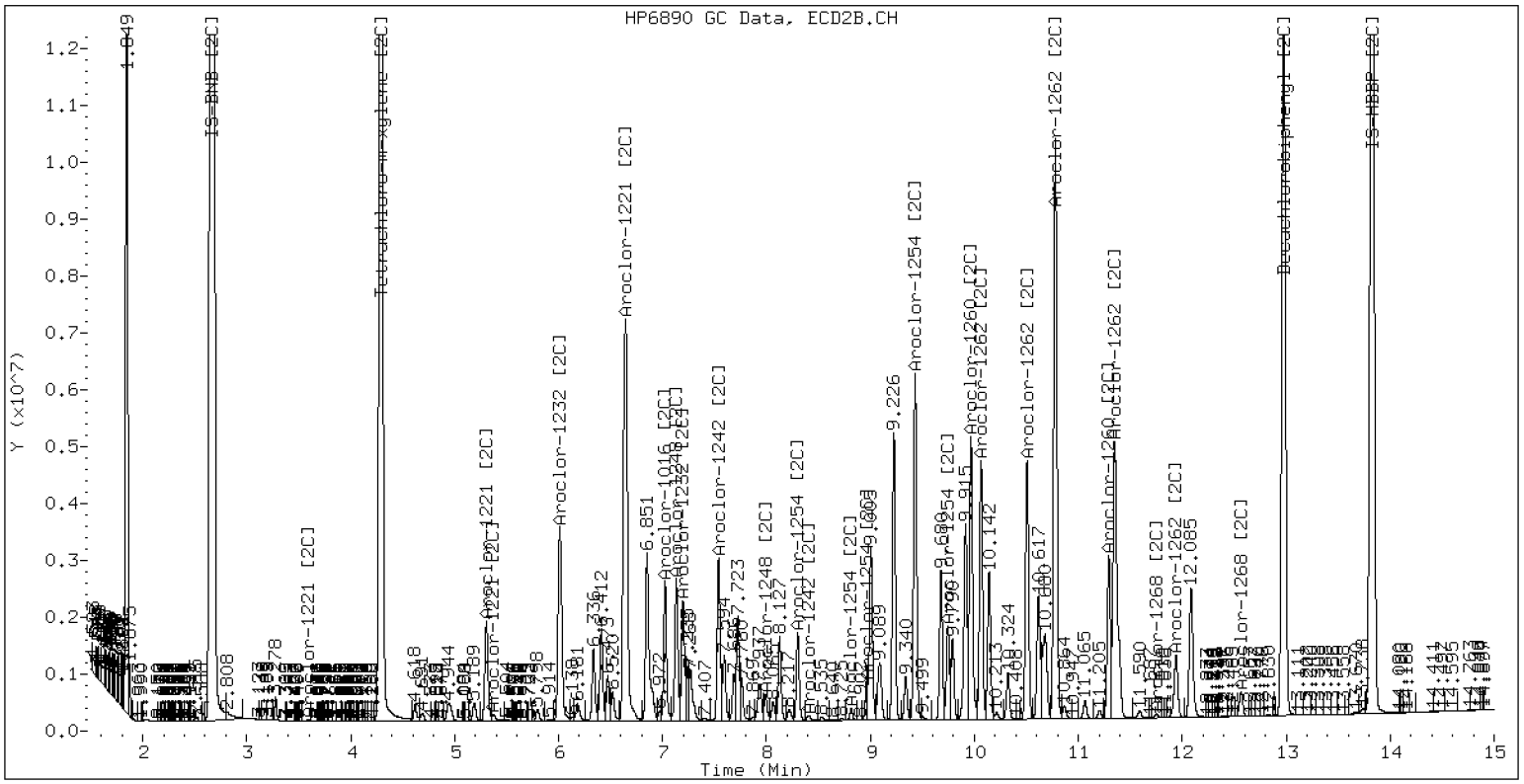
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061418.D AR1660SCV1 14-JUN-2018 23:43 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061418.D AR1660SCV1



ZB-35 Manual Integration: NO

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00046
Laboratory ID: SGF0252-SCV2
Sequence: SGF0252
Sequence Name: AR1242SCV2
Standard ID: G003409

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1242	250.00	239	-4.4	20.00
Aroclor 1242 [2C]	250.00	246	-1.5	20.00
Decachlorobiphenyl	40.000	35.0	-12.5	20.00
Tetrachlorometaxylene	40.000	39.6	-1.0	20.00
Decachlorobiphenyl [2C]	40.000	36.4	-9.1	20.00
Tetrachlorometaxylene [2C]	40.000	41.7	4.3	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180614.b/18061419.D
Data file 2: /20180614.b/20180614.b/18061419.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: AR1242SCV2
Client ID:
Injection Date: 15-JUN-2018 00:04
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.452	0.004	448647064	4.294	0.004	2115106515	39.6	41.7	5.2	Tetrachloro-m-xylene
12.789	0.000	309679390	12.976	-0.002	1471571139	35.0	36.4	3.8	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	99.0	104.3
Decachlorobiphenyl	87.5	90.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	998974299	8.6
Hexabromobiphenyl	761926666	838049144	10.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5148832203	16.5
Hexabromobiphenyl	2171332320	2628248100	21.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.073	0.002	51165688	194.9	1	6.012	0.001	330236945	207.0
Aroclor-1016	2	6.473	0.001	169413916	195.5	2	6.646	0.001	777097133	212.0
Aroclor-1016	3	6.733	0.001	46655319	194.0	3	7.025	-0.000	176867562	202.8
Aroclor-1016	4	7.442	0.001	64600327	227.7	4	7.541	0.000	244478667	236.6
	Total Col1Ave (4 peaks):				203.0	Total Col2Ave (4 peaks):				214.6 RPD = 6
	Corrected Ave (3 peaks):				194.8	Corrected Ave (3 peaks):				207.3 RPD = 6
Aroclor-1221	1	3.438	0.001	648364	9.0	1	3.594	0.002	1021954	5.3
Aroclor-1221	2	4.980	-0.000	11972284	136.2	2	5.307	0.000	145009888	142.2
Aroclor-1221	3	5.085	0.000	37385873	141.3	3	5.373	-0.001	12083666	67.4
Aroclor-1221	NS	---			----	4	6.646	-0.001	777097133	2614.0
	Total Col1Ave (3 peaks):				95.5	Total Col2Ave (4 peaks):				707.2 RPD = 152*
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				71.6
Aroclor-1232	1	3.438	0.003	648364	14.0	1	3.594	0.003	1021954	8.4
Aroclor-1232	2	6.073	0.002	51165688	457.2	2	6.012	0.002	330236945	432.5
Aroclor-1232	3	6.473	0.002	169413916	462.3	3	6.646	0.002	777097133	469.7
Aroclor-1232	4	6.733	0.002	46655319	457.5	4	7.198	0.001	159128001	470.6
	Total Col1Ave (4 peaks):				347.7	Total Col2Ave (4 peaks):				345.3 RPD = 1
	Corrected Ave (3 peaks):				309.6	Corrected Ave (3 peaks):				303.5 RPD = 2
Aroclor-1242	1	6.073	0.000	51165688	243.7	1	6.012	0.000	330236945	250.5
Aroclor-1242	2	6.473	0.000	169413916	242.4	2	6.646	0.001	777097133	248.8
Aroclor-1242	3	6.733	0.000	46655319	240.5	3	7.541	0.000	244478667	245.3
Aroclor-1242	4	8.100	-0.000	56569371	229.0	4	8.407	-0.001	247228315	240.1
	Total Col1Ave (4 peaks):				238.9	Total Col2Ave (4 peaks):				246.2 RPD = 3
	Corrected Ave (3 peaks):				237.3	Corrected Ave (3 peaks):				244.7 RPD = 3
Aroclor-1248	1	6.970	-0.000	42550543	158.3	1	6.646	0.002	777097133	437.0
Aroclor-1248	2	7.268	-0.000	49462148	159.9	2	7.134	-0.000	201557210	163.8
Aroclor-1248	3	7.865	-0.001	70982778	148.8	3	7.541	-0.000	244478667	182.2
Aroclor-1248	4	8.100	-0.000	56569371	156.3	4	7.992	-0.001	223572386	140.1
	Total Col1Ave (4 peaks):				155.8	Total Col2Ave (4 peaks):				230.8 RPD = 39
	Corrected Ave (3 peaks):				154.5	Corrected Ave (3 peaks):				162.0 RPD = 5
Aroclor-1254	1	8.180	-0.001	28350302	48.8	1	8.302	-0.000	66496392	35.9
Aroclor-1254	2	8.258	0.001	12458993	67.7	2	8.816	0.000	60670897	44.5
Aroclor-1254	3	8.551	0.000	18477034	49.9	3	8.963	-0.000	107968263	36.0
Aroclor-1254	4	8.686	0.001	30222733	42.1	4	9.432	0.001	24172967	18.0
Aroclor-1254	5	9.715	0.001	12980561	18.2	5	9.734	-0.003	66508421	38.7
	Total Col1Ave (5 peaks):				45.3	Total Col2Ave (5 peaks):				34.6 RPD = 27
	Corrected Ave (4 peaks):				39.8	Corrected Ave (4 peaks):				32.2 RPD = 21
Aroclor-1260	1	9.940	-0.003	613557	1.3	1	9.968	0.000	35919208	17.3
Aroclor-1260	2	10.260	0.001	601512	1.3	2	10.500	-0.009	11747085	6.4
Aroclor-1260	3	10.629	-0.000	1622038	1.5	3	10.779	-0.001	6345994	1.5
Aroclor-1260	4	11.027	0.001	1329059	2.5	4	11.294	0.000	1300546	1.1
Aroclor-1260	5	11.216	0.000	184128	0.6	NS	---			----
	Total Col1Ave (5 peaks):				1.5	Total Col2Ave (4 peaks):				6.6 RPD = 127*
	Corrected Ave (4 peaks):				1.2	Corrected Ave (3 peaks):				3.0 RPD = 86*
Aroclor-1262	1	9.940	-0.002	613557	1.0	1	10.064	-0.000	2430007	1.0
Aroclor-1262	2	10.260	0.002	601512	1.2	2	10.500	-0.009	11747085	5.3
Aroclor-1262	3	10.629	0.001	1622038	1.4	3	10.779	-0.001	6345994	1.4
Aroclor-1262	4	11.027	0.000	1329059	3.4	4	11.349	-0.006	4299518	1.4
Aroclor-1262	5	11.216	0.001	184128	0.4	5	11.930	-0.010	26211928	34.5
	Total Col1Ave (5 peaks):				1.5	Total Col2Ave (5 peaks):				8.7 RPD = 143*
	Corrected Ave (4 peaks):				1.0	Corrected Ave (4 peaks):				2.3 RPD = 79*
Aroclor-1268	1	11.144	0.001	156044	0.1	1	11.294	-0.000	1300546	0.3
Aroclor-1268	2	11.216	0.003	184128	0.1	2	11.349	-0.012	4299518	0.8
Aroclor-1268	3	11.605	0.006	669753	0.6	3	11.758	0.004	672382	0.2

Aroclor-1268	4	12.376	-0.007	1622965	0.5	4	12.564	-0.004	3236040	0.2
Total Col1Ave (4 peaks):		0.3			Total Col2Ave (4 peaks):		0.4	RPD = 4		
Corrected Ave (3 peaks):		0.3			Corrected Ave (3 peaks):		0.2	RPD = 18		

Total PCB Area Col1 (4.548 - 12.689) = 1269976916 Col1 Total PCB = 0.2 ppm*

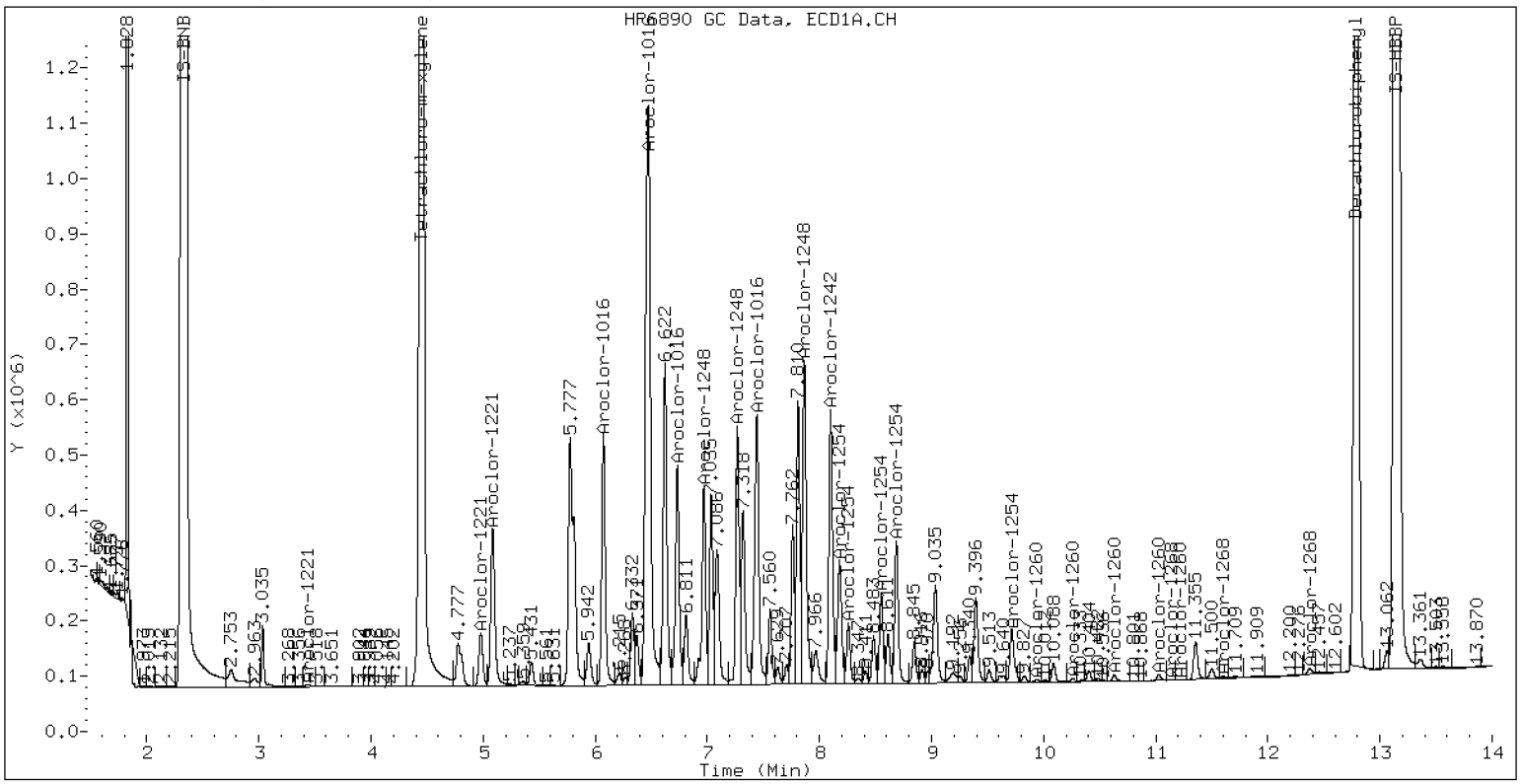
Total PCB Area Col2 (4.548 - 12.689) = 4937148201 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

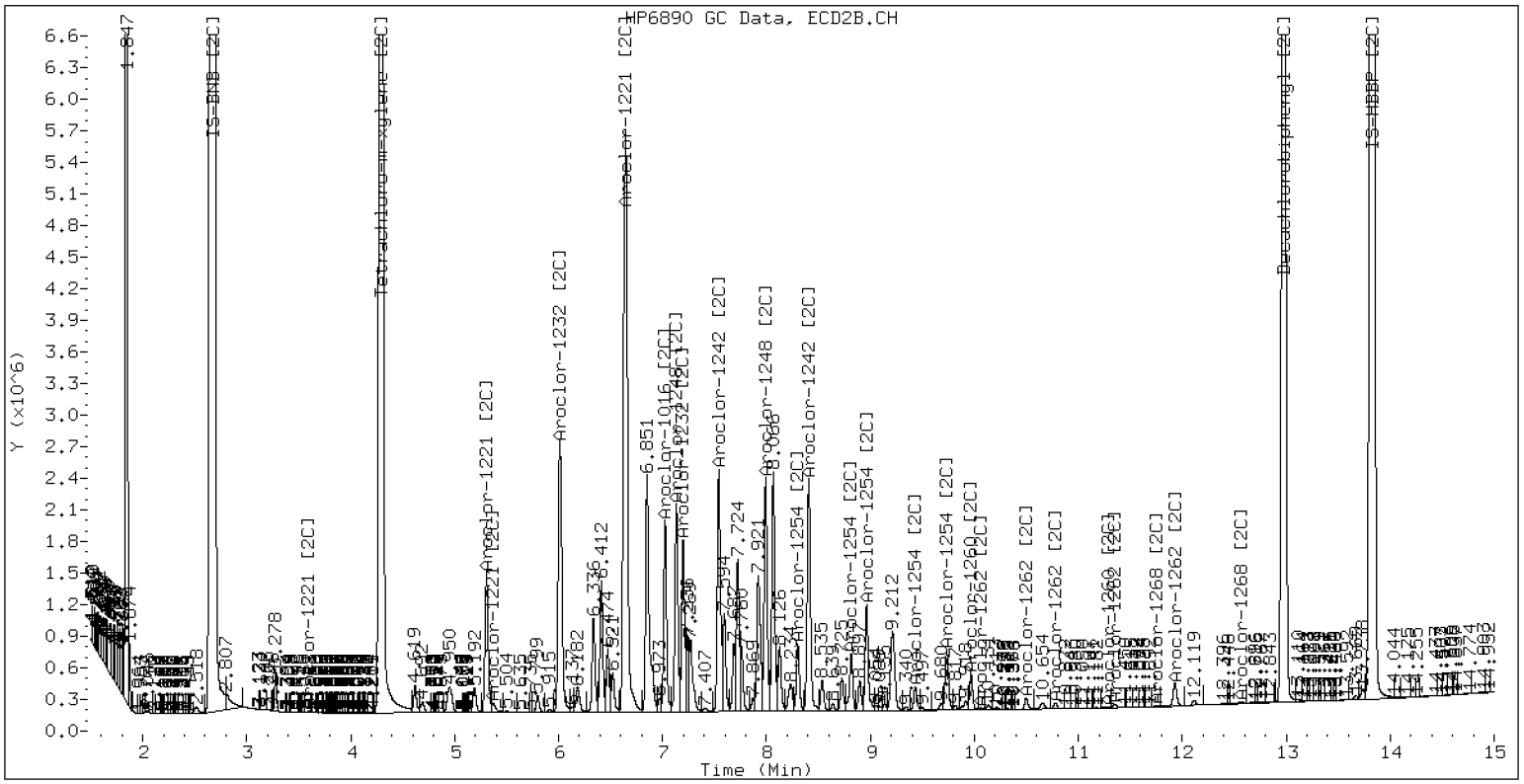
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061419.D AR1242SCV2 15-JUN-2018 00:04 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061419.D AR1242SCV2



ZB-35 Manual Integration: NO

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00046
Laboratory ID: SGF0252-SCV3
Sequence: SGF0252
Sequence Name: AR1248SCV3
Standard ID: G003410

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1248	250.00	261	4.5	20.00
Aroclor 1248 [2C]	250.00	272	8.8	20.00
Decachlorobiphenyl	40.000	37.2	-7.1	20.00
Tetrachlorometaxylene	40.000	40.7	1.7	20.00
Decachlorobiphenyl [2C]	40.000	38.8	-3.1	20.00
Tetrachlorometaxylene [2C]	40.000	42.3	5.8	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180614.b/18061420.D
Data file 2: /20180614.b/20180614.b/18061420.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: AR1248SCV3
Client ID:
Injection Date: 15-JUN-2018 00:24
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.450	0.001	468510005	4.293	0.003	2239557374	40.7	42.3	3.9	Tetrachloro-m-xylene
12.789	0.000	328752547	12.976	-0.001	1586512410	37.2	38.8	4.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	101.7	105.8
Decachlorobiphenyl	92.9	96.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1015278979	10.3
Hexabromobiphenyl	761926666	838009746	10.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5374391096	21.6
Hexabromobiphenyl	2171332320	2659286703	22.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.072	0.000	26129391	97.9	1	6.010	-0.002	174793578	105.0
Aroclor-1016	2	6.468	-0.004	116520627	132.3	2	6.642	-0.003	530494656	138.6
Aroclor-1016	3	6.731	-0.000	29081893	119.0	3	7.025	-0.000	99424324	109.2
Aroclor-1016	4	7.441	-0.000	98625320	342.1	4	7.541	0.000	370812179	343.8
	Total Col1Ave (4 peaks):	172.8				Total Col2Ave (4 peaks):	174.1	RPD = 1		
	Corrected Ave (3 peaks):	116.4				Corrected Ave (3 peaks):	117.6	RPD = 1		
Aroclor-1221	1	3.437	0.000	373851	5.1	1	3.583	-0.009	250526	1.2
Aroclor-1221	2	4.974	-0.005	6768875	75.7	2	5.307	0.000	29962623	28.2
Aroclor-1221	3	5.084	-0.002	8436205	31.4	3	5.372	-0.002	2274288	12.1
Aroclor-1221	NS	---			----	4	6.642	-0.005	530494656	1709.6
	Total Col1Ave (3 peaks):	37.4				Total Col2Ave (4 peaks):	437.8	RPD = 169*		
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):	13.8			
Aroclor-1232	1	3.437	0.002	373851	8.0	1	3.583	-0.007	250526	2.0
Aroclor-1232	2	6.072	0.001	26129391	229.7	2	6.010	-0.001	174793578	219.3
Aroclor-1232	3	6.468	-0.002	116520627	312.9	3	6.642	-0.002	530494656	307.2
Aroclor-1232	4	6.731	0.001	29081893	280.6	4	7.198	0.001	256272834	726.1
	Total Col1Ave (4 peaks):	207.8				Total Col2Ave (4 peaks):	313.6	RPD = 41*		
	Corrected Ave (3 peaks):	172.8				Corrected Ave (3 peaks):	176.2	RPD = 2		
Aroclor-1242	1	6.072	-0.001	26129391	122.4	1	6.010	-0.002	174793578	127.0
Aroclor-1242	2	6.468	-0.004	116520627	164.1	2	6.642	-0.003	530494656	162.7
Aroclor-1242	3	6.731	-0.001	29081893	147.5	3	7.541	0.000	370812179	356.4
Aroclor-1242	4	8.099	-0.000	93366976	372.0	4	8.406	-0.002	454655639	423.0
	Total Col1Ave (4 peaks):	201.5				Total Col2Ave (4 peaks):	267.3	RPD = 28		
	Corrected Ave (3 peaks):	144.7				Corrected Ave (3 peaks):	215.4	RPD = 39		
Aroclor-1248	1	6.969	-0.001	72323005	264.7	1	6.642	-0.002	530494656	285.8
Aroclor-1248	2	7.268	-0.001	84561072	269.0	2	7.133	-0.001	344866787	268.4
Aroclor-1248	3	7.865	-0.001	124932882	257.7	3	7.541	-0.000	370812179	264.8
Aroclor-1248	4	8.099	-0.001	93366976	253.9	4	7.992	-0.001	448306258	269.2
	Total Col1Ave (4 peaks):	261.3				Total Col2Ave (4 peaks):	272.1	RPD = 4		
	Corrected Ave (3 peaks):	258.8				Corrected Ave (3 peaks):	267.5	RPD = 3		
Aroclor-1254	1	8.179	-0.001	56926536	96.4	1	8.302	0.000	137123176	71.0
Aroclor-1254	2	8.257	-0.000	26426275	141.2	2	8.815	-0.000	135251118	95.1
Aroclor-1254	3	8.551	-0.000	38044046	101.1	3	8.963	0.000	232424428	74.3
Aroclor-1254	4	8.686	0.000	61255224	84.0	4	9.434	0.003	32015833	22.8
Aroclor-1254	5	9.715	0.000	12913756	17.8	5	9.732	-0.005	147571464	82.2
	Total Col1Ave (5 peaks):	88.1				Total Col2Ave (5 peaks):	69.1	RPD = 24		
	Corrected Ave (4 peaks):	74.9				Corrected Ave (4 peaks):	62.6	RPD = 18		
Aroclor-1260	1	9.943	0.000	2076955	4.5	1	9.968	0.000	35584517	17.0
Aroclor-1260	2	10.259	0.001	1565334	3.5	2	10.501	-0.007	15660143	8.4
Aroclor-1260	3	10.628	-0.001	3878694	3.6	3	10.779	-0.001	13500914	3.2
Aroclor-1260	4	11.027	0.000	1603222	3.1	4	11.295	0.000	4718343	3.9
Aroclor-1260	5	11.216	-0.000	1407680	4.8	NS	---			----
	Total Col1Ave (5 peaks):	3.9				Total Col2Ave (4 peaks):	8.1	RPD = 71*		
	Corrected Ave (4 peaks):	3.7				Corrected Ave (3 peaks):	5.2	RPD = 35		
Aroclor-1262	1	9.943	0.001	2076955	3.3	1	10.064	-0.001	7319029	2.9
Aroclor-1262	2	10.259	0.001	1565334	3.0	2	10.501	-0.007	15660143	7.0
Aroclor-1262	3	10.628	0.000	3878694	3.3	3	10.779	-0.001	13500914	2.9
Aroclor-1262	4	11.027	-0.000	1603222	4.1	4	11.354	-0.001	8515709	2.7
Aroclor-1262	5	11.216	0.001	1407680	2.9	5	11.929	-0.011	27872624	36.2
	Total Col1Ave (5 peaks):	3.3				Total Col2Ave (5 peaks):	10.3	RPD = 103*		
	Corrected Ave (4 peaks):	3.1				Corrected Ave (4 peaks):	3.9	RPD = 21		
Aroclor-1268	1	11.142	-0.000	1348077	1.0	1	11.295	0.000	4718343	0.9
Aroclor-1268	2	11.216	0.002	1407680	1.1	2	11.354	-0.007	8515709	1.6
Aroclor-1268	3	11.611	0.012	1159544	1.1	3	11.756	0.002	458405	0.1

Aroclor-1268	4	12.378	-0.005	2152578	0.7	4	12.561	-0.007	2814847	0.2	
Total Col1Ave (4 peaks):				1.0	Total Col2Ave (4 peaks):				0.7	RPD =	32
Corrected Ave (3 peaks):				0.9	Corrected Ave (3 peaks):				0.4	RPD =	77*

Total PCB Area Col1 (4.548 - 12.689) = 1549071616 Col1 Total PCB = 0.3 ppm*

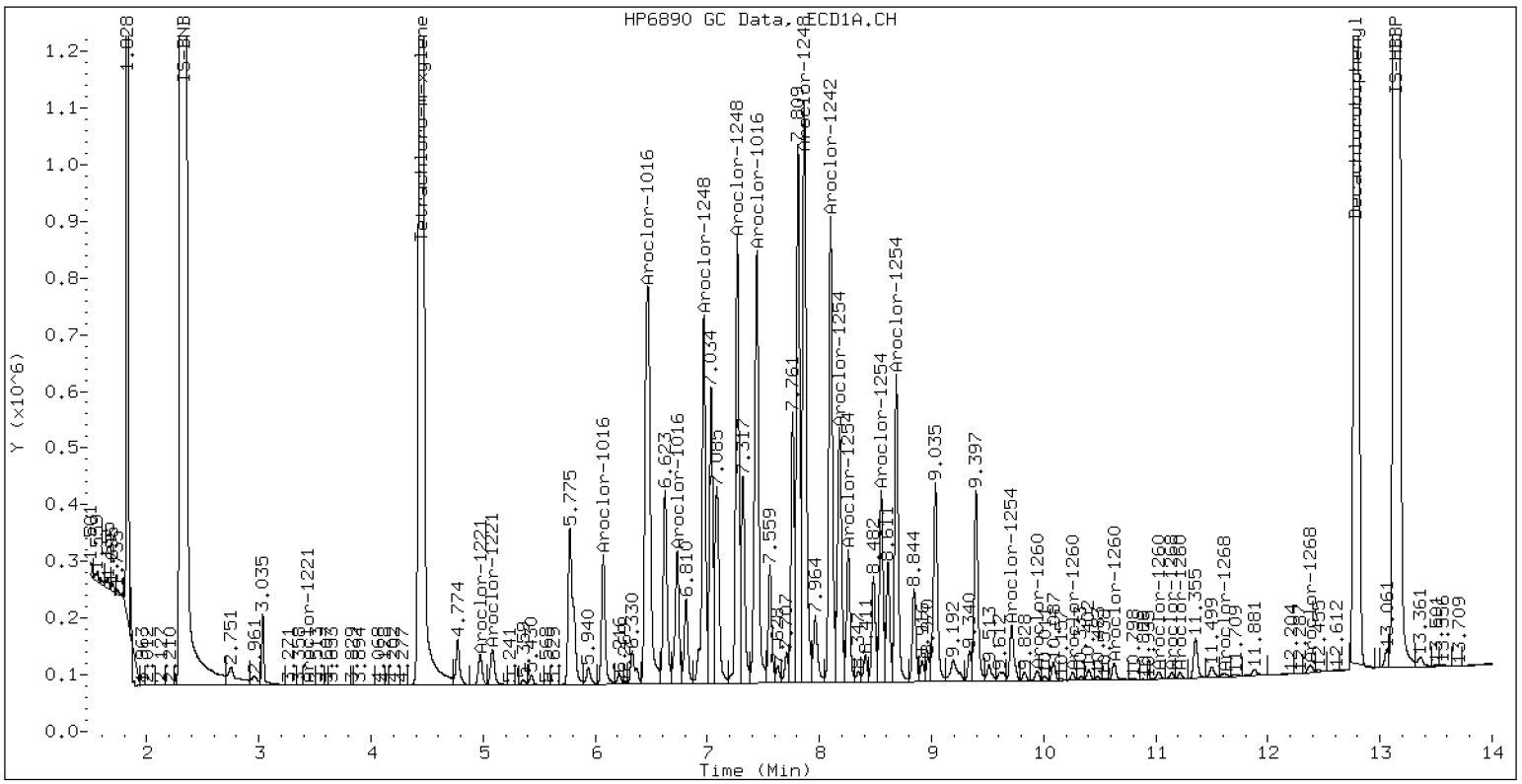
Total PCB Area Col2 (4.548 - 12.689) = 6151056667 Col2 Total PCB = 0.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

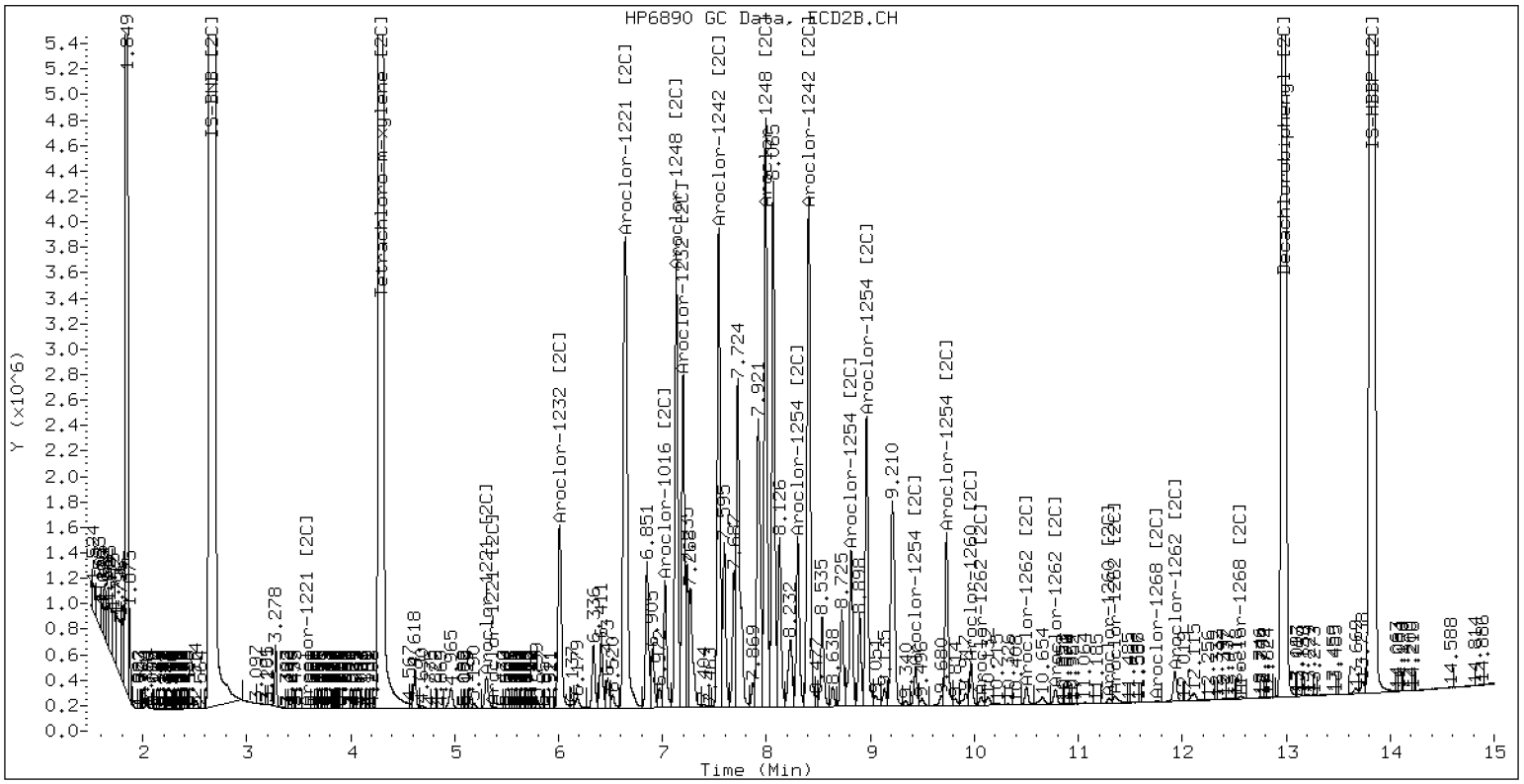
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061420.D AR1248SCV3 15-JUN-2018 00:24 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061420.D AR1248SCV3



ZB-35 Manual Integration: NO

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00046
Laboratory ID: SGF0252-SCV4
Sequence: SGF0252
Sequence Name: AR1254SCV4
Standard ID: G003411

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1254	250.00	259	3.8	20.00
Aroclor 1254 [2C]	250.00	260	4.1	20.00
Decachlorobiphenyl	40.000	37.8	-5.5	20.00
Tetrachlorometaxylene	40.000	39.9	-0.2	20.00
Decachlorobiphenyl [2C]	40.000	39.7	-0.7	20.00
Tetrachlorometaxylene [2C]	40.000	41.9	4.7	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180614.b/18061421.D
Data file 2: /20180614.b/20180614.b/18061421.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: AR1254SCV4
Client ID:
Injection Date: 15-JUN-2018 00:44
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.452	0.003	465455310	4.295	0.005	2243067800	39.9	41.9	4.8	Tetrachloro-m-xylene
12.789	-0.000	334630393	12.977	0.000	1626338799	37.8	39.7	4.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	99.8	104.7
Decachlorobiphenyl	94.5	99.3

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1028184397	11.7
Hexabromobiphenyl	761926666	838505518	10.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5440484659	23.1
Hexabromobiphenyl	2171332320	2659953790	22.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.073	0.001	1002122	3.7	1	6.011	-0.000	5120781	3.0
Aroclor-1016	2	6.462	-0.010	3943921	4.4	2	6.636	-0.009	14482844	3.7
Aroclor-1016	3	6.732	0.001	911879	3.7	3	7.026	0.001	2243927	2.4
Aroclor-1016	4	7.442	0.001	14386086	49.3	4	7.542	0.001	116165494	106.4
	Total Col1Ave (4 peaks):				15.3	Total Col2Ave (4 peaks):				28.9 RPD = 62*
	Corrected Ave (3 peaks):				3.9	Corrected Ave (3 peaks):				3.1 RPD = 25
Aroclor-1221	1	3.454	0.017	337312	4.5	1	3.591	-0.001	33669	0.2
Aroclor-1221	2	4.975	-0.005	5805693	64.1	2	5.320	0.013	4830290	4.5
Aroclor-1221	3	5.084	-0.001	889053	3.3	3	5.417	0.044	35478	0.2
Aroclor-1221	NS	---			----	4	6.636	-0.011	14482844	46.1
	Total Col1Ave (3 peaks):				24.0	Total Col2Ave (4 peaks):				12.7 RPD = 61*
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				1.6
Aroclor-1232	1	3.418	-0.017	93426	2.0	1	3.591	0.001	33669	0.3
Aroclor-1232	2	6.073	0.002	1002122	8.7	2	6.011	0.001	5120781	6.3
Aroclor-1232	3	6.462	-0.008	3943921	10.5	3	6.636	-0.008	14482844	8.3
Aroclor-1232	4	6.732	0.002	911879	8.7	4	7.197	0.000	73962085	207.0
	Total Col1Ave (4 peaks):				7.5	Total Col2Ave (4 peaks):				55.5 RPD = 153*
	Corrected Ave (3 peaks):				6.5	Corrected Ave (3 peaks):				5.0 RPD = 26
Aroclor-1242	1	6.073	-0.000	1002122	4.6	1	6.011	-0.000	5120781	3.7
Aroclor-1242	2	6.462	-0.010	3943921	5.5	2	6.636	-0.009	14482844	4.4
Aroclor-1242	3	6.732	-0.000	911879	4.6	3	7.542	0.001	116165494	110.3
Aroclor-1242	4	8.103	0.004	33393493	131.4	4	8.394	-0.013	240470735	221.0
	Total Col1Ave (4 peaks):				36.5	Total Col2Ave (4 peaks):				84.8 RPD = 80*
	Corrected Ave (3 peaks):				4.9	Corrected Ave (3 peaks):				39.5 RPD = 156*
Aroclor-1248	1	6.970	-0.000	51262421	185.3	1	6.636	-0.008	14482844	7.7
Aroclor-1248	2	7.268	0.000	33881533	106.4	2	7.131	-0.002	211962349	163.0
Aroclor-1248	3	7.874	0.008	108747546	221.5	3	7.542	0.001	116165494	81.9
Aroclor-1248	4	8.103	0.003	33393493	89.7	4	7.992	-0.000	198879875	118.0
	Total Col1Ave (4 peaks):				150.7	Total Col2Ave (4 peaks):				92.7 RPD = 48*
	Corrected Ave (3 peaks):				127.1	Corrected Ave (3 peaks):				69.2 RPD = 59*
Aroclor-1254	1	8.181	0.001	152581855	255.1	1	8.302	-0.000	512883486	262.2
Aroclor-1254	2	8.258	0.000	53205579	280.7	2	8.816	0.000	396143221	275.1
Aroclor-1254	3	8.551	0.000	100384556	263.5	3	8.964	0.001	796626142	251.5
Aroclor-1254	4	8.686	0.000	184058800	249.4	4	9.430	-0.000	347083983	244.6
Aroclor-1254	5	9.715	0.000	182158552	248.4	5	9.737	-0.001	486039064	267.5
	Total Col1Ave (5 peaks):				259.4	Total Col2Ave (5 peaks):				260.2 RPD = 0
	Corrected Ave (4 peaks):				254.1	Corrected Ave (4 peaks):				256.5 RPD = 1
Aroclor-1260	1	9.941	-0.001	9313281	20.3	1	9.968	-0.000	614168095	292.9
Aroclor-1260	2	10.259	0.001	10393012	23.3	2	10.499	-0.009	188782123	101.7
Aroclor-1260	3	10.628	-0.001	22211448	20.5	3	10.779	-0.002	103960922	24.9
Aroclor-1260	4	11.026	-0.001	21443122	40.8	4	11.293	-0.001	12219918	10.2
Aroclor-1260	5	11.215	-0.000	979089	3.3	NS	---			----
	Total Col1Ave (5 peaks):				21.6	Total Col2Ave (4 peaks):				107.4 RPD = 133*
	Corrected Ave (4 peaks):				16.8	Corrected Ave (3 peaks):				45.6 RPD = 92*
Aroclor-1262	1	9.941	-0.001	9313281	14.8	1	10.064	-0.000	26594556	10.4
Aroclor-1262	2	10.259	0.001	10393012	20.1	2	10.499	-0.009	188782123	84.7
Aroclor-1262	3	10.628	0.000	22211448	19.0	3	10.779	-0.001	103960922	22.3
Aroclor-1262	4	11.026	-0.001	21443122	54.7	4	11.348	-0.007	66495533	20.7
Aroclor-1262	5	11.215	0.001	979089	2.0	5	11.930	-0.010	27863095	36.2
	Total Col1Ave (5 peaks):				22.1	Total Col2Ave (5 peaks):				34.9 RPD = 45*
	Corrected Ave (4 peaks):				14.0	Corrected Ave (4 peaks):				22.4 RPD = 46*
Aroclor-1268	1	11.143	-0.000	815111	0.6	1	11.293	-0.001	12219918	2.3
Aroclor-1268	2	11.215	0.002	979089	0.8	2	11.348	-0.013	66495533	12.2
Aroclor-1268	3	11.613	0.014	1079722	1.0	3	11.754	0.000	786967	0.2

Aroclor-1268	4	12.376	-0.008	1537068	0.5		4	12.563	-0.004	1376074	0.1
	Total Col1Ave (4 peaks):			0.7			Total Col2Ave (4 peaks):			3.7	RPD = 136*
	Corrected Ave (3 peaks):			0.6			Corrected Ave (3 peaks):			0.9	RPD = 35

Total PCB Area Col1 (4.548 - 12.689) = 1912760083 Col1 Total PCB = 0.3 ppm*

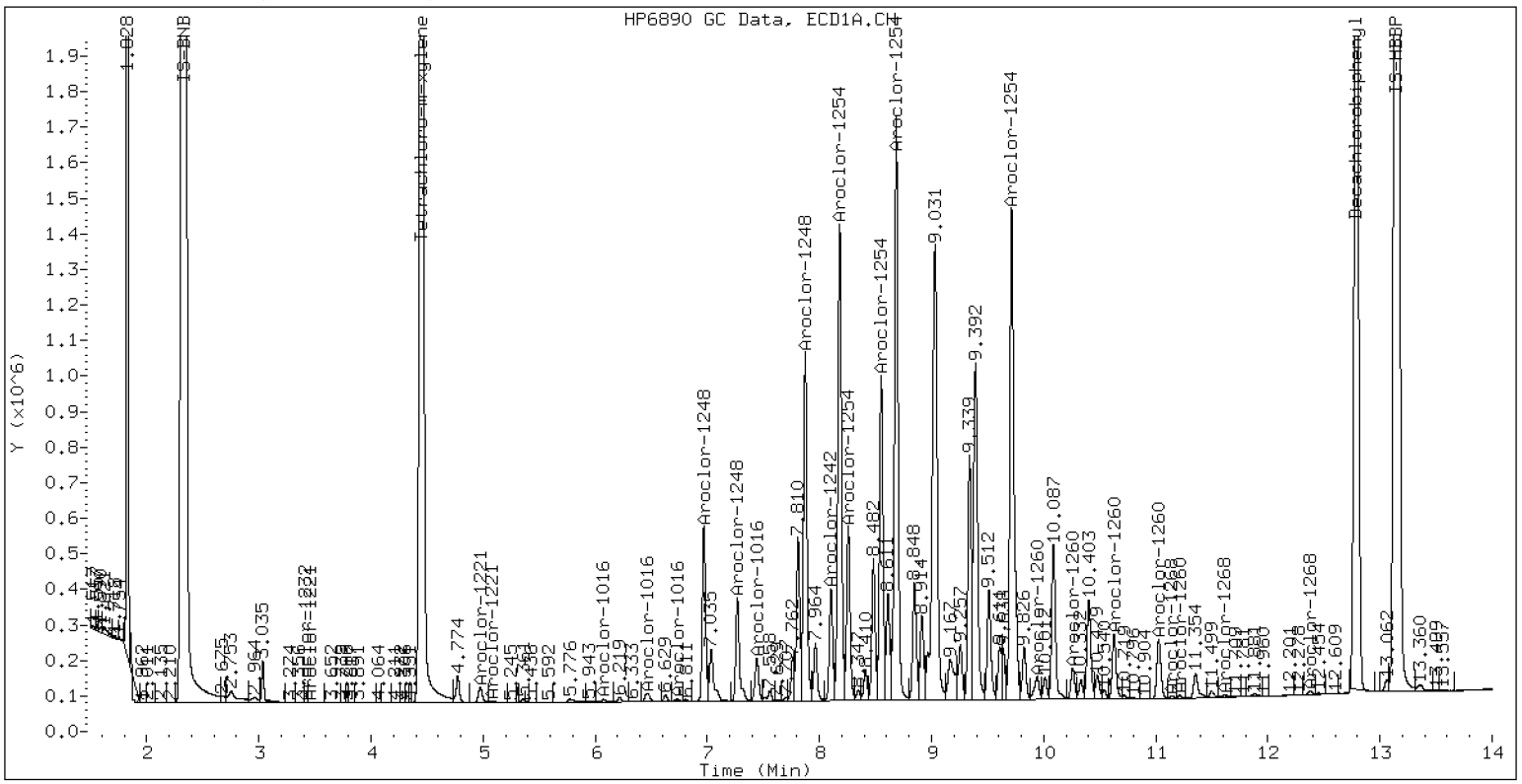
Total PCB Area Col2 (4.548 - 12.689) = 90465791 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

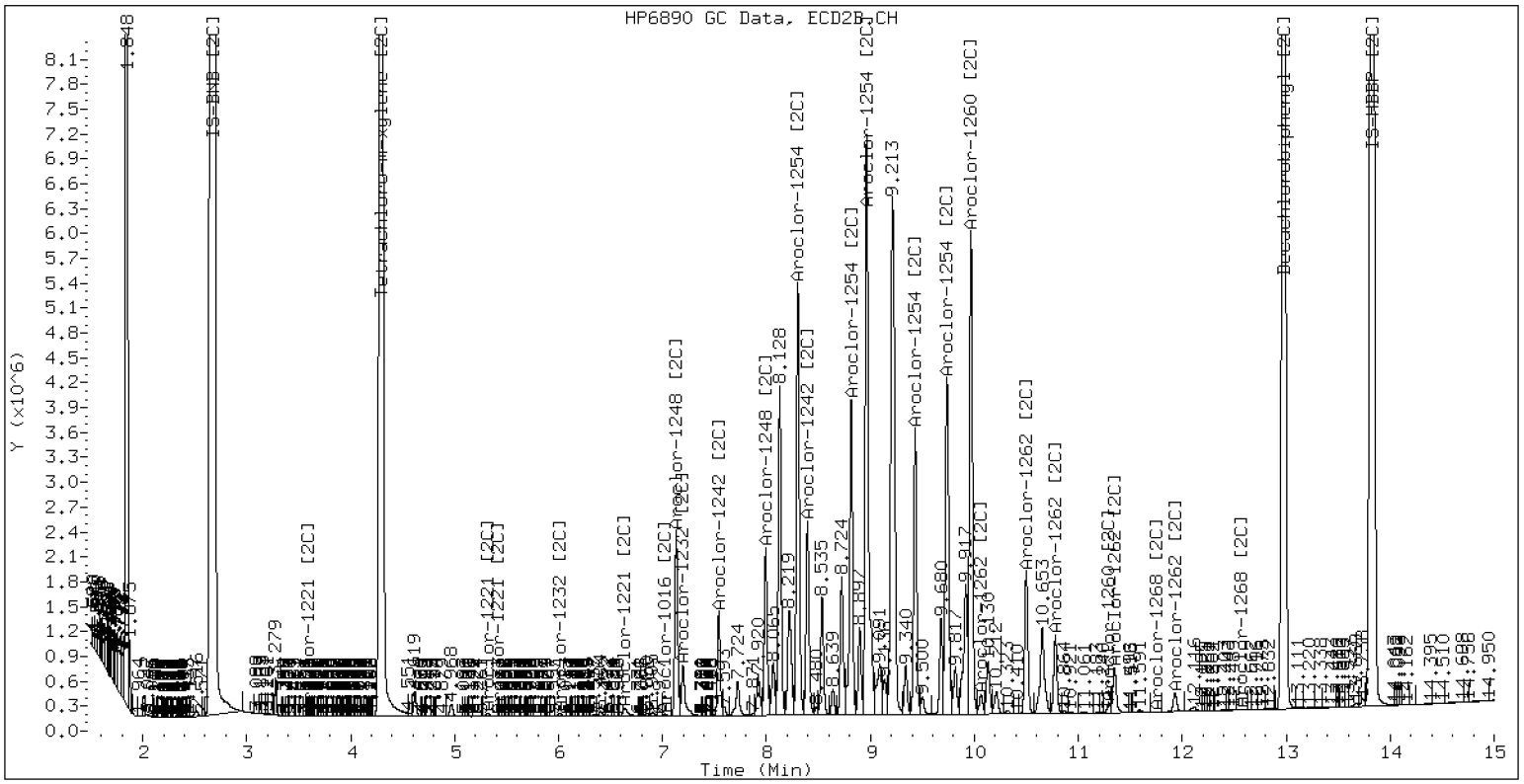
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061421.D AR1254SCV4 15-JUN-2018 00:44 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061421.D AR1254SCV4



ZB-35 Manual Integration: NO

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00046
Laboratory ID: SGF0252-SCV5
Sequence: SGF0252
Sequence Name: AR2162SCV5
Standard ID: G003407

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1221	250.00	257	2.7	20.00
Aroclor 1221 [2C]	250.00	260	3.9	20.00
Aroclor 1262	250.00	266	6.4	20.00
Aroclor 1262 [2C]	250.00	267	6.9	20.00
Decachlorobiphenyl	40.000	37.2	-7.0	20.00
Tetrachlorometaxylene	40.000	42.2	5.6	20.00
Decachlorobiphenyl [2C]	40.000	38.6	-3.6	20.00
Tetrachlorometaxylene [2C]	40.000	46.8	17.1	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180614.b/18061422.D
Data file 2: /20180614.b/20180614.b/18061422.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: AR2162SCV5
Client ID:
Injection Date: 15-JUN-2018 01:05
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.451	0.003	479029764	4.294	0.004	2283821759	42.2	46.8	10.4	Tetrachloro-m-xylene
12.789	-0.000	330352002	12.976	-0.001	1583986880	37.2	38.6	3.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	105.6	117.1
Decachlorobiphenyl	93.0	96.4

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1000390090	8.7
Hexabromobiphenyl	761926666	841506371	10.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4953445338	12.1
Hexabromobiphenyl	2171332320	2669487036	22.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.073	0.001	6900315	26.2	1	6.026	0.015	71101016	46.3
Aroclor-1016	2	6.474	0.002	19250967	22.2	2	6.646	0.001	75005226	21.3
Aroclor-1016	3	6.733	0.001	5767310	23.9	3	7.025	-0.000	18947948	22.6
Aroclor-1016	4	7.442	0.001	4121135	14.5	4	7.542	0.002	24619805	24.8
	Total Col1Ave (4 peaks):				21.7	Total Col2Ave (4 peaks):				28.7 RPD = 28
	Corrected Ave (3 peaks):				20.2	Corrected Ave (3 peaks):				22.9 RPD = 12
Aroclor-1221	1	3.438	0.001	18582274	256.3	1	3.592	-0.000	47327194	255.0
Aroclor-1221	2	4.980	0.001	22573968	256.4	2	5.307	0.000	257741696	262.8
Aroclor-1221	3	5.086	0.000	68313551	257.8	3	5.374	0.000	45138229	261.6
Aroclor-1221	NS	---			----	4	6.646	-0.001	75005226	262.3
	Total Col1Ave (3 peaks):				256.8	Total Col2Ave (4 peaks):				260.4 RPD = 1
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				259.6
Aroclor-1232	1	3.438	0.003	18582274	402.0	1	3.592	0.002	47327194	403.0
Aroclor-1232	2	6.073	0.002	6900315	61.6	2	6.026	0.015	71101016	96.8
Aroclor-1232	3	6.474	0.003	19250967	52.5	3	6.646	0.003	75005226	47.1
Aroclor-1232	4	6.733	0.002	5767310	56.5	4	7.197	0.001	9156672	28.1
	Total Col1Ave (4 peaks):				143.1	Total Col2Ave (4 peaks):				143.8 RPD = 0
	Corrected Ave (3 peaks):				56.8	Corrected Ave (3 peaks):				57.4 RPD = 1
Aroclor-1242	1	6.073	-0.000	6900315	32.8	1	6.026	0.014	71101016	56.1
Aroclor-1242	2	6.474	0.001	19250967	27.5	2	6.646	0.001	75005226	25.0
Aroclor-1242	3	6.733	0.000	5767310	29.7	3	7.542	0.001	24619805	25.7
Aroclor-1242	4	8.102	0.002	5080481	20.5	4	8.402	-0.006	19389022	19.6
	Total Col1Ave (4 peaks):				27.6	Total Col2Ave (4 peaks):				31.6 RPD = 13
	Corrected Ave (3 peaks):				25.9	Corrected Ave (3 peaks):				23.4 RPD = 10
Aroclor-1248	1	6.970	0.000	4604981	17.1	1	6.646	0.002	75005226	43.8
Aroclor-1248	2	7.268	-0.000	3791847	12.2	2	7.132	-0.002	17058001	14.4
Aroclor-1248	3	7.874	0.008	20465888	42.8	3	7.542	0.001	24619805	19.1
Aroclor-1248	4	8.102	0.002	5080481	14.0	4	7.992	-0.001	16198057	10.6
	Total Col1Ave (4 peaks):				21.6	Total Col2Ave (4 peaks):				22.0 RPD = 2
	Corrected Ave (3 peaks):				14.5	Corrected Ave (3 peaks):				14.7 RPD = 2
Aroclor-1254	1	8.183	0.002	22361947	38.4	1	8.301	-0.000	76144607	42.7
Aroclor-1254	2	8.258	0.000	2784171	15.1	2	8.815	-0.000	17308469	13.2
Aroclor-1254	3	8.551	-0.000	5448380	14.7	3	9.005	0.042	339300841	117.7
Aroclor-1254	4	8.655	-0.030	29945637	41.7	4	9.430	-0.000	486443559	376.6
Aroclor-1254	5	9.714	-0.000	98819680	138.5	5	9.745	0.007	81956095	49.5
	Total Col1Ave (5 peaks):				49.7	Total Col2Ave (5 peaks):				119.9 RPD = 83*
	Corrected Ave (4 peaks):				27.5	Corrected Ave (4 peaks):				55.8 RPD = 68*
Aroclor-1260	1	9.943	0.001	168307468	365.4	1	9.968	0.000	272025069	129.3
Aroclor-1260	2	10.258	0.000	138842067	310.2	2	10.508	0.000	598943858	321.4
Aroclor-1260	3	10.628	-0.001	309870468	284.6	3	10.779	-0.001	1241946052	296.6
Aroclor-1260	4	11.027	0.001	104371757	197.9	4	11.294	-0.000	551494920	456.8
Aroclor-1260	5	11.215	-0.001	131165019	441.5	NS	---			----
	Total Col1Ave (5 peaks):				319.9	Total Col2Ave (4 peaks):				301.0 RPD = 6
	Corrected Ave (4 peaks):				289.5	Corrected Ave (3 peaks):				249.1 RPD = 15
Aroclor-1262	1	9.943	0.001	168307468	266.3	1	10.065	0.001	689872076	268.1
Aroclor-1262	2	10.258	0.000	138842067	267.2	2	10.508	0.000	598943858	267.7
Aroclor-1262	3	10.628	0.000	309870468	264.3	3	10.779	-0.000	1241946052	265.5
Aroclor-1262	4	11.027	0.000	104371757	265.3	4	11.355	-0.000	858866023	267.0
Aroclor-1262	5	11.215	0.000	131165019	267.0	5	11.941	0.001	206785528	267.7
	Total Col1Ave (5 peaks):				266.0	Total Col2Ave (5 peaks):				267.2 RPD = 0
	Corrected Ave (4 peaks):				265.7	Corrected Ave (4 peaks):				267.0 RPD = 0
Aroclor-1268	1	11.143	-0.000	128773114	93.1	1	11.294	-0.001	551494920	104.8
Aroclor-1268	2	11.215	0.002	131165019	103.6	2	11.355	-0.007	858866023	157.0
Aroclor-1268	3	11.614	0.015	52601728	48.6	3	11.754	0.000	29843089	7.0

Aroclor-1268	4	12.382	-0.001	41322531	12.6		4	12.566	-0.002	153693288	10.4
	Total Col1Ave (4 peaks):			64.5			Total Col2Ave (4 peaks):			69.8	RPD = 8
	Corrected Ave (3 peaks):			51.4			Corrected Ave (3 peaks):			40.7	RPD = 23

Total PCB Area Col1 (4.548 - 12.689) = 2424257132 Col1 Total PCB = 0.4 ppm*

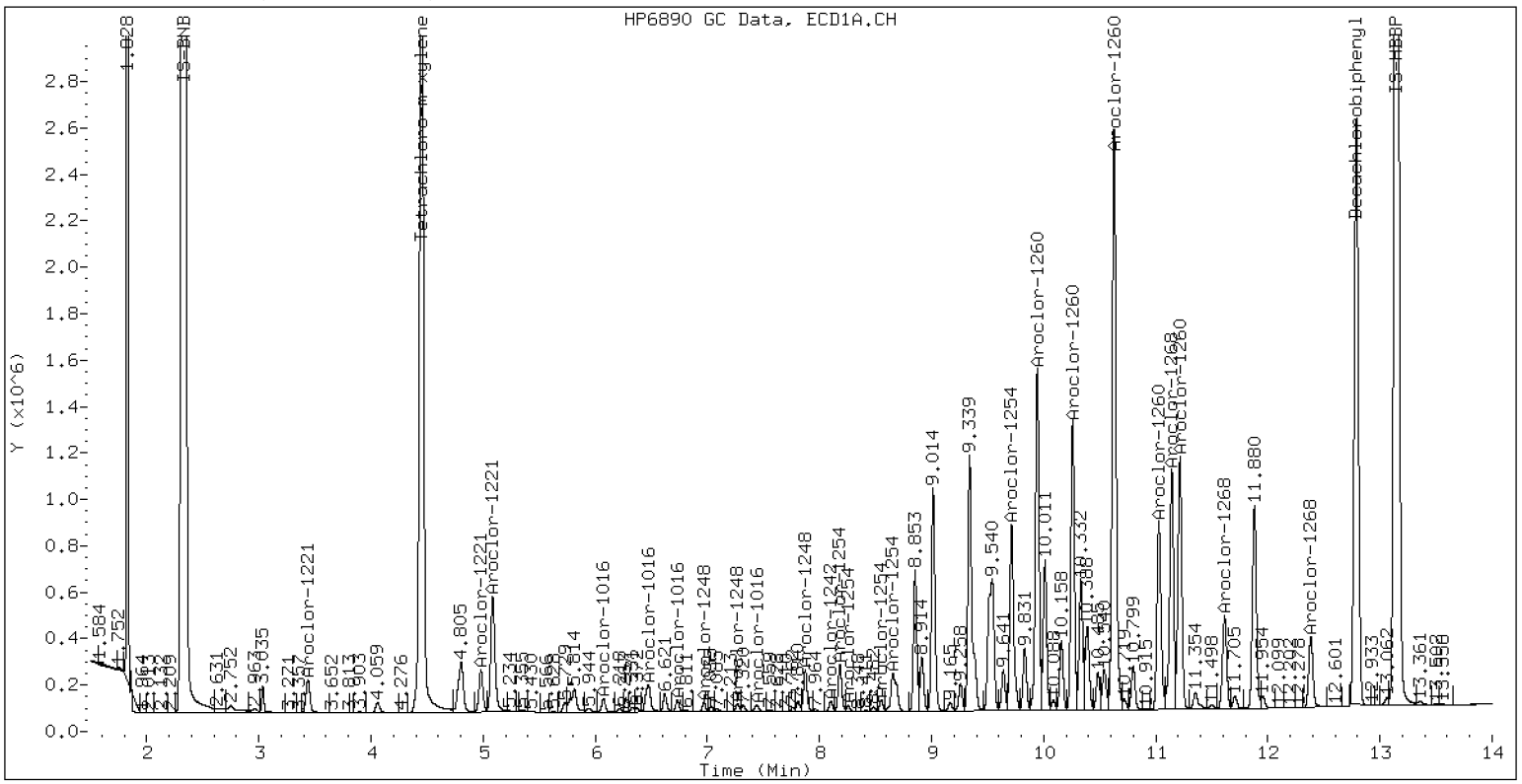
Total PCB Area Col2 (4.548 - 12.689) = 9410630105 Col2 Total PCB = 1.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

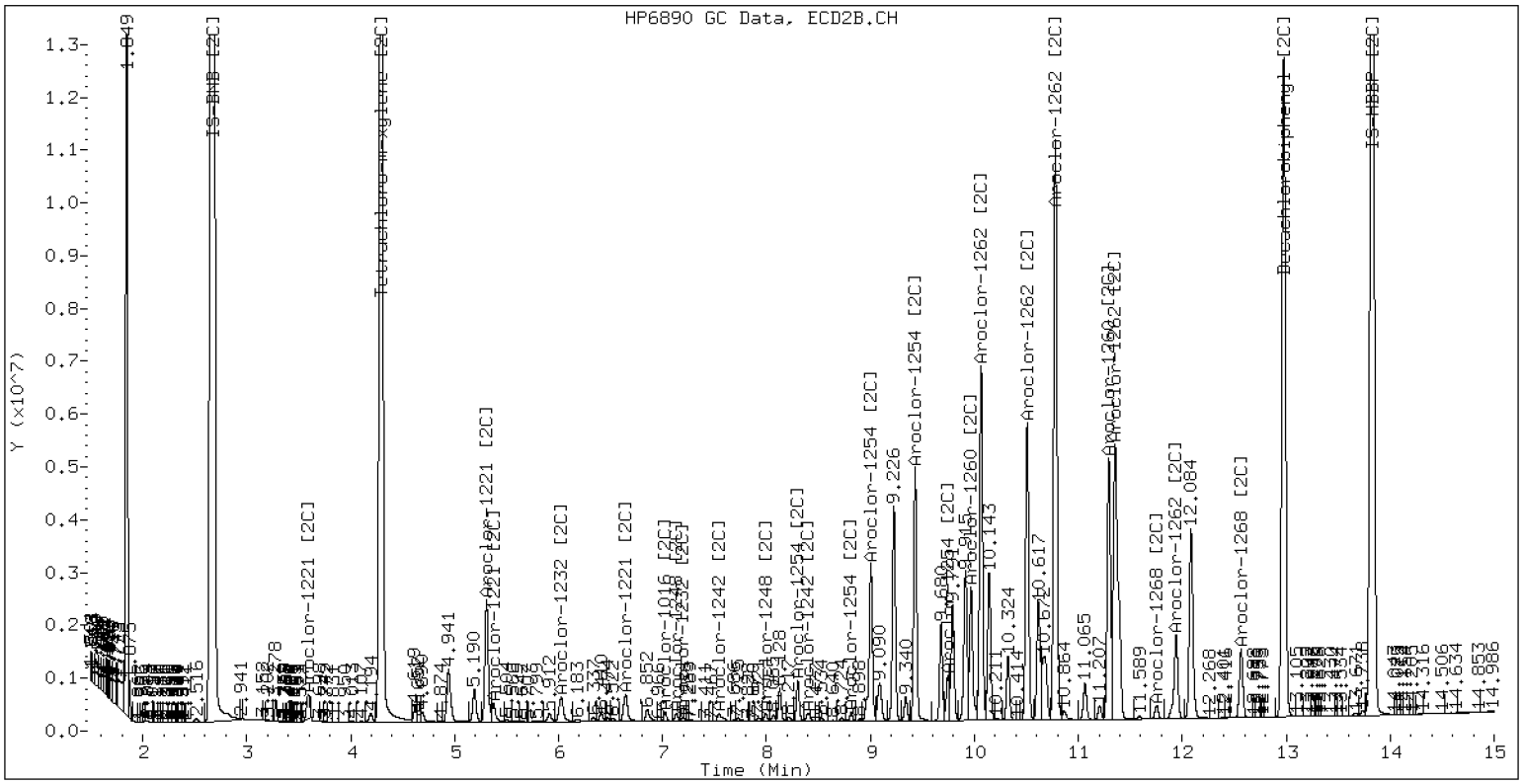
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061422.D AR2162SCV5 15-JUN-2018 01:05 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061422.D AR2162SCV5



ZB-35 Manual Integration: NO

SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00046
Laboratory ID: SGF0252-SCV6
Sequence: SGF0252
Sequence Name: AR3268SCV6
Standard ID: G003408

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Aroclor 1232	250.00	263	5.1	20.00
Aroclor 1232 [2C]	250.00	255	2.2	20.00
Aroclor 1268	250.00	256	2.3	20.00
Aroclor 1268 [2C]	250.00	261	4.4	20.00
Decachlorobiphenyl	40.000	51.7	29.2	20.00
Tetrachlorometaxylene	40.000	41.9	4.7	20.00
Decachlorobiphenyl [2C]	40.000	53.8	34.6	20.00
Tetrachlorometaxylene [2C]	40.000	45.4	13.4	20.00

* Indicates values outside of QC limits
[2C] indicates second-column analyte.

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180614.b/18061423.D
Data file 2: /20180614.b/20180614.b/18061423.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: AR3268SCV6
Client ID:
Injection Date: 15-JUN-2018 01:25
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.451	0.003	490960964	4.295	0.005	2388918141	41.9	45.4	7.9	Tetrachloro-m-xylene
12.790	0.001	457142261	12.976	-0.001	2215400175	51.7	53.8	4.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	104.7	113.4
Decachlorobiphenyl	129.2	134.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1033233784	12.3
Hexabromobiphenyl	761926666	838362051	10.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5349110856	21.1
Hexabromobiphenyl	2171332320	2673123880	23.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.073	0.001	31659464	116.6	1	6.014	0.002	221772037	133.8
Aroclor-1016	2	6.472	0.000	101967837	113.7	2	6.646	0.001	475818344	124.9
Aroclor-1016	3	6.732	0.001	28671859	115.2	3	7.025	0.001	108164869	119.4
Aroclor-1016	4	7.442	0.000	35280991	120.3	4	7.541	0.001	139937277	130.3
	Total Col1Ave (4 peaks):	116.5				Total Col2Ave (4 peaks):	127.1		RPD = 9	
	Corrected Ave (3 peaks):	115.2				Corrected Ave (3 peaks):	124.9		RPD = 8	
Aroclor-1221	1	3.438	0.001	11299480	150.9	1	3.593	0.000	29517277	147.2
Aroclor-1221	2	4.980	0.000	17344639	190.7	2	5.307	0.001	208999602	197.3
Aroclor-1221	3	5.086	0.001	54408323	198.8	3	5.375	0.001	27027493	145.1
Aroclor-1221	NS	---			----	4	6.646	-0.001	475818344	1540.6
	Total Col1Ave (3 peaks):	180.1				Total Col2Ave (4 peaks):	507.6		RPD = 95*	
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):	163.2			
Aroclor-1232	1	3.438	0.003	11299480	236.7	1	3.593	0.002	29517277	232.7
Aroclor-1232	2	6.073	0.002	31659464	273.5	2	6.014	0.003	221772037	279.6
Aroclor-1232	3	6.472	0.002	101967837	269.0	3	6.646	0.002	475818344	276.8
Aroclor-1232	4	6.732	0.002	28671859	271.8	4	7.199	0.002	81789776	232.8
	Total Col1Ave (4 peaks):	262.8				Total Col2Ave (4 peaks):	255.5		RPD = 3	
	Corrected Ave (3 peaks):	259.2				Corrected Ave (3 peaks):	247.5		RPD = 5	
Aroclor-1242	1	6.073	-0.000	31659464	145.8	1	6.014	0.002	221772037	162.0
Aroclor-1242	2	6.472	-0.000	101967837	141.1	2	6.646	0.001	475818344	146.6
Aroclor-1242	3	6.732	-0.000	28671859	142.9	3	7.541	0.001	139937277	135.1
Aroclor-1242	4	8.099	-0.000	31449415	123.1	4	8.408	-0.000	132911416	124.2
	Total Col1Ave (4 peaks):	138.2				Total Col2Ave (4 peaks):	142.0		RPD = 3	
	Corrected Ave (3 peaks):	135.7				Corrected Ave (3 peaks):	135.3		RPD = 0	
Aroclor-1248	1	6.970	0.000	22994495	82.7	1	6.646	0.002	475818344	257.6
Aroclor-1248	2	7.268	0.000	28007484	87.5	2	7.134	0.000	102494385	80.2
Aroclor-1248	3	7.864	-0.002	37737705	76.5	3	7.541	0.000	139937277	100.4
Aroclor-1248	4	8.099	-0.000	31449415	84.0	4	7.992	-0.001	122734085	74.0
	Total Col1Ave (4 peaks):	82.7				Total Col2Ave (4 peaks):	128.0		RPD = 43*	
	Corrected Ave (3 peaks):	81.1				Corrected Ave (3 peaks):	84.9		RPD = 5	
Aroclor-1254	1	8.180	-0.001	11363488	18.9	1	8.302	0.000	26063001	13.5
Aroclor-1254	2	8.258	0.000	5124076	26.9	2	8.816	0.001	25021714	17.7
Aroclor-1254	3	8.552	0.001	6923872	18.1	3	8.963	-0.000	47888583	15.4
Aroclor-1254	4	8.687	0.001	11952470	16.1	4	9.432	0.001	21625261	15.5
Aroclor-1254	5	9.715	0.001	4543540	6.2	5	9.734	-0.003	24004872	13.4
	Total Col1Ave (5 peaks):	17.2				Total Col2Ave (5 peaks):	15.1		RPD = 13	
	Corrected Ave (4 peaks):	14.8				Corrected Ave (4 peaks):	14.5		RPD = 2	
Aroclor-1260	1	9.943	0.000	86916636	189.4	1	9.968	-0.000	14770548	7.0
Aroclor-1260	2	10.258	-0.000	8591531	19.3	2	10.509	0.001	389834987	208.9
Aroclor-1260	3	10.628	-0.001	57664224	53.2	3	10.779	-0.002	238660754	56.9
Aroclor-1260	4	11.029	0.003	2052869	3.9	4	11.295	0.001	1416887151	1172.1
Aroclor-1260	5	11.214	-0.002	370950716	1253.3	NS	---			----
	Total Col1Ave (5 peaks):	303.8				Total Col2Ave (4 peaks):	361.2		RPD = 17	
	Corrected Ave (4 peaks):	66.4				Corrected Ave (3 peaks):	90.9		RPD = 31	
Aroclor-1262	1	9.943	0.001	86916636	138.0	1	10.065	0.000	354299759	137.5
Aroclor-1262	2	10.258	0.000	8591531	16.6	2	10.509	0.001	389834987	174.0
Aroclor-1262	3	10.628	0.001	57664224	49.4	3	10.779	-0.001	238660754	51.0
Aroclor-1262	4	11.029	0.002	2052869	5.2	4	11.361	0.006	1645085160	510.6
Aroclor-1262	5	11.214	-0.001	370950716	757.9	5	11.896	-0.044	389436785	503.4
	Total Col1Ave (5 peaks):	193.4				Total Col2Ave (5 peaks):	275.3		RPD = 35	
	Corrected Ave (4 peaks):	52.3				Corrected Ave (4 peaks):	216.5		RPD = 122*	
Aroclor-1268	1	11.142	-0.000	367683089	266.9	1	11.295	0.000	1416887151	269.0
Aroclor-1268	2	11.214	0.001	370950716	294.0	2	11.361	-0.000	1645085160	300.4
Aroclor-1268	3	11.599	0.000	257524021	238.6	3	11.753	-0.000	1052201725	245.0

```
Aroclor-1268 4  12.383  -0.001 730269906   223.1      4   12.568   0.000 3407152826   229.9
      Total Col1Ave (4 peaks):   255.7       Total Col2Ave (4 peaks):   261.1   RPD = 2
      Corrected Ave (3 peaks):   242.9       Corrected Ave (3 peaks):   248.0   RPD = 2
```

Total PCB Area Col1 (4.548 - 12.689) = 3036965730 Col1 Total PCB = 0.5 ppm*

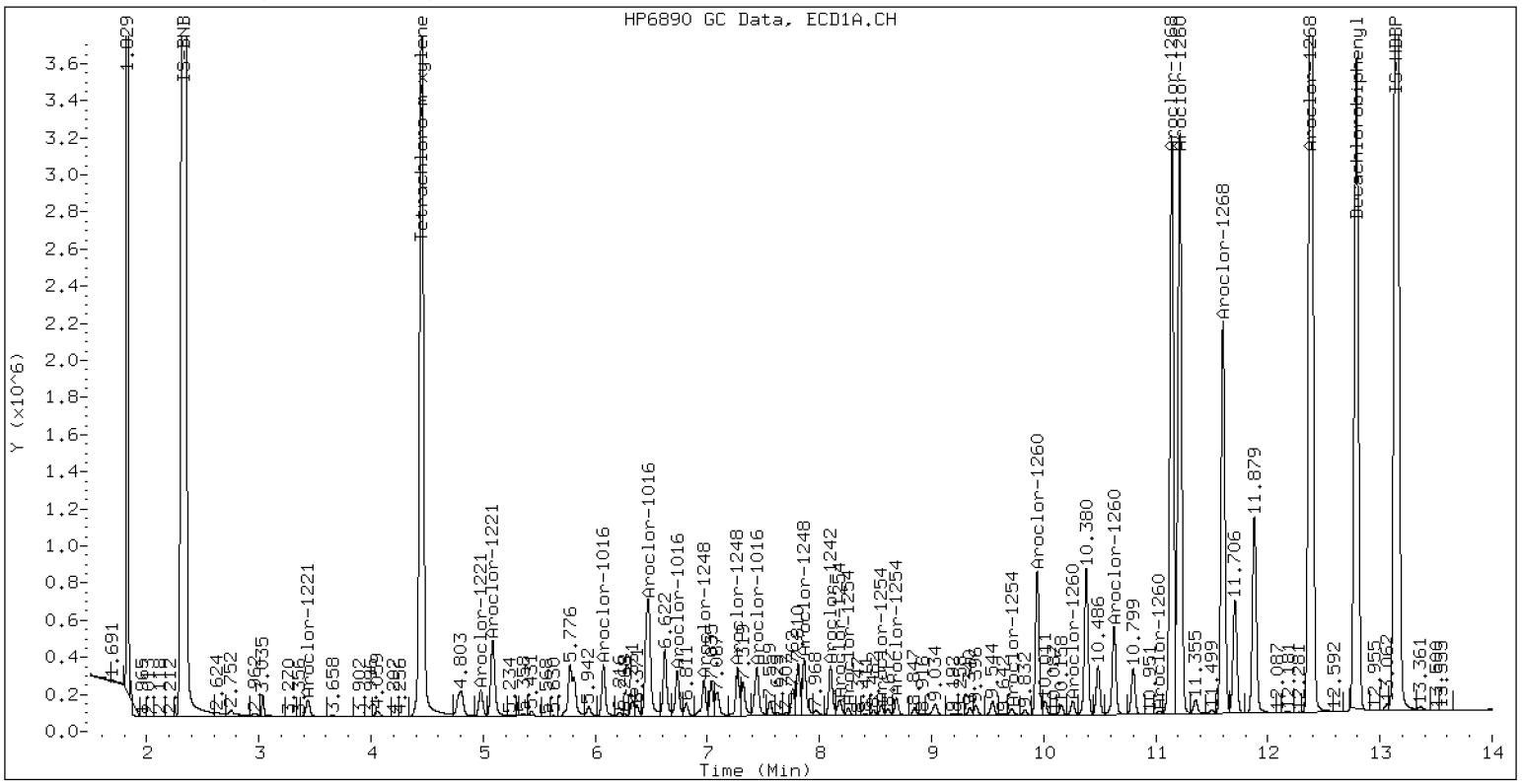
Total PCB Area Col2 (4.548 - 12.689) = 2998883511 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

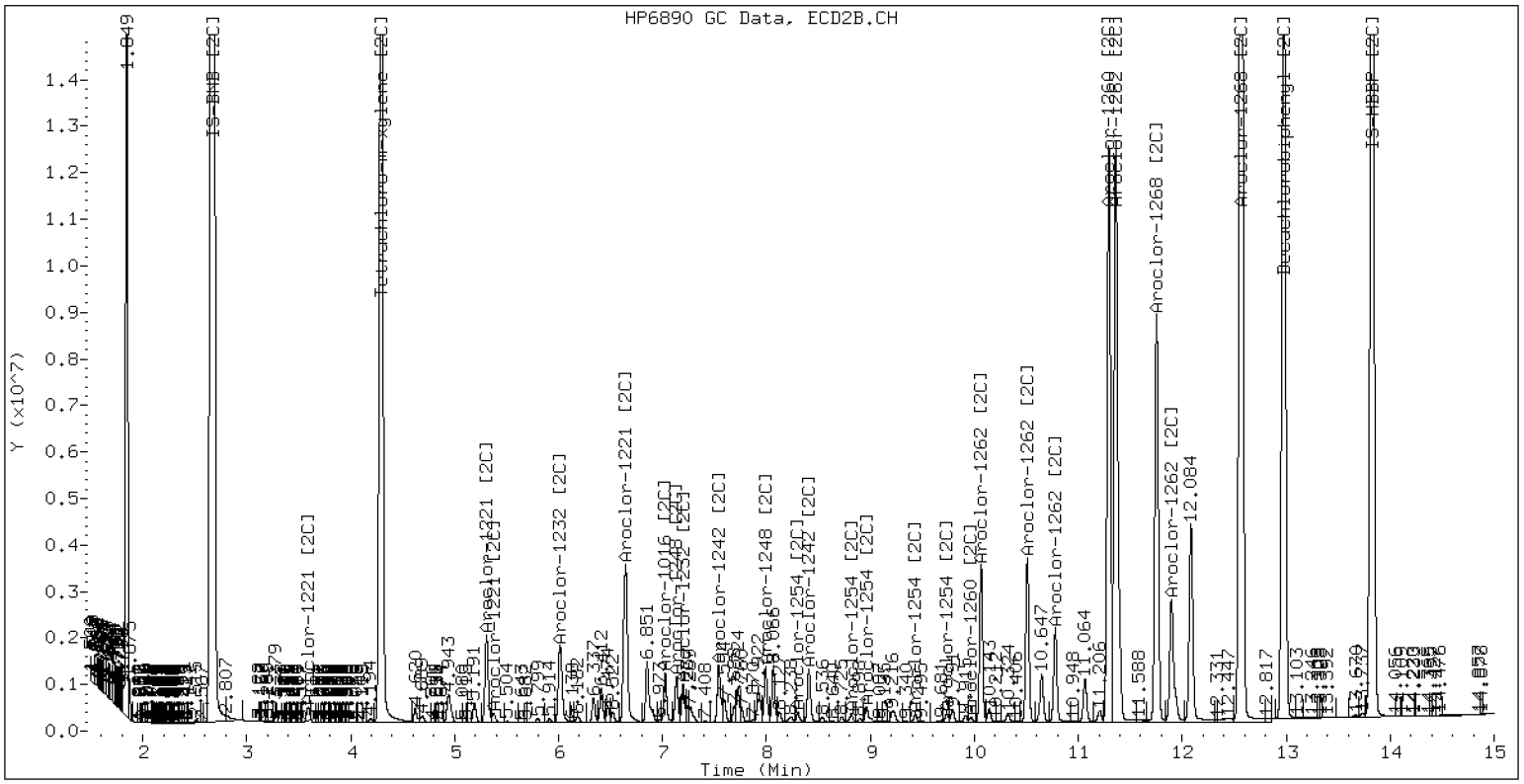
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061423.D AR3268SCV6 15-JUN-2018 01:25 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061423.D AR3268SCV6



ZB-35 Manual Integration: NO

INITIAL CALIBRATION CHECK

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18062302ECD5.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0299	Injection Date:	06/23/18
Lab Sample ID:	SGF0299-ICV1	Injection Time:	13:11
Sequence Name:	AR1254ICV1		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Aroclor 1254	A	250.00	251	0.0410820	0.0414629		0.3	20
Aroclor-1254 (1)	A	250.00	253	0.0465375	0.0471543			
Aroclor-1254 (2)	A	250.00	242	0.0147475	0.0142884			
Aroclor-1254 (3)	A	250.00	252	0.0296380	0.0298259			
Aroclor-1254 (4)	A	250.00	252	0.0574273	0.0579259			
Aroclor-1254 (5)	A	250.00	255	0.0570598	0.0581201			
Aroclor 1254 [2C]	A	250.00	264	0.0288181	0.0303468		5.4	20
Aroclor-1254 (1) [2C]	A	250.00	278	0.0287675	0.0319363			
Aroclor-1254 (2) [2C]	A	250.00	280	0.0211720	0.0237468			
Aroclor-1254 (3) [2C]	A	250.00	261	0.0465714	0.0486815			
Aroclor-1254 (4) [2C]	A	250.00	256	0.0208619	0.0213515			
Aroclor-1254 (5) [2C]	A	250.00	243	0.0267176	0.0260178			
Decachlorobiphenyl	A	40.000	40.2	0.8443871	0.8487911		0.5	20
Tetrachlorometaxylene	A	40.000	42.8	0.9073273	0.9704574		7.0	20
Decachlorobiphenyl [2C]	A	40.000	40.1	1.2312580	1.2333420		0.3	20
Tetrachlorometaxylene [2C]	A	40.000	45.4	0.7876038	0.8947		13.5	20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180623.b/18062302ECD5.D
Data file 2: /20180623.b/20180623.b/18062302ECD5.D
Method: ecd5.i\20180623.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, VTS
Compound Sublist: AR1254.sub
Quant Method: Internal Std

ARI ID: ICV1254
Client ID:
Injection Date: 23-JUN-2018 13:11
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.447	-0.001	581066193	4.288	-0.003	2331781149	42.8	45.4	6.0	Tetrachloro-m-xylene
12.786	0.002	373191282	12.973	-0.001	1488281534	40.2	40.1	0.4	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	107.0	113.6
Decachlorobiphenyl	100.5	100.2

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1197510041	30.1
Hexabromobiphenyl	761926666	879347864	15.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5212430892	18.0
Hexabromobiphenyl	2171332320	2413410759	11.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1254	1	8.178	0.000	176461518	253.3	1	8.297	0.000	520205312	277.5
Aroclor-1254	2	8.255	0.000	53470481	242.2	2	8.811	0.000	386807487	280.4
Aroclor-1254	3	8.548	0.000	111614904	251.6	3	8.959	0.000	792964686	261.3
Aroclor-1254	4	8.683	0.000	216771332	252.2	4	9.427	0.000	347791094	255.9
Aroclor-1254	5	9.712	0.000	217498183	254.6	5	9.732	0.000	423799251	243.5

Total Col1Ave (5 peaks): 250.8 Total Col2Ave (5 peaks): 263.7 RPD = 5

Corrected Ave (4 peaks): 249.8 Corrected Ave (4 peaks): 259.5 RPD = 4

CalAmt %D: 0.3 CalAmt %D: 5.5

Total PCB Area Col1 (4.547 - 12.684) = 2281774459 Col1 Total PCB = 0.4 ppm*

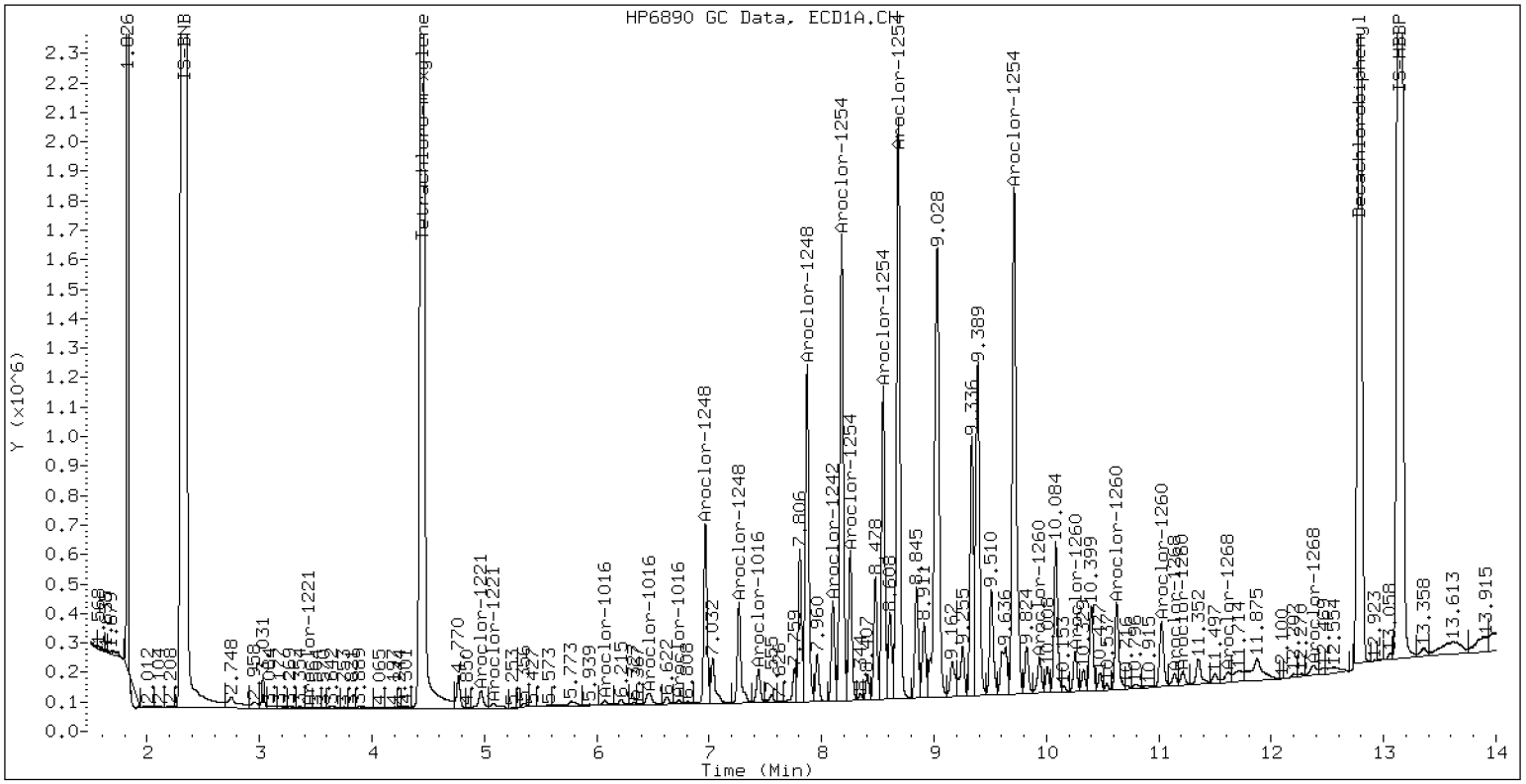
Total PCB Area Col2 (4.547 - 12.684) = 4807185865 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

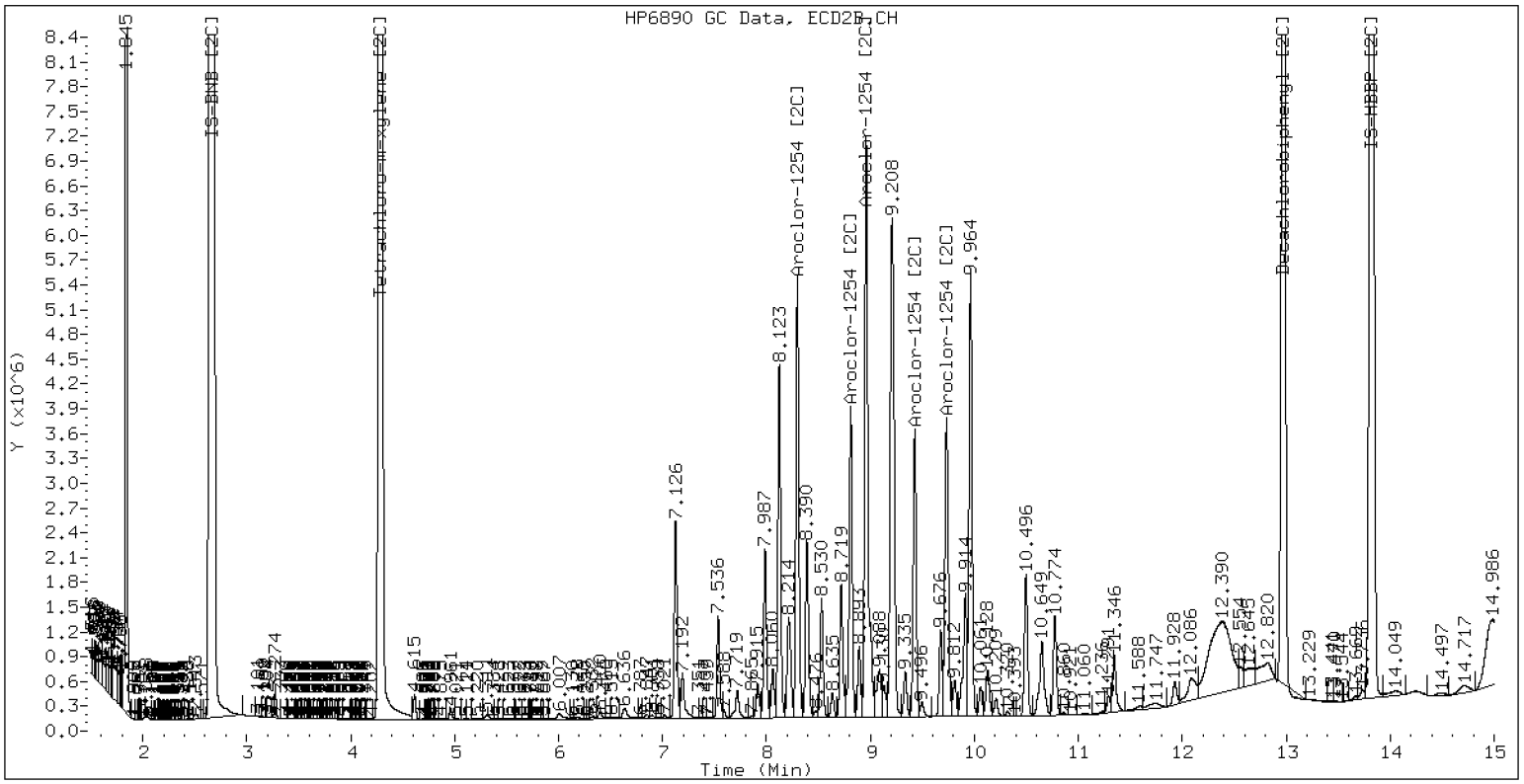
PCB Dual Column Chromatograms

ECD5-ZB5 /20180623.b/18062302ECD5.D ICV1254 23-JUN-2018 13:11 2ul VTS



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180623.b/20180623.b/18062302ECD5.D ICV1254



ZB-35 Manual Integration: NO

INITIAL CALIBRATION CHECK

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18062303ECD5.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0299	Injection Date:	06/23/18
Lab Sample ID:	SGF0299-ICV2	Injection Time:	13:31
Sequence Name:	AR660ICV2		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Aroclor 1016	A	250.00	259	0.0331041	0.0345967		3.7	20
Aroclor-1016 (1)	A	250.00	252	0.0210218	0.0212256		0.8	
Aroclor-1016 (2)	A	250.00	265	0.0694139	0.0735354		6.0	
Aroclor-1016 (3)	A	250.00	261	0.0192640	0.0200883		4.4	
Aroclor-1016 (4)	A	250.00	259	0.0227168	0.0235374		3.6	
Aroclor 1016 [2C]	A	250.00	293	0.0278375	0.0327818		17.3	20
Aroclor-1016 (1) [2C]	A	250.00	290	0.0247868	0.0287768		16.0	
Aroclor-1016 (2) [2C]	A	250.00	298	0.0569545	0.0678060		19.2	
Aroclor-1016 (3) [2C]	A	250.00	298	0.0135527	0.0161338		19.2	
Aroclor-1016 (4) [2C]	A	250.00	287	0.0160561	0.0184105		14.8	
Aroclor 1260	A	250.00	272	0.0536471	0.0585680		8.9	20
Aroclor-1260 (1)	A	250.00	278	0.0437892	0.0486861		11.2	
Aroclor-1260 (2)	A	250.00	291	0.0425449	0.0494672		16.4	
Aroclor-1260 (3)	A	250.00	273	0.1035155	0.1130309		9.2	
Aroclor-1260 (4)	A	250.00	261	0.0501426	0.0524412		4.4	
Aroclor-1260 (5)	A	250.00	258	0.0282431	0.0292146		3.2	
Aroclor 1260 [2C]	A	250.00	256	0.0701404	0.0713361		2.4	20
Aroclor-1260 (1) [2C]	A	250.00	264	0.0630560	0.0665857		5.6	
Aroclor-1260 (2) [2C]	A	250.00	251	0.0558539	0.0560687		0.4	
Aroclor-1260 (3) [2C]	A	250.00	250	0.1254738	0.1252430		0.0	
Aroclor-1260 (4) [2C]	A	250.00	259	0.0361779	0.0374468		3.6	
Decachlorobiphenyl	A	40.000	40.9	0.8443871	0.8640413		2.3	20
Tetrachlorometaxylene	A	40.000	42.7	0.9073273	0.9680162		6.8	20
Decachlorobiphenyl [2C]	A	40.000	40.3	1.2312580	1.2407890		0.8	20
Tetrachlorometaxylene [2C]	A	40.000	46.1	0.7876038	0.9076592		15.3	20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180623.b/18062303ECD5.D
Data file 2: /20180623.b/20180623.b/18062303ECD5.D
Method: ecd5.i\20180623.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, VTS
Compound Sublist: AR1660.sub
Quant Method: Internal Std

ARI ID: ICV1660
Client ID:
Injection Date: 23-JUN-2018 13:31
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.443	-0.004	611188484	4.286	-0.006	2464281113	42.7	46.1	7.7	Tetrachloro-m-xylene
12.784	-0.000	402219520	12.973	-0.000	1620300635	40.9	40.3	1.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	106.7	115.2
Decachlorobiphenyl	102.3	100.8

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1262764995	37.2
Hexabromobiphenyl	761926666	931019079	22.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5429969854	22.9
Hexabromobiphenyl	2171332320	2611726934	20.3

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.066	-0.003	83759373	252.4	1	6.005	-0.004	488302675	290.2
Aroclor-1016	2	6.467	-0.002	290181244	264.8	2	6.639	-0.003	1150576693	297.6
Aroclor-1016	3	6.727	-0.001	79271098	260.7	3	7.019	-0.004	273769418	297.6
Aroclor-1016	4	7.436	-0.002	92881810	259.0	4	7.535	-0.002	312401164	286.7
Total Col1Ave (4 peaks):					259.2	Total Col2Ave (4 peaks):				293.0 RPD = 12
Corrected Ave (3 peaks):					257.4	Corrected Ave (3 peaks):				291.5 RPD = 12
CalAmt %D:					3.7	CalAmt %D:				17.2
Aroclor-1260	1	9.938	-0.001	141649131	278.0	1	9.964	-0.001	543449338	264.0
Aroclor-1260	2	10.254	-0.000	143921607	290.7	2	10.504	-0.001	457612932	251.0
Aroclor-1260	3	10.624	-0.000	328855878	273.0	3	10.777	-0.000	1022189010	249.5
Aroclor-1260	4	11.022	-0.000	152574198	261.5	4	11.290	-0.002	305627723	258.8
Aroclor-1260	5	11.211	-0.000	84998046	258.6	NS	---			----
Total Col1Ave (5 peaks):					272.3	Total Col2Ave (4 peaks):				255.8 RPD = 6
Corrected Ave (4 peaks):					267.7	Corrected Ave (3 peaks):				253.1 RPD = 6
CalAmt %D:					8.9	CalAmt %D:				2.3

Total PCB Area Col1 (4.547 - 12.684) = 4008677451 Col1 Total PCB = 0.7 ppm*

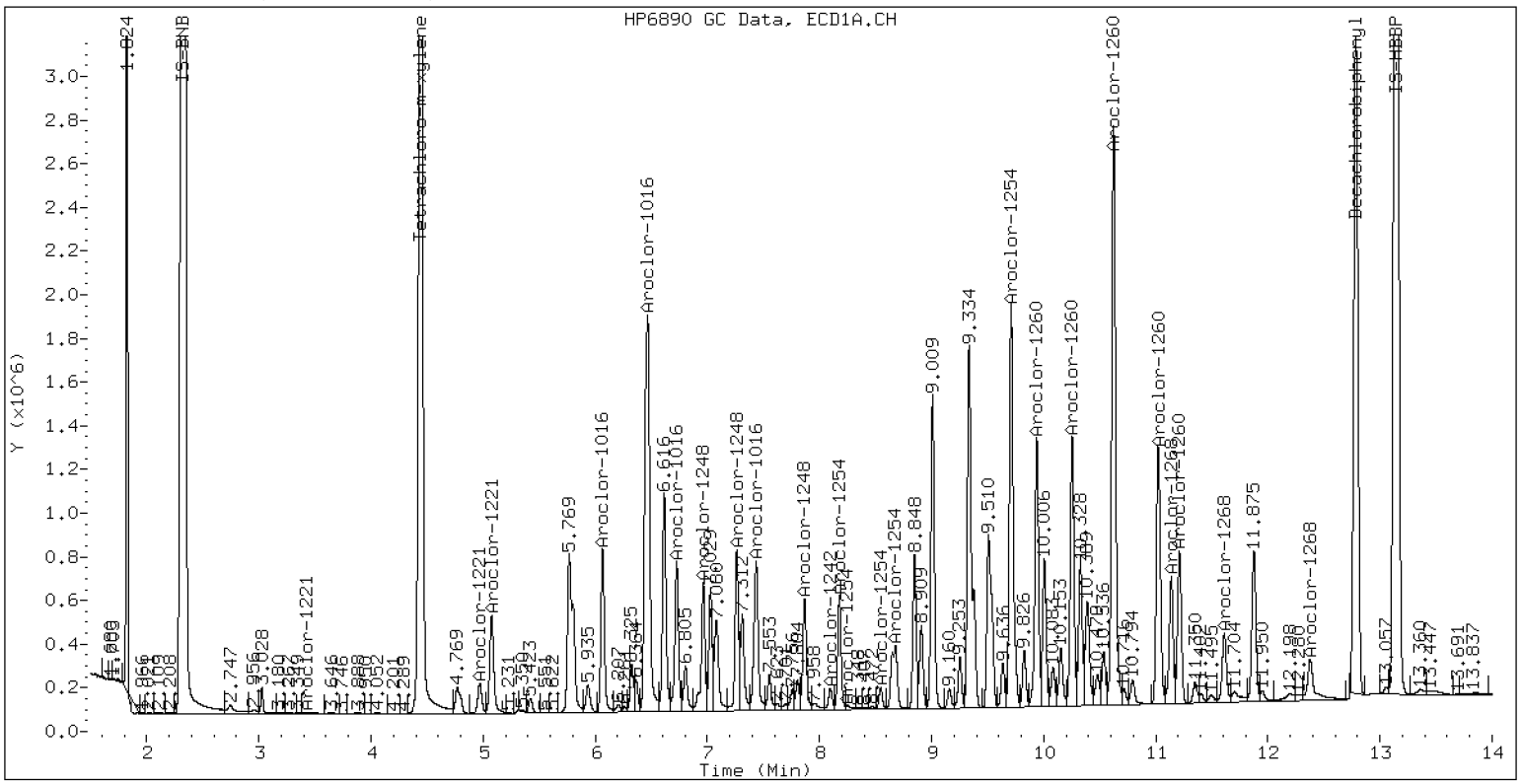
Total PCB Area Col2 (4.547 - 12.684) = 12554407086 Col2 Total PCB = 1.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

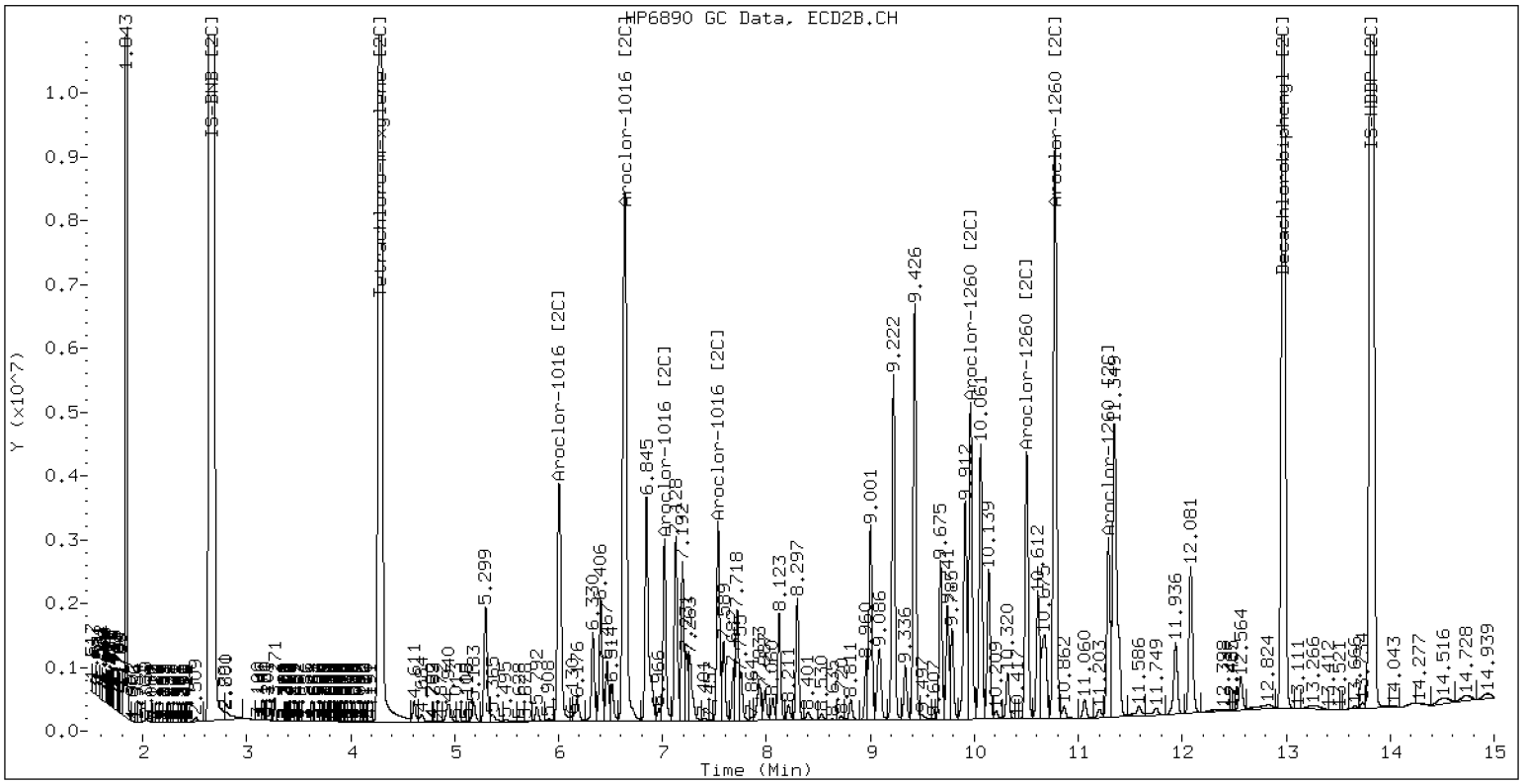
PCB Dual Column Chromatograms

ECD5-ZB5 /20180623.b/18062303ECD5.D ICV1660 23-JUN-2018 13:31 2ul VTS



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180623.b/20180623.b/18062303ECD5.D ICV1660



ZB-35 Manual Integration: NO

INITIAL CALIBRATION CHECK

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18062504ECD5.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0341	Injection Date:	06/25/18
Lab Sample ID:	SGF0341-ICV1	Injection Time:	14:22
Sequence Name:	AR1254ICV1		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF		
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT	
Aroclor 1254	A	250.00	253	0.0410820	0.0417715		1.3	20	
Aroclor-1254 (1)	A	250.00	248	0.0465375	0.0461921				
Aroclor-1254 (2)	A	250.00	252	0.0147475	0.0148821				
Aroclor-1254 (3)	A	250.00	251	0.0296380	0.0297671				
Aroclor-1254 (4)	A	250.00	253	0.0574273	0.0582269				
Aroclor-1254 (5)	A	250.00	262	0.0570598	0.0597894				
Aroclor 1254 [2C]	A	250.00	191	0.0288181	0.0219723		-23.4	20	*
Aroclor-1254 (1) [2C]	A	250.00	180	0.0287675	0.0207806				
Aroclor-1254 (2) [2C]	A	250.00	187	0.0211720	0.0158483				
Aroclor-1254 (3) [2C]	A	250.00	186	0.0465714	0.0346598				
Aroclor-1254 (4) [2C]	A	250.00	199	0.0208619	0.0166238				
Aroclor-1254 (5) [2C]	A	250.00	205	0.0267176	0.0219491				
Decachlorobiphenyl	A	40.000	36.3	0.8443871	0.7661734		-9.3	20	
Tetrachlorometaxylene	A	40.000	37.1	0.9073273	0.8421080		-7.3	20	
Decachlorobiphenyl [2C]	A	40.000	41.0	1.2312580	1.2616200		2.5	20	
Tetrachlorometaxylene [2C]	A	40.000	36.0	0.7876038	0.7091865		-10.0	20	

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180625.b/18062504ECD5.D
Data file 2: /20180625.b/20180625.b/18062504ECD5.D
Method: ecd5.i\20180625.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: AR1254.sub
Quant Method: Internal Std

ARI ID: AR1254ICV1
Client ID:
Injection Date: 25-JUN-2018 14:22
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.428	-0.020	432232996	4.278	-0.013	1420386203	37.1	36.0	3.0	Tetrachloro-m-xylene
12.774	-0.015	315884947	12.973	-0.000	1233289596	36.3	41.0	12.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	92.8	90.0
Decachlorobiphenyl	90.7	102.5

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1026550379	11.6
Hexabromobiphenyl	761926666	824578287	8.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4005677286	-9.3
Hexabromobiphenyl	2171332320	1955089439	-10.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1254	1	8.166	-0.015	148182649	248.1	1	8.296	0.000	260126279	180.6
Aroclor-1254	2	8.243	-0.015	47741307	252.3	2	8.810	0.000	198385065	187.1
Aroclor-1254	3	8.537	-0.014	95491883	251.1	3	8.959	0.000	433861886	186.1
Aroclor-1254	4	8.671	-0.015	186790031	253.5	4	9.426	0.000	208091871	199.2
Aroclor-1254	5	9.701	-0.013	191802524	262.0	5	9.733	0.000	274753321	205.4
Total Col1Ave (5 peaks):					253.4	Total Col2Ave (5 peaks):				191.7 RPD = 28
Corrected Ave (4 peaks):					251.2	Corrected Ave (4 peaks):				188.2 RPD = 29
CalAmt %D:					1.4	CalAmt %D:				-23.3

Total PCB Area Col1 (4.548 - 12.689) = 2006633957 Col1 Total PCB = 0.4 ppm*

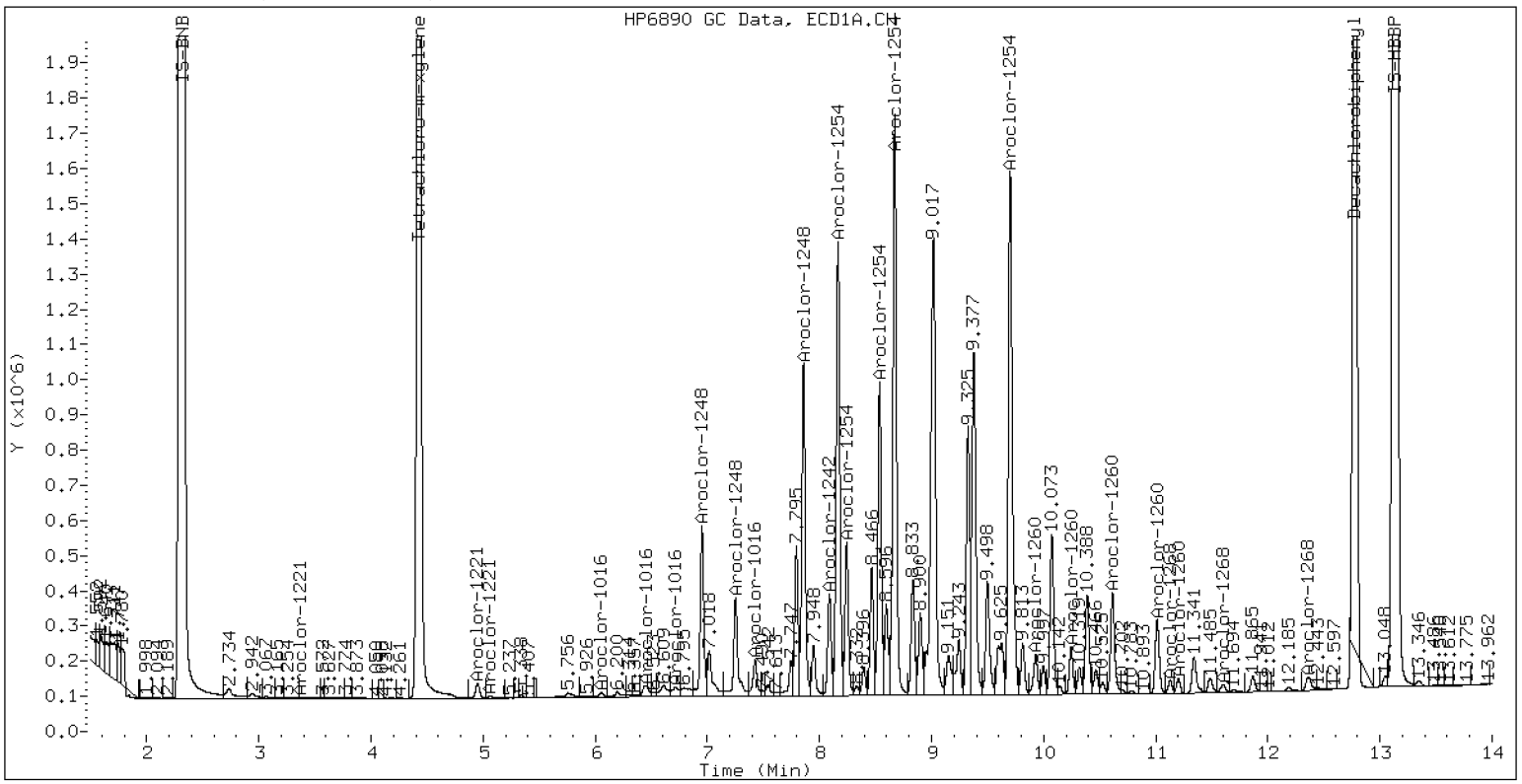
Total PCB Area Col2 (4.548 - 12.689) = 3744287614 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

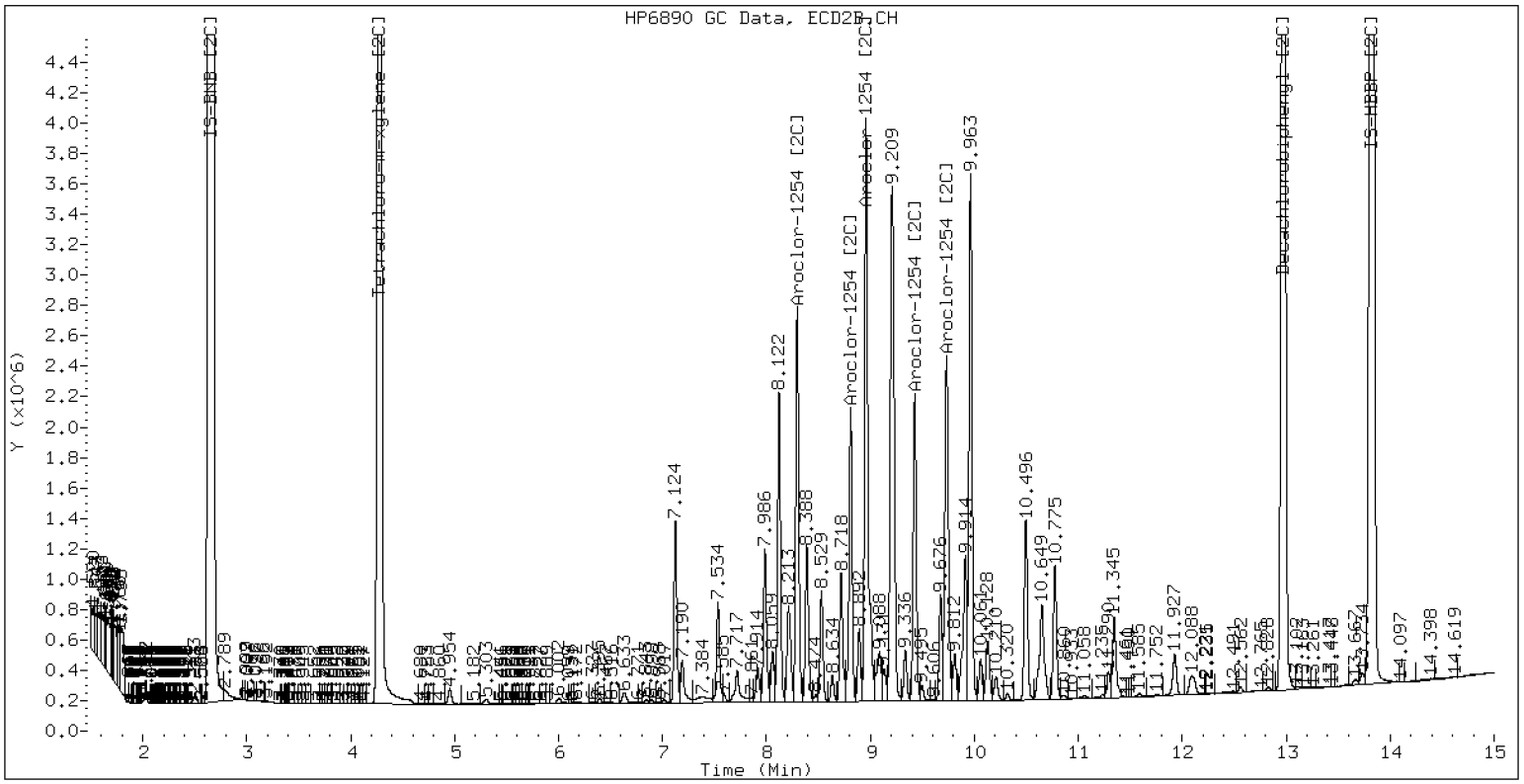
PCB Dual Column Chromatograms

ECD5-ZB5 /20180625.b/18062504ECD5.D AR1254ICV1 25-JUN-2018 14:22 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180625.b/20180625.b/18062504ECD5.D AR1254ICV1



ZB-35 Manual Integration: NO

INITIAL CALIBRATION CHECK

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18062505ECD5.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0341	Injection Date:	06/25/18
Lab Sample ID:	SGF0341-ICV2	Injection Time:	14:42
Sequence Name:	AR660ICV2		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF		
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT	
Aroclor 1016	A	250.00	265	0.0331041	0.0352318		5.8	20	
Aroclor-1016 (1)	A	250.00	258	0.0210218	0.0217079		3.2		
Aroclor-1016 (2)	A	250.00	268	0.0694139	0.0745609		7.2		
Aroclor-1016 (3)	A	250.00	265	0.0192640	0.0204199		6.0		
Aroclor-1016 (4)	A	250.00	267	0.0227168	0.0242386		6.8		
Aroclor 1016 [2C]	A	250.00	292	0.0278375	0.0324811		16.8	20	
Aroclor-1016 (1) [2C]	A	250.00	282	0.0247868	0.0279795		12.8		
Aroclor-1016 (2) [2C]	A	250.00	294	0.0569545	0.0668944		17.6		
Aroclor-1016 (3) [2C]	A	250.00	295	0.0135527	0.0159769		18.0		
Aroclor-1016 (4) [2C]	A	250.00	297	0.0160561	0.0190735		18.8		
Aroclor 1260	A	250.00	276	0.0536471	0.0593061		10.4	20	
Aroclor-1260 (1)	A	250.00	279	0.0437892	0.0489056		11.6		
Aroclor-1260 (2)	A	250.00	279	0.0425449	0.0475092		11.6		
Aroclor-1260 (3)	A	250.00	276	0.1035155	0.1143698		10.4		
Aroclor-1260 (4)	A	250.00	274	0.0501426	0.0549873		9.6		
Aroclor-1260 (5)	A	250.00	272	0.0282431	0.0307587		8.8		
Aroclor 1260 [2C]	A	250.00	312	0.0701404	0.0877531		24.8	20	*
Aroclor-1260 (1) [2C]	A	250.00	324	0.0630560	0.0816511		29.6		
Aroclor-1260 (2) [2C]	A	250.00	314	0.0558539	0.0701832		25.6		
Aroclor-1260 (3) [2C]	A	250.00	310	0.1254738	0.1557375		24.0		
Aroclor-1260 (4) [2C]	A	250.00	300	0.0361779	0.0434407		20.0		
Decachlorobiphenyl	A	40.000	39.8	0.8443871	0.8396171		-0.5	20	
Tetrachlorometaxylene	A	40.000	42.0	0.9073273	0.9537426		5.0	20	
Decachlorobiphenyl [2C]	A	40.000	43.4	1.2312580	1.3350520		8.5	20	
Tetrachlorometaxylene [2C]	A	40.000	44.5	0.7876038	0.8758189		11.3	20	

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180625.b/18062505ECD5.D
Data file 2: /20180625.b/20180625.b/18062505ECD5.D
Method: ecd5.i\20180625.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: AR1660.sub
Quant Method: Internal Std

ARI ID: AR1660ICV2
Client ID:
Injection Date: 25-JUN-2018 14:42
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.442	-0.006	544246965	4.291	-0.001	2252956033	42.0	44.5	5.6	Tetrachloro-m-xylene
12.781	-0.008	372002389	12.973	-0.001	1500812731	39.8	43.4	8.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	105.1	111.2
Decachlorobiphenyl	99.4	108.4

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1141286546	24.0
Hexabromobiphenyl	761926666	886123921	16.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5144799353	16.4
Hexabromobiphenyl	2171332320	2248320900	3.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.065	-0.007	77421616	258.2	1	6.009	-0.002	449840996	282.2
Aroclor-1016	2	6.465	-0.007	265922967	268.5	2	6.642	-0.002	1075495051	293.6
Aroclor-1016	3	6.725	-0.007	72827915	265.0	3	7.022	-0.001	256868547	294.7
Aroclor-1016	4	7.435	-0.007	86447504	266.7	4	7.538	-0.001	306653756	297.0
Total Col1Ave (4 peaks):					264.6	Total Col2Ave (4 peaks):				291.9 RPD = 10
Corrected Ave (3 peaks):					263.3	Corrected Ave (3 peaks):				290.2 RPD = 10
CalAmt %D:					5.8	CalAmt %D:				16.8
Aroclor-1260	1	9.935	-0.007	135426188	279.2	1	9.966	-0.000	573680685	323.7
Aroclor-1260	2	10.251	-0.007	131559424	279.2	2	10.506	0.001	493107397	314.1
Aroclor-1260	3	10.621	-0.008	316705652	276.2	3	10.778	0.000	1094211728	310.3
Aroclor-1260	4	11.019	-0.008	152267269	274.2	4	11.292	0.001	305214598	300.2
Aroclor-1260	5	11.208	-0.008	85175001	272.3	NS	---			----
Total Col1Ave (5 peaks):					276.2	Total Col2Ave (4 peaks):				312.1 RPD = 12
Corrected Ave (4 peaks):					275.5	Corrected Ave (3 peaks):				308.2 RPD = 11
CalAmt %D:					10.5	CalAmt %D:				24.8

Total PCB Area Col1 (4.548 - 12.689) = 3766740685 Col1 Total PCB = 0.7 ppm*

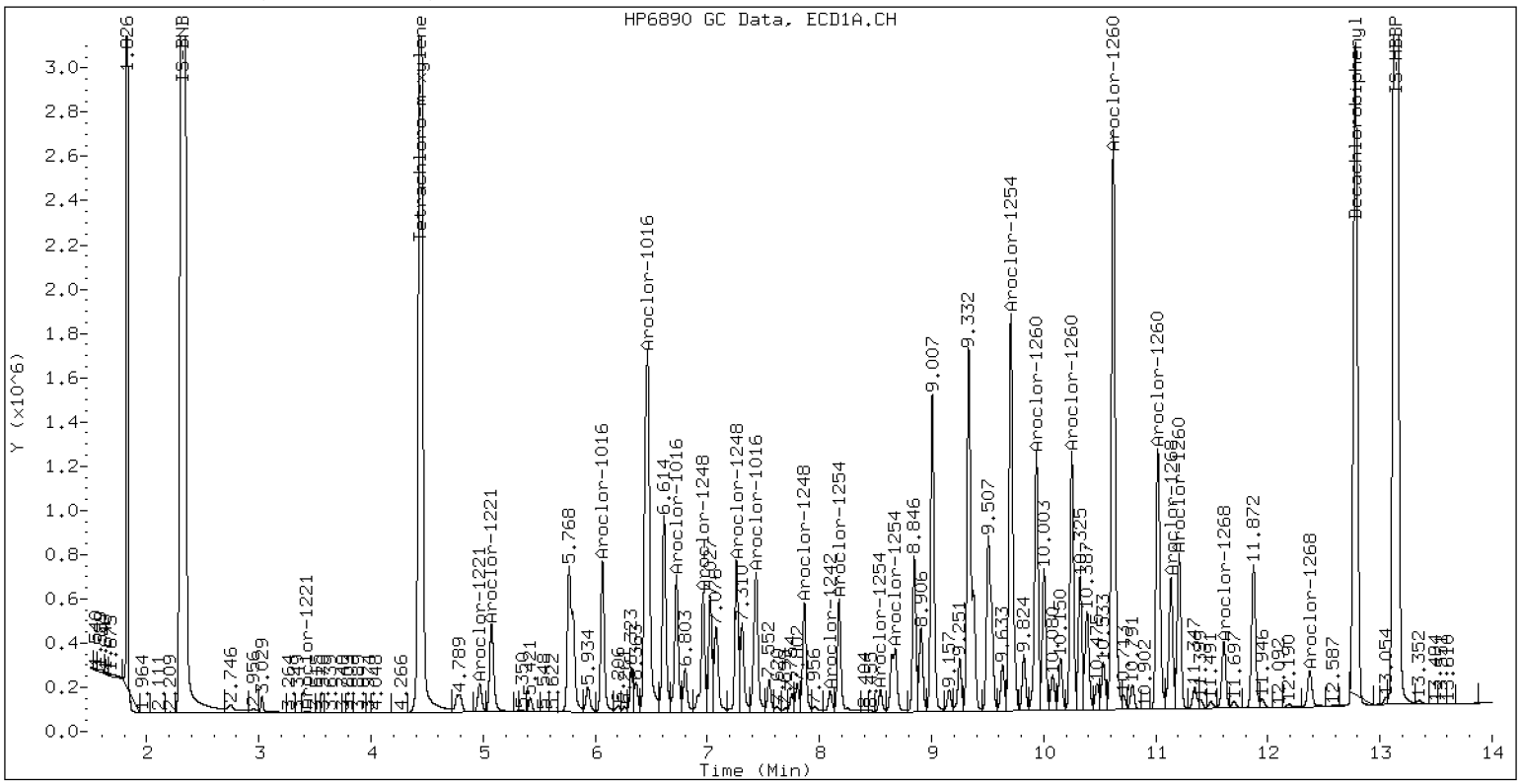
Total PCB Area Col2 (4.548 - 12.689) = 7092785412 Col2 Total PCB = 0.9 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

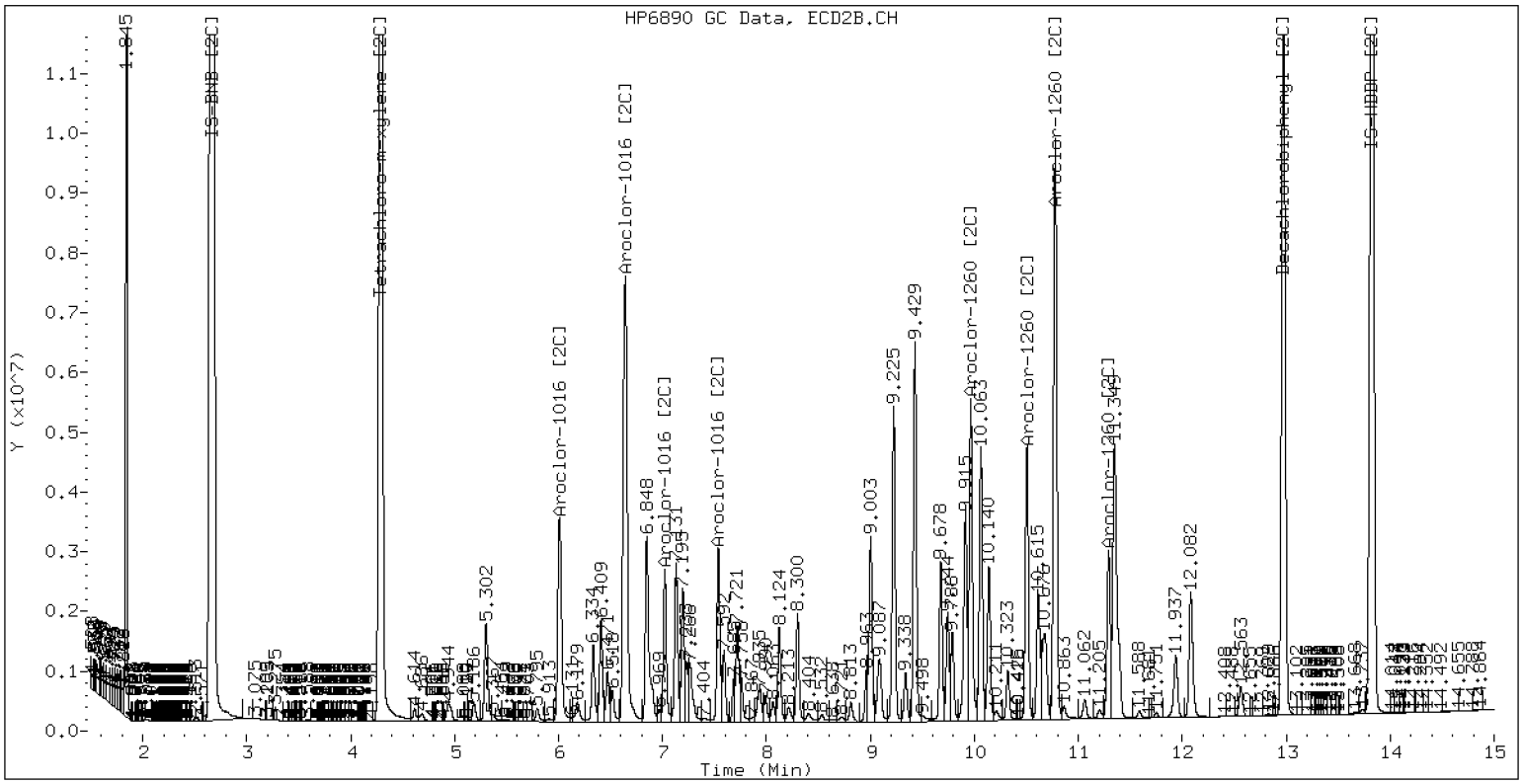
PCB Dual Column Chromatograms

ECD5-ZB5 /20180625.b/18062505ECD5.D AR1660ICV2 25-JUN-2018 14:42 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180625.b/20180625.b/18062505ECD5.D AR1660ICV2



ZB-35 Manual Integration: NO

INITIAL CALIBRATION CHECK

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18062802ECD5.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0393	Injection Date:	06/28/18
Lab Sample ID:	SGF0393-ICV1	Injection Time:	06:38
Sequence Name:	AR1254ICV1		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Aroclor 1254	A	250.00	280	0.0410820	0.0459217		12.0	20
Aroclor-1254 (1)	A	250.00	273	0.0465375	0.0508063			
Aroclor-1254 (2)	A	250.00	283	0.0147475	0.0166837			
Aroclor-1254 (3)	A	250.00	283	0.0296380	0.0335603			
Aroclor-1254 (4)	A	250.00	287	0.0574273	0.0660365			
Aroclor-1254 (5)	A	250.00	274	0.0570598	0.0625219			
Aroclor 1254 [2C]	A	250.00	299	0.0288181	0.0338821		19.4	20
Aroclor-1254 (1) [2C]	A	250.00	294	0.0287675	0.0338723			
Aroclor-1254 (2) [2C]	A	250.00	325	0.0211720	0.0275099			
Aroclor-1254 (3) [2C]	A	250.00	278	0.0465714	0.0517193			
Aroclor-1254 (4) [2C]	A	250.00	314	0.0208619	0.0262087			
Aroclor-1254 (5) [2C]	A	250.00	282	0.0267176	0.0301002			
Decachlorobiphenyl	A	40.000	39.9	0.8443871	0.8414859		-0.3	20
Tetrachlorometaxylene	A	40.000	42.3	0.9073273	0.9596065		5.8	20
Decachlorobiphenyl [2C]	A	40.000	44.7	1.2312580	1.3774180		11.8	20
Tetrachlorometaxylene [2C]	A	40.000	46.0	0.7876038	0.9056703		15.0	20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062802.D
Data file 2: /20180628.b/20180628.b/18062802.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: AR1254.sub
Quant Method: Internal Std

ARI ID: AR1254ICV1
Client ID:
Injection Date: 28-JUN-2018 06:38
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.442	0.001	551064083	4.286	0.000	2620802540	42.3	46.0	8.4	Tetrachloro-m-xylene
12.781	0.003	365967139	12.971	0.000	1821212544	39.9	44.7	11.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	105.8	115.0
Decachlorobiphenyl	99.7	111.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1148521322	24.8
Hexabromobiphenyl	761926666	869811642	14.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5787542683	31.0
Hexabromobiphenyl	2171332320	2644387115	21.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1254	1	8.174	0.001	182350170	272.9	1	8.297	0.000	612616584	294.4
Aroclor-1254	2	8.250	0.002	59879748	282.8	2	8.809	0.000	497546461	324.8
Aroclor-1254	3	8.543	0.002	120452208	283.1	3	8.955	0.000	935399305	277.6
Aroclor-1254	4	8.678	0.002	237013365	287.5	4	9.424	0.000	474012267	314.1
Aroclor-1254	5	9.707	0.003	224399141	273.9	5	9.731	0.000	544393797	281.7

Total Col1Ave (5 peaks): 280.0 Total Col2Ave (5 peaks): 298.5 RPD = 6

Corrected Ave (4 peaks): 278.2 Corrected Ave (4 peaks): 291.9 RPD = 5

CalAmt %D: 12.0 CalAmt %D: 19.4

Total PCB Area Col1 (4.542 - 12.677) = 2385533634 Col1 Total PCB = 0.4 ppm*

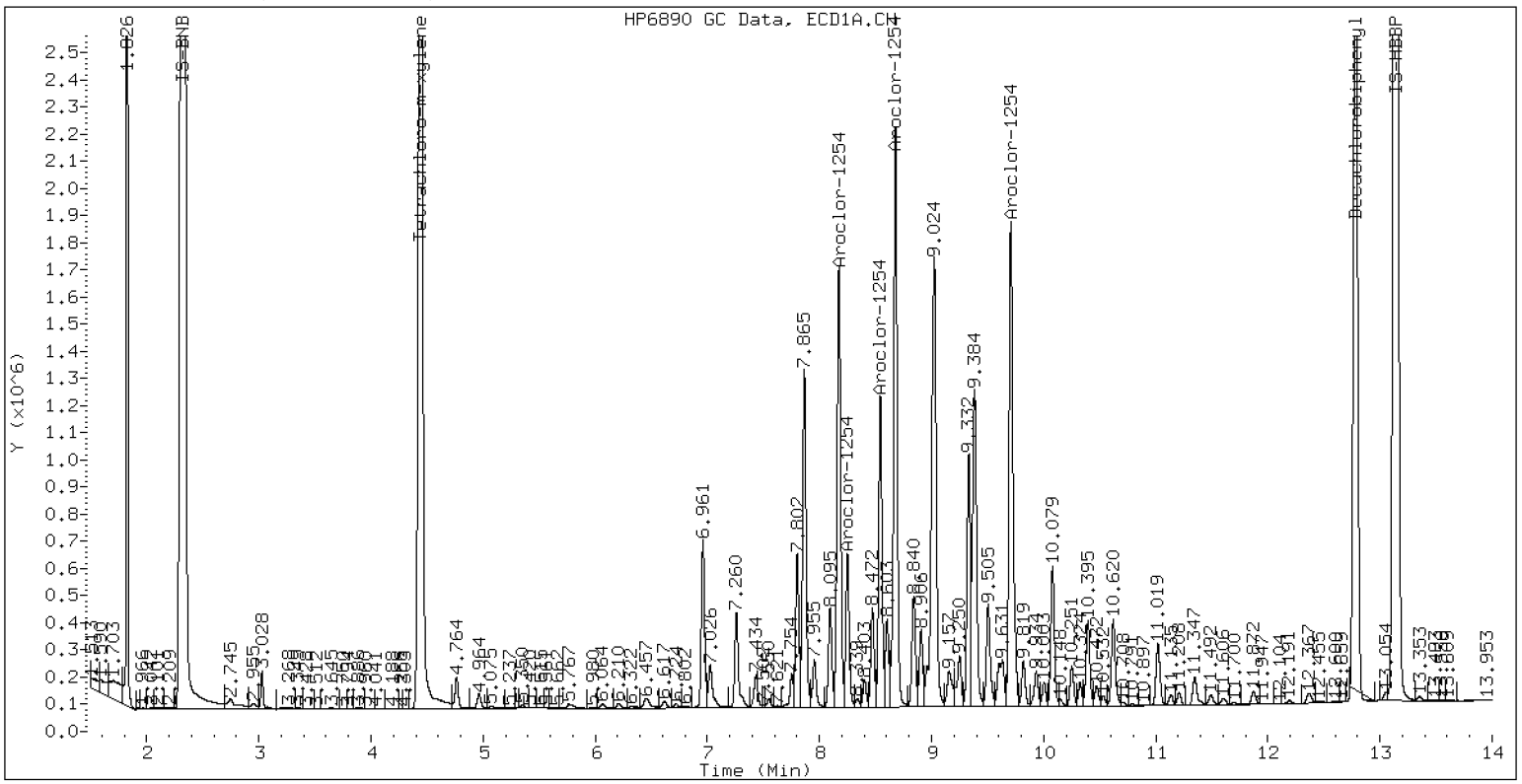
Total PCB Area Col2 (4.542 - 12.677) = 4792800197 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

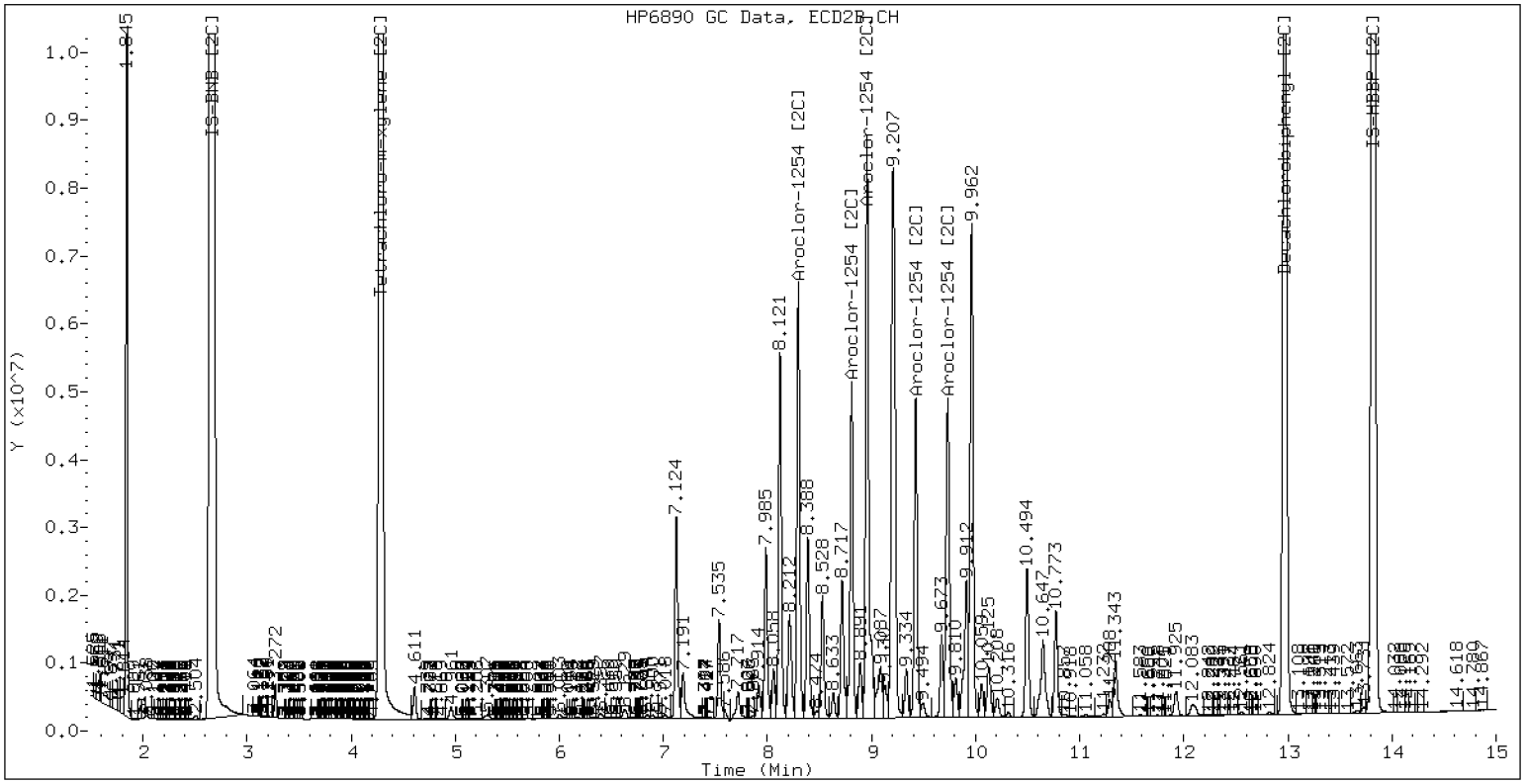
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062802.D AR1254ICV1 28-JUN-2018 06:38 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062802.D AR1254ICV1

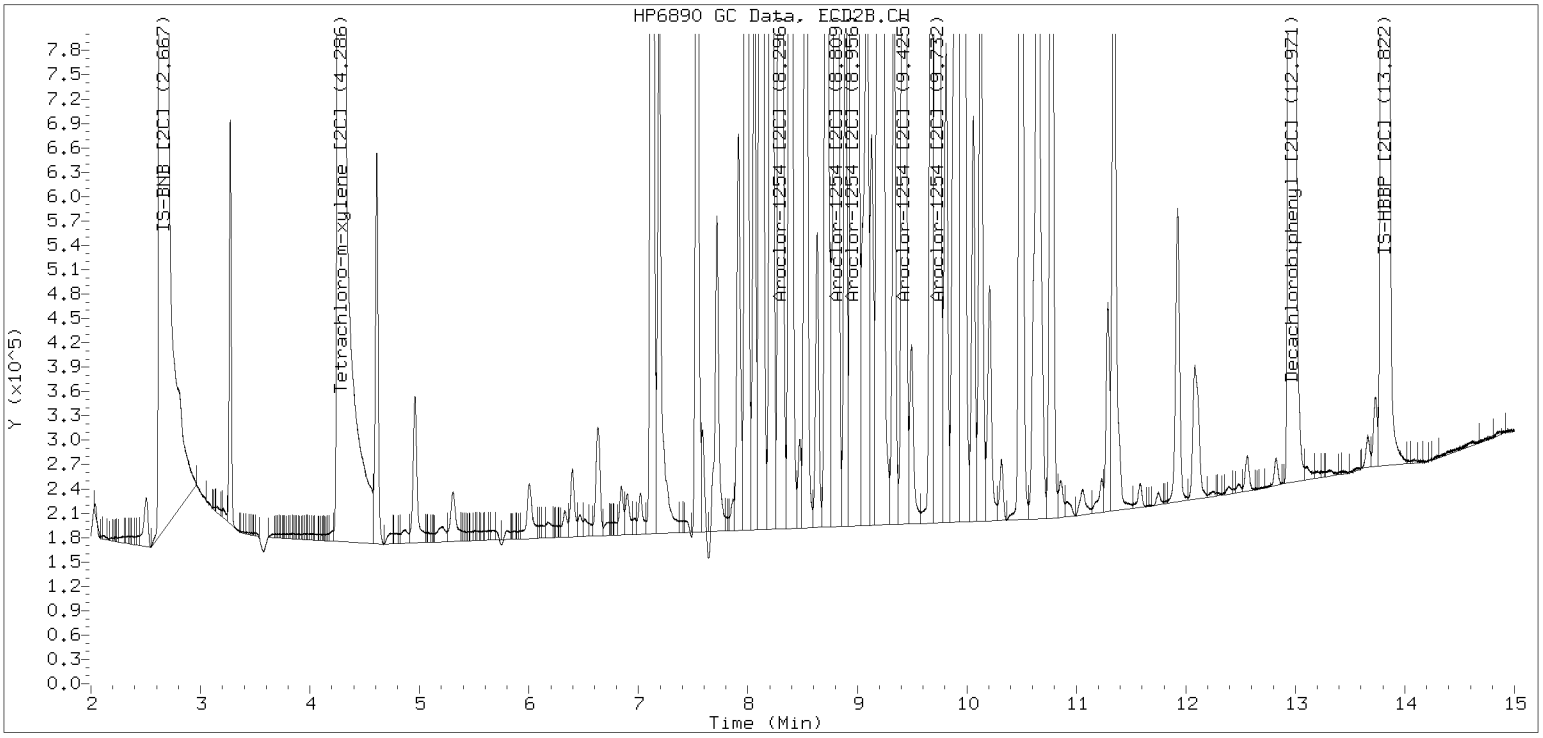


ZB-35 Manual Integration: YES

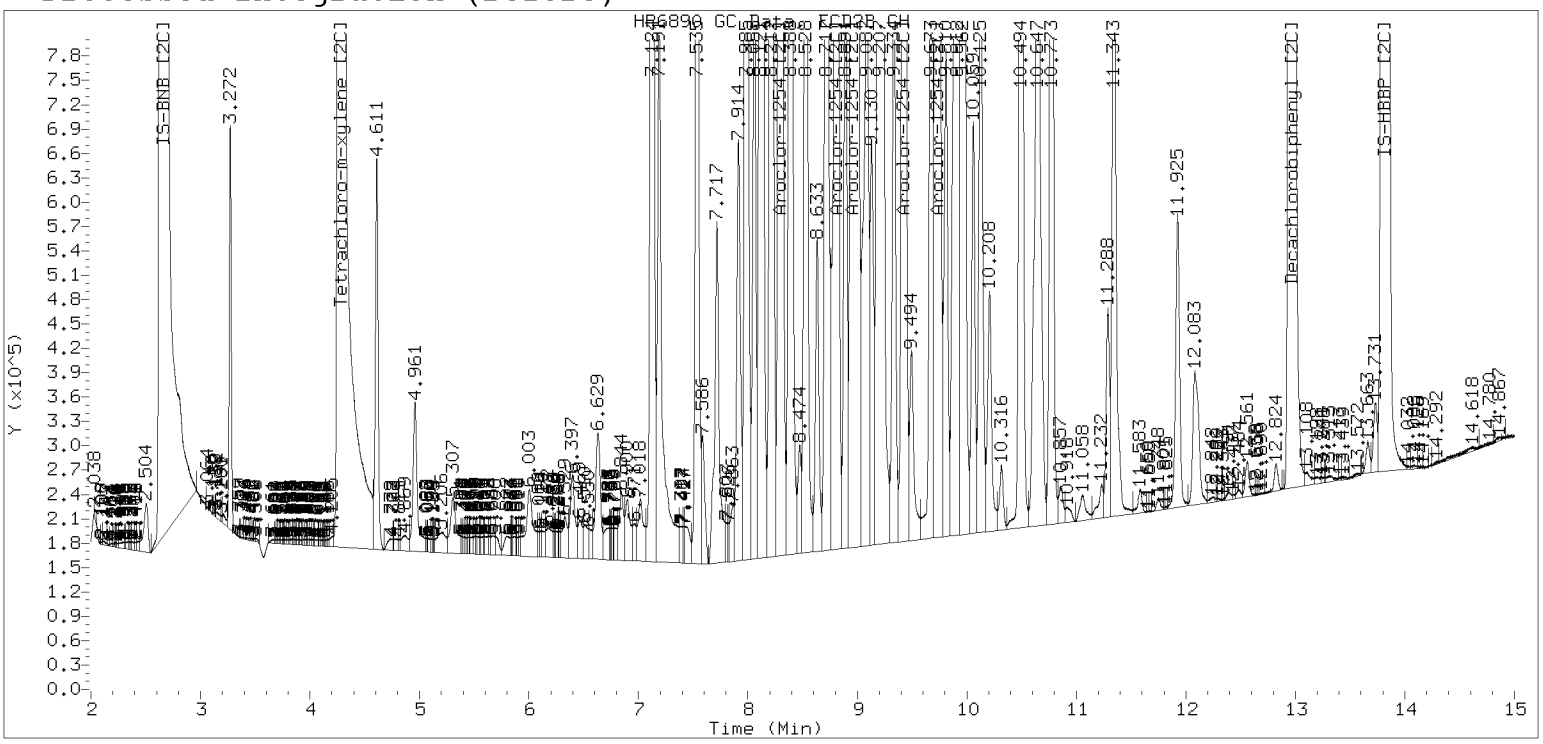
Manual Peak Adjustment, ZB-35

Datafile: ecd5.i/20180628.b/20180628.b/18062802.D Injection Date: 28-JUN-2018

Manual Integration (After)



Processed Integration (Before)



INITIAL CALIBRATION CHECK

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18062803ECD5.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0393	Injection Date:	06/28/18
Lab Sample ID:	SGF0393-ICV2	Injection Time:	06:59
Sequence Name:	AR1660ICV2		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF		
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN	ICV	LIMIT	
Aroclor 1016	A	250.00	272	0.0331041	0.0361455		8.7	20	
Aroclor-1016 (1)	A	250.00	261	0.0210218	0.0219600		4.4		
Aroclor-1016 (2)	A	250.00	274	0.0694139	0.0762275		9.6		
Aroclor-1016 (3)	A	250.00	272	0.0192640	0.0209636		8.8		
Aroclor-1016 (4)	A	250.00	280	0.0227168	0.0254308		12.0		
Aroclor 1016 [2C]	A	250.00	292	0.0278375	0.0318888		16.9	20	
Aroclor-1016 (1) [2C]	A	250.00	294	0.0247868	0.0291864		17.6		
Aroclor-1016 (2) [2C]	A	250.00	277	0.0569545	0.0630478		10.8		
Aroclor-1016 (3) [2C]	A	250.00	314	0.0135527	0.0170463		25.6		
Aroclor-1016 (4) [2C]	A	250.00	284	0.0160561	0.0182749		13.6		
Aroclor 1260	A	250.00	279	0.0536471	0.0598486		11.7	20	
Aroclor-1260 (1)	A	250.00	286	0.0437892	0.0501714		14.4		
Aroclor-1260 (2)	A	250.00	283	0.0425449	0.0481165		13.2		
Aroclor-1260 (3)	A	250.00	277	0.1035155	0.1146864		10.8		
Aroclor-1260 (4)	A	250.00	276	0.0501426	0.0552882		10.4		
Aroclor-1260 (5)	A	250.00	274	0.0282431	0.0309807		9.6		
Aroclor 1260 [2C]	A	250.00	308	0.0701404	0.0863542		23.0	20	*
Aroclor-1260 (1) [2C]	A	250.00	322	0.0630560	0.0811481		28.8		
Aroclor-1260 (2) [2C]	A	250.00	300	0.0558539	0.0669349		20.0		
Aroclor-1260 (3) [2C]	A	250.00	306	0.1254738	0.1536327		22.4		
Aroclor-1260 (4) [2C]	A	250.00	302	0.0361779	0.0437009		20.8		
Decachlorobiphenyl	A	40.000	39.0	0.8443871	0.8232764		-2.5	20	
Tetrachlorometaxylene	A	40.000	42.3	0.9073273	0.9592086		5.8	20	
Decachlorobiphenyl [2C]	A	40.000	44.3	1.2312580	1.3627350		10.8	20	
Tetrachlorometaxylene [2C]	A	40.000	45.8	0.7876038	0.9012041		14.5	20	

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062803.D
Data file 2: /20180628.b/20180628.b/18062803.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: AR1660.sub
Quant Method: Internal Std

ARI ID: AR1660ICV2
Client ID:
Injection Date: 28-JUN-2018 06:59
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.441	0.000	535654717	4.287	-0.003	2503311754	42.3	45.8	7.9	Tetrachloro-m-xylene
12.780	0.000	354937376	12.971	0.000	1772156646	39.0	44.3	12.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	105.7	114.4
Decachlorobiphenyl	97.5	110.7

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1116868284	21.4
Hexabromobiphenyl	761926666	862255713	13.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5555483361	25.7
Hexabromobiphenyl	2171332320	2600883410	19.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.062	0.000	76645208	261.2	1	6.003	-0.006	506701555	294.4
Aroclor-1016	2	6.462	0.000	266050050	274.5	2	6.632	-0.001	1094565299	276.7
Aroclor-1016	3	6.722	0.000	73167526	272.1	3	7.018	-0.003	295939253	314.4
Aroclor-1016	4	7.432	0.000	88758867	279.9	4	7.534	-0.004	317267832	284.5
Total Col1Ave (4 peaks):					271.9	Total Col2Ave (4 peaks):				292.5 RPD = 7
Corrected Ave (3 peaks):					269.3	Corrected Ave (3 peaks):				285.2 RPD = 6
CalAmt %D:					8.8	CalAmt %D:				17.0
Aroclor-1260	1	9.933	0.000	135189239	286.4	1	9.962	-0.001	659552537	321.7
Aroclor-1260	2	10.248	0.000	129652296	282.7	2	10.501	-0.001	544030455	299.6
Aroclor-1260	3	10.618	0.000	309028152	277.0	3	10.773	-0.003	1248689574	306.1
Aroclor-1260	4	11.017	0.000	148976706	275.7	4	11.287	-0.002	355190659	302.0
Aroclor-1260	5	11.206	0.000	83478960	274.2	NS	---			----
Total Col1Ave (5 peaks):					279.2	Total Col2Ave (4 peaks):				307.4 RPD = 10
Corrected Ave (4 peaks):					277.4	Corrected Ave (3 peaks):				302.6 RPD = 9
CalAmt %D:					11.7	CalAmt %D:				22.9

Total PCB Area Col1 (4.541 - 12.680) = 3786396366 Col1 Total PCB = 0.7 ppm*

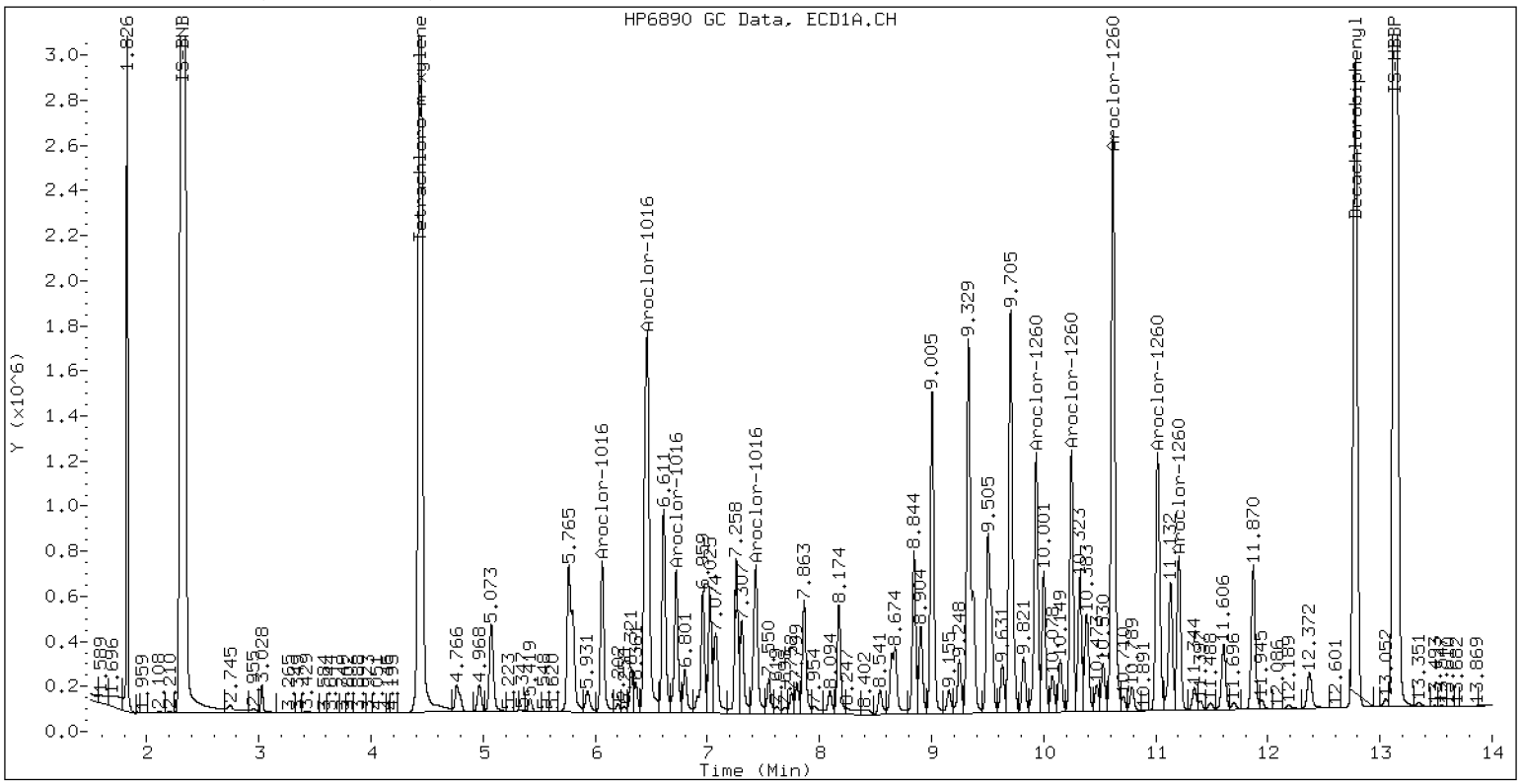
Total PCB Area Col2 (4.541 - 12.680) = 6117234780 Col2 Total PCB = 0.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

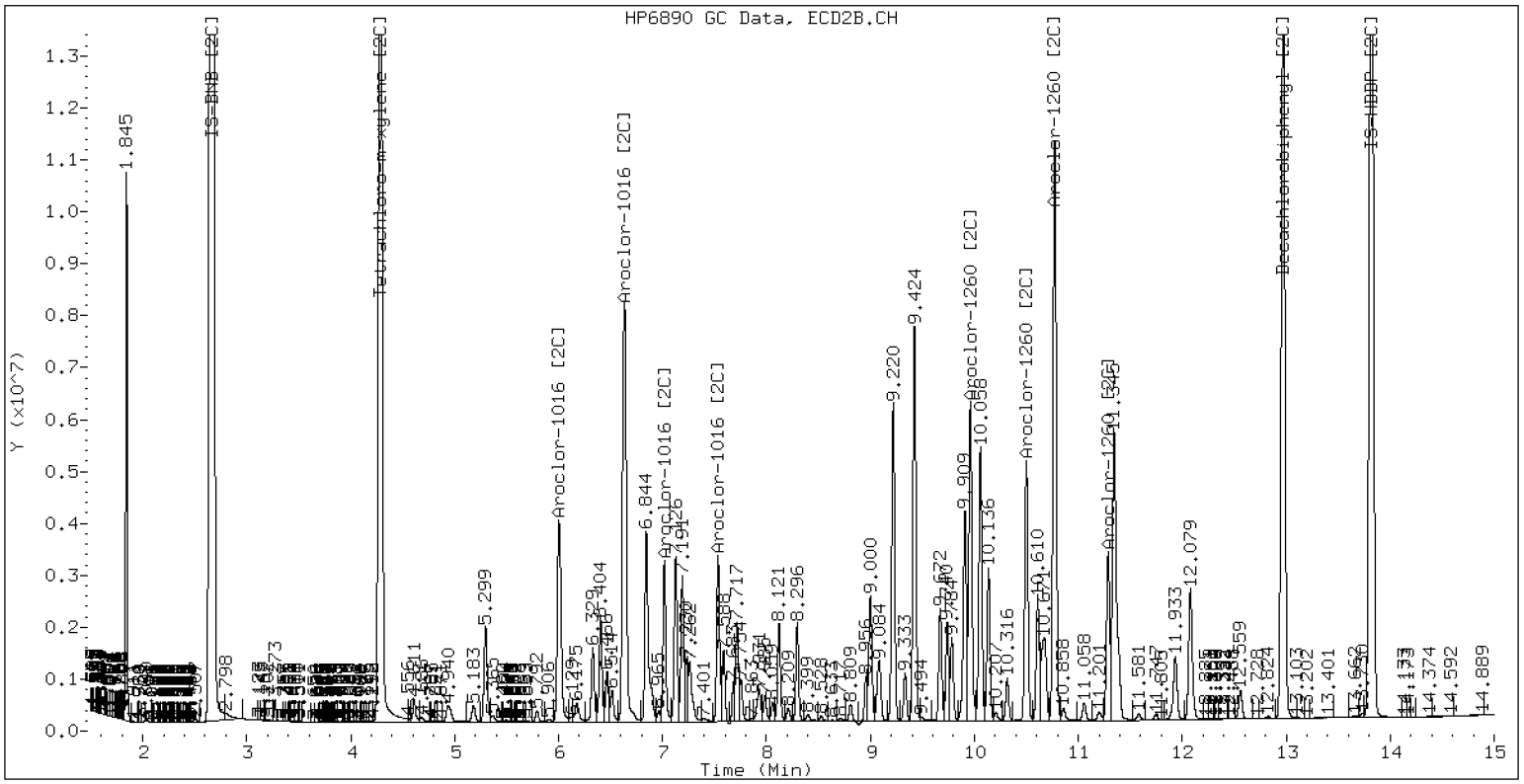
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062803.D AR1660ICV2 28-JUN-2018 06:59 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062803.D AR1660ICV2



ZB-35 Manual Integration: YES

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18061418.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0252	Injection Date:	06/14/18
Lab Sample ID:	SGF0252-SCV1	Injection Time:	23:43
Sequence Name:	AR1660SCV1		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	251	0.0331041	0.0331200		0.5	20
Aroclor 1016 [2C]	A	250.00	269	0.0278375	0.0299681		7.5	20
Aroclor 1260	A	250.00	263	0.0536471	0.0565418		5.0	20
Aroclor 1260 [2C]	A	250.00	266	0.0701404	0.0754594		6.6	20
Decachlorobiphenyl	A	40.000	39.1	0.8443871	0.8256345		-2.2	20
Tetrachlorometaxylene	A	40.000	40.8	0.9073273	0.9262900		2.1	20
Decachlorobiphenyl [2C]	A	40.000	40.6	1.2312580	1.2509980		1.6	20
Tetrachlorometaxylene [2C]	A	40.000	42.7	0.7876038	0.8397819		6.6	20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180614.b/18061418.D
Data file 2: /20180614.b/20180614.b/18061418.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: AR1660SCV1
Client ID:
Injection Date: 14-JUN-2018 23:43
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.450	0.002	473418484	4.292	0.002	2241893136	40.8	42.6	4.3	Tetrachloro-m-xylene
12.789	-0.000	342219353	12.977	-0.000	1623202239	39.1	40.6	3.8	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	102.1	106.6
Decachlorobiphenyl	97.8	101.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1022182035	11.1
Hexabromobiphenyl	761926666	828985199	8.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5339227039	20.8
Hexabromobiphenyl	2171332320	2595051394	19.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.072	0.000	65622266	244.3	1	6.012	0.000	442646155	267.6
Aroclor-1016	2	6.472	-0.000	219436168	247.4	2	6.645	0.000	1025267509	269.7
Aroclor-1016	3	6.731	-0.000	60093838	244.1	3	7.024	-0.000	236930858	261.9
Aroclor-1016	4	7.441	-0.000	78031346	268.8	4	7.540	-0.001	295237756	275.5
	Total Col1Ave (4 peaks):				251.2	Total Col2Ave (4 peaks):				268.7 RPD = 7
	Corrected Ave (3 peaks):				245.3	Corrected Ave (3 peaks):				266.4 RPD = 8
Aroclor-1221	1	3.435	-0.002	753329	10.2	1	3.589	-0.003	1506300	7.5
Aroclor-1221	2	4.978	-0.002	14450320	160.6	2	5.306	-0.000	191881328	181.5
Aroclor-1221	3	5.084	-0.001	49063076	181.2	3	5.371	-0.003	16264257	87.5
Aroclor-1221	NS	---			----	4	6.645	-0.001	1025267509	3325.8
	Total Col1Ave (3 peaks):				117.3	Total Col2Ave (4 peaks):				900.6 RPD = 154*
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				92.2
Aroclor-1232	1	3.435	-0.000	753329	15.9	1	3.589	-0.002	1506300	11.9
Aroclor-1232	2	6.072	0.001	65622266	573.1	2	6.012	0.001	442646155	559.1
Aroclor-1232	3	6.472	0.001	219436168	585.2	3	6.645	0.002	1025267509	597.6
Aroclor-1232	4	6.731	0.001	60093838	575.8	4	7.197	0.001	208071982	593.4
	Total Col1Ave (4 peaks):				437.5	Total Col2Ave (4 peaks):				440.5 RPD = 1
	Corrected Ave (3 peaks):				388.3	Corrected Ave (3 peaks):				388.1 RPD = 0
Aroclor-1242	1	6.072	-0.001	65622266	305.4	1	6.012	-0.000	442646155	323.8
Aroclor-1242	2	6.472	-0.001	219436168	306.9	2	6.645	0.000	1025267509	316.5
Aroclor-1242	3	6.731	-0.001	60093838	302.7	3	7.540	-0.001	295237756	285.6
Aroclor-1242	4	8.103	0.003	6850206	27.1	4	8.406	-0.002	12121957	11.4
	Total Col1Ave (4 peaks):				235.5	Total Col2Ave (4 peaks):				234.3 RPD = 1
	Corrected Ave (3 peaks):				211.8	Corrected Ave (3 peaks):				204.5 RPD = 3
Aroclor-1248	1	6.969	-0.001	51821043	188.4	1	6.645	0.001	1025267509	556.0
Aroclor-1248	2	7.267	-0.001	61144355	193.2	2	7.133	-0.001	254683736	199.5
Aroclor-1248	3	7.872	0.006	46358569	95.0	3	7.540	-0.001	295237756	212.2
Aroclor-1248	4	8.103	0.003	6850206	18.5	4	7.991	-0.002	48817926	29.5
	Total Col1Ave (4 peaks):				123.8	Total Col2Ave (4 peaks):				249.3 RPD = 67*
	Corrected Ave (3 peaks):				100.6	Corrected Ave (3 peaks):				147.1 RPD = 38
Aroclor-1254	1	8.182	0.002	42035446	70.7	1	8.301	-0.001	150041496	78.1
Aroclor-1254	2	---			0.0	2	8.815	-0.000	20394162	14.4
Aroclor-1254	3	8.551	-0.000	6273747	16.6	3	8.965	0.002	49911700	16.1
Aroclor-1254	4	8.655	-0.030	40507722	55.2	4	9.430	-0.001	618655050	444.3
Aroclor-1254	5	9.713	-0.001	185881603	255.0	5	9.746	0.009	164149061	92.1
	Total Col1Ave (4 peaks):				99.4	Total Col2Ave (5 peaks):				129.0 RPD = 26
	Corrected Ave (3 peaks):				47.5	Corrected Ave (4 peaks):				50.2 RPD = 5
Aroclor-1260	1	9.942	-0.000	118021951	260.1	1	9.967	-0.001	534894500	261.5
Aroclor-1260	2	10.258	-0.001	116935525	265.2	2	10.508	-0.000	488736471	269.8
Aroclor-1260	3	10.628	-0.001	282988006	263.8	3	10.779	-0.001	1119415624	275.0
Aroclor-1260	4	11.027	0.000	140156213	269.7	4	11.294	-0.000	304717937	259.7
Aroclor-1260	5	11.216	-0.000	74278131	253.8	NS	---			----
	Total Col1Ave (5 peaks):				262.5	Total Col2Ave (4 peaks):				266.5 RPD = 1
	Corrected Ave (4 peaks):				260.7	Corrected Ave (3 peaks):				263.6 RPD = 1
Aroclor-1262	1	9.942	0.000	118021951	189.5	1	10.064	-0.000	473412101	189.2
Aroclor-1262	2	10.258	-0.000	116935525	228.4	2	10.508	-0.000	488736471	224.7
Aroclor-1262	3	10.628	-0.000	282988006	245.0	3	10.779	-0.001	1119415624	246.2
Aroclor-1262	4	11.027	-0.000	140156213	361.6	4	11.350	-0.004	730038547	233.4
Aroclor-1262	5	11.216	0.001	74278131	153.5	5	11.940	0.000	141343759	188.2
	Total Col1Ave (5 peaks):				235.6	Total Col2Ave (5 peaks):				216.3 RPD = 9
	Corrected Ave (4 peaks):				204.1	Corrected Ave (4 peaks):				208.9 RPD = 2
Aroclor-1268	1	11.142	-0.001	61956709	45.5	1	11.294	-0.001	304717937	59.6
Aroclor-1268	2	11.216	0.002	74278131	59.5	2	11.350	-0.011	730038547	137.3
Aroclor-1268	3	11.615	0.016	33899340	31.8	3	11.753	-0.001	7856006	1.9

Aroclor-1268	4	12.382	-0.001	16699195	5.2	4	12.566	-0.002	51849987	3.6	
Total Col1Ave (4 peaks):				35.5	Total Col2Ave (4 peaks):				50.6	RPD =	35
Corrected Ave (3 peaks):				27.5	Corrected Ave (3 peaks):				21.7	RPD =	24

Total PCB Area Col1 (4.548 - 12.689) = 3196307442 Col1 Total PCB = 0.6 ppm*

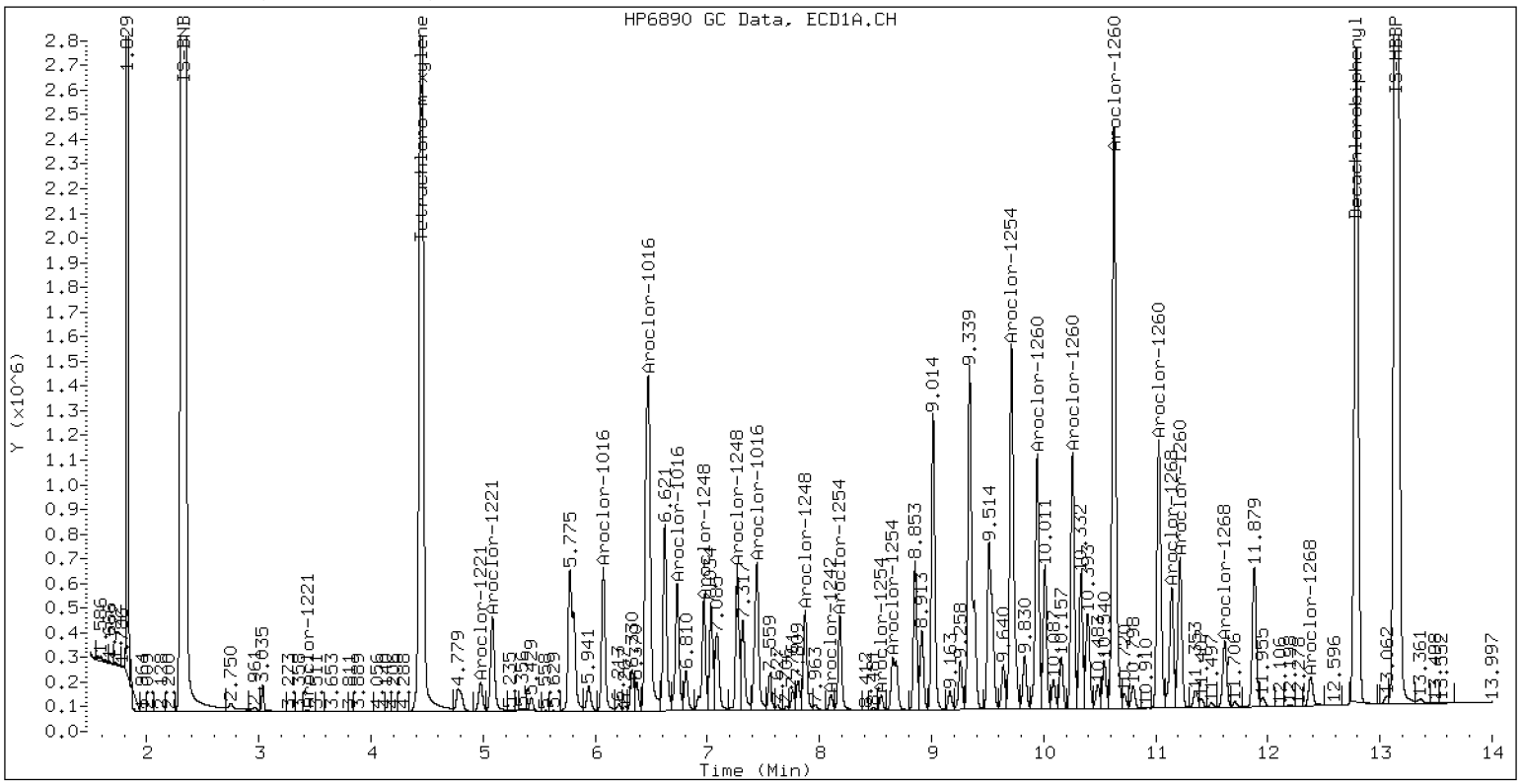
Total PCB Area Col2 (4.548 - 12.689) = 11348533307 Col2 Total PCB = 1.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

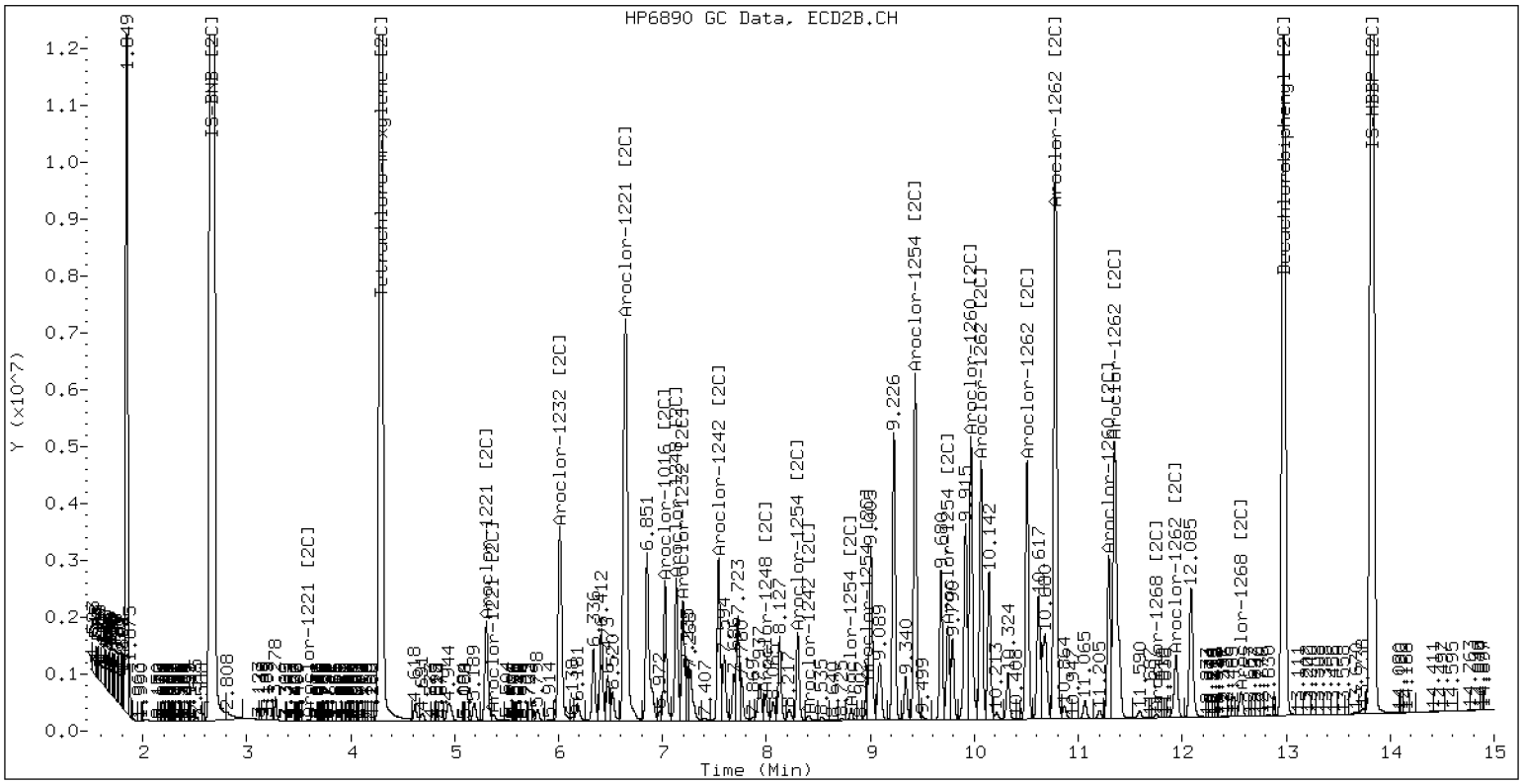
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061418.D AR1660SCV1 14-JUN-2018 23:43 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061418.D AR1660SCV1



ZB-35 Manual Integration: NO

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18061419.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0252	Injection Date:	06/15/18
Lab Sample ID:	SGF0252-SCV2	Injection Time:	00:04
Sequence Name:	AR1242SCV2		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1242	A	250.00	239	0.0270222	0.0259309		-4.4	20
Aroclor 1242 [2C]	A	250.00	246	0.0251264	0.0248451		-1.5	20
Decachlorobiphenyl	A	40.000	35.0	0.8443871	0.7390483		-12.5	20
Tetrachlorometaxylene	A	40.000	39.6	0.9073273	0.8982155		-1.0	20
Decachlorobiphenyl [2C]	A	40.000	36.4	1.2312580	1.1198110		-9.1	20
Tetrachlorometaxylene [2C]	A	40.000	41.7	0.7876038	0.8215871		4.3	20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180614.b/18061419.D
Data file 2: /20180614.b/20180614.b/18061419.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: AR1242SCV2
Client ID:
Injection Date: 15-JUN-2018 00:04
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.452	0.004	448647064	4.294	0.004	2115106515	39.6	41.7	5.2	Tetrachloro-m-xylene
12.789	0.000	309679390	12.976	-0.002	1471571139	35.0	36.4	3.8	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	99.0	104.3
Decachlorobiphenyl	87.5	90.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	998974299	8.6
Hexabromobiphenyl	761926666	838049144	10.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5148832203	16.5
Hexabromobiphenyl	2171332320	2628248100	21.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.073	0.002	51165688	194.9	1	6.012	0.001	330236945	207.0
Aroclor-1016	2	6.473	0.001	169413916	195.5	2	6.646	0.001	777097133	212.0
Aroclor-1016	3	6.733	0.001	46655319	194.0	3	7.025	-0.000	176867562	202.8
Aroclor-1016	4	7.442	0.001	64600327	227.7	4	7.541	0.000	244478667	236.6
	Total Col1Ave (4 peaks):				203.0	Total Col2Ave (4 peaks):				214.6 RPD = 6
	Corrected Ave (3 peaks):				194.8	Corrected Ave (3 peaks):				207.3 RPD = 6
Aroclor-1221	1	3.438	0.001	648364	9.0	1	3.594	0.002	1021954	5.3
Aroclor-1221	2	4.980	-0.000	11972284	136.2	2	5.307	0.000	145009888	142.2
Aroclor-1221	3	5.085	0.000	37385873	141.3	3	5.373	-0.001	12083666	67.4
Aroclor-1221	NS	---			----	4	6.646	-0.001	777097133	2614.0
	Total Col1Ave (3 peaks):				95.5	Total Col2Ave (4 peaks):				707.2 RPD = 152*
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				71.6
Aroclor-1232	1	3.438	0.003	648364	14.0	1	3.594	0.003	1021954	8.4
Aroclor-1232	2	6.073	0.002	51165688	457.2	2	6.012	0.002	330236945	432.5
Aroclor-1232	3	6.473	0.002	169413916	462.3	3	6.646	0.002	777097133	469.7
Aroclor-1232	4	6.733	0.002	46655319	457.5	4	7.198	0.001	159128001	470.6
	Total Col1Ave (4 peaks):				347.7	Total Col2Ave (4 peaks):				345.3 RPD = 1
	Corrected Ave (3 peaks):				309.6	Corrected Ave (3 peaks):				303.5 RPD = 2
Aroclor-1242	1	6.073	0.000	51165688	243.7	1	6.012	0.000	330236945	250.5
Aroclor-1242	2	6.473	0.000	169413916	242.4	2	6.646	0.001	777097133	248.8
Aroclor-1242	3	6.733	0.000	46655319	240.5	3	7.541	0.000	244478667	245.3
Aroclor-1242	4	8.100	-0.000	56569371	229.0	4	8.407	-0.001	247228315	240.1
	Total Col1Ave (4 peaks):				238.9	Total Col2Ave (4 peaks):				246.2 RPD = 3
	Corrected Ave (3 peaks):				237.3	Corrected Ave (3 peaks):				244.7 RPD = 3
Aroclor-1248	1	6.970	-0.000	42550543	158.3	1	6.646	0.002	777097133	437.0
Aroclor-1248	2	7.268	-0.000	49462148	159.9	2	7.134	-0.000	201557210	163.8
Aroclor-1248	3	7.865	-0.001	70982778	148.8	3	7.541	-0.000	244478667	182.2
Aroclor-1248	4	8.100	-0.000	56569371	156.3	4	7.992	-0.001	223572386	140.1
	Total Col1Ave (4 peaks):				155.8	Total Col2Ave (4 peaks):				230.8 RPD = 39
	Corrected Ave (3 peaks):				154.5	Corrected Ave (3 peaks):				162.0 RPD = 5
Aroclor-1254	1	8.180	-0.001	28350302	48.8	1	8.302	-0.000	66496392	35.9
Aroclor-1254	2	8.258	0.001	12458993	67.7	2	8.816	0.000	60670897	44.5
Aroclor-1254	3	8.551	0.000	18477034	49.9	3	8.963	-0.000	107968263	36.0
Aroclor-1254	4	8.686	0.001	30222733	42.1	4	9.432	0.001	24172967	18.0
Aroclor-1254	5	9.715	0.001	12980561	18.2	5	9.734	-0.003	66508421	38.7
	Total Col1Ave (5 peaks):				45.3	Total Col2Ave (5 peaks):				34.6 RPD = 27
	Corrected Ave (4 peaks):				39.8	Corrected Ave (4 peaks):				32.2 RPD = 21
Aroclor-1260	1	9.940	-0.003	613557	1.3	1	9.968	0.000	35919208	17.3
Aroclor-1260	2	10.260	0.001	601512	1.3	2	10.500	-0.009	11747085	6.4
Aroclor-1260	3	10.629	-0.000	1622038	1.5	3	10.779	-0.001	6345994	1.5
Aroclor-1260	4	11.027	0.001	1329059	2.5	4	11.294	0.000	1300546	1.1
Aroclor-1260	5	11.216	0.000	184128	0.6	NS	---			----
	Total Col1Ave (5 peaks):				1.5	Total Col2Ave (4 peaks):				6.6 RPD = 127*
	Corrected Ave (4 peaks):				1.2	Corrected Ave (3 peaks):				3.0 RPD = 86*
Aroclor-1262	1	9.940	-0.002	613557	1.0	1	10.064	-0.000	2430007	1.0
Aroclor-1262	2	10.260	0.002	601512	1.2	2	10.500	-0.009	11747085	5.3
Aroclor-1262	3	10.629	0.001	1622038	1.4	3	10.779	-0.001	6345994	1.4
Aroclor-1262	4	11.027	0.000	1329059	3.4	4	11.349	-0.006	4299518	1.4
Aroclor-1262	5	11.216	0.001	184128	0.4	5	11.930	-0.010	26211928	34.5
	Total Col1Ave (5 peaks):				1.5	Total Col2Ave (5 peaks):				8.7 RPD = 143*
	Corrected Ave (4 peaks):				1.0	Corrected Ave (4 peaks):				2.3 RPD = 79*
Aroclor-1268	1	11.144	0.001	156044	0.1	1	11.294	-0.000	1300546	0.3
Aroclor-1268	2	11.216	0.003	184128	0.1	2	11.349	-0.012	4299518	0.8
Aroclor-1268	3	11.605	0.006	669753	0.6	3	11.758	0.004	672382	0.2

Aroclor-1268	4	12.376	-0.007	1622965	0.5		4	12.564	-0.004	3236040	0.2
	Total Col1Ave (4 peaks):			0.3			Total Col2Ave (4 peaks):			0.4	RPD = 4
	Corrected Ave (3 peaks):			0.3			Corrected Ave (3 peaks):			0.2	RPD = 18

Total PCB Area Col1 (4.548 - 12.689) = 1269976916 Col1 Total PCB = 0.2 ppm*

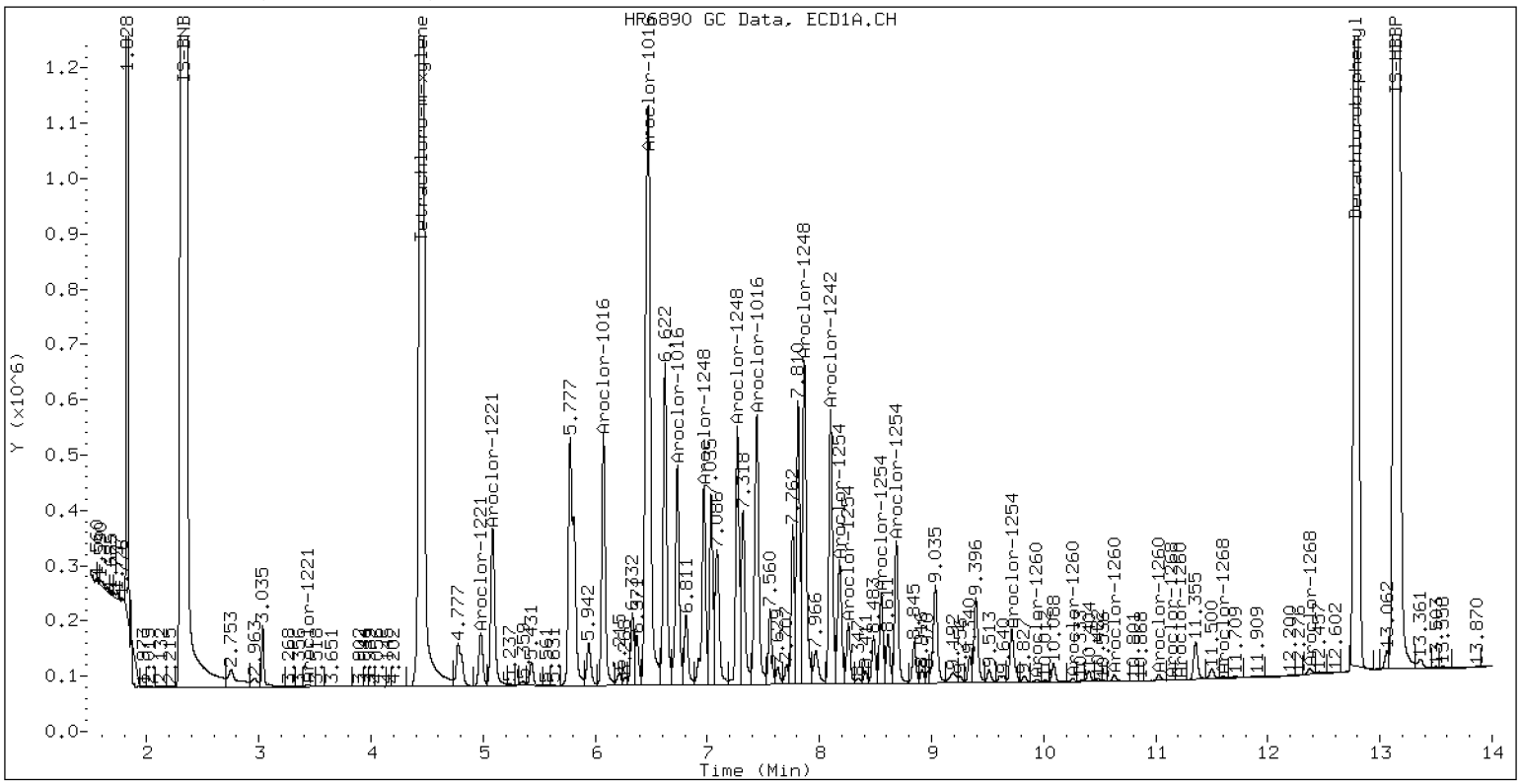
Total PCB Area Col2 (4.548 - 12.689) = 4937148201 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

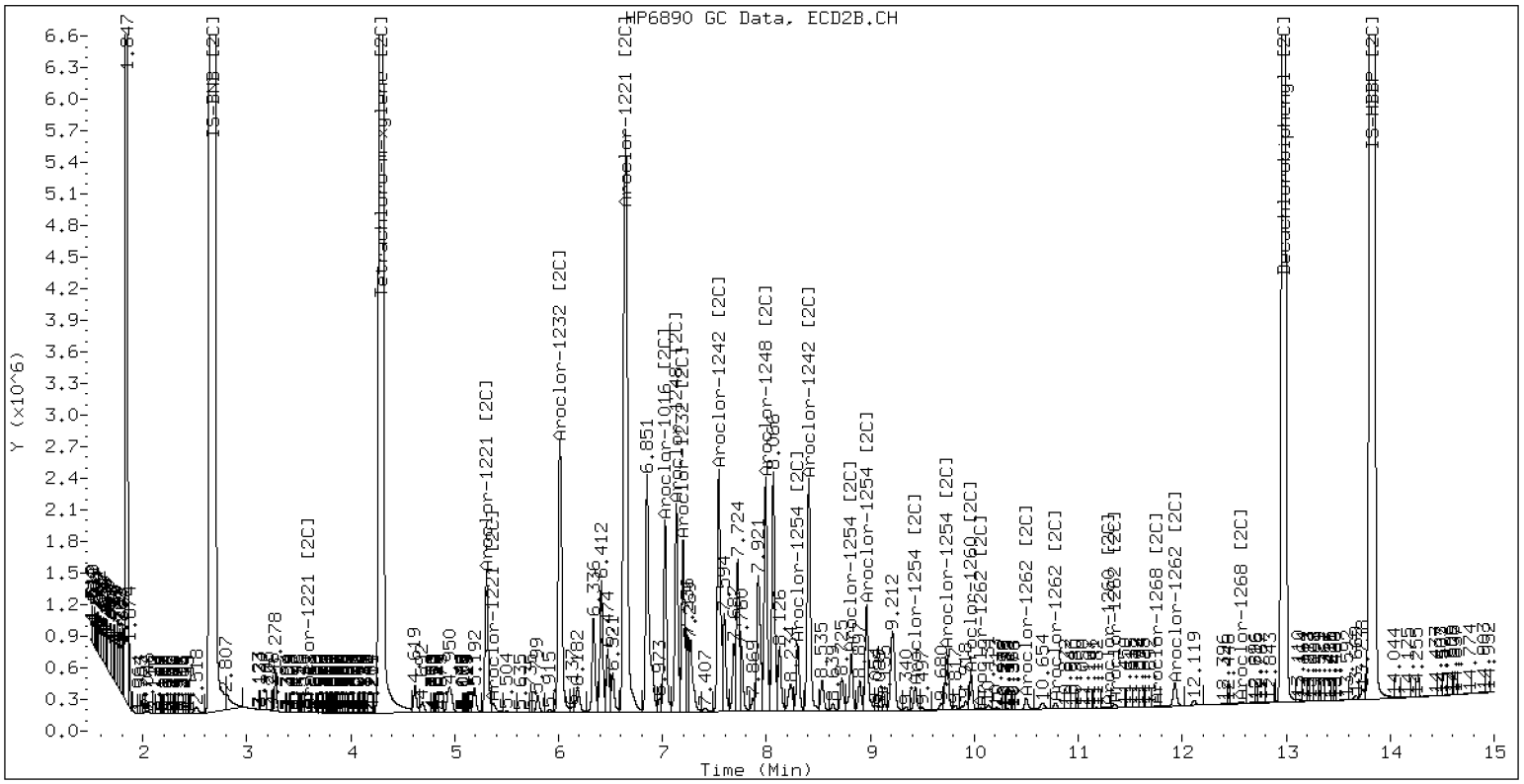
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061419.D AR1242SCV2 15-JUN-2018 00:04 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061419.D AR1242SCV2



ZB-35 Manual Integration: NO

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18061420.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0252	Injection Date:	06/15/18
Lab Sample ID:	SGF0252-SCV3	Injection Time:	00:24
Sequence Name:	AR1248SCV3		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1248	A	250.00	261	0.0283695	0.0295630		4.5	20
Aroclor 1248 [2C]	A	250.00	272	0.0230971	0.0252230		8.8	20
Decachlorobiphenyl	A	40.000	37.2	0.8443871	0.7846031		-7.1	20
Tetrachlorometaxylene	A	40.000	40.7	0.9073273	0.9229187		1.7	20
Decachlorobiphenyl [2C]	A	40.000	38.8	1.2312580	1.1931860		-3.1	20
Tetrachlorometaxylene [2C]	A	40.000	42.3	0.7876038	0.8334180		5.8	20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180614.b/18061420.D
Data file 2: /20180614.b/20180614.b/18061420.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: AR1248SCV3
Client ID:
Injection Date: 15-JUN-2018 00:24
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.450	0.001	468510005	4.293	0.003	2239557374	40.7	42.3	3.9	Tetrachloro-m-xylene
12.789	0.000	328752547	12.976	-0.001	1586512410	37.2	38.8	4.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	101.7	105.8
Decachlorobiphenyl	92.9	96.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1015278979	10.3
Hexabromobiphenyl	761926666	838009746	10.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5374391096	21.6
Hexabromobiphenyl	2171332320	2659286703	22.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.072	0.000	26129391	97.9	1	6.010	-0.002	174793578	105.0
Aroclor-1016	2	6.468	-0.004	116520627	132.3	2	6.642	-0.003	530494656	138.6
Aroclor-1016	3	6.731	-0.000	29081893	119.0	3	7.025	-0.000	99424324	109.2
Aroclor-1016	4	7.441	-0.000	98625320	342.1	4	7.541	0.000	370812179	343.8
	Total Col1Ave (4 peaks):	172.8				Total Col2Ave (4 peaks):	174.1		RPD = 1	
	Corrected Ave (3 peaks):	116.4				Corrected Ave (3 peaks):	117.6		RPD = 1	
Aroclor-1221	1	3.437	0.000	373851	5.1	1	3.583	-0.009	250526	1.2
Aroclor-1221	2	4.974	-0.005	6768875	75.7	2	5.307	0.000	29962623	28.2
Aroclor-1221	3	5.084	-0.002	8436205	31.4	3	5.372	-0.002	2274288	12.1
Aroclor-1221	NS	---			----	4	6.642	-0.005	530494656	1709.6
	Total Col1Ave (3 peaks):	37.4				Total Col2Ave (4 peaks):	437.8		RPD = 169*	
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):	13.8			
Aroclor-1232	1	3.437	0.002	373851	8.0	1	3.583	-0.007	250526	2.0
Aroclor-1232	2	6.072	0.001	26129391	229.7	2	6.010	-0.001	174793578	219.3
Aroclor-1232	3	6.468	-0.002	116520627	312.9	3	6.642	-0.002	530494656	307.2
Aroclor-1232	4	6.731	0.001	29081893	280.6	4	7.198	0.001	256272834	726.1
	Total Col1Ave (4 peaks):	207.8				Total Col2Ave (4 peaks):	313.6		RPD = 41*	
	Corrected Ave (3 peaks):	172.8				Corrected Ave (3 peaks):	176.2		RPD = 2	
Aroclor-1242	1	6.072	-0.001	26129391	122.4	1	6.010	-0.002	174793578	127.0
Aroclor-1242	2	6.468	-0.004	116520627	164.1	2	6.642	-0.003	530494656	162.7
Aroclor-1242	3	6.731	-0.001	29081893	147.5	3	7.541	0.000	370812179	356.4
Aroclor-1242	4	8.099	-0.000	93366976	372.0	4	8.406	-0.002	454655639	423.0
	Total Col1Ave (4 peaks):	201.5				Total Col2Ave (4 peaks):	267.3		RPD = 28	
	Corrected Ave (3 peaks):	144.7				Corrected Ave (3 peaks):	215.4		RPD = 39	
Aroclor-1248	1	6.969	-0.001	72323005	264.7	1	6.642	-0.002	530494656	285.8
Aroclor-1248	2	7.268	-0.001	84561072	269.0	2	7.133	-0.001	344866787	268.4
Aroclor-1248	3	7.865	-0.001	124932882	257.7	3	7.541	-0.000	370812179	264.8
Aroclor-1248	4	8.099	-0.001	93366976	253.9	4	7.992	-0.001	448306258	269.2
	Total Col1Ave (4 peaks):	261.3				Total Col2Ave (4 peaks):	272.1		RPD = 4	
	Corrected Ave (3 peaks):	258.8				Corrected Ave (3 peaks):	267.5		RPD = 3	
Aroclor-1254	1	8.179	-0.001	56926536	96.4	1	8.302	0.000	137123176	71.0
Aroclor-1254	2	8.257	-0.000	26426275	141.2	2	8.815	-0.000	135251118	95.1
Aroclor-1254	3	8.551	-0.000	38044046	101.1	3	8.963	0.000	232424428	74.3
Aroclor-1254	4	8.686	0.000	61255224	84.0	4	9.434	0.003	32015833	22.8
Aroclor-1254	5	9.715	0.000	12913756	17.8	5	9.732	-0.005	147571464	82.2
	Total Col1Ave (5 peaks):	88.1				Total Col2Ave (5 peaks):	69.1		RPD = 24	
	Corrected Ave (4 peaks):	74.9				Corrected Ave (4 peaks):	62.6		RPD = 18	
Aroclor-1260	1	9.943	0.000	2076955	4.5	1	9.968	0.000	35584517	17.0
Aroclor-1260	2	10.259	0.001	1565334	3.5	2	10.501	-0.007	15660143	8.4
Aroclor-1260	3	10.628	-0.001	3878694	3.6	3	10.779	-0.001	13500914	3.2
Aroclor-1260	4	11.027	0.000	1603222	3.1	4	11.295	0.000	4718343	3.9
Aroclor-1260	5	11.216	-0.000	1407680	4.8	NS	---			----
	Total Col1Ave (5 peaks):	3.9				Total Col2Ave (4 peaks):	8.1		RPD = 71*	
	Corrected Ave (4 peaks):	3.7				Corrected Ave (3 peaks):	5.2		RPD = 35	
Aroclor-1262	1	9.943	0.001	2076955	3.3	1	10.064	-0.001	7319029	2.9
Aroclor-1262	2	10.259	0.001	1565334	3.0	2	10.501	-0.007	15660143	7.0
Aroclor-1262	3	10.628	0.000	3878694	3.3	3	10.779	-0.001	13500914	2.9
Aroclor-1262	4	11.027	-0.000	1603222	4.1	4	11.354	-0.001	8515709	2.7
Aroclor-1262	5	11.216	0.001	1407680	2.9	5	11.929	-0.011	27872624	36.2
	Total Col1Ave (5 peaks):	3.3				Total Col2Ave (5 peaks):	10.3		RPD = 103*	
	Corrected Ave (4 peaks):	3.1				Corrected Ave (4 peaks):	3.9		RPD = 21	
Aroclor-1268	1	11.142	-0.000	1348077	1.0	1	11.295	0.000	4718343	0.9
Aroclor-1268	2	11.216	0.002	1407680	1.1	2	11.354	-0.007	8515709	1.6
Aroclor-1268	3	11.611	0.012	1159544	1.1	3	11.756	0.002	458405	0.1

Aroclor-1268	4	12.378	-0.005	2152578	0.7		4	12.561	-0.007	2814847	0.2
	Total Col1Ave (4 peaks):			1.0			Total Col2Ave (4 peaks):			0.7	RPD = 32
	Corrected Ave (3 peaks):			0.9			Corrected Ave (3 peaks):			0.4	RPD = 77*

Total PCB Area Col1 (4.548 - 12.689) = 1549071616 Col1 Total PCB = 0.3 ppm*

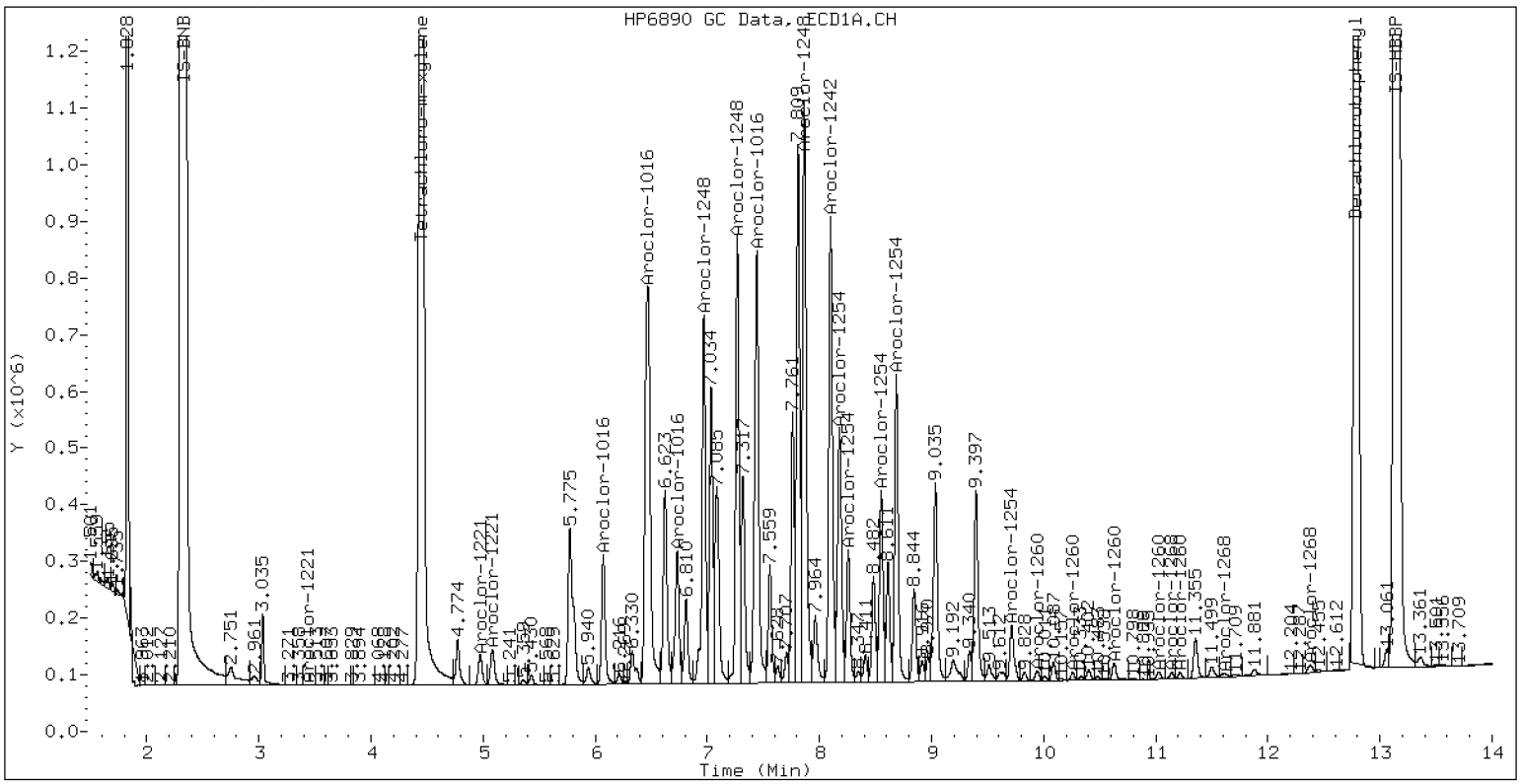
Total PCB Area Col2 (4.548 - 12.689) = 6151056667 Col2 Total PCB = 0.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

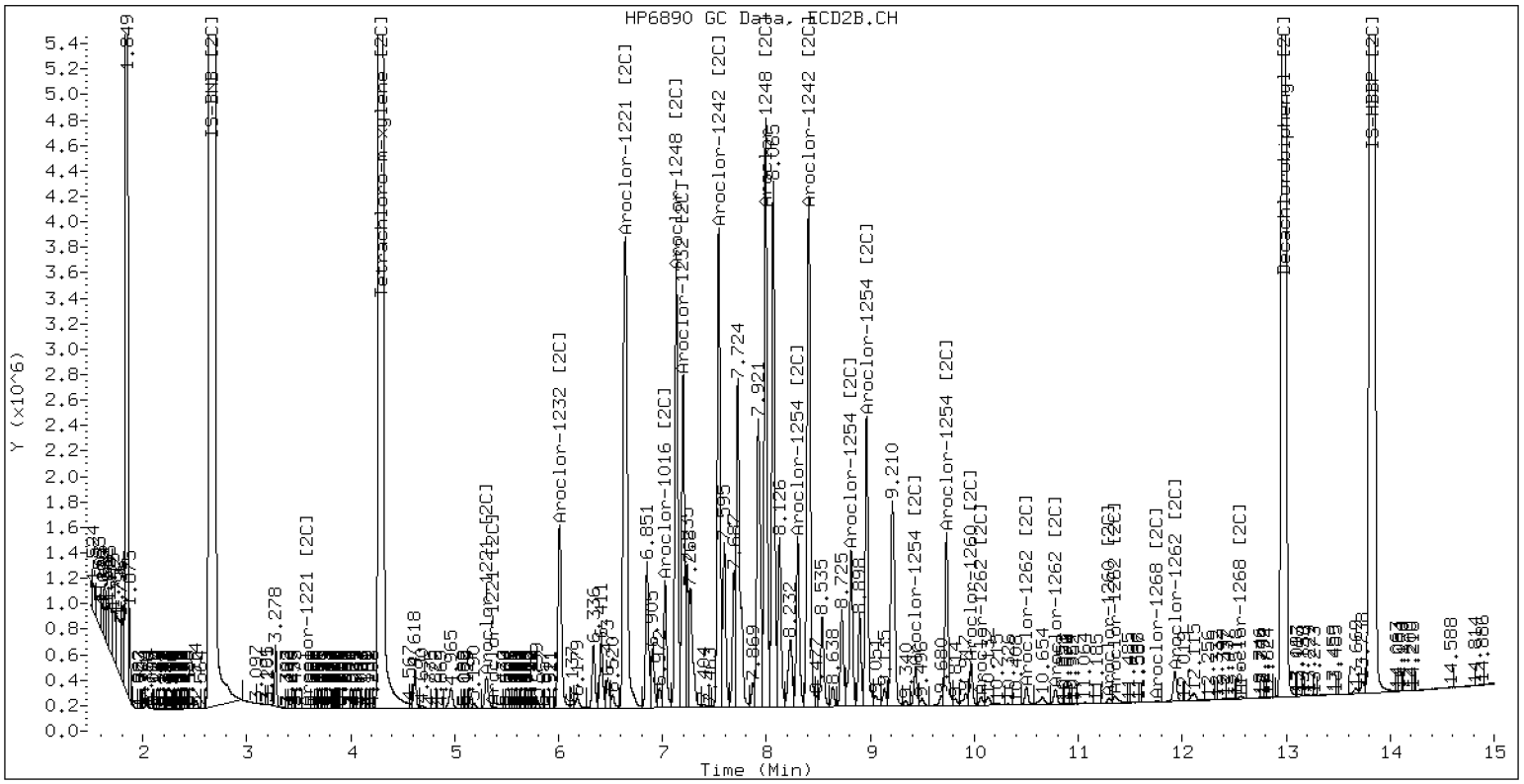
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061420.D AR1248SCV3 15-JUN-2018 00:24 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061420.D AR1248SCV3



ZB-35 Manual Integration: NO

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18061421.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0252	Injection Date:	06/15/18
Lab Sample ID:	SGF0252-SCV4	Injection Time:	00:44
Sequence Name:	AR1254SCV4		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1254	A	250.00	259	0.0410820	0.0418533		3.8	20
Aroclor 1254 [2C]	A	250.00	260	0.0288181	0.0298653		4.1	20
Decachlorobiphenyl	A	40.000	37.8	0.8443871	0.7981591		-5.5	20
Tetrachlorometaxylene	A	40.000	39.9	0.9073273	0.9053930		-0.2	20
Decachlorobiphenyl [2C]	A	40.000	39.7	1.2312580	1.2228320		-0.7	20
Tetrachlorometaxylene [2C]	A	40.000	41.9	0.7876038	0.8245838		4.7	20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180614.b/18061421.D
Data file 2: /20180614.b/20180614.b/18061421.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: AR1254SCV4
Client ID:
Injection Date: 15-JUN-2018 00:44
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.452	0.003	465455310	4.295	0.005	2243067800	39.9	41.9	4.8	Tetrachloro-m-xylene
12.789	-0.000	334630393	12.977	0.000	1626338799	37.8	39.7	4.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	99.8	104.7
Decachlorobiphenyl	94.5	99.3

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1028184397	11.7
Hexabromobiphenyl	761926666	838505518	10.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5440484659	23.1
Hexabromobiphenyl	2171332320	2659953790	22.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.073	0.001	1002122	3.7	1	6.011	-0.000	5120781	3.0
Aroclor-1016	2	6.462	-0.010	3943921	4.4	2	6.636	-0.009	14482844	3.7
Aroclor-1016	3	6.732	0.001	911879	3.7	3	7.026	0.001	2243927	2.4
Aroclor-1016	4	7.442	0.001	14386086	49.3	4	7.542	0.001	116165494	106.4
	Total Col1Ave (4 peaks):				15.3	Total Col2Ave (4 peaks):				28.9 RPD = 62*
	Corrected Ave (3 peaks):				3.9	Corrected Ave (3 peaks):				3.1 RPD = 25
Aroclor-1221	1	3.454	0.017	337312	4.5	1	3.591	-0.001	33669	0.2
Aroclor-1221	2	4.975	-0.005	5805693	64.1	2	5.320	0.013	4830290	4.5
Aroclor-1221	3	5.084	-0.001	889053	3.3	3	5.417	0.044	35478	0.2
Aroclor-1221	NS	---			----	4	6.636	-0.011	14482844	46.1
	Total Col1Ave (3 peaks):				24.0	Total Col2Ave (4 peaks):				12.7 RPD = 61*
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				1.6
Aroclor-1232	1	3.418	-0.017	93426	2.0	1	3.591	0.001	33669	0.3
Aroclor-1232	2	6.073	0.002	1002122	8.7	2	6.011	0.001	5120781	6.3
Aroclor-1232	3	6.462	-0.008	3943921	10.5	3	6.636	-0.008	14482844	8.3
Aroclor-1232	4	6.732	0.002	911879	8.7	4	7.197	0.000	73962085	207.0
	Total Col1Ave (4 peaks):				7.5	Total Col2Ave (4 peaks):				55.5 RPD = 153*
	Corrected Ave (3 peaks):				6.5	Corrected Ave (3 peaks):				5.0 RPD = 26
Aroclor-1242	1	6.073	-0.000	1002122	4.6	1	6.011	-0.000	5120781	3.7
Aroclor-1242	2	6.462	-0.010	3943921	5.5	2	6.636	-0.009	14482844	4.4
Aroclor-1242	3	6.732	-0.000	911879	4.6	3	7.542	0.001	116165494	110.3
Aroclor-1242	4	8.103	0.004	33393493	131.4	4	8.394	-0.013	240470735	221.0
	Total Col1Ave (4 peaks):				36.5	Total Col2Ave (4 peaks):				84.8 RPD = 80*
	Corrected Ave (3 peaks):				4.9	Corrected Ave (3 peaks):				39.5 RPD = 156*
Aroclor-1248	1	6.970	-0.000	51262421	185.3	1	6.636	-0.008	14482844	7.7
Aroclor-1248	2	7.268	0.000	33881533	106.4	2	7.131	-0.002	211962349	163.0
Aroclor-1248	3	7.874	0.008	108747546	221.5	3	7.542	0.001	116165494	81.9
Aroclor-1248	4	8.103	0.003	33393493	89.7	4	7.992	-0.000	198879875	118.0
	Total Col1Ave (4 peaks):				150.7	Total Col2Ave (4 peaks):				92.7 RPD = 48*
	Corrected Ave (3 peaks):				127.1	Corrected Ave (3 peaks):				69.2 RPD = 59*
Aroclor-1254	1	8.181	0.001	152581855	255.1	1	8.302	-0.000	512883486	262.2
Aroclor-1254	2	8.258	0.000	53205579	280.7	2	8.816	0.000	396143221	275.1
Aroclor-1254	3	8.551	0.000	100384556	263.5	3	8.964	0.001	796626142	251.5
Aroclor-1254	4	8.686	0.000	184058800	249.4	4	9.430	-0.000	347083983	244.6
Aroclor-1254	5	9.715	0.000	182158552	248.4	5	9.737	-0.001	486039064	267.5
	Total Col1Ave (5 peaks):				259.4	Total Col2Ave (5 peaks):				260.2 RPD = 0
	Corrected Ave (4 peaks):				254.1	Corrected Ave (4 peaks):				256.5 RPD = 1
Aroclor-1260	1	9.941	-0.001	9313281	20.3	1	9.968	-0.000	614168095	292.9
Aroclor-1260	2	10.259	0.001	10393012	23.3	2	10.499	-0.009	188782123	101.7
Aroclor-1260	3	10.628	-0.001	22211448	20.5	3	10.779	-0.002	103960922	24.9
Aroclor-1260	4	11.026	-0.001	21443122	40.8	4	11.293	-0.001	12219918	10.2
Aroclor-1260	5	11.215	-0.000	979089	3.3	NS	---			----
	Total Col1Ave (5 peaks):				21.6	Total Col2Ave (4 peaks):				107.4 RPD = 133*
	Corrected Ave (4 peaks):				16.8	Corrected Ave (3 peaks):				45.6 RPD = 92*
Aroclor-1262	1	9.941	-0.001	9313281	14.8	1	10.064	-0.000	26594556	10.4
Aroclor-1262	2	10.259	0.001	10393012	20.1	2	10.499	-0.009	188782123	84.7
Aroclor-1262	3	10.628	0.000	22211448	19.0	3	10.779	-0.001	103960922	22.3
Aroclor-1262	4	11.026	-0.001	21443122	54.7	4	11.348	-0.007	66495533	20.7
Aroclor-1262	5	11.215	0.001	979089	2.0	5	11.930	-0.010	27863095	36.2
	Total Col1Ave (5 peaks):				22.1	Total Col2Ave (5 peaks):				34.9 RPD = 45*
	Corrected Ave (4 peaks):				14.0	Corrected Ave (4 peaks):				22.4 RPD = 46*
Aroclor-1268	1	11.143	-0.000	815111	0.6	1	11.293	-0.001	12219918	2.3
Aroclor-1268	2	11.215	0.002	979089	0.8	2	11.348	-0.013	66495533	12.2
Aroclor-1268	3	11.613	0.014	1079722	1.0	3	11.754	0.000	786967	0.2

Aroclor-1268	4	12.376	-0.008	1537068	0.5		4	12.563	-0.004	1376074	0.1
	Total Col1Ave (4 peaks):			0.7			Total Col2Ave (4 peaks):			3.7	RPD = 136*
	Corrected Ave (3 peaks):			0.6			Corrected Ave (3 peaks):			0.9	RPD = 35

Total PCB Area Col1 (4.548 - 12.689) = 1912760083 Col1 Total PCB = 0.3 ppm*

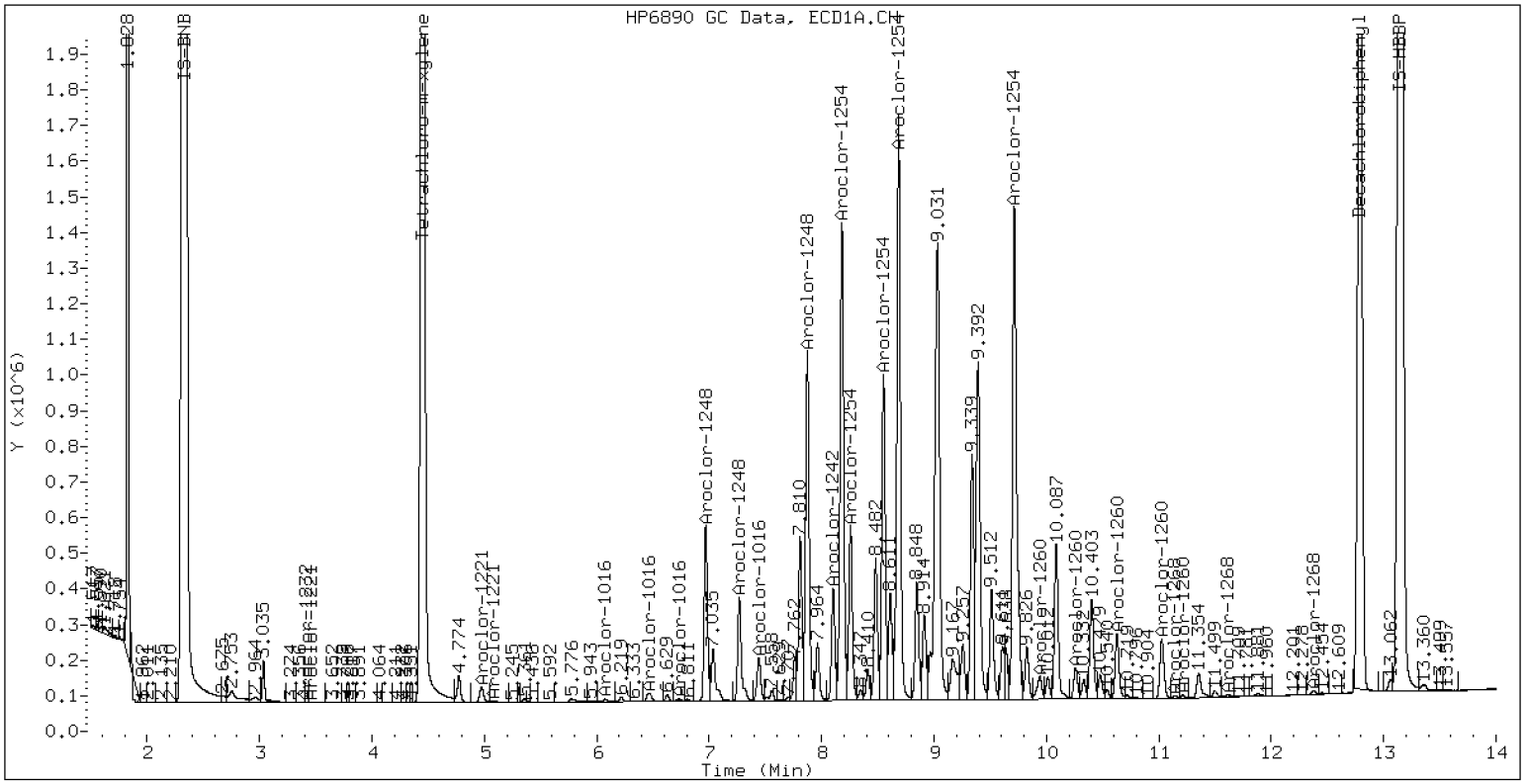
Total PCB Area Col2 (4.548 - 12.689) = 90465791 Col2 Total PCB = 0.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

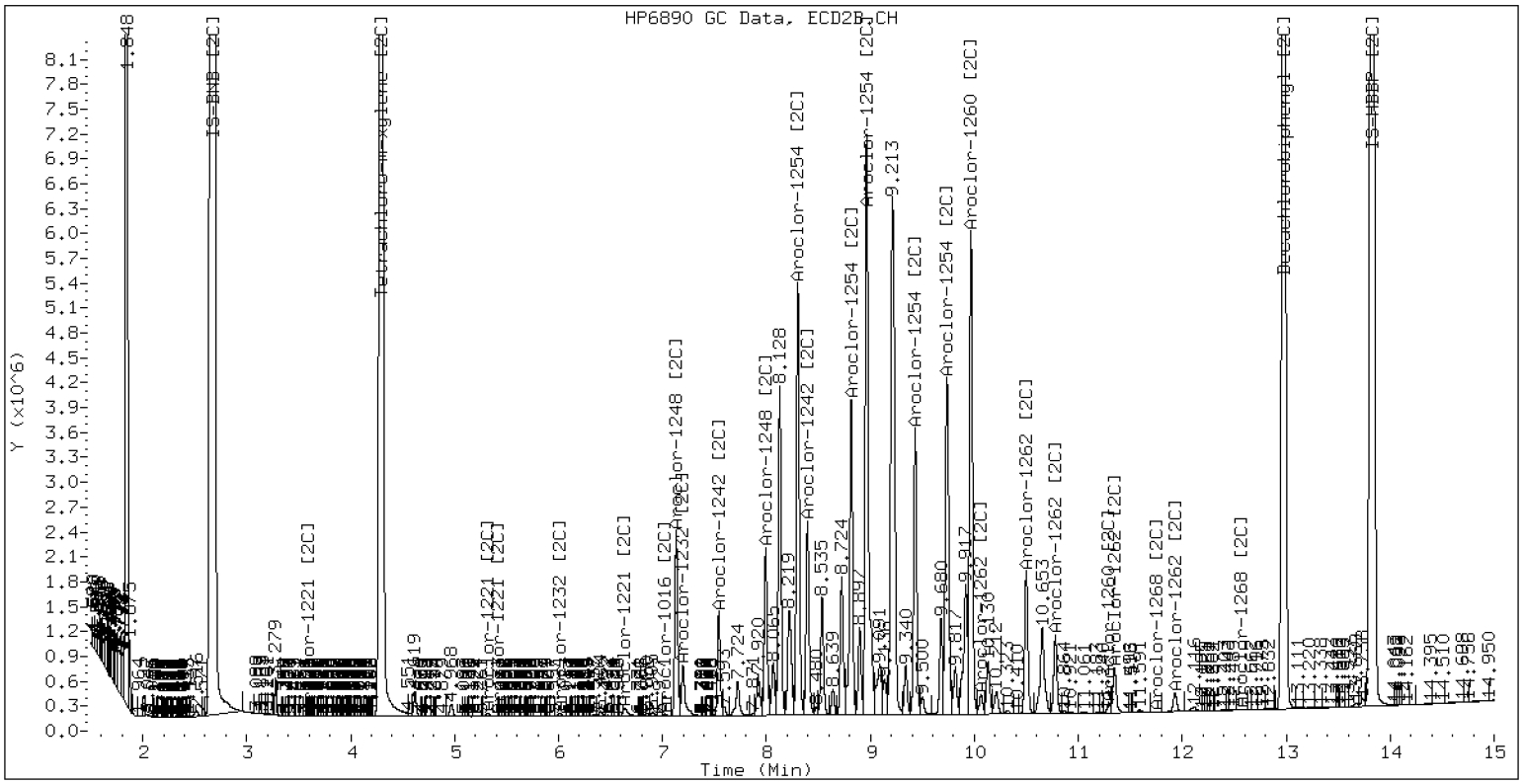
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061421.D AR1254SCV4 15-JUN-2018 00:44 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061421.D AR1254SCV4



ZB-35 Manual Integration: NO

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18061422.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0252	Injection Date:	06/15/18
Lab Sample ID:	SGF0252-SCV5	Injection Time:	01:05
Sequence Name:	AR2162SCV5		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1262	A	250.00	266	0.0610116	0.0648404		6.4	20
Aroclor 1262 [2C]	A	250.00	267	0.0807855	0.0862227		6.9	20
Decachlorobiphenyl	A	40.000	37.2	0.8443871	0.7851444		-7.0	20
Tetrachlorometaxylene	A	40.000	42.2	0.9073273	0.9576861		5.6	20
Decachlorobiphenyl [2C]	A	40.000	38.6	1.2312580	1.1867350		-3.6	20
Tetrachlorometaxylene [2C]	A	40.000	46.8	0.7876038	0.9221146		17.1	20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180614.b/18061422.D
Data file 2: /20180614.b/20180614.b/18061422.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: AR2162SCV5
Client ID:
Injection Date: 15-JUN-2018 01:05
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.451	0.003	479029764	4.294	0.004	2283821759	42.2	46.8	10.4	Tetrachloro-m-xylene
12.789	-0.000	330352002	12.976	-0.001	1583986880	37.2	38.6	3.6	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	105.6	117.1
Decachlorobiphenyl	93.0	96.4

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1000390090	8.7
Hexabromobiphenyl	761926666	841506371	10.4

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	4953445338	12.1
Hexabromobiphenyl	2171332320	2669487036	22.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.073	0.001	6900315	26.2	1	6.026	0.015	71101016	46.3
Aroclor-1016	2	6.474	0.002	19250967	22.2	2	6.646	0.001	75005226	21.3
Aroclor-1016	3	6.733	0.001	5767310	23.9	3	7.025	-0.000	18947948	22.6
Aroclor-1016	4	7.442	0.001	4121135	14.5	4	7.542	0.002	24619805	24.8
	Total Col1Ave (4 peaks):				21.7	Total Col2Ave (4 peaks):				28.7 RPD = 28
	Corrected Ave (3 peaks):				20.2	Corrected Ave (3 peaks):				22.9 RPD = 12
Aroclor-1221	1	3.438	0.001	18582274	256.3	1	3.592	-0.000	47327194	255.0
Aroclor-1221	2	4.980	0.001	22573968	256.4	2	5.307	0.000	257741696	262.8
Aroclor-1221	3	5.086	0.000	68313551	257.8	3	5.374	0.000	45138229	261.6
Aroclor-1221	NS	---			----	4	6.646	-0.001	75005226	262.3
	Total Col1Ave (3 peaks):				256.8	Total Col2Ave (4 peaks):				260.4 RPD = 1
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				259.6
Aroclor-1232	1	3.438	0.003	18582274	402.0	1	3.592	0.002	47327194	403.0
Aroclor-1232	2	6.073	0.002	6900315	61.6	2	6.026	0.015	71101016	96.8
Aroclor-1232	3	6.474	0.003	19250967	52.5	3	6.646	0.003	75005226	47.1
Aroclor-1232	4	6.733	0.002	5767310	56.5	4	7.197	0.001	9156672	28.1
	Total Col1Ave (4 peaks):				143.1	Total Col2Ave (4 peaks):				143.8 RPD = 0
	Corrected Ave (3 peaks):				56.8	Corrected Ave (3 peaks):				57.4 RPD = 1
Aroclor-1242	1	6.073	-0.000	6900315	32.8	1	6.026	0.014	71101016	56.1
Aroclor-1242	2	6.474	0.001	19250967	27.5	2	6.646	0.001	75005226	25.0
Aroclor-1242	3	6.733	0.000	5767310	29.7	3	7.542	0.001	24619805	25.7
Aroclor-1242	4	8.102	0.002	5080481	20.5	4	8.402	-0.006	19389022	19.6
	Total Col1Ave (4 peaks):				27.6	Total Col2Ave (4 peaks):				31.6 RPD = 13
	Corrected Ave (3 peaks):				25.9	Corrected Ave (3 peaks):				23.4 RPD = 10
Aroclor-1248	1	6.970	0.000	4604981	17.1	1	6.646	0.002	75005226	43.8
Aroclor-1248	2	7.268	-0.000	3791847	12.2	2	7.132	-0.002	17058001	14.4
Aroclor-1248	3	7.874	0.008	20465888	42.8	3	7.542	0.001	24619805	19.1
Aroclor-1248	4	8.102	0.002	5080481	14.0	4	7.992	-0.001	16198057	10.6
	Total Col1Ave (4 peaks):				21.6	Total Col2Ave (4 peaks):				22.0 RPD = 2
	Corrected Ave (3 peaks):				14.5	Corrected Ave (3 peaks):				14.7 RPD = 2
Aroclor-1254	1	8.183	0.002	22361947	38.4	1	8.301	-0.000	76144607	42.7
Aroclor-1254	2	8.258	0.000	2784171	15.1	2	8.815	-0.000	17308469	13.2
Aroclor-1254	3	8.551	-0.000	5448380	14.7	3	9.005	0.042	339300841	117.7
Aroclor-1254	4	8.655	-0.030	29945637	41.7	4	9.430	-0.000	486443559	376.6
Aroclor-1254	5	9.714	-0.000	98819680	138.5	5	9.745	0.007	81956095	49.5
	Total Col1Ave (5 peaks):				49.7	Total Col2Ave (5 peaks):				119.9 RPD = 83*
	Corrected Ave (4 peaks):				27.5	Corrected Ave (4 peaks):				55.8 RPD = 68*
Aroclor-1260	1	9.943	0.001	168307468	365.4	1	9.968	0.000	272025069	129.3
Aroclor-1260	2	10.258	0.000	138842067	310.2	2	10.508	0.000	598943858	321.4
Aroclor-1260	3	10.628	-0.001	309870468	284.6	3	10.779	-0.001	1241946052	296.6
Aroclor-1260	4	11.027	0.001	104371757	197.9	4	11.294	-0.000	551494920	456.8
Aroclor-1260	5	11.215	-0.001	131165019	441.5	NS	---			----
	Total Col1Ave (5 peaks):				319.9	Total Col2Ave (4 peaks):				301.0 RPD = 6
	Corrected Ave (4 peaks):				289.5	Corrected Ave (3 peaks):				249.1 RPD = 15
Aroclor-1262	1	9.943	0.001	168307468	266.3	1	10.065	0.001	689872076	268.1
Aroclor-1262	2	10.258	0.000	138842067	267.2	2	10.508	0.000	598943858	267.7
Aroclor-1262	3	10.628	0.000	309870468	264.3	3	10.779	-0.000	1241946052	265.5
Aroclor-1262	4	11.027	0.000	104371757	265.3	4	11.355	-0.000	858866023	267.0
Aroclor-1262	5	11.215	0.000	131165019	267.0	5	11.941	0.001	206785528	267.7
	Total Col1Ave (5 peaks):				266.0	Total Col2Ave (5 peaks):				267.2 RPD = 0
	Corrected Ave (4 peaks):				265.7	Corrected Ave (4 peaks):				267.0 RPD = 0
Aroclor-1268	1	11.143	-0.000	128773114	93.1	1	11.294	-0.001	551494920	104.8
Aroclor-1268	2	11.215	0.002	131165019	103.6	2	11.355	-0.007	858866023	157.0
Aroclor-1268	3	11.614	0.015	52601728	48.6	3	11.754	0.000	29843089	7.0

Aroclor-1268	4	12.382	-0.001	41322531	12.6		4	12.566	-0.002	153693288	10.4
	Total Col1Ave (4 peaks):			64.5		Total Col2Ave (4 peaks):				69.8	RPD = 8
	Corrected Ave (3 peaks):			51.4		Corrected Ave (3 peaks):				40.7	RPD = 23

Total PCB Area Col1 (4.548 - 12.689) = 2424257132 Col1 Total PCB = 0.4 ppm*

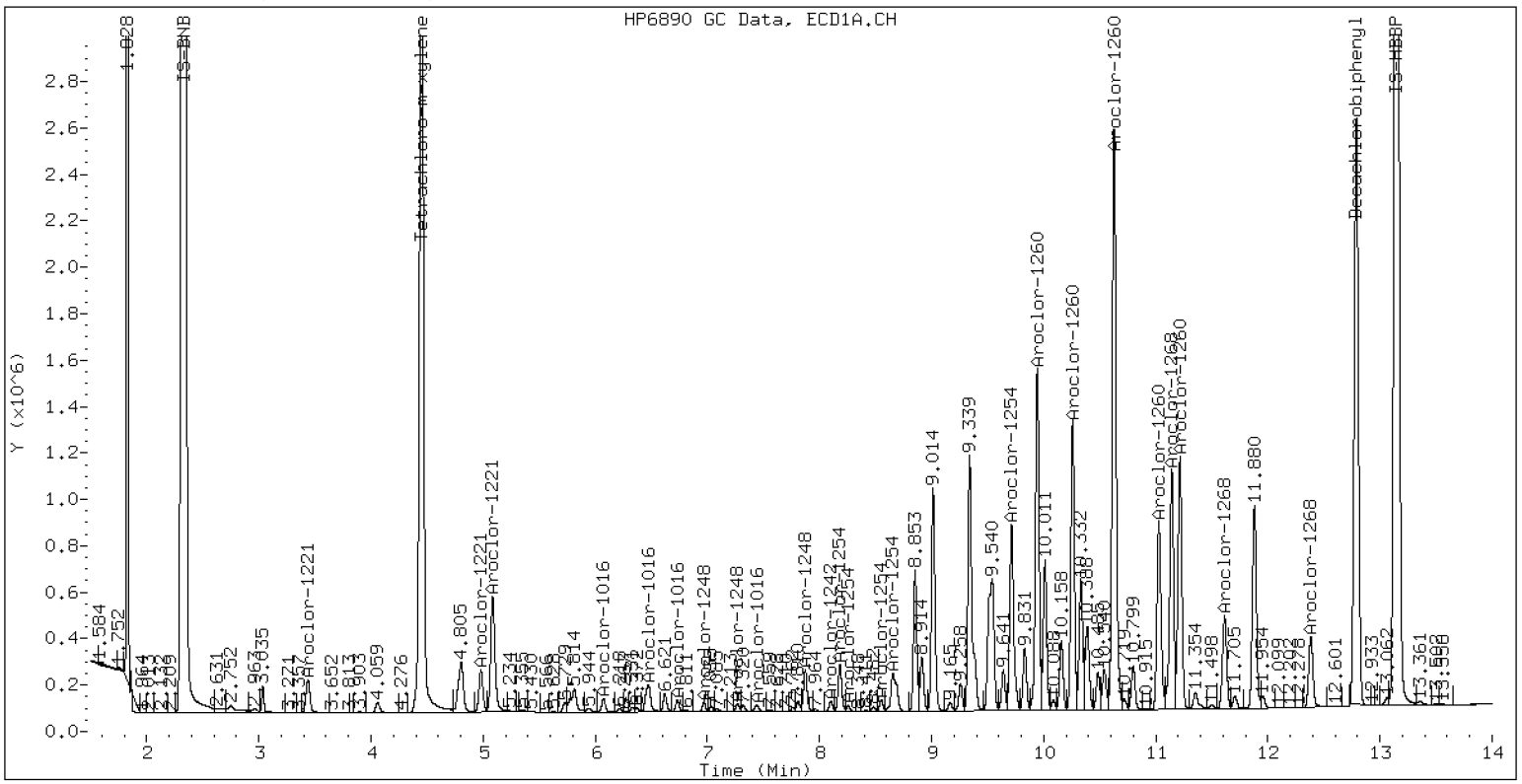
Total PCB Area Col2 (4.548 - 12.689) = 9410630105 Col2 Total PCB = 1.1 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

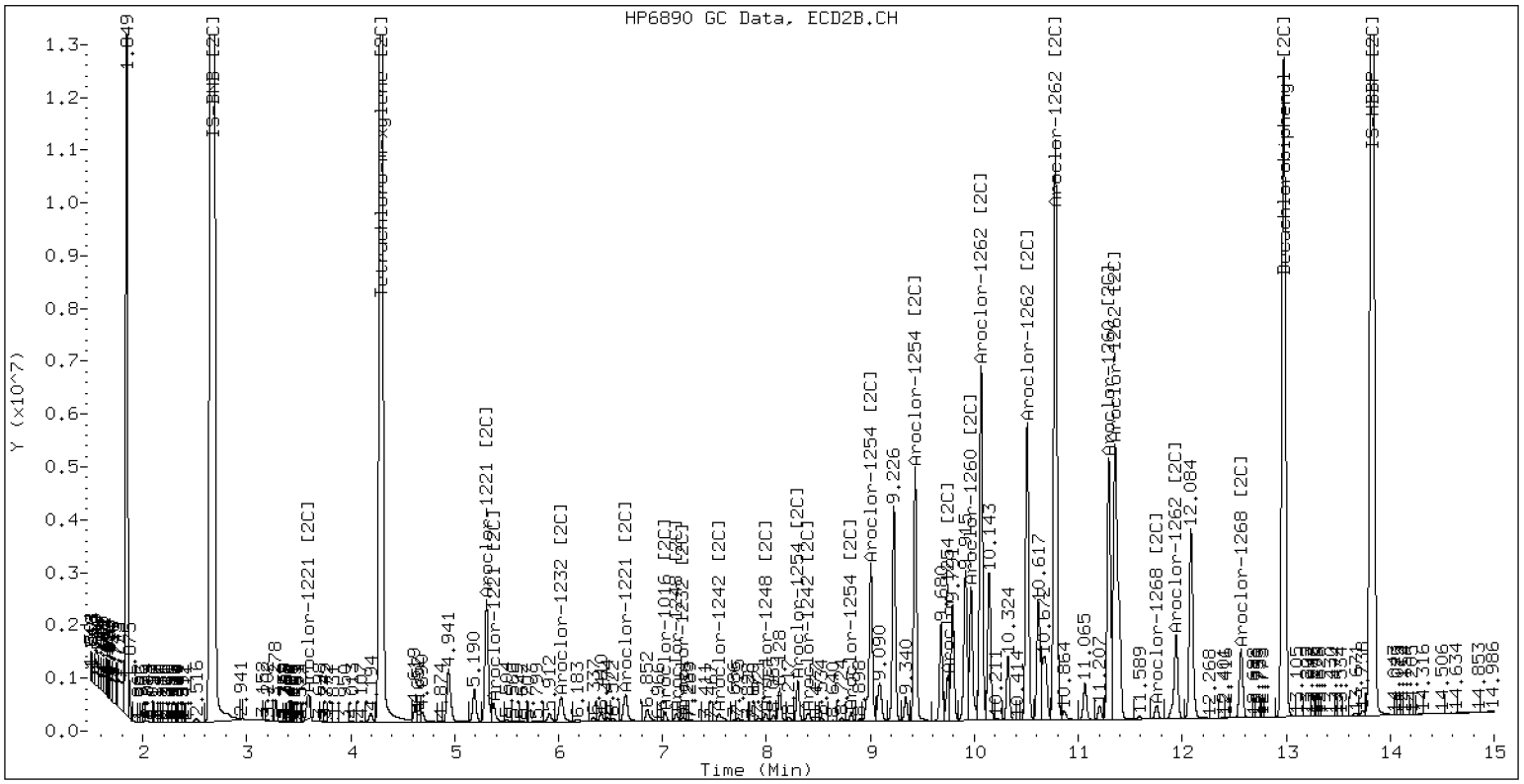
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061422.D AR2162SCV5 15-JUN-2018 01:05 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061422.D AR2162SCV5



ZB-35 Manual Integration: NO

SECOND-SOURCE
CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18061423.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0252	Injection Date:	06/15/18
Lab Sample ID:	SGF0252-SCV6	Injection Time:	01:25
Sequence Name:	AR3268SCV6		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1232	A	250.00	263	0.0125433	0.0134412		5.1	20
Aroclor 1232 [2C]	A	250.00	255	0.0111800	0.0120977		2.2	20
Aroclor 1268	A	250.00	256	0.1667893	0.1647429		2.3	20
Aroclor 1268 [2C]	A	250.00	261	0.2233798	0.2250948		4.4	20
Decachlorobiphenyl	A	40.000	51.7	0.8443871	1.0905610		29.2	20
Tetrachlorometaxylene	A	40.000	41.9	0.9073273	0.9503385		4.7	20
Decachlorobiphenyl [2C]	A	40.000	53.8	1.2312580	1.6575360		34.6	20
Tetrachlorometaxylene [2C]	A	40.000	45.4	0.7876038	0.8932019		13.4	20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180614.b/18061423.D
Data file 2: /20180614.b/20180614.b/18061423.D
Method: ecd5.i\20180614.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: PCB.sub
Quant Method: Internal Std

ARI ID: AR3268SCV6
Client ID:
Injection Date: 15-JUN-2018 01:25
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.451	0.003	490960964	4.295	0.005	2388918141	41.9	45.4	7.9	Tetrachloro-m-xylene
12.790	0.001	457142261	12.976	-0.001	2215400175	51.7	53.8	4.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	104.7	113.4
Decachlorobiphenyl	129.2	134.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1033233784	12.3
Hexabromobiphenyl	761926666	838362051	10.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5349110856	21.1
Hexabromobiphenyl	2171332320	2673123880	23.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
		ZB5 Col					ZB35 Col			
Aroclor-1016	1	6.073	0.001	31659464	116.6	1	6.014	0.002	221772037	133.8
Aroclor-1016	2	6.472	0.000	101967837	113.7	2	6.646	0.001	475818344	124.9
Aroclor-1016	3	6.732	0.001	28671859	115.2	3	7.025	0.001	108164869	119.4
Aroclor-1016	4	7.442	0.000	35280991	120.3	4	7.541	0.001	139937277	130.3
	Total Col1Ave (4 peaks):				116.5	Total Col2Ave (4 peaks):				127.1 RPD = 9
	Corrected Ave (3 peaks):				115.2	Corrected Ave (3 peaks):				124.9 RPD = 8
Aroclor-1221	1	3.438	0.001	11299480	150.9	1	3.593	0.000	29517277	147.2
Aroclor-1221	2	4.980	0.000	17344639	190.7	2	5.307	0.001	208999602	197.3
Aroclor-1221	3	5.086	0.001	54408323	198.8	3	5.375	0.001	27027493	145.1
Aroclor-1221	NS	---			----	4	6.646	-0.001	475818344	1540.6
	Total Col1Ave (3 peaks):				180.1	Total Col2Ave (4 peaks):				507.6 RPD = 95*
	Corrected Ave: < 3 Peaks					Corrected Ave (3 peaks):				163.2
Aroclor-1232	1	3.438	0.003	11299480	236.7	1	3.593	0.002	29517277	232.7
Aroclor-1232	2	6.073	0.002	31659464	273.5	2	6.014	0.003	221772037	279.6
Aroclor-1232	3	6.472	0.002	101967837	269.0	3	6.646	0.002	475818344	276.8
Aroclor-1232	4	6.732	0.002	28671859	271.8	4	7.199	0.002	81789776	232.8
	Total Col1Ave (4 peaks):				262.8	Total Col2Ave (4 peaks):				255.5 RPD = 3
	Corrected Ave (3 peaks):				259.2	Corrected Ave (3 peaks):				247.5 RPD = 5
Aroclor-1242	1	6.073	-0.000	31659464	145.8	1	6.014	0.002	221772037	162.0
Aroclor-1242	2	6.472	-0.000	101967837	141.1	2	6.646	0.001	475818344	146.6
Aroclor-1242	3	6.732	-0.000	28671859	142.9	3	7.541	0.001	139937277	135.1
Aroclor-1242	4	8.099	-0.000	31449415	123.1	4	8.408	-0.000	132911416	124.2
	Total Col1Ave (4 peaks):				138.2	Total Col2Ave (4 peaks):				142.0 RPD = 3
	Corrected Ave (3 peaks):				135.7	Corrected Ave (3 peaks):				135.3 RPD = 0
Aroclor-1248	1	6.970	0.000	22994495	82.7	1	6.646	0.002	475818344	257.6
Aroclor-1248	2	7.268	0.000	28007484	87.5	2	7.134	0.000	102494385	80.2
Aroclor-1248	3	7.864	-0.002	37737705	76.5	3	7.541	0.000	139937277	100.4
Aroclor-1248	4	8.099	-0.000	31449415	84.0	4	7.992	-0.001	122734085	74.0
	Total Col1Ave (4 peaks):				82.7	Total Col2Ave (4 peaks):				128.0 RPD = 43*
	Corrected Ave (3 peaks):				81.1	Corrected Ave (3 peaks):				84.9 RPD = 5
Aroclor-1254	1	8.180	-0.001	11363488	18.9	1	8.302	0.000	26063001	13.5
Aroclor-1254	2	8.258	0.000	5124076	26.9	2	8.816	0.001	25021714	17.7
Aroclor-1254	3	8.552	0.001	6923872	18.1	3	8.963	-0.000	47888583	15.4
Aroclor-1254	4	8.687	0.001	11952470	16.1	4	9.432	0.001	21625261	15.5
Aroclor-1254	5	9.715	0.001	4543540	6.2	5	9.734	-0.003	24004872	13.4
	Total Col1Ave (5 peaks):				17.2	Total Col2Ave (5 peaks):				15.1 RPD = 13
	Corrected Ave (4 peaks):				14.8	Corrected Ave (4 peaks):				14.5 RPD = 2
Aroclor-1260	1	9.943	0.000	86916636	189.4	1	9.968	-0.000	14770548	7.0
Aroclor-1260	2	10.258	-0.000	8591531	19.3	2	10.509	0.001	389834987	208.9
Aroclor-1260	3	10.628	-0.001	57664224	53.2	3	10.779	-0.002	238660754	56.9
Aroclor-1260	4	11.029	0.003	2052869	3.9	4	11.295	0.001	1416887151	1172.1
Aroclor-1260	5	11.214	-0.002	370950716	1253.3	NS	---			----
	Total Col1Ave (5 peaks):				303.8	Total Col2Ave (4 peaks):				361.2 RPD = 17
	Corrected Ave (4 peaks):				66.4	Corrected Ave (3 peaks):				90.9 RPD = 31
Aroclor-1262	1	9.943	0.001	86916636	138.0	1	10.065	0.000	354299759	137.5
Aroclor-1262	2	10.258	0.000	8591531	16.6	2	10.509	0.001	389834987	174.0
Aroclor-1262	3	10.628	0.001	57664224	49.4	3	10.779	-0.001	238660754	51.0
Aroclor-1262	4	11.029	0.002	2052869	5.2	4	11.361	0.006	1645085160	510.6
Aroclor-1262	5	11.214	-0.001	370950716	757.9	5	11.896	-0.044	389436785	503.4
	Total Col1Ave (5 peaks):				193.4	Total Col2Ave (5 peaks):				275.3 RPD = 35
	Corrected Ave (4 peaks):				52.3	Corrected Ave (4 peaks):				216.5 RPD = 122*
Aroclor-1268	1	11.142	-0.000	367683089	266.9	1	11.295	0.000	1416887151	269.0
Aroclor-1268	2	11.214	0.001	370950716	294.0	2	11.361	-0.000	1645085160	300.4
Aroclor-1268	3	11.599	0.000	257524021	238.6	3	11.753	-0.000	1052201725	245.0

```
Aroclor-1268 4  12.383  -0.001 730269906   223.1      4   12.568   0.000 3407152826   229.9
      Total Col1Ave (4 peaks):   255.7       Total Col2Ave (4 peaks):   261.1   RPD = 2
      Corrected Ave (3 peaks):   242.9       Corrected Ave (3 peaks):   248.0   RPD = 2
```

Total PCB Area Col1 (4.548 - 12.689) = 3036965730 Col1 Total PCB = 0.5 ppm*

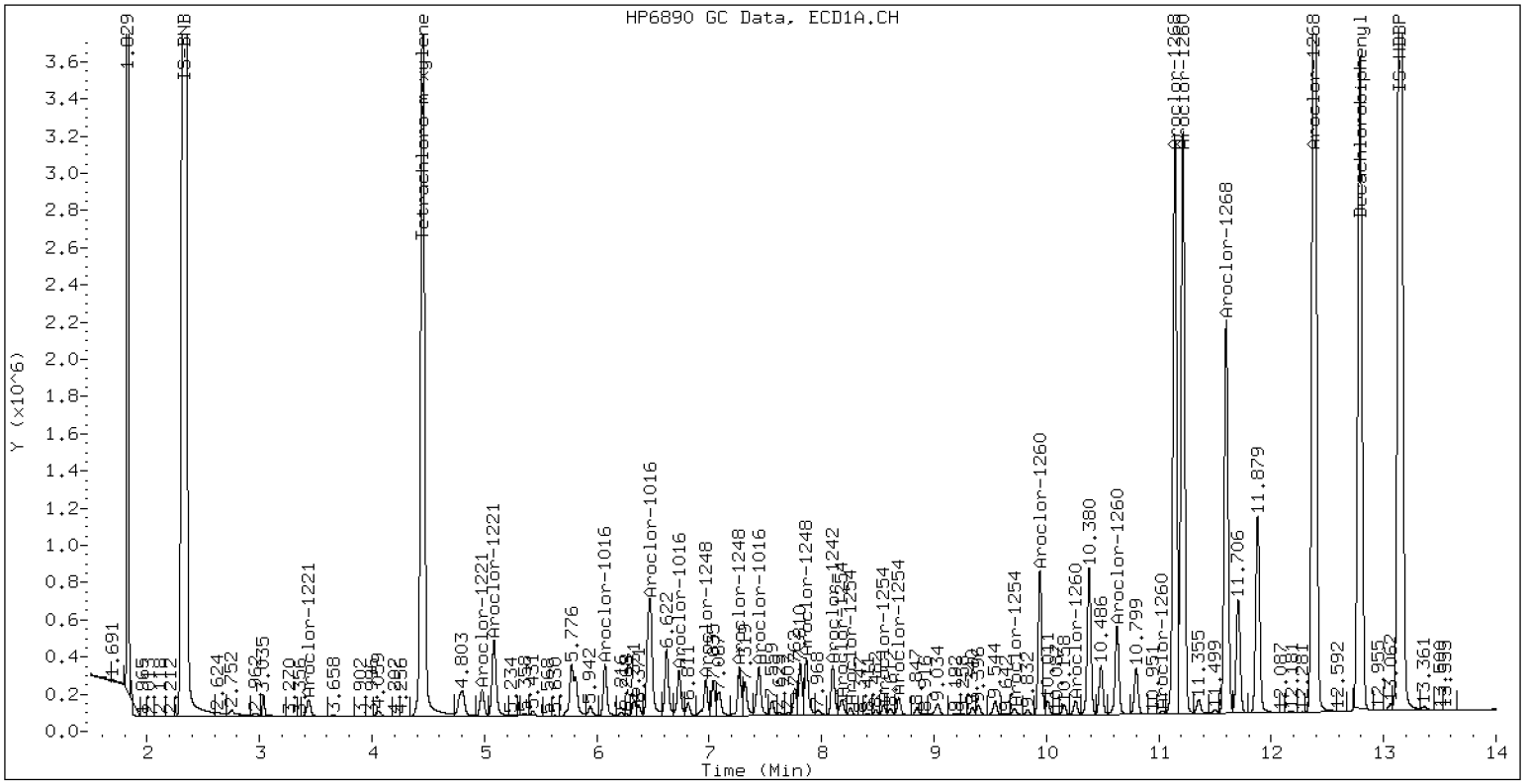
Total PCB Area Col2 (4.548 - 12.689) = 2998883511 Col2 Total PCB = 0.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

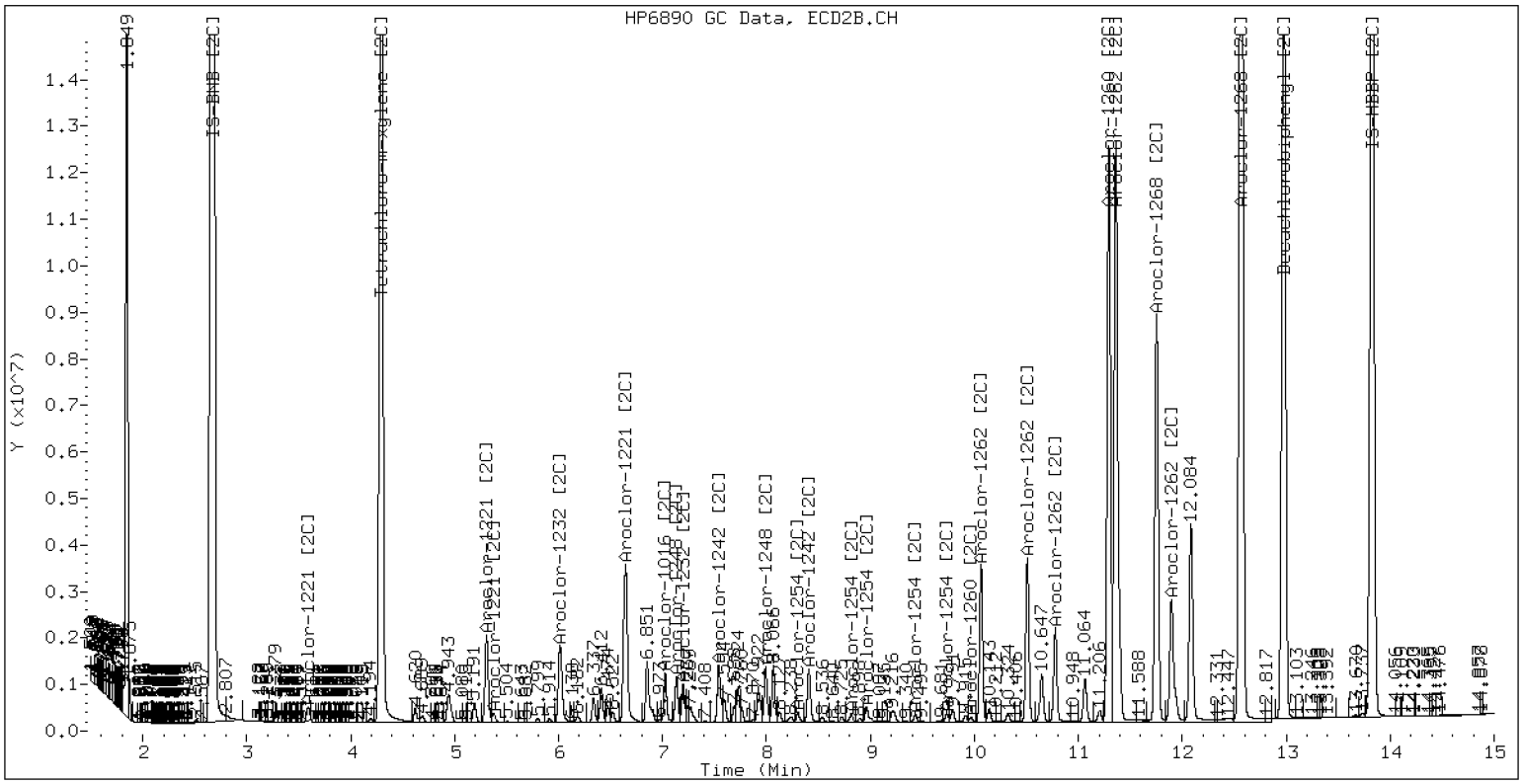
PCB Dual Column Chromatograms

ECD5-ZB5 /20180614.b/18061423.D AR3268SCV6 15-JUN-2018 01:25 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180614.b/20180614.b/18061423.D AR3268SCV6



ZB-35 Manual Integration: NO

CONTINUING CALIBRATION CHECK

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18062315ECD5.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0299	Injection Date:	06/23/18
Lab Sample ID:	SGF0299-CCV1	Injection Time:	17:35
Sequence Name:	AR1248CCV1		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1248	A	250.00	264	0.0283695	0.0300084		5.7	20
Aroclor-1248 (1)	A	250.00	262		0.0225563			
Aroclor-1248 (2)	A	250.00	263		0.0261056			
Aroclor-1248 (3)	A	250.00	266		0.0405678			
Aroclor-1248 (4)	A	250.00	266		0.0308039			
Aroclor 1248 [2C]	A	250.00	295	0.0230971	0.0272883		18.0	20
Aroclor-1248 (1) [2C]	A	250.00	287		0.0317534			
Aroclor-1248 (2) [2C]	A	250.00	293		0.0224460			
Aroclor-1248 (3) [2C]	A	250.00	292		0.0243629			
Aroclor-1248 (4) [2C]	A	250.00	308		0.0305910			
Decachlorobiphenyl	A	40.000	42.1	0.8443871	0.8883855		5.3	20
Tetrachlorometaxylene	A	40.000	38.4	0.9073273	0.8721685		-4.0	20
Decachlorobiphenyl [2C]	A	40.000	44.1	1.2312580	1.3583100		10.3	20
Tetrachlorometaxylene [2C]	A	40.000	41.2	0.7876038	0.8108812		3.0	20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180623.b/18062315ECD5.D
Data file 2: /20180623.b/20180623.b/18062315ECD5.D
Method: ecd5.i\20180623.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, VTS
Compound Sublist: AR1248.sub
Quant Method: Internal Std

ARI ID: AR1248CCV1
Client ID:
Injection Date: 23-JUN-2018 17:35
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.443	-0.004	513431163	4.287	-0.005	2140880061	38.4	41.2	6.9	Tetrachloro-m-xylene
12.783	-0.001	395439157	12.974	0.000	1777309059	42.1	44.1	4.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	96.1	103.0
Decachlorobiphenyl	105.2	110.3

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1177367337	27.9
Hexabromobiphenyl	761926666	890242366	16.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5280378895	19.5
Hexabromobiphenyl	2171332320	2616940461	20.5

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	6.963	0.000	82990704	261.9	1	6.636	0.000	523968790	287.3
Aroclor-1248	2	7.261	0.000	96049708	263.4	2	7.129	0.000	370385988	293.4
Aroclor-1248	3	7.859	0.000	149259902	265.5	3	7.536	0.000	402016395	292.2
Aroclor-1248	4	8.093	0.000	113335750	265.7	4	7.988	0.000	504788112	308.5

Total Col1Ave (4 peaks): 264.2 Total Col2Ave (4 peaks): 295.4 RPD = 11

Corrected Ave (3 peaks): 263.6 Corrected Ave (3 peaks): 291.0 RPD = 10

CalAmt %D: 5.7 CalAmt %D: 18.1

Total PCB Area Col1 (4.547 - 12.684) = 1786819511 Col1 Total PCB = 0.3 ppm*

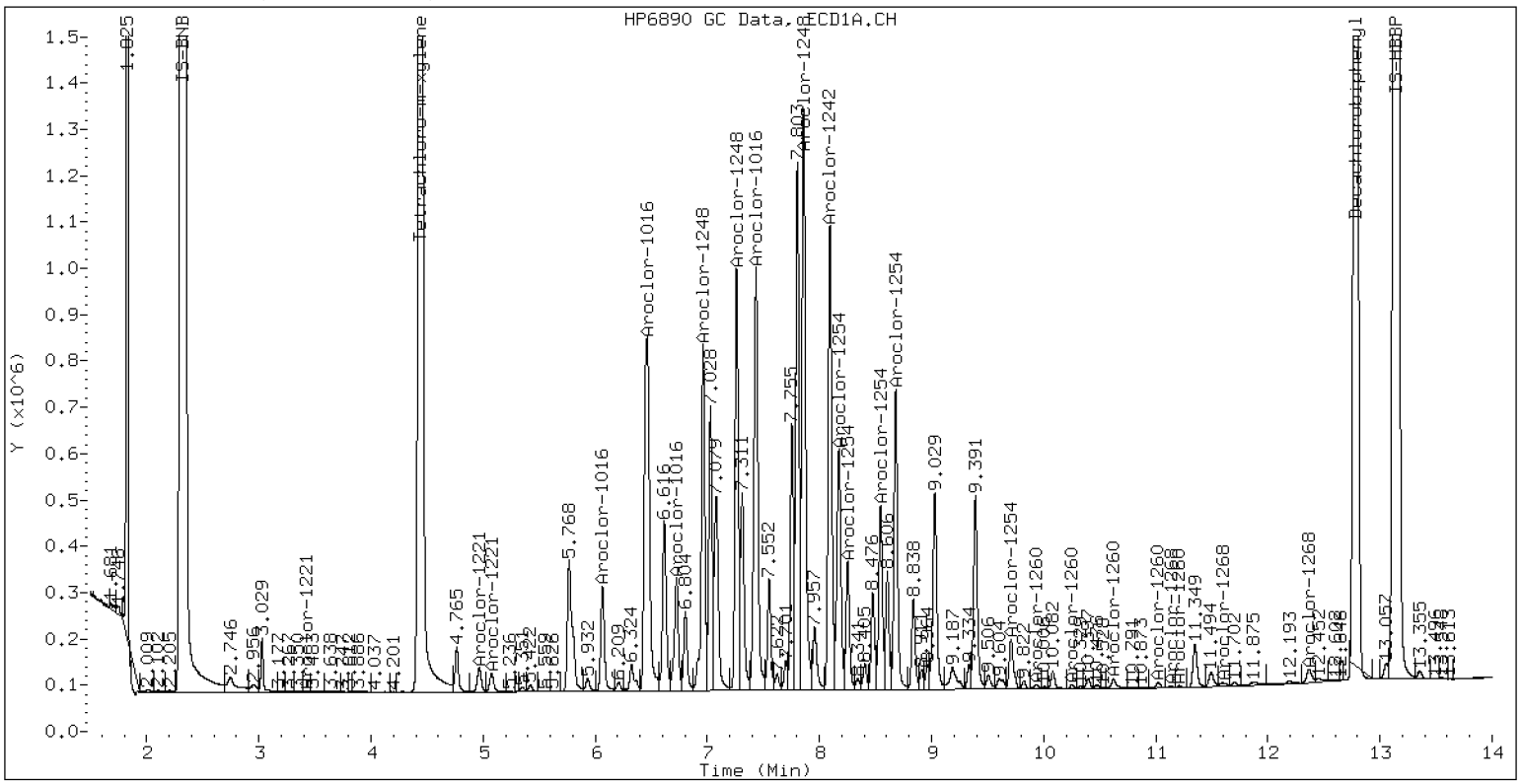
Total PCB Area Col2 (4.547 - 12.684) = 6583657900 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

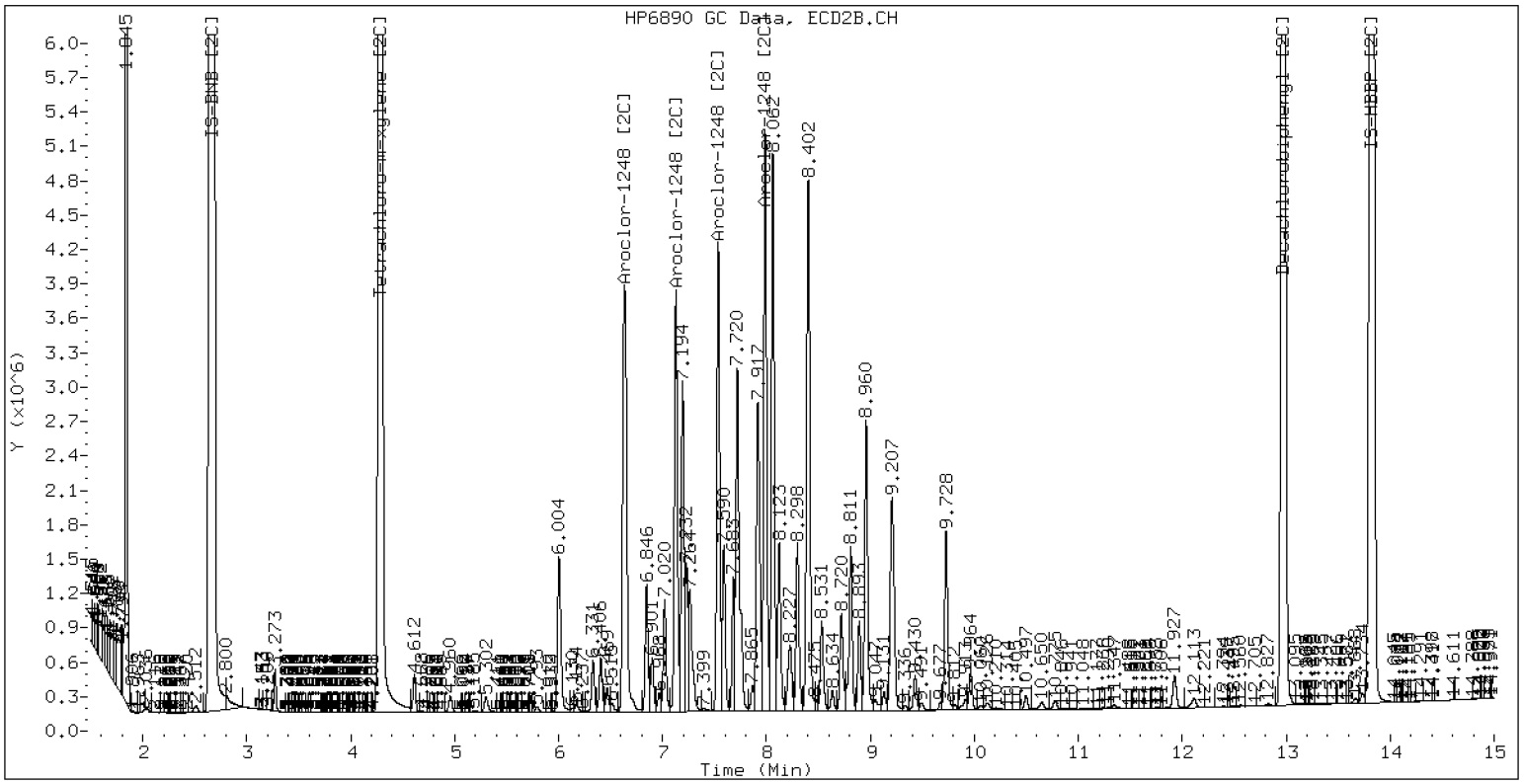
PCB Dual Column Chromatograms

ECD5-ZB5 /20180623.b/18062315ECD5.D AR1248CCV1 23-JUN-2018 17:35 2ul VTS



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180623.b/20180623.b/18062315ECD5.D AR1248CCV1



ZB-35 Manual Integration: NO

CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18062316ECD5.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0299	Injection Date:	06/23/18
Lab Sample ID:	SGF0299-CCV2	Injection Time:	17:56
Sequence Name:	AR1660CCV2		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT	
Aroclor 1016	A	250.00	255	0.0331041	0.0340336		1.8	20	
Aroclor-1016 (1)	A	250.00	251	0.0210218	0.0211388		0.4		
Aroclor-1016 (2)	A	250.00	261	0.0694139	0.0725226		4.4		
Aroclor-1016 (3)	A	250.00	254	0.0192640	0.0196165		1.6		
Aroclor-1016 (4)	A	250.00	252	0.0227168	0.0228564		0.8		
Aroclor 1016 [2C]	A	250.00	303	0.0278375	0.0335275		21.0	20	*
Aroclor-1016 (1) [2C]	A	250.00	291	0.0247868	0.0288727		16.4		
Aroclor-1016 (2) [2C]	A	250.00	302	0.0569545	0.0687306		20.8		
Aroclor-1016 (3) [2C]	A	250.00	311	0.0135527	0.0168490		24.4		
Aroclor-1016 (4) [2C]	A	250.00	306	0.0160561	0.0196576		22.4		
Aroclor 1260	A	250.00	259	0.0536471	0.0557190		3.8	20	
Aroclor-1260 (1)	A	250.00	260	0.0437892	0.0455995		4.0		
Aroclor-1260 (2)	A	250.00	260	0.0425449	0.0442823		4.0		
Aroclor-1260 (3)	A	250.00	260	0.1035155	0.1075169		4.0		
Aroclor-1260 (4)	A	250.00	260	0.0501426	0.0522053		4.0		
Aroclor-1260 (5)	A	250.00	257	0.0282431	0.0289909		2.8		
Aroclor 1260 [2C]	A	250.00	276	0.0701404	0.0776314		10.4	20	
Aroclor-1260 (1) [2C]	A	250.00	282	0.0630560	0.0712588		12.8		
Aroclor-1260 (2) [2C]	A	250.00	273	0.0558539	0.0610535		9.2		
Aroclor-1260 (3) [2C]	A	250.00	276	0.1254738	0.1387373		10.4		
Aroclor-1260 (4) [2C]	A	250.00	273	0.0361779	0.0394760		9.2		
Decachlorobiphenyl	A	40.000	39.9	0.8443871	0.8423892		-0.3	20	
Tetrachlorometaxylene	A	40.000	42.1	0.9073273	0.9550486		5.3	20	
Decachlorobiphenyl [2C]	A	40.000	41.2	1.2312580	1.2667130		3.0	20	
Tetrachlorometaxylene [2C]	A	40.000	45.9	0.7876038	0.9045009		14.8	20	

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180623.b/18062316ECD5.D
Data file 2: /20180623.b/20180623.b/18062316ECD5.D
Method: ecd5.i\20180623.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, VTS
Compound Sublist: AR1660.sub
Quant Method: Internal Std

ARI ID: AR1660CCV2
Client ID:
Injection Date: 23-JUN-2018 17:56
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.446	-0.001	640417890	4.290	-0.002	2655765971	42.1	45.9	8.7	Tetrachloro-m-xylene
12.785	0.000	443718835	12.974	0.000	1964918621	39.9	41.2	3.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	105.3	114.8
Decachlorobiphenyl	99.8	102.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1341120901	45.7
Hexabromobiphenyl	761926666	1053477401	38.3

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5872334673	32.9
Hexabromobiphenyl	2171332320	3102390845	42.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.068	-0.001	88592847	251.4	1	6.010	0.001	529843596	291.2
Aroclor-1016	2	6.468	-0.001	303942307	261.2	2	6.641	-0.001	1261278519	301.7
Aroclor-1016	3	6.728	-0.000	82212866	254.6	3	7.022	-0.001	309197294	310.8
Aroclor-1016	4	7.437	-0.001	95791129	251.5	4	7.537	-0.000	360736614	306.1
Total Col1Ave (4 peaks):		254.7				Total Col2Ave (4 peaks):			302.4	RPD = 17
Corrected Ave (3 peaks):		252.5				Corrected Ave (3 peaks):			299.7	RPD = 17
CalAmt %D:		1.9				CalAmt %D:			21.0	
Aroclor-1260	1	9.938	-0.001	150118703	260.3	1	9.965	0.000	690852100	282.5
Aroclor-1260	2	10.253	-0.001	145782507	260.2	2	10.504	-0.000	591911710	273.3
Aroclor-1260	3	10.624	-0.000	353958224	259.7	3	10.777	-0.000	1345054212	276.4
Aroclor-1260	4	11.022	-0.000	171865903	260.3	4	11.291	-0.001	382718717	272.8
Aroclor-1260	5	11.210	-0.001	95441455	256.6	NS	---			----
Total Col1Ave (5 peaks):		259.4				Total Col2Ave (4 peaks):			276.3	RPD = 6
Corrected Ave (4 peaks):		259.2				Corrected Ave (3 peaks):			274.2	RPD = 6
CalAmt %D:		3.8				CalAmt %D:			10.5	

Total PCB Area Col1 (4.547 - 12.684) = 4192799567 Col1 Total PCB = 0.7 ppm*

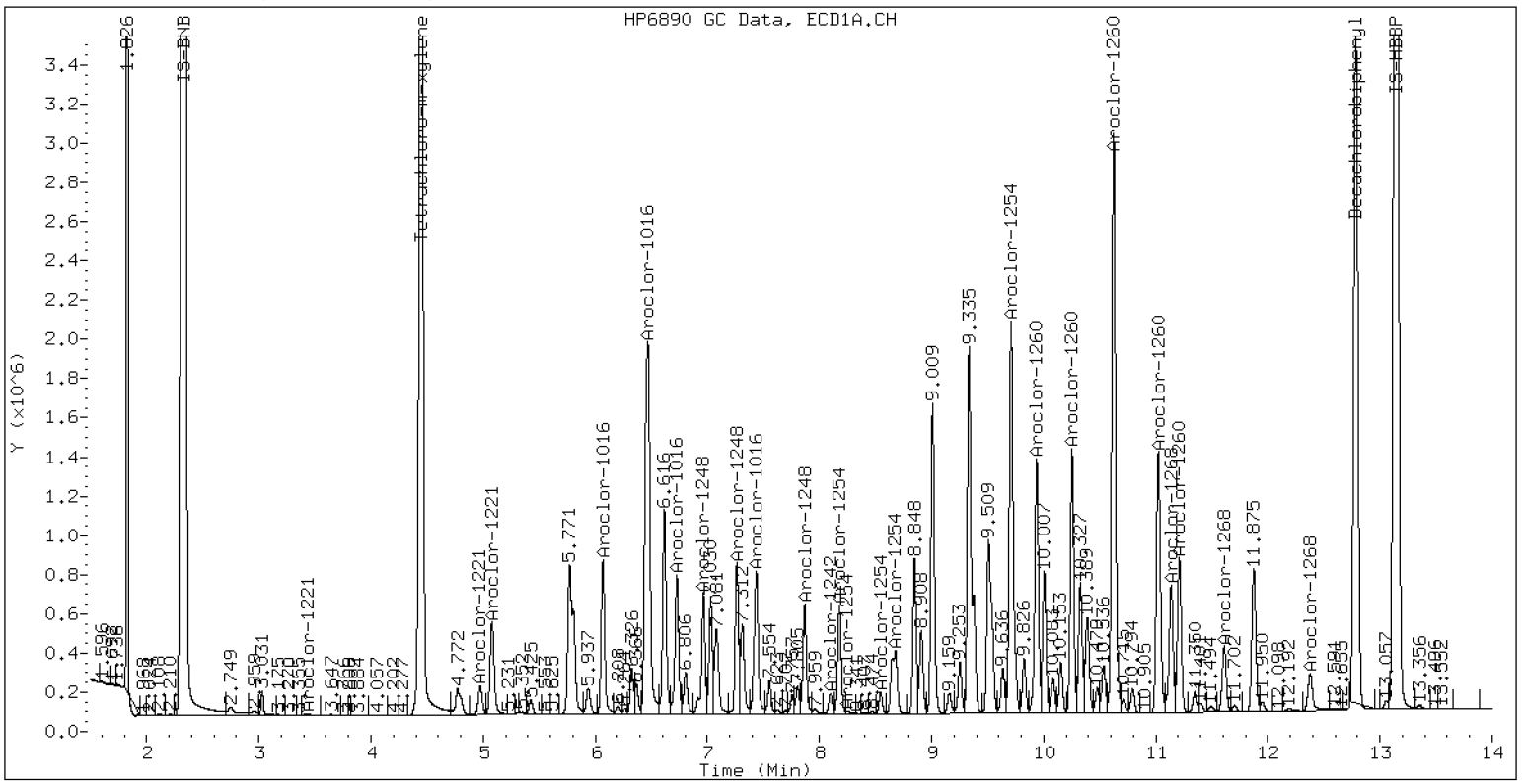
Total PCB Area Col2 (4.547 - 12.684) = 10587078765 Col2 Total PCB = 1.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

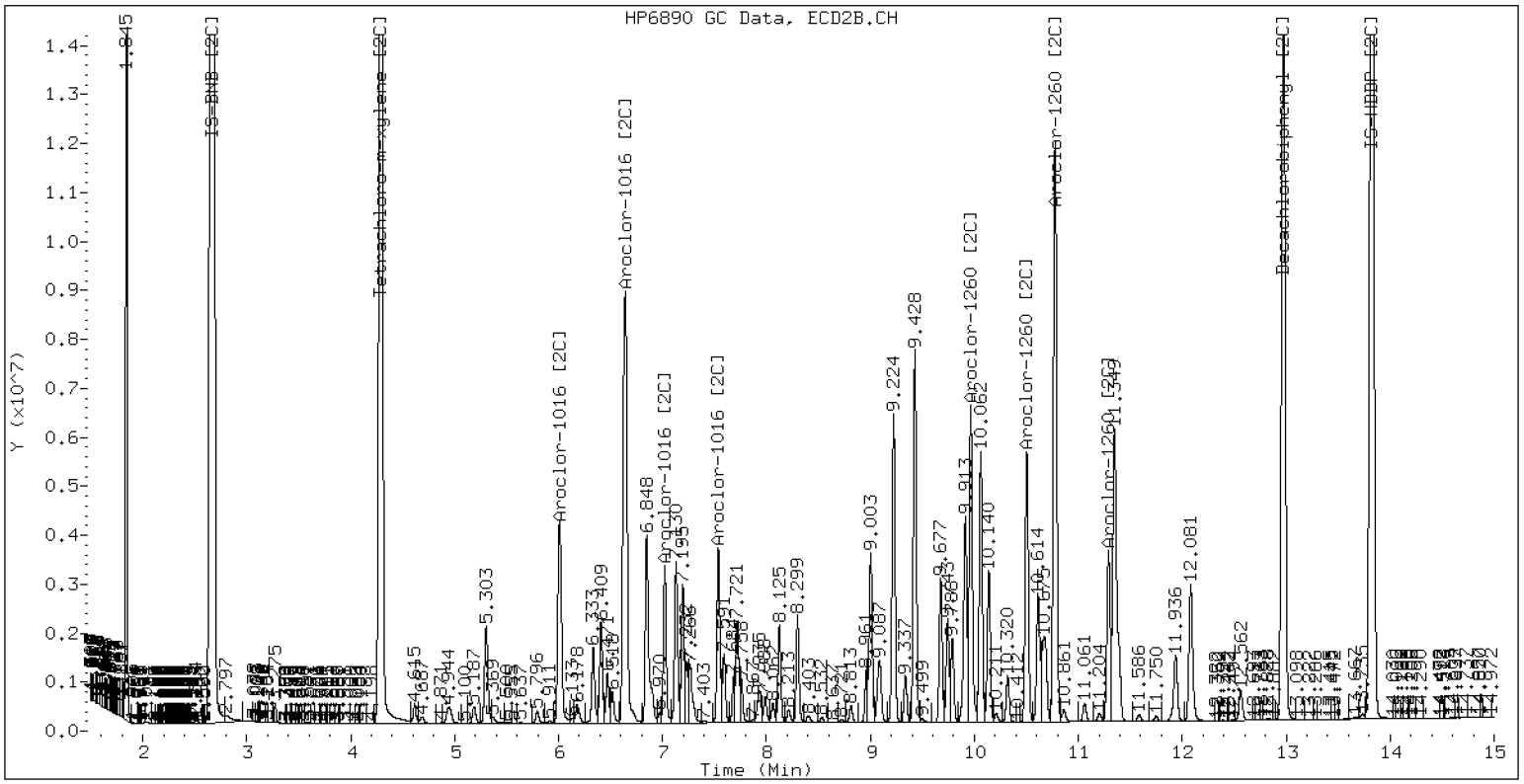
PCB Dual Column Chromatograms

ECD5-ZB5 /20180623.b/18062316ECD5.D AR1660CCV2 23-JUN-2018 17:56 2ul VTS



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180623.b/20180623.b/18062316ECD5.D AR1660CCV2



ZB-35 Manual Integration: NO

CONTINUING CALIBRATION CHECK

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18062325ECD5.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0299	Injection Date:	06/23/18
Lab Sample ID:	SGF0299-CCV3	Injection Time:	20:58
Sequence Name:	AR1242CCV3		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1242	A	250.00	255	0.0270222	0.0278347		2.0	20
Aroclor-1242 (1)	A	250.00	250		0.0168081			
Aroclor-1242 (2)	A	250.00	264		0.0591045			
Aroclor-1242 (3)	A	250.00	269		0.0166972			
Aroclor-1242 (4)	A	250.00	237		0.0187291			
Aroclor 1242 [2C]	A	250.00	244	0.0251264	0.0246705		-2.5	20
Aroclor-1242 (1) [2C]	A	250.00	264		0.0216010			
Aroclor-1242 (2) [2C]	A	250.00	246		0.0478132			
Aroclor-1242 (3) [2C]	A	250.00	236		0.0146202			
Aroclor-1242 (4) [2C]	A	250.00	229		0.0146477			
Decachlorobiphenyl	A	40.000	38.9	0.8443871	0.8213542		-2.8	20
Tetrachlorometaxylene	A	40.000	37.9	0.9073273	0.8590991		-5.3	20
Decachlorobiphenyl [2C]	A	40.000	34.2	1.2312580	1.0539170		-14.5	20
Tetrachlorometaxylene [2C]	A	40.000	40.2	0.7876038	0.7923693		0.5	20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180623.b/18062325ECD5.D
Data file 2: /20180623.b/20180623.b/18062325ECD5.D
Method: ecd5.i\20180623.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, VTS
Compound Sublist: AR1242.sub
Quant Method: Internal Std

ARI ID: AR1242CCV3
Client ID:
Injection Date: 23-JUN-2018 20:58
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.448	0.000	474198200	4.292	0.000	2084125306	37.9	40.2	6.1	Tetrachloro-m-xylene
12.785	0.000	260751020	12.974	-0.000	905086388	38.9	34.2	12.8	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	94.7	100.6
Decachlorobiphenyl	97.3	85.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1103943355	20.0
Hexabromobiphenyl	761926666	634929454	-16.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5260488815	19.1
Hexabromobiphenyl	2171332320	1717566762	-20.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	6.069	0.000	57984825	249.9	1	6.010	0.000	355099009	263.7
Aroclor-1242	2	6.469	0.000	203900000	264.1	2	6.643	0.000	786001811	246.3
Aroclor-1242	3	6.729	0.000	57602355	268.7	3	7.539	0.000	240342647	236.0
Aroclor-1242	4	8.095	0.000	64611993	236.7	4	8.405	0.000	240793867	228.9

Total Col1Ave (4 peaks): 254.8 Total Col2Ave (4 peaks): 243.7 RPD = 4

Corrected Ave (3 peaks): 250.2 Corrected Ave (3 peaks): 237.0 RPD = 5

CalAmt %D: 1.9 CalAmt %D: -2.5

Total PCB Area Col1 (4.547 - 12.684) = 1619755676 Col1 Total PCB = 0.3 ppm*

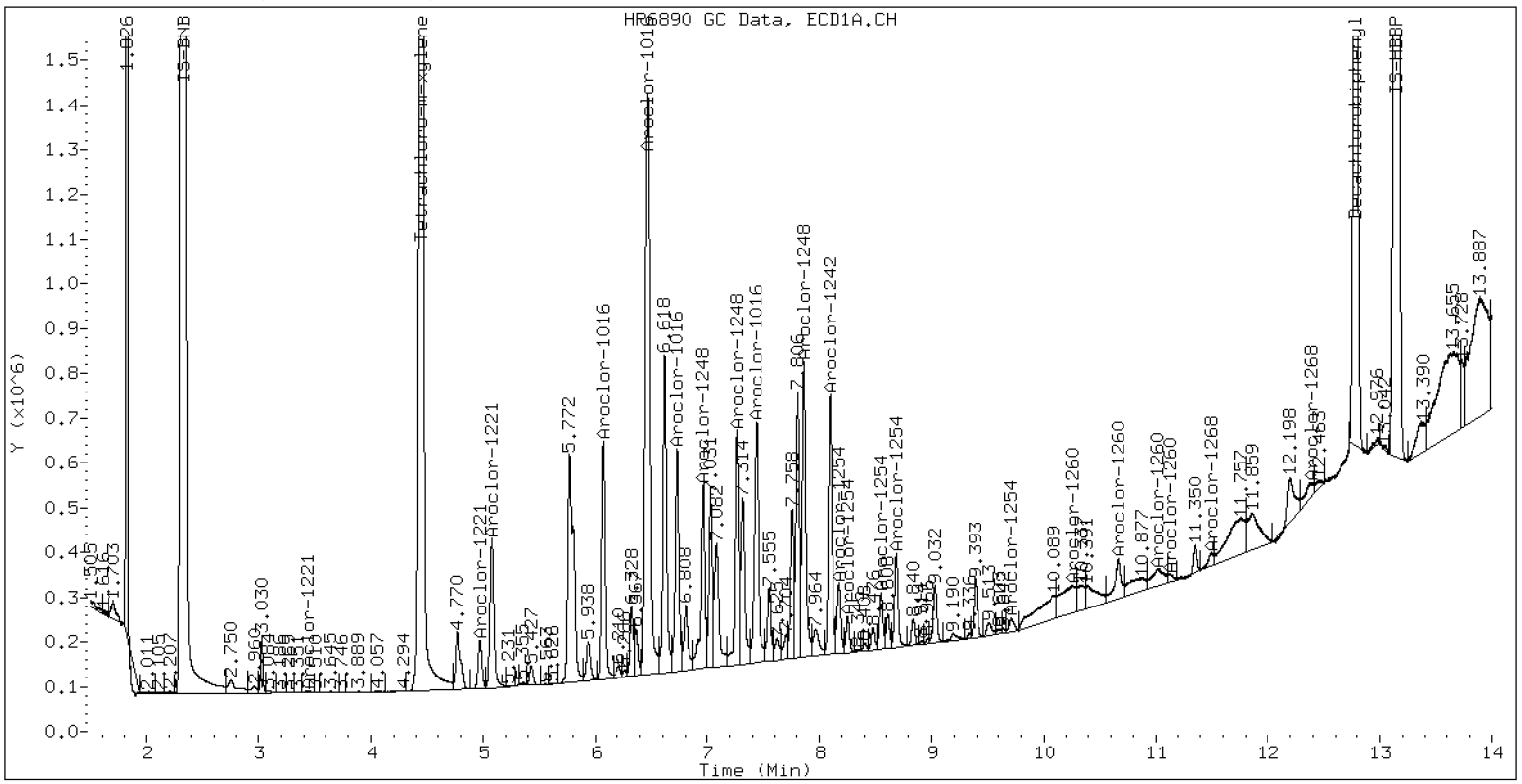
Total PCB Area Col2 (4.547 - 12.684) = 4309791212 Col2 Total PCB = 0.5 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

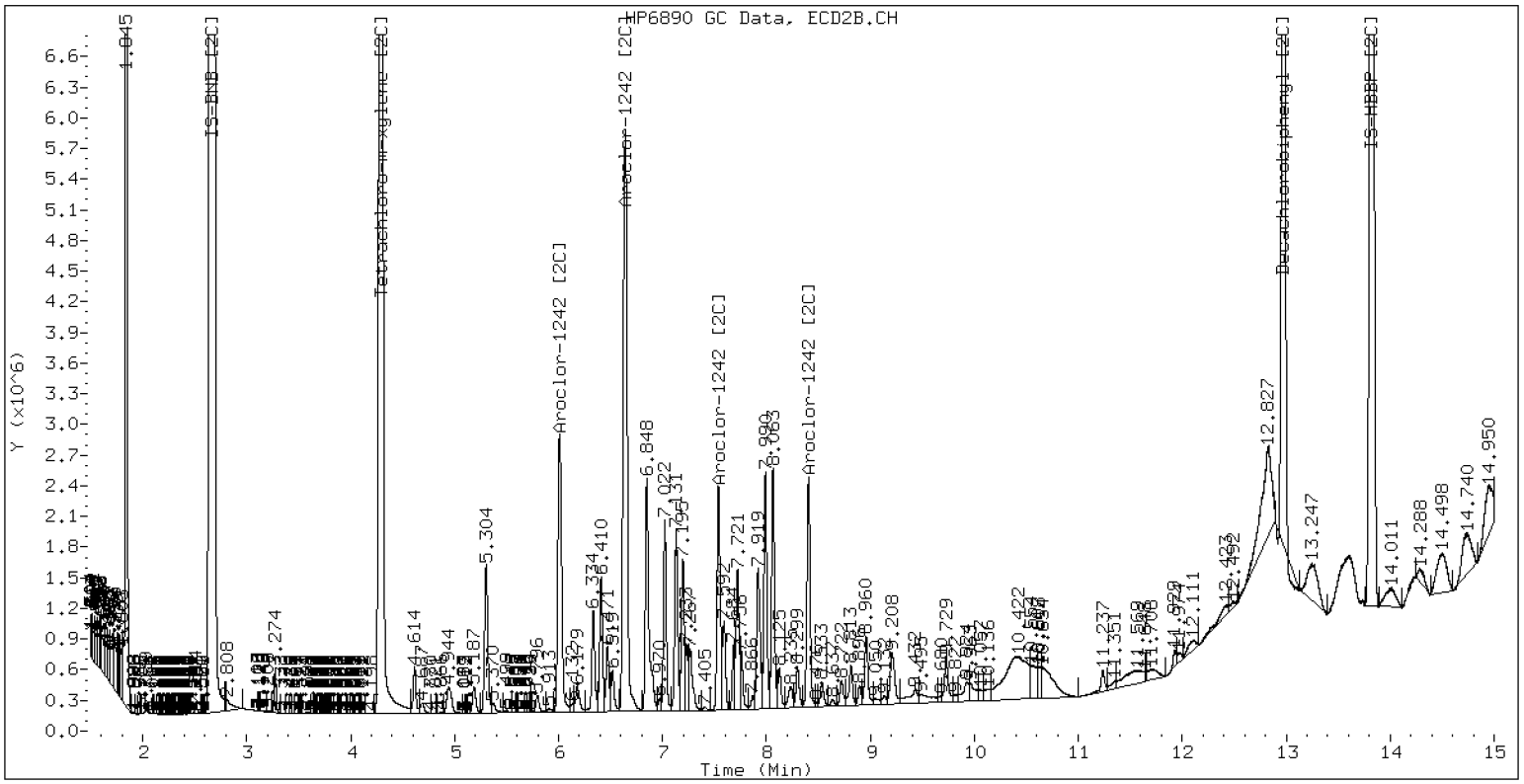
PCB Dual Column Chromatograms

ECD5-ZB5 /20180623.b/18062325ECD5.D AR1242CCV3 23-JUN-2018 20:58 2ul VTS



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180623.b/20180623.b/18062325ECD5.D AR1242CCV3



ZB-35 Manual Integration: NO

CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18062326ECD5.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0299	Injection Date:	06/23/18
Lab Sample ID:	SGF0299-CCV4	Injection Time:	21:19
Sequence Name:	AR1660CCV4		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT	
Aroclor 1016	A	250.00	270	0.0331041	0.0358211		7.9	20	
Aroclor-1016 (1)	A	250.00	253	0.0210218	0.0213126		1.2		
Aroclor-1016 (2)	A	250.00	272	0.0694139	0.0754779		8.8		
Aroclor-1016 (3)	A	250.00	276	0.0192640	0.0212605		10.4		
Aroclor-1016 (4)	A	250.00	278	0.0227168	0.0252334		11.2		
Aroclor 1016 [2C]	A	250.00	288	0.0278375	0.0325067		15.2	20	
Aroclor-1016 (1) [2C]	A	250.00	295	0.0247868	0.0292839		18.0		
Aroclor-1016 (2) [2C]	A	250.00	297	0.0569545	0.0676597		18.8		
Aroclor-1016 (3) [2C]	A	250.00	290	0.0135527	0.0157530		16.0		
Aroclor-1016 (4) [2C]	A	250.00	270	0.0160561	0.0173300		8.0		
Aroclor 1260	A	250.00	321	0.0536471	0.0692685		28.5	20	*
Aroclor-1260 (1)	A	250.00	342	0.0437892	0.0599052		36.8		
Aroclor-1260 (2)	A	250.00	369	0.0425449	0.0628536		47.6		
Aroclor-1260 (3)	A	250.00	321	0.1035155	0.1329134		28.4		
Aroclor-1260 (4)	A	250.00	295	0.0501426	0.0591456		18.0		
Aroclor-1260 (5)	A	250.00	279	0.0282431	0.0315246		11.6		
Aroclor 1260 [2C]	A	250.00	291	0.0701404	0.0804357		16.4	20	
Aroclor-1260 (1) [2C]	A	250.00	306	0.0630560	0.0770815		22.4		
Aroclor-1260 (2) [2C]	A	250.00	289	0.0558539	0.0645013		15.6		
Aroclor-1260 (3) [2C]	A	250.00	273	0.1254738	0.1372489		9.2		
Aroclor-1260 (4) [2C]	A	250.00	296	0.0361779	0.0429110		18.4		
Decachlorobiphenyl	A	40.000	43.5	0.8443871	0.9188561		8.8	20	
Tetrachlorometaxylene	A	40.000	42.4	0.9073273	0.9616100		6.0	20	
Decachlorobiphenyl [2C]	A	40.000	41.8	1.2312580	1.2866190		4.5	20	
Tetrachlorometaxylene [2C]	A	40.000	46.0	0.7876038	0.9060421		15.0	20	

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180623.b/18062326ECD5.D
Data file 2: /20180623.b/20180623.b/18062326ECD5.D
Method: ecd5.i\20180623.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, VTS
Compound Sublist: AR1660.sub
Quant Method: Internal Std

ARI ID: AR1660CCV4
Client ID:
Injection Date: 23-JUN-2018 21:19
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.447	0.000	621149099	4.291	0.000	2745134177	42.4	46.0	8.2	Tetrachloro-m-xylene
12.784	0.000	356263884	12.974	0.000	1358109465	43.5	41.8	4.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	106.0	115.0
Decachlorobiphenyl	108.8	104.5

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1291893523	40.4
Hexabromobiphenyl	761926666	775450870	1.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	6059616593	37.1
Hexabromobiphenyl	2171332320	2111128938	-2.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.069	0.000	86042440	253.5	1	6.009	0.000	554528105	295.4
Aroclor-1016	2	6.469	0.000	304716810	271.8	2	6.643	0.000	1281225452	297.0
Aroclor-1016	3	6.728	0.000	85832027	275.9	3	7.023	0.000	298303781	290.6
Aroclor-1016	4	7.438	0.000	101871508	277.7	4	7.538	0.000	328166924	269.8
Total Col1Ave (4 peaks):					269.7	Total Col2Ave (4 peaks):				288.2 RPD = 7
Corrected Ave (3 peaks):					267.1	Corrected Ave (3 peaks):				285.3 RPD = 7
CalAmt %D:					7.9	CalAmt %D:				15.3
Aroclor-1260	1	9.939	0.000	145167250	342.0	1	9.965	0.000	508528156	305.6
Aroclor-1260	2	10.254	0.000	152312197	369.3	2	10.505	0.000	425533272	288.7
Aroclor-1260	3	10.624	0.000	322086980	321.0	3	10.777	0.000	905469012	273.5
Aroclor-1260	4	11.022	0.000	143326623	294.9	4	11.292	0.000	283095993	296.5
Aroclor-1260	5	11.211	0.000	76392987	279.0	NS	---			----
Total Col1Ave (5 peaks):					321.3	Total Col2Ave (4 peaks):				291.1 RPD = 10
Corrected Ave (4 peaks):					309.2	Corrected Ave (3 peaks):				286.2 RPD = 8
CalAmt %D:					28.5	CalAmt %D:				16.4

Total PCB Area Col1 (4.547 - 12.684) = 4228785597 Col1 Total PCB = 0.8 ppm*

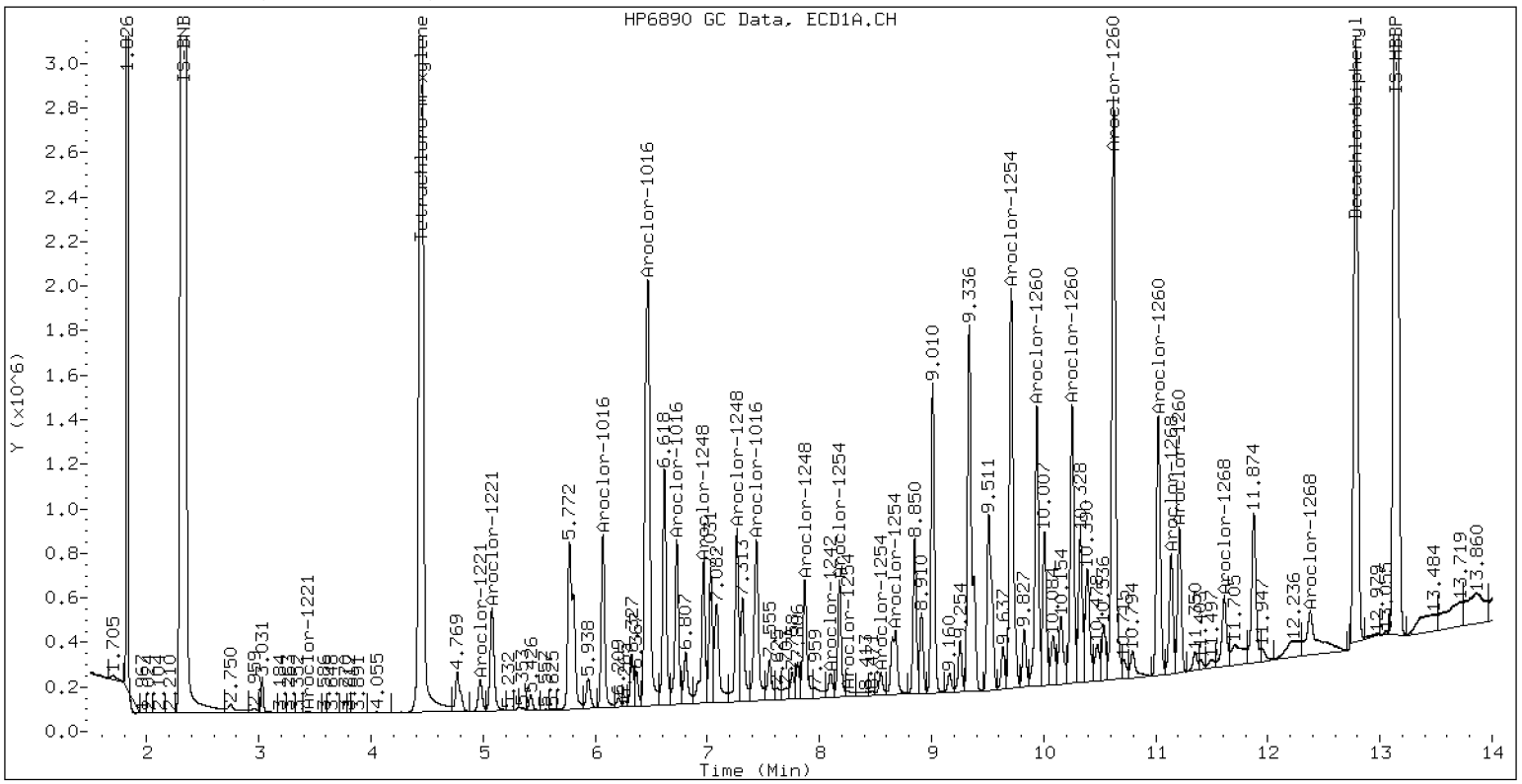
Total PCB Area Col2 (4.547 - 12.684) = 5643351225 Col2 Total PCB = 0.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

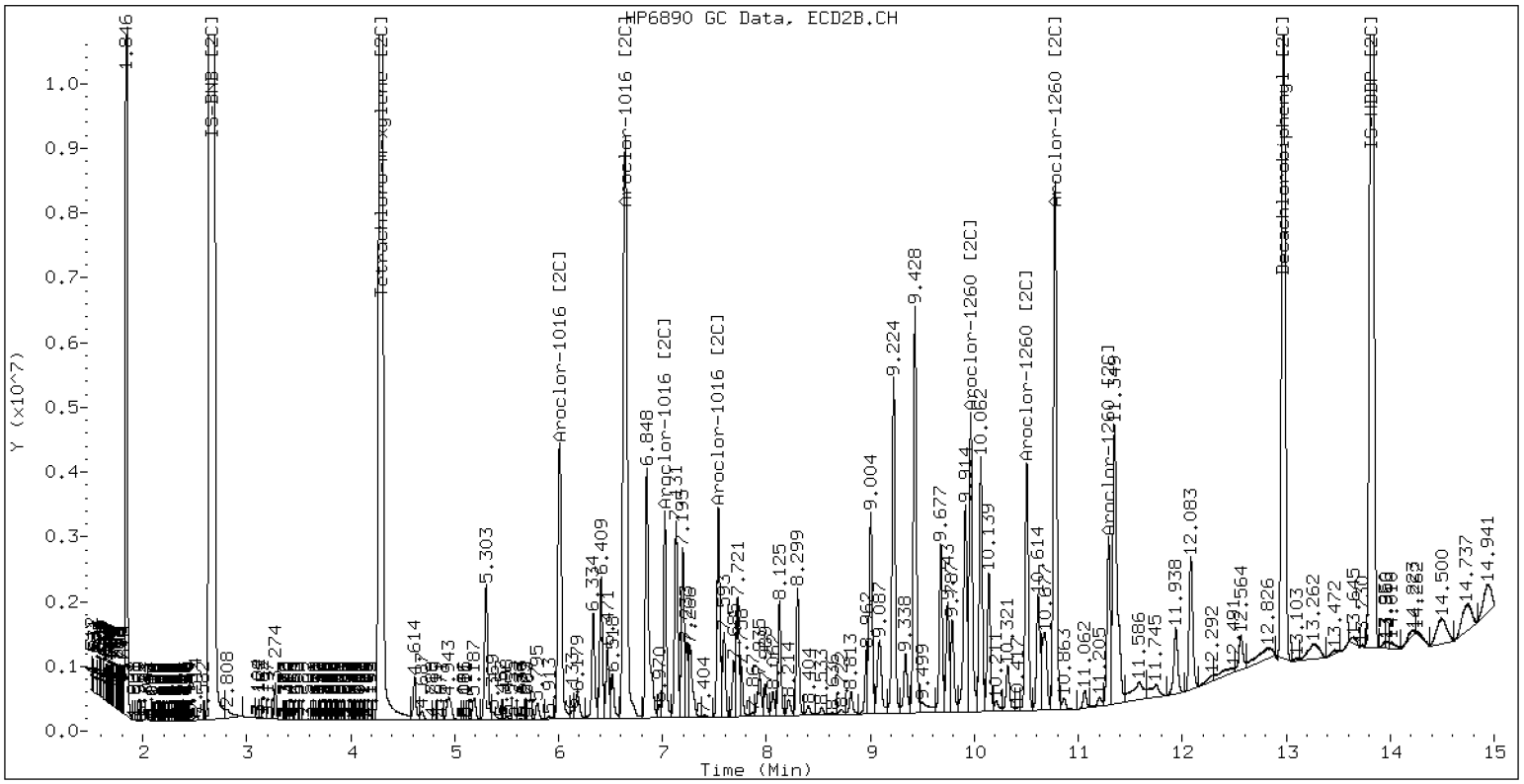
PCB Dual Column Chromatograms

ECD5-ZB5 /20180623.b/18062326ECD5.D AR1660CCV4 23-JUN-2018 21:19 2ul VTS



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180623.b/20180623.b/18062326ECD5.D AR1660CCV4



ZB-35 Manual Integration: NO

CONTINUING CALIBRATION CHECK

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18062516ECD5.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0341	Injection Date:	06/25/18
Lab Sample ID:	SGF0341-CCV1	Injection Time:	18:25
Sequence Name:	AR1248CCV1		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1248	A	250.00	274	0.0283695	0.0311275		9.5	20
Aroclor-1248 (1)	A	250.00	270		0.0232811			
Aroclor-1248 (2)	A	250.00	272		0.0270048			
Aroclor-1248 (3)	A	250.00	277		0.0422792			
Aroclor-1248 (4)	A	250.00	276		0.0319448			
Aroclor 1248 [2C]	A	250.00	289	0.0230971	0.0266331		15.4	20
Aroclor-1248 (1) [2C]	A	250.00	279		0.0308508			
Aroclor-1248 (2) [2C]	A	250.00	290		0.0222124			
Aroclor-1248 (3) [2C]	A	250.00	287		0.0239656			
Aroclor-1248 (4) [2C]	A	250.00	298		0.0295034			
Decachlorobiphenyl	A	40.000	40.6	0.8443871	0.8577350		1.5	20
Tetrachlorometaxylene	A	40.000	37.9	0.9073273	0.8591169		-5.3	20
Decachlorobiphenyl [2C]	A	40.000	44.3	1.2312580	1.3643500		10.8	20
Tetrachlorometaxylene [2C]	A	40.000	40.3	0.7876038	0.7935996		0.8	20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180625.b/18062516ECD5.D
Data file 2: /20180625.b/20180625.b/18062516ECD5.D
Method: ecd5.i\20180625.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: AR1248.sub
Quant Method: Internal Std

ARI ID: AR1248CCV1
Client ID:
Injection Date: 25-JUN-2018 18:25
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.447	-0.001	480937478	4.292	0.000	2035876561	37.9	40.3	6.2	Tetrachloro-m-xylene
12.783	-0.006	377695179	12.975	0.001	1754035544	40.6	44.3	8.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	94.7	100.8
Decachlorobiphenyl	101.6	110.8

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1119608829	21.7
Hexabromobiphenyl	761926666	880680476	15.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5130740521	16.1
Hexabromobiphenyl	2171332320	2571239671	18.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	6.965	-0.004	81455224	270.4	1	6.640	0.000	494649019	279.1
Aroclor-1248	2	7.264	-0.004	94483825	272.5	2	7.132	0.000	356143975	290.4
Aroclor-1248	3	7.860	-0.006	147925638	276.7	3	7.539	0.000	384253271	287.4
Aroclor-1248	4	8.095	-0.005	111767811	275.6	4	7.990	0.000	473045047	297.5
Total Col1Ave (4 peaks):					273.8	Total Col2Ave (4 peaks):				288.6 RPD = 5
Corrected Ave (3 peaks):					272.8	Corrected Ave (3 peaks):				285.6 RPD = 5
CalAmt %D:					9.5	CalAmt %D:				15.4

Total PCB Area Col1 (4.548 - 12.689) = 1790040551 Col1 Total PCB = 0.3 ppm*

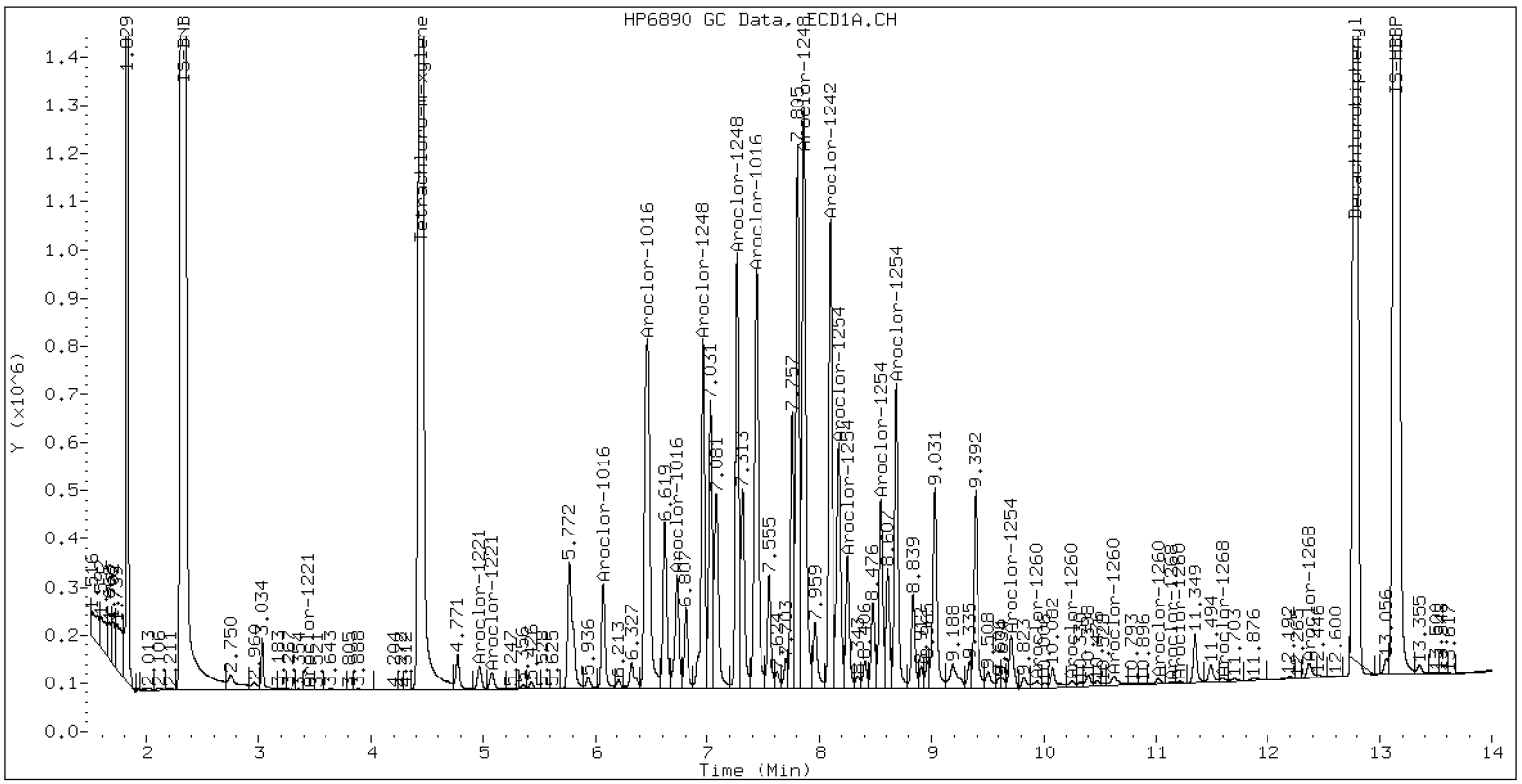
Total PCB Area Col2 (4.548 - 12.689) = 6174179993 Col2 Total PCB = 0.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

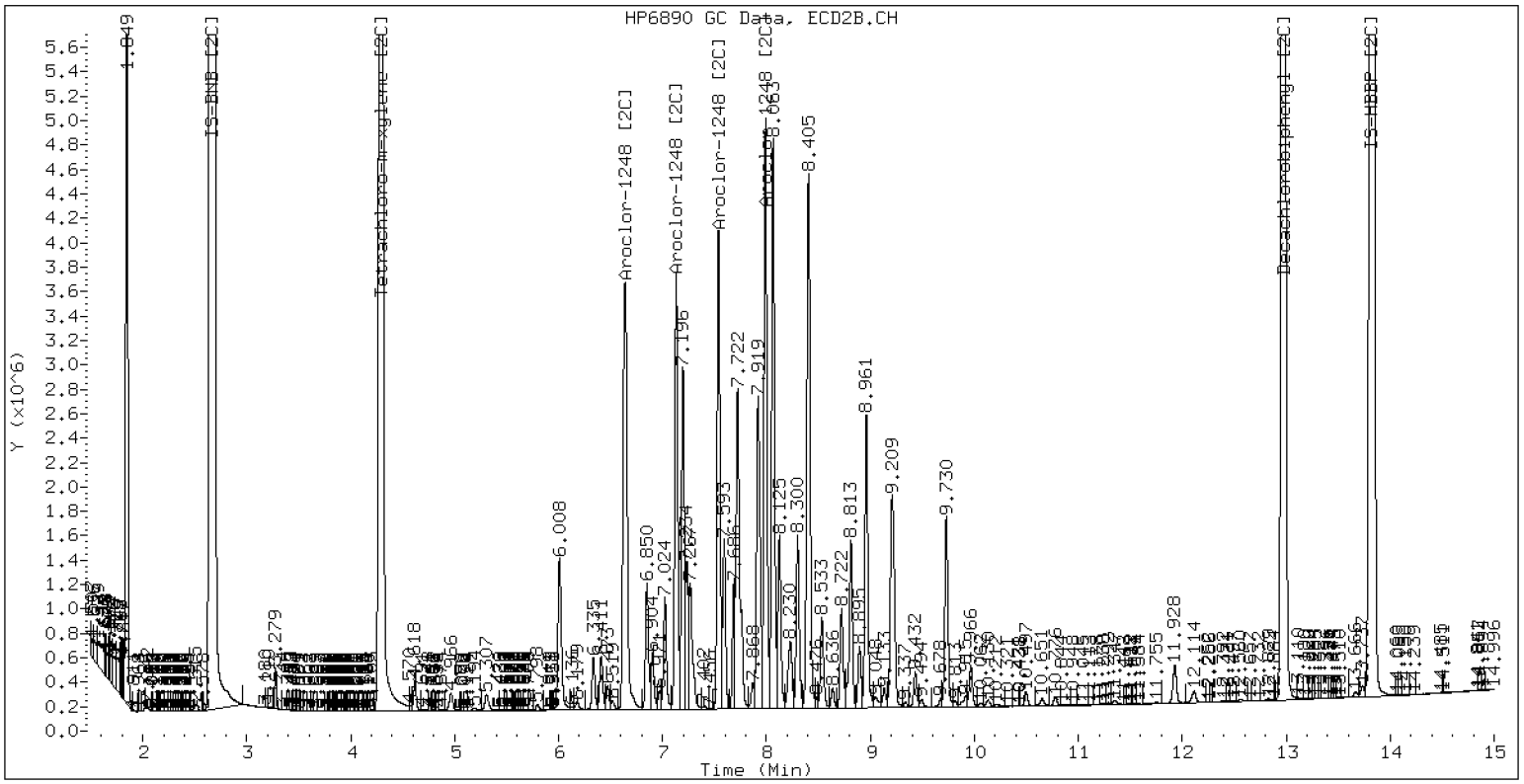
PCB Dual Column Chromatograms

ECD5-ZB5 /20180625.b/18062516ECD5.D AR1248CCV1 25-JUN-2018 18:25 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180625.b/20180625.b/18062516ECD5.D AR1248CCV1



ZB-35 Manual Integration: NO

CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18062517ECD5.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0341	Injection Date:	06/25/18
Lab Sample ID:	SGF0341-CCV2	Injection Time:	18:46
Sequence Name:	AR1660CCV2		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT	
Aroclor 1016	A	250.00	259	0.0331041	0.0345040		3.6	20	
Aroclor-1016 (1)	A	250.00	253	0.0210218	0.0212430		1.2		
Aroclor-1016 (2)	A	250.00	264	0.0694139	0.0731719		5.6		
Aroclor-1016 (3)	A	250.00	258	0.0192640	0.0199184		3.2		
Aroclor-1016 (4)	A	250.00	261	0.0227168	0.0236826		4.4		
Aroclor 1016 [2C]	A	250.00	303	0.0278375	0.0337431		21.0	20	*
Aroclor-1016 (1) [2C]	A	250.00	292	0.0247868	0.0289274		16.8		
Aroclor-1016 (2) [2C]	A	250.00	306	0.0569545	0.0697607		22.4		
Aroclor-1016 (3) [2C]	A	250.00	307	0.0135527	0.0166667		22.8		
Aroclor-1016 (4) [2C]	A	250.00	305	0.0160561	0.0196178		22.0		
Aroclor 1260	A	250.00	270	0.0536471	0.0580153		8.0	20	
Aroclor-1260 (1)	A	250.00	272	0.0437892	0.0477382		8.8		
Aroclor-1260 (2)	A	250.00	272	0.0425449	0.0463491		8.8		
Aroclor-1260 (3)	A	250.00	270	0.1035155	0.1118366		8.0		
Aroclor-1260 (4)	A	250.00	269	0.0501426	0.0539572		7.6		
Aroclor-1260 (5)	A	250.00	267	0.0282431	0.0301955		6.8		
Aroclor 1260 [2C]	A	250.00	297	0.0701404	0.0832456		18.7	20	
Aroclor-1260 (1) [2C]	A	250.00	305	0.0630560	0.0769021		22.0		
Aroclor-1260 (2) [2C]	A	250.00	295	0.0558539	0.0659627		18.0		
Aroclor-1260 (3) [2C]	A	250.00	295	0.1254738	0.1479158		18.0		
Aroclor-1260 (4) [2C]	A	250.00	292	0.0361779	0.0422019		16.8		
Decachlorobiphenyl	A	40.000	40.0	0.8443871	0.8455157		0.0	20	
Tetrachlorometaxylene	A	40.000	41.8	0.9073273	0.9489910		4.5	20	
Decachlorobiphenyl [2C]	A	40.000	43.2	1.2312580	1.3285750		8.0	20	
Tetrachlorometaxylene [2C]	A	40.000	45.0	0.7876038	0.8859264		12.5	20	

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180625.b/18062517ECD5.D
Data file 2: /20180625.b/20180625.b/18062517ECD5.D
Method: ecd5.i\20180625.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: AR1660.sub
Quant Method: Internal Std

ARI ID: AR1660CCV2
Client ID:
Injection Date: 25-JUN-2018 18:46
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.444	-0.004	593085190	4.291	-0.001	2534304613	41.8	45.0	7.3	Tetrachloro-m-xylene
12.783	-0.006	406337141	12.974	0.001	1876995725	40.1	43.2	7.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	104.6	112.5
Decachlorobiphenyl	100.1	107.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1249927788	35.8
Hexabromobiphenyl	761926666	961158277	26.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5721253901	29.5
Hexabromobiphenyl	2171332320	2825578148	30.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.067	-0.005	82975838	252.6	1	6.010	-0.001	517189869	291.8
Aroclor-1016	2	6.467	-0.005	285811162	263.5	2	6.643	-0.001	1247244645	306.2
Aroclor-1016	3	6.726	-0.005	77801776	258.5	3	7.022	-0.001	297982946	307.4
Aroclor-1016	4	7.435	-0.006	92504856	260.6	4	7.538	-0.001	350745317	305.5
	Total Col1Ave (4 peaks):				258.8	Total Col2Ave (4 peaks):				302.7 RPD = 16
	Corrected Ave (3 peaks):				257.3	Corrected Ave (3 peaks):				301.1 RPD = 16
			CalAmt %D:		3.5			CalAmt %D:		21.1
Aroclor-1260	1	9.937	-0.006	143387404	272.5	1	9.965	-0.001	679039983	304.9
Aroclor-1260	2	10.252	-0.006	139215074	272.4	2	10.506	0.000	582446090	295.2
Aroclor-1260	3	10.621	-0.008	335914734	270.1	3	10.777	-0.001	1306086284	294.7
Aroclor-1260	4	11.020	-0.007	162066860	269.0	4	11.291	-0.000	372640146	291.6
Aroclor-1260	5	11.209	-0.007	90695777	267.3	NS	---			----
	Total Col1Ave (5 peaks):				270.3	Total Col2Ave (4 peaks):				296.6 RPD = 9
	Corrected Ave (4 peaks):				269.7	Corrected Ave (3 peaks):				293.9 RPD = 9
			CalAmt %D:		8.1			CalAmt %D:		18.6

Total PCB Area Col1 (4.548 - 12.689) = 4006419534 Col1 Total PCB = 0.7 ppm*

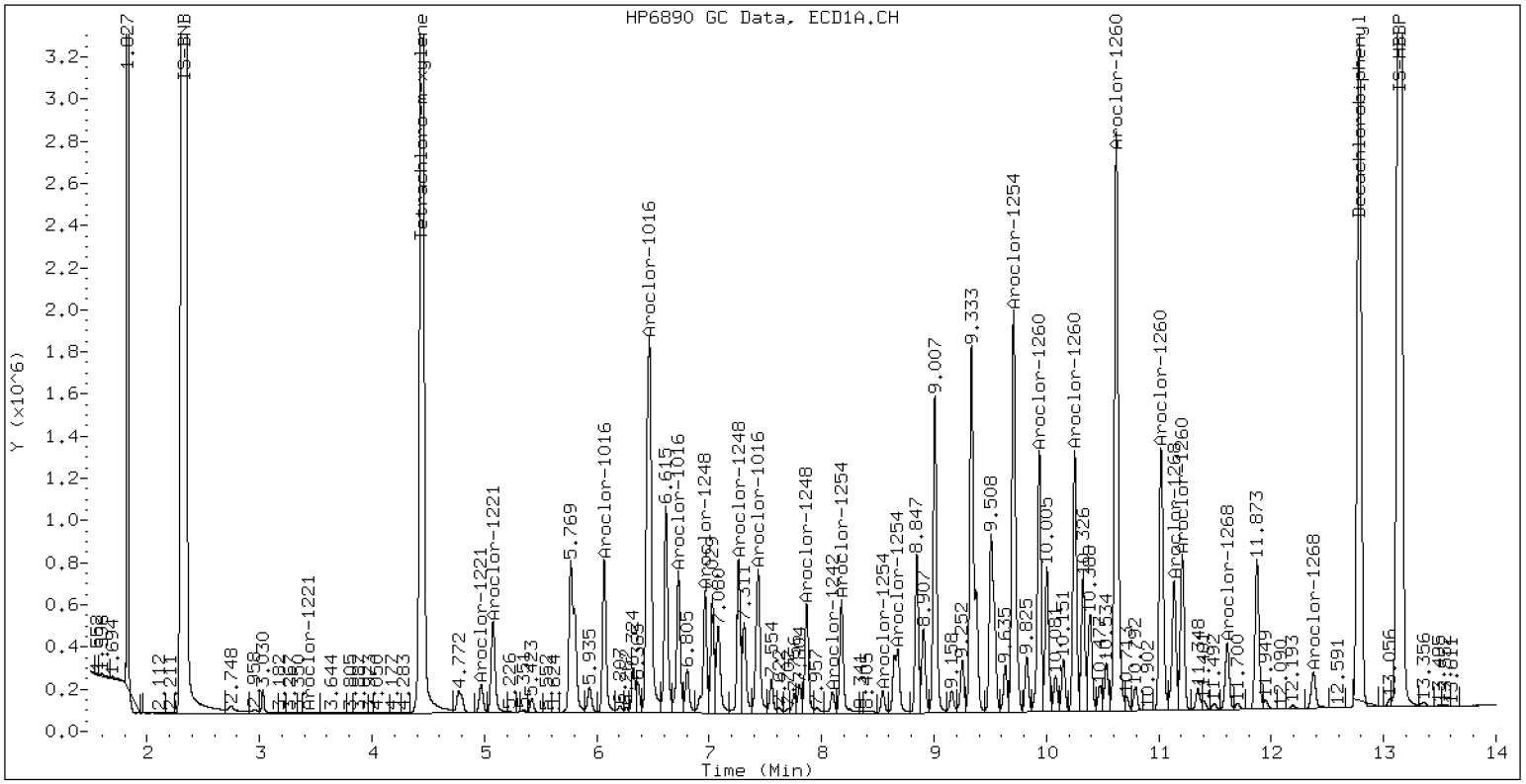
Total PCB Area Col2 (4.548 - 12.689) = 6472393217 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

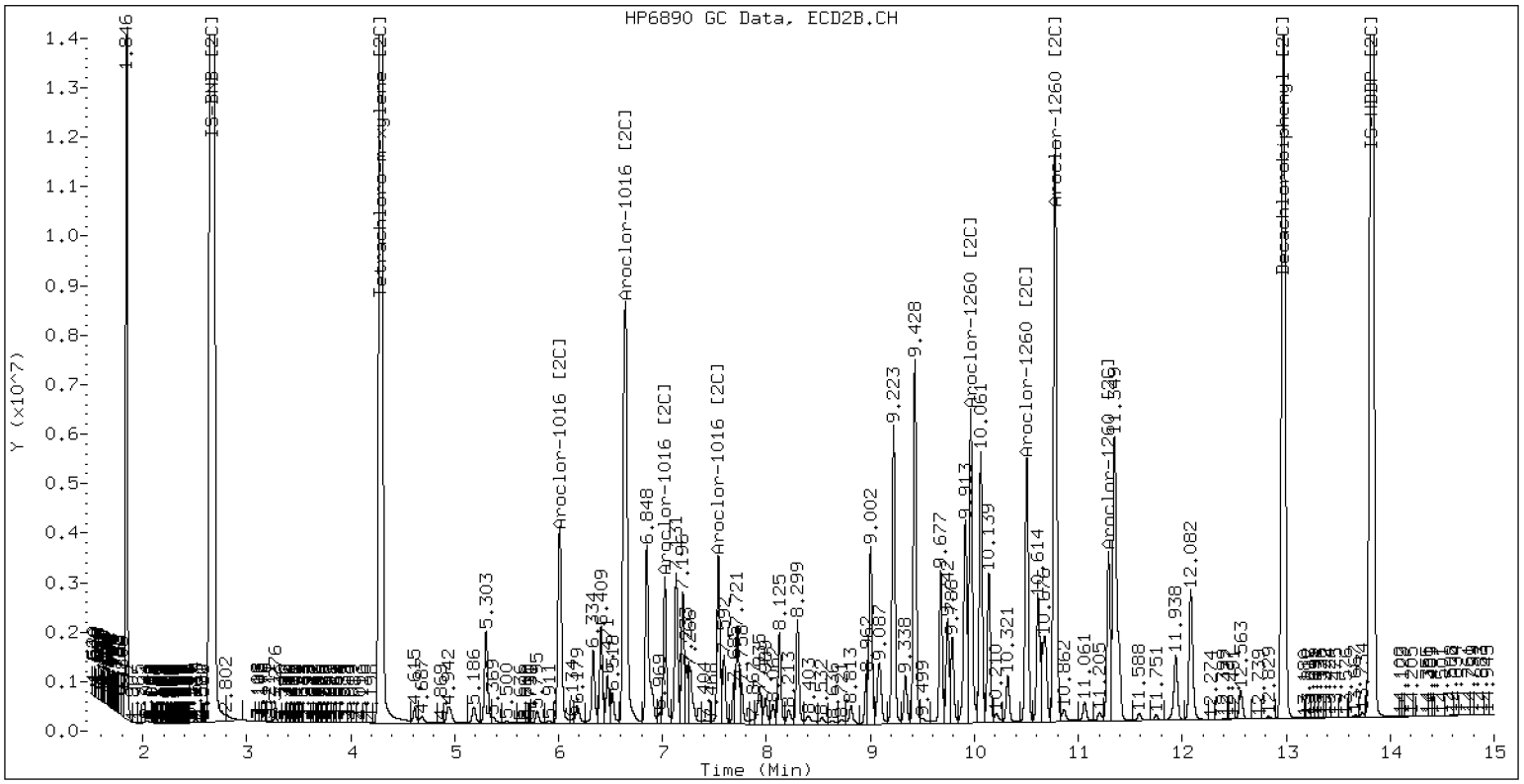
PCB Dual Column Chromatograms

ECD5-ZB5 /20180625.b/18062517ECD5.D AR1660CCV2 25-JUN-2018 18:46 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180625.b/20180625.b/18062517ECD5.D AR1660CCV2



ZB-35 Manual Integration: NO

CONTINUING CALIBRATION CHECK

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18062524ECD5.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0341	Injection Date:	06/25/18
Lab Sample ID:	SGF0341-CCV3	Injection Time:	21:08
Sequence Name:	AR1242CCV3		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1242	A	250.00	257	0.0270222	0.0278152		2.7	20
Aroclor-1242 (1)	A	250.00	252		0.0169199			
Aroclor-1242 (2)	A	250.00	258		0.0577502			
Aroclor-1242 (3)	A	250.00	256		0.0159079			
Aroclor-1242 (4)	A	250.00	261		0.0206829			
Aroclor 1242 [2C]	A	250.00	279	0.0251264	0.0280501		11.7	20
Aroclor-1242 (1) [2C]	A	250.00	269		0.0220709			
Aroclor-1242 (2) [2C]	A	250.00	279		0.0542594			
Aroclor-1242 (3) [2C]	A	250.00	280		0.0173775			
Aroclor-1242 (4) [2C]	A	250.00	289		0.0184927			
Decachlorobiphenyl	A	40.000	34.7	0.8443871	0.7319012		-13.3	20
Tetrachlorometaxylene	A	40.000	37.4	0.9073273	0.8491485		-6.5	20
Decachlorobiphenyl [2C]	A	40.000	37.1	1.2312580	1.1417840		-7.3	20
Tetrachlorometaxylene [2C]	A	40.000	40.4	0.7876038	0.7946796		1.0	20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180625.b/18062524ECD5.D
Data file 2: /20180625.b/20180625.b/18062524ECD5.D
Method: ecd5.i\20180625.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: AR1242.sub
Quant Method: Internal Std

ARI ID: AR1242CCV3
Client ID:
Injection Date: 25-JUN-2018 21:08
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.445	-0.003	528428559	4.292	0.000	2307961575	37.4	40.4	7.5	Tetrachloro-m-xylene
12.783	-0.006	352941570	12.974	-0.000	1673074991	34.7	37.1	6.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	93.6	100.9
Decachlorobiphenyl	86.7	92.7

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1244608245	35.3
Hexabromobiphenyl	761926666	964451509	26.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5808534733	31.5
Hexabromobiphenyl	2171332320	2930631909	35.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	6.068	-0.005	65808159	251.6	1	6.011	0.000	400623834	269.4
Aroclor-1242	2	6.468	-0.004	224613796	258.0	2	6.643	0.000	984898512	279.5
Aroclor-1242	3	6.727	-0.005	61872254	256.0	3	7.539	0.000	315430799	280.5
Aroclor-1242	4	8.094	-0.005	80443997	261.4	4	8.406	0.000	335673578	289.0
Total Col1Ave (4 peaks):					256.7	Total Col2Ave (4 peaks):				279.6 RPD = 9
Corrected Ave (3 peaks):					255.2	Corrected Ave (3 peaks):				276.5 RPD = 8
CalAmt %D:					2.7	CalAmt %D:				11.8

Total PCB Area Col1 (4.548 - 12.689) = 1623616198 Col1 Total PCB = 0.3 ppm*

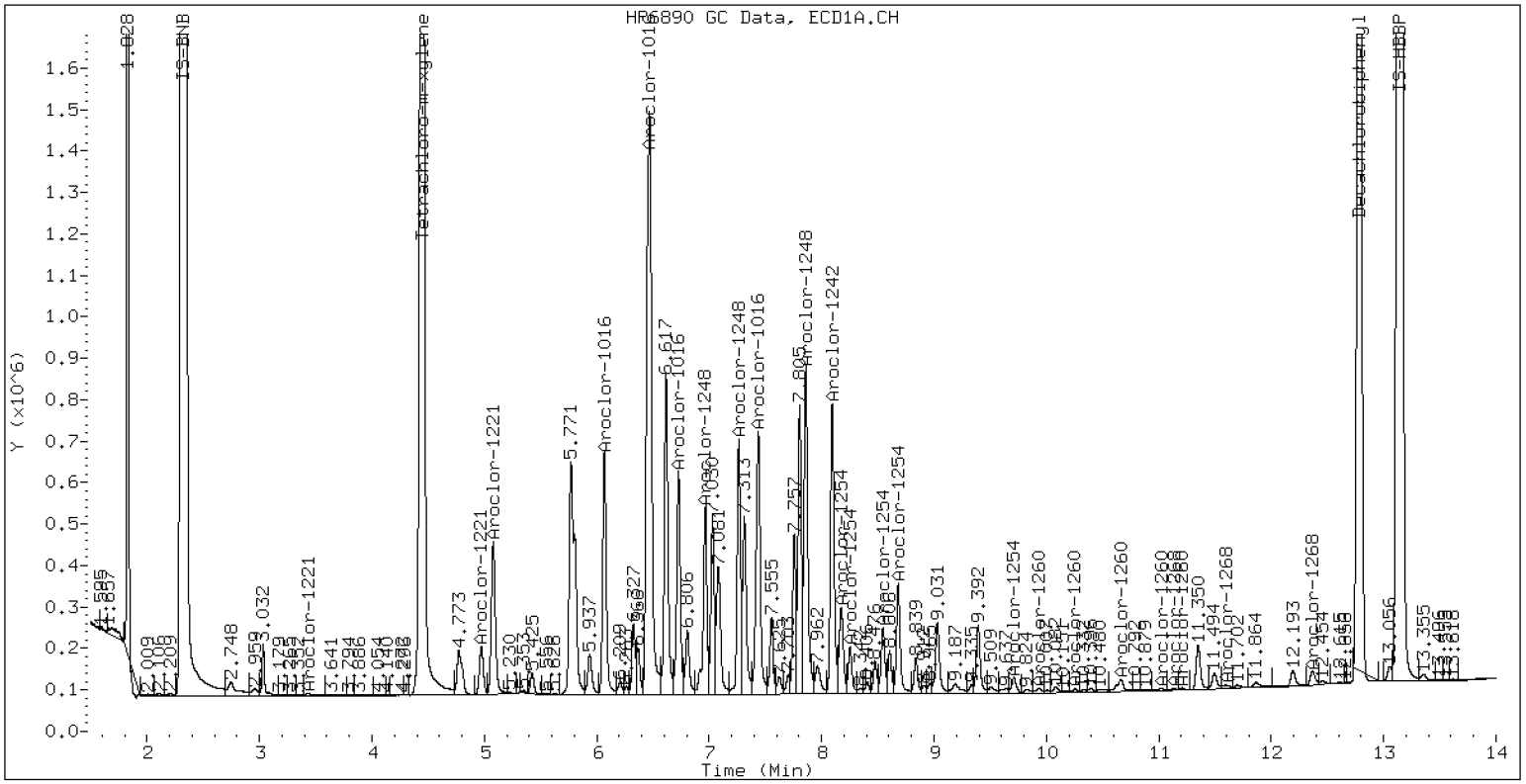
Total PCB Area Col2 (4.548 - 12.689) = 5962540397 Col2 Total PCB = 0.7 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

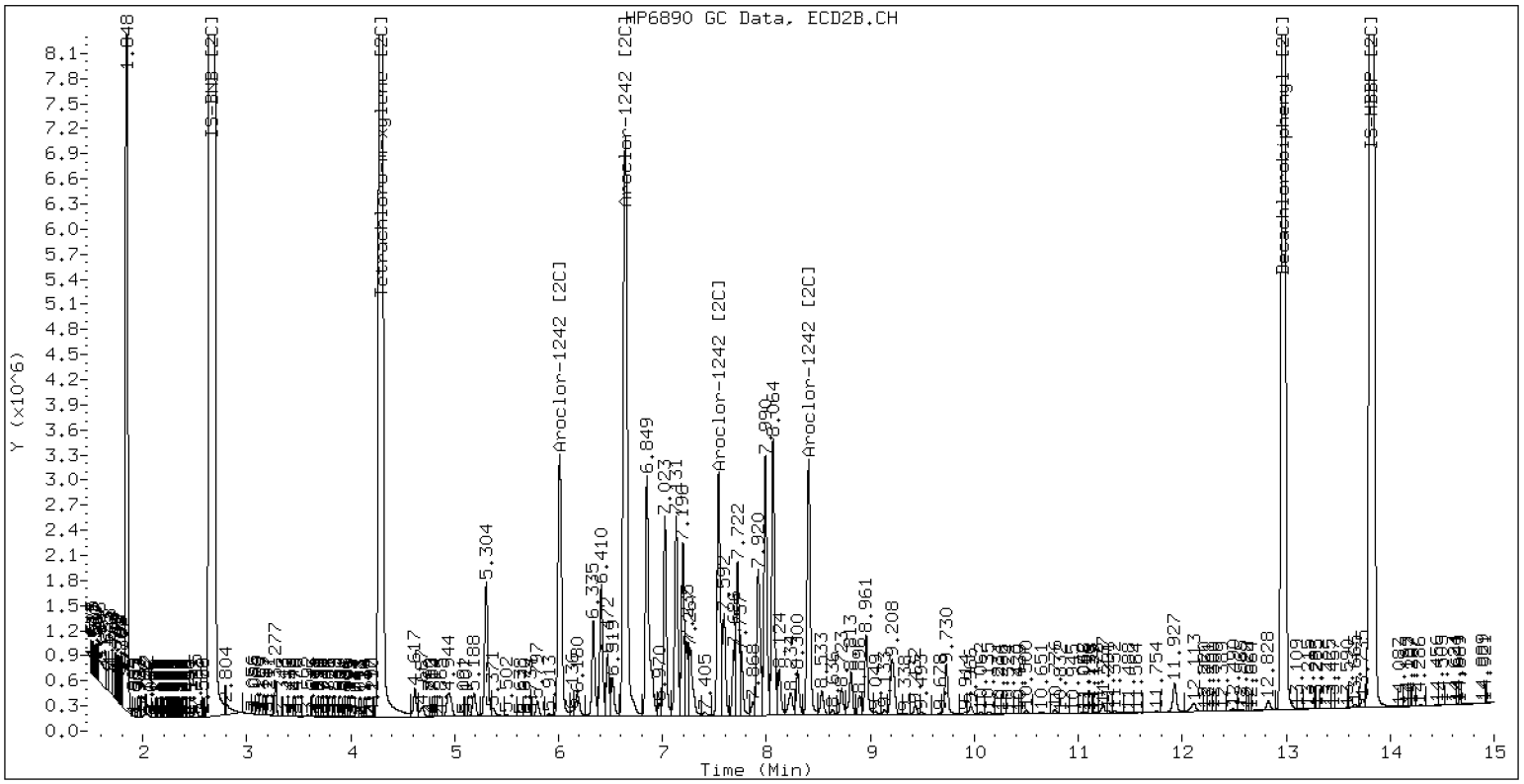
PCB Dual Column Chromatograms

ECD5-ZB5 /20180625.b/18062524ECD5.D AR1242CCV3 25-JUN-2018 21:08 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180625.b/20180625.b/18062524ECD5.D AR1242CCV3



ZB-35 Manual Integration: NO

CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18062525ECD5.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0341	Injection Date:	06/25/18
Lab Sample ID:	SGF0341-CCV4	Injection Time:	21:29
Sequence Name:	AR1660CCV4		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	255	0.0331041	0.0340657		2.1	20
Aroclor-1016 (1)	A	250.00	250	0.0210218	0.0210002		0.0	
Aroclor-1016 (2)	A	250.00	260	0.0694139	0.0723274		4.0	
Aroclor-1016 (3)	A	250.00	255	0.0192640	0.0196614		2.0	
Aroclor-1016 (4)	A	250.00	256	0.0227168	0.0232740		2.4	
Aroclor 1016 [2C]	A	250.00	301	0.0278375	0.0334373		20.3	20
Aroclor-1016 (1) [2C]	A	250.00	287	0.0247868	0.0284284		14.8	
Aroclor-1016 (2) [2C]	A	250.00	303	0.0569545	0.0689737		21.2	
Aroclor-1016 (3) [2C]	A	250.00	307	0.0135527	0.0166602		22.8	
Aroclor-1016 (4) [2C]	A	250.00	306	0.0160561	0.0196868		22.4	
Aroclor 1260	A	250.00	265	0.0536471	0.0569622		6.1	20
Aroclor-1260 (1)	A	250.00	267	0.0437892	0.0467114		6.8	
Aroclor-1260 (2)	A	250.00	266	0.0425449	0.0453442		6.4	
Aroclor-1260 (3)	A	250.00	266	0.1035155	0.1100245		6.4	
Aroclor-1260 (4)	A	250.00	265	0.0501426	0.0530940		6.0	
Aroclor-1260 (5)	A	250.00	262	0.0282431	0.0296368		4.8	
Aroclor 1260 [2C]	A	250.00	290	0.0701404	0.0813194		16.0	20
Aroclor-1260 (1) [2C]	A	250.00	298	0.0630560	0.0753117		19.2	
Aroclor-1260 (2) [2C]	A	250.00	287	0.0558539	0.0640844		14.8	
Aroclor-1260 (3) [2C]	A	250.00	287	0.1254738	0.1442751		14.8	
Aroclor-1260 (4) [2C]	A	250.00	288	0.0361779	0.0416064		15.2	
Decachlorobiphenyl	A	40.000	39.6	0.8443871	0.8363030		-1.0	20
Tetrachlorometaxylene	A	40.000	41.6	0.9073273	0.9448259		4.0	20
Decachlorobiphenyl [2C]	A	40.000	42.6	1.2312580	1.3121510		6.5	20
Tetrachlorometaxylene [2C]	A	40.000	45.0	0.7876038	0.8864719		12.5	20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180625.b/18062525ECD5.D
Data file 2: /20180625.b/20180625.b/18062525ECD5.D
Method: ecd5.i\20180625.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: AR1660.sub
Quant Method: Internal Std

ARI ID: AR1660CCV4
Client ID:
Injection Date: 25-JUN-2018 21:29
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.446	-0.003	606214437	4.292	0.000	2663735506	41.7	45.0	7.8	Tetrachloro-m-xylene
12.783	-0.006	416197918	12.974	0.000	1981761576	39.6	42.6	7.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	104.1	112.6
Decachlorobiphenyl	99.0	106.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1283229931	39.5
Hexabromobiphenyl	761926666	995327990	30.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	6009747228	36.0
Hexabromobiphenyl	2171332320	3020630540	39.1

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.068	-0.004	84212589	249.7	1	6.011	0.000	533898901	286.7
Aroclor-1016	2	6.468	-0.004	290039666	260.5	2	6.644	0.000	1295357003	302.8
Aroclor-1016	3	6.727	-0.004	78844186	255.2	3	7.023	0.000	312885257	307.3
Aroclor-1016	4	7.437	-0.004	93330895	256.1	4	7.539	0.000	369727286	306.5
Total Col1Ave (4 peaks):					255.4	Total Col2Ave (4 peaks):				300.8 RPD = 16
Corrected Ave (3 peaks):					253.7	Corrected Ave (3 peaks):				298.7 RPD = 16
CalAmt %D:					2.2	CalAmt %D:				20.3
Aroclor-1260	1	9.938	-0.005	145291112	266.7	1	9.966	0.000	710902525	298.6
Aroclor-1260	2	10.253	-0.005	141038532	266.4	2	10.505	0.000	604923077	286.8
Aroclor-1260	3	10.623	-0.006	342220095	265.7	3	10.778	0.000	1361880694	287.5
Aroclor-1260	4	11.022	-0.005	165143458	264.7	4	11.292	0.000	392742269	287.5
Aroclor-1260	5	11.211	-0.005	92182174	262.3	NS	---			----
Total Col1Ave (5 peaks):					265.2	Total Col2Ave (4 peaks):				290.1 RPD = 9
Corrected Ave (4 peaks):					264.8	Corrected Ave (3 peaks):				287.3 RPD = 8
CalAmt %D:					6.1	CalAmt %D:				16.0

Total PCB Area Col1 (4.548 - 12.689) = 4060027662 Col1 Total PCB = 0.7 ppm*

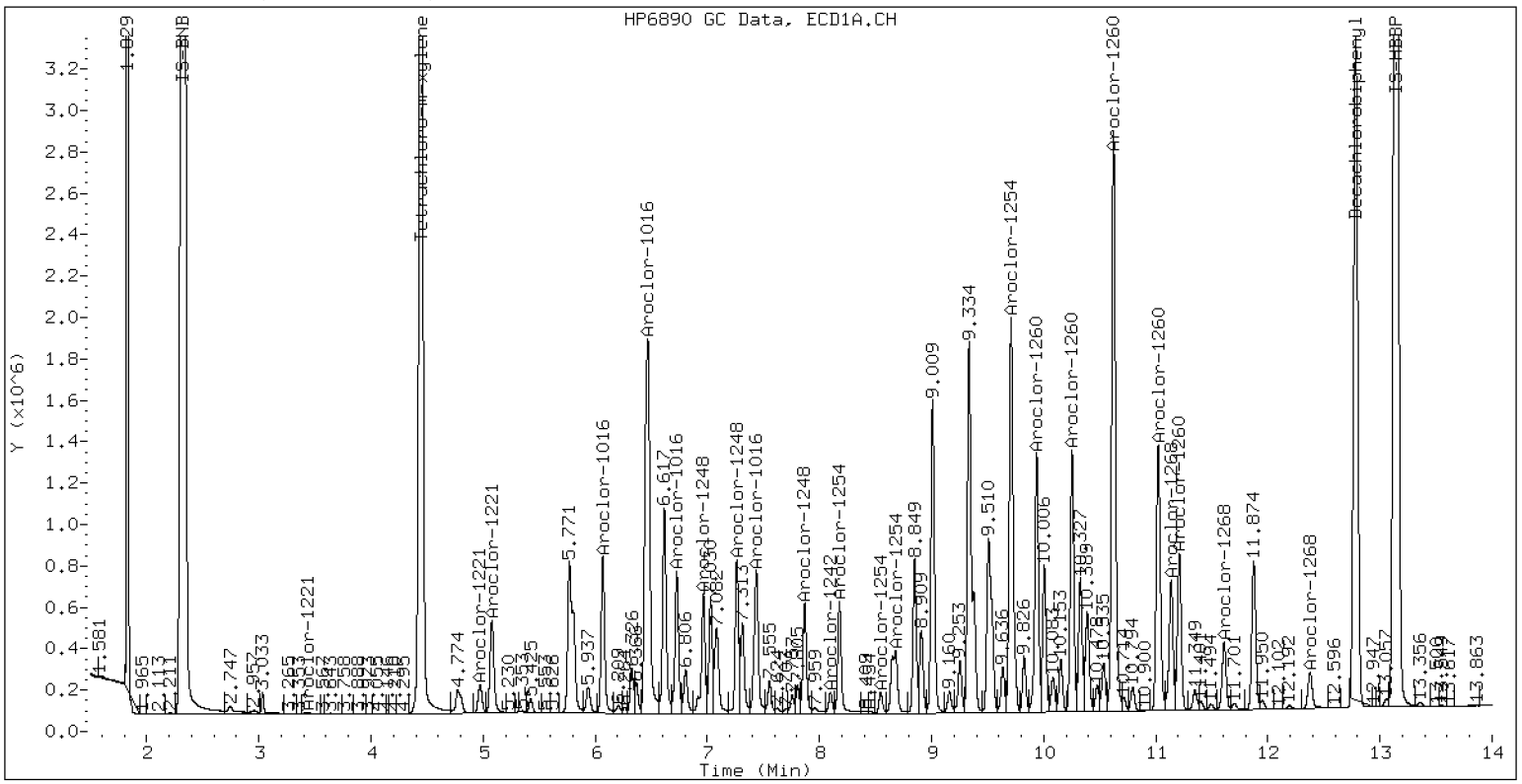
Total PCB Area Col2 (4.548 - 12.689) = 16083697606 Col2 Total PCB = 1.9 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

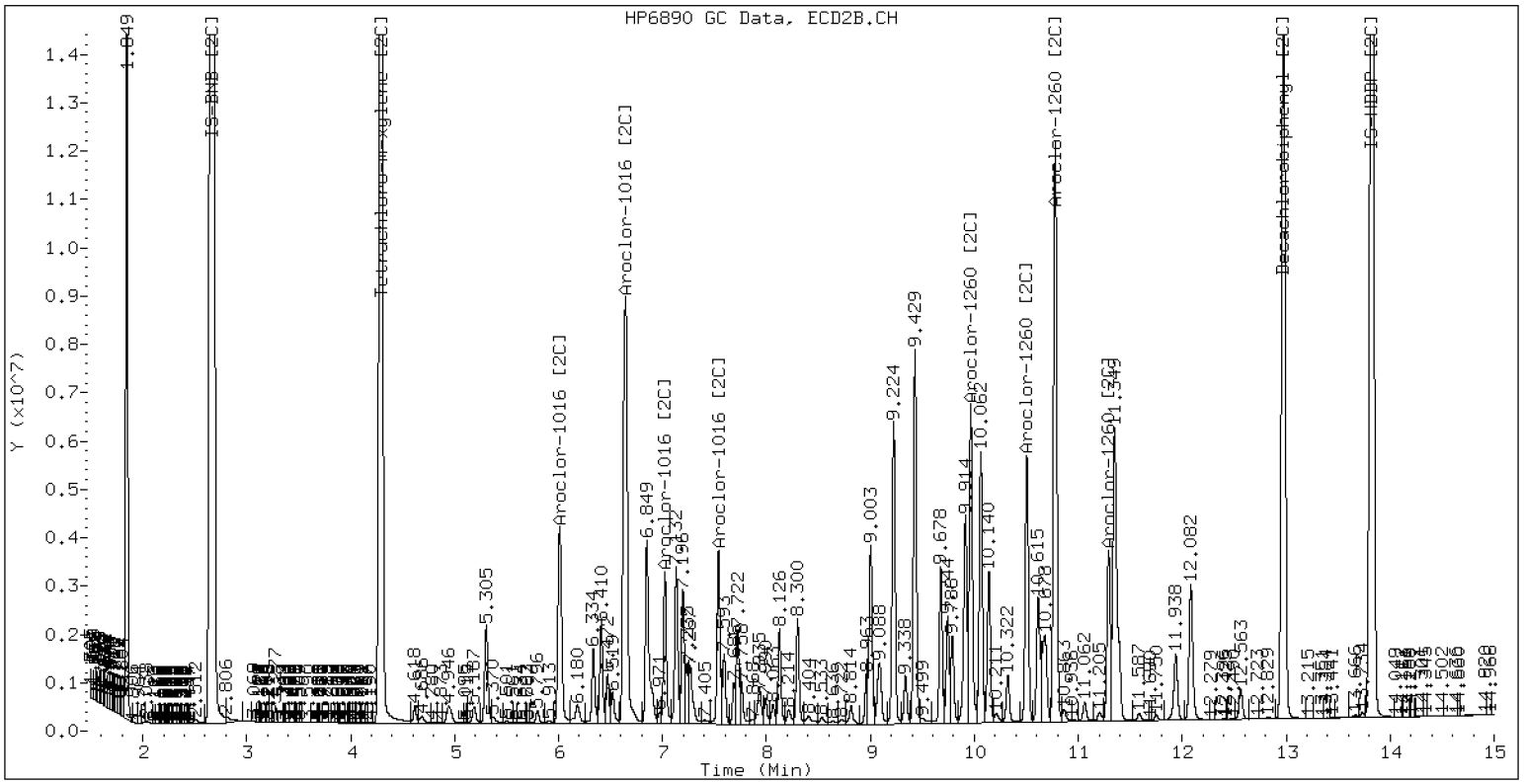
PCB Dual Column Chromatograms

ECD5-ZB5 /20180625.b/18062525ECD5.D AR1660CCV4 25-JUN-2018 21:29 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180625.b/20180625.b/18062525ECD5.D AR1660CCV4



ZB-35 Manual Integration: NO

CONTINUING CALIBRATION CHECK

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18062816ECD5.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0393	Injection Date:	06/28/18
Lab Sample ID:	SGF0393-CCV1	Injection Time:	11:54
Sequence Name:	AR1248CCV1		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1248	A	250.00	278	0.0283695	0.0315978		11.3	20
Aroclor-1248 (1)	A	250.00	274		0.0235565			
Aroclor-1248 (2)	A	250.00	277		0.0274204			
Aroclor-1248 (3)	A	250.00	280		0.0427407			
Aroclor-1248 (4)	A	250.00	282		0.0326738			
Aroclor 1248 [2C]	A	250.00	300	0.0230971	0.0276408		19.9	20
Aroclor-1248 (1) [2C]	A	250.00	278		0.0307664			
Aroclor-1248 (2) [2C]	A	250.00	308		0.0236027			
Aroclor-1248 (3) [2C]	A	250.00	289		0.0241074			
Aroclor-1248 (4) [2C]	A	250.00	324		0.0320868			
Decachlorobiphenyl	A	40.000	39.7	0.8443871	0.8373506		-0.8	20
Tetrachlorometaxylene	A	40.000	37.5	0.9073273	0.8513853		-6.3	20
Decachlorobiphenyl [2C]	A	40.000	47.1	1.2312580	1.4501160		17.8	20
Tetrachlorometaxylene [2C]	A	40.000	40.8	0.7876038	0.8036025		2.0	20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062816.D
Data file 2: /20180628.b/20180628.b/18062816.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: AR1248.sub
Quant Method: Internal Std

ARI ID: AR1248CCV1
Client ID:
Injection Date: 28-JUN-2018 11:54
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.440	-0.001	476643819	4.288	-0.002	2260248779	37.5	40.8	8.4	Tetrachloro-m-xylene
12.778	-0.002	360532804	12.972	0.000	2043788783	39.7	47.1	17.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	93.8	102.0
Decachlorobiphenyl	99.2	117.8

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1119689751	21.7
Hexabromobiphenyl	761926666	861127491	13.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5625291488	27.3
Hexabromobiphenyl	2171332320	2818794341	29.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	6.960	-0.001	82424939	273.6	1	6.634	-0.003	540843476	278.4
Aroclor-1248	2	7.259	-0.000	95944713	276.7	2	7.128	-0.002	414912191	308.5
Aroclor-1248	3	7.855	-0.001	149551206	279.7	3	7.536	-0.001	423783973	289.1
Aroclor-1248	4	8.090	0.000	114326499	281.9	4	7.987	-0.002	564054180	323.6
Total Col1Ave (4 peaks):					278.0	Total Col2Ave (4 peaks):				299.9 RPD = 8
Corrected Ave (3 peaks):					276.7	Corrected Ave (3 peaks):				292.0 RPD = 5
CalAmt %D:					11.2	CalAmt %D:				20.0

Total PCB Area Col1 (4.541 - 12.680) = 1858535501 Col1 Total PCB = 0.3 ppm*

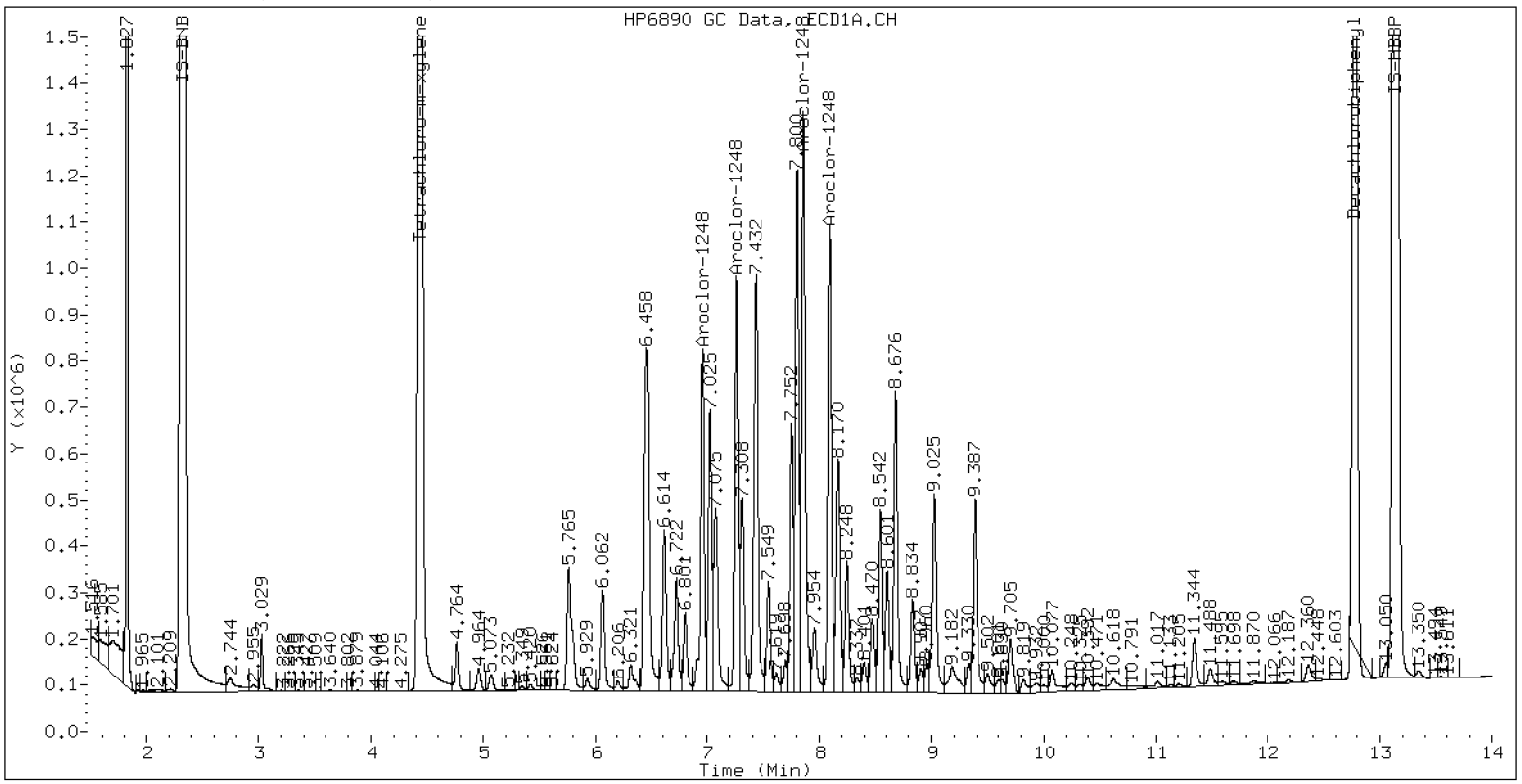
Total PCB Area Col2 (4.541 - 12.680) = 4810010255 Col2 Total PCB = 0.6 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

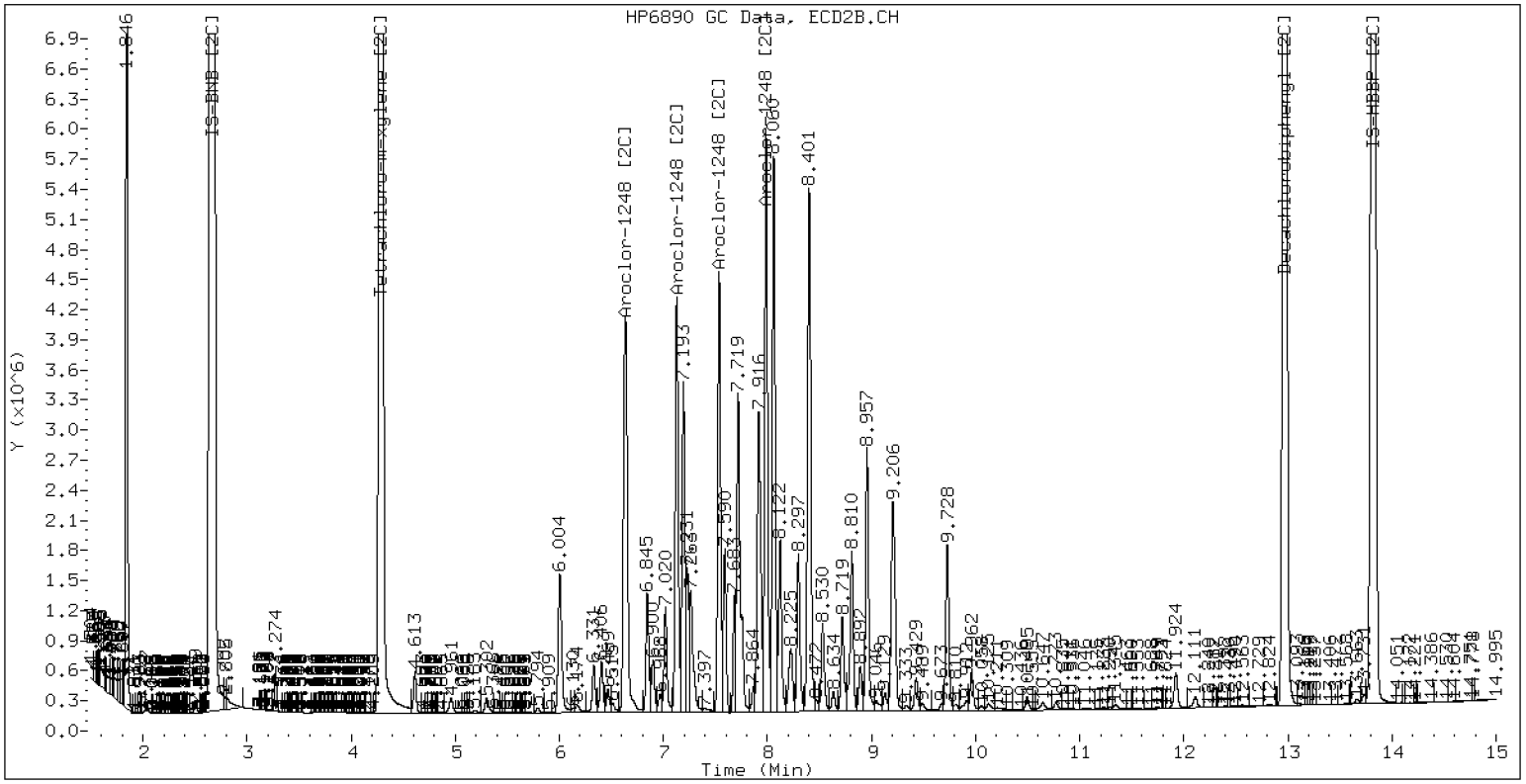
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062816.D AR1248CCV1 28-JUN-2018 11:54 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062816.D AR1248CCV1



ZB-35 Manual Integration: YES

CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18062817ECD5.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0393	Injection Date:	06/28/18
Lab Sample ID:	SGF0393-CCV2	Injection Time:	12:14
Sequence Name:	AR1660CCV2		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT	
Aroclor 1016	A	250.00	271	0.0331041	0.0359988		8.3	20	
Aroclor-1016 (1)	A	250.00	260	0.0210218	0.0218375		4.0		
Aroclor-1016 (2)	A	250.00	273	0.0694139	0.0758588		9.2		
Aroclor-1016 (3)	A	250.00	271	0.0192640	0.0209156		8.4		
Aroclor-1016 (4)	A	250.00	279	0.0227168	0.0253831		11.6		
Aroclor 1016 [2C]	A	250.00	298	0.0278375	0.0323009		19.1	20	
Aroclor-1016 (1) [2C]	A	250.00	297	0.0247868	0.0294823		18.8		
Aroclor-1016 (2) [2C]	A	250.00	278	0.0569545	0.0634549		11.2		
Aroclor-1016 (3) [2C]	A	250.00	330	0.0135527	0.0178700		32.0		
Aroclor-1016 (4) [2C]	A	250.00	286	0.0160561	0.0183965		14.4		
Aroclor 1260	A	250.00	279	0.0536471	0.0599472		11.7	20	
Aroclor-1260 (1)	A	250.00	285	0.0437892	0.0498525		14.0		
Aroclor-1260 (2)	A	250.00	283	0.0425449	0.0482254		13.2		
Aroclor-1260 (3)	A	250.00	278	0.1035155	0.1151690		11.2		
Aroclor-1260 (4)	A	250.00	276	0.0501426	0.0554711		10.4		
Aroclor-1260 (5)	A	250.00	274	0.0282431	0.0310179		9.6		
Aroclor 1260 [2C]	A	250.00	304	0.0701404	0.0855941		21.5	20	*
Aroclor-1260 (1) [2C]	A	250.00	318	0.0630560	0.0801939		27.2		
Aroclor-1260 (2) [2C]	A	250.00	298	0.0558539	0.0665908		19.2		
Aroclor-1260 (3) [2C]	A	250.00	305	0.1254738	0.1530538		22.0		
Aroclor-1260 (4) [2C]	A	250.00	294	0.0361779	0.0425379		17.6		
Decachlorobiphenyl	A	40.000	38.6	0.8443871	0.8156453		-3.5	20	
Tetrachlorometaxylene	A	40.000	42.3	0.9073273	0.9597313		5.8	20	
Decachlorobiphenyl [2C]	A	40.000	45.8	1.2312580	1.4112710		14.5	20	
Tetrachlorometaxylene [2C]	A	40.000	44.9	0.7876038	0.8841978		12.3	20	

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062817.D
Data file 2: /20180628.b/20180628.b/18062817.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: AR1660.sub
Quant Method: Internal Std

ARI ID: AR1660CCV2
Client ID:
Injection Date: 28-JUN-2018 12:14
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.440	-0.001	560852585	4.287	-0.003	2609761818	42.3	44.9	6.0	Tetrachloro-m-xylene
12.778	-0.002	368490986	12.971	-0.000	2074357337	38.6	45.8	17.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	105.8	112.3
Decachlorobiphenyl	96.6	114.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1168769880	27.0
Hexabromobiphenyl	761926666	903556995	18.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5903118566	33.6
Hexabromobiphenyl	2171332320	2939701343	35.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.062	-0.000	79759314	259.7	1	6.008	-0.001	543866637	297.4
Aroclor-1016	2	6.463	0.000	277067286	273.2	2	6.637	0.004	1170567140	278.5
Aroclor-1016	3	6.721	-0.001	76392155	271.4	3	7.019	-0.002	329651946	329.6
Aroclor-1016	4	7.431	-0.001	92709536	279.3	4	7.537	-0.001	339364765	286.4
	Total Col1Ave (4 peaks):				270.9	Total Col2Ave (4 peaks):				298.0 RPD = 10
	Corrected Ave (3 peaks):				268.1	Corrected Ave (3 peaks):				287.4 RPD = 7
			CalAmt %D:		8.4			CalAmt %D:		19.2
Aroclor-1260	1	9.932	-0.001	140764265	284.6	1	9.962	-0.001	736706155	317.9
Aroclor-1260	2	10.248	-0.000	136169965	283.4	2	10.501	-0.001	611740463	298.1
Aroclor-1260	3	10.617	-0.001	325192851	278.1	3	10.773	-0.002	1406038799	305.0
Aroclor-1260	4	11.016	-0.001	156628990	276.6	4	11.289	0.001	390777293	293.9
Aroclor-1260	5	11.205	-0.000	87582641	274.6	NS	---			----
	Total Col1Ave (5 peaks):				279.5	Total Col2Ave (4 peaks):				303.7 RPD = 8
	Corrected Ave (4 peaks):				278.2	Corrected Ave (3 peaks):				299.0 RPD = 7
			CalAmt %D:		11.8			CalAmt %D:		21.5

Total PCB Area Col1 (4.541 - 12.680) = 3953643732 Col1 Total PCB = 0.7 ppm*

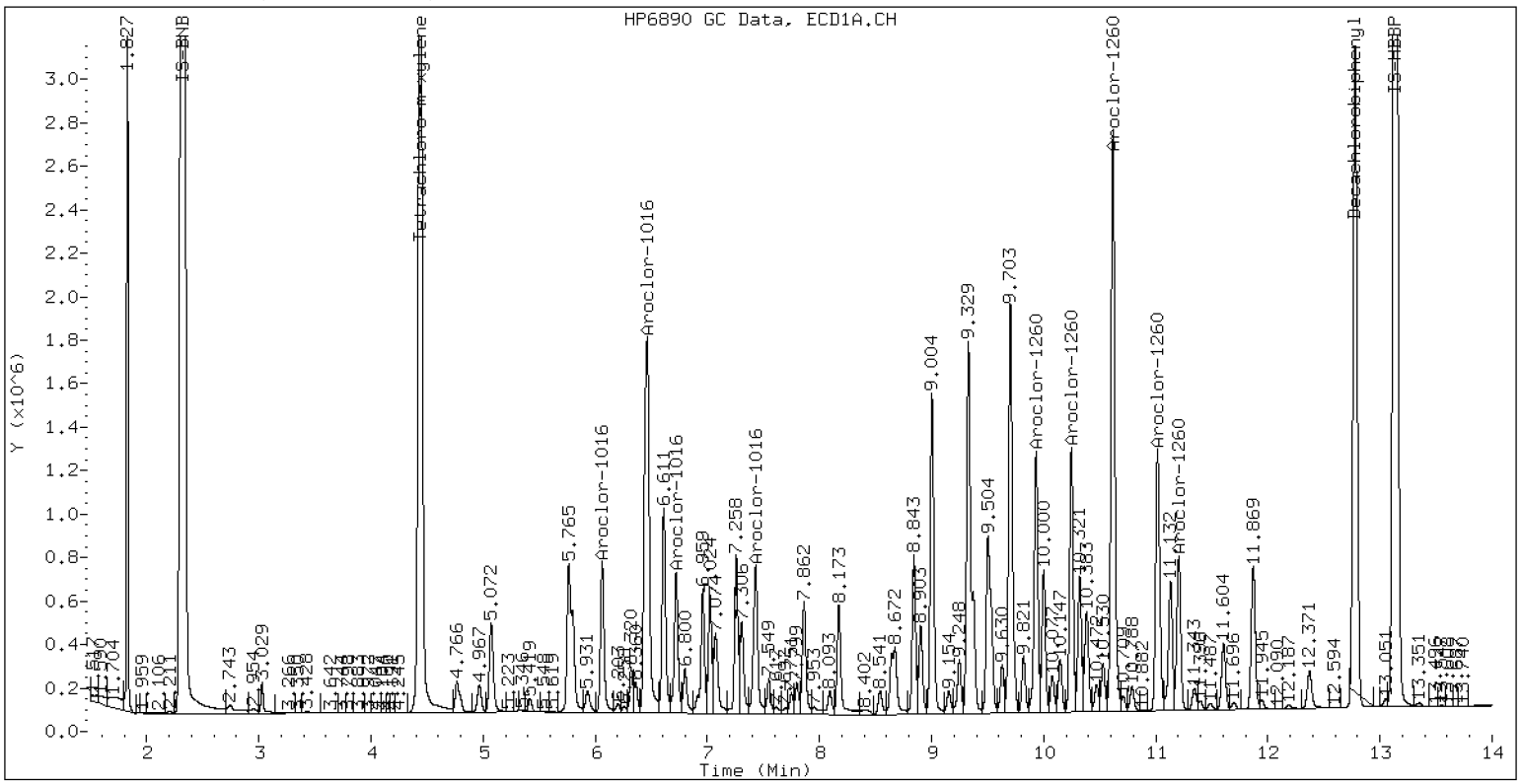
Total PCB Area Col2 (4.541 - 12.680) = 16005001954 Col2 Total PCB = 1.9 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

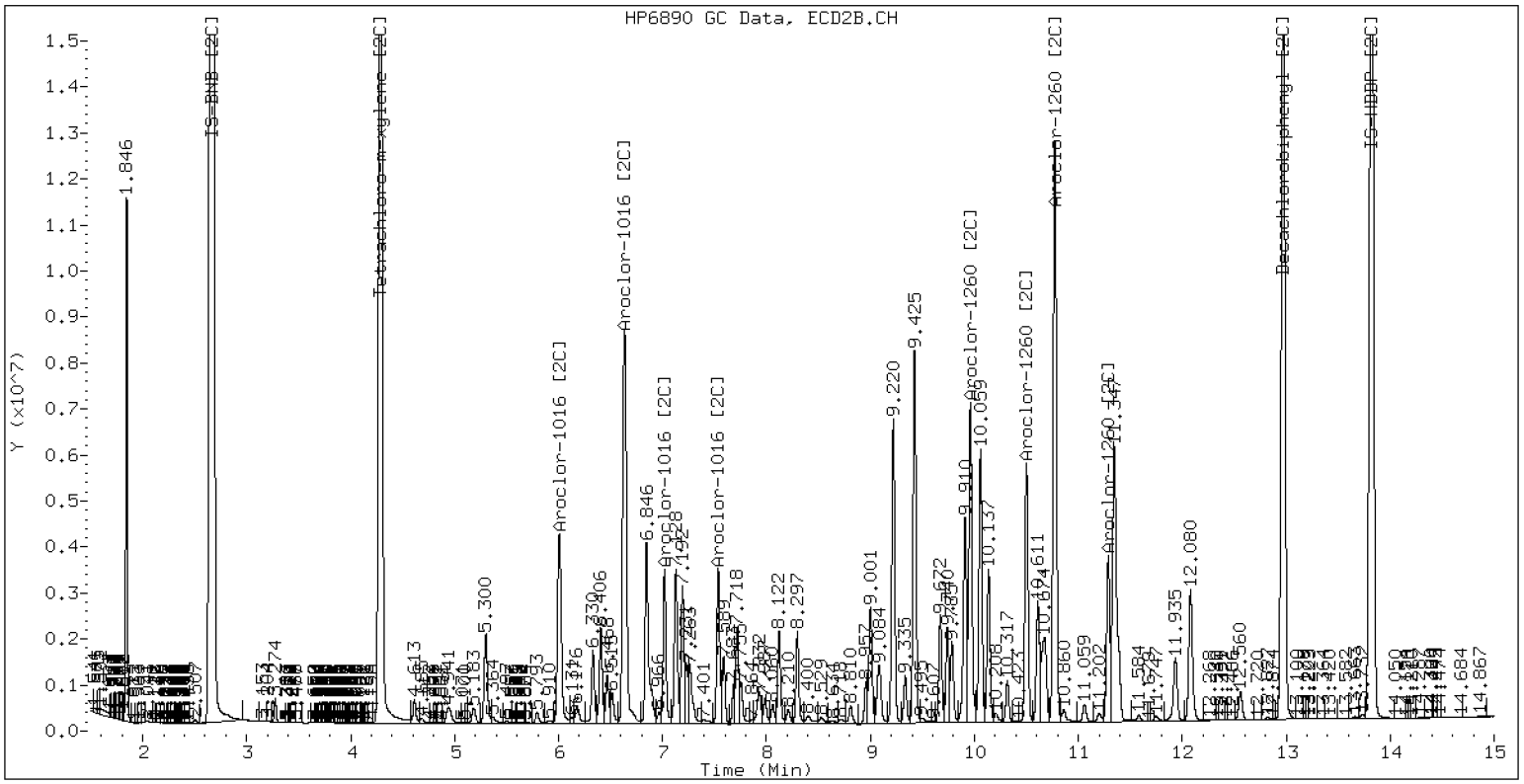
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062817.D AR1660CCV2 28-JUN-2018 12:14 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062817.D AR1660CCV2



ZB-35 Manual Integration: YES

CONTINUING CALIBRATION CHECK

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18062827ECD5.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0393	Injection Date:	06/28/18
Lab Sample ID:	SGF0393-CCV3	Injection Time:	15:37
Sequence Name:	AR1242CCV3		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1242	A	250.00	267	0.0270222	0.0287763		6.6	20
Aroclor-1242 (1)	A	250.00	258		0.0173398			
Aroclor-1242 (2)	A	250.00	265		0.0592476			
Aroclor-1242 (3)	A	250.00	265		0.0164850			
Aroclor-1242 (4)	A	250.00	278		0.0220329			
Aroclor 1242 [2C]	A	250.00	297	0.0251264	0.0297211		18.9	20
Aroclor-1242 (1) [2C]	A	250.00	280		0.0229024			
Aroclor-1242 (2) [2C]	A	250.00	295		0.0572554			
Aroclor-1242 (3) [2C]	A	250.00	295		0.0182940			
Aroclor-1242 (4) [2C]	A	250.00	319		0.0204327			
Decachlorobiphenyl	A	40.000	32.1	0.8443871	0.6781407		-19.8	20
Tetrachlorometaxylene	A	40.000	37.6	0.9073273	0.8528990		-6.0	20
Decachlorobiphenyl [2C]	A	40.000	40.2	1.2312580	1.2363350		0.5	20
Tetrachlorometaxylene [2C]	A	40.000	40.3	0.7876038	0.7943971		0.8	20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062827.D
Data file 2: /20180628.b/20180628.b/18062827.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: AR1242.sub
Quant Method: Internal Std

ARI ID: AR1242CCV3
Client ID:
Injection Date: 28-JUN-2018 15:37
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.434	-0.007	492249392	4.283	-0.007	2401767402	37.6	40.3	7.0	Tetrachloro-m-xylene
12.776	-0.003	305292344	12.969	-0.002	1877225742	32.1	40.2	22.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	94.0	100.9
Decachlorobiphenyl	80.3	100.4

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1154297533	25.4
Hexabromobiphenyl	761926666	900380731	18.2

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	6046767242	36.9
Hexabromobiphenyl	2171332320	3036760210	39.9

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	6.057	0.000	62547902	257.8	1	6.002	-0.007	432766459	279.6
Aroclor-1242	2	6.458	0.000	213716635	264.7	2	6.636	-0.005	1081905856	294.9
Aroclor-1242	3	6.718	0.000	59464330	265.3	3	7.532	-0.006	345686530	295.3
Aroclor-1242	4	8.085	0.000	79476711	278.5	4	8.398	-0.005	386099024	319.3
Total Col1Ave (4 peaks):					266.6	Total Col2Ave (4 peaks):				297.3 RPD = 11
Corrected Ave (3 peaks):					262.6	Corrected Ave (3 peaks):				289.9 RPD = 10
CalAmt %D:					6.6	CalAmt %D:				18.9

Total PCB Area Col1 (4.541 - 12.680) = 1629544362 Col1 Total PCB = 0.3 ppm*

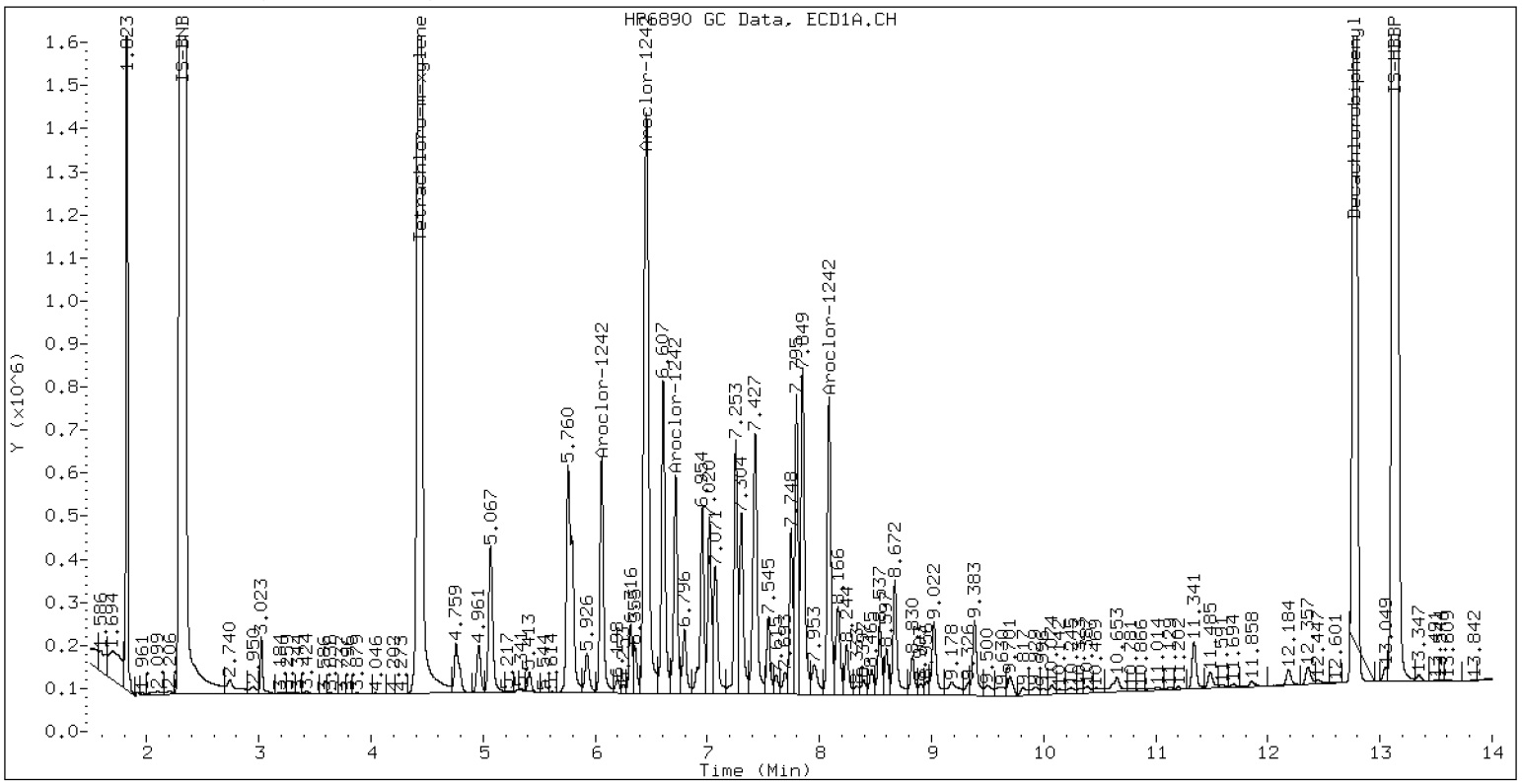
Total PCB Area Col2 (4.541 - 12.680) = 6747767424 Col2 Total PCB = 0.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

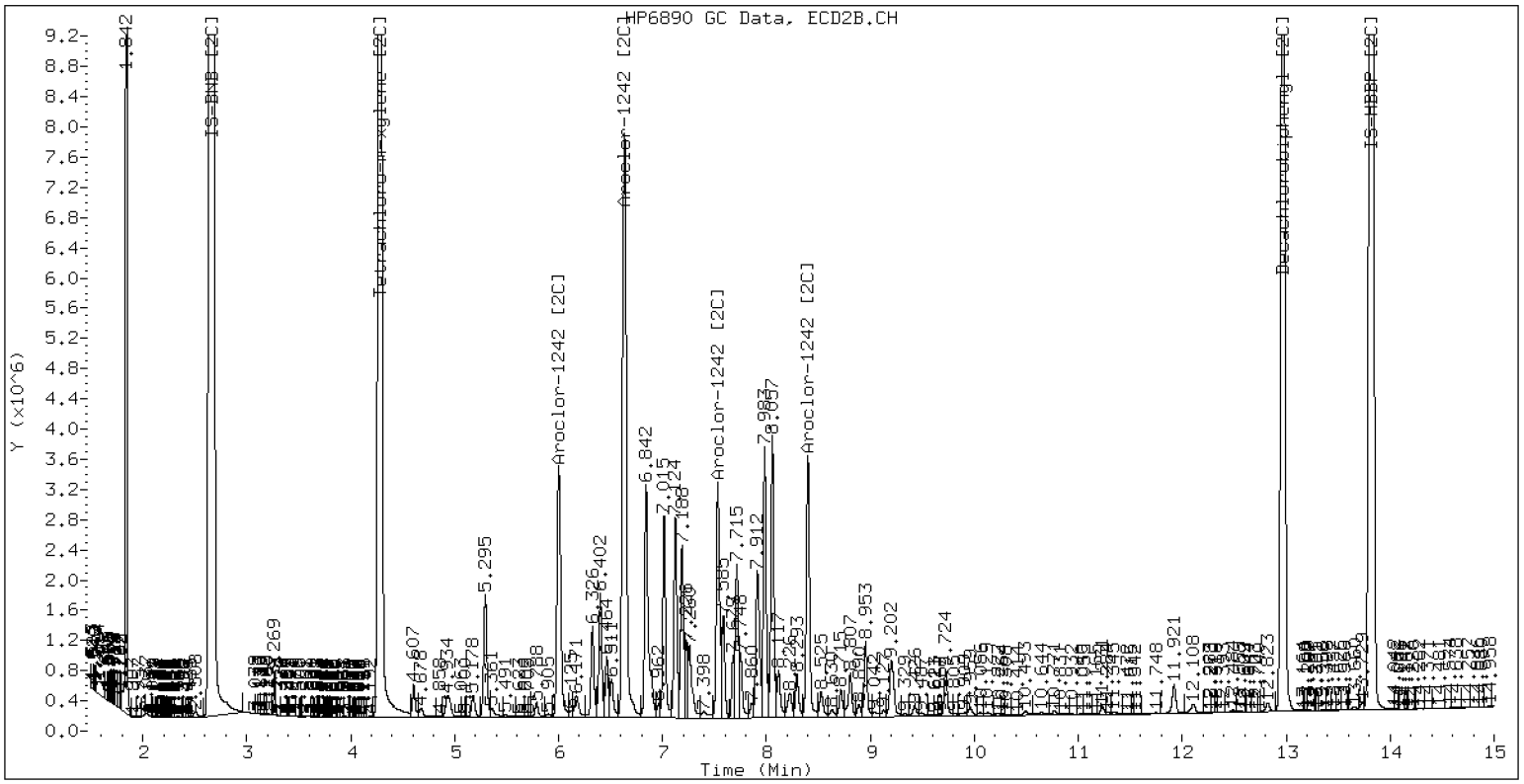
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062827.D AR1242CCV3 28-JUN-2018 15:37 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062827.D AR1242CCV3



ZB-35 Manual Integration: NO

CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18062828ECD5.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0393	Injection Date:	06/28/18
Lab Sample ID:	SGF0393-CCV4	Injection Time:	15:57
Sequence Name:	AR1660CCV4		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	258	0.0331041	0.0341847		3.0	20
Aroclor-1016 (1)	A	250.00	244	0.0210218	0.0205342		-2.4	
Aroclor-1016 (2)	A	250.00	259	0.0694139	0.0718536		3.6	
Aroclor-1016 (3)	A	250.00	259	0.0192640	0.0199670		3.6	
Aroclor-1016 (4)	A	250.00	268	0.0227168	0.0243842		7.2	
Aroclor 1016 [2C]	A	250.00	280	0.0278375	0.0295877		11.9	20
Aroclor-1016 (1) [2C]	A	250.00	292	0.0247868	0.0289235		16.8	
Aroclor-1016 (2) [2C]	A	250.00	242	0.0569545	0.0550746		-3.2	
Aroclor-1016 (3) [2C]	A	250.00	320	0.0135527	0.0173514		28.0	
Aroclor-1016 (4) [2C]	A	250.00	265	0.0160561	0.0170011		6.0	
Aroclor 1260	A	250.00	257	0.0536471	0.0551645		3.0	20
Aroclor-1260 (1)	A	250.00	263	0.0437892	0.0460470		5.2	
Aroclor-1260 (2)	A	250.00	261	0.0425449	0.0443670		4.4	
Aroclor-1260 (3)	A	250.00	255	0.1035155	0.1056978		2.0	
Aroclor-1260 (4)	A	250.00	255	0.0501426	0.0510787		2.0	
Aroclor-1260 (5)	A	250.00	253	0.0282431	0.0286319		1.2	
Aroclor 1260 [2C]	A	250.00	280	0.0701404	0.0787358		11.8	20
Aroclor-1260 (1) [2C]	A	250.00	292	0.0630560	0.0735362		16.8	
Aroclor-1260 (2) [2C]	A	250.00	276	0.0558539	0.0616586		10.4	
Aroclor-1260 (3) [2C]	A	250.00	280	0.1254738	0.1406916		12.0	
Aroclor-1260 (4) [2C]	A	250.00	270	0.0361779	0.0390569		8.0	
Decachlorobiphenyl	A	40.000	34.3	0.8443871	0.7235139		-14.3	20
Tetrachlorometaxylene	A	40.000	38.7	0.9073273	0.8777621		-3.3	20
Decachlorobiphenyl [2C]	A	40.000	42.0	1.2312580	1.2924070		5.0	20
Tetrachlorometaxylene [2C]	A	40.000	42.8	0.7876038	0.8439001		7.0	20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062828.D
Data file 2: /20180628.b/20180628.b/18062828.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: AR1660.sub
Quant Method: Internal Std

ARI ID: AR1660CCV4
Client ID:
Injection Date: 28-JUN-2018 15:57
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.439	-0.002	501024356	4.288	-0.002	2436260848	38.7	42.9	10.2	Tetrachloro-m-xylene
12.776	-0.003	330455218	12.969	-0.002	2001078301	34.3	42.0	20.2	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	96.7	107.1
Decachlorobiphenyl	85.7	105.0

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1141595290	24.1
Hexabromobiphenyl	761926666	913472967	19.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	5773814290	30.7
Hexabromobiphenyl	2171332320	3096667968	42.6

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

Aroclor	Peak#	ZB5 Col RT	Shift	Area	Amount	Peak#	ZB35 Col RT	Shift	Area	Amount
Aroclor-1016	1	6.061	-0.002	73255367	244.2	1	6.005	-0.004	521871183	291.7
Aroclor-1016	2	6.461	-0.001	256336451	258.8	2	6.631	-0.002	993720744	241.7
Aroclor-1016	3	6.720	-0.002	71231773	259.1	3	7.018	-0.003	313073784	320.1
Aroclor-1016	4	7.430	-0.002	86990274	268.4	4	7.535	-0.003	306754411	264.7
Total Col1Ave (4 peaks):					257.6	Total Col2Ave (4 peaks):				279.6 RPD = 8
Corrected Ave (3 peaks):					254.0	Corrected Ave (3 peaks):				266.1 RPD = 5
CalAmt %D:					3.0	CalAmt %D:				11.8
Aroclor-1260	1	9.930	-0.003	131445791	262.9	1	9.961	-0.002	711616401	291.6
Aroclor-1260	2	10.246	-0.002	126650258	260.7	2	10.500	-0.001	596675550	276.0
Aroclor-1260	3	10.616	-0.002	301725271	255.3	3	10.772	-0.004	1361485180	280.3
Aroclor-1260	4	11.014	-0.002	145809496	254.7	4	11.286	-0.002	377957050	269.9
Aroclor-1260	5	11.203	-0.003	81732805	253.4	NS	---			----
Total Col1Ave (5 peaks):					257.4	Total Col2Ave (4 peaks):				279.4 RPD = 8
Corrected Ave (4 peaks):					256.0	Corrected Ave (3 peaks):				275.4 RPD = 7
CalAmt %D:					3.0	CalAmt %D:				11.8

Total PCB Area Col1 (4.541 - 12.680) = 3704909025 Col1 Total PCB = 0.7 ppm*

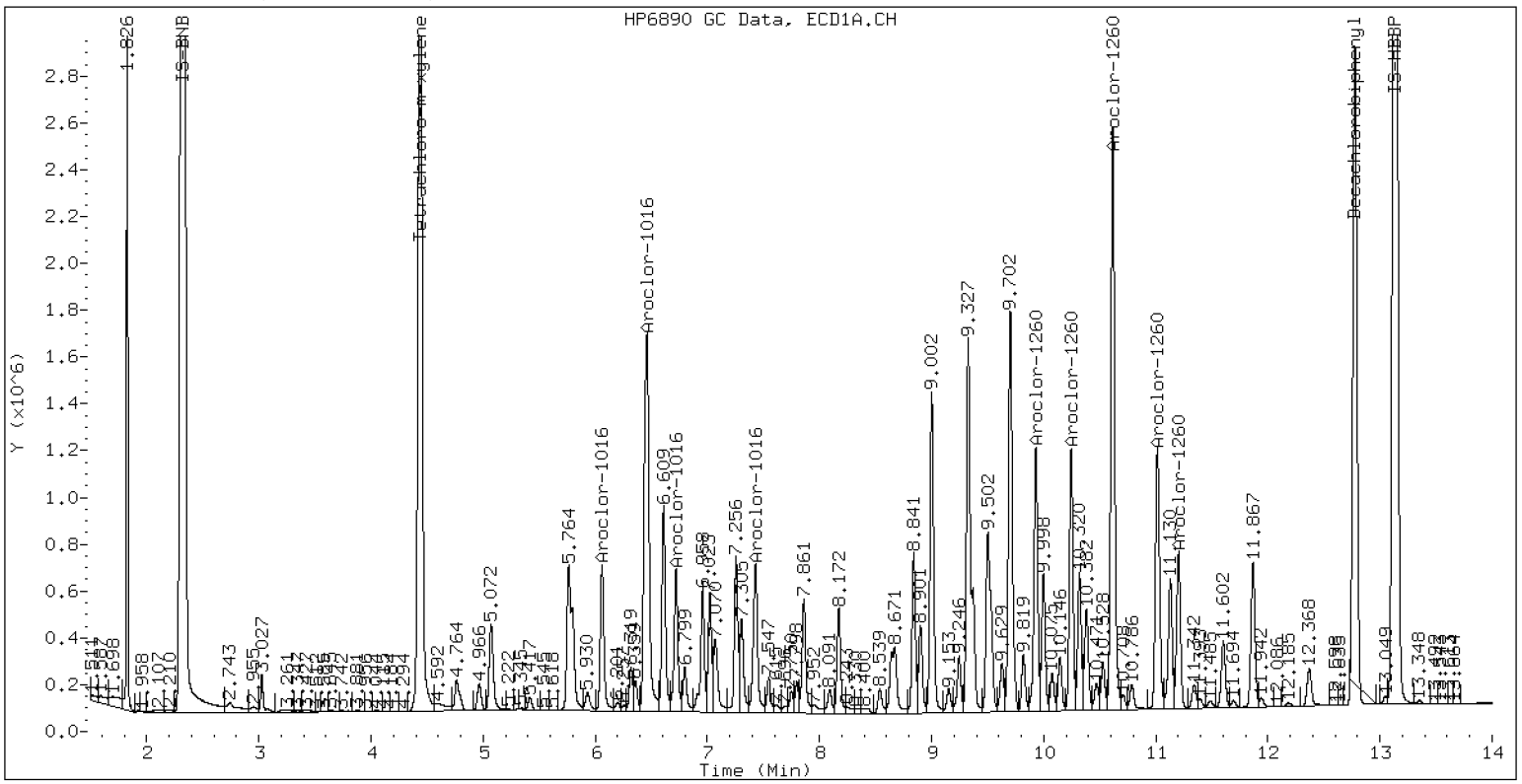
Total PCB Area Col2 (4.541 - 12.680) = 11437593465 Col2 Total PCB = 1.4 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

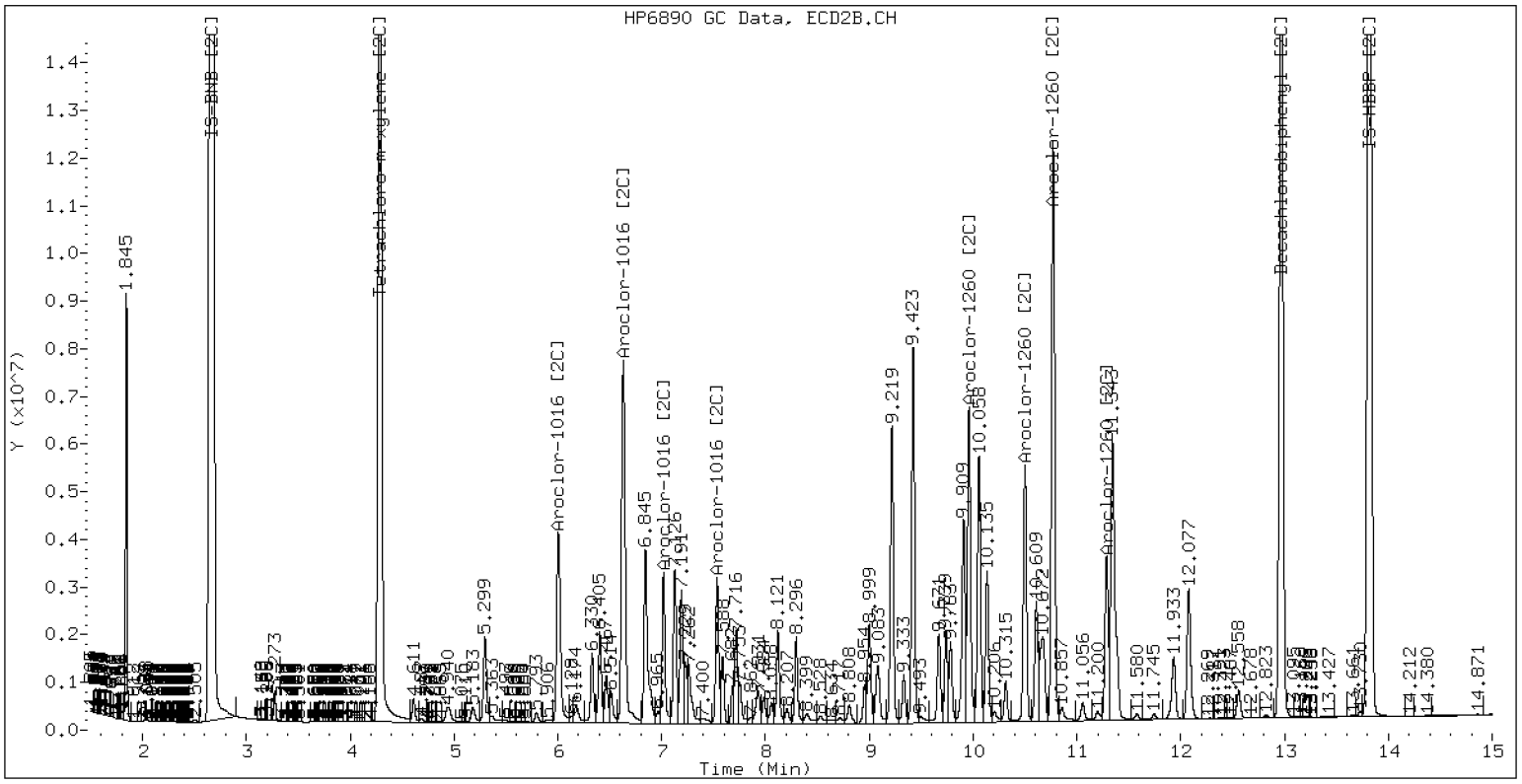
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062828.D AR1660CCV4 28-JUN-2018 15:57 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062828.D AR1660CCV4



ZB-35 Manual Integration: NO

CONTINUING CALIBRATION CHECK

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18062839ECD5.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0393	Injection Date:	06/28/18
Lab Sample ID:	SGF0393-CCV5	Injection Time:	19:40
Sequence Name:	AR1254CCV5		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1254	A	250.00	249	0.0410820	0.0406352		-0.5	20
Aroclor-1254 (1)	A	250.00	220		0.0408931			
Aroclor-1254 (2)	A	250.00	262		0.0154309			
Aroclor-1254 (3)	A	250.00	252		0.0298782			
Aroclor-1254 (4)	A	250.00	261		0.0600517			
Aroclor-1254 (5)	A	250.00	249		0.0569222			
Aroclor 1254 [2C]	A	250.00	260	0.0288181	0.0283115		4.2	20
Aroclor-1254 (1) [2C]	A	250.00	237		0.0272362			
Aroclor-1254 (2) [2C]	A	250.00	317		0.0268267			
Aroclor-1254 (3) [2C]	A	250.00	188		0.0350422			
Aroclor-1254 (4) [2C]	A	250.00	314		0.0261922			
Aroclor-1254 (5) [2C]	A	250.00	246		0.0262603			
Decachlorobiphenyl	A	40.000	35.7	0.8443871	0.7536025		-10.8	20
Tetrachlorometaxylene	A	40.000	37.5	0.9073273	0.8512499		-6.3	20
Decachlorobiphenyl [2C]	A	40.000	40.8	1.2312580	1.2558880		2.0	20
Tetrachlorometaxylene [2C]	A	40.000	41.6	0.7876038	0.8201340		4.0	20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062839ECD5.D
Data file 2: /20180628.b/20180628.b/18062839ECD5.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: AR1254.sub
Quant Method: Internal Std

ARI ID: AR1254CCV5
Client ID:
Injection Date: 28-JUN-2018 19:40
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.441	-0.001	536613910	4.289	-0.002	2600352134	37.5	41.7	10.4	Tetrachloro-m-xylene
12.778	0.000	369595971	12.971	-0.000	2184260498	35.7	40.8	13.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	93.8	104.1
Decachlorobiphenyl	89.2	102.0

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1260767497	37.0
Hexabromobiphenyl	761926666	980877760	28.7

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	6341286064	43.5
Hexabromobiphenyl	2171332320	3478431700	60.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1254	1	8.173	0.000	161114637	219.7	1	8.299	0.000	539725549	236.7
Aroclor-1254	2	8.248	0.000	60795979	261.6	2	8.811	0.000	531610737	316.8
Aroclor-1254	3	8.541	0.000	117717236	252.0	3	8.956	0.000	694415045	188.1
Aroclor-1254	4	8.676	0.000	236597464	261.4	4	9.427	0.000	519038707	313.9
Aroclor-1254	5	9.705	0.000	224267489	249.4	5	9.734	0.000	520386983	245.7

Total Col1Ave (5 peaks): 248.8 Total Col2Ave (5 peaks): 260.2 RPD = 4

Corrected Ave (4 peaks): 245.6 Corrected Ave (4 peaks): 246.1 RPD = 0

CalAmt %D: -0.5 CalAmt %D: 4.1

Total PCB Area Col1 (4.542 - 12.677) = 2433506328 Col1 Total PCB = 0.4 ppm*

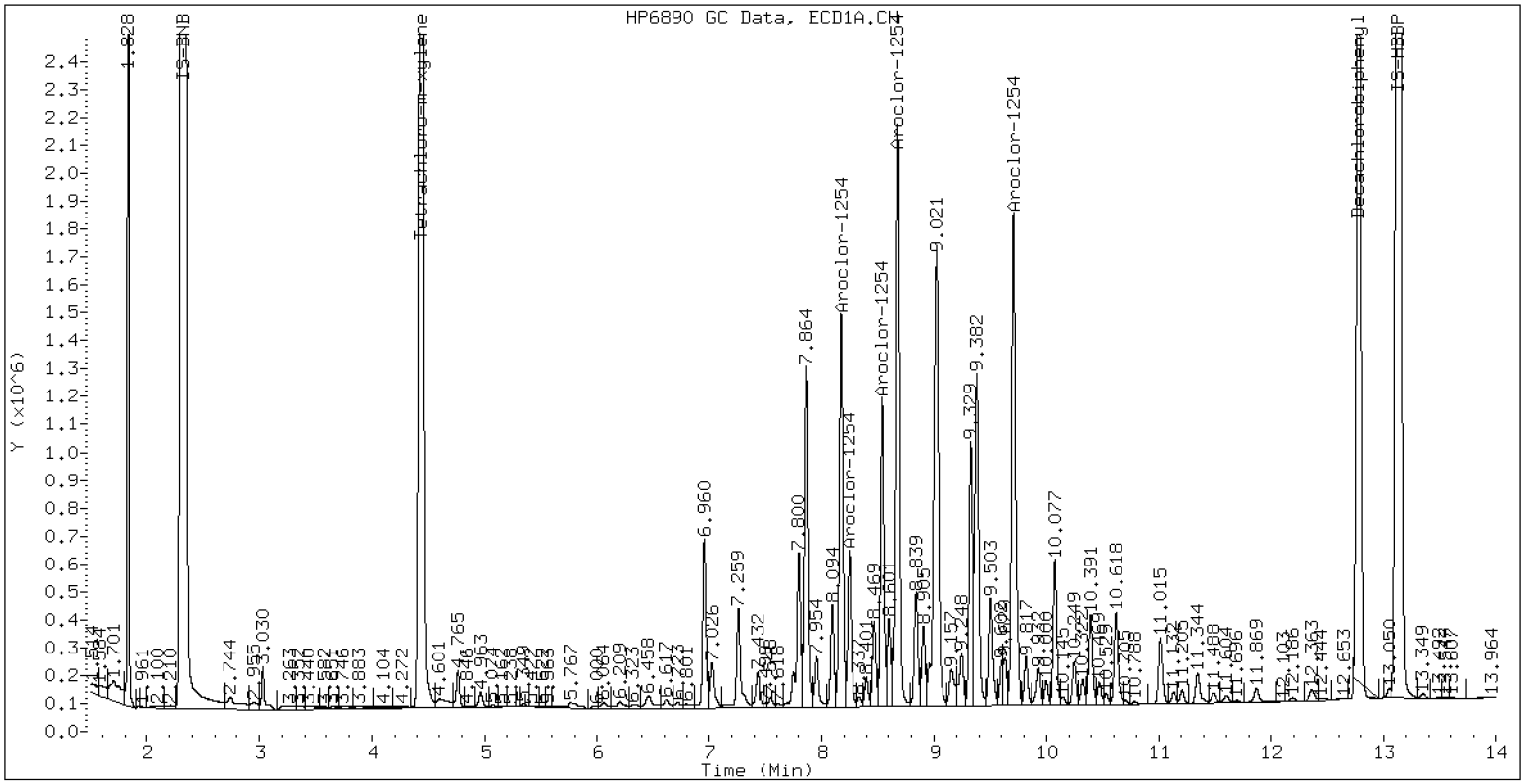
Total PCB Area Col2 (4.542 - 12.677) = 10069451806 Col2 Total PCB = 1.2 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

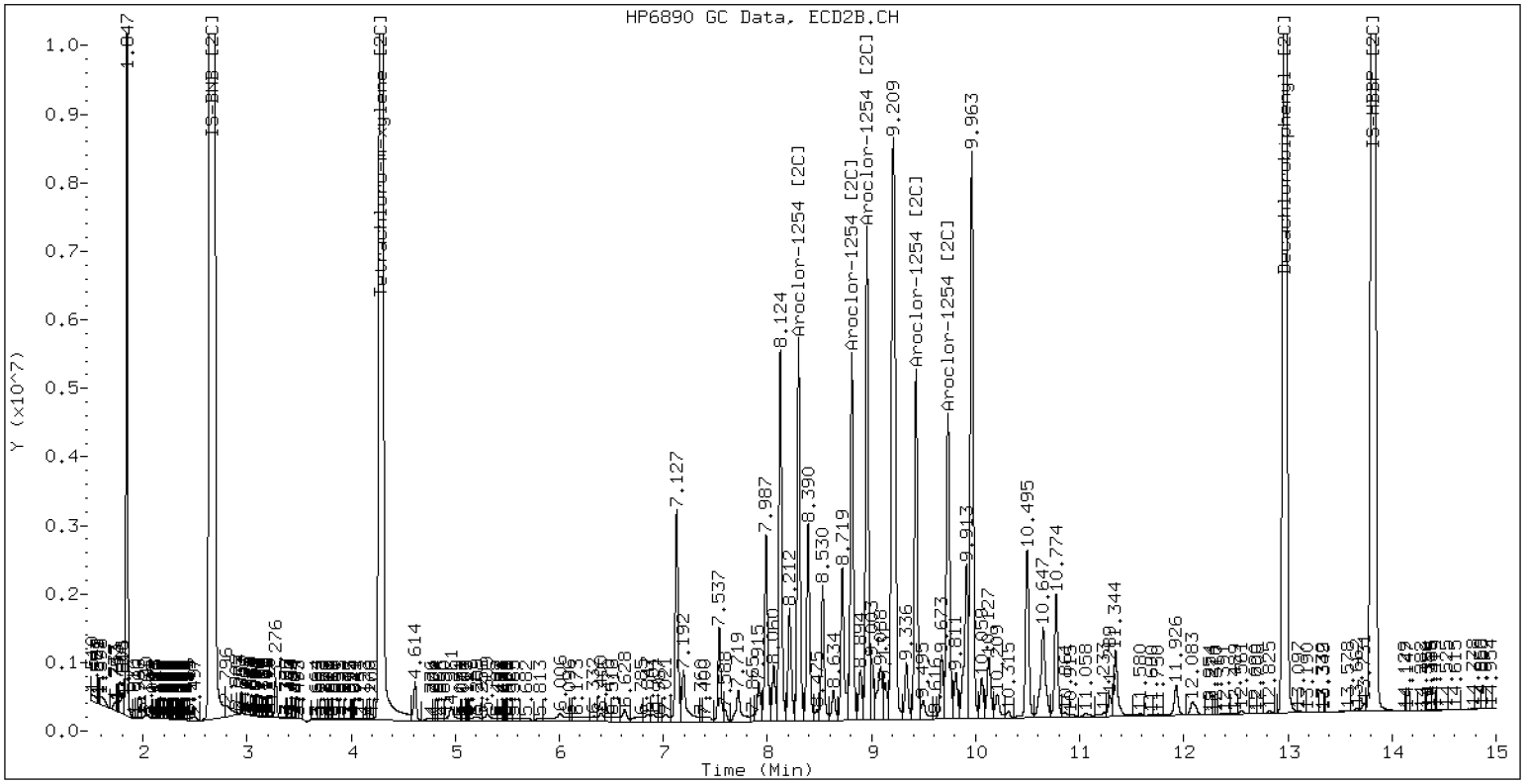
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062839ECD5.D AR1254CCV5 28-JUN-2018 19:40 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062839ECD5.D AR1254CCV5



ZB-35 Manual Integration: NO

CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18062840ECD5.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0393	Injection Date:	06/28/18
Lab Sample ID:	SGF0393-CCV6	Injection Time:	20:00
Sequence Name:	AR1660CCV6		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	250	0.0331041	0.0331877		0.1	20
Aroclor-1016 (1)	A	250.00	237	0.0210218	0.0199365		-5.2	
Aroclor-1016 (2)	A	250.00	252	0.0694139	0.0698311		0.8	
Aroclor-1016 (3)	A	250.00	252	0.0192640	0.0193839		0.8	
Aroclor-1016 (4)	A	250.00	260	0.0227168	0.0235993		4.0	
Aroclor 1016 [2C]	A	250.00	271	0.0278375	0.0286533		8.5	20
Aroclor-1016 (1) [2C]	A	250.00	284	0.0247868	0.0281483		13.6	
Aroclor-1016 (2) [2C]	A	250.00	233	0.0569545	0.0531066		-6.8	
Aroclor-1016 (3) [2C]	A	250.00	316	0.0135527	0.0171598		26.4	
Aroclor-1016 (4) [2C]	A	250.00	252	0.0160561	0.0161984		0.8	
Aroclor 1260	A	250.00	255	0.0536471	0.0546440		1.8	20
Aroclor-1260 (1)	A	250.00	258	0.0437892	0.0452326		3.2	
Aroclor-1260 (2)	A	250.00	257	0.0425449	0.0437899		2.8	
Aroclor-1260 (3)	A	250.00	253	0.1035155	0.1049389		1.2	
Aroclor-1260 (4)	A	250.00	253	0.0501426	0.0507639		1.2	
Aroclor-1260 (5)	A	250.00	252	0.0282431	0.0284949		0.8	
Aroclor 1260 [2C]	A	250.00	272	0.0701404	0.0766062		8.6	20
Aroclor-1260 (1) [2C]	A	250.00	281	0.0630560	0.0709764		12.4	
Aroclor-1260 (2) [2C]	A	250.00	267	0.0558539	0.0597302		6.8	
Aroclor-1260 (3) [2C]	A	250.00	274	0.1254738	0.1374477		9.6	
Aroclor-1260 (4) [2C]	A	250.00	264	0.0361779	0.0382703		5.6	
Decachlorobiphenyl	A	40.000	34.7	0.8443871	0.7329890		-13.3	20
Tetrachlorometaxylene	A	40.000	38.1	0.9073273	0.8636851		-4.8	20
Decachlorobiphenyl [2C]	A	40.000	41.0	1.2312580	1.2633800		2.5	20
Tetrachlorometaxylene [2C]	A	40.000	42.1	0.7876038	0.8295341		5.3	20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062840ECD5.D
Data file 2: /20180628.b/20180628.b/18062840ECD5.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: AR1660.sub
Quant Method: Internal Std

ARI ID: AR1660CCV6
Client ID:
Injection Date: 28-JUN-2018 20:00
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.441	-0.001	522403420	4.288	-0.002	2587226593	38.1	42.1	10.1	Tetrachloro-m-xylene
12.777	0.000	352178324	12.970	-0.001	2143123952	34.7	41.0	16.7	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	95.2	105.3
Decachlorobiphenyl	86.8	102.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1209707879	31.5
Hexabromobiphenyl	761926666	960937489	26.1

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	6237782372	41.2
Hexabromobiphenyl	2171332320	3392683141	56.2

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.063	-0.001	75366832	237.1	1	6.007	-0.002	548696173	283.9
Aroclor-1016	2	6.463	-0.001	263985079	251.5	2	6.632	-0.001	1035210857	233.1
Aroclor-1016	3	6.723	0.000	73277814	251.6	3	7.020	-0.001	334496768	316.5
Aroclor-1016	4	7.432	-0.000	89213252	259.7	4	7.536	-0.002	315756246	252.2
Total Col1Ave (4 peaks):					250.0	Total Col2Ave (4 peaks):				271.4 RPD = 8
Corrected Ave (3 peaks):					246.7	Corrected Ave (3 peaks):				256.4 RPD = 4
CalAmt %D:					-0.0	CalAmt %D:				8.6
Aroclor-1260	1	9.932	-0.001	135830171	258.2	1	9.961	-0.002	752501224	281.4
Aroclor-1260	2	10.247	-0.001	131498135	257.3	2	10.502	0.000	633267940	267.4
Aroclor-1260	3	10.617	-0.001	315124201	253.4	3	10.774	-0.001	1457239130	273.9
Aroclor-1260	4	11.015	-0.001	152440310	253.1	4	11.289	-0.000	405746570	264.5
Aroclor-1260	5	11.204	-0.001	85568140	252.2	NS	---			----
Total Col1Ave (5 peaks):					254.9	Total Col2Ave (4 peaks):				271.8 RPD = 6
Corrected Ave (4 peaks):					254.0	Corrected Ave (3 peaks):				268.6 RPD = 6
CalAmt %D:					1.9	CalAmt %D:				8.7

Total PCB Area Col1 (4.542 - 12.677) = 3828333015 Col1 Total PCB = 0.7 ppm*

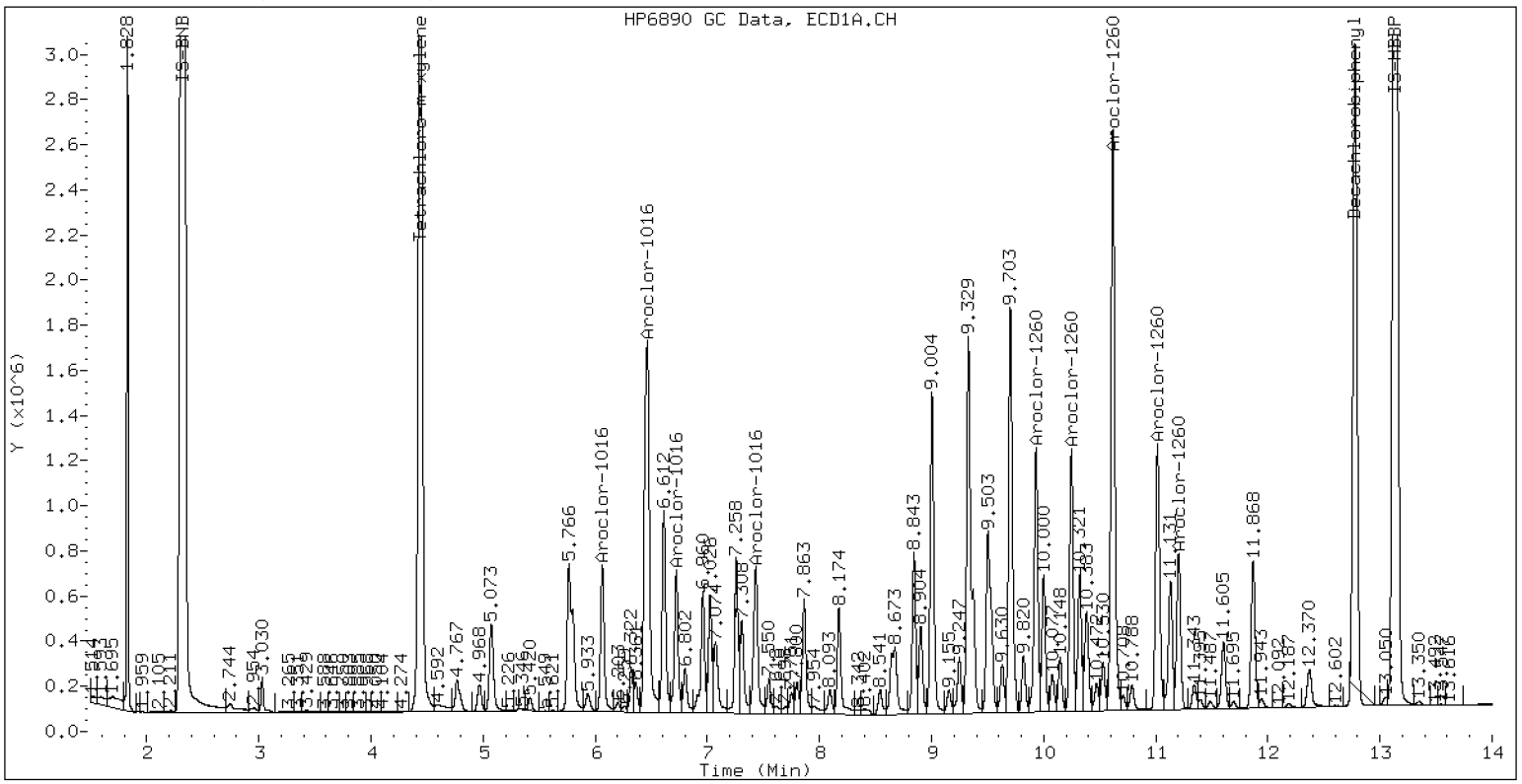
Total PCB Area Col2 (4.542 - 12.677) = 16282640186 Col2 Total PCB = 2.0 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

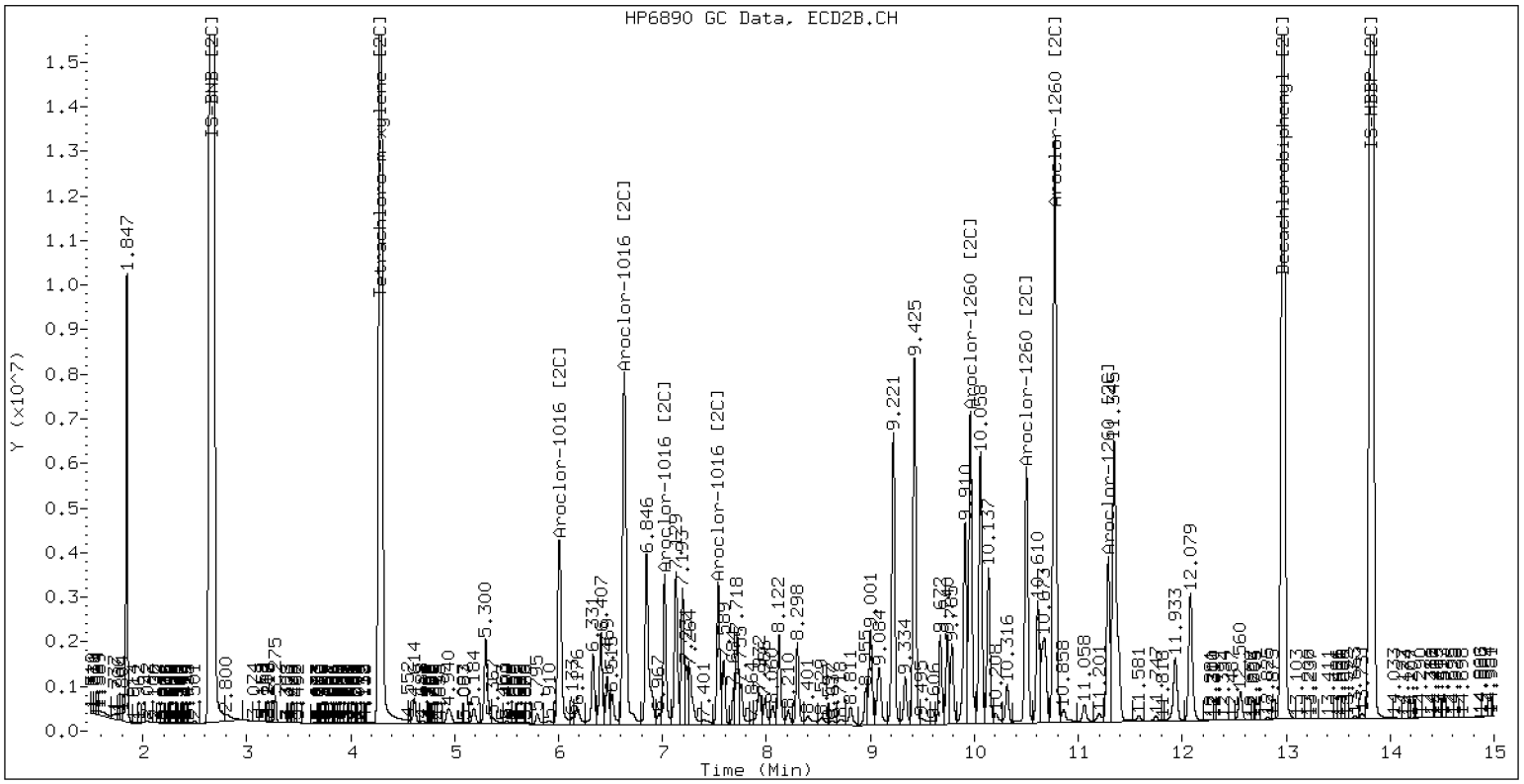
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062840ECD5.D AR1660CCV6 28-JUN-2018 20:00 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062840ECD5.D AR1660CCV6



ZB-35 Manual Integration: NO

CONTINUING CALIBRATION CHECK

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18062848ECD5.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0393	Injection Date:	06/28/18
Lab Sample ID:	SGF0393-CCV7	Injection Time:	22:42
Sequence Name:	AR1248CCV7		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1248	A	250.00	267	0.0283695	0.0302843		6.6	20
Aroclor-1248 (1)	A	250.00	265		0.0228141			
Aroclor-1248 (2)	A	250.00	265		0.0262885			
Aroclor-1248 (3)	A	250.00	267		0.0408079			
Aroclor-1248 (4)	A	250.00	269		0.0312267			
Aroclor 1248 [2C]	A	250.00	289	0.0230971	0.0266995		15.7	20
Aroclor-1248 (1) [2C]	A	250.00	273		0.0301535			
Aroclor-1248 (2) [2C]	A	250.00	294		0.0224575			
Aroclor-1248 (3) [2C]	A	250.00	277		0.0231025			
Aroclor-1248 (4) [2C]	A	250.00	313		0.0310844			
Decachlorobiphenyl	A	40.000	37.9	0.8443871	0.8007107		-5.3	20
Tetrachlorometaxylene	A	40.000	37.1	0.9073273	0.8418829		-7.3	20
Decachlorobiphenyl [2C]	A	40.000	44.1	1.2312580	1.3580670		10.3	20
Tetrachlorometaxylene [2C]	A	40.000	40.3	0.7876038	0.7944752		0.8	20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062848ECD5.D
Data file 2: /20180628.b/20180628.b/18062848ECD5.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: AR1248.sub
Quant Method: Internal Std

ARI ID: AR1248CCV7
Client ID:
Injection Date: 28-JUN-2018 22:42
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.443	0.001	495484332	4.291	0.001	2527881403	37.1	40.3	8.4	Tetrachloro-m-xylene
12.777	-0.000	347783977	12.971	-0.000	2016496577	37.9	44.1	15.1	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	92.8	100.9
Decachlorobiphenyl	94.8	110.3

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1177086248	27.9
Hexabromobiphenyl	761926666	868688291	14.0

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	6363650005	44.0
Hexabromobiphenyl	2171332320	2969656947	36.8

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1248	1	6.961	0.000	83919403	264.9	1	6.636	0.000	599645362	272.8
Aroclor-1248	2	7.259	0.000	96699483	265.3	2	7.129	0.000	446599354	293.6
Aroclor-1248	3	7.856	0.000	150107409	267.1	3	7.537	0.000	459425182	277.1
Aroclor-1248	4	8.090	0.000	114863863	269.4	4	7.988	0.000	618157322	313.5
Total Col1Ave (4 peaks):					266.7	Total Col2Ave (4 peaks):				289.2
Corrected Ave (3 peaks):					265.8	Corrected Ave (3 peaks):				281.2
CalAmt %D:					6.7	CalAmt %D:				15.7

RPD = 8

RPD = 6

Total PCB Area Col1 (4.542 - 12.677) = 1868644499 Col1 Total PCB = 0.3 ppm*

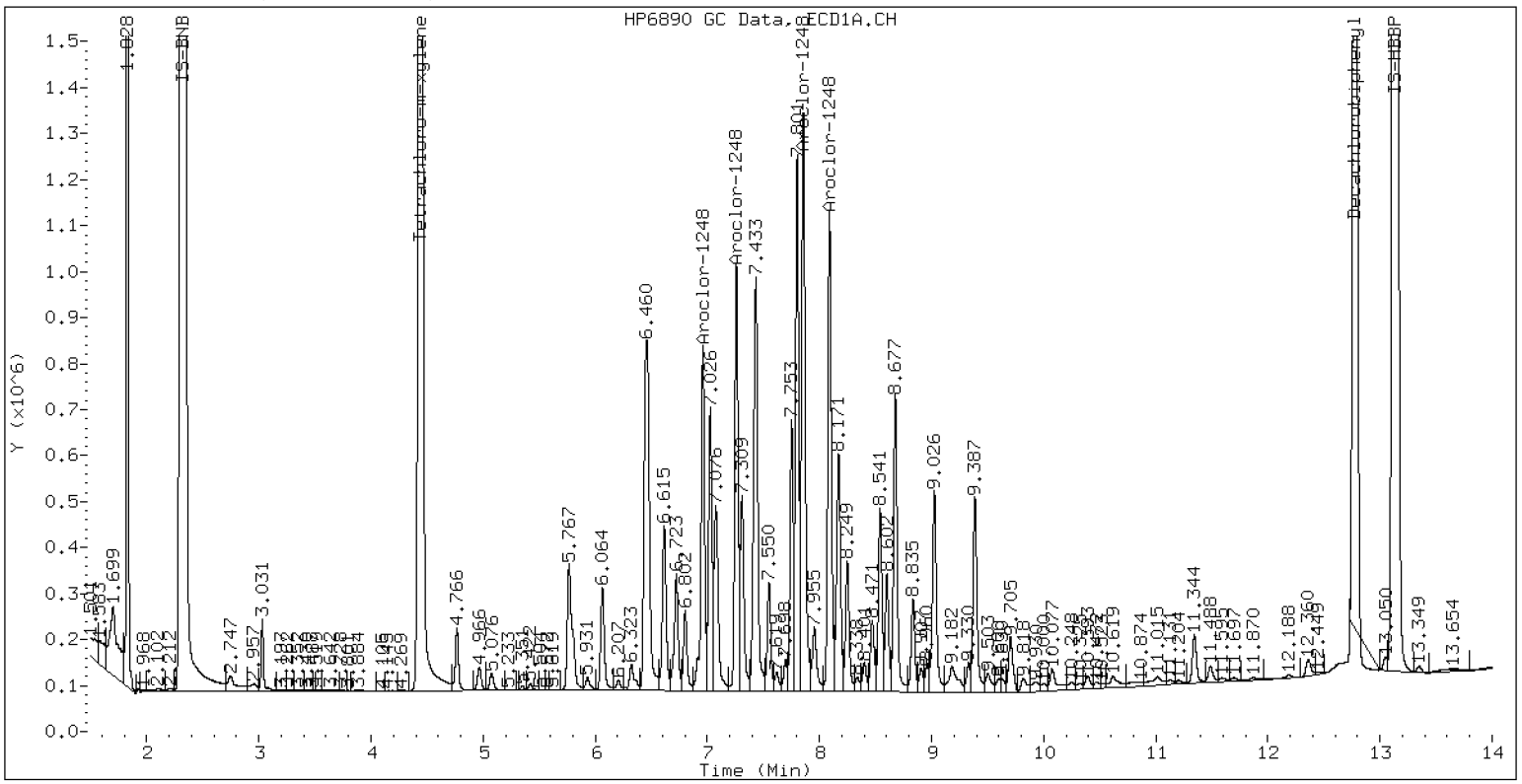
Total PCB Area Col2 (4.542 - 12.677) = 7532922167 Col2 Total PCB = 0.9 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

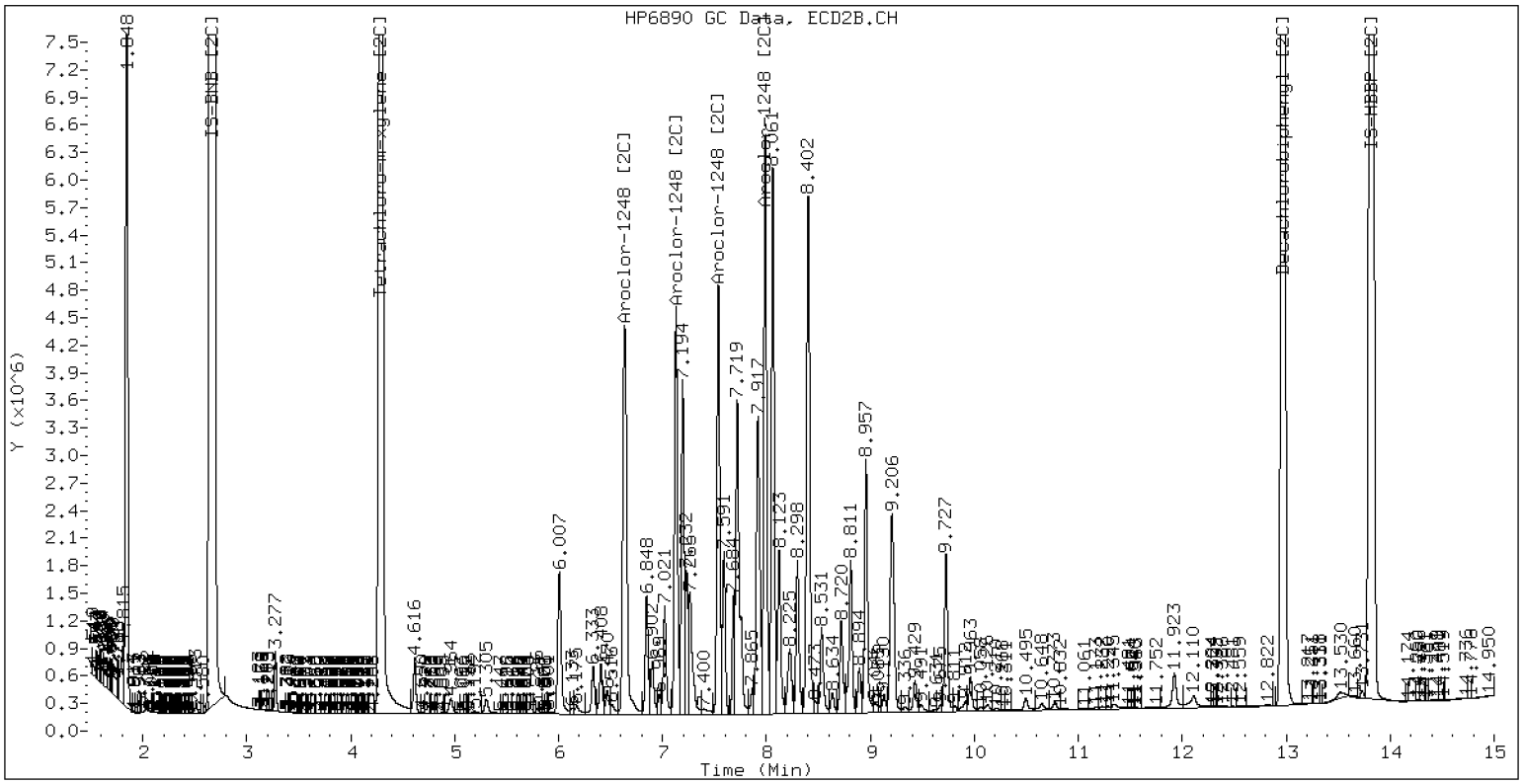
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062848ECD5.D AR1248CCV7 28-JUN-2018 22:42 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062848ECD5.D AR1248CCV7



ZB-35 Manual Integration: NO

CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18062849ECD5.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0393	Injection Date:	06/28/18
Lab Sample ID:	SGF0393-CCV8	Injection Time:	23:02
Sequence Name:	AR1660CCV8		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	250	0.0331041	0.0331744		-0.1	20
Aroclor-1016 (1)	A	250.00	237	0.0210218	0.0199257		-5.2	
Aroclor-1016 (2)	A	250.00	252	0.0694139	0.0698603		0.8	
Aroclor-1016 (3)	A	250.00	252	0.0192640	0.0194146		0.8	
Aroclor-1016 (4)	A	250.00	258	0.0227168	0.0234969		3.2	
Aroclor 1016 [2C]	A	250.00	273	0.0278375	0.0288085		9.1	20
Aroclor-1016 (1) [2C]	A	250.00	286	0.0247868	0.0283454		14.4	
Aroclor-1016 (2) [2C]	A	250.00	234	0.0569545	0.0534090		-6.4	
Aroclor-1016 (3) [2C]	A	250.00	318	0.0135527	0.0172220		27.2	
Aroclor-1016 (4) [2C]	A	250.00	253	0.0160561	0.0162578		1.2	
Aroclor 1260	A	250.00	260	0.0536471	0.0559266		4.2	20
Aroclor-1260 (1)	A	250.00	266	0.0437892	0.0466788		6.4	
Aroclor-1260 (2)	A	250.00	266	0.0425449	0.0452186		6.4	
Aroclor-1260 (3)	A	250.00	260	0.1035155	0.1076409		4.0	
Aroclor-1260 (4)	A	250.00	256	0.0501426	0.0514241		2.4	
Aroclor-1260 (5)	A	250.00	254	0.0282431	0.0286706		1.6	
Aroclor 1260 [2C]	A	250.00	271	0.0701404	0.0762368		8.4	20
Aroclor-1260 (1) [2C]	A	250.00	286	0.0630560	0.0722398		14.4	
Aroclor-1260 (2) [2C]	A	250.00	264	0.0558539	0.0588968		5.6	
Aroclor-1260 (3) [2C]	A	250.00	270	0.1254738	0.1355799		8.0	
Aroclor-1260 (4) [2C]	A	250.00	264	0.0361779	0.0382306		5.6	
Decachlorobiphenyl	A	40.000	35.8	0.8443871	0.7558563		-10.5	20
Tetrachlorometaxylene	A	40.000	38.0	0.9073273	0.8629821		-5.0	20
Decachlorobiphenyl [2C]	A	40.000	40.3	1.2312580	1.2419870		0.8	20
Tetrachlorometaxylene [2C]	A	40.000	42.5	0.7876038	0.8361171		6.3	20

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062849ECD5.D
Data file 2: /20180628.b/20180628.b/18062849ECD5.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: AR1660.sub
Quant Method: Internal Std

ARI ID: AR1660CCV8
Client ID:
Injection Date: 28-JUN-2018 23:02
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.442	0.001	524841080	4.291	0.000	2664855531	38.0	42.5	11.0	Tetrachloro-m-xylene
12.777	-0.000	350165254	12.971	-0.000	1968800199	35.8	40.3	11.9	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	95.1	106.2
Decachlorobiphenyl	89.5	100.9

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1216342697	32.2
Hexabromobiphenyl	761926666	926539165	21.6

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	6374361028	44.3
Hexabromobiphenyl	2171332320	3170404153	46.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col				ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1016	1	6.064	0.000	75738860	237.0	1	6.008	-0.001	564635884	285.9
Aroclor-1016	2	6.464	-0.000	265543866	251.6	2	6.633	0.000	1063900082	234.4
Aroclor-1016	3	6.723	-0.000	73796207	252.0	3	7.021	-0.000	343060784	317.7
Aroclor-1016	4	7.432	-0.000	89313448	258.6	4	7.537	-0.001	323853194	253.1
Total Col1Ave (4 peaks):					249.8	Total Col2Ave (4 peaks):				272.8 RPD = 9
Corrected Ave (3 peaks):					246.8	Corrected Ave (3 peaks):				257.8 RPD = 4
CalAmt %D:					-0.1	CalAmt %D:				9.1
Aroclor-1260	1	9.933	0.000	135155357	266.5	1	9.962	-0.001	715716834	286.4
Aroclor-1260	2	10.248	0.000	130927576	265.7	2	10.502	0.000	583520794	263.6
Aroclor-1260	3	10.617	-0.000	311667220	260.0	3	10.774	-0.002	1343259910	270.1
Aroclor-1260	4	11.016	-0.000	148895063	256.4	4	11.288	-0.000	378769731	264.2
Aroclor-1260	5	11.205	-0.000	83013804	253.8	NS	---			----
Total Col1Ave (5 peaks):					260.5	Total Col2Ave (4 peaks):				271.1 RPD = 4
Corrected Ave (4 peaks):					259.0	Corrected Ave (3 peaks):				266.0 RPD = 3
CalAmt %D:					4.2	CalAmt %D:				8.4

Total PCB Area Col1 (4.542 - 12.677) = 3799380070 Col1 Total PCB = 0.7 ppm*

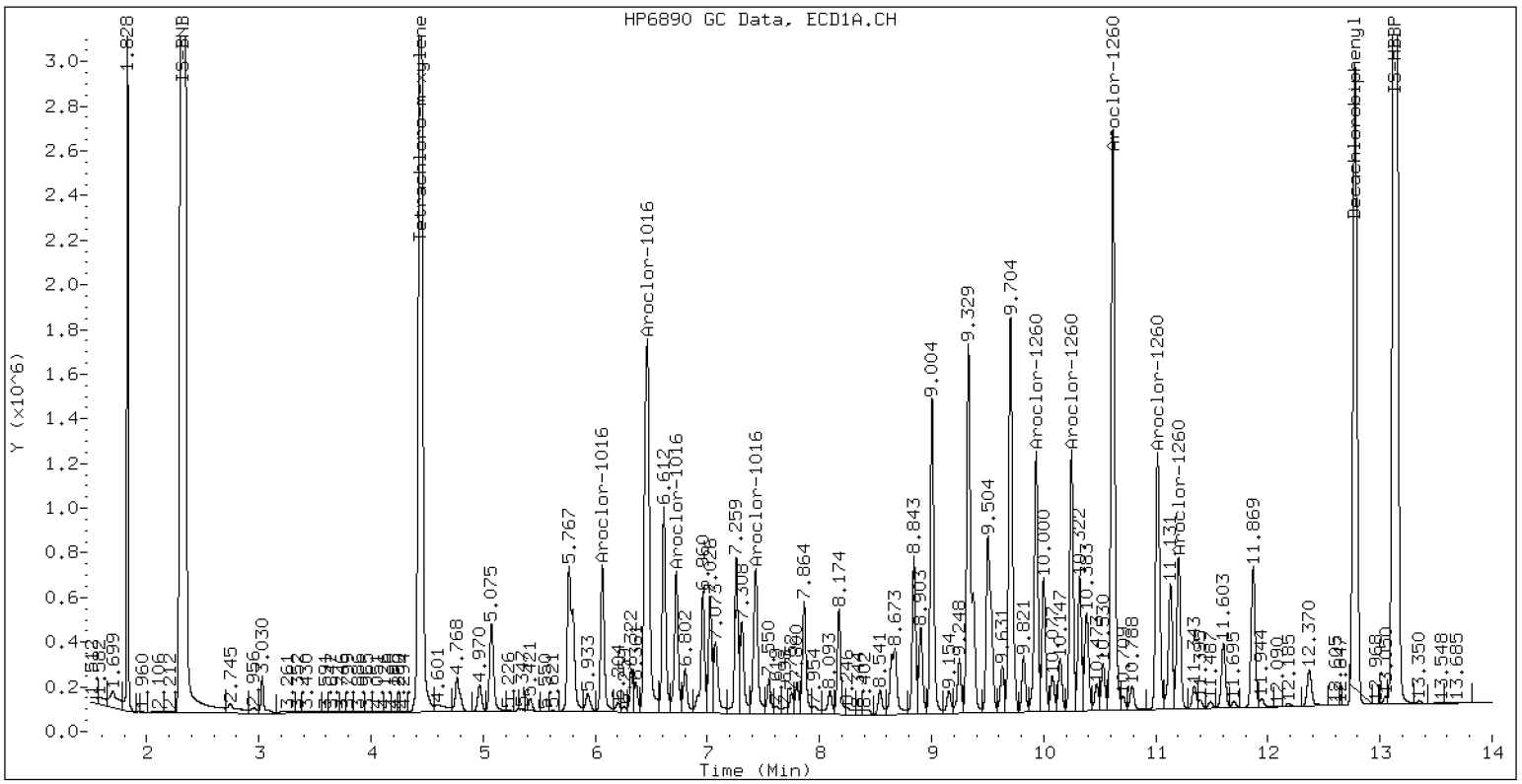
Total PCB Area Col2 (4.542 - 12.677) = 15279002064 Col2 Total PCB = 1.8 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

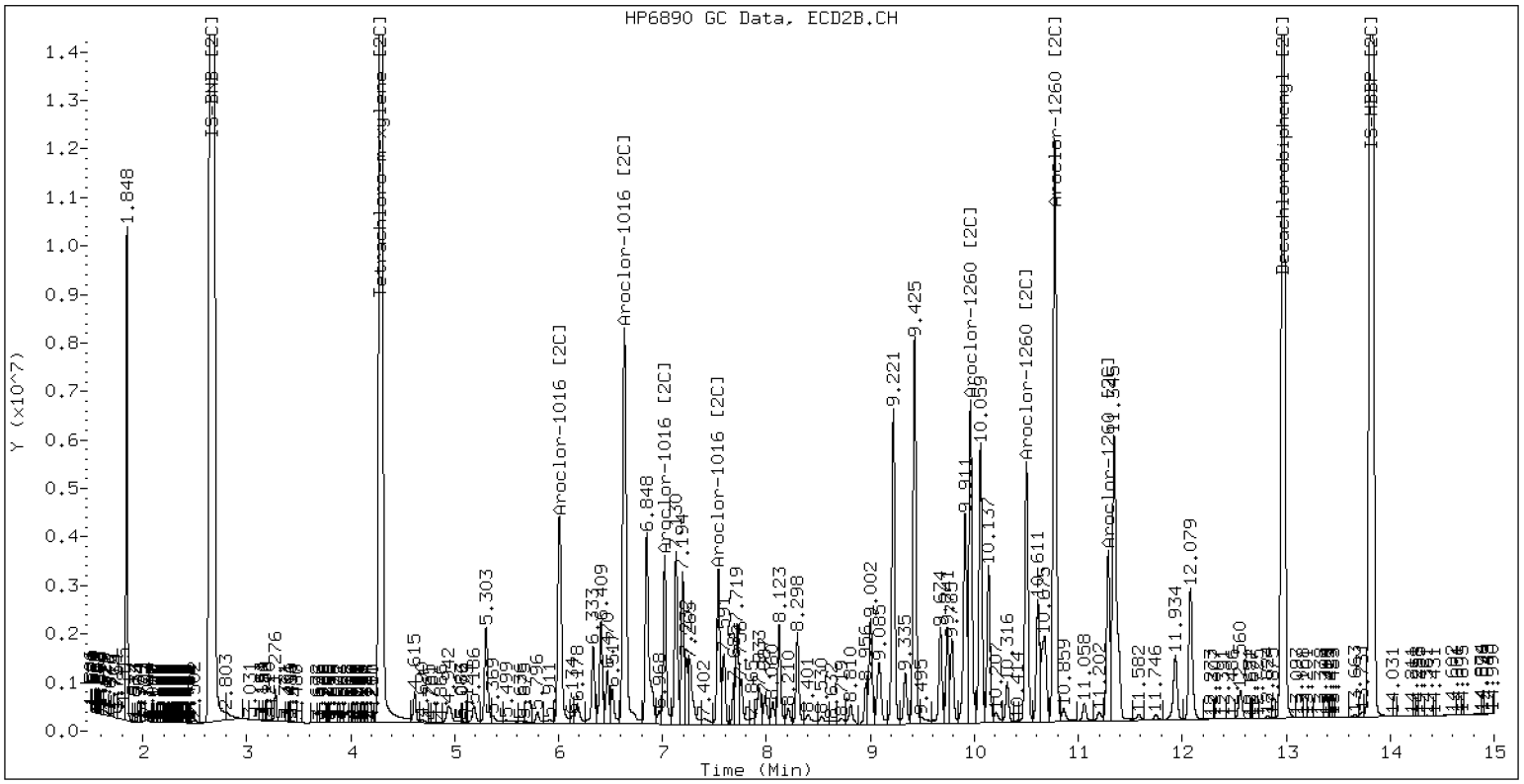
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062849ECD5.D AR1660CCV8 28-JUN-2018 23:02 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062849ECD5.D AR1660CCV8



ZB-35 Manual Integration: NO

CONTINUING CALIBRATION CHECK

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18062859ECD5.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0393	Injection Date:	06/29/18
Lab Sample ID:	SGF0393-CCV9	Injection Time:	02:25
Sequence Name:	AR1242CCV9		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT	
Aroclor 1242	A	250.00	268	0.0270222	0.0289745		7.3	20	
Aroclor-1242 (1)	A	250.00	258		0.0173825				
Aroclor-1242 (2)	A	250.00	267		0.0597119				
Aroclor-1242 (3)	A	250.00	267		0.0165989				
Aroclor-1242 (4)	A	250.00	281		0.0222046				
Aroclor 1242 [2C]	A	250.00	312	0.0251264	0.0311084		24.6	20	*
Aroclor-1242 (1) [2C]	A	250.00	288		0.0235883				
Aroclor-1242 (2) [2C]	A	250.00	309		0.0599773				
Aroclor-1242 (3) [2C]	A	250.00	312		0.0193232				
Aroclor-1242 (4) [2C]	A	250.00	337		0.0215449				
Decachlorobiphenyl	A	40.000	33.5	0.8443871	0.7070622		-16.3	20	
Tetrachlorometaxylene	A	40.000	37.7	0.9073273	0.8546673		-5.8	20	
Decachlorobiphenyl [2C]	A	40.000	39.0	1.2312580	1.2014380		-2.5	20	
Tetrachlorometaxylene [2C]	A	40.000	41.6	0.7876038	0.8185289		4.0	20	

* Values outside of QC limits

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062859ECD5.D
Data file 2: /20180628.b/20180628.b/18062859ECD5.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: AR1242.sub
Quant Method: Internal Std

ARI ID: AR1242CCV9
Client ID:
Injection Date: 29-JUN-2018 02:25
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.443	0.001	518855261	4.291	0.001	2647324981	37.7	41.6	9.8	Tetrachloro-m-xylene
12.777	-0.000	331088478	12.970	-0.001	2014475241	33.5	39.0	15.3	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	94.2	103.9
Decachlorobiphenyl	83.7	97.6

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1214168512	31.9
Hexabromobiphenyl	761926666	936518713	22.9

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	6468495575	46.4
Hexabromobiphenyl	2171332320	3353439725	54.4

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col			
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount
Aroclor-1242	1	6.064	0.000	65954122	258.4	1	6.009	0.000	476814513	287.9
Aroclor-1242	2	6.465	0.000	226563728	266.8	2	6.641	0.000	1212382699	308.9
Aroclor-1242	3	6.724	0.000	62980709	267.1	3	7.537	0.000	390600686	311.9
Aroclor-1242	4	8.090	0.000	84250293	280.7	4	8.404	0.000	435509571	336.7
Total Col1Ave (4 peaks):					268.2	Total Col2Ave (4 peaks):				311.4 RPD = 15
Corrected Ave (3 peaks):					264.1	Corrected Ave (3 peaks):				302.9 RPD = 14
CalAmt %D:					7.3	CalAmt %D:				24.5

Total PCB Area Col1 (4.542 - 12.677) = 1726245319 Col1 Total PCB = 0.3 ppm*

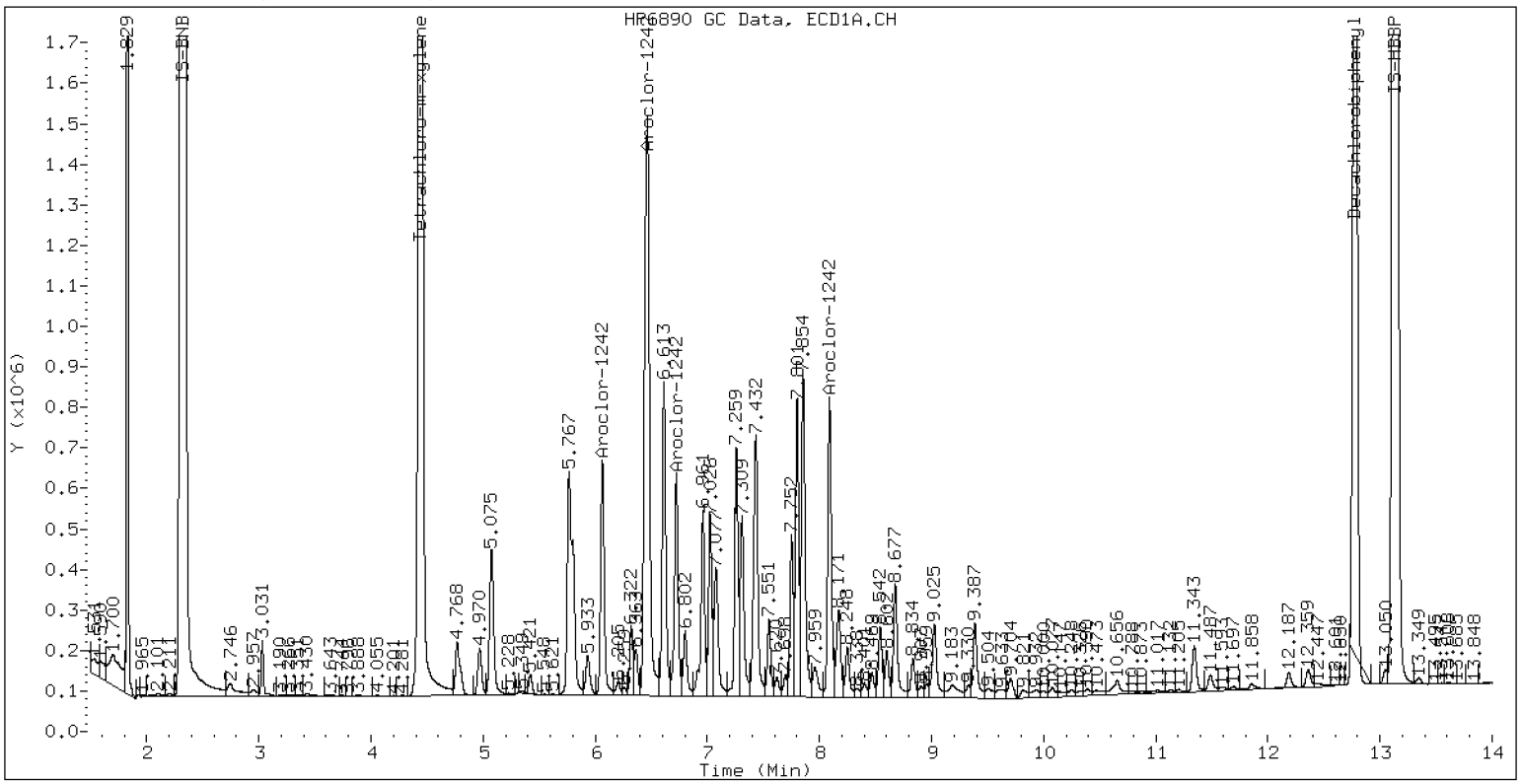
Total PCB Area Col2 (4.542 - 12.677) = 7472827769 Col2 Total PCB = 0.9 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

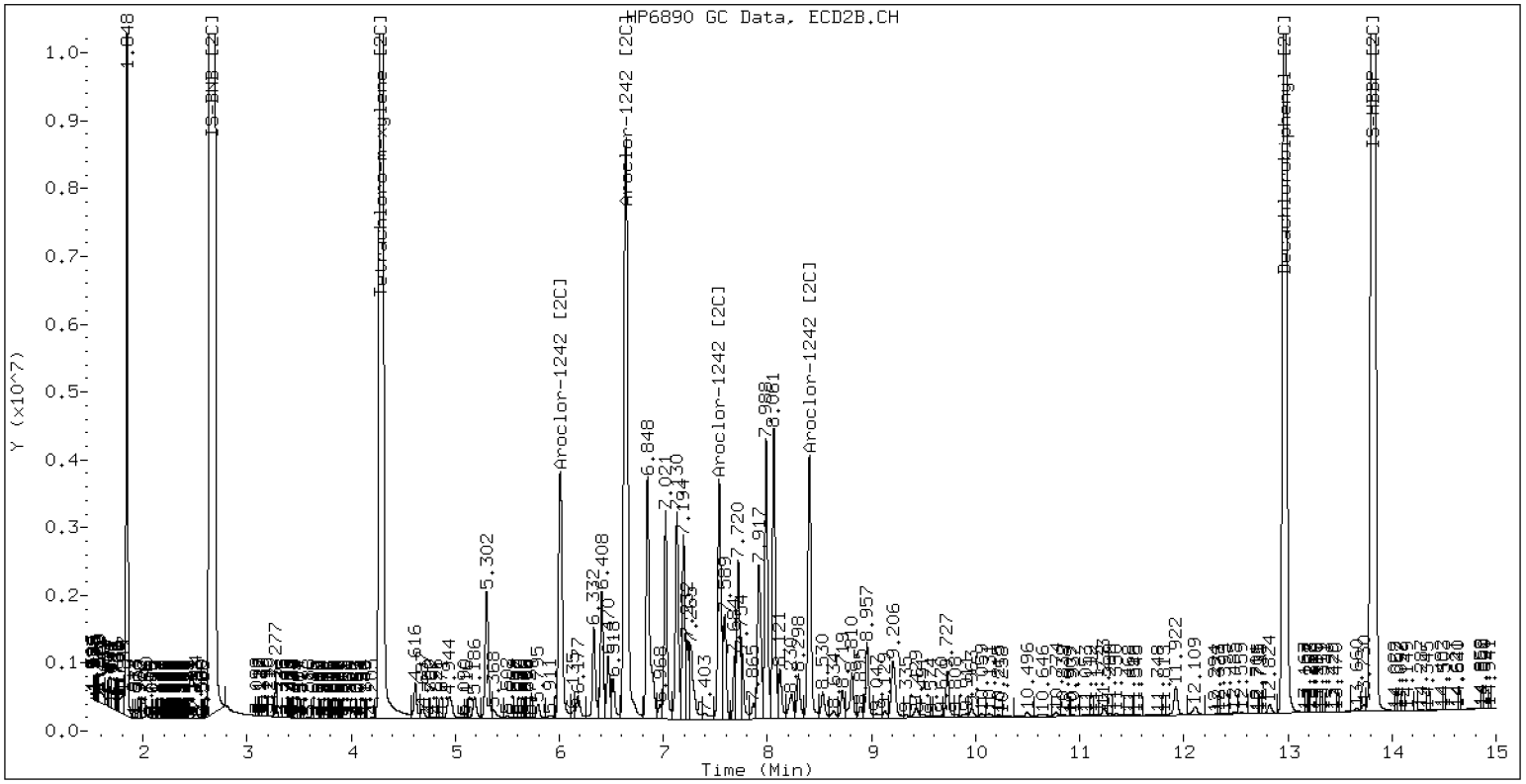
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062859ECD5.D AR1242CCV9 29-JUN-2018 02:25 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062859ECD5.D AR1242CCV9



ZB-35 Manual Integration: NO

CONTINUING CALIBRATION CHECK
EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Instrument ID:	ECD5	Calibration:	BF00046
Lab File ID:	18062860ECD5.D	Calibration Date:	06/14/18 00:00
Sequence:	SGF0393	Injection Date:	06/29/18
Lab Sample ID:	SGF0393-CCVA	Injection Time:	02:45
Sequence Name:	AR1660CCVA		

		CONC. (ug/L)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
Aroclor 1016	A	250.00	252	0.0331041	0.0334847		0.9	20
Aroclor-1016 (1)	A	250.00	238	0.0210218	0.0199771		-4.8	
Aroclor-1016 (2)	A	250.00	254	0.0694139	0.0704667		1.6	
Aroclor-1016 (3)	A	250.00	254	0.0192640	0.0195931		1.6	
Aroclor-1016 (4)	A	250.00	263	0.0227168	0.0239020		5.2	
Aroclor 1016 [2C]	A	250.00	278	0.0278375	0.0292855		11.3	20
Aroclor-1016 (1) [2C]	A	250.00	289	0.0247868	0.0286577		15.6	
Aroclor-1016 (2) [2C]	A	250.00	237	0.0569545	0.0540971		-5.2	
Aroclor-1016 (3) [2C]	A	250.00	328	0.0135527	0.0177586		31.2	
Aroclor-1016 (4) [2C]	A	250.00	259	0.0160561	0.0166285		3.6	
Aroclor 1260	A	250.00	259	0.0536471	0.0554764		3.5	20
Aroclor-1260 (1)	A	250.00	264	0.0437892	0.0461906		5.6	
Aroclor-1260 (2)	A	250.00	262	0.0425449	0.0445846		4.8	
Aroclor-1260 (3)	A	250.00	258	0.1035155	0.1066424		3.2	
Aroclor-1260 (4)	A	250.00	256	0.0501426	0.0512568		2.4	
Aroclor-1260 (5)	A	250.00	254	0.0282431	0.0287076		1.6	
Aroclor 1260 [2C]	A	250.00	283	0.0701404	0.0797132		13.0	20
Aroclor-1260 (1) [2C]	A	250.00	293	0.0630560	0.0739744		17.2	
Aroclor-1260 (2) [2C]	A	250.00	277	0.0558539	0.0618307		10.8	
Aroclor-1260 (3) [2C]	A	250.00	286	0.1254738	0.1434222		14.4	
Aroclor-1260 (4) [2C]	A	250.00	274	0.0361779	0.0396257		9.6	
Decachlorobiphenyl	A	40.000	35.4	0.8443871	0.7471508		-11.5	20
Tetrachlorometaxylene	A	40.000	38.2	0.9073273	0.8673369		-4.5	20
Decachlorobiphenyl [2C]	A	40.000	41.3	1.2312580	1.2720470		3.3	20
Tetrachlorometaxylene [2C]	A	40.000	42.6	0.7876038	0.8390220		6.5	20

* Values outside of QC limits

Analytical Resources Inc.
Dual Column 608/8082 PCB

Data file 1: /20180628.b/18062860ECD5.D
Data file 2: /20180628.b/20180628.b/18062860ECD5.D
Method: ecd5.i\20180628.b\PCB.m
Instrument, Inj.Vol, Analyst: ecd5.i, 2ul, JGR
Compound Sublist: AR1660.sub
Quant Method: Internal Std

ARI ID: AR1660CCVA
Client ID:
Injection Date: 29-JUN-2018 02:45
Matrix: NONE
Ical Date: 14-JUN-2018
Dilution Factor: 1.000

ZB5 Col			ZB35 Col			ZB5	ZB35		
RT	Shift	Response	RT	Shift	Response	on col	on col	RPD	Compound/Flag
4.442	0.000	541852738	4.290	0.000	2767811267	38.2	42.6	10.8	Tetrachloro-m-xylene
12.777	0.000	366625863	12.971	0.000	2250550387	35.4	41.3	15.5	Decachlorobiphenyl

* Indicates RPD > 40%
M Indicates Column 1 peak was manually integrated
N Indicates Column 2 peak was manually integrated

SURROGATE PERCENT RECOVERY

SURROGATE	Col1	Col2
Tetrachloro-m-xylene	95.6	106.5
Decachlorobiphenyl	88.5	103.3

INTERNAL STANDARD SUMMARY

Column 1

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	920186193	1249463200	35.8
Hexabromobiphenyl	761926666	981397281	28.8

Column 2

Standard Cpnd	Standard Area*	Sample Area	%D
Bromo-Nitrobenzene	4418272337	6597708018	49.3
Hexabromobiphenyl	2171332320	3538468947	63.0

* Standard Areas taken from Initial Cal Level 3
Initial Calibration Date: 14-JUN-2018
<- Indicates standard response outside Limits (-50 to +100%)

		ZB5 Col					ZB35 Col				
Aroclor	Peak#	RT	Shift	Area	Amount	Peak#	RT	Shift	Area	Amount	
Aroclor-1016	1	6.064	0.000	78001986	237.6	1	6.009	0.000	590858913	289.0	
Aroclor-1016	2	6.464	0.000	275142344	253.8	2	6.633	0.000	1115365453	237.5	
Aroclor-1016	3	6.723	0.000	76502709	254.3	3	7.021	0.000	366143877	327.6	
Aroclor-1016	4	7.432	0.000	93327077	263.0	4	7.538	0.000	342844352	258.9	
Total Col1Ave (4 peaks):					252.2	Total Col2Ave (4 peaks):				278.2	RPD = 10
Corrected Ave (3 peaks):					248.5	Corrected Ave (3 peaks):				261.8	RPD = 5
CalAmt %D:					0.9	CalAmt %D:				11.3	
Aroclor-1260	1	9.933	0.000	141660548	263.7	1	9.963	0.000	817987479	293.3	
Aroclor-1260	2	10.248	0.000	136735003	262.0	2	10.502	0.000	683705707	276.8	
Aroclor-1260	3	10.618	0.000	327058029	257.6	3	10.775	0.000	1585922257	285.8	
Aroclor-1260	4	11.016	0.000	157197799	255.6	4	11.289	0.000	438169334	273.8	
Aroclor-1260	5	11.205	0.000	88042495	254.1	NS	---			----	
Total Col1Ave (5 peaks):					258.6	Total Col2Ave (4 peaks):				282.4	RPD = 9
Corrected Ave (4 peaks):					257.3	Corrected Ave (3 peaks):				278.8	RPD = 8
CalAmt %D:					3.4	CalAmt %D:				13.0	

Total PCB Area Col1 (4.542 - 12.677) = 3979495997 Col1 Total PCB = 0.7 ppm*

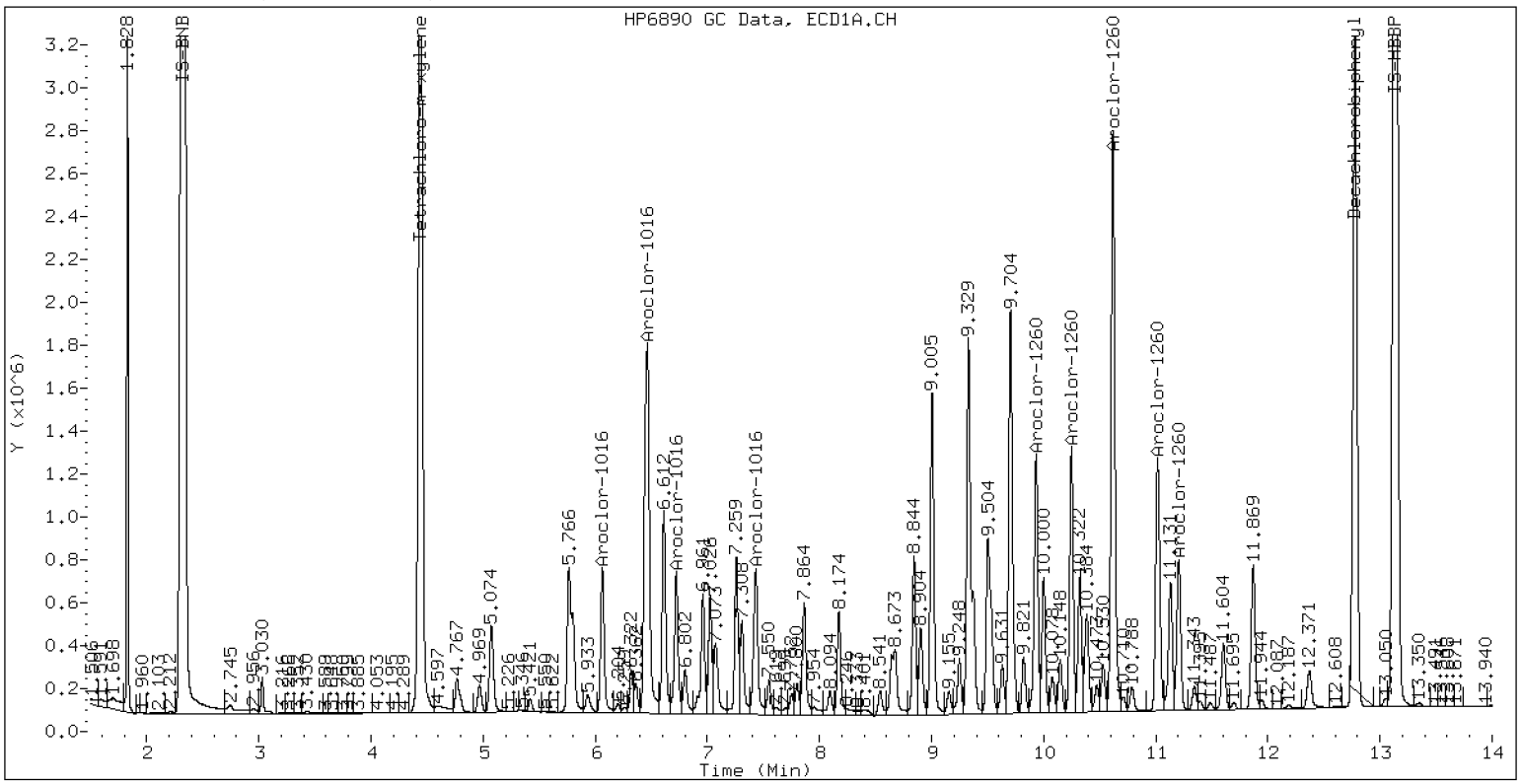
Total PCB Area Col2 (4.542 - 12.677) = 11128197245 Col2 Total PCB = 1.3 ppm*

* Quantitated against AR1660 0.25ppm in Ical

PCB-Form 10 Mod.

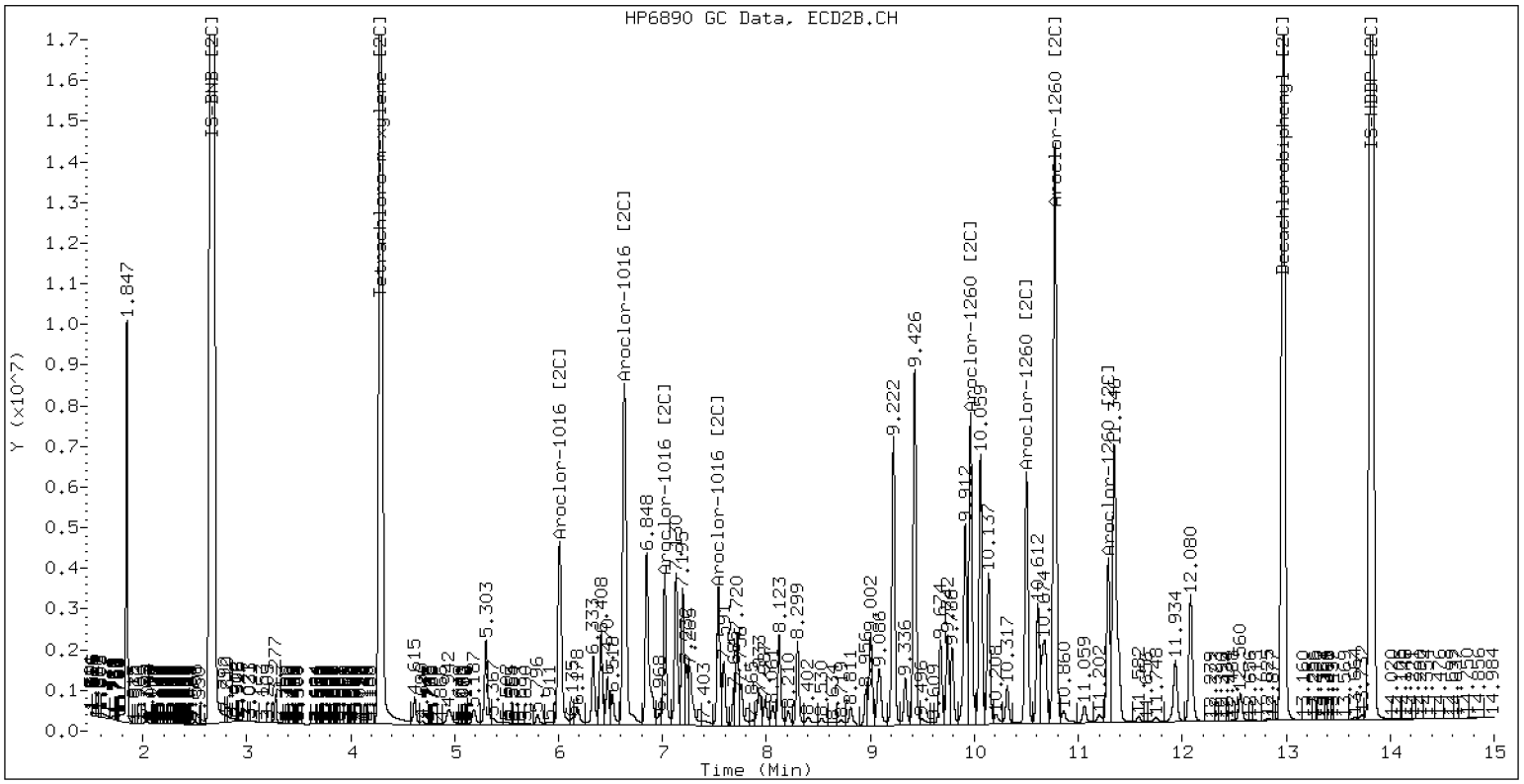
PCB Dual Column Chromatograms

ECD5-ZB5 /20180628.b/18062860ECD5.D AR1660CCVA 29-JUN-2018 02:45 2ul JGR



ZB-5 Manual Integration: NO

ECD5-ZB35 /20180628.b/20180628.b/18062860ECD5.D AR1660CCVA



ZB-35 Manual Integration: NO

Dual Column

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0252
Instrument: ECD5
Calibration: BF00046

Sample Name	Lab Sample ID	Column 1 File ID	Column 2 File ID	Matrix	Analysis Date/Time
Cal Standard	SGF0252-CAL1	18061407.D	18061407.D	NA	06/14/18 19:59
Cal Standard	SGF0252-CAL2	18061408.D	18061408.D	NA	06/14/18 20:20
Cal Standard	SGF0252-CAL3	18061409.D	18061409.D	NA	06/14/18 20:40
Cal Standard	SGF0252-CAL4	18061410.D	18061410.D	NA	06/14/18 21:01
Cal Standard	SGF0252-CAL5	18061411.D	18061411.D	NA	06/14/18 21:21
Cal Standard	SGF0252-CAL6	18061412.D	18061412.D	NA	06/14/18 21:41
Cal Standard	SGF0252-CAL7	18061413.D	18061413.D	NA	06/14/18 22:02
Cal Standard	SGF0252-CAL8	18061414.D	18061414.D	NA	06/14/18 22:22
Cal Standard	SGF0252-CAL9	18061415.D	18061415.D	NA	06/14/18 22:42
Cal Standard	SGF0252-CALA	18061416.D	18061416.D	NA	06/14/18 23:03
Cal Standard	SGF0252-CALB	18061417.D	18061417.D	NA	06/14/18 23:23
Secondary Cal Check	SGF0252-SCV1	18061418.D	18061418.D	NA	06/14/18 23:43
Secondary Cal Check	SGF0252-SCV2	18061419.D	18061419.D	NA	06/15/18 00:04
Secondary Cal Check	SGF0252-SCV3	18061420.D	18061420.D	NA	06/15/18 00:24
Secondary Cal Check	SGF0252-SCV4	18061421.D	18061421.D	NA	06/15/18 00:44
Secondary Cal Check	SGF0252-SCV5	18061422.D	18061422.D	NA	06/15/18 01:05
Secondary Cal Check	SGF0252-SCV6	18061423.D	18061423.D	NA	06/15/18 01:25

Printed: 6/20/2018 12:46:52PM

ANALYSIS SEQUENCE

SGF0252

Instrument: ECD5 Element Column ID: f10906f10907
Calibration ID: BF00046

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SGF0252-CAL1	0.25PPM AR1660	QC		1	F011204	G002633	
SGF0252-CAL2	0.02PPM AR1660	QC		2	F011207	G002633	
SGF0252-CAL3	0.05PPM AR1660	QC		3	F011206	G002633	
SGF0252-CAL4	1.0PPM AR1660	QC		4	F010993	G002633	
SGF0252-CAL5	0.1PPM AR1660	QC		5	F011205	G002633	
SGF0252-CAL6	0.5PPM AR1660	QC		6	F011203	G002633	
SGF0252-CAL7	0.25PPM AR1242	QC		7	F011118	G002633	
SGF0252-CAL8	0.25PPM AR1248	QC		8	G000809	G002633	
SGF0252-CAL9	0.25PPM AR1254	QC		9	F011624	G002633	
SGF0252-CALA	0.25PPM AR2162	QC		10	G002629	G002633	
SGF0252-CALB	0.25PPM AR3268	QC		11	F011625	G002633	
SGF0252-SCV1	AR1660SCV1	QC		12	G003406	G002633	
SGF0252-SCV2	AR1242SCV2	QC		13	G003409	G002633	
SGF0252-SCV3	AR1248SCV3	QC		14	G003410	G002633	
SGF0252-SCV4	AR1254SCV4	QC		15	G003411	G002633	
SGF0252-SCV5	AR2162SCV5	QC		16	G003407	G002633	
SGF0252-SCV6	AR3268SCV6	QC		17	G003408	G002633	

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd5.i\20180614.b
2.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	14-JUN-2018 17:57	18061401.D	1	RINSE	
2	14-JUN-2018 18:18	18061402.D	1	RINSE	
3	14-JUN-2018 18:38	18061403.D	1	RINSE	
4	14-JUN-2018 18:58	18061404.D	1	RINSE	
5	14-JUN-2018 19:19	18061405.D	1	RINSE	
6	14-JUN-2018 19:39	18061406.D	1	IB	
7	14-JUN-2018 19:59	18061407.D	1	0.25PPMAR1660	
8	14-JUN-2018 20:20	18061408.D	1	0.02PPMAR1660	
9	14-JUN-2018 20:40	18061409.D	1	0.05PPMAR1660	
10	14-JUN-2018 21:01	18061410.D	1	1PPMAR1660	
11	14-JUN-2018 21:21	18061411.D	1	0.1PPMAR1660	
12	14-JUN-2018 21:41	18061412.D	1	0.5PPMAR1660	
13	14-JUN-2018 22:02	18061413.D	1	AR1242	
14	14-JUN-2018 22:22	18061414.D	1	AR1248	
15	14-JUN-2018 22:42	18061415.D	1	AR1254	
16	14-JUN-2018 23:03	18061416.D	1	AR2162	
17	14-JUN-2018 23:23	18061417.D	1	AR3268	
18	14-JUN-2018 23:43	18061418.D	1	AR1660SCV1	
19	15-JUN-2018 00:04	18061419.D	1	AR1242SCV2	
20	15-JUN-2018 00:24	18061420.D	1	AR1248SCV3	
21	15-JUN-2018 00:44	18061421.D	1	AR1254SCV4	
22	15-JUN-2018 01:05	18061422.D	1	AR2162SCV5	
23	15-JUN-2018 01:25	18061423.D	1	AR3268SCV6	
24	15-JUN-2018 01:46	18061424.D	1	0.1PPM DDTS	
25	15-JUN-2018 02:06	18061425.D	1	DDT BD	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd5.i\20180614.b

ARI Job No.: RINS Method: PCB.m Instrument: ecd5.i Date: 14-JUN-2018

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1757	18061401.D	RINSE		1	NO MANUAL INTEGRATION
1818	18061402.D	RINSE		1	NO MANUAL INTEGRATION
1838	18061403.D	RINSE		1	NO MANUAL INTEGRATION
1858	18061404.D	RINSE		1	NO MANUAL INTEGRATION
1919	18061405.D	RINSE		1	NO MANUAL INTEGRATION
1939	18061406.D	IB		1	NO MANUAL INTEGRATION
1959	18061407.D	0.25PPMAR1660		1	NO MANUAL INTEGRATION
2020	18061408.D	0.02PPMAR1660		1	NO MANUAL INTEGRATION
2040	18061409.D	0.05PPMAR1660		1	NO MANUAL INTEGRATION
2101	18061410.D	1PPMAR1660		1	NO MANUAL INTEGRATION
2121	18061411.D	0.1PPMAR1660		1	NO MANUAL INTEGRATION
2141	18061412.D	0.5PPMAR1660		1	NO MANUAL INTEGRATION
2202	18061413.D	AR1242		1	NO MANUAL INTEGRATION
2222	18061414.D	AR1248		1	NO MANUAL INTEGRATION
2242	18061415.D	AR1254		1	NO MANUAL INTEGRATION
2303	18061416.D	AR2162		1	NO MANUAL INTEGRATION
2323	18061417.D	AR3268		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd5.i\20180614.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2343	18061418.D	AR1660SCV1		1	NO MANUAL INTEGRATION
0004	18061419.D	AR1242SCV2		1	NO MANUAL INTEGRATION
0024	18061420.D	AR1248SCV3		1	NO MANUAL INTEGRATION
0044	18061421.D	AR1254SCV4		1	NO MANUAL INTEGRATION
0105	18061422.D	AR2162SCV5		1	NO MANUAL INTEGRATION
0125	18061423.D	AR3268SCV6		1	NO MANUAL INTEGRATION
0146	18061424.D	0.1PPM DDTS		1	NO MANUAL INTEGRATION
0206	18061425.D	DDT BD		1	NO MANUAL INTEGRATION
1757	18061401.D	RINSE		1	NO MANUAL INTEGRATION
1818	18061402.D	RINSE		1	NO MANUAL INTEGRATION
1838	18061403.D	RINSE		1	NO MANUAL INTEGRATION
1858	18061404.D	RINSE		1	NO MANUAL INTEGRATION
1919	18061405.D	RINSE		1	NO MANUAL INTEGRATION
1939	18061406.D	IB		1	NO MANUAL INTEGRATION
1959	18061407.D	0.25PPMAR1660		1	NO MANUAL INTEGRATION
2020	18061408.D	0.02PPMAR1660		1	NO MANUAL INTEGRATION
2040	18061409.D	0.05PPMAR1660		1	NO MANUAL INTEGRATION
2101	18061410.D	1PPMAR1660		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd5.i\20180614.b\20180614.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2121	18061411.D	0.1PPMAR1660		1	NO MANUAL INTEGRATION
2141	18061412.D	0.5PPMAR1660		1	NO MANUAL INTEGRATION
2202	18061413.D	AR1242		1	NO MANUAL INTEGRATION
2222	18061414.D	AR1248		1	NO MANUAL INTEGRATION
2242	18061415.D	AR1254		1	NO MANUAL INTEGRATION
2303	18061416.D	AR2162		1	NO MANUAL INTEGRATION
2323	18061417.D	AR3268		1	NO MANUAL INTEGRATION
2343	18061418.D	AR1660SCV1		1	NO MANUAL INTEGRATION
0004	18061419.D	AR1242SCV2		1	NO MANUAL INTEGRATION
0024	18061420.D	AR1248SCV3		1	NO MANUAL INTEGRATION
0044	18061421.D	AR1254SCV4		1	NO MANUAL INTEGRATION
0105	18061422.D	AR2162SCV5		1	NO MANUAL INTEGRATION
0125	18061423.D	AR3268SCV6		1	NO MANUAL INTEGRATION
0146	18061424.D	0.1PPM DDTS		1	NO MANUAL INTEGRATION
0206	18061425.D	DDT BD		1	NO MANUAL INTEGRATION

Security Status Report

Date: 20-Jun-2018 13:05

18061401.D	Data Locked	jrains, 20-Jun-2018 13:05
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18061419.D	Data Locked	jrains, 20-Jun-2018 13:05
18061420.D	Data Locked	jrains, 20-Jun-2018 13:05
18061421.D	Data Locked	jrains, 20-Jun-2018 13:05
18061422.D	Data Locked	jrains, 20-Jun-2018 13:05
18061423.D	Data Locked	jrains, 20-Jun-2018 13:05
18061424.D	Data Locked	jrains, 20-Jun-2018 13:05
18061425.D	Data Locked	jrains, 20-Jun-2018 13:05

Dual Column

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0299
Instrument: ECD5
Calibration: BF00046

Sample Name	Lab Sample ID	Column 1 File ID	Column 2 File ID	Matrix	Analysis Date/Time
Initial Cal Check	SGF0299-ICV1	18062302ECD5.D	18062302ECD5.D	NA	06/23/18 13:11
Initial Cal Check	SGF0299-ICV2	18062303ECD5.D	18062303ECD5.D	NA	06/23/18 13:31
Blank	BGF0415-BLK1	18062304ECD5.D	18062304ECD5.D	Water	06/23/18 13:52
LCS	BGF0415-BS1	18062305ECD5.D	18062305ECD5.D	Water	06/23/18 14:12
LDW18-SP-RB1	18F0185-01	18062306ECD5.D	18062306ECD5.D	Water	06/23/18 14:32
LDW18-SP-30	18F0185-03	18062307ECD5.D	18062307ECD5.D	Water	06/23/18 14:53
LDW18-SP-32	18F0185-04	18062308ECD5.D	18062308ECD5.D	Water	06/23/18 15:13
LDW18-SP-35	18F0185-05	18062309ECD5.D	18062309ECD5.D	Water	06/23/18 15:33
LDW18-SP-38	18F0185-06	18062310ECD5.D	18062310ECD5.D	Water	06/23/18 15:54
LDW18-SP-42	18F0185-07	18062311ECD5.D	18062311ECD5.D	Water	06/23/18 16:14
LDW18-SP-43	18F0185-08	18062312ECD5.D	18062312ECD5.D	Water	06/23/18 16:34
LDW18-SP-43	BGF0415-MS1	18062313ECD5.D	18062313ECD5.D	Water	06/23/18 16:55
LDW18-SP-43	BGF0415-MSD1	18062314ECD5.D	18062314ECD5.D	Water	06/23/18 17:15
Calibration Check	SGF0299-CCV1	18062315ECD5.D	18062315ECD5.D	NA	06/23/18 17:35
Calibration Check	SGF0299-CCV2	18062316ECD5.D	18062316ECD5.D	NA	06/23/18 17:56
Calibration Check	SGF0299-CCV3	18062325ECD5.D	18062325ECD5.D	NA	06/23/18 20:58
Calibration Check	SGF0299-CCV4	18062326ECD5.D	18062326ECD5.D	NA	06/23/18 21:19

Printed: 6/26/2018 9:46:16AM

ANALYSIS SEQUENCE

SGF0299

Instrument: ECD5 Element Column ID:
Calibration ID: BF00046

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SGF0299-ICV1	AR1254ICV1	QC		1	F011624	G002633	
SGF0299-ICV2	AR660ICV2	QC		2	F011204	G002633	
BGF0415-BLK1	Blank	QC		3		G002633	
BGF0415-BS1	LCS	QC		4		G002633	
BGF0415-MS1	Matrix Spike	QC		5		G002633	
BGF0415-MSD1	Matrix Spike Dup	QC		6		G002633	
18F0185-01	LDW18-SP-RB1	8082A PCB Water 0.01	F 01	7		G002633	
18F0185-03	LDW18-SP-30	8082A PCB Water 0.01	F 01	8		G002633	
18F0185-04	LDW18-SP-32	8082A PCB Water 0.01	F 01	9		G002633	
18F0185-05	LDW18-SP-35	8082A PCB Water 0.01	F 01	10		G002633	
18F0185-06	LDW18-SP-38	8082A PCB Water 0.01	F 01	11		G002633	
18F0185-07	LDW18-SP-42	8082A PCB Water 0.01	F 01	12		G002633	
18F0185-08	LDW18-SP-43	8082A PCB Water 0.01	K 01	13		G002633	
SGF0299-CCV1	AR1248CCV1	QC		14	G000809	G002633	
SGF0299-CCV2	AR1660CCV2	QC		15	F011204	G002633	
BGF0516-BLK1	Blank	QC		16		G002633	
BGF0516-BS1	LCS	QC		17		G002633	
18F0232-01	SMyrtle_Norton_053118	8082A PCB (20 ug/kg) or (MTCA 0.1 ug/L)	A 03	18		G002633	Limited Volume use priority list
18F0232-02	SMyrtle_Trent_053118	8082A PCB (20 ug/kg) or (MTCA 0.1 ug/L)	A 03	19		G002633	Limited Volume use priority list
18F0232-05	SMyrtle_Rory_053118	8082A PCB (20 ug/kg) or (MTCA 0.1 ug/L)	A 03	20		G002633	Limited Volume use priority list
18F0232-01RE1	SMyrtle_Norton_053118	8082A PCB (20 ug/kg) or (MTCA 0.1 ug/L)	A 03	21		G002633	Added 6/26/2018 by JGR
18F0232-02RE1	SMyrtle_Trent_053118	8082A PCB (20 ug/kg) or (MTCA 0.1 ug/L)	A 03	22		G002633	Added 6/26/2018 by JGR

ANALYSIS SEQUENCE

SGF0299

Instrument: ECD5 Element Column ID:
Calibration ID: BF00046

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
18F0232-05RE1	SMyrtle_Rory_053118	8082A PCB (20 ug/kg) or (MTCA 0.1 ug/L)	A 03	23		G002633	Added 6/26/2018 by JGR
SGF0299-CCV3	AR1242CCV3	QC		24	F011118	G002633	
SGF0299-CCV4	AR1660CCV4	QC		25	F011204	G002633	

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd5.i\20180623.b
2.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	23-JUN-2018 12:51	18062301ECD5.D	1	RINSE	
2	23-JUN-2018 13:11	18062302ECD5.D	1	ICV1254	
3	23-JUN-2018 13:31	18062303ECD5.D	1	ICV1660	
4	23-JUN-2018 13:52	18062304ECD5.D	1	BGF0415-BLK1	
5	23-JUN-2018 14:12	18062305ECD5.D	1	BGF0415-BS1	
6	23-JUN-2018 14:32	18062306ECD5.D	1	18F0185-01	
7	23-JUN-2018 14:53	18062307ECD5.D	1	18F0185-03	
8	23-JUN-2018 15:13	18062308ECD5.D	1	18F0185-04	
9	23-JUN-2018 15:33	18062309ECD5.D	1	18F0185-05	
10	23-JUN-2018 15:54	18062310ECD5.D	1	18F0185-06	
11	23-JUN-2018 16:14	18062311ECD5.D	1	18F0185-07	
12	23-JUN-2018 16:34	18062312ECD5.D	1	18F0185-08	
13	23-JUN-2018 16:55	18062313ECD5.D	1	BGF0415-MS1	
14	23-JUN-2018 17:15	18062314ECD5.D	1	BGF0415-MSD1	
15	23-JUN-2018 17:35	18062315ECD5.D	1	AR1248CCV1	
16	23-JUN-2018 17:56	18062316ECD5.D	1	AR1660CCV2	
17	23-JUN-2018 18:16	18062317ECD5.D	1	BGF0516-BLK1	
18	23-JUN-2018 18:36	18062318ECD5.D	1	BGF0516-BS1	
19	23-JUN-2018 18:57	18062319ECD5.D	1	18F0232-01	
20	23-JUN-2018 19:17	18062320ECD5.D	1	18F0232-02	
21	23-JUN-2018 19:37	18062321ECD5.D	1	18F0232-05	
22	23-JUN-2018 19:58	18062322ECD5.D	10	18F0232-01	
23	23-JUN-2018 20:18	18062323ECD5.D	10	18F0232-02	
24	23-JUN-2018 20:38	18062324ECD5.D	10	18F0232-05	
25	23-JUN-2018 20:58	18062325ECD5.D	1	AR1242CCV3	
26	23-JUN-2018 21:19	18062326ECD5.D	1	AR1660CCV4	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd5.i\20180623.b

ARI Job No.: RINS Method: PCB.m Instrument: ecd5.i Date: 23-JUN-2018

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1251	18062301ECD5.D	RINSE		1	NO MANUAL INTEGRATION
1311	18062302ECD5.D	ICV1254		1	NO MANUAL INTEGRATION
1331	18062303ECD5.D	ICV1660		1	NO MANUAL INTEGRATION
1352	18062304ECD5.D	BGF0415-BLK1		1	NO MANUAL INTEGRATION
1412	18062305ECD5.D	BGF0415-BS1		1	NO MANUAL INTEGRATION
1432	18062306ECD5.D	18F0185-01		1	NO MANUAL INTEGRATION
1453	18062307ECD5.D	18F0185-03		1	Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, IS-BNB, Tetrachloro-m-xylene,
1513	18062308ECD5.D	18F0185-04		1	Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, IS-BNB, Tetrachloro-m-xylene,
1533	18062309ECD5.D	18F0185-05		1	Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, IS-BNB, Tetrachloro-m-xylene,
1554	18062310ECD5.D	18F0185-06		1	Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, IS-BNB, Tetrachloro-m-xylene,
1614	18062311ECD5.D	18F0185-07		1	Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, IS-BNB, Tetrachloro-m-xylene,
1634	18062312ECD5.D	18F0185-08		1	Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, IS-BNB, Tetrachloro-m-xylene,
1655	18062313ECD5.D	BGF0415-MS1		1	Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, IS-BNB, Tetrachloro-m-xylene,
1715	18062314ECD5.D	BGF0415-MSD1		1	Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Tetrachloro-m-xylene,
1735	18062315ECD5.D	AR1248CCV1		1	NO MANUAL INTEGRATION
1756	18062316ECD5.D	AR1660CCV2		1	NO MANUAL INTEGRATION
1816	18062317ECD5.D	BGF0516-BLK1		1	Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260,

Aroclor-1262, IS-BNB, Tetrachloro-m-xylene,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd5.i\20180623.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1836	18062318ECD5.D	BGF0516-BS1		1	NO MANUAL INTEGRATION
1857	18062319ECD5.D	18F0232-01		1	Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268,
1917	18062320ECD5.D	18F0232-02		1	Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268, Decachlorobiphenyl,
1937	18062321ECD5.D	18F0232-05		1	Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268, IS-HBBP, Decachlorobiphenyl,
1958	18062322ECD5.D	18F0232-01		10	Aroclor-1260, Aroclor-1262, Aroclor-1268, IS-HBBP, Decachlorobiphenyl,
2018	18062323ECD5.D	18F0232-02		10	Aroclor-1260, Aroclor-1262, Aroclor-1268,
2038	18062324ECD5.D	18F0232-05		10	Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268,
2058	18062325ECD5.D	AR1242CCV3		1	NO MANUAL INTEGRATION
2119	18062326ECD5.D	AR1660CCV4		1	NO MANUAL INTEGRATION
1251	18062301ECD5.D	RINSE		1	NO MANUAL INTEGRATION
1311	18062302ECD5.D	ICV1254		1	NO MANUAL INTEGRATION
1332	18062303ECD5.D	ICV1660		1	NO MANUAL INTEGRATION
1352	18062304ECD5.D	BGF0415-BLK1		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Aroclor-1268 [2C], Tetrachloro-m-xylene [2C],
1412	18062305ECD5.D	BGF0415-BS1		1	NO MANUAL INTEGRATION
1433	18062306ECD5.D	18F0185-01		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Aroclor-1268 [2C], Tetrachloro-m-xylene [2C],
1453	18062307ECD5.D	18F0185-03		1	Aroclor-1016 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C],
1513	18062308ECD5.D	18F0185-04		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Aroclor-1268 [2C], Tetrachloro-m-xylene [2C],
1533	18062309ECD5.D	18F0185-05		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Aroclor-1268 [2C], Tetrachloro-m-xylene [2C],

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd5.i\20180623.b\20180623.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1554	18062310ECD5.D	18F0185-06		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Aroclor-1268 [2C], Tetrachloro-m-xylene [2C],
1614	18062311ECD5.D	18F0185-07		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C],
1634	18062312ECD5.D	18F0185-08		1	NO MANUAL INTEGRATION
1655	18062313ECD5.D	BGF0415-MS1		1	NO MANUAL INTEGRATION
1715	18062314ECD5.D	BGF0415-MSD1		1	NO MANUAL INTEGRATION
1735	18062315ECD5.D	AR1248CCV1		1	NO MANUAL INTEGRATION
1756	18062316ECD5.D	AR1660CCV2		1	NO MANUAL INTEGRATION
1816	18062317ECD5.D	BGF0516-BLK1		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Aroclor-1268 [2C],
1836	18062318ECD5.D	BGF0516-BS1		1	NO MANUAL INTEGRATION
1857	18062319ECD5.D	18F0232-01		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Aroclor-1268 [2C], Tetrachloro-m-xylene [2C], Decachlorobiphenyl [2C],
1917	18062320ECD5.D	18F0232-02		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Aroclor-1268 [2C], IS-HBBP [2C], Decachlorobiphenyl [2C],
1937	18062321ECD5.D	18F0232-05		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Aroclor-1268 [2C], Decachlorobiphenyl [2C],
1958	18062322ECD5.D	18F0232-01		10	Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Aroclor-1268 [2C],
2018	18062323ECD5.D	18F0232-02		10	Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], IS-BNB [2C], Decachlorobiphenyl [2C],
2038	18062324ECD5.D	18F0232-05		10	NO MANUAL INTEGRATION
2058	18062325ECD5.D	AR1242CCV3		1	NO MANUAL INTEGRATION
2119	18062326ECD5.D	AR1660CCV4		1	NO MANUAL INTEGRATION

Security Status Report

Date: 26-Jun-2018 08:39

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18062522.D	Data Locked	jrains, 26-Jun-2018 08:39
18062523.D	Data Locked	jrains, 26-Jun-2018 08:39
18062524.D	Data Locked	jrains, 26-Jun-2018 08:39
18062525.D	Data Locked	jrains, 26-Jun-2018 08:39

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Extract Dilution Bench Sheet

Sequence: 5G F0299
Analyst: VD Date: 6-23-18

Sample ID	Primary Dilution				Secondary Dilution			
	Extract Volume (uL)	Diluent ID	Diluent Volume (uL)	Dilution Factor	Extract Volume (uL)	Diluent ID	Diluent Volume (uL)	Dilution Factor
18F0232-1,2,5	50	Hex/G005603	450	10				

Dual Column

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0341
Instrument: ECD5
Calibration: BF00046

Sample Name	Lab Sample ID	Column 1 File ID	Column 2 File ID	Matrix	Analysis Date/Time
Initial Cal Check	SGF0341-ICV1	18062504ECD5.D	18062504ECD5.D	NA	06/25/18 14:22
Initial Cal Check	SGF0341-ICV2	18062505ECD5.D	18062505ECD5.D	NA	06/25/18 14:42
Blank	BGF0451-BLK1	18062506ECD5.D	18062506ECD5.D	Water	06/25/18 15:02
LCS	BGF0451-BS1	18062507ECD5.D	18062507ECD5.D	Water	06/25/18 15:23
LCS Dup	BGF0451-BSD1	18062508ECD5.D	18062508ECD5.D	Water	06/25/18 15:43
LDW18-SP-06	18F0208-01	18062509ECD5.D	18062509ECD5.D	Water	06/25/18 16:03
LDW18-SP-33	18F0208-02	18062510ECD5.D	18062510ECD5.D	Water	06/25/18 16:24
LDW18-SP-24	18F0208-03	18062511ECD5.D	18062511ECD5.D	Water	06/25/18 16:44
LDW18-SP-24-FD	18F0208-04	18062512ECD5.D	18062512ECD5.D	Water	06/25/18 17:04
Calibration Check	SGF0341-CCV1	18062516ECD5.D	18062516ECD5.D	NA	06/25/18 18:25
Calibration Check	SGF0341-CCV2	18062517ECD5.D	18062517ECD5.D	NA	06/25/18 18:46
Calibration Check	SGF0341-CCV3	18062524ECD5.D	18062524ECD5.D	NA	06/25/18 21:08
Calibration Check	SGF0341-CCV4	18062525ECD5.D	18062525ECD5.D	NA	06/25/18 21:29

Printed: 6/27/2018 9:30:38AM

ANALYSIS SEQUENCE

SGF0341

Instrument: ECD5 Element Column ID:
Calibration ID: BF00046

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SGF0341-ICV1	AR1254ICV1	QC		1	F011624	G002633	
SGF0341-ICV2	AR660ICV2	QC		2	F011204	G002633	
BGF0451-BLK1	Blank	QC		3		G002633	
BGF0451-BS1	LCS	QC		4		G002633	
BGF0451-BSD1	LCS Dup	QC		5		G002633	
18F0208-01	LDW18-SP-06	8082A PCB Water 0.01	B 01	6		G002633	
18F0208-02	LDW18-SP-33	8082A PCB Water 0.01	B 01	7		G002633	
18F0208-03	LDW18-SP-24	8082A PCB Water 0.01	C 01	8		G002633	
18F0208-04	LDW18-SP-24-FD	8082A PCB Water 0.01	C 01	9		G002633	
18F0246-01	CellB-Und-20180615	8082A PCB Water 0.01	A 01	10		G002633	
18F0246-02	CellE-Und-20180615	8082A PCB Water 0.01	A 01	11		G002633	
18F0246-03	FiltD-Und-20180615	8082A PCB Water 0.01	A 01	12		G002633	
SGF0341-CCV1	AR1248CCV1	QC		13	G000809	G002633	
SGF0341-CCV2	AR1660CCV2	QC		14	F011204	G002633	
18F0255-01	10138	8082A PCB Water 0.01	A 01	15		G002633	
18F0255-02	10139	8082A PCB Water 0.01	A 01	16		G002633	
18F0255-03	10140	8082A PCB Water 0.01	A 01	17		G002633	
18F0255-04	10141	8082A PCB Water 0.01	A 01	18		G002633	
18F0255-05	10142	8082A PCB Water 0.01	A 01	19		G002633	
18F0255-06	10143	8082A PCB Water 0.01	A 01	20		G002633	
SGF0341-CCV3	AR1242CCV3	QC		21	F011118	G002633	
SGF0341-CCV4	AR1660CCV4	QC		22	F011204	G002633	

ANALYSIS SEQUENCE

SGF0341

Instrument: ECD5 Element Column ID:
Calibration ID: BF00046

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd5.i\20180625.b
2.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	25-JUN-2018 12:29	18062501.D	1	DDTS	
2	25-JUN-2018 12:49	18062502.D	1	AR1254ICV1	
3	25-JUN-2018 13:09	18062503.D	1	AR1660ICV2	
4	25-JUN-2018 14:22	18062504.D	1	AR1254ICV1	
5	25-JUN-2018 14:42	18062505.D	1	AR1660ICV2	
6	25-JUN-2018 15:02	18062506.D	1	BGF0541-BLK1	
7	25-JUN-2018 15:23	18062507.D	1	BGF0541-BS1	
8	25-JUN-2018 15:43	18062508.D	1	BGF0541-BSD1	
9	25-JUN-2018 16:03	18062509.D	1	18F0208-01	
10	25-JUN-2018 16:24	18062510.D	1	18F0208-02	
11	25-JUN-2018 16:44	18062511.D	1	18F0208-03	
12	25-JUN-2018 17:04	18062512.D	1	18F0208-04	
13	25-JUN-2018 17:24	18062513.D	1	18F0246-01	
14	25-JUN-2018 17:45	18062514.D	1	18F0246-02	
15	25-JUN-2018 18:05	18062515.D	1	18F0246-03	
16	25-JUN-2018 18:25	18062516.D	1	AR1248CCV1	
17	25-JUN-2018 18:46	18062517.D	1	AR1660CCV2	
18	25-JUN-2018 19:06	18062518.D	1	18F0255-01	
19	25-JUN-2018 19:26	18062519.D	1	18F0255-02	
20	25-JUN-2018 19:47	18062520.D	1	18F0255-03	
21	25-JUN-2018 20:07	18062521.D	1	18F0255-04	
22	25-JUN-2018 20:28	18062522.D	1	18F0255-05	
23	25-JUN-2018 20:48	18062523.D	1	18F0255-06	
24	25-JUN-2018 21:08	18062524.D	1	AR1242CCV3	
25	25-JUN-2018 21:29	18062525.D	1	AR1660CCV4	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd5.i\20180625.b

ARI Job No.: DDTS Method: PCB.m Instrument: ecd5.i Date: 25-JUN-2018

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1229	18062501ECD5.D	DDTS		1	NO MANUAL INTEGRATION
1249	18062502ECD5.D	AR1254ICV1		1	NO MANUAL INTEGRATION
1309	18062503ECD5.D	AR1660ICV2		1	NO MANUAL INTEGRATION
1422	18062504ECD5.D	AR1254ICV1		1	NO MANUAL INTEGRATION
1442	18062505ECD5.D	AR1660ICV2		1	NO MANUAL INTEGRATION
1502	18062506ECD5.D	BGF0541-BLK1		1	Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, IS-BNB, Tetrachloro-m-xylene,
1523	18062507ECD5.D	BGF0541-BS1		1	NO MANUAL INTEGRATION
1543	18062508ECD5.D	BGF0541-BSD1		1	NO MANUAL INTEGRATION
1603	18062509ECD5.D	18F0208-01		1	Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, IS-BNB, Tetrachloro-m-xylene,
1624	18062510ECD5.D	18F0208-02		1	Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, IS-BNB, Tetrachloro-m-xylene,
1644	18062511ECD5.D	18F0208-03		1	Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, IS-BNB, Tetrachloro-m-xylene,
1704	18062512ECD5.D	18F0208-04		1	Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, IS-BNB, Tetrachloro-m-xylene,
1724	18062513ECD5.D	18F0246-01		1	Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, IS-BNB, Tetrachloro-m-xylene,
1745	18062514ECD5.D	18F0246-02		1	Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, IS-BNB, Tetrachloro-m-xylene,
1805	18062515ECD5.D	18F0246-03		1	Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, IS-BNB, Tetrachloro-m-xylene,
1825	18062516ECD5.D	AR1248CCV1		1	NO MANUAL INTEGRATION
1846	18062517ECD5.D	AR1660CCV2		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd5.i\20180625.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1906	18062518ECD5.D	18F0255-01		1	Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, IS-BNB, Tetrachloro-m-xylene,
1926	18062519ECD5.D	18F0255-02		1	Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, IS-BNB, Tetrachloro-m-xylene,
1947	18062520ECD5.D	18F0255-03		1	Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268, IS-BNB, Tetrachloro-m-xylene,
2007	18062521ECD5.D	18F0255-04		1	Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, IS-BNB, Tetrachloro-m-xylene,
2028	18062522ECD5.D	18F0255-05		1	Aroclor-1016, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, IS-BNB, Tetrachloro-m-xylene,
2048	18062523ECD5.D	18F0255-06		1	Aroclor-1016, Aroclor-1221, Aroclor-1232, Aroclor-1242, Aroclor-1248, Aroclor-1254, Aroclor-1260, Aroclor-1262, Aroclor-1268, IS-BNB, Tetrachloro-m-xylene,
2108	18062524ECD5.D	AR1242CCV3		1	NO MANUAL INTEGRATION
2129	18062525ECD5.D	AR1660CCV4		1	NO MANUAL INTEGRATION
1229	18062501ECD5.D	DDTS		1	NO MANUAL INTEGRATION
1249	18062502ECD5.D	AR1254ICV1		1	NO MANUAL INTEGRATION
1309	18062503ECD5.D	AR1660ICV2		1	NO MANUAL INTEGRATION
1422	18062504ECD5.D	AR1254ICV1		1	NO MANUAL INTEGRATION
1442	18062505ECD5.D	AR1660ICV2		1	NO MANUAL INTEGRATION
1502	18062506ECD5.D	BGF0541-BLK1		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Aroclor-1268 [2C], Tetrachloro-m-xylene [2C],
1523	18062507ECD5.D	BGF0541-BS1		1	NO MANUAL INTEGRATION
1543	18062508ECD5.D	BGF0541-BSD1		1	NO MANUAL INTEGRATION
1603	18062509ECD5.D	18F0208-01		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Aroclor-1268 [2C], Tetrachloro-m-xylene [2C],
1624	18062510ECD5.D	18F0208-02		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C],

Aroclor-1260 [2C], Aroclor-1262 [2C], Aroclor-1268 [2C], Tetrachloro-m-xylene [2C],

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MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd5.i\20180625.b\20180625.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1644	18062511ECD5.D	18F0208-03		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Tetrachloro-m-xylene [2C],
1704	18062512ECD5.D	18F0208-04		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Aroclor-1268 [2C], Tetrachloro-m-xylene [2C],
1724	18062513ECD5.D	18F0246-01		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Tetrachloro-m-xylene [2C],
1745	18062514ECD5.D	18F0246-02		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Aroclor-1268 [2C], Tetrachloro-m-xylene [2C],
1805	18062515ECD5.D	18F0246-03		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Tetrachloro-m-xylene [2C],
1825	18062516ECD5.D	AR1248CCV1		1	NO MANUAL INTEGRATION
1846	18062517ECD5.D	AR1660CCV2		1	NO MANUAL INTEGRATION
1906	18062518ECD5.D	18F0255-01		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Tetrachloro-m-xylene [2C],
1926	18062519ECD5.D	18F0255-02		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Tetrachloro-m-xylene [2C],
1947	18062520ECD5.D	18F0255-03		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Aroclor-1268 [2C], Tetrachloro-m-xylene [2C],
2007	18062521ECD5.D	18F0255-04		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Aroclor-1268 [2C], Tetrachloro-m-xylene [2C],
2028	18062522ECD5.D	18F0255-05		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Tetrachloro-m-xylene [2C],
2048	18062523ECD5.D	18F0255-06		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Aroclor-1268 [2C], Tetrachloro-m-xylene [2C], Decachlorobiphenyl [2C],
2108	18062524ECD5.D	AR1242CCV3		1	NO MANUAL INTEGRATION
2129	18062525ECD5.D	AR1660CCV4		1	NO MANUAL INTEGRATION

Security Status Report

Date: 27-Jun-2018 08:48

18062501ECD5.D	Data Locked	jrains, 27-Jun-2018 08:48
18062502ECD5.D	Data Locked	jrains, 27-Jun-2018 08:48
18062503ECD5.D	Data Locked	jrains, 27-Jun-2018 08:48
18062504ECD5.D	Data Locked	jrains, 27-Jun-2018 08:48
18062505ECD5.D	Data Locked	jrains, 27-Jun-2018 08:48
18062506ECD5.D	Data Locked	jrains, 27-Jun-2018 08:48
18062507ECD5.D	Data Locked	jrains, 27-Jun-2018 08:48
18062508ECD5.D	Data Locked	jrains, 27-Jun-2018 08:48
18062509ECD5.D	Data Locked	jrains, 27-Jun-2018 08:48
18062510ECD5.D	Data Locked	jrains, 27-Jun-2018 08:48
18062511ECD5.D	Data Locked	jrains, 27-Jun-2018 08:48
18062512ECD5.D	Data Locked	jrains, 27-Jun-2018 08:48
18062513ECD5.D	Data Locked	jrains, 27-Jun-2018 08:48
18062514ECD5.D	Data Locked	jrains, 27-Jun-2018 08:48
18062515ECD5.D	Data Locked	jrains, 27-Jun-2018 08:48
18062516ECD5.D	Data Locked	jrains, 27-Jun-2018 08:48
18062517ECD5.D	Data Locked	jrains, 27-Jun-2018 08:48
18062518ECD5.D	Data Locked	jrains, 27-Jun-2018 08:48
18062519ECD5.D	Data Locked	jrains, 27-Jun-2018 08:48
18062520ECD5.D	Data Locked	jrains, 27-Jun-2018 08:48
18062521ECD5.D	Data Locked	jrains, 27-Jun-2018 08:48
18062522ECD5.D	Data Locked	jrains, 27-Jun-2018 08:48
18062523ECD5.D	Data Locked	jrains, 27-Jun-2018 08:48
18062524ECD5.D	Data Locked	jrains, 27-Jun-2018 08:48
18062525ECD5.D	Data Locked	jrains, 27-Jun-2018 08:48

Dual Column

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0393
Instrument: ECD5
Calibration: BF00046

Sample Name	Lab Sample ID	Column 1 File ID	Column 2 File ID	Matrix	Analysis Date/Time
Initial Cal Check	SGF0393-ICV1	18062802ECD5.D	18062802ECD5.D	NA	06/28/18 06:38
Initial Cal Check	SGF0393-ICV2	18062803ECD5.D	18062803ECD5.D	NA	06/28/18 06:59
Blank	BGF0512-BLK1	18062804ECD5.D	18062804ECD5.D	Water	06/28/18 07:51
LCS	BGF0512-BS1	18062805ECD5.D	18062805ECD5.D	Water	06/28/18 08:11
LDW18-SP-05	18F0226-01	18062806ECD5.D	18062806ECD5.D	Water	06/28/18 08:31
LDW18-SP-57	18F0226-02	18062807ECD5.D	18062807ECD5.D	Water	06/28/18 08:51
LDW18-SP-57	BGF0512-MS1	18062808ECD5.D	18062808ECD5.D	Water	06/28/18 09:12
LDW18-SP-57	BGF0512-MSD1	18062809ECD5.D	18062809ECD5.D	Water	06/28/18 09:32
LDW18-SP-73	18F0226-03	18062810ECD5.D	18062810ECD5.D	Water	06/28/18 09:52
LDW18-SP-74	18F0226-04	18062811ECD5.D	18062811ECD5.D	Water	06/28/18 10:12
LDW18-SP-77	18F0226-05	18062812ECD5.D	18062812ECD5.D	Water	06/28/18 10:33
LDW18-SP-78	18F0226-06	18062813ECD5.D	18062813ECD5.D	Water	06/28/18 10:53
LDW18-SP-79	18F0226-07	18062814ECD5.D	18062814ECD5.D	Water	06/28/18 11:13
LDW18-SP-84	18F0226-08	18062815ECD5.D	18062815ECD5.D	Water	06/28/18 11:33
Calibration Check	SGF0393-CCV1	18062816ECD5.D	18062816ECD5.D	NA	06/28/18 11:54
Calibration Check	SGF0393-CCV2	18062817ECD5.D	18062817ECD5.D	NA	06/28/18 12:14
LDW18-SP-87	18F0226-09	18062818ECD5.D	18062818ECD5.D	Water	06/28/18 12:34
LDW18-SP-01	18F0248-01	18062819ECD5.D	18062819ECD5.D	Water	06/28/18 12:55
LDW18-SP-45	18F0248-02	18062820ECD5.D	18062820ECD5.D	Water	06/28/18 13:15
LDW18-SP-47	18F0248-03	18062821ECD5.D	18062821ECD5.D	Water	06/28/18 13:35
LDW18-SP-66	18F0248-04	18062822ECD5.D	18062822ECD5.D	Water	06/28/18 13:55
LDW18-SP-70	18F0248-05	18062823ECD5.D	18062823ECD5.D	Water	06/28/18 14:16
LDW18-SP-83	18F0248-06	18062824ECD5.D	18062824ECD5.D	Water	06/28/18 14:36
LDW18-SP-86	18F0248-07	18062825ECD5.D	18062825ECD5.D	Water	06/28/18 14:56
LDW18-SP-88	18F0248-08	18062826ECD5.D	18062826ECD5.D	Water	06/28/18 15:16
Calibration Check	SGF0393-CCV3	18062827ECD5.D	18062827ECD5.D	NA	06/28/18 15:37
Calibration Check	SGF0393-CCV4	18062828ECD5.D	18062828ECD5.D	NA	06/28/18 15:57
Calibration Check	SGF0393-CCV5	18062839ECD5.D	18062839ECD5.D	NA	06/28/18 19:40
Calibration Check	SGF0393-CCV6	18062840ECD5.D	18062840ECD5.D	NA	06/28/18 20:00
Calibration Check	SGF0393-CCV7	18062848ECD5.D	18062848ECD5.D	NA	06/28/18 22:42

Dual Column

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0393
Instrument: ECD5
Calibration: BF00046

Sample Name	Lab Sample ID	Column 1 File ID	Column 2 File ID	Matrix	Analysis Date/Time
Calibration Check	SGF0393-CCV8	18062849ECD5.D	18062849ECD5.D	NA	06/28/18 23:02
Calibration Check	SGF0393-CCV9	18062859ECD5.D	18062859ECD5.D	NA	06/29/18 02:25
Calibration Check	SGF0393-CCVA	18062860ECD5.D	18062860ECD5.D	NA	06/29/18 02:45

Printed: 6/29/2018 9:02:13AM

ANALYSIS SEQUENCE

SGF0393

Instrument: ECD5 Element Column ID: f10906f10907
Calibration ID: BF00046

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
SGF0393-ICV1	AR1254ICV1	QC		1	F011624	G002633	
SGF0393-ICV2	AR660ICV2	QC		2	F011204	G002633	
BGF0512-BLK1	Blank	QC		3		G002633	
BGF0512-BS1	LCS	QC		4		G002633	
BGF0512-MS1	Matrix Spike	QC		5		G002633	
BGF0512-MSD1	Matrix Spike Dup	QC		6		G002633	
18F0226-01	LDW18-SP-05	8082A PCB Water 0.01	B 01	7		G002633	
18F0226-02	LDW18-SP-57	8082A PCB Water 0.01	C 01	8		G002633	
18F0226-03	LDW18-SP-73	8082A PCB Water 0.01	B 01	9		G002633	
18F0226-04	LDW18-SP-74	8082A PCB Water 0.01	B 01	10		G002633	
18F0226-05	LDW18-SP-77	8082A PCB Water 0.01	C 01	11		G002633	
18F0226-06	LDW18-SP-78	8082A PCB Water 0.01	C 01	12		G002633	
18F0226-07	LDW18-SP-79	8082A PCB Water 0.01	C 01	13		G002633	
18F0226-08	LDW18-SP-84	8082A PCB Water 0.01	B 01	14		G002633	
SGF0393-CCV1	AR1248CCV1	QC		15	G000809	G002633	
SGF0393-CCV2	AR1660CCV2	QC		16	F011204	G002633	
18F0226-09	LDW18-SP-87	8082A PCB Water 0.01	C 01	17		G002633	
18F0248-01	LDW18-SP-01	8082A PCB Water 0.01	F 01	18		G002633	
18F0248-02	LDW18-SP-45	8082A PCB Water 0.01	F 01	19		G002633	
18F0248-03	LDW18-SP-47	8082A PCB Water 0.01	F 01	20		G002633	
18F0248-04	LDW18-SP-66	8082A PCB Water 0.01	F 01	21		G002633	
18F0248-05	LDW18-SP-70	8082A PCB Water 0.01	F 01	22		G002633	

Printed: 6/29/2018 9:02:13AM

ANALYSIS SEQUENCE

SGF0393

Instrument: ECD5 Element Column ID: f10906f10907
Calibration ID: BF00046

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
18F0248-06	LDW18-SP-83	8082A PCB Water 0.01	F 01	23		G002633	
18F0248-07	LDW18-SP-86	8082A PCB Water 0.01	F 01	24		G002633	
18F0248-08	LDW18-SP-88	8082A PCB Water 0.01	F 01	25		G002633	
SGF0393-CCV3	AR1242CCV3	QC		26	F011118	G002633	
SGF0393-CCV4	AR1660CCV4	QC		27	F011204	G002633	
BGF0445-BLK1	Blank	QC		28		G002633	
BGF0445-BS1	LCS	QC		29		G002633	
BGF0445-SRM1	Reference	QC		30		G002633	
BGF0445-MS1	Matrix Spike	QC		31		G002633	
BGF0445-MSD1	Matrix Spike Dup	QC		32		G002633	
18F0174-01	LDW18-BNK-5-1	8082A PCB Solid 4	C 02	33		G002633	Report ND if one column < MDL
18F0174-02	LDW18-BNK-5-1-FD	8082A PCB Solid 4	C 02	34		G002633	Report ND if one column < MDL
18F0241-01	LDW18-BNK3-1	8082A PCB Solid 4	C 02	35		G002633	Report ND if one column < MDL
18F0241-02	LDW18-BNK3-2	8082A PCB Solid 4	C 02	36		G002633	Report ND if one column < MDL
18F0241-03	LDW18-BNK3-3	8082A PCB Solid 4	C 02	37		G002633	Report ND if one column < MDL
SGF0393-CCV5	AR1254CCV5	QC		38	F011624	G002633	
SGF0393-CCV6	AR1660CCV6	QC		39	F011204	G002633	
18F0241-04	LDW18-BNK4-1	8082A PCB Solid 4	C 02	40		G002633	Report ND if one column < MDL
18F0241-05	LDW18-BNK4-2	8082A PCB Solid 4	C 02	41		G002633	Report ND if one column < MDL
18F0241-06	LDW18-BNK4-3	8082A PCB Solid 4	C 02	42		G002633	Report ND if one column < MDL
18F0242-01	LDW18-BNK-1-1	8082A PCB Solid 4	C 02	43		G002633	Report ND if one column < MDL
18F0242-02	LDW18-BNK-2-1	8082A PCB Solid 4	C 02	44		G002633	Report ND if one column < MDL

ANALYSIS SEQUENCE

SGF0393

Instrument: ECD5 Element Column ID: f10906f10907
Calibration ID: BF00046

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	Comments
18F0256-01	LDW18-BNK6-1	8082A PCB Solid 4	C 02	45		G002633	Report ND if one column < MDL
18F0256-02	LDW18-BNK6-2	8082A PCB Solid 4	C 02	46		G002633	Report ND if one column < MDL
SGF0393-CCV7	AR1248CCV7	QC		47	G000809	G002633	
SGF0393-CCV8	AR1660CCV8	QC		48	F011204	G002633	
BGF0675-BLK1	Blank	QC		49		G002633	
BGF0675-BS1	LCS	QC		50		G002633	
18F0395-01	Decant Station, Batch#18-04-C,	8082A PCB (20 ug/kg) or (MTCA 0.1 ug/L)	C 01	51		G002633	
BGF0654-BLK1	Blank	QC		52		G002633	
BGF0654-BS1	LCS	QC		53		G002633	
18F0383-01	Pier 62-4.1	8082A PCB (20 ug/kg) or (MTCA 0.1 ug/L)	C 01	54		G002633	
18F0383-02	Pier 62-4.2	8082A PCB (20 ug/kg) or (MTCA 0.1 ug/L)	A 01	55		G002633	
18F0383-03	Pier 62-4.3	8082A PCB (20 ug/kg) or (MTCA 0.1 ug/L)	A 01	56		G002633	
18F0383-04	Pier 62-4.4	8082A PCB (20 ug/kg) or (MTCA 0.1 ug/L)	A 01	57		G002633	
SGF0393-CCV9	AR1242CCV9	QC		58	F011118	G002633	
SGF0393-CCVA	AR1660CCVA	QC		59	F011204	G002633	

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd5.i\20180628.b
2.b

	Inject Date/Time	Filename	DF	LabID	ClientID
1	28-JUN-2018 06:18	18062801.D	1	DDTS	
2	28-JUN-2018 06:38	18062802.D	1	AR1254ICV1	
3	28-JUN-2018 06:59	18062803.D	1	AR1660ICV2	
4	28-JUN-2018 07:51	18062804.D	1	BGF0512-BLK1	
5	28-JUN-2018 08:11	18062805.D	1	BGF0512-BS1	
6	28-JUN-2018 08:31	18062806.D	1	18F0226-01	
7	28-JUN-2018 08:51	18062807.D	1	18F0226-02	
8	28-JUN-2018 09:12	18062808.D	1	BGF0512-MS1	
9	28-JUN-2018 09:32	18062809.D	1	BGF0512-MSD1	
10	28-JUN-2018 09:52	18062810.D	1	18F0226-03	
11	28-JUN-2018 10:12	18062811.D	1	18F0226-04	
12	28-JUN-2018 10:33	18062812.D	1	18F0226-05	
13	28-JUN-2018 10:53	18062813.D	1	18F0226-06	
14	28-JUN-2018 11:13	18062814.D	1	18F0226-07	
15	28-JUN-2018 11:33	18062815.D	1	18F0226-08	
16	28-JUN-2018 11:54	18062816.D	1	AR1248CCV1	
17	28-JUN-2018 12:14	18062817.D	1	AR1660CCV2	
18	28-JUN-2018 12:34	18062818.D	1	18F0226-09	
19	28-JUN-2018 12:55	18062819.D	1	18F0248-01	
20	28-JUN-2018 13:15	18062820.D	1	18F0248-02	
21	28-JUN-2018 13:35	18062821.D	1	18F0248-03	
22	28-JUN-2018 13:55	18062822.D	1	18F0248-04	
23	28-JUN-2018 14:16	18062823.D	1	18F0248-05	
24	28-JUN-2018 14:36	18062824.D	1	18F0248-06	
25	28-JUN-2018 14:56	18062825.D	1	18F0248-07	
26	28-JUN-2018 15:16	18062826.D	1	18F0248-08	
27	28-JUN-2018 15:37	18062827.D	1	AR1242CCV3	
28	28-JUN-2018 15:57	18062828.D	1	AR1660CCV4	
29	28-JUN-2018 16:17	18062829.D	1	BGF0445-BLK1	
30	28-JUN-2018 16:37	18062830.D	1	BGF0445-BS1	
31	28-JUN-2018 16:58	18062831.D	1	BGF0445-SRM1	
32	28-JUN-2018 17:18	18062832.D	1	18F0174-01	
33	28-JUN-2018 17:38	18062833.D	1	BGF0445-MS1	
34	28-JUN-2018 17:59	18062834.D	1	BGF0445-MSD1	
35	28-JUN-2018 18:19	18062835.D	1	18F0174-02	
36	28-JUN-2018 18:39	18062836.D	1	18F0241-01	
37	28-JUN-2018 18:59	18062837.D	1	18F0241-02	
38	28-JUN-2018 19:20	18062838.D	1	18F0241-03	
39	28-JUN-2018 19:40	18062839.D	1	AR1254CCV5	
40	28-JUN-2018 20:00	18062840.D	1	AR1660CCV6	
41	28-JUN-2018 20:20	18062841.D	1	18F0241-04	
42	28-JUN-2018 20:41	18062842.D	1	18F0241-05	
43	28-JUN-2018 21:01	18062843.D	1	18F0241-06	
44	28-JUN-2018 21:21	18062844.D	1	18F0242-01	
45	28-JUN-2018 21:41	18062845.D	1	18F0242-02	
46	28-JUN-2018 22:01	18062846.D	1	18F0256-01	
47	28-JUN-2018 22:22	18062847.D	1	18F0256-02	
48	28-JUN-2018 22:42	18062848.D	1	AR1248CCV7	
49	28-JUN-2018 23:02	18062849.D	1	AR1660CCV8	
50	28-JUN-2018 23:22	18062850.D	1	BGF0675-BLK1	

GC LOG SUMMARY FOR DATABATCH - \\target\share\chem4\ecd5.i\20180628.b p
2.b

	Inject Date/Time	Filename	DF	LabID	ClientID
51	28-JUN-2018 23:43	18062851.D	1	BGF0675-BS1	
52	29-JUN-2018 00:03	18062852.D	1	18F0395-01	
53	29-JUN-2018 00:23	18062853.D	1	BGF0654-BLK1	
54	29-JUN-2018 00:43	18062854.D	1	BGF0654-BS1	
55	29-JUN-2018 01:04	18062855.D	1	18F0383-01	
56	29-JUN-2018 01:24	18062856.D	1	18F0383-02	
57	29-JUN-2018 01:44	18062857.D	1	18F0383-03	
58	29-JUN-2018 02:05	18062858.D	1	18F0383-04	
59	29-JUN-2018 02:25	18062859.D	1	AR1242CCV9	
60	29-JUN-2018 02:45	18062860.D	1	AR1660CCVA	

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd5.i\20180628.b

ARI Job No.: DDTS Method: PCB.m Instrument: ecd5.i Date: 28-JUN-2018

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0618	18062801.D	DDTS		1	NO MANUAL INTEGRATION
0638	18062802.D	AR1254ICV1		1	NO MANUAL INTEGRATION
0659	18062803.D	AR1660ICV2		1	NO MANUAL INTEGRATION
0751	18062804.D	BGF0512-BLK1		1	NO MANUAL INTEGRATION
0811	18062805.D	BGF0512-BS1		1	NO MANUAL INTEGRATION
0831	18062806.D	18F0226-01		1	NO MANUAL INTEGRATION
0851	18062807.D	18F0226-02		1	NO MANUAL INTEGRATION
0912	18062808.D	BGF0512-MS1		1	NO MANUAL INTEGRATION
0932	18062809.D	BGF0512-MSD1		1	NO MANUAL INTEGRATION
0952	18062810.D	18F0226-03		1	NO MANUAL INTEGRATION
1012	18062811.D	18F0226-04		1	NO MANUAL INTEGRATION
1033	18062812.D	18F0226-05		1	NO MANUAL INTEGRATION
1053	18062813.D	18F0226-06		1	NO MANUAL INTEGRATION
1113	18062814.D	18F0226-07		1	NO MANUAL INTEGRATION
1133	18062815.D	18F0226-08		1	NO MANUAL INTEGRATION
1154	18062816.D	AR1248CCV1		1	NO MANUAL INTEGRATION
1214	18062817.D	AR1660CCV2		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd5.i\20180628.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1234	18062818.D	18F0226-09		1	NO MANUAL INTEGRATION
1255	18062819.D	18F0248-01		1	NO MANUAL INTEGRATION
1315	18062820.D	18F0248-02		1	NO MANUAL INTEGRATION
1335	18062821.D	18F0248-03		1	NO MANUAL INTEGRATION
1355	18062822.D	18F0248-04		1	NO MANUAL INTEGRATION
1416	18062823.D	18F0248-05		1	NO MANUAL INTEGRATION
1436	18062824.D	18F0248-06		1	NO MANUAL INTEGRATION
1456	18062825.D	18F0248-07		1	NO MANUAL INTEGRATION
1516	18062826.D	18F0248-08		1	NO MANUAL INTEGRATION
1537	18062827.D	AR1242CCV3		1	NO MANUAL INTEGRATION
1557	18062828.D	AR1660CCV4		1	NO MANUAL INTEGRATION
1617	18062829.D	BGF0445-BLK1		1	NO MANUAL INTEGRATION
1637	18062830.D	BGF0445-BS1		1	NO MANUAL INTEGRATION
1658	18062831.D	BGF0445-SRM1		1	NO MANUAL INTEGRATION
1718	18062832.D	18F0174-01		1	NO MANUAL INTEGRATION
1738	18062833.D	BGF0445-MS1		1	NO MANUAL INTEGRATION
1759	18062834.D	BGF0445-MSD1		1	NO MANUAL INTEGRATION
1819	18062835.D	18F0174-02		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd5.i\20180628.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1839	18062836.D	18F0241-01		1	NO MANUAL INTEGRATION
1859	18062837.D	18F0241-02		1	NO MANUAL INTEGRATION
1920	18062838.D	18F0241-03		1	NO MANUAL INTEGRATION
1940	18062839.D	AR1254CCV5		1	NO MANUAL INTEGRATION
2000	18062840.D	AR1660CCV6		1	NO MANUAL INTEGRATION
2020	18062841.D	18F0241-04		1	NO MANUAL INTEGRATION
2041	18062842.D	18F0241-05		1	NO MANUAL INTEGRATION
2101	18062843.D	18F0241-06		1	NO MANUAL INTEGRATION
2121	18062844.D	18F0242-01		1	NO MANUAL INTEGRATION
2141	18062845.D	18F0242-02		1	NO MANUAL INTEGRATION
2201	18062846.D	18F0256-01		1	NO MANUAL INTEGRATION
2222	18062847.D	18F0256-02		1	NO MANUAL INTEGRATION
2242	18062848.D	AR1248CCV7		1	NO MANUAL INTEGRATION
2302	18062849.D	AR1660CCV8		1	NO MANUAL INTEGRATION
2322	18062850.D	BGF0675-BLK1		1	NO MANUAL INTEGRATION
2343	18062851.D	BGF0675-BS1		1	NO MANUAL INTEGRATION
0003	18062852.D	18F0395-01		1	NO MANUAL INTEGRATION
0023	18062853.D	BGF0654-BLK1		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd5.i\20180628.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
0043	18062854.D	BGF0654-BS1		1	NO MANUAL INTEGRATION
0104	18062855.D	18F0383-01		1	NO MANUAL INTEGRATION
0124	18062856.D	18F0383-02		1	NO MANUAL INTEGRATION
0144	18062857.D	18F0383-03		1	NO MANUAL INTEGRATION
0205	18062858.D	18F0383-04		1	NO MANUAL INTEGRATION
0225	18062859.D	AR1242CCV9		1	NO MANUAL INTEGRATION
0245	18062860.D	AR1660CCVA		1	NO MANUAL INTEGRATION
0618	18062801.D	DDTS		1	NO MANUAL INTEGRATION
0638	18062802.D	AR1254ICV1		1	Aroclor-1254 [2C],
0659	18062803.D	AR1660ICV2		1	Aroclor-1016 [2C], Aroclor-1260 [2C],
0751	18062804.D	BGF0512-BLK1		1	NO MANUAL INTEGRATION
0811	18062805.D	BGF0512-BS1		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Aroclor-1268 [2C],
0831	18062806.D	18F0226-01		1	Tetrachloro-m-xylene [2C],
0851	18062807.D	18F0226-02		1	Tetrachloro-m-xylene [2C],
0912	18062808.D	BGF0512-MS1		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Aroclor-1268 [2C],
0932	18062809.D	BGF0512-MSD1		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C],
0952	18062810.D	18F0226-03		1	Tetrachloro-m-xylene [2C],
1012	18062811.D	18F0226-04		1	Tetrachloro-m-xylene [2C],

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd5.i\20180628.b\20180628.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1033	18062812.D	18F0226-05		1	Tetrachloro-m-xylene [2C],
1053	18062813.D	18F0226-06		1	Tetrachloro-m-xylene [2C],
1113	18062814.D	18F0226-07		1	NO MANUAL INTEGRATION
1133	18062815.D	18F0226-08		1	Tetrachloro-m-xylene [2C],
1154	18062816.D	AR1248CCV1		1	Aroclor-1248 [2C],
1214	18062817.D	AR1660CCV2		1	Aroclor-1016 [2C], Aroclor-1260 [2C],
1234	18062818.D	18F0226-09		1	Tetrachloro-m-xylene [2C],
1255	18062819.D	18F0248-01		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Tetrachloro-m-xylene [2C],
1315	18062820.D	18F0248-02		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Aroclor-1268 [2C], Tetrachloro-m-xylene [2C],
1335	18062821.D	18F0248-03		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Aroclor-1268 [2C], Tetrachloro-m-xylene [2C],
1355	18062822.D	18F0248-04		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Tetrachloro-m-xylene [2C],
1416	18062823.D	18F0248-05		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Aroclor-1268 [2C],
1436	18062824.D	18F0248-06		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Tetrachloro-m-xylene [2C],
1456	18062825.D	18F0248-07		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Aroclor-1268 [2C], Tetrachloro-m-xylene [2C],
1516	18062826.D	18F0248-08		1	Aroclor-1016 [2C], Aroclor-1221 [2C], Aroclor-1232 [2C], Aroclor-1242 [2C], Aroclor-1248 [2C], Aroclor-1254 [2C], Aroclor-1260 [2C], Aroclor-1262 [2C], Tetrachloro-m-xylene [2C],
1537	18062827.D	AR1242CCV3		1	NO MANUAL INTEGRATION
1557	18062828.D	AR1660CCV4		1	NO MANUAL INTEGRATION
1617	18062829.D	BGF0445-BLK1		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd5.i\20180628.b\20180628.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1637	18062830.D	BGF0445-BS1		1	NO MANUAL INTEGRATION
1658	18062831.D	BGF0445-SRM1		1	NO MANUAL INTEGRATION
1718	18062832.D	18F0174-01		1	NO MANUAL INTEGRATION
1738	18062833.D	BGF0445-MS1		1	NO MANUAL INTEGRATION
1759	18062834.D	BGF0445-MSD1		1	NO MANUAL INTEGRATION
1819	18062835.D	18F0174-02		1	NO MANUAL INTEGRATION
1839	18062836.D	18F0241-01		1	NO MANUAL INTEGRATION
1859	18062837.D	18F0241-02		1	NO MANUAL INTEGRATION
1920	18062838.D	18F0241-03		1	NO MANUAL INTEGRATION
1940	18062839.D	AR1254CCV5		1	NO MANUAL INTEGRATION
2000	18062840.D	AR1660CCV6		1	NO MANUAL INTEGRATION
2020	18062841.D	18F0241-04		1	NO MANUAL INTEGRATION
2041	18062842.D	18F0241-05		1	NO MANUAL INTEGRATION
2101	18062843.D	18F0241-06		1	NO MANUAL INTEGRATION
2121	18062844.D	18F0242-01		1	NO MANUAL INTEGRATION
2141	18062845.D	18F0242-02		1	NO MANUAL INTEGRATION
2201	18062846.D	18F0256-01		1	NO MANUAL INTEGRATION
2222	18062847.D	18F0256-02		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem4\ecd5.i\20180628.b\20180628.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2242	18062848.D	AR1248CCV7		1	NO MANUAL INTEGRATION
2302	18062849.D	AR1660CCV8		1	NO MANUAL INTEGRATION
2322	18062850.D	BGF0675-BLK1		1	NO MANUAL INTEGRATION
2343	18062851.D	BGF0675-BS1		1	NO MANUAL INTEGRATION
0003	18062852.D	18F0395-01		1	NO MANUAL INTEGRATION
0023	18062853.D	BGF0654-BLK1		1	NO MANUAL INTEGRATION
0043	18062854.D	BGF0654-BS1		1	NO MANUAL INTEGRATION
0104	18062855.D	18F0383-01		1	NO MANUAL INTEGRATION
0124	18062856.D	18F0383-02		1	NO MANUAL INTEGRATION
0144	18062857.D	18F0383-03		1	NO MANUAL INTEGRATION
0205	18062858.D	18F0383-04		1	NO MANUAL INTEGRATION
0225	18062859.D	AR1242CCV9		1	NO MANUAL INTEGRATION
0245	18062860.D	AR1660CCVA		1	NO MANUAL INTEGRATION

Security Status Report

Date: 29-Jun-2018 10:12

18062802.D	Data Locked	jrains, 29-Jun-2018 10:12
18062803.D	Data Locked	jrains, 29-Jun-2018 10:12
18062804.D	Data Locked	jrains, 29-Jun-2018 10:12
18062805.D	Data Locked	jrains, 29-Jun-2018 10:12
18062806.D	Data Locked	jrains, 29-Jun-2018 10:12
18062807.D	Data Locked	jrains, 29-Jun-2018 10:12
18062808.D	Data Locked	jrains, 29-Jun-2018 10:12
18062809.D	Data Locked	jrains, 29-Jun-2018 10:12
18062810.D	Data Locked	jrains, 29-Jun-2018 10:12
18062811.D	Data Locked	jrains, 29-Jun-2018 10:12
18062812.D	Data Locked	jrains, 29-Jun-2018 10:12
18062813.D	Data Locked	jrains, 29-Jun-2018 10:12
18062814.D	Data Locked	jrains, 29-Jun-2018 10:12
18062815.D	Data Locked	jrains, 29-Jun-2018 10:12
18062816.D	Data Locked	jrains, 29-Jun-2018 10:12
18062817.D	Data Locked	jrains, 29-Jun-2018 10:12
18062818.D	Data Locked	jrains, 29-Jun-2018 10:12
18062827.D	Data Locked	jrains, 29-Jun-2018 10:12
18062828.D	Data Locked	jrains, 29-Jun-2018 10:12

SURROGATE RECOVERY AND RT SUMMARY

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0252
Instrument: ECD5
Calibration: BF00046
Calibration Date: 06/14/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SGF0252-SCV1 (Solid)				Lab File ID: 18061418.D			Analyzed: 06/14/18 23:43	
Decachlorobiphenyl	40.000	97.8	80 - 120	12.788	12.78833	-0.0003	N/A	
Tetrachlorometaxylene	40.000	102	80 - 120	4.449	4.449	0.0000	N/A	
Decachlorobiphenyl [2C]	40.000	102	80 - 120	12.976	12.9765	-0.0005	N/A	
Tetrachlorometaxylene [2C]	40.000	107	80 - 120	4.292	4.292	0.0000	N/A	
SGF0252-SCV2 (Solid)				Lab File ID: 18061419.D			Analyzed: 06/15/18 00:04	
Decachlorobiphenyl	40.000	87.5	80 - 120	12.788	12.78833	-0.0003	N/A	
Tetrachlorometaxylene	40.000	99.0	80 - 120	4.451	4.449	0.0020	N/A	
Decachlorobiphenyl [2C]	40.000	90.9	80 - 120	12.975	12.9765	-0.0015	N/A	
Tetrachlorometaxylene [2C]	40.000	104	80 - 120	4.294	4.292	0.0020	N/A	
SGF0252-SCV3 (Solid)				Lab File ID: 18061420.D			Analyzed: 06/15/18 00:24	
Decachlorobiphenyl	40.000	92.9	80 - 120	12.789	12.78833	0.0007	N/A	
Tetrachlorometaxylene	40.000	102	80 - 120	4.449	4.449	0.0000	N/A	
Decachlorobiphenyl [2C]	40.000	96.9	80 - 120	12.976	12.9765	-0.0005	N/A	
Tetrachlorometaxylene [2C]	40.000	106	80 - 120	4.292	4.292	0.0000	N/A	
SGF0252-SCV4 (Solid)				Lab File ID: 18061421.D			Analyzed: 06/15/18 00:44	
Decachlorobiphenyl	40.000	94.5	80 - 120	12.788	12.78833	-0.0003	N/A	
Tetrachlorometaxylene	40.000	99.8	80 - 120	4.451	4.449	0.0020	N/A	
Decachlorobiphenyl [2C]	40.000	99.3	80 - 120	12.977	12.9765	0.0005	N/A	
Tetrachlorometaxylene [2C]	40.000	105	80 - 120	4.294	4.292	0.0020	N/A	
SGF0252-SCV5 (Solid)				Lab File ID: 18061422.D			Analyzed: 06/15/18 01:05	
Decachlorobiphenyl	40.000	93.0	80 - 120	12.788	12.78833	-0.0003	N/A	
Tetrachlorometaxylene	40.000	106	80 - 120	4.451	4.449	0.0020	N/A	
Decachlorobiphenyl [2C]	40.000	96.4	80 - 120	12.976	12.9765	-0.0005	N/A	
Tetrachlorometaxylene [2C]	40.000	117	80 - 120	4.293	4.292	0.0010	N/A	
SGF0252-SCV6 (Solid)				Lab File ID: 18061423.D			Analyzed: 06/15/18 01:25	
Decachlorobiphenyl	40.000	129	80 - 200	12.789	12.78833	0.0007	N/A	
Tetrachlorometaxylene	40.000	105	80 - 120	4.451	4.449	0.0020	N/A	
Decachlorobiphenyl [2C]	40.000	135	80 - 200	12.976	12.9765	-0.0005	N/A	
Tetrachlorometaxylene [2C]	40.000	113	80 - 120	4.294	4.292	0.0020	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0299
Instrument: ECD5
Calibration: BF00046
Calibration Date: 06/14/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SGF0299-ICV1 (Water)			Lab File ID: 18062302ECD5.D			Analyzed: 06/23/18 13:11		
Decachlorobiphenyl	40.000	101	80 - 120	12.785	12.78833	-0.0033	N/A	
Tetrachlorometaxylene	40.000	107	80 - 120	4.446	4.449	-0.0030	N/A	
Decachlorobiphenyl [2C]	40.000	100	80 - 120	12.972	12.9765	-0.0045	N/A	
Tetrachlorometaxylene [2C]	40.000	114	80 - 120	4.288	4.292	-0.0040	N/A	
SGF0299-ICV2 (Water)			Lab File ID: 18062303ECD5.D			Analyzed: 06/23/18 13:31		
Decachlorobiphenyl	40.000	102	80 - 120	12.784	12.78833	-0.0043	N/A	
Tetrachlorometaxylene	40.000	107	80 - 120	4.443	4.449	-0.0060	N/A	
Decachlorobiphenyl [2C]	40.000	101	80 - 120	12.973	12.9765	-0.0035	N/A	
Tetrachlorometaxylene [2C]	40.000	115	80 - 120	4.285	4.292	-0.0070	N/A	
BGF0415-BLK1 (Water)			Lab File ID: 18062304ECD5.D			Analyzed: 06/23/18 13:52		
Decachlorobiphenyl	0.020000	90.1	29 - 120	12.782	12.78833	-0.0063	N/A	
Tetrachlorometaxylene	0.020000	72.7	32 - 120	4.442	4.449	-0.0070	N/A	
Decachlorobiphenyl [2C]	0.020000	88.9	29 - 120	12.971	12.9765	-0.0055	N/A	
Tetrachlorometaxylene [2C]	0.020000	56.3	32 - 120	4.282	4.292	-0.0100	N/A	
BGF0415-BS1 (Water)			Lab File ID: 18062305ECD5.D			Analyzed: 06/23/18 14:12		
Decachlorobiphenyl	0.020000	92.0	29 - 120	12.782	12.78833	-0.0063	N/A	
Tetrachlorometaxylene	0.020000	74.4	32 - 120	4.441	4.449	-0.0080	N/A	
Decachlorobiphenyl [2C]	0.020000	92.3	29 - 120	12.972	12.9765	-0.0045	N/A	
Tetrachlorometaxylene [2C]	0.020000	66.7	32 - 120	4.285	4.292	-0.0070	N/A	
18F0185-01 (Water)			Lab File ID: 18062306ECD5.D			Analyzed: 06/23/18 14:32		
Decachlorobiphenyl	0.020000	54.9	29 - 120	12.783	12.78833	-0.0053	N/A	
Tetrachlorometaxylene	0.020000	69.8	32 - 120	4.445	4.449	-0.0040	N/A	
Decachlorobiphenyl [2C]	0.020000	54.3	29 - 120	12.972	12.9765	-0.0045	N/A	
Tetrachlorometaxylene [2C]	0.020000	62.5	32 - 120	4.287	4.292	-0.0050	N/A	
18F0185-03 (Water)			Lab File ID: 18062307ECD5.D			Analyzed: 06/23/18 14:53		
Decachlorobiphenyl	0.020000	89.4	29 - 120	12.782	12.78833	-0.0063	N/A	
Tetrachlorometaxylene	0.020000	70.0	32 - 120	4.443	4.449	-0.0060	N/A	
Decachlorobiphenyl [2C]	0.020000	99.2	29 - 120	12.971	12.9765	-0.0055	N/A	
Tetrachlorometaxylene [2C]	0.020000	63.4	32 - 120	4.285	4.292	-0.0070	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0299
Instrument: ECD5
Calibration: BF00046
Calibration Date: 06/14/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
18F0185-04 (Water)			Lab File ID: 18062308ECD5.D			Analyzed: 06/23/18 15:13		
Decachlorobiphenyl	0.020000	87.0	29 - 120	12.783	12.78833	-0.0053	N/A	
Tetrachlorometaxylene	0.020000	72.9	32 - 120	4.442	4.449	-0.0070	N/A	
Decachlorobiphenyl [2C]	0.020000	89.4	29 - 120	12.972	12.9765	-0.0045	N/A	
Tetrachlorometaxylene [2C]	0.020000	58.0	32 - 120	4.283	4.292	-0.0090	N/A	
18F0185-05 (Water)			Lab File ID: 18062309ECD5.D			Analyzed: 06/23/18 15:33		
Decachlorobiphenyl	0.020000	90.5	29 - 120	12.783	12.78833	-0.0053	N/A	
Tetrachlorometaxylene	0.020000	74.5	32 - 120	4.445	4.449	-0.0040	N/A	
Decachlorobiphenyl [2C]	0.020000	92.9	29 - 120	12.973	12.9765	-0.0035	N/A	
Tetrachlorometaxylene [2C]	0.020000	66.2	32 - 120	4.286	4.292	-0.0060	N/A	
18F0185-06 (Water)			Lab File ID: 18062310ECD5.D			Analyzed: 06/23/18 15:54		
Decachlorobiphenyl	0.020000	89.5	29 - 120	12.783	12.78833	-0.0053	N/A	
Tetrachlorometaxylene	0.020000	71.1	32 - 120	4.443	4.449	-0.0060	N/A	
Decachlorobiphenyl [2C]	0.020000	91.3	29 - 120	12.973	12.9765	-0.0035	N/A	
Tetrachlorometaxylene [2C]	0.020000	63.2	32 - 120	4.284	4.292	-0.0080	N/A	
18F0185-07 (Water)			Lab File ID: 18062311ECD5.D			Analyzed: 06/23/18 16:14		
Decachlorobiphenyl	0.020000	85.1	29 - 120	12.782	12.78833	-0.0063	N/A	
Tetrachlorometaxylene	0.020000	122	32 - 120	4.44	4.449	-0.0090	N/A	NRS
Decachlorobiphenyl [2C]	0.020000	87.9	29 - 120	12.973	12.9765	-0.0035	N/A	
Tetrachlorometaxylene [2C]	0.020000	59.1	32 - 120	4.285	4.292	-0.0070	N/A	
18F0185-08 (Water)			Lab File ID: 18062312ECD5.D			Analyzed: 06/23/18 16:34		
Decachlorobiphenyl	0.020000	91.1	29 - 120	12.782	12.78833	-0.0063	N/A	
Tetrachlorometaxylene	0.020000	71.1	32 - 120	4.445	4.449	-0.0040	N/A	
Decachlorobiphenyl [2C]	0.020000	91.0	29 - 120	12.972	12.9765	-0.0045	N/A	
Tetrachlorometaxylene [2C]	0.020000	61.8	32 - 120	4.287	4.292	-0.0050	N/A	
BGF0415-MS1 (Water)			Lab File ID: 18062313ECD5.D			Analyzed: 06/23/18 16:55		
Decachlorobiphenyl	0.020000	90.9	29 - 120	12.782	12.78833	-0.0063	N/A	
Tetrachlorometaxylene	0.020000	71.5	32 - 120	4.443	4.449	-0.0060	N/A	
Decachlorobiphenyl [2C]	0.020000	92.1	29 - 120	12.973	12.9765	-0.0035	N/A	
Tetrachlorometaxylene [2C]	0.020000	63.3	32 - 120	4.285	4.292	-0.0070	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG/WO:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGF0299	Instrument:	ECD5
Calibration:	BF00046	Calibration Date:	06/14/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
BGF0415-MSD1 (Water)			Lab File ID: 18062314ECD5.D				Analyzed: 06/23/18 17:15	
Decachlorobiphenyl	0.020000	92.9	29 - 120	12.783	12.78833	-0.0053	N/A	
Tetrachlorometaxylene	0.020000	72.4	32 - 120	4.445	4.449	-0.0040	N/A	
Decachlorobiphenyl [2C]	0.020000	93.7	29 - 120	12.973	12.9765	-0.0035	N/A	
Tetrachlorometaxylene [2C]	0.020000	64.2	32 - 120	4.287	4.292	-0.0050	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0341
Instrument: ECD5
Calibration: BF00046
Calibration Date: 06/14/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SGF0341-ICV1 (Water)			Lab File ID: 18062504ECD5.D			Analyzed: 06/25/18 14:22		
Decachlorobiphenyl	40.000	90.8	80 - 120	12.774	12.78833	-0.0143	N/A	
Tetrachlorometaxylene	40.000	92.8	80 - 120	4.428	4.449	-0.0210	N/A	
Decachlorobiphenyl [2C]	40.000	103	80 - 120	12.973	12.9765	-0.0035	N/A	
Tetrachlorometaxylene [2C]	40.000	90.0	80 - 120	4.278	4.292	-0.0140	N/A	
SGF0341-ICV2 (Water)			Lab File ID: 18062505ECD5.D			Analyzed: 06/25/18 14:42		
Decachlorobiphenyl	40.000	99.5	80 - 120	12.78	12.78833	-0.0083	N/A	
Tetrachlorometaxylene	40.000	105	80 - 120	4.442	4.449	-0.0070	N/A	
Decachlorobiphenyl [2C]	40.000	109	80 - 120	12.973	12.9765	-0.0035	N/A	
Tetrachlorometaxylene [2C]	40.000	111	80 - 120	4.29	4.292	-0.0020	N/A	
BGF0451-BLK1 (Water)			Lab File ID: 18062506ECD5.D			Analyzed: 06/25/18 15:02		
Decachlorobiphenyl	0.020000	69.6	29 - 120	12.78	12.78833	-0.0083	N/A	
Tetrachlorometaxylene	0.020000	57.3	32 - 120	4.445	4.449	-0.0040	N/A	
Decachlorobiphenyl [2C]	0.020000	74.6	29 - 120	12.973	12.9765	-0.0035	N/A	
Tetrachlorometaxylene [2C]	0.020000	56.3	32 - 120	4.29	4.292	-0.0020	N/A	
BGF0451-BS1 (Water)			Lab File ID: 18062507ECD5.D			Analyzed: 06/25/18 15:23		
Decachlorobiphenyl	0.020000	68.9	29 - 120	12.781	12.78833	-0.0073	N/A	
Tetrachlorometaxylene	0.020000	63.7	32 - 120	4.443	4.449	-0.0060	N/A	
Decachlorobiphenyl [2C]	0.020000	72.6	29 - 120	12.972	12.9765	-0.0045	N/A	
Tetrachlorometaxylene [2C]	0.020000	57.3	32 - 120	4.287	4.292	-0.0050	N/A	
BGF0451-BSD1 (Water)			Lab File ID: 18062508ECD5.D			Analyzed: 06/25/18 15:43		
Decachlorobiphenyl	0.020000	69.1	29 - 120	12.782	12.78833	-0.0063	N/A	
Tetrachlorometaxylene	0.020000	62.3	32 - 120	4.443	4.449	-0.0060	N/A	
Decachlorobiphenyl [2C]	0.020000	72.7	29 - 120	12.972	12.9765	-0.0045	N/A	
Tetrachlorometaxylene [2C]	0.020000	53.0	32 - 120	4.286	4.292	-0.0060	N/A	
18F0208-01 (Water)			Lab File ID: 18062509ECD5.D			Analyzed: 06/25/18 16:03		
Decachlorobiphenyl	0.020000	77.9	29 - 120	12.782	12.78833	-0.0063	N/A	
Tetrachlorometaxylene	0.020000	65.0	32 - 120	4.444	4.449	-0.0050	N/A	
Decachlorobiphenyl [2C]	0.020000	83.1	29 - 120	12.973	12.9765	-0.0035	N/A	
Tetrachlorometaxylene [2C]	0.020000	54.5	32 - 120	4.289	4.292	-0.0030	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG/WO:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGF0341	Instrument:	ECD5
Calibration:	BF00046	Calibration Date:	06/14/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
18F0208-02 (Water)			Lab File ID: 18062510ECD5.D			Analyzed: 06/25/18 16:24		
Decachlorobiphenyl	0.020000	71.2	29 - 120	12.782	12.78833	-0.0063	N/A	
Tetrachlorometaxylene	0.020000	44.6	32 - 120	4.446	4.449	-0.0030	N/A	
Decachlorobiphenyl [2C]	0.020000	73.8	29 - 120	12.973	12.9765	-0.0035	N/A	
Tetrachlorometaxylene [2C]	0.020000	52.5	32 - 120	4.287	4.292	-0.0050	N/A	
18F0208-03 (Water)			Lab File ID: 18062511ECD5.D			Analyzed: 06/25/18 16:44		
Decachlorobiphenyl	0.020000	78.5	29 - 120	12.781	12.78833	-0.0073	N/A	
Tetrachlorometaxylene	0.020000	70.1	32 - 120	4.443	4.449	-0.0060	N/A	
Decachlorobiphenyl [2C]	0.020000	84.1	29 - 120	12.972	12.9765	-0.0045	N/A	
Tetrachlorometaxylene [2C]	0.020000	55.0	32 - 120	4.288	4.292	-0.0040	N/A	
18F0208-04 (Water)			Lab File ID: 18062512ECD5.D			Analyzed: 06/25/18 17:04		
Decachlorobiphenyl	0.020000	73.5	29 - 120	12.782	12.78833	-0.0063	N/A	
Tetrachlorometaxylene	0.020000	58.9	32 - 120	4.444	4.449	-0.0050	N/A	
Decachlorobiphenyl [2C]	0.020000	77.5	29 - 120	12.973	12.9765	-0.0035	N/A	
Tetrachlorometaxylene [2C]	0.020000	49.5	32 - 120	4.288	4.292	-0.0040	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0393
Instrument: ECD5
Calibration: BF00046
Calibration Date: 06/14/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SGF0393-ICV1 (Water)			Lab File ID: 18062802ECD5.D			Analyzed: 06/28/18 06:38		
Decachlorobiphenyl	40.000	99.8	80 - 120	12.78	12.78833	-0.0083	N/A	
Decachlorobiphenyl	40.000	99.8	80 - 120	12.78	12.78833	-0.0083	N/A	
Tetrachlorometaxylene	40.000	106	80 - 120	4.442	4.449	-0.0070	N/A	
Tetrachlorometaxylene	40.000	106	80 - 120	4.442	4.449	-0.0070	N/A	
Decachlorobiphenyl [2C]	40.000	112	80 - 120	12.971	12.9765	-0.0055	N/A	
Decachlorobiphenyl [2C]	40.000	112	80 - 120	12.971	12.9765	-0.0055	N/A	
Tetrachlorometaxylene [2C]	40.000	115	80 - 120	4.285	4.292	-0.0070	N/A	
Tetrachlorometaxylene [2C]	40.000	115	80 - 120	4.285	4.292	-0.0070	N/A	
SGF0393-ICV2 (Water)			Lab File ID: 18062803ECD5.D			Analyzed: 06/28/18 06:59		
Decachlorobiphenyl	40.000	97.5	80 - 120	12.779	12.78833	-0.0093	N/A	
Decachlorobiphenyl	40.000	97.5	80 - 120	12.779	12.78833	-0.0093	N/A	
Tetrachlorometaxylene	40.000	106	80 - 120	4.441	4.449	-0.0080	N/A	
Tetrachlorometaxylene	40.000	106	80 - 120	4.441	4.449	-0.0080	N/A	
Decachlorobiphenyl [2C]	40.000	111	80 - 120	12.971	12.9765	-0.0055	N/A	
Decachlorobiphenyl [2C]	40.000	111	80 - 120	12.971	12.9765	-0.0055	N/A	
Tetrachlorometaxylene [2C]	40.000	115	80 - 120	4.287	4.292	-0.0050	N/A	
Tetrachlorometaxylene [2C]	40.000	115	80 - 120	4.287	4.292	-0.0050	N/A	
BGF0512-BLK1 (Water)			Lab File ID: 18062804ECD5.D			Analyzed: 06/28/18 07:51		
Decachlorobiphenyl	0.020000	90.7	29 - 120	12.786	12.78833	-0.0023	N/A	
Decachlorobiphenyl	0.020000	90.7	29 - 120	12.786	12.78833	-0.0023	N/A	
Tetrachlorometaxylene	0.020000	74.3	32 - 120	4.456	4.449	0.0070	N/A	
Tetrachlorometaxylene	0.020000	74.3	32 - 120	4.456	4.449	0.0070	N/A	
Decachlorobiphenyl [2C]	0.020000	97.4	29 - 120	12.971	12.9765	-0.0055	N/A	
Decachlorobiphenyl [2C]	0.020000	97.4	29 - 120	12.971	12.9765	-0.0055	N/A	
Tetrachlorometaxylene [2C]	0.020000	53.4	32 - 120	4.284	4.292	-0.0080	N/A	
Tetrachlorometaxylene [2C]	0.020000	53.4	32 - 120	4.284	4.292	-0.0080	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0393
Instrument: ECD5
Calibration: BF00046
Calibration Date: 06/14/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
BGF0512-BS1 (Water)			Lab File ID: 18062805ECD5.D			Analyzed: 06/28/18 08:11		
Decachlorobiphenyl	0.020000	88.4	29 - 120	12.78	12.78833	-0.0083	N/A	
Decachlorobiphenyl	0.020000	88.4	29 - 120	12.78	12.78833	-0.0083	N/A	
Tetrachlorometaxylene	0.020000	73.1	32 - 120	4.443	4.449	-0.0060	N/A	
Tetrachlorometaxylene	0.020000	73.1	32 - 120	4.443	4.449	-0.0060	N/A	
Decachlorobiphenyl [2C]	0.020000	99.2	29 - 120	12.969	12.9765	-0.0075	N/A	
Decachlorobiphenyl [2C]	0.020000	99.2	29 - 120	12.969	12.9765	-0.0075	N/A	
Tetrachlorometaxylene [2C]	0.020000	61.1	32 - 120	4.285	4.292	-0.0070	N/A	
Tetrachlorometaxylene [2C]	0.020000	61.1	32 - 120	4.285	4.292	-0.0070	N/A	
18F0226-01 (Water)			Lab File ID: 18062806ECD5.D			Analyzed: 06/28/18 08:31		
Decachlorobiphenyl	0.020000	86.2	29 - 120	12.778	12.78833	-0.0103	N/A	
Decachlorobiphenyl	0.020000	86.2	29 - 120	12.778	12.78833	-0.0103	N/A	
Tetrachlorometaxylene	0.020000	76.3	32 - 120	4.438	4.449	-0.0110	N/A	
Tetrachlorometaxylene	0.020000	76.3	32 - 120	4.438	4.449	-0.0110	N/A	
Decachlorobiphenyl [2C]	0.020000	101	29 - 120	12.97	12.9765	-0.0065	N/A	
Decachlorobiphenyl [2C]	0.020000	101	29 - 120	12.97	12.9765	-0.0065	N/A	
Tetrachlorometaxylene [2C]	0.020000	60.2	32 - 120	4.283	4.292	-0.0090	N/A	
Tetrachlorometaxylene [2C]	0.020000	60.2	32 - 120	4.283	4.292	-0.0090	N/A	
18F0226-02 (Water)			Lab File ID: 18062807ECD5.D			Analyzed: 06/28/18 08:51		
Decachlorobiphenyl	0.020000	81.1	29 - 120	12.778	12.78833	-0.0103	N/A	
Decachlorobiphenyl	0.020000	81.1	29 - 120	12.778	12.78833	-0.0103	N/A	
Tetrachlorometaxylene	0.020000	75.3	32 - 120	4.44	4.449	-0.0090	N/A	
Tetrachlorometaxylene	0.020000	75.3	32 - 120	4.44	4.449	-0.0090	N/A	
Decachlorobiphenyl [2C]	0.020000	94.5	29 - 120	12.971	12.9765	-0.0055	N/A	
Decachlorobiphenyl [2C]	0.020000	94.5	29 - 120	12.971	12.9765	-0.0055	N/A	
Tetrachlorometaxylene [2C]	0.020000	59.4	32 - 120	4.283	4.292	-0.0090	N/A	
Tetrachlorometaxylene [2C]	0.020000	59.4	32 - 120	4.283	4.292	-0.0090	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0393
Instrument: ECD5
Calibration: BF00046
Calibration Date: 06/14/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
BGF0512-MS1 (Water)			Lab File ID: 18062808ECD5.D			Analyzed: 06/28/18 09:12		
Decachlorobiphenyl	0.020000	85.5	29 - 120	12.777	12.78833	-0.0113	N/A	
Decachlorobiphenyl	0.020000	85.5	29 - 120	12.777	12.78833	-0.0113	N/A	
Tetrachlorometaxylene	0.020000	77.4	32 - 120	4.439	4.449	-0.0100	N/A	
Tetrachlorometaxylene	0.020000	77.4	32 - 120	4.439	4.449	-0.0100	N/A	
Decachlorobiphenyl [2C]	0.020000	98.7	29 - 120	12.971	12.9765	-0.0055	N/A	
Decachlorobiphenyl [2C]	0.020000	98.7	29 - 120	12.971	12.9765	-0.0055	N/A	
Tetrachlorometaxylene [2C]	0.020000	65.1	32 - 120	4.284	4.292	-0.0080	N/A	
Tetrachlorometaxylene [2C]	0.020000	65.1	32 - 120	4.284	4.292	-0.0080	N/A	
BGF0512-MSD1 (Water)			Lab File ID: 18062809ECD5.D			Analyzed: 06/28/18 09:32		
Decachlorobiphenyl	0.020000	84.5	29 - 120	12.778	12.78833	-0.0103	N/A	
Decachlorobiphenyl	0.020000	84.5	29 - 120	12.778	12.78833	-0.0103	N/A	
Tetrachlorometaxylene	0.020000	73.9	32 - 120	4.439	4.449	-0.0100	N/A	
Tetrachlorometaxylene	0.020000	73.9	32 - 120	4.439	4.449	-0.0100	N/A	
Decachlorobiphenyl [2C]	0.020000	95.1	29 - 120	12.971	12.9765	-0.0055	N/A	
Decachlorobiphenyl [2C]	0.020000	95.1	29 - 120	12.971	12.9765	-0.0055	N/A	
Tetrachlorometaxylene [2C]	0.020000	59.0	32 - 120	4.284	4.292	-0.0080	N/A	
Tetrachlorometaxylene [2C]	0.020000	59.0	32 - 120	4.284	4.292	-0.0080	N/A	
18F0226-03 (Water)			Lab File ID: 18062810ECD5.D			Analyzed: 06/28/18 09:52		
Decachlorobiphenyl	0.020000	84.5	29 - 120	12.777	12.78833	-0.0113	N/A	
Decachlorobiphenyl	0.020000	84.5	29 - 120	12.777	12.78833	-0.0113	N/A	
Tetrachlorometaxylene	0.020000	77.4	32 - 120	4.441	4.449	-0.0080	N/A	
Tetrachlorometaxylene	0.020000	77.4	32 - 120	4.441	4.449	-0.0080	N/A	
Decachlorobiphenyl [2C]	0.020000	96.4	29 - 120	12.97	12.9765	-0.0065	N/A	
Decachlorobiphenyl [2C]	0.020000	96.4	29 - 120	12.97	12.9765	-0.0065	N/A	
Tetrachlorometaxylene [2C]	0.020000	64.9	32 - 120	4.285	4.292	-0.0070	N/A	
Tetrachlorometaxylene [2C]	0.020000	64.9	32 - 120	4.285	4.292	-0.0070	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0393
Instrument: ECD5
Calibration: BF00046
Calibration Date: 06/14/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
18F0226-04 (Water)			Lab File ID: 18062811ECD5.D			Analyzed: 06/28/18 10:12		
Decachlorobiphenyl	0.023256	81.7	29 - 120	12.777	12.78833	-0.0113	N/A	
Decachlorobiphenyl	0.023256	81.7	29 - 120	12.777	12.78833	-0.0113	N/A	
Tetrachlorometaxylene	0.023256	76.8	32 - 120	4.441	4.449	-0.0080	N/A	
Tetrachlorometaxylene	0.023256	76.8	32 - 120	4.441	4.449	-0.0080	N/A	
Decachlorobiphenyl [2C]	0.023256	97.6	29 - 120	12.97	12.9765	-0.0065	N/A	
Decachlorobiphenyl [2C]	0.023256	97.6	29 - 120	12.97	12.9765	-0.0065	N/A	
Tetrachlorometaxylene [2C]	0.023256	63.6	32 - 120	4.286	4.292	-0.0060	N/A	
Tetrachlorometaxylene [2C]	0.023256	63.6	32 - 120	4.286	4.292	-0.0060	N/A	
18F0226-05 (Water)			Lab File ID: 18062812ECD5.D			Analyzed: 06/28/18 10:33		
Decachlorobiphenyl	0.020000	81.9	29 - 120	12.777	12.78833	-0.0113	N/A	
Decachlorobiphenyl	0.020000	81.9	29 - 120	12.777	12.78833	-0.0113	N/A	
Tetrachlorometaxylene	0.020000	57.2	32 - 120	4.441	4.449	-0.0080	N/A	
Tetrachlorometaxylene	0.020000	57.2	32 - 120	4.441	4.449	-0.0080	N/A	
Decachlorobiphenyl [2C]	0.020000	93.8	29 - 120	12.97	12.9765	-0.0065	N/A	
Decachlorobiphenyl [2C]	0.020000	93.8	29 - 120	12.97	12.9765	-0.0065	N/A	
Tetrachlorometaxylene [2C]	0.020000	76.3	32 - 120	4.287	4.292	-0.0050	N/A	
Tetrachlorometaxylene [2C]	0.020000	76.3	32 - 120	4.287	4.292	-0.0050	N/A	
18F0226-06 (Water)			Lab File ID: 18062813ECD5.D			Analyzed: 06/28/18 10:53		
Decachlorobiphenyl	0.020000	74.3	29 - 120	12.777	12.78833	-0.0113	N/A	
Decachlorobiphenyl	0.020000	74.3	29 - 120	12.777	12.78833	-0.0113	N/A	
Tetrachlorometaxylene	0.020000	69.4	32 - 120	4.44	4.449	-0.0090	N/A	
Tetrachlorometaxylene	0.020000	69.4	32 - 120	4.44	4.449	-0.0090	N/A	
Decachlorobiphenyl [2C]	0.020000	85.8	29 - 120	12.969	12.9765	-0.0075	N/A	
Decachlorobiphenyl [2C]	0.020000	85.8	29 - 120	12.969	12.9765	-0.0075	N/A	
Tetrachlorometaxylene [2C]	0.020000	61.1	32 - 120	4.285	4.292	-0.0070	N/A	
Tetrachlorometaxylene [2C]	0.020000	61.1	32 - 120	4.285	4.292	-0.0070	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0393
Instrument: ECD5
Calibration: BF00046
Calibration Date: 06/14/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
18F0226-07 (Water)			Lab File ID: 18062814ECD5.D			Analyzed: 06/28/18 11:13		
Decachlorobiphenyl	0.020000	66.6	29 - 120	12.776	12.78833	-0.0123	N/A	
Decachlorobiphenyl	0.020000	66.6	29 - 120	12.776	12.78833	-0.0123	N/A	
Tetrachlorometaxylene	0.020000	75.9	32 - 120	4.44	4.449	-0.0090	N/A	
Tetrachlorometaxylene	0.020000	75.9	32 - 120	4.44	4.449	-0.0090	N/A	
Decachlorobiphenyl [2C]	0.020000	75.9	29 - 120	12.969	12.9765	-0.0075	N/A	
Decachlorobiphenyl [2C]	0.020000	75.9	29 - 120	12.969	12.9765	-0.0075	N/A	
Tetrachlorometaxylene [2C]	0.020000	59.9	32 - 120	4.286	4.292	-0.0060	N/A	
Tetrachlorometaxylene [2C]	0.020000	59.9	32 - 120	4.286	4.292	-0.0060	N/A	
18F0226-08 (Water)			Lab File ID: 18062815ECD5.D			Analyzed: 06/28/18 11:33		
Decachlorobiphenyl	0.020000	90.4	29 - 120	12.777	12.78833	-0.0113	N/A	
Decachlorobiphenyl	0.020000	90.4	29 - 120	12.777	12.78833	-0.0113	N/A	
Tetrachlorometaxylene	0.020000	77.0	32 - 120	4.439	4.449	-0.0100	N/A	
Tetrachlorometaxylene	0.020000	77.0	32 - 120	4.439	4.449	-0.0100	N/A	
Decachlorobiphenyl [2C]	0.020000	104	29 - 120	12.971	12.9765	-0.0055	N/A	
Decachlorobiphenyl [2C]	0.020000	104	29 - 120	12.971	12.9765	-0.0055	N/A	
Tetrachlorometaxylene [2C]	0.020000	61.4	32 - 120	4.284	4.292	-0.0080	N/A	
Tetrachlorometaxylene [2C]	0.020000	61.4	32 - 120	4.284	4.292	-0.0080	N/A	
18F0226-09 (Water)			Lab File ID: 18062818ECD5.D			Analyzed: 06/28/18 12:34		
Decachlorobiphenyl	0.020000	78.0	29 - 120	12.776	12.78833	-0.0123	N/A	
Decachlorobiphenyl	0.020000	78.0	29 - 120	12.776	12.78833	-0.0123	N/A	
Tetrachlorometaxylene	0.020000	67.8	32 - 120	4.442	4.449	-0.0070	N/A	
Tetrachlorometaxylene	0.020000	67.8	32 - 120	4.442	4.449	-0.0070	N/A	
Decachlorobiphenyl [2C]	0.020000	91.7	29 - 120	12.97	12.9765	-0.0065	N/A	
Decachlorobiphenyl [2C]	0.020000	91.7	29 - 120	12.97	12.9765	-0.0065	N/A	
Tetrachlorometaxylene [2C]	0.020000	56.4	32 - 120	4.287	4.292	-0.0050	N/A	
Tetrachlorometaxylene [2C]	0.020000	56.4	32 - 120	4.287	4.292	-0.0050	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0393
Instrument: ECD5
Calibration: BF00046
Calibration Date: 06/14/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
18F0248-01 (Water)			Lab File ID: 18062819ECD5.D			Analyzed: 06/28/18 12:55		
Decachlorobiphenyl	0.020000	87.3	29 - 120	12.777	12.78833	-0.0113	N/A	
Decachlorobiphenyl	0.020000	87.3	29 - 120	12.777	12.78833	-0.0113	N/A	
Tetrachlorometaxylene	0.020000	64.6	32 - 120	4.44	4.449	-0.0090	N/A	
Tetrachlorometaxylene	0.020000	64.6	32 - 120	4.44	4.449	-0.0090	N/A	
Decachlorobiphenyl [2C]	0.020000	101	29 - 120	12.97	12.9765	-0.0065	N/A	
Decachlorobiphenyl [2C]	0.020000	101	29 - 120	12.97	12.9765	-0.0065	N/A	
Tetrachlorometaxylene [2C]	0.020000	60.9	32 - 120	4.286	4.292	-0.0060	N/A	
Tetrachlorometaxylene [2C]	0.020000	60.9	32 - 120	4.286	4.292	-0.0060	N/A	
18F0248-02 (Water)			Lab File ID: 18062820ECD5.D			Analyzed: 06/28/18 13:15		
Decachlorobiphenyl	0.020000	79.6	29 - 120	12.776	12.78833	-0.0123	N/A	
Decachlorobiphenyl	0.020000	79.6	29 - 120	12.776	12.78833	-0.0123	N/A	
Tetrachlorometaxylene	0.020000	72.4	32 - 120	4.442	4.449	-0.0070	N/A	
Tetrachlorometaxylene	0.020000	72.4	32 - 120	4.442	4.449	-0.0070	N/A	
Decachlorobiphenyl [2C]	0.020000	93.9	29 - 120	12.97	12.9765	-0.0065	N/A	
Decachlorobiphenyl [2C]	0.020000	93.9	29 - 120	12.97	12.9765	-0.0065	N/A	
Tetrachlorometaxylene [2C]	0.020000	59.2	32 - 120	4.288	4.292	-0.0040	N/A	
Tetrachlorometaxylene [2C]	0.020000	59.2	32 - 120	4.288	4.292	-0.0040	N/A	
18F0248-03 (Water)			Lab File ID: 18062821ECD5.D			Analyzed: 06/28/18 13:35		
Decachlorobiphenyl	0.020000	81.6	29 - 120	12.777	12.78833	-0.0113	N/A	
Decachlorobiphenyl	0.020000	81.6	29 - 120	12.777	12.78833	-0.0113	N/A	
Tetrachlorometaxylene	0.020000	69.6	32 - 120	4.44	4.449	-0.0090	N/A	
Tetrachlorometaxylene	0.020000	69.6	32 - 120	4.44	4.449	-0.0090	N/A	
Decachlorobiphenyl [2C]	0.020000	93.1	29 - 120	12.969	12.9765	-0.0075	N/A	
Decachlorobiphenyl [2C]	0.020000	93.1	29 - 120	12.969	12.9765	-0.0075	N/A	
Tetrachlorometaxylene [2C]	0.020000	61.6	32 - 120	4.287	4.292	-0.0050	N/A	
Tetrachlorometaxylene [2C]	0.020000	61.6	32 - 120	4.287	4.292	-0.0050	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG/WO: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0393
Instrument: ECD5
Calibration: BF00046
Calibration Date: 06/14/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
18F0248-04 (Water)			Lab File ID: 18062822ECD5.D			Analyzed: 06/28/18 13:55		
Decachlorobiphenyl	0.020000	82.3	29 - 120	12.777	12.78833	-0.0113	N/A	
Decachlorobiphenyl	0.020000	82.3	29 - 120	12.777	12.78833	-0.0113	N/A	
Tetrachlorometaxylene	0.020000	79.0	32 - 120	4.44	4.449	-0.0090	N/A	
Tetrachlorometaxylene	0.020000	79.0	32 - 120	4.44	4.449	-0.0090	N/A	
Decachlorobiphenyl [2C]	0.020000	95.8	29 - 120	12.97	12.9765	-0.0065	N/A	
Decachlorobiphenyl [2C]	0.020000	95.8	29 - 120	12.97	12.9765	-0.0065	N/A	
Tetrachlorometaxylene [2C]	0.020000	60.7	32 - 120	4.284	4.292	-0.0080	N/A	
Tetrachlorometaxylene [2C]	0.020000	60.7	32 - 120	4.284	4.292	-0.0080	N/A	
18F0248-05 (Water)			Lab File ID: 18062823ECD5.D			Analyzed: 06/28/18 14:16		
Decachlorobiphenyl	0.020000	69.9	29 - 120	12.777	12.78833	-0.0113	N/A	
Decachlorobiphenyl	0.020000	69.9	29 - 120	12.777	12.78833	-0.0113	N/A	
Tetrachlorometaxylene	0.020000	66.6	32 - 120	4.441	4.449	-0.0080	N/A	
Tetrachlorometaxylene	0.020000	66.6	32 - 120	4.441	4.449	-0.0080	N/A	
Decachlorobiphenyl [2C]	0.020000	81.2	29 - 120	12.97	12.9765	-0.0065	N/A	
Decachlorobiphenyl [2C]	0.020000	81.2	29 - 120	12.97	12.9765	-0.0065	N/A	
Tetrachlorometaxylene [2C]	0.020000	60.0	32 - 120	4.287	4.292	-0.0050	N/A	
Tetrachlorometaxylene [2C]	0.020000	60.0	32 - 120	4.287	4.292	-0.0050	N/A	
18F0248-06 (Water)			Lab File ID: 18062824ECD5.D			Analyzed: 06/28/18 14:36		
Decachlorobiphenyl	0.020000	76.2	29 - 120	12.776	12.78833	-0.0123	N/A	
Decachlorobiphenyl	0.020000	76.2	29 - 120	12.776	12.78833	-0.0123	N/A	
Tetrachlorometaxylene	0.020000	70.3	32 - 120	4.438	4.449	-0.0110	N/A	
Tetrachlorometaxylene	0.020000	70.3	32 - 120	4.438	4.449	-0.0110	N/A	
Decachlorobiphenyl [2C]	0.020000	91.4	29 - 120	12.969	12.9765	-0.0075	N/A	
Decachlorobiphenyl [2C]	0.020000	91.4	29 - 120	12.969	12.9765	-0.0075	N/A	
Tetrachlorometaxylene [2C]	0.020000	56.4	32 - 120	4.283	4.292	-0.0090	N/A	
Tetrachlorometaxylene [2C]	0.020000	56.4	32 - 120	4.283	4.292	-0.0090	N/A	

SURROGATE RECOVERY AND RT SUMMARY

EPA 8082A

Laboratory:	Analytical Resources, Inc.	SDG/WO:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGF0393	Instrument:	ECD5
Calibration:	BF00046	Calibration Date:	06/14/2018

Surrogate Compound	Spike Level ug/L	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
18F0248-07 (Water)			Lab File ID: 18062825ECD5.D			Analyzed: 06/28/18 14:56		
Decachlorobiphenyl	0.020000	86.9	29 - 120	12.775	12.78833	-0.0133	N/A	
Decachlorobiphenyl	0.020000	86.9	29 - 120	12.775	12.78833	-0.0133	N/A	
Tetrachlorometaxylene	0.020000	71.2	32 - 120	4.441	4.449	-0.0080	N/A	
Tetrachlorometaxylene	0.020000	71.2	32 - 120	4.441	4.449	-0.0080	N/A	
Decachlorobiphenyl [2C]	0.020000	102	29 - 120	12.969	12.9765	-0.0075	N/A	
Decachlorobiphenyl [2C]	0.020000	102	29 - 120	12.969	12.9765	-0.0075	N/A	
Tetrachlorometaxylene [2C]	0.020000	61.1	32 - 120	4.287	4.292	-0.0050	N/A	
Tetrachlorometaxylene [2C]	0.020000	61.1	32 - 120	4.287	4.292	-0.0050	N/A	
18F0248-08 (Water)			Lab File ID: 18062826ECD5.D			Analyzed: 06/28/18 15:16		
Decachlorobiphenyl	0.020000	83.5	29 - 120	12.777	12.78833	-0.0113	N/A	
Decachlorobiphenyl	0.020000	83.5	29 - 120	12.777	12.78833	-0.0113	N/A	
Tetrachlorometaxylene	0.020000	75.0	32 - 120	4.441	4.449	-0.0080	N/A	
Tetrachlorometaxylene	0.020000	75.0	32 - 120	4.441	4.449	-0.0080	N/A	
Decachlorobiphenyl [2C]	0.020000	99.4	29 - 120	12.969	12.9765	-0.0075	N/A	
Decachlorobiphenyl [2C]	0.020000	99.4	29 - 120	12.969	12.9765	-0.0075	N/A	
Tetrachlorometaxylene [2C]	0.020000	55.4	32 - 120	4.287	4.292	-0.0050	N/A	
Tetrachlorometaxylene [2C]	0.020000	55.4	32 - 120	4.287	4.292	-0.0050	N/A	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0252
Instrument: ECD5
Calibration: BF00046

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Secondary Cal Check (SGF0252-SCV1)		(Solid)		Lab File ID: 18061418.D			Analyzed: 06/14/18 23:43		
1-Bromo-2-Nitrobenzene	1022182000	2.329	9.201862E+08	2.33	111	50 - 200	0.0010	+/-0.50	
Hexabromobiphenyl	828985200	13.147	7.619267E+08	13.148	109	50 - 200	0.0010	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5339227000	2.671	4.418272E+09	2.671	121	50 - 200	0.0000	+/-0.50	
Hexabromobiphenyl [2C]	2595052000	13.826	2.171332E+09	13.827	120	50 - 200	0.0010	+/-0.50	
Secondary Cal Check (SGF0252-SCV2)		(Solid)		Lab File ID: 18061419.D			Analyzed: 06/15/18 00:04		
1-Bromo-2-Nitrobenzene	998974300	2.333	9.201862E+08	2.33	109	50 - 200	-0.0030	+/-0.50	
Hexabromobiphenyl	838049200	13.148	7.619267E+08	13.148	110	50 - 200	0.0000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5148832000	2.674	4.418272E+09	2.671	117	50 - 200	-0.0030	+/-0.50	
Hexabromobiphenyl [2C]	2628248000	13.827	2.171332E+09	13.827	121	50 - 200	0.0000	+/-0.50	
Secondary Cal Check (SGF0252-SCV3)		(Solid)		Lab File ID: 18061420.D			Analyzed: 06/15/18 00:24		
1-Bromo-2-Nitrobenzene	1015279000	2.33	9.201862E+08	2.33	110	50 - 200	0.0000	+/-0.50	
Hexabromobiphenyl	838009700	13.147	7.619267E+08	13.148	110	50 - 200	0.0010	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5374391000	2.671	4.418272E+09	2.671	122	50 - 200	0.0000	+/-0.50	
Hexabromobiphenyl [2C]	2659287000	13.828	2.171332E+09	13.827	122	50 - 200	-0.0010	+/-0.50	
Secondary Cal Check (SGF0252-SCV4)		(Solid)		Lab File ID: 18061421.D			Analyzed: 06/15/18 00:44		
1-Bromo-2-Nitrobenzene	1028184000	2.332	9.201862E+08	2.33	112	50 - 200	-0.0020	+/-0.50	
Hexabromobiphenyl	838505500	13.147	7.619267E+08	13.148	110	50 - 200	0.0010	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5440485000	2.674	4.418272E+09	2.671	123	50 - 200	-0.0030	+/-0.50	
Hexabromobiphenyl [2C]	2659954000	13.827	2.171332E+09	13.827	123	50 - 200	0.0000	+/-0.50	
Secondary Cal Check (SGF0252-SCV5)		(Solid)		Lab File ID: 18061422.D			Analyzed: 06/15/18 01:05		
1-Bromo-2-Nitrobenzene	1000390000	2.332	9.201862E+08	2.33	109	50 - 200	-0.0020	+/-0.50	
Hexabromobiphenyl	841506400	13.147	7.619267E+08	13.148	110	50 - 200	0.0010	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	4953445000	2.673	4.418272E+09	2.671	112	50 - 200	-0.0020	+/-0.50	
Hexabromobiphenyl [2C]	2669487000	13.827	2.171332E+09	13.827	123	50 - 200	0.0000	+/-0.50	
Secondary Cal Check (SGF0252-SCV6)		(Solid)		Lab File ID: 18061423.D			Analyzed: 06/15/18 01:25		
1-Bromo-2-Nitrobenzene	1033234000	2.332	9.201862E+08	2.33	112	50 - 200	-0.0020	+/-0.50	
Hexabromobiphenyl	838362000	13.147	7.619267E+08	13.148	110	50 - 200	0.0010	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5349111000	2.673	4.418272E+09	2.671	121	50 - 200	-0.0020	+/-0.50	
Hexabromobiphenyl [2C]	2673124000	13.828	2.171332E+09	13.827	123	50 - 200	-0.0010	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0299
Instrument: ECD5
Calibration: BF00046

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SGF0299-ICV1)		(Water)	Lab File ID: 18062302ECD5.D				Analyzed: 06/23/18 13:11		
1-Bromo-2-Nitrobenzene	1197510000	2.328	9.201862E+08	2.328	130	50 - 200	0.0000	+/-0.50	
Hexabromobiphenyl	879347800	13.144	7.619267E+08	13.144	115	50 - 200	0.0000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5212431000	2.668	4.418272E+09	2.668	118	50 - 200	0.0000	+/-0.50	
Hexabromobiphenyl [2C]	2413411000	13.823	2.171332E+09	13.823	111	50 - 200	0.0000	+/-0.50	
Initial Cal Check (SGF0299-ICV2)		(Water)	Lab File ID: 18062303ECD5.D				Analyzed: 06/23/18 13:31		
1-Bromo-2-Nitrobenzene	1262765000	2.327	9.201862E+08	2.328	137	50 - 200	0.0010	+/-0.50	
Hexabromobiphenyl	931019100	13.143	7.619267E+08	13.144	122	50 - 200	0.0010	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5429970000	2.667	4.418272E+09	2.668	123	50 - 200	0.0010	+/-0.50	
Hexabromobiphenyl [2C]	2611727000	13.824	2.171332E+09	13.823	120	50 - 200	-0.0010	+/-0.50	
Blank (BGF0415-BLK1)		(Water)	Lab File ID: 18062304ECD5.D				Analyzed: 06/23/18 13:52		
1-Bromo-2-Nitrobenzene	913504800	2.322	9.201862E+08	2.327	99	50 - 200	0.0050	+/-0.50	
Hexabromobiphenyl	799473000	13.141	7.619267E+08	13.143	105	50 - 200	0.0020	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	4425734000	2.667	4.418272E+09	2.667	100	50 - 200	0.0000	+/-0.50	
Hexabromobiphenyl [2C]	2205460000	13.823	2.171332E+09	13.824	102	50 - 200	0.0010	+/-0.50	
LCS (BGF0415-BS1)		(Water)	Lab File ID: 18062305ECD5.D				Analyzed: 06/23/18 14:12		
1-Bromo-2-Nitrobenzene	971626200	2.323	9.201862E+08	2.327	106	50 - 200	0.0040	+/-0.50	
Hexabromobiphenyl	814849600	13.141	7.619267E+08	13.143	107	50 - 200	0.0020	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	4580988000	2.668	4.418272E+09	2.667	104	50 - 200	-0.0010	+/-0.50	
Hexabromobiphenyl [2C]	2234842000	13.823	2.171332E+09	13.824	103	50 - 200	0.0010	+/-0.50	
LDW18-SP-RB1 (18F0185-01)		(Water)	Lab File ID: 18062306ECD5.D				Analyzed: 06/23/18 14:32		
1-Bromo-2-Nitrobenzene	921367400	2.325	9.201862E+08	2.327	100	50 - 200	0.0020	+/-0.50	
Hexabromobiphenyl	831871700	13.141	7.619267E+08	13.143	109	50 - 200	0.0020	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	4452408000	2.669	4.418272E+09	2.667	101	50 - 200	-0.0020	+/-0.50	
Hexabromobiphenyl [2C]	2344780000	13.823	2.171332E+09	13.824	108	50 - 200	0.0010	+/-0.50	
LDW18-SP-30 (18F0185-03)		(Water)	Lab File ID: 18062307ECD5.D				Analyzed: 06/23/18 14:53		
1-Bromo-2-Nitrobenzene	965138500	2.325	9.201862E+08	2.327	105	50 - 200	0.0020	+/-0.50	
Hexabromobiphenyl	840432800	13.141	7.619267E+08	13.143	110	50 - 200	0.0020	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	4556645000	2.668	4.418272E+09	2.667	103	50 - 200	-0.0010	+/-0.50	
Hexabromobiphenyl [2C]	2508633000	13.824	2.171332E+09	13.824	116	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0299
Instrument: ECD5
Calibration: BF00046

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW18-SP-32 (18F0185-04)		(Water)	Lab File ID: 18062308ECD5.D				Analyzed: 06/23/18 15:13		
1-Bromo-2-Nitrobenzene	933154600	2.321	9.201862E+08	2.327	101	50 - 200	0.0060	+/-0.50	
Hexabromobiphenyl	844054200	13.141	7.619267E+08	13.143	111	50 - 200	0.0020	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	4614837000	2.666	4.418272E+09	2.667	104	50 - 200	0.0010	+/-0.50	
Hexabromobiphenyl [2C]	2336426000	13.824	2.171332E+09	13.824	108	50 - 200	0.0000	+/-0.50	
LDW18-SP-35 (18F0185-05)		(Water)	Lab File ID: 18062309ECD5.D				Analyzed: 06/23/18 15:33		
1-Bromo-2-Nitrobenzene	965666400	2.326	9.201862E+08	2.327	105	50 - 200	0.0010	+/-0.50	
Hexabromobiphenyl	861584600	13.141	7.619267E+08	13.143	113	50 - 200	0.0020	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	4602352000	2.67	4.418272E+09	2.667	104	50 - 200	-0.0030	+/-0.50	
Hexabromobiphenyl [2C]	2382086000	13.824	2.171332E+09	13.824	110	50 - 200	0.0000	+/-0.50	
LDW18-SP-38 (18F0185-06)		(Water)	Lab File ID: 18062310ECD5.D				Analyzed: 06/23/18 15:54		
1-Bromo-2-Nitrobenzene	975732000	2.326	9.201862E+08	2.327	106	50 - 200	0.0010	+/-0.50	
Hexabromobiphenyl	864820100	13.141	7.619267E+08	13.143	114	50 - 200	0.0020	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	4631266000	2.669	4.418272E+09	2.667	105	50 - 200	-0.0020	+/-0.50	
Hexabromobiphenyl [2C]	2439010000	13.824	2.171332E+09	13.824	112	50 - 200	0.0000	+/-0.50	
LDW18-SP-42 (18F0185-07)		(Water)	Lab File ID: 18062311ECD5.D				Analyzed: 06/23/18 16:14		
1-Bromo-2-Nitrobenzene	964797200	2.323	9.201862E+08	2.327	105	50 - 200	0.0040	+/-0.50	
Hexabromobiphenyl	856743600	13.14	7.619267E+08	13.143	112	50 - 200	0.0030	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	4720691000	2.667	4.418272E+09	2.667	107	50 - 200	0.0000	+/-0.50	
Hexabromobiphenyl [2C]	2418056000	13.824	2.171332E+09	13.824	111	50 - 200	0.0000	+/-0.50	
LDW18-SP-43 (18F0185-08)		(Water)	Lab File ID: 18062312ECD5.D				Analyzed: 06/23/18 16:34		
1-Bromo-2-Nitrobenzene	979632100	2.327	9.201862E+08	2.327	106	50 - 200	0.0000	+/-0.50	
Hexabromobiphenyl	874530500	13.14	7.619267E+08	13.143	115	50 - 200	0.0030	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	4779572000	2.669	4.418272E+09	2.667	108	50 - 200	-0.0020	+/-0.50	
Hexabromobiphenyl [2C]	2562693000	13.823	2.171332E+09	13.824	118	50 - 200	0.0010	+/-0.50	
Matrix Spike (BGF0415-MS1)		(Water)	Lab File ID: 18062313ECD5.D				Analyzed: 06/23/18 16:55		
1-Bromo-2-Nitrobenzene	954276900	2.325	9.201862E+08	2.327	104	50 - 200	0.0020	+/-0.50	
Hexabromobiphenyl	860147200	13.141	7.619267E+08	13.143	113	50 - 200	0.0020	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	4630138000	2.668	4.418272E+09	2.667	105	50 - 200	-0.0010	+/-0.50	
Hexabromobiphenyl [2C]	2517945000	13.823	2.171332E+09	13.824	116	50 - 200	0.0010	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0299
Instrument: ECD5
Calibration: BF00046

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Matrix Spike Dup (BGF0415-MSD1)		(Water)	Lab File ID: 18062314ECD5.D				Analyzed: 06/23/18 17:15		
1-Bromo-2-Nitrobenzene	983330100	2.325	9.201862E+08	2.327	107	50 - 200	0.0020	+/-0.50	
Hexabromobiphenyl	876659700	13.14	7.619267E+08	13.143	115	50 - 200	0.0030	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	4756873000	2.669	4.418272E+09	2.667	108	50 - 200	-0.0020	+/-0.50	
Hexabromobiphenyl [2C]	2598937000	13.824	2.171332E+09	13.824	120	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0341
Instrument: ECD5
Calibration: BF00046

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SGF0341-ICV1)		(Water)	Lab File ID: 18062504ECD5.D				Analyzed: 06/25/18 14:22		
1-Bromo-2-Nitrobenzene	1026550000	2.316	9.201862E+08	2.316	112	50 - 200	0.0000	+/-0.50	
Hexabromobiphenyl	824578300	13.133	7.619267E+08	13.133	108	50 - 200	0.0000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	4005677000	2.661	4.418272E+09	2.661	91	50 - 200	0.0000	+/-0.50	
Hexabromobiphenyl [2C]	1955089000	13.823	2.171332E+09	13.823	90	50 - 200	0.0000	+/-0.50	
Initial Cal Check (SGF0341-ICV2)		(Water)	Lab File ID: 18062505ECD5.D				Analyzed: 06/25/18 14:42		
1-Bromo-2-Nitrobenzene	1141287000	2.326	9.201862E+08	2.316	124	50 - 200	-0.0100	+/-0.50	
Hexabromobiphenyl	886123900	13.139	7.619267E+08	13.133	116	50 - 200	-0.0060	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5144799000	2.669	4.418272E+09	2.661	116	50 - 200	-0.0080	+/-0.50	
Hexabromobiphenyl [2C]	2248321000	13.824	2.171332E+09	13.823	104	50 - 200	-0.0010	+/-0.50	
Blank (BGF0451-BLK1)		(Water)	Lab File ID: 18062506ECD5.D				Analyzed: 06/25/18 15:02		
1-Bromo-2-Nitrobenzene	1009706000	2.328	9.201862E+08	2.326	110	50 - 200	-0.0020	+/-0.50	
Hexabromobiphenyl	830378400	13.14	7.619267E+08	13.139	109	50 - 200	-0.0010	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	4764035000	2.671	4.418272E+09	2.669	108	50 - 200	-0.0020	+/-0.50	
Hexabromobiphenyl [2C]	2197782000	13.822	2.171332E+09	13.824	101	50 - 200	0.0020	+/-0.50	
LCS (BGF0451-BS1)		(Water)	Lab File ID: 18062507ECD5.D				Analyzed: 06/25/18 15:23		
1-Bromo-2-Nitrobenzene	1032578000	2.325	9.201862E+08	2.326	112	50 - 200	0.0010	+/-0.50	
Hexabromobiphenyl	875728800	13.139	7.619267E+08	13.139	115	50 - 200	0.0000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	4794585000	2.669	4.418272E+09	2.669	109	50 - 200	0.0000	+/-0.50	
Hexabromobiphenyl [2C]	2357154000	13.823	2.171332E+09	13.824	109	50 - 200	0.0010	+/-0.50	
LCS Dup (BGF0451-BSD1)		(Water)	Lab File ID: 18062508ECD5.D				Analyzed: 06/25/18 15:43		
1-Bromo-2-Nitrobenzene	1029737000	2.324	9.201862E+08	2.326	112	50 - 200	0.0020	+/-0.50	
Hexabromobiphenyl	897186200	13.14	7.619267E+08	13.139	118	50 - 200	-0.0010	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	4964609000	2.669	4.418272E+09	2.669	112	50 - 200	0.0000	+/-0.50	
Hexabromobiphenyl [2C]	2431361000	13.824	2.171332E+09	13.824	112	50 - 200	0.0000	+/-0.50	
LDW18-SP-06 (18F0208-01)		(Water)	Lab File ID: 18062509ECD5.D				Analyzed: 06/25/18 16:03		
1-Bromo-2-Nitrobenzene	993882200	2.327	9.201862E+08	2.326	108	50 - 200	-0.0010	+/-0.50	
Hexabromobiphenyl	875417100	13.14	7.619267E+08	13.139	115	50 - 200	-0.0010	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	4825321000	2.671	4.418272E+09	2.669	109	50 - 200	-0.0020	+/-0.50	
Hexabromobiphenyl [2C]	2391844000	13.823	2.171332E+09	13.824	110	50 - 200	0.0010	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0341
Instrument: ECD5
Calibration: BF00046

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW18-SP-33 (18F0208-02)		(Water)	Lab File ID: 18062510ECD5.D				Analyzed: 06/25/18 16:24		
1-Bromo-2-Nitrobenzene	1036802000	2.328	9.201862E+08	2.326	113	50 - 200	-0.0020	+/-0.50	
Hexabromobiphenyl	886036000	13.14	7.619267E+08	13.139	116	50 - 200	-0.0010	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	4304294000	2.672	4.418272E+09	2.669	97	50 - 200	-0.0030	+/-0.50	
Hexabromobiphenyl [2C]	2508965000	13.825	2.171332E+09	13.824	116	50 - 200	-0.0010	+/-0.50	
LDW18-SP-24 (18F0208-03)		(Water)	Lab File ID: 18062511ECD5.D				Analyzed: 06/25/18 16:44		
1-Bromo-2-Nitrobenzene	954704500	2.325	9.201862E+08	2.326	104	50 - 200	0.0010	+/-0.50	
Hexabromobiphenyl	882500500	13.14	7.619267E+08	13.139	116	50 - 200	-0.0010	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	4759631000	2.67	4.418272E+09	2.669	108	50 - 200	-0.0010	+/-0.50	
Hexabromobiphenyl [2C]	2481877000	13.824	2.171332E+09	13.824	114	50 - 200	0.0000	+/-0.50	
LDW18-SP-24-FD (18F0208-04)		(Water)	Lab File ID: 18062512ECD5.D				Analyzed: 06/25/18 17:04		
1-Bromo-2-Nitrobenzene	998132500	2.326	9.201862E+08	2.326	108	50 - 200	0.0000	+/-0.50	
Hexabromobiphenyl	877248800	13.14	7.619267E+08	13.139	115	50 - 200	-0.0010	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	4924123000	2.67	4.418272E+09	2.669	111	50 - 200	-0.0010	+/-0.50	
Hexabromobiphenyl [2C]	2480369000	13.825	2.171332E+09	13.824	114	50 - 200	-0.0010	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0393
Instrument: ECD5
Calibration: BF00046

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SGF0393-ICV1)		(Water)	Lab File ID: 18062802ECD5.D				Analyzed: 06/28/18 06:38		
1-Bromo-2-Nitrobenzene	1148521000	2.325	9.201862E+08	2.325	125	50 - 200	0.0000	+/-0.50	
Hexabromobiphenyl	869811600	13.139	7.619267E+08	13.139	114	50 - 200	0.0000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5787543000	2.667	4.418272E+09	2.667	131	50 - 200	0.0000	+/-0.50	
Hexabromobiphenyl [2C]	2644387000	13.821	2.171332E+09	13.821	122	50 - 200	0.0000	+/-0.50	
Initial Cal Check (SGF0393-ICV2)		(Water)	Lab File ID: 18062803ECD5.D				Analyzed: 06/28/18 06:59		
1-Bromo-2-Nitrobenzene	1116868000	2.326	9.201862E+08	2.325	121	50 - 200	-0.0010	+/-0.50	
Hexabromobiphenyl	862255700	13.137	7.619267E+08	13.139	113	50 - 200	0.0020	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5555483000	2.668	4.418272E+09	2.667	126	50 - 200	-0.0010	+/-0.50	
Hexabromobiphenyl [2C]	2600883000	13.82	2.171332E+09	13.821	120	50 - 200	0.0010	+/-0.50	
Blank (BGF0512-BLK1)		(Water)	Lab File ID: 18062804ECD5.D				Analyzed: 06/28/18 07:51		
1-Bromo-2-Nitrobenzene	988151300	2.332	9.201862E+08	2.326	107	50 - 200	-0.0060	+/-0.50	
Hexabromobiphenyl	894507600	13.144	7.619267E+08	13.137	117	50 - 200	-0.0070	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5798296000	2.669	4.418272E+09	2.668	131	50 - 200	-0.0010	+/-0.50	
Hexabromobiphenyl [2C]	2691286000	13.822	2.171332E+09	13.82	124	50 - 200	-0.0020	+/-0.50	
LCS (BGF0512-BS1)		(Water)	Lab File ID: 18062805ECD5.D				Analyzed: 06/28/18 08:11		
1-Bromo-2-Nitrobenzene	988983700	2.323	9.201862E+08	2.326	107	50 - 200	0.0030	+/-0.50	
Hexabromobiphenyl	883419200	13.137	7.619267E+08	13.137	116	50 - 200	0.0000	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5282316000	2.668	4.418272E+09	2.668	120	50 - 200	0.0000	+/-0.50	
Hexabromobiphenyl [2C]	2646286000	13.82	2.171332E+09	13.82	122	50 - 200	0.0000	+/-0.50	
LDW18-SP-05 (18F0226-01)		(Water)	Lab File ID: 18062806ECD5.D				Analyzed: 06/28/18 08:31		
1-Bromo-2-Nitrobenzene	980511200	2.321	9.201862E+08	2.326	107	50 - 200	0.0050	+/-0.50	
Hexabromobiphenyl	896457900	13.136	7.619267E+08	13.137	118	50 - 200	0.0010	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5329422000	2.666	4.418272E+09	2.668	121	50 - 200	0.0020	+/-0.50	
Hexabromobiphenyl [2C]	2689333000	13.82	2.171332E+09	13.82	124	50 - 200	0.0000	+/-0.50	
LDW18-SP-57 (18F0226-02)		(Water)	Lab File ID: 18062807ECD5.D				Analyzed: 06/28/18 08:51		
1-Bromo-2-Nitrobenzene	1011152000	2.322	9.201862E+08	2.326	110	50 - 200	0.0040	+/-0.50	
Hexabromobiphenyl	933380200	13.135	7.619267E+08	13.137	123	50 - 200	0.0020	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5426103000	2.668	4.418272E+09	2.668	123	50 - 200	0.0000	+/-0.50	
Hexabromobiphenyl [2C]	2806316000	13.82	2.171332E+09	13.82	129	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0393
Instrument: ECD5
Calibration: BF00046

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Matrix Spike (BGF0512-MS1)		(Water)	Lab File ID: 18062808ECD5.D				Analyzed: 06/28/18 09:12		
1-Bromo-2-Nitrobenzene	1007446000	2.32	9.201862E+08	2.326	109	50 - 200	0.0060	+/-0.50	
Hexabromobiphenyl	899721600	13.136	7.619267E+08	13.137	118	50 - 200	0.0010	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5354701000	2.666	4.418272E+09	2.668	121	50 - 200	0.0020	+/-0.50	
Hexabromobiphenyl [2C]	2762867000	13.82	2.171332E+09	13.82	127	50 - 200	0.0000	+/-0.50	
Matrix Spike Dup (BGF0512-MSD1)		(Water)	Lab File ID: 18062809ECD5.D				Analyzed: 06/28/18 09:32		
1-Bromo-2-Nitrobenzene	1013693000	2.322	9.201862E+08	2.326	110	50 - 200	0.0040	+/-0.50	
Hexabromobiphenyl	911081300	13.135	7.619267E+08	13.137	120	50 - 200	0.0020	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5425075000	2.668	4.418272E+09	2.668	123	50 - 200	0.0000	+/-0.50	
Hexabromobiphenyl [2C]	2844429000	13.821	2.171332E+09	13.82	131	50 - 200	-0.0010	+/-0.50	
LDW18-SP-73 (18F0226-03)		(Water)	Lab File ID: 18062810ECD5.D				Analyzed: 06/28/18 09:52		
1-Bromo-2-Nitrobenzene	1030779000	2.322	9.201862E+08	2.326	112	50 - 200	0.0040	+/-0.50	
Hexabromobiphenyl	941084600	13.135	7.619267E+08	13.137	124	50 - 200	0.0020	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5459050000	2.668	4.418272E+09	2.668	124	50 - 200	0.0000	+/-0.50	
Hexabromobiphenyl [2C]	2966990000	13.82	2.171332E+09	13.82	137	50 - 200	0.0000	+/-0.50	
LDW18-SP-74 (18F0226-04)		(Water)	Lab File ID: 18062811ECD5.D				Analyzed: 06/28/18 10:12		
1-Bromo-2-Nitrobenzene	1007041000	2.324	9.201862E+08	2.326	109	50 - 200	0.0020	+/-0.50	
Hexabromobiphenyl	909835000	13.135	7.619267E+08	13.137	119	50 - 200	0.0020	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5431100000	2.67	4.418272E+09	2.668	123	50 - 200	-0.0020	+/-0.50	
Hexabromobiphenyl [2C]	2854143000	13.821	2.171332E+09	13.82	131	50 - 200	-0.0010	+/-0.50	
LDW18-SP-77 (18F0226-05)		(Water)	Lab File ID: 18062812ECD5.D				Analyzed: 06/28/18 10:33		
1-Bromo-2-Nitrobenzene	1034340000	2.322	9.201862E+08	2.326	112	50 - 200	0.0040	+/-0.50	
Hexabromobiphenyl	924140900	13.136	7.619267E+08	13.137	121	50 - 200	0.0010	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	4468289000	2.666	4.418272E+09	2.668	101	50 - 200	0.0020	+/-0.50	
Hexabromobiphenyl [2C]	2912449000	13.821	2.171332E+09	13.82	134	50 - 200	-0.0010	+/-0.50	
LDW18-SP-78 (18F0226-06)		(Water)	Lab File ID: 18062813ECD5.D				Analyzed: 06/28/18 10:53		
1-Bromo-2-Nitrobenzene	1037784000	2.323	9.201862E+08	2.326	113	50 - 200	0.0030	+/-0.50	
Hexabromobiphenyl	904898400	13.135	7.619267E+08	13.137	119	50 - 200	0.0020	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5467798000	2.668	4.418272E+09	2.668	124	50 - 200	0.0000	+/-0.50	
Hexabromobiphenyl [2C]	2879710000	13.82	2.171332E+09	13.82	133	50 - 200	0.0000	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0393
Instrument: ECD5
Calibration: BF00046

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW18-SP-79 (18F0226-07)		(Water)	Lab File ID: 18062814ECD5.D				Analyzed: 06/28/18 11:13		
1-Bromo-2-Nitrobenzene	1009218000	2.321	9.201862E+08	2.326	110	50 - 200	0.0050	+/-0.50	
Hexabromobiphenyl	915099400	13.135	7.619267E+08	13.137	120	50 - 200	0.0020	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5463558000	2.667	4.418272E+09	2.668	124	50 - 200	0.0010	+/-0.50	
Hexabromobiphenyl [2C]	2919878000	13.82	2.171332E+09	13.82	134	50 - 200	0.0000	+/-0.50	
LDW18-SP-84 (18F0226-08)		(Water)	Lab File ID: 18062815ECD5.D				Analyzed: 06/28/18 11:33		
1-Bromo-2-Nitrobenzene	984678200	2.32	9.201862E+08	2.326	107	50 - 200	0.0060	+/-0.50	
Hexabromobiphenyl	899960300	13.136	7.619267E+08	13.137	118	50 - 200	0.0010	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5408734000	2.667	4.418272E+09	2.668	122	50 - 200	0.0010	+/-0.50	
Hexabromobiphenyl [2C]	2898565000	13.82	2.171332E+09	13.82	133	50 - 200	0.0000	+/-0.50	
LDW18-SP-87 (18F0226-09)		(Water)	Lab File ID: 18062818ECD5.D				Analyzed: 06/28/18 12:34		
1-Bromo-2-Nitrobenzene	1014055000	2.323	9.201862E+08	2.324	110	50 - 200	0.0010	+/-0.50	
Hexabromobiphenyl	930015900	13.134	7.619267E+08	13.137	122	50 - 200	0.0030	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5521284000	2.67	4.418272E+09	2.668	125	50 - 200	-0.0020	+/-0.50	
Hexabromobiphenyl [2C]	3049165000	13.821	2.171332E+09	13.822	140	50 - 200	0.0010	+/-0.50	
LDW18-SP-01 (18F0248-01)		(Water)	Lab File ID: 18062819ECD5.D				Analyzed: 06/28/18 12:55		
1-Bromo-2-Nitrobenzene	1033824000	2.322	9.201862E+08	2.324	112	50 - 200	0.0020	+/-0.50	
Hexabromobiphenyl	906267800	13.134	7.619267E+08	13.137	119	50 - 200	0.0030	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5325375000	2.667	4.418272E+09	2.668	121	50 - 200	0.0010	+/-0.50	
Hexabromobiphenyl [2C]	3024971000	13.82	2.171332E+09	13.822	139	50 - 200	0.0020	+/-0.50	
LDW18-SP-45 (18F0248-02)		(Water)	Lab File ID: 18062820ECD5.D				Analyzed: 06/28/18 13:15		
1-Bromo-2-Nitrobenzene	1012641000	2.325	9.201862E+08	2.324	110	50 - 200	-0.0010	+/-0.50	
Hexabromobiphenyl	915217000	13.134	7.619267E+08	13.137	120	50 - 200	0.0030	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5557062000	2.671	4.418272E+09	2.668	126	50 - 200	-0.0030	+/-0.50	
Hexabromobiphenyl [2C]	3045874000	13.821	2.171332E+09	13.822	140	50 - 200	0.0010	+/-0.50	
LDW18-SP-47 (18F0248-03)		(Water)	Lab File ID: 18062821ECD5.D				Analyzed: 06/28/18 13:35		
1-Bromo-2-Nitrobenzene	1073369000	2.324	9.201862E+08	2.324	117	50 - 200	0.0000	+/-0.50	
Hexabromobiphenyl	941353600	13.135	7.619267E+08	13.137	124	50 - 200	0.0020	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5711060000	2.67	4.418272E+09	2.668	129	50 - 200	-0.0020	+/-0.50	
Hexabromobiphenyl [2C]	3149127000	13.821	2.171332E+09	13.822	145	50 - 200	0.0010	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY

EPA 8082A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0393
Instrument: ECD5
Calibration: BF00046

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
LDW18-SP-66 (18F0248-04)		(Water)	Lab File ID: 18062822ECD5.D				Analyzed: 06/28/18 13:55		
1-Bromo-2-Nitrobenzene	1020697000	2.321	9.201862E+08	2.324	111	50 - 200	0.0030	+/-0.50	
Hexabromobiphenyl	947531700	13.135	7.619267E+08	13.137	124	50 - 200	0.0020	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5656958000	2.668	4.418272E+09	2.668	128	50 - 200	0.0000	+/-0.50	
Hexabromobiphenyl [2C]	3189992000	13.821	2.171332E+09	13.822	147	50 - 200	0.0010	+/-0.50	
LDW18-SP-70 (18F0248-05)		(Water)	Lab File ID: 18062823ECD5.D				Analyzed: 06/28/18 14:16		
1-Bromo-2-Nitrobenzene	1030997000	2.324	9.201862E+08	2.324	112	50 - 200	0.0000	+/-0.50	
Hexabromobiphenyl	936231700	13.135	7.619267E+08	13.137	123	50 - 200	0.0020	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5630251000	2.67	4.418272E+09	2.668	127	50 - 200	-0.0020	+/-0.50	
Hexabromobiphenyl [2C]	3103132000	13.822	2.171332E+09	13.822	143	50 - 200	0.0000	+/-0.50	
LDW18-SP-83 (18F0248-06)		(Water)	Lab File ID: 18062824ECD5.D				Analyzed: 06/28/18 14:36		
1-Bromo-2-Nitrobenzene	1007602000	2.32	9.201862E+08	2.324	109	50 - 200	0.0040	+/-0.50	
Hexabromobiphenyl	926680600	13.134	7.619267E+08	13.137	122	50 - 200	0.0030	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5548491000	2.667	4.418272E+09	2.668	126	50 - 200	0.0010	+/-0.50	
Hexabromobiphenyl [2C]	3097004000	13.82	2.171332E+09	13.822	143	50 - 200	0.0020	+/-0.50	
LDW18-SP-86 (18F0248-07)		(Water)	Lab File ID: 18062825ECD5.D				Analyzed: 06/28/18 14:56		
1-Bromo-2-Nitrobenzene	1032834000	2.323	9.201862E+08	2.324	112	50 - 200	0.0010	+/-0.50	
Hexabromobiphenyl	940803300	13.134	7.619267E+08	13.137	123	50 - 200	0.0030	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5686373000	2.67	4.418272E+09	2.668	129	50 - 200	-0.0020	+/-0.50	
Hexabromobiphenyl [2C]	3161407000	13.82	2.171332E+09	13.822	146	50 - 200	0.0020	+/-0.50	
LDW18-SP-88 (18F0248-08)		(Water)	Lab File ID: 18062826ECD5.D				Analyzed: 06/28/18 15:16		
1-Bromo-2-Nitrobenzene	1024108000	2.321	9.201862E+08	2.324	111	50 - 200	0.0030	+/-0.50	
Hexabromobiphenyl	954113000	13.135	7.619267E+08	13.137	125	50 - 200	0.0020	+/-0.50	
1-Bromo-2-Nitrobenzene [2C]	5753154000	2.669	4.418272E+09	2.668	130	50 - 200	-0.0010	+/-0.50	
Hexabromobiphenyl [2C]	3233564000	13.82	2.171332E+09	13.822	149	50 - 200	0.0020	+/-0.50	

HOLDING TIME SUMMARY

Analysis: EPA 8082A

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW18-SP-RB1 18F0185-01	06/11/18 16:12	06/12/18 14:55	06/18/18 11:10	6	7	06/23/18 14:32	5	40	
LDW18-SP-30 18F0185-03	06/12/18 12:06	06/12/18 14:55	06/18/18 11:10	5	7	06/23/18 14:53	5	40	
LDW18-SP-32 18F0185-04	06/12/18 09:19	06/12/18 14:55	06/18/18 11:10	6	7	06/23/18 15:13	5	40	
LDW18-SP-35 18F0185-05	06/12/18 10:56	06/12/18 14:55	06/18/18 11:10	6	7	06/23/18 15:33	5	40	
LDW18-SP-38 18F0185-06	06/12/18 10:27	06/12/18 14:55	06/18/18 11:10	6	7	06/23/18 15:54	5	40	
LDW18-SP-42 18F0185-07	06/12/18 12:05	06/12/18 14:55	06/18/18 11:10	5	7	06/23/18 16:14	5	40	
LDW18-SP-43 18F0185-08	06/12/18 13:00	06/12/18 14:55	06/18/18 11:10	5	7	06/23/18 16:34	5	40	
LDW18-SP-06 18F0208-01	06/13/18 09:53	06/13/18 16:26	06/19/18 13:07	6	7	06/25/18 16:03	6	40	
LDW18-SP-33 18F0208-02	06/13/18 12:17	06/13/18 16:26	06/19/18 13:07	6	7	06/25/18 16:24	6	40	
LDW18-SP-24 18F0208-03	06/13/18 12:35	06/13/18 16:26	06/19/18 13:07	6	7	06/25/18 16:44	6	40	
LDW18-SP-24-FD 18F0208-04	06/13/18 12:42	06/13/18 16:26	06/19/18 13:07	6	7	06/25/18 17:04	6	40	
LDW18-SP-05 18F0226-01	06/14/18 14:08	06/14/18 15:45	06/21/18 11:20	6	7	06/28/18 08:31	7	40	
LDW18-SP-57 18F0226-02	06/14/18 10:41	06/14/18 15:45	06/21/18 11:20	7	7	06/28/18 08:51	7	40	
LDW18-SP-73 18F0226-03	06/14/18 13:08	06/14/18 15:45	06/21/18 11:20	6	7	06/28/18 09:52	7	40	
LDW18-SP-74 18F0226-04	06/14/18 13:14	06/14/18 15:45	06/21/18 11:20	6	7	06/28/18 10:12	7	40	
LDW18-SP-77 18F0226-05	06/14/18 12:10	06/14/18 15:45	06/21/18 11:20	6	7	06/28/18 10:33	7	40	
LDW18-SP-78 18F0226-06	06/14/18 12:04	06/14/18 15:45	06/21/18 11:20	6	7	06/28/18 10:53	7	40	
LDW18-SP-79 18F0226-07	06/14/18 09:50	06/14/18 15:45	06/21/18 11:20	7	7	06/28/18 11:13	7	40	
LDW18-SP-84 18F0226-08	06/14/18 09:53	06/14/18 15:45	06/21/18 11:20	7	7	06/28/18 11:33	7	40	
LDW18-SP-87 18F0226-09	06/14/18 11:11	06/14/18 15:45	06/21/18 11:20	7	7	06/28/18 12:34	7	40	
LDW18-SP-01 18F0248-01	06/15/18 11:33	06/15/18 16:10	06/21/18 11:20	5	7	06/28/18 12:55	7	40	
LDW18-SP-45 18F0248-02	06/15/18 13:45	06/15/18 16:10	06/21/18 11:20	5	7	06/28/18 13:15	7	40	

HOLDING TIME SUMMARY

Analysis: EPA 8082A

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW18-SP-47 18F0248-03	06/15/18 13:16	06/15/18 16:10	06/21/18 11:20	5	7	06/28/18 13:35	7	40	
LDW18-SP-66 18F0248-04	06/15/18 13:25	06/15/18 16:10	06/21/18 11:20	5	7	06/28/18 13:55	7	40	
LDW18-SP-70 18F0248-05	06/15/18 11:13	06/15/18 16:10	06/21/18 11:20	6	7	06/28/18 14:16	7	40	
LDW18-SP-83 18F0248-06	06/15/18 12:08	06/15/18 16:10	06/21/18 11:20	5	7	06/28/18 14:36	7	40	
LDW18-SP-86 18F0248-07	06/15/18 12:19	06/15/18 16:10	06/21/18 11:20	5	7	06/28/18 14:56	7	40	
LDW18-SP-88 18F0248-08	06/15/18 10:52	06/15/18 16:10	06/21/18 11:20	6	7	06/28/18 15:16	7	40	
Matrix Spike BGF0415-MS1	06/12/18 13:00	06/12/18 14:55	06/18/18 11:10	5	7	06/23/18 16:55	5	40	
Matrix Spike Dup BGF0415-MSD1	06/12/18 13:00	06/12/18 14:55	06/18/18 11:10	5	7	06/23/18 17:15	5	40	
Matrix Spike BGF0512-MS1	06/14/18 10:41	06/14/18 15:45	06/21/18 11:20	7	7	06/28/18 09:12	7	40	
Matrix Spike Dup BGF0512-MSD1	06/14/18 10:41	06/14/18 15:45	06/21/18 11:20	7	7	06/28/18 09:32	7	40	

* Indicates hold time exceedance.

METHOD DETECTION AND REPORTING LIMITS

EPA 8082A

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Matrix: Solid Instrument: ECD5

Analyte	MDL	RL	Units
Aroclor 1016	0.00248	0.0100	ug/L
Aroclor 1016 [2C]	0.00248	0.0100	ug/L
Aroclor 1221	0.00248	0.0100	ug/L
Aroclor 1221 [2C]	0.00248	0.0100	ug/L
Aroclor 1232	0.00248	0.0100	ug/L
Aroclor 1232 [2C]	0.00248	0.0100	ug/L
Aroclor 1242	0.00248	0.0100	ug/L
Aroclor 1242 [2C]	0.00248	0.0100	ug/L
Aroclor 1248	0.00248	0.0100	ug/L
Aroclor 1248 [2C]	0.00248	0.0100	ug/L
Aroclor 1254	0.00248	0.0100	ug/L
Aroclor 1254 [2C]	0.00248	0.0100	ug/L
Aroclor 1260	0.00276	0.0100	ug/L
Aroclor 1260 [2C]	0.00276	0.0100	ug/L
Aroclor 1262	0.00276	0.0100	ug/L
Aroclor 1262 [2C]	0.00276	0.0100	ug/L
Aroclor 1268	0.00276	0.0100	ug/L
Aroclor 1268 [2C]	0.00276	0.0100	ug/L

METHOD DETECTION AND REPORTING LIMITS

EPA 8082A

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Matrix: Water Instrument: ECD5

Analyte	MDL	RL	Units
Aroclor 1016	0.002	0.010	ug/L
Aroclor 1016 [2C]	0.002	0.010	ug/L
Aroclor 1221	0.002	0.010	ug/L
Aroclor 1221 [2C]	0.002	0.010	ug/L
Aroclor 1232	0.002	0.010	ug/L
Aroclor 1232 [2C]	0.002	0.010	ug/L
Aroclor 1242	0.002	0.010	ug/L
Aroclor 1242 [2C]	0.002	0.010	ug/L
Aroclor 1248	0.002	0.010	ug/L
Aroclor 1248 [2C]	0.002	0.010	ug/L
Aroclor 1254	0.002	0.010	ug/L
Aroclor 1254 [2C]	0.002	0.010	ug/L
Aroclor 1260	0.003	0.010	ug/L
Aroclor 1260 [2C]	0.003	0.010	ug/L

AccuStandard
125 Market Street
New Haven, CT 06513
(203) 786-5290

CERTIFICATE OF PRODUCT DATA

PRODUCT: S-279N
DESCRIPTION: Volatile Organic Compound (TCMx)
LOT #: 0052481B-1
SOLVENT: N/A

EXPIRATION: July 28, 2015

This product is guaranteed accurate to ±0.5% of the Certified Analyte concentration through the Expiration Date on the Label.

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[1]	Certified Analyte Concentration[2]
Tetrachloro-meta-xylene (TCMX)	877-09-8	96.0	N/A	N/A

Te

* I1769A

Certified by: R. Cooper

Please note: AccuStandard follows the U.S. conventions in reporting numerical values, on both certificates and labels.

A comma (,) is used to separate units of one-thousand or greater.
A period (.) is used as a decimal place marker.

1. All weights are traceable through National Institute of Standards & Technology, Test No. 822/254480
2. Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty calculated for this product is ±4% which is the Combined Uncertainty uc(y). It represents an estimated standard deviation equal to the positive square root of the total variance of the uncertainty of components. The Expanded Uncertainty is U which is Uc(y) *k where K is the coverage factor at the 95% confidence level (K=2).
3. A product with a suffix (-1A, -2B, etc.) on its lot# has had its expiration date extended and is identical to the same lot# without the suffix.

This product was manufactured in accordance to quality system requirements of ISO 9001:2000 and ISO 17025

* Recertified ~ 4-6-09 (8)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Analytical Standard Record

Standard ID: C000147 **Printed: 4/23/2015 11:52:09AM**

Description:	tetrachlormetaxylene	Expires:	15-Jan-2020
Standard Type:	Other	Prepared:	15-Jan-2014
Solvent:	n/a	Prepared By:	Joshua Rains
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	27-Feb-2015 13:01 by JGR
Vendor:	Accustandard	Lot #:	0052481b-1
Vendor Catalog #:			

Comments

see I1769a
updated for calibration TCX DCBP 06/12/14 sdrd

Analyte	CAS Number	Concentration	Units
Tetrachlorometaxylene [2C]	877-09-8	1000000	ug/mL
Tetrachlorometaxylene	877-09-8	1000000	ug/mL
TCX 1660 [2C]	877-09-8	1000000	ug/mL
TCX 1660	877-09-8	1000000	ug/mL
TCX [2C]	877-09-8	1000000	ug/mL
TCX (A) [2C]	877-09-8	1000000	ug/mL
TCX (A)	877-09-8	1000000	ug/mL
TCX	877-09-8	1000000	ug/mL

Reviewed By Date

AccuStandard
125 Market Street
New Haven, CT 06513
(203) 786-5290

CERTIFICATE OF PRODUCT DATA

PRODUCT: C-209N
EXPIRATION: Jul 28, 2015
DESCRIPTION: 2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl
LOT #: 990521LB-AC
SOLVENT: N/A

This product is guaranteed accurate to ±0.5% of the Certified Analyte concentration through the Expiration Date on the Label.

Component	CAS #	Purity % (GC/MS)	Prepared Concentration[1]	Certified Analyte Concentration[2]
2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl	2051-24-3	100	N/A	N/A

2,

* I176 8A

Certified by: R. Cooper

1. All weights are traceable through National Institute of Standards & Technology, Test No. 822/264480
2. Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty calculated for this product is ±4% which is the Combined Uncertainty uc(y). It represents an estimated standard deviation equal to the positive square root of the total variance of the uncertainty of components. The Expanded Uncertainty is U which is Uc(y) *K where K is the coverage factor at the 95% confidence level (K=2).
3. A product with a suffix (-1A, -2B, etc.) on its lot# has had its expiration date extended and is identical to the same lot# without the suffix.

Please note: AccuStandard follows the U.S. conventions in reporting numerical values, on both certificates and labels.

A comma (,) is used to separate units of one-thousand or greater.
A period (.) is used as a decimal place marker.

This product was manufactured in accordance to quality system requirements of ISO 9001:2000 and ISO 17025

* Recertified 2 4-6-09 JS

Analytical Standard Record

Standard ID: C000148 **Printed: 4/23/2015 11:54:44AM**

Description:	decachlorbiphenyl	Expires:	15-Jan-2020
Standard Type:	Other	Prepared:	15-Jan-2014
Solvent:	na/a	Prepared By:	Joshua Rains
Final Volume (mls):	1	Department:	Organics
Vials:	1	Last Edit:	27-Feb-2015 13:03 by JGR
Vendor:	Accustandard	Lot #:	990521lb-ac
Vendor Catalog #:			

Comments

see i1768a
SOM calibrations added 06/12/14 sdrd

Analyte	CAS Number	Concentration	Units
Decachlorobiphenyl [2C]	2051-24-3	1000000	ug/mL
Decachlorobiphenyl	2051-24-3	1000000	ug/mL
DCB 1660 [2C]	2051-24-3	1000000	ug/mL
DCB 1660	2051-24-3	1000000	ug/mL
DCB [2C]	2051-24-3	1000000	ug/mL
DCB (A) [2C]	2051-24-3	1000000	ug/mL
DCB (A)	2051-24-3	1000000	ug/mL
DCB	2051-24-3	1000000	ug/mL

Reviewed By Date

Certificate of Analysis

2,2',4,4',5,5'-Hexabromobiphenyl Solution

Product Number: RBF-094S **Page:** 1 of 1

Lot Number: CM-1050 **Lot Issue Date:** 04-Mar-2015 **Expiration Date:** 30-Apr-2019

This certified Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
2,2',4,4',5,5'-hexabromobiphenyl	059080-40-9	RM00534	100.3 ± 0.5 µg/mL

Matrix: hexane

Storage: Store at Room Temperature (15-30°C).

D 4715
Recd.
12/01/15

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

ACCREDITED
ISO 17025:2005 Accredited A2LA Cert. No. 0851-01
ISO 9001:2008 Registered TUV USA, Inc. Cert. No. 09-1009

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wwww.ultrasci.com

William J. Leary
Quality Assurance Manager

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Certificate of Analysis

Description: Aroclor 1016, 1x1ml, 1000µg/ml in isooctane

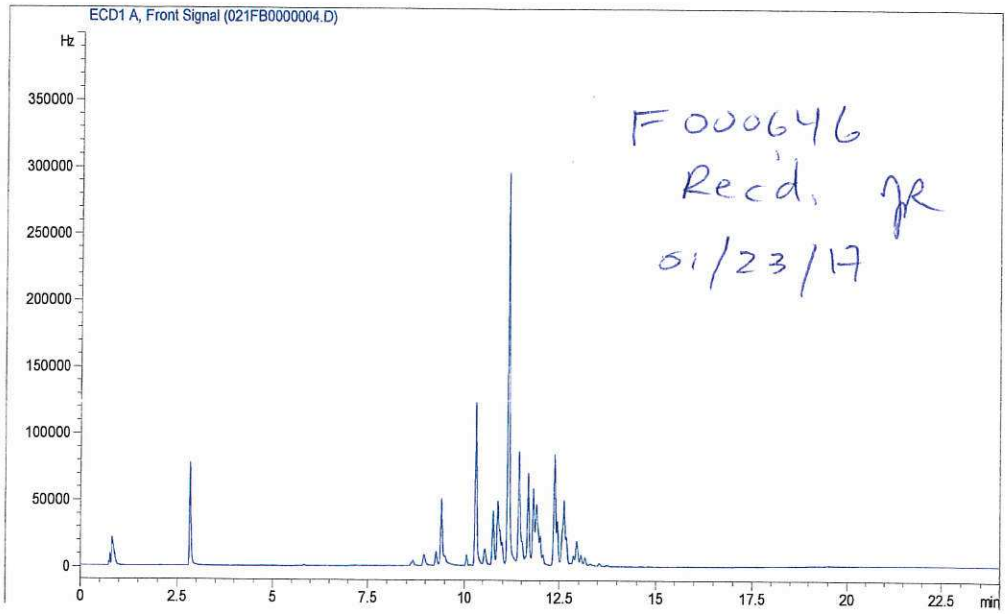
Part Number: 48097

Lot Number: XA23753V

Expiration Date: November 2019

Storage: Room Temperature

Analytical Method Parameters:
Column: SPB-608 30m x 0.53mm x 0.5µm df
100°C to 290°C for 5 min at 10°C/min
Detector: ECD, 310°C
Injection Volume: 1 µL



Elution	Analyte	Lot Number	CAS Number	Chromatographic Purity %	Certified Gravimetric Conc. µg/ml	Ucrm µg/ml	Analytical Conc. µg/ml
	Internal Standard	N/A	N/A	N/A	N/A	N/A	N/A
2.	Aroclor 1016	LA39061	12674-11-2	N/A	1000.2	±170	982.4

ANAB ACCREDITED TESTING LABORATORY Cert# AT-1607

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER Cert# AR-1606

Produced in double accredited laboratory fulfulling
ISO/IEC 17025 and
ISO Guide 34

SIGMA-ALDRICH®

Notes:

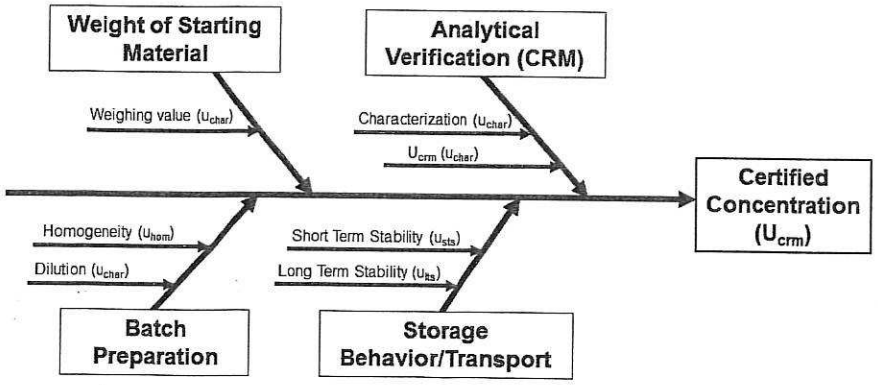
• NIST traceable weights are used to verify balance calibration with the preparation of each lot. Concentration of analyte in solution is µg/ml.

• Certified value is the gravimetric concentration weighed at room temperature and verified analytically by comparison to an independent Certified Reference Material. Uncertainty of the gravimetric concentration in this document is expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k = 2. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long-term stability and short-term stability. The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies.

• Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

• Product intended for laboratory use only. Supelco warrants that its products conform to the information contained in this publication. Purchaser must determine the suitability of the product for its particular use. Please see the latest catalog or order invoice and packing slip for additional terms and conditions of sale.

Cause-Effect Diagram for Uncertainty Contributions



$$U_{crm} = k\sqrt{u_{char}^2 + u_{hom}^2 + u_{sts}^2 + u_{lts}^2}$$

Test Date: November 09, 2016
Form: 48097

Duane Funk

Duane Funk
QC Manager

ANAB ACCREDITED TESTING LABORATORY Cert# AT-1607

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER Cert# AR-1606

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Certificate of Analysis

Description: Aroclor 1262, 1x1.0ml, 1000µg/ml in isooctane

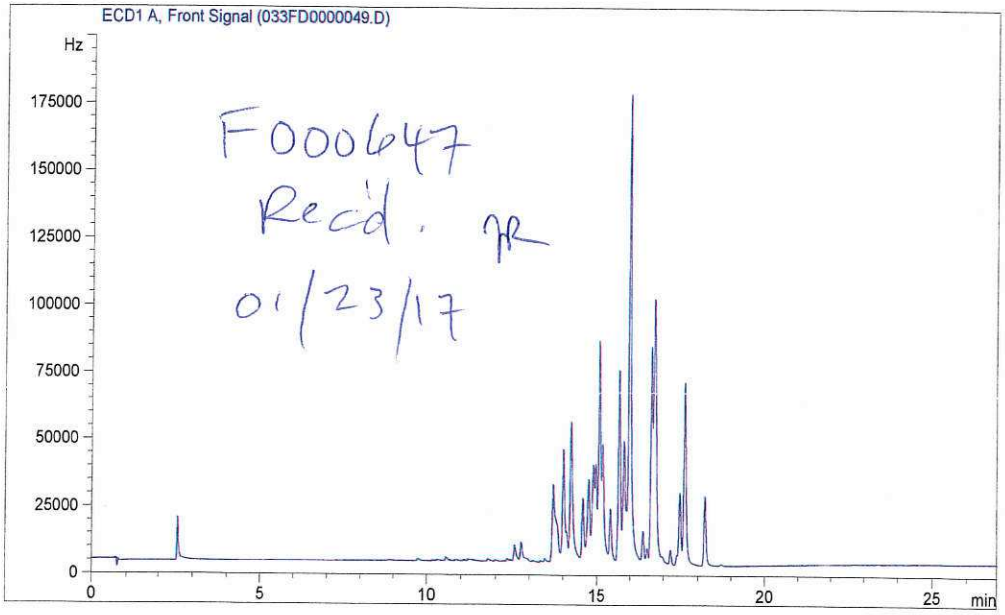
Part Number: 44810

Lot Number: XA21355V

Expiration Date: June 2019

Storage: Room Temperature

Analytical Method Parameters:
Column: SPB-608 30m x 0.53mm x .5µm df
100°C to 290°C (5min) at 10°C/min
Detector: ECD, 310°C
Injection Volume: 1ul



Elution	Analyte	Lot Number	CAS Number	Chromatographic Purity %	Certified Gravimetric Conc. µg/ml	Expanded Uncertainty µg/ml	Analytical Conc. µg/ml
	Internal Standard	N/A	N/A	N/A	N/A	N/A	N/A
2.	Aroclor 1262	LA39280	37324-23-5	N/A	999.0	±62	998.1

ANAB ACCREDITED TESTING LABORATORY Cert# AT-1607

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER Cert# AR-1606

Produced in double accredited laboratory fulfulling
ISO/IEC 17025 and
ISO Guide 34

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Notes:

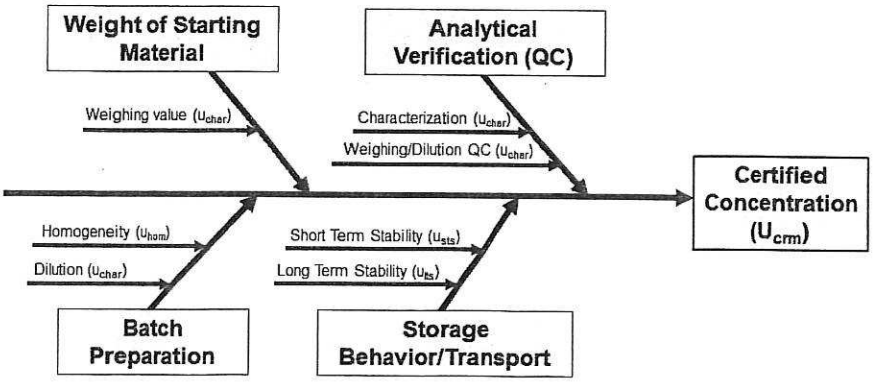
• NIST traceable weights are used to verify balance calibration with the preparation of each lot. Concentration of analyte in solution is µg/ml.

• Certified value is the gravimetric concentration weighed at room temperature and verified analytically by comparison to an independently prepared Quality Control Standard. Uncertainty of the gravimetric concentration in this document is expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k = 2. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long-term stability and short-term stability. The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies.

• Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

• Product intended for laboratory use only. Supelco warrants that its products conform to the information contained in this publication. Purchaser must determine the suitability of the product for its particular use. Please see the latest catalog or order invoice and packing slip for additional terms and conditions of sale.

Cause-Effect Diagram for Uncertainty Contributions



$$U_{crm} = k\sqrt{u_{char}^2 + u_{hom}^2 + u_{sts}^2 + u_{lts}^2}$$

Test Date: July 05, 2016
Form: 44810

Duane Funk

Duane Funk
QC Manager

ANAB ACCREDITED TESTING LABORATORY Cert# AT-1607

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER Cert# AR-1606

Produced in double accredited laboratory fulfilling ISO/IEC 17025 and ISO Guide 34

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Certificate of Analysis

Description: Aroclor 1260, 1x1mL, 1000µg/mL in isooctane

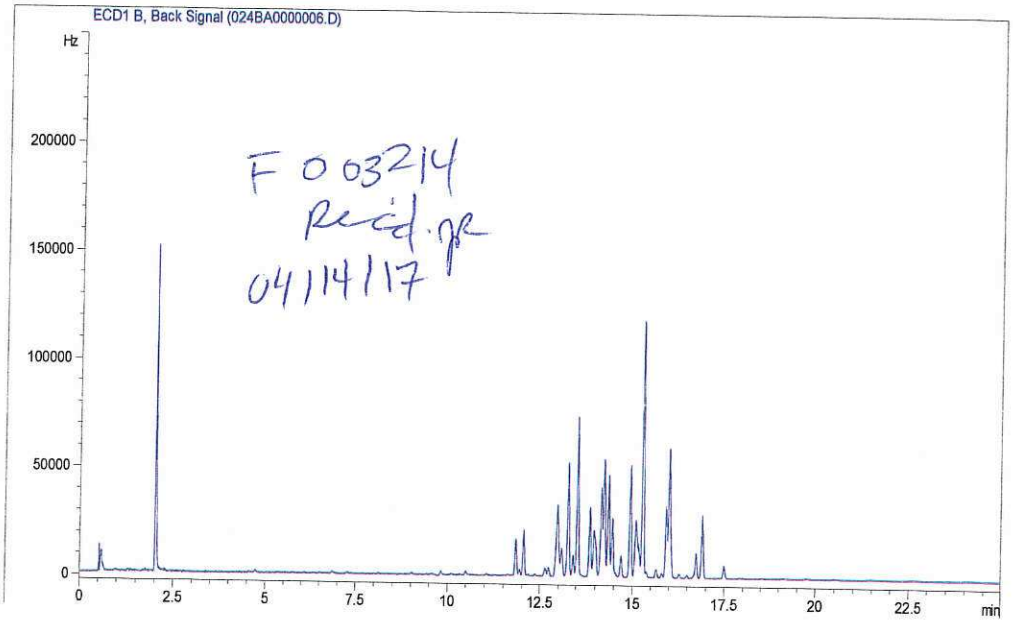
Part Number: 44809

Lot Number: XA25133V

Expiration Date: February 2020

Storage: Room Temperature

Analytical Method Parameters:
Column: SPB-608 30m x 0.53mm x 0.5µm df
100°C to 290°C (6 min) at 10°C/min
Detector: ECD, 310°C
Injection Volume: 1µl



Elution	Analyte	Lot Number	CAS Number	Chromatographic Purity %	Certified Gravimetric Conc. µg/ml	Ucrm µg/ml	Analytical Conc. µg/ml
	Internal Standard	N/A	N/A	N/A	N/A	N/A	N/A
2.	Aroclor 1260	LC11406	11096-82-5	N/A	1000.0	±270	1081.9

ANAB ACCREDITED TESTING LABORATORY Cert# AT-1607

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER Cert# AR-1606

Produced in double accredited laboratory fulfulling
ISO/IEC 17025 and
ISO Guide 34

SIGMA-ALDRICH®

Notes:

• NIST traceable weights are used to verify balance calibration with the preparation of each lot. Concentration of analyte in solution is µg/ml.

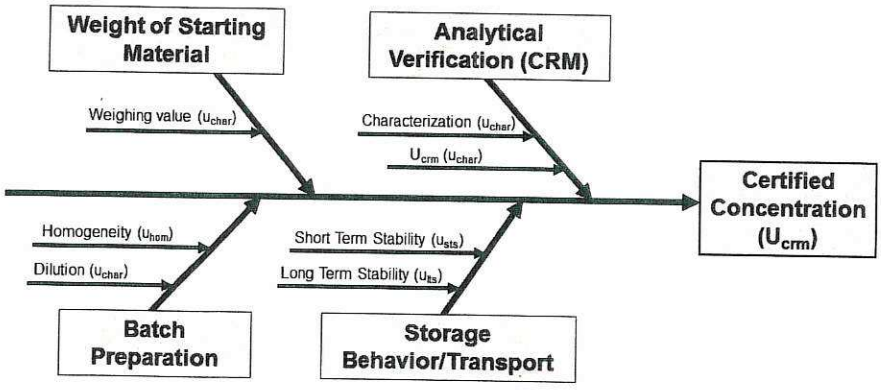
• Certified value is the gravimetric concentration weighed at room temperature and verified analytically by comparison to an independent Certified Reference Material. Uncertainty of the gravimetric concentration in this document is expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k = 2. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long-term stability and short-term stability. The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies.

• Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

• Product intended for laboratory use only. Supelco warrants that its products conform to the information contained in this publication. Purchaser must determine the suitability of the product for its particular use. Please see the latest catalog or order invoice and packing slip for additional terms and conditions of sale.

F3214

Cause-Effect Diagram for Uncertainty Contributions



$$U_{crm} = k\sqrt{u_{char}^2 + u_{hom}^2 + u_{sts}^2 + u_{lts}^2}$$

Test Date: February 21, 2017
Form: 44809

Duane Funk
QC Manager

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Certificate of Analysis

Description: Aroclor 1232, 1x1ml, 200µg/ml in methanol

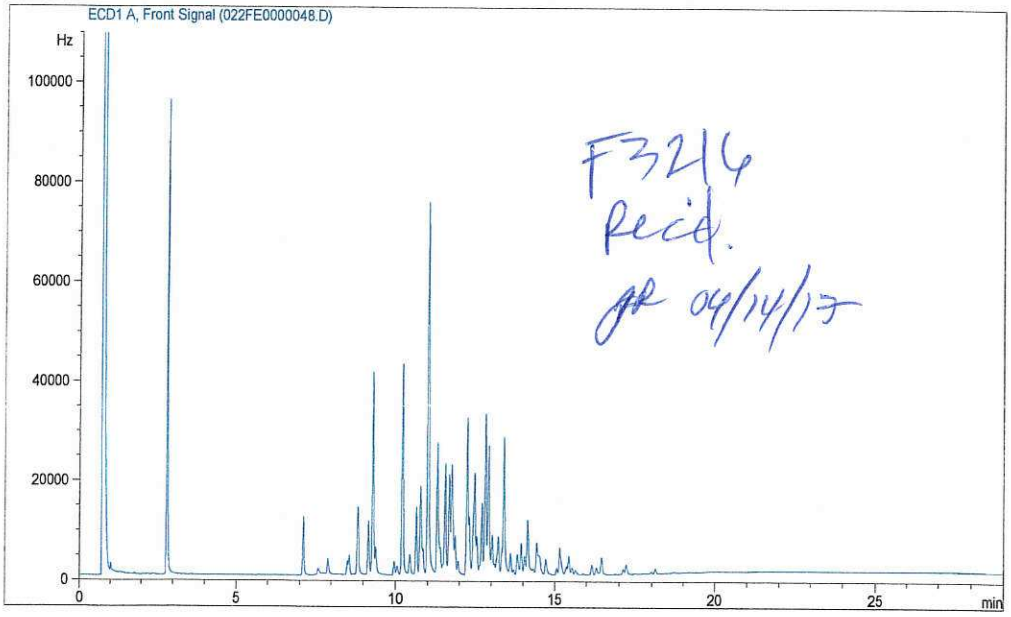
Part Number: 48702

Lot Number: XA16630V

Expiration Date: October 2020

Storage: Room Temperature

Analytical Method Parameters:
Column: SPB-608 30m x 0.53mm x 0.5µm
100°C to 290°C (10 min) at 10°C/min
Detector: ECD, 310°C
Injection Volume: 1µL



Elution	Analyte	Lot Number	CAS Number	Chromatographic Purity %	Certified Gravimetric Conc. µg/ml	Expanded Uncertainty µg/ml	Analytical Conc. µg/ml
	Internal Standard	N/A	N/A	N/A	N/A	N/A	N/A
2.	Aroclor 1232	LA38829	11141-16-5	N/A	200.4	±21	194.7

ANAB ACCREDITED TESTING LABORATORY Cert# AT-1607

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER Cert# AR-1606

Produced in double accredited laboratory fulfulling
ISO/IEC 17025 and
ISO Guide 34

SIGMA-ALDRICH®

Notes:

• NIST traceable weights are used to verify balance calibration with the preparation of each lot. Concentration of analyte in solution is µg/ml.

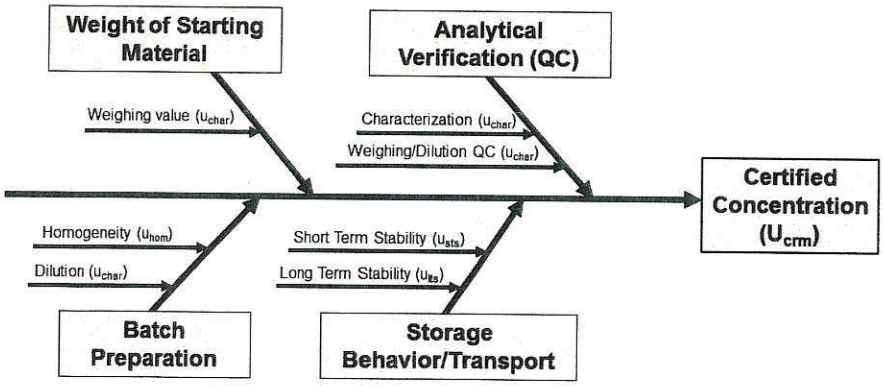
• Certified value is the gravimetric concentration weighed at room temperature and verified analytically by comparison to an independently prepared Quality Control Standard. Uncertainty of the gravimetric concentration in this document is expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k = 2. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long-term stability and short-term stability. The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies.

• Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

• Product intended for laboratory use only. Supelco warrants that its products conform to the information contained in this publication. Purchaser must determine the suitability of the product for its particular use. Please see the latest catalog or order invoice and packing slip for additional terms and conditions of sale.

F3216

Cause-Effect Diagram for Uncertainty Contributions



$$U_{crm} = k\sqrt{u_{char}^2 + u_{hom}^2 + u_{sts}^2 + u_{lts}^2}$$

Test Date: October 26, 2015
Form: 48702

Duane Funk
Duane Funk
QC Manager

ANAB ACCREDITED TESTING LABORATORY Cert# AT-1607

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER Cert# AR-1606

Produced in double accredited laboratory fulfilling ISO/IEC 17025 and ISO Guide 34

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Certificate of Analysis

Description: Aroclor 1254, 1x1ml, 200µg/ml in methanol

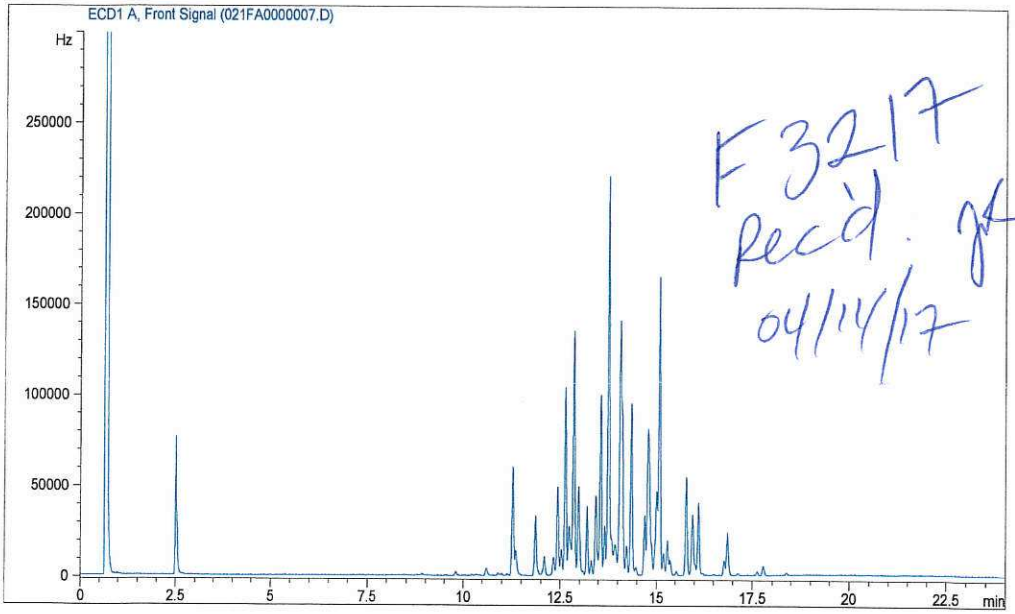
Part Number: 48707

Lot Number: XA14566V

Expiration Date: June 2020

Storage: Room Temperature

Analytical Method Parameters:
Column: SPB-608 30m x 0.53mm x .5µm df
100°C to 290°C (5min) at 10°C/min
Detector: ECD, 310°C
Injection Volume: 1µl



F3217
Recd. gf
04/14/17

Elution	Analyte	Lot Number	CAS Number	Chromatographic Purity %	Certified Gravimetric Conc. µg/ml	Expanded Uncertainty µg/ml	Analytical Conc. µg/ml
	Internal Standard	N/A	N/A	N/A	N/A	N/A	N/A
2.	Aroclor 1254	LA39006	11097-69-1	N/A	200.8	±12	192.2

ANAB ACCREDITED TESTING LABORATORY Cert# AT-1607

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER Cert# AR-1606

Produced in double accredited laboratory fulfulling
ISO/IEC 17025 and
ISO Guide 34

SIGMA-ALDRICH®

Notes:

• NIST traceable weights are used to verify balance calibration with the preparation of each lot. Concentration of analyte in solution is µg/ml.

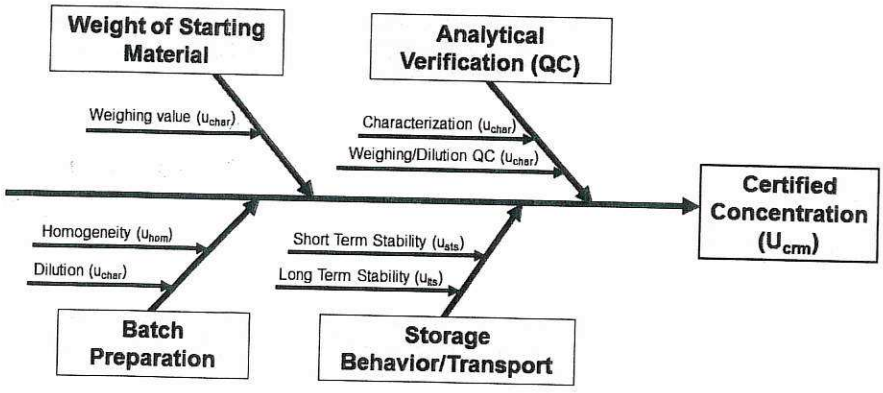
• Certified value is the gravimetric concentration weighed at room temperature and verified analytically by comparison to an independently prepared Quality Control Standard. Uncertainty of the gravimetric concentration in this document is expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k = 2. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long-term stability and short-term stability. The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies.

• Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

• Product intended for laboratory use only. Supelco warrants that its products conform to the information contained in this publication. Purchaser must determine the suitability of the product for its particular use. Please see the latest catalog or order invoice and packing slip for additional terms and conditions of sale.

F3217

Cause-Effect Diagram for Uncertainty Contributions



$$U_{crm} = k\sqrt{u_{char}^2 + u_{hom}^2 + u_{sts}^2 + u_{lts}^2}$$

Test Date: December 15, 2015
Form: 48707

Duane Funk
Duane Funk
QC Manager

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Certificate of Analysis

Description: Aroclor 1268, 1x1.0ml, 1000µg/ml in iso-octane

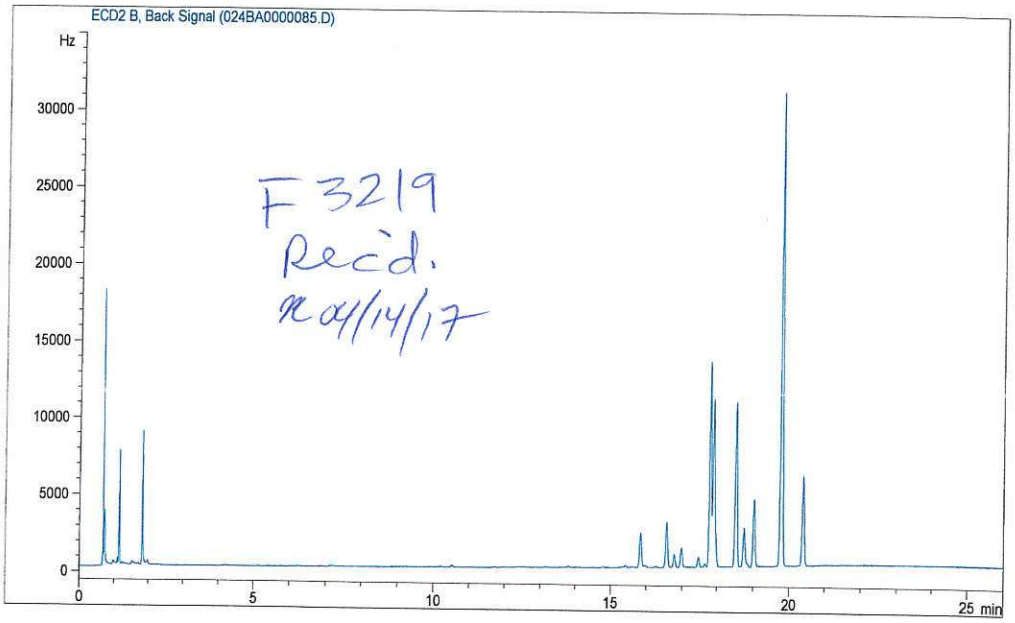
Part Number: 502146

Lot Number: XA16893V

Expiration Date: October 2018

Storage: Room Temperature

Analytical Method Parameters:
Column: SPB-608 30m x 0.53mm x .5µm df
120°C to 290°C (5 min) at 8°C/min
Detector: ECD, 300°C
Injection Volume: 1 µl



Elution	Analyte	Lot Number	CAS Number	Chromatographic Purity %	Certified Gravimetric Conc. µg/ml	Expanded Uncertainty µg/ml	Analytical Conc. µg/ml
	Internal Standard	N/A	N/A	N/A	N/A	N/A	N/A
2.	Arochlor 1268	LC08045	11100-14-4	N/A	1000.0	±110	1016.2

ANAB ACCREDITED TESTING LABORATORY Cert# AT-1607

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER Cert# AR-1606

Produced in double accredited laboratory fulfulling
ISO/IEC 17025 and
ISO Guide 34

SIGMA-ALDRICH®

Notes:

• NIST traceable weights are used to verify balance calibration with the preparation of each lot. Concentration of analyte in solution is µg/ml.

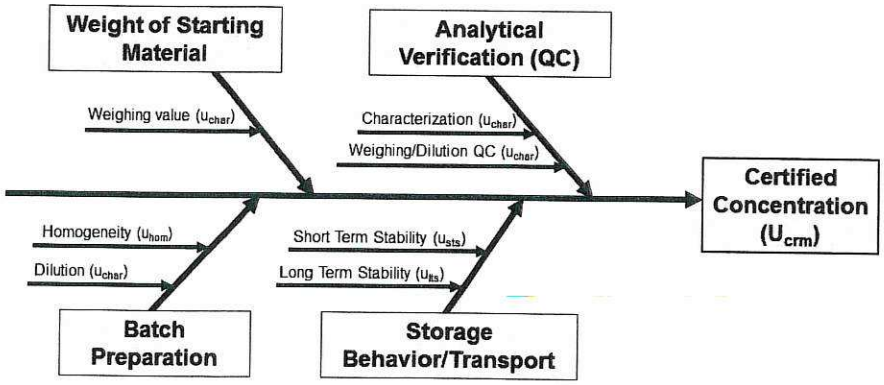
• Certified value is the gravimetric concentration weighed at room temperature and verified analytically by comparison to an independently prepared Quality Control Standard. Uncertainty of the gravimetric concentration in this document is expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k = 2. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long-term stability and short-term stability. The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies.

• Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

• Product intended for laboratory use only. Supelco warrants that its products conform to the information contained in this publication. Purchaser must determine the suitability of the product for its particular use. Please see the latest catalog or order invoice and packing slip for additional terms and conditions of sale.

F3219

Cause-Effect Diagram for Uncertainty Contributions



$$U_{crm} = k\sqrt{u_{char}^2 + u_{hom}^2 + u_{sts}^2 + u_{lts}^2}$$

Test Date: October 23, 2015
Form: 502146

Duane Funk

Duane Funk
QC Manager

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Certificate of Analysis

Description: Aroclor 1242, 1x1.0ml, 1000µg/ml in isooctane

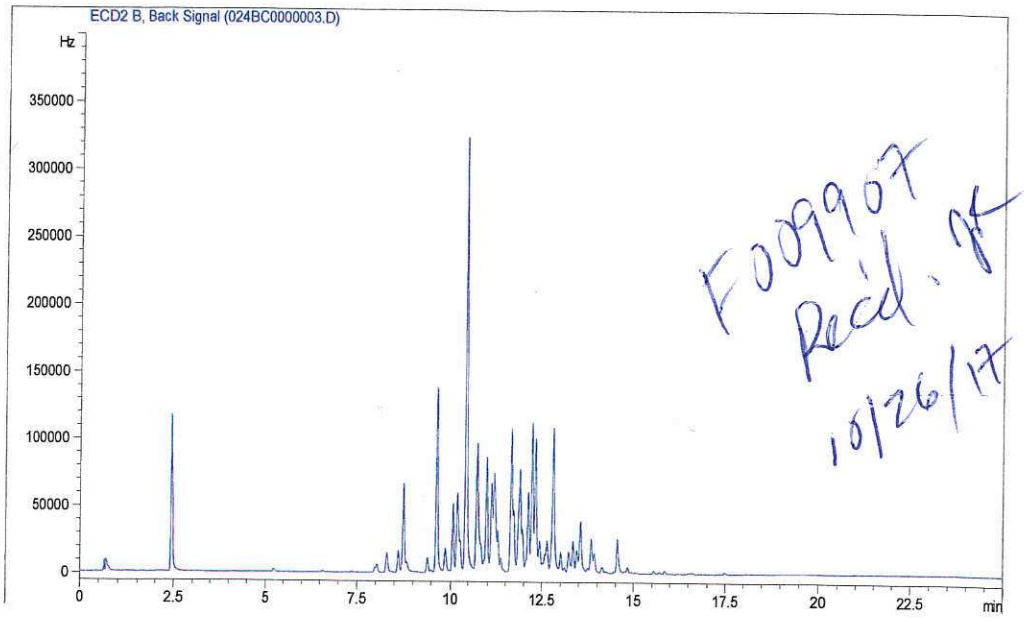
Part Number: 44806

Lot Number: XA26286V

Expiration Date: April 2020

Storage: Room Temperature

Analytical Method Parameters:
Column: SPB-608 30m x 0.53mm x 0.5µm df
100°C to 290°C for 6 min at 10°C/min
Detector: ECD, 310°C
Injection Volume: 1µL



F009907
Recd. 9f
10/26/17

Elution	Analyte	Lot Number	CAS Number	Chromatographic Purity %	Certified Gravimetric Conc. µg/ml	Ucrm µg/ml	Analytical Conc. µg/ml
	Internal Standard	N/A	N/A	N/A	N/A	N/A	N/A
2.	Aroclor 1242	LA39419	53469-21-9	N/A	1000.1	±110	979.4

ANAB ACCREDITED TESTING LABORATORY Cert# AT-1607

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER Cert# AR-1606

Produced in double accredited laboratory fulfulling
ISO/IEC 17025 and
ISO Guide 34

SIGMA-ALDRICH®

Notes:

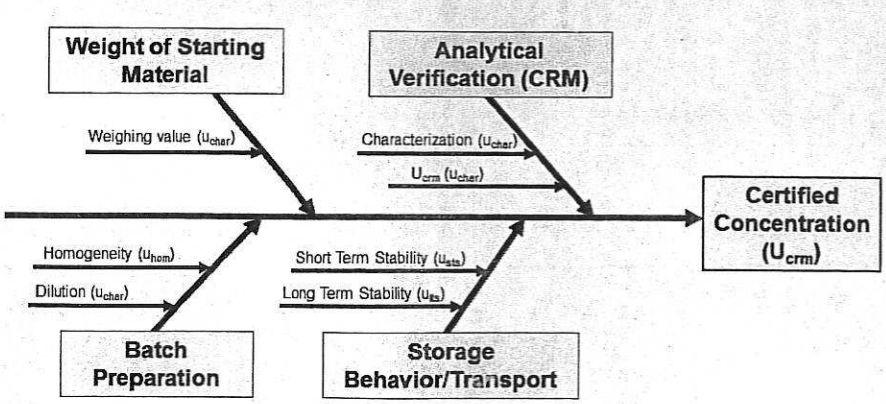
• NIST traceable weights are used to verify balance calibration with the preparation of each lot. Concentration of analyte in solution is ug/mL.

• Certified value is the gravimetric concentration weighed at room temperature and verified analytically by comparison to an independent Certified Reference Material. Uncertainty of the gravimetric concentration in this document is expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k = 2. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long-term stability and short-term stability. The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies.

• Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared by Single Factor Analysis of Variance (ANOVA). The uncertainty due to homogeneity was derived from the ANOVA. Heterogeneity was not detected under the conditions of the ANOVA.

• Product intended for laboratory use only. Supelco warrants that its products conform to the information contained in this publication. Purchaser must determine the suitability of the product for its particular use. Please see the latest catalog or order invoice and packing slip for additional terms and conditions of sale.

Cause-Effect Diagram for Uncertainty Contributions



$$U_{crm} = k\sqrt{u_{char}^2 + u_{hom}^2 + u_{sts}^2 + u_{lts}^2}$$

Test Date: May 21, 2015
Form: 48907

Duane Funk
QC Manager

ACLASS ACCREDITED TESTING Cert# AT-1607

ACLASS ACCREDITED REFERENCE MATERIAL PRODUCER Cert# AR-1606

Produced in double accredited laboratory fulfilling ISO/IEC 17025 and ISO Guide 34

SIGMA-ALDRICH®

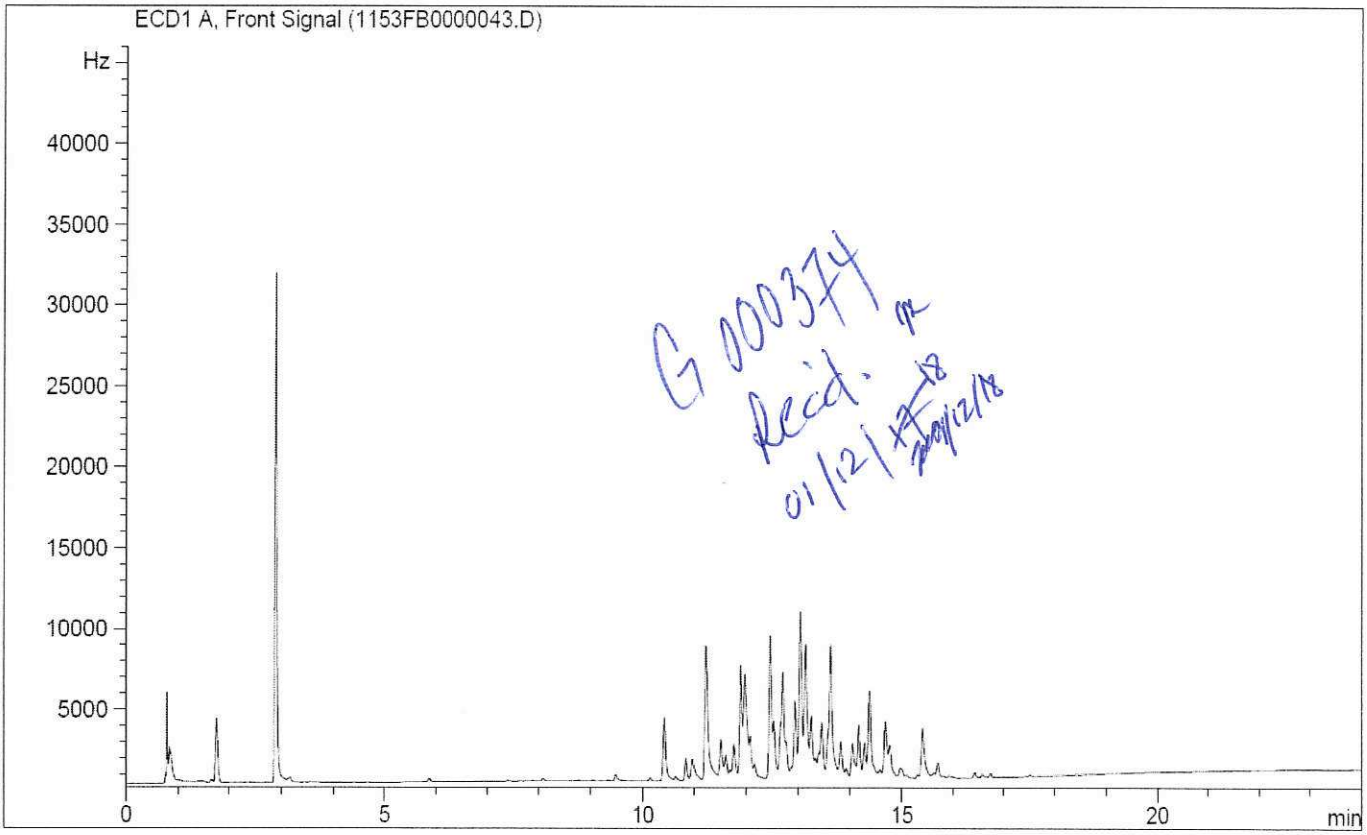
Certificate of Analysis

AROCLOR 1248,1X1ML,1000UG/ML

Certified Reference Material

Product ID 44807
Lot LRAB7117
Expiration Date December 2020
Storage Conditions ROOM TEMPERATURE
Solvent/Matrix ISOOCTANE

Analyte	*Units*	*Certified Value* [1,4]	*k* [5]	*Raw Material Purity*	*CAS*
Aroclor 1248	µg/mL	1000 ± 58	2.00	99.9%	12672-29-6



G 000374 Recd. 01/12/18

Analytical Method Parameters:

Column: SPB-608 30m x 0.53mm x .5µm df
100°C to 290°C (5min) at 10°C/min
Detector: ECD, 310°C
Injection Volume: 1µl

ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER
ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

SIGMA-ALDRICH
2931 Soldier Springs Rd. Laramie, Wyoming 82070 USA
307-742-5452
rtctechgroup@sial.com www.sigma-aldrich.com

Lot	**LRAB7117**
Expiration Date	December 2020
Storage Conditions	ROOM TEMPERATURE
Solvent/Matrix	ISOOCTANE

1 Certified value - based on the robust mean of round robin, interlaboratory study and analytically verified by RTC with associated uncertainties from the preparation and analytical procedures.
2 The standard deviation is the robust statistical standard deviation from the round robin interlaboratory study.
3 Acceptance limits are based on Interlaboratory Study Results. These ranges are recommendations only.
4 Ucrm - Uncertainty values in this document are expressed as Expanded Uncertainty (Ucrm) corresponding to the 95% confidence interval. Ucrm is derived from the combined standard uncertainty multiplied by the coverage factor k, which is obtained from a t-distribution and degrees of freedom. The components of combined standard uncertainty include the uncertainties due to characterization, homogeneity, long term stability, and short term stability (transport). The components due to stability are generally considered to be negligible unless otherwise indicated by stability studies. The mathematical representation of the Ucrm calculation is as follows:

$$u_{CRM} = \sqrt{u^2_{char} + u^2_{homogeneity} + u^2_{stability}}$$

5 *k*: Coverage factor derived from a t-distribution table, based on the degrees of freedom of the data set. **Confidence interval = 95%**

Traceability: The standard was manufactured under an ISO/IEC 17025:2005 certified quality system. The balance used to weigh raw materials is accurate to +/- 0.0001g and calibrated regularly using mass standards traceable to NIST. All dilutions were preformed gravimetrically. Additionally, individual analytes are traceable to NIST SRMs where available and specified above.

Homogeneity: Homogeneity was assessed in accordance with ISO Guide 35. Completed units were sampled using a random stratified sampling protocol. The results of chemical analysis were then compared using a one-way analysis of variance approach as described by TNI EL-V3-2009 Appendix A.2. See Instructions for minimum sub-sample size.

THIS PRODUCT WAS DESIGNED, PRODUCED AND VERIFIED FOR ACCURACY AND STABILITY IN ACCORDANCE WITH ISO/IEC 17025:2005 (ANAB Cert AT-1467) and ISO GUIDE 34:2009 (ANAB Cert AR-1470).

Robert O'Brien - QC Supervisor

Mark Pooler - QA Supervisor

Certification Date	January 11, 2018
Version	30555-1112018

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

This Reference Material is intended for Laboratory Use Only as a standard for the qualitative and/or quantitative determination of the analyte(s) listed.

Catalog No. : 32279 **Lot No.:** A0130784

Description : 1-Bromo-2-nitrobenzene Standard

1-Bromo-2-nitrobenzene Standard 1000 µg/mL, Acetone, 1mL/ampul

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : December 31, 2020 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)		
1	1-Bromo-2-nitrobenzene	1,000.0 µg/mL	+/- 5.9397	µg/mL	Gravimetric
	CAS # 577-19-5 (Lot 643872/1)		+/- 56.0822	µg/mL	Unstressed
	Purity 99%		+/- 57.3938	µg/mL	Stressed

Solvent: Acetone
CAS # 67-64-1
Purity 99%

GD02623
Recd. JF
03/27/18

Certificate of Analysis

Aroclor 1242 Solution

Product Number: PP-312 **Page:** 1 of 1

Lot Number: CL-3393A **Lot Issue Date:** 23-Oct-2017 **Expiration Date:** 30-Nov-2021

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1242	053469-21-9	NT01020	100.2 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

G003396
Recd
3/19/18

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

John Russo
President

Monica Bourgeois
Director of QA/RA

ISO 9001
Registered
TUV USA, Inc.

Certificate of Analysis

Aroclor 1016 Solution

Product Number: PP-282 **Page:** 1 of 1

Lot Number: CR-0761 **Lot Issue Date:** 28-Feb-2017 **Expiration Date:** 31-Mar-2025

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1016	012674-11-2	NT01016	100.2 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

3397
G00~~3346~~ R 04/19/18
Read. JF
04/19/18

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

John Russo
President

Monica Bourgeois
Director of QA/RA

ISO 9001
Registered
TUV USA, Inc.

Certificate of Analysis

Aroclor 1221 Solution

Product Number: PP-292 **Page:** 1 of 1

Lot Number: CR-0211 **Lot Issue Date:** 24-Jan-2017 **Expiration Date:** 28-Feb-2021

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1221	011104-28-2	NT01017	100.0 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

G003398
Rec'd JR
04/19/18

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

John Russo
President

Monica Bourgeois
Director of QA/RA

ISO 9001
Registered
TUV USA, Inc.

Certificate of Analysis

Aroclor 1232 Solution

Product Number: PP-302 **Page:** 1 of 1

Lot Number: CF-2197A **Lot Issue Date:** 05-Jul-2016 **Expiration Date:** 31-Aug-2023

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1232	011141-16-5	NT01717	100.4 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

G0033 99
Recd JR
04/19/18

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

John Russo
President

Monica Bourgeois
Director of QA/RA

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY

ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER

ISO 9001 Registered Quality System – TUV USA

Certificate of Analysis

Aroclor 1248 Solution

Product Number: PP-342 **Page:** 1 of 1

Lot Number: CP-4307 **Lot Issue Date:** 22-Aug-2016 **Expiration Date:** 30-Sep-2020

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1248	012672-29-6	NT01718	100.4 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

G003400
Recd pc
04/19/18

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

John Russo
President

Vincent Wang, Ph.D.
Director of QA/RA

ISO 9001
Registered
TUV USA, Inc.

Certificate of Analysis

Aroclor 1254 Solution

Product Number PP-352 **Page:** 1 of 1

Lot Number: CK-4255 **Lot Issue Date:** 31-Dec-2013 **Expiration Date:** 31-Jan-2022

This certified Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1254	011097-69-1	RM00922	100.4 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15-30°C).

G003401
Recd. JR
04/19/18

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

ISO 9001
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TUV USA, Inc.

William J. Leahy
Quality Assurance Manager

Certificate of Analysis

Aroclor 1260 Solution

Product Number: PP-362 **Page:** 1 of 1

Lot Number: CP-3739 **Lot Issue Date:** 02-Aug-2016 **Expiration Date:** 30-Sep-2020

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1260	011096-82-5	NT01023	100.0 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

G003402
Rcvd JR
04/19/18

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

John Russo
President

Monica Bourgeois
Director of QA/RA

ISO 9001 Registered Quality System – TUV USA

Certificate of Analysis

Aroclor 1262 Solution

Product Number PP-372 **Page:** 1 of 1

Lot Number: CJ-0264Z **Lot Issue Date:** 12-May-2017 **Expiration Date:** 30-Jun-2021

This ISO Guide 34 Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1262	037324-23-5	NT01025-03	100.4 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15° to 30°C).

GOO 34/03
Rec'd JR
04/19/18

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

ISO 9001 Registered TUV USA, Inc.

John Russo
President

Monica Bourgeois
Director of QA/RA

Certificate of Analysis

Aroclor 1268 Solution

Product Number PP-382 **Page:** 1 of 1

Lot Number: CE-0585A **Lot Issue Date:** 16-Apr-2015 **Expiration Date:** 31-May-2022

This certified Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
Aroclor 1268	011100-14-4	E-0988	100.2 ± 0.5 µg/mL

Matrix: isooctane (2,2,4-trimethylpentane)

Storage: Store at Room Temperature (15-30°C).

G003404
Recd.
04119/18

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

ISO 9001
Registered
TUV USA, Inc.

William J. Leahy
Quality Assurance Manager

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Dissolved Metals

LDW18-SP-RB1

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-01	SDG:	18F0185
Sampled:	06/11/18 16:12	Prepared:	06/15/18 05:21	File ID:	XDT_m2180618-092
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/18/18 21:18
Batch:	BGF0364	Sequence:	SGF0239	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00044

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium, Dissolved	24.7	1	0.130	0.500	
7440-22-4	Silver, Dissolved	0.200	1	0.0170	0.200	U

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Dissolved Metals

LDW18-SP-RB1

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-01	SDG:	18F0185
Sampled:	06/11/18 16:12	Prepared:	06/15/18 05:21	File ID:	XDT_m1180619-111
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/19/18 21:09
Batch:	BGF0364	Sequence:	SGF0262	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00048

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7439-92-1	Lead, Dissolved	0.100	1	0.0680	0.100	U

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Dissolved Metals

LDW18-SP-30

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-03	SDG:	18F0185
Sampled:	06/12/18 12:06	Prepared:	06/15/18 05:21	File ID:	XDT_m1180619-112
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/19/18 21:13
Batch:	BGF0364	Sequence:	SGF0262	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00048

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium, Dissolved	3.07	5	0.650	2.50	D
7439-92-1	Lead, Dissolved	0.500	5	0.340	0.500	U

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Dissolved Metals

LDW18-SP-30

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-03	SDG:	18F0185
Sampled:	06/12/18 12:06	Prepared:	06/15/18 05:21	File ID:	XDT_m2180625-040
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/25/18 15:22
Batch:	BGF0364	Sequence:	SGF0319	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00060

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-22-4	Silver, Dissolved	1.00	5	0.0850	1.00	U

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Dissolved Metals

LDW18-SP-32

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-04	SDG:	18F0185
Sampled:	06/12/18 09:19	Prepared:	06/15/18 05:21	File ID:	XDT_m1180619-113
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/19/18 21:16
Batch:	BGF0364	Sequence:	SGF0262	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00048

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium, Dissolved	3.35	5	0.650	2.50	D
7439-92-1	Lead, Dissolved	0.500	5	0.340	0.500	U

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Dissolved Metals

LDW18-SP-32

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-04	SDG:	18F0185
Sampled:	06/12/18 09:19	Prepared:	06/15/18 05:21	File ID:	XDT_m2180625-041
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/25/18 15:28
Batch:	BGF0364	Sequence:	SGF0319	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00060

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-22-4	Silver, Dissolved	2.00	10	0.170	2.00	U

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Dissolved Metals

LDW18-SP-35

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-05	SDG:	18F0185
Sampled:	06/12/18 10:56	Prepared:	06/15/18 05:21	File ID:	XDT_m1180619-114
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/19/18 21:20
Batch:	BGF0364	Sequence:	SGF0262	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00048

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium, Dissolved	3.93	5	0.650	2.50	D
7439-92-1	Lead, Dissolved	0.500	5	0.340	0.500	U

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Dissolved Metals

LDW18-SP-35

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-05	SDG:	18F0185
Sampled:	06/12/18 10:56	Prepared:	06/15/18 05:21	File ID:	XDT_m2180625-042
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/25/18 15:32
Batch:	BGF0364	Sequence:	SGF0319	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00060

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-22-4	Silver, Dissolved	2.00	10	0.170	2.00	U

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Dissolved Metals

LDW18-SP-38

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-06	SDG:	18F0185
Sampled:	06/12/18 10:27	Prepared:	06/15/18 05:21	File ID:	XDT_m1180619-115
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/19/18 21:24
Batch:	BGF0364	Sequence:	SGF0262	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00048

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium, Dissolved	3.14	5	0.650	2.50	D
7439-92-1	Lead, Dissolved	0.500	5	0.340	0.500	U

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Dissolved Metals

LDW18-SP-38

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-06	SDG:	18F0185
Sampled:	06/12/18 10:27	Prepared:	06/15/18 05:21	File ID:	XDT_m2180625-043
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/25/18 15:37
Batch:	BGF0364	Sequence:	SGF0319	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00060

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-22-4	Silver, Dissolved	2.00	10	0.170	2.00	U

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Dissolved Metals

LDW18-SP-42

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-07	SDG:	18F0185
Sampled:	06/12/18 12:05	Prepared:	06/15/18 05:21	File ID:	XDT_m2180618-099
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/18/18 21:55
Batch:	BGF0364	Sequence:	SGF0239	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00044

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium, Dissolved	0.638	1	0.130	0.500	
7440-22-4	Silver, Dissolved	0.200	1	0.0170	0.200	U

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Dissolved Metals

LDW18-SP-42

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-07	SDG:	18F0185
Sampled:	06/12/18 12:05	Prepared:	06/15/18 05:21	File ID:	XDT_m1180619-116
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/19/18 21:28
Batch:	BGF0364	Sequence:	SGF0262	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00048

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7439-92-1	Lead, Dissolved	0.100	1	0.0680	0.100	U

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Dissolved Metals

LDW18-SP-43

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-08	SDG:	18F0185
Sampled:	06/12/18 13:00	Prepared:	06/15/18 05:21	File ID:	XDT_m2180625-044
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/25/18 15:41
Batch:	BGF0364	Sequence:	SGF0319	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00060

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-22-4	Silver, Dissolved	1.00	5	0.0850	1.00	U

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Dissolved Metals

LDW18-SP-43

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-08	SDG:	18F0185
Sampled:	06/12/18 13:00	Prepared:	06/15/18 05:21	File ID:	XDT_m2180626-033
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 12:15
Batch:	BGF0364	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium, Dissolved	3.46	10	1.30	5.00	J, D
7439-92-1	Lead, Dissolved	1.00	10	0.680	1.00	U

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Dissolved Metals

LDW18-SP-06

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-01	SDG:	18F0185
Sampled:	06/13/18 09:53	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-059
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 14:19
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-22-4	Silver, Dissolved	1.00	5	0.0850	1.00	U

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Dissolved Metals

LDW18-SP-06

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-01	SDG:	18F0185
Sampled:	06/13/18 09:53	Prepared:	06/20/18 04:48	File ID:	XDT_m1180627-057
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/27/18 10:27
Batch:	BGF0478	Sequence:	SGF0352	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00063

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium, Dissolved	4.17	10	1.30	5.00	J, D
7439-92-1	Lead, Dissolved	1.00	10	0.680	1.00	U

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Dissolved Metals

LDW18-SP-33

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-02	SDG:	18F0185
Sampled:	06/13/18 12:17	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-043
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 13:04
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium, Dissolved	2.81	5	0.650	2.50	D
7439-92-1	Lead, Dissolved	1.72	5	0.340	0.500	D
7440-22-4	Silver, Dissolved	1.00	5	0.0850	1.00	U

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Dissolved Metals

LDW18-SP-24

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-03	SDG:	18F0185
Sampled:	06/13/18 12:35	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-044
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 13:08
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium, Dissolved	2.09	5	0.650	2.50	J, D
7439-92-1	Lead, Dissolved	0.500	5	0.340	0.500	U
7440-22-4	Silver, Dissolved	1.00	5	0.0850	1.00	U

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Dissolved Metals

LDW18-SP-24-FD

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-04	SDG:	18F0185
Sampled:	06/13/18 12:42	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-045
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 13:13
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium, Dissolved	2.08	5	0.650	2.50	J, D
7439-92-1	Lead, Dissolved	0.500	5	0.340	0.500	U
7440-22-4	Silver, Dissolved	1.00	5	0.0850	1.00	U

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Dissolved Metals

LDW18-SP-05

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-01	SDG:	18F0185
Sampled:	06/14/18 14:08	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-069
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 15:16
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-22-4	Silver, Dissolved	1.00	5	0.0850	1.00	U

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Dissolved Metals

LDW18-SP-05

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-01	SDG:	18F0185
Sampled:	06/14/18 14:08	Prepared:	06/20/18 04:48	File ID:	XDT_m1180627-050
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/27/18 10:14
Batch:	BGF0478	Sequence:	SGF0352	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00063

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium, Dissolved	5.62	10	1.30	5.00	D
7439-92-1	Lead, Dissolved	1.00	10	0.680	1.00	U

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Dissolved Metals

LDW18-SP-57

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-02	SDG:	18F0185
Sampled:	06/14/18 10:41	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-070
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 15:22
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-22-4	Silver, Dissolved	1.00	5	0.0850	1.00	U

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Dissolved Metals

LDW18-SP-57

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-02	SDG:	18F0185
Sampled:	06/14/18 10:41	Prepared:	06/20/18 04:48	File ID:	XDT_m1180627-051
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/27/18 10:16
Batch:	BGF0478	Sequence:	SGF0352	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00063

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium, Dissolved	5.71	10	1.30	5.00	D
7439-92-1	Lead, Dissolved	1.00	10	0.680	1.00	U

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Dissolved Metals

LDW18-SP-73

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-03	SDG:	18F0185
Sampled:	06/14/18 13:08	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-071
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 15:28
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-22-4	Silver, Dissolved	1.00	5	0.0850	1.00	U

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Dissolved Metals

LDW18-SP-73

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-03	SDG:	18F0185
Sampled:	06/14/18 13:08	Prepared:	06/20/18 04:48	File ID:	XDT_m1180627-052
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/27/18 10:18
Batch:	BGF0478	Sequence:	SGF0352	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00063

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium, Dissolved	2.98	10	1.30	5.00	J, D
7439-92-1	Lead, Dissolved	1.00	10	0.680	1.00	U

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Dissolved Metals

LDW18-SP-74

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-04	SDG:	18F0185
Sampled:	06/14/18 13:14	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-072
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 15:34
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-22-4	Silver, Dissolved	1.00	5	0.0850	1.00	U

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Dissolved Metals

LDW18-SP-74

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-04	SDG:	18F0185
Sampled:	06/14/18 13:14	Prepared:	06/20/18 04:48	File ID:	XDT_m1180627-053
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/27/18 10:20
Batch:	BGF0478	Sequence:	SGF0352	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00063

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium, Dissolved	5.62	10	1.30	5.00	D
7439-92-1	Lead, Dissolved	1.00	10	0.680	1.00	U

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Dissolved Metals

LDW18-SP-77

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-05	SDG:	18F0185
Sampled:	06/14/18 12:10	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-073
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 15:38
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-22-4	Silver, Dissolved	1.00	5	0.0850	1.00	U

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Dissolved Metals

LDW18-SP-77

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-05	SDG:	18F0185
Sampled:	06/14/18 12:10	Prepared:	06/20/18 04:48	File ID:	XDT_m1180627-049
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/27/18 10:11
Batch:	BGF0478	Sequence:	SGF0352	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00063

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium, Dissolved	5.11	10	1.30	5.00	D
7439-92-1	Lead, Dissolved	1.00	10	0.680	1.00	U

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Dissolved Metals

LDW18-SP-78

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-06	SDG:	18F0185
Sampled:	06/14/18 12:04	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-074
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 15:43
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-22-4	Silver, Dissolved	1.00	5	0.0850	1.00	U

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Dissolved Metals

LDW18-SP-78

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-06	SDG:	18F0185
Sampled:	06/14/18 12:04	Prepared:	06/20/18 04:48	File ID:	XDT_m1180627-054
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/27/18 10:22
Batch:	BGF0478	Sequence:	SGF0352	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00063

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium, Dissolved	5.60	10	1.30	5.00	D
7439-92-1	Lead, Dissolved	1.00	10	0.680	1.00	U

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Dissolved Metals

LDW18-SP-79

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-07	SDG:	18F0185
Sampled:	06/14/18 09:50	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-075
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 15:47
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-22-4	Silver, Dissolved	1.00	5	0.0850	1.00	U

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Dissolved Metals

LDW18-SP-79

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-07	SDG:	18F0185
Sampled:	06/14/18 09:50	Prepared:	06/20/18 04:48	File ID:	XDT_m1180627-055
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/27/18 10:23
Batch:	BGF0478	Sequence:	SGF0352	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00063

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium, Dissolved	5.72	10	1.30	5.00	D
7439-92-1	Lead, Dissolved	1.00	10	0.680	1.00	U

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Dissolved Metals

LDW18-SP-84

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-08	SDG:	18F0185
Sampled:	06/14/18 09:53	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-076
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 15:52
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-22-4	Silver, Dissolved	1.00	5	0.0850	1.00	U

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Dissolved Metals

LDW18-SP-84

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-08	SDG:	18F0185
Sampled:	06/14/18 09:53	Prepared:	06/20/18 04:48	File ID:	XDT_m1180627-061
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/27/18 10:40
Batch:	BGF0478	Sequence:	SGF0352	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00063

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium, Dissolved	5.33	10	1.30	5.00	D
7439-92-1	Lead, Dissolved	1.00	10	0.680	1.00	U

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Dissolved Metals

LDW18-SP-87

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-09	SDG:	18F0185
Sampled:	06/14/18 11:11	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-077
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 15:56
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-22-4	Silver, Dissolved	1.00	5	0.0850	1.00	U

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Dissolved Metals

LDW18-SP-87

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-09	SDG:	18F0185
Sampled:	06/14/18 11:11	Prepared:	06/20/18 04:48	File ID:	XDT_m1180627-062
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/27/18 10:42
Batch:	BGF0478	Sequence:	SGF0352	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00063

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium, Dissolved	3.57	10	1.30	5.00	J, D
7439-92-1	Lead, Dissolved	1.00	10	0.680	1.00	U

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Dissolved Metals

LDW18-SP-01

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-01	SDG:	18F0185
Sampled:	06/15/18 11:33	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-078
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 16:01
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-22-4	Silver, Dissolved	1.00	5	0.0850	1.00	U

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Dissolved Metals

LDW18-SP-01

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-01	SDG:	18F0185
Sampled:	06/15/18 11:33	Prepared:	06/20/18 04:48	File ID:	XDT_m1180627-063
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/27/18 10:44
Batch:	BGF0478	Sequence:	SGF0352	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00063

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium, Dissolved	4.78	10	1.30	5.00	J, D
7439-92-1	Lead, Dissolved	1.00	10	0.680	1.00	U

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Dissolved Metals

LDW18-SP-45

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-02	SDG:	18F0185
Sampled:	06/15/18 13:45	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-081
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 16:20
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-22-4	Silver, Dissolved	1.00	5	0.0850	1.00	U

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Dissolved Metals

LDW18-SP-45

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-02	SDG:	18F0185
Sampled:	06/15/18 13:45	Prepared:	06/20/18 04:48	File ID:	XDT_m1180627-064
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/27/18 10:45
Batch:	BGF0478	Sequence:	SGF0352	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00063

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium, Dissolved	4.15	10	1.30	5.00	J, D
7439-92-1	Lead, Dissolved	1.00	10	0.680	1.00	U

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Dissolved Metals

LDW18-SP-47

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-03	SDG:	18F0185
Sampled:	06/15/18 13:16	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-082
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 16:24
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-22-4	Silver, Dissolved	1.00	5	0.0850	1.00	U

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Dissolved Metals

LDW18-SP-47

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-03	SDG:	18F0185
Sampled:	06/15/18 13:16	Prepared:	06/20/18 04:48	File ID:	XDT_m1180627-065
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/27/18 10:47
Batch:	BGF0478	Sequence:	SGF0352	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00063

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium, Dissolved	5.86	10	1.30	5.00	D
7439-92-1	Lead, Dissolved	1.00	10	0.680	1.00	U

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Dissolved Metals

LDW18-SP-66

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-04	SDG:	18F0185
Sampled:	06/15/18 13:25	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-083
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 16:28
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-22-4	Silver, Dissolved	1.00	5	0.0850	1.00	U

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Dissolved Metals

LDW18-SP-66

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-04	SDG:	18F0185
Sampled:	06/15/18 13:25	Prepared:	06/20/18 04:48	File ID:	XDT_m1180627-066
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/27/18 10:49
Batch:	BGF0478	Sequence:	SGF0352	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00063

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium, Dissolved	5.00	10	1.30	5.00	D
7439-92-1	Lead, Dissolved	1.00	10	0.680	1.00	U

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Dissolved Metals

LDW18-SP-70

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-05	SDG:	18F0185
Sampled:	06/15/18 11:13	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-084
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 16:33
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-22-4	Silver, Dissolved	1.00	5	0.0850	1.00	U

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Dissolved Metals

LDW18-SP-70

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-05	SDG:	18F0185
Sampled:	06/15/18 11:13	Prepared:	06/20/18 04:48	File ID:	XDT_m1180627-067
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/27/18 10:51
Batch:	BGF0478	Sequence:	SGF0352	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00063

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7439-92-1	Lead, Dissolved	1.00	10	0.680	1.00	U

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EPA 6020A

Dissolved Metals

LDW18-SP-70

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-05RE1	SDG:	18F0185
Sampled:	06/15/18 11:13	Prepared:	06/20/18 04:48	File ID:	XDT_m1180627-074
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/27/18 11:09
Batch:	BGF0478	Sequence:	SGF0352	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00063

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium, Dissolved	6.56	20	2.60	10.0	J, D

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020A

Dissolved Metals

LDW18-SP-83

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-06	SDG:	18F0185
Sampled:	06/15/18 12:08	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-085
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 16:37
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-22-4	Silver, Dissolved	1.00	5	0.0850	1.00	U

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020A

Dissolved Metals

LDW18-SP-83

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-06	SDG:	18F0185
Sampled:	06/15/18 12:08	Prepared:	06/20/18 04:48	File ID:	XDT_m1180627-068
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/27/18 10:53
Batch:	BGF0478	Sequence:	SGF0352	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00063

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium, Dissolved	5.96	10	1.30	5.00	D
7439-92-1	Lead, Dissolved	1.00	10	0.680	1.00	U

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020A

Dissolved Metals

LDW18-SP-86

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-07	SDG:	18F0185
Sampled:	06/15/18 12:19	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-086
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 16:42
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-22-4	Silver, Dissolved	1.00	5	0.0850	1.00	U

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020A

Dissolved Metals

LDW18-SP-86

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-07	SDG:	18F0185
Sampled:	06/15/18 12:19	Prepared:	06/20/18 04:48	File ID:	XDT_m1180627-069
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/27/18 10:55
Batch:	BGF0478	Sequence:	SGF0352	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00063

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium, Dissolved	4.99	10	1.30	5.00	J, D

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020A

Dissolved Metals

LDW18-SP-86

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-07RE1	SDG:	18F0185
Sampled:	06/15/18 12:19	Prepared:	06/20/18 04:48	File ID:	XDT_m1180627-073
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/27/18 11:07
Batch:	BGF0478	Sequence:	SGF0352	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00063

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7439-92-1	Lead, Dissolved	2.00	20	1.36	2.00	U

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020A

Dissolved Metals

LDW18-SP-88

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-08	SDG:	18F0185
Sampled:	06/15/18 10:52	Prepared:	06/20/18 05:07	File ID:	XDT_m2180628-100
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/28/18 15:47
Batch:	BGF0480	Sequence:	SGF0392	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00069

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium, Dissolved	12.0	10	1.30	5.00	D
7439-92-1	Lead, Dissolved	1.00	10	0.680	1.00	U
7440-22-4	Silver, Dissolved	2.00	10	0.170	2.00	U

PREPARATION BATCH SUMMARY

EPA 6020A

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGF0364 Batch Matrix: Water Preparation: REN EPA 600/4-79-020 4.1.4 HNO3 matrix

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-RB1	18F0185-01	XDT_m2180618-092	06/15/18 05:21	
LDW18-SP-RB1	18F0185-01	XDT_m1180619-111	06/15/18 05:21	
LDW18-SP-30	18F0185-03	XDT_m1180619-112	06/15/18 05:21	
LDW18-SP-30	18F0185-03	XDT_m2180625-040	06/15/18 05:21	
LDW18-SP-32	18F0185-04	XDT_m1180619-113	06/15/18 05:21	
LDW18-SP-32	18F0185-04	XDT_m2180625-041	06/15/18 05:21	
LDW18-SP-35	18F0185-05	XDT_m2180625-042	06/15/18 05:21	
LDW18-SP-35	18F0185-05	XDT_m1180619-114	06/15/18 05:21	
LDW18-SP-38	18F0185-06	XDT_m2180625-043	06/15/18 05:21	
LDW18-SP-38	18F0185-06	XDT_m1180619-115	06/15/18 05:21	
LDW18-SP-42	18F0185-07	XDT_m1180619-116	06/15/18 05:21	
LDW18-SP-42	18F0185-07	XDT_m2180618-099	06/15/18 05:21	
LDW18-SP-43	18F0185-08	XDT_m2180625-044	06/15/18 05:21	
LDW18-SP-43	18F0185-08	XDT_m2180626-033	06/15/18 05:21	
Blank	BGF0364-BLK1	XDT_m2180618-051	06/15/18 05:21	
LCS	BGF0364-BS1	XDT_m2180618-059	06/15/18 05:21	
LDW18-SP-43	BGF0364-DUP2	XDT_m2180625-046	06/15/18 05:21	
LDW18-SP-43	BGF0364-DUP4	XDT_m2180626-032	06/15/18 05:21	Added 6/27/2018 by TCH
LDW18-SP-43	BGF0364-MS2	XDT_m2180625-047	06/15/18 05:21	
LDW18-SP-43	BGF0364-MS4	XDT_m2180626-034	06/15/18 05:21	Added 6/27/2018 by TCH
LDW18-SP-43	BGF0364-MSD2	XDT_m2180625-048	06/15/18 05:21	
LDW18-SP-43	BGF0364-MSD4	XDT_m2180626-035	06/15/18 05:21	Added 6/27/2018 by TCH

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Corrective Actions
Inorganic Analyses

Criteria Flagged:		ARI Job No.:	BGF364/18F158
Unacceptable Blank:	☐	Date of Event:	6/18/18
Unacceptable Duplicate:	☐	Client ID:	
Unacceptable Spike:	☑	Method/Element:	ICP-MS / Ca, Mg, Na
Unacceptable Reference:	☐	Prep Code:	REN

Details of Problem/Recommended Corrective Action:
BGF364-BS %R ↑ Minerals

Samples Affected: 18F158(1-8)

Corrective Action Taken: Reprep 18F158(1-8) for Ca, Mg, Na

Analyst Initials: MB **Supervisor:**

Date: 6/18/18 **Date:**

5049F

Revision 007
6/11/10

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Corrective Actions
Inorganic Analyses

Criteria Flagged:		ARI Job No.:	BGF364/18F158
Unacceptable Blank:	☐	Date of Event:	6/18/18
Unacceptable Duplicate:	☐	Client ID:	
Unacceptable Spike:	☑	Method/Element:	ICP-MS / Ca, Mg, Na
Unacceptable Reference:	☐	Prep Code:	REN

Details of Problem/Recommended Corrective Action:
BGF364-BS %R ↑ Minerals

Samples Affected: 18F158(1-8)

Corrective Action Taken: Reprep 18F158(1-8) for Ca, Mg, Na

Analyst Initials: MB **Supervisor:**

Date: 6/18/18 **Date:**

5049F

Revision 007
6/11/10

Analytical Resources, Incorporated
Analytical Chemists and Consultants

PREPARATION BATCH SUMMARY

EPA 6020A

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGF0478 Batch Matrix: Water Preparation: REN EPA 600/4-79-020 4.1.4 HNO3 matrix

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-06	18F0208-01	XDT_m1180627-057	06/20/18 04:48	
LDW18-SP-06	18F0208-01	XDT_m2180626-059	06/20/18 04:48	
LDW18-SP-33	18F0208-02	XDT_m2180626-043	06/20/18 04:48	
LDW18-SP-24	18F0208-03	XDT_m2180626-044	06/20/18 04:48	
LDW18-SP-24-FD	18F0208-04	XDT_m2180626-045	06/20/18 04:48	
LDW18-SP-05	18F0226-01	XDT_m1180627-050	06/20/18 04:48	
LDW18-SP-05	18F0226-01	XDT_m2180626-069	06/20/18 04:48	
LDW18-SP-57	18F0226-02	XDT_m1180627-051	06/20/18 04:48	
LDW18-SP-57	18F0226-02	XDT_m2180626-070	06/20/18 04:48	
LDW18-SP-73	18F0226-03	XDT_m2180626-071	06/20/18 04:48	
LDW18-SP-73	18F0226-03	XDT_m1180627-052	06/20/18 04:48	
LDW18-SP-74	18F0226-04	XDT_m1180627-053	06/20/18 04:48	
LDW18-SP-74	18F0226-04	XDT_m2180626-072	06/20/18 04:48	
LDW18-SP-77	18F0226-05	XDT_m1180627-049	06/20/18 04:48	
LDW18-SP-77	18F0226-05	XDT_m2180626-073	06/20/18 04:48	
LDW18-SP-78	18F0226-06	XDT_m1180627-054	06/20/18 04:48	
LDW18-SP-78	18F0226-06	XDT_m2180626-074	06/20/18 04:48	
LDW18-SP-79	18F0226-07	XDT_m2180626-075	06/20/18 04:48	
LDW18-SP-79	18F0226-07	XDT_m1180627-055	06/20/18 04:48	
LDW18-SP-84	18F0226-08	XDT_m1180627-061	06/20/18 04:48	
LDW18-SP-84	18F0226-08	XDT_m2180626-076	06/20/18 04:48	
LDW18-SP-87	18F0226-09	XDT_m2180626-077	06/20/18 04:48	
LDW18-SP-87	18F0226-09	XDT_m1180627-062	06/20/18 04:48	
LDW18-SP-01	18F0248-01	XDT_m1180627-063	06/20/18 04:48	
LDW18-SP-01	18F0248-01	XDT_m2180626-078	06/20/18 04:48	
LDW18-SP-45	18F0248-02	XDT_m2180626-081	06/20/18 04:48	
LDW18-SP-45	18F0248-02	XDT_m1180627-064	06/20/18 04:48	
LDW18-SP-47	18F0248-03	XDT_m2180626-082	06/20/18 04:48	
LDW18-SP-47	18F0248-03	XDT_m1180627-065	06/20/18 04:48	
LDW18-SP-66	18F0248-04	XDT_m2180626-083	06/20/18 04:48	
LDW18-SP-66	18F0248-04	XDT_m1180627-066	06/20/18 04:48	
LDW18-SP-70	18F0248-05	XDT_m1180627-067	06/20/18 04:48	
LDW18-SP-70	18F0248-05	XDT_m2180626-084	06/20/18 04:48	

PREPARATION BATCH SUMMARY

EPA 6020A

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGF0478 Batch Matrix: Water Preparation: REN EPA 600/4-79-020 4.1.4 HNO3 matrix

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-70	18F0248-05RE1	XDT_m1180627-074	06/20/18 04:48	Added 6/27/2018 by TCH
LDW18-SP-83	18F0248-06	XDT_m1180627-068	06/20/18 04:48	
LDW18-SP-83	18F0248-06	XDT_m2180626-085	06/20/18 04:48	
LDW18-SP-86	18F0248-07	XDT_m2180626-086	06/20/18 04:48	
LDW18-SP-86	18F0248-07	XDT_m1180627-069	06/20/18 04:48	
LDW18-SP-86	18F0248-07RE1	XDT_m1180627-073	06/20/18 04:48	Added 6/27/2018 by TCH
Blank	BGF0478-BLK1	XDT_m2180626-041	06/20/18 04:48	
Blank	BGF0478-BLK1	XDT_m2180626-041	06/20/18 04:48	
Blank	BGF0478-BLK1	XDT_m2180626-041	06/20/18 04:48	
LCS	BGF0478-BS1	XDT_m2180626-048	06/20/18 04:48	
LCS	BGF0478-BS1	XDT_m2180626-048	06/20/18 04:48	
LCS	BGF0478-BS1	XDT_m2180626-048	06/20/18 04:48	
LDW18-SP-06	BGF0478-DUP1	XDT_m2180626-058	06/20/18 04:48	
LDW18-SP-06	BGF0478-DUP1	XDT_m2180626-058	06/20/18 04:48	
LDW18-SP-06	BGF0478-DUP1	XDT_m2180626-058	06/20/18 04:48	
LDW18-SP-06	BGF0478-DUP2	XDT_m1180627-056	06/20/18 04:48	Added 6/27/2018 by TCH
LDW18-SP-06	BGF0478-DUP2	XDT_m1180627-056	06/20/18 04:48	Added 6/27/2018 by TCH
LDW18-SP-06	BGF0478-DUP2	XDT_m1180627-056	06/20/18 04:48	Added 6/27/2018 by TCH
LDW18-SP-06	BGF0478-MS1	XDT_m2180626-060	06/20/18 04:48	
LDW18-SP-06	BGF0478-MS1	XDT_m2180626-060	06/20/18 04:48	
LDW18-SP-06	BGF0478-MS1	XDT_m2180626-060	06/20/18 04:48	
LDW18-SP-06	BGF0478-MS2	XDT_m1180627-058	06/20/18 04:48	Added 6/27/2018 by TCH
LDW18-SP-06	BGF0478-MS2	XDT_m1180627-058	06/20/18 04:48	Added 6/27/2018 by TCH
LDW18-SP-06	BGF0478-MS2	XDT_m1180627-058	06/20/18 04:48	Added 6/27/2018 by TCH

PREPARATION BATCH SUMMARY

EPA 6020A

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGF0480 Batch Matrix: Water Preparation: REN EPA 600/4-79-020 4.1.4 HNO3 matrix

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-88	18F0248-08	XDT_m2180628-100	06/20/18 05:07	
Blank	BGF0480-BLK1	XDT_m2180628-046	06/20/18 05:07	
LCS	BGF0480-BS1	XDT_m2180628-054	06/20/18 05:07	
LDW18-SP-88	BGF0480-DUP1	XDT_m2180628-099	06/20/18 05:07	
LDW18-SP-88	BGF0480-MS1	XDT_m2180628-101	06/20/18 05:07	

Form I

METHOD BLANK DATA SHEET

EPA 6020A

Dissolved Metals

Blank

Batch: BGF0364 Laboratory ID: BGF0364-BLK1 Prepared: 06/15/18 05:21

Matrix: Water Preparation: REN_EPA 600/4-79-020 4 Analyzed: 06/18/18 17:49

Sequence: SGF0239 Calibration: BF00044 Instrument: ICPMS2

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium-52	ND	1	0.130	0.500	U
7440-47-3	Chromium-53	ND	1	0.0700	0.500	U
7439-92-1	Lead-208	ND	1	0.0680	0.100	U
7440-22-4	Silver-107	ND	1	0.0170	0.200	U

Form I

METHOD BLANK DATA SHEET

EPA 6020A

Dissolved Metals

Blank

Batch: BGF0478 Laboratory ID: BGF0478-BLK1 Prepared: 06/20/18 04:48

Matrix: Water Preparation: REN_EPA 600/4-79-020 4 Analyzed: 06/26/18 12:55

Sequence: SGF0345 Calibration: BF00061 Instrument: ICPMS2

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium-52	ND	1	0.130	0.500	U
7440-47-3	Chromium-53	0.170	1	0.0700	0.500	J
7439-92-1	Lead-208	ND	1	0.0680	0.100	U
7440-22-4	Silver-107	ND	1	0.0170	0.200	U

Form I

METHOD BLANK DATA SHEET

EPA 6020A

Dissolved Metals

Blank

Batch: BGF0480 Laboratory ID: BGF0480-BLK1 Prepared: 06/20/18 05:07

Matrix: Water Preparation: REN_EPA 600/4-79-020 4 Analyzed: 06/28/18 11:04

Sequence: SGF0392 Calibration: BF00069 Instrument: ICPMS2

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-47-3	Chromium-52	ND	1	0.130	0.500	U
7440-47-3	Chromium-53	ND	1	0.0700	0.500	U
7439-92-1	Lead-208	ND	1	0.0680	0.100	U
7440-22-4	Silver-107	ND	1	0.0170	0.200	U

DUPLICATES

EPA 6020A

Dissolved Metals

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Matrix: Water
Laboratory ID: BGF0364-DUP2
Batch: BGF0364
Lab Source ID: 18F0185-08
Preparation: REN EPA 600/4-79-020 4.1.4 HNO3 matrix
Initial/Final: 25 mL / 25 mL
Source Sample Name: LDW18-SP-43
% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Silver-107 (dissolved)	20	ND	ND		

*: Values outside of QC limits
L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD

DUPLICATES

EPA 6020A

Dissolved Metals

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Matrix: Water
Laboratory ID: BGF0364-DUP4
Batch: BGF0364
Lab Source ID: 18F0185-08
Preparation: REN EPA 600/4-79-020 4.1.4 HNO3 matrix
Initial/Final: 25 mL / 25 mL
Source Sample Name: LDW18-SP-43
% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Chromium-52 (dissolved)	20	3.46	3.35	3.23	
Lead-208 (dissolved)	20	ND	ND		

*: Values outside of QC limits
L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD

DUPLICATES

EPA 6020A

Dissolved Metals

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Matrix: Water
Laboratory ID: BGF0478-DUP1
Batch: BGF0478
Lab Source ID: 18F0208-01
Preparation: REN EPA 600/4-79-020 4.1.4 HNO3 matrix
Initial/Final: 25 mL / 25 mL
Source Sample Name: LDW18-SP-06
% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Silver-107 (dissolved)	20	ND	ND		

*: Values outside of QC limits
L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD

DUPLICATES

EPA 6020A

Dissolved Metals

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Matrix: Water
Laboratory ID: BGF0478-DUP2
Batch: BGF0478
Lab Source ID: 18F0208-01
Preparation: REN EPA 600/4-79-020 4.1.4 HNO3 matrix
Initial/Final: 25 mL / 25 mL
Source Sample Name: LDW18-SP-06
% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Chromium-52 (dissolved)	20	4.17	4.74	12.8	
Lead-208 (dissolved)	20	ND	ND		

*: Values outside of QC limits
L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD

DUPLICATES

EPA 6020A

Dissolved Metals

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Matrix: Water
Laboratory ID: BGF0480-DUP1
Batch: BGF0480
Lab Source ID: 18F0248-08
Preparation: REN EPA 600/4-79-020 4.1.4 HNO3 matrix
Initial/Final: 25 mL / 25 mL
Source Sample Name: LDW18-SP-88
% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Chromium-52 (dissolved)	20	12.0	11.4	5.11	
Lead-208 (dissolved)	20	ND	ND		
Silver-107 (dissolved)	20	ND	ND		

*: Values outside of QC limits
L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD

INSTRUMENT BLANKS
EPA 6020A

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Instrument ID: ICPMS2
Sequence: SGF0239

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Calibration: BF00044
Date Analyzed: 06/18/18 14:15

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0239-IBL1	Chromium-52 (dissolved)	-0.0510	0.13	0.500	ug/L	
SGF0239-IBL1	Chromium-53 (dissolved)	0.00200	0.07	0.500	ug/L	
SGF0239-IBL1	Lead-208 (dissolved)	0.00	0.068	0.100	ug/L	
SGF0239-IBL1	Silver-107 (dissolved)	0.00200	0.017	0.200	ug/L	
SGF0239-ICB1	Chromium-52 (dissolved)	-0.0450	0.13	0.500	ug/L	
SGF0239-ICB1	Chromium-53 (dissolved)	0.0100	0.07	0.500	ug/L	
SGF0239-ICB1	Lead-208 (dissolved)	0.0180	0.068	0.100	ug/L	
SGF0239-ICB1	Silver-107 (dissolved)	0.0180	0.017	0.200	ug/L	
SGF0239-CCB1	Chromium-52 (dissolved)	-0.0540	0.13	0.500	ug/L	
SGF0239-CCB1	Chromium-53 (dissolved)	0.00100	0.07	0.500	ug/L	
SGF0239-CCB1	Lead-208 (dissolved)	0.00100	0.068	0.100	ug/L	
SGF0239-CCB1	Silver-107 (dissolved)	0.00100	0.017	0.200	ug/L	
SGF0239-IBL2	Chromium-52 (dissolved)	-0.0340	0.13	0.500	ug/L	
SGF0239-IBL2	Chromium-53 (dissolved)	0.0790	0.07	0.500	ug/L	
SGF0239-IBL2	Lead-208 (dissolved)	0.0370	0.068	0.100	ug/L	
SGF0239-IBL2	Silver-107 (dissolved)	0.0340	0.017	0.200	ug/L	
SGF0239-IBL3	Chromium-52 (dissolved)	-0.0550	0.13	0.500	ug/L	
SGF0239-IBL3	Chromium-53 (dissolved)	0.0410	0.07	0.500	ug/L	
SGF0239-IBL3	Lead-208 (dissolved)	0.00800	0.068	0.100	ug/L	
SGF0239-IBL3	Silver-107 (dissolved)	0.00300	0.017	0.200	ug/L	
SGF0239-CCB2	Chromium-52 (dissolved)	-0.0930	0.13	0.500	ug/L	
SGF0239-CCB2	Chromium-53 (dissolved)	0.0290	0.07	0.500	ug/L	
SGF0239-CCB2	Lead-208 (dissolved)	0.00900	0.068	0.100	ug/L	
SGF0239-CCB2	Silver-107 (dissolved)	0.00800	0.017	0.200	ug/L	
SGF0239-CCB3	Chromium-52 (dissolved)	-0.0960	0.13	0.500	ug/L	
SGF0239-CCB3	Chromium-53 (dissolved)	0.0230	0.07	0.500	ug/L	
SGF0239-CCB3	Lead-208 (dissolved)	0.00100	0.068	0.100	ug/L	
SGF0239-CCB3	Silver-107 (dissolved)	0.00200	0.017	0.200	ug/L	
SGF0239-CCB4	Chromium-52 (dissolved)	-0.109	0.13	0.500	ug/L	
SGF0239-CCB4	Chromium-53 (dissolved)	0.00500	0.07	0.500	ug/L	
SGF0239-CCB4	Lead-208 (dissolved)	0.00200	0.068	0.100	ug/L	
SGF0239-CCB4	Silver-107 (dissolved)	0.00100	0.017	0.200	ug/L	
SGF0239-CCB5	Chromium-52 (dissolved)	-0.133	0.13	0.500	ug/L	
SGF0239-CCB5	Chromium-53 (dissolved)	0.00	0.07	0.500	ug/L	

INSTRUMENT BLANKS
EPA 6020A

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Instrument ID: ICPMS2
Sequence: SGF0239

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Calibration: BF00044
Date Analyzed: 06/18/18 18:45

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0239-CCB5	Lead-208 (dissolved)	0.00200	0.068	0.100	ug/L	
SGF0239-CCB5	Silver-107 (dissolved)	0.00100	0.017	0.200	ug/L	
SGF0239-CCB6	Chromium-52 (dissolved)	-0.107	0.13	0.500	ug/L	
SGF0239-CCB6	Chromium-53 (dissolved)	0.00100	0.07	0.500	ug/L	
SGF0239-CCB6	Lead-208 (dissolved)	0.00	0.068	0.100	ug/L	
SGF0239-CCB6	Silver-107 (dissolved)	0.00100	0.017	0.200	ug/L	
SGF0239-CCB7	Chromium-52 (dissolved)	-0.0980	0.13	0.500	ug/L	
SGF0239-CCB7	Chromium-53 (dissolved)	1.23	0.07	0.500	ug/L	
SGF0239-CCB7	Lead-208 (dissolved)	0.00300	0.068	0.100	ug/L	
SGF0239-CCB7	Silver-107 (dissolved)	0.00600	0.017	0.200	ug/L	
SGF0239-CCB8	Chromium-52 (dissolved)	-0.0970	0.13	0.500	ug/L	
SGF0239-CCB8	Chromium-53 (dissolved)	1.10	0.07	0.500	ug/L	
SGF0239-CCB8	Lead-208 (dissolved)	0.00	0.068	0.100	ug/L	
SGF0239-CCB8	Silver-107 (dissolved)	-0.00100	0.017	0.200	ug/L	
SGF0239-CCB9	Chromium-52 (dissolved)	-0.169	0.13	0.500	ug/L	
SGF0239-CCB9	Chromium-53 (dissolved)	0.313	0.07	0.500	ug/L	
SGF0239-CCB9	Lead-208 (dissolved)	-0.00100	0.068	0.100	ug/L	
SGF0239-CCB9	Silver-107 (dissolved)	0.00	0.017	0.200	ug/L	

INSTRUMENT BLANKS
EPA 6020A

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Instrument ID: ICPMS1
Sequence: SGF0262

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Calibration: BF00048
Date Analyzed: 06/19/18 13:35

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0262-IBL1	Chromium-52 (dissolved)	0.0230	0.13	0.500	ug/L	
SGF0262-IBL1	Chromium-53 (dissolved)	0.00200	0.07	0.500	ug/L	
SGF0262-IBL1	Lead-208 (dissolved)	0.00100	0.068	0.100	ug/L	
SGF0262-ICB1	Chromium-52 (dissolved)	0.0180	0.13	0.500	ug/L	
SGF0262-ICB1	Chromium-53 (dissolved)	0.00500	0.07	0.500	ug/L	
SGF0262-ICB1	Lead-208 (dissolved)	0.00	0.068	0.100	ug/L	
SGF0262-CCB1	Chromium-52 (dissolved)	0.0220	0.13	0.500	ug/L	
SGF0262-CCB1	Chromium-53 (dissolved)	0.00100	0.07	0.500	ug/L	
SGF0262-CCB1	Lead-208 (dissolved)	0.00100	0.068	0.100	ug/L	
SGF0262-IBL2	Chromium-52 (dissolved)	0.0250	0.13	0.500	ug/L	
SGF0262-IBL2	Chromium-53 (dissolved)	0.0530	0.07	0.500	ug/L	
SGF0262-IBL2	Lead-208 (dissolved)	0.0110	0.068	0.100	ug/L	
SGF0262-IBL3	Chromium-52 (dissolved)	0.0390	0.13	0.500	ug/L	
SGF0262-IBL3	Chromium-53 (dissolved)	0.0330	0.07	0.500	ug/L	
SGF0262-IBL3	Lead-208 (dissolved)	0.0130	0.068	0.100	ug/L	
SGF0262-CCB2	Chromium-52 (dissolved)	-0.0140	0.13	0.500	ug/L	
SGF0262-CCB2	Chromium-53 (dissolved)	0.0170	0.07	0.500	ug/L	
SGF0262-CCB2	Lead-208 (dissolved)	0.00200	0.068	0.100	ug/L	
SGF0262-CCB3	Chromium-52 (dissolved)	0.0100	0.13	0.500	ug/L	
SGF0262-CCB3	Chromium-53 (dissolved)	0.0130	0.07	0.500	ug/L	
SGF0262-CCB3	Lead-208 (dissolved)	-0.00100	0.068	0.100	ug/L	
SGF0262-CCB4	Chromium-52 (dissolved)	0.0230	0.13	0.500	ug/L	
SGF0262-CCB4	Chromium-53 (dissolved)	0.0150	0.07	0.500	ug/L	
SGF0262-CCB4	Lead-208 (dissolved)	-0.00100	0.068	0.100	ug/L	
SGF0262-CCB5	Chromium-52 (dissolved)	0.0360	0.13	0.500	ug/L	
SGF0262-CCB5	Chromium-53 (dissolved)	0.0180	0.07	0.500	ug/L	
SGF0262-CCB5	Lead-208 (dissolved)	-0.00100	0.068	0.100	ug/L	
SGF0262-CCB6	Chromium-52 (dissolved)	0.00900	0.13	0.500	ug/L	
SGF0262-CCB6	Chromium-53 (dissolved)	-0.00100	0.07	0.500	ug/L	
SGF0262-CCB6	Lead-208 (dissolved)	0.00200	0.068	0.100	ug/L	
SGF0262-CCB7	Chromium-52 (dissolved)	-0.0290	0.13	0.500	ug/L	
SGF0262-CCB7	Chromium-53 (dissolved)	-0.00200	0.07	0.500	ug/L	
SGF0262-CCB7	Lead-208 (dissolved)	0.00200	0.068	0.100	ug/L	
SGF0262-CCB8	Chromium-52 (dissolved)	-0.0450	0.13	0.500	ug/L	

INSTRUMENT BLANKS
EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00048
Sequence: SGF0262
Date Analyzed: 06/19/18 19:07

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0262-CCB8	Chromium-53 (dissolved)	-0.00600	0.07	0.500	ug/L	
SGF0262-CCB8	Lead-208 (dissolved)	0.00400	0.068	0.100	ug/L	
SGF0262-CCB9	Chromium-52 (dissolved)	-0.0880	0.13	0.500	ug/L	
SGF0262-CCB9	Chromium-53 (dissolved)	-0.0160	0.07	0.500	ug/L	
SGF0262-CCB9	Lead-208 (dissolved)	0.00	0.068	0.100	ug/L	
SGF0262-CCBA	Chromium-52 (dissolved)	-0.0980	0.13	0.500	ug/L	
SGF0262-CCBA	Chromium-53 (dissolved)	-0.00900	0.07	0.500	ug/L	
SGF0262-CCBA	Lead-208 (dissolved)	0.00100	0.068	0.100	ug/L	
SGF0262-CCBB	Chromium-52 (dissolved)	0.00400	0.13	0.500	ug/L	
SGF0262-CCBB	Chromium-53 (dissolved)	-0.00100	0.07	0.500	ug/L	
SGF0262-CCBB	Lead-208 (dissolved)	0.00100	0.068	0.100	ug/L	
SGF0262-CCBC	Chromium-52 (dissolved)	-0.00800	0.13	0.500	ug/L	
SGF0262-CCBC	Chromium-53 (dissolved)	0.371	0.07	0.500	ug/L	
SGF0262-CCBC	Lead-208 (dissolved)	-0.00100	0.068	0.100	ug/L	
SGF0262-CCBD	Chromium-52 (dissolved)	0.0340	0.13	0.500	ug/L	
SGF0262-CCBD	Chromium-53 (dissolved)	0.192	0.07	0.500	ug/L	
SGF0262-CCBD	Lead-208 (dissolved)	0.00	0.068	0.100	ug/L	

INSTRUMENT BLANKS
EPA 6020A

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Instrument ID: ICPMS1
Sequence: SGF0310

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Calibration: BF00056
Date Analyzed: 06/22/18 13:49

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0310-IBL1	Lead-208 (dissolved)	0.00200	0.068	0.100	ug/L	
SGF0310-ICB1	Lead-208 (dissolved)	0.00100	0.068	0.100	ug/L	
SGF0310-CCB1	Lead-208 (dissolved)	0.00	0.068	0.100	ug/L	
SGF0310-IBL2	Lead-208 (dissolved)	0.0350	0.068	0.100	ug/L	
SGF0310-IBL3	Lead-208 (dissolved)	0.0250	0.068	0.100	ug/L	
SGF0310-CCB2	Lead-208 (dissolved)	0.00200	0.068	0.100	ug/L	
SGF0310-CCB3	Lead-208 (dissolved)	0.00100	0.068	0.100	ug/L	
SGF0310-CCB4	Lead-208 (dissolved)	0.00200	0.068	0.100	ug/L	
SGF0310-CCB5	Lead-208 (dissolved)	0.00100	0.068	0.100	ug/L	
SGF0310-CCB6	Lead-208 (dissolved)	0.00100	0.068	0.100	ug/L	
SGF0310-CCB7	Lead-208 (dissolved)	0.00100	0.068	0.100	ug/L	
SGF0310-CCB8	Lead-208 (dissolved)	0.00200	0.068	0.100	ug/L	
SGF0310-CCB9	Lead-208 (dissolved)	0.00100	0.068	0.100	ug/L	
SGF0310-CCBA	Lead-208 (dissolved)	0.00100	0.068	0.100	ug/L	
SGF0310-IBL4	Lead-208 (dissolved)	0.00	0.068	0.100	ug/L	
SGF0310-CCBB	Lead-208 (dissolved)	0.00100	0.068	0.100	ug/L	
SGF0310-CCBC	Lead-208 (dissolved)	0.00100	0.068	0.100	ug/L	
SGF0310-IBL5	Lead-208 (dissolved)	0.00	0.068	0.100	ug/L	
SGF0310-CCBD	Lead-208 (dissolved)	0.00100	0.068	0.100	ug/L	

INSTRUMENT BLANKS
EPA 6020A

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Instrument ID: ICPMS2
Sequence: SGF0319

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Calibration: BF00060
Date Analyzed: 06/25/18 12:38

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0319-IBL1	Chromium-52 (dissolved)	0.0160	0.13	0.500	ug/L	
SGF0319-IBL1	Chromium-53 (dissolved)	0.00600	0.07	0.500	ug/L	
SGF0319-IBL1	Lead-208 (dissolved)	0.00300	0.068	0.100	ug/L	
SGF0319-IBL1	Silver-107 (dissolved)	0.00100	0.017	0.200	ug/L	
SGF0319-ICB1	Chromium-52 (dissolved)	0.00600	0.13	0.500	ug/L	
SGF0319-ICB1	Chromium-53 (dissolved)	0.00300	0.07	0.500	ug/L	
SGF0319-ICB1	Lead-208 (dissolved)	0.00200	0.068	0.100	ug/L	
SGF0319-ICB1	Silver-107 (dissolved)	0.00100	0.017	0.200	ug/L	
SGF0319-CCB1	Chromium-52 (dissolved)	0.00400	0.13	0.500	ug/L	
SGF0319-CCB1	Chromium-53 (dissolved)	0.0100	0.07	0.500	ug/L	
SGF0319-CCB1	Lead-208 (dissolved)	0.00600	0.068	0.100	ug/L	
SGF0319-CCB1	Silver-107 (dissolved)	0.00400	0.017	0.200	ug/L	
SGF0319-IBL2	Chromium-52 (dissolved)	0.106	0.13	0.500	ug/L	
SGF0319-IBL2	Chromium-53 (dissolved)	0.0620	0.07	0.500	ug/L	
SGF0319-IBL2	Lead-208 (dissolved)	0.0340	0.068	0.100	ug/L	
SGF0319-IBL2	Silver-107 (dissolved)	0.0430	0.017	0.200	ug/L	
SGF0319-IBL3	Chromium-52 (dissolved)	0.0150	0.13	0.500	ug/L	
SGF0319-IBL3	Chromium-53 (dissolved)	0.00800	0.07	0.500	ug/L	
SGF0319-IBL3	Lead-208 (dissolved)	0.00100	0.068	0.100	ug/L	
SGF0319-IBL3	Silver-107 (dissolved)	0.00300	0.017	0.200	ug/L	
SGF0319-CCB2	Chromium-52 (dissolved)	0.0460	0.13	0.500	ug/L	
SGF0319-CCB2	Chromium-53 (dissolved)	0.0120	0.07	0.500	ug/L	
SGF0319-CCB2	Lead-208 (dissolved)	0.0100	0.068	0.100	ug/L	
SGF0319-CCB2	Silver-107 (dissolved)	0.00500	0.017	0.200	ug/L	
SGF0319-CCB3	Chromium-52 (dissolved)	0.0200	0.13	0.500	ug/L	
SGF0319-CCB3	Chromium-53 (dissolved)	0.0130	0.07	0.500	ug/L	
SGF0319-CCB3	Lead-208 (dissolved)	0.00200	0.068	0.100	ug/L	
SGF0319-CCB3	Silver-107 (dissolved)	0.00200	0.017	0.200	ug/L	
SGF0319-IBL4	Chromium-52 (dissolved)	0.145	0.13	0.500	ug/L	
SGF0319-IBL4	Chromium-53 (dissolved)	1.90	0.07	0.500	ug/L	
SGF0319-IBL4	Lead-208 (dissolved)	-0.00500	0.068	0.100	ug/L	
SGF0319-IBL4	Silver-107 (dissolved)	0.00	0.017	0.200	ug/L	
SGF0319-IBL5	Chromium-52 (dissolved)	0.142	0.13	0.500	ug/L	
SGF0319-IBL5	Chromium-53 (dissolved)	1.87	0.07	0.500	ug/L	

INSTRUMENT BLANKS
EPA 6020A

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Instrument ID: ICPMS2
Sequence: SGF0319

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Calibration: BF00060
Date Analyzed: 06/25/18 16:21

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0319-IBL5	Lead-208 (dissolved)	-0.00400	0.068	0.100	ug/L	
SGF0319-IBL5	Silver-107 (dissolved)	-0.00100	0.017	0.200	ug/L	
SGF0319-CCB4	Chromium-52 (dissolved)	-0.0180	0.13	0.500	ug/L	
SGF0319-CCB4	Chromium-53 (dissolved)	0.309	0.07	0.500	ug/L	
SGF0319-CCB4	Lead-208 (dissolved)	-0.00500	0.068	0.100	ug/L	
SGF0319-CCB4	Silver-107 (dissolved)	-0.00100	0.017	0.200	ug/L	
SGF0319-CCB5	Chromium-52 (dissolved)	-0.00600	0.13	0.500	ug/L	
SGF0319-CCB5	Chromium-53 (dissolved)	-0.0560	0.07	0.500	ug/L	
SGF0319-CCB5	Lead-208 (dissolved)	0.00100	0.068	0.100	ug/L	
SGF0319-CCB5	Silver-107 (dissolved)	0.00100	0.017	0.200	ug/L	
SGF0319-CCB6	Chromium-52 (dissolved)	0.0120	0.13	0.500	ug/L	
SGF0319-CCB6	Chromium-53 (dissolved)	-0.168	0.07	0.500	ug/L	
SGF0319-CCB6	Lead-208 (dissolved)	0.00200	0.068	0.100	ug/L	
SGF0319-CCB6	Silver-107 (dissolved)	0.00500	0.017	0.200	ug/L	
SGF0319-CCB7	Chromium-52 (dissolved)	0.0560	0.13	0.500	ug/L	
SGF0319-CCB7	Chromium-53 (dissolved)	-0.186	0.07	0.500	ug/L	
SGF0319-CCB7	Lead-208 (dissolved)	-0.00100	0.068	0.100	ug/L	
SGF0319-CCB7	Silver-107 (dissolved)	0.00100	0.017	0.200	ug/L	
SGF0319-CCB8	Chromium-52 (dissolved)	-0.0220	0.13	0.500	ug/L	
SGF0319-CCB8	Chromium-53 (dissolved)	-0.202	0.07	0.500	ug/L	
SGF0319-CCB8	Lead-208 (dissolved)	-0.00100	0.068	0.100	ug/L	
SGF0319-CCB8	Silver-107 (dissolved)	0.00100	0.017	0.200	ug/L	
SGF0319-CCB9	Chromium-52 (dissolved)	0.0580	0.13	0.500	ug/L	
SGF0319-CCB9	Chromium-53 (dissolved)	0.00200	0.07	0.500	ug/L	
SGF0319-CCB9	Lead-208 (dissolved)	0.00100	0.068	0.100	ug/L	
SGF0319-CCB9	Silver-107 (dissolved)	0.00100	0.017	0.200	ug/L	
SGF0319-CCBA	Chromium-52 (dissolved)	-0.0130	0.13	0.500	ug/L	
SGF0319-CCBA	Chromium-53 (dissolved)	0.00300	0.07	0.500	ug/L	
SGF0319-CCBA	Lead-208 (dissolved)	0.00400	0.068	0.100	ug/L	
SGF0319-CCBA	Silver-107 (dissolved)	0.00300	0.017	0.200	ug/L	
SGF0319-CCBB	Chromium-52 (dissolved)	0.0550	0.13	0.500	ug/L	
SGF0319-CCBB	Chromium-53 (dissolved)	0.0200	0.07	0.500	ug/L	
SGF0319-CCBB	Lead-208 (dissolved)	0.00600	0.068	0.100	ug/L	
SGF0319-CCBB	Silver-107 (dissolved)	0.00600	0.017	0.200	ug/L	

INSTRUMENT BLANKS
EPA 6020A

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Instrument ID: ICPMS2
Sequence: SGF0345

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Calibration: BF00061
Date Analyzed: 06/26/18 10:36

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0345-IBL1	Chromium-52 (dissolved)	0.00500	0.13	0.500	ug/L	
SGF0345-IBL1	Chromium-53 (dissolved)	-0.00800	0.07	0.500	ug/L	
SGF0345-IBL1	Lead-208 (dissolved)	0.00200	0.068	0.100	ug/L	
SGF0345-IBL1	Silver-107 (dissolved)	0.00300	0.017	0.200	ug/L	
SGF0345-ICB1	Chromium-52 (dissolved)	-0.00500	0.13	0.500	ug/L	
SGF0345-ICB1	Chromium-53 (dissolved)	-0.00400	0.07	0.500	ug/L	
SGF0345-ICB1	Lead-208 (dissolved)	0.00100	0.068	0.100	ug/L	
SGF0345-ICB1	Silver-107 (dissolved)	0.00200	0.017	0.200	ug/L	
SGF0345-CCB1	Chromium-52 (dissolved)	0.0110	0.13	0.500	ug/L	
SGF0345-CCB1	Chromium-53 (dissolved)	-0.00900	0.07	0.500	ug/L	
SGF0345-CCB1	Lead-208 (dissolved)	0.00100	0.068	0.100	ug/L	
SGF0345-CCB1	Silver-107 (dissolved)	0.00200	0.017	0.200	ug/L	
SGF0345-IBL2	Chromium-52 (dissolved)	0.0570	0.13	0.500	ug/L	
SGF0345-IBL2	Chromium-53 (dissolved)	0.0670	0.07	0.500	ug/L	
SGF0345-IBL2	Lead-208 (dissolved)	0.0190	0.068	0.100	ug/L	
SGF0345-IBL2	Silver-107 (dissolved)	0.0100	0.017	0.200	ug/L	
SGF0345-CCB2	Chromium-52 (dissolved)	-0.0340	0.13	0.500	ug/L	
SGF0345-CCB2	Chromium-53 (dissolved)	0.0190	0.07	0.500	ug/L	
SGF0345-CCB2	Lead-208 (dissolved)	0.00400	0.068	0.100	ug/L	
SGF0345-CCB2	Silver-107 (dissolved)	0.00300	0.017	0.200	ug/L	
SGF0345-CCB3	Chromium-52 (dissolved)	-0.0380	0.13	0.500	ug/L	
SGF0345-CCB3	Chromium-53 (dissolved)	0.218	0.07	0.500	ug/L	
SGF0345-CCB3	Lead-208 (dissolved)	0.00400	0.068	0.100	ug/L	
SGF0345-CCB3	Silver-107 (dissolved)	0.00200	0.017	0.200	ug/L	
SGF0345-CCB4	Chromium-52 (dissolved)	-0.00100	0.13	0.500	ug/L	
SGF0345-CCB4	Chromium-53 (dissolved)	0.218	0.07	0.500	ug/L	
SGF0345-CCB4	Lead-208 (dissolved)	0.00400	0.068	0.100	ug/L	
SGF0345-CCB4	Silver-107 (dissolved)	0.00100	0.017	0.200	ug/L	
SGF0345-CCB5	Chromium-52 (dissolved)	0.0720	0.13	0.500	ug/L	
SGF0345-CCB5	Chromium-53 (dissolved)	0.624	0.07	0.500	ug/L	
SGF0345-CCB5	Lead-208 (dissolved)	0.00500	0.068	0.100	ug/L	
SGF0345-CCB5	Silver-107 (dissolved)	0.00200	0.017	0.200	ug/L	
SGF0345-IBL3	Chromium-52 (dissolved)	0.0320	0.13	0.500	ug/L	
SGF0345-IBL3	Chromium-53 (dissolved)	0.490	0.07	0.500	ug/L	

INSTRUMENT BLANKS
EPA 6020A

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Instrument ID: ICPMS2
Sequence: SGF0345

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Calibration: BF00061
Date Analyzed: 06/26/18 14:42

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0345-IBL3	Lead-208 (dissolved)	0.00300	0.068	0.100	ug/L	
SGF0345-IBL3	Silver-107 (dissolved)	0.00	0.017	0.200	ug/L	
SGF0345-IBL4	Chromium-52 (dissolved)	0.0360	0.13	0.500	ug/L	
SGF0345-IBL4	Chromium-53 (dissolved)	0.442	0.07	0.500	ug/L	
SGF0345-IBL4	Lead-208 (dissolved)	0.00400	0.068	0.100	ug/L	
SGF0345-IBL4	Silver-107 (dissolved)	0.00	0.017	0.200	ug/L	
SGF0345-IBL5	Chromium-52 (dissolved)	0.0900	0.13	0.500	ug/L	
SGF0345-IBL5	Chromium-53 (dissolved)	0.394	0.07	0.500	ug/L	
SGF0345-IBL5	Lead-208 (dissolved)	0.0390	0.068	0.100	ug/L	
SGF0345-IBL5	Silver-107 (dissolved)	0.0100	0.017	0.200	ug/L	
SGF0345-CCB6	Chromium-52 (dissolved)	-0.00900	0.13	0.500	ug/L	
SGF0345-CCB6	Chromium-53 (dissolved)	-0.0940	0.07	0.500	ug/L	
SGF0345-CCB6	Lead-208 (dissolved)	0.00100	0.068	0.100	ug/L	
SGF0345-CCB6	Silver-107 (dissolved)	0.00	0.017	0.200	ug/L	
SGF0345-CCB7	Chromium-52 (dissolved)	0.164	0.13	0.500	ug/L	
SGF0345-CCB7	Chromium-53 (dissolved)	4.10	0.07	0.500	ug/L	
SGF0345-CCB7	Lead-208 (dissolved)	0.00	0.068	0.100	ug/L	
SGF0345-CCB7	Silver-107 (dissolved)	0.00100	0.017	0.200	ug/L	
SGF0345-CCB8	Chromium-52 (dissolved)	0.0920	0.13	0.500	ug/L	
SGF0345-CCB8	Chromium-53 (dissolved)	4.23	0.07	0.500	ug/L	
SGF0345-CCB8	Lead-208 (dissolved)	0.00100	0.068	0.100	ug/L	
SGF0345-CCB8	Silver-107 (dissolved)	0.00100	0.017	0.200	ug/L	

INSTRUMENT BLANKS
EPA 6020A

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Instrument ID: ICPMS2
Sequence: SGF0392

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Calibration: BF00069
Date Analyzed: 06/28/18 08:29

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0392-IBL1	Chromium-52 (dissolved)	-0.0230	0.13	0.500	ug/L	
SGF0392-IBL1	Chromium-53 (dissolved)	-0.0160	0.07	0.500	ug/L	
SGF0392-IBL1	Lead-208 (dissolved)	-0.00100	0.068	0.100	ug/L	
SGF0392-IBL1	Silver-107 (dissolved)	-0.00100	0.017	0.200	ug/L	
SGF0392-ICB1	Chromium-52 (dissolved)	-0.0280	0.13	0.500	ug/L	
SGF0392-ICB1	Chromium-53 (dissolved)	-0.0260	0.07	0.500	ug/L	
SGF0392-ICB1	Lead-208 (dissolved)	-0.00200	0.068	0.100	ug/L	
SGF0392-ICB1	Silver-107 (dissolved)	-0.00200	0.017	0.200	ug/L	
SGF0392-CCB1	Chromium-52 (dissolved)	-0.0120	0.13	0.500	ug/L	
SGF0392-CCB1	Chromium-53 (dissolved)	-0.0250	0.07	0.500	ug/L	
SGF0392-CCB1	Lead-208 (dissolved)	-0.00200	0.068	0.100	ug/L	
SGF0392-CCB1	Silver-107 (dissolved)	-0.00300	0.017	0.200	ug/L	
SGF0392-IBL2	Chromium-52 (dissolved)	0.00100	0.13	0.500	ug/L	
SGF0392-IBL2	Chromium-53 (dissolved)	-0.00900	0.07	0.500	ug/L	
SGF0392-IBL2	Lead-208 (dissolved)	0.0130	0.068	0.100	ug/L	
SGF0392-IBL2	Silver-107 (dissolved)	0.00600	0.017	0.200	ug/L	
SGF0392-IBL3	Chromium-52 (dissolved)	0.00200	0.13	0.500	ug/L	
SGF0392-IBL3	Chromium-53 (dissolved)	-0.00900	0.07	0.500	ug/L	
SGF0392-IBL3	Lead-208 (dissolved)	0.00700	0.068	0.100	ug/L	
SGF0392-IBL3	Silver-107 (dissolved)	-0.00100	0.017	0.200	ug/L	
SGF0392-CCB2	Chromium-52 (dissolved)	-0.00600	0.13	0.500	ug/L	
SGF0392-CCB2	Chromium-53 (dissolved)	-0.0380	0.07	0.500	ug/L	
SGF0392-CCB2	Lead-208 (dissolved)	-0.00200	0.068	0.100	ug/L	
SGF0392-CCB2	Silver-107 (dissolved)	-0.00300	0.017	0.200	ug/L	
SGF0392-CCB3	Chromium-52 (dissolved)	-0.00700	0.13	0.500	ug/L	
SGF0392-CCB3	Chromium-53 (dissolved)	-0.0490	0.07	0.500	ug/L	
SGF0392-CCB3	Lead-208 (dissolved)	0.0430	0.068	0.100	ug/L	
SGF0392-CCB3	Silver-107 (dissolved)	0.00	0.017	0.200	ug/L	
SGF0392-CCB4	Chromium-52 (dissolved)	0.0130	0.13	0.500	ug/L	
SGF0392-CCB4	Chromium-53 (dissolved)	-0.0590	0.07	0.500	ug/L	
SGF0392-CCB4	Lead-208 (dissolved)	0.0400	0.068	0.100	ug/L	
SGF0392-CCB4	Silver-107 (dissolved)	-0.00400	0.017	0.200	ug/L	
SGF0392-CCB5	Chromium-52 (dissolved)	-0.0530	0.13	0.500	ug/L	
SGF0392-CCB5	Chromium-53 (dissolved)	0.0570	0.07	0.500	ug/L	

INSTRUMENT BLANKS
EPA 6020A

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Instrument ID: ICPMS2
Sequence: SGF0392

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Calibration: BF00069
Date Analyzed: 06/28/18 13:01

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0392-CCB5	Lead-208 (dissolved)	0.00900	0.068	0.100	ug/L	
SGF0392-CCB5	Silver-107 (dissolved)	-0.00200	0.017	0.200	ug/L	
SGF0392-CCB6	Chromium-52 (dissolved)	-0.0360	0.13	0.500	ug/L	
SGF0392-CCB6	Chromium-53 (dissolved)	-0.0340	0.07	0.500	ug/L	
SGF0392-CCB6	Lead-208 (dissolved)	0.00400	0.068	0.100	ug/L	
SGF0392-CCB6	Silver-107 (dissolved)	-0.00500	0.017	0.200	ug/L	
SGF0392-CCB7	Chromium-52 (dissolved)	-0.0430	0.13	0.500	ug/L	
SGF0392-CCB7	Chromium-53 (dissolved)	0.108	0.07	0.500	ug/L	
SGF0392-CCB7	Lead-208 (dissolved)	0.00800	0.068	0.100	ug/L	
SGF0392-CCB7	Silver-107 (dissolved)	0.00400	0.017	0.200	ug/L	
SGF0392-IBL4	Chromium-52 (dissolved)	0.155	0.13	0.500	ug/L	
SGF0392-IBL4	Chromium-53 (dissolved)	2.23	0.07	0.500	ug/L	
SGF0392-IBL4	Lead-208 (dissolved)	0.00400	0.068	0.100	ug/L	
SGF0392-IBL4	Silver-107 (dissolved)	-0.00500	0.017	0.200	ug/L	
SGF0392-CCB8	Chromium-52 (dissolved)	-0.0420	0.13	0.500	ug/L	
SGF0392-CCB8	Chromium-53 (dissolved)	0.480	0.07	0.500	ug/L	
SGF0392-CCB8	Lead-208 (dissolved)	0.00500	0.068	0.100	ug/L	
SGF0392-CCB8	Silver-107 (dissolved)	-0.00300	0.017	0.200	ug/L	
SGF0392-CCB9	Chromium-52 (dissolved)	-0.0230	0.13	0.500	ug/L	
SGF0392-CCB9	Chromium-53 (dissolved)	-0.220	0.07	0.500	ug/L	
SGF0392-CCB9	Lead-208 (dissolved)	0.00	0.068	0.100	ug/L	
SGF0392-CCB9	Silver-107 (dissolved)	0.00	0.017	0.200	ug/L	
SGF0392-CCBA	Chromium-52 (dissolved)	-0.0420	0.13	0.500	ug/L	
SGF0392-CCBA	Chromium-53 (dissolved)	-0.300	0.07	0.500	ug/L	
SGF0392-CCBA	Lead-208 (dissolved)	-0.00200	0.068	0.100	ug/L	
SGF0392-CCBA	Silver-107 (dissolved)	-0.00100	0.017	0.200	ug/L	
SGF0392-CCBB	Chromium-52 (dissolved)	-0.110	0.13	0.500	ug/L	
SGF0392-CCBB	Chromium-53 (dissolved)	-0.110	0.07	0.500	ug/L	
SGF0392-CCBB	Lead-208 (dissolved)	-0.00200	0.068	0.100	ug/L	
SGF0392-CCBB	Silver-107 (dissolved)	-0.00100	0.017	0.200	ug/L	
SGF0392-CCBC	Chromium-52 (dissolved)	-0.130	0.13	0.500	ug/L	
SGF0392-CCBC	Chromium-53 (dissolved)	-0.333	0.07	0.500	ug/L	
SGF0392-CCBC	Lead-208 (dissolved)	0.00100	0.068	0.100	ug/L	
SGF0392-CCBC	Silver-107 (dissolved)	0.0120	0.017	0.200	ug/L	

LCS / LCS DUPLICATE RECOVERY

EPA 6020A

Dissolved Metals

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/18/18 18:27
Batch:	BGF0364	Laboratory ID:	BGF0364-BS1
Preparation:	REN EPA 600/4-79-020 4.1.4 HNO3 matrix	Sequence Name:	LCS
Initial/Final:	25 mL / 25 mL		

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	Q	LCS % REC. #	QC LIMITS REC.
Chromium-52 (dissolved)	25.0	26.6		106	80 - 120
Chromium-53 (dissolved)	25.0	25.9		104	80 - 120
Lead-208 (dissolved)	25.0	26.3		105	80 - 120
Silver-107 (dissolved)	25.0	25.5		102	80 - 120

* Indicates values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

EPA 6020A

Dissolved Metals

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/26/18 13:26
Batch:	BGF0478	Laboratory ID:	BGF0478-BS1
Preparation:	REN EPA 600/4-79-020 4.1.4 HNO3 matrix	Sequence Name:	LCS
Initial/Final:	25 mL / 25 mL		

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	Q	LCS % REC. #	QC LIMITS REC.
Chromium-52 (dissolved)	25.0	28.7		115	80 - 120
Chromium-53 (dissolved)	25.0	27.0		108	80 - 120
Lead-208 (dissolved)	25.0	24.9		99.5	80 - 120
Silver-107 (dissolved)	25.0	28.1		112	80 - 120

* Indicates values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

EPA 6020A

Dissolved Metals

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/28/18 11:43
Batch:	BGF0480	Laboratory ID:	BGF0480-BS1
Preparation:	REN EPA 600/4-79-020 4.1.4 HNO3 matrix	Sequence Name:	LCS
Initial/Final:	25 mL / 25 mL		

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	Q	LCS % REC. #	QC LIMITS REC.
Chromium-52 (dissolved)	25.0	27.0		108	80 - 120
Chromium-53 (dissolved)	25.0	26.8		107	80 - 120
Lead-208 (dissolved)	25.0	27.4		110	80 - 120
Silver-107 (dissolved)	25.0	26.1		104	80 - 120

* Indicates values outside of QC limits

LDW18-SP-43

MS / MS DUPLICATE RECOVERY

EPA 6020A

Dissolved Metals

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/25/18 16:03
Batch:	BGF0364	Laboratory ID:	BGF0364-MS2
Preparation:	REN EPA 600/4-79-020 4.1.4 HNO3 matrix	Sequence Name:	Matrix Spike
Initial/Final:	25 mL / 25 mL	Source Sample:	LDW18-SP-43

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	Q	MS CONCENTRATION (ug/L)	Q	MS % REC. #	QC LIMITS REC.
Silver-107 (dissolved)	25.0	ND	U	24.3	D	97.3	75 - 125

* Values outside of QC limits

MS / MS DUPLICATE RECOVERY

EPA 6020A

Dissolved Metals

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/25/18 16:12
Batch:	BGF0364	Laboratory ID:	BGF0364-MSD2
Preparation:	REN EPA 600/4-79-020 4.1.4 HNO3 matrix	Sequence Name:	Matrix Spike Dup
Initial/Final:	25 mL / 25 mL	Source Sample:	LDW18-SP-43

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	Q	MSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Silver-107 (dissolved)	25.0	24.7	D	98.7	1.35	20	75 - 125

* Values outside of QC limits

MS / MS DUPLICATE RECOVERY

EPA 6020A

Dissolved Metals

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/26/18 12:20
Batch:	BGF0364	Laboratory ID:	BGF0364-MS4
Preparation:	REN EPA 600/4-79-020 4.1.4 HNO3 matrix	Sequence Name:	Matrix Spike
Initial/Final:	25 mL / 25 mL	Source Sample:	LDW18-SP-43

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	Q	MS CONCENTRATION (ug/L)	Q	MS % REC. #	QC LIMITS REC.
Chromium-52 (dissolved)	25.0	3.46	J, D	31.2	D	111	75 - 125
Lead-208 (dissolved)	25.0	ND	U	23.6	D	94.3	75 - 125

* Values outside of QC limits

MS / MS DUPLICATE RECOVERY

EPA 6020A

Dissolved Metals

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/26/18 12:24
Batch:	BGF0364	Laboratory ID:	BGF0364-MSD4
Preparation:	REN EPA 600/4-79-020 4.1.4 HNO3 matrix	Sequence Name:	Matrix Spike Dup
Initial/Final:	25 mL / 25 mL	Source Sample:	LDW18-SP-43

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	Q	MSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Chromium-52 (dissolved)	25.0	30.7	D	109	1.65	20	75 - 125
Lead-208 (dissolved)	25.0	23.0	D	91.8	2.62	20	75 - 125

* Values outside of QC limits

MS / MS DUPLICATE RECOVERY

EPA 6020A

Dissolved Metals

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/26/18 14:24
Batch:	BGF0478	Laboratory ID:	BGF0478-MS1
Preparation:	REN EPA 600/4-79-020 4.1.4 HNO3 matrix	Sequence Name:	Matrix Spike
Initial/Final:	25 mL / 25 mL	Source Sample:	LDW18-SP-06

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	Q	MS CONCENTRATION (ug/L)	Q	MS % REC. #	QC LIMITS REC.
Silver-107 (dissolved)	25.0	ND	U	22.3	D	89.2	75 - 125

* Values outside of QC limits

MS / MS DUPLICATE RECOVERY

EPA 6020A

Dissolved Metals

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/27/18 10:29
Batch:	BGF0478	Laboratory ID:	BGF0478-MS2
Preparation:	REN EPA 600/4-79-020 4.1.4 HNO3 matrix	Sequence Name:	Matrix Spike
Initial/Final:	25 mL / 25 mL	Source Sample:	LDW18-SP-06

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	Q	MS CONCENTRATION (ug/L)	Q	MS % REC. #	QC LIMITS REC.
Chromium-52 (dissolved)	25.0	4.17	J, D	30.6	D	106	75 - 125
Lead-208 (dissolved)	25.0	ND	U	24.0	D	95.8	75 - 125

* Values outside of QC limits

MS / MS DUPLICATE RECOVERY

EPA 6020A

Dissolved Metals

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/28/18 15:52
Batch:	BGF0480	Laboratory ID:	BGF0480-MS1
Preparation:	REN EPA 600/4-79-020 4.1.4 HNO3 matrix	Sequence Name:	Matrix Spike
Initial/Final:	25 mL / 25 mL	Source Sample:	LDW18-SP-88

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	Q	MS CONCENTRATION (ug/L)	Q	MS % REC. #	QC LIMITS REC.
Chromium-52 (dissolved)	25.0	12.0	D	37.5	D	102	75 - 125
Lead-208 (dissolved)	25.0	ND	U	24.6	D	98.5	75 - 125
Silver-107 (dissolved)	25.0	ND	U	24.8	D	99.2	75 - 125

* Values outside of QC limits

INITIAL CALIBRATION DATA

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00044
Instrument: ICPMS2
Calibration Date: 06/18/2018 12:38

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Silver-107, Dissolved	0	0	0.2	16315	10	16204.8	20	16404.55	50	15307.78	100	14272.45
Chromium-52, Dissolved	0	0	0.5	53056	10	25705.6	20	25158.35	50	23315.3	100	21842.07
Chromium-53, Dissolved	0	0	0.5	3248	10	2881.4	20	2887.7	50	2781.66	100	2642.91
Lead-208, Dissolved	0	0	0.1	44590	10	41154.4	20	41590.6	50	38955.16	100	37543.03

INITIAL CALIBRATION DATA

EPA 6020A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00044	Instrument:	ICPMS2
Calibration Date:	06/18/2018 12:38		

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Silver-107, Dissolved	13084.1	49.4	0.9983		0.998	
Chromium-52, Dissolved	24846.22	68.0	0.9988		0.998	
Chromium-53, Dissolved	2406.945	49.7	0.9992		0.998	
Lead-208, Dissolved	33972.2	49.5	0.9994		0.998	

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ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6/18/18 **Analyst:** MS **Sequence:** SGFØ239
Calib: BFØØ144

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ - CAL1	G5398		
		- CAL2	G5ØGØ		
		- CAL3	G562Ø		
		- CAL4	G5621		
		- CAL5	G5456		
		- CAL6	G5622		
		- IBL1	—		
		- ICV1	G51Ø3		
		- ICB1	G5398		
		- CCV1	G5456		
		- CCB1	G5398		
		- CRL1	G5ØGØ		In sl. noisy
		- IFA1	G5ØG5		Cr 53↑
		- IFB1	G5ØG6		
		- HCV1	G5ØG7		
		- HCV2	G5ØG8		
		- IBL2/3	—		
		- CCV2			
		- CCB2			
		BGFØ4Ø6-BLK1	REN		
		18FØ227-Ø1			Ge-1 ↓ not needed, Cd sl. noisy
		18FØ237-Ø1		100	Cr>LR CrNR
		18FØ183-Ø1REI		5	Cr only
		18FØ237-Ø1REI		10,000	Cr only

Analytical Resources, Incorporated
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ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6/18/18 **Analyst:** MB **Sequence:** —

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		BGFΦ406-DUP1	REN		
		18FΦ198-Φ9	↓		
		BGFΦ406-MS1	↓		
		↓ -MSD1	↓		
		↓ -BS1	↓		
		SEQ-CCV3			
		↓ -CCB3			
		BGFΦ419-BLK1	SWN	20	
		18FΦ215-Φ1	REN	2	
		18FΦ232-Φ1	SWN	20	Zn>RL Zn NR
		↓ -Φ2	↓	↓	Cr,Zn>RL Cr,Zn NR
		↓ -Φ5	↓	↓	↓ ↓
		BGFΦ419-DUP1	↓	↓	
		18FΦΦ157-Φ8	↓	↓	
		BGFΦ419-MS1	↓	↓	
		↓ -MSD1	↓	↓	
		↓ -BS1	↓	↓	
		SEQ-CCV4			
		↓ -CCB4			
		BGFΦ364-BLK1	REN		
		18FΦ232-Φ1RE1	SWN	100	Zn only
		↓ -Φ2RE1	↓	↓	Cr,Zn only
		↓ -Φ5RE1	↓	200	↓
		18FΦ23Φ-Φ1	REN		

Analytical Resources, Incorporated
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ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6/18/18 **Analyst:** MB **Sequence:** —

All corrections made by analyst unless otherwise noted. MB 6/18/18

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		18FΦ234-Φ2	REN		
		↓ -Φ7	↓		
		↓ -Φ8	↓		
		BGFΦ364-BS1	↓		
		BGFΦ419-SRM1	SVN	20	
		SEQ-CCV5			
		↓ -CCB5			
		BGFΦ27Φ-BLK3	REN		As only
		18FΦ157-Φ9	SVN	20	
		↓ -1Φ	↓	↓	
		18FΦ158-Φ2	REN		
		↓ -Φ3	↓		
		18FΦ166-Φ1	↓		As only
		BGFΦ27Φ-DUP3	↓		↓
		18FΦ149-Φ2	↓		
		BGFΦ27Φ-MS3	↓		
		↓ -BS3	↓		
		SEQ-CCV6			
		↓ -CCB6			
		18FΦ~~157-Φ9~~134-Φ1	SVN	20	No Cr, Pb
		18FΦ134-~~1Φ~~Φ2	↓	↓	↓
		~~18FΦ158-Φ2~~			
		BGFΦ364-~~Φ3~~DUP1	REN		No Pb
		18FΦ158-Φ1	↓		↓

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 6/18/18 **Analyst:** MB **Sequence:** —

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		BGF0364-MS1	REN		No Pb
		↓ -MSD1	↓		↓
	✓	↓ -DUP2	↓		Ge^{-1}, In^{-1}, In ↓ Salty
	✓	18F0185-08	↓		↓ ↓
	✓	BGF-0364-MS2	↓		↓ ↓
	✓	↓ -MSD2	↓		
		SEQ-CCV7			Pb↓
		↓ -CCB7			Cr^{53}↑
		18F0158-04	REN		No Pb
		↓ -05	↓		↓
		↓ -06	↓		
		↓ -07	↓		Cu>LR No Cu, Pb
		↓ -08	↓		↓ ↓
		18F0185-01	↓		No Pb
	✓	↓ -03	↓		Ge^{-1}, In^{-1}, In ↓ salty
	✓	↓ -04	↓		Int. STDs ↓ ↓
	✓	↓ -05	↓		↓
	✓	↓ -06	↓		↓ Sc OK ↓
		SEQ-CCV8			Pb↓
		↓ -CCB8			Cr^{53}↑
		18F0185-07	REN		No Pb, Cu, Zn, As
		18F0198-21	↓		Mn, Zn>LR No Mn, Zn, Pb, Cu
		↓ -23	↓		Mn>LR No Mn, Pb, Cu, Zn
		↓ -25	↓		No Pb, Cu, Zn

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ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6/18/18 **Analyst:** MB **Sequence:** —

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		18FΦ198-27	REN		Mn>LR ↓ Cd only ↓
		-29			
		-31			No Cu, Zn, Pb ↓
		-33			
		-35			
		-37			Zn>LR
		SEQ-CCV9			Pb↓, Ge⁻¹ noisy
		↓ -CCB9			
	✓	BGFΦ368-BLK1	REN		
		18FΦ198-39			Int. STDs ↓ - Tb OK
		-41			
		-57			
		-59			
		BGFΦ368-DUP1			In⁻¹ ↓ Rest of run
		18FΦ198-Φ5			
		BGFΦ368-MS1			
		-MSD1			Ge⁻¹ ↓
		-BS1			Sc↓
		SEQ-CCVA			Ge⁻¹ ↓ Rest of run Pb↓
		↓ -CCBA			
		18FΦ142-Φ1	REN		
		-Φ3			
		-Φ5			In ↓ Rest of run
	↓	-Φ9			

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ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6/18/18 **Analyst:** MB **Sequence:** —

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	18FØ142-11	REN		Sc↓ Rest of run
		↓ -13			
		BGFØ368-DUP2			
		18FØ142-Ø7			
		BGFØ368-MS2			
		↓ -MSD2			
		SEQ-CCVB			
		↓ -CCBB			
		BGFØ4Ø8-BLK1	REN		
		18FØ142-15			
		-17			
		-19			
		↓ -21			
		BGFØ4Ø8-DUP1			
		18FØ198-Ø6			
		BGFØ4Ø8-MS1			
		-MSD1			
		↓ -BS1			
		SEQ-CCVC			
		↓ -CCBC			
		18FØ142-23	REN		TG↓
		↓ -25			
		18FØ198-Ø1			
	✓	↓ -Ø3			

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 6/18/18 **Analyst:** MB **Sequence:** —

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	18F0198-07	REN		T6↓
	↓	-11	↓		
		-13			
		-15			
		18F0192-02			T6↓
		↓ -04			↓
		SEQ-CCVD			
	↓	↓ -CCBD			↓
		Rinse/DI			

MS 6/18/18

5077F
Nexion ICP-MS Sample Run Log

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Version 001
1/3/2012

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Monday, June 18, 2018 12:38:54
Sample Description:
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\STD Performance Check.mth
Dataset File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\DataSet\Default\STD Performance Check.15173
MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	9414.0	9413.968	159.861	1.7	Standard
	In	114.9	71464.5	71464.527	890.101	1.2	Standard
	U	238.1	53109.3	53109.346	535.277	1.0	Standard
⌈	CeO	155.9	1371.5	0.019	0.001	5.8	Standard
| >	Ce	139.9	71103.6	71103.591	705.910	1.0	Standard
⌊	Ce++	70.0	1197.1	0.017	0.001	3.7	Standard
	Bkgd	220.0	0.0	0.000	0.000		Standard

Current Conditions File Data

Current Value	Description
0.94	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-9.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-3.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
0.94	DRC Mode NEB
-10.00	DRC Mode QRO
-3.00	DRC Mode CRO
-7.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-13.00	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
0.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 6/18/2018 12:37:27 PM
End Time: 6/18/2018 12:55:37 PM

STD Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9): 9413.97
Obtained Intensity (In 115): 71464.53
Obtained Intensity (U 238): 53109.35
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (Ce++ 70 / Ce 140): 0.017 (=1197.05 / 71103.59)
Obtained Formula (CeO 156 / Ce 140): 0.019 (=1371.53 / 71103.59)

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
0.33 mm	0.01 mm	76333.39

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 0.94
Obtained Intensity (In 115): 81409.30
Obtained Formula (CeO 156 / Ce 140): 0.0204 (=1519.08 / 74401.24)

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.700)
Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.708)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.706)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.704)

QID STD/DRC - Optimum value(s): Correlation Coefficient = 1.000; Intercept = -10.86

KED Mode QID - Optimum value(s): Correlation Coefficient = 0.993; Intercept = -12.44

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 6/18/2018 12:37:27 PM

STD Performance Check
	Optimization Settings:
		Method: STD Performance Check.mth.
		Intensity Criterion: Be 9 > 2000
		Intensity Criterion: In 115 > 40000
		Intensity Criterion: U 238 > 30000
		Intensity Criterion: Bkgd 220 <= 1
		Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
		Formula Criterion: CeO 156 / Ce 140 <= 0.025

	Optimization Results:
	Initial Try
		Obtained Intensity (Be 9): 9413.97
		Obtained Intensity (In 115): 71464.53
		Obtained Intensity (U 238): 53109.35
		Obtained Intensity (Bkgd 220): 0.00
		Obtained Formula (Ce++ 70 / Ce 140): 0.017 (=1197.05 / 71103.59)
		Obtained Formula (CeO 156 / Ce 140): 0.019 (=1371.53 / 71103.59)

[Passed] Optimum value(s): N/A

Torch Alignment
	Optimization Settings:
		Method: Torch Alignment.mth.
		Intensity Criterion: In 115 Maximum

	Optimization Results:
		Vertical	Horizontal	Intensity
[Passed]	0.33 mm	0.01 mm	76333.39

Nebulizer Gas Flow STD/KED [NEB]
	Optimization Settings:
		Method: Optimize.mth.
			Initial Try - Start/End/Step: 0.88/1.1/0.02.
		Intensity Criterion: In 115 Maximum
		Formula Criterion: CeO 156 / Ce 140 <= 0.025

	Optimization Results:
	Initial Try

		Obtained Intensity (In 115): 81409.30
		Obtained Formula (CeO 156 / Ce 140): 0.0204 (=1519.08 / 74401.24)
[Passed] Optimum value(s): 0.94

Mass Calibration and Resolution
	Optimization Settings:
		Method: Tuning.mth.
		MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
		Iterations: 6
		Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution

Peak height (%) for Res. Opt.: 10

Optimization Results:
Initial Try
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.700)
Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.708)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.706)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.704)
[Passed] Optimum value(s): N/A

QID STD/DRC
Optimization Settings:
Method: QID Calibration.mth.
Initial Try - Start/End/Step: -16/0/0.5.

Optimization Results:
Initial Try

Optimum value(s): Correlation Coefficient = 1.000; Intercept = -10.86

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	33	-11	41087
Mg	24	33	-11	47876.1
In	115	33	-8.5	83080.9
Ce	140	33	-7.5	76902.4
Pb	208	33	-6	35439.9
U	238	33	-5.5	56816.8

KED Mode QID
Optimization Settings:
Method: QID Calibration.mth.
Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:
Initial Try

Optimum value(s): Correlation Coefficient = 0.993; Intercept = -12.44

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-12	35251.4
Mg	24	41	-11.5	29682.8
In	115	41	-8	65763
Ce	140	41	-8	58085.8
Pb	208	41	-5	22782.2
U	238	41	-4	52885.7

End Time: 6/18/2018 12:55:37 PM

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Monday, June 18, 2018 12:58:37
Sample Description:
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\STD Performance Check.mth
Dataset File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\DataSet\Default\STD Performance Check.15180
MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	9907.8	9907.769	197.242	2.0	Standard
	In	114.9	77643.9	77643.907	645.054	0.8	Standard
	U	238.1	58170.7	58170.676	758.270	1.3	Standard
⌈	CeO	155.9	1557.2	0.020	0.000	2.3	Standard
| >	Ce	139.9	76713.2	76713.243	903.102	1.2	Standard
⌊	Ce++	70.0	1356.5	0.018	0.001	5.2	Standard
	Bkgd	220.0	0.0	0.000	0.000		Standard

Current Conditions File Data

Current Value	Description
0.94	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-9.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-3.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
0.94	DRC Mode NEB
-10.00	DRC Mode QRO
-3.00	DRC Mode CRO
-7.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-13.00	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
0.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 6/18/2018 12:55:46 PM
End Time: 6/18/2018 1:00:41 PM

KED Mode QID - Optimum value(s): Correlation Coefficient = 0.997; Intercept = -11.55

STD Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9): 9907.77
Obtained Intensity (In 115): 77643.91
Obtained Intensity (U 238): 58170.68
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (Ce++ 70 / Ce 140): 0.018 (=1356.53 / 76713.24)
Obtained Formula (CeO 156 / Ce 140): 0.020 (=1557.15 / 76713.24)

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 6/18/2018 12:55:46 PM

KED Mode QID

Optimization Settings:

Method: QID Calibration.mth.

Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 0.997; Intercept = -11.55

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-11.5	34437.5
Mg	24	41	-11.5	29286
In	115	41	-8	60829.2
Ce	140	41	-7.5	58885.1
Pb	208	41	-5	22053
U	238	41	-4.5	53034.3

STD Performance Check

Optimization Settings:

Method: STD Performance Check.mth.

Intensity Criterion: Be 9 > 2000

Intensity Criterion: In 115 > 40000

Intensity Criterion: U 238 > 30000

Intensity Criterion: Bkgd 220 <= 1

Formula Criterion: Ce++ 70 / Ce 140 <= 0.03

Formula Criterion: CeO 156 / Ce 140 <= 0.025

Optimization Results:

Initial Try

Obtained Intensity (Be 9): 9907.77

Obtained Intensity (In 115): 77643.91

Obtained Intensity (U 238): 58170.68

Obtained Intensity (Bkgd 220): 0.00

Obtained Formula (Ce++ 70 / Ce 140): 0.018 (=1356.53 / 76713.24)

Obtained Formula (CeO 156 / Ce 140): 0.020 (=1557.15 / 76713.24)

[Passed] Optimum value(s): N/A

End Time: 6/18/2018 1:00:41 PM

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 13:42:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				26774	1	Standard
	Cl	**37**		ug/L				6308940	0	Standard
⌈>	**Sc**	**45**		ug/L				1410977	1	Standard
|	**Cr**	**52**		ug/L				14875	1	Standard
|	**Cr**	**53**		ug/L				195	2	Standard
⌊	**Mn**	**55**		ug/L				545	3	Standard
⌈>	**Ge-1**	**72**		ug/L				87449	1	KED
|	**Ni**	**60**		ug/L				15	21	KED
|	**Ni**	**62**		ug/L				10	10	KED
|	**Cu**	**63**		ug/L				46	18	KED
|	**Cu**	**65**		ug/L				26	11	KED
|	**Zn**	**66**		ug/L				68	20	KED
|	**Zn**	**67**		ug/L				10	40	KED
|	**As**	**75**		ug/L				4	5	KED
⌊	**Se-1**	**78**		ug/L				12	15	KED
	Y	**89**		ug/L				790194	2	Standard
	Kr	**83**		ug/L				58	19	Standard
⌈>	**In-1**	**115**		ug/L				38158	1	KED
|	**Cd**	**111**		ug/L				3	75	KED
⌊	**Cd**	**114**		ug/L				5	103	KED
⌈>	**In**	**115**		ug/L				944527	1	Standard
|	**Ag**	**107**		ug/L				53	31	Standard
|	**Sb**	**121**		ug/L				99	6	Standard
|	**Sb**	**123**		ug/L				75	9	Standard
|	**Ba**	**135**		ug/L				12	32	Standard
⌊	**Ba**	**137**		ug/L				21	51	Standard
⌈>	**Tb**	**159**		ug/L				1118737	1	Standard
⌊	**Pb**	**208**		ug/L				175	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 13:46:58
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	28539	1	Standard
	Cl	**37**		ug/L			6308940	6239398	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1396696	2	Standard
|	**Cr**	**52**	**0.500**	ug/L	0.033	6	14875	26528	0	Standard
|	**Cr**	**53**	**0.500**	ug/L	0.023	4	195	1624	1	Standard
⌊	**Mn**	**55**	**0.500**	ug/L	0.016	3	545	18344	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	86067	1	KED
|	**Ni**	**60**	**0.500**	ug/L	0.009	1	15	749	1	KED
|	**Ni**	**62**	**0.500**	ug/L	0.066	13	10	119	10	KED
|	**Cu**	**63**	**0.500**	ug/L	0.013	2	46	1979	3	KED
|	**Cu**	**65**	**0.500**	ug/L	0.007	1	26	953	0	KED
|	**Zn**	**66**	**4.000**	ug/L	0.126	3	68	2205	1	KED
|	**Zn**	**67**	**4.000**	ug/L	0.663	16	10	332	16	KED
|	**As**	**75**	**0.200**	ug/L	0.029	14	4	65	12	KED
⌊	**Se-1**	**78**	**0.500**	ug/L	0.217	43	12	37	30	KED
	Y	**89**		ug/L			790194	748169	3	Standard
	Kr	**83**		ug/L			58	49	26	Standard
⌈>	**In-1**	**115**		ug/L			38158	37853	5	KED
|	**Cd**	**111**	**0.100**	ug/L	0.012	12	3	46	6	KED
⌊	**Cd**	**114**	**0.100**	ug/L	0.006	5	5	121	10	KED
⌈>	**In**	**115**		ug/L			944527	938682	1	Standard
|	**Ag**	**107**	**0.200**	ug/L	0.010	5	53	3263	3	Standard
|	**Sb**	**121**	**0.200**	ug/L	0.001	0	99	2642	1	Standard
|	**Sb**	**123**	**0.200**	ug/L	0.010	4	75	1981	5	Standard
|	**Ba**	**135**	**0.500**	ug/L	0.015	2	12	2060	3	Standard
⌊	**Ba**	**137**	**0.500**	ug/L	0.013	2	21	3472	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1108929	2	Standard
⌊	**Pb**	**208**	**0.100**	ug/L	0.003	3	175	4459	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 13:51:40
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	25966	2	Standard
	Cl	**37**		ug/L			6308940	6356153	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1449760	1	Standard
|	**Cr**	**52**	**10.000**	ug/L	0.105	1	14875	257056	0	Standard
|	**Cr**	**53**	**9.999**	ug/L	0.094	0	195	28814	0	Standard
⌊	**Mn**	**55**	**9.999**	ug/L	0.099	0	545	359524	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	86498	3	KED
|	**Ni**	**60**	**9.999**	ug/L	0.662	6	15	14453	2	KED
|	**Ni**	**62**	**10.001**	ug/L	0.843	8	10	2294	5	KED
|	**Cu**	**63**	**10.000**	ug/L	0.415	4	46	38834	0	KED
|	**Cu**	**65**	**10.000**	ug/L	0.665	6	26	18661	3	KED
|	**Zn**	**66**	**9.968**	ug/L	0.438	4	68	5317	3	KED
|	**Zn**	**67**	**10.057**	ug/L	0.224	2	10	854	3	KED
|	**As**	**75**	**10.000**	ug/L	0.335	3	4	3317	0	KED
⌊	**Se-1**	**78**	**9.998**	ug/L	0.700	7	12	465	3	KED
	Y	**89**		ug/L			790194	753001	3	Standard
	Kr	**83**		ug/L			58	62	13	Standard
⌈>	**In-1**	**115**		ug/L			38158	37827	4	KED
|	**Cd**	**111**	**10.000**	ug/L	0.502	5	3	4414	0	KED
⌊	**Cd**	**114**	**10.000**	ug/L	0.235	2	5	11670	2	KED
⌈>	**In**	**115**		ug/L			944527	942585	3	Standard
|	**Ag**	**107**	**10.000**	ug/L	0.741	7	53	162048	4	Standard
|	**Sb**	**121**	**10.000**	ug/L	0.271	2	99	128736	2	Standard
|	**Sb**	**123**	**10.000**	ug/L	0.322	3	75	96620	3	Standard
|	**Ba**	**135**	**9.999**	ug/L	0.374	3	12	39535	1	Standard
⌊	**Ba**	**137**	**9.999**	ug/L	0.345	3	21	66230	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1128327	3	Standard
⌊	**Pb**	**208**	**10.000**	ug/L	0.404	4	175	411544	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 13:56:37
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	25966	2	Standard
	Cl	**37**		ug/L			6308940	6315561	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1431689	1	Standard
|	**Cr**	**52**	**20.087**	ug/L	0.341	1	14875	503167	1	Standard
|	**Cr**	**53**	**20.073**	ug/L	0.496	2	195	57754	1	Standard
⌊	**Mn**	**55**	**20.065**	ug/L	0.367	1	545	721120	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	85855	0	KED
|	**Ni**	**60**	**20.053**	ug/L	0.436	2	15	29108	1	KED
|	**Ni**	**62**	**19.977**	ug/L	0.120	0	10	4527	0	KED
|	**Cu**	**63**	**19.938**	ug/L	0.229	1	46	75953	0	KED
|	**Cu**	**65**	**20.026**	ug/L	0.257	1	26	37325	0	KED
|	**Zn**	**66**	**20.088**	ug/L	0.685	3	68	10738	3	KED
|	**Zn**	**67**	**20.271**	ug/L	0.344	1	10	1782	1	KED
|	**As**	**75**	**20.134**	ug/L	0.094	0	4	6812	0	KED
⌊	**Se-1**	**78**	**20.002**	ug/L	0.184	0	12	913	1	KED
	Y	**89**		ug/L			790194	758858	3	Standard
	Kr	**83**		ug/L			58	60	7	Standard
⌈>	**In-1**	**115**		ug/L			38158	38271	1	KED
|	**Cd**	**111**	**20.114**	ug/L	0.340	1	3	9202	0	KED
⌊	**Cd**	**114**	**19.961**	ug/L	0.258	1	5	23400	2	KED
⌈>	**In**	**115**		ug/L			944527	955858	4	Standard
|	**Ag**	**107**	**19.994**	ug/L	0.948	4	53	328091	0	Standard
|	**Sb**	**121**	**20.039**	ug/L	1.052	5	99	263188	0	Standard
|	**Sb**	**123**	**20.064**	ug/L	1.186	5	75	198740	1	Standard
|	**Ba**	**135**	**19.954**	ug/L	0.926	4	12	79222	2	Standard
⌊	**Ba**	**137**	**20.077**	ug/L	1.085	5	21	136782	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1127471	0	Standard
⌊	**Pb**	**208**	**20.043**	ug/L	0.295	1	175	831812	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 14:01:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	25319	0	Standard
	Cl	**37**		ug/L			6308940	6306424	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1430641	1	Standard
|	**Cr**	**52**	**49.549**	ug/L	1.743	3	14875	1165765	1	Standard
|	**Cr**	**53**	**49.739**	ug/L	1.173	2	195	139083	1	Standard
⌊	**Mn**	**55**	**49.464**	ug/L	1.055	2	545	1685155	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	84600	0	KED
|	**Ni**	**60**	**49.785**	ug/L	0.532	1	15	69699	1	KED
|	**Ni**	**62**	**49.716**	ug/L	1.151	2	10	10782	2	KED
|	**Cu**	**63**	**49.715**	ug/L	0.617	1	46	181374	0	KED
|	**Cu**	**65**	**49.724**	ug/L	0.189	0	26	88832	0	KED
|	**Zn**	**66**	**49.787**	ug/L	0.200	0	68	25601	0	KED
|	**Zn**	**67**	**49.866**	ug/L	1.913	3	10	4250	4	KED
|	**As**	**75**	**49.775**	ug/L	0.408	0	4	16225	1	KED
⌊	**Se-1**	**78**	**49.494**	ug/L	0.563	1	12	2102	0	KED
	Y	**89**		ug/L			790194	747216	5	Standard
	Kr	**83**		ug/L			58	81	18	Standard
⌈>	**In-1**	**115**		ug/L			38158	36284	3	KED
|	**Cd**	**111**	**50.043**	ug/L	1.475	2	3	21785	0	KED
⌊	**Cd**	**114**	**50.094**	ug/L	1.991	3	5	56144	1	KED
⌈>	**In**	**115**		ug/L			944527	934233	1	Standard
|	**Ag**	**107**	**49.595**	ug/L	1.068	2	53	765389	1	Standard
|	**Sb**	**121**	**49.890**	ug/L	0.724	1	99	634317	0	Standard
|	**Sb**	**123**	**49.756**	ug/L	0.759	1	75	471067	2	Standard
|	**Ba**	**135**	**49.710**	ug/L	0.732	1	12	187691	2	Standard
⌊	**Ba**	**137**	**49.727**	ug/L	0.408	0	21	322842	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1096755	1	Standard
⌊	**Pb**	**208**	**49.701**	ug/L	1.077	2	175	1947758	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 14:08:30
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	26292	3	Standard
	Cl	**37**		ug/L			6308940	6485270	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1381610	1	Standard
|	**Cr**	**52**	**99.228**	ug/L	3.228	3	14875	2184207	1	Standard
|	**Cr**	**53**	**99.517**	ug/L	2.304	2	195	264291	0	Standard
⌊	**Mn**	**55**	**99.641**	ug/L	2.607	2	545	3238887	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	82016	0	KED
|	**Ni**	**60**	**99.488**	ug/L	0.974	0	15	132755	1	KED
|	**Ni**	**62**	**99.138**	ug/L	1.208	1	10	20250	0	KED
|	**Cu**	**63**	**99.088**	ug/L	0.278	0	46	340101	0	KED
|	**Cu**	**65**	**99.377**	ug/L	0.579	0	26	168588	0	KED
|	**Zn**	**66**	**98.662**	ug/L	1.254	1	68	47039	1	KED
|	**Zn**	**67**	**98.280**	ug/L	2.149	2	10	7673	2	KED
|	**As**	**75**	**99.892**	ug/L	1.993	1	4	31447	1	KED
⌊	**Se-1**	**78**	**99.888**	ug/L	1.219	1	12	4087	0	KED
	Y	**89**		ug/L			790194	733458	2	Standard
	Kr	**83**		ug/L			58	92	6	Standard
⌈>	**In-1**	**115**		ug/L			38158	35235	5	KED
|	**Cd**	**111**	**99.821**	ug/L	6.322	6	3	41881	1	KED
⌊	**Cd**	**114**	**99.546**	ug/L	6.718	6	5	106575	2	KED
⌈>	**In**	**115**		ug/L			944527	871267	2	Standard
|	**Ag**	**107**	**99.813**	ug/L	3.033	3	53	1427245	1	Standard
|	**Sb**	**121**	**100.426**	ug/L	2.478	2	99	1207510	0	Standard
|	**Sb**	**123**	**100.257**	ug/L	1.928	1	75	892394	1	Standard
|	**Ba**	**135**	**100.918**	ug/L	1.566	1	12	366480	1	Standard
⌊	**Ba**	**137**	**100.919**	ug/L	3.853	3	21	629909	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1086297	1	Standard
⌊	**Pb**	**208**	**99.229**	ug/L	2.848	2	175	3754303	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 14:15:57
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	26505	1	Standard
	Cl	**37**		ug/L			6308940	6018971	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1380239	4	Standard
|	**Cr**	**52**	**-0.051**	ug/L	0.018	35	14875	13426	3	Standard
|	**Cr**	**53**	**0.002**	ug/L	0.008	408	195	196	11	Standard
⌊	**Mn**	**55**	**-0.001**	ug/L	0.001	182	545	507	3	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	85589	2	KED
|	**Ni**	**60**	**-0.007**	ug/L	0.001	22	15	5	33	KED
|	**Ni**	**62**	**-0.035**	ug/L	0.010	29	10	2	86	KED
|	**Cu**	**63**	**-0.005**	ug/L	0.002	44	46	29	22	KED
|	**Cu**	**65**	**-0.008**	ug/L	0.005	60	26	10	83	KED
|	**Zn**	**66**	**-0.033**	ug/L	0.017	50	68	50	17	KED
|	**Zn**	**67**	**-0.074**	ug/L	0.056	75	10	4	98	KED
|	**As**	**75**	**0.001**	ug/L	0.006	432	4	4	36	KED
⌊	**Se-1**	**78**	**0.080**	ug/L	0.063	78	12	15	18	KED
	Y	**89**		ug/L			790194	733707	4	Standard
	Kr	**83**		ug/L			58	63	4	Standard
⌈>	**In-1**	**115**		ug/L			38158	37803	0	KED
|	**Cd**	**111**	**-0.003**	ug/L	0.000	1	3	1		KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.002	391	5	6	45	KED
⌈>	**In**	**115**		ug/L			944527	927750	4	Standard
|	**Ag**	**107**	**0.002**	ug/L	0.001	34	53	84	15	Standard
|	**Sb**	**121**	**0.252**	ug/L	0.009	3	99	3321	1	Standard
|	**Sb**	**123**	**0.258**	ug/L	0.017	6	75	2519	4	Standard
|	**Ba**	**135**	**0.000**	ug/L	0.000	167	12	12	8	Standard
⌊	**Ba**	**137**	**-0.000**	ug/L	0.001	138	21	17	22	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1095107	4	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.001	189	175	187	12	Standard

Sample Information

Sample Date/Time: Monday, June 18, 2018 14:08:30
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_C
Mass Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Calibration

Analyte	Mass	**r Corr Coef**	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Sc	45							
Cr	52	**0.9998**	0.016	0.50	10	20	50	100
Cr	53	**0.9999**	0.002	0.50	10	20	50	100
Mn	55	**0.9999**	0.024	0.50	10	20	50	100
Ge-1	72							
Ni	60	**0.9999**	0.016	0.50	10	20	50	100
Ni	62	**0.9999**	0.002	0.50	10	20	50	100
Cu	63	**0.9998**	0.042	0.50	10	20	50	100
Cu	65	**0.9999**	0.021	0.50	10	20	50	100
Zn	66	**0.9997**	0.006	4.00	10	20	50	100
Zn	67	**0.9995**	0.001	4.00	10	20	50	100
As	75	**1.0000**	0.004	0.20	10	20	50	100
Se-1	78	**0.9999**	0.000	0.50	10	20	50	100
Y	89							
Kr	83							
In-1	115							
Cd	111	**1.0000**	0.012	0.10	10	20	50	100
Cd	114	**1.0000**	0.030	0.10	10	20	50	100
In	115							
Ag	107	**1.0000**	0.016	0.20	10	20	50	100
Sb	121	**1.0000**	0.014	0.20	10	20	50	100
Sb	123	**1.0000**	0.010	0.20	10	20	50	100
Ba	135	**0.9998**	0.004	0.50	10	20	50	100
Ba	137	**0.9998**	0.007	0.50	10	20	50	100
Tb	159							
Pb	208	**0.9999**	0.035	0.10	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICV1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 14:23:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	28385	0	Standard
	Cl	**37**		ug/L			6308940	6409986	0	Standard
⎡>	**Sc**	**45**		ug/L			1410977	1395847	0	Standard
⎢	**Cr**	**52**	**51.551**	ug/L	1.601	3	14875	1153838	2	Standard
⎢	**Cr**	**53**	**51.707**	ug/L	1.674	3	195	138855	2	Standard
⎣	**Mn**	**55**	**50.768**	ug/L	0.615	1	545	1667923	0	Standard
⎡>	**Ge-1**	**72**		ug/L			87449	83006	1	KED
⎢	**Ni**	**60**	**50.075**	ug/L	1.289	2	15	67616	1	KED
⎢	**Ni**	**62**	**53.541**	ug/L	0.964	1	10	11073	1	KED
⎢	**Cu**	**63**	**51.393**	ug/L	1.379	2	46	178559	3	KED
⎢	**Cu**	**65**	**51.377**	ug/L	0.855	1	26	88214	0	KED
⎢	**Zn**	**66**	**50.368**	ug/L	1.200	2	68	24331	1	KED
⎢	**Zn**	**67**	**51.133**	ug/L	1.616	3	10	4045	2	KED
⎢	**As**	**75**	**49.905**	ug/L	0.573	1	4	15902	0	KED
⎣	**Se-1**	**78**	**77.210**	ug/L	0.979	1	12	3199	0	KED
	Y	**89**		ug/L			790194	762852	1	Standard
	Kr	**83**		ug/L			58	73	16	Standard
⎡>	**In-1**	**115**		ug/L			38158	37584	2	KED
⎢	**Cd**	**111**	**47.045**	ug/L	0.840	1	3	21094	1	KED
⎣	**Cd**	**114**	**46.974**	ug/L	0.381	0	5	53763	2	KED
⎡>	**In**	**115**		ug/L			944527	912221	0	Standard
⎢	**Ag**	**107**	**48.910**	ug/L	1.160	2	53	732577	2	Standard
⎢	**Sb**	**121**	**50.246**	ug/L	0.465	0	99	632842	0	Standard
⎢	**Sb**	**123**	**49.639**	ug/L	1.186	2	75	462776	2	Standard
⎢	**Ba**	**135**	**48.903**	ug/L	1.102	2	12	185972	2	Standard
⎣	**Ba**	**137**	**49.517**	ug/L	0.564	1	21	323803	1	Standard
⎡>	**Tb**	**159**		ug/L			1118737	1098032	2	Standard
⎣	**Pb**	**208**	**50.643**	ug/L	0.265	0	175	1937444	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICB1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 14:30:51
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	27068	2	Standard
	Cl	**37**		ug/L			6308940	6067100	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1409259	0	Standard
|	**Cr**	**52**	**-0.045**	ug/L	0.034	76	14875	13852	5	Standard
|	**Cr**	**53**	**0.010**	ug/L	0.013	122	195	223	15	Standard
⌊	**Mn**	**55**	**0.011**	ug/L	0.019	170	545	910	68	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	85149	1	KED
|	**Ni**	**60**	**-0.008**	ug/L	0.001	17	15	3	50	KED
|	**Ni**	**62**	**-0.023**	ug/L	0.019	84	10	5	78	KED
|	**Cu**	**63**	**-0.003**	ug/L	0.001	45	46	34	13	KED
|	**Cu**	**65**	**-0.008**	ug/L	0.003	39	26	10	53	KED
|	**Zn**	**66**	**0.001**	ug/L	0.027	2969	68	67	20	KED
|	**Zn**	**67**	**0.058**	ug/L	0.041	70	10	15	21	KED
|	**As**	**75**	**-0.002**	ug/L	0.004	196	4	3	33	KED
⌊	**Se-1**	**78**	**0.045**	ug/L	0.042	93	12	14	13	KED
	Y	**89**		ug/L			790194	745030	3	Standard
	Kr	**83**		ug/L			58	61	31	Standard
⌈>	**In-1**	**115**		ug/L			38158	37478	2	KED
|	**Cd**	**111**	**-0.003**	ug/L	0.004	139	3	1	86	KED
⌊	**Cd**	**114**	**-0.003**	ug/L	0.002	52	5	1	122	KED
⌈>	**In**	**115**		ug/L			944527	943120	1	Standard
|	**Ag**	**107**	**0.018**	ug/L	0.029	164	53	323	137	Standard
|	**Sb**	**121**	**0.130**	ug/L	0.032	24	99	1787	22	Standard
|	**Sb**	**123**	**0.124**	ug/L	0.033	26	75	1268	24	Standard
|	**Ba**	**135**	**0.017**	ug/L	0.028	169	12	77	143	Standard
⌊	**Ba**	**137**	**0.015**	ug/L	0.028	183	21	125	152	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1095304	1	Standard
⌊	**Pb**	**208**	**0.018**	ug/L	0.029	157	175	880	127	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 14:37:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	24765	3	Standard
	Cl	**37**		ug/L			6308940	6396207	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1389323	1	Standard
|	**Cr**	**52**	**51.659**	ug/L	1.217	2	14875	1150726	1	Standard
|	**Cr**	**53**	**50.293**	ug/L	0.756	1	195	134446	2	Standard
⌊	**Mn**	**55**	**50.452**	ug/L	0.145	0	545	1649850	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	82232	2	KED
|	**Ni**	**60**	**49.906**	ug/L	0.711	1	15	66758	0	KED
|	**Ni**	**62**	**51.832**	ug/L	0.857	1	10	10619	2	KED
|	**Cu**	**63**	**50.541**	ug/L	1.773	3	46	173858	1	KED
|	**Cu**	**65**	**50.117**	ug/L	2.106	4	26	85210	2	KED
|	**Zn**	**66**	**51.643**	ug/L	1.032	1	68	24713	2	KED
|	**Zn**	**67**	**52.976**	ug/L	0.612	1	10	4151	1	KED
|	**As**	**75**	**50.147**	ug/L	1.385	2	4	15825	1	KED
⌊	**Se-1**	**78**	**51.257**	ug/L	2.387	4	12	2107	2	KED
	Y	**89**		ug/L			790194	724430	1	Standard
	Kr	**83**		ug/L			58	57	16	Standard
⌈>	**In-1**	**115**		ug/L			38158	35659	1	KED
|	**Cd**	**111**	**49.818**	ug/L	1.658	3	3	21194	2	KED
⌊	**Cd**	**114**	**49.326**	ug/L	1.327	2	5	53559	2	KED
⌈>	**In**	**115**		ug/L			944527	878342	1	Standard
|	**Ag**	**107**	**52.143**	ug/L	0.982	1	53	751850	0	Standard
|	**Sb**	**121**	**50.738**	ug/L	0.797	1	99	615228	0	Standard
|	**Sb**	**123**	**50.475**	ug/L	1.014	2	75	453017	1	Standard
|	**Ba**	**135**	**50.360**	ug/L	0.890	1	12	184378	1	Standard
⌊	**Ba**	**137**	**51.029**	ug/L	0.510	0	21	321269	0	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1069204	2	Standard
⌊	**Pb**	**208**	**52.122**	ug/L	1.909	3	175	1940796	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 14:45:35
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	26405	1	Standard
	Cl	**37**		ug/L			6308940	6081612	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1397589	0	Standard
|	**Cr**	**52**	**-0.054**	ug/L	0.015	28	14875	13546	2	Standard
|	**Cr**	**53**	**0.001**	ug/L	0.008	591	195	197	11	Standard
⌊	**Mn**	**55**	**-0.001**	ug/L	0.001	124	545	507	7	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	83850	0	KED
|	**Ni**	**60**	**-0.006**	ug/L	0.002	38	15	6	41	KED
|	**Ni**	**62**	**-0.034**	ug/L	0.005	15	10	2	43	KED
|	**Cu**	**63**	**-0.006**	ug/L	0.002	29	46	24	23	KED
|	**Cu**	**65**	**-0.006**	ug/L	0.004	62	26	13	47	KED
|	**Zn**	**66**	**-0.023**	ug/L	0.013	55	68	54	11	KED
|	**Zn**	**67**	**-0.034**	ug/L	0.048	141	10	7	50	KED
|	**As**	**75**	**-0.002**	ug/L	0.009	465	4	3	75	KED
⌊	**Se-1**	**78**	**0.016**	ug/L	0.019	117	12	12	5	KED
	Y	**89**		ug/L			790194	737472	1	Standard
	Kr	**83**		ug/L			58	55	19	Standard
⌈>	**In-1**	**115**		ug/L			38158	36257	1	KED
|	**Cd**	**111**	**0.005**	ug/L	0.003	56	3	5	21	KED
⌊	**Cd**	**114**	**-0.003**	ug/L	0.001	42	5	2	52	KED
⌈>	**In**	**115**		ug/L			944527	939795	2	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.001	96	53	64	16	Standard
|	**Sb**	**121**	**0.137**	ug/L	0.011	8	99	1878	8	Standard
|	**Sb**	**123**	**0.131**	ug/L	0.009	7	75	1336	4	Standard
|	**Ba**	**135**	**-0.001**	ug/L	0.001	55	12	8	26	Standard
⌊	**Ba**	**137**	**-0.000**	ug/L	0.000	178	21	19	14	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1077469	0	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	19	175	204	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CRL1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 14:50:18
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	27334	3	Standard
	Cl	**37**		ug/L			6308940	5961656	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1378946	2	Standard
|	**Cr**	**52**	**0.509**	ug/L	0.054	10	14875	25625	2	Standard
|	**Cr**	**53**	**0.528**	ug/L	0.006	1	195	1589	1	Standard
⌊	**Mn**	**55**	**0.528**	ug/L	0.007	1	545	17655	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	83863	1	KED
|	**Ni**	**60**	**0.514**	ug/L	0.015	2	15	716	3	KED
|	**Ni**	**62**	**0.488**	ug/L	0.097	19	10	111	19	KED
|	**Cu**	**63**	**0.518**	ug/L	0.009	1	46	1861	1	KED
|	**Cu**	**65**	**0.504**	ug/L	0.021	4	26	898	3	KED
|	**Zn**	**66**	**4.170**	ug/L	0.215	5	68	2095	4	KED
|	**Zn**	**67**	**4.043**	ug/L	0.040	0	10	332	2	KED
|	**As**	**75**	**0.188**	ug/L	0.017	9	4	64	7	KED
⌊	**Se-1**	**78**	**0.560**	ug/L	0.044	7	12	35	6	KED
	Y	**89**		ug/L			790194	720226	4	Standard
	Kr	**83**		ug/L			58	50	26	Standard
⌈>	**In-1**	**115**		ug/L			38158	37172	6	KED
|	**Cd**	**111**	**0.091**	ug/L	0.018	19	3	43	12	KED
⌊	**Cd**	**114**	**0.093**	ug/L	0.005	5	5	110	6	KED
⌈>	**In**	**115**		ug/L			944527	911963	2	Standard
|	**Ag**	**107**	**0.207**	ug/L	0.010	4	53	3149	2	Standard
|	**Sb**	**121**	**0.241**	ug/L	0.010	4	99	3131	2	Standard
|	**Sb**	**123**	**0.234**	ug/L	0.005	1	75	2252	2	Standard
|	**Ba**	**135**	**0.494**	ug/L	0.019	3	12	1889	2	Standard
⌊	**Ba**	**137**	**0.504**	ug/L	0.022	4	21	3317	4	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1075105	2	Standard
⌊	**Pb**	**208**	**0.105**	ug/L	0.003	2	175	4087	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFA1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 14:56:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	152213	1	Standard
	Cl	**37**		ug/L			6308940	14353043	2	Standard
>	**Sc**	**45**		ug/L			1410977	1368574	1	Standard
	Cr	**52**	**0.546**	ug/L	0.041	7	14875	26259	2	Standard
	Cr	**53**	**4.384**	ug/L	0.123	2	195	11718	3	Standard
	Mn	**55**	**0.145**	ug/L	0.003	2	545	5212	2	Standard
>	**Ge-1**	**72**		ug/L			87449	80788	1	KED
	Ni	**60**	**0.041**	ug/L	0.005	12	15	67	11	KED
	Ni	**62**	**0.155**	ug/L	0.036	23	10	40	19	KED
	Cu	**63**	**0.030**	ug/L	0.003	10	46	146	6	KED
	Cu	**65**	**0.040**	ug/L	0.006	14	26	91	10	KED
	Zn	**66**	**0.126**	ug/L	0.049	38	68	122	18	KED
	Zn	**67**	**0.085**	ug/L	0.032	37	10	16	13	KED
	As	**75**	**0.029**	ug/L	0.006	22	4	13	13	KED
	Se-1	**78**	**0.098**	ug/L	0.060	61	12	15	16	KED
	Y	**89**		ug/L			790194	727206	0	Standard
	Kr	**83**		ug/L			58	224	14	Standard
>	**In-1**	**115**		ug/L			38158	35473	1	KED
	Cd	**111**	**0.088**	ug/L	0.011	12	3	40	11	KED
	Cd	**114**	**0.072**	ug/L	0.017	23	5	82	21	KED
>	**In**	**115**		ug/L			944527	873750	2	Standard
	Ag	**107**	**0.010**	ug/L	0.002	16	53	189	9	Standard
	Sb	**121**	**0.041**	ug/L	0.002	5	99	587	5	Standard
	Sb	**123**	**0.036**	ug/L	0.001	3	75	391	4	Standard
	Ba	**135**	**0.017**	ug/L	0.003	15	12	74	10	Standard
	Ba	**137**	**0.016**	ug/L	0.002	12	21	121	11	Standard
>	**Tb**	**159**		ug/L			1118737	1072065	1	Standard
	Pb	**208**	**0.020**	ug/L	0.000	0	175	917	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFB1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 15:01:42
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	153695	2	Standard
	Cl	**37**		ug/L			6308940	14657818	0	Standard
⎡>	**Sc**	**45**		ug/L			1410977	1385769	1	Standard
⎢	**Cr**	**52**	**20.934**	ug/L	0.361	1	14875	473819	1	Standard
⎢	**Cr**	**53**	**24.066**	ug/L	0.606	2	195	64256	2	Standard
⎣	**Mn**	**55**	**20.119**	ug/L	0.580	2	545	656314	0	Standard
⎡>	**Ge-1**	**72**		ug/L			87449	79508	1	KED
⎢	**Ni**	**60**	**19.234**	ug/L	0.240	1	15	24891	2	KED
⎢	**Ni**	**62**	**19.898**	ug/L	0.435	2	10	3947	2	KED
⎢	**Cu**	**63**	**19.512**	ug/L	0.391	2	46	64945	0	KED
⎢	**Cu**	**65**	**19.143**	ug/L	0.473	2	26	31496	1	KED
⎢	**Zn**	**66**	**18.686**	ug/L	0.561	3	68	8685	1	KED
⎢	**Zn**	**67**	**16.864**	ug/L	0.622	3	10	1284	3	KED
⎢	**As**	**75**	**18.787**	ug/L	0.313	1	4	5736	0	KED
⎣	**Se-1**	**78**	**0.061**	ug/L	0.076	123	12	13	20	KED
	Y	**89**		ug/L			790194	728218	3	Standard
	Kr	**83**		ug/L			58	215	5	Standard
⎡>	**In-1**	**115**		ug/L			38158	34753	2	KED
⎢	**Cd**	**111**	**18.775**	ug/L	0.655	3	3	7784	1	KED
⎣	**Cd**	**114**	**18.758**	ug/L	0.192	1	5	19853	1	KED
⎡>	**In**	**115**		ug/L			944527	881735	2	Standard
⎢	**Ag**	**107**	**19.184**	ug/L	0.861	4	53	277605	2	Standard
⎢	**Sb**	**121**	**0.025**	ug/L	0.000	1	99	398	1	Standard
⎢	**Sb**	**123**	**0.023**	ug/L	0.007	28	75	279	20	Standard
⎢	**Ba**	**135**	**0.017**	ug/L	0.002	13	12	72	11	Standard
⎣	**Ba**	**137**	**0.017**	ug/L	0.003	14	21	128	10	Standard
⎡>	**Tb**	**159**		ug/L			1118737	1092198	1	Standard
⎣	**Pb**	**208**	**0.020**	ug/L	0.003	14	175	940	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 15:06:39
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	29896	1	Standard
	Cl	**37**		ug/L			6308940	6756769	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1304460	1	Standard
|	**Cr**	**52**	**200.292**	ug/L	2.387	1	14875	4149927	0	Standard
|	**Cr**	**53**	**203.593**	ug/L	0.338	0	195	510452	1	Standard
⌊	**Mn**	**55**	**194.735**	ug/L	3.495	1	545	5977103	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	76647	1	KED
|	**Ni**	**60**	**197.808**	ug/L	1.688	0	15	246640	1	KED
|	**Ni**	**62**	**202.828**	ug/L	4.762	2	10	38707	2	KED
|	**Cu**	**63**	**198.329**	ug/L	1.974	0	46	636042	0	KED
|	**Cu**	**65**	**193.831**	ug/L	2.939	1	26	307240	0	KED
|	**Zn**	**66**	**195.082**	ug/L	6.282	3	68	86836	1	KED
|	**Zn**	**67**	**191.958**	ug/L	4.473	2	10	13994	1	KED
|	**As**	**75**	**199.956**	ug/L	2.612	1	4	58821	0	KED
⌊	**Se-1**	**78**	**193.215**	ug/L	3.774	1	12	7377	1	KED
	Y	**89**		ug/L			790194	680161	0	Standard
	Kr	**83**		ug/L			58	182	12	Standard
⌈>	**In-1**	**115**		ug/L			38158	33950	0	KED
|	**Cd**	**111**	**192.596**	ug/L	0.980	0	3	78021	0	KED
⌊	**Cd**	**114**	**193.558**	ug/L	2.026	1	5	200094	0	KED
⌈>	**In**	**115**		ug/L			944527	853214	0	Standard
|	**Ag**	**107**	**186.924**	ug/L	3.107	1	53	2618585	1	Standard
|	**Sb**	**121**	**194.691**	ug/L	1.570	0	99	2293271	0	Standard
|	**Sb**	**123**	**196.243**	ug/L	3.258	1	75	1710971	1	Standard
|	**Ba**	**135**	**198.542**	ug/L	1.933	0	12	706168	0	Standard
⌊	**Ba**	**137**	**197.915**	ug/L	3.629	1	21	1210438	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1052416	1	Standard
⌊	**Pb**	**208**	**195.993**	ug/L	5.134	2	175	7184599	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 15:11:22
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	31020	1	Standard
	Cl	**37**		ug/L			6308940	6824809	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1268921	1	Standard
|	**Cr**	**52**	**297.570**	ug/L	5.566	1	14875	5990572	0	Standard
|	**Cr**	**53**	**304.083**	ug/L	10.454	3	195	741345	2	Standard
⌊	**Mn**	**55**	**291.022**	ug/L	8.432	2	545	8687744	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	73964	0	KED
|	**Ni**	**60**	**285.756**	ug/L	3.242	1	15	343817	0	KED
|	**Ni**	**62**	**296.866**	ug/L	6.090	2	10	54667	1	KED
|	**Cu**	**63**	**290.952**	ug/L	7.728	2	46	900431	2	KED
|	**Cu**	**65**	**282.274**	ug/L	3.093	1	26	431838	1	KED
|	**Zn**	**66**	**279.484**	ug/L	2.910	1	68	120061	1	KED
|	**Zn**	**67**	**283.038**	ug/L	4.190	1	10	19912	1	KED
|	**As**	**75**	**293.494**	ug/L	0.478	0	4	83323	0	KED
⌊	**Se-1**	**78**	**282.585**	ug/L	5.478	1	12	10409	2	KED
	Y	**89**		ug/L			790194	673180	0	Standard
	Kr	**83**		ug/L			58	311	13	Standard
⌈>	**In-1**	**115**		ug/L			38158	32330	1	KED
|	**Cd**	**111**	**287.794**	ug/L	5.679	1	3	111010	0	KED
⌊	**Cd**	**114**	**284.554**	ug/L	1.214	0	5	280136	0	KED
⌈>	**In**	**115**		ug/L			944527	822393	0	Standard
|	**Ag**	**107**	**276.568**	ug/L	3.435	1	53	3734304	0	Standard
|	**Sb**	**121**	**292.323**	ug/L	2.864	0	99	3318720	0	Standard
|	**Sb**	**123**	**296.206**	ug/L	0.800	0	75	2489308	0	Standard
|	**Ba**	**135**	**294.629**	ug/L	0.929	0	12	1010073	0	Standard
⌊	**Ba**	**137**	**291.159**	ug/L	3.968	1	21	1716352	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1006149	1	Standard
⌊	**Pb**	**208**	**291.332**	ug/L	7.507	2	175	10210693	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 15:18:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	33152	2	Standard
	Cl	**37**		ug/L			6308940	6583543	0	Standard
⎡>	**Sc**	**45**		ug/L			1410977	1341209	1	Standard
⎢	**Cr**	**52**	**-0.034**	ug/L	0.030	86	14875	13422	6	Standard
⎢	**Cr**	**53**	**0.079**	ug/L	0.034	43	195	390	24	Standard
⎣	**Mn**	**55**	**0.033**	ug/L	0.046	139	545	1568	94	Standard
⎡>	**Ge-1**	**72**		ug/L			87449	81754	1	KED
⎢	**Ni**	**60**	**-0.001**	ug/L	0.007	1078	15	13	65	KED
⎢	**Ni**	**62**	**-0.019**	ug/L	0.000	2	10	5	0	KED
⎢	**Cu**	**63**	**0.006**	ug/L	0.003	44	46	64	14	KED
⎢	**Cu**	**65**	**0.006**	ug/L	0.003	53	26	34	14	KED
⎢	**Zn**	**66**	**0.154**	ug/L	0.052	33	68	137	16	KED
⎢	**Zn**	**67**	**0.107**	ug/L	0.037	34	10	18	15	KED
⎢	**As**	**75**	**0.006**	ug/L	0.002	39	4	6	13	KED
⎣	**Se-1**	**78**	**0.141**	ug/L	0.041	29	12	17	11	KED
	Y	**89**		ug/L			790194	713592	3	Standard
	Kr	**83**		ug/L			58	44	21	Standard
⎡>	**In-1**	**115**		ug/L			38158	35821	3	KED
⎢	**Cd**	**111**	**0.382**	ug/L	0.527	138	3	161	134	KED
⎣	**Cd**	**114**	**0.374**	ug/L	0.528	141	5	401	138	KED
⎡>	**In**	**115**		ug/L			944527	897931	3	Standard
⎢	**Ag**	**107**	**0.034**	ug/L	0.049	144	53	549	131	Standard
⎢	**Sb**	**121**	**0.571**	ug/L	0.048	8	99	7168	8	Standard
⎢	**Sb**	**123**	**0.595**	ug/L	0.066	11	75	5526	10	Standard
⎢	**Ba**	**135**	**0.036**	ug/L	0.043	119	12	147	110	Standard
⎣	**Ba**	**137**	**0.036**	ug/L	0.040	111	21	253	102	Standard
⎡>	**Tb**	**159**		ug/L			1118737	1053743	2	Standard
⎣	**Pb**	**208**	**0.037**	ug/L	0.048	129	175	1539	116	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 15:25:26
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	32699	1	Standard
	Cl	**37**		ug/L			6308940	6514318	0	Standard
⎡>	**Sc**	**45**		ug/L			1410977	1361306	0	Standard
⎢	**Cr**	**52**	**-0.055**	ug/L	0.003	5	14875	13156	0	Standard
⎢	**Cr**	**53**	**0.041**	ug/L	0.005	12	195	296	3	Standard
⎣	**Mn**	**55**	**0.005**	ug/L	0.001	11	545	671	1	Standard
⎡>	**Ge-1**	**72**		ug/L			87449	80563	1	KED
⎢	**Ni**	**60**	**0.003**	ug/L	0.003	109	15	17	22	KED
⎢	**Ni**	**62**	**-0.021**	ug/L	0.005	24	10	5	21	KED
⎢	**Cu**	**63**	**0.007**	ug/L	0.001	16	46	65	6	KED
⎢	**Cu**	**65**	**0.005**	ug/L	0.004	84	26	32	21	KED
⎢	**Zn**	**66**	**0.149**	ug/L	0.027	18	68	132	10	KED
⎢	**Zn**	**67**	**0.143**	ug/L	0.099	69	10	20	36	KED
⎢	**As**	**75**	**0.000**	ug/L	0.005	2968	4	4	33	KED
⎣	**Se-1**	**78**	**0.072**	ug/L	0.039	54	12	14	10	KED
	Y	**89**		ug/L			790194	711581	2	Standard
	Kr	**83**		ug/L			58	44	13	Standard
⎡>	**In-1**	**115**		ug/L			38158	36128	0	KED
⎢	**Cd**	**111**	**0.006**	ug/L	0.004	69	3	5	33	KED
⎣	**Cd**	**114**	**0.001**	ug/L	0.003	288	5	6	47	KED
⎡>	**In**	**115**		ug/L			944527	878898	3	Standard
⎢	**Ag**	**107**	**0.003**	ug/L	0.001	42	53	99	18	Standard
⎢	**Sb**	**121**	**0.159**	ug/L	0.005	3	99	2022	3	Standard
⎢	**Sb**	**123**	**0.161**	ug/L	0.005	3	75	1518	1	Standard
⎢	**Ba**	**135**	**0.012**	ug/L	0.000	3	12	53	0	Standard
⎣	**Ba**	**137**	**0.013**	ug/L	0.003	22	21	99	19	Standard
⎡>	**Tb**	**159**		ug/L			1118737	1056671	0	Standard
⎣	**Pb**	**208**	**0.008**	ug/L	0.001	7	175	447	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 15:32:03
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	25314	1	Standard
	Cl	**37**		ug/L			6308940	6774421	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1332627	0	Standard
|	**Cr**	**52**	**51.731**	ug/L	0.871	1	14875	1105557	2	Standard
|	**Cr**	**53**	**51.115**	ug/L	0.278	0	195	131058	0	Standard
⌊	**Mn**	**55**	**50.980**	ug/L	0.391	0	545	1599037	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	80595	1	KED
|	**Ni**	**60**	**49.575**	ug/L	1.345	2	15	64991	1	KED
|	**Ni**	**62**	**50.556**	ug/L	0.975	1	10	10151	1	KED
|	**Cu**	**63**	**50.412**	ug/L	0.058	0	46	170052	1	KED
|	**Cu**	**65**	**49.256**	ug/L	0.885	1	26	82112	0	KED
|	**Zn**	**66**	**51.087**	ug/L	1.250	2	68	23961	1	KED
|	**Zn**	**67**	**51.126**	ug/L	2.182	4	10	3925	2	KED
|	**As**	**75**	**49.912**	ug/L	0.931	1	4	15441	0	KED
⌊	**Se-1**	**78**	**50.567**	ug/L	0.282	0	12	2038	1	KED
	Y	**89**		ug/L			790194	709265	1	Standard
	Kr	**83**		ug/L			58	64	30	Standard
⌈>	**In-1**	**115**		ug/L			38158	35215	3	KED
|	**Cd**	**111**	**49.218**	ug/L	1.476	2	3	20671	0	KED
⌊	**Cd**	**114**	**49.717**	ug/L	1.376	2	5	53287	0	KED
⌈>	**In**	**115**		ug/L			944527	887350	1	Standard
|	**Ag**	**107**	**48.790**	ug/L	0.111	0	53	710867	1	Standard
|	**Sb**	**121**	**49.149**	ug/L	0.363	0	99	602103	0	Standard
|	**Sb**	**123**	**50.088**	ug/L	0.291	0	75	454215	1	Standard
|	**Ba**	**135**	**49.027**	ug/L	0.939	1	12	181340	1	Standard
⌊	**Ba**	**137**	**50.301**	ug/L	0.936	1	21	319956	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1048252	1	Standard
⌊	**Pb**	**208**	**52.531**	ug/L	0.717	1	175	1918438	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 15:40:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	25390	1	Standard
	Cl	**37**		ug/L			6308940	6439303	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1337007	1	Standard
|	**Cr**	**52**	**-0.093**	ug/L	0.012	12	14875	12128	2	Standard
|	**Cr**	**53**	**0.029**	ug/L	0.009	31	195	259	10	Standard
⌊	**Mn**	**55**	**0.007**	ug/L	0.010	142	545	746	45	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	78322	6	KED
|	**Ni**	**60**	**-0.005**	ug/L	0.004	81	15	6	68	KED
|	**Ni**	**62**	**-0.047**	ug/L	0.000	0	10	0		KED
|	**Cu**	**63**	**-0.004**	ug/L	0.004	100	46	29	43	KED
|	**Cu**	**65**	**-0.005**	ug/L	0.002	41	26	14	27	KED
|	**Zn**	**66**	**-0.025**	ug/L	0.016	61	68	50	19	KED
|	**Zn**	**67**	**-0.052**	ug/L	0.046	88	10	5	57	KED
|	**As**	**75**	**0.005**	ug/L	0.009	168	4	5	51	KED
⌊	**Se-1**	**78**	**0.014**	ug/L	0.094	689	12	11	35	KED
	Y	**89**		ug/L			790194	705119	0	Standard
	Kr	**83**		ug/L			58	49	3	Standard
⌈>	**In-1**	**115**		ug/L			38158	35520	2	KED
|	**Cd**	**111**	**0.005**	ug/L	0.001	19	3	5	10	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.003	369	5	4	66	KED
⌈>	**In**	**115**		ug/L			944527	891851	2	Standard
|	**Ag**	**107**	**0.008**	ug/L	0.012	145	53	172	104	Standard
|	**Sb**	**121**	**0.175**	ug/L	0.007	4	99	2253	6	Standard
|	**Sb**	**123**	**0.172**	ug/L	0.004	2	75	1641	4	Standard
|	**Ba**	**135**	**0.007**	ug/L	0.010	143	12	38	102	Standard
⌊	**Ba**	**137**	**0.006**	ug/L	0.010	152	21	62	103	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1064389	2	Standard
⌊	**Pb**	**208**	**0.009**	ug/L	0.012	130	175	501	87	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0406-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 15:45:08
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	32179	1	Standard
	Cl	37		ug/L			6308940	6384932	1	Standard
>	Sc	45		ug/L			1410977	1339227	2	Standard
	Cr	52	-0.045	ug/L	0.016	36	14875	13161	0	Standard
	Cr	53	0.043	ug/L	0.003	6	195	296	2	Standard
	Mn	55	0.275	ug/L	0.010	3	545	9178	1	Standard
>	Ge-1	72		ug/L			87449	80785	1	KED
	Ni	60	0.028	ug/L	0.010	36	15	51	27	KED
	Ni	62	-0.006	ug/L	0.014	242	10	8	35	KED
	Cu	63	0.045	ug/L	0.007	16	46	194	14	KED
	Cu	65	0.046	ug/L	0.007	14	26	101	10	KED
	Zn	66	0.536	ug/L	0.049	9	68	314	8	KED
	Zn	67	0.506	ug/L	0.077	15	10	48	13	KED
	As	75	-0.003	ug/L	0.009	300	4	3	85	KED
	Se-1	78	0.134	ug/L	0.069	51	12	16	17	KED
	Y	89		ug/L			790194	711280	1	Standard
	Kr	83		ug/L			58	44	17	Standard
>	In-1	115		ug/L			38158	36252	2	KED
	Cd	111	-0.001	ug/L	0.004	337	3	2	57	KED
	Cd	114	-0.001	ug/L	0.004	351	5	3	116	KED
>	In	115		ug/L			944527	897723	0	Standard
	Ag	107	0.003	ug/L	0.001	20	53	88	8	Standard
	Sb	121	0.052	ug/L	0.008	16	99	738	14	Standard
	Sb	123	0.053	ug/L	0.004	8	75	554	7	Standard
	Ba	135	0.018	ug/L	0.001	5	12	78	4	Standard
	Ba	137	0.022	ug/L	0.002	10	21	160	9	Standard
>	Tb	159		ug/L			1118737	1043606	1	Standard
	Pb	208	0.007	ug/L	0.001	10	175	433	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0227-01
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 15:49:50
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	106792	0	Standard
	Cl	37		ug/L			6308940	5041506	0	Standard
>	Sc	45		ug/L			1410977	1153212	0	Standard
	Cr	52	22.058	ug/L	0.398	1	14875	414865	1	Standard
	Cr	53	21.235	ug/L	0.223	1	195	47210	1	Standard
	Mn	55	30.011	ug/L	0.210	0	545	814779	0	Standard
>	Ge-1	72		ug/L			87449	49568	0	KED
	Ni	60	15.697	ug/L	0.043	0	15	12665	0	KED
	Ni	62	18.627	ug/L	0.602	3	10	2304	3	KED
	Cu	63	1.331	ug/L	0.040	3	46	2787	3	KED
	Cu	65	1.089	ug/L	0.013	1	26	1131	1	KED
	Zn	66	46.209	ug/L	0.378	0	68	13335	0	KED
	Zn	67	43.432	ug/L	1.111	2	10	2052	2	KED
	As	75	0.285	ug/L	0.036	12	4	56	12	KED
	Se-1	78	0.478	ug/L	0.146	30	12	18	19	KED
	Y	89		ug/L			790194	596595	1	Standard
	Kr	83		ug/L			58	226	15	Standard
>	In-1	115		ug/L			38158	23657	5	KED
	Cd	111	0.740	ug/L	0.117	15	3	209	10	KED
	Cd	114	0.725	ug/L	0.046	6	5	524	4	KED
>	In	115		ug/L			944527	684717	0	Standard
	Ag	107	0.002	ug/L	0.000	17	53	58	4	Standard
	Sb	121	0.225	ug/L	0.007	2	99	2196	2	Standard
	Sb	123	0.228	ug/L	0.006	2	75	1646	1	Standard
	Ba	135	3.787	ug/L	0.126	3	12	10817	2	Standard
	Ba	137	3.874	ug/L	0.129	3	21	19024	2	Standard
>	Tb	159		ug/L			1118737	888004	2	Standard
	Pb	208	0.155	ug/L	0.006	3	175	4922	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0237-01
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, June 18, 2018 15:54:33
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	40132	0	Standard
	Cl	37		ug/L			6308940	8565749	1	Standard
>	Sc	45		ug/L			1410977	1736131	2	Standard
	Cr	52	14121.332	ug/L	434.950	3	14875	388037797	1	Standard
	Cr	53	13694.105	ug/L	159.112	1	195	45684922	3	Standard
	Mn	55	4.997	ug/L	0.187	3	545	204694	1	Standard
>	Ge-1	72		ug/L			87449	94476	1	KED
	Ni	60	0.373	ug/L	0.013	3	15	589	1	KED
	Ni	62	0.797	ug/L	0.114	14	10	198	12	KED
	Cu	63	11.356	ug/L	0.274	2	46	44943	3	KED
	Cu	65	11.103	ug/L	0.144	1	26	21719	0	KED
	Zn	66	13.223	ug/L	0.648	4	68	7322	3	KED
	Zn	67	11.776	ug/L	0.366	3	10	1069	2	KED
	As	75	0.059	ug/L	0.012	21	4	26	17	KED
	Se-1	78	0.060	ug/L	0.027	44	12	16	6	KED
	Y	89		ug/L			790194	813662	3	Standard
	Kr	83		ug/L			58	714	10	Standard
>	In-1	115		ug/L			38158	39477	1	KED
	Cd	111	0.649	ug/L	0.032	4	3	309	6	KED
	Cd	114	0.494	ug/L	0.004	0	5	599	1	KED
>	In	115		ug/L			944527	1052639	2	Standard
	Ag	107	6.742	ug/L	0.238	3	53	116611	5	Standard
	Sb	121	0.138	ug/L	0.003	2	99	2118	1	Standard
	Sb	123	0.166	ug/L	0.008	4	75	1873	5	Standard
	Ba	135	0.151	ug/L	0.011	6	12	677	4	Standard
	Ba	137	0.172	ug/L	0.008	4	21	1323	5	Standard
>	Tb	159		ug/L			1118737	1286846	1	Standard
	Pb	208	0.178	ug/L	0.004	2	175	8160	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0183-01RE1
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, June 18, 2018 15:59:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	38762	1	Standard
	Cl	**37**		ug/L			6308940	26571542	5	Standard
>	**Sc**	**45**		ug/L			1410977	1459451	0	Standard
	Cr	**52**	**0.623**	ug/L	0.011	1	14875	29788	0	Standard
	Cr	**53**	**7.491**	ug/L	0.238	3	195	21211	3	Standard
	Mn	**55**	**4.555**	ug/L	0.076	1	545	156969	0	Standard
>	**Ge-1**	**72**		ug/L			87449	77919	2	KED
	Ni	**60**	**0.139**	ug/L	0.016	11	15	189	9	KED
	Ni	**62**	**0.580**	ug/L	0.107	18	10	121	14	KED
	Cu	**63**	**0.908**	ug/L	0.006	0	46	3002	1	KED
	Cu	**65**	**0.867**	ug/L	0.016	1	26	1420	2	KED
	Zn	**66**	**4.037**	ug/L	0.055	1	68	1887	2	KED
	Zn	**67**	**3.941**	ug/L	0.341	8	10	301	8	KED
	As	**75**	**0.173**	ug/L	0.019	11	4	55	8	KED
	Se-1	**78**	**0.195**	ug/L	0.029	14	12	18	5	KED
	Y	**89**		ug/L			790194	723337	2	Standard
	Kr	**83**		ug/L			58	570	0	Standard
>	**In-1**	**115**		ug/L			38158	33674	0	KED
	Cd	**111**	**0.004**	ug/L	0.003	69	3	4	24	KED
	Cd	**114**	**0.014**	ug/L	0.002	16	5	18	11	KED
>	**In**	**115**		ug/L			944527	859640	1	Standard
	Ag	**107**	**0.004**	ug/L	0.001	26	53	107	15	Standard
	Sb	**121**	**0.071**	ug/L	0.002	2	99	936	3	Standard
	Sb	**123**	**0.071**	ug/L	0.001	2	75	689	3	Standard
	Ba	**135**	**2.733**	ug/L	0.068	2	12	9809	4	Standard
	Ba	**137**	**2.768**	ug/L	0.120	4	21	17072	3	Standard
>	**Tb**	**159**		ug/L			1118737	1119091	0	Standard
	Pb	**208**	**0.129**	ug/L	0.005	3	175	5212	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0237-01RE1
Sample Dil Factor: 10000
Comments:
Sample Date/Time: Monday, June 18, 2018 16:04:27
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	30298	1	Standard
	Cl	37		ug/L			6308940	7124404	0	Standard
>	Sc	45		ug/L			1410977	1365903	2	Standard
	Cr	52	158.455	ug/L	2.911	1	14875	3440239	1	Standard
	Cr	53	159.126	ug/L	5.266	3	195	417560	0	Standard
	Mn	55	0.093	ug/L	0.006	6	545	3521	3	Standard
>	Ge-1	72		ug/L			87449	85608	2	KED
	Ni	60	0.060	ug/L	0.014	23	15	98	19	KED
	Ni	62	0.195	ug/L	0.009	4	10	51	6	KED
	Cu	63	0.176	ug/L	0.013	7	46	675	9	KED
	Cu	65	0.183	ug/L	0.011	6	26	349	7	KED
	Zn	66	1.552	ug/L	0.039	2	68	838	4	KED
	Zn	67	1.355	ug/L	0.148	10	10	120	7	KED
	As	75	-0.001	ug/L	0.003	217	4	4	24	KED
	Se-1	78	0.079	ug/L	0.083	105	12	15	20	KED
	Y	89		ug/L			790194	757808	2	Standard
	Kr	83		ug/L			58	173	7	Standard
>	In-1	115		ug/L			38158	37660	1	KED
	Cd	111	0.001	ug/L	0.004	560	3	3	56	KED
	Cd	114	0.003	ug/L	0.004	131	5	9	53	KED
>	In	115		ug/L			944527	931106	1	Standard
	Ag	107	0.076	ug/L	0.002	3	53	1213	4	Standard
	Sb	121	0.019	ug/L	0.000	1	99	337	0	Standard
	Sb	123	0.017	ug/L	0.001	8	75	236	4	Standard
	Ba	135	0.019	ug/L	0.001	6	12	84	6	Standard
	Ba	137	0.021	ug/L	0.001	4	21	158	3	Standard
>	Tb	159		ug/L			1118737	1139418	1	Standard
	Pb	208	0.037	ug/L	0.001	2	175	1657	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0406-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 16:09:09
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26774	35676	1	Standard
Cl	37		ug/L			6308940	6499281	0	Standard
Sc	45		ug/L			1410977	1460364	1	Standard
Cr	52	0.936	ug/L	0.082	8	14875	37008	3	Standard
Cr	53	1.104	ug/L	0.041	3	195	3298	3	Standard
Mn	55	76.356	ug/L	0.792	1	545	2624169	1	Standard
Ge-1	72		ug/L			87449	80709	2	KED
Ni	60	4.096	ug/L	0.084	2	15	5394	4	KED
Ni	62	4.374	ug/L	0.210	4	10	887	2	KED
Cu	63	23.237	ug/L	0.449	1	46	78495	1	KED
Cu	65	22.891	ug/L	0.623	2	26	38228	2	KED
Zn	66	162.852	ug/L	4.252	2	68	76344	1	KED
Zn	67	151.736	ug/L	6.384	4	10	11645	1	KED
As	75	0.024	ug/L	0.014	55	4	11	33	KED
Se-1	78	0.187	ug/L	0.082	43	12	19	15	KED
Y	89		ug/L			790194	744975	2	Standard
Kr	83		ug/L			58	72	6	Standard
In-1	115		ug/L			38158	35806	0	KED
Cd	111	5.807	ug/L	0.143	2	3	2483	2	KED
Cd	114	5.818	ug/L	0.192	3	5	6349	3	KED
In	115		ug/L			944527	905271	3	Standard
Ag	107	0.006	ug/L	0.002	26	53	137	14	Standard
Sb	121	0.047	ug/L	0.001	1	99	687	2	Standard
Sb	123	0.047	ug/L	0.001	2	75	510	1	Standard
Ba	135	20.089	ug/L	0.604	3	12	75774	0	Standard
Ba	137	20.100	ug/L	0.283	1	21	130418	2	Standard
Tb	159		ug/L			1118737	1127581	1	Standard
Pb	208	0.021	ug/L	0.003	12	175	989	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-09
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 16:13:52
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	37967	1	Standard
	Cl	37		ug/L			6308940	6448330	0	Standard
>	Sc	45		ug/L			1410977	1469721	0	Standard
	Cr	52	1.153	ug/L	0.435	37	14875	42334	23	Standard
	Cr	53	1.355	ug/L	0.331	24	195	4029	23	Standard
	Mn	55	75.834	ug/L	0.604	0	545	2623111	0	Standard
>	Ge-1	72		ug/L			87449	80624	1	KED
	Ni	60	4.185	ug/L	0.019	0	15	5503	1	KED
	Ni	62	4.218	ug/L	0.074	1	10	855	1	KED
	Cu	63	23.902	ug/L	0.138	0	46	80677	0	KED
	Cu	65	23.745	ug/L	0.197	0	26	39617	0	KED
	Zn	66	162.638	ug/L	1.442	0	68	76181	0	KED
	Zn	67	149.614	ug/L	4.361	2	10	11477	2	KED
	As	75	0.028	ug/L	0.005	17	4	13	11	KED
	Se-1	78	0.277	ug/L	0.039	14	12	22	7	KED
	Y	89		ug/L			790194	745665	0	Standard
	Kr	83		ug/L			58	53	14	Standard
>	In-1	115		ug/L			38158	34865	2	KED
	Cd	111	6.250	ug/L	0.211	3	3	2601	1	KED
	Cd	114	6.098	ug/L	0.082	1	5	6477	1	KED
>	In	115		ug/L			944527	898917	1	Standard
	Ag	107	0.004	ug/L	0.001	33	53	106	17	Standard
	Sb	121	0.050	ug/L	0.004	8	99	711	6	Standard
	Sb	123	0.042	ug/L	0.004	8	75	460	6	Standard
	Ba	135	20.385	ug/L	0.549	2	12	76387	1	Standard
	Ba	137	21.137	ug/L	0.196	0	21	136208	0	Standard
>	Tb	159		ug/L			1118737	1110566	1	Standard
	Pb	208	0.023	ug/L	0.001	4	175	1061	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0406-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 16:18:34
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	36497	1	Standard
	Cl	37		ug/L			6308940	6440085	0	Standard
>	Sc	45		ug/L			1410977	1452751	1	Standard
	Cr	52	24.739	ug/L	0.155	0	14875	584297	0	Standard
	Cr	53	24.404	ug/L	0.400	1	195	68312	0	Standard
	Mn	55	100.642	ug/L	1.370	1	545	3440596	0	Standard
>	Ge-1	72		ug/L			87449	79200	0	KED
	Ni	60	29.498	ug/L	0.765	2	15	38012	1	KED
	Ni	62	30.128	ug/L	0.455	1	10	5949	0	KED
	Cu	63	49.790	ug/L	0.666	1	46	165040	1	KED
	Cu	65	49.566	ug/L	1.082	2	26	81203	1	KED
	Zn	66	247.672	ug/L	9.214	3	68	113911	2	KED
	Zn	67	232.397	ug/L	1.232	0	10	17509	1	KED
	As	75	23.892	ug/L	0.430	1	4	7266	1	KED
	Se-1	78	75.085	ug/L	2.018	2	12	2969	2	KED
	Y	89		ug/L			790194	728819	3	Standard
	Kr	83		ug/L			58	59	9	Standard
>	In-1	115		ug/L			38158	34900	2	KED
	Cd	111	29.419	ug/L	0.797	2	3	12249	1	KED
	Cd	114	30.006	ug/L	1.619	5	5	31867	3	KED
>	In	115		ug/L			944527	889260	1	Standard
	Ag	107	23.715	ug/L	0.556	2	53	346226	1	Standard
	Sb	121	0.044	ug/L	0.006	14	99	636	14	Standard
	Sb	123	0.043	ug/L	0.004	8	75	458	6	Standard
	Ba	135	45.678	ug/L	0.633	1	12	169342	2	Standard
	Ba	137	46.194	ug/L	1.126	2	21	294403	1	Standard
>	Tb	159		ug/L			1118737	1095982	2	Standard
	Pb	208	25.419	ug/L	0.498	1	175	970569	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0406-MSD1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 16:23:17
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26774	34336	0	Standard
Cl	37		ug/L			6308940	6381695	0	Standard
Sc	45		ug/L			1410977	1443348	1	Standard
Cr	52	25.179	ug/L	0.274	1	14875	590554	1	Standard
Cr	53	25.071	ug/L	0.306	1	195	69721	0	Standard
Mn	55	101.533	ug/L	1.823	1	545	3448304	0	Standard
Ge-1	72		ug/L			87449	78441	1	KED
Ni	60	30.508	ug/L	0.573	1	15	38938	1	KED
Ni	62	31.462	ug/L	1.708	5	10	6153	5	KED
Cu	63	51.744	ug/L	0.739	1	46	169883	2	KED
Cu	65	50.517	ug/L	0.850	1	26	81974	1	KED
Zn	66	252.090	ug/L	1.077	0	68	114858	1	KED
Zn	67	235.323	ug/L	7.037	2	10	17556	2	KED
As	75	25.185	ug/L	0.571	2	4	7585	0	KED
Se-1	78	76.468	ug/L	1.612	2	12	2994	1	KED
Y	89		ug/L			790194	735430	2	Standard
Kr	83		ug/L			58	56	15	Standard
In-1	115		ug/L			38158	34673	2	KED
Cd	111	30.330	ug/L	0.561	1	3	12548	1	KED
Cd	114	30.579	ug/L	1.227	4	5	32274	2	KED
In	115		ug/L			944527	895702	2	Standard
Ag	107	24.047	ug/L	0.910	3	53	353526	2	Standard
Sb	121	0.042	ug/L	0.005	11	99	615	8	Standard
Sb	123	0.043	ug/L	0.003	6	75	465	6	Standard
Ba	135	45.230	ug/L	0.678	1	12	168873	1	Standard
Ba	137	45.376	ug/L	1.349	2	21	291271	2	Standard
Tb	159		ug/L			1118737	1096229	2	Standard
Pb	208	25.817	ug/L	0.266	1	175	986117	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0406-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 16:28:00
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	34298	1	Standard
	Cl	37		ug/L			6308940	7052028	0	Standard
⌈>	Sc	45		ug/L			1410977	1346292	1	Standard
|	Cr	52	26.667	ug/L	0.283	1	14875	582556	0	Standard
|	Cr	53	26.218	ug/L	0.473	1	195	67997	0	Standard
⌊	Mn	55	26.704	ug/L	0.415	1	545	846375	0	Standard
⌈>	Ge-1	72		ug/L			87449	81167	2	KED
|	Ni	60	26.591	ug/L	1.251	4	15	35100	2	KED
|	Ni	62	27.338	ug/L	1.009	3	10	5530	1	KED
|	Cu	63	27.606	ug/L	0.354	1	46	93784	0	KED
|	Cu	65	27.311	ug/L	1.063	3	26	45845	1	KED
|	Zn	66	86.605	ug/L	3.104	3	68	40857	2	KED
|	Zn	67	81.195	ug/L	1.252	1	10	6274	1	KED
|	As	75	25.120	ug/L	0.597	2	4	7828	1	KED
⌊	Se-1	78	82.517	ug/L	2.161	2	12	3342	0	KED
	Y	89		ug/L			790194	721559	1	Standard
	Kr	83		ug/L			58	47	4	Standard
⌈>	In-1	115		ug/L			38158	35819	2	KED
|	Cd	111	25.305	ug/L	0.214	0	3	10817	2	KED
⌊	Cd	114	25.470	ug/L	0.213	0	5	27788	2	KED
⌈>	In	115		ug/L			944527	903951	1	Standard
|	Ag	107	25.247	ug/L	0.675	2	53	374671	1	Standard
|	Sb	121	0.003	ug/L	0.000	11	99	132	4	Standard
|	Sb	123	0.003	ug/L	0.002	50	75	99	13	Standard
|	Ba	135	24.473	ug/L	0.057	0	12	92232	1	Standard
⌊	Ba	137	25.495	ug/L	0.251	0	21	165220	1	Standard
⌈>	Tb	159		ug/L			1118737	1068892	0	Standard
⌊	Pb	208	27.248	ug/L	0.414	1	175	1014940	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 16:33:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	24735	1	Standard
	Cl	**37**		ug/L			6308940	6964419	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1342597	0	Standard
|	**Cr**	**52**	**50.373**	ug/L	1.635	3	14875	1084867	3	Standard
|	**Cr**	**53**	**48.647**	ug/L	1.192	2	195	125672	2	Standard
⌊	**Mn**	**55**	**49.705**	ug/L	1.136	2	545	1570748	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	80610	0	KED
|	**Ni**	**60**	**49.944**	ug/L	1.263	2	15	65500	2	KED
|	**Ni**	**62**	**50.797**	ug/L	0.574	1	10	10203	0	KED
|	**Cu**	**63**	**50.693**	ug/L	1.637	3	46	171038	3	KED
|	**Cu**	**65**	**50.535**	ug/L	1.163	2	26	84271	2	KED
|	**Zn**	**66**	**50.657**	ug/L	0.981	1	68	23767	1	KED
|	**Zn**	**67**	**50.059**	ug/L	0.976	1	10	3846	1	KED
|	**As**	**75**	**49.435**	ug/L	0.419	0	4	15298	0	KED
⌊	**Se-1**	**78**	**50.114**	ug/L	0.597	1	12	2021	1	KED
	Y	**89**		ug/L			790194	701786	1	Standard
	Kr	**83**		ug/L			58	61	24	Standard
⌈>	**In-1**	**115**		ug/L			38158	34963	2	KED
|	**Cd**	**111**	**48.618**	ug/L	2.137	4	3	20273	3	KED
⌊	**Cd**	**114**	**49.130**	ug/L	1.723	3	5	52278	1	KED
⌈>	**In**	**115**		ug/L			944527	885705	2	Standard
|	**Ag**	**107**	**47.458**	ug/L	2.351	4	53	689761	3	Standard
|	**Sb**	**121**	**48.358**	ug/L	1.868	3	99	591070	2	Standard
|	**Sb**	**123**	**50.147**	ug/L	1.280	2	75	453786	1	Standard
|	**Ba**	**135**	**47.400**	ug/L	1.849	3	12	174944	2	Standard
⌊	**Ba**	**137**	**49.488**	ug/L	2.581	5	21	313952	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1074904	0	Standard
⌊	**Pb**	**208**	**49.987**	ug/L	0.968	1	175	1872008	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 16:41:34
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	25481	0	Standard
	Cl	**37**		ug/L			6308940	6953548	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1323406	0	Standard
|	**Cr**	**52**	**-0.096**	ug/L	0.024	24	14875	11947	3	Standard
|	**Cr**	**53**	**0.023**	ug/L	0.006	27	195	241	7	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.000	7	545	552	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	80725	1	KED
|	**Ni**	**60**	**0.000**	ug/L	0.007	1741	15	14	66	KED
|	**Ni**	**62**	**0.001**	ug/L	0.001	114	10	9	0	KED
|	**Cu**	**63**	**-0.002**	ug/L	0.009	491	46	37	81	KED
|	**Cu**	**65**	**-0.002**	ug/L	0.004	169	26	20	32	KED
|	**Zn**	**66**	**-0.029**	ug/L	0.016	54	68	49	15	KED
|	**Zn**	**67**	**0.019**	ug/L	0.025	129	10	11	16	KED
|	**As**	**75**	**0.004**	ug/L	0.004	101	4	5	24	KED
⌊	**Se-1**	**78**	**0.157**	ug/L	0.118	75	12	17	27	KED
	Y	**89**		ug/L			790194	683355	4	Standard
	Kr	**83**		ug/L			58	44	27	Standard
⌈>	**In-1**	**115**		ug/L			38158	36230	2	KED
|	**Cd**	**111**	**-0.000**	ug/L	0.002	760	3	2	33	KED
⌊	**Cd**	**114**	**-0.000**	ug/L	0.004	1824	5	4	96	KED
⌈>	**In**	**115**		ug/L			944527	865820	2	Standard
|	**Ag**	**107**	**0.002**	ug/L	0.001	53	53	80	22	Standard
|	**Sb**	**121**	**0.122**	ug/L	0.010	8	99	1549	5	Standard
|	**Sb**	**123**	**0.124**	ug/L	0.006	5	75	1166	2	Standard
|	**Ba**	**135**	**0.001**	ug/L	0.001	62	12	14	15	Standard
⌊	**Ba**	**137**	**-0.001**	ug/L	0.001	184	21	15	42	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1062216	2	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	40	175	203	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0419-BLK1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, June 18, 2018 16:47:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26774	30403	2	Standard
Cl	37		ug/L			6308940	6981606	0	Standard
Sc	45		ug/L			1410977	1374960	0	Standard
Cr	52	-0.058	ug/L	0.020	34	14875	13231	2	Standard
Cr	53	0.035	ug/L	0.008	24	195	281	7	Standard
Mn	55	0.012	ug/L	0.001	5	545	927	3	Standard
Ge-1	72		ug/L			87449	81654	2	KED
Ni	60	0.021	ug/L	0.005	23	15	42	18	KED
Ni	62	0.013	ug/L	0.013	105	10	12	24	KED
Cu	63	0.024	ug/L	0.003	14	46	125	11	KED
Cu	65	0.020	ug/L	0.004	20	26	58	10	KED
Zn	66	0.547	ug/L	0.012	2	68	323	3	KED
Zn	67	0.492	ug/L	0.045	9	10	48	6	KED
As	75	0.000	ug/L	0.008	2306	4	4	59	KED
Se-1	78	0.067	ug/L	0.013	19	12	14	5	KED
Y	89		ug/L			790194	713668	4	Standard
Kr	83		ug/L			58	48	12	Standard
In-1	115		ug/L			38158	36292	1	KED
Cd	111	-0.001	ug/L	0.003	286	3	2	57	KED
Cd	114	0.000	ug/L	0.003	1680	5	5	67	KED
In	115		ug/L			944527	905124	1	Standard
Ag	107	0.000	ug/L	0.001	153	53	56	14	Standard
Sb	121	0.036	ug/L	0.004	11	99	541	9	Standard
Sb	123	0.037	ug/L	0.005	14	75	413	12	Standard
Ba	135	0.009	ug/L	0.001	16	12	46	13	Standard
Ba	137	0.008	ug/L	0.003	37	21	73	27	Standard
Tb	159		ug/L			1118737	1091526	1	Standard
Pb	208	0.013	ug/L	0.002	11	175	677	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0215-01
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, June 18, 2018 16:52:07
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	648441	2	Standard
	Cl	37		ug/L			6308940	6632356	0	Standard
>	Sc	45		ug/L			1410977	1349266	0	Standard
	Cr	52	2.605	ug/L	0.040	1	14875	69870	0	Standard
	Cr	53	1.441	ug/L	0.046	3	195	3921	2	Standard
	Mn	55	22.640	ug/L	0.158	0	545	719317	0	Standard
>	Ge-1	72		ug/L			87449	68162	2	KED
	Ni	60	10.171	ug/L	0.408	4	15	11283	1	KED
	Ni	62	10.308	ug/L	0.396	3	10	1756	2	KED
	Cu	63	17.578	ug/L	0.496	2	46	50160	2	KED
	Cu	65	17.598	ug/L	0.367	2	26	24823	1	KED
	Zn	66	6.444	ug/L	0.142	2	68	2602	1	KED
	Zn	67	7.092	ug/L	0.354	4	10	467	5	KED
	As	75	0.117	ug/L	0.018	15	4	34	13	KED
	Se-1	78	0.190	ug/L	0.054	28	12	16	10	KED
	Y	89		ug/L			790194	718570	2	Standard
	Kr	83		ug/L			58	97	10	Standard
>	In-1	115		ug/L			38158	30702	0	KED
	Cd	111	0.022	ug/L	0.004	20	3	10	15	KED
	Cd	114	0.019	ug/L	0.011	58	5	22	47	KED
>	In	115		ug/L			944527	814586	1	Standard
	Ag	107	0.001	ug/L	0.001	66	53	60	17	Standard
	Sb	121	0.358	ug/L	0.010	2	99	4106	2	Standard
	Sb	123	0.347	ug/L	0.026	7	75	2954	7	Standard
	Ba	135	17.086	ug/L	0.546	3	12	58008	1	Standard
	Ba	137	17.777	ug/L	0.298	1	21	103803	0	Standard
>	Tb	159		ug/L			1118737	1054832	1	Standard
	Pb	208	0.025	ug/L	0.001	4	175	1082	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0232-01
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, June 18, 2018 16:56:49
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26774	71366	1	Standard
Cl	37		ug/L			6308940	6423655	0	Standard
> Sc	45		ug/L			1410977	1454870	0	Standard
Cr	52	42.824	ug/L	0.315	0	14875	1001711	0	Standard
Cr	53	40.440	ug/L	0.395	0	195	113250	1	Standard
Mn	55	235.681	ug/L	1.817	0	545	8068427	0	Standard
> Ge-1	72		ug/L			87449	82952	2	KED
Ni	60	36.402	ug/L	0.395	1	15	49127	1	KED
Ni	62	38.154	ug/L	1.515	3	10	7886	3	KED
Cu	63	188.094	ug/L	7.641	4	46	652487	1	KED
Cu	65	185.368	ug/L	3.666	1	26	317941	0	KED
Zn	66	1221.257	ug/L	50.161	4	68	587784	1	KED
Zn	67	1129.665	ug/L	51.511	4	10	89051	3	KED
As	75	4.530	ug/L	0.053	1	4	1446	1	KED
Se-1	78	0.512	ug/L	0.083	16	12	33	11	KED
Y	89		ug/L			790194	896219	1	Standard
Kr	83		ug/L			58	87	18	Standard
> In-1	115		ug/L			38158	35368	4	KED
Cd	111	2.438	ug/L	0.069	2	3	1030	2	KED
Cd	114	2.466	ug/L	0.213	8	5	2654	4	KED
> In	115		ug/L			944527	911311	1	Standard
Ag	107	0.798	ug/L	0.039	4	53	11992	3	Standard
Sb	121	0.534	ug/L	0.015	2	99	6810	1	Standard
Sb	123	0.538	ug/L	0.029	5	75	5083	4	Standard
Ba	135	122.726	ug/L	1.758	1	12	466198	1	Standard
Ba	137	122.638	ug/L	2.412	1	21	801096	1	Standard
> Tb	159		ug/L			1118737	1136689	2	Standard
Pb	208	185.996	ug/L	1.845	0	175	7364858	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0232-02
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, June 18, 2018 17:01:32
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	63783	1	Standard
	Cl	37		ug/L			6308940	6794039	0	Standard
>	Sc	45		ug/L			1410977	1465586	0	Standard
	Cr	52	500.698	ug/L	8.213	1	14875	11633678	1	Standard
	Cr	53	493.025	ug/L	9.039	1	195	1388469	1	Standard
	Mn	55	297.459	ug/L	5.065	1	545	10258946	1	Standard
>	Ge-1	72		ug/L			87449	83702	1	KED
	Ni	60	51.497	ug/L	0.923	1	15	70125	1	KED
	Ni	62	52.911	ug/L	0.924	1	10	11036	2	KED
	Cu	63	202.020	ug/L	4.874	2	46	707501	1	KED
	Cu	65	204.115	ug/L	3.747	1	26	353328	0	KED
	Zn	66	1004.984	ug/L	15.219	1	68	488369	1	KED
	Zn	67	923.981	ug/L	13.781	1	10	73535	1	KED
	As	75	5.167	ug/L	0.113	2	4	1664	2	KED
	Se-1	78	0.443	ug/L	0.028	6	12	30	4	KED
	Y	89		ug/L			790194	891277	1	Standard
	Kr	83		ug/L			58	97	17	Standard
>	In-1	115		ug/L			38158	36431	0	KED
	Cd	111	1.830	ug/L	0.045	2	3	798	2	KED
	Cd	114	1.912	ug/L	0.069	3	5	2126	3	KED
>	In	115		ug/L			944527	893365	1	Standard
	Ag	107	0.896	ug/L	0.010	1	53	13186	0	Standard
	Sb	121	0.299	ug/L	0.013	4	99	3786	3	Standard
	Sb	123	0.315	ug/L	0.007	2	75	2943	1	Standard
	Ba	135	96.295	ug/L	3.478	3	12	358456	1	Standard
	Ba	137	96.718	ug/L	2.970	3	21	619168	1	Standard
>	Tb	159		ug/L			1118737	1108714	1	Standard
	Pb	208	171.107	ug/L	5.060	2	175	6607671	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0232-05
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, June 18, 2018 17:06:14
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26774	67329	2	Standard
Cl	37		ug/L			6308940	6686213	0	Standard
> Sc	45		ug/L			1410977	1475338	0	Standard
Cr	52	293.521	ug/L	7.850	2	14875	6871024	2	Standard
Cr	53	292.435	ug/L	6.233	2	195	829099	1	Standard
Mn	55	321.384	ug/L	11.078	3	545	11156158	2	Standard
> Ge-1	72		ug/L			87449	83175	1	KED
Ni	60	117.301	ug/L	0.652	0	15	158724	1	KED
Ni	62	121.273	ug/L	3.407	2	10	25117	2	KED
Cu	63	219.266	ug/L	2.254	1	46	763107	0	KED
Cu	65	217.673	ug/L	3.694	1	26	374429	0	KED
Zn	66	1449.643	ug/L	27.514	1	68	699931	0	KED
Zn	67	1359.442	ug/L	33.529	2	10	107491	1	KED
As	75	5.179	ug/L	0.135	2	4	1657	2	KED
Se-1	78	0.628	ug/L	0.115	18	12	37	13	KED
Y	89		ug/L			790194	914483	2	Standard
Kr	83		ug/L			58	109	21	Standard
> In-1	115		ug/L			38158	36166	1	KED
Cd	111	3.161	ug/L	0.110	3	3	1366	1	KED
Cd	114	3.157	ug/L	0.057	1	5	3481	0	KED
> In	115		ug/L			944527	911122	1	Standard
Ag	107	0.921	ug/L	0.035	3	53	13825	2	Standard
Sb	121	0.338	ug/L	0.014	4	99	4344	2	Standard
Sb	123	0.324	ug/L	0.013	3	75	3094	5	Standard
Ba	135	117.521	ug/L	1.995	1	12	446353	1	Standard
Ba	137	120.221	ug/L	2.069	1	21	785240	2	Standard
> Tb	159		ug/L			1118737	1094149	0	Standard
Pb	208	218.111	ug/L	4.428	2	175	8314434	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0419-DUP1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, June 18, 2018 17:10:57
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	34199	1	Standard
	Cl	37		ug/L			6308940	6296774	0	Standard
>	Sc	45		ug/L			1410977	1434904	1	Standard
	Cr	52	22.673	ug/L	0.701	3	14875	530015	1	Standard
	Cr	53	21.848	ug/L	0.572	2	195	60412	0	Standard
	Mn	55	176.486	ug/L	5.094	2	545	5957277	1	Standard
>	Ge-1	72		ug/L			87449	83688	1	KED
	Ni	60	20.338	ug/L	0.696	3	15	27703	3	KED
	Ni	62	21.429	ug/L	0.326	1	10	4474	2	KED
	Cu	63	13.281	ug/L	0.207	1	46	46546	0	KED
	Cu	65	13.048	ug/L	0.144	1	26	22607	1	KED
	Zn	66	34.615	ug/L	0.211	0	68	16881	0	KED
	Zn	67	34.034	ug/L	0.248	0	10	2718	1	KED
	As	75	4.269	ug/L	0.068	1	4	1375	1	KED
	Se-1	78	0.323	ug/L	0.124	38	12	25	19	KED
	Y	89		ug/L			790194	840025	0	Standard
	Kr	83		ug/L			58	108	6	Standard
>	In-1	115		ug/L			38158	35051	2	KED
	Cd	111	0.035	ug/L	0.006	18	3	17	16	KED
	Cd	114	0.028	ug/L	0.006	20	5	34	16	KED
>	In	115		ug/L			944527	890747	0	Standard
	Ag	107	0.022	ug/L	0.001	4	53	365	4	Standard
	Sb	121	0.011	ug/L	0.000	3	99	226	2	Standard
	Sb	123	0.012	ug/L	0.004	29	75	180	17	Standard
	Ba	135	20.086	ug/L	0.333	1	12	74591	1	Standard
	Ba	137	20.220	ug/L	0.445	2	21	129126	2	Standard
>	Tb	159		ug/L			1118737	1092222	1	Standard
	Pb	208	3.283	ug/L	0.021	0	175	125078	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0157-08
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, June 18, 2018 17:15:39
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	33779	0	Standard
	Cl	37		ug/L			6308940	6271964	1	Standard
>	Sc	45		ug/L			1410977	1437204	0	Standard
	Cr	52	23.254	ug/L	0.734	3	14875	544226	2	Standard
	Cr	53	22.871	ug/L	0.363	1	195	63358	2	Standard
	Mn	55	182.209	ug/L	2.162	1	545	6162149	0	Standard
>	Ge-1	72		ug/L			87449	81587	2	KED
	Ni	60	21.473	ug/L	0.726	3	15	28498	1	KED
	Ni	62	22.468	ug/L	0.938	4	10	4570	2	KED
	Cu	63	13.690	ug/L	0.337	2	46	46767	1	KED
	Cu	65	13.585	ug/L	0.422	3	26	22936	1	KED
	Zn	66	34.465	ug/L	1.108	3	68	16380	1	KED
	Zn	67	32.934	ug/L	1.661	5	10	2562	2	KED
	As	75	4.046	ug/L	0.085	2	4	1271	0	KED
	Se-1	78	0.382	ug/L	0.076	19	12	27	9	KED
	Y	89		ug/L			790194	842434	1	Standard
	Kr	83		ug/L			58	104	12	Standard
>	In-1	115		ug/L			38158	35604	0	KED
	Cd	111	0.029	ug/L	0.009	30	3	15	25	KED
	Cd	114	0.035	ug/L	0.016	46	5	43	40	KED
>	In	115		ug/L			944527	885410	1	Standard
	Ag	107	0.021	ug/L	0.002	9	53	349	7	Standard
	Sb	121	0.008	ug/L	0.001	7	99	195	3	Standard
	Sb	123	0.009	ug/L	0.001	16	75	153	9	Standard
	Ba	135	16.567	ug/L	0.326	1	12	61151	1	Standard
	Ba	137	16.758	ug/L	0.261	1	21	106374	1	Standard
>	Tb	159		ug/L			1118737	1086311	2	Standard
	Pb	208	2.972	ug/L	0.014	0	175	112634	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0419-MS1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, June 18, 2018 17:20:22
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	31617	2	Standard
	Cl	37		ug/L			6308940	6310846	0	Standard
>	Sc	45		ug/L			1410977	1447587	1	Standard
	Cr	52	43.681	ug/L	0.875	2	14875	1016241	1	Standard
	Cr	53	43.321	ug/L	1.537	3	195	120658	2	Standard
	Mn	55	204.478	ug/L	6.513	3	545	6964037	2	Standard
>	Ge-1	72		ug/L			87449	81108	0	KED
	Ni	60	43.817	ug/L	0.305	0	15	57826	0	KED
	Ni	62	45.551	ug/L	1.745	3	10	9206	3	KED
	Cu	63	37.291	ug/L	0.500	1	46	126597	0	KED
	Cu	65	36.993	ug/L	0.164	0	26	62078	0	KED
	Zn	66	107.282	ug/L	0.964	0	68	50576	0	KED
	Zn	67	103.967	ug/L	0.298	0	10	8027	0	KED
	As	75	25.512	ug/L	0.489	1	4	7946	1	KED
	Se-1	78	69.134	ug/L	1.548	2	12	2801	2	KED
	Y	89		ug/L			790194	833354	2	Standard
	Kr	83		ug/L			58	109	12	Standard
>	In-1	115		ug/L			38158	35269	2	KED
	Cd	111	22.417	ug/L	0.122	0	3	9436	1	KED
	Cd	114	22.693	ug/L	0.692	3	5	24371	3	KED
>	In	115		ug/L			944527	882246	0	Standard
	Ag	107	20.421	ug/L	0.601	2	53	295837	2	Standard
	Sb	121	2.053	ug/L	0.053	2	99	25103	2	Standard
	Sb	123	2.073	ug/L	0.083	3	75	18759	3	Standard
	Ba	135	46.690	ug/L	0.391	0	12	171725	1	Standard
	Ba	137	45.803	ug/L	1.462	3	21	289633	2	Standard
>	Tb	159		ug/L			1118737	1084197	1	Standard
	Pb	208	26.580	ug/L	0.255	0	175	1004174	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0419-MSD1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, June 18, 2018 17:25:04
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26774	31692	2	Standard
Cl	37		ug/L			6308940	6277962	0	Standard
Sc	45		ug/L			1410977	1421078	1	Standard
Cr	52	45.591	ug/L	1.046	2	14875	1040475	0	Standard
Cr	53	45.380	ug/L	1.483	3	195	124063	1	Standard
Mn	55	215.045	ug/L	6.046	2	545	7189058	1	Standard
Ge-1	72		ug/L			87449	79006	4	KED
Ni	60	46.554	ug/L	2.954	6	15	59734	1	KED
Ni	62	47.087	ug/L	2.797	5	10	9254	1	KED
Cu	63	41.366	ug/L	2.468	5	46	136564	2	KED
Cu	65	40.689	ug/L	0.960	2	26	66464	2	KED
Zn	66	111.353	ug/L	6.933	6	68	51040	1	KED
Zn	67	107.766	ug/L	2.021	1	10	8101	3	KED
As	75	27.816	ug/L	1.118	4	4	8429	1	KED
Se-1	78	72.109	ug/L	3.438	4	12	2841	2	KED
Y	89		ug/L			790194	833693	2	Standard
Kr	83		ug/L			58	126	6	Standard
In-1	115		ug/L			38158	34500	4	KED
Cd	111	23.190	ug/L	1.362	5	3	9533	2	KED
Cd	114	23.091	ug/L	1.491	6	5	24217	2	KED
In	115		ug/L			944527	869464	2	Standard
Ag	107	22.341	ug/L	0.540	2	53	318855	1	Standard
Sb	121	2.195	ug/L	0.112	5	99	26411	2	Standard
Sb	123	2.096	ug/L	0.077	3	75	18684	3	Standard
Ba	135	41.964	ug/L	1.355	3	12	152023	1	Standard
Ba	137	42.633	ug/L	0.847	1	21	265643	1	Standard
Tb	159		ug/L			1118737	1066584	4	Standard
Pb	208	26.833	ug/L	1.669	6	175	995525	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0419-BS1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, June 18, 2018 17:29:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	30327	1	Standard
	Cl	37		ug/L			6308940	6223494	0	Standard
⌈>	Sc	45		ug/L			1410977	1347725	0	Standard
|	Cr	52	24.754	ug/L	0.409	1	14875	542358	0	Standard
|	Cr	53	24.452	ug/L	0.546	2	195	63495	1	Standard
⌊	Mn	55	24.678	ug/L	0.454	1	545	783053	1	Standard
⌈>	Ge-1	72		ug/L			87449	81907	2	KED
|	Ni	60	24.123	ug/L	0.907	3	15	32138	1	KED
|	Ni	62	24.373	ug/L	0.512	2	10	4978	1	KED
|	Cu	63	24.998	ug/L	0.283	1	46	85708	1	KED
|	Cu	65	25.228	ug/L	0.354	1	26	42751	1	KED
|	Zn	66	77.255	ug/L	1.596	2	68	36786	0	KED
|	Zn	67	72.019	ug/L	1.713	2	10	5617	2	KED
|	As	75	22.833	ug/L	0.118	0	4	7182	2	KED
⌊	Se-1	78	71.786	ug/L	0.984	1	12	2936	1	KED
	Y	89		ug/L			790194	703843	2	Standard
	Kr	83		ug/L			58	63	16	Standard
⌈>	In-1	115		ug/L			38158	36142	1	KED
|	Cd	111	22.740	ug/L	0.497	2	3	9807	1	KED
⌊	Cd	114	22.799	ug/L	0.413	1	5	25094	1	KED
⌈>	In	115		ug/L			944527	880223	2	Standard
|	Ag	107	24.644	ug/L	0.770	3	53	356052	1	Standard
|	Sb	121	23.755	ug/L	0.520	2	99	288660	0	Standard
|	Sb	123	24.204	ug/L	0.404	1	75	217723	0	Standard
|	Ba	135	22.970	ug/L	0.298	1	12	84280	0	Standard
⌊	Ba	137	23.738	ug/L	0.690	2	21	149743	1	Standard
⌈>	Tb	159		ug/L			1118737	1052604	2	Standard
⌊	Pb	208	25.054	ug/L	1.466	5	175	917882	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 17:35:35
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	24319	2	Standard
	Cl	**37**		ug/L			6308940	6391382	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1313805	1	Standard
|	**Cr**	**52**	**51.714**	ug/L	0.968	1	14875	1089396	0	Standard
|	**Cr**	**53**	**50.582**	ug/L	0.420	0	195	127872	1	Standard
⌊	**Mn**	**55**	**50.674**	ug/L	0.703	1	545	1566890	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	79678	2	KED
|	**Ni**	**60**	**49.130**	ug/L	2.355	4	15	63643	2	KED
|	**Ni**	**62**	**50.734**	ug/L	1.733	3	10	10067	1	KED
|	**Cu**	**63**	**49.310**	ug/L	1.491	3	46	164367	1	KED
|	**Cu**	**65**	**48.399**	ug/L	1.719	3	26	79733	1	KED
|	**Zn**	**66**	**50.980**	ug/L	2.086	4	68	23627	1	KED
|	**Zn**	**67**	**49.670**	ug/L	0.431	0	10	3771	1	KED
|	**As**	**75**	**49.034**	ug/L	1.214	2	4	14994	0	KED
⌊	**Se-1**	**78**	**49.757**	ug/L	0.621	1	12	1983	1	KED
	Y	**89**		ug/L			790194	682983	1	Standard
	Kr	**83**		ug/L			58	50	5	Standard
⌈>	**In-1**	**115**		ug/L			38158	34865	1	KED
|	**Cd**	**111**	**47.957**	ug/L	1.005	2	3	19949	0	KED
⌊	**Cd**	**114**	**47.962**	ug/L	0.485	1	5	50920	1	KED
⌈>	**In**	**115**		ug/L			944527	872170	1	Standard
|	**Ag**	**107**	**48.120**	ug/L	1.417	2	53	688920	1	Standard
|	**Sb**	**121**	**48.653**	ug/L	1.956	4	99	585682	2	Standard
|	**Sb**	**123**	**49.670**	ug/L	1.008	2	75	442691	1	Standard
|	**Ba**	**135**	**48.146**	ug/L	1.594	3	12	175000	1	Standard
⌊	**Ba**	**137**	**48.637**	ug/L	1.329	2	21	304017	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1029225	2	Standard
⌊	**Pb**	**208**	**51.582**	ug/L	2.502	4	175	1848314	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 17:43:22
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	25595	2	Standard
	Cl	**37**		ug/L			6308940	6225558	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1333110	0	Standard
|	**Cr**	**52**	**-0.109**	ug/L	0.007	6	14875	11745	1	Standard
|	**Cr**	**53**	**0.005**	ug/L	0.007	132	195	198	8	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.001	78	545	546	4	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	79861	2	KED
|	**Ni**	**60**	**0.004**	ug/L	0.003	65	15	19	20	KED
|	**Ni**	**62**	**-0.008**	ug/L	0.010	121	10	7	25	KED
|	**Cu**	**63**	**0.003**	ug/L	0.008	232	46	54	49	KED
|	**Cu**	**65**	**0.003**	ug/L	0.006	189	26	29	35	KED
|	**Zn**	**66**	**-0.016**	ug/L	0.026	161	68	55	24	KED
|	**Zn**	**67**	**-0.021**	ug/L	0.063	294	10	8	58	KED
|	**As**	**75**	**0.006**	ug/L	0.004	63	4	6	19	KED
⌊	**Se-1**	**78**	**0.127**	ug/L	0.058	45	12	16	14	KED
	Y	**89**		ug/L			790194	689150	5	Standard
	Kr	**83**		ug/L			58	53	12	Standard
⌈>	**In-1**	**115**		ug/L			38158	35242	1	KED
|	**Cd**	**111**	**-0.000**	ug/L	0.002	1573	3	2	33	KED
⌊	**Cd**	**114**	**-0.003**	ug/L	0.003	101	5	2	125	KED
⌈>	**In**	**115**		ug/L			944527	875502	1	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.001	100	53	64	22	Standard
|	**Sb**	**121**	**0.112**	ug/L	0.003	2	99	1450	3	Standard
|	**Sb**	**123**	**0.111**	ug/L	0.008	7	75	1062	6	Standard
|	**Ba**	**135**	**-0.000**	ug/L	0.002	327	12	9	60	Standard
⌊	**Ba**	**137**	**0.000**	ug/L	0.000	947	21	20	14	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1050805	0	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.001	51	175	224	14	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 17:49:54
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	36990	2	Standard
	Cl	37		ug/L			6308940	6183476	1	Standard
>	Sc	45		ug/L			1410977	1383812	1	Standard
	Cr	52	-0.065	ug/L	0.006	9	14875	13154	0	Standard
	Cr	53	0.033	ug/L	0.005	14	195	278	3	Standard
	Mn	55	0.121	ug/L	0.001	0	545	4459	1	Standard
>	Ge-1	72		ug/L			87449	81947	0	KED
	Ni	60	0.016	ug/L	0.014	82	15	36	50	KED
	Ni	62	0.003	ug/L	0.038	1211	10	10	75	KED
	Cu	63	0.080	ug/L	0.012	14	46	317	12	KED
	Cu	65	0.069	ug/L	0.007	10	26	141	8	KED
	Zn	66	0.324	ug/L	0.031	9	68	218	6	KED
	Zn	67	0.343	ug/L	0.037	10	10	36	7	KED
	As	75	0.003	ug/L	0.006	165	4	5	33	KED
	Se-1	78	0.124	ug/L	0.048	38	12	16	11	KED
	Y	89		ug/L			790194	728192	1	Standard
	Kr	83		ug/L			58	53	14	Standard
>	In-1	115		ug/L			38158	36314	1	KED
	Cd	111	0.003	ug/L	0.004	136	3	4	44	KED
	Cd	114	-0.002	ug/L	0.003	224	5	3	106	KED
>	In	115		ug/L			944527	890881	1	Standard
	Ag	107	0.000	ug/L	0.001	145	53	57	16	Standard
	Sb	121	0.037	ug/L	0.005	13	99	554	10	Standard
	Sb	123	0.038	ug/L	0.002	4	75	417	4	Standard
	Ba	135	0.009	ug/L	0.003	30	12	45	22	Standard
	Ba	137	0.010	ug/L	0.002	15	21	83	10	Standard
>	Tb	159		ug/L			1118737	1066826	2	Standard
	Pb	208	0.006	ug/L	0.000	7	175	395	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0232-01RE1
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, June 18, 2018 17:54:37
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	33197	3	Standard
	Cl	**37**		ug/L			6308940	6128873	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1389073	1	Standard
|	**Cr**	**52**	**8.164**	ug/L	0.133	1	14875	194166	0	Standard
|	**Cr**	**53**	**8.215**	ug/L	0.073	0	195	22117	1	Standard
⌊	**Mn**	**55**	**47.284**	ug/L	0.249	0	545	1546004	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	83055	1	KED
|	**Ni**	**60**	**6.950**	ug/L	0.045	0	15	9403	0	KED
|	**Ni**	**62**	**7.106**	ug/L	0.096	1	10	1478	0	KED
|	**Cu**	**63**	**36.016**	ug/L	0.424	1	46	125200	0	KED
|	**Cu**	**65**	**35.802**	ug/L	0.171	0	26	61521	0	KED
|	**Zn**	**66**	**241.618**	ug/L	9.058	3	68	116533	2	KED
|	**Zn**	**67**	**224.872**	ug/L	1.377	0	10	17767	1	KED
|	**As**	**75**	**0.928**	ug/L	0.068	7	4	300	6	KED
⌊	**Se-1**	**78**	**0.196**	ug/L	0.038	19	12	20	8	KED
	Y	**89**		ug/L			790194	727404	1	Standard
	Kr	**83**		ug/L			58	50	17	Standard
⌈>	**In-1**	**115**		ug/L			38158	35640	2	KED
|	**Cd**	**111**	**0.476**	ug/L	0.038	7	3	205	10	KED
⌊	**Cd**	**114**	**0.459**	ug/L	0.020	4	5	502	4	KED
⌈>	**In**	**115**		ug/L			944527	885762	1	Standard
|	**Ag**	**107**	**0.159**	ug/L	0.004	2	53	2357	1	Standard
|	**Sb**	**121**	**0.112**	ug/L	0.006	5	99	1459	3	Standard
|	**Sb**	**123**	**0.117**	ug/L	0.006	5	75	1129	4	Standard
|	**Ba**	**135**	**23.959**	ug/L	0.484	2	12	88468	1	Standard
⌊	**Ba**	**137**	**23.679**	ug/L	0.820	3	21	150341	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1045992	0	Standard
⌊	**Pb**	**208**	**38.778**	ug/L	1.231	3	175	1413555	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0232-02RE1
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, June 18, 2018 17:59:20
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	32875	1	Standard
	Cl	37		ug/L			6308940	6190011	0	Standard
>	Sc	45		ug/L			1410977	1355826	1	Standard
	Cr	52	105.557	ug/L	1.406	1	14875	2279984	0	Standard
	Cr	53	108.855	ug/L	1.507	1	195	283750	1	Standard
	Mn	55	63.308	ug/L	1.092	1	545	2019972	0	Standard
>	Ge-1	72		ug/L			87449	81965	3	KED
	Ni	60	10.584	ug/L	0.330	3	15	14118	1	KED
	Ni	62	10.924	ug/L	0.715	6	10	2235	3	KED
	Cu	63	42.809	ug/L	0.720	1	46	146825	1	KED
	Cu	65	42.369	ug/L	1.030	2	26	71815	1	KED
	Zn	66	211.928	ug/L	4.906	2	68	100858	0	KED
	Zn	67	197.472	ug/L	3.955	2	10	15392	1	KED
	As	75	1.094	ug/L	0.055	5	4	348	3	KED
	Se-1	78	0.179	ug/L	0.105	58	12	19	21	KED
	Y	89		ug/L			790194	740688	2	Standard
	Kr	83		ug/L			58	57	21	Standard
>	In-1	115		ug/L			38158	35896	0	KED
	Cd	111	0.417	ug/L	0.011	2	3	181	2	KED
	Cd	114	0.375	ug/L	0.049	12	5	415	12	KED
>	In	115		ug/L			944527	893819	1	Standard
	Ag	107	0.178	ug/L	0.008	4	53	2665	4	Standard
	Sb	121	0.067	ug/L	0.005	7	99	919	6	Standard
	Sb	123	0.071	ug/L	0.008	10	75	720	10	Standard
	Ba	135	19.326	ug/L	0.318	1	12	72010	1	Standard
	Ba	137	19.813	ug/L	0.181	0	21	126969	2	Standard
>	Tb	159		ug/L			1118737	1051072	2	Standard
	Pb	208	36.918	ug/L	0.948	2	175	1351422	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0232-05RE1
Sample Dil Factor: 200
Comments:
Sample Date/Time: Monday, June 18, 2018 18:04:02
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	30297	2	Standard
	Cl	37		ug/L			6308940	6277779	0	Standard
>	Sc	45		ug/L			1410977	1356479	1	Standard
	Cr	52	33.517	ug/L	0.411	1	14875	734007	0	Standard
	Cr	53	32.499	ug/L	0.792	2	195	84864	0	Standard
	Mn	55	35.896	ug/L	0.585	1	545	1146107	1	Standard
>	Ge-1	72		ug/L			87449	83066	2	KED
	Ni	60	11.606	ug/L	0.466	4	15	15688	2	KED
	Ni	62	12.440	ug/L	0.777	6	10	2579	4	KED
	Cu	63	22.748	ug/L	0.550	2	46	79085	2	KED
	Cu	65	22.177	ug/L	0.505	2	26	38108	0	KED
	Zn	66	152.761	ug/L	5.797	3	68	73676	1	KED
	Zn	67	142.234	ug/L	6.634	4	10	11232	1	KED
	As	75	0.539	ug/L	0.041	7	4	176	4	KED
	Se-1	78	0.189	ug/L	0.116	61	12	19	22	KED
	Y	89		ug/L			790194	731920	1	Standard
	Kr	83		ug/L			58	45	8	Standard
>	In-1	115		ug/L			38158	34344	13	KED
	Cd	111	0.355	ug/L	0.032	8	3	147	9	KED
	Cd	114	0.330	ug/L	0.055	16	5	345	9	KED
>	In	115		ug/L			944527	901580	1	Standard
	Ag	107	0.103	ug/L	0.004	3	53	1572	2	Standard
	Sb	121	0.040	ug/L	0.006	14	99	590	12	Standard
	Sb	123	0.039	ug/L	0.004	9	75	430	8	Standard
	Ba	135	12.412	ug/L	0.342	2	12	46643	0	Standard
	Ba	137	12.488	ug/L	0.131	1	21	80718	1	Standard
>	Tb	159		ug/L			1118737	1070539	1	Standard
	Pb	208	22.924	ug/L	0.072	0	175	855196	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0230-01
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 18:08:45
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	52644	0	Standard
	Cl	37		ug/L			6308940	5925450	0	Standard
>	Sc	45		ug/L			1410977	1334328	1	Standard
	Cr	52	122.305	ug/L	3.128	2	14875	2597158	1	Standard
	Cr	53	123.521	ug/L	2.349	1	195	316792	0	Standard
	Mn	55	16.008	ug/L	0.347	2	545	502997	0	Standard
>	Ge-1	72		ug/L			87449	64920	0	KED
	Ni	60	3.624	ug/L	0.103	2	15	3838	3	KED
	Ni	62	3.666	ug/L	0.322	8	10	600	8	KED
	Cu	63	18.904	ug/L	0.236	1	46	51387	1	KED
	Cu	65	18.834	ug/L	0.166	0	26	25307	0	KED
	Zn	66	17.565	ug/L	0.257	1	68	6670	1	KED
	Zn	67	16.021	ug/L	0.383	2	10	996	2	KED
	As	75	0.089	ug/L	0.010	11	4	25	10	KED
	Se-1	78	0.267	ug/L	0.097	36	12	17	17	KED
	Y	89		ug/L			790194	682314	4	Standard
	Kr	83		ug/L			58	141	3	Standard
>	In-1	115		ug/L			38158	29262	1	KED
	Cd	111	0.015	ug/L	0.010	64	3	7	43	KED
	Cd	114	0.013	ug/L	0.009	68	5	15	48	KED
>	In	115		ug/L			944527	805240	2	Standard
	Ag	107	0.006	ug/L	0.001	14	53	121	8	Standard
	Sb	121	0.253	ug/L	0.008	3	99	2896	3	Standard
	Sb	123	0.262	ug/L	0.009	3	75	2218	1	Standard
	Ba	135	0.687	ug/L	0.003	0	12	2315	2	Standard
	Ba	137	0.705	ug/L	0.015	2	21	4088	1	Standard
>	Tb	159		ug/L			1118737	1001552	1	Standard
	Pb	208	0.277	ug/L	0.002	0	175	9834	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0230-02
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 18:13:27
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	50997	0	Standard
	Cl	37		ug/L			6308940	5943480	0	Standard
>	Sc	45		ug/L			1410977	1338792	1	Standard
	Cr	52	68.395	ug/L	0.928	1	14875	1463680	0	Standard
	Cr	53	66.360	ug/L	1.133	1	195	170860	0	Standard
	Mn	55	16.868	ug/L	0.529	3	545	531767	1	Standard
>	Ge-1	72		ug/L			87449	67443	0	KED
	Ni	60	2.198	ug/L	0.040	1	15	2423	1	KED
	Ni	62	2.336	ug/L	0.138	5	10	400	5	KED
	Cu	63	11.166	ug/L	0.062	0	46	31546	0	KED
	Cu	65	11.060	ug/L	0.048	0	26	15447	0	KED
	Zn	66	9.282	ug/L	0.172	1	68	3686	1	KED
	Zn	67	8.801	ug/L	0.272	3	10	572	3	KED
	As	75	0.054	ug/L	0.011	20	4	17	16	KED
	Se-1	78	0.223	ug/L	0.063	28	12	17	12	KED
	Y	89		ug/L			790194	687783	1	Standard
	Kr	83		ug/L			58	105	15	Standard
>	In-1	115		ug/L			38158	29551	1	KED
	Cd	111	0.008	ug/L	0.007	80	3	5	44	KED
	Cd	114	0.014	ug/L	0.009	62	5	16	48	KED
>	In	115		ug/L			944527	799380	2	Standard
	Ag	107	0.004	ug/L	0.001	13	53	99	5	Standard
	Sb	121	0.246	ug/L	0.006	2	99	2793	2	Standard
	Sb	123	0.243	ug/L	0.009	3	75	2048	3	Standard
	Ba	135	0.673	ug/L	0.022	3	12	2253	2	Standard
	Ba	137	0.661	ug/L	0.030	4	21	3803	3	Standard
>	Tb	159		ug/L			1118737	1023243	0	Standard
	Pb	208	0.127	ug/L	0.003	2	175	4687	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0230-07
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 18:18:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	65444	1	Standard
	Cl	37		ug/L			6308940	5947584	0	Standard
>	Sc	45		ug/L			1410977	1384683	1	Standard
	Cr	52	53.972	ug/L	0.823	1	14875	1197634	1	Standard
	Cr	53	53.867	ug/L	1.270	2	195	143463	0	Standard
	Mn	55	16.110	ug/L	0.431	2	545	525266	0	Standard
>	Ge-1	72		ug/L			87449	70125	0	KED
	Ni	60	1.261	ug/L	0.025	2	15	1450	2	KED
	Ni	62	1.248	ug/L	0.106	8	10	226	8	KED
	Cu	63	8.589	ug/L	0.058	0	46	25240	0	KED
	Cu	65	8.559	ug/L	0.091	1	26	12434	0	KED
	Zn	66	6.481	ug/L	0.366	5	68	2692	5	KED
	Zn	67	5.936	ug/L	0.673	11	10	404	11	KED
	As	75	0.078	ug/L	0.015	19	4	24	17	KED
	Se-1	78	0.217	ug/L	0.063	29	12	17	12	KED
	Y	89		ug/L			790194	697535	3	Standard
	Kr	83		ug/L			58	88	16	Standard
>	In-1	115		ug/L			38158	30476	2	KED
	Cd	111	0.009	ug/L	0.007	77	3	5	44	KED
	Cd	114	-0.029	ug/L	0.020	67	5	-22	79	KED
>	In	115		ug/L			944527	812295	2	Standard
	Ag	107	0.005	ug/L	0.001	11	53	117	7	Standard
	Sb	121	0.219	ug/L	0.007	3	99	2543	1	Standard
	Sb	123	0.223	ug/L	0.009	3	75	1912	1	Standard
	Ba	135	0.585	ug/L	0.031	5	12	1988	2	Standard
	Ba	137	0.570	ug/L	0.033	5	21	3334	3	Standard
>	Tb	159		ug/L			1118737	1045891	3	Standard
	Pb	208	0.117	ug/L	0.005	4	175	4439	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0230-08
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 18:22:53
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	98308	1	Standard
	Cl	37		ug/L			6308940	6001369	0	Standard
⌈>	Sc	45		ug/L			1410977	1359590	2	Standard
|	Cr	52	40.749	ug/L	0.950	2	14875	891257	1	Standard
|	Cr	53	39.712	ug/L	0.916	2	195	103904	1	Standard
⌊	Mn	55	15.004	ug/L	0.181	1	545	480503	2	Standard
⌈>	Ge-1	72		ug/L			87449	69463	0	KED
|	Ni	60	2.054	ug/L	0.077	3	15	2333	3	KED
|	Ni	62	2.332	ug/L	0.127	5	10	411	5	KED
|	Cu	63	10.620	ug/L	0.120	1	46	30903	0	KED
|	Cu	65	10.336	ug/L	0.269	2	26	14868	2	KED
|	Zn	66	7.923	ug/L	0.163	2	68	3249	1	KED
|	Zn	67	8.062	ug/L	0.384	4	10	540	4	KED
|	As	75	0.108	ug/L	0.019	17	4	32	15	KED
⌊	Se-1	78	0.277	ug/L	0.013	4	12	19	2	KED
	Y	89		ug/L			790194	689276	1	Standard
	Kr	83		ug/L			58	86	13	Standard
⌈>	In-1	115		ug/L			38158	30144	1	KED
|	Cd	111	0.004	ug/L	0.001	31	3	4	13	KED
⌊	Cd	114	-0.003	ug/L	0.021	616	5	1	1409	KED
⌈>	In	115		ug/L			944527	822948	1	Standard
|	Ag	107	0.005	ug/L	0.000	7	53	115	3	Standard
|	Sb	121	0.258	ug/L	0.006	2	99	3021	1	Standard
|	Sb	123	0.260	ug/L	0.011	4	75	2256	5	Standard
|	Ba	135	0.601	ug/L	0.017	2	12	2073	1	Standard
⌊	Ba	137	0.599	ug/L	0.018	2	21	3554	1	Standard
⌈>	Tb	159		ug/L			1118737	1046932	1	Standard
⌊	Pb	208	0.067	ug/L	0.002	2	175	2598	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 18:27:35
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	41316	1	Standard
	Cl	37		ug/L			6308940	6248975	0	Standard
>	Sc	45		ug/L			1410977	1453055	1	Standard
	Cr	52	26.563	ug/L	1.043	3	14875	626160	2	Standard
	Cr	53	25.881	ug/L	1.314	5	195	72416	3	Standard
	Mn	55	26.261	ug/L	0.451	1	545	898299	0	Standard
>	Ge-1	72		ug/L			87449	81536	1	KED
	Ni	60	27.100	ug/L	0.417	1	15	35955	1	KED
	Ni	62	27.904	ug/L	1.476	5	10	5670	3	KED
	Cu	63	27.754	ug/L	0.883	3	46	94702	1	KED
	Cu	65	27.474	ug/L	0.207	0	26	46355	1	KED
	Zn	66	81.010	ug/L	1.103	1	68	38405	1	KED
	Zn	67	76.723	ug/L	2.276	2	10	5955	1	KED
	As	75	23.926	ug/L	0.435	1	4	7490	1	KED
	Se-1	78	73.927	ug/L	0.427	0	12	3010	1	KED
	Y	89		ug/L			790194	756203	3	Standard
	Kr	83		ug/L			58	57	16	Standard
>	In-1	115		ug/L			38158	36292	0	KED
	Cd	111	24.481	ug/L	0.399	1	3	10604	1	KED
	Cd	114	24.529	ug/L	0.041	0	5	27112	0	KED
>	In	115		ug/L			944527	919567	3	Standard
	Ag	107	25.485	ug/L	1.604	6	53	384321	3	Standard
	Sb	121	0.002	ug/L	0.002	90	99	120	17	Standard
	Sb	123	0.002	ug/L	0.003	187	75	88	33	Standard
	Ba	135	25.240	ug/L	0.706	2	12	96711	1	Standard
	Ba	137	25.756	ug/L	1.421	5	21	169596	2	Standard
>	Tb	159		ug/L			1118737	1131951	1	Standard
	Pb	208	26.283	ug/L	0.581	2	175	1036662	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0419-SRM1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, June 18, 2018 18:32:18
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	37571	0	Standard
	Cl	37		ug/L			6308940	6359842	0	Standard
>	Sc	45		ug/L			1410977	1483514	0	Standard
	Cr	52	80.349	ug/L	1.188	1	14875	1902741	0	Standard
	Cr	53	78.572	ug/L	2.323	2	195	224134	2	Standard
	Mn	55	324.008	ug/L	10.303	3	545	11309182	2	Standard
>	Ge-1	72		ug/L			87449	84462	1	KED
	Ni	60	65.457	ug/L	1.306	1	15	89932	1	KED
	Ni	62	66.451	ug/L	1.737	2	10	13978	1	KED
	Cu	63	59.749	ug/L	1.723	2	46	211133	1	KED
	Cu	65	58.187	ug/L	0.850	1	26	101667	2	KED
	Zn	66	176.078	ug/L	1.331	0	68	86395	1	KED
	Zn	67	168.534	ug/L	4.873	2	10	13539	1	KED
	As	75	133.130	ug/L	2.414	1	4	43155	1	KED
	Se-1	78	121.401	ug/L	2.385	1	12	5112	2	KED
	Y	89		ug/L			790194	1107673	1	Standard
	Kr	83		ug/L			58	128	3	Standard
>	In-1	115		ug/L			38158	37787	1	KED
	Cd	111	56.879	ug/L	1.500	2	3	25641	1	KED
	Cd	114	57.364	ug/L	1.613	2	5	65990	1	KED
>	In	115		ug/L			944527	918566	0	Standard
	Ag	107	45.579	ug/L	1.099	2	53	687468	2	Standard
	Sb	121	5.317	ug/L	0.160	3	99	67519	2	Standard
	Sb	123	5.371	ug/L	0.114	2	75	50489	2	Standard
	Ba	135	94.756	ug/L	1.921	2	12	362840	1	Standard
	Ba	137	96.789	ug/L	2.908	3	21	637306	2	Standard
>	Tb	159		ug/L			1118737	1151480	2	Standard
	Pb	208	89.575	ug/L	3.123	3	175	3591340	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 18:38:05
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	25546	2	Standard
	Cl	**37**		ug/L			6308940	6405686	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1362115	2	Standard
|	**Cr**	**52**	**52.547**	ug/L	1.373	2	14875	1147128	1	Standard
|	**Cr**	**53**	**50.673**	ug/L	2.039	4	195	132715	1	Standard
⌊	**Mn**	**55**	**51.541**	ug/L	1.799	3	545	1651582	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	84367	2	KED
|	**Ni**	**60**	**49.300**	ug/L	1.322	2	15	67655	1	KED
|	**Ni**	**62**	**50.496**	ug/L	0.901	1	10	10612	0	KED
|	**Cu**	**63**	**50.654**	ug/L	2.238	4	46	178750	2	KED
|	**Cu**	**65**	**49.617**	ug/L	1.258	2	26	86568	0	KED
|	**Zn**	**66**	**50.919**	ug/L	0.784	1	68	25006	3	KED
|	**Zn**	**67**	**51.179**	ug/L	0.721	1	10	4114	1	KED
|	**As**	**75**	**48.917**	ug/L	1.114	2	4	15839	0	KED
⌊	**Se-1**	**78**	**49.138**	ug/L	2.326	4	12	2073	2	KED
	Y	**89**		ug/L			790194	720627	2	Standard
	Kr	**83**		ug/L			58	59	26	Standard
⌈>	**In-1**	**115**		ug/L			38158	36101	2	KED
|	**Cd**	**111**	**49.046**	ug/L	1.495	3	3	21118	0	KED
⌊	**Cd**	**114**	**49.386**	ug/L	1.859	3	5	54258	1	KED
⌈>	**In**	**115**		ug/L			944527	884846	1	Standard
|	**Ag**	**107**	**50.518**	ug/L	1.120	2	53	733797	1	Standard
|	**Sb**	**121**	**50.635**	ug/L	0.984	1	99	618450	0	Standard
|	**Sb**	**123**	**50.669**	ug/L	1.511	2	75	458051	1	Standard
|	**Ba**	**135**	**49.325**	ug/L	1.106	2	12	181899	0	Standard
⌊	**Ba**	**137**	**51.044**	ug/L	1.668	3	21	323649	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1105646	1	Standard
⌊	**Pb**	**208**	**49.702**	ug/L	0.797	1	175	1914858	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 18:45:32
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	25405	0	Standard
	Cl	**37**		ug/L			6308940	6199307	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1392583	2	Standard
|	**Cr**	**52**	**-0.133**	ug/L	0.016	11	14875	11741	1	Standard
|	**Cr**	**53**	**-0.000**	ug/L	0.001	392	195	192	3	Standard
⌊	**Mn**	**55**	**0.002**	ug/L	0.001	30	545	601	3	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	84663	0	KED
|	**Ni**	**60**	**-0.001**	ug/L	0.001	135	15	13	14	KED
|	**Ni**	**62**	**-0.010**	ug/L	0.027	258	10	7	75	KED
|	**Cu**	**63**	**-0.004**	ug/L	0.001	18	46	29	9	KED
|	**Cu**	**65**	**-0.003**	ug/L	0.002	52	26	19	14	KED
|	**Zn**	**66**	**-0.026**	ug/L	0.035	133	68	53	32	KED
|	**Zn**	**67**	**-0.004**	ug/L	0.121	3163	10	10	96	KED
|	**As**	**75**	**0.001**	ug/L	0.001	157	4	4	10	KED
⌊	**Se-1**	**78**	**0.077**	ug/L	0.114	148	12	15	31	KED
	Y	**89**		ug/L			790194	727064	0	Standard
	Kr	**83**		ug/L			58	47	16	Standard
⌈>	**In-1**	**115**		ug/L			38158	36162	1	KED
|	**Cd**	**111**	**0.000**	ug/L	0.003	638	3	3	34	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.003	393	5	5	48	KED
⌈>	**In**	**115**		ug/L			944527	880938	1	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.001	55	53	69	16	Standard
|	**Sb**	**121**	**0.120**	ug/L	0.003	2	99	1551	2	Standard
|	**Sb**	**123**	**0.121**	ug/L	0.005	4	75	1161	3	Standard
|	**Ba**	**135**	**-0.000**	ug/L	0.001	258	12	10	28	Standard
⌊	**Ba**	**137**	**0.001**	ug/L	0.002	159	21	27	40	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1103736	0	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.001	48	175	250	15	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0270-BLK3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 18:53:06
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	35824	0	Standard
	Cl	**37**		ug/L			6308940	5992280	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1257468	10	Standard
|	**Cr**	**52**	**-0.034**	ug/L	0.053	156	14875	12515	2	Standard
|	**Cr**	**53**	**0.025**	ug/L	0.016	61	195	232	6	Standard
⌊	**Mn**	**55**	**0.066**	ug/L	0.011	17	545	2401	3	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	81785	2	KED
|	**Ni**	**60**	**0.005**	ug/L	0.000	6	15	20	0	KED
|	**Ni**	**62**	**0.010**	ug/L	0.020	204	10	11	33	KED
|	**Cu**	**63**	**0.021**	ug/L	0.004	19	46	114	13	KED
|	**Cu**	**65**	**0.022**	ug/L	0.006	26	26	61	14	KED
|	**Zn**	**66**	**0.271**	ug/L	0.028	10	68	193	8	KED
|	**Zn**	**67**	**0.337**	ug/L	0.131	39	10	36	27	KED
|	**As**	**75**	**0.009**	ug/L	0.008	85	4	7	35	KED
⌊	**Se-1**	**78**	**0.136**	ug/L	0.075	55	12	17	19	KED
	Y	**89**		ug/L			790194	683944	11	Standard
	Kr	**83**		ug/L			58	60	23	Standard
⌈>	**In-1**	**115**		ug/L			38158	36082	0	KED
|	**Cd**	**111**	**-0.006**	ug/L	0.001	23	3	0	86	KED
⌊	**Cd**	**114**	**-0.002**	ug/L	0.004	252	5	3	147	KED
⌈>	**In**	**115**		ug/L			944527	845729	11	Standard
|	**Ag**	**107**	**0.002**	ug/L	0.001	50	53	74	8	Standard
|	**Sb**	**121**	**0.032**	ug/L	0.009	28	99	453	10	Standard
|	**Sb**	**123**	**0.033**	ug/L	0.007	21	75	348	12	Standard
|	**Ba**	**135**	**0.047**	ug/L	0.011	22	12	175	8	Standard
⌊	**Ba**	**137**	**0.052**	ug/L	0.001	2	21	331	9	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1014450	9	Standard
⌊	**Pb**	**208**	**0.004**	ug/L	0.001	20	175	298	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0157-09
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, June 18, 2018 18:57:49
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	33922	2	Standard
	Cl	37		ug/L			6308940	6188912	0	Standard
>	Sc	45		ug/L			1410977	1442988	0	Standard
	Cr	52	25.709	ug/L	0.274	1	14875	602514	0	Standard
	Cr	53	24.423	ug/L	0.316	1	195	67915	1	Standard
	Mn	55	165.325	ug/L	8.971	5	545	5612005	4	Standard
>	Ge-1	72		ug/L			87449	83755	0	KED
	Ni	60	22.100	ug/L	0.125	0	15	30125	0	KED
	Ni	62	22.723	ug/L	0.521	2	10	4747	1	KED
	Cu	63	14.839	ug/L	0.211	1	46	52048	1	KED
	Cu	65	14.948	ug/L	0.333	2	26	25918	2	KED
	Zn	66	33.857	ug/L	0.836	2	68	16528	2	KED
	Zn	67	32.063	ug/L	1.908	5	10	2563	5	KED
	As	75	3.849	ug/L	0.115	2	4	1241	3	KED
	Se-1	78	0.341	ug/L	0.093	27	12	26	14	KED
	Y	89		ug/L			790194	831065	1	Standard
	Kr	83		ug/L			58	120	14	Standard
>	In-1	115		ug/L			38158	35481	0	KED
	Cd	111	0.045	ug/L	0.012	26	3	21	21	KED
	Cd	114	0.042	ug/L	0.006	13	5	50	12	KED
>	In	115		ug/L			944527	888949	1	Standard
	Ag	107	0.025	ug/L	0.002	8	53	408	7	Standard
	Sb	121	0.017	ug/L	0.002	9	99	305	7	Standard
	Sb	123	0.018	ug/L	0.000	1	75	237	1	Standard
	Ba	135	17.181	ug/L	0.415	2	12	63676	2	Standard
	Ba	137	17.234	ug/L	0.318	1	21	109825	0	Standard
>	Tb	159		ug/L			1118737	1111350	0	Standard
	Pb	208	3.531	ug/L	0.047	1	175	136876	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0157-10
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, June 18, 2018 19:02:32
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	31353	0	Standard
	Cl	37		ug/L			6308940	6143104	0	Standard
>	Sc	45		ug/L			1410977	1404827	1	Standard
	Cr	52	25.383	ug/L	0.667	2	14875	579211	1	Standard
	Cr	53	25.486	ug/L	0.655	2	195	68969	1	Standard
	Mn	55	165.712	ug/L	3.249	1	545	5477122	0	Standard
>	Ge-1	72		ug/L			87449	82741	0	KED
	Ni	60	23.646	ug/L	0.243	1	15	31839	0	KED
	Ni	62	24.851	ug/L	1.253	5	10	5128	5	KED
	Cu	63	13.511	ug/L	0.113	0	46	46821	1	KED
	Cu	65	13.498	ug/L	0.105	0	26	23123	0	KED
	Zn	66	34.349	ug/L	0.460	1	68	16563	1	KED
	Zn	67	33.152	ug/L	1.128	3	10	2618	3	KED
	As	75	4.173	ug/L	0.023	0	4	1329	0	KED
	Se-1	78	0.279	ug/L	0.052	18	12	23	9	KED
	Y	89		ug/L			790194	798429	0	Standard
	Kr	83		ug/L			58	101	16	Standard
>	In-1	115		ug/L			38158	34854	2	KED
	Cd	111	0.034	ug/L	0.011	32	3	17	27	KED
	Cd	114	0.037	ug/L	0.004	11	5	44	12	KED
>	In	115		ug/L			944527	878247	2	Standard
	Ag	107	0.021	ug/L	0.005	23	53	356	18	Standard
	Sb	121	0.013	ug/L	0.003	26	99	250	14	Standard
	Sb	123	0.018	ug/L	0.006	35	75	228	27	Standard
	Ba	135	17.487	ug/L	0.590	3	12	64007	2	Standard
	Ba	137	17.065	ug/L	0.152	0	21	107436	1	Standard
>	Tb	159		ug/L			1118737	1064514	1	Standard
	Pb	208	4.026	ug/L	0.061	1	175	149480	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-02
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 19:07:14
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	46895	2	Standard
	Cl	37		ug/L			6308940	6465908	0	Standard
>	Sc	45		ug/L			1410977	1419122	0	Standard
	Cr	52	0.650	ug/L	0.014	2	14875	29577	1	Standard
	Cr	53	0.532	ug/L	0.023	4	195	1646	4	Standard
	Mn	55	3.727	ug/L	0.037	0	545	125013	1	Standard
>	Ge-1	72		ug/L			87449	82128	1	KED
	Ni	60	0.482	ug/L	0.009	1	15	657	2	KED
	Ni	62	0.538	ug/L	0.071	13	10	119	11	KED
	Cu	63	4.294	ug/L	0.154	3	46	14797	2	KED
	Cu	65	4.289	ug/L	0.025	0	26	7309	1	KED
	Zn	66	6.600	ug/L	0.049	0	68	3211	1	KED
	Zn	67	6.216	ug/L	0.355	5	10	495	4	KED
	As	75	0.311	ug/L	0.009	2	4	102	3	KED
	Se-1	78	0.159	ug/L	0.035	22	12	18	7	KED
	Y	89		ug/L			790194	717850	2	Standard
	Kr	83		ug/L			58	52	23	Standard
>	In-1	115		ug/L			38158	36681	1	KED
	Cd	111	0.032	ug/L	0.010	30	3	17	24	KED
	Cd	114	0.025	ug/L	0.012	48	5	33	40	KED
>	In	115		ug/L			944527	888508	3	Standard
	Ag	107	0.006	ug/L	0.001	16	53	132	7	Standard
	Sb	121	0.104	ug/L	0.005	4	99	1369	3	Standard
	Sb	123	0.104	ug/L	0.006	6	75	1017	1	Standard
	Ba	135	2.591	ug/L	0.124	4	12	9594	1	Standard
	Ba	137	2.588	ug/L	0.155	5	21	16478	2	Standard
>	Tb	159		ug/L			1118737	1099465	2	Standard
	Pb	208	0.186	ug/L	0.004	2	175	7301	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-03
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 19:11:57
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	44403	1	Standard
	Cl	37		ug/L			6308940	6344841	1	Standard
>	Sc	45		ug/L			1410977	1416452	2	Standard
	Cr	52	0.297	ug/L	0.026	8	14875	21575	0	Standard
	Cr	53	0.206	ug/L	0.019	9	195	756	4	Standard
	Mn	55	5.273	ug/L	0.239	4	545	176204	2	Standard
>	Ge-1	72		ug/L			87449	85780	1	KED
	Ni	60	0.233	ug/L	0.029	12	15	340	11	KED
	Ni	62	0.207	ug/L	0.071	34	10	53	26	KED
	Cu	63	1.018	ug/L	0.026	2	46	3698	1	KED
	Cu	65	1.013	ug/L	0.070	6	26	1822	6	KED
	Zn	66	7.903	ug/L	0.398	5	68	4003	5	KED
	Zn	67	7.087	ug/L	0.420	5	10	588	5	KED
	As	75	0.332	ug/L	0.016	4	4	113	3	KED
	Se-1	78	0.177	ug/L	0.055	31	12	19	11	KED
	Y	89		ug/L			790194	743447	4	Standard
	Kr	83		ug/L			58	39	19	Standard
>	In-1	115		ug/L			38158	36621	5	KED
	Cd	111	0.010	ug/L	0.001	11	3	7	12	KED
	Cd	114	0.012	ug/L	0.002	13	5	18	4	KED
>	In	115		ug/L			944527	932777	2	Standard
	Ag	107	0.000	ug/L	0.001	175	53	57	16	Standard
	Sb	121	0.128	ug/L	0.002	1	99	1740	2	Standard
	Sb	123	0.135	ug/L	0.003	2	75	1361	4	Standard
	Ba	135	1.670	ug/L	0.061	3	12	6500	1	Standard
	Ba	137	1.688	ug/L	0.020	1	21	11305	2	Standard
>	Tb	159		ug/L			1118737	1105448	1	Standard
	Pb	208	0.093	ug/L	0.001	1	175	3745	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0166-01
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 19:18:05
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	43115	0	Standard
	Cl	**37**		ug/L			6308940	6138658	0	Standard
>	**Sc**	**45**		ug/L			1410977	1367343	2	Standard
	Cr	**52**	**0.149**	ug/L	0.010	6	14875	17640	1	Standard
	Cr	**53**	**0.505**	ug/L	0.015	2	195	1516	0	Standard
	Mn	**55**	**1.412**	ug/L	0.039	2	545	45950	2	Standard
>	**Ge-1**	**72**		ug/L			87449	81100	1	KED
	Ni	**60**	**0.037**	ug/L	0.006	15	15	62	12	KED
	Ni	**62**	**0.039**	ug/L	0.050	130	10	17	58	KED
	Cu	**63**	**6.055**	ug/L	0.074	1	46	20588	1	KED
	Cu	**65**	**5.926**	ug/L	0.210	3	26	9959	2	KED
	Zn	**66**	**2.852**	ug/L	0.211	7	68	1405	5	KED
	Zn	**67**	**2.655**	ug/L	0.157	5	10	214	4	KED
	As	**75**	**0.418**	ug/L	0.024	5	4	134	7	KED
	Se-1	**78**	**0.185**	ug/L	0.052	28	12	19	9	KED
	Y	**89**		ug/L			790194	700957	0	Standard
	Kr	**83**		ug/L			58	44	17	Standard
>	**In-1**	**115**		ug/L			38158	35334	1	KED
	Cd	**111**	**-0.001**	ug/L	0.001	132	3	2	21	KED
	Cd	**114**	**-0.001**	ug/L	0.002	310	5	4	40	KED
>	**In**	**115**		ug/L			944527	880805	0	Standard
	Ag	**107**	**0.001**	ug/L	0.000	25	53	71	8	Standard
	Sb	**121**	**0.050**	ug/L	0.003	5	99	698	5	Standard
	Sb	**123**	**0.051**	ug/L	0.004	8	75	526	7	Standard
	Ba	**135**	**1.817**	ug/L	0.011	0	12	6682	0	Standard
	Ba	**137**	**1.803**	ug/L	0.027	1	21	11402	1	Standard
>	**Tb**	**159**		ug/L			1118737	1052237	2	Standard
	Pb	**208**	**0.069**	ug/L	0.002	2	175	2711	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0270-DUP3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 19:22:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	73364	0	Standard
	Cl	**37**		ug/L			6308940	6967949	0	Standard
>	**Sc**	**45**		ug/L			1410977	1338233	1	Standard
	Cr	**52**	**14.083**	ug/L	0.192	1	14875	312465	0	Standard
	Cr	**53**	**14.054**	ug/L	0.114	0	195	36320	1	Standard
	Mn	**55**	**63.876**	ug/L	1.913	2	545	2011460	1	Standard
>	**Ge-1**	**72**		ug/L			87449	75487	2	KED
	Ni	**60**	**2.987**	ug/L	0.043	1	15	3679	1	KED
	Ni	**62**	**2.930**	ug/L	0.017	0	10	559	3	KED
	Cu	**63**	**29.683**	ug/L	1.137	3	46	93728	1	KED
	Cu	**65**	**29.545**	ug/L	1.756	5	26	46095	3	KED
	Zn	**66**	**370.612**	ug/L	13.664	3	68	162377	2	KED
	Zn	**67**	**334.441**	ug/L	9.579	2	10	23997	0	KED
	As	**75**	**0.840**	ug/L	0.051	6	4	246	4	KED
	Se-1	**78**	**0.312**	ug/L	0.054	17	12	22	10	KED
	Y	**89**		ug/L			790194	698775	2	Standard
	Kr	**83**		ug/L			58	50	14	Standard
>	**In-1**	**115**		ug/L			38158	32938	5	KED
	Cd	**111**	**0.290**	ug/L	0.051	17	3	115	12	KED
	Cd	**114**	**0.273**	ug/L	0.030	10	5	278	10	KED
>	**In**	**115**		ug/L			944527	867491	2	Standard
	Ag	**107**	**0.021**	ug/L	0.002	9	53	342	6	Standard
	Sb	**121**	**8.239**	ug/L	0.284	3	99	98715	1	Standard
	Sb	**123**	**8.446**	ug/L	0.292	3	75	74905	1	Standard
	Ba	**135**	**17.478**	ug/L	0.148	0	12	63209	1	Standard
	Ba	**137**	**17.639**	ug/L	0.777	4	21	109638	2	Standard
>	**Tb**	**159**		ug/L			1118737	1059684	1	Standard
	Pb	**208**	**4.181**	ug/L	0.152	3	175	154488	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0149-02
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 19:27:30
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	74201	1	Standard
	Cl	**37**		ug/L			6308940	6942932	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1331127	1	Standard
|	**Cr**	**52**	**14.063**	ug/L	0.325	2	14875	310347	1	Standard
|	**Cr**	**53**	**13.956**	ug/L	0.343	2	195	35872	1	Standard
⌊	**Mn**	**55**	**66.226**	ug/L	1.607	2	545	2074336	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	79538	2	KED
|	**Ni**	**60**	**2.868**	ug/L	0.172	5	15	3721	3	KED
|	**Ni**	**62**	**2.854**	ug/L	0.240	8	10	574	9	KED
|	**Cu**	**63**	**28.535**	ug/L	0.501	1	46	94986	0	KED
|	**Cu**	**65**	**28.512**	ug/L	0.620	2	26	46915	1	KED
|	**Zn**	**66**	**357.000**	ug/L	16.509	4	68	164790	2	KED
|	**Zn**	**67**	**325.513**	ug/L	5.874	1	10	24618	0	KED
|	**As**	**75**	**0.794**	ug/L	0.033	4	4	246	1	KED
⌊	**Se-1**	**78**	**0.292**	ug/L	0.118	40	12	23	22	KED
	Y	**89**		ug/L			790194	708286	4	Standard
	Kr	**83**		ug/L			58	52	11	Standard
⌈>	**In-1**	**115**		ug/L			38158	34599	1	KED
|	**Cd**	**111**	**0.258**	ug/L	0.034	13	3	109	12	KED
⌊	**Cd**	**114**	**0.246**	ug/L	0.037	14	5	264	15	KED
⌈>	**In**	**115**		ug/L			944527	892222	1	Standard
|	**Ag**	**107**	**0.018**	ug/L	0.002	13	53	314	9	Standard
|	**Sb**	**121**	**7.725**	ug/L	0.102	1	99	95230	1	Standard
|	**Sb**	**123**	**7.604**	ug/L	0.283	3	75	69367	2	Standard
|	**Ba**	**135**	**17.298**	ug/L	0.506	2	12	64328	1	Standard
⌊	**Ba**	**137**	**17.634**	ug/L	0.811	4	21	112741	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1062192	0	Standard
⌊	**Pb**	**208**	**4.192**	ug/L	0.065	1	175	155317	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0270-MS3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 19:32:12
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	57561	0	Standard
	Cl	**37**		ug/L			6308940	7023139	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1324430	1	Standard
|	**Cr**	**52**	**41.415**	ug/L	0.608	1	14875	882236	0	Standard
|	**Cr**	**53**	**39.661**	ug/L	0.724	1	195	101087	0	Standard
⌊	**Mn**	**55**	**88.342**	ug/L	2.481	2	545	2752777	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	77200	2	KED
|	**Ni**	**60**	**29.026**	ug/L	0.755	2	15	36452	0	KED
|	**Ni**	**62**	**29.204**	ug/L	1.083	3	10	5618	1	KED
|	**Cu**	**63**	**54.280**	ug/L	2.001	3	46	175307	2	KED
|	**Cu**	**65**	**52.626**	ug/L	0.327	0	26	84043	1	KED
|	**Zn**	**66**	**424.078**	ug/L	9.174	2	68	190094	2	KED
|	**Zn**	**67**	**386.934**	ug/L	8.387	2	10	28401	1	KED
|	**As**	**75**	**26.629**	ug/L	0.763	2	4	7891	1	KED
⌊	**Se-1**	**78**	**81.555**	ug/L	2.516	3	12	3141	1	KED
	Y	**89**		ug/L			790194	685822	1	Standard
	Kr	**83**		ug/L			58	62	13	Standard
⌈>	**In-1**	**115**		ug/L			38158	34210	0	KED
|	**Cd**	**111**	**25.152**	ug/L	0.201	0	3	10269	1	KED
⌊	**Cd**	**114**	**25.367**	ug/L	0.201	0	5	26428	0	KED
⌈>	**In**	**115**		ug/L			944527	862786	1	Standard
|	**Ag**	**107**	**24.902**	ug/L	0.677	2	53	352734	1	Standard
|	**Sb**	**121**	**33.491**	ug/L	0.367	1	99	398986	1	Standard
|	**Sb**	**123**	**33.836**	ug/L	0.418	1	75	298376	1	Standard
|	**Ba**	**135**	**42.937**	ug/L	0.349	0	12	154447	1	Standard
⌊	**Ba**	**137**	**43.549**	ug/L	0.971	2	21	269310	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1052716	2	Standard
⌊	**Pb**	**208**	**30.227**	ug/L	1.501	4	175	1107726	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0270-BS3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 19:36:55
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	40729	0	Standard
	Cl	**37**		ug/L			6308940	6302356	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1361176	1	Standard
|	**Cr**	**52**	**25.996**	ug/L	0.319	1	14875	574508	0	Standard
|	**Cr**	**53**	**25.233**	ug/L	0.425	1	195	66169	0	Standard
⌊	**Mn**	**55**	**25.576**	ug/L	0.465	1	545	819573	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	80538	0	KED
|	**Ni**	**60**	**25.001**	ug/L	0.628	2	15	32769	2	KED
|	**Ni**	**62**	**26.144**	ug/L	0.425	1	10	5251	2	KED
|	**Cu**	**63**	**25.772**	ug/L	0.533	2	46	86884	1	KED
|	**Cu**	**65**	**25.034**	ug/L	0.728	2	26	41716	2	KED
|	**Zn**	**66**	**82.169**	ug/L	2.364	2	68	38481	3	KED
|	**Zn**	**67**	**78.366**	ug/L	0.605	0	10	6010	0	KED
|	**As**	**75**	**24.754**	ug/L	0.464	1	4	7656	1	KED
⌊	**Se-1**	**78**	**78.965**	ug/L	1.283	1	12	3175	2	KED
	Y	**89**		ug/L			790194	724192	1	Standard
	Kr	**83**		ug/L			58	56	15	Standard
⌈>	**In-1**	**115**		ug/L			38158	34851	3	KED
|	**Cd**	**111**	**24.953**	ug/L	0.701	2	3	10373	0	KED
⌊	**Cd**	**114**	**25.148**	ug/L	0.386	1	5	26684	1	KED
⌈>	**In**	**115**		ug/L			944527	878913	1	Standard
|	**Ag**	**107**	**24.711**	ug/L	0.433	1	53	356594	1	Standard
|	**Sb**	**121**	**25.040**	ug/L	0.317	1	99	303872	0	Standard
|	**Sb**	**123**	**25.910**	ug/L	0.441	1	75	232725	0	Standard
|	**Ba**	**135**	**24.477**	ug/L	0.843	3	12	89658	2	Standard
⌊	**Ba**	**137**	**25.166**	ug/L	0.978	3	21	158528	3	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1070915	1	Standard
⌊	**Pb**	**208**	**25.640**	ug/L	0.221	0	175	956868	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 19:42:42
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	24155	0	Standard
	Cl	**37**		ug/L			6308940	6356043	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1304407	2	Standard
|	**Cr**	**52**	**51.880**	ug/L	1.125	2	14875	1084841	0	Standard
|	**Cr**	**53**	**50.996**	ug/L	0.535	1	195	127973	1	Standard
⌊	**Mn**	**55**	**50.660**	ug/L	1.020	2	545	1554982	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	80542	1	KED
|	**Ni**	**60**	**48.601**	ug/L	1.501	3	15	63666	1	KED
|	**Ni**	**62**	**49.918**	ug/L	2.171	4	10	10013	2	KED
|	**Cu**	**63**	**49.487**	ug/L	0.574	1	46	166843	2	KED
|	**Cu**	**65**	**50.117**	ug/L	0.921	1	26	83487	0	KED
|	**Zn**	**66**	**51.255**	ug/L	1.044	2	68	24022	0	KED
|	**Zn**	**67**	**51.052**	ug/L	1.355	2	10	3918	2	KED
|	**As**	**75**	**48.759**	ug/L	0.820	1	4	15074	0	KED
⌊	**Se-1**	**78**	**48.640**	ug/L	1.224	2	12	1960	2	KED
	Y	**89**		ug/L			790194	682465	4	Standard
	Kr	**83**		ug/L			58	62	5	Standard
⌈>	**In-1**	**115**		ug/L			38158	35609	0	KED
|	**Cd**	**111**	**47.624**	ug/L	1.297	2	3	20238	2	KED
⌊	**Cd**	**114**	**48.652**	ug/L	1.691	3	5	52755	3	KED
⌈>	**In**	**115**		ug/L			944527	863232	2	Standard
|	**Ag**	**107**	**49.663**	ug/L	2.045	4	53	703466	1	Standard
|	**Sb**	**121**	**50.426**	ug/L	1.304	2	99	600761	0	Standard
|	**Sb**	**123**	**49.871**	ug/L	0.875	1	75	439883	1	Standard
|	**Ba**	**135**	**48.886**	ug/L	0.862	1	12	175881	0	Standard
⌊	**Ba**	**137**	**49.447**	ug/L	1.360	2	21	305855	0	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1074071	2	Standard
⌊	**Pb**	**208**	**49.240**	ug/L	0.470	0	175	1842435	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 19:50:09
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	23757	2	Standard
	Cl	**37**		ug/L			6308940	6130424	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1285944	2	Standard
|	**Cr**	**52**	**-0.107**	ug/L	0.007	6	14875	11368	2	Standard
|	**Cr**	**53**	**0.001**	ug/L	0.006	925	195	179	7	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.001	121	545	517	3	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	79090	2	KED
|	**Ni**	**60**	**-0.006**	ug/L	0.003	40	15	5	57	KED
|	**Ni**	**62**	**-0.024**	ug/L	0.014	58	10	4	65	KED
|	**Cu**	**63**	**-0.005**	ug/L	0.001	30	46	26	16	KED
|	**Cu**	**65**	**-0.007**	ug/L	0.002	26	26	12	22	KED
|	**Zn**	**66**	**-0.087**	ug/L	0.020	23	68	22	42	KED
|	**Zn**	**67**	**-0.037**	ug/L	0.054	145	10	6	56	KED
|	**As**	**75**	**-0.000**	ug/L	0.006	5009	4	4	40	KED
⌊	**Se-1**	**78**	**0.095**	ug/L	0.055	57	12	15	15	KED
	Y	**89**		ug/L			790194	688972	2	Standard
	Kr	**83**		ug/L			58	50	8	Standard
⌈>	**In-1**	**115**		ug/L			38158	34787	2	KED
|	**Cd**	**111**	**-0.002**	ug/L	0.002	90	3	1	50	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.003	426	5	4	65	KED
⌈>	**In**	**115**		ug/L			944527	857476	1	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.001	54	53	66	15	Standard
|	**Sb**	**121**	**0.112**	ug/L	0.008	6	99	1419	6	Standard
|	**Sb**	**123**	**0.115**	ug/L	0.007	6	75	1075	4	Standard
|	**Ba**	**135**	**-0.001**	ug/L	0.001	149	12	7	66	Standard
⌊	**Ba**	**137**	**-0.000**	ug/L	0.001	666	21	19	20	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1018956	1	Standard
⌊	**Pb**	**208**	**-0.000**	ug/L	0.001	211	175	148	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0134-01
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, June 18, 2018 19:54:53
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	62365	0	Standard
	Cl	37		ug/L			6308940	6200822	1	Standard
>	Sc	45		ug/L			1410977	1426402	2	Standard
	Cr	52	23.853	ug/L	0.629	2	14875	553456	0	Standard
	~~Cr~~	~~53~~	~~23.131~~	ug/L	0.861	3	195	63546	0	Standard
	Mn	55	291.249	ug/L	12.016	4	545	9768332	1	Standard
>	Ge-1	72		ug/L			87449	80268	2	KED
	Ni	60	17.315	ug/L	1.214	7	15	22593	4	KED
	Ni	62	18.211	ug/L	0.443	2	10	3648	3	KED
	Cu	63	41.035	ug/L	1.685	4	46	137753	1	KED
	Cu	65	41.594	ug/L	1.840	4	26	69012	1	KED
	Zn	66	191.410	ug/L	9.037	4	68	89174	1	KED
	Zn	67	183.091	ug/L	10.187	5	10	13966	2	KED
	As	75	2.730	ug/L	0.187	6	4	844	3	KED
	Se-1	78	0.479	ug/L	0.032	6	12	30	4	KED
	Y	89		ug/L			790194	872542	0	Standard
	Kr	83		ug/L			58	92	22	Standard
>	In-1	115		ug/L			38158	35329	0	KED
	Cd	111	0.662	ug/L	0.054	8	3	281	8	KED
	Cd	114	0.633	ug/L	0.040	6	5	685	6	KED
>	In	115		ug/L			944527	876054	2	Standard
	Ag	107	0.093	ug/L	0.000	0	53	1386	3	Standard
	Sb	121	0.212	ug/L	0.014	6	99	2659	4	Standard
	Sb	123	0.213	ug/L	0.012	5	75	1976	4	Standard
	Ba	135	69.326	ug/L	3.774	5	12	252913	2	Standard
	Ba	137	68.631	ug/L	2.209	3	21	430747	1	Standard
>	Tb	159		ug/L			1118737	1047419	2	Standard
	~~Pb~~	208	~~29.007~~	ug/L	0.523	1	175	1058423	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0134-02
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, June 18, 2018 19:59:35
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	84948	2	Standard
	Cl	37		ug/L			6308940	6139513	0	Standard
>	Sc	45		ug/L			1410977	1362910	1	Standard
	Cr	52	15.932	ug/L	0.315	1	14875	358082	0	Standard
	~~Cr~~	~~53~~	~~15.193~~	ug/L	0.220	1	195	39971	1	Standard
	Mn	55	152.649	ug/L	1.002	0	545	4896146	1	Standard
>	Ge-1	72		ug/L			87449	79862	2	KED
	Ni	60	11.083	ug/L	0.404	3	15	14405	2	KED
	Ni	62	12.142	ug/L	0.793	6	10	2421	4	KED
	Cu	63	46.402	ug/L	1.321	2	46	155083	2	KED
	Cu	65	46.832	ug/L	2.431	5	26	77335	3	KED
	Zn	66	200.878	ug/L	11.625	5	68	93132	4	KED
	Zn	67	191.088	ug/L	9.369	4	10	14508	2	KED
	As	75	1.887	ug/L	0.147	7	4	582	5	KED
	Se-1	78	0.244	ug/L	0.106	43	12	21	18	KED
	Y	89		ug/L			790194	772432	2	Standard
	Kr	83		ug/L			58	67	9	Standard
>	In-1	115		ug/L			38158	35522	0	KED
	Cd	111	0.242	ug/L	0.017	7	3	105	7	KED
	Cd	114	0.208	ug/L	0.018	8	5	230	9	KED
>	In	115		ug/L			944527	876554	4	Standard
	Ag	107	0.086	ug/L	0.006	7	53	1281	6	Standard
	Sb	121	0.703	ug/L	0.018	2	99	8595	3	Standard
	Sb	123	0.709	ug/L	0.036	5	75	6412	1	Standard
	Ba	135	54.420	ug/L	2.620	4	12	198641	2	Standard
	Ba	137	54.620	ug/L	1.012	1	21	343087	2	Standard
>	Tb	159		ug/L			1118737	1067117	2	Standard
	~~Pb~~	~~208~~	~~39.219~~	ug/L	0.801	2	175	1457708	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 20:04:18
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	41859	0	Standard
	Cl	37		ug/L			6308940	5976449	1	Standard
>	Sc	45		ug/L			1410977	1391642	1	Standard
	Cr	52	0.521	ug/L	0.027	5	14875	26150	0	Standard
	Cr	53	0.628	ug/L	0.025	3	195	1870	2	Standard
	Mn	55	3.991	ug/L	0.114	2	545	131221	3	Standard
>	Ge-1	72		ug/L			87449	81827	2	KED
	Ni	60	0.542	ug/L	0.043	7	15	735	5	KED
	Ni	62	0.478	ug/L	0.053	11	10	106	8	KED
	Cu	63	0.981	ug/L	0.044	4	46	3406	6	KED
	Cu	65	0.968	ug/L	0.059	6	26	1662	4	KED
	Zn	66	9.151	ug/L	0.549	6	68	4408	5	KED
	Zn	67	8.894	ug/L	0.319	3	10	701	1	KED
	As	75	0.347	ug/L	0.049	14	4	113	12	KED
	Se-1	78	0.211	ug/L	0.102	48	12	20	19	KED
	Y	89		ug/L			790194	707342	3	Standard
	Kr	83		ug/L			58	54	19	Standard
>	In-1	115		ug/L			38158	36739	2	KED
	Cd	111	0.039	ug/L	0.007	18	3	20	14	KED
	Cd	114	0.041	ug/L	0.003	8	5	50	8	KED
>	In	115		ug/L			944527	903575	1	Standard
	Ag	107	0.001	ug/L	0.001	151	53	62	27	Standard
	Sb	121	0.114	ug/L	0.006	5	99	1522	5	Standard
	Sb	123	0.112	ug/L	0.006	5	75	1110	6	Standard
	Ba	135	1.695	ug/L	0.037	2	12	6396	2	Standard
	Ba	137	1.707	ug/L	0.023	1	21	11074	0	Standard
>	Tb	159		ug/L			1118737	1057751	0	Standard
	Pb	208	0.159	ug/L	0.004	2	175	6008	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-01
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 20:09:00
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	42135	0	Standard
	Cl	37		ug/L			6308940	6043805	0	Standard
>	Sc	45		ug/L			1410977	1382686	2	Standard
	Cr	52	0.516	ug/L	0.044	8	14875	25857	1	Standard
	Cr	53	0.580	ug/L	0.046	7	195	1731	4	Standard
	Mn	55	3.939	ug/L	0.167	4	545	128607	2	Standard
>	Ge-1	72		ug/L			87449	82264	2	KED
	Ni	60	0.457	ug/L	0.011	2	15	626	4	KED
	Ni	62	0.477	ug/L	0.026	5	10	107	4	KED
	Cu	63	0.925	ug/L	0.034	3	46	3226	2	KED
	Cu	65	0.901	ug/L	0.016	1	26	1556	3	KED
	Zn	66	9.058	ug/L	0.497	5	68	4387	3	KED
	Zn	67	8.848	ug/L	1.018	11	10	700	8	KED
	As	75	0.314	ug/L	0.017	5	4	103	3	KED
	Se-1	78	0.088	ug/L	0.033	37	12	15	9	KED
	Y	89		ug/L			790194	719111	4	Standard
	Kr	83		ug/L			58	52	24	Standard
>	In-1	115		ug/L			38158	36487	1	KED
	Cd	111	0.038	ug/L	0.014	36	3	19	29	KED
	Cd	114	0.038	ug/L	0.008	20	5	47	16	KED
>	In	115		ug/L			944527	900568	1	Standard
	Ag	107	0.001	ug/L	0.001	84	53	60	12	Standard
	Sb	121	0.104	ug/L	0.003	3	99	1386	4	Standard
	Sb	123	0.110	ug/L	0.003	2	75	1079	2	Standard
	Ba	135	1.667	ug/L	0.047	2	12	6269	1	Standard
	Ba	137	1.642	ug/L	0.050	3	21	10619	1	Standard
>	Tb	159		ug/L			1118737	1076929	3	Standard
	Pb	208	0.151	ug/L	0.013	8	175	5829	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 20:13:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	44986	1	Standard
	Cl	37		ug/L			6308940	6329536	0	Standard
>	Sc	45		ug/L			1410977	1374949	1	Standard
	Cr	52	28.006	ug/L	0.125	0	14875	624170	1	Standard
	Cr	53	27.134	ug/L	0.881	3	195	71859	2	Standard
	Mn	55	30.974	ug/L	0.301	0	545	1002554	0	Standard
>	Ge-1	72		ug/L			87449	80798	0	KED
	Ni	60	26.388	ug/L	0.522	1	15	34694	1	KED
	Ni	62	27.086	ug/L	1.077	3	10	5456	3	KED
	Cu	63	27.271	ug/L	0.498	1	46	92247	2	KED
	Cu	65	27.686	ug/L	0.639	2	26	46292	2	KED
	Zn	66	87.130	ug/L	1.070	1	68	40929	0	KED
	Zn	67	82.142	ug/L	1.611	1	10	6320	2	KED
	As	75	24.690	ug/L	0.114	0	4	7660	0	KED
	Se-1	78	73.811	ug/L	0.933	1	12	2978	0	KED
	Y	89		ug/L			790194	717921	2	Standard
	Kr	83		ug/L			58	54	19	Standard
>	In-1	115		ug/L			38158	35619	2	KED
	Cd	111	24.002	ug/L	0.848	3	3	10198	1	KED
	Cd	114	24.255	ug/L	1.031	4	5	26296	2	KED
>	In	115		ug/L			944527	876221	2	Standard
	Ag	107	26.647	ug/L	1.156	4	53	383167	2	Standard
	Sb	121	0.113	ug/L	0.005	4	99	1459	4	Standard
	Sb	123	0.112	ug/L	0.005	4	75	1067	2	Standard
	Ba	135	28.056	ug/L	0.790	2	12	102446	0	Standard
	Ba	137	28.208	ug/L	1.220	4	21	177072	2	Standard
>	Tb	159		ug/L			1118737	1079422	1	Standard
	~~Pb~~	208	~~26.964~~	ug/L	0.163	0	175	1014205	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-MSD1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 20:18:26
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26774	46674	2	Standard
Cl	37		ug/L			6308940	6452496	0	Standard
> Sc	45		ug/L			1410977	1389404	2	Standard
Cr	52	27.039	ug/L	0.856	3	14875	609170	0	Standard
Cr	53	26.210	ug/L	0.901	3	195	70130	1	Standard
Mn	55	30.021	ug/L	0.262	0	545	982039	2	Standard
> Ge-1	72		ug/L			87449	80571	0	KED
Ni	60	26.657	ug/L	0.046	0	15	34951	0	KED
Ni	62	27.415	ug/L	1.335	4	10	5507	4	KED
Cu	63	26.961	ug/L	0.417	1	46	90940	1	KED
Cu	65	27.153	ug/L	0.402	1	26	45269	1	KED
Zn	66	87.190	ug/L	0.975	1	68	40843	0	KED
Zn	67	82.960	ug/L	4.194	5	10	6363	4	KED
As	75	24.076	ug/L	0.294	1	4	7449	1	KED
Se-1	78	71.601	ug/L	0.943	1	12	2881	1	KED
Y	89		ug/L			790194	734066	0	Standard
Kr	83		ug/L			58	52	22	Standard
> In-1	115		ug/L			38158	35828	1	KED
Cd	111	23.386	ug/L	0.541	2	3	9999	1	KED
Cd	114	23.618	ug/L	0.456	1	5	25767	1	KED
> In	115		ug/L			944527	909462	1	Standard
Ag	107	25.331	ug/L	0.465	1	53	378266	1	Standard
Sb	121	0.108	ug/L	0.003	2	99	1450	3	Standard
Sb	123	0.108	ug/L	0.004	3	75	1076	2	Standard
Ba	135	26.718	ug/L	0.768	2	12	101280	1	Standard
Ba	137	26.891	ug/L	0.324	1	21	175322	1	Standard
> Tb	159		ug/L			1118737	1060888	2	Standard
~~Pb~~	208	~~27.008~~	ug/L	0.546	2	175	998142	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-DUP2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 20:23:08 DEL
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	45656	0	Standard
	Cl	37		ug/L			6308940	174832716	0	Standard
>	Sc	45		ug/L			1410977	1117291	1	Standard
	Cr	52	1.061	ug/L	0.022	2	14875	30541	2	Standard
	Cr	53	60.016	ug/L	0.217	0	195	128994	1	Standard
	Mn	55	1.835	ug/L	0.011	0	545	48660	1	Standard
>	Ge-1	72		ug/L			87449	40897	1	KED
	Ni	60	2.520	ug/L	0.105	4	15	1683	4	KED
	Ni	62	3.440	ug/L	0.246	7	10	354	6	KED
	Cu	63	0.681	ug/L	0.026	3	46	1187	2	KED
	Cu	65	0.520	ug/L	0.009	1	26	452	2	KED
	Zn	66	9.638	ug/L	0.252	2	68	2320	2	KED
	Zn	67	10.568	ug/L	0.488	4	10	415	4	KED
	As	75	0.717	ug/L	0.040	5	4	114	6	KED
	Se-1	78	0.873	ug/L	0.186	21	12	23	17	KED
	Y	89		ug/L			790194	509061	1	Standard
	Kr	83		ug/L			58	12865	4	Standard
>	In-1	115		ug/L			38158	18630	1	KED
	Cd	111	0.052	ug/L	0.017	32	3	13	27	KED
	Cd	114	0.059	ug/L	0.009	15	5	36	14	KED
>	In	115		ug/L			944527	555538	1	Standard
	Ag	107	0.012	ug/L	0.001	8	53	144	5	Standard
	Sb	121	0.087	ug/L	0.003	3	99	725	2	Standard
	Sb	123	0.118	ug/L	0.007	6	75	711	7	Standard
	Ba	135	38.080	ug/L	0.458	1	12	88182	0	Standard
	Ba	137	39.078	ug/L	0.382	0	21	155625	1	Standard
>	Tb	159		ug/L			1118737	764812	1	Standard
	Pb	208	0.012	ug/L	0.001	7	175	444	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-08
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 20:27:51 DEL
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26774	48201	2	Standard
Cl	37		ug/L			6308940	176025881	1	Standard
> Sc	45		ug/L			1410977	1203594	1	Standard
Cr	52	1.181	ug/L	0.041	3	14875	35194	0	Standard
Cr	53	67.473	ug/L	1.101	1	195	156178	0	Standard
Mn	55	1.740	ug/L	0.024	1	545	49744	0	Standard
> Ge-1	72		ug/L			87449	50053	1	KED
Ni	60	2.588	ug/L	0.120	4	15	2116	4	KED
Ni	62	5.381	ug/L	0.177	3	10	676	2	KED
Cu	63	0.947	ug/L	0.043	4	46	2009	3	KED
Cu	65	0.507	ug/L	0.037	7	26	539	7	KED
Zn	66	9.374	ug/L	0.266	2	68	2762	2	KED
Zn	67	10.016	ug/L	1.369	13	10	482	12	KED
As	75	0.728	ug/L	0.047	6	4	142	5	KED
Se-1	78	0.796	ug/L	0.132	16	12	26	11	KED
Y	89		ug/L			790194	527951	0	Standard
Kr	83		ug/L			58	14694	0	Standard
> In-1	115		ug/L			38158	20606	1	KED
Cd	111	0.052	ug/L	0.018	34	3	14	30	KED
Cd	114	0.041	ug/L	0.016	38	5	28	34	KED
> In	115		ug/L			944527	560781	1	Standard
Ag	107	0.011	ug/L	0.002	13	53	134	11	Standard
Sb	121	0.088	ug/L	0.001	0	99	738	1	Standard
Sb	123	0.115	ug/L	0.007	6	75	704	3	Standard
Ba	135	37.856	ug/L	0.293	0	12	88496	1	Standard
Ba	137	39.154	ug/L	0.996	2	21	157350	0	Standard
> Tb	159		ug/L			1118737	818355	1	Standard
Pb	208	0.012	ug/L	0.001	8	175	460	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-MS2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 20:32:34

DEL

Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26774	48663	1	Standard
Cl	37		ug/L			6308940	172405624	1	Standard
> Sc	45		ug/L			1410977	1145745	2	Standard
Cr	52	24.367	ug/L	0.470	1	14875	453943	0	Standard
Cr	53	87.920	ug/L	2.210	2	195	193625	0	Standard
Mn	55	23.800	ug/L	0.715	3	545	641736	0	Standard
> Ge-1	72		ug/L			87449	50148	0	KED
Ni	60	26.838	ug/L	0.185	0	15	21902	0	KED
Ni	62	30.965	ug/L	0.631	2	10	3871	2	KED
Cu	63	24.674	ug/L	0.094	0	46	51801	0	KED
Cu	65	23.803	ug/L	0.171	0	26	24702	0	KED
Zn	66	69.467	ug/L	0.290	0	68	20262	0	KED
Zn	67	67.023	ug/L	0.902	1	10	3201	1	KED
As	75	22.350	ug/L	0.159	0	4	4304	0	KED
Se-1	78	61.731	ug/L	1.711	2	12	1547	2	KED
Y	89		ug/L			790194	504697	3	Standard
Kr	83		ug/L			58	18919	1	Standard
> In-1	115		ug/L			38158	20341	2	KED
Cd	111	18.552	ug/L	0.685	3	3	4502	2	KED
Cd	114	18.457	ug/L	0.411	2	5	11431	0	KED
> In	115		ug/L			944527	553010	1	Standard
Ag	107	18.457	ug/L	0.539	2	53	167549	1	Standard
Sb	121	0.086	ug/L	0.008	8	99	716	6	Standard
Sb	123	0.110	ug/L	0.016	14	75	665	11	Standard
Ba	135	64.870	ug/L	1.775	2	12	149496	0	Standard
Ba	137	66.230	ug/L	2.170	3	21	262444	1	Standard
> Tb	159		ug/L			1118737	800504	1	Standard
Pb	208	17.374	ug/L	0.425	2	175	484599	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-MSD2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 20:37:16

DEL

Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26774	45093	2	Standard
Cl	37		ug/L			6308940	164503281	1	Standard
> Sc	45		ug/L			1410977	1027840	1	Standard
Cr	52	23.755	ug/L	0.351	1	14875	397405	2	Standard
Cr	53	88.102	ug/L	2.316	2	195	174107	2	Standard
Mn	55	23.230	ug/L	0.377	1	545	562209	2	Standard
> Ge-1	72		ug/L			87449	49505	0	KED
Ni	60	26.389	ug/L	0.256	0	15	21260	1	KED
Ni	62	30.308	ug/L	0.789	2	10	3740	2	KED
Cu	63	23.948	ug/L	0.083	0	46	49633	0	KED
Cu	65	23.225	ug/L	0.239	1	26	23793	0	KED
Zn	66	69.275	ug/L	0.224	0	68	19947	0	KED
Zn	67	67.030	ug/L	0.308	0	10	3160	1	KED
As	75	21.480	ug/L	0.147	0	4	4083	0	KED
Se-1	78	60.818	ug/L	0.875	1	12	1504	2	KED
Y	89		ug/L			790194	478819	0	Standard
Kr	83		ug/L			58	17822	5	Standard
> In-1	115		ug/L			38158	19771	1	KED
Cd	111	18.030	ug/L	0.335	1	3	4254	0	KED
Cd	114	17.857	ug/L	0.164	0	5	10752	0	KED
> In	115		ug/L			944527	518185	1	Standard
Ag	107	19.276	ug/L	0.164	0	53	164012	0	Standard
Sb	121	0.079	ug/L	0.004	4	99	619	3	Standard
Sb	123	0.112	ug/L	0.002	1	75	631	3	Standard
Ba	135	66.396	ug/L	1.599	2	12	143411	2	Standard
Ba	137	68.789	ug/L	2.000	2	21	255445	1	Standard
> Tb	159		ug/L			1118737	767346	0	Standard
Pb	208	16.732	ug/L	0.024	0	175	447451	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 20:43:03
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	22315	1	Standard
	Cl	**37**		ug/L			6308940	6221808	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1223148	1	Standard
|	**Cr**	**52**	**52.494**	ug/L	1.570	2	14875	1029305	2	Standard
|	**Cr**	**53**	**54.253**	ug/L	0.902	1	195	127657	0	Standard
⌊	**Mn**	**55**	**51.097**	ug/L	0.503	0	545	1471059	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	83584	1	KED
|	**Ni**	**60**	**49.683**	ug/L	0.289	0	15	67565	0	KED
|	**Ni**	**62**	**49.618**	ug/L	0.980	1	10	10333	2	KED
|	**Cu**	**63**	**50.410**	ug/L	0.607	1	46	176338	1	KED
|	**Cu**	**65**	**49.858**	ug/L	0.953	1	26	86200	0	KED
|	**Zn**	**66**	**51.513**	ug/L	0.851	1	68	25063	2	KED
|	**Zn**	**67**	**51.721**	ug/L	0.732	1	10	4119	0	KED
|	**As**	**75**	**48.261**	ug/L	1.086	2	4	15484	1	KED
⌊	**Se-1**	**78**	**48.798**	ug/L	1.380	2	12	2040	2	KED
	Y	**89**		ug/L			790194	596666	3	Standard
	Kr	**83**		ug/L			58	93	6	Standard
⌈>	**In-1**	**115**		ug/L			38158	34692	2	KED
|	**Cd**	**111**	**48.503**	ug/L	1.051	2	3	20073	0	KED
⌊	**Cd**	**114**	**48.409**	ug/L	0.095	0	5	51142	2	KED
⌈>	**In**	**115**		ug/L			944527	768560	1	Standard
|	**Ag**	**107**	**49.921**	ug/L	0.303	0	53	630000	1	Standard
|	**Sb**	**121**	**49.137**	ug/L	0.910	1	99	521350	1	Standard
|	**Sb**	**123**	**50.717**	ug/L	0.953	1	75	398407	2	Standard
|	**Ba**	**135**	**50.894**	ug/L	0.777	1	12	163044	0	Standard
⌊	**Ba**	**137**	**53.731**	ug/L	1.571	2	21	296032	3	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1060812	1	Standard
⌊	**Pb**	**208**	**40.868**	ug/L	0.836	2	175	1510575	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 20:50:31
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	22741	2	Standard
	Cl	**37**		ug/L			6308940	5791887	1	Standard
>	**Sc**	**45**		ug/L			1410977	1204914	1	Standard
	Cr	**52**	**-0.098**	ug/L	0.011	11	14875	10830	2	Standard
	Cr	**53**	**1.229**	ug/L	0.028	2	195	3013	3	Standard
	Mn	**55**	**0.020**	ug/L	0.009	44	545	1035	25	Standard
>	**Ge-1**	**72**		ug/L			87449	85288	3	KED
	Ni	**60**	**-0.005**	ug/L	0.002	43	15	7	43	KED
	Ni	**62**	**0.193**	ug/L	0.075	38	10	50	31	KED
	Cu	**63**	**0.003**	ug/L	0.005	159	46	57	34	KED
	Cu	**65**	**-0.007**	ug/L	0.002	23	26	13	24	KED
	Zn	**66**	**-0.084**	ug/L	0.018	21	68	25	36	KED
	Zn	**67**	**-0.083**	ug/L	0.023	27	10	3	50	KED
	As	**75**	**0.004**	ug/L	0.003	75	4	5	14	KED
	Se-1	**78**	**0.127**	ug/L	0.071	55	12	17	17	KED
	Y	**89**		ug/L			790194	577958	1	Standard
	Kr	**83**		ug/L			58	53	10	Standard
>	**In-1**	**115**		ug/L			38158	35417	1	KED
	Cd	**111**	**0.002**	ug/L	0.002	111	3	3	25	KED
	Cd	**114**	**0.001**	ug/L	0.001	99	5	6	16	KED
>	**In**	**115**		ug/L			944527	770657	4	Standard
	Ag	**107**	**0.006**	ug/L	0.009	149	53	115	93	Standard
	Sb	**121**	**0.108**	ug/L	0.004	3	99	1229	3	Standard
	Sb	**123**	**0.108**	ug/L	0.010	8	75	911	3	Standard
	Ba	**135**	**0.004**	ug/L	0.008	202	12	22	115	Standard
	Ba	**137**	**0.004**	ug/L	0.007	200	21	38	108	Standard
>	**Tb**	**159**		ug/L			1118737	1049178	3	Standard
	Pb	**208**	**0.003**	ug/L	0.004	140	175	276	53	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-04
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 20:55:14
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	42335	1	Standard
	Cl	37		ug/L			6308940	6064241	0	Standard
>	Sc	45		ug/L			1410977	1255881	1	Standard
	Cr	52	0.331	ug/L	0.034	10	14875	19808	1	Standard
	Cr	53	1.240	ug/L	0.054	4	195	3163	2	Standard
	Mn	55	5.546	ug/L	0.135	2	545	164352	2	Standard
>	Ge-1	72		ug/L			87449	85209	0	KED
	Ni	60	0.281	ug/L	0.031	10	15	404	10	KED
	Ni	62	0.417	ug/L	0.067	16	10	98	14	KED
	Cu	63	4.086	ug/L	0.044	1	46	14611	0	KED
	Cu	65	4.021	ug/L	0.186	4	26	7109	4	KED
	Zn	66	6.132	ug/L	0.071	1	68	3100	1	KED
	Zn	67	5.678	ug/L	0.188	3	10	470	3	KED
	As	75	0.339	ug/L	0.033	9	4	115	9	KED
	Se-1	78	0.191	ug/L	0.057	30	12	20	11	KED
	Y	89		ug/L			790194	590977	2	Standard
	Kr	83		ug/L			58	62	18	Standard
>	In-1	115		ug/L			38158	33719	4	KED
	Cd	111	0.040	ug/L	0.049	122	3	18	103	KED
	Cd	114	0.033	ug/L	0.030	90	5	38	77	KED
>	In	115		ug/L			944527	779805	4	Standard
	Ag	107	0.008	ug/L	0.002	29	53	139	17	Standard
	Sb	121	0.153	ug/L	0.006	3	99	1726	2	Standard
	Sb	123	0.150	ug/L	0.010	6	75	1253	2	Standard
	Ba	135	3.071	ug/L	0.141	4	12	9978	0	Standard
	Ba	137	3.214	ug/L	0.156	4	21	17957	0	Standard
>	Tb	159		ug/L			1118737	1078881	1	Standard
	Pb	208	0.046	ug/L	0.002	3	175	1910	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-05
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 20:59:57
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	44851	0	Standard
	Cl	**37**		ug/L			6308940	5797713	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1277390	1	Standard
|	**Cr**	**52**	**0.359**	ug/L	0.005	1	14875	20720	0	Standard
|	**Cr**	**53**	**1.172**	ug/L	0.039	3	195	3053	3	Standard
⌊	**Mn**	**55**	**5.998**	ug/L	0.090	1	545	180770	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	89238	2	KED
|	**Ni**	**60**	**0.217**	ug/L	0.015	6	15	330	4	KED
|	**Ni**	**62**	**0.352**	ug/L	0.064	18	10	88	18	KED
|	**Cu**	**63**	**1.354**	ug/L	0.017	1	46	5101	1	KED
|	**Cu**	**65**	**1.405**	ug/L	0.036	2	26	2619	3	KED
|	**Zn**	**66**	**7.235**	ug/L	0.277	3	68	3816	2	KED
|	**Zn**	**67**	**6.779**	ug/L	0.244	3	10	586	3	KED
|	**As**	**75**	**0.324**	ug/L	0.029	8	4	115	8	KED
⌊	**Se-1**	**78**	**0.099**	ug/L	0.054	54	12	17	12	KED
	Y	**89**		ug/L			790194	614409	2	Standard
	Kr	**83**		ug/L			58	43	37	Standard
⌈>	**In-1**	**115**		ug/L			38158	37444	0	KED
|	**Cd**	**111**	**0.009**	ug/L	0.009	99	3	6	55	KED
⌊	**Cd**	**114**	**0.007**	ug/L	0.005	72	5	13	44	KED
⌈>	**In**	**115**		ug/L			944527	816702	1	Standard
|	**Ag**	**107**	**0.002**	ug/L	0.001	59	53	75	22	Standard
|	**Sb**	**121**	**0.160**	ug/L	0.009	5	99	1891	3	Standard
|	**Sb**	**123**	**0.162**	ug/L	0.008	4	75	1418	4	Standard
|	**Ba**	**135**	**1.814**	ug/L	0.070	3	12	6188	4	Standard
⌊	**Ba**	**137**	**1.936**	ug/L	0.028	1	21	11349	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1075921	3	Standard
⌊	**Pb**	**208**	**0.083**	ug/L	0.003	4	175	3273	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-06
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 21:04:39
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	47101	2	Standard
	Cl	**37**		ug/L			6308940	5907909	2	Standard
>	**Sc**	**45**		ug/L			1410977	1245851	5	Standard
	Cr	**52**	**1.096**	ug/L	0.096	8	14875	34693	0	Standard
	Cr	**53**	**1.680**	ug/L	0.084	4	195	4187	0	Standard
	Mn	**55**	**6.210**	ug/L	0.349	5	545	182201	1	Standard
>	**Ge-1**	**72**		ug/L			87449	84441	0	KED
	Ni	**60**	**0.262**	ug/L	0.028	10	15	375	10	KED
	Ni	**62**	**0.428**	ug/L	0.105	24	10	99	22	KED
	Cu	**63**	**4.576**	ug/L	0.128	2	46	16210	2	KED
	Cu	**65**	**4.456**	ug/L	0.049	1	26	7807	1	KED
	Zn	**66**	**4.985**	ug/L	0.170	3	68	2510	4	KED
	Zn	**67**	**5.100**	ug/L	0.636	12	10	419	11	KED
	As	**75**	**0.315**	ug/L	0.018	5	4	106	4	KED
	Se-1	**78**	**0.157**	ug/L	0.089	56	12	18	20	KED
	Y	**89**		ug/L			790194	595004	3	Standard
	Kr	**83**		ug/L			58	52	4	Standard
>	**In-1**	**115**		ug/L			38158	36198	3	KED
	Cd	**111**	**0.011**	ug/L	0.005	43	3	7	25	KED
	Cd	**114**	**0.011**	ug/L	0.003	31	5	17	21	KED
>	**In**	**115**		ug/L			944527	787863	3	Standard
	Ag	**107**	**0.008**	ug/L	0.002	22	53	144	11	Standard
	Sb	**121**	**0.146**	ug/L	0.012	8	99	1665	4	Standard
	Sb	**123**	**0.143**	ug/L	0.008	5	75	1211	6	Standard
	Ba	**135**	**2.656**	ug/L	0.171	6	12	8717	2	Standard
	Ba	**137**	**2.651**	ug/L	0.117	4	21	14977	1	Standard
>	**Tb**	**159**		ug/L			1118737	1050933	3	Standard
	Pb	**208**	**0.063**	ug/L	0.003	4	175	2469	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-07
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 21:09:22
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	46408	3	Standard
	Cl	37		ug/L			6308940	6066684	1	Standard
>	Sc	45		ug/L			1410977	1301144	1	Standard
	Cr	52	0.065	ug/L	0.035	53	14875	15054	3	Standard
	Cr	53	0.655	ug/L	0.018	2	195	1816	0	Standard
	Mn	55	4.102	ug/L	0.079	1	545	126072	0	Standard
>	Ge-1	72		ug/L			87449	88823	1	KED
	Ni	60	0.329	ug/L	0.032	9	15	490	8	KED
	Ni	62	3.012	ug/L	0.044	1	10	676	0	KED
	Cu	63	2134.202	ug/L	26.867	1	46	7931996	2	KED
	Cu	65	2145.540	ug/L	42.756	1	26	3940473	0	KED
	Zn	66	6.578	ug/L	0.127	1	68	3460	0	KED
	Zn	67	6.372	ug/L	0.596	9	10	549	9	KED
	As	75	0.094	ug/L	0.015	15	4	36	12	KED
	Se-1	78	0.143	ug/L	0.045	31	12	19	10	KED
	Y	89		ug/L			790194	614816	0	Standard
	Kr	83		ug/L			58	43	7	Standard
>	In-1	115		ug/L			38158	38232	0	KED
	Cd	111	0.026	ug/L	0.001	4	3	14	3	KED
	Cd	114	0.040	ug/L	0.011	26	5	52	23	KED
>	In	115		ug/L			944527	821696	1	Standard
	Ag	107	0.003	ug/L	0.001	19	53	82	7	Standard
	Sb	121	0.116	ug/L	0.010	8	99	1401	8	Standard
	Sb	123	0.121	ug/L	0.003	2	75	1084	1	Standard
	Ba	135	2.498	ug/L	0.070	2	12	8565	1	Standard
	Ba	137	2.461	ug/L	0.051	2	21	14512	1	Standard
>	Tb	159		ug/L			1118737	1079603	2	Standard
	Pb	208	0.071	ug/L	0.004	6	175	2840	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-08
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 21:14:04
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	43819	1	Standard
	Cl	37		ug/L			6308940	5940829	0	Standard
>	Sc	45		ug/L			1410977	1272594	0	Standard
	Cr	52	0.203	ug/L	0.027	13	14875	17509	2	Standard
	Cr	53	0.653	ug/L	0.030	4	195	1771	3	Standard
	Mn	55	3.349	ug/L	0.091	2	545	100765	1	Standard
>	Ge-1	72		ug/L			87449	85500	2	KED
	Ni	60	0.385	ug/L	0.034	8	15	549	8	KED
	Ni	62	1.873	ug/L	0.149	7	10	408	6	KED
	Cu	63	949.230	ug/L	17.571	1	46	3395336	1	KED
	Cu	65	956.778	ug/L	14.970	1	26	1691521	0	KED
	Zn	66	4.834	ug/L	0.203	4	68	2464	2	KED
	Zn	67	4.483	ug/L	0.376	8	10	375	9	KED
	As	75	0.031	ug/L	0.009	30	4	14	19	KED
	Se-1	78	0.153	ug/L	0.135	88	12	18	29	KED
	Y	89		ug/L			790194	613198	0	Standard
	Kr	83		ug/L			58	36	13	Standard
>	In-1	115		ug/L			38158	35341	4	KED
	Cd	111	0.027	ug/L	0.005	19	3	14	19	KED
	Cd	114	0.023	ug/L	0.002	8	5	29	6	KED
>	In	115		ug/L			944527	802258	2	Standard
	Ag	107	0.001	ug/L	0.001	60	53	57	12	Standard
	Sb	121	0.097	ug/L	0.005	5	99	1163	3	Standard
	Sb	123	0.096	ug/L	0.004	4	75	851	3	Standard
	Ba	135	2.652	ug/L	0.019	0	12	8880	2	Standard
	Ba	137	2.811	ug/L	0.057	2	21	16182	2	Standard
>	Tb	159		ug/L			1118737	1073881	3	Standard
	Pb	208	0.021	ug/L	0.001	6	175	942	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-01
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 21:18:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	37116	0	Standard
	Cl	37		ug/L			6308940	6030942	0	Standard
>	Sc	45		ug/L			1410977	1318000	2	Standard
	Cr	52	24.740	ug/L	0.617	2	14875	529979	0	Standard
	Cr	53	24.562	ug/L	1.227	4	195	62334	2	Standard
	Mn	55	2.261	ug/L	0.059	2	545	70604	0	Standard
>	Ge-1	72		ug/L			87449	89681	0	KED
	Ni	60	0.382	ug/L	0.023	5	15	572	5	KED
	Ni	62	0.479	ug/L	0.018	3	10	117	3	KED
	Cu	63	0.701	ug/L	0.027	3	46	2678	3	KED
	Cu	65	0.659	ug/L	0.042	6	26	1249	6	KED
	Zn	66	1.446	ug/L	0.045	3	68	822	2	KED
	Zn	67	1.359	ug/L	0.151	11	10	126	10	KED
	As	75	0.004	ug/L	0.008	219	4	6	47	KED
	Se-1	78	0.075	ug/L	0.029	38	12	16	7	KED
	Y	89		ug/L			790194	621014	0	Standard
	Kr	83		ug/L			58	50	16	Standard
>	In-1	115		ug/L			38158	30137	20	KED
	Cd	111	-0.002	ug/L	0.001	69	3	1		KED
	Cd	114	-0.001	ug/L	0.002	326	5	3	60	KED
>	In	115		ug/L			944527	827668	1	Standard
	Ag	107	-0.001	ug/L	0.001	88	53	37	20	Standard
	Sb	121	0.004	ug/L	0.001	35	99	135	11	Standard
	Sb	123	0.005	ug/L	0.002	38	75	110	15	Standard
	Ba	135	0.010	ug/L	0.002	20	12	43	15	Standard
	Ba	137	0.010	ug/L	0.002	23	21	80	16	Standard
>	Tb	159		ug/L			1118737	1091380	2	Standard
	Pb	208	0.005	ug/L	0.000	4	175	374	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-03
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 21:23:30 DEL
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	38601	2	Standard
	Cl	**37**		ug/L			6308940	137554844	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	894064	2	Standard
|	**Cr**	**52**	**0.621**	ug/L	0.034	5	14875	18204	0	Standard
|	**Cr**	**53**	**43.590**	ug/L	1.041	2	195	74984	1	Standard
⌊	**Mn**	**55**	**299.313**	ug/L	7.377	2	545	6294825	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	41595	1	KED
|	**Ni**	**60**	**0.943**	ug/L	0.071	7	15	645	6	KED
|	**Ni**	**62**	**2.104**	ug/L	0.132	6	10	222	7	KED
|	**Cu**	**63**	**0.445**	ug/L	0.031	7	46	796	6	KED
|	**Cu**	**65**	**0.289**	ug/L	0.041	14	26	261	14	KED
|	**Zn**	**66**	**4.138**	ug/L	0.030	0	68	1031	0	KED
|	**Zn**	**67**	**4.622**	ug/L	0.650	14	10	187	13	KED
|	**As**	**75**	**0.665**	ug/L	0.090	13	4	108	12	KED
⌊	**Se-1**	**78**	**0.953**	ug/L	0.156	16	12	25	13	KED
	Y	**89**		ug/L			790194	434350	1	Standard
	Kr	**83**		ug/L			58	7023	2	Standard
⌈>	**In-1**	**115**		ug/L			38158	17830	1	KED
|	**Cd**	**111**	**0.032**	ug/L	0.003	9	3	8	6	KED
⌊	**Cd**	**114**	**0.016**	ug/L	0.010	66	5	11	51	KED
⌈>	**In**	**115**		ug/L			944527	481496	0	Standard
|	**Ag**	**107**	**0.004**	ug/L	0.001	36	53	55	17	Standard
|	**Sb**	**121**	**0.049**	ug/L	0.004	8	99	377	7	Standard
|	**Sb**	**123**	**0.074**	ug/L	0.012	16	75	402	14	Standard
|	**Ba**	**135**	**16.135**	ug/L	0.167	1	12	32390	1	Standard
⌊	**Ba**	**137**	**16.704**	ug/L	0.289	1	21	57664	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	682589	1	Standard
⌊	**Pb**	**208**	**0.003**	ug/L	0.001	20	175	187	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-04
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 21:28:12

DEL

Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	37003	0	Standard
	Cl	**37**		ug/L			6308940	143033064	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	841481	0	Standard
|	**Cr**	**52**	**0.842**	ug/L	0.009	1	14875	20093	1	Standard
|	**Cr**	**53**	**54.603**	ug/L	0.632	1	195	88401	1	Standard
⌊	**Mn**	**55**	**375.973**	ug/L	2.224	0	545	7444659	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	40139	1	KED
|	**Ni**	**60**	**0.740**	ug/L	0.035	4	15	490	3	KED
|	**Ni**	**62**	**2.391**	ug/L	0.324	13	10	243	14	KED
|	**Cu**	**63**	**0.717**	ug/L	0.025	3	46	1226	3	KED
|	**Cu**	**65**	**0.512**	ug/L	0.045	8	26	436	7	KED
|	**Zn**	**66**	**2.394**	ug/L	0.024	0	68	589	0	KED
|	**Zn**	**67**	**3.782**	ug/L	0.324	8	10	149	7	KED
|	**As**	**75**	**0.980**	ug/L	0.091	9	4	153	8	KED
⌊	**Se-1**	**78**	**0.857**	ug/L	0.242	28	12	22	20	KED
	Y	**89**		ug/L			790194	407425	1	Standard
	Kr	**83**		ug/L			58	7163	2	Standard
⌈>	**In-1**	**115**		ug/L			38158	17209	1	KED
|	**Cd**	**111**	**0.030**	ug/L	0.018	60	3	7	50	KED
⌊	**Cd**	**114**	**0.020**	ug/L	0.008	39	5	12	31	KED
⌈>	**In**	**115**		ug/L			944527	449437	2	Standard
|	**Ag**	**107**	**0.003**	ug/L	0.002	52	53	46	23	Standard
|	**Sb**	**121**	**0.087**	ug/L	0.003	3	99	589	0	Standard
|	**Sb**	**123**	**0.109**	ug/L	0.002	2	75	535	2	Standard
|	**Ba**	**135**	**21.746**	ug/L	0.299	1	12	40741	1	Standard
⌊	**Ba**	**137**	**22.407**	ug/L	0.062	0	21	72199	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	645436	1	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.002	74	175	147	21	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-05
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 21:32:55

DEL

Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	32694	0	Standard
	Cl	**37**		ug/L			6308940	173440612	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	798673	0	Standard
|	**Cr**	**52**	**0.942**	ug/L	0.018	1	14875	20336	1	Standard
|	**Cr**	**53**	**68.715**	ug/L	0.580	0	195	105557	1	Standard
⌊	**Mn**	**55**	**114.124**	ug/L	1.790	1	545	2145184	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	33124	2	KED
|	**Ni**	**60**	**0.934**	ug/L	0.064	6	15	508	4	KED
|	**Ni**	**62**	**3.049**	ug/L	0.386	12	10	255	12	KED
|	**Cu**	**63**	**1.244**	ug/L	0.038	3	46	1741	2	KED
|	**Cu**	**65**	**0.789**	ug/L	0.094	11	26	549	9	KED
|	**Zn**	**66**	**8.213**	ug/L	0.443	5	68	1603	3	KED
|	**Zn**	**67**	**9.553**	ug/L	0.895	9	10	304	8	KED
|	**As**	**75**	**1.165**	ug/L	0.045	3	4	149	2	KED
⌊	**Se-1**	**78**	**1.155**	ug/L	0.192	16	12	23	15	KED
	Y	**89**		ug/L			790194	347151	1	Standard
	Kr	**83**		ug/L			58	12696	5	Standard
⌈>	**In-1**	**115**		ug/L			38158	14348	1	KED
|	**Cd**	**111**	**0.063**	ug/L	0.033	52	3	12	47	KED
⌊	**Cd**	**114**	**0.052**	ug/L	0.026	50	5	24	47	KED
⌈>	**In**	**115**		ug/L			944527	383099	1	Standard
|	**Ag**	**107**	**0.007**	ug/L	0.001	16	53	64	9	Standard
|	**Sb**	**121**	**0.141**	ug/L	0.006	4	99	784	2	Standard
|	**Sb**	**123**	**0.194**	ug/L	0.004	2	75	790	3	Standard
|	**Ba**	**135**	**20.682**	ug/L	0.528	2	12	33028	2	Standard
⌊	**Ba**	**137**	**21.280**	ug/L	0.641	3	21	58424	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	565567	0	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.001	34	175	131	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-06
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 21:37:37 DEL
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	**13**		ug/L			26774	38986	2	Standard
Cl	**37**		ug/L			6308940	122939914	2	Standard
Sc	**45**		ug/L			1410977	903148	1	Standard
Cr	**52**	**1.391**	ug/L	0.039	2	14875	29402	1	Standard
Cr	**53**	**64.463**	ug/L	0.671	1	195	111978	0	Standard
Mn	**55**	**8.899**	ug/L	0.104	1	545	189460	1	Standard
Ge-1	**72**		ug/L			87449	40487	0	KED
Ni	**60**	**0.564**	ug/L	0.012	2	15	378	1	KED
Ni	**62**	**2.409**	ug/L	0.101	4	10	247	5	KED
Cu	**63**	**1.023**	ug/L	0.027	2	46	1754	3	KED
Cu	**65**	**0.786**	ug/L	0.058	7	26	669	6	KED
Zn	**66**	**2.742**	ug/L	0.024	0	68	676	1	KED
Zn	**67**	**3.089**	ug/L	0.465	15	10	123	13	KED
As	**75**	**1.155**	ug/L	0.052	4	4	181	3	KED
Se-1	**78**	**0.838**	ug/L	0.088	10	12	22	8	KED
Y	**89**		ug/L			790194	396275	2	Standard
Kr	**83**		ug/L			58	4725	7	Standard
In-1	**115**		ug/L			38158	17273	4	KED
Cd	**111**	**0.039**	ug/L	0.017	41	3	9	34	KED
Cd	**114**	**0.027**	ug/L	0.006	21	5	16	20	KED
In	**115**		ug/L			944527	436391	1	Standard
Ag	**107**	**0.003**	ug/L	0.000	13	53	46	6	Standard
Sb	**121**	**0.086**	ug/L	0.003	4	99	561	2	Standard
Sb	**123**	**0.113**	ug/L	0.002	1	75	540	0	Standard
Ba	**135**	**7.316**	ug/L	0.138	1	12	13313	0	Standard
Ba	**137**	**7.568**	ug/L	0.176	2	21	23679	1	Standard
Tb	**159**		ug/L			1118737	654311	1	Standard
Pb	**208**	**0.005**	ug/L	0.001	14	175	217	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 21:43:25
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	22255	1	Standard
	Cl	**37**		ug/L			6308940	6254692	0	Standard
>	**Sc**	**45**		ug/L			1410977	1208814	2	Standard
	Cr	**52**	**51.838**	ug/L	2.775	5	14875	1004065	3	Standard
	Cr	**53**	**53.161**	ug/L	1.109	2	195	123600	0	Standard
	Mn	**55**	**50.445**	ug/L	3.420	6	545	1434141	5	Standard
>	**Ge-1**	**72**		ug/L			87449	77508	3	KED
	Ni	**60**	**51.020**	ug/L	1.897	3	15	64295	1	KED
	Ni	**62**	**52.094**	ug/L	2.180	4	10	10054	2	KED
	Cu	**63**	**51.382**	ug/L	1.661	3	46	166570	0	KED
	Cu	**65**	**50.682**	ug/L	0.594	1	26	81246	2	KED
	Zn	**66**	**52.022**	ug/L	2.033	3	68	23450	1	KED
	Zn	**67**	**52.856**	ug/L	2.697	5	10	3900	1	KED
	As	**75**	**48.633**	ug/L	1.716	3	4	14461	0	KED
	Se-1	**78**	**49.229**	ug/L	2.322	4	12	1907	2	KED
	Y	**89**		ug/L			790194	569376	4	Standard
	Kr	**83**		ug/L			58	81	10	Standard
>	**In-1**	**115**		ug/L			38158	33679	0	KED
	Cd	**111**	**47.584**	ug/L	1.152	2	3	19123	1	KED
	Cd	**114**	**47.338**	ug/L	0.776	1	5	48551	1	KED
>	**In**	**115**		ug/L			944527	769916	0	Standard
	Ag	**107**	**47.086**	ug/L	1.024	2	53	595199	1	Standard
	Sb	**121**	**47.858**	ug/L	0.577	1	99	508715	0	Standard
	Sb	**123**	**47.336**	ug/L	1.524	3	75	372412	2	Standard
	Ba	**135**	**50.041**	ug/L	2.231	4	12	160599	4	Standard
	Ba	**137**	**50.378**	ug/L	1.260	2	21	278011	1	Standard
>	**Tb**	**159**		ug/L			1118737	1036509	4	Standard
	Pb	**208**	**40.509**	ug/L	2.083	5	175	1460858	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 21:50:52
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	22586	2	Standard
	Cl	**37**		ug/L			6308940	5656039	0	Standard
>	**Sc**	**45**		ug/L			1410977	1134255	2	Standard
	Cr	**52**	**-0.097**	ug/L	0.012	12	14875	10204	1	Standard
	Cr	**53**	**1.098**	ug/L	0.053	4	195	2548	2	Standard
	Mn	**55**	**0.008**	ug/L	0.001	16	545	660	2	Standard
>	**Ge-1**	**72**		ug/L			87449	78987	1	KED
	Ni	**60**	**-0.003**	ug/L	0.004	115	15	9	52	KED
	Ni	**62**	**0.218**	ug/L	0.056	25	10	52	20	KED
	Cu	**63**	**0.002**	ug/L	0.003	125	46	49	17	KED
	Cu	**65**	**-0.003**	ug/L	0.002	49	26	18	11	KED
	Zn	**66**	**-0.088**	ug/L	0.016	18	68	21	35	KED
	Zn	**67**	**-0.079**	ug/L	0.067	84	10	3	132	KED
	As	**75**	**0.005**	ug/L	0.003	57	4	5	13	KED
	Se-1	**78**	**0.132**	ug/L	0.054	40	12	16	13	KED
	Y	**89**		ug/L			790194	560093	4	Standard
	Kr	**83**		ug/L			58	58	9	Standard
>	**In-1**	**115**		ug/L			38158	32554	1	KED
	Cd	**111**	**0.000**	ug/L	0.003	638	3	2	33	KED
	Cd	**114**	**-0.000**	ug/L	0.003	850	5	4	67	KED
>	**In**	**115**		ug/L			944527	737105	3	Standard
	Ag	**107**	**-0.001**	ug/L	0.001	214	53	34	36	Standard
	Sb	**121**	**0.112**	ug/L	0.006	5	99	1217	8	Standard
	Sb	**123**	**0.112**	ug/L	0.004	3	75	904	6	Standard
	Ba	**135**	**-0.001**	ug/L	0.001	89	12	5	57	Standard
	Ba	**137**	**-0.002**	ug/L	0.001	44	21	7	50	Standard
>	**Tb**	**159**		ug/L			1118737	1031626	4	Standard
	Pb	**208**	**0.000**	ug/L	0.001	185	175	175	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-07
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 21:55:35
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	42584	2	Standard
	Cl	37		ug/L			6308940	41572247	2	Standard
>	Sc	45		ug/L			1410977	1061139	2	Standard
	Cr	52	0.638	ug/L	0.040	6	14875	21898	2	Standard
	Cr	53	29.952	ug/L	0.586	1	195	61198	0	Standard
	Mn	55	41.529	ug/L	0.561	1	545	1037152	0	Standard
>	Ge-1	72		ug/L			87449	58072	0	KED
	Ni	60	0.786	ug/L	0.048	6	15	752	6	KED
	Ni	62	1.386	ug/L	0.122	8	10	206	7	KED
	Cu	63	1.768	ug/L	0.005	0	46	4326	0	KED
	Cu	65	1.688	ug/L	0.060	3	26	2045	3	KED
	Zn	66	3.455	ug/L	0.122	3	68	1210	3	KED
	Zn	67	3.457	ug/L	0.298	8	10	198	8	KED
	As	75	0.800	ug/L	0.078	9	4	181	8	KED
	Se-1	78	0.245	ug/L	0.145	59	12	15	26	KED
	Y	89		ug/L			790194	510766	0	Standard
	Kr	83		ug/L			58	191	9	Standard
>	In-1	115		ug/L			38158	25169	3	KED
	Cd	111	0.007	ug/L	0.007	97	3	4	48	KED
	Cd	114	0.006	ug/L	0.008	132	5	8	74	KED
>	In	115		ug/L			944527	606360	0	Standard
	Ag	107	0.001	ug/L	0.001	53	53	48	14	Standard
	Sb	121	0.154	ug/L	0.002	1	99	1353	1	Standard
	Sb	123	0.161	ug/L	0.006	4	75	1043	2	Standard
	Ba	135	6.084	ug/L	0.196	3	12	15384	2	Standard
	Ba	137	6.322	ug/L	0.197	3	21	27489	2	Standard
>	Tb	159		ug/L			1118737	897877	1	Standard
	Pb	208	0.019	ug/L	0.001	6	175	742	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-21
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 22:00:18
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	33001	1	Standard
	Cl	37		ug/L			6308940	5157565	0	Standard
>	Sc	45		ug/L			1410977	1151286	3	Standard
	Cr	52	0.044	ug/L	0.035	81	14875	12915	1	Standard
	Cr	53	0.891	ug/L	0.029	3	195	2128	1	Standard
	Mn	55	6856.604	ug/L	264.011	3	545	185561935	0	Standard
>	Ge-1	72		ug/L			87449	67544	1	KED
	Ni	60	54.241	ug/L	0.854	1	15	59602	0	KED
	Ni	62	54.891	ug/L	1.521	2	10	9236	1	KED
	Cu	63	57.486	ug/L	1.504	2	46	162469	1	KED
	Cu	65	56.368	ug/L	1.418	2	26	78746	1	KED
	Zn	66	698.016	ug/L	18.090	2	68	273691	1	KED
	Zn	67	640.132	ug/L	11.134	1	10	41111	1	KED
	As	75	0.057	ug/L	0.016	28	4	18	23	KED
	Se-1	78	0.322	ug/L	0.078	24	12	20	11	KED
	Y	89		ug/L			790194	719145	1	Standard
	Kr	83		ug/L			58	65	14	Standard
>	In-1	115		ug/L			38158	28660	0	KED
	Cd	111	8.598	ug/L	0.299	3	3	2942	2	KED
	Cd	114	8.528	ug/L	0.184	2	5	7445	1	KED
>	In	115		ug/L			944527	675047	2	Standard
	Ag	107	0.006	ug/L	0.000	3	53	102	4	Standard
	Sb	121	0.034	ug/L	0.005	13	99	388	9	Standard
	Sb	123	0.031	ug/L	0.005	15	75	269	9	Standard
	Ba	135	20.287	ug/L	0.309	1	12	57096	2	Standard
	Ba	137	21.015	ug/L	0.688	3	21	101657	1	Standard
>	Tb	159		ug/L			1118737	970009	0	Standard
	Pb	208	0.017	ug/L	0.001	5	175	726	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-23
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 22:05:01
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	31817	0	Standard
	Cl	**37**		ug/L			6308940	5005178	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1088449	0	Standard
|	**Cr**	**52**	**0.134**	ug/L	0.025	18	14875	13777	3	Standard
|	**Cr**	**53**	**1.043**	ug/L	0.053	5	195	2332	4	Standard
⌊	**Mn**	**55**	**298.924**	ug/L	6.789	2	545	7656146	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	66623	1	KED
|	**Ni**	**60**	**4.432**	ug/L	0.107	2	15	4813	1	KED
|	**Ni**	**62**	**4.483**	ug/L	0.197	4	10	751	4	KED
|	**Cu**	**63**	**1.393**	ug/L	0.017	1	46	3917	1	KED
|	**Cu**	**65**	**1.339**	ug/L	0.014	1	26	1864	2	KED
|	**Zn**	**66**	**19.904**	ug/L	1.029	5	68	7747	4	KED
|	**Zn**	**67**	**21.185**	ug/L	0.671	3	10	1350	4	KED
|	**As**	**75**	**0.055**	ug/L	0.014	25	4	17	18	KED
⌊	**Se-1**	**78**	**0.273**	ug/L	0.049	17	12	18	6	KED
	Y	**89**		ug/L			790194	542276	2	Standard
	Kr	**83**		ug/L			58	43	26	Standard
⌈>	**In-1**	**115**		ug/L			38158	28250	1	KED
|	**Cd**	**111**	**2.258**	ug/L	0.040	1	3	763	2	KED
⌊	**Cd**	**114**	**2.319**	ug/L	0.052	2	5	1998	1	KED
⌈>	**In**	**115**		ug/L			944527	676327	3	Standard
|	**Ag**	**107**	**0.002**	ug/L	0.000	21	53	61	4	Standard
|	**Sb**	**121**	**0.022**	ug/L	0.002	8	99	279	9	Standard
|	**Sb**	**123**	**0.024**	ug/L	0.001	6	75	216	4	Standard
|	**Ba**	**135**	**44.799**	ug/L	3.314	7	12	126123	4	Standard
⌊	**Ba**	**137**	**47.020**	ug/L	1.113	2	21	227841	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	943481	0	Standard
⌊	**Pb**	**208**	**0.020**	ug/L	0.001	7	175	822	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-25
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 22:09:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26774	30597	3	Standard
Cl	37		ug/L			6308940	5106773	1	Standard
> Sc	45		ug/L			1410977	1106541	1	Standard
Cr	52	0.215	ug/L	0.011	5	14875	15433	0	Standard
Cr	53	1.099	ug/L	0.046	4	195	2490	3	Standard
Mn	55	2.043	ug/L	0.108	5	545	53644	5	Standard
> Ge-1	72		ug/L			87449	68613	1	KED
Ni	60	0.317	ug/L	0.019	5	15	365	5	KED
Ni	62	0.426	ug/L	0.021	4	10	80	2	KED
Cu	63	0.243	ug/L	0.022	8	46	735	7	KED
Cu	65	0.255	ug/L	0.020	7	26	381	5	KED
Zn	66	2.863	ug/L	0.028	0	68	1194	2	KED
Zn	67	3.429	ug/L	0.520	15	10	231	12	KED
As	75	0.021	ug/L	0.013	61	4	9	38	KED
Se-1	78	0.267	ug/L	0.115	43	12	18	18	KED
Y	89		ug/L			790194	525143	1	Standard
Kr	83		ug/L			58	37	41	Standard
> In-1	115		ug/L			38158	29297	0	KED
Cd	111	0.392	ug/L	0.032	8	3	139	7	KED
Cd	114	0.358	ug/L	0.062	17	5	323	16	KED
> In	115		ug/L			944527	721013	2	Standard
Ag	107	0.000	ug/L	0.001	270	53	44	21	Standard
Sb	121	0.025	ug/L	0.003	11	99	321	6	Standard
Sb	123	0.024	ug/L	0.004	18	75	230	13	Standard
Ba	135	10.482	ug/L	0.257	2	12	31502	0	Standard
Ba	137	11.113	ug/L	0.524	4	21	57422	3	Standard
> Tb	159		ug/L			1118737	968001	0	Standard
Pb	208	0.010	ug/L	0.001	12	175	490	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-27
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 22:14:26
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	34775	1	Standard
	Cl	**37**		ug/L			6308940	4723441	1	Standard
>	**Sc**	**45**		ug/L			1410977	1109419	1	Standard
	Cr	**52**	**-0.051**	ug/L	0.002	4	14875	10807	1	Standard
	Cr	**53**	**0.657**	ug/L	0.013	1	195	1553	1	Standard
	Mn	**55**	**762.792**	ug/L	3.420	0	545	19913500	1	Standard
>	**Ge-1**	**72**		ug/L			87449	66242	2	KED
	Ni	**60**	**13.666**	ug/L	0.662	4	15	14728	3	KED
	Ni	**62**	**13.868**	ug/L	0.318	2	10	2294	2	KED
	Cu	**63**	**29.287**	ug/L	1.129	3	46	81162	1	KED
	Cu	**65**	**28.928**	ug/L	0.784	2	26	39637	1	KED
	Zn	**66**	**266.347**	ug/L	10.746	4	68	102409	1	KED
	Zn	**67**	**246.216**	ug/L	10.923	4	10	15503	2	KED
	As	**75**	**0.047**	ug/L	0.013	26	4	15	20	KED
	Se-1	**78**	**0.164**	ug/L	0.060	36	12	14	14	KED
	Y	**89**		ug/L			790194	585215	0	Standard
	Kr	**83**		ug/L			58	51	9	Standard
>	**In-1**	**115**		ug/L			38158	28002	2	KED
	Cd	**111**	**1.716**	ug/L	0.041	2	3	575	1	KED
	Cd	**114**	**1.821**	ug/L	0.025	1	5	1556	1	KED
>	**In**	**115**		ug/L			944527	684852	1	Standard
	Ag	**107**	**0.000**	ug/L	0.001	7562	53	38	23	Standard
	Sb	**121**	**0.006**	ug/L	0.001	14	99	130	8	Standard
	Sb	**123**	**0.006**	ug/L	0.001	15	75	98	8	Standard
	Ba	**135**	**11.682**	ug/L	0.442	3	12	33345	2	Standard
	Ba	**137**	**12.250**	ug/L	0.310	2	21	60135	0	Standard
>	**Tb**	**159**		ug/L			1118737	942535	2	Standard
	Pb	**208**	**0.068**	ug/L	0.003	4	175	2391	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-29
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 22:19:08
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	29493	0	Standard
	Cl	37		ug/L			6308940	4790357	0	Standard
>	Sc	45		ug/L			1410977	1060898	2	Standard
	Cr	52	-0.031	ug/L	0.032	102	14875	10652	2	Standard
	Cr	53	0.693	ug/L	0.060	8	195	1558	4	Standard
	Mn	55	272.392	ug/L	8.580	3	545	6796306	0	Standard
>	Ge-1	72		ug/L			87449	67967	0	KED
	Ni	60	8.756	ug/L	0.176	2	15	9692	2	KED
	Ni	62	8.661	ug/L	0.231	2	10	1473	1	KED
	Cu	63	7.294	ug/L	0.139	1	46	20777	0	KED
	Cu	65	7.199	ug/L	0.241	3	26	10138	2	KED
	Zn	66	162.653	ug/L	2.089	1	68	64233	1	KED
	Zn	67	147.738	ug/L	2.193	1	10	9554	1	KED
	As	75	0.033	ug/L	0.004	13	4	12	9	KED
	Se-1	78	0.237	ug/L	0.042	17	12	17	8	KED
	Y	89		ug/L			790194	549669	1	Standard
	Kr	83		ug/L			58	39	2	Standard
>	In-1	115		ug/L			38158	28542	0	KED
	Cd	111	1.638	ug/L	0.029	1	3	560	1	KED
	Cd	114	1.612	ug/L	0.029	1	5	1405	1	KED
>	In	115		ug/L			944527	677878	1	Standard
	Ag	107	0.000	ug/L	0.000	82	53	43	10	Standard
	Sb	121	0.046	ug/L	0.001	2	99	506	0	Standard
	Sb	123	0.047	ug/L	0.001	2	75	382	0	Standard
	Ba	135	13.376	ug/L	0.533	3	12	37786	2	Standard
	Ba	137	14.015	ug/L	0.588	4	21	68091	3	Standard
>	Tb	159		ug/L			1118737	941970	2	Standard
	Pb	208	0.017	ug/L	0.002	9	175	720	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-31
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 22:23:51
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	28277	3	Standard
	Cl	**37**		ug/L			6308940	4849285	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1034081	1	Standard
|	**Cr**	**52**	**0.339**	ug/L	0.008	2	14875	16457	0	Standard
|	**Cr**	**53**	**1.036**	ug/L	0.009	0	195	2201	1	Standard
⌊	**Mn**	**55**	**0.748**	ug/L	0.009	1	545	18604	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	66705	0	KED
|	**Ni**	**60**	**0.254**	ug/L	0.009	3	15	286	3	KED
|	**Ni**	**62**	**0.305**	ug/L	0.062	20	10	58	17	KED
|	**Cu**	**63**	**0.137**	ug/L	0.011	7	46	418	6	KED
|	**Cu**	**65**	**0.127**	ug/L	0.012	9	26	195	8	KED
|	**Zn**	**66**	**1.521**	ug/L	0.024	1	68	641	1	KED
|	**Zn**	**67**	**2.133**	ug/L	0.256	12	10	143	11	KED
|	**As**	**75**	**0.026**	ug/L	0.015	57	4	10	37	KED
⌊	**Se-1**	**78**	**0.482**	ug/L	0.115	23	12	25	15	KED
	Y	**89**		ug/L			790194	519869	2	Standard
	Kr	**83**		ug/L			58	43	32	Standard
⌈>	**In-1**	**115**		ug/L			38158	28585	1	KED
|	**Cd**	**111**	**0.192**	ug/L	0.014	7	3	67	7	KED
⌊	**Cd**	**114**	**0.183**	ug/L	0.010	5	5	163	3	KED
⌈>	**In**	**115**		ug/L			944527	679356	0	Standard
|	**Ag**	**107**	**-0.000**	ug/L	0.002	405	53	33	56	Standard
|	**Sb**	**121**	**0.009**	ug/L	0.001	8	99	158	4	Standard
|	**Sb**	**123**	**0.010**	ug/L	0.005	45	75	124	26	Standard
|	**Ba**	**135**	**12.279**	ug/L	0.257	2	12	34782	1	Standard
⌊	**Ba**	**137**	**13.015**	ug/L	0.390	2	21	63391	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	946398	1	Standard
⌊	**Pb**	**208**	**0.003**	ug/L	0.001	30	175	248	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-33
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 22:28:34
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	31211	2	Standard
	Cl	**37**		ug/L			6308940	4900992	2	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1028632	2	Standard
|	**Cr**	**52**	**-0.075**	ug/L	0.027	36	14875	9619	3	Standard
|	**Cr**	**53**	**0.650**	ug/L	0.022	3	195	1426	5	Standard
⌊	**Mn**	**55**	**3.534**	ug/L	0.027	0	545	85932	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	69363	1	KED
|	**Ni**	**60**	**0.066**	ug/L	0.008	12	15	86	11	KED
|	**Ni**	**62**	**0.112**	ug/L	0.035	31	10	27	21	KED
|	**Cu**	**63**	**0.259**	ug/L	0.011	4	46	789	4	KED
|	**Cu**	**65**	**0.246**	ug/L	0.016	6	26	373	6	KED
|	**Zn**	**66**	**0.607**	ug/L	0.081	13	68	299	11	KED
|	**Zn**	**67**	**1.073**	ug/L	0.122	11	10	79	10	KED
|	**As**	**75**	**0.116**	ug/L	0.005	4	4	34	2	KED
⌊	**Se-1**	**78**	**0.769**	ug/L	0.059	7	12	36	6	KED
	Y	**89**		ug/L			790194	532716	3	Standard
	Kr	**83**		ug/L			58	40	58	Standard
⌈>	**In-1**	**115**		ug/L			38158	28587	1	KED
|	**Cd**	**111**	**0.012**	ug/L	0.004	37	3	6	22	KED
⌊	**Cd**	**114**	**0.012**	ug/L	0.005	45	5	14	33	KED
⌈>	**In**	**115**		ug/L			944527	696617	2	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.002	111	53	55	30	Standard
|	**Sb**	**121**	**0.026**	ug/L	0.002	6	99	326	4	Standard
|	**Sb**	**123**	**0.030**	ug/L	0.002	5	75	269	4	Standard
|	**Ba**	**135**	**10.459**	ug/L	0.327	3	12	30389	4	Standard
⌊	**Ba**	**137**	**11.011**	ug/L	0.301	2	21	54988	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	960212	2	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.001	229	175	165	19	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-35
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 22:33:16
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	30287	1	Standard
	Cl	**37**		ug/L			6308940	4807239	0	Standard
>	**Sc**	**45**		ug/L			1410977	1002963	3	Standard
	Cr	**52**	**-0.054**	ug/L	0.031	56	14875	9698	1	Standard
	Cr	**53**	**0.573**	ug/L	0.057	9	195	1240	5	Standard
	Mn	**55**	**0.376**	ug/L	0.028	7	545	9248	3	Standard
>	**Ge-1**	**72**		ug/L			87449	70445	0	KED
	Ni	**60**	**0.128**	ug/L	0.012	9	15	159	8	KED
	Ni	**62**	**0.185**	ug/L	0.050	27	10	40	21	KED
	Cu	**63**	**8.636**	ug/L	0.376	4	46	25493	4	KED
	Cu	**65**	**8.553**	ug/L	0.132	1	26	12482	1	KED
	Zn	**66**	**72.934**	ug/L	1.240	1	68	29880	1	KED
	Zn	**67**	**67.441**	ug/L	3.063	4	10	4525	4	KED
	As	**75**	**0.078**	ug/L	0.002	1	4	24	1	KED
	Se-1	**78**	**0.101**	ug/L	0.043	42	12	13	11	KED
	Y	**89**		ug/L			790194	525033	2	Standard
	Kr	**83**		ug/L			58	40	31	Standard
>	**In-1**	**115**		ug/L			38158	30198	2	KED
	Cd	**111**	**0.449**	ug/L	0.024	5	3	164	6	KED
	Cd	**114**	**0.444**	ug/L	0.018	4	5	412	1	KED
>	**In**	**115**		ug/L			944527	673873	3	Standard
	Ag	**107**	**0.001**	ug/L	0.001	75	53	46	12	Standard
	Sb	**121**	**0.055**	ug/L	0.002	3	99	586	5	Standard
	Sb	**123**	**0.059**	ug/L	0.002	3	75	456	3	Standard
	Ba	**135**	**5.112**	ug/L	0.107	2	12	14368	3	Standard
	Ba	**137**	**5.455**	ug/L	0.192	3	21	26346	1	Standard
>	**Tb**	**159**		ug/L			1118737	946399	1	Standard
	Pb	**208**	**0.001**	ug/L	0.000	27	175	180	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-37
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 22:37:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	30475	1	Standard
	Cl	37		ug/L			6308940	4696116	0	Standard
>	Sc	45		ug/L			1410977	1013366	0	Standard
	Cr	52	-0.098	ug/L	0.011	11	14875	9111	1	Standard
	Cr	53	0.517	ug/L	0.016	3	195	1146	2	Standard
	Mn	55	4.236	ug/L	0.087	2	545	101399	1	Standard
>	Ge-1	72		ug/L			87449	68913	1	KED
	Ni	60	1.103	ug/L	0.055	4	15	1247	3	KED
	Ni	62	1.223	ug/L	0.144	11	10	217	11	KED
	Cu	63	47.627	ug/L	0.439	0	46	137374	1	KED
	Cu	65	47.233	ug/L	0.368	0	26	67342	1	KED
	Zn	66	420.416	ug/L	12.586	2	68	168208	1	KED
	Zn	67	390.819	ug/L	5.155	1	10	25611	0	KED
	As	75	0.043	ug/L	0.009	22	4	14	15	KED
	Se-1	78	0.161	ug/L	0.038	23	12	15	7	KED
	Y	89		ug/L			790194	517464	1	Standard
	Kr	83		ug/L			58	43	30	Standard
>	In-1	115		ug/L			38158	28285	1	KED
	Cd	111	2.153	ug/L	0.068	3	3	729	4	KED
	Cd	114	2.252	ug/L	0.094	4	5	1943	3	KED
>	In	115		ug/L			944527	674970	0	Standard
	Ag	107	0.003	ug/L	0.001	26	53	72	12	Standard
	Sb	121	0.019	ug/L	0.002	9	99	248	6	Standard
	Sb	123	0.019	ug/L	0.004	22	75	185	14	Standard
	Ba	135	17.482	ug/L	0.454	2	12	49191	1	Standard
	Ba	137	18.441	ug/L	0.096	0	21	89237	0	Standard
>	Tb	159		ug/L			1118737	943367	3	Standard
	Pb	208	0.006	ug/L	0.001	24	175	339	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV9
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 22:43:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	20330	2	Standard
	Cl	37		ug/L			6308940	4812113	1	Standard
>	Sc	45		ug/L			1410977	919504	1	Standard
	Cr	52	51.746	ug/L	2.143	4	14875	762820	3	Standard
	Cr	53	50.389	ug/L	0.696	1	195	89136	0	Standard
	Mn	55	49.881	ug/L	1.682	3	545	1079224	1	Standard
>	Ge-1	72		ug/L			87449	60240	21	KED
	Ni	60	60.126	ug/L	13.677	22	15	57038	1	KED
	Ni	62	60.839	ug/L	16.909	27	10	8773	3	KED
	Cu	63	60.155	ug/L	16.608	27	46	145758	3	KED
	Cu	65	58.489	ug/L	13.394	22	26	70536	1	KED
	Zn	66	61.159	ug/L	15.230	24	68	20683	0	KED
	Zn	67	59.850	ug/L	16.951	28	10	3298	3	KED
	As	75	55.335	ug/L	14.369	25	4	12328	1	KED
	Se-1	78	57.308	ug/L	15.003	26	12	1662	1	KED
	Y	89		ug/L			790194	524114	2	Standard
	Kr	83		ug/L			58	51	38	Standard
>	In-1	115		ug/L			38158	28322	1	KED
	Cd	111	47.767	ug/L	0.828	1	3	16141	0	KED
	Cd	114	47.794	ug/L	0.502	1	5	41219	1	KED
>	In	115		ug/L			944527	660176	0	Standard
	Ag	107	50.366	ug/L	0.143	0	53	545956	0	Standard
	Sb	121	48.619	ug/L	1.316	2	99	443164	2	Standard
	Sb	123	50.467	ug/L	0.202	0	75	340504	0	Standard
	Ba	135	51.340	ug/L	1.083	2	12	141299	2	Standard
	Ba	137	53.370	ug/L	1.166	2	21	252577	2	Standard
>	Tb	159		ug/L			1118737	906030	1	Standard
	Pb	208	40.252	ug/L	1.262	3	175	1270672	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB9
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 22:51:14
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	19397	5	Standard
	Cl	**37**		ug/L			6308940	4657808	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	894293	0	Standard
|	**Cr**	**52**	**-0.169**	ug/L	0.008	4	14875	7028	1	Standard
|	**Cr**	**53**	**0.313**	ug/L	0.019	5	195	661	4	Standard
⌊	**Mn**	**55**	**0.035**	ug/L	0.002	6	545	1073	4	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	67237	1	KED
|	**Ni**	**60**	**-0.005**	ug/L	0.002	31	15	5	33	KED
|	**Ni**	**62**	**-0.012**	ug/L	0.012	93	10	5	33	KED
|	**Cu**	**63**	**-0.001**	ug/L	0.005	433	46	33	40	KED
|	**Cu**	**65**	**-0.004**	ug/L	0.003	74	26	13	31	KED
|	**Zn**	**66**	**-0.078**	ug/L	0.009	12	68	22	17	KED
|	**Zn**	**67**	**-0.080**	ug/L	0.017	21	10	3	34	KED
|	**As**	**75**	**-0.001**	ug/L	0.003	420	4	3	24	KED
⌊	**Se-1**	**78**	**0.063**	ug/L	0.007	10	12	11	2	KED
	Y	**89**		ug/L			790194	509744	3	Standard
	Kr	**83**		ug/L			58	37	17	Standard
⌈>	**In-1**	**115**		ug/L			38158	27283	0	KED
|	**Cd**	**111**	**0.003**	ug/L	0.004	158	3	3	45	KED
⌊	**Cd**	**114**	**-0.004**	ug/L	0.001	33	5	0	282	KED
⌈>	**In**	**115**		ug/L			944527	658673	2	Standard
|	**Ag**	**107**	**0.000**	ug/L	0.001	578	53	38	13	Standard
|	**Sb**	**121**	**0.108**	ug/L	0.006	5	99	1050	2	Standard
|	**Sb**	**123**	**0.110**	ug/L	0.004	3	75	796	5	Standard
|	**Ba**	**135**	**0.000**	ug/L	0.001	187	12	9	20	Standard
⌊	**Ba**	**137**	**0.001**	ug/L	0.001	169	21	19	36	Standard
⌈>	**Tb**	**159**		ug/L			1118737	884363	3	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.000	44	175	122	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 22:55:57

DEL REST OF RUN

Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	26815	1	Standard
	Cl	**37**		ug/L			6308940	4611548	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	904550	0	Standard
|	**Cr**	**52**	**-0.159**	ug/L	0.017	10	14875	7262	2	Standard
|	**Cr**	**53**	**0.300**	ug/L	0.015	4	195	646	3	Standard
⌊	**Mn**	**55**	**0.141**	ug/L	0.005	3	545	3347	3	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	64918	0	KED
|	**Ni**	**60**	**0.010**	ug/L	0.001	9	15	21	5	KED
|	**Ni**	**62**	**0.016**	ug/L	0.073	442	10	10	114	KED
|	**Cu**	**63**	**0.043**	ug/L	0.008	17	46	151	12	KED
|	**Cu**	**65**	**0.034**	ug/L	0.006	17	26	65	11	KED
|	**Zn**	**66**	**0.274**	ug/L	0.025	9	68	154	6	KED
|	**Zn**	**67**	**0.425**	ug/L	0.090	21	10	34	16	KED
|	**As**	**75**	**0.008**	ug/L	0.005	57	4	5	20	KED
⌊	**Se-1**	**78**	**0.086**	ug/L	0.109	126	12	12	28	KED
	Y	**89**		ug/L			790194	502113	1	Standard
	Kr	**83**		ug/L			58	37	15	Standard
⌈>	**In-1**	**115**		ug/L			38158	26981	0	KED
|	**Cd**	**111**	**-0.000**	ug/L	0.005	6249	3	2	65	KED
⌊	**Cd**	**114**	**0.000**	ug/L	0.006	1691	5	4	124	KED
⌈>	**In**	**115**		ug/L			944527	668537	3	Standard
|	**Ag**	**107**	**-0.000**	ug/L	0.000	100	53	34	6	Standard
|	**Sb**	**121**	**0.023**	ug/L	0.003	13	99	285	12	Standard
|	**Sb**	**123**	**0.025**	ug/L	0.001	3	75	226	1	Standard
|	**Ba**	**135**	**0.006**	ug/L	0.002	42	12	24	25	Standard
⌊	**Ba**	**137**	**0.005**	ug/L	0.002	29	21	40	20	Standard
⌈>	**Tb**	**159**		ug/L			1118737	900703	1	Standard
⌊	**Pb**	**208**	**-0.000**	ug/L	0.000	76	175	130	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-39
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 23:00:40

DEL

Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	29210	0	Standard
	Cl	**37**		ug/L			6308940	3171559	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	830363	0	Standard
|	**Cr**	**52**	**0.122**	ug/L	0.004	3	14875	10352	1	Standard
|	**Cr**	**53**	**0.558**	ug/L	0.006	1	195	1005	0	Standard
⌊	**Mn**	**55**	**555.868**	ug/L	14.981	2	545	10860102	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	46275	1	KED
|	**Ni**	**60**	**0.299**	ug/L	0.029	9	15	233	9	KED
|	**Ni**	**62**	**0.212**	ug/L	0.108	50	10	29	42	KED
|	**Cu**	**63**	**0.529**	ug/L	0.053	10	46	1049	9	KED
|	**Cu**	**65**	**0.547**	ug/L	0.043	7	26	537	9	KED
|	**Zn**	**66**	**8.093**	ug/L	0.302	3	68	2210	3	KED
|	**Zn**	**67**	**7.926**	ug/L	0.654	8	10	354	7	KED
|	**As**	**75**	**0.148**	ug/L	0.007	4	4	28	5	KED
⌊	**Se-1**	**78**	**0.097**	ug/L	0.092	94	12	8	25	KED
	Y	**89**		ug/L			790194	430692	1	Standard
	Kr	**83**		ug/L			58	66	14	Standard
⌈>	**In-1**	**115**		ug/L			38158	20172	2	KED
|	**Cd**	**111**	**0.035**	ug/L	0.011	31	3	10	23	KED
⌊	**Cd**	**114**	**0.044**	ug/L	0.008	17	5	30	13	KED
⌈>	**In**	**115**		ug/L			944527	526092	1	Standard
|	**Ag**	**107**	**0.004**	ug/L	0.001	20	53	64	10	Standard
|	**Sb**	**121**	**0.038**	ug/L	0.006	16	99	335	14	Standard
|	**Sb**	**123**	**0.042**	ug/L	0.002	3	75	268	2	Standard
|	**Ba**	**135**	**15.429**	ug/L	0.418	2	12	33850	3	Standard
⌊	**Ba**	**137**	**16.095**	ug/L	0.049	0	21	60708	0	Standard
⌈>	**Tb**	**159**		ug/L			1118737	756581	0	Standard
⌊	**Pb**	**208**	**0.072**	ug/L	0.006	7	175	2027	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-41
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 23:05:23

DEL

Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	28510	1	Standard
	Cl	**37**		ug/L			6308940	3945137	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	917943	0	Standard
|	**Cr**	**52**	**0.600**	ug/L	0.040	6	14875	18392	2	Standard
|	**Cr**	**53**	**1.006**	ug/L	0.020	1	195	1901	1	Standard
⌊	**Mn**	**55**	**1.090**	ug/L	0.021	1	545	23901	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	59712	0	KED
|	**Ni**	**60**	**0.103**	ug/L	0.003	3	15	110	2	KED
|	**Ni**	**62**	**0.150**	ug/L	0.033	21	10	29	16	KED
|	**Cu**	**63**	**0.411**	ug/L	0.034	8	46	1059	7	KED
|	**Cu**	**65**	**0.395**	ug/L	0.014	3	26	506	2	KED
|	**Zn**	**66**	**0.779**	ug/L	0.080	10	68	316	8	KED
|	**Zn**	**67**	**1.057**	ug/L	0.279	26	10	67	22	KED
|	**As**	**75**	**0.328**	ug/L	0.012	3	4	78	3	KED
⌊	**Se-1**	**78**	**0.145**	ug/L	0.075	51	12	12	16	KED
	Y	**89**		ug/L			790194	497245	1	Standard
	Kr	**83**		ug/L			58	28	30	Standard
⌈>	**In-1**	**115**		ug/L			38158	23914	2	KED
|	**Cd**	**111**	**0.010**	ug/L	0.007	68	3	4	40	KED
⌊	**Cd**	**114**	**0.011**	ug/L	0.005	47	5	11	35	KED
⌈>	**In**	**115**		ug/L			944527	631653	2	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.001	259	53	41	35	Standard
|	**Sb**	**121**	**0.032**	ug/L	0.001	4	99	342	1	Standard
|	**Sb**	**123**	**0.034**	ug/L	0.003	9	75	267	8	Standard
|	**Ba**	**135**	**4.221**	ug/L	0.250	5	12	11112	3	Standard
⌊	**Ba**	**137**	**4.393**	ug/L	0.067	1	21	19900	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	910381	1	Standard
⌊	**Pb**	**208**	**0.013**	ug/L	0.001	7	175	542	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-57
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 23:10:05 DEL
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	29210	1	Standard
	Cl	**37**		ug/L			6308940	3917371	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	896662	3	Standard
|	**Cr**	**52**	**-0.067**	ug/L	0.016	23	14875	8490	1	Standard
|	**Cr**	**53**	**0.370**	ug/L	0.027	7	195	760	2	Standard
⌊	**Mn**	**55**	**2.642**	ug/L	0.071	2	545	56076	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	58693	2	KED
|	**Ni**	**60**	**0.191**	ug/L	0.028	14	15	191	11	KED
|	**Ni**	**62**	**0.231**	ug/L	0.047	20	10	40	19	KED
|	**Cu**	**63**	**1.464**	ug/L	0.078	5	46	3623	3	KED
|	**Cu**	**65**	**1.456**	ug/L	0.071	4	26	1783	2	KED
|	**Zn**	**66**	**4.691**	ug/L	0.407	8	68	1641	5	KED
|	**Zn**	**67**	**4.476**	ug/L	0.157	3	10	257	5	KED
|	**As**	**75**	**0.619**	ug/L	0.024	3	4	142	1	KED
⌊	**Se-1**	**78**	**0.048**	ug/L	0.069	144	12	9	21	KED
	Y	**89**		ug/L			790194	500605	1	Standard
	Kr	**83**		ug/L			58	32	26	Standard
⌈>	**In-1**	**115**		ug/L			38158	24530	1	KED
|	**Cd**	**111**	**0.045**	ug/L	0.004	8	3	15	6	KED
⌊	**Cd**	**114**	**0.030**	ug/L	0.009	29	5	25	25	KED
⌈>	**In**	**115**		ug/L			944527	633448	0	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.002	280	53	43	48	Standard
|	**Sb**	**121**	**0.056**	ug/L	0.002	3	99	560	2	Standard
|	**Sb**	**123**	**0.055**	ug/L	0.002	3	75	405	2	Standard
|	**Ba**	**135**	**4.516**	ug/L	0.116	2	12	11931	2	Standard
⌊	**Ba**	**137**	**4.969**	ug/L	0.075	1	21	22575	0	Standard
⌈>	**Tb**	**159**		ug/L			1118737	895032	3	Standard
⌊	**Pb**	**208**	**0.042**	ug/L	0.002	5	175	1460	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-59
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 23:14:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	30677	1	Standard
	Cl	**37**		ug/L			6308940	3897032	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	883544	2	Standard
|	**Cr**	**52**	**-0.057**	ug/L	0.026	45	14875	8506	1	Standard
|	**Cr**	**53**	**0.375**	ug/L	0.008	2	195	759	1	Standard
⌊	**Mn**	**55**	**3.541**	ug/L	0.105	2	545	73912	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	58374	1	KED
|	**Ni**	**60**	**0.169**	ug/L	0.021	12	15	170	13	KED
|	**Ni**	**62**	**0.159**	ug/L	0.007	4	10	29	3	KED
|	**Cu**	**63**	**1.518**	ug/L	0.036	2	46	3739	1	KED
|	**Cu**	**65**	**1.445**	ug/L	0.119	8	26	1760	6	KED
|	**Zn**	**66**	**5.163**	ug/L	0.189	3	68	1795	4	KED
|	**Zn**	**67**	**4.675**	ug/L	0.424	9	10	266	8	KED
|	**As**	**75**	**0.606**	ug/L	0.029	4	4	138	5	KED
⌊	**Se-1**	**78**	**0.127**	ug/L	0.061	48	12	12	14	KED
	Y	**89**		ug/L			790194	492716	0	Standard
	Kr	**83**		ug/L			58	31	24	Standard
⌈>	**In-1**	**115**		ug/L			38158	23766	1	KED
|	**Cd**	**111**	**0.043**	ug/L	0.004	9	3	14	6	KED
⌊	**Cd**	**114**	**0.035**	ug/L	0.002	5	5	28	6	KED
⌈>	**In**	**115**		ug/L			944527	619145	2	Standard
|	**Ag**	**107**	**0.000**	ug/L	0.001	407	53	37	28	Standard
|	**Sb**	**121**	**0.052**	ug/L	0.010	18	99	509	14	Standard
|	**Sb**	**123**	**0.059**	ug/L	0.008	13	75	425	11	Standard
|	**Ba**	**135**	**4.749**	ug/L	0.110	2	12	12261	2	Standard
⌊	**Ba**	**137**	**4.905**	ug/L	0.078	1	21	21777	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	883792	0	Standard
⌊	**Pb**	**208**	**0.036**	ug/L	0.003	7	175	1248	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 23:19:31
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	26882	2	Standard
	Cl	**37**		ug/L			6308940	3781010	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	888161	1	Standard
|	**Cr**	**52**	**0.103**	ug/L	0.015	14	14875	10814	1	Standard
|	**Cr**	**53**	**0.637**	ug/L	0.010	1	195	1210	2	Standard
⌊	**Mn**	**55**	**0.108**	ug/L	0.002	1	545	2608	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	55882	0	KED
|	**Ni**	**60**	**0.101**	ug/L	0.026	25	15	101	22	KED
|	**Ni**	**62**	**0.054**	ug/L	0.041	77	10	13	41	KED
|	**Cu**	**63**	**0.162**	ug/L	0.010	6	46	408	6	KED
|	**Cu**	**65**	**0.171**	ug/L	0.013	7	26	214	7	KED
|	**Zn**	**66**	**2.817**	ug/L	0.089	3	68	957	2	KED
|	**Zn**	**67**	**2.894**	ug/L	0.104	3	10	160	2	KED
|	**As**	**75**	**0.298**	ug/L	0.034	11	4	66	10	KED
⌊	**Se-1**	**78**	**0.608**	ug/L	0.020	3	12	24	2	KED
	Y	**89**		ug/L			790194	487519	0	Standard
	Kr	**83**		ug/L			58	30	10	Standard
⌈>	**In-1**	**115**		ug/L			38158	22761	0	KED
|	**Cd**	**111**	**0.044**	ug/L	0.002	4	3	13	3	KED
⌊	**Cd**	**114**	**0.031**	ug/L	0.004	14	5	25	12	KED
⌈>	**In**	**115**		ug/L			944527	606497	1	Standard
|	**Ag**	**107**	**0.000**	ug/L	0.000	101	53	37	7	Standard
|	**Sb**	**121**	**0.039**	ug/L	0.001	3	99	394	2	Standard
|	**Sb**	**123**	**0.040**	ug/L	0.003	6	75	294	4	Standard
|	**Ba**	**135**	**8.395**	ug/L	0.180	2	12	21230	1	Standard
⌊	**Ba**	**137**	**8.862**	ug/L	0.211	2	21	38542	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	849370	1	Standard
⌊	**Pb**	**208**	**0.003**	ug/L	0.002	47	175	232	19	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-05
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 23:24:13
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	25589	0	Standard
	Cl	**37**		ug/L			6308940	3737145	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	912697	0	Standard
|	**Cr**	**52**	**0.219**	ug/L	0.030	13	14875	12783	2	Standard
|	**Cr**	**53**	**0.728**	ug/L	0.012	1	195	1402	0	Standard
⌊	**Mn**	**55**	**0.130**	ug/L	0.001	0	545	3143	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	53443	0	KED
|	**Ni**	**60**	**0.041**	ug/L	0.012	28	15	45	23	KED
|	**Ni**	**62**	**0.044**	ug/L	0.021	48	10	12	24	KED
|	**Cu**	**63**	**0.162**	ug/L	0.007	4	46	391	4	KED
|	**Cu**	**65**	**0.171**	ug/L	0.033	19	26	205	18	KED
|	**Zn**	**66**	**3.160**	ug/L	0.233	7	68	1022	7	KED
|	**Zn**	**67**	**3.505**	ug/L	0.366	10	10	184	10	KED
|	**As**	**75**	**0.322**	ug/L	0.036	11	4	68	11	KED
⌊	**Se-1**	**78**	**0.572**	ug/L	0.048	8	12	22	5	KED
	Y	**89**		ug/L			790194	470597	2	Standard
	Kr	**83**		ug/L			58	34	24	Standard
⌈>	**In-1**	**115**		ug/L			38158	22271	0	KED
|	**Cd**	**111**	**0.023**	ug/L	0.006	24	3	7	18	KED
⌊	**Cd**	**114**	**0.032**	ug/L	0.004	11	5	24	10	KED
⌈>	**In**	**115**		ug/L			944527	580522	2	Standard
|	**Ag**	**107**	**0.000**	ug/L	0.000	659	53	33	3	Standard
|	**Sb**	**121**	**0.038**	ug/L	0.002	5	99	363	4	Standard
|	**Sb**	**123**	**0.035**	ug/L	0.004	12	75	256	8	Standard
|	**Ba**	**135**	**8.425**	ug/L	0.176	2	12	20401	4	Standard
⌊	**Ba**	**137**	**8.751**	ug/L	0.075	0	21	36424	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	845483	3	Standard
⌊	**Pb**	**208**	**0.004**	ug/L	0.001	17	175	257	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 23:28:56
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	27590	1	Standard
	Cl	**37**		ug/L			6308940	3704127	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	883405	1	Standard
|	**Cr**	**52**	**23.232**	ug/L	0.191	0	14875	334222	1	Standard
|	**Cr**	**53**	**22.375**	ug/L	0.279	1	195	38101	2	Standard
⌊	**Mn**	**55**	**22.900**	ug/L	0.206	0	545	476314	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	52766	0	KED
|	**Ni**	**60**	**27.185**	ug/L	0.429	1	15	23344	1	KED
|	**Ni**	**62**	**26.719**	ug/L	0.442	1	10	3515	1	KED
|	**Cu**	**63**	**26.959**	ug/L	0.535	1	46	59549	1	KED
|	**Cu**	**65**	**26.112**	ug/L	0.435	1	26	28512	1	KED
|	**Zn**	**66**	**87.986**	ug/L	2.307	2	68	26994	2	KED
|	**Zn**	**67**	**79.187**	ug/L	0.664	0	10	3978	0	KED
|	**As**	**75**	**23.737**	ug/L	0.201	0	4	4810	0	KED
⌊	**Se-1**	**78**	**75.534**	ug/L	0.555	0	12	1990	0	KED
	Y	**89**		ug/L			790194	481955	1	Standard
	Kr	**83**		ug/L			58	31	24	Standard
⌈>	**In-1**	**115**		ug/L			38158	21833	1	KED
|	**Cd**	**111**	**24.175**	ug/L	0.625	2	3	6298	1	KED
⌊	**Cd**	**114**	**24.543**	ug/L	0.216	0	5	16319	1	KED
⌈>	**In**	**115**		ug/L			944527	583182	2	Standard
|	**Ag**	**107**	**23.714**	ug/L	0.461	1	53	227018	0	Standard
|	**Sb**	**121**	**0.034**	ug/L	0.001	3	99	331	2	Standard
|	**Sb**	**123**	**0.038**	ug/L	0.003	7	75	274	3	Standard
|	**Ba**	**135**	**34.944**	ug/L	0.471	1	12	84944	1	Standard
⌊	**Ba**	**137**	**36.320**	ug/L	0.200	0	21	151846	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	845993	1	Standard
⌊	**Pb**	**208**	**21.054**	ug/L	0.490	2	175	620595	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-MSD1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 23:33:39
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	26806	1	Standard
	Cl	**37**		ug/L			6308940	3651112	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	881163	0	Standard
|	**Cr**	**52**	**23.004**	ug/L	0.533	2	14875	330218	2	Standard
|	**Cr**	**53**	**22.438**	ug/L	0.208	0	195	38112	1	Standard
⌊	**Mn**	**55**	**23.078**	ug/L	0.373	1	545	478847	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	52412	0	KED
|	**Ni**	**60**	**26.839**	ug/L	0.178	0	15	22892	1	KED
|	**Ni**	**62**	**26.444**	ug/L	1.065	4	10	3456	3	KED
|	**Cu**	**63**	**27.377**	ug/L	0.551	2	46	60063	1	KED
|	**Cu**	**65**	**26.357**	ug/L	0.051	0	26	28586	0	KED
|	**Zn**	**66**	**87.779**	ug/L	1.644	1	68	26748	1	KED
|	**Zn**	**67**	**79.548**	ug/L	3.643	4	10	3969	3	KED
|	**As**	**75**	**23.309**	ug/L	0.188	0	4	4691	0	KED
⌊	**Se-1**	**78**	**74.666**	ug/L	0.736	0	12	1954	0	KED
	Y	**89**		ug/L			790194	470252	1	Standard
	Kr	**83**		ug/L			58	37	15	Standard
⌈>	**In-1**	**115**		ug/L			38158	21821	0	KED
|	**Cd**	**111**	**24.567**	ug/L	0.133	0	3	6398	0	KED
⌊	**Cd**	**114**	**24.586**	ug/L	0.595	2	5	16336	1	KED
⌈>	**In**	**115**		ug/L			944527	593443	1	Standard
|	**Ag**	**107**	**23.079**	ug/L	0.603	2	53	224859	1	Standard
|	**Sb**	**121**	**0.035**	ug/L	0.005	14	99	350	10	Standard
|	**Sb**	**123**	**0.036**	ug/L	0.008	22	75	265	17	Standard
|	**Ba**	**135**	**33.649**	ug/L	0.934	2	12	83239	2	Standard
⌊	**Ba**	**137**	**35.623**	ug/L	1.185	3	21	151537	3	Standard
⌈>	**Tb**	**159**		ug/L			1118737	836030	2	Standard
⌊	**Pb**	**208**	**21.054**	ug/L	0.231	1	175	613279	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 23:38:21
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26774	26516	1	Standard
Cl	37		ug/L			6308940	3673209	0	Standard
> Sc	45		ug/L			1410977	801770	0	Standard
Cr	52	**25.544**	ug/L	0.656	2	14875	332696	2	Standard
Cr	53	**24.793**	ug/L	0.787	3	195	38298	2	Standard
Mn	55	**25.643**	ug/L	0.277	1	545	484098	1	Standard
> Ge-1	72		ug/L			87449	54099	0	KED
Ni	60	**27.104**	ug/L	0.165	0	15	23862	0	KED
Ni	62	**27.047**	ug/L	0.612	2	10	3649	2	KED
Cu	63	**28.544**	ug/L	0.217	0	46	64643	0	KED
Cu	65	**27.503**	ug/L	0.513	1	26	30785	1	KED
Zn	66	**91.741**	ug/L	0.569	0	68	28853	0	KED
Zn	67	**84.692**	ug/L	1.514	1	10	4362	1	KED
As	75	**23.867**	ug/L	0.173	0	4	4958	0	KED
Se-1	78	**78.013**	ug/L	0.382	0	12	2107	0	KED
Y	89		ug/L			790194	469224	0	Standard
Kr	83		ug/L			58	31	30	Standard
> In-1	115		ug/L			38158	22185	1	KED
Cd	111	**25.731**	ug/L	0.524	2	3	6813	2	KED
Cd	114	**25.638**	ug/L	0.632	2	5	17318	0	KED
> In	115		ug/L			944527	593041	0	Standard
Ag	107	**25.070**	ug/L	0.658	2	53	244120	2	Standard
Sb	121	**-0.003**	ug/L	0.000	14	99	36	10	Standard
Sb	123	**-0.004**	ug/L	0.001	28	75	22	30	Standard
Ba	135	**25.961**	ug/L	0.534	2	12	64189	2	Standard
Ba	137	**27.084**	ug/L	0.215	0	21	115149	1	Standard
> Tb	159		ug/L			1118737	816498	3	Standard
Pb	208	**22.091**	ug/L	0.132	0	175	628463	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVA
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 23:44:09
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26774	16959	1	Standard
Cl	37		ug/L			6308940	3455739	0	Standard
> Sc	45		ug/L			1410977	812297	0	Standard
Cr	52	47.842	ug/L	1.455	3	14875	623763	2	Standard
Cr	53	46.990	ug/L	0.665	1	195	73445	0	Standard
Mn	55	46.987	ug/L	1.121	2	545	898368	2	Standard
> Ge-1	72		ug/L			87449	52233	1	KED
Ni	60	53.124	ug/L	1.660	3	15	45139	2	KED
Ni	62	52.776	ug/L	2.724	5	10	6865	3	KED
Cu	63	51.497	ug/L	1.088	2	46	112559	0	KED
Cu	65	51.641	ug/L	1.069	2	26	55792	0	KED
Zn	66	54.435	ug/L	2.160	3	68	16542	2	KED
Zn	67	52.962	ug/L	2.487	4	10	2635	3	KED
As	75	46.304	ug/L	1.208	2	4	9284	2	KED
Se-1	78	46.774	ug/L	1.144	2	12	1222	2	KED
Y	89		ug/L			790194	465826	1	Standard
Kr	83		ug/L			58	35	12	Standard
> In-1	115		ug/L			38158	21791	5	KED
Cd	111	47.969	ug/L	3.526	7	3	12441	2	KED
Cd	114	48.364	ug/L	3.324	6	5	32014	1	KED
> In	115		ug/L			944527	572757	1	Standard
Ag	107	45.904	ug/L	0.548	1	53	431691	1	Standard
Sb	121	48.584	ug/L	0.928	1	99	384149	1	Standard
Sb	123	50.703	ug/L	1.336	2	75	296727	1	Standard
Ba	135	51.010	ug/L	1.730	3	12	121770	2	Standard
Ba	137	53.945	ug/L	2.114	3	21	221457	3	Standard
> Tb	159		ug/L			1118737	801212	3	Standard
Pb	208	41.696	ug/L	0.773	1	175	1163458	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBA
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 23:51:36
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26774	16280	2	Standard
Cl	37		ug/L			6308940	3434862	0	Standard
> Sc	45		ug/L			1410977	811226	2	Standard
Cr	52	-0.230	ug/L	0.006	2	14875	5604	3	Standard
Cr	53	0.128	ug/L	0.020	15	195	311	8	Standard
Mn	55	0.010	ug/L	0.001	15	545	494	4	Standard
> Ge-1	72		ug/L			87449	52094	0	KED
Ni	60	-0.000	ug/L	0.006	2341	15	8	53	KED
Ni	62	-0.042	ug/L	0.008	20	10	0	173	KED
Cu	63	-0.005	ug/L	0.001	29	46	17	19	KED
Cu	65	-0.009	ug/L	0.003	31	26	6	45	KED
Zn	66	-0.106	ug/L	0.007	6	68	8	24	KED
Zn	67	-0.092	ug/L	0.066	72	10	1	173	KED
As	75	-0.002	ug/L	0.002	127	4	2	20	KED
Se-1	78	0.049	ug/L	0.120	244	12	8	35	KED
Y	89		ug/L			790194	445497	0	Standard
Kr	83		ug/L			58	39	15	Standard
> In-1	115		ug/L			38158	21470	5	KED
Cd	111	0.000	ug/L	0.003	941	3	1	50	KED
Cd	114	-0.001	ug/L	0.001	129	5	2	43	KED
> In	115		ug/L			944527	572326	3	Standard
Ag	107	0.001	ug/L	0.001	58	53	43	13	Standard
Sb	121	0.114	ug/L	0.002	2	99	959	1	Standard
Sb	123	0.112	ug/L	0.008	7	75	698	8	Standard
Ba	135	-0.001	ug/L	0.001	72	12	4	49	Standard
Ba	137	-0.001	ug/L	0.002	254	21	10	70	Standard
> Tb	159		ug/L			1118737	807719	3	Standard
Pb	208	-0.001	ug/L	0.001	44	175	89	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-01
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 23:56:20
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	26871	1	Standard
	Cl	**37**		ug/L			6308940	3278762	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	837415	2	Standard
|	**Cr**	**52**	**-0.091**	ug/L	0.026	28	14875	7619	1	Standard
|	**Cr**	**53**	**0.281**	ug/L	0.015	5	195	568	2	Standard
⌊	**Mn**	**55**	**1.882**	ug/L	0.045	2	545	37387	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	52154	2	KED
|	**Ni**	**60**	**0.237**	ug/L	0.040	16	15	210	17	KED
|	**Ni**	**62**	**0.280**	ug/L	0.067	24	10	42	22	KED
|	**Cu**	**63**	**0.766**	ug/L	0.050	6	46	1699	4	KED
|	**Cu**	**65**	**0.767**	ug/L	0.044	5	26	842	5	KED
|	**Zn**	**66**	**1.538**	ug/L	0.090	5	68	506	5	KED
|	**Zn**	**67**	**1.744**	ug/L	0.261	14	10	92	11	KED
|	**As**	**75**	**0.747**	ug/L	0.043	5	4	152	2	KED
⌊	**Se-1**	**78**	**0.035**	ug/L	0.109	314	12	8	35	KED
	Y	**89**		ug/L			790194	459978	2	Standard
	Kr	**83**		ug/L			58	38	7	Standard
⌈>	**In-1**	**115**		ug/L			38158	21472	0	KED
|	**Cd**	**111**	**0.018**	ug/L	0.009	52	3	6	37	KED
⌊	**Cd**	**114**	**0.026**	ug/L	0.008	29	5	20	25	KED
⌈>	**In**	**115**		ug/L			944527	581625	1	Standard
|	**Ag**	**107**	**0.002**	ug/L	0.002	93	53	49	30	Standard
|	**Sb**	**121**	**0.088**	ug/L	0.007	8	99	764	7	Standard
|	**Sb**	**123**	**0.099**	ug/L	0.005	5	75	632	4	Standard
|	**Ba**	**135**	**4.853**	ug/L	0.167	3	12	11771	2	Standard
⌊	**Ba**	**137**	**5.044**	ug/L	0.131	2	21	21037	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	820874	0	Standard
⌊	**Pb**	**208**	**0.047**	ug/L	0.003	6	175	1470	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-03
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 00:01:02
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	26112	2	Standard
	Cl	**37**		ug/L			6308940	3242702	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	854780	3	Standard
|	**Cr**	**52**	**-0.129**	ug/L	0.030	23	14875	7261	2	Standard
|	**Cr**	**53**	**0.243**	ug/L	0.019	7	195	516	2	Standard
⌊	**Mn**	**55**	**0.481**	ug/L	0.034	6	545	9988	3	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	51581	1	KED
|	**Ni**	**60**	**0.140**	ug/L	0.012	8	15	126	8	KED
|	**Ni**	**62**	**0.112**	ug/L	0.008	7	10	20	5	KED
|	**Cu**	**63**	**1.591**	ug/L	0.033	2	46	3462	3	KED
|	**Cu**	**65**	**1.476**	ug/L	0.032	2	26	1589	1	KED
|	**Zn**	**66**	**21.561**	ug/L	0.606	2	68	6495	1	KED
|	**Zn**	**67**	**19.672**	ug/L	1.013	5	10	971	6	KED
|	**As**	**75**	**0.497**	ug/L	0.029	5	4	101	6	KED
⌊	**Se-1**	**78**	**0.045**	ug/L	0.147	329	12	8	45	KED
	Y	**89**		ug/L			790194	457269	3	Standard
	Kr	**83**		ug/L			58	28	23	Standard
⌈>	**In-1**	**115**		ug/L			38158	21604	2	KED
|	**Cd**	**111**	**0.019**	ug/L	0.011	57	3	6	42	KED
⌊	**Cd**	**114**	**0.004**	ug/L	0.001	18	5	6	7	KED
⌈>	**In**	**115**		ug/L			944527	576537	3	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.001	189	53	37	22	Standard
|	**Sb**	**121**	**0.080**	ug/L	0.006	7	99	698	5	Standard
|	**Sb**	**123**	**0.077**	ug/L	0.002	2	75	496	2	Standard
|	**Ba**	**135**	**4.236**	ug/L	0.173	4	12	10177	1	Standard
⌊	**Ba**	**137**	**4.283**	ug/L	0.222	5	21	17691	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	815469	2	Standard
⌊	**Pb**	**208**	**0.061**	ug/L	0.001	1	175	1858	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-05
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 00:05:45
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	24866	0	Standard
	Cl	**37**		ug/L			6308940	3219639	0	Standard
>	**Sc**	**45**		ug/L			1410977	846858	0	Standard
	Cr	**52**	**-0.137**	ug/L	0.015	11	14875	7094	2	Standard
	Cr	**53**	**0.274**	ug/L	0.005	1	195	563	1	Standard
	Mn	**55**	**0.142**	ug/L	0.004	3	545	3150	2	Standard
>	**Ge-1**	**72**		ug/L			87449	51355	0	KED
	Ni	**60**	**0.114**	ug/L	0.014	12	15	104	10	KED
	Ni	**62**	**0.102**	ug/L	0.016	15	10	19	10	KED
	Cu	**63**	**1.309**	ug/L	0.043	3	46	2840	2	KED
	Cu	**65**	**1.338**	ug/L	0.072	5	26	1436	5	KED
	Zn	**66**	**17.243**	ug/L	0.263	1	68	5181	2	KED
	Zn	**67**	**15.425**	ug/L	1.471	9	10	759	9	KED
	As	**75**	**0.448**	ug/L	0.044	9	4	91	10	KED
	Se-1	**78**	**0.134**	ug/L	0.062	46	12	10	14	KED
	Y	**89**		ug/L			790194	443328	1	Standard
	Kr	**83**		ug/L			58	26	14	Standard
>	**In-1**	**115**		ug/L			38158	21539	2	KED
	Cd	**111**	**0.012**	ug/L	0.003	29	3	4	20	KED
	Cd	**114**	**0.006**	ug/L	0.005	82	5	7	44	KED
>	**In**	**115**		ug/L			944527	563518	1	Standard
	Ag	**107**	**-0.000**	ug/L	0.001	646	53	30	25	Standard
	Sb	**121**	**0.072**	ug/L	0.000	0	99	617	1	Standard
	Sb	**123**	**0.073**	ug/L	0.001	1	75	465	2	Standard
	Ba	**135**	**4.349**	ug/L	0.095	2	12	10223	2	Standard
	Ba	**137**	**4.541**	ug/L	0.090	1	21	18359	3	Standard
>	**Tb**	**159**		ug/L			1118737	803319	1	Standard
	Pb	**208**	**0.012**	ug/L	0.000	2	175	453	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-09
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 00:10:27
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	25031	1	Standard
	Cl	**37**		ug/L			6308940	2602297	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	871895	1	Standard
|	**Cr**	**52**	**-0.162**	ug/L	0.012	7	14875	6953	4	Standard
|	**Cr**	**53**	**0.201**	ug/L	0.012	5	195	457	5	Standard
⌊	**Mn**	**55**	**6411.671**	ug/L	67.628	1	545	131527342	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	41860	1	KED
|	**Ni**	**60**	**29.733**	ug/L	0.347	1	15	20253	1	KED
|	**Ni**	**62**	**30.379**	ug/L	1.450	4	10	3169	3	KED
|	**Cu**	**63**	**24.069**	ug/L	0.393	1	46	42174	0	KED
|	**Cu**	**65**	**23.640**	ug/L	0.407	1	26	20475	0	KED
|	**Zn**	**66**	**693.492**	ug/L	15.227	2	68	168534	1	KED
|	**Zn**	**67**	**632.380**	ug/L	1.628	0	10	25172	1	KED
|	**As**	**75**	**0.159**	ug/L	0.011	6	4	27	4	KED
⌊	**Se-1**	**78**	**0.322**	ug/L	0.035	10	12	12	4	KED
	Y	**89**		ug/L			790194	764568	1	Standard
	Kr	**83**		ug/L			58	78	11	Standard
⌈>	**In-1**	**115**		ug/L			38158	14478	39	KED
|	**Cd**	**111**	**10.486**	ug/L	5.419	51	3	1566	0	KED
⌊	**Cd**	**114**	**10.949**	ug/L	6.039	55	5	4127	3	KED
⌈>	**In**	**115**		ug/L			944527	505466	2	Standard
|	**Ag**	**107**	**0.002**	ug/L	0.001	36	53	41	13	Standard
|	**Sb**	**121**	**0.023**	ug/L	0.005	21	99	217	17	Standard
|	**Sb**	**123**	**0.024**	ug/L	0.003	11	75	166	10	Standard
|	**Ba**	**135**	**24.615**	ug/L	0.430	1	12	51881	3	Standard
⌊	**Ba**	**137**	**25.481**	ug/L	0.517	2	21	92310	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	758994	1	Standard
⌊	**Pb**	**208**	**0.069**	ug/L	0.003	3	175	1935	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-11
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 00:15:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	23939	2	Standard
	Cl	**37**		ug/L			6308940	2493238	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	842559	1	Standard
|	**Cr**	**52**	**-0.171**	ug/L	0.011	6	14875	6595	2	Standard
|	**Cr**	**53**	**0.187**	ug/L	0.012	6	195	420	3	Standard
⌊	**Mn**	**55**	**5013.708**	ug/L	37.463	0	545	99407606	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	41642	0	KED
|	**Ni**	**60**	**23.053**	ug/L	0.828	3	15	15622	3	KED
|	**Ni**	**62**	**24.367**	ug/L	0.693	2	10	2531	3	KED
|	**Cu**	**63**	**20.045**	ug/L	0.236	1	46	34950	1	KED
|	**Cu**	**65**	**19.722**	ug/L	0.379	1	26	16996	1	KED
|	**Zn**	**66**	**551.053**	ug/L	1.508	0	68	133243	0	KED
|	**Zn**	**67**	**502.301**	ug/L	7.787	1	10	19890	1	KED
|	**As**	**75**	**0.197**	ug/L	0.008	3	4	33	4	KED
⌊	**Se-1**	**78**	**0.340**	ug/L	0.109	32	12	13	17	KED
	Y	**89**		ug/L			790194	661724	1	Standard
	Kr	**83**		ug/L			58	61	6	Standard
⌈>	**In-1**	**115**		ug/L			38158	17431	1	KED
|	**Cd**	**111**	**6.019**	ug/L	0.163	2	3	1253	2	KED
⌊	**Cd**	**114**	**5.756**	ug/L	0.283	4	5	3056	3	KED
⌈>	**In**	**115**		ug/L			944527	507617	1	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.001	98	53	36	18	Standard
|	**Sb**	**121**	**0.029**	ug/L	0.006	19	99	259	14	Standard
|	**Sb**	**123**	**0.026**	ug/L	0.005	17	75	176	14	Standard
|	**Ba**	**135**	**21.622**	ug/L	0.368	1	12	45759	2	Standard
⌊	**Ba**	**137**	**22.232**	ug/L	0.582	2	21	80927	4	Standard
⌈>	**Tb**	**159**		ug/L			1118737	761705	2	Standard
⌊	**Pb**	**208**	**0.061**	ug/L	0.003	4	175	1740	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-13
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 00:19:53
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	25079	3	Standard
	Cl	**37**		ug/L			6308940	2646712	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	818452	1	Standard
|	**Cr**	**52**	**-0.164**	ug/L	0.003	1	14875	6498	1	Standard
|	**Cr**	**53**	**0.162**	ug/L	0.006	3	195	368	1	Standard
⌊	**Mn**	**55**	**1113.581**	ug/L	22.097	1	545	21444179	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	44292	0	KED
|	**Ni**	**60**	**5.484**	ug/L	0.081	1	15	3958	0	KED
|	**Ni**	**62**	**5.312**	ug/L	0.534	10	10	590	9	KED
|	**Cu**	**63**	**5.142**	ug/L	0.164	3	46	9554	3	KED
|	**Cu**	**65**	**5.037**	ug/L	0.306	6	26	4626	5	KED
|	**Zn**	**66**	**131.695**	ug/L	4.448	3	68	33891	2	KED
|	**Zn**	**67**	**125.832**	ug/L	7.093	5	10	5303	5	KED
|	**As**	**75**	**0.106**	ug/L	0.035	33	4	20	30	KED
⌊	**Se-1**	**78**	**0.166**	ug/L	0.090	53	12	10	19	KED
	Y	**89**		ug/L			790194	431721	1	Standard
	Kr	**83**		ug/L			58	33	26	Standard
⌈>	**In-1**	**115**		ug/L			38158	18600	1	KED
|	**Cd**	**111**	**1.241**	ug/L	0.089	7	3	276	6	KED
⌊	**Cd**	**114**	**1.345**	ug/L	0.030	2	5	764	2	KED
⌈>	**In**	**115**		ug/L			944527	542445	1	Standard
|	**Ag**	**107**	**-0.000**	ug/L	0.001	224	53	27	20	Standard
|	**Sb**	**121**	**0.049**	ug/L	0.006	12	99	426	10	Standard
|	**Sb**	**123**	**0.052**	ug/L	0.008	14	75	329	12	Standard
|	**Ba**	**135**	**11.024**	ug/L	0.239	2	12	24929	0	Standard
⌊	**Ba**	**137**	**11.768**	ug/L	0.080	0	21	45773	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	766264	3	Standard
⌊	**Pb**	**208**	**0.011**	ug/L	0.000	3	175	401	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-DUP2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 00:24:35
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	21770	2	Standard
	Cl	**37**		ug/L			6308940	2729374	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	807489	2	Standard
|	**Cr**	**52**	**-0.159**	ug/L	0.021	13	14875	6474	2	Standard
|	**Cr**	**53**	**0.183**	ug/L	0.021	11	195	395	6	Standard
⌊	**Mn**	**55**	**0.734**	ug/L	0.863	117	545	14108	113	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	45820	1	KED
|	**Ni**	**60**	**0.104**	ug/L	0.021	19	15	85	16	KED
|	**Ni**	**62**	**0.109**	ug/L	0.022	20	10	17	16	KED
|	**Cu**	**63**	**0.491**	ug/L	0.027	5	46	965	3	KED
|	**Cu**	**65**	**0.475**	ug/L	0.035	7	26	464	9	KED
|	**Zn**	**66**	**23.667**	ug/L	0.333	1	68	6330	1	KED
|	**Zn**	**67**	**21.113**	ug/L	0.941	4	10	925	3	KED
|	**As**	**75**	**0.479**	ug/L	0.033	6	4	86	6	KED
⌊	**Se-1**	**78**	**0.019**	ug/L	0.084	444	12	6	25	KED
	Y	**89**		ug/L			790194	407885	1	Standard
	Kr	**83**		ug/L			58	27	14	Standard
⌈>	**In-1**	**115**		ug/L			38158	18858	1	KED
|	**Cd**	**111**	**0.016**	ug/L	0.009	57	3	5	39	KED
⌊	**Cd**	**114**	**0.006**	ug/L	0.010	168	5	6	91	KED
⌈>	**In**	**115**		ug/L			944527	548999	1	Standard
|	**Ag**	**107**	**-0.000**	ug/L	0.001	296	53	27	42	Standard
|	**Sb**	**121**	**0.056**	ug/L	0.003	5	99	478	3	Standard
|	**Sb**	**123**	**0.061**	ug/L	0.002	2	75	385	3	Standard
|	**Ba**	**135**	**3.902**	ug/L	0.080	2	12	8935	2	Standard
⌊	**Ba**	**137**	**4.031**	ug/L	0.116	2	21	15874	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	768753	2	Standard
⌊	**Pb**	**208**	**0.004**	ug/L	0.001	31	175	227	17	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-07
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 00:29:18
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	22536	3	Standard
	Cl	**37**		ug/L			6308940	2688391	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	770057	2	Standard
|	**Cr**	**52**	**-0.132**	ug/L	0.006	4	14875	6501	1	Standard
|	**Cr**	**53**	**0.201**	ug/L	0.013	6	195	404	2	Standard
⌊	**Mn**	**55**	**0.185**	ug/L	0.005	2	545	3656	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	45390	2	KED
|	**Ni**	**60**	**0.137**	ug/L	0.020	14	15	109	15	KED
|	**Ni**	**62**	**0.122**	ug/L	0.036	29	10	19	20	KED
|	**Cu**	**63**	**0.462**	ug/L	0.009	2	46	902	1	KED
|	**Cu**	**65**	**0.465**	ug/L	0.028	6	26	450	7	KED
|	**Zn**	**66**	**23.057**	ug/L	0.459	1	68	6109	0	KED
|	**Zn**	**67**	**20.995**	ug/L	1.612	7	10	910	5	KED
|	**As**	**75**	**0.460**	ug/L	0.018	3	4	82	3	KED
⌊	**Se-1**	**78**	**0.055**	ug/L	0.060	107	12	7	19	KED
	Y	**89**		ug/L			790194	385945	3	Standard
	Kr	**83**		ug/L			58	26	22	Standard
⌈>	**In-1**	**115**		ug/L			38158	19052	1	KED
|	**Cd**	**111**	**0.022**	ug/L	0.011	49	3	6	37	KED
⌊	**Cd**	**114**	**0.008**	ug/L	0.010	131	5	7	80	KED
⌈>	**In**	**115**		ug/L			944527	519202	2	Standard
|	**Ag**	**107**	**-0.000**	ug/L	0.001	1742	53	28	34	Standard
|	**Sb**	**121**	**0.060**	ug/L	0.002	2	99	485	1	Standard
|	**Sb**	**123**	**0.071**	ug/L	0.002	2	75	417	3	Standard
|	**Ba**	**135**	**4.211**	ug/L	0.202	4	12	9114	2	Standard
⌊	**Ba**	**137**	**4.360**	ug/L	0.062	1	21	16235	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	762352	1	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.001	33	175	186	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-MS2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 00:34:01
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	25225	1	Standard
	Cl	**37**		ug/L			6308940	2742481	0	Standard
>	**Sc**	**45**		ug/L			1410977	800754	3	Standard
	Cr	**52**	**23.190**	ug/L	1.653	7	14875	301942	3	Standard
	Cr	**53**	**22.917**	ug/L	0.969	4	195	35330	0	Standard
	Mn	**55**	**24.450**	ug/L	1.530	6	545	460355	3	Standard
>	**Ge-1**	**72**		ug/L			87449	44415	3	KED
	Ni	**60**	**27.746**	ug/L	0.730	2	15	20043	1	KED
	Ni	**62**	**28.019**	ug/L	0.571	2	10	3101	1	KED
	Cu	**63**	**28.609**	ug/L	1.491	5	46	53131	1	KED
	Cu	**65**	**28.324**	ug/L	0.244	0	26	26034	4	KED
	Zn	**66**	**115.620**	ug/L	4.562	3	68	29821	1	KED
	Zn	**67**	**103.281**	ug/L	5.858	5	10	4361	3	KED
	As	**75**	**24.223**	ug/L	1.097	4	4	4127	1	KED
	Se-1	**78**	**74.422**	ug/L	2.833	3	12	1649	2	KED
	Y	**89**		ug/L			790194	403877	3	Standard
	Kr	**83**		ug/L			58	27	10	Standard
>	**In-1**	**115**		ug/L			38158	18773	1	KED
	Cd	**111**	**25.148**	ug/L	0.306	1	3	5634	0	KED
	Cd	**114**	**24.758**	ug/L	0.129	0	5	14155	0	KED
>	**In**	**115**		ug/L			944527	525161	2	Standard
	Ag	**107**	**22.041**	ug/L	1.032	4	53	189917	2	Standard
	Sb	**121**	**0.066**	ug/L	0.008	12	99	531	8	Standard
	Sb	**123**	**0.069**	ug/L	0.009	12	75	410	8	Standard
	Ba	**135**	**31.222**	ug/L	1.712	5	12	68293	3	Standard
	Ba	**137**	**32.527**	ug/L	1.797	5	21	122339	2	Standard
>	**Tb**	**159**		ug/L			1118737	758125	2	Standard
	Pb	**208**	**21.596**	ug/L	0.783	3	175	570403	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-MSD2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 00:38:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	23175	4	Standard
	Cl	**37**		ug/L			6308940	2738108	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	793407	1	Standard
|	**Cr**	**52**	**23.986**	ug/L	0.821	3	14875	309588	2	Standard
|	**Cr**	**53**	**23.260**	ug/L	0.765	3	195	35556	1	Standard
⌊	**Mn**	**55**	**24.731**	ug/L	1.049	4	545	461823	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	45666	1	KED
|	**Ni**	**60**	**27.782**	ug/L	0.518	1	15	20646	2	KED
|	**Ni**	**62**	**27.609**	ug/L	0.851	3	10	3144	3	KED
|	**Cu**	**63**	**28.178**	ug/L	0.419	1	46	53860	1	KED
|	**Cu**	**65**	**27.171**	ug/L	0.285	1	26	25678	2	KED
|	**Zn**	**66**	**112.440**	ug/L	2.143	1	68	29838	0	KED
|	**Zn**	**67**	**101.598**	ug/L	3.533	3	10	4415	2	KED
|	**As**	**75**	**23.220**	ug/L	0.527	2	4	4071	0	KED
⌊	**Se-1**	**78**	**73.611**	ug/L	1.017	1	12	1678	1	KED
	Y	**89**		ug/L			790194	393055	1	Standard
	Kr	**83**		ug/L			58	26	36	Standard
⌈>	**In-1**	**115**		ug/L			38158	18543	0	KED
|	**Cd**	**111**	**25.426**	ug/L	0.485	1	3	5626	1	KED
⌊	**Cd**	**114**	**25.467**	ug/L	0.458	1	5	14382	1	KED
⌈>	**In**	**115**		ug/L			944527	519511	1	Standard
|	**Ag**	**107**	**23.309**	ug/L	0.694	2	53	198782	1	Standard
|	**Sb**	**121**	**0.064**	ug/L	0.004	6	99	513	5	Standard
|	**Sb**	**123**	**0.067**	ug/L	0.002	3	75	395	1	Standard
|	**Ba**	**135**	**31.398**	ug/L	0.446	1	12	67997	1	Standard
⌊	**Ba**	**137**	**32.966**	ug/L	1.411	4	21	122725	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	733042	2	Standard
⌊	**Pb**	**208**	**22.737**	ug/L	1.049	4	175	580556	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVB
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 00:44:31
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	14292	1	Standard
	Cl	**37**		ug/L			6308940	2752033	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	775071	3	Standard
|	**Cr**	**52**	**46.227**	ug/L	0.962	2	14875	575179	1	Standard
|	**Cr**	**53**	**45.056**	ug/L	1.668	3	195	67146	0	Standard
⌊	**Mn**	**55**	**45.530**	ug/L	0.672	1	545	830411	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	43152	2	KED
|	**Ni**	**60**	**52.984**	ug/L	1.558	2	15	37181	0	KED
|	**Ni**	**62**	**52.986**	ug/L	1.624	3	10	5694	1	KED
|	**Cu**	**63**	**53.618**	ug/L	1.251	2	46	96802	1	KED
|	**Cu**	**65**	**50.858**	ug/L	1.693	3	26	45376	0	KED
|	**Zn**	**66**	**56.575**	ug/L	1.772	3	68	14198	0	KED
|	**Zn**	**67**	**52.319**	ug/L	1.648	3	10	2150	1	KED
|	**As**	**75**	**46.209**	ug/L	1.016	2	4	7652	0	KED
⌊	**Se-1**	**78**	**48.158**	ug/L	1.666	3	12	1039	2	KED
	Y	**89**		ug/L			790194	377187	2	Standard
	Kr	**83**		ug/L			58	41	18	Standard
⌈>	**In-1**	**115**		ug/L			38158	18418	2	KED
|	**Cd**	**111**	**49.382**	ug/L	1.308	2	3	10850	1	KED
⌊	**Cd**	**114**	**49.383**	ug/L	1.194	2	5	27690	0	KED
⌈>	**In**	**115**		ug/L			944527	512511	1	Standard
|	**Ag**	**107**	**42.937**	ug/L	0.540	1	53	361287	0	Standard
|	**Sb**	**121**	**49.319**	ug/L	1.417	2	99	348890	1	Standard
|	**Sb**	**123**	**51.299**	ug/L	1.713	3	75	268614	1	Standard
|	**Ba**	**135**	**50.896**	ug/L	0.938	1	12	108725	0	Standard
⌊	**Ba**	**137**	**54.070**	ug/L	1.998	3	21	198575	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	722630	2	Standard
⌊	**Pb**	**208**	**42.372**	ug/L	0.960	2	175	1066752	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBB
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 00:51:58
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	14809	4	Standard
	Cl	**37**		ug/L			6308940	2766020	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	750305	0	Standard
|	**Cr**	**52**	**-0.223**	ug/L	0.000	0	14875	5259	0	Standard
|	**Cr**	**53**	**0.079**	ug/L	0.004	5	195	217	2	Standard
⌊	**Mn**	**55**	**0.031**	ug/L	0.004	13	545	837	8	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	44745	2	KED
|	**Ni**	**60**	**-0.005**	ug/L	0.000	2	15	3	0	KED
|	**Ni**	**62**	**-0.035**	ug/L	0.010	27	10	1	86	KED
|	**Cu**	**63**	**-0.005**	ug/L	0.003	59	46	15	33	KED
|	**Cu**	**65**	**-0.005**	ug/L	0.007	137	26	8	81	KED
|	**Zn**	**66**	**-0.079**	ug/L	0.028	36	68	14	49	KED
|	**Zn**	**67**	**-0.115**	ug/L	0.026	22	10	0	173	KED
|	**As**	**75**	**0.009**	ug/L	0.010	120	4	3	45	KED
⌊	**Se-1**	**78**	**0.039**	ug/L	0.096	247	12	7	30	KED
	Y	**89**		ug/L			790194	387787	0	Standard
	Kr	**83**		ug/L			58	26	23	Standard
⌈>	**In-1**	**115**		ug/L			38158	19332	0	KED
|	**Cd**	**111**	**-0.003**	ug/L	0.004	146	3	0	100	KED
⌊	**Cd**	**114**	**0.000**	ug/L	0.002	451	5	3	36	KED
⌈>	**In**	**115**		ug/L			944527	519959	2	Standard
|	**Ag**	**107**	**0.000**	ug/L	0.001	1402	53	29	26	Standard
|	**Sb**	**121**	**0.109**	ug/L	0.005	4	99	840	6	Standard
|	**Sb**	**123**	**0.112**	ug/L	0.002	1	75	637	2	Standard
|	**Ba**	**135**	**0.001**	ug/L	0.001	94	12	8	24	Standard
⌊	**Ba**	**137**	**-0.002**	ug/L	0.001	33	21	3	91	Standard
⌈>	**Tb**	**159**		ug/L			1118737	735240	3	Standard
⌊	**Pb**	**208**	**-0.000**	ug/L	0.001	150	175	103	14	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0408-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 00:56:41
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	18898	2	Standard
	Cl	**37**		ug/L			6308940	2748845	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	779042	1	Standard
|	**Cr**	**52**	**-0.225**	ug/L	0.006	2	14875	5437	1	Standard
|	**Cr**	**53**	**0.071**	ug/L	0.010	13	195	214	5	Standard
⌊	**Mn**	**55**	**0.619**	ug/L	0.026	4	545	11641	3	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	45962	0	KED
|	**Ni**	**60**	**0.023**	ug/L	0.014	59	15	25	41	KED
|	**Ni**	**62**	**-0.008**	ug/L	0.019	240	10	4	49	KED
|	**Cu**	**63**	**0.051**	ug/L	0.008	15	46	121	11	KED
|	**Cu**	**65**	**0.053**	ug/L	0.013	24	26	64	19	KED
|	**Zn**	**66**	**0.593**	ug/L	0.058	9	68	194	7	KED
|	**Zn**	**67**	**0.524**	ug/L	0.419	80	10	28	64	KED
|	**As**	**75**	**0.002**	ug/L	0.007	286	4	2	44	KED
⌊	**Se-1**	**78**	**0.038**	ug/L	0.024	63	12	7	7	KED
	Y	**89**		ug/L			790194	389657	1	Standard
	Kr	**83**		ug/L			58	16	35	Standard
⌈>	**In-1**	**115**		ug/L			38158	18816	4	KED
|	**Cd**	**111**	**-0.003**	ug/L	0.004	150	3	0	100	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.007	965	5	3	119	KED
⌈>	**In**	**115**		ug/L			944527	513424	3	Standard
|	**Ag**	**107**	**-0.000**	ug/L	0.001	465	53	27	26	Standard
|	**Sb**	**121**	**0.023**	ug/L	0.004	18	99	220	13	Standard
|	**Sb**	**123**	**0.024**	ug/L	0.005	22	75	166	13	Standard
|	**Ba**	**135**	**0.045**	ug/L	0.007	14	12	102	13	Standard
⌊	**Ba**	**137**	**0.048**	ug/L	0.006	11	21	187	8	Standard
⌈>	**Tb**	**159**		ug/L			1118737	728484	1	Standard
⌊	**Pb**	**208**	**0.003**	ug/L	0.001	17	175	189	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-15
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 01:01:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	24757	2	Standard
	Cl	**37**		ug/L			6308940	2676518	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	795874	2	Standard
|	**Cr**	**52**	**-0.113**	ug/L	0.018	15	14875	6964	2	Standard
|	**Cr**	**53**	**0.198**	ug/L	0.016	8	195	412	5	Standard
⌊	**Mn**	**55**	**12.133**	ug/L	0.437	3	545	227412	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	45292	2	KED
|	**Ni**	**60**	**0.263**	ug/L	0.005	1	15	201	4	KED
|	**Ni**	**62**	**0.271**	ug/L	0.133	48	10	35	38	KED
|	**Cu**	**63**	**1.690**	ug/L	0.048	2	46	3227	3	KED
|	**Cu**	**65**	**1.532**	ug/L	0.046	3	26	1448	4	KED
|	**Zn**	**66**	**7.315**	ug/L	0.275	3	68	1957	0	KED
|	**Zn**	**67**	**7.349**	ug/L	0.562	7	10	321	7	KED
|	**As**	**75**	**0.571**	ug/L	0.043	7	4	101	9	KED
⌊	**Se-1**	**78**	**0.050**	ug/L	0.058	115	12	7	16	KED
	Y	**89**		ug/L			790194	377666	3	Standard
	Kr	**83**		ug/L			58	20	24	Standard
⌈>	**In-1**	**115**		ug/L			38158	19154	1	KED
|	**Cd**	**111**	**0.050**	ug/L	0.009	18	3	13	16	KED
⌊	**Cd**	**114**	**0.040**	ug/L	0.017	42	5	26	39	KED
⌈>	**In**	**115**		ug/L			944527	525254	0	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.000	12	53	41	4	Standard
|	**Sb**	**121**	**0.066**	ug/L	0.002	3	99	533	3	Standard
|	**Sb**	**123**	**0.078**	ug/L	0.006	7	75	463	6	Standard
|	**Ba**	**135**	**5.087**	ug/L	0.070	1	12	11144	0	Standard
⌊	**Ba**	**137**	**5.406**	ug/L	0.155	2	21	20366	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	727473	3	Standard
⌊	**Pb**	**208**	**0.038**	ug/L	0.002	4	175	1083	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-17
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 01:06:06
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	21807	1	Standard
	Cl	**37**		ug/L			6308940	2677617	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	806725	0	Standard
|	**Cr**	**52**	**-0.146**	ug/L	0.015	10	14875	6640	2	Standard
|	**Cr**	**53**	**0.176**	ug/L	0.007	4	195	384	2	Standard
⌊	**Mn**	**55**	**0.176**	ug/L	0.012	6	545	3645	5	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	44937	0	KED
|	**Ni**	**60**	**0.168**	ug/L	0.008	4	15	130	4	KED
|	**Ni**	**62**	**0.158**	ug/L	0.067	42	10	22	33	KED
|	**Cu**	**63**	**0.505**	ug/L	0.026	5	46	972	4	KED
|	**Cu**	**65**	**0.458**	ug/L	0.045	9	26	439	9	KED
|	**Zn**	**66**	**25.977**	ug/L	0.788	3	68	6811	2	KED
|	**Zn**	**67**	**24.437**	ug/L	0.101	0	10	1049	0	KED
|	**As**	**75**	**0.436**	ug/L	0.018	4	4	77	3	KED
⌊	**Se-1**	**78**	**0.187**	ug/L	0.159	84	12	10	33	KED
	Y	**89**		ug/L			790194	384328	2	Standard
	Kr	**83**		ug/L			58	19	43	Standard
⌈>	**In-1**	**115**		ug/L			38158	19325	1	KED
|	**Cd**	**111**	**0.001**	ug/L	0.000	11	3	1		KED
⌊	**Cd**	**114**	**0.007**	ug/L	0.003	40	5	6	24	KED
⌈>	**In**	**115**		ug/L			944527	525982	0	Standard
|	**Ag**	**107**	**0.000**	ug/L	0.001	470	53	31	30	Standard
|	**Sb**	**121**	**0.076**	ug/L	0.005	6	99	605	5	Standard
|	**Sb**	**123**	**0.072**	ug/L	0.003	3	75	429	3	Standard
|	**Ba**	**135**	**4.159**	ug/L	0.126	3	12	9124	2	Standard
⌊	**Ba**	**137**	**4.417**	ug/L	0.079	1	21	16668	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	739559	2	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.000	10	175	160	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-19
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 01:10:49
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	22398	2	Standard
	Cl	**37**		ug/L			6308940	2654396	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	803352	3	Standard
|	**Cr**	**52**	**-0.123**	ug/L	0.038	31	14875	6898	3	Standard
|	**Cr**	**53**	**0.181**	ug/L	0.020	10	195	390	7	Standard
⌊	**Mn**	**55**	**4.729**	ug/L	0.271	5	545	89583	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	44439	1	KED
|	**Ni**	**60**	**0.177**	ug/L	0.052	29	15	135	27	KED
|	**Ni**	**62**	**0.159**	ug/L	0.041	25	10	22	22	KED
|	**Cu**	**63**	**1.648**	ug/L	0.051	3	46	3087	1	KED
|	**Cu**	**65**	**1.592**	ug/L	0.101	6	26	1476	6	KED
|	**Zn**	**66**	**5.908**	ug/L	0.021	0	68	1558	1	KED
|	**Zn**	**67**	**5.606**	ug/L	0.443	7	10	242	9	KED
|	**As**	**75**	**0.550**	ug/L	0.079	14	4	96	12	KED
⌊	**Se-1**	**78**	**0.078**	ug/L	0.007	8	12	8	0	KED
	Y	**89**		ug/L			790194	377892	0	Standard
	Kr	**83**		ug/L			58	31	30	Standard
⌈>	**In-1**	**115**		ug/L			38158	18755	1	KED
|	**Cd**	**111**	**0.048**	ug/L	0.016	33	3	12	30	KED
⌊	**Cd**	**114**	**0.042**	ug/L	0.011	26	5	26	24	KED
⌈>	**In**	**115**		ug/L			944527	527187	0	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.002	135	53	41	39	Standard
|	**Sb**	**121**	**0.054**	ug/L	0.002	3	99	449	3	Standard
|	**Sb**	**123**	**0.058**	ug/L	0.007	11	75	354	10	Standard
|	**Ba**	**135**	**4.846**	ug/L	0.030	0	12	10656	0	Standard
⌊	**Ba**	**137**	**4.950**	ug/L	0.153	3	21	18720	3	Standard
⌈>	**Tb**	**159**		ug/L			1118737	732661	3	Standard
⌊	**Pb**	**208**	**0.031**	ug/L	0.000	1	175	899	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-21
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 01:15:32
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	21714	3	Standard
	Cl	**37**		ug/L			6308940	2464996	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	738051	10	Standard
|	**Cr**	**52**	**-0.076**	ug/L	0.051	67	14875	6856	2	Standard
|	**Cr**	**53**	**0.194**	ug/L	0.022	11	195	374	3	Standard
⌊	**Mn**	**55**	**235.771**	ug/L	33.155	14	545	4055710	4	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	40096	0	KED
|	**Ni**	**60**	**1.101**	ug/L	0.054	4	15	725	4	KED
|	**Ni**	**62**	**1.136**	ug/L	0.126	11	10	118	11	KED
|	**Cu**	**63**	**1.562**	ug/L	0.013	0	46	2641	1	KED
|	**Cu**	**65**	**1.590**	ug/L	0.053	3	26	1330	3	KED
|	**Zn**	**66**	**35.094**	ug/L	0.911	2	68	8199	2	KED
|	**Zn**	**67**	**31.640**	ug/L	1.548	4	10	1210	4	KED
|	**As**	**75**	**0.465**	ug/L	0.021	4	4	73	4	KED
⌊	**Se-1**	**78**	**0.118**	ug/L	0.066	55	12	8	15	KED
	Y	**89**		ug/L			790194	340884	6	Standard
	Kr	**83**		ug/L			58	20	39	Standard
⌈>	**In-1**	**115**		ug/L			38158	17029	1	KED
|	**Cd**	**111**	**0.050**	ug/L	0.025	49	3	11	41	KED
⌊	**Cd**	**114**	**0.054**	ug/L	0.024	45	5	30	42	KED
⌈>	**In**	**115**		ug/L			944527	468389	7	Standard
|	**Ag**	**107**	**-0.001**	ug/L	0.001	143	53	21	22	Standard
|	**Sb**	**121**	**0.054**	ug/L	0.009	16	99	397	7	Standard
|	**Sb**	**123**	**0.053**	ug/L	0.007	13	75	288	4	Standard
|	**Ba**	**135**	**6.505**	ug/L	0.541	8	12	12655	1	Standard
⌊	**Ba**	**137**	**6.678**	ug/L	0.557	8	21	22341	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	675221	5	Standard
⌊	**Pb**	**208**	**0.035**	ug/L	0.005	14	175	927	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0408-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 01:20:14
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	18588	1	Standard
	Cl	**37**		ug/L			6308940	2541318	0	Standard
⎡>	**Sc**	**45**		ug/L			1410977	812580	3	Standard
⎢	**Cr**	**52**	**0.102**	ug/L	0.051	49	14875	9860	3	Standard
⎢	**Cr**	**53**	**0.454**	ug/L	0.026	5	195	820	2	Standard
⎣	**Mn**	**55**	**0.434**	ug/L	0.115	26	545	8655	28	Standard
⎡>	**Ge-1**	**72**		ug/L			87449	42069	1	KED
⎢	**Ni**	**60**	**0.032**	ug/L	0.013	41	15	29	30	KED
⎢	**Ni**	**62**	**0.014**	ug/L	0.047	323	10	6	75	KED
⎢	**Cu**	**63**	**0.132**	ug/L	0.026	19	46	254	16	KED
⎢	**Cu**	**65**	**0.125**	ug/L	0.007	5	26	121	3	KED
⎢	**Zn**	**66**	**0.996**	ug/L	0.050	5	68	276	3	KED
⎢	**Zn**	**67**	**1.206**	ug/L	0.269	22	10	53	18	KED
⎢	**As**	**75**	**0.323**	ug/L	0.029	8	4	54	6	KED
⎣	**Se-1**	**78**	**0.638**	ug/L	0.081	12	12	19	7	KED
	Y	**89**		ug/L			790194	356195	2	Standard
	Kr	**83**		ug/L			58	34	19	Standard
⎡>	**In-1**	**115**		ug/L			38158	17551	0	KED
⎢	**Cd**	**111**	**0.042**	ug/L	0.014	33	3	10	28	KED
⎣	**Cd**	**114**	**0.029**	ug/L	0.015	51	5	18	43	KED
⎡>	**In**	**115**		ug/L			944527	501420	1	Standard
⎢	**Ag**	**107**	**0.001**	ug/L	0.001	148	53	34	26	Standard
⎢	**Sb**	**121**	**0.024**	ug/L	0.004	15	99	217	12	Standard
⎢	**Sb**	**123**	**0.025**	ug/L	0.004	16	75	166	14	Standard
⎢	**Ba**	**135**	**8.970**	ug/L	0.089	0	12	18755	1	Standard
⎣	**Ba**	**137**	**9.297**	ug/L	0.164	1	21	33423	1	Standard
⎡>	**Tb**	**159**		ug/L			1118737	715795	1	Standard
⎣	**Pb**	**208**	**0.001**	ug/L	0.001	53	175	140	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-06
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 01:24:57
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	19095	2	Standard
	Cl	**37**		ug/L			6308940	2533231	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	788741	1	Standard
|	**Cr**	**52**	**0.092**	ug/L	0.021	22	14875	9462	0	Standard
|	**Cr**	**53**	**0.452**	ug/L	0.003	0	195	794	1	Standard
⌊	**Mn**	**55**	**0.191**	ug/L	0.019	10	545	3837	7	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	41039	3	KED
|	**Ni**	**60**	**0.049**	ug/L	0.016	32	15	40	28	KED
|	**Ni**	**62**	**0.042**	ug/L	0.058	138	10	8	61	KED
|	**Cu**	**63**	**0.139**	ug/L	0.006	4	46	260	6	KED
|	**Cu**	**65**	**0.124**	ug/L	0.023	18	26	117	18	KED
|	**Zn**	**66**	**0.803**	ug/L	0.122	15	68	222	9	KED
|	**Zn**	**67**	**0.941**	ug/L	0.162	17	10	41	18	KED
|	**As**	**75**	**0.305**	ug/L	0.012	4	4	50	1	KED
⌊	**Se-1**	**78**	**0.638**	ug/L	0.059	9	12	18	3	KED
	Y	**89**		ug/L			790194	355266	1	Standard
	Kr	**83**		ug/L			58	26	44	Standard
⌈>	**In-1**	**115**		ug/L			38158	17243	1	KED
|	**Cd**	**111**	**0.041**	ug/L	0.015	36	3	9	29	KED
⌊	**Cd**	**114**	**0.027**	ug/L	0.005	16	5	16	13	KED
⌈>	**In**	**115**		ug/L			944527	480552	3	Standard
|	**Ag**	**107**	**0.000**	ug/L	0.000	23	53	29	3	Standard
|	**Sb**	**121**	**0.019**	ug/L	0.005	23	99	179	20	Standard
|	**Sb**	**123**	**0.026**	ug/L	0.003	12	75	167	7	Standard
|	**Ba**	**135**	**9.135**	ug/L	0.090	0	12	18301	2	Standard
⌊	**Ba**	**137**	**9.681**	ug/L	0.085	0	21	33352	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	703736	1	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.002	93	175	150	25	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0408-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 01:29:39
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	19549	1	Standard
	Cl	**37**		ug/L			6308940	2516105	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	771906	3	Standard
|	**Cr**	**52**	**23.564**	ug/L	0.955	4	14875	295868	1	Standard
|	**Cr**	**53**	**22.914**	ug/L	1.006	4	195	34060	1	Standard
⌊	**Mn**	**55**	**23.533**	ug/L	0.762	3	545	427431	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	41115	1	KED
|	**Ni**	**60**	**25.353**	ug/L	0.488	1	15	16965	2	KED
|	**Ni**	**62**	**26.051**	ug/L	0.449	1	10	2671	2	KED
|	**Cu**	**63**	**26.535**	ug/L	0.193	0	46	45670	0	KED
|	**Cu**	**65**	**25.303**	ug/L	0.608	2	26	21526	1	KED
|	**Zn**	**66**	**84.141**	ug/L	0.351	0	68	20115	1	KED
|	**Zn**	**67**	**76.732**	ug/L	2.819	3	10	3004	3	KED
|	**As**	**75**	**22.501**	ug/L	0.342	1	4	3552	1	KED
⌊	**Se-1**	**78**	**70.745**	ug/L	0.781	1	12	1452	1	KED
	Y	**89**		ug/L			790194	347527	1	Standard
	Kr	**83**		ug/L			58	33	31	Standard
⌈>	**In-1**	**115**		ug/L			38158	17709	0	KED
|	**Cd**	**111**	**22.783**	ug/L	0.399	1	3	4815	1	KED
⌊	**Cd**	**114**	**23.434**	ug/L	0.313	1	5	12638	1	KED
⌈>	**In**	**115**		ug/L			944527	479848	2	Standard
|	**Ag**	**107**	**20.937**	ug/L	0.494	2	53	164940	2	Standard
|	**Sb**	**121**	**0.025**	ug/L	0.006	23	99	218	15	Standard
|	**Sb**	**123**	**0.023**	ug/L	0.010	41	75	151	29	Standard
|	**Ba**	**135**	**35.610**	ug/L	0.664	1	12	71219	1	Standard
⌊	**Ba**	**137**	**37.127**	ug/L	1.421	3	21	127642	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	691713	4	Standard
⌊	**Pb**	**208**	**20.922**	ug/L	0.695	3	175	503796	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0408-MSD1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 01:34:22
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	20589	1	Standard
	Cl	**37**		ug/L			6308940	2509631	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	765179	3	Standard
|	**Cr**	**52**	**23.680**	ug/L	0.790	3	14875	294714	0	Standard
|	**Cr**	**53**	**23.475**	ug/L	1.257	5	195	34574	1	Standard
⌊	**Mn**	**55**	**23.978**	ug/L	1.049	4	545	431594	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	40368	0	KED
|	**Ni**	**60**	**26.028**	ug/L	0.475	1	15	17099	2	KED
|	**Ni**	**62**	**26.337**	ug/L	0.611	2	10	2651	2	KED
|	**Cu**	**63**	**26.286**	ug/L	0.210	0	46	44422	1	KED
|	**Cu**	**65**	**25.359**	ug/L	0.593	2	26	21182	1	KED
|	**Zn**	**66**	**83.963**	ug/L	0.721	0	68	19708	0	KED
|	**Zn**	**67**	**79.731**	ug/L	1.387	1	10	3065	2	KED
|	**As**	**75**	**23.021**	ug/L	0.471	2	4	3569	2	KED
⌊	**Se-1**	**78**	**72.555**	ug/L	1.543	2	12	1462	1	KED
	Y	**89**		ug/L			790194	340893	1	Standard
	Kr	**83**		ug/L			58	24	0	Standard
⌈>	**In-1**	**115**		ug/L			38158	16995	1	KED
|	**Cd**	**111**	**24.132**	ug/L	0.588	2	3	4894	2	KED
⌊	**Cd**	**114**	**24.274**	ug/L	0.437	1	5	12564	2	KED
⌈>	**In**	**115**		ug/L			944527	479886	2	Standard
|	**Ag**	**107**	**20.738**	ug/L	1.091	5	53	163296	3	Standard
|	**Sb**	**121**	**0.020**	ug/L	0.004	18	99	179	11	Standard
|	**Sb**	**123**	**0.024**	ug/L	0.003	11	75	155	7	Standard
|	**Ba**	**135**	**35.697**	ug/L	1.949	5	12	71356	3	Standard
⌊	**Ba**	**137**	**37.022**	ug/L	2.222	6	21	127247	3	Standard
⌈>	**Tb**	**159**		ug/L			1118737	681223	2	Standard
⌊	**Pb**	**208**	**21.312**	ug/L	0.283	1	175	505898	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0408-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 01:39:05
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	20618	6	Standard
	Cl	**37**		ug/L			6308940	2597130	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	731541	1	Standard
|	**Cr**	**52**	**24.541**	ug/L	0.514	2	14875	291918	1	Standard
|	**Cr**	**53**	**24.195**	ug/L	0.750	3	195	34103	2	Standard
⌊	**Mn**	**55**	**25.284**	ug/L	0.455	1	545	435463	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	41949	1	KED
|	**Ni**	**60**	**26.136**	ug/L	0.464	1	15	17839	0	KED
|	**Ni**	**62**	**26.206**	ug/L	0.491	1	10	2741	0	KED
|	**Cu**	**63**	**26.766**	ug/L	0.143	0	46	47002	1	KED
|	**Cu**	**65**	**26.605**	ug/L	1.202	4	26	23090	4	KED
|	**Zn**	**66**	**90.411**	ug/L	2.801	3	68	22047	2	KED
|	**Zn**	**67**	**83.597**	ug/L	1.052	1	10	3339	2	KED
|	**As**	**75**	**22.696**	ug/L	0.252	1	4	3656	1	KED
⌊	**Se-1**	**78**	**78.314**	ug/L	0.647	0	12	1640	1	KED
	Y	**89**		ug/L			790194	341998	2	Standard
	Kr	**83**		ug/L			58	26	22	Standard
⌈>	**In-1**	**115**		ug/L			38158	17883	1	KED
|	**Cd**	**111**	**24.693**	ug/L	0.483	1	3	5269	0	KED
⌊	**Cd**	**114**	**24.911**	ug/L	0.593	2	5	13567	2	KED
⌈>	**In**	**115**		ug/L			944527	488416	2	Standard
|	**Ag**	**107**	**21.451**	ug/L	0.576	2	53	171973	0	Standard
|	**Sb**	**121**	**-0.002**	ug/L	0.001	34	99	38	10	Standard
|	**Sb**	**123**	**-0.002**	ug/L	0.001	63	75	29	19	Standard
|	**Ba**	**135**	**26.194**	ug/L	0.689	2	12	53319	1	Standard
⌊	**Ba**	**137**	**27.500**	ug/L	1.458	5	21	96253	4	Standard
⌈>	**Tb**	**159**		ug/L			1118737	683774	3	Standard
⌊	**Pb**	**208**	**21.484**	ug/L	0.365	1	175	511691	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVC
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 01:44:52
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	13136	4	Standard
	Cl	**37**		ug/L			6308940	2513955	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	716465	0	Standard
|	**Cr**	**52**	**49.470**	ug/L	1.565	3	14875	568618	2	Standard
|	**Cr**	**53**	**47.630**	ug/L	2.262	4	195	65648	3	Standard
⌊	**Mn**	**55**	**48.968**	ug/L	1.117	2	545	825722	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	40912	1	KED
|	**Ni**	**60**	**50.910**	ug/L	1.005	1	15	33882	0	KED
|	**Ni**	**62**	**50.408**	ug/L	1.971	3	10	5136	2	KED
|	**Cu**	**63**	**51.450**	ug/L	1.018	1	46	88080	0	KED
|	**Cu**	**65**	**51.117**	ug/L	0.896	1	26	43257	0	KED
|	**Zn**	**66**	**55.208**	ug/L	2.254	4	68	13140	3	KED
|	**Zn**	**67**	**50.561**	ug/L	0.511	1	10	1971	1	KED
|	**As**	**75**	**45.527**	ug/L	1.735	3	4	7148	2	KED
⌊	**Se-1**	**78**	**47.989**	ug/L	1.624	3	12	982	2	KED
	Y	**89**		ug/L			790194	338276	2	Standard
	Kr	**83**		ug/L			58	31	24	Standard
⌈>	**In-1**	**115**		ug/L			38158	17026	2	KED
|	**Cd**	**111**	**50.009**	ug/L	1.988	3	3	10155	1	KED
⌊	**Cd**	**114**	**50.709**	ug/L	2.104	4	5	26276	1	KED
⌈>	**In**	**115**		ug/L			944527	476174	2	Standard
|	**Ag**	**107**	**41.867**	ug/L	1.130	2	53	327212	0	Standard
|	**Sb**	**121**	**49.816**	ug/L	1.509	3	99	327370	0	Standard
|	**Sb**	**123**	**52.661**	ug/L	1.370	2	75	256177	0	Standard
|	**Ba**	**135**	**52.378**	ug/L	0.818	1	12	103951	0	Standard
⌊	**Ba**	**137**	**54.011**	ug/L	2.739	5	21	184261	3	Standard
⌈>	**Tb**	**159**		ug/L			1118737	682925	2	Standard
⌊	**Pb**	**208**	**41.083**	ug/L	0.457	1	175	977488	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBC
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 01:52:20
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	13058	3	Standard
	Cl	**37**		ug/L			6308940	2509655	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	722419	2	Standard
|	**Cr**	**52**	**-0.217**	ug/L	0.008	3	14875	5128	1	Standard
|	**Cr**	**53**	**0.063**	ug/L	0.004	7	195	187	4	Standard
⌊	**Mn**	**55**	**0.011**	ug/L	0.002	17	545	460	4	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	42284	2	KED
|	**Ni**	**60**	**-0.005**	ug/L	0.005	95	15	3	86	KED
|	**Ni**	**62**	**-0.041**	ug/L	0.010	25	10	0	173	KED
|	**Cu**	**63**	**-0.004**	ug/L	0.000	11	46	15	6	KED
|	**Cu**	**65**	**-0.009**	ug/L	0.004	50	26	5	78	KED
|	**Zn**	**66**	**-0.078**	ug/L	0.008	10	68	13	15	KED
|	**Zn**	**67**	**-0.051**	ug/L	0.026	51	10	3	34	KED
|	**As**	**75**	**-0.000**	ug/L	0.006	6414	4	2	44	KED
⌊	**Se-1**	**78**	**-0.040**	ug/L	0.055	136	12	5	24	KED
	Y	**89**		ug/L			790194	332361	0	Standard
	Kr	**83**		ug/L			58	20	24	Standard
⌈>	**In-1**	**115**		ug/L			38158	17493	0	KED
|	**Cd**	**111**	**0.004**	ug/L	0.007	188	3	2	65	KED
⌊	**Cd**	**114**	**-0.000**	ug/L	0.002	2293	5	2	45	KED
⌈>	**In**	**115**		ug/L			944527	486512	3	Standard
|	**Ag**	**107**	**-0.000**	ug/L	0.001	875	53	26	32	Standard
|	**Sb**	**121**	**0.113**	ug/L	0.002	2	99	812	2	Standard
|	**Sb**	**123**	**0.119**	ug/L	0.015	12	75	631	14	Standard
|	**Ba**	**135**	**-0.001**	ug/L	0.001	79	12	3	50	Standard
⌊	**Ba**	**137**	**-0.002**	ug/L	0.001	76	21	4	107	Standard
⌈>	**Tb**	**159**		ug/L			1118737	678675	3	Standard
⌊	**Pb**	**208**	**-0.002**	ug/L	0.000	29	175	69	17	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-23
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 01:57:03
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	19549	1	Standard
	Cl	**37**		ug/L			6308940	2281703	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	695325	0	Standard
|	**Cr**	**52**	**-0.052**	ug/L	0.004	8	14875	6757	0	Standard
|	**Cr**	**53**	**0.196**	ug/L	0.021	10	195	358	7	Standard
⌊	**Mn**	**55**	**286.651**	ug/L	6.206	2	545	4689820	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	38901	2	KED
|	**Ni**	**60**	**1.105**	ug/L	0.044	4	15	705	1	KED
|	**Ni**	**62**	**1.218**	ug/L	0.071	5	10	122	7	KED
|	**Cu**	**63**	**1.460**	ug/L	0.019	1	46	2397	2	KED
|	**Cu**	**65**	**1.409**	ug/L	0.008	0	26	1144	2	KED
|	**Zn**	**66**	**38.444**	ug/L	1.356	3	68	8708	1	KED
|	**Zn**	**67**	**36.878**	ug/L	0.991	2	10	1368	4	KED
|	**As**	**75**	**0.487**	ug/L	0.035	7	4	74	6	KED
⌊	**Se-1**	**78**	**0.171**	ug/L	0.024	14	12	8	3	KED
	Y	**89**		ug/L			790194	322295	2	Standard
	Kr	**83**		ug/L			58	23	32	Standard
⌈>	**In-1**	**115**		ug/L			38158	16406	1	KED
|	**Cd**	**111**	**0.053**	ug/L	0.031	59	3	11	52	KED
⌊	**Cd**	**114**	**0.059**	ug/L	0.014	24	5	31	21	KED
⌈>	**In**	**115**		ug/L			944527	469789	2	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.001	57	53	33	13	Standard
|	**Sb**	**121**	**0.077**	ug/L	0.007	9	99	552	10	Standard
|	**Sb**	**123**	**0.074**	ug/L	0.007	9	75	394	8	Standard
|	**Ba**	**135**	**6.227**	ug/L	0.204	3	12	12194	1	Standard
⌊	**Ba**	**137**	**6.540**	ug/L	0.244	3	21	22028	3	Standard
⌈>	**Tb**	**159**		ug/L			1118737	670073	4	Standard
⌊	**Pb**	**208**	**0.029**	ug/L	0.003	10	175	775	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-25
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 02:01:46
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	22206	1	Standard
	Cl	**37**		ug/L			6308940	2330333	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	724764	0	Standard
|	**Cr**	**52**	**-0.069**	ug/L	0.005	6	14875	6847	1	Standard
|	**Cr**	**53**	**0.187**	ug/L	0.002	1	195	360	1	Standard
⌊	**Mn**	**55**	**54.126**	ug/L	0.757	1	545	923305	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	40180	0	KED
|	**Ni**	**60**	**0.361**	ug/L	0.004	1	15	243	0	KED
|	**Ni**	**62**	**0.353**	ug/L	0.040	11	10	40	9	KED
|	**Cu**	**63**	**1.618**	ug/L	0.035	2	46	2741	1	KED
|	**Cu**	**65**	**1.575**	ug/L	0.027	1	26	1320	1	KED
|	**Zn**	**66**	**11.672**	ug/L	0.290	2	68	2753	2	KED
|	**Zn**	**67**	**10.994**	ug/L	0.829	7	10	424	6	KED
|	**As**	**75**	**0.568**	ug/L	0.065	11	4	89	10	KED
⌊	**Se-1**	**78**	**0.157**	ug/L	0.123	78	12	8	26	KED
	Y	**89**		ug/L			790194	326264	0	Standard
	Kr	**83**		ug/L			58	21	20	Standard
⌈>	**In-1**	**115**		ug/L			38158	17146	2	KED
|	**Cd**	**111**	**0.057**	ug/L	0.023	41	3	13	34	KED
⌊	**Cd**	**114**	**0.035**	ug/L	0.024	67	5	21	58	KED
⌈>	**In**	**115**		ug/L			944527	476692	1	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.001	54	53	36	15	Standard
|	**Sb**	**121**	**0.064**	ug/L	0.010	15	99	471	14	Standard
|	**Sb**	**123**	**0.074**	ug/L	0.004	5	75	397	3	Standard
|	**Ba**	**135**	**5.188**	ug/L	0.140	2	12	10318	4	Standard
⌊	**Ba**	**137**	**5.368**	ug/L	0.147	2	21	18350	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	678708	4	Standard
⌊	**Pb**	**208**	**0.034**	ug/L	0.001	2	175	911	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 02:06:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	18589	1	Standard
	Cl	**37**		ug/L			6308940	2328366	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	749528	1	Standard
|	**Cr**	**52**	**-0.140**	ug/L	0.006	4	14875	6239	0	Standard
|	**Cr**	**53**	**0.133**	ug/L	0.007	5	195	294	2	Standard
⌊	**Mn**	**55**	**0.182**	ug/L	0.005	2	545	3503	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	39993	1	KED
|	**Ni**	**60**	**0.049**	ug/L	0.019	39	15	38	31	KED
|	**Ni**	**62**	**0.005**	ug/L	0.040	871	10	5	78	KED
|	**Cu**	**63**	**0.341**	ug/L	0.055	16	46	591	15	KED
|	**Cu**	**65**	**0.344**	ug/L	0.038	11	26	296	9	KED
|	**Zn**	**66**	**0.625**	ug/L	0.044	7	68	176	5	KED
|	**Zn**	**67**	**0.856**	ug/L	0.180	21	10	37	17	KED
|	**As**	**75**	**0.193**	ug/L	0.011	5	4	31	6	KED
⌊	**Se-1**	**78**	**0.566**	ug/L	0.136	23	12	16	15	KED
	Y	**89**		ug/L			790194	318955	2	Standard
	Kr	**83**		ug/L			58	29	18	Standard
⌈>	**In-1**	**115**		ug/L			38158	16810	0	KED
|	**Cd**	**111**	**0.022**	ug/L	0.008	38	3	5	28	KED
⌊	**Cd**	**114**	**0.016**	ug/L	0.010	66	5	10	51	KED
⌈>	**In**	**115**		ug/L			944527	478602	1	Standard
|	**Ag**	**107**	**-0.000**	ug/L	0.001	1529	53	26	25	Standard
|	**Sb**	**121**	**0.039**	ug/L	0.005	12	99	308	11	Standard
|	**Sb**	**123**	**0.041**	ug/L	0.005	11	75	237	7	Standard
|	**Ba**	**135**	**10.739**	ug/L	0.239	2	12	21429	1	Standard
⌊	**Ba**	**137**	**11.105**	ug/L	0.336	3	21	38110	3	Standard
⌈>	**Tb**	**159**		ug/L			1118737	675967	2	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.001	49	175	149	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-03
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 02:11:11
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	18203	0	Standard
	Cl	**37**		ug/L			6308940	2333362	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	731990	3	Standard
|	**Cr**	**52**	**-0.038**	ug/L	0.032	83	14875	7265	2	Standard
|	**Cr**	**53**	**0.211**	ug/L	0.013	6	195	397	1	Standard
⌊	**Mn**	**55**	**0.161**	ug/L	0.012	7	545	3043	4	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	40137	1	KED
|	**Ni**	**60**	**0.033**	ug/L	0.008	23	15	28	17	KED
|	**Ni**	**62**	**-0.009**	ug/L	0.019	219	10	3	50	KED
|	**Cu**	**63**	**0.147**	ug/L	0.007	4	46	268	5	KED
|	**Cu**	**65**	**0.130**	ug/L	0.009	7	26	119	4	KED
|	**Zn**	**66**	**0.454**	ug/L	0.067	14	68	137	10	KED
|	**Zn**	**67**	**0.785**	ug/L	0.059	7	10	34	8	KED
|	**As**	**75**	**0.146**	ug/L	0.010	6	4	24	6	KED
⌊	**Se-1**	**78**	**0.593**	ug/L	0.094	15	12	17	12	KED
	Y	**89**		ug/L			790194	320313	2	Standard
	Kr	**83**		ug/L			58	21	48	Standard
⌈>	**In-1**	**115**		ug/L			38158	16920	4	KED
|	**Cd**	**111**	**0.028**	ug/L	0.020	72	3	6	55	KED
⌊	**Cd**	**114**	**0.049**	ug/L	0.011	22	5	27	18	KED
⌈>	**In**	**115**		ug/L			944527	480207	1	Standard
|	**Ag**	**107**	**-0.001**	ug/L	0.000	25	53	16	17	Standard
|	**Sb**	**121**	**0.037**	ug/L	0.004	10	99	296	9	Standard
|	**Sb**	**123**	**0.044**	ug/L	0.004	9	75	253	8	Standard
|	**Ba**	**135**	**9.464**	ug/L	0.147	1	12	18953	2	Standard
⌊	**Ba**	**137**	**9.871**	ug/L	0.239	2	21	33990	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	685875	4	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	52	175	130	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-07
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 02:15:54
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	18848	2	Standard
	Cl	**37**		ug/L			6308940	2358783	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	741075	2	Standard
|	**Cr**	**52**	**-0.122**	ug/L	0.018	14	14875	6377	3	Standard
|	**Cr**	**53**	**0.163**	ug/L	0.010	6	195	334	2	Standard
⌊	**Mn**	**55**	**0.283**	ug/L	0.015	5	545	5208	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	40939	0	KED
|	**Ni**	**60**	**0.216**	ug/L	0.035	16	15	151	16	KED
|	**Ni**	**62**	**0.178**	ug/L	0.083	46	10	22	36	KED
|	**Cu**	**63**	**1.499**	ug/L	0.072	4	46	2588	4	KED
|	**Cu**	**65**	**1.478**	ug/L	0.098	6	26	1262	5	KED
|	**Zn**	**66**	**60.105**	ug/L	1.557	2	68	14315	1	KED
|	**Zn**	**67**	**53.204**	ug/L	1.062	1	10	2075	1	KED
|	**As**	**75**	**0.120**	ug/L	0.014	12	4	20	10	KED
⌊	**Se-1**	**78**	**-0.015**	ug/L	0.083	549	12	5	30	KED
	Y	**89**		ug/L			790194	331475	6	Standard
	Kr	**83**		ug/L			58	22	22	Standard
⌈>	**In-1**	**115**		ug/L			38158	17346	2	KED
|	**Cd**	**111**	**0.271**	ug/L	0.012	4	3	57	1	KED
⌊	**Cd**	**114**	**0.261**	ug/L	0.020	7	5	140	9	KED
⌈>	**In**	**115**		ug/L			944527	488031	3	Standard
|	**Ag**	**107**	**0.000**	ug/L	0.001	186	53	31	23	Standard
|	**Sb**	**121**	**0.050**	ug/L	0.004	8	99	391	7	Standard
|	**Sb**	**123**	**0.056**	ug/L	0.007	11	75	317	6	Standard
|	**Ba**	**135**	**5.703**	ug/L	0.179	3	12	11601	1	Standard
⌊	**Ba**	**137**	**6.132**	ug/L	0.083	1	21	21460	3	Standard
⌈>	**Tb**	**159**		ug/L			1118737	665527	4	Standard
⌊	**Pb**	**208**	**0.003**	ug/L	0.001	26	175	175	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-11
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 02:20:36
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	19810	1	Standard
	Cl	**37**		ug/L			6308940	2246975	1	Standard
⎡>	**Sc**	**45**		ug/L			1410977	748213	0	Standard
⎢	**Cr**	**52**	**0.285**	ug/L	0.012	4	14875	11269	1	Standard
⎢	**Cr**	**53**	**0.538**	ug/L	0.010	1	195	877	1	Standard
⎣	**Mn**	**55**	**31.555**	ug/L	0.613	1	545	555841	1	Standard
⎡>	**Ge-1**	**72**		ug/L			87449	40522	2	KED
⎢	**Ni**	**60**	**2.008**	ug/L	0.095	4	15	1330	4	KED
⎢	**Ni**	**62**	**2.013**	ug/L	0.146	7	10	207	5	KED
⎢	**Cu**	**63**	**18.052**	ug/L	0.323	1	46	30623	0	KED
⎢	**Cu**	**65**	**18.146**	ug/L	0.635	3	26	15213	1	KED
⎢	**Zn**	**66**	**138.567**	ug/L	2.473	1	68	32620	0	KED
⎢	**Zn**	**67**	**128.646**	ug/L	4.233	3	10	4959	2	KED
⎢	**As**	**75**	**0.014**	ug/L	0.008	55	4	4	29	KED
⎣	**Se-1**	**78**	**0.224**	ug/L	0.059	26	12	10	10	KED
	Y	**89**		ug/L			790194	334752	3	Standard
	Kr	**83**		ug/L			58	28	24	Standard
⎡>	**In-1**	**115**		ug/L			38158	17125	2	KED
⎢	**Cd**	**111**	**0.942**	ug/L	0.060	6	3	193	3	KED
⎣	**Cd**	**114**	**0.969**	ug/L	0.032	3	5	507	2	KED
⎡>	**In**	**115**		ug/L			944527	473158	2	Standard
⎢	**Ag**	**107**	**0.000**	ug/L	0.001	248	53	29	19	Standard
⎢	**Sb**	**121**	**0.066**	ug/L	0.003	4	99	483	1	Standard
⎢	**Sb**	**123**	**0.066**	ug/L	0.010	15	75	355	11	Standard
⎢	**Ba**	**135**	**27.820**	ug/L	0.335	1	12	54872	1	Standard
⎣	**Ba**	**137**	**28.880**	ug/L	0.371	1	21	97955	2	Standard
⎡>	**Tb**	**159**		ug/L			1118737	673238	4	Standard
⎣	**Pb**	**208**	**0.023**	ug/L	0.000	1	175	644	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-13
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 02:25:19
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	20007	1	Standard
	Cl	**37**		ug/L			6308940	2335244	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	730248	0	Standard
|	**Cr**	**52**	**-0.067**	ug/L	0.018	26	14875	6918	2	Standard
|	**Cr**	**53**	**0.181**	ug/L	0.022	12	195	355	8	Standard
⌊	**Mn**	**55**	**10.890**	ug/L	0.154	1	545	187396	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	39828	1	KED
|	**Ni**	**60**	**0.198**	ug/L	0.005	2	15	135	2	KED
|	**Ni**	**62**	**0.255**	ug/L	0.071	27	10	29	22	KED
|	**Cu**	**63**	**1.485**	ug/L	0.034	2	46	2497	3	KED
|	**Cu**	**65**	**1.445**	ug/L	0.031	2	26	1201	1	KED
|	**Zn**	**66**	**6.346**	ug/L	0.339	5	68	1497	3	KED
|	**Zn**	**67**	**6.483**	ug/L	0.904	13	10	250	12	KED
|	**As**	**75**	**0.503**	ug/L	0.074	14	4	79	14	KED
⌊	**Se-1**	**78**	**0.152**	ug/L	0.070	46	12	8	17	KED
	Y	**89**		ug/L			790194	328730	1	Standard
	Kr	**83**		ug/L			58	22	8	Standard
⌈>	**In-1**	**115**		ug/L			38158	17130	1	KED
|	**Cd**	**111**	**0.057**	ug/L	0.009	15	3	13	15	KED
⌊	**Cd**	**114**	**0.043**	ug/L	0.016	36	5	24	34	KED
⌈>	**In**	**115**		ug/L			944527	483688	2	Standard
|	**Ag**	**107**	**0.005**	ug/L	0.009	178	53	69	109	Standard
|	**Sb**	**121**	**0.051**	ug/L	0.009	17	99	394	17	Standard
|	**Sb**	**123**	**0.054**	ug/L	0.009	16	75	303	17	Standard
|	**Ba**	**135**	**5.105**	ug/L	0.135	2	12	10297	2	Standard
⌊	**Ba**	**137**	**5.404**	ug/L	0.242	4	21	18738	3	Standard
⌈>	**Tb**	**159**		ug/L			1118737	672029	5	Standard
⌊	**Pb**	**208**	**0.042**	ug/L	0.010	23	175	1102	26	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-15
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 02:30:01
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	17337	4	Standard
	Cl	**37**		ug/L			6308940	2289888	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	728337	2	Standard
|	**Cr**	**52**	**-0.131**	ug/L	0.030	22	14875	6155	2	Standard
|	**Cr**	**53**	**0.129**	ug/L	0.009	6	195	280	1	Standard
⌊	**Mn**	**55**	**0.926**	ug/L	0.039	4	545	16141	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	41195	2	KED
|	**Ni**	**60**	**0.408**	ug/L	0.022	5	15	280	2	KED
|	**Ni**	**62**	**0.400**	ug/L	0.067	16	10	45	12	KED
|	**Cu**	**63**	**0.117**	ug/L	0.008	6	46	224	8	KED
|	**Cu**	**65**	**0.120**	ug/L	0.016	13	26	114	9	KED
|	**Zn**	**66**	**10.431**	ug/L	0.352	3	68	2525	2	KED
|	**Zn**	**67**	**9.677**	ug/L	0.316	3	10	384	4	KED
|	**As**	**75**	**0.023**	ug/L	0.008	36	4	5	24	KED
⌊	**Se-1**	**78**	**0.084**	ug/L	0.045	53	12	7	10	KED
	Y	**89**		ug/L			790194	322552	1	Standard
	Kr	**83**		ug/L			58	18	5	Standard
⌈>	**In-1**	**115**		ug/L			38158	17105	1	KED
|	**Cd**	**111**	**0.128**	ug/L	0.020	15	3	27	15	KED
⌊	**Cd**	**114**	**0.120**	ug/L	0.020	16	5	64	17	KED
⌈>	**In**	**115**		ug/L			944527	476912	1	Standard
|	**Ag**	**107**	**-0.000**	ug/L	0.001	638	53	26	23	Standard
|	**Sb**	**121**	**0.032**	ug/L	0.005	14	99	261	13	Standard
|	**Sb**	**123**	**0.039**	ug/L	0.008	20	75	228	15	Standard
|	**Ba**	**135**	**7.338**	ug/L	0.416	5	12	14585	4	Standard
⌊	**Ba**	**137**	**7.771**	ug/L	0.401	5	21	26559	3	Standard
⌈>	**Tb**	**159**		ug/L			1118737	678202	2	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.001	145	175	115	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0192-02
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 02:34:44
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	15176	1	Standard
	Cl	**37**		ug/L			6308940	1991655	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	481786	1	Standard
|	**Cr**	**52**	**0.015**	ug/L	0.027	177	14875	5194	3	Standard
|	**Cr**	**53**	**0.168**	ug/L	0.015	8	195	221	5	Standard
⌊	**Mn**	**55**	**972.068**	ug/L	11.622	1	545	11020013	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	30795	0	KED
|	**Ni**	**60**	**2.670**	ug/L	0.036	1	15	1342	1	KED
|	**Ni**	**62**	**2.463**	ug/L	0.177	7	10	192	6	KED
|	**Cu**	**63**	**0.237**	ug/L	0.022	9	46	321	8	KED
|	**Cu**	**65**	**0.248**	ug/L	0.043	17	26	166	16	KED
|	**Zn**	**66**	**24.433**	ug/L	0.774	3	68	4391	2	KED
|	**Zn**	**67**	**23.397**	ug/L	1.422	6	10	688	6	KED
|	**As**	**75**	**0.035**	ug/L	0.004	12	4	5	8	KED
⌊	**Se-1**	**78**	**0.365**	ug/L	0.083	22	12	10	12	KED
	Y	**89**		ug/L			790194	265273	2	Standard
	Kr	**83**		ug/L			58	37	38	Standard
⌈>	**In-1**	**115**		ug/L			38158	13646	2	KED
|	**Cd**	**111**	**0.026**	ug/L	0.006	22	3	5	20	KED
⌊	**Cd**	**114**	**0.025**	ug/L	0.013	51	5	12	45	KED
⌈>	**In**	**115**		ug/L			944527	412805	1	Standard
|	**Ag**	**107**	**-0.001**	ug/L	0.001	96	53	19	20	Standard
|	**Sb**	**121**	**0.022**	ug/L	0.002	9	99	168	7	Standard
|	**Sb**	**123**	**0.019**	ug/L	0.003	14	75	113	9	Standard
|	**Ba**	**135**	**7.569**	ug/L	0.190	2	12	13027	1	Standard
⌊	**Ba**	**137**	**7.882**	ug/L	0.290	3	21	23325	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	598612	2	Standard
⌊	**Pb**	**208**	**0.006**	ug/L	0.001	8	175	227	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0192-04
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 02:39:27
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	14537	3	Standard
	Cl	**37**		ug/L			6308940	1728269	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	434221	1	Standard
|	**Cr**	**52**	**0.089**	ug/L	0.006	7	14875	5192	0	Standard
|	**Cr**	**53**	**0.424**	ug/L	0.013	2	195	414	2	Standard
⌊	**Mn**	**55**	**2635.050**	ug/L	70.081	2	545	26918369	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	28388	2	KED
|	**Ni**	**60**	**25.898**	ug/L	0.839	3	15	11958	1	KED
|	**Ni**	**62**	**25.629**	ug/L	0.761	2	10	1815	5	KED
|	**Cu**	**63**	**326.039**	ug/L	13.952	4	46	387031	1	KED
|	**Cu**	**65**	**322.110**	ug/L	7.777	2	26	189058	1	KED
|	**Zn**	**66**	**3692.015**	ug/L	75.692	2	68	608270	0	KED
|	**Zn**	**67**	**3393.121**	ug/L	93.513	2	10	91543	1	KED
|	**As**	**75**	**0.155**	ug/L	0.011	6	4	18	7	KED
⌊	**Se-1**	**78**	**0.409**	ug/L	0.057	13	12	9	7	KED
	Y	**89**		ug/L			790194	362816	2	Standard
	Kr	**83**		ug/L			58	89	2	Standard
⌈>	**In-1**	**115**		ug/L			38158	12561	2	KED
|	**Cd**	**111**	**13.011**	ug/L	0.158	1	3	1950	1	KED
⌊	**Cd**	**114**	**13.215**	ug/L	0.177	1	5	5055	1	KED
⌈>	**In**	**115**		ug/L			944527	353722	1	Standard
|	**Ag**	**107**	**0.006**	ug/L	0.005	79	53	56	52	Standard
|	**Sb**	**121**	**0.006**	ug/L	0.005	90	99	66	40	Standard
|	**Sb**	**123**	**0.006**	ug/L	0.003	61	75	48	26	Standard
|	**Ba**	**135**	**17.230**	ug/L	0.221	1	12	25411	2	Standard
⌊	**Ba**	**137**	**17.539**	ug/L	0.207	1	21	44481	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	485516	1	Standard
⌊	**Pb**	**208**	**0.321**	ug/L	0.015	4	175	5510	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVD
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 02:45:14
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	11375	3	Standard
	Cl	**37**		ug/L			6308940	2074335	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	593050	2	Standard
|	**Cr**	**52**	**52.914**	ug/L	0.987	1	14875	502921	1	Standard
|	**Cr**	**53**	**51.408**	ug/L	1.355	2	195	58631	0	Standard
⌊	**Mn**	**55**	**53.969**	ug/L	0.981	1	545	753123	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	34374	0	KED
|	**Ni**	**60**	**51.524**	ug/L	0.895	1	15	28814	1	KED
|	**Ni**	**62**	**53.032**	ug/L	0.694	1	10	4542	1	KED
|	**Cu**	**63**	**52.249**	ug/L	1.071	2	46	75174	2	KED
|	**Cu**	**65**	**50.047**	ug/L	0.911	1	26	35588	1	KED
|	**Zn**	**66**	**56.400**	ug/L	0.607	1	68	11280	0	KED
|	**Zn**	**67**	**54.737**	ug/L	1.525	2	10	1793	3	KED
|	**As**	**75**	**46.107**	ug/L	0.801	1	4	6084	0	KED
⌊	**Se-1**	**78**	**49.146**	ug/L	1.377	2	12	845	2	KED
	Y	**89**		ug/L			790194	295399	1	Standard
	Kr	**83**		ug/L			58	29	28	Standard
⌈>	**In-1**	**115**		ug/L			38158	14728	1	KED
|	**Cd**	**111**	**49.353**	ug/L	1.187	2	3	8672	1	KED
⌊	**Cd**	**114**	**50.023**	ug/L	1.094	2	5	22431	1	KED
⌈>	**In**	**115**		ug/L			944527	448401	2	Standard
|	**Ag**	**107**	**39.214**	ug/L	0.943	2	53	288624	1	Standard
|	**Sb**	**121**	**50.095**	ug/L	1.491	2	99	309982	1	Standard
|	**Sb**	**123**	**52.068**	ug/L	1.713	3	75	238471	1	Standard
|	**Ba**	**135**	**51.554**	ug/L	0.522	1	12	96382	3	Standard
⌊	**Ba**	**137**	**52.741**	ug/L	1.222	2	21	169484	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	644255	3	Standard
⌊	**Pb**	**208**	**41.905**	ug/L	0.648	1	175	940683	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBD
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 02:52:42
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	11761	4	Standard
	Cl	**37**		ug/L			6308940	2163251	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	627060	1	Standard
|	**Cr**	**52**	**-0.207**	ug/L	0.015	7	14875	4557	2	Standard
|	**Cr**	**53**	**0.046**	ug/L	0.016	34	195	142	12	Standard
⌊	**Mn**	**55**	**0.085**	ug/L	0.113	133	545	1479	111	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	37419	1	KED
|	**Ni**	**60**	**-0.005**	ug/L	0.004	66	15	3	69	KED
|	**Ni**	**62**	**-0.033**	ug/L	0.012	35	10	1	86	KED
|	**Cu**	**63**	**-0.006**	ug/L	0.004	62	46	10	60	KED
|	**Cu**	**65**	**-0.005**	ug/L	0.004	91	26	7	43	KED
|	**Zn**	**66**	**-0.077**	ug/L	0.011	13	68	12	17	KED
|	**Zn**	**67**	**-0.076**	ug/L	0.054	70	10	1	100	KED
|	**As**	**75**	**0.007**	ug/L	0.016	215	4	3	74	KED
⌊	**Se-1**	**78**	**-0.041**	ug/L	0.076	188	12	4	29	KED
	Y	**89**		ug/L			790194	300926	2	Standard
	Kr	**83**		ug/L			58	23	32	Standard
⌈>	**In-1**	**115**		ug/L			38158	15494	1	KED
|	**Cd**	**111**	**-0.002**	ug/L	0.005	276	3	0	100	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.004	418	5	1	109	KED
⌈>	**In**	**115**		ug/L			944527	459114	0	Standard
|	**Ag**	**107**	**0.002**	ug/L	0.004	167	53	41	63	Standard
|	**Sb**	**121**	**0.113**	ug/L	0.005	4	99	763	3	Standard
|	**Sb**	**123**	**0.119**	ug/L	0.011	9	75	594	9	Standard
|	**Ba**	**135**	**0.005**	ug/L	0.010	192	12	15	121	Standard
⌊	**Ba**	**137**	**0.001**	ug/L	0.004	280	21	15	87	Standard
⌈>	**Tb**	**159**		ug/L			1118737	651807	3	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.004	328	175	131	72	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 02:57:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	17615	3	Standard
	Cl	**37**		ug/L			6308940	2121718	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	716220	0	Standard
|	**Cr**	**52**	**-0.181**	ug/L	0.007	3	14875	5495	1	Standard
|	**Cr**	**53**	**0.030**	ug/L	0.011	36	195	140	10	Standard
⌊	**Mn**	**55**	**0.039**	ug/L	0.001	3	545	933	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	39663	0	KED
|	**Ni**	**60**	**0.000**	ug/L	0.003	3460	15	6	31	KED
|	**Ni**	**62**	**-0.027**	ug/L	0.019	70	10	1	100	KED
|	**Cu**	**63**	**0.006**	ug/L	0.004	65	46	31	21	KED
|	**Cu**	**65**	**0.012**	ug/L	0.003	21	26	21	10	KED
|	**Zn**	**66**	**0.163**	ug/L	0.074	45	68	68	24	KED
|	**Zn**	**67**	**0.072**	ug/L	0.099	138	10	7	50	KED
|	**As**	**75**	**0.007**	ug/L	0.008	110	4	3	37	KED
⌊	**Se-1**	**78**	**0.018**	ug/L	0.062	352	12	6	19	KED
	Y	**89**		ug/L			790194	338550	0	Standard
	Kr	**83**		ug/L			58	18	26	Standard
⌈>	**In-1**	**115**		ug/L			38158	17125	1	KED
|	**Cd**	**111**	**-0.002**	ug/L	0.005	198	3	0	100	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.000	17	5	1	6	KED
⌈>	**In**	**115**		ug/L			944527	509249	2	Standard
|	**Ag**	**107**	**-0.001**	ug/L	0.001	116	53	23	28	Standard
|	**Sb**	**121**	**0.046**	ug/L	0.002	3	99	379	2	Standard
|	**Sb**	**123**	**0.048**	ug/L	0.003	6	75	291	4	Standard
|	**Ba**	**135**	**0.005**	ug/L	0.002	43	12	17	29	Standard
⌊	**Ba**	**137**	**0.004**	ug/L	0.001	23	21	27	10	Standard
⌈>	**Tb**	**159**		ug/L			1118737	711943	2	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.001	91	175	132	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 03:02:07
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	17795	0	Standard
	Cl	**37**		ug/L			6308940	2165694	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	734726	2	Standard
|	**Cr**	**52**	**-0.190**	ug/L	0.018	9	14875	5529	2	Standard
|	**Cr**	**53**	**0.030**	ug/L	0.001	4	195	144	2	Standard
⌊	**Mn**	**55**	**0.036**	ug/L	0.007	20	545	910	15	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	39814	2	KED
|	**Ni**	**60**	**-0.001**	ug/L	0.012	1097	15	6	121	KED
|	**Ni**	**62**	**-0.027**	ug/L	0.000	1	10	1		KED
|	**Cu**	**63**	**0.002**	ug/L	0.006	352	46	24	40	KED
|	**Cu**	**65**	**0.006**	ug/L	0.004	57	26	17	19	KED
|	**Zn**	**66**	**0.087**	ug/L	0.020	22	68	51	11	KED
|	**Zn**	**67**	**0.155**	ug/L	0.104	66	10	10	36	KED
|	**As**	**75**	**0.009**	ug/L	0.002	24	4	3	7	KED
⌊	**Se-1**	**78**	**-0.007**	ug/L	0.081	1193	12	5	27	KED
	Y	**89**		ug/L			790194	345139	0	Standard
	Kr	**83**		ug/L			58	20	44	Standard
⌈>	**In-1**	**115**		ug/L			38158	17502	0	KED
|	**Cd**	**111**	**-0.001**	ug/L	0.011	1181	3	1	173	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.002	229	5	3	36	KED
⌈>	**In**	**115**		ug/L			944527	499424	1	Standard
|	**Ag**	**107**	**-0.000**	ug/L	0.001	189	53	25	22	Standard
|	**Sb**	**121**	**0.012**	ug/L	0.002	15	99	138	8	Standard
|	**Sb**	**123**	**0.013**	ug/L	0.001	11	75	106	8	Standard
|	**Ba**	**135**	**0.004**	ug/L	0.002	61	12	13	31	Standard
⌊	**Ba**	**137**	**0.006**	ug/L	0.004	59	21	33	37	Standard
⌈>	**Tb**	**159**		ug/L			1118737	703708	2	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.001	82	175	130	14	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 03:06:50
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	17450	3	Standard
	Cl	**37**		ug/L			6308940	2183125	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	739236	0	Standard
|	**Cr**	**52**	**-0.178**	ug/L	0.009	5	14875	5710	2	Standard
|	**Cr**	**53**	**0.033**	ug/L	0.008	24	195	149	7	Standard
⌊	**Mn**	**55**	**0.036**	ug/L	0.002	4	545	919	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	41311	0	KED
|	**Ni**	**60**	**-0.004**	ug/L	0.002	39	15	4	24	KED
|	**Ni**	**62**	**-0.047**	ug/L	0.000	0	10	0		KED
|	**Cu**	**63**	**0.006**	ug/L	0.005	78	46	33	26	KED
|	**Cu**	**65**	**0.000**	ug/L	0.007	1340	26	12	43	KED
|	**Zn**	**66**	**0.071**	ug/L	0.061	85	68	49	30	KED
|	**Zn**	**67**	**0.032**	ug/L	0.056	176	10	6	34	KED
|	**As**	**75**	**-0.002**	ug/L	0.008	472	4	1	66	KED
⌊	**Se-1**	**78**	**0.028**	ug/L	0.069	246	12	6	22	KED
	Y	**89**		ug/L			790194	345705	3	Standard
	Kr	**83**		ug/L			58	20	32	Standard
⌈>	**In-1**	**115**		ug/L			38158	17875	0	KED
|	**Cd**	**111**	**0.003**	ug/L	0.007	197	3	2	65	KED
⌊	**Cd**	**114**	**-0.004**	ug/L	0.002	58	5	0	234	KED
⌈>	**In**	**115**		ug/L			944527	516262	2	Standard
|	**Ag**	**107**	**-0.001**	ug/L	0.001	43	53	19	20	Standard
|	**Sb**	**121**	**0.006**	ug/L	0.001	25	99	95	8	Standard
|	**Sb**	**123**	**0.005**	ug/L	0.001	20	75	69	5	Standard
|	**Ba**	**135**	**0.004**	ug/L	0.002	38	12	15	21	Standard
⌊	**Ba**	**137**	**0.004**	ug/L	0.002	39	21	27	23	Standard
⌈>	**Tb**	**159**		ug/L			1118737	712003	2	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.001	2376	175	112	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 03:11:33
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	13720	0	Standard
	Cl	**37**		ug/L			6308940	2400791	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	690390	0	Standard
|	**Cr**	**52**	**-0.232**	ug/L	0.006	2	14875	4743	1	Standard
|	**Cr**	**53**	**0.039**	ug/L	0.003	8	195	147	2	Standard
⌊	**Mn**	**55**	**0.008**	ug/L	0.001	16	545	394	5	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	40159	0	KED
|	**Ni**	**60**	**-0.001**	ug/L	0.006	584	15	6	62	KED
|	**Ni**	**62**	**-0.027**	ug/L	0.033	121	10	1	173	KED
|	**Cu**	**63**	**-0.008**	ug/L	0.002	31	46	8	44	KED
|	**Cu**	**65**	**-0.008**	ug/L	0.005	61	26	5	66	KED
|	**Zn**	**66**	**-0.048**	ug/L	0.026	54	68	20	30	KED
|	**Zn**	**67**	**-0.030**	ug/L	0.051	170	10	3	50	KED
|	**As**	**75**	**-0.000**	ug/L	0.002	552	4	2	13	KED
⌊	**Se-1**	**78**	**0.069**	ug/L	0.021	29	12	7	6	KED
	Y	**89**		ug/L			790194	308563	2	Standard
	Kr	**83**		ug/L			58	23	16	Standard
⌈>	**In-1**	**115**		ug/L			38158	16734	1	KED
|	**Cd**	**111**	**0.004**	ug/L	0.003	64	3	2	24	KED
⌊	**Cd**	**114**	**-0.002**	ug/L	0.002	93	5	1	94	KED
⌈>	**In**	**115**		ug/L			944527	473998	2	Standard
|	**Ag**	**107**	**-0.001**	ug/L	0.000	28	53	15	21	Standard
|	**Sb**	**121**	**-0.001**	ug/L	0.001	109	99	42	18	Standard
|	**Sb**	**123**	**-0.001**	ug/L	0.002	242	75	34	23	Standard
|	**Ba**	**135**	**-0.002**	ug/L	0.001	47	12	1	100	Standard
⌊	**Ba**	**137**	**-0.001**	ug/L	0.001	92	21	6	69	Standard
⌈>	**Tb**	**159**		ug/L			1118737	638901	3	Standard
⌊	**Pb**	**208**	**-0.003**	ug/L	0.000	11	175	38	22	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 03:16:16
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	13789	1	Standard
	Cl	**37**		ug/L			6308940	2420593	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	667064	0	Standard
|	**Cr**	**52**	**-0.201**	ug/L	0.012	5	14875	4912	1	Standard
|	**Cr**	**53**	**0.043**	ug/L	0.002	5	195	147	1	Standard
⌊	**Mn**	**55**	**0.005**	ug/L	0.002	32	545	342	8	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	41007	1	KED
|	**Ni**	**60**	**-0.006**	ug/L	0.002	28	15	3	34	KED
|	**Ni**	**62**	**-0.041**	ug/L	0.011	26	10	0	173	KED
|	**Cu**	**63**	**-0.005**	ug/L	0.003	72	46	13	43	KED
|	**Cu**	**65**	**-0.004**	ug/L	0.003	84	26	8	32	KED
|	**Zn**	**66**	**-0.052**	ug/L	0.019	37	68	19	22	KED
|	**Zn**	**67**	**-0.032**	ug/L	0.086	272	10	3	86	KED
|	**As**	**75**	**0.002**	ug/L	0.003	140	4	2	21	KED
⌊	**Se-1**	**78**	**0.070**	ug/L	0.024	34	12	7	7	KED
	Y	**89**		ug/L			790194	309815	1	Standard
	Kr	**83**		ug/L			58	22	9	Standard
⌈>	**In-1**	**115**		ug/L			38158	17383	2	KED
|	**Cd**	**111**	**0.004**	ug/L	0.015	393	3	2	137	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.000	12	5	1	2	KED
⌈>	**In**	**115**		ug/L			944527	467600	2	Standard
|	**Ag**	**107**	**-0.001**	ug/L	0.001	83	53	19	29	Standard
|	**Sb**	**121**	**-0.003**	ug/L	0.001	31	99	32	15	Standard
|	**Sb**	**123**	**-0.002**	ug/L	0.001	48	75	26	19	Standard
|	**Ba**	**135**	**-0.001**	ug/L	0.001	89	12	3	50	Standard
⌊	**Ba**	**137**	**-0.002**	ug/L	0.001	29	21	3	50	Standard
⌈>	**Tb**	**159**		ug/L			1118737	649601	2	Standard
⌊	**Pb**	**208**	**-0.003**	ug/L	0.000	15	175	35	29	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 03:20:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	13873	2	Standard
	Cl	**37**		ug/L			6308940	2446428	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	695354	2	Standard
|	**Cr**	**52**	**-0.218**	ug/L	0.003	1	14875	4934	2	Standard
|	**Cr**	**53**	**0.046**	ug/L	0.004	8	195	158	2	Standard
⌊	**Mn**	**55**	**0.004**	ug/L	0.001	15	545	338	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	41489	1	KED
|	**Ni**	**60**	**-0.004**	ug/L	0.002	42	15	4	24	KED
|	**Ni**	**62**	**-0.028**	ug/L	0.033	116	10	1	173	KED
|	**Cu**	**63**	**-0.005**	ug/L	0.004	65	46	12	48	KED
|	**Cu**	**65**	**-0.008**	ug/L	0.005	54	26	5	78	KED
|	**Zn**	**66**	**-0.043**	ug/L	0.011	26	68	22	13	KED
|	**Zn**	**67**	**-0.033**	ug/L	0.002	5	10	3	0	KED
|	**As**	**75**	**0.006**	ug/L	0.010	155	4	3	48	KED
⌊	**Se-1**	**78**	**0.004**	ug/L	0.030	828	12	6	12	KED
	Y	**89**		ug/L			790194	312815	0	Standard
	Kr	**83**		ug/L			58	17	6	Standard
⌈>	**In-1**	**115**		ug/L			38158	17503	1	KED
|	**Cd**	**111**	**-0.002**	ug/L	0.005	195	3	0	100	KED
⌊	**Cd**	**114**	**-0.000**	ug/L	0.002	1233	5	2	46	KED
⌈>	**In**	**115**		ug/L			944527	471118	2	Standard
|	**Ag**	**107**	**-0.001**	ug/L	0.000	37	53	17	16	Standard
|	**Sb**	**121**	**-0.004**	ug/L	0.001	28	99	20	39	Standard
|	**Sb**	**123**	**-0.002**	ug/L	0.003	143	75	27	45	Standard
|	**Ba**	**135**	**-0.003**	ug/L	0.001	19	12	0	173	Standard
⌊	**Ba**	**137**	**-0.001**	ug/L	0.001	74	21	6	41	Standard
⌈>	**Tb**	**159**		ug/L			1118737	651123	2	Standard
⌊	**Pb**	**208**	**-0.003**	ug/L	0.000	5	175	39	7	Standard

INITIAL CALIBRATION DATA

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00048
Instrument: ICPMS1
Calibration Date: 06/19/2018 11:27

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Chromium-52, Dissolved	0	0	0.5	98452	10	36798.6	20	35219	50	33021.96	100	31281.7
Chromium-53, Dissolved	0	0	0.5	4254	10	3821.2	20	3807.15	50	3734.1	100	3437.48
Lead-208, Dissolved	0	0	0.1	135760	10	118560.3	20	118658.4	50	116457.6	100	108671.3

INITIAL CALIBRATION DATA

EPA 6020A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00048	Instrument:	ICPMS1
Calibration Date:	06/19/2018 11:27		

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Chromium-52, Dissolved	39128.88	82.2	0.9994		0.998	
Chromium-53, Dissolved	3175.655	49.7	0.9981		0.998	
Lead-208, Dissolved	99684.59	49.8	0.9987		0.998	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS - 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 6/19/18 **Analyst:** MS SEQ: SGFØ262

All corrections made by analyst unless otherwise noted. MS 6/19/18 CALIB: BFØØ948

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	SEQ - CAL1			
	✓	- CAL2			
	✓	- CAL3			
	✓	- CAL4			In-1 noisy
	✓	- CAL5			
	✓	- CAL1			
	✓	- CAL2			
	✓	- CAL3			
	✓	- CAL4			Sc, Tb noisy
	✓	- CAL5			
		- CAL1	G5398		
		- CAL2	G5460		
		- CAL3	~~G5460~~ G5620		
		- CAL4	G5621		
		- CAL5	G5456		In-1 sl. noisy
		- CAL6	G5622		
		- IBL1	-		
		- ICV1	G5403		
		- ICB1	G5398		
		- CCV1	G5456		
		- CCB1	G5398		
		- CRL1	G5460		
		- IFA1	G5465		Cr53 ↑
		- IFB1	G5466		↓

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS - 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 6/19/18 **Analyst:** MS

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-HCV1	GSΦ67		
		-HCV2	GSΦ68		
		-IBL2/3	—		
		-CCV2			
		-CCB2			
		BGFΦ435-BLK1	REN		
		18FΦ263-Φ1		5	Cd sl. noisy
		18FΦ261-Φ1			
		-Φ2			
	✓	18FΦ263-Φ1RE1		5	
		BGFΦ435-DUP1			
		18FΦ198-63			
		BGFΦ435-MS1			
		-MSD1			Cu %RT
		-BS1			
		SEQ-CCV3			
		-CCB3			
		BGFΦ367-BLK2	DW		Pb only
		18FΦ182-Φ1			
		18FΦ221-Φ1			
		-Φ2			
		18FΦΦ81-Φ1			
		18FΦΦ89-Φ1			
		18FΦ163-Φ1			

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ICP/MS - 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 6/10/18 **Analyst:** MB

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		18FΦ167-Φ1	DW		Pb only
		18FΦ179-Φ1	↓		↓
		BGFΦ367-BS2	↓		
		SEQ-CCV4			
		↓ -CCB4			
		18FΦ224-Φ1	DW		Pb only
		18FΦ253-Φ1	↓		↓
		18FΦ254-Φ1	↓		
		BGFΦ367-DUP2	↓		
		18FΦΦ91-Φ2	↓		
		BGFΦ367-MS2	↓		
		SEQ-CCV5			
		↓ -CCB5			
	✓	-CAL1			
		-CCV6			
		↓ -CCB6			
		BGFΦ368-BLK1	REN		
		↓ -DUP1	↓		
		18FΦ198-Φ5	↓		
		BGFΦ368-MS1	↓		
		↓ -MSD1	↓		
		↓ -DUP2	↓		
		18FΦ142-Φ7	↓		
		BGFΦ368-MS2	↓		

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ICP/MS - 02 SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 85DN5032601

Analysis Date: 6/19/18 **Analyst:** MB

All corrections made by analyst unless otherwise noted. MB 6/19/18

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		BGFΦ368-MSD2	REN		
		↓ -BSD1	↓		
		SEQ-CCV7			
		↓ -CCB7			
	✓	-CAL1			
		-CCV8			
		↓ -CCB8			
		18FΦ134-Φ1	SUN	20	
		↓ -Φ2	↓	↓	
		18FΦ142-Φ1	REN		
		-Φ3			
		-Φ5			
		-Φ9			Mn,Zn > LR No Mn,Zn
		-11			↓ ↓
		-13			Mn > LR Sc,Tb noisy No Mn,Rb
		-15			
		↓ -17	↓		
		SEQ-CCV9			
		↓ -CCB9			
		BGFΦ4Φ8-BLK1	REN		Mn > RL (0.739) 192 > 10x
		18FΦ142-19			
		-21			
		-23			Mn > RL LR No Mn
		↓ -25	↓		

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ICP/MS - 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 6/19/18 **Analyst:** MB

All corrections made by analyst unless otherwise noted. MB 6/19/18

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		BGFΦ4Φ8-DUP1	REN		
		18FΦ198-Φ6	↓		
		BGFΦ4Φ8-MS1	↓		
		↓ -BSTMSD1	↓		
		↓ -BS1	↓		
		SEQ-CCVA			
		↓ -CCBA			
	✓	-CAL1			
		-CCVB			
		↓ -CCBB			
		18FΦ185-Φ1	REN		Pb only
		↓ -Φ3	↓	5	
		-Φ4		↓	Ge^{-1} ↓ / Cr, Cd, Pb only ↓
		-Φ5			
		-Φ6			
		↓ -Φ7		~~↓~~ 1	↓ / Pb only
		18FΦ192-Φ2			Mn > ~~RL~~ LR / No Mn
		↓ -Φ4			Mn, Co, Zn > LR / Cd, Pb only
		↓ -Φ6			↓ / ↓
		18FΦ193-Φ2	↓		
		SEQ-CCVC			
		↓ CCBC			
	✓	18FΦ193-Φ4	REN		
	✓	18FΦ194-Φ2	↓		

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ICP/MS - 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 6/19/18 **Analyst:** MB

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	18F0194-04	REN		
	✓	↓ -06	↓		
		SEQ-CCV1			
		↓ -CCB1			Ge-1 noisy
		Rinse/DI			
			MB 6/19/18		

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Tuesday, June 19, 2018 11:27:18
Sample Description:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\STD Performance Check.5906
MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	14800.0	14799.996	103.359	0.7	Standard
	In	114.9	143428.2	-1473202.537	2735.679	0.2	Standard
	U	238.1	140896.1	140896.082	3552.371	2.5	Standard
⌈	CeO	155.9	2584.1	0.020	0.000	1.5	Standard
| >	Ce	139.9	129803.0	129803.044	2705.743	2.1	Standard
⌊	Ce++	70.0	3348.3	0.026	0.004	16.1	Standard
	Bkgd	220.0	0.7	0.667	0.441	66.1	Standard

Current Conditions File Data

Current Value	Description
0.98	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-11.50	Deflector Voltage
1600.00	ICP RF Power
-1825.00	Analog Stage Voltage
1400.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-14.00	Cell Rod Offset STD [CRO]
14.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
0.98	DRC Mode NEB
-7.00	DRC Mode QRO
-1.50	DRC Mode CRO
-6.00	DRC Mode Cell Entrance/Exit Voltage
0.10	Cell Gas A
0.00	Cell Gas B
200.00	Axial Field Voltage
-14.50	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-14.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
2.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Start Time: 6/19/2018 11:27:15 AM
End Time: 6/19/2018 11:34:52 AM

STD Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9): 14800.00
Obtained Intensity (In 115): 143428.22
Obtained Intensity (U 238): 140896.08
Obtained Intensity (Bkgd 220): 0.67
Obtained Formula (Ce++ 70 / Ce 140): 0.026 (=3348.27 / 129803.04)
Obtained Formula (CeO 156 / Ce 140): 0.020 (=2584.10 / 129803.04)

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
2.20 mm	-1.00 mm	159699.68

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 0.98
Obtained Intensity (In 115): 151723.44
Obtained Formula (CeO 156 / Ce 140): 0.0195 (=2626.24 / 134370.99)

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Optimization Status

Start Time: 6/19/2018 11:27:15 AM

STD Performance Check
	Optimization Settings:
		Method: STD Performance Check.mth.
		Intensity Criterion: Be 9 > 2000
		Intensity Criterion: In 115 > 40000
		Intensity Criterion: U 238 > 30000
		Intensity Criterion: Bkgd 220 <= 1
		Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
		Formula Criterion: CeO 156 / Ce 140 <= 0.025

	Optimization Results:
	Initial Try
		Obtained Intensity (Be 9): 14800.00
		Obtained Intensity (In 115): 143428.22
		Obtained Intensity (U 238): 140896.08
		Obtained Intensity (Bkgd 220): 0.67
		Obtained Formula (Ce++ 70 / Ce 140): 0.026 (=3348.27 / 129803.04)
		Obtained Formula (CeO 156 / Ce 140): 0.020 (=2584.10 / 129803.04)

[Passed] Optimum value(s): N/A

Torch Alignment
	Optimization Settings:
		Method: Torch Alignment.mth.
		Intensity Criterion: In 115 Maximum

	Optimization Results:
		Vertical	Horizontal	Intensity
[Passed]	2.20 mm	-1.00 mm	159699.68

Nebulizer Gas Flow STD/KED [NEB]
	Optimization Settings:
		Method: Optimize.mth.
			Initial Try - Start/End/Step: 0.9/1.1/0.02.
		Intensity Criterion: In 115 Maximum
		Formula Criterion: CeO 156 / Ce 140 <= 0.02

	Optimization Results:
	Initial Try

		Obtained Intensity (In 115): 151723.44
		Obtained Formula (CeO 156 / Ce 140): 0.0195 (=2626.24 / 134370.99)
[Passed] Optimum value(s): 0.98

End Time: 6/19/2018 11:34:52 AM

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Tuesday, June 19, 2018 11:48:04
Sample Description:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\STD Performance Check.5914
MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	17112.2	17112.177	193.030	1.1	Standard
	In	114.9	162189.8	162189.808	1271.503	0.8	Standard
	U	238.1	160914.0	160913.987	2176.173	1.4	Standard
⌈	CeO	155.9	2694.1	0.019	0.001	2.8	Standard
| >	Ce	139.9	141230.4	141230.421	619.592	0.4	Standard
⌊	Ce++	70.0	3049.9	0.022	0.000	0.8	Standard
	Bkgd	220.0	4.2	4.233	4.437	104.8	Standard

Current Conditions File Data

Current Value	Description
0.98	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-11.50	Deflector Voltage
1600.00	ICP RF Power
-1825.00	Analog Stage Voltage
1400.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-14.00	Cell Rod Offset STD [CRO]
14.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
0.98	DRC Mode NEB
-7.00	DRC Mode QRO
-1.50	DRC Mode CRO
-6.00	DRC Mode Cell Entrance/Exit Voltage
0.10	Cell Gas A
0.00	Cell Gas B
200.00	Axial Field Voltage
-14.50	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-14.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
2.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Start Time: 6/19/2018 11:35:02 AM
End Time: 6/19/2018 11:50:09 AM

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
2.27 mm	-1.15 mm	159064.65

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 0.98
Obtained Intensity (In 115): 155340.00
Obtained Formula (CeO 156 / Ce 140): 0.0185 (=2494.22 / 134713.19)

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.679)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.701)
Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.712)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.710)

QID STD/DRC - Optimum value(s): Correlation Coefficient = 0.997; Intercept = -13.75

KED Mode QID - Optimum value(s): Correlation Coefficient = 0.999; Intercept = -13.79

STD Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9): 17112.18
Obtained Intensity (In 115): 162189.81
Obtained Intensity (U 238): 160913.99
Obtained Intensity (Bkgd 220): 4.23
Obtained Formula (Ce++ 70 / Ce 140): 0.022 (=3049.93 / 141230.42)
Obtained Formula (CeO 156 / Ce 140): 0.019 (=2694.05 / 141230.42)

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Optimization Status

Start Time: 6/19/2018 11:35:02 AM

Torch Alignment
	Optimization Settings:
		Method: Torch Alignment.mth.
		Intensity Criterion: In 115 Maximum

	Optimization Results:
		Vertical	Horizontal	Intensity
[Passed]	2.27 mm	-1.15 mm	159064.65

Nebulizer Gas Flow STD/KED [NEB]
	Optimization Settings:
		Method: Optimize.mth.
			Initial Try - Start/End/Step: 0.9/1.1/0.02.
		Intensity Criterion: In 115 Maximum
		Formula Criterion: CeO 156 / Ce 140 <= 0.02

	Optimization Results:
	Initial Try

		Obtained Intensity (In 115): 155340.00
		Obtained Formula (CeO 156 / Ce 140): 0.0185 (=2494.22 / 134713.19)
[Passed] Optimum value(s): 0.98

Mass Calibration and Resolution
	Optimization Settings:
		Method: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Tuning3rep.mth.
		MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
		Iterations: 6
		Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution
		Peak height (%) for Res. Opt.: 10

	Optimization Results:
	Initial Try
		Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.679)
		Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.701)
		Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.712)
		Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.710)
[Passed] Optimum value(s): N/A

QID STD/DRC
	Optimization Settings:
		Method: QID Calibration.mth.
			Initial Try - Start/End/Step: -20/0/0.5.

	Optimization Results:
	Initial Try

  Optimum value(s): Correlation Coefficient = 0.997; Intercept = -13.75

	Analyte	Mass	Points	DAC	MaxIntensity

Li	7	41	-14	66289.4
Mg	24	41	-14	98434
In	115	41	-11	174762
Ce	140	41	-9.5	145323
Pb	208	41	-8	85285.8
U	238	41	-7.5	167015

KED Mode QID

Optimization Settings:

Method: QID Calibration.mth.

Initial Try - Start/End/Step: -16/-4/0.25.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 0.999; Intercept = -13.79

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	49	-14	56981.4
Mg	24	49	-14	79762
In	115	49	-11.25	131034
Ce	140	49	-10.25	116203
Pb	208	49	-8.25	48064.7
U	238	49	-6	108644

STD Performance Check

Optimization Settings:

Method: STD Performance Check.mth.

Intensity Criterion: Be 9 > 2000

Intensity Criterion: In 115 > 40000

Intensity Criterion: U 238 > 30000

Intensity Criterion: Bkgd 220 <= 10

Formula Criterion: Ce++ 70 / Ce 140 <= 0.03

Formula Criterion: CeO 156 / Ce 140 <= 0.025

Optimization Results:

Initial Try

Obtained Intensity (Be 9): 17112.18

Obtained Intensity (In 115): 162189.81

Obtained Intensity (U 238): 160913.99

Obtained Intensity (Bkgd 220): 4.23

Obtained Formula (Ce++ 70 / Ce 140): 0.022 (=3049.93 / 141230.42)

Obtained Formula (CeO 156 / Ce 140): 0.019 (=2694.05 / 141230.42)

[Passed] Optimum value(s): N/A

End Time: 6/19/2018 11:50:09 AM

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 12:22:15 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				51886	2	Standard
	Cl	**37**		ug/L				11174887	0	Standard
⌈>	**Sc**	**45**		ug/L				2049892	0	Standard
|	**Cr**	**52**		ug/L				32723	2	Standard
|	**Cr**	**53**		ug/L				172	0	Standard
⌊	**Mn**	**55**		ug/L				719	4	Standard
⌈>	**Ge-1**	**72**		ug/L				41658	1	KED
|	**Ni**	**60**		ug/L				10	10	KED
|	**Ni**	**62**		ug/L				3	91	KED
|	**Cu**	**63**		ug/L				24	27	KED
|	**Cu**	**65**		ug/L				12	52	KED
|	**Zn**	**66**		ug/L				28	30	KED
|	**Zn**	**67**		ug/L				3	91	KED
⌊	**As**	**75**		ug/L				2	24	KED
	Y	**89**		ug/L				865671	1	Standard
	Kr	**83**		ug/L				66	26	Standard
⌈>	**In-1**	**115**		ug/L				9536	2	KED
|	**Cd**	**111**		ug/L				0	86	KED
⌊	**Cd**	**114**		ug/L				3	34	KED
⌈>	**Tb**	**159**		ug/L				2149277	0	Standard
⌊	**Pb**	**208**		ug/L				689	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 12:26:10 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			51886	56766	0	Standard
	Cl	**37**		ug/L			11174887	11128379	3	Standard
⌈>	**Sc**	**45**		ug/L			2049892	2043600	1	Standard
|	**Cr**	**52**	**0.500**	ug/L	0.034	6	32723	48253	3	Standard
|	**Cr**	**53**	**0.500**	ug/L	0.004	0	172	2107	1	Standard
⌊	**Mn**	**55**	**0.500**	ug/L	0.006	1	719	22639	0	Standard
⌈>	**Ge-1**	**72**		ug/L			41658	40256	1	KED
|	**Ni**	**60**	**0.500**	ug/L	0.025	4	10	506	6	KED
|	**Ni**	**62**	**0.500**	ug/L	0.072	14	3	62	12	KED
|	**Cu**	**63**	**0.500**	ug/L	0.033	6	24	1278	4	KED
|	**Cu**	**65**	**0.500**	ug/L	0.014	2	12	578	3	KED
|	**Zn**	**66**	**4.000**	ug/L	0.089	2	28	1194	0	KED
|	**Zn**	**67**	**4.000**	ug/L	0.762	19	3	182	17	KED
⌊	**As**	**75**	**0.200**	ug/L	0.020	9	2	34	8	KED
	Y	**89**		ug/L			865671	880915	1	Standard
	Kr	**83**		ug/L			66	56	22	Standard
⌈>	**In-1**	**115**		ug/L			9536	9382	4	KED
|	**Cd**	**111**	**0.100**	ug/L	0.038	37	0	13	38	KED
⌊	**Cd**	**114**	**0.100**	ug/L	0.002	2	3	32	5	KED
⌈>	**Tb**	**159**		ug/L			2149277	2164649	0	Standard
⌊	**Pb**	**208**	**0.100**	ug/L	0.001	0	689	13046	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 12:30:04

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			51886	51710	3	Standard
	Cl	**37**		ug/L			11174887	11291027	1	Standard
⎡>	**Sc**	**45**		ug/L			2049892	2098794	1	Standard
⎢	**Cr**	**52**	**10.001**	ug/L	0.259	2	32723	366723	2	Standard
⎢	**Cr**	**53**	**9.999**	ug/L	0.334	3	172	38704	2	Standard
⎣	**Mn**	**55**	**9.999**	ug/L	0.136	1	719	436890	1	Standard
⎡>	**Ge-1**	**72**		ug/L			41658	40942	0	KED
⎢	**Ni**	**60**	**9.998**	ug/L	0.192	1	10	9479	2	KED
⎢	**Ni**	**62**	**10.005**	ug/L	0.409	4	3	1502	3	KED
⎢	**Cu**	**63**	**10.000**	ug/L	0.124	1	24	25238	0	KED
⎢	**Cu**	**65**	**10.001**	ug/L	0.144	1	12	12198	1	KED
⎢	**Zn**	**66**	**9.905**	ug/L	0.048	0	28	2801	1	KED
⎢	**Zn**	**67**	**10.044**	ug/L	0.376	3	3	476	4	KED
⎣	**As**	**75**	**10.000**	ug/L	0.231	2	2	1584	2	KED
	Y	**89**		ug/L			865671	881496	2	Standard
	Kr	**83**		ug/L			66	59	9	Standard
⎡>	**In-1**	**115**		ug/L			9536	9315	1	KED
⎢	**Cd**	**111**	**10.000**	ug/L	0.185	1	0	1363	3	KED
⎣	**Cd**	**114**	**10.000**	ug/L	0.656	6	3	3646	5	KED
⎡>	**Tb**	**159**		ug/L			2149277	2188199	0	Standard
⎣	**Pb**	**208**	**10.000**	ug/L	0.021	0	689	1188441	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 12:34:13 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			51886	51814	1	Standard
	Cl	**37**		ug/L			11174887	11154400	2	Standard
⌈>	**Sc**	**45**		ug/L			2049892	2082952	0	Standard
|	**Cr**	**52**	**20.015**	ug/L	0.332	1	32723	697065	1	Standard
|	**Cr**	**53**	**19.954**	ug/L	0.194	0	172	75800	1	Standard
⌊	**Mn**	**55**	**20.043**	ug/L	0.123	0	719	875828	0	Standard
⌈>	**Ge-1**	**72**		ug/L			41658	40380	1	KED
|	**Ni**	**60**	**20.066**	ug/L	0.297	1	10	19001	2	KED
|	**Ni**	**62**	**19.911**	ug/L	0.828	4	3	2894	2	KED
|	**Cu**	**63**	**19.993**	ug/L	0.154	0	24	49677	1	KED
|	**Cu**	**65**	**20.008**	ug/L	0.255	1	12	24092	1	KED
|	**Zn**	**66**	**19.929**	ug/L	0.451	2	28	5465	3	KED
|	**Zn**	**67**	**19.810**	ug/L	0.466	2	3	893	2	KED
⌊	**As**	**75**	**20.054**	ug/L	0.530	2	2	3164	1	KED
	Y	**89**		ug/L			865671	893896	1	Standard
	Kr	**83**		ug/L			66	60	14	Standard
⌈>	**In-1**	**115**		ug/L			9536	8713	10	KED
|	**Cd**	**111**	**20.221**	ug/L	2.514	12	0	2673	2	KED
⌊	**Cd**	**114**	**20.313**	ug/L	2.095	10	3	7334	1	KED
⌈>	**Tb**	**159**		ug/L			2149277	2179922	1	Standard
⌊	**Pb**	**208**	**20.059**	ug/L	0.185	0	689	2402569	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 12:38:31 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			51886	50074	0	Standard
	Cl	**37**		ug/L			11174887	11408855	1	Standard
⌈>	**Sc**	**45**		ug/L			2049892	2021013	0	Standard
|	**Cr**	**52**	**50.273**	ug/L	0.608	1	32723	1695449	1	Standard
|	**Cr**	**53**	**50.126**	ug/L	0.859	1	172	186858	2	Standard
⌊	**Mn**	**55**	**50.138**	ug/L	0.802	1	719	2154547	2	Standard
⌈>	**Ge-1**	**72**		ug/L			41658	38864	1	KED
|	**Ni**	**60**	**50.057**	ug/L	1.497	2	10	45851	1	KED
|	**Ni**	**62**	**49.780**	ug/L	1.084	2	3	6813	2	KED
|	**Cu**	**63**	**49.984**	ug/L	1.450	2	24	119298	2	KED
|	**Cu**	**65**	**49.978**	ug/L	1.550	3	12	57762	1	KED
|	**Zn**	**66**	**50.161**	ug/L	1.087	2	28	13403	1	KED
|	**Zn**	**67**	**50.291**	ug/L	2.673	5	3	2241	3	KED
⌊	**As**	**75**	**49.997**	ug/L	1.149	2	2	7588	1	KED
	Y	**89**		ug/L			865671	871881	1	Standard
	Kr	**83**		ug/L			66	64	7	Standard
⌈>	**In-1**	**115**		ug/L			9536	8901	1	KED
|	**Cd**	**111**	**49.689**	ug/L	0.304	0	0	6564	1	KED
⌊	**Cd**	**114**	**49.651**	ug/L	0.271	0	3	17821	1	KED
⌈>	**Tb**	**159**		ug/L			2149277	2214635	1	Standard
⌊	**Pb**	**208**	**49.801**	ug/L	0.539	1	689	5940799	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 12:44:29 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				50694	1	Standard
	Cl	**37**		ug/L				11447659	0	Standard
⌈>	**Sc**	**45**		ug/L				2143593	3	Standard
|	**Cr**	**52**		ug/L				32926	3	Standard
|	**Cr**	**53**		ug/L				180	11	Standard
⌊	**Mn**	**55**		ug/L				831	2	Standard
⌈>	**Ge-1**	**72**		ug/L				41842	1	KED
|	**Ni**	**60**		ug/L				10	39	KED
|	**Ni**	**62**		ug/L				3	69	KED
|	**Cu**	**63**		ug/L				23	18	KED
|	**Cu**	**65**		ug/L				8	65	KED
|	**Zn**	**66**		ug/L				28	13	KED
|	**Zn**	**67**		ug/L				5	0	KED
⌊	**As**	**75**		ug/L				2	20	KED
	Y	**89**		ug/L				892046	1	Standard
	Kr	**83**		ug/L				55	22	Standard
⌈>	**In-1**	**115**		ug/L				9431	3	KED
|	**Cd**	**111**		ug/L				1	69	KED
⌊	**Cd**	**114**		ug/L				2	114	KED
⌈>	**Tb**	**159**		ug/L				2225105	1	Standard
⌊	**Pb**	**208**		ug/L				1017	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 12:48:24

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50694	55421	1	Standard
	Cl	**37**		ug/L			11447659	11261615	1	Standard
⌈>	**Sc**	**45**		ug/L			2143593	2130638	1	Standard
|	**Cr**	**52**	**0.500**	ug/L	0.023	4	32926	51175	0	Standard
|	**Cr**	**53**	**0.500**	ug/L	0.018	3	180	2148	3	Standard
⌊	**Mn**	**55**	**0.500**	ug/L	0.007	1	831	23435	1	Standard
⌈>	**Ge-1**	**72**		ug/L			41842	41723	0	KED
|	**Ni**	**60**	**0.500**	ug/L	0.018	3	10	500	3	KED
|	**Ni**	**62**	**0.500**	ug/L	0.011	2	3	85	1	KED
|	**Cu**	**63**	**0.500**	ug/L	0.010	1	23	1325	2	KED
|	**Cu**	**65**	**0.500**	ug/L	0.015	2	8	646	3	KED
|	**Zn**	**66**	**4.000**	ug/L	0.173	4	28	1233	4	KED
|	**Zn**	**67**	**4.000**	ug/L	0.431	10	5	171	10	KED
⌊	**As**	**75**	**0.200**	ug/L	0.008	4	2	38	4	KED
	Y	**89**		ug/L			892046	891493	1	Standard
	Kr	**83**		ug/L			55	67	17	Standard
⌈>	**In-1**	**115**		ug/L			9431	9210	1	KED
|	**Cd**	**111**	**0.100**	ug/L	0.026	26	1	12	23	KED
⌊	**Cd**	**114**	**0.100**	ug/L	0.019	19	2	31	18	KED
⌈>	**Tb**	**159**		ug/L			2225105	2233085	2	Standard
⌊	**Pb**	**208**	**0.100**	ug/L	0.016	15	1017	14400	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 12:52:19

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50694	50763	1	Standard
	Cl	**37**		ug/L			11447659	11485645	2	Standard
⌈>	**Sc**	**45**		ug/L			2143593	2105392	0	Standard
|	**Cr**	**52**	**9.998**	ug/L	0.055	0	32926	375453	0	Standard
|	**Cr**	**53**	**10.000**	ug/L	0.084	0	180	39268	0	Standard
⌊	**Mn**	**55**	**10.000**	ug/L	0.075	0	831	446473	0	Standard
⌈>	**Ge-1**	**72**		ug/L			41842	40120	1	KED
|	**Ni**	**60**	**10.000**	ug/L	0.151	1	10	9411	1	KED
|	**Ni**	**62**	**9.997**	ug/L	0.512	5	3	1393	6	KED
|	**Cu**	**63**	**10.000**	ug/L	0.156	1	23	25203	1	KED
|	**Cu**	**65**	**10.000**	ug/L	0.128	1	8	12177	0	KED
|	**Zn**	**66**	**9.905**	ug/L	0.135	1	28	2734	0	KED
|	**Zn**	**67**	**10.131**	ug/L	0.534	5	5	445	5	KED
⌊	**As**	**75**	**10.000**	ug/L	0.117	1	2	1603	0	KED
	Y	**89**		ug/L			892046	872547	3	Standard
	Kr	**83**		ug/L			55	62	30	Standard
⌈>	**In-1**	**115**		ug/L			9431	9320	1	KED
|	**Cd**	**111**	**10.000**	ug/L	0.139	1	1	1336	2	KED
⌊	**Cd**	**114**	**10.000**	ug/L	0.124	1	2	3785	1	KED
⌈>	**Tb**	**159**		ug/L			2225105	2228550	0	Standard
⌊	**Pb**	**208**	**10.000**	ug/L	0.046	0	1017	1202387	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 12:56:27 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50694	51526	6	Standard
	Cl	**37**		ug/L			11447659	10924967	6	Standard
⌈>	**Sc**	**45**		ug/L			2143593	1927765	11	Standard
|	**Cr**	**52**	**20.293**	ug/L	1.393	6	32926	703352	6	Standard
|	**Cr**	**53**	**20.259**	ug/L	1.243	6	180	76274	6	Standard
⌊	**Mn**	**55**	**20.326**	ug/L	1.581	7	831	882494	5	Standard
⌈>	**Ge-1**	**72**		ug/L			41842	39220	0	KED
|	**Ni**	**60**	**20.077**	ug/L	0.190	0	10	18752	1	KED
|	**Ni**	**62**	**20.008**	ug/L	0.218	1	3	2727	1	KED
|	**Cu**	**63**	**19.966**	ug/L	0.497	2	23	48840	2	KED
|	**Cu**	**65**	**19.941**	ug/L	0.175	0	8	23457	0	KED
|	**Zn**	**66**	**20.132**	ug/L	0.438	2	28	5532	2	KED
|	**Zn**	**67**	**20.221**	ug/L	1.011	4	5	897	5	KED
⌊	**As**	**75**	**19.959**	ug/L	0.189	0	2	3101	1	KED
	Y	**89**		ug/L			892046	811931	9	Standard
	Kr	**83**		ug/L			55	74	18	Standard
⌈>	**In-1**	**115**		ug/L			9431	8967	1	KED
|	**Cd**	**111**	**20.273**	ug/L	0.724	3	1	2755	2	KED
⌊	**Cd**	**114**	**20.054**	ug/L	0.722	3	2	7378	2	KED
⌈>	**Tb**	**159**		ug/L			2225105	2053249	10	Standard
⌊	**Pb**	**208**	**20.299**	ug/L	1.606	7	1017	2377756	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 13:00:45

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50694	49434	1	Standard
	Cl	**37**		ug/L			11447659	11337119	2	Standard
⌈>	**Sc**	**45**		ug/L			2143593	2052637	0	Standard
|	**Cr**	**52**	**49.207**	ug/L	0.532	1	32926	1651683	1	Standard
|	**Cr**	**53**	**49.280**	ug/L	0.289	0	180	184933	0	Standard
⌊	**Mn**	**55**	**49.548**	ug/L	0.609	1	831	2203549	1	Standard
⌈>	**Ge-1**	**72**		ug/L			41842	39029	1	KED
|	**Ni**	**60**	**49.804**	ug/L	0.085	0	10	45388	1	KED
|	**Ni**	**62**	**49.957**	ug/L	1.487	2	3	6741	2	KED
|	**Cu**	**63**	**49.772**	ug/L	0.898	1	23	118421	2	KED
|	**Cu**	**65**	**49.720**	ug/L	1.760	3	8	56597	2	KED
|	**Zn**	**66**	**49.620**	ug/L	0.613	1	28	13051	2	KED
|	**Zn**	**67**	**50.246**	ug/L	2.086	4	5	2263	3	KED
⌊	**As**	**75**	**49.833**	ug/L	0.810	1	2	7576	2	KED
	Y	**89**		ug/L			892046	849720	0	Standard
	Kr	**83**		ug/L			55	74	15	Standard
⌈>	**In-1**	**115**		ug/L			9431	8913	2	KED
|	**Cd**	**111**	**49.580**	ug/L	1.267	2	1	6425	1	KED
⌊	**Cd**	**114**	**49.701**	ug/L	0.910	1	2	17646	1	KED
⌈>	**Tb**	**159**		ug/L			2225105	2201562	1	Standard
⌊	**Pb**	**208**	**49.328**	ug/L	0.203	0	1017	5836087	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 13:06:44
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				50669	0	Standard
	Cl	**37**		ug/L				11311799	0	Standard
⎡>	**Sc**	**45**		ug/L				2126832	2	Standard
⎢	**Cr**	**52**		ug/L				33180	1	Standard
⎢	**Cr**	**53**		ug/L				160	3	Standard
⎣	**Mn**	**55**		ug/L				722	5	Standard
⎡>	**Ge-1**	**72**		ug/L				40529	1	KED
⎢	**Ni**	**60**		ug/L				19	86	KED
⎢	**Ni**	**62**		ug/L				5	57	KED
⎢	**Cu**	**63**		ug/L				47	128	KED
⎢	**Cu**	**65**		ug/L				23	117	KED
⎢	**Zn**	**66**		ug/L				34	31	KED
⎢	**Zn**	**67**		ug/L				2	43	KED
⎣	**As**	**75**		ug/L				3	96	KED
	Y	**89**		ug/L				867590	1	Standard
	Kr	**83**		ug/L				66	32	Standard
⎡>	**In-1**	**115**		ug/L				9278	0	KED
⎢	**Cd**	**111**		ug/L				0	100	KED
⎣	**Cd**	**114**		ug/L				0	207	KED
⎡>	**Tb**	**159**		ug/L				2192253	1	Standard
⎣	**Pb**	**208**		ug/L				769	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 13:10:39
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	53439	0	Standard
	Cl	**37**		ug/L			11311799	11179057	0	Standard
⎡>	**Sc**	**45**		ug/L			2126832	2076412	1	Standard
⎢	**Cr**	**52**	**0.500**	ug/L	0.038	7	33180	49226	1	Standard
⎢	**Cr**	**53**	**0.500**	ug/L	0.025	5	160	2127	3	Standard
⎣	**Mn**	**55**	**0.500**	ug/L	0.025	5	722	23402	3	Standard
⎡>	**Ge-1**	**72**		ug/L			40529	39966	2	KED
⎢	**Ni**	**60**	**0.500**	ug/L	0.036	7	19	521	5	KED
⎢	**Ni**	**62**	**0.500**	ug/L	0.055	11	5	75	8	KED
⎢	**Cu**	**63**	**0.500**	ug/L	0.013	2	47	1296	3	KED
⎢	**Cu**	**65**	**0.500**	ug/L	0.025	4	23	622	5	KED
⎢	**Zn**	**66**	**4.000**	ug/L	0.137	3	34	1278	4	KED
⎢	**Zn**	**67**	**4.000**	ug/L	0.604	15	2	198	14	KED
⎣	**As**	**75**	**0.200**	ug/L	0.025	12	3	36	10	KED
	Y	**89**		ug/L			867590	858745	3	Standard
	Kr	**83**		ug/L			66	67	18	Standard
⎡>	**In-1**	**115**		ug/L			9278	9042	1	KED
⎢	**Cd**	**111**	**0.100**	ug/L	0.017	16	0	16	15	KED
⎣	**Cd**	**114**	**0.100**	ug/L	0.030	29	0	34	29	KED
⎡>	**Tb**	**159**		ug/L			2192253	2219446	0	Standard
⎣	**Pb**	**208**	**0.100**	ug/L	0.001	0	769	13576	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 13:14:33
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	51788	0	Standard
	Cl	**37**		ug/L			11311799	11297327	0	Standard
⌈>	**Sc**	**45**		ug/L			2126832	2049318	2	Standard
|	**Cr**	**52**	**10.000**	ug/L	0.168	1	33180	367986	0	Standard
|	**Cr**	**53**	**9.999**	ug/L	0.375	3	160	38212	1	Standard
⌊	**Mn**	**55**	**9.999**	ug/L	0.170	1	722	436929	0	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	39986	0	KED
|	**Ni**	**60**	**9.998**	ug/L	0.109	1	19	9337	1	KED
|	**Ni**	**62**	**10.000**	ug/L	0.355	3	5	1398	3	KED
|	**Cu**	**63**	**10.000**	ug/L	0.092	0	47	24662	1	KED
|	**Cu**	**65**	**10.000**	ug/L	0.222	2	23	11834	2	KED
|	**Zn**	**66**	**9.829**	ug/L	0.107	1	34	2796	1	KED
|	**Zn**	**67**	**9.860**	ug/L	0.324	3	2	447	2	KED
⌊	**As**	**75**	**10.000**	ug/L	0.023	0	3	1553	0	KED
	Y	**89**		ug/L			867590	858520	0	Standard
	Kr	**83**		ug/L			66	73	29	Standard
⌈>	**In-1**	**115**		ug/L			9278	9100	2	KED
|	**Cd**	**111**	**10.000**	ug/L	0.546	5	0	1294	4	KED
⌊	**Cd**	**114**	**10.000**	ug/L	0.248	2	0	3658	0	KED
⌈>	**Tb**	**159**		ug/L			2192253	2215180	0	Standard
⌊	**Pb**	**208**	**10.000**	ug/L	0.019	0	769	1185603	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 13:18:42
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	50973	1	Standard
	Cl	**37**		ug/L			11311799	11268851	2	Standard
⌈>	**Sc**	**45**		ug/L			2126832	2053778	1	Standard
|	**Cr**	**52**	**19.993**	ug/L	0.365	1	33180	704380	0	Standard
|	**Cr**	**53**	**19.982**	ug/L	0.359	1	160	76143	2	Standard
⌊	**Mn**	**55**	**20.109**	ug/L	0.357	1	722	899554	0	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	39261	0	KED
|	**Ni**	**60**	**20.095**	ug/L	0.307	1	19	18762	1	KED
|	**Ni**	**62**	**20.094**	ug/L	0.136	0	5	2807	0	KED
|	**Cu**	**63**	**20.060**	ug/L	0.187	0	47	49114	0	KED
|	**Cu**	**65**	**20.042**	ug/L	0.311	1	23	23461	0	KED
|	**Zn**	**66**	**20.019**	ug/L	0.492	2	34	5576	3	KED
|	**Zn**	**67**	**20.203**	ug/L	0.751	3	2	930	4	KED
⌊	**As**	**75**	**20.127**	ug/L	0.436	2	3	3146	2	KED
	Y	**89**		ug/L			867590	861423	2	Standard
	Kr	**83**		ug/L			66	91	11	Standard
⌈>	**In-1**	**115**		ug/L			9278	9126	0	KED
|	**Cd**	**111**	**20.117**	ug/L	0.311	1	0	2674	1	KED
⌊	**Cd**	**114**	**19.911**	ug/L	0.269	1	0	7180	1	KED
⌈>	**Tb**	**159**		ug/L			2192253	2195514	2	Standard
⌊	**Pb**	**208**	**20.041**	ug/L	0.216	1	769	2373168	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 13:23:00
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	49769	1	Standard
	Cl	**37**		ug/L			11311799	11343861	1	Standard
⌈>	**Sc**	**45**		ug/L			2126832	2051738	2	Standard
|	**Cr**	**52**	**49.686**	ug/L	0.803	1	33180	1651098	3	Standard
|	**Cr**	**53**	**49.849**	ug/L	0.870	1	160	186705	2	Standard
⌊	**Mn**	**55**	**49.661**	ug/L	1.241	2	722	2145196	0	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	38759	2	KED
|	**Ni**	**60**	**49.752**	ug/L	0.959	1	19	44707	1	KED
|	**Ni**	**62**	**49.873**	ug/L	1.338	2	5	6783	1	KED
|	**Cu**	**63**	**49.775**	ug/L	1.304	2	47	117579	2	KED
|	**Cu**	**65**	**49.835**	ug/L	1.449	2	23	56602	1	KED
|	**Zn**	**66**	**49.799**	ug/L	0.584	1	34	13383	3	KED
|	**Zn**	**67**	**49.723**	ug/L	1.821	3	2	2197	2	KED
⌊	**As**	**75**	**49.854**	ug/L	1.276	2	3	7574	1	KED
	Y	**89**		ug/L			867590	862398	3	Standard
	Kr	**83**		ug/L			66	71	15	Standard
⌈>	**In-1**	**115**		ug/L			9278	8519	8	KED
|	**Cd**	**111**	**49.892**	ug/L	1.746	3	0	6114	5	KED
⌊	**Cd**	**114**	**50.017**	ug/L	2.450	4	0	16819	3	KED
⌈>	**Tb**	**159**		ug/L			2192253	2219255	0	Standard
⌊	**Pb**	**208**	**49.770**	ug/L	0.551	1	769	5822878	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL6
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 13:28:58
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	49265	2	Standard
	Cl	**37**		ug/L			11311799	11151646	1	Standard
⎡>	**Sc**	**45**		ug/L			2126832	1949378	1	Standard
⎢	**Cr**	**52**	**100.020**	ug/L	0.804	0	33180	3128170	0	Standard
⎢	**Cr**	**53**	**99.201**	ug/L	1.812	1	160	343748	2	Standard
⎣	**Mn**	**55**	**99.481**	ug/L	0.354	0	722	4014413	1	Standard
⎡>	**Ge-1**	**72**		ug/L			40529	36753	3	KED
⎢	**Ni**	**60**	**99.314**	ug/L	2.243	2	19	82713	1	KED
⎢	**Ni**	**62**	**99.347**	ug/L	2.206	2	5	12536	1	KED
⎢	**Cu**	**63**	**99.178**	ug/L	3.416	3	47	216092	0	KED
⎢	**Cu**	**65**	**99.208**	ug/L	1.080	1	23	104110	2	KED
⎢	**Zn**	**66**	**98.674**	ug/L	1.425	1	34	24051	1	KED
⎢	**Zn**	**67**	**98.787**	ug/L	0.692	0	2	3979	2	KED
⎣	**As**	**75**	**99.588**	ug/L	2.244	2	3	14150	0	KED
	Y	**89**		ug/L			867590	796965	2	Standard
	Kr	**83**		ug/L			66	79	3	Standard
⎡>	**In-1**	**115**		ug/L			9278	8442	0	KED
⎢	**Cd**	**111**	**99.186**	ug/L	1.441	1	0	11747	1	KED
⎣	**Cd**	**114**	**99.510**	ug/L	0.907	0	0	32715	1	KED
⎡>	**Tb**	**159**		ug/L			2192253	2169948	0	Standard
⎣	**Pb**	**208**	**98.801**	ug/L	0.538	0	769	10867133	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 13:35:37
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	49506	3	Standard
	Cl	**37**		ug/L			11311799	11007277	3	Standard
⌈>	**Sc**	**45**		ug/L			2126832	2020879	2	Standard
|	**Cr**	**52**	**0.023**	ug/L	0.070	304	33180	32231	4	Standard
|	**Cr**	**53**	**0.002**	ug/L	0.001	58	160	158	3	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.001	107	722	715	2	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	40026	1	KED
|	**Ni**	**60**	**-0.007**	ug/L	0.003	38	19	12	17	KED
|	**Ni**	**62**	**-0.032**	ug/L	0.008	25	5	0	173	KED
|	**Cu**	**63**	**-0.011**	ug/L	0.004	33	47	20	39	KED
|	**Cu**	**65**	**-0.008**	ug/L	0.001	15	23	14	7	KED
|	**Zn**	**66**	**-0.039**	ug/L	0.013	33	34	24	16	KED
|	**Zn**	**67**	**0.001**	ug/L	0.051	3751	2	2	86	KED
⌊	**As**	**75**	**-0.012**	ug/L	0.004	36	3	2	35	KED
	Y	**89**		ug/L			867590	817338	1	Standard
	Kr	**83**		ug/L			66	65	6	Standard
⌈>	**In-1**	**115**		ug/L			9278	9075	2	KED
|	**Cd**	**111**	**0.015**	ug/L	0.008	52	0	2	33	KED
⌊	**Cd**	**114**	**0.007**	ug/L	0.009	115	0	3	95	KED
⌈>	**Tb**	**159**		ug/L			2192253	2163418	0	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	14	769	909	2	Standard

Sample Information

Sample Date/Time: Tuesday, June 19, 2018 13:28:58
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2
Mass Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

Calibration

Analyte	Mass	**r Corr Coef**	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Sc	45							
Cr	52	**1.0000**	0.016	0.50	10	20	50	100
Cr	53	**0.9999**	0.002	0.50	10	20	50	100
Mn	55	**0.9999**	0.021	0.50	10	20	50	100
Ge-1	72							
Ni	60	**0.9999**	0.023	0.50	10	20	50	100
Ni	62	**0.9999**	0.003	0.50	10	20	50	100
Cu	63	**0.9999**	0.059	0.50	10	20	50	100
Cu	65	**0.9999**	0.029	0.50	10	20	50	100
Zn	66	**0.9997**	0.007	4.00	10	20	50	100
Zn	67	**0.9997**	0.001	4.00	10	20	50	100
As	75	**1.0000**	0.004	0.20	10	20	50	100
Y	89							
Kr	83							
In-1	115							
Cd	111	**0.9999**	0.014	0.10	10	20	50	100
Cd	114	**1.0000**	0.039	0.10	10	20	50	100
Tb	159							
Pb	208	**0.9997**	0.051	0.10	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICV1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 13:43:45
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	49703	1	Standard
	Cl	**37**		ug/L			11311799	11542753	1	Standard
⎡>	**Sc**	**45**		ug/L			2126832	2019051	1	Standard
⎢	**Cr**	**52**	**50.576**	ug/L	1.262	2	33180	1653792	1	Standard
⎢	**Cr**	**53**	**51.016**	ug/L	2.025	3	160	183109	2	Standard
⎣	**Mn**	**55**	**51.041**	ug/L	0.705	1	722	2133793	2	Standard
⎡>	**Ge-1**	**72**		ug/L			40529	38763	2	KED
⎢	**Ni**	**60**	**50.471**	ug/L	2.054	4	19	44339	2	KED
⎢	**Ni**	**62**	**49.807**	ug/L	1.538	3	5	6634	4	KED
⎢	**Cu**	**63**	**49.454**	ug/L	0.906	1	47	113725	1	KED
⎢	**Cu**	**65**	**50.344**	ug/L	1.333	2	23	55723	1	KED
⎢	**Zn**	**66**	**48.965**	ug/L	1.658	3	34	12601	1	KED
⎢	**Zn**	**67**	**48.925**	ug/L	2.089	4	2	2078	2	KED
⎣	**As**	**75**	**49.493**	ug/L	0.535	1	3	7421	1	KED
	Y	**89**		ug/L			867590	827683	2	Standard
	Kr	**83**		ug/L			66	81	18	Standard
⎡>	**In-1**	**115**		ug/L			9278	8897	1	KED
⎢	**Cd**	**111**	**50.141**	ug/L	1.416	2	0	6257	1	KED
⎣	**Cd**	**114**	**48.763**	ug/L	1.393	2	0	16893	2	KED
⎡>	**Tb**	**159**		ug/L			2192253	2208757	1	Standard
⎣	**Pb**	**208**	**50.056**	ug/L	0.543	1	769	5603896	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICB1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 13:49:11
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	49549	2	Standard
	Cl	**37**		ug/L			11311799	11287441	2	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1986897	2	Standard
|	**Cr**	**52**	**0.018**	ug/L	0.014	81	33180	31552	1	Standard
|	**Cr**	**53**	**0.005**	ug/L	0.001	24	160	167	2	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.001	62	722	720	2	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	40133	0	KED
|	**Ni**	**60**	**-0.009**	ug/L	0.001	14	19	10	10	KED
|	**Ni**	**62**	**-0.027**	ug/L	0.008	29	5	1	86	KED
|	**Cu**	**63**	**-0.008**	ug/L	0.003	36	47	27	23	KED
|	**Cu**	**65**	**-0.007**	ug/L	0.002	23	23	15	12	KED
|	**Zn**	**66**	**-0.027**	ug/L	0.009	31	34	27	8	KED
|	**Zn**	**67**	**0.073**	ug/L	0.075	103	2	5	57	KED
⌊	**As**	**75**	**-0.009**	ug/L	0.012	136	3	2	75	KED
	Y	**89**		ug/L			867590	824474	1	Standard
	Kr	**83**		ug/L			66	59	6	Standard
⌈>	**In-1**	**115**		ug/L			9278	8932	1	KED
|	**Cd**	**111**	**0.005**	ug/L	0.016	298	0	1	124	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.003	152	0	1	86	KED
⌈>	**Tb**	**159**		ug/L			2192253	2154703	0	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.000	32	769	789	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 13:54:07
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	48072	1	Standard
	Cl	**37**		ug/L			11311799	11250547	1	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1985237	2	Standard
|	**Cr**	**52**	**51.276**	ug/L	1.175	2	33180	1647689	0	Standard
|	**Cr**	**53**	**51.536**	ug/L	1.926	3	160	181830	2	Standard
⌊	**Mn**	**55**	**50.618**	ug/L	1.146	2	722	2079560	0	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	37932	1	KED
|	**Ni**	**60**	**52.169**	ug/L	0.651	1	19	44867	1	KED
|	**Ni**	**62**	**51.101**	ug/L	1.233	2	5	6660	2	KED
|	**Cu**	**63**	**51.919**	ug/L	0.374	0	47	116860	1	KED
|	**Cu**	**65**	**51.394**	ug/L	0.667	1	23	55687	1	KED
|	**Zn**	**66**	**52.144**	ug/L	0.719	1	34	13138	2	KED
|	**Zn**	**67**	**53.694**	ug/L	1.605	2	2	2233	3	KED
⌊	**As**	**75**	**50.984**	ug/L	0.865	1	3	7480	0	KED
	Y	**89**		ug/L			867590	810119	2	Standard
	Kr	**83**		ug/L			66	69	8	Standard
⌈>	**In-1**	**115**		ug/L			9278	8590	0	KED
|	**Cd**	**111**	**52.028**	ug/L	0.357	0	0	6270	0	KED
⌊	**Cd**	**114**	**51.200**	ug/L	0.541	1	0	17127	1	KED
⌈>	**Tb**	**159**		ug/L			2192253	2161522	2	Standard
⌊	**Pb**	**208**	**52.047**	ug/L	0.875	1	769	5701530	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 13:58:25
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	47840	1	Standard
	Cl	**37**		ug/L			11311799	10909014	1	Standard
⎡>	**Sc**	**45**		ug/L			2126832	1949022	0	Standard
⎢	**Cr**	**52**	**0.022**	ug/L	0.009	40	33180	31076	0	Standard
⎢	**Cr**	**53**	**0.001**	ug/L	0.006	636	160	149	13	Standard
⎣	**Mn**	**55**	**0.000**	ug/L	0.001	1339	722	664	3	Standard
⎡>	**Ge-1**	**72**		ug/L			40529	39570	4	KED
⎢	**Ni**	**60**	**-0.012**	ug/L	0.005	45	19	8	58	KED
⎢	**Ni**	**62**	**-0.018**	ug/L	0.007	40	5	2	43	KED
⎢	**Cu**	**63**	**-0.009**	ug/L	0.004	45	47	24	35	KED
⎢	**Cu**	**65**	**-0.013**	ug/L	0.005	41	23	8	74	KED
⎢	**Zn**	**66**	**-0.031**	ug/L	0.008	26	34	26	4	KED
⎢	**Zn**	**67**	**0.089**	ug/L	0.101	113	2	6	69	KED
⎣	**As**	**75**	**-0.009**	ug/L	0.001	14	3	2	10	KED
	Y	**89**		ug/L			867590	793412	2	Standard
	Kr	**83**		ug/L			66	64	25	Standard
⎡>	**In-1**	**115**		ug/L			9278	8702	0	KED
⎢	**Cd**	**111**	**0.055**	ug/L	0.001	1	0	7	0	KED
⎣	**Cd**	**114**	**0.008**	ug/L	0.003	44	0	3	37	KED
⎡>	**Tb**	**159**		ug/L			2192253	2115979	0	Standard
⎣	**Pb**	**208**	**0.001**	ug/L	0.001	64	769	840	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CRL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 14:02:20
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	52738	3	Standard
	Cl	**37**		ug/L			11311799	11171730	1	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1971285	1	Standard
|	**Cr**	**52**	**0.542**	ug/L	0.030	5	33180	47718	1	Standard
|	**Cr**	**53**	**0.526**	ug/L	0.003	0	160	1989	1	Standard
⌊	**Mn**	**55**	**0.498**	ug/L	0.016	3	722	20987	2	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	39039	2	KED
|	**Ni**	**60**	**0.469**	ug/L	0.032	6	19	433	4	KED
|	**Ni**	**62**	**0.470**	ug/L	0.017	3	5	67	3	KED
|	**Cu**	**63**	**0.495**	ug/L	0.023	4	47	1191	2	KED
|	**Cu**	**65**	**0.524**	ug/L	0.031	5	23	606	4	KED
|	**Zn**	**66**	**4.138**	ug/L	0.079	1	34	1103	0	KED
|	**Zn**	**67**	**4.061**	ug/L	0.395	9	2	175	7	KED
⌊	**As**	**75**	**0.184**	ug/L	0.037	20	3	31	17	KED
	Y	**89**		ug/L			867590	794274	2	Standard
	Kr	**83**		ug/L			66	65	8	Standard
⌈>	**In-1**	**115**		ug/L			9278	8690	1	KED
|	**Cd**	**111**	**0.086**	ug/L	0.007	8	0	11	8	KED
⌊	**Cd**	**114**	**0.128**	ug/L	0.025	19	0	43	19	KED
⌈>	**Tb**	**159**		ug/L			2192253	2126781	0	Standard
⌊	**Pb**	**208**	**0.101**	ug/L	0.001	0	769	11687	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFA1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 14:06:34
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	268643	2	Standard
	Cl	**37**		ug/L			11311799	24828962	3	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1918080	3	Standard
|	**Cr**	**52**	**0.758**	ug/L	0.034	4	33180	53010	1	Standard
|	**Cr**	**53**	**6.049**	ug/L	0.022	0	160	20757	3	Standard
⌊	**Mn**	**55**	**0.076**	ug/L	0.005	6	722	3679	3	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	33574	1	KED
|	**Ni**	**60**	**0.063**	ug/L	0.015	24	19	64	18	KED
|	**Ni**	**62**	**0.123**	ug/L	0.036	29	5	18	21	KED
|	**Cu**	**63**	**0.057**	ug/L	0.005	9	47	153	6	KED
|	**Cu**	**65**	**0.053**	ug/L	0.008	14	23	70	9	KED
|	**Zn**	**66**	**1.341**	ug/L	0.083	6	34	326	4	KED
|	**Zn**	**67**	**0.944**	ug/L	0.400	42	2	36	40	KED
⌊	**As**	**75**	**0.037**	ug/L	0.016	42	3	8	25	KED
	Y	**89**		ug/L			867590	928361	1	Standard
	Kr	**83**		ug/L			66	107	22	Standard
⌈>	**In-1**	**115**		ug/L			9278	7723	1	KED
|	**Cd**	**111**	**0.069**	ug/L	0.006	8	0	8	6	KED
⌊	**Cd**	**114**	**0.046**	ug/L	0.017	37	0	14	34	KED
⌈>	**Tb**	**159**		ug/L			2192253	2173690	0	Standard
⌊	**Pb**	**208**	**0.053**	ug/L	0.002	2	769	6553	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFB1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 14:10:29
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	268154	1	Standard
	Cl	**37**		ug/L			11311799	25316488	1	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1871115	7	Standard
|	**Cr**	**52**	**20.906**	ug/L	1.997	9	33180	647645	1	Standard
|	**Cr**	**53**	**26.638**	ug/L	2.826	10	160	88208	2	Standard
⌊	**Mn**	**55**	**20.289**	ug/L	1.772	8	722	782742	0	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	33594	1	KED
|	**Ni**	**60**	**20.178**	ug/L	0.470	2	19	15377	1	KED
|	**Ni**	**62**	**19.584**	ug/L	0.704	3	5	2262	2	KED
|	**Cu**	**63**	**19.527**	ug/L	0.408	2	47	38941	1	KED
|	**Cu**	**65**	**19.714**	ug/L	0.160	0	23	18930	2	KED
|	**Zn**	**66**	**19.849**	ug/L	0.377	1	34	4445	0	KED
|	**Zn**	**67**	**18.975**	ug/L	1.376	7	2	700	8	KED
⌊	**As**	**75**	**18.973**	ug/L	0.237	1	3	2467	0	KED
	Y	**89**		ug/L			867590	910007	3	Standard
	Kr	**83**		ug/L			66	120	10	Standard
⌈>	**In-1**	**115**		ug/L			9278	7829	2	KED
|	**Cd**	**111**	**19.477**	ug/L	0.819	4	0	2138	1	KED
⌊	**Cd**	**114**	**19.222**	ug/L	0.587	3	0	5857	0	KED
⌈>	**Tb**	**159**		ug/L			2192253	2106132	6	Standard
⌊	**Pb**	**208**	**0.069**	ug/L	0.004	5	769	8107	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 14:17:13
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	56478	0	Standard
	Cl	**37**		ug/L			11311799	10944349	4	Standard
⎡>	**Sc**	**45**		ug/L			2126832	1745953	1	Standard
⎢	**Cr**	**52**	**196.656**	ug/L	2.436	1	33180	5482825	2	Standard
⎢	**Cr**	**53**	**202.638**	ug/L	2.301	1	160	628810	2	Standard
⎣	**Mn**	**55**	**195.413**	ug/L	3.735	1	722	7061186	1	Standard
⎡>	**Ge-1**	**72**		ug/L			40529	33076	0	KED
⎢	**Ni**	**60**	**204.104**	ug/L	0.977	0	19	153027	0	KED
⎢	**Ni**	**62**	**200.898**	ug/L	4.910	2	5	22820	2	KED
⎢	**Cu**	**63**	**200.372**	ug/L	1.733	0	47	393122	0	KED
⎢	**Cu**	**65**	**199.151**	ug/L	1.739	0	23	188101	1	KED
⎢	**Zn**	**66**	**195.412**	ug/L	1.653	0	34	42848	0	KED
⎢	**Zn**	**67**	**193.186**	ug/L	1.627	0	2	7002	1	KED
⎣	**As**	**75**	**200.841**	ug/L	1.485	0	3	25691	1	KED
	Y	**89**		ug/L			867590	762007	3	Standard
	Kr	**83**		ug/L			66	122	6	Standard
⎡>	**In-1**	**115**		ug/L			9278	7357	1	KED
⎢	**Cd**	**111**	**203.384**	ug/L	4.622	2	0	20990	2	KED
⎣	**Cd**	**114**	**202.962**	ug/L	3.492	1	0	58140	1	KED
⎡>	**Tb**	**159**		ug/L			2192253	2119891	1	Standard
⎣	**Pb**	**208**	**197.189**	ug/L	2.403	1	769	21186577	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 14:21:07
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	57149	1	Standard
	Cl	**37**		ug/L			11311799	10652416	2	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1658034	1	Standard
|	**Cr**	**52**	**295.813**	ug/L	3.570	1	33180	7818091	0	Standard
|	**Cr**	**53**	**303.573**	ug/L	4.562	1	160	894335	1	Standard
⌊	**Mn**	**55**	**294.114**	ug/L	10.595	3	722	10090100	2	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	30174	0	KED
|	**Ni**	**60**	**299.566**	ug/L	2.544	0	19	204884	0	KED
|	**Ni**	**62**	**296.601**	ug/L	2.855	0	5	30733	0	KED
|	**Cu**	**63**	**288.371**	ug/L	1.112	0	47	516122	0	KED
|	**Cu**	**65**	**288.933**	ug/L	1.930	0	23	248954	1	KED
|	**Zn**	**66**	**284.060**	ug/L	0.946	0	34	56811	0	KED
|	**Zn**	**67**	**279.263**	ug/L	8.256	2	2	9235	3	KED
⌊	**As**	**75**	**295.368**	ug/L	1.384	0	3	34464	0	KED
	Y	**89**		ug/L			867590	713305	0	Standard
	Kr	**83**		ug/L			66	132	18	Standard
⌈>	**In-1**	**115**		ug/L			9278	6714	2	KED
|	**Cd**	**111**	**293.283**	ug/L	11.777	4	0	27606	1	KED
⌊	**Cd**	**114**	**288.363**	ug/L	10.498	3	0	75352	1	KED
⌈>	**Tb**	**159**		ug/L			2192253	2124327	1	Standard
⌊	**Pb**	**208**	**279.396**	ug/L	2.848	1	769	30081622	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 14:29:57
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	51083	2	Standard
	Cl	**37**		ug/L			11311799	10788951	0	Standard
⎡>	**Sc**	**45**		ug/L			2126832	1851905	2	Standard
⎢	**Cr**	**52**	**0.025**	ug/L	0.033	131	33180	29616	2	Standard
⎢	**Cr**	**53**	**0.053**	ug/L	0.002	3	160	312	0	Standard
⎣	**Mn**	**55**	**0.005**	ug/L	0.001	26	722	838	4	Standard
⎡>	**Ge-1**	**72**		ug/L			40529	37294	1	KED
⎢	**Ni**	**60**	**0.001**	ug/L	0.004	332	19	18	15	KED
⎢	**Ni**	**62**	**-0.027**	ug/L	0.009	32	5	1	86	KED
⎢	**Cu**	**63**	**0.017**	ug/L	0.001	5	47	81	2	KED
⎢	**Cu**	**65**	**0.020**	ug/L	0.006	31	23	43	16	KED
⎢	**Zn**	**66**	**0.199**	ug/L	0.050	25	34	81	15	KED
⎢	**Zn**	**67**	**0.191**	ug/L	0.051	26	2	10	21	KED
⎣	**As**	**75**	**0.010**	ug/L	0.012	124	3	5	35	KED
	Y	**89**		ug/L			867590	754509	1	Standard
	Kr	**83**		ug/L			66	63	14	Standard
⎡>	**In-1**	**115**		ug/L			9278	8148	1	KED
⎢	**Cd**	**111**	**0.023**	ug/L	0.013	56	0	3	41	KED
⎣	**Cd**	**114**	**0.014**	ug/L	0.009	61	0	5	56	KED
⎡>	**Tb**	**159**		ug/L			2192253	2113213	2	Standard
⎣	**Pb**	**208**	**0.011**	ug/L	0.001	6	769	1939	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 14:35:46
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	50245	1	Standard
	Cl	**37**		ug/L			11311799	10610052	2	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1817043	0	Standard
|	**Cr**	**52**	**0.039**	ug/L	0.024	62	33180	29479	2	Standard
|	**Cr**	**53**	**0.033**	ug/L	0.003	8	160	242	4	Standard
⌊	**Mn**	**55**	**0.008**	ug/L	0.002	26	722	926	9	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	37776	1	KED
|	**Ni**	**60**	**-0.009**	ug/L	0.004	50	19	10	39	KED
|	**Ni**	**62**	**-0.012**	ug/L	0.023	187	5	3	91	KED
|	**Cu**	**63**	**0.013**	ug/L	0.003	21	47	73	7	KED
|	**Cu**	**65**	**0.006**	ug/L	0.004	57	23	28	13	KED
|	**Zn**	**66**	**0.202**	ug/L	0.020	10	34	83	4	KED
|	**Zn**	**67**	**0.189**	ug/L	0.074	38	2	10	28	KED
⌊	**As**	**75**	**-0.004**	ug/L	0.012	317	3	3	56	KED
	Y	**89**		ug/L			867590	741379	2	Standard
	Kr	**83**		ug/L			66	68	20	Standard
⌈>	**In-1**	**115**		ug/L			9278	8225	0	KED
|	**Cd**	**111**	**0.004**	ug/L	0.012	344	0	1	114	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.003	148	0	1	86	KED
⌈>	**Tb**	**159**		ug/L			2192253	2097183	0	Standard
⌊	**Pb**	**208**	**0.013**	ug/L	0.004	29	769	2074	18	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 14:41:35
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	48136	1	Standard
	Cl	**37**		ug/L			11311799	11097812	2	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1856749	0	Standard
|	**Cr**	**52**	**50.582**	ug/L	1.235	2	33180	1521348	3	Standard
|	**Cr**	**53**	**50.320**	ug/L	0.456	0	160	166152	1	Standard
⌊	**Mn**	**55**	**50.060**	ug/L	0.144	0	722	1924357	0	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	35728	2	KED
|	**Ni**	**60**	**51.372**	ug/L	0.586	1	19	41614	2	KED
|	**Ni**	**62**	**51.294**	ug/L	2.121	4	5	6293	2	KED
|	**Cu**	**63**	**50.761**	ug/L	2.013	3	47	107537	1	KED
|	**Cu**	**65**	**51.649**	ug/L	1.239	2	23	52689	1	KED
|	**Zn**	**66**	**53.878**	ug/L	1.366	2	34	12778	0	KED
|	**Zn**	**67**	**52.933**	ug/L	2.471	4	2	2072	2	KED
⌊	**As**	**75**	**51.108**	ug/L	0.241	0	3	7063	2	KED
	Y	**89**		ug/L			867590	766139	1	Standard
	Kr	**83**		ug/L			66	71	12	Standard
⌈>	**In-1**	**115**		ug/L			9278	7912	3	KED
|	**Cd**	**111**	**53.001**	ug/L	1.928	3	0	5878	1	KED
⌊	**Cd**	**114**	**52.113**	ug/L	0.854	1	0	16052	1	KED
⌈>	**Tb**	**159**		ug/L			2192253	2130637	1	Standard
⌊	**Pb**	**208**	**52.406**	ug/L	0.619	1	769	5659640	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 14:46:34
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	48956	1	Standard
	Cl	**37**		ug/L			11311799	10925837	1	Standard
⎡>	**Sc**	**45**		ug/L			2126832	1844650	2	Standard
⎢	**Cr**	**52**	**-0.014**	ug/L	0.025	176	33180	28344	1	Standard
⎢	**Cr**	**53**	**0.017**	ug/L	0.004	22	160	194	6	Standard
⎣	**Mn**	**55**	**0.000**	ug/L	0.001	119	722	643	4	Standard
⎡>	**Ge-1**	**72**		ug/L			40529	36610	0	KED
⎢	**Ni**	**60**	**-0.005**	ug/L	0.004	66	19	12	22	KED
⎢	**Ni**	**62**	**-0.016**	ug/L	0.023	144	5	2	114	KED
⎢	**Cu**	**63**	**-0.009**	ug/L	0.007	72	47	22	62	KED
⎢	**Cu**	**65**	**-0.006**	ug/L	0.004	65	23	14	30	KED
⎢	**Zn**	**66**	**-0.007**	ug/L	0.012	165	34	29	9	KED
⎢	**Zn**	**67**	**0.022**	ug/L	0.100	442	2	3	124	KED
⎣	**As**	**75**	**-0.003**	ug/L	0.008	279	3	3	34	KED
	Y	**89**		ug/L			867590	752347	0	Standard
	Kr	**83**		ug/L			66	55	14	Standard
⎡>	**In-1**	**115**		ug/L			9278	8064	1	KED
⎢	**Cd**	**111**	**0.004**	ug/L	0.005	121	0	1	43	KED
⎣	**Cd**	**114**	**0.003**	ug/L	0.007	280	0	1	176	KED
⎡>	**Tb**	**159**		ug/L			2192253	2083608	0	Standard
⎣	**Pb**	**208**	**0.002**	ug/L	0.001	34	769	923	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0435-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 14:56:25
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			50669	61792	2	Standard
	Cl	37		ug/L			11311799	10465475	1	Standard
⌈>	Sc	45		ug/L			2126832	1775722	1	Standard
|	Cr	52	0.024	ug/L	0.020	82	33180	28388	1	Standard
|	Cr	53	0.033	ug/L	0.007	22	160	237	8	Standard
⌊	Mn	55	0.391	ug/L	0.005	1	722	14955	1	Standard
⌈>	Ge-1	72		ug/L			40529	37131	1	KED
|	Ni	60	0.012	ug/L	0.004	36	19	27	14	KED
|	Ni	62	0.013	ug/L	0.023	171	5	6	45	KED
|	Cu	63	0.052	ug/L	0.013	24	47	158	18	KED
|	Cu	65	0.047	ug/L	0.010	21	23	71	14	KED
|	Zn	66	0.332	ug/L	0.043	12	34	113	7	KED
|	Zn	67	0.350	ug/L	0.170	48	2	16	40	KED
⌊	As	75	-0.001	ug/L	0.012	1098	3	3	47	KED
	Y	89		ug/L			867590	719554	3	Standard
	Kr	83		ug/L			66	62	12	Standard
⌈>	In-1	115		ug/L			9278	8048	1	KED
|	Cd	111	0.007	ug/L	0.005	70	0	1	34	KED
⌊	Cd	114	0.000	ug/L	0.003	2920	0	0	173	KED
⌈>	Tb	159		ug/L			2192253	2003737	2	Standard
⌊	Pb	208	0.000	ug/L	0.001	3839	769	704	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0263-01
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 19, 2018 15:00:19
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			50669	416206	1	Standard
	Cl	37		ug/L			11311799	10601855	1	Standard
⌈>	Sc	45		ug/L			2126832	1755792	2	Standard
|	Cr	52	144.109	ug/L	7.749	5	33180	4043760	2	Standard
|	Cr	53	145.731	ug/L	5.873	4	160	454415	1	Standard
⌊	Mn	55	28.007	ug/L	0.655	2	722	1017939	0	Standard
⌈>	Ge-1	72		ug/L			40529	34216	0	KED
|	Ni	60	3.680	ug/L	0.050	1	19	2869	0	KED
|	Ni	62	3.656	ug/L	0.213	5	5	433	4	KED
|	Cu	63	4.103	ug/L	0.108	2	47	8367	2	KED
|	Cu	65	4.091	ug/L	0.087	2	23	4016	1	KED
|	Zn	66	157.330	ug/L	3.940	2	34	35687	1	KED
|	Zn	67	148.966	ug/L	0.600	0	2	5586	1	KED
⌊	As	75	0.102	ug/L	0.018	17	3	16	13	KED
	Y	89		ug/L			867590	760382	1	Standard
	Kr	83		ug/L			66	70	11	Standard
⌈>	In-1	115		ug/L			9278	7340	1	KED
|	Cd	111	0.943	ug/L	0.144	15	0	97	14	KED
⌊	Cd	114	0.886	ug/L	0.057	6	0	253	5	KED
⌈>	Tb	159		ug/L			2192253	1972155	1	Standard
⌊	Pb	208	0.211	ug/L	0.003	1	769	21733	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0261-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 15:04:13
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			50669	118052	1	Standard
	Cl	37		ug/L			11311799	10448171	3	Standard
>	Sc	45		ug/L			2126832	1573359	2	Standard
	Cr	52	37.767	ug/L	1.077	2	33180	968343	1	Standard
	Cr	53	39.090	ug/L	0.627	1	160	109384	2	Standard
	Mn	55	13.599	ug/L	0.607	4	722	443077	2	Standard
>	Ge-1	72		ug/L			40529	27328	0	KED
	Ni	60	1.993	ug/L	0.039	1	19	1247	1	KED
	Ni	62	2.170	ug/L	0.118	5	5	206	4	KED
	Cu	63	7.469	ug/L	0.140	1	47	12137	1	KED
	Cu	65	7.448	ug/L	0.104	1	23	5827	1	KED
	Zn	66	8.170	ug/L	0.236	2	34	1502	3	KED
	Zn	67	7.751	ug/L	1.200	15	2	233	14	KED
	As	75	0.078	ug/L	0.016	20	3	10	15	KED
	Y	89		ug/L			867590	685149	2	Standard
	Kr	83		ug/L			66	85	15	Standard
>	In-1	115		ug/L			9278	6575	1	KED
	Cd	111	0.013	ug/L	0.018	133	0	1	86	KED
	Cd	114	0.016	ug/L	0.012	75	0	4	68	KED
>	Tb	159		ug/L			2192253	1850441	0	Standard
	Pb	208	0.063	ug/L	0.002	3	769	6517	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0261-02
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 15:08:07
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			50669	134397	1	Standard
	Cl	37		ug/L			11311799	10318690	2	Standard
>	Sc	45		ug/L			2126832	1655428	1	Standard
	Cr	52	57.297	ug/L	0.388	0	33180	1532888	1	Standard
	Cr	53	58.579	ug/L	0.710	1	160	172400	0	Standard
	Mn	55	15.488	ug/L	0.171	1	722	531248	2	Standard
>	Ge-1	72		ug/L			40529	28663	1	KED
	Ni	60	3.766	ug/L	0.187	4	19	2459	3	KED
	Ni	62	3.846	ug/L	0.253	6	5	382	7	KED
	Cu	63	9.591	ug/L	0.185	1	47	16336	1	KED
	Cu	65	9.594	ug/L	0.109	1	23	7867	0	KED
	Zn	66	16.522	ug/L	0.481	2	34	3161	1	KED
	Zn	67	15.255	ug/L	1.060	6	2	480	5	KED
	As	75	0.175	ug/L	0.020	11	3	22	10	KED
	Y	89		ug/L			867590	687645	1	Standard
	Kr	83		ug/L			66	69	10	Standard
>	In-1	115		ug/L			9278	6446	2	KED
	Cd	111	0.031	ug/L	0.007	21	0	3	15	KED
	Cd	114	0.021	ug/L	0.012	58	0	5	54	KED
>	Tb	159		ug/L			2192253	1924830	2	Standard
	Pb	208	0.128	ug/L	0.002	1	769	13117	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0263-01RE1
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 19, 2018 15:16:49

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	393961	1	Standard
	Cl	**37**		ug/L			11311799	10720904	0	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1716847	0	Standard
|	**Cr**	**52**	**145.396**	ug/L	2.967	2	33180	3992568	1	Standard
|	**Cr**	**53**	**146.019**	ug/L	2.416	1	160	445507	1	Standard
⌊	**Mn**	**55**	**28.823**	ug/L	0.340	1	722	1024787	1	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	34831	1	KED
|	**Ni**	**60**	**3.464**	ug/L	0.093	2	19	2750	1	KED
|	**Ni**	**62**	**3.503**	ug/L	0.455	12	5	422	11	KED
|	**Cu**	**63**	**3.860**	ug/L	0.097	2	47	8014	2	KED
|	**Cu**	**65**	**3.857**	ug/L	0.096	2	23	3855	3	KED
|	**Zn**	**66**	**154.543**	ug/L	4.317	2	34	35683	1	KED
|	**Zn**	**67**	**142.019**	ug/L	2.914	2	2	5420	0	KED
⌊	**As**	**75**	**0.150**	ug/L	0.032	21	3	23	19	KED
	Y	**89**		ug/L			867590	675916	0	Standard
	Kr	**83**		ug/L			66	66	25	Standard
⌈>	**In-1**	**115**		ug/L			9278	7421	2	KED
|	**Cd**	**111**	**0.803**	ug/L	0.140	17	0	84	15	KED
⌊	**Cd**	**114**	**0.884**	ug/L	0.087	9	0	255	7	KED
⌈>	**Tb**	**159**		ug/L			2192253	2015739	2	Standard
⌊	**Pb**	**208**	**0.202**	ug/L	0.003	1	769	21295	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0435-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 15:20:44
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			50669	67797	0	Standard
	Cl	37		ug/L			11311799	10230858	1	Standard
>	Sc	45		ug/L			2126832	1782573	2	Standard
	Cr	52	0.211	ug/L	0.040	19	33180	33756	1	Standard
	Cr	53	0.189	ug/L	0.012	6	160	731	2	Standard
	Mn	55	3.459	ug/L	0.065	1	722	128191	0	Standard
>	Ge-1	72		ug/L			40529	36639	0	KED
	Ni	60	0.190	ug/L	0.019	10	19	174	8	KED
	Ni	62	0.160	ug/L	0.031	19	5	24	15	KED
	Cu	63	1.481	ug/L	0.023	1	47	3261	1	KED
	Cu	65	1.450	ug/L	0.066	4	23	1538	4	KED
	Zn	66	4.402	ug/L	0.282	6	34	1100	6	KED
	Zn	67	4.657	ug/L	0.123	2	2	189	2	KED
	As	75	0.683	ug/L	0.038	5	3	100	5	KED
	Y	89		ug/L			867590	696153	1	Standard
	Kr	83		ug/L			66	62	13	Standard
>	In-1	115		ug/L			9278	7678	2	KED
	Cd	111	0.051	ug/L	0.026	49	0	6	45	KED
	Cd	114	0.042	ug/L	0.007	16	0	13	17	KED
>	Tb	159		ug/L			2192253	2068801	2	Standard
	Pb	208	0.050	ug/L	0.002	3	769	5975	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-63
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 15:24:38
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			50669	68205	2	Standard
	Cl	37		ug/L			11311799	10283783	2	Standard
⌈>	Sc	45		ug/L			2126832	1802470	2	Standard
|	Cr	52	0.205	ug/L	0.019	9	33180	33987	1	Standard
|	Cr	53	0.176	ug/L	0.015	8	160	699	9	Standard
⌊	Mn	55	3.795	ug/L	0.151	3	722	142080	1	Standard
⌈>	Ge-1	72		ug/L			40529	36387	0	KED
|	Ni	60	0.167	ug/L	0.021	12	19	154	11	KED
|	Ni	62	0.131	ug/L	0.040	30	5	20	24	KED
|	Cu	63	1.546	ug/L	0.010	0	47	3378	0	KED
|	Cu	65	1.549	ug/L	0.061	3	23	1630	4	KED
|	Zn	66	4.188	ug/L	0.364	8	34	1041	8	KED
|	Zn	67	4.690	ug/L	0.203	4	2	189	3	KED
⌊	As	75	0.673	ug/L	0.054	8	3	98	8	KED
	Y	89		ug/L			867590	699656	2	Standard
	Kr	83		ug/L			66	55	29	Standard
⌈>	In-1	115		ug/L			9278	7806	1	KED
|	Cd	111	0.071	ug/L	0.031	43	0	8	38	KED
⌊	Cd	114	0.041	ug/L	0.020	48	0	12	45	KED
⌈>	Tb	159		ug/L			2192253	2076307	0	Standard
⌊	Pb	208	0.048	ug/L	0.002	3	769	5820	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0435-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 15:28:32
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			50669	68301	2	Standard
	Cl	37		ug/L			11311799	10427620	1	Standard
⌈>	Sc	45		ug/L			2126832	1777827	1	Standard
|	Cr	52	25.751	ug/L	0.570	2	33180	755056	1	Standard
|	Cr	53	25.569	ug/L	0.632	2	160	80895	2	Standard
⌊	Mn	55	28.929	ug/L	1.351	4	722	1064714	3	Standard
⌈>	Ge-1	72		ug/L			40529	36595	2	KED
|	Ni	60	25.331	ug/L	0.285	1	19	21026	2	KED
|	Ni	62	24.957	ug/L	1.265	5	5	3141	6	KED
|	Cu	63	26.720	ug/L	0.517	1	47	58046	3	KED
|	Cu	65	26.935	ug/L	0.409	1	23	28159	1	KED
|	Zn	66	83.787	ug/L	2.721	3	34	20336	1	KED
|	Zn	67	77.471	ug/L	2.950	3	2	3108	4	KED
⌊	As	75	25.325	ug/L	0.389	1	3	3587	3	KED
	Y	89		ug/L			867590	676618	2	Standard
	Kr	83		ug/L			66	51	3	Standard
⌈>	In-1	115		ug/L			9278	7938	0	KED
|	Cd	111	25.734	ug/L	0.519	2	0	2866	1	KED
⌊	Cd	114	24.359	ug/L	0.571	2	0	7530	2	KED
⌈>	Tb	159		ug/L			2192253	2066057	0	Standard
⌊	Pb	208	26.157	ug/L	0.046	0	769	2739799	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0435-MSD1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 15:32:26
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			50669	73405	0	Standard
	Cl	37		ug/L			11311799	10240147	1	Standard
>	Sc	45		ug/L			2126832	1791285	1	Standard
	Cr	52	25.733	ug/L	0.659	2	33180	760245	2	Standard
	Cr	53	26.481	ug/L	0.832	3	160	84395	2	Standard
	Mn	55	30.554	ug/L	0.656	2	722	1133111	0	Standard
>	Ge-1	72		ug/L			40529	36072	2	KED
	Ni	60	26.034	ug/L	0.072	0	19	21301	2	KED
	Ni	62	26.405	ug/L	0.860	3	5	3274	3	KED
	Cu	63	51.742	ug/L	1.137	2	47	110705	1	KED
	Cu	65	53.085	ug/L	0.920	1	23	54679	0	KED
	Zn	66	99.773	ug/L	2.457	2	34	23866	1	KED
	Zn	67	90.808	ug/L	2.603	2	2	3590	3	KED
	As	75	25.771	ug/L	0.283	1	3	3597	2	KED
	Y	89		ug/L			867590	662133	1	Standard
	Kr	83		ug/L			66	52	23	Standard
>	In-1	115		ug/L			9278	7564	6	KED
	Cd	111	27.183	ug/L	2.263	8	0	2875	2	KED
	Cd	114	26.675	ug/L	2.409	9	0	7826	2	KED
>	Tb	159		ug/L			2192253	1988693	0	Standard
	Pb	208	28.883	ug/L	0.380	1	769	2911849	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0435-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 15:36:20
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			50669	59351	1	Standard
	Cl	37		ug/L			11311799	10379306	1	Standard
⌈>	Sc	45		ug/L			2126832	1690669	2	Standard
|	Cr	52	25.312	ug/L	0.640	2	33180	706264	3	Standard
|	Cr	53	26.050	ug/L	0.279	1	160	78361	1	Standard
⌊	Mn	55	26.744	ug/L	0.217	0	722	936261	2	Standard
⌈>	Ge-1	72		ug/L			40529	36109	1	KED
|	Ni	60	25.232	ug/L	0.583	2	19	20665	2	KED
|	Ni	62	24.506	ug/L	0.397	1	5	3042	1	KED
|	Cu	63	25.156	ug/L	0.795	3	47	53907	2	KED
|	Cu	65	25.408	ug/L	0.552	2	23	26212	1	KED
|	Zn	66	83.823	ug/L	0.840	1	34	20082	0	KED
|	Zn	67	79.602	ug/L	4.327	5	2	3150	5	KED
⌊	As	75	25.269	ug/L	0.648	2	3	3531	2	KED
	Y	89		ug/L			867590	659565	3	Standard
	Kr	83		ug/L			66	66	13	Standard
⌈>	In-1	115		ug/L			9278	7879	0	KED
|	Cd	111	25.640	ug/L	0.446	1	0	2834	2	KED
⌊	Cd	114	25.320	ug/L	0.552	2	0	7770	2	KED
⌈>	Tb	159		ug/L			2192253	1954756	1	Standard
⌊	Pb	208	26.560	ug/L	0.269	1	769	2631991	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 15:41:19
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	44137	0	Standard
	Cl	**37**		ug/L			11311799	10269532	2	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1643783	2	Standard
|	**Cr**	**52**	**51.786**	ug/L	1.260	2	33180	1377572	0	Standard
|	**Cr**	**53**	**51.884**	ug/L	0.990	1	160	151598	0	Standard
⌊	**Mn**	**55**	**51.150**	ug/L	1.420	2	722	1739854	0	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	34925	2	KED
|	**Ni**	**60**	**50.113**	ug/L	0.778	1	19	39675	0	KED
|	**Ni**	**62**	**50.071**	ug/L	0.337	0	5	6008	2	KED
|	**Cu**	**63**	**50.079**	ug/L	0.581	1	47	103763	1	KED
|	**Cu**	**65**	**49.943**	ug/L	0.380	0	23	49819	1	KED
|	**Zn**	**66**	**50.679**	ug/L	1.227	2	34	11752	0	KED
|	**Zn**	**67**	**52.092**	ug/L	1.513	2	2	1995	2	KED
⌊	**As**	**75**	**51.033**	ug/L	0.646	1	3	6894	1	KED
	Y	**89**		ug/L			867590	640148	1	Standard
	Kr	**83**		ug/L			66	53	9	Standard
⌈>	**In-1**	**115**		ug/L			9278	7366	3	KED
|	**Cd**	**111**	**51.884**	ug/L	1.649	3	0	5358	0	KED
⌊	**Cd**	**114**	**50.119**	ug/L	1.097	2	0	14370	0	KED
⌈>	**Tb**	**159**		ug/L			2192253	1979390	1	Standard
⌊	**Pb**	**208**	**51.589**	ug/L	0.411	0	769	5176240	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 15:46:18
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	39602	0	Standard
	Cl	**37**		ug/L			11311799	10151366	2	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1644159	0	Standard
|	**Cr**	**52**	**0.010**	ug/L	0.025	252	33180	25905	2	Standard
|	**Cr**	**53**	**0.013**	ug/L	0.004	31	160	161	7	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.001	71	722	606	5	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	35875	0	KED
|	**Ni**	**60**	**-0.011**	ug/L	0.009	83	19	8	87	KED
|	**Ni**	**62**	**-0.011**	ug/L	0.018	166	5	3	69	KED
|	**Cu**	**63**	**-0.014**	ug/L	0.002	17	47	13	37	KED
|	**Cu**	**65**	**-0.014**	ug/L	0.002	15	23	6	34	KED
|	**Zn**	**66**	**-0.034**	ug/L	0.064	188	34	22	66	KED
|	**Zn**	**67**	**0.007**	ug/L	0.027	376	2	2	43	KED
⌊	**As**	**75**	**-0.009**	ug/L	0.007	78	3	2	44	KED
	Y	**89**		ug/L			867590	639155	1	Standard
	Kr	**83**		ug/L			66	46	12	Standard
⌈>	**In-1**	**115**		ug/L			9278	7718	0	KED
|	**Cd**	**111**	**0.002**	ug/L	0.009	583	0	0	100	KED
⌊	**Cd**	**114**	**-0.002**	ug/L	0.000	5	0	0	34	KED
⌈>	**Tb**	**159**		ug/L			2192253	1930174	1	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.000	33	769	576	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0367-BLK2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 15:55:44
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	46303	1	Standard
	Cl	**37**		ug/L			11311799	10215672	2	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1640417	1	Standard
|	**Cr**	**52**	**0.095**	ug/L	0.023	24	33180	28066	3	Standard
|	**Cr**	**53**	**0.037**	ug/L	0.004	11	160	232	6	Standard
⌊	**Mn**	**55**	**0.016**	ug/L	0.001	6	722	1106	3	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	36576	1	KED
|	**Ni**	**60**	**0.010**	ug/L	0.005	49	19	25	15	KED
|	**Ni**	**62**	**-0.006**	ug/L	0.027	449	5	3	86	KED
|	**Cu**	**63**	**0.028**	ug/L	0.006	22	47	102	12	KED
|	**Cu**	**65**	**0.037**	ug/L	0.003	8	23	60	4	KED
|	**Zn**	**66**	**1.976**	ug/L	0.130	6	34	510	6	KED
|	**Zn**	**67**	**1.483**	ug/L	0.423	28	2	61	26	KED
⌊	**As**	**75**	**0.003**	ug/L	0.007	255	3	3	24	KED
	Y	**89**		ug/L			867590	619073	3	Standard
	Kr	**83**		ug/L			66	52	16	Standard
⌈>	**In-1**	**115**		ug/L			9278	7595	1	KED
|	**Cd**	**111**	**0.008**	ug/L	0.010	136	0	1	69	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.004	602	0	0	180	KED
⌈>	**Tb**	**159**		ug/L			2192253	1919506	0	Standard
⌊	**Pb**	**208**	**0.024**	ug/L	0.001	3	769	3000	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0182-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 16:03:07
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	110687	2	Standard
	Cl	**37**		ug/L			11311799	9911488	1	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1564525	1	Standard
|	**Cr**	**52**	**0.267**	ug/L	0.009	3	33180	31046	1	Standard
|	**Cr**	**53**	**0.415**	ug/L	0.019	4	160	1272	3	Standard
⌊	**Mn**	**55**	**0.833**	ug/L	0.018	2	722	27510	1	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	34806	0	KED
|	**Ni**	**60**	**0.102**	ug/L	0.013	13	19	97	11	KED
|	**Ni**	**62**	**0.112**	ug/L	0.008	7	5	17	6	KED
|	**Cu**	**63**	**17.041**	ug/L	0.210	1	47	35217	0	KED
|	**Cu**	**65**	**17.354**	ug/L	0.434	2	23	17267	2	KED
|	**Zn**	**66**	**4.572**	ug/L	0.204	4	34	1084	4	KED
|	**Zn**	**67**	**4.103**	ug/L	0.640	15	2	158	15	KED
⌊	**As**	**75**	**0.454**	ug/L	0.049	10	3	64	9	KED
	Y	**89**		ug/L			867590	590895	2	Standard
	Kr	**83**		ug/L			66	43	13	Standard
⌈>	**In-1**	**115**		ug/L			9278	7251	2	KED
|	**Cd**	**111**	**-0.004**	ug/L	0.006	135	0	0	173	KED
⌊	**Cd**	**114**	**0.009**	ug/L	0.007	80	0	3	71	KED
⌈>	**Tb**	**159**		ug/L			2192253	1866428	1	Standard
⌊	**Pb**	**208**	**0.205**	ug/L	0.001	0	769	20056	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0221-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 16:08:43
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	74575	1	Standard
	Cl	**37**		ug/L			11311799	9855302	2	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1593241	0	Standard
|	**Cr**	**52**	**0.155**	ug/L	0.021	13	33180	28786	2	Standard
|	**Cr**	**53**	**0.365**	ug/L	0.005	1	160	1153	0	Standard
⌊	**Mn**	**55**	**1.001**	ug/L	0.007	0	722	33564	0	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	35195	1	KED
|	**Ni**	**60**	**0.051**	ug/L	0.016	30	19	57	20	KED
|	**Ni**	**62**	**0.074**	ug/L	0.017	22	5	13	14	KED
|	**Cu**	**63**	**118.334**	ug/L	2.208	1	47	247032	1	KED
|	**Cu**	**65**	**118.144**	ug/L	1.978	1	23	118741	1	KED
|	**Zn**	**66**	**15.632**	ug/L	0.872	5	34	3676	6	KED
|	**Zn**	**67**	**14.372**	ug/L	0.734	5	2	556	4	KED
⌊	**As**	**75**	**0.412**	ug/L	0.005	1	3	59	0	KED
	Y	**89**		ug/L			867590	588288	1	Standard
	Kr	**83**		ug/L			66	45	30	Standard
⌈>	**In-1**	**115**		ug/L			9278	7310	1	KED
|	**Cd**	**111**	**0.021**	ug/L	0.009	45	0	2	33	KED
⌊	**Cd**	**114**	**0.011**	ug/L	0.007	63	0	3	55	KED
⌈>	**Tb**	**159**		ug/L			2192253	1882504	0	Standard
⌊	**Pb**	**208**	**0.476**	ug/L	0.009	1	769	46031	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0221-02
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 16:12:37
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	80103	1	Standard
	Cl	**37**		ug/L			11311799	9998189	0	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1582817	1	Standard
|	**Cr**	**52**	**0.166**	ug/L	0.071	42	33180	28848	4	Standard
|	**Cr**	**53**	**0.392**	ug/L	0.013	3	160	1221	1	Standard
⌊	**Mn**	**55**	**1.942**	ug/L	0.110	5	722	64134	4	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	34876	1	KED
|	**Ni**	**60**	**0.104**	ug/L	0.009	8	19	98	8	KED
|	**Ni**	**62**	**0.102**	ug/L	0.063	62	5	16	43	KED
|	**Cu**	**63**	**169.805**	ug/L	2.073	1	47	351254	1	KED
|	**Cu**	**65**	**171.324**	ug/L	1.458	0	23	170612	1	KED
|	**Zn**	**66**	**27.778**	ug/L	0.290	1	34	6447	1	KED
|	**Zn**	**67**	**26.003**	ug/L	0.377	1	2	995	0	KED
⌊	**As**	**75**	**0.352**	ug/L	0.010	2	3	50	3	KED
	Y	**89**		ug/L			867590	587976	1	Standard
	Kr	**83**		ug/L			66	53	7	Standard
⌈>	**In-1**	**115**		ug/L			9278	7275	1	KED
|	**Cd**	**111**	**0.002**	ug/L	0.009	453	0	0	100	KED
⌊	**Cd**	**114**	**-0.006**	ug/L	0.004	59	0	-1	79	KED
⌈>	**Tb**	**159**		ug/L			2192253	1873010	1	Standard
⌊	**Pb**	**208**	**0.753**	ug/L	0.006	0	769	72131	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0081-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 16:21:51
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	95182	0	Standard
	Cl	**37**		ug/L			11311799	10263478	1	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1624004	1	Standard
|	**Cr**	**52**	**0.429**	ug/L	0.029	6	33180	36389	1	Standard
|	**Cr**	**53**	**0.868**	ug/L	0.025	2	160	2627	2	Standard
⌊	**Mn**	**55**	**0.692**	ug/L	0.003	0	722	23805	0	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	33792	2	KED
|	**Ni**	**60**	**1.528**	ug/L	0.053	3	19	1186	4	KED
|	**Ni**	**62**	**1.494**	ug/L	0.156	10	5	177	12	KED
|	**Cu**	**63**	**478.277**	ug/L	7.243	1	47	958533	1	KED
|	**Cu**	**65**	**489.961**	ug/L	6.396	1	23	472826	3	KED
|	**Zn**	**66**	**17.846**	ug/L	0.772	4	34	4024	4	KED
|	**Zn**	**67**	**16.984**	ug/L	0.594	3	2	631	5	KED
⌊	**As**	**75**	**1.641**	ug/L	0.061	3	3	217	2	KED
	Y	**89**		ug/L			867590	583188	0	Standard
	Kr	**83**		ug/L			66	52	11	Standard
⌈>	**In-1**	**115**		ug/L			9278	6982	2	KED
|	**Cd**	**111**	**-0.001**	ug/L	0.006	731	0	0	86	KED
⌊	**Cd**	**114**	**0.009**	ug/L	0.011	116	0	2	100	KED
⌈>	**Tb**	**159**		ug/L			2192253	1863768	0	Standard
⌊	**Pb**	**208**	**0.708**	ug/L	0.012	1	769	67527	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0089-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 16:25:45
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	83002	1	Standard
	Cl	**37**		ug/L			11311799	9566083	2	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1626235	2	Standard
|	**Cr**	**52**	**0.123**	ug/L	0.032	25	33180	28566	4	Standard
|	**Cr**	**53**	**0.282**	ug/L	0.013	4	160	938	4	Standard
⌊	**Mn**	**55**	**4.226**	ug/L	0.092	2	722	142786	3	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	35090	4	KED
|	**Ni**	**60**	**13.003**	ug/L	0.286	2	19	10351	2	KED
|	**Ni**	**62**	**13.007**	ug/L	0.218	1	5	1570	2	KED
|	**Cu**	**63**	**26.676**	ug/L	1.476	5	47	55474	1	KED
|	**Cu**	**65**	**26.522**	ug/L	1.551	5	23	26552	2	KED
|	**Zn**	**66**	**34.926**	ug/L	1.795	5	34	8138	1	KED
|	**Zn**	**67**	**31.527**	ug/L	1.448	4	2	1212	1	KED
⌊	**As**	**75**	**0.197**	ug/L	0.038	19	3	30	20	KED
	Y	**89**		ug/L			867590	585892	4	Standard
	Kr	**83**		ug/L			66	53	14	Standard
⌈>	**In-1**	**115**		ug/L			9278	7064	1	KED
|	**Cd**	**111**	**0.009**	ug/L	0.006	64	0	1	34	KED
⌊	**Cd**	**114**	**0.000**	ug/L	0.004	1062	0	0	217	KED
⌈>	**Tb**	**159**		ug/L			2192253	1889809	3	Standard
⌊	**Pb**	**208**	**0.164**	ug/L	0.006	3	769	16385	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0163-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 16:29:39
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	127623	2	Standard
	Cl	**37**		ug/L			11311799	9669855	0	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1576409	0	Standard
|	**Cr**	**52**	**0.401**	ug/L	0.023	5	33180	34645	1	Standard
|	**Cr**	**53**	**0.594**	ug/L	0.004	0	160	1783	0	Standard
⌊	**Mn**	**55**	**0.598**	ug/L	0.017	2	722	20046	3	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	34947	1	KED
|	**Ni**	**60**	**0.099**	ug/L	0.010	10	19	94	9	KED
|	**Ni**	**62**	**0.074**	ug/L	0.040	54	5	13	37	KED
|	**Cu**	**63**	**22.793**	ug/L	0.570	2	47	47281	2	KED
|	**Cu**	**65**	**22.866**	ug/L	0.748	3	23	22832	2	KED
|	**Zn**	**66**	**21.468**	ug/L	0.716	3	34	5000	3	KED
|	**Zn**	**67**	**20.007**	ug/L	0.753	3	2	768	4	KED
⌊	**As**	**75**	**0.567**	ug/L	0.061	10	3	80	8	KED
	Y	**89**		ug/L			867590	585613	1	Standard
	Kr	**83**		ug/L			66	41	30	Standard
⌈>	**In-1**	**115**		ug/L			9278	7126	2	KED
|	**Cd**	**111**	**0.009**	ug/L	0.006	67	0	1	34	KED
⌊	**Cd**	**114**	**0.014**	ug/L	0.017	115	0	4	102	KED
⌈>	**Tb**	**159**		ug/L			2192253	1872678	1	Standard
⌊	**Pb**	**208**	**0.394**	ug/L	0.005	1	769	38077	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0167-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 16:33:33
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	78828	2	Standard
	Cl	**37**		ug/L			11311799	10023925	0	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1544744	1	Standard
|	**Cr**	**52**	**0.217**	ug/L	0.035	16	33180	29418	3	Standard
|	**Cr**	**53**	**0.494**	ug/L	0.008	1	160	1473	2	Standard
⌊	**Mn**	**55**	**1.613**	ug/L	0.045	2	722	52075	1	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	34847	1	KED
|	**Ni**	**60**	**0.071**	ug/L	0.028	40	19	72	31	KED
|	**Ni**	**62**	**0.070**	ug/L	0.018	25	5	12	17	KED
|	**Cu**	**63**	**4.457**	ug/L	0.107	2	47	9253	3	KED
|	**Cu**	**65**	**4.528**	ug/L	0.166	3	23	4524	2	KED
|	**Zn**	**66**	**0.749**	ug/L	0.139	18	34	203	16	KED
|	**Zn**	**67**	**0.856**	ug/L	0.143	16	2	34	16	KED
⌊	**As**	**75**	**0.397**	ug/L	0.050	12	3	56	12	KED
	Y	**89**		ug/L			867590	597025	0	Standard
	Kr	**83**		ug/L			66	51	22	Standard
⌈>	**In-1**	**115**		ug/L			9278	7089	0	KED
|	**Cd**	**111**	**0.015**	ug/L	0.005	36	0	2	24	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.004	187	0	0	106	KED
⌈>	**Tb**	**159**		ug/L			2192253	1891062	0	Standard
⌊	**Pb**	**208**	**0.097**	ug/L	0.001	1	769	10005	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0179-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 16:37:28
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	59590	3	Standard
	Cl	**37**		ug/L			11311799	9955163	3	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1562945	1	Standard
|	**Cr**	**52**	**0.182**	ug/L	0.073	40	33180	28914	8	Standard
|	**Cr**	**53**	**0.439**	ug/L	0.059	13	160	1338	13	Standard
⌊	**Mn**	**55**	**1.024**	ug/L	0.028	2	722	33678	4	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	35461	1	KED
|	**Ni**	**60**	**0.024**	ug/L	0.016	67	19	35	35	KED
|	**Ni**	**62**	**0.010**	ug/L	0.015	148	5	5	33	KED
|	**Cu**	**63**	**31.649**	ug/L	0.505	1	47	66603	1	KED
|	**Cu**	**65**	**31.643**	ug/L	0.594	1	23	32059	2	KED
|	**Zn**	**66**	**1.885**	ug/L	0.112	5	34	473	3	KED
|	**Zn**	**67**	**1.599**	ug/L	0.521	32	2	64	29	KED
⌊	**As**	**75**	**0.443**	ug/L	0.069	15	3	64	14	KED
	Y	**89**		ug/L			867590	581458	3	Standard
	Kr	**83**		ug/L			66	59	34	Standard
⌈>	**In-1**	**115**		ug/L			9278	7260	1	KED
|	**Cd**	**111**	**0.014**	ug/L	0.005	35	0	2	24	KED
⌊	**Cd**	**114**	**0.009**	ug/L	0.008	83	0	3	72	KED
⌈>	**Tb**	**159**		ug/L			2192253	1889339	1	Standard
⌊	**Pb**	**208**	**0.273**	ug/L	0.045	16	769	26769	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0367-BS2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 16:41:22
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	48463	1	Standard
	Cl	**37**		ug/L			11311799	10483182	4	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1761416	0	Standard
|	**Cr**	**52**	**25.660**	ug/L	0.221	0	33180	745587	0	Standard
|	**Cr**	**53**	**25.763**	ug/L	0.467	1	160	80749	0	Standard
⌊	**Mn**	**55**	**25.730**	ug/L	0.325	1	722	938602	1	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	37151	0	KED
|	**Ni**	**60**	**24.886**	ug/L	0.210	0	19	20971	0	KED
|	**Ni**	**62**	**24.482**	ug/L	1.136	4	5	3127	4	KED
|	**Cu**	**63**	**24.716**	ug/L	0.293	1	47	54505	1	KED
|	**Cu**	**65**	**25.021**	ug/L	0.474	1	23	26564	2	KED
|	**Zn**	**66**	**83.270**	ug/L	1.123	1	34	20528	1	KED
|	**Zn**	**67**	**79.575**	ug/L	1.295	1	2	3241	1	KED
⌊	**As**	**75**	**24.876**	ug/L	0.367	1	3	3577	1	KED
	Y	**89**		ug/L			867590	667812	0	Standard
	Kr	**83**		ug/L			66	56	7	Standard
⌈>	**In-1**	**115**		ug/L			9278	8016	2	KED
|	**Cd**	**111**	**25.661**	ug/L	0.533	2	0	2885	1	KED
⌊	**Cd**	**114**	**25.084**	ug/L	0.542	2	0	7831	3	KED
⌈>	**Tb**	**159**		ug/L			2192253	2020986	2	Standard
⌊	**Pb**	**208**	**26.317**	ug/L	0.721	2	769	2695076	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 16:46:21
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	44695	1	Standard
	Cl	**37**		ug/L			11311799	10745197	1	Standard
⎡>	**Sc**	**45**		ug/L			2126832	1738250	0	Standard
⎢	**Cr**	**52**	**51.815**	ug/L	0.554	1	33180	1458212	1	Standard
⎢	**Cr**	**53**	**52.510**	ug/L	1.203	2	160	162308	2	Standard
⎣	**Mn**	**55**	**51.351**	ug/L	0.721	1	722	1848021	1	Standard
⎡>	**Ge-1**	**72**		ug/L			40529	35658	1	KED
⎢	**Ni**	**60**	**50.778**	ug/L	0.248	0	19	41052	1	KED
⎢	**Ni**	**62**	**49.335**	ug/L	1.618	3	5	6045	4	KED
⎢	**Cu**	**63**	**49.872**	ug/L	0.868	1	47	105494	0	KED
⎢	**Cu**	**65**	**49.450**	ug/L	1.121	2	23	50354	0	KED
⎢	**Zn**	**66**	**51.297**	ug/L	1.524	2	34	12147	2	KED
⎢	**Zn**	**67**	**50.836**	ug/L	1.781	3	2	1987	2	KED
⎣	**As**	**75**	**51.380**	ug/L	0.992	1	3	7086	1	KED
	Y	**89**		ug/L			867590	667791	0	Standard
	Kr	**83**		ug/L			66	62	18	Standard
⎡>	**In-1**	**115**		ug/L			9278	7838	0	KED
⎢	**Cd**	**111**	**50.178**	ug/L	1.675	3	0	5518	3	KED
⎣	**Cd**	**114**	**49.584**	ug/L	1.499	3	0	15135	2	KED
⎡>	**Tb**	**159**		ug/L			2192253	2106585	0	Standard
⎣	**Pb**	**208**	**50.077**	ug/L	0.429	0	769	5347561	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 16:51:20
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	39264	0	Standard
	Cl	**37**		ug/L			11311799	10238341	2	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1661494	4	Standard
|	**Cr**	**52**	**0.023**	ug/L	0.045	195	33180	26495	2	Standard
|	**Cr**	**53**	**0.015**	ug/L	0.004	28	160	168	3	Standard
⌊	**Mn**	**55**	**-0.000**	ug/L	0.001	309	722	554	2	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	36422	1	KED
|	**Ni**	**60**	**-0.015**	ug/L	0.006	39	19	5	94	KED
|	**Ni**	**62**	**-0.036**	ug/L	0.000	0	5	0		KED
|	**Cu**	**63**	**-0.012**	ug/L	0.002	19	47	17	29	KED
|	**Cu**	**65**	**-0.008**	ug/L	0.005	62	23	13	37	KED
|	**Zn**	**66**	**-0.072**	ug/L	0.009	12	34	13	15	KED
|	**Zn**	**67**	**-0.009**	ug/L	0.048	513	2	1	100	KED
⌊	**As**	**75**	**0.001**	ug/L	0.005	857	3	3	19	KED
	Y	**89**		ug/L			867590	636514	2	Standard
	Kr	**83**		ug/L			66	58	9	Standard
⌈>	**In-1**	**115**		ug/L			9278	7741	0	KED
|	**Cd**	**111**	**0.007**	ug/L	0.013	182	0	1	91	KED
⌊	**Cd**	**114**	**0.007**	ug/L	0.010	140	0	2	115	KED
⌈>	**Tb**	**159**		ug/L			2192253	1963875	0	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.001	84	769	579	15	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0224-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 17:01:52
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	134240	1	Standard
	Cl	**37**		ug/L			11311799	9895989	1	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1570140	1	Standard
|	**Cr**	**52**	**0.385**	ug/L	0.006	1	33180	34103	1	Standard
|	**Cr**	**53**	**0.571**	ug/L	0.008	1	160	1710	0	Standard
⌊	**Mn**	**55**	**1.273**	ug/L	0.069	5	722	41880	4	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	36052	2	KED
|	**Ni**	**60**	**0.022**	ug/L	0.018	79	19	34	38	KED
|	**Ni**	**62**	**0.005**	ug/L	0.019	393	5	5	43	KED
|	**Cu**	**63**	**7.781**	ug/L	0.140	1	47	16676	1	KED
|	**Cu**	**65**	**7.727**	ug/L	0.215	2	23	7973	2	KED
|	**Zn**	**66**	**68.016**	ug/L	1.489	2	34	16271	1	KED
|	**Zn**	**67**	**63.560**	ug/L	0.895	1	2	2512	2	KED
⌊	**As**	**75**	**0.454**	ug/L	0.032	7	3	66	5	KED
	Y	**89**		ug/L			867590	586135	2	Standard
	Kr	**83**		ug/L			66	36	11	Standard
⌈>	**In-1**	**115**		ug/L			9278	7450	2	KED
|	**Cd**	**111**	**0.041**	ug/L	0.015	35	0	5	28	KED
⌊	**Cd**	**114**	**0.046**	ug/L	0.013	28	0	13	29	KED
⌈>	**Tb**	**159**		ug/L			2192253	1864431	1	Standard
⌊	**Pb**	**208**	**0.246**	ug/L	0.001	0	769	23899	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0253-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 17:05:46
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	121274	1	Standard
	Cl	**37**		ug/L			11311799	9824084	2	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1587936	0	Standard
|	**Cr**	**52**	**0.346**	ug/L	0.013	3	33180	33509	1	Standard
|	**Cr**	**53**	**0.512**	ug/L	0.004	0	160	1562	1	Standard
⌊	**Mn**	**55**	**0.818**	ug/L	0.024	2	722	27409	3	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	34747	0	KED
|	**Ni**	**60**	**0.890**	ug/L	0.040	4	19	717	5	KED
|	**Ni**	**62**	**0.777**	ug/L	0.123	15	5	97	15	KED
|	**Cu**	**63**	**41.293**	ug/L	0.338	0	47	85137	0	KED
|	**Cu**	**65**	**42.214**	ug/L	0.281	0	23	41900	0	KED
|	**Zn**	**66**	**31.099**	ug/L	0.441	1	34	7188	0	KED
|	**Zn**	**67**	**30.765**	ug/L	0.270	0	2	1173	1	KED
⌊	**As**	**75**	**0.448**	ug/L	0.012	2	3	63	2	KED
	Y	**89**		ug/L			867590	594800	0	Standard
	Kr	**83**		ug/L			66	45	13	Standard
⌈>	**In-1**	**115**		ug/L			9278	7265	1	KED
|	**Cd**	**111**	**0.005**	ug/L	0.011	209	0	1	86	KED
⌊	**Cd**	**114**	**0.008**	ug/L	0.010	124	0	2	105	KED
⌈>	**Tb**	**159**		ug/L			2192253	1874081	0	Standard
⌊	**Pb**	**208**	**0.569**	ug/L	0.017	2	769	54703	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0254-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 17:09:40
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	245388	3	Standard
	Cl	**37**		ug/L			11311799	10288096	0	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1624116	3	Standard
|	**Cr**	**52**	**0.436**	ug/L	0.051	11	33180	36551	1	Standard
|	**Cr**	**53**	**0.604**	ug/L	0.046	7	160	1862	5	Standard
⌊	**Mn**	**55**	**1.534**	ug/L	0.035	2	722	52087	1	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	32902	1	KED
|	**Ni**	**60**	**0.577**	ug/L	0.015	2	19	445	2	KED
|	**Ni**	**62**	**0.677**	ug/L	0.125	18	5	80	17	KED
|	**Cu**	**63**	**709.942**	ug/L	14.313	2	47	1385538	2	KED
|	**Cu**	**65**	**701.147**	ug/L	9.176	1	23	658652	0	KED
|	**Zn**	**66**	**180.346**	ug/L	3.057	1	34	39336	1	KED
|	**Zn**	**67**	**168.536**	ug/L	1.921	1	2	6076	0	KED
⌊	**As**	**75**	**1.602**	ug/L	0.023	1	3	206	0	KED
	Y	**89**		ug/L			867590	588301	0	Standard
	Kr	**83**		ug/L			66	57	39	Standard
⌈>	**In-1**	**115**		ug/L			9278	6959	1	KED
|	**Cd**	**111**	**0.035**	ug/L	0.024	69	0	4	58	KED
⌊	**Cd**	**114**	**0.029**	ug/L	0.024	84	0	8	80	KED
⌈>	**Tb**	**159**		ug/L			2192253	1886005	1	Standard
⌊	**Pb**	**208**	**10.360**	ug/L	0.103	0	769	990927	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0367-DUP2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 17:15:27
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	262962	2	Standard
	Cl	**37**		ug/L			11311799	9829709	1	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1622507	1	Standard
|	**Cr**	**52**	**1.083**	ug/L	0.099	9	33180	53209	3	Standard
|	**Cr**	**53**	**0.925**	ug/L	0.047	5	160	2787	3	Standard
⌊	**Mn**	**55**	**2.242**	ug/L	0.070	3	722	75810	1	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	34162	1	KED
|	**Ni**	**60**	**0.191**	ug/L	0.003	1	19	163		KED
|	**Ni**	**62**	**0.158**	ug/L	0.028	17	5	22	14	KED
|	**Cu**	**63**	**29.629**	ug/L	0.174	0	47	60077	1	KED
|	**Cu**	**65**	**29.604**	ug/L	0.466	1	23	28895	1	KED
|	**Zn**	**66**	**7.603**	ug/L	0.216	2	34	1750	3	KED
|	**Zn**	**67**	**6.595**	ug/L	0.266	4	2	248	2	KED
⌊	**As**	**75**	**0.125**	ug/L	0.029	23	3	19	20	KED
	Y	**89**		ug/L			867590	591523	2	Standard
	Kr	**83**		ug/L			66	62	30	Standard
⌈>	**In-1**	**115**		ug/L			9278	7005	1	KED
|	**Cd**	**111**	**0.006**	ug/L	0.015	262	0	1	114	KED
⌊	**Cd**	**114**	**0.007**	ug/L	0.010	141	0	2	117	KED
⌈>	**Tb**	**159**		ug/L			2192253	1921154	1	Standard
⌊	**Pb**	**208**	**0.442**	ug/L	0.012	2	769	43690	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0091-02
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 17:19:21
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	260533	1	Standard
	Cl	**37**		ug/L			11311799	9970739	0	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1564095	2	Standard
|	**Cr**	**52**	**1.150**	ug/L	0.133	11	33180	52927	3	Standard
|	**Cr**	**53**	**0.932**	ug/L	0.036	3	160	2705	1	Standard
⌊	**Mn**	**55**	**2.294**	ug/L	0.086	3	722	74736	1	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	33874	1	KED
|	**Ni**	**60**	**0.195**	ug/L	0.014	7	19	165	7	KED
|	**Ni**	**62**	**0.133**	ug/L	0.008	6	5	19	5	KED
|	**Cu**	**63**	**29.861**	ug/L	0.591	1	47	60025	1	KED
|	**Cu**	**65**	**30.167**	ug/L	0.411	1	23	29195	1	KED
|	**Zn**	**66**	**7.427**	ug/L	0.404	5	34	1695	4	KED
|	**Zn**	**67**	**6.944**	ug/L	0.597	8	2	259	7	KED
⌊	**As**	**75**	**0.119**	ug/L	0.025	21	3	18	18	KED
	Y	**89**		ug/L			867590	578153	1	Standard
	Kr	**83**		ug/L			66	59	14	Standard
⌈>	**In-1**	**115**		ug/L			9278	6957	2	KED
|	**Cd**	**111**	**0.009**	ug/L	0.005	60	0	1	34	KED
⌊	**Cd**	**114**	**0.012**	ug/L	0.014	118	0	3	104	KED
⌈>	**Tb**	**159**		ug/L			2192253	1879141	1	Standard
⌊	**Pb**	**208**	**0.452**	ug/L	0.007	1	769	43704	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0367-MS2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 17:23:15
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	194602	1	Standard
	Cl	**37**		ug/L			11311799	9757194	1	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1578181	3	Standard
|	**Cr**	**52**	**25.521**	ug/L	1.302	5	33180	663921	2	Standard
|	**Cr**	**53**	**25.405**	ug/L	0.496	1	160	71327	1	Standard
⌊	**Mn**	**55**	**26.527**	ug/L	0.731	2	722	866481	0	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	34191	1	KED
|	**Ni**	**60**	**24.636**	ug/L	0.996	4	19	19102	2	KED
|	**Ni**	**62**	**24.543**	ug/L	0.885	3	5	2885	3	KED
|	**Cu**	**63**	**53.826**	ug/L	1.290	2	47	109178	1	KED
|	**Cu**	**65**	**54.041**	ug/L	1.175	2	23	52769	1	KED
|	**Zn**	**66**	**102.439**	ug/L	3.713	3	34	23229	2	KED
|	**Zn**	**67**	**100.854**	ug/L	2.393	2	2	3779	1	KED
⌊	**As**	**75**	**28.385**	ug/L	0.459	1	3	3755	0	KED
	Y	**89**		ug/L			867590	578851	1	Standard
	Kr	**83**		ug/L			66	48	9	Standard
⌈>	**In-1**	**115**		ug/L			9278	7099	3	KED
|	**Cd**	**111**	**27.494**	ug/L	0.116	0	0	2738	3	KED
⌊	**Cd**	**114**	**26.155**	ug/L	0.550	2	0	7227	1	KED
⌈>	**Tb**	**159**		ug/L			2192253	1881718	1	Standard
⌊	**Pb**	**208**	**26.592**	ug/L	0.263	0	769	2536749	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 17:27:16
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	57464	0	Standard
	Cl	**37**		ug/L			11311799	10796278	1	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1718625	2	Standard
|	**Cr**	**52**	**51.213**	ug/L	0.990	1	33180	1425376	3	Standard
|	**Cr**	**53**	**51.808**	ug/L	0.381	0	160	158316	1	Standard
⌊	**Mn**	**55**	**51.430**	ug/L	1.230	2	722	1829355	0	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	35772	0	KED
|	**Ni**	**60**	**48.700**	ug/L	0.577	1	19	39501	1	KED
|	**Ni**	**62**	**48.217**	ug/L	0.681	1	5	5926	1	KED
|	**Cu**	**63**	**48.436**	ug/L	0.905	1	47	102806	1	KED
|	**Cu**	**65**	**48.636**	ug/L	0.716	1	23	49697	1	KED
|	**Zn**	**66**	**50.708**	ug/L	0.412	0	34	12048	0	KED
|	**Zn**	**67**	**49.050**	ug/L	1.069	2	2	1924	2	KED
⌊	**As**	**75**	**50.386**	ug/L	0.238	0	3	6972	0	KED
	Y	**89**		ug/L			867590	655470	1	Standard
	Kr	**83**		ug/L			66	46	36	Standard
⌈>	**In-1**	**115**		ug/L			9278	7629	1	KED
|	**Cd**	**111**	**50.908**	ug/L	1.285	2	0	5448	2	KED
⌊	**Cd**	**114**	**49.076**	ug/L	2.045	4	0	14577	3	KED
⌈>	**Tb**	**159**		ug/L			2192253	2086805	0	Standard
⌊	**Pb**	**208**	**50.196**	ug/L	0.405	0	769	5310149	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 17:32:15
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	45083	1	Standard
	Cl	**37**		ug/L			11311799	10538796	0	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1671228	0	Standard
|	**Cr**	**52**	**0.036**	ug/L	0.020	55	33180	27021	1	Standard
|	**Cr**	**53**	**0.018**	ug/L	0.008	44	160	180	12	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.001	126	722	594	5	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	36503	2	KED
|	**Ni**	**60**	**-0.014**	ug/L	0.002	16	19	5	33	KED
|	**Ni**	**62**	**-0.036**	ug/L	0.000	0	5	0		KED
|	**Cu**	**63**	**-0.009**	ug/L	0.003	36	47	23	32	KED
|	**Cu**	**65**	**-0.009**	ug/L	0.003	36	23	12	24	KED
|	**Zn**	**66**	**-0.013**	ug/L	0.062	460	34	27	50	KED
|	**Zn**	**67**	**0.053**	ug/L	0.053	99	2	4	49	KED
⌊	**As**	**75**	**-0.003**	ug/L	0.003	119	3	3	17	KED
	Y	**89**		ug/L			867590	628140	1	Standard
	Kr	**83**		ug/L			66	46	6	Standard
⌈>	**In-1**	**115**		ug/L			9278	7874	2	KED
|	**Cd**	**111**	**0.004**	ug/L	0.013	321	0	1	114	KED
⌊	**Cd**	**114**	**0.009**	ug/L	0.004	44	0	3	36	KED
⌈>	**Tb**	**159**		ug/L			2192253	1994841	3	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.000	12	769	566	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 17:51:57
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				41109	3	Standard
	Cl	**37**		ug/L				10356455	1	Standard
⌈>	**Sc**	**45**		ug/L				1681522	0	Standard
|	**Cr**	**52**		ug/L				26753	2	Standard
|	**Cr**	**53**		ug/L				164	10	Standard
⌊	**Mn**	**55**		ug/L				579	4	Standard
⌈>	**Ge-1**	**72**		ug/L				37304	3	KED
|	**Ni**	**60**		ug/L				9	0	KED
|	**Ni**	**62**		ug/L				0	173	KED
|	**Cu**	**63**		ug/L				11	60	KED
|	**Cu**	**65**		ug/L				8	13	KED
|	**Zn**	**66**		ug/L				12	32	KED
|	**Zn**	**67**		ug/L				3	34	KED
⌊	**As**	**75**		ug/L				3	77	KED
	Y	**89**		ug/L				620546	1	Standard
	Kr	**83**		ug/L				48	8	Standard
⌈>	**In-1**	**115**		ug/L				7791	0	KED
|	**Cd**	**111**		ug/L				0	100	KED
⌊	**Cd**	**114**		ug/L				1	180	KED
⌈>	**Tb**	**159**		ug/L				1942746	2	Standard
⌊	**Pb**	**208**		ug/L				414	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 17:55:51
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			41109	40349	3	Standard
	Cl	**37**		ug/L			10356455	10662912	1	Standard
⌈>	**Sc**	**45**		ug/L			1681522	1527004	1	Standard
|	**Cr**	**52**	**50.002**	ug/L	0.732	1	26753	1237284	0	Standard
|	**Cr**	**53**	**51.040**	ug/L	0.653	1	164	138626	2	Standard
⌊	**Mn**	**55**	**49.397**	ug/L	1.503	3	579	1561521	3	Standard
⌈>	**Ge-1**	**72**		ug/L			37304	33603	0	KED
|	**Ni**	**60**	**48.175**	ug/L	0.931	1	9	36701	2	KED
|	**Ni**	**62**	**47.040**	ug/L	1.008	2	0	5427	1	KED
|	**Cu**	**63**	**48.148**	ug/L	0.392	0	11	95968	0	KED
|	**Cu**	**65**	**47.824**	ug/L	0.895	1	8	45888	1	KED
|	**Zn**	**66**	**50.482**	ug/L	0.329	0	12	11249	0	KED
|	**Zn**	**67**	**50.903**	ug/L	1.690	3	3	1876	3	KED
⌊	**As**	**75**	**50.497**	ug/L	0.713	1	3	6563	0	KED
	Y	**89**		ug/L			620546	582281	3	Standard
	Kr	**83**		ug/L			48	71	17	Standard
⌈>	**In-1**	**115**		ug/L			7791	6938	2	KED
|	**Cd**	**111**	**52.110**	ug/L	1.815	3	0	5070	1	KED
⌊	**Cd**	**114**	**50.948**	ug/L	1.468	2	1	13763	2	KED
⌈>	**Tb**	**159**		ug/L			1942746	1931649	1	Standard
⌊	**Pb**	**208**	**49.423**	ug/L	1.061	2	414	4837954	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 17:59:46
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			41109	36241	1	Standard
	Cl	**37**		ug/L			10356455	10224726	2	Standard
⌈>	**Sc**	**45**		ug/L			1681522	1437009	3	Standard
|	**Cr**	**52**	**0.009**	ug/L	0.030	317	26753	23058	1	Standard
|	**Cr**	**53**	**-0.001**	ug/L	0.009	1653	164	138	13	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.001	102	579	513	6	Standard
⌈>	**Ge-1**	**72**		ug/L			37304	33849	0	KED
|	**Ni**	**60**	**-0.008**	ug/L	0.004	47	9	2	114	KED
|	**Ni**	**62**	**0.011**	ug/L	0.016	143	0	1	100	KED
|	**Cu**	**63**	**0.003**	ug/L	0.001	29	11	17	11	KED
|	**Cu**	**65**	**-0.002**	ug/L	0.005	198	8	5	94	KED
|	**Zn**	**66**	**0.050**	ug/L	0.019	37	12	22	19	KED
|	**Zn**	**67**	**0.076**	ug/L	0.051	66	3	5	33	KED
⌊	**As**	**75**	**0.005**	ug/L	0.007	157	3	3	28	KED
	Y	**89**		ug/L			620546	565099	0	Standard
	Kr	**83**		ug/L			48	44	17	Standard
⌈>	**In-1**	**115**		ug/L			7791	6938	2	KED
|	**Cd**	**111**	**0.014**	ug/L	0.006	39	0	2	24	KED
⌊	**Cd**	**114**	**0.003**	ug/L	0.007	253	1	1	102	KED
⌈>	**Tb**	**159**		ug/L			1942746	1833219	3	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.001	39	414	556	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 18:08:38
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			41109	57558	1	Standard
	Cl	37		ug/L			10356455	10625563	0	Standard
⌈>	Sc	45		ug/L			1681522	1589704	1	Standard
|	Cr	52	0.014	ug/L	0.021	151	26753	25634	1	Standard
|	Cr	53	0.020	ug/L	0.005	26	164	213	6	Standard
⌊	Mn	55	0.111	ug/L	0.002	1	579	4185	1	Standard
⌈>	Ge-1	72		ug/L			37304	36452	2	KED
|	Ni	60	0.005	ug/L	0.004	89	9	13	24	KED
|	Ni	62	0.005	ug/L	0.009	171	0	1	86	KED
|	Cu	63	0.038	ug/L	0.007	17	11	94	17	KED
|	Cu	65	0.043	ug/L	0.007	16	8	53	16	KED
|	Zn	66	0.382	ug/L	0.028	7	12	104	8	KED
|	Zn	67	0.508	ug/L	0.224	44	3	23	39	KED
⌊	As	75	0.008	ug/L	0.014	163	3	4	46	KED
	Y	89		ug/L			620546	605698	2	Standard
	Kr	83		ug/L			48	42	2	Standard
⌈>	In-1	115		ug/L			7791	7522	1	KED
|	Cd	111	0.000	ug/L	0.009	3119	0	0	100	KED
⌊	Cd	114	0.003	ug/L	0.008	298	1	1	114	KED
⌈>	Tb	159		ug/L			1942746	1962510	1	Standard
⌊	Pb	208	0.002	ug/L	0.001	35	414	570	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 18:12:32
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			41109	61068	1	Standard
	Cl	37		ug/L			10356455	11483631	2	Standard
⌈>	Sc	45		ug/L			1681522	1789456	1	Standard
|	Cr	52	0.305	ug/L	0.050	16	26753	37118	2	Standard
|	Cr	53	0.668	ug/L	0.034	5	164	2298	4	Standard
⌊	Mn	55	0.084	ug/L	0.001	0	579	3711	1	Standard
⌈>	Ge-1	72		ug/L			37304	35329	0	KED
|	Ni	60	0.053	ug/L	0.012	22	9	51	18	KED
|	Ni	62	0.079	ug/L	0.040	50	0	10	47	KED
|	Cu	63	0.144	ug/L	0.010	7	11	311	6	KED
|	Cu	65	0.156	ug/L	0.024	15	8	165	14	KED
|	Zn	66	2.555	ug/L	0.060	2	12	609	2	KED
|	Zn	67	3.269	ug/L	0.046	1	3	129	1	KED
⌊	As	75	0.339	ug/L	0.014	4	3	49	3	KED
	Y	89		ug/L			620546	673744	0	Standard
	Kr	83		ug/L			48	62	15	Standard
⌈>	In-1	115		ug/L			7791	7671	0	KED
|	Cd	111	0.065	ug/L	0.027	42	0	7	36	KED
⌊	Cd	114	0.025	ug/L	0.007	29	1	8	24	KED
⌈>	Tb	159		ug/L			1942746	2099086	1	Standard
⌊	Pb	208	0.007	ug/L	0.000	6	414	1215	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-05
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 18:16:27
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			41109	61750	5	Standard
	Cl	37		ug/L			10356455	12155772	5	Standard
⌈>	Sc	45		ug/L			1681522	1950708	7	Standard
|	Cr	52	0.435	ug/L	0.047	10	26753	44528	8	Standard
|	Cr	53	0.812	ug/L	0.073	8	164	2994	4	Standard
⌊	Mn	55	0.143	ug/L	0.042	29	579	6396	22	Standard
⌈>	Ge-1	72		ug/L			37304	37579	1	KED
|	Ni	60	0.051	ug/L	0.009	16	9	53	12	KED
|	Ni	62	0.039	ug/L	0.015	37	0	5	33	KED
|	Cu	63	0.153	ug/L	0.008	4	11	352	4	KED
|	Cu	65	0.158	ug/L	0.029	18	8	178	19	KED
|	Zn	66	2.806	ug/L	0.149	5	12	711	7	KED
|	Zn	67	3.502	ug/L	0.167	4	3	147	3	KED
⌊	As	75	0.343	ug/L	0.029	8	3	52	9	KED
	Y	89		ug/L			620546	742901	10	Standard
	Kr	83		ug/L			48	52	29	Standard
⌈>	In-1	115		ug/L			7791	7344	3	KED
|	Cd	111	0.040	ug/L	0.033	80	0	5	65	KED
⌊	Cd	114	0.042	ug/L	0.024	57	1	12	50	KED
⌈>	Tb	159		ug/L			1942746	2189105	2	Standard
⌊	Pb	208	0.028	ug/L	0.035	122	414	3569	104	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 18:20:21
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			41109	67575	2	Standard
	Cl	37		ug/L			10356455	12915524	0	Standard
⌈>	Sc	45		ug/L			1681522	2099214	1	Standard
|	Cr	52	24.501	ug/L	0.490	2	26753	850472	1	Standard
|	Cr	53	24.682	ug/L	0.412	1	164	92251	1	Standard
⌊	Mn	55	24.069	ug/L	0.665	2	579	1046186	1	Standard
⌈>	Ge-1	72		ug/L			37304	39090	2	KED
|	Ni	60	24.905	ug/L	0.526	2	9	22069	0	KED
|	Ni	62	24.157	ug/L	0.734	3	0	3242	2	KED
|	Cu	63	25.061	ug/L	0.094	0	11	58119	2	KED
|	Cu	65	24.732	ug/L	0.286	1	8	27615	2	KED
|	Zn	66	78.208	ug/L	1.596	2	12	20260	0	KED
|	Zn	67	76.001	ug/L	3.279	4	3	3256	2	KED
⌊	As	75	25.488	ug/L	0.242	0	3	3855	2	KED
	Y	89		ug/L			620546	786225	1	Standard
	Kr	83		ug/L			48	67	21	Standard
⌈>	In-1	115		ug/L			7791	8799	4	KED
|	Cd	111	24.742	ug/L	0.337	1	0	3054	2	KED
⌊	Cd	114	24.444	ug/L	0.391	1	1	8374	2	KED
⌈>	Tb	159		ug/L			1942746	2271299	1	Standard
⌊	Pb	208	25.571	ug/L	0.671	2	414	2943495	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-MSD1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 18:24:15
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			41109	69257	1	Standard
	Cl	37		ug/L			10356455	13026792	2	Standard
⌈>	Sc	45		ug/L			1681522	2096065	2	Standard
|	Cr	52	25.119	ug/L	0.678	2	26753	869580	1	Standard
|	Cr	53	25.080	ug/L	0.190	0	164	93593	2	Standard
⌊	Mn	55	25.066	ug/L	0.654	2	579	1087957	3	Standard
⌈>	Ge-1	72		ug/L			37304	38947	1	KED
|	Ni	60	25.132	ug/L	0.308	1	9	22193	1	KED
|	Ni	62	24.134	ug/L	0.882	3	0	3227	2	KED
|	Cu	63	24.569	ug/L	0.282	1	11	56759	0	KED
|	Cu	65	25.051	ug/L	0.185	0	8	27865	1	KED
|	Zn	66	78.390	ug/L	2.213	2	12	20238	2	KED
|	Zn	67	75.145	ug/L	2.161	2	3	3210	4	KED
⌊	As	75	25.228	ug/L	0.253	1	3	3802	0	KED
	Y	89		ug/L			620546	796568	1	Standard
	Kr	83		ug/L			48	55	13	Standard
⌈>	In-1	115		ug/L			7791	8673	0	KED
|	Cd	111	25.145	ug/L	0.299	1	0	3060	1	KED
⌊	Cd	114	24.025	ug/L	0.447	1	1	8115	2	KED
⌈>	Tb	159		ug/L			1942746	2301824	2	Standard
⌊	Pb	208	25.374	ug/L	0.327	1	414	2960349	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-DUP2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 18:28:09
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			41109	63250	1	Standard
	Cl	37		ug/L			10356455	12555128	2	Standard
⌈>	Sc	45		ug/L			1681522	2078184	2	Standard
|	Cr	52	0.033	ug/L	0.027	81	26753	34137	1	Standard
|	Cr	53	0.116	ug/L	0.003	2	164	633	3	Standard
⌊	Mn	55	0.100	ug/L	0.002	2	579	5005	3	Standard
⌈>	Ge-1	72		ug/L			37304	41220	1	KED
|	Ni	60	0.116	ug/L	0.009	7	9	119	8	KED
|	Ni	62	0.107	ug/L	0.026	24	0	15	24	KED
|	Cu	63	0.434	ug/L	0.020	4	11	1073	5	KED
|	Cu	65	0.456	ug/L	0.021	4	8	546	6	KED
|	Zn	66	20.771	ug/L	0.330	1	12	5684	1	KED
|	Zn	67	19.461	ug/L	0.664	3	3	882	4	KED
⌊	As	75	0.493	ug/L	0.024	4	3	81	4	KED
	Y	89		ug/L			620546	788123	1	Standard
	Kr	83		ug/L			48	49	25	Standard
⌈>	In-1	115		ug/L			7791	8944	1	KED
|	Cd	111	0.012	ug/L	0.009	78	0	2	43	KED
⌊	Cd	114	0.011	ug/L	0.006	51	1	5	39	KED
⌈>	Tb	159		ug/L			1942746	2277574	0	Standard
⌊	Pb	208	0.006	ug/L	0.000	4	414	1171	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-07
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 18:32:04
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			41109	65542	1	Standard
	Cl	37		ug/L			10356455	12565651	0	Standard
⌈>	Sc	45		ug/L			1681522	2043661	2	Standard
|	Cr	52	0.053	ug/L	0.053	99	26753	34213	4	Standard
|	Cr	53	0.145	ug/L	0.006	3	164	727	3	Standard
⌊	Mn	55	0.111	ug/L	0.002	1	579	5383	3	Standard
⌈>	Ge-1	72		ug/L			37304	41355	2	KED
|	Ni	60	0.160	ug/L	0.017	10	9	160	9	KED
|	Ni	62	0.231	ug/L	0.062	26	0	33	28	KED
|	Cu	63	0.438	ug/L	0.014	3	11	1087	5	KED
|	Cu	65	0.477	ug/L	0.007	1	8	572	3	KED
|	Zn	66	21.350	ug/L	0.550	2	12	5860	0	KED
|	Zn	67	19.230	ug/L	0.550	2	3	874	4	KED
⌊	As	75	0.525	ug/L	0.067	12	3	87	9	KED
	Y	89		ug/L			620546	784478	1	Standard
	Kr	83		ug/L			48	57	12	Standard
⌈>	In-1	115		ug/L			7791	8922	1	KED
|	Cd	111	0.012	ug/L	0.016	138	0	2	78	KED
⌊	Cd	114	0.006	ug/L	0.006	94	1	3	54	KED
⌈>	Tb	159		ug/L			1942746	2314586	0	Standard
⌊	Pb	208	0.008	ug/L	0.001	8	414	1412	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-MS2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 18:35:58
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			41109	74241	0	Standard
	Cl	37		ug/L			10356455	12720542	0	Standard
>	Sc	45		ug/L			1681522	1993519	1	Standard
	Cr	52	26.016	ug/L	1.092	4	26753	855555	3	Standard
	Cr	53	26.788	ug/L	0.451	1	164	95066	0	Standard
	Mn	55	27.044	ug/L	0.113	0	579	1116508	1	Standard
>	Ge-1	72		ug/L			37304	41651	0	KED
	Ni	60	25.508	ug/L	0.341	1	9	24089	0	KED
	Ni	62	25.557	ug/L	1.134	4	0	3655	4	KED
	Cu	63	25.646	ug/L	0.392	1	11	63364	1	KED
	Cu	65	25.708	ug/L	0.627	2	8	30579	1	KED
	Zn	66	100.479	ug/L	0.393	0	12	27739	1	KED
	Zn	67	94.741	ug/L	2.766	2	3	4326	2	KED
	As	75	25.153	ug/L	0.156	0	3	4054	0	KED
	Y	89		ug/L			620546	765211	2	Standard
	Kr	83		ug/L			48	62	1	Standard
>	In-1	115		ug/L			7791	9107	3	KED
	Cd	111	25.066	ug/L	0.130	0	0	3203	3	KED
	Cd	114	24.639	ug/L	0.668	2	1	8735	0	KED
>	Tb	159		ug/L			1942746	2314275	1	Standard
	Pb	208	26.025	ug/L	0.236	0	414	3052969	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-MSD2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 18:39:52
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			41109	70283	1	Standard
	Cl	37		ug/L			10356455	12676295	1	Standard
⌈>	Sc	45		ug/L			1681522	2032573	0	Standard
|	Cr	52	26.047	ug/L	0.622	2	26753	873587	2	Standard
|	Cr	53	26.472	ug/L	0.475	1	164	95794	1	Standard
⌊	Mn	55	25.791	ug/L	0.800	3	579	1085746	3	Standard
⌈>	Ge-1	72		ug/L			37304	41257	0	KED
|	Ni	60	26.086	ug/L	0.708	2	9	24407	3	KED
|	Ni	62	25.499	ug/L	0.431	1	0	3613	2	KED
|	Cu	63	26.369	ug/L	0.053	0	11	64537	0	KED
|	Cu	65	26.537	ug/L	0.852	3	8	31276	4	KED
|	Zn	66	99.674	ug/L	2.657	2	12	27261	3	KED
|	Zn	67	95.393	ug/L	0.885	0	3	4315	1	KED
⌊	As	75	25.546	ug/L	0.428	1	3	4078	2	KED
	Y	89		ug/L			620546	767706	1	Standard
	Kr	83		ug/L			48	62	26	Standard
⌈>	In-1	115		ug/L			7791	9007	1	KED
|	Cd	111	25.503	ug/L	0.940	3	0	3222	3	KED
⌊	Cd	114	25.982	ug/L	0.716	2	1	9112	1	KED
⌈>	Tb	159		ug/L			1942746	2288164	0	Standard
⌊	Pb	208	26.776	ug/L	0.177	0	414	3105795	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 18:43:46
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			41109	63893	2	Standard
	Cl	37		ug/L			10356455	12585488	0	Standard
>	Sc	45		ug/L			1681522	1941554	0	Standard
	Cr	52	25.877	ug/L	0.441	1	26753	829164	1	Standard
	Cr	53	26.473	ug/L	0.096	0	164	91509	0	Standard
	Mn	55	26.770	ug/L	0.107	0	579	1076390	0	Standard
>	Ge-1	72		ug/L			37304	41577	0	KED
	Ni	60	25.505	ug/L	0.405	1	9	24044	1	KED
	Ni	62	24.988	ug/L	1.422	5	0	3566	4	KED
	Cu	63	25.224	ug/L	0.084	0	11	62213	0	KED
	Cu	65	24.973	ug/L	0.857	3	8	29649	2	KED
	Zn	66	85.772	ug/L	0.355	0	12	23639	0	KED
	Zn	67	77.175	ug/L	2.172	2	3	3519	3	KED
	As	75	25.197	ug/L	0.652	2	3	4053	1	KED
	Y	89		ug/L			620546	752251	1	Standard
	Kr	83		ug/L			48	60	28	Standard
>	In-1	115		ug/L			7791	8916	3	KED
	Cd	111	26.163	ug/L	1.139	4	0	3270	2	KED
	Cd	114	25.861	ug/L	0.767	2	1	8978	4	KED
>	Tb	159		ug/L			1942746	2269057	1	Standard
	Pb	208	26.359	ug/L	0.333	1	414	3031763	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 18:48:45
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			41109	42353	3	Standard
	Cl	**37**		ug/L			10356455	12756800	0	Standard
⎡>	**Sc**	**45**		ug/L			1681522	1877156	3	Standard
⎢	**Cr**	**52**	**51.695**	ug/L	2.660	5	26753	1570057	2	Standard
⎢	**Cr**	**53**	**51.426**	ug/L	2.859	5	164	171474	2	Standard
⎣	**Mn**	**55**	**49.640**	ug/L	0.771	1	579	1928483	1	Standard
⎡>	**Ge-1**	**72**		ug/L			37304	39307	0	KED
⎢	**Ni**	**60**	**49.271**	ug/L	0.364	0	9	43905	0	KED
⎢	**Ni**	**62**	**48.919**	ug/L	1.225	2	0	6602	2	KED
⎢	**Cu**	**63**	**48.216**	ug/L	0.480	0	11	112420	0	KED
⎢	**Cu**	**65**	**47.908**	ug/L	0.709	1	8	53774	0	KED
⎢	**Zn**	**66**	**48.457**	ug/L	1.410	2	12	12630	2	KED
⎢	**Zn**	**67**	**48.529**	ug/L	1.457	3	3	2093	3	KED
⎣	**As**	**75**	**49.385**	ug/L	0.479	0	3	7509	1	KED
	Y	**89**		ug/L			620546	739188	1	Standard
	Kr	**83**		ug/L			48	56	11	Standard
⎡>	**In-1**	**115**		ug/L			7791	8407	3	KED
⎢	**Cd**	**111**	**50.593**	ug/L	1.971	3	0	5961	0	KED
⎣	**Cd**	**114**	**49.317**	ug/L	1.307	2	1	16141	3	KED
⎡>	**Tb**	**159**		ug/L			1942746	2297948	1	Standard
⎣	**Pb**	**208**	**48.377**	ug/L	0.973	2	414	5633666	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 18:53:44
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			41109	40052	2	Standard
	Cl	**37**		ug/L			10356455	12535213	1	Standard
⌈>	**Sc**	**45**		ug/L			1681522	1883025	2	Standard
|	**Cr**	**52**	**-0.029**	ug/L	0.015	52	26753	29091	2	Standard
|	**Cr**	**53**	**-0.002**	ug/L	0.006	306	164	178	12	Standard
⌊	**Mn**	**55**	**0.002**	ug/L	0.001	68	579	709	6	Standard
⌈>	**Ge-1**	**72**		ug/L			37304	40844	1	KED
|	**Ni**	**60**	**-0.004**	ug/L	0.001	29	9	6	17	KED
|	**Ni**	**62**	**0.004**	ug/L	0.008	191	0	1	86	KED
|	**Cu**	**63**	**0.002**	ug/L	0.002	104	11	17	29	KED
|	**Cu**	**65**	**0.003**	ug/L	0.003	104	8	12	31	KED
|	**Zn**	**66**	**0.036**	ug/L	0.015	40	12	22	16	KED
|	**Zn**	**67**	**0.050**	ug/L	0.040	81	3	5	33	KED
⌊	**As**	**75**	**0.011**	ug/L	0.003	30	3	5	10	KED
	Y	**89**		ug/L			620546	732365	2	Standard
	Kr	**83**		ug/L			48	43	15	Standard
⌈>	**In-1**	**115**		ug/L			7791	8991	2	KED
|	**Cd**	**111**	**0.007**	ug/L	0.008	121	0	1	50	KED
⌊	**Cd**	**114**	**-0.003**	ug/L	0.003	122	1	0	217	KED
⌈>	**Tb**	**159**		ug/L			1942746	2237676	1	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.000	31	414	648	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 19:00:04
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				40205	1	Standard
	Cl	**37**		ug/L				12032085	2	Standard
⌈>	**Sc**	**45**		ug/L				1749354	13	Standard
|	**Cr**	**52**		ug/L				28037	1	Standard
|	**Cr**	**53**		ug/L				194	6	Standard
⌊	**Mn**	**55**		ug/L				709	4	Standard
⌈>	**Ge-1**	**72**		ug/L				40999	0	KED
|	**Ni**	**60**		ug/L				6	34	KED
|	**Ni**	**62**		ug/L				1	100	KED
|	**Cu**	**63**		ug/L				20	14	KED
|	**Cu**	**65**		ug/L				11	57	KED
|	**Zn**	**66**		ug/L				32	15	KED
|	**Zn**	**67**		ug/L				3	132	KED
⌊	**As**	**75**		ug/L				2	44	KED
	Y	**89**		ug/L				690517	9	Standard
	Kr	**83**		ug/L				60	14	Standard
⌈>	**In-1**	**115**		ug/L				8800	2	KED
|	**Cd**	**111**		ug/L				1	124	KED
⌊	**Cd**	**114**		ug/L				1	90	KED
⌈>	**Tb**	**159**		ug/L				2080936	13	Standard
⌊	**Pb**	**208**		ug/L				518	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 19:03:58
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			40205	40851	1	Standard
	Cl	**37**		ug/L			12032085	12558856	2	Standard
⌈>	**Sc**	**45**		ug/L			1749354	1836031	0	Standard
|	**Cr**	**52**	**51.314**	ug/L	0.279	0	28037	1526387	0	Standard
|	**Cr**	**53**	**51.773**	ug/L	0.942	1	194	169109	2	Standard
⌊	**Mn**	**55**	**51.470**	ug/L	0.735	1	709	1956488	1	Standard
⌈>	**Ge-1**	**72**		ug/L			40999	38707	2	KED
|	**Ni**	**60**	**49.577**	ug/L	0.913	1	6	43484	1	KED
|	**Ni**	**62**	**47.856**	ug/L	0.878	1	1	6360	1	KED
|	**Cu**	**63**	**49.001**	ug/L	1.299	2	20	112491	3	KED
|	**Cu**	**65**	**48.804**	ug/L	1.367	2	11	53929	2	KED
|	**Zn**	**66**	**49.847**	ug/L	1.018	2	32	12808	0	KED
|	**Zn**	**67**	**49.645**	ug/L	2.527	5	3	2108	4	KED
⌊	**As**	**75**	**50.473**	ug/L	0.534	1	2	7556	2	KED
	Y	**89**		ug/L			690517	715296	1	Standard
	Kr	**83**		ug/L			60	55	18	Standard
⌈>	**In-1**	**115**		ug/L			8800	8389	0	KED
|	**Cd**	**111**	**49.772**	ug/L	1.074	2	1	5858	1	KED
⌊	**Cd**	**114**	**47.986**	ug/L	0.507	1	1	15677	1	KED
⌈>	**Tb**	**159**		ug/L			2080936	2276470	1	Standard
⌊	**Pb**	**208**	**48.211**	ug/L	0.365	0	518	5562957	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 19:07:53
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			40205	39000	1	Standard
	Cl	**37**		ug/L			12032085	12449953	1	Standard
⌈>	**Sc**	**45**		ug/L			1749354	1859872	1	Standard
|	**Cr**	**52**	**-0.045**	ug/L	0.008	18	28037	28472	2	Standard
|	**Cr**	**53**	**-0.006**	ug/L	0.007	109	194	187	13	Standard
⌊	**Mn**	**55**	**0.002**	ug/L	0.008	324	709	847	36	Standard
⌈>	**Ge-1**	**72**		ug/L			40999	40259	1	KED
|	**Ni**	**60**	**0.006**	ug/L	0.004	72	6	11	33	KED
|	**Ni**	**62**	**0.009**	ug/L	0.008	81	1	3	34	KED
|	**Cu**	**63**	**-0.001**	ug/L	0.005	913	20	18	66	KED
|	**Cu**	**65**	**0.001**	ug/L	0.001	116	11	12	9	KED
|	**Zn**	**66**	**-0.016**	ug/L	0.043	265	32	27	40	KED
|	**Zn**	**67**	**0.002**	ug/L	0.043	2598	3	3	50	KED
⌊	**As**	**75**	**0.014**	ug/L	0.001	10	2	4	5	KED
	Y	**89**		ug/L			690517	716105	2	Standard
	Kr	**83**		ug/L			60	52	35	Standard
⌈>	**In-1**	**115**		ug/L			8800	8681	3	KED
|	**Cd**	**111**	**-0.008**	ug/L	0.004	57	1	0	86	KED
⌊	**Cd**	**114**	**0.000**	ug/L	0.003	1332	1	1	90	KED
⌈>	**Tb**	**159**		ug/L			2080936	2234330	1	Standard
⌊	**Pb**	**208**	**0.004**	ug/L	0.006	140	518	1019	64	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0134-01
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, June 19, 2018 19:11:48
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			40205	118321	1	Standard
	Cl	**37**		ug/L			12032085	12582188	1	Standard
⌈>	**Sc**	**45**		ug/L			1749354	2052001	2	Standard
|	**Cr**	**52**	**24.269**	ug/L	1.174	4	28037	823468	2	Standard
|	**Cr**	**53**	**24.512**	ug/L	0.746	3	194	89543	0	Standard
⌊	**Mn**	**55**	**315.618**	ug/L	11.618	3	709	13395376	0	Standard
⌈>	**Ge-1**	**72**		ug/L			40999	39449	3	KED
|	**Ni**	**60**	**18.071**	ug/L	0.590	3	6	16151	1	KED
|	**Ni**	**62**	**17.910**	ug/L	0.448	2	1	2427	3	KED
|	**Cu**	**63**	**40.521**	ug/L	1.072	2	20	94770	1	KED
|	**Cu**	**65**	**40.675**	ug/L	1.083	2	11	45800	1	KED
|	**Zn**	**66**	**192.534**	ug/L	5.566	2	32	50318	1	KED
|	**Zn**	**67**	**185.040**	ug/L	8.661	4	3	7997	4	KED
⌊	**As**	**75**	**2.913**	ug/L	0.146	5	2	446	1	KED
	Y	**89**		ug/L			690517	937040	2	Standard
	Kr	**83**		ug/L			60	92	20	Standard
⌈>	**In-1**	**115**		ug/L			8800	8747	2	KED
|	**Cd**	**111**	**0.641**	ug/L	0.105	16	1	80	17	KED
⌊	**Cd**	**114**	**0.593**	ug/L	0.053	8	1	203	10	KED
⌈>	**Tb**	**159**		ug/L			2080936	2361863	1	Standard
⌊	**Pb**	**208**	**27.729**	ug/L	0.051	0	518	3320014	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0134-02
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, June 19, 2018 19:22:10
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			40205	155750	1	Standard
	Cl	**37**		ug/L			12032085	12677997	0	Standard
⌈>	**Sc**	**45**		ug/L			1749354	2015272	0	Standard
|	**Cr**	**52**	**15.542**	ug/L	0.515	3	28037	529887	2	Standard
|	**Cr**	**53**	**15.788**	ug/L	0.263	1	194	56754	1	Standard
⌊	**Mn**	**55**	**155.865**	ug/L	0.963	0	709	6501635	0	Standard
⌈>	**Ge-1**	**72**		ug/L			40999	40131	1	KED
|	**Ni**	**60**	**12.005**	ug/L	0.150	1	6	10924	0	KED
|	**Ni**	**62**	**12.116**	ug/L	0.171	1	1	1671	0	KED
|	**Cu**	**63**	**46.267**	ug/L	0.750	1	20	110150	2	KED
|	**Cu**	**65**	**46.404**	ug/L	0.582	1	11	53181	1	KED
|	**Zn**	**66**	**201.160**	ug/L	1.950	0	32	53517	2	KED
|	**Zn**	**67**	**193.470**	ug/L	4.814	2	3	8511	3	KED
⌊	**As**	**75**	**2.008**	ug/L	0.071	3	2	314	2	KED
	Y	**89**		ug/L			690517	849620	1	Standard
	Kr	**83**		ug/L			60	78	21	Standard
⌈>	**In-1**	**115**		ug/L			8800	8544	2	KED
|	**Cd**	**111**	**0.227**	ug/L	0.063	27	1	28	28	KED
⌊	**Cd**	**114**	**0.265**	ug/L	0.054	20	1	89	20	KED
⌈>	**Tb**	**159**		ug/L			2080936	2311898	0	Standard
⌊	**Pb**	**208**	**39.601**	ug/L	0.162	0	518	4640957	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 19:27:12
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	67935	1	Standard
	Cl	37		ug/L			12032085	12178376	2	Standard
⌈>	Sc	45		ug/L			1749354	1985067	1	Standard
|	Cr	52	0.160	ug/L	0.015	9	28037	36856	0	Standard
|	Cr	53	0.169	ug/L	0.005	3	194	818	2	Standard
⌊	Mn	55	2.029	ug/L	0.027	1	709	84170	1	Standard
⌈>	Ge-1	72		ug/L			40999	41632	2	KED
|	Ni	60	0.263	ug/L	0.029	11	6	254	12	KED
|	Ni	62	0.253	ug/L	0.032	12	1	38	10	KED
|	Cu	63	0.748	ug/L	0.029	3	20	1869	5	KED
|	Cu	65	0.745	ug/L	0.016	2	11	897	0	KED
|	Zn	66	1.521	ug/L	0.142	9	32	452	8	KED
|	Zn	67	1.473	ug/L	0.225	15	3	71	15	KED
⌊	As	75	0.803	ug/L	0.018	2	2	132	3	KED
	Y	89		ug/L			690517	757706	3	Standard
	Kr	83		ug/L			60	54	19	Standard
⌈>	In-1	115		ug/L			8800	8735	1	KED
|	Cd	111	0.026	ug/L	0.016	61	1	4	40	KED
⌊	Cd	114	0.036	ug/L	0.006	16	1	13	15	KED
⌈>	Tb	159		ug/L			2080936	2278833	1	Standard
⌊	Pb	208	0.067	ug/L	0.001	1	518	8253	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-03
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 19:31:06
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	65636	2	Standard
	Cl	37		ug/L			12032085	11882675	1	Standard
>	Sc	45		ug/L			1749354	1999712	2	Standard
	Cr	52	0.087	ug/L	0.020	23	28037	34798	1	Standard
	Cr	53	0.129	ug/L	0.003	2	194	679	0	Standard
	Mn	55	0.445	ug/L	0.006	1	709	19204	1	Standard
>	Ge-1	72		ug/L			40999	40701	2	KED
	Ni	60	0.125	ug/L	0.022	17	6	121	14	KED
	Ni	62	0.133	ug/L	0.095	71	1	20	63	KED
	Cu	63	1.401	ug/L	0.039	2	20	3401	0	KED
	Cu	65	1.437	ug/L	0.045	3	11	1681	4	KED
	Zn	66	19.214	ug/L	0.044	0	32	5213	2	KED
	Zn	67	17.415	ug/L	1.045	6	3	779	3	KED
	As	75	0.544	ug/L	0.042	7	2	88	6	KED
	Y	89		ug/L			690517	772897	2	Standard
	Kr	83		ug/L			60	55	26	Standard
>	In-1	115		ug/L			8800	8854	1	KED
	Cd	111	0.018	ug/L	0.020	112	1	3	66	KED
	Cd	114	0.004	ug/L	0.008	222	1	2	114	KED
>	Tb	159		ug/L			2080936	2303678	1	Standard
	Pb	208	0.070	ug/L	0.001	1	518	8729	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-05
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 19:35:00
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	64500	3	Standard
	Cl	37		ug/L			12032085	12071395	0	Standard
>	Sc	45		ug/L			1749354	1986612	2	Standard
	Cr	52	0.091	ug/L	0.028	30	28037	34717	2	Standard
	Cr	53	0.128	ug/L	0.005	4	194	674	3	Standard
	Mn	55	0.138	ug/L	0.005	3	709	6479	1	Standard
>	Ge-1	72		ug/L			40999	40457	3	KED
	Ni	60	0.106	ug/L	0.009	8	6	102	5	KED
	Ni	62	0.064	ug/L	0.018	27	1	10	20	KED
	Cu	63	1.227	ug/L	0.026	2	20	2962	1	KED
	Cu	65	1.250	ug/L	0.056	4	11	1454	5	KED
	Zn	66	15.581	ug/L	0.876	5	32	4204	3	KED
	Zn	67	15.029	ug/L	1.407	9	3	668	6	KED
	As	75	0.471	ug/L	0.029	6	2	76	5	KED
	Y	89		ug/L			690517	748135	2	Standard
	Kr	83		ug/L			60	57	20	Standard
>	In-1	115		ug/L			8800	9043	4	KED
	Cd	111	0.030	ug/L	0.011	37	1	5	26	KED
	Cd	114	0.024	ug/L	0.022	92	1	9	81	KED
>	Tb	159		ug/L			2080936	2254477	1	Standard
	Pb	208	0.013	ug/L	0.001	6	518	2089	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-09
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 19:38:54
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	72261	1	Standard
	Cl	37		ug/L			12032085	12244448	0	Standard
>	Sc	45		ug/L			1749354	2152538	2	Standard
	Cr	52	-0.043	ug/L	0.027	64	28037	33030	2	Standard
	Cr	53	0.147	ug/L	0.010	6	194	799	2	Standard
	Mn	55	7327.414	ug/L	165.999	2	709	326329876	0	Standard
>	Ge-1	72		ug/L			40999	32658	2	KED
	Ni	60	27.838	ug/L	0.975	3	6	20603	2	KED
	Ni	62	27.366	ug/L	0.830	3	1	3070	4	KED
	Cu	63	22.236	ug/L	0.419	1	20	43078	0	KED
	Cu	65	22.291	ug/L	0.450	2	11	20790	0	KED
	Zn	66	609.076	ug/L	10.385	1	32	131784	1	KED
	Zn	67	572.150	ug/L	12.791	2	3	20469	1	KED
	As	75	0.261	ug/L	0.030	11	2	35	12	KED
	Y	89		ug/L			690517	1772008	2	Standard
	Kr	83		ug/L			60	184	4	Standard
>	In-1	115		ug/L			8800	7265	2	KED
	Cd	111	7.243	ug/L	0.417	5	1	738	3	KED
	Cd	114	7.416	ug/L	0.366	4	1	2097	3	KED
>	Tb	159		ug/L			2080936	2343647	1	Standard
	Pb	208	0.085	ug/L	0.003	3	518	10696	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-11
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 19:42:48
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	69438	2	Standard
	Cl	37		ug/L			12032085	12144613	1	Standard
>	Sc	45		ug/L			1749354	2101565	3	Standard
	Cr	52	-0.044	ug/L	0.021	48	28037	32203	1	Standard
	Cr	53	0.115	ug/L	0.010	8	194	662	2	Standard
	Mn	55	5800.544	ug/L	156.731	2	709	252180274	1	Standard
>	Ge-1	72		ug/L			40999	33400	1	KED
	Ni	60	22.220	ug/L	0.215	0	6	16824	0	KED
	Ni	62	21.020	ug/L	0.518	2	1	2412	2	KED
	Cu	63	18.589	ug/L	0.249	1	20	36842	2	KED
	Cu	65	18.799	ug/L	0.383	2	11	17934	1	KED
	Zn	66	499.710	ug/L	3.344	0	32	110597	0	KED
	Zn	67	464.939	ug/L	13.529	2	3	17014	2	KED
	As	75	0.321	ug/L	0.030	9	2	43	8	KED
	Y	89		ug/L			690517	1488387	2	Standard
	Kr	83		ug/L			60	161	15	Standard
>	In-1	115		ug/L			8800	7230	1	KED
	Cd	111	5.816	ug/L	0.303	5	1	591	6	KED
	Cd	114	5.622	ug/L	0.250	4	1	1583	4	KED
>	Tb	159		ug/L			2080936	2326775	1	Standard
	Pb	208	0.073	ug/L	0.001	1	518	9141	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-13
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 19:46:42
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	71058	2	Standard
	Cl	37		ug/L			12032085	11852770	2	Standard
>	Sc	45		ug/L			1749354	1897412	14	Standard
	Cr	52	0.067	ug/L	0.155	233	28037	31968	3	Standard
	Cr	53	0.110	ug/L	0.035	31	194	569	4	Standard
	Mn	55	1361.943	ug/L	215.757	15	709	52661022	0	Standard
>	Ge-1	72		ug/L			40999	37363	2	KED
	Ni	60	5.058	ug/L	0.065	1	6	4288	1	KED
	Ni	62	4.633	ug/L	0.090	1	1	596	3	KED
	Cu	63	4.747	ug/L	0.079	1	20	10535	1	KED
	Cu	65	4.754	ug/L	0.099	2	11	5080	1	KED
	Zn	66	118.412	ug/L	2.047	1	32	29333	1	KED
	Zn	67	109.073	ug/L	3.673	3	3	4466	1	KED
	As	75	0.151	ug/L	0.015	10	2	24	11	KED
	Y	89		ug/L			690517	847180	6	Standard
	Kr	83		ug/L			60	79	32	Standard
>	In-1	115		ug/L			8800	8165	0	KED
	Cd	111	1.359	ug/L	0.141	10	1	157	10	KED
	Cd	114	1.321	ug/L	0.049	3	1	421	3	KED
>	Tb	159		ug/L			2080936	2153917	10	Standard
	Pb	208	0.013	ug/L	0.001	10	518	1981	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-15
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 19:50:37
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	73143	0	Standard
	Cl	37		ug/L			12032085	12272366	0	Standard
⌈>	Sc	45		ug/L			1749354	2014933	0	Standard
|	Cr	52	0.019	ug/L	0.018	96	28037	32902	2	Standard
|	Cr	53	0.126	ug/L	0.011	8	194	673	6	Standard
⌊	Mn	55	12.433	ug/L	0.487	3	709	519235	3	Standard
⌈>	Ge-1	72		ug/L			40999	39027	1	KED
|	Ni	60	0.252	ug/L	0.027	10	6	229	10	KED
|	Ni	62	0.209	ug/L	0.088	41	1	29	39	KED
|	Cu	63	1.571	ug/L	0.052	3	20	3655	2	KED
|	Cu	65	1.508	ug/L	0.091	6	11	1690	4	KED
|	Zn	66	6.591	ug/L	0.387	5	32	1734	5	KED
|	Zn	67	5.870	ug/L	0.295	5	3	254	4	KED
⌊	As	75	0.679	ug/L	0.027	3	2	105	3	KED
	Y	89		ug/L			690517	798355	1	Standard
	Kr	83		ug/L			60	50	7	Standard
⌈>	In-1	115		ug/L			8800	8327	1	KED
|	Cd	111	0.061	ug/L	0.046	75	1	8	61	KED
⌊	Cd	114	0.038	ug/L	0.018	47	1	13	44	KED
⌈>	Tb	159		ug/L			2080936	2286098	1	Standard
⌊	Pb	208	0.044	ug/L	0.001	3	518	5681	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-17
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 19:54:31
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	64727	2	Standard
	Cl	37		ug/L			12032085	12055702	2	Standard
>	Sc	45		ug/L			1749354	1958459	1	Standard
	Cr	52	0.016	ug/L	0.006	37	28037	31870	0	Standard
	Cr	53	0.106	ug/L	0.010	9	194	585	6	Standard
	Mn	55	0.119	ug/L	0.046	38	709	5607	33	Standard
>	Ge-1	72		ug/L			40999	38929	1	KED
	Ni	60	0.158	ug/L	0.023	14	6	145	12	KED
	Ni	62	0.176	ug/L	0.057	32	1	25	31	KED
	Cu	63	0.468	ug/L	0.012	2	20	1099	1	KED
	Cu	65	0.474	ug/L	0.055	11	11	537	10	KED
	Zn	66	23.857	ug/L	0.840	3	32	6182	2	KED
	Zn	67	21.934	ug/L	0.120	0	3	939	1	KED
	As	75	0.549	ug/L	0.067	12	2	85	12	KED
	Y	89		ug/L			690517	776406	0	Standard
	Kr	83		ug/L			60	66	14	Standard
>	In-1	115		ug/L			8800	8638	3	KED
	Cd	111	0.008	ug/L	0.005	62	1	2	21	KED
	Cd	114	0.013	ug/L	0.021	156	1	5	121	KED
>	Tb	159		ug/L			2080936	2250303	2	Standard
	Pb	208	0.003	ug/L	0.000	11	518	902	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV9
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 19:59:30
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			40205	41334	2	Standard
	Cl	**37**		ug/L			12032085	12151056	1	Standard
⎡>	**Sc**	**45**		ug/L			1749354	1809817	0	Standard
⎢	**Cr**	**52**	**51.630**	ug/L	1.189	2	28037	1513640	2	Standard
⎢	**Cr**	**53**	**51.086**	ug/L	0.268	0	194	164469	0	Standard
⎣	**Mn**	**55**	**50.430**	ug/L	0.841	1	709	1889644	1	Standard
⎡>	**Ge-1**	**72**		ug/L			40999	37518	0	KED
⎢	**Ni**	**60**	**49.838**	ug/L	1.063	2	6	42389	2	KED
⎢	**Ni**	**62**	**48.638**	ug/L	1.018	2	1	6268	2	KED
⎢	**Cu**	**63**	**48.197**	ug/L	0.639	1	20	107263	0	KED
⎢	**Cu**	**65**	**48.435**	ug/L	0.479	0	11	51895	0	KED
⎢	**Zn**	**66**	**49.816**	ug/L	0.724	1	32	12411	1	KED
⎢	**Zn**	**67**	**51.031**	ug/L	1.229	2	3	2101	2	KED
⎣	**As**	**75**	**50.014**	ug/L	0.360	0	2	7258	1	KED
	Y	**89**		ug/L			690517	734394	0	Standard
	Kr	**83**		ug/L			60	62	30	Standard
⎡>	**In-1**	**115**		ug/L			8800	8063	4	KED
⎢	**Cd**	**111**	**50.396**	ug/L	1.938	3	1	5694	0	KED
⎣	**Cd**	**114**	**48.938**	ug/L	1.851	3	1	15349	1	KED
⎡>	**Tb**	**159**		ug/L			2080936	2265498	0	Standard
⎣	**Pb**	**208**	**49.211**	ug/L	0.415	0	518	5651086	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB9
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 20:04:29
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			40205	35604	1	Standard
	Cl	**37**		ug/L			12032085	12199435	1	Standard
⌈>	**Sc**	**45**		ug/L			1749354	1846776	4	Standard
|	**Cr**	**52**	**-0.088**	ug/L	0.032	36	28037	27002	0	Standard
|	**Cr**	**53**	**-0.016**	ug/L	0.001	6	194	153	6	Standard
⌊	**Mn**	**55**	**-0.002**	ug/L	0.001	62	709	663	4	Standard
⌈>	**Ge-1**	**72**		ug/L			40999	40022	1	KED
|	**Ni**	**60**	**0.000**	ug/L	0.001	702	6	6	17	KED
|	**Ni**	**62**	**-0.004**	ug/L	0.008	184	1	1	86	KED
|	**Cu**	**63**	**-0.000**	ug/L	0.002	2730	20	19	31	KED
|	**Cu**	**65**	**-0.003**	ug/L	0.006	193	11	7	90	KED
|	**Zn**	**66**	**-0.054**	ug/L	0.032	59	32	17	48	KED
|	**Zn**	**67**	**0.032**	ug/L	0.068	213	3	5	57	KED
⌊	**As**	**75**	**0.020**	ug/L	0.012	59	2	5	32	KED
	Y	**89**		ug/L			690517	725837	3	Standard
	Kr	**83**		ug/L			60	54	8	Standard
⌈>	**In-1**	**115**		ug/L			8800	8316	0	KED
|	**Cd**	**111**	**-0.013**	ug/L	0.000	0	1	0		KED
⌊	**Cd**	**114**	**-0.004**	ug/L	0.000	4	1	0	100	KED
⌈>	**Tb**	**159**		ug/L			2080936	2226838	0	Standard
⌊	**Pb**	**208**	**-0.000**	ug/L	0.000	63	518	513	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0408-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 20:08:24
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	53291	1	Standard
	Cl	37		ug/L			12032085	12041984	1	Standard
>	Sc	45		ug/L			1749354	1871648	1	Standard
	Cr	52	-0.031	ug/L	0.003	8	28037	29065	0	Standard
	Cr	53	0.003	ug/L	0.004	130	194	217	4	Standard
	Mn	55	0.739	ug/L	0.011	1	709	29398	1	Standard
>	Ge-1	72		ug/L			40999	39278	0	KED
	Ni	60	0.027	ug/L	0.005	19	6	29	14	KED
	Ni	62	0.048	ug/L	0.030	62	1	8	48	KED
	Cu	63	0.053	ug/L	0.008	15	20	142	13	KED
	Cu	65	0.059	ug/L	0.001	2	11	76	1	KED
	Zn	66	0.576	ug/L	0.111	19	32	180	15	KED
	Zn	67	0.712	ug/L	0.134	18	3	34	16	KED
	As	75	0.005	ug/L	0.005	93	2	3	20	KED
	Y	89		ug/L			690517	724232	1	Standard
	Kr	83		ug/L			60	41	41	Standard
>	In-1	115		ug/L			8800	8405	1	KED
	Cd	111	-0.002	ug/L	0.005	235	1	1	43	KED
	Cd	114	-0.000	ug/L	0.009	6817	1	1	273	KED
>	Tb	159		ug/L			2080936	2213383	0	Standard
	Pb	208	0.004	ug/L	0.000	8	518	1000	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-19
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 20:12:18
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	65746	2	Standard
	Cl	37		ug/L			12032085	11897186	1	Standard
⌈>	Sc	45		ug/L			1749354	1917345	0	Standard
|	Cr	52	0.087	ug/L	0.027	31	28037	33373	1	Standard
|	Cr	53	0.130	ug/L	0.006	4	194	656	2	Standard
⌊	Mn	55	4.958	ug/L	0.093	1	709	197510	1	Standard
⌈>	Ge-1	72		ug/L			40999	39589	0	KED
|	Ni	60	0.184	ug/L	0.019	10	6	171	10	KED
|	Ni	62	0.220	ug/L	0.009	3	1	31	3	KED
|	Cu	63	1.462	ug/L	0.054	3	20	3451	3	KED
|	Cu	65	1.532	ug/L	0.030	1	11	1742	2	KED
|	Zn	66	5.253	ug/L	0.118	2	32	1408	2	KED
|	Zn	67	4.966	ug/L	0.133	2	3	219	2	KED
⌊	As	75	0.619	ug/L	0.013	2	2	97	2	KED
	Y	89		ug/L			690517	749427	3	Standard
	Kr	83		ug/L			60	49	25	Standard
⌈>	In-1	115		ug/L			8800	8375	2	KED
|	Cd	111	0.063	ug/L	0.026	41	1	8	32	KED
⌊	Cd	114	0.039	ug/L	0.026	67	1	13	61	KED
⌈>	Tb	159		ug/L			2080936	2288051	1	Standard
⌊	Pb	208	0.038	ug/L	0.001	2	518	5023	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-21
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 20:16:12
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	68892	1	Standard
	Cl	37		ug/L			12032085	12208139	1	Standard
⌈>	Sc	45		ug/L			1749354	1862386	1	Standard
|	Cr	52	0.077	ug/L	0.025	32	28037	32117	1	Standard
|	Cr	53	0.134	ug/L	0.005	3	194	651	2	Standard
⌊	Mn	55	252.811	ug/L	4.013	1	709	9746450	2	Standard
⌈>	Ge-1	72		ug/L			40999	36639	0	KED
|	Ni	60	0.983	ug/L	0.041	4	6	821	3	KED
|	Ni	62	0.915	ug/L	0.055	5	1	116	5	KED
|	Cu	63	1.440	ug/L	0.025	1	20	3148	1	KED
|	Cu	65	1.458	ug/L	0.119	8	11	1535	7	KED
|	Zn	66	30.350	ug/L	0.214	0	32	7396	0	KED
|	Zn	67	28.150	ug/L	0.200	0	3	1133	0	KED
⌊	As	75	0.531	ug/L	0.026	4	2	77	4	KED
	Y	89		ug/L			690517	754559	0	Standard
	Kr	83		ug/L			60	86	10	Standard
⌈>	In-1	115		ug/L			8800	7623	2	KED
|	Cd	111	0.091	ug/L	0.027	29	1	11	24	KED
⌊	Cd	114	0.074	ug/L	0.011	14	1	22	12	KED
⌈>	Tb	159		ug/L			2080936	2224072	0	Standard
⌊	Pb	208	0.042	ug/L	0.001	1	518	5322	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-23
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 20:20:06
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	68572	0	Standard
	Cl	37		ug/L			12032085	12268754	0	Standard
>	Sc	45		ug/L			1749354	1903597	0	Standard
	Cr	52	0.050	ug/L	0.034	68	28037	32019	3	Standard
	Cr	53	0.150	ug/L	0.006	3	194	719	1	Standard
	Mn	55	290.863	ug/L	2.045	0	709	11460631	1	Standard
>	Ge-1	72		ug/L			40999	35127	1	KED
	Ni	60	1.132	ug/L	0.045	3	6	906	4	KED
	Ni	62	1.198	ug/L	0.155	12	1	146	12	KED
	Cu	63	1.356	ug/L	0.029	2	20	2842	3	KED
	Cu	65	1.382	ug/L	0.031	2	11	1395	1	KED
	Zn	66	34.526	ug/L	0.775	2	32	8061	1	KED
	Zn	67	32.984	ug/L	1.590	4	3	1272	4	KED
	As	75	0.522	ug/L	0.031	6	2	73	6	KED
	Y	89		ug/L			690517	746003	1	Standard
	Kr	83		ug/L			60	86	17	Standard
>	In-1	115		ug/L			8800	7596	2	KED
	Cd	111	0.085	ug/L	0.024	28	1	10	27	KED
	Cd	114	0.047	ug/L	0.038	80	1	14	72	KED
>	Tb	159		ug/L			2080936	2201583	2	Standard
	Pb	208	0.035	ug/L	0.000	0	518	4408	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-25
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 20:24:00
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	71907	2	Standard
	Cl	37		ug/L			12032085	12410122	3	Standard
>	Sc	45		ug/L			1749354	1907654	1	Standard
	Cr	52	0.102	ug/L	0.018	17	28037	33664	1	Standard
	Cr	53	0.168	ug/L	0.011	6	194	782	6	Standard
	Mn	55	56.346	ug/L	0.667	1	709	2225183	1	Standard
>	Ge-1	72		ug/L			40999	37515	1	KED
	Ni	60	0.330	ug/L	0.008	2	6	286	1	KED
	Ni	62	0.336	ug/L	0.076	22	1	45	23	KED
	Cu	63	1.552	ug/L	0.030	1	20	3472	0	KED
	Cu	65	1.498	ug/L	0.027	1	11	1615	3	KED
	Zn	66	10.364	ug/L	0.097	0	32	2605	1	KED
	Zn	67	10.387	ug/L	0.631	6	3	430	6	KED
	As	75	0.618	ug/L	0.023	3	2	92	4	KED
	Y	89		ug/L			690517	765845	1	Standard
	Kr	83		ug/L			60	62	22	Standard
>	In-1	115		ug/L			8800	8319	1	KED
	Cd	111	0.055	ug/L	0.054	96	1	7	78	KED
	Cd	114	0.030	ug/L	0.021	67	1	11	60	KED
>	Tb	159		ug/L			2080936	2256069	0	Standard
	Pb	208	0.041	ug/L	0.001	1	518	5255	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0408-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 20:27:54
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	58130	4	Standard
	Cl	37		ug/L			12032085	12558856	2	Standard
⌈>	Sc	45		ug/L			1749354	1955349	2	Standard
|	Cr	52	0.253	ug/L	0.052	20	28037	39190	3	Standard
|	Cr	53	0.659	ug/L	0.026	3	194	2504	1	Standard
⌊	Mn	55	0.272	ug/L	0.006	2	709	11813	2	Standard
⌈>	Ge-1	72		ug/L			40999	37221	2	KED
|	Ni	60	0.055	ug/L	0.017	31	6	52	26	KED
|	Ni	62	0.052	ug/L	0.039	75	1	8	58	KED
|	Cu	63	0.114	ug/L	0.010	8	20	269	7	KED
|	Cu	65	0.118	ug/L	0.011	9	11	135	10	KED
|	Zn	66	1.004	ug/L	0.127	12	32	276	11	KED
|	Zn	67	1.595	ug/L	0.132	8	3	68	10	KED
⌊	As	75	0.400	ug/L	0.037	9	2	60	8	KED
	Y	89		ug/L			690517	744305	1	Standard
	Kr	83		ug/L			60	62	30	Standard
⌈>	In-1	115		ug/L			8800	7962	1	KED
|	Cd	111	0.041	ug/L	0.013	32	1	6	24	KED
⌊	Cd	114	0.023	ug/L	0.010	42	1	8	35	KED
⌈>	Tb	159		ug/L			2080936	2225551	0	Standard
⌊	Pb	208	0.003	ug/L	0.000	12	518	905	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-06
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 20:31:48
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	59912	0	Standard
	Cl	37		ug/L			12032085	12603480	2	Standard
⌈>	Sc	45		ug/L			1749354	1949149	3	Standard
|	Cr	52	0.258	ug/L	0.063	24	28037	39193	2	Standard
|	Cr	53	0.649	ug/L	0.003	0	194	2463	3	Standard
⌊	Mn	55	0.160	ug/L	0.003	2	709	7227	3	Standard
⌈>	Ge-1	72		ug/L			40999	36368	0	KED
|	Ni	60	0.046	ug/L	0.009	18	6	43	15	KED
|	Ni	62	0.047	ug/L	0.026	55	1	7	43	KED
|	Cu	63	0.106	ug/L	0.011	10	20	246	10	KED
|	Cu	65	0.106	ug/L	0.021	20	11	120	18	KED
|	Zn	66	0.674	ug/L	0.087	12	32	191	10	KED
|	Zn	67	1.141	ug/L	0.379	33	3	48	31	KED
⌊	As	75	0.377	ug/L	0.034	9	2	55	8	KED
	Y	89		ug/L			690517	739636	2	Standard
	Kr	83		ug/L			60	50	14	Standard
⌈>	In-1	115		ug/L			8800	7839	1	KED
|	Cd	111	0.036	ug/L	0.020	56	1	5	40	KED
⌊	Cd	114	0.048	ug/L	0.025	51	1	15	48	KED
⌈>	Tb	159		ug/L			2080936	2251223	0	Standard
⌊	Pb	208	0.001	ug/L	0.000	28	518	725	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0408-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 20:35:43
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	63539	1	Standard
	Cl	37		ug/L			12032085	12701575	1	Standard
⌈>	Sc	45		ug/L			1749354	1923930	1	Standard
|	Cr	52	24.547	ug/L	0.446	1	28037	781158	1	Standard
|	Cr	53	25.304	ug/L	0.554	2	194	86695	1	Standard
⌊	Mn	55	24.443	ug/L	0.771	3	709	974029	3	Standard
⌈>	Ge-1	72		ug/L			40999	36991	0	KED
|	Ni	60	24.468	ug/L	0.376	1	6	20520	1	KED
|	Ni	62	24.023	ug/L	1.214	5	1	3053	5	KED
|	Cu	63	24.279	ug/L	0.255	1	20	53285	1	KED
|	Cu	65	24.035	ug/L	0.537	2	11	25395	2	KED
|	Zn	66	72.477	ug/L	1.607	2	32	17790	2	KED
|	Zn	67	71.693	ug/L	1.083	1	3	2908	1	KED
⌊	As	75	24.685	ug/L	0.093	0	2	3533	0	KED
	Y	89		ug/L			690517	741791	3	Standard
	Kr	83		ug/L			60	55	9	Standard
⌈>	In-1	115		ug/L			8800	8061	2	KED
|	Cd	111	23.905	ug/L	0.575	2	1	2703	0	KED
⌊	Cd	114	23.294	ug/L	0.619	2	1	7311	1	KED
⌈>	Tb	159		ug/L			2080936	2262464	1	Standard
⌊	Pb	208	25.000	ug/L	0.005	0	518	2867447	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0408-MSD1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 20:39:37
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	63520	1	Standard
	Cl	37		ug/L			12032085	12527106	1	Standard
⌈>	Sc	45		ug/L			1749354	1952071	2	Standard
|	Cr	52	24.840	ug/L	0.678	2	28037	801408	0	Standard
|	Cr	53	25.382	ug/L	0.521	2	194	88235	2	Standard
⌊	Mn	55	24.500	ug/L	1.216	4	709	989965	3	Standard
⌈>	Ge-1	72		ug/L			40999	36780	2	KED
|	Ni	60	24.932	ug/L	0.842	3	6	20778	1	KED
|	Ni	62	24.781	ug/L	0.105	0	1	3131	2	KED
|	Cu	63	24.423	ug/L	0.677	2	20	53273	0	KED
|	Cu	65	24.643	ug/L	0.890	3	11	25874	1	KED
|	Zn	66	76.161	ug/L	1.633	2	32	18580	1	KED
|	Zn	67	72.993	ug/L	2.228	3	3	2943	2	KED
⌊	As	75	25.588	ug/L	0.766	2	2	3639	1	KED
	Y	89		ug/L			690517	749498	1	Standard
	Kr	83		ug/L			60	66	21	Standard
⌈>	In-1	115		ug/L			8800	7683	2	KED
|	Cd	111	25.437	ug/L	1.367	5	1	2740	3	KED
⌊	Cd	114	25.038	ug/L	1.168	4	1	7487	3	KED
⌈>	Tb	159		ug/L			2080936	2288164	1	Standard
⌊	Pb	208	24.980	ug/L	0.243	0	518	2897393	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0408-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 20:43:31
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	62519	0	Standard
	Cl	37		ug/L			12032085	12642414	2	Standard
>	Sc	45		ug/L			1749354	1780003	2	Standard
	Cr	52	26.730	ug/L	0.817	3	28037	784207	1	Standard
	Cr	53	27.089	ug/L	0.503	1	194	85853	1	Standard
	Mn	55	27.074	ug/L	0.853	3	709	997694	1	Standard
>	Ge-1	72		ug/L			40999	38463	1	KED
	Ni	60	25.119	ug/L	0.247	0	6	21903	1	KED
	Ni	62	24.102	ug/L	0.879	3	1	3183	2	KED
	Cu	63	24.744	ug/L	0.057	0	20	56467	1	KED
	Cu	65	24.913	ug/L	0.116	0	11	27370	1	KED
	Zn	66	81.850	ug/L	1.673	2	32	20883	0	KED
	Zn	67	76.457	ug/L	2.366	3	3	3224	1	KED
	As	75	24.794	ug/L	0.114	0	2	3690	1	KED
	Y	89		ug/L			690517	705170	0	Standard
	Kr	83		ug/L			60	57	23	Standard
>	In-1	115		ug/L			8800	8140	2	KED
	Cd	111	25.953	ug/L	0.263	1	1	2964	2	KED
	Cd	114	25.076	ug/L	0.297	1	1	7948	0	KED
>	Tb	159		ug/L			2080936	2219170	0	Standard
	Pb	208	26.009	ug/L	0.022	0	518	2925999	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVA
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 20:48:30
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			40205	40890	3	Standard
	Cl	**37**		ug/L			12032085	12283525	1	Standard
⎡>	**Sc**	**45**		ug/L			1749354	1829385	1	Standard
⎢	**Cr**	**52**	**49.415**	ug/L	0.687	1	28037	1465567	1	Standard
⎢	**Cr**	**53**	**49.562**	ug/L	0.455	0	194	161283	0	Standard
⎣	**Mn**	**55**	**47.966**	ug/L	0.633	1	709	1816717	1	Standard
⎡>	**Ge-1**	**72**		ug/L			40999	36942	1	KED
⎢	**Ni**	**60**	**48.906**	ug/L	0.223	0	6	40956	2	KED
⎢	**Ni**	**62**	**47.870**	ug/L	0.949	1	1	6072	0	KED
⎢	**Cu**	**63**	**47.652**	ug/L	0.459	0	20	104415	1	KED
⎢	**Cu**	**65**	**47.180**	ug/L	0.192	0	11	49777	2	KED
⎢	**Zn**	**66**	**49.942**	ug/L	1.089	2	32	12249	1	KED
⎢	**Zn**	**67**	**48.308**	ug/L	2.108	4	3	1957	2	KED
⎣	**As**	**75**	**50.095**	ug/L	0.305	0	2	7157	1	KED
	Y	**89**		ug/L			690517	694905	3	Standard
	Kr	**83**		ug/L			60	53	31	Standard
⎡>	**In-1**	**115**		ug/L			8800	8033	1	KED
⎢	**Cd**	**111**	**49.251**	ug/L	0.864	1	1	5550	0	KED
⎣	**Cd**	**114**	**47.443**	ug/L	1.539	3	1	14839	2	KED
⎡>	**Tb**	**159**		ug/L			2080936	2286608	0	Standard
⎣	**Pb**	**208**	**48.061**	ug/L	0.420	0	518	5570548	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBA
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 20:53:29
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			40205	35170	2	Standard
	Cl	**37**		ug/L			12032085	11955581	2	Standard
⌈>	**Sc**	**45**		ug/L			1749354	1784063	2	Standard
|	**Cr**	**52**	**-0.098**	ug/L	0.021	21	28037	25799	2	Standard
|	**Cr**	**53**	**-0.009**	ug/L	0.009	100	194	169	19	Standard
⌊	**Mn**	**55**	**-0.002**	ug/L	0.001	55	709	649	5	Standard
⌈>	**Ge-1**	**72**		ug/L			40999	38388	1	KED
|	**Ni**	**60**	**-0.003**	ug/L	0.003	106	6	3	91	KED
|	**Ni**	**62**	**-0.004**	ug/L	0.008	214	1	1	86	KED
|	**Cu**	**63**	**-0.001**	ug/L	0.003	327	20	17	38	KED
|	**Cu**	**65**	**-0.005**	ug/L	0.004	79	11	5	66	KED
|	**Zn**	**66**	**-0.064**	ug/L	0.016	25	32	13	31	KED
|	**Zn**	**67**	**0.006**	ug/L	0.078	1365	3	3	86	KED
⌊	**As**	**75**	**0.015**	ug/L	0.012	81	2	4	36	KED
	Y	**89**		ug/L			690517	685564	0	Standard
	Kr	**83**		ug/L			60	48	9	Standard
⌈>	**In-1**	**115**		ug/L			8800	8161	2	KED
|	**Cd**	**111**	**0.001**	ug/L	0.010	892	1	1	69	KED
⌊	**Cd**	**114**	**0.000**	ug/L	0.003	809	1	1	86	KED
⌈>	**Tb**	**159**		ug/L			2080936	2227744	0	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.001	104	518	637	14	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 20:57:23
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				34961	3	Standard
	Cl	**37**		ug/L				12029590	2	Standard
⌈>	**Sc**	**45**		ug/L				1763048	1	Standard
|	**Cr**	**52**		ug/L				25966	3	Standard
|	**Cr**	**53**		ug/L				160	1	Standard
⌊	**Mn**	**55**		ug/L				626	4	Standard
⌈>	**Ge-1**	**72**		ug/L				37922	2	KED
|	**Ni**	**60**		ug/L				2	43	KED
|	**Ni**	**62**		ug/L				1	100	KED
|	**Cu**	**63**		ug/L				16	6	KED
|	**Cu**	**65**		ug/L				8	58	KED
|	**Zn**	**66**		ug/L				10	71	KED
|	**Zn**	**67**		ug/L				1		KED
⌊	**As**	**75**		ug/L				3	33	KED
	Y	**89**		ug/L				692873	2	Standard
	Kr	**83**		ug/L				51	16	Standard
⌈>	**In-1**	**115**		ug/L				7693	10	KED
|	**Cd**	**111**		ug/L				3	96	KED
⌊	**Cd**	**114**		ug/L				10	47	KED
⌈>	**Tb**	**159**		ug/L				2213970	1	Standard
⌊	**Pb**	**208**		ug/L				490	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVB
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:01:18
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	38586	1	Standard
	Cl	**37**		ug/L			12029590	12133921	1	Standard
⌈>	**Sc**	**45**		ug/L			1763048	1790547	1	Standard
|	**Cr**	**52**	**49.295**	ug/L	1.532	3	25966	1428703	3	Standard
|	**Cr**	**53**	**50.869**	ug/L	0.497	0	160	161993	1	Standard
⌊	**Mn**	**55**	**49.660**	ug/L	0.498	1	626	1841005	1	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	37123	0	KED
|	**Ni**	**60**	**48.466**	ug/L	0.972	2	2	40786	2	KED
|	**Ni**	**62**	**48.639**	ug/L	1.615	3	1	6200	2	KED
|	**Cu**	**63**	**46.515**	ug/L	0.621	1	16	102435	1	KED
|	**Cu**	**65**	**47.107**	ug/L	0.160	0	8	49939	0	KED
|	**Zn**	**66**	**50.150**	ug/L	0.726	1	10	12343	0	KED
|	**Zn**	**67**	**50.143**	ug/L	2.325	4	1	2040	3	KED
⌊	**As**	**75**	**49.972**	ug/L	0.606	1	3	7176	0	KED
	Y	**89**		ug/L			692873	675191	2	Standard
	Kr	**83**		ug/L			51	45	26	Standard
⌈>	**In-1**	**115**		ug/L			7693	7731	2	KED
|	**Cd**	**111**	**50.800**	ug/L	1.893	3	3	5509	1	KED
⌊	**Cd**	**114**	**49.624**	ug/L	1.608	3	10	14942	1	KED
⌈>	**Tb**	**159**		ug/L			2213970	2252008	1	Standard
⌊	**Pb**	**208**	**48.192**	ug/L	0.409	0	490	5500695	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBB
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:05:12
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	34493	1	Standard
	Cl	**37**		ug/L			12029590	12076267	3	Standard
⌈>	**Sc**	**45**		ug/L			1763048	1771238	4	Standard
|	**Cr**	**52**	**0.004**	ug/L	0.041	935	25966	26181	2	Standard
|	**Cr**	**53**	**-0.001**	ug/L	0.001	203	160	159	2	Standard
⌊	**Mn**	**55**	**0.000**	ug/L	0.001	336	626	642	4	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	38124	1	KED
|	**Ni**	**60**	**0.005**	ug/L	0.010	203	2	6	128	KED
|	**Ni**	**62**	**0.005**	ug/L	0.033	732	1	2	173	KED
|	**Cu**	**63**	**0.008**	ug/L	0.011	141	16	34	75	KED
|	**Cu**	**65**	**0.003**	ug/L	0.007	192	8	12	59	KED
|	**Zn**	**66**	**0.047**	ug/L	0.034	70	10	22	38	KED
|	**Zn**	**67**	**-0.000**	ug/L	0.001	225	1	1		KED
⌊	**As**	**75**	**0.011**	ug/L	0.005	43	3	5	13	KED
	Y	**89**		ug/L			692873	675458	1	Standard
	Kr	**83**		ug/L			51	48	40	Standard
⌈>	**In-1**	**115**		ug/L			7693	7929	1	KED
|	**Cd**	**111**	**-0.018**	ug/L	0.005	27	3	1	43	KED
⌊	**Cd**	**114**	**-0.031**	ug/L	0.004	11	10	0	180	KED
⌈>	**Tb**	**159**		ug/L			2213970	2220868	1	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	24	490	584	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:09:07
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	61852	0	Standard
	Cl	**37**		ug/L			12029590	12123957	0	Standard
⌈>	**Sc**	**45**		ug/L			1763048	1887525	2	Standard
|	**Cr**	**52**	**24.417**	ug/L	0.544	2	25966	759788	0	Standard
|	**Cr**	**53**	**24.916**	ug/L	0.591	2	160	83693	0	Standard
⌊	**Mn**	**55**	**2.237**	ug/L	0.068	3	626	88036	1	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	38996	1	KED
|	**Ni**	**60**	**0.363**	ug/L	0.027	7	2	323	5	KED
|	**Ni**	**62**	**0.374**	ug/L	0.062	16	1	52	17	KED
|	**Cu**	**63**	**0.601**	ug/L	0.019	3	16	1407	2	KED
|	**Cu**	**65**	**0.606**	ug/L	0.073	12	8	683	11	KED
|	**Zn**	**66**	**1.354**	ug/L	0.106	7	10	360	5	KED
|	**Zn**	**67**	**1.395**	ug/L	0.122	8	1	61	9	KED
⌊	**As**	**75**	**0.000**	ug/L	0.009	2503	3	3	34	KED
	Y	**89**		ug/L			692873	735899	1	Standard
	Kr	**83**		ug/L			51	52	7	Standard
⌈>	**In-1**	**115**		ug/L			7693	8297	1	KED
|	**Cd**	**111**	**-0.008**	ug/L	0.012	162	3	2	57	KED
⌊	**Cd**	**114**	**-0.025**	ug/L	0.009	37	10	2	108	KED
⌈>	**Tb**	**159**		ug/L			2213970	2305432	1	Standard
⌊	**Pb**	**208**	**0.007**	ug/L	0.001	8	490	1273	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-03
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:13:01
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			34961	50074	3	Standard
	Cl	37		ug/L			12029590	73700777	2	Standard
>	Sc	45		ug/L			1763048	1427116	1	Standard
	Cr	52	0.613	ug/L	0.003	0	25966	34913	1	Standard
	Cr	53	43.191	ug/L	0.844	1	160	109630	1	Standard
	Mn	55	68.631	ug/L	1.765	2	626	2027840	3	Standard
>	Ge-1	72		ug/L			37922	22744	1	KED
	Ni	60	0.233	ug/L	0.039	16	2	121	17	KED
	Ni	62	0.376	ug/L	0.092	24	1	30	22	KED
	Cu	63	0.094	ug/L	0.009	9	16	136	7	KED
	Cu	65	0.071	ug/L	0.010	14	8	50	12	KED
	Zn	66	1.495	ug/L	0.088	5	10	231	5	KED
	Zn	67	1.485	ug/L	0.220	14	1	38	13	KED
	As	75	0.274	ug/L	0.077	27	3	26	24	KED
	Y	89		ug/L			692873	553430	0	Standard
	Kr	83		ug/L			51	1367	5	Standard
>	In-1	115		ug/L			7693	5821	4	KED
	Cd	111	-0.014	ug/L	0.013	95	3	1	86	KED
	Cd	114	-0.022	ug/L	0.004	19	10	2	35	KED
>	Tb	159		ug/L			2213970	1853039	1	Standard
	Pb	208	0.032	ug/L	0.001	2	490	3429	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-04
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:16:55
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			34961	51029	0	Standard
	Cl	37		ug/L			12029590	79726673	4	Standard
>	Sc	45		ug/L			1763048	1445972	3	Standard
	Cr	52	0.670	ug/L	0.055	8	25966	36666	0	Standard
	Cr	53	44.500	ug/L	2.219	4	160	114320	2	Standard
	Mn	55	84.176	ug/L	3.099	3	626	2517424	1	Standard
>	Ge-1	72		ug/L			37922	21743	0	KED
	Ni	60	0.145	ug/L	0.030	20	2	73	19	KED
	Ni	62	0.368	ug/L	0.115	31	1	28	30	KED
	Cu	63	0.127	ug/L	0.001	0	16	173	1	KED
	Cu	65	0.127	ug/L	0.037	28	8	83	27	KED
	Zn	66	1.054	ug/L	0.150	14	10	158	13	KED
	Zn	67	1.047	ug/L	0.086	8	1	26	8	KED
	As	75	0.335	ug/L	0.018	5	3	30	5	KED
	Y	89		ug/L			692873	538864	0	Standard
	Kr	83		ug/L			51	855	1	Standard
>	In-1	115		ug/L			7693	5590	1	KED
	Cd	111	-0.009	ug/L	0.007	72	3	1	34	KED
	Cd	114	-0.028	ug/L	0.005	17	10	1	90	KED
>	Tb	159		ug/L			2213970	1851075	0	Standard
	Pb	208	0.031	ug/L	0.002	5	490	3322	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-05
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:20:50
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			34961	51400	1	Standard
	Cl	37		ug/L			12029590	105010061	2	Standard
>	Sc	45		ug/L			1763048	1365631	1	Standard
	Cr	52	0.786	ug/L	0.034	4	25966	37166	1	Standard
	Cr	53	55.243	ug/L	0.753	1	160	134143	1	Standard
	Mn	55	25.776	ug/L	0.311	1	626	728928	1	Standard
>	Ge-1	72		ug/L			37922	18223	1	KED
	Ni	60	0.172	ug/L	0.015	8	2	72	9	KED
	Ni	62	0.340	ug/L	0.095	27	1	22	27	KED
	Cu	63	0.165	ug/L	0.022	13	16	186	13	KED
	Cu	65	0.156	ug/L	0.015	9	8	85	7	KED
	Zn	66	1.843	ug/L	0.252	13	10	227	14	KED
	Zn	67	1.891	ug/L	0.444	23	1	38	24	KED
	As	75	0.405	ug/L	0.033	8	3	30	6	KED
	Y	89		ug/L			692873	531622	1	Standard
	Kr	83		ug/L			51	1527	2	Standard
>	In-1	115		ug/L			7693	5058	4	KED
	Cd	111	0.006	ug/L	0.019	322	3	2	57	KED
	Cd	114	-0.021	ug/L	0.015	71	10	2	117	KED
>	Tb	159		ug/L			2213970	1754010	0	Standard
	Pb	208	0.034	ug/L	0.001	1	490	3452	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-06
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:24:44
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			34961	50262	1	Standard
	Cl	37		ug/L			12029590	71092407	2	Standard
>	Sc	45		ug/L			1763048	1527801	0	Standard
	Cr	52	0.627	ug/L	0.015	2	25966	37711	0	Standard
	Cr	53	37.774	ug/L	0.650	1	160	102675	1	Standard
	Mn	55	2.031	ug/L	0.018	0	626	64756	1	Standard
>	Ge-1	72		ug/L			37922	22609	0	KED
	Ni	60	0.120	ug/L	0.016	13	2	62	13	KED
	Ni	62	0.255	ug/L	0.040	15	1	20	15	KED
	Cu	63	0.177	ug/L	0.018	10	16	247	10	KED
	Cu	65	0.160	ug/L	0.012	7	8	107	6	KED
	Zn	66	0.971	ug/L	0.139	14	10	151	13	KED
	Zn	67	1.211	ug/L	0.122	10	1	31	9	KED
	As	75	0.275	ug/L	0.056	20	3	26	19	KED
	Y	89		ug/L			692873	568357	1	Standard
	Kr	83		ug/L			51	540	4	Standard
>	In-1	115		ug/L			7693	5650	0	KED
	Cd	111	-0.002	ug/L	0.038	2383	3	2	137	KED
	Cd	114	-0.023	ug/L	0.010	43	10	2	94	KED
>	Tb	159		ug/L			2213970	1904784	1	Standard
	Pb	208	0.025	ug/L	0.001	3	490	2801	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-07
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:28:38
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	68262	4	Standard
	Cl	**37**		ug/L			12029590	77054531	5	Standard
>	**Sc**	**45**		ug/L			1763048	1643927	1	Standard
	Cr	**52**	**0.553**	ug/L	0.052	9	25966	38635	1	Standard
	Cr	**53**	**36.855**	ug/L	0.724	1	160	107776	0	Standard
	Mn	**55**	**41.751**	ug/L	1.020	2	626	1420733	0	Standard
>	**Ge-1**	**72**		ug/L			37922	21760	1	KED
	Ni	**60**	**0.656**	ug/L	0.029	4	2	325	5	KED
	Ni	**62**	**0.980**	ug/L	0.162	16	1	74	16	KED
	Cu	**63**	**1.416**	ug/L	0.031	2	16	1836	2	KED
	Cu	**65**	**1.365**	ug/L	0.047	3	8	852	3	KED
	Zn	**66**	**2.840**	ug/L	0.343	12	10	415	12	KED
	Zn	**67**	**2.481**	ug/L	0.705	28	1	60	28	KED
	As	**75**	**0.876**	ug/L	0.169	19	3	75	18	KED
	Y	**89**		ug/L			692873	573554	1	Standard
	Kr	**83**		ug/L			51	800	2	Standard
>	**In-1**	**115**		ug/L			7693	5487	1	KED
	Cd	**111**	**0.036**	ug/L	0.051	140	3	5	78	KED
	Cd	**114**	**-0.005**	ug/L	0.005	102	10	6	17	KED
>	**Tb**	**159**		ug/L			2213970	1897995	1	Standard
	Pb	**208**	**0.026**	ug/L	0.001	2	490	2940	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0192-02
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:32:32
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			34961	56449	1	Standard
	Cl	37		ug/L			12029590	11235386	2	Standard
>	Sc	45		ug/L			1763048	1730852	2	Standard
	Cr	52	0.148	ug/L	0.014	9	25966	29567	3	Standard
	Cr	53	1.812	ug/L	0.083	4	160	5724	2	Standard
	Mn	55	870.338	ug/L	3.903	0	626	31176296	2	Standard
>	Ge-1	72		ug/L			37922	26100	2	KED
	Ni	60	2.482	ug/L	0.183	7	2	1469	6	KED
	Ni	62	2.437	ug/L	0.082	3	1	219	4	KED
	Cu	63	0.218	ug/L	0.018	8	16	349	9	KED
	Cu	65	0.227	ug/L	0.015	6	8	175	8	KED
	Zn	66	21.002	ug/L	0.350	1	10	3638	1	KED
	Zn	67	19.797	ug/L	0.659	3	1	567	5	KED
	As	75	0.045	ug/L	0.026	58	3	7	35	KED
	Y	89		ug/L			692873	631978	2	Standard
	Kr	83		ug/L			51	150	5	Standard
>	In-1	115		ug/L			7693	4983	4	KED
	Cd	111	0.007	ug/L	0.034	461	3	2	94	KED
	Cd	114	0.001	ug/L	0.018	2212	10	6	51	KED
>	Tb	159		ug/L			2213970	2165413	1	Standard
	Pb	208	0.011	ug/L	0.000	1	490	1697	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0192-04
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:36:26
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			34961	60936	0	Standard
	Cl	37		ug/L			12029590	10321470	2	Standard
>	Sc	45		ug/L			1763048	1808626	2	Standard
	Cr	52	0.236	ug/L	0.027	11	25966	33415	1	Standard
	Cr	53	1.364	ug/L	0.020	1	160	4546	2	Standard
	Mn	55	2434.385	ug/L	58.308	2	626	91091708	0	Standard
>	Ge-1	72		ug/L			37922	26925	2	KED
	Ni	60	25.316	ug/L	0.453	1	2	15447	0	KED
	Ni	62	24.299	ug/L	0.602	2	1	2247	1	KED
	Cu	63	303.967	ug/L	5.878	1	16	485314	1	KED
	Cu	65	301.947	ug/L	6.550	2	8	232077	1	KED
	Zn	66	3287.778	ug/L	46.026	1	10	586363	0	KED
	Zn	67	3029.919	ug/L	57.357	1	1	89359	1	KED
	As	75	0.238	ug/L	0.048	20	3	27	17	KED
	Y	89		ug/L			692873	1072421	1	Standard
	Kr	83		ug/L			51	179	9	Standard
>	In-1	115		ug/L			7693	5226	1	KED
	Cd	111	13.490	ug/L	0.590	4	3	990	3	KED
	Cd	114	13.050	ug/L	0.209	1	10	2662	0	KED
>	Tb	159		ug/L			2213970	2412959	0	Standard
	Pb	208	0.282	ug/L	0.003	1	490	35061	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0192-06
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:40:20
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			34961	67717	1	Standard
	Cl	37		ug/L			12029590	10556789	2	Standard
>	Sc	45		ug/L			1763048	1784044	1	Standard
	Cr	52	0.028	ug/L	0.020	69	25966	27066	0	Standard
	Cr	53	0.755	ug/L	0.011	1	160	2556	1	Standard
	Mn	55	1167.292	ug/L	8.437	0	626	43098742	0	Standard
>	Ge-1	72		ug/L			37922	25665	0	KED
	Ni	60	3.986	ug/L	0.128	3	2	2320	3	KED
	Ni	62	3.834	ug/L	0.203	5	1	339	4	KED
	Cu	63	847.848	ug/L	17.243	2	16	1290709	2	KED
	Cu	65	835.459	ug/L	15.220	1	8	612193	1	KED
	Zn	66	7162.654	ug/L	116.288	1	10	1217913	1	KED
	Zn	67	6587.230	ug/L	31.869	0	1	185229	1	KED
	As	75	0.099	ug/L	0.014	13	3	12	10	KED
	Y	89		ug/L			692873	934308	0	Standard
	Kr	83		ug/L			51	180	8	Standard
>	In-1	115		ug/L			7693	5374	0	KED
	Cd	111	28.977	ug/L	0.605	2	3	2186	2	KED
	Cd	114	28.340	ug/L	1.195	4	10	5936	3	KED
>	Tb	159		ug/L			2213970	2217040	0	Standard
	Pb	208	6.968	ug/L	0.053	0	490	783465	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0193-02
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:44:14
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	72965	1	Standard
	Cl	**37**		ug/L			12029590	11025075	2	Standard
⌈>	**Sc**	**45**		ug/L			1763048	1928146	1	Standard
|	**Cr**	**52**	**0.155**	ug/L	0.038	24	25966	33155	3	Standard
|	**Cr**	**53**	**1.004**	ug/L	0.026	2	160	3614	0	Standard
⌊	**Mn**	**55**	**10.359**	ug/L	0.141	1	626	414076	2	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	34437	1	KED
|	**Ni**	**60**	**0.140**	ug/L	0.020	14	2	111	12	KED
|	**Ni**	**62**	**0.114**	ug/L	0.075	65	1	15	57	KED
|	**Cu**	**63**	**0.478**	ug/L	0.028	5	16	991	7	KED
|	**Cu**	**65**	**0.495**	ug/L	0.020	4	8	493	2	KED
|	**Zn**	**66**	**1.990**	ug/L	0.383	19	10	464	20	KED
|	**Zn**	**67**	**1.940**	ug/L	0.063	3	1	74	2	KED
⌊	**As**	**75**	**0.427**	ug/L	0.048	11	3	60	11	KED
	Y	**89**		ug/L			692873	710286	1	Standard
	Kr	**83**		ug/L			51	49	7	Standard
⌈>	**In-1**	**115**		ug/L			7693	7250	3	KED
|	**Cd**	**111**	**-0.020**	ug/L	0.010	48	3	0	100	KED
⌊	**Cd**	**114**	**-0.021**	ug/L	0.008	36	10	3	61	KED
⌈>	**Tb**	**159**		ug/L			2213970	2280955	0	Standard
⌊	**Pb**	**208**	**0.173**	ug/L	0.002	1	490	20533	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVC
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:49:13
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	37885	0	Standard
	Cl	**37**		ug/L			12029590	11077520	0	Standard
⌈>	**Sc**	**45**		ug/L			1763048	1736566	1	Standard
|	**Cr**	**52**	**49.922**	ug/L	2.448	4	25966	1402377	3	Standard
|	**Cr**	**53**	**50.865**	ug/L	1.714	3	160	157037	1	Standard
⌊	**Mn**	**55**	**48.995**	ug/L	2.286	4	626	1760669	3	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	34081	2	KED
|	**Ni**	**60**	**49.192**	ug/L	0.781	1	2	38000	2	KED
|	**Ni**	**62**	**47.779**	ug/L	0.551	1	1	5592	1	KED
|	**Cu**	**63**	**47.532**	ug/L	0.382	0	16	96083	1	KED
|	**Cu**	**65**	**47.931**	ug/L	0.245	0	8	46649	2	KED
|	**Zn**	**66**	**51.237**	ug/L	3.597	7	10	11577	7	KED
|	**Zn**	**67**	**50.721**	ug/L	2.922	5	1	1894	5	KED
⌊	**As**	**75**	**49.724**	ug/L	0.249	0	3	6556	2	KED
	Y	**89**		ug/L			692873	664571	1	Standard
	Kr	**83**		ug/L			51	54	36	Standard
⌈>	**In-1**	**115**		ug/L			7693	7185	2	KED
|	**Cd**	**111**	**49.795**	ug/L	0.386	0	3	5022	3	KED
⌊	**Cd**	**114**	**48.355**	ug/L	2.268	4	10	13527	1	KED
⌈>	**Tb**	**159**		ug/L			2213970	2297070	1	Standard
⌊	**Pb**	**208**	**47.386**	ug/L	0.680	1	490	5517044	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBC
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:54:12
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	34142	3	Standard
	Cl	**37**		ug/L			12029590	11118402	1	Standard
⎡>	**Sc**	**45**		ug/L			1763048	1709965	1	Standard
⎢	**Cr**	**52**	**-0.008**	ug/L	0.016	193	25966	24961	3	Standard
⎢	**Cr**	**53**	**0.371**	ug/L	0.008	2	160	1282	0	Standard
⎣	**Mn**	**55**	**0.003**	ug/L	0.001	32	626	710	4	Standard
⎡>	**Ge-1**	**72**		ug/L			37922	35534	0	KED
⎢	**Ni**	**60**	**0.000**	ug/L	0.003	1283	2	2	86	KED
⎢	**Ni**	**62**	**-0.004**	ug/L	0.009	217	1	1	86	KED
⎢	**Cu**	**63**	**0.005**	ug/L	0.003	60	16	25	22	KED
⎢	**Cu**	**65**	**0.001**	ug/L	0.002	193	8	8	24	KED
⎢	**Zn**	**66**	**0.030**	ug/L	0.028	93	10	17	38	KED
⎢	**Zn**	**67**	**0.035**	ug/L	0.101	286	1	3	124	KED
⎣	**As**	**75**	**0.003**	ug/L	0.002	73	3	3	6	KED
	Y	**89**		ug/L			692873	649151	1	Standard
	Kr	**83**		ug/L			51	43	11	Standard
⎡>	**In-1**	**115**		ug/L			7693	7034	2	KED
⎢	**Cd**	**111**	**-0.020**	ug/L	0.009	47	3	0	100	KED
⎣	**Cd**	**114**	**-0.031**	ug/L	0.004	12	10	0	180	KED
⎡>	**Tb**	**159**		ug/L			2213970	2243823	2	Standard
⎣	**Pb**	**208**	**-0.001**	ug/L	0.000	45	490	377	14	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0193-04
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:58:08 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	57319	1	Standard
	Cl	**37**		ug/L			12029590	10981231	2	Standard
⌈>	**Sc**	**45**		ug/L			1763048	1887674	2	Standard
|	**Cr**	**52**	**0.291**	ug/L	0.020	6	25966	36519	1	Standard
|	**Cr**	**53**	**0.784**	ug/L	0.029	3	160	2800	1	Standard
⌊	**Mn**	**55**	**0.565**	ug/L	0.024	4	626	22749	2	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	34839	1	KED
|	**Ni**	**60**	**0.070**	ug/L	0.028	39	2	57	38	KED
|	**Ni**	**62**	**0.107**	ug/L	0.063	58	1	14	52	KED
|	**Cu**	**63**	**0.197**	ug/L	0.012	6	16	421	4	KED
|	**Cu**	**65**	**0.197**	ug/L	0.022	11	8	203	11	KED
|	**Zn**	**66**	**1.638**	ug/L	0.032	1	10	387	2	KED
|	**Zn**	**67**	**1.717**	ug/L	0.093	5	1	67	6	KED
⌊	**As**	**75**	**0.426**	ug/L	0.044	10	3	60	10	KED
	Y	**89**		ug/L			692873	670809	2	Standard
	Kr	**83**		ug/L			51	45	14	Standard
⌈>	**In-1**	**115**		ug/L			7693	7387	2	KED
|	**Cd**	**111**	**-0.011**	ug/L	0.009	78	3	1	50	KED
⌊	**Cd**	**114**	**-0.021**	ug/L	0.006	30	10	3	52	KED
⌈>	**Tb**	**159**		ug/L			2213970	2253571	0	Standard
⌊	**Pb**	**208**	**0.046**	ug/L	0.001	2	490	5761	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0194-02
Sample Dil Factor:
Comments:

DEL

Sample Date/Time: Tuesday, June 19, 2018 22:02:02
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	62353	1	Standard
	Cl	**37**		ug/L			12029590	11206183	1	Standard
⌈>	**Sc**	**45**		ug/L			1763048	1885203	1	Standard
|	**Cr**	**52**	**0.074**	ug/L	0.028	38	25966	29975	1	Standard
|	**Cr**	**53**	**0.818**	ug/L	0.011	1	160	2912	2	Standard
⌊	**Mn**	**55**	**8.151**	ug/L	0.167	2	626	318638	1	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	35585	1	KED
|	**Ni**	**60**	**0.197**	ug/L	0.021	10	2	161	9	KED
|	**Ni**	**62**	**0.162**	ug/L	0.009	5	1	21	5	KED
|	**Cu**	**63**	**0.421**	ug/L	0.017	4	16	904	3	KED
|	**Cu**	**65**	**0.386**	ug/L	0.015	3	8	400	2	KED
|	**Zn**	**66**	**1.441**	ug/L	0.099	6	10	349	6	KED
|	**Zn**	**67**	**2.002**	ug/L	0.624	31	1	80	31	KED
⌊	**As**	**75**	**0.406**	ug/L	0.087	21	3	59	20	KED
	Y	**89**		ug/L			692873	657510	3	Standard
	Kr	**83**		ug/L			51	53	6	Standard
⌈>	**In-1**	**115**		ug/L			7693	7209	2	KED
|	**Cd**	**111**	**-0.014**	ug/L	0.014	101	3	1	91	KED
⌊	**Cd**	**114**	**-0.023**	ug/L	0.014	58	10	2	131	KED
⌈>	**Tb**	**159**		ug/L			2213970	2269326	0	Standard
⌊	**Pb**	**208**	**0.087**	ug/L	0.001	1	490	10550	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0194-04
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 22:05:56

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	65432	1	Standard
	Cl	**37**		ug/L			12029590	11316879	1	Standard
⎡>	**Sc**	**45**		ug/L			1763048	1835247	2	Standard
⎢	**Cr**	**52**	**0.139**	ug/L	0.022	16	25966	31084	2	Standard
⎢	**Cr**	**53**	**0.848**	ug/L	0.017	1	160	2929	1	Standard
⎣	**Mn**	**55**	**3.429**	ug/L	0.155	4	626	130783	1	Standard
⎡>	**Ge-1**	**72**		ug/L			37922	34476	2	KED
⎢	**Ni**	**60**	**0.197**	ug/L	0.035	17	2	156	19	KED
⎢	**Ni**	**62**	**0.272**	ug/L	0.127	46	1	33	42	KED
⎢	**Cu**	**63**	**0.528**	ug/L	0.014	2	16	1094	2	KED
⎢	**Cu**	**65**	**0.531**	ug/L	0.012	2	8	530	4	KED
⎢	**Zn**	**66**	**2.639**	ug/L	0.056	2	10	612	4	KED
⎢	**Zn**	**67**	**2.930**	ug/L	0.601	20	1	112	19	KED
⎣	**As**	**75**	**0.443**	ug/L	0.109	24	3	62	22	KED
	Y	**89**		ug/L			692873	663389	1	Standard
	Kr	**83**		ug/L			51	46	34	Standard
⎡>	**In-1**	**115**		ug/L			7693	7266	2	KED
⎢	**Cd**	**111**	**-0.001**	ug/L	0.019	1737	3	2	66	KED
⎣	**Cd**	**114**	**-0.022**	ug/L	0.007	29	10	3	58	KED
⎡>	**Tb**	**159**		ug/L			2213970	2286749	1	Standard
⎣	**Pb**	**208**	**0.086**	ug/L	0.001	1	490	10417	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0194-06
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 22:09:50 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	62284	1	Standard
	Cl	**37**		ug/L			12029590	11263811	0	Standard
⌈>	**Sc**	**45**		ug/L			1763048	1825628	3	Standard
|	**Cr**	**52**	**0.149**	ug/L	0.070	47	25966	31160	3	Standard
|	**Cr**	**53**	**0.847**	ug/L	0.034	3	160	2910	1	Standard
⌊	**Mn**	**55**	**4.285**	ug/L	0.126	2	626	162454	0	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	35044	2	KED
|	**Ni**	**60**	**0.171**	ug/L	0.016	9	2	137	8	KED
|	**Ni**	**62**	**0.116**	ug/L	0.088	75	1	15	68	KED
|	**Cu**	**63**	**0.734**	ug/L	0.037	5	16	1541	5	KED
|	**Cu**	**65**	**0.733**	ug/L	0.027	3	8	740	3	KED
|	**Zn**	**66**	**1.693**	ug/L	0.169	9	10	402	8	KED
|	**Zn**	**67**	**1.646**	ug/L	0.428	26	1	64	23	KED
⌊	**As**	**75**	**0.441**	ug/L	0.045	10	3	63	10	KED
	Y	**89**		ug/L			692873	663181	1	Standard
	Kr	**83**		ug/L			51	59	7	Standard
⌈>	**In-1**	**115**		ug/L			7693	7080	2	KED
|	**Cd**	**111**	**-0.004**	ug/L	0.015	403	3	2	57	KED
⌊	**Cd**	**114**	**-0.022**	ug/L	0.007	33	10	3	64	KED
⌈>	**Tb**	**159**		ug/L			2213970	2252185	1	Standard
⌊	**Pb**	**208**	**0.063**	ug/L	0.000	0	490	7652	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVD
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 22:14:49
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	36322	4	Standard
	Cl	**37**		ug/L			12029590	10998236	1	Standard
⌈>	**Sc**	**45**		ug/L			1763048	1618026	0	Standard
|	**Cr**	**52**	**52.931**	ug/L	0.953	1	25966	1384654	1	Standard
|	**Cr**	**53**	**52.320**	ug/L	1.987	3	160	150538	3	Standard
⌊	**Mn**	**55**	**50.562**	ug/L	1.852	3	626	1693731	3	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	34424	0	KED
|	**Ni**	**60**	**48.991**	ug/L	0.395	0	2	38226	0	KED
|	**Ni**	**62**	**47.371**	ug/L	0.783	1	1	5601	1	KED
|	**Cu**	**63**	**46.778**	ug/L	1.007	2	16	95523	2	KED
|	**Cu**	**65**	**46.237**	ug/L	1.402	3	8	45451	2	KED
|	**Zn**	**66**	**49.060**	ug/L	0.410	0	10	11198	0	KED
|	**Zn**	**67**	**49.955**	ug/L	2.774	5	1	1885	5	KED
⌊	**As**	**75**	**49.478**	ug/L	0.764	1	3	6589	1	KED
	Y	**89**		ug/L			692873	644742	3	Standard
	Kr	**83**		ug/L			51	48	13	Standard
⌈>	**In-1**	**115**		ug/L			7693	6823	2	KED
|	**Cd**	**111**	**50.135**	ug/L	2.443	4	3	4797	2	KED
⌊	**Cd**	**114**	**48.680**	ug/L	0.607	1	10	12942	2	KED
⌈>	**Tb**	**159**		ug/L			2213970	2235334	1	Standard
⌊	**Pb**	**208**	**47.007**	ug/L	0.358	0	490	5325884	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBD
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 22:19:47
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	32614	3	Standard
	Cl	**37**		ug/L			12029590	10879381	1	Standard
⌈>	**Sc**	**45**		ug/L			1763048	1658997	0	Standard
|	**Cr**	**52**	**0.034**	ug/L	0.026	77	25966	25324	2	Standard
|	**Cr**	**53**	**0.192**	ug/L	0.010	5	160	717	4	Standard
⌊	**Mn**	**55**	**0.002**	ug/L	0.001	29	626	657	3	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	33172	10	KED
|	**Ni**	**60**	**0.006**	ug/L	0.003	51	2	6	41	KED
|	**Ni**	**62**	**-0.002**	ug/L	0.022	1139	1	1	173	KED
|	**Cu**	**63**	**0.003**	ug/L	0.002	56	16	20	24	KED
|	**Cu**	**65**	**0.003**	ug/L	0.004	130	8	10	28	KED
|	**Zn**	**66**	**0.026**	ug/L	0.005	17	10	15	12	KED
|	**Zn**	**67**	**0.010**	ug/L	0.060	582	1	1	100	KED
⌊	**As**	**75**	**0.018**	ug/L	0.017	93	3	5	35	KED
	Y	**89**		ug/L			692873	623638	1	Standard
	Kr	**83**		ug/L			51	40	18	Standard
⌈>	**In-1**	**115**		ug/L			7693	7417	4	KED
|	**Cd**	**111**	**-0.011**	ug/L	0.001	6	3	1		KED
⌊	**Cd**	**114**	**-0.027**	ug/L	0.006	22	10	1	100	KED
⌈>	**Tb**	**159**		ug/L			2213970	2207448	1	Standard
⌊	**Pb**	**208**	**-0.000**	ug/L	0.000	341	490	478	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 22:23:41
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	63490	2	Standard
	Cl	**37**		ug/L			12029590	11348590	2	Standard
⌈>	**Sc**	**45**		ug/L			1763048	2024178	1	Standard
|	**Cr**	**52**	**0.139**	ug/L	0.056	40	25966	34278	3	Standard
|	**Cr**	**53**	**0.169**	ug/L	0.011	6	160	792	3	Standard
⌊	**Mn**	**55**	**0.056**	ug/L	0.012	21	626	3061	16	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	37986	0	KED
|	**Ni**	**60**	**0.147**	ug/L	0.016	10	2	128	10	KED
|	**Ni**	**62**	**0.161**	ug/L	0.030	18	1	22	16	KED
|	**Cu**	**63**	**0.035**	ug/L	0.003	7	16	94	6	KED
|	**Cu**	**65**	**0.042**	ug/L	0.011	25	8	53	20	KED
|	**Zn**	**66**	**0.585**	ug/L	0.018	3	10	158	3	KED
|	**Zn**	**67**	**0.549**	ug/L	0.049	8	1	24	7	KED
⌊	**As**	**75**	**-0.000**	ug/L	0.007	21592	3	3	25	KED
	Y	**89**		ug/L			692873	744178	1	Standard
	Kr	**83**		ug/L			51	55	27	Standard
⌈>	**In-1**	**115**		ug/L			7693	8246	3	KED
|	**Cd**	**111**	**-0.015**	ug/L	0.010	66	3	1	69	KED
⌊	**Cd**	**114**	**-0.026**	ug/L	0.009	35	10	2	123	KED
⌈>	**Tb**	**159**		ug/L			2213970	2460873	1	Standard
⌊	**Pb**	**208**	**0.026**	ug/L	0.009	36	490	3758	32	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 22:27:36
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	63373	0	Standard
	Cl	**37**		ug/L			12029590	11391447	1	Standard
⌈>	**Sc**	**45**		ug/L			1763048	2052701	0	Standard
|	**Cr**	**52**	**0.098**	ug/L	0.010	9	25966	33433	1	Standard
|	**Cr**	**53**	**0.153**	ug/L	0.005	3	160	744	2	Standard
⌊	**Mn**	**55**	**0.051**	ug/L	0.002	3	626	2895	2	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	38303	1	KED
|	**Ni**	**60**	**0.147**	ug/L	0.011	7	2	130	7	KED
|	**Ni**	**62**	**0.135**	ug/L	0.034	25	1	19	22	KED
|	**Cu**	**63**	**0.044**	ug/L	0.004	8	16	117	5	KED
|	**Cu**	**65**	**0.038**	ug/L	0.006	15	8	49	13	KED
|	**Zn**	**66**	**0.528**	ug/L	0.052	9	10	144	8	KED
|	**Zn**	**67**	**0.589**	ug/L	0.234	39	1	26	37	KED
⌊	**As**	**75**	**0.012**	ug/L	0.010	85	3	5	26	KED
	Y	**89**		ug/L			692873	757065	2	Standard
	Kr	**83**		ug/L			51	46	23	Standard
⌈>	**In-1**	**115**		ug/L			7693	8193	2	KED
|	**Cd**	**111**	**-0.013**	ug/L	0.015	117	3	1	86	KED
⌊	**Cd**	**114**	**-0.032**	ug/L	0.003	10	10	0	241	KED
⌈>	**Tb**	**159**		ug/L			2213970	2492487	2	Standard
⌊	**Pb**	**208**	**0.020**	ug/L	0.000	0	490	3031	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 22:31:31
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	63657	2	Standard
	Cl	**37**		ug/L			12029590	11275398	2	Standard
⌈>	**Sc**	**45**		ug/L			1763048	2045328	3	Standard
|	**Cr**	**52**	**0.093**	ug/L	0.040	43	25966	33103	0	Standard
|	**Cr**	**53**	**0.144**	ug/L	0.008	5	160	710	1	Standard
⌊	**Mn**	**55**	**0.050**	ug/L	0.003	5	626	2823	6	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	38154	1	KED
|	**Ni**	**60**	**0.135**	ug/L	0.016	11	2	119	13	KED
|	**Ni**	**62**	**0.116**	ug/L	0.002	2	1	17	0	KED
|	**Cu**	**63**	**0.041**	ug/L	0.003	8	16	109	7	KED
|	**Cu**	**65**	**0.031**	ug/L	0.010	32	8	42	25	KED
|	**Zn**	**66**	**0.530**	ug/L	0.054	10	10	144	8	KED
|	**Zn**	**67**	**0.516**	ug/L	0.133	25	1	23	23	KED
⌊	**As**	**75**	**0.017**	ug/L	0.017	101	3	6	38	KED
	Y	**89**		ug/L			692873	752141	1	Standard
	Kr	**83**		ug/L			51	53	6	Standard
⌈>	**In-1**	**115**		ug/L			7693	8245	1	KED
|	**Cd**	**111**	**-0.013**	ug/L	0.000	1	3	1		KED
⌊	**Cd**	**114**	**-0.028**	ug/L	0.010	37	10	1	194	KED
⌈>	**Tb**	**159**		ug/L			2213970	2474165	1	Standard
⌊	**Pb**	**208**	**0.019**	ug/L	0.001	3	490	2958	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 22:35:25
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	40321	2	Standard
	Cl	**37**		ug/L			12029590	10252527	2	Standard
⌈>	**Sc**	**45**		ug/L			1763048	1604079	4	Standard
|	**Cr**	**52**	**0.009**	ug/L	0.030	330	25966	23839	1	Standard
|	**Cr**	**53**	**0.152**	ug/L	0.006	4	160	579	4	Standard
⌊	**Mn**	**55**	**-0.007**	ug/L	0.000	6	626	331	1	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	34723	2	KED
|	**Ni**	**60**	**0.036**	ug/L	0.008	23	2	30	18	KED
|	**Ni**	**62**	**0.022**	ug/L	0.024	106	1	4	65	KED
|	**Cu**	**63**	**0.000**	ug/L	0.004	3004	16	15	54	KED
|	**Cu**	**65**	**0.000**	ug/L	0.000	344	8	7	0	KED
|	**Zn**	**66**	**0.068**	ug/L	0.018	26	10	25	15	KED
|	**Zn**	**67**	**0.071**	ug/L	0.075	105	1	4	65	KED
⌊	**As**	**75**	**0.009**	ug/L	0.009	91	3	4	26	KED
	Y	**89**		ug/L			692873	589045	2	Standard
	Kr	**83**		ug/L			51	51	23	Standard
⌈>	**In-1**	**115**		ug/L			7693	6949	1	KED
|	**Cd**	**111**	**-0.013**	ug/L	0.011	83	3	1	69	KED
⌊	**Cd**	**114**	**-0.024**	ug/L	0.011	44	10	2	118	KED
⌈>	**Tb**	**159**		ug/L			2213970	2164741	0	Standard
⌊	**Pb**	**208**	**-0.002**	ug/L	0.000	18	490	281	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 22:39:19
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	38480	2	Standard
	Cl	**37**		ug/L			12029590	10139986	1	Standard
⎡>	**Sc**	**45**		ug/L			1763048	1515960	0	Standard
⎢	**Cr**	**52**	**0.047**	ug/L	0.016	33	25966	23471	1	Standard
⎢	**Cr**	**53**	**0.150**	ug/L	0.009	6	160	542	4	Standard
⎣	**Mn**	**55**	**-0.007**	ug/L	0.000	5	626	314	3	Standard
⎡>	**Ge-1**	**72**		ug/L			37922	34632	1	KED
⎢	**Ni**	**60**	**0.024**	ug/L	0.004	17	2	20	15	KED
⎢	**Ni**	**62**	**0.028**	ug/L	0.033	117	1	5	78	KED
⎢	**Cu**	**63**	**-0.000**	ug/L	0.002	837	16	14	27	KED
⎢	**Cu**	**65**	**-0.001**	ug/L	0.001	90	8	6	17	KED
⎢	**Zn**	**66**	**0.051**	ug/L	0.040	77	10	21	43	KED
⎢	**Zn**	**67**	**0.056**	ug/L	0.135	241	1	3	132	KED
⎣	**As**	**75**	**0.011**	ug/L	0.007	64	3	4	20	KED
	Y	**89**		ug/L			692873	584746	3	Standard
	Kr	**83**		ug/L			51	43	17	Standard
⎡>	**In-1**	**115**		ug/L			7693	6730	0	KED
⎢	**Cd**	**111**	**0.068**	ug/L	0.077	112	3	9	78	KED
⎣	**Cd**	**114**	**-0.013**	ug/L	0.012	91	10	5	57	KED
⎡>	**Tb**	**159**		ug/L			2213970	2122615	1	Standard
⎣	**Pb**	**208**	**-0.002**	ug/L	0.000	19	490	268	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 22:43:14
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	38725	0	Standard
	Cl	**37**		ug/L			12029590	10220179	2	Standard
⌈>	**Sc**	**45**		ug/L			1763048	1545191	1	Standard
|	**Cr**	**52**	**0.017**	ug/L	0.035	208	25966	23159	2	Standard
|	**Cr**	**53**	**0.155**	ug/L	0.008	5	160	566	3	Standard
⌊	**Mn**	**55**	**-0.007**	ug/L	0.001	8	626	326	4	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	34676	1	KED
|	**Ni**	**60**	**0.027**	ug/L	0.011	42	2	23	37	KED
|	**Ni**	**62**	**0.028**	ug/L	0.040	142	1	5	94	KED
|	**Cu**	**63**	**-0.003**	ug/L	0.001	40	16	8	35	KED
|	**Cu**	**65**	**0.000**	ug/L	0.003	7185	8	7	43	KED
|	**Zn**	**66**	**0.085**	ug/L	0.048	57	10	29	37	KED
|	**Zn**	**67**	**0.038**	ug/L	0.077	201	1	3	91	KED
⌊	**As**	**75**	**0.011**	ug/L	0.007	65	3	4	20	KED
	Y	**89**		ug/L			692873	577635	1	Standard
	Kr	**83**		ug/L			51	39	24	Standard
⌈>	**In-1**	**115**		ug/L			7693	6970	0	KED
|	**Cd**	**111**	**0.149**	ug/L	0.036	24	3	17	20	KED
⌊	**Cd**	**114**	**0.037**	ug/L	0.029	77	10	19	40	KED
⌈>	**Tb**	**159**		ug/L			2213970	2095563	0	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.000	32	490	316	14	Standard

INITIAL CALIBRATION DATA

EPA 6020A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00056	Instrument:	ICPMS1
Calibration Date:	06/22/2018 11:08		

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Lead-208, Dissolved	0	0	0.1	144940	10	138091.3	20	140080.5	50	138056	100	134633.4

INITIAL CALIBRATION DATA

EPA 6020A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00056	Instrument:	ICPMS1
Calibration Date:	06/22/2018 11:08		

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Lead-208, Dissolved	115966.9	49.1	0.9998		0.998	

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ICP/MS - 02 SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 85DN5032601

Analysis Date: 6/22/18 **Analyst:** MB

SEQ: 5GF0314
CAL: BF000056

All corrections made by analyst unless otherwise noted. MB 6/22/18

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	~~CAL~~SEQ-CAL1			
		SEQ-CAL2			
		-CAL3			
		-CAL4			
		-CAL5			
		-CAL6			
		-IBL1			
		-ICV1			
		-ICB1			
		-CCV1			
	✓	-CCB1			SCT
		SEQ-CAL1	G5639		
		-CAL2	G5695		
		-CAL3	G5629		
		-CAL4	G5621		
		-CAL5	G5696		
		-CAL6	G5622		
		-IBL1	-		
		-ICV1	G5103		
		-ICB1	G5639		
		-CCV1	G5696		
		-CCB1	G5639		
		-CRL1	G5695		
		-IFA1	G5699		Cr53

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS - 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 6/22/18 **Analyst:** MB

All corrections made by analyst unless otherwise noted. MB 6/22/18

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-IFB1	G5697		
		-HCV1	G57ΦΦ		Pb↓ Pb < 100
		-HCV2	G5701		↓
		-IBL2/3			
		-CCV2			
		↓ -CCB2			
		BGFΦ546-BLK1	REN		Cu, Pb, Zn > ARL
		↓ -BS1	↓		
		18FΦ317-Φ1			Cu, Pb, Zn NR
~~—~~		~~18FΦ318-Φ1~~			~~—~~
	✓	BGFΦ564-BLK1	REN		Test only
		18FΦ318-Φ1	↓		Ge^{-1}, In^{-1} ↓ Cr, Pb only rest NR
		SEQ-CCV3			
		-CCB3			
	✓	-CAL1			
		-CCV4			Ag ↓
		↓ -CCB4			
	✓	BGFΦ546-BLK1	REN		
		18FΦ158-Φ7			Cu > LR Pb only rest NR
		↓ -Φ8			↓ Pb only ↓
		18FΦ142-13		10	
		18FΦ185-Φ7		5	
		18FΦ158-Φ4			
		18FΦ319-Φ9	↓		Cu, Pb, Zn NR

Analytical Resources, Incorporated
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ICP/MS - 02 SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 85DN5032601

Analysis Date: 6/22/18 **Analyst:** NB

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		BGFΦ546-DUP1	REN		Cu, Pb, Zn NR
		↓ -MS1	↓		↓
		↓ -MSD1			
		SEQ-CCV5			Ag↓
		↓ -CCB5			
		18FΦ158-Φ5	REN		
		-Φ6			
		-Φ7RE1		20	Cu only
		↓ -Φ8RE1		10	↓
		18FΦ313-Φ1			Zn NR
	✓	18FΦ318-Φ1RE1		2	Ge⁻¹, In⁻¹↓
		18FΦ158-Φ1			Pb only
		BGFΦ364-DUP3			↓
		↓ -MS3			
		↓ -MSD3			
		SEQ-CCV6			Ag↓
		↓ -CCB6			
		BGFΦ437-BLK1	REN		
		↓ -BS1			
		18FΦ318-Φ1RE1		5	Ni, Cd only / Cu, Zn, Pb NR
		18FΦ313-Φ2			Zn NR
		↓ -Φ3			↓
		-Φ4			
		↓ -Φ5	↓		

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ICP/MS - 02 SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 85DN5032601

Analysis Date: 6/22/18 **Analyst:** MB

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		18FΦ323-Φ1	REN		Ge^{-1}, In^{-1} ↓ No Ni, Cd, Cu, Zn, Pb NR
		18FΦ264-Φ1	↓	50	
		18FΦ198-28	↓		Mn > LR No Mn, Cd
		SEQ-CCV7			Ag ↓
		-CCB7			
	✓	-CAL1			
		-CCV8			Ag ↓
		-CCB8			
	✓	18FΦ198-3Φ	REN		Missed tube
		-32			No Cd
		-34			
		-17		10	
		-10			
		BGFΦ437-DUP1			Cd sl. noisy
		18FΦ198-18		10	
		BGFΦ437-MS1			(source: F198-1Φ) Mn %R ↓
		-MSD1			↓
	✓	18FΦ265-Φ1	↓	5	Cd noisy
		SEQ-CCV9			Ag ↓
		-CCB9			
		18FΦ198-3Φ	REN		No Mn
		-36			
		-21		50	Zn only
		-4Φ	↓		Ge^{-1}, In^{-1} ↓ Pb only

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ICP/MS - 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 6/22/18 **Analyst:** NB

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		18FΦ198-42	REN		No Mn
		-44			Ge^{-1}, In^{-1} ↓ Pb only
		-22		50	Zn only
		-38			Zn>LR, Cd noisy Cu, Pb only
		-46			Ge^{-1}, In^{-1} ↓ Pb only
	✓	-23		5	
		SEQ-CCVA			Cr^{52} ↓ Mn, Ni^{62}, Ag ↓
		↓ -CCBA			
		18FΦ198-48	REN		Cu, Pb only
		-5Φ			Mn, Zn>LR No Mn, Zn
	✓	-24		5	
		-52			No Mn
		-54			↓
		-56			Cd noisy No Mn, Cd
	✓	-27		5	
		-58			No Mn
		-6Φ			↓
		SEQ-IBL4			
		-CCVB			Mn, Ag ↓
		↓ -CCBB			
	✓	18FΦ198-29	REN	5	
		-62			No Mn
		-66			↓
		-37		5	

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ICP/MS - 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 6/22/18 **Analyst:** MB

All corrections made by analyst unless otherwise noted. 6/22/18 MB

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	18FΦ258-Φ1	REN		Ge^{-1}, In^{-1} ↓
	✓	18FΦ271-Φ1	↓	10	Zn > LR
		18FΦ198-13	↓	↓	Pb only
	✓	-26	↓	2	Cd noisy
	✓	-39	↓	10	
	✓	-43	↓	10	
		SEQ-CCVC			Mn, Cu^{65}, Ag ↓
		↓ -CCBC			
		18FΦ198-47	REN	10	Zn only
	✓	-45	↓		Ge^{-1}, In^{-1} ↓
	✓	-45RE1	↓	10	
		-49	↓	10	Zn only
		SEQ-IBL5			
		-CCVD			Mn, $N_i{}^{62}$, Cu^{65}, Ag ↓
		↓ ~~-CCVCCBD~~			
		Rinse/DI			
			MB 6/22/18		

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Friday, June 22, 2018 11:08:57
Sample Description:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\STD Performance Check.5930
MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	1608.6	1608.557	21.409	1.3	Standard
	In	114.9	18600.8	-935806.582	552.910	0.1	Standard
	U	238.1	23497.5	23497.461	828.135	3.5	Standard
⌈	CeO	155.9	172.1	0.009	0.001	6.3	Standard
| >	Ce	139.9	19218.4	19218.393	544.028	2.8	Standard
⌊	Ce++	70.0	1935.6	0.101	0.002	1.9	Standard
	Bkgd	220.0	0.1	0.067	0.091	136.9	Standard

Current Conditions File Data

Current Value	Description
0.96	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-11.50	Deflector Voltage
1600.00	ICP RF Power
-1825.00	Analog Stage Voltage
1400.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-14.00	Cell Rod Offset STD [CRO]
14.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
0.96	DRC Mode NEB
-7.00	DRC Mode QRO
-1.50	DRC Mode CRO
-6.00	DRC Mode Cell Entrance/Exit Voltage
0.10	Cell Gas A
0.00	Cell Gas B
200.00	Axial Field Voltage
-14.50	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-14.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
2.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Start Time: 6/22/2018 11:08:52 AM
End Time: 6/22/2018 11:17:47 AM

STD Performance Check - [Failed]
Obtained Intensity (Be 9): 1608.56 - <Target not achieved>
Obtained Intensity (In 115): 18600.78 - <Target not achieved>
Obtained Intensity (U 238): 23497.46 - <Target not achieved>
Obtained Intensity (Bkgd 220): 0.07
Obtained Formula (Ce++ 70 / Ce 140): 0.101 (=1935.60 / 19218.39) - <Target not achieved>
Obtained Formula (CeO 156 / Ce 140): 0.009 (=172.07 / 19218.39)

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
1.86 mm	-1.38 mm	25168.15

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 1
Obtained Intensity (In 115): 33342.87
Obtained Formula (CeO 156 / Ce 140): 0.0161 (=486.01 / 30268.03)

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.703)
Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.688)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.708)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.710)

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Optimization Status

Start Time: 6/22/2018 11:08:52 AM

STD Performance Check
	Optimization Settings:
		Method: STD Performance Check.mth.
		Intensity Criterion: Be 9 > 2000
		Intensity Criterion: In 115 > 40000
		Intensity Criterion: U 238 > 30000
		Intensity Criterion: Bkgd 220 <= 1
		Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
		Formula Criterion: CeO 156 / Ce 140 <= 0.025

	Optimization Results:
	Initial Try
		Obtained Intensity (Be 9): 1608.56 - <Target not achieved>
		Obtained Intensity (In 115): 18600.78 - <Target not achieved>
		Obtained Intensity (U 238): 23497.46 - <Target not achieved>
		Obtained Intensity (Bkgd 220): 0.07
		Obtained Formula (Ce++ 70 / Ce 140): 0.101 (=1935.60 / 19218.39) - <Target not achieved>
		Obtained Formula (CeO 156 / Ce 140): 0.009 (=172.07 / 19218.39)

		[Failed]
[Failed]

Torch Alignment
	Optimization Settings:
		Method: Torch Alignment.mth.
		Intensity Criterion: In 115 Maximum

	Optimization Results:
		Vertical	Horizontal	Intensity
[Passed]	1.86 mm	-1.38 mm	25168.15

Nebulizer Gas Flow STD/KED [NEB]
	Optimization Settings:
		Method: Optimize.mth.
			Initial Try - Start/End/Step: 0.9/1.1/0.02.
		Intensity Criterion: In 115 Maximum
		Formula Criterion: CeO 156 / Ce 140 <= 0.02

	Optimization Results:
	Initial Try

		Obtained Intensity (In 115): 33342.87
		Obtained Formula (CeO 156 / Ce 140): 0.0161 (=486.01 / 30268.03)
[Passed] Optimum value(s): 1

Mass Calibration and Resolution
	Optimization Settings:
		Method: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Tuning3rep.mth.
		MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
		Iterations: 6

```
        Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution
        Peak height (%) for Res. Opt.: 10

    Optimization Results:
    Initial Try
        Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.667) - <Target not achieved>
        Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.686)
        Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.706)
        Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.703)
        [Failed]
    Retry 1
        Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.703)
        Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.688)
        Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.708)
        Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.710)
[Passed]  Optimum value(s): N/A

End Time: 6/22/2018 11:17:47 AM
```

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Friday, June 22, 2018 11:18:03
Sample Description:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\STD Performance Check.5935
MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	13490.6	13490.634	94.555	0.7	Standard
	In	114.9	112566.0	112566.023	541.655	0.5	Standard
	U	238.1	177056.5	177056.547	896.538	0.5	Standard
⌈	CeO	155.9	1676.4	0.016	0.000	1.3	Standard
| >	Ce	139.9	108122.0	108121.956	301.116	0.3	Standard
⌊	Ce++	70.0	3349.9	0.031	0.001	4.0	Standard
	Bkgd	220.0	0.2	0.167	0.204	122.5	Standard

Current Conditions File Data

Current Value	Description
1.00	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-11.50	Deflector Voltage
1600.00	ICP RF Power
-1825.00	Analog Stage Voltage
1400.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-14.00	Cell Rod Offset STD [CRO]
14.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
1.00	DRC Mode NEB
-7.00	DRC Mode QRO
-1.50	DRC Mode CRO
-6.00	DRC Mode Cell Entrance/Exit Voltage
0.10	Cell Gas A
0.00	Cell Gas B
200.00	Axial Field Voltage
-14.50	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-14.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
2.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Friday, June 22, 2018 11:34:39
Sample Description:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\STD Performance Check.5941
MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	16518.7	16518.680	258.660	1.6	Standard
	In	114.9	150089.6	150089.602	1712.036	1.1	Standard
	U	238.1	152942.4	152942.435	1032.168	0.7	Standard
⌈	CeO	155.9	1784.7	0.015	0.000	3.1	Standard
| >	Ce	139.9	122936.7	122936.718	699.602	0.6	Standard
⌊	Ce++	70.0	2298.3	0.019	0.004	20.1	Standard
	Bkgd	220.0	0.1	0.133	0.139	104.6	Standard

Current Conditions File Data

Current Value	Description
1.00	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-11.50	Deflector Voltage
1600.00	ICP RF Power
-1825.00	Analog Stage Voltage
1400.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-14.00	Cell Rod Offset STD [CRO]
14.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
1.00	DRC Mode NEB
-7.00	DRC Mode QRO
-1.50	DRC Mode CRO
-6.00	DRC Mode Cell Entrance/Exit Voltage
0.10	Cell Gas A
0.00	Cell Gas B
200.00	Axial Field Voltage
-14.50	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-14.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
2.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Start Time: 6/22/2018 11:18:00 AM
End Time: 6/22/2018 11:36:43 AM

STD Performance Check - [Failed]
Obtained Intensity (Be 9): 13490.63
Obtained Intensity (In 115): 112566.02
Obtained Intensity (U 238): 177056.55
Obtained Intensity (Bkgd 220): 0.17
Obtained Formula (Ce++ 70 / Ce 140): 0.031 (=3349.86 / 108121.96) - <Target not achieved>
Obtained Formula (CeO 156 / Ce 140): 0.016 (=1676.43 / 108121.96)

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
1.56 mm	-1.57 mm	82009.72

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 1
Obtained Intensity (In 115): 97859.03
Obtained Formula (CeO 156 / Ce 140): 0.0169 (=1590.09 / 93917.71)

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/6.975), Target/Obtained resolution (0.7/0.706)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.681)
Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.705)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.707)

QID STD/DRC - Optimum value(s): Correlation Coefficient = 0.999; Intercept = -14.80

KED Mode QID - Optimum value(s): Correlation Coefficient = 1.000; Intercept = -14.18

STD Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9): 16518.68
Obtained Intensity (In 115): 150089.60
Obtained Intensity (U 238): 152942.44
Obtained Intensity (Bkgd 220): 0.13
Obtained Formula (Ce++ 70 / Ce 140): 0.019 (=2298.26 / 122936.72)
Obtained Formula (CeO 156 / Ce 140): 0.015 (=1784.71 / 122936.72)

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Optimization Status

Start Time: 6/22/2018 11:18:00 AM

STD Performance Check
	Optimization Settings:
		Method: STD Performance Check.mth.
		Intensity Criterion: Be 9 > 2000
		Intensity Criterion: In 115 > 40000
		Intensity Criterion: U 238 > 30000
		Intensity Criterion: Bkgd 220 <= 1
		Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
		Formula Criterion: CeO 156 / Ce 140 <= 0.025

	Optimization Results:
	Initial Try
		Obtained Intensity (Be 9): 13490.63
		Obtained Intensity (In 115): 112566.02
		Obtained Intensity (U 238): 177056.55
		Obtained Intensity (Bkgd 220): 0.17
		Obtained Formula (Ce++ 70 / Ce 140): 0.031 (=3349.86 / 108121.96) - <Target not achieved>
		Obtained Formula (CeO 156 / Ce 140): 0.016 (=1676.43 / 108121.96)

		[Failed]
[Failed]

Torch Alignment
	Optimization Settings:
		Method: Torch Alignment.mth.
		Intensity Criterion: In 115 Maximum

	Optimization Results:
		Vertical	Horizontal	Intensity
[Passed]	1.56 mm	-1.57 mm	82009.72

Nebulizer Gas Flow STD/KED [NEB]
	Optimization Settings:
		Method: Optimize.mth.
			Initial Try - Start/End/Step: 0.9/1.1/0.02.
		Intensity Criterion: In 115 Maximum
		Formula Criterion: CeO 156 / Ce 140 <= 0.02

	Optimization Results:
	Initial Try

		Obtained Intensity (In 115): 97859.03
		Obtained Formula (CeO 156 / Ce 140): 0.0169 (=1590.09 / 93917.71)
[Passed] Optimum value(s): 1

Mass Calibration and Resolution
	Optimization Settings:
		Method: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Tuning3rep.mth.
		MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
		Iterations: 6

Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution
Peak height (%) for Res. Opt.: 10

Optimization Results:
Initial Try
Target/Obtained mass (7.016/6.975), Target/Obtained resolution (0.7/0.706)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.681)
Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.705)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.707)
[Passed] Optimum value(s): N/A

QID STD/DRC
Optimization Settings:
Method: QID Calibration.mth.
Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:
Initial Try

Optimum value(s): Correlation Coefficient = 0.999; Intercept = -14.80

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-15	66695.3
Mg	24	41	-15	77996.3
In	115	41	-12	160306
Ce	140	41	-10.5	127341
Pb	208	41	-8.5	80791.8
U	238	41	-8	159599

KED Mode QID
Optimization Settings:
Method: QID Calibration.mth.
Initial Try - Start/End/Step: -16/-4/0.25.

Optimization Results:
Initial Try

Optimum value(s): Correlation Coefficient = 1.000; Intercept = -14.18

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	49	-14.75	60375.3
Mg	24	49	-15.5	76673.2
In	115	49	-12.25	129617
Ce	140	49	-11	112731
Pb	208	49	-8.5	44408.9
U	238	49	-7	95095.5

STD Performance Check
Optimization Settings:
Method: STD Performance Check.mth.
Intensity Criterion: Be 9 > 2000
Intensity Criterion: In 115 > 40000
Intensity Criterion: U 238 > 30000
Intensity Criterion: Bkgd 220 <= 10
Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
Formula Criterion: CeO 156 / Ce 140 <= 0.025

```
       Optimization Results:
       Initial Try
               Obtained Intensity (Be 9): 16518.68
               Obtained Intensity (In 115): 150089.60
               Obtained Intensity (U 238): 152942.44
               Obtained Intensity (Bkgd 220): 0.13
               Obtained Formula (Ce++ 70 / Ce 140): 0.019 (=2298.26 / 122936.72)
               Obtained Formula (CeO 156 / Ce 140): 0.015 (=1784.71 / 122936.72)

[Passed]  Optimum value(s): N/A

End Time: 6/22/2018 11:36:43 AM
```

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 12:18:53 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				64725	1	Standard
	Cl	**37**		ug/L				10897530	0	Standard
⌈>	**Sc**	**45**		ug/L				2648114	2	Standard
|	**Cr**	**52**		ug/L				34690	3	Standard
|	**Cr**	**53**		ug/L				185	6	Standard
⌊	**Mn**	**55**		ug/L				754	4	Standard
⌈>	**Ge-1**	**72**		ug/L				17976	0	KED
|	**Ni**	**60**		ug/L				4	89	KED
|	**Ni**	**62**		ug/L				0		KED
|	**Cu**	**63**		ug/L				7	43	KED
|	**Cu**	**65**		ug/L				4	107	KED
|	**Zn**	**66**		ug/L				6	41	KED
|	**Zn**	**67**		ug/L				0		KED
⌊	**As**	**75**		ug/L				4	16	KED
	Y	**89**		ug/L				746455	1	Standard
	Kr	**83**		ug/L				50	15	Standard
⌈>	**In-1**	**115**		ug/L				4201	4	KED
|	**Cd**	**111**		ug/L				2	43	KED
⌊	**Cd**	**114**		ug/L				0	180	KED
⌈>	**In**	**115**		ug/L				2585473	1	Standard
⌊	**Ag**	**107**		ug/L				125	6	Standard
⌈>	**Tb**	**159**		ug/L				2349306	1	Standard
⌊	**Pb**	**208**		ug/L				577	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 12:22:52

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64725	61867	0	Standard
	Cl	**37**		ug/L			10897530	10811737	2	Standard
⌈>	**Sc**	**45**		ug/L			2648114	2678352	2	Standard
|	**Cr**	**52**	**0.500**	ug/L	0.029	5	34690	51397	3	Standard
|	**Cr**	**53**	**0.500**	ug/L	0.026	5	185	1935	3	Standard
⌊	**Mn**	**55**	**0.500**	ug/L	0.020	3	754	20742	2	Standard
⌈>	**Ge-1**	**72**		ug/L			17976	17748	2	KED
|	**Ni**	**60**	**0.500**	ug/L	0.062	12	4	198	11	KED
|	**Ni**	**62**	**0.500**	ug/L	0.131	26	0	31	27	KED
|	**Cu**	**63**	**0.500**	ug/L	0.048	9	7	525	7	KED
|	**Cu**	**65**	**0.500**	ug/L	0.067	13	4	238	11	KED
|	**Zn**	**66**	**4.000**	ug/L	0.332	8	6	499	6	KED
|	**Zn**	**67**	**4.000**	ug/L	0.398	9	0	74	11	KED
⌊	**As**	**75**	**0.200**	ug/L	0.067	33	4	20	24	KED
	Y	**89**		ug/L			746455	756823	0	Standard
	Kr	**83**		ug/L			50	62	28	Standard
⌈>	**In-1**	**115**		ug/L			4201	4276	4	KED
|	**Cd**	**111**	**0.100**	ug/L	0.076	76	2	6	39	KED
⌊	**Cd**	**114**	**0.100**	ug/L	0.017	16	0	17	19	KED
⌈>	**In**	**115**		ug/L			2585473	2559780	0	Standard
⌊	**Ag**	**107**	**0.200**	ug/L	0.005	2	125	4097	3	Standard
⌈>	**Tb**	**159**		ug/L			2349306	2333630	0	Standard
⌊	**Pb**	**208**	**0.100**	ug/L	0.001	0	577	12679	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 12:26:52

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64725	90266	2	Standard
	Cl	**37**		ug/L			10897530	10787652	0	Standard
⌈>	**Sc**	**45**		ug/L			2648114	2779516	0	Standard
|	**Cr**	**52**	**9.998**	ug/L	0.331	3	34690	350209	2	Standard
|	**Cr**	**53**	**9.999**	ug/L	0.159	1	185	35571	1	Standard
⌊	**Mn**	**55**	**9.998**	ug/L	0.184	1	754	388474	1	Standard
⌈>	**Ge-1**	**72**		ug/L			17976	18150	1	KED
|	**Ni**	**60**	**9.999**	ug/L	0.257	2	4	3860	1	KED
|	**Ni**	**62**	**9.995**	ug/L	0.770	7	0	533	5	KED
|	**Cu**	**63**	**9.998**	ug/L	0.183	1	7	9932	0	KED
|	**Cu**	**65**	**10.000**	ug/L	0.294	2	4	4885	1	KED
|	**Zn**	**66**	**9.702**	ug/L	0.603	6	6	1036	4	KED
|	**Zn**	**67**	**10.065**	ug/L	0.754	7	0	200	7	KED
⌊	**As**	**75**	**9.999**	ug/L	0.263	2	4	615	2	KED
	Y	**89**		ug/L			746455	785692	2	Standard
	Kr	**83**		ug/L			50	57	18	Standard
⌈>	**In-1**	**115**		ug/L			4201	4412	1	KED
|	**Cd**	**111**	**10.000**	ug/L	0.279	2	2	499	1	KED
⌊	**Cd**	**114**	**10.000**	ug/L	0.780	7	0	1394	8	KED
⌈>	**In**	**115**		ug/L			2585473	2592498	0	Standard
⌊	**Ag**	**107**	**10.000**	ug/L	0.069	0	125	212281	0	Standard
⌈>	**Tb**	**159**		ug/L			2349306	2426959	3	Standard
⌊	**Pb**	**208**	**10.000**	ug/L	0.345	3	577	1236667	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 12:31:05

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64725	72612	3	Standard
	Cl	**37**		ug/L			10897530	10507241	2	Standard
⌈>	**Sc**	**45**		ug/L			2648114	2755419	1	Standard
|	**Cr**	**52**	**20.140**	ug/L	0.542	2	34690	680788	3	Standard
|	**Cr**	**53**	**20.103**	ug/L	0.458	2	185	72166	1	Standard
⌊	**Mn**	**55**	**20.145**	ug/L	0.354	1	754	798345	2	Standard
⌈>	**Ge-1**	**72**		ug/L			17976	18307	0	KED
|	**Ni**	**60**	**20.219**	ug/L	0.518	2	4	8230	3	KED
|	**Ni**	**62**	**20.310**	ug/L	0.706	3	0	1166	3	KED
|	**Cu**	**63**	**20.070**	ug/L	0.109	0	7	20393	0	KED
|	**Cu**	**65**	**20.025**	ug/L	0.167	0	4	9917	0	KED
|	**Zn**	**66**	**20.340**	ug/L	0.358	1	6	2322	2	KED
|	**Zn**	**67**	**19.834**	ug/L	1.893	9	0	387	10	KED
⌊	**As**	**75**	**20.021**	ug/L	0.268	1	4	1243	1	KED
	Y	**89**		ug/L			746455	791299	1	Standard
	Kr	**83**		ug/L			50	67	18	Standard
⌈>	**In-1**	**115**		ug/L			4201	4285	0	KED
|	**Cd**	**111**	**20.194**	ug/L	0.597	2	2	1016	3	KED
⌊	**Cd**	**114**	**20.193**	ug/L	0.404	2	0	2844	1	KED
⌈>	**In**	**115**		ug/L			2585473	2672457	0	Standard
⌊	**Ag**	**107**	**19.817**	ug/L	0.282	1	125	418233	1	Standard
⌈>	**Tb**	**159**		ug/L			2349306	2451146	0	Standard
⌊	**Pb**	**208**	**20.040**	ug/L	0.225	1	577	2524251	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 12:35:28

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64725	63408	0	Standard
	Cl	**37**		ug/L			10897530	10464436	1	Standard
⌈>	**Sc**	**45**		ug/L			2648114	2725665	0	Standard
|	**Cr**	**52**	**49.792**	ug/L	0.080	0	34690	1579956	0	Standard
|	**Cr**	**53**	**49.883**	ug/L	1.298	2	185	174824	2	Standard
⌊	**Mn**	**55**	**49.543**	ug/L	1.785	3	754	1855917	3	Standard
⌈>	**Ge-1**	**72**		ug/L			17976	18038	2	KED
|	**Ni**	**60**	**49.560**	ug/L	1.556	3	4	19021	1	KED
|	**Ni**	**62**	**49.563**	ug/L	3.018	6	0	2684	3	KED
|	**Cu**	**63**	**49.606**	ug/L	1.495	3	7	47746	0	KED
|	**Cu**	**65**	**49.482**	ug/L	1.371	2	4	22939	1	KED
|	**Zn**	**66**	**49.410**	ug/L	1.430	2	6	5247	3	KED
|	**Zn**	**67**	**48.928**	ug/L	2.138	4	0	853	2	KED
⌊	**As**	**75**	**49.823**	ug/L	1.295	2	4	2989	1	KED
	Y	**89**		ug/L			746455	777905	1	Standard
	Kr	**83**		ug/L			50	60	9	Standard
⌈>	**In-1**	**115**		ug/L			4201	4168	2	KED
|	**Cd**	**111**	**49.914**	ug/L	0.421	0	2	2419	2	KED
⌊	**Cd**	**114**	**49.863**	ug/L	1.517	3	0	6742	5	KED
⌈>	**In**	**115**		ug/L			2585473	2638073	1	Standard
⌊	**Ag**	**107**	**49.291**	ug/L	2.066	4	125	958508	3	Standard
⌈>	**Tb**	**159**		ug/L			2349306	2525891	0	Standard
⌊	**Pb**	**208**	**49.579**	ug/L	0.189	0	577	6174250	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL6
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 12:41:31

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64725	65642	1	Standard
	Cl	**37**		ug/L			10897530	10718020	2	Standard
⌈>	**Sc**	**45**		ug/L			2648114	2828539	4	Standard
|	**Cr**	**52**	**100.478**	ug/L	4.415	4	34690	3320107	3	Standard
|	**Cr**	**53**	**98.839**	ug/L	3.586	3	185	345569	1	Standard
⌊	**Mn**	**55**	**100.669**	ug/L	4.993	4	754	3996270	1	Standard
⌈>	**Ge-1**	**72**		ug/L			17976	17601	1	KED
|	**Ni**	**60**	**99.232**	ug/L	0.952	0	4	36251	2	KED
|	**Ni**	**62**	**99.743**	ug/L	1.488	1	0	5232	2	KED
|	**Cu**	**63**	**99.312**	ug/L	1.312	1	7	91216	1	KED
|	**Cu**	**65**	**99.836**	ug/L	1.063	1	4	44928	1	KED
|	**Zn**	**66**	**99.216**	ug/L	0.869	0	6	10015	2	KED
|	**Zn**	**67**	**98.847**	ug/L	2.712	2	0	1621	4	KED
⌊	**As**	**75**	**99.589**	ug/L	0.912	0	4	5749	1	KED
	Y	**89**		ug/L			746455	781221	2	Standard
	Kr	**83**		ug/L			50	88	8	Standard
⌈>	**In-1**	**115**		ug/L			4201	3988	2	KED
|	**Cd**	**111**	**99.692**	ug/L	3.122	3	2	4572	1	KED
⌊	**Cd**	**114**	**99.326**	ug/L	3.692	3	0	12555	1	KED
⌈>	**In**	**115**		ug/L			2585473	2715034	1	Standard
⌊	**Ag**	**107**	**97.889**	ug/L	1.519	1	125	1830369	1	Standard
⌈>	**Tb**	**159**		ug/L			2349306	2636319	1	Standard
⌊	**Pb**	**208**	**98.941**	ug/L	1.159	1	577	12419772	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 12:48:14

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64725	63971	0	Standard
	Cl	**37**		ug/L			10897530	10586032	0	Standard
⌈>	**Sc**	**45**		ug/L			2648114	2916623	0	Standard
|	**Cr**	**52**	**0.062**	ug/L	0.025	40	34690	40280	1	Standard
|	**Cr**	**53**	**0.000**	ug/L	0.004	1344	185	205	7	Standard
⌊	**Mn**	**55**	**0.002**	ug/L	0.000	24	754	911	2	Standard
⌈>	**Ge-1**	**72**		ug/L			17976	18980	1	KED
|	**Ni**	**60**	**-0.005**	ug/L	0.006	103	4	2	86	KED
|	**Ni**	**62**	**0.034**	ug/L	0.000	1	0	1		KED
|	**Cu**	**63**	**0.008**	ug/L	0.008	100	7	15	49	KED
|	**Cu**	**65**	**0.003**	ug/L	0.004	130	4	6	34	KED
|	**Zn**	**66**	**0.020**	ug/L	0.046	233	6	9	52	KED
|	**Zn**	**67**	**0.108**	ug/L	0.107	99	0	1	100	KED
⌊	**As**	**75**	**0.057**	ug/L	0.044	77	4	8	33	KED
	Y	**89**		ug/L			746455	798218	0	Standard
	Kr	**83**		ug/L			50	55	6	Standard
⌈>	**In-1**	**115**		ug/L			4201	4179	1	KED
|	**Cd**	**111**	**-0.019**	ug/L	0.030	157	2	1	91	KED
⌊	**Cd**	**114**	**0.010**	ug/L	0.015	154	0	1	103	KED
⌈>	**In**	**115**		ug/L			2585473	2804931	1	Standard
⌊	**Ag**	**107**	**-0.001**	ug/L	0.001	105	125	116	17	Standard
⌈>	**Tb**	**159**		ug/L			2349306	2521675	1	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.000	8	577	838	2	Standard

Sample Information

DEL

Sample Date/Time: Friday, June 22, 2018 12:41:31
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3E
Mass Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

Calibration

Analyte	Mass	**r Corr Coef**	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Sc	45							
Cr	52	**0.9999**	0.012	0.50	10	20	50	100
Cr	53	**0.9998**	0.001	0.50	10	20	50	100
Mn	55	**0.9999**	0.014	0.50	10	20	50	100
Ge-1	72							
Ni	60	**0.9998**	0.021	0.50	10	20	50	100
Ni	62	**0.9999**	0.003	0.50	10	20	50	100
Cu	63	**0.9999**	0.052	0.50	10	20	50	100
Cu	65	**0.9999**	0.026	0.50	10	20	50	100
Zn	66	**0.9998**	0.006	4.00	10	20	50	100
Zn	67	**0.9995**	0.001	4.00	10	20	50	100
As	75	**1.0000**	0.003	0.20	10	20	50	100
Y	89							
Kr	83							
In-1	115							
Cd	111	**1.0000**	0.011	0.10	10	20	50	100
Cd	114	**0.9999**	0.032	0.10	10	20	50	100
In	115							
Ag	107	**0.9991**	0.007	0.20	10	20	50	100
Tb	159							
Pb	208	**0.9998**	0.048	0.10	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICV1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 12:54:00

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64725	65089	1	Standard
	Cl	**37**		ug/L			10897530	11235880	2	Standard
⌈>	**Sc**	**45**		ug/L			2648114	2995600	2	Standard
|	**Cr**	**52**	**50.272**	ug/L	1.397	2	34690	1780984	4	Standard
|	**Cr**	**53**	**52.148**	ug/L	2.475	4	185	193264	2	Standard
⌊	**Mn**	**55**	**54.055**	ug/L	0.534	0	754	2276037	1	Standard
⌈>	**Ge-1**	**72**		ug/L			17976	18890	1	KED
|	**Ni**	**60**	**50.418**	ug/L	0.520	1	4	19770	2	KED
|	**Ni**	**62**	**49.735**	ug/L	2.037	4	0	2799	2	KED
|	**Cu**	**63**	**50.163**	ug/L	0.466	0	7	49456	1	KED
|	**Cu**	**65**	**49.996**	ug/L	1.573	3	4	24145	1	KED
|	**Zn**	**66**	**49.491**	ug/L	2.082	4	6	5364	3	KED
|	**Zn**	**67**	**51.035**	ug/L	0.797	1	0	898	2	KED
⌊	**As**	**75**	**49.949**	ug/L	0.634	1	4	3096	0	KED
	Y	**89**		ug/L			746455	835085	4	Standard
	Kr	**83**		ug/L			50	73	31	Standard
⌈>	**In-1**	**115**		ug/L			4201	4338	1	KED
|	**Cd**	**111**	**48.450**	ug/L	0.961	1	2	2419	2	KED
⌊	**Cd**	**114**	**49.133**	ug/L	0.710	1	0	6761	3	KED
⌈>	**In**	**115**		ug/L			2585473	2874708	1	Standard
⌊	**Ag**	**107**	**50.461**	ug/L	1.164	2	125	999038	1	Standard
⌈>	**Tb**	**159**		ug/L			2349306	2701012	0	Standard
⌊	**Pb**	**208**	**49.446**	ug/L	0.635	1	577	6360373	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICB1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 12:59:43

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64725	63812	2	Standard
	Cl	**37**		ug/L			10897530	10935749	3	Standard
⌈>	**Sc**	**45**		ug/L			2648114	3159722	0	Standard
|	**Cr**	**52**	**0.096**	ug/L	0.030	31	34690	44905	2	Standard
|	**Cr**	**53**	**0.001**	ug/L	0.005	754	185	224	8	Standard
⌊	**Mn**	**55**	**0.002**	ug/L	0.001	35	754	967	2	Standard
⌈>	**Ge-1**	**72**		ug/L			17976	20043	1	KED
|	**Ni**	**60**	**-0.004**	ug/L	0.005	122	4	3	69	KED
|	**Ni**	**62**	**0.032**	ug/L	0.031	98	0	1	100	KED
|	**Cu**	**63**	**0.000**	ug/L	0.004	1246	7	8	49	KED
|	**Cu**	**65**	**-0.008**	ug/L	0.002	25	4	0	173	KED
|	**Zn**	**66**	**0.015**	ug/L	0.050	324	6	9	60	KED
|	**Zn**	**67**	**0.000**	ug/L	0.000		0	0		KED
⌊	**As**	**75**	**-0.012**	ug/L	0.019	156	4	4	29	KED
	Y	**89**		ug/L			746455	843034	0	Standard
	Kr	**83**		ug/L			50	68	21	Standard
⌈>	**In-1**	**115**		ug/L			4201	4507	1	KED
|	**Cd**	**111**	**-0.010**	ug/L	0.038	374	2	2	89	KED
⌊	**Cd**	**114**	**0.017**	ug/L	0.008	46	0	3	35	KED
⌈>	**In**	**115**		ug/L			2585473	2923869	0	Standard
⌊	**Ag**	**107**	**-0.002**	ug/L	0.000	24	125	104	9	Standard
⌈>	**Tb**	**159**		ug/L			2349306	2610024	1	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.000	33	577	702	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 13:06:42

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64725	62120	2	Standard
	Cl	**37**		ug/L			10897530	11300653	5	Standard
⌈>	**Sc**	**45**		ug/L			2648114	3189550	1	Standard
|	**Cr**	**52**	**50.115**	ug/L	0.768	1	34690	1889974	1	Standard
|	**Cr**	**53**	**52.320**	ug/L	2.043	3	185	206522	2	Standard
⌊	**Mn**	**55**	**54.475**	ug/L	0.651	1	754	2442540	1	Standard
⌈>	**Ge-1**	**72**		ug/L			17976	19766	1	KED
|	**Ni**	**60**	**50.429**	ug/L	1.524	3	4	20686	2	KED
|	**Ni**	**62**	**51.694**	ug/L	1.337	2	0	3044	0	KED
|	**Cu**	**63**	**52.456**	ug/L	0.508	0	7	54107	0	KED
|	**Cu**	**65**	**52.056**	ug/L	0.821	1	4	26306	0	KED
|	**Zn**	**66**	**50.673**	ug/L	1.412	2	6	5747	2	KED
|	**Zn**	**67**	**50.088**	ug/L	1.162	2	0	922	3	KED
⌊	**As**	**75**	**50.979**	ug/L	0.791	1	4	3307	1	KED
	Y	**89**		ug/L			746455	879859	4	Standard
	Kr	**83**		ug/L			50	79	14	Standard
⌈>	**In-1**	**115**		ug/L			4201	4493	3	KED
|	**Cd**	**111**	**51.071**	ug/L	2.833	5	2	2638	1	KED
⌊	**Cd**	**114**	**50.372**	ug/L	3.064	6	0	7172	5	KED
⌈>	**In**	**115**		ug/L			2585473	2978682	0	Standard
⌊	**Ag**	**107**	**51.571**	ug/L	1.293	2	125	1058007	2	Standard
⌈>	**Tb**	**159**		ug/L			2349306	2701861	0	Standard
⌊	**Pb**	**208**	**51.889**	ug/L	0.156	0	577	6676405	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 13:11:45

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			64725	64234	3	Standard
Cl	37		ug/L			10897530	11379378	1	Standard
> Sc	45		ug/L			2648114	3379176	0	Standard
Cr	52	0.183	ug/L	0.012	6	34690	51433	1	Standard
Cr	53	0.001	ug/L	0.004	484	185	240	7	Standard
Mn	55	0.002	ug/L	0.001	66	754	1044	5	Standard
> Ge-1	72		ug/L			17976	20982	2	KED
Ni	60	-0.002	ug/L	0.003	148	4	4	24	KED
Ni	62	0.020	ug/L	0.035	173	0	1	173	KED
Cu	63	0.005	ug/L	0.008	182	7	13	67	KED
Cu	65	0.004	ug/L	0.003	72	4	7	25	KED
Zn	66	-0.026	ug/L	0.009	36	6	5	21	KED
Zn	67	0.000	ug/L	0.000		0	0		KED
As	75	-0.006	ug/L	0.026	450	4	4	36	KED
Y	89		ug/L			746455	921238	1	Standard
Kr	83		ug/L			50	66	13	Standard
> In-1	115		ug/L			4201	4777	0	KED
Cd	111	-0.029	ug/L	0.010	33	2	1	43	KED
Cd	114	0.016	ug/L	0.014	89	0	3	69	KED
> In	115		ug/L			2585473	3075098	2	Standard
Ag	107	-0.002	ug/L	0.001	50	125	113	17	Standard
> Tb	159		ug/L			2349306	2671279	0	Standard
Pb	208	0.001	ug/L	0.000	40	577	740	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 13:20:10
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				64779	2	Standard
	Cl	**37**		ug/L				11408543	1	Standard
⌈>	**Sc**	**45**		ug/L				3464044	0	Standard
|	**Cr**	**52**		ug/L				51629	2	Standard
|	**Cr**	**53**		ug/L				247	2	Standard
⌊	**Mn**	**55**		ug/L				1071	4	Standard
⌈>	**Ge-1**	**72**		ug/L				21785	2	KED
|	**Ni**	**60**		ug/L				3	50	KED
|	**Ni**	**62**		ug/L				0	173	KED
|	**Cu**	**63**		ug/L				6	31	KED
|	**Cu**	**65**		ug/L				5	33	KED
|	**Zn**	**66**		ug/L				6	34	KED
|	**Zn**	**67**		ug/L				2	43	KED
⌊	**As**	**75**		ug/L				6	14	KED
	Y	**89**		ug/L				946771	1	Standard
	Kr	**83**		ug/L				76	27	Standard
⌈>	**In-1**	**115**		ug/L				4990	1	KED
|	**Cd**	**111**		ug/L				0	100	KED
⌊	**Cd**	**114**		ug/L				0	207	KED
⌈>	**In**	**115**		ug/L				3144831	1	Standard
⌊	**Ag**	**107**		ug/L				94	6	Standard
⌈>	**Tb**	**159**		ug/L				2696626	0	Standard
⌊	**Pb**	**208**		ug/L				594	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 13:24:09
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	64352	0	Standard
	Cl	**37**		ug/L			11408543	11589365	4	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3598601	1	Standard
|	**Cr**	**52**	**0.500**	ug/L	0.065	12	51629	72366	2	Standard
|	**Cr**	**53**	**0.500**	ug/L	0.010	2	247	2578	0	Standard
⌊	**Mn**	**55**	**0.500**	ug/L	0.018	3	1071	27620	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	21363	0	KED
|	**Ni**	**60**	**0.500**	ug/L	0.020	3	3	260	4	KED
|	**Ni**	**62**	**0.500**	ug/L	0.023	4	0	40	4	KED
|	**Cu**	**63**	**0.500**	ug/L	0.028	5	6	655	5	KED
|	**Cu**	**65**	**0.500**	ug/L	0.048	9	5	294	9	KED
|	**Zn**	**66**	**4.000**	ug/L	0.361	9	6	570	8	KED
|	**Zn**	**67**	**4.000**	ug/L	0.766	19	2	86	18	KED
⌊	**As**	**75**	**0.200**	ug/L	0.034	16	6	24	12	KED
	Y	**89**		ug/L			946771	946995	2	Standard
	Kr	**83**		ug/L			76	60	28	Standard
⌈>	**In-1**	**115**		ug/L			4990	5059	2	KED
|	**Cd**	**111**	**0.100**	ug/L	0.054	54	0	5	44	KED
⌊	**Cd**	**114**	**0.100**	ug/L	0.032	31	0	17	29	KED
⌈>	**In**	**115**		ug/L			3144831	3158138	1	Standard
⌊	**Ag**	**107**	**0.200**	ug/L	0.005	2	94	4871	1	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2735145	0	Standard
⌊	**Pb**	**208**	**0.100**	ug/L	0.000	0	594	14494	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 13:28:09
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	83441	1	Standard
	Cl	**37**		ug/L			11408543	11744282	3	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3560314	1	Standard
|	**Cr**	**52**	**10.003**	ug/L	0.248	2	51629	481843	1	Standard
|	**Cr**	**53**	**10.001**	ug/L	0.280	2	247	47439	4	Standard
⌊	**Mn**	**55**	**10.001**	ug/L	0.157	1	1071	546671	3	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	21917	2	KED
|	**Ni**	**60**	**9.997**	ug/L	0.089	0	3	4773	1	KED
|	**Ni**	**62**	**9.996**	ug/L	1.048	10	0	704	9	KED
|	**Cu**	**63**	**9.998**	ug/L	0.313	3	6	12225	1	KED
|	**Cu**	**65**	**10.000**	ug/L	0.267	2	5	6008	4	KED
|	**Zn**	**66**	**9.901**	ug/L	0.482	4	6	1354	4	KED
|	**Zn**	**67**	**9.991**	ug/L	0.562	5	2	217	4	KED
⌊	**As**	**75**	**9.999**	ug/L	0.312	3	6	734	2	KED
	Y	**89**		ug/L			946771	974096	1	Standard
	Kr	**83**		ug/L			76	69	13	Standard
⌈>	**In-1**	**115**		ug/L			4990	4994	0	KED
|	**Cd**	**111**	**10.000**	ug/L	0.311	3	0	591	2	KED
⌊	**Cd**	**114**	**10.000**	ug/L	0.147	1	0	1659	0	KED
⌈>	**In**	**115**		ug/L			3144831	3196764	2	Standard
⌊	**Ag**	**107**	**10.000**	ug/L	0.018	0	94	241426	2	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2793931	0	Standard
⌊	**Pb**	**208**	**10.000**	ug/L	0.029	0	594	1380913	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 13:32:22
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	76616	1	Standard
	Cl	**37**		ug/L			11408543	11754753	0	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3580618	1	Standard
|	**Cr**	**52**	**19.933**	ug/L	0.338	1	51629	901522	1	Standard
|	**Cr**	**53**	**20.177**	ug/L	0.195	0	247	99476	1	Standard
⌊	**Mn**	**55**	**19.998**	ug/L	0.416	2	1071	1097594	1	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	21966	1	KED
|	**Ni**	**60**	**20.158**	ug/L	0.348	1	3	9956	1	KED
|	**Ni**	**62**	**20.039**	ug/L	0.246	1	0	1426	1	KED
|	**Cu**	**63**	**20.055**	ug/L	0.431	2	6	24846	0	KED
|	**Cu**	**65**	**20.023**	ug/L	0.489	2	5	12107	3	KED
|	**Zn**	**66**	**20.129**	ug/L	0.359	1	6	2816	3	KED
|	**Zn**	**67**	**20.665**	ug/L	1.785	8	2	506	8	KED
⌊	**As**	**75**	**20.010**	ug/L	0.417	2	6	1470	2	KED
	Y	**89**		ug/L			946771	981326	2	Standard
	Kr	**83**		ug/L			76	60	31	Standard
⌈>	**In-1**	**115**		ug/L			4990	4949	3	KED
|	**Cd**	**111**	**19.877**	ug/L	1.133	5	0	1135	2	KED
⌊	**Cd**	**114**	**19.846**	ug/L	0.723	3	0	3162	2	KED
⌈>	**In**	**115**		ug/L			3144831	3167459	0	Standard
⌊	**Ag**	**107**	**20.141**	ug/L	1.038	5	94	495564	4	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2796548	0	Standard
⌊	**Pb**	**208**	**20.054**	ug/L	0.378	1	594	2801611	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 13:36:45
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	62568	0	Standard
	Cl	**37**		ug/L			11408543	11717105	2	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3549880	0	Standard
|	**Cr**	**52**	**50.428**	ug/L	0.927	1	51629	2275448	1	Standard
|	**Cr**	**53**	**49.567**	ug/L	0.832	1	247	231872	1	Standard
⌊	**Mn**	**55**	**50.320**	ug/L	1.725	3	1071	2827337	4	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	21402	1	KED
|	**Ni**	**60**	**49.482**	ug/L	0.745	1	3	22635	1	KED
|	**Ni**	**62**	**49.636**	ug/L	1.867	3	0	3318	1	KED
|	**Cu**	**63**	**49.707**	ug/L	0.744	1	6	58290	0	KED
|	**Cu**	**65**	**49.583**	ug/L	0.857	1	5	28020	0	KED
|	**Zn**	**66**	**49.390**	ug/L	1.509	3	6	6349	3	KED
|	**Zn**	**67**	**48.121**	ug/L	1.607	3	2	970	4	KED
⌊	**As**	**75**	**50.135**	ug/L	0.171	0	6	3628	1	KED
	Y	**89**		ug/L			946771	965860	2	Standard
	Kr	**83**		ug/L			76	69	16	Standard
⌈>	**In-1**	**115**		ug/L			4990	4965	2	KED
|	**Cd**	**111**	**49.774**	ug/L	0.510	1	0	2790	1	KED
⌊	**Cd**	**114**	**49.939**	ug/L	0.893	1	0	7938	1	KED
⌈>	**In**	**115**		ug/L			3144831	3188970	0	Standard
⌊	**Ag**	**107**	**49.196**	ug/L	1.184	2	94	1128113	2	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2847044	1	Standard
⌊	**Pb**	**208**	**49.751**	ug/L	0.462	0	594	6902802	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL6
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 13:42:48
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	70376	0	Standard
	Cl	**37**		ug/L			11408543	12059716	1	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3547500	3	Standard
|	**Cr**	**52**	**99.107**	ug/L	2.964	2	51629	4289579	2	Standard
|	**Cr**	**53**	**99.152**	ug/L	3.960	3	247	450293	3	Standard
⌊	**Mn**	**55**	**99.355**	ug/L	6.252	6	1071	5452396	3	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	20063	2	KED
|	**Ni**	**60**	**99.110**	ug/L	0.527	0	3	41278	2	KED
|	**Ni**	**62**	**99.341**	ug/L	1.730	1	0	6092	1	KED
|	**Cu**	**63**	**99.193**	ug/L	1.453	1	6	106173	1	KED
|	**Cu**	**65**	**99.223**	ug/L	2.218	2	5	51223	0	KED
|	**Zn**	**66**	**98.909**	ug/L	1.545	1	6	11494	1	KED
|	**Zn**	**67**	**100.045**	ug/L	2.012	2	2	1891	4	KED
⌊	**As**	**75**	**99.952**	ug/L	1.957	1	6	6763	0	KED
	Y	**89**		ug/L			946771	973106	3	Standard
	Kr	**83**		ug/L			76	101	15	Standard
⌈>	**In-1**	**115**		ug/L			4990	4664	3	KED
|	**Cd**	**111**	**99.220**	ug/L	4.464	4	0	5089	1	KED
⌊	**Cd**	**114**	**98.831**	ug/L	2.657	2	0	14203	2	KED
⌈>	**In**	**115**		ug/L			3144831	3149113	0	Standard
⌊	**Ag**	**107**	**99.694**	ug/L	1.684	1	94	2234665	2	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2917516	0	Standard
⌊	**Pb**	**208**	**98.722**	ug/L	0.585	0	594	13463337	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 13:49:31
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	66986	0	Standard
	Cl	**37**		ug/L			11408543	11944058	2	Standard
⎡>	**Sc**	**45**		ug/L			3464044	3750174	0	Standard
⎢	**Cr**	**52**	**-0.006**	ug/L	0.019	300	51629	55607	1	Standard
⎢	**Cr**	**53**	**-0.003**	ug/L	0.000	16	247	254	1	Standard
⎣	**Mn**	**55**	**0.003**	ug/L	0.001	22	1071	1355	2	Standard
⎡>	**Ge-1**	**72**		ug/L			21785	22608	3	KED
⎢	**Ni**	**60**	**-0.003**	ug/L	0.005	159	3	2	86	KED
⎢	**Ni**	**62**	**-0.010**	ug/L	0.000	0	0	0		KED
⎢	**Cu**	**63**	**0.002**	ug/L	0.005	197	6	10	57	KED
⎢	**Cu**	**65**	**-0.004**	ug/L	0.003	84	5	3	50	KED
⎢	**Zn**	**66**	**-0.026**	ug/L	0.009	33	6	3	34	KED
⎢	**Zn**	**67**	**-0.005**	ug/L	0.050	1004	2	2	43	KED
⎣	**As**	**75**	**-0.016**	ug/L	0.012	77	6	5	14	KED
	Y	**89**		ug/L			946771	1018157	2	Standard
	Kr	**83**		ug/L			76	69	5	Standard
⎡>	**In-1**	**115**		ug/L			4990	4997	1	KED
⎢	**Cd**	**111**	**0.114**	ug/L	0.153	133	0	7	116	KED
⎣	**Cd**	**114**	**0.053**	ug/L	0.078	145	0	8	137	KED
⎡>	**In**	**115**		ug/L			3144831	3356569	1	Standard
⎣	**Ag**	**107**	**0.001**	ug/L	0.000	35	94	132	8	Standard
⎡>	**Tb**	**159**		ug/L			2696626	2823409	1	Standard
⎣	**Pb**	**208**	**0.002**	ug/L	0.000	20	594	829	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICV1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 13:54:34
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	68870	1	Standard
	Cl	**37**		ug/L			11408543	12296126	0	Standard
⎡>	**Sc**	**45**		ug/L			3464044	3782915	2	Standard
⎢	**Cr**	**52**	**51.858**	ug/L	0.867	1	51629	2420915	1	Standard
⎢	**Cr**	**53**	**51.349**	ug/L	2.485	4	247	248733	2	Standard
⎣	**Mn**	**55**	**49.887**	ug/L	2.700	5	1071	2921194	3	Standard
⎡>	**Ge-1**	**72**		ug/L			21785	22126	0	KED
⎢	**Ni**	**60**	**49.841**	ug/L	0.324	0	3	22895	0	KED
⎢	**Ni**	**62**	**49.556**	ug/L	1.527	3	0	3353	3	KED
⎢	**Cu**	**63**	**49.976**	ug/L	0.573	1	6	59014	1	KED
⎢	**Cu**	**65**	**50.329**	ug/L	0.398	0	5	28669	1	KED
⎢	**Zn**	**66**	**47.396**	ug/L	0.628	1	6	6079	1	KED
⎢	**Zn**	**67**	**50.108**	ug/L	1.837	3	2	1045	3	KED
⎣	**As**	**75**	**47.913**	ug/L	0.892	1	6	3580	2	KED
	Y	**89**		ug/L			946771	1040207	2	Standard
	Kr	**83**		ug/L			76	79	21	Standard
⎡>	**In-1**	**115**		ug/L			4990	5008	1	KED
⎢	**Cd**	**111**	**48.917**	ug/L	1.234	2	0	2697	3	KED
⎣	**Cd**	**114**	**49.809**	ug/L	0.851	1	0	7689	3	KED
⎡>	**In**	**115**		ug/L			3144831	3326627	0	Standard
⎣	**Ag**	**107**	**48.639**	ug/L	0.486	1	94	1151724	0	Standard
⎡>	**Tb**	**159**		ug/L			2696626	2959304	0	Standard
⎣	**Pb**	**208**	**49.942**	ug/L	0.613	1	594	6909038	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICB1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 13:59:37
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	65103	1	Standard
	Cl	**37**		ug/L			11408543	12158058	3	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3732689	3	Standard
|	**Cr**	**52**	**-0.019**	ug/L	0.053	285	51629	54741	1	Standard
|	**Cr**	**53**	**-0.003**	ug/L	0.004	139	247	252	10	Standard
⌊	**Mn**	**55**	**0.003**	ug/L	0.002	60	1071	1331	4	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	22612	1	KED
|	**Ni**	**60**	**-0.003**	ug/L	0.002	73	3	2	43	KED
|	**Ni**	**62**	**-0.001**	ug/L	0.016	2881	0	0	173	KED
|	**Cu**	**63**	**0.002**	ug/L	0.005	189	6	10	54	KED
|	**Cu**	**65**	**-0.003**	ug/L	0.004	142	5	4	49	KED
|	**Zn**	**66**	**0.022**	ug/L	0.052	233	6	9	72	KED
|	**Zn**	**67**	**-0.033**	ug/L	0.091	274	2	1	100	KED
⌊	**As**	**75**	**-0.032**	ug/L	0.026	80	6	4	44	KED
	Y	**89**		ug/L			946771	1020904	4	Standard
	Kr	**83**		ug/L			76	67	9	Standard
⌈>	**In-1**	**115**		ug/L			4990	5078	1	KED
|	**Cd**	**111**	**0.028**	ug/L	0.010	34	0	2	21	KED
⌊	**Cd**	**114**	**0.017**	ug/L	0.007	41	0	3	34	KED
⌈>	**In**	**115**		ug/L			3144831	3348591	2	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	8	94	126	3	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2821584	1	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	25	594	796	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 14:05:43
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	62834	0	Standard
	Cl	**37**		ug/L			11408543	12045673	1	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3579062	3	Standard
|	**Cr**	**52**	**52.296**	ug/L	0.747	1	51629	2309356	1	Standard
|	**Cr**	**53**	**52.214**	ug/L	3.558	6	247	239173	4	Standard
⌊	**Mn**	**55**	**51.865**	ug/L	3.580	6	1071	2871676	3	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	21521	0	KED
|	**Ni**	**60**	**51.029**	ug/L	0.590	1	3	22799	1	KED
|	**Ni**	**62**	**51.090**	ug/L	1.302	2	0	3362	2	KED
|	**Cu**	**63**	**51.390**	ug/L	0.606	1	6	59019	0	KED
|	**Cu**	**65**	**51.709**	ug/L	1.544	2	5	28646	2	KED
|	**Zn**	**66**	**51.852**	ug/L	0.548	1	6	6468	0	KED
|	**Zn**	**67**	**53.129**	ug/L	2.285	4	2	1078	3	KED
⌊	**As**	**75**	**49.720**	ug/L	0.521	1	6	3613	0	KED
	Y	**89**		ug/L			946771	998598	1	Standard
	Kr	**83**		ug/L			76	76	9	Standard
⌈>	**In-1**	**115**		ug/L			4990	4877	1	KED
|	**Cd**	**111**	**51.332**	ug/L	1.170	2	0	2755	2	KED
⌊	**Cd**	**114**	**51.303**	ug/L	0.761	1	0	7710	0	KED
⌈>	**In**	**115**		ug/L			3144831	3239033	1	Standard
⌊	**Ag**	**107**	**48.225**	ug/L	1.333	2	94	1111690	2	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2874244	0	Standard
⌊	**Pb**	**208**	**50.691**	ug/L	0.225	0	594	6810682	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 14:12:27
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	66449	1	Standard
	Cl	**37**		ug/L			11408543	11958322	3	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3765813	1	Standard
|	**Cr**	**52**	**-0.031**	ug/L	0.036	116	51629	54710	2	Standard
|	**Cr**	**53**	**0.001**	ug/L	0.001	117	247	273	3	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.001	77	1071	1243	4	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	22686	0	KED
|	**Ni**	**60**	**0.001**	ug/L	0.010	1023	3	4	107	KED
|	**Ni**	**62**	**-0.010**	ug/L	0.000	0	0	0		KED
|	**Cu**	**63**	**0.002**	ug/L	0.003	147	6	9	34	KED
|	**Cu**	**65**	**-0.001**	ug/L	0.005	334	5	5	57	KED
|	**Zn**	**66**	**0.003**	ug/L	0.022	771	6	6	41	KED
|	**Zn**	**67**	**-0.094**	ug/L	0.052	54	2	0	173	KED
⌊	**As**	**75**	**-0.012**	ug/L	0.004	29	6	6	4	KED
	Y	**89**		ug/L			946771	1030355	1	Standard
	Kr	**83**		ug/L			76	66	9	Standard
⌈>	**In-1**	**115**		ug/L			4990	5024	5	KED
|	**Cd**	**111**	**0.028**	ug/L	0.008	28	0	2	21	KED
⌊	**Cd**	**114**	**0.004**	ug/L	0.007	163	0	1	90	KED
⌈>	**In**	**115**		ug/L			3144831	3313326	0	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.000	240	94	104	10	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2781933	0	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.000	130	594	652	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CRL1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 14:16:25
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	67044	1	Standard
	Cl	**37**		ug/L			11408543	11851133	4	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3753046	0	Standard
|	**Cr**	**52**	**0.464**	ug/L	0.080	17	51629	76939	4	Standard
|	**Cr**	**53**	**0.529**	ug/L	0.003	0	247	2807	1	Standard
⌊	**Mn**	**55**	**0.495**	ug/L	0.013	2	1071	29913	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	22388	2	KED
|	**Ni**	**60**	**0.521**	ug/L	0.051	9	3	245	8	KED
|	**Ni**	**62**	**0.510**	ug/L	0.040	7	0	35	8	KED
|	**Cu**	**63**	**0.540**	ug/L	0.030	5	6	651	3	KED
|	**Cu**	**65**	**0.549**	ug/L	0.089	16	5	322	17	KED
|	**Zn**	**66**	**4.064**	ug/L	0.104	2	6	533	2	KED
|	**Zn**	**67**	**3.639**	ug/L	0.347	9	2	79	11	KED
⌊	**As**	**75**	**0.216**	ug/L	0.045	20	6	23	15	KED
	Y	**89**		ug/L			946771	1017092	2	Standard
	Kr	**83**		ug/L			76	76	14	Standard
⌈>	**In-1**	**115**		ug/L			4990	4971	3	KED
|	**Cd**	**111**	**0.109**	ug/L	0.082	74	0	6	67	KED
⌊	**Cd**	**114**	**0.100**	ug/L	0.033	32	0	15	27	KED
⌈>	**In**	**115**		ug/L			3144831	3273694	2	Standard
⌊	**Ag**	**107**	**0.202**	ug/L	0.003	1	94	4799	1	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2755745	1	Standard
⌊	**Pb**	**208**	**0.105**	ug/L	0.001	1	594	14155	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFA1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 14:21:26
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	318459	0	Standard
	Cl	**37**		ug/L			11408543	31263139	4	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3620825	1	Standard
|	**Cr**	**52**	**0.759**	ug/L	0.051	6	51629	87104	3	Standard
|	**Cr**	**53**	**1.656**	ug/L	0.078	4	247	7936	4	Standard
⌊	**Mn**	**55**	**0.119**	ug/L	0.027	23	1071	7780	20	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	18895	3	KED
|	**Ni**	**60**	**0.044**	ug/L	0.014	31	3	20	23	KED
|	**Ni**	**62**	**0.111**	ug/L	0.035	31	0	6	31	KED
|	**Cu**	**63**	**0.043**	ug/L	0.017	38	6	49	33	KED
|	**Cu**	**65**	**0.037**	ug/L	0.007	20	5	22	16	KED
|	**Zn**	**66**	**0.325**	ug/L	0.075	23	6	41	22	KED
|	**Zn**	**67**	**0.193**	ug/L	0.205	106	2	5	66	KED
⌊	**As**	**75**	**0.076**	ug/L	0.043	56	6	10	27	KED
	Y	**89**		ug/L			946771	995377	1	Standard
	Kr	**83**		ug/L			76	147	4	Standard
⌈>	**In-1**	**115**		ug/L			4990	4597	3	KED
|	**Cd**	**111**	**0.053**	ug/L	0.043	80	0	3	56	KED
⌊	**Cd**	**114**	**0.032**	ug/L	0.028	87	0	4	79	KED
⌈>	**In**	**115**		ug/L			3144831	3092300	0	Standard
⌊	**Ag**	**107**	**0.027**	ug/L	0.022	81	94	695	70	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2940373	0	Standard
⌊	**Pb**	**208**	**0.073**	ug/L	0.016	21	594	10722	19	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFB1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 14:25:24
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	332371	1	Standard
	Cl	**37**		ug/L			11408543	31380201	3	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3681538	1	Standard
|	**Cr**	**52**	**18.884**	ug/L	0.401	2	51629	893187	3	Standard
|	**Cr**	**53**	**20.659**	ug/L	0.161	0	247	97637	1	Standard
⌊	**Mn**	**55**	**18.171**	ug/L	0.213	1	1071	1037225	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	18568	2	KED
|	**Ni**	**60**	**20.160**	ug/L	0.258	1	3	7774	3	KED
|	**Ni**	**62**	**20.639**	ug/L	1.593	7	0	1170	5	KED
|	**Cu**	**63**	**19.731**	ug/L	0.173	0	6	19553	2	KED
|	**Cu**	**65**	**20.074**	ug/L	0.210	1	5	9599	3	KED
|	**Zn**	**66**	**18.533**	ug/L	0.287	1	6	1997	1	KED
|	**Zn**	**67**	**17.912**	ug/L	1.044	5	2	314	4	KED
⌊	**As**	**75**	**19.002**	ug/L	0.577	3	6	1195	4	KED
	Y	**89**		ug/L			946771	973932	1	Standard
	Kr	**83**		ug/L			76	142	6	Standard
⌈>	**In-1**	**115**		ug/L			4990	4424	1	KED
|	**Cd**	**111**	**19.537**	ug/L	0.518	2	0	952	3	KED
⌊	**Cd**	**114**	**18.722**	ug/L	0.481	2	0	2553	3	KED
⌈>	**In**	**115**		ug/L			3144831	3118005	0	Standard
⌊	**Ag**	**107**	**20.368**	ug/L	0.877	4	94	452027	3	Standard
⌈>	**Tb**	**159**		ug/L			2696626	3001465	0	Standard
⌊	**Pb**	**208**	**0.053**	ug/L	0.001	2	594	8134	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 14:30:20
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	70350	1	Standard
	Cl	**37**		ug/L			11408543	11905474	2	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3374141	1	Standard
|	**Cr**	**52**	**187.799**	ug/L	3.155	1	51629	7689051	0	Standard
|	**Cr**	**53**	**185.764**	ug/L	3.637	1	247	802563	1	Standard
⌊	**Mn**	**55**	**181.265**	ug/L	4.735	2	1071	9470769	1	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	17732	1	KED
|	**Ni**	**60**	**195.689**	ug/L	1.970	1	3	72034	2	KED
|	**Ni**	**62**	**194.150**	ug/L	2.271	1	0	10526	1	KED
|	**Cu**	**63**	**189.776**	ug/L	1.290	0	6	179577	1	KED
|	**Cu**	**65**	**193.704**	ug/L	2.686	1	5	88415	2	KED
|	**Zn**	**66**	**183.816**	ug/L	3.038	1	6	18882	2	KED
|	**Zn**	**67**	**183.250**	ug/L	2.809	1	2	3059	1	KED
⌊	**As**	**75**	**191.925**	ug/L	0.731	0	6	11476	1	KED
	Y	**89**		ug/L			946771	911456	1	Standard
	Kr	**83**		ug/L			76	131	9	Standard
⌈>	**In-1**	**115**		ug/L			4990	4156	1	KED
|	**Cd**	**111**	**193.338**	ug/L	0.332	0	0	8843	1	KED
⌊	**Cd**	**114**	**191.261**	ug/L	1.298	0	0	24497	1	KED
⌈>	**In**	**115**		ug/L			3144831	3044535	2	Standard
⌊	**Ag**	**107**	**189.466**	ug/L	5.926	3	94	4103514	0	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2990352	0	Standard
⌊	**Pb**	**208**	**177.870**	ug/L	0.905	0	594	24862435	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 14:34:19
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	71703	1	Standard
	Cl	**37**		ug/L			11408543	11622089	2	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3186433	1	Standard
|	**Cr**	**52**	**295.773**	ug/L	3.431	1	51629	11409716	1	Standard
|	**Cr**	**53**	**289.300**	ug/L	6.823	2	247	1180302	2	Standard
⌊	**Mn**	**55**	**274.989**	ug/L	1.025	0	1071	13571375	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	16551	1	KED
|	**Ni**	**60**	**298.739**	ug/L	4.091	1	3	102627	1	KED
|	**Ni**	**62**	**293.769**	ug/L	3.491	1	0	14865	0	KED
|	**Cu**	**63**	**288.579**	ug/L	1.497	0	6	254883	2	KED
|	**Cu**	**65**	**288.198**	ug/L	3.046	1	5	122775	1	KED
|	**Zn**	**66**	**274.175**	ug/L	7.497	2	6	26280	2	KED
|	**Zn**	**67**	**276.370**	ug/L	6.456	2	2	4304	0	KED
⌊	**As**	**75**	**290.847**	ug/L	1.992	0	6	16229	1	KED
	Y	**89**		ug/L			946771	864513	1	Standard
	Kr	**83**		ug/L			76	186	15	Standard
⌈>	**In-1**	**115**		ug/L			4990	3722	4	KED
|	**Cd**	**111**	**292.054**	ug/L	10.472	3	0	11953	1	KED
⌊	**Cd**	**114**	**286.714**	ug/L	9.692	3	0	32871	2	KED
⌈>	**In**	**115**		ug/L			3144831	2989959	0	Standard
⌊	**Ag**	**107**	**272.783**	ug/L	6.119	2	94	5804552	1	Standard
⌈>	**Tb**	**159**		ug/L			2696626	3000631	1	Standard
⌊	**Pb**	**208**	**269.503**	ug/L	4.936	1	594	37791775	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 14:41:47
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	70301	1	Standard
	Cl	**37**		ug/L			11408543	12266325	1	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3709938	0	Standard
|	**Cr**	**52**	**0.033**	ug/L	0.023	70	51629	56791	2	Standard
|	**Cr**	**53**	**0.027**	ug/L	0.025	93	247	392	30	Standard
⌊	**Mn**	**55**	**0.027**	ug/L	0.016	57	1071	2717	32	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	21893	2	KED
|	**Ni**	**60**	**0.015**	ug/L	0.012	77	3	10	50	KED
|	**Ni**	**62**	**0.000**	ug/L	0.017	8923	0	0	173	KED
|	**Cu**	**63**	**0.042**	ug/L	0.007	15	6	55	12	KED
|	**Cu**	**65**	**0.035**	ug/L	0.010	27	5	25	22	KED
|	**Zn**	**66**	**0.564**	ug/L	0.103	18	6	78	18	KED
|	**Zn**	**67**	**0.738**	ug/L	0.090	12	2	17	12	KED
⌊	**As**	**75**	**0.022**	ug/L	0.048	223	6	8	40	KED
	Y	**89**		ug/L			946771	1031497	0	Standard
	Kr	**83**		ug/L			76	69	13	Standard
⌈>	**In-1**	**115**		ug/L			4990	4648	1	KED
|	**Cd**	**111**	**0.058**	ug/L	0.039	67	0	3	50	KED
⌊	**Cd**	**114**	**0.009**	ug/L	0.013	146	0	1	106	KED
⌈>	**In**	**115**		ug/L			3144831	3435730	0	Standard
⌊	**Ag**	**107**	**0.006**	ug/L	0.006	104	94	244	59	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2867714	1	Standard
⌊	**Pb**	**208**	**0.035**	ug/L	0.011	31	594	5383	28	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 14:47:41
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	71931	1	Standard
	Cl	**37**		ug/L			11408543	12223728	1	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3724870	2	Standard
|	**Cr**	**52**	**0.002**	ug/L	0.036	2336	51629	55585	3	Standard
|	**Cr**	**53**	**0.017**	ug/L	0.004	23	247	345	5	Standard
⌊	**Mn**	**55**	**0.014**	ug/L	0.002	11	1071	1963	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	21980	1	KED
|	**Ni**	**60**	**0.027**	ug/L	0.011	42	3	15	30	KED
|	**Ni**	**62**	**0.066**	ug/L	0.018	26	0	5	21	KED
|	**Cu**	**63**	**0.038**	ug/L	0.012	32	6	51	25	KED
|	**Cu**	**65**	**0.033**	ug/L	0.011	33	5	24	26	KED
|	**Zn**	**66**	**0.554**	ug/L	0.044	7	6	76	6	KED
|	**Zn**	**67**	**0.556**	ug/L	0.357	64	2	13	51	KED
⌊	**As**	**75**	**-0.020**	ug/L	0.024	123	6	5	32	KED
	Y	**89**		ug/L			946771	1038415	2	Standard
	Kr	**83**		ug/L			76	67	15	Standard
⌈>	**In-1**	**115**		ug/L			4990	4821	0	KED
|	**Cd**	**111**	**0.061**	ug/L	0.058	95	0	4	74	KED
⌊	**Cd**	**114**	**0.022**	ug/L	0.013	61	0	3	52	KED
⌈>	**In**	**115**		ug/L			3144831	3397338	0	Standard
⌊	**Ag**	**107**	**0.003**	ug/L	0.001	19	94	166	6	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2850064	0	Standard
⌊	**Pb**	**208**	**0.025**	ug/L	0.001	4	594	3993	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 14:53:35
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	65248	3	Standard
	Cl	**37**		ug/L			11408543	12521767	2	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3694243	3	Standard
|	**Cr**	**52**	**50.705**	ug/L	1.607	3	51629	2312143	1	Standard
|	**Cr**	**53**	**49.746**	ug/L	2.154	4	247	235360	2	Standard
⌊	**Mn**	**55**	**48.059**	ug/L	1.705	3	1071	2748862	1	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	20772	3	KED
|	**Ni**	**60**	**51.377**	ug/L	1.189	2	3	22144	1	KED
|	**Ni**	**62**	**51.260**	ug/L	0.418	0	0	3256	4	KED
|	**Cu**	**63**	**51.482**	ug/L	0.755	1	6	57058	2	KED
|	**Cu**	**65**	**52.306**	ug/L	1.500	2	5	27953	0	KED
|	**Zn**	**66**	**51.184**	ug/L	0.780	1	6	6160	1	KED
|	**Zn**	**67**	**51.707**	ug/L	2.234	4	2	1014	7	KED
⌊	**As**	**75**	**50.320**	ug/L	0.864	1	6	3528	2	KED
	Y	**89**		ug/L			946771	986651	3	Standard
	Kr	**83**		ug/L			76	77	22	Standard
⌈>	**In-1**	**115**		ug/L			4990	4580	3	KED
|	**Cd**	**111**	**50.973**	ug/L	2.836	5	0	2566	2	KED
⌊	**Cd**	**114**	**49.081**	ug/L	0.460	0	0	6927	3	KED
⌈>	**In**	**115**		ug/L			3144831	3293698	1	Standard
⌊	**Ag**	**107**	**47.170**	ug/L	1.662	3	94	1105874	3	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2874781	0	Standard
⌊	**Pb**	**208**	**51.488**	ug/L	0.050	0	594	6919269	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 15:00:19
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	67800	2	Standard
	Cl	**37**		ug/L			11408543	12284110	1	Standard
⎡>	**Sc**	**45**		ug/L			3464044	3711241	3	Standard
⎢	**Cr**	**52**	**-0.048**	ug/L	0.078	163	51629	53113	3	Standard
⎢	**Cr**	**53**	**-0.004**	ug/L	0.004	115	247	248	10	Standard
⎣	**Mn**	**55**	**0.002**	ug/L	0.001	34	1071	1287	5	Standard
⎡>	**Ge-1**	**72**		ug/L			21785	22284	1	KED
⎢	**Ni**	**60**	**0.005**	ug/L	0.005	88	3	6	34	KED
⎢	**Ni**	**62**	**-0.010**	ug/L	0.000	0	0	0		KED
⎢	**Cu**	**63**	**0.003**	ug/L	0.006	182	6	10	61	KED
⎢	**Cu**	**65**	**-0.002**	ug/L	0.007	291	5	4	89	KED
⎢	**Zn**	**66**	**-0.011**	ug/L	0.017	150	6	5	43	KED
⎢	**Zn**	**67**	**-0.094**	ug/L	0.052	55	2	0	173	KED
⎣	**As**	**75**	**0.015**	ug/L	0.018	122	6	7	17	KED
	Y	**89**		ug/L			946771	1000291	2	Standard
	Kr	**83**		ug/L			76	67	12	Standard
⎡>	**In-1**	**115**		ug/L			4990	4864	2	KED
⎢	**Cd**	**111**	**0.000**	ug/L	0.000	93	0	0		KED
⎣	**Cd**	**114**	**0.005**	ug/L	0.014	307	0	1	176	KED
⎡>	**In**	**115**		ug/L			3144831	3380169	0	Standard
⎣	**Ag**	**107**	**0.000**	ug/L	0.001	563	94	104	16	Standard
⎡>	**Tb**	**159**		ug/L			2696626	2793959	1	Standard
⎣	**Pb**	**208**	**0.002**	ug/L	0.001	32	594	937	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0546-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 15:06:24
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			64779	90063	1	Standard
	Cl	37		ug/L			11408543	12182312	1	Standard
>	Sc	45		ug/L			3464044	3794687	1	Standard
	Cr	52	0.014	ug/L	0.048	350	51629	57181	3	Standard
	Cr	53	0.012	ug/L	0.002	15	247	329	4	Standard
	Mn	55	1.810	ug/L	0.048	2	1071	107530	3	Standard
>	Ge-1	72		ug/L			21785	22350	0	KED
	Ni	60	0.283	ug/L	0.029	10	3	135	9	KED
	Ni	62	0.325	ug/L	0.099	30	0	22	30	KED
	Cu	63	8.492	ug/L	0.037	0	6	10134	0	KED
	Cu	65	8.308	ug/L	0.156	1	5	4784	1	KED
	Zn	66	6.641	ug/L	0.233	3	6	866	3	KED
	Zn	67	6.310	ug/L	0.946	14	2	135	14	KED
	As	75	0.015	ug/L	0.010	68	6	7	9	KED
	Y	89		ug/L			946771	1051683	1	Standard
	Kr	83		ug/L			76	61	29	Standard
>	In-1	115		ug/L			4990	5018	2	KED
	Cd	111	0.046	ug/L	0.011	23	0	3	15	KED
	Cd	114	-0.028	ug/L	0.055	195	0	-3	227	KED
>	In	115		ug/L			3144831	3367061	1	Standard
	Ag	107	0.001	ug/L	0.000	12	94	130	0	Standard
>	Tb	159		ug/L			2696626	2809445	2	Standard
	Pb	208	0.344	ug/L	0.005	1	594	45771	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0546-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 15:10:23
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			64779	100554	1	Standard
	Cl	37		ug/L			11408543	12460891	2	Standard
⌈>	Sc	45		ug/L			3464044	3835183	2	Standard
|	Cr	52	26.176	ug/L	0.637	2	51629	1266976	0	Standard
|	Cr	53	27.644	ug/L	0.507	1	247	135950	1	Standard
⌊	Mn	55	28.083	ug/L	1.922	6	1071	1667021	4	Standard
⌈>	Ge-1	72		ug/L			21785	22560	2	KED
|	Ni	60	27.795	ug/L	0.557	2	3	13021	3	KED
|	Ni	62	28.176	ug/L	0.684	2	0	1944	4	KED
|	Cu	63	28.649	ug/L	0.274	0	6	34491	1	KED
|	Cu	65	28.415	ug/L	0.386	1	5	16505	2	KED
|	Zn	66	89.846	ug/L	1.158	1	6	11744	2	KED
|	Zn	67	87.900	ug/L	1.283	1	2	1868	0	KED
⌊	As	75	25.998	ug/L	0.398	1	6	1984	3	KED
	Y	89		ug/L			946771	1062180	0	Standard
	Kr	83		ug/L			76	72	12	Standard
⌈>	In-1	115		ug/L			4990	4982	2	KED
|	Cd	111	26.903	ug/L	0.743	2	0	1476	4	KED
⌊	Cd	114	27.444	ug/L	0.403	1	0	4215	3	KED
⌈>	In	115		ug/L			3144831	3408960	1	Standard
⌊	Ag	107	25.747	ug/L	0.445	1	94	624876	2	Standard
⌈>	Tb	159		ug/L			2696626	2825934	1	Standard
⌊	Pb	208	28.683	ug/L	0.444	1	594	3789861	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0317-01
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 15:14:22
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	145669	1	Standard
	Cl	**37**		ug/L			11408543	13231686	0	Standard
>	**Sc**	**45**		ug/L			3464044	3742844	0	Standard
	Cr	**52**	**1.370**	ug/L	0.139	10	51629	117638	5	Standard
	Cr	**53**	**1.353**	ug/L	0.025	1	247	6752	1	Standard
	Mn	**55**	**422.444**	ug/L	15.178	3	1071	24487468	3	Standard
>	**Ge-1**	**72**		ug/L			21785	19998	2	KED
	Ni	**60**	**4.747**	ug/L	0.120	2	3	1973	2	KED
	Ni	**62**	**5.028**	ug/L	0.268	5	0	307	5	KED
	~~**Cu**~~	**63**	~~**4.985**~~	ug/L	0.151	3	6	5324	3	KED
	Cu	**65**	**4.921**	ug/L	0.209	4	5	2539	6	KED
	~~**Zn**~~	**66**	~~**57.091**~~	ug/L	1.406	2	6	6616	2	KED
	Zn	**67**	**55.773**	ug/L	1.089	1	2	1052	4	KED
	As	**75**	**1.677**	ug/L	0.084	5	6	119	6	KED
	Y	**89**		ug/L			946771	990419	1	Standard
	Kr	**83**		ug/L			76	111	14	Standard
>	**In-1**	**115**		ug/L			4990	4266	2	KED
	Cd	**111**	**0.220**	ug/L	0.068	31	0	11	27	KED
	Cd	**114**	**0.123**	ug/L	0.077	62	0	16	62	KED
>	**In**	**115**		ug/L			3144831	3309217	0	Standard
	Ag	**107**	**0.011**	ug/L	0.001	11	94	354	7	Standard
>	**Tb**	**159**		ug/L			2696626	2981806	0	Standard
	~~**Pb**~~	**208**	~~**1.442**~~	ug/L	0.016	1	594	201570	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0564-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 15:34:19

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	85125	0	Standard
	Cl	**37**		ug/L			11408543	12768856	4	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3992507	2	Standard
|	**Cr**	**52**	**0.061**	ug/L	0.043	70	51629	62428	1	Standard
|	**Cr**	**53**	**0.009**	ug/L	0.004	49	247	329	8	Standard
⌊	**Mn**	**55**	**0.279**	ug/L	0.004	1	1071	18494	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	23962	0	KED
|	**Ni**	**60**	**0.068**	ug/L	0.020	30	3	38	26	KED
|	**Ni**	**62**	**0.069**	ug/L	0.045	65	0	5	57	KED
|	**Cu**	**63**	**0.056**	ug/L	0.002	3	6	78	2	KED
|	**Cu**	**65**	**0.057**	ug/L	0.016	27	5	41	22	KED
|	**Zn**	**66**	**0.640**	ug/L	0.107	16	6	95	16	KED
|	**Zn**	**67**	**0.694**	ug/L	0.274	39	2	18	33	KED
⌊	**As**	**75**	**0.019**	ug/L	0.019	97	6	8	16	KED
	Y	**89**		ug/L			946771	1085081	0	Standard
	Kr	**83**		ug/L			76	65	21	Standard
⌈>	**In-1**	**115**		ug/L			4990	5112	4	KED
|	**Cd**	**111**	**0.016**	ug/L	0.016	99	0	1	50	KED
⌊	**Cd**	**114**	**-0.008**	ug/L	0.012	139	0	0	242	KED
⌈>	**In**	**115**		ug/L			3144831	3548934	0	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.001	185	94	114	11	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2957882	0	Standard
⌊	**Pb**	**208**	**0.009**	ug/L	0.001	5	594	1920	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0318-01
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 15:38:53
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			64779	4312355	0	Standard
Cl	37		ug/L			11408543	11203376	1	Standard
> Sc	45		ug/L			3464044	3116672	3	Standard
Cr	52	8.273	ug/L	0.249	3	51629	357134	1	Standard
Cr	53	2.946	ug/L	0.077	2	247	11973	2	Standard
Mn	55	152.581	ug/L	4.069	2	1071	7361409	0	Standard
> Ge-1	72		ug/L			21785	9500	1	KED
Ni	60	28.939	ug/L	0.555	1	3	5707	1	KED
Ni	62	27.251	ug/L	0.580	2	0	791	1	KED
Cu	63	1.730	ug/L	0.062	3	6	880	4	KED
Cu	65	1.701	ug/L	0.100	5	5	418	5	KED
Zn	66	11.093	ug/L	0.523	4	6	613	6	KED
Zn	67	12.940	ug/L	0.482	3	2	116	5	KED
As	75	0.598	ug/L	0.065	10	6	22	10	KED
Y	89		ug/L			946771	891586	0	Standard
Kr	83		ug/L			76	196	9	Standard
> In-1	115		ug/L			4990	1986	6	KED
Cd	111	0.160	ug/L	0.088	54	0	3	43	KED
Cd	114	0.055	ug/L	0.074	135	0	3	129	KED
> In	115		ug/L			3144831	2558655	1	Standard
Ag	107	0.003	ug/L	0.001	33	94	127	13	Standard
> Tb	159		ug/L			2696626	2560569	0	Standard
Pb	208	0.041	ug/L	0.001	3	594	5438	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 15:43:57
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	83486	0	Standard
	Cl	**37**		ug/L			11408543	13010150	2	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3961636	0	Standard
|	**Cr**	**52**	**51.533**	ug/L	0.976	1	51629	2520507	1	Standard
|	**Cr**	**53**	**50.528**	ug/L	0.746	1	247	256522	0	Standard
⌊	**Mn**	**55**	**49.691**	ug/L	2.118	4	1071	3049474	3	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	20541	0	KED
|	**Ni**	**60**	**50.686**	ug/L	1.006	1	3	21616	2	KED
|	**Ni**	**62**	**50.136**	ug/L	1.081	2	0	3149	2	KED
|	**Cu**	**63**	**50.611**	ug/L	0.539	1	6	55480	1	KED
|	**Cu**	**65**	**50.377**	ug/L	0.229	0	5	26640	0	KED
|	**Zn**	**66**	**50.159**	ug/L	0.504	1	6	5972	1	KED
|	**Zn**	**67**	**52.803**	ug/L	2.013	3	2	1022	3	KED
⌊	**As**	**75**	**49.905**	ug/L	0.299	0	6	3461	0	KED
	Y	**89**		ug/L			946771	1061482	2	Standard
	Kr	**83**		ug/L			76	95	10	Standard
⌈>	**In-1**	**115**		ug/L			4990	4435	2	KED
|	**Cd**	**111**	**50.217**	ug/L	2.645	5	0	2449	2	KED
⌊	**Cd**	**114**	**50.888**	ug/L	0.743	1	0	6955	1	KED
⌈>	**In**	**115**		ug/L			3144831	3542380	1	Standard
⌊	**Ag**	**107**	**45.602**	ug/L	2.459	5	94	1149128	3	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2979585	0	Standard
⌊	**Pb**	**208**	**51.078**	ug/L	0.568	1	594	7114085	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 15:50:41
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	72092	0	Standard
	Cl	**37**		ug/L			11408543	12841592	2	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3946236	0	Standard
|	**Cr**	**52**	**0.009**	ug/L	0.003	40	51629	59227	1	Standard
|	**Cr**	**53**	**-0.002**	ug/L	0.003	141	247	269	5	Standard
⌊	**Mn**	**55**	**0.002**	ug/L	0.001	80	1071	1334	6	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	21535	3	KED
|	**Ni**	**60**	**-0.001**	ug/L	0.005	326	3	3	69	KED
|	**Ni**	**62**	**-0.010**	ug/L	0.000	0	0	0		KED
|	**Cu**	**63**	**0.002**	ug/L	0.003	145	6	9	40	KED
|	**Cu**	**65**	**-0.002**	ug/L	0.004	198	5	4	49	KED
|	**Zn**	**66**	**0.036**	ug/L	0.029	81	6	10	36	KED
|	**Zn**	**67**	**0.029**	ug/L	0.188	639	2	3	124	KED
⌊	**As**	**75**	**0.007**	ug/L	0.014	196	6	7	17	KED
	Y	**89**		ug/L			946771	1079925	0	Standard
	Kr	**83**		ug/L			76	64	7	Standard
⌈>	**In-1**	**115**		ug/L			4990	4768	3	KED
|	**Cd**	**111**	**0.018**	ug/L	0.031	168	0	1	86	KED
⌊	**Cd**	**114**	**0.039**	ug/L	0.006	15	0	6	18	KED
⌈>	**In**	**115**		ug/L			3144831	3595895	1	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.001	376	94	113	17	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2925496	1	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	38	594	815	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 15:56:50
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				66961	2	Standard
	Cl	**37**		ug/L				12853154	1	Standard
⌈>	**Sc**	**45**		ug/L				3905122	1	Standard
|	**Cr**	**52**		ug/L				58825	1	Standard
|	**Cr**	**53**		ug/L				248	1	Standard
⌊	**Mn**	**55**		ug/L				1215	3	Standard
⌈>	**Ge-1**	**72**		ug/L				21995	1	KED
|	**Ni**	**60**		ug/L				0		KED
|	**Ni**	**62**		ug/L				1	100	KED
|	**Cu**	**63**		ug/L				8	32	KED
|	**Cu**	**65**		ug/L				6	41	KED
|	**Zn**	**66**		ug/L				4	49	KED
|	**Zn**	**67**		ug/L				1	86	KED
⌊	**As**	**75**		ug/L				5	28	KED
	Y	**89**		ug/L				1091100	0	Standard
	Kr	**83**		ug/L				57	13	Standard
⌈>	**In-1**	**115**		ug/L				4662	2	KED
|	**Cd**	**111**		ug/L				2	89	KED
⌊	**Cd**	**114**		ug/L				2	121	KED
⌈>	**In**	**115**		ug/L				3590130	1	Standard
⌊	**Ag**	**107**		ug/L				86	5	Standard
⌈>	**Tb**	**159**		ug/L				2885209	0	Standard
⌊	**Pb**	**208**		ug/L				514	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 16:00:49
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	66409	3	Standard
	Cl	**37**		ug/L			12853154	12867015	2	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3846907	1	Standard
|	**Cr**	**52**	**52.045**	ug/L	0.744	1	58825	2471862	1	Standard
|	**Cr**	**53**	**50.709**	ug/L	3.621	7	248	249833	5	Standard
⌊	**Mn**	**55**	**49.097**	ug/L	0.548	1	1215	2926041	1	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	20942	0	KED
|	**Ni**	**60**	**51.289**	ug/L	1.238	2	0	22294	2	KED
|	**Ni**	**62**	**52.361**	ug/L	1.274	2	1	3354	2	KED
|	**Cu**	**63**	**52.180**	ug/L	1.261	2	8	58311	1	KED
|	**Cu**	**65**	**51.183**	ug/L	1.199	2	6	27593	2	KED
|	**Zn**	**66**	**51.540**	ug/L	1.866	3	4	6253	2	KED
|	**Zn**	**67**	**54.112**	ug/L	1.400	2	1	1067	2	KED
⌊	**As**	**75**	**49.921**	ug/L	0.583	1	5	3528	0	KED
	Y	**89**		ug/L			1091100	1032050	1	Standard
	Kr	**83**		ug/L			57	73	9	Standard
⌈>	**In-1**	**115**		ug/L			4662	4519	2	KED
|	**Cd**	**111**	**52.181**	ug/L	0.800	1	2	2597	3	KED
⌊	**Cd**	**114**	**50.278**	ug/L	1.115	2	2	7002	1	KED
⌈>	**In**	**115**		ug/L			3590130	3368400	1	Standard
⌊	**Ag**	**107**	**44.957**	ug/L	0.750	1	86	1078059	2	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2933136	1	Standard
⌊	**Pb**	**208**	**50.644**	ug/L	0.602	1	514	6943461	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 16:04:49
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	65656	1	Standard
	Cl	**37**		ug/L			12853154	12974243	2	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3954872	1	Standard
|	**Cr**	**52**	**-0.035**	ug/L	0.022	61	58825	57898	0	Standard
|	**Cr**	**53**	**-0.000**	ug/L	0.004	952	248	249	8	Standard
⌊	**Mn**	**55**	**0.002**	ug/L	0.002	101	1215	1334	8	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	22290	0	KED
|	**Ni**	**60**	**0.011**	ug/L	0.005	42	0	5	43	KED
|	**Ni**	**62**	**-0.009**	ug/L	0.033	343	1	1	173	KED
|	**Cu**	**63**	**0.003**	ug/L	0.004	159	8	12	39	KED
|	**Cu**	**65**	**-0.002**	ug/L	0.003	144	6	5	33	KED
|	**Zn**	**66**	**0.029**	ug/L	0.023	79	4	8	35	KED
|	**Zn**	**67**	**-0.001**	ug/L	0.053	8048	1	1	86	KED
⌊	**As**	**75**	**0.018**	ug/L	0.003	18	5	6	4	KED
	Y	**89**		ug/L			1091100	1067877	3	Standard
	Kr	**83**		ug/L			57	55	20	Standard
⌈>	**In-1**	**115**		ug/L			4662	4751	2	KED
|	**Cd**	**111**	**-0.025**	ug/L	0.018	71	2	0	100	KED
⌊	**Cd**	**114**	**0.004**	ug/L	0.020	462	2	3	91	KED
⌈>	**In**	**115**		ug/L			3590130	3569608	1	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.002	87	86	139	31	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2876246	1	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.001	58	514	846	22	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0546-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 16:11:01

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			66961	89289	3	Standard
	Cl	37		ug/L			12853154	12773013	1	Standard
>	Sc	45		ug/L			3905122	3900167	1	Standard
	Cr	52	0.034	ug/L	0.010	30	58825	60358	0	Standard
	Cr	53	0.023	ug/L	0.004	15	248	363	6	Standard
	Mn	55	1.808	ug/L	0.040	2	1215	110401	1	Standard
>	Ge-1	72		ug/L			21995	22664	1	KED
	Ni	60	0.291	ug/L	0.051	17	0	136	16	KED
	Ni	62	0.384	ug/L	0.006	1	1	28	0	KED
	Cu	63	8.407	ug/L	0.138	1	8	10174	0	KED
	Cu	65	8.320	ug/L	0.159	1	6	4859	0	KED
	Zn	66	5.726	ug/L	0.381	6	4	755	5	KED
	Zn	67	5.087	ug/L	0.928	18	1	109	18	KED
	As	75	0.031	ug/L	0.014	46	5	7	13	KED
	Y	89		ug/L			1091100	1085635	2	Standard
	Kr	83		ug/L			57	68	10	Standard
>	In-1	115		ug/L			4662	4833	1	KED
	Cd	111	-0.002	ug/L	0.041	2180	2	2	98	KED
	Cd	114	-0.031	ug/L	0.060	191	2	-2	438	KED
>	In	115		ug/L			3590130	3567752	1	Standard
	Ag	107	0.002	ug/L	0.001	56	86	132	17	Standard
>	Tb	159		ug/L			2885209	2895212	1	Standard
	Pb	208	0.343	ug/L	0.003	0	514	46932	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-07
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 16:15:40
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			66961	130430	0	Standard
	Cl	37		ug/L			12853154	13703440	1	Standard
⌈>	Sc	45		ug/L			3905122	4210817	2	Standard
|	Cr	52	0.176	ug/L	0.080	45	58825	72295	4	Standard
|	Cr	53	0.084	ug/L	0.006	6	248	717	2	Standard
⌊	Mn	55	3.824	ug/L	0.111	2	1215	250567	1	Standard
⌈>	Ge-1	72		ug/L			21995	23278	0	KED
|	Ni	60	0.329	ug/L	0.006	1	0	158	1	KED
|	Ni	62	0.409	ug/L	0.134	32	1	31	30	KED
|	Cu	63	2438.776	ug/L	15.378	0	8	3029364	1	KED
|	Cu	65	2288.658	ug/L	20.646	0	6	1371322	1	KED
|	Zn	66	6.267	ug/L	0.320	5	4	849	5	KED
|	Zn	67	5.911	ug/L	0.758	12	1	130	12	KED
⌊	As	75	0.123	ug/L	0.006	5	5	15	3	KED
	Y	89		ug/L			1091100	1139501	1	Standard
	Kr	83		ug/L			57	69	13	Standard
⌈>	In-1	115		ug/L			4662	5238	3	KED
|	Cd	111	0.028	ug/L	0.038	134	2	4	53	KED
⌊	Cd	114	0.043	ug/L	0.036	83	2	9	63	KED
⌈>	In	115		ug/L			3590130	3663071	1	Standard
⌊	Ag	107	0.003	ug/L	0.001	24	86	167	9	Standard
⌈>	Tb	159		ug/L			2885209	3024952	0	Standard
⌊	Pb	208	0.078	ug/L	0.001	1	514	11546	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-08
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 16:22:57
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			66961	124165	2	Standard
	Cl	37		ug/L			12853154	13513928	2	Standard
>	Sc	45		ug/L			3905122	4189529	1	Standard
	Cr	52	0.189	ug/L	0.014	7	58825	72664	0	Standard
	Cr	53	0.077	ug/L	0.003	4	248	682	3	Standard
	Mn	55	2.896	ug/L	0.098	3	1215	189195	3	Standard
>	Ge-1	72		ug/L			21995	20887	2	KED
	Ni	60	0.418	ug/L	0.018	4	0	180	2	KED
	Ni	62	0.357	ug/L	0.121	33	1	24	33	KED
	Cu	63	1032.523	ug/L	17.491	1	8	1150488	1	KED
	Cu	65	1027.586	ug/L	25.800	2	6	552244	1	KED
	Zn	66	5.009	ug/L	0.244	4	4	609	1	KED
	Zn	67	4.359	ug/L	0.381	8	1	86	11	KED
	As	75	0.049	ug/L	0.028	56	5	8	20	KED
	Y	89		ug/L			1091100	1100113	1	Standard
	Kr	83		ug/L			57	76	12	Standard
>	In-1	115		ug/L			4662	4752	0	KED
	Cd	111	0.011	ug/L	0.031	279	2	2	57	KED
	Cd	114	0.010	ug/L	0.007	78	2	3	28	KED
>	In	115		ug/L			3590130	3413342	0	Standard
	Ag	107	0.003	ug/L	0.001	33	86	151	15	Standard
>	Tb	159		ug/L			2885209	2951593	0	Standard
	Pb	208	0.027	ug/L	0.000	0	514	4271	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-13
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, June 22, 2018 16:27:49
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	75716	1	Standard
	Cl	**37**		ug/L			12853154	12851907	3	Standard
⌈>	**Sc**	**45**		ug/L			3905122	4072359	1	Standard
|	**Cr**	**52**	**0.001**	ug/L	0.017	1973	58825	61388	2	Standard
|	**Cr**	**53**	**0.023**	ug/L	0.003	13	248	379	5	Standard
⌊	**Mn**	**55**	**132.577**	ug/L	2.182	1	1215	8362040	1	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	22636	0	KED
|	**Ni**	**60**	**0.579**	ug/L	0.058	10	0	272	10	KED
|	**Ni**	**62**	**0.522**	ug/L	0.031	5	1	38	5	KED
|	**Cu**	**63**	**0.567**	ug/L	0.030	5	8	693	5	KED
|	**Cu**	**65**	**0.546**	ug/L	0.028	5	6	325	5	KED
|	**Zn**	**66**	**14.021**	ug/L	0.487	3	4	1842	3	KED
|	**Zn**	**67**	**11.745**	ug/L	0.925	7	1	251	7	KED
⌊	**As**	**75**	**0.019**	ug/L	0.010	51	5	6	10	KED
	Y	**89**		ug/L			1091100	1089171	1	Standard
	Kr	**83**		ug/L			57	75	14	Standard
⌈>	**In-1**	**115**		ug/L			4662	4932	0	KED
|	**Cd**	**111**	**0.237**	ug/L	0.061	25	2	15	22	KED
⌊	**Cd**	**114**	**0.112**	ug/L	0.037	33	2	19	28	KED
⌈>	**In**	**115**		ug/L			3590130	3515656	0	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.002	91	86	131	32	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2896478	1	Standard
⌊	**Pb**	**208**	**0.016**	ug/L	0.001	7	514	2667	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-07
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, June 22, 2018 16:33:04
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	81378	2	Standard
	Cl	**37**		ug/L			12853154	33460617	3	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3748363	3	Standard
|	**Cr**	**52**	**0.188**	ug/L	0.039	21	58825	64905	1	Standard
|	**Cr**	**53**	**4.877**	ug/L	0.130	2	248	23632	2	Standard
⌊	**Mn**	**55**	**8.462**	ug/L	0.368	4	1215	491967	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	18015	0	KED
|	**Ni**	**60**	**0.233**	ug/L	0.049	20	0	86	20	KED
|	**Ni**	**62**	**0.179**	ug/L	0.060	33	1	11	28	KED
|	**Cu**	**63**	**0.381**	ug/L	0.020	5	8	373	5	KED
|	**Cu**	**65**	**0.400**	ug/L	0.006	1	6	191	1	KED
|	**Zn**	**66**	**1.980**	ug/L	0.166	8	4	210	8	KED
|	**Zn**	**67**	**1.774**	ug/L	0.344	19	1	31	18	KED
⌊	**As**	**75**	**0.288**	ug/L	0.076	26	5	21	20	KED
	Y	**89**		ug/L			1091100	1011302	1	Standard
	Kr	**83**		ug/L			57	80	5	Standard
⌈>	**In-1**	**115**		ug/L			4662	4116	1	KED
|	**Cd**	**111**	**0.034**	ug/L	0.032	94	2	3	41	KED
⌊	**Cd**	**114**	**0.006**	ug/L	0.008	132	2	2	35	KED
⌈>	**In**	**115**		ug/L			3590130	3147863	1	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.001	247	86	71	20	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2731063	1	Standard
⌊	**Pb**	**208**	**0.071**	ug/L	0.001	1	514	9578	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-04
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 16:38:05
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	124028	0	Standard
	Cl	**37**		ug/L			12853154	13872115	1	Standard
⌈>	**Sc**	**45**		ug/L			3905122	4120294	2	Standard
|	**Cr**	**52**	**0.264**	ug/L	0.053	20	58825	75179	3	Standard
|	**Cr**	**53**	**0.220**	ug/L	0.009	3	248	1424	0	Standard
⌊	**Mn**	**55**	**4.826**	ug/L	0.127	2	1215	309135	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	20620	0	KED
|	**Ni**	**60**	**0.346**	ug/L	0.056	16	0	147	16	KED
|	**Ni**	**62**	**0.274**	ug/L	0.122	44	1	19	40	KED
|	**Cu**	**63**	**3.976**	ug/L	0.059	1	8	4382	2	KED
|	**Cu**	**65**	**3.926**	ug/L	0.082	2	6	2090	1	KED
|	**Zn**	**66**	**5.825**	ug/L	0.396	6	4	699	6	KED
|	**Zn**	**67**	**5.144**	ug/L	0.458	8	1	100	8	KED
⌊	**As**	**75**	**0.400**	ug/L	0.085	21	5	32	18	KED
	Y	**89**		ug/L			1091100	1107452	1	Standard
	Kr	**83**		ug/L			57	76	5	Standard
⌈>	**In-1**	**115**		ug/L			4662	4547	2	KED
|	**Cd**	**111**	**-0.018**	ug/L	0.029	160	2	1	114	KED
⌊	**Cd**	**114**	**0.010**	ug/L	0.029	293	2	3	107	KED
⌈>	**In**	**115**		ug/L			3590130	3460118	1	Standard
⌊	**Ag**	**107**	**0.007**	ug/L	0.002	21	86	261	14	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2930582	1	Standard
⌊	**Pb**	**208**	**0.062**	ug/L	0.001	2	514	8996	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0319-09
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 16:42:04
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			66961	99910	0	Standard
	Cl	37		ug/L			12853154	13029806	3	Standard
>	Sc	45		ug/L			3905122	4262322	1	Standard
	Cr	52	0.279	ug/L	0.012	4	58825	78549	2	Standard
	Cr	53	0.583	ug/L	0.016	2	248	3452	1	Standard
	Mn	55	0.950	ug/L	0.018	1	1215	64034	0	Standard
>	Ge-1	72		ug/L			21995	19202	0	KED
	Ni	60	0.277	ug/L	0.041	14	0	110	15	KED
	Ni	62	0.285	ug/L	0.066	23	1	18	21	KED
	Cu	63	0.310	ug/L	0.027	8	8	325	8	KED
	Cu	65	0.296	ug/L	0.041	13	6	152	13	KED
	Zn	66	1.599	ug/L	0.153	9	4	181	8	KED
	Zn	67	2.116	ug/L	0.311	14	1	39	14	KED
	As	75	1.406	ug/L	0.084	6	5	95	5	KED
	Y	89		ug/L			1091100	1067873	2	Standard
	Kr	83		ug/L			57	88	8	Standard
>	In-1	115		ug/L			4662	4183	1	KED
	Cd	111	-0.030	ug/L	0.024	80	2	0	173	KED
	Cd	114	-0.012	ug/L	0.008	71	2	0	156	KED
>	In	115		ug/L			3590130	3402745	2	Standard
	Ag	107	0.002	ug/L	0.001	42	86	122	11	Standard
>	Tb	159		ug/L			2885209	2912550	1	Standard
	Pb	208	0.040	ug/L	0.001	2	514	5942	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0546-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 16:47:21
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			66961	98749	0	Standard
Cl	37		ug/L			12853154	12789589	1	Standard
> Sc	45		ug/L			3905122	4218208	1	Standard
Cr	52	0.294	ug/L	0.036	12	58825	78475	1	Standard
Cr	53	0.619	ug/L	0.019	3	248	3611	1	Standard
Mn	55	0.838	ug/L	0.004	0	1215	56082	1	Standard
> Ge-1	72		ug/L			21995	19148	0	KED
Ni	60	0.262	ug/L	0.033	12	0	104	13	KED
Ni	62	0.253	ug/L	0.080	31	1	16	29	KED
~~Cu~~	63	0.306	ug/L	0.010	3	8	320	3	KED
Cu	65	0.314	ug/L	0.050	15	6	160	14	KED
~~Zn~~	66	1.035	ug/L	0.145	14	4	118	14	KED
Zn	67	1.385	ug/L	0.967	69	1	26	66	KED
As	75	1.252	ug/L	0.073	5	5	85	6	KED
Y	89		ug/L			1091100	1050287	2	Standard
Kr	83		ug/L			57	81	14	Standard
> In-1	115		ug/L			4662	4034	2	KED
Cd	111	-0.000	ug/L	0.021	4973	2	1	50	KED
Cd	114	-0.012	ug/L	0.025	214	2	0	507	KED
> In	115		ug/L			3590130	3389777	0	Standard
Ag	107	0.002	ug/L	0.001	39	86	125	13	Standard
> Tb	159		ug/L			2885209	2879733	1	Standard
~~Pb~~	208	0.040	ug/L	0.000	1	514	5950	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0546-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 16:52:16
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			66961	107424	0	Standard
Cl	37		ug/L			12853154	12974204	4	Standard
> Sc	45		ug/L			3905122	4198691	2	Standard
Cr	52	23.136	ug/L	0.248	1	58825	1234208	1	Standard
Cr	53	23.950	ug/L	0.953	3	248	128933	2	Standard
Mn	55	23.054	ug/L	0.327	1	1215	1500278	2	Standard
> Ge-1	72		ug/L			21995	19125	0	KED
Ni	60	26.328	ug/L	0.379	1	0	10450	0	KED
Ni	62	26.664	ug/L	0.620	2	1	1560	1	KED
~~Cu~~	63	26.123	ug/L	1.138	4	8	26660	3	KED
Cu	65	26.412	ug/L	0.262	0	6	13007	0	KED
~~Zn~~	66	78.246	ug/L	2.474	3	4	8668	2	KED
Zn	67	74.406	ug/L	2.982	4	1	1339	3	KED
As	75	26.366	ug/L	0.232	0	5	1704	1	KED
Y	89		ug/L			1091100	1037243	1	Standard
Kr	83		ug/L			57	81	9	Standard
> In-1	115		ug/L			4662	4184	4	KED
Cd	111	25.599	ug/L	1.811	7	2	1178	2	KED
Cd	114	24.422	ug/L	0.975	3	2	3148	1	KED
> In	115		ug/L			3590130	3352675	1	Standard
Ag	107	22.600	ug/L	0.587	2	86	539468	3	Standard
> Tb	159		ug/L			2885209	2867580	0	Standard
~~Pb~~	208	25.510	ug/L	0.114	0	514	3419785	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0546-MSD1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 16:56:15
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			66961	103681	0	Standard
Cl	37		ug/L			12853154	13080834	2	Standard
> Sc	45		ug/L			3905122	4286794	2	Standard
Cr	52	22.220	ug/L	0.244	1	58825	1213114	3	Standard
Cr	53	23.277	ug/L	0.127	0	248	128023	3	Standard
Mn	55	21.855	ug/L	0.608	2	1215	1451494	0	Standard
> Ge-1	72		ug/L			21995	18796	4	KED
Ni	60	26.539	ug/L	0.732	2	0	10348	2	KED
Ni	62	26.494	ug/L	0.824	3	1	1523	2	KED
~~Cu~~	63	26.082	ug/L	0.927	3	8	26146	2	KED
Cu	65	26.431	ug/L	0.953	3	6	12780	0	KED
~~Zn~~	66	81.881	ug/L	3.092	3	4	8906	0	KED
Zn	67	76.379	ug/L	5.347	7	1	1349	2	KED
As	75	26.495	ug/L	0.830	3	5	1682	2	KED
Y	89		ug/L			1091100	1041441	2	Standard
Kr	83		ug/L			57	90	17	Standard
> In-1	115		ug/L			4662	4142	3	KED
Cd	111	24.718	ug/L	1.310	5	2	1127	1	KED
Cd	114	24.846	ug/L	0.259	1	2	3173	2	KED
> In	115		ug/L			3590130	3372006	0	Standard
Ag	107	22.231	ug/L	0.453	2	86	533635	2	Standard
> Tb	159		ug/L			2885209	2885633	0	Standard
~~Pb~~	208	25.299	ug/L	0.323	1	514	3412720	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 17:01:19
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	64089	0	Standard
	Cl	**37**		ug/L			12853154	12932724	3	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3813121	2	Standard
|	**Cr**	**52**	**49.436**	ug/L	0.458	0	58825	2329929	1	Standard
|	**Cr**	**53**	**49.652**	ug/L	1.086	2	248	242549	0	Standard
⌊	**Mn**	**55**	**48.906**	ug/L	2.231	4	1215	2888413	4	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	20190	1	KED
|	**Ni**	**60**	**51.598**	ug/L	1.180	2	0	21625	2	KED
|	**Ni**	**62**	**50.832**	ug/L	0.871	1	1	3139	0	KED
|	**Cu**	**63**	**50.942**	ug/L	1.060	2	8	54882	1	KED
|	**Cu**	**65**	**50.618**	ug/L	1.290	2	6	26306	1	KED
|	**Zn**	**66**	**49.905**	ug/L	1.006	2	4	5839	2	KED
|	**Zn**	**67**	**53.515**	ug/L	2.913	5	1	1017	5	KED
⌊	**As**	**75**	**49.429**	ug/L	0.611	1	5	3368	0	KED
	Y	**89**		ug/L			1091100	1032121	0	Standard
	Kr	**83**		ug/L			57	84	27	Standard
⌈>	**In-1**	**115**		ug/L			4662	4286	2	KED
|	**Cd**	**111**	**48.943**	ug/L	1.131	2	2	2309	1	KED
⌊	**Cd**	**114**	**49.535**	ug/L	2.286	4	2	6540	2	KED
⌈>	**In**	**115**		ug/L			3590130	3439337	0	Standard
⌊	**Ag**	**107**	**41.333**	ug/L	0.600	1	86	1011912	1	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2931134	0	Standard
⌊	**Pb**	**208**	**49.981**	ug/L	0.147	0	514	6848133	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 17:08:03
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	63673	0	Standard
	Cl	**37**		ug/L			12853154	12645363	1	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3763411	2	Standard
|	**Cr**	**52**	**-0.072**	ug/L	0.017	23	58825	53404	1	Standard
|	**Cr**	**53**	**0.003**	ug/L	0.002	72	248	253	6	Standard
⌊	**Mn**	**55**	**-0.000**	ug/L	0.001	558	1215	1159	6	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	21397	0	KED
|	**Ni**	**60**	**0.006**	ug/L	0.002	43	0	2	43	KED
|	**Ni**	**62**	**-0.009**	ug/L	0.017	189	1	1	86	KED
|	**Cu**	**63**	**0.000**	ug/L	0.003	1173	8	8	32	KED
|	**Cu**	**65**	**0.002**	ug/L	0.007	461	6	7	50	KED
|	**Zn**	**66**	**0.021**	ug/L	0.023	108	4	6	41	KED
|	**Zn**	**67**	**0.065**	ug/L	0.109	168	1	2	86	KED
⌊	**As**	**75**	**0.033**	ug/L	0.020	59	5	7	18	KED
	Y	**89**		ug/L			1091100	1040386	2	Standard
	Kr	**83**		ug/L			57	64	5	Standard
⌈>	**In-1**	**115**		ug/L			4662	4501	1	KED
|	**Cd**	**111**	**0.059**	ug/L	0.042	72	2	5	43	KED
⌊	**Cd**	**114**	**0.006**	ug/L	0.021	386	2	3	94	KED
⌈>	**In**	**115**		ug/L			3590130	3487077	1	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.001	54	86	123	16	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2830702	1	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	42	514	607	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-05
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 17:15:20
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	115349	0	Standard
	Cl	**37**		ug/L			12853154	13098372	1	Standard
⌈>	**Sc**	**45**		ug/L			3905122	4021093	1	Standard
|	**Cr**	**52**	**0.725**	ug/L	0.083	11	58825	95753	5	Standard
|	**Cr**	**53**	**0.751**	ug/L	0.014	1	248	4122	0	Standard
⌊	**Mn**	**55**	**5.466**	ug/L	0.034	0	1215	341584	1	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	22039	1	KED
|	**Ni**	**60**	**0.258**	ug/L	0.048	18	0	118	18	KED
|	**Ni**	**62**	**0.245**	ug/L	0.029	11	1	18	11	KED
|	**Cu**	**63**	**1.420**	ug/L	0.050	3	8	1678	3	KED
|	**Cu**	**65**	**1.393**	ug/L	0.054	3	6	797	4	KED
|	**Zn**	**66**	**6.784**	ug/L	0.193	2	4	870	4	KED
|	**Zn**	**67**	**7.136**	ug/L	0.211	2	1	149	1	KED
⌊	**As**	**75**	**0.327**	ug/L	0.042	12	5	29	10	KED
	Y	**89**		ug/L			1091100	1128908	2	Standard
	Kr	**83**		ug/L			57	74	22	Standard
⌈>	**In-1**	**115**		ug/L			4662	4744	3	KED
|	**Cd**	**111**	**-0.000**	ug/L	0.039	9584	2	2	89	KED
⌊	**Cd**	**114**	**0.017**	ug/L	0.015	89	2	4	44	KED
⌈>	**In**	**115**		ug/L			3590130	3603453	1	Standard
⌊	**Ag**	**107**	**0.003**	ug/L	0.001	46	86	156	19	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2907634	0	Standard
⌊	**Pb**	**208**	**0.113**	ug/L	0.001	0	514	15903	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-06
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 17:19:19
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	126297	1	Standard
	Cl	**37**		ug/L			12853154	13547639	2	Standard
⌈>	**Sc**	**45**		ug/L			3905122	4068563	3	Standard
|	**Cr**	**52**	**0.934**	ug/L	0.082	8	58825	107006	0	Standard
|	**Cr**	**53**	**0.873**	ug/L	0.048	5	248	4803	2	Standard
⌊	**Mn**	**55**	**5.462**	ug/L	0.065	1	1215	345327	1	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	20557	1	KED
|	**Ni**	**60**	**0.290**	ug/L	0.031	10	0	123	11	KED
|	**Ni**	**62**	**0.154**	ug/L	0.054	35	1	11	28	KED
|	**Cu**	**63**	**4.494**	ug/L	0.051	1	8	4937	1	KED
|	**Cu**	**65**	**4.510**	ug/L	0.113	2	6	2392	1	KED
|	**Zn**	**66**	**5.013**	ug/L	0.450	8	4	601	10	KED
|	**Zn**	**67**	**5.683**	ug/L	0.184	3	1	111	3	KED
⌊	**As**	**75**	**0.335**	ug/L	0.018	5	5	28	4	KED
	Y	**89**		ug/L			1091100	1103335	1	Standard
	Kr	**83**		ug/L			57	62	20	Standard
⌈>	**In-1**	**115**		ug/L			4662	4502	3	KED
|	**Cd**	**111**	**0.002**	ug/L	0.030	1771	2	2	65	KED
⌊	**Cd**	**114**	**-0.016**	ug/L	0.008	53	2	0	770	KED
⌈>	**In**	**115**		ug/L			3590130	3388056	1	Standard
⌊	**Ag**	**107**	**0.007**	ug/L	0.001	9	86	257	6	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2861588	1	Standard
⌊	**Pb**	**208**	**0.079**	ug/L	0.001	1	514	11103	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-07RE1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, June 22, 2018 17:23:18
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	72528	1	Standard
	Cl	**37**		ug/L			12853154	13344642	4	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3918599	1	Standard
|	**Cr**	**52**	**0.030**	ug/L	0.025	82	58825	60445	1	Standard
|	**Cr**	**53**	**0.026**	ug/L	0.006	23	248	380	6	Standard
⌊	**Mn**	**55**	**0.201**	ug/L	0.008	4	1215	13418	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	21932	0	KED
|	**Ni**	**60**	**0.107**	ug/L	0.011	10	0	48	9	KED
|	**Ni**	**62**	**0.104**	ug/L	0.058	55	1	8	44	KED
|	**Cu**	**63**	**115.613**	ug/L	1.044	0	8	135306	0	KED
|	**Cu**	**65**	**117.196**	ug/L	2.566	2	6	66162	2	KED
|	**Zn**	**66**	**2.341**	ug/L	0.196	8	4	301	7	KED
|	**Zn**	**67**	**2.032**	ug/L	0.209	10	1	43	9	KED
⌊	**As**	**75**	**0.035**	ug/L	0.021	59	5	7	18	KED
	Y	**89**		ug/L			1091100	1060405	1	Standard
	Kr	**83**		ug/L			57	81	16	Standard
⌈>	**In-1**	**115**		ug/L			4662	4613	1	KED
|	**Cd**	**111**	**-0.018**	ug/L	0.029	159	2	1	114	KED
⌊	**Cd**	**114**	**0.009**	ug/L	0.000	2	2	3	0	KED
⌈>	**In**	**115**		ug/L			3590130	3520772	2	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.001	415	86	93	36	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2826875	1	Standard
⌊	**Pb**	**208**	**0.026**	ug/L	0.000	0	514	3920	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-08RE1
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, June 22, 2018 17:27:17
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	74010	0	Standard
	Cl	**37**		ug/L			12853154	13137579	1	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3864825	2	Standard
|	**Cr**	**52**	**0.007**	ug/L	0.051	738	58825	58513	2	Standard
|	**Cr**	**53**	**0.031**	ug/L	0.005	15	248	400	3	Standard
⌊	**Mn**	**55**	**0.309**	ug/L	0.011	3	1215	19693	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	21564	2	KED
|	**Ni**	**60**	**0.177**	ug/L	0.079	44	0	78	42	KED
|	**Ni**	**62**	**0.087**	ug/L	0.049	56	1	7	43	KED
|	**Cu**	**63**	**103.526**	ug/L	1.472	1	8	119124	2	KED
|	**Cu**	**65**	**104.215**	ug/L	2.850	2	6	57833	1	KED
|	**Zn**	**66**	**2.107**	ug/L	0.315	14	4	267	14	KED
|	**Zn**	**67**	**1.746**	ug/L	0.753	43	1	36	43	KED
⌊	**As**	**75**	**0.025**	ug/L	0.066	263	5	7	67	KED
	Y	**89**		ug/L			1091100	1024024	0	Standard
	Kr	**83**		ug/L			57	61	23	Standard
⌈>	**In-1**	**115**		ug/L			4662	4485	4	KED
|	**Cd**	**111**	**0.021**	ug/L	0.030	139	2	3	45	KED
⌊	**Cd**	**114**	**0.006**	ug/L	0.042	670	2	3	180	KED
⌈>	**In**	**115**		ug/L			3590130	3442306	1	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.000	42	86	89	2	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2817056	1	Standard
⌊	**Pb**	**208**	**0.029**	ug/L	0.001	4	514	4273	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0313-01
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 17:31:29
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	94193	0	Standard
	Cl	**37**		ug/L			12853154	12830966	3	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3967950	2	Standard
|	**Cr**	**52**	**2.646**	ug/L	0.158	5	58825	186285	3	Standard
|	**Cr**	**53**	**2.784**	ug/L	0.090	3	248	14389	2	Standard
⌊	**Mn**	**55**	**2.027**	ug/L	0.042	2	1215	125777	0	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	21381	1	KED
|	**Ni**	**60**	**1.761**	ug/L	0.077	4	0	781	5	KED
|	**Ni**	**62**	**2.090**	ug/L	0.202	9	1	138	9	KED
|	**Cu**	**63**	**0.744**	ug/L	0.049	6	8	857	6	KED
|	**Cu**	**65**	**0.720**	ug/L	0.034	4	6	403	5	KED
|	~~**Zn**~~	**66**	~~**5.516**~~	ug/L	0.383	6	4	687	5	KED
|	**Zn**	**67**	**5.428**	ug/L	0.369	6	1	110	7	KED
⌊	**As**	**75**	**0.128**	ug/L	0.027	20	5	14	12	KED
	Y	**89**		ug/L			1091100	1051923	1	Standard
	Kr	**83**		ug/L			57	68	23	Standard
⌈>	**In-1**	**115**		ug/L			4662	4602	3	KED
|	**Cd**	**111**	**0.077**	ug/L	0.048	62	2	6	36	KED
⌊	**Cd**	**114**	**0.038**	ug/L	0.010	26	2	7	19	KED
⌈>	**In**	**115**		ug/L			3590130	3450088	0	Standard
⌊	**Ag**	**107**	**0.006**	ug/L	0.001	16	86	227	10	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2788618	0	Standard
⌊	**Pb**	**208**	**0.267**	ug/L	0.003	0	514	35303	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0318-01RE1
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, June 22, 2018 17:36:08

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	1819967	0	Standard
	Cl	**37**		ug/L			12853154	11754246	0	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3367989	0	Standard
|	**Cr**	**52**	**4.267**	ug/L	0.134	3	58825	223977	1	Standard
|	**Cr**	**53**	**1.516**	ug/L	0.017	1	248	6752	0	Standard
⌊	**Mn**	**55**	**79.300**	ug/L	1.311	1	1215	4137604	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	13375	2	KED
|	**Ni**	**60**	**13.481**	ug/L	0.142	1	0	3742	1	KED
|	**Ni**	**62**	**13.334**	ug/L	0.712	5	1	546	3	KED
|	**Cu**	**63**	**0.836**	ug/L	0.031	3	8	601	1	KED
|	**Cu**	**65**	**0.849**	ug/L	0.076	8	6	296	8	KED
|	**Zn**	**66**	**5.844**	ug/L	0.169	2	4	455	3	KED
|	**Zn**	**67**	**7.669**	ug/L	0.606	7	1	97	5	KED
⌊	**As**	**75**	**0.288**	ug/L	0.067	23	5	16	15	KED
	Y	**89**		ug/L			1091100	884612	0	Standard
	Kr	**83**		ug/L			57	130	6	Standard
⌈>	**In-1**	**115**		ug/L			4662	2621	1	KED
|	**Cd**	**111**	**0.078**	ug/L	0.084	108	2	3	68	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.026	1210	2	1	135	KED
⌈>	**In**	**115**		ug/L			3590130	2885048	0	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	51	86	96	14	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2661241	0	Standard
⌊	**Pb**	**208**	**0.032**	ug/L	0.000	1	514	4412	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-01
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 17:42:11
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	113775	0	Standard
	Cl	**37**		ug/L			12853154	13666572	3	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3861541	3	Standard
|	**Cr**	**52**	**0.635**	ug/L	0.017	2	58825	87723	3	Standard
|	**Cr**	**53**	**0.569**	ug/L	0.027	4	248	3055	0	Standard
⌊	**Mn**	**55**	**3.502**	ug/L	0.191	5	1215	210379	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	20249	1	KED
|	**Ni**	**60**	**0.529**	ug/L	0.033	6	0	222	5	KED
|	**Ni**	**62**	**0.431**	ug/L	0.264	61	1	28	59	KED
|	**Cu**	**63**	**0.902**	ug/L	0.061	6	8	981	4	KED
|	**Cu**	**65**	**0.934**	ug/L	0.101	10	6	492	9	KED
|	**Zn**	**66**	**9.494**	ug/L	0.415	4	4	1116	3	KED
|	**Zn**	**67**	**7.792**	ug/L	0.930	11	1	149	13	KED
⌊	**As**	**75**	**0.343**	ug/L	0.045	13	5	28	12	KED
	Y	**89**		ug/L			1091100	1023045	3	Standard
	Kr	**83**		ug/L			57	59	20	Standard
⌈>	**In-1**	**115**		ug/L			4662	4180	3	KED
|	**Cd**	**111**	**0.060**	ug/L	0.018	30	2	4	20	KED
⌊	**Cd**	**114**	**0.045**	ug/L	0.008	17	2	7	14	KED
⌈>	**In**	**115**		ug/L			3590130	3531347	1	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.000	11	86	80	2	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2905512	0	Standard
⌊	**Pb**	**208**	**0.148**	ug/L	0.002	1	514	20666	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-DUP3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 17:46:10
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	111311	2	Standard
	Cl	**37**		ug/L			12853154	13645202	0	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3862988	2	Standard
|	**Cr**	**52**	**0.650**	ug/L	0.066	10	58825	88416	2	Standard
|	**Cr**	**53**	**0.600**	ug/L	0.013	2	248	3212	2	Standard
⌊	**Mn**	**55**	**3.611**	ug/L	0.049	1	1215	217273	3	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	20917	1	KED
|	**Ni**	**60**	**0.572**	ug/L	0.031	5	0	248	5	KED
|	**Ni**	**62**	**0.587**	ug/L	0.168	28	1	39	27	KED
|	**Cu**	**63**	**0.964**	ug/L	0.062	6	8	1085	6	KED
|	**Cu**	**65**	**0.882**	ug/L	0.009	1	6	481	1	KED
|	**Zn**	**66**	**9.024**	ug/L	0.956	10	4	1097	10	KED
|	**Zn**	**67**	**8.391**	ug/L	1.026	12	1	166	12	KED
⌊	**As**	**75**	**0.344**	ug/L	0.024	7	5	29	5	KED
	Y	**89**		ug/L			1091100	1067343	2	Standard
	Kr	**83**		ug/L			57	70	7	Standard
⌈>	**In-1**	**115**		ug/L			4662	4276	0	KED
|	**Cd**	**111**	**0.051**	ug/L	0.031	60	2	4	32	KED
⌊	**Cd**	**114**	**0.024**	ug/L	0.025	106	2	5	61	KED
⌈>	**In**	**115**		ug/L			3590130	3619059	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	114	86	107	19	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2905314	0	Standard
⌊	**Pb**	**208**	**0.150**	ug/L	0.001	0	514	20907	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-MS3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 17:50:09
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			66961	112333	1	Standard
	Cl	37		ug/L			12853154	13021842	1	Standard
⌈>	Sc	45		ug/L			3905122	3866419	3	Standard
|	Cr	52	24.789	ug/L	1.276	5	58825	1212477	1	Standard
|	Cr	53	25.474	ug/L	1.008	3	248	126229	1	Standard
⌊	Mn	55	27.422	ug/L	0.810	2	1215	1642064	0	Standard
⌈>	Ge-1	72		ug/L			21995	19859	2	KED
|	Ni	60	26.374	ug/L	0.836	3	0	10866	0	KED
|	Ni	62	25.665	ug/L	0.485	1	1	1560	2	KED
|	Cu	63	25.900	ug/L	0.559	2	8	27444	0	KED
|	Cu	65	26.095	ug/L	0.740	2	6	13338	0	KED
|	Zn	66	81.238	ug/L	2.264	2	4	9344	2	KED
|	Zn	67	75.284	ug/L	3.729	4	1	1408	6	KED
⌊	As	75	23.736	ug/L	0.886	3	5	1592	2	KED
	Y	89		ug/L			1091100	1054038	0	Standard
	Kr	83		ug/L			57	74	10	Standard
⌈>	In-1	115		ug/L			4662	4122	4	KED
|	Cd	111	24.379	ug/L	1.606	6	2	1106	3	KED
⌊	Cd	114	23.619	ug/L	0.710	3	2	3000	2	KED
⌈>	In	115		ug/L			3590130	3482948	2	Standard
⌊	Ag	107	20.705	ug/L	0.365	1	86	513288	2	Standard
⌈>	Tb	159		ug/L			2885209	2979338	0	Standard
⌊	Pb	208	24.526	ug/L	0.299	1	514	3415769	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-MSD3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 17:54:08
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	116988	0	Standard
	Cl	**37**		ug/L			12853154	13056801	0	Standard
⎡>	**Sc**	**45**		ug/L			3905122	3829324	0	Standard
⎢	**Cr**	**52**	**24.601**	ug/L	0.760	3	58825	1193717	3	Standard
⎢	**Cr**	**53**	**25.835**	ug/L	0.068	0	248	126897	1	Standard
⎣	**Mn**	**55**	**27.225**	ug/L	1.172	4	1215	1615784	4	Standard
⎡>	**Ge-1**	**72**		ug/L			21995	19742	1	KED
⎢	**Ni**	**60**	**26.352**	ug/L	0.278	1	0	10797	1	KED
⎢	**Ni**	**62**	**26.051**	ug/L	1.083	4	1	1573	2	KED
⎢	**Cu**	**63**	**25.984**	ug/L	0.489	1	8	27374	0	KED
⎢	**Cu**	**65**	**26.189**	ug/L	0.041	0	6	13314	2	KED
⎢	**Zn**	**66**	**80.810**	ug/L	0.104	0	4	9242	1	KED
⎢	**Zn**	**67**	**79.894**	ug/L	2.553	3	1	1485	5	KED
⎣	**As**	**75**	**23.769**	ug/L	0.514	2	5	1586	0	KED
	Y	**89**		ug/L			1091100	1081947	4	Standard
	Kr	**83**		ug/L			57	78	7	Standard
⎡>	**In-1**	**115**		ug/L			4662	4310	1	KED
⎢	**Cd**	**111**	**23.675**	ug/L	0.833	3	2	1124	2	KED
⎣	**Cd**	**114**	**23.388**	ug/L	0.246	1	2	3109	0	KED
⎡>	**In**	**115**		ug/L			3590130	3465517	1	Standard
⎣	**Ag**	**107**	**20.306**	ug/L	0.423	2	86	501087	3	Standard
⎡>	**Tb**	**159**		ug/L			2885209	2973721	0	Standard
⎣	**Pb**	**208**	**24.036**	ug/L	0.056	0	514	3341463	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 17:59:11
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	62845	1	Standard
	Cl	**37**		ug/L			12853154	12751253	1	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3580094	1	Standard
|	**Cr**	**52**	**50.098**	ug/L	3.284	6	58825	2214700	4	Standard
|	**Cr**	**53**	**48.519**	ug/L	0.573	1	248	222574	1	Standard
⌊	**Mn**	**55**	**49.049**	ug/L	1.723	3	1215	2719504	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	19537	2	KED
|	**Ni**	**60**	**50.233**	ug/L	0.601	1	0	20368	0	KED
|	**Ni**	**62**	**49.944**	ug/L	2.657	5	1	2983	3	KED
|	**Cu**	**63**	**49.612**	ug/L	1.144	2	8	51724	2	KED
|	**Cu**	**65**	**49.653**	ug/L	1.907	3	6	24966	2	KED
|	**Zn**	**66**	**50.226**	ug/L	1.544	3	4	5684	1	KED
|	**Zn**	**67**	**51.177**	ug/L	1.347	2	1	941	1	KED
⌊	**As**	**75**	**50.403**	ug/L	0.524	1	5	3323	1	KED
	Y	**89**		ug/L			1091100	981323	3	Standard
	Kr	**83**		ug/L			57	66	10	Standard
⌈>	**In-1**	**115**		ug/L			4662	3995	4	KED
|	**Cd**	**111**	**51.138**	ug/L	2.870	5	2	2247	2	KED
⌊	**Cd**	**114**	**50.360**	ug/L	1.543	3	2	6201	4	KED
⌈>	**In**	**115**		ug/L			3590130	3341486	1	Standard
⌊	**Ag**	**107**	**39.886**	ug/L	0.567	1	86	948747	2	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2866236	2	Standard
⌊	**Pb**	**208**	**49.032**	ug/L	0.696	1	514	6568402	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 18:05:55
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	60790	0	Standard
	Cl	**37**		ug/L			12853154	12269716	1	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3547710	3	Standard
|	**Cr**	**52**	**-0.095**	ug/L	0.020	21	58825	49338	1	Standard
|	**Cr**	**53**	**-0.002**	ug/L	0.002	102	248	218	6	Standard
⌊	**Mn**	**55**	**-0.001**	ug/L	0.001	102	1215	1067	3	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	20770	3	KED
|	**Ni**	**60**	**0.006**	ug/L	0.003	47	0	2	43	KED
|	**Ni**	**62**	**-0.028**	ug/L			1	0		KED
|	**Cu**	**63**	**0.000**	ug/L	0.006	1858	8	8	81	KED
|	**Cu**	**65**	**-0.004**	ug/L	0.006	151	6	4	65	KED
|	**Zn**	**66**	**0.029**	ug/L	0.016	55	4	7	25	KED
|	**Zn**	**67**	**-0.030**	ug/L	0.055	184	1	0	173	KED
⌊	**As**	**75**	**0.029**	ug/L	0.010	33	5	7	11	KED
	Y	**89**		ug/L			1091100	979793	2	Standard
	Kr	**83**		ug/L			57	72	11	Standard
⌈>	**In-1**	**115**		ug/L			4662	4075	3	KED
|	**Cd**	**111**	**0.041**	ug/L	0.019	44	2	3	25	KED
⌊	**Cd**	**114**	**-0.003**	ug/L	0.014	488	2	1	100	KED
⌈>	**In**	**115**		ug/L			3590130	3323471	0	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.001	516	86	83	20	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2741292	2	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	39	514	614	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0437-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 18:11:37
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			66961	75684	1	Standard
	Cl	37		ug/L			12853154	11748855	1	Standard
>	Sc	45		ug/L			3905122	3474603	3	Standard
	Cr	52	-0.043	ug/L	0.044	102	58825	50530	3	Standard
	Cr	53	0.012	ug/L	0.002	14	248	273	3	Standard
	Mn	55	0.437	ug/L	0.009	2	1215	24588	1	Standard
>	Ge-1	72		ug/L			21995	20599	1	KED
	Ni	60	0.025	ug/L	0.002	9	0	10	10	KED
	Ni	62	0.002	ug/L	0.031	1513	1	1	100	KED
	Cu	63	0.034	ug/L	0.019	58	8	45	46	KED
	Cu	65	0.050	ug/L	0.029	57	6	33	46	KED
	Zn	66	0.741	ug/L	0.114	15	4	92	15	KED
	Zn	67	0.856	ug/L	0.112	13	1	17	12	KED
	As	75	0.028	ug/L	0.018	63	5	6	17	KED
	Y	89		ug/L			1091100	993033	3	Standard
	Kr	83		ug/L			57	67	3	Standard
>	In-1	115		ug/L			4662	4148	2	KED
	Cd	111	0.026	ug/L	0.023	90	2	3	34	KED
	Cd	114	0.021	ug/L	0.003	13	2	4	5	KED
>	In	115		ug/L			3590130	3303114	0	Standard
	Ag	107	0.003	ug/L	0.006	179	86	161	90	Standard
>	Tb	159		ug/L			2885209	2734119	2	Standard
	Pb	208	0.007	ug/L	0.006	79	514	1365	49	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0437-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 18:15:36
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			66961	83178	2	Standard
	Cl	37		ug/L			12853154	12067888	2	Standard
>	Sc	45		ug/L			3905122	3469478	4	Standard
	Cr	52	24.916	ug/L	1.359	5	58825	1092762	1	Standard
	Cr	53	25.828	ug/L	1.385	5	248	114745	0	Standard
	Mn	55	24.877	ug/L	1.025	4	1215	1336082	1	Standard
>	Ge-1	72		ug/L			21995	20630	0	KED
	Ni	60	26.154	ug/L	0.282	1	0	11199	1	KED
	Ni	62	26.536	ug/L	0.833	3	1	1675	3	KED
	Cu	63	26.886	ug/L	0.097	0	8	29605	0	KED
	Cu	65	26.573	ug/L	0.299	1	6	14116	1	KED
	Zn	66	85.453	ug/L	0.492	0	4	10213	1	KED
	Zn	67	79.058	ug/L	3.429	4	1	1535	4	KED
	As	75	25.787	ug/L	0.508	1	5	1798	2	KED
	Y	89		ug/L			1091100	963441	3	Standard
	Kr	83		ug/L			57	71	23	Standard
>	In-1	115		ug/L			4662	4263	4	KED
	Cd	111	25.717	ug/L	0.859	3	2	1207	2	KED
	Cd	114	25.578	ug/L	1.017	3	2	3358	1	KED
>	In	115		ug/L			3590130	3309187	2	Standard
	Ag	107	21.703	ug/L	1.253	5	86	510759	3	Standard
>	Tb	159		ug/L			2885209	2768535	1	Standard
	Pb	208	26.421	ug/L	0.659	2	514	3418493	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0318-01RE1
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, June 22, 2018 18:20:15
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	779566	1	Standard
	Cl	**37**		ug/L			12853154	12084140	2	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3247255	2	Standard
|	**Cr**	**52**	**1.764**	ug/L	0.069	3	58825	117940	0	Standard
|	**Cr**	**53**	**0.643**	ug/L	0.021	3	248	2880	1	Standard
⌊	**Mn**	**55**	**31.063**	ug/L	1.376	4	1215	1562229	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	16352	2	KED
|	**Ni**	**60**	**5.098**	ug/L	0.125	2	0	1729	0	KED
|	**Ni**	**62**	**5.355**	ug/L	0.354	6	1	269	7	KED
|	**~~Cu~~**	**63**	**0.342**	ug/L	0.030	8	8	304	7	KED
|	**Cu**	**65**	**0.331**	ug/L	0.033	10	6	144	10	KED
|	**~~Zn~~**	**66**	**4.217**	ug/L	0.383	9	4	402	8	KED
|	**Zn**	**67**	**5.176**	ug/L	0.641	12	1	80	13	KED
⌊	**As**	**75**	**0.151**	ug/L	0.085	56	5	12	38	KED
	Y	**89**		ug/L			1091100	861918	0	Standard
	Kr	**83**		ug/L			57	85	17	Standard
⌈>	**In-1**	**115**		ug/L			4662	3095	3	KED
|	**Cd**	**111**	**0.022**	ug/L	0.019	83	2	2	24	KED
⌊	**Cd**	**114**	**-0.005**	ug/L	0.030	650	2	1	238	KED
⌈>	**In**	**115**		ug/L			3590130	2995593	2	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	37	86	103	9	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2632463	1	Standard
⌊	**Pb**	**208**	**0.037**	ug/L	0.001	2	514	5067	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0313-02
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 18:25:17
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	91784	1	Standard
	Cl	**37**		ug/L			12853154	11697502	2	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3648885	4	Standard
|	**Cr**	**52**	**4.855**	ug/L	0.189	3	58825	268354	2	Standard
|	**Cr**	**53**	**5.216**	ug/L	0.219	4	248	24578	4	Standard
⌊	**Mn**	**55**	**69.157**	ug/L	4.599	6	1215	3901763	3	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	19072	1	KED
|	**Ni**	**60**	**2.996**	ug/L	0.130	4	0	1185	2	KED
|	**Ni**	**62**	**2.630**	ug/L	0.129	4	1	154	2	KED
|	**Cu**	**63**	**1.118**	ug/L	0.018	1	8	1145	3	KED
|	**Cu**	**65**	**1.154**	ug/L	0.092	7	6	572	8	KED
|	**~~Zn~~**	**66**	**5.450**	ug/L	0.186	3	4	605	3	KED
|	**Zn**	**67**	**5.238**	ug/L	0.654	12	1	95	14	KED
⌊	**As**	**75**	**0.110**	ug/L	0.041	36	5	11	20	KED
	Y	**89**		ug/L			1091100	953464	2	Standard
	Kr	**83**		ug/L			57	61	15	Standard
⌈>	**In-1**	**115**		ug/L			4662	4021	2	KED
|	**Cd**	**111**	**0.123**	ug/L	0.072	58	2	7	41	KED
⌊	**Cd**	**114**	**0.161**	ug/L	0.055	34	2	22	32	KED
⌈>	**In**	**115**		ug/L			3590130	3272770	2	Standard
⌊	**Ag**	**107**	**0.005**	ug/L	0.000	0	86	206	1	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2736064	1	Standard
⌊	**Pb**	**208**	**0.198**	ug/L	0.000	0	514	25781	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0313-03
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 18:29:16
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	91706	0	Standard
	Cl	**37**		ug/L			12853154	12151978	1	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3705741	2	Standard
|	**Cr**	**52**	**2.600**	ug/L	0.048	1	58825	172025	3	Standard
|	**Cr**	**53**	**2.935**	ug/L	0.124	4	248	14163	5	Standard
⌊	**Mn**	**55**	**462.919**	ug/L	6.306	1	1215	26564777	1	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	19226	1	KED
|	**Ni**	**60**	**10.366**	ug/L	0.317	3	0	4136	3	KED
|	**Ni**	**62**	**10.201**	ug/L	0.323	3	1	601	3	KED
|	**Cu**	**63**	**3.142**	ug/L	0.053	1	8	3230	0	KED
|	**Cu**	**65**	**3.075**	ug/L	0.047	1	6	1527	0	KED
|	**~~Zn~~**	**66**	**12.941**	ug/L	0.199	1	4	1444	1	KED
|	**Zn**	**67**	**11.373**	ug/L	0.992	8	1	206	9	KED
⌊	**As**	**75**	**0.131**	ug/L	0.036	27	5	13	16	KED
	Y	**89**		ug/L			1091100	982069	0	Standard
	Kr	**83**		ug/L			57	84	10	Standard
⌈>	**In-1**	**115**		ug/L			4662	4028	0	KED
|	**Cd**	**111**	**0.701**	ug/L	0.199	28	2	33	27	KED
⌊	**Cd**	**114**	**0.584**	ug/L	0.098	16	2	74	16	KED
⌈>	**In**	**115**		ug/L			3590130	3269511	1	Standard
⌊	**Ag**	**107**	**0.006**	ug/L	0.003	41	86	221	28	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2760315	1	Standard
⌊	**Pb**	**208**	**0.637**	ug/L	0.009	1	514	82730	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0313-04
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 18:33:15
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	88966	1	Standard
	Cl	**37**		ug/L			12853154	11972339	1	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3676846	1	Standard
|	**Cr**	**52**	**1.273**	ug/L	0.023	1	58825	111841	1	Standard
|	**Cr**	**53**	**1.554**	ug/L	0.112	7	248	7550	8	Standard
⌊	**Mn**	**55**	**1.431**	ug/L	0.017	1	1215	82638	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	19530	2	KED
|	**Ni**	**60**	**1.527**	ug/L	0.034	2	0	619	1	KED
|	**Ni**	**62**	**1.389**	ug/L	0.300	21	1	84	19	KED
|	**Cu**	**63**	**0.990**	ug/L	0.015	1	8	1040	2	KED
|	**Cu**	**65**	**1.054**	ug/L	0.052	4	6	535	2	KED
|	**~~Zn~~**	**66**	**1.982**	ug/L	0.282	14	4	228	16	KED
|	**Zn**	**67**	**1.837**	ug/L	0.295	16	1	34	16	KED
⌊	**As**	**75**	**0.091**	ug/L	0.027	29	5	10	18	KED
	Y	**89**		ug/L			1091100	964506	1	Standard
	Kr	**83**		ug/L			57	73	8	Standard
⌈>	**In-1**	**115**		ug/L			4662	4074	1	KED
|	**Cd**	**111**	**0.056**	ug/L	0.044	79	2	4	44	KED
⌊	**Cd**	**114**	**0.036**	ug/L	0.047	133	2	6	90	KED
⌈>	**In**	**115**		ug/L			3590130	3268559	1	Standard
⌊	**Ag**	**107**	**0.003**	ug/L	0.001	16	86	154	7	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2754542	1	Standard
⌊	**Pb**	**208**	**0.035**	ug/L	0.001	3	514	5031	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0313-05
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 18:37:14
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	88513	2	Standard
	Cl	**37**		ug/L			12853154	11870152	2	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3636360	2	Standard
|	**Cr**	**52**	**0.892**	ug/L	0.015	1	58825	93866	2	Standard
|	**Cr**	**53**	**1.084**	ug/L	0.020	1	248	5277	1	Standard
⌊	**Mn**	**55**	**593.710**	ug/L	11.137	1	1215	33425357	1	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	19508	2	KED
|	**Ni**	**60**	**1.535**	ug/L	0.102	6	0	622	8	KED
|	**Ni**	**62**	**1.624**	ug/L	0.185	11	1	98	9	KED
|	**Cu**	**63**	**3.013**	ug/L	0.102	3	8	3142	1	KED
|	**Cu**	**65**	**3.024**	ug/L	0.080	2	6	1523	0	KED
|	**Zn**	**66**	**11.805**	ug/L	0.145	1	4	1337	3	KED
|	**Zn**	**67**	**11.134**	ug/L	0.925	8	1	205	10	KED
⌊	**As**	**75**	**0.104**	ug/L	0.020	19	5	11	10	KED
	Y	**89**		ug/L			1091100	963979	4	Standard
	Kr	**83**		ug/L			57	76	17	Standard
⌈>	**In-1**	**115**		ug/L			4662	4026	4	KED
|	**Cd**	**111**	**0.223**	ug/L	0.053	23	2	11	16	KED
⌊	**Cd**	**114**	**0.281**	ug/L	0.103	36	2	37	36	KED
⌈>	**In**	**115**		ug/L			3590130	3263577	1	Standard
⌊	**Ag**	**107**	**0.004**	ug/L	0.000	11	86	173	4	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2725743	0	Standard
⌊	**Pb**	**208**	**0.656**	ug/L	0.006	0	514	84022	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0323-01
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 18:42:50
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			66961	909062	1	Standard
	Cl	37		ug/L			12853154	12170140	2	Standard
>	Sc	45		ug/L			3905122	2987762	3	Standard
	Cr	52	2.732	ug/L	0.150	5	58825	143317	1	Standard
	Cr	53	1.579	ug/L	0.062	3	248	6224	1	Standard
	Mn	55	15.570	ug/L	0.745	4	1215	720617	1	Standard
>	Ge-1	72		ug/L			21995	12658	1	KED
	Ni	60	9.659	ug/L	0.429	4	0	2538	5	KED
	Ni	62	9.893	ug/L	0.465	4	1	384	5	KED
	Cu	63	7.117	ug/L	0.079	1	8	4812	2	KED
	Cu	65	7.057	ug/L	0.235	3	6	2303	4	KED
	Zn	66	6.805	ug/L	0.460	6	4	500	4	KED
	Zn	67	8.261	ug/L	0.813	9	1	99	8	KED
	As	75	0.370	ug/L	0.040	10	5	18	7	KED
	Y	89		ug/L			1091100	829624	1	Standard
	Kr	83		ug/L			57	114	17	Standard
>	In-1	115		ug/L			4662	2488	4	KED
	Cd	111	0.130	ug/L	0.030	22	2	4	20	KED
	Cd	114	0.036	ug/L	0.101	281	2	3	194	KED
>	In	115		ug/L			3590130	2705475	0	Standard
	Ag	107	0.001	ug/L	0.001	137	86	75	18	Standard
>	Tb	159		ug/L			2885209	2553098	1	Standard
	Pb	208	0.028	ug/L	0.000	1	514	3736	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0264-01
Sample Dil Factor: 50
Comments:
Sample Date/Time: Friday, June 22, 2018 18:49:53
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	122159	1	Standard
	Cl	**37**		ug/L			12853154	12195433	1	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3289674	2	Standard
|	**Cr**	**52**	**59.920**	ug/L	2.645	4	58825	2424319	2	Standard
|	**Cr**	**53**	**57.436**	ug/L	1.491	2	248	241983	0	Standard
⌊	**Mn**	**55**	**4.722**	ug/L	0.160	3	1215	241412	0	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	18712	1	KED
|	**Ni**	**60**	**0.327**	ug/L	0.027	8	0	126	7	KED
|	**Ni**	**62**	**0.427**	ug/L	0.098	23	1	26	21	KED
|	**Cu**	**63**	**0.912**	ug/L	0.045	4	8	918	5	KED
|	**Cu**	**65**	**0.955**	ug/L	0.049	5	6	466	5	KED
|	**Zn**	**66**	**70.018**	ug/L	0.364	0	4	7591	1	KED
|	**Zn**	**67**	**67.041**	ug/L	1.481	2	1	1181	3	KED
⌊	**As**	**75**	**0.121**	ug/L	0.036	29	5	12	19	KED
	Y	**89**		ug/L			1091100	910656	2	Standard
	Kr	**83**		ug/L			57	79	24	Standard
⌈>	**In-1**	**115**		ug/L			4662	3693	3	KED
|	**Cd**	**111**	**0.240**	ug/L	0.133	55	2	11	46	KED
⌊	**Cd**	**114**	**0.245**	ug/L	0.134	54	2	29	48	KED
⌈>	**In**	**115**		ug/L			3590130	3268513	1	Standard
⌊	**Ag**	**107**	**0.026**	ug/L	0.004	16	86	677	15	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2658751	1	Standard
⌊	**Pb**	**208**	**0.062**	ug/L	0.001	1	514	8225	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-28
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 18:53:51
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			66961	96772	1	Standard
	Cl	37		ug/L			12853154	11081560	2	Standard
>	Sc	45		ug/L			3905122	3573669	3	Standard
	Cr	52	0.112	ug/L	0.022	19	58825	58669	3	Standard
	Cr	53	0.168	ug/L	0.008	4	248	994	1	Standard
	Mn	55	828.820	ug/L	24.722	2	1215	45843820	0	Standard
>	Ge-1	72		ug/L			21995	16690	0	KED
	Ni	60	13.015	ug/L	0.487	3	0	4508	3	KED
	Ni	62	13.248	ug/L	0.992	7	1	677	7	KED
	Cu	63	27.659	ug/L	0.508	1	8	24637	1	KED
	Cu	65	27.385	ug/L	0.795	2	6	11768	2	KED
	Zn	66	246.289	ug/L	3.614	1	4	23806	1	KED
	Zn	67	229.297	ug/L	2.360	1	1	3601	0	KED
	As	75	0.108	ug/L	0.063	58	5	10	34	KED
	Y	89		ug/L			1091100	1060502	4	Standard
	Kr	83		ug/L			57	112	14	Standard
>	In-1	115		ug/L			4662	3352	3	KED
	Cd	111	1.864	ug/L	0.404	21	2	70	19	KED
	Cd	114	1.807	ug/L	0.024	1	2	188	3	KED
>	In	115		ug/L			3590130	3158789	1	Standard
	Ag	107	0.003	ug/L	0.001	18	86	149	9	Standard
>	Tb	159		ug/L			2885209	2770247	1	Standard
	Pb	208	0.093	ug/L	0.001	0	514	12494	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 18:58:55
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	60359	1	Standard
	Cl	**37**		ug/L			12853154	12017652	1	Standard
>	**Sc**	**45**		ug/L			3905122	3340842	1	Standard
	Cr	**52**	**47.211**	ug/L	0.985	2	58825	1951716	0	Standard
	Cr	**53**	**47.869**	ug/L	0.562	1	248	204951	1	Standard
	Mn	**55**	**48.116**	ug/L	0.214	0	1215	2490524	1	Standard
>	**Ge-1**	**72**		ug/L			21995	18074	0	KED
	Ni	**60**	**49.931**	ug/L	1.122	2	0	18732	2	KED
	Ni	**62**	**49.690**	ug/L	1.115	2	1	2747	1	KED
	Cu	**63**	**49.922**	ug/L	1.113	2	8	48157	2	KED
	Cu	**65**	**48.622**	ug/L	0.462	0	6	22626	1	KED
	Zn	**66**	**50.816**	ug/L	1.124	2	4	5322	2	KED
	Zn	**67**	**51.272**	ug/L	0.982	1	1	873	2	KED
	As	**75**	**50.459**	ug/L	0.410	0	5	3078	1	KED
	Y	**89**		ug/L			1091100	944954	1	Standard
	Kr	**83**		ug/L			57	69	22	Standard
>	**In-1**	**115**		ug/L			4662	3578	5	KED
	Cd	**111**	**50.547**	ug/L	1.591	3	2	1989	3	KED
	Cd	**114**	**49.085**	ug/L	2.188	4	2	5407	3	KED
>	**In**	**115**		ug/L			3590130	3214168	1	Standard
	Ag	**107**	**39.856**	ug/L	0.157	0	86	911860	0	Standard
>	**Tb**	**159**		ug/L			2885209	2750142	1	Standard
	Pb	**208**	**49.609**	ug/L	0.268	0	514	6377262	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 19:05:38
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	58065	1	Standard
	Cl	**37**		ug/L			12853154	11668168	2	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3366186	1	Standard
|	**Cr**	**52**	**-0.065**	ug/L	0.029	44	58825	48071	1	Standard
|	**Cr**	**53**	**0.000**	ug/L	0.003	898	248	215	7	Standard
⌊	**Mn**	**55**	**0.005**	ug/L	0.007	151	1215	1290	28	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	19115	3	KED
|	**Ni**	**60**	**0.010**	ug/L	0.012	130	0	3	132	KED
|	**Ni**	**62**	**-0.007**	ug/L	0.037	530	1	1	173	KED
|	**Cu**	**63**	**-0.000**	ug/L	0.008	3979	8	7	108	KED
|	**Cu**	**65**	**-0.002**	ug/L	0.008	383	6	5	78	KED
|	**Zn**	**66**	**0.050**	ug/L	0.050	99	4	9	60	KED
|	**Zn**	**67**	**0.079**	ug/L	0.058	73	1	2	43	KED
⌊	**As**	**75**	**0.047**	ug/L	0.056	119	5	7	43	KED
	Y	**89**		ug/L			1091100	939810	0	Standard
	Kr	**83**		ug/L			57	81	14	Standard
⌈>	**In-1**	**115**		ug/L			4662	3921	3	KED
|	**Cd**	**111**	**-0.015**	ug/L	0.033	223	2	1	114	KED
⌊	**Cd**	**114**	**-0.007**	ug/L	0.009	129	2	1	86	KED
⌈>	**In**	**115**		ug/L			3590130	3246425	1	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.001	792	86	80	19	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2677193	0	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	19	514	608	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 19:11:13
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				56254	0	Standard
	Cl	**37**		ug/L				11457090	1	Standard
⌈>	**Sc**	**45**		ug/L				3217224	1	Standard
|	**Cr**	**52**		ug/L				46408	1	Standard
|	**Cr**	**53**		ug/L				200	6	Standard
⌊	**Mn**	**55**		ug/L				945	6	Standard
⌈>	**Ge-1**	**72**		ug/L				18903	1	KED
|	**Ni**	**60**		ug/L				2	43	KED
|	**Ni**	**62**		ug/L				0		KED
|	**Cu**	**63**		ug/L				3	100	KED
|	**Cu**	**65**		ug/L				4	137	KED
|	**Zn**	**66**		ug/L				7	66	KED
|	**Zn**	**67**		ug/L				3	34	KED
⌊	**As**	**75**		ug/L				8	46	KED
	Y	**89**		ug/L				907188	1	Standard
	Kr	**83**		ug/L				61	15	Standard
⌈>	**In-1**	**115**		ug/L				3910	1	KED
|	**Cd**	**111**		ug/L				1	50	KED
⌊	**Cd**	**114**		ug/L				2	88	KED
⌈>	**In**	**115**		ug/L				3218354	2	Standard
⌊	**Ag**	**107**		ug/L				60	11	Standard
⌈>	**Tb**	**159**		ug/L				2625347	0	Standard
⌊	**Pb**	**208**		ug/L				405	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 19:15:12
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	53170	1	Standard
	Cl	**37**		ug/L			11457090	11678652	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	3183869	2	Standard
|	**Cr**	**52**	**46.229**	ug/L	1.351	2	46408	1819694	0	Standard
|	**Cr**	**53**	**48.050**	ug/L	1.439	2	200	195997	2	Standard
⌊	**Mn**	**55**	**46.851**	ug/L	0.989	2	945	2310219	0	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	17939	0	KED
|	**Ni**	**60**	**48.246**	ug/L	1.665	3	2	17966	3	KED
|	**Ni**	**62**	**48.586**	ug/L	0.570	1	0	2665	1	KED
|	**Cu**	**63**	**48.099**	ug/L	2.208	4	3	46049	4	KED
|	**Cu**	**65**	**48.316**	ug/L	1.093	2	4	22313	2	KED
|	**Zn**	**66**	**48.756**	ug/L	0.710	1	7	5072	1	KED
|	**Zn**	**67**	**48.910**	ug/L	3.397	6	3	828	6	KED
⌊	**As**	**75**	**49.306**	ug/L	1.058	2	8	2989	2	KED
	Y	**89**		ug/L			907188	919642	0	Standard
	Kr	**83**		ug/L			61	72	14	Standard
⌈>	**In-1**	**115**		ug/L			3910	3635	2	KED
|	**Cd**	**111**	**49.562**	ug/L	0.937	1	1	1984	2	KED
⌊	**Cd**	**114**	**48.063**	ug/L	0.979	2	2	5386	1	KED
⌈>	**In**	**115**		ug/L			3218354	3062550	1	Standard
⌊	**Ag**	**107**	**38.437**	ug/L	0.759	1	60	837790	1	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2650021	2	Standard
⌊	**Pb**	**208**	**49.446**	ug/L	0.470	0	405	6124281	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 19:19:12
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	57147	0	Standard
	Cl	**37**		ug/L			11457090	11359814	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	3223084	2	Standard
|	**Cr**	**52**	**-0.059**	ug/L	0.045	76	46408	44192	2	Standard
|	**Cr**	**53**	**-0.002**	ug/L	0.004	160	200	190	9	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.001	98	945	985	4	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	18804	1	KED
|	**Ni**	**60**	**0.003**	ug/L	0.005	147	2	3	50	KED
|	**Ni**	**62**	**0.011**	ug/L	0.019	173	0	0	173	KED
|	**Cu**	**63**	**0.006**	ug/L	0.001	16	3	10	10	KED
|	**Cu**	**65**	**-0.005**	ug/L	0.004	76	4	1	100	KED
|	**Zn**	**66**	**-0.041**	ug/L	0.010	24	7	3	34	KED
|	**Zn**	**67**	**0.074**	ug/L	0.226	305	3	4	89	KED
⌊	**As**	**75**	**-0.017**	ug/L	0.026	156	8	7	23	KED
	Y	**89**		ug/L			907188	916479	3	Standard
	Kr	**83**		ug/L			61	58	9	Standard
⌈>	**In-1**	**115**		ug/L			3910	3712	1	KED
|	**Cd**	**111**	**0.049**	ug/L	0.062	126	1	3	66	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.025	1763	2	2	115	KED
⌈>	**In**	**115**		ug/L			3218354	3103383	0	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	50	60	85	15	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2574710	1	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.000	11	405	643	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-30
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 19:26:54

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	14652	42	Standard
	Cl	**37**		ug/L			11457090	2355378	74	Standard
⌈>	**Sc**	**45**		ug/L			3217224	1174039	160	Standard
|	**Cr**	**52**	**1.605**	ug/L	3.813	237	46408	5071	122	Standard
|	**Cr**	**53**	**0.434**	ug/L	0.729	168	200	37	65	Standard
⌊	**Mn**	**55**	**0.145**	ug/L	0.238	163	945	212	87	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	43177	5	KED
|	**Ni**	**60**	**-0.001**	ug/L	0.005	340	2	4	89	KED
|	**Ni**	**62**	**0.005**	ug/L	0.009	173	0	0	173	KED
|	**Cu**	**63**	**0.000**	ug/L	0.002	1285	3	8	44	KED
|	**Cu**	**65**	**-0.006**	ug/L	0.003	39	4	3	91	KED
|	**Zn**	**66**	**-0.052**	ug/L	0.017	31	7	4	98	KED
|	**Zn**	**67**	**-0.132**	ug/L	0.003	2	3	1		KED
⌊	**As**	**75**	**-0.042**	ug/L	0.018	42	8	12	14	KED
	Y	**89**		ug/L			907188	393946	159	Standard
	Kr	**83**		ug/L			61	33	69	Standard
⌈>	**In-1**	**115**		ug/L			3910	8020	4	KED
|	**Cd**	**111**	**-0.022**	ug/L	0.011	49	1	1	50	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.008	337	2	5	33	KED
⌈>	**In**	**115**		ug/L			3218354	1251945	157	Standard
⌊	**Ag**	**107**	**0.145**	ug/L	0.228	157	60	64	35	Standard
⌈>	**Tb**	**159**		ug/L			2625347	1106537	150	Standard
⌊	**Pb**	**208**	**0.107**	ug/L	0.168	156	405	436	33	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-32
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 19:30:52
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	80997	0	Standard
	Cl	37		ug/L			11457090	10784976	1	Standard
>	Sc	45		ug/L			3217224	3164113	0	Standard
	Cr	52	0.366	ug/L	0.023	6	46408	59601	1	Standard
	Cr	53	0.401	ug/L	0.010	2	200	1821	2	Standard
	Mn	55	0.773	ug/L	0.022	2	945	38806	2	Standard
>	Ge-1	72		ug/L			18903	16291	1	KED
	Ni	60	0.243	ug/L	0.034	13	2	84	14	KED
	Ni	62	0.380	ug/L	0.246	64	0	19	65	KED
	Cu	63	0.284	ug/L	0.010	3	3	250	2	KED
	Cu	65	0.232	ug/L	0.018	7	4	100	6	KED
	Zn	66	1.566	ug/L	0.093	5	7	154	4	KED
	Zn	67	2.274	ug/L	1.167	51	3	37	46	KED
	As	75	0.058	ug/L	0.035	60	8	10	19	KED
	Y	89		ug/L			907188	843048	4	Standard
	Kr	83		ug/L			61	76	23	Standard
>	In-1	115		ug/L			3910	3210	2	KED
	Cd	111	0.190	ug/L	0.138	72	1	8	59	KED
	Cd	114	0.239	ug/L	0.005	2	2	25	4	KED
>	In	115		ug/L			3218354	2912452	2	Standard
	Ag	107	0.001	ug/L	0.000	28	60	71	4	Standard
>	Tb	159		ug/L			2625347	2513384	2	Standard
	Pb	208	0.008	ug/L	0.001	7	405	1327	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-34
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 19:34:50
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	82304	2	Standard
	Cl	37		ug/L			11457090	10934892	3	Standard
⌈>	Sc	45		ug/L			3217224	3136830	2	Standard
|	Cr	52	0.132	ug/L	0.084	63	46408	50226	5	Standard
|	Cr	53	0.162	ug/L	0.010	5	200	844	6	Standard
⌊	Mn	55	2.532	ug/L	0.129	5	945	123922	5	Standard
⌈>	Ge-1	72		ug/L			18903	17374	0	KED
|	Ni	60	0.067	ug/L	0.009	13	2	26	12	KED
|	Ni	62	0.072	ug/L	0.095	132	0	3	132	KED
|	Cu	63	0.426	ug/L	0.034	8	3	398	7	KED
|	Cu	65	0.387	ug/L	0.036	9	4	177	8	KED
|	Zn	66	1.104	ug/L	0.208	18	7	118	18	KED
|	Zn	67	1.762	ug/L	0.477	27	3	31	24	KED
⌊	As	75	0.139	ug/L	0.041	29	8	15	16	KED
	Y	89		ug/L			907188	871441	3	Standard
	Kr	83		ug/L			61	55	16	Standard
⌈>	In-1	115		ug/L			3910	3470	1	KED
|	Cd	111	0.072	ug/L	0.039	53	1	4	32	KED
⌊	Cd	114	0.040	ug/L	0.021	51	2	6	35	KED
⌈>	In	115		ug/L			3218354	2991722	1	Standard
⌊	Ag	107	0.004	ug/L	0.001	23	60	132	14	Standard
⌈>	Tb	159		ug/L			2625347	2543647	1	Standard
⌊	Pb	208	0.017	ug/L	0.001	4	405	2453	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-17
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, June 22, 2018 19:38:49
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	66250	1	Standard
	Cl	**37**		ug/L			11457090	10843279	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	3145200	1	Standard
|	**Cr**	**52**	**0.011**	ug/L	0.053	486	46408	45774	3	Standard
|	**Cr**	**53**	**0.032**	ug/L	0.002	6	200	324	3	Standard
⌊	**Mn**	**55**	**179.905**	ug/L	6.227	3	945	8761486	2	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	17961	1	KED
|	**Ni**	**60**	**1.659**	ug/L	0.054	3	2	620	4	KED
|	**Ni**	**62**	**1.562**	ug/L	0.197	12	0	85	11	KED
|	**Cu**	**63**	**2.717**	ug/L	0.179	6	3	2606	5	KED
|	**Cu**	**65**	**2.749**	ug/L	0.174	6	4	1274	6	KED
|	**Zn**	**66**	**66.697**	ug/L	2.715	4	7	6942	3	KED
|	**Zn**	**67**	**62.294**	ug/L	4.080	6	3	1055	5	KED
⌊	**As**	**75**	**0.030**	ug/L	0.026	85	8	9	17	KED
	Y	**89**		ug/L			907188	911661	3	Standard
	Kr	**83**		ug/L			61	95	16	Standard
⌈>	**In-1**	**115**		ug/L			3910	3704	1	KED
|	**Cd**	**111**	**0.478**	ug/L	0.078	16	1	21	13	KED
⌊	**Cd**	**114**	**0.362**	ug/L	0.058	16	2	43	15	KED
⌈>	**In**	**115**		ug/L			3218354	3042302	0	Standard
⌊	**Ag**	**107**	**0.005**	ug/L	0.001	26	60	163	17	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2584302	0	Standard
⌊	**Pb**	**208**	**0.039**	ug/L	0.001	2	405	5086	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-10
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 19:42:48
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	82470	2	Standard
	Cl	37		ug/L			11457090	10675137	3	Standard
⌈>	Sc	45		ug/L			3217224	3136561	2	Standard
|	Cr	52	0.463	ug/L	0.067	14	46408	62687	1	Standard
|	Cr	53	0.512	ug/L	0.022	4	200	2249	3	Standard
⌊	Mn	55	73.338	ug/L	1.945	2	945	3562195	2	Standard
⌈>	Ge-1	72		ug/L			18903	17515	2	KED
|	Ni	60	3.417	ug/L	0.106	3	2	1245	5	KED
|	Ni	62	3.235	ug/L	0.121	3	0	173	6	KED
|	Cu	63	20.007	ug/L	0.291	1	3	18697	0	KED
|	Cu	65	19.908	ug/L	0.519	2	4	8976	1	KED
|	Zn	66	142.628	ug/L	2.566	1	7	14469	0	KED
|	Zn	67	137.688	ug/L	3.791	2	3	2271	1	KED
⌊	As	75	0.050	ug/L	0.033	65	8	10	20	KED
	Y	89		ug/L			907188	902573	2	Standard
	Kr	83		ug/L			61	67	9	Standard
⌈>	In-1	115		ug/L			3910	3596	1	KED
|	Cd	111	5.136	ug/L	0.159	3	1	205	4	KED
⌊	Cd	114	5.339	ug/L	0.306	5	2	593	4	KED
⌈>	In	115		ug/L			3218354	2947540	1	Standard
⌊	Ag	107	0.002	ug/L	0.001	30	60	93	11	Standard
⌈>	Tb	159		ug/L			2625347	2525014	0	Standard
⌊	Pb	208	0.048	ug/L	0.001	1	405	6062	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0437-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 19:46:47
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	82300	3	Standard
	Cl	37		ug/L			11457090	10908598	1	Standard
>	Sc	45		ug/L			3217224	3193947	1	Standard
	Cr	52	0.228	ug/L	0.026	11	46408	54835	0	Standard
	Cr	53	0.225	ug/L	0.004	1	200	1116	2	Standard
	Mn	55	74.472	ug/L	2.397	3	945	3683470	2	Standard
>	Ge-1	72		ug/L			18903	17290	1	KED
	Ni	60	3.506	ug/L	0.101	2	2	1260	1	KED
	Ni	62	3.491	ug/L	0.457	13	0	184	14	KED
	Cu	63	20.139	ug/L	0.402	1	3	18585	2	KED
	Cu	65	19.793	ug/L	0.519	2	4	8812	3	KED
	Zn	66	146.159	ug/L	1.642	1	7	14639	0	KED
	Zn	67	134.650	ug/L	6.238	4	3	2192	3	KED
	As	75	0.020	ug/L	0.033	164	8	8	22	KED
	Y	89		ug/L			907188	888859	2	Standard
	Kr	83		ug/L			61	71	18	Standard
>	In-1	115		ug/L			3910	3516	1	KED
	Cd	111	5.502	ug/L	0.405	7	1	214	7	KED
	Cd	114	4.950	ug/L	0.227	4	2	538	3	KED
>	In	115		ug/L			3218354	2971471	1	Standard
	Ag	107	0.001	ug/L	0.001	47	60	80	13	Standard
>	Tb	159		ug/L			2625347	2548818	0	Standard
	Pb	208	0.039	ug/L	0.001	2	405	4997	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-18
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, June 22, 2018 19:50:46
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	65328	1	Standard
	Cl	**37**		ug/L			11457090	10540576	0	Standard
⌈>	**Sc**	**45**		ug/L			3217224	3041333	1	Standard
|	**Cr**	**52**	**0.002**	ug/L	0.039	2015	46408	43941	3	Standard
|	**Cr**	**53**	**0.029**	ug/L	0.003	10	200	303	4	Standard
⌊	**Mn**	**55**	**172.980**	ug/L	3.845	2	945	8146376	1	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	17489	2	KED
|	**Ni**	**60**	**1.610**	ug/L	0.155	9	2	587	11	KED
|	**Ni**	**62**	**1.455**	ug/L	0.344	23	0	78	25	KED
|	**Cu**	**63**	**2.677**	ug/L	0.031	1	3	2502	3	KED
|	**Cu**	**65**	**2.539**	ug/L	0.109	4	4	1147	5	KED
|	**Zn**	**66**	**62.903**	ug/L	1.233	1	7	6375	0	KED
|	**Zn**	**67**	**59.697**	ug/L	0.465	0	3	985	3	KED
⌊	**As**	**75**	**0.056**	ug/L	0.047	83	8	10	26	KED
	Y	**89**		ug/L			907188	891487	1	Standard
	Kr	**83**		ug/L			61	86	12	Standard
⌈>	**In-1**	**115**		ug/L			3910	3510	1	KED
|	**Cd**	**111**	**0.407**	ug/L	0.090	21	1	17	20	KED
⌊	**Cd**	**114**	**0.330**	ug/L	0.030	9	2	37	8	KED
⌈>	**In**	**115**		ug/L			3218354	2952589	1	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.001	30	60	104	15	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2539947	0	Standard
⌊	**Pb**	**208**	**0.039**	ug/L	0.001	3	405	5069	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0437-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 19:54:45
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	85724	1	Standard
	Cl	37		ug/L			11457090	10830145	1	Standard
>	Sc	45		ug/L			3217224	3205841	2	Standard
	Cr	52	23.360	ug/L	0.582	2	46408	948772	0	Standard
	Cr	53	24.143	ug/L	0.422	1	200	99257	1	Standard
	Mn	55	91.326	ug/L	3.890	4	945	4532132	2	Standard
>	Ge-1	72		ug/L			18903	17306	1	KED
	Ni	60	29.084	ug/L	0.620	2	2	10451	3	KED
	Ni	62	27.677	ug/L	2.081	7	0	1464	7	KED
	Cu	63	44.416	ug/L	0.878	1	3	41013	0	KED
	Cu	65	44.774	ug/L	0.451	1	4	19947	0	KED
	Zn	66	220.454	ug/L	3.869	1	7	22100	2	KED
	Zn	67	203.805	ug/L	8.851	4	3	3322	5	KED
	As	75	24.434	ug/L	0.919	3	8	1433	4	KED
	Y	89		ug/L			907188	883963	2	Standard
	Kr	83		ug/L			61	77	18	Standard
>	In-1	115		ug/L			3910	3395	4	KED
	Cd	111	31.028	ug/L	1.943	6	1	1158	1	KED
	Cd	114	31.397	ug/L	1.071	3	2	3284	2	KED
>	In	115		ug/L			3218354	2954186	1	Standard
	Ag	107	21.073	ug/L	0.339	1	60	443099	1	Standard
>	Tb	159		ug/L			2625347	2501761	1	Standard
	Pb	208	26.006	ug/L	0.397	1	405	3041566	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0437-MSD1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 19:59:01
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	84359	3	Standard
	Cl	37		ug/L			11457090	10822663	1	Standard
⌈>	Sc	45		ug/L			3217224	3149272	2	Standard
|	Cr	52	23.919	ug/L	0.580	2	46408	953430	2	Standard
|	Cr	53	24.930	ug/L	0.692	2	200	100657	1	Standard
⌊	Mn	55	98.566	ug/L	5.015	5	945	4805049	3	Standard
⌈>	Ge-1	72		ug/L			18903	17122	2	KED
|	Ni	60	28.932	ug/L	0.161	0	2	10284	2	KED
|	Ni	62	28.931	ug/L	1.231	4	0	1513	2	KED
|	Cu	63	45.601	ug/L	0.948	2	3	41655	1	KED
|	Cu	65	45.366	ug/L	1.513	3	4	19988	1	KED
|	Zn	66	227.185	ug/L	3.521	1	7	22527	0	KED
|	Zn	67	213.642	ug/L	7.665	3	3	3442	1	KED
⌊	As	75	24.630	ug/L	0.697	2	8	1428	0	KED
	Y	89		ug/L			907188	896284	4	Standard
	Kr	83		ug/L			61	81	16	Standard
⌈>	In-1	115		ug/L			3910	3484	1	KED
|	Cd	111	30.744	ug/L	0.904	2	1	1180	2	KED
⌊	Cd	114	29.928	ug/L	0.845	2	2	3215	2	KED
⌈>	In	115		ug/L			3218354	2951566	1	Standard
⌊	Ag	107	21.345	ug/L	0.522	2	60	448496	2	Standard
⌈>	Tb	159		ug/L			2625347	2523175	0	Standard
⌊	Pb	208	26.061	ug/L	0.173	0	405	3073916	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0265-01
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, June 22, 2018 20:03:02

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	566320	1	Standard
	Cl	**37**		ug/L			11457090	10832471	3	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2959202	1	Standard
|	**Cr**	**52**	**132.769**	ug/L	1.760	1	46408	4779857	1	Standard
|	**Cr**	**53**	**128.910**	ug/L	0.991	0	200	488516	0	Standard
⌊	**Mn**	**55**	**40.066**	ug/L	0.298	0	945	1836901	0	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	16249	1	KED
|	**Ni**	**60**	**5.563**	ug/L	0.121	2	2	1878	3	KED
|	**Ni**	**62**	**5.224**	ug/L	0.320	6	0	259	7	KED
|	**Cu**	**63**	**2.240**	ug/L	0.077	3	3	1944	3	KED
|	**Cu**	**65**	**2.259**	ug/L	0.056	2	4	948	1	KED
|	**Zn**	**66**	**201.005**	ug/L	8.240	4	7	18913	2	KED
|	**Zn**	**67**	**186.684**	ug/L	1.961	1	3	2856	0	KED
⌊	**As**	**75**	**0.102**	ug/L	0.007	6	8	12	2	KED
	Y	**89**		ug/L			907188	842661	0	Standard
	Kr	**83**		ug/L			61	74	15	Standard
⌈>	**In-1**	**115**		ug/L			3910	3253	0	KED
|	**Cd**	**111**	**0.976**	ug/L	0.235	24	1	36	22	KED
⌊	**Cd**	**114**	**0.773**	ug/L	0.123	15	2	79	15	KED
⌈>	**In**	**115**		ug/L			3218354	2873573	1	Standard
⌊	**Ag**	**107**	**0.079**	ug/L	0.003	3	60	1676	2	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2530150	0	Standard
⌊	**Pb**	**208**	**0.211**	ug/L	0.001	0	405	25390	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV9
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 20:08:06
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	57034	1	Standard
	Cl	**37**		ug/L			11457090	11106685	2	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2980296	0	Standard
|	**Cr**	**52**	**46.096**	ug/L	2.528	5	46408	1699584	5	Standard
|	**Cr**	**53**	**47.422**	ug/L	1.949	4	200	181137	4	Standard
⌊	**Mn**	**55**	**47.552**	ug/L	0.780	1	945	2195613	1	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	16657	1	KED
|	**Ni**	**60**	**49.117**	ug/L	1.087	2	2	16980	0	KED
|	**Ni**	**62**	**48.742**	ug/L	0.898	1	0	2482	1	KED
|	**Cu**	**63**	**48.930**	ug/L	2.163	4	3	43478	3	KED
|	**Cu**	**65**	**48.800**	ug/L	1.640	3	4	20925	3	KED
|	**Zn**	**66**	**51.802**	ug/L	1.176	2	7	5002	0	KED
|	**Zn**	**67**	**50.663**	ug/L	3.650	7	3	796	5	KED
⌊	**As**	**75**	**49.616**	ug/L	1.584	3	8	2792	2	KED
	Y	**89**		ug/L			907188	817964	0	Standard
	Kr	**83**		ug/L			61	52	19	Standard
⌈>	**In-1**	**115**		ug/L			3910	3409	1	KED
|	**Cd**	**111**	**48.692**	ug/L	2.273	4	1	1827	3	KED
⌊	**Cd**	**114**	**48.716**	ug/L	1.540	3	2	5120	2	KED
⌈>	**In**	**115**		ug/L			3218354	2917399	1	Standard
⌊	**Ag**	**107**	**38.061**	ug/L	0.901	2	60	790295	2	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2521965	1	Standard
⌊	**Pb**	**208**	**50.117**	ug/L	0.428	0	405	5907819	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB9
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 20:14:49
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	56996	1	Standard
	Cl	**37**		ug/L			11457090	11082274	3	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2951026	1	Standard
|	**Cr**	**52**	**-0.047**	ug/L	0.011	24	46408	40899	2	Standard
|	**Cr**	**53**	**-0.005**	ug/L	0.002	42	200	164	6	Standard
⌊	**Mn**	**55**	**0.000**	ug/L	0.001	377	945	878	4	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	17441	1	KED
|	**Ni**	**60**	**0.004**	ug/L	0.011	260	2	3	100	KED
|	**Ni**	**62**	**0.024**	ug/L	0.020	86	0	1	86	KED
|	**Cu**	**63**	**0.003**	ug/L	0.006	207	3	6	91	KED
|	**Cu**	**65**	**-0.002**	ug/L	0.002	118	4	3	34	KED
|	**Zn**	**66**	**0.018**	ug/L	0.060	334	7	8	68	KED
|	**Zn**	**67**	**-0.025**	ug/L	0.174	698	3	2	114	KED
⌊	**As**	**75**	**0.025**	ug/L	0.024	95	8	9	13	KED
	Y	**89**		ug/L			907188	809692	1	Standard
	Kr	**83**		ug/L			61	57	11	Standard
⌈>	**In-1**	**115**		ug/L			3910	3608	1	KED
|	**Cd**	**111**	**-0.020**	ug/L	0.024	121	1	0	100	KED
⌊	**Cd**	**114**	**0.007**	ug/L	0.009	136	2	3	34	KED
⌈>	**In**	**115**		ug/L			3218354	2906179	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	30	60	77	7	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2435080	1	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	14	405	516	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-30
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 20:18:49
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	81766	0	Standard
	Cl	37		ug/L			11457090	10465943	1	Standard
>	Sc	45		ug/L			3217224	3043512	1	Standard
	Cr	52	0.133	ug/L	0.003	2	46408	48793	1	Standard
	Cr	53	0.131	ug/L	0.005	3	200	700	1	Standard
	Mn	55	268.803	ug/L	3.840	1	945	12668942	0	Standard
>	Ge-1	72		ug/L			18903	15998	0	KED
	Ni	60	8.170	ug/L	0.387	4	2	2715	4	KED
	Ni	62	8.113	ug/L	0.403	4	0	396	4	KED
	Cu	63	6.968	ug/L	0.224	3	3	5951	3	KED
	Cu	65	6.833	ug/L	0.266	3	4	2817	3	KED
	Zn	66	151.232	ug/L	3.118	2	7	14017	2	KED
	Zn	67	141.598	ug/L	1.021	0	3	2134	0	KED
	As	75	0.029	ug/L	0.035	119	8	8	22	KED
	Y	89		ug/L			907188	880690	3	Standard
	Kr	83		ug/L			61	90	6	Standard
>	In-1	115		ug/L			3910	3195	4	KED
	Cd	111	1.692	ug/L	0.119	7	1	60	4	KED
	Cd	114	1.718	ug/L	0.138	8	2	171	9	KED
>	In	115		ug/L			3218354	2860791	1	Standard
	Ag	107	0.002	ug/L	0.001	44	60	88	17	Standard
>	Tb	159		ug/L			2625347	2455043	1	Standard
	Pb	208	0.019	ug/L	0.001	3	405	2606	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-36
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 20:22:48
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	77474	1	Standard
	Cl	37		ug/L			11457090	11026374	2	Standard
>	Sc	45		ug/L			3217224	3088211	2	Standard
	Cr	52	0.102	ug/L	0.046	45	46408	48331	3	Standard
	Cr	53	0.130	ug/L	0.011	8	200	705	4	Standard
	Mn	55	0.468	ug/L	0.084	17	945	23217	14	Standard
>	Ge-1	72		ug/L			18903	17351	0	KED
	Ni	60	0.138	ug/L	0.017	12	2	52	11	KED
	Ni	62	0.180	ug/L	0.037	20	0	9	20	KED
	Cu	63	8.357	ug/L	0.158	1	3	7740	1	KED
	Cu	65	8.183	ug/L	0.150	1	4	3658	1	KED
	Zn	66	71.547	ug/L	0.687	0	7	7196	1	KED
	Zn	67	66.502	ug/L	4.981	7	3	1088	6	KED
	As	75	0.085	ug/L	0.038	44	8	12	17	KED
	Y	89		ug/L			907188	829045	0	Standard
	Kr	83		ug/L			61	58	15	Standard
>	In-1	115		ug/L			3910	3410	4	KED
	Cd	111	0.522	ug/L	0.030	5	1	21	9	KED
	Cd	114	0.503	ug/L	0.083	16	2	54	12	KED
>	In	115		ug/L			3218354	2987085	0	Standard
	Ag	107	0.007	ug/L	0.005	69	60	205	50	Standard
>	Tb	159		ug/L			2625347	2503466	1	Standard
	Pb	208	0.016	ug/L	0.006	36	405	2240	30	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-21
Sample Dil Factor: 50
Comments:
Sample Date/Time: Friday, June 22, 2018 20:26:47
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	61879	0	Standard
	Cl	**37**		ug/L			11457090	10778675	2	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2917152	3	Standard
|	**Cr**	**52**	**-0.001**	ug/L	0.068	5430	46408	41987	2	Standard
|	**Cr**	**53**	**0.023**	ug/L	0.008	37	200	265	9	Standard
⌊	**Mn**	**55**	**145.538**	ug/L	5.136	3	945	6571906	2	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	17573	0	KED
|	**Ni**	**60**	**1.134**	ug/L	0.020	1	2	415	2	KED
|	**Ni**	**62**	**1.146**	ug/L	0.184	16	0	61	15	KED
|	**Cu**	**63**	**1.164**	ug/L	0.042	3	3	1095	3	KED
|	**Cu**	**65**	**1.162**	ug/L	0.086	7	4	529	7	KED
|	**Zn**	**66**	**16.602**	ug/L	0.215	1	7	1696	1	KED
|	**Zn**	**67**	**15.531**	ug/L	1.179	7	3	259	7	KED
⌊	**As**	**75**	**0.039**	ug/L	0.040	102	8	10	23	KED
	Y	**89**		ug/L			907188	833953	0	Standard
	Kr	**83**		ug/L			61	84	22	Standard
⌈>	**In-1**	**115**		ug/L			3910	3496	1	KED
|	**Cd**	**111**	**0.186**	ug/L	0.034	18	1	8	16	KED
⌊	**Cd**	**114**	**0.167**	ug/L	0.047	28	2	20	27	KED
⌈>	**In**	**115**		ug/L			3218354	2947050	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	91	60	74	23	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2436184	0	Standard
⌊	**Pb**	**208**	**0.030**	ug/L	0.002	6	405	3784	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-40
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 20:30:46
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			56254	86063	1	Standard
Cl	37		ug/L			11457090	8900490	1	Standard
> Sc	45		ug/L			3217224	2549420	2	Standard
Cr	52	**0.130**	ug/L	0.049	37	46408	40745	2	Standard
Cr	53	**0.105**	ug/L	0.010	9	200	500	4	Standard
Mn	55	**545.606**	ug/L	11.286	2	945	21537917	2	Standard
> Ge-1	72		ug/L			18903	10969	1	KED
Ni	60	**0.233**	ug/L	0.009	4	2	54	4	KED
Ni	62	**0.095**	ug/L	0.033	34	0	3	34	KED
Cu	63	**0.041**	ug/L	0.006	15	3	26	15	KED
Cu	65	**0.067**	ug/L	0.003	4	4	21	5	KED
Zn	66	**1.218**	ug/L	0.190	15	7	81	16	KED
Zn	67	**1.240**	ug/L	0.409	32	3	14	27	KED
As	75	**0.309**	ug/L	0.098	31	8	16	20	KED
Y	89		ug/L			907188	702391	2	Standard
Kr	83		ug/L			61	139	17	Standard
> In-1	115		ug/L			3910	2130	2	KED
Cd	111	**0.104**	ug/L	0.093	89	1	3	62	KED
Cd	114	**0.012**	ug/L	0.017	137	2	2	50	KED
> In	115		ug/L			3218354	2423717	2	Standard
Ag	107	**0.001**	ug/L	0.000	46	60	63	15	Standard
> Tb	159		ug/L			2625347	2406232	0	Standard
Pb	208	**0.002**	ug/L	0.000	14	405	608	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-42
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 20:34:45
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	78535	0	Standard
	Cl	37		ug/L			11457090	10526078	3	Standard
>	Sc	45		ug/L			3217224	3014556	2	Standard
	Cr	52	0.661	ug/L	0.045	6	46408	67502	2	Standard
	Cr	53	0.726	ug/L	0.018	2	200	2989	4	Standard
	Mn	55	0.662	ug/L	0.247	37	945	31634	33	Standard
>	Ge-1	72		ug/L			18903	15996	0	KED
	Ni	60	0.095	ug/L	0.036	38	2	33	36	KED
	Ni	62	0.117	ug/L	0.039	33	0	5	33	KED
	Cu	63	0.651	ug/L	0.025	3	3	559	4	KED
	Cu	65	0.671	ug/L	0.046	6	4	280	7	KED
	Zn	66	13.599	ug/L	0.258	1	7	1266	1	KED
	Zn	67	11.925	ug/L	1.044	8	3	182	9	KED
	As	75	0.383	ug/L	0.031	8	8	27	6	KED
	Y	89		ug/L			907188	811688	0	Standard
	Kr	83		ug/L			61	53	11	Standard
>	In-1	115		ug/L			3910	3179	1	KED
	Cd	111	0.046	ug/L	0.056	121	1	3	62	KED
	Cd	114	-0.007	ug/L	0.003	45	2	1	25	KED
>	In	115		ug/L			3218354	2932247	0	Standard
	Ag	107	0.001	ug/L	0.000	47	60	75	12	Standard
>	Tb	159		ug/L			2625347	2496866	1	Standard
	Pb	208	0.019	ug/L	0.001	3	405	2617	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-44
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 20:38:43
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	90397	1	Standard
	Cl	37		ug/L			11457090	8731854	2	Standard
>	Sc	45		ug/L			3217224	2558777	1	Standard
	Cr	52	0.102	ug/L	0.032	30	46408	40057	3	Standard
	Cr	53	0.128	ug/L	0.015	11	200	578	9	Standard
	Mn	55	563.342	ug/L	2.888	0	945	22324246	1	Standard
>	Ge-1	72		ug/L			18903	10592	1	KED
	Ni	60	0.222	ug/L	0.044	19	2	50	17	KED
	Ni	62	0.157	ug/L	0.036	23	0	5	21	KED
	Cu	63	0.078	ug/L	0.004	5	3	46	6	KED
	Cu	65	0.058	ug/L	0.025	43	4	18	39	KED
	Zn	66	1.545	ug/L	0.033	2	7	99	1	KED
	Zn	67	2.175	ug/L	0.449	20	3	23	20	KED
	As	75	0.369	ug/L	0.189	51	8	17	37	KED
	Y	89		ug/L			907188	723469	0	Standard
	Kr	83		ug/L			61	121	5	Standard
>	In-1	115		ug/L			3910	1997	1	KED
	Cd	111	0.043	ug/L	0.044	103	1	1	50	KED
	Cd	114	0.023	ug/L	0.018	76	2	2	40	KED
>	In	115		ug/L			3218354	2435603	2	Standard
	Ag	107	0.001	ug/L	0.001	83	60	71	29	Standard
>	Tb	159		ug/L			2625347	2439926	0	Standard
	Pb	208	0.005	ug/L	0.000	4	405	890	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-22
Sample Dil Factor: 50
Comments:
Sample Date/Time: Friday, June 22, 2018 20:42:42
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	60956	2	Standard
	Cl	**37**		ug/L			11457090	10266713	2	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2930812	2	Standard
|	**Cr**	**52**	**-0.062**	ug/L	0.024	38	46408	40076	0	Standard
|	**Cr**	**53**	**0.024**	ug/L	0.006	25	200	271	9	Standard
⌊	**Mn**	**55**	**138.273**	ug/L	6.163	4	945	6273805	3	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	16500	3	KED
|	**Ni**	**60**	**1.185**	ug/L	0.252	21	2	406	18	KED
|	**Ni**	**62**	**1.207**	ug/L	0.257	21	0	60	22	KED
|	**Cu**	**63**	**1.208**	ug/L	0.065	5	3	1066	2	KED
|	**Cu**	**65**	**1.105**	ug/L	0.076	6	4	472	3	KED
|	**Zn**	**66**	**17.247**	ug/L	0.774	4	7	1654	4	KED
|	**Zn**	**67**	**14.927**	ug/L	1.275	8	3	234	11	KED
⌊	**As**	**75**	**0.016**	ug/L	0.022	132	8	8	11	KED
	Y	**89**		ug/L			907188	814429	2	Standard
	Kr	**83**		ug/L			61	67	14	Standard
⌈>	**In-1**	**115**		ug/L			3910	3085	3	KED
|	**Cd**	**111**	**0.198**	ug/L	0.095	48	1	8	40	KED
⌊	**Cd**	**114**	**0.207**	ug/L	0.057	27	2	21	22	KED
⌈>	**In**	**115**		ug/L			3218354	2983471	3	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.001	210	60	61	17	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2571852	0	Standard
⌊	**Pb**	**208**	**0.025**	ug/L	0.000	1	405	3373	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-38
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 20:46:41
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	81019	1	Standard
	Cl	37		ug/L			11457090	10409549	3	Standard
>	Sc	45		ug/L			3217224	2977671	2	Standard
	Cr	52	0.121	ug/L	0.055	45	46408	47260	1	Standard
	Cr	53	0.098	ug/L	0.001	1	200	557	2	Standard
	Mn	55	3.350	ug/L	0.076	2	945	155280	0	Standard
>	Ge-1	72		ug/L			18903	16305	0	KED
	Ni	60	1.091	ug/L	0.074	6	2	371	7	KED
	Ni	62	1.237	ug/L	0.483	39	0	61	38	KED
	Cu	63	43.434	ug/L	0.392	0	3	37794	1	KED
	Cu	65	43.125	ug/L	0.598	1	4	18103	1	KED
	Zn	66	385.963	ug/L	8.070	2	7	36450	2	KED
	Zn	67	362.513	ug/L	5.874	1	3	5564	1	KED
	As	75	0.073	ug/L	0.021	28	8	11	9	KED
	Y	89		ug/L			907188	852210	0	Standard
	Kr	83		ug/L			61	67	9	Standard
>	In-1	115		ug/L			3910	3098	0	KED
	Cd	111	2.407	ug/L	0.449	18	1	83	17	KED
	Cd	114	2.295	ug/L	0.073	3	2	221	4	KED
>	In	115		ug/L			3218354	2997575	2	Standard
	Ag	107	0.003	ug/L	0.001	32	60	115	16	Standard
>	Tb	159		ug/L			2625347	2558857	0	Standard
	Pb	208	0.008	ug/L	0.000	4	405	1309	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-46
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 20:50:40
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	76346	0	Standard
	Cl	37		ug/L			11457090	7734510	0	Standard
>	Sc	45		ug/L			3217224	2228350	1	Standard
	Cr	52	**0.091**	ug/L	0.053	58	46408	34594	4	Standard
	Cr	53	**0.130**	ug/L	0.004	3	200	508	2	Standard
	Mn	55	**773.583**	ug/L	13.732	1	945	26692283	0	Standard
>	Ge-1	72		ug/L			18903	7847	0	KED
	Ni	60	**0.762**	ug/L	0.060	7	2	125	7	KED
	Ni	62	**0.503**	ug/L	0.120	23	0	12	24	KED
	Cu	63	**0.060**	ug/L	0.028	46	3	26	43	KED
	Cu	65	**0.057**	ug/L	0.025	43	4	13	37	KED
	Zn	66	**10.790**	ug/L	0.595	5	7	493	4	KED
	Zn	67	**9.969**	ug/L	0.834	8	3	74	8	KED
	As	75	**0.429**	ug/L	0.062	14	8	14	11	KED
	Y	89		ug/L			907188	670327	1	Standard
	Kr	83		ug/L			61	185	5	Standard
>	In-1	115		ug/L			3910	1453	3	KED
	Cd	111	**0.135**	ug/L	0.059	44	1	2	33	KED
	Cd	114	**0.031**	ug/L	0.030	94	2	2	53	KED
>	In	115		ug/L			3218354	2117616	5	Standard
	Ag	107	**0.001**	ug/L	0.001	71	60	53	21	Standard
>	Tb	159		ug/L			2625347	2334762	1	Standard
	Pb	208	**0.002**	ug/L	0.000	22	405	547	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-23
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, June 22, 2018 20:54:39 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	64462	2	Standard
	Cl	**37**		ug/L			11457090	10164045	0	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2896125	1	Standard
|	**Cr**	**52**	**0.046**	ug/L	0.030	65	46408	43366	2	Standard
|	**Cr**	**53**	**0.078**	ug/L	0.011	14	200	470	7	Standard
⌊	**Mn**	**55**	**63.623**	ug/L	1.791	2	945	2853772	1	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	15386	3	KED
|	**Ni**	**60**	**0.961**	ug/L	0.045	4	2	308	1	KED
|	**Ni**	**62**	**1.102**	ug/L	0.367	33	0	51	30	KED
|	**Cu**	**63**	**0.305**	ug/L	0.040	13	3	253	13	KED
|	**Cu**	**65**	**0.257**	ug/L	0.015	6	4	105	2	KED
|	**Zn**	**66**	**6.057**	ug/L	0.230	3	7	546	5	KED
|	**Zn**	**67**	**6.342**	ug/L	0.738	11	3	94	14	KED
⌊	**As**	**75**	**0.052**	ug/L	0.041	79	8	9	19	KED
	Y	**89**		ug/L			907188	819401	0	Standard
	Kr	**83**		ug/L			61	73	10	Standard
⌈>	**In-1**	**115**		ug/L			3910	3106	2	KED
|	**Cd**	**111**	**0.476**	ug/L	0.091	19	1	17	16	KED
⌊	**Cd**	**114**	**0.525**	ug/L	0.198	37	2	52	37	KED
⌈>	**In**	**115**		ug/L			3218354	2892443	2	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	46	60	72	9	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2537450	0	Standard
⌊	**Pb**	**208**	**0.028**	ug/L	0.000	0	405	3703	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVA
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 20:59:43
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	51319	1	Standard
	Cl	37		ug/L			11457090	10623316	0	Standard
>	Sc	45		ug/L			3217224	2823544	0	Standard
	Cr	52	44.924	ug/L	0.736	1	46408	1570033	1	Standard
	Cr	53	47.392	ug/L	0.913	1	200	171472	1	Standard
	Mn	55	43.385	ug/L	0.999	2	945	1897911	2	Standard
>	Ge-1	72		ug/L			18903	15531	1	KED
	Ni	60	48.206	ug/L	0.580	1	2	15541	0	KED
	Ni	62	44.439	ug/L	0.786	1	0	2109	0	KED
	Cu	63	47.285	ug/L	0.941	1	3	39188	2	KED
	Cu	65	46.208	ug/L	0.883	1	4	18472	0	KED
	Zn	66	48.859	ug/L	1.510	3	7	4401	4	KED
	Zn	67	49.428	ug/L	1.258	2	3	725	3	KED
	As	75	48.407	ug/L	0.364	0	8	2540	0	KED
	Y	89		ug/L			907188	822456	2	Standard
	Kr	83		ug/L			61	66	2	Standard
>	In-1	115		ug/L			3910	2990	5	KED
	Cd	111	49.939	ug/L	2.767	5	1	1641	1	KED
	Cd	114	48.336	ug/L	2.377	4	2	4448	3	KED
>	In	115		ug/L			3218354	2827726	1	Standard
	Ag	107	37.114	ug/L	0.427	1	60	747073	2	Standard
>	Tb	159		ug/L			2625347	2507074	0	Standard
	Pb	208	49.440	ug/L	0.310	0	405	5794176	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBA
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 21:06:26
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	51911	2	Standard
	Cl	**37**		ug/L			11457090	10427944	2	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2774258	1	Standard
|	**Cr**	**52**	**-0.047**	ug/L	0.018	38	46408	38437	2	Standard
|	**Cr**	**53**	**-0.000**	ug/L	0.002	2130	200	172	3	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.002	227	945	844	7	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	16438	1	KED
|	**Ni**	**60**	**0.001**	ug/L	0.006	633	2	2	86	KED
|	**Ni**	**62**	**0.025**	ug/L	0.043	173	0	1	173	KED
|	**Cu**	**63**	**0.008**	ug/L	0.003	42	3	10	28	KED
|	**Cu**	**65**	**0.003**	ug/L	0.002	86	4	5	21	KED
|	**Zn**	**66**	**0.004**	ug/L	0.030	838	7	6	41	KED
|	**Zn**	**67**	**-0.054**	ug/L	0.216	403	3	1	173	KED
⌊	**As**	**75**	**0.011**	ug/L	0.028	253	8	7	18	KED
	Y	**89**		ug/L			907188	787301	1	Standard
	Kr	**83**		ug/L			61	60	12	Standard
⌈>	**In-1**	**115**		ug/L			3910	3143	2	KED
|	**Cd**	**111**	**0.011**	ug/L	0.028	257	1	1	50	KED
⌊	**Cd**	**114**	**-0.021**	ug/L	0.001	2	2	0	173	KED
⌈>	**In**	**115**		ug/L			3218354	2818544	1	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.000	45	60	62	4	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2428911	0	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	38	405	514	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-48
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 21:10:26
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	81948	2	Standard
	Cl	37		ug/L			11457090	10177621	3	Standard
>	Sc	45		ug/L			3217224	2943808	1	Standard
	Cr	52	0.587	ug/L	0.029	4	46408	63299	1	Standard
	Cr	53	0.617	ug/L	0.019	3	200	2507	2	Standard
	Mn	55	769.770	ug/L	18.420	2	945	35100673	3	Standard
>	Ge-1	72		ug/L			18903	15070	0	KED
	Ni	60	31.151	ug/L	1.171	3	2	9746	3	KED
	Ni	62	31.285	ug/L	0.927	2	0	1441	2	KED
	Cu	63	144.552	ug/L	2.181	1	3	116245	1	KED
	Cu	65	142.166	ug/L	2.512	1	4	55145	1	KED
	Zn	66	785.854	ug/L	17.978	2	7	68581	2	KED
	Zn	67	728.910	ug/L	21.078	2	3	10337	2	KED
	As	75	0.073	ug/L	0.047	64	8	10	23	KED
	Y	89		ug/L			907188	859812	1	Standard
	Kr	83		ug/L			61	100	14	Standard
>	In-1	115		ug/L			3910	2840	3	KED
	Cd	111	4.874	ug/L	0.305	6	1	153	9	KED
	Cd	114	4.322	ug/L	0.723	16	2	378	13	KED
>	In	115		ug/L			3218354	2917866	2	Standard
	Ag	107	0.002	ug/L	0.001	25	60	101	13	Standard
>	Tb	159		ug/L			2625347	2516100	1	Standard
	Pb	208	0.028	ug/L	0.001	2	405	3692	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-50
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 21:14:25
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	81761	1	Standard
	Cl	37		ug/L			11457090	10316469	1	Standard
>	Sc	45		ug/L			3217224	3037937	1	Standard
	Cr	52	0.141	ug/L	0.007	5	46408	48979	1	Standard
	Cr	53	0.219	ug/L	0.012	5	200	1038	3	Standard
	Mn	55	1119.331	ug/L	21.323	1	945	52655100	1	Standard
>	Ge-1	72		ug/L			18903	15281	2	KED
	Ni	60	15.810	ug/L	0.541	3	2	5013	0	KED
	Ni	62	14.528	ug/L	0.805	5	0	678	2	KED
	Cu	63	20.580	ug/L	0.546	2	3	16775	0	KED
	Cu	65	20.587	ug/L	0.409	1	4	8098	1	KED
	Zn	66	433.391	ug/L	19.452	4	7	38325	2	KED
	Zn	67	404.260	ug/L	10.240	2	3	5812	1	KED
	As	75	0.093	ug/L	0.016	16	8	11	4	KED
	Y	89		ug/L			907188	887477	3	Standard
	Kr	83		ug/L			61	95	2	Standard
>	In-1	115		ug/L			3910	3043	4	KED
	Cd	111	2.687	ug/L	0.371	13	1	91	16	KED
	Cd	114	2.549	ug/L	0.040	1	2	240	3	KED
>	In	115		ug/L			3218354	2940864	1	Standard
	Ag	107	0.002	ug/L	0.001	40	60	91	17	Standard
>	Tb	159		ug/L			2625347	2536085	1	Standard
	Pb	208	0.396	ug/L	0.002	0	405	47330	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-24
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, June 22, 2018 21:18:24

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	61423	1	Standard
	Cl	**37**		ug/L			11457090	10302399	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2878164	4	Standard
|	**Cr**	**52**	**0.008**	ug/L	0.056	661	46408	41759	1	Standard
|	**Cr**	**53**	**0.064**	ug/L	0.009	13	200	413	3	Standard
⌊	**Mn**	**55**	**63.150**	ug/L	2.475	3	945	2812720	0	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	16111	1	KED
|	**Ni**	**60**	**0.916**	ug/L	0.116	12	2	308	13	KED
|	**Ni**	**62**	**0.971**	ug/L	0.390	40	0	47	38	KED
|	**Cu**	**63**	**0.305**	ug/L	0.022	7	3	265	6	KED
|	**Cu**	**65**	**0.263**	ug/L	0.028	10	4	113	11	KED
|	**Zn**	**66**	**5.437**	ug/L	0.238	4	7	513	4	KED
|	**Zn**	**67**	**4.714**	ug/L	0.710	15	3	74	16	KED
⌊	**As**	**75**	**0.028**	ug/L	0.006	21	8	8	5	KED
	Y	**89**		ug/L			907188	807836	3	Standard
	Kr	**83**		ug/L			61	71	6	Standard
⌈>	**In-1**	**115**		ug/L			3910	3200	1	KED
|	**Cd**	**111**	**0.433**	ug/L	0.070	16	1	16	16	KED
⌊	**Cd**	**114**	**0.454**	ug/L	0.032	7	2	46	8	KED
⌈>	**In**	**115**		ug/L			3218354	2879905	1	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.001	832	60	55	19	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2455142	1	Standard
⌊	**Pb**	**208**	**0.022**	ug/L	0.000	1	405	2901	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-52
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 21:22:23
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	76872	0	Standard
	Cl	37		ug/L			11457090	10358248	2	Standard
>	Sc	45		ug/L			3217224	2903200	1	Standard
	Cr	52	0.079	ug/L	0.033	42	46408	44636	1	Standard
	Cr	53	0.117	ug/L	0.005	4	200	614	1	Standard
	Mn	55	1.163	ug/L	0.035	3	945	53126	3	Standard
>	Ge-1	72		ug/L			18903	16385	3	KED
	Ni	60	0.174	ug/L	0.033	18	2	61	20	KED
	Ni	62	0.151	ug/L	0.032	21	0	7	25	KED
	Cu	63	0.490	ug/L	0.066	13	3	429	9	KED
	Cu	65	0.500	ug/L	0.046	9	4	214	10	KED
	Zn	66	1.582	ug/L	0.237	15	7	156	15	KED
	Zn	67	1.759	ug/L	0.268	15	3	29	13	KED
	As	75	0.641	ug/L	0.128	19	8	42	13	KED
	Y	89		ug/L			907188	826526	1	Standard
	Kr	83		ug/L			61	67	14	Standard
>	In-1	115		ug/L			3910	3190	1	KED
	Cd	111	0.074	ug/L	0.058	78	1	4	48	KED
	Cd	114	0.021	ug/L	0.012	57	2	4	27	KED
>	In	115		ug/L			3218354	2935741	1	Standard
	Ag	107	0.000	ug/L	0.000	71	60	65	9	Standard
>	Tb	159		ug/L			2625347	2453119	1	Standard
	Pb	208	0.020	ug/L	0.000	2	405	2668	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-54
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 21:26:22
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	75567	0	Standard
	Cl	37		ug/L			11457090	10418981	0	Standard
>	Sc	45		ug/L			3217224	2923134	1	Standard
	Cr	52	0.164	ug/L	0.019	11	46408	47930	2	Standard
	Cr	53	0.208	ug/L	0.015	7	200	960	4	Standard
	Mn	55	1.664	ug/L	0.045	2	945	76201	3	Standard
>	Ge-1	72		ug/L			18903	16841	2	KED
	Ni	60	0.182	ug/L	0.032	17	2	66	19	KED
	Ni	62	0.136	ug/L	0.021	15	0	6	15	KED
	Cu	63	1.422	ug/L	0.070	4	3	1281	4	KED
	Cu	65	1.382	ug/L	0.057	4	4	603	5	KED
	Zn	66	2.699	ug/L	0.368	13	7	269	12	KED
	Zn	67	3.301	ug/L	0.688	20	3	55	20	KED
	As	75	0.659	ug/L	0.095	14	8	44	12	KED
	Y	89		ug/L			907188	828712	0	Standard
	Kr	83		ug/L			61	66	26	Standard
>	In-1	115		ug/L			3910	3266	0	KED
	Cd	111	0.035	ug/L	0.027	76	1	2	33	KED
	Cd	114	0.062	ug/L	0.029	46	2	8	35	KED
>	In	115		ug/L			3218354	2921019	0	Standard
	Ag	107	0.001	ug/L	0.001	36	60	85	12	Standard
>	Tb	159		ug/L			2625347	2476924	1	Standard
	Pb	208	0.044	ug/L	0.001	3	405	5523	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-56
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 21:30:20
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	75934	0	Standard
	Cl	37		ug/L			11457090	10490860	1	Standard
>	Sc	45		ug/L			3217224	2914474	1	Standard
	Cr	52	0.074	ug/L	0.034	46	46408	44629	2	Standard
	Cr	53	0.121	ug/L	0.007	5	200	631	3	Standard
	Mn	55	10.528	ug/L	0.143	1	945	475997	0	Standard
>	Ge-1	72		ug/L			18903	16368	2	KED
	Ni	60	0.229	ug/L	0.031	13	2	80	10	KED
	Ni	62	0.177	ug/L	0.056	31	0	8	32	KED
	Cu	63	1.103	ug/L	0.077	6	3	967	8	KED
	Cu	65	1.067	ug/L	0.044	4	4	453	2	KED
	Zn	66	5.998	ug/L	0.181	3	7	575	4	KED
	Zn	67	6.055	ug/L	0.565	9	3	95	6	KED
	As	75	0.411	ug/L	0.015	3	8	29	3	KED
	Y	89		ug/L			907188	818209	3	Standard
	Kr	83		ug/L			61	57	21	Standard
>	In-1	115		ug/L			3910	3085	1	KED
	Cd	111	0.097	ug/L	0.100	103	1	4	69	KED
	Cd	114	0.054	ug/L	0.024	43	2	7	30	KED
>	In	115		ug/L			3218354	2893746	1	Standard
	Ag	107	0.001	ug/L	0.000	60	60	70	12	Standard
>	Tb	159		ug/L			2625347	2492947	0	Standard
	Pb	208	0.016	ug/L	0.001	3	405	2209	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-27
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, June 22, 2018 21:34:19

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	59359	2	Standard
	Cl	**37**		ug/L			11457090	9805871	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2834659	1	Standard
|	**Cr**	**52**	**-0.039**	ug/L	0.011	27	46408	39569	2	Standard
|	**Cr**	**53**	**0.041**	ug/L	0.004	10	200	325	3	Standard
⌊	**Mn**	**55**	**164.853**	ug/L	2.703	1	945	7236996	1	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	16507	3	KED
|	**Ni**	**60**	**2.555**	ug/L	0.142	5	2	877	5	KED
|	**Ni**	**62**	**2.653**	ug/L	0.534	20	0	133	17	KED
|	**Cu**	**63**	**5.460**	ug/L	0.058	1	3	4811	2	KED
|	**Cu**	**65**	**5.404**	ug/L	0.256	4	4	2299	5	KED
|	**Zn**	**66**	**52.441**	ug/L	1.324	2	7	5016	0	KED
|	**Zn**	**67**	**51.438**	ug/L	2.132	4	3	801	3	KED
⌊	**As**	**75**	**-0.020**	ug/L	0.055	274	8	6	47	KED
	Y	**89**		ug/L			907188	814254	1	Standard
	Kr	**83**		ug/L			61	84	6	Standard
⌈>	**In-1**	**115**		ug/L			3910	3221	3	KED
|	**Cd**	**111**	**0.410**	ug/L	0.153	37	1	16	35	KED
⌊	**Cd**	**114**	**0.395**	ug/L	0.064	16	2	41	11	KED
⌈>	**In**	**115**		ug/L			3218354	2829722	2	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	19	60	80	7	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2424582	2	Standard
⌊	**Pb**	**208**	**0.027**	ug/L	0.001	2	405	3411	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-58
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 21:38:18
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	73877	1	Standard
	Cl	37		ug/L			11457090	10456239	3	Standard
>	Sc	45		ug/L			3217224	2895372	1	Standard
	Cr	52	0.059	ug/L	0.023	39	46408	43834	1	Standard
	Cr	53	0.087	ug/L	0.003	3	200	501	2	Standard
	Mn	55	1.637	ug/L	0.028	1	945	74262	1	Standard
>	Ge-1	72		ug/L			18903	16708	2	KED
	Ni	60	0.125	ug/L	0.016	12	2	45	14	KED
	Ni	62	0.151	ug/L	0.100	66	0	7	66	KED
	Cu	63	1.030	ug/L	0.028	2	3	921	3	KED
	Cu	65	1.017	ug/L	0.081	7	4	440	6	KED
	Zn	66	3.773	ug/L	0.175	4	7	372	7	KED
	Zn	67	3.613	ug/L	0.424	11	3	59	13	KED
	As	75	0.490	ug/L	0.064	13	8	34	12	KED
	Y	89		ug/L			907188	808448	1	Standard
	Kr	83		ug/L			61	64	15	Standard
>	In-1	115		ug/L			3910	3174	1	KED
	Cd	111	0.056	ug/L	0.042	74	1	3	41	KED
	Cd	114	0.061	ug/L	0.010	17	2	7	13	KED
>	In	115		ug/L			3218354	2878175	1	Standard
	Ag	107	0.001	ug/L	0.001	74	60	69	15	Standard
>	Tb	159		ug/L			2625347	2407838	0	Standard
	Pb	208	0.012	ug/L	0.000	2	405	1698	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-60
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 21:42:17
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	71649	2	Standard
	Cl	37		ug/L			11457090	10325043	3	Standard
⌈>	Sc	45		ug/L			3217224	2767177	2	Standard
|	Cr	52	0.063	ug/L	0.064	101	46408	42020	6	Standard
|	Cr	53	0.071	ug/L	0.012	16	200	424	8	Standard
⌊	Mn	55	2.753	ug/L	0.053	1	945	118749	1	Standard
⌈>	Ge-1	72		ug/L			18903	16665	2	KED
|	Ni	60	0.153	ug/L	0.012	7	2	55	9	KED
|	Ni	62	0.160	ug/L	0.111	69	0	8	70	KED
|	Cu	63	1.168	ug/L	0.032	2	3	1041	3	KED
|	Cu	65	1.170	ug/L	0.062	5	4	505	4	KED
|	Zn	66	5.070	ug/L	0.454	8	7	496	10	KED
|	Zn	67	5.500	ug/L	0.951	17	3	88	15	KED
⌊	As	75	0.683	ug/L	0.093	13	8	45	13	KED
	Y	89		ug/L			907188	795953	2	Standard
	Kr	83		ug/L			61	54	8	Standard
⌈>	In-1	115		ug/L			3910	3047	1	KED
|	Cd	111	0.032	ug/L	0.044	139	1	2	57	KED
⌊	Cd	114	0.037	ug/L	0.021	56	2	5	34	KED
⌈>	In	115		ug/L			3218354	2807523	2	Standard
⌊	Ag	107	0.001	ug/L	0.000	48	60	73	11	Standard
⌈>	Tb	159		ug/L			2625347	2368484	1	Standard
⌊	Pb	208	0.029	ug/L	0.001	4	405	3538	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 21:46:17
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	54687	0	Standard
	Cl	**37**		ug/L			11457090	9995500	2	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2544761	2	Standard
|	**Cr**	**52**	**-0.101**	ug/L	0.028	28	46408	33610	1	Standard
|	**Cr**	**53**	**0.006**	ug/L	0.002	41	200	176	2	Standard
⌊	**Mn**	**55**	**0.003**	ug/L	0.001	40	945	874	7	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	16221	1	KED
|	**Ni**	**60**	**0.010**	ug/L	0.010	92	2	5	57	KED
|	**Ni**	**62**	**0.038**	ug/L	0.001	1	0	1		KED
|	**Cu**	**63**	**0.003**	ug/L	0.000	3	3	5	0	KED
|	**Cu**	**65**	**0.002**	ug/L	0.005	345	4	4	49	KED
|	**Zn**	**66**	**-0.009**	ug/L	0.021	246	7	5	33	KED
|	**Zn**	**67**	**-0.178**	ug/L	0.000	0	3	0		KED
⌊	**As**	**75**	**0.048**	ug/L	0.033	69	8	9	18	KED
	Y	**89**		ug/L			907188	741437	0	Standard
	Kr	**83**		ug/L			61	69	22	Standard
⌈>	**In-1**	**115**		ug/L			3910	2804	0	KED
|	**Cd**	**111**	**0.028**	ug/L	0.018	65	1	2	24	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.022	4197	2	1	103	KED
⌈>	**In**	**115**		ug/L			3218354	2652200	1	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.000	17	60	57	3	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2264437	0	Standard
⌊	**Pb**	**208**	**-0.000**	ug/L	0.000	148	405	323	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 21:51:20
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	49125	1	Standard
	Cl	**37**		ug/L			11457090	10291240	2	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2636690	1	Standard
|	**Cr**	**52**	**45.531**	ug/L	1.069	2	46408	1485177	0	Standard
|	**Cr**	**53**	**47.078**	ug/L	0.208	0	200	159070	0	Standard
⌊	**Mn**	**55**	**44.380**	ug/L	1.005	2	945	1812612	1	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	15382	1	KED
|	**Ni**	**60**	**47.232**	ug/L	1.202	2	2	15084	3	KED
|	**Ni**	**62**	**47.071**	ug/L	0.591	1	0	2214	2	KED
|	**Cu**	**63**	**47.018**	ug/L	0.615	1	3	38600	2	KED
|	**Cu**	**65**	**46.960**	ug/L	0.807	1	4	18598	2	KED
|	**Zn**	**66**	**48.914**	ug/L	2.419	4	7	4362	4	KED
|	**Zn**	**67**	**48.261**	ug/L	1.461	3	3	700	2	KED
⌊	**As**	**75**	**48.604**	ug/L	1.541	3	8	2527	4	KED
	Y	**89**		ug/L			907188	739635	1	Standard
	Kr	**83**		ug/L			61	77	22	Standard
⌈>	**In-1**	**115**		ug/L			3910	2885	1	KED
|	**Cd**	**111**	**49.910**	ug/L	1.022	2	1	1585	1	KED
⌊	**Cd**	**114**	**48.478**	ug/L	1.843	3	2	4311	2	KED
⌈>	**In**	**115**		ug/L			3218354	2599839	1	Standard
⌊	**Ag**	**107**	**37.014**	ug/L	1.066	2	60	684764	1	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2302171	1	Standard
⌊	**Pb**	**208**	**50.034**	ug/L	0.344	0	405	5384490	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 21:58:03
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	50281	1	Standard
	Cl	**37**		ug/L			11457090	10117901	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2537805	0	Standard
|	**Cr**	**52**	**-0.070**	ug/L	0.005	7	46408	34463	0	Standard
|	**Cr**	**53**	**-0.003**	ug/L	0.003	93	200	148	6	Standard
⌊	**Mn**	**55**	**0.004**	ug/L	0.001	20	945	912	3	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	15724	1	KED
|	**Ni**	**60**	**0.001**	ug/L	0.007	539	2	2	86	KED
|	**Ni**	**62**	**0.026**	ug/L	0.023	86	0	1	86	KED
|	**Cu**	**63**	**0.004**	ug/L	0.004	94	3	6	45	KED
|	**Cu**	**65**	**0.002**	ug/L	0.003	155	4	4	24	KED
|	**Zn**	**66**	**-0.000**	ug/L	0.043	11137	7	6	62	KED
|	**Zn**	**67**	**-0.050**	ug/L	0.002	4	3	1		KED
⌊	**As**	**75**	**-0.001**	ug/L	0.009	1003	8	6	8	KED
	Y	**89**		ug/L			907188	732274	1	Standard
	Kr	**83**		ug/L			61	61	28	Standard
⌈>	**In-1**	**115**		ug/L			3910	2835	3	KED
|	**Cd**	**111**	**0.037**	ug/L	0.015	41	1	2	21	KED
⌊	**Cd**	**114**	**0.015**	ug/L	0.024	159	2	3	69	KED
⌈>	**In**	**115**		ug/L			3218354	2595142	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	62	60	73	20	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2214395	1	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	40	405	439	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-29
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, June 22, 2018 22:02:03 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	56435	0	Standard
	Cl	**37**		ug/L			11457090	9869592	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2575384	1	Standard
|	**Cr**	**52**	**-0.006**	ug/L	0.020	338	46408	36960	0	Standard
|	**Cr**	**53**	**0.040**	ug/L	0.006	14	200	293	5	Standard
⌊	**Mn**	**55**	**58.642**	ug/L	0.836	1	945	2339270	0	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	15600	4	KED
|	**Ni**	**60**	**1.670**	ug/L	0.072	4	2	542	0	KED
|	**Ni**	**62**	**1.510**	ug/L	0.207	13	0	71	9	KED
|	**Cu**	**63**	**1.433**	ug/L	0.013	0	3	1195	3	KED
|	**Cu**	**65**	**1.462**	ug/L	0.042	2	4	590	3	KED
|	**Zn**	**66**	**32.069**	ug/L	1.505	4	7	2899	2	KED
|	**Zn**	**67**	**31.274**	ug/L	1.394	4	3	461	5	KED
⌊	**As**	**75**	**0.045**	ug/L	0.021	45	8	9	13	KED
	Y	**89**		ug/L			907188	758253	1	Standard
	Kr	**83**		ug/L			61	56	25	Standard
⌈>	**In-1**	**115**		ug/L			3910	2940	1	KED
|	**Cd**	**111**	**0.367**	ug/L	0.046	12	1	13	12	KED
⌊	**Cd**	**114**	**0.307**	ug/L	0.056	18	2	29	16	KED
⌈>	**In**	**115**		ug/L			3218354	2658930	2	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.001	1290	60	49	21	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2265576	2	Standard
⌊	**Pb**	**208**	**0.016**	ug/L	0.000	2	405	2081	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-62
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 22:06:02
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	67737	0	Standard
	Cl	37		ug/L			11457090	10005841	1	Standard
>	Sc	45		ug/L			3217224	2655085	1	Standard
	Cr	52	0.075	ug/L	0.015	20	46408	40700	0	Standard
	Cr	53	0.093	ug/L	0.001	1	200	480	1	Standard
	Mn	55	0.870	ug/L	0.017	1	945	36556	0	Standard
>	Ge-1	72		ug/L			18903	15494	3	KED
	Ni	60	0.132	ug/L	0.037	27	2	44	25	KED
	Ni	62	0.173	ug/L	0.054	31	0	8	35	KED
	Cu	63	0.546	ug/L	0.025	4	3	454	5	KED
	Cu	65	0.483	ug/L	0.037	7	4	196	6	KED
	Zn	66	1.986	ug/L	0.219	11	7	184	13	KED
	Zn	67	2.656	ug/L	0.215	8	3	41	5	KED
	As	75	0.216	ug/L	0.075	34	8	17	18	KED
	Y	89		ug/L			907188	755852	0	Standard
	Kr	83		ug/L			61	64	12	Standard
>	In-1	115		ug/L			3910	3018	2	KED
	Cd	111	0.023	ug/L	0.074	319	1	2	107	KED
	Cd	114	0.009	ug/L	0.012	128	2	2	40	KED
>	In	115		ug/L			3218354	2690131	0	Standard
	Ag	107	0.001	ug/L	0.001	91	60	65	20	Standard
>	Tb	159		ug/L			2625347	2272325	0	Standard
	Pb	208	0.009	ug/L	0.000	3	405	1292	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-66
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 22:10:01
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	72466	3	Standard
	Cl	37		ug/L			11457090	10166319	0	Standard
>	Sc	45		ug/L			3217224	2692235	0	Standard
	Cr	52	0.090	ug/L	0.047	52	46408	41753	3	Standard
	Cr	53	0.104	ug/L	0.008	8	200	525	5	Standard
	Mn	55	2.367	ug/L	0.079	3	945	99456	2	Standard
>	Ge-1	72		ug/L			18903	16045	2	KED
	Ni	60	0.146	ug/L	0.045	30	2	50	30	KED
	Ni	62	0.168	ug/L	0.019	11	0	8	13	KED
	Cu	63	1.078	ug/L	0.033	3	3	925	2	KED
	Cu	65	1.004	ug/L	0.040	3	4	418	2	KED
	Zn	66	5.028	ug/L	0.223	4	7	473	5	KED
	Zn	67	5.331	ug/L	0.261	4	3	83	4	KED
	As	75	0.551	ug/L	0.037	6	8	36	7	KED
	Y	89		ug/L			907188	764892	3	Standard
	Kr	83		ug/L			61	48	19	Standard
>	In-1	115		ug/L			3910	3045	2	KED
	Cd	111	0.032	ug/L	0.044	137	1	2	57	KED
	Cd	114	0.091	ug/L	0.051	55	2	10	44	KED
>	In	115		ug/L			3218354	2678504	0	Standard
	Ag	107	0.001	ug/L	0.001	50	60	79	18	Standard
>	Tb	159		ug/L			2625347	2289628	1	Standard
	Pb	208	0.019	ug/L	0.000	0	405	2375	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-37
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, June 22, 2018 22:14:00
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	57397	1	Standard
	Cl	**37**		ug/L			11457090	9856834	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2642831	1	Standard
|	**Cr**	**52**	**-0.022**	ug/L	0.049	225	46408	37416	2	Standard
|	**Cr**	**53**	**0.022**	ug/L	0.001	6	200	238	0	Standard
⌊	**Mn**	**55**	**0.890**	ug/L	0.010	1	945	37221	1	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	15917	3	KED
|	**Ni**	**60**	**0.222**	ug/L	0.048	21	2	74	17	KED
|	**Ni**	**62**	**0.287**	ug/L	0.040	14	0	13	15	KED
|	**Cu**	**63**	**8.744**	ug/L	0.334	3	3	7423	2	KED
|	**Cu**	**65**	**8.566**	ug/L	0.647	7	4	3506	3	KED
|	**Zn**	**66**	**83.820**	ug/L	1.417	1	7	7729	2	KED
|	**Zn**	**67**	**78.648**	ug/L	5.060	6	3	1179	4	KED
⌊	**As**	**75**	**0.035**	ug/L	0.059	166	8	8	38	KED
	Y	**89**		ug/L			907188	756170	1	Standard
	Kr	**83**		ug/L			61	63	6	Standard
⌈>	**In-1**	**115**		ug/L			3910	3063	1	KED
|	**Cd**	**111**	**0.419**	ug/L	0.198	47	1	15	41	KED
⌊	**Cd**	**114**	**0.427**	ug/L	0.159	37	2	42	36	KED
⌈>	**In**	**115**		ug/L			3218354	2686297	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	131	60	64	28	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2287478	1	Standard
⌊	**Pb**	**208**	**0.026**	ug/L	0.001	4	405	3153	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0258-01
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 22:17:59 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	3066142	1	Standard
	Cl	**37**		ug/L			11457090	8922185	2	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2014277	7	Standard
|	**Cr**	**52**	**8.898**	ug/L	0.685	7	46408	244415	2	Standard
|	**Cr**	**53**	**3.261**	ug/L	0.266	8	200	8502	3	Standard
⌊	**Mn**	**55**	**216.847**	ug/L	16.448	7	945	6741150	2	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	8137	0	KED
|	**Ni**	**60**	**14.360**	ug/L	0.359	2	2	2426	1	KED
|	**Ni**	**62**	**13.936**	ug/L	0.484	3	0	346	2	KED
|	**Cu**	**63**	**1.052**	ug/L	0.127	12	3	458	11	KED
|	**Cu**	**65**	**1.150**	ug/L	0.163	14	4	242	13	KED
|	**Zn**	**66**	**17.564**	ug/L	0.806	4	7	831	5	KED
|	**Zn**	**67**	**21.226**	ug/L	1.515	7	3	163	6	KED
⌊	**As**	**75**	**0.635**	ug/L	0.079	12	8	20	9	KED
	Y	**89**		ug/L			907188	598309	2	Standard
	Kr	**83**		ug/L			61	175	14	Standard
⌈>	**In-1**	**115**		ug/L			3910	1445	2	KED
|	**Cd**	**111**	**0.295**	ug/L	0.039	13	1	5	10	KED
⌊	**Cd**	**114**	**0.104**	ug/L	0.061	58	2	5	50	KED
⌈>	**In**	**115**		ug/L			3218354	1885503	1	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.000	21	60	62	9	Standard
⌈>	**Tb**	**159**		ug/L			2625347	1914718	2	Standard
⌊	**Pb**	**208**	**0.079**	ug/L	0.003	3	405	7355	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0271-01
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, June 22, 2018 22:21:57

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	341325	1	Standard
	Cl	**37**		ug/L			11457090	9798999	0	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2522185	0	Standard
|	**Cr**	**52**	**17.404**	ug/L	0.141	0	46408	565617	0	Standard
|	**Cr**	**53**	**17.402**	ug/L	0.382	2	200	56344	2	Standard
⌊	**Mn**	**55**	**28.412**	ug/L	0.633	2	945	1110419	1	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	13966	2	KED
|	**Ni**	**60**	**2.134**	ug/L	0.069	3	2	620	2	KED
|	**Ni**	**62**	**2.102**	ug/L	0.437	20	0	89	18	KED
|	**Cu**	**63**	**3.627**	ug/L	0.024	0	3	2706	2	KED
|	**Cu**	**65**	**3.589**	ug/L	0.154	4	4	1292	3	KED
|	**Zn**	**66**	**601.827**	ug/L	15.289	2	7	48669	2	KED
|	**Zn**	**67**	**563.052**	ug/L	23.900	4	3	7397	2	KED
⌊	**As**	**75**	**0.086**	ug/L	0.014	16	8	10	5	KED
	Y	**89**		ug/L			907188	734637	0	Standard
	Kr	**83**		ug/L			61	69	47	Standard
⌈>	**In-1**	**115**		ug/L			3910	2653	2	KED
|	**Cd**	**111**	**2.720**	ug/L	0.261	9	1	80	7	KED
⌊	**Cd**	**114**	**2.321**	ug/L	0.194	8	2	191	6	KED
⌈>	**In**	**115**		ug/L			3218354	2665576	0	Standard
⌊	**Ag**	**107**	**0.008**	ug/L	0.004	53	60	203	40	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2325961	1	Standard
⌊	**Pb**	**208**	**0.168**	ug/L	0.013	7	405	18683	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-13
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 22:25:56
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	82853	1	Standard
	Cl	**37**		ug/L			11457090	9762533	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2572879	1	Standard
|	**Cr**	**52**	**0.071**	ug/L	0.015	21	46408	39316	1	Standard
|	**Cr**	**53**	**0.122**	ug/L	0.004	3	200	560	3	Standard
⌊	**Mn**	**55**	**9.482**	ug/L	0.282	2	945	378462	1	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	14454	2	KED
|	**Ni**	**60**	**0.197**	ug/L	0.021	10	2	60	9	KED
|	**Ni**	**62**	**0.245**	ug/L	0.103	41	0	10	40	KED
|	**Cu**	**63**	**1.308**	ug/L	0.104	7	3	1012	8	KED
|	**Cu**	**65**	**1.293**	ug/L	0.017	1	4	484	3	KED
|	**Zn**	**66**	**5.047**	ug/L	0.226	4	7	428	6	KED
|	**Zn**	**67**	**5.147**	ug/L	0.256	4	3	72	2	KED
⌊	**As**	**75**	**0.659**	ug/L	0.021	3	8	38	1	KED
	Y	**89**		ug/L			907188	750533	2	Standard
	Kr	**83**		ug/L			61	59	28	Standard
⌈>	**In-1**	**115**		ug/L			3910	2826	1	KED
|	**Cd**	**111**	**0.119**	ug/L	0.035	29	1	5	21	KED
⌊	**Cd**	**114**	**0.058**	ug/L	0.052	89	2	6	65	KED
⌈>	**In**	**115**		ug/L			3218354	2633857	1	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.000	33	60	57	3	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2288263	1	Standard
⌊	**Pb**	**208**	**0.039**	ug/L	0.001	2	405	4574	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-26
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, June 22, 2018 22:29:55 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	64897	2	Standard
	Cl	**37**		ug/L			11457090	9756596	3	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2579876	2	Standard
|	**Cr**	**52**	**0.104**	ug/L	0.051	49	46408	40436	3	Standard
|	**Cr**	**53**	**0.191**	ug/L	0.016	8	200	791	4	Standard
⌊	**Mn**	**55**	**0.907**	ug/L	0.020	2	945	36969	0	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	14078	1	KED
|	**Ni**	**60**	**0.223**	ug/L	0.046	20	2	67	21	KED
|	**Ni**	**62**	**0.235**	ug/L	0.107	45	0	10	47	KED
|	**Cu**	**63**	**0.429**	ug/L	0.072	16	3	324	15	KED
|	**Cu**	**65**	**0.366**	ug/L	0.026	7	4	135	4	KED
|	**Zn**	**66**	**2.308**	ug/L	0.191	8	7	193	6	KED
|	**Zn**	**67**	**1.838**	ug/L	0.287	15	3	26	12	KED
⌊	**As**	**75**	**0.044**	ug/L	0.040	90	8	8	23	KED
	Y	**89**		ug/L			907188	742850	2	Standard
	Kr	**83**		ug/L			61	55	25	Standard
⌈>	**In-1**	**115**		ug/L			3910	2697	4	KED
|	**Cd**	**111**	**0.278**	ug/L	0.117	42	1	9	36	KED
⌊	**Cd**	**114**	**0.224**	ug/L	0.120	53	2	20	51	KED
⌈>	**In**	**115**		ug/L			3218354	2612472	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	96	60	62	20	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2253600	1	Standard
⌊	**Pb**	**208**	**0.021**	ug/L	0.001	3	405	2539	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-39
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, June 22, 2018 22:33:54 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	55888	2	Standard
	Cl	**37**		ug/L			11457090	9599470	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2401754	2	Standard
|	**Cr**	**52**	**-0.022**	ug/L	0.032	149	46408	34024	3	Standard
|	**Cr**	**53**	**0.041**	ug/L	0.003	7	200	275	2	Standard
⌊	**Mn**	**55**	**64.844**	ug/L	1.377	2	945	2411993	1	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	14019	0	KED
|	**Ni**	**60**	**0.061**	ug/L	0.033	53	2	19	48	KED
|	**Ni**	**62**	**0.015**	ug/L	0.026	173	0	0	173	KED
|	**Cu**	**63**	**0.075**	ug/L	0.020	26	3	59	25	KED
|	**Cu**	**65**	**0.058**	ug/L	0.015	26	4	24	22	KED
|	**Zn**	**66**	**1.542**	ug/L	0.145	9	7	130	8	KED
|	**Zn**	**67**	**1.652**	ug/L	0.836	50	3	24	45	KED
⌊	**As**	**75**	**0.048**	ug/L	0.031	63	8	8	17	KED
	Y	**89**		ug/L			907188	713879	1	Standard
	Kr	**83**		ug/L			61	50	5	Standard
⌈>	**In-1**	**115**		ug/L			3910	2530	3	KED
|	**Cd**	**111**	**0.037**	ug/L	0.056	151	1	2	65	KED
⌊	**Cd**	**114**	**-0.006**	ug/L	0.014	242	2	1	94	KED
⌈>	**In**	**115**		ug/L			3218354	2578122	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	92	60	59	17	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2244743	1	Standard
⌊	**Pb**	**208**	**0.020**	ug/L	0.001	4	405	2397	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-43
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, June 22, 2018 22:37:53 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	54064	2	Standard
	Cl	**37**		ug/L			11457090	9476147	0	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2469672	2	Standard
|	**Cr**	**52**	**-0.028**	ug/L	0.015	53	46408	34783	2	Standard
|	**Cr**	**53**	**0.060**	ug/L	0.006	10	200	343	6	Standard
⌊	**Mn**	**55**	**58.321**	ug/L	1.049	1	945	2230755	0	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	14119	1	KED
|	**Ni**	**60**	**0.067**	ug/L	0.030	45	2	21	41	KED
|	**Ni**	**62**	**0.147**	ug/L	0.068	46	0	6	45	KED
|	**Cu**	**63**	**0.074**	ug/L	0.009	12	3	58	13	KED
|	**Cu**	**65**	**0.068**	ug/L	0.030	43	4	27	37	KED
|	**Zn**	**66**	**1.996**	ug/L	0.158	7	7	168	8	KED
|	**Zn**	**67**	**2.543**	ug/L	0.248	9	3	36	10	KED
⌊	**As**	**75**	**0.060**	ug/L	0.033	54	8	9	18	KED
	Y	**89**		ug/L			907188	728550	2	Standard
	Kr	**83**		ug/L			61	53	12	Standard
⌈>	**In-1**	**115**		ug/L			3910	2536	8	KED
|	**Cd**	**111**	**0.093**	ug/L	0.061	65	1	3	43	KED
⌊	**Cd**	**114**	**0.020**	ug/L	0.039	194	2	3	97	KED
⌈>	**In**	**115**		ug/L			3218354	2551315	2	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.000	110	60	54	10	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2262987	0	Standard
⌊	**Pb**	**208**	**0.022**	ug/L	0.001	5	405	2699	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVC
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 22:42:56
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	47411	2	Standard
	Cl	**37**		ug/L			11457090	9963854	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2459419	3	Standard
|	**Cr**	**52**	**45.388**	ug/L	0.694	1	46408	1380894	2	Standard
|	**Cr**	**53**	**46.978**	ug/L	1.723	3	200	147932	0	Standard
⌊	**Mn**	**55**	**44.326**	ug/L	1.865	4	945	1687234	0	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	14198	2	KED
|	**Ni**	**60**	**45.699**	ug/L	1.060	2	2	13465	0	KED
|	**Ni**	**62**	**45.689**	ug/L	1.755	3	0	1982	1	KED
|	**Cu**	**63**	**45.420**	ug/L	0.980	2	3	34405	1	KED
|	**Cu**	**65**	**44.578**	ug/L	0.612	1	4	16291	1	KED
|	**Zn**	**66**	**48.331**	ug/L	0.760	1	7	3980	3	KED
|	**Zn**	**67**	**46.368**	ug/L	1.948	4	3	621	3	KED
⌊	**As**	**75**	**47.200**	ug/L	0.888	1	8	2265	3	KED
	Y	**89**		ug/L			907188	749716	1	Standard
	Kr	**83**		ug/L			61	66	7	Standard
⌈>	**In-1**	**115**		ug/L			3910	2680	5	KED
|	**Cd**	**111**	**48.928**	ug/L	2.100	4	1	1442	4	KED
⌊	**Cd**	**114**	**48.159**	ug/L	1.350	2	2	3975	2	KED
⌈>	**In**	**115**		ug/L			3218354	2528970	0	Standard
⌊	**Ag**	**107**	**35.934**	ug/L	0.360	1	60	646846	0	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2234620	1	Standard
⌊	**Pb**	**208**	**49.757**	ug/L	0.752	1	405	5196638	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBC
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 22:49:40
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	47954	2	Standard
	Cl	**37**		ug/L			11457090	9785488	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2433564	2	Standard
|	**Cr**	**52**	**-0.081**	ug/L	0.021	25	46408	32720	4	Standard
|	**Cr**	**53**	**-0.004**	ug/L	0.001	15	200	140	3	Standard
⌊	**Mn**	**55**	**0.003**	ug/L	0.000	6	945	833	2	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	14826	0	KED
|	**Ni**	**60**	**0.002**	ug/L	0.009	541	2	2	114	KED
|	**Ni**	**62**	**0.028**	ug/L	0.024	86	0	1	86	KED
|	**Cu**	**63**	**0.006**	ug/L	0.002	41	3	7	25	KED
|	**Cu**	**65**	**0.006**	ug/L	0.005	86	4	5	33	KED
|	**Zn**	**66**	**0.041**	ug/L	0.023	54	7	9	20	KED
|	**Zn**	**67**	**0.049**	ug/L	0.079	160	3	3	34	KED
⌊	**As**	**75**	**0.080**	ug/L	0.011	14	8	10	4	KED
	Y	**89**		ug/L			907188	708867	1	Standard
	Kr	**83**		ug/L			61	67	18	Standard
⌈>	**In-1**	**115**		ug/L			3910	2693	3	KED
|	**Cd**	**111**	**0.054**	ug/L	0.086	159	1	2	88	KED
⌊	**Cd**	**114**	**0.009**	ug/L	0.014	153	2	2	46	KED
⌈>	**In**	**115**		ug/L			3218354	2490836	0	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.000	53	60	45	2	Standard
⌈>	**Tb**	**159**		ug/L			2625347	1979050	0	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	32	405	417	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-47
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, June 22, 2018 22:53:39
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	51935	2	Standard
	Cl	**37**		ug/L			11457090	9505701	2	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2474699	1	Standard
|	**Cr**	**52**	**0.172**	ug/L	0.037	21	46408	40820	3	Standard
|	**Cr**	**53**	**0.251**	ug/L	0.009	3	200	948	3	Standard
⌊	**Mn**	**55**	**82.979**	ug/L	3.125	3	945	3180671	3	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	14953	0	KED
|	**Ni**	**60**	**3.110**	ug/L	0.257	8	2	967	7	KED
|	**Ni**	**62**	**3.235**	ug/L	0.269	8	0	147	8	KED
|	**Cu**	**63**	**14.689**	ug/L	0.371	2	3	11723	2	KED
|	**Cu**	**65**	**14.656**	ug/L	0.266	1	4	5643	1	KED
|	**Zn**	**66**	**84.763**	ug/L	1.037	1	7	7346	1	KED
|	**Zn**	**67**	**79.488**	ug/L	5.062	6	3	1120	5	KED
⌊	**As**	**75**	**-0.001**	ug/L	0.039	7525	8	6	30	KED
	Y	**89**		ug/L			907188	726213	4	Standard
	Kr	**83**		ug/L			61	59	8	Standard
⌈>	**In-1**	**115**		ug/L			3910	2659	3	KED
|	**Cd**	**111**	**0.565**	ug/L	0.115	20	1	17	17	KED
⌊	**Cd**	**114**	**0.367**	ug/L	0.025	6	2	31	3	KED
⌈>	**In**	**115**		ug/L			3218354	2501641	0	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.001	195	60	53	21	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2159409	6	Standard
⌊	**Pb**	**208**	**0.014**	ug/L	0.000	0	405	1705	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-45
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 22:57:38 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	68739	2	Standard
	Cl	**37**		ug/L			11457090	7736172	2	Standard
>	**Sc**	**45**		ug/L			3217224	1902632	2	Standard
	Cr	**52**	**0.930**	ug/L	0.062	6	46408	48773	2	Standard
	Cr	**53**	**0.989**	ug/L	0.029	2	200	2527	1	Standard
	Mn	**55**	**814.366**	ug/L	32.596	4	945	23988446	3	Standard
>	**Ge-1**	**72**		ug/L			18903	7499	1	KED
	Ni	**60**	**1.108**	ug/L	0.183	16	2	173	15	KED
	Ni	**62**	**1.052**	ug/L	0.091	8	0	24	9	KED
	Cu	**63**	**0.302**	ug/L	0.069	22	3	122	22	KED
	Cu	**65**	**0.293**	ug/L	0.074	25	4	58	24	KED
	Zn	**66**	**12.852**	ug/L	0.509	3	7	561	4	KED
	Zn	**67**	**12.326**	ug/L	1.031	8	3	88	8	KED
	As	**75**	**0.322**	ug/L	0.096	29	8	11	22	KED
	Y	**89**		ug/L			907188	580952	0	Standard
	Kr	**83**		ug/L			61	165	5	Standard
>	**In-1**	**115**		ug/L			3910	1243	4	KED
	Cd	**111**	**0.164**	ug/L	0.069	42	1	2	33	KED
	Cd	**114**	**0.136**	ug/L	0.070	51	2	6	48	KED
>	**In**	**115**		ug/L			3218354	1840910	1	Standard
	Ag	**107**	**0.001**	ug/L	0.001	51	60	50	14	Standard
>	**Tb**	**159**		ug/L			2625347	1947083	0	Standard
	Pb	**208**	**0.019**	ug/L	0.001	4	405	2074	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-45RE1
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, June 22, 2018 23:01:37

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	54476	1	Standard
	Cl	**37**		ug/L			11457090	9185603	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2443442	2	Standard
|	**Cr**	**52**	**-0.017**	ug/L	0.040	232	46408	34723	2	Standard
|	**Cr**	**53**	**0.111**	ug/L	0.019	17	200	498	14	Standard
⌊	**Mn**	**55**	**82.427**	ug/L	2.485	3	945	3120254	4	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	12647	2	KED
|	**Ni**	**60**	**0.122**	ug/L	0.026	21	2	33	19	KED
|	**Ni**	**62**	**0.330**	ug/L	0.131	39	0	12	37	KED
|	**Cu**	**63**	**0.046**	ug/L	0.009	20	3	33	18	KED
|	**Cu**	**65**	**0.024**	ug/L	0.003	10	4	10	10	KED
|	**Zn**	**66**	**2.159**	ug/L	0.205	9	7	163	8	KED
|	**Zn**	**67**	**1.960**	ug/L	0.506	25	3	25	22	KED
⌊	**As**	**75**	**0.072**	ug/L	0.039	53	8	8	16	KED
	Y	**89**		ug/L			907188	674458	0	Standard
	Kr	**83**		ug/L			61	57	18	Standard
⌈>	**In-1**	**115**		ug/L			3910	2275	3	KED
|	**Cd**	**111**	**0.057**	ug/L	0.043	75	1	2	43	KED
⌊	**Cd**	**114**	**0.015**	ug/L	0.018	117	2	2	45	KED
⌈>	**In**	**115**		ug/L			3218354	2594594	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	71	60	63	16	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2297410	0	Standard
⌊	**Pb**	**208**	**0.011**	ug/L	0.001	8	405	1563	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-49
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, June 22, 2018 23:05:36
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	53125	2	Standard
	Cl	**37**		ug/L			11457090	9523927	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2491694	2	Standard
|	**Cr**	**52**	**-0.033**	ug/L	0.029	87	46408	34950	2	Standard
|	**Cr**	**53**	**0.074**	ug/L	0.011	15	200	390	10	Standard
⌊	**Mn**	**55**	**115.787**	ug/L	3.337	2	945	4469519	4	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	13799	2	KED
|	**Ni**	**60**	**1.561**	ug/L	0.057	3	2	448	4	KED
|	**Ni**	**62**	**1.622**	ug/L	0.203	12	0	68	14	KED
|	**Cu**	**63**	**2.231**	ug/L	0.094	4	3	1645	3	KED
|	**Cu**	**65**	**2.162**	ug/L	0.192	8	4	770	6	KED
|	**Zn**	**66**	**46.422**	ug/L	0.444	0	7	3715	2	KED
|	**Zn**	**67**	**43.423**	ug/L	2.115	4	3	565	2	KED
⌊	**As**	**75**	**0.024**	ug/L	0.056	228	8	7	35	KED
	Y	**89**		ug/L			907188	734433	1	Standard
	Kr	**83**		ug/L			61	57	8	Standard
⌈>	**In-1**	**115**		ug/L			3910	2570	3	KED
|	**Cd**	**111**	**0.315**	ug/L	0.118	37	1	10	32	KED
⌊	**Cd**	**114**	**0.268**	ug/L	0.090	33	2	22	28	KED
⌈>	**In**	**115**		ug/L			3218354	2658048	1	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.000	117	60	53	6	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2269686	0	Standard
⌊	**Pb**	**208**	**0.054**	ug/L	0.000	0	405	6104	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 23:10:00
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	51115	3	Standard
	Cl	**37**		ug/L			11457090	9134237	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2339666	2	Standard
|	**Cr**	**52**	**-0.173**	ug/L	0.024	13	46408	28854	1	Standard
|	**Cr**	**53**	**-0.002**	ug/L	0.002	124	200	140	3	Standard
⌊	**Mn**	**55**	**-0.005**	ug/L	0.001	18	945	490	5	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	13506	1	KED
|	**Ni**	**60**	**0.023**	ug/L	0.028	120	2	8	93	KED
|	**Ni**	**62**	**0.047**	ug/L	0.081	173	0	1	173	KED
|	**Cu**	**63**	**0.002**	ug/L	0.002	67	3	4	24	KED
|	**Cu**	**65**	**0.000**	ug/L	0.003	12942	4	3	34	KED
|	**Zn**	**66**	**-0.013**	ug/L	0.013	102	7	4	24	KED
|	**Zn**	**67**	**-0.079**	ug/L	0.086	108	3	1	86	KED
⌊	**As**	**75**	**0.038**	ug/L	0.009	25	8	7	6	KED
	Y	**89**		ug/L			907188	664173	0	Standard
	Kr	**83**		ug/L			61	50	28	Standard
⌈>	**In-1**	**115**		ug/L			3910	2442	1	KED
|	**Cd**	**111**	**0.122**	ug/L	0.084	68	1	4	49	KED
⌊	**Cd**	**114**	**0.021**	ug/L	0.031	143	2	3	70	KED
⌈>	**In**	**115**		ug/L			3218354	2484218	1	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.000	519	60	45	15	Standard
⌈>	**Tb**	**159**		ug/L			2625347	1972087	0	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.000	136	405	316	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVD
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 23:14:23
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	46515	1	Standard
	Cl	**37**		ug/L			11457090	9474679	2	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2404494	2	Standard
|	**Cr**	**52**	**45.308**	ug/L	2.248	4	46408	1347214	2	Standard
|	**Cr**	**53**	**46.641**	ug/L	0.391	0	200	143705	1	Standard
⌊	**Mn**	**55**	**43.972**	ug/L	0.790	1	945	1637642	0	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	13725	1	KED
|	**Ni**	**60**	**45.995**	ug/L	0.638	1	2	13106	2	KED
|	**Ni**	**62**	**43.444**	ug/L	1.689	3	0	1823	4	KED
|	**Cu**	**63**	**46.509**	ug/L	0.712	1	3	34061	0	KED
|	**Cu**	**65**	**44.767**	ug/L	0.456	1	4	15818	1	KED
|	**Zn**	**66**	**48.882**	ug/L	0.241	0	7	3890	1	KED
|	**Zn**	**67**	**47.355**	ug/L	1.704	3	3	613	4	KED
⌊	**As**	**75**	**48.311**	ug/L	1.555	3	8	2241	3	KED
	Y	**89**		ug/L			907188	719322	2	Standard
	Kr	**83**		ug/L			61	62	18	Standard
⌈>	**In-1**	**115**		ug/L			3910	2525	3	KED
|	**Cd**	**111**	**49.892**	ug/L	1.199	2	1	1387	3	KED
⌊	**Cd**	**114**	**47.142**	ug/L	0.615	1	2	3670	2	KED
⌈>	**In**	**115**		ug/L			3218354	2456783	1	Standard
⌊	**Ag**	**107**	**36.545**	ug/L	0.326	0	60	639120	2	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2193667	0	Standard
⌊	**Pb**	**208**	**49.953**	ug/L	0.429	0	405	5122287	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBD
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 23:21:06
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	47814	2	Standard
	Cl	**37**		ug/L			11457090	9330284	0	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2415297	1	Standard
|	**Cr**	**52**	**-0.089**	ug/L	0.002	1	46408	32254	1	Standard
|	**Cr**	**53**	**0.004**	ug/L	0.004	83	200	163	6	Standard
⌊	**Mn**	**55**	**0.003**	ug/L	0.001	38	945	831	5	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	14209	3	KED
|	**Ni**	**60**	**0.004**	ug/L	0.007	170	2	3	69	KED
|	**Ni**	**62**	**0.029**	ug/L	0.025	86	0	1	86	KED
|	**Cu**	**63**	**0.004**	ug/L	0.004	111	3	5	57	KED
|	**Cu**	**65**	**-0.004**	ug/L	0.005	127	4	1	100	KED
|	**Zn**	**66**	**0.007**	ug/L	0.012	165	7	6	17	KED
|	**Zn**	**67**	**-0.035**	ug/L	0.140	395	3	1	100	KED
⌊	**As**	**75**	**0.042**	ug/L	0.042	99	8	8	27	KED
	Y	**89**		ug/L			907188	715007	3	Standard
	Kr	**83**		ug/L			61	52	11	Standard
⌈>	**In-1**	**115**		ug/L			3910	2625	3	KED
|	**Cd**	**111**	**-0.011**	ug/L	0.001	10	1	0		KED
⌊	**Cd**	**114**	**0.017**	ug/L	0.025	149	2	3	70	KED
⌈>	**In**	**115**		ug/L			3218354	2492008	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	49	60	57	8	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2031358	5	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.001	41	405	442	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 23:25:05
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	51422	0	Standard
	Cl	**37**		ug/L			11457090	9760376	3	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2772696	2	Standard
|	**Cr**	**52**	**0.004**	ug/L	0.053	1212	46408	40119	2	Standard
|	**Cr**	**53**	**0.001**	ug/L	0.005	407	200	177	13	Standard
⌊	**Mn**	**55**	**0.051**	ug/L	0.001	2	945	3010	2	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	15361	1	KED
|	**Ni**	**60**	**0.023**	ug/L	0.022	92	2	9	72	KED
|	**Ni**	**62**	**0.027**	ug/L	0.023	86	0	1	86	KED
|	**Cu**	**63**	**0.017**	ug/L	0.004	25	3	17	22	KED
|	**Cu**	**65**	**0.009**	ug/L	0.006	66	4	6	31	KED
|	**Zn**	**66**	**0.052**	ug/L	0.045	87	7	10	36	KED
|	**Zn**	**67**	**-0.091**	ug/L	0.076	83	3	1	86	KED
⌊	**As**	**75**	**-0.004**	ug/L	0.005	118	8	6	4	KED
	Y	**89**		ug/L			907188	840930	3	Standard
	Kr	**83**		ug/L			61	57	19	Standard
⌈>	**In-1**	**115**		ug/L			3910	2897	5	KED
|	**Cd**	**111**	**0.022**	ug/L	0.090	404	1	2	137	KED
⌊	**Cd**	**114**	**0.021**	ug/L	0.019	91	2	3	49	KED
⌈>	**In**	**115**		ug/L			3218354	2737717	0	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.001	56	60	85	21	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2355284	1	Standard
⌊	**Pb**	**208**	**0.005**	ug/L	0.000	4	405	915	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 23:29:05
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	49112	0	Standard
	Cl	**37**		ug/L			11457090	9641860	2	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2651228	3	Standard
|	**Cr**	**52**	**-0.017**	ug/L	0.017	100	46408	37714	4	Standard
|	**Cr**	**53**	**0.001**	ug/L	0.001	62	200	167	3	Standard
⌊	**Mn**	**55**	**0.049**	ug/L	0.000	0	945	2779	3	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	14862	1	KED
|	**Ni**	**60**	**0.022**	ug/L	0.013	59	2	8	44	KED
|	**Ni**	**62**	**0.042**	ug/L	0.041	98	0	1	100	KED
|	**Cu**	**63**	**0.017**	ug/L	0.006	32	3	16	26	KED
|	**Cu**	**65**	**0.004**	ug/L	0.008	183	4	5	57	KED
|	**Zn**	**66**	**0.034**	ug/L	0.047	137	7	8	44	KED
|	**Zn**	**67**	**0.002**	ug/L	0.156	8327	3	2	86	KED
⌊	**As**	**75**	**0.023**	ug/L	0.043	189	8	7	27	KED
	Y	**89**		ug/L			907188	803770	1	Standard
	Kr	**83**		ug/L			61	69	20	Standard
⌈>	**In-1**	**115**		ug/L			3910	2959	3	KED
|	**Cd**	**111**	**0.004**	ug/L	0.044	1207	1	1	91	KED
⌊	**Cd**	**114**	**-0.014**	ug/L	0.012	89	2	0	188	KED
⌈>	**In**	**115**		ug/L			3218354	2730329	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	32	60	67	5	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2307179	2	Standard
⌊	**Pb**	**208**	**0.005**	ug/L	0.000	6	405	878	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 23:33:04
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	49966	2	Standard
	Cl	**37**		ug/L			11457090	9757310	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2707196	1	Standard
|	**Cr**	**52**	**-0.020**	ug/L	0.038	191	46408	38394	3	Standard
|	**Cr**	**53**	**-0.000**	ug/L	0.002	456	200	166	3	Standard
⌊	**Mn**	**55**	**0.047**	ug/L	0.002	4	945	2771	2	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	14929	3	KED
|	**Ni**	**60**	**0.020**	ug/L	0.009	43	2	8	35	KED
|	**Ni**	**62**	**0.027**	ug/L	0.024	86	0	1	86	KED
|	**Cu**	**63**	**0.011**	ug/L	0.003	26	3	12	18	KED
|	**Cu**	**65**	**0.004**	ug/L	0.012	276	4	5	86	KED
|	**Zn**	**66**	**0.099**	ug/L	0.059	60	7	14	37	KED
|	**Zn**	**67**	**-0.132**	ug/L	0.081	61	3	0	173	KED
⌊	**As**	**75**	**0.024**	ug/L	0.059	243	8	7	40	KED
	Y	**89**		ug/L			907188	845352	2	Standard
	Kr	**83**		ug/L			61	67	8	Standard
⌈>	**In-1**	**115**		ug/L			3910	3005	0	KED
|	**Cd**	**111**	**0.081**	ug/L	0.073	90	1	4	58	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.000	36	2	1	1	KED
⌈>	**In**	**115**		ug/L			3218354	2701662	2	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	84	60	67	21	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2312945	1	Standard
⌊	**Pb**	**208**	**0.005**	ug/L	0.000	4	405	880	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 23:37:03
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	48541	0	Standard
	Cl	**37**		ug/L			11457090	9324750	0	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2276919	3	Standard
|	**Cr**	**52**	**-0.113**	ug/L	0.035	31	46408	29742	4	Standard
|	**Cr**	**53**	**-0.001**	ug/L	0.002	135	200	138	6	Standard
⌊	**Mn**	**55**	**-0.007**	ug/L	0.000	4	945	405	3	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	14176	1	KED
|	**Ni**	**60**	**0.019**	ug/L	0.011	57	2	7	43	KED
|	**Ni**	**62**	**0.044**	ug/L	0.001	1	0	1		KED
|	**Cu**	**63**	**0.005**	ug/L	0.004	80	3	6	45	KED
|	**Cu**	**65**	**0.003**	ug/L	0.006	197	4	4	49	KED
|	**Zn**	**66**	**0.008**	ug/L	0.028	345	7	6	34	KED
|	**Zn**	**67**	**-0.084**	ug/L	0.082	98	3	1	86	KED
⌊	**As**	**75**	**0.076**	ug/L	0.037	48	8	9	19	KED
	Y	**89**		ug/L			907188	668120	0	Standard
	Kr	**83**		ug/L			61	38	2	Standard
⌈>	**In-1**	**115**		ug/L			3910	2600	3	KED
|	**Cd**	**111**	**0.011**	ug/L	0.018	163	1	1	34	KED
⌊	**Cd**	**114**	**0.018**	ug/L	0.014	76	2	3	34	KED
⌈>	**In**	**115**		ug/L			3218354	2371547	0	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.001	557	60	46	24	Standard
⌈>	**Tb**	**159**		ug/L			2625347	1916468	1	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.000	51	405	320	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 23:41:02
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	49127	1	Standard
	Cl	**37**		ug/L			11457090	9078869	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2149066	6	Standard
|	**Cr**	**52**	**-0.085**	ug/L	0.067	78	46408	28717	1	Standard
|	**Cr**	**53**	**-0.001**	ug/L	0.006	510	200	129	6	Standard
⌊	**Mn**	**55**	**-0.007**	ug/L	0.001	8	945	402	6	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	14395	1	KED
|	**Ni**	**60**	**0.017**	ug/L	0.008	45	2	6	31	KED
|	**Ni**	**62**	**0.072**	ug/L	0.026	35	0	3	34	KED
|	**Cu**	**63**	**0.004**	ug/L	0.000	2	3	5	0	KED
|	**Cu**	**65**	**-0.004**	ug/L	0.005	127	4	1	100	KED
|	**Zn**	**66**	**0.014**	ug/L	0.052	378	7	6	62	KED
|	**Zn**	**67**	**-0.131**	ug/L	0.082	62	3	0	173	KED
⌊	**As**	**75**	**0.074**	ug/L	0.034	45	8	9	15	KED
	Y	**89**		ug/L			907188	639789	3	Standard
	Kr	**83**		ug/L			61	57	17	Standard
⌈>	**In-1**	**115**		ug/L			3910	2408	4	KED
|	**Cd**	**111**	**0.101**	ug/L	0.078	76	1	3	50	KED
⌊	**Cd**	**114**	**-0.005**	ug/L	0.014	296	2	1	90	KED
⌈>	**In**	**115**		ug/L			3218354	2337550	3	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.000	117	60	42	2	Standard
⌈>	**Tb**	**159**		ug/L			2625347	1880463	1	Standard
⌊	**Pb**	**208**	**-0.000**	ug/L	0.000	85	405	265	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 23:45:01
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	46637	2	Standard
	Cl	**37**		ug/L			11457090	8809410	2	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2125975	5	Standard
|	**Cr**	**52**	**-0.062**	ug/L	0.039	62	46408	29053	2	Standard
|	**Cr**	**53**	**-0.003**	ug/L	0.004	172	200	125	13	Standard
⌊	**Mn**	**55**	**-0.008**	ug/L	0.002	23	945	372	10	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	13988	1	KED
|	**Ni**	**60**	**0.007**	ug/L	0.017	262	2	3	132	KED
|	**Ni**	**62**	**0.030**	ug/L	0.026	86	0	1	86	KED
|	**Cu**	**63**	**0.008**	ug/L	0.005	66	3	8	44	KED
|	**Cu**	**65**	**-0.006**	ug/L	0.003	54	4	1	86	KED
|	**Zn**	**66**	**0.047**	ug/L	0.080	168	7	9	69	KED
|	**Zn**	**67**	**-0.082**	ug/L	0.083	101	3	1	86	KED
⌊	**As**	**75**	**0.042**	ug/L	0.028	65	8	8	15	KED
	Y	**89**		ug/L			907188	608891	1	Standard
	Kr	**83**		ug/L			61	55	9	Standard
⌈>	**In-1**	**115**		ug/L			3910	2431	2	KED
|	**Cd**	**111**	**0.027**	ug/L	0.002	7	1	1		KED
⌊	**Cd**	**114**	**-0.004**	ug/L	0.014	338	2	1	86	KED
⌈>	**In**	**115**		ug/L			3218354	2231442	2	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	40	60	50	5	Standard
⌈>	**Tb**	**159**		ug/L			2625347	1833533	1	Standard
⌊	**Pb**	**208**	**-0.000**	ug/L	0.000	382	405	278	5	Standard

INITIAL CALIBRATION DATA

EPA 6020A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00060	Instrument:	ICPMS2
Calibration Date:	06/25/2018 10:57		

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Silver-107, Dissolved	0	0	0.2	20815	10	20491.6	20	21372	50	19907.94	100	18467.1
Chromium-52, Dissolved	0	0	0.5	86134	10	32800.6	20	31900.7	50	29376.1	100	25542.68
Chromium-53, Dissolved	0	0	0.5	3830	10	3546.2	20	3582.25	50	3495.96	100	3404.49
Lead-208, Dissolved	0	0	0.1	46260	10	46024	20	45397.95	50	42926.44	100	38859.84

INITIAL CALIBRATION DATA

EPA 6020A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00060	Instrument:	ICPMS2
Calibration Date:	06/25/2018 10:57		

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Silver-107, Dissolved	16842.27	49.3	0.9980		0.998	
Chromium-52, Dissolved	34292.35	82.2	0.9947		0.998	*
Chromium-53, Dissolved	2976.483	49.2	0.9998		0.998	
Lead-208, Dissolved	36578.04	49.6	0.9969		0.998	*

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6/25/18 **Analyst:** MB **Sequence:** SGFΦ319

Cal 6: BFΦΦCΦ

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ - CAL1	G5639		
		- CAL2	G5695		
		- CAL3	G562Φ		
		- CAL4	G5621		
		- CAL5	G5696		
		- CAL6	G5622		
		- IBL1	–		
		- ICV1	G51Φ3		
		- ICB1	G5639		
		- CCV1	G5696		
		- CCB1	G5639		
		- CRL1	G5695		
		- IFA1	G5699		Cr^{53} ↑
		- IFB1	G5697		Cr^{53} ↑, Zn^{67} ↓
		- HCV1	G57ΦΦ		Ag ↓
	✓	- HCV2	G57Φ1		Zn, Ag, Pb ↓
		- HCV2	–		Ag, Pb
		- IBL2/3	–		
		- CCV2			Cr^{52} ↑
		- CCB2			
		BGFΦ58Φ - BLK1	REN		
		- BS1			
		18FΦ317 - ΦIRE1			
		18FΦ318 - ΦIRE1			

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ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6/25/18 **Analyst:** MB **Sequence:** —

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		18FΦ198-13	REN	2	
		-21		50	
		-22		↓	
		18FΦ313-ΦIREI			
		BGFΦ580-DUP1			
		-MS1	↓		
		SEQ-CCV3			Cr^{52}↑
		-CCB3			
		18FΦ185-Φ3	REN	5	
		-Φ4		10	
		-Φ5		↓	
		-Φ6			
		-Φ8		5	No Cr, Pb
		SEQ-IBL4	—		
		BGFΦ364-DUP2		5	No Cr, Pb
		-MS2		↓	↓
		-MSD2	↓		
		SEQ-IBL5			
		-CCV4			Cr^{52}, Mn, Pb↑, Pb↓
		-CCB4			
	✓	CAL1			
		CCV5			Cr^{52}, Mn↑
		CCB5			
		18FΦ271-Φ1	REN	50	

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ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6/25/18 **Analyst:** MB **Sequence:** —

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		18FΦ198-26	REN	2	
		↓ -45	↓	↓	Mn NR
		18FΦ258-Φ1			
		18FΦ323-Φ1		↓	
		18FΦ198-32			
		-4Φ			Mn NR
		-44			↓
		↓ -46			
		18FΦ265-Φ1	↓	5	
		SEQ-CCV6			Cr^{52} ↑
		↓ -CCB6			
	✓	BGFΦ548-BLK1	REN		Mn > RL, Int. STDs noisy
		-BS1			Mn %R ↑
		-BLK1			Mn > RL
	✓	↓ -BS1			Mn %R ↑
		18FΦ198-68			Mn NR
		↓ -64			↓
		BGFΦ548-DUP1			
		-MS1			
		↓ -MSD1	↓		
		18FΦ198-56	↓		
		SEQ-CCV7			
		↓ -CCB7			
		18FΦ198-23	REN	5	

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ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6/25/18 **Analyst:** MB **Sequence:** _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		18F0198-24	REN	5	
		-27		↓	
		-28		10	
		-29		5	
	✓	-30			Mn >LR
		-36			
		-38		2	
		-39		10	Sc sl. noisy
Add REI		-40 REI		5	Mn only
		SEQ-CCV8			Cr52↑
		-CCB8			
	✓	-CAL1			
		-CCV9			Cr52↑
		-CCB9			
		18F0198-42	REN		
		-43		10	
~~Add REI~~		-44 REI		5	Mn only
Add REI		-45 REI		10	↓
		-46 REI			
		-47			
		-48			
		-49			
		-50		↓	
		-52			

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ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6/25/18 **Analyst:** MB **Sequence:** —

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CCVA			Cr^{52} ↑
		↓ -CCBA			
		18FØ198-54	REN		
		-58	↓		
		-6Ø			
		-62			
		↓ -66			
		18FØ323-Ø1RE1			Cr, Pb, Zn only
		18FØ313-Ø2RE1			Zn only
		-Ø3RE1			↓
		-Ø4RE1			
		-Ø5RE1	↓		
		SEQ-CCVB			
		↓ -CCBB			
		Rinse/DI			
			MB 6/25/18		

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Monday, June 25, 2018 10:57:51
Sample Description:
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\STD Performance Check.mth
Dataset File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\DataSet\Default\STD Performance Check.15219
MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	10793.8	10793.810	130.280	1.2	Standard
	In	114.9	112897.4	112897.359	629.323	0.6	Standard
	U	238.1	59912.6	59912.572	266.388	0.4	Standard
⌈	CeO	155.9	4216.5	0.041	0.001	3.4	Standard
| >	Ce	139.9	103326.3	103326.312	1391.530	1.3	Standard
⌊	Ce++	70.0	2452.5	0.024	0.000	1.2	Standard
	Bkgd	220.0	0.1	0.067	0.091	136.9	Standard

Current Conditions File Data

Current Value	Description
0.96	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-9.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-3.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
0.96	DRC Mode NEB
-10.00	DRC Mode QRO
-3.00	DRC Mode CRO
-7.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-13.00	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
0.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 6/25/2018 10:57:46 AM
End Time: 6/25/2018 11:18:24 AM

STD Performance Check - [Failed]
Obtained Intensity (Be 9): 10793.81
Obtained Intensity (In 115): 112897.36
Obtained Intensity (U 238): 59912.57
Obtained Intensity (Bkgd 220): 0.07
Obtained Formula (Ce++ 70 / Ce 140): 0.024 (=2452.48 / 103326.31)
Obtained Formula (CeO 156 / Ce 140): 0.041 (=4216.49 / 103326.31) - <Target not achieved>

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
0.17 mm	0.05 mm	98370.52

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 0.94
Obtained Intensity (In 115): 91685.28
Obtained Formula (CeO 156 / Ce 140): 0.0233 (=1935.13 / 82915.93)

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.707)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.692)
Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.700)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.698)

QID STD/DRC - Optimum value(s): Correlation Coefficient = 0.991; Intercept = -12.87

KED Mode QID - Optimum value(s): Correlation Coefficient = 1.000; Intercept = -13.27

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 6/25/2018 10:57:46 AM

STD Performance Check
	Optimization Settings:
		Method: STD Performance Check.mth.
		Intensity Criterion: Be 9 > 2000
		Intensity Criterion: In 115 > 40000
		Intensity Criterion: U 238 > 30000
		Intensity Criterion: Bkgd 220 <= 1
		Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
		Formula Criterion: CeO 156 / Ce 140 <= 0.025

	Optimization Results:
	Initial Try
		Obtained Intensity (Be 9): 10793.81
		Obtained Intensity (In 115): 112897.36
		Obtained Intensity (U 238): 59912.57
		Obtained Intensity (Bkgd 220): 0.07
		Obtained Formula (Ce++ 70 / Ce 140): 0.024 (=2452.48 / 103326.31)
		Obtained Formula (CeO 156 / Ce 140): 0.041 (=4216.49 / 103326.31) - <Target not achieved>

		[Failed]
[Failed]

Torch Alignment
	Optimization Settings:
		Method: Torch Alignment.mth.
		Intensity Criterion: In 115 Maximum

	Optimization Results:
		Vertical	Horizontal	Intensity
[Passed]	0.17 mm	0.05 mm	98370.52

Nebulizer Gas Flow STD/KED [NEB]
	Optimization Settings:
		Method: Optimize.mth.
			Initial Try - Start/End/Step: 0.88/1.1/0.02.
		Intensity Criterion: In 115 Maximum
		Formula Criterion: CeO 156 / Ce 140 <= 0.025

	Optimization Results:
	Initial Try

		Obtained Intensity (In 115): 91685.28
		Obtained Formula (CeO 156 / Ce 140): 0.0233 (=1935.13 / 82915.93)
[Passed] Optimum value(s): 0.94

Mass Calibration and Resolution
	Optimization Settings:
		Method: Tuning.mth.
		MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
		Iterations: 6

Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution
Peak height (%) for Res. Opt.: 10

Optimization Results:
Initial Try
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.707)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.692)
Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.700)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.698)
[Passed] Optimum value(s): N/A

QID STD/DRC
Optimization Settings:
Method: QID Calibration.mth.
Initial Try - Start/End/Step: -16/0/0.5.

Optimization Results:
Initial Try

Optimum value(s): Correlation Coefficient = 0.991; Intercept = -12.87

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	33	-13	37801.9
Mg	24	33	-12.5	44079.9
In	115	33	-9	97918.4
Ce	140	33	-7	99138.8
Pb	208	33	-6	34261
U	238	33	-5.5	53106.5

KED Mode QID
Optimization Settings:
Method: QID Calibration.mth.
Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:
Initial Try

Optimum value(s): Correlation Coefficient = 1.000; Intercept = -13.27

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-13	24541.1
Mg	24	41	-12.5	29241.9
In	115	41	-9	71611
Ce	140	41	-8	62134.8
Pb	208	41	-4.5	24440.9
U	238	41	-3.5	56150.1

End Time: 6/25/2018 11:18:24 AM

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Monday, June 25, 2018 11:21:45
Sample Description:
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\STD Performance Check.mth
Dataset File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\DataSet\Default\STD Performance Check.15226
MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	8898.6	8898.571	133.456	1.5	Standard
	In	114.9	93138.7	93138.663	1052.282	1.1	Standard
	U	238.1	51447.9	51447.878	361.142	0.7	Standard
⌈	CeO	155.9	2296.1	0.024	0.002	8.6	Standard
| >	Ce	139.9	96370.0	96370.044	826.556	0.9	Standard
⌊	Ce++	70.0	1234.2	0.013	0.000	3.6	Standard
	Bkgd	220.0	0.1	0.100	0.149	149.1	Standard

Current Conditions File Data

Current Value	Description
0.94	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-9.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-3.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
0.94	DRC Mode NEB
-10.00	DRC Mode QRO
-3.00	DRC Mode CRO
-7.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-13.00	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
0.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 6/25/2018 11:18:36 AM
End Time: 6/25/2018 11:23:50 AM

QID STD/DRC - Optimum value(s): Correlation Coefficient = 0.998; Intercept = -13.31

STD Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9): 8898.57
Obtained Intensity (In 115): 93138.66
Obtained Intensity (U 238): 51447.88
Obtained Intensity (Bkgd 220): 0.10
Obtained Formula (Ce++ 70 / Ce 140): 0.013 (=1234.19 / 96370.04)
Obtained Formula (CeO 156 / Ce 140): 0.024 (=2296.12 / 96370.04)

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 6/25/2018 11:18:36 AM

QID STD/DRC
Optimization Settings:
Method: QID Calibration.mth.
Initial Try - Start/End/Step: -16/0/0.5.

Optimization Results:
Initial Try

Optimum value(s): Correlation Coefficient = 0.998; Intercept = -13.31

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	33	-13	32039.9
Mg	24	33	-12	43939.5
In	115	33	-8.5	98381.6
Ce	140	33	-7.5	95627
Pb	208	33	-6.5	31715.2
U	238	33	-5.5	53732.9

STD Performance Check
Optimization Settings:
Method: STD Performance Check.mth.
Intensity Criterion: Be 9 > 2000
Intensity Criterion: In 115 > 40000
Intensity Criterion: U 238 > 30000
Intensity Criterion: Bkgd 220 <= 1
Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
Formula Criterion: CeO 156 / Ce 140 <= 0.025

Optimization Results:
Initial Try
Obtained Intensity (Be 9): 8898.57
Obtained Intensity (In 115): 93138.66
Obtained Intensity (U 238): 51447.88
Obtained Intensity (Bkgd 220): 0.10
Obtained Formula (Ce++ 70 / Ce 140): 0.013 (=1234.19 / 96370.04)
Obtained Formula (CeO 156 / Ce 140): 0.024 (=2296.12 / 96370.04)

[Passed] Optimum value(s): N/A

End Time: 6/25/2018 11:23:50 AM

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 12:06:11
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				25880	0	Standard
	Cl	**37**		ug/L				6867746	0	Standard
⌈>	**Sc**	**45**		ug/L				1665701	2	Standard
|	**Cr**	**52**		ug/L				28467	1	Standard
|	**Cr**	**53**		ug/L				176	1	Standard
⌊	**Mn**	**55**		ug/L				868	5	Standard
⌈>	**Ge-1**	**72**		ug/L				73509	3	KED
|	**Ni**	**60**		ug/L				59	14	KED
|	**Ni**	**62**		ug/L				7	0	KED
|	**Cu**	**63**		ug/L				125	15	KED
|	**Cu**	**65**		ug/L				57	1	KED
|	**Zn**	**66**		ug/L				259	8	KED
|	**Zn**	**67**		ug/L				44	10	KED
⌊	**As**	**75**		ug/L				4	17	KED
	Y	**89**		ug/L				841263	2	Standard
	Kr	**83**		ug/L				56	11	Standard
⌈>	**In-1**	**115**		ug/L				30919	1	KED
|	**Cd**	**111**		ug/L				1	50	KED
⌊	**Cd**	**114**		ug/L				5	60	KED
⌈>	**In**	**115**		ug/L				1116661	2	Standard
⌊	**Ag**	**107**		ug/L				71	14	Standard
⌈>	**Tb**	**159**		ug/L				1224547	1	Standard
⌊	**Pb**	**208**		ug/L				512	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 12:10:40
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	26748	3	Standard
	Cl	**37**		ug/L			6867746	6871497	0	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1681421	1	Standard
|	**Cr**	**52**	**0.500**	ug/L	0.036	7	28467	43067	1	Standard
|	**Cr**	**53**	**0.500**	ug/L	0.013	2	176	1915	3	Standard
⌊	**Mn**	**55**	**0.500**	ug/L	0.018	3	868	21709	3	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	74554	1	KED
|	**Ni**	**60**	**0.500**	ug/L	0.067	13	59	802	10	KED
|	**Ni**	**62**	**0.500**	ug/L	0.019	3	7	131	5	KED
|	**Cu**	**63**	**0.500**	ug/L	0.016	3	125	2139	3	KED
|	**Cu**	**65**	**0.500**	ug/L	0.023	4	57	994	5	KED
|	**Zn**	**66**	**4.000**	ug/L	0.079	1	259	2035	2	KED
|	**Zn**	**67**	**4.000**	ug/L	0.420	10	44	302	7	KED
⌊	**As**	**75**	**0.200**	ug/L	0.015	7	4	65	7	KED
	Y	**89**		ug/L			841263	840116	2	Standard
	Kr	**83**		ug/L			56	47	17	Standard
⌈>	**In-1**	**115**		ug/L			30919	30222	1	KED
|	**Cd**	**111**	**0.100**	ug/L	0.019	19	1	47	18	KED
⌊	**Cd**	**114**	**0.100**	ug/L	0.018	17	5	108	14	KED
⌈>	**In**	**115**		ug/L			1116661	1094749	4	Standard
⌊	**Ag**	**107**	**0.200**	ug/L	0.012	6	71	4163	2	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1228467	3	Standard
⌊	**Pb**	**208**	**0.100**	ug/L	0.006	5	512	4626	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 12:15:08
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	32775	2	Standard
	Cl	**37**		ug/L			6867746	7204867	0	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1721766	2	Standard
|	**Cr**	**52**	**10.000**	ug/L	0.487	4	28467	328006	2	Standard
|	**Cr**	**53**	**10.000**	ug/L	0.223	2	176	35462	1	Standard
⌊	**Mn**	**55**	**10.000**	ug/L	0.495	4	868	427454	2	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	75314	1	KED
|	**Ni**	**60**	**10.001**	ug/L	0.442	4	59	15534	3	KED
|	**Ni**	**62**	**10.000**	ug/L	0.441	4	7	2459	3	KED
|	**Cu**	**63**	**10.001**	ug/L	0.156	1	125	41971	2	KED
|	**Cu**	**65**	**10.001**	ug/L	0.137	1	57	20061	1	KED
|	**Zn**	**66**	**10.142**	ug/L	0.201	1	259	5248	2	KED
|	**Zn**	**67**	**10.238**	ug/L	0.321	3	44	827	3	KED
⌊	**As**	**75**	**10.000**	ug/L	0.049	0	4	3099	0	KED
	Y	**89**		ug/L			841263	876702	2	Standard
	Kr	**83**		ug/L			56	61	31	Standard
⌈>	**In-1**	**115**		ug/L			30919	30735	0	KED
|	**Cd**	**111**	**10.000**	ug/L	0.153	1	1	4063	0	KED
⌊	**Cd**	**114**	**10.000**	ug/L	0.361	3	5	10430	3	KED
⌈>	**In**	**115**		ug/L			1116661	1154581	2	Standard
⌊	**Ag**	**107**	**10.000**	ug/L	0.437	4	71	204916	2	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1273471	2	Standard
⌊	**Pb**	**208**	**10.000**	ug/L	0.216	2	512	460240	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 12:19:50
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	30392	0	Standard
	Cl	**37**		ug/L			6867746	7437107	0	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1741175	1	Standard
|	**Cr**	**52**	**20.026**	ug/L	0.202	1	28467	638014	0	Standard
|	**Cr**	**53**	**20.005**	ug/L	0.546	2	176	71645	1	Standard
⌊	**Mn**	**55**	**20.010**	ug/L	0.013	0	868	866354	1	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	74815	0	KED
|	**Ni**	**60**	**20.025**	ug/L	0.492	2	59	31005	2	KED
|	**Ni**	**62**	**19.995**	ug/L	0.151	0	7	4873	1	KED
|	**Cu**	**63**	**20.053**	ug/L	0.226	1	125	84355	0	KED
|	**Cu**	**65**	**20.003**	ug/L	0.187	0	57	39823	0	KED
|	**Zn**	**66**	**20.045**	ug/L	0.006	0	259	10124	0	KED
|	**Zn**	**67**	**20.350**	ug/L	0.387	1	44	1688	1	KED
⌊	**As**	**75**	**20.082**	ug/L	0.359	1	4	6282	1	KED
	Y	**89**		ug/L			841263	880128	1	Standard
	Kr	**83**		ug/L			56	52	31	Standard
⌈>	**In-1**	**115**		ug/L			30919	30677	2	KED
|	**Cd**	**111**	**20.043**	ug/L	1.079	5	1	8190	2	KED
⌊	**Cd**	**114**	**19.986**	ug/L	1.010	5	5	20727	2	KED
⌈>	**In**	**115**		ug/L			1116661	1149113	2	Standard
⌊	**Ag**	**107**	**20.184**	ug/L	0.454	2	71	427440	1	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1266433	2	Standard
⌊	**Pb**	**208**	**19.970**	ug/L	0.588	2	512	907959	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 12:24:42
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	24225	0	Standard
	Cl	**37**		ug/L			6867746	7478065	0	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1742418	1	Standard
|	**Cr**	**52**	**49.538**	ug/L	1.581	3	28467	1468805	2	Standard
|	**Cr**	**53**	**49.803**	ug/L	0.624	1	176	174798	1	Standard
⌊	**Mn**	**55**	**48.816**	ug/L	2.567	5	868	1889407	4	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	70465	6	KED
|	**Ni**	**60**	**49.793**	ug/L	4.164	8	59	70811	2	KED
|	**Ni**	**62**	**50.088**	ug/L	1.651	3	7	11573	3	KED
|	**Cu**	**63**	**49.931**	ug/L	2.631	5	125	195877	1	KED
|	**Cu**	**65**	**50.090**	ug/L	2.675	5	57	94477	1	KED
|	**Zn**	**66**	**50.023**	ug/L	2.234	4	259	23431	2	KED
|	**Zn**	**67**	**50.143**	ug/L	2.715	5	44	3902	1	KED
⌊	**As**	**75**	**50.151**	ug/L	2.628	5	4	14963	1	KED
	Y	**89**		ug/L			841263	893261	1	Standard
	Kr	**83**		ug/L			56	64	8	Standard
⌈>	**In-1**	**115**		ug/L			30919	29238	1	KED
|	**Cd**	**111**	**50.150**	ug/L	0.105	0	1	19846	1	KED
⌊	**Cd**	**114**	**50.207**	ug/L	1.587	3	5	50696	1	KED
⌈>	**In**	**115**		ug/L			1116661	1128563	1	Standard
⌊	**Ag**	**107**	**49.630**	ug/L	1.381	2	71	995397	2	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1270581	2	Standard
⌊	**Pb**	**208**	**49.485**	ug/L	1.119	2	512	2146322	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 12:31:14
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	28442	1	Standard
	Cl	**37**		ug/L			6867746	7449066	0	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1709886	0	Standard
|	**Cr**	**52**	**97.104**	ug/L	1.161	1	28467	2554268	1	Standard
|	**Cr**	**53**	**99.741**	ug/L	1.760	1	176	340449	2	Standard
⌊	**Mn**	**55**	**98.340**	ug/L	1.818	1	868	3539517	1	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	70887	2	KED
|	**Ni**	**60**	**99.522**	ug/L	1.363	1	59	140533	1	KED
|	**Ni**	**62**	**99.197**	ug/L	0.866	0	7	22477	1	KED
|	**Cu**	**63**	**98.242**	ug/L	1.962	1	125	366822	1	KED
|	**Cu**	**65**	**98.671**	ug/L	1.966	1	57	179571	1	KED
|	**Zn**	**66**	**99.044**	ug/L	2.465	2	259	45072	0	KED
|	**Zn**	**67**	**99.409**	ug/L	2.813	2	44	7605	1	KED
⌊	**As**	**75**	**98.842**	ug/L	2.494	2	4	28610	0	KED
	Y	**89**		ug/L			841263	864661	0	Standard
	Kr	**83**		ug/L			56	94	12	Standard
⌈>	**In-1**	**115**		ug/L			30919	29731	2	KED
|	**Cd**	**111**	**98.691**	ug/L	1.922	1	1	38042	1	KED
⌊	**Cd**	**114**	**98.616**	ug/L	3.271	3	5	96773	0	KED
⌈>	**In**	**115**		ug/L			1116661	1101917	1	Standard
⌊	**Ag**	**107**	**98.622**	ug/L	2.474	2	71	1846710	2	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1232091	1	Standard
⌊	**Pb**	**208**	**98.137**	ug/L	2.743	2	512	3885984	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 12:38:27
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	25083	1	Standard
	Cl	**37**		ug/L			6867746	7318019	1	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1763891	2	Standard
|	**Cr**	**52**	**0.016**	ug/L	0.031	198	28467	30563	2	Standard
|	**Cr**	**53**	**0.006**	ug/L	0.002	32	176	209	4	Standard
⌊	**Mn**	**55**	**0.003**	ug/L	0.001	27	868	1033	1	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	74807	4	KED
|	**Ni**	**60**	**0.003**	ug/L	0.010	380	59	64	24	KED
|	**Ni**	**62**	**0.002**	ug/L	0.013	578	7	8	35	KED
|	**Cu**	**63**	**0.011**	ug/L	0.002	15	125	169	1	KED
|	**Cu**	**65**	**0.006**	ug/L	0.008	131	57	71	26	KED
|	**Zn**	**66**	**0.158**	ug/L	0.071	45	259	338	7	KED
|	**Zn**	**67**	**0.000**	ug/L	0.078	145325	44	45	10	KED
⌊	**As**	**75**	**0.002**	ug/L	0.003	138	4	5	13	KED
	Y	**89**		ug/L			841263	889034	1	Standard
	Kr	**83**		ug/L			56	63	11	Standard
⌈>	**In-1**	**115**		ug/L			30919	31057	2	KED
|	**Cd**	**111**	**0.008**	ug/L	0.003	43	1	5	28	KED
⌊	**Cd**	**114**	**-0.003**	ug/L	0.002	79	5	2	73	KED
⌈>	**In**	**115**		ug/L			1116661	1159645	0	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	54	71	97	12	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1243923	2	Standard
⌊	**Pb**	**208**	**0.003**	ug/L	0.001	38	512	655	7	Standard

Sample Information

Sample Date/Time: Monday, June 25, 2018 12:31:14
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_C
Mass Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

Calibration

Analyte	Mass	**r Corr Coef**	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Sc	45							
Cr	52	**0.9985**	0.015	0.50	10	20	50	100
Cr	53	**1.0000**	0.002	0.50	10	20	50	100
Mn	55	**0.9992**	0.021	0.50	10	20	50	100
Ge-1	72							
Ni	60	**1.0000**	0.020	0.50	10	20	50	100
Ni	62	**0.9999**	0.003	0.50	10	20	50	100
Cu	63	**0.9995**	0.053	0.50	10	20	50	100
Cu	65	**0.9997**	0.026	0.50	10	20	50	100
Zn	66	**0.9998**	0.006	4.00	10	20	50	100
Zn	67	**0.9999**	0.001	4.00	10	20	50	100
As	75	**0.9998**	0.004	0.20	10	20	50	100
Y	89							
Kr	83							
In-1	115							
Cd	111	**0.9997**	0.013	0.10	10	20	50	100
Cd	114	**0.9997**	0.033	0.10	10	20	50	100
In	115							
Ag	107	**0.9996**	0.017	0.20	10	20	50	100
Tb	159							
Pb	208	**0.9994**	0.032	0.10	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICV1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 12:47:38
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	27806	1	Standard
	Cl	**37**		ug/L			6867746	7513685	2	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1769935	0	Standard
|	**Cr**	**52**	**54.518**	ug/L	0.768	1	28467	1497588	0	Standard
|	**Cr**	**53**	**50.076**	ug/L	0.182	0	176	177006	0	Standard
⌊	**Mn**	**55**	**50.547**	ug/L	1.093	2	868	1883646	1	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	72583	1	KED
|	**Ni**	**60**	**50.612**	ug/L	0.192	0	59	73226	1	KED
|	**Ni**	**62**	**50.346**	ug/L	0.761	1	7	11687	2	KED
|	**Cu**	**63**	**50.924**	ug/L	1.797	3	125	194804	3	KED
|	**Cu**	**65**	**51.186**	ug/L	1.439	2	57	95417	1	KED
|	**Zn**	**66**	**48.666**	ug/L	1.092	2	259	22812	0	KED
|	**Zn**	**67**	**46.814**	ug/L	0.690	1	44	3691	0	KED
⌊	**As**	**75**	**50.267**	ug/L	1.487	2	4	14904	1	KED
	Y	**89**		ug/L			841263	863522	1	Standard
	Kr	**83**		ug/L			56	67	21	Standard
⌈>	**In-1**	**115**		ug/L			30919	29973	1	KED
|	**Cd**	**111**	**50.283**	ug/L	0.990	1	1	19544	1	KED
⌊	**Cd**	**114**	**49.886**	ug/L	0.365	0	5	49383	1	KED
⌈>	**In**	**115**		ug/L			1116661	1106166	2	Standard
⌊	**Ag**	**107**	**52.097**	ug/L	1.598	3	71	978820	0	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1224607	1	Standard
⌊	**Pb**	**208**	**55.055**	ug/L	1.402	2	512	2167027	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICB1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 12:54:50
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	24991	3	Standard
	Cl	**37**		ug/L			6867746	7325165	1	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1755030	0	Standard
|	**Cr**	**52**	**0.006**	ug/L	0.012	194	28467	30156	0	Standard
|	**Cr**	**53**	**0.003**	ug/L	0.002	63	176	196	4	Standard
⌊	**Mn**	**55**	**0.003**	ug/L	0.001	31	868	1043	4	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	75005	2	KED
|	**Ni**	**60**	**0.002**	ug/L	0.008	431	59	62	16	KED
|	**Ni**	**62**	**0.015**	ug/L	0.028	184	7	11	60	KED
|	**Cu**	**63**	**0.008**	ug/L	0.007	91	125	158	18	KED
|	**Cu**	**65**	**0.005**	ug/L	0.004	69	57	69	9	KED
|	**Zn**	**66**	**0.157**	ug/L	0.012	7	259	339	3	KED
|	**Zn**	**67**	**-0.013**	ug/L	0.135	1072	44	44	25	KED
⌊	**As**	**75**	**0.001**	ug/L	0.001	162	4	5	5	KED
	Y	**89**		ug/L			841263	880592	3	Standard
	Kr	**83**		ug/L			56	60	27	Standard
⌈>	**In-1**	**115**		ug/L			30919	30352	1	KED
|	**Cd**	**111**	**0.004**	ug/L	0.002	36	1	3	15	KED
⌊	**Cd**	**114**	**0.000**	ug/L	0.003	6564	5	5	62	KED
⌈>	**In**	**115**		ug/L			1116661	1150995	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	83	71	101	22	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1210360	2	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.001	24	512	593	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 12:59:35
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	23525	2	Standard
	Cl	**37**		ug/L			6867746	7579673	1	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1748640	1	Standard
|	**Cr**	**52**	**54.607**	ug/L	0.681	1	28467	1481936	0	Standard
|	**Cr**	**53**	**50.544**	ug/L	0.637	1	176	176493	0	Standard
⌊	**Mn**	**55**	**50.038**	ug/L	0.673	1	868	1842260	0	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	72438	2	KED
|	**Ni**	**60**	**50.418**	ug/L	0.178	0	59	72795	2	KED
|	**Ni**	**62**	**49.792**	ug/L	1.093	2	7	11531	1	KED
|	**Cu**	**63**	**50.928**	ug/L	1.056	2	125	194388	1	KED
|	**Cu**	**65**	**50.660**	ug/L	1.446	2	57	94229	1	KED
|	**Zn**	**66**	**50.791**	ug/L	1.069	2	259	23746	1	KED
|	**Zn**	**67**	**49.929**	ug/L	1.949	3	44	3926	3	KED
⌊	**As**	**75**	**50.419**	ug/L	0.683	1	4	14919	1	KED
	Y	**89**		ug/L			841263	879868	1	Standard
	Kr	**83**		ug/L			56	74	5	Standard
⌈>	**In-1**	**115**		ug/L			30919	29619	1	KED
|	**Cd**	**111**	**51.241**	ug/L	0.735	1	1	19682	1	KED
⌊	**Cd**	**114**	**50.799**	ug/L	0.679	1	5	49688	1	KED
⌈>	**In**	**115**		ug/L			1116661	1133145	1	Standard
⌊	**Ag**	**107**	**50.976**	ug/L	2.825	5	71	981485	5	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1228034	2	Standard
⌊	**Pb**	**208**	**54.686**	ug/L	2.314	4	512	2157619	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 13:06:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	24931	3	Standard
	Cl	**37**		ug/L			6867746	7344025	0	Standard
⎡>	**Sc**	**45**		ug/L			1665701	1739843	0	Standard
⎢	**Cr**	**52**	**0.004**	ug/L	0.040	913	28467	29847	3	Standard
⎢	**Cr**	**53**	**0.010**	ug/L	0.008	76	176	220	12	Standard
⎣	**Mn**	**55**	**0.007**	ug/L	0.008	106	868	1173	24	Standard
⎡>	**Ge-1**	**72**		ug/L			73509	73721	2	KED
⎢	**Ni**	**60**	**-0.002**	ug/L	0.012	528	59	55	31	KED
⎢	**Ni**	**62**	**0.005**	ug/L	0.016	310	7	8	44	KED
⎢	**Cu**	**63**	**0.007**	ug/L	0.005	73	125	153	13	KED
⎢	**Cu**	**65**	**0.011**	ug/L	0.003	29	57	78	8	KED
⎢	**Zn**	**66**	**0.175**	ug/L	0.065	37	259	342	8	KED
⎢	**Zn**	**67**	**0.016**	ug/L	0.078	495	44	45	11	KED
⎣	**As**	**75**	**-0.002**	ug/L	0.004	227	4	4	29	KED
	Y	**89**		ug/L			841263	885304	1	Standard
	Kr	**83**		ug/L			56	48	4	Standard
⎡>	**In-1**	**115**		ug/L			30919	30222	2	KED
⎢	**Cd**	**111**	**0.011**	ug/L	0.007	69	1	6	48	KED
⎣	**Cd**	**114**	**-0.001**	ug/L	0.001	175	5	4	20	KED
⎡>	**In**	**115**		ug/L			1116661	1164437	2	Standard
⎣	**Ag**	**107**	**0.004**	ug/L	0.006	133	71	159	71	Standard
⎡>	**Tb**	**159**		ug/L			1224547	1224745	4	Standard
⎣	**Pb**	**208**	**0.006**	ug/L	0.009	148	512	756	47	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CRL1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 13:13:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	26254	1	Standard
	Cl	**37**		ug/L			6867746	7323064	1	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1758816	0	Standard
|	**Cr**	**52**	**0.523**	ug/L	0.022	4	28467	44059	1	Standard
|	**Cr**	**53**	**0.493**	ug/L	0.027	5	176	1917	4	Standard
⌊	**Mn**	**55**	**0.578**	ug/L	0.013	2	868	22297	1	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	73123	1	KED
|	**Ni**	**60**	**0.472**	ug/L	0.029	6	59	746	4	KED
|	**Ni**	**62**	**0.521**	ug/L	0.064	12	7	129	12	KED
|	**Cu**	**63**	**0.506**	ug/L	0.002	0	125	2075	1	KED
|	**Cu**	**65**	**0.509**	ug/L	0.016	3	57	1013	2	KED
|	**Zn**	**66**	**3.665**	ug/L	0.086	2	259	1969	3	KED
|	**Zn**	**67**	**3.230**	ug/L	0.036	1	44	297	0	KED
⌊	**As**	**75**	**0.220**	ug/L	0.015	6	4	70	7	KED
	Y	**89**		ug/L			841263	884265	1	Standard
	Kr	**83**		ug/L			56	50	26	Standard
⌈>	**In-1**	**115**		ug/L			30919	29905	4	KED
|	**Cd**	**111**	**0.098**	ug/L	0.013	12	1	39	7	KED
⌊	**Cd**	**114**	**0.110**	ug/L	0.006	5	5	113	4	KED
⌈>	**In**	**115**		ug/L			1116661	1121765	0	Standard
⌊	**Ag**	**107**	**0.216**	ug/L	0.007	3	71	4194	3	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1217669	2	Standard
⌊	**Pb**	**208**	**0.107**	ug/L	0.003	3	512	4679	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFA1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 13:18:40
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	148969	2	Standard
	Cl	**37**		ug/L			6867746	15034712	3	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1744033	1	Standard
|	**Cr**	**52**	**0.608**	ug/L	0.015	2	28467	45924	1	Standard
|	**Cr**	**53**	**4.333**	ug/L	0.071	1	176	15263	2	Standard
⌊	**Mn**	**55**	**0.063**	ug/L	0.001	1	868	3211	2	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	70432	0	KED
|	**Ni**	**60**	**0.011**	ug/L	0.005	41	59	72	9	KED
|	**Ni**	**62**	**0.111**	ug/L	0.017	15	7	32	11	KED
|	**Cu**	**63**	**0.012**	ug/L	0.003	21	125	165	6	KED
|	**Cu**	**65**	**0.022**	ug/L	0.004	18	57	95	8	KED
|	**Zn**	**66**	**-0.259**	ug/L	0.046	17	259	131	15	KED
|	**Zn**	**67**	**-0.303**	ug/L	0.037	12	44	19	14	KED
⌊	**As**	**75**	**0.027**	ug/L	0.005	16	4	12	10	KED
	Y	**89**		ug/L			841263	840014	1	Standard
	Kr	**83**		ug/L			56	177	7	Standard
⌈>	**In-1**	**115**		ug/L			30919	28751	1	KED
|	**Cd**	**111**	**0.126**	ug/L	0.015	12	1	48	12	KED
⌊	**Cd**	**114**	**0.084**	ug/L	0.016	19	5	84	18	KED
⌈>	**In**	**115**		ug/L			1116661	1141405	3	Standard
⌊	**Ag**	**107**	**0.010**	ug/L	0.001	7	71	267	2	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1322738	0	Standard
⌊	**Pb**	**208**	**0.012**	ug/L	0.001	10	512	1045	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFB1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 13:23:08
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	149292	4	Standard
	Cl	**37**		ug/L			6867746	14715071	1	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1695727	3	Standard
|	**Cr**	**52**	**22.739**	ug/L	0.623	2	28467	615040	0	Standard
|	**Cr**	**53**	**24.844**	ug/L	1.674	6	176	84105	3	Standard
⌊	**Mn**	**55**	**22.661**	ug/L	0.606	2	868	809156	0	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	73372	2	KED
|	**Ni**	**60**	**19.560**	ug/L	0.488	2	59	28633	0	KED
|	**Ni**	**62**	**19.908**	ug/L	0.677	3	7	4673	1	KED
|	**Cu**	**63**	**19.668**	ug/L	0.291	1	125	76122	0	KED
|	**Cu**	**65**	**19.756**	ug/L	0.063	0	57	37271	1	KED
|	**Zn**	**66**	**17.948**	ug/L	0.631	3	259	8666	2	KED
|	**Zn**	**67**	**15.984**	ug/L	0.881	5	44	1302	4	KED
⌊	**As**	**75**	**19.665**	ug/L	0.487	2	4	5896	0	KED
	Y	**89**		ug/L			841263	857163	1	Standard
	Kr	**83**		ug/L			56	172	6	Standard
⌈>	**In-1**	**115**		ug/L			30919	30954	1	KED
|	**Cd**	**111**	**19.232**	ug/L	0.085	0	1	7721	1	KED
⌊	**Cd**	**114**	**19.018**	ug/L	0.271	1	5	19442	0	KED
⌈>	**In**	**115**		ug/L			1116661	1139987	1	Standard
⌊	**Ag**	**107**	**19.000**	ug/L	0.550	2	71	368091	2	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1353475	1	Standard
⌊	**Pb**	**208**	**0.014**	ug/L	0.001	5	512	1156	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 13:30:55
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	28167	1	Standard
	Cl	**37**		ug/L			6867746	7723448	1	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1749575	1	Standard
|	**Cr**	**52**	**192.466**	ug/L	0.603	0	28467	5150738	1	Standard
|	**Cr**	**53**	**198.941**	ug/L	0.933	0	176	694610	2	Standard
⌊	**Mn**	**55**	**196.668**	ug/L	0.622	0	868	7242951	2	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	74069	1	KED
|	**Ni**	**60**	**200.630**	ug/L	7.092	3	59	295961	2	KED
|	**Ni**	**62**	**197.649**	ug/L	4.122	2	7	46787	0	KED
|	**Cu**	**63**	**193.610**	ug/L	2.903	1	125	755401	0	KED
|	**Cu**	**65**	**198.122**	ug/L	7.189	3	57	376691	2	KED
|	**Zn**	**66**	**196.652**	ug/L	3.608	1	259	93282	1	KED
|	**Zn**	**67**	**186.273**	ug/L	7.564	4	44	14854	2	KED
⌊	**As**	**75**	**202.229**	ug/L	4.908	2	4	61174	1	KED
	Y	**89**		ug/L			841263	851798	1	Standard
	Kr	**83**		ug/L			56	173	7	Standard
⌈>	**In-1**	**115**		ug/L			30919	30391	2	KED
|	**Cd**	**111**	**195.825**	ug/L	3.800	1	1	77158	0	KED
⌊	**Cd**	**114**	**197.070**	ug/L	3.828	1	5	197763	2	KED
⌈>	**In**	**115**		ug/L			1116661	1141994	0	Standard
⌊	**Ag**	**107**	**170.316**	ug/L	2.582	1	71	3305555	2	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1316334	1	Standard
⌊	**Pb**	**208**	**185.515**	ug/L	2.771	1	512	7849229	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 13:35:23

DEL

Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	28894	3	Standard
	Cl	**37**		ug/L			6867746	7602784	1	Standard
>	**Sc**	**45**		ug/L			1665701	1720369	2	Standard
	Cr	**52**	**287.255**	ug/L	6.222	2	28467	7542750	1	Standard
	Cr	**53**	**293.977**	ug/L	7.679	2	176	1008846	1	Standard
	Mn	**55**	**291.774**	ug/L	11.492	3	868	10559309	1	Standard
>	**Ge-1**	**72**		ug/L			73509	71739	0	KED
	Ni	**60**	**282.622**	ug/L	5.400	1	59	403839	1	KED
	Ni	**62**	**280.199**	ug/L	3.499	1	7	64247	0	KED
	Cu	**63**	**278.181**	ug/L	0.198	0	125	1051320	1	KED
	Cu	**65**	**275.171**	ug/L	4.743	1	57	506867	1	KED
	Zn	**66**	**269.291**	ug/L	4.477	1	259	123634	1	KED
	Zn	**67**	**266.698**	ug/L	5.432	2	44	20584	1	KED
	As	**75**	**292.781**	ug/L	1.570	0	4	85794	0	KED
	Y	**89**		ug/L			841263	848732	0	Standard
	Kr	**83**		ug/L			56	226	5	Standard
>	**In-1**	**115**		ug/L			30919	28645	1	KED
	Cd	**111**	**291.205**	ug/L	3.970	1	1	108168	0	KED
	Cd	**114**	**286.964**	ug/L	9.888	3	5	271424	3	KED
>	**In**	**115**		ug/L			1116661	1078984	0	Standard
	Ag	**107**	**261.780**	ug/L	9.434	3	71	4798863	2	Standard
>	**Tb**	**159**		ug/L			1224547	1277029	0	Standard
	Pb	**208**	**259.179**	ug/L	7.847	3	512	10637903	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 13:46:34
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	25686	2	Standard
	Cl	**37**		ug/L			6867746	7746340	1	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1691538	1	Standard
|	**Cr**	**52**	**293.640**	ug/L	10.220	3	28467	7579328	1	Standard
|	**Cr**	**53**	**295.688**	ug/L	6.372	2	176	997805	1	Standard
⌊	**Mn**	**55**	**300.528**	ug/L	8.022	2	868	10696875	1	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	68918	1	KED
|	**Ni**	**60**	**294.391**	ug/L	6.578	2	59	404090	1	KED
|	**Ni**	**62**	**298.541**	ug/L	5.699	1	7	65758	1	KED
|	**Cu**	**63**	**285.032**	ug/L	0.603	0	125	1034852	1	KED
|	**Cu**	**65**	**288.086**	ug/L	5.036	1	57	509750	1	KED
|	**Zn**	**66**	**283.478**	ug/L	4.935	1	259	125017	1	KED
|	**Zn**	**67**	**274.400**	ug/L	3.217	1	44	20349	2	KED
⌊	**As**	**75**	**308.797**	ug/L	1.059	0	4	86933	1	KED
	Y	**89**		ug/L			841263	860990	1	Standard
	Kr	**83**		ug/L			56	239	10	Standard
⌈>	**In-1**	**115**		ug/L			30919	28583	1	KED
|	**Cd**	**111**	**288.607**	ug/L	3.815	1	1	106971	1	KED
⌊	**Cd**	**114**	**286.178**	ug/L	5.272	1	5	270087	1	KED
⌈>	**In**	**115**		ug/L			1116661	1064430	1	Standard
⌊	**Ag**	**107**	**256.802**	ug/L	1.527	0	71	4645055	1	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1213839	2	Standard
⌊	**Pb**	**208**	**268.012**	ug/L	5.737	2	512	10454622	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 13:53:45
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	28315	1	Standard
	Cl	**37**		ug/L			6867746	7943044	0	Standard
⎡>	**Sc**	**45**		ug/L			1665701	1770708	1	Standard
⎢	**Cr**	**52**	**0.106**	ug/L	0.093	87	28467	33129	8	Standard
⎢	**Cr**	**53**	**0.062**	ug/L	0.092	147	176	409	80	Standard
⎣	**Mn**	**55**	**0.049**	ug/L	0.078	158	868	2780	106	Standard
⎡>	**Ge-1**	**72**		ug/L			73509	77893	1	KED
⎢	**Ni**	**60**	**-0.007**	ug/L	0.039	560	59	51	115	KED
⎢	**Ni**	**62**	**0.021**	ug/L	0.028	132	7	13	51	KED
⎢	**Cu**	**63**	**0.009**	ug/L	0.044	487	125	168	104	KED
⎢	**Cu**	**65**	**0.006**	ug/L	0.038	590	57	73	102	KED
⎢	**Zn**	**66**	**-0.286**	ug/L	0.066	23	259	132	23	KED
⎢	**Zn**	**67**	**-0.357**	ug/L	0.129	36	44	17	61	KED
⎣	**As**	**75**	**0.027**	ug/L	0.030	112	4	13	69	KED
	Y	**89**		ug/L			841263	926022	3	Standard
	Kr	**83**		ug/L			56	56	9	Standard
⎡>	**In-1**	**115**		ug/L			30919	32108	1	KED
⎢	**Cd**	**111**	**0.007**	ug/L	0.007	93	1	5	57	KED
⎣	**Cd**	**114**	**0.005**	ug/L	0.005	101	5	11	50	KED
⎡>	**In**	**115**		ug/L			1116661	1187271	3	Standard
⎣	**Ag**	**107**	**0.043**	ug/L	0.062	144	71	920	131	Standard
⎡>	**Tb**	**159**		ug/L			1224547	1242604	3	Standard
⎣	**Pb**	**208**	**0.034**	ug/L	0.057	169	512	1815	120	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 14:00:09
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	27674	2	Standard
	Cl	**37**		ug/L			6867746	7814758	1	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1796453	2	Standard
|	**Cr**	**52**	**0.015**	ug/L	0.072	477	28467	31089	4	Standard
|	**Cr**	**53**	**0.008**	ug/L	0.003	37	176	220	3	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.001	110	868	973	3	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	77401	0	KED
|	**Ni**	**60**	**-0.018**	ug/L	0.010	55	59	34	42	KED
|	**Ni**	**62**	**-0.002**	ug/L	0.023	1477	7	7	75	KED
|	**Cu**	**63**	**-0.010**	ug/L	0.007	75	125	93	30	KED
|	**Cu**	**65**	**-0.005**	ug/L	0.010	212	57	51	37	KED
|	**Zn**	**66**	**-0.130**	ug/L	0.051	39	259	208	12	KED
|	**Zn**	**67**	**-0.257**	ug/L	0.141	54	44	25	45	KED
⌊	**As**	**75**	**0.005**	ug/L	0.013	250	4	6	61	KED
	Y	**89**		ug/L			841263	896367	2	Standard
	Kr	**83**		ug/L			56	58	32	Standard
⌈>	**In-1**	**115**		ug/L			30919	31960	3	KED
|	**Cd**	**111**	**0.007**	ug/L	0.006	90	1	4	52	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.002	108	5	7	24	KED
⌈>	**In**	**115**		ug/L			1116661	1187589	1	Standard
⌊	**Ag**	**107**	**0.003**	ug/L	0.001	25	71	140	10	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1253332	2	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.001	234	512	547	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 14:06:32
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	24096	2	Standard
	Cl	**37**		ug/L			6867746	7982806	0	Standard
>	**Sc**	**45**		ug/L			1665701	1742523	1	Standard
	Cr	**52**	**58.216**	ug/L	0.815	1	28467	1572278	0	Standard
	Cr	**53**	**52.514**	ug/L	1.424	2	176	182694	1	Standard
	Mn	**55**	**54.215**	ug/L	1.454	2	868	1988859	2	Standard
>	**Ge-1**	**72**		ug/L			73509	78209	1	KED
	Ni	**60**	**48.978**	ug/L	0.452	0	59	76360	2	KED
	Ni	**62**	**47.951**	ug/L	1.181	2	7	11994	3	KED
	Cu	**63**	**49.191**	ug/L	0.979	1	125	202741	0	KED
	Cu	**65**	**49.681**	ug/L	0.347	0	57	99822	2	KED
	Zn	**66**	**49.397**	ug/L	1.111	2	259	24944	0	KED
	Zn	**67**	**47.356**	ug/L	1.947	4	44	4023	3	KED
	As	**75**	**50.062**	ug/L	0.273	0	4	15998	2	KED
	Y	**89**		ug/L			841263	914617	3	Standard
	Kr	**83**		ug/L			56	62	16	Standard
>	**In-1**	**115**		ug/L			30919	31021	2	KED
	Cd	**111**	**50.466**	ug/L	0.687	1	1	20300	1	KED
	Cd	**114**	**50.415**	ug/L	1.330	2	5	51629	0	KED
>	**In**	**115**		ug/L			1116661	1157970	2	Standard
	Ag	**107**	**50.735**	ug/L	0.629	1	71	998237	2	Standard
>	**Tb**	**159**		ug/L			1224547	1247396	1	Standard
	Pb	**208**	**54.174**	ug/L	1.345	2	512	2172133	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 14:13:44
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	23770	3	Standard
	Cl	**37**		ug/L			6867746	8026744	1	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1761452	4	Standard
|	**Cr**	**52**	**0.046**	ug/L	0.056	122	28467	31291	2	Standard
|	**Cr**	**53**	**0.012**	ug/L	0.012	104	176	226	17	Standard
⌊	**Mn**	**55**	**0.012**	ug/L	0.011	93	868	1341	25	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	80256	4	KED
|	**Ni**	**60**	**-0.001**	ug/L	0.002	165	59	62	0	KED
|	**Ni**	**62**	**0.010**	ug/L	0.018	181	7	10	40	KED
|	**Cu**	**63**	**0.008**	ug/L	0.002	32	125	168	2	KED
|	**Cu**	**65**	**0.006**	ug/L	0.001	20	57	75	7	KED
|	**Zn**	**66**	**0.132**	ug/L	0.045	34	259	349	3	KED
|	**Zn**	**67**	**-0.037**	ug/L	0.124	334	44	45	19	KED
⌊	**As**	**75**	**0.004**	ug/L	0.007	153	4	6	37	KED
	Y	**89**		ug/L			841263	884173	2	Standard
	Kr	**83**		ug/L			56	65	14	Standard
⌈>	**In-1**	**115**		ug/L			30919	32460	3	KED
|	**Cd**	**111**	**0.011**	ug/L	0.006	51	1	6	37	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.002	228	5	6	31	KED
⌈>	**In**	**115**		ug/L			1116661	1221014	0	Standard
⌊	**Ag**	**107**	**0.005**	ug/L	0.007	134	71	185	77	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1220682	3	Standard
⌊	**Pb**	**208**	**0.010**	ug/L	0.014	140	512	904	58	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0580-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 14:20:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25880	33717	2	Standard
	Cl	37		ug/L			6867746	7937535	2	Standard
⌈>	Sc	45		ug/L			1665701	1805863	1	Standard
|	Cr	52	0.078	ug/L	0.024	31	28467	33003	1	Standard
|	Cr	53	0.019	ug/L	0.001	2	176	261	2	Standard
⌊	Mn	55	0.300	ug/L	0.006	2	868	12338	1	Standard
⌈>	Ge-1	72		ug/L			73509	79055	2	KED
|	Ni	60	0.031	ug/L	0.004	12	59	111	4	KED
|	Ni	62	0.058	ug/L	0.020	33	7	22	22	KED
|	Cu	63	0.097	ug/L	0.009	9	125	539	5	KED
|	Cu	65	0.100	ug/L	0.012	12	57	264	8	KED
|	Zn	66	0.152	ug/L	0.059	38	259	354	7	KED
|	Zn	67	0.275	ug/L	0.026	9	44	71	4	KED
⌊	As	75	0.003	ug/L	0.005	172	4	6	24	KED
	Y	89		ug/L			841263	931654	1	Standard
	Kr	83		ug/L			56	52	7	Standard
⌈>	In-1	115		ug/L			30919	31867	0	KED
|	Cd	111	0.003	ug/L	0.004	121	1	3	45	KED
⌊	Cd	114	0.001	ug/L	0.002	148	5	7	29	KED
⌈>	In	115		ug/L			1116661	1201327	1	Standard
⌊	Ag	107	0.001	ug/L	0.001	136	71	98	28	Standard
⌈>	Tb	159		ug/L			1224547	1263612	2	Standard
⌊	Pb	208	0.002	ug/L	0.002	101	512	598	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0580-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 14:25:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25880	36876	3	Standard
	Cl	37		ug/L			6867746	7809835	2	Standard
>	Sc	45		ug/L			1665701	1805374	2	Standard
	Cr	52	29.819	ug/L	0.973	3	28467	849350	3	Standard
	Cr	53	26.945	ug/L	0.724	2	176	97221	3	Standard
	Mn	55	29.948	ug/L	1.130	3	868	1138076	0	Standard
>	Ge-1	72		ug/L			73509	78196	1	KED
	Ni	60	26.880	ug/L	1.407	5	59	41904	3	KED
	Ni	62	26.864	ug/L	0.398	1	7	6721	1	KED
	Cu	63	27.035	ug/L	0.665	2	125	111460	1	KED
	Cu	65	27.532	ug/L	0.314	1	57	55338	2	KED
	Zn	66	87.047	ug/L	0.979	1	259	43744	0	KED
	Zn	67	76.359	ug/L	1.610	2	44	6457	0	KED
	As	75	26.225	ug/L	0.627	2	4	8379	0	KED
	Y	89		ug/L			841263	917209	2	Standard
	Kr	83		ug/L			56	69	23	Standard
>	In-1	115		ug/L			30919	32541	1	KED
	Cd	111	25.890	ug/L	0.647	2	1	10927	2	KED
	Cd	114	25.852	ug/L	0.870	3	5	27781	3	KED
>	In	115		ug/L			1116661	1203133	0	Standard
	Ag	107	27.548	ug/L	0.975	3	71	563239	3	Standard
>	Tb	159		ug/L			1224547	1261460	3	Standard
	Pb	208	28.728	ug/L	0.812	2	512	1164696	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0317-01RE1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 14:32:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25880	60585	2	Standard
	Cl	37		ug/L			6867746	8515544	1	Standard
>	Sc	45		ug/L			1665701	1923117	2	Standard
	Cr	52	1.694	ug/L	0.063	3	28467	82388	2	Standard
	Cr	53	1.724	ug/L	0.046	2	176	6816	0	Standard
	Mn	55	413.395	ug/L	12.042	2	868	16725063	0	Standard
>	Ge-1	72		ug/L			73509	77737	1	KED
	Ni	60	4.435	ug/L	0.057	1	59	6929	2	KED
	Ni	62	4.574	ug/L	0.241	5	7	1144	4	KED
	Cu	63	4.630	ug/L	0.075	1	125	19095	2	KED
	Cu	65	4.551	ug/L	0.194	4	57	9144	4	KED
	Zn	66	52.530	ug/L	0.672	1	259	26358	2	KED
	Zn	67	53.854	ug/L	1.126	2	44	4541	1	KED
	As	75	1.663	ug/L	0.071	4	4	533	5	KED
	Y	89		ug/L			841263	900742	0	Standard
	Kr	83		ug/L			56	71	14	Standard
>	In-1	115		ug/L			30919	30390	1	KED
	Cd	111	0.185	ug/L	0.020	10	1	74	11	KED
	Cd	114	0.149	ug/L	0.033	22	5	154	22	KED
>	In	115		ug/L			1116661	1163106	2	Standard
	Ag	107	0.009	ug/L	0.001	7	71	256	6	Standard
>	Tb	159		ug/L			1224547	1259403	3	Standard
	Pb	208	1.626	ug/L	0.059	3	512	66271	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0318-01RE1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 14:37:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25880	1760955	0	Standard
	Cl	37		ug/L			6867746	7475878	0	Standard
>	Sc	45		ug/L			1665701	1679976	0	Standard
	Cr	52	8.883	ug/L	0.090	1	28467	255653	0	Standard
	Cr	53	3.016	ug/L	0.048	1	176	10286	0	Standard
	Mn	55	157.054	ug/L	1.045	0	868	5554148	1	Standard
>	Ge-1	72		ug/L			73509	62584	0	KED
	Ni	60	24.466	ug/L	0.224	0	59	30546	1	KED
	Ni	62	24.249	ug/L	0.477	1	7	4856	1	KED
	Cu	63	1.490	ug/L	0.029	1	125	5018	1	KED
	Cu	65	1.459	ug/L	0.014	0	57	2393	1	KED
	Zn	66	7.937	ug/L	0.199	2	259	3393	2	KED
	Zn	67	12.740	ug/L	0.382	2	44	893	3	KED
	As	75	0.246	ug/L	0.023	9	4	66	8	KED
	Y	89		ug/L			841263	829462	1	Standard
	Kr	83		ug/L			56	183	8	Standard
>	In-1	115		ug/L			30919	25377	1	KED
	Cd	111	0.035	ug/L	0.007	18	1	13	15	KED
	Cd	114	0.032	ug/L	0.003	8	5	31	8	KED
>	In	115		ug/L			1116661	957101	2	Standard
	Ag	107	0.003	ug/L	0.002	62	71	107	28	Standard
>	Tb	159		ug/L			1224547	1183035	1	Standard
	Pb	208	0.018	ug/L	0.002	13	512	1161	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-13
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, June 25, 2018 14:41:56
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	46193	3	Standard
	Cl	**37**		ug/L			6867746	7981816	0	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1722198	0	Standard
|	**Cr**	**52**	**0.121**	ug/L	0.031	25	28467	32612	2	Standard
|	**Cr**	**53**	**0.096**	ug/L	0.005	5	176	512	3	Standard
⌊	**Mn**	**55**	**6.212**	ug/L	0.067	1	868	226054	1	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	79634	1	KED
|	**Ni**	**60**	**0.108**	ug/L	0.011	9	59	234	5	KED
|	**Ni**	**62**	**0.115**	ug/L	0.010	8	7	37	7	KED
|	**Cu**	**63**	**0.729**	ug/L	0.034	4	125	3194	2	KED
|	**Cu**	**65**	**0.682**	ug/L	0.017	2	57	1455	2	KED
|	**Zn**	**66**	**3.031**	ug/L	0.035	1	259	1822	2	KED
|	**Zn**	**67**	**2.594**	ug/L	0.290	11	44	269	8	KED
⌊	**As**	**75**	**0.281**	ug/L	0.016	5	4	96	5	KED
	Y	**89**		ug/L			841263	895949	0	Standard
	Kr	**83**		ug/L			56	60	5	Standard
⌈>	**In-1**	**115**		ug/L			30919	32312	1	KED
|	**Cd**	**111**	**0.026**	ug/L	0.011	39	1	13	32	KED
⌊	**Cd**	**114**	**0.022**	ug/L	0.006	28	5	29	23	KED
⌈>	**In**	**115**		ug/L			1116661	1130839	0	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	79	71	83	10	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1200931	2	Standard
⌊	**Pb**	**208**	**0.044**	ug/L	0.001	2	512	2196	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-21
Sample Dil Factor: 50
Comments:
Sample Date/Time: Monday, June 25, 2018 14:46:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	32123	3	Standard
	Cl	**37**		ug/L			6867746	8097435	0	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1669780	0	Standard
|	**Cr**	**52**	**0.038**	ug/L	0.015	40	28467	29498	1	Standard
|	**Cr**	**53**	**0.032**	ug/L	0.004	11	176	282	4	Standard
⌊	**Mn**	**55**	**162.593**	ug/L	2.882	1	868	5714953	1	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	75502	1	KED
|	**Ni**	**60**	**1.062**	ug/L	0.060	5	59	1657	5	KED
|	**Ni**	**62**	**1.041**	ug/L	0.200	19	7	259	18	KED
|	**Cu**	**63**	**1.167**	ug/L	0.046	3	125	4768	2	KED
|	**Cu**	**65**	**1.160**	ug/L	0.061	5	57	2308	5	KED
|	**Zn**	**66**	**15.217**	ug/L	0.701	4	259	7604	4	KED
|	**Zn**	**67**	**13.209**	ug/L	0.440	3	44	1116	1	KED
⌊	**As**	**75**	**0.006**	ug/L	0.004	76	4	6	21	KED
	Y	**89**		ug/L			841263	890196	1	Standard
	Kr	**83**		ug/L			56	62	7	Standard
⌈>	**In-1**	**115**		ug/L			30919	31097	1	KED
|	**Cd**	**111**	**0.169**	ug/L	0.013	7	1	70	5	KED
⌊	**Cd**	**114**	**0.190**	ug/L	0.013	6	5	200	5	KED
⌈>	**In**	**115**		ug/L			1116661	1112034	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	180	71	81	21	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1175930	4	Standard
⌊	**Pb**	**208**	**0.012**	ug/L	0.001	10	512	943	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-22
Sample Dil Factor: 50
Comments:
Sample Date/Time: Monday, June 25, 2018 14:50:52
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	27653	1	Standard
	Cl	**37**		ug/L			6867746	7935202	0	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1658440	0	Standard
|	**Cr**	**52**	**0.033**	ug/L	0.018	56	28467	29168	1	Standard
|	**Cr**	**53**	**0.018**	ug/L	0.001	7	176	235	1	Standard
⌊	**Mn**	**55**	**152.563**	ug/L	4.063	2	868	5325078	1	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	75904	1	KED
|	**Ni**	**60**	**0.985**	ug/L	0.097	9	59	1548	8	KED
|	**Ni**	**62**	**1.027**	ug/L	0.090	8	7	257	9	KED
|	**Cu**	**63**	**1.071**	ug/L	0.027	2	125	4411	1	KED
|	**Cu**	**65**	**1.118**	ug/L	0.017	1	57	2238	2	KED
|	**Zn**	**66**	**14.851**	ug/L	0.492	3	259	7465	2	KED
|	**Zn**	**67**	**12.802**	ug/L	0.485	3	44	1088	2	KED
⌊	**As**	**75**	**0.001**	ug/L	0.005	863	4	5	28	KED
	Y	**89**		ug/L			841263	873209	1	Standard
	Kr	**83**		ug/L			56	63	18	Standard
⌈>	**In-1**	**115**		ug/L			30919	30906	0	KED
|	**Cd**	**111**	**0.190**	ug/L	0.020	10	1	78	9	KED
⌊	**Cd**	**114**	**0.182**	ug/L	0.010	5	5	190	4	KED
⌈>	**In**	**115**		ug/L			1116661	1093325	2	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.000	79	71	64	7	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1167572	3	Standard
⌊	**Pb**	**208**	**0.011**	ug/L	0.002	15	512	907	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0313-01RE1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 14:55:20
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25880	34789	0	Standard
	Cl	37		ug/L			6867746	7868860	0	Standard
>	Sc	45		ug/L			1665701	1787009	1	Standard
	Cr	52	3.058	ug/L	0.034	1	28467	113661	2	Standard
	Cr	53	2.749	ug/L	0.061	2	176	9989	1	Standard
	Mn	55	1.956	ug/L	0.030	1	868	74491	2	Standard
>	Ge-1	72		ug/L			73509	76076	1	KED
	Ni	60	1.697	ug/L	0.096	5	59	2631	3	KED
	Ni	62	1.664	ug/L	0.167	10	7	412	7	KED
	Cu	63	0.662	ug/L	0.028	4	125	2780	2	KED
	Cu	65	0.651	ug/L	0.021	3	57	1330	1	KED
	Zn	66	2.951	ug/L	0.020	0	259	1701	1	KED
	Zn	67	2.596	ug/L	0.277	10	44	257	7	KED
	As	75	0.083	ug/L	0.011	12	4	30	11	KED
	Y	89		ug/L			841263	907370	0	Standard
	Kr	83		ug/L			56	64	5	Standard
>	In-1	115		ug/L			30919	32540	1	KED
	Cd	111	0.103	ug/L	0.009	9	1	45	9	KED
	Cd	114	0.094	ug/L	0.013	13	5	106	13	KED
>	In	115		ug/L			1116661	1114239	0	Standard
	Ag	107	0.008	ug/L	0.001	16	71	227	12	Standard
>	Tb	159		ug/L			1224547	1180546	2	Standard
	Pb	208	0.306	ug/L	0.013	4	512	12110	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0580-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 14:59:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25880	36287	2	Standard
	Cl	37		ug/L			6867746	7923830	0	Standard
>	Sc	45		ug/L			1665701	1803805	0	Standard
	Cr	52	3.160	ug/L	0.064	2	28467	117498	1	Standard
	Cr	53	2.984	ug/L	0.087	2	176	10928	3	Standard
	Mn	55	1.835	ug/L	0.062	3	868	70613	3	Standard
>	Ge-1	72		ug/L			73509	78121	1	KED
	Ni	60	1.637	ug/L	0.017	1	59	2609	1	KED
	Ni	62	1.628	ug/L	0.062	3	7	414	4	KED
	Cu	63	0.660	ug/L	0.023	3	125	2847	2	KED
	Cu	65	0.648	ug/L	0.023	3	57	1361	5	KED
	Zn	66	3.222	ug/L	0.157	4	259	1882	3	KED
	Zn	67	2.851	ug/L	0.076	2	44	286	1	KED
	As	75	0.082	ug/L	0.003	3	4	31	2	KED
	Y	89		ug/L			841263	930937	1	Standard
	Kr	83		ug/L			56	57	11	Standard
>	In-1	115		ug/L			30919	33438	5	KED
	Cd	111	0.112	ug/L	0.006	5	1	50	6	KED
	Cd	114	0.093	ug/L	0.006	6	5	108	3	KED
>	In	115		ug/L			1116661	1126733	3	Standard
	Ag	107	0.009	ug/L	0.000	4	71	238	4	Standard
>	Tb	159		ug/L			1224547	1216554	1	Standard
	Pb	208	0.291	ug/L	0.007	2	512	11905	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0580-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 15:04:17
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	40436	2	Standard
	Cl	**37**		ug/L			6867746	7939600	2	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1808622	1	Standard
|	**Cr**	**52**	**30.540**	ug/L	0.087	0	28467	870908	1	Standard
|	**Cr**	**53**	**27.789**	ug/L	0.492	1	176	100446	1	Standard
⌊	**Mn**	**55**	**30.261**	ug/L	0.626	2	868	1152682	1	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	79983	1	KED
|	**Ni**	**60**	**26.077**	ug/L	0.526	2	59	41609	2	KED
|	**Ni**	**62**	**25.976**	ug/L	0.809	3	7	6646	1	KED
|	**Cu**	**63**	**25.942**	ug/L	0.471	1	125	109411	0	KED
|	**Cu**	**65**	**25.790**	ug/L	0.523	2	57	53011	0	KED
|	**Zn**	**66**	**80.943**	ug/L	2.289	2	259	41625	2	KED
|	**Zn**	**67**	**73.032**	ug/L	4.792	6	44	6316	5	KED
⌊	**As**	**75**	**24.754**	ug/L	0.310	1	4	8091	0	KED
	Y	**89**		ug/L			841263	921292	3	Standard
	Kr	**83**		ug/L			56	65	26	Standard
⌈>	**In-1**	**115**		ug/L			30919	33235	2	KED
|	**Cd**	**111**	**25.162**	ug/L	0.577	2	1	10842	0	KED
⌊	**Cd**	**114**	**24.262**	ug/L	0.538	2	5	26627	1	KED
⌈>	**In**	**115**		ug/L			1116661	1122794	3	Standard
⌊	**Ag**	**107**	**28.214**	ug/L	1.293	4	71	537795	1	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1214525	4	Standard
⌊	**Pb**	**208**	**28.274**	ug/L	1.794	6	512	1102189	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 15:09:50
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	21444	4	Standard
	Cl	**37**		ug/L			6867746	8000555	1	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1635638	2	Standard
|	**Cr**	**52**	**56.707**	ug/L	0.866	1	28467	1438199	0	Standard
|	**Cr**	**53**	**53.028**	ug/L	1.925	3	176	173142	2	Standard
⌊	**Mn**	**55**	**54.464**	ug/L	0.938	1	868	1876102	3	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	75330	2	KED
|	**Ni**	**60**	**47.509**	ug/L	1.362	2	59	71336	3	KED
|	**Ni**	**62**	**48.211**	ug/L	1.211	2	7	11612	2	KED
|	**Cu**	**63**	**48.236**	ug/L	0.582	1	125	191513	2	KED
|	**Cu**	**65**	**47.425**	ug/L	1.605	3	57	91727	0	KED
|	**Zn**	**66**	**48.381**	ug/L	2.078	4	259	23545	5	KED
|	**Zn**	**67**	**48.431**	ug/L	1.959	4	44	3964	5	KED
⌊	**As**	**75**	**50.909**	ug/L	1.165	2	4	15663	0	KED
	Y	**89**		ug/L			841263	891209	3	Standard
	Kr	**83**		ug/L			56	70	13	Standard
⌈>	**In-1**	**115**		ug/L			30919	30216	2	KED
|	**Cd**	**111**	**49.907**	ug/L	0.345	0	1	19559	2	KED
⌊	**Cd**	**114**	**49.654**	ug/L	0.810	1	5	49537	1	KED
⌈>	**In**	**115**		ug/L			1116661	1065466	2	Standard
⌊	**Ag**	**107**	**52.790**	ug/L	0.438	0	71	955716	2	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1151298	0	Standard
⌊	**Pb**	**208**	**53.263**	ug/L	0.414	0	512	1971568	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 15:17:02
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	21230	0	Standard
	Cl	**37**		ug/L			6867746	7935886	0	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1700190	0	Standard
|	**Cr**	**52**	**0.020**	ug/L	0.038	188	28467	29580	3	Standard
|	**Cr**	**53**	**0.013**	ug/L	0.007	58	176	222	10	Standard
⌊	**Mn**	**55**	**0.005**	ug/L	0.001	20	868	1067	3	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	76499	1	KED
|	**Ni**	**60**	**-0.006**	ug/L	0.002	38	59	52	7	KED
|	**Ni**	**62**	**0.012**	ug/L	0.004	33	7	10	10	KED
|	**Cu**	**63**	**0.008**	ug/L	0.001	7	125	164	2	KED
|	**Cu**	**65**	**0.012**	ug/L	0.007	56	57	83	15	KED
|	**Zn**	**66**	**0.109**	ug/L	0.066	60	259	322	8	KED
|	**Zn**	**67**	**0.141**	ug/L	0.192	136	44	57	26	KED
⌊	**As**	**75**	**0.004**	ug/L	0.002	60	4	6	13	KED
	Y	**89**		ug/L			841263	882442	4	Standard
	Kr	**83**		ug/L			56	62	10	Standard
⌈>	**In-1**	**115**		ug/L			30919	31353	3	KED
|	**Cd**	**111**	**0.009**	ug/L	0.008	87	1	5	53	KED
⌊	**Cd**	**114**	**0.005**	ug/L	0.006	132	5	10	60	KED
⌈>	**In**	**115**		ug/L			1116661	1092191	3	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.001	80	71	99	25	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1163960	2	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.001	66	512	557	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-03
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, June 25, 2018 15:22:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	32175	2	Standard
	Cl	**37**		ug/L			6867746	49098991	2	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1641647	0	Standard
|	**Cr**	**52**	**0.490**	ug/L	0.012	2	28467	40293	0	Standard
|	**Cr**	**53**	**31.783**	ug/L	0.687	2	176	104273	2	Standard
⌊	**Mn**	**55**	**77.616**	ug/L	0.781	1	868	2682518	0	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	62584	0	KED
|	**Ni**	**60**	**0.192**	ug/L	0.019	9	59	289	8	KED
|	**Ni**	**62**	**0.339**	ug/L	0.018	5	7	74	4	KED
|	**Cu**	**63**	**0.069**	ug/L	0.011	15	125	333	10	KED
|	**Cu**	**65**	**0.045**	ug/L	0.004	9	57	121	5	KED
|	**Zn**	**66**	**1.480**	ug/L	0.128	8	259	812	6	KED
|	**Zn**	**67**	**1.534**	ug/L	0.264	17	44	140	12	KED
⌊	**As**	**75**	**0.177**	ug/L	0.007	4	4	49	3	KED
	Y	**89**		ug/L			841263	818570	2	Standard
	Kr	**83**		ug/L			56	1149	4	Standard
⌈>	**In-1**	**115**		ug/L			30919	25297	2	KED
|	**Cd**	**111**	**0.011**	ug/L	0.005	44	1	5	28	KED
⌊	**Cd**	**114**	**0.015**	ug/L	0.007	48	5	17	34	KED
⌈>	**In**	**115**		ug/L			1116661	917656	4	Standard
⌊	**Ag**	**107**	**0.004**	ug/L	0.001	28	71	127	11	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1035352	1	Standard
⌊	**Pb**	**208**	**0.064**	ug/L	0.001	2	512	2553	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-04
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, June 25, 2018 15:28:04
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25880	28266	3	Standard
	Cl	37		ug/L			6867746	30811902	0	Standard
>	Sc	45		ug/L			1665701	1653559	2	Standard
	Cr	52	0.470	ug/L	0.011	2	28467	40070	2	Standard
	Cr	53	17.604	ug/L	0.278	1	176	58237	0	Standard
	Mn	55	54.974	ug/L	2.034	3	868	1913243	2	Standard
>	Ge-1	72		ug/L			73509	69227	0	KED
	Ni	60	0.082	ug/L	0.003	4	59	168	2	KED
	Ni	62	0.817	ug/L	0.050	6	7	187	5	KED
	Cu	63	0.090	ug/L	0.008	8	125	446	5	KED
	Cu	65	0.052	ug/L	0.010	18	57	146	11	KED
	Zn	66	0.714	ug/L	0.088	12	259	560	7	KED
	Zn	67	0.700	ug/L	0.271	38	44	93	22	KED
	As	75	0.118	ug/L	0.016	13	4	37	12	KED
	Y	89		ug/L			841263	851411	2	Standard
	Kr	83		ug/L			56	1022	7	Standard
>	In-1	115		ug/L			30919	27399	2	KED
	Cd	111	0.010	ug/L	0.004	44	1	5	28	KED
	Cd	114	0.001	ug/L	0.009	825	5	5	134	KED
>	In	115		ug/L			1116661	1003835	0	Standard
	Ag	107	0.000	ug/L	0.000	84	71	71	8	Standard
>	Tb	159		ug/L			1224547	1113402	2	Standard
	Pb	208	0.030	ug/L	0.002	6	512	1521	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-05
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, June 25, 2018 15:32:34
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25880	29061	2	Standard
	Cl	37		ug/L			6867746	39187995	3	Standard
>	Sc	45		ug/L			1665701	1658635	0	Standard
	Cr	52	0.361	ug/L	0.016	4	28467	37447	0	Standard
	Cr	53	20.963	ug/L	0.488	2	176	69540	2	Standard
	Mn	55	17.059	ug/L	0.096	0	868	596351	0	Standard
>	Ge-1	72		ug/L			73509	66860	1	KED
	Ni	60	0.127	ug/L	0.014	11	59	223	9	KED
	Ni	62	0.969	ug/L	0.053	5	7	213	6	KED
	Cu	63	0.177	ug/L	0.011	6	125	738	5	KED
	Cu	65	0.106	ug/L	0.005	4	57	234	4	KED
	Zn	66	3.346	ug/L	0.121	3	259	1664	2	KED
	Zn	67	3.172	ug/L	0.451	14	44	268	13	KED
	As	75	0.167	ug/L	0.013	7	4	49	5	KED
	Y	89		ug/L			841263	825485	2	Standard
	Kr	83		ug/L			56	1727	3	Standard
>	In-1	115		ug/L			30919	26608	1	KED
	Cd	111	0.015	ug/L	0.005	31	1	6	24	KED
	Cd	114	0.008	ug/L	0.009	112	5	11	66	KED
>	In	115		ug/L			1116661	961392	3	Standard
	Ag	107	0.003	ug/L	0.001	43	71	109	15	Standard
>	Tb	159		ug/L			1224547	1106854	4	Standard
	Pb	208	0.046	ug/L	0.002	5	512	2114	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-06
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, June 25, 2018 15:37:02
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25880	28911	2	Standard
	Cl	37		ug/L			6867746	27432167	2	Standard
>	Sc	45		ug/L			1665701	1692026	2	Standard
	Cr	52	0.319	ug/L	0.069	21	28467	37085	2	Standard
	Cr	53	13.786	ug/L	0.439	3	176	46693	0	Standard
	Mn	55	1.282	ug/L	0.004	0	868	46538	2	Standard
>	Ge-1	72		ug/L			73509	73220	1	KED
	Ni	60	0.062	ug/L	0.011	17	59	149	11	KED
	Ni	62	0.907	ug/L	0.061	6	7	219	5	KED
	Cu	63	0.123	ug/L	0.005	4	125	598	4	KED
	Cu	65	0.073	ug/L	0.010	13	57	194	10	KED
	Zn	66	0.855	ug/L	0.033	3	259	657	1	KED
	Zn	67	0.788	ug/L	0.230	29	44	106	15	KED
	As	75	0.142	ug/L	0.010	6	4	47	6	KED
	Y	89		ug/L			841263	856293	3	Standard
	Kr	83		ug/L			56	1254	6	Standard
>	In-1	115		ug/L			30919	29895	2	KED
	Cd	111	0.013	ug/L	0.011	86	1	6	62	KED
	Cd	114	0.005	ug/L	0.006	128	5	9	59	KED
>	In	115		ug/L			1116661	1016065	1	Standard
	Ag	107	0.000	ug/L	0.000	92	71	73	10	Standard
>	Tb	159		ug/L			1224547	1219756	1	Standard
	Pb	208	0.023	ug/L	0.001	4	512	1395	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-08
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, June 25, 2018 15:41:37
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25880	32179	1	Standard
	Cl	37		ug/L			6867746	48959125	1	Standard
>	Sc	45		ug/L			1665701	1627739	0	Standard
	Cr	52	0.397	ug/L	0.016	4	28467	37639	1	Standard
	Cr	53	24.280	ug/L	0.358	1	176	79013	0	Standard
	Mn	55	0.461	ug/L	0.006	1	868	16637	1	Standard
>	Ge-1	72		ug/L			73509	67390	1	KED
	Ni	60	0.546	ug/L	0.003	0	59	786	0	KED
	Ni	62	1.591	ug/L	0.078	4	7	349	6	KED
	Cu	63	0.169	ug/L	0.015	8	125	713	7	KED
	Cu	65	0.088	ug/L	0.005	5	57	205	2	KED
	Zn	66	2.552	ug/L	0.117	4	259	1335	2	KED
	Zn	67	2.665	ug/L	0.073	2	44	233	3	KED
	As	75	0.142	ug/L	0.013	9	4	43	8	KED
	Y	89		ug/L			841263	789262	2	Standard
	Kr	83		ug/L			56	2839	1	Standard
>	In-1	115		ug/L			30919	27201	3	KED
	Cd	111	0.015	ug/L	0.013	84	1	6	64	KED
	Cd	114	0.007	ug/L	0.002	31	5	10	20	KED
>	In	115		ug/L			1116661	962004	1	Standard
	Ag	107	0.000	ug/L	0.001	432	71	64	20	Standard
>	Tb	159		ug/L			1224547	1181889	0	Standard
	Pb	208	0.024	ug/L	0.002	6	512	1393	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 15:46:54
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	25009	2	Standard
	Cl	**37**		ug/L			6867746	7953709	1	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1686678	0	Standard
|	**Cr**	**52**	**0.145**	ug/L	0.019	12	28467	32532	1	Standard
|	**Cr**	**53**	**1.898**	ug/L	0.075	3	176	6567	3	Standard
⌊	**Mn**	**55**	**-0.000**	ug/L	0.001	447	868	871	3	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	86103	1	KED
|	**Ni**	**60**	**-0.037**	ug/L	0.002	5	59	5	66	KED
|	**Ni**	**62**	**0.353**	ug/L	0.168	47	7	105	42	KED
|	**Cu**	**63**	**-0.008**	ug/L	0.004	58	125	112	16	KED
|	**Cu**	**65**	**-0.015**	ug/L	0.002	11	57	34	11	KED
|	**Zn**	**66**	**-0.438**	ug/L	0.024	5	259	62	21	KED
|	**Zn**	**67**	**-0.440**	ug/L	0.054	12	44	11	44	KED
⌊	**As**	**75**	**0.003**	ug/L	0.006	172	4	6	32	KED
	Y	**89**		ug/L			841263	872139	3	Standard
	Kr	**83**		ug/L			56	190	14	Standard
⌈>	**In-1**	**115**		ug/L			30919	34932	1	KED
|	**Cd**	**111**	**0.004**	ug/L	0.002	60	1	3	25	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.003	280	5	4	80	KED
⌈>	**In**	**115**		ug/L			1116661	1086910	1	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.001	1028	71	71	18	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1260057	2	Standard
⌊	**Pb**	**208**	**-0.005**	ug/L	0.001	28	512	320	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-DUP2
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, June 25, 2018 15:54:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25880	33275	3	Standard
	Cl	37		ug/L			6867746	50170221	9	Standard
>	Sc	45		ug/L			1665701	1649739	1	Standard
	Cr	52	0.446	ug/L	0.030	6	28467	39389	3	Standard
	Cr	53	28.650	ug/L	0.691	2	176	94439	0	Standard
	Mn	55	0.464	ug/L	0.004	0	868	16970	2	Standard
>	Ge-1	72		ug/L			73509	69509	0	KED
	Ni	60	0.546	ug/L	0.015	2	59	812	2	KED
	Ni	62	1.314	ug/L	0.103	7	7	299	7	KED
	Cu	63	0.143	ug/L	0.012	8	125	640	6	KED
	Cu	65	0.099	ug/L	0.005	5	57	231	3	KED
	Zn	66	2.588	ug/L	0.073	2	259	1393	1	KED
	Zn	67	2.857	ug/L	0.129	4	44	255	3	KED
	As	75	0.134	ug/L	0.012	8	4	42	7	KED
	Y	89		ug/L			841263	800141	1	Standard
	Kr	83		ug/L			56	2465	6	Standard
>	In-1	115		ug/L			30919	26572	1	KED
	Cd	111	0.012	ug/L	0.010	85	1	5	60	KED
	Cd	114	0.009	ug/L	0.003	28	5	12	17	KED
>	In	115		ug/L			1116661	938347	1	Standard
	Ag	107	0.002	ug/L	0.001	61	71	86	18	Standard
>	Tb	159		ug/L			1224547	1182572	0	Standard
	Pb	208	0.025	ug/L	0.002	8	512	1431	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-MS2
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, June 25, 2018 16:03:20
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25880	33217	3	Standard
	Cl	37		ug/L			6867746	48900784	5	Standard
>	Sc	45		ug/L			1665701	1689106	0	Standard
	Cr	52	5.924	ug/L	0.077	1	28467	181042	0	Standard
	Cr	53	33.329	ug/L	0.559	1	176	112484	1	Standard
	Mn	55	5.930	ug/L	0.127	2	868	211678	1	Standard
>	Ge-1	72		ug/L			73509	69660	1	KED
	Ni	60	5.466	ug/L	0.060	1	59	7638	1	KED
	Ni	62	6.017	ug/L	0.087	1	7	1346	0	KED
	Cu	63	4.992	ug/L	0.048	0	125	18437	2	KED
	Cu	65	4.756	ug/L	0.064	1	57	8560	1	KED
	Zn	66	16.820	ug/L	0.415	2	259	7728	2	KED
	Zn	67	16.001	ug/L	0.399	2	44	1238	1	KED
	As	75	5.272	ug/L	0.063	1	4	1504	1	KED
	Y	89		ug/L			841263	830944	0	Standard
	Kr	83		ug/L			56	2748	3	Standard
>	In-1	115		ug/L			30919	28056	0	KED
	Cd	111	4.312	ug/L	0.051	1	1	1570	1	KED
	Cd	114	4.362	ug/L	0.028	0	5	4046	0	KED
>	In	115		ug/L			1116661	937861	1	Standard
	Ag	107	4.867	ug/L	0.190	3	71	77596	2	Standard
>	Tb	159		ug/L			1224547	1223634	0	Standard
	Pb	208	4.289	ug/L	0.081	1	512	169190	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-MSD2
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, June 25, 2018 16:12:12
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25880	33736	2	Standard
	Cl	37		ug/L			6867746	48928476	2	Standard
⌈>	Sc	45		ug/L			1665701	1638927	1	Standard
|	Cr	52	6.277	ug/L	0.074	1	28467	184485	2	Standard
|	Cr	53	34.148	ug/L	1.103	3	176	111797	2	Standard
⌊	Mn	55	6.112	ug/L	0.068	1	868	211655	1	Standard
⌈>	Ge-1	72		ug/L			73509	71396	1	KED
|	Ni	60	5.444	ug/L	0.018	0	59	7798	1	KED
|	Ni	62	6.564	ug/L	0.295	4	7	1504	3	KED
|	Cu	63	4.826	ug/L	0.038	0	125	18270	0	KED
|	Cu	65	4.724	ug/L	0.043	0	57	8715	2	KED
|	Zn	66	15.862	ug/L	0.596	3	259	7484	3	KED
|	Zn	67	15.604	ug/L	0.641	4	44	1239	4	KED
⌊	As	75	5.202	ug/L	0.096	1	4	1521	1	KED
	Y	89		ug/L			841263	815003	3	Standard
	Kr	83		ug/L			56	3786	4	Standard
⌈>	In-1	115		ug/L			30919	28000	1	KED
|	Cd	111	4.442	ug/L	0.124	2	1	1614	2	KED
⌊	Cd	114	4.432	ug/L	0.217	4	5	4101	3	KED
⌈>	In	115		ug/L			1116661	942080	0	Standard
⌊	Ag	107	4.933	ug/L	0.059	1	71	79033	0	Standard
⌈>	Tb	159		ug/L			1224547	1260548	2	Standard
⌊	Pb	208	4.065	ug/L	0.109	2	512	165168	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 16:21:04
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	25311	2	Standard
	Cl	**37**		ug/L			6867746	7592010	2	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1651673	0	Standard
|	**Cr**	**52**	**0.142**	ug/L	0.023	16	28467	31789	1	Standard
|	**Cr**	**53**	**1.873**	ug/L	0.064	3	176	6346	2	Standard
⌊	**Mn**	**55**	**0.006**	ug/L	0.002	24	868	1084	4	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	86581	0	KED
|	**Ni**	**60**	**-0.029**	ug/L	0.001	4	59	19	11	KED
|	**Ni**	**62**	**0.085**	ug/L	0.027	32	7	32	23	KED
|	**Cu**	**63**	**-0.012**	ug/L	0.004	34	125	91	21	KED
|	**Cu**	**65**	**-0.016**	ug/L	0.003	18	57	33	18	KED
|	**Zn**	**66**	**-0.034**	ug/L	0.049	144	259	286	9	KED
|	**Zn**	**67**	**-0.037**	ug/L	0.068	185	44	48	12	KED
⌊	**As**	**75**	**0.004**	ug/L	0.007	178	4	6	34	KED
	Y	**89**		ug/L			841263	838882	1	Standard
	Kr	**83**		ug/L			56	229	13	Standard
⌈>	**In-1**	**115**		ug/L			30919	35063	1	KED
|	**Cd**	**111**	**0.006**	ug/L	0.003	48	1	5	28	KED
⌊	**Cd**	**114**	**-0.002**	ug/L	0.003	122	5	3	90	KED
⌈>	**In**	**115**		ug/L			1116661	1096939	3	Standard
⌊	**Ag**	**107**	**-0.001**	ug/L	0.000	15	71	53	3	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1310801	1	Standard
⌊	**Pb**	**208**	**-0.004**	ug/L	0.001	22	512	387	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 16:29:57
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	20951	1	Standard
	Cl	**37**		ug/L			6867746	7417599	2	Standard
>	**Sc**	**45**		ug/L			1665701	1629895	2	Standard
	Cr	**52**	**57.416**	ug/L	0.560	0	28467	1450757	1	Standard
	Cr	**53**	**52.985**	ug/L	1.992	3	176	172352	1	Standard
	Mn	**55**	**56.825**	ug/L	1.973	3	868	1948885	0	Standard
>	**Ge-1**	**72**		ug/L			73509	84936	1	KED
	Ni	**60**	**45.910**	ug/L	1.495	3	59	77716	2	KED
	Ni	**62**	**45.752**	ug/L	0.484	1	7	12428	1	KED
	Cu	**63**	**46.123**	ug/L	1.402	3	125	206469	2	KED
	Cu	**65**	**46.473**	ug/L	1.007	2	57	101393	1	KED
	Zn	**66**	**47.836**	ug/L	0.842	1	259	26246	0	KED
	Zn	**67**	**46.581**	ug/L	1.588	3	44	4299	2	KED
	As	**75**	**49.459**	ug/L	0.830	1	4	17162	0	KED
	Y	**89**		ug/L			841263	824764	3	Standard
	Kr	**83**		ug/L			56	81	15	Standard
>	**In-1**	**115**		ug/L			30919	34075	0	KED
	Cd	**111**	**49.428**	ug/L	1.150	2	1	21844	2	KED
	Cd	**114**	**49.230**	ug/L	0.567	1	5	55404	1	KED
>	**In**	**115**		ug/L			1116661	1038466	5	Standard
	Ag	**107**	**53.864**	ug/L	1.385	2	71	949767	3	Standard
>	**Tb**	**159**		ug/L			1224547	1320055	0	Standard
	Pb	**208**	**44.490**	ug/L	0.712	1	512	1888192	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 16:37:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	21013	4	Standard
	Cl	**37**		ug/L			6867746	7404137	2	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1685949	2	Standard
|	**Cr**	**52**	**-0.018**	ug/L	0.031	171	28467	28337	2	Standard
|	**Cr**	**53**	**0.309**	ug/L	0.003	1	176	1218	3	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.001	97	868	913	3	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	87093	0	KED
|	**Ni**	**60**	**-0.024**	ug/L	0.008	32	59	27	49	KED
|	**Ni**	**62**	**-0.007**	ug/L	0.008	105	7	6	31	KED
|	**Cu**	**63**	**-0.012**	ug/L	0.002	12	125	94	7	KED
|	**Cu**	**65**	**-0.008**	ug/L	0.005	64	57	49	25	KED
|	**Zn**	**66**	**-0.250**	ug/L	0.017	6	259	167	5	KED
|	**Zn**	**67**	**-0.292**	ug/L	0.083	28	44	25	31	KED
⌊	**As**	**75**	**0.005**	ug/L	0.006	120	4	7	28	KED
	Y	**89**		ug/L			841263	859399	2	Standard
	Kr	**83**		ug/L			56	62	28	Standard
⌈>	**In-1**	**115**		ug/L			30919	35335	1	KED
|	**Cd**	**111**	**0.003**	ug/L	0.005	180	1	3	68	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.004	305	5	4	82	KED
⌈>	**In**	**115**		ug/L			1116661	1152919	2	Standard
⌊	**Ag**	**107**	**-0.001**	ug/L	0.001	160	71	60	36	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1312000	2	Standard
⌊	**Pb**	**208**	**-0.005**	ug/L	0.000	8	512	317	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 16:42:14
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				20912	2	Standard
	Cl	**37**		ug/L				7569021	1	Standard
⌈>	**Sc**	**45**		ug/L				1631314	0	Standard
|	**Cr**	**52**		ug/L				28028	2	Standard
|	**Cr**	**53**		ug/L				957	2	Standard
⌊	**Mn**	**55**		ug/L				841	3	Standard
⌈>	**Ge-1**	**72**		ug/L				86095	0	KED
|	**Ni**	**60**		ug/L				27	27	KED
|	**Ni**	**62**		ug/L				3	50	KED
|	**Cu**	**63**		ug/L				98	13	KED
|	**Cu**	**65**		ug/L				36	23	KED
|	**Zn**	**66**		ug/L				160	26	KED
|	**Zn**	**67**		ug/L				31	27	KED
⌊	**As**	**75**		ug/L				4	47	KED
	Y	**89**		ug/L				838447	2	Standard
	Kr	**83**		ug/L				66	12	Standard
⌈>	**In-1**	**115**		ug/L				34735	2	KED
|	**Cd**	**111**		ug/L				2	57	KED
⌊	**Cd**	**114**		ug/L				4	146	KED
⌈>	**In**	**115**		ug/L				1124355	2	Standard
⌊	**Ag**	**107**		ug/L				54	16	Standard
⌈>	**Tb**	**159**		ug/L				1304758	1	Standard
⌊	**Pb**	**208**		ug/L				287	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 16:46:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	21813	2	Standard
	Cl	**37**		ug/L			7569021	7628620	3	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1639055	0	Standard
|	**Cr**	**52**	**57.075**	ug/L	0.716	1	28028	1450860	1	Standard
|	**Cr**	**53**	**53.133**	ug/L	0.825	1	957	174702	1	Standard
⌊	**Mn**	**55**	**56.405**	ug/L	2.404	4	841	1946421	3	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	85360	0	KED
|	**Ni**	**60**	**46.579**	ug/L	1.399	3	27	79218	3	KED
|	**Ni**	**62**	**45.486**	ug/L	1.004	2	3	12413	2	KED
|	**Cu**	**63**	**48.232**	ug/L	0.404	0	98	216958	0	KED
|	**Cu**	**65**	**46.346**	ug/L	0.526	1	36	101601	0	KED
|	**Zn**	**66**	**47.592**	ug/L	0.953	2	160	26104	1	KED
|	**Zn**	**67**	**48.301**	ug/L	0.363	0	31	4458	0	KED
⌊	**As**	**75**	**48.892**	ug/L	0.806	1	4	17051	1	KED
	Y	**89**		ug/L			838447	854925	3	Standard
	Kr	**83**		ug/L			66	70	8	Standard
⌈>	**In-1**	**115**		ug/L			34735	34489	0	KED
|	**Cd**	**111**	**48.184**	ug/L	1.760	3	2	21550	3	KED
⌊	**Cd**	**114**	**47.466**	ug/L	0.302	0	4	54063	1	KED
⌈>	**In**	**115**		ug/L			1124355	1078468	2	Standard
⌊	**Ag**	**107**	**51.603**	ug/L	1.872	3	54	945366	2	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1323783	2	Standard
⌊	**Pb**	**208**	**45.946**	ug/L	3.082	6	287	1953402	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 16:51:12
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	20648	3	Standard
	Cl	**37**		ug/L			7569021	7502899	5	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1618337	3	Standard
|	**Cr**	**52**	**-0.006**	ug/L	0.065	1029	28028	27609	2	Standard
|	**Cr**	**53**	**-0.056**	ug/L	0.003	5	957	768	2	Standard
⌊	**Mn**	**55**	**0.002**	ug/L	0.002	102	841	903	4	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	85723	1	KED
|	**Ni**	**60**	**0.001**	ug/L	0.005	438	27	29	29	KED
|	**Ni**	**62**	**0.028**	ug/L	0.006	22	3	11	16	KED
|	**Cu**	**63**	**0.001**	ug/L	0.004	737	98	100	17	KED
|	**Cu**	**65**	**0.001**	ug/L	0.003	232	36	39	14	KED
|	**Zn**	**66**	**0.006**	ug/L	0.004	74	160	163	1	KED
|	**Zn**	**67**	**-0.129**	ug/L	0.163	126	31	19	75	KED
⌊	**As**	**75**	**0.008**	ug/L	0.002	27	4	7	10	KED
	Y	**89**		ug/L			838447	805187	1	Standard
	Kr	**83**		ug/L			66	54	8	Standard
⌈>	**In-1**	**115**		ug/L			34735	34212	1	KED
|	**Cd**	**111**	**0.008**	ug/L	0.013	163	2	6	91	KED
⌊	**Cd**	**114**	**0.004**	ug/L	0.003	76	4	8	36	KED
⌈>	**In**	**115**		ug/L			1124355	1127675	2	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	11	54	68	2	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1291144	2	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.002	154	287	332	21	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0271-01
Sample Dil Factor: 50
Comments:
Sample Date/Time: Monday, June 25, 2018 16:58:06
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	59724	3	Standard
	Cl	**37**		ug/L			7569021	7480166	0	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1649394	1	Standard
|	**Cr**	**52**	**4.517**	ug/L	0.085	1	28028	141614	0	Standard
|	**Cr**	**53**	**3.899**	ug/L	0.013	0	957	13799	1	Standard
⌊	**Mn**	**55**	**7.748**	ug/L	0.052	0	841	269780	1	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	84768	0	KED
|	**Ni**	**60**	**0.477**	ug/L	0.031	6	27	832	5	KED
|	**Ni**	**62**	**0.464**	ug/L	0.042	8	3	129	8	KED
|	**Cu**	**63**	**0.809**	ug/L	0.011	1	98	3707	1	KED
|	**Cu**	**65**	**0.774**	ug/L	0.008	1	36	1720	0	KED
|	**Zn**	**66**	**127.458**	ug/L	2.255	1	160	69160	1	KED
|	**Zn**	**67**	**115.549**	ug/L	4.691	4	31	10546	3	KED
⌊	**As**	**75**	**0.017**	ug/L	0.002	11	4	10	6	KED
	Y	**89**		ug/L			838447	836453	2	Standard
	Kr	**83**		ug/L			66	58	11	Standard
⌈>	**In-1**	**115**		ug/L			34735	34290	0	KED
|	**Cd**	**111**	**0.505**	ug/L	0.037	7	2	227	6	KED
⌊	**Cd**	**114**	**0.505**	ug/L	0.008	1	4	576	2	KED
⌈>	**In**	**115**		ug/L			1124355	1102966	3	Standard
⌊	**Ag**	**107**	**0.003**	ug/L	0.002	57	54	106	25	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1303582	2	Standard
⌊	**Pb**	**208**	**0.077**	ug/L	0.004	4	287	3508	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-26
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, June 25, 2018 17:03:32
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	32860	3	Standard
	Cl	**37**		ug/L			7569021	7650033	1	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1732772	0	Standard
|	**Cr**	**52**	**0.172**	ug/L	0.018	10	28028	34306	1	Standard
|	**Cr**	**53**	**0.093**	ug/L	0.007	7	957	1338	2	Standard
⌊	**Mn**	**55**	**1.206**	ug/L	0.022	1	841	44864	2	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	85905	1	KED
|	**Ni**	**60**	**0.204**	ug/L	0.011	5	27	377	4	KED
|	**Ni**	**62**	**0.215**	ug/L	0.052	24	3	62	21	KED
|	**Cu**	**63**	**0.394**	ug/L	0.002	0	98	1881	1	KED
|	**Cu**	**65**	**0.381**	ug/L	0.022	5	36	877	5	KED
|	**Zn**	**66**	**1.917**	ug/L	0.058	3	160	1212	3	KED
|	**Zn**	**67**	**2.190**	ug/L	0.110	5	31	233	4	KED
⌊	**As**	**75**	**0.018**	ug/L	0.005	28	4	11	15	KED
	Y	**89**		ug/L			838447	842898	1	Standard
	Kr	**83**		ug/L			66	48	19	Standard
⌈>	**In-1**	**115**		ug/L			34735	34773	0	KED
|	**Cd**	**111**	**0.211**	ug/L	0.033	15	2	98	15	KED
⌊	**Cd**	**114**	**0.208**	ug/L	0.007	3	4	243	3	KED
⌈>	**In**	**115**		ug/L			1124355	1120845	0	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	74	54	71	17	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1364327	3	Standard
⌊	**Pb**	**208**	**0.092**	ug/L	0.003	3	287	4348	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-45
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, June 25, 2018 17:09:07
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20912	34403	3	Standard
	Cl	37		ug/L			7569021	6541729	0	Standard
>	Sc	45		ug/L			1631314	1447934	2	Standard
	Cr	52	0.509	ug/L	0.049	9	28028	36071	0	Standard
	Cr	53	0.350	ug/L	0.015	4	957	1859	1	Standard
	Mn	55	446.888	ug/L	10.480	2	841	13613722	1	Standard
>	Ge-1	72		ug/L			86095	73862	0	KED
	Ni	60	0.657	ug/L	0.020	3	27	989	2	KED
	Ni	62	0.570	ug/L	0.101	17	3	137	16	KED
	Cu	63	0.120	ug/L	0.002	1	98	550	1	KED
	Cu	65	0.130	ug/L	0.014	10	36	278	8	KED
	Zn	66	7.448	ug/L	0.247	3	160	3651	3	KED
	Zn	67	6.910	ug/L	0.409	5	31	575	5	KED
	As	75	0.028	ug/L	0.016	57	4	12	38	KED
	Y	89		ug/L			838447	774626	2	Standard
	Kr	83		ug/L			66	121	9	Standard
>	In-1	115		ug/L			34735	29467	4	KED
	Cd	111	0.021	ug/L	0.007	35	2	10	27	KED
	Cd	114	0.010	ug/L	0.001	7	4	13	9	KED
>	In	115		ug/L			1124355	999050	1	Standard
	Ag	107	0.002	ug/L	0.001	36	54	88	16	Standard
>	Tb	159		ug/L			1304758	1428319	1	Standard
	Pb	208	0.028	ug/L	0.002	5	287	1604	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0258-01
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, June 25, 2018 17:13:35
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20912	1011991	1	Standard
	Cl	37		ug/L			7569021	7278099	1	Standard
⌈>	Sc	45		ug/L			1631314	1603285	3	Standard
|	Cr	52	4.577	ug/L	0.198	4	28028	139041	0	Standard
|	Cr	53	1.601	ug/L	0.049	3	957	6059	0	Standard
⌊	Mn	55	122.488	ug/L	3.118	2	841	4131709	1	Standard
⌈>	Ge-1	72		ug/L			86095	74525	0	KED
|	Ni	60	7.326	ug/L	0.141	1	27	10899	2	KED
|	Ni	62	6.968	ug/L	0.144	2	3	1662	2	KED
|	Cu	63	0.542	ug/L	0.010	1	98	2214	2	KED
|	Cu	65	0.556	ug/L	0.011	1	36	1095	1	KED
|	Zn	66	10.579	ug/L	0.124	1	160	5174	0	KED
|	Zn	67	12.914	ug/L	0.786	6	31	1060	6	KED
⌊	As	75	0.139	ug/L	0.010	7	4	46	7	KED
	Y	89		ug/L			838447	795682	2	Standard
	Kr	83		ug/L			66	128	25	Standard
⌈>	In-1	115		ug/L			34735	30404	1	KED
|	Cd	111	0.067	ug/L	0.014	20	2	28	18	KED
⌊	Cd	114	0.061	ug/L	0.023	38	4	65	35	KED
⌈>	In	115		ug/L			1124355	1033136	1	Standard
⌊	Ag	107	0.001	ug/L	0.001	72	54	72	21	Standard
⌈>	Tb	159		ug/L			1304758	1446173	0	Standard
⌊	Pb	208	0.060	ug/L	0.003	4	287	3113	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0323-01
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, June 25, 2018 17:18:03
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	298712	2	Standard
	Cl	**37**		ug/L			7569021	7882175	0	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1670218	2	Standard
|	**Cr**	**52**	**1.650**	ug/L	0.055	3	28028	70585	1	Standard
|	**Cr**	**53**	**0.804**	ug/L	0.026	3	957	3659	1	Standard
⌊	**Mn**	**55**	**10.552**	ug/L	0.408	3	841	371544	1	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	79713	2	KED
|	**Ni**	**60**	**4.796**	ug/L	0.232	4	27	7635	2	KED
|	**Ni**	**62**	**4.431**	ug/L	0.288	6	3	1131	4	KED
|	**Cu**	**63**	**3.697**	ug/L	0.069	1	98	15614	2	KED
|	**Cu**	**65**	**3.714**	ug/L	0.036	0	36	7633	1	KED
|	**Zn**	**66**	**4.241**	ug/L	0.106	2	160	2307	1	KED
|	**Zn**	**67**	**4.671**	ug/L	0.158	3	31	429	3	KED
⌊	**As**	**75**	**0.100**	ug/L	0.012	11	4	37	8	KED
	Y	**89**		ug/L			838447	813511	1	Standard
	Kr	**83**		ug/L			66	96	8	Standard
⌈>	**In-1**	**115**		ug/L			34735	32407	1	KED
|	**Cd**	**111**	**0.016**	ug/L	0.004	26	2	9	17	KED
⌊	**Cd**	**114**	**0.015**	ug/L	0.003	22	4	20	19	KED
⌈>	**In**	**115**		ug/L			1124355	1101144	2	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	82	54	73	21	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1444245	5	Standard
⌊	**Pb**	**208**	**0.043**	ug/L	0.011	24	287	2278	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-32
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 17:22:31
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	45714	1	Standard
	Cl	**37**		ug/L			7569021	7677530	3	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1841056	3	Standard
|	**Cr**	**52**	**0.371**	ug/L	0.052	13	28028	41990	0	Standard
|	**Cr**	**53**	**0.282**	ug/L	0.024	8	957	2113	0	Standard
⌊	**Mn**	**55**	**0.987**	ug/L	0.023	2	841	39191	1	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	87421	0	KED
|	**Ni**	**60**	**0.274**	ug/L	0.028	10	27	504	9	KED
|	**Ni**	**62**	**0.275**	ug/L	0.045	16	3	80	15	KED
|	**Cu**	**63**	**0.260**	ug/L	0.003	1	98	1296	0	KED
|	**Cu**	**65**	**0.262**	ug/L	0.019	7	36	626	6	KED
|	**Zn**	**66**	**1.367**	ug/L	0.063	4	160	926	3	KED
|	**Zn**	**67**	**1.990**	ug/L	0.079	3	31	219	3	KED
⌊	**As**	**75**	**0.023**	ug/L	0.003	14	4	13	9	KED
	Y	**89**		ug/L			838447	872202	2	Standard
	Kr	**83**		ug/L			66	55	13	Standard
⌈>	**In-1**	**115**		ug/L			34735	34669	0	KED
|	**Cd**	**111**	**0.174**	ug/L	0.018	10	2	80	9	KED
⌊	**Cd**	**114**	**0.186**	ug/L	0.030	16	4	216	16	KED
⌈>	**In**	**115**		ug/L			1124355	1185101	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	165	54	68	26	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1482753	0	Standard
⌊	**Pb**	**208**	**0.004**	ug/L	0.001	11	287	534	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-40
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 17:27:00
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20912	46110	1	Standard
	Cl	37		ug/L			7569021	6830966	0	Standard
>	Sc	45		ug/L			1631314	1627521	1	Standard
	Cr	52	0.089	ug/L	0.018	20	28028	30173	2	Standard
	Cr	53	-0.028	ug/L	0.009	33	957	864	2	Standard
	Mn	55	581.475	ug/L	2.497	0	841	19917943	0	Standard
>	Ge-1	72		ug/L			86095	74559	1	KED
	Ni	60	0.278	ug/L	0.019	6	27	437	6	KED
	Ni	62	0.127	ug/L	0.051	40	3	33	37	KED
	Cu	63	0.023	ug/L	0.005	23	98	174	10	KED
	Cu	65	0.038	ug/L	0.008	21	36	105	15	KED
	Zn	66	0.858	ug/L	0.015	1	160	547	2	KED
	Zn	67	1.426	ug/L	0.132	9	31	141	6	KED
	As	75	0.151	ug/L	0.024	15	4	50	13	KED
	Y	89		ug/L			838447	777290	1	Standard
	Kr	83		ug/L			66	128	5	Standard
>	In-1	115		ug/L			34735	29625	1	KED
	Cd	111	-0.001	ug/L	0.004	619	2	2	65	KED
	Cd	114	0.003	ug/L	0.005	157	4	6	73	KED
>	In	115		ug/L			1124355	1028095	0	Standard
	Ag	107	0.001	ug/L	0.000	42	54	67	11	Standard
>	Tb	159		ug/L			1304758	1394183	0	Standard
	Pb	208	-0.001	ug/L	0.001	62	287	252	14	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-44
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 17:31:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20912	46711	0	Standard
	Cl	37		ug/L			7569021	7054386	0	Standard
>	Sc	45		ug/L			1631314	1650771	2	Standard
	Cr	52	0.118	ug/L	0.040	34	28028	31300	0	Standard
	Cr	53	-0.021	ug/L	0.006	28	957	900	2	Standard
	Mn	55	620.011	ug/L	14.386	2	841	21535035	1	Standard
>	Ge-1	72		ug/L			86095	72933	0	KED
	Ni	60	0.295	ug/L	0.011	3	27	452	2	KED
	Ni	62	0.207	ug/L	0.055	26	3	51	24	KED
	Cu	63	0.043	ug/L	0.013	30	98	246	19	KED
	Cu	65	0.050	ug/L	0.003	6	36	125	4	KED
	Zn	66	1.137	ug/L	0.075	6	160	666	6	KED
	Zn	67	1.920	ug/L	0.292	15	31	177	12	KED
	As	75	0.137	ug/L	0.013	9	4	44	7	KED
	Y	89		ug/L			838447	791460	1	Standard
	Kr	83		ug/L			66	136	10	Standard
>	In-1	115		ug/L			34735	29995	1	KED
	Cd	111	0.001	ug/L	0.002	245	2	2	33	KED
	Cd	114	0.004	ug/L	0.001	15	4	7	9	KED
>	In	115		ug/L			1124355	1037685	1	Standard
	Ag	107	0.002	ug/L	0.001	59	54	84	23	Standard
>	Tb	159		ug/L			1304758	1349783	1	Standard
	Pb	208	0.002	ug/L	0.000	23	287	387	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-46
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 17:35:56
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20912	40659	0	Standard
	Cl	37		ug/L			7569021	6616366	1	Standard
>	Sc	45		ug/L			1631314	1548693	1	Standard
	Cr	52	0.080	ug/L	0.011	14	28028	28480	1	Standard
	Cr	53	-0.019	ug/L	0.003	14	957	850	2	Standard
	Mn	55	842.154	ug/L	28.621	3	841	27440684	1	Standard
>	Ge-1	72		ug/L			86095	67168	0	KED
	Ni	60	0.821	ug/L	0.065	7	27	1120	8	KED
	Ni	62	0.646	ug/L	0.095	14	3	141	14	KED
	Cu	63	0.027	ug/L	0.008	29	98	173	17	KED
	Cu	65	0.049	ug/L	0.010	20	36	113	15	KED
	Zn	66	10.999	ug/L	0.456	4	160	4844	4	KED
	Zn	67	10.059	ug/L	1.076	10	31	750	10	KED
	As	75	0.055	ug/L	0.016	29	4	19	23	KED
	Y	89		ug/L			838447	733511	1	Standard
	Kr	83		ug/L			66	184	12	Standard
>	In-1	115		ug/L			34735	26837	1	KED
	Cd	111	0.037	ug/L	0.011	30	2	15	27	KED
	Cd	114	0.027	ug/L	0.007	24	4	27	22	KED
>	In	115		ug/L			1124355	924599	2	Standard
	Ag	107	0.002	ug/L	0.001	44	54	69	16	Standard
>	Tb	159		ug/L			1304758	1250250	1	Standard
	Pb	208	0.003	ug/L	0.005	159	287	415	54	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0265-01
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, June 25, 2018 17:40:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	303574	1	Standard
	Cl	**37**		ug/L			7569021	7970871	0	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1793908	2	Standard
|	**Cr**	**52**	**130.418**	ug/L	1.831	1	28028	3588091	0	Standard
|	**Cr**	**53**	**129.576**	ug/L	3.964	3	957	464585	0	Standard
⌊	**Mn**	**55**	**49.362**	ug/L	1.851	3	841	1863600	1	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	85602	1	KED
|	**Ni**	**60**	**5.454**	ug/L	0.044	0	27	9326	1	KED
|	**Ni**	**62**	**5.384**	ug/L	0.381	7	3	1475	5	KED
|	**Cu**	**63**	**2.256**	ug/L	0.042	1	98	10272	3	KED
|	**Cu**	**65**	**2.221**	ug/L	0.101	4	36	4918	5	KED
|	**Zn**	**66**	**201.661**	ug/L	6.812	3	160	110378	2	KED
|	**Zn**	**67**	**176.902**	ug/L	5.765	3	31	16285	1	KED
⌊	**As**	**75**	**0.104**	ug/L	0.010	9	4	41	9	KED
	Y	**89**		ug/L			838447	879797	3	Standard
	Kr	**83**		ug/L			66	66	24	Standard
⌈>	**In-1**	**115**		ug/L			34735	34499	1	KED
|	**Cd**	**111**	**0.910**	ug/L	0.044	4	2	409	3	KED
⌊	**Cd**	**114**	**0.824**	ug/L	0.030	3	4	942	5	KED
⌈>	**In**	**115**		ug/L			1124355	1157395	1	Standard
⌊	**Ag**	**107**	**0.108**	ug/L	0.009	8	54	2176	8	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1428444	4	Standard
⌊	**Pb**	**208**	**0.269**	ug/L	0.018	6	287	12623	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 17:45:57
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	26642	2	Standard
	Cl	**37**		ug/L			7569021	8330762	0	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1711502	1	Standard
|	**Cr**	**52**	**56.182**	ug/L	0.879	1	28028	1491533	1	Standard
|	**Cr**	**53**	**50.475**	ug/L	0.414	0	957	173338	1	Standard
⌊	**Mn**	**55**	**52.387**	ug/L	0.602	1	841	1887871	1	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	85520	1	KED
|	**Ni**	**60**	**47.392**	ug/L	0.862	1	27	80752	2	KED
|	**Ni**	**62**	**45.222**	ug/L	1.010	2	3	12364	2	KED
|	**Cu**	**63**	**47.700**	ug/L	0.622	1	98	214942	0	KED
|	**Cu**	**65**	**47.845**	ug/L	0.471	0	36	105087	1	KED
|	**Zn**	**66**	**48.988**	ug/L	1.620	3	160	26911	2	KED
|	**Zn**	**67**	**46.936**	ug/L	2.717	5	31	4339	4	KED
⌊	**As**	**75**	**50.080**	ug/L	0.847	1	4	17495	0	KED
	Y	**89**		ug/L			838447	865486	1	Standard
	Kr	**83**		ug/L			66	67	19	Standard
⌈>	**In-1**	**115**		ug/L			34735	34728	1	KED
|	**Cd**	**111**	**49.863**	ug/L	1.453	2	2	22451	1	KED
⌊	**Cd**	**114**	**48.062**	ug/L	0.611	1	4	55117	1	KED
⌈>	**In**	**115**		ug/L			1124355	1127471	1	Standard
⌊	**Ag**	**107**	**50.940**	ug/L	2.249	4	54	975694	3	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1350628	2	Standard
⌊	**Pb**	**208**	**49.247**	ug/L	1.174	2	287	2137540	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 17:53:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	22652	4	Standard
	Cl	**37**		ug/L			7569021	8220041	2	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1736561	2	Standard
|	**Cr**	**52**	**0.012**	ug/L	0.053	438	28028	30138	3	Standard
|	**Cr**	**53**	**-0.168**	ug/L	0.005	3	957	436	4	Standard
⌊	**Mn**	**55**	**0.004**	ug/L	0.007	167	841	1039	24	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	85408	0	KED
|	**Ni**	**60**	**-0.001**	ug/L	0.006	438	27	25	38	KED
|	**Ni**	**62**	**0.002**	ug/L	0.004	168	3	4	24	KED
|	**Cu**	**63**	**-0.007**	ug/L	0.001	14	98	66	7	KED
|	**Cu**	**65**	**-0.003**	ug/L	0.003	94	36	29	22	KED
|	**Zn**	**66**	**-0.087**	ug/L	0.017	19	160	111	7	KED
|	**Zn**	**67**	**-0.163**	ug/L	0.068	41	31	16	37	KED
⌊	**As**	**75**	**-0.002**	ug/L	0.004	164	4	4	29	KED
	Y	**89**		ug/L			838447	892656	3	Standard
	Kr	**83**		ug/L			66	46	20	Standard
⌈>	**In-1**	**115**		ug/L			34735	34580	2	KED
|	**Cd**	**111**	**0.006**	ug/L	0.006	110	2	5	53	KED
⌊	**Cd**	**114**	**-0.000**	ug/L	0.003	576	4	3	90	KED
⌈>	**In**	**115**		ug/L			1124355	1153739	5	Standard
⌊	**Ag**	**107**	**0.005**	ug/L	0.007	133	54	168	92	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1346613	1	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.007	316	287	394	77	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0548-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 17:58:04 DEL
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	31326	0	Standard
	Cl	**37**		ug/L			7569021	8178240	2	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1651010	7	Standard
|	**Cr**	**52**	**0.094**	ug/L	0.086	90	28028	30632	1	Standard
|	**Cr**	**53**	**-0.141**	ug/L	0.012	8	957	503	4	Standard
⌊	**Mn**	**55**	**1.595**	ug/L	0.138	8	841	56050	1	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	85539	1	KED
|	**Ni**	**60**	**0.158**	ug/L	0.007	4	27	297	3	KED
|	**Ni**	**62**	**0.147**	ug/L	0.028	18	3	43	15	KED
|	**Cu**	**63**	**0.046**	ug/L	0.001	1	98	305	3	KED
|	**Cu**	**65**	**0.045**	ug/L	0.009	19	36	134	13	KED
|	**Zn**	**66**	**1.091**	ug/L	0.073	6	160	754	3	KED
|	**Zn**	**67**	**0.758**	ug/L	0.240	31	31	100	20	KED
⌊	**As**	**75**	**0.006**	ug/L	0.003	50	4	6	14	KED
	Y	**89**		ug/L			838447	859062	4	Standard
	Kr	**83**		ug/L			66	59	11	Standard
⌈>	**In-1**	**115**		ug/L			34735	34476	1	KED
|	**Cd**	**111**	**0.000**	ug/L	0.007	7101	2	2	100	KED
⌊	**Cd**	**114**	**-0.018**	ug/L	0.007	37	4	-15	47	KED
⌈>	**In**	**115**		ug/L			1124355	1080334	11	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	35	54	71	18	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1231144	8	Standard
⌊	**Pb**	**208**	**0.016**	ug/L	0.002	12	287	897	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0548-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 18:02:33
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20912	32896	3	Standard
	Cl	37		ug/L			7569021	8312536	1	Standard
>	Sc	45		ug/L			1631314	1738582	1	Standard
	Cr	52	30.291	ug/L	0.809	2	28028	830656	2	Standard
	Cr	53	26.891	ug/L	0.239	0	957	94300	2	Standard
	Mn	55	33.457	ug/L	0.261	0	841	1225041	1	Standard
>	Ge-1	72		ug/L			86095	86914	1	KED
	Ni	60	25.155	ug/L	1.274	5	27	43548	3	KED
	Ni	62	24.443	ug/L	0.669	2	3	6791	1	KED
	Cu	63	26.247	ug/L	0.716	2	98	120233	1	KED
	Cu	65	25.777	ug/L	0.639	2	36	57541	1	KED
	Zn	66	81.915	ug/L	3.578	4	160	45623	3	KED
	Zn	67	74.370	ug/L	1.241	1	31	6971	0	KED
	As	75	25.634	ug/L	0.458	1	4	9103	0	KED
	Y	89		ug/L			838447	937122	1	Standard
	Kr	83		ug/L			66	67	16	Standard
>	In-1	115		ug/L			34735	35255	2	KED
	Cd	111	25.464	ug/L	0.761	2	2	11640	2	KED
	Cd	114	25.621	ug/L	0.918	3	4	29814	1	KED
>	In	115		ug/L			1124355	1170742	3	Standard
	Ag	107	27.549	ug/L	1.370	4	54	547815	4	Standard
>	Tb	159		ug/L			1304758	1362450	1	Standard
	Pb	208	26.917	ug/L	0.729	2	287	1178820	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0548-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 18:07:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20912	31370	5	Standard
	Cl	37		ug/L			7569021	8255954	3	Standard
>	Sc	45		ug/L			1631314	1737193	1	Standard
	Cr	52	0.086	ug/L	0.020	22	28028	32114	1	Standard
	Cr	53	-0.155	ug/L	0.001	0	957	481	1	Standard
	Mn	55	1.565	ug/L	0.027	1	841	58112	1	Standard
>	Ge-1	72		ug/L			86095	85476	1	KED
	Ni	60	0.150	ug/L	0.013	8	27	283	9	KED
	Ni	62	0.163	ug/L	0.038	23	3	48	21	KED
	Cu	63	0.055	ug/L	0.006	10	98	345	8	KED
	Cu	65	0.057	ug/L	0.010	16	36	162	12	KED
	Zn	66	1.248	ug/L	0.015	1	160	840	1	KED
	Zn	67	1.200	ug/L	0.285	23	31	141	18	KED
	As	75	0.003	ug/L	0.001	42	4	6	9	KED
	Y	89		ug/L			838447	891993	3	Standard
	Kr	83		ug/L			66	57	12	Standard
>	In-1	115		ug/L			34735	34184	1	KED
	Cd	111	0.034	ug/L	0.042	122	2	17	102	KED
	Cd	114	0.026	ug/L	0.068	259	4	32	229	KED
>	In	115		ug/L			1124355	1146944	2	Standard
	Ag	107	0.003	ug/L	0.002	61	54	106	26	Standard
>	Tb	159		ug/L			1304758	1318050	1	Standard
	Pb	208	0.019	ug/L	0.002	11	287	1091	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0548-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 18:11:52

DEL

Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	35179	0	Standard
	Cl	**37**		ug/L			7569021	8234663	0	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1762573	1	Standard
|	**Cr**	**52**	**29.812**	ug/L	0.954	3	28028	829138	1	Standard
|	**Cr**	**53**	**26.754**	ug/L	0.697	2	957	95088	1	Standard
⌊	**Mn**	**55**	**33.004**	ug/L	1.357	4	841	1224771	2	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	85217	1	KED
|	**Ni**	**60**	**25.184**	ug/L	0.292	1	27	42768	1	KED
|	**Ni**	**62**	**26.150**	ug/L	0.414	1	3	7124	1	KED
|	**Cu**	**63**	**26.342**	ug/L	0.069	0	98	118341	2	KED
|	**Cu**	**65**	**26.486**	ug/L	0.721	2	36	57980	3	KED
|	**Zn**	**66**	**83.274**	ug/L	3.168	3	160	45463	2	KED
|	**Zn**	**67**	**75.482**	ug/L	1.050	1	31	6938	2	KED
⌊	**As**	**75**	**25.816**	ug/L	0.666	2	4	8989	2	KED
	Y	**89**		ug/L			838447	908177	5	Standard
	Kr	**83**		ug/L			66	67	21	Standard
⌈>	**In-1**	**115**		ug/L			34735	34180	4	KED
|	**Cd**	**111**	**25.729**	ug/L	0.746	2	2	11399	2	KED
⌊	**Cd**	**114**	**25.163**	ug/L	0.658	2	4	28391	3	KED
⌈>	**In**	**115**		ug/L			1124355	1199976	3	Standard
⌊	**Ag**	**107**	**26.876**	ug/L	0.406	1	54	548030	3	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1315627	1	Standard
⌊	**Pb**	**208**	**27.349**	ug/L	0.847	3	287	1156430	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-68
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 18:16:29
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20912	37908	0	Standard
	Cl	37		ug/L			7569021	8065626	1	Standard
>	Sc	45		ug/L			1631314	1917688	1	Standard
	Cr	52	0.544	ug/L	0.010	1	28028	48803	0	Standard
	Cr	53	0.421	ug/L	0.015	3	957	2735	2	Standard
	Mn	55	153.866	ug/L	1.441	0	841	6211206	1	Standard
>	Ge-1	72		ug/L			86095	82749	1	KED
	Ni	60	8.498	ug/L	0.489	5	27	14024	4	KED
	Ni	62	8.207	ug/L	0.409	4	3	2172	3	KED
	Cu	63	20.123	ug/L	0.286	1	98	87789	0	KED
	Cu	65	19.893	ug/L	0.253	1	36	42291	0	KED
	Zn	66	93.620	ug/L	2.010	2	160	49621	0	KED
	Zn	67	83.567	ug/L	3.473	4	31	7452	2	KED
	As	75	0.075	ug/L	0.022	29	4	30	25	KED
	Y	89		ug/L			838447	1108786	2	Standard
	Kr	83		ug/L			66	71	11	Standard
>	In-1	115		ug/L			34735	34243	1	KED
	Cd	111	0.824	ug/L	0.069	8	2	368	7	KED
	Cd	114	0.788	ug/L	0.010	1	4	894	0	KED
>	In	115		ug/L			1124355	1198274	1	Standard
	Ag	107	0.006	ug/L	0.005	80	54	181	53	Standard
>	Tb	159		ug/L			1304758	1368295	2	Standard
	Pb	208	0.023	ug/L	0.004	16	287	1321	15	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-64
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 18:22:25
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20912	38395	1	Standard
	Cl	37		ug/L			7569021	8136805	1	Standard
⌈>	Sc	45		ug/L			1631314	1808667	1	Standard
|	Cr	52	0.193	ug/L	0.073	37	28028	36375	4	Standard
|	Cr	53	-0.015	ug/L	0.019	128	957	1007	6	Standard
⌊	Mn	55	3.913	ug/L	0.136	3	841	149863	3	Standard
⌈>	Ge-1	72		ug/L			86095	85087	2	KED
|	Ni	60	0.181	ug/L	0.026	14	27	334	11	KED
|	Ni	62	0.196	ug/L	0.041	20	3	57	21	KED
|	Cu	63	1.514	ug/L	0.008	0	98	6881	2	KED
|	Cu	65	1.508	ug/L	0.113	7	36	3326	4	KED
|	Zn	66	4.387	ug/L	0.095	2	160	2542	3	KED
|	Zn	67	4.177	ug/L	0.284	6	31	413	8	KED
⌊	As	75	0.684	ug/L	0.016	2	4	242	1	KED
	Y	89		ug/L			838447	902214	4	Standard
	Kr	83		ug/L			66	52	28	Standard
⌈>	In-1	115		ug/L			34735	34761	2	KED
|	Cd	111	0.038	ug/L	0.002	6	2	20	4	KED
⌊	Cd	114	0.034	ug/L	0.011	32	4	42	28	KED
⌈>	In	115		ug/L			1124355	1186483	3	Standard
⌊	Ag	107	0.002	ug/L	0.001	20	54	107	11	Standard
⌈>	Tb	159		ug/L			1304758	1333417	3	Standard
⌊	Pb	208	0.057	ug/L	0.001	2	287	2720	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0548-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 18:28:41
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20912	37718	3	Standard
	Cl	37		ug/L			7569021	8007774	1	Standard
>	Sc	45		ug/L			1631314	1762934	1	Standard
	Cr	52	0.208	ug/L	0.044	21	28028	35842	1	Standard
	Cr	53	-0.023	ug/L	0.008	35	957	953	1	Standard
	Mn	55	4.125	ug/L	0.131	3	841	153909	2	Standard
>	Ge-1	72		ug/L			86095	84016	3	KED
	Ni	60	0.195	ug/L	0.026	13	27	353	12	KED
	Ni	62	0.224	ug/L	0.077	34	3	63	29	KED
	Cu	63	1.526	ug/L	0.044	2	98	6849	4	KED
	Cu	65	1.530	ug/L	0.004	0	36	3334	3	KED
	Zn	66	4.472	ug/L	0.186	4	160	2556	5	KED
	Zn	67	3.680	ug/L	0.196	5	31	362	1	KED
	As	75	0.729	ug/L	0.013	1	4	254	1	KED
	Y	89		ug/L			838447	935917	1	Standard
	Kr	83		ug/L			66	60	9	Standard
>	In-1	115		ug/L			34735	34846	0	KED
	Cd	111	0.036	ug/L	0.023	63	2	19	54	KED
	Cd	114	0.030	ug/L	0.004	14	4	38	13	KED
>	In	115		ug/L			1124355	1167173	1	Standard
	Ag	107	0.002	ug/L	0.000	26	54	91	10	Standard
>	Tb	159		ug/L			1304758	1324479	2	Standard
	Pb	208	0.055	ug/L	0.005	9	287	2636	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0548-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 18:33:09
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20912	35798	1	Standard
	Cl	37		ug/L			7569021	7947112	2	Standard
>	Sc	45		ug/L			1631314	1785098	1	Standard
	Cr	52	29.381	ug/L	0.784	2	28028	828118	1	Standard
	Cr	53	26.231	ug/L	0.472	1	957	94447	0	Standard
	Mn	55	34.109	ug/L	0.486	1	841	1282331	1	Standard
>	Ge-1	72		ug/L			86095	84030	0	KED
	Ni	60	25.472	ug/L	0.404	1	27	42657	1	KED
	Ni	62	24.480	ug/L	0.931	3	3	6578	3	KED
	Cu	63	27.505	ug/L	0.757	2	98	121842	2	KED
	Cu	65	26.900	ug/L	0.303	1	36	58070	1	KED
	Zn	66	82.093	ug/L	0.665	0	160	44216	0	KED
	Zn	67	77.163	ug/L	2.768	3	31	6993	3	KED
	As	75	26.084	ug/L	0.310	1	4	8957	1	KED
	Y	89		ug/L			838447	888155	0	Standard
	Kr	83		ug/L			66	52	30	Standard
>	In-1	115		ug/L			34735	35245	0	KED
	Cd	111	24.824	ug/L	0.168	0	2	11348	0	KED
	Cd	114	24.464	ug/L	0.327	1	4	28474	0	KED
>	In	115		ug/L			1124355	1179658	1	Standard
	Ag	107	27.404	ug/L	0.715	2	54	549299	1	Standard
>	Tb	159		ug/L			1304758	1323679	2	Standard
	Pb	208	27.514	ug/L	0.994	3	287	1170259	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0548-MSD1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 18:37:38
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20912	36680	4	Standard
	Cl	37		ug/L			7569021	7986788	2	Standard
>	Sc	45		ug/L			1631314	1762569	0	Standard
	Cr	52	30.167	ug/L	1.041	3	28028	838809	2	Standard
	Cr	53	26.952	ug/L	0.195	0	957	95804	0	Standard
	Mn	55	34.848	ug/L	0.271	0	841	1293634	1	Standard
>	Ge-1	72		ug/L			86095	84999	0	KED
	Ni	60	25.155	ug/L	0.372	1	27	42611	1	KED
	Ni	62	24.471	ug/L	1.451	5	3	6649	5	KED
	Cu	63	27.676	ug/L	0.311	1	98	124010	1	KED
	Cu	65	26.979	ug/L	0.831	3	36	58902	2	KED
	Zn	66	81.430	ug/L	1.465	1	160	44362	1	KED
	Zn	67	74.686	ug/L	1.554	2	31	6847	2	KED
	As	75	25.867	ug/L	0.563	2	4	8984	1	KED
	Y	89		ug/L			838447	916763	2	Standard
	Kr	83		ug/L			66	71	17	Standard
>	In-1	115		ug/L			34735	34293	1	KED
	Cd	111	25.386	ug/L	0.471	1	2	11294	3	KED
	Cd	114	25.201	ug/L	0.791	3	4	28538	3	KED
>	In	115		ug/L			1124355	1156120	2	Standard
	Ag	107	29.149	ug/L	2.171	7	54	572018	5	Standard
>	Tb	159		ug/L			1304758	1313034	1	Standard
	Pb	208	27.624	ug/L	0.493	1	287	1166035	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-56
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 18:43:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	36358	3	Standard
	Cl	**37**		ug/L			7569021	8052861	0	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1753223	4	Standard
|	**Cr**	**52**	**0.215**	ug/L	0.069	32	28028	35805	2	Standard
|	**Cr**	**53**	**-0.016**	ug/L	0.011	69	957	972	5	Standard
⌊	**Mn**	**55**	**14.348**	ug/L	0.597	4	841	529714	0	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	82465	1	KED
|	**Ni**	**60**	**0.234**	ug/L	0.017	7	27	411	7	KED
|	**Ni**	**62**	**0.222**	ug/L	0.005	2	3	62	3	KED
|	**Cu**	**63**	**1.139**	ug/L	0.031	2	98	5041	1	KED
|	**Cu**	**65**	**1.165**	ug/L	0.008	0	36	2501	0	KED
|	**Zn**	**66**	**5.752**	ug/L	0.088	1	160	3183	2	KED
|	**Zn**	**67**	**5.839**	ug/L	0.785	13	31	546	11	KED
⌊	**As**	**75**	**0.520**	ug/L	0.027	5	4	179	3	KED
	Y	**89**		ug/L			838447	882461	3	Standard
	Kr	**83**		ug/L			66	54	5	Standard
⌈>	**In-1**	**115**		ug/L			34735	34530	1	KED
|	**Cd**	**111**	**0.039**	ug/L	0.007	17	2	20	13	KED
⌊	**Cd**	**114**	**0.040**	ug/L	0.002	5	4	49	4	KED
⌈>	**In**	**115**		ug/L			1124355	1148118	3	Standard
⌊	**Ag**	**107**	**0.009**	ug/L	0.011	124	54	227	93	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1274778	1	Standard
⌊	**Pb**	**208**	**0.023**	ug/L	0.014	61	287	1215	46	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 18:48:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	19662	2	Standard
	Cl	**37**		ug/L			7569021	8466475	3	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1723126	0	Standard
|	**Cr**	**52**	**53.789**	ug/L	2.952	5	28028	1438929	4	Standard
|	**Cr**	**53**	**50.518**	ug/L	1.337	2	957	174670	2	Standard
⌊	**Mn**	**55**	**52.859**	ug/L	1.873	3	841	1917897	3	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	80729	2	KED
|	**Ni**	**60**	**47.831**	ug/L	3.039	6	27	76841	3	KED
|	**Ni**	**62**	**46.201**	ug/L	0.579	1	3	11923	3	KED
|	**Cu**	**63**	**48.472**	ug/L	0.460	0	98	206245	3	KED
|	**Cu**	**65**	**47.178**	ug/L	1.646	3	36	97756	1	KED
|	**Zn**	**66**	**48.224**	ug/L	2.448	5	160	24991	2	KED
|	**Zn**	**67**	**48.208**	ug/L	1.380	2	31	4206	0	KED
⌊	**As**	**75**	**50.304**	ug/L	1.248	2	4	16584	0	KED
	Y	**89**		ug/L			838447	911312	3	Standard
	Kr	**83**		ug/L			66	73	11	Standard
⌈>	**In-1**	**115**		ug/L			34735	33465	2	KED
|	**Cd**	**111**	**48.359**	ug/L	1.486	3	2	20982	1	KED
⌊	**Cd**	**114**	**47.179**	ug/L	1.294	2	4	52122	0	KED
⌈>	**In**	**115**		ug/L			1124355	1130527	4	Standard
⌊	**Ag**	**107**	**52.524**	ug/L	1.100	2	54	1008671	3	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1290313	3	Standard
⌊	**Pb**	**208**	**50.483**	ug/L	1.742	3	287	2092594	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 18:55:56
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	21298	2	Standard
	Cl	**37**		ug/L			7569021	8144977	0	Standard
⎡>	**Sc**	**45**		ug/L			1631314	1695042	2	Standard
⎢	**Cr**	**52**	**0.056**	ug/L	0.032	56	28028	30556	2	Standard
⎢	**Cr**	**53**	**-0.186**	ug/L	0.011	5	957	366	9	Standard
⎣	**Mn**	**55**	**-0.001**	ug/L	0.001	70	841	832	4	Standard
⎡>	**Ge-1**	**72**		ug/L			86095	80239	4	KED
⎢	**Ni**	**60**	**0.009**	ug/L	0.018	212	27	40	74	KED
⎢	**Ni**	**62**	**0.011**	ug/L	0.008	72	3	6	34	KED
⎢	**Cu**	**63**	**-0.003**	ug/L	0.011	330	98	78	58	KED
⎢	**Cu**	**65**	**0.003**	ug/L	0.019	711	36	40	98	KED
⎢	**Zn**	**66**	**-0.095**	ug/L	0.026	27	160	101	17	KED
⎢	**Zn**	**67**	**-0.152**	ug/L	0.046	30	31	16	24	KED
⎣	**As**	**75**	**0.010**	ug/L	0.009	97	4	7	40	KED
	Y	**89**		ug/L			838447	880908	2	Standard
	Kr	**83**		ug/L			66	57	8	Standard
⎡>	**In-1**	**115**		ug/L			34735	33507	2	KED
⎢	**Cd**	**111**	**-0.001**	ug/L	0.004	301	2	2	65	KED
⎣	**Cd**	**114**	**-0.002**	ug/L	0.001	61	4	2	47	KED
⎡>	**In**	**115**		ug/L			1124355	1140742	0	Standard
⎣	**Ag**	**107**	**0.001**	ug/L	0.001	42	54	83	13	Standard
⎡>	**Tb**	**159**		ug/L			1304758	1245357	1	Standard
⎣	**Pb**	**208**	**-0.001**	ug/L	0.000	37	287	229	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-23
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, June 25, 2018 19:02:44
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	26804	2	Standard
	Cl	**37**		ug/L			7569021	8074446	1	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1771816	1	Standard
|	**Cr**	**52**	**0.087**	ug/L	0.035	39	28028	32797	3	Standard
|	**Cr**	**53**	**-0.101**	ug/L	0.005	4	957	683	1	Standard
⌊	**Mn**	**55**	**70.657**	ug/L	2.173	3	841	2635603	2	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	82441	0	KED
|	**Ni**	**60**	**0.897**	ug/L	0.048	5	27	1499	4	KED
|	**Ni**	**62**	**0.917**	ug/L	0.083	9	3	245	8	KED
|	**Cu**	**63**	**0.275**	ug/L	0.024	8	98	1288	7	KED
|	**Cu**	**65**	**0.275**	ug/L	0.022	7	36	616	6	KED
|	**Zn**	**66**	**5.289**	ug/L	0.143	2	160	2938	2	KED
|	**Zn**	**67**	**5.558**	ug/L	0.362	6	31	522	6	KED
⌊	**As**	**75**	**0.011**	ug/L	0.006	53	4	8	22	KED
	Y	**89**		ug/L			838447	919552	3	Standard
	Kr	**83**		ug/L			66	52	11	Standard
⌈>	**In-1**	**115**		ug/L			34735	33432	0	KED
|	**Cd**	**111**	**0.516**	ug/L	0.049	9	2	226	9	KED
⌊	**Cd**	**114**	**0.539**	ug/L	0.043	8	4	599	8	KED
⌈>	**In**	**115**		ug/L			1124355	1173352	1	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.000	18	54	93	5	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1298321	3	Standard
⌊	**Pb**	**208**	**0.079**	ug/L	0.002	2	287	3563	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-24
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, June 25, 2018 19:07:42
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	26446	2	Standard
	Cl	**37**		ug/L			7569021	8409246	3	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1783765	2	Standard
|	**Cr**	**52**	**0.076**	ug/L	0.048	62	28028	32691	3	Standard
|	**Cr**	**53**	**-0.103**	ug/L	0.010	9	957	678	3	Standard
⌊	**Mn**	**55**	**70.393**	ug/L	2.643	3	841	2642325	1	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	82184	0	KED
|	**Ni**	**60**	**0.881**	ug/L	0.036	4	27	1468	3	KED
|	**Ni**	**62**	**0.907**	ug/L	0.077	8	3	241	7	KED
|	**Cu**	**63**	**0.288**	ug/L	0.005	1	98	1341	1	KED
|	**Cu**	**65**	**0.265**	ug/L	0.013	4	36	594	4	KED
|	**Zn**	**66**	**5.506**	ug/L	0.208	3	160	3043	3	KED
|	**Zn**	**67**	**5.378**	ug/L	0.308	5	31	504	4	KED
⌊	**As**	**75**	**0.011**	ug/L	0.006	54	4	8	23	KED
	Y	**89**		ug/L			838447	902390	0	Standard
	Kr	**83**		ug/L			66	56	5	Standard
⌈>	**In-1**	**115**		ug/L			34735	33459	1	KED
|	**Cd**	**111**	**0.524**	ug/L	0.027	5	2	229	3	KED
⌊	**Cd**	**114**	**0.486**	ug/L	0.012	2	4	540	3	KED
⌈>	**In**	**115**		ug/L			1124355	1185426	2	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.001	75	54	90	27	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1302963	0	Standard
⌊	**Pb**	**208**	**0.075**	ug/L	0.002	2	287	3444	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-27
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, June 25, 2018 19:12:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20912	26303	1	Standard
	Cl	37		ug/L			7569021	7942177	1	Standard
>	Sc	45		ug/L			1631314	1775468	1	Standard
	Cr	52	0.059	ug/L	0.041	70	28028	32091	3	Standard
	Cr	53	-0.125	ug/L	0.004	3	957	597	1	Standard
	Mn	55	187.506	ug/L	3.080	1	841	7006020	0	Standard
>	Ge-1	72		ug/L			86095	80777	2	KED
	Ni	60	2.576	ug/L	0.087	3	27	4168	1	KED
	Ni	62	2.556	ug/L	0.029	1	3	663	3	KED
	Cu	63	5.745	ug/L	0.191	3	98	24523	1	KED
	Cu	65	5.620	ug/L	0.037	0	36	11691	2	KED
	Zn	66	53.983	ug/L	2.854	5	160	27979	3	KED
	Zn	67	47.590	ug/L	1.979	4	31	4155	2	KED
	As	75	0.015	ug/L	0.007	42	4	9	22	KED
	Y	89		ug/L			838447	928506	2	Standard
	Kr	83		ug/L			66	64	21	Standard
>	In-1	115		ug/L			34735	33108	2	KED
	Cd	111	0.394	ug/L	0.006	1	2	171	3	KED
	Cd	114	0.375	ug/L	0.007	1	4	414	3	KED
>	In	115		ug/L			1124355	1186175	3	Standard
	Ag	107	0.001	ug/L	0.001	68	54	77	18	Standard
>	Tb	159		ug/L			1304758	1310134	0	Standard
	Pb	208	0.091	ug/L	0.004	3	287	4117	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-28
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, June 25, 2018 19:16:38
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	24466	1	Standard
	Cl	**37**		ug/L			7569021	8087980	1	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1773184	2	Standard
|	**Cr**	**52**	**-0.003**	ug/L	0.046	1845	28028	30385	3	Standard
|	**Cr**	**53**	**-0.143**	ug/L	0.008	5	957	533	2	Standard
⌊	**Mn**	**55**	**96.809**	ug/L	6.610	6	841	3609417	4	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	82237	2	KED
|	**Ni**	**60**	**1.336**	ug/L	0.043	3	27	2213	1	KED
|	**Ni**	**62**	**1.378**	ug/L	0.054	3	3	365	1	KED
|	**Cu**	**63**	**2.804**	ug/L	0.009	0	98	12242	2	KED
|	**Cu**	**65**	**2.831**	ug/L	0.079	2	36	6012	2	KED
|	**Zn**	**66**	**28.773**	ug/L	0.316	1	160	15264	1	KED
|	**Zn**	**67**	**25.013**	ug/L	0.706	2	31	2238	3	KED
⌊	**As**	**75**	**0.012**	ug/L	0.012	99	4	8	48	KED
	Y	**89**		ug/L			838447	937496	2	Standard
	Kr	**83**		ug/L			66	55	6	Standard
⌈>	**In-1**	**115**		ug/L			34735	33567	0	KED
|	**Cd**	**111**	**0.213**	ug/L	0.003	1	2	95	2	KED
⌊	**Cd**	**114**	**0.169**	ug/L	0.015	8	4	191	7	KED
⌈>	**In**	**115**		ug/L			1124355	1178600	2	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.000	6	54	88	1	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1292255	3	Standard
⌊	**Pb**	**208**	**0.097**	ug/L	0.003	2	287	4309	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-29
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, June 25, 2018 19:21:07
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	27305	3	Standard
	Cl	**37**		ug/L			7569021	7953574	1	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1755095	3	Standard
|	**Cr**	**52**	**0.053**	ug/L	0.046	85	28028	31554	1	Standard
|	**Cr**	**53**	**-0.126**	ug/L	0.006	5	957	589	3	Standard
⌊	**Mn**	**55**	**65.414**	ug/L	1.879	2	841	2415698	0	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	83160	1	KED
|	**Ni**	**60**	**1.637**	ug/L	0.062	3	27	2738	2	KED
|	**Ni**	**62**	**1.632**	ug/L	0.038	2	3	437	2	KED
|	**Cu**	**63**	**1.417**	ug/L	0.085	5	98	6304	6	KED
|	**Cu**	**65**	**1.395**	ug/L	0.085	6	36	3013	4	KED
|	**Zn**	**66**	**32.397**	ug/L	0.791	2	160	17358	0	KED
|	**Zn**	**67**	**28.640**	ug/L	0.200	0	31	2588	2	KED
⌊	**As**	**75**	**0.010**	ug/L	0.003	25	4	8	10	KED
	Y	**89**		ug/L			838447	913477	0	Standard
	Kr	**83**		ug/L			66	63	22	Standard
⌈>	**In-1**	**115**		ug/L			34735	33768	2	KED
|	**Cd**	**111**	**0.332**	ug/L	0.021	6	2	148	8	KED
⌊	**Cd**	**114**	**0.357**	ug/L	0.033	9	4	401	7	KED
⌈>	**In**	**115**		ug/L			1124355	1152481	3	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	132	54	73	27	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1307742	1	Standard
⌊	**Pb**	**208**	**0.076**	ug/L	0.002	2	287	3462	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-30
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 19:25:34

DEL

Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	37226	2	Standard
	Cl	**37**		ug/L			7569021	7983490	1	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1823321	0	Standard
|	**Cr**	**52**	**0.089**	ug/L	0.003	3	28028	33791	0	Standard
|	**Cr**	**53**	**-0.052**	ug/L	0.011	21	957	881	3	Standard
⌊	**Mn**	**55**	**286.367**	ug/L	4.695	1	841	10990245	1	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	80096	1	KED
|	**Ni**	**60**	**7.922**	ug/L	0.405	5	27	12657	3	KED
|	**Ni**	**62**	**7.916**	ug/L	0.033	0	3	2029	1	KED
|	**Cu**	**63**	**6.816**	ug/L	0.246	3	98	28844	3	KED
|	**Cu**	**65**	**6.689**	ug/L	0.274	4	36	13783	2	KED
|	**Zn**	**66**	**144.987**	ug/L	6.880	4	160	74285	3	KED
|	**Zn**	**67**	**127.718**	ug/L	0.627	0	31	11014	2	KED
⌊	**As**	**75**	**0.027**	ug/L	0.010	38	4	13	25	KED
	Y	**89**		ug/L			838447	956840	1	Standard
	Kr	**83**		ug/L			66	64	13	Standard
⌈>	**In-1**	**115**		ug/L			34735	32519	1	KED
|	**Cd**	**111**	**1.624**	ug/L	0.035	2	2	687	2	KED
⌊	**Cd**	**114**	**1.616**	ug/L	0.021	1	4	1739	1	KED
⌈>	**In**	**115**		ug/L			1124355	1167362	4	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.000	79	54	65	11	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1307944	1	Standard
⌊	**Pb**	**208**	**0.017**	ug/L	0.001	7	287	988	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-36
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 19:30:02
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	33776	3	Standard
	Cl	**37**		ug/L			7569021	8295606	2	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1838708	1	Standard
|	**Cr**	**52**	**0.069**	ug/L	0.025	36	28028	33525	1	Standard
|	**Cr**	**53**	**-0.079**	ug/L	0.011	14	957	788	4	Standard
⌊	**Mn**	**55**	**0.484**	ug/L	0.017	3	841	19677	2	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	82126	2	KED
|	**Ni**	**60**	**0.136**	ug/L	0.010	7	27	248	9	KED
|	**Ni**	**62**	**0.115**	ug/L	0.040	35	3	33	28	KED
|	**Cu**	**63**	**8.544**	ug/L	0.094	1	98	37054	3	KED
|	**Cu**	**65**	**8.515**	ug/L	0.292	3	36	17984	3	KED
|	**Zn**	**66**	**70.577**	ug/L	3.736	5	160	37140	2	KED
|	**Zn**	**67**	**62.312**	ug/L	4.110	6	31	5519	4	KED
⌊	**As**	**75**	**0.082**	ug/L	0.004	4	4	32	6	KED
	Y	**89**		ug/L			838447	922628	2	Standard
	Kr	**83**		ug/L			66	59	13	Standard
⌈>	**In-1**	**115**		ug/L			34735	33429	1	KED
|	**Cd**	**111**	**0.512**	ug/L	0.039	7	2	224	6	KED
⌊	**Cd**	**114**	**0.452**	ug/L	0.047	10	4	503	11	KED
⌈>	**In**	**115**		ug/L			1124355	1199826	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	18	54	83	6	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1323240	3	Standard
⌊	**Pb**	**208**	**0.006**	ug/L	0.001	20	287	543	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-38
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, June 25, 2018 19:34:31
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20912	29201	3	Standard
	Cl	37		ug/L			7569021	8217427	1	Standard
>	Sc	45		ug/L			1631314	1813931	2	Standard
	Cr	52	0.011	ug/L	0.011	99	28028	31481	2	Standard
	Cr	53	-0.109	ug/L	0.007	6	957	670	2	Standard
	Mn	55	2.264	ug/L	0.085	3	841	87307	1	Standard
>	Ge-1	72		ug/L			86095	81504	2	KED
	Ni	60	0.549	ug/L	0.003	0	27	917	1	KED
	Ni	62	0.634	ug/L	0.068	10	3	168	11	KED
	Cu	63	22.035	ug/L	0.287	1	98	94689	2	KED
	Cu	65	22.021	ug/L	0.645	2	36	46095	0	KED
	Zn	66	190.135	ug/L	4.817	2	160	99112	2	KED
	Zn	67	172.992	ug/L	4.790	2	31	15164	1	KED
	As	75	0.030	ug/L	0.004	13	4	14	11	KED
	Y	89		ug/L			838447	915991	2	Standard
	Kr	83		ug/L			66	58	8	Standard
>	In-1	115		ug/L			34735	33574	0	KED
	Cd	111	1.077	ug/L	0.013	1	2	471	0	KED
	Cd	114	1.129	ug/L	0.058	5	4	1255	5	KED
>	In	115		ug/L			1124355	1183261	0	Standard
	Ag	107	0.002	ug/L	0.001	23	54	105	9	Standard
>	Tb	159		ug/L			1304758	1265555	2	Standard
	Pb	208	0.055	ug/L	0.004	7	287	2498	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-39
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, June 25, 2018 19:38:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	25406	4	Standard
	Cl	**37**		ug/L			7569021	8137037	1	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1685601	6	Standard
|	**Cr**	**52**	**0.082**	ug/L	0.056	68	28028	30998	2	Standard
|	**Cr**	**53**	**-0.115**	ug/L	0.011	9	957	600	3	Standard
⌊	**Mn**	**55**	**72.848**	ug/L	3.307	4	841	2580014	2	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	78506	1	KED
|	**Ni**	**60**	**0.075**	ug/L	0.008	10	27	142	8	KED
|	**Ni**	**62**	**0.077**	ug/L	0.032	41	3	22	36	KED
|	**Cu**	**63**	**0.075**	ug/L	0.008	11	98	399	8	KED
|	**Cu**	**65**	**0.075**	ug/L	0.003	4	36	184	4	KED
|	**Zn**	**66**	**2.227**	ug/L	0.093	4	160	1263	4	KED
|	**Zn**	**67**	**2.179**	ug/L	0.085	3	31	212	4	KED
⌊	**As**	**75**	**0.017**	ug/L	0.007	43	4	10	23	KED
	Y	**89**		ug/L			838447	836942	4	Standard
	Kr	**83**		ug/L			66	64	17	Standard
⌈>	**In-1**	**115**		ug/L			34735	33399	2	KED
|	**Cd**	**111**	**0.007**	ug/L	0.006	84	2	5	44	KED
⌊	**Cd**	**114**	**0.008**	ug/L	0.009	112	4	12	75	KED
⌈>	**In**	**115**		ug/L			1124355	1112992	5	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.001	56	54	95	22	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1227844	5	Standard
⌊	**Pb**	**208**	**0.095**	ug/L	0.003	3	287	4018	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-40 RE1
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, June 25, 2018 19:43:27 MB 6/25/18
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	27873	2	Standard
	Cl	**37**		ug/L			7569021	8175553	3	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1721281	2	Standard
|	**Cr**	**52**	**0.074**	ug/L	0.056	76	28028	31475	2	Standard
|	**Cr**	**53**	**-0.137**	ug/L	0.006	4	957	540	2	Standard
⌊	**Mn**	**55**	**132.295**	ug/L	4.020	3	841	4791062	0	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	77107	2	KED
|	**Ni**	**60**	**0.104**	ug/L	0.010	9	27	184	7	KED
|	**Ni**	**62**	**0.071**	ug/L	0.009	12	3	20	9	KED
|	**Cu**	**63**	**0.032**	ug/L	0.011	33	98	216	18	KED
|	**Cu**	**65**	**0.036**	ug/L	0.005	15	36	104	9	KED
|	**Zn**	**66**	**1.515**	ug/L	0.240	15	160	888	11	KED
|	**Zn**	**67**	**1.481**	ug/L	0.140	9	31	151	8	KED
⌊	**As**	**75**	**0.040**	ug/L	0.005	13	4	17	11	KED
	Y	**89**		ug/L			838447	885848	4	Standard
	Kr	**83**		ug/L			66	68	12	Standard
⌈>	**In-1**	**115**		ug/L			34735	31719	0	KED
|	**Cd**	**111**	**0.006**	ug/L	0.004	60	2	5	28	KED
⌊	**Cd**	**114**	**-0.000**	ug/L	0.003	1089	4	3	87	KED
⌈>	**In**	**115**		ug/L			1124355	1128716	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	78	54	82	26	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1280684	1	Standard
⌊	**Pb**	**208**	**0.069**	ug/L	0.003	4	287	3131	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 19:49:00
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	20754	2	Standard
	Cl	**37**		ug/L			7569021	8178887	1	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1676347	0	Standard
|	**Cr**	**52**	**57.215**	ug/L	0.790	1	28028	1487372	1	Standard
|	**Cr**	**53**	**51.574**	ug/L	0.631	1	957	173461	0	Standard
⌊	**Mn**	**55**	**54.635**	ug/L	1.577	2	841	1928586	3	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	78014	2	KED
|	**Ni**	**60**	**47.412**	ug/L	1.972	4	27	73658	2	KED
|	**Ni**	**62**	**46.979**	ug/L	2.189	4	3	11712	4	KED
|	**Cu**	**63**	**48.201**	ug/L	0.666	1	98	198202	3	KED
|	**Cu**	**65**	**48.021**	ug/L	0.526	1	36	96202	1	KED
|	**Zn**	**66**	**47.192**	ug/L	2.902	6	160	23637	3	KED
|	**Zn**	**67**	**48.786**	ug/L	0.519	1	31	4116	3	KED
⌊	**As**	**75**	**50.695**	ug/L	0.691	1	4	16155	0	KED
	Y	**89**		ug/L			838447	866504	3	Standard
	Kr	**83**		ug/L			66	67	32	Standard
⌈>	**In-1**	**115**		ug/L			34735	32140	1	KED
|	**Cd**	**111**	**49.780**	ug/L	1.086	2	2	20746	0	KED
⌊	**Cd**	**114**	**49.287**	ug/L	0.682	1	4	52317	2	KED
⌈>	**In**	**115**		ug/L			1124355	1119703	2	Standard
⌊	**Ag**	**107**	**51.036**	ug/L	1.302	2	54	970712	0	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1272452	1	Standard
⌊	**Pb**	**208**	**51.743**	ug/L	0.217	0	287	2116666	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 19:56:13
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	20980	3	Standard
	Cl	**37**		ug/L			7569021	8105558	2	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1710749	3	Standard
|	**Cr**	**52**	**-0.022**	ug/L	0.048	219	28028	28801	1	Standard
|	**Cr**	**53**	**-0.202**	ug/L	0.003	1	957	314	5	Standard
⌊	**Mn**	**55**	**-0.002**	ug/L	0.001	71	841	818	2	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	81558	1	KED
|	**Ni**	**60**	**-0.005**	ug/L	0.006	120	27	18	52	KED
|	**Ni**	**62**	**-0.002**	ug/L	0.011	706	3	3	91	KED
|	**Cu**	**63**	**-0.009**	ug/L	0.002	18	98	52	14	KED
|	**Cu**	**65**	**-0.001**	ug/L	0.002	206	36	32	15	KED
|	**Zn**	**66**	**-0.081**	ug/L	0.019	23	160	109	8	KED
|	**Zn**	**67**	**-0.141**	ug/L	0.074	52	31	17	37	KED
⌊	**As**	**75**	**0.001**	ug/L	0.001	115	4	4	5	KED
	Y	**89**		ug/L			838447	873123	2	Standard
	Kr	**83**		ug/L			66	61	23	Standard
⌈>	**In-1**	**115**		ug/L			34735	32064	1	KED
|	**Cd**	**111**	**-0.000**	ug/L	0.005	1958	2	2	78	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.005	297	4	5	91	KED
⌈>	**In**	**115**		ug/L			1124355	1160811	2	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	57	54	78	16	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1231145	2	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.001	86	287	243	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 20:00:41
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				20640	7	Standard
	Cl	**37**		ug/L				8161285	2	Standard
>	**Sc**	**45**		ug/L				1731398	2	Standard
	Cr	**52**		ug/L				29739	3	Standard
	Cr	**53**		ug/L				293	6	Standard
	Mn	**55**		ug/L				791	2	Standard
>	**Ge-1**	**72**		ug/L				80395	2	KED
	Ni	**60**		ug/L				20	31	KED
	Ni	**62**		ug/L				6	31	KED
	Cu	**63**		ug/L				59	31	KED
	Cu	**65**		ug/L				24	19	KED
	Zn	**66**		ug/L				111	6	KED
	Zn	**67**		ug/L				18	26	KED
	As	**75**		ug/L				7	26	KED
	Y	**89**		ug/L				890395	3	Standard
	Kr	**83**		ug/L				55	9	Standard
>	**In-1**	**115**		ug/L				32964	0	KED
	Cd	**111**		ug/L				3	83	KED
	Cd	**114**		ug/L				4	25	KED
>	**In**	**115**		ug/L				1164708	3	Standard
	Ag	**107**		ug/L				76	11	Standard
>	**Tb**	**159**		ug/L				1225002	2	Standard
	Pb	**208**		ug/L				206	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV9
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 20:05:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	20382	2	Standard
	Cl	**37**		ug/L			8161285	8369130	1	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1680785	1	Standard
|	**Cr**	**52**	**57.094**	ug/L	0.766	1	29739	1488081	1	Standard
|	**Cr**	**53**	**51.661**	ug/L	0.323	0	293	173525	2	Standard
⌊	**Mn**	**55**	**53.641**	ug/L	0.593	1	791	1898059	0	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	77920	0	KED
|	**Ni**	**60**	**47.261**	ug/L	0.445	0	20	73366	1	KED
|	**Ni**	**62**	**46.662**	ug/L	1.169	2	6	11626	2	KED
|	**Cu**	**63**	**48.952**	ug/L	1.663	3	59	200980	3	KED
|	**Cu**	**65**	**48.349**	ug/L	0.924	1	24	96742	1	KED
|	**Zn**	**66**	**47.786**	ug/L	1.176	2	111	23887	2	KED
|	**Zn**	**67**	**48.843**	ug/L	1.436	2	18	4104	2	KED
⌊	**As**	**75**	**50.148**	ug/L	1.099	2	7	15967	1	KED
	Y	**89**		ug/L			890395	873132	3	Standard
	Kr	**83**		ug/L			55	74	14	Standard
⌈>	**In-1**	**115**		ug/L			32964	31879	1	KED
|	**Cd**	**111**	**49.827**	ug/L	0.311	0	3	20601	0	KED
⌊	**Cd**	**114**	**49.820**	ug/L	0.711	1	4	52445	0	KED
⌈>	**In**	**115**		ug/L			1164708	1152762	1	Standard
⌊	**Ag**	**107**	**48.214**	ug/L	2.363	4	76	944034	3	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1242913	2	Standard
⌊	**Pb**	**208**	**52.054**	ug/L	1.725	3	206	2079202	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB9
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 20:09:38
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	20401	3	Standard
	Cl	**37**		ug/L			8161285	8298220	0	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1667581	1	Standard
|	**Cr**	**52**	**0.058**	ug/L	0.026	44	29739	30115	1	Standard
|	**Cr**	**53**	**0.002**	ug/L	0.005	240	293	290	5	Standard
⌊	**Mn**	**55**	**0.002**	ug/L	0.001	53	791	815	5	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	80094	3	KED
|	**Ni**	**60**	**0.069**	ug/L	0.038	54	20	131	44	KED
|	**Ni**	**62**	**0.068**	ug/L	0.069	101	6	24	70	KED
|	**Cu**	**63**	**0.075**	ug/L	0.046	61	59	372	49	KED
|	**Cu**	**65**	**0.067**	ug/L	0.043	63	24	161	52	KED
|	**Zn**	**66**	**0.083**	ug/L	0.001	0	111	153	2	KED
|	**Zn**	**67**	**0.044**	ug/L	0.049	111	18	22	21	KED
⌊	**As**	**75**	**0.069**	ug/L	0.016	23	7	29	15	KED
	Y	**89**		ug/L			890395	856617	3	Standard
	Kr	**83**		ug/L			55	58	18	Standard
⌈>	**In-1**	**115**		ug/L			32964	32043	1	KED
|	**Cd**	**111**	**0.006**	ug/L	0.001	21	3	6	9	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.007	606	4	5	128	KED
⌈>	**In**	**115**		ug/L			1164708	1134964	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	45	76	100	9	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1190864	3	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.001	64	206	240	13	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-42
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 20:14:07
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	34066	4	Standard
	Cl	**37**		ug/L			8161285	8118103	1	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1828086	2	Standard
|	**Cr**	**52**	**0.871**	ug/L	0.012	1	29739	55606	1	Standard
|	**Cr**	**53**	**0.833**	ug/L	0.032	3	293	3345	1	Standard
⌊	**Mn**	**55**	**0.691**	ug/L	0.011	1	791	27411	1	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	77018	2	KED
|	**Ni**	**60**	**0.104**	ug/L	0.022	20	20	179	16	KED
|	**Ni**	**62**	**0.068**	ug/L	0.005	7	6	23	4	KED
|	**Cu**	**63**	**0.300**	ug/L	0.011	3	59	1271	1	KED
|	**Cu**	**65**	**0.294**	ug/L	0.010	3	24	603	1	KED
|	**Zn**	**66**	**0.834**	ug/L	0.116	13	111	516	9	KED
|	**Zn**	**67**	**1.015**	ug/L	0.173	17	18	101	14	KED
⌊	**As**	**75**	**0.395**	ug/L	0.030	7	7	131	4	KED
	Y	**89**		ug/L			890395	904385	1	Standard
	Kr	**83**		ug/L			55	46	26	Standard
⌈>	**In-1**	**115**		ug/L			32964	33373	3	KED
|	**Cd**	**111**	**0.015**	ug/L	0.005	34	3	10	21	KED
⌊	**Cd**	**114**	**0.014**	ug/L	0.004	27	4	19	22	KED
⌈>	**In**	**115**		ug/L			1164708	1120008	0	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	52	76	85	6	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1269243	5	Standard
⌊	**Pb**	**208**	**0.005**	ug/L	0.001	16	206	435	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-43
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, June 25, 2018 20:18:36
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	24427	2	Standard
	Cl	**37**		ug/L			8161285	8224426	1	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1691986	1	Standard
|	**Cr**	**52**	**0.092**	ug/L	0.023	25	29739	31435	0	Standard
|	**Cr**	**53**	**0.088**	ug/L	0.007	8	293	586	5	Standard
⌊	**Mn**	**55**	**63.329**	ug/L	1.301	2	791	2255435	0	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	77276	3	KED
|	**Ni**	**60**	**0.057**	ug/L	0.009	16	20	107	13	KED
|	**Ni**	**62**	**0.070**	ug/L	0.002	2	6	24	4	KED
|	**Cu**	**63**	**0.069**	ug/L	0.013	18	59	338	13	KED
|	**Cu**	**65**	**0.074**	ug/L	0.010	13	24	170	9	KED
|	**Zn**	**66**	**1.889**	ug/L	0.091	4	111	1038	0	KED
|	**Zn**	**67**	**1.754**	ug/L	0.366	20	18	162	14	KED
⌊	**As**	**75**	**0.008**	ug/L	0.008	97	7	9	27	KED
	Y	**89**		ug/L			890395	877487	1	Standard
	Kr	**83**		ug/L			55	59	18	Standard
⌈>	**In-1**	**115**		ug/L			32964	32197	2	KED
|	**Cd**	**111**	**0.003**	ug/L	0.004	135	3	4	40	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.002	122	4	6	37	KED
⌈>	**In**	**115**		ug/L			1164708	1144872	2	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	78	76	93	13	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1246684	1	Standard
⌊	**Pb**	**208**	**0.050**	ug/L	0.004	7	206	2217	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-44RE1
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, June 25, 2018 20:23:04
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	26551	1	Standard
	Cl	**37**		ug/L			8161285	8109919	0	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1744341	2	Standard
|	**Cr**	**52**	**0.042**	ug/L	0.036	85	29739	31064	1	Standard
|	**Cr**	**53**	**0.047**	ug/L	0.004	9	293	460	2	Standard
⌊	**Mn**	**55**	**134.684**	ug/L	1.237	0	791	4944796	1	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	76640	0	KED
|	**Ni**	**60**	**0.072**	ug/L	0.010	13	20	129	11	KED
|	**Ni**	**62**	**0.032**	ug/L	0.012	36	6	14	19	KED
|	**Cu**	**63**	**0.016**	ug/L	0.001	5	59	121	2	KED
|	**Cu**	**65**	**0.019**	ug/L	0.005	28	24	60	17	KED
|	**Zn**	**66**	**0.776**	ug/L	0.110	14	111	485	11	KED
|	**Zn**	**67**	**0.944**	ug/L	0.050	5	18	95	4	KED
⌊	**As**	**75**	**0.021**	ug/L	0.017	81	7	13	39	KED
	Y	**89**		ug/L			890395	875291	3	Standard
	Kr	**83**		ug/L			55	69	15	Standard
⌈>	**In-1**	**115**		ug/L			32964	31070	4	KED
|	**Cd**	**111**	**-0.002**	ug/L	0.005	232	3	2	78	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.001	181	4	3	32	KED
⌈>	**In**	**115**		ug/L			1164708	1155460	5	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	48	76	88	8	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1265358	2	Standard
⌊	**Pb**	**208**	**0.032**	ug/L	0.001	3	206	1533	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-45 RE1
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, June 25, 2018 20:27:32 MB 6/25/18
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	24575	3	Standard
	Cl	**37**		ug/L			8161285	8177507	1	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1727680	1	Standard
|	**Cr**	**52**	**0.161**	ug/L	0.059	36	29739	33900	3	Standard
|	**Cr**	**53**	**0.129**	ug/L	0.014	10	293	738	6	Standard
⌊	**Mn**	**55**	**99.417**	ug/L	3.278	3	791	3614776	2	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	77947	1	KED
|	**Ni**	**60**	**0.144**	ug/L	0.004	2	20	243	1	KED
|	**Ni**	**62**	**0.103**	ug/L	0.029	28	6	32	23	KED
|	**Cu**	**63**	**0.032**	ug/L	0.005	15	59	188	11	KED
|	**Cu**	**65**	**0.035**	ug/L	0.006	18	24	92	12	KED
|	**Zn**	**66**	**2.084**	ug/L	0.087	4	111	1144	3	KED
|	**Zn**	**67**	**2.076**	ug/L	0.243	11	18	191	11	KED
⌊	**As**	**75**	**0.001**	ug/L	0.006	454	7	7	22	KED
	Y	**89**		ug/L			890395	895406	0	Standard
	Kr	**83**		ug/L			55	60	10	Standard
⌈>	**In-1**	**115**		ug/L			32964	31184	0	KED
|	**Cd**	**111**	**0.004**	ug/L	0.004	113	3	4	34	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.001	43	4	6	15	KED
⌈>	**In**	**115**		ug/L			1164708	1138205	2	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.001	313	76	70	17	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1270817	2	Standard
⌊	**Pb**	**208**	**0.036**	ug/L	0.002	6	206	1668	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-46RE1
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, June 25, 2018 20:32:00
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	24449	5	Standard
	Cl	**37**		ug/L			8161285	8259057	0	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1733218	1	Standard
|	**Cr**	**52**	**0.026**	ug/L	0.018	67	29739	30460	1	Standard
|	**Cr**	**53**	**0.030**	ug/L	0.002	6	293	397	0	Standard
⌊	**Mn**	**55**	**96.438**	ug/L	1.829	1	791	3518312	1	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	77933	0	KED
|	**Ni**	**60**	**0.101**	ug/L	0.012	11	20	177	9	KED
|	**Ni**	**62**	**0.087**	ug/L	0.015	16	6	28	13	KED
|	**Cu**	**63**	**0.010**	ug/L	0.002	20	59	99	9	KED
|	**Cu**	**65**	**0.014**	ug/L	0.005	33	24	50	17	KED
|	**Zn**	**66**	**2.031**	ug/L	0.203	10	111	1118	8	KED
|	**Zn**	**67**	**1.986**	ug/L	0.447	22	18	184	20	KED
⌊	**As**	**75**	**0.001**	ug/L	0.003	429	7	7	13	KED
	Y	**89**		ug/L			890395	871123	2	Standard
	Kr	**83**		ug/L			55	61	12	Standard
⌈>	**In-1**	**115**		ug/L			32964	31790	1	KED
|	**Cd**	**111**	**-0.003**	ug/L	0.004	130	3	2	65	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.000	5	4	5	0	KED
⌈>	**In**	**115**		ug/L			1164708	1125726	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	63	76	92	14	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1263155	3	Standard
⌊	**Pb**	**208**	**0.034**	ug/L	0.001	1	206	1596	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-47
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, June 25, 2018 20:36:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	24063	2	Standard
	Cl	**37**		ug/L			8161285	8251948	1	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1725096	3	Standard
|	**Cr**	**52**	**0.288**	ug/L	0.016	5	29739	37190	1	Standard
|	**Cr**	**53**	**0.279**	ug/L	0.024	8	293	1250	3	Standard
⌊	**Mn**	**55**	**92.803**	ug/L	1.638	1	791	3370770	4	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	78886	2	KED
|	**Ni**	**60**	**3.205**	ug/L	0.055	1	20	5054	0	KED
|	**Ni**	**62**	**2.957**	ug/L	0.177	5	6	753	8	KED
|	**Cu**	**63**	**15.495**	ug/L	0.589	3	59	64428	3	KED
|	**Cu**	**65**	**15.372**	ug/L	0.533	3	24	31143	1	KED
|	**Zn**	**66**	**84.992**	ug/L	3.217	3	111	42909	1	KED
|	**Zn**	**67**	**77.048**	ug/L	2.250	2	18	6542	2	KED
⌊	**As**	**75**	**-0.003**	ug/L	0.001	49	7	6	8	KED
	Y	**89**		ug/L			890395	878443	2	Standard
	Kr	**83**		ug/L			55	50	15	Standard
⌈>	**In-1**	**115**		ug/L			32964	32617	1	KED
|	**Cd**	**111**	**0.471**	ug/L	0.036	7	3	202	6	KED
⌊	**Cd**	**114**	**0.486**	ug/L	0.027	5	4	527	6	KED
⌈>	**In**	**115**		ug/L			1164708	1157720	0	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.000	121	76	69	11	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1234854	2	Standard
⌊	**Pb**	**208**	**0.038**	ug/L	0.001	3	206	1728	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-48
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, June 25, 2018 20:40:56
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20640	24137	1	Standard
	Cl	37		ug/L			8161285	8351454	1	Standard
>	Sc	45		ug/L			1731398	1700979	0	Standard
	Cr	52	0.093	ug/L	0.057	60	29739	31629	4	Standard
	Cr	53	0.086	ug/L	0.002	2	293	579	1	Standard
	Mn	55	95.915	ug/L	3.374	3	791	3433852	2	Standard
>	Ge-1	72		ug/L			80395	77158	3	KED
	Ni	60	3.342	ug/L	0.194	5	20	5148	2	KED
	Ni	62	3.207	ug/L	0.236	7	6	796	4	KED
	Cu	63	15.933	ug/L	0.474	2	59	64763	1	KED
	Cu	65	15.637	ug/L	0.545	3	24	30972	0	KED
	Zn	66	89.608	ug/L	4.323	4	111	44216	1	KED
	Zn	67	77.511	ug/L	0.578	0	18	6438	3	KED
	As	75	0.002	ug/L	0.009	559	7	7	34	KED
	Y	89		ug/L			890395	864971	2	Standard
	Kr	83		ug/L			55	53	16	Standard
>	In-1	115		ug/L			32964	32231	2	KED
	Cd	111	0.460	ug/L	0.036	7	3	195	7	KED
	Cd	114	0.479	ug/L	0.050	10	4	513	9	KED
>	In	115		ug/L			1164708	1125557	1	Standard
	Ag	107	0.000	ug/L	0.000	693	76	75	11	Standard
>	Tb	159		ug/L			1225002	1226452	1	Standard
	Pb	208	0.037	ug/L	0.002	4	206	1676	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-49
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, June 25, 2018 20:45:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	23452	2	Standard
	Cl	**37**		ug/L			8161285	8447626	1	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1716458	1	Standard
|	**Cr**	**52**	**0.071**	ug/L	0.031	42	29739	31337	1	Standard
|	**Cr**	**53**	**0.098**	ug/L	0.006	6	293	626	3	Standard
⌊	**Mn**	**55**	**131.997**	ug/L	2.416	1	791	4768466	0	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	78744	1	KED
|	**Ni**	**60**	**1.620**	ug/L	0.086	5	20	2560	4	KED
|	**Ni**	**62**	**1.473**	ug/L	0.100	6	6	377	8	KED
|	**Cu**	**63**	**2.280**	ug/L	0.054	2	59	9513	1	KED
|	**Cu**	**65**	**2.253**	ug/L	0.004	0	24	4577	1	KED
|	**Zn**	**66**	**46.941**	ug/L	1.490	3	111	23710	1	KED
|	**Zn**	**67**	**41.472**	ug/L	1.473	3	18	3523	2	KED
⌊	**As**	**75**	**0.009**	ug/L	0.010	108	7	10	32	KED
	Y	**89**		ug/L			890395	876446	0	Standard
	Kr	**83**		ug/L			55	64	33	Standard
⌈>	**In-1**	**115**		ug/L			32964	31427	2	KED
|	**Cd**	**111**	**0.274**	ug/L	0.017	6	3	114	5	KED
⌊	**Cd**	**114**	**0.297**	ug/L	0.028	9	4	311	7	KED
⌈>	**In**	**115**		ug/L			1164708	1149875	0	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.001	189	76	66	25	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1240391	3	Standard
⌊	**Pb**	**208**	**0.088**	ug/L	0.007	7	206	3704	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-50
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, June 25, 2018 20:49:52
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20640	23974	0	Standard
	Cl	37		ug/L			8161285	8313477	2	Standard
>	Sc	45		ug/L			1731398	1733581	2	Standard
	Cr	52	0.019	ug/L	0.007	37	29739	30277	2	Standard
	Cr	53	0.044	ug/L	0.007	16	293	448	7	Standard
	Mn	55	133.863	ug/L	3.291	2	791	4886696	4	Standard
>	Ge-1	72		ug/L			80395	79555	3	KED
	Ni	60	1.567	ug/L	0.118	7	20	2501	5	KED
	Ni	62	1.594	ug/L	0.100	6	6	412	9	KED
	Cu	63	2.151	ug/L	0.030	1	59	9070	1	KED
	Cu	65	2.240	ug/L	0.085	3	24	4599	5	KED
	Zn	66	45.934	ug/L	2.357	5	111	23424	2	KED
	Zn	67	40.643	ug/L	2.717	6	18	3485	3	KED
	As	75	-0.005	ug/L	0.003	51	7	5	14	KED
	Y	89		ug/L			890395	882679	1	Standard
	Kr	83		ug/L			55	67	14	Standard
>	In-1	115		ug/L			32964	32213	4	KED
	Cd	111	0.308	ug/L	0.044	14	3	131	11	KED
	Cd	114	0.286	ug/L	0.020	6	4	307	3	KED
>	In	115		ug/L			1164708	1162933	3	Standard
	Ag	107	-0.001	ug/L	0.001	87	76	59	23	Standard
>	Tb	159		ug/L			1225002	1239332	3	Standard
	Pb	208	0.083	ug/L	0.001	0	206	3517	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-52
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 20:54:20
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	36074	3	Standard
	Cl	**37**		ug/L			8161285	8371622	0	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1794806	2	Standard
|	**Cr**	**52**	**0.121**	ug/L	0.039	32	29739	34113	1	Standard
|	**Cr**	**53**	**0.139**	ug/L	0.007	4	293	800	0	Standard
⌊	**Mn**	**55**	**1.486**	ug/L	0.041	2	791	56943	1	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	79876	1	KED
|	**Ni**	**60**	**0.178**	ug/L	0.021	11	20	304	11	KED
|	**Ni**	**62**	**0.154**	ug/L	0.048	31	6	46	27	KED
|	**Cu**	**63**	**0.463**	ug/L	0.004	0	59	2007	2	KED
|	**Cu**	**65**	**0.450**	ug/L	0.022	4	24	946	2	KED
|	**Zn**	**66**	**1.280**	ug/L	0.064	5	111	763	2	KED
|	**Zn**	**67**	**1.333**	ug/L	0.060	4	18	132	5	KED
⌊	**As**	**75**	**0.613**	ug/L	0.047	7	7	207	6	KED
	Y	**89**		ug/L			890395	931122	1	Standard
	Kr	**83**		ug/L			55	53	11	Standard
⌈>	**In-1**	**115**		ug/L			32964	32949	0	KED
|	**Cd**	**111**	**0.016**	ug/L	0.004	28	3	10	19	KED
⌊	**Cd**	**114**	**0.014**	ug/L	0.008	61	4	19	46	KED
⌈>	**In**	**115**		ug/L			1164708	1158669	3	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.001	330	76	80	16	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1209368	1	Standard
⌊	**Pb**	**208**	**0.019**	ug/L	0.001	6	206	926	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVA
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 20:59:53
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	20041	3	Standard
	Cl	**37**		ug/L			8161285	8298696	1	Standard
>	**Sc**	**45**		ug/L			1731398	1657157	1	Standard
	Cr	**52**	**56.628**	ug/L	2.251	3	29739	1455215	3	Standard
	Cr	**53**	**51.821**	ug/L	0.691	1	293	171582	0	Standard
	Mn	**55**	**54.745**	ug/L	1.425	2	791	1910061	2	Standard
>	**Ge-1**	**72**		ug/L			80395	75914	0	KED
	Ni	**60**	**47.472**	ug/L	0.659	1	20	71798	1	KED
	Ni	**62**	**47.275**	ug/L	0.853	1	6	11476	1	KED
	Cu	**63**	**47.661**	ug/L	0.991	2	59	190641	2	KED
	Cu	**65**	**47.139**	ug/L	0.692	1	24	91899	1	KED
	Zn	**66**	**48.115**	ug/L	1.589	3	111	23435	3	KED
	Zn	**67**	**48.693**	ug/L	0.994	2	18	3986	2	KED
	As	**75**	**51.264**	ug/L	0.428	0	7	15902	0	KED
	Y	**89**		ug/L			890395	875619	1	Standard
	Kr	**83**		ug/L			55	74	1	Standard
>	**In-1**	**115**		ug/L			32964	31022	0	KED
	Cd	**111**	**49.155**	ug/L	0.402	0	3	19777	0	KED
	Cd	**114**	**49.293**	ug/L	0.852	1	4	50500	1	KED
>	**In**	**115**		ug/L			1164708	1091788	2	Standard
	Ag	**107**	**51.888**	ug/L	2.837	5	76	961889	3	Standard
>	**Tb**	**159**		ug/L			1225002	1203211	1	Standard
	Pb	**208**	**53.138**	ug/L	1.164	2	206	2055274	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBA
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 21:07:05
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	20187	3	Standard
	Cl	**37**		ug/L			8161285	8377424	0	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1704681	1	Standard
|	**Cr**	**52**	**-0.013**	ug/L	0.028	213	29739	28937	2	Standard
|	**Cr**	**53**	**0.003**	ug/L	0.001	35	293	300	1	Standard
⌊	**Mn**	**55**	**0.005**	ug/L	0.004	76	791	974	16	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	74451	1	KED
|	**Ni**	**60**	**0.022**	ug/L	0.017	74	20	52	45	KED
|	**Ni**	**62**	**0.029**	ug/L	0.022	75	6	13	37	KED
|	**Cu**	**63**	**0.022**	ug/L	0.019	83	59	140	50	KED
|	**Cu**	**65**	**0.030**	ug/L	0.024	79	24	80	56	KED
|	**Zn**	**66**	**0.025**	ug/L	0.023	89	111	114	8	KED
|	**Zn**	**67**	**0.009**	ug/L	0.032	367	18	17	16	KED
⌊	**As**	**75**	**0.020**	ug/L	0.020	99	7	12	45	KED
	Y	**89**		ug/L			890395	878129	2	Standard
	Kr	**83**		ug/L			55	46	25	Standard
⌈>	**In-1**	**115**		ug/L			32964	31522	4	KED
|	**Cd**	**111**	**0.006**	ug/L	0.005	89	3	5	33	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.003	258	4	5	62	KED
⌈>	**In**	**115**		ug/L			1164708	1138713	3	Standard
⌊	**Ag**	**107**	**0.003**	ug/L	0.003	92	76	128	36	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1200477	1	Standard
⌊	**Pb**	**208**	**0.004**	ug/L	0.002	64	206	341	24	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-54
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 21:11:34
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	35128	3	Standard
	Cl	**37**		ug/L			8161285	8266899	1	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1763248	1	Standard
|	**Cr**	**52**	**0.298**	ug/L	0.050	16	29739	38288	3	Standard
|	**Cr**	**53**	**0.254**	ug/L	0.013	5	293	1194	4	Standard
⌊	**Mn**	**55**	**2.179**	ug/L	0.042	1	791	81646	0	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	78477	0	KED
|	**Ni**	**60**	**0.197**	ug/L	0.010	5	20	328	4	KED
|	**Ni**	**62**	**0.133**	ug/L	0.047	35	6	40	28	KED
|	**Cu**	**63**	**1.442**	ug/L	0.011	0	59	6017	0	KED
|	**Cu**	**65**	**1.460**	ug/L	0.028	1	24	2964	1	KED
|	**Zn**	**66**	**4.879**	ug/L	0.187	3	111	2553	3	KED
|	**Zn**	**67**	**4.766**	ug/L	0.446	9	18	419	9	KED
⌊	**As**	**75**	**0.756**	ug/L	0.049	6	7	249	5	KED
	Y	**89**		ug/L			890395	939957	3	Standard
	Kr	**83**		ug/L			55	60	1	Standard
⌈>	**In-1**	**115**		ug/L			32964	32652	1	KED
|	**Cd**	**111**	**0.029**	ug/L	0.010	33	3	15	27	KED
⌊	**Cd**	**114**	**0.032**	ug/L	0.007	20	4	39	17	KED
⌈>	**In**	**115**		ug/L			1164708	1146009	2	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	118	76	89	16	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1211345	2	Standard
⌊	**Pb**	**208**	**0.048**	ug/L	0.003	5	206	2087	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-58
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 21:16:02
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	34158	1	Standard
	Cl	**37**		ug/L			8161285	8011695	0	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1747963	1	Standard
|	**Cr**	**52**	**0.132**	ug/L	0.033	25	29739	33535	1	Standard
|	**Cr**	**53**	**0.120**	ug/L	0.010	8	293	715	5	Standard
⌊	**Mn**	**55**	**2.181**	ug/L	0.016	0	791	81012	1	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	77843	2	KED
|	**Ni**	**60**	**0.157**	ug/L	0.024	15	20	263	14	KED
|	**Ni**	**62**	**0.128**	ug/L	0.034	26	6	38	24	KED
|	**Cu**	**63**	**1.051**	ug/L	0.046	4	59	4363	2	KED
|	**Cu**	**65**	**1.054**	ug/L	0.021	1	24	2129	2	KED
|	**Zn**	**66**	**3.570**	ug/L	0.077	2	111	1882	3	KED
|	**Zn**	**67**	**3.279**	ug/L	0.131	4	18	292	6	KED
⌊	**As**	**75**	**0.534**	ug/L	0.006	1	7	177	2	KED
	Y	**89**		ug/L			890395	901491	0	Standard
	Kr	**83**		ug/L			55	69	19	Standard
⌈>	**In-1**	**115**		ug/L			32964	32243	2	KED
|	**Cd**	**111**	**0.042**	ug/L	0.007	17	3	20	16	KED
⌊	**Cd**	**114**	**0.028**	ug/L	0.006	20	4	33	17	KED
⌈>	**In**	**115**		ug/L			1164708	1151213	4	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.000	95	76	81	4	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1234724	3	Standard
⌊	**Pb**	**208**	**0.011**	ug/L	0.001	9	206	661	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-60
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 21:20:30
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	32468	3	Standard
	Cl	**37**		ug/L			8161285	8174429	0	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1723223	1	Standard
|	**Cr**	**52**	**0.119**	ug/L	0.008	6	29739	32707	1	Standard
|	**Cr**	**53**	**0.094**	ug/L	0.006	6	293	617	5	Standard
⌊	**Mn**	**55**	**3.666**	ug/L	0.129	3	791	133711	3	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	75895	0	KED
|	**Ni**	**60**	**0.144**	ug/L	0.013	8	20	237	8	KED
|	**Ni**	**62**	**0.161**	ug/L	0.020	12	6	45	11	KED
|	**Cu**	**63**	**1.290**	ug/L	0.039	2	59	5213	2	KED
|	**Cu**	**65**	**1.267**	ug/L	0.050	3	24	2491	4	KED
|	**Zn**	**66**	**4.917**	ug/L	0.209	4	111	2487	3	KED
|	**Zn**	**67**	**4.727**	ug/L	0.402	8	18	402	7	KED
⌊	**As**	**75**	**0.651**	ug/L	0.015	2	7	208	2	KED
	Y	**89**		ug/L			890395	888279	4	Standard
	Kr	**83**		ug/L			55	59	22	Standard
⌈>	**In-1**	**115**		ug/L			32964	31532	3	KED
|	**Cd**	**111**	**0.041**	ug/L	0.005	11	3	20	8	KED
⌊	**Cd**	**114**	**0.036**	ug/L	0.011	31	4	41	31	KED
⌈>	**In**	**115**		ug/L			1164708	1132940	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	75	76	86	8	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1191591	1	Standard
⌊	**Pb**	**208**	**0.033**	ug/L	0.001	2	206	1469	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-62
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 21:24:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	32228	2	Standard
	Cl	**37**		ug/L			8161285	7958045	2	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1730791	2	Standard
|	**Cr**	**52**	**0.136**	ug/L	0.033	24	29739	33281	0	Standard
|	**Cr**	**53**	**0.111**	ug/L	0.011	9	293	677	4	Standard
⌊	**Mn**	**55**	**1.223**	ug/L	0.054	4	791	45322	2	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	78965	0	KED
|	**Ni**	**60**	**0.148**	ug/L	0.008	5	20	253	4	KED
|	**Ni**	**62**	**0.141**	ug/L	0.044	31	6	42	26	KED
|	**Cu**	**63**	**0.509**	ug/L	0.008	1	59	2174	2	KED
|	**Cu**	**65**	**0.519**	ug/L	0.036	6	24	1076	6	KED
|	**Zn**	**66**	**1.946**	ug/L	0.136	6	111	1090	5	KED
|	**Zn**	**67**	**1.997**	ug/L	0.428	21	18	187	19	KED
⌊	**As**	**75**	**0.241**	ug/L	0.007	3	7	84	3	KED
	Y	**89**		ug/L			890395	888663	1	Standard
	Kr	**83**		ug/L			55	53	20	Standard
⌈>	**In-1**	**115**		ug/L			32964	31507	7	KED
|	**Cd**	**111**	**0.009**	ug/L	0.007	80	3	6	39	KED
⌊	**Cd**	**114**	**0.022**	ug/L	0.009	37	4	27	27	KED
⌈>	**In**	**115**		ug/L			1164708	1163585	4	Standard
⌊	**Ag**	**107**	**-0.001**	ug/L	0.001	119	76	66	15	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1210161	2	Standard
⌊	**Pb**	**208**	**0.008**	ug/L	0.001	10	206	534	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-66
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 21:29:27
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	34323	1	Standard
	Cl	**37**		ug/L			8161285	8028491	2	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1731794	1	Standard
|	**Cr**	**52**	**0.141**	ug/L	0.020	14	29739	33444	0	Standard
|	**Cr**	**53**	**0.126**	ug/L	0.015	12	293	727	6	Standard
⌊	**Mn**	**55**	**3.164**	ug/L	0.138	4	791	116077	3	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	77446	1	KED
|	**Ni**	**60**	**0.183**	ug/L	0.021	11	20	302	9	KED
|	**Ni**	**62**	**0.171**	ug/L	0.033	19	6	48	15	KED
|	**Cu**	**63**	**1.057**	ug/L	0.035	3	59	4369	4	KED
|	**Cu**	**65**	**1.096**	ug/L	0.021	1	24	2202	2	KED
|	**Zn**	**66**	**4.278**	ug/L	0.159	3	111	2223	4	KED
|	**Zn**	**67**	**3.976**	ug/L	0.375	9	18	348	9	KED
⌊	**As**	**75**	**0.537**	ug/L	0.026	4	7	176	3	KED
	Y	**89**		ug/L			890395	885809	0	Standard
	Kr	**83**		ug/L			55	57	5	Standard
⌈>	**In-1**	**115**		ug/L			32964	32644	1	KED
|	**Cd**	**111**	**0.033**	ug/L	0.008	24	3	17	19	KED
⌊	**Cd**	**114**	**0.024**	ug/L	0.006	26	4	30	24	KED
⌈>	**In**	**115**		ug/L			1164708	1113207	1	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.000	103	76	81	10	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1182906	4	Standard
⌊	**Pb**	**208**	**0.014**	ug/L	0.001	10	206	741	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0323-01RE1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 21:33:55
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20640	459006	4	Standard
	Cl	37		ug/L			8161285	8375348	2	Standard
>	Sc	45		ug/L			1731398	1650779	1	Standard
	Cr	52	2.941	ug/L	0.049	1	29739	102171	1	Standard
	Cr	53	1.820	ug/L	0.060	3	293	6271	1	Standard
	Mn	55	19.304	ug/L	0.235	1	791	671491	2	Standard
>	Ge-1	72		ug/L			80395	67355	1	KED
	Ni	60	9.084	ug/L	0.167	1	20	12205	2	KED
	Ni	62	8.902	ug/L	0.341	3	6	1922	4	KED
	Cu	63	6.728	ug/L	0.072	1	59	23920	1	KED
	Cu	65	6.645	ug/L	0.191	2	24	11508	1	KED
	Zn	66	6.513	ug/L	0.132	2	111	2894	1	KED
	Zn	67	7.644	ug/L	0.139	1	18	568	2	KED
	As	75	0.135	ug/L	0.018	13	7	43	10	KED
	Y	89		ug/L			890395	822706	2	Standard
	Kr	83		ug/L			55	111	5	Standard
>	In-1	115		ug/L			32964	27505	1	KED
	Cd	111	0.043	ug/L	0.021	47	3	18	41	KED
	Cd	114	0.035	ug/L	0.004	10	4	35	11	KED
>	In	115		ug/L			1164708	1031780	0	Standard
	Ag	107	0.000	ug/L	0.000	58	76	74	4	Standard
>	Tb	159		ug/L			1225002	1212531	1	Standard
	Pb	208	0.026	ug/L	0.000	1	206	1234	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0313-02RE1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 21:38:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20640	39335	2	Standard
	Cl	37		ug/L			8161285	8166330	2	Standard
>	Sc	45		ug/L			1731398	1833145	0	Standard
	Cr	52	5.890	ug/L	0.291	4	29739	195714	4	Standard
	Cr	53	5.530	ug/L	0.161	2	293	20533	2	Standard
	Mn	55	81.071	ug/L	1.733	2	791	3128359	1	Standard
>	Ge-1	72		ug/L			80395	79331	1	KED
	Ni	60	2.851	ug/L	0.115	4	20	4522	2	KED
	Ni	62	2.842	ug/L	0.125	4	6	727	2	KED
	Cu	63	1.157	ug/L	0.052	4	59	4891	2	KED
	Cu	65	1.116	ug/L	0.021	1	24	2297	2	KED
	Zn	66	4.098	ug/L	0.416	10	111	2183	8	KED
	Zn	67	3.753	ug/L	0.122	3	18	337	1	KED
	As	75	0.063	ug/L	0.003	4	7	27	2	KED
	Y	89		ug/L			890395	895552	3	Standard
	Kr	83		ug/L			55	54	12	Standard
>	In-1	115		ug/L			32964	32252	2	KED
	Cd	111	0.103	ug/L	0.009	8	3	46	10	KED
	Cd	114	0.109	ug/L	0.011	9	4	119	8	KED
>	In	115		ug/L			1164708	1128655	4	Standard
	Ag	107	0.007	ug/L	0.001	16	76	203	9	Standard
>	Tb	159		ug/L			1225002	1225503	2	Standard
	Pb	208	0.229	ug/L	0.009	3	206	9234	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0313-03RE1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 21:43:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20640	33350	2	Standard
	Cl	37		ug/L			8161285	8184238	1	Standard
>	Sc	45		ug/L			1731398	1847874	2	Standard
	Cr	52	3.235	ug/L	0.097	2	29739	122620	1	Standard
	Cr	53	3.012	ug/L	0.091	3	293	11411	0	Standard
	Mn	55	472.021	ug/L	8.900	1	791	18354008	0	Standard
>	Ge-1	72		ug/L			80395	77854	0	KED
	Ni	60	9.242	ug/L	0.431	4	20	14351	4	KED
	Ni	62	9.498	ug/L	0.323	3	6	2369	2	KED
	Cu	63	2.792	ug/L	0.080	2	59	11504	2	KED
	Cu	65	2.716	ug/L	0.045	1	24	5451	2	KED
	Zn	66	10.211	ug/L	0.128	1	111	5185	1	KED
	Zn	67	9.115	ug/L	0.330	3	18	779	2	KED
	As	75	0.048	ug/L	0.011	22	7	22	14	KED
	Y	89		ug/L			890395	890933	1	Standard
	Kr	83		ug/L			55	67	8	Standard
>	In-1	115		ug/L			32964	31985	1	KED
	Cd	111	0.528	ug/L	0.024	4	3	222	4	KED
	Cd	114	0.493	ug/L	0.014	2	4	525	3	KED
>	In	115		ug/L			1164708	1112008	2	Standard
	Ag	107	0.005	ug/L	0.001	18	76	173	9	Standard
>	Tb	159		ug/L			1225002	1230888	2	Standard
	Pb	208	0.650	ug/L	0.020	3	206	25915	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0313-04RE1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 21:47:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	34075	5	Standard
	Cl	**37**		ug/L			8161285	8173317	2	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1834710	2	Standard
|	**Cr**	**52**	**1.881**	ug/L	0.072	3	29739	83970	2	Standard
|	**Cr**	**53**	**1.822**	ug/L	0.024	1	293	6979	2	Standard
⌊	**Mn**	**55**	**1.355**	ug/L	0.146	10	791	53088	9	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	78662	2	KED
|	**Ni**	**60**	**1.297**	ug/L	0.036	2	20	2050	1	KED
|	**Ni**	**62**	**1.333**	ug/L	0.121	9	6	341	6	KED
|	**Cu**	**63**	**0.909**	ug/L	0.012	1	59	3822	1	KED
|	**Cu**	**65**	**0.948**	ug/L	0.028	3	24	1937	0	KED
|	**Zn**	**66**	**0.898**	ug/L	0.058	6	111	560	5	KED
|	**Zn**	**67**	**0.953**	ug/L	0.114	11	18	98	7	KED
⌊	**As**	**75**	**0.023**	ug/L	0.006	27	7	14	14	KED
	Y	**89**		ug/L			890395	912586	3	Standard
	Kr	**83**		ug/L			55	64	6	Standard
⌈>	**In-1**	**115**		ug/L			32964	33379	1	KED
|	**Cd**	**111**	**0.046**	ug/L	0.027	59	3	23	49	KED
⌊	**Cd**	**114**	**0.049**	ug/L	0.007	13	4	58	12	KED
⌈>	**In**	**115**		ug/L			1164708	1153482	0	Standard
⌊	**Ag**	**107**	**0.004**	ug/L	0.001	19	76	158	9	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1228475	2	Standard
⌊	**Pb**	**208**	**0.069**	ug/L	0.004	5	206	2925	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0313-05RE1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 21:52:11
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	32312	7	Standard
	Cl	**37**		ug/L			8161285	8181220	1	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1873393	2	Standard
|	**Cr**	**52**	**1.117**	ug/L	0.070	6	29739	63974	0	Standard
|	**Cr**	**53**	**1.129**	ug/L	0.033	2	293	4535	0	Standard
⌊	**Mn**	**55**	**638.653**	ug/L	28.264	4	791	25162510	2	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	78784	1	KED
|	**Ni**	**60**	**1.431**	ug/L	0.068	4	20	2266	6	KED
|	**Ni**	**62**	**1.438**	ug/L	0.021	1	6	368	1	KED
|	**Cu**	**63**	**2.945**	ug/L	0.151	5	59	12274	4	KED
|	**Cu**	**65**	**2.907**	ug/L	0.038	1	24	5904	2	KED
|	**Zn**	**66**	**9.881**	ug/L	0.265	2	111	5079	1	KED
|	**Zn**	**67**	**8.481**	ug/L	0.286	3	18	735	2	KED
⌊	**As**	**75**	**0.049**	ug/L	0.024	49	7	23	33	KED
	Y	**89**		ug/L			890395	884915	2	Standard
	Kr	**83**		ug/L			55	45	19	Standard
⌈>	**In-1**	**115**		ug/L			32964	32769	1	KED
|	**Cd**	**111**	**0.265**	ug/L	0.005	2	3	116	2	KED
⌊	**Cd**	**114**	**0.285**	ug/L	0.011	4	4	312	4	KED
⌈>	**In**	**115**		ug/L			1164708	1171666	3	Standard
⌊	**Ag**	**107**	**0.004**	ug/L	0.001	20	76	153	7	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1224283	1	Standard
⌊	**Pb**	**208**	**0.724**	ug/L	0.033	4	206	28693	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 21:57:45
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	19939	1	Standard
	Cl	**37**		ug/L			8161285	8366626	1	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1685537	2	Standard
|	**Cr**	**52**	**55.028**	ug/L	3.914	7	29739	1437600	4	Standard
|	**Cr**	**53**	**50.159**	ug/L	2.763	5	293	168808	3	Standard
⌊	**Mn**	**55**	**54.948**	ug/L	0.351	0	791	1949821	2	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	76629	0	KED
|	**Ni**	**60**	**48.111**	ug/L	0.800	1	20	73448	1	KED
|	**Ni**	**62**	**46.887**	ug/L	1.037	2	6	11488	1	KED
|	**Cu**	**63**	**47.594**	ug/L	2.147	4	59	192147	4	KED
|	**Cu**	**65**	**46.755**	ug/L	1.066	2	24	91999	1	KED
|	**Zn**	**66**	**47.515**	ug/L	0.132	0	111	23361	1	KED
|	**Zn**	**67**	**47.607**	ug/L	1.218	2	18	3934	2	KED
⌊	**As**	**75**	**50.285**	ug/L	0.263	0	7	15745	0	KED
	Y	**89**		ug/L			890395	869294	3	Standard
	Kr	**83**		ug/L			55	66	14	Standard
⌈>	**In-1**	**115**		ug/L			32964	31416	2	KED
|	**Cd**	**111**	**49.210**	ug/L	1.791	3	3	20042	1	KED
⌊	**Cd**	**114**	**48.913**	ug/L	2.001	4	4	50719	2	KED
⌈>	**In**	**115**		ug/L			1164708	1123057	3	Standard
⌊	**Ag**	**107**	**50.390**	ug/L	1.347	2	76	961238	1	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1187815	3	Standard
⌊	**Pb**	**208**	**52.931**	ug/L	3.799	7	206	2017454	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 22:04:57
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	19724	0	Standard
	Cl	**37**		ug/L			8161285	8260914	1	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1670552	1	Standard
|	**Cr**	**52**	**0.055**	ug/L	0.013	23	29739	30095	1	Standard
|	**Cr**	**53**	**0.020**	ug/L	0.011	56	293	350	9	Standard
⌊	**Mn**	**55**	**0.095**	ug/L	0.142	150	791	4051	121	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	75879	1	KED
|	**Ni**	**60**	**0.001**	ug/L	0.007	828	20	20	47	KED
|	**Ni**	**62**	**-0.014**	ug/L	0.009	65	6	3	69	KED
|	**Cu**	**63**	**0.002**	ug/L	0.001	33	59	64	3	KED
|	**Cu**	**65**	**0.004**	ug/L	0.004	107	24	30	27	KED
|	**Zn**	**66**	**-0.004**	ug/L	0.022	501	111	102	11	KED
|	**Zn**	**67**	**-0.042**	ug/L	0.038	90	18	13	20	KED
⌊	**As**	**75**	**-0.005**	ug/L	0.001	20	7	5	5	KED
	Y	**89**		ug/L			890395	869825	2	Standard
	Kr	**83**		ug/L			55	55	24	Standard
⌈>	**In-1**	**115**		ug/L			32964	31333	0	KED
|	**Cd**	**111**	**0.004**	ug/L	0.002	67	3	4	20	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.002	133	4	5	34	KED
⌈>	**In**	**115**		ug/L			1164708	1096573	2	Standard
⌊	**Ag**	**107**	**0.006**	ug/L	0.009	152	76	182	91	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1150680	1	Standard
⌊	**Pb**	**208**	**0.006**	ug/L	0.009	141	206	420	75	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 22:09:26
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	29559	0	Standard
	Cl	**37**		ug/L			8161285	8548587	2	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1917917	2	Standard
|	**Cr**	**52**	**0.079**	ug/L	0.032	40	29739	35231	0	Standard
|	**Cr**	**53**	**0.008**	ug/L	0.008	88	293	358	8	Standard
⌊	**Mn**	**55**	**0.110**	ug/L	0.068	62	791	5301	51	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	83708	4	KED
|	**Ni**	**60**	**-0.004**	ug/L	0.002	55	20	15	24	KED
|	**Ni**	**62**	**-0.011**	ug/L	0.003	31	6	4	24	KED
|	**Cu**	**63**	**-0.004**	ug/L	0.002	44	59	41	18	KED
|	**Cu**	**65**	**-0.001**	ug/L	0.005	333	24	22	52	KED
|	**Zn**	**66**	**-0.142**	ug/L	0.004	2	111	40	9	KED
|	**Zn**	**67**	**-0.144**	ug/L	0.060	41	18	6	86	KED
⌊	**As**	**75**	**-0.006**	ug/L	0.004	76	7	5	22	KED
	Y	**89**		ug/L			890395	997083	5	Standard
	Kr	**83**		ug/L			55	56	15	Standard
⌈>	**In-1**	**115**		ug/L			32964	36105	2	KED
|	**Cd**	**111**	**0.001**	ug/L	0.003	474	3	4	35	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.003	444	4	5	61	KED
⌈>	**In**	**115**		ug/L			1164708	1260262	0	Standard
⌊	**Ag**	**107**	**0.005**	ug/L	0.005	101	76	192	57	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1327491	3	Standard
⌊	**Pb**	**208**	**0.006**	ug/L	0.007	111	206	502	63	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 22:13:54
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	29159	2	Standard
	Cl	**37**		ug/L			8161285	8432039	2	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1919925	0	Standard
|	**Cr**	**52**	**0.039**	ug/L	0.010	26	29739	34111	0	Standard
|	**Cr**	**53**	**0.003**	ug/L	0.008	281	293	336	9	Standard
⌊	**Mn**	**55**	**0.034**	ug/L	0.001	3	791	2240	1	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	86628	0	KED
|	**Ni**	**60**	**-0.002**	ug/L	0.005	213	20	18	48	KED
|	**Ni**	**62**	**-0.004**	ug/L	0.017	406	6	6	75	KED
|	**Cu**	**63**	**-0.006**	ug/L	0.001	13	59	38	8	KED
|	**Cu**	**65**	**0.000**	ug/L	0.004	1278	24	26	32	KED
|	**Zn**	**66**	**-0.152**	ug/L	0.021	13	111	35	32	KED
|	**Zn**	**67**	**-0.165**	ug/L	0.024	14	18	4	49	KED
⌊	**As**	**75**	**-0.011**	ug/L	0.006	53	7	3	54	KED
	Y	**89**		ug/L			890395	1034465	1	Standard
	Kr	**83**		ug/L			55	54	25	Standard
⌈>	**In-1**	**115**		ug/L			32964	35957	2	KED
|	**Cd**	**111**	**-0.001**	ug/L	0.001	78	3	3	17	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.002	200	4	3	53	KED
⌈>	**In**	**115**		ug/L			1164708	1299889	2	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.000	88	76	76	13	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1368439	3	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.000	10	206	165	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 22:18:23
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	28797	0	Standard
	Cl	**37**		ug/L			8161285	8506541	2	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1924074	3	Standard
|	**Cr**	**52**	**0.071**	ug/L	0.037	51	29739	35120	2	Standard
|	**Cr**	**53**	**0.003**	ug/L	0.000	9	293	339	3	Standard
⌊	**Mn**	**55**	**0.033**	ug/L	0.003	8	791	2206	2	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	86825	1	KED
|	**Ni**	**60**	**-0.005**	ug/L	0.004	71	20	13	51	KED
|	**Ni**	**62**	**-0.002**	ug/L	0.017	787	6	6	68	KED
|	**Cu**	**63**	**-0.006**	ug/L	0.001	22	59	34	16	KED
|	**Cu**	**65**	**-0.003**	ug/L	0.002	53	24	18	23	KED
|	**Zn**	**66**	**-0.145**	ug/L	0.013	9	111	39	19	KED
|	**Zn**	**67**	**-0.138**	ug/L	0.023	16	18	6	31	KED
⌊	**As**	**75**	**-0.007**	ug/L	0.005	73	7	5	34	KED
	Y	**89**		ug/L			890395	1017342	3	Standard
	Kr	**83**		ug/L			55	55	5	Standard
⌈>	**In-1**	**115**		ug/L			32964	37471	1	KED
|	**Cd**	**111**	**-0.002**	ug/L	0.003	154	3	2	57	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.001	64	4	6	15	KED
⌈>	**In**	**115**		ug/L			1164708	1300675	3	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.000	534	76	85	1	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1356944	3	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.000	23	206	165	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 22:22:51
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	21865	1	Standard
	Cl	**37**		ug/L			8161285	7860175	2	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1593277	2	Standard
|	**Cr**	**52**	**0.041**	ug/L	0.034	83	29739	28353	2	Standard
|	**Cr**	**53**	**0.007**	ug/L	0.006	86	293	292	7	Standard
⌊	**Mn**	**55**	**-0.012**	ug/L	0.001	5	791	334	5	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	73246	4	KED
|	**Ni**	**60**	**-0.009**	ug/L	0.002	16	20	5	33	KED
|	**Ni**	**62**	**-0.011**	ug/L	0.014	127	6	3	86	KED
|	**Cu**	**63**	**-0.007**	ug/L	0.002	25	59	28	24	KED
|	**Cu**	**65**	**-0.004**	ug/L	0.001	27	24	13	20	KED
|	**Zn**	**66**	**-0.083**	ug/L	0.014	16	111	62	10	KED
|	**Zn**	**67**	**-0.026**	ug/L	0.087	335	18	14	45	KED
⌊	**As**	**75**	**-0.002**	ug/L	0.006	329	7	6	27	KED
	Y	**89**		ug/L			890395	843451	5	Standard
	Kr	**83**		ug/L			55	66	7	Standard
⌈>	**In-1**	**115**		ug/L			32964	30506	1	KED
|	**Cd**	**111**	**0.001**	ug/L	0.001	200	3	3	15	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.003	134	4	6	47	KED
⌈>	**In**	**115**		ug/L			1164708	1050432	4	Standard
⌊	**Ag**	**107**	**-0.001**	ug/L	0.000	10	76	50	5	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1079380	1	Standard
⌊	**Pb**	**208**	**-0.003**	ug/L	0.000	10	206	90	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 22:27:19
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	21346	2	Standard
	Cl	**37**		ug/L			8161285	7774508	2	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1548409	1	Standard
|	**Cr**	**52**	**0.081**	ug/L	0.038	47	29739	28500	2	Standard
|	**Cr**	**53**	**0.009**	ug/L	0.003	29	293	292	1	Standard
⌊	**Mn**	**55**	**-0.011**	ug/L	0.001	4	791	339	3	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	72988	3	KED
|	**Ni**	**60**	**-0.010**	ug/L	0.003	31	20	4	98	KED
|	**Ni**	**62**	**-0.016**	ug/L	0.005	31	6	2	43	KED
|	**Cu**	**63**	**-0.006**	ug/L	0.001	9	59	31	3	KED
|	**Cu**	**65**	**-0.005**	ug/L	0.001	29	24	12	22	KED
|	**Zn**	**66**	**-0.111**	ug/L	0.004	3	111	48	2	KED
|	**Zn**	**67**	**-0.148**	ug/L	0.053	35	18	5	78	KED
⌊	**As**	**75**	**-0.006**	ug/L	0.006	93	7	4	31	KED
	Y	**89**		ug/L			890395	815096	1	Standard
	Kr	**83**		ug/L			55	50	19	Standard
⌈>	**In-1**	**115**		ug/L			32964	28853	1	KED
|	**Cd**	**111**	**0.004**	ug/L	0.006	173	3	4	53	KED
⌊	**Cd**	**114**	**-0.002**	ug/L	0.002	91	4	1	103	KED
⌈>	**In**	**115**		ug/L			1164708	1053585	4	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.000	291	76	70	0	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1044034	4	Standard
⌊	**Pb**	**208**	**-0.003**	ug/L	0.000	6	206	80	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 22:31:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	22032	1	Standard
	Cl	**37**		ug/L			8161285	7781691	0	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1584613	2	Standard
|	**Cr**	**52**	**0.058**	ug/L	0.004	6	29739	28618	2	Standard
|	**Cr**	**53**	**0.009**	ug/L	0.003	37	293	297	5	Standard
⌊	**Mn**	**55**	**-0.012**	ug/L	0.000	1	791	321	2	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	71666	1	KED
|	**Ni**	**60**	**-0.010**	ug/L	0.001	12	20	3	50	KED
|	**Ni**	**62**	**-0.016**	ug/L	0.005	29	6	2	43	KED
|	**Cu**	**63**	**-0.008**	ug/L	0.001	15	59	20	24	KED
|	**Cu**	**65**	**-0.008**	ug/L	0.003	32	24	6	75	KED
|	**Zn**	**66**	**-0.126**	ug/L	0.008	6	111	41	9	KED
|	**Zn**	**67**	**-0.107**	ug/L	0.055	51	18	8	53	KED
⌊	**As**	**75**	**-0.008**	ug/L	0.005	69	7	4	34	KED
	Y	**89**		ug/L			890395	798345	4	Standard
	Kr	**83**		ug/L			55	56	14	Standard
⌈>	**In-1**	**115**		ug/L			32964	28576	0	KED
|	**Cd**	**111**	**-0.002**	ug/L	0.003	135	3	2	49	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.004	588	4	3	129	KED
⌈>	**In**	**115**		ug/L			1164708	1053583	1	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.001	321	76	64	25	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1053547	2	Standard
⌊	**Pb**	**208**	**-0.003**	ug/L	0.000	15	206	88	17	Standard

INITIAL CALIBRATION DATA

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00061
Instrument: ICPMS2
Calibration Date: 06/26/2018 10:03

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Silver-107, Dissolved	0	0	0.2	20140	10	21185.9	20	20669.6	50	18540.82	100	17923.94
Chromium-52, Dissolved	0	0	0.5	90332	10	33119.7	20	32308.75	50	28582.86	100	25110.2
Chromium-53, Dissolved	0	0	0.5	4118	10	3694	20	3638.75	50	3311.06	100	3258.85
Lead-208, Dissolved	0	0	0.1	41560	10	40464.9	20	41738.05	50	37480.98	100	35462.21

INITIAL CALIBRATION DATA

EPA 6020A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00061	Instrument:	ICPMS2
Calibration Date:	06/26/2018 10:03		

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Silver-107, Dissolved	16410.04	49.6	0.9989		0.998	
Chromium-52, Dissolved	34908.92	85.3	0.9950		0.998	*
Chromium-53, Dissolved	3003.443	50.1	0.9995		0.998	
Lead-208, Dissolved	32784.36	49.6	0.9984		0.998	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 10-26-18 **Analyst:** YT **Sequence:** SGF0345

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CAL1	GS828		
		-CAL2	GS695		
		-CAL3	GS620		
		-CAL4	GS621		
		-CAL5	GS696		
		-CAL6	GS622		
		-ISL1	—		
		-ICV1	GS103		
		-ICB1	GS828		
		-CCV1	GS696		
		-CCB1	GS828		
		-CRL1	GS695		
		-IFA1	GS699		Cr 53↑
		-IFB1	GS697		↓
		-HCV1	GS700		Ag↓
		-HCV2	GS701		Ag, Pb↓
		-ISL2			
		-CCV2			
		-CCB2			
	✓	BGF0620-BLK1	REN		0.519 Mn
		18F0198-30		5	Mn only
		-02REE1			
		-04REE1			
		-08REE1			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6-26-18 **Analyst:** TH **Sequence:** —

All corrections made by analyst unless otherwise noted. ~~TH~~ 6-26-18

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		BG1F0364-DUP4	TREN	10	Cr, Pb only
		18F0185-08	↓	↓	↓
		BG1F0364-MS4			
		↓ -MSD4		↓	
	✓	BG1F0620-BS1	↓		Mn 1.24
		SEQ-CCV3			
		↓ -CCB3			
	✓	BG1F0620-BLK1	TREN		0.505 Mn
		BG1F0621-BLK1	↓		
		BG1F0478-BLK1			
		18F0359-01			
		18F0208-02		5	
		↓ -03		↓	
		↓ -04			
		BG1F0620-BS1			
		BG1F0621-BS1			
		BG1F0478-BS1	↓		
		SEQ-CCV4	+		
		↓ -CCB4	+		
	✓	BG1F0620-BLK1	TREN		
↓		18F0198-20RE2	↑		
		↓ -26RE1			
↓		↓ -68RE1			
		BG1F0621-DUP1	↓		Cr 7.72 No Cr, Pb

Analytical Resources, Incorporated
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ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6-26-18 **Analyst:** JH **Sequence:** —

All corrections made by analyst unless otherwise noted. JH 6-26-18

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		18F0360-01	REN		Cr 7LR No Cr, Pb
		BGF0621-MS1	↓		↓ ↓
		BGF0478-DUP1		5	
		18F0208-01		↓	
		BGF0478-MS1	↓		↓
		SEQ-CCV5			Cr^{52}, Mn ↑ Pb↓
		↓ -CCB5			Cr^{53}, U:62 ↑
		SEQ-ISTD3-ISTD5			Rinse
		↓ -CAL1			
		-CCV6			Cr^{52}, Mn ↑ ~~Pb~~ Pb ↓
		↓ -CCB6			
		18F0226-01	REN	5	No Cr, Pb
		-02	↓	↓	↓
		-03			
		-04			
		-05			
		-06			
		-07			
		-08			
		↓ -09			
		18F0248-01	↓	↓	↓
		SEQ-CCV7			Cr, Mn↑ Pb↓
		↓ -CCB7			Cr^{53}, U:62 ↑
		18F0248-02	REN	5	No Cr, Pb

Analytical Resources, Incorporated
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ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6-26-18 **Analyst:** QK **Sequence:** —

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		18F0248-03	TEN	5	No Cr, Pb
		-04			↓
		-05			Ge-1, In-1 ↓ Ag only
		-06			No Cr, Pb
		-07			Ge-1 ↓ Cd, Ag only
		SEQ-CCV8			Cr, Mn ↑ Pb ↓
		+ -CCB8			Cr^{53}, U: 62 ↑
		TInse/DI			
		QK 6-26-18			

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Tuesday, June 26, 2018 09:21:32
Sample Description:
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\STD Performance Check.mth
Dataset File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\DataSet\Default\STD Performance Check.15239
MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	4005.8	4005.765	332.503	8.3	Standard
	In	114.9	74863.0	-1089845.808	4697.558	0.4	Standard
	U	238.1	40074.7	40074.699	2900.317	7.2	Standard
⌈	CeO	155.9	1526.2	0.019	0.001	4.4	Standard
| >	Ce	139.9	79170.6	79170.644	5378.605	6.8	Standard
⌊	Ce++	70.0	1109.5	0.014	0.003	20.8	Standard
	Bkgd	220.0	0.1	0.100	0.149	149.1	Standard

Current Conditions File Data

Current Value	Description
0.94	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-9.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-3.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
0.94	DRC Mode NEB
-10.00	DRC Mode QRO
-3.00	DRC Mode CRO
-7.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-13.00	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
0.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 6/26/2018 9:21:29 AM
End Time: 6/26/2018 9:32:14 AM

STD Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9): 4005.76
Obtained Intensity (In 115): 74862.99
Obtained Intensity (U 238): 40074.70
Obtained Intensity (Bkgd 220): 0.10
Obtained Formula (Ce++ 70 / Ce 140): 0.014 (=1109.51 / 79170.64)
Obtained Formula (CeO 156 / Ce 140): 0.019 (=1526.22 / 79170.64)

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
0.22 mm	-0.09 mm	91010.98

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 0.94
Obtained Intensity (In 115): 87465.94
Obtained Formula (CeO 156 / Ce 140): 0.0221 (=1880.12 / 84926.69)

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.696)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.690)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.704)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.688)

QID STD/DRC - Optimum value(s): Correlation Coefficient = 0.988; Intercept = -11.32

KED Mode QID - Optimum value(s): Correlation Coefficient = 0.999; Intercept = -10.73

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 6/26/2018 9:21:29 AM

STD Performance Check
	Optimization Settings:
		Method: STD Performance Check.mth.
		Intensity Criterion: Be 9 > 2000
		Intensity Criterion: In 115 > 40000
		Intensity Criterion: U 238 > 30000
		Intensity Criterion: Bkgd 220 <= 1
		Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
		Formula Criterion: CeO 156 / Ce 140 <= 0.025

	Optimization Results:
	Initial Try
		Obtained Intensity (Be 9): 4005.76
		Obtained Intensity (In 115): 74862.99
		Obtained Intensity (U 238): 40074.70
		Obtained Intensity (Bkgd 220): 0.10
		Obtained Formula (Ce++ 70 / Ce 140): 0.014 (=1109.51 / 79170.64)
		Obtained Formula (CeO 156 / Ce 140): 0.019 (=1526.22 / 79170.64)

[Passed] Optimum value(s): N/A

Torch Alignment
	Optimization Settings:
		Method: Torch Alignment.mth.
		Intensity Criterion: In 115 Maximum

	Optimization Results:
		Vertical	Horizontal	Intensity
[Passed]	0.22 mm	-0.09 mm	91010.98

Nebulizer Gas Flow STD/KED [NEB]
	Optimization Settings:
		Method: Optimize.mth.
			Initial Try - Start/End/Step: 0.88/1.1/0.02.
		Intensity Criterion: In 115 Maximum
		Formula Criterion: CeO 156 / Ce 140 <= 0.025

	Optimization Results:
	Initial Try

		Obtained Intensity (In 115): 87465.94
		Obtained Formula (CeO 156 / Ce 140): 0.0221 (=1880.12 / 84926.69)
[Passed] Optimum value(s): 0.94

Mass Calibration and Resolution
	Optimization Settings:
		Method: Tuning.mth.
		MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
		Iterations: 6
		Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution

```
                Peak height (%) for Res. Opt.: 10

        Optimization Results:
        Initial Try
                Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.696)
                Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.690)
                Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.704)
                Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.688)
[Passed]  Optimum value(s): N/A

QID STD/DRC
        Optimization Settings:
                Method: QID Calibration.mth.
                        Initial Try - Start/End/Step: -16/0/0.5.

        Optimization Results:
        Initial Try

  Optimum value(s): Correlation Coefficient = 0.988; Intercept = -11.32

        Analyte      Mass    Points       DAC   MaxIntensity

             Li         7        33     -11.5        22553.8
             Mg        24        33       -11        42844.2
             In       115        33      -8.5          87974
             Ce       140        33        -7         106451
             Pb       208        33        -6        31971.7
              U       238        33        -3        50276.3

KED Mode QID
        Optimization Settings:
                Method: QID Calibration.mth.
                        Initial Try - Start/End/Step: -20/0/0.5.

        Optimization Results:
        Initial Try

  Optimum value(s): Correlation Coefficient = 0.999; Intercept = -10.73

        Analyte      Mass    Points       DAC   MaxIntensity

             Li         7        41       -11        17787.1
             Mg        24        41     -11.5        27466.4
             In       115        41        -8        73038.2
             Ce       140        41        -7        68363.2
             Pb       208        41      -3.5        26356.3
              U       238        41      -2.5        61793.4

End Time: 6/26/2018 9:32:14 AM
```

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Tuesday, June 26, 2018 09:34:44
Sample Description:
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\STD Performance Check.mth
Dataset File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\DataSet\Default\STD Performance Check.15247
MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	6012.8	6012.799	118.946	2.0	Standard
	In	114.9	88328.4	88328.395	1931.759	2.2	Standard
	U	238.1	50614.7	50614.718	648.363	1.3	Standard
⌈	CeO	155.9	2211.1	0.024	0.001	3.0	Standard
| >	Ce	139.9	93982.7	93982.674	553.657	0.6	Standard
⌊	Ce++	70.0	1405.1	0.015	0.001	3.4	Standard
	Bkgd	220.0	0.0	0.033	0.075	223.6	Standard

Current Conditions File Data

Current Value	Description
0.94	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-9.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-3.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
0.94	DRC Mode NEB
-10.00	DRC Mode QRO
-3.00	DRC Mode CRO
-7.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-13.00	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
0.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 6/26/2018 9:33:41 AM
End Time: 6/26/2018 9:36:49 AM

QID STD/DRC - Optimum value(s): Correlation Coefficient = 1.000; Intercept = -10.86

STD Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9): 6012.80
Obtained Intensity (In 115): 88328.40
Obtained Intensity (U 238): 50614.72
Obtained Intensity (Bkgd 220): 0.03
Obtained Formula (Ce++ 70 / Ce 140): 0.015 (=1405.14 / 93982.67)
Obtained Formula (CeO 156 / Ce 140): 0.024 (=2211.10 / 93982.67)

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 6/26/2018 9:33:41 AM

QID STD/DRC

Optimization Settings:

Method: QID Calibration.mth.

Initial Try - Start/End/Step: -16/0/0.5.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 1.000; Intercept = -10.86

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	33	-11	24008.2
Mg	24	33	-11	43686.7
In	115	33	-8.5	95457.9
Ce	140	33	-7.5	95623
Pb	208	33	-5	31554.8
U	238	33	-3	50019.4

STD Performance Check

Optimization Settings:

Method: STD Performance Check.mth.

Intensity Criterion: Be 9 > 2000

Intensity Criterion: In 115 > 40000

Intensity Criterion: U 238 > 30000

Intensity Criterion: Bkgd 220 <= 1

Formula Criterion: Ce++ 70 / Ce 140 <= 0.03

Formula Criterion: CeO 156 / Ce 140 <= 0.025

Optimization Results:

Initial Try

Obtained Intensity (Be 9): 6012.80

Obtained Intensity (In 115): 88328.40

Obtained Intensity (U 238): 50614.72

Obtained Intensity (Bkgd 220): 0.03

Obtained Formula (Ce++ 70 / Ce 140): 0.015 (=1405.14 / 93982.67)

Obtained Formula (CeO 156 / Ce 140): 0.024 (=2211.10 / 93982.67)

[Passed] Optimum value(s): N/A

End Time: 6/26/2018 9:36:49 AM

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 10:03:50
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				17935	1	Standard
	Cl	**37**		ug/L				7300856	0	Standard
⌈>	**Sc**	**45**		ug/L				1595659	1	Standard
|	**Cr**	**52**		ug/L				29586	1	Standard
|	**Cr**	**53**		ug/L				269	1	Standard
⌊	**Mn**	**55**		ug/L				664	3	Standard
⌈>	**Ge-1**	**72**		ug/L				82831	1	KED
|	**Ni**	**60**		ug/L				11	72	KED
|	**Ni**	**62**		ug/L				5	43	KED
|	**Cu**	**63**		ug/L				20	21	KED
|	**Cu**	**65**		ug/L				13	34	KED
|	**Zn**	**66**		ug/L				40	21	KED
|	**Zn**	**67**		ug/L				2	43	KED
⌊	**As**	**75**		ug/L				5	46	KED
	Y	**89**		ug/L				806387	5	Standard
	Kr	**83**		ug/L				48	37	Standard
⌈>	**In-1**	**115**		ug/L				39343	1	KED
|	**Cd**	**111**		ug/L				3	50	KED
⌊	**Cd**	**114**		ug/L				2	120	KED
⌈>	**In**	**115**		ug/L				1058527	2	Standard
⌊	**Ag**	**107**		ug/L				67	40	Standard
⌈>	**Tb**	**159**		ug/L				1231255	3	Standard
⌊	**Pb**	**208**		ug/L				93	13	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 10:08:19
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	21373	2	Standard
	Cl	**37**		ug/L			7300856	7265688	0	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1570583	1	Standard
|	**Cr**	**52**	**0.500**	ug/L	0.024	4	29586	45166	1	Standard
|	**Cr**	**53**	**0.500**	ug/L	0.020	4	269	2059	1	Standard
⌊	**Mn**	**55**	**0.500**	ug/L	0.003	0	664	21975	1	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	82925	2	KED
|	**Ni**	**60**	**0.500**	ug/L	0.030	6	11	767	3	KED
|	**Ni**	**62**	**0.500**	ug/L	0.124	24	5	125	21	KED
|	**Cu**	**63**	**0.500**	ug/L	0.021	4	20	2193	2	KED
|	**Cu**	**65**	**0.500**	ug/L	0.027	5	13	1070	5	KED
|	**Zn**	**66**	**4.000**	ug/L	0.143	3	40	2228	2	KED
|	**Zn**	**67**	**4.000**	ug/L	0.158	3	2	323	2	KED
⌊	**As**	**75**	**0.200**	ug/L	0.011	5	5	80	7	KED
	Y	**89**		ug/L			806387	824512	2	Standard
	Kr	**83**		ug/L			48	57	8	Standard
⌈>	**In-1**	**115**		ug/L			39343	38802	2	KED
|	**Cd**	**111**	**0.100**	ug/L	0.023	22	3	47	19	KED
⌊	**Cd**	**114**	**0.100**	ug/L	0.014	14	2	124	12	KED
⌈>	**In**	**115**		ug/L			1058527	1038597	3	Standard
⌊	**Ag**	**107**	**0.200**	ug/L	0.018	8	67	4028	6	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1218065	3	Standard
⌊	**Pb**	**208**	**0.100**	ug/L	0.006	6	93	4156	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 10:12:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	26717	4	Standard
	Cl	**37**		ug/L			7300856	7403270	0	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1626783	0	Standard
|	**Cr**	**52**	**9.997**	ug/L	0.137	1	29586	331197	1	Standard
|	**Cr**	**53**	**10.000**	ug/L	0.155	1	269	36940	1	Standard
⌊	**Mn**	**55**	**10.000**	ug/L	0.161	1	664	444708	1	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	83712	2	KED
|	**Ni**	**60**	**10.002**	ug/L	0.245	2	11	16532	1	KED
|	**Ni**	**62**	**10.001**	ug/L	0.449	4	5	2552	2	KED
|	**Cu**	**63**	**10.000**	ug/L	0.326	3	20	43521	1	KED
|	**Cu**	**65**	**10.000**	ug/L	0.071	0	13	21412	1	KED
|	**Zn**	**66**	**9.979**	ug/L	0.107	1	40	5483	3	KED
|	**Zn**	**67**	**10.139**	ug/L	0.778	7	2	902	6	KED
⌊	**As**	**75**	**10.000**	ug/L	0.126	1	5	3544	1	KED
	Y	**89**		ug/L			806387	846635	3	Standard
	Kr	**83**		ug/L			48	62	12	Standard
⌈>	**In-1**	**115**		ug/L			39343	40011	0	KED
|	**Cd**	**111**	**10.000**	ug/L	0.103	1	3	5188	1	KED
⌊	**Cd**	**114**	**10.000**	ug/L	0.076	0	2	13285	1	KED
⌈>	**In**	**115**		ug/L			1058527	1070203	3	Standard
⌊	**Ag**	**107**	**10.000**	ug/L	0.232	2	67	211859	1	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1232532	0	Standard
⌊	**Pb**	**208**	**10.000**	ug/L	0.220	2	93	404649	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 10:17:29
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	26572	1	Standard
	Cl	**37**		ug/L			7300856	7518962	1	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1612553	1	Standard
|	**Cr**	**52**	**20.127**	ug/L	0.205	1	29586	646175	1	Standard
|	**Cr**	**53**	**19.989**	ug/L	0.119	0	269	72775	1	Standard
⌊	**Mn**	**55**	**19.987**	ug/L	0.130	0	664	878070	1	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	83032	2	KED
|	**Ni**	**60**	**19.943**	ug/L	0.282	1	11	32313	1	KED
|	**Ni**	**62**	**20.042**	ug/L	1.077	5	5	5109	3	KED
|	**Cu**	**63**	**19.895**	ug/L	0.529	2	20	84095	1	KED
|	**Cu**	**65**	**19.978**	ug/L	0.287	1	13	42222	2	KED
|	**Zn**	**66**	**19.908**	ug/L	0.414	2	40	10639	2	KED
|	**Zn**	**67**	**19.845**	ug/L	0.926	4	2	1704	3	KED
⌊	**As**	**75**	**20.108**	ug/L	0.454	2	5	7218	1	KED
	Y	**89**		ug/L			806387	843981	1	Standard
	Kr	**83**		ug/L			48	64	9	Standard
⌈>	**In-1**	**115**		ug/L			39343	39477	2	KED
|	**Cd**	**111**	**20.055**	ug/L	0.330	1	3	10374	1	KED
⌊	**Cd**	**114**	**20.066**	ug/L	0.412	2	2	26645	2	KED
⌈>	**In**	**115**		ug/L			1058527	1080624	2	Standard
⌊	**Ag**	**107**	**19.859**	ug/L	0.431	2	67	413392	4	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1266332	2	Standard
⌊	**Pb**	**208**	**20.016**	ug/L	0.631	3	93	834761	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 10:22:21
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	20134	3	Standard
	Cl	**37**		ug/L			7300856	7339066	2	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1525512	3	Standard
|	**Cr**	**52**	**49.725**	ug/L	1.733	3	29586	1429143	0	Standard
|	**Cr**	**53**	**49.696**	ug/L	2.441	4	269	165553	1	Standard
⌊	**Mn**	**55**	**49.300**	ug/L	1.419	2	664	1913288	2	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	77539	1	KED
|	**Ni**	**60**	**49.895**	ug/L	0.827	1	11	74709	0	KED
|	**Ni**	**62**	**49.999**	ug/L	0.446	0	5	11906	1	KED
|	**Cu**	**63**	**50.023**	ug/L	0.396	0	20	197969	1	KED
|	**Cu**	**65**	**49.678**	ug/L	1.031	2	13	94991	2	KED
|	**Zn**	**66**	**49.990**	ug/L	0.412	0	40	24873	1	KED
|	**Zn**	**67**	**50.643**	ug/L	1.732	3	2	4330	2	KED
⌊	**As**	**75**	**50.129**	ug/L	0.331	0	5	17022	1	KED
	Y	**89**		ug/L			806387	790910	2	Standard
	Kr	**83**		ug/L			48	64	13	Standard
⌈>	**In-1**	**115**		ug/L			39343	38547	4	KED
|	**Cd**	**111**	**49.813**	ug/L	1.824	3	3	24672	1	KED
⌊	**Cd**	**114**	**49.705**	ug/L	0.766	1	2	62583	3	KED
⌈>	**In**	**115**		ug/L			1058527	1003602	1	Standard
⌊	**Ag**	**107**	**49.653**	ug/L	1.377	2	67	927041	0	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1160094	0	Standard
⌊	**Pb**	**208**	**49.838**	ug/L	0.995	1	93	1874049	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL6
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 10:28:53
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	23177	4	Standard
	Cl	**37**		ug/L			7300856	7404675	0	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1505024	1	Standard
|	**Cr**	**52**	**97.305**	ug/L	2.838	2	29586	2511020	2	Standard
|	**Cr**	**53**	**99.797**	ug/L	2.335	2	269	325885	1	Standard
⌊	**Mn**	**55**	**97.898**	ug/L	0.569	0	664	3503776	1	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	75528	0	KED
|	**Ni**	**60**	**98.971**	ug/L	2.184	2	11	139555	1	KED
|	**Ni**	**62**	**98.529**	ug/L	3.711	3	5	21777	3	KED
|	**Cu**	**63**	**98.462**	ug/L	1.446	1	20	361031	1	KED
|	**Cu**	**65**	**99.148**	ug/L	0.987	0	13	179569	1	KED
|	**Zn**	**66**	**99.143**	ug/L	3.312	3	40	46683	2	KED
|	**Zn**	**67**	**98.283**	ug/L	1.415	1	2	7745	1	KED
⌊	**As**	**75**	**99.564**	ug/L	1.054	1	5	32456	1	KED
	Y	**89**		ug/L			806387	796465	1	Standard
	Kr	**83**		ug/L			48	76	17	Standard
⌈>	**In-1**	**115**		ug/L			39343	37008	1	KED
|	**Cd**	**111**	**99.515**	ug/L	1.623	1	3	46610	0	KED
⌊	**Cd**	**114**	**99.569**	ug/L	2.018	2	2	118695	1	KED
⌈>	**In**	**115**		ug/L			1058527	959880	2	Standard
⌊	**Ag**	**107**	**100.086**	ug/L	2.837	2	67	1792394	2	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1165282	1	Standard
⌊	**Pb**	**208**	**98.527**	ug/L	2.073	2	93	3546221	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 10:36:06
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	17361	3	Standard
	Cl	**37**		ug/L			7300856	7328328	2	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1523491	0	Standard
|	**Cr**	**52**	**0.005**	ug/L	0.026	484	29586	28386	2	Standard
|	**Cr**	**53**	**-0.008**	ug/L	0.001	11	269	231	1	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.000	28	664	671	1	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	79932	3	KED
|	**Ni**	**60**	**0.049**	ug/L	0.050	101	11	83	89	KED
|	**Ni**	**62**	**0.042**	ug/L	0.041	98	5	14	64	KED
|	**Cu**	**63**	**0.048**	ug/L	0.042	88	20	203	80	KED
|	**Cu**	**65**	**0.037**	ug/L	0.035	94	13	84	79	KED
|	**Zn**	**66**	**0.044**	ug/L	0.036	80	40	60	26	KED
|	**Zn**	**67**	**0.061**	ug/L	0.037	61	2	7	43	KED
⌊	**As**	**75**	**0.036**	ug/L	0.039	108	5	17	75	KED
	Y	**89**		ug/L			806387	787261	1	Standard
	Kr	**83**		ug/L			48	52	26	Standard
⌈>	**In-1**	**115**		ug/L			39343	38902	1	KED
|	**Cd**	**111**	**0.002**	ug/L	0.012	581	3	4	124	KED
⌊	**Cd**	**114**	**0.004**	ug/L	0.000	0	2	7	0	KED
⌈>	**In**	**115**		ug/L			1058527	1017094	4	Standard
⌊	**Ag**	**107**	**0.003**	ug/L	0.001	22	67	125	14	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1167344	1	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.000	10	93	153	3	Standard

Sample Information

Sample Date/Time: Tuesday, June 26, 2018 10:28:53
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_C
Mass Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

Calibration

Analyte	Mass	**r Corr Coef**	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Sc	45							
Cr	52	**0.9988**	0.017	0.50	10	20	50	100
Cr	53	**1.0000**	0.002	0.50	10	20	50	100
Mn	55	**0.9991**	0.024	0.50	10	20	50	100
Ge-1	72							
Ni	60	**0.9998**	0.019	0.50	10	20	50	100
Ni	62	**0.9996**	0.003	0.50	10	20	50	100
Cu	63	**0.9996**	0.049	0.50	10	20	50	100
Cu	65	**0.9999**	0.024	0.50	10	20	50	100
Zn	66	**0.9999**	0.006	4.00	10	20	50	100
Zn	67	**0.9994**	0.001	4.00	10	20	50	100
As	75	**1.0000**	0.004	0.20	10	20	50	100
Y	89							
Kr	83							
In-1	115							
Cd	111	**1.0000**	0.013	0.10	10	20	50	100
Cd	114	**0.9999**	0.032	0.10	10	20	50	100
In	115							
Ag	107	**1.0000**	0.019	0.20	10	20	50	100
Tb	159							
Pb	208	**0.9996**	0.031	0.10	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICV1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 10:43:19
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	21668	1	Standard
	Cl	**37**		ug/L			7300856	7442225	1	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1540124	1	Standard
|	**Cr**	**52**	**53.172**	ug/L	0.816	1	29586	1417416	2	Standard
|	**Cr**	**53**	**49.961**	ug/L	0.224	0	269	167090	0	Standard
⌊	**Mn**	**55**	**52.170**	ug/L	1.521	2	664	1911212	3	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	78451	1	KED
|	**Ni**	**60**	**50.790**	ug/L	0.587	1	11	74407	2	KED
|	**Ni**	**62**	**50.250**	ug/L	0.364	0	5	11539	1	KED
|	**Cu**	**63**	**51.208**	ug/L	0.272	0	20	195060	2	KED
|	**Cu**	**65**	**50.849**	ug/L	0.786	1	13	95648	1	KED
|	**Zn**	**66**	**49.608**	ug/L	0.827	1	40	24288	3	KED
|	**Zn**	**67**	**50.743**	ug/L	1.677	3	2	4155	4	KED
⌊	**As**	**75**	**50.013**	ug/L	0.570	1	5	16934	0	KED
	Y	**89**		ug/L			806387	812271	4	Standard
	Kr	**83**		ug/L			48	56	7	Standard
⌈>	**In-1**	**115**		ug/L			39343	38642	2	KED
|	**Cd**	**111**	**49.537**	ug/L	0.450	0	3	24227	1	KED
⌊	**Cd**	**114**	**50.046**	ug/L	0.881	1	2	62282	0	KED
⌈>	**In**	**115**		ug/L			1058527	1002213	2	Standard
⌊	**Ag**	**107**	**51.469**	ug/L	2.479	4	67	961986	2	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1194534	3	Standard
⌊	**Pb**	**208**	**51.174**	ug/L	1.618	3	93	1887185	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICB1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 10:50:31
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	17267	1	Standard
	Cl	**37**		ug/L			7300856	7273933	2	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1556183	0	Standard
|	**Cr**	**52**	**-0.005**	ug/L	0.011	195	29586	28711	0	Standard
|	**Cr**	**53**	**-0.004**	ug/L	0.004	97	269	250	4	Standard
⌊	**Mn**	**55**	**0.000**	ug/L	0.001	579	664	651	2	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	80109	1	KED
|	**Ni**	**60**	**-0.002**	ug/L	0.005	197	11	7	90	KED
|	**Ni**	**62**	**-0.002**	ug/L	0.013	661	5	4	65	KED
|	**Cu**	**63**	**0.001**	ug/L	0.002	162	20	25	36	KED
|	**Cu**	**65**	**0.000**	ug/L	0.001	629	13	13	20	KED
|	**Zn**	**66**	**0.014**	ug/L	0.003	22	40	45	4	KED
|	**Zn**	**67**	**0.054**	ug/L	0.065	120	2	6	78	KED
⌊	**As**	**75**	**-0.000**	ug/L	0.001	198	5	5	5	KED
	Y	**89**		ug/L			806387	815788	4	Standard
	Kr	**83**		ug/L			48	69	3	Standard
⌈>	**In-1**	**115**		ug/L			39343	40212	1	KED
|	**Cd**	**111**	**-0.000**	ug/L	0.002	1063	3	3	25	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.000	13	2	3	2	KED
⌈>	**In**	**115**		ug/L			1058527	1041517	0	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.000	9	67	99	2	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1168416	2	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	23	93	113	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 10:54:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	19842	1	Standard
	Cl	**37**		ug/L			7300856	7322001	0	Standard
⎡>	**Sc**	**45**		ug/L			1595659	1507569	4	Standard
⎢	**Cr**	**52**	**54.343**	ug/L	2.613	4	29586	1416166	3	Standard
⎢	**Cr**	**53**	**50.897**	ug/L	2.396	4	269	166444	2	Standard
⎣	**Mn**	**55**	**53.734**	ug/L	3.605	6	664	1923157	2	Standard
⎡>	**Ge-1**	**72**		ug/L			82831	77778	2	KED
⎢	**Ni**	**60**	**50.524**	ug/L	1.980	3	11	73326	1	KED
⎢	**Ni**	**62**	**50.088**	ug/L	1.603	3	5	11398	1	KED
⎢	**Cu**	**63**	**51.389**	ug/L	0.463	0	20	194039	2	KED
⎢	**Cu**	**65**	**49.540**	ug/L	1.654	3	13	92350	1	KED
⎢	**Zn**	**66**	**51.081**	ug/L	1.632	3	40	24777	1	KED
⎢	**Zn**	**67**	**49.926**	ug/L	1.084	2	2	4052	3	KED
⎣	**As**	**75**	**50.017**	ug/L	1.198	2	5	16786	1	KED
	Y	**89**		ug/L			806387	807418	2	Standard
	Kr	**83**		ug/L			48	69	22	Standard
⎡>	**In-1**	**115**		ug/L			39343	37995	0	KED
⎢	**Cd**	**111**	**50.830**	ug/L	0.785	1	3	24448	2	KED
⎣	**Cd**	**114**	**51.426**	ug/L	0.493	0	2	62947	1	KED
⎡>	**In**	**115**		ug/L			1058527	958270	1	Standard
⎣	**Ag**	**107**	**53.254**	ug/L	1.341	2	67	952268	2	Standard
⎡>	**Tb**	**159**		ug/L			1231255	1169064	1	Standard
⎣	**Pb**	**208**	**51.417**	ug/L	1.160	2	93	1857075	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 11:01:52
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	17361	2	Standard
	Cl	**37**		ug/L			7300856	7177285	1	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1497029	1	Standard
|	**Cr**	**52**	**0.011**	ug/L	0.028	254	29586	28035	1	Standard
|	**Cr**	**53**	**-0.009**	ug/L	0.004	43	269	222	5	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.001	80	664	652	2	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	77992	0	KED
|	**Ni**	**60**	**-0.002**	ug/L	0.002	106	11	7	43	KED
|	**Ni**	**62**	**0.001**	ug/L	0.017	1365	5	5	78	KED
|	**Cu**	**63**	**0.003**	ug/L	0.003	108	20	29	37	KED
|	**Cu**	**65**	**-0.003**	ug/L	0.002	92	13	8	53	KED
|	**Zn**	**66**	**-0.021**	ug/L	0.006	26	40	27	10	KED
|	**Zn**	**67**	**0.049**	ug/L	0.027	56	2	6	34	KED
⌊	**As**	**75**	**0.001**	ug/L	0.004	306	5	5	26	KED
	Y	**89**		ug/L			806387	791756	1	Standard
	Kr	**83**		ug/L			48	58	4	Standard
⌈>	**In-1**	**115**		ug/L			39343	39211	2	KED
|	**Cd**	**111**	**0.008**	ug/L	0.014	175	3	7	87	KED
⌊	**Cd**	**114**	**0.015**	ug/L	0.018	119	2	21	104	KED
⌈>	**In**	**115**		ug/L			1058527	994971	2	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.001	53	67	95	18	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1146915	1	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	15	93	135	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CRL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 11:06:20
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	19529	2	Standard
	Cl	**37**		ug/L			7300856	7250064	1	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1557425	1	Standard
|	**Cr**	**52**	**0.570**	ug/L	0.021	3	29586	43938	0	Standard
|	**Cr**	**53**	**0.525**	ug/L	0.012	2	269	2035	2	Standard
⌊	**Mn**	**55**	**0.592**	ug/L	0.017	2	664	22551	1	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	81519	1	KED
|	**Ni**	**60**	**0.513**	ug/L	0.022	4	11	791	2	KED
|	**Ni**	**62**	**0.570**	ug/L	0.048	8	5	140	7	KED
|	**Cu**	**63**	**0.576**	ug/L	0.021	3	20	2297	3	KED
|	**Cu**	**65**	**0.558**	ug/L	0.022	4	13	1104	3	KED
|	**Zn**	**66**	**4.809**	ug/L	0.346	7	40	2479	5	KED
|	**Zn**	**67**	**4.470**	ug/L	0.231	5	2	382	6	KED
⌊	**As**	**75**	**0.195**	ug/L	0.016	8	5	74	5	KED
	Y	**89**		ug/L			806387	815403	5	Standard
	Kr	**83**		ug/L			48	58	16	Standard
⌈>	**In-1**	**115**		ug/L			39343	39567	4	KED
|	**Cd**	**111**	**0.104**	ug/L	0.022	20	3	56	22	KED
⌊	**Cd**	**114**	**0.110**	ug/L	0.005	4	2	143	3	KED
⌈>	**In**	**115**		ug/L			1058527	982981	2	Standard
⌊	**Ag**	**107**	**0.225**	ug/L	0.019	8	67	4186	5	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1165307	1	Standard
⌊	**Pb**	**208**	**0.138**	ug/L	0.005	3	93	5049	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFA1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 11:10:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	122496	2	Standard
	Cl	**37**		ug/L			7300856	15204702	1	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1666771	1	Standard
|	**Cr**	**52**	**0.654**	ug/L	0.057	8	29586	49368	2	Standard
|	**Cr**	**53**	**6.556**	ug/L	0.106	1	269	23976	2	Standard
⌊	**Mn**	**55**	**0.068**	ug/L	0.003	3	664	3396	1	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	82797	1	KED
|	**Ni**	**60**	**0.044**	ug/L	0.004	8	11	79	8	KED
|	**Ni**	**62**	**0.152**	ug/L	0.049	32	5	41	28	KED
|	**Cu**	**63**	**0.039**	ug/L	0.004	11	20	175	11	KED
|	**Cu**	**65**	**0.046**	ug/L	0.011	25	13	104	22	KED
|	**Zn**	**66**	**0.144**	ug/L	0.041	28	40	114	17	KED
|	**Zn**	**67**	**0.184**	ug/L	0.013	7	2	18	5	KED
⌊	**As**	**75**	**0.029**	ug/L	0.005	17	5	16	12	KED
	Y	**89**		ug/L			806387	850540	0	Standard
	Kr	**83**		ug/L			48	153	11	Standard
⌈>	**In-1**	**115**		ug/L			39343	34807	16	KED
|	**Cd**	**111**	**0.129**	ug/L	0.011	8	3	60	24	KED
⌊	**Cd**	**114**	**0.081**	ug/L	0.014	17	2	91	6	KED
⌈>	**In**	**115**		ug/L			1058527	1101364	2	Standard
⌊	**Ag**	**107**	**0.010**	ug/L	0.001	11	67	283	9	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1346610	0	Standard
⌊	**Pb**	**208**	**0.018**	ug/L	0.000	1	93	845	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFB1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 11:15:16
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	123953	2	Standard
	Cl	**37**		ug/L			7300856	14596948	2	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1653405	1	Standard
|	**Cr**	**52**	**21.979**	ug/L	0.222	1	29586	646889	0	Standard
|	**Cr**	**53**	**25.996**	ug/L	0.644	2	269	93451	1	Standard
⌊	**Mn**	**55**	**22.060**	ug/L	0.370	1	664	867799	1	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	82783	1	KED
|	**Ni**	**60**	**20.635**	ug/L	0.475	2	11	31895	0	KED
|	**Ni**	**62**	**20.375**	ug/L	0.453	2	5	4941	3	KED
|	**Cu**	**63**	**20.203**	ug/L	0.243	1	20	81205	0	KED
|	**Cu**	**65**	**20.001**	ug/L	0.543	2	13	39705	2	KED
|	**Zn**	**66**	**19.242**	ug/L	0.199	1	40	9963	1	KED
|	**Zn**	**67**	**16.155**	ug/L	0.578	3	2	1396	1	KED
⌊	**As**	**75**	**19.594**	ug/L	0.309	1	5	7005	2	KED
	Y	**89**		ug/L			806387	881088	2	Standard
	Kr	**83**		ug/L			48	154	9	Standard
⌈>	**In-1**	**115**		ug/L			39343	37749	1	KED
|	**Cd**	**111**	**19.793**	ug/L	0.145	0	3	9459	1	KED
⌊	**Cd**	**114**	**20.085**	ug/L	0.319	1	2	24424	1	KED
⌈>	**In**	**115**		ug/L			1058527	1093718	4	Standard
⌊	**Ag**	**107**	**18.612**	ug/L	0.961	5	67	379369	1	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1366789	0	Standard
⌊	**Pb**	**208**	**0.020**	ug/L	0.001	6	93	954	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 11:19:44
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	22198	2	Standard
	Cl	**37**		ug/L			7300856	7431036	1	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1558600	2	Standard
|	**Cr**	**52**	**198.457**	ug/L	4.657	2	29586	5273324	2	Standard
|	**Cr**	**53**	**201.114**	ug/L	6.532	3	269	679483	0	Standard
⌊	**Mn**	**55**	**197.742**	ug/L	8.480	4	664	7322293	1	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	79911	1	KED
|	**Ni**	**60**	**207.710**	ug/L	5.980	2	11	309802	1	KED
|	**Ni**	**62**	**204.618**	ug/L	2.538	1	5	47847	0	KED
|	**Cu**	**63**	**202.795**	ug/L	4.506	2	20	786644	1	KED
|	**Cu**	**65**	**204.475**	ug/L	2.627	1	13	391743	0	KED
|	**Zn**	**66**	**199.138**	ug/L	3.361	1	40	99167	0	KED
|	**Zn**	**67**	**193.714**	ug/L	5.085	2	2	16148	2	KED
⌊	**As**	**75**	**200.757**	ug/L	3.411	1	5	69225	0	KED
	Y	**89**		ug/L			806387	789227	2	Standard
	Kr	**83**		ug/L			48	144	15	Standard
⌈>	**In-1**	**115**		ug/L			39343	37060	3	KED
|	**Cd**	**111**	**206.183**	ug/L	5.976	2	3	96651	0	KED
⌊	**Cd**	**114**	**208.008**	ug/L	3.923	1	2	248232	1	KED
⌈>	**In**	**115**		ug/L			1058527	1010504	1	Standard
⌊	**Ag**	**107**	**172.672**	ug/L	6.046	3	67	3255921	3	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1245418	1	Standard
⌊	**Pb**	**208**	**184.301**	ug/L	4.307	2	93	7089198	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 11:24:12
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	24179	2	Standard
	Cl	**37**		ug/L			7300856	7451790	0	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1507460	1	Standard
|	**Cr**	**52**	**296.357**	ug/L	3.104	1	29586	7604898	2	Standard
|	**Cr**	**53**	**294.390**	ug/L	6.289	2	269	962286	0	Standard
⌊	**Mn**	**55**	**288.281**	ug/L	6.352	2	664	10330803	0	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	76228	0	KED
|	**Ni**	**60**	**292.350**	ug/L	9.555	3	11	415981	2	KED
|	**Ni**	**62**	**301.342**	ug/L	4.091	1	5	67223	1	KED
|	**Cu**	**63**	**293.307**	ug/L	1.899	0	20	1085429	0	KED
|	**Cu**	**65**	**290.222**	ug/L	7.498	2	13	530418	2	KED
|	**Zn**	**66**	**282.305**	ug/L	4.040	1	40	134096	0	KED
|	**Zn**	**67**	**276.656**	ug/L	6.707	2	2	21996	1	KED
⌊	**As**	**75**	**294.147**	ug/L	3.073	1	5	96759	0	KED
	Y	**89**		ug/L			806387	792684	2	Standard
	Kr	**83**		ug/L			48	234	5	Standard
⌈>	**In-1**	**115**		ug/L			39343	35516	0	KED
|	**Cd**	**111**	**302.343**	ug/L	3.260	1	3	135905	0	KED
⌊	**Cd**	**114**	**303.861**	ug/L	5.826	1	2	347634	1	KED
⌈>	**In**	**115**		ug/L			1058527	958073	1	Standard
⌊	**Ag**	**107**	**254.873**	ug/L	6.851	2	67	4557914	3	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1199059	0	Standard
⌊	**Pb**	**208**	**253.888**	ug/L	2.585	1	93	9404772	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 11:31:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	24074	4	Standard
	Cl	**37**		ug/L			7300856	7485333	2	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1538037	7	Standard
|	**Cr**	**52**	**0.057**	ug/L	0.065	114	29586	29928	1	Standard
|	**Cr**	**53**	**0.067**	ug/L	0.011	16	269	480	2	Standard
⌊	**Mn**	**55**	**0.045**	ug/L	0.005	11	664	2263	2	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	82377	1	KED
|	**Ni**	**60**	**0.019**	ug/L	0.006	29	11	40	20	KED
|	**Ni**	**62**	**0.026**	ug/L	0.028	106	5	11	60	KED
|	**Cu**	**63**	**0.038**	ug/L	0.003	9	20	172	8	KED
|	**Cu**	**65**	**0.027**	ug/L	0.008	28	13	66	22	KED
|	**Zn**	**66**	**0.802**	ug/L	0.058	7	40	451	6	KED
|	**Zn**	**67**	**0.694**	ug/L	0.043	6	2	62	7	KED
⌊	**As**	**75**	**0.005**	ug/L	0.006	105	5	7	27	KED
	Y	**89**		ug/L			806387	801493	8	Standard
	Kr	**83**		ug/L			48	64	16	Standard
⌈>	**In-1**	**115**		ug/L			39343	39370	2	KED
|	**Cd**	**111**	**0.011**	ug/L	0.004	30	3	9	17	KED
⌊	**Cd**	**114**	**0.017**	ug/L	0.010	54	2	24	46	KED
⌈>	**In**	**115**		ug/L			1058527	1017704	8	Standard
⌊	**Ag**	**107**	**0.010**	ug/L	0.001	8	67	253	7	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1202494	7	Standard
⌊	**Pb**	**208**	**0.019**	ug/L	0.002	8	93	812	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 11:36:14
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	20411	2	Standard
	Cl	**37**		ug/L			7300856	7612813	1	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1564444	2	Standard
|	**Cr**	**52**	**53.836**	ug/L	1.235	2	29586	1456939	0	Standard
|	**Cr**	**53**	**51.180**	ug/L	0.580	1	269	173847	1	Standard
⌊	**Mn**	**55**	**52.429**	ug/L	2.447	4	664	1949545	2	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	82371	1	KED
|	**Ni**	**60**	**49.647**	ug/L	1.240	2	11	76369	3	KED
|	**Ni**	**62**	**49.922**	ug/L	0.598	1	5	12038	2	KED
|	**Cu**	**63**	**50.752**	ug/L	0.804	1	20	202949	1	KED
|	**Cu**	**65**	**50.562**	ug/L	0.908	1	13	99895	3	KED
|	**Zn**	**66**	**50.237**	ug/L	1.226	2	40	25814	1	KED
|	**Zn**	**67**	**50.011**	ug/L	1.053	2	2	4299	2	KED
⌊	**As**	**75**	**48.842**	ug/L	0.608	1	5	17364	0	KED
	Y	**89**		ug/L			806387	826160	3	Standard
	Kr	**83**		ug/L			48	71	17	Standard
⌈>	**In-1**	**115**		ug/L			39343	38832	3	KED
|	**Cd**	**111**	**51.451**	ug/L	1.038	2	3	25280	1	KED
⌊	**Cd**	**114**	**52.495**	ug/L	1.533	2	2	65635	1	KED
⌈>	**In**	**115**		ug/L			1058527	1041942	1	Standard
⌊	**Ag**	**107**	**50.067**	ug/L	3.169	6	67	973075	5	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1227636	0	Standard
⌊	**Pb**	**208**	**50.321**	ug/L	1.818	3	93	1908397	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB2
Sample Dil Factor: cal data cleared
Comments: TH 06-26-18
Sample Date/Time: Tuesday, June 26, 2018 11:43:26
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			0	18148	3	Standard
	Cl	**37**		ug/L			0	7325885	0	Standard
⎡>	**Sc**	**45**		ug/L			0	1575888	0	Standard
⎢	**Cr**	**52**		ug/L			0	28314	1	Standard
⎢	**Cr**	**53**		ug/L			0	329	1	Standard
⎣	**Mn**	**55**		ug/L			0	795	3	Standard
⎡>	**Ge-1**	**72**		ug/L			0	83904	0	KED
⎢	**Ni**	**60**		ug/L			0	12	17	KED
⎢	**Ni**	**62**		ug/L			0	4	89	KED
⎢	**Cu**	**63**		ug/L			0	43	5	KED
⎢	**Cu**	**65**		ug/L			0	17	48	KED
⎢	**Zn**	**66**		ug/L			0	76	10	KED
⎢	**Zn**	**67**		ug/L			0	14	60	KED
⎣	**As**	**75**		ug/L			0	9	10	KED
	Y	**89**		ug/L			0	807043	2	Standard
	Kr	**83**		ug/L			0	61	9	Standard
⎡>	**In-1**	**115**		ug/L			0	39423	0	KED
⎢	**Cd**	**111**		ug/L			0	45	122	KED
⎣	**Cd**	**114**		ug/L			0	105	106	KED
⎡>	**In**	**115**		ug/L			0	1047157	5	Standard
⎣	**Ag**	**107**		ug/L			0	131	2	Standard
⎡>	**Tb**	**159**		ug/L			0	1231720	1	Standard
⎣	**Pb**	**208**		ug/L			0	231	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB2 CAL DATA RE-LOADED. RE-PROCESSED CCB2
Sample Dil Factor: TH 06-26-18
Comments:
Sample Date/Time: Tuesday, June 26, 2018 11:43:26
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	18148	3	Standard
	Cl	**37**		ug/L			7300856	7325885	0	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1575888	0	Standard
|	**Cr**	**52**	**-0.034**	ug/L	0.017	51	29586	28314	1	Standard
|	**Cr**	**53**	**0.019**	ug/L	0.002	8	269	329	1	Standard
⌊	**Mn**	**55**	**0.004**	ug/L	0.001	18	664	795	3	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	83904	0	KED
|	**Ni**	**60**	**0.001**	ug/L	0.001	199	11	12	17	KED
|	**Ni**	**62**	**-0.003**	ug/L	0.016	565	5	4	89	KED
|	**Cu**	**63**	**0.006**	ug/L	0.000	8	20	43	5	KED
|	**Cu**	**65**	**0.001**	ug/L	0.004	276	13	17	48	KED
|	**Zn**	**66**	**0.068**	ug/L	0.015	22	40	76	10	KED
|	**Zn**	**67**	**0.137**	ug/L	0.099	72	2	14	60	KED
⌊	**As**	**75**	**0.011**	ug/L	0.003	25	5	9	10	KED
	Y	**89**		ug/L			806387	807043	2	Standard
	Kr	**83**		ug/L			48	61	9	Standard
⌈>	**In-1**	**115**		ug/L			39343	39423	0	KED
|	**Cd**	**111**	**0.084**	ug/L	0.113	134	3	45	122	KED
⌊	**Cd**	**114**	**0.081**	ug/L	0.088	108	2	105	106	KED
⌈>	**In**	**115**		ug/L			1058527	1047157	5	Standard
⌊	**Ag**	**107**	**0.003**	ug/L	0.001	16	67	131	2	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1231720	1	Standard
⌊	**Pb**	**208**	**0.004**	ug/L	0.000	5	93	231	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0620-BLK1 DEL
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 11:48:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	28099	4	Standard
	Cl	**37**		ug/L			7300856	7359111	0	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1580666	3	Standard
|	**Cr**	**52**	**0.044**	ug/L	0.036	81	29586	30470	1	Standard
|	**Cr**	**53**	**0.041**	ug/L	0.009	22	269	407	3	Standard
⌊	**Mn**	**55**	**0.519**	ug/L	0.020	3	664	20129	0	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	78985	9	KED
|	**Ni**	**60**	**0.052**	ug/L	0.019	35	11	86	21	KED
|	**Ni**	**62**	**0.048**	ug/L	0.046	95	5	15	57	KED
|	**Cu**	**63**	**0.067**	ug/L	0.015	22	20	273	19	KED
|	**Cu**	**65**	**0.072**	ug/L	0.014	20	13	147	10	KED
|	**Zn**	**66**	**0.480**	ug/L	0.090	18	40	271	6	KED
|	**Zn**	**67**	**0.619**	ug/L	0.154	24	2	52	13	KED
⌊	**As**	**75**	**0.011**	ug/L	0.008	69	5	9	18	KED
	Y	**89**		ug/L			806387	823266	5	Standard
	Kr	**83**		ug/L			48	60	17	Standard
⌈>	**In-1**	**115**		ug/L			39343	40358	2	KED
|	**Cd**	**111**	**0.004**	ug/L	0.004	107	3	5	33	KED
⌊	**Cd**	**114**	**0.006**	ug/L	0.007	122	2	9	91	KED
⌈>	**In**	**115**		ug/L			1058527	1068995	4	Standard
⌊	**Ag**	**107**	**0.003**	ug/L	0.000	10	67	134	5	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1222267	2	Standard
⌊	**Pb**	**208**	**0.008**	ug/L	0.001	9	93	398	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-30
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 11:53:27
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	21595	3	Standard
	Cl	**37**		ug/L			7300856	7267068	2	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1612163	2	Standard
|	**Cr**	**52**	**-0.032**	ug/L	0.037	115	29586	29020	4	Standard
|	**Cr**	**53**	**0.049**	ug/L	0.008	16	269	442	8	Standard
⌊	**Mn**	**55**	**60.471**	ug/L	1.342	2	664	2318048	2	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	85506	1	KED
|	**Ni**	**60**	**1.778**	ug/L	0.019	1	11	2849	1	KED
|	**Ni**	**62**	**1.723**	ug/L	0.134	7	5	436	7	KED
|	**Cu**	**63**	**1.507**	ug/L	0.101	6	20	6273	5	KED
|	**Cu**	**65**	**1.513**	ug/L	0.075	4	13	3114	3	KED
|	**Zn**	**66**	**33.161**	ug/L	0.696	2	40	17703	1	KED
|	**Zn**	**67**	**30.562**	ug/L	1.363	4	2	2727	2	KED
⌊	**As**	**75**	**0.003**	ug/L	0.002	60	5	6	7	KED
	Y	**89**		ug/L			806387	842819	2	Standard
	Kr	**83**		ug/L			48	61	15	Standard
⌈>	**In-1**	**115**		ug/L			39343	39878	0	KED
|	**Cd**	**111**	**0.350**	ug/L	0.020	5	3	180	4	KED
⌊	**Cd**	**114**	**0.353**	ug/L	0.011	3	2	455	2	KED
⌈>	**In**	**115**		ug/L			1058527	1094636	0	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.001	41	67	111	15	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1285496	2	Standard
⌊	**Pb**	**208**	**0.023**	ug/L	0.001	6	93	994	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-02RE1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 11:57:54
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	30871	2	Standard
	Cl	37		ug/L			7300856	7539521	0	Standard
>	Sc	45		ug/L			1595659	1665554	1	Standard
	Cr	52	0.133	ug/L	0.025	18	29586	34620	0	Standard
	Cr	53	0.229	ug/L	0.007	3	269	1107	1	Standard
	Mn	55	0.643	ug/L	0.018	2	664	26166	1	Standard
>	Ge-1	72		ug/L			82831	82757	2	KED
	Ni	60	0.108	ug/L	0.006	5	11	178	6	KED
	Ni	62	0.095	ug/L	0.011	11	5	27	7	KED
	Cu	63	0.465	ug/L	0.034	7	20	1885	5	KED
	Cu	65	0.453	ug/L	0.031	6	13	912	7	KED
	Zn	66	0.765	ug/L	0.100	13	40	433	9	KED
	Zn	67	1.517	ug/L	0.348	22	2	133	24	KED
	As	75	0.230	ug/L	0.008	3	5	87	1	KED
	Y	89		ug/L			806387	862220	1	Standard
	Kr	83		ug/L			48	69	24	Standard
>	In-1	115		ug/L			39343	39777	0	KED
	Cd	111	0.025	ug/L	0.005	21	3	16	16	KED
	Cd	114	0.017	ug/L	0.008	44	2	24	39	KED
>	In	115		ug/L			1058527	1142493	4	Standard
	Ag	107	0.001	ug/L	0.001	56	67	102	18	Standard
>	Tb	159		ug/L			1231255	1283153	0	Standard
	Pb	208	0.018	ug/L	0.001	3	93	825	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-04RE1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 12:02:21
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	28340	0	Standard
	Cl	**37**		ug/L			7300856	7414508	2	Standard
>	**Sc**	**45**		ug/L			1595659	1674838	3	Standard
	Cr	**52**	**0.097**	ug/L	0.033	33	29586	33801	2	Standard
	Cr	**53**	**0.225**	ug/L	0.016	7	269	1096	2	Standard
	Mn	**55**	**0.369**	ug/L	0.009	2	664	15386	1	Standard
>	**Ge-1**	**72**		ug/L			82831	82644	0	KED
	Ni	**60**	**0.102**	ug/L	0.015	14	11	168	13	KED
	Ni	**62**	**0.066**	ug/L	0.047	72	5	20	55	KED
	Cu	**63**	**0.229**	ug/L	0.018	7	20	937	7	KED
	Cu	**65**	**0.224**	ug/L	0.022	9	13	458	10	KED
	Zn	**66**	**0.862**	ug/L	0.070	8	40	483	6	KED
	Zn	**67**	**1.583**	ug/L	0.168	10	2	139	10	KED
	As	**75**	**0.207**	ug/L	0.028	13	5	79	12	KED
	Y	**89**		ug/L			806387	844885	3	Standard
	Kr	**83**		ug/L			48	53	8	Standard
>	**In-1**	**115**		ug/L			39343	40272	0	KED
	Cd	**111**	**0.029**	ug/L	0.017	58	3	18	47	KED
	Cd	**114**	**0.033**	ug/L	0.011	33	2	45	31	KED
>	**In**	**115**		ug/L			1058527	1119262	1	Standard
	Ag	**107**	**0.002**	ug/L	0.001	37	67	114	13	Standard
>	**Tb**	**159**		ug/L			1231255	1268421	1	Standard
	Pb	**208**	**0.008**	ug/L	0.002	18	93	420	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-08RE1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 12:06:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	30620	0	Standard
	Cl	**37**		ug/L			7300856	7399007	0	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1659006	3	Standard
|	**Cr**	**52**	**0.111**	ug/L	0.042	37	29586	33847	0	Standard
|	**Cr**	**53**	**0.179**	ug/L	0.017	9	269	921	3	Standard
⌊	**Mn**	**55**	**0.513**	ug/L	0.023	4	664	20901	1	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	85085	0	KED
|	**Ni**	**60**	**0.211**	ug/L	0.002	0	11	347	0	KED
|	**Ni**	**62**	**0.226**	ug/L	0.012	5	5	61	4	KED
|	**Cu**	**63**	**1.522**	ug/L	0.032	2	20	6309	2	KED
|	**Cu**	**65**	**1.595**	ug/L	0.025	1	13	3268	1	KED
|	**Zn**	**66**	**53.865**	ug/L	1.813	3	40	28594	3	KED
|	**Zn**	**67**	**48.332**	ug/L	1.038	2	2	4292	2	KED
⌊	**As**	**75**	**0.140**	ug/L	0.018	13	5	57	11	KED
	Y	**89**		ug/L			806387	849790	3	Standard
	Kr	**83**		ug/L			48	58	30	Standard
⌈>	**In-1**	**115**		ug/L			39343	41156	2	KED
|	**Cd**	**111**	**0.257**	ug/L	0.023	9	3	137	7	KED
⌊	**Cd**	**114**	**0.261**	ug/L	0.006	2	2	349	3	KED
⌈>	**In**	**115**		ug/L			1058527	1109029	2	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.001	62	67	106	23	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1298528	1	Standard
⌊	**Pb**	**208**	**0.010**	ug/L	0.001	5	93	485	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-DUP4
Sample Dil Factor: 10
Comments:
Sample Date/Time: Tuesday, June 26, 2018 12:11:17
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	24751	2	Standard
	Cl	37		ug/L			7300856	28807255	3	Standard
>	Sc	45		ug/L			1595659	1575726	1	Standard
	Cr	52	0.335	ug/L	0.030	8	29586	38155	1	Standard
	Cr	53	22.773	ug/L	0.361	1	269	78060	0	Standard
	Mn	55	0.232	ug/L	0.003	1	664	9332	0	Standard
>	Ge-1	72		ug/L			82831	75356	5	KED
	Ni	60	0.319	ug/L	0.037	11	11	457	7	KED
	Ni	62	0.430	ug/L	0.046	10	5	99	5	KED
	Cu	63	0.063	ug/L	0.015	23	20	247	17	KED
	Cu	65	0.065	ug/L	0.005	7	13	130	3	KED
	Zn	66	1.395	ug/L	0.122	8	40	690	5	KED
	Zn	67	1.675	ug/L	0.022	1	2	133	5	KED
	As	75	0.070	ug/L	0.010	14	5	27	10	KED
	Y	89		ug/L			806387	797042	5	Standard
	Kr	83		ug/L			48	492	7	Standard
>	In-1	115		ug/L			39343	34793	1	KED
	Cd	111	0.007	ug/L	0.002	30	3	6	14	KED
	Cd	114	0.014	ug/L	0.002	12	2	18	10	KED
>	In	115		ug/L			1058527	959028	3	Standard
	Ag	107	0.003	ug/L	0.000	10	67	118	4	Standard
>	Tb	159		ug/L			1231255	1155964	1	Standard
	Pb	208	0.029	ug/L	0.001	2	93	1123	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-08
Sample Dil Factor: 10
Comments:
Sample Date/Time: Tuesday, June 26, 2018 12:15:45
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	24443	1	Standard
	Cl	37		ug/L			7300856	28852379	3	Standard
>	Sc	45		ug/L			1595659	1581170	2	Standard
	Cr	52	0.346	ug/L	0.018	5	29586	38576	0	Standard
	Cr	53	21.768	ug/L	0.470	2	269	74875	1	Standard
	Mn	55	0.227	ug/L	0.005	2	664	9183	1	Standard
>	Ge-1	72		ug/L			82831	75370	1	KED
	Ni	60	0.283	ug/L	0.021	7	11	408	6	KED
	Ni	62	0.512	ug/L	0.053	10	5	117	10	KED
	Cu	63	0.072	ug/L	0.008	10	20	281	11	KED
	Cu	65	0.058	ug/L	0.004	7	13	118	6	KED
	Zn	66	1.450	ug/L	0.089	6	40	717	6	KED
	Zn	67	1.561	ug/L	0.069	4	2	125	5	KED
	As	75	0.075	ug/L	0.006	8	5	29	6	KED
	Y	89		ug/L			806387	775150	4	Standard
	Kr	83		ug/L			48	393	4	Standard
>	In-1	115		ug/L			39343	35024	2	KED
	Cd	111	0.009	ug/L	0.006	68	3	7	37	KED
	Cd	114	0.012	ug/L	0.006	45	2	15	37	KED
>	In	115		ug/L			1058527	953943	0	Standard
	Ag	107	0.003	ug/L	0.001	18	67	109	8	Standard
>	Tb	159		ug/L			1231255	1173271	2	Standard
	Pb	208	0.025	ug/L	0.001	3	93	1000	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-MS4
Sample Dil Factor: 10
Comments:
Sample Date/Time: Tuesday, June 26, 2018 12:20:13
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	24298	1	Standard
	Cl	37		ug/L			7300856	28739191	1	Standard
>	Sc	45		ug/L			1595659	1608538	3	Standard
	Cr	52	3.119	ug/L	0.162	5	29586	114817	0	Standard
	Cr	53	24.486	ug/L	0.850	3	269	85598	0	Standard
	Mn	55	2.975	ug/L	0.087	2	664	114371	0	Standard
>	Ge-1	72		ug/L			82831	75015	1	KED
	Ni	60	3.032	ug/L	0.207	6	11	4255	5	KED
	Ni	62	3.164	ug/L	0.050	1	5	699	1	KED
	Cu	63	2.708	ug/L	0.050	1	20	9880	0	KED
	Cu	65	2.690	ug/L	0.034	1	13	4850	1	KED
	Zn	66	8.995	ug/L	0.191	2	40	4239	1	KED
	Zn	67	9.423	ug/L	0.236	2	2	739	3	KED
	As	75	2.778	ug/L	0.034	1	5	904	2	KED
	Y	89		ug/L			806387	787913	3	Standard
	Kr	83		ug/L			48	461	0	Standard
>	In-1	115		ug/L			39343	35182	3	KED
	Cd	111	2.455	ug/L	0.087	3	3	1096	4	KED
	Cd	114	2.601	ug/L	0.033	1	2	2950	3	KED
>	In	115		ug/L			1058527	950705	2	Standard
	Ag	107	2.428	ug/L	0.098	4	67	43111	1	Standard
>	Tb	159		ug/L			1231255	1202183	1	Standard
	Pb	208	2.357	ug/L	0.025	1	93	87621	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-MSD4
Sample Dil Factor: 10
Comments:
Sample Date/Time: Tuesday, June 26, 2018 12:24:41
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	24703	1	Standard
	Cl	37		ug/L			7300856	28177185	1	Standard
>	Sc	45		ug/L			1595659	1604762	1	Standard
	Cr	52	3.068	ug/L	0.023	0	29586	113265	1	Standard
	Cr	53	24.848	ug/L	0.223	0	269	86721	0	Standard
	Mn	55	2.979	ug/L	0.028	0	664	114336	1	Standard
>	Ge-1	72		ug/L			82831	76791	1	KED
	Ni	60	2.955	ug/L	0.163	5	11	4245	5	KED
	Ni	62	3.306	ug/L	0.184	5	5	747	4	KED
	Cu	63	2.672	ug/L	0.030	1	20	9981	2	KED
	Cu	65	2.556	ug/L	0.135	5	13	4721	6	KED
	Zn	66	9.242	ug/L	0.356	3	40	4456	2	KED
	Zn	67	8.509	ug/L	0.412	4	2	683	4	KED
	As	75	2.650	ug/L	0.080	3	5	883	4	KED
	Y	89		ug/L			806387	796228	0	Standard
	Kr	83		ug/L			48	385	8	Standard
>	In-1	115		ug/L			39343	35486	2	KED
	Cd	111	2.441	ug/L	0.051	2	3	1099	3	KED
	Cd	114	2.495	ug/L	0.061	2	2	2853	2	KED
>	In	115		ug/L			1058527	961280	1	Standard
	Ag	107	2.368	ug/L	0.019	0	67	42545	2	Standard
>	Tb	159		ug/L			1231255	1230490	1	Standard
	Pb	208	2.296	ug/L	0.077	3	93	87333	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0620-BS1 DEL
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 12:29:09
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	30136	1	Standard
	Cl	**37**		ug/L			7300856	7745240	0	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1539741	0	Standard
|	**Cr**	**52**	**29.003**	ug/L	0.562	1	29586	785808	1	Standard
|	**Cr**	**53**	**28.362**	ug/L	0.760	2	269	94956	3	Standard
⌊	**Mn**	**55**	**30.468**	ug/L	0.268	0	664	1115984	0	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	86828	0	KED
|	**Ni**	**60**	**26.479**	ug/L	0.464	1	11	42937	2	KED
|	**Ni**	**62**	**27.564**	ug/L	0.721	2	5	7009	2	KED
|	**Cu**	**63**	**27.726**	ug/L	0.587	2	20	116900	2	KED
|	**Cu**	**65**	**27.880**	ug/L	1.014	3	13	58062	4	KED
|	**Zn**	**66**	**86.541**	ug/L	0.463	0	40	46856	0	KED
|	**Zn**	**67**	**82.182**	ug/L	2.080	2	2	7446	3	KED
⌊	**As**	**75**	**25.434**	ug/L	0.340	1	5	9535	0	KED
	Y	**89**		ug/L			806387	811480	0	Standard
	Kr	**83**		ug/L			48	92	8	Standard
⌈>	**In-1**	**115**		ug/L			39343	39693	2	KED
|	**Cd**	**111**	**27.284**	ug/L	0.780	2	3	13704	0	KED
⌊	**Cd**	**114**	**27.593**	ug/L	0.765	2	2	35268	0	KED
⌈>	**In**	**115**		ug/L			1058527	1060115	0	Standard
⌊	**Ag**	**107**	**26.601**	ug/L	0.740	2	67	526327	2	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1227939	1	Standard
⌊	**Pb**	**208**	**26.569**	ug/L	0.318	1	93	1007867	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 12:34:42
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	18976	1	Standard
	Cl	**37**		ug/L			7300856	7625334	0	Standard
⎡>	**Sc**	**45**		ug/L			1595659	1520802	1	Standard
⎢	**Cr**	**52**	**53.819**	ug/L	0.552	1	29586	1416214	1	Standard
⎢	**Cr**	**53**	**51.431**	ug/L	0.264	0	269	169842	0	Standard
⎣	**Mn**	**55**	**53.740**	ug/L	1.624	3	664	1943767	3	Standard
⎡>	**Ge-1**	**72**		ug/L			82831	81676	0	KED
⎢	**Ni**	**60**	**48.347**	ug/L	1.520	3	11	73737	3	KED
⎢	**Ni**	**62**	**51.022**	ug/L	1.751	3	5	12199	3	KED
⎢	**Cu**	**63**	**49.755**	ug/L	0.390	0	20	197304	0	KED
⎢	**Cu**	**65**	**48.176**	ug/L	1.071	2	13	94364	2	KED
⎢	**Zn**	**66**	**50.639**	ug/L	0.064	0	40	25807	0	KED
⎢	**Zn**	**67**	**49.904**	ug/L	2.615	5	2	4253	5	KED
⎣	**As**	**75**	**49.449**	ug/L	0.477	0	5	17434	1	KED
	Y	**89**		ug/L			806387	798885	2	Standard
	Kr	**83**		ug/L			48	66	13	Standard
⎡>	**In-1**	**115**		ug/L			39343	39581	0	KED
⎢	**Cd**	**111**	**50.133**	ug/L	0.834	1	3	25117	1	KED
⎣	**Cd**	**114**	**51.316**	ug/L	0.771	1	2	65433	1	KED
⎡>	**In**	**115**		ug/L			1058527	1014558	1	Standard
⎣	**Ag**	**107**	**48.632**	ug/L	0.943	1	67	920765	1	Standard
⎡>	**Tb**	**159**		ug/L			1231255	1206553	0	Standard
⎣	**Pb**	**208**	**49.099**	ug/L	1.257	2	93	1829955	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 12:41:55
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	17183	0	Standard
	Cl	**37**		ug/L			7300856	7327461	1	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1514348	2	Standard
|	**Cr**	**52**	**-0.038**	ug/L	0.022	58	29586	27102	1	Standard
|	**Cr**	**53**	**0.218**	ug/L	0.018	8	269	970	4	Standard
⌊	**Mn**	**55**	**0.005**	ug/L	0.001	24	664	827	5	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	83912	0	KED
|	**Ni**	**60**	**0.002**	ug/L	0.003	201	11	13	34	KED
|	**Ni**	**62**	**0.083**	ug/L	0.030	35	5	25	28	KED
|	**Cu**	**63**	**0.017**	ug/L	0.005	31	20	90	23	KED
|	**Cu**	**65**	**0.012**	ug/L	0.006	49	13	37	31	KED
|	**Zn**	**66**	**0.038**	ug/L	0.032	84	40	60	27	KED
|	**Zn**	**67**	**0.072**	ug/L	0.050	69	2	8	49	KED
⌊	**As**	**75**	**-0.000**	ug/L	0.006	2604	5	5	36	KED
	Y	**89**		ug/L			806387	803313	1	Standard
	Kr	**83**		ug/L			48	60	16	Standard
⌈>	**In-1**	**115**		ug/L			39343	39735	2	KED
|	**Cd**	**111**	**0.003**	ug/L	0.002	61	3	5	20	KED
⌊	**Cd**	**114**	**0.003**	ug/L	0.002	62	2	6	41	KED
⌈>	**In**	**115**		ug/L			1058527	998440	2	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.001	28	67	106	13	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1182949	1	Standard
⌊	**Pb**	**208**	**0.004**	ug/L	0.000	6	93	249	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0620-BLK1
Sample Dil Factor: DEL
Comments:
Sample Date/Time: Tuesday, June 26, 2018 12:46:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	26257	1	Standard
	Cl	**37**		ug/L			7300856	7433943	2	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1534436	2	Standard
|	**Cr**	**52**	**0.063**	ug/L	0.029	46	29586	30089	0	Standard
|	**Cr**	**53**	**0.192**	ug/L	0.008	4	269	897	1	Standard
⌊	**Mn**	**55**	**0.505**	ug/L	0.021	4	664	19056	2	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	83320	2	KED
|	**Ni**	**60**	**0.038**	ug/L	0.002	6	11	71	3	KED
|	**Ni**	**62**	**0.131**	ug/L	0.035	26	5	36	20	KED
|	**Cu**	**63**	**0.066**	ug/L	0.009	13	20	289	13	KED
|	**Cu**	**65**	**0.068**	ug/L	0.010	15	13	150	13	KED
|	**Zn**	**66**	**0.495**	ug/L	0.004	0	40	297	2	KED
|	**Zn**	**67**	**0.454**	ug/L	0.086	18	2	41	16	KED
⌊	**As**	**75**	**0.003**	ug/L	0.006	203	5	6	32	KED
	Y	**89**		ug/L			806387	796682	1	Standard
	Kr	**83**		ug/L			48	55	7	Standard
⌈>	**In-1**	**115**		ug/L			39343	40044	1	KED
|	**Cd**	**111**	**0.001**	ug/L	0.001	103	3	4	12	KED
⌊	**Cd**	**114**	**-0.002**	ug/L	0.002	119	2	0	1054	KED
⌈>	**In**	**115**		ug/L			1058527	1036478	3	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	77	67	86	17	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1169269	2	Standard
⌊	**Pb**	**208**	**0.007**	ug/L	0.000	6	93	356	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0621-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 12:50:52
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	27063	2	Standard
	Cl	37		ug/L			7300856	7320621	2	Standard
>	Sc	45		ug/L			1595659	1516817	2	Standard
	Cr	52	0.057	ug/L	0.033	57	29586	29577	0	Standard
	Cr	53	0.170	ug/L	0.010	5	269	814	2	Standard
	Mn	55	0.488	ug/L	0.014	2	664	18219	3	Standard
>	Ge-1	72		ug/L			82831	81656	1	KED
	Ni	60	0.042	ug/L	0.008	20	11	75	18	KED
	Ni	62	0.122	ug/L	0.021	17	5	34	16	KED
	Cu	63	0.031	ug/L	0.001	3	20	144	1	KED
	Cu	65	0.027	ug/L	0.005	17	13	66	13	KED
	Zn	66	0.418	ug/L	0.034	8	40	252	5	KED
	Zn	67	0.396	ug/L	0.070	17	2	36	15	KED
	As	75	-0.001	ug/L	0.003	526	5	5	22	KED
	Y	89		ug/L			806387	795229	2	Standard
	Kr	83		ug/L			48	73	15	Standard
>	In-1	115		ug/L			39343	40218	1	KED
	Cd	111	-0.002	ug/L	0.004	176	3	2	66	KED
	Cd	114	-0.000	ug/L	0.006	3941	2	2	361	KED
>	In	115		ug/L			1058527	1007993	2	Standard
	Ag	107	0.001	ug/L	0.001	64	67	83	13	Standard
>	Tb	159		ug/L			1231255	1190080	1	Standard
	Pb	208	0.004	ug/L	0.000	9	93	227	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0478-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 12:55:20
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	28843	2	Standard
	Cl	37		ug/L			7300856	7289874	0	Standard
>	Sc	45		ug/L			1595659	1534661	1	Standard
	Cr	52	0.072	ug/L	0.021	28	29586	30344	2	Standard
	Cr	53	0.170	ug/L	0.004	2	269	824	0	Standard
	Mn	55	0.239	ug/L	0.005	1	664	9355	0	Standard
>	Ge-1	72		ug/L			82831	83227	1	KED
	Ni	60	0.034	ug/L	0.003	9	11	63	6	KED
	Ni	62	0.078	ug/L	0.019	24	5	24	18	KED
	Cu	63	0.046	ug/L	0.004	9	20	206	8	KED
	Cu	65	0.045	ug/L	0.009	19	13	104	15	KED
	Zn	66	0.652	ug/L	0.057	8	40	377	6	KED
	Zn	67	0.643	ug/L	0.091	14	2	58	14	KED
	As	75	-0.003	ug/L	0.009	275	5	4	66	KED
	Y	89		ug/L			806387	803242	1	Standard
	Kr	83		ug/L			48	52	5	Standard
>	In-1	115		ug/L			39343	40627	2	KED
	Cd	111	0.001	ug/L	0.003	282	3	4	32	KED
	Cd	114	0.003	ug/L	0.006	202	2	6	119	KED
>	In	115		ug/L			1058527	1028885	2	Standard
	Ag	107	0.001	ug/L	0.001	126	67	78	21	Standard
>	Tb	159		ug/L			1231255	1217155	1	Standard
	Pb	208	0.005	ug/L	0.001	15	93	296	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0359-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 12:59:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	44297	2	Standard
	Cl	37		ug/L			7300856	18110576	5	Standard
>	Sc	45		ug/L			1595659	1619436	2	Standard
	Cr	52	49.583	ug/L	0.481	0	29586	1391581	2	Standard
	Cr	53	59.315	ug/L	1.403	2	269	208492	2	Standard
	Mn	55	18.521	ug/L	0.614	3	664	713364	1	Standard
>	Ge-1	72		ug/L			82831	78459	1	KED
	Ni	60	9.615	ug/L	0.158	1	11	14093	1	KED
	Ni	62	9.661	ug/L	0.344	3	5	2222	2	KED
	Cu	63	15.983	ug/L	0.326	2	20	60904	3	KED
	Cu	65	15.678	ug/L	0.318	2	13	29502	1	KED
	Zn	66	19.662	ug/L	0.709	3	40	9647	2	KED
	Zn	67	18.646	ug/L	1.021	5	2	1528	6	KED
	As	75	0.361	ug/L	0.003	0	5	127	1	KED
	Y	89		ug/L			806387	789502	1	Standard
	Kr	83		ug/L			48	182	7	Standard
>	In-1	115		ug/L			39343	36298	0	KED
	Cd	111	1.494	ug/L	0.022	1	3	689	1	KED
	Cd	114	1.469	ug/L	0.085	5	2	1719	5	KED
>	In	115		ug/L			1058527	946757	0	Standard
	Ag	107	0.018	ug/L	0.002	8	67	378	6	Standard
>	Tb	159		ug/L			1231255	1217073	0	Standard
	Pb	208	0.957	ug/L	0.008	0	93	36057	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0208-02
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 13:04:16
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	30419	0	Standard
	Cl	37		ug/L			7300856	40332567	3	Standard
>	Sc	45		ug/L			1595659	1578650	5	Standard
	Cr	52	0.561	ug/L	0.048	8	29586	44236	3	Standard
	Cr	53	31.388	ug/L	1.623	5	269	107501	1	Standard
	Mn	55	39.287	ug/L	2.501	6	664	1471729	0	Standard
>	Ge-1	72		ug/L			82831	73420	1	KED
	Ni	60	0.237	ug/L	0.033	14	11	334	12	KED
	Ni	62	0.685	ug/L	0.109	15	5	151	15	KED
	Cu	63	0.429	ug/L	0.021	4	20	1545	3	KED
	Cu	65	0.402	ug/L	0.027	6	13	718	4	KED
	Zn	66	0.897	ug/L	0.165	18	40	445	16	KED
	Zn	67	1.055	ug/L	0.133	12	2	83	13	KED
	As	75	0.227	ug/L	0.024	10	5	76	8	KED
	Y	89		ug/L			806387	755079	7	Standard
	Kr	83		ug/L			48	842	6	Standard
>	In-1	115		ug/L			39343	33752	1	KED
	Cd	111	0.010	ug/L	0.004	38	3	7	21	KED
	Cd	114	0.012	ug/L	0.004	29	2	15	24	KED
>	In	115		ug/L			1058527	897353	6	Standard
	Ag	107	0.003	ug/L	0.000	3	67	107	5	Standard
>	Tb	159		ug/L			1231255	1174042	5	Standard
	Pb	208	0.343	ug/L	0.022	6	93	12496	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0208-03
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 13:08:45
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	29535	1	Standard
	Cl	37		ug/L			7300856	43967371	3	Standard
>	Sc	45		ug/L			1595659	1658608	0	Standard
	Cr	52	0.418	ug/L	0.016	3	29586	42506	0	Standard
	Cr	53	31.790	ug/L	0.723	2	269	114598	1	Standard
	Mn	55	13.872	ug/L	0.295	2	664	547719	1	Standard
>	Ge-1	72		ug/L			82831	76416	0	KED
	Ni	60	0.144	ug/L	0.016	11	11	215	11	KED
	Ni	62	0.789	ug/L	0.058	7	5	180	6	KED
	Cu	63	0.372	ug/L	0.023	6	20	1398	6	KED
	Cu	65	0.333	ug/L	0.038	11	13	624	11	KED
	Zn	66	0.882	ug/L	0.034	3	40	456	2	KED
	Zn	67	0.862	ug/L	0.192	22	2	71	22	KED
	As	75	0.102	ug/L	0.020	19	5	38	17	KED
	Y	89		ug/L			806387	755791	0	Standard
	Kr	83		ug/L			48	744	5	Standard
>	In-1	115		ug/L			39343	34965	0	KED
	Cd	111	0.004	ug/L	0.001	30	3	5	10	KED
	Cd	114	0.003	ug/L	0.003	95	2	5	57	KED
>	In	115		ug/L			1058527	914007	2	Standard
	Ag	107	0.002	ug/L	0.000	18	67	93	8	Standard
>	Tb	159		ug/L			1231255	1226544	1	Standard
	Pb	208	0.019	ug/L	0.001	6	93	824	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0208-04
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 13:13:13
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	28617	1	Standard
	Cl	37		ug/L			7300856	41233099	0	Standard
⌈>	Sc	45		ug/L			1595659	1651354	0	Standard
|	Cr	52	0.416	ug/L	0.020	4	29586	42261	1	Standard
|	Cr	53	29.000	ug/L	0.259	0	269	104111	0	Standard
⌊	Mn	55	15.255	ug/L	0.085	0	664	599601	0	Standard
⌈>	Ge-1	72		ug/L			82831	75849	1	KED
|	Ni	60	0.151	ug/L	0.017	11	11	224	9	KED
|	Ni	62	0.878	ug/L	0.074	8	5	199	7	KED
|	Cu	63	0.416	ug/L	0.009	2	20	1548	1	KED
|	Cu	65	0.375	ug/L	0.011	2	13	695	2	KED
|	Zn	66	0.987	ug/L	0.008	0	40	502	0	KED
|	Zn	67	0.965	ug/L	0.088	9	2	78	10	KED
⌊	As	75	0.107	ug/L	0.007	6	5	40	4	KED
	Y	89		ug/L			806387	779285	2	Standard
	Kr	83		ug/L			48	803	3	Standard
⌈>	In-1	115		ug/L			39343	33630	1	KED
|	Cd	111	0.001	ug/L	0.004	345	3	3	50	KED
⌊	Cd	114	0.008	ug/L	0.008	104	2	10	83	KED
⌈>	In	115		ug/L			1058527	924326	2	Standard
⌊	Ag	107	0.001	ug/L	0.001	40	67	84	10	Standard
⌈>	Tb	159		ug/L			1231255	1211503	1	Standard
⌊	Pb	208	0.021	ug/L	0.001	6	93	859	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0620-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 13:17:41
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	29598	1	Standard
	Cl	**37**		ug/L			7300856	7497964	1	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1579597	0	Standard
|	**Cr**	**52**	**28.805**	ug/L	0.885	3	29586	800781	2	Standard
|	**Cr**	**53**	**27.326**	ug/L	0.501	1	269	93858	2	Standard
⌊	**Mn**	**55**	**29.674**	ug/L	0.854	2	664	1114893	2	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	89405	1	KED
|	**Ni**	**60**	**26.761**	ug/L	0.417	1	11	44673	1	KED
|	**Ni**	**62**	**28.467**	ug/L	0.215	0	5	7452	1	KED
|	**Cu**	**63**	**27.938**	ug/L	0.496	1	20	121270	1	KED
|	**Cu**	**65**	**27.412**	ug/L	0.765	2	13	58768	2	KED
|	**Zn**	**66**	**88.512**	ug/L	0.821	0	40	49342	1	KED
|	**Zn**	**67**	**83.090**	ug/L	2.655	3	2	7748	1	KED
⌊	**As**	**75**	**25.512**	ug/L	0.337	1	5	9847	0	KED
	Y	**89**		ug/L			806387	846877	3	Standard
	Kr	**83**		ug/L			48	123	10	Standard
⌈>	**In-1**	**115**		ug/L			39343	41901	1	KED
|	**Cd**	**111**	**26.475**	ug/L	0.348	1	3	14042	0	KED
⌊	**Cd**	**114**	**26.602**	ug/L	0.640	2	2	35900	1	KED
⌈>	**In**	**115**		ug/L			1058527	1027569	2	Standard
⌊	**Ag**	**107**	**27.298**	ug/L	1.034	3	67	523527	4	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1259543	0	Standard
⌊	**Pb**	**208**	**25.099**	ug/L	0.477	1	93	976667	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0621-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 13:22:08
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	27537	4	Standard
	Cl	37		ug/L			7300856	7337930	2	Standard
>	Sc	45		ug/L			1595659	1527992	1	Standard
	Cr	52	29.413	ug/L	0.821	2	29586	790301	1	Standard
	Cr	53	26.773	ug/L	0.892	3	269	88935	2	Standard
	Mn	55	29.836	ug/L	0.481	1	664	1084418	1	Standard
>	Ge-1	72		ug/L			82831	86366	2	KED
	Ni	60	26.954	ug/L	0.802	2	11	43453	1	KED
	Ni	62	26.762	ug/L	1.374	5	5	6763	2	KED
	Cu	63	27.987	ug/L	0.673	2	20	117320	0	KED
	Cu	65	26.982	ug/L	1.130	4	13	55849	1	KED
	Zn	66	86.265	ug/L	0.960	1	40	46455	2	KED
	Zn	67	78.940	ug/L	2.495	3	2	7110	1	KED
	As	75	25.680	ug/L	0.969	3	5	9571	1	KED
	Y	89		ug/L			806387	797967	3	Standard
	Kr	83		ug/L			48	81	16	Standard
>	In-1	115		ug/L			39343	41138	3	KED
	Cd	111	26.216	ug/L	0.725	2	3	13645	0	KED
	Cd	114	26.658	ug/L	0.442	1	2	35317	1	KED
>	In	115		ug/L			1058527	1029867	2	Standard
	Ag	107	26.767	ug/L	0.641	2	67	514439	3	Standard
>	Tb	159		ug/L			1231255	1215281	0	Standard
	Pb	208	25.767	ug/L	0.310	1	93	967441	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0478-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 13:26:36
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	29565	1	Standard
	Cl	37		ug/L			7300856	7358134	2	Standard
>	Sc	45		ug/L			1595659	1535546	2	Standard
	Cr	52	28.723	ug/L	0.736	2	29586	776103	1	Standard
	Cr	53	27.042	ug/L	0.908	3	269	90262	2	Standard
	Mn	55	29.288	ug/L	1.064	3	664	1069276	2	Standard
>	Ge-1	72		ug/L			82831	85969	2	KED
	Ni	60	26.619	ug/L	0.959	3	11	42713	1	KED
	Ni	62	27.581	ug/L	0.202	0	5	6943	1	KED
	Cu	63	27.683	ug/L	1.112	4	20	115560	4	KED
	Cu	65	27.389	ug/L	0.680	2	13	56452	0	KED
	Zn	66	83.776	ug/L	1.329	1	40	44911	2	KED
	Zn	67	78.942	ug/L	2.251	2	2	7080	2	KED
	As	75	24.575	ug/L	0.511	2	5	9121	1	KED
	Y	89		ug/L			806387	825866	0	Standard
	Kr	83		ug/L			48	84	14	Standard
>	In-1	115		ug/L			39343	41164	3	KED
	Cd	111	26.004	ug/L	0.594	2	3	13545	1	KED
	Cd	114	25.601	ug/L	0.867	3	2	33929	1	KED
>	In	115		ug/L			1058527	994515	1	Standard
	Ag	107	28.072	ug/L	0.165	0	67	521025	1	Standard
>	Tb	159		ug/L			1231255	1252032	0	Standard
	Pb	208	24.886	ug/L	0.186	0	93	962664	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 13:32:08
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	18785	4	Standard
	Cl	**37**		ug/L			7300856	7030944	2	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1473886	1	Standard
|	**Cr**	**52**	**54.772**	ug/L	0.293	0	29586	1396404	1	Standard
|	**Cr**	**53**	**52.077**	ug/L	0.956	1	269	166654	1	Standard
⌊	**Mn**	**55**	**54.198**	ug/L	0.591	1	664	1899836	1	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	81638	1	KED
|	**Ni**	**60**	**51.539**	ug/L	0.610	1	11	78553	0	KED
|	**Ni**	**62**	**50.209**	ug/L	0.367	0	5	11998	1	KED
|	**Cu**	**63**	**51.409**	ug/L	0.777	1	20	203731	0	KED
|	**Cu**	**65**	**50.745**	ug/L	1.708	3	13	99301	1	KED
|	**Zn**	**66**	**52.738**	ug/L	0.571	1	40	26863	2	KED
|	**Zn**	**67**	**50.153**	ug/L	1.145	2	2	4272	1	KED
⌊	**As**	**75**	**50.415**	ug/L	1.006	1	5	17762	0	KED
	Y	**89**		ug/L			806387	799557	4	Standard
	Kr	**83**		ug/L			48	65	25	Standard
⌈>	**In-1**	**115**		ug/L			39343	39889	1	KED
|	**Cd**	**111**	**49.880**	ug/L	1.105	2	3	25180	0	KED
⌊	**Cd**	**114**	**50.838**	ug/L	0.959	1	2	65316	0	KED
⌈>	**In**	**115**		ug/L			1058527	980768	0	Standard
⌊	**Ag**	**107**	**50.749**	ug/L	0.725	1	67	928845	0	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1212459	3	Standard
⌊	**Pb**	**208**	**47.007**	ug/L	1.839	3	93	1759172	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 13:39:21
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	16350	3	Standard
	Cl	**37**		ug/L			7300856	7125492	1	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1498198	1	Standard
|	**Cr**	**52**	**-0.001**	ug/L	0.010	810	29586	27750	2	Standard
|	**Cr**	**53**	**0.218**	ug/L	0.008	3	269	962	3	Standard
⌊	**Mn**	**55**	**0.005**	ug/L	0.001	22	664	787	3	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	84217	1	KED
|	**Ni**	**60**	**0.009**	ug/L	0.013	143	11	25	76	KED
|	**Ni**	**62**	**0.152**	ug/L	0.011	6	5	42	6	KED
|	**Cu**	**63**	**0.033**	ug/L	0.029	87	20	155	74	KED
|	**Cu**	**65**	**0.021**	ug/L	0.019	93	13	55	67	KED
|	**Zn**	**66**	**0.069**	ug/L	0.017	24	40	76	11	KED
|	**Zn**	**67**	**0.129**	ug/L	0.060	46	2	13	39	KED
⌊	**As**	**75**	**0.020**	ug/L	0.025	126	5	12	67	KED
	Y	**89**		ug/L			806387	794851	5	Standard
	Kr	**83**		ug/L			48	52	18	Standard
⌈>	**In-1**	**115**		ug/L			39343	40050	2	KED
|	**Cd**	**111**	**0.008**	ug/L	0.014	177	3	7	90	KED
⌊	**Cd**	**114**	**0.004**	ug/L	0.005	133	2	7	88	KED
⌈>	**In**	**115**		ug/L			1058527	1017875	2	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	28	67	90	7	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1206568	3	Standard
⌊	**Pb**	**208**	**0.004**	ug/L	0.000	5	93	227	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0620-BLK1
Sample Dil Factor: DEL
Comments:
Sample Date/Time: Tuesday, June 26, 2018 13:43:52
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	24749	1	Standard
	Cl	**37**		ug/L			7300856	7032288	0	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1505658	2	Standard
|	**Cr**	**52**	**0.109**	ug/L	0.045	41	29586	30681	2	Standard
|	**Cr**	**53**	**0.231**	ug/L	0.008	3	269	1006	0	Standard
⌊	**Mn**	**55**	**0.445**	ug/L	0.020	4	664	16559	2	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	83957	1	KED
|	**Ni**	**60**	**0.032**	ug/L	0.007	22	11	60	17	KED
|	**Ni**	**62**	**0.093**	ug/L	0.044	46	5	27	37	KED
|	**Cu**	**63**	**0.056**	ug/L	0.003	6	20	250	4	KED
|	**Cu**	**65**	**0.045**	ug/L	0.009	20	13	104	17	KED
|	**Zn**	**66**	**0.454**	ug/L	0.035	7	40	278	6	KED
|	**Zn**	**67**	**0.340**	ug/L	0.056	16	2	32	15	KED
⌊	**As**	**75**	**0.003**	ug/L	0.002	66	5	6	10	KED
	Y	**89**		ug/L			806387	770191	4	Standard
	Kr	**83**		ug/L			48	52	13	Standard
⌈>	**In-1**	**115**		ug/L			39343	40248	0	KED
|	**Cd**	**111**	**0.003**	ug/L	0.004	131	3	5	36	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.004	262	2	4	122	KED
⌈>	**In**	**115**		ug/L			1058527	991381	3	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.001	59	67	92	19	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1193348	2	Standard
⌊	**Pb**	**208**	**0.006**	ug/L	0.002	25	93	323	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-20RE2
Sample Dil Factor:
Comments: DEL
Sample Date/Time: Tuesday, June 26, 2018 13:48:19
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	31879	1	Standard
	Cl	**37**		ug/L			7300856	7152842	2	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1666966	2	Standard
|	**Cr**	**52**	**0.374**	ug/L	0.032	8	29586	41477	1	Standard
|	**Cr**	**53**	**0.543**	ug/L	0.007	1	269	2244	2	Standard
⌊	**Mn**	**55**	**0.300**	ug/L	0.001	0	664	12579	2	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	83316	2	KED
|	**Ni**	**60**	**0.165**	ug/L	0.012	7	11	267	5	KED
|	**Ni**	**62**	**0.197**	ug/L	0.023	11	5	53	12	KED
|	**Cu**	**63**	**0.498**	ug/L	0.013	2	20	2034	2	KED
|	**Cu**	**65**	**0.479**	ug/L	0.016	3	13	969	2	KED
|	**Zn**	**66**	**6.602**	ug/L	0.453	6	40	3462	3	KED
|	**Zn**	**67**	**6.632**	ug/L	0.317	4	2	578	2	KED
⌊	**As**	**75**	**0.066**	ug/L	0.009	13	5	29	13	KED
	Y	**89**		ug/L			806387	852368	3	Standard
	Kr	**83**		ug/L			48	57	6	Standard
⌈>	**In-1**	**115**		ug/L			39343	40453	2	KED
|	**Cd**	**111**	**0.096**	ug/L	0.004	3	3	53	4	KED
⌊	**Cd**	**114**	**0.099**	ug/L	0.004	3	2	131	4	KED
⌈>	**In**	**115**		ug/L			1058527	1059194	1	Standard
⌊	**Ag**	**107**	**0.003**	ug/L	0.001	18	67	132	7	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1296554	2	Standard
⌊	**Pb**	**208**	**0.065**	ug/L	0.004	5	93	2695	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-26RE1
Sample Dil Factor: DEL
Comments:
Sample Date/Time: Tuesday, June 26, 2018 13:52:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	29396	4	Standard
	Cl	**37**		ug/L			7300856	6914593	0	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1616911	0	Standard
|	**Cr**	**52**	**0.320**	ug/L	0.042	13	29586	38749	2	Standard
|	**Cr**	**53**	**0.515**	ug/L	0.006	1	269	2079	1	Standard
⌊	**Mn**	**55**	**2.021**	ug/L	0.030	1	664	78365	1	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	86269	2	KED
|	**Ni**	**60**	**0.378**	ug/L	0.024	6	11	620	5	KED
|	**Ni**	**62**	**0.358**	ug/L	0.045	12	5	95	14	KED
|	**Cu**	**63**	**0.241**	ug/L	0.014	5	20	1031	4	KED
|	**Cu**	**65**	**0.223**	ug/L	0.009	3	13	474	3	KED
|	**Zn**	**66**	**2.243**	ug/L	0.059	2	40	1247	2	KED
|	**Zn**	**67**	**2.721**	ug/L	0.189	6	2	247	8	KED
⌊	**As**	**75**	**0.014**	ug/L	0.005	37	5	11	15	KED
	Y	**89**		ug/L			806387	848528	0	Standard
	Kr	**83**		ug/L			48	73	12	Standard
⌈>	**In-1**	**115**		ug/L			39343	40212	0	KED
|	**Cd**	**111**	**0.412**	ug/L	0.037	9	3	213	8	KED
⌊	**Cd**	**114**	**0.441**	ug/L	0.043	9	2	573	9	KED
⌈>	**In**	**115**		ug/L			1058527	1096920	4	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.000	311	67	72	5	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1348655	2	Standard
⌊	**Pb**	**208**	**0.009**	ug/L	0.001	12	93	480	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-68RE1
Sample Dil Factor: DEL
Comments:
Sample Date/Time: Tuesday, June 26, 2018 13:57:14
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	30642	4	Standard
	Cl	**37**		ug/L			7300856	6611699	2	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1591025	1	Standard
|	**Cr**	**52**	**0.614**	ug/L	0.054	8	29586	46062	1	Standard
|	**Cr**	**53**	**0.724**	ug/L	0.021	2	269	2766	2	Standard
⌊	**Mn**	**55**	**160.545**	ug/L	4.728	2	664	6072647	2	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	86078	0	KED
|	**Ni**	**60**	**9.065**	ug/L	0.151	1	11	14580	2	KED
|	**Ni**	**62**	**9.252**	ug/L	0.324	3	5	2335	2	KED
|	**Cu**	**63**	**22.136**	ug/L	0.410	1	20	92523	1	KED
|	**Cu**	**65**	**21.816**	ug/L	0.552	2	13	45038	2	KED
|	**Zn**	**66**	**100.215**	ug/L	2.247	2	40	53781	1	KED
|	**Zn**	**67**	**91.712**	ug/L	1.337	1	2	8236	0	KED
⌊	**As**	**75**	**0.057**	ug/L	0.005	8	5	26	6	KED
	Y	**89**		ug/L			806387	999433	5	Standard
	Kr	**83**		ug/L			48	83	24	Standard
⌈>	**In-1**	**115**		ug/L			39343	40084	0	KED
|	**Cd**	**111**	**0.849**	ug/L	0.098	11	3	434	11	KED
⌊	**Cd**	**114**	**0.835**	ug/L	0.027	3	2	1080	3	KED
⌈>	**In**	**115**		ug/L			1058527	1129973	3	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.001	33	67	110	15	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1397848	1	Standard
⌊	**Pb**	**208**	**0.019**	ug/L	0.001	6	93	933	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0621-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 14:01:42
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	38074	2	Standard
	Cl	37		ug/L			7300856	6400593	1	Standard
>	Sc	45		ug/L			1595659	1327633	1	Standard
	Cr	52	407.696	ug/L	11.332	2	29586	9202196	1	Standard
	Cr	53	424.196	ug/L	9.719	2	269	1221167	1	Standard
	Mn	55	25.209	ug/L	0.270	1	664	796311	1	Standard
>	Ge-1	72		ug/L			82831	71631	1	KED
	Ni	60	3.649	ug/L	0.067	1	11	4889	2	KED
	Ni	62	3.858	ug/L	0.099	2	5	813	4	KED
	Cu	63	16.676	ug/L	0.378	2	20	57996	1	KED
	Cu	65	16.462	ug/L	0.189	1	13	28281	0	KED
	Zn	66	42.196	ug/L	0.686	1	40	18865	2	KED
	Zn	67	37.740	ug/L	0.974	2	2	2821	1	KED
	As	75	0.095	ug/L	0.015	15	5	34	13	KED
	Y	89		ug/L			806387	759899	2	Standard
	Kr	83		ug/L			48	95	14	Standard
>	In-1	115		ug/L			39343	32627	1	KED
	Cd	111	0.017	ug/L	0.007	40	3	10	27	KED
	Cd	114	0.019	ug/L	0.006	33	2	21	29	KED
>	In	115		ug/L			1058527	1007071	1	Standard
	Ag	107	0.025	ug/L	0.000	1	67	535	1	Standard
>	Tb	159		ug/L			1231255	1404870	1	Standard
	Pb	208	0.526	ug/L	0.008	1	93	22927	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0360-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 14:06:09
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	35951	2	Standard
	Cl	37		ug/L			7300856	6393923	2	Standard
>	Sc	45		ug/L			1595659	1318878	1	Standard
	Cr	52	397.112	ug/L	1.171	0	29586	8906240	1	Standard
	Cr	53	407.179	ug/L	8.460	2	269	1164388	1	Standard
	Mn	55	24.998	ug/L	0.460	1	664	784250	0	Standard
>	Ge-1	72		ug/L			82831	70961	0	KED
	Ni	60	3.706	ug/L	0.089	2	11	4919	2	KED
	Ni	62	3.871	ug/L	0.381	9	5	808	10	KED
	Cu	63	16.176	ug/L	0.213	1	20	55742	1	KED
	Cu	65	16.089	ug/L	0.143	0	13	27385	1	KED
	Zn	66	40.294	ug/L	0.487	1	40	17848	1	KED
	Zn	67	37.399	ug/L	0.850	2	2	2770	2	KED
	As	75	0.103	ug/L	0.004	3	5	36	3	KED
	Y	89		ug/L			806387	765210	2	Standard
	Kr	83		ug/L			48	82	10	Standard
>	In-1	115		ug/L			39343	31970	0	KED
	Cd	111	0.094	ug/L	0.014	14	3	41	12	KED
	Cd	114	0.089	ug/L	0.020	22	2	93	22	KED
>	In	115		ug/L			1058527	1035078	1	Standard
	Ag	107	0.010	ug/L	0.002	18	67	262	12	Standard
>	Tb	159		ug/L			1231255	1389654	0	Standard
	Pb	208	0.566	ug/L	0.004	0	93	24399	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0621-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 14:10:37
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	35669	1	Standard
	Cl	37		ug/L			7300856	6325749	0	Standard
>	Sc	45		ug/L			1595659	1333815	1	Standard
	Cr	52	418.429	ug/L	6.773	1	29586	9488546	1	Standard
	Cr	53	426.429	ug/L	4.956	1	269	1233282	0	Standard
	Mn	55	50.086	ug/L	1.318	2	664	1588443	1	Standard
>	Ge-1	72		ug/L			82831	71837	0	KED
	Ni	60	29.925	ug/L	0.556	1	11	40142	1	KED
	Ni	62	29.922	ug/L	1.213	4	5	6293	3	KED
	Cu	63	42.000	ug/L	0.026	0	20	146492	0	KED
	Cu	65	41.876	ug/L	0.417	0	13	72137	0	KED
	Zn	66	115.339	ug/L	3.463	3	40	51649	2	KED
	Zn	67	107.015	ug/L	3.136	2	2	8020	2	KED
	As	75	25.565	ug/L	0.257	1	5	7930	1	KED
	Y	89		ug/L			806387	767523	3	Standard
	Kr	83		ug/L			48	99	13	Standard
>	In-1	115		ug/L			39343	32694	0	KED
	Cd	111	24.505	ug/L	0.131	0	3	10143	0	KED
	Cd	114	24.609	ug/L	0.577	2	2	25921	2	KED
>	In	115		ug/L			1058527	1054400	0	Standard
	Ag	107	21.310	ug/L	0.417	1	67	419354	1	Standard
>	Tb	159		ug/L			1231255	1392457	1	Standard
	Pb	208	20.165	ug/L	0.506	2	93	867404	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0478-DUP1
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 14:15:05
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	27800	3	Standard
	Cl	37		ug/L			7300856	53587238	4	Standard
⌈>	Sc	45		ug/L			1595659	1522877	1	Standard
|	Cr	52	0.801	ug/L	0.014	1	29586	48933	1	Standard
|	Cr	53	40.546	ug/L	0.259	0	269	134140	1	Standard
⌊	Mn	55	0.253	ug/L	0.009	3	664	9777	2	Standard
⌈>	Ge-1	72		ug/L			82831	71100	0	KED
|	Ni	60	0.119	ug/L	0.035	28	11	168	27	KED
|	Ni	62	0.745	ug/L	0.049	6	5	159	5	KED
|	Cu	63	0.293	ug/L	0.076	26	20	1029	25	KED
|	Cu	65	0.255	ug/L	0.066	25	13	446	24	KED
|	Zn	66	0.803	ug/L	0.176	21	40	389	19	KED
|	Zn	67	0.955	ug/L	0.086	8	2	73	8	KED
⌊	As	75	0.499	ug/L	0.070	13	5	157	12	KED
	Y	89		ug/L			806387	705759	1	Standard
	Kr	83		ug/L			48	834	1	Standard
⌈>	In-1	115		ug/L			39343	32632	1	KED
|	Cd	111	0.004	ug/L	0.007	178	3	4	60	KED
⌊	Cd	114	0.006	ug/L	0.006	99	2	8	75	KED
⌈>	In	115		ug/L			1058527	888008	3	Standard
⌊	Ag	107	0.005	ug/L	0.001	18	67	147	7	Standard
⌈>	Tb	159		ug/L			1231255	1195509	1	Standard
⌊	Pb	208	0.020	ug/L	0.002	10	93	826	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0208-01
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 14:19:33
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	25802	2	Standard
	Cl	37		ug/L			7300856	51695498	1	Standard
>	Sc	45		ug/L			1595659	1514238	3	Standard
	Cr	52	0.790	ug/L	0.102	12	29586	48340	4	Standard
	Cr	53	37.431	ug/L	0.491	1	269	123120	1	Standard
	Mn	55	0.269	ug/L	0.021	7	664	10310	6	Standard
>	Ge-1	72		ug/L			82831	75107	3	KED
	Ni	60	0.098	ug/L	0.003	2	11	147	0	KED
	Ni	62	1.112	ug/L	0.057	5	5	248	4	KED
	Cu	63	0.261	ug/L	0.007	2	20	970	3	KED
	Cu	65	0.177	ug/L	0.010	5	13	332	5	KED
	Zn	66	0.731	ug/L	0.073	9	40	379	12	KED
	Zn	67	0.915	ug/L	0.269	29	2	73	25	KED
	As	75	0.442	ug/L	0.060	13	5	148	9	KED
	Y	89		ug/L			806387	732739	2	Standard
	Kr	83		ug/L			48	1126	3	Standard
>	In-1	115		ug/L			39343	32991	2	KED
	Cd	111	0.008	ug/L	0.002	29	3	6	17	KED
	Cd	114	0.005	ug/L	0.001	17	2	7	13	KED
>	In	115		ug/L			1058527	909705	1	Standard
	Ag	107	0.004	ug/L	0.002	35	67	132	22	Standard
>	Tb	159		ug/L			1231255	1216897	1	Standard
	Pb	208	0.017	ug/L	0.002	11	93	727	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0478-MS1
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 14:24:01
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	25999	3	Standard
	Cl	37		ug/L			7300856	52369251	3	Standard
>	Sc	45		ug/L			1595659	1472490	3	Standard
	Cr	52	6.341	ug/L	0.214	3	29586	185568	2	Standard
	Cr	53	41.955	ug/L	0.669	1	269	134156	2	Standard
	Mn	55	5.795	ug/L	0.199	3	664	203348	1	Standard
>	Ge-1	72		ug/L			82831	75300	2	KED
	Ni	60	5.521	ug/L	0.139	2	11	7769	1	KED
	Ni	62	6.936	ug/L	0.200	2	5	1532	3	KED
	Cu	63	5.508	ug/L	0.028	0	20	20153	3	KED
	Cu	65	5.361	ug/L	0.116	2	13	9690	3	KED
	Zn	66	14.974	ug/L	0.112	0	40	7060	2	KED
	Zn	67	14.058	ug/L	1.165	8	2	1105	6	KED
	As	75	5.606	ug/L	0.161	2	5	1825	1	KED
	Y	89		ug/L			806387	694974	1	Standard
	Kr	83		ug/L			48	1676	2	Standard
>	In-1	115		ug/L			39343	33172	2	KED
	Cd	111	4.764	ug/L	0.074	1	3	2002	1	KED
	Cd	114	4.820	ug/L	0.098	2	2	5153	4	KED
>	In	115		ug/L			1058527	881625	0	Standard
	Ag	107	4.459	ug/L	0.111	2	67	73408	1	Standard
>	Tb	159		ug/L			1231255	1210760	2	Standard
	Pb	208	3.778	ug/L	0.077	2	93	141352	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 14:29:34
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	17072	2	Standard
	Cl	37		ug/L			7300856	6429262	2	Standard
>	Sc	45		ug/L			1595659	1376476	3	Standard
	Cr	52	56.726	ug/L	2.183	3	29586	1348652	0	Standard
	Cr	53	54.497	ug/L	0.963	1	269	162821	1	Standard
	Mn	55	56.604	ug/L	1.532	2	664	1852176	1	Standard
>	Ge-1	72		ug/L			82831	88542	1	KED
	Ni	60	48.866	ug/L	1.818	3	11	80768	2	KED
	Ni	62	50.524	ug/L	1.036	2	5	13098	3	KED
	Cu	63	50.776	ug/L	0.509	1	20	218277	1	KED
	Cu	65	49.664	ug/L	0.883	1	13	105437	0	KED
	Zn	66	50.496	ug/L	0.828	1	40	27895	0	KED
	Zn	67	50.740	ug/L	2.688	5	2	4689	5	KED
	As	75	48.737	ug/L	0.694	1	5	18626	0	KED
	Y	89		ug/L			806387	747385	1	Standard
	Kr	83		ug/L			48	264	16	Standard
>	In-1	115		ug/L			39343	40558	1	KED
	Cd	111	50.041	ug/L	0.471	0	3	25688	0	KED
	Cd	114	51.115	ug/L	0.839	1	2	66775	0	KED
>	In	115		ug/L			1058527	988291	0	Standard
	Ag	107	49.735	ug/L	0.802	1	67	917325	1	Standard
>	Tb	159		ug/L			1231255	1248257	2	Standard
	Pb	208	43.141	ug/L	0.542	1	93	1663432	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 14:36:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	15598	4	Standard
	Cl	**37**		ug/L			7300856	6250050	2	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1299449	3	Standard
|	**Cr**	**52**	**0.072**	ug/L	0.040	54	29586	25667	0	Standard
|	**Cr**	**53**	**0.624**	ug/L	0.029	4	269	1977	4	Standard
⌊	**Mn**	**55**	**0.012**	ug/L	0.001	9	664	902	3	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	79451	13	KED
|	**Ni**	**60**	**0.010**	ug/L	0.005	57	11	24	27	KED
|	**Ni**	**62**	**0.595**	ug/L	0.056	9	5	142	8	KED
|	**Cu**	**63**	**0.036**	ug/L	0.008	21	20	156	5	KED
|	**Cu**	**65**	**0.009**	ug/L	0.005	55	13	30	16	KED
|	**Zn**	**66**	**0.051**	ug/L	0.051	99	40	61	24	KED
|	**Zn**	**67**	**0.049**	ug/L	0.033	67	2	6	34	KED
⌊	**As**	**75**	**0.004**	ug/L	0.002	47	5	6	21	KED
	Y	**89**		ug/L			806387	747163	1	Standard
	Kr	**83**		ug/L			48	61	21	Standard
⌈>	**In-1**	**115**		ug/L			39343	40686	3	KED
|	**Cd**	**111**	**-0.000**	ug/L	0.004	1701	3	3	50	KED
⌊	**Cd**	**114**	**-0.000**	ug/L	0.002	1286	2	2	127	KED
⌈>	**In**	**115**		ug/L			1058527	1009735	3	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.002	112	67	97	35	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1239454	1	Standard
⌊	**Pb**	**208**	**0.005**	ug/L	0.002	42	93	283	29	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 14:42:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	19212	3	Standard
	Cl	**37**		ug/L			7300856	5993758	3	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1298653	2	Standard
|	**Cr**	**52**	**0.032**	ug/L	0.031	97	29586	24767	0	Standard
|	**Cr**	**53**	**0.490**	ug/L	0.012	2	269	1597	0	Standard
⌊	**Mn**	**55**	**0.004**	ug/L	0.000	4	664	657	2	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	84743	0	KED
|	**Ni**	**60**	**0.005**	ug/L	0.004	73	11	19	29	KED
|	**Ni**	**62**	**0.253**	ug/L	0.006	2	5	67	1	KED
|	**Cu**	**63**	**0.014**	ug/L	0.003	21	20	78	16	KED
|	**Cu**	**65**	**0.007**	ug/L	0.004	60	13	28	30	KED
|	**Zn**	**66**	**0.081**	ug/L	0.016	19	40	83	10	KED
|	**Zn**	**67**	**0.064**	ug/L	0.013	19	2	8	13	KED
⌊	**As**	**75**	**0.001**	ug/L	0.006	605	5	6	33	KED
	Y	**89**		ug/L			806387	718111	3	Standard
	Kr	**83**		ug/L			48	58	14	Standard
⌈>	**In-1**	**115**		ug/L			39343	41375	0	KED
|	**Cd**	**111**	**0.003**	ug/L	0.008	325	3	5	83	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.001	65	2	5	35	KED
⌈>	**In**	**115**		ug/L			1058527	975198	2	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.001	385	67	57	32	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1267378	2	Standard
⌊	**Pb**	**208**	**0.003**	ug/L	0.000	12	93	224	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 14:47:11
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	18551	1	Standard
	Cl	**37**		ug/L			7300856	6058011	2	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1313367	1	Standard
|	**Cr**	**52**	**0.036**	ug/L	0.034	95	29586	25138	1	Standard
|	**Cr**	**53**	**0.442**	ug/L	0.010	2	269	1480	2	Standard
⌊	**Mn**	**55**	**0.003**	ug/L	0.000	1	664	640	0	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	85976	1	KED
|	**Ni**	**60**	**0.001**	ug/L	0.002	470	11	12	31	KED
|	**Ni**	**62**	**0.110**	ug/L	0.010	9	5	33	8	KED
|	**Cu**	**63**	**0.007**	ug/L	0.001	11	20	49	7	KED
|	**Cu**	**65**	**0.003**	ug/L	0.004	154	13	19	40	KED
|	**Zn**	**66**	**0.042**	ug/L	0.010	24	40	64	7	KED
|	**Zn**	**67**	**0.077**	ug/L	0.094	121	2	9	87	KED
⌊	**As**	**75**	**-0.004**	ug/L	0.003	82	5	4	26	KED
	Y	**89**		ug/L			806387	740871	3	Standard
	Kr	**83**		ug/L			48	53	14	Standard
⌈>	**In-1**	**115**		ug/L			39343	40600	1	KED
|	**Cd**	**111**	**0.004**	ug/L	0.005	114	3	6	39	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.002	118	2	4	49	KED
⌈>	**In**	**115**		ug/L			1058527	982325	4	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.000	83	67	57	8	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1236696	1	Standard
⌊	**Pb**	**208**	**0.004**	ug/L	0.000	0	93	238	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 14:55:07
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	16962	3	Standard
	Cl	**37**		ug/L			7300856	5872594	1	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1298203	1	Standard
|	**Cr**	**52**	**0.090**	ug/L	0.033	36	29586	26062	3	Standard
|	**Cr**	**53**	**0.394**	ug/L	0.002	0	269	1328	1	Standard
⌊	**Mn**	**55**	**0.049**	ug/L	0.003	5	664	2057	3	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	87586	0	KED
|	**Ni**	**60**	**0.121**	ug/L	0.004	2	11	209	3	KED
|	**Ni**	**62**	**0.167**	ug/L	0.049	29	5	48	26	KED
|	**Cu**	**63**	**0.113**	ug/L	0.010	8	20	500	8	KED
|	**Cu**	**65**	**0.127**	ug/L	0.003	2	13	280	2	KED
|	**Zn**	**66**	**1.578**	ug/L	0.090	5	40	903	6	KED
|	**Zn**	**67**	**1.263**	ug/L	0.108	8	2	118	8	KED
⌊	**As**	**75**	**0.000**	ug/L	0.003	850	5	6	20	KED
	Y	**89**		ug/L			806387	754763	3	Standard
	Kr	**83**		ug/L			48	53	15	Standard
⌈>	**In-1**	**115**		ug/L			39343	41159	1	KED
|	**Cd**	**111**	**0.006**	ug/L	0.004	64	3	7	30	KED
⌊	**Cd**	**114**	**0.004**	ug/L	0.004	98	2	8	67	KED
⌈>	**In**	**115**		ug/L			1058527	1045817	3	Standard
⌊	**Ag**	**107**	**0.010**	ug/L	0.001	12	67	257	9	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1327410	2	Standard
⌊	**Pb**	**208**	**0.039**	ug/L	0.001	3	93	1714	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 14:59:36
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				14674	2	Standard
	Cl	**37**		ug/L				5841457	0	Standard
⌈>	**Sc**	**45**		ug/L				1241343	1	Standard
|	**Cr**	**52**		ug/L				23556	1	Standard
|	**Cr**	**53**		ug/L				1089	2	Standard
⌊	**Mn**	**55**		ug/L				637	2	Standard
⌈>	**Ge-1**	**72**		ug/L				82877	0	KED
|	**Ni**	**60**		ug/L				21	18	KED
|	**Ni**	**62**		ug/L				19	14	KED
|	**Cu**	**63**		ug/L				68	30	KED
|	**Cu**	**65**		ug/L				31	34	KED
|	**Zn**	**66**		ug/L				75	18	KED
|	**Zn**	**67**		ug/L				16	17	KED
⌊	**As**	**75**		ug/L				6	10	KED
	Y	**89**		ug/L				707302	3	Standard
	Kr	**83**		ug/L				55	27	Standard
⌈>	**In-1**	**115**		ug/L				40285	2	KED
|	**Cd**	**111**		ug/L				6	79	KED
⌊	**Cd**	**114**		ug/L				5	57	KED
⌈>	**In**	**115**		ug/L				1020321	2	Standard
⌊	**Ag**	**107**		ug/L				62	16	Standard
⌈>	**Tb**	**159**		ug/L				1263003	0	Standard
⌊	**Pb**	**208**		ug/L				212	19	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 15:04:04
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	15600	2	Standard
	Cl	37		ug/L			5841457	5902912	0	Standard
>	Sc	45		ug/L			1241343	1236938	2	Standard
	Cr	52	56.661	ug/L	0.483	0	23556	1211944	1	Standard
	Cr	53	52.710	ug/L	1.057	2	1089	142415	1	Standard
	Mn	55	57.997	ug/L	0.784	1	637	1705946	1	Standard
>	Ge-1	72		ug/L			82877	84586	1	KED
	Ni	60	49.677	ug/L	1.057	2	21	78482	3	KED
	Ni	62	49.872	ug/L	0.364	0	19	12364	1	KED
	Cu	63	50.610	ug/L	0.867	1	68	207928	3	KED
	Cu	65	49.762	ug/L	0.942	1	31	100969	3	KED
	Zn	66	50.611	ug/L	1.244	2	75	26750	3	KED
	Zn	67	48.508	ug/L	1.509	3	16	4295	2	KED
	As	75	48.424	ug/L	0.555	1	6	17683	2	KED
	Y	89		ug/L			707302	705972	2	Standard
	Kr	83		ug/L			55	62	20	Standard
>	In-1	115		ug/L			40285	38595	2	KED
	Cd	111	50.487	ug/L	0.645	1	6	24664	0	KED
	Cd	114	51.541	ug/L	0.688	1	5	64083	2	KED
>	In	115		ug/L			1020321	976026	3	Standard
	Ag	107	50.415	ug/L	2.101	4	62	917413	0	Standard
>	Tb	159		ug/L			1263003	1284475	1	Standard
	Pb	208	41.508	ug/L	1.165	2	212	1646892	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 15:11:17
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			14674	14281	2	Standard
	Cl	**37**		ug/L			5841457	5660693	1	Standard
⌈>	**Sc**	**45**		ug/L			1241343	1210383	2	Standard
|	**Cr**	**52**	**-0.009**	ug/L	0.075	844	23556	22768	4	Standard
|	**Cr**	**53**	**-0.094**	ug/L	0.026	27	1089	815	6	Standard
⌊	**Mn**	**55**	**-0.000**	ug/L	0.000	1546	637	620	2	Standard
⌈>	**Ge-1**	**72**		ug/L			82877	84624	2	KED
|	**Ni**	**60**	**0.001**	ug/L	0.005	548	21	23	33	KED
|	**Ni**	**62**	**-0.048**	ug/L	0.031	64	19	8	93	KED
|	**Cu**	**63**	**0.004**	ug/L	0.007	176	68	86	33	KED
|	**Cu**	**65**	**0.007**	ug/L	0.004	63	31	46	19	KED
|	**Zn**	**66**	**-0.020**	ug/L	0.010	48	75	66	7	KED
|	**Zn**	**67**	**-0.056**	ug/L	0.098	176	16	12	72	KED
⌊	**As**	**75**	**0.004**	ug/L	0.007	204	6	8	31	KED
	Y	**89**		ug/L			707302	723147	1	Standard
	Kr	**83**		ug/L			55	58	18	Standard
⌈>	**In-1**	**115**		ug/L			40285	39720	2	KED
|	**Cd**	**111**	**-0.006**	ug/L	0.005	81	6	3	66	KED
⌊	**Cd**	**114**	**-0.004**	ug/L	0.001	21	5	0	257	KED
⌈>	**In**	**115**		ug/L			1020321	1005233	3	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.001	494	62	64	22	Standard
⌈>	**Tb**	**159**		ug/L			1263003	1239558	0	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	54	212	231	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0226-01
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 15:16:46
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	27351	2	Standard
	Cl	37		ug/L			5841457	65914735	2	Standard
>	Sc	45		ug/L			1241343	1382194	1	Standard
	Cr	52	0.732	ug/L	0.106	14	23556	43381	5	Standard
	Cr	53	52.323	ug/L	1.739	3	1089	157969	2	Standard
	Mn	55	5.783	ug/L	0.059	1	637	190717	1	Standard
>	Ge-1	72		ug/L			82877	70037	1	KED
	Ni	60	0.217	ug/L	0.014	6	21	302	5	KED
	Ni	62	1.124	ug/L	0.060	5	19	246	5	KED
	Cu	63	0.332	ug/L	0.030	9	68	1187	7	KED
	Cu	65	0.249	ug/L	0.008	3	31	445	4	KED
	Zn	66	1.443	ug/L	0.057	3	75	693	2	KED
	Zn	67	1.479	ug/L	0.176	11	16	121	9	KED
	As	75	0.230	ug/L	0.007	3	6	75	3	KED
	Y	89		ug/L			707302	638447	1	Standard
	Kr	83		ug/L			55	1367	2	Standard
>	In-1	115		ug/L			40285	30681	2	KED
	Cd	111	0.017	ug/L	0.007	39	6	12	24	KED
	Cd	114	0.017	ug/L	0.010	62	5	20	50	KED
>	In	115		ug/L			1020321	767015	2	Standard
	Ag	107	0.005	ug/L	0.001	23	62	121	12	Standard
>	Tb	159		ug/L			1263003	1113332	0	Standard
	Pb	208	0.019	ug/L	0.001	5	212	829	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0226-02
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 15:22:38
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	25141	3	Standard
	Cl	37		ug/L			5841457	63272224	2	Standard
>	Sc	45		ug/L			1241343	1329647	1	Standard
	Cr	52	0.660	ug/L	0.053	8	23556	40113	2	Standard
	Cr	53	47.593	ug/L	1.589	3	1089	138376	3	Standard
	Mn	55	4.351	ug/L	0.156	3	637	138186	2	Standard
>	Ge-1	72		ug/L			82877	71191	1	KED
	Ni	60	0.127	ug/L	0.014	11	21	187	10	KED
	Ni	62	1.458	ug/L	0.033	2	19	320	2	KED
	Cu	63	0.367	ug/L	0.017	4	68	1327	5	KED
	Cu	65	0.242	ug/L	0.020	8	31	439	6	KED
	Zn	66	1.307	ug/L	0.116	8	75	644	7	KED
	Zn	67	1.349	ug/L	0.246	18	16	114	15	KED
	As	75	0.296	ug/L	0.022	7	6	96	5	KED
	Y	89		ug/L			707302	632801	2	Standard
	Kr	83		ug/L			55	2113	1	Standard
>	In-1	115		ug/L			40285	31104	0	KED
	Cd	111	0.032	ug/L	0.005	14	6	18	10	KED
	Cd	114	0.012	ug/L	0.006	52	5	15	38	KED
>	In	115		ug/L			1020321	786081	1	Standard
	Ag	107	0.002	ug/L	0.000	20	62	74	8	Standard
>	Tb	159		ug/L			1263003	1106097	1	Standard
	Pb	208	0.013	ug/L	0.000	3	212	634	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0226-03
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 15:28:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	24403	1	Standard
	Cl	37		ug/L			5841457	60532223	3	Standard
>	Sc	45		ug/L			1241343	1239778	1	Standard
	Cr	52	0.623	ug/L	0.006	0	23556	36631	1	Standard
	Cr	53	44.590	ug/L	0.500	1	1089	120936	0	Standard
	Mn	55	1.289	ug/L	0.021	1	637	38628	2	Standard
>	Ge-1	72		ug/L			82877	70057	1	KED
	Ni	60	0.131	ug/L	0.002	1	21	189	2	KED
	Ni	62	1.676	ug/L	0.114	6	19	360	5	KED
	Cu	63	0.668	ug/L	0.012	1	68	2330	0	KED
	Cu	65	0.556	ug/L	0.042	7	31	960	6	KED
	Zn	66	0.449	ug/L	0.034	7	75	259	6	KED
	Zn	67	0.782	ug/L	0.058	7	16	71	6	KED
	As	75	0.313	ug/L	0.013	4	6	100	2	KED
	Y	89		ug/L			707302	633441	1	Standard
	Kr	83		ug/L			55	2600	6	Standard
>	In-1	115		ug/L			40285	30683	0	KED
	Cd	111	0.015	ug/L	0.012	80	6	11	42	KED
	Cd	114	0.004	ug/L	0.004	83	5	8	42	KED
>	In	115		ug/L			1020321	775951	2	Standard
	Ag	107	0.003	ug/L	0.001	29	62	87	13	Standard
>	Tb	159		ug/L			1263003	1103744	1	Standard
	Pb	208	0.017	ug/L	0.000	1	212	753	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0226-04
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 15:34:18
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	22741	1	Standard
	Cl	37		ug/L			5841457	32318257	4	Standard
>	Sc	45		ug/L			1241343	1210669	2	Standard
	Cr	52	0.810	ug/L	0.028	3	23556	39602	1	Standard
	Cr	53	26.058	ug/L	0.410	1	1089	69450	0	Standard
	Mn	55	11.243	ug/L	0.113	1	637	324202	1	Standard
>	Ge-1	72		ug/L			82877	73199	0	KED
	Ni	60	1.160	ug/L	0.032	2	21	1603	1	KED
	Ni	62	2.470	ug/L	0.118	4	19	546	5	KED
	Cu	63	0.422	ug/L	0.005	1	68	1560	0	KED
	Cu	65	0.330	ug/L	0.027	8	31	606	7	KED
	Zn	66	1.985	ug/L	0.140	7	75	971	5	KED
	Zn	67	2.170	ug/L	0.111	5	16	180	5	KED
	As	75	0.185	ug/L	0.013	7	6	64	6	KED
	Y	89		ug/L			707302	652982	1	Standard
	Kr	83		ug/L			55	1847	2	Standard
>	In-1	115		ug/L			40285	33420	1	KED
	Cd	111	0.010	ug/L	0.003	31	6	10	14	KED
	Cd	114	0.019	ug/L	0.008	40	5	24	32	KED
>	In	115		ug/L			1020321	849920	2	Standard
	Ag	107	0.000	ug/L	0.001	174	62	57	14	Standard
>	Tb	159		ug/L			1263003	1178095	3	Standard
	Pb	208	0.009	ug/L	0.000	3	212	517	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0226-05
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 15:38:46
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	22567	0	Standard
	Cl	37		ug/L			5841457	41690053	3	Standard
⌈>	Sc	45		ug/L			1241343	1177432	1	Standard
|	Cr	52	0.409	ug/L	0.016	4	23556	30515	0	Standard
|	Cr	53	30.578	ug/L	0.383	1	1089	79098	1	Standard
⌊	Mn	55	47.332	ug/L	1.087	2	637	1325700	2	Standard
⌈>	Ge-1	72		ug/L			82877	69647	0	KED
|	Ni	60	0.235	ug/L	0.002	0	21	323	0	KED
|	Ni	62	1.720	ug/L	0.085	4	19	366	4	KED
|	Cu	63	0.147	ug/L	0.005	3	68	556	3	KED
|	Cu	65	0.033	ug/L	0.011	34	31	81	23	KED
|	Zn	66	0.732	ug/L	0.082	11	75	380	8	KED
|	Zn	67	0.814	ug/L	0.100	12	16	73	9	KED
⌊	As	75	0.128	ug/L	0.007	5	6	44	4	KED
	Y	89		ug/L			707302	644546	2	Standard
	Kr	83		ug/L			55	2323	4	Standard
⌈>	In-1	115		ug/L			40285	31797	0	KED
|	Cd	111	-0.001	ug/L	0.008	720	6	5	60	KED
⌊	Cd	114	0.004	ug/L	0.004	101	5	8	48	KED
⌈>	In	115		ug/L			1020321	815469	5	Standard
⌊	Ag	107	0.001	ug/L	0.001	55	62	66	18	Standard
⌈>	Tb	159		ug/L			1263003	1081521	5	Standard
⌊	Pb	208	0.008	ug/L	0.001	8	212	462	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0226-06
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 15:43:14
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	20214	2	Standard
	Cl	37		ug/L			5841457	54872128	2	Standard
>	Sc	45		ug/L			1241343	1099309	2	Standard
	Cr	52	0.404	ug/L	0.027	6	23556	28385	1	Standard
	Cr	53	37.543	ug/L	0.754	2	1089	90419	1	Standard
	Mn	55	22.614	ug/L	0.608	2	637	591301	0	Standard
>	Ge-1	72		ug/L			82877	64439	1	KED
	Ni	60	0.381	ug/L	0.018	4	21	474	4	KED
	Ni	62	2.092	ug/L	0.108	5	19	409	3	KED
	Cu	63	0.400	ug/L	0.031	7	68	1304	6	KED
	Cu	65	0.228	ug/L	0.019	8	31	377	6	KED
	Zn	66	2.093	ug/L	0.013	0	75	899	1	KED
	Zn	67	2.123	ug/L	0.191	9	16	155	8	KED
	As	75	0.161	ug/L	0.017	10	6	50	10	KED
	Y	89		ug/L			707302	611385	4	Standard
	Kr	83		ug/L			55	4132	3	Standard
>	In-1	115		ug/L			40285	29243	0	KED
	Cd	111	0.018	ug/L	0.006	33	6	11	18	KED
	Cd	114	0.024	ug/L	0.003	12	5	26	10	KED
>	In	115		ug/L			1020321	741032	3	Standard
	Ag	107	0.002	ug/L	0.000	22	62	70	9	Standard
>	Tb	159		ug/L			1263003	1005706	3	Standard
	Pb	208	0.010	ug/L	0.000	4	212	479	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0226-07
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 15:47:42
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	19293	1	Standard
	Cl	37		ug/L			5841457	72557926	5	Standard
>	Sc	45		ug/L			1241343	1004436	0	Standard
	Cr	52	0.379	ug/L	0.024	6	23556	25525	1	Standard
	Cr	53	44.210	ug/L	0.288	0	1089	97162	0	Standard
	Mn	55	27.787	ug/L	0.336	1	637	664080	0	Standard
>	Ge-1	72		ug/L			82877	57141	1	KED
	Ni	60	0.183	ug/L	0.016	8	21	210	6	KED
	Ni	62	2.710	ug/L	0.024	0	19	466	0	KED
	Cu	63	0.328	ug/L	0.005	1	68	956	2	KED
	Cu	65	0.033	ug/L	0.008	23	31	66	14	KED
	Zn	66	0.636	ug/L	0.035	5	75	278	5	KED
	Zn	67	0.929	ug/L	0.189	20	16	66	15	KED
	As	75	0.253	ug/L	0.006	2	6	67	1	KED
	Y	89		ug/L			707302	584038	2	Standard
	Kr	83		ug/L			55	7723	4	Standard
>	In-1	115		ug/L			40285	26335	2	KED
	Cd	111	0.002	ug/L	0.006	380	6	5	39	KED
	Cd	114	0.002	ug/L	0.004	200	5	5	62	KED
>	In	115		ug/L			1020321	705976	2	Standard
	Ag	107	0.002	ug/L	0.001	68	62	65	21	Standard
>	Tb	159		ug/L			1263003	931744	3	Standard
	Pb	208	0.018	ug/L	0.002	8	212	678	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0226-08
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 15:52:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	18232	2	Standard
	Cl	37		ug/L			5841457	50077641	3	Standard
>	Sc	45		ug/L			1241343	1006614	1	Standard
	Cr	52	0.351	ug/L	0.073	20	23556	25077	3	Standard
	Cr	53	28.119	ug/L	0.798	2	1089	62249	2	Standard
	Mn	55	0.368	ug/L	0.013	3	637	9321	1	Standard
>	Ge-1	72		ug/L			82877	60035	0	KED
	Ni	60	0.112	ug/L	0.005	4	21	140	4	KED
	Ni	62	2.792	ug/L	0.094	3	19	504	3	KED
	Cu	63	0.459	ug/L	0.017	3	68	1388	3	KED
	Cu	65	0.200	ug/L	0.010	5	31	310	4	KED
	Zn	66	0.888	ug/L	0.108	12	75	386	10	KED
	Zn	67	1.076	ug/L	0.213	19	16	79	17	KED
	As	75	0.333	ug/L	0.037	11	6	91	10	KED
	Y	89		ug/L			707302	582056	2	Standard
	Kr	83		ug/L			55	7516	0	Standard
>	In-1	115		ug/L			40285	28414	0	KED
	Cd	111	0.007	ug/L	0.007	93	6	7	33	KED
	Cd	114	0.007	ug/L	0.006	80	5	10	50	KED
>	In	115		ug/L			1020321	723843	2	Standard
	Ag	107	0.002	ug/L	0.000	25	62	67	7	Standard
>	Tb	159		ug/L			1263003	980857	1	Standard
	Pb	208	0.010	ug/L	0.001	12	212	471	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0226-09
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 15:56:38
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	17895	4	Standard
	Cl	37		ug/L			5841457	38063298	2	Standard
>	Sc	45		ug/L			1241343	997880	1	Standard
	Cr	52	0.206	ug/L	0.021	10	23556	22428	2	Standard
	Cr	53	20.825	ug/L	0.458	2	1089	45926	1	Standard
	Mn	55	1.790	ug/L	0.002	0	637	42989	1	Standard
>	Ge-1	72		ug/L			82877	59956	1	KED
	Ni	60	0.358	ug/L	0.056	15	21	415	14	KED
	Ni	62	2.866	ug/L	0.180	6	19	516	5	KED
	Cu	63	0.415	ug/L	0.014	3	68	1258	2	KED
	Cu	65	0.195	ug/L	0.009	4	31	303	4	KED
	Zn	66	1.274	ug/L	0.094	7	75	530	5	KED
	Zn	67	1.495	ug/L	0.062	4	16	105	2	KED
	As	75	0.144	ug/L	0.014	9	6	42	7	KED
	Y	89		ug/L			707302	602494	4	Standard
	Kr	83		ug/L			55	6793	1	Standard
>	In-1	115		ug/L			40285	29445	3	KED
	Cd	111	0.014	ug/L	0.011	78	6	10	39	KED
	Cd	114	0.019	ug/L	0.002	9	5	22	7	KED
>	In	115		ug/L			1020321	756113	1	Standard
	Ag	107	-0.000	ug/L	0.000	780	62	45	8	Standard
>	Tb	159		ug/L			1263003	1004263	1	Standard
	Pb	208	0.010	ug/L	0.001	11	212	471	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0248-01
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 16:01:06
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	17779	3	Standard
	Cl	37		ug/L			5841457	44238773	5	Standard
>	Sc	45		ug/L			1241343	962349	2	Standard
	Cr	52	0.197	ug/L	0.045	22	23556	21472	1	Standard
	Cr	53	23.270	ug/L	1.006	4	1089	49377	2	Standard
	Mn	55	65.533	ug/L	1.078	1	637	1499601	0	Standard
>	Ge-1	72		ug/L			82877	56428	0	KED
	Ni	60	0.176	ug/L	0.010	5	21	200	5	KED
	Ni	62	3.141	ug/L	0.188	5	19	532	5	KED
	Cu	63	0.316	ug/L	0.033	10	68	911	9	KED
	Cu	65	0.059	ug/L	0.021	35	31	100	27	KED
	Zn	66	1.728	ug/L	0.019	1	75	659	0	KED
	Zn	67	1.405	ug/L	0.402	28	16	93	25	KED
	As	75	0.226	ug/L	0.003	1	6	59	1	KED
	Y	89		ug/L			707302	580888	2	Standard
	Kr	83		ug/L			55	7720	1	Standard
>	In-1	115		ug/L			40285	27685	2	KED
	Cd	111	0.004	ug/L	0.003	88	6	6	18	KED
	Cd	114	0.009	ug/L	0.001	14	5	11	9	KED
>	In	115		ug/L			1020321	711513	2	Standard
	Ag	107	0.002	ug/L	0.001	55	62	68	20	Standard
>	Tb	159		ug/L			1263003	934599	1	Standard
	Pb	208	0.009	ug/L	0.001	15	212	421	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 16:08:19
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			14674	15489	3	Standard
	Cl	**37**		ug/L			5841457	5406503	1	Standard
⌈>	**Sc**	**45**		ug/L			1241343	1056687	2	Standard
|	**Cr**	**52**	**56.329**	ug/L	0.799	1	23556	1029363	2	Standard
|	**Cr**	**53**	**57.813**	ug/L	0.437	0	1089	133382	2	Standard
⌊	**Mn**	**55**	**55.459**	ug/L	1.742	3	637	1393177	0	Standard
⌈>	**Ge-1**	**72**		ug/L			82877	75019	2	KED
|	**Ni**	**60**	**52.070**	ug/L	1.304	2	21	72924	2	KED
|	**Ni**	**62**	**54.243**	ug/L	1.121	2	19	11927	4	KED
|	**Cu**	**63**	**50.836**	ug/L	0.256	0	68	185221	3	KED
|	**Cu**	**65**	**52.391**	ug/L	1.804	3	31	94217	2	KED
|	**Zn**	**66**	**52.867**	ug/L	1.024	1	75	24771	2	KED
|	**Zn**	**67**	**50.584**	ug/L	1.963	3	16	3975	6	KED
⌊	**As**	**75**	**50.839**	ug/L	1.594	3	6	16455	0	KED
	Y	**89**		ug/L			707302	637269	1	Standard
	Kr	**83**		ug/L			55	7697	1	Standard
⌈>	**In-1**	**115**		ug/L			40285	35766	1	KED
|	**Cd**	**111**	**51.231**	ug/L	1.375	2	6	23193	1	KED
⌊	**Cd**	**114**	**51.927**	ug/L	0.834	1	5	59829	1	KED
⌈>	**In**	**115**		ug/L			1020321	835607	3	Standard
⌊	**Ag**	**107**	**53.379**	ug/L	1.063	1	62	832060	2	Standard
⌈>	**Tb**	**159**		ug/L			1263003	1128944	5	Standard
⌊	**Pb**	**208**	**39.453**	ug/L	1.894	4	212	1373907	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 16:15:31
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			14674	14486	0	Standard
	Cl	**37**		ug/L			5841457	5382597	3	Standard
⌈>	**Sc**	**45**		ug/L			1241343	1034606	1	Standard
|	**Cr**	**52**	**0.164**	ug/L	0.021	12	23556	22516	1	Standard
|	**Cr**	**53**	**4.102**	ug/L	0.062	1	1089	10108	0	Standard
⌊	**Mn**	**55**	**0.047**	ug/L	0.003	6	637	1686	3	Standard
⌈>	**Ge-1**	**72**		ug/L			82877	74725	2	KED
|	**Ni**	**60**	**0.001**	ug/L	0.005	747	21	20	32	KED
|	**Ni**	**62**	**1.850**	ug/L	0.175	9	19	421	6	KED
|	**Cu**	**63**	**0.069**	ug/L	0.016	22	68	310	15	KED
|	**Cu**	**65**	**0.006**	ug/L	0.005	83	31	40	21	KED
|	**Zn**	**66**	**0.015**	ug/L	0.038	252	75	74	21	KED
|	**Zn**	**67**	**-0.019**	ug/L	0.088	453	16	13	51	KED
⌊	**As**	**75**	**0.004**	ug/L	0.004	116	6	7	16	KED
	Y	**89**		ug/L			707302	597836	5	Standard
	Kr	**83**		ug/L			55	6242	0	Standard
⌈>	**In-1**	**115**		ug/L			40285	34748	7	KED
|	**Cd**	**111**	**0.002**	ug/L	0.014	633	6	6	79	KED
⌊	**Cd**	**114**	**0.014**	ug/L	0.022	156	5	18	114	KED
⌈>	**In**	**115**		ug/L			1020321	842381	2	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	70	62	65	14	Standard
⌈>	**Tb**	**159**		ug/L			1263003	1102773	3	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.001	344	212	192	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0248-02
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 16:20:00
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	18426	2	Standard
	Cl	37		ug/L			5841457	43644127	4	Standard
>	Sc	45		ug/L			1241343	971899	1	Standard
	Cr	52	0.255	ug/L	0.032	12	23556	22646	3	Standard
	Cr	53	27.167	ug/L	0.230	0	1089	58105	1	Standard
	Mn	55	29.589	ug/L	0.427	1	637	684149	0	Standard
>	Ge-1	72		ug/L			82877	54786	1	KED
	Ni	60	0.211	ug/L	0.021	9	21	229	7	KED
	Ni	62	3.062	ug/L	0.121	3	19	504	5	KED
	Cu	63	0.684	ug/L	0.046	6	68	1862	5	KED
	Cu	65	0.422	ug/L	0.047	11	31	574	9	KED
	Zn	66	1.097	ug/L	0.109	9	75	424	8	KED
	Zn	67	1.319	ug/L	0.061	4	16	86	5	KED
	As	75	0.185	ug/L	0.012	6	6	48	5	KED
	Y	89		ug/L			707302	576193	1	Standard
	Kr	83		ug/L			55	12330	0	Standard
>	In-1	115		ug/L			40285	27001	0	KED
	Cd	111	0.007	ug/L	0.004	62	6	6	20	KED
	Cd	114	0.008	ug/L	0.007	79	5	10	52	KED
>	In	115		ug/L			1020321	704503	2	Standard
	Ag	107	0.002	ug/L	0.000	24	62	65	11	Standard
>	Tb	159		ug/L			1263003	943299	1	Standard
	Pb	208	0.008	ug/L	0.001	13	212	396	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0248-03
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 16:24:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	17057	0	Standard
	Cl	37		ug/L			5841457	49577811	2	Standard
>	Sc	45		ug/L			1241343	914440	0	Standard
	Cr	52	0.192	ug/L	0.022	11	23556	20328	1	Standard
	Cr	53	27.924	ug/L	0.769	2	1089	56177	3	Standard
	Mn	55	17.213	ug/L	0.315	1	637	374679	1	Standard
>	Ge-1	72		ug/L			82877	51451	3	KED
	Ni	60	0.242	ug/L	0.003	1	21	245	3	KED
	Ni	62	4.020	ug/L	0.338	8	19	616	5	KED
	Cu	63	0.596	ug/L	0.008	1	68	1530	1	KED
	Cu	65	0.236	ug/L	0.025	10	31	309	7	KED
	Zn	66	1.439	ug/L	0.119	8	75	507	7	KED
	Zn	67	1.761	ug/L	0.208	11	16	104	11	KED
	As	75	0.167	ug/L	0.014	8	6	41	10	KED
	Y	89		ug/L			707302	560293	6	Standard
	Kr	83		ug/L			55	13006	1	Standard
>	In-1	115		ug/L			40285	25987	2	KED
	Cd	111	0.001	ug/L	0.008	996	6	4	52	KED
	Cd	114	0.004	ug/L	0.005	138	5	6	63	KED
>	In	115		ug/L			1020321	656021	2	Standard
	Ag	107	0.001	ug/L	0.001	75	62	49	15	Standard
>	Tb	159		ug/L			1263003	882413	2	Standard
	Pb	208	0.008	ug/L	0.001	7	212	359	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0248-04
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 16:28:56
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	17057	2	Standard
	Cl	37		ug/L			5841457	44669733	5	Standard
>	Sc	45		ug/L			1241343	878316	4	Standard
	Cr	52	0.197	ug/L	0.051	25	23556	19582	0	Standard
	Cr	53	24.389	ug/L	0.768	3	1089	47218	5	Standard
	Mn	55	0.653	ug/L	0.032	4	637	14073	1	Standard
>	Ge-1	72		ug/L			82877	51470	2	KED
	Ni	60	0.128	ug/L	0.011	8	21	136	7	KED
	Ni	62	4.171	ug/L	0.141	3	19	640	0	KED
	Cu	63	0.688	ug/L	0.049	7	68	1759	4	KED
	Cu	65	0.326	ug/L	0.029	8	31	420	6	KED
	Zn	66	0.809	ug/L	0.073	9	75	306	9	KED
	Zn	67	1.212	ug/L	0.287	23	16	75	22	KED
	As	75	0.534	ug/L	0.018	3	6	122	4	KED
	Y	89		ug/L			707302	550831	5	Standard
	Kr	83		ug/L			55	15275	0	Standard
>	In-1	115		ug/L			40285	26361	1	KED
	Cd	111	0.009	ug/L	0.011	114	6	7	45	KED
	Cd	114	0.011	ug/L	0.004	39	5	12	29	KED
>	In	115		ug/L			1020321	640759	4	Standard
	Ag	107	0.002	ug/L	0.001	51	62	57	14	Standard
>	Tb	159		ug/L			1263003	855285	4	Standard
	Pb	208	0.010	ug/L	0.002	18	212	399	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0248-05
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 16:33:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	14936	2	Standard
	Cl	37		ug/L			5841457	61212450	4	Standard
>	Sc	45		ug/L			1241343	820337	4	Standard
	Cr	52	0.199	ug/L	0.050	24	23556	18312	0	Standard
	Cr	53	32.937	ug/L	0.809	2	1089	59295	4	Standard
	Mn	55	0.456	ug/L	0.017	3	637	9297	0	Standard
>	Ge-1	72		ug/L			82877	45748	0	KED
	Ni	60	0.168	ug/L	0.016	9	21	155	9	KED
	Ni	62	4.610	ug/L	0.117	2	19	627	2	KED
	Cu	63	0.829	ug/L	0.027	3	68	1878	2	KED
	Cu	65	0.287	ug/L	0.012	4	31	332	3	KED
	Zn	66	1.680	ug/L	0.092	5	75	520	5	KED
	Zn	67	1.633	ug/L	0.213	13	16	86	11	KED
	As	75	0.276	ug/L	0.030	10	6	58	10	KED
	Y	89		ug/L			707302	513515	1	Standard
	Kr	83		ug/L			55	22000	2	Standard
>	In-1	115		ug/L			40285	22817	4	KED
	Cd	111	0.012	ug/L	0.008	69	6	7	30	KED
	Cd	114	0.019	ug/L	0.008	42	5	16	37	KED
>	In	115		ug/L			1020321	618661	1	Standard
	Ag	107	0.005	ug/L	0.001	16	62	92	11	Standard
>	Tb	159		ug/L			1263003	806357	1	Standard
	Pb	208	0.011	ug/L	0.000	3	212	410	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0248-06
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 16:37:52
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	16385	1	Standard
	Cl	37		ug/L			5841457	34895452	2	Standard
>	Sc	45		ug/L			1241343	886680	4	Standard
	Cr	52	0.162	ug/L	0.062	38	23556	19236	0	Standard
	Cr	53	18.518	ug/L	0.947	5	1089	36326	1	Standard
	Mn	55	0.420	ug/L	0.023	5	637	9302	1	Standard
>	Ge-1	72		ug/L			82877	53335	0	KED
	Ni	60	0.112	ug/L	0.016	14	21	125	12	KED
	Ni	62	4.099	ug/L	0.479	11	19	652	10	KED
	Cu	63	0.634	ug/L	0.024	3	68	1685	3	KED
	Cu	65	0.282	ug/L	0.017	6	31	380	5	KED
	Zn	66	1.315	ug/L	0.101	7	75	485	7	KED
	Zn	67	1.554	ug/L	0.288	18	16	97	16	KED
	As	75	0.228	ug/L	0.027	12	6	56	11	KED
	Y	89		ug/L			707302	555421	2	Standard
	Kr	83		ug/L			55	23796	1	Standard
>	In-1	115		ug/L			40285	26910	2	KED
	Cd	111	0.006	ug/L	0.009	146	6	6	42	KED
	Cd	114	0.009	ug/L	0.007	79	5	11	53	KED
>	In	115		ug/L			1020321	701100	4	Standard
	Ag	107	0.001	ug/L	0.001	58	62	57	18	Standard
>	Tb	159		ug/L			1263003	919582	3	Standard
	Pb	208	0.008	ug/L	0.001	13	212	375	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0248-07
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 16:42:21
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	15926	3	Standard
	Cl	37		ug/L			5841457	44965663	3	Standard
>	Sc	45		ug/L			1241343	867940	3	Standard
	Cr	52	0.142	ug/L	0.011	7	23556	18571	4	Standard
	Cr	53	23.268	ug/L	0.987	4	1089	44512	1	Standard
	Mn	55	0.716	ug/L	0.025	3	637	15200	0	Standard
>	Ge-1	72		ug/L			82877	48780	0	KED
	Ni	60	0.154	ug/L	0.035	22	21	153	20	KED
	Ni	62	4.550	ug/L	0.393	8	19	660	8	KED
	Cu	63	0.727	ug/L	0.004	0	68	1762	1	KED
	Cu	65	0.260	ug/L	0.029	11	31	322	10	KED
	Zn	66	1.979	ug/L	0.181	9	75	645	8	KED
	Zn	67	1.980	ug/L	0.186	9	16	110	8	KED
	As	75	0.825	ug/L	0.007	0	6	177	1	KED
	Y	89		ug/L			707302	529307	5	Standard
	Kr	83		ug/L			55	30946	0	Standard
>	In-1	115		ug/L			40285	25085	0	KED
	Cd	111	0.007	ug/L	0.003	40	6	6	14	KED
	Cd	114	0.014	ug/L	0.006	43	5	14	33	KED
>	In	115		ug/L			1020321	647827	1	Standard
	Ag	107	0.001	ug/L	0.000	59	62	48	9	Standard
>	Tb	159		ug/L			1263003	859528	1	Standard
	Pb	208	0.154	ug/L	0.005	2	212	4227	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 16:49:34
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			14674	16237	1	Standard
	Cl	**37**		ug/L			5841457	5516722	1	Standard
>	**Sc**	**45**		ug/L			1241343	1033116	2	Standard
	Cr	**52**	**56.702**	ug/L	2.098	3	23556	1012440	1	Standard
	Cr	**53**	**56.751**	ug/L	1.831	3	1089	127976	2	Standard
	Mn	**55**	**56.582**	ug/L	1.268	2	637	1390168	2	Standard
>	**Ge-1**	**72**		ug/L			82877	73795	1	KED
	Ni	**60**	**50.146**	ug/L	0.333	0	21	69110	2	KED
	Ni	**62**	**53.456**	ug/L	3.200	5	19	11557	5	KED
	Cu	**63**	**52.133**	ug/L	1.575	3	68	186807	2	KED
	Cu	**65**	**52.893**	ug/L	0.988	1	31	93627	3	KED
	Zn	**66**	**51.869**	ug/L	1.270	2	75	23909	1	KED
	Zn	**67**	**51.153**	ug/L	1.632	3	16	3951	1	KED
	As	**75**	**50.362**	ug/L	1.314	2	6	16040	1	KED
	Y	**89**		ug/L			707302	622972	2	Standard
	Kr	**83**		ug/L			55	31940	0	Standard
>	**In-1**	**115**		ug/L			40285	35332	1	KED
	Cd	**111**	**50.637**	ug/L	0.552	1	6	22648	1	KED
	Cd	**114**	**51.715**	ug/L	1.607	3	5	58841	1	KED
>	**In**	**115**		ug/L			1020321	824259	4	Standard
	Ag	**107**	**53.748**	ug/L	2.154	4	62	826023	2	Standard
>	**Tb**	**159**		ug/L			1263003	1042268	2	Standard
	Pb	**208**	**41.624**	ug/L	0.591	1	212	1340087	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 16:56:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			14674	14669	2	Standard
	Cl	**37**		ug/L			5841457	5330132	4	Standard
>	**Sc**	**45**		ug/L			1241343	1021961	3	Standard
	Cr	**52**	**0.092**	ug/L	0.029	31	23556	20971	1	Standard
	Cr	**53**	**4.229**	ug/L	0.125	2	1089	10261	0	Standard
	Mn	**55**	**0.042**	ug/L	0.003	7	637	1555	2	Standard
>	**Ge-1**	**72**		ug/L			82877	74575	1	KED
	Ni	**60**	**0.002**	ug/L	0.009	570	21	21	58	KED
	Ni	**62**	**2.139**	ug/L	0.211	9	19	484	9	KED
	Cu	**63**	**0.088**	ug/L	0.003	3	68	380	3	KED
	Cu	**65**	**0.014**	ug/L	0.002	13	31	53	7	KED
	Zn	**66**	**0.007**	ug/L	0.032	491	75	71	21	KED
	Zn	**67**	**-0.060**	ug/L	0.013	20	16	10	10	KED
	As	**75**	**0.022**	ug/L	0.011	49	6	13	25	KED
	Y	**89**		ug/L			707302	606438	3	Standard
	Kr	**83**		ug/L			55	27110	1	Standard
>	**In-1**	**115**		ug/L			40285	34937	2	KED
	Cd	**111**	**-0.007**	ug/L	0.002	27	6	2	33	KED
	Cd	**114**	**-0.000**	ug/L	0.004	822	5	4	102	KED
>	**In**	**115**		ug/L			1020321	844641	0	Standard
	Ag	**107**	**0.001**	ug/L	0.000	29	62	66	7	Standard
>	**Tb**	**159**		ug/L			1263003	1058774	1	Standard
	Pb	**208**	**0.001**	ug/L	0.001	81	212	219	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 17:01:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			14674	17095	1	Standard
	Cl	**37**		ug/L			5841457	5584835	1	Standard
⌈>	**Sc**	**45**		ug/L			1241343	1141341	0	Standard
|	**Cr**	**52**	**0.097**	ug/L	0.025	25	23556	23531	1	Standard
|	**Cr**	**53**	**3.579**	ug/L	0.037	1	1089	9857	0	Standard
⌊	**Mn**	**55**	**0.071**	ug/L	0.002	2	637	2520	1	Standard
⌈>	**Ge-1**	**72**		ug/L			82877	78701	0	KED
|	**Ni**	**60**	**0.009**	ug/L	0.005	53	21	33	20	KED
|	**Ni**	**62**	**2.221**	ug/L	0.134	6	19	530	5	KED
|	**Cu**	**63**	**0.065**	ug/L	0.003	5	68	313	3	KED
|	**Cu**	**65**	**0.001**	ug/L	0.002	188	31	31	9	KED
|	**Zn**	**66**	**-0.036**	ug/L	0.018	49	75	53	16	KED
|	**Zn**	**67**	**-0.137**	ug/L	0.013	9	16	4	24	KED
⌊	**As**	**75**	**0.009**	ug/L	0.004	44	6	9	13	KED
	Y	**89**		ug/L			707302	701074	0	Standard
	Kr	**83**		ug/L			55	25629	0	Standard
⌈>	**In-1**	**115**		ug/L			40285	38306	7	KED
|	**Cd**	**111**	**-0.005**	ug/L	0.004	75	6	4	35	KED
⌊	**Cd**	**114**	**-0.002**	ug/L	0.002	91	5	2	117	KED
⌈>	**In**	**115**		ug/L			1020321	955059	2	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.001	862	62	59	21	Standard
⌈>	**Tb**	**159**		ug/L			1263003	1228509	3	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.000	38	212	165	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 17:05:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			14674	16164	2	Standard
	Cl	**37**		ug/L			5841457	5427403	2	Standard
⌈>	**Sc**	**45**		ug/L			1241343	1141658	1	Standard
|	**Cr**	**52**	**0.052**	ug/L	0.021	40	23556	22662	0	Standard
|	**Cr**	**53**	**2.675**	ug/L	0.025	0	1089	7622	0	Standard
⌊	**Mn**	**55**	**0.067**	ug/L	0.001	1	637	2404	0	Standard
⌈>	**Ge-1**	**72**		ug/L			82877	79466	0	KED
|	**Ni**	**60**	**0.011**	ug/L	0.005	48	21	36	20	KED
|	**Ni**	**62**	**2.392**	ug/L	0.044	1	19	575	2	KED
|	**Cu**	**63**	**0.094**	ug/L	0.011	11	68	427	10	KED
|	**Cu**	**65**	**-0.001**	ug/L	0.004	418	31	28	29	KED
|	**Zn**	**66**	**-0.030**	ug/L	0.016	55	75	57	13	KED
|	**Zn**	**67**	**-0.130**	ug/L	0.013	10	16	5	21	KED
⌊	**As**	**75**	**0.015**	ug/L	0.013	86	6	11	36	KED
	Y	**89**		ug/L			707302	717068	1	Standard
	Kr	**83**		ug/L			55	22930	1	Standard
⌈>	**In-1**	**115**		ug/L			40285	38731	1	KED
|	**Cd**	**111**	**-0.009**	ug/L	0.002	25	6	2	43	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.001	127	5	4	24	KED
⌈>	**In**	**115**		ug/L			1020321	965397	2	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.000	258	62	57	10	Standard
⌈>	**Tb**	**159**		ug/L			1263003	1195615	3	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.001	58	212	147	19	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 17:10:12
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			14674	16328	2	Standard
	Cl	**37**		ug/L			5841457	5359424	1	Standard
⌈>	**Sc**	**45**		ug/L			1241343	1141129	0	Standard
|	**Cr**	**52**	**-0.039**	ug/L	0.026	65	23556	20892	2	Standard
|	**Cr**	**53**	**1.762**	ug/L	0.025	1	1089	5361	1	Standard
⌊	**Mn**	**55**	**0.062**	ug/L	0.001	1	637	2280	1	Standard
⌈>	**Ge-1**	**72**		ug/L			82877	79259	1	KED
|	**Ni**	**60**	**0.009**	ug/L	0.005	51	21	34	19	KED
|	**Ni**	**62**	**2.613**	ug/L	0.114	4	19	624	4	KED
|	**Cu**	**63**	**0.099**	ug/L	0.001	1	68	445	2	KED
|	**Cu**	**65**	**0.000**	ug/L	0.002	3253	31	30	12	KED
|	**Zn**	**66**	**-0.017**	ug/L	0.042	250	75	64	32	KED
|	**Zn**	**67**	**-0.107**	ug/L	0.047	43	16	6	56	KED
⌊	**As**	**75**	**0.003**	ug/L	0.006	225	6	7	27	KED
	Y	**89**		ug/L			707302	713382	6	Standard
	Kr	**83**		ug/L			55	14618	2	Standard
⌈>	**In-1**	**115**		ug/L			40285	37760	1	KED
|	**Cd**	**111**	**-0.008**	ug/L	0.001	14	6	2	21	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.002	142	5	3	54	KED
⌈>	**In**	**115**		ug/L			1020321	942976	3	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.000	62	62	53	3	Standard
⌈>	**Tb**	**159**		ug/L			1263003	1209189	4	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.001	59	212	162	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 17:14:40
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			14674	20560	1	Standard
	Cl	**37**		ug/L			5841457	5057631	0	Standard
⌈>	**Sc**	**45**		ug/L			1241343	931247	1	Standard
|	**Cr**	**52**	**-0.034**	ug/L	0.023	69	23556	17133	0	Standard
|	**Cr**	**53**	**1.171**	ug/L	0.006	0	1089	3181	1	Standard
⌊	**Mn**	**55**	**0.024**	ug/L	0.002	7	637	1012	3	Standard
⌈>	**Ge-1**	**72**		ug/L			82877	71144	3	KED
|	**Ni**	**60**	**-0.005**	ug/L	0.003	51	21	11	28	KED
|	**Ni**	**62**	**3.612**	ug/L	0.232	6	19	768	7	KED
|	**Cu**	**63**	**0.134**	ug/L	0.007	5	68	523	6	KED
|	**Cu**	**65**	**0.001**	ug/L	0.002	159	31	29	13	KED
|	**Zn**	**66**	**-0.029**	ug/L	0.005	18	75	52	5	KED
|	**Zn**	**67**	**-0.132**	ug/L	0.037	28	16	4	65	KED
⌊	**As**	**75**	**0.007**	ug/L	0.007	105	6	8	26	KED
	Y	**89**		ug/L			707302	584236	2	Standard
	Kr	**83**		ug/L			55	6353	4	Standard
⌈>	**In-1**	**115**		ug/L			40285	33608	0	KED
|	**Cd**	**111**	**-0.005**	ug/L	0.004	81	6	3	43	KED
⌊	**Cd**	**114**	**-0.003**	ug/L	0.002	68	5	1	103	KED
⌈>	**In**	**115**		ug/L			1020321	787993	1	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.001	425	62	46	17	Standard
⌈>	**Tb**	**159**		ug/L			1263003	1046414	2	Standard
⌊	**Pb**	**208**	**-0.003**	ug/L	0.000	9	212	71	15	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 17:19:08
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			14674	20069	2	Standard
	Cl	**37**		ug/L			5841457	4989933	0	Standard
⌈>	**Sc**	**45**		ug/L			1241343	936368	1	Standard
|	**Cr**	**52**	**-0.062**	ug/L	0.029	47	23556	16789	2	Standard
|	**Cr**	**53**	**0.617**	ug/L	0.016	2	1089	2074	2	Standard
⌊	**Mn**	**55**	**0.021**	ug/L	0.001	2	637	958	0	Standard
⌈>	**Ge-1**	**72**		ug/L			82877	68809	0	KED
|	**Ni**	**60**	**-0.007**	ug/L	0.004	52	21	8	53	KED
|	**Ni**	**62**	**3.460**	ug/L	0.144	4	19	713	4	KED
|	**Cu**	**63**	**0.120**	ug/L	0.007	5	68	458	4	KED
|	**Cu**	**65**	**-0.004**	ug/L	0.005	128	31	20	37	KED
|	**Zn**	**66**	**-0.040**	ug/L	0.020	51	75	45	19	KED
|	**Zn**	**67**	**-0.076**	ug/L	0.040	52	16	8	35	KED
⌊	**As**	**75**	**0.001**	ug/L	0.005	624	6	6	24	KED
	Y	**89**		ug/L			707302	574891	0	Standard
	Kr	**83**		ug/L			55	2640	1	Standard
⌈>	**In-1**	**115**		ug/L			40285	32720	6	KED
|	**Cd**	**111**	**-0.010**	ug/L	0.001	14	6	1	34	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.003	264	5	3	94	KED
⌈>	**In**	**115**		ug/L			1020321	826423	2	Standard
⌊	**Ag**	**107**	**-0.001**	ug/L	0.000	37	62	38	10	Standard
⌈>	**Tb**	**159**		ug/L			1263003	1056967	1	Standard
⌊	**Pb**	**208**	**-0.004**	ug/L	0.000	10	212	56	22	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 17:23:37
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			14674	20306	3	Standard
	Cl	**37**		ug/L			5841457	4990971	0	Standard
⌈>	**Sc**	**45**		ug/L			1241343	925331	2	Standard
|	**Cr**	**52**	**-0.092**	ug/L	0.041	44	23556	16107	2	Standard
|	**Cr**	**53**	**0.355**	ug/L	0.021	5	1089	1524	3	Standard
⌊	**Mn**	**55**	**0.015**	ug/L	0.001	4	637	802	1	Standard
⌈>	**Ge-1**	**72**		ug/L			82877	67886	2	KED
|	**Ni**	**60**	**-0.002**	ug/L	0.003	140	21	14	32	KED
|	**Ni**	**62**	**2.998**	ug/L	0.228	7	19	610	4	KED
|	**Cu**	**63**	**0.112**	ug/L	0.003	2	68	426	5	KED
|	**Cu**	**65**	**-0.008**	ug/L	0.002	18	31	12	17	KED
|	**Zn**	**66**	**-0.047**	ug/L	0.029	60	75	41	27	KED
|	**Zn**	**67**	**-0.101**	ug/L	0.043	42	16	6	45	KED
⌊	**As**	**75**	**0.002**	ug/L	0.007	443	6	6	33	KED
	Y	**89**		ug/L			707302	592593	0	Standard
	Kr	**83**		ug/L			55	1380	2	Standard
⌈>	**In-1**	**115**		ug/L			40285	32071	1	KED
|	**Cd**	**111**	**-0.010**	ug/L	0.001	13	6	1	34	KED
⌊	**Cd**	**114**	**-0.003**	ug/L	0.002	66	5	1	193	KED
⌈>	**In**	**115**		ug/L			1020321	824148	1	Standard
⌊	**Ag**	**107**	**-0.001**	ug/L	0.001	74	62	37	25	Standard
⌈>	**Tb**	**159**		ug/L			1263003	1061570	4	Standard
⌊	**Pb**	**208**	**-0.003**	ug/L	0.000	13	212	81	20	Standard

INITIAL CALIBRATION DATA

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00069
Instrument: ICPMS2
Calibration Date: 06/29/2018 7:54

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Silver-107, Dissolved	0	0	0.2	15385	10	14634.3	20	15013	50	13795.9	100	13590.39
Chromium-52, Dissolved	0	0	0.5	52476	10	20452	20	20040.1	50	17959.06	100	17286.84
Chromium-53, Dissolved	0	0	0.5	2872	10	2209.9	20	2285.45	50	2110.8	100	2012.08
Lead-208, Dissolved	0	0	0.1	27350	10	24792.4	20	24901.85	50	22486.86	100	21356.81

INITIAL CALIBRATION DATA

EPA 6020A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00069	Instrument:	ICPMS2
Calibration Date:	06/29/2018 7:54		

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Silver-107, Dissolved	12069.77	49.3	0.9996		0.998	
Chromium-52, Dissolved	21369	79.8	0.9993		0.998	
Chromium-53, Dissolved	1915.038	51.5	0.9990		0.998	
Lead-208, Dissolved	20147.99	50.1	0.9986		0.998	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6-28-18 **Analyst:** TH **Sequence:** SGF0392

All corrections made by analyst unless otherwise noted. TH 6-28-18

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	SEQ-CAL1			
		-CAL2			
		-CAL3			
		-CAL4			
		-CAL5			no solution
		Rinse			
		SEQ-CAL1	GS628		
		-CAL2	GS695		
		-CAL3	GS620		
		-CAL4	GS621		
		-CAL5	GS856		
		-CAL6	GS622		
		-IBL1	—		
		-ICV1	GS703		
		-ICB1	GS828 GS8		
		-CCV1	GS856		
		-CCB1	GS828		
		-CRL1	GS695		
		-IFA1	GS699		V-1, Cr 53 ↑ Li ↑
		-IFB1	GS697		↓ ↓
		-HCV1	GS700		Be, Ag ↓
		-HCV2	GS701		Ag ↓
		-IBL2-IBL3			
		-CCV2			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6-28-18 **Analyst:** TH **Sequence:** —

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CCB2			
		BGFO506-BLK1	SWN	20	
		18FO174-02	↓	↓	
		18FO241-01			
	✓	↓ -02			Cd noisy
		↓ -03			
		BGFO506-DUP1			Pb RPD↑ (ER)
		18FO174-01			
		BGFO506-MS1			
		↓ -MSD1			
		↓ -BS1	↓	↓	
		SEQ-CCV3			
		↓ -CCB3			
		BGFO579-BLK2	KEN		Ag, Ba, Co, Sb, Se, Tl, U only
		BGFO480-BLK1	↓		
		18FO241-04	SWN	20	
	✓	↓ -05			no sample
		↓ -06			
		18FO242-01			
		↓ -02			
		18FO256-01			
		↓ -02	↓	↓	
		BGFO480-BS1	KEN		
		SEQ-CCV4			BEV

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ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6-28-18 **Analyst:** TH **Sequence:** —

All corrections made by analyst unless otherwise noted. TH 6-28-18

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CCV4			
		18F0332-01	REN		NO ISe
		18F0360-02	↓	5	Cr only
		18F0367-02	↓	↓	Ag only
		↓ -03	↓	↓	↓
		↓ -04	↓	↓	↓
		BGF0579-DUP2	↓	↓	Ag, Co, Sb, Se, Tl, U only
		18F0335-07	↓	↓	↓
		BGF0579-MS2	↓	↓	↓
		↓ -MSD2	↓	↓	↓
		↓ -ISS2	↓	↓	↓
		SEQ-CCV5			ISc 135 ↑ ISe ↓
		↓ -CCIS5			
		BGF0546-ISLK2	REN		~~As~~, Se, Tl only
		18F0319-01	↓	↓	↓
		↓ -03	↓	↓	↓
		18F0241-02	SWN	20	↓
		↓ -05	↓	↓	↓
		BGF0546-DUP2	REN	↓	Se, Tl only
		18F0319-09	↓	↓	↓
		BGF0546-MS2	↓	↓	↓
		↓ -MSD2	↓	↓	↓
		↓ -ISS2	↓	↓	↓
		SEQ-CCV6			Be ↓

Analytical Resources, Incorporated
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ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6-28-18 **Analyst:** TH **Sequence:** —

All corrections made by analyst unless otherwise noted: TH 6-28-18

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CCB6			
525		BGFO~~545~~525-BLK2	TCEN		Sb, ~~As~~, Se, Tl only
		18F0319-05			
		↓ -07			
		↓ -12			
		18F0297-01			
		↓ -03			
		BGFO525-DUP2			Sb, ~~As~~, Se, Tl only
		18F0294-01			
		BGFO525-MS2			
		↓ -BS2			
		SEQ-CCV7			ICV
		↓ -CCB7			
		18F0297-05	TCEN		
		↓ -07			
		-09			
		-11			
		-13			
		↓ -15			
		BGFO480-DUP1		10	
		18F0248-08		↓	
		BGFO480-MS1			
		SEQ-ICB4			
		↓ -CCV8			ICV

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ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6-28-18 **Analyst:** TH **Sequence:** —

All corrections made by analyst unless otherwise noted. TH 06-28-18

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CCIS8			
		↓ -CAL1			
		-CCV9			ISe ↓
		↓ -CCIB9			
		18F0297-17	TCEN		
		18F0304-01	↓		No ISe
		18F0334-02			No ISa, ISe, Ag
		18F0338-01			↓
		↓ -03			
		-05			
		-09			
		↓ -11			↓
		18F0371-01			Se only
		↓ -03	↓		↓
		SEQ-CCVA			Be, Ag ↓ ISa[135,137] ↑
		↓ -CCIBA			
		ISGF0651-ISLK2	TCEN		Se only
		18F0371-04	↓		↓
		↓ -05			
		18F0381-01		50	Cr, Zn only
DUP3		ISGF0651-~~DUP2~~ DUP3			Se only
		18F0367-01			↓
MS3		ISGF0651-~~MS2~~ MS3			
		↓ -BS2	↓		↓

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ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6-28-18 **Analyst:** TK **Sequence:** —

All corrections made by analyst unless otherwise noted. TK 6-28-18

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-~~CCV6~~ CCV13			~~Ba~~ Be↓
		↓ -~~CCB6~~ CCB13			Ni: 60, 62 ↑
		18F0334-01	REN		No Ni, Be, Ba, Ag
	✓	18F0376-02	↓	50	
	↓	↓ -01	↓	20	
		SEQ-CCV6			Be, Ag↓ Ba 135, 137 ↑
		↓ -CCB6			
		Rinse/DI			
		TK 6-28-18			

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Thursday, June 28, 2018 06:38:29
Sample Description:
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\STD Performance Check.mth
Dataset File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\DataSet\Default\STD Performance Check.15266
MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	4283.9	4283.909	94.554	2.2	Standard
	In	114.9	45715.7	-1118993.084	773.360	0.1	Standard
	U	238.1	26083.7	26083.725	167.921	0.6	Standard
⌈	CeO	155.9	1258.7	0.019	0.000	1.8	Standard
| >	Ce	139.9	64872.9	64872.903	471.561	0.7	Standard
⌊	Ce++	70.0	451.2	0.007	0.000	1.3	Standard
	Bkgd	220.0	0.0	0.033	0.075	223.6	Standard

Current Conditions File Data

Current Value	Description
0.94	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-9.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-3.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
0.94	DRC Mode NEB
-10.00	DRC Mode QRO
-3.00	DRC Mode CRO
-7.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-13.00	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
0.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 6/28/2018 6:38:24 AM
End Time: 6/28/2018 6:48:25 AM

STD Performance Check - [Failed]
Obtained Intensity (Be 9): 4283.91
Obtained Intensity (In 115): 45715.71
Obtained Intensity (U 238): 26083.73 - <Target not achieved>
Obtained Intensity (Bkgd 220): 0.03
Obtained Formula (Ce++ 70 / Ce 140): 0.007 (=451.21 / 64872.90)
Obtained Formula (CeO 156 / Ce 140): 0.019 (=1258.72 / 64872.90)

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
0.00 mm	0.19 mm	65340.09

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 0.94
Obtained Intensity (In 115): 69744.84
Obtained Formula (CeO 156 / Ce 140): 0.0199 (=1627.09 / 81664.75)

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.710)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.703)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.702)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.714)

QID STD/DRC - Optimum value(s): Correlation Coefficient = 0.993; Intercept = -11.63

KED Mode QID - Optimum value(s): Correlation Coefficient = 1.000; Intercept = -12.67

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 6/28/2018 6:38:24 AM

STD Performance Check
	Optimization Settings:
		Method: STD Performance Check.mth.
		Intensity Criterion: Be 9 > 2000
		Intensity Criterion: In 115 > 40000
		Intensity Criterion: U 238 > 30000
		Intensity Criterion: Bkgd 220 <= 1
		Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
		Formula Criterion: CeO 156 / Ce 140 <= 0.025

	Optimization Results:
	Initial Try
		Obtained Intensity (Be 9): 4283.91
		Obtained Intensity (In 115): 45715.71
		Obtained Intensity (U 238): 26083.73 - <Target not achieved>
		Obtained Intensity (Bkgd 220): 0.03
		Obtained Formula (Ce++ 70 / Ce 140): 0.007 (=451.21 / 64872.90)
		Obtained Formula (CeO 156 / Ce 140): 0.019 (=1258.72 / 64872.90)

		[Failed]
[Failed]

Torch Alignment
	Optimization Settings:
		Method: Torch Alignment.mth.
		Intensity Criterion: In 115 Maximum

	Optimization Results:
		Vertical	Horizontal	Intensity
[Passed]	0.00 mm	0.19 mm	65340.09

Nebulizer Gas Flow STD/KED [NEB]
	Optimization Settings:
		Method: Optimize.mth.
			Initial Try - Start/End/Step: 0.88/1.1/0.02.
		Intensity Criterion: In 115 Maximum
		Formula Criterion: CeO 156 / Ce 140 <= 0.025

	Optimization Results:
	Initial Try

		Obtained Intensity (In 115): 69744.84
		Obtained Formula (CeO 156 / Ce 140): 0.0199 (=1627.09 / 81664.75)
[Passed] Optimum value(s): 0.94

Mass Calibration and Resolution
	Optimization Settings:
		Method: Tuning.mth.
		MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
		Iterations: 6

Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution
Peak height (%) for Res. Opt.: 10

Optimization Results:
Initial Try
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.710)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.703)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.702)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.714)
[Passed] Optimum value(s): N/A

QID STD/DRC
Optimization Settings:
Method: QID Calibration.mth.
Initial Try - Start/End/Step: -16/0/0.5.

Optimization Results:
Initial Try

Optimum value(s): Correlation Coefficient = 0.993; Intercept = -11.63

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	33	-12.5	23900
Mg	24	33	-13	40577.5
In	115	33	-9	69954.9
Ce	140	33	-7.5	87986.1
Pb	208	33	-7	22405.6
U	238	33	-2.5	34810.4

KED Mode QID
Optimization Settings:
Method: QID Calibration.mth.
Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:
Initial Try

Optimum value(s): Correlation Coefficient = 1.000; Intercept = -12.67

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-12.5	19337.1
Mg	24	41	-12	27197.9
In	115	41	-8	54431.5
Ce	140	41	-7	47807.9
Pb	208	41	-4.5	16958.1
U	238	41	-3.5	45921.7

End Time: 6/28/2018 6:48:25 AM

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Thursday, June 28, 2018 06:50:12
Sample Description:
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\STD Performance Check.mth
Dataset File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\DataSet\Default\STD Performance Check.15273
MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	6066.4	6066.355	94.084	1.6	Standard
	In	114.9	63219.4	63219.355	1289.136	2.0	Standard
	U	238.1	35676.8	35676.831	365.571	1.0	Standard
⌈	CeO	155.9	1880.1	0.022	0.001	3.5	Standard
| >	Ce	139.9	86312.0	86311.978	879.121	1.0	Standard
⌊	Ce++	70.0	716.9	0.008	0.000	5.3	Standard
	Bkgd	220.0	0.1	0.067	0.091	136.9	Standard

Current Conditions File Data

Current Value	Description
0.94	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-9.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-3.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
0.94	DRC Mode NEB
-10.00	DRC Mode QRO
-3.00	DRC Mode CRO
-7.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-13.00	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
0.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 6/28/2018 6:48:51 AM
End Time: 6/28/2018 6:52:17 AM

QID STD/DRC - Optimum value(s): Correlation Coefficient = 0.999; Intercept = -13.26

STD Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9): 6066.35
Obtained Intensity (In 115): 63219.35
Obtained Intensity (U 238): 35676.83
Obtained Intensity (Bkgd 220): 0.07
Obtained Formula (Ce++ 70 / Ce 140): 0.008 (=716.88 / 86311.98)
Obtained Formula (CeO 156 / Ce 140): 0.022 (=1880.12 / 86311.98)

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 6/28/2018 6:48:51 AM

QID STD/DRC

Optimization Settings:

Method: QID Calibration.mth.

Initial Try - Start/End/Step: -16/0/0.5.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 0.999; Intercept = -13.26

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	33	-13	20094.1
Mg	24	33	-12	35873
In	115	33	-8	70372.9
Ce	140	33	-7.5	88694.5
Pb	208	33	-6	21712.5
U	238	33	-2	35343.7

STD Performance Check

Optimization Settings:

Method: STD Performance Check.mth.

Intensity Criterion: Be 9 > 2000

Intensity Criterion: In 115 > 40000

Intensity Criterion: U 238 > 30000

Intensity Criterion: Bkgd 220 <= 1

Formula Criterion: Ce++ 70 / Ce 140 <= 0.03

Formula Criterion: CeO 156 / Ce 140 <= 0.025

Optimization Results:

Initial Try

Obtained Intensity (Be 9): 6066.35

Obtained Intensity (In 115): 63219.35

Obtained Intensity (U 238): 35676.83

Obtained Intensity (Bkgd 220): 0.07

Obtained Formula (Ce++ 70 / Ce 140): 0.008 (=716.88 / 86311.98)

Obtained Formula (CeO 156 / Ce 140): 0.022 (=1880.12 / 86311.98)

[Passed] Optimum value(s): N/A

End Time: 6/28/2018 6:52:17 AM

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments: DEL
Sample Date/Time: Thursday, June 28, 2018 07:21:08
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L				566143	8	Standard
	Be	9		ug/L				10	39	Standard
	C	13		ug/L				17339	3	Standard
	Cl	37		ug/L				6584934	0	Standard
>	Sc	45		ug/L				1071650	1	Standard
	V	51		ug/L				5460	2	Standard
	V-1	51		ug/L				936	2	Standard
	Cr	52		ug/L				16212	2	Standard
	Cr	53		ug/L				385	2	Standard
	Mn	55		ug/L				391	8	Standard
>	Ge-1	72		ug/L				79625	1	KED
	Co	59		ug/L				31	38	KED
	Ni	60		ug/L				15	69	KED
	Ni	62		ug/L				5	57	KED
	Cu	63		ug/L				31	18	KED
	Cu	65		ug/L				20	65	KED
	Zn	66		ug/L				41	7	KED
	Zn	67		ug/L				8	58	KED
	As	75		ug/L				5	27	KED
	Se-1	78		ug/L				27	26	KED
	Y	89		ug/L				600665	6	Standard
	Kr	83		ug/L				34	31	Standard
>	In-1	115		ug/L				34335	2	KED
	Mo	98		ug/L				1	105	KED
	Cd	111		ug/L				0	100	KED
	Cd	114		ug/L				1	100	KED
>	In	115		ug/L				750140	0	Standard
	Ag	107		ug/L				47	24	Standard
	Sb	121		ug/L				34	17	Standard
	Sb	123		ug/L				43	28	Standard
	Ba	135		ug/L				10	21	Standard
	Ba	137		ug/L				15	21	Standard
>	Tb	159		ug/L				1030845	4	Standard
	Tl	205		ug/L				19	55	Standard
	Pb	208		ug/L				79	25	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2
Sample Dil Factor: DEL
Comments:
Sample Date/Time: Thursday, June 28, 2018 07:26:04
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			566143	573088	6	Standard
	Be	**9**	**0.200**	ug/L	0.011	5	10	1017	5	Standard
	C	**13**		ug/L			17339	18890	3	Standard
	Cl	**37**		ug/L			6584934	6436204	4	Standard
>	**Sc**	**45**		ug/L			1071650	1090773	1	Standard
	V	**51**	**0.200**	ug/L	0.014	7	5460	10064	2	Standard
	V-1	**51**	**0.200**	ug/L	0.002	1	936	5530	1	Standard
	Cr	**52**	**0.500**	ug/L	0.057	11	16212	25685	3	Standard
	Cr	**53**	**0.500**	ug/L	0.011	2	385	1452	1	Standard
	Mn	**55**	**0.500**	ug/L	0.012	2	391	14064	1	Standard
>	**Ge-1**	**72**		ug/L			79625	81694	1	KED
	Co	**59**	**0.200**	ug/L	0.012	5	31	1099	5	KED
	Ni	**60**	**0.500**	ug/L	0.013	2	15	736	1	KED
	Ni	**62**	**0.500**	ug/L	0.129	25	5	118	22	KED
	Cu	**63**	**0.500**	ug/L	0.018	3	31	1878	3	KED
	Cu	**65**	**0.500**	ug/L	0.048	9	20	942	9	KED
	Zn	**66**	**4.000**	ug/L	0.240	6	41	2383	7	KED
	Zn	**67**	**4.000**	ug/L	0.400	9	8	353	11	KED
	As	**75**	**0.200**	ug/L	0.007	3	5	67	2	KED
	Se-1	**78**	**0.500**	ug/L	0.028	5	27	45	1	KED
	Y	**89**		ug/L			600665	626880	3	Standard
	Kr	**83**		ug/L			34	37	7	Standard
>	**In-1**	**115**		ug/L			34335	35600	0	KED
	Mo	**98**	**0.200**	ug/L	0.007	3	1	268	3	KED
	Cd	**111**	**0.100**	ug/L	0.018	18	0	56	18	KED
	Cd	**114**	**0.100**	ug/L	0.013	13	1	110	13	KED
>	**In**	**115**		ug/L			750140	764527	4	Standard
	Ag	**107**	**0.200**	ug/L	0.018	9	47	3100	4	Standard
	Sb	**121**	**0.200**	ug/L	0.016	7	34	2196	3	Standard
	Sb	**123**	**0.200**	ug/L	0.006	3	43	1833	4	Standard
	Ba	**135**	**0.500**	ug/L	0.005	1	10	2179	3	Standard
	Ba	**137**	**0.500**	ug/L	0.026	5	15	3695	0	Standard
>	**Tb**	**159**		ug/L			1030845	1050659	1	Standard
	Tl	**205**	**0.200**	ug/L	0.005	2	19	3976	2	Standard
	Pb	**208**	**0.100**	ug/L	0.010	9	79	2746	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3
Sample Dil Factor: DEL
Comments:
Sample Date/Time: Thursday, June 28, 2018 07:30:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			566143	582939	7	Standard
⌊	**Be**	**9**	**10.000**	ug/L	0.453	4	10	49848	4	Standard
	C	**13**		ug/L			17339	26534	4	Standard
	Cl	**37**		ug/L			6584934	6570978	3	Standard
⌈>	**Sc**	**45**		ug/L			1071650	1123006	1	Standard
⌈	**V**	**51**	**10.000**	ug/L	0.192	1	5460	234867	1	Standard
⌊	**V-1**	**51**	**10.000**	ug/L	0.045	0	936	233900	1	Standard
⌈	**Cr**	**52**	**9.999**	ug/L	0.331	3	16212	200316	1	Standard
⌊	**Cr**	**53**	**10.000**	ug/L	0.397	3	385	22326	4	Standard
⌊	**Mn**	**55**	**9.999**	ug/L	0.382	3	391	273847	3	Standard
⌈>	**Ge-1**	**72**		ug/L			79625	81819	3	KED
⌈	**Co**	**59**	**10.000**	ug/L	0.429	4	31	48505	0	KED
⌊	**Ni**	**60**	**10.000**	ug/L	0.729	7	15	14283	3	KED
⌈	**Ni**	**62**	**10.001**	ug/L	0.062	0	5	2327	2	KED
⌈	**Cu**	**63**	**10.000**	ug/L	0.129	1	31	37206	2	KED
⌊	**Cu**	**65**	**10.000**	ug/L	0.586	5	20	18429	2	KED
⌈	**Zn**	**66**	**9.879**	ug/L	0.701	7	41	5411	3	KED
⌊	**Zn**	**67**	**10.009**	ug/L	0.713	7	8	874	3	KED
⌈	**As**	**75**	**10.000**	ug/L	0.391	3	5	3284	2	KED
⌊	**Se-1**	**78**	**10.004**	ug/L	0.359	3	27	442	2	KED
	Y	**89**		ug/L			600665	624443	5	Standard
	Kr	**83**		ug/L			34	38	30	Standard
⌈>	**In-1**	**115**		ug/L			34335	35745	2	KED
⌈	**Mo**	**98**	**10.000**	ug/L	0.321	3	1	13859	2	KED
⌈	**Cd**	**111**	**10.000**	ug/L	0.324	3	0	4424	0	KED
⌊	**Cd**	**114**	**10.000**	ug/L	0.246	2	1	11417	0	KED
⌈>	**In**	**115**		ug/L			750140	770960	2	Standard
⌈	**Ag**	**107**	**10.000**	ug/L	0.383	3	47	150184	2	Standard
⌈	**Sb**	**121**	**10.000**	ug/L	0.289	2	34	117769	0	Standard
⌊	**Sb**	**123**	**10.000**	ug/L	0.241	2	43	88836	1	Standard
⌈	**Ba**	**135**	**9.998**	ug/L	0.555	5	10	40052	4	Standard
⌊	**Ba**	**137**	**9.999**	ug/L	0.255	2	15	70484	3	Standard
⌈>	**Tb**	**159**		ug/L			1030845	1040381	2	Standard
⌈	**Tl**	**205**	**10.000**	ug/L	0.417	4	19	198478	3	Standard
⌊	**Pb**	**208**	**10.000**	ug/L	0.320	3	79	248727	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4
Sample Dil Factor: DEL
Comments:
Sample Date/Time: Thursday, June 28, 2018 07:36:09
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			566143	573125	1	Standard
⌊	**Be**	**9**	**19.889**	ug/L	0.498	2	10	95569	4	Standard
	C	**13**		ug/L			17339	23390	0	Standard
	Cl	**37**		ug/L			6584934	6648501	4	Standard
⌈>	**Sc**	**45**		ug/L			1071650	1123669	0	Standard
⌈	**V**	**51**	**19.998**	ug/L	0.190	0	5460	464096	1	Standard
⌊	**V-1**	**51**	**19.932**	ug/L	0.111	0	936	459262	0	Standard
⌈	**Cr**	**52**	**20.118**	ug/L	0.834	4	16212	395034	4	Standard
⌊	**Cr**	**53**	**19.890**	ug/L	0.464	2	385	43092	2	Standard
⌊	**Mn**	**55**	**19.858**	ug/L	0.448	2	391	528880	2	Standard
⌈>	**Ge-1**	**72**		ug/L			79625	82660	0	KED
⌈	**Co**	**59**	**20.014**	ug/L	0.488	2	31	98430	2	KED
⌊	**Ni**	**60**	**19.907**	ug/L	0.419	2	15	28236	1	KED
⌈	**Ni**	**62**	**19.718**	ug/L	0.992	5	5	4385	4	KED
⌈	**Cu**	**63**	**20.076**	ug/L	0.377	1	31	76602	2	KED
⌊	**Cu**	**65**	**19.925**	ug/L	0.606	3	20	36576	2	KED
⌈	**Zn**	**66**	**19.778**	ug/L	0.338	1	41	10520	1	KED
⌊	**Zn**	**67**	**19.933**	ug/L	1.509	7	8	1734	7	KED
⌈	**As**	**75**	**19.949**	ug/L	0.058	0	5	6551	0	KED
⌊	**Se-1**	**78**	**20.142**	ug/L	0.991	4	27	895	4	KED
	Y	**89**		ug/L			600665	635248	0	Standard
	Kr	**83**		ug/L			34	44	10	Standard
⌈>	**In-1**	**115**		ug/L			34335	34990	1	KED
⌈	**Mo**	**98**	**20.108**	ug/L	0.663	3	1	27881	1	KED
⌈	**Cd**	**111**	**20.116**	ug/L	0.347	1	0	8922	1	KED
⌊	**Cd**	**114**	**20.134**	ug/L	0.761	3	1	23120	1	KED
⌈>	**In**	**115**		ug/L			750140	761017	2	Standard
⌈	**Ag**	**107**	**20.005**	ug/L	0.948	4	47	296883	3	Standard
⌈	**Sb**	**121**	**19.996**	ug/L	1.119	5	34	232145	3	Standard
⌊	**Sb**	**123**	**20.059**	ug/L	0.563	2	43	177941	1	Standard
⌈	**Ba**	**135**	**20.002**	ug/L	0.840	4	10	79113	2	Standard
⌊	**Ba**	**137**	**20.158**	ug/L	0.763	3	15	144767	2	Standard
⌈>	**Tb**	**159**		ug/L			1030845	1020802	3	Standard
⌈	**Tl**	**205**	**19.935**	ug/L	0.451	2	19	383373	3	Standard
⌊	**Pb**	**208**	**20.059**	ug/L	0.838	4	79	495117	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5
Sample Dil Factor: DEL
Comments:
Sample Date/Time: Thursday, June 28, 2018 07:41:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			566143	1249661	117	Standard
	Be	**9**	**0.297**	ug/L	0.528	177	10	8	86	Standard
	C	**13**		ug/L			17339	28611	141	Standard
	Cl	**37**		ug/L			6584934	3587692	66	Standard
>	**Sc**	**45**		ug/L			1071650	2241120	110	Standard
	V	**51**	**9.364**	ug/L	17.763	189	5460	3826	100	Standard
	V-1	**51**	**11.629**	ug/L	20.315	174	936	1125	10	Standard
	Cr	**52**	**23.987**	ug/L	45.546	189	16212	11253	101	Standard
	Cr	**53**	**27.585**	ug/L	48.362	175	385	407	16	Standard
	Mn	**55**	**1.841**	ug/L	3.034	164	391	2287	156	Standard
>	**Ge-1**	**72**		ug/L			79625	391	135	KED
	Co	**59**	**24.235**	ug/L	25.771	106	31	56	62	KED
	Ni	**60**	**12.512**	ug/L	7.532	60	15	8	81	KED
	Ni	**62**	**45.253**	ug/L	37.077	81	5	9	20	KED
	Cu	**63**	**5.643**	ug/L	1.657	29	31	18	129	KED
	Cu	**65**	**2.402**	ug/L	4.279	178	20	9	173	KED
	Zn	**66**	**12.874**	ug/L	11.556	89	41	2	43	KED
	Zn	**67**	**2.825**	ug/L	5.848	207	8	0	173	KED
	As	**75**	**27.635**	ug/L	27.355	98	5	4	44	KED
	Se-1	**78**	**58.163**	ug/L	57.554	98	27	17	4	KED
	Y	**89**		ug/L			600665	1157238	109	Standard
	Kr	**83**		ug/L			34	695	166	Standard
>	**In-1**	**115**		ug/L			34335	31613	169	KED
	Mo	**98**	**0.257**	ug/L	0.223	86	1	12	154	KED
	Cd	**111**	**1.183**	ug/L	1.401	118	0	2	43	KED
	Cd	**114**	**0.899**	ug/L	1.055	117	1	4	41	KED
>	**In**	**115**		ug/L			750140	1372191	112	Standard
	Ag	**107**	**0.538**	ug/L	0.939	174	47	71	66	Standard
	Sb	**121**	**0.344**	ug/L	0.598	173	34	62	89	Standard
	Sb	**123**	**0.242**	ug/L	0.448	184	43	38	96	Standard
	Ba	**135**	**0.140**	ug/L	0.249	177	10	17	126	Standard
	Ba	**137**	**0.076**	ug/L	0.134	176	15	22	91	Standard
>	**Tb**	**159**		ug/L			1030845	1764284	104	Standard
	Tl	**205**	**1.242**	ug/L	2.131	171	19	119	28	Standard
	Pb	**208**	**0.429**	ug/L	0.745	173	79	137	77	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 07:49:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			0	584285	7	Standard
⌊	**Be**	**9**		ug/L			0	12	9	Standard
	C	**13**		ug/L			0	21163	1	Standard
	Cl	**37**		ug/L			0	6433742	0	Standard
⌈>	**Sc**	**45**		ug/L			0	1143069	1	Standard
⌈	**V**	**51**		ug/L			0	5834	3	Standard
⌈	**V-1**	**51**		ug/L			0	790	5	Standard
⌈	**Cr**	**52**		ug/L			0	17412	2	Standard
⌈	**Cr**	**53**		ug/L			0	354	3	Standard
⌊	**Mn**	**55**		ug/L			0	753	0	Standard
⌈>	**Ge-1**	**72**		ug/L			0	82334	1	KED
⌈	**Co**	**59**		ug/L			0	59	44	KED
⌈	**Ni**	**60**		ug/L			0	97	12	KED
⌈	**Ni**	**62**		ug/L			0	12	59	KED
⌈	**Cu**	**63**		ug/L			0	181	31	KED
⌈	**Cu**	**65**		ug/L			0	94	35	KED
⌈	**Zn**	**66**		ug/L			0	379	6	KED
⌈	**Zn**	**67**		ug/L			0	53	8	KED
⌈	**As**	**75**		ug/L			0	8	51	KED
⌊	**Se-1**	**78**		ug/L			0	22	10	KED
	Y	**89**		ug/L			0	619652	1	Standard
	Kr	**83**		ug/L			0	41	9	Standard
⌈>	**In-1**	**115**		ug/L			0	35372	2	KED
⌈	**Mo**	**98**		ug/L			0	8	42	KED
⌈	**Cd**	**111**		ug/L			0	1	50	KED
⌊	**Cd**	**114**		ug/L			0	4	21	KED
⌈>	**In**	**115**		ug/L			0	760614	2	Standard
⌈	**Ag**	**107**		ug/L			0	69	11	Standard
⌈	**Sb**	**121**		ug/L			0	133	20	Standard
⌈	**Sb**	**123**		ug/L			0	106	12	Standard
⌈	**Ba**	**135**		ug/L			0	97	19	Standard
⌊	**Ba**	**137**		ug/L			0	212	12	Standard
⌈>	**Tb**	**159**		ug/L			0	1074663	2	Standard
⌈	**Tl**	**205**		ug/L			0	35	24	Standard
⌊	**Pb**	**208**		ug/L			0	638	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 07:54:55
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L				572696	4	Standard
⌊	**Be**	**9**		ug/L				27	114	Standard
	C	**13**		ug/L				17606	0	Standard
	Cl	**37**		ug/L				6613771	1	Standard
⌈>	**Sc**	**45**		ug/L				1108166	1	Standard
⎢	**V**	**51**		ug/L				5706	0	Standard
⎢	**V-1**	**51**		ug/L				834	11	Standard
⎢	**Cr**	**52**		ug/L				16644	0	Standard
⎢	**Cr**	**53**		ug/L				322	5	Standard
⌊	**Mn**	**55**		ug/L				466	26	Standard
⌈>	**Ge-1**	**72**		ug/L				81114	4	KED
⎢	**Co**	**59**		ug/L				31	12	KED
⎢	**Ni**	**60**		ug/L				44	6	KED
⎢	**Ni**	**62**		ug/L				7	25	KED
⎢	**Cu**	**63**		ug/L				57	30	KED
⎢	**Cu**	**65**		ug/L				19	39	KED
⎢	**Zn**	**66**		ug/L				56	7	KED
⎢	**Zn**	**67**		ug/L				7	43	KED
⎢	**As**	**75**		ug/L				6	18	KED
⌊	**Se-1**	**78**		ug/L				25	13	KED
	Y	**89**		ug/L				619356	1	Standard
	Kr	**83**		ug/L				31	9	Standard
⌈>	**In-1**	**115**		ug/L				34809	1	KED
⎢	**Mo**	**98**		ug/L				3	0	KED
⎢	**Cd**	**111**		ug/L				2	24	KED
⌊	**Cd**	**114**		ug/L				3	72	KED
⌈>	**In**	**115**		ug/L				769572	2	Standard
⎢	**Ag**	**107**		ug/L				121	111	Standard
⎢	**Sb**	**121**		ug/L				91	108	Standard
⎢	**Sb**	**123**		ug/L				78	86	Standard
⎢	**Ba**	**135**		ug/L				23	100	Standard
⌊	**Ba**	**137**		ug/L				48	99	Standard
⌈>	**Tb**	**159**		ug/L				1026127	2	Standard
⎢	**Tl**	**205**		ug/L				86	139	Standard
⌊	**Pb**	**208**		ug/L				191	71	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 07:59:50
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	622674	2	Standard
⌊	**Be**	**9**	**0.200**	ug/L	0.010	5	27	975	3	Standard
	C	**13**		ug/L			17606	18928	1	Standard
	Cl	**37**		ug/L			6613771	6496210	2	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1131118	2	Standard
⌈	**V**	**51**	**0.200**	ug/L	0.007	3	5706	10294	1	Standard
⌊	**V-1**	**51**	**0.200**	ug/L	0.001	0	834	5515	2	Standard
⌈	**Cr**	**52**	**0.500**	ug/L	0.017	3	16644	26238	1	Standard
⌊	**Cr**	**53**	**0.500**	ug/L	0.007	1	322	1436	3	Standard
	Mn	**55**	**0.500**	ug/L	0.009	1	466	14230	0	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	82099	3	KED
⌈	**Co**	**59**	**0.200**	ug/L	0.016	8	31	1139	4	KED
⌊	**Ni**	**60**	**0.500**	ug/L	0.009	1	44	797	4	KED
⌈	**Ni**	**62**	**0.500**	ug/L	0.065	13	7	127	14	KED
⌈	**Cu**	**63**	**0.500**	ug/L	0.006	1	57	2009	2	KED
⌊	**Cu**	**65**	**0.500**	ug/L	0.028	5	19	970	4	KED
⌈	**Zn**	**66**	**4.000**	ug/L	0.060	1	56	2404	1	KED
⌊	**Zn**	**67**	**4.000**	ug/L	0.579	14	7	368	10	KED
⌈	**As**	**75**	**0.200**	ug/L	0.028	13	6	69	9	KED
⌊	**Se-1**	**78**	**0.500**	ug/L	0.086	17	25	47	10	KED
	Y	**89**		ug/L			619356	635440	2	Standard
	Kr	**83**		ug/L			31	41	7	Standard
⌈>	**In-1**	**115**		ug/L			34809	35754	2	KED
⌈	**Mo**	**98**	**0.200**	ug/L	0.016	7	3	284	6	KED
⌈	**Cd**	**111**	**0.100**	ug/L	0.009	9	2	48	8	KED
⌊	**Cd**	**114**	**0.100**	ug/L	0.011	11	3	103	8	KED
⌈>	**In**	**115**		ug/L			769572	779210	2	Standard
⌈	**Ag**	**107**	**0.200**	ug/L	0.012	5	121	3077	4	Standard
⌈	**Sb**	**121**	**0.200**	ug/L	0.003	1	91	2336	1	Standard
⌊	**Sb**	**123**	**0.200**	ug/L	0.012	5	78	1826	4	Standard
⌈	**Ba**	**135**	**0.500**	ug/L	0.017	3	23	2163	4	Standard
⌊	**Ba**	**137**	**0.500**	ug/L	0.013	2	48	3871	4	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1066249	3	Standard
⌈	**Tl**	**205**	**0.200**	ug/L	0.011	5	86	4026	5	Standard
⌊	**Pb**	**208**	**0.100**	ug/L	0.002	2	191	2735	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 08:04:46
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	606677	6	Standard
⌊	**Be**	**9**	**10.000**	ug/L	0.403	4	27	48687	2	Standard
	C	**13**		ug/L			17606	28673	5	Standard
	Cl	**37**		ug/L			6613771	6696352	0	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1136472	1	Standard
⌈	**V**	**51**	**10.000**	ug/L	0.193	1	5706	231217	1	Standard
⌊	**V-1**	**51**	**10.000**	ug/L	0.226	2	834	228056	1	Standard
⌈	**Cr**	**52**	**10.000**	ug/L	0.136	1	16644	204520	2	Standard
⌊	**Cr**	**53**	**9.999**	ug/L	0.173	1	322	22099	0	Standard
⌊	**Mn**	**55**	**9.999**	ug/L	0.071	0	466	269537	1	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	84256	2	KED
⌈	**Co**	**59**	**9.999**	ug/L	0.188	1	31	50124	0	KED
⌊	**Ni**	**60**	**9.998**	ug/L	0.382	3	44	14596	2	KED
⌈	**Ni**	**62**	**9.997**	ug/L	0.491	4	7	2177	3	KED
⌈	**Cu**	**63**	**9.998**	ug/L	0.277	2	57	37588	2	KED
⌊	**Cu**	**65**	**9.998**	ug/L	0.371	3	19	18411	1	KED
⌈	**Zn**	**66**	**9.788**	ug/L	0.762	7	56	5260	5	KED
⌊	**Zn**	**67**	**9.891**	ug/L	0.156	1	7	868	3	KED
⌈	**As**	**75**	**10.000**	ug/L	0.293	2	6	3293	1	KED
⌊	**Se-1**	**78**	**9.999**	ug/L	0.447	4	25	457	3	KED
	Y	**89**		ug/L			619356	631931	6	Standard
	Kr	**83**		ug/L			31	51	32	Standard
⌈>	**In-1**	**115**		ug/L			34809	35458	1	KED
⌈	**Mo**	**98**	**10.000**	ug/L	0.071	0	3	13596	1	KED
⌈	**Cd**	**111**	**10.000**	ug/L	0.082	0	2	4453	1	KED
⌊	**Cd**	**114**	**10.000**	ug/L	0.339	3	3	11374	2	KED
⌈>	**In**	**115**		ug/L			769572	766240	1	Standard
⌈	**Ag**	**107**	**10.000**	ug/L	0.176	1	121	146343	2	Standard
⌈	**Sb**	**121**	**10.000**	ug/L	0.020	0	91	114485	1	Standard
⌊	**Sb**	**123**	**10.000**	ug/L	0.193	1	78	89269	2	Standard
⌈	**Ba**	**135**	**9.999**	ug/L	0.385	3	23	40421	4	Standard
⌊	**Ba**	**137**	**9.998**	ug/L	0.497	4	48	70009	6	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1034480	1	Standard
⌈	**Tl**	**205**	**10.000**	ug/L	0.288	2	86	199699	3	Standard
⌊	**Pb**	**208**	**10.000**	ug/L	0.246	2	191	247924	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 08:09:56
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	566720	4	Standard
⌊	**Be**	**9**	**20.317**	ug/L	1.366	6	27	98616	3	Standard
	C	**13**		ug/L			17606	23187	6	Standard
	Cl	**37**		ug/L			6613771	6799666	5	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1133135	0	Standard
⌈	**V**	**51**	**20.049**	ug/L	0.783	3	5706	460908	4	Standard
⌊	**V-1**	**51**	**20.071**	ug/L	0.635	3	834	462218	3	Standard
⌈	**Cr**	**52**	**20.105**	ug/L	0.393	1	16644	400802	1	Standard
⌊	**Cr**	**53**	**20.175**	ug/L	0.246	1	322	45709	1	Standard
⌊	**Mn**	**55**	**20.100**	ug/L	0.294	1	466	550812	2	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	83602	0	KED
⌈	**Co**	**59**	**20.181**	ug/L	0.072	0	31	104129	0	KED
⌊	**Ni**	**60**	**20.121**	ug/L	0.741	3	44	29833	3	KED
⌈	**Ni**	**62**	**20.207**	ug/L	1.209	5	7	4549	5	KED
⌈	**Cu**	**63**	**20.177**	ug/L	0.251	1	57	77962	1	KED
⌊	**Cu**	**65**	**20.055**	ug/L	0.802	4	19	37055	4	KED
⌈	**Zn**	**66**	**20.121**	ug/L	1.021	5	56	10904	4	KED
⌊	**Zn**	**67**	**19.958**	ug/L	0.365	1	7	1718	1	KED
⌈	**As**	**75**	**20.095**	ug/L	0.054	0	6	6690	0	KED
⌊	**Se-1**	**78**	**20.232**	ug/L	0.623	3	25	934	3	KED
	Y	**89**		ug/L			619356	644554	5	Standard
	Kr	**83**		ug/L			31	38	19	Standard
⌈>	**In-1**	**115**		ug/L			34809	36078	1	KED
⌈	**Mo**	**98**	**20.117**	ug/L	0.293	1	3	28495	1	KED
⌈	**Cd**	**111**	**19.971**	ug/L	0.340	1	2	8995	2	KED
⌊	**Cd**	**114**	**20.094**	ug/L	0.310	1	3	23700	0	KED
⌈>	**In**	**115**		ug/L			769572	753047	3	Standard
⌈	**Ag**	**107**	**20.175**	ug/L	0.869	4	121	300260	1	Standard
⌈	**Sb**	**121**	**20.184**	ug/L	0.522	2	91	235559	0	Standard
⌊	**Sb**	**123**	**20.080**	ug/L	0.897	4	78	178800	2	Standard
⌈	**Ba**	**135**	**20.044**	ug/L	0.431	2	23	80271	1	Standard
⌊	**Ba**	**137**	**20.224**	ug/L	0.180	0	48	145571	3	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1069952	2	Standard
⌈	**Tl**	**205**	**19.854**	ug/L	0.531	2	86	398155	0	Standard
⌊	**Pb**	**208**	**19.884**	ug/L	0.362	1	191	498037	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 08:15:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⎡>	**Li**	**6**		ug/L			572696	546419	6	Standard
⎣	**Be**	**9**	**49.601**	ug/L	1.840	3	27	223258	2	Standard
	C	**13**		ug/L			17606	16741	5	Standard
	Cl	**37**		ug/L			6613771	6649401	2	Standard
⎡>	**Sc**	**45**		ug/L			1108166	1099978	3	Standard
⎢	**V**	**51**	**49.774**	ug/L	1.018	2	5706	1077563	1	Standard
⎢	**V-1**	**51**	**49.804**	ug/L	0.994	1	834	1090295	1	Standard
⎢	**Cr**	**52**	**49.583**	ug/L	1.735	3	16644	897953	0	Standard
⎢	**Cr**	**53**	**49.694**	ug/L	1.513	3	322	105540	0	Standard
⎣	**Mn**	**55**	**49.283**	ug/L	1.369	2	466	1221973	0	Standard
⎡>	**Ge-1**	**72**		ug/L			81114	81398	0	KED
⎢	**Co**	**59**	**49.719**	ug/L	1.831	3	31	242873	2	KED
⎢	**Ni**	**60**	**49.509**	ug/L	0.681	1	44	68067	1	KED
⎢	**Ni**	**62**	**49.565**	ug/L	1.043	2	7	10402	2	KED
⎢	**Cu**	**63**	**49.708**	ug/L	0.781	1	57	181611	1	KED
⎢	**Cu**	**65**	**49.622**	ug/L	1.745	3	19	85977	2	KED
⎢	**Zn**	**66**	**49.246**	ug/L	0.860	1	56	24143	0	KED
⎢	**Zn**	**67**	**49.763**	ug/L	3.233	6	7	4066	6	KED
⎢	**As**	**75**	**49.837**	ug/L	1.253	2	6	15884	1	KED
⎣	**Se-1**	**78**	**49.568**	ug/L	1.097	2	25	2102	1	KED
	Y	**89**		ug/L			619356	638378	3	Standard
	Kr	**83**		ug/L			31	43	6	Standard
⎡>	**In-1**	**115**		ug/L			34809	34332	4	KED
⎢	**Mo**	**98**	**49.994**	ug/L	4.350	8	3	67188	4	KED
⎢	**Cd**	**111**	**49.832**	ug/L	1.848	3	2	20982	0	KED
⎣	**Cd**	**114**	**49.637**	ug/L	2.793	5	3	53684	2	KED
⎡>	**In**	**115**		ug/L			769572	747302	4	Standard
⎢	**Ag**	**107**	**49.425**	ug/L	2.527	5	121	689795	1	Standard
⎢	**Sb**	**121**	**49.317**	ug/L	3.084	6	91	534125	4	Standard
⎢	**Sb**	**123**	**49.349**	ug/L	1.828	3	78	409252	0	Standard
⎢	**Ba**	**135**	**49.013**	ug/L	3.143	6	23	177062	3	Standard
⎣	**Ba**	**137**	**49.165**	ug/L	1.113	2	48	323934	2	Standard
⎡>	**Tb**	**159**		ug/L			1026127	1008579	4	Standard
⎢	**Tl**	**205**	**49.560**	ug/L	1.247	2	86	897283	2	Standard
⎣	**Pb**	**208**	**49.592**	ug/L	1.001	2	191	1124343	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL6
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 08:22:14
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	489153	5	Standard
⌊	**Be**	**9**	**101.151**	ug/L	2.177	2	27	424147	4	Standard
	C	**13**		ug/L			17606	19284	2	Standard
	Cl	**37**		ug/L			6613771	6561684	3	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1094532	2	Standard
⌈	**V**	**51**	**100.084**	ug/L	0.147	0	5706	2157174	2	Standard
⌊	**V-1**	**51**	**99.970**	ug/L	0.855	0	834	2175521	2	Standard
⌈	**Cr**	**52**	**99.233**	ug/L	3.256	3	16644	1728684	2	Standard
⌊	**Cr**	**53**	**98.879**	ug/L	1.533	1	322	201208	1	Standard
⌊	**Mn**	**55**	**99.731**	ug/L	1.770	1	466	2438953	1	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	79649	2	KED
⌈	**Co**	**59**	**99.450**	ug/L	1.871	1	31	466910	3	KED
⌈	**Ni**	**60**	**99.310**	ug/L	3.324	3	44	130483	0	KED
⌊	**Ni**	**62**	**99.225**	ug/L	4.945	4	7	19839	2	KED
⌈	**Cu**	**63**	**98.405**	ug/L	1.716	1	57	333919	1	KED
⌊	**Cu**	**65**	**99.762**	ug/L	5.134	5	19	167720	4	KED
⌈	**Zn**	**66**	**99.142**	ug/L	5.336	5	56	46151	2	KED
⌊	**Zn**	**67**	**99.009**	ug/L	5.653	5	7	7650	3	KED
⌈	**As**	**75**	**100.082**	ug/L	2.584	2	6	31281	0	KED
⌊	**Se-1**	**78**	**99.583**	ug/L	2.161	2	25	4049	0	KED
	Y	**89**		ug/L			619356	615730	2	Standard
	Kr	**83**		ug/L			31	55	18	Standard
⌈>	**In-1**	**115**		ug/L			34809	33639	1	KED
⌈	**Mo**	**98**	**100.291**	ug/L	1.473	1	3	133655	1	KED
⌈	**Cd**	**111**	**99.882**	ug/L	0.681	0	2	41082	1	KED
⌊	**Cd**	**114**	**99.756**	ug/L	1.022	1	3	104999	1	KED
⌈>	**In**	**115**		ug/L			769572	696059	4	Standard
⌈	**Ag**	**107**	**101.014**	ug/L	5.733	5	121	1359039	3	Standard
⌈	**Sb**	**121**	**100.568**	ug/L	3.553	3	91	1034252	0	Standard
⌊	**Sb**	**123**	**101.014**	ug/L	4.681	4	78	807228	0	Standard
⌈	**Ba**	**135**	**100.229**	ug/L	4.131	4	23	340001	1	Standard
⌊	**Ba**	**137**	**100.405**	ug/L	4.309	4	48	624392	3	Standard
⌈>	**Tb**	**159**		ug/L			1026127	956755	1	Standard
⌈	**Tl**	**205**	**99.693**	ug/L	2.241	2	86	1695818	3	Standard
⌊	**Pb**	**208**	**99.827**	ug/L	0.991	0	191	2135681	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 08:29:54
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	531414	6	Standard
⌊	**Be**	**9**	**-0.001**	ug/L	0.002	163	27	19	50	Standard
	C	**13**		ug/L			17606	17270	4	Standard
	Cl	**37**		ug/L			6613771	6746758	1	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1119468	2	Standard
⌈	**V**	**51**	**-0.010**	ug/L	0.004	38	5706	5556	3	Standard
⌊	**V-1**	**51**	**-0.008**	ug/L	0.002	24	834	670	8	Standard
⌈	**Cr**	**52**	**-0.023**	ug/L	0.005	20	16644	16410	2	Standard
⌊	**Cr**	**53**	**-0.016**	ug/L	0.006	36	322	292	2	Standard
⌊	**Mn**	**55**	**-0.001**	ug/L	0.001	186	466	458	7	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	82692	2	KED
⌈	**Co**	**59**	**-0.001**	ug/L	0.001	100	31	29	9	KED
⌊	**Ni**	**60**	**0.002**	ug/L	0.013	523	44	48	38	KED
⌈	**Ni**	**62**	**0.011**	ug/L	0.010	89	7	10	21	KED
⌈	**Cu**	**63**	**-0.002**	ug/L	0.007	277	57	50	48	KED
⌊	**Cu**	**65**	**-0.001**	ug/L	0.001	223	19	19	10	KED
⌈	**Zn**	**66**	**-0.017**	ug/L	0.014	83	56	49	15	KED
⌊	**Zn**	**67**	**0.006**	ug/L	0.026	449	7	8	26	KED
⌈	**As**	**75**	**-0.005**	ug/L	0.004	72	6	5	24	KED
⌊	**Se-1**	**78**	**-0.020**	ug/L	0.042	212	25	25	8	KED
	Y	**89**		ug/L			619356	637810	3	Standard
	Kr	**83**		ug/L			31	26	16	Standard
⌈>	**In-1**	**115**		ug/L			34809	35245	1	KED
⌈	**Mo**	**98**	**0.019**	ug/L	0.005	26	3	29	23	KED
⌊	**Cd**	**111**	**0.001**	ug/L	0.002	153	2	2	33	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.002	321	3	3	52	KED
⌈>	**In**	**115**		ug/L			769572	733267	3	Standard
⌈	**Ag**	**107**	**-0.001**	ug/L	0.002	294	121	106	23	Standard
⌈	**Sb**	**121**	**0.185**	ug/L	0.004	2	91	2092	2	Standard
⌊	**Sb**	**123**	**0.188**	ug/L	0.017	9	78	1659	6	Standard
⌈	**Ba**	**135**	**-0.002**	ug/L	0.003	192	23	16	65	Standard
⌊	**Ba**	**137**	**-0.003**	ug/L	0.001	29	48	23	26	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1005446	3	Standard
⌈	**Tl**	**205**	**0.001**	ug/L	0.001	108	86	106	24	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.002	318	191	174	29	Standard

Sample Information

Sample Date/Time: Thursday, June 28, 2018 08:22:14
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.m
Mass Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	**0.9997**	0.009	0.20	10	20	50	100
C	13							
Cl	37							
Sc	45							
V	51	**1.0000**	0.020	0.20	10	20	50	100
V-1	51	**1.0000**	0.020	0.20	10	20	50	100
Cr	52	**0.9999**	0.016	0.50	10	20	50	100
Cr	53	**0.9998**	0.002	0.50	10	20	50	100
Mn	55	**0.9999**	0.022	0.50	10	20	50	100
Ge-1	72							
Co	59	**0.9999**	0.059	0.20	10	20	50	100
Ni	60	**0.9999**	0.017	0.50	10	20	50	100
Ni	62	**0.9998**	0.003	0.50	10	20	50	100
Cu	63	**0.9995**	0.043	0.50	10	20	50	100
Cu	65	**1.0000**	0.021	0.50	10	20	50	100
Zn	66	**0.9997**	0.006	4.00	10	20	50	100
Zn	67	**0.9998**	0.001	4.00	10	20	50	100
As	75	**1.0000**	0.004	0.20	10	20	50	100
Se-1	78	**0.9999**	0.001	0.50	10	20	50	100
Y	89							
Kr	83							
In-1	115							
Mo	98	**1.0000**	0.040	0.20	10	20	50	100
Cd	111	**1.0000**	0.012	0.10	10	20	50	100
Cd	114	**1.0000**	0.031	0.10	10	20	50	100
In	115							
Ag	107	**0.9998**	0.019	0.20	10	20	50	100
Sb	121	**0.9998**	0.015	0.20	10	20	50	100
Sb	123	**0.9997**	0.011	0.20	10	20	50	100
Ba	135	**0.9998**	0.005	0.50	10	20	50	100
Ba	137	**0.9998**	0.009	0.50	10	20	50	100
Tb	159							
Tl	205	**0.9999**	0.018	0.20	10	20	50	100
Pb	208	**1.0000**	0.022	0.10	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICV1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 08:37:34
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	520539	6	Standard
⌊	**Be**	**9**	**49.157**	ug/L	2.567	5	27	219170	4	Standard
	C	**13**		ug/L			17606	18569	1	Standard
	Cl	**37**		ug/L			6613771	6900849	3	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1135658	1	Standard
⌈	**V**	**51**	**49.727**	ug/L	0.340	0	5706	1114975	0	Standard
⌊	**V-1**	**51**	**49.793**	ug/L	0.337	0	834	1124681	0	Standard
⌈	**Cr**	**52**	**50.613**	ug/L	0.288	0	16644	923476	1	Standard
⌊	**Cr**	**53**	**50.804**	ug/L	0.210	0	322	107456	1	Standard
⌊	**Mn**	**55**	**50.616**	ug/L	0.581	1	466	1284792	0	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	84284	0	KED
⌈	**Co**	**59**	**50.605**	ug/L	0.650	1	31	251407	1	KED
⌊	**Ni**	**60**	**50.067**	ug/L	0.838	1	44	69681	2	KED
⌈	**Ni**	**62**	**50.485**	ug/L	0.537	1	7	10695	1	KED
⌈	**Cu**	**63**	**49.307**	ug/L	1.638	3	57	177128	3	KED
⌊	**Cu**	**65**	**50.058**	ug/L	0.313	0	19	89117	1	KED
⌈	**Zn**	**66**	**50.146**	ug/L	1.192	2	56	24755	2	KED
⌊	**Zn**	**67**	**48.232**	ug/L	1.460	3	7	3952	3	KED
⌈	**As**	**75**	**48.450**	ug/L	0.920	1	6	16034	1	KED
⌊	**Se-1**	**78**	**75.239**	ug/L	1.654	2	25	3245	1	KED
	Y	**89**		ug/L			619356	645594	1	Standard
	Kr	**83**		ug/L			31	58	4	Standard
⌈>	**In-1**	**115**		ug/L			34809	36019	0	KED
⌈	**Mo**	**98**	**47.149**	ug/L	0.789	1	3	67281	1	KED
⌈	**Cd**	**111**	**48.032**	ug/L	0.675	1	2	21155	0	KED
⌊	**Cd**	**114**	**48.054**	ug/L	0.466	0	3	54162	1	KED
⌈>	**In**	**115**		ug/L			769572	734206	4	Standard
⌈	**Ag**	**107**	**49.842**	ug/L	2.306	4	121	707375	0	Standard
⌈	**Sb**	**121**	**50.201**	ug/L	1.328	2	91	544928	3	Standard
⌊	**Sb**	**123**	**50.547**	ug/L	2.346	4	78	426163	1	Standard
⌈	**Ba**	**135**	**50.959**	ug/L	3.590	7	23	182217	3	Standard
⌊	**Ba**	**137**	**52.110**	ug/L	2.718	5	48	341611	1	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1003566	4	Standard
⌈	**Tl**	**205**	**49.210**	ug/L	1.408	2	86	877183	2	Standard
⌊	**Pb**	**208**	**50.840**	ug/L	1.020	2	191	1140223	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICB1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 08:45:13
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	493718	7	Standard
⌊	**Be**	**9**	**-0.003**	ug/L	0.001	31	27	9	52	Standard
	C	**13**		ug/L			17606	16479	2	Standard
	Cl	**37**		ug/L			6613771	6718503	1	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1137471	1	Standard
⌈	**V**	**51**	**-0.011**	ug/L	0.005	51	5706	5618	0	Standard
⌊	**V-1**	**51**	**-0.010**	ug/L	0.002	20	834	626	5	Standard
⌈	**Cr**	**52**	**-0.028**	ug/L	0.017	60	16644	16575	0	Standard
⌊	**Cr**	**53**	**-0.026**	ug/L	0.009	35	322	276	6	Standard
⌊	**Mn**	**55**	**-0.001**	ug/L	0.001	91	466	442	5	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	83511	2	KED
⌈	**Co**	**59**	**0.000**	ug/L	0.001	421	31	34	20	KED
⌊	**Ni**	**60**	**0.004**	ug/L	0.006	179	44	50	19	KED
⌈	**Ni**	**62**	**0.002**	ug/L	0.020	863	7	8	48	KED
⌈	**Cu**	**63**	**0.002**	ug/L	0.006	315	57	66	30	KED
⌊	**Cu**	**65**	**0.005**	ug/L	0.001	16	19	29	7	KED
⌈	**Zn**	**66**	**-0.020**	ug/L	0.018	89	56	48	20	KED
⌊	**Zn**	**67**	**-0.027**	ug/L	0.023	85	7	5	33	KED
⌈	**As**	**75**	**-0.003**	ug/L	0.009	324	6	6	48	KED
⌊	**Se-1**	**78**	**0.061**	ug/L	0.042	68	25	28	4	KED
	Y	**89**		ug/L			619356	632727	3	Standard
	Kr	**83**		ug/L			31	36	11	Standard
⌈>	**In-1**	**115**		ug/L			34809	35715	1	KED
⌈	**Mo**	**98**	**0.011**	ug/L	0.005	44	3	19	37	KED
⌈	**Cd**	**111**	**0.003**	ug/L	0.008	273	2	3	95	KED
⌊	**Cd**	**114**	**0.000**	ug/L	0.005	1082	3	3	138	KED
⌈>	**In**	**115**		ug/L			769572	739408	1	Standard
⌈	**Ag**	**107**	**-0.002**	ug/L	0.000	6	121	81	4	Standard
⌈	**Sb**	**121**	**0.090**	ug/L	0.005	5	91	1069	6	Standard
⌊	**Sb**	**123**	**0.089**	ug/L	0.006	6	78	830	5	Standard
⌈	**Ba**	**135**	**-0.003**	ug/L	0.002	55	23	10	65	Standard
⌊	**Ba**	**137**	**-0.004**	ug/L	0.001	18	48	21	22	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1035151	2	Standard
⌈	**Tl**	**205**	**0.001**	ug/L	0.000	34	86	109	8	Standard
⌊	**Pb**	**208**	**-0.002**	ug/L	0.000	22	191	145	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 08:50:09
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	532594	12	Standard
⌊	**Be**	**9**	**49.217**	ug/L	7.433	15	27	222077	2	Standard
	C	**13**		ug/L			17606	16790	1	Standard
	Cl	**37**		ug/L			6613771	6804274	2	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1128411	3	Standard
⌈	**V**	**51**	**49.802**	ug/L	0.364	0	5706	1109410	2	Standard
⌊	**V-1**	**51**	**49.787**	ug/L	0.909	1	834	1117004	1	Standard
⌈	**Cr**	**52**	**50.372**	ug/L	0.651	1	16644	913360	3	Standard
⌊	**Cr**	**53**	**50.298**	ug/L	1.934	3	322	105638	2	Standard
⌊	**Mn**	**55**	**50.696**	ug/L	0.339	0	466	1278534	2	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	84167	4	KED
⌈	**Co**	**59**	**50.578**	ug/L	2.276	4	31	250670	3	KED
⌈	**Ni**	**60**	**48.945**	ug/L	3.815	7	44	67861	3	KED
⌊	**Ni**	**62**	**51.645**	ug/L	2.753	5	7	10910	3	KED
⌈	**Cu**	**63**	**50.212**	ug/L	2.699	5	57	179847	1	KED
⌊	**Cu**	**65**	**49.155**	ug/L	1.832	3	19	87291	1	KED
⌈	**Zn**	**66**	**49.227**	ug/L	3.262	6	56	24220	2	KED
⌊	**Zn**	**67**	**48.735**	ug/L	2.345	4	7	3982	2	KED
⌈	**As**	**75**	**48.814**	ug/L	2.351	4	6	16110	1	KED
⌊	**Se-1**	**78**	**49.949**	ug/L	2.104	4	25	2157	0	KED
	Y	**89**		ug/L			619356	650111	1	Standard
	Kr	**83**		ug/L			31	44	17	Standard
⌈>	**In-1**	**115**		ug/L			34809	35562	1	KED
⌈	**Mo**	**98**	**47.794**	ug/L	0.318	0	3	67335	0	KED
⌊	**Cd**	**111**	**49.470**	ug/L	0.928	1	2	21508	0	KED
⌊	**Cd**	**114**	**48.396**	ug/L	0.475	0	3	53850	0	KED
⌈>	**In**	**115**		ug/L			769572	731689	0	Standard
⌈	**Ag**	**107**	**50.555**	ug/L	2.245	4	121	715771	3	Standard
⌈	**Sb**	**121**	**49.841**	ug/L	0.804	1	91	539443	2	Standard
⌊	**Sb**	**123**	**48.967**	ug/L	0.547	1	78	411926	1	Standard
⌈	**Ba**	**135**	**51.004**	ug/L	1.554	3	23	182116	3	Standard
⌊	**Ba**	**137**	**49.953**	ug/L	1.184	2	48	326858	3	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1017450	4	Standard
⌈	**Tl**	**205**	**49.898**	ug/L	1.610	3	86	901770	1	Standard
⌊	**Pb**	**208**	**49.017**	ug/L	2.729	5	191	1113569	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 08:57:29
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	496497	2	Standard
	Be	**9**	**-0.002**	ug/L	0.000	19	27	15	12	Standard
	C	**13**		ug/L			17606	16649	4	Standard
	Cl	**37**		ug/L			6613771	6792516	3	Standard
>	**Sc**	**45**		ug/L			1108166	1094473	4	Standard
	V	**51**	**-0.007**	ug/L	0.002	32	5706	5491	3	Standard
	V-1	**51**	**-0.010**	ug/L	0.001	6	834	597	1	Standard
	Cr	**52**	**-0.012**	ug/L	0.015	121	16644	16220	2	Standard
	Cr	**53**	**-0.025**	ug/L	0.011	44	322	267	4	Standard
	Mn	**55**	**-0.001**	ug/L	0.001	179	466	445	4	Standard
>	**Ge-1**	**72**		ug/L			81114	86444	1	KED
	Co	**59**	**-0.002**	ug/L	0.002	99	31	25	33	KED
	Ni	**60**	**-0.000**	ug/L	0.005	2120	44	46	14	KED
	Ni	**62**	**0.018**	ug/L	0.005	25	7	12	9	KED
	Cu	**63**	**-0.002**	ug/L	0.003	156	57	53	20	KED
	Cu	**65**	**0.006**	ug/L	0.003	47	19	32	15	KED
	Zn	**66**	**0.018**	ug/L	0.034	194	56	69	26	KED
	Zn	**67**	**-0.006**	ug/L	0.024	407	7	7	25	KED
	As	**75**	**-0.005**	ug/L	0.002	40	6	5	9	KED
	Se-1	**78**	**-0.056**	ug/L	0.005	8	25	24	1	KED
	Y	**89**		ug/L			619356	624504	1	Standard
	Kr	**83**		ug/L			31	34	11	Standard
>	**In-1**	**115**		ug/L			34809	35821	2	KED
	Mo	**98**	**0.012**	ug/L	0.003	25	3	19	18	KED
	Cd	**111**	**-0.000**	ug/L	0.005	3734	2	2	89	KED
	Cd	**114**	**-0.001**	ug/L	0.003	408	3	2	115	KED
>	**In**	**115**		ug/L			769572	752625	1	Standard
	Ag	**107**	**-0.003**	ug/L	0.000	5	121	70	2	Standard
	Sb	**121**	**0.130**	ug/L	0.011	8	91	1532	8	Standard
	Sb	**123**	**0.130**	ug/L	0.012	8	78	1197	7	Standard
	Ba	**135**	**-0.004**	ug/L	0.001	21	23	8	32	Standard
	Ba	**137**	**-0.004**	ug/L	0.001	32	48	17	58	Standard
>	**Tb**	**159**		ug/L			1026127	951568	0	Standard
	Tl	**205**	**0.001**	ug/L	0.001	73	86	95	12	Standard
	Pb	**208**	**-0.002**	ug/L	0.000	24	191	138	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CRL1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 09:02:25
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	505938	3	Standard
	Be	**9**	**0.203**	ug/L	0.022	10	27	901	7	Standard
	C	**13**		ug/L			17606	16179	7	Standard
	Cl	**37**		ug/L			6613771	6617836	1	Standard
>	**Sc**	**45**		ug/L			1108166	1106930	1	Standard
	V	**51**	**0.203**	ug/L	0.008	3	5706	10106	2	Standard
	V-1	**51**	**0.199**	ug/L	0.004	2	834	5212	2	Standard
	Cr	**52**	**0.521**	ug/L	0.026	5	16644	25712	2	Standard
	Cr	**53**	**0.496**	ug/L	0.003	0	322	1340	0	Standard
	Mn	**55**	**0.520**	ug/L	0.009	1	466	13321	2	Standard
>	**Ge-1**	**72**		ug/L			81114	83421	1	KED
	Co	**59**	**0.200**	ug/L	0.005	2	31	1017	1	KED
	Ni	**60**	**0.509**	ug/L	0.027	5	44	747	6	KED
	Ni	**62**	**0.444**	ug/L	0.070	15	7	100	14	KED
	Cu	**63**	**0.524**	ug/L	0.039	7	57	1922	6	KED
	Cu	**65**	**0.535**	ug/L	0.040	7	19	961	6	KED
	Zn	**66**	**4.223**	ug/L	0.103	2	56	2116	1	KED
	Zn	**67**	**3.758**	ug/L	0.274	7	7	311	5	KED
	As	**75**	**0.198**	ug/L	0.017	8	6	71	6	KED
	Se-1	**78**	**0.519**	ug/L	0.023	4	25	48	1	KED
	Y	**89**		ug/L			619356	622575	1	Standard
	Kr	**83**		ug/L			31	38	2	Standard
>	**In-1**	**115**		ug/L			34809	35771	1	KED
	Mo	**98**	**0.182**	ug/L	0.022	11	3	261	12	KED
	Cd	**111**	**0.083**	ug/L	0.016	19	2	38	17	KED
	Cd	**114**	**0.090**	ug/L	0.026	28	3	104	27	KED
>	**In**	**115**		ug/L			769572	728499	2	Standard
	Ag	**107**	**0.210**	ug/L	0.008	3	121	3073	1	Standard
	Sb	**121**	**0.239**	ug/L	0.009	3	91	2663	4	Standard
	Sb	**123**	**0.240**	ug/L	0.003	1	78	2083	1	Standard
	Ba	**135**	**0.543**	ug/L	0.022	4	23	1953	5	Standard
	Ba	**137**	**0.489**	ug/L	0.031	6	48	3232	7	Standard
>	**Tb**	**159**		ug/L			1026127	991023	2	Standard
	Tl	**205**	**0.204**	ug/L	0.013	6	86	3672	4	Standard
	Pb	**208**	**0.104**	ug/L	0.002	2	191	2494	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFA1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 09:07:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	800020	3	Standard
	Be	**9**	**-0.000**	ug/L	0.000	142	27	36	7	Standard
	C	**13**		ug/L			17606	120339	1	Standard
	Cl	**37**		ug/L			6613771	12419191	4	Standard
>	**Sc**	**45**		ug/L			1108166	1110946	0	Standard
	V	**51**	**0.090**	ug/L	0.033	36	5706	7683	9	Standard
	V-1	**51**	**1.907**	ug/L	0.029	1	834	42935	1	Standard
	Cr	**52**	**0.565**	ug/L	0.014	2	16644	26585	1	Standard
	Cr	**53**	**6.765**	ug/L	0.122	1	322	14277	1	Standard
	Mn	**55**	**0.059**	ug/L	0.002	4	466	1938	2	Standard
>	**Ge-1**	**72**		ug/L			81114	71654	1	KED
	Co	**59**	**0.006**	ug/L	0.003	45	31	54	21	KED
	Ni	**60**	**0.026**	ug/L	0.010	36	44	70	15	KED
	Ni	**62**	**0.170**	ug/L	0.041	24	7	37	20	KED
	Cu	**63**	**0.032**	ug/L	0.004	12	57	149	8	KED
	Cu	**65**	**0.039**	ug/L	0.010	26	19	76	19	KED
	Zn	**66**	**0.204**	ug/L	0.018	8	56	135	6	KED
	Zn	**67**	**0.259**	ug/L	0.024	9	7	24	7	KED
	As	**75**	**0.023**	ug/L	0.013	57	6	12	30	KED
	Se-1	**78**	**0.039**	ug/L	0.096	247	25	23	13	KED
	Y	**89**		ug/L			619356	512326	2	Standard
	Kr	**83**		ug/L			31	111	17	Standard
>	**In-1**	**115**		ug/L			34809	30583	0	KED
	Mo	**98**	**402.870**	ug/L	8.562	2	3	488098	1	KED
	Cd	**111**	**0.080**	ug/L	0.013	15	2	32	15	KED
	Cd	**114**	**0.065**	ug/L	0.005	8	3	64	7	KED
>	**In**	**115**		ug/L			769572	686103	1	Standard
	Ag	**107**	**0.004**	ug/L	0.001	26	121	158	9	Standard
	Sb	**121**	**0.031**	ug/L	0.002	5	91	392	3	Standard
	Sb	**123**	**0.032**	ug/L	0.003	10	78	319	9	Standard
	Ba	**135**	**0.030**	ug/L	0.002	7	23	121	7	Standard
	Ba	**137**	**0.020**	ug/L	0.005	26	48	166	19	Standard
>	**Tb**	**159**		ug/L			1026127	1061365	0	Standard
	Tl	**205**	**0.001**	ug/L	0.001	55	86	115	12	Standard
	Pb	**208**	**0.018**	ug/L	0.002	13	191	624	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFB1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 09:12:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	814002	3	Standard
	Be	**9**	**-0.000**	ug/L	0.002	443	27	37	33	Standard
	C	**13**		ug/L			17606	121348	2	Standard
	Cl	**37**		ug/L			6613771	11977955	2	Standard
>	**Sc**	**45**		ug/L			1108166	1122050	0	Standard
	V	**51**	**-0.055**	ug/L	0.191	348	5706	4556	91	Standard
	V-1	**51**	**1.825**	ug/L	0.020	1	834	41534	1	Standard
	Cr	**52**	**19.391**	ug/L	0.439	2	16644	359925	1	Standard
	Cr	**53**	**25.041**	ug/L	0.372	1	322	52497	2	Standard
	Mn	**55**	**19.262**	ug/L	0.343	1	466	483440	2	Standard
>	**Ge-1**	**72**		ug/L			81114	68768	1	KED
	Co	**59**	**20.952**	ug/L	0.437	2	31	84931	1	KED
	Ni	**60**	**20.213**	ug/L	0.585	2	44	22968	1	KED
	Ni	**62**	**20.941**	ug/L	0.618	2	7	3622	1	KED
	Cu	**63**	**20.790**	ug/L	0.400	1	57	60957	0	KED
	Cu	**65**	**19.641**	ug/L	0.361	1	19	28540	2	KED
	Zn	**66**	**19.839**	ug/L	0.315	1	56	8018	0	KED
	Zn	**67**	**17.380**	ug/L	0.649	3	7	1166	4	KED
	As	**75**	**19.585**	ug/L	0.372	1	6	5291	0	KED
	Se-1	**78**	**0.042**	ug/L	0.188	445	25	23	29	KED
	Y	**89**		ug/L			619356	506550	1	Standard
	Kr	**83**		ug/L			31	128	12	Standard
>	**In-1**	**115**		ug/L			34809	29922	1	KED
	Mo	**98**	**393.450**	ug/L	14.950	3	3	466230	2	KED
	Cd	**111**	**19.482**	ug/L	0.663	3	2	7127	2	KED
	Cd	**114**	**19.243**	ug/L	0.971	5	3	18008	3	KED
>	**In**	**115**		ug/L			769572	701416	3	Standard
	Ag	**107**	**16.038**	ug/L	0.862	5	121	217499	1	Standard
	Sb	**121**	**0.023**	ug/L	0.003	13	91	318	7	Standard
	Sb	**123**	**0.023**	ug/L	0.002	7	78	258	3	Standard
	Ba	**135**	**0.035**	ug/L	0.008	22	23	142	21	Standard
	Ba	**137**	**0.023**	ug/L	0.003	12	48	187	13	Standard
>	**Tb**	**159**		ug/L			1026127	1099467	0	Standard
	Tl	**205**	**0.003**	ug/L	0.002	56	86	146	19	Standard
	Pb	**208**	**0.024**	ug/L	0.001	2	191	792	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 09:17:29
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	638723	5	Standard
⌊	**Be**	**9**	**178.739**	ug/L	8.712	4	27	977626	2	Standard
	C	**13**		ug/L			17606	20840	0	Standard
	Cl	**37**		ug/L			6613771	6409207	0	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1034597	2	Standard
⌈	**V**	**51**	**201.513**	ug/L	5.232	2	5706	4098465	1	Standard
⌈	**V-1**	**51**	**200.155**	ug/L	4.376	2	834	4114898	1	Standard
⌈	**Cr**	**52**	**202.231**	ug/L	6.926	3	16644	3313063	1	Standard
⌈	**Cr**	**53**	**197.551**	ug/L	4.362	2	322	379631	0	Standard
⌊	**Mn**	**55**	**199.247**	ug/L	4.093	2	466	4605146	1	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	68802	1	KED
⌈	**Co**	**59**	**205.008**	ug/L	9.051	4	31	831514	5	KED
⌈	**Ni**	**60**	**209.455**	ug/L	3.625	1	44	237794	0	KED
⌈	**Ni**	**62**	**216.712**	ug/L	4.372	2	7	37449	1	KED
⌈	**Cu**	**63**	**202.596**	ug/L	4.943	2	57	593844	1	KED
⌈	**Cu**	**65**	**203.514**	ug/L	2.364	1	19	295736	2	KED
⌈	**Zn**	**66**	**202.295**	ug/L	9.118	4	56	81347	3	KED
⌈	**Zn**	**67**	**195.323**	ug/L	9.584	4	7	13039	3	KED
⌈	**As**	**75**	**201.891**	ug/L	2.712	1	6	54522	0	KED
⌊	**Se-1**	**78**	**197.667**	ug/L	3.728	1	25	6924	0	KED
	Y	**89**		ug/L			619356	519327	0	Standard
	Kr	**83**		ug/L			31	102	26	Standard
⌈>	**In-1**	**115**		ug/L			34809	30467	2	KED
⌈	**Mo**	**98**	**205.274**	ug/L	11.685	5	3	247502	2	KED
⌈	**Cd**	**111**	**197.762**	ug/L	3.939	1	2	73646	1	KED
⌊	**Cd**	**114**	**199.341**	ug/L	8.450	4	3	189893	1	KED
⌈>	**In**	**115**		ug/L			769572	669410	2	Standard
⌈	**Ag**	**107**	**178.249**	ug/L	8.132	4	121	2307336	1	Standard
⌈	**Sb**	**121**	**198.332**	ug/L	5.897	2	91	1962443	0	Standard
⌈	**Sb**	**123**	**198.214**	ug/L	7.969	4	78	1524559	3	Standard
⌈	**Ba**	**135**	**212.353**	ug/L	8.328	3	23	693454	4	Standard
⌊	**Ba**	**137**	**196.222**	ug/L	0.598	0	48	1174334	2	Standard
⌈>	**Tb**	**159**		ug/L			1026127	987271	3	Standard
⌈	**Tl**	**205**	**209.493**	ug/L	9.333	4	86	3673049	1	Standard
⌊	**Pb**	**208**	**202.212**	ug/L	3.825	1	191	4461896	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 09:22:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	541508	7	Standard
	Be	**9**	**277.349**	ug/L	18.617	6	27	1283750	0	Standard
	C	**13**		ug/L			17606	20832	3	Standard
	Cl	**37**		ug/L			6613771	6402163	1	Standard
>	**Sc**	**45**		ug/L			1108166	1020628	0	Standard
	V	**51**	**301.397**	ug/L	5.477	1	5706	6047319	2	Standard
	V-1	**51**	**298.460**	ug/L	3.664	1	834	6055084	1	Standard
	Cr	**52**	**300.658**	ug/L	3.736	1	16644	4854411	1	Standard
	Cr	**53**	**290.634**	ug/L	3.068	1	322	551031	0	Standard
	Mn	**55**	**298.866**	ug/L	5.431	1	466	6815999	1	Standard
>	**Ge-1**	**72**		ug/L			81114	70744	0	KED
	Co	**59**	**294.992**	ug/L	2.458	0	31	1229911	0	KED
	Ni	**60**	**298.694**	ug/L	4.399	1	44	348721	1	KED
	Ni	**62**	**300.572**	ug/L	2.699	0	7	53413	1	KED
	Cu	**63**	**295.711**	ug/L	6.803	2	57	891379	2	KED
	Cu	**65**	**289.664**	ug/L	1.171	0	19	432761	1	KED
	Zn	**66**	**288.842**	ug/L	3.107	1	56	119452	1	KED
	Zn	**67**	**276.479**	ug/L	8.159	2	7	18981	2	KED
	As	**75**	**292.010**	ug/L	2.786	0	6	81089	0	KED
	Se-1	**78**	**279.258**	ug/L	3.087	1	25	10050	0	KED
	Y	**89**		ug/L			619356	533462	1	Standard
	Kr	**83**		ug/L			31	158	10	Standard
>	**In-1**	**115**		ug/L			34809	30926	2	KED
	Mo	**98**	**300.966**	ug/L	6.193	2	3	368667	0	KED
	Cd	**111**	**289.002**	ug/L	5.834	2	2	109257	0	KED
	Cd	**114**	**287.880**	ug/L	9.179	3	3	278481	1	KED
>	**In**	**115**		ug/L			769572	649062	0	Standard
	Ag	**107**	**269.045**	ug/L	8.871	3	121	3379427	3	Standard
	Sb	**121**	**296.601**	ug/L	4.438	1	91	2846926	1	Standard
	Sb	**123**	**292.622**	ug/L	9.374	3	78	2182918	2	Standard
	Ba	**135**	**294.477**	ug/L	4.424	1	23	932414	1	Standard
	Ba	**137**	**286.876**	ug/L	7.038	2	48	1664502	1	Standard
>	**Tb**	**159**		ug/L			1026127	911223	0	Standard
	Tl	**205**	**304.392**	ug/L	4.917	1	86	4931028	2	Standard
	Pb	**208**	**298.908**	ug/L	3.640	1	191	6089591	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 09:30:04
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	641060	1	Standard
	Be	**9**	**0.004**	ug/L	0.001	20	27	53	8	Standard
	C	**13**		ug/L			17606	21953	4	Standard
	Cl	**37**		ug/L			6613771	6416794	2	Standard
>	**Sc**	**45**		ug/L			1108166	1079571	1	Standard
	V	**51**	**0.001**	ug/L	0.003	227	5706	5583	0	Standard
	V-1	**51**	**-0.002**	ug/L	0.001	49	834	772	3	Standard
	Cr	**52**	**0.001**	ug/L	0.004	380	16644	16233	1	Standard
	Cr	**53**	**-0.009**	ug/L	0.003	35	322	295	3	Standard
	Mn	**55**	**0.017**	ug/L	0.001	5	466	862	2	Standard
>	**Ge-1**	**72**		ug/L			81114	80830	2	KED
	Co	**59**	**0.004**	ug/L	0.003	73	31	52	27	KED
	Ni	**60**	**-0.005**	ug/L	0.010	185	44	36	33	KED
	Ni	**62**	**0.010**	ug/L	0.051	494	7	9	105	KED
	Cu	**63**	**0.010**	ug/L	0.003	34	57	92	13	KED
	Cu	**65**	**0.012**	ug/L	0.007	60	19	39	28	KED
	Zn	**66**	**0.305**	ug/L	0.083	27	56	200	17	KED
	Zn	**67**	**0.274**	ug/L	0.107	38	7	29	30	KED
	As	**75**	**0.008**	ug/L	0.004	47	6	9	14	KED
	Se-1	**78**	**-0.061**	ug/L	0.053	87	25	23	11	KED
	Y	**89**		ug/L			619356	587647	4	Standard
	Kr	**83**		ug/L			31	35	44	Standard
>	**In-1**	**115**		ug/L			34809	33855	1	KED
	Mo	**98**	**0.050**	ug/L	0.011	22	3	70	21	KED
	Cd	**111**	**0.006**	ug/L	0.005	74	2	4	40	KED
	Cd	**114**	**0.008**	ug/L	0.001	10	3	11	9	KED
>	**In**	**115**		ug/L			769572	707633	3	Standard
	Ag	**107**	**0.006**	ug/L	0.002	37	121	191	12	Standard
	Sb	**121**	**0.553**	ug/L	0.024	4	91	5867	5	Standard
	Sb	**123**	**0.531**	ug/L	0.018	3	78	4387	4	Standard
	Ba	**135**	**0.016**	ug/L	0.003	19	23	76	11	Standard
	Ba	**137**	**0.012**	ug/L	0.002	14	48	120	8	Standard
>	**Tb**	**159**		ug/L			1026127	1028314	1	Standard
	Tl	**205**	**0.053**	ug/L	0.002	3	86	1054	3	Standard
	Pb	**208**	**0.013**	ug/L	0.002	14	191	480	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 09:36:54
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	642631	9	Standard
	Be	**9**	**-0.002**	ug/L	0.001	60	27	22	34	Standard
	C	**13**		ug/L			17606	21970	2	Standard
	Cl	**37**		ug/L			6613771	6483075	2	Standard
>	**Sc**	**45**		ug/L			1108166	1058376	1	Standard
	V	**51**	**-0.004**	ug/L	0.003	80	5706	5360	1	Standard
	V-1	**51**	**-0.007**	ug/L	0.003	35	834	640	10	Standard
	Cr	**52**	**0.002**	ug/L	0.004	202	16644	15931	1	Standard
	Cr	**53**	**-0.009**	ug/L	0.008	88	322	290	7	Standard
	Mn	**55**	**0.014**	ug/L	0.001	9	466	778	5	Standard
>	**Ge-1**	**72**		ug/L			81114	79143	0	KED
	Co	**59**	**0.001**	ug/L	0.002	168	31	37	28	KED
	Ni	**60**	**-0.017**	ug/L	0.005	30	44	20	32	KED
	Ni	**62**	**-0.005**	ug/L	0.015	267	7	6	45	KED
	Cu	**63**	**0.003**	ug/L	0.003	125	57	65	17	KED
	Cu	**65**	**0.009**	ug/L	0.002	19	19	34	8	KED
	Zn	**66**	**0.333**	ug/L	0.026	7	56	208	5	KED
	Zn	**67**	**0.259**	ug/L	0.112	43	7	27	31	KED
	As	**75**	**-0.002**	ug/L	0.001	62	6	6	4	KED
	Se-1	**78**	**-0.004**	ug/L	0.038	910	25	24	5	KED
	Y	**89**		ug/L			619356	585053	2	Standard
	Kr	**83**		ug/L			31	33	25	Standard
>	**In-1**	**115**		ug/L			34809	33636	0	KED
	Mo	**98**	**0.012**	ug/L	0.008	65	3	19	54	KED
	Cd	**111**	**0.002**	ug/L	0.004	231	2	2	57	KED
	Cd	**114**	**0.002**	ug/L	0.003	160	3	4	61	KED
>	**In**	**115**		ug/L			769572	738103	2	Standard
	Ag	**107**	**-0.001**	ug/L	0.001	113	121	102	17	Standard
	Sb	**121**	**0.150**	ug/L	0.005	3	91	1727	5	Standard
	Sb	**123**	**0.142**	ug/L	0.008	5	78	1282	7	Standard
	Ba	**135**	**0.011**	ug/L	0.004	39	23	62	27	Standard
	Ba	**137**	**0.009**	ug/L	0.002	24	48	104	11	Standard
>	**Tb**	**159**		ug/L			1026127	1022502	3	Standard
	Tl	**205**	**0.029**	ug/L	0.002	7	86	606	6	Standard
	Pb	**208**	**0.007**	ug/L	0.001	11	191	361	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 09:42:04
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	592367	5	Standard
⌊	**Be**	**9**	**47.429**	ug/L	1.006	2	27	240841	2	Standard
	C	**13**		ug/L			17606	17701	2	Standard
	Cl	**37**		ug/L			6613771	6610951	1	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1085028	1	Standard
⌈	**V**	**51**	**49.346**	ug/L	0.972	1	5706	1057094	1	Standard
⌊	**V-1**	**51**	**49.130**	ug/L	0.958	1	834	1060164	1	Standard
⌈	**Cr**	**52**	**49.478**	ug/L	0.669	1	16644	862744	0	Standard
⌊	**Cr**	**53**	**48.733**	ug/L	0.896	1	322	98471	0	Standard
⌊	**Mn**	**55**	**49.703**	ug/L	0.410	0	466	1205579	2	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	78313	1	KED
⌈	**Co**	**59**	**51.143**	ug/L	0.561	1	31	236097	2	KED
⌈	**Ni**	**60**	**49.853**	ug/L	1.301	2	44	64452	1	KED
⌊	**Ni**	**62**	**52.488**	ug/L	1.623	3	7	10328	1	KED
⌈	**Cu**	**63**	**51.742**	ug/L	1.772	3	57	172730	4	KED
⌊	**Cu**	**65**	**51.227**	ug/L	2.169	4	19	84711	3	KED
⌈	**Zn**	**66**	**50.315**	ug/L	1.993	3	56	23069	2	KED
⌊	**Zn**	**67**	**51.259**	ug/L	1.033	2	7	3901	1	KED
⌈	**As**	**75**	**49.284**	ug/L	0.398	0	6	15155	1	KED
⌊	**Se-1**	**78**	**48.257**	ug/L	0.803	1	25	1942	0	KED
	Y	**89**		ug/L			619356	589700	1	Standard
	Kr	**83**		ug/L			31	41	16	Standard
⌈>	**In-1**	**115**		ug/L			34809	33889	1	KED
⌈	**Mo**	**98**	**49.183**	ug/L	0.922	1	3	66027	0	KED
⌊	**Cd**	**111**	**48.690**	ug/L	0.826	1	2	20175	0	KED
⌊	**Cd**	**114**	**49.181**	ug/L	1.170	2	3	52155	2	KED
⌈>	**In**	**115**		ug/L			769572	718265	1	Standard
⌈	**Ag**	**107**	**47.289**	ug/L	1.676	3	121	657187	2	Standard
⌈	**Sb**	**121**	**49.137**	ug/L	2.172	4	91	521909	3	Standard
⌊	**Sb**	**123**	**49.134**	ug/L	1.582	3	78	405646	2	Standard
⌈	**Ba**	**135**	**52.962**	ug/L	1.360	2	23	185574	2	Standard
⌊	**Ba**	**137**	**50.645**	ug/L	0.754	1	48	325213	0	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1007109	2	Standard
⌈	**Tl**	**205**	**51.329**	ug/L	2.263	4	86	918460	2	Standard
⌊	**Pb**	**208**	**51.238**	ug/L	1.650	3	191	1153404	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 09:51:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	585885	3	Standard
	Be	**9**	**-0.002**	ug/L	0.001	55	27	20	19	Standard
	C	**13**		ug/L			17606	17772	4	Standard
	Cl	**37**		ug/L			6613771	6710519	2	Standard
>	**Sc**	**45**		ug/L			1108166	1064139	2	Standard
	V	**51**	**-0.004**	ug/L	0.003	80	5706	5391	1	Standard
	V-1	**51**	**-0.014**	ug/L	0.002	12	834	510	4	Standard
	Cr	**52**	**-0.006**	ug/L	0.012	204	16644	15880	1	Standard
	Cr	**53**	**-0.038**	ug/L	0.006	15	322	233	2	Standard
	Mn	**55**	**-0.001**	ug/L	0.001	100	466	427	4	Standard
>	**Ge-1**	**72**		ug/L			81114	81496	3	KED
	Co	**59**	**0.001**	ug/L	0.001	151	31	36	15	KED
	Ni	**60**	**0.010**	ug/L	0.003	25	44	58	9	KED
	Ni	**62**	**0.029**	ug/L	0.050	171	7	13	74	KED
	Cu	**63**	**-0.002**	ug/L	0.003	167	57	51	19	KED
	Cu	**65**	**0.004**	ug/L	0.003	69	19	27	22	KED
	Zn	**66**	**0.005**	ug/L	0.014	284	56	59	8	KED
	Zn	**67**	**0.008**	ug/L	0.016	205	7	8	13	KED
	As	**75**	**-0.002**	ug/L	0.005	297	6	6	27	KED
	Se-1	**78**	**-0.036**	ug/L	0.046	125	25	24	4	KED
	Y	**89**		ug/L			619356	593218	2	Standard
	Kr	**83**		ug/L			31	45	25	Standard
>	**In-1**	**115**		ug/L			34809	32234	12	KED
	Mo	**98**	**0.016**	ug/L	0.008	46	3	23	27	KED
	Cd	**111**	**0.001**	ug/L	0.007	643	2	2	114	KED
	Cd	**114**	**-0.000**	ug/L	0.002	653	3	2	90	KED
>	**In**	**115**		ug/L			769572	725834	3	Standard
	Ag	**107**	**-0.003**	ug/L	0.001	16	121	71	13	Standard
	Sb	**121**	**0.170**	ug/L	0.007	3	91	1909	4	Standard
	Sb	**123**	**0.161**	ug/L	0.003	2	78	1414	1	Standard
	Ba	**135**	**-0.002**	ug/L	0.002	81	23	13	51	Standard
	Ba	**137**	**-0.004**	ug/L	0.001	14	48	17	22	Standard
>	**Tb**	**159**		ug/L			1026127	1016494	3	Standard
	Tl	**205**	**0.004**	ug/L	0.001	15	86	150	4	Standard
	Pb	**208**	**-0.002**	ug/L	0.001	32	191	147	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0506-BLK1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 09:56:20
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	643062	6	Standard
	Be	**9**	**-0.002**	ug/L	0.001	42	27	21	13	Standard
	C	**13**		ug/L			17606	23296	2	Standard
	Cl	**37**		ug/L			6613771	6615757	3	Standard
>	**Sc**	**45**		ug/L			1108166	1099762	1	Standard
	V	**51**	**-0.003**	ug/L	0.008	269	5706	5596	4	Standard
	V-1	**51**	**-0.014**	ug/L	0.001	5	834	514	4	Standard
	Cr	**52**	**-0.004**	ug/L	0.029	696	16644	16448	3	Standard
	Cr	**53**	**-0.042**	ug/L	0.005	10	322	233	3	Standard
	Mn	**55**	**0.009**	ug/L	0.002	20	466	680	6	Standard
>	**Ge-1**	**72**		ug/L			81114	80717	0	KED
	Co	**59**	**0.002**	ug/L	0.004	176	31	43	47	KED
	Ni	**60**	**-0.013**	ug/L	0.007	56	44	27	35	KED
	Ni	**62**	**-0.006**	ug/L	0.023	381	7	6	75	KED
	Cu	**63**	**-0.002**	ug/L	0.002	137	57	52	15	KED
	Cu	**65**	**0.003**	ug/L	0.002	54	19	25	11	KED
	Zn	**66**	**0.199**	ug/L	0.043	21	56	149	12	KED
	Zn	**67**	**0.130**	ug/L	0.054	41	7	17	24	KED
	As	**75**	**-0.004**	ug/L	0.002	62	6	5	13	KED
	Se-1	**78**	**-0.001**	ug/L	0.059	4981	25	25	10	KED
	Y	**89**		ug/L			619356	589916	1	Standard
	Kr	**83**		ug/L			31	43	31	Standard
>	**In-1**	**115**		ug/L			34809	34484	1	KED
	Mo	**98**	**0.005**	ug/L	0.007	139	3	10	91	KED
	Cd	**111**	**-0.003**	ug/L	0.002	76	2	0	100	KED
	Cd	**114**	**0.000**	ug/L	0.002	1231	3	3	57	KED
>	**In**	**115**		ug/L			769572	737477	2	Standard
	Ag	**107**	**-0.004**	ug/L	0.001	14	121	55	18	Standard
	Sb	**121**	**0.050**	ug/L	0.002	4	91	631	6	Standard
	Sb	**123**	**0.053**	ug/L	0.003	5	78	519	3	Standard
	Ba	**135**	**0.306**	ug/L	0.010	3	23	1123	4	Standard
	Ba	**137**	**0.304**	ug/L	0.007	2	48	2048	3	Standard
>	**Tb**	**159**		ug/L			1026127	1024645	2	Standard
	Tl	**205**	**0.001**	ug/L	0.001	78	86	108	15	Standard
	Pb	**208**	**0.005**	ug/L	0.001	21	191	295	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0174-02
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 10:01:16
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	661103	5	Standard
	Be	9	0.072	ug/L	0.009	12	27	436	6	Standard
	C	13		ug/L			17606	30783	2	Standard
	Cl	37		ug/L			6613771	6740786	4	Standard
>	Sc	45		ug/L			1108166	1158289	1	Standard
	V	51	23.819	ug/L	0.089	0	5706	547815	1	Standard
	V-1	51	23.628	ug/L	0.067	0	834	544811	1	Standard
	Cr	52	6.980	ug/L	0.346	4	16644	144856	3	Standard
	Cr	53	7.006	ug/L	0.164	2	322	15407	3	Standard
	Mn	55	74.318	ug/L	4.341	5	466	1924474	6	Standard
>	Ge-1	72		ug/L			81114	81994	3	KED
	Co	59	2.322	ug/L	0.026	1	31	11252	2	KED
	Ni	60	5.049	ug/L	0.179	3	44	6870	1	KED
	Ni	62	5.083	ug/L	0.151	2	7	1054	1	KED
	Cu	63	8.538	ug/L	0.190	2	57	29888	3	KED
	Cu	65	8.414	ug/L	0.359	4	19	14576	1	KED
	Zn	66	22.550	ug/L	0.657	2	56	10854	0	KED
	Zn	67	22.201	ug/L	1.040	4	7	1772	1	KED
	As	75	1.970	ug/L	0.050	2	6	640	1	KED
	Se-1	78	0.168	ug/L	0.069	40	25	32	10	KED
	Y	89		ug/L			619356	714103	4	Standard
	Kr	83		ug/L			31	58	17	Standard
>	In-1	115		ug/L			34809	35684	1	KED
	Mo	98	0.111	ug/L	0.020	18	3	159	16	KED
	Cd	111	0.020	ug/L	0.004	18	2	11	13	KED
	Cd	114	0.022	ug/L	0.005	21	3	27	17	KED
>	In	115		ug/L			769572	744847	3	Standard
	Ag	107	0.028	ug/L	0.005	19	121	518	11	Standard
	Sb	121	0.045	ug/L	0.001	3	91	583	4	Standard
	Sb	123	0.045	ug/L	0.006	13	78	460	13	Standard
	Ba	135	13.103	ug/L	0.583	4	23	47596	3	Standard
	Ba	137	12.830	ug/L	0.618	4	48	85444	4	Standard
>	Tb	159		ug/L			1026127	1034747	3	Standard
	Tl	205	0.020	ug/L	0.001	4	86	452	5	Standard
	Pb	208	2.764	ug/L	0.114	4	191	64089	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0241-01
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 10:06:11
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	Li	6		ug/L			572696	654672	9	Standard
⌊	Be	9	0.088	ug/L	0.014	15	27	521	12	Standard
	C	13		ug/L			17606	40275	1	Standard
	Cl	37		ug/L			6613771	6896056	0	Standard
⌈>	Sc	45		ug/L			1108166	1184476	2	Standard
⌈	V	51	28.366	ug/L	1.257	4	5706	665563	2	Standard
⌊	V-1	51	28.286	ug/L	1.222	4	834	666324	2	Standard
⌈	Cr	52	12.719	ug/L	0.459	3	16644	255227	1	Standard
⌊	Cr	53	13.074	ug/L	0.393	3	322	29083	0	Standard
	Mn	55	183.487	ug/L	6.583	3	466	4854259	1	Standard
⌈>	Ge-1	72		ug/L			81114	81441	2	KED
⌈	Co	59	3.792	ug/L	0.139	3	31	18223	2	KED
⌊	Ni	60	12.806	ug/L	0.445	3	44	17248	3	KED
	Ni	62	13.116	ug/L	0.532	4	7	2688	1	KED
⌈	Cu	63	10.763	ug/L	0.347	3	57	37393	2	KED
⌊	Cu	65	10.653	ug/L	0.185	1	19	18336	1	KED
⌈	Zn	66	40.455	ug/L	1.933	4	56	19292	2	KED
⌊	Zn	67	37.244	ug/L	1.795	4	7	2948	2	KED
⌈	As	75	5.854	ug/L	0.169	2	6	1876	0	KED
⌊	Se-1	78	0.174	ug/L	0.124	71	25	32	16	KED
	Y	89		ug/L			619356	762079	0	Standard
	Kr	83		ug/L			31	52	16	Standard
⌈>	In-1	115		ug/L			34809	35369	2	KED
⌈	Mo	98	0.363	ug/L	0.006	1	3	512	3	KED
⌈	Cd	111	0.037	ug/L	0.006	15	2	18	15	KED
⌊	Cd	114	0.033	ug/L	0.007	20	3	39	21	KED
⌈>	In	115		ug/L			769572	736766	1	Standard
⌈	Ag	107	0.027	ug/L	0.001	5	121	495	2	Standard
⌈	Sb	121	0.594	ug/L	0.023	3	91	6555	1	Standard
⌊	Sb	123	0.555	ug/L	0.004	0	78	4775	2	Standard
⌈	Ba	135	14.446	ug/L	0.196	1	23	51948	2	Standard
⌊	Ba	137	14.143	ug/L	0.194	1	48	93190	1	Standard
⌈>	Tb	159		ug/L			1026127	1082289	4	Standard
⌈	Tl	205	0.023	ug/L	0.004	17	86	524	10	Standard
⌊	Pb	208	39.939	ug/L	1.613	4	191	965618	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0241-02
Sample Dil Factor: 20 DEL
Comments:
Sample Date/Time: Thursday, June 28, 2018 10:11:06
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	702700	1	Standard
	Be	**9**	**0.100**	ug/L	0.006	5	27	638	3	Standard
	C	**13**		ug/L			17606	33421	2	Standard
	Cl	**37**		ug/L			6613771	6804605	2	Standard
>	**Sc**	**45**		ug/L			1108166	1189381	2	Standard
	V	**51**	**25.807**	ug/L	0.530	2	5706	608935	2	Standard
	V-1	**51**	**25.506**	ug/L	0.481	1	834	603771	2	Standard
	Cr	**52**	**6.870**	ug/L	0.171	2	16644	146676	1	Standard
	Cr	**53**	**6.601**	ug/L	0.025	0	322	14923	1	Standard
	Mn	**55**	**71.951**	ug/L	2.059	2	466	1911980	1	Standard
>	**Ge-1**	**72**		ug/L			81114	81073	1	KED
	Co	**59**	**2.514**	ug/L	0.046	1	31	12045	2	KED
	Ni	**60**	**5.993**	ug/L	0.169	2	44	8060	2	KED
	Ni	**62**	**6.021**	ug/L	0.509	8	7	1233	7	KED
	Cu	**63**	**7.824**	ug/L	0.103	1	57	27084	2	KED
	Cu	**65**	**7.603**	ug/L	0.130	1	19	13035	1	KED
	Zn	**66**	**19.534**	ug/L	0.433	2	56	9310	2	KED
	Zn	**67**	**18.156**	ug/L	0.352	1	7	1435	2	KED
	As	**75**	**2.304**	ug/L	0.048	2	6	739	1	KED
	Se-1	**78**	**0.248**	ug/L	0.097	39	25	35	9	KED
	Y	**89**		ug/L			619356	722632	4	Standard
	Kr	**83**		ug/L			31	43	23	Standard
>	**In-1**	**115**		ug/L			34809	33874	4	KED
	Mo	**98**	**0.142**	ug/L	0.010	6	3	193	11	KED
	Cd	**111**	**0.191**	ug/L	0.311	162	2	79	157	KED
	Cd	**114**	**0.082**	ug/L	0.112	136	3	87	131	KED
>	**In**	**115**		ug/L			769572	740001	2	Standard
	Ag	**107**	**0.016**	ug/L	0.003	21	121	347	11	Standard
	Sb	**121**	**0.022**	ug/L	0.002	9	91	333	7	Standard
	Sb	**123**	**0.023**	ug/L	0.003	13	78	272	12	Standard
	Ba	**135**	**10.148**	ug/L	0.432	4	23	36641	3	Standard
	Ba	**137**	**9.785**	ug/L	0.662	6	48	64726	5	Standard
>	**Tb**	**159**		ug/L			1026127	1045989	0	Standard
	Tl	**205**	**0.020**	ug/L	0.001	4	86	460	3	Standard
	Pb	**208**	**1.549**	ug/L	0.005	0	191	36428	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0241-03
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 10:16:02
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	703119	10	Standard
	Be	9	0.057	ug/L	0.008	13	27	374	2	Standard
	C	13		ug/L			17606	31612	2	Standard
	Cl	37		ug/L			6613771	6832449	2	Standard
>	Sc	45		ug/L			1108166	1155674	1	Standard
	V	51	24.983	ug/L	0.477	1	5706	572926	1	Standard
	V-1	51	24.808	ug/L	0.463	1	834	570582	1	Standard
	Cr	52	6.996	ug/L	0.215	3	16644	144808	1	Standard
	Cr	53	7.121	ug/L	0.138	1	322	15613	0	Standard
	Mn	55	56.451	ug/L	1.374	2	466	1457903	1	Standard
>	Ge-1	72		ug/L			81114	81330	1	KED
	Co	59	1.959	ug/L	0.035	1	31	9424	3	KED
	Ni	60	4.742	ug/L	0.122	2	44	6406	0	KED
	Ni	62	5.311	ug/L	0.417	7	7	1092	8	KED
	Cu	63	9.183	ug/L	0.060	0	57	31880	2	KED
	Cu	65	9.133	ug/L	0.243	2	19	15701	1	KED
	Zn	66	19.198	ug/L	0.999	5	56	9175	3	KED
	Zn	67	18.303	ug/L	1.208	6	7	1451	6	KED
	As	75	2.121	ug/L	0.044	2	6	683	1	KED
	Se-1	78	0.242	ug/L	0.163	67	25	35	17	KED
	Y	89		ug/L			619356	683742	2	Standard
	Kr	83		ug/L			31	54	21	Standard
>	In-1	115		ug/L			34809	34604	3	KED
	Mo	98	0.180	ug/L	0.037	20	3	249	16	KED
	Cd	111	0.025	ug/L	0.009	36	2	12	26	KED
	Cd	114	0.025	ug/L	0.007	26	3	29	20	KED
>	In	115		ug/L			769572	734506	0	Standard
	Ag	107	0.025	ug/L	0.003	11	121	467	8	Standard
	Sb	121	0.022	ug/L	0.004	16	91	328	11	Standard
	Sb	123	0.021	ug/L	0.000	1	78	249	1	Standard
	Ba	135	11.606	ug/L	0.457	3	23	41606	3	Standard
	Ba	137	11.101	ug/L	0.633	5	48	72936	5	Standard
>	Tb	159		ug/L			1026127	1045212	2	Standard
	Tl	205	0.021	ug/L	0.005	22	86	473	16	Standard
	Pb	208	2.990	ug/L	0.161	5	191	70018	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0506-DUP1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 10:20:57
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	692054	8	Standard
	Be	9	0.052	ug/L	0.008	15	27	341	13	Standard
	C	13		ug/L			17606	41030	2	Standard
	Cl	37		ug/L			6613771	6790491	2	Standard
>	Sc	45		ug/L			1108166	1171893	1	Standard
	V	51	26.265	ug/L	0.311	1	5706	610512	1	Standard
	V-1	51	25.976	ug/L	0.274	1	834	605850	1	Standard
	Cr	52	7.278	ug/L	0.225	3	16644	152046	1	Standard
	Cr	53	7.054	ug/L	0.029	0	322	15690	1	Standard
	Mn	55	72.566	ug/L	0.737	1	466	1900459	0	Standard
>	Ge-1	72		ug/L			81114	82015	3	KED
	Co	59	2.381	ug/L	0.018	0	31	11542	4	KED
	Ni	60	4.912	ug/L	0.379	7	44	6680	4	KED
	Ni	62	4.997	ug/L	0.063	1	7	1036	2	KED
	Cu	63	7.492	ug/L	0.258	3	57	26216	0	KED
	Cu	65	7.267	ug/L	0.224	3	19	12610	5	KED
	Zn	66	19.053	ug/L	1.059	5	56	9176	2	KED
	Zn	67	19.424	ug/L	2.035	10	7	1549	6	KED
	As	75	1.880	ug/L	0.047	2	6	611	4	KED
	Se-1	78	0.307	ug/L	0.095	30	25	38	8	KED
	Y	89		ug/L			619356	704802	3	Standard
	Kr	83		ug/L			31	42	6	Standard
>	In-1	115		ug/L			34809	35017	1	KED
	Mo	98	2.294	ug/L	0.011	0	3	3185	1	KED
	Cd	111	0.022	ug/L	0.005	22	2	11	16	KED
	Cd	114	0.022	ug/L	0.007	34	3	27	28	KED
>	In	115		ug/L			769572	732453	1	Standard
	Ag	107	0.025	ug/L	0.001	3	121	475	3	Standard
	Sb	121	0.014	ug/L	0.002	13	91	240	8	Standard
	Sb	123	0.013	ug/L	0.000	3	78	181	0	Standard
	Ba	135	15.134	ug/L	0.156	1	23	54095	0	Standard
	Ba	137	14.590	ug/L	0.241	1	48	95603	3	Standard
>	Tb	159		ug/L			1026127	1080576	0	Standard
	Tl	205	0.019	ug/L	0.002	12	86	447	9	Standard
	Pb	208	1.867	ug/L	0.005	0	191	45313	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0174-01
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 10:25:53
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	704176	4	Standard
⌊	**Be**	**9**	**0.061**	ug/L	0.005	8	27	401	7	Standard
	C	**13**		ug/L			17606	32334	0	Standard
	Cl	**37**		ug/L			6613771	6719681	2	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1141276	1	Standard
⎢	**V**	**51**	**25.691**	ug/L	0.694	2	5706	581640	2	Standard
⎢	**V-1**	**51**	**25.428**	ug/L	0.684	2	834	577511	2	Standard
⎢	**Cr**	**52**	**7.759**	ug/L	0.112	1	16644	156754	0	Standard
⎢	**Cr**	**53**	**7.582**	ug/L	0.207	2	322	16392	0	Standard
⌊	**Mn**	**55**	**72.991**	ug/L	3.084	4	466	1860921	2	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	82042	2	KED
⎢	**Co**	**59**	**2.358**	ug/L	0.094	3	31	11435	4	KED
⎢	**Ni**	**60**	**4.842**	ug/L	0.165	3	44	6599	4	KED
⎢	**Ni**	**62**	**4.978**	ug/L	0.311	6	7	1033	5	KED
⎢	**Cu**	**63**	**8.874**	ug/L	0.265	2	57	31078	3	KED
⎢	**Cu**	**65**	**8.759**	ug/L	0.367	4	19	15189	3	KED
⎢	**Zn**	**66**	**21.233**	ug/L	0.181	0	56	10234	1	KED
⎢	**Zn**	**67**	**20.644**	ug/L	0.605	2	7	1651	4	KED
⎢	**As**	**75**	**1.938**	ug/L	0.061	3	6	630	4	KED
⌊	**Se-1**	**78**	**0.284**	ug/L	0.077	27	25	37	6	KED
	Y	**89**		ug/L			619356	708719	2	Standard
	Kr	**83**		ug/L			31	49	10	Standard
⌈>	**In-1**	**115**		ug/L			34809	34133	3	KED
⎢	**Mo**	**98**	**0.113**	ug/L	0.007	5	3	155	8	KED
⎢	**Cd**	**111**	**0.029**	ug/L	0.010	34	2	14	30	KED
⌊	**Cd**	**114**	**0.024**	ug/L	0.006	25	3	28	24	KED
⌈>	**In**	**115**		ug/L			769572	745851	1	Standard
⎢	**Ag**	**107**	**0.024**	ug/L	0.002	10	121	471	6	Standard
⎢	**Sb**	**121**	**0.013**	ug/L	0.001	8	91	235	6	Standard
⎢	**Sb**	**123**	**0.016**	ug/L	0.001	6	78	209	3	Standard
⎢	**Ba**	**135**	**12.795**	ug/L	0.328	2	23	46571	1	Standard
⌊	**Ba**	**137**	**12.407**	ug/L	0.508	4	48	82755	3	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1038810	2	Standard
⎢	**Tl**	**205**	**0.020**	ug/L	0.003	15	86	448	10	Standard
⌊	**Pb**	**208**	**2.322**	ug/L	0.073	3	191	54085	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0506-MS1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 10:30:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	677114	7	Standard
	Be	9	22.436	ug/L	2.392	10	27	129693	4	Standard
	C	13		ug/L			17606	30340	4	Standard
	Cl	37		ug/L			6613771	6899208	3	Standard
>	Sc	45		ug/L			1108166	1153241	1	Standard
	V	51	49.910	ug/L	0.379	0	5706	1136499	1	Standard
	V-1	51	49.860	ug/L	0.242	0	834	1143686	1	Standard
	Cr	52	31.589	ug/L	0.533	1	16644	591700	0	Standard
	Cr	53	32.154	ug/L	1.388	4	322	69160	3	Standard
	Mn	55	108.634	ug/L	2.807	2	466	2799207	1	Standard
>	Ge-1	72		ug/L			81114	82619	2	KED
	Co	59	27.476	ug/L	0.707	2	31	133768	1	KED
	Ni	60	30.706	ug/L	0.736	2	44	41888	0	KED
	Ni	62	31.525	ug/L	1.721	5	7	6545	4	KED
	Cu	63	33.958	ug/L	0.336	0	57	119582	1	KED
	Cu	65	33.872	ug/L	0.582	1	19	59124	3	KED
	Zn	66	99.971	ug/L	3.794	3	56	48288	1	KED
	Zn	67	93.837	ug/L	1.697	1	7	7527	1	KED
	As	75	25.396	ug/L	0.429	1	6	8240	0	KED
	Se-1	78	75.810	ug/L	1.783	2	25	3204	1	KED
	Y	89		ug/L			619356	723285	1	Standard
	Kr	83		ug/L			31	57	25	Standard
>	In-1	115		ug/L			34809	33893	4	KED
	Mo	98	0.117	ug/L	0.009	7	3	159	7	KED
	Cd	111	25.345	ug/L	1.043	4	2	10493	0	KED
	Cd	114	24.900	ug/L	1.057	4	3	26379	0	KED
>	In	115		ug/L			769572	738032	4	Standard
	Ag	107	24.034	ug/L	1.621	6	121	342688	2	Standard
	Sb	121	0.014	ug/L	0.001	7	91	236	3	Standard
	Sb	123	0.011	ug/L	0.001	9	78	170	7	Standard
	Ba	135	41.221	ug/L	0.624	1	23	148455	5	Standard
	Ba	137	40.276	ug/L	2.330	5	48	265320	1	Standard
>	Tb	159		ug/L			1026127	1044298	1	Standard
	Tl	205	26.699	ug/L	0.477	1	86	495782	3	Standard
	Pb	208	29.588	ug/L	0.766	2	191	690913	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0506-MSD1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 10:35:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	682792	11	Standard
⌊	**Be**	**9**	**21.247**	ug/L	2.422	11	27	123399	0	Standard
	C	**13**		ug/L			17606	28595	3	Standard
	Cl	**37**		ug/L			6613771	6791166	1	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1143066	1	Standard
⌈	**V**	**51**	**47.750**	ug/L	0.090	0	5706	1077914	1	Standard
⌊	**V-1**	**51**	**47.479**	ug/L	0.162	0	834	1079491	1	Standard
⌈	**Cr**	**52**	**30.912**	ug/L	0.168	0	16644	574327	0	Standard
⌊	**Cr**	**53**	**30.661**	ug/L	0.278	0	322	65403	1	Standard
⌊	**Mn**	**55**	**104.173**	ug/L	1.395	1	466	2661306	2	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	80290	3	KED
⌈	**Co**	**59**	**27.367**	ug/L	0.908	3	31	129420	0	KED
⌊	**Ni**	**60**	**30.986**	ug/L	2.079	6	44	41025	2	KED
⌈	**Ni**	**62**	**31.681**	ug/L	1.535	4	7	6389	2	KED
⌊	**Cu**	**63**	**34.707**	ug/L	1.415	4	57	118669	0	KED
⌈	**Cu**	**65**	**33.527**	ug/L	1.126	3	19	56826	2	KED
⌊	**Zn**	**66**	**101.340**	ug/L	3.187	3	56	47561	0	KED
⌈	**Zn**	**67**	**92.635**	ug/L	3.022	3	7	7218	1	KED
⌊	**As**	**75**	**25.534**	ug/L	0.707	2	6	8048	1	KED
⌊	**Se-1**	**78**	**75.106**	ug/L	3.376	4	25	3083	1	KED
	Y	**89**		ug/L			619356	710158	3	Standard
	Kr	**83**		ug/L			31	50	10	Standard
⌈>	**In-1**	**115**		ug/L			34809	34276	2	KED
⌈	**Mo**	**98**	**0.174**	ug/L	0.015	8	3	239	6	KED
⌊	**Cd**	**111**	**24.185**	ug/L	0.451	1	2	10135	0	KED
⌊	**Cd**	**114**	**23.753**	ug/L	0.759	3	3	25467	1	KED
⌈>	**In**	**115**		ug/L			769572	700045	3	Standard
⌈	**Ag**	**107**	**23.896**	ug/L	0.744	3	121	323589	0	Standard
⌊	**Sb**	**121**	**0.023**	ug/L	0.003	11	91	319	5	Standard
⌈	**Sb**	**123**	**0.023**	ug/L	0.004	16	78	253	15	Standard
⌊	**Ba**	**135**	**40.746**	ug/L	1.924	4	23	139020	1	Standard
⌈	**Ba**	**137**	**39.999**	ug/L	2.136	5	48	250342	6	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1032128	2	Standard
⌈	**Tl**	**205**	**25.850**	ug/L	0.734	2	86	474176	0	Standard
⌊	**Pb**	**208**	**27.759**	ug/L	0.974	3	191	640474	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0506-BS1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 10:40:39
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	661636	7	Standard
⌊	**Be**	**9**	**21.478**	ug/L	0.976	4	27	121652	3	Standard
	C	**13**		ug/L			17606	22517	0	Standard
	Cl	**37**		ug/L			6613771	6869867	2	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1077121	2	Standard
⌈	**V**	**51**	**25.182**	ug/L	0.640	2	5706	538173	2	Standard
⌊	**V-1**	**51**	**25.225**	ug/L	0.710	2	834	540661	2	Standard
⌈	**Cr**	**52**	**25.277**	ug/L	0.224	0	16644	445466	1	Standard
⌊	**Cr**	**53**	**25.419**	ug/L	0.566	2	322	51133	0	Standard
⌊	**Mn**	**55**	**26.129**	ug/L	0.614	2	466	629191	2	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	81088	1	KED
⌈	**Co**	**59**	**25.096**	ug/L	0.626	2	31	119966	3	KED
⌊	**Ni**	**60**	**26.090**	ug/L	0.328	1	44	34951	1	KED
⌈	**Ni**	**62**	**26.933**	ug/L	0.749	2	7	5491	1	KED
⌈	**Cu**	**63**	**26.493**	ug/L	0.293	1	57	91582	0	KED
⌊	**Cu**	**65**	**25.941**	ug/L	0.491	1	19	44431	0	KED
⌈	**Zn**	**66**	**82.781**	ug/L	2.880	3	56	39267	2	KED
⌊	**Zn**	**67**	**75.736**	ug/L	4.893	6	7	5961	4	KED
⌈	**As**	**75**	**24.241**	ug/L	0.572	2	6	7720	0	KED
⌊	**Se-1**	**78**	**77.545**	ug/L	0.938	1	25	3217	0	KED
	Y	**89**		ug/L			619356	595268	3	Standard
	Kr	**83**		ug/L			31	42	22	Standard
⌈>	**In-1**	**115**		ug/L			34809	34637	1	KED
⌈	**Mo**	**98**	**0.001**	ug/L	0.002	164	3	5	60	KED
⌈	**Cd**	**111**	**24.491**	ug/L	0.190	0	2	10374	1	KED
⌊	**Cd**	**114**	**24.441**	ug/L	0.857	3	3	26484	2	KED
⌈>	**In**	**115**		ug/L			769572	717746	1	Standard
⌈	**Ag**	**107**	**25.144**	ug/L	1.041	4	121	349222	2	Standard
⌈	**Sb**	**121**	**0.003**	ug/L	0.001	40	91	120	13	Standard
⌊	**Sb**	**123**	**0.003**	ug/L	0.001	32	78	94	7	Standard
⌈	**Ba**	**135**	**28.029**	ug/L	0.886	3	23	98154	2	Standard
⌊	**Ba**	**137**	**25.856**	ug/L	0.495	1	48	165971	2	Standard
⌈>	**Tb**	**159**		ug/L			1026127	995687	4	Standard
⌈	**Tl**	**205**	**26.793**	ug/L	1.442	5	86	473592	1	Standard
⌊	**Pb**	**208**	**27.360**	ug/L	1.083	3	191	608637	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 10:46:39
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	599581	9	Standard
⌊	**Be**	**9**	**45.580**	ug/L	4.546	9	27	233075	1	Standard
	C	**13**		ug/L			17606	18163	4	Standard
	Cl	**37**		ug/L			6613771	6973420	2	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1104694	2	Standard
⌈	**V**	**51**	**47.754**	ug/L	0.918	1	5706	1042089	4	Standard
⌊	**V-1**	**51**	**47.553**	ug/L	0.898	1	834	1045135	4	Standard
⌈	**Cr**	**52**	**49.718**	ug/L	1.528	3	16644	882278	1	Standard
⌊	**Cr**	**53**	**48.949**	ug/L	1.579	3	322	100671	1	Standard
⌊	**Mn**	**55**	**48.374**	ug/L	1.913	3	466	1194062	3	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	78664	2	KED
⌈	**Co**	**59**	**50.718**	ug/L	2.036	4	31	235144	4	KED
⌈	**Ni**	**60**	**50.517**	ug/L	0.056	0	44	65613	2	KED
⌊	**Ni**	**62**	**51.241**	ug/L	1.893	3	7	10126	2	KED
⌈	**Cu**	**63**	**51.369**	ug/L	0.399	0	57	172246	2	KED
⌊	**Cu**	**65**	**49.746**	ug/L	1.302	2	19	82658	3	KED
⌈	**Zn**	**66**	**51.207**	ug/L	1.459	2	56	23585	2	KED
⌊	**Zn**	**67**	**49.294**	ug/L	1.970	3	7	3768	3	KED
⌈	**As**	**75**	**49.831**	ug/L	1.505	3	6	15385	0	KED
⌊	**Se-1**	**78**	**49.612**	ug/L	2.211	4	25	2004	2	KED
	Y	**89**		ug/L			619356	600624	3	Standard
	Kr	**83**		ug/L			31	40	37	Standard
⌈>	**In-1**	**115**		ug/L			34809	33378	2	KED
⌈	**Mo**	**98**	**48.579**	ug/L	1.751	3	3	64207	1	KED
⌈	**Cd**	**111**	**49.194**	ug/L	0.991	2	2	20073	1	KED
⌊	**Cd**	**114**	**49.645**	ug/L	1.061	2	3	51839	1	KED
⌈>	**In**	**115**		ug/L			769572	718440	1	Standard
⌈	**Ag**	**107**	**47.852**	ug/L	1.104	2	121	665288	1	Standard
⌈	**Sb**	**121**	**48.308**	ug/L	0.323	0	91	513310	0	Standard
⌊	**Sb**	**123**	**48.979**	ug/L	0.117	0	78	404556	1	Standard
⌈	**Ba**	**135**	**52.259**	ug/L	2.313	4	23	183160	4	Standard
⌊	**Ba**	**137**	**48.363**	ug/L	2.189	4	48	310697	4	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1017992	3	Standard
⌈	**Tl**	**205**	**49.043**	ug/L	0.958	1	86	887901	5	Standard
⌊	**Pb**	**208**	**49.900**	ug/L	1.693	3	191	1134985	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 10:54:19
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	617832	4	Standard
	Be	**9**	**0.002**	ug/L	0.006	291	27	41	78	Standard
	C	**13**		ug/L			17606	18001	3	Standard
	Cl	**37**		ug/L			6613771	6853369	3	Standard
>	**Sc**	**45**		ug/L			1108166	1082660	3	Standard
	V	**51**	**-0.004**	ug/L	0.005	130	5706	5498	2	Standard
	V-1	**51**	**-0.016**	ug/L	0.005	28	834	472	20	Standard
	Cr	**52**	**-0.007**	ug/L	0.000	6	16644	16148	2	Standard
	Cr	**53**	**-0.049**	ug/L	0.008	17	322	217	10	Standard
	Mn	**55**	**0.012**	ug/L	0.007	52	466	755	19	Standard
>	**Ge-1**	**72**		ug/L			81114	80983	3	KED
	Co	**59**	**0.000**	ug/L	0.005	2300	31	33	73	KED
	Ni	**60**	**0.032**	ug/L	0.001	3	44	87	4	KED
	Ni	**62**	**0.028**	ug/L	0.024	84	7	13	37	KED
	Cu	**63**	**0.009**	ug/L	0.004	42	57	89	12	KED
	Cu	**65**	**0.011**	ug/L	0.008	70	19	39	37	KED
	Zn	**66**	**0.236**	ug/L	0.028	11	56	167	5	KED
	Zn	**67**	**0.226**	ug/L	0.122	53	7	25	38	KED
	As	**75**	**0.001**	ug/L	0.004	347	6	6	14	KED
	Se-1	**78**	**0.003**	ug/L	0.072	2860	25	25	8	KED
	Y	**89**		ug/L			619356	596093	5	Standard
	Kr	**83**		ug/L			31	25	31	Standard
>	**In-1**	**115**		ug/L			34809	33817	1	KED
	Mo	**98**	**0.011**	ug/L	0.004	39	3	18	33	KED
	Cd	**111**	**0.001**	ug/L	0.001	143	2	2	21	KED
	Cd	**114**	**0.001**	ug/L	0.002	300	3	3	50	KED
>	**In**	**115**		ug/L			769572	722530	1	Standard
	Ag	**107**	**0.000**	ug/L	0.007	80085	121	114	87	Standard
	Sb	**121**	**0.120**	ug/L	0.007	5	91	1365	6	Standard
	Sb	**123**	**0.113**	ug/L	0.012	11	78	1009	11	Standard
	Ba	**135**	**0.007**	ug/L	0.009	128	23	46	67	Standard
	Ba	**137**	**0.003**	ug/L	0.005	146	48	66	46	Standard
>	**Tb**	**159**		ug/L			1026127	1010599	1	Standard
	Tl	**205**	**0.006**	ug/L	0.005	93	86	190	52	Standard
	Pb	**208**	**0.043**	ug/L	0.006	15	191	1154	13	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0579-BLK2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 10:59:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	Li	6		ug/L			572696	633813	3	Standard
⌊	Be	9	-0.003	ug/L	0.001	38	27	15	38	Standard
	C	13		ug/L			17606	26052	0	Standard
	Cl	37		ug/L			6613771	6843452	4	Standard
⌈>	Sc	45		ug/L			1108166	1118701	1	Standard
|	V	51	-0.002	ug/L	0.008	488	5706	5726	3	Standard
|	V-1	51	-0.014	ug/L	0.001	4	834	525	2	Standard
|	Cr	52	0.006	ug/L	0.031	534	16644	16904	3	Standard
|	Cr	53	-0.038	ug/L	0.008	20	322	246	4	Standard
⌊	Mn	55	0.321	ug/L	0.004	1	466	8498	2	Standard
⌈>	Ge-1	72		ug/L			81114	80306	2	KED
|	Co	59	0.001	ug/L	0.002	135	31	37	21	KED
|	Ni	60	0.047	ug/L	0.009	20	44	106	13	KED
|	Ni	62	0.060	ug/L	0.037	61	7	19	40	KED
|	Cu	63	0.056	ug/L	0.006	10	57	248	5	KED
|	Cu	65	0.066	ug/L	0.007	10	19	132	10	KED
|	Zn	66	1.470	ug/L	0.067	4	56	745	4	KED
|	Zn	67	1.039	ug/L	0.201	19	7	88	15	KED
|	As	75	-0.004	ug/L	0.002	51	6	5	13	KED
⌊	Se-1	78	0.050	ug/L	0.064	126	25	27	7	KED
	Y	89		ug/L			619356	613941	4	Standard
	Kr	83		ug/L			31	43	33	Standard
⌈>	In-1	115		ug/L			34809	34246	2	KED
|	Mo	98	0.006	ug/L	0.003	47	3	11	32	KED
|	Cd	111	0.001	ug/L	0.003	420	2	2	57	KED
⌊	Cd	114	0.007	ug/L	0.003	48	3	10	33	KED
⌈>	In	115		ug/L			769572	755897	3	Standard
|	Ag	107	-0.004	ug/L	0.001	18	121	64	15	Standard
|	Sb	121	0.029	ug/L	0.001	3	91	417	5	Standard
|	Sb	123	0.026	ug/L	0.002	8	78	301	9	Standard
|	Ba	135	0.017	ug/L	0.002	14	23	84	9	Standard
⌊	Ba	137	0.010	ug/L	0.002	20	48	116	12	Standard
⌈>	Tb	159		ug/L			1026127	1053246	1	Standard
|	Tl	205	-0.001	ug/L	0.001	91	86	77	12	Standard
⌊	Pb	208	0.008	ug/L	0.001	11	191	394	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0480-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 11:04:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	712326	1	Standard
	Be	9	-0.003	ug/L	0.001	34	27	17	33	Standard
	C	13		ug/L			17606	27397	2	Standard
	Cl	37		ug/L			6613771	6923821	2	Standard
>	Sc	45		ug/L			1108166	1117867	1	Standard
	V	51	-0.000	ug/L	0.005	4433	5706	5754	2	Standard
	V-1	51	-0.016	ug/L	0.001	3	834	488	0	Standard
	Cr	52	0.038	ug/L	0.010	26	16644	17467	1	Standard
	Cr	53	-0.017	ug/L	0.007	41	322	289	4	Standard
	Mn	55	0.243	ug/L	0.008	3	466	6548	4	Standard
>	Ge-1	72		ug/L			81114	82174	0	KED
	Co	59	0.004	ug/L	0.002	68	31	49	23	KED
	Ni	60	0.027	ug/L	0.010	37	44	81	16	KED
	Ni	62	0.015	ug/L	0.023	154	7	10	44	KED
	Cu	63	0.037	ug/L	0.010	25	57	189	18	KED
	Cu	65	0.039	ug/L	0.004	10	19	87	7	KED
	Zn	66	0.711	ug/L	0.050	7	56	398	5	KED
	Zn	67	0.628	ug/L	0.108	17	7	57	14	KED
	As	75	-0.001	ug/L	0.014	1157	6	6	70	KED
	Se-1	78	0.080	ug/L	0.184	229	25	29	25	KED
	Y	89		ug/L			619356	622932	3	Standard
	Kr	83		ug/L			31	36	13	Standard
>	In-1	115		ug/L			34809	35197	1	KED
	Mo	98	0.002	ug/L	0.002	109	3	6	49	KED
	Cd	111	0.003	ug/L	0.006	220	2	3	78	KED
	Cd	114	0.001	ug/L	0.007	537	3	4	168	KED
>	In	115		ug/L			769572	763021	0	Standard
	Ag	107	-0.005	ug/L	0.001	21	121	53	27	Standard
	Sb	121	0.023	ug/L	0.003	14	91	350	10	Standard
	Sb	123	0.022	ug/L	0.003	15	78	268	9	Standard
	Ba	135	0.007	ug/L	0.002	30	23	48	15	Standard
	Ba	137	0.004	ug/L	0.001	32	48	76	12	Standard
>	Tb	159		ug/L			1026127	1046274	1	Standard
	Tl	205	-0.000	ug/L	0.000	1485	86	88	10	Standard
	Pb	208	-0.001	ug/L	0.002	216	191	173	28	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0241-04
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 11:09:06
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	634158	6	Standard
	Be	9	0.273	ug/L	0.025	9	27	1508	3	Standard
	C	13		ug/L			17606	42830	4	Standard
	Cl	37		ug/L			6613771	6771676	1	Standard
>	Sc	45		ug/L			1108166	1212130	1	Standard
	V	51	54.580	ug/L	1.305	2	5706	1305497	1	Standard
	V-1	51	54.155	ug/L	1.363	2	834	1305400	1	Standard
	Cr	52	30.251	ug/L	0.521	1	16644	596406	1	Standard
	Cr	53	29.779	ug/L	0.722	2	322	67362	1	Standard
	Mn	55	548.139	ug/L	8.623	1	466	14845648	1	Standard
>	Ge-1	72		ug/L			81114	78263	1	KED
	Co	59	10.091	ug/L	0.353	3	31	46557	2	KED
	Ni	60	38.831	ug/L	0.937	2	44	50178	1	KED
	Ni	62	41.154	ug/L	0.014	0	7	8096	1	KED
	Cu	63	209.405	ug/L	1.696	0	57	698308	1	KED
	Cu	65	204.691	ug/L	5.868	2	19	338215	1	KED
	Zn	66	242.089	ug/L	2.532	1	56	110752	0	KED
	Zn	67	222.837	ug/L	4.255	1	7	16925	1	KED
	As	75	14.308	ug/L	0.430	3	6	4400	1	KED
	Se-1	78	0.537	ug/L	0.106	19	25	46	10	KED
	Y	89		ug/L			619356	936801	5	Standard
	Kr	83		ug/L			31	116	5	Standard
>	In-1	115		ug/L			34809	33449	2	KED
	Mo	98	2.280	ug/L	0.072	3	3	3022	0	KED
	Cd	111	0.213	ug/L	0.027	12	2	89	10	KED
	Cd	114	0.152	ug/L	0.022	14	3	161	13	KED
>	In	115		ug/L			769572	697949	0	Standard
	Ag	107	0.161	ug/L	0.009	5	121	2282	5	Standard
	Sb	121	0.178	ug/L	0.010	5	91	1924	4	Standard
	Sb	123	0.179	ug/L	0.010	5	78	1510	5	Standard
	Ba	135	54.929	ug/L	2.938	5	23	187005	4	Standard
	Ba	137	53.040	ug/L	2.141	4	48	330953	3	Standard
>	Tb	159		ug/L			1026127	976068	4	Standard
	Tl	205	0.052	ug/L	0.008	15	86	989	9	Standard
	Pb	208	119.631	ug/L	5.184	4	191	2608231	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0241-05
Sample Dil Factor: 20 DEL
Comments:
Sample Date/Time: Thursday, June 28, 2018 11:14:01
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	615261	8	Standard
⌊	**Be**	**9**	**-0.004**	ug/L	0.002	49	27	11	88	Standard
	C	**13**		ug/L			17606	19074	3	Standard
	Cl	**37**		ug/L			6613771	6913798	1	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1080830	4	Standard
⌈	**V**	**51**	**-0.008**	ug/L	0.004	49	5706	5394	4	Standard
⌊	**V-1**	**51**	**-0.020**	ug/L	0.001	4	834	386	0	Standard
⌈	**Cr**	**52**	**-0.022**	ug/L	0.022	97	16644	15848	4	Standard
⌊	**Cr**	**53**	**-0.062**	ug/L	0.008	12	322	189	8	Standard
⌊	**Mn**	**55**	**0.006**	ug/L	0.001	9	466	591	6	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	82266	0	KED
⌈	**Co**	**59**	**0.002**	ug/L	0.000	28	31	40	5	KED
⌊	**Ni**	**60**	**-0.008**	ug/L	0.004	52	44	34	16	KED
⌈	**Ni**	**62**	**-0.013**	ug/L	0.014	110	7	5	57	KED
⌊	**Cu**	**63**	**0.004**	ug/L	0.005	111	57	73	23	KED
⌈	**Cu**	**65**	**0.008**	ug/L	0.004	55	19	33	22	KED
⌊	**Zn**	**66**	**0.153**	ug/L	0.018	11	56	130	5	KED
⌈	**Zn**	**67**	**0.086**	ug/L	0.027	31	7	14	15	KED
⌊	**As**	**75**	**-0.005**	ug/L	0.007	139	6	5	39	KED
⌊	**Se-1**	**78**	**0.030**	ug/L	0.126	424	25	27	18	KED
	Y	**89**		ug/L			619356	598807	6	Standard
	Kr	**83**		ug/L			31	37	22	Standard
⌈>	**In-1**	**115**		ug/L			34809	34250	2	KED
⌈	**Mo**	**98**	**0.002**	ug/L	0.005	219	3	6	106	KED
⌊	**Cd**	**111**	**0.004**	ug/L	0.006	155	2	3	66	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.003	224	3	1	174	KED
⌈>	**In**	**115**		ug/L			769572	719643	6	Standard
⌈	**Ag**	**107**	**-0.006**	ug/L	0.000	5	121	29	18	Standard
⌈	**Sb**	**121**	**0.004**	ug/L	0.001	38	91	125	16	Standard
⌊	**Sb**	**123**	**0.003**	ug/L	0.001	40	78	99	7	Standard
⌈	**Ba**	**135**	**0.332**	ug/L	0.037	11	23	1182	4	Standard
⌊	**Ba**	**137**	**0.323**	ug/L	0.027	8	48	2114	4	Standard
⌈>	**Tb**	**159**		ug/L			1026127	988471	3	Standard
⌈	**Tl**	**205**	**-0.003**	ug/L	0.000	14	86	29	22	Standard
⌊	**Pb**	**208**	**0.005**	ug/L	0.002	42	191	299	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0241-06
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 11:18:56
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	Li	6		ug/L			572696	641683	9	Standard
[	Be	9	0.114	ug/L	0.020	17	27	650	9	Standard
	C	13		ug/L			17606	35447	4	Standard
	Cl	37		ug/L			6613771	6977074	1	Standard
[>	Sc	45		ug/L			1108166	1189875	2	Standard
[	V	51	33.822	ug/L	1.605	4	5706	796114	3	Standard
[	V-1	51	33.505	ug/L	1.599	4	834	792816	3	Standard
[	Cr	52	13.112	ug/L	0.548	4	16644	263716	1	Standard
[	Cr	53	12.863	ug/L	0.543	4	322	28745	2	Standard
[	Mn	55	297.912	ug/L	13.365	4	466	7914447	1	Standard
[>	Ge-1	72		ug/L			81114	81654	2	KED
[	Co	59	7.349	ug/L	0.162	2	31	35394	2	KED
[	Ni	60	21.240	ug/L	0.351	1	44	28656	1	KED
[	Ni	62	22.152	ug/L	0.911	4	7	4548	2	KED
[	Cu	63	49.049	ug/L	0.693	1	57	170677	1	KED
[	Cu	65	49.248	ug/L	1.002	2	19	84914	0	KED
[	Zn	66	218.456	ug/L	6.567	3	56	104242	0	KED
[	Zn	67	201.928	ug/L	8.026	3	7	15995	1	KED
[	As	75	9.205	ug/L	0.261	2	6	2955	0	KED
[	Se-1	78	0.349	ug/L	0.149	42	25	40	14	KED
	Y	89		ug/L			619356	804305	0	Standard
	Kr	83		ug/L			31	67	8	Standard
[>	In-1	115		ug/L			34809	34851	1	KED
[	Mo	98	1.712	ug/L	0.041	2	3	2367	3	KED
[	Cd	111	0.180	ug/L	0.025	13	2	78	12	KED
[	Cd	114	0.189	ug/L	0.028	14	3	209	14	KED
[>	In	115		ug/L			769572	727128	2	Standard
[	Ag	107	0.081	ug/L	0.006	7	121	1250	5	Standard
[	Sb	121	0.120	ug/L	0.005	4	91	1375	1	Standard
[	Sb	123	0.109	ug/L	0.007	6	78	981	3	Standard
[	Ba	135	70.301	ug/L	4.406	6	23	249177	4	Standard
[	Ba	137	66.257	ug/L	2.780	4	48	430424	1	Standard
[>	Tb	159		ug/L			1026127	992275	3	Standard
[	Tl	205	0.027	ug/L	0.001	2	86	554	4	Standard
[	Pb	208	199.501	ug/L	5.369	2	191	4425762	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0242-01
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 11:23:52
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	Li	6		ug/L			572696	675915	11	Standard
⌊	Be	9	0.079	ug/L	0.013	16	27	487	7	Standard
	C	13		ug/L			17606	36072	4	Standard
	Cl	37		ug/L			6613771	6961000	2	Standard
⌈>	Sc	45		ug/L			1108166	1131452	3	Standard
⌈	V	51	20.163	ug/L	0.276	1	5706	453783	2	Standard
⌊	V-1	51	20.004	ug/L	0.305	1	834	450552	2	Standard
⌈	Cr	52	6.773	ug/L	0.212	3	16644	137776	2	Standard
⌊	Cr	53	6.768	ug/L	0.266	3	322	14535	1	Standard
	Mn	55	118.717	ug/L	3.308	2	466	3000186	1	Standard
⌈>	Ge-1	72		ug/L			81114	82071	1	KED
⌈	Co	59	2.598	ug/L	0.068	2	31	12598	2	KED
⌊	Ni	60	5.551	ug/L	0.032	0	44	7562	0	KED
⌈	Ni	62	5.873	ug/L	0.361	6	7	1217	5	KED
⌊	Cu	63	21.904	ug/L	1.310	5	57	76623	4	KED
⌈	Cu	65	21.261	ug/L	0.276	1	19	36869	2	KED
⌊	Zn	66	92.121	ug/L	0.951	1	56	44231	0	KED
⌈	Zn	67	85.045	ug/L	4.088	4	7	6778	4	KED
⌊	As	75	3.476	ug/L	0.102	2	6	1126	2	KED
	Se-1	78	0.309	ug/L	0.044	14	25	38	3	KED
	Y	89		ug/L			619356	731275	4	Standard
	Kr	83		ug/L			31	54	20	Standard
⌈>	In-1	115		ug/L			34809	34265	3	KED
⌈	Mo	98	0.291	ug/L	0.007	2	3	397	3	KED
⌊	Cd	111	0.098	ug/L	0.016	16	2	43	16	KED
	Cd	114	0.093	ug/L	0.013	13	3	102	11	KED
⌈>	In	115		ug/L			769572	709240	1	Standard
⌈	Ag	107	0.034	ug/L	0.003	9	121	583	5	Standard
⌈	Sb	121	0.054	ug/L	0.003	5	91	647	4	Standard
⌊	Sb	123	0.054	ug/L	0.006	10	78	512	7	Standard
⌈	Ba	135	37.679	ug/L	0.882	2	23	130365	1	Standard
⌊	Ba	137	35.941	ug/L	0.417	1	48	227949	2	Standard
⌈>	Tb	159		ug/L			1026127	1022258	2	Standard
⌈	Tl	205	0.025	ug/L	0.002	8	86	533	8	Standard
⌊	Pb	208	182.296	ug/L	2.981	1	191	4165889	1	Standard

TH 06-28-18

Cu65

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0242-02
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 11:28:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	650941	7	Standard
⌊	**Be**	**9**	**0.174**	ug/L	0.008	4	27	1002	7	Standard
	C	**13**		ug/L			17606	36570	5	Standard
	Cl	**37**		ug/L			6613771	6842353	0	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1142679	3	Standard
⌈	**V**	**51**	**29.473**	ug/L	0.859	2	5706	666965	0	Standard
⌊	**V-1**	**51**	**29.219**	ug/L	0.902	3	834	664010	0	Standard
⌈	**Cr**	**52**	**16.490**	ug/L	0.662	4	16644	314146	3	Standard
⌊	**Cr**	**53**	**16.141**	ug/L	0.709	4	322	34553	2	Standard
⌊	**Mn**	**55**	**178.605**	ug/L	2.364	1	466	4561562	4	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	79604	0	KED
⌈	**Co**	**59**	**4.988**	ug/L	0.014	0	31	23430	0	KED
⌊	**Ni**	**60**	**18.208**	ug/L	0.373	2	44	23959	1	KED
⌈	**Ni**	**62**	**18.655**	ug/L	0.608	3	7	3736	3	KED
⌊	**Cu**	**63**	**20.799**	ug/L	0.594	2	57	70614	3	KED
⌈	**Cu**	**65**	**20.149**	ug/L	0.697	3	19	33889	3	KED
⌈	**Zn**	**66**	**45.514**	ug/L	0.811	1	56	21225	1	KED
⌊	**Zn**	**67**	**41.816**	ug/L	1.271	3	7	3237	3	KED
⌈	**As**	**75**	**5.138**	ug/L	0.108	2	6	1611	1	KED
⌊	**Se-1**	**78**	**0.437**	ug/L	0.147	33	25	42	13	KED
	Y	**89**		ug/L			619356	784395	2	Standard
	Kr	**83**		ug/L			31	57	21	Standard
⌈>	**In-1**	**115**		ug/L			34809	33414	1	KED
⌈	**Mo**	**98**	**0.616**	ug/L	0.045	7	3	819	8	KED
⌈	**Cd**	**111**	**0.102**	ug/L	0.010	10	2	43	10	KED
⌊	**Cd**	**114**	**0.091**	ug/L	0.007	7	3	97	6	KED
⌈>	**In**	**115**		ug/L			769572	709596	2	Standard
⌈	**Ag**	**107**	**0.076**	ug/L	0.004	5	121	1157	3	Standard
⌈	**Sb**	**121**	**0.036**	ug/L	0.003	7	91	457	5	Standard
⌊	**Sb**	**123**	**0.034**	ug/L	0.001	1	78	352	3	Standard
⌈	**Ba**	**135**	**22.344**	ug/L	1.565	7	23	77305	5	Standard
⌊	**Ba**	**137**	**21.852**	ug/L	1.224	5	48	138549	3	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1041328	0	Standard
⌈	**Tl**	**205**	**0.080**	ug/L	0.000	0	86	1570	0	Standard
⌊	**Pb**	**208**	**9.403**	ug/L	0.245	2	191	219095	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0256-01
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 11:33:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	709509	10	Standard
	Be	9	0.127	ug/L	0.011	8	27	803	1	Standard
	C	13		ug/L			17606	47736	2	Standard
	Cl	37		ug/L			6613771	7084361	1	Standard
>	Sc	45		ug/L			1108166	1190002	1	Standard
	V	51	30.427	ug/L	0.961	3	5706	717029	1	Standard
	V-1	51	30.128	ug/L	0.867	2	834	713211	1	Standard
	Cr	52	10.846	ug/L	0.566	5	16644	221321	3	Standard
	Cr	53	10.610	ug/L	0.080	0	322	23788	1	Standard
	Mn	55	401.900	ug/L	14.181	3	466	10683450	2	Standard
>	Ge-1	72		ug/L			81114	81009	1	KED
	Co	59	4.776	ug/L	0.154	3	31	22836	4	KED
	Ni	60	9.164	ug/L	0.550	5	44	12289	4	KED
	Ni	62	9.860	ug/L	0.575	5	7	2012	4	KED
	Cu	63	12.049	ug/L	0.222	1	57	41640	0	KED
	Cu	65	11.615	ug/L	0.245	2	19	19888	2	KED
	Zn	66	34.555	ug/L	1.253	3	56	16408	2	KED
	Zn	67	34.641	ug/L	2.154	6	7	2729	5	KED
	As	75	5.137	ug/L	0.157	3	6	1639	1	KED
	Se-1	78	0.356	ug/L	0.058	16	25	40	4	KED
	Y	89		ug/L			619356	789614	3	Standard
	Kr	83		ug/L			31	68	19	Standard
>	In-1	115		ug/L			34809	34317	0	KED
	Mo	98	0.461	ug/L	0.008	1	3	630	2	KED
	Cd	111	0.048	ug/L	0.002	4	2	22	4	KED
	Cd	114	0.045	ug/L	0.003	6	3	51	5	KED
>	In	115		ug/L			769572	724669	2	Standard
	Ag	107	0.045	ug/L	0.004	8	121	751	9	Standard
	Sb	121	0.017	ug/L	0.002	11	91	266	4	Standard
	Sb	123	0.014	ug/L	0.003	18	78	190	10	Standard
	Ba	135	22.049	ug/L	0.632	2	23	77943	2	Standard
	Ba	137	21.847	ug/L	0.448	2	48	141631	4	Standard
>	Tb	159		ug/L			1026127	1011767	2	Standard
	Tl	205	0.030	ug/L	0.001	4	86	626	2	Standard
	Pb	208	13.143	ug/L	0.685	5	191	297331	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0256-02
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 11:38:38
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	Li	6		ug/L			572696	662795	3	Standard
⌊	Be	9	0.134	ug/L	0.006	4	27	793	2	Standard
	C	13		ug/L			17606	38359	2	Standard
	Cl	37		ug/L			6613771	6898082	2	Standard
⌈>	Sc	45		ug/L			1108166	1154570	2	Standard
⌈	V	51	26.702	ug/L	0.319	1	5706	611508	2	Standard
⌊	V-1	51	26.514	ug/L	0.409	1	834	609319	2	Standard
⌈	Cr	52	10.073	ug/L	0.068	0	16644	200732	1	Standard
⌊	Cr	53	10.100	ug/L	0.450	4	322	21982	4	Standard
⌊	Mn	55	86.321	ug/L	2.511	2	466	2227900	4	Standard
⌈>	Ge-1	72		ug/L			81114	80056	2	KED
⌈	Co	59	3.757	ug/L	0.035	0	31	17755	1	KED
⌊	Ni	60	9.010	ug/L	0.105	1	44	11943	1	KED
⌊	Ni	62	8.870	ug/L	0.117	1	7	1790	1	KED
⌈	Cu	63	15.949	ug/L	0.262	1	57	54447	0	KED
⌊	Cu	65	16.183	ug/L	0.207	1	19	27377	2	KED
⌈	Zn	66	44.775	ug/L	1.617	3	56	20989	1	KED
⌊	Zn	67	43.831	ug/L	1.597	3	7	3409	1	KED
⌈	As	75	3.969	ug/L	0.120	3	6	1253	2	KED
⌊	Se-1	78	0.374	ug/L	0.067	17	25	40	8	KED
	Y	89		ug/L			619356	743039	1	Standard
	Kr	83		ug/L			31	64	20	Standard
⌈>	In-1	115		ug/L			34809	33380	2	KED
⌈	Mo	98	0.379	ug/L	0.019	5	3	504	3	KED
⌈	Cd	111	0.080	ug/L	0.011	13	2	34	10	KED
⌊	Cd	114	0.092	ug/L	0.014	15	3	99	12	KED
⌈>	In	115		ug/L			769572	718594	1	Standard
⌈	Ag	107	0.052	ug/L	0.001	2	121	833	3	Standard
⌈	Sb	121	0.012	ug/L	0.001	7	91	211	5	Standard
⌊	Sb	123	0.011	ug/L	0.003	25	78	164	12	Standard
⌈	Ba	135	36.363	ug/L	0.671	1	23	127520	3	Standard
⌊	Ba	137	34.389	ug/L	1.043	3	48	221028	4	Standard
⌈>	Tb	159		ug/L			1026127	1054796	3	Standard
⌈	Tl	205	0.029	ug/L	0.003	10	86	627	12	Standard
⌊	Pb	208	20.541	ug/L	0.209	1	191	484521	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0480-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 11:43:33
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	723931	4	Standard
⌊	**Be**	**9**	**20.167**	ug/L	0.599	2	27	125163	2	Standard
	C	**13**		ug/L			17606	31367	3	Standard
	Cl	**37**		ug/L			6613771	6835362	2	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1074431	2	Standard
⌈	**V**	**51**	**26.064**	ug/L	0.155	0	5706	555582	2	Standard
⌊	**V-1**	**51**	**26.039**	ug/L	0.085	0	834	556866	2	Standard
⌈	**Cr**	**52**	**26.952**	ug/L	0.482	1	16644	472668	1	Standard
⌊	**Cr**	**53**	**26.830**	ug/L	0.451	1	322	53822	0	Standard
⌊	**Mn**	**55**	**27.468**	ug/L	0.376	1	466	659875	2	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	79111	0	KED
⌈	**Co**	**59**	**27.749**	ug/L	0.623	2	31	129423	2	KED
⌊	**Ni**	**60**	**28.815**	ug/L	0.142	0	44	37657	0	KED
⌈	**Ni**	**62**	**28.091**	ug/L	0.056	0	7	5589	0	KED
⌈	**Cu**	**63**	**28.404**	ug/L	0.871	3	57	95809	3	KED
⌊	**Cu**	**65**	**28.034**	ug/L	0.577	2	19	46853	2	KED
⌈	**Zn**	**66**	**82.848**	ug/L	0.828	0	56	38354	1	KED
⌊	**Zn**	**67**	**74.915**	ug/L	0.739	0	7	5757	0	KED
⌈	**As**	**75**	**24.662**	ug/L	0.213	0	6	7664	0	KED
⌊	**Se-1**	**78**	**74.151**	ug/L	1.783	2	25	3002	1	KED
	Y	**89**		ug/L			619356	598700	0	Standard
	Kr	**83**		ug/L			31	45	31	Standard
⌈>	**In-1**	**115**		ug/L			34809	34155	2	KED
⌈	**Mo**	**98**	**0.003**	ug/L	0.003	96	3	8	55	KED
⌈	**Cd**	**111**	**24.548**	ug/L	0.510	2	2	10251	0	KED
⌊	**Cd**	**114**	**25.209**	ug/L	0.700	2	3	26940	2	KED
⌈>	**In**	**115**		ug/L			769572	721778	4	Standard
⌈	**Ag**	**107**	**26.103**	ug/L	0.996	3	121	364274	1	Standard
⌈	**Sb**	**121**	**0.003**	ug/L	0.001	37	91	120	6	Standard
⌊	**Sb**	**123**	**0.001**	ug/L	0.001	118	78	82	9	Standard
⌈	**Ba**	**135**	**27.504**	ug/L	0.849	3	23	96778	2	Standard
⌊	**Ba**	**137**	**27.631**	ug/L	1.377	4	48	178126	3	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1040937	1	Standard
⌈	**Tl**	**205**	**27.452**	ug/L	1.441	5	86	507755	3	Standard
⌊	**Pb**	**208**	**27.379**	ug/L	1.130	4	191	637142	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 11:49:34
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	640629	9	Standard
	Be	**9**	**42.831**	ug/L	3.369	7	27	234226	2	Standard
	C	**13**		ug/L			17606	17868	1	Standard
	Cl	**37**		ug/L			6613771	7025084	3	Standard
>	**Sc**	**45**		ug/L			1108166	1049747	4	Standard
	V	**51**	**50.001**	ug/L	1.726	3	5706	1035311	0	Standard
	V-1	**51**	**49.708**	ug/L	1.902	3	834	1036769	0	Standard
	Cr	**52**	**51.664**	ug/L	1.153	2	16644	870460	2	Standard
	Cr	**53**	**50.597**	ug/L	1.795	3	322	98828	1	Standard
	Mn	**55**	**50.700**	ug/L	2.226	4	466	1188250	1	Standard
>	**Ge-1**	**72**		ug/L			81114	79897	1	KED
	Co	**59**	**48.752**	ug/L	1.464	3	31	229573	3	KED
	Ni	**60**	**50.573**	ug/L	1.720	3	44	66700	2	KED
	Ni	**62**	**51.357**	ug/L	1.817	3	7	10309	1	KED
	Cu	**63**	**50.471**	ug/L	0.736	1	57	171845	0	KED
	Cu	**65**	**49.179**	ug/L	1.069	2	19	82992	2	KED
	Zn	**66**	**51.237**	ug/L	0.693	1	56	23972	0	KED
	Zn	**67**	**50.342**	ug/L	2.992	5	7	3907	4	KED
	As	**75**	**48.258**	ug/L	0.666	1	6	15138	0	KED
	Se-1	**78**	**48.537**	ug/L	1.163	2	25	1993	2	KED
	Y	**89**		ug/L			619356	613113	1	Standard
	Kr	**83**		ug/L			31	41	13	Standard
>	**In-1**	**115**		ug/L			34809	32529	1	KED
	Mo	**98**	**51.102**	ug/L	1.736	3	3	65833	1	KED
	Cd	**111**	**50.275**	ug/L	1.465	2	2	19993	1	KED
	Cd	**114**	**50.426**	ug/L	1.588	3	3	51317	2	KED
>	**In**	**115**		ug/L			769572	702860	1	Standard
	Ag	**107**	**47.480**	ug/L	0.863	1	121	645797	0	Standard
	Sb	**121**	**50.550**	ug/L	1.377	2	91	525385	1	Standard
	Sb	**123**	**49.426**	ug/L	1.472	2	78	399286	1	Standard
	Ba	**135**	**51.890**	ug/L	3.115	6	23	177853	4	Standard
	Ba	**137**	**50.159**	ug/L	2.569	5	48	315088	3	Standard
>	**Tb**	**159**		ug/L			1026127	982616	2	Standard
	Tl	**205**	**50.840**	ug/L	1.250	2	86	887751	1	Standard
	Pb	**208**	**50.499**	ug/L	1.119	2	191	1109389	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 11:57:13
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	633858	3	Standard
	Be	**9**	**-0.003**	ug/L	0.002	89	27	17	77	Standard
	C	**13**		ug/L			17606	18297	1	Standard
	Cl	**37**		ug/L			6613771	7140447	3	Standard
>	**Sc**	**45**		ug/L			1108166	1065159	1	Standard
	V	**51**	**-0.000**	ug/L	0.004	999	5706	5478	2	Standard
	V-1	**51**	**-0.021**	ug/L	0.000	1	834	354	2	Standard
	Cr	**52**	**0.013**	ug/L	0.019	147	16644	16214	3	Standard
	Cr	**53**	**-0.059**	ug/L	0.008	14	322	193	9	Standard
	Mn	**55**	**0.009**	ug/L	0.001	11	466	665	2	Standard
>	**Ge-1**	**72**		ug/L			81114	80061	1	KED
	Co	**59**	**-0.001**	ug/L	0.002	144	31	26	27	KED
	Ni	**60**	**0.019**	ug/L	0.007	39	44	68	15	KED
	Ni	**62**	**0.051**	ug/L	0.010	19	7	17	12	KED
	Cu	**63**	**0.009**	ug/L	0.008	89	57	89	33	KED
	Cu	**65**	**0.018**	ug/L	0.008	47	19	49	29	KED
	Zn	**66**	**0.231**	ug/L	0.038	16	56	163	9	KED
	Zn	**67**	**0.214**	ug/L	0.097	45	7	24	29	KED
	As	**75**	**-0.002**	ug/L	0.004	183	6	5	23	KED
	Se-1	**78**	**-0.056**	ug/L	0.149	267	25	23	28	KED
	Y	**89**		ug/L			619356	589857	4	Standard
	Kr	**83**		ug/L			31	29	20	Standard
>	**In-1**	**115**		ug/L			34809	33574	3	KED
	Mo	**98**	**0.011**	ug/L	0.009	74	3	18	62	KED
	Cd	**111**	**0.006**	ug/L	0.008	129	2	4	72	KED
	Cd	**114**	**0.005**	ug/L	0.009	183	3	8	116	KED
>	**In**	**115**		ug/L			769572	720052	3	Standard
	Ag	**107**	**-0.004**	ug/L	0.000	9	121	54	8	Standard
	Sb	**121**	**0.110**	ug/L	0.005	4	91	1257	2	Standard
	Sb	**123**	**0.110**	ug/L	0.007	6	78	986	9	Standard
	Ba	**135**	**0.001**	ug/L	0.000	21	23	26	0	Standard
	Ba	**137**	**-0.000**	ug/L	0.002	554	48	43	25	Standard
>	**Tb**	**159**		ug/L			1026127	1006500	2	Standard
	Tl	**205**	**0.001**	ug/L	0.000	39	86	102	3	Standard
	Pb	**208**	**0.040**	ug/L	0.001	3	191	1084	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0332-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 12:03:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	699025	8	Standard
	Be	9	-0.003	ug/L	0.001	18	27	13	28	Standard
	C	13		ug/L			17606	30610	1	Standard
	Cl	37		ug/L			6613771	8864611	0	Standard
>	Sc	45		ug/L			1108166	1126455	0	Standard
	V	51	1.375	ug/L	0.013	0	5706	36228	1	Standard
	V-1	51	1.859	ug/L	0.030	1	834	42470	0	Standard
	Cr	52	2.062	ug/L	0.093	4	16644	53539	2	Standard
	Cr	53	3.691	ug/L	0.193	5	322	8046	4	Standard
	Mn	55	0.630	ug/L	0.006	0	466	16341	0	Standard
>	Ge-1	72		ug/L			81114	70332	0	KED
	Co	59	0.023	ug/L	0.003	12	31	121	9	KED
	Ni	60	0.525	ug/L	0.029	5	44	648	4	KED
	Ni	62	0.462	ug/L	0.080	17	7	88	16	KED
	Cu	63	0.881	ug/L	0.033	3	57	2690	3	KED
	Cu	65	0.918	ug/L	0.047	5	19	1381	5	KED
	Zn	66	2.809	ug/L	0.010	0	56	1203	0	KED
	Zn	67	10.706	ug/L	0.416	3	7	737	4	KED
	As	75	0.613	ug/L	0.040	6	6	175	6	KED
	Se-1	78	3.158	ug/L	0.163	5	25	134	4	KED
	Y	89		ug/L			619356	555153	3	Standard
	Kr	83		ug/L			31	52	20	Standard
>	In-1	115		ug/L			34809	29699	1	KED
	Mo	98	1.324	ug/L	0.090	6	3	1559	5	KED
	Cd	111	0.004	ug/L	0.006	137	2	3	62	KED
	Cd	114	0.009	ug/L	0.004	41	3	11	32	KED
>	In	115		ug/L			769572	654211	3	Standard
	Ag	107	0.010	ug/L	0.001	6	121	228	0	Standard
	Sb	121	0.113	ug/L	0.008	6	91	1172	2	Standard
	Sb	123	0.115	ug/L	0.002	1	78	929	2	Standard
	Ba	135	160.446	ug/L	2.767	1	23	511891	2	Standard
	Ba	137	156.094	ug/L	3.396	2	48	912539	2	Standard
>	Tb	159		ug/L			1026127	965891	1	Standard
	Tl	205	0.003	ug/L	0.001	21	86	133	8	Standard
	Pb	208	0.603	ug/L	0.013	2	191	13211	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0360-02
Sample Dil Factor: 5
Comments:
Sample Date/Time: Thursday, June 28, 2018 12:08:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	880728	9	Standard
⌊	**Be**	**9**	**-0.004**	ug/L	0.001	17	27	14	39	Standard
	C	**13**		ug/L			17606	25670	1	Standard
	Cl	**37**		ug/L			6613771	6541916	3	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1022388	0	Standard
⌈	**V**	**51**	**0.474**	ug/L	0.095	19	5706	14783	12	Standard
⌊	**V-1**	**51**	**0.527**	ug/L	0.022	4	834	11471	4	Standard
⌈	**Cr**	**52**	**15.197**	ug/L	0.225	1	16644	260350	0	Standard
⌊	**Cr**	**53**	**14.783**	ug/L	0.170	1	322	28360	1	Standard
⌊	**Mn**	**55**	**5.949**	ug/L	0.062	1	466	136348	1	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	72213	0	KED
⌈	**Co**	**59**	**0.100**	ug/L	0.006	5	31	455	5	KED
⌊	**Ni**	**60**	**0.551**	ug/L	0.059	10	44	696	10	KED
⌈	**Ni**	**62**	**0.554**	ug/L	0.055	9	7	107	9	KED
⌈	**Cu**	**63**	**1.274**	ug/L	0.044	3	57	3971	4	KED
⌊	**Cu**	**65**	**1.240**	ug/L	0.028	2	19	1908	1	KED
⌈	**Zn**	**66**	**2.859**	ug/L	0.153	5	56	1256	4	KED
⌊	**Zn**	**67**	**2.747**	ug/L	0.356	12	7	199	13	KED
⌈	**As**	**75**	**0.018**	ug/L	0.010	54	6	11	24	KED
⌊	**Se-1**	**78**	**0.149**	ug/L	0.126	84	25	28	17	KED
	Y	**89**		ug/L			619356	538083	5	Standard
	Kr	**83**		ug/L			31	41	19	Standard
⌈>	**In-1**	**115**		ug/L			34809	28864	5	KED
⌈	**Mo**	**98**	**3.473**	ug/L	0.186	5	3	3966	1	KED
⌈	**Cd**	**111**	**0.001**	ug/L	0.005	363	2	2	65	KED
⌊	**Cd**	**114**	**-0.000**	ug/L	0.003	1853	3	2	111	KED
⌈>	**In**	**115**		ug/L			769572	666907	4	Standard
⌈	**Ag**	**107**	**-0.003**	ug/L	0.001	49	121	70	23	Standard
⌈	**Sb**	**121**	**0.078**	ug/L	0.003	3	91	847	5	Standard
⌊	**Sb**	**123**	**0.077**	ug/L	0.008	10	78	660	13	Standard
⌈	**Ba**	**135**	**0.479**	ug/L	0.032	6	23	1576	5	Standard
⌊	**Ba**	**137**	**0.491**	ug/L	0.017	3	48	2965	2	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1068312	1	Standard
⌈	**Tl**	**205**	**-0.000**	ug/L	0.001	433	86	86	19	Standard
⌊	**Pb**	**208**	**0.031**	ug/L	0.002	5	191	937	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0367-02
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 12:13:19
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	722323	5	Standard
⌊	**Be**	**9**	**-0.004**	ug/L	0.000	6	27	7	25	Standard
	C	**13**		ug/L			17606	53087	2	Standard
	Cl	**37**		ug/L			6613771	36031262	4	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1166823	1	Standard
⌈	**V**	**51**	**0.488**	ug/L	0.188	38	5706	17162	24	Standard
⌈	**V-1**	**51**	**7.706**	ug/L	0.194	2	834	179550	1	Standard
⌈	**Cr**	**52**	**0.402**	ug/L	0.025	6	16644	24912	1	Standard
⌈	**Cr**	**53**	**25.113**	ug/L	0.144	0	322	54745	1	Standard
⌊	**Mn**	**55**	**396.459**	ug/L	8.218	2	466	10335312	0	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	68302	1	KED
⌈	**Co**	**59**	**0.479**	ug/L	0.009	1	31	1955	1	KED
⌈	**Ni**	**60**	**4.080**	ug/L	0.119	2	44	4635	2	KED
⌈	**Ni**	**62**	**4.298**	ug/L	0.262	6	7	744	7	KED
⌈	**Cu**	**63**	**2.745**	ug/L	0.122	4	57	8033	3	KED
⌈	**Cu**	**65**	**2.798**	ug/L	0.042	1	19	4053	2	KED
⌈	**Zn**	**66**	**5.823**	ug/L	0.056	0	56	2371	2	KED
⌈	**Zn**	**67**	**8.431**	ug/L	0.172	2	7	565	2	KED
⌈	**As**	**75**	**0.806**	ug/L	0.037	4	6	221	3	KED
⌊	**Se-1**	**78**	**0.409**	ug/L	0.143	35	25	35	14	KED
	Y	**89**		ug/L			619356	593055	0	Standard
	Kr	**83**		ug/L			31	294	4	Standard
⌈>	**In-1**	**115**		ug/L			34809	29380	1	KED
⌈	**Mo**	**98**	**11.240**	ug/L	0.020	0	3	13085	1	KED
⌈	**Cd**	**111**	**0.018**	ug/L	0.006	34	2	8	26	KED
⌊	**Cd**	**114**	**0.017**	ug/L	0.005	28	3	17	25	KED
⌈>	**In**	**115**		ug/L			769572	627952	1	Standard
⌈	**Ag**	**107**	**-0.001**	ug/L	0.001	98	121	88	10	Standard
⌈	**Sb**	**121**	**0.521**	ug/L	0.005	0	91	4912	1	Standard
⌈	**Sb**	**123**	**0.513**	ug/L	0.023	4	78	3769	4	Standard
⌈	**Ba**	**135**	**54.725**	ug/L	1.999	3	23	167625	2	Standard
⌊	**Ba**	**137**	**52.547**	ug/L	0.996	1	48	295037	2	Standard
⌈>	**Tb**	**159**		ug/L			1026127	929304	3	Standard
⌈	**Tl**	**205**	**-0.001**	ug/L	0.001	67	86	60	23	Standard
⌊	**Pb**	**208**	**0.072**	ug/L	0.005	7	191	1676	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0367-03
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 12:18:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	666375	9	Standard
⌊	**Be**	**9**	**-0.004**	ug/L	0.000	7	27	8	12	Standard
	C	**13**		ug/L			17606	51965	4	Standard
	Cl	**37**		ug/L			6613771	37661459	1	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1128758	8	Standard
⌈	**V**	**51**	**0.671**	ug/L	0.129	19	5706	20652	14	Standard
⌊	**V-1**	**51**	**8.030**	ug/L	0.609	7	834	180223	1	Standard
⌈	**Cr**	**52**	**0.404**	ug/L	0.128	31	16644	24016	1	Standard
⌊	**Cr**	**53**	**25.603**	ug/L	2.112	8	322	53743	1	Standard
⌊	**Mn**	**55**	**370.553**	ug/L	33.732	9	466	9298978	0	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	70578	3	KED
⌈	**Co**	**59**	**0.437**	ug/L	0.013	2	31	1845	0	KED
⌊	**Ni**	**60**	**4.098**	ug/L	0.235	5	44	4804	2	KED
⌈	**Ni**	**62**	**4.246**	ug/L	0.135	3	7	758	1	KED
⌈	**Cu**	**63**	**2.656**	ug/L	0.096	3	57	8032	0	KED
⌊	**Cu**	**65**	**2.624**	ug/L	0.065	2	19	3925	1	KED
⌈	**Zn**	**66**	**5.521**	ug/L	0.197	3	56	2323	0	KED
⌊	**Zn**	**67**	**7.425**	ug/L	0.317	4	7	515	7	KED
⌈	**As**	**75**	**0.928**	ug/L	0.018	1	6	262	4	KED
⌊	**Se-1**	**78**	**0.267**	ug/L	0.086	32	25	31	8	KED
	Y	**89**		ug/L			619356	549289	7	Standard
	Kr	**83**		ug/L			31	393	6	Standard
⌈>	**In-1**	**115**		ug/L			34809	29085	1	KED
⌈	**Mo**	**98**	**11.638**	ug/L	0.199	1	3	13411	0	KED
⌈	**Cd**	**111**	**0.019**	ug/L	0.007	36	2	8	29	KED
⌊	**Cd**	**114**	**0.012**	ug/L	0.003	21	3	13	16	KED
⌈>	**In**	**115**		ug/L			769572	608328	10	Standard
⌈	**Ag**	**107**	**-0.001**	ug/L	0.001	140	121	87	2	Standard
⌈	**Sb**	**121**	**0.526**	ug/L	0.050	9	91	4774	2	Standard
⌊	**Sb**	**123**	**0.541**	ug/L	0.048	8	78	3821	2	Standard
⌈	**Ba**	**135**	**59.718**	ug/L	5.139	8	23	176220	2	Standard
⌊	**Ba**	**137**	**56.670**	ug/L	5.411	9	48	306296	2	Standard
⌈>	**Tb**	**159**		ug/L			1026127	894936	10	Standard
⌈	**Tl**	**205**	**-0.001**	ug/L	0.001	50	86	59	3	Standard
⌊	**Pb**	**208**	**0.049**	ug/L	0.003	5	191	1153	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0367-04
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 12:23:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	708507	3	Standard
⌊	**Be**	**9**	**-0.004**	ug/L	0.001	20	27	9	52	Standard
	C	**13**		ug/L			17606	53246	4	Standard
	Cl	**37**		ug/L			6613771	37004298	3	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1188931	1	Standard
⌈	**V**	**51**	**0.714**	ug/L	0.139	19	5706	22774	12	Standard
⌊	**V-1**	**51**	**7.522**	ug/L	0.152	2	834	178605	0	Standard
⌈	**Cr**	**52**	**0.361**	ug/L	0.014	3	16644	24616	0	Standard
⌊	**Cr**	**53**	**23.679**	ug/L	0.060	0	322	52615	1	Standard
⌊	**Mn**	**55**	**321.154**	ug/L	4.722	1	466	8531106	0	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	71796	0	KED
⌈	**Co**	**59**	**0.415**	ug/L	0.016	3	31	1784	4	KED
⌊	**Ni**	**60**	**3.972**	ug/L	0.059	1	44	4744	1	KED
⌈	**Ni**	**62**	**4.319**	ug/L	0.122	2	7	785	2	KED
⌈	**Cu**	**63**	**2.654**	ug/L	0.024	0	57	8168	0	KED
⌊	**Cu**	**65**	**2.595**	ug/L	0.045	1	19	3951	2	KED
⌈	**Zn**	**66**	**5.969**	ug/L	0.211	3	56	2553	3	KED
⌊	**Zn**	**67**	**8.598**	ug/L	0.611	7	7	605	7	KED
⌈	**As**	**75**	**0.993**	ug/L	0.026	2	6	285	3	KED
⌊	**Se-1**	**78**	**0.337**	ug/L	0.127	37	25	34	13	KED
	Y	**89**		ug/L			619356	587485	2	Standard
	Kr	**83**		ug/L			31	420	4	Standard
⌈>	**In-1**	**115**		ug/L			34809	29339	2	KED
⌈	**Mo**	**98**	**11.840**	ug/L	0.331	2	3	13759	0	KED
⌈	**Cd**	**111**	**0.020**	ug/L	0.001	6	2	9	5	KED
⌊	**Cd**	**114**	**0.012**	ug/L	0.002	15	3	13	11	KED
⌈>	**In**	**115**		ug/L			769572	612742	2	Standard
⌈	**Ag**	**107**	**-0.002**	ug/L	0.001	33	121	71	11	Standard
⌈	**Sb**	**121**	**0.523**	ug/L	0.014	2	91	4808	1	Standard
⌊	**Sb**	**123**	**0.518**	ug/L	0.025	4	78	3710	3	Standard
⌈	**Ba**	**135**	**58.633**	ug/L	2.438	4	23	175187	2	Standard
⌊	**Ba**	**137**	**57.160**	ug/L	1.678	2	48	313091	2	Standard
⌈>	**Tb**	**159**		ug/L			1026127	944353	2	Standard
⌈	**Tl**	**205**	**-0.001**	ug/L	0.000	38	86	61	11	Standard
⌊	**Pb**	**208**	**0.064**	ug/L	0.003	5	191	1518	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0579-DUP2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 12:28:05
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	742110	3	Standard
	Be	9	-0.004	ug/L	0.001	24	27	10	61	Standard
	C	13		ug/L			17606	32680	3	Standard
	Cl	37		ug/L			6613771	6825657	1	Standard
>	Sc	45		ug/L			1108166	1060226	3	Standard
	V	51	0.030	ug/L	0.002	6	5706	6076	2	Standard
	V-1	51	0.346	ug/L	0.010	2	834	8095	5	Standard
	Cr	52	-0.038	ug/L	0.015	40	16644	15295	5	Standard
	Cr	53	1.048	ug/L	0.050	4	322	2374	7	Standard
	Mn	55	154.830	ug/L	1.745	1	466	3668071	3	Standard
>	Ge-1	72		ug/L			81114	72824	0	KED
	Co	59	0.158	ug/L	0.010	6	31	705	5	KED
	Ni	60	1.257	ug/L	0.114	9	44	1550	8	KED
	Ni	62	1.424	ug/L	0.174	12	7	267	11	KED
	Cu	63	0.155	ug/L	0.011	7	57	533	6	KED
	Cu	65	0.165	ug/L	0.011	6	19	271	6	KED
	Zn	66	1.197	ug/L	0.055	4	56	560	4	KED
	Zn	67	2.645	ug/L	0.522	19	7	193	18	KED
	As	75	0.570	ug/L	0.012	2	6	168	2	KED
	Se-1	78	0.066	ug/L	0.173	262	25	25	25	KED
	Y	89		ug/L			619356	556051	3	Standard
	Kr	83		ug/L			31	83	20	Standard
>	In-1	115		ug/L			34809	30708	2	KED
	Mo	98	21.162	ug/L	0.762	3	3	25736	1	KED
	Cd	111	0.029	ug/L	0.006	19	2	13	18	KED
	Cd	114	0.015	ug/L	0.005	35	3	17	30	KED
>	In	115		ug/L			769572	651478	1	Standard
	Ag	107	-0.003	ug/L	0.001	19	121	64	13	Standard
	Sb	121	0.019	ug/L	0.002	11	91	262	9	Standard
	Sb	123	0.019	ug/L	0.003	16	78	211	12	Standard
	Ba	135	29.855	ug/L	0.793	2	23	94883	1	Standard
	Ba	137	28.749	ug/L	1.066	3	48	167420	2	Standard
>	Tb	159		ug/L			1026127	1021582	2	Standard
	Tl	205	0.007	ug/L	0.002	28	86	212	14	Standard
	Pb	208	0.015	ug/L	0.001	5	191	535	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0335-07
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 12:33:01
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	858450	2	Standard
	Be	9	-0.005	ug/L	0.001	11	27	7	50	Standard
	C	13		ug/L			17606	33022	3	Standard
	Cl	37		ug/L			6613771	6373723	2	Standard
>	Sc	45		ug/L			1108166	1047991	2	Standard
	V	51	0.024	ug/L	0.007	30	5706	5891	2	Standard
	V-1	51	0.179	ug/L	0.009	5	834	4520	4	Standard
	Cr	52	-0.034	ug/L	0.024	70	16644	15171	1	Standard
	Cr	53	0.499	ug/L	0.035	6	322	1275	5	Standard
	Mn	55	153.394	ug/L	3.521	2	466	3591541	1	Standard
>	Ge-1	72		ug/L			81114	66557	1	KED
	Co	59	0.163	ug/L	0.002	1	31	666	2	KED
	Ni	60	1.335	ug/L	0.032	2	44	1502	1	KED
	Ni	62	1.314	ug/L	0.165	12	7	226	13	KED
	Cu	63	0.144	ug/L	0.003	2	57	455	2	KED
	Cu	65	0.131	ug/L	0.007	5	19	200	5	KED
	Zn	66	1.113	ug/L	0.027	2	56	479	2	KED
	Zn	67	2.520	ug/L	0.191	7	7	168	6	KED
	As	75	0.546	ug/L	0.035	6	6	147	5	KED
	Se-1	78	0.042	ug/L	0.075	179	25	22	11	KED
	Y	89		ug/L			619356	516627	6	Standard
	Kr	83		ug/L			31	59	9	Standard
>	In-1	115		ug/L			34809	28170	1	KED
	Mo	98	21.012	ug/L	0.368	1	3	23448	0	KED
	Cd	111	0.018	ug/L	0.003	18	2	7	13	KED
	Cd	114	0.021	ug/L	0.008	37	3	21	34	KED
>	In	115		ug/L			769572	656857	2	Standard
	Ag	107	-0.004	ug/L	0.000	7	121	55	6	Standard
	Sb	121	0.018	ug/L	0.002	8	91	252	3	Standard
	Sb	123	0.017	ug/L	0.004	23	78	197	13	Standard
	Ba	135	29.337	ug/L	1.161	3	23	93966	1	Standard
	Ba	137	28.814	ug/L	1.612	5	48	169073	2	Standard
>	Tb	159		ug/L			1026127	1037035	3	Standard
	Tl	205	0.007	ug/L	0.001	8	86	219	6	Standard
	Pb	208	0.025	ug/L	0.001	3	191	769	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0579-MS2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 12:37:56
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	Li	6		ug/L			572696	934093	2	Standard
⌊	Be	9	17.255	ug/L	0.331	1	27	138311	3	Standard
	C	13		ug/L			17606	37229	1	Standard
	Cl	37		ug/L			6613771	6162208	2	Standard
⌈>	Sc	45		ug/L			1108166	1037637	1	Standard
⌈	V	51	23.661	ug/L	0.771	3	5706	487366	1	Standard
⌈	V-1	51	23.556	ug/L	0.810	3	834	486385	1	Standard
⌈	Cr	52	23.516	ug/L	0.884	3	16644	400172	1	Standard
⌈	Cr	53	23.163	ug/L	0.902	3	322	44905	1	Standard
⌊	Mn	55	176.134	ug/L	6.372	3	466	4082448	2	Standard
⌈>	Ge-1	72		ug/L			81114	62990	0	KED
⌈	Co	59	28.126	ug/L	0.316	1	31	104442	1	KED
⌈	Ni	60	28.541	ug/L	0.616	2	44	29695	1	KED
⌈	Ni	62	29.344	ug/L	0.587	1	7	4647	1	KED
⌈	Cu	63	26.670	ug/L	0.375	1	57	71628	2	KED
⌈	Cu	65	26.334	ug/L	0.176	0	19	35045	1	KED
⌈	Zn	66	81.343	ug/L	0.922	1	56	29981	0	KED
⌈	Zn	67	75.563	ug/L	1.427	1	7	4623	1	KED
⌈	As	75	26.798	ug/L	0.409	1	6	6630	0	KED
⌊	Se-1	78	81.835	ug/L	1.219	1	25	2636	0	KED
	Y	89		ug/L			619356	472114	4	Standard
	Kr	83		ug/L			31	63	43	Standard
⌈>	In-1	115		ug/L			34809	26537	1	KED
⌈	Mo	98	48.219	ug/L	2.267	4	3	50672	3	KED
⌈	Cd	111	25.046	ug/L	0.995	3	2	8126	3	KED
⌊	Cd	114	24.919	ug/L	0.991	3	3	20686	2	KED
⌈>	In	115		ug/L			769572	632788	0	Standard
⌈	Ag	107	19.646	ug/L	0.466	2	121	240646	1	Standard
⌈	Sb	121	25.526	ug/L	0.255	1	91	238932	0	Standard
⌈	Sb	123	25.845	ug/L	0.310	1	78	188045	0	Standard
⌈	Ba	135	59.249	ug/L	5.092	8	23	182901	8	Standard
⌊	Ba	137	58.720	ug/L	1.589	2	48	332260	3	Standard
⌈>	Tb	159		ug/L			1026127	1061120	0	Standard
⌈	Tl	205	25.620	ug/L	1.599	6	86	483267	5	Standard
⌊	Pb	208	24.828	ug/L	0.543	2	191	589173	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0579-MSD2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 12:42:51
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	874244	3	Standard
⌊	**Be**	**9**	**18.311**	ug/L	0.616	3	27	137284	2	Standard
	C	**13**		ug/L			17606	38098	3	Standard
	Cl	**37**		ug/L			6613771	6086777	0	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1019347	2	Standard
⌈	**V**	**51**	**23.761**	ug/L	0.715	3	5706	480839	2	Standard
⌊	**V-1**	**51**	**23.695**	ug/L	0.779	3	834	480677	2	Standard
⌈	**Cr**	**52**	**23.569**	ug/L	0.558	2	16644	394044	0	Standard
⌊	**Cr**	**53**	**23.350**	ug/L	0.699	2	322	44475	1	Standard
⌊	**Mn**	**55**	**176.942**	ug/L	9.347	5	466	4027600	3	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	61414	1	KED
⌈	**Co**	**59**	**27.495**	ug/L	0.179	0	31	99540	2	KED
⌊	**Ni**	**60**	**28.775**	ug/L	1.177	4	44	29177	2	KED
⌈	**Ni**	**62**	**27.782**	ug/L	1.187	4	7	4288	2	KED
⌈	**Cu**	**63**	**26.819**	ug/L	0.270	1	57	70217	1	KED
⌊	**Cu**	**65**	**26.512**	ug/L	0.182	0	19	34398	2	KED
⌈	**Zn**	**66**	**80.870**	ug/L	1.873	2	56	29054	0	KED
⌊	**Zn**	**67**	**75.080**	ug/L	2.386	3	7	4477	1	KED
⌈	**As**	**75**	**26.754**	ug/L	0.790	2	6	6451	1	KED
⌊	**Se-1**	**78**	**80.685**	ug/L	1.641	2	25	2534	1	KED
	Y	**89**		ug/L			619356	452143	4	Standard
	Kr	**83**		ug/L			31	54	34	Standard
⌈>	**In-1**	**115**		ug/L			34809	25657	2	KED
⌈	**Mo**	**98**	**49.503**	ug/L	1.217	2	3	50308	2	KED
⌈	**Cd**	**111**	**25.414**	ug/L	0.645	2	2	7971	0	KED
⌊	**Cd**	**114**	**25.473**	ug/L	0.486	1	3	20446	0	KED
⌈>	**In**	**115**		ug/L			769572	613185	3	Standard
⌈	**Ag**	**107**	**19.998**	ug/L	0.715	3	121	237192	0	Standard
⌈	**Sb**	**121**	**27.103**	ug/L	0.368	1	91	245767	2	Standard
⌊	**Sb**	**123**	**25.973**	ug/L	1.012	3	78	182957	0	Standard
⌈	**Ba**	**135**	**62.551**	ug/L	1.491	2	23	187173	5	Standard
⌊	**Ba**	**137**	**59.062**	ug/L	1.832	3	48	323590	1	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1032032	0	Standard
⌈	**Tl**	**205**	**26.157**	ug/L	0.230	0	86	479972	1	Standard
⌊	**Pb**	**208**	**25.627**	ug/L	0.533	2	191	591577	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0579-BS2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 12:47:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	799901	1	Standard
⌊	**Be**	**9**	**19.949**	ug/L	0.275	1	27	136922	2	Standard
	C	**13**		ug/L			17606	32172	2	Standard
	Cl	**37**		ug/L			6613771	6955704	3	Standard
⌈>	**Sc**	**45**		ug/L			1108166	967694	3	Standard
⌈	**V**	**51**	**25.099**	ug/L	0.732	2	5706	481711	0	Standard
⌈	**V-1**	**51**	**24.839**	ug/L	0.582	2	834	478203	1	Standard
⌈	**Cr**	**52**	**26.883**	ug/L	0.698	2	16644	424522	1	Standard
⌈	**Cr**	**53**	**25.923**	ug/L	0.479	1	322	46849	2	Standard
⌊	**Mn**	**55**	**26.999**	ug/L	1.057	3	466	583690	0	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	70000	1	KED
⌈	**Co**	**59**	**26.969**	ug/L	0.559	2	31	111284	2	KED
⌈	**Ni**	**60**	**27.587**	ug/L	0.903	3	44	31890	1	KED
⌈	**Ni**	**62**	**28.115**	ug/L	0.083	0	7	4949	1	KED
⌈	**Cu**	**63**	**28.107**	ug/L	0.953	3	57	83846	1	KED
⌈	**Cu**	**65**	**28.195**	ug/L	0.308	1	19	41695	2	KED
⌈	**Zn**	**66**	**88.422**	ug/L	1.993	2	56	36221	3	KED
⌈	**Zn**	**67**	**84.447**	ug/L	0.895	1	7	5741	1	KED
⌈	**As**	**75**	**24.755**	ug/L	0.446	1	6	6806	2	KED
⌊	**Se-1**	**78**	**80.618**	ug/L	2.080	2	25	2885	0	KED
	Y	**89**		ug/L			619356	524039	2	Standard
	Kr	**83**		ug/L			31	36	22	Standard
⌈>	**In-1**	**115**		ug/L			34809	29025	1	KED
⌈	**Mo**	**98**	**26.258**	ug/L	0.868	3	3	30190	2	KED
⌈	**Cd**	**111**	**26.045**	ug/L	0.671	2	2	9242	1	KED
⌊	**Cd**	**114**	**26.750**	ug/L	0.365	1	3	24295	1	KED
⌈>	**In**	**115**		ug/L			769572	667479	2	Standard
⌈	**Ag**	**107**	**23.740**	ug/L	0.522	2	121	306631	0	Standard
⌈	**Sb**	**121**	**26.113**	ug/L	1.055	4	91	257670	1	Standard
⌈	**Sb**	**123**	**26.017**	ug/L	0.765	2	78	199587	0	Standard
⌈	**Ba**	**135**	**28.975**	ug/L	0.591	2	23	94337	0	Standard
⌊	**Ba**	**137**	**28.140**	ug/L	1.075	3	48	167860	1	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1044215	3	Standard
⌈	**Tl**	**205**	**27.680**	ug/L	0.515	1	86	513838	3	Standard
⌊	**Pb**	**208**	**26.793**	ug/L	0.799	2	191	625355	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 12:53:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	750196	2	Standard
	Be	**9**	**39.884**	ug/L	0.475	1	27	256634	1	Standard
	C	**13**		ug/L			17606	19133	2	Standard
	Cl	**37**		ug/L			6613771	6670586	1	Standard
>	**Sc**	**45**		ug/L			1108166	972712	1	Standard
	V	**51**	**48.654**	ug/L	0.723	1	5706	934514	1	Standard
	V-1	**51**	**48.643**	ug/L	1.048	2	834	941103	2	Standard
	Cr	**52**	**50.062**	ug/L	1.309	2	16644	782322	1	Standard
	Cr	**53**	**49.968**	ug/L	1.303	2	322	90509	1	Standard
	Mn	**55**	**49.540**	ug/L	0.146	0	466	1077156	1	Standard
>	**Ge-1**	**72**		ug/L			81114	68976	1	KED
	Co	**59**	**52.937**	ug/L	0.571	1	31	215204	0	KED
	Ni	**60**	**52.560**	ug/L	2.363	4	44	59836	3	KED
	Ni	**62**	**54.235**	ug/L	1.117	2	7	9400	0	KED
	Cu	**63**	**53.350**	ug/L	1.462	2	57	156813	1	KED
	Cu	**65**	**52.038**	ug/L	0.812	1	19	75804	0	KED
	Zn	**66**	**53.582**	ug/L	1.289	2	56	21639	0	KED
	Zn	**67**	**50.735**	ug/L	1.244	2	7	3401	2	KED
	As	**75**	**50.223**	ug/L	1.225	2	6	13600	1	KED
	Se-1	**78**	**50.355**	ug/L	1.011	2	25	1784	1	KED
	Y	**89**		ug/L			619356	544146	2	Standard
	Kr	**83**		ug/L			31	38	20	Standard
>	**In-1**	**115**		ug/L			34809	29863	1	KED
	Mo	**98**	**50.468**	ug/L	1.895	3	3	59691	2	KED
	Cd	**111**	**49.534**	ug/L	0.255	0	2	18088	1	KED
	Cd	**114**	**49.968**	ug/L	2.033	4	3	46675	2	KED
>	**In**	**115**		ug/L			769572	656727	1	Standard
	Ag	**107**	**47.009**	ug/L	1.853	3	121	597309	2	Standard
	Sb	**121**	**51.523**	ug/L	0.702	1	91	500535	2	Standard
	Sb	**123**	**50.761**	ug/L	0.915	1	78	383206	1	Standard
	Ba	**135**	**56.449**	ug/L	2.241	3	23	180867	4	Standard
	Ba	**137**	**53.029**	ug/L	1.431	2	48	311471	4	Standard
>	**Tb**	**159**		ug/L			1026127	1013828	2	Standard
	Tl	**205**	**51.710**	ug/L	2.377	4	86	931629	3	Standard
	Pb	**208**	**51.460**	ug/L	2.077	4	191	1166202	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 13:01:27
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	700887	5	Standard
	Be	**9**	**-0.001**	ug/L	0.006	436	27	24	135	Standard
	C	**13**		ug/L			17606	17421	1	Standard
	Cl	**37**		ug/L			6613771	6754384	4	Standard
>	**Sc**	**45**		ug/L			1108166	980665	3	Standard
	V	**51**	**-0.014**	ug/L	0.006	45	5706	4773	1	Standard
	V-1	**51**	**0.017**	ug/L	0.002	13	834	1076	6	Standard
	Cr	**52**	**-0.053**	ug/L	0.038	71	16644	13898	0	Standard
	Cr	**53**	**0.057**	ug/L	0.014	25	322	388	4	Standard
	Mn	**55**	**0.008**	ug/L	0.003	33	466	581	11	Standard
>	**Ge-1**	**72**		ug/L			81114	73088	1	KED
	Co	**59**	**-0.001**	ug/L	0.001	123	31	23	28	KED
	Ni	**60**	**-0.014**	ug/L	0.005	35	44	23	26	KED
	Ni	**62**	**-0.010**	ug/L	0.012	119	7	5	43	KED
	Cu	**63**	**-0.002**	ug/L	0.001	36	57	44	6	KED
	Cu	**65**	**-0.002**	ug/L	0.003	165	19	15	25	KED
	Zn	**66**	**0.058**	ug/L	0.007	12	56	75	5	KED
	Zn	**67**	**0.073**	ug/L	0.040	55	7	12	24	KED
	As	**75**	**-0.006**	ug/L	0.006	104	6	4	40	KED
	Se-1	**78**	**-0.014**	ug/L	0.048	355	25	22	9	KED
	Y	**89**		ug/L			619356	549275	1	Standard
	Kr	**83**		ug/L			31	34	13	Standard
>	**In-1**	**115**		ug/L			34809	30625	2	KED
	Mo	**98**	**0.014**	ug/L	0.005	34	3	19	29	KED
	Cd	**111**	**-0.003**	ug/L	0.003	92	2	0	100	KED
	Cd	**114**	**0.002**	ug/L	0.002	99	3	4	46	KED
>	**In**	**115**		ug/L			769572	657177	2	Standard
	Ag	**107**	**-0.002**	ug/L	0.002	152	121	83	38	Standard
	Sb	**121**	**0.117**	ug/L	0.013	10	91	1212	11	Standard
	Sb	**123**	**0.124**	ug/L	0.007	5	78	1003	4	Standard
	Ba	**135**	**0.001**	ug/L	0.008	690	23	24	111	Standard
	Ba	**137**	**0.001**	ug/L	0.006	493	48	48	70	Standard
>	**Tb**	**159**		ug/L			1026127	1004156	1	Standard
	Tl	**205**	**0.008**	ug/L	0.006	72	86	223	44	Standard
	Pb	**208**	**0.009**	ug/L	0.005	58	191	391	29	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0546-BLK2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 13:07:35
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	696562	1	Standard
⌊	**Be**	**9**	**-0.005**	ug/L	0.000	3	27	6	15	Standard
	C	**13**		ug/L			17606	27319	0	Standard
	Cl	**37**		ug/L			6613771	6817766	4	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1003439	2	Standard
⌈	**V**	**51**	**-0.001**	ug/L	0.005	423	5706	5143	2	Standard
⌊	**V-1**	**51**	**0.017**	ug/L	0.004	22	834	1084	5	Standard
⌈	**Cr**	**52**	**-0.005**	ug/L	0.017	328	16644	14991	3	Standard
⌊	**Cr**	**53**	**0.056**	ug/L	0.010	18	322	395	6	Standard
⌊	**Mn**	**55**	**1.951**	ug/L	0.083	4	466	44136	1	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	73370	3	KED
⌈	**Co**	**59**	**0.002**	ug/L	0.003	142	31	36	29	KED
⌊	**Ni**	**60**	**0.232**	ug/L	0.005	2	44	320	5	KED
⌈	**Ni**	**62**	**0.259**	ug/L	0.026	10	7	54	11	KED
⌈	**Cu**	**63**	**8.884**	ug/L	0.099	1	57	27819	2	KED
⌊	**Cu**	**65**	**8.305**	ug/L	0.164	1	19	12880	1	KED
⌈	**Zn**	**66**	**6.360**	ug/L	0.284	4	56	2776	3	KED
⌊	**Zn**	**67**	**5.715**	ug/L	0.249	4	7	413	1	KED
⌈	**As**	**75**	**0.003**	ug/L	0.009	331	6	6	38	KED
⌊	**Se-1**	**78**	**0.043**	ug/L	0.097	226	25	24	16	KED
	Y	**89**		ug/L			619356	568127	2	Standard
	Kr	**83**		ug/L			31	41	0	Standard
⌈>	**In-1**	**115**		ug/L			34809	31800	0	KED
⌈	**Mo**	**98**	**0.004**	ug/L	0.002	58	3	8	36	KED
⌊	**Cd**	**111**	**-0.000**	ug/L	0.002	737	2	1	50	KED
⌊	**Cd**	**114**	**-0.009**	ug/L	0.011	117	3	-6	171	KED
⌈>	**In**	**115**		ug/L			769572	659095	1	Standard
⌈	**Ag**	**107**	**-0.004**	ug/L	0.000	6	121	55	5	Standard
⌈	**Sb**	**121**	**0.036**	ug/L	0.003	7	91	429	6	Standard
⌊	**Sb**	**123**	**0.036**	ug/L	0.004	12	78	340	9	Standard
⌈	**Ba**	**135**	**0.013**	ug/L	0.000	2	23	63	1	Standard
⌊	**Ba**	**137**	**0.014**	ug/L	0.001	10	48	125	6	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1017859	2	Standard
⌈	**Tl**	**205**	**0.000**	ug/L	0.001	371	86	88	12	Standard
⌊	**Pb**	**208**	**0.345**	ug/L	0.011	3	191	8043	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0319-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 13:12:30
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	726596	4	Standard
⌊	**Be**	**9**	**-0.004**	ug/L	0.000	10	27	8	35	Standard
	C	**13**		ug/L			17606	39498	2	Standard
	Cl	**37**		ug/L			6613771	7257453	1	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1115127	5	Standard
⌈	**V**	**51**	**20.995**	ug/L	1.359	6	5706	464542	1	Standard
⌊	**V-1**	**51**	**21.085**	ug/L	1.354	6	834	467110	1	Standard
⌈	**Cr**	**52**	**0.615**	ug/L	0.030	4	16644	27558	4	Standard
⌊	**Cr**	**53**	**1.746**	ug/L	0.057	3	322	3935	2	Standard
⌊	**Mn**	**55**	**0.844**	ug/L	0.016	1	466	21495	3	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	66689	0	KED
⌈	**Co**	**59**	**0.109**	ug/L	0.014	12	31	453	12	KED
⌊	**Ni**	**60**	**1.044**	ug/L	0.050	4	44	1184	3	KED
⌈	**Ni**	**62**	**1.169**	ug/L	0.145	12	7	201	11	KED
⌈	**Cu**	**63**	**2.087**	ug/L	0.066	3	57	5977	2	KED
⌊	**Cu**	**65**	**2.047**	ug/L	0.082	3	19	2898	3	KED
⌈	**Zn**	**66**	**1.192**	ug/L	0.143	11	56	510	9	KED
⌊	**Zn**	**67**	**2.367**	ug/L	0.188	7	7	159	7	KED
⌈	**As**	**75**	**3.495**	ug/L	0.054	1	6	920	0	KED
⌊	**Se-1**	**78**	**0.609**	ug/L	0.180	29	25	41	13	KED
	Y	**89**		ug/L			619356	513153	0	Standard
	Kr	**83**		ug/L			31	43	25	Standard
⌈>	**In-1**	**115**		ug/L			34809	27967	1	KED
⌈	**Mo**	**98**	**1.615**	ug/L	0.046	2	3	1792	3	KED
⌈	**Cd**	**111**	**0.004**	ug/L	0.004	106	2	3	45	KED
⌊	**Cd**	**114**	**-0.005**	ug/L	0.011	223	3	-1	540	KED
⌈>	**In**	**115**		ug/L			769572	619906	4	Standard
⌈	**Ag**	**107**	**-0.004**	ug/L	0.000	7	121	47	12	Standard
⌈	**Sb**	**121**	**0.080**	ug/L	0.003	3	91	805	6	Standard
⌊	**Sb**	**123**	**0.079**	ug/L	0.004	5	78	626	1	Standard
⌈	**Ba**	**135**	**19.098**	ug/L	0.710	3	23	57757	4	Standard
⌊	**Ba**	**137**	**18.063**	ug/L	1.182	6	48	100001	3	Standard
⌈>	**Tb**	**159**		ug/L			1026127	976297	5	Standard
⌈	**Tl**	**205**	**0.002**	ug/L	0.001	30	86	120	14	Standard
⌊	**Pb**	**208**	**0.024**	ug/L	0.002	9	191	714	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0319-03
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 13:17:26
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	Li	6		ug/L			572696	804508	3	Standard
[	Be	9	0.001	ug/L	0.001	194	27	43	17	Standard
	C	13		ug/L			17606	48663	1	Standard
	Cl	37		ug/L			6613771	9067665	2	Standard
[>	Sc	45		ug/L			1108166	1136420	1	Standard
[	V	51	16.949	ug/L	0.378	2	5706	384114	1	Standard
[	V-1	51	17.605	ug/L	0.355	2	834	398449	1	Standard
[	Cr	52	0.097	ug/L	0.032	32	16644	18798	2	Standard
[	Cr	53	3.023	ug/L	0.039	1	322	6708	1	Standard
[	Mn	55	929.102	ug/L	13.554	1	466	23591105	0	Standard
[>	Ge-1	72		ug/L			81114	60990	0	KED
[	Co	59	2.025	ug/L	0.055	2	31	7301	2	KED
[	Ni	60	11.823	ug/L	0.641	5	44	11931	5	KED
[	Ni	62	12.236	ug/L	0.302	2	7	1880	2	KED
[	Cu	63	5.155	ug/L	0.134	2	57	13439	2	KED
[	Cu	65	5.122	ug/L	0.193	3	19	6611	3	KED
[	Zn	66	1.768	ug/L	0.082	4	56	672	4	KED
[	Zn	67	3.552	ug/L	0.412	11	7	215	11	KED
[	As	75	3.926	ug/L	0.069	1	6	944	1	KED
[	Se-1	78	0.271	ug/L	0.061	22	25	27	6	KED
	Y	89		ug/L			619356	493833	2	Standard
	Kr	83		ug/L			31	63	9	Standard
[>	In-1	115		ug/L			34809	26328	0	KED
[	Mo	98	4.482	ug/L	0.186	4	3	4675	3	KED
[	Cd	111	0.054	ug/L	0.011	20	2	19	18	KED
[	Cd	114	0.048	ug/L	0.029	59	3	41	56	KED
[>	In	115		ug/L			769572	591521	2	Standard
[	Ag	107	-0.002	ug/L	0.001	54	121	67	19	Standard
[	Sb	121	0.159	ug/L	0.003	1	91	1462	3	Standard
[	Sb	123	0.154	ug/L	0.003	2	78	1104	2	Standard
[	Ba	135	56.581	ug/L	0.759	1	23	163301	2	Standard
[	Ba	137	55.560	ug/L	1.870	3	48	293718	1	Standard
[>	Tb	159		ug/L			1026127	1008666	2	Standard
[	Tl	205	0.119	ug/L	0.003	2	86	2212	1	Standard
[	Pb	208	0.045	ug/L	0.001	1	191	1207	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0241-02
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 13:22:21
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	796037	5	Standard
	Be	9	0.088	ug/L	0.006	6	27	638	3	Standard
	C	13		ug/L			17606	34447	4	Standard
	Cl	37		ug/L			6613771	6895566	1	Standard
>	Sc	45		ug/L			1108166	1035041	2	Standard
	V	51	26.961	ug/L	0.723	2	5706	553142	0	Standard
	V-1	51	26.710	ug/L	0.687	2	834	549954	0	Standard
	Cr	52	7.241	ug/L	0.261	3	16644	133657	1	Standard
	Cr	53	7.174	ug/L	0.115	1	322	14083	1	Standard
	Mn	55	75.461	ug/L	1.975	2	466	1745219	2	Standard
>	Ge-1	72		ug/L			81114	73344	2	KED
	Co	59	2.627	ug/L	0.051	1	31	11382	2	KED
	Ni	60	6.222	ug/L	0.167	2	44	7570	3	KED
	Ni	62	6.227	ug/L	0.117	1	7	1153	1	KED
	Cu	63	7.936	ug/L	0.174	2	57	24845	0	KED
	Cu	65	7.991	ug/L	0.059	0	19	12392	1	KED
	Zn	66	20.396	ug/L	0.499	2	56	8789	0	KED
	Zn	67	19.993	ug/L	0.340	1	7	1429	0	KED
	As	75	2.368	ug/L	0.030	1	6	687	1	KED
	Se-1	78	0.272	ug/L	0.101	37	25	33	9	KED
	Y	89		ug/L			619356	678335	1	Standard
	Kr	83		ug/L			31	48	39	Standard
>	In-1	115		ug/L			34809	32248	0	KED
	Mo	98	0.136	ug/L	0.017	12	3	177	12	KED
	Cd	111	0.013	ug/L	0.008	58	2	7	41	KED
	Cd	114	0.018	ug/L	0.010	51	3	21	44	KED
>	In	115		ug/L			769572	693332	0	Standard
	Ag	107	0.014	ug/L	0.001	5	121	292	3	Standard
	Sb	121	0.009	ug/L	0.000	4	91	172	2	Standard
	Sb	123	0.009	ug/L	0.001	17	78	139	7	Standard
	Ba	135	10.557	ug/L	0.156	1	23	35728	1	Standard
	Ba	137	10.537	ug/L	0.272	2	48	65356	2	Standard
>	Tb	159		ug/L			1026127	1082537	5	Standard
	Tl	205	0.022	ug/L	0.002	8	86	518	2	Standard
	Pb	208	1.544	ug/L	0.058	3	191	37530	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0241-05
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 13:27:17
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	Li	6		ug/L			572696	764513	9	Standard
⌊	Be	9	0.105	ug/L	0.003	2	27	727	8	Standard
	C	13		ug/L			17606	34963	5	Standard
	Cl	37		ug/L			6613771	6785367	1	Standard
⌈>	Sc	45		ug/L			1108166	1072520	1	Standard
⌈	V	51	28.622	ug/L	0.706	2	5706	608470	3	Standard
⌊	V-1	51	28.384	ug/L	0.656	2	834	605846	2	Standard
⌈	Cr	52	14.849	ug/L	0.467	3	16644	267154	1	Standard
⌊	Cr	53	14.586	ug/L	0.416	2	322	29349	1	Standard
⌊	Mn	55	291.882	ug/L	8.451	2	466	6993399	1	Standard
⌈>	Ge-1	72		ug/L			81114	73890	1	KED
⌈	Co	59	4.878	ug/L	0.210	4	31	21271	4	KED
⌊	Ni	60	14.430	ug/L	0.081	0	44	17634	1	KED
⌈	Ni	62	14.506	ug/L	0.395	2	7	2698	2	KED
⌈	Cu	63	200.592	ug/L	0.385	0	57	631577	0	KED
⌊	Cu	65	201.172	ug/L	2.980	1	19	313944	2	KED
⌈	Zn	66	164.903	ug/L	2.907	1	56	71240	0	KED
⌊	Zn	67	151.080	ug/L	4.318	2	7	10837	3	KED
⌈	As	75	8.598	ug/L	0.119	1	6	2499	1	KED
⌊	Se-1	78	0.340	ug/L	0.044	12	25	36	5	KED
	Y	89		ug/L			619356	688371	2	Standard
	Kr	83		ug/L			31	68	4	Standard
⌈>	In-1	115		ug/L			34809	31307	0	KED
⌈	Mo	98	0.956	ug/L	0.018	1	3	1188	1	KED
⌈	Cd	111	0.098	ug/L	0.007	7	2	39	6	KED
⌊	Cd	114	0.028	ug/L	0.008	30	3	29	27	KED
⌈>	In	115		ug/L			769572	673101	0	Standard
⌈	Ag	107	0.109	ug/L	0.002	1	121	1530	1	Standard
⌈	Sb	121	0.139	ug/L	0.005	3	91	1462	3	Standard
⌊	Sb	123	0.134	ug/L	0.008	6	78	1107	5	Standard
⌈	Ba	135	43.870	ug/L	1.090	2	23	144093	3	Standard
⌊	Ba	137	43.606	ug/L	1.023	2	48	262473	2	Standard
⌈>	Tb	159		ug/L			1026127	1005162	3	Standard
⌈	Tl	205	0.025	ug/L	0.002	9	86	529	6	Standard
⌊	Pb	208	109.144	ug/L	5.979	5	191	2449587	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0546-DUP2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 13:32:12
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	742426	2	Standard
	Be	**9**	**-0.004**	ug/L	0.001	16	27	10	43	Standard
	C	**13**		ug/L			17606	31949	1	Standard
	Cl	**37**		ug/L			6613771	6526583	0	Standard
>	**Sc**	**45**		ug/L			1108166	1135807	1	Standard
	V	**51**	**32.058**	ug/L	0.529	1	5706	720892	0	Standard
	V-1	**51**	**31.818**	ug/L	0.522	1	834	718980	0	Standard
	Cr	**52**	**0.261**	ug/L	0.029	11	16644	21733	1	Standard
	Cr	**53**	**0.718**	ug/L	0.034	4	322	1844	2	Standard
	Mn	**55**	**0.896**	ug/L	0.013	1	466	23213	0	Standard
>	**Ge-1**	**72**		ug/L			81114	68525	1	KED
	Co	**59**	**0.203**	ug/L	0.005	2	31	845	3	KED
	Ni	**60**	**0.273**	ug/L	0.036	13	44	346	11	KED
	Ni	**62**	**0.228**	ug/L	0.049	21	7	45	19	KED
	Cu	**63**	**0.324**	ug/L	0.011	3	57	995	2	KED
	Cu	**65**	**0.306**	ug/L	0.015	5	19	459	5	KED
	Zn	**66**	**1.174**	ug/L	0.058	4	56	517	2	KED
	Zn	**67**	**1.547**	ug/L	0.108	6	7	109	5	KED
	As	**75**	**1.289**	ug/L	0.058	4	6	352	4	KED
	Se-1	**78**	**0.183**	ug/L	0.062	34	25	27	7	KED
	Y	**89**		ug/L			619356	531397	3	Standard
	Kr	**83**		ug/L			31	36	7	Standard
>	**In-1**	**115**		ug/L			34809	29265	2	KED
	Mo	**98**	**0.918**	ug/L	0.069	7	3	1066	6	KED
	Cd	**111**	**0.000**	ug/L	0.005	4592	2	1	86	KED
	Cd	**114**	**-0.009**	ug/L	0.006	65	3	-5	94	KED
>	**In**	**115**		ug/L			769572	655809	1	Standard
	Ag	**107**	**-0.003**	ug/L	0.001	25	121	64	14	Standard
	Sb	**121**	**0.010**	ug/L	0.001	7	91	170	4	Standard
	Sb	**123**	**0.010**	ug/L	0.002	23	78	138	12	Standard
	Ba	**135**	**5.400**	ug/L	0.131	2	23	17294	1	Standard
	Ba	**137**	**5.151**	ug/L	0.268	5	48	30234	4	Standard
>	**Tb**	**159**		ug/L			1026127	1023391	4	Standard
	Tl	**205**	**-0.001**	ug/L	0.001	199	86	75	23	Standard
	Pb	**208**	**0.041**	ug/L	0.001	2	191	1130	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0319-09
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 13:37:07
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	Li	6		ug/L			572696	796673	4	Standard
[	Be	9	-0.005	ug/L	0.000	5	27	3	50	Standard
	C	13		ug/L			17606	32384	2	Standard
	Cl	37		ug/L			6613771	6414768	1	Standard
[>	Sc	45		ug/L			1108166	1123150	0	Standard
[	V	51	32.264	ug/L	1.628	5	5706	717479	4	Standard
[	V-1	51	32.018	ug/L	1.604	5	834	715526	4	Standard
[	Cr	52	0.208	ug/L	0.040	19	16644	20551	3	Standard
[	Cr	53	0.657	ug/L	0.015	2	322	1697	1	Standard
[	Mn	55	0.952	ug/L	0.017	1	466	24354	1	Standard
[>	Ge-1	72		ug/L			81114	67585	1	KED
[	Co	59	0.201	ug/L	0.017	8	31	826	9	KED
[	Ni	60	0.250	ug/L	0.026	10	44	315	9	KED
[	Ni	62	0.262	ug/L	0.020	7	7	50	7	KED
[	Cu	63	0.290	ug/L	0.005	1	57	884	2	KED
[	Cu	65	0.293	ug/L	0.014	4	19	434	5	KED
[	Zn	66	1.145	ug/L	0.092	7	56	499	6	KED
[	Zn	67	1.522	ug/L	0.472	31	7	106	28	KED
[	As	75	1.268	ug/L	0.025	1	6	341	2	KED
[	Se-1	78	0.309	ug/L	0.071	22	25	31	8	KED
	Y	89		ug/L			619356	541096	2	Standard
	Kr	83		ug/L			31	38	22	Standard
[>	In-1	115		ug/L			34809	29164	1	KED
[	Mo	98	0.899	ug/L	0.075	8	3	1041	7	KED
[	Cd	111	0.002	ug/L	0.003	167	2	2	43	KED
[	Cd	114	-0.008	ug/L	0.006	77	3	-4	118	KED
[>	In	115		ug/L			769572	647272	3	Standard
[	Ag	107	-0.004	ug/L	0.000	9	121	53	12	Standard
[	Sb	121	0.011	ug/L	0.002	19	91	182	8	Standard
[	Sb	123	0.008	ug/L	0.001	18	78	124	10	Standard
[	Ba	135	5.374	ug/L	0.164	3	23	16977	1	Standard
[	Ba	137	5.186	ug/L	0.190	3	48	30025	1	Standard
[>	Tb	159		ug/L			1026127	1040350	3	Standard
[	Tl	205	-0.001	ug/L	0.001	74	86	69	18	Standard
[	Pb	208	0.036	ug/L	0.002	5	191	1024	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0546-MS2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 13:42:03
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	**Li**	**6**		ug/L			572696	767843	6	Standard
[	**Be**	**9**	**20.386**	ug/L	1.166	5	27	133965	1	Standard
	C	**13**		ug/L			17606	34645	1	Standard
	Cl	**37**		ug/L			6613771	6581756	3	Standard
[>	**Sc**	**45**		ug/L			1108166	1115291	2	Standard
[	**V**	**51**	**54.599**	ug/L	2.434	4	5706	1201289	3	Standard
[	**V-1**	**51**	**54.203**	ug/L	2.273	4	834	1201878	3	Standard
[	**Cr**	**52**	**22.884**	ug/L	0.990	4	16644	419171	4	Standard
[	**Cr**	**53**	**22.807**	ug/L	0.531	2	322	47554	3	Standard
[	**Mn**	**55**	**23.474**	ug/L	0.363	1	466	585331	1	Standard
[>	**Ge-1**	**72**		ug/L			81114	68489	1	KED
[	**Co**	**59**	**27.180**	ug/L	0.543	1	31	109735	2	KED
[	**Ni**	**60**	**27.052**	ug/L	0.412	1	44	30611	2	KED
[	**Ni**	**62**	**27.982**	ug/L	1.708	6	7	4821	6	KED
[	**Cu**	**63**	**27.871**	ug/L	0.547	1	57	81391	2	KED
[	**Cu**	**65**	**27.430**	ug/L	0.910	3	19	39684	2	KED
[	**Zn**	**66**	**83.651**	ug/L	1.469	1	56	33520	0	KED
[	**Zn**	**67**	**79.194**	ug/L	1.893	2	7	5268	1	KED
[	**As**	**75**	**27.381**	ug/L	0.475	1	6	7365	0	KED
[	**Se-1**	**78**	**79.870**	ug/L	0.731	0	25	2798	0	KED
	Y	**89**		ug/L			619356	522375	3	Standard
	Kr	**83**		ug/L			31	43	30	Standard
[>	**In-1**	**115**		ug/L			34809	28729	3	KED
[	**Mo**	**98**	**0.954**	ug/L	0.059	6	3	1087	2	KED
[	**Cd**	**111**	**25.754**	ug/L	0.994	3	2	9040	1	KED
[	**Cd**	**114**	**25.987**	ug/L	0.915	3	3	23345	1	KED
[>	**In**	**115**		ug/L			769572	647877	4	Standard
[	**Ag**	**107**	**23.126**	ug/L	1.617	6	121	289444	2	Standard
[	**Sb**	**121**	**0.007**	ug/L	0.001	10	91	145	9	Standard
[	**Sb**	**123**	**0.010**	ug/L	0.003	25	78	139	13	Standard
[	**Ba**	**135**	**35.461**	ug/L	0.326	0	23	112071	3	Standard
[	**Ba**	**137**	**33.586**	ug/L	0.934	2	48	194477	3	Standard
[>	**Tb**	**159**		ug/L			1026127	1023329	2	Standard
[	**Tl**	**205**	**26.951**	ug/L	0.882	3	86	490248	3	Standard
[	**Pb**	**208**	**26.314**	ug/L	0.715	2	191	602122	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0546-MSD2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 13:46:58
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	757016	10	Standard
	Be	**9**	**21.211**	ug/L	2.354	11	27	136724	1	Standard
	C	**13**		ug/L			17606	33467	6	Standard
	Cl	**37**		ug/L			6613771	6535521	1	Standard
>	**Sc**	**45**		ug/L			1108166	1110730	0	Standard
	V	**51**	**54.940**	ug/L	2.723	4	5706	1204239	4	Standard
	V-1	**51**	**54.717**	ug/L	2.645	4	834	1208710	4	Standard
	Cr	**52**	**22.625**	ug/L	0.601	2	16644	412966	2	Standard
	Cr	**53**	**23.164**	ug/L	0.430	1	322	48094	1	Standard
	Mn	**55**	**22.923**	ug/L	0.370	1	466	569398	1	Standard
>	**Ge-1**	**72**		ug/L			81114	68060	1	KED
	Co	**59**	**27.144**	ug/L	0.946	3	31	108866	1	KED
	Ni	**60**	**26.666**	ug/L	1.036	3	44	29971	2	KED
	Ni	**62**	**28.371**	ug/L	1.362	4	7	4854	3	KED
	Cu	**63**	**27.200**	ug/L	0.305	1	57	78931	2	KED
	Cu	**65**	**26.807**	ug/L	0.838	3	19	38535	2	KED
	Zn	**66**	**85.637**	ug/L	2.161	2	56	34098	1	KED
	Zn	**67**	**78.861**	ug/L	1.316	1	7	5213	0	KED
	As	**75**	**26.584**	ug/L	0.536	2	6	7105	0	KED
	Se-1	**78**	**77.470**	ug/L	1.687	2	25	2697	0	KED
	Y	**89**		ug/L			619356	529660	3	Standard
	Kr	**83**		ug/L			31	35	13	Standard
>	**In-1**	**115**		ug/L			34809	29033	1	KED
	Mo	**98**	**0.891**	ug/L	0.051	5	3	1027	4	KED
	Cd	**111**	**25.531**	ug/L	0.238	0	2	9064	1	KED
	Cd	**114**	**25.948**	ug/L	0.124	0	3	23575	1	KED
>	**In**	**115**		ug/L			769572	633695	0	Standard
	Ag	**107**	**22.985**	ug/L	0.789	3	121	281926	2	Standard
	Sb	**121**	**0.010**	ug/L	0.001	8	91	167	4	Standard
	Sb	**123**	**0.008**	ug/L	0.000	2	78	125	0	Standard
	Ba	**135**	**35.580**	ug/L	1.445	4	23	110039	4	Standard
	Ba	**137**	**34.228**	ug/L	0.394	1	48	193961	1	Standard
>	**Tb**	**159**		ug/L			1026127	1001200	1	Standard
	Tl	**205**	**27.304**	ug/L	1.407	5	86	486192	6	Standard
	Pb	**208**	**26.762**	ug/L	0.471	1	191	599201	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0546-BS2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 13:51:53
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	738135	4	Standard
	Be	**9**	**22.050**	ug/L	0.670	3	27	139522	2	Standard
	C	**13**		ug/L			17606	31824	3	Standard
	Cl	**37**		ug/L			6613771	6847504	2	Standard
>	**Sc**	**45**		ug/L			1108166	963712	0	Standard
	V	**51**	**27.321**	ug/L	0.089	0	5706	522083	0	Standard
	V-1	**51**	**27.167**	ug/L	0.213	0	834	521069	1	Standard
	Cr	**52**	**28.010**	ug/L	0.497	1	16644	440134	2	Standard
	Cr	**53**	**27.457**	ug/L	0.358	1	322	49410	1	Standard
	Mn	**55**	**30.209**	ug/L	0.805	2	466	650883	2	Standard
>	**Ge-1**	**72**		ug/L			81114	72709	3	KED
	Co	**59**	**27.823**	ug/L	0.898	3	31	119175	0	KED
	Ni	**60**	**29.032**	ug/L	1.042	3	44	34864	4	KED
	Ni	**62**	**29.926**	ug/L	1.017	3	7	5468	2	KED
	Cu	**63**	**29.475**	ug/L	1.410	4	57	91274	1	KED
	Cu	**65**	**28.714**	ug/L	0.932	3	19	44105	4	KED
	Zn	**66**	**92.953**	ug/L	2.561	2	56	39521	1	KED
	Zn	**67**	**87.890**	ug/L	4.651	5	7	6201	3	KED
	As	**75**	**25.739**	ug/L	0.535	2	6	7348	1	KED
	Se-1	**78**	**84.815**	ug/L	1.432	1	25	3152	2	KED
	Y	**89**		ug/L			619356	544921	0	Standard
	Kr	**83**		ug/L			31	43	15	Standard
>	**In-1**	**115**		ug/L			34809	30704	2	KED
	Mo	**98**	**0.006**	ug/L	0.003	52	3	10	35	KED
	Cd	**111**	**27.095**	ug/L	0.419	1	2	10171	0	KED
	Cd	**114**	**27.543**	ug/L	1.142	4	3	26450	2	KED
>	**In**	**115**		ug/L			769572	688854	1	Standard
	Ag	**107**	**25.095**	ug/L	0.180	0	121	334633	2	Standard
	Sb	**121**	**0.001**	ug/L	0.002	213	91	92	24	Standard
	Sb	**123**	**-0.001**	ug/L	0.001	158	78	64	13	Standard
	Ba	**135**	**29.965**	ug/L	1.807	6	23	100683	5	Standard
	Ba	**137**	**27.786**	ug/L	1.472	5	48	171070	3	Standard
>	**Tb**	**159**		ug/L			1026127	993985	2	Standard
	Tl	**205**	**29.108**	ug/L	0.621	2	86	514407	3	Standard
	Pb	**208**	**28.974**	ug/L	0.468	1	191	644035	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 13:57:54
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	722697	5	Standard
	Be	**9**	**38.885**	ug/L	2.426	6	27	240621	3	Standard
	C	**13**		ug/L			17606	18925	3	Standard
	Cl	**37**		ug/L			6613771	6834396	2	Standard
>	**Sc**	**45**		ug/L			1108166	964119	3	Standard
	V	**51**	**49.762**	ug/L	0.503	1	5706	947118	2	Standard
	V-1	**51**	**49.441**	ug/L	0.535	1	834	948004	2	Standard
	Cr	**52**	**50.468**	ug/L	1.149	2	16644	781479	2	Standard
	Cr	**53**	**49.341**	ug/L	0.492	0	322	88590	2	Standard
	Mn	**55**	**50.854**	ug/L	0.965	1	466	1095732	2	Standard
>	**Ge-1**	**72**		ug/L			81114	72935	0	KED
	Co	**59**	**50.743**	ug/L	0.903	1	31	218151	1	KED
	Ni	**60**	**49.116**	ug/L	0.627	1	44	59148	0	KED
	Ni	**62**	**50.783**	ug/L	1.043	2	7	9309	2	KED
	Cu	**63**	**51.783**	ug/L	1.246	2	57	160980	2	KED
	Cu	**65**	**49.719**	ug/L	1.413	2	19	76590	2	KED
	Zn	**66**	**51.526**	ug/L	0.649	1	56	22009	1	KED
	Zn	**67**	**50.452**	ug/L	0.603	1	7	3576	1	KED
	As	**75**	**48.573**	ug/L	0.477	0	6	13911	0	KED
	Se-1	**78**	**48.937**	ug/L	0.717	1	25	1834	1	KED
	Y	**89**		ug/L			619356	553152	0	Standard
	Kr	**83**		ug/L			31	52	13	Standard
>	**In-1**	**115**		ug/L			34809	30369	0	KED
	Mo	**98**	**49.917**	ug/L	0.264	0	3	60061	1	KED
	Cd	**111**	**49.518**	ug/L	1.030	2	2	18388	1	KED
	Cd	**114**	**49.369**	ug/L	0.314	0	3	46917	1	KED
>	**In**	**115**		ug/L			769572	674626	2	Standard
	Ag	**107**	**45.853**	ug/L	2.445	5	121	598144	2	Standard
	Sb	**121**	**49.503**	ug/L	2.062	4	91	493582	1	Standard
	Sb	**123**	**49.753**	ug/L	1.169	2	78	385720	0	Standard
	Ba	**135**	**52.992**	ug/L	2.414	4	23	174287	2	Standard
	Ba	**137**	**50.529**	ug/L	1.960	3	48	304619	2	Standard
>	**Tb**	**159**		ug/L			1026127	985512	1	Standard
	Tl	**205**	**50.139**	ug/L	2.177	4	86	878183	3	Standard
	Pb	**208**	**51.554**	ug/L	1.231	2	191	1135937	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 14:05:34
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	721248	4	Standard
⌊	**Be**	**9**	**-0.005**	ug/L	0.000	9	27	5	57	Standard
	C	**13**		ug/L			17606	17973	2	Standard
	Cl	**37**		ug/L			6613771	7017391	4	Standard
⌈>	**Sc**	**45**		ug/L			1108166	987292	3	Standard
⌈	**V**	**51**	**-0.015**	ug/L	0.009	59	5706	4784	1	Standard
⌊	**V-1**	**51**	**-0.015**	ug/L	0.002	15	834	450	10	Standard
⌈	**Cr**	**52**	**-0.036**	ug/L	0.035	98	16644	14262	2	Standard
⌊	**Cr**	**53**	**-0.034**	ug/L	0.002	4	322	225	4	Standard
⌊	**Mn**	**55**	**0.004**	ug/L	0.001	33	466	493	5	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	73575	2	KED
⌈	**Co**	**59**	**0.001**	ug/L	0.003	220	31	34	36	KED
⌊	**Ni**	**60**	**-0.026**	ug/L	0.001	2	44	8	12	KED
⌈	**Ni**	**62**	**-0.020**	ug/L	0.006	31	7	3	34	KED
⌊	**Cu**	**63**	**-0.002**	ug/L	0.004	277	57	47	31	KED
⌈	**Cu**	**65**	**0.005**	ug/L	0.004	82	19	26	27	KED
⌊	**Zn**	**66**	**0.093**	ug/L	0.021	22	56	91	10	KED
⌈	**Zn**	**67**	**0.126**	ug/L	0.058	46	7	15	24	KED
⌊	**As**	**75**	**-0.002**	ug/L	0.006	341	6	5	27	KED
⌊	**Se-1**	**78**	**-0.024**	ug/L	0.080	331	25	22	10	KED
	Y	**89**		ug/L			619356	558739	0	Standard
	Kr	**83**		ug/L			31	34	16	Standard
⌈>	**In-1**	**115**		ug/L			34809	29794	4	KED
⌈	**Mo**	**98**	**0.008**	ug/L	0.005	65	3	12	53	KED
⌊	**Cd**	**111**	**-0.002**	ug/L	0.001	78	2	1	43	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.000	6	3	1	2	KED
⌈>	**In**	**115**		ug/L			769572	677458	1	Standard
⌈	**Ag**	**107**	**-0.005**	ug/L	0.001	19	121	48	25	Standard
⌈	**Sb**	**121**	**0.108**	ug/L	0.003	2	91	1158	1	Standard
⌊	**Sb**	**123**	**0.110**	ug/L	0.005	4	78	926	4	Standard
⌈	**Ba**	**135**	**0.001**	ug/L	0.002	149	23	25	28	Standard
⌊	**Ba**	**137**	**0.001**	ug/L	0.003	523	48	45	37	Standard
⌈>	**Tb**	**159**		ug/L			1026127	991679	2	Standard
⌈	**Tl**	**205**	**0.001**	ug/L	0.000	23	86	107	6	Standard
⌊	**Pb**	**208**	**0.004**	ug/L	0.001	25	191	264	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~**BGF0545-BLK2**~~ BGF0525-BLK2
Sample Dil Factor: TH 06-28-18
Comments:
Sample Date/Time: Thursday, June 28, 2018 14:10:30
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	734907	3	Standard
	Be	**9**	**-0.005**	ug/L	0.001	15	27	6	68	Standard
	C	**13**		ug/L			17606	31571	0	Standard
	Cl	**37**		ug/L			6613771	6872396	2	Standard
>	**Sc**	**45**		ug/L			1108166	985899	0	Standard
	V	**51**	**0.016**	ug/L	0.006	35	5706	5395	2	Standard
	V-1	**51**	**-0.003**	ug/L	0.001	38	834	678	2	Standard
	Cr	**52**	**0.058**	ug/L	0.018	30	16644	15712	2	Standard
	Cr	**53**	**-0.011**	ug/L	0.006	51	322	266	2	Standard
	Mn	**55**	**1.232**	ug/L	0.016	1	466	27563	1	Standard
>	**Ge-1**	**72**		ug/L			81114	75616	1	KED
	Co	**59**	**0.002**	ug/L	0.001	76	31	37	14	KED
	Ni	**60**	**0.162**	ug/L	0.022	13	44	243	10	KED
	Ni	**62**	**0.153**	ug/L	0.024	15	7	36	13	KED
	Cu	**63**	**6.342**	ug/L	0.028	0	57	20487	1	KED
	Cu	**65**	**6.070**	ug/L	0.121	1	19	9711	2	KED
	Zn	**66**	**4.660**	ug/L	0.269	5	56	2111	5	KED
	Zn	**67**	**4.199**	ug/L	0.386	9	7	314	7	KED
	As	**75**	**-0.005**	ug/L	0.004	70	6	4	26	KED
	Se-1	**78**	**-0.009**	ug/L	0.077	845	25	23	13	KED
	Y	**89**		ug/L			619356	561412	0	Standard
	Kr	**83**		ug/L			31	30	45	Standard
>	**In-1**	**115**		ug/L			34809	31345	2	KED
	Mo	**98**	**0.004**	ug/L	0.004	85	3	8	53	KED
	Cd	**111**	**-0.003**	ug/L	0.004	156	2	0	173	KED
	Cd	**114**	**-0.012**	ug/L	0.011	98	3	-8	131	KED
>	**In**	**115**		ug/L			769572	688928	2	Standard
	Ag	**107**	**-0.003**	ug/L	0.001	18	121	65	14	Standard
	Sb	**121**	**0.029**	ug/L	0.001	4	91	376	2	Standard
	Sb	**123**	**0.025**	ug/L	0.004	16	78	266	13	Standard
	Ba	**135**	**0.011**	ug/L	0.001	5	23	57	3	Standard
	Ba	**137**	**0.013**	ug/L	0.004	33	48	122	21	Standard
>	**Tb**	**159**		ug/L			1026127	984237	4	Standard
	Tl	**205**	**0.001**	ug/L	0.001	63	86	105	8	Standard
	Pb	**208**	**0.202**	ug/L	0.012	5	191	4628	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0319-05
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 14:15:25
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	Li	6		ug/L			572696	854608	3	Standard
⌊	Be	9	-0.000	ug/L	0.001	454	27	40	17	Standard
	C	13		ug/L			17606	76898	1	Standard
	Cl	37		ug/L			6613771	17875091	6	Standard
⌈>	Sc	45		ug/L			1108166	1120667	1	Standard
⌈	V	51	2.083	ug/L	0.084	4	5706	51613	2	Standard
⌈	V-1	51	4.468	ug/L	0.103	2	834	100346	1	Standard
⌈	Cr	52	0.363	ug/L	0.009	2	16644	23246	0	Standard
⌈	Cr	53	8.596	ug/L	0.194	2	322	18211	2	Standard
⌊	Mn	55	4758.954	ug/L	73.675	1	466	119158957	1	Standard
⌈>	Ge-1	72		ug/L			81114	57565	0	KED
⌈	Co	59	8.999	ug/L	0.159	1	31	30550	0	KED
⌈	Ni	60	64.017	ug/L	0.370	0	44	60839	1	KED
⌈	Ni	62	66.766	ug/L	2.441	3	7	9656	2	KED
⌈	Cu	63	3.745	ug/L	0.030	0	57	9226	0	KED
⌈	Cu	65	3.677	ug/L	0.056	1	19	4483	0	KED
⌈	Zn	66	3.650	ug/L	0.183	5	56	1267	3	KED
⌈	Zn	67	6.658	ug/L	0.372	5	7	377	4	KED
⌈	As	75	2.201	ug/L	0.016	0	6	502	1	KED
⌊	Se-1	78	0.124	ug/L	0.040	32	25	21	5	KED
	Y	89		ug/L			619356	454361	2	Standard
	Kr	83		ug/L			31	104	14	Standard
⌈>	In-1	115		ug/L			34809	24665	4	KED
⌈	Mo	98	9.153	ug/L	0.364	3	3	8936	1	KED
⌈	Cd	111	0.014	ug/L	0.009	64	2	5	44	KED
⌊	Cd	114	-0.001	ug/L	0.005	771	3	1	245	KED
⌈>	In	115		ug/L			769572	573490	2	Standard
⌈	Ag	107	-0.001	ug/L	0.002	250	121	82	27	Standard
⌈	Sb	121	0.215	ug/L	0.002	0	91	1889	1	Standard
⌈	Sb	123	0.220	ug/L	0.021	9	78	1509	9	Standard
⌈	Ba	135	83.613	ug/L	0.607	0	23	233928	1	Standard
⌊	Ba	137	83.440	ug/L	3.061	3	48	427922	4	Standard
⌈>	Tb	159		ug/L			1026127	959075	1	Standard
⌈	Tl	205	0.007	ug/L	0.001	15	86	198	9	Standard
⌊	Pb	208	0.096	ug/L	0.003	3	191	2236	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0319-07
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 14:20:21
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	849212	4	Standard
⌊	**Be**	**9**	**-0.005**	ug/L	0.000	5	27	7	25	Standard
	C	**13**		ug/L			17606	35147	2	Standard
	Cl	**37**		ug/L			6613771	7660053	2	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1113998	2	Standard
⌈	**V**	**51**	**15.784**	ug/L	0.652	4	5706	350905	2	Standard
⌊	**V-1**	**51**	**15.903**	ug/L	0.637	4	834	352748	2	Standard
⌈	**Cr**	**52**	**1.352**	ug/L	0.082	6	16644	40457	2	Standard
⌊	**Cr**	**53**	**2.339**	ug/L	0.061	2	322	5160	2	Standard
⌊	**Mn**	**55**	**52.550**	ug/L	1.434	2	466	1307962	1	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	62906	0	KED
⌈	**Co**	**59**	**1.609**	ug/L	0.017	1	31	5987	0	KED
⌊	**Ni**	**60**	**0.653**	ug/L	0.043	6	44	712	6	KED
⌈	**Ni**	**62**	**0.602**	ug/L	0.031	5	7	100	4	KED
⌈	**Cu**	**63**	**0.927**	ug/L	0.032	3	57	2529	2	KED
⌊	**Cu**	**65**	**0.919**	ug/L	0.052	5	19	1235	5	KED
⌈	**Zn**	**66**	**1.646**	ug/L	0.068	4	56	648	3	KED
⌊	**Zn**	**67**	**6.665**	ug/L	0.551	8	7	412	8	KED
⌈	**As**	**75**	**0.821**	ug/L	0.091	11	6	207	10	KED
⌊	**Se-1**	**78**	**5.299**	ug/L	0.288	5	25	189	5	KED
	Y	**89**		ug/L			619356	511146	0	Standard
	Kr	**83**		ug/L			31	63	4	Standard
⌈>	**In-1**	**115**		ug/L			34809	26668	2	KED
⌈	**Mo**	**98**	**1.050**	ug/L	0.050	4	3	1111	3	KED
⌈	**Cd**	**111**	**0.006**	ug/L	0.003	42	2	3	25	KED
⌊	**Cd**	**114**	**-0.006**	ug/L	0.006	102	3	-2	195	KED
⌈>	**In**	**115**		ug/L			769572	624953	2	Standard
⌈	**Ag**	**107**	**-0.002**	ug/L	0.000	25	121	76	5	Standard
⌈	**Sb**	**121**	**0.027**	ug/L	0.002	8	91	323	8	Standard
⌊	**Sb**	**123**	**0.025**	ug/L	0.003	11	78	244	9	Standard
⌈	**Ba**	**135**	**126.883**	ug/L	3.390	2	23	386787	2	Standard
⌊	**Ba**	**137**	**123.184**	ug/L	0.571	0	48	688317	2	Standard
⌈>	**Tb**	**159**		ug/L			1026127	999266	3	Standard
⌈	**Tl**	**205**	**0.020**	ug/L	0.001	5	86	431	1	Standard
⌊	**Pb**	**208**	**0.033**	ug/L	0.001	3	191	920	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0319-12
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 14:25:16
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	841152	4	Standard
	Be	9	-0.005	ug/L	0.000	10	27	7	50	Standard
	C	13		ug/L			17606	32850	0	Standard
	Cl	37		ug/L			6613771	6892773	0	Standard
>	Sc	45		ug/L			1108166	1120803	1	Standard
	V	51	50.146	ug/L	0.663	1	5706	1109532	0	Standard
	V-1	51	49.780	ug/L	0.672	1	834	1109593	0	Standard
	Cr	52	1.509	ug/L	0.029	1	16644	43509	1	Standard
	Cr	53	2.216	ug/L	0.093	4	322	4936	2	Standard
	Mn	55	1.506	ug/L	0.020	1	466	38191	0	Standard
>	Ge-1	72		ug/L			81114	64482	0	KED
	Co	59	0.093	ug/L	0.004	4	31	377	3	KED
	Ni	60	0.501	ug/L	0.022	4	44	568	4	KED
	Ni	62	0.515	ug/L	0.096	18	7	89	17	KED
	Cu	63	0.364	ug/L	0.020	5	57	1047	5	KED
	Cu	65	0.347	ug/L	0.016	4	19	487	4	KED
	Zn	66	1.066	ug/L	0.072	6	56	446	5	KED
	Zn	67	4.153	ug/L	0.594	14	7	266	14	KED
	As	75	3.932	ug/L	0.169	4	6	1000	3	KED
	Se-1	78	0.660	ug/L	0.080	12	25	41	5	KED
	Y	89		ug/L			619356	522786	3	Standard
	Kr	83		ug/L			31	43	28	Standard
>	In-1	115		ug/L			34809	27018	0	KED
	Mo	98	3.114	ug/L	0.072	2	3	3336	2	KED
	Cd	111	0.004	ug/L	0.002	37	2	3	17	KED
	Cd	114	0.009	ug/L	0.003	37	3	9	28	KED
>	In	115		ug/L			769572	609994	2	Standard
	Ag	107	-0.004	ug/L	0.001	26	121	47	24	Standard
	Sb	121	0.029	ug/L	0.003	9	91	331	6	Standard
	Sb	123	0.029	ug/L	0.003	9	78	266	6	Standard
	Ba	135	65.676	ug/L	1.571	2	23	195409	2	Standard
	Ba	137	63.961	ug/L	4.532	7	48	348943	8	Standard
>	Tb	159		ug/L			1026127	1049618	1	Standard
	Tl	205	-0.000	ug/L	0.000	191	86	84	9	Standard
	Pb	208	0.023	ug/L	0.001	3	191	725	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0297-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 14:30:11
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	Li	6		ug/L			572696	850116	1	Standard
⌊	Be	9	-0.005	ug/L	0.001	10	27	5	66	Standard
	C	13		ug/L			17606	40686	1	Standard
	Cl	37		ug/L			6613771	13615791	2	Standard
⌈>	Sc	45		ug/L			1108166	1180590	2	Standard
⌈	V	51	24.462	ug/L	0.930	3	5706	572995	1	Standard
⌊	V-1	51	25.483	ug/L	0.940	3	834	598497	1	Standard
⌈	Cr	52	4.280	ug/L	0.064	1	16644	97396	0	Standard
⌊	Cr	53	8.587	ug/L	0.163	1	322	19161	1	Standard
	Mn	55	3.539	ug/L	0.069	1	466	93831	1	Standard
⌈>	Ge-1	72		ug/L			81114	65109	1	KED
⌈	Co	59	9.170	ug/L	0.244	2	31	35206	1	KED
⌊	Ni	60	9.886	ug/L	0.197	1	44	10654	0	KED
	Ni	62	10.264	ug/L	0.302	2	7	1684	3	KED
⌈	Cu	63	1.045	ug/L	0.036	3	57	2946	4	KED
⌊	Cu	65	1.077	ug/L	0.035	3	19	1496	2	KED
⌈	Zn	66	3.176	ug/L	0.111	3	56	1253	2	KED
⌊	Zn	67	7.056	ug/L	0.437	6	7	452	7	KED
⌈	As	75	2.860	ug/L	0.062	2	6	736	2	KED
⌊	Se-1	78	0.215	ug/L	0.015	7	25	27	1	KED
	Y	89		ug/L			619356	540842	1	Standard
	Kr	83		ug/L			31	65	13	Standard
⌈>	In-1	115		ug/L			34809	28168	2	KED
⌈	Mo	98	2.160	ug/L	0.064	2	3	2413	3	KED
⌊	Cd	111	0.005	ug/L	0.004	87	2	3	41	KED
	Cd	114	0.005	ug/L	0.023	433	3	7	270	KED
⌈>	In	115		ug/L			769572	623966	4	Standard
⌈	Ag	107	0.056	ug/L	0.004	6	121	776	3	Standard
⌊	Sb	121	0.022	ug/L	0.003	12	91	280	5	Standard
	Sb	123	0.027	ug/L	0.001	5	78	257	6	Standard
⌈	Ba	135	99.557	ug/L	5.660	5	23	302603	1	Standard
⌊	Ba	137	95.980	ug/L	5.806	6	48	534557	2	Standard
⌈>	Tb	159		ug/L			1026127	1009758	2	Standard
⌈	Tl	205	-0.001	ug/L	0.000	9	86	71	3	Standard
⌊	Pb	208	0.047	ug/L	0.001	2	191	1241	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0297-03
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 14:35:07
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	823850	2	Standard
	Be	**9**	**-0.004**	ug/L	0.001	19	27	13	37	Standard
	C	**13**		ug/L			17606	34743	3	Standard
	Cl	**37**		ug/L			6613771	8199956	3	Standard
>	**Sc**	**45**		ug/L			1108166	1122088	2	Standard
	V	**51**	**23.833**	ug/L	0.392	1	5706	530890	1	Standard
	V-1	**51**	**24.250**	ug/L	0.405	1	834	541495	1	Standard
	Cr	**52**	**0.502**	ug/L	0.028	5	16644	25726	1	Standard
	Cr	**53**	**2.868**	ug/L	0.083	2	322	6298	0	Standard
	Mn	**55**	**0.906**	ug/L	0.308	34	466	23078	30	Standard
>	**Ge-1**	**72**		ug/L			81114	68664	1	KED
	Co	**59**	**0.196**	ug/L	0.010	5	31	820	5	KED
	Ni	**60**	**3.182**	ug/L	0.074	2	44	3643	3	KED
	Ni	**62**	**3.173**	ug/L	0.313	9	7	553	9	KED
	Cu	**63**	**3.074**	ug/L	0.159	5	57	9037	3	KED
	Cu	**65**	**2.954**	ug/L	0.051	1	19	4299	1	KED
	Zn	**66**	**1.048**	ug/L	0.055	5	56	468	5	KED
	Zn	**67**	**2.055**	ug/L	0.475	23	7	143	22	KED
	As	**75**	**11.688**	ug/L	0.218	1	6	3155	1	KED
	Se-1	**78**	**0.626**	ug/L	0.119	19	25	43	11	KED
	Y	**89**		ug/L			619356	544379	3	Standard
	Kr	**83**		ug/L			31	41	19	Standard
>	**In-1**	**115**		ug/L			34809	27814	1	KED
	Mo	**98**	**2.047**	ug/L	0.096	4	3	2256	2	KED
	Cd	**111**	**0.013**	ug/L	0.014	112	2	6	79	KED
	Cd	**114**	**-0.016**	ug/L	0.017	104	3	-11	127	KED
>	**In**	**115**		ug/L			769572	622126	2	Standard
	Ag	**107**	**-0.005**	ug/L	0.001	23	121	40	30	Standard
	Sb	**121**	**0.104**	ug/L	0.008	7	91	1029	5	Standard
	Sb	**123**	**0.099**	ug/L	0.007	6	78	774	6	Standard
	Ba	**135**	**21.556**	ug/L	0.385	1	23	65432	1	Standard
	Ba	**137**	**20.445**	ug/L	0.872	4	48	113805	6	Standard
>	**Tb**	**159**		ug/L			1026127	1014708	1	Standard
	Tl	**205**	**0.016**	ug/L	0.001	7	86	381	6	Standard
	Pb	**208**	**0.018**	ug/L	0.001	6	191	608	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0525-DUP2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 14:40:02
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	**Li**	**6**		ug/L			572696	903957	11	Standard
[	**Be**	**9**	**0.000**	ug/L	0.000	204	27	45	7	Standard
	C	**13**		ug/L			17606	46927	5	Standard
	Cl	**37**		ug/L			6613771	16809889	3	Standard
[>	**Sc**	**45**		ug/L			1108166	1079635	1	Standard
[	**V**	**51**	**0.091**	ug/L	0.423	464	5706	7505	120	Standard
[	**V-1**	**51**	**5.242**	ug/L	0.114	2	834	113265	0	Standard
[	**Cr**	**52**	**67.848**	ug/L	1.366	2	16644	1171157	1	Standard
[	**Cr**	**53**	**82.751**	ug/L	1.631	1	322	166162	0	Standard
[	**Mn**	**55**	**17.317**	ug/L	0.315	1	466	418130	0	Standard
[>	**Ge-1**	**72**		ug/L			81114	69183	2	KED
[	**Co**	**59**	**0.908**	ug/L	0.011	1	31	3728	1	KED
[	**Ni**	**60**	**9.747**	ug/L	0.261	2	44	11159	1	KED
[	**Ni**	**62**	**9.986**	ug/L	0.506	5	7	1740	3	KED
[	**Cu**	**63**	**19.744**	ug/L	0.307	1	57	58232	1	KED
[	**Cu**	**65**	**19.578**	ug/L	0.092	0	19	28617	2	KED
[	**Zn**	**66**	**28.581**	ug/L	1.416	4	56	11592	2	KED
[	**Zn**	**67**	**26.088**	ug/L	1.723	6	7	1757	7	KED
[	**As**	**75**	**0.382**	ug/L	0.005	1	6	109	1	KED
[	**Se-1**	**78**	**0.061**	ug/L	0.081	131	25	23	13	KED
	Y	**89**		ug/L			619356	578053	1	Standard
	Kr	**83**		ug/L			31	41	19	Standard
[>	**In-1**	**115**		ug/L			34809	29388	1	KED
[	**Mo**	**98**	**1.028**	ug/L	0.046	4	3	1199	2	KED
[	**Cd**	**111**	**1.552**	ug/L	0.043	2	2	559	1	KED
[	**Cd**	**114**	**1.532**	ug/L	0.047	3	3	1411	3	KED
[>	**In**	**115**		ug/L			769572	652952	1	Standard
[	**Ag**	**107**	**0.025**	ug/L	0.002	6	121	424	5	Standard
[	**Sb**	**121**	**2.591**	ug/L	0.070	2	91	25085	1	Standard
[	**Sb**	**123**	**2.541**	ug/L	0.080	3	78	19144	4	Standard
[	**Ba**	**135**	**3.470**	ug/L	0.180	5	23	11069	4	Standard
[	**Ba**	**137**	**3.308**	ug/L	0.119	3	48	19349	3	Standard
[>	**Tb**	**159**		ug/L			1026127	1021558	3	Standard
[	**Tl**	**205**	**0.002**	ug/L	0.001	40	86	115	10	Standard
[	**Pb**	**208**	**2.092**	ug/L	0.048	2	191	47960	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0294-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 14:44:58
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	877242	3	Standard
	Be	**9**	**0.000**	ug/L	0.000	64	27	46	8	Standard
	C	**13**		ug/L			17606	50850	1	Standard
	Cl	**37**		ug/L			6613771	17850821	3	Standard
>	**Sc**	**45**		ug/L			1108166	1089935	1	Standard
	V	**51**	**-0.231**	ug/L	0.498	215	5706	780	1368	Standard
	V-1	**51**	**5.384**	ug/L	0.140	2	834	117421	1	Standard
	Cr	**52**	**68.412**	ug/L	0.745	1	16644	1192074	0	Standard
	Cr	**53**	**84.867**	ug/L	2.866	3	322	172005	2	Standard
	Mn	**55**	**17.647**	ug/L	0.319	1	466	430198	1	Standard
>	**Ge-1**	**72**		ug/L			81114	68445	9	KED
	Co	**59**	**0.946**	ug/L	0.100	10	31	3816	1	KED
	Ni	**60**	**10.180**	ug/L	0.894	8	44	11472	2	KED
	Ni	**62**	**9.969**	ug/L	0.726	7	7	1713	5	KED
	Cu	**63**	**20.728**	ug/L	1.991	9	57	60137	1	KED
	Cu	**65**	**20.469**	ug/L	2.231	10	19	29401	1	KED
	Zn	**66**	**30.106**	ug/L	3.550	11	56	12000	2	KED
	Zn	**67**	**27.329**	ug/L	3.526	12	7	1807	5	KED
	As	**75**	**0.420**	ug/L	0.068	16	6	117	5	KED
	Se-1	**78**	**0.190**	ug/L	0.110	57	25	27	3	KED
	Y	**89**		ug/L			619356	584006	1	Standard
	Kr	**83**		ug/L			31	45	11	Standard
>	**In-1**	**115**		ug/L			34809	29918	1	KED
	Mo	**98**	**1.049**	ug/L	0.021	2	3	1246	3	KED
	Cd	**111**	**1.558**	ug/L	0.015	0	2	571	2	KED
	Cd	**114**	**1.553**	ug/L	0.043	2	3	1456	1	KED
>	**In**	**115**		ug/L			769572	652595	3	Standard
	Ag	**107**	**0.032**	ug/L	0.003	10	121	505	4	Standard
	Sb	**121**	**2.577**	ug/L	0.114	4	91	24920	1	Standard
	Sb	**123**	**2.541**	ug/L	0.057	2	78	19121	1	Standard
	Ba	**135**	**3.438**	ug/L	0.150	4	23	10955	1	Standard
	Ba	**137**	**3.304**	ug/L	0.099	3	48	19304	0	Standard
>	**Tb**	**159**		ug/L			1026127	1031958	3	Standard
	Tl	**205**	**0.002**	ug/L	0.002	96	86	118	21	Standard
	Pb	**208**	**2.117**	ug/L	0.121	5	191	48964	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0525-MS2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 14:49:53
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	773729	5	Standard
⌊	**Be**	**9**	**21.706**	ug/L	1.287	5	27	143806	1	Standard
	C	**13**		ug/L			17606	47087	3	Standard
	Cl	**37**		ug/L			6613771	17308508	2	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1109649	0	Standard
⌈	**V**	**51**	**24.978**	ug/L	1.123	4	5706	549994	3	Standard
⌊	**V-1**	**51**	**30.489**	ug/L	0.623	2	834	673164	1	Standard
⌈	**Cr**	**52**	**95.057**	ug/L	2.001	2	16644	1679856	1	Standard
⌊	**Cr**	**53**	**111.096**	ug/L	0.358	0	322	229213	0	Standard
⌊	**Mn**	**55**	**41.672**	ug/L	0.344	0	466	1033673	0	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	73451	0	KED
⌈	**Co**	**59**	**29.271**	ug/L	0.821	2	31	126723	2	KED
⌊	**Ni**	**60**	**36.404**	ug/L	0.905	2	44	44157	1	KED
⌈	**Ni**	**62**	**37.660**	ug/L	0.996	2	7	6954	2	KED
⌈	**Cu**	**63**	**46.572**	ug/L	0.992	2	57	145786	1	KED
⌊	**Cu**	**65**	**46.084**	ug/L	1.855	4	19	71480	3	KED
⌈	**Zn**	**66**	**107.473**	ug/L	3.568	3	56	46168	2	KED
⌊	**Zn**	**67**	**101.708**	ug/L	2.680	2	7	7255	3	KED
⌈	**As**	**75**	**25.817**	ug/L	0.132	0	6	7449	0	KED
⌊	**Se-1**	**78**	**77.398**	ug/L	1.451	1	25	2908	0	KED
	Y	**89**		ug/L			619356	590288	0	Standard
	Kr	**83**		ug/L			31	61	12	Standard
⌈>	**In-1**	**115**		ug/L			34809	30211	0	KED
⌈	**Mo**	**98**	**29.671**	ug/L	0.390	1	3	35519	2	KED
⌈	**Cd**	**111**	**26.390**	ug/L	0.452	1	2	9749	1	KED
⌊	**Cd**	**114**	**26.394**	ug/L	0.555	2	3	24957	2	KED
⌈>	**In**	**115**		ug/L			769572	671336	1	Standard
⌈	**Ag**	**107**	**23.292**	ug/L	0.350	1	121	302672	0	Standard
⌈	**Sb**	**121**	**29.083**	ug/L	1.068	3	91	288789	3	Standard
⌈	**Sb**	**123**	**29.054**	ug/L	1.101	3	78	224205	2	Standard
⌈	**Ba**	**135**	**31.358**	ug/L	1.365	4	23	102720	4	Standard
⌊	**Ba**	**137**	**31.054**	ug/L	1.772	5	48	186333	4	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1016965	4	Standard
⌈	**Tl**	**205**	**26.231**	ug/L	0.920	3	86	473918	3	Standard
⌊	**Pb**	**208**	**27.762**	ug/L	0.887	3	191	630858	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0525-BS2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 14:54:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	719160	3	Standard
⌊	**Be**	**9**	**22.088**	ug/L	0.712	3	27	136201	1	Standard
	C	**13**		ug/L			17606	28646	4	Standard
	Cl	**37**		ug/L			6613771	7401932	3	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1015125	2	Standard
⌈	**V**	**51**	**26.187**	ug/L	0.531	2	5706	527206	1	Standard
⌊	**V-1**	**51**	**26.348**	ug/L	0.285	1	834	532253	1	Standard
⌈	**Cr**	**52**	**26.310**	ug/L	0.719	2	16644	436266	1	Standard
⌊	**Cr**	**53**	**26.858**	ug/L	0.953	3	322	50911	3	Standard
⌊	**Mn**	**55**	**27.532**	ug/L	0.112	0	466	624948	2	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	78191	1	KED
⌈	**Co**	**59**	**26.886**	ug/L	0.566	2	31	123947	3	KED
⌊	**Ni**	**60**	**27.466**	ug/L	0.295	1	44	35479	1	KED
⌈	**Ni**	**62**	**27.624**	ug/L	1.100	3	7	5430	2	KED
⌈	**Cu**	**63**	**28.747**	ug/L	0.464	1	57	95821	1	KED
⌊	**Cu**	**65**	**27.500**	ug/L	0.401	1	19	45423	1	KED
⌈	**Zn**	**66**	**90.423**	ug/L	2.314	2	56	41359	1	KED
⌊	**Zn**	**67**	**82.182**	ug/L	0.804	0	7	6241	0	KED
⌈	**As**	**75**	**25.684**	ug/L	0.184	0	6	7889	1	KED
⌊	**Se-1**	**78**	**83.241**	ug/L	1.221	1	25	3328	1	KED
	Y	**89**		ug/L			619356	556351	2	Standard
	Kr	**83**		ug/L			31	36	13	Standard
⌈>	**In-1**	**115**		ug/L			34809	32238	0	KED
⌈	**Mo**	**98**	**25.563**	ug/L	0.985	3	3	32644	2	KED
⌈	**Cd**	**111**	**26.541**	ug/L	0.862	3	2	10462	2	KED
⌊	**Cd**	**114**	**26.785**	ug/L	0.255	0	3	27021	0	KED
⌈>	**In**	**115**		ug/L			769572	672836	0	Standard
⌈	**Ag**	**107**	**26.723**	ug/L	0.675	2	121	348041	2	Standard
⌈	**Sb**	**121**	**26.761**	ug/L	0.074	0	91	266358	0	Standard
⌈	**Sb**	**123**	**26.437**	ug/L	0.718	2	78	204517	2	Standard
⌈	**Ba**	**135**	**28.623**	ug/L	0.527	1	23	93968	1	Standard
⌊	**Ba**	**137**	**28.363**	ug/L	0.607	2	48	170649	1	Standard
⌈>	**Tb**	**159**		ug/L			1026127	997732	5	Standard
⌈	**Tl**	**205**	**28.151**	ug/L	1.692	6	86	498215	1	Standard
⌊	**Pb**	**208**	**28.404**	ug/L	2.249	7	191	631886	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 15:00:49
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	705487	9	Standard
	Be	**9**	**40.433**	ug/L	3.765	9	27	243243	0	Standard
	C	**13**		ug/L			17606	18937	2	Standard
	Cl	**37**		ug/L			6613771	7455357	1	Standard
>	**Sc**	**45**		ug/L			1108166	979451	1	Standard
	V	**51**	**49.877**	ug/L	1.152	2	5706	964603	3	Standard
	V-1	**51**	**49.517**	ug/L	1.350	2	834	964587	2	Standard
	Cr	**52**	**50.814**	ug/L	1.685	3	16644	799751	4	Standard
	Cr	**53**	**49.543**	ug/L	1.945	3	322	90366	3	Standard
	Mn	**55**	**49.722**	ug/L	1.407	2	466	1088448	2	Standard
>	**Ge-1**	**72**		ug/L			81114	75132	1	KED
	Co	**59**	**50.252**	ug/L	1.247	2	31	222586	3	KED
	Ni	**60**	**50.090**	ug/L	1.854	3	44	62127	3	KED
	Ni	**62**	**51.178**	ug/L	1.007	1	7	9662	0	KED
	Cu	**63**	**50.375**	ug/L	1.252	2	57	161347	3	KED
	Cu	**65**	**49.638**	ug/L	1.261	2	19	78783	3	KED
	Zn	**66**	**50.301**	ug/L	0.543	1	56	22133	0	KED
	Zn	**67**	**50.039**	ug/L	2.153	4	7	3653	3	KED
	As	**75**	**48.614**	ug/L	0.511	1	6	14341	0	KED
	Se-1	**78**	**48.794**	ug/L	0.406	0	25	1884	0	KED
	Y	**89**		ug/L			619356	558964	1	Standard
	Kr	**83**		ug/L			31	34	11	Standard
>	**In-1**	**115**		ug/L			34809	31169	1	KED
	Mo	**98**	**49.924**	ug/L	2.214	4	3	61619	2	KED
	Cd	**111**	**49.136**	ug/L	1.176	2	2	18724	1	KED
	Cd	**114**	**50.074**	ug/L	1.232	2	3	48825	0	KED
>	**In**	**115**		ug/L			769572	659482	1	Standard
	Ag	**107**	**49.081**	ug/L	2.152	4	121	626200	2	Standard
	Sb	**121**	**51.021**	ug/L	1.844	3	91	497510	2	Standard
	Sb	**123**	**50.322**	ug/L	0.707	1	78	381515	1	Standard
	Ba	**135**	**52.295**	ug/L	1.566	2	23	168225	2	Standard
	Ba	**137**	**53.504**	ug/L	1.245	2	48	315530	3	Standard
>	**Tb**	**159**		ug/L			1026127	989893	0	Standard
	Tl	**205**	**51.766**	ug/L	2.277	4	86	910779	3	Standard
	Pb	**208**	**51.386**	ug/L	2.215	4	191	1137216	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 15:08:29
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	721872	1	Standard
	Be	**9**	**-0.002**	ug/L	0.006	405	27	25	147	Standard
	C	**13**		ug/L			17606	18351	2	Standard
	Cl	**37**		ug/L			6613771	7175270	1	Standard
>	**Sc**	**45**		ug/L			1108166	967692	1	Standard
	V	**51**	**-0.014**	ug/L	0.007	48	5706	4717	0	Standard
	V-1	**51**	**0.030**	ug/L	0.006	20	834	1303	8	Standard
	Cr	**52**	**-0.043**	ug/L	0.017	38	16644	13873	0	Standard
	Cr	**53**	**0.108**	ug/L	0.011	10	322	475	4	Standard
	Mn	**55**	**0.014**	ug/L	0.015	109	466	699	44	Standard
>	**Ge-1**	**72**		ug/L			81114	73722	1	KED
	Co	**59**	**0.001**	ug/L	0.001	75	31	33	11	KED
	Ni	**60**	**-0.021**	ug/L	0.005	21	44	14	37	KED
	Ni	**62**	**-0.006**	ug/L	0.021	318	7	5	66	KED
	Cu	**63**	**-0.004**	ug/L	0.005	133	57	40	40	KED
	Cu	**65**	**0.006**	ug/L	0.003	44	19	27	16	KED
	Zn	**66**	**0.086**	ug/L	0.011	12	56	88	4	KED
	Zn	**67**	**0.090**	ug/L	0.026	28	7	13	14	KED
	As	**75**	**-0.001**	ug/L	0.010	1650	6	5	48	KED
	Se-1	**78**	**0.067**	ug/L	0.180	269	25	25	25	KED
	Y	**89**		ug/L			619356	540621	2	Standard
	Kr	**83**		ug/L			31	33	8	Standard
>	**In-1**	**115**		ug/L			34809	30543	1	KED
	Mo	**98**	**0.012**	ug/L	0.005	40	3	16	33	KED
	Cd	**111**	**0.002**	ug/L	0.004	246	2	2	57	KED
	Cd	**114**	**0.002**	ug/L	0.003	202	3	4	69	KED
>	**In**	**115**		ug/L			769572	680961	3	Standard
	Ag	**107**	**0.004**	ug/L	0.014	345	121	164	116	Standard
	Sb	**121**	**0.114**	ug/L	0.010	8	91	1229	10	Standard
	Sb	**123**	**0.119**	ug/L	0.022	18	78	1003	19	Standard
	Ba	**135**	**0.006**	ug/L	0.011	163	23	43	85	Standard
	Ba	**137**	**0.008**	ug/L	0.017	217	48	92	116	Standard
>	**Tb**	**159**		ug/L			1026127	973561	5	Standard
	Tl	**205**	**0.013**	ug/L	0.011	84	86	309	60	Standard
	Pb	**208**	**0.008**	ug/L	0.011	139	191	357	67	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0297-05
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 15:13:25
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	749587	8	Standard
	Be	9	-0.004	ug/L	0.001	20	27	13	28	Standard
	C	13		ug/L			17606	32980	0	Standard
	Cl	37		ug/L			6613771	7763288	2	Standard
>	Sc	45		ug/L			1108166	1106294	3	Standard
	V	51	18.268	ug/L	0.697	3	5706	402367	2	Standard
	V-1	51	18.433	ug/L	0.687	3	834	405860	2	Standard
	Cr	52	0.260	ug/L	0.050	19	16644	21138	1	Standard
	Cr	53	1.551	ug/L	0.043	2	322	3505	1	Standard
	Mn	55	0.822	ug/L	0.023	2	466	20767	2	Standard
>	Ge-1	72		ug/L			81114	67017	1	KED
	Co	59	0.149	ug/L	0.004	2	31	614	3	KED
	Ni	60	0.953	ug/L	0.097	10	44	1091	10	KED
	Ni	62	1.019	ug/L	0.009	0	7	177	0	KED
	Cu	63	1.950	ug/L	0.082	4	57	5613	3	KED
	Cu	65	1.971	ug/L	0.028	1	19	2805	2	KED
	Zn	66	14.927	ug/L	0.599	4	56	5890	3	KED
	Zn	67	14.323	ug/L	0.869	6	7	937	4	KED
	As	75	4.331	ug/L	0.061	1	6	1144	2	KED
	Se-1	78	0.704	ug/L	0.131	18	25	45	10	KED
	Y	89		ug/L			619356	535323	0	Standard
	Kr	83		ug/L			31	36	21	Standard
>	In-1	115		ug/L			34809	28164	2	KED
	Mo	98	1.605	ug/L	0.049	3	3	1792	1	KED
	Cd	111	0.002	ug/L	0.004	195	2	2	57	KED
	Cd	114	-0.003	ug/L	0.007	267	3	0	4857	KED
>	In	115		ug/L			769572	624972	2	Standard
	Ag	107	-0.004	ug/L	0.001	16	121	46	17	Standard
	Sb	121	0.109	ug/L	0.004	3	91	1078	4	Standard
	Sb	123	0.107	ug/L	0.007	6	78	828	4	Standard
	Ba	135	22.361	ug/L	1.449	6	23	68136	4	Standard
	Ba	137	21.235	ug/L	0.812	3	48	118639	2	Standard
>	Tb	159		ug/L			1026127	994558	2	Standard
	Tl	205	0.003	ug/L	0.001	16	86	144	4	Standard
	Pb	208	0.032	ug/L	0.000	1	191	902	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0297-07
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 15:18:20
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	**Li**	**6**		ug/L			572696	798163	6	Standard
[	**Be**	**9**	**-0.002**	ug/L	0.003	167	27	27	79	Standard
	C	**13**		ug/L			17606	35202	3	Standard
	Cl	**37**		ug/L			6613771	7770729	2	Standard
[>	**Sc**	**45**		ug/L			1108166	1141723	2	Standard
[	**V**	**51**	**18.720**	ug/L	0.787	4	5706	425492	3	Standard
[	**V-1**	**51**	**18.974**	ug/L	0.766	4	834	431241	3	Standard
[	**Cr**	**52**	**0.603**	ug/L	0.078	12	16644	27979	3	Standard
[	**Cr**	**53**	**2.203**	ug/L	0.041	1	322	5000	1	Standard
[	**Mn**	**55**	**0.815**	ug/L	0.071	8	466	21251	6	Standard
[>	**Ge-1**	**72**		ug/L			81114	67364	1	KED
[	**Co**	**59**	**0.167**	ug/L	0.012	7	31	688	6	KED
[	**Ni**	**60**	**1.238**	ug/L	0.084	6	44	1412	7	KED
[	**Ni**	**62**	**1.112**	ug/L	0.286	25	7	194	24	KED
[	**Cu**	**63**	**1.903**	ug/L	0.018	0	57	5508	0	KED
[	**Cu**	**65**	**1.814**	ug/L	0.098	5	19	2595	4	KED
[	**Zn**	**66**	**1.603**	ug/L	0.097	6	56	677	4	KED
[	**Zn**	**67**	**2.516**	ug/L	0.225	8	7	170	9	KED
[	**As**	**75**	**5.842**	ug/L	0.218	3	6	1549	2	KED
[	**Se-1**	**78**	**0.619**	ug/L	0.100	16	25	42	7	KED
	Y	**89**		ug/L			619356	535699	1	Standard
	Kr	**83**		ug/L			31	33	19	Standard
[>	**In-1**	**115**		ug/L			34809	27880	3	KED
[	**Mo**	**98**	**1.761**	ug/L	0.116	6	3	1945	3	KED
[	**Cd**	**111**	**0.008**	ug/L	0.005	68	2	4	44	KED
[	**Cd**	**114**	**-0.004**	ug/L	0.002	66	3	0	267	KED
[>	**In**	**115**		ug/L			769572	634475	3	Standard
[	**Ag**	**107**	**-0.005**	ug/L	0.003	62	121	43	75	Standard
[	**Sb**	**121**	**0.117**	ug/L	0.012	10	91	1167	5	Standard
[	**Sb**	**123**	**0.120**	ug/L	0.001	0	78	942	3	Standard
[	**Ba**	**135**	**21.156**	ug/L	1.720	8	23	65375	4	Standard
[	**Ba**	**137**	**20.213**	ug/L	0.868	4	48	114601	3	Standard
[>	**Tb**	**159**		ug/L			1026127	998813	3	Standard
[	**Tl**	**205**	**0.004**	ug/L	0.003	65	86	153	30	Standard
[	**Pb**	**208**	**0.062**	ug/L	0.004	6	191	1567	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0297-09
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 15:23:16
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	Li	6		ug/L			572696	865295	6	Standard
⌊	Be	9	-0.003	ug/L	0.001	36	27	18	53	Standard
	C	13		ug/L			17606	80503	1	Standard
	Cl	37		ug/L			6613771	31021669	0	Standard
⌈>	Sc	45		ug/L			1108166	1204686	1	Standard
⌈	V	51	19.908	ug/L	0.281	1	5706	477176	1	Standard
⌊	V-1	51	23.071	ug/L	0.238	1	834	553214	1	Standard
⌈	Cr	52	0.302	ug/L	0.033	10	16644	23820	1	Standard
⌊	Cr	53	11.918	ug/L	0.201	1	322	27008	2	Standard
	Mn	55	4.533	ug/L	0.059	1	466	122503	0	Standard
⌈>	Ge-1	72		ug/L			81114	65238	0	KED
⌈	Co	59	2.176	ug/L	0.049	2	31	8391	2	KED
⌈	Ni	60	29.435	ug/L	0.100	0	44	31721	0	KED
⌊	Ni	62	29.180	ug/L	0.994	3	7	4786	2	KED
⌈	Cu	63	3.671	ug/L	0.071	1	57	10250	1	KED
⌊	Cu	65	3.606	ug/L	0.149	4	19	4983	4	KED
⌈	Zn	66	1.708	ug/L	0.097	5	56	696	5	KED
⌊	Zn	67	4.537	ug/L	0.335	7	7	293	7	KED
⌈	As	75	1.484	ug/L	0.040	2	6	385	3	KED
⌊	Se-1	78	0.209	ug/L	0.121	58	25	27	14	KED
	Y	89		ug/L			619356	540420	0	Standard
	Kr	83		ug/L			31	110	23	Standard
⌈>	In-1	115		ug/L			34809	27451	1	KED
⌈	Mo	98	0.629	ug/L	0.028	4	3	686	3	KED
⌈	Cd	111	0.011	ug/L	0.004	38	2	5	26	KED
⌊	Cd	114	0.009	ug/L	0.015	167	3	9	125	KED
⌈>	In	115		ug/L			769572	601485	1	Standard
⌈	Ag	107	-0.002	ug/L	0.002	86	121	73	25	Standard
⌈	Sb	121	0.054	ug/L	0.001	1	91	553	3	Standard
⌊	Sb	123	0.055	ug/L	0.004	6	78	440	5	Standard
⌈	Ba	135	66.430	ug/L	0.448	0	23	194944	1	Standard
⌊	Ba	137	64.914	ug/L	1.566	2	48	349115	2	Standard
⌈>	Tb	159		ug/L			1026127	975973	3	Standard
⌈	Tl	205	0.014	ug/L	0.001	8	86	320	3	Standard
⌊	Pb	208	0.042	ug/L	0.003	7	191	1099	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0297-11
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 15:28:11
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	Li	6		ug/L			572696	845296	3	Standard
[	Be	9	-0.005	ug/L	0.001	13	27	6	62	Standard
	C	13		ug/L			17606	33968	2	Standard
	Cl	37		ug/L			6613771	7509497	3	Standard
[>	Sc	45		ug/L			1108166	1051666	2	Standard
[	V	51	-0.006	ug/L	0.018	311	5706	5300	9	Standard
[	V-1	51	0.431	ug/L	0.005	1	834	9799	3	Standard
[	Cr	52	0.018	ug/L	0.032	176	16644	16103	6	Standard
[	Cr	53	1.512	ug/L	0.053	3	322	3258	4	Standard
[	Mn	55	28.351	ug/L	0.751	2	466	666313	0	Standard
[>	Ge-1	72		ug/L			81114	71069	2	KED
[	Co	59	0.019	ug/L	0.006	31	31	107	23	KED
[	Ni	60	0.172	ug/L	0.023	13	44	240	12	KED
[	Ni	62	0.184	ug/L	0.039	20	7	39	14	KED
[	Cu	63	0.259	ug/L	0.023	9	57	833	8	KED
[	Cu	65	0.256	ug/L	0.016	6	19	400	4	KED
[	Zn	66	1.404	ug/L	0.128	9	56	631	5	KED
[	Zn	67	5.606	ug/L	0.493	8	7	393	8	KED
[	As	75	0.245	ug/L	0.007	2	6	74	3	KED
[	Se-1	78	-0.017	ug/L	0.059	337	25	21	9	KED
	Y	89		ug/L			619356	569745	0	Standard
	Kr	83		ug/L			31	40	28	Standard
[>	In-1	115		ug/L			34809	29468	0	KED
[	Mo	98	2.842	ug/L	0.033	1	3	3321	1	KED
[	Cd	111	0.006	ug/L	0.003	47	2	4	26	KED
[	Cd	114	-0.020	ug/L	0.010	48	3	-16	56	KED
[>	In	115		ug/L			769572	661500	2	Standard
[	Ag	107	-0.005	ug/L	0.000	1	121	37	2	Standard
[	Sb	121	0.013	ug/L	0.001	7	91	202	3	Standard
[	Sb	123	0.013	ug/L	0.001	6	78	168	5	Standard
[	Ba	135	73.977	ug/L	3.392	4	23	238908	6	Standard
[	Ba	137	73.559	ug/L	1.458	1	48	434972	1	Standard
[>	Tb	159		ug/L			1026127	1029630	5	Standard
[	Tl	205	-0.000	ug/L	0.001	184	86	78	24	Standard
[	Pb	208	0.035	ug/L	0.003	9	191	998	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0297-13
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 15:33:06
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	Li	6		ug/L			572696	926315	6	Standard
⌊	Be	9	-0.004	ug/L	0.000	8	27	12	24	Standard
	C	13		ug/L			17606	87268	2	Standard
	Cl	37		ug/L			6613771	41794088	2	Standard
⌈>	Sc	45		ug/L			1108166	1263315	1	Standard
⌈	V	51	10.302	ug/L	0.190	1	5706	262159	3	Standard
⌊	V-1	51	14.897	ug/L	0.167	1	834	375027	2	Standard
⌈	Cr	52	0.381	ug/L	0.036	9	16644	26555	1	Standard
⌊	Cr	53	16.511	ug/L	0.125	0	322	39095	1	Standard
⌊	Mn	55	101.035	ug/L	2.132	2	466	2852002	0	Standard
⌈>	Ge-1	72		ug/L			81114	65726	0	KED
⌈	Co	59	3.956	ug/L	0.057	1	31	15350	1	KED
⌊	Ni	60	45.137	ug/L	0.531	1	44	48987	1	KED
⌈	Ni	62	46.259	ug/L	1.372	2	7	7642	2	KED
⌈	Cu	63	5.158	ug/L	0.066	1	57	14493	1	KED
⌊	Cu	65	4.997	ug/L	0.108	2	19	6951	2	KED
⌈	Zn	66	1.352	ug/L	0.028	2	56	565	1	KED
⌊	Zn	67	3.815	ug/L	0.218	5	7	249	6	KED
⌈	As	75	0.803	ug/L	0.050	6	6	212	6	KED
⌊	Se-1	78	0.169	ug/L	0.167	98	25	26	21	KED
	Y	89		ug/L			619356	578338	3	Standard
	Kr	83		ug/L			31	149	7	Standard
⌈>	In-1	115		ug/L			34809	28016	2	KED
⌈	Mo	98	0.543	ug/L	0.026	4	3	605	2	KED
⌈	Cd	111	0.013	ug/L	0.006	42	2	6	31	KED
⌊	Cd	114	0.009	ug/L	0.015	162	3	10	122	KED
⌈>	In	115		ug/L			769572	591859	1	Standard
⌈	Ag	107	0.002	ug/L	0.001	51	121	118	12	Standard
⌈	Sb	121	0.049	ug/L	0.003	6	91	498	3	Standard
⌊	Sb	123	0.052	ug/L	0.002	4	78	411	4	Standard
⌈	Ba	135	70.408	ug/L	4.057	5	23	203343	6	Standard
⌊	Ba	137	69.204	ug/L	2.134	3	48	366192	3	Standard
⌈>	Tb	159		ug/L			1026127	991546	1	Standard
⌈	Tl	205	0.022	ug/L	0.001	4	86	478	4	Standard
⌊	Pb	208	0.028	ug/L	0.002	7	191	800	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0297-15
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 15:38:02
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	Li	6		ug/L			572696	853438	5	Standard
⌊	Be	9	-0.002	ug/L	0.001	44	27	25	33	Standard
	C	13		ug/L			17606	40589	4	Standard
	Cl	37		ug/L			6613771	8669381	1	Standard
⌈>	Sc	45		ug/L			1108166	1141917	2	Standard
⌈	V	51	13.168	ug/L	0.204	1	5706	301219	3	Standard
⌊	V-1	51	13.868	ug/L	0.213	1	834	315590	3	Standard
⌈	Cr	52	0.383	ug/L	0.039	10	16644	24038	2	Standard
⌊	Cr	53	3.292	ug/L	0.068	2	322	7312	2	Standard
	Mn	55	0.852	ug/L	0.039	4	466	22235	6	Standard
⌈>	Ge-1	72		ug/L			81114	72980	1	KED
⌈	Co	59	0.233	ug/L	0.009	3	31	1031	4	KED
⌊	Ni	60	1.613	ug/L	0.032	1	44	1981	0	KED
⌈	Ni	62	1.595	ug/L	0.090	5	7	299	4	KED
⌈	Cu	63	2.523	ug/L	0.033	1	57	7896	0	KED
⌊	Cu	65	2.581	ug/L	0.084	3	19	3995	3	KED
⌈	Zn	66	1.076	ug/L	0.074	6	56	509	7	KED
⌊	Zn	67	2.327	ug/L	0.418	17	7	171	16	KED
⌈	As	75	4.780	ug/L	0.140	2	6	1374	2	KED
⌊	Se-1	78	0.586	ug/L	0.202	34	25	44	17	KED
	Y	89		ug/L			619356	549802	2	Standard
	Kr	83		ug/L			31	46	16	Standard
⌈>	In-1	115		ug/L			34809	29502	0	KED
⌈	Mo	98	2.022	ug/L	0.052	2	3	2365	2	KED
⌈	Cd	111	0.009	ug/L	0.011	124	2	5	78	KED
⌊	Cd	114	-0.001	ug/L	0.014	1038	3	1	895	KED
⌈>	In	115		ug/L			769572	637664	2	Standard
⌈	Ag	107	-0.004	ug/L	0.000	13	121	55	9	Standard
⌈	Sb	121	0.115	ug/L	0.001	1	91	1161	1	Standard
⌊	Sb	123	0.115	ug/L	0.009	7	78	907	5	Standard
⌈	Ba	135	22.624	ug/L	0.759	3	23	70376	2	Standard
⌊	Ba	137	21.958	ug/L	0.581	2	48	125222	3	Standard
⌈>	Tb	159		ug/L			1026127	1045059	0	Standard
⌈	Tl	205	0.003	ug/L	0.000	11	86	140	4	Standard
⌊	Pb	208	0.028	ug/L	0.001	4	191	851	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0480-DUP1
Sample Dil Factor: 10
Comments:
Sample Date/Time: Thursday, June 28, 2018 15:42:57
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	790279	3	Standard
	Be	**9**	**-0.005**	ug/L	0.000	4	27	1	100	Standard
	C	**13**		ug/L			17606	32599	3	Standard
	Cl	**37**		ug/L			6613771	54188837	3	Standard
>	**Sc**	**45**		ug/L			1108166	1152260	1	Standard
	V	**51**	**0.437**	ug/L	0.321	73	5706	15843	45	Standard
	V-1	**51**	**13.993**	ug/L	0.175	1	834	321275	0	Standard
	Cr	**52**	**1.144**	ug/L	0.048	4	16644	38075	1	Standard
	Cr	**53**	**47.519**	ug/L	1.458	3	322	101978	2	Standard
	Mn	**55**	**0.076**	ug/L	0.003	3	466	2438	3	Standard
>	**Ge-1**	**72**		ug/L			81114	68696	0	KED
	Co	**59**	**0.010**	ug/L	0.002	19	31	69	12	KED
	Ni	**60**	**0.043**	ug/L	0.006	15	44	86	9	KED
	Ni	**62**	**0.143**	ug/L	0.056	39	7	31	31	KED
	Cu	**63**	**0.129**	ug/L	0.014	10	57	427	10	KED
	Cu	**65**	**0.135**	ug/L	0.003	2	19	212	1	KED
	Zn	**66**	**0.670**	ug/L	0.122	18	56	316	15	KED
	Zn	**67**	**0.657**	ug/L	0.244	37	7	50	31	KED
	As	**75**	**0.463**	ug/L	0.017	3	6	130	4	KED
	Se-1	**78**	**0.208**	ug/L	0.045	21	25	28	5	KED
	Y	**89**		ug/L			619356	579148	4	Standard
	Kr	**83**		ug/L			31	400	12	Standard
>	**In-1**	**115**		ug/L			34809	27894	2	KED
	Mo	**98**	**0.929**	ug/L	0.021	2	3	1028	0	KED
	Cd	**111**	**0.041**	ug/L	0.005	11	2	15	9	KED
	Cd	**114**	**0.035**	ug/L	0.006	16	3	33	17	KED
>	**In**	**115**		ug/L			769572	607768	1	Standard
	Ag	**107**	**-0.001**	ug/L	0.001	74	121	80	15	Standard
	Sb	**121**	**0.469**	ug/L	0.026	5	91	4283	4	Standard
	Sb	**123**	**0.483**	ug/L	0.005	1	78	3437	1	Standard
	Ba	**135**	**2.884**	ug/L	0.057	1	23	8569	2	Standard
	Ba	**137**	**2.827**	ug/L	0.051	1	48	15394	0	Standard
>	**Tb**	**159**		ug/L			1026127	926305	2	Standard
	Tl	**205**	**0.005**	ug/L	0.001	10	86	160	6	Standard
	Pb	**208**	**0.021**	ug/L	0.003	14	191	610	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0248-08
Sample Dil Factor: 10
Comments:
Sample Date/Time: Thursday, June 28, 2018 15:47:53
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	811246	1	Standard
	Be	9	-0.005	ug/L	0.000	8	27	4	65	Standard
	C	13		ug/L			17606	33760	2	Standard
	Cl	37		ug/L			6613771	58338534	1	Standard
>	Sc	45		ug/L			1108166	1212986	0	Standard
	V	51	0.443	ug/L	0.090	20	5706	16788	11	Standard
	V-1	51	13.967	ug/L	0.079	0	834	337628	1	Standard
	Cr	52	1.204	ug/L	0.041	3	16644	41259	2	Standard
	Cr	53	47.467	ug/L	0.580	1	322	107265	2	Standard
	Mn	55	0.120	ug/L	0.001	1	466	3765	1	Standard
>	Ge-1	72		ug/L			81114	76986	2	KED
	Co	59	0.007	ug/L	0.001	18	31	64	12	KED
	Ni	60	0.060	ug/L	0.013	21	44	118	11	KED
	Ni	62	0.170	ug/L	0.027	16	7	40	12	KED
	Cu	63	0.183	ug/L	0.007	3	57	653	1	KED
	Cu	65	0.190	ug/L	0.019	9	19	326	6	KED
	Zn	66	0.446	ug/L	0.069	15	56	254	14	KED
	Zn	67	0.624	ug/L	0.106	16	7	53	17	KED
	As	75	0.464	ug/L	0.023	4	6	146	1	KED
	Se-1	78	0.190	ug/L	0.140	73	25	31	14	KED
	Y	89		ug/L			619356	605988	1	Standard
	Kr	83		ug/L			31	455	2	Standard
>	In-1	115		ug/L			34809	30451	1	KED
	Mo	98	0.903	ug/L	0.021	2	3	1092	3	KED
	Cd	111	0.037	ug/L	0.005	14	2	15	12	KED
	Cd	114	0.033	ug/L	0.003	8	3	34	8	KED
>	In	115		ug/L			769572	641379	0	Standard
	Ag	107	-0.002	ug/L	0.001	65	121	78	18	Standard
	Sb	121	0.465	ug/L	0.012	2	91	4483	3	Standard
	Sb	123	0.454	ug/L	0.022	4	78	3414	4	Standard
	Ba	135	2.811	ug/L	0.158	5	23	8811	4	Standard
	Ba	137	2.720	ug/L	0.066	2	48	15640	3	Standard
>	Tb	159		ug/L			1026127	922069	0	Standard
	Tl	205	0.004	ug/L	0.001	16	86	136	6	Standard
	Pb	208	0.019	ug/L	0.001	6	191	566	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0480-MS1
Sample Dil Factor: 10
Comments:
Sample Date/Time: Thursday, June 28, 2018 15:52:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	820734	5	Standard
	Be	**9**	**2.053**	ug/L	0.117	5	27	14463	1	Standard
	C	**13**		ug/L			17606	33808	1	Standard
	Cl	**37**		ug/L			6613771	56184217	2	Standard
>	**Sc**	**45**		ug/L			1108166	1189447	1	Standard
	V	**51**	**2.936**	ug/L	0.295	10	5706	74656	7	Standard
	V-1	**51**	**16.286**	ug/L	0.163	1	834	385861	0	Standard
	Cr	**52**	**3.748**	ug/L	0.125	3	16644	88141	1	Standard
	Cr	**53**	**49.413**	ug/L	0.813	1	322	109481	2	Standard
	Mn	**55**	**2.576**	ug/L	0.016	0	466	68973	1	Standard
>	**Ge-1**	**72**		ug/L			81114	77300	2	KED
	Co	**59**	**2.870**	ug/L	0.029	1	31	13101	1	KED
	Ni	**60**	**2.772**	ug/L	0.065	2	44	3576	1	KED
	Ni	**62**	**2.849**	ug/L	0.096	3	7	560	0	KED
	Cu	**63**	**2.684**	ug/L	0.092	3	57	8890	1	KED
	Cu	**65**	**2.653**	ug/L	0.114	4	19	4346	2	KED
	Zn	**66**	**7.901**	ug/L	0.225	2	56	3620	0	KED
	Zn	**67**	**7.809**	ug/L	0.351	4	7	592	1	KED
	As	**75**	**3.059**	ug/L	0.063	2	6	934	1	KED
	Se-1	**78**	**7.938**	ug/L	0.441	5	25	335	3	KED
	Y	**89**		ug/L			619356	590313	1	Standard
	Kr	**83**		ug/L			31	529	4	Standard
>	**In-1**	**115**		ug/L			34809	30407	2	KED
	Mo	**98**	**1.005**	ug/L	0.072	7	3	1212	5	KED
	Cd	**111**	**2.365**	ug/L	0.094	3	2	880	1	KED
	Cd	**114**	**2.329**	ug/L	0.123	5	3	2217	4	KED
>	**In**	**115**		ug/L			769572	614143	3	Standard
	Ag	**107**	**2.479**	ug/L	0.075	3	121	29535	0	Standard
	Sb	**121**	**0.492**	ug/L	0.022	4	91	4537	2	Standard
	Sb	**123**	**0.486**	ug/L	0.017	3	78	3494	5	Standard
	Ba	**135**	**5.851**	ug/L	0.326	5	23	17530	3	Standard
	Ba	**137**	**5.463**	ug/L	0.311	5	48	30001	3	Standard
>	**Tb**	**159**		ug/L			1026127	931080	2	Standard
	Tl	**205**	**2.482**	ug/L	0.096	3	86	41136	2	Standard
	Pb	**208**	**2.463**	ug/L	0.011	0	191	51445	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 15:57:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	695343	1	Standard
	Be	**9**	**-0.005**	ug/L	0.001	16	27	5	94	Standard
	C	**13**		ug/L			17606	22447	2	Standard
	Cl	**37**		ug/L			6613771	8285675	1	Standard
>	**Sc**	**45**		ug/L			1108166	1093692	2	Standard
	V	**51**	**0.061**	ug/L	0.010	15	5706	6953	5	Standard
	V-1	**51**	**0.668**	ug/L	0.034	5	834	15353	7	Standard
	Cr	**52**	**0.155**	ug/L	0.019	12	16644	19109	4	Standard
	Cr	**53**	**2.228**	ug/L	0.108	4	322	4845	6	Standard
	Mn	**55**	**0.022**	ug/L	0.002	8	466	986	3	Standard
>	**Ge-1**	**72**		ug/L			81114	87286	1	KED
	Co	**59**	**-0.000**	ug/L	0.001	888	31	33	11	KED
	Ni	**60**	**-0.009**	ug/L	0.004	49	44	35	17	KED
	Ni	**62**	**0.044**	ug/L	0.025	56	7	17	30	KED
	Cu	**63**	**0.009**	ug/L	0.005	52	57	95	20	KED
	Cu	**65**	**0.018**	ug/L	0.006	35	19	53	21	KED
	Zn	**66**	**0.335**	ug/L	0.017	5	56	231	4	KED
	Zn	**67**	**0.375**	ug/L	0.097	25	7	40	21	KED
	As	**75**	**0.003**	ug/L	0.007	217	6	8	29	KED
	Se-1	**78**	**0.057**	ug/L	0.069	121	25	30	9	KED
	Y	**89**		ug/L			619356	574145	0	Standard
	Kr	**83**		ug/L			31	76	19	Standard
>	**In-1**	**115**		ug/L			34809	35082	1	KED
	Mo	**98**	**0.001**	ug/L	0.002	328	3	4	63	KED
	Cd	**111**	**-0.001**	ug/L	0.002	300	2	1	50	KED
	Cd	**114**	**0.001**	ug/L	0.003	281	3	4	72	KED
>	**In**	**115**		ug/L			769572	693007	5	Standard
	Ag	**107**	**-0.005**	ug/L	0.001	11	121	38	18	Standard
	Sb	**121**	**-0.004**	ug/L	0.001	37	91	45	34	Standard
	Sb	**123**	**-0.003**	ug/L	0.000	12	78	47	10	Standard
	Ba	**135**	**0.017**	ug/L	0.005	28	23	76	15	Standard
	Ba	**137**	**0.011**	ug/L	0.000	3	48	111	3	Standard
>	**Tb**	**159**		ug/L			1026127	1001029	1	Standard
	Tl	**205**	**0.028**	ug/L	0.001	3	86	584	1	Standard
	Pb	**208**	**0.004**	ug/L	0.001	18	191	271	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 16:03:44
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	630357	7	Standard
	Be	**9**	**44.502**	ug/L	4.506	10	27	239547	3	Standard
	C	**13**		ug/L			17606	18599	3	Standard
	Cl	**37**		ug/L			6613771	7742395	3	Standard
>	**Sc**	**45**		ug/L			1108166	1044634	1	Standard
	V	**51**	**48.794**	ug/L	1.033	2	5706	1006367	1	Standard
	V-1	**51**	**48.932**	ug/L	0.558	1	834	1016616	1	Standard
	Cr	**52**	**50.190**	ug/L	0.574	1	16644	842360	0	Standard
	Cr	**53**	**50.607**	ug/L	1.541	3	322	98464	3	Standard
	Mn	**55**	**48.957**	ug/L	0.743	1	466	1143133	1	Standard
>	**Ge-1**	**72**		ug/L			81114	81577	2	KED
	Co	**59**	**50.242**	ug/L	0.956	1	31	241515	0	KED
	Ni	**60**	**48.790**	ug/L	1.665	3	44	65684	1	KED
	Ni	**62**	**50.417**	ug/L	1.301	2	7	10335	2	KED
	Cu	**63**	**50.191**	ug/L	2.089	4	57	174407	2	KED
	Cu	**65**	**49.553**	ug/L	0.521	1	19	85376	2	KED
	Zn	**66**	**50.583**	ug/L	0.588	1	56	24166	2	KED
	Zn	**67**	**48.267**	ug/L	1.103	2	7	3826	0	KED
	As	**75**	**48.451**	ug/L	0.604	1	6	15518	1	KED
	Se-1	**78**	**48.855**	ug/L	1.283	2	25	2048	1	KED
	Y	**89**		ug/L			619356	566200	2	Standard
	Kr	**83**		ug/L			31	66	9	Standard
>	**In-1**	**115**		ug/L			34809	33323	5	KED
	Mo	**98**	**49.105**	ug/L	2.672	5	3	64713	0	KED
	Cd	**111**	**48.777**	ug/L	2.725	5	2	19839	0	KED
	Cd	**114**	**48.823**	ug/L	2.346	4	3	50834	1	KED
>	**In**	**115**		ug/L			769572	668912	3	Standard
	Ag	**107**	**51.121**	ug/L	1.202	2	121	661573	1	Standard
	Sb	**121**	**50.714**	ug/L	1.563	3	91	501454	0	Standard
	Sb	**123**	**50.419**	ug/L	1.908	3	78	387451	1	Standard
	Ba	**135**	**53.698**	ug/L	2.897	5	23	175098	3	Standard
	Ba	**137**	**52.257**	ug/L	3.341	6	48	312189	3	Standard
>	**Tb**	**159**		ug/L			1026127	968596	2	Standard
	Tl	**205**	**52.417**	ug/L	2.392	4	86	901839	1	Standard
	Pb	**208**	**51.480**	ug/L	0.579	1	191	1114810	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 16:11:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	671726	4	Standard
	Be	**9**	**-0.003**	ug/L	0.002	70	27	13	102	Standard
	C	**13**		ug/L			17606	18190	0	Standard
	Cl	**37**		ug/L			6613771	7530496	0	Standard
>	**Sc**	**45**		ug/L			1108166	1030058	1	Standard
	V	**51**	**-0.009**	ug/L	0.005	53	5706	5124	0	Standard
	V-1	**51**	**0.143**	ug/L	0.008	5	834	3710	4	Standard
	Cr	**52**	**-0.042**	ug/L	0.008	18	16644	14783	0	Standard
	Cr	**53**	**0.480**	ug/L	0.025	5	322	1218	4	Standard
	Mn	**55**	**0.011**	ug/L	0.002	16	466	690	4	Standard
>	**Ge-1**	**72**		ug/L			81114	78648	1	KED
	Co	**59**	**0.001**	ug/L	0.001	137	31	34	16	KED
	Ni	**60**	**-0.016**	ug/L	0.011	69	44	22	60	KED
	Ni	**62**	**0.049**	ug/L	0.028	56	7	17	33	KED
	Cu	**63**	**0.001**	ug/L	0.005	424	57	59	25	KED
	Cu	**65**	**0.006**	ug/L	0.008	133	19	28	43	KED
	Zn	**66**	**0.088**	ug/L	0.016	17	56	95	7	KED
	Zn	**67**	**0.086**	ug/L	0.030	35	7	13	15	KED
	As	**75**	**-0.005**	ug/L	0.004	80	6	4	24	KED
	Se-1	**78**	**0.079**	ug/L	0.069	87	25	27	9	KED
	Y	**89**		ug/L			619356	550473	0	Standard
	Kr	**83**		ug/L			31	33	14	Standard
>	**In-1**	**115**		ug/L			34809	33585	2	KED
	Mo	**98**	**0.013**	ug/L	0.009	70	3	20	58	KED
	Cd	**111**	**-0.001**	ug/L	0.001	105	2	1	34	KED
	Cd	**114**	**-0.001**	ug/L	0.003	250	3	1	203	KED
>	**In**	**115**		ug/L			769572	680294	4	Standard
	Ag	**107**	**-0.003**	ug/L	0.002	68	121	62	54	Standard
	Sb	**121**	**0.110**	ug/L	0.007	6	91	1185	6	Standard
	Sb	**123**	**0.113**	ug/L	0.006	5	78	952	2	Standard
	Ba	**135**	**0.000**	ug/L	0.002	569	23	21	22	Standard
	Ba	**137**	**0.001**	ug/L	0.003	312	48	48	41	Standard
>	**Tb**	**159**		ug/L			1026127	982681	1	Standard
	Tl	**205**	**0.009**	ug/L	0.002	19	86	232	12	Standard
	Pb	**208**	**0.005**	ug/L	0.002	41	191	290	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 16:16:19
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L				680888	10	Standard
⌊	**Be**	**9**		ug/L				2	86	Standard
	C	**13**		ug/L				18086	1	Standard
	Cl	**37**		ug/L				7449359	1	Standard
⌈>	**Sc**	**45**		ug/L				978216	7	Standard
|	**V**	**51**		ug/L				4861	1	Standard
|	**V-1**	**51**		ug/L				2839	2	Standard
|	**Cr**	**52**		ug/L				14201	2	Standard
|	**Cr**	**53**		ug/L				957	5	Standard
⌊	**Mn**	**55**		ug/L				647	3	Standard
⌈>	**Ge-1**	**72**		ug/L				76539	1	KED
|	**Co**	**59**		ug/L				33	3	KED
|	**Ni**	**60**		ug/L				15	25	KED
|	**Ni**	**62**		ug/L				16	40	KED
|	**Cu**	**63**		ug/L				45	14	KED
|	**Cu**	**65**		ug/L				20	23	KED
|	**Zn**	**66**		ug/L				108	8	KED
|	**Zn**	**67**		ug/L				17	40	KED
|	**As**	**75**		ug/L				5	28	KED
⌊	**Se-1**	**78**		ug/L				24	4	KED
	Y	**89**		ug/L				538258	9	Standard
	Kr	**83**		ug/L				36	31	Standard
⌈>	**In-1**	**115**		ug/L				32248	1	KED
|	**Mo**	**98**		ug/L				11	9	KED
|	**Cd**	**111**		ug/L				0	86	KED
⌊	**Cd**	**114**		ug/L				1	225	KED
⌈>	**In**	**115**		ug/L				647272	3	Standard
|	**Ag**	**107**		ug/L				55	48	Standard
|	**Sb**	**121**		ug/L				308	3	Standard
|	**Sb**	**123**		ug/L				245	2	Standard
|	**Ba**	**135**		ug/L				22	38	Standard
⌊	**Ba**	**137**		ug/L				45	4	Standard
⌈>	**Tb**	**159**		ug/L				939696	10	Standard
|	**Tl**	**205**		ug/L				211	8	Standard
⌊	**Pb**	**208**		ug/L				282	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV9
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 16:21:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	735127	2	Standard
	Be	**9**	**37.937**	ug/L	0.229	0	2	239198	1	Standard
	C	**13**		ug/L			18086	19001	3	Standard
	Cl	**37**		ug/L			7449359	7421872	2	Standard
>	**Sc**	**45**		ug/L			978216	989399	1	Standard
	V	**51**	**48.760**	ug/L	0.379	0	4861	952377	0	Standard
	V-1	**51**	**48.722**	ug/L	0.526	1	2839	960844	0	Standard
	Cr	**52**	**49.747**	ug/L	1.094	2	14201	790563	2	Standard
	Cr	**53**	**49.579**	ug/L	1.005	2	957	92041	2	Standard
	Mn	**55**	**49.293**	ug/L	2.332	4	647	1090410	4	Standard
>	**Ge-1**	**72**		ug/L			76539	76756	1	KED
	Co	**59**	**49.603**	ug/L	1.328	2	33	224359	1	KED
	Ni	**60**	**50.237**	ug/L	0.850	1	15	63630	0	KED
	Ni	**62**	**50.988**	ug/L	1.414	2	16	9843	1	KED
	Cu	**63**	**50.337**	ug/L	2.037	4	45	164610	2	KED
	Cu	**65**	**48.651**	ug/L	1.169	2	20	78863	1	KED
	Zn	**66**	**50.086**	ug/L	0.707	1	108	22569	0	KED
	Zn	**67**	**47.508**	ug/L	2.023	4	17	3554	3	KED
	As	**75**	**47.502**	ug/L	1.206	2	5	14312	1	KED
	Se-1	**78**	**48.787**	ug/L	1.270	2	24	1925	1	KED
	Y	**89**		ug/L			538258	549506	3	Standard
	Kr	**83**		ug/L			36	45	19	Standard
>	**In-1**	**115**		ug/L			32248	31845	4	KED
	Mo	**98**	**48.841**	ug/L	2.317	4	11	61549	0	KED
	Cd	**111**	**48.591**	ug/L	2.169	4	0	18897	1	KED
	Cd	**114**	**48.424**	ug/L	2.419	4	1	48189	1	KED
>	**In**	**115**		ug/L			647272	671994	3	Standard
	Ag	**107**	**46.792**	ug/L	2.765	5	55	607753	2	Standard
	Sb	**121**	**50.023**	ug/L	1.688	3	308	497078	0	Standard
	Sb	**123**	**48.371**	ug/L	0.610	1	245	373789	2	Standard
	Ba	**135**	**50.382**	ug/L	1.629	3	22	165072	0	Standard
	Ba	**137**	**50.243**	ug/L	2.304	4	45	301695	3	Standard
>	**Tb**	**159**		ug/L			939696	994020	5	Standard
	Tl	**205**	**51.825**	ug/L	4.944	9	211	913232	5	Standard
	Pb	**208**	**51.745**	ug/L	2.565	4	282	1148337	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB9
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 16:28:55
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	744523	8	Standard
	Be	**9**	**0.000**	ug/L	0.000	131	2	4	49	Standard
	C	**13**		ug/L			18086	18426	3	Standard
	Cl	**37**		ug/L			7449359	7200003	1	Standard
>	**Sc**	**45**		ug/L			978216	994315	4	Standard
	V	**51**	**-0.006**	ug/L	0.001	19	4861	4823	3	Standard
	V-1	**51**	**-0.064**	ug/L	0.001	1	2839	1621	3	Standard
	Cr	**52**	**-0.023**	ug/L	0.003	11	14201	14077	3	Standard
	Cr	**53**	**-0.220**	ug/L	0.002	1	957	566	3	Standard
	Mn	**55**	**-0.005**	ug/L	0.001	27	647	555	5	Standard
>	**Ge-1**	**72**		ug/L			76539	72319	3	KED
	Co	**59**	**-0.000**	ug/L	0.002	336	33	29	26	KED
	Ni	**60**	**0.011**	ug/L	0.013	119	15	27	58	KED
	Ni	**62**	**-0.031**	ug/L	0.031	100	16	10	57	KED
	Cu	**63**	**0.002**	ug/L	0.002	93	45	50	9	KED
	Cu	**65**	**-0.003**	ug/L	0.003	103	20	14	32	KED
	Zn	**66**	**-0.071**	ug/L	0.030	41	108	72	17	KED
	Zn	**67**	**-0.031**	ug/L	0.095	311	17	14	45	KED
	As	**75**	**0.007**	ug/L	0.005	74	5	6	20	KED
	Se-1	**78**	**-0.032**	ug/L	0.079	250	24	22	13	KED
	Y	**89**		ug/L			538258	552143	1	Standard
	Kr	**83**		ug/L			36	34	6	Standard
>	**In-1**	**115**		ug/L			32248	31071	0	KED
	Mo	**98**	**0.004**	ug/L	0.003	90	11	15	25	KED
	Cd	**111**	**0.006**	ug/L	0.002	41	0	2	33	KED
	Cd	**114**	**0.003**	ug/L	0.003	91	1	4	70	KED
>	**In**	**115**		ug/L			647272	672253	2	Standard
	Ag	**107**	**0.000**	ug/L	0.001	399	55	61	23	Standard
	Sb	**121**	**0.096**	ug/L	0.011	11	308	1274	6	Standard
	Sb	**123**	**0.095**	ug/L	0.008	8	245	985	3	Standard
	Ba	**135**	**-0.002**	ug/L	0.000	25	22	17	6	Standard
	Ba	**137**	**-0.000**	ug/L	0.001	308	45	45	15	Standard
>	**Tb**	**159**		ug/L			939696	1011171	1	Standard
	Tl	**205**	**-0.002**	ug/L	0.001	61	211	193	9	Standard
	Pb	**208**	**-0.000**	ug/L	0.001	315	282	295	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0297-17
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 16:33:51
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			680888	837201	3	Standard
⌊	**Be**	**9**	**0.001**	ug/L	0.000	37	2	7	25	Standard
	C	**13**		ug/L			18086	51495	1	Standard
	Cl	**37**		ug/L			7449359	17417702	3	Standard
⌈>	**Sc**	**45**		ug/L			978216	1178103	1	Standard
⌈	**V**	**51**	**17.781**	ug/L	0.157	0	4861	417251	0	Standard
⌊	**V-1**	**51**	**19.006**	ug/L	0.161	0	2839	448396	1	Standard
⌈	**Cr**	**52**	**0.207**	ug/L	0.016	7	14201	20955	2	Standard
⌊	**Cr**	**53**	**5.109**	ug/L	0.083	1	957	12328	2	Standard
⌊	**Mn**	**55**	**17.606**	ug/L	0.167	0	647	464256	2	Standard
⌈>	**Ge-1**	**72**		ug/L			76539	64925	3	KED
⌈	**Co**	**59**	**2.760**	ug/L	0.054	1	33	10586	3	KED
⌊	**Ni**	**60**	**15.475**	ug/L	0.554	3	15	16581	1	KED
⌈	**Ni**	**62**	**15.433**	ug/L	0.876	5	16	2527	3	KED
⌈	**Cu**	**63**	**5.403**	ug/L	0.174	3	45	14976	0	KED
⌊	**Cu**	**65**	**5.420**	ug/L	0.068	1	20	7447	1	KED
⌈	**Zn**	**66**	**1.470**	ug/L	0.032	2	108	649	2	KED
⌊	**Zn**	**67**	**8.669**	ug/L	0.103	1	17	561	4	KED
⌈	**As**	**75**	**3.825**	ug/L	0.088	2	5	978	2	KED
⌊	**Se-1**	**78**	**0.233**	ug/L	0.071	30	24	28	9	KED
	Y	**89**		ug/L			538258	537202	2	Standard
	Kr	**83**		ug/L			36	85	4	Standard
⌈>	**In-1**	**115**		ug/L			32248	27249	1	KED
⌈	**Mo**	**98**	**0.525**	ug/L	0.066	12	11	576	12	KED
⌈	**Cd**	**111**	**0.020**	ug/L	0.004	22	0	7	19	KED
⌊	**Cd**	**114**	**0.003**	ug/L	0.010	300	1	3	227	KED
⌈>	**In**	**115**		ug/L			647272	593155	2	Standard
⌈	**Ag**	**107**	**0.002**	ug/L	0.001	47	55	77	14	Standard
⌈	**Sb**	**121**	**0.069**	ug/L	0.008	10	308	890	5	Standard
⌊	**Sb**	**123**	**0.068**	ug/L	0.000	0	245	687	2	Standard
⌈	**Ba**	**135**	**165.414**	ug/L	7.838	4	22	478349	2	Standard
⌊	**Ba**	**137**	**161.243**	ug/L	12.322	7	45	854179	5	Standard
⌈>	**Tb**	**159**		ug/L			939696	963784	2	Standard
⌈	**Tl**	**205**	**0.010**	ug/L	0.000	2	211	382	2	Standard
⌊	**Pb**	**208**	**0.059**	ug/L	0.003	5	282	1553	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0304-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 16:38:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	854385	6	Standard
	Be	**9**	**0.001**	ug/L	0.001	78	2	11	60	Standard
	C	**13**		ug/L			18086	48357	3	Standard
	Cl	**37**		ug/L			7449359	11087473	4	Standard
>	**Sc**	**45**		ug/L			978216	1168284	1	Standard
	V	**51**	**3.166**	ug/L	0.073	2	4861	78467	3	Standard
	V-1	**51**	**4.827**	ug/L	0.072	1	2839	115478	3	Standard
	Cr	**52**	**0.198**	ug/L	0.029	14	14201	20622	4	Standard
	Cr	**53**	**6.003**	ug/L	0.090	1	957	14166	2	Standard
	Mn	**55**	**5.122**	ug/L	0.084	1	647	134496	3	Standard
>	**Ge-1**	**72**		ug/L			76539	69161	1	KED
	Co	**59**	**0.080**	ug/L	0.001	1	33	354	1	KED
	Ni	**60**	**0.769**	ug/L	0.032	4	15	891	4	KED
	Ni	**62**	**0.754**	ug/L	0.068	9	16	146	9	KED
	Cu	**63**	**2.496**	ug/L	0.089	3	45	7394	1	KED
	Cu	**65**	**2.474**	ug/L	0.070	2	20	3632	4	KED
	Zn	**66**	**30.801**	ug/L	1.930	6	108	12536	4	KED
	Zn	**67**	**30.402**	ug/L	0.840	2	17	2055	1	KED
	As	**75**	**1.251**	ug/L	0.049	3	5	343	2	KED
	Se-1	**78**	**0.173**	ug/L	0.111	64	24	28	12	KED
	Y	**89**		ug/L			538258	542812	1	Standard
	Kr	**83**		ug/L			36	46	30	Standard
>	**In-1**	**115**		ug/L			32248	28217	0	KED
	Mo	**98**	**0.443**	ug/L	0.009	1	11	505	2	KED
	Cd	**111**	**0.021**	ug/L	0.009	39	0	7	36	KED
	Cd	**114**	**0.009**	ug/L	0.007	77	1	8	68	KED
>	**In**	**115**		ug/L			647272	638841	3	Standard
	Ag	**107**	**0.001**	ug/L	0.001	92	55	71	17	Standard
	Sb	**121**	**0.162**	ug/L	0.010	5	308	1832	1	Standard
	Sb	**123**	**0.158**	ug/L	0.003	1	245	1403	2	Standard
	Ba	**135**	**39.771**	ug/L	0.594	1	22	124015	5	Standard
	Ba	**137**	**37.802**	ug/L	1.396	3	45	215808	2	Standard
>	**Tb**	**159**		ug/L			939696	998571	2	Standard
	Tl	**205**	**-0.008**	ug/L	0.001	12	211	81	23	Standard
	Pb	**208**	**0.139**	ug/L	0.005	3	282	3397	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0334-02
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 16:43:42
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			680888	892928	2	Standard
	Be	9	0.001	ug/L	0.000	86	2	7	50	Standard
	C	13		ug/L			18086	34457	3	Standard
	Cl	37		ug/L			7449359	7147796	0	Standard
>	Sc	45		ug/L			978216	1028871	1	Standard
	V	51	-0.015	ug/L	0.004	29	4861	4813	1	Standard
	V-1	51	-0.008	ug/L	0.004	43	2839	2822	3	Standard
	Cr	52	-0.050	ug/L	0.030	61	14201	14130	3	Standard
	Cr	53	-0.025	ug/L	0.003	13	957	960	1	Standard
	Mn	55	48.090	ug/L	0.561	1	647	1106127	0	Standard
>	Ge-1	72		ug/L			76539	65721	1	KED
	Co	59	0.009	ug/L	0.005	61	33	62	34	KED
	Ni	60	0.127	ug/L	0.020	15	15	150	14	KED
	Ni	62	0.080	ug/L	0.015	18	16	27	8	KED
	Cu	63	0.364	ug/L	0.027	7	45	1059	8	KED
	Cu	65	0.372	ug/L	0.044	11	20	533	12	KED
	Zn	66	9.510	ug/L	0.394	4	108	3743	2	KED
	Zn	67	10.825	ug/L	0.227	2	17	705	1	KED
	As	75	3.012	ug/L	0.082	2	5	781	2	KED
	Se-1	78	0.033	ug/L	0.021	65	24	22	3	KED
	Y	89		ug/L			538258	518993	0	Standard
	Kr	83		ug/L			36	46	42	Standard
>	In-1	115		ug/L			32248	26926	2	KED
	Mo	98	15.466	ug/L	0.365	2	11	16503	1	KED
	Cd	111	0.014	ug/L	0.005	34	0	5	28	KED
	Cd	114	0.015	ug/L	0.009	56	1	13	51	KED
>	In	115		ug/L			647272	603147	1	Standard
	Ag	107	-0.001	ug/L	0.001	78	55	38	25	Standard
	Sb	121	-0.007	ug/L	0.003	41	308	226	12	Standard
	Sb	123	-0.008	ug/L	0.003	38	245	175	10	Standard
	Ba	135	50.708	ug/L	0.157	0	22	149230	2	Standard
	Ba	137	48.838	ug/L	0.954	1	45	263413	3	Standard
>	Tb	159		ug/L			939696	1021608	1	Standard
	Tl	205	-0.009	ug/L	0.000	4	211	69	12	Standard
	Pb	208	0.041	ug/L	0.001	3	282	1239	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0335-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 16:48:38
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			680888	943159	7	Standard
	Be	9	0.003	ug/L	0.002	59	2	24	48	Standard
	C	13		ug/L			18086	35914	1	Standard
	Cl	37		ug/L			7449359	6437727	1	Standard
>	Sc	45		ug/L			978216	959976	1	Standard
	V	51	1.161	ug/L	0.059	5	4861	26657	2	Standard
	V-1	51	1.164	ug/L	0.048	4	2839	24978	2	Standard
	Cr	52	0.730	ug/L	0.073	9	14201	24973	3	Standard
	Cr	53	0.755	ug/L	0.023	3	957	2285	0	Standard
	Mn	55	0.220	ug/L	0.014	6	647	5359	4	Standard
>	Ge-1	72		ug/L			76539	58855	1	KED
	Co	59	0.062	ug/L	0.002	3	33	239	2	KED
	Ni	60	1.573	ug/L	0.058	3	15	1538	2	KED
	Ni	62	1.504	ug/L	0.105	6	16	234	6	KED
	Cu	63	1.828	ug/L	0.086	4	45	4617	3	KED
	Cu	65	1.833	ug/L	0.043	2	20	2294	4	KED
	Zn	66	1.444	ug/L	0.090	6	108	579	3	KED
	Zn	67	5.390	ug/L	0.407	7	17	321	6	KED
	As	75	1.231	ug/L	0.058	4	5	288	3	KED
	Se-1	78	4.776	ug/L	0.258	5	24	161	4	KED
	Y	89		ug/L			538258	436238	4	Standard
	Kr	83		ug/L			36	57	34	Standard
>	In-1	115		ug/L			32248	23952	1	KED
	Mo	98	2.835	ug/L	0.169	5	11	2696	3	KED
	Cd	111	0.113	ug/L	0.043	38	0	33	37	KED
	Cd	114	0.111	ug/L	0.021	19	1	83	18	KED
>	In	115		ug/L			647272	547561	3	Standard
	Ag	107	0.010	ug/L	0.000	4	55	153	5	Standard
	Sb	121	0.049	ug/L	0.003	5	308	657	5	Standard
	Sb	123	0.051	ug/L	0.007	13	245	530	9	Standard
	Ba	135	112.123	ug/L	2.737	2	22	299383	0	Standard
	Ba	137	110.039	ug/L	4.502	4	45	539170	7	Standard
>	Tb	159		ug/L			939696	1013289	0	Standard
	Tl	205	-0.007	ug/L	0.001	10	211	97	13	Standard
	Pb	208	0.310	ug/L	0.004	1	282	7336	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0335-03
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 16:53:33
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			680888	1013610	5	Standard
	Be	9	0.001	ug/L	0.001	110	2	10	65	Standard
	C	13		ug/L			18086	33604	2	Standard
	Cl	37		ug/L			7449359	6289686	2	Standard
>	Sc	45		ug/L			978216	953088	2	Standard
	V	51	1.552	ug/L	0.084	5	4861	33771	2	Standard
	V-1	51	1.512	ug/L	0.069	4	2839	31389	2	Standard
	Cr	52	0.334	ug/L	0.044	13	14201	18840	1	Standard
	Cr	53	0.245	ug/L	0.014	5	957	1367	4	Standard
	Mn	55	151.966	ug/L	4.692	3	647	3235534	1	Standard
>	Ge-1	72		ug/L			76539	57667	1	KED
	Co	59	0.831	ug/L	0.029	3	33	2849	3	KED
	Ni	60	5.453	ug/L	0.165	3	15	5199	3	KED
	Ni	62	5.659	ug/L	0.322	5	16	831	4	KED
	Cu	63	2.333	ug/L	0.073	3	45	5767	3	KED
	Cu	65	2.335	ug/L	0.086	3	20	2858	4	KED
	Zn	66	4.839	ug/L	0.176	3	108	1711	2	KED
	Zn	67	7.055	ug/L	0.666	9	17	408	9	KED
	As	75	1.594	ug/L	0.098	6	5	364	5	KED
	Se-1	78	29.816	ug/L	0.398	1	24	891	0	KED
	Y	89		ug/L			538258	454825	4	Standard
	Kr	83		ug/L			36	48	9	Standard
>	In-1	115		ug/L			32248	23926	0	KED
	Mo	98	5.510	ug/L	0.057	1	11	5231	1	KED
	Cd	111	0.296	ug/L	0.031	10	0	86	10	KED
	Cd	114	0.308	ug/L	0.037	11	1	231	11	KED
>	In	115		ug/L			647272	562407	1	Standard
	Ag	107	0.004	ug/L	0.002	65	55	87	30	Standard
	Sb	121	0.578	ug/L	0.023	3	308	5075	2	Standard
	Sb	123	0.592	ug/L	0.021	3	245	4038	1	Standard
	Ba	135	74.035	ug/L	1.887	2	22	203104	1	Standard
	Ba	137	71.467	ug/L	2.491	3	45	359265	2	Standard
>	Tb	159		ug/L			939696	1044450	0	Standard
	Tl	205	-0.006	ug/L	0.001	11	211	130	8	Standard
	Pb	208	0.037	ug/L	0.003	7	282	1172	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0335-05
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 16:58:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			680888	1028852	3	Standard
	Be	9	0.001	ug/L	0.001	47	2	13	31	Standard
	C	13		ug/L			18086	35329	1	Standard
	Cl	37		ug/L			7449359	6045269	1	Standard
>	Sc	45		ug/L			978216	966874	1	Standard
	V	51	0.832	ug/L	0.024	2	4861	20593	1	Standard
	V-1	51	0.804	ug/L	0.015	1	2839	18251	1	Standard
	Cr	52	0.568	ug/L	0.027	4	14201	22699	0	Standard
	Cr	53	0.484	ug/L	0.020	4	957	1815	3	Standard
	Mn	55	0.407	ug/L	0.010	2	647	9432	2	Standard
>	Ge-1	72		ug/L			76539	55309	0	KED
	Co	59	0.027	ug/L	0.004	15	33	113	11	KED
	Ni	60	1.207	ug/L	0.036	2	15	1113	3	KED
	Ni	62	1.240	ug/L	0.268	21	16	184	20	KED
	Cu	63	2.890	ug/L	0.010	0	45	6842	0	KED
	Cu	65	2.830	ug/L	0.117	4	20	3320	4	KED
	Zn	66	2.119	ug/L	0.064	3	108	763	2	KED
	Zn	67	3.761	ug/L	0.382	10	17	214	8	KED
	As	75	1.200	ug/L	0.075	6	5	264	6	KED
	Se-1	78	9.865	ug/L	0.212	2	24	294	2	KED
	Y	89		ug/L			538258	421186	4	Standard
	Kr	83		ug/L			36	46	13	Standard
>	In-1	115		ug/L			32248	23061	0	KED
	Mo	98	7.385	ug/L	0.027	0	11	6755	0	KED
	Cd	111	0.113	ug/L	0.019	16	0	32	16	KED
	Cd	114	0.110	ug/L	0.019	17	1	80	17	KED
>	In	115		ug/L			647272	550266	2	Standard
	Ag	107	0.005	ug/L	0.001	13	55	102	8	Standard
	Sb	121	0.064	ug/L	0.006	9	308	778	4	Standard
	Sb	123	0.077	ug/L	0.005	6	245	693	4	Standard
	Ba	135	55.400	ug/L	1.843	3	22	148740	4	Standard
	Ba	137	53.533	ug/L	0.709	1	45	263384	2	Standard
>	Tb	159		ug/L			939696	1056261	0	Standard
	Tl	205	-0.006	ug/L	0.002	28	211	126	24	Standard
	Pb	208	0.137	ug/L	0.008	5	282	3543	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0335-09
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 17:03:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			680888	1023404	4	Standard
	Be	9	0.004	ug/L	0.001	23	2	34	22	Standard
	C	13		ug/L			18086	37862	1	Standard
	Cl	37		ug/L			7449359	6227086	2	Standard
>	Sc	45		ug/L			978216	938131	2	Standard
	V	51	0.050	ug/L	0.015	28	4861	5588	2	Standard
	V-1	51	0.029	ug/L	0.007	24	2839	3254	1	Standard
	Cr	52	0.051	ug/L	0.040	78	14201	14369	1	Standard
	Cr	53	-0.023	ug/L	0.038	162	957	877	6	Standard
	Mn	55	112.235	ug/L	2.859	2	647	2352174	0	Standard
>	Ge-1	72		ug/L			76539	54401	5	KED
	Co	59	0.302	ug/L	0.018	5	33	991	4	KED
	Ni	60	1.785	ug/L	0.128	7	15	1609	3	KED
	Ni	62	1.843	ug/L	0.144	7	16	262	2	KED
	Cu	63	2.830	ug/L	0.173	6	45	6581	3	KED
	Cu	65	2.734	ug/L	0.168	6	20	3148	0	KED
	Zn	66	38.372	ug/L	1.560	4	108	12257	1	KED
	Zn	67	37.004	ug/L	2.006	5	17	1962	0	KED
	As	75	2.168	ug/L	0.095	4	5	465	1	KED
	Se-1	78	0.038	ug/L	0.045	118	24	18	11	KED
	Y	89		ug/L			538258	443151	5	Standard
	Kr	83		ug/L			36	45	31	Standard
>	In-1	115		ug/L			32248	23382	1	KED
	Mo	98	16.808	ug/L	0.503	2	11	15573	1	KED
	Cd	111	0.017	ug/L	0.005	29	0	5	26	KED
	Cd	114	0.008	ug/L	0.011	135	1	6	119	KED
>	In	115		ug/L			647272	572645	6	Standard
	Ag	107	0.002	ug/L	0.001	53	55	66	11	Standard
	Sb	121	0.036	ug/L	0.005	14	308	575	5	Standard
	Sb	123	0.037	ug/L	0.007	19	245	456	4	Standard
	Ba	135	46.338	ug/L	2.547	5	22	129259	4	Standard
	Ba	137	43.858	ug/L	3.721	8	45	224038	6	Standard
>	Tb	159		ug/L			939696	1067944	1	Standard
	Tl	205	-0.006	ug/L	0.000	7	211	120	8	Standard
	Pb	208	0.284	ug/L	0.011	3	282	7109	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0335-11
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 17:08:19
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	Li	6		ug/L			680888	1054394	2	Standard
[	Be	9	0.000	ug/L	0.001	254	2	6	96	Standard
	C	13		ug/L			18086	33324	2	Standard
	Cl	37		ug/L			7449359	5928409	1	Standard
[>	Sc	45		ug/L			978216	922526	1	Standard
[	V	51	0.010	ug/L	0.002	19	4861	4763	2	Standard
[	V-1	51	-0.041	ug/L	0.002	3	2839	1932	2	Standard
[	Cr	52	-0.069	ug/L	0.010	14	14201	12386	1	Standard
[	Cr	53	-0.239	ug/L	0.013	5	957	494	2	Standard
[	Mn	55	153.724	ug/L	4.228	2	647	3168481	1	Standard
[>	Ge-1	72		ug/L			76539	55328	1	KED
[	Co	59	0.173	ug/L	0.005	2	33	588	1	KED
[	Ni	60	1.397	ug/L	0.032	2	15	1285	1	KED
[	Ni	62	1.254	ug/L	0.127	10	16	186	8	KED
[	Cu	63	0.169	ug/L	0.004	2	45	431	0	KED
[	Cu	65	0.194	ug/L	0.019	9	20	241	8	KED
[	Zn	66	1.101	ug/L	0.103	9	108	434	6	KED
[	Zn	67	2.059	ug/L	0.397	19	17	123	15	KED
[	As	75	0.542	ug/L	0.037	6	5	121	6	KED
[	Se-1	78	-0.039	ug/L	0.095	242	24	16	15	KED
	Y	89		ug/L			538258	422024	3	Standard
	Kr	83		ug/L			36	45	8	Standard
[>	In-1	115		ug/L			32248	23062	1	KED
[	Mo	98	21.749	ug/L	0.909	4	11	19868	2	KED
[	Cd	111	0.022	ug/L	0.009	41	0	6	37	KED
[	Cd	114	0.014	ug/L	0.005	34	1	10	33	KED
[>	In	115		ug/L			647272	551454	0	Standard
[	Ag	107	-0.000	ug/L	0.000	149	55	44	10	Standard
[	Sb	121	-0.006	ug/L	0.002	29	308	211	6	Standard
[	Sb	123	-0.008	ug/L	0.004	52	245	160	15	Standard
[	Ba	135	32.313	ug/L	1.289	3	22	86956	4	Standard
[	Ba	137	31.981	ug/L	1.444	4	45	157727	4	Standard
[>	Tb	159		ug/L			939696	1019152	1	Standard
[	Tl	205	-0.003	ug/L	0.001	51	211	180	13	Standard
[	Pb	208	0.009	ug/L	0.001	8	282	521	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0371-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 17:13:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			680888	1053508	2	Standard
⌊	**Be**	**9**	**0.004**	ug/L	0.001	28	2	42	24	Standard
	C	**13**		ug/L			18086	42677	1	Standard
	Cl	**37**		ug/L			7449359	7278690	3	Standard
⌈>	**Sc**	**45**		ug/L			978216	1063765	2	Standard
⌈	**V**	**51**	**1.738**	ug/L	0.090	5	4861	41566	1	Standard
⌊	**V-1**	**51**	**1.872**	ug/L	0.093	4	2839	42620	1	Standard
⌈	**Cr**	**52**	**-0.029**	ug/L	0.011	37	14201	14956	1	Standard
⌊	**Cr**	**53**	**0.499**	ug/L	0.021	4	957	2027	0	Standard
⌊	**Mn**	**55**	**104.058**	ug/L	2.238	2	647	2473096	0	Standard
⌈>	**Ge-1**	**72**		ug/L			76539	55872	1	KED
⌈	**Co**	**59**	**0.873**	ug/L	0.014	1	33	2896	1	KED
⌊	**Ni**	**60**	**4.110**	ug/L	0.130	3	15	3798	1	KED
⌈	**Ni**	**62**	**4.074**	ug/L	0.142	3	16	583	1	KED
⌈	**Cu**	**63**	**0.298**	ug/L	0.003	1	45	741	1	KED
⌊	**Cu**	**65**	**0.285**	ug/L	0.026	8	20	351	7	KED
⌈	**Zn**	**66**	**2.469**	ug/L	0.139	5	108	885	4	KED
⌊	**Zn**	**67**	**4.299**	ug/L	0.474	11	17	245	8	KED
⌈	**As**	**75**	**0.456**	ug/L	0.017	3	5	103	2	KED
⌊	**Se-1**	**78**	**1.327**	ug/L	0.231	17	24	55	10	KED
	Y	**89**		ug/L			538258	473206	5	Standard
	Kr	**83**		ug/L			36	36	26	Standard
⌈>	**In-1**	**115**		ug/L			32248	23673	2	KED
⌈	**Mo**	**98**	**4.685**	ug/L	0.109	2	11	4401	1	KED
⌈	**Cd**	**111**	**0.128**	ug/L	0.015	11	0	37	9	KED
⌊	**Cd**	**114**	**0.162**	ug/L	0.026	16	1	121	18	KED
⌈>	**In**	**115**		ug/L			647272	568454	3	Standard
⌈	**Ag**	**107**	**0.004**	ug/L	0.001	13	55	91	5	Standard
⌈	**Sb**	**121**	**0.002**	ug/L	0.002	84	308	292	9	Standard
⌊	**Sb**	**123**	**0.000**	ug/L	0.003	7646	245	216	12	Standard
⌈	**Ba**	**135**	**58.600**	ug/L	1.934	3	22	162523	4	Standard
⌊	**Ba**	**137**	**57.399**	ug/L	3.253	5	45	291419	3	Standard
⌈>	**Tb**	**159**		ug/L			939696	1028095	2	Standard
⌈	**Tl**	**205**	**0.003**	ug/L	0.001	48	211	285	7	Standard
⌊	**Pb**	**208**	**0.037**	ug/L	0.003	8	282	1163	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0371-03
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 17:18:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	1146417	2	Standard
	Be	**9**	**0.016**	ug/L	0.002	10	2	165	9	Standard
	C	**13**		ug/L			18086	47188	2	Standard
	Cl	**37**		ug/L			7449359	9828113	1	Standard
>	**Sc**	**45**		ug/L			978216	1037779	0	Standard
	V	**51**	**8.637**	ug/L	0.119	1	4861	181215	1	Standard
	V-1	**51**	**9.722**	ug/L	0.130	1	2839	203530	1	Standard
	Cr	**52**	**1.785**	ug/L	0.033	1	14201	44273	1	Standard
	Cr	**53**	**5.773**	ug/L	0.183	3	957	12139	2	Standard
	Mn	**55**	**2.360**	ug/L	0.011	0	647	55412	0	Standard
>	**Ge-1**	**72**		ug/L			76539	50784	0	KED
	Co	**59**	**0.489**	ug/L	0.011	2	33	1485	2	KED
	Ni	**60**	**32.576**	ug/L	0.598	1	15	27306	1	KED
	Ni	**62**	**33.320**	ug/L	0.892	2	16	4260	1	KED
	Cu	**63**	**2.252**	ug/L	0.041	1	45	4903	1	KED
	Cu	**65**	**2.256**	ug/L	0.058	2	20	2433	2	KED
	Zn	**66**	**283.893**	ug/L	2.559	0	108	84312	0	KED
	Zn	**67**	**257.258**	ug/L	10.636	4	17	12684	3	KED
	As	**75**	**0.710**	ug/L	0.028	3	5	144	3	KED
	Se-1	**78**	**269.623**	ug/L	5.074	1	24	6966	1	KED
	Y	**89**		ug/L			538258	387727	7	Standard
	Kr	**83**		ug/L			36	57	25	Standard
>	**In-1**	**115**		ug/L			32248	21707	1	KED
	Mo	**98**	**79.754**	ug/L	1.532	1	11	68581	0	KED
	Cd	**111**	**18.732**	ug/L	0.383	2	0	4971	1	KED
	Cd	**114**	**18.590**	ug/L	0.222	1	1	12625	0	KED
>	**In**	**115**		ug/L			647272	502939	1	Standard
	Ag	**107**	**0.002**	ug/L	0.001	54	55	58	14	Standard
	Sb	**121**	**0.454**	ug/L	0.014	3	308	3616	2	Standard
	Sb	**123**	**0.458**	ug/L	0.014	3	245	2837	2	Standard
	Ba	**135**	**57.606**	ug/L	2.508	4	22	141320	3	Standard
	Ba	**137**	**55.986**	ug/L	2.224	3	45	251708	3	Standard
>	**Tb**	**159**		ug/L			939696	982366	1	Standard
	Tl	**205**	**0.103**	ug/L	0.006	5	211	2015	4	Standard
	Pb	**208**	**0.330**	ug/L	0.013	3	282	7546	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVA
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 17:24:11
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			680888	960571	7	Standard
⌊	**Be**	**9**	**35.072**	ug/L	3.004	8	2	287759	2	Standard
	C	**13**		ug/L			18086	20885	2	Standard
	Cl	**37**		ug/L			7449359	6534845	3	Standard
⌈>	**Sc**	**45**		ug/L			978216	893361	1	Standard
⌈	**V**	**51**	**47.519**	ug/L	0.868	1	4861	838068	0	Standard
⌊	**V-1**	**51**	**47.419**	ug/L	0.890	1	2839	844379	0	Standard
⌈	**Cr**	**52**	**48.434**	ug/L	0.929	1	14201	695200	1	Standard
⌊	**Cr**	**53**	**48.054**	ug/L	0.343	0	957	80575	0	Standard
⌈	**Mn**	**55**	**48.086**	ug/L	0.563	1	647	960346	0	Standard
⌈>	**Ge-1**	**72**		ug/L			76539	61496	1	KED
⌈	**Co**	**59**	**52.706**	ug/L	1.223	2	33	191033	2	KED
⌈	**Ni**	**60**	**52.824**	ug/L	0.719	1	15	53609	0	KED
⌊	**Ni**	**62**	**54.329**	ug/L	0.352	0	16	8404	0	KED
⌈	**Cu**	**63**	**53.285**	ug/L	0.499	0	45	139647	0	KED
⌊	**Cu**	**65**	**52.574**	ug/L	0.447	0	20	68287	0	KED
⌈	**Zn**	**66**	**53.754**	ug/L	1.942	3	108	19397	2	KED
⌊	**Zn**	**67**	**50.422**	ug/L	2.143	4	17	3023	4	KED
⌈	**As**	**75**	**48.953**	ug/L	0.575	1	5	11819	0	KED
⌊	**Se-1**	**78**	**48.541**	ug/L	0.537	1	24	1535	0	KED
	Y	**89**		ug/L			538258	493273	3	Standard
	Kr	**83**		ug/L			36	34	8	Standard
⌈>	**In-1**	**115**		ug/L			32248	25680	0	KED
⌈	**Mo**	**98**	**50.751**	ug/L	1.380	2	11	51640	2	KED
⌊	**Cd**	**111**	**50.802**	ug/L	1.139	2	0	15951	1	KED
⌊	**Cd**	**114**	**51.115**	ug/L	0.876	1	1	41072	1	KED
⌈>	**In**	**115**		ug/L			647272	611585	2	Standard
⌈	**Ag**	**107**	**42.250**	ug/L	0.367	0	55	500084	2	Standard
⌈	**Sb**	**121**	**51.006**	ug/L	1.270	2	308	461436	1	Standard
⌊	**Sb**	**123**	**50.488**	ug/L	0.074	0	245	355172	2	Standard
⌈	**Ba**	**135**	**57.059**	ug/L	0.785	1	22	170285	3	Standard
⌊	**Ba**	**137**	**57.221**	ug/L	0.817	1	45	312989	3	Standard
⌈>	**Tb**	**159**		ug/L			939696	1053566	1	Standard
⌈	**Tl**	**205**	**50.529**	ug/L	0.849	1	211	946626	2	Standard
⌊	**Pb**	**208**	**50.774**	ug/L	0.751	1	282	1196444	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBA
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 17:31:51
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			680888	941601	5	Standard
⌊	**Be**	**9**	**0.000**	ug/L	0.001	215	2	6	96	Standard
	C	**13**		ug/L			18086	19511	1	Standard
	Cl	**37**		ug/L			7449359	6690380	2	Standard
⌈>	**Sc**	**45**		ug/L			978216	894257	1	Standard
⌈	**V**	**51**	**-0.014**	ug/L	0.010	72	4861	4206	4	Standard
⌊	**V-1**	**51**	**-0.089**	ug/L	0.001	0	2839	1009	1	Standard
⌈	**Cr**	**52**	**-0.042**	ug/L	0.031	72	14201	12390	4	Standard
⌊	**Cr**	**53**	**-0.300**	ug/L	0.004	1	957	377	3	Standard
⌊	**Mn**	**55**	**-0.006**	ug/L	0.001	11	647	467	3	Standard
⌈>	**Ge-1**	**72**		ug/L			76539	63856	1	KED
⌈	**Co**	**59**	**-0.001**	ug/L	0.001	80	33	23	12	KED
⌊	**Ni**	**60**	**0.004**	ug/L	0.004	116	15	16	26	KED
⌈	**Ni**	**62**	**-0.062**	ug/L	0.023	37	16	3	100	KED
⌈	**Cu**	**63**	**0.001**	ug/L	0.001	125	45	40	7	KED
⌊	**Cu**	**65**	**0.004**	ug/L	0.004	104	20	22	24	KED
⌈	**Zn**	**66**	**-0.007**	ug/L	0.044	666	108	88	20	KED
⌊	**Zn**	**67**	**-0.024**	ug/L	0.111	452	17	13	51	KED
⌈	**As**	**75**	**0.006**	ug/L	0.004	66	5	5	16	KED
⌊	**Se-1**	**78**	**-0.017**	ug/L	0.069	408	24	20	12	KED
	Y	**89**		ug/L			538258	508867	1	Standard
	Kr	**83**		ug/L			36	33	12	Standard
⌈>	**In-1**	**115**		ug/L			32248	27141	1	KED
⌈	**Mo**	**98**	**0.003**	ug/L	0.005	155	11	13	38	KED
⌈	**Cd**	**111**	**0.000**	ug/L	0.003	1128	0	0	173	KED
⌊	**Cd**	**114**	**0.003**	ug/L	0.002	92	1	3	66	KED
⌈>	**In**	**115**		ug/L			647272	626902	1	Standard
⌈	**Ag**	**107**	**-0.001**	ug/L	0.001	74	55	43	16	Standard
⌈	**Sb**	**121**	**0.080**	ug/L	0.003	3	308	1042	3	Standard
⌊	**Sb**	**123**	**0.079**	ug/L	0.011	13	245	806	10	Standard
⌈	**Ba**	**135**	**-0.000**	ug/L	0.002	182486	22	22	35	Standard
⌊	**Ba**	**137**	**0.001**	ug/L	0.001	102	45	50	13	Standard
⌈>	**Tb**	**159**		ug/L			939696	1050234	1	Standard
⌈	**Tl**	**205**	**-0.006**	ug/L	0.001	11	211	130	10	Standard
⌊	**Pb**	**208**	**-0.002**	ug/L	0.002	109	282	271	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0651-BLK2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 17:36:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	940093	2	Standard
	Be	**9**	**0.019**	ug/L	0.033	171	2	156	167	Standard
	C	**13**		ug/L			18086	28213	2	Standard
	Cl	**37**		ug/L			7449359	7156865	1	Standard
>	**Sc**	**45**		ug/L			978216	964773	3	Standard
	V	**51**	**0.013**	ug/L	0.039	310	4861	5045	17	Standard
	V-1	**51**	**-0.068**	ug/L	0.041	59	2839	1502	55	Standard
	Cr	**52**	**-0.006**	ug/L	0.027	478	14201	13926	5	Standard
	Cr	**53**	**-0.282**	ug/L	0.036	12	957	440	17	Standard
	Mn	**55**	**0.324**	ug/L	0.157	48	647	7693	47	Standard
>	**Ge-1**	**72**		ug/L			76539	67070	0	KED
	Co	**59**	**0.002**	ug/L	0.000	12	33	38	2	KED
	Ni	**60**	**0.231**	ug/L	0.011	4	15	269	4	KED
	Ni	**62**	**0.174**	ug/L	0.039	22	16	43	15	KED
	Cu	**63**	**0.115**	ug/L	0.011	9	45	369	8	KED
	Cu	**65**	**0.100**	ug/L	0.016	16	20	159	14	KED
	Zn	**66**	**0.666**	ug/L	0.075	11	108	356	8	KED
	Zn	**67**	**0.561**	ug/L	0.334	59	17	52	41	KED
	As	**75**	**0.005**	ug/L	0.006	135	5	5	30	KED
	Se-1	**78**	**-0.050**	ug/L	0.090	178	24	19	15	KED
	Y	**89**		ug/L			538258	525523	2	Standard
	Kr	**83**		ug/L			36	24	27	Standard
>	**In-1**	**115**		ug/L			32248	28137	1	KED
	Mo	**98**	**0.002**	ug/L	0.002	115	11	12	22	KED
	Cd	**111**	**0.008**	ug/L	0.004	56	0	3	45	KED
	Cd	**114**	**0.005**	ug/L	0.001	28	1	4	21	KED
>	**In**	**115**		ug/L			647272	673278	0	Standard
	Ag	**107**	**0.008**	ug/L	0.017	197	55	167	128	Standard
	Sb	**121**	**0.014**	ug/L	0.018	130	308	460	39	Standard
	Sb	**123**	**0.017**	ug/L	0.016	92	245	388	31	Standard
	Ba	**135**	**0.058**	ug/L	0.076	130	22	214	116	Standard
	Ba	**137**	**0.078**	ug/L	0.116	147	45	519	133	Standard
>	**Tb**	**159**		ug/L			939696	1058034	0	Standard
	Tl	**205**	**0.011**	ug/L	0.033	313	211	434	142	Standard
	Pb	**208**	**0.021**	ug/L	0.038	183	282	807	110	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0371-04
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 17:41:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	900206	7	Standard
	Be	**9**	**0.002**	ug/L	0.001	34	2	16	35	Standard
	C	**13**		ug/L			18086	37703	1	Standard
	Cl	**37**		ug/L			7449359	7529980	2	Standard
>	**Sc**	**45**		ug/L			978216	1037394	1	Standard
	V	**51**	**2.139**	ug/L	0.038	1	4861	48732	1	Standard
	V-1	**51**	**2.202**	ug/L	0.036	1	2839	48413	0	Standard
	Cr	**52**	**0.388**	ug/L	0.017	4	14201	21404	0	Standard
	Cr	**53**	**0.676**	ug/L	0.023	3	957	2316	1	Standard
	Mn	**55**	**1.209**	ug/L	0.045	3	647	28699	2	Standard
>	**Ge-1**	**72**		ug/L			76539	60005	1	KED
	Co	**59**	**0.049**	ug/L	0.005	10	33	197	7	KED
	Ni	**60**	**1.204**	ug/L	0.071	5	15	1203	6	KED
	Ni	**62**	**1.068**	ug/L	0.021	1	16	173	3	KED
	Cu	**63**	**0.942**	ug/L	0.056	5	45	2445	6	KED
	Cu	**65**	**0.939**	ug/L	0.004	0	20	1206	1	KED
	Zn	**66**	**1.080**	ug/L	0.107	9	108	463	6	KED
	Zn	**67**	**3.609**	ug/L	0.432	11	17	224	12	KED
	As	**75**	**0.339**	ug/L	0.012	3	5	83	4	KED
	Se-1	**78**	**8.023**	ug/L	0.462	5	24	263	6	KED
	Y	**89**		ug/L			538258	497312	4	Standard
	Kr	**83**		ug/L			36	46	45	Standard
>	**In-1**	**115**		ug/L			32248	25268	1	KED
	Mo	**98**	**1.281**	ug/L	0.030	2	11	1291	1	KED
	Cd	**111**	**0.007**	ug/L	0.005	70	0	2	57	KED
	Cd	**114**	**0.011**	ug/L	0.004	31	1	9	29	KED
>	**In**	**115**		ug/L			647272	567213	5	Standard
	Ag	**107**	**-0.001**	ug/L	0.000	16	55	40	7	Standard
	Sb	**121**	**0.031**	ug/L	0.005	15	308	532	7	Standard
	Sb	**123**	**0.033**	ug/L	0.001	2	245	432	5	Standard
	Ba	**135**	**69.146**	ug/L	3.131	4	22	191108	3	Standard
	Ba	**137**	**66.111**	ug/L	2.740	4	45	334802	1	Standard
>	**Tb**	**159**		ug/L			939696	1020567	2	Standard
	Tl	**205**	**-0.002**	ug/L	0.001	52	211	193	8	Standard
	Pb	**208**	**-0.002**	ug/L	0.001	36	282	267	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0371-05
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 17:46:38
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	**Li**	**6**		ug/L			680888	1041992	1	Standard
[	**Be**	**9**	**0.004**	ug/L	0.001	17	2	39	16	Standard
	C	**13**		ug/L			18086	41202	1	Standard
	Cl	**37**		ug/L			7449359	10341073	3	Standard
[>	**Sc**	**45**		ug/L			978216	1047118	1	Standard
[	**V**	**51**	**5.307**	ug/L	0.108	2	4861	114343	2	Standard
[	**V-1**	**51**	**6.215**	ug/L	0.112	1	2839	132384	2	Standard
[	**Cr**	**52**	**0.575**	ug/L	0.027	4	14201	24690	0	Standard
[	**Cr**	**53**	**3.875**	ug/L	0.051	1	957	8559	2	Standard
[	**Mn**	**55**	**0.836**	ug/L	0.010	1	647	20258	1	Standard
[>	**Ge-1**	**72**		ug/L			76539	57022	0	KED
[	**Co**	**59**	**0.126**	ug/L	0.012	9	33	448	8	KED
[	**Ni**	**60**	**5.554**	ug/L	0.067	1	15	5237	1	KED
[	**Ni**	**62**	**5.804**	ug/L	0.372	6	16	843	5	KED
[	**Cu**	**63**	**2.599**	ug/L	0.009	0	45	6348	1	KED
[	**Cu**	**65**	**2.486**	ug/L	0.068	2	20	3007	1	KED
[	**Zn**	**66**	**2.211**	ug/L	0.208	9	108	817	7	KED
[	**Zn**	**67**	**5.959**	ug/L	0.526	8	17	342	8	KED
[	**As**	**75**	**1.175**	ug/L	0.097	8	5	266	7	KED
[	**Se-1**	**78**	**104.093**	ug/L	1.103	1	24	3031	1	KED
	Y	**89**		ug/L			538258	495645	1	Standard
	Kr	**83**		ug/L			36	52	11	Standard
[>	**In-1**	**115**		ug/L			32248	24046	1	KED
[	**Mo**	**98**	**27.082**	ug/L	1.354	4	11	25816	6	KED
[	**Cd**	**111**	**0.036**	ug/L	0.005	14	0	11	13	KED
[	**Cd**	**114**	**0.031**	ug/L	0.012	39	1	24	39	KED
[>	**In**	**115**		ug/L			647272	560294	1	Standard
[	**Ag**	**107**	**0.001**	ug/L	0.002	219	55	56	32	Standard
[	**Sb**	**121**	**0.092**	ug/L	0.003	2	308	1031	2	Standard
[	**Sb**	**123**	**0.089**	ug/L	0.006	6	245	786	5	Standard
[	**Ba**	**135**	**125.351**	ug/L	4.604	3	22	342610	3	Standard
[	**Ba**	**137**	**120.688**	ug/L	2.476	2	45	604683	3	Standard
[>	**Tb**	**159**		ug/L			939696	992103	2	Standard
[	**Tl**	**205**	**-0.002**	ug/L	0.001	78	211	195	12	Standard
[	**Pb**	**208**	**0.051**	ug/L	0.002	4	282	1435	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0381-01
Sample Dil Factor: 50
Comments:
Sample Date/Time: Thursday, June 28, 2018 17:51:33
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			680888	894059	3	Standard
⌊	**Be**	**9**	**0.000**	ug/L	0.000	55	2	5	21	Standard
	C	**13**		ug/L			18086	35714	2	Standard
	Cl	**37**		ug/L			7449359	7614188	2	Standard
⌈>	**Sc**	**45**		ug/L			978216	910299	1	Standard
⌈	**V**	**51**	**-1.535**	ug/L	3.729	242	4861	-22163	300	Standard
⌊	**V-1**	**51**	**0.198**	ug/L	0.006	3	2839	6231	3	Standard
⌈	**Cr**	**52**	**142.787**	ug/L	11.178	7	14201	2064574	9	Standard
⌊	**Cr**	**53**	**142.907**	ug/L	2.254	1	957	242377	0	Standard
	Mn	**55**	**16.862**	ug/L	0.240	1	647	343524	0	Standard
⌈>	**Ge-1**	**72**		ug/L			76539	66229	0	KED
⌈	**Co**	**59**	**0.750**	ug/L	0.021	2	33	2956	3	KED
⌊	**Ni**	**60**	**36.650**	ug/L	0.142	0	15	40064	0	KED
⌈	**Ni**	**62**	**36.316**	ug/L	0.221	0	16	6055	1	KED
⌈	**Cu**	**63**	**1.197**	ug/L	0.041	3	45	3418	4	KED
⌊	**Cu**	**65**	**1.196**	ug/L	0.043	3	20	1690	3	KED
⌈	**Zn**	**66**	**66.987**	ug/L	1.583	2	108	26021	3	KED
⌊	**Zn**	**67**	**60.908**	ug/L	2.323	3	17	3928	2	KED
	As	**75**	**0.036**	ug/L	0.014	39	5	13	27	KED
	Se-1	**78**	**-0.019**	ug/L	0.036	186	24	20	5	KED
	Y	**89**		ug/L			538258	526989	1	Standard
	Kr	**83**		ug/L			36	31	3	Standard
⌈>	**In-1**	**115**		ug/L			32248	27332	3	KED
⌈	**Mo**	**98**	**0.180**	ug/L	0.010	5	11	205	7	KED
⌈	**Cd**	**111**	**0.335**	ug/L	0.010	2	0	112	5	KED
⌊	**Cd**	**114**	**0.385**	ug/L	0.039	10	1	329	8	KED
⌈>	**In**	**115**		ug/L			647272	617370	2	Standard
⌈	**Ag**	**107**	**0.019**	ug/L	0.006	29	55	275	22	Standard
⌈	**Sb**	**121**	**0.001**	ug/L	0.006	389	308	307	16	Standard
⌊	**Sb**	**123**	**0.005**	ug/L	0.003	60	245	268	10	Standard
⌈	**Ba**	**135**	**2.557**	ug/L	0.109	4	22	7718	3	Standard
⌊	**Ba**	**137**	**2.607**	ug/L	0.083	3	45	14426	2	Standard
⌈>	**Tb**	**159**		ug/L			939696	1038724	0	Standard
⌈	**Tl**	**205**	**-0.006**	ug/L	0.001	9	211	128	7	Standard
⌊	**Pb**	**208**	**0.059**	ug/L	0.003	5	282	1683	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0651-~~DUP2~~ DUP3 TH 06-28-18
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 17:56:29
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			680888	798808	5	Standard
⌊	**Be**	**9**	**0.000**	ug/L	0.000	237	2	3	50	Standard
	C	**13**		ug/L			18086	53606	1	Standard
	Cl	**37**		ug/L			7449359	37537317	3	Standard
⌈>	**Sc**	**45**		ug/L			978216	1027241	1	Standard
⌈	**V**	**51**	**0.432**	ug/L	0.071	16	4861	13802	8	Standard
⌈	**V-1**	**51**	**8.383**	ug/L	0.225	2	2839	174071	1	Standard
⌈	**Cr**	**52**	**0.418**	ug/L	0.057	13	14201	21679	2	Standard
⌈	**Cr**	**53**	**27.636**	ug/L	0.712	2	957	53702	1	Standard
⌊	**Mn**	**55**	**448.834**	ug/L	8.511	1	647	10300605	0	Standard
⌈>	**Ge-1**	**72**		ug/L			76539	62051	0	KED
⌈	**Co**	**59**	**0.483**	ug/L	0.008	1	33	1793	1	KED
⌈	**Ni**	**60**	**5.056**	ug/L	0.160	3	15	5188	2	KED
⌈	**Ni**	**62**	**5.145**	ug/L	0.228	4	16	815	4	KED
⌈	**Cu**	**63**	**3.212**	ug/L	0.070	2	45	8528	1	KED
⌈	**Cu**	**65**	**3.219**	ug/L	0.072	2	20	4234	2	KED
⌈	**Zn**	**66**	**3.323**	ug/L	0.079	2	108	1292	2	KED
⌈	**Zn**	**67**	**5.729**	ug/L	0.534	9	17	359	9	KED
⌈	**As**	**75**	**0.713**	ug/L	0.027	3	5	177	3	KED
⌊	**Se-1**	**78**	**0.168**	ug/L	0.130	77	24	25	16	KED
	Y	**89**		ug/L			538258	520272	3	Standard
	Kr	**83**		ug/L			36	104	20	Standard
⌈>	**In-1**	**115**		ug/L			32248	25777	2	KED
⌈	**Mo**	**98**	**11.969**	ug/L	0.432	3	11	12224	0	KED
⌈	**Cd**	**111**	**0.014**	ug/L	0.006	47	0	4	40	KED
⌊	**Cd**	**114**	**0.012**	ug/L	0.004	32	1	10	30	KED
⌈>	**In**	**115**		ug/L			647272	556495	4	Standard
⌈	**Ag**	**107**	**0.002**	ug/L	0.001	50	55	71	20	Standard
⌈	**Sb**	**121**	**0.506**	ug/L	0.009	1	308	4431	3	Standard
⌈	**Sb**	**123**	**0.491**	ug/L	0.015	2	245	3353	4	Standard
⌈	**Ba**	**135**	**55.425**	ug/L	2.885	5	22	150260	1	Standard
⌊	**Ba**	**137**	**53.773**	ug/L	1.881	3	45	267477	4	Standard
⌈>	**Tb**	**159**		ug/L			939696	895990	5	Standard
⌈	**Tl**	**205**	**-0.009**	ug/L	0.000	4	211	60	15	Standard
⌊	**Pb**	**208**	**0.018**	ug/L	0.002	10	282	626	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0367-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 18:01:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			680888	848255	2	Standard
⌊	**Be**	**9**	**-0.000**	ug/L	0.000	146	2	1	100	Standard
	C	**13**		ug/L			18086	54631	0	Standard
	Cl	**37**		ug/L			7449359	37360094	1	Standard
⌈>	**Sc**	**45**		ug/L			978216	1105453	2	Standard
⌈	**V**	**51**	**0.461**	ug/L	0.094	20	4861	15505	13	Standard
⌊	**V-1**	**51**	**8.149**	ug/L	0.092	1	2839	182217	1	Standard
⌈	**Cr**	**52**	**0.404**	ug/L	0.006	1	14201	23099	2	Standard
⌊	**Cr**	**53**	**26.725**	ug/L	0.479	1	957	55923	1	Standard
⌊	**Mn**	**55**	**437.813**	ug/L	10.807	2	647	10811531	1	Standard
⌈>	**Ge-1**	**72**		ug/L			76539	65333	0	KED
⌈	**Co**	**59**	**0.486**	ug/L	0.006	1	33	1898	1	KED
⌊	**Ni**	**60**	**4.011**	ug/L	0.211	5	15	4335	4	KED
⌈	**Ni**	**62**	**4.123**	ug/L	0.244	5	16	690	6	KED
⌈	**Cu**	**63**	**2.878**	ug/L	0.048	1	45	8049	2	KED
⌊	**Cu**	**65**	**2.769**	ug/L	0.132	4	20	3836	3	KED
⌈	**Zn**	**66**	**3.948**	ug/L	0.162	4	108	1599	3	KED
⌊	**Zn**	**67**	**5.558**	ug/L	0.448	8	17	367	8	KED
⌈	**As**	**75**	**0.710**	ug/L	0.012	1	5	186	2	KED
⌊	**Se-1**	**78**	**0.209**	ug/L	0.031	14	24	27	3	KED
	Y	**89**		ug/L			538258	546399	0	Standard
	Kr	**83**		ug/L			36	193	5	Standard
⌈>	**In-1**	**115**		ug/L			32248	27274	1	KED
⌈	**Mo**	**98**	**11.489**	ug/L	0.260	2	11	12423	2	KED
⌈	**Cd**	**111**	**0.022**	ug/L	0.012	52	0	7	49	KED
⌊	**Cd**	**114**	**0.009**	ug/L	0.010	106	1	8	96	KED
⌈>	**In**	**115**		ug/L			647272	572782	2	Standard
⌈	**Ag**	**107**	**0.004**	ug/L	0.001	20	55	93	10	Standard
⌈	**Sb**	**121**	**0.491**	ug/L	0.014	2	308	4434	4	Standard
⌊	**Sb**	**123**	**0.491**	ug/L	0.014	2	245	3447	1	Standard
⌈	**Ba**	**135**	**53.748**	ug/L	0.318	0	22	150200	2	Standard
⌊	**Ba**	**137**	**53.401**	ug/L	0.283	0	45	273476	1	Standard
⌈>	**Tb**	**159**		ug/L			939696	947857	5	Standard
⌈	**Tl**	**205**	**-0.010**	ug/L	0.000	4	211	52	11	Standard
⌊	**Pb**	**208**	**0.024**	ug/L	0.001	3	282	784	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0651-MS2 MS3 TH 06-28-18
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 18:06:20
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	823730	8	Standard
	Be	**9**	**18.301**	ug/L	1.894	10	2	128567	2	Standard
	C	**13**		ug/L			18086	52228	3	Standard
	Cl	**37**		ug/L			7449359	36958937	3	Standard
>	**Sc**	**45**		ug/L			978216	1102837	2	Standard
	V	**51**	**23.747**	ug/L	0.337	1	4861	519720	1	Standard
	V-1	**51**	**29.164**	ug/L	0.415	1	2839	642268	1	Standard
	Cr	**52**	**22.831**	ug/L	0.498	2	14201	412901	0	Standard
	Cr	**53**	**41.412**	ug/L	0.774	1	957	85847	0	Standard
	Mn	**55**	**437.098**	ug/L	5.467	1	647	10769448	1	Standard
>	**Ge-1**	**72**		ug/L			76539	67662	0	KED
	Co	**59**	**27.670**	ug/L	0.549	1	33	110361	1	KED
	Ni	**60**	**29.532**	ug/L	0.340	1	15	32984	1	KED
	Ni	**62**	**30.310**	ug/L	1.194	3	16	5165	3	KED
	Cu	**63**	**27.296**	ug/L	0.160	0	45	78733	0	KED
	Cu	**65**	**26.919**	ug/L	0.585	2	20	38479	1	KED
	Zn	**66**	**73.752**	ug/L	1.699	2	108	29252	1	KED
	Zn	**67**	**68.481**	ug/L	3.781	5	17	4510	5	KED
	As	**75**	**24.995**	ug/L	0.294	1	5	6642	1	KED
	Se-1	**78**	**70.384**	ug/L	0.896	1	24	2439	1	KED
	Y	**89**		ug/L			538258	539920	1	Standard
	Kr	**83**		ug/L			36	318	9	Standard
>	**In-1**	**115**		ug/L			32248	27025	1	KED
	Mo	**98**	**11.817**	ug/L	0.251	2	11	12664	3	KED
	Cd	**111**	**22.906**	ug/L	0.214	0	0	7569	0	KED
	Cd	**114**	**23.009**	ug/L	0.365	1	1	19455	0	KED
>	**In**	**115**		ug/L			647272	584682	0	Standard
	Ag	**107**	**22.514**	ug/L	0.419	1	55	254805	2	Standard
	Sb	**121**	**0.475**	ug/L	0.014	2	308	4387	3	Standard
	Sb	**123**	**0.471**	ug/L	0.019	3	245	3383	3	Standard
	Ba	**135**	**78.896**	ug/L	2.466	3	22	225025	2	Standard
	Ba	**137**	**75.625**	ug/L	1.799	2	45	395308	1	Standard
>	**Tb**	**159**		ug/L			939696	921297	1	Standard
	Tl	**205**	**24.799**	ug/L	0.796	3	211	406367	3	Standard
	Pb	**208**	**24.163**	ug/L	0.426	1	282	497942	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0651-BS2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 18:11:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			680888	824791	2	Standard
⌊	**Be**	**9**	**19.725**	ug/L	0.832	4	2	139466	2	Standard
	C	**13**		ug/L			18086	30050	0	Standard
	Cl	**37**		ug/L			7449359	7927403	2	Standard
⌈>	**Sc**	**45**		ug/L			978216	995413	2	Standard
⌈	**V**	**51**	**25.360**	ug/L	0.960	3	4861	500417	1	Standard
⌊	**V-1**	**51**	**25.574**	ug/L	0.957	3	2839	508489	1	Standard
⌈	**Cr**	**52**	**25.859**	ug/L	1.019	3	14201	420037	1	Standard
⌊	**Cr**	**53**	**26.570**	ug/L	0.993	3	957	50045	1	Standard
⌊	**Mn**	**55**	**26.006**	ug/L	1.027	3	647	578783	3	Standard
⌈>	**Ge-1**	**72**		ug/L			76539	75133	2	KED
⌈	**Co**	**59**	**27.520**	ug/L	0.496	1	33	121879	2	KED
⌈	**Ni**	**60**	**27.290**	ug/L	0.789	2	15	33831	0	KED
⌊	**Ni**	**62**	**28.227**	ug/L	0.369	1	16	5341	1	KED
⌈	**Cu**	**63**	**28.106**	ug/L	0.618	2	45	90004	2	KED
⌊	**Cu**	**65**	**28.138**	ug/L	1.156	4	20	44655	4	KED
⌈	**Zn**	**66**	**85.149**	ug/L	1.240	1	108	37479	1	KED
⌊	**Zn**	**67**	**77.943**	ug/L	1.303	1	17	5698	2	KED
⌈	**As**	**75**	**24.786**	ug/L	0.629	2	5	7311	1	KED
⌊	**Se-1**	**78**	**78.142**	ug/L	1.463	1	24	3003	1	KED
	Y	**89**		ug/L			538258	538090	1	Standard
	Kr	**83**		ug/L			36	114	17	Standard
⌈>	**In-1**	**115**		ug/L			32248	31641	1	KED
⌈	**Mo**	**98**	**-0.006**	ug/L	0.001	16	11	4	26	KED
⌈	**Cd**	**111**	**25.204**	ug/L	0.244	0	0	9751	1	KED
⌊	**Cd**	**114**	**25.438**	ug/L	0.413	1	1	25188	2	KED
⌈>	**In**	**115**		ug/L			647272	630670	1	Standard
⌈	**Ag**	**107**	**27.766**	ug/L	0.856	3	55	338856	2	Standard
⌈	**Sb**	**121**	**-0.023**	ug/L	0.001	4	308	83	13	Standard
⌊	**Sb**	**123**	**-0.024**	ug/L	0.003	11	245	65	29	Standard
⌈	**Ba**	**135**	**29.220**	ug/L	1.508	5	22	89888	4	Standard
⌊	**Ba**	**137**	**27.701**	ug/L	0.983	3	45	156194	2	Standard
⌈>	**Tb**	**159**		ug/L			939696	993375	4	Standard
⌈	**Tl**	**205**	**28.346**	ug/L	1.493	5	211	500312	4	Standard
⌊	**Pb**	**208**	**27.726**	ug/L	1.129	4	282	615475	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVB
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 18:17:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	792085	4	Standard
	Be	**9**	**38.700**	ug/L	2.175	5	2	262476	1	Standard
	C	**13**		ug/L			18086	18581	1	Standard
	Cl	**37**		ug/L			7449359	7206596	1	Standard
>	**Sc**	**45**		ug/L			978216	934801	2	Standard
	V	**51**	**48.064**	ug/L	1.057	2	4861	886977	2	Standard
	V-1	**51**	**47.852**	ug/L	1.017	2	2839	891586	1	Standard
	Cr	**52**	**48.477**	ug/L	1.747	3	14201	727979	3	Standard
	Cr	**53**	**47.736**	ug/L	1.656	3	957	83735	2	Standard
	Mn	**55**	**48.752**	ug/L	1.551	3	647	1018465	0	Standard
>	**Ge-1**	**72**		ug/L			76539	69326	1	KED
	Co	**59**	**51.021**	ug/L	3.163	6	33	208435	5	KED
	Ni	**60**	**51.252**	ug/L	1.402	2	15	58631	1	KED
	Ni	**62**	**52.578**	ug/L	1.239	2	16	9168	1	KED
	Cu	**63**	**51.655**	ug/L	1.063	2	45	152642	3	KED
	Cu	**65**	**50.530**	ug/L	1.724	3	20	73982	2	KED
	Zn	**66**	**52.725**	ug/L	1.740	3	108	21451	2	KED
	Zn	**67**	**49.561**	ug/L	1.344	2	17	3349	2	KED
	As	**75**	**49.281**	ug/L	0.981	1	5	13412	1	KED
	Se-1	**78**	**48.213**	ug/L	1.732	3	24	1718	2	KED
	Y	**89**		ug/L			538258	521066	0	Standard
	Kr	**83**		ug/L			36	93	8	Standard
>	**In-1**	**115**		ug/L			32248	27993	1	KED
	Mo	**98**	**51.736**	ug/L	1.008	1	11	57379	1	KED
	Cd	**111**	**51.287**	ug/L	0.147	0	0	17555	1	KED
	Cd	**114**	**51.506**	ug/L	2.164	4	1	45095	2	KED
>	**In**	**115**		ug/L			647272	626235	1	Standard
	Ag	**107**	**46.822**	ug/L	1.193	2	55	567314	0	Standard
	Sb	**121**	**49.274**	ug/L	1.722	3	308	456442	1	Standard
	Sb	**123**	**49.569**	ug/L	0.635	1	245	357015	1	Standard
	Ba	**135**	**53.924**	ug/L	0.224	0	22	164769	2	Standard
	Ba	**137**	**52.209**	ug/L	1.095	2	45	292416	3	Standard
>	**Tb**	**159**		ug/L			939696	953979	2	Standard
	Tl	**205**	**53.237**	ug/L	1.713	3	211	903152	4	Standard
	Pb	**208**	**53.562**	ug/L	0.581	1	282	1142856	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBB
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 18:24:55
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	867944	7	Standard
	Be	**9**	**-0.000**	ug/L	0.000	1410	2	3	34	Standard
	C	**13**		ug/L			18086	19198	3	Standard
	Cl	**37**		ug/L			7449359	7069426	0	Standard
>	**Sc**	**45**		ug/L			978216	913495	3	Standard
	V	**51**	**-0.035**	ug/L	0.010	29	4861	3908	1	Standard
	V-1	**51**	**-0.036**	ug/L	0.003	9	2839	2002	4	Standard
	Cr	**52**	**-0.110**	ug/L	0.030	27	14201	11665	1	Standard
	Cr	**53**	**-0.110**	ug/L	0.010	8	957	708	5	Standard
	Mn	**55**	**0.052**	ug/L	0.002	4	647	1660	2	Standard
>	**Ge-1**	**72**		ug/L			76539	66730	1	KED
	Co	**59**	**0.062**	ug/L	0.092	149	33	270	133	KED
	Ni	**60**	**0.506**	ug/L	0.165	32	15	569	31	KED
	Ni	**62**	**0.554**	ug/L	0.166	29	16	107	25	KED
	Cu	**63**	**0.060**	ug/L	0.097	161	45	209	130	KED
	Cu	**65**	**0.065**	ug/L	0.104	159	20	109	133	KED
	Zn	**66**	**0.056**	ug/L	0.166	299	108	116	55	KED
	Zn	**67**	**0.025**	ug/L	0.164	657	17	17	61	KED
	As	**75**	**0.049**	ug/L	0.059	120	5	17	89	KED
	Se-1	**78**	**0.088**	ug/L	0.167	190	24	24	23	KED
	Y	**89**		ug/L			538258	533200	3	Standard
	Kr	**83**		ug/L			36	44	34	Standard
>	**In-1**	**115**		ug/L			32248	27541	2	KED
	Mo	**98**	**0.004**	ug/L	0.005	126	11	14	39	KED
	Cd	**111**	**0.006**	ug/L	0.004	58	0	2	43	KED
	Cd	**114**	**0.001**	ug/L	0.002	229	1	1	110	KED
>	**In**	**115**		ug/L			647272	623480	3	Standard
	Ag	**107**	**-0.001**	ug/L	0.000	29	55	41	12	Standard
	Sb	**121**	**0.078**	ug/L	0.009	11	308	1017	4	Standard
	Sb	**123**	**0.090**	ug/L	0.014	15	245	879	8	Standard
	Ba	**135**	**0.005**	ug/L	0.002	27	22	38	15	Standard
	Ba	**137**	**0.003**	ug/L	0.002	70	45	58	14	Standard
>	**Tb**	**159**		ug/L			939696	982285	2	Standard
	Tl	**205**	**-0.002**	ug/L	0.001	72	211	189	10	Standard
	Pb	**208**	**-0.002**	ug/L	0.001	48	282	255	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0334-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 18:29:51
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			680888	776678	0	Standard
	Be	9	0.030	ug/L	0.003	11	2	203	11	Standard
	C	13		ug/L			18086	671748	2	Standard
	Cl	37		ug/L			7449359	32323517	3	Standard
>	Sc	45		ug/L			978216	1042215	1	Standard
	V	51	41.658	ug/L	0.857	2	4861	857717	0	Standard
	V-1	51	47.378	ug/L	0.684	1	2839	984315	1	Standard
	Cr	52	84.192	ug/L	2.020	2	14201	1398448	0	Standard
	Cr	53	102.060	ug/L	1.825	1	957	198510	2	Standard
	Mn	55	68.363	ug/L	2.042	2	647	1592166	1	Standard
>	Ge-1	72		ug/L			76539	61020	0	KED
	Co	59	13.708	ug/L	0.282	2	33	49327	2	KED
	Ni	60	64.177	ug/L	2.046	3	15	64622	2	KED
	Ni	62	65.461	ug/L	1.452	2	16	10044	1	KED
	Cu	63	6.039	ug/L	0.151	2	45	15737	2	KED
	Cu	65	5.961	ug/L	0.092	1	20	7696	0	KED
	Zn	66	24.908	ug/L	0.970	3	108	8966	3	KED
	Zn	67	34.700	ug/L	1.034	2	17	2068	3	KED
	As	75	49.231	ug/L	0.647	1	5	11795	0	KED
	Se-1	78	0.929	ug/L	0.151	16	24	48	9	KED
	Y	89		ug/L			538258	533884	2	Standard
	Kr	83		ug/L			36	318	5	Standard
>	In-1	115		ug/L			32248	25194	2	KED
	Mo	98	7.217	ug/L	0.148	2	11	7211	0	KED
	Cd	111	0.090	ug/L	0.020	22	0	28	21	KED
	Cd	114	0.066	ug/L	0.053	80	1	53	78	KED
>	In	115		ug/L			647272	561523	2	Standard
	Ag	107	0.149	ug/L	0.019	12	55	1669	9	Standard
	Sb	121	3.457	ug/L	0.134	3	308	28955	1	Standard
	Sb	123	3.414	ug/L	0.052	1	245	22243	1	Standard
	Ba	135	272.245	ug/L	5.948	2	22	745581	1	Standard
	Ba	137	252.268	ug/L	0.796	0	45	1266517	2	Standard
>	Tb	159		ug/L			939696	880299	0	Standard
	Tl	205	-0.007	ug/L	0.001	15	211	82	21	Standard
	Pb	208	1.368	ug/L	0.017	1	282	27190	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0376-02 DEL
Sample Dil Factor: 50
Comments:
Sample Date/Time: Thursday, June 28, 2018 18:37:31
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	749645	4	Standard
	Be	**9**	**0.000**	ug/L	0.001	239	2	5	108	Standard
	C	**13**		ug/L			18086	22946	0	Standard
	Cl	**37**		ug/L			7449359	7366553	3	Standard
>	**Sc**	**45**		ug/L			978216	954577	4	Standard
	V	**51**	**0.025**	ug/L	0.005	21	4861	5205	2	Standard
	V-1	**51**	**0.073**	ug/L	0.002	2	2839	4149	4	Standard
	Cr	**52**	**0.282**	ug/L	0.037	13	14201	18097	3	Standard
	Cr	**53**	**0.436**	ug/L	0.024	5	957	1707	3	Standard
	Mn	**55**	**7.412**	ug/L	0.216	2	647	158595	1	Standard
>	**Ge-1**	**72**		ug/L			76539	73368	2	KED
	Co	**59**	**0.010**	ug/L	0.005	56	33	73	32	KED
	Ni	**60**	**0.351**	ug/L	0.018	5	15	440	7	KED
	Ni	**62**	**0.546**	ug/L	0.060	10	16	116	7	KED
	Cu	**63**	**0.804**	ug/L	0.040	5	45	2554	2	KED
	Cu	**65**	**0.789**	ug/L	0.069	8	20	1240	5	KED
	Zn	**66**	**0.188**	ug/L	0.017	9	108	184	4	KED
	Zn	**67**	**0.245**	ug/L	0.128	52	17	34	24	KED
	As	**75**	**0.011**	ug/L	0.002	19	5	8	5	KED
	Se-1	**78**	**0.059**	ug/L	0.104	177	24	25	12	KED
	Y	**89**		ug/L			538258	502455	1	Standard
	Kr	**83**		ug/L			36	82	21	Standard
>	**In-1**	**115**		ug/L			32248	29566	2	KED
	Mo	**98**	**0.010**	ug/L	0.002	20	11	23	12	KED
	Cd	**111**	**0.007**	ug/L	0.001	18	0	3	17	KED
	Cd	**114**	**0.003**	ug/L	0.000	3	1	3	3	KED
>	**In**	**115**		ug/L			647272	632481	3	Standard
	Ag	**107**	**0.350**	ug/L	0.020	5	55	4331	1	Standard
	Sb	**121**	**-0.009**	ug/L	0.002	21	308	212	9	Standard
	Sb	**123**	**-0.012**	ug/L	0.001	4	245	154	1	Standard
	Ba	**135**	**2.725**	ug/L	0.105	3	22	8424	2	Standard
	Ba	**137**	**2.615**	ug/L	0.197	7	45	14810	5	Standard
>	**Tb**	**159**		ug/L			939696	941738	3	Standard
	Tl	**205**	**-0.004**	ug/L	0.000	6	211	146	4	Standard
	Pb	**208**	**0.009**	ug/L	0.001	15	282	467	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0376-01
Sample Dil Factor: 20 DEL
Comments:
Sample Date/Time: Thursday, June 28, 2018 18:42:26
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	1056434	2	Standard
	Be	**9**	**0.002**	ug/L	0.000	14	2	17	12	Standard
	C	**13**		ug/L			18086	134825	0	Standard
	Cl	**37**		ug/L			7449359	5416986	3	Standard
>	**Sc**	**45**		ug/L			978216	870331	2	Standard
	V	**51**	**0.219**	ug/L	0.070	31	4861	8053	12	Standard
	V-1	**51**	**0.189**	ug/L	0.009	4	2839	5791	1	Standard
	Cr	**52**	**8.378**	ug/L	0.149	1	14201	127590	0	Standard
	Cr	**53**	**7.946**	ug/L	0.070	0	957	13694	3	Standard
	Mn	**55**	**216.157**	ug/L	6.374	2	647	4202833	2	Standard
>	**Ge-1**	**72**		ug/L			76539	60735	2	KED
	Co	**59**	**0.010**	ug/L	0.002	23	33	60	15	KED
	Ni	**60**	**0.715**	ug/L	0.007	0	15	728	1	KED
	Ni	**62**	**0.900**	ug/L	0.049	5	16	150	7	KED
	Cu	**63**	**0.031**	ug/L	0.005	15	45	116	10	KED
	Cu	**65**	**0.032**	ug/L	0.008	23	20	57	17	KED
	Zn	**66**	**1.074**	ug/L	0.114	10	108	466	6	KED
	Zn	**67**	**0.926**	ug/L	0.161	17	17	68	12	KED
	As	**75**	**0.012**	ug/L	0.008	62	5	6	25	KED
	Se-1	**78**	**1.057**	ug/L	0.119	11	24	52	5	KED
	Y	**89**		ug/L			538258	405506	3	Standard
	Kr	**83**		ug/L			36	87	13	Standard
>	**In-1**	**115**		ug/L			32248	23242	0	KED
	Mo	**98**	**0.015**	ug/L	0.004	23	11	22	14	KED
	Cd	**111**	**0.005**	ug/L	0.003	66	0	1	50	KED
	Cd	**114**	**0.000**	ug/L	0.002	1352	1	0	156	KED
>	**In**	**115**		ug/L			647272	510961	2	Standard
	Ag	**107**	**0.224**	ug/L	0.010	4	55	2256	2	Standard
	Sb	**121**	**0.050**	ug/L	0.005	9	308	619	7	Standard
	Sb	**123**	**0.036**	ug/L	0.006	17	245	405	10	Standard
	Ba	**135**	**0.482**	ug/L	0.032	6	22	1217	4	Standard
	Ba	**137**	**0.491**	ug/L	0.035	7	45	2282	8	Standard
>	**Tb**	**159**		ug/L			939696	1003330	1	Standard
	Tl	**205**	**-0.011**	ug/L	0.000	3	211	32	21	Standard
	Pb	**208**	**0.006**	ug/L	0.002	29	282	443	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVC
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 18:50:07
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	1057685	6	Standard
	Be	**9**	**32.326**	ug/L	3.079	9	2	292063	3	Standard
	C	**13**		ug/L			18086	20875	2	Standard
	Cl	**37**		ug/L			7449359	5813959	2	Standard
>	**Sc**	**45**		ug/L			978216	873991	0	Standard
	V	**51**	**46.615**	ug/L	0.756	1	4861	804554	2	Standard
	V-1	**51**	**46.261**	ug/L	0.849	1	2839	806126	2	Standard
	Cr	**52**	**47.640**	ug/L	0.205	0	14201	669249	0	Standard
	Cr	**53**	**46.389**	ug/L	0.531	1	957	76128	0	Standard
	Mn	**55**	**47.440**	ug/L	0.456	0	647	927030	1	Standard
>	**Ge-1**	**72**		ug/L			76539	55076	1	KED
	Co	**59**	**52.646**	ug/L	1.677	3	33	170883	2	KED
	Ni	**60**	**53.997**	ug/L	0.277	0	15	49084	1	KED
	Ni	**62**	**54.289**	ug/L	0.416	0	16	7521	1	KED
	Cu	**63**	**53.722**	ug/L	1.175	2	45	126098	2	KED
	Cu	**65**	**53.374**	ug/L	1.443	2	20	62092	2	KED
	Zn	**66**	**53.354**	ug/L	1.078	2	108	17246	1	KED
	Zn	**67**	**50.947**	ug/L	0.975	1	17	2734	1	KED
	As	**75**	**48.309**	ug/L	0.882	1	5	10446	1	KED
	Se-1	**78**	**47.780**	ug/L	1.145	2	24	1353	1	KED
	Y	**89**		ug/L			538258	427060	2	Standard
	Kr	**83**		ug/L			36	47	18	Standard
>	**In-1**	**115**		ug/L			32248	22576	1	KED
	Mo	**98**	**52.933**	ug/L	1.218	2	11	47343	1	KED
	Cd	**111**	**51.253**	ug/L	0.671	1	0	14147	0	KED
	Cd	**114**	**51.822**	ug/L	0.581	1	1	36613	2	KED
>	**In**	**115**		ug/L			647272	544881	3	Standard
	Ag	**107**	**41.840**	ug/L	1.542	3	55	440812	0	Standard
	Sb	**121**	**53.171**	ug/L	1.700	3	308	428387	1	Standard
	Sb	**123**	**51.927**	ug/L	1.379	2	245	325251	2	Standard
	Ba	**135**	**59.754**	ug/L	2.166	3	22	158838	4	Standard
	Ba	**137**	**60.297**	ug/L	0.444	0	45	293752	3	Standard
>	**Tb**	**159**		ug/L			939696	1046472	1	Standard
	Tl	**205**	**51.666**	ug/L	1.747	3	211	961344	3	Standard
	Pb	**208**	**50.961**	ug/L	0.797	1	282	1192778	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBC
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 18:57:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	1028687	1	Standard
	Be	**9**	**0.000**	ug/L	0.000	357	2	4	49	Standard
	C	**13**		ug/L			18086	19545	2	Standard
	Cl	**37**		ug/L			7449359	6126896	1	Standard
>	**Sc**	**45**		ug/L			978216	878246	2	Standard
	V	**51**	**-0.039**	ug/L	0.007	18	4861	3696	1	Standard
	V-1	**51**	**-0.099**	ug/L	0.002	1	2839	821	0	Standard
	Cr	**52**	**-0.130**	ug/L	0.026	19	14201	10944	1	Standard
	Cr	**53**	**-0.333**	ug/L	0.008	2	957	317	3	Standard
	Mn	**55**	**0.028**	ug/L	0.007	24	647	1135	9	Standard
>	**Ge-1**	**72**		ug/L			76539	55510	1	KED
	Co	**59**	**0.009**	ug/L	0.004	44	33	52	25	KED
	Ni	**60**	**0.365**	ug/L	0.079	21	15	344	20	KED
	Ni	**62**	**0.418**	ug/L	0.170	40	16	70	35	KED
	Cu	**63**	**0.004**	ug/L	0.006	142	45	43	33	KED
	Cu	**65**	**0.005**	ug/L	0.003	57	20	20	15	KED
	Zn	**66**	**0.019**	ug/L	0.025	131	108	85	11	KED
	Zn	**67**	**-0.051**	ug/L	0.102	199	17	10	54	KED
	As	**75**	**0.013**	ug/L	0.007	53	5	6	23	KED
	Se-1	**78**	**0.082**	ug/L	0.040	48	24	20	7	KED
	Y	**89**		ug/L			538258	458040	3	Standard
	Kr	**83**		ug/L			36	29	46	Standard
>	**In-1**	**115**		ug/L			32248	22648	1	KED
	Mo	**98**	**0.019**	ug/L	0.003	14	11	25	8	KED
	Cd	**111**	**0.008**	ug/L	0.007	94	0	2	78	KED
	Cd	**114**	**0.005**	ug/L	0.002	32	1	4	28	KED
>	**In**	**115**		ug/L			647272	570367	5	Standard
	Ag	**107**	**0.012**	ug/L	0.003	26	55	179	21	Standard
	Sb	**121**	**0.090**	ug/L	0.006	6	308	1027	6	Standard
	Sb	**123**	**0.087**	ug/L	0.003	3	245	784	5	Standard
	Ba	**135**	**0.010**	ug/L	0.006	57	22	47	36	Standard
	Ba	**137**	**0.003**	ug/L	0.006	188	45	57	59	Standard
>	**Tb**	**159**		ug/L			939696	1043283	0	Standard
	Tl	**205**	**-0.002**	ug/L	0.006	302	211	198	53	Standard
	Pb	**208**	**0.001**	ug/L	0.007	866	282	332	50	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 19:02:42
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	1162856	3	Standard
	Be	**9**	**0.000**	ug/L	0.000	286	2	5	43	Standard
	C	**13**		ug/L			18086	22360	3	Standard
	Cl	**37**		ug/L			7449359	6437476	1	Standard
>	**Sc**	**45**		ug/L			978216	1017443	2	Standard
	V	**51**	**-0.040**	ug/L	0.008	19	4861	4261	4	Standard
	V-1	**51**	**-0.108**	ug/L	0.002	1	2839	768	3	Standard
	Cr	**52**	**-0.142**	ug/L	0.025	17	14201	12494	4	Standard
	Cr	**53**	**-0.371**	ug/L	0.001	0	957	294	2	Standard
	Mn	**55**	**0.056**	ug/L	0.002	4	647	1941	0	Standard
>	**Ge-1**	**72**		ug/L			76539	60518	2	KED
	Co	**59**	**0.012**	ug/L	0.006	51	33	68	30	KED
	Ni	**60**	**0.427**	ug/L	0.114	26	15	438	25	KED
	Ni	**62**	**0.286**	ug/L	0.029	10	16	56	5	KED
	Cu	**63**	**0.001**	ug/L	0.004	310	45	39	26	KED
	Cu	**65**	**0.005**	ug/L	0.005	101	20	22	30	KED
	Zn	**66**	**-0.142**	ug/L	0.015	10	108	35	12	KED
	Zn	**67**	**-0.130**	ug/L	0.040	30	17	6	34	KED
	As	**75**	**0.006**	ug/L	0.009	157	5	5	40	KED
	Se-1	**78**	**-0.076**	ug/L	0.074	97	24	17	14	KED
	Y	**89**		ug/L			538258	501610	2	Standard
	Kr	**83**		ug/L			36	35	27	Standard
>	**In-1**	**115**		ug/L			32248	25447	0	KED
	Mo	**98**	**0.006**	ug/L	0.002	33	11	14	12	KED
	Cd	**111**	**0.000**	ug/L	0.004	799	0	0	173	KED
	Cd	**114**	**0.002**	ug/L	0.003	135	1	2	90	KED
>	**In**	**115**		ug/L			647272	636357	1	Standard
	Ag	**107**	**0.005**	ug/L	0.001	24	55	118	13	Standard
	Sb	**121**	**0.029**	ug/L	0.003	10	308	577	3	Standard
	Sb	**123**	**0.033**	ug/L	0.007	20	245	481	9	Standard
	Ba	**135**	**-0.000**	ug/L	0.002	2400	22	22	21	Standard
	Ba	**137**	**-0.002**	ug/L	0.003	126	45	33	43	Standard
>	**Tb**	**159**		ug/L			939696	1185016	1	Standard
	Tl	**205**	**-0.010**	ug/L	0.001	9	211	65	28	Standard
	Pb	**208**	**-0.008**	ug/L	0.000	5	282	139	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 19:07:38
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			680888	1186944	2	Standard
⌊	**Be**	**9**	**-0.000**	ug/L	0.000	93	2	3	34	Standard
	C	**13**		ug/L			18086	22384	2	Standard
	Cl	**37**		ug/L			7449359	6517050	1	Standard
⌈>	**Sc**	**45**		ug/L			978216	1018248	0	Standard
⌈	**V**	**51**	**-0.039**	ug/L	0.003	8	4861	4276	0	Standard
⌊	**V-1**	**51**	**-0.113**	ug/L	0.001	1	2839	659	3	Standard
⌈	**Cr**	**52**	**-0.124**	ug/L	0.011	8	14201	12791	1	Standard
⌊	**Cr**	**53**	**-0.375**	ug/L	0.005	1	957	288	3	Standard
⌊	**Mn**	**55**	**0.049**	ug/L	0.004	8	647	1799	4	Standard
⌈>	**Ge-1**	**72**		ug/L			76539	61872	1	KED
⌈	**Co**	**59**	**0.020**	ug/L	0.018	87	33	99	62	KED
⌊	**Ni**	**60**	**0.333**	ug/L	0.034	10	15	351	8	KED
⌈	**Ni**	**62**	**0.437**	ug/L	0.064	14	16	81	11	KED
⌈	**Cu**	**63**	**0.016**	ug/L	0.022	141	45	77	73	KED
⌊	**Cu**	**65**	**0.012**	ug/L	0.014	114	20	31	53	KED
⌈	**Zn**	**66**	**-0.150**	ug/L	0.007	4	108	33	6	KED
⌊	**Zn**	**67**	**-0.113**	ug/L	0.055	48	17	7	43	KED
⌈	**As**	**75**	**0.016**	ug/L	0.010	65	5	7	30	KED
⌊	**Se-1**	**78**	**-0.028**	ug/L	0.128	462	24	19	22	KED
	Y	**89**		ug/L			538258	512251	3	Standard
	Kr	**83**		ug/L			36	42	37	Standard
⌈>	**In-1**	**115**		ug/L			32248	25552	2	KED
⌈	**Mo**	**98**	**-0.002**	ug/L	0.006	245	11	6	85	KED
⌊	**Cd**	**111**	**0.002**	ug/L	0.005	192	0	1	114	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.001	73	1	2	46	KED
⌈>	**In**	**115**		ug/L			647272	623917	2	Standard
⌈	**Ag**	**107**	**0.002**	ug/L	0.001	33	55	74	7	Standard
⌈	**Sb**	**121**	**-0.007**	ug/L	0.002	28	308	234	9	Standard
⌊	**Sb**	**123**	**-0.006**	ug/L	0.004	55	245	191	16	Standard
⌈	**Ba**	**135**	**-0.001**	ug/L	0.001	156	22	19	20	Standard
⌊	**Ba**	**137**	**-0.003**	ug/L	0.001	32	45	25	22	Standard
⌈>	**Tb**	**159**		ug/L			939696	1152590	3	Standard
⌈	**Tl**	**205**	**-0.009**	ug/L	0.001	6	211	66	17	Standard
⌊	**Pb**	**208**	**-0.008**	ug/L	0.000	5	282	128	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 19:12:34
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			680888	1218114	4	Standard
⌊	**Be**	**9**	**0.000**	ug/L	0.000	510	2	5	57	Standard
	C	**13**		ug/L			18086	22582	0	Standard
	Cl	**37**		ug/L			7449359	6610130	3	Standard
⌈>	**Sc**	**45**		ug/L			978216	1016298	1	Standard
⌈	**V**	**51**	**-0.040**	ug/L	0.005	13	4861	4255	1	Standard
⌊	**V-1**	**51**	**-0.117**	ug/L	0.002	2	2839	585	7	Standard
⌈	**Cr**	**52**	**-0.134**	ug/L	0.026	19	14201	12598	2	Standard
⌊	**Cr**	**53**	**-0.395**	ug/L	0.009	2	957	249	5	Standard
⌊	**Mn**	**55**	**0.045**	ug/L	0.001	3	647	1695	1	Standard
⌈>	**Ge-1**	**72**		ug/L			76539	62504	2	KED
⌈	**Co**	**59**	**0.009**	ug/L	0.001	10	33	60	7	KED
⌊	**Ni**	**60**	**0.270**	ug/L	0.030	11	15	290	8	KED
⌈	**Ni**	**62**	**0.245**	ug/L	0.116	47	16	52	35	KED
⌈	**Cu**	**63**	**0.001**	ug/L	0.003	278	45	40	17	KED
⌊	**Cu**	**65**	**0.003**	ug/L	0.004	148	20	20	28	KED
⌈	**Zn**	**66**	**-0.131**	ug/L	0.040	30	108	40	35	KED
⌊	**Zn**	**67**	**-0.093**	ug/L	0.073	78	17	8	49	KED
⌈	**As**	**75**	**0.008**	ug/L	0.004	45	5	6	13	KED
⌊	**Se-1**	**78**	**-0.075**	ug/L	0.151	201	24	17	28	KED
	Y	**89**		ug/L			538258	510642	4	Standard
	Kr	**83**		ug/L			36	30	28	Standard
⌈>	**In-1**	**115**		ug/L			32248	27099	1	KED
⌈	**Mo**	**98**	**-0.006**	ug/L	0.001	13	11	2	31	KED
⌊	**Cd**	**111**	**0.006**	ug/L	0.007	109	0	2	86	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.003	188	1	2	121	KED
⌈>	**In**	**115**		ug/L			647272	631258	3	Standard
⌈	**Ag**	**107**	**0.001**	ug/L	0.001	91	55	64	11	Standard
⌈	**Sb**	**121**	**-0.017**	ug/L	0.002	13	308	142	15	Standard
⌊	**Sb**	**123**	**-0.015**	ug/L	0.002	15	245	127	15	Standard
⌈	**Ba**	**135**	**-0.000**	ug/L	0.000	214	22	21	5	Standard
⌊	**Ba**	**137**	**-0.004**	ug/L	0.001	14	45	23	12	Standard
⌈>	**Tb**	**159**		ug/L			939696	1145345	6	Standard
⌈	**Tl**	**205**	**-0.010**	ug/L	0.001	6	211	56	23	Standard
⌊	**Pb**	**208**	**-0.008**	ug/L	0.001	9	282	140	14	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 19:17:30
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			680888	965439	3	Standard
⌊	**Be**	**9**	**-0.000**	ug/L	0.000	218	2	2	86	Standard
	C	**13**		ug/L			18086	19437	2	Standard
	Cl	**37**		ug/L			7449359	6573772	1	Standard
⌈>	**Sc**	**45**		ug/L			978216	856057	1	Standard
⌈	**V**	**51**	**-0.035**	ug/L	0.007	19	4861	3668	2	Standard
⌊	**V-1**	**51**	**-0.116**	ug/L	0.002	1	2839	503	5	Standard
⌈	**Cr**	**52**	**-0.118**	ug/L	0.032	26	14201	10825	2	Standard
⌊	**Cr**	**53**	**-0.394**	ug/L	0.022	5	957	211	15	Standard
⌊	**Mn**	**55**	**0.005**	ug/L	0.001	23	647	669	3	Standard
⌈>	**Ge-1**	**72**		ug/L			76539	59146	2	KED
⌈	**Co**	**59**	**0.008**	ug/L	0.002	28	33	53	14	KED
⌊	**Ni**	**60**	**0.217**	ug/L	0.016	7	15	223	5	KED
⌈	**Ni**	**62**	**0.265**	ug/L	0.042	15	16	52	11	KED
⌈	**Cu**	**63**	**0.002**	ug/L	0.003	122	45	40	17	KED
⌊	**Cu**	**65**	**0.002**	ug/L	0.010	531	20	17	65	KED
⌈	**Zn**	**66**	**-0.095**	ug/L	0.053	55	108	50	34	KED
⌊	**Zn**	**67**	**-0.118**	ug/L	0.019	15	17	6	15	KED
⌈	**As**	**75**	**0.009**	ug/L	0.005	50	5	6	19	KED
⌊	**Se-1**	**78**	**-0.056**	ug/L	0.055	98	24	17	6	KED
	Y	**89**		ug/L			538258	463415	1	Standard
	Kr	**83**		ug/L			36	36	13	Standard
⌈>	**In-1**	**115**		ug/L			32248	23728	0	KED
⌈	**Mo**	**98**	**-0.005**	ug/L	0.003	56	11	4	60	KED
⌊	**Cd**	**111**	**0.003**	ug/L	0.002	68	0	1	43	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.001	61	1	2	43	KED
⌈>	**In**	**115**		ug/L			647272	572739	2	Standard
⌈	**Ag**	**107**	**-0.002**	ug/L	0.001	45	55	25	41	Standard
⌈	**Sb**	**121**	**-0.026**	ug/L	0.001	3	308	50	16	Standard
⌊	**Sb**	**123**	**-0.027**	ug/L	0.000	0	245	40	3	Standard
⌈	**Ba**	**135**	**-0.005**	ug/L	0.000	7	22	5	21	Standard
⌊	**Ba**	**137**	**-0.004**	ug/L	0.001	28	45	18	33	Standard
⌈>	**Tb**	**159**		ug/L			939696	1009745	2	Standard
⌈	**Tl**	**205**	**-0.001**	ug/L	0.002	211	211	213	10	Standard
⌊	**Pb**	**208**	**-0.010**	ug/L	0.001	6	282	69	23	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 19:22:26
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			680888	914978	4	Standard
⌊	**Be**	**9**	**0.000**	ug/L	0.000	713	2	3	86	Standard
	C	**13**		ug/L			18086	19114	1	Standard
	Cl	**37**		ug/L			7449359	6587052	2	Standard
⌈>	**Sc**	**45**		ug/L			978216	847956	1	Standard
⌈	**V**	**51**	**-0.036**	ug/L	0.006	16	4861	3608	2	Standard
⌊	**V-1**	**51**	**-0.118**	ug/L	0.001	0	2839	470	2	Standard
⌈	**Cr**	**52**	**-0.126**	ug/L	0.014	10	14201	10619	1	Standard
⌊	**Cr**	**53**	**-0.403**	ug/L	0.008	1	957	196	6	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.001	181	647	574	2	Standard
⌈>	**Ge-1**	**72**		ug/L			76539	58321	1	KED
⌈	**Co**	**59**	**0.004**	ug/L	0.001	27	33	38	11	KED
⌊	**Ni**	**60**	**0.158**	ug/L	0.020	12	15	163	12	KED
⌈	**Ni**	**62**	**0.143**	ug/L	0.049	34	16	33	22	KED
⌈	**Cu**	**63**	**-0.003**	ug/L	0.005	168	45	26	49	KED
⌊	**Cu**	**65**	**-0.002**	ug/L	0.006	357	20	13	62	KED
⌈	**Zn**	**66**	**-0.118**	ug/L	0.025	21	108	42	22	KED
⌊	**Zn**	**67**	**-0.061**	ug/L	0.082	134	17	10	47	KED
⌈	**As**	**75**	**0.009**	ug/L	0.012	123	5	6	43	KED
⌊	**Se-1**	**78**	**-0.102**	ug/L	0.048	46	24	15	9	KED
	Y	**89**		ug/L			538258	458874	3	Standard
	Kr	**83**		ug/L			36	33	3	Standard
⌈>	**In-1**	**115**		ug/L			32248	23394	1	KED
⌈	**Mo**	**98**	**-0.005**	ug/L	0.000	1	11	3	3	KED
⌈	**Cd**	**111**	**0.004**	ug/L	0.002	47	0	1	34	KED
⌊	**Cd**	**114**	**0.004**	ug/L	0.004	110	1	3	87	KED
⌈>	**In**	**115**		ug/L			647272	570704	2	Standard
⌈	**Ag**	**107**	**-0.002**	ug/L	0.001	44	55	31	22	Standard
⌈	**Sb**	**121**	**-0.027**	ug/L	0.001	2	308	40	13	Standard
⌊	**Sb**	**123**	**-0.028**	ug/L	0.001	2	245	35	11	Standard
⌈	**Ba**	**135**	**-0.004**	ug/L	0.001	31	22	7	50	Standard
⌊	**Ba**	**137**	**-0.005**	ug/L	0.001	11	45	14	19	Standard
⌈>	**Tb**	**159**		ug/L			939696	961069	3	Standard
⌈	**Tl**	**205**	**-0.004**	ug/L	0.002	46	211	148	17	Standard
⌊	**Pb**	**208**	**-0.010**	ug/L	0.001	7	282	66	27	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 19:27:21
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	921831	2	Standard
	Be	**9**	**-0.000**	ug/L	0.000	415	2	3	34	Standard
	C	**13**		ug/L			18086	18270	3	Standard
	Cl	**37**		ug/L			7449359	6546219	0	Standard
>	**Sc**	**45**		ug/L			978216	847399	3	Standard
	V	**51**	**-0.038**	ug/L	0.008	21	4861	3571	3	Standard
	V-1	**51**	**-0.120**	ug/L	0.001	1	2839	437	7	Standard
	Cr	**52**	**-0.127**	ug/L	0.036	28	14201	10599	2	Standard
	Cr	**53**	**-0.403**	ug/L	0.009	2	957	195	4	Standard
	Mn	**55**	**0.000**	ug/L	0.001	355	647	567	1	Standard
>	**Ge-1**	**72**		ug/L			76539	57687	5	KED
	Co	**59**	**0.004**	ug/L	0.001	17	33	40	9	KED
	Ni	**60**	**0.155**	ug/L	0.027	17	15	158	16	KED
	Ni	**62**	**0.152**	ug/L	0.024	16	16	34	5	KED
	Cu	**63**	**-0.001**	ug/L	0.005	697	45	33	43	KED
	Cu	**65**	**0.003**	ug/L	0.003	86	20	19	20	KED
	Zn	**66**	**-0.083**	ug/L	0.010	12	108	53	8	KED
	Zn	**67**	**-0.070**	ug/L	0.056	80	17	9	34	KED
	As	**75**	**0.002**	ug/L	0.002	103	5	4	11	KED
	Se-1	**78**	**-0.029**	ug/L	0.089	312	24	17	9	KED
	Y	**89**		ug/L			538258	464335	1	Standard
	Kr	**83**		ug/L			36	41	16	Standard
>	**In-1**	**115**		ug/L			32248	23868	2	KED
	Mo	**98**	**-0.008**	ug/L	0.001	16	11	1	101	KED
	Cd	**111**	**0.003**	ug/L	0.002	65	0	1	43	KED
	Cd	**114**	**0.001**	ug/L	0.000	15	1	1	7	KED
>	**In**	**115**		ug/L			647272	572716	1	Standard
	Ag	**107**	**-0.001**	ug/L	0.000	29	55	33	13	Standard
	Sb	**121**	**-0.028**	ug/L	0.000	0	308	31	6	Standard
	Sb	**123**	**-0.029**	ug/L	0.001	4	245	23	33	Standard
	Ba	**135**	**-0.005**	ug/L	0.001	19	22	5	57	Standard
	Ba	**137**	**-0.005**	ug/L	0.001	18	45	13	37	Standard
>	**Tb**	**159**		ug/L			939696	961100	2	Standard
	Tl	**205**	**-0.005**	ug/L	0.000	6	211	134	4	Standard
	Pb	**208**	**-0.011**	ug/L	0.000	0	282	59	3	Standard

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00044
Control Limt: +/- 10.00%
Sequence: SGF0239

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0239-ICV1	Chromium-52 (dissolved)	50.000	51.6	103	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	51.7	103	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	50.6	101	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	48.9	97.8	ug/L	EPA 6020A
SGF0239-CCV1	Chromium-52 (dissolved)	50.000	51.7	103	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	50.3	101	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	52.1	104	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	52.1	104	ug/L	EPA 6020A
SGF0239-CCV2	Chromium-52 (dissolved)	50.000	51.7	103	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	51.1	102	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	52.5	105	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	48.8	97.6	ug/L	EPA 6020A
SGF0239-CCV3	Chromium-52 (dissolved)	50.000	50.4	101	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	48.6	97.3	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	50.0	100	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	47.5	94.9	ug/L	EPA 6020A
SGF0239-CCV4	Chromium-52 (dissolved)	50.000	51.7	103	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	50.6	101	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	51.6	103	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	48.1	96.2	ug/L	EPA 6020A
SGF0239-CCV5	Chromium-52 (dissolved)	50.000	52.5	105	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	50.7	101	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	49.7	99.4	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	50.5	101	ug/L	EPA 6020A
SGF0239-CCV6	Chromium-52 (dissolved)	50.000	51.9	104	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	51.0	102	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	49.2	98.5	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	49.7	99.3	ug/L	EPA 6020A
SGF0239-CCV7	Chromium-52 (dissolved)	50.000	52.5	105	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	54.3	109	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	40.9	81.7	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	49.9	99.8	ug/L	EPA 6020A
SGF0239-CCV8	Chromium-52 (dissolved)	50.000	51.8	104	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	53.2	106	ug/L	EPA 6020A

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00044
Control Limt: +/- 10.00%
Sequence: SGF0239

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0239-CCV8	Lead-208 (dissolved)	50.000	40.5	81.0	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	47.1	94.2	ug/L	EPA 6020A
SGF0239-CCV9	Chromium-52 (dissolved)	50.000	51.7	103	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	50.4	101	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	40.3	80.5	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	50.4	101	ug/L	EPA 6020A

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00048
Control Limt: +/- 10.00%
Sequence: SGF0262

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0262-ICV1	Chromium-52 (dissolved)	50.000	50.6	101	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	51.0	102	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	50.1	100	ug/L	EPA 6020A
SGF0262-CCV1	Chromium-52 (dissolved)	50.000	51.3	103	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	51.5	103	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	52.0	104	ug/L	EPA 6020A
SGF0262-CCV2	Chromium-52 (dissolved)	50.000	50.6	101	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	50.3	101	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	52.4	105	ug/L	EPA 6020A
SGF0262-CCV3	Chromium-52 (dissolved)	50.000	51.8	104	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	51.9	104	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	51.6	103	ug/L	EPA 6020A
SGF0262-CCV4	Chromium-52 (dissolved)	50.000	51.8	104	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	52.5	105	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	50.1	100	ug/L	EPA 6020A
SGF0262-CCV5	Chromium-52 (dissolved)	50.000	51.2	102	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	51.8	104	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	50.2	100	ug/L	EPA 6020A
SGF0262-CCV6	Chromium-52 (dissolved)	50.000	50.0	100	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	51.0	102	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	49.4	98.8	ug/L	EPA 6020A
SGF0262-CCV7	Chromium-52 (dissolved)	50.000	51.7	103	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	51.4	103	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	48.4	96.8	ug/L	EPA 6020A
SGF0262-CCV8	Chromium-52 (dissolved)	50.000	51.3	103	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	51.8	104	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	48.2	96.4	ug/L	EPA 6020A
SGF0262-CCV9	Chromium-52 (dissolved)	50.000	51.6	103	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	51.1	102	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	49.2	98.4	ug/L	EPA 6020A
SGF0262-CCVA	Chromium-52 (dissolved)	50.000	49.4	98.8	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	49.6	99.1	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	48.1	96.1	ug/L	EPA 6020A
SGF0262-CCVB	Chromium-52 (dissolved)	50.000	49.3	98.6	ug/L	EPA 6020A

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00048
Control Limt: +/- 10.00%
Sequence: SGF0262

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0262-CCVB	Chromium-53 (dissolved)	50.000	50.9	102	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	48.2	96.4	ug/L	EPA 6020A
SGF0262-CCVC	Chromium-52 (dissolved)	50.000	49.9	99.8	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	50.9	102	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	47.4	94.8	ug/L	EPA 6020A
SGF0262-CCVD	Chromium-52 (dissolved)	50.000	52.9	106	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	52.3	105	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	47.0	94.0	ug/L	EPA 6020A

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00056
Control Limt: +/- 10.00%
Sequence: SGF0310

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0310-ICV1	Lead-208 (dissolved)	50.000	49.9	99.9	ug/L	EPA 6020A
SGF0310-CCV1	Lead-208 (dissolved)	50.000	50.7	101	ug/L	EPA 6020A
SGF0310-CCV2	Lead-208 (dissolved)	50.000	51.5	103	ug/L	EPA 6020A
SGF0310-CCV3	Lead-208 (dissolved)	50.000	51.1	102	ug/L	EPA 6020A
SGF0310-CCV4	Lead-208 (dissolved)	50.000	50.6	101	ug/L	EPA 6020A
SGF0310-CCV5	Lead-208 (dissolved)	50.000	50.0	100	ug/L	EPA 6020A
SGF0310-CCV6	Lead-208 (dissolved)	50.000	49.0	98.1	ug/L	EPA 6020A
SGF0310-CCV7	Lead-208 (dissolved)	50.000	49.6	99.2	ug/L	EPA 6020A
SGF0310-CCV8	Lead-208 (dissolved)	50.000	49.4	98.9	ug/L	EPA 6020A
SGF0310-CCV9	Lead-208 (dissolved)	50.000	50.1	100	ug/L	EPA 6020A
SGF0310-CCVA	Lead-208 (dissolved)	50.000	49.4	98.9	ug/L	EPA 6020A
SGF0310-CCVB	Lead-208 (dissolved)	50.000	50.0	100	ug/L	EPA 6020A
SGF0310-CCVC	Lead-208 (dissolved)	50.000	49.8	99.5	ug/L	EPA 6020A
SGF0310-CCVD	Lead-208 (dissolved)	50.000	50.0	99.9	ug/L	EPA 6020A

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00060
Control Limt: +/- 10.00%
Sequence: SGF0319

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0319-ICV1	Chromium-52 (dissolved)	50.000	54.5	109	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	50.1	100	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	55.1	110	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	52.1	104	ug/L	EPA 6020A
SGF0319-CCV1	Chromium-52 (dissolved)	50.000	54.6	109	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	50.5	101	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	54.7	109	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	51.0	102	ug/L	EPA 6020A
SGF0319-CCV2	Chromium-52 (dissolved)	50.000	58.2	116	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	52.5	105	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	54.2	108	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	50.7	101	ug/L	EPA 6020A
SGF0319-CCV3	Chromium-52 (dissolved)	50.000	56.7	113	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	53.0	106	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	53.3	107	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	52.8	106	ug/L	EPA 6020A
SGF0319-CCV4	Chromium-52 (dissolved)	50.000	57.4	115	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	53.0	106	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	44.5	89.0	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	53.9	108	ug/L	EPA 6020A
SGF0319-CCV5	Chromium-52 (dissolved)	50.000	57.1	114	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	53.1	106	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	45.9	91.9	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	51.6	103	ug/L	EPA 6020A
SGF0319-CCV6	Chromium-52 (dissolved)	50.000	56.2	112	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	50.5	101	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	49.2	98.5	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	50.9	102	ug/L	EPA 6020A
SGF0319-CCV7	Chromium-52 (dissolved)	50.000	53.8	108	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	50.5	101	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	50.5	101	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	52.5	105	ug/L	EPA 6020A
SGF0319-CCV8	Chromium-52 (dissolved)	50.000	57.2	114	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	51.6	103	ug/L	EPA 6020A

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00060
Control Limt: +/- 10.00%
Sequence: SGF0319

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0319-CCV8	Lead-208 (dissolved)	50.000	51.7	103	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	51.0	102	ug/L	EPA 6020A
SGF0319-CCV9	Chromium-52 (dissolved)	50.000	57.1	114	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	51.7	103	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	52.1	104	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	48.2	96.4	ug/L	EPA 6020A
SGF0319-CCVA	Chromium-52 (dissolved)	50.000	56.6	113	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	51.8	104	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	53.1	106	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	51.9	104	ug/L	EPA 6020A
SGF0319-CCVB	Chromium-52 (dissolved)	50.000	55.0	110	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	50.2	100	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	52.9	106	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	50.4	101	ug/L	EPA 6020A

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00061
Control Limt: +/- 10.00%
Sequence: SGF0345

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0345-ICV1	Chromium-52 (dissolved)	50.000	53.2	106	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	50.0	99.9	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	51.2	102	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	51.5	103	ug/L	EPA 6020A
SGF0345-CCV1	Chromium-52 (dissolved)	50.000	54.3	109	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	50.9	102	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	51.4	103	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	53.3	107	ug/L	EPA 6020A
SGF0345-CCV2	Chromium-52 (dissolved)	50.000	53.8	108	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	51.2	102	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	50.3	101	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	50.1	100	ug/L	EPA 6020A
SGF0345-CCV3	Chromium-52 (dissolved)	50.000	53.8	108	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	51.4	103	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	49.1	98.2	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	48.6	97.3	ug/L	EPA 6020A
SGF0345-CCV4	Chromium-52 (dissolved)	50.000	54.8	110	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	52.1	104	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	47.0	94.0	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	50.7	101	ug/L	EPA 6020A
SGF0345-CCV5	Chromium-52 (dissolved)	50.000	56.7	113	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	54.5	109	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	43.1	86.3	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	49.7	99.5	ug/L	EPA 6020A
SGF0345-CCV6	Chromium-52 (dissolved)	50.000	56.7	113	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	52.7	105	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	41.5	83.0	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	50.4	101	ug/L	EPA 6020A
SGF0345-CCV7	Chromium-52 (dissolved)	50.000	56.3	113	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	57.8	116	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	39.5	78.9	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	53.4	107	ug/L	EPA 6020A
SGF0345-CCV8	Chromium-52 (dissolved)	50.000	56.7	113	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	56.8	114	ug/L	EPA 6020A

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00061
Control Limt: +/- 10.00%
Sequence: SGF0345

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0345-CCV8	Lead-208 (dissolved)	50.000	41.6	83.2	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	53.7	107	ug/L	EPA 6020A

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00069
Control Limt: +/- 10.00%
Sequence: SGF0392

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0392-ICV1	Chromium-52 (dissolved)	50.000	50.6	101	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	50.8	102	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	50.8	102	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	49.8	99.7	ug/L	EPA 6020A
SGF0392-CCV1	Chromium-52 (dissolved)	50.000	50.4	101	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	50.3	101	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	49.0	98.0	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	50.6	101	ug/L	EPA 6020A
SGF0392-CCV2	Chromium-52 (dissolved)	50.000	49.5	99.0	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	48.7	97.5	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	51.2	102	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	47.3	94.6	ug/L	EPA 6020A
SGF0392-CCV3	Chromium-52 (dissolved)	50.000	49.7	99.4	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	48.9	97.9	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	49.9	99.8	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	47.9	95.7	ug/L	EPA 6020A
SGF0392-CCV4	Chromium-52 (dissolved)	50.000	51.7	103	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	50.6	101	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	50.5	101	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	47.5	95.0	ug/L	EPA 6020A
SGF0392-CCV5	Chromium-52 (dissolved)	50.000	50.1	100	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	50.0	99.9	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	51.5	103	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	47.0	94.0	ug/L	EPA 6020A
SGF0392-CCV6	Chromium-52 (dissolved)	50.000	50.5	101	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	49.3	98.7	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	51.6	103	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	45.9	91.7	ug/L	EPA 6020A
SGF0392-CCV7	Chromium-52 (dissolved)	50.000	50.8	102	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	49.5	99.1	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	51.4	103	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	49.1	98.2	ug/L	EPA 6020A
SGF0392-CCV8	Chromium-52 (dissolved)	50.000	50.2	100	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	50.6	101	ug/L	EPA 6020A

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00069
Control Limt: +/- 10.00%
Sequence: SGF0392

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0392-CCV8	Lead-208 (dissolved)	50.000	51.5	103	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	51.1	102	ug/L	EPA 6020A
SGF0392-CCV9	Chromium-52 (dissolved)	50.000	49.7	99.5	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	49.6	99.2	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	51.7	103	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	46.8	93.6	ug/L	EPA 6020A
SGF0392-CCVA	Chromium-52 (dissolved)	50.000	48.4	96.9	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	48.1	96.1	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	50.8	102	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	42.3	84.5	ug/L	EPA 6020A
SGF0392-CCVB	Chromium-52 (dissolved)	50.000	48.5	97.0	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	47.7	95.5	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	53.6	107	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	46.8	93.6	ug/L	EPA 6020A
SGF0392-CCVC	Chromium-52 (dissolved)	50.000	47.6	95.3	ug/L	EPA 6020A
	Chromium-53 (dissolved)	50.000	46.4	92.8	ug/L	EPA 6020A
	Lead-208 (dissolved)	50.000	51.0	102	ug/L	EPA 6020A
	Silver-107 (dissolved)	50.000	41.8	83.7	ug/L	EPA 6020A

* Values outside of QC limits

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0239
Instrument: ICPMS2
Calibration: BF00044

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SGF0239-CAL1	XDT_m2180618-006	NA	06/18/18 13:42
CAL 1 - LOW CHECK	SGF0239-CAL2	XDT_m2180618-007	NA	06/18/18 13:46
CAL 2	SGF0239-CAL3	XDT_m2180618-008	NA	06/18/18 13:51
CAL 3	SGF0239-CAL4	XDT_m2180618-009	NA	06/18/18 13:56
CAL 4	SGF0239-CAL5	XDT_m2180618-010	NA	06/18/18 14:01
CAL 5	SGF0239-CAL6	XDT_m2180618-011	NA	06/18/18 14:08
RINSE	SGF0239-IBL1	XDT_m2180618-012	NA	06/18/18 14:15
Initial Cal Check	SGF0239-ICV1	XDT_m2180618-014	NA	06/18/18 14:23
Initial Cal Blank	SGF0239-ICB1	XDT_m2180618-015	NA	06/18/18 14:30
Calibration Check	SGF0239-CCV1	XDT_m2180618-016	NA	06/18/18 14:37
Calibration Blank	SGF0239-CCB1	XDT_m2180618-017	NA	06/18/18 14:45
Instrument RL Check	SGF0239-CRL1	XDT_m2180618-018	NA	06/18/18 14:50
Interference Check A	SGF0239-IFA1	XDT_m2180618-019	NA	06/18/18 14:56
Interference Check B	SGF0239-IFB1	XDT_m2180618-020	NA	06/18/18 15:01
LR200	SGF0239-HCV1	XDT_m2180618-021	NA	06/18/18 15:06
LR300	SGF0239-HCV2	XDT_m2180618-022	NA	06/18/18 15:11
Instrument Blank	SGF0239-IBL2	XDT_m2180618-023	NA	06/18/18 15:18
Instrument Blank	SGF0239-IBL3	XDT_m2180618-024	NA	06/18/18 15:25
Calibration Check	SGF0239-CCV2	XDT_m2180618-025	NA	06/18/18 15:32
Calibration Blank	SGF0239-CCB2	XDT_m2180618-026	NA	06/18/18 15:40
Calibration Check	SGF0239-CCV3	XDT_m2180618-037	NA	06/18/18 16:33
Calibration Blank	SGF0239-CCB3	XDT_m2180618-038	NA	06/18/18 16:41
ZZZZZ	18F0157-08	XDT_m2180618-045	Solid	06/18/18 17:15
ZZZZZ	18F0157-08	XDT_m2180618-045	Solid	06/18/18 17:15
ZZZZZ	18F0157-08	XDT_m2180618-045	Solid	06/18/18 17:15
ZZZZZ	18F0157-08	XDT_m2180618-045	Solid	06/18/18 17:15
Calibration Check	SGF0239-CCV4	XDT_m2180618-049	NA	06/18/18 17:35
Calibration Blank	SGF0239-CCB4	XDT_m2180618-050	NA	06/18/18 17:43
Blank	BGF0364-BLK1	XDT_m2180618-051	Water	06/18/18 17:49
LCS	BGF0364-BS1	XDT_m2180618-059	Water	06/18/18 18:27

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0239
Instrument: ICPMS2
Calibration: BF00044

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Check	SGF0239-CCV5	XDT_m2180618-061	NA	06/18/18 18:38
Calibration Blank	SGF0239-CCB5	XDT_m2180618-062	NA	06/18/18 18:45
ZZZZZ	18F0157-09	XDT_m2180618-064	Solid	06/18/18 18:57
ZZZZZ	18F0157-09	XDT_m2180618-064	Solid	06/18/18 18:57
ZZZZZ	18F0157-09	XDT_m2180618-064	Solid	06/18/18 18:57
ZZZZZ	18F0157-09	XDT_m2180618-064	Solid	06/18/18 18:57
ZZZZZ	18F0157-10	XDT_m2180618-065	Solid	06/18/18 19:02
ZZZZZ	18F0157-10	XDT_m2180618-065	Solid	06/18/18 19:02
ZZZZZ	18F0157-10	XDT_m2180618-065	Solid	06/18/18 19:02
ZZZZZ	18F0157-10	XDT_m2180618-065	Solid	06/18/18 19:02
Calibration Check	SGF0239-CCV6	XDT_m2180618-073	NA	06/18/18 19:42
Calibration Blank	SGF0239-CCB6	XDT_m2180618-074	NA	06/18/18 19:50
ZZZZZ	18F0158-01	XDT_m2180618-078	Water	06/18/18 20:09
ZZZZZ	18F0158-01	XDT_m2180618-078	Water	06/18/18 20:09
Calibration Check	SGF0239-CCV7	XDT_m2180618-085	NA	06/18/18 20:43
Calibration Blank	SGF0239-CCB7	XDT_m2180618-086	NA	06/18/18 20:50
LDW18-SP-RB1	18F0185-01	XDT_m2180618-092	Water	06/18/18 21:18
LDW18-SP-RB1	18F0185-01	XDT_m2180618-092	Water	06/18/18 21:18
Calibration Check	SGF0239-CCV8	XDT_m2180618-097	NA	06/18/18 21:43
Calibration Blank	SGF0239-CCB8	XDT_m2180618-098	NA	06/18/18 21:50
LDW18-SP-42	18F0185-07	XDT_m2180618-099	Water	06/18/18 21:55
LDW18-SP-42	18F0185-07	XDT_m2180618-099	Water	06/18/18 21:55
Calibration Check	SGF0239-CCV9	XDT_m2180618-109	NA	06/18/18 22:43
Calibration Blank	SGF0239-CCB9	XDT_m2180618-110	NA	06/18/18 22:51

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Sequence: SGF0262

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Instrument: ICPMS1
Calibration: BF00048

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SGF0262-CAL1	XDT_m1180619-013	NA	06/19/18 13:06
CAL 1 - LOW CHECK	SGF0262-CAL2	XDT_m1180619-014	NA	06/19/18 13:10
CAL 2	SGF0262-CAL3	XDT_m1180619-015	NA	06/19/18 13:14
CAL 3	SGF0262-CAL4	XDT_m1180619-016	NA	06/19/18 13:18
CAL 4	SGF0262-CAL5	XDT_m1180619-017	NA	06/19/18 13:23
CAL 5	SGF0262-CAL6	XDT_m1180619-018	NA	06/19/18 13:28
RINSE	SGF0262-IBL1	XDT_m1180619-019	NA	06/19/18 13:35
Initial Cal Check	SGF0262-ICV1	XDT_m1180619-021	NA	06/19/18 13:43
Initial Cal Blank	SGF0262-ICB1	XDT_m1180619-022	NA	06/19/18 13:49
Calibration Check	SGF0262-CCV1	XDT_m1180619-023	NA	06/19/18 13:54
Calibration Blank	SGF0262-CCB1	XDT_m1180619-024	NA	06/19/18 13:58
Instrument RL Check	SGF0262-CRL1	XDT_m1180619-025	NA	06/19/18 14:02
Interference Check A	SGF0262-IFA1	XDT_m1180619-026	NA	06/19/18 14:06
Interference Check B	SGF0262-IFB1	XDT_m1180619-027	NA	06/19/18 14:10
LR200	SGF0262-HCV1	XDT_m1180619-028	NA	06/19/18 14:17
LR300	SGF0262-HCV2	XDT_m1180619-029	NA	06/19/18 14:21
Instrument Blank	SGF0262-IBL2	XDT_m1180619-030	NA	06/19/18 14:29
Instrument Blank	SGF0262-IBL3	XDT_m1180619-031	NA	06/19/18 14:35
Calibration Check	SGF0262-CCV2	XDT_m1180619-032	NA	06/19/18 14:41
Calibration Blank	SGF0262-CCB2	XDT_m1180619-033	NA	06/19/18 14:46
Calibration Check	SGF0262-CCV3	XDT_m1180619-044	NA	06/19/18 15:41
Calibration Blank	SGF0262-CCB3	XDT_m1180619-045	NA	06/19/18 15:46
Calibration Check	SGF0262-CCV4	XDT_m1180619-056	NA	06/19/18 16:46
Calibration Blank	SGF0262-CCB4	XDT_m1180619-057	NA	06/19/18 16:51
Calibration Check	SGF0262-CCV5	XDT_m1180619-064	NA	06/19/18 17:27
Calibration Blank	SGF0262-CCB5	XDT_m1180619-065	NA	06/19/18 17:32
Calibration Check	SGF0262-CCV6	XDT_m1180619-067	NA	06/19/18 17:55
Calibration Blank	SGF0262-CCB6	XDT_m1180619-068	NA	06/19/18 17:59
Calibration Check	SGF0262-CCV7	XDT_m1180619-079	NA	06/19/18 18:48
Calibration Blank	SGF0262-CCB7	XDT_m1180619-080	NA	06/19/18 18:53

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0262
Instrument: ICPMS1
Calibration: BF00048

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Check	SGF0262-CCV8	XDT_m1180619-082	NA	06/19/18 19:03
Calibration Blank	SGF0262-CCB8	XDT_m1180619-083	NA	06/19/18 19:07
Calibration Check	SGF0262-CCV9	XDT_m1180619-094	NA	06/19/18 19:59
Calibration Blank	SGF0262-CCB9	XDT_m1180619-095	NA	06/19/18 20:04
Calibration Check	SGF0262-CCVA	XDT_m1180619-106	NA	06/19/18 20:48
Calibration Blank	SGF0262-CCBA	XDT_m1180619-107	NA	06/19/18 20:53
Calibration Check	SGF0262-CCVB	XDT_m1180619-109	NA	06/19/18 21:01
Calibration Blank	SGF0262-CCBB	XDT_m1180619-110	NA	06/19/18 21:05
LDW18-SP-RB1	18F0185-01	XDT_m1180619-111	Water	06/19/18 21:09
LDW18-SP-30	18F0185-03	XDT_m1180619-112	Water	06/19/18 21:13
LDW18-SP-30	18F0185-03	XDT_m1180619-112	Water	06/19/18 21:13
LDW18-SP-32	18F0185-04	XDT_m1180619-113	Water	06/19/18 21:16
LDW18-SP-32	18F0185-04	XDT_m1180619-113	Water	06/19/18 21:16
LDW18-SP-35	18F0185-05	XDT_m1180619-114	Water	06/19/18 21:20
LDW18-SP-35	18F0185-05	XDT_m1180619-114	Water	06/19/18 21:20
LDW18-SP-38	18F0185-06	XDT_m1180619-115	Water	06/19/18 21:24
LDW18-SP-38	18F0185-06	XDT_m1180619-115	Water	06/19/18 21:24
LDW18-SP-42	18F0185-07	XDT_m1180619-116	Water	06/19/18 21:28
Calibration Check	SGF0262-CCVC	XDT_m1180619-121	NA	06/19/18 21:49
Calibration Blank	SGF0262-CCBC	XDT_m1180619-122	NA	06/19/18 21:54
Calibration Check	SGF0262-CCVD	XDT_m1180619-127	NA	06/19/18 22:14
Calibration Blank	SGF0262-CCBD	XDT_m1180619-128	NA	06/19/18 22:19

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Sequence: SGF0310

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Instrument: ICPMS1
Calibration: BF00056

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SGF0310-CAL1	XDT_m1180622-018	NA	06/22/18 13:20
CAL 1 - LOW CHECK	SGF0310-CAL2	XDT_m1180622-019	NA	06/22/18 13:24
CAL 2	SGF0310-CAL3	XDT_m1180622-020	NA	06/22/18 13:28
CAL 3	SGF0310-CAL4	XDT_m1180622-021	NA	06/22/18 13:32
CAL 4	SGF0310-CAL5	XDT_m1180622-022	NA	06/22/18 13:36
CAL 5	SGF0310-CAL6	XDT_m1180622-023	NA	06/22/18 13:42
RINSE	SGF0310-IBL1	XDT_m1180622-024	NA	06/22/18 13:49
Initial Cal Check	SGF0310-ICV1	XDT_m1180622-025	NA	06/22/18 13:54
Initial Cal Blank	SGF0310-ICB1	XDT_m1180622-026	NA	06/22/18 13:59
Calibration Check	SGF0310-CCV1	XDT_m1180622-027	NA	06/22/18 14:05
Calibration Blank	SGF0310-CCB1	XDT_m1180622-028	NA	06/22/18 14:12
Instrument RL Check	SGF0310-CRL1	XDT_m1180622-029	NA	06/22/18 14:16
Interference Check A	SGF0310-IFA1	XDT_m1180622-030	NA	06/22/18 14:21
Interference Check B	SGF0310-IFB1	XDT_m1180622-031	NA	06/22/18 14:25
LR200	SGF0310-HCV1	XDT_m1180622-032	NA	06/22/18 14:30
LR300	SGF0310-HCV2	XDT_m1180622-033	NA	06/22/18 14:34
Instrument Blank	SGF0310-IBL2	XDT_m1180622-034	NA	06/22/18 14:41
Instrument Blank	SGF0310-IBL3	XDT_m1180622-035	NA	06/22/18 14:47
Calibration Check	SGF0310-CCV2	XDT_m1180622-036	NA	06/22/18 14:53
Calibration Blank	SGF0310-CCB2	XDT_m1180622-037	NA	06/22/18 15:00
Calibration Check	SGF0310-CCV3	XDT_m1180622-043	NA	06/22/18 15:43
Calibration Blank	SGF0310-CCB3	XDT_m1180622-044	NA	06/22/18 15:50
Calibration Check	SGF0310-CCV4	XDT_m1180622-046	NA	06/22/18 16:00
Calibration Blank	SGF0310-CCB4	XDT_m1180622-047	NA	06/22/18 16:04
Calibration Check	SGF0310-CCV5	XDT_m1180622-058	NA	06/22/18 17:01
Calibration Blank	SGF0310-CCB5	XDT_m1180622-059	NA	06/22/18 17:08
ZZZZZ	18F0158-01	XDT_m1180622-066	Water	06/22/18 17:42
Calibration Check	SGF0310-CCV6	XDT_m1180622-070	NA	06/22/18 17:59
Calibration Blank	SGF0310-CCB6	XDT_m1180622-071	NA	06/22/18 18:05
Calibration Check	SGF0310-CCV7	XDT_m1180622-082	NA	06/22/18 18:58

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGF0310	Instrument:	ICPMS1
		Calibration:	BF00056

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Blank	SGF0310-CCB7	XDT_m1180622-083	NA	06/22/18 19:05
Calibration Check	SGF0310-CCV8	XDT_m1180622-085	NA	06/22/18 19:15
Calibration Blank	SGF0310-CCB8	XDT_m1180622-086	NA	06/22/18 19:19
Calibration Check	SGF0310-CCV9	XDT_m1180622-097	NA	06/22/18 20:08
Calibration Blank	SGF0310-CCB9	XDT_m1180622-098	NA	06/22/18 20:14
Calibration Check	SGF0310-CCVA	XDT_m1180622-109	NA	06/22/18 20:59
Calibration Blank	SGF0310-CCBA	XDT_m1180622-110	NA	06/22/18 21:06
Instrument Blank	SGF0310-IBL4	XDT_m1180622-120	NA	06/22/18 21:46
Calibration Check	SGF0310-CCVB	XDT_m1180622-121	NA	06/22/18 21:51
Calibration Blank	SGF0310-CCBB	XDT_m1180622-122	NA	06/22/18 21:58
Calibration Check	SGF0310-CCVC	XDT_m1180622-133	NA	06/22/18 22:42
Calibration Blank	SGF0310-CCBC	XDT_m1180622-134	NA	06/22/18 22:49
Instrument Blank	SGF0310-IBL5	XDT_m1180622-139	NA	06/22/18 23:10
Calibration Check	SGF0310-CCVD	XDT_m1180622-140	NA	06/22/18 23:14
Calibration Blank	SGF0310-CCBD	XDT_m1180622-141	NA	06/22/18 23:21

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0319
Instrument: ICPMS2
Calibration: BF00060

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SGF0319-CAL1	XDT_m2180625-006	NA	06/25/18 12:06
CAL 1 - LOW CHECK	SGF0319-CAL2	XDT_m2180625-007	NA	06/25/18 12:10
CAL 2	SGF0319-CAL3	XDT_m2180625-008	NA	06/25/18 12:15
CAL 3	SGF0319-CAL4	XDT_m2180625-009	NA	06/25/18 12:19
CAL 4	SGF0319-CAL5	XDT_m2180625-010	NA	06/25/18 12:24
CAL 5	SGF0319-CAL6	XDT_m2180625-011	NA	06/25/18 12:31
RINSE	SGF0319-IBL1	XDT_m2180625-012	NA	06/25/18 12:38
Initial Cal Check	SGF0319-ICV1	XDT_m2180625-014	NA	06/25/18 12:47
Initial Cal Blank	SGF0319-ICB1	XDT_m2180625-015	NA	06/25/18 12:54
Calibration Check	SGF0319-CCV1	XDT_m2180625-016	NA	06/25/18 12:59
Calibration Blank	SGF0319-CCB1	XDT_m2180625-017	NA	06/25/18 13:06
Instrument RL Check	SGF0319-CRL1	XDT_m2180625-018	NA	06/25/18 13:13
Interference Check A	SGF0319-IFA1	XDT_m2180625-019	NA	06/25/18 13:18
Interference Check B	SGF0319-IFB1	XDT_m2180625-020	NA	06/25/18 13:23
LR200	SGF0319-HCV1	XDT_m2180625-021	NA	06/25/18 13:30
LR300	SGF0319-HCV2	XDT_m2180625-023	NA	06/25/18 13:46
Instrument Blank	SGF0319-IBL2	XDT_m2180625-024	NA	06/25/18 13:53
Instrument Blank	SGF0319-IBL3	XDT_m2180625-025	NA	06/25/18 14:00
Calibration Check	SGF0319-CCV2	XDT_m2180625-026	NA	06/25/18 14:06
Calibration Blank	SGF0319-CCB2	XDT_m2180625-027	NA	06/25/18 14:13
Calibration Check	SGF0319-CCV3	XDT_m2180625-038	NA	06/25/18 15:09
Calibration Blank	SGF0319-CCB3	XDT_m2180625-039	NA	06/25/18 15:17
LDW18-SP-30	18F0185-03	XDT_m2180625-040	Water	06/25/18 15:22
LDW18-SP-32	18F0185-04	XDT_m2180625-041	Water	06/25/18 15:28
LDW18-SP-35	18F0185-05	XDT_m2180625-042	Water	06/25/18 15:32
LDW18-SP-38	18F0185-06	XDT_m2180625-043	Water	06/25/18 15:37
LDW18-SP-43	18F0185-08	XDT_m2180625-044	Water	06/25/18 15:41
Instrument Blank	SGF0319-IBL4	XDT_m2180625-045	NA	06/25/18 15:46
LDW18-SP-43	BGF0364-DUP2	XDT_m2180625-046	Water	06/25/18 15:54
LDW18-SP-43	BGF0364-DUP2	XDT_m2180625-046	Water	06/25/18 15:54

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0319
Instrument: ICPMS2
Calibration: BF00060

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
LDW18-SP-43	BGF0364-DUP2	XDT_m2180625-046	Water	06/25/18 15:54
LDW18-SP-43	BGF0364-DUP2	XDT_m2180625-046	Water	06/25/18 15:54
LDW18-SP-43	BGF0364-DUP2	XDT_m2180625-046	Water	06/25/18 15:54
LDW18-SP-43	BGF0364-MS2	XDT_m2180625-047	Water	06/25/18 16:03
LDW18-SP-43	BGF0364-MS2	XDT_m2180625-047	Water	06/25/18 16:03
LDW18-SP-43	BGF0364-MS2	XDT_m2180625-047	Water	06/25/18 16:03
LDW18-SP-43	BGF0364-MS2	XDT_m2180625-047	Water	06/25/18 16:03
LDW18-SP-43	BGF0364-MS2	XDT_m2180625-047	Water	06/25/18 16:03
LDW18-SP-43	BGF0364-MSD2	XDT_m2180625-048	Water	06/25/18 16:12
LDW18-SP-43	BGF0364-MSD2	XDT_m2180625-048	Water	06/25/18 16:12
LDW18-SP-43	BGF0364-MSD2	XDT_m2180625-048	Water	06/25/18 16:12
LDW18-SP-43	BGF0364-MSD2	XDT_m2180625-048	Water	06/25/18 16:12
LDW18-SP-43	BGF0364-MSD2	XDT_m2180625-048	Water	06/25/18 16:12
Instrument Blank	SGF0319-IBL5	XDT_m2180625-049	NA	06/25/18 16:21
Calibration Check	SGF0319-CCV4	XDT_m2180625-050	NA	06/25/18 16:29
Calibration Blank	SGF0319-CCB4	XDT_m2180625-051	NA	06/25/18 16:37
Calibration Check	SGF0319-CCV5	XDT_m2180625-053	NA	06/25/18 16:46
Calibration Blank	SGF0319-CCB5	XDT_m2180625-054	NA	06/25/18 16:51
Calibration Check	SGF0319-CCV6	XDT_m2180625-065	NA	06/25/18 17:45
Calibration Blank	SGF0319-CCB6	XDT_m2180625-066	NA	06/25/18 17:53
Calibration Check	SGF0319-CCV7	XDT_m2180625-077	NA	06/25/18 18:48
Calibration Blank	SGF0319-CCB7	XDT_m2180625-078	NA	06/25/18 18:55
Calibration Check	SGF0319-CCV8	XDT_m2180625-089	NA	06/25/18 19:49
Calibration Blank	SGF0319-CCB8	XDT_m2180625-090	NA	06/25/18 19:56
Calibration Check	SGF0319-CCV9	XDT_m2180625-092	NA	06/25/18 20:05
Calibration Blank	SGF0319-CCB9	XDT_m2180625-093	NA	06/25/18 20:09
Calibration Check	SGF0319-CCVA	XDT_m2180625-104	NA	06/25/18 20:59
Calibration Blank	SGF0319-CCBA	XDT_m2180625-105	NA	06/25/18 21:07
Calibration Check	SGF0319-CCVB	XDT_m2180625-116	NA	06/25/18 21:57
Calibration Blank	SGF0319-CCBB	XDT_m2180625-117	NA	06/25/18 22:04

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0345
Instrument: ICPMS2
Calibration: BF00061

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SGF0345-CAL1	XDT_m2180626-006	NA	06/26/18 10:03
CAL 1 - LOW CHECK	SGF0345-CAL2	XDT_m2180626-007	NA	06/26/18 10:08
CAL 2	SGF0345-CAL3	XDT_m2180626-008	NA	06/26/18 10:12
CAL 3	SGF0345-CAL4	XDT_m2180626-009	NA	06/26/18 10:17
CAL 4	SGF0345-CAL5	XDT_m2180626-010	NA	06/26/18 10:22
CAL 5	SGF0345-CAL6	XDT_m2180626-011	NA	06/26/18 10:28
RINSE	SGF0345-IBL1	XDT_m2180626-012	NA	06/26/18 10:36
Initial Cal Check	SGF0345-ICV1	XDT_m2180626-014	NA	06/26/18 10:43
Initial Cal Blank	SGF0345-ICB1	XDT_m2180626-015	NA	06/26/18 10:50
Calibration Check	SGF0345-CCV1	XDT_m2180626-016	NA	06/26/18 10:54
Calibration Blank	SGF0345-CCB1	XDT_m2180626-017	NA	06/26/18 11:01
Instrument RL Check	SGF0345-CRL1	XDT_m2180626-018	NA	06/26/18 11:06
Interference Check A	SGF0345-IFA1	XDT_m2180626-019	NA	06/26/18 11:10
Interference Check B	SGF0345-IFB1	XDT_m2180626-020	NA	06/26/18 11:15
LR200	SGF0345-HCV1	XDT_m2180626-021	NA	06/26/18 11:19
LR300	SGF0345-HCV2	XDT_m2180626-022	NA	06/26/18 11:24
Instrument Blank	SGF0345-IBL2	XDT_m2180626-023	NA	06/26/18 11:31
Calibration Check	SGF0345-CCV2	XDT_m2180626-024	NA	06/26/18 11:36
Calibration Blank	SGF0345-CCB2	XDT_m2180626-026	NA	06/26/18 11:43
LDW18-SP-43	BGF0364-DUP4	XDT_m2180626-032	Water	06/26/18 12:11
LDW18-SP-43	BGF0364-DUP4	XDT_m2180626-032	Water	06/26/18 12:11
LDW18-SP-43	18F0185-08	XDT_m2180626-033	Water	06/26/18 12:15
LDW18-SP-43	18F0185-08	XDT_m2180626-033	Water	06/26/18 12:15
LDW18-SP-43	BGF0364-MS4	XDT_m2180626-034	Water	06/26/18 12:20
LDW18-SP-43	BGF0364-MS4	XDT_m2180626-034	Water	06/26/18 12:20
LDW18-SP-43	BGF0364-MSD4	XDT_m2180626-035	Water	06/26/18 12:24
LDW18-SP-43	BGF0364-MSD4	XDT_m2180626-035	Water	06/26/18 12:24
Calibration Check	SGF0345-CCV3	XDT_m2180626-037	NA	06/26/18 12:34
Calibration Blank	SGF0345-CCB3	XDT_m2180626-038	NA	06/26/18 12:41
Blank	BGF0478-BLK1	XDT_m2180626-041	Water	06/26/18 12:55

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0345
Instrument: ICPMS2
Calibration: BF00061

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
LDW18-SP-33	18F0208-02	XDT_m2180626-043	Water	06/26/18 13:04
LDW18-SP-33	18F0208-02	XDT_m2180626-043	Water	06/26/18 13:04
LDW18-SP-33	18F0208-02	XDT_m2180626-043	Water	06/26/18 13:04
LDW18-SP-24	18F0208-03	XDT_m2180626-044	Water	06/26/18 13:08
LDW18-SP-24	18F0208-03	XDT_m2180626-044	Water	06/26/18 13:08
LDW18-SP-24	18F0208-03	XDT_m2180626-044	Water	06/26/18 13:08
LDW18-SP-24-FD	18F0208-04	XDT_m2180626-045	Water	06/26/18 13:13
LDW18-SP-24-FD	18F0208-04	XDT_m2180626-045	Water	06/26/18 13:13
LDW18-SP-24-FD	18F0208-04	XDT_m2180626-045	Water	06/26/18 13:13
LCS	BGF0478-BS1	XDT_m2180626-048	Water	06/26/18 13:26
Calibration Check	SGF0345-CCV4	XDT_m2180626-049	NA	06/26/18 13:32
Calibration Blank	SGF0345-CCB4	XDT_m2180626-050	NA	06/26/18 13:39
LDW18-SP-06	BGF0478-DUP1	XDT_m2180626-058	Water	06/26/18 14:15
LDW18-SP-06	BGF0478-DUP1	XDT_m2180626-058	Water	06/26/18 14:15
LDW18-SP-06	BGF0478-DUP1	XDT_m2180626-058	Water	06/26/18 14:15
LDW18-SP-06	BGF0478-DUP1	XDT_m2180626-058	Water	06/26/18 14:15
LDW18-SP-06	BGF0478-DUP1	XDT_m2180626-058	Water	06/26/18 14:15
LDW18-SP-06	18F0208-01	XDT_m2180626-059	Water	06/26/18 14:19
LDW18-SP-06	BGF0478-MS1	XDT_m2180626-060	Water	06/26/18 14:24
LDW18-SP-06	BGF0478-MS1	XDT_m2180626-060	Water	06/26/18 14:24
LDW18-SP-06	BGF0478-MS1	XDT_m2180626-060	Water	06/26/18 14:24
LDW18-SP-06	BGF0478-MS1	XDT_m2180626-060	Water	06/26/18 14:24
LDW18-SP-06	BGF0478-MS1	XDT_m2180626-060	Water	06/26/18 14:24
Calibration Check	SGF0345-CCV5	XDT_m2180626-061	NA	06/26/18 14:29
Calibration Blank	SGF0345-CCB5	XDT_m2180626-062	NA	06/26/18 14:36
Instrument Blank	SGF0345-IBL3	XDT_m2180626-063	NA	06/26/18 14:42
Instrument Blank	SGF0345-IBL4	XDT_m2180626-064	NA	06/26/18 14:47
Instrument Blank	SGF0345-IBL5	XDT_m2180626-065	NA	06/26/18 14:55
Calibration Check	SGF0345-CCV6	XDT_m2180626-067	NA	06/26/18 15:04
Calibration Blank	SGF0345-CCB6	XDT_m2180626-068	NA	06/26/18 15:11

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Sequence: SGF0345
SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Instrument: ICPMS2
Calibration: BF00061

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
LDW18-SP-05	18F0226-01	XDT_m2180626-069	Water	06/26/18 15:16
LDW18-SP-57	18F0226-02	XDT_m2180626-070	Water	06/26/18 15:22
LDW18-SP-73	18F0226-03	XDT_m2180626-071	Water	06/26/18 15:28
LDW18-SP-74	18F0226-04	XDT_m2180626-072	Water	06/26/18 15:34
LDW18-SP-77	18F0226-05	XDT_m2180626-073	Water	06/26/18 15:38
LDW18-SP-78	18F0226-06	XDT_m2180626-074	Water	06/26/18 15:43
LDW18-SP-79	18F0226-07	XDT_m2180626-075	Water	06/26/18 15:47
LDW18-SP-84	18F0226-08	XDT_m2180626-076	Water	06/26/18 15:52
LDW18-SP-87	18F0226-09	XDT_m2180626-077	Water	06/26/18 15:56
LDW18-SP-01	18F0248-01	XDT_m2180626-078	Water	06/26/18 16:01
Calibration Check	SGF0345-CCV7	XDT_m2180626-079	NA	06/26/18 16:08
Calibration Blank	SGF0345-CCB7	XDT_m2180626-080	NA	06/26/18 16:15
LDW18-SP-45	18F0248-02	XDT_m2180626-081	Water	06/26/18 16:20
LDW18-SP-47	18F0248-03	XDT_m2180626-082	Water	06/26/18 16:24
LDW18-SP-66	18F0248-04	XDT_m2180626-083	Water	06/26/18 16:28
LDW18-SP-70	18F0248-05	XDT_m2180626-084	Water	06/26/18 16:33
LDW18-SP-83	18F0248-06	XDT_m2180626-085	Water	06/26/18 16:37
LDW18-SP-86	18F0248-07	XDT_m2180626-086	Water	06/26/18 16:42
Calibration Check	SGF0345-CCV8	XDT_m2180626-087	NA	06/26/18 16:49
Calibration Blank	SGF0345-CCB8	XDT_m2180626-088	NA	06/26/18 16:56

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Sequence: SGF0352

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Instrument: ICPMS1
Calibration: BF00063

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
LDW18-SP-77	18F0226-05	XDT_m1180627-049	Water	06/27/18 10:11
LDW18-SP-77	18F0226-05	XDT_m1180627-049	Water	06/27/18 10:11
LDW18-SP-05	18F0226-01	XDT_m1180627-050	Water	06/27/18 10:14
LDW18-SP-05	18F0226-01	XDT_m1180627-050	Water	06/27/18 10:14
LDW18-SP-57	18F0226-02	XDT_m1180627-051	Water	06/27/18 10:16
LDW18-SP-57	18F0226-02	XDT_m1180627-051	Water	06/27/18 10:16
LDW18-SP-73	18F0226-03	XDT_m1180627-052	Water	06/27/18 10:18
LDW18-SP-73	18F0226-03	XDT_m1180627-052	Water	06/27/18 10:18
LDW18-SP-74	18F0226-04	XDT_m1180627-053	Water	06/27/18 10:20
LDW18-SP-74	18F0226-04	XDT_m1180627-053	Water	06/27/18 10:20
LDW18-SP-78	18F0226-06	XDT_m1180627-054	Water	06/27/18 10:22
LDW18-SP-78	18F0226-06	XDT_m1180627-054	Water	06/27/18 10:22
LDW18-SP-79	18F0226-07	XDT_m1180627-055	Water	06/27/18 10:23
LDW18-SP-79	18F0226-07	XDT_m1180627-055	Water	06/27/18 10:23
LDW18-SP-06	BGF0478-DUP2	XDT_m1180627-056	Water	06/27/18 10:25
LDW18-SP-06	BGF0478-DUP2	XDT_m1180627-056	Water	06/27/18 10:25
LDW18-SP-06	18F0208-01	XDT_m1180627-057	Water	06/27/18 10:27
LDW18-SP-06	18F0208-01	XDT_m1180627-057	Water	06/27/18 10:27
LDW18-SP-06	BGF0478-MS2	XDT_m1180627-058	Water	06/27/18 10:29
LDW18-SP-06	BGF0478-MS2	XDT_m1180627-058	Water	06/27/18 10:29
LDW18-SP-84	18F0226-08	XDT_m1180627-061	Water	06/27/18 10:40
LDW18-SP-84	18F0226-08	XDT_m1180627-061	Water	06/27/18 10:40
LDW18-SP-87	18F0226-09	XDT_m1180627-062	Water	06/27/18 10:42
LDW18-SP-87	18F0226-09	XDT_m1180627-062	Water	06/27/18 10:42
LDW18-SP-01	18F0248-01	XDT_m1180627-063	Water	06/27/18 10:44
LDW18-SP-01	18F0248-01	XDT_m1180627-063	Water	06/27/18 10:44
LDW18-SP-45	18F0248-02	XDT_m1180627-064	Water	06/27/18 10:45
LDW18-SP-45	18F0248-02	XDT_m1180627-064	Water	06/27/18 10:45
LDW18-SP-47	18F0248-03	XDT_m1180627-065	Water	06/27/18 10:47
LDW18-SP-47	18F0248-03	XDT_m1180627-065	Water	06/27/18 10:47

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGF0352	Instrument:	ICPMS1
		Calibration:	BF00063

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
LDW18-SP-66	18F0248-04	XDT_m1180627-066	Water	06/27/18 10:49
LDW18-SP-66	18F0248-04	XDT_m1180627-066	Water	06/27/18 10:49
LDW18-SP-70	18F0248-05	XDT_m1180627-067	Water	06/27/18 10:51
LDW18-SP-83	18F0248-06	XDT_m1180627-068	Water	06/27/18 10:53
LDW18-SP-83	18F0248-06	XDT_m1180627-068	Water	06/27/18 10:53
LDW18-SP-86	18F0248-07	XDT_m1180627-069	Water	06/27/18 10:55
LDW18-SP-86	18F0248-07RE1	XDT_m1180627-073	Water	06/27/18 11:07
LDW18-SP-70	18F0248-05RE1	XDT_m1180627-074	Water	06/27/18 11:09

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0392
Instrument: ICPMS2
Calibration: BF00069

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SGF0392-CAL1	XDT_m2180628-012	NA	06/28/18 07:54
CAL 1 - LOW CHECK	SGF0392-CAL2	XDT_m2180628-013	NA	06/28/18 07:59
CAL 2	SGF0392-CAL3	XDT_m2180628-014	NA	06/28/18 08:04
CAL 3	SGF0392-CAL4	XDT_m2180628-015	NA	06/28/18 08:09
CAL 4	SGF0392-CAL5	XDT_m2180628-016	NA	06/28/18 08:15
CAL 5	SGF0392-CAL6	XDT_m2180628-017	NA	06/28/18 08:22
RINSE	SGF0392-IBL1	XDT_m2180628-018	NA	06/28/18 08:29
Initial Cal Check	SGF0392-ICV1	XDT_m2180628-020	NA	06/28/18 08:37
Initial Cal Blank	SGF0392-ICB1	XDT_m2180628-021	NA	06/28/18 08:45
Calibration Check	SGF0392-CCV1	XDT_m2180628-022	NA	06/28/18 08:50
Calibration Blank	SGF0392-CCB1	XDT_m2180628-023	NA	06/28/18 08:57
Instrument RL Check	SGF0392-CRL1	XDT_m2180628-024	NA	06/28/18 09:02
Interference Check A	SGF0392-IFA1	XDT_m2180628-025	NA	06/28/18 09:07
Interference Check B	SGF0392-IFB1	XDT_m2180628-026	NA	06/28/18 09:12
LR200	SGF0392-HCV1	XDT_m2180628-027	NA	06/28/18 09:17
LR300	SGF0392-HCV2	XDT_m2180628-028	NA	06/28/18 09:22
Instrument Blank	SGF0392-IBL2	XDT_m2180628-029	NA	06/28/18 09:30
Instrument Blank	SGF0392-IBL3	XDT_m2180628-030	NA	06/28/18 09:36
Calibration Check	SGF0392-CCV2	XDT_m2180628-031	NA	06/28/18 09:42
Calibration Blank	SGF0392-CCB2	XDT_m2180628-032	NA	06/28/18 09:51
ZZZZZ	18F0174-02	XDT_m2180628-034	Solid	06/28/18 10:01
ZZZZZ	18F0174-02	XDT_m2180628-034	Solid	06/28/18 10:01
ZZZZZ	18F0174-02	XDT_m2180628-034	Solid	06/28/18 10:01
ZZZZZ	18F0241-01	XDT_m2180628-035	Solid	06/28/18 10:06
ZZZZZ	18F0241-01	XDT_m2180628-035	Solid	06/28/18 10:06
ZZZZZ	18F0241-01	XDT_m2180628-035	Solid	06/28/18 10:06
ZZZZZ	18F0241-03	XDT_m2180628-037	Solid	06/28/18 10:16
ZZZZZ	18F0241-03	XDT_m2180628-037	Solid	06/28/18 10:16
ZZZZZ	18F0241-03	XDT_m2180628-037	Solid	06/28/18 10:16
ZZZZZ	18F0174-01	XDT_m2180628-039	Solid	06/28/18 10:25

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Sequence: SGF0392

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Instrument: ICPMS2
Calibration: BF00069

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	18F0174-01	XDT_m2180628-039	Solid	06/28/18 10:25
ZZZZZ	18F0174-01	XDT_m2180628-039	Solid	06/28/18 10:25
Calibration Check	SGF0392-CCV3	XDT_m2180628-043	NA	06/28/18 10:46
Calibration Blank	SGF0392-CCB3	XDT_m2180628-044	NA	06/28/18 10:54
Blank	BGF0480-BLK1	XDT_m2180628-046	Water	06/28/18 11:04
ZZZZZ	18F0241-04	XDT_m2180628-047	Solid	06/28/18 11:09
ZZZZZ	18F0241-04	XDT_m2180628-047	Solid	06/28/18 11:09
ZZZZZ	18F0241-04	XDT_m2180628-047	Solid	06/28/18 11:09
ZZZZZ	18F0241-06	XDT_m2180628-049	Solid	06/28/18 11:18
ZZZZZ	18F0241-06	XDT_m2180628-049	Solid	06/28/18 11:18
ZZZZZ	18F0241-06	XDT_m2180628-049	Solid	06/28/18 11:18
ZZZZZ	18F0242-01	XDT_m2180628-050	Solid	06/28/18 11:23
ZZZZZ	18F0242-01	XDT_m2180628-050	Solid	06/28/18 11:23
ZZZZZ	18F0242-01	XDT_m2180628-050	Solid	06/28/18 11:23
ZZZZZ	18F0242-02	XDT_m2180628-051	Solid	06/28/18 11:28
ZZZZZ	18F0242-02	XDT_m2180628-051	Solid	06/28/18 11:28
ZZZZZ	18F0242-02	XDT_m2180628-051	Solid	06/28/18 11:28
ZZZZZ	18F0256-01	XDT_m2180628-052	Solid	06/28/18 11:33
ZZZZZ	18F0256-01	XDT_m2180628-052	Solid	06/28/18 11:33
ZZZZZ	18F0256-01	XDT_m2180628-052	Solid	06/28/18 11:33
ZZZZZ	18F0256-02	XDT_m2180628-053	Solid	06/28/18 11:38
ZZZZZ	18F0256-02	XDT_m2180628-053	Solid	06/28/18 11:38
ZZZZZ	18F0256-02	XDT_m2180628-053	Solid	06/28/18 11:38
LCS	BGF0480-BS1	XDT_m2180628-054	Water	06/28/18 11:43
Calibration Check	SGF0392-CCV4	XDT_m2180628-055	NA	06/28/18 11:49
Calibration Blank	SGF0392-CCB4	XDT_m2180628-056	NA	06/28/18 11:57
Calibration Check	SGF0392-CCV5	XDT_m2180628-067	NA	06/28/18 12:53
Calibration Blank	SGF0392-CCB5	XDT_m2180628-068	NA	06/28/18 13:01
ZZZZZ	18F0241-02	XDT_m2180628-072	Solid	06/28/18 13:22
ZZZZZ	18F0241-02	XDT_m2180628-072	Solid	06/28/18 13:22

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Sequence: SGF0392

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Instrument: ICPMS2
Calibration: BF00069

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	18F0241-02	XDT_m2180628-072	Solid	06/28/18 13:22
ZZZZZ	18F0241-05	XDT_m2180628-073	Solid	06/28/18 13:27
ZZZZZ	18F0241-05	XDT_m2180628-073	Solid	06/28/18 13:27
ZZZZZ	18F0241-05	XDT_m2180628-073	Solid	06/28/18 13:27
Calibration Check	SGF0392-CCV6	XDT_m2180628-079	NA	06/28/18 13:57
Calibration Blank	SGF0392-CCB6	XDT_m2180628-080	NA	06/28/18 14:05
Calibration Check	SGF0392-CCV7	XDT_m2180628-091	NA	06/28/18 15:00
Calibration Blank	SGF0392-CCB7	XDT_m2180628-092	NA	06/28/18 15:08
LDW18-SP-88	BGF0480-DUP1	XDT_m2180628-099	Water	06/28/18 15:42
LDW18-SP-88	BGF0480-DUP1	XDT_m2180628-099	Water	06/28/18 15:42
LDW18-SP-88	BGF0480-DUP1	XDT_m2180628-099	Water	06/28/18 15:42
LDW18-SP-88	BGF0480-DUP1	XDT_m2180628-099	Water	06/28/18 15:42
LDW18-SP-88	BGF0480-DUP1	XDT_m2180628-099	Water	06/28/18 15:42
LDW18-SP-88	BGF0480-DUP1	XDT_m2180628-099	Water	06/28/18 15:42
LDW18-SP-88	BGF0480-DUP1	XDT_m2180628-099	Water	06/28/18 15:42
LDW18-SP-88	18F0248-08	XDT_m2180628-100	Water	06/28/18 15:47
LDW18-SP-88	18F0248-08	XDT_m2180628-100	Water	06/28/18 15:47
LDW18-SP-88	18F0248-08	XDT_m2180628-100	Water	06/28/18 15:47
LDW18-SP-88	BGF0480-MS1	XDT_m2180628-101	Water	06/28/18 15:52
LDW18-SP-88	BGF0480-MS1	XDT_m2180628-101	Water	06/28/18 15:52
LDW18-SP-88	BGF0480-MS1	XDT_m2180628-101	Water	06/28/18 15:52
LDW18-SP-88	BGF0480-MS1	XDT_m2180628-101	Water	06/28/18 15:52
LDW18-SP-88	BGF0480-MS1	XDT_m2180628-101	Water	06/28/18 15:52
LDW18-SP-88	BGF0480-MS1	XDT_m2180628-101	Water	06/28/18 15:52
LDW18-SP-88	BGF0480-MS1	XDT_m2180628-101	Water	06/28/18 15:52
Instrument Blank	SGF0392-IBL4	XDT_m2180628-102	NA	06/28/18 15:57
Calibration Check	SGF0392-CCV8	XDT_m2180628-103	NA	06/28/18 16:03
Calibration Blank	SGF0392-CCB8	XDT_m2180628-104	NA	06/28/18 16:11
Calibration Check	SGF0392-CCV9	XDT_m2180628-106	NA	06/28/18 16:21
Calibration Blank	SGF0392-CCB9	XDT_m2180628-107	NA	06/28/18 16:28

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGF0392	Instrument:	ICPMS2
		Calibration:	BF00069

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	18F0371-01	XDT_m2180628-116	Water	06/28/18 17:13
ZZZZZ	18F0371-03	XDT_m2180628-117	Water	06/28/18 17:18
Calibration Check	SGF0392-CCVA	XDT_m2180628-118	NA	06/28/18 17:24
Calibration Blank	SGF0392-CCBA	XDT_m2180628-119	NA	06/28/18 17:31
ZZZZZ	18F0371-04	XDT_m2180628-121	Water	06/28/18 17:41
ZZZZZ	18F0371-05	XDT_m2180628-122	Water	06/28/18 17:46
ZZZZZ	18F0367-01	XDT_m2180628-125	Water	06/28/18 18:01
Calibration Check	SGF0392-CCVB	XDT_m2180628-128	NA	06/28/18 18:17
Calibration Blank	SGF0392-CCBB	XDT_m2180628-129	NA	06/28/18 18:24
Calibration Check	SGF0392-CCVC	XDT_m2180628-133	NA	06/28/18 18:50
Calibration Blank	SGF0392-CCBC	XDT_m2180628-134	NA	06/28/18 18:57

ICP INTERFERENCE CHECK SAMPLE

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00044
Sequence: SGF0239
Standard ID: G005065

Lab Sample ID	Analyte	True	Found	%R	Units
SGF0239-IFA1	Chromium-52 (dissolved)	0	0.5460		ug/L
	Chromium-53 (dissolved)	0	4.3840		ug/L
	Lead-208 (dissolved)	0	0.0200		ug/L
	Silver-107 (dissolved)	0	0.0100		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00044
Sequence: SGF0239
Standard ID: G005065

Lab Sample ID	Analyte	True	Found	%R	Units
SGF0239-IFB1	Chromium-52 (dissolved)	20.000	20.934	105	ug/L
	Chromium-53 (dissolved)	20.000	24.066	120	ug/L
	Lead-208 (dissolved)	0	0.0200		ug/L
	Silver-107 (dissolved)	20.000	19.184	95.9	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00048
Sequence: SGF0262
Standard ID: G005065

Lab Sample ID	Analyte	True	Found	%R	Units
SGF0262-IFA1	Chromium-52 (dissolved)	0	0.7580		ug/L
	Chromium-53 (dissolved)	0	6.0490		ug/L
	Lead-208 (dissolved)	0	0.0530		ug/L

* Indicates %R outside of QC limits
NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00048
Sequence: SGF0262
Standard ID: G005065

Lab Sample ID	Analyte	True	Found	%R	Units
SGF0262-IFB1	Chromium-52 (dissolved)	20.000	20.906	105	ug/L
	Chromium-53 (dissolved)	20.000	26.638	133	ug/L
	Lead-208 (dissolved)	0	0.0690		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00056
Sequence: SGF0310
Standard ID: G005699

Lab Sample ID	Analyte	True	Found	%R	Units
SGF0310-IFA1	Lead-208 (dissolved)	0	0.0730		ug/L

* Indicates %R outside of QC limits
NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00056
Sequence: SGF0310
Standard ID: G005699

Lab Sample ID	Analyte	True	Found	%R	Units
SGF0310-IFB1	Lead-208 (dissolved)	0	0.0530		ug/L

* Indicates %R outside of QC limits
NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00060
Sequence: SGF0319
Standard ID: G005699

Lab Sample ID	Analyte	True	Found	%R	Units
SGF0319-IFA1	Chromium-52 (dissolved)	0	0.6080		ug/L
	Chromium-53 (dissolved)	0	4.3330		ug/L
	Lead-208 (dissolved)	0	0.0120		ug/L
	Silver-107 (dissolved)	0	0.0100		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00060
Sequence: SGF0319
Standard ID: G005699

Lab Sample ID	Analyte	True	Found	%R	Units
SGF0319-IFB1	Chromium-52 (dissolved)	20.000	22.739	114	ug/L
	Chromium-53 (dissolved)	20.000	24.844	124	ug/L
	Lead-208 (dissolved)	0	0.0140		ug/L
	Silver-107 (dissolved)	20.000	19.000	95.0	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00061
Sequence: SGF0345
Standard ID: G005699

Lab Sample ID	Analyte	True	Found	%R	Units
SGF0345-IFA1	Chromium-52 (dissolved)	0	0.6540		ug/L
	Chromium-53 (dissolved)	0	6.5560		ug/L
	Lead-208 (dissolved)	0	0.0180		ug/L
	Silver-107 (dissolved)	0	0.0100		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00061
Sequence: SGF0345
Standard ID: G005699

Lab Sample ID	Analyte	True	Found	%R	Units
SGF0345-IFB1	Chromium-52 (dissolved)	20.000	21.979	110	ug/L
	Chromium-53 (dissolved)	20.000	25.996	130	ug/L
	Lead-208 (dissolved)	0	0.0200		ug/L
	Silver-107 (dissolved)	20.000	18.612	93.1	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00069
Sequence: SGF0392
Standard ID: G005699

Lab Sample ID	Analyte	True	Found	%R	Units
SGF0392-IFA1	Chromium-52 (dissolved)	0	0.5650		ug/L
	Chromium-53 (dissolved)	0	6.7650		ug/L
	Lead-208 (dissolved)	0	0.0180		ug/L
	Silver-107 (dissolved)	0	0.0040		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00069
Sequence: SGF0392
Standard ID: G005699

Lab Sample ID	Analyte	True	Found	%R	Units
SGF0392-IFB1	Chromium-52 (dissolved)	20.000	19.391	97.0	ug/L
	Chromium-53 (dissolved)	20.000	25.041	125	ug/L
	Lead-208 (dissolved)	0	0.0240		ug/L
	Silver-107 (dissolved)	20.000	16.038	80.2	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

DETECTION LEVEL STANDARD
EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00044
Sequence: SGF0239
Lab Sample ID: SGF0239-CRL1

Analyte	True	Found	%R	Units	QC Limts
Chromium-52 (dissolved)	0.50000	0.509	102	ug/L	50 - 150
Chromium-53 (dissolved)	0.50000	0.528	106	ug/L	50 - 150
Lead-208 (dissolved)	0.10000	0.105	105	ug/L	50 - 150
Silver-107 (dissolved)	0.20000	0.207	104	ug/L	50 - 150

* Values outside of QC limits

DETECTION LEVEL STANDARD
EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00048
Sequence: SGF0262
Lab Sample ID: SGF0262-CRL1

Analyte	True	Found	%R	Units	QC Limts
Chromium-52 (dissolved)	0.50000	0.542	108	ug/L	50 - 150
Chromium-53 (dissolved)	0.50000	0.526	105	ug/L	50 - 150
Lead-208 (dissolved)	0.10000	0.101	101	ug/L	50 - 150

* Values outside of QC limits

DETECTION LEVEL STANDARD
EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00056
Sequence: SGF0310
Lab Sample ID: SGF0310-CRL1

Analyte	True	Found	%R	Units	QC Limts
Lead-208 (dissolved)	0.10000	0.105	105	ug/L	50 - 150

* Values outside of QC limits

DETECTION LEVEL STANDARD
EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00060
Sequence: SGF0319
Lab Sample ID: SGF0319-CRL1

Analyte	True	Found	%R	Units	QC Limts
Chromium-52 (dissolved)	0.50000	0.523	105	ug/L	50 - 150
Chromium-53 (dissolved)	0.50000	0.493	98.6	ug/L	50 - 150
Lead-208 (dissolved)	0.10000	0.107	107	ug/L	50 - 150
Silver-107 (dissolved)	0.20000	0.216	108	ug/L	50 - 150

* Values outside of QC limits

DETECTION LEVEL STANDARD
EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00061
Sequence: SGF0345
Lab Sample ID: SGF0345-CRL1

Analyte	True	Found	%R	Units	QC Limts
Chromium-52 (dissolved)	0.50000	0.570	114	ug/L	50 - 150
Chromium-53 (dissolved)	0.50000	0.525	105	ug/L	50 - 150
Lead-208 (dissolved)	0.10000	0.138	138	ug/L	50 - 150
Silver-107 (dissolved)	0.20000	0.225	113	ug/L	50 - 150

* Values outside of QC limits

DETECTION LEVEL STANDARD
EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00069
Sequence: SGF0392
Lab Sample ID: SGF0392-CRL1

Analyte	True	Found	%R	Units	QC Limts
Chromium-52 (dissolved)	0.50000	0.521	104	ug/L	50 - 150
Chromium-53 (dissolved)	0.50000	0.496	99.2	ug/L	50 - 150
Lead-208 (dissolved)	0.10000	0.104	104	ug/L	50 - 150
Silver-107 (dissolved)	0.20000	0.210	105	ug/L	50 - 150

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00044
Laboratory ID: SGF0239-HCV1
Sequence: SGF0239
Standard ID: G005067

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52 (dissolved)	200.00	200	0.1	10.00
Chromium-53 (dissolved)	200.00	204	1.8	10.00
Lead-208 (dissolved)	200.00	196	-2.0	10.00
Silver-107 (dissolved)	200.00	187	-6.5	10.00

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00044
Laboratory ID: SGF0239-HCV2
Sequence: SGF0239
Standard ID: G005068

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52 (dissolved)	300.00	298	-0.8	10.00
Chromium-53 (dissolved)	300.00	304	1.4	10.00
Lead-208 (dissolved)	300.00	291	-2.9	10.00
Silver-107 (dissolved)	300.00	277	-7.8	10.00

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00048
Laboratory ID: SGF0262-HCV1
Sequence: SGF0262
Standard ID: G005067

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52 (dissolved)	200.00	197	-1.7	10.00
Chromium-53 (dissolved)	200.00	203	1.3	10.00
Lead-208 (dissolved)	200.00	197	-1.4	10.00

* Values outside of QC limits

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00048
Laboratory ID: SGF0262-HCV2
Sequence: SGF0262
Standard ID: G005068

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52 (dissolved)	300.00	296	-1.4	10.00
Chromium-53 (dissolved)	300.00	304	1.2	10.00
Lead-208 (dissolved)	300.00	279	-6.9	10.00

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00056
Laboratory ID: SGF0310-HCV1
Sequence: SGF0310
Standard ID: G005700

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Lead-208 (dissolved)	200.00	178	-11.1	10.00

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00056
Laboratory ID: SGF0310-HCV2
Sequence: SGF0310
Standard ID: G005701

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Lead-208 (dissolved)	300.00	270	-10.2	10.00

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00060
Laboratory ID: SGF0319-HCV1
Sequence: SGF0319
Standard ID: G005700

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52 (dissolved)	200.00	192	-3.8	10.00
Chromium-53 (dissolved)	200.00	199	-0.5	10.00
Lead-208 (dissolved)	200.00	186	-7.2	10.00
Silver-107 (dissolved)	200.00	170	-14.8	10.00

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00060
Laboratory ID: SGF0319-HCV2
Sequence: SGF0319
Standard ID: G005701

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52 (dissolved)	300.00	294	-2.1	10.00
Chromium-53 (dissolved)	300.00	296	-1.4	10.00
Lead-208 (dissolved)	300.00	268	-10.7	10.00
Silver-107 (dissolved)	300.00	257	-14.4	10.00

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00061
Laboratory ID: SGF0345-HCV1
Sequence: SGF0345
Standard ID: G005700

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52 (dissolved)	200.00	198	-0.8	10.00
Chromium-53 (dissolved)	200.00	201	0.6	10.00
Lead-208 (dissolved)	200.00	184	-7.8	10.00
Silver-107 (dissolved)	200.00	173	-13.7	10.00

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00061
Laboratory ID: SGF0345-HCV2
Sequence: SGF0345
Standard ID: G005701

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52 (dissolved)	300.00	296	-1.2	10.00
Chromium-53 (dissolved)	300.00	294	-1.9	10.00
Lead-208 (dissolved)	300.00	254	-15.4	10.00
Silver-107 (dissolved)	300.00	255	-15.0	10.00

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00069
Laboratory ID: SGF0392-HCV1
Sequence: SGF0392
Standard ID: G005700

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52 (dissolved)	200.00	202	1.1	10.00
Chromium-53 (dissolved)	200.00	198	-1.2	10.00
Lead-208 (dissolved)	200.00	202	1.1	10.00
Silver-107 (dissolved)	200.00	178	-10.9	10.00

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00069
Laboratory ID: SGF0392-HCV2
Sequence: SGF0392
Standard ID: G005701

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Chromium-52 (dissolved)	300.00	301	0.2	10.00
Chromium-53 (dissolved)	300.00	291	-3.1	10.00
Lead-208 (dissolved)	300.00	299	-0.4	10.00
Silver-107 (dissolved)	300.00	269	-10.3	10.00

* Values outside of QC limits

HOLDING TIME SUMMARY

Analysis: EPA 6020A

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW18-SP-RB1 18F0185-01	06/11/18 16:12	06/12/18 14:55	06/15/18 05:21	3	180	06/18/18 21:18	7	180	
LDW18-SP-RB1 18F0185-01	06/11/18 16:12	06/12/18 14:55	06/15/18 05:21	3	180	06/19/18 21:09	8	180	
LDW18-SP-30 18F0185-03	06/12/18 12:06	06/12/18 14:55	06/15/18 05:21	2	180	06/19/18 21:13	7	180	
LDW18-SP-30 18F0185-03	06/12/18 12:06	06/12/18 14:55	06/15/18 05:21	2	180	06/25/18 15:22	13	180	
LDW18-SP-32 18F0185-04	06/12/18 09:19	06/12/18 14:55	06/15/18 05:21	2	180	06/19/18 21:16	7	180	
LDW18-SP-32 18F0185-04	06/12/18 09:19	06/12/18 14:55	06/15/18 05:21	2	180	06/25/18 15:28	13	180	
LDW18-SP-35 18F0185-05	06/12/18 10:56	06/12/18 14:55	06/15/18 05:21	2	180	06/19/18 21:20	7	180	
LDW18-SP-35 18F0185-05	06/12/18 10:56	06/12/18 14:55	06/15/18 05:21	2	180	06/25/18 15:32	13	180	
LDW18-SP-38 18F0185-06	06/12/18 10:27	06/12/18 14:55	06/15/18 05:21	2	180	06/19/18 21:24	7	180	
LDW18-SP-38 18F0185-06	06/12/18 10:27	06/12/18 14:55	06/15/18 05:21	2	180	06/25/18 15:37	13	180	
LDW18-SP-42 18F0185-07	06/12/18 12:05	06/12/18 14:55	06/15/18 05:21	2	180	06/19/18 21:28	7	180	
LDW18-SP-42 18F0185-07	06/12/18 12:05	06/12/18 14:55	06/15/18 05:21	2	180	06/18/18 21:55	6	180	
LDW18-SP-43 18F0185-08	06/12/18 13:00	06/12/18 14:55	06/15/18 05:21	2	180	06/25/18 15:41	13	180	
LDW18-SP-43 18F0185-08	06/12/18 13:00	06/12/18 14:55	06/15/18 05:21	2	180	06/26/18 12:15	14	180	
LDW18-SP-06 18F0208-01	06/13/18 09:53	06/13/18 16:26	06/20/18 04:48	6	180	06/26/18 14:19	13	180	
LDW18-SP-06 18F0208-01	06/13/18 09:53	06/13/18 16:26	06/20/18 04:48	6	180	06/27/18 10:27	14	180	
LDW18-SP-33 18F0208-02	06/13/18 12:17	06/13/18 16:26	06/20/18 04:48	6	180	06/26/18 13:04	13	180	
LDW18-SP-24 18F0208-03	06/13/18 12:35	06/13/18 16:26	06/20/18 04:48	6	180	06/26/18 13:08	13	180	
LDW18-SP-24-FD 18F0208-04	06/13/18 12:42	06/13/18 16:26	06/20/18 04:48	6	180	06/26/18 13:13	13	180	
LDW18-SP-05 18F0226-01	06/14/18 14:08	06/14/18 15:45	06/20/18 04:48	5	180	06/26/18 15:16	12	180	
LDW18-SP-05 18F0226-01	06/14/18 14:08	06/14/18 15:45	06/20/18 04:48	5	180	06/27/18 10:14	13	180	
LDW18-SP-57 18F0226-02	06/14/18 10:41	06/14/18 15:45	06/20/18 04:48	5	180	06/27/18 10:16	13	180	

HOLDING TIME SUMMARY

Analysis: EPA 6020A

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW18-SP-57 18F0226-02	06/14/18 10:41	06/14/18 15:45	06/20/18 04:48	5	180	06/26/18 15:22	12	180	
LDW18-SP-73 18F0226-03	06/14/18 13:08	06/14/18 15:45	06/20/18 04:48	5	180	06/26/18 15:28	12	180	
LDW18-SP-73 18F0226-03	06/14/18 13:08	06/14/18 15:45	06/20/18 04:48	5	180	06/27/18 10:18	13	180	
LDW18-SP-74 18F0226-04	06/14/18 13:14	06/14/18 15:45	06/20/18 04:48	5	180	06/26/18 15:34	12	180	
LDW18-SP-74 18F0226-04	06/14/18 13:14	06/14/18 15:45	06/20/18 04:48	5	180	06/27/18 10:20	13	180	
LDW18-SP-77 18F0226-05	06/14/18 12:10	06/14/18 15:45	06/20/18 04:48	5	180	06/27/18 10:11	13	180	
LDW18-SP-77 18F0226-05	06/14/18 12:10	06/14/18 15:45	06/20/18 04:48	5	180	06/26/18 15:38	12	180	
LDW18-SP-78 18F0226-06	06/14/18 12:04	06/14/18 15:45	06/20/18 04:48	5	180	06/26/18 15:43	12	180	
LDW18-SP-78 18F0226-06	06/14/18 12:04	06/14/18 15:45	06/20/18 04:48	5	180	06/27/18 10:22	13	180	
LDW18-SP-79 18F0226-07	06/14/18 09:50	06/14/18 15:45	06/20/18 04:48	5	180	06/27/18 10:23	13	180	
LDW18-SP-79 18F0226-07	06/14/18 09:50	06/14/18 15:45	06/20/18 04:48	5	180	06/26/18 15:47	12	180	
LDW18-SP-84 18F0226-08	06/14/18 09:53	06/14/18 15:45	06/20/18 04:48	5	180	06/26/18 15:52	12	180	
LDW18-SP-84 18F0226-08	06/14/18 09:53	06/14/18 15:45	06/20/18 04:48	5	180	06/27/18 10:40	13	180	
LDW18-SP-87 18F0226-09	06/14/18 11:11	06/14/18 15:45	06/20/18 04:48	5	180	06/26/18 15:56	12	180	
LDW18-SP-87 18F0226-09	06/14/18 11:11	06/14/18 15:45	06/20/18 04:48	5	180	06/27/18 10:42	13	180	
LDW18-SP-01 18F0248-01	06/15/18 11:33	06/15/18 16:10	06/20/18 04:48	4	180	06/27/18 10:44	12	180	
LDW18-SP-01 18F0248-01	06/15/18 11:33	06/15/18 16:10	06/20/18 04:48	4	180	06/26/18 16:01	11	180	
LDW18-SP-45 18F0248-02	06/15/18 13:45	06/15/18 16:10	06/20/18 04:48	4	180	06/26/18 16:20	11	180	
LDW18-SP-45 18F0248-02	06/15/18 13:45	06/15/18 16:10	06/20/18 04:48	4	180	06/27/18 10:45	12	180	
LDW18-SP-47 18F0248-03	06/15/18 13:16	06/15/18 16:10	06/20/18 04:48	4	180	06/27/18 10:47	12	180	
LDW18-SP-47 18F0248-03	06/15/18 13:16	06/15/18 16:10	06/20/18 04:48	4	180	06/26/18 16:24	11	180	
LDW18-SP-66 18F0248-04	06/15/18 13:25	06/15/18 16:10	06/20/18 04:48	4	180	06/27/18 10:49	12	180	

HOLDING TIME SUMMARY

Analysis: EPA 6020A

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW18-SP-66 18F0248-04	06/15/18 13:25	06/15/18 16:10	06/20/18 04:48	4	180	06/26/18 16:28	11	180	
LDW18-SP-70 18F0248-05	06/15/18 11:13	06/15/18 16:10	06/20/18 04:48	4	180	06/26/18 16:33	11	180	
LDW18-SP-70 18F0248-05	06/15/18 11:13	06/15/18 16:10	06/20/18 04:48	4	180	06/27/18 10:51	12	180	
LDW18-SP-70 18F0248-05RE1	06/15/18 11:13	06/15/18 16:10	06/20/18 04:48	4	180	06/27/18 11:09	12	180	
LDW18-SP-83 18F0248-06	06/15/18 12:08	06/15/18 16:10	06/20/18 04:48	4	180	06/27/18 10:53	12	180	
LDW18-SP-83 18F0248-06	06/15/18 12:08	06/15/18 16:10	06/20/18 04:48	4	180	06/26/18 16:37	11	180	
LDW18-SP-86 18F0248-07	06/15/18 12:19	06/15/18 16:10	06/20/18 04:48	4	180	06/26/18 16:42	11	180	
LDW18-SP-86 18F0248-07	06/15/18 12:19	06/15/18 16:10	06/20/18 04:48	4	180	06/27/18 10:55	12	180	
LDW18-SP-86 18F0248-07RE1	06/15/18 12:19	06/15/18 16:10	06/20/18 04:48	4	180	06/27/18 11:07	12	180	
LDW18-SP-88 18F0248-08	06/15/18 10:52	06/15/18 16:10	06/20/18 05:07	4	180	06/28/18 15:47	13	180	
Duplicate BGF0364-DUP2	06/12/18 13:00	06/12/18 14:55	06/15/18 05:21	2	180	06/25/18 15:54	13	180	
Duplicate BGF0364-DUP4	06/12/18 13:00	06/12/18 14:55	06/15/18 05:21	2	180	06/26/18 12:11	14	180	
Matrix Spike BGF0364-MS2	06/12/18 13:00	06/12/18 14:55	06/15/18 05:21	2	180	06/25/18 16:03	13	180	
Matrix Spike BGF0364-MS4	06/12/18 13:00	06/12/18 14:55	06/15/18 05:21	2	180	06/26/18 12:20	14	180	
Matrix Spike Dup BGF0364-MSD2	06/12/18 13:00	06/12/18 14:55	06/15/18 05:21	2	180	06/25/18 16:12	13	180	
Matrix Spike Dup BGF0364-MSD4	06/12/18 13:00	06/12/18 14:55	06/15/18 05:21	2	180	06/26/18 12:24	14	180	
Duplicate BGF0478-DUP1	06/13/18 09:53	06/13/18 16:26	06/20/18 04:48	6	180	06/26/18 14:15	13	180	
Duplicate BGF0478-DUP2	06/13/18 09:53	06/13/18 16:26	06/20/18 04:48	6	180	06/27/18 10:25	14	180	
Matrix Spike BGF0478-MS1	06/13/18 09:53	06/13/18 16:26	06/20/18 04:48	6	180	06/26/18 14:24	13	180	
Matrix Spike BGF0478-MS2	06/13/18 09:53	06/13/18 16:26	06/20/18 04:48	6	180	06/27/18 10:29	14	180	
Duplicate BGF0480-DUP1	06/15/18 10:52	06/15/18 16:10	06/20/18 05:07	4	180	06/28/18 15:42	13	180	
Matrix Spike BGF0480-MS1	06/15/18 10:52	06/15/18 16:10	06/20/18 05:07	4	180	06/28/18 15:52	13	180	

* Indicates hold time exceedance.

METHOD DETECTION AND REPORTING LIMITS

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Matrix: Water
Instrument: ICPMS1

Analyte	MDL	RL	Units
Chromium-52 (dissolved)	0.130	0.500	ug/L
Chromium-53 (dissolved)	0.0700	0.500	ug/L
Lead-208 (dissolved)	0.0680	0.100	ug/L

METHOD DETECTION AND REPORTING LIMITS

EPA 6020A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Matrix: Water
Instrument: ICPMS2

Analyte	MDL	RL	Units
Chromium-52 (dissolved)	0.130	0.500	ug/L
Chromium-53 (dissolved)	0.0700	0.500	ug/L
Lead-208 (dissolved)	0.0680	0.100	ug/L
Silver-107 (dissolved)	0.0170	0.200	ug/L

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CERTIFICATE OF ANALYSIS

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGAG10
Lot Number:	K2-AG651956
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Silver
Starting Material:	Ag shot
Starting Material Lot#:	2042
Starting Material Purity:	99.9993%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10031 ± 31 µg/mL

Density: 1.048 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10042 ± 49 µg/mL**
ICP Assay NIST SRM 3151 Lot Number: 992212

Assay Method #2 **10027 ± 28 µg/mL**
Volhard NIST SRM 999c Lot Number: 999c

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2 (u_{char\ a})^2 + (w_b)^2 (u_{char\ b})^2]^{½}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

s	Ag	<		M	Eu	<	0.000247	O	Na		0.011505	M	Se	<	0.006433	O	Zn		0.006817
O	Al		0.001679	O	Fe		0.003766	M	Nb	<	0.001485	O	Si		0.016021	M	Zr	<	0.000247
M	As	<	0.000990	M	Ga	<	0.000247	M	Nd	<	0.000247	M	Sm	<	0.000247				
M	Au	<	0.002213	M	Gd	<	0.000247	O	Ni		0.001952	M	Sn		0.002656				
O	B		0.003246	M	Ge	<	0.000247	M	Os	<	0.000246	M	Sr	<	0.000247				
M	Ba	<	0.000247	M	Hf	<	0.000247	O	P	<	0.016678	M	Ta	<	0.000247				
O	Be	<	0.000211	M	Hg	<	0.001967	M	Pb		0.003372	M	Tb	<	0.000247				
M	Bi	<	0.004948	M	Ho	<	0.000247	M	Pd	<	0.000738	M	Te	<	0.002722				
O	Ca		0.007377	M	In		0.000715	M	Pr	<	0.000247	M	Th	<	0.000247				
M	Cd	<	0.000247	M	Ir	<	0.000246	M	Pt	<	0.002474	O	Ti	<	0.000627				
M	Ce	<	0.000247	O	K		0.003632	M	Rb	<	0.000247	M	Tl	<	0.002969				
M	Co	<	0.000247	M	La	<	0.000247	M	Re	<	0.000247	M	Tm	<	0.000247				
M	Cr	<	0.000990	O	Li		0.000136	M	Rh	<	0.000247	M	U	<	0.000247				
M	Cs	<	0.000247	M	Lu	<	0.000247	M	Ru	<	0.000738	M	V	<	0.000495				
O	Cu		0.004801	O	Mg		0.001008	O	S	<	0.021140	M	W	<	0.004948				
M	Dy	<	0.000247	M	Mn	<	0.000495	M	Sb	<	0.009897	M	Y	<	0.000247				
M	Er	<	0.000247	O	Mo	<	0.001099	O	Sc	<	0.000128	M	Yb	<	0.000247				

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 107.87 +1 6 $Ag(H_2O)_6^+$
Chemical Compatibility -Stable in HNO_3, and HF. Avoid basic media. Ag forms more insoluble salts than any other metal. It also is subject to photochemical reduction to the metal in HCl media although 10 µg/mL solutions in 10% HCl [$AgCl_{x1-x}$] are commonly used in the analytical laboratory. The most common solubility problems exist with arsenate, arsenite , bromide, chloride, iodide, carbonate , chromate, cyanide, iodate, oxalate, oxide, sulfate, sulfide, tartrate, and thiocyanate in aqueous media. The addition of nitric acid renders many of these salts soluble.
Stability - 2-100 ppb levels stable for 75+ days when mixed with equivalent levels of all other elements including the precious metals (where chloride is present) when in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO_3 / LDPE container.
Ag Containing Samples (Preparation and Solution) -Metal (Soluble in HNO_3); Oxides (Soluble in HNO_3); Ores (Digestion with conc. HNO_3).
Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 107 amu	1 ppt	N/A	91Zr16O
ICP-OES 243.779 nm	0.12/0.01 µg/mL	1	Mn, Th, Ni, Rh
ICP-OES 328.068 nm	0.007/0.0007 µg/mL	1	Ce, Rh, V
ICP-OES 338.289 nm	0.013/0.001 µg/mL	1	Ce, Cr, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

October 25, 2016

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **October 25, 2020**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician



Certificate Approved By:

Michael Booth
Supervisor, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Revision 1: Added 30 mL statements. 092917JB

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CERTIFICATE OF ANALYSIS

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGCR(3)10
Lot Number:	M2-CR658761
Matrix:	10% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Chromium
Starting Material:	Cr Metal
Starting Material Lot#:	2077
Starting Material Purity:	99.9927%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10035 ± 32 µg/mL

Density: 1.081 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10044 ± 37 µg/mL**
ICP Assay NIST SRM 3112a Lot Number: 030730

Assay Method #2 **10021 ± 50 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2 (u_{char\ a})^2 + (w_b)^2 (u_{char\ b})^2]^{½}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.001096	M	Eu	<	0.002191	O	Na		0.045345	M	Se	<	0.019720	O	Zn	<	0.007572
O	Al		0.006748	O	Fe		0.561414	M	Nb	<	0.076688	n	Si	<		M	Zr	<	0.003287
M	As	<	0.008764	O	Ga	<	0.025240	M	Nd	<	0.000548	M	Sm	<	0.000548				
M	Au	<	0.005476	M	Gd	<	0.000548	M	Ni		0.030226	M	Sn	<	0.028484				
O	B	<	0.025240	M	Ge	<	0.005478	M	Os	<	0.001095	M	Sr	<	0.010955				
M	Ba		0.001757	M	Hf	<	0.000548	i	P	<		M	Ta	<	0.000548				
M	Be	<	0.004382	M	Hg	<	0.003285	M	Pb		0.001757	M	Tb	<	0.000548				
M	Bi	<	0.000548	M	Ho	<	0.000548	M	Pd	<	0.015885	M	Te	<	0.003834				
O	Ca		0.000324	M	In	<	0.002191	M	Pr	<	0.000548	M	Th	<	0.000548				
M	Cd	<	0.001096	M	Ir	<	0.000548	M	Pt	<	0.000548	M	Ti		0.008904				
M	Ce	<	0.000548	O	K		0.035898	i	Rb	<		M	Tl	<	0.000548				
M	Co		0.001289	M	La	<	0.003287	M	Re	<	0.000548	O	Tm	<	0.012620				
s	Cr	<		O	Li	<	0.001514	M	Rh	<	0.025198	M	U	<	0.000548				
M	Cs	<	0.000548	M	Lu	<	0.000548	M	Ru	<	0.021903	O	V		0.047504				
M	Cu		0.002460	O	Mg		0.000729	i	S	<		M	W		0.019565				
M	Dy	<	0.000548	O	Mn		0.005965	M	Sb	<	0.003287	M	Y	<	0.000548				
M	Er	<	0.021911	M	Mo		0.095482	M	Sc	<	0.006573	M	Yb	<	0.000548				

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 52.00 +3 6 $Cr(H_2O)_6^{3+}$
Chemical Compatibility -Stable in HCl, HNO_3, H_2SO_4, HF, H_3PO_4. Avoid basic media. Stable with most metals and inorganic anions in acidic media.
Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO_3 / LDPE container.
Cr3 Containing Samples (Preparation and Solution) -Metal (soluble in HCl); Oxides/Ores (Chrome ore/oxides are very difficult to dissolve. The following procedures [A-D] are commonly used: A. Fusion with $KHSO_4$ and extraction with hot KCl. The residue fused with Na_2CO_3 and $KClO_3$, 3:1. B. Fusion with $NaKSO_4$ and NaF 2:1, C. Fusion with magnesia or lime and sodium or potassium carbonates, 4:1. D. Fusion with Na_2O_2 or NaOH and KNO_3 or NaOH and Na_2O_2. Nickel, iron, copper, or silver crucibles should be used for D. Platinum may be used for A, B, C); Organic Matrices (ash at 4500C followed by one of the fusion methods above or sulfuric/hydrogen peroxide acid digestions may be applicable to non oxide containing samples).
Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 52 amu	40 ppt	N/A	36S16O, 36Ar16O - The 50Cr, 53Cr, 54Cr lines suffer from many more potential interferences from sulfur, chlorine and argon compounds of oxygen, nitrogen and carbon.
ICP-OES 205.552 nm	0.006/0.0008 µg/mL	1	Os
ICP-OES 276.654 nm	0.01/0.001 µg/mL	1	Cu, Ta, V
ICP-OES 284.325 nm	0.008/0.0007 µg/mL	1	

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 08, 2017

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 08, 2021**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician



Certificate Approved By:

Michael Booth
Supervisor, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



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CERTIFICATE OF ANALYSIS

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGPB10
Lot Number:	M2-PB661666
Matrix:	0.5% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Lead
Starting Material:	Lead Nitrate
Starting Material Lot#:	2121
Starting Material Purity:	99.9997%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10065 ± 29 µg/mL

Density: 1.015 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10055 ± 33 µg/mL**
ICP Assay NIST SRM 3128 Lot Number: 101026

Assay Method #2 **10074 ± 32 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2 (u_{char\ a})^2 + (w_b)^2 (u_{char\ b})^2]^{1/2}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000601	M	Eu	<	0.000300	O	Na		0.001404	M	Se	<	0.008727	M	Zn		0.002374
O	Al		0.016054	O	Fe		0.003238	M	Nb	<	0.000300	O	Si		0.011063	M	Zr	<	0.000601
M	As	<	0.001504	M	Ga	<	0.000300	M	Nd	<	0.000300	M	Sm	<	0.000300				
M	Au	<	0.003307	M	Gd	<	0.000300	O	Ni	<	0.001442	M	Sn	<	0.000300				
M	B	<	0.003310	M	Ge	<	0.000300	M	Os	<	0.000300	M	Sr	<	0.000601				
O	Ba		0.003809	M	Hf	<	0.000300	O	P	<	0.020249	M	Ta	<	0.000300				
O	Be	<	0.000156	M	Hg	<	0.000300	s	Pb	<		M	Tb	<	0.000300				
O	Bi	<	0.041600	M	Ho	<	0.000300	M	Pd	<	0.000300	M	Te	<	0.005718				
O	Ca		0.009254	M	In	<	0.001805	M	Pr	<	0.000300	M	Th	<	0.000300				
M	Cd	<	0.000300	M	Ir	<	0.000300	M	Pt	<	0.000300	O	Ti		0.001080				
M	Ce	<	0.000300	O	K		0.003071	M	Rb	<	0.000300	M	Tl	<	0.005417				
M	Co	<	0.000300	M	La	<	0.000300	M	Re	<	0.000300	M	Tm	<	0.000300				
M	Cr	<	0.000902	O	Li	<	0.000225	O	Rh	<	0.011648	M	U	<	0.000300				
M	Cs		0.000928	M	Lu	<	0.000300	M	Ru	<	0.000300	M	V	<	0.000300				
M	Cu	<	0.000300	O	Mg		0.001036	O	S	<	0.031200	M	W	<	0.000601				
M	Dy	<	0.000300	M	Mn	<	0.000601	M	Sb	<	0.000601	M	Y	<	0.000300				
M	Er	<	0.000300	M	Mo	<	0.000300	M	Sc	<	0.000300	M	Yb	<	0.000300				

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 207.20 +2 6 $Pb(H_2O)_6^{+2}$
Chemical Compatibility - Soluble in HCl, HF and HNO_3. Avoid H_2SO_4. Stable with most metals and inorganic anions forming insoluble carbonate, borate, sulfate, sulfite, sulfide, phosphate, oxalate, chromate, tannate, iodate, and cyanide in neutral aqueous media.
Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO_3 / LDPE container.
Pb Containing Samples (Preparation and Solution) -Metal (Best dissolved in 1:1 H_2O / HNO_3); Oxides (The many different Pb oxides are soluble in HNO_3 with the exception of PbO_2 which is soluble in HCl or HF); Ores and Alloys (Best attacked using 1:1 H_2O / HNO_3); Organic Matrices (Dry ash and dissolve in dilute HCl).
Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 208 amu	5 ppt	n/a	192Pt16O, 192Os16O
ICP-OES 168.215 nm	0.03 / 0.003 µg/mL	1	Co
ICP-OES 217.000 nm	0.09 / 0.03 µg/mL	1	W, Ir, Hf, Sb, Th
ICP-OES 220.353 nm	0.04 / 0.006 µg/mL	1	Bi, Nb

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

October 26, 2017

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **October 26, 2021**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Joseph Burns
Supervisor, Product Documentation



Certificate Approved By:

Lesley Owens
Senior Research Chemist



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



INORGANIC VENTURES
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CERTIFICATE OF ANALYSIS

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	AR-ICVMS-3
Lot Number:	N2-MEB668116
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	250 µg/mL ea:

Aluminum,	Calcium,	Iron,
Potassium,	Magnesium,	Sodium,

4 µg/mL ea:
Selenium,

2.5 µg/mL ea:

Thorium,	Thallium,	Uranium,
Vanadium,	Zinc,	Manganese,
Cadmium,	Cobalt,	Chromium,
Copper,	Arsenic,	Barium,
Beryllium,	Nickel,	Lead,
Silver		

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	250.0 ± 0.9 µg/mL	Arsenic, As	2.501 ± 0.022 µg/mL
Barium, Ba	2.501 ± 0.014 µg/mL	Beryllium, Be	2.500 ± 0.016 µg/mL
Cadmium, Cd	2.500 ± 0.019 µg/mL	Calcium, Ca	250.0 ± 1.3 µg/mL
Chromium, Cr	2.500 ± 0.017 µg/mL	Cobalt, Co	2.500 ± 0.014 µg/mL
Copper, Cu	2.500 ± 0.012 µg/mL	Iron, Fe	250.1 ± 1.0 µg/mL
Lead, Pb	2.501 ± 0.013 µg/mL	Magnesium, Mg	250.0 ± 1.3 µg/mL
Manganese, Mn	2.500 ± 0.012 µg/mL	Nickel, Ni	2.500 ± 0.013 µg/mL
Potassium, K	250.0 ± 1.2 µg/mL	Selenium, Se	4.000 ± 0.020 µg/mL
Silver, Ag	2.500 ± 0.020 µg/mL	Sodium, Na	250.0 ± 1.2 µg/mL
Thallium, Tl	2.499 ± 0.017 µg/mL	Thorium, Th	2.500 ± 0.014 µg/mL
Uranium, U	2.501 ± 0.020 µg/mL	Vanadium, V	2.500 ± 0.013 µg/mL
Zinc, Zn	2.501 ± 0.013 µg/mL		

Density: 1.044 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
Ba	ICP Assay	3104a	070222
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3113	000630 Co
Co	EDTA	928	928
Cr	ICP Assay	3112a	030730Cr3
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Th	EDTA	928	928
Th	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	993012
Tl	Calculated		See Sec. 4.2
U	ICP Assay	3164	891509
U	Calculated		See Sec. 4.2
V	EDTA	928	928
V	ICP Assay	3165	992706
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2 (u_{char\ a})^2 + (w_b)^2 (u_{char\ b})^2]^{1/2}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Uranium 238U	99.7 ± 0.1
Uranium 235U	0.29 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Low Silver Note: This solution contains “LOW” levels of Silver. Please store this entire bottle inside a sealed glass jar.

Uranium Note: If uranium is present in this standard, it is natural abundance unless specified in Section 3

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 17, 2018

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 17, 2021**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Supervisor, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6020A UCT-KED

Dissolved Metals

LDW18-SP-RB1

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-01	SDG:	18F0185
Sampled:	06/11/18 16:12	Prepared:	06/15/18 05:21	File ID:	XDT_m2180618-092
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/18/18 21:18
Batch:	BGF0364	Sequence:	SGF0239	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00044

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic, Dissolved	0.200	1	0.0220	0.200	U
7440-43-9	Cadmium, Dissolved	0.100	1	0.0300	0.100	U
7440-50-8	Copper, Dissolved	0.701	1	0.340	0.500	
7440-66-6	Zinc, Dissolved	1.45	1	0.820	4.00	J

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Dissolved Metals

LDW18-SP-30

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-03	SDG:	18F0185
Sampled:	06/12/18 12:06	Prepared:	06/15/18 05:21	File ID:	XDT_m1180619-112
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/19/18 21:13
Batch:	BGF0364	Sequence:	SGF0262	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00048

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic, Dissolved	1.37	5	0.110	1.00	D
7440-43-9	Cadmium, Dissolved	0.500	5	0.150	0.500	U
7440-50-8	Copper, Dissolved	2.50	5	1.70	2.50	U
7440-66-6	Zinc, Dissolved	7.48	5	4.10	20.0	J, D

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Dissolved Metals

LDW18-SP-32

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-04	SDG:	18F0185
Sampled:	06/12/18 09:19	Prepared:	06/15/18 05:21	File ID:	XDT_m1180619-113
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/19/18 21:16
Batch:	BGF0364	Sequence:	SGF0262	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00048

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-43-9	Cadmium, Dissolved	0.500	5	0.150	0.500	U

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Dissolved Metals

LDW18-SP-32

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-04	SDG:	18F0185
Sampled:	06/12/18 09:19	Prepared:	06/15/18 05:21	File ID:	XDT_m2180625-041
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/25/18 15:28
Batch:	BGF0364	Sequence:	SGF0319	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00060

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic, Dissolved	1.18	10	0.220	2.00	J, D
7440-50-8	Copper, Dissolved	5.00	10	3.40	5.00	U
7440-66-6	Zinc, Dissolved	40.0	10	8.20	40.0	U

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Dissolved Metals

LDW18-SP-35

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-05	SDG:	18F0185
Sampled:	06/12/18 10:56	Prepared:	06/15/18 05:21	File ID:	XDT_m1180619-114
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/19/18 21:20
Batch:	BGF0364	Sequence:	SGF0262	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00048

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-43-9	Cadmium, Dissolved	0.500	5	0.150	0.500	U

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Dissolved Metals

LDW18-SP-35

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-05	SDG:	18F0185
Sampled:	06/12/18 10:56	Prepared:	06/15/18 05:21	File ID:	XDT_m2180625-042
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/25/18 15:32
Batch:	BGF0364	Sequence:	SGF0319	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00060

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic, Dissolved	1.67	10	0.220	2.00	J, D
7440-50-8	Copper, Dissolved	5.00	10	3.40	5.00	U
7440-66-6	Zinc, Dissolved	33.5	10	8.20	40.0	J, D

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Dissolved Metals

LDW18-SP-38

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-06	SDG:	18F0185
Sampled:	06/12/18 10:27	Prepared:	06/15/18 05:21	File ID:	XDT_m1180619-115
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/19/18 21:24
Batch:	BGF0364	Sequence:	SGF0262	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00048

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-43-9	Cadmium, Dissolved	0.500	5	0.150	0.500	U

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Dissolved Metals

LDW18-SP-38

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-06	SDG:	18F0185
Sampled:	06/12/18 10:27	Prepared:	06/15/18 05:21	File ID:	XDT_m2180625-043
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/25/18 15:37
Batch:	BGF0364	Sequence:	SGF0319	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00060

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic, Dissolved	1.42	10	0.220	2.00	J, D
7440-50-8	Copper, Dissolved	5.00	10	3.40	5.00	U
7440-66-6	Zinc, Dissolved	8.55	10	8.20	40.0	J, D

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Dissolved Metals

LDW18-SP-42

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-07	SDG:	18F0185
Sampled:	06/12/18 12:05	Prepared:	06/15/18 05:21	File ID:	XDT_m2180618-099
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/18/18 21:55
Batch:	BGF0364	Sequence:	SGF0239	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00044

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-43-9	Cadmium, Dissolved	0.100	1	0.0300	0.100	U

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Dissolved Metals

LDW18-SP-42

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-07	SDG:	18F0185
Sampled:	06/12/18 12:05	Prepared:	06/15/18 05:21	File ID:	XDT_m1180620-117
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/20/18 20:48
Batch:	BGF0364	Sequence:	SGF0278	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00049

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-50-8	Copper, Dissolved	1.80	5	1.70	2.50	J, D
7440-66-6	Zinc, Dissolved	7.41	5	4.10	20.0	J, D

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Dissolved Metals

LDW18-SP-42

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-07	SDG:	18F0185
Sampled:	06/12/18 12:05	Prepared:	06/15/18 05:21	File ID:	XDT_m1180622-052
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/22/18 16:33
Batch:	BGF0364	Sequence:	SGF0310	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS1			Calibration:	BF00056

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic, Dissolved	1.44	5	0.110	1.00	D

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Dissolved Metals

LDW18-SP-43

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-08	SDG:	18F0185
Sampled:	06/12/18 13:00	Prepared:	06/15/18 05:21	File ID:	XDT_m2180625-044
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/25/18 15:41
Batch:	BGF0364	Sequence:	SGF0319	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00060

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic, Dissolved	0.710	5	0.110	1.00	J, D
7440-43-9	Cadmium, Dissolved	0.500	5	0.150	0.500	U
7440-50-8	Copper, Dissolved	2.50	5	1.70	2.50	U
7440-66-6	Zinc, Dissolved	12.8	5	4.10	20.0	J, D

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EPA 6020A UCT-KED

Dissolved Metals

LDW18-SP-06

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-01	SDG:	18F0185
Sampled:	06/13/18 09:53	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-059
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 14:19
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic, Dissolved	2.21	5	0.110	1.00	D
7440-43-9	Cadmium, Dissolved	0.500	5	0.150	0.500	U
7440-50-8	Copper, Dissolved	2.50	5	1.70	2.50	U
7440-66-6	Zinc, Dissolved	20.0	5	4.10	20.0	U

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Dissolved Metals

LDW18-SP-33

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-02	SDG:	18F0185
Sampled:	06/13/18 12:17	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-043
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 13:04
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic, Dissolved	1.14	5	0.110	1.00	D
7440-43-9	Cadmium, Dissolved	0.500	5	0.150	0.500	U
7440-50-8	Copper, Dissolved	2.15	5	1.70	2.50	J, D
7440-66-6	Zinc, Dissolved	4.49	5	4.10	20.0	J, D

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Dissolved Metals

LDW18-SP-24

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-03	SDG:	18F0185
Sampled:	06/13/18 12:35	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-044
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 13:08
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic, Dissolved	0.510	5	0.110	1.00	J, D
7440-43-9	Cadmium, Dissolved	0.500	5	0.150	0.500	U
7440-50-8	Copper, Dissolved	1.86	5	1.70	2.50	J, D
7440-66-6	Zinc, Dissolved	4.41	5	4.10	20.0	J, D

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Dissolved Metals

LDW18-SP-24-FD

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-04	SDG:	18F0185
Sampled:	06/13/18 12:42	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-045
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 13:13
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic, Dissolved	0.535	5	0.110	1.00	J, D
7440-43-9	Cadmium, Dissolved	0.500	5	0.150	0.500	U
7440-50-8	Copper, Dissolved	2.08	5	1.70	2.50	J, D
7440-66-6	Zinc, Dissolved	4.94	5	4.10	20.0	J, D

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Dissolved Metals

LDW18-SP-05

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-01	SDG:	18F0185
Sampled:	06/14/18 14:08	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-069
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 15:16
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic, Dissolved	1.15	5	0.110	1.00	D
7440-43-9	Cadmium, Dissolved	0.500	5	0.150	0.500	U
7440-50-8	Copper, Dissolved	2.50	5	1.70	2.50	U
7440-66-6	Zinc, Dissolved	7.22	5	4.10	20.0	J, D

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Dissolved Metals

LDW18-SP-57

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-02	SDG:	18F0185
Sampled:	06/14/18 10:41	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-070
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 15:22
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic, Dissolved	1.48	5	0.110	1.00	D
7440-43-9	Cadmium, Dissolved	0.160	5	0.150	0.500	J, D
7440-50-8	Copper, Dissolved	1.84	5	1.70	2.50	J, D
7440-66-6	Zinc, Dissolved	6.54	5	4.10	20.0	J, D

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Dissolved Metals

LDW18-SP-73

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-03	SDG:	18F0185
Sampled:	06/14/18 13:08	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-071
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 15:28
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic, Dissolved	1.57	5	0.110	1.00	D
7440-43-9	Cadmium, Dissolved	0.500	5	0.150	0.500	U
7440-50-8	Copper, Dissolved	3.34	5	1.70	2.50	D
7440-66-6	Zinc, Dissolved	20.0	5	4.10	20.0	U

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Dissolved Metals

LDW18-SP-74

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-04	SDG:	18F0185
Sampled:	06/14/18 13:14	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-072
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 15:34
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic, Dissolved	0.925	5	0.110	1.00	J, D
7440-43-9	Cadmium, Dissolved	0.500	5	0.150	0.500	U
7440-50-8	Copper, Dissolved	2.11	5	1.70	2.50	J, D
7440-66-6	Zinc, Dissolved	9.93	5	4.10	20.0	J, D

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Dissolved Metals

LDW18-SP-77

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-05	SDG:	18F0185
Sampled:	06/14/18 12:10	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-073
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 15:38
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic, Dissolved	0.640	5	0.110	1.00	J, D
7440-43-9	Cadmium, Dissolved	0.500	5	0.150	0.500	U
7440-50-8	Copper, Dissolved	2.50	5	1.70	2.50	U
7440-66-6	Zinc, Dissolved	20.0	5	4.10	20.0	U

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Dissolved Metals

LDW18-SP-78

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-06	SDG:	18F0185
Sampled:	06/14/18 12:04	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-074
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 15:43
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic, Dissolved	0.805	5	0.110	1.00	J, D
7440-43-9	Cadmium, Dissolved	0.500	5	0.150	0.500	U
7440-50-8	Copper, Dissolved	2.00	5	1.70	2.50	J, D
7440-66-6	Zinc, Dissolved	10.5	5	4.10	20.0	J, D

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Dissolved Metals

LDW18-SP-79

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-07	SDG:	18F0185
Sampled:	06/14/18 09:50	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-075
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 15:47
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic, Dissolved	1.27	5	0.110	1.00	D
7440-43-9	Cadmium, Dissolved	0.500	5	0.150	0.500	U
7440-50-8	Copper, Dissolved	2.50	5	1.70	2.50	U
7440-66-6	Zinc, Dissolved	20.0	5	4.10	20.0	U

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Dissolved Metals

LDW18-SP-84

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-08	SDG:	18F0185
Sampled:	06/14/18 09:53	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-076
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 15:52
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic, Dissolved	1.67	5	0.110	1.00	D
7440-43-9	Cadmium, Dissolved	0.500	5	0.150	0.500	U
7440-50-8	Copper, Dissolved	2.30	5	1.70	2.50	J, D
7440-66-6	Zinc, Dissolved	4.44	5	4.10	20.0	J, D

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Dissolved Metals

LDW18-SP-87

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-09	SDG:	18F0185
Sampled:	06/14/18 11:11	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-077
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 15:56
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic, Dissolved	0.720	5	0.110	1.00	J, D
7440-43-9	Cadmium, Dissolved	0.500	5	0.150	0.500	U
7440-50-8	Copper, Dissolved	2.08	5	1.70	2.50	J, D
7440-66-6	Zinc, Dissolved	6.37	5	4.10	20.0	J, D

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Dissolved Metals

LDW18-SP-01

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-01	SDG:	18F0185
Sampled:	06/15/18 11:33	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-078
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 16:01
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic, Dissolved	1.13	5	0.110	1.00	D
7440-43-9	Cadmium, Dissolved	0.500	5	0.150	0.500	U
7440-50-8	Copper, Dissolved	2.50	5	1.70	2.50	U
7440-66-6	Zinc, Dissolved	8.64	5	4.10	20.0	J, D

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Dissolved Metals

LDW18-SP-45

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-02	SDG:	18F0185
Sampled:	06/15/18 13:45	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-081
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 16:20
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic, Dissolved	0.925	5	0.110	1.00	J, D
7440-43-9	Cadmium, Dissolved	0.500	5	0.150	0.500	U
7440-50-8	Copper, Dissolved	3.42	5	1.70	2.50	D
7440-66-6	Zinc, Dissolved	5.49	5	4.10	20.0	J, D

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Dissolved Metals

LDW18-SP-47

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-03	SDG:	18F0185
Sampled:	06/15/18 13:16	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-082
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 16:24
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic, Dissolved	0.835	5	0.110	1.00	J, D
7440-43-9	Cadmium, Dissolved	0.500	5	0.150	0.500	U
7440-50-8	Copper, Dissolved	2.98	5	1.70	2.50	D
7440-66-6	Zinc, Dissolved	7.20	5	4.10	20.0	J, D

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Dissolved Metals

LDW18-SP-66

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-04	SDG:	18F0185
Sampled:	06/15/18 13:25	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-083
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 16:28
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic, Dissolved	2.67	5	0.110	1.00	D
7440-43-9	Cadmium, Dissolved	0.500	5	0.150	0.500	U
7440-50-8	Copper, Dissolved	3.44	5	1.70	2.50	D
7440-66-6	Zinc, Dissolved	20.0	5	4.10	20.0	U

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Dissolved Metals

LDW18-SP-70

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-05	SDG:	18F0185
Sampled:	06/15/18 11:13	Prepared:	06/20/18 04:48	File ID:	XDT_m2180627-059
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/27/18 14:54
Batch:	BGF0478	Sequence:	SGF0355	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00064

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic, Dissolved	1.58	10	0.220	2.00	J, D
7440-43-9	Cadmium, Dissolved	1.00	10	0.300	1.00	U
7440-50-8	Copper, Dissolved	5.00	10	3.40	5.00	U
7440-66-6	Zinc, Dissolved	12.1	10	8.20	40.0	J, D

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Dissolved Metals

LDW18-SP-83

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-06	SDG:	18F0185
Sampled:	06/15/18 12:08	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-085
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 16:37
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic, Dissolved	1.14	5	0.110	1.00	D
7440-43-9	Cadmium, Dissolved	0.500	5	0.150	0.500	U
7440-50-8	Copper, Dissolved	3.17	5	1.70	2.50	D
7440-66-6	Zinc, Dissolved	6.58	5	4.10	20.0	J, D

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Dissolved Metals

LDW18-SP-86

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-07	SDG:	18F0185
Sampled:	06/15/18 12:19	Prepared:	06/20/18 04:48	File ID:	XDT_m2180626-086
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/26/18 16:42
Batch:	BGF0478	Sequence:	SGF0345	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00061

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-43-9	Cadmium, Dissolved	0.500	5	0.150	0.500	U

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Dissolved Metals

LDW18-SP-86

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-07	SDG:	18F0185
Sampled:	06/15/18 12:19	Prepared:	06/20/18 04:48	File ID:	XDT_m2180627-060
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/27/18 14:58
Batch:	BGF0478	Sequence:	SGF0355	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00064

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic, Dissolved	4.48	10	0.220	2.00	D
7440-50-8	Copper, Dissolved	5.00	10	3.40	5.00	U
7440-66-6	Zinc, Dissolved	12.7	10	8.20	40.0	J, D

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Dissolved Metals

LDW18-SP-88

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-08	SDG:	18F0185
Sampled:	06/15/18 10:52	Prepared:	06/20/18 05:07	File ID:	XDT_m2180628-100
% Solids:	0.00	Preparation:	REN_EPA 600/4-79-020 4.1.4 HNO3 matrix	Analyzed:	06/28/18 15:47
Batch:	BGF0480	Sequence:	SGF0392	Initial/Final:	25 mL / 25 mL
Instrument:	ICPMS2			Calibration:	BF00069

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic, Dissolved	4.64	10	0.220	2.00	D
7440-43-9	Cadmium, Dissolved	0.370	10	0.300	1.00	J, D
7440-50-8	Copper, Dissolved	5.00	10	3.40	5.00	U
7440-66-6	Zinc, Dissolved	40.0	10	8.20	40.0	U

PREPARATION BATCH SUMMARY

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGF0364 Batch Matrix: Water Preparation: REN EPA 600/4-79-020 4.1.4 HNO3 matrix

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-RB1	18F0185-01	XDT_m2180618-092	06/15/18 05:21	
LDW18-SP-30	18F0185-03	XDT_m1180619-112	06/15/18 05:21	
LDW18-SP-32	18F0185-04	XDT_m1180619-113	06/15/18 05:21	
LDW18-SP-32	18F0185-04	XDT_m2180625-041	06/15/18 05:21	
LDW18-SP-35	18F0185-05	XDT_m2180625-042	06/15/18 05:21	
LDW18-SP-35	18F0185-05	XDT_m1180619-114	06/15/18 05:21	
LDW18-SP-38	18F0185-06	XDT_m2180625-043	06/15/18 05:21	
LDW18-SP-38	18F0185-06	XDT_m1180619-115	06/15/18 05:21	
LDW18-SP-42	18F0185-07	XDT_m1180620-117	06/15/18 05:21	
LDW18-SP-42	18F0185-07	XDT_m1180622-052	06/15/18 05:21	
LDW18-SP-42	18F0185-07	XDT_m2180618-099	06/15/18 05:21	
LDW18-SP-43	18F0185-08	XDT_m2180625-044	06/15/18 05:21	
Blank	BGF0364-BLK1	XDT_m2180618-051	06/15/18 05:21	
LCS	BGF0364-BS1	XDT_m2180618-059	06/15/18 05:21	
LDW18-SP-43	BGF0364-DUP2	XDT_m2180625-046	06/15/18 05:21	
LDW18-SP-43	BGF0364-MS2	XDT_m2180625-047	06/15/18 05:21	
LDW18-SP-43	BGF0364-MSD2	XDT_m2180625-048	06/15/18 05:21	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Corrective Actions
Inorganic Analyses

Criteria Flagged:		ARI Job No.:	BGF364/18F158
Unacceptable Blank:	☐	Date of Event:	6/18/18
Unacceptable Duplicate:	☐	Client ID:	
Unacceptable Spike:	☑	Method/Element:	ICP-MS / Ca, Mg, Na
Unacceptable Reference:	☐	Prep Code:	REN

Details of Problem/Recommended Corrective Action:
BGF364-BS %R ↑ Minerals

Samples Affected: 18F158(1-8)

Corrective Action Taken: Reprep 18F158(1-8) for Ca, Mg, Na

Analyst Initials: MB **Supervisor:**

Date: 6/18/18 **Date:**

5049F

Revision 007
6/11/10

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Corrective Actions
Inorganic Analyses

Criteria Flagged:		ARI Job No.:	BGF364/18F158
Unacceptable Blank:	☐	Date of Event:	6/18/18
Unacceptable Duplicate:	☐	Client ID:	
Unacceptable Spike:	☑	Method/Element:	ICP-MS / Ca, Mg, Na
Unacceptable Reference:	☐	Prep Code:	REN

Details of Problem/Recommended Corrective Action:
BGF364-BS %R ↑ Minerals

Samples Affected: 18F158(1-8)

Corrective Action Taken: Reprep 18F158(1-8) for Ca, Mg, Na

Analyst Initials: MB **Supervisor:**

Date: 6/18/18 **Date:**

5049F

Revision 007
6/11/10

Analytical Resources, Incorporated
Analytical Chemists and Consultants

PREPARATION BATCH SUMMARY

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGF0478 Batch Matrix: Water Preparation: REN EPA 600/4-79-020 4.1.4 HNO3 matrix

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-06	18F0208-01	XDT_m2180626-059	06/20/18 04:48	
LDW18-SP-33	18F0208-02	XDT_m2180626-043	06/20/18 04:48	
LDW18-SP-24	18F0208-03	XDT_m2180626-044	06/20/18 04:48	
LDW18-SP-24-FD	18F0208-04	XDT_m2180626-045	06/20/18 04:48	
LDW18-SP-05	18F0226-01	XDT_m2180626-069	06/20/18 04:48	
LDW18-SP-57	18F0226-02	XDT_m2180626-070	06/20/18 04:48	
LDW18-SP-73	18F0226-03	XDT_m2180626-071	06/20/18 04:48	
LDW18-SP-74	18F0226-04	XDT_m2180626-072	06/20/18 04:48	
LDW18-SP-77	18F0226-05	XDT_m2180626-073	06/20/18 04:48	
LDW18-SP-78	18F0226-06	XDT_m2180626-074	06/20/18 04:48	
LDW18-SP-79	18F0226-07	XDT_m2180626-075	06/20/18 04:48	
LDW18-SP-84	18F0226-08	XDT_m2180626-076	06/20/18 04:48	
LDW18-SP-87	18F0226-09	XDT_m2180626-077	06/20/18 04:48	
LDW18-SP-01	18F0248-01	XDT_m2180626-078	06/20/18 04:48	
LDW18-SP-45	18F0248-02	XDT_m2180626-081	06/20/18 04:48	
LDW18-SP-47	18F0248-03	XDT_m2180626-082	06/20/18 04:48	
LDW18-SP-66	18F0248-04	XDT_m2180626-083	06/20/18 04:48	
LDW18-SP-70	18F0248-05	XDT_m2180627-059	06/20/18 04:48	
LDW18-SP-83	18F0248-06	XDT_m2180626-085	06/20/18 04:48	
LDW18-SP-86	18F0248-07	XDT_m2180627-060	06/20/18 04:48	
LDW18-SP-86	18F0248-07	XDT_m2180626-086	06/20/18 04:48	
Blank	BGF0478-BLK1	XDT_m2180626-041	06/20/18 04:48	
Blank	BGF0478-BLK1	XDT_m2180626-041	06/20/18 04:48	
Blank	BGF0478-BLK1	XDT_m2180626-041	06/20/18 04:48	
LCS	BGF0478-BS1	XDT_m2180626-048	06/20/18 04:48	
LCS	BGF0478-BS1	XDT_m2180626-048	06/20/18 04:48	
LCS	BGF0478-BS1	XDT_m2180626-048	06/20/18 04:48	
LDW18-SP-06	BGF0478-DUP1	XDT_m2180626-058	06/20/18 04:48	
LDW18-SP-06	BGF0478-DUP1	XDT_m2180626-058	06/20/18 04:48	
LDW18-SP-06	BGF0478-DUP1	XDT_m2180626-058	06/20/18 04:48	
LDW18-SP-06	BGF0478-MS1	XDT_m2180626-060	06/20/18 04:48	
LDW18-SP-06	BGF0478-MS1	XDT_m2180626-060	06/20/18 04:48	
LDW18-SP-06	BGF0478-MS1	XDT_m2180626-060	06/20/18 04:48	

PREPARATION BATCH SUMMARY

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGF0480 Batch Matrix: Water Preparation: REN EPA 600/4-79-020 4.1.4 HNO3 matrix

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-88	18F0248-08	XDT_m2180628-100	06/20/18 05:07	
Blank	BGF0480-BLK1	XDT_m2180628-046	06/20/18 05:07	
LCS	BGF0480-BS1	XDT_m2180628-054	06/20/18 05:07	
LDW18-SP-88	BGF0480-DUP1	XDT_m2180628-099	06/20/18 05:07	
LDW18-SP-88	BGF0480-MS1	XDT_m2180628-101	06/20/18 05:07	

Form I

METHOD BLANK DATA SHEET

EPA 6020A UCT-KED

Dissolved Metals

Blank

Batch: BGF0364 Laboratory ID: BGF0364-BLK1 Prepared: 06/15/18 05:21

Matrix: Water Preparation: REN_EPA 600/4-79-020 4 Analyzed: 06/18/18 17:49

Sequence: SGF0239 Calibration: BF00044 Instrument: ICPMS2

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic-75a	ND	1	0.0220	0.200	U
7440-43-9	Cadmium-111	ND	1	0.0300	0.100	U
7440-43-9	Cadmium-114	ND	1	0.0400	0.100	U
7440-50-8	Copper-63	ND	1	0.340	0.500	U
7440-50-8	Copper-65	ND	1	0.350	0.500	U
7440-66-6	Zinc-66	ND	1	0.820	4.00	U
7440-66-6	Zinc-67	ND	1	0.940	4.00	U

Form I

METHOD BLANK DATA SHEET

EPA 6020A UCT-KED

Dissolved Metals

Blank

Batch: BGF0478 Laboratory ID: BGF0478-BLK1 Prepared: 06/20/18 04:48

Matrix: Water Preparation: REN_EPA 600/4-79-020 4 Analyzed: 06/26/18 12:55

Sequence: SGF0345 Calibration: BF00061 Instrument: ICPMS2

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic-75a	ND	1	0.0220	0.200	U
7440-43-9	Cadmium-111	ND	1	0.0300	0.100	U
7440-43-9	Cadmium-114	ND	1	0.0400	0.100	U
7440-50-8	Copper-63	ND	1	0.340	0.500	U
7440-50-8	Copper-65	ND	1	0.350	0.500	U
7440-66-6	Zinc-66	ND	1	0.820	4.00	U
7440-66-6	Zinc-67	ND	1	0.940	4.00	U

Form I

METHOD BLANK DATA SHEET

EPA 6020A UCT-KED

Dissolved Metals

Blank

Batch: BGF0480 Laboratory ID: BGF0480-BLK1 Prepared: 06/20/18 05:07

Matrix: Water Preparation: REN_EPA 600/4-79-020 4 Analyzed: 06/28/18 11:04

Sequence: SGF0392 Calibration: BF00069 Instrument: ICPMS2

CAS NO.	Analyte	Concentration (ug/L)	Dilution Factor	MDL	MRL	Q
7440-38-2	Arsenic-75a	ND	1	0.0220	0.200	U
7440-43-9	Cadmium-111	ND	1	0.0300	0.100	U
7440-43-9	Cadmium-114	ND	1	0.0400	0.100	U
7440-50-8	Copper-63	ND	1	0.340	0.500	U
7440-50-8	Copper-65	ND	1	0.350	0.500	U
7440-66-6	Zinc-66	ND	1	0.820	4.00	U
7440-66-6	Zinc-67	ND	1	0.940	4.00	U

DUPLICATES

EPA 6020A UCT-KED

Dissolved Metals

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Matrix: Water
Laboratory ID: BGF0364-DUP2
Batch: BGF0364
Lab Source ID: 18F0185-08
Preparation: REN EPA 600/4-79-020 4.1.4 HNO3 matrix
Initial/Final: 25 mL / 25 mL
Source Sample Name: LDW18-SP-43
% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Arsenic-75a (dissolved)	20	0.710	0.670	5.80	
Cadmium-111 (dissolved)	20	ND	ND		
Copper-63 (dissolved)	20	ND	ND		
Zinc-66 (dissolved)	20	12.8	12.9	1.40	

*: Values outside of QC limits
L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD

DUPLICATES

EPA 6020A UCT-KED

Dissolved Metals

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Matrix: Water
Laboratory ID: BGF0478-DUP1
Batch: BGF0478
Lab Source ID: 18F0208-01
Preparation: REN EPA 600/4-79-020 4.1.4 HNO3 matrix
Initial/Final: 25 mL / 25 mL
Source Sample Name: LDW18-SP-06
% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Arsenic-75a (dissolved)	20	2.21	2.50	12.1	
Cadmium-111 (dissolved)	20	ND	ND		
Copper-63 (dissolved)	20	ND	ND		
Zinc-66 (dissolved)	20	ND	ND		

*: Values outside of QC limits
L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD

DUPLICATES

EPA 6020A UCT-KED

Dissolved Metals

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Matrix: Water
Laboratory ID: BGF0480-DUP1
Batch: BGF0480
Lab Source ID: 18F0248-08
Preparation: REN EPA 600/4-79-020 4.1.4 HNO3 matrix
Initial/Final: 25 mL / 25 mL
Source Sample Name: LDW18-SP-88
% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Arsenic-75a (dissolved)	20	4.64	4.63	0.216	
Cadmium-111 (dissolved)	20	0.370	0.410	10.3	
Copper-63 (dissolved)	20	ND	ND		
Zinc-66 (dissolved)	20	ND	ND		

*: Values outside of QC limits
L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD

INSTRUMENT BLANKS
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Instrument ID: ICPMS2
Sequence: SGF0239

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Calibration: BF00044
Date Analyzed: 06/18/18 14:15

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0239-IBL1	Arsenic-75a (dissolved)	0.00100	0.022	0.200	ug/L	
SGF0239-IBL1	Cadmium-111 (dissolved)	-0.00300	0.03	0.100	ug/L	
SGF0239-IBL1	Cadmium-114 (dissolved)	0.00100	0.04	0.100	ug/L	
SGF0239-IBL1	Copper-63 (dissolved)	-0.00500	0.34	0.500	ug/L	
SGF0239-IBL1	Copper-65 (dissolved)	-0.00800	0.35	0.500	ug/L	
SGF0239-IBL1	Zinc-66 (dissolved)	-0.0330	0.82	4.00	ug/L	
SGF0239-IBL1	Zinc-67 (dissolved)	-0.0740	0.94	4.00	ug/L	
SGF0239-ICB1	Arsenic-75a (dissolved)	-0.00200	0.022	0.200	ug/L	
SGF0239-ICB1	Cadmium-111 (dissolved)	-0.00300	0.03	0.100	ug/L	
SGF0239-ICB1	Cadmium-114 (dissolved)	-0.00300	0.04	0.100	ug/L	
SGF0239-ICB1	Copper-63 (dissolved)	-0.00300	0.34	0.500	ug/L	
SGF0239-ICB1	Copper-65 (dissolved)	-0.00800	0.35	0.500	ug/L	
SGF0239-ICB1	Zinc-66 (dissolved)	0.0010	0.82	4.00	ug/L	
SGF0239-ICB1	Zinc-67 (dissolved)	0.0580	0.94	4.00	ug/L	
SGF0239-CCB1	Arsenic-75a (dissolved)	-0.00200	0.022	0.200	ug/L	
SGF0239-CCB1	Cadmium-111 (dissolved)	0.00500	0.03	0.100	ug/L	
SGF0239-CCB1	Cadmium-114 (dissolved)	-0.00300	0.04	0.100	ug/L	
SGF0239-CCB1	Copper-63 (dissolved)	-0.00600	0.34	0.500	ug/L	
SGF0239-CCB1	Copper-65 (dissolved)	-0.00600	0.35	0.500	ug/L	
SGF0239-CCB1	Zinc-66 (dissolved)	-0.0230	0.82	4.00	ug/L	
SGF0239-CCB1	Zinc-67 (dissolved)	-0.0340	0.94	4.00	ug/L	
SGF0239-IBL2	Arsenic-75a (dissolved)	0.00600	0.022	0.200	ug/L	
SGF0239-IBL2	Cadmium-111 (dissolved)	0.382	0.03	0.100	ug/L	
SGF0239-IBL2	Cadmium-114 (dissolved)	0.374	0.04	0.100	ug/L	
SGF0239-IBL2	Copper-63 (dissolved)	0.00600	0.34	0.500	ug/L	
SGF0239-IBL2	Copper-65 (dissolved)	0.00600	0.35	0.500	ug/L	
SGF0239-IBL2	Zinc-66 (dissolved)	0.154	0.82	4.00	ug/L	
SGF0239-IBL2	Zinc-67 (dissolved)	0.107	0.94	4.00	ug/L	
SGF0239-IBL3	Arsenic-75a (dissolved)	0.00	0.022	0.200	ug/L	
SGF0239-IBL3	Cadmium-111 (dissolved)	0.00600	0.03	0.100	ug/L	
SGF0239-IBL3	Cadmium-114 (dissolved)	0.00100	0.04	0.100	ug/L	
SGF0239-IBL3	Copper-63 (dissolved)	0.00700	0.34	0.500	ug/L	
SGF0239-IBL3	Copper-65 (dissolved)	0.00500	0.35	0.500	ug/L	
SGF0239-IBL3	Zinc-66 (dissolved)	0.149	0.82	4.00	ug/L	

INSTRUMENT BLANKS
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Instrument ID: ICPMS2
Sequence: SGF0239

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Calibration: BF00044
Date Analyzed: 06/18/18 15:25

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0239-IBL3	Zinc-67 (dissolved)	0.143	0.94	4.00	ug/L	
SGF0239-CCB2	Arsenic-75a (dissolved)	0.00500	0.022	0.200	ug/L	
SGF0239-CCB2	Cadmium-111 (dissolved)	0.00500	0.03	0.100	ug/L	
SGF0239-CCB2	Cadmium-114 (dissolved)	-0.00100	0.04	0.100	ug/L	
SGF0239-CCB2	Copper-63 (dissolved)	-0.00400	0.34	0.500	ug/L	
SGF0239-CCB2	Copper-65 (dissolved)	-0.00500	0.35	0.500	ug/L	
SGF0239-CCB2	Zinc-66 (dissolved)	-0.0250	0.82	4.00	ug/L	
SGF0239-CCB2	Zinc-67 (dissolved)	-0.0520	0.94	4.00	ug/L	
SGF0239-CCB3	Arsenic-75a (dissolved)	0.00400	0.022	0.200	ug/L	
SGF0239-CCB3	Cadmium-111 (dissolved)	0.00	0.03	0.100	ug/L	
SGF0239-CCB3	Cadmium-114 (dissolved)	0.00	0.04	0.100	ug/L	
SGF0239-CCB3	Copper-63 (dissolved)	-0.00200	0.34	0.500	ug/L	
SGF0239-CCB3	Copper-65 (dissolved)	-0.00200	0.35	0.500	ug/L	
SGF0239-CCB3	Zinc-66 (dissolved)	-0.0290	0.82	4.00	ug/L	
SGF0239-CCB3	Zinc-67 (dissolved)	0.0190	0.94	4.00	ug/L	
SGF0239-CCB4	Arsenic-75a (dissolved)	0.00600	0.022	0.200	ug/L	
SGF0239-CCB4	Cadmium-111 (dissolved)	0.00	0.03	0.100	ug/L	
SGF0239-CCB4	Cadmium-114 (dissolved)	-0.00300	0.04	0.100	ug/L	
SGF0239-CCB4	Copper-63 (dissolved)	0.00300	0.34	0.500	ug/L	
SGF0239-CCB4	Copper-65 (dissolved)	0.00300	0.35	0.500	ug/L	
SGF0239-CCB4	Zinc-66 (dissolved)	-0.0160	0.82	4.00	ug/L	
SGF0239-CCB4	Zinc-67 (dissolved)	-0.0210	0.94	4.00	ug/L	
SGF0239-CCB5	Arsenic-75a (dissolved)	0.00100	0.022	0.200	ug/L	
SGF0239-CCB5	Cadmium-111 (dissolved)	0.00	0.03	0.100	ug/L	
SGF0239-CCB5	Cadmium-114 (dissolved)	0.00100	0.04	0.100	ug/L	
SGF0239-CCB5	Copper-63 (dissolved)	-0.00400	0.34	0.500	ug/L	
SGF0239-CCB5	Copper-65 (dissolved)	-0.00300	0.35	0.500	ug/L	
SGF0239-CCB5	Zinc-66 (dissolved)	-0.0260	0.82	4.00	ug/L	
SGF0239-CCB5	Zinc-67 (dissolved)	-0.0040	0.94	4.00	ug/L	
SGF0239-CCB6	Arsenic-75a (dissolved)	0.00	0.022	0.200	ug/L	
SGF0239-CCB6	Cadmium-111 (dissolved)	-0.00200	0.03	0.100	ug/L	
SGF0239-CCB6	Cadmium-114 (dissolved)	-0.00100	0.04	0.100	ug/L	
SGF0239-CCB6	Copper-63 (dissolved)	-0.00500	0.34	0.500	ug/L	
SGF0239-CCB6	Copper-65 (dissolved)	-0.00700	0.35	0.500	ug/L	

INSTRUMENT BLANKS
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00044
Sequence: SGF0239
Date Analyzed: 06/18/18 19:50

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0239-CCB6	Zinc-66 (dissolved)	-0.0870	0.82	4.00	ug/L	
SGF0239-CCB6	Zinc-67 (dissolved)	-0.0370	0.94	4.00	ug/L	
SGF0239-CCB7	Arsenic-75a (dissolved)	0.00400	0.022	0.200	ug/L	
SGF0239-CCB7	Cadmium-111 (dissolved)	0.00200	0.03	0.100	ug/L	
SGF0239-CCB7	Cadmium-114 (dissolved)	0.00100	0.04	0.100	ug/L	
SGF0239-CCB7	Copper-63 (dissolved)	0.00300	0.34	0.500	ug/L	
SGF0239-CCB7	Copper-65 (dissolved)	-0.00700	0.35	0.500	ug/L	
SGF0239-CCB7	Zinc-66 (dissolved)	-0.0840	0.82	4.00	ug/L	
SGF0239-CCB7	Zinc-67 (dissolved)	-0.0830	0.94	4.00	ug/L	
SGF0239-CCB8	Arsenic-75a (dissolved)	0.00500	0.022	0.200	ug/L	
SGF0239-CCB8	Cadmium-111 (dissolved)	0.00	0.03	0.100	ug/L	
SGF0239-CCB8	Cadmium-114 (dissolved)	0.00	0.04	0.100	ug/L	
SGF0239-CCB8	Copper-63 (dissolved)	0.00200	0.34	0.500	ug/L	
SGF0239-CCB8	Copper-65 (dissolved)	-0.00300	0.35	0.500	ug/L	
SGF0239-CCB8	Zinc-66 (dissolved)	-0.0880	0.82	4.00	ug/L	
SGF0239-CCB8	Zinc-67 (dissolved)	-0.0790	0.94	4.00	ug/L	
SGF0239-CCB9	Arsenic-75a (dissolved)	-0.00100	0.022	0.200	ug/L	
SGF0239-CCB9	Cadmium-111 (dissolved)	0.00300	0.03	0.100	ug/L	
SGF0239-CCB9	Cadmium-114 (dissolved)	-0.00400	0.04	0.100	ug/L	
SGF0239-CCB9	Copper-63 (dissolved)	-0.00100	0.34	0.500	ug/L	
SGF0239-CCB9	Copper-65 (dissolved)	-0.00400	0.35	0.500	ug/L	
SGF0239-CCB9	Zinc-66 (dissolved)	-0.0780	0.82	4.00	ug/L	
SGF0239-CCB9	Zinc-67 (dissolved)	-0.0800	0.94	4.00	ug/L	

INSTRUMENT BLANKS
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00048
Sequence: SGF0262
Date Analyzed: 06/19/18 13:35

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0262-IBL1	Arsenic-75a (dissolved)	-0.0120	0.022	0.200	ug/L	
SGF0262-IBL1	Cadmium-111 (dissolved)	0.0150	0.03	0.100	ug/L	
SGF0262-IBL1	Cadmium-114 (dissolved)	0.00700	0.04	0.100	ug/L	
SGF0262-IBL1	Copper-63 (dissolved)	-0.0110	0.34	0.500	ug/L	
SGF0262-IBL1	Copper-65 (dissolved)	-0.00800	0.35	0.500	ug/L	
SGF0262-IBL1	Zinc-66 (dissolved)	-0.0390	0.82	4.00	ug/L	
SGF0262-IBL1	Zinc-67 (dissolved)	0.0010	0.94	4.00	ug/L	
SGF0262-ICB1	Arsenic-75a (dissolved)	-0.00900	0.022	0.200	ug/L	
SGF0262-ICB1	Cadmium-111 (dissolved)	0.00500	0.03	0.100	ug/L	
SGF0262-ICB1	Cadmium-114 (dissolved)	0.00200	0.04	0.100	ug/L	
SGF0262-ICB1	Copper-63 (dissolved)	-0.00800	0.34	0.500	ug/L	
SGF0262-ICB1	Copper-65 (dissolved)	-0.00700	0.35	0.500	ug/L	
SGF0262-ICB1	Zinc-66 (dissolved)	-0.0270	0.82	4.00	ug/L	
SGF0262-ICB1	Zinc-67 (dissolved)	0.0730	0.94	4.00	ug/L	
SGF0262-CCB1	Arsenic-75a (dissolved)	-0.00900	0.022	0.200	ug/L	
SGF0262-CCB1	Cadmium-111 (dissolved)	0.0550	0.03	0.100	ug/L	
SGF0262-CCB1	Cadmium-114 (dissolved)	0.00800	0.04	0.100	ug/L	
SGF0262-CCB1	Copper-63 (dissolved)	-0.00900	0.34	0.500	ug/L	
SGF0262-CCB1	Copper-65 (dissolved)	-0.0130	0.35	0.500	ug/L	
SGF0262-CCB1	Zinc-66 (dissolved)	-0.0310	0.82	4.00	ug/L	
SGF0262-CCB1	Zinc-67 (dissolved)	0.0890	0.94	4.00	ug/L	
SGF0262-IBL2	Arsenic-75a (dissolved)	0.0100	0.022	0.200	ug/L	
SGF0262-IBL2	Cadmium-111 (dissolved)	0.0230	0.03	0.100	ug/L	
SGF0262-IBL2	Cadmium-114 (dissolved)	0.0140	0.04	0.100	ug/L	
SGF0262-IBL2	Copper-63 (dissolved)	0.0170	0.34	0.500	ug/L	
SGF0262-IBL2	Copper-65 (dissolved)	0.0200	0.35	0.500	ug/L	
SGF0262-IBL2	Zinc-66 (dissolved)	0.199	0.82	4.00	ug/L	
SGF0262-IBL2	Zinc-67 (dissolved)	0.191	0.94	4.00	ug/L	
SGF0262-IBL3	Arsenic-75a (dissolved)	-0.00400	0.022	0.200	ug/L	
SGF0262-IBL3	Cadmium-111 (dissolved)	0.00400	0.03	0.100	ug/L	
SGF0262-IBL3	Cadmium-114 (dissolved)	0.00200	0.04	0.100	ug/L	
SGF0262-IBL3	Copper-63 (dissolved)	0.0130	0.34	0.500	ug/L	
SGF0262-IBL3	Copper-65 (dissolved)	0.00600	0.35	0.500	ug/L	
SGF0262-IBL3	Zinc-66 (dissolved)	0.202	0.82	4.00	ug/L	

INSTRUMENT BLANKS
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00048
Sequence: SGF0262
Date Analyzed: 06/19/18 14:35

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0262-IBL3	Zinc-67 (dissolved)	0.189	0.94	4.00	ug/L	
SGF0262-CCB2	Arsenic-75a (dissolved)	-0.00300	0.022	0.200	ug/L	
SGF0262-CCB2	Cadmium-111 (dissolved)	0.00400	0.03	0.100	ug/L	
SGF0262-CCB2	Cadmium-114 (dissolved)	0.00300	0.04	0.100	ug/L	
SGF0262-CCB2	Copper-63 (dissolved)	-0.00900	0.34	0.500	ug/L	
SGF0262-CCB2	Copper-65 (dissolved)	-0.00600	0.35	0.500	ug/L	
SGF0262-CCB2	Zinc-66 (dissolved)	-0.0070	0.82	4.00	ug/L	
SGF0262-CCB2	Zinc-67 (dissolved)	0.0220	0.94	4.00	ug/L	
SGF0262-CCB3	Arsenic-75a (dissolved)	-0.00900	0.022	0.200	ug/L	
SGF0262-CCB3	Cadmium-111 (dissolved)	0.00200	0.03	0.100	ug/L	
SGF0262-CCB3	Cadmium-114 (dissolved)	-0.00200	0.04	0.100	ug/L	
SGF0262-CCB3	Copper-63 (dissolved)	-0.0140	0.34	0.500	ug/L	
SGF0262-CCB3	Copper-65 (dissolved)	-0.0140	0.35	0.500	ug/L	
SGF0262-CCB3	Zinc-66 (dissolved)	-0.0340	0.82	4.00	ug/L	
SGF0262-CCB3	Zinc-67 (dissolved)	0.0070	0.94	4.00	ug/L	
SGF0262-CCB4	Arsenic-75a (dissolved)	0.00100	0.022	0.200	ug/L	
SGF0262-CCB4	Cadmium-111 (dissolved)	0.00700	0.03	0.100	ug/L	
SGF0262-CCB4	Cadmium-114 (dissolved)	0.00700	0.04	0.100	ug/L	
SGF0262-CCB4	Copper-63 (dissolved)	-0.0120	0.34	0.500	ug/L	
SGF0262-CCB4	Copper-65 (dissolved)	-0.00800	0.35	0.500	ug/L	
SGF0262-CCB4	Zinc-66 (dissolved)	-0.0720	0.82	4.00	ug/L	
SGF0262-CCB4	Zinc-67 (dissolved)	-0.0090	0.94	4.00	ug/L	
SGF0262-CCB5	Arsenic-75a (dissolved)	-0.00300	0.022	0.200	ug/L	
SGF0262-CCB5	Cadmium-111 (dissolved)	0.00400	0.03	0.100	ug/L	
SGF0262-CCB5	Cadmium-114 (dissolved)	0.00900	0.04	0.100	ug/L	
SGF0262-CCB5	Copper-63 (dissolved)	-0.00900	0.34	0.500	ug/L	
SGF0262-CCB5	Copper-65 (dissolved)	-0.00900	0.35	0.500	ug/L	
SGF0262-CCB5	Zinc-66 (dissolved)	-0.0130	0.82	4.00	ug/L	
SGF0262-CCB5	Zinc-67 (dissolved)	0.0530	0.94	4.00	ug/L	
SGF0262-CCB6	Arsenic-75a (dissolved)	0.00500	0.022	0.200	ug/L	
SGF0262-CCB6	Cadmium-111 (dissolved)	0.0140	0.03	0.100	ug/L	
SGF0262-CCB6	Cadmium-114 (dissolved)	0.00300	0.04	0.100	ug/L	
SGF0262-CCB6	Copper-63 (dissolved)	0.00300	0.34	0.500	ug/L	
SGF0262-CCB6	Copper-65 (dissolved)	-0.00200	0.35	0.500	ug/L	

INSTRUMENT BLANKS
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00048
Sequence: SGF0262
Date Analyzed: 06/19/18 17:59

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0262-CCB6	Zinc-66 (dissolved)	0.0500	0.82	4.00	ug/L	
SGF0262-CCB6	Zinc-67 (dissolved)	0.0760	0.94	4.00	ug/L	
SGF0262-CCB7	Arsenic-75a (dissolved)	0.0110	0.022	0.200	ug/L	
SGF0262-CCB7	Cadmium-111 (dissolved)	0.00700	0.03	0.100	ug/L	
SGF0262-CCB7	Cadmium-114 (dissolved)	-0.00300	0.04	0.100	ug/L	
SGF0262-CCB7	Copper-63 (dissolved)	0.00200	0.34	0.500	ug/L	
SGF0262-CCB7	Copper-65 (dissolved)	0.00300	0.35	0.500	ug/L	
SGF0262-CCB7	Zinc-66 (dissolved)	0.0360	0.82	4.00	ug/L	
SGF0262-CCB7	Zinc-67 (dissolved)	0.0500	0.94	4.00	ug/L	
SGF0262-CCB8	Arsenic-75a (dissolved)	0.0140	0.022	0.200	ug/L	
SGF0262-CCB8	Cadmium-111 (dissolved)	-0.00800	0.03	0.100	ug/L	
SGF0262-CCB8	Cadmium-114 (dissolved)	0.00	0.04	0.100	ug/L	
SGF0262-CCB8	Copper-63 (dissolved)	-0.00100	0.34	0.500	ug/L	
SGF0262-CCB8	Copper-65 (dissolved)	0.00100	0.35	0.500	ug/L	
SGF0262-CCB8	Zinc-66 (dissolved)	-0.0160	0.82	4.00	ug/L	
SGF0262-CCB8	Zinc-67 (dissolved)	0.0020	0.94	4.00	ug/L	
SGF0262-CCB9	Arsenic-75a (dissolved)	0.0200	0.022	0.200	ug/L	
SGF0262-CCB9	Cadmium-111 (dissolved)	-0.0130	0.03	0.100	ug/L	
SGF0262-CCB9	Cadmium-114 (dissolved)	-0.00400	0.04	0.100	ug/L	
SGF0262-CCB9	Copper-63 (dissolved)	0.00	0.34	0.500	ug/L	
SGF0262-CCB9	Copper-65 (dissolved)	-0.00300	0.35	0.500	ug/L	
SGF0262-CCB9	Zinc-66 (dissolved)	-0.0540	0.82	4.00	ug/L	
SGF0262-CCB9	Zinc-67 (dissolved)	0.0320	0.94	4.00	ug/L	
SGF0262-CCBA	Arsenic-75a (dissolved)	0.0150	0.022	0.200	ug/L	
SGF0262-CCBA	Cadmium-111 (dissolved)	0.00100	0.03	0.100	ug/L	
SGF0262-CCBA	Cadmium-114 (dissolved)	0.00	0.04	0.100	ug/L	
SGF0262-CCBA	Copper-63 (dissolved)	-0.00100	0.34	0.500	ug/L	
SGF0262-CCBA	Copper-65 (dissolved)	-0.00500	0.35	0.500	ug/L	
SGF0262-CCBA	Zinc-66 (dissolved)	-0.0640	0.82	4.00	ug/L	
SGF0262-CCBA	Zinc-67 (dissolved)	0.0060	0.94	4.00	ug/L	
SGF0262-CCBB	Arsenic-75a (dissolved)	0.0110	0.022	0.200	ug/L	
SGF0262-CCBB	Cadmium-111 (dissolved)	-0.0180	0.03	0.100	ug/L	
SGF0262-CCBB	Cadmium-114 (dissolved)	-0.0310	0.04	0.100	ug/L	
SGF0262-CCBB	Copper-63 (dissolved)	0.00800	0.34	0.500	ug/L	

INSTRUMENT BLANKS
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00048
Sequence: SGF0262
Date Analyzed: 06/19/18 21:05

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0262-CCBB	Copper-65 (dissolved)	0.00300	0.35	0.500	ug/L	
SGF0262-CCBB	Zinc-66 (dissolved)	0.0470	0.82	4.00	ug/L	
SGF0262-CCBB	Zinc-67 (dissolved)	0.00	0.94	4.00	ug/L	
SGF0262-CCBC	Arsenic-75a (dissolved)	0.00300	0.022	0.200	ug/L	
SGF0262-CCBC	Cadmium-111 (dissolved)	-0.0200	0.03	0.100	ug/L	
SGF0262-CCBC	Cadmium-114 (dissolved)	-0.0310	0.04	0.100	ug/L	
SGF0262-CCBC	Copper-63 (dissolved)	0.00500	0.34	0.500	ug/L	
SGF0262-CCBC	Copper-65 (dissolved)	0.00100	0.35	0.500	ug/L	
SGF0262-CCBC	Zinc-66 (dissolved)	0.0300	0.82	4.00	ug/L	
SGF0262-CCBC	Zinc-67 (dissolved)	0.0350	0.94	4.00	ug/L	
SGF0262-CCBD	Arsenic-75a (dissolved)	0.0180	0.022	0.200	ug/L	
SGF0262-CCBD	Cadmium-111 (dissolved)	-0.0110	0.03	0.100	ug/L	
SGF0262-CCBD	Cadmium-114 (dissolved)	-0.0270	0.04	0.100	ug/L	
SGF0262-CCBD	Copper-63 (dissolved)	0.00300	0.34	0.500	ug/L	
SGF0262-CCBD	Copper-65 (dissolved)	0.00300	0.35	0.500	ug/L	
SGF0262-CCBD	Zinc-66 (dissolved)	0.0260	0.82	4.00	ug/L	
SGF0262-CCBD	Zinc-67 (dissolved)	0.0100	0.94	4.00	ug/L	

INSTRUMENT BLANKS
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Instrument ID: ICPMS1
Sequence: SGF0278

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Calibration: BF00049
Date Analyzed: 06/20/18 12:53

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0278-IBL1	Copper-63 (dissolved)	0.00200	0.34	0.500	ug/L	
SGF0278-IBL1	Copper-65 (dissolved)	-0.00300	0.35	0.500	ug/L	
SGF0278-IBL1	Zinc-66 (dissolved)	-0.0160	0.82	4.00	ug/L	
SGF0278-IBL1	Zinc-67 (dissolved)	-0.0190	0.94	4.00	ug/L	
SGF0278-ICB1	Copper-63 (dissolved)	0.00200	0.34	0.500	ug/L	
SGF0278-ICB1	Copper-65 (dissolved)	-0.00300	0.35	0.500	ug/L	
SGF0278-ICB1	Zinc-66 (dissolved)	-0.0090	0.82	4.00	ug/L	
SGF0278-ICB1	Zinc-67 (dissolved)	-0.0740	0.94	4.00	ug/L	
SGF0278-CCB1	Copper-63 (dissolved)	0.00500	0.34	0.500	ug/L	
SGF0278-CCB1	Copper-65 (dissolved)	-0.00200	0.35	0.500	ug/L	
SGF0278-CCB1	Zinc-66 (dissolved)	0.0130	0.82	4.00	ug/L	
SGF0278-CCB1	Zinc-67 (dissolved)	-0.0750	0.94	4.00	ug/L	
SGF0278-IBL2	Copper-63 (dissolved)	0.0210	0.34	0.500	ug/L	
SGF0278-IBL2	Copper-65 (dissolved)	0.0220	0.35	0.500	ug/L	
SGF0278-IBL2	Zinc-66 (dissolved)	0.401	0.82	4.00	ug/L	
SGF0278-IBL2	Zinc-67 (dissolved)	0.435	0.94	4.00	ug/L	
SGF0278-IBL3	Copper-63 (dissolved)	0.0200	0.34	0.500	ug/L	
SGF0278-IBL3	Copper-65 (dissolved)	0.0140	0.35	0.500	ug/L	
SGF0278-IBL3	Zinc-66 (dissolved)	0.490	0.82	4.00	ug/L	
SGF0278-IBL3	Zinc-67 (dissolved)	0.419	0.94	4.00	ug/L	
SGF0278-CCB2	Copper-63 (dissolved)	0.00200	0.34	0.500	ug/L	
SGF0278-CCB2	Copper-65 (dissolved)	0.00	0.35	0.500	ug/L	
SGF0278-CCB2	Zinc-66 (dissolved)	-0.0030	0.82	4.00	ug/L	
SGF0278-CCB2	Zinc-67 (dissolved)	-0.0040	0.94	4.00	ug/L	
SGF0278-CCB3	Copper-63 (dissolved)	0.00800	0.34	0.500	ug/L	
SGF0278-CCB3	Copper-65 (dissolved)	0.0140	0.35	0.500	ug/L	
SGF0278-CCB3	Zinc-66 (dissolved)	0.0740	0.82	4.00	ug/L	
SGF0278-CCB3	Zinc-67 (dissolved)	0.194	0.94	4.00	ug/L	
SGF0278-IBL4	Copper-63 (dissolved)	0.166	0.34	0.500	ug/L	
SGF0278-IBL4	Copper-65 (dissolved)	0.205	0.35	0.500	ug/L	
SGF0278-IBL4	Zinc-66 (dissolved)	0.453	0.82	4.00	ug/L	
SGF0278-IBL4	Zinc-67 (dissolved)	-0.111	0.94	4.00	ug/L	
SGF0278-IBL5	Copper-63 (dissolved)	0.00800	0.34	0.500	ug/L	
SGF0278-IBL5	Copper-65 (dissolved)	0.00700	0.35	0.500	ug/L	

INSTRUMENT BLANKS
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00049
Sequence: SGF0278
Date Analyzed: 06/20/18 15:28

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0278-IBL5	Zinc-66 (dissolved)	0.0730	0.82	4.00	ug/L	
SGF0278-IBL5	Zinc-67 (dissolved)	0.0930	0.94	4.00	ug/L	
SGF0278-CCB4	Copper-63 (dissolved)	0.00400	0.34	0.500	ug/L	
SGF0278-CCB4	Copper-65 (dissolved)	0.00	0.35	0.500	ug/L	
SGF0278-CCB4	Zinc-66 (dissolved)	0.0680	0.82	4.00	ug/L	
SGF0278-CCB4	Zinc-67 (dissolved)	0.0580	0.94	4.00	ug/L	
SGF0278-CCB5	Copper-63 (dissolved)	-0.00200	0.34	0.500	ug/L	
SGF0278-CCB5	Copper-65 (dissolved)	-0.00400	0.35	0.500	ug/L	
SGF0278-CCB5	Zinc-66 (dissolved)	-0.0650	0.82	4.00	ug/L	
SGF0278-CCB5	Zinc-67 (dissolved)	0.0150	0.94	4.00	ug/L	
SGF0278-IBL6	Copper-63 (dissolved)	-0.00300	0.34	0.500	ug/L	
SGF0278-IBL6	Copper-65 (dissolved)	-0.00900	0.35	0.500	ug/L	
SGF0278-IBL6	Zinc-66 (dissolved)	-0.113	0.82	4.00	ug/L	
SGF0278-IBL6	Zinc-67 (dissolved)	-0.139	0.94	4.00	ug/L	
SGF0278-CCB6	Copper-63 (dissolved)	0.00	0.34	0.500	ug/L	
SGF0278-CCB6	Copper-65 (dissolved)	-0.00300	0.35	0.500	ug/L	
SGF0278-CCB6	Zinc-66 (dissolved)	-0.0250	0.82	4.00	ug/L	
SGF0278-CCB6	Zinc-67 (dissolved)	0.0340	0.94	4.00	ug/L	
SGF0278-CCB7	Copper-63 (dissolved)	0.00300	0.34	0.500	ug/L	
SGF0278-CCB7	Copper-65 (dissolved)	-0.00200	0.35	0.500	ug/L	
SGF0278-CCB7	Zinc-66 (dissolved)	0.0140	0.82	4.00	ug/L	
SGF0278-CCB7	Zinc-67 (dissolved)	0.0630	0.94	4.00	ug/L	
SGF0278-CCB8	Copper-63 (dissolved)	-0.00300	0.34	0.500	ug/L	
SGF0278-CCB8	Copper-65 (dissolved)	-0.00300	0.35	0.500	ug/L	
SGF0278-CCB8	Zinc-66 (dissolved)	-0.0490	0.82	4.00	ug/L	
SGF0278-CCB8	Zinc-67 (dissolved)	-0.0990	0.94	4.00	ug/L	
SGF0278-CCB9	Copper-63 (dissolved)	-0.00100	0.34	0.500	ug/L	
SGF0278-CCB9	Copper-65 (dissolved)	0.00	0.35	0.500	ug/L	
SGF0278-CCB9	Zinc-66 (dissolved)	-0.0990	0.82	4.00	ug/L	
SGF0278-CCB9	Zinc-67 (dissolved)	-0.0550	0.94	4.00	ug/L	
SGF0278-CCBA	Copper-63 (dissolved)	0.00500	0.34	0.500	ug/L	
SGF0278-CCBA	Copper-65 (dissolved)	0.00700	0.35	0.500	ug/L	
SGF0278-CCBA	Zinc-66 (dissolved)	0.0040	0.82	4.00	ug/L	
SGF0278-CCBA	Zinc-67 (dissolved)	0.0590	0.94	4.00	ug/L	

INSTRUMENT BLANKS
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00049
Sequence: SGF0278
Date Analyzed: 06/20/18 20:44

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0278-CCBB	Copper-63 (dissolved)	0.00200	0.34	0.500	ug/L	
SGF0278-CCBB	Copper-65 (dissolved)	-0.00100	0.35	0.500	ug/L	
SGF0278-CCBB	Zinc-66 (dissolved)	0.0460	0.82	4.00	ug/L	
SGF0278-CCBB	Zinc-67 (dissolved)	0.0310	0.94	4.00	ug/L	
SGF0278-IBL7	Copper-63 (dissolved)	0.00	0.34	0.500	ug/L	
SGF0278-IBL7	Copper-65 (dissolved)	0.00300	0.35	0.500	ug/L	
SGF0278-IBL7	Zinc-66 (dissolved)	-0.0230	0.82	4.00	ug/L	
SGF0278-IBL7	Zinc-67 (dissolved)	-0.0260	0.94	4.00	ug/L	
SGF0278-CCBC	Copper-63 (dissolved)	0.00400	0.34	0.500	ug/L	
SGF0278-CCBC	Copper-65 (dissolved)	0.00100	0.35	0.500	ug/L	
SGF0278-CCBC	Zinc-66 (dissolved)	-0.0130	0.82	4.00	ug/L	
SGF0278-CCBC	Zinc-67 (dissolved)	-0.0270	0.94	4.00	ug/L	

INSTRUMENT BLANKS
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00056
Sequence: SGF0310
Date Analyzed: 06/22/18 13:49

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0310-IBL1	Arsenic-75a (dissolved)	-0.0160	0.022	0.200	ug/L	
SGF0310-ICB1	Arsenic-75a (dissolved)	-0.0320	0.022	0.200	ug/L	
SGF0310-CCB1	Arsenic-75a (dissolved)	-0.0120	0.022	0.200	ug/L	
SGF0310-IBL2	Arsenic-75a (dissolved)	0.0220	0.022	0.200	ug/L	
SGF0310-IBL3	Arsenic-75a (dissolved)	-0.0200	0.022	0.200	ug/L	
SGF0310-CCB2	Arsenic-75a (dissolved)	0.0150	0.022	0.200	ug/L	
SGF0310-CCB3	Arsenic-75a (dissolved)	0.00700	0.022	0.200	ug/L	
SGF0310-CCB4	Arsenic-75a (dissolved)	0.0180	0.022	0.200	ug/L	
SGF0310-CCB5	Arsenic-75a (dissolved)	0.0330	0.022	0.200	ug/L	
SGF0310-CCB6	Arsenic-75a (dissolved)	0.0290	0.022	0.200	ug/L	
SGF0310-CCB7	Arsenic-75a (dissolved)	0.0470	0.022	0.200	ug/L	
SGF0310-CCB8	Arsenic-75a (dissolved)	-0.0170	0.022	0.200	ug/L	
SGF0310-CCB9	Arsenic-75a (dissolved)	0.0250	0.022	0.200	ug/L	
SGF0310-CCBA	Arsenic-75a (dissolved)	0.0110	0.022	0.200	ug/L	
SGF0310-IBL4	Arsenic-75a (dissolved)	0.0480	0.022	0.200	ug/L	
SGF0310-CCBB	Arsenic-75a (dissolved)	-0.00100	0.022	0.200	ug/L	
SGF0310-CCBC	Arsenic-75a (dissolved)	0.0800	0.022	0.200	ug/L	
SGF0310-IBL5	Arsenic-75a (dissolved)	0.0380	0.022	0.200	ug/L	
SGF0310-CCBD	Arsenic-75a (dissolved)	0.0420	0.022	0.200	ug/L	

INSTRUMENT BLANKS
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00060
Sequence: SGF0319
Date Analyzed: 06/25/18 12:38

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0319-IBL1	Arsenic-75a (dissolved)	0.00200	0.022	0.200	ug/L	
SGF0319-IBL1	Cadmium-111 (dissolved)	0.00800	0.03	0.100	ug/L	
SGF0319-IBL1	Cadmium-114 (dissolved)	-0.00300	0.04	0.100	ug/L	
SGF0319-IBL1	Copper-63 (dissolved)	0.0110	0.34	0.500	ug/L	
SGF0319-IBL1	Copper-65 (dissolved)	0.00600	0.35	0.500	ug/L	
SGF0319-IBL1	Zinc-66 (dissolved)	0.158	0.82	4.00	ug/L	
SGF0319-IBL1	Zinc-67 (dissolved)	0.00	0.94	4.00	ug/L	
SGF0319-ICB1	Arsenic-75a (dissolved)	0.00100	0.022	0.200	ug/L	
SGF0319-ICB1	Cadmium-111 (dissolved)	0.00400	0.03	0.100	ug/L	
SGF0319-ICB1	Cadmium-114 (dissolved)	0.00	0.04	0.100	ug/L	
SGF0319-ICB1	Copper-63 (dissolved)	0.00800	0.34	0.500	ug/L	
SGF0319-ICB1	Copper-65 (dissolved)	0.00500	0.35	0.500	ug/L	
SGF0319-ICB1	Zinc-66 (dissolved)	0.157	0.82	4.00	ug/L	
SGF0319-ICB1	Zinc-67 (dissolved)	-0.0130	0.94	4.00	ug/L	
SGF0319-CCB1	Arsenic-75a (dissolved)	-0.00200	0.022	0.200	ug/L	
SGF0319-CCB1	Cadmium-111 (dissolved)	0.0110	0.03	0.100	ug/L	
SGF0319-CCB1	Cadmium-114 (dissolved)	-0.00100	0.04	0.100	ug/L	
SGF0319-CCB1	Copper-63 (dissolved)	0.00700	0.34	0.500	ug/L	
SGF0319-CCB1	Copper-65 (dissolved)	0.0110	0.35	0.500	ug/L	
SGF0319-CCB1	Zinc-66 (dissolved)	0.175	0.82	4.00	ug/L	
SGF0319-CCB1	Zinc-67 (dissolved)	0.0160	0.94	4.00	ug/L	
SGF0319-IBL2	Arsenic-75a (dissolved)	0.0270	0.022	0.200	ug/L	
SGF0319-IBL2	Cadmium-111 (dissolved)	0.00700	0.03	0.100	ug/L	
SGF0319-IBL2	Cadmium-114 (dissolved)	0.00500	0.04	0.100	ug/L	
SGF0319-IBL2	Copper-63 (dissolved)	0.00900	0.34	0.500	ug/L	
SGF0319-IBL2	Copper-65 (dissolved)	0.00600	0.35	0.500	ug/L	
SGF0319-IBL2	Zinc-66 (dissolved)	-0.286	0.82	4.00	ug/L	
SGF0319-IBL2	Zinc-67 (dissolved)	-0.357	0.94	4.00	ug/L	
SGF0319-IBL3	Arsenic-75a (dissolved)	0.00500	0.022	0.200	ug/L	
SGF0319-IBL3	Cadmium-111 (dissolved)	0.00700	0.03	0.100	ug/L	
SGF0319-IBL3	Cadmium-114 (dissolved)	0.00200	0.04	0.100	ug/L	
SGF0319-IBL3	Copper-63 (dissolved)	-0.0100	0.34	0.500	ug/L	
SGF0319-IBL3	Copper-65 (dissolved)	-0.00500	0.35	0.500	ug/L	
SGF0319-IBL3	Zinc-66 (dissolved)	-0.130	0.82	4.00	ug/L	

INSTRUMENT BLANKS
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00060
Sequence: SGF0319
Date Analyzed: 06/25/18 14:00

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0319-IBL3	Zinc-67 (dissolved)	-0.257	0.94	4.00	ug/L	
SGF0319-CCB2	Arsenic-75a (dissolved)	0.00400	0.022	0.200	ug/L	
SGF0319-CCB2	Cadmium-111 (dissolved)	0.0110	0.03	0.100	ug/L	
SGF0319-CCB2	Cadmium-114 (dissolved)	0.00100	0.04	0.100	ug/L	
SGF0319-CCB2	Copper-63 (dissolved)	0.00800	0.34	0.500	ug/L	
SGF0319-CCB2	Copper-65 (dissolved)	0.00600	0.35	0.500	ug/L	
SGF0319-CCB2	Zinc-66 (dissolved)	0.132	0.82	4.00	ug/L	
SGF0319-CCB2	Zinc-67 (dissolved)	-0.0370	0.94	4.00	ug/L	
SGF0319-CCB3	Arsenic-75a (dissolved)	0.00400	0.022	0.200	ug/L	
SGF0319-CCB3	Cadmium-111 (dissolved)	0.00900	0.03	0.100	ug/L	
SGF0319-CCB3	Cadmium-114 (dissolved)	0.00500	0.04	0.100	ug/L	
SGF0319-CCB3	Copper-63 (dissolved)	0.00800	0.34	0.500	ug/L	
SGF0319-CCB3	Copper-65 (dissolved)	0.0120	0.35	0.500	ug/L	
SGF0319-CCB3	Zinc-66 (dissolved)	0.109	0.82	4.00	ug/L	
SGF0319-CCB3	Zinc-67 (dissolved)	0.141	0.94	4.00	ug/L	
SGF0319-IBL4	Arsenic-75a (dissolved)	0.00300	0.022	0.200	ug/L	
SGF0319-IBL4	Cadmium-111 (dissolved)	0.00400	0.03	0.100	ug/L	
SGF0319-IBL4	Cadmium-114 (dissolved)	-0.00100	0.04	0.100	ug/L	
SGF0319-IBL4	Copper-63 (dissolved)	-0.00800	0.34	0.500	ug/L	
SGF0319-IBL4	Copper-65 (dissolved)	-0.0150	0.35	0.500	ug/L	
SGF0319-IBL4	Zinc-66 (dissolved)	-0.438	0.82	4.00	ug/L	
SGF0319-IBL4	Zinc-67 (dissolved)	-0.440	0.94	4.00	ug/L	
SGF0319-IBL5	Arsenic-75a (dissolved)	0.00400	0.022	0.200	ug/L	
SGF0319-IBL5	Cadmium-111 (dissolved)	0.00600	0.03	0.100	ug/L	
SGF0319-IBL5	Cadmium-114 (dissolved)	-0.00200	0.04	0.100	ug/L	
SGF0319-IBL5	Copper-63 (dissolved)	-0.0120	0.34	0.500	ug/L	
SGF0319-IBL5	Copper-65 (dissolved)	-0.0160	0.35	0.500	ug/L	
SGF0319-IBL5	Zinc-66 (dissolved)	-0.0340	0.82	4.00	ug/L	
SGF0319-IBL5	Zinc-67 (dissolved)	-0.0370	0.94	4.00	ug/L	
SGF0319-CCB4	Arsenic-75a (dissolved)	0.00500	0.022	0.200	ug/L	
SGF0319-CCB4	Cadmium-111 (dissolved)	0.00300	0.03	0.100	ug/L	
SGF0319-CCB4	Cadmium-114 (dissolved)	-0.00100	0.04	0.100	ug/L	
SGF0319-CCB4	Copper-63 (dissolved)	-0.0120	0.34	0.500	ug/L	
SGF0319-CCB4	Copper-65 (dissolved)	-0.00800	0.35	0.500	ug/L	

INSTRUMENT BLANKS
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00060
Sequence: SGF0319
Date Analyzed: 06/25/18 16:37

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0319-CCB4	Zinc-66 (dissolved)	-0.250	0.82	4.00	ug/L	
SGF0319-CCB4	Zinc-67 (dissolved)	-0.292	0.94	4.00	ug/L	
SGF0319-CCB5	Arsenic-75a (dissolved)	0.00800	0.022	0.200	ug/L	
SGF0319-CCB5	Cadmium-111 (dissolved)	0.00800	0.03	0.100	ug/L	
SGF0319-CCB5	Cadmium-114 (dissolved)	0.00400	0.04	0.100	ug/L	
SGF0319-CCB5	Copper-63 (dissolved)	0.00100	0.34	0.500	ug/L	
SGF0319-CCB5	Copper-65 (dissolved)	0.00100	0.35	0.500	ug/L	
SGF0319-CCB5	Zinc-66 (dissolved)	0.0060	0.82	4.00	ug/L	
SGF0319-CCB5	Zinc-67 (dissolved)	-0.129	0.94	4.00	ug/L	
SGF0319-CCB6	Arsenic-75a (dissolved)	-0.00200	0.022	0.200	ug/L	
SGF0319-CCB6	Cadmium-111 (dissolved)	0.00600	0.03	0.100	ug/L	
SGF0319-CCB6	Cadmium-114 (dissolved)	0.00	0.04	0.100	ug/L	
SGF0319-CCB6	Copper-63 (dissolved)	-0.00700	0.34	0.500	ug/L	
SGF0319-CCB6	Copper-65 (dissolved)	-0.00300	0.35	0.500	ug/L	
SGF0319-CCB6	Zinc-66 (dissolved)	-0.0870	0.82	4.00	ug/L	
SGF0319-CCB6	Zinc-67 (dissolved)	-0.163	0.94	4.00	ug/L	
SGF0319-CCB7	Arsenic-75a (dissolved)	0.0100	0.022	0.200	ug/L	
SGF0319-CCB7	Cadmium-111 (dissolved)	-0.00100	0.03	0.100	ug/L	
SGF0319-CCB7	Cadmium-114 (dissolved)	-0.00200	0.04	0.100	ug/L	
SGF0319-CCB7	Copper-63 (dissolved)	-0.00300	0.34	0.500	ug/L	
SGF0319-CCB7	Copper-65 (dissolved)	0.00300	0.35	0.500	ug/L	
SGF0319-CCB7	Zinc-66 (dissolved)	-0.0950	0.82	4.00	ug/L	
SGF0319-CCB7	Zinc-67 (dissolved)	-0.152	0.94	4.00	ug/L	
SGF0319-CCB8	Arsenic-75a (dissolved)	0.00100	0.022	0.200	ug/L	
SGF0319-CCB8	Cadmium-111 (dissolved)	0.00	0.03	0.100	ug/L	
SGF0319-CCB8	Cadmium-114 (dissolved)	0.00200	0.04	0.100	ug/L	
SGF0319-CCB8	Copper-63 (dissolved)	-0.00900	0.34	0.500	ug/L	
SGF0319-CCB8	Copper-65 (dissolved)	-0.00100	0.35	0.500	ug/L	
SGF0319-CCB8	Zinc-66 (dissolved)	-0.0810	0.82	4.00	ug/L	
SGF0319-CCB8	Zinc-67 (dissolved)	-0.141	0.94	4.00	ug/L	
SGF0319-CCB9	Arsenic-75a (dissolved)	0.0690	0.022	0.200	ug/L	
SGF0319-CCB9	Cadmium-111 (dissolved)	0.00600	0.03	0.100	ug/L	
SGF0319-CCB9	Cadmium-114 (dissolved)	0.00100	0.04	0.100	ug/L	
SGF0319-CCB9	Copper-63 (dissolved)	0.0750	0.34	0.500	ug/L	

INSTRUMENT BLANKS
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Instrument ID: ICPMS2
Sequence: SGF0319

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Calibration: BF00060
Date Analyzed: 06/25/18 20:09

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0319-CCB9	Copper-65 (dissolved)	0.0670	0.35	0.500	ug/L	
SGF0319-CCB9	Zinc-66 (dissolved)	0.0830	0.82	4.00	ug/L	
SGF0319-CCB9	Zinc-67 (dissolved)	0.0440	0.94	4.00	ug/L	
SGF0319-CCBA	Arsenic-75a (dissolved)	0.0200	0.022	0.200	ug/L	
SGF0319-CCBA	Cadmium-111 (dissolved)	0.00600	0.03	0.100	ug/L	
SGF0319-CCBA	Cadmium-114 (dissolved)	0.00100	0.04	0.100	ug/L	
SGF0319-CCBA	Copper-63 (dissolved)	0.0220	0.34	0.500	ug/L	
SGF0319-CCBA	Copper-65 (dissolved)	0.0300	0.35	0.500	ug/L	
SGF0319-CCBA	Zinc-66 (dissolved)	0.0250	0.82	4.00	ug/L	
SGF0319-CCBA	Zinc-67 (dissolved)	0.0090	0.94	4.00	ug/L	
SGF0319-CCBB	Arsenic-75a (dissolved)	-0.00500	0.022	0.200	ug/L	
SGF0319-CCBB	Cadmium-111 (dissolved)	0.00400	0.03	0.100	ug/L	
SGF0319-CCBB	Cadmium-114 (dissolved)	0.00100	0.04	0.100	ug/L	
SGF0319-CCBB	Copper-63 (dissolved)	0.00200	0.34	0.500	ug/L	
SGF0319-CCBB	Copper-65 (dissolved)	0.00400	0.35	0.500	ug/L	
SGF0319-CCBB	Zinc-66 (dissolved)	-0.0040	0.82	4.00	ug/L	
SGF0319-CCBB	Zinc-67 (dissolved)	-0.0420	0.94	4.00	ug/L	

INSTRUMENT BLANKS
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Instrument ID: ICPMS2
Sequence: SGF0345

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Calibration: BF00061
Date Analyzed: 06/26/18 10:36

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0345-IBL1	Arsenic-75a (dissolved)	0.0360	0.022	0.200	ug/L	
SGF0345-IBL1	Cadmium-111 (dissolved)	0.00200	0.03	0.100	ug/L	
SGF0345-IBL1	Cadmium-114 (dissolved)	0.00400	0.04	0.100	ug/L	
SGF0345-IBL1	Copper-63 (dissolved)	0.0480	0.34	0.500	ug/L	
SGF0345-IBL1	Copper-65 (dissolved)	0.0370	0.35	0.500	ug/L	
SGF0345-IBL1	Zinc-66 (dissolved)	0.0440	0.82	4.00	ug/L	
SGF0345-IBL1	Zinc-67 (dissolved)	0.0610	0.94	4.00	ug/L	
SGF0345-ICB1	Arsenic-75a (dissolved)	0.00	0.022	0.200	ug/L	
SGF0345-ICB1	Cadmium-111 (dissolved)	0.00	0.03	0.100	ug/L	
SGF0345-ICB1	Cadmium-114 (dissolved)	0.00100	0.04	0.100	ug/L	
SGF0345-ICB1	Copper-63 (dissolved)	0.00100	0.34	0.500	ug/L	
SGF0345-ICB1	Copper-65 (dissolved)	0.00	0.35	0.500	ug/L	
SGF0345-ICB1	Zinc-66 (dissolved)	0.0140	0.82	4.00	ug/L	
SGF0345-ICB1	Zinc-67 (dissolved)	0.0540	0.94	4.00	ug/L	
SGF0345-CCB1	Arsenic-75a (dissolved)	0.00100	0.022	0.200	ug/L	
SGF0345-CCB1	Cadmium-111 (dissolved)	0.00800	0.03	0.100	ug/L	
SGF0345-CCB1	Cadmium-114 (dissolved)	0.0150	0.04	0.100	ug/L	
SGF0345-CCB1	Copper-63 (dissolved)	0.00300	0.34	0.500	ug/L	
SGF0345-CCB1	Copper-65 (dissolved)	-0.00300	0.35	0.500	ug/L	
SGF0345-CCB1	Zinc-66 (dissolved)	-0.0210	0.82	4.00	ug/L	
SGF0345-CCB1	Zinc-67 (dissolved)	0.0490	0.94	4.00	ug/L	
SGF0345-IBL2	Arsenic-75a (dissolved)	0.00500	0.022	0.200	ug/L	
SGF0345-IBL2	Cadmium-111 (dissolved)	0.0110	0.03	0.100	ug/L	
SGF0345-IBL2	Cadmium-114 (dissolved)	0.0170	0.04	0.100	ug/L	
SGF0345-IBL2	Copper-63 (dissolved)	0.0380	0.34	0.500	ug/L	
SGF0345-IBL2	Copper-65 (dissolved)	0.0270	0.35	0.500	ug/L	
SGF0345-IBL2	Zinc-66 (dissolved)	0.802	0.82	4.00	ug/L	
SGF0345-IBL2	Zinc-67 (dissolved)	0.694	0.94	4.00	ug/L	
SGF0345-CCB2	Arsenic-75a (dissolved)	0.0110	0.022	0.200	ug/L	
SGF0345-CCB2	Cadmium-111 (dissolved)	0.0840	0.03	0.100	ug/L	
SGF0345-CCB2	Cadmium-114 (dissolved)	0.0810	0.04	0.100	ug/L	
SGF0345-CCB2	Copper-63 (dissolved)	0.00600	0.34	0.500	ug/L	
SGF0345-CCB2	Copper-65 (dissolved)	0.00100	0.35	0.500	ug/L	
SGF0345-CCB2	Zinc-66 (dissolved)	0.0680	0.82	4.00	ug/L	

INSTRUMENT BLANKS
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Instrument ID: ICPMS2
Sequence: SGF0345

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Calibration: BF00061
Date Analyzed: 06/26/18 11:43

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0345-CCB2	Zinc-67 (dissolved)	0.137	0.94	4.00	ug/L	
SGF0345-CCB3	Arsenic-75a (dissolved)	0.00	0.022	0.200	ug/L	
SGF0345-CCB3	Cadmium-111 (dissolved)	0.00300	0.03	0.100	ug/L	
SGF0345-CCB3	Cadmium-114 (dissolved)	0.00300	0.04	0.100	ug/L	
SGF0345-CCB3	Copper-63 (dissolved)	0.0170	0.34	0.500	ug/L	
SGF0345-CCB3	Copper-65 (dissolved)	0.0120	0.35	0.500	ug/L	
SGF0345-CCB3	Zinc-66 (dissolved)	0.0380	0.82	4.00	ug/L	
SGF0345-CCB3	Zinc-67 (dissolved)	0.0720	0.94	4.00	ug/L	
SGF0345-CCB4	Arsenic-75a (dissolved)	0.0200	0.022	0.200	ug/L	
SGF0345-CCB4	Cadmium-111 (dissolved)	0.00800	0.03	0.100	ug/L	
SGF0345-CCB4	Cadmium-114 (dissolved)	0.00400	0.04	0.100	ug/L	
SGF0345-CCB4	Copper-63 (dissolved)	0.0330	0.34	0.500	ug/L	
SGF0345-CCB4	Copper-65 (dissolved)	0.0210	0.35	0.500	ug/L	
SGF0345-CCB4	Zinc-66 (dissolved)	0.0690	0.82	4.00	ug/L	
SGF0345-CCB4	Zinc-67 (dissolved)	0.129	0.94	4.00	ug/L	
SGF0345-CCB5	Arsenic-75a (dissolved)	0.00400	0.022	0.200	ug/L	
SGF0345-CCB5	Cadmium-111 (dissolved)	0.00	0.03	0.100	ug/L	
SGF0345-CCB5	Cadmium-114 (dissolved)	0.00	0.04	0.100	ug/L	
SGF0345-CCB5	Copper-63 (dissolved)	0.0360	0.34	0.500	ug/L	
SGF0345-CCB5	Copper-65 (dissolved)	0.00900	0.35	0.500	ug/L	
SGF0345-CCB5	Zinc-66 (dissolved)	0.0510	0.82	4.00	ug/L	
SGF0345-CCB5	Zinc-67 (dissolved)	0.0490	0.94	4.00	ug/L	
SGF0345-IBL3	Arsenic-75a (dissolved)	0.00100	0.022	0.200	ug/L	
SGF0345-IBL3	Cadmium-111 (dissolved)	0.00300	0.03	0.100	ug/L	
SGF0345-IBL3	Cadmium-114 (dissolved)	0.00200	0.04	0.100	ug/L	
SGF0345-IBL3	Copper-63 (dissolved)	0.0140	0.34	0.500	ug/L	
SGF0345-IBL3	Copper-65 (dissolved)	0.00700	0.35	0.500	ug/L	
SGF0345-IBL3	Zinc-66 (dissolved)	0.0810	0.82	4.00	ug/L	
SGF0345-IBL3	Zinc-67 (dissolved)	0.0640	0.94	4.00	ug/L	
SGF0345-IBL4	Arsenic-75a (dissolved)	-0.00400	0.022	0.200	ug/L	
SGF0345-IBL4	Cadmium-111 (dissolved)	0.00400	0.03	0.100	ug/L	
SGF0345-IBL4	Cadmium-114 (dissolved)	0.00100	0.04	0.100	ug/L	
SGF0345-IBL4	Copper-63 (dissolved)	0.00700	0.34	0.500	ug/L	
SGF0345-IBL4	Copper-65 (dissolved)	0.00300	0.35	0.500	ug/L	

INSTRUMENT BLANKS
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00061
Sequence: SGF0345
Date Analyzed: 06/26/18 14:47

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0345-IBL4	Zinc-66 (dissolved)	0.0420	0.82	4.00	ug/L	
SGF0345-IBL4	Zinc-67 (dissolved)	0.0770	0.94	4.00	ug/L	
SGF0345-IBL5	Arsenic-75a (dissolved)	0.00	0.022	0.200	ug/L	
SGF0345-IBL5	Cadmium-111 (dissolved)	0.00600	0.03	0.100	ug/L	
SGF0345-IBL5	Cadmium-114 (dissolved)	0.00400	0.04	0.100	ug/L	
SGF0345-IBL5	Copper-63 (dissolved)	0.113	0.34	0.500	ug/L	
SGF0345-IBL5	Copper-65 (dissolved)	0.127	0.35	0.500	ug/L	
SGF0345-IBL5	Zinc-66 (dissolved)	1.58	0.82	4.00	ug/L	
SGF0345-IBL5	Zinc-67 (dissolved)	1.26	0.94	4.00	ug/L	
SGF0345-CCB6	Arsenic-75a (dissolved)	0.00400	0.022	0.200	ug/L	
SGF0345-CCB6	Cadmium-111 (dissolved)	-0.00600	0.03	0.100	ug/L	
SGF0345-CCB6	Cadmium-114 (dissolved)	-0.00400	0.04	0.100	ug/L	
SGF0345-CCB6	Copper-63 (dissolved)	0.00400	0.34	0.500	ug/L	
SGF0345-CCB6	Copper-65 (dissolved)	0.00700	0.35	0.500	ug/L	
SGF0345-CCB6	Zinc-66 (dissolved)	-0.0200	0.82	4.00	ug/L	
SGF0345-CCB6	Zinc-67 (dissolved)	-0.0560	0.94	4.00	ug/L	
SGF0345-CCB7	Arsenic-75a (dissolved)	0.00400	0.022	0.200	ug/L	
SGF0345-CCB7	Cadmium-111 (dissolved)	0.00200	0.03	0.100	ug/L	
SGF0345-CCB7	Cadmium-114 (dissolved)	0.0140	0.04	0.100	ug/L	
SGF0345-CCB7	Copper-63 (dissolved)	0.0690	0.34	0.500	ug/L	
SGF0345-CCB7	Copper-65 (dissolved)	0.00600	0.35	0.500	ug/L	
SGF0345-CCB7	Zinc-66 (dissolved)	0.0150	0.82	4.00	ug/L	
SGF0345-CCB7	Zinc-67 (dissolved)	-0.0190	0.94	4.00	ug/L	
SGF0345-CCB8	Arsenic-75a (dissolved)	0.0220	0.022	0.200	ug/L	
SGF0345-CCB8	Cadmium-111 (dissolved)	-0.00700	0.03	0.100	ug/L	
SGF0345-CCB8	Cadmium-114 (dissolved)	0.00	0.04	0.100	ug/L	
SGF0345-CCB8	Copper-63 (dissolved)	0.0880	0.34	0.500	ug/L	
SGF0345-CCB8	Copper-65 (dissolved)	0.0140	0.35	0.500	ug/L	
SGF0345-CCB8	Zinc-66 (dissolved)	0.0070	0.82	4.00	ug/L	
SGF0345-CCB8	Zinc-67 (dissolved)	-0.0600	0.94	4.00	ug/L	

INSTRUMENT BLANKS
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Instrument ID: ICPMS2
Sequence: SGF0355

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Calibration: BF00064
Date Analyzed: 06/27/18 10:54

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0355-IBL1	Arsenic-75a (dissolved)	0.0110	0.022	0.200	ug/L	
SGF0355-IBL1	Cadmium-111 (dissolved)	0.0370	0.03	0.100	ug/L	
SGF0355-IBL1	Cadmium-114 (dissolved)	0.0400	0.04	0.100	ug/L	
SGF0355-IBL1	Copper-63 (dissolved)	0.00400	0.34	0.500	ug/L	
SGF0355-IBL1	Copper-65 (dissolved)	-0.00500	0.35	0.500	ug/L	
SGF0355-IBL1	Zinc-66 (dissolved)	0.0140	0.82	4.00	ug/L	
SGF0355-IBL1	Zinc-67 (dissolved)	-0.0640	0.94	4.00	ug/L	
SGF0355-ICB1	Arsenic-75a (dissolved)	0.00600	0.022	0.200	ug/L	
SGF0355-ICB1	Cadmium-111 (dissolved)	-0.00500	0.03	0.100	ug/L	
SGF0355-ICB1	Cadmium-114 (dissolved)	-0.00200	0.04	0.100	ug/L	
SGF0355-ICB1	Copper-63 (dissolved)	0.00300	0.34	0.500	ug/L	
SGF0355-ICB1	Copper-65 (dissolved)	-0.00300	0.35	0.500	ug/L	
SGF0355-ICB1	Zinc-66 (dissolved)	-0.0080	0.82	4.00	ug/L	
SGF0355-ICB1	Zinc-67 (dissolved)	-0.0670	0.94	4.00	ug/L	
SGF0355-CCB1	Arsenic-75a (dissolved)	0.00800	0.022	0.200	ug/L	
SGF0355-CCB1	Cadmium-111 (dissolved)	0.00300	0.03	0.100	ug/L	
SGF0355-CCB1	Cadmium-114 (dissolved)	-0.00200	0.04	0.100	ug/L	
SGF0355-CCB1	Copper-63 (dissolved)	0.00	0.34	0.500	ug/L	
SGF0355-CCB1	Copper-65 (dissolved)	-0.00500	0.35	0.500	ug/L	
SGF0355-CCB1	Zinc-66 (dissolved)	0.0190	0.82	4.00	ug/L	
SGF0355-CCB1	Zinc-67 (dissolved)	-0.0840	0.94	4.00	ug/L	
SGF0355-IBL2	Arsenic-75a (dissolved)	0.0180	0.022	0.200	ug/L	
SGF0355-IBL2	Cadmium-111 (dissolved)	0.0310	0.03	0.100	ug/L	
SGF0355-IBL2	Cadmium-114 (dissolved)	0.0280	0.04	0.100	ug/L	
SGF0355-IBL2	Copper-63 (dissolved)	0.0510	0.34	0.500	ug/L	
SGF0355-IBL2	Copper-65 (dissolved)	0.0550	0.35	0.500	ug/L	
SGF0355-IBL2	Zinc-66 (dissolved)	1.09	0.82	4.00	ug/L	
SGF0355-IBL2	Zinc-67 (dissolved)	0.998	0.94	4.00	ug/L	
SGF0355-IBL3	Arsenic-75a (dissolved)	0.0140	0.022	0.200	ug/L	
SGF0355-IBL3	Cadmium-111 (dissolved)	-0.00100	0.03	0.100	ug/L	
SGF0355-IBL3	Cadmium-114 (dissolved)	0.00200	0.04	0.100	ug/L	
SGF0355-IBL3	Copper-63 (dissolved)	0.0430	0.34	0.500	ug/L	
SGF0355-IBL3	Copper-65 (dissolved)	0.0420	0.35	0.500	ug/L	
SGF0355-IBL3	Zinc-66 (dissolved)	1.16	0.82	4.00	ug/L	

INSTRUMENT BLANKS
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00064
Sequence: SGF0355
Date Analyzed: 06/27/18 11:55

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0355-IBL3	Zinc-67 (dissolved)	1.15	0.94	4.00	ug/L	
SGF0355-CCB2	Arsenic-75a (dissolved)	0.00400	0.022	0.200	ug/L	
SGF0355-CCB2	Cadmium-111 (dissolved)	0.00200	0.03	0.100	ug/L	
SGF0355-CCB2	Cadmium-114 (dissolved)	0.00200	0.04	0.100	ug/L	
SGF0355-CCB2	Copper-63 (dissolved)	-0.00200	0.34	0.500	ug/L	
SGF0355-CCB2	Copper-65 (dissolved)	-0.00500	0.35	0.500	ug/L	
SGF0355-CCB2	Zinc-66 (dissolved)	0.0300	0.82	4.00	ug/L	
SGF0355-CCB2	Zinc-67 (dissolved)	-0.0350	0.94	4.00	ug/L	
SGF0355-CCB3	Arsenic-75a (dissolved)	0.00700	0.022	0.200	ug/L	
SGF0355-CCB3	Cadmium-111 (dissolved)	0.00	0.03	0.100	ug/L	
SGF0355-CCB3	Cadmium-114 (dissolved)	0.00	0.04	0.100	ug/L	
SGF0355-CCB3	Copper-63 (dissolved)	0.00500	0.34	0.500	ug/L	
SGF0355-CCB3	Copper-65 (dissolved)	-0.00200	0.35	0.500	ug/L	
SGF0355-CCB3	Zinc-66 (dissolved)	0.0460	0.82	4.00	ug/L	
SGF0355-CCB3	Zinc-67 (dissolved)	-0.0320	0.94	4.00	ug/L	
SGF0355-CCB4	Arsenic-75a (dissolved)	0.00100	0.022	0.200	ug/L	
SGF0355-CCB4	Cadmium-111 (dissolved)	-0.00300	0.03	0.100	ug/L	
SGF0355-CCB4	Cadmium-114 (dissolved)	0.00	0.04	0.100	ug/L	
SGF0355-CCB4	Copper-63 (dissolved)	0.00500	0.34	0.500	ug/L	
SGF0355-CCB4	Copper-65 (dissolved)	-0.00200	0.35	0.500	ug/L	
SGF0355-CCB4	Zinc-66 (dissolved)	0.0690	0.82	4.00	ug/L	
SGF0355-CCB4	Zinc-67 (dissolved)	-0.0870	0.94	4.00	ug/L	
SGF0355-CCB5	Arsenic-75a (dissolved)	0.00900	0.022	0.200	ug/L	
SGF0355-CCB5	Cadmium-111 (dissolved)	0.00	0.03	0.100	ug/L	
SGF0355-CCB5	Cadmium-114 (dissolved)	0.00	0.04	0.100	ug/L	
SGF0355-CCB5	Copper-63 (dissolved)	0.0170	0.34	0.500	ug/L	
SGF0355-CCB5	Copper-65 (dissolved)	0.0170	0.35	0.500	ug/L	
SGF0355-CCB5	Zinc-66 (dissolved)	-0.0410	0.82	4.00	ug/L	
SGF0355-CCB5	Zinc-67 (dissolved)	-0.0320	0.94	4.00	ug/L	
SGF0355-CCB6	Arsenic-75a (dissolved)	-0.00800	0.022	0.200	ug/L	
SGF0355-CCB6	Cadmium-111 (dissolved)	0.00100	0.03	0.100	ug/L	
SGF0355-CCB6	Cadmium-114 (dissolved)	0.00200	0.04	0.100	ug/L	
SGF0355-CCB6	Copper-63 (dissolved)	-0.00200	0.34	0.500	ug/L	
SGF0355-CCB6	Copper-65 (dissolved)	-0.00700	0.35	0.500	ug/L	

INSTRUMENT BLANKS
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00064
Sequence: SGF0355
Date Analyzed: 06/27/18 15:29

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0355-CCB6	Zinc-66 (dissolved)	-0.0760	0.82	4.00	ug/L	
SGF0355-CCB6	Zinc-67 (dissolved)	-0.0990	0.94	4.00	ug/L	
SGF0355-CCB7	Arsenic-75a (dissolved)	-0.00400	0.022	0.200	ug/L	
SGF0355-CCB7	Cadmium-111 (dissolved)	-0.00100	0.03	0.100	ug/L	
SGF0355-CCB7	Cadmium-114 (dissolved)	-0.00200	0.04	0.100	ug/L	
SGF0355-CCB7	Copper-63 (dissolved)	-0.00600	0.34	0.500	ug/L	
SGF0355-CCB7	Copper-65 (dissolved)	-0.00500	0.35	0.500	ug/L	
SGF0355-CCB7	Zinc-66 (dissolved)	-0.0410	0.82	4.00	ug/L	
SGF0355-CCB7	Zinc-67 (dissolved)	-0.171	0.94	4.00	ug/L	
SGF0355-CCB8	Arsenic-75a (dissolved)	-0.00600	0.022	0.200	ug/L	
SGF0355-CCB8	Cadmium-111 (dissolved)	-0.00400	0.03	0.100	ug/L	
SGF0355-CCB8	Cadmium-114 (dissolved)	-0.00300	0.04	0.100	ug/L	
SGF0355-CCB8	Copper-63 (dissolved)	-0.00400	0.34	0.500	ug/L	
SGF0355-CCB8	Copper-65 (dissolved)	-0.00200	0.35	0.500	ug/L	
SGF0355-CCB8	Zinc-66 (dissolved)	-0.0670	0.82	4.00	ug/L	
SGF0355-CCB8	Zinc-67 (dissolved)	-0.114	0.94	4.00	ug/L	

INSTRUMENT BLANKS
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Instrument ID: ICPMS2
Sequence: SGF0392

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Calibration: BF00069
Date Analyzed: 06/28/18 08:29

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0392-IBL1	Arsenic-75a (dissolved)	-0.00500	0.022	0.200	ug/L	
SGF0392-IBL1	Cadmium-111 (dissolved)	0.00100	0.03	0.100	ug/L	
SGF0392-IBL1	Cadmium-114 (dissolved)	0.00100	0.04	0.100	ug/L	
SGF0392-IBL1	Copper-63 (dissolved)	-0.00200	0.34	0.500	ug/L	
SGF0392-IBL1	Copper-65 (dissolved)	-0.00100	0.35	0.500	ug/L	
SGF0392-IBL1	Zinc-66 (dissolved)	-0.0170	0.82	4.00	ug/L	
SGF0392-IBL1	Zinc-67 (dissolved)	0.0060	0.94	4.00	ug/L	
SGF0392-ICB1	Arsenic-75a (dissolved)	-0.00300	0.022	0.200	ug/L	
SGF0392-ICB1	Cadmium-111 (dissolved)	0.00300	0.03	0.100	ug/L	
SGF0392-ICB1	Cadmium-114 (dissolved)	0.00	0.04	0.100	ug/L	
SGF0392-ICB1	Copper-63 (dissolved)	0.00200	0.34	0.500	ug/L	
SGF0392-ICB1	Copper-65 (dissolved)	0.00500	0.35	0.500	ug/L	
SGF0392-ICB1	Zinc-66 (dissolved)	-0.0200	0.82	4.00	ug/L	
SGF0392-ICB1	Zinc-67 (dissolved)	-0.0270	0.94	4.00	ug/L	
SGF0392-CCB1	Arsenic-75a (dissolved)	-0.00500	0.022	0.200	ug/L	
SGF0392-CCB1	Cadmium-111 (dissolved)	0.00	0.03	0.100	ug/L	
SGF0392-CCB1	Cadmium-114 (dissolved)	-0.00100	0.04	0.100	ug/L	
SGF0392-CCB1	Copper-63 (dissolved)	-0.00200	0.34	0.500	ug/L	
SGF0392-CCB1	Copper-65 (dissolved)	0.00600	0.35	0.500	ug/L	
SGF0392-CCB1	Zinc-66 (dissolved)	0.0180	0.82	4.00	ug/L	
SGF0392-CCB1	Zinc-67 (dissolved)	-0.0060	0.94	4.00	ug/L	
SGF0392-IBL2	Arsenic-75a (dissolved)	0.00800	0.022	0.200	ug/L	
SGF0392-IBL2	Cadmium-111 (dissolved)	0.00600	0.03	0.100	ug/L	
SGF0392-IBL2	Cadmium-114 (dissolved)	0.00800	0.04	0.100	ug/L	
SGF0392-IBL2	Copper-63 (dissolved)	0.0100	0.34	0.500	ug/L	
SGF0392-IBL2	Copper-65 (dissolved)	0.0120	0.35	0.500	ug/L	
SGF0392-IBL2	Zinc-66 (dissolved)	0.305	0.82	4.00	ug/L	
SGF0392-IBL2	Zinc-67 (dissolved)	0.274	0.94	4.00	ug/L	
SGF0392-IBL3	Arsenic-75a (dissolved)	-0.00200	0.022	0.200	ug/L	
SGF0392-IBL3	Cadmium-111 (dissolved)	0.00200	0.03	0.100	ug/L	
SGF0392-IBL3	Cadmium-114 (dissolved)	0.00200	0.04	0.100	ug/L	
SGF0392-IBL3	Copper-63 (dissolved)	0.00300	0.34	0.500	ug/L	
SGF0392-IBL3	Copper-65 (dissolved)	0.00900	0.35	0.500	ug/L	
SGF0392-IBL3	Zinc-66 (dissolved)	0.333	0.82	4.00	ug/L	

INSTRUMENT BLANKS
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Instrument ID: ICPMS2
Sequence: SGF0392

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Calibration: BF00069
Date Analyzed: 06/28/18 09:36

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0392-IBL3	Zinc-67 (dissolved)	0.259	0.94	4.00	ug/L	
SGF0392-CCB2	Arsenic-75a (dissolved)	-0.00200	0.022	0.200	ug/L	
SGF0392-CCB2	Cadmium-111 (dissolved)	0.00100	0.03	0.100	ug/L	
SGF0392-CCB2	Cadmium-114 (dissolved)	0.00	0.04	0.100	ug/L	
SGF0392-CCB2	Copper-63 (dissolved)	-0.00200	0.34	0.500	ug/L	
SGF0392-CCB2	Copper-65 (dissolved)	0.00400	0.35	0.500	ug/L	
SGF0392-CCB2	Zinc-66 (dissolved)	0.0050	0.82	4.00	ug/L	
SGF0392-CCB2	Zinc-67 (dissolved)	0.0080	0.94	4.00	ug/L	
SGF0392-CCB3	Arsenic-75a (dissolved)	0.00100	0.022	0.200	ug/L	
SGF0392-CCB3	Cadmium-111 (dissolved)	0.00100	0.03	0.100	ug/L	
SGF0392-CCB3	Cadmium-114 (dissolved)	0.00100	0.04	0.100	ug/L	
SGF0392-CCB3	Copper-63 (dissolved)	0.00900	0.34	0.500	ug/L	
SGF0392-CCB3	Copper-65 (dissolved)	0.0110	0.35	0.500	ug/L	
SGF0392-CCB3	Zinc-66 (dissolved)	0.236	0.82	4.00	ug/L	
SGF0392-CCB3	Zinc-67 (dissolved)	0.226	0.94	4.00	ug/L	
SGF0392-CCB4	Arsenic-75a (dissolved)	-0.00200	0.022	0.200	ug/L	
SGF0392-CCB4	Cadmium-111 (dissolved)	0.00600	0.03	0.100	ug/L	
SGF0392-CCB4	Cadmium-114 (dissolved)	0.00500	0.04	0.100	ug/L	
SGF0392-CCB4	Copper-63 (dissolved)	0.00900	0.34	0.500	ug/L	
SGF0392-CCB4	Copper-65 (dissolved)	0.0180	0.35	0.500	ug/L	
SGF0392-CCB4	Zinc-66 (dissolved)	0.231	0.82	4.00	ug/L	
SGF0392-CCB4	Zinc-67 (dissolved)	0.214	0.94	4.00	ug/L	
SGF0392-CCB5	Arsenic-75a (dissolved)	-0.00600	0.022	0.200	ug/L	
SGF0392-CCB5	Cadmium-111 (dissolved)	-0.00300	0.03	0.100	ug/L	
SGF0392-CCB5	Cadmium-114 (dissolved)	0.00200	0.04	0.100	ug/L	
SGF0392-CCB5	Copper-63 (dissolved)	-0.00200	0.34	0.500	ug/L	
SGF0392-CCB5	Copper-65 (dissolved)	-0.00200	0.35	0.500	ug/L	
SGF0392-CCB5	Zinc-66 (dissolved)	0.0580	0.82	4.00	ug/L	
SGF0392-CCB5	Zinc-67 (dissolved)	0.0730	0.94	4.00	ug/L	
SGF0392-CCB6	Arsenic-75a (dissolved)	-0.00200	0.022	0.200	ug/L	
SGF0392-CCB6	Cadmium-111 (dissolved)	-0.00200	0.03	0.100	ug/L	
SGF0392-CCB6	Cadmium-114 (dissolved)	-0.00100	0.04	0.100	ug/L	
SGF0392-CCB6	Copper-63 (dissolved)	-0.00200	0.34	0.500	ug/L	
SGF0392-CCB6	Copper-65 (dissolved)	0.00500	0.35	0.500	ug/L	

INSTRUMENT BLANKS
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Instrument ID: ICPMS2
Sequence: SGF0392

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Calibration: BF00069
Date Analyzed: 06/28/18 14:05

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0392-CCB6	Zinc-66 (dissolved)	0.0930	0.82	4.00	ug/L	
SGF0392-CCB6	Zinc-67 (dissolved)	0.126	0.94	4.00	ug/L	
SGF0392-CCB7	Arsenic-75a (dissolved)	-0.00100	0.022	0.200	ug/L	
SGF0392-CCB7	Cadmium-111 (dissolved)	0.00200	0.03	0.100	ug/L	
SGF0392-CCB7	Cadmium-114 (dissolved)	0.00200	0.04	0.100	ug/L	
SGF0392-CCB7	Copper-63 (dissolved)	-0.00400	0.34	0.500	ug/L	
SGF0392-CCB7	Copper-65 (dissolved)	0.00600	0.35	0.500	ug/L	
SGF0392-CCB7	Zinc-66 (dissolved)	0.0860	0.82	4.00	ug/L	
SGF0392-CCB7	Zinc-67 (dissolved)	0.0900	0.94	4.00	ug/L	
SGF0392-IBL4	Arsenic-75a (dissolved)	0.00300	0.022	0.200	ug/L	
SGF0392-IBL4	Cadmium-111 (dissolved)	-0.00100	0.03	0.100	ug/L	
SGF0392-IBL4	Cadmium-114 (dissolved)	0.00100	0.04	0.100	ug/L	
SGF0392-IBL4	Copper-63 (dissolved)	0.00900	0.34	0.500	ug/L	
SGF0392-IBL4	Copper-65 (dissolved)	0.0180	0.35	0.500	ug/L	
SGF0392-IBL4	Zinc-66 (dissolved)	0.335	0.82	4.00	ug/L	
SGF0392-IBL4	Zinc-67 (dissolved)	0.375	0.94	4.00	ug/L	
SGF0392-CCB8	Arsenic-75a (dissolved)	-0.00500	0.022	0.200	ug/L	
SGF0392-CCB8	Cadmium-111 (dissolved)	-0.00100	0.03	0.100	ug/L	
SGF0392-CCB8	Cadmium-114 (dissolved)	-0.00100	0.04	0.100	ug/L	
SGF0392-CCB8	Copper-63 (dissolved)	0.00100	0.34	0.500	ug/L	
SGF0392-CCB8	Copper-65 (dissolved)	0.00600	0.35	0.500	ug/L	
SGF0392-CCB8	Zinc-66 (dissolved)	0.0880	0.82	4.00	ug/L	
SGF0392-CCB8	Zinc-67 (dissolved)	0.0860	0.94	4.00	ug/L	
SGF0392-CCB9	Arsenic-75a (dissolved)	0.00700	0.022	0.200	ug/L	
SGF0392-CCB9	Cadmium-111 (dissolved)	0.00600	0.03	0.100	ug/L	
SGF0392-CCB9	Cadmium-114 (dissolved)	0.00300	0.04	0.100	ug/L	
SGF0392-CCB9	Copper-63 (dissolved)	0.00200	0.34	0.500	ug/L	
SGF0392-CCB9	Copper-65 (dissolved)	-0.00300	0.35	0.500	ug/L	
SGF0392-CCB9	Zinc-66 (dissolved)	-0.0710	0.82	4.00	ug/L	
SGF0392-CCB9	Zinc-67 (dissolved)	-0.0310	0.94	4.00	ug/L	
SGF0392-CCBA	Arsenic-75a (dissolved)	0.00600	0.022	0.200	ug/L	
SGF0392-CCBA	Cadmium-111 (dissolved)	0.00	0.03	0.100	ug/L	
SGF0392-CCBA	Cadmium-114 (dissolved)	0.00300	0.04	0.100	ug/L	
SGF0392-CCBA	Copper-63 (dissolved)	0.00100	0.34	0.500	ug/L	

INSTRUMENT BLANKS
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Instrument ID: ICPMS2
Sequence: SGF0392

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Calibration: BF00069
Date Analyzed: 06/28/18 17:31

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0392-CCBA	Copper-65 (dissolved)	0.00400	0.35	0.500	ug/L	
SGF0392-CCBA	Zinc-66 (dissolved)	-0.0070	0.82	4.00	ug/L	
SGF0392-CCBA	Zinc-67 (dissolved)	-0.0240	0.94	4.00	ug/L	
SGF0392-CCBB	Arsenic-75a (dissolved)	0.0490	0.022	0.200	ug/L	
SGF0392-CCBB	Cadmium-111 (dissolved)	0.00600	0.03	0.100	ug/L	
SGF0392-CCBB	Cadmium-114 (dissolved)	0.00100	0.04	0.100	ug/L	
SGF0392-CCBB	Copper-63 (dissolved)	0.0600	0.34	0.500	ug/L	
SGF0392-CCBB	Copper-65 (dissolved)	0.0650	0.35	0.500	ug/L	
SGF0392-CCBB	Zinc-66 (dissolved)	0.0560	0.82	4.00	ug/L	
SGF0392-CCBB	Zinc-67 (dissolved)	0.0250	0.94	4.00	ug/L	
SGF0392-CCBC	Arsenic-75a (dissolved)	0.0130	0.022	0.200	ug/L	
SGF0392-CCBC	Cadmium-111 (dissolved)	0.00800	0.03	0.100	ug/L	
SGF0392-CCBC	Cadmium-114 (dissolved)	0.00500	0.04	0.100	ug/L	
SGF0392-CCBC	Copper-63 (dissolved)	0.00400	0.34	0.500	ug/L	
SGF0392-CCBC	Copper-65 (dissolved)	0.00500	0.35	0.500	ug/L	
SGF0392-CCBC	Zinc-66 (dissolved)	0.0190	0.82	4.00	ug/L	
SGF0392-CCBC	Zinc-67 (dissolved)	-0.0510	0.94	4.00	ug/L	

LCS / LCS DUPLICATE RECOVERY

EPA 6020A UCT-KED

Dissolved Metals

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/18/18 18:27
Batch:	BGF0364	Laboratory ID:	BGF0364-BS1
Preparation:	REN EPA 600/4-79-020 4.1.4 HNO3 matrix	Sequence Name:	LCS
Initial/Final:	25 mL / 25 mL		

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	Q	LCS % REC. #	QC LIMITS REC.
Arsenic-75a (dissolved)	25.0	23.9		95.7	80 - 120
Cadmium-111 (dissolved)	25.0	24.5		97.9	80 - 120
Cadmium-114 (dissolved)	25.0	24.5		98.1	80 - 120
Copper-63 (dissolved)	25.0	27.8		111	80 - 120
Copper-65 (dissolved)	25.0	27.5		110	80 - 120
Zinc-66 (dissolved)	80.0	81.0		101	80 - 120
Zinc-67 (dissolved)	80.0	76.7		95.9	80 - 120

* Indicates values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

EPA 6020A UCT-KED

Dissolved Metals

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/26/18 13:26
Batch:	BGF0478	Laboratory ID:	BGF0478-BS1
Preparation:	REN EPA 600/4-79-020 4.1.4 HNO3 matrix	Sequence Name:	LCS
Initial/Final:	25 mL / 25 mL		

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	Q	LCS % REC. #	QC LIMITS REC.
Arsenic-75a (dissolved)	25.0	24.6		98.3	80 - 120
Cadmium-111 (dissolved)	25.0	26.0		104	80 - 120
Cadmium-114 (dissolved)	25.0	25.6		102	80 - 120
Copper-63 (dissolved)	25.0	27.7		111	80 - 120
Copper-65 (dissolved)	25.0	27.4		110	80 - 120
Zinc-66 (dissolved)	80.0	83.8		105	80 - 120
Zinc-67 (dissolved)	80.0	78.9		98.7	80 - 120

* Indicates values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

EPA 6020A UCT-KED

Dissolved Metals

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/28/18 11:43
Batch:	BGF0480	Laboratory ID:	BGF0480-BS1
Preparation:	REN EPA 600/4-79-020 4.1.4 HNO3 matrix	Sequence Name:	LCS
Initial/Final:	25 mL / 25 mL		

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	Q	LCS % REC. #	QC LIMITS REC.
Arsenic-75a (dissolved)	25.0	24.7		98.6	80 - 120
Cadmium-111 (dissolved)	25.0	24.5		98.2	80 - 120
Cadmium-114 (dissolved)	25.0	25.2		101	80 - 120
Copper-63 (dissolved)	25.0	28.4		114	80 - 120
Copper-65 (dissolved)	25.0	28.0		112	80 - 120
Zinc-66 (dissolved)	80.0	82.8		104	80 - 120
Zinc-67 (dissolved)	80.0	74.9		93.6	80 - 120

* Indicates values outside of QC limits

MS / MS DUPLICATE RECOVERY

EPA 6020A UCT-KED

Dissolved Metals

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/25/18 16:03
Batch:	BGF0364	Laboratory ID:	BGF0364-MS2
Preparation:	REN EPA 600/4-79-020 4.1.4 HNO3 matrix	Sequence Name:	Matrix Spike
Initial/Final:	25 mL / 25 mL	Source Sample:	LDW18-SP-43

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	Q	MS CONCENTRATION (ug/L)	Q	MS % REC. #	QC LIMITS REC.
Arsenic-75a (dissolved)	25.0	0.710	J, D	26.4	D	103	75 - 125
Cadmium-111 (dissolved)	25.0	ND	U	21.6	D	86.2	75 - 125
Copper-63 (dissolved)	25.0	ND	U	25.0	D	99.8	75 - 125
Zinc-66 (dissolved)	80.0	12.8	J, D	84.1	D	89.2	75 - 125

* Values outside of QC limits

MS / MS DUPLICATE RECOVERY

EPA 6020A UCT-KED

Dissolved Metals

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/25/18 16:12
Batch:	BGF0364	Laboratory ID:	BGF0364-MSD2
Preparation:	REN EPA 600/4-79-020 4.1.4 HNO3 matrix	Sequence Name:	Matrix Spike Dup
Initial/Final:	25 mL / 25 mL	Source Sample:	LDW18-SP-43

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	Q	MSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Arsenic-75a (dissolved)	25.0	26.0	D	101	1.34	20	75 - 125
Cadmium-111 (dissolved)	25.0	22.2	D	88.8	2.97	20	75 - 125
Copper-63 (dissolved)	25.0	24.1	D	96.5	3.38	20	75 - 125
Zinc-66 (dissolved)	80.0	79.3	D	83.2	5.86	20	75 - 125

* Values outside of QC limits

MS / MS DUPLICATE RECOVERY

EPA 6020A UCT-KED

Dissolved Metals

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/26/18 14:24
Batch:	BGF0478	Laboratory ID:	BGF0478-MS1
Preparation:	REN EPA 600/4-79-020 4.1.4 HNO3 matrix	Sequence Name:	Matrix Spike
Initial/Final:	25 mL / 25 mL	Source Sample:	LDW18-SP-06

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	Q	MS CONCENTRATION (ug/L)	Q	MS % REC. #	QC LIMITS REC.
Arsenic-75a (dissolved)	25.0	2.21	D	28.0	D	103	75 - 125
Cadmium-111 (dissolved)	25.0	ND	U	23.8	D	95.3	75 - 125
Copper-63 (dissolved)	25.0	ND	U	27.5	D	110	75 - 125
Zinc-66 (dissolved)	80.0	ND	U	74.9	D	93.6	75 - 125

* Values outside of QC limits

MS / MS DUPLICATE RECOVERY

EPA 6020A UCT-KED

Dissolved Metals

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/28/18 15:52
Batch:	BGF0480	Laboratory ID:	BGF0480-MS1
Preparation:	REN EPA 600/4-79-020 4.1.4 HNO3 matrix	Sequence Name:	Matrix Spike
Initial/Final:	25 mL / 25 mL	Source Sample:	LDW18-SP-88

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	Q	MS CONCENTRATION (ug/L)	Q	MS % REC. #	QC LIMITS REC.
Arsenic-75a (dissolved)	25.0	4.64	D	30.6	D	104	75 - 125
Cadmium-111 (dissolved)	25.0	0.370	J, D	23.7	D	93.1	75 - 125
Copper-63 (dissolved)	25.0	ND	U	26.8	D	107	75 - 125
Zinc-66 (dissolved)	80.0	ND	U	79.0	D	98.8	75 - 125

* Values outside of QC limits

INITIAL CALIBRATION DATA

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00044
Instrument: ICPMS2
Calibration Date: 06/18/2018 12:38

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Arsenic-75a, Dissolved	0	0	0.2	325	10	331.7	20	340.6	50	324.5	100	314.47
Cadmium-111, Dissolved	0	0	0.1	460	10	441.4	20	460.1	50	435.7	100	418.81
Cadmium-114, Dissolved	0	0	0.1	1210	10	1167	20	1170	50	1122.88	100	1065.75
Copper-63, Dissolved	0	0	0.5	3958	10	3883.4	20	3797.65	50	3627.48	100	3401.01
Copper-65, Dissolved	0	0	0.5	1906	10	1866.1	20	1866.25	50	1776.64	100	1685.88
Zinc-66, Dissolved	0	0	4	551.25	10	531.7	20	536.9	50	512.02	100	470.39
Zinc-67, Dissolved	0	0	4	83	10	85.4	20	89.1	50	85	100	76.73

INITIAL CALIBRATION DATA

EPA 6020A UCT-KED

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00044	Instrument:	ICPMS2
Calibration Date:	06/18/2018 12:38		

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Arsenic-75a, Dissolved	272.7117	49.1	0.9996		0.998	
Cadmium-111, Dissolved	369.335	49.2	0.9994		0.998	
Cadmium-114, Dissolved	955.9383	49.3	0.9991		0.998	
Copper-63, Dissolved	3111.257	49.4	0.9987		0.998	
Copper-65, Dissolved	1516.812	49.3	0.9991		0.998	
Zinc-66, Dissolved	433.71	49.4	0.9980		0.998	*
Zinc-67, Dissolved	69.87167	49.3	0.9969		0.998	*

Analytical Resources, Incorporated
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ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6/18/18 **Analyst:** MS **Sequence:** SGFØ239
Calib: BFØØ144

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ - CAL1	G5398		
		- CAL2	G5ØGØ		
		- CAL3	G562Ø		
		- CAL4	G5621		
		- CAL5	G5456		
		- CAL6	G5622		
		- IBL1	—		
		- ICV1	G51Ø3		
		- ICB1	G5398		
		- CCV1	G5456		
		- CCB1	G5398		
		- CRL1	G5ØGØ		In sl. noisy
		- IFA1	G5ØG5		Cr 53↑
		- IFB1	G5ØG6		
		- HCV1	G5ØG7		
		- HCV2	G5ØG8		
		- IBL2/3	—		
		- CCV2			
		- CCB2			
		BGFØ4Ø6-BLK1	REN		
		18FØ227-Ø1			Ge↓ not needed, Cd sl. noisy
		18FØ237-Ø1		100	Cr>LR CrNR
		18FØ183-Ø1REI		5	Cr only
		18FØ237-Ø1REI		10,000	Cr only

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6/18/18 **Analyst:** MB **Sequence:** —

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		BGFΦ406-DUP1	REN		
		18FΦ198-Φ9	↓		
		BGFΦ406-MS1			
		↓ -MSD1			
		↓ -BS1	↓		
		SEQ-CCV3			
		↓ -CCB3			
		BGFΦ419-BLK1	SWN	20	
		18FΦ215-Φ1	REN	2	
		18FΦ232-Φ1	SWN	20	Zn>RL Zn NR
		↓ -Φ2	↓	↓	Cr,Zn>RL Cr,Zn NR
		↓ -Φ5			↓ ↓
		BGFΦ419-DUP1			
		18FΦΦ157-Φ8			
		BGFΦ419-MS1			
		↓ -MSD1			
		↓ -BS1	↓	↓	
		SEQ-CCV4			
		↓ -CCB4			
		BGFΦ364-BLK1	REN		
		18FΦ232-Φ1RE1	SWN	100	Zn only
		↓ -Φ2RE1	↓	↓	Cr,Zn only
		↓ -Φ5RE1	↓	200	↓
		18FΦ23Φ-Φ1	REN		

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6/18/18 **Analyst:** MB **Sequence:** —

All corrections made by analyst unless otherwise noted. MB 6/18/18

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		18FΦ234-Φ2	REN		
		↓ -Φ7	↓		
		↓ -Φ8	↓		
		BGFΦ364-BS1	↓		
		BGFΦ419-SRM1	SVN	20	
		SEQ-CCV5			
		↓ -CCB5			
		BGFΦ27Φ-BLK3	REN		As only
		18FΦ157-Φ9	SVN	20	
		↓ -1Φ	↓	↓	
		18FΦ158-Φ2	REN		
		↓ -Φ3	↓		
		18FΦ166-Φ1	↓		As only
		BGFΦ27Φ-DUP3	↓		↓
		18FΦ149-Φ2	↓		
		BGFΦ27Φ-MS3	↓		
		↓ -BS3	↓		
		SEQ-CCV6			
		↓ -CCB6			
		18FΦ~~157-Φ9~~134-Φ1	SVN	20	No Cr, Pb
		18FΦ134-~~1Φ~~Φ2	↓	↓	↓
		~~18FΦ158-Φ2~~			
		BGFΦ364-~~Φ3~~DUP1	REN		No Pb
		18FΦ158-Φ1	↓		↓

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 6/18/18 **Analyst:** MB **Sequence:** —

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		BGF0364-MS1	REN		No Pb
		↓ -MSD1	↓		↓
	✓	↓ -DUP2			Ge^{-1}, In^{-1}, In ↓ Salty
	✓	18F0185-08			↓ ↓
	✓	BGF-0364-MS2			
	✓	↓ -MSD2	↓		
		SEQ-CCV7			Pb ↓
		↓ -CCB7			Cr^{53} ↑
		18F0158-04	REN		No Pb
		-05			↓
		-06			
		-07			Cu > LR No Cu, Pb
		↓ -08			↓ ↓
		18F0185-01			No Pb
	✓	-03			Ge^{-1}, In^{-1}, In ↓ salty
	✓	-04			Int. STDs ↓
	✓	-05			↓
	✓	↓ -06	↓		↓ Sc OK ↓
		SEQ-CCV8			Pb ↓
		↓ -CCB8			Cr^{53} ↑
		18F0185-07	REN		No Pb, Cu, Zn, As
		18F0198-21			Mn, Zn > LR No Mn, Zn, Pb, Cu
		-23			Mn > LR No Mn, Pb, Cu, Zn
		↓ -25	↓		No Pb, Cu, Zn

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 6/18/18 **Analyst:** MB **Sequence:** —

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		18FΦ198-27	REN		Mn>LR Cd only
		-29			↓ ↓
		-31			No Cu, Zn, Pb
		-33			↓
		-35			↓
		-37			Zn>LR
		SEQ-CCV9			Pb↓, Ge⁻¹ noisy
		↓ -CCB9			
	✓	BGFΦ368-BLK1	REN		
		18FΦ198-39			Int. STDs ↓ - Tb OK
		-41			
		-57			
		-59			
		BGFΦ368-DUP1			In⁻¹ ↓ Rest of run
		18FΦ198-Φ5			
		BGFΦ368-MS1			
		-MSD1			Ge⁻¹ ↓
		-BS1			Sc↓
		SEQ-CCVA			Ge⁻¹ ↓ Rest of run Pb↓
		↓ -CCBA			
		18FΦ142-Φ1	REN		
		-Φ3			
		-Φ5			In ↓ Rest of run
	↓	-Φ9	↓		

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ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6/18/18 **Analyst:** MB **Sequence:** —

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	18FØ142-11	REN		Sc↓ Rest of run
		↓ -13			
		BGFØ368-DUP2			
		18FØ142-Ø7			
		BGFØ368-MS2			
		↓ -MSD2			
		SEQ-CCVB			
		↓ -CCBB			
		BGFØ4Ø8-BLK1	REN		
		18FØ142-15			
		-17			
		-19			
		↓ -21			
		BGFØ4Ø8-DUP1			
		18FØ198-Ø6			
		BGFØ4Ø8-MS1			
		-MSD1			
		↓ -BS1			
		SEQ-CCVC			
		↓ -CCBC			
		18FØ142-23	REN		TG↓
		↓ -25			
		18FØ198-Ø1			
	✓	↓ -Ø3			

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 6/18/18 **Analyst:** MB **Sequence:** —

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	18F0198-07	REN		T6↓
	↓	-11	↓		
		-13			
		-15			
		18F0192-02			T6↓
		↓ -04			↓
		SEQ-CCVD			
	↓	↓ -CCBD			↓
		Rinse/DI			

MS 6/18/18

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Monday, June 18, 2018 12:38:54
Sample Description:
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\STD Performance Check.mth
Dataset File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\DataSet\Default\STD Performance Check.15173
MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	9414.0	9413.968	159.861	1.7	Standard
	In	114.9	71464.5	71464.527	890.101	1.2	Standard
	U	238.1	53109.3	53109.346	535.277	1.0	Standard
⌈	CeO	155.9	1371.5	0.019	0.001	5.8	Standard
| >	Ce	139.9	71103.6	71103.591	705.910	1.0	Standard
⌊	Ce++	70.0	1197.1	0.017	0.001	3.7	Standard
	Bkgd	220.0	0.0	0.000	0.000		Standard

Current Conditions File Data

Current Value	Description
0.94	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-9.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-3.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
0.94	DRC Mode NEB
-10.00	DRC Mode QRO
-3.00	DRC Mode CRO
-7.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-13.00	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
0.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 6/18/2018 12:37:27 PM
End Time: 6/18/2018 12:55:37 PM

STD Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9): 9413.97
Obtained Intensity (In 115): 71464.53
Obtained Intensity (U 238): 53109.35
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (Ce++ 70 / Ce 140): 0.017 (=1197.05 / 71103.59)
Obtained Formula (CeO 156 / Ce 140): 0.019 (=1371.53 / 71103.59)

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
0.33 mm	0.01 mm	76333.39

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 0.94
Obtained Intensity (In 115): 81409.30
Obtained Formula (CeO 156 / Ce 140): 0.0204 (=1519.08 / 74401.24)

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.700)
Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.708)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.706)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.704)

QID STD/DRC - Optimum value(s): Correlation Coefficient = 1.000; Intercept = -10.86

KED Mode QID - Optimum value(s): Correlation Coefficient = 0.993; Intercept = -12.44

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 6/18/2018 12:37:27 PM

STD Performance Check
	Optimization Settings:
		Method: STD Performance Check.mth.
		Intensity Criterion: Be 9 > 2000
		Intensity Criterion: In 115 > 40000
		Intensity Criterion: U 238 > 30000
		Intensity Criterion: Bkgd 220 <= 1
		Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
		Formula Criterion: CeO 156 / Ce 140 <= 0.025

	Optimization Results:
	Initial Try
		Obtained Intensity (Be 9): 9413.97
		Obtained Intensity (In 115): 71464.53
		Obtained Intensity (U 238): 53109.35
		Obtained Intensity (Bkgd 220): 0.00
		Obtained Formula (Ce++ 70 / Ce 140): 0.017 (=1197.05 / 71103.59)
		Obtained Formula (CeO 156 / Ce 140): 0.019 (=1371.53 / 71103.59)

[Passed] Optimum value(s): N/A

Torch Alignment
	Optimization Settings:
		Method: Torch Alignment.mth.
		Intensity Criterion: In 115 Maximum

	Optimization Results:
		Vertical	Horizontal	Intensity
[Passed]	0.33 mm	0.01 mm	76333.39

Nebulizer Gas Flow STD/KED [NEB]
	Optimization Settings:
		Method: Optimize.mth.
			Initial Try - Start/End/Step: 0.88/1.1/0.02.
		Intensity Criterion: In 115 Maximum
		Formula Criterion: CeO 156 / Ce 140 <= 0.025

	Optimization Results:
	Initial Try

		Obtained Intensity (In 115): 81409.30
		Obtained Formula (CeO 156 / Ce 140): 0.0204 (=1519.08 / 74401.24)
[Passed] Optimum value(s): 0.94

Mass Calibration and Resolution
	Optimization Settings:
		Method: Tuning.mth.
		MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
		Iterations: 6
		Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution

Peak height (%) for Res. Opt.: 10

Optimization Results:
Initial Try
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.700)
Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.708)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.706)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.704)
[Passed] Optimum value(s): N/A

QID STD/DRC
Optimization Settings:
Method: QID Calibration.mth.
Initial Try - Start/End/Step: -16/0/0.5.

Optimization Results:
Initial Try

Optimum value(s): Correlation Coefficient = 1.000; Intercept = -10.86

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	33	-11	41087
Mg	24	33	-11	47876.1
In	115	33	-8.5	83080.9
Ce	140	33	-7.5	76902.4
Pb	208	33	-6	35439.9
U	238	33	-5.5	56816.8

KED Mode QID
Optimization Settings:
Method: QID Calibration.mth.
Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:
Initial Try

Optimum value(s): Correlation Coefficient = 0.993; Intercept = -12.44

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-12	35251.4
Mg	24	41	-11.5	29682.8
In	115	41	-8	65763
Ce	140	41	-8	58085.8
Pb	208	41	-5	22782.2
U	238	41	-4	52885.7

End Time: 6/18/2018 12:55:37 PM

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Monday, June 18, 2018 12:58:37
Sample Description:
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\STD Performance Check.mth
Dataset File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\DataSet\Default\STD Performance Check.15180
MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	9907.8	9907.769	197.242	2.0	Standard
	In	114.9	77643.9	77643.907	645.054	0.8	Standard
	U	238.1	58170.7	58170.676	758.270	1.3	Standard
⌈	CeO	155.9	1557.2	0.020	0.000	2.3	Standard
| >	Ce	139.9	76713.2	76713.243	903.102	1.2	Standard
⌊	Ce++	70.0	1356.5	0.018	0.001	5.2	Standard
	Bkgd	220.0	0.0	0.000	0.000		Standard

Current Conditions File Data

Current Value	Description
0.94	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-9.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-3.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
0.94	DRC Mode NEB
-10.00	DRC Mode QRO
-3.00	DRC Mode CRO
-7.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-13.00	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
0.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 6/18/2018 12:55:46 PM
End Time: 6/18/2018 1:00:41 PM

KED Mode QID - Optimum value(s): Correlation Coefficient = 0.997; Intercept = -11.55

STD Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9): 9907.77
Obtained Intensity (In 115): 77643.91
Obtained Intensity (U 238): 58170.68
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (Ce++ 70 / Ce 140): 0.018 (=1356.53 / 76713.24)
Obtained Formula (CeO 156 / Ce 140): 0.020 (=1557.15 / 76713.24)

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 6/18/2018 12:55:46 PM

KED Mode QID

Optimization Settings:

Method: QID Calibration.mth.

Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 0.997; Intercept = -11.55

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-11.5	34437.5
Mg	24	41	-11.5	29286
In	115	41	-8	60829.2
Ce	140	41	-7.5	58885.1
Pb	208	41	-5	22053
U	238	41	-4.5	53034.3

STD Performance Check

Optimization Settings:

Method: STD Performance Check.mth.

Intensity Criterion: Be 9 > 2000

Intensity Criterion: In 115 > 40000

Intensity Criterion: U 238 > 30000

Intensity Criterion: Bkgd 220 <= 1

Formula Criterion: Ce++ 70 / Ce 140 <= 0.03

Formula Criterion: CeO 156 / Ce 140 <= 0.025

Optimization Results:

Initial Try

Obtained Intensity (Be 9): 9907.77

Obtained Intensity (In 115): 77643.91

Obtained Intensity (U 238): 58170.68

Obtained Intensity (Bkgd 220): 0.00

Obtained Formula (Ce++ 70 / Ce 140): 0.018 (=1356.53 / 76713.24)

Obtained Formula (CeO 156 / Ce 140): 0.020 (=1557.15 / 76713.24)

[Passed] Optimum value(s): N/A

End Time: 6/18/2018 1:00:41 PM

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 13:42:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				26774	1	Standard
	Cl	**37**		ug/L				6308940	0	Standard
⎡>	**Sc**	**45**		ug/L				1410977	1	Standard
⎢	**Cr**	**52**		ug/L				14875	1	Standard
⎢	**Cr**	**53**		ug/L				195	2	Standard
⎣	**Mn**	**55**		ug/L				545	3	Standard
⎡>	**Ge-1**	**72**		ug/L				87449	1	KED
⎢	**Ni**	**60**		ug/L				15	21	KED
⎢	**Ni**	**62**		ug/L				10	10	KED
⎢	**Cu**	**63**		ug/L				46	18	KED
⎢	**Cu**	**65**		ug/L				26	11	KED
⎢	**Zn**	**66**		ug/L				68	20	KED
⎢	**Zn**	**67**		ug/L				10	40	KED
⎢	**As**	**75**		ug/L				4	5	KED
⎣	**Se-1**	**78**		ug/L				12	15	KED
	Y	**89**		ug/L				790194	2	Standard
	Kr	**83**		ug/L				58	19	Standard
⎡>	**In-1**	**115**		ug/L				38158	1	KED
⎢	**Cd**	**111**		ug/L				3	75	KED
⎣	**Cd**	**114**		ug/L				5	103	KED
⎡>	**In**	**115**		ug/L				944527	1	Standard
⎢	**Ag**	**107**		ug/L				53	31	Standard
⎢	**Sb**	**121**		ug/L				99	6	Standard
⎢	**Sb**	**123**		ug/L				75	9	Standard
⎢	**Ba**	**135**		ug/L				12	32	Standard
⎣	**Ba**	**137**		ug/L				21	51	Standard
⎡>	**Tb**	**159**		ug/L				1118737	1	Standard
⎣	**Pb**	**208**		ug/L				175	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 13:46:58
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	28539	1	Standard
	Cl	**37**		ug/L			6308940	6239398	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1396696	2	Standard
|	**Cr**	**52**	**0.500**	ug/L	0.033	6	14875	26528	0	Standard
|	**Cr**	**53**	**0.500**	ug/L	0.023	4	195	1624	1	Standard
⌊	**Mn**	**55**	**0.500**	ug/L	0.016	3	545	18344	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	86067	1	KED
|	**Ni**	**60**	**0.500**	ug/L	0.009	1	15	749	1	KED
|	**Ni**	**62**	**0.500**	ug/L	0.066	13	10	119	10	KED
|	**Cu**	**63**	**0.500**	ug/L	0.013	2	46	1979	3	KED
|	**Cu**	**65**	**0.500**	ug/L	0.007	1	26	953	0	KED
|	**Zn**	**66**	**4.000**	ug/L	0.126	3	68	2205	1	KED
|	**Zn**	**67**	**4.000**	ug/L	0.663	16	10	332	16	KED
|	**As**	**75**	**0.200**	ug/L	0.029	14	4	65	12	KED
⌊	**Se-1**	**78**	**0.500**	ug/L	0.217	43	12	37	30	KED
	Y	**89**		ug/L			790194	748169	3	Standard
	Kr	**83**		ug/L			58	49	26	Standard
⌈>	**In-1**	**115**		ug/L			38158	37853	5	KED
|	**Cd**	**111**	**0.100**	ug/L	0.012	12	3	46	6	KED
⌊	**Cd**	**114**	**0.100**	ug/L	0.006	5	5	121	10	KED
⌈>	**In**	**115**		ug/L			944527	938682	1	Standard
|	**Ag**	**107**	**0.200**	ug/L	0.010	5	53	3263	3	Standard
|	**Sb**	**121**	**0.200**	ug/L	0.001	0	99	2642	1	Standard
|	**Sb**	**123**	**0.200**	ug/L	0.010	4	75	1981	5	Standard
|	**Ba**	**135**	**0.500**	ug/L	0.015	2	12	2060	3	Standard
⌊	**Ba**	**137**	**0.500**	ug/L	0.013	2	21	3472	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1108929	2	Standard
⌊	**Pb**	**208**	**0.100**	ug/L	0.003	3	175	4459	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 13:51:40
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	25966	2	Standard
	Cl	**37**		ug/L			6308940	6356153	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1449760	1	Standard
|	**Cr**	**52**	**10.000**	ug/L	0.105	1	14875	257056	0	Standard
|	**Cr**	**53**	**9.999**	ug/L	0.094	0	195	28814	0	Standard
⌊	**Mn**	**55**	**9.999**	ug/L	0.099	0	545	359524	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	86498	3	KED
|	**Ni**	**60**	**9.999**	ug/L	0.662	6	15	14453	2	KED
|	**Ni**	**62**	**10.001**	ug/L	0.843	8	10	2294	5	KED
|	**Cu**	**63**	**10.000**	ug/L	0.415	4	46	38834	0	KED
|	**Cu**	**65**	**10.000**	ug/L	0.665	6	26	18661	3	KED
|	**Zn**	**66**	**9.968**	ug/L	0.438	4	68	5317	3	KED
|	**Zn**	**67**	**10.057**	ug/L	0.224	2	10	854	3	KED
|	**As**	**75**	**10.000**	ug/L	0.335	3	4	3317	0	KED
⌊	**Se-1**	**78**	**9.998**	ug/L	0.700	7	12	465	3	KED
	Y	**89**		ug/L			790194	753001	3	Standard
	Kr	**83**		ug/L			58	62	13	Standard
⌈>	**In-1**	**115**		ug/L			38158	37827	4	KED
|	**Cd**	**111**	**10.000**	ug/L	0.502	5	3	4414	0	KED
⌊	**Cd**	**114**	**10.000**	ug/L	0.235	2	5	11670	2	KED
⌈>	**In**	**115**		ug/L			944527	942585	3	Standard
|	**Ag**	**107**	**10.000**	ug/L	0.741	7	53	162048	4	Standard
|	**Sb**	**121**	**10.000**	ug/L	0.271	2	99	128736	2	Standard
|	**Sb**	**123**	**10.000**	ug/L	0.322	3	75	96620	3	Standard
|	**Ba**	**135**	**9.999**	ug/L	0.374	3	12	39535	1	Standard
⌊	**Ba**	**137**	**9.999**	ug/L	0.345	3	21	66230	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1128327	3	Standard
⌊	**Pb**	**208**	**10.000**	ug/L	0.404	4	175	411544	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 13:56:37
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	25966	2	Standard
	Cl	**37**		ug/L			6308940	6315561	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1431689	1	Standard
|	**Cr**	**52**	**20.087**	ug/L	0.341	1	14875	503167	1	Standard
|	**Cr**	**53**	**20.073**	ug/L	0.496	2	195	57754	1	Standard
⌊	**Mn**	**55**	**20.065**	ug/L	0.367	1	545	721120	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	85855	0	KED
|	**Ni**	**60**	**20.053**	ug/L	0.436	2	15	29108	1	KED
|	**Ni**	**62**	**19.977**	ug/L	0.120	0	10	4527	0	KED
|	**Cu**	**63**	**19.938**	ug/L	0.229	1	46	75953	0	KED
|	**Cu**	**65**	**20.026**	ug/L	0.257	1	26	37325	0	KED
|	**Zn**	**66**	**20.088**	ug/L	0.685	3	68	10738	3	KED
|	**Zn**	**67**	**20.271**	ug/L	0.344	1	10	1782	1	KED
|	**As**	**75**	**20.134**	ug/L	0.094	0	4	6812	0	KED
⌊	**Se-1**	**78**	**20.002**	ug/L	0.184	0	12	913	1	KED
	Y	**89**		ug/L			790194	758858	3	Standard
	Kr	**83**		ug/L			58	60	7	Standard
⌈>	**In-1**	**115**		ug/L			38158	38271	1	KED
|	**Cd**	**111**	**20.114**	ug/L	0.340	1	3	9202	0	KED
⌊	**Cd**	**114**	**19.961**	ug/L	0.258	1	5	23400	2	KED
⌈>	**In**	**115**		ug/L			944527	955858	4	Standard
|	**Ag**	**107**	**19.994**	ug/L	0.948	4	53	328091	0	Standard
|	**Sb**	**121**	**20.039**	ug/L	1.052	5	99	263188	0	Standard
|	**Sb**	**123**	**20.064**	ug/L	1.186	5	75	198740	1	Standard
|	**Ba**	**135**	**19.954**	ug/L	0.926	4	12	79222	2	Standard
⌊	**Ba**	**137**	**20.077**	ug/L	1.085	5	21	136782	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1127471	0	Standard
⌊	**Pb**	**208**	**20.043**	ug/L	0.295	1	175	831812	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 14:01:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	25319	0	Standard
	Cl	**37**		ug/L			6308940	6306424	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1430641	1	Standard
|	**Cr**	**52**	**49.549**	ug/L	1.743	3	14875	1165765	1	Standard
|	**Cr**	**53**	**49.739**	ug/L	1.173	2	195	139083	1	Standard
⌊	**Mn**	**55**	**49.464**	ug/L	1.055	2	545	1685155	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	84600	0	KED
|	**Ni**	**60**	**49.785**	ug/L	0.532	1	15	69699	1	KED
|	**Ni**	**62**	**49.716**	ug/L	1.151	2	10	10782	2	KED
|	**Cu**	**63**	**49.715**	ug/L	0.617	1	46	181374	0	KED
|	**Cu**	**65**	**49.724**	ug/L	0.189	0	26	88832	0	KED
|	**Zn**	**66**	**49.787**	ug/L	0.200	0	68	25601	0	KED
|	**Zn**	**67**	**49.866**	ug/L	1.913	3	10	4250	4	KED
|	**As**	**75**	**49.775**	ug/L	0.408	0	4	16225	1	KED
⌊	**Se-1**	**78**	**49.494**	ug/L	0.563	1	12	2102	0	KED
	Y	**89**		ug/L			790194	747216	5	Standard
	Kr	**83**		ug/L			58	81	18	Standard
⌈>	**In-1**	**115**		ug/L			38158	36284	3	KED
|	**Cd**	**111**	**50.043**	ug/L	1.475	2	3	21785	0	KED
⌊	**Cd**	**114**	**50.094**	ug/L	1.991	3	5	56144	1	KED
⌈>	**In**	**115**		ug/L			944527	934233	1	Standard
|	**Ag**	**107**	**49.595**	ug/L	1.068	2	53	765389	1	Standard
|	**Sb**	**121**	**49.890**	ug/L	0.724	1	99	634317	0	Standard
|	**Sb**	**123**	**49.756**	ug/L	0.759	1	75	471067	2	Standard
|	**Ba**	**135**	**49.710**	ug/L	0.732	1	12	187691	2	Standard
⌊	**Ba**	**137**	**49.727**	ug/L	0.408	0	21	322842	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1096755	1	Standard
⌊	**Pb**	**208**	**49.701**	ug/L	1.077	2	175	1947758	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 14:08:30
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	26292	3	Standard
	Cl	**37**		ug/L			6308940	6485270	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1381610	1	Standard
|	**Cr**	**52**	**99.228**	ug/L	3.228	3	14875	2184207	1	Standard
|	**Cr**	**53**	**99.517**	ug/L	2.304	2	195	264291	0	Standard
⌊	**Mn**	**55**	**99.641**	ug/L	2.607	2	545	3238887	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	82016	0	KED
|	**Ni**	**60**	**99.488**	ug/L	0.974	0	15	132755	1	KED
|	**Ni**	**62**	**99.138**	ug/L	1.208	1	10	20250	0	KED
|	**Cu**	**63**	**99.088**	ug/L	0.278	0	46	340101	0	KED
|	**Cu**	**65**	**99.377**	ug/L	0.579	0	26	168588	0	KED
|	**Zn**	**66**	**98.662**	ug/L	1.254	1	68	47039	1	KED
|	**Zn**	**67**	**98.280**	ug/L	2.149	2	10	7673	2	KED
|	**As**	**75**	**99.892**	ug/L	1.993	1	4	31447	1	KED
⌊	**Se-1**	**78**	**99.888**	ug/L	1.219	1	12	4087	0	KED
	Y	**89**		ug/L			790194	733458	2	Standard
	Kr	**83**		ug/L			58	92	6	Standard
⌈>	**In-1**	**115**		ug/L			38158	35235	5	KED
|	**Cd**	**111**	**99.821**	ug/L	6.322	6	3	41881	1	KED
⌊	**Cd**	**114**	**99.546**	ug/L	6.718	6	5	106575	2	KED
⌈>	**In**	**115**		ug/L			944527	871267	2	Standard
|	**Ag**	**107**	**99.813**	ug/L	3.033	3	53	1427245	1	Standard
|	**Sb**	**121**	**100.426**	ug/L	2.478	2	99	1207510	0	Standard
|	**Sb**	**123**	**100.257**	ug/L	1.928	1	75	892394	1	Standard
|	**Ba**	**135**	**100.918**	ug/L	1.566	1	12	366480	1	Standard
⌊	**Ba**	**137**	**100.919**	ug/L	3.853	3	21	629909	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1086297	1	Standard
⌊	**Pb**	**208**	**99.229**	ug/L	2.848	2	175	3754303	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 14:15:57
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	26505	1	Standard
	Cl	**37**		ug/L			6308940	6018971	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1380239	4	Standard
|	**Cr**	**52**	**-0.051**	ug/L	0.018	35	14875	13426	3	Standard
|	**Cr**	**53**	**0.002**	ug/L	0.008	408	195	196	11	Standard
⌊	**Mn**	**55**	**-0.001**	ug/L	0.001	182	545	507	3	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	85589	2	KED
|	**Ni**	**60**	**-0.007**	ug/L	0.001	22	15	5	33	KED
|	**Ni**	**62**	**-0.035**	ug/L	0.010	29	10	2	86	KED
|	**Cu**	**63**	**-0.005**	ug/L	0.002	44	46	29	22	KED
|	**Cu**	**65**	**-0.008**	ug/L	0.005	60	26	10	83	KED
|	**Zn**	**66**	**-0.033**	ug/L	0.017	50	68	50	17	KED
|	**Zn**	**67**	**-0.074**	ug/L	0.056	75	10	4	98	KED
|	**As**	**75**	**0.001**	ug/L	0.006	432	4	4	36	KED
⌊	**Se-1**	**78**	**0.080**	ug/L	0.063	78	12	15	18	KED
	Y	**89**		ug/L			790194	733707	4	Standard
	Kr	**83**		ug/L			58	63	4	Standard
⌈>	**In-1**	**115**		ug/L			38158	37803	0	KED
|	**Cd**	**111**	**-0.003**	ug/L	0.000	1	3	1		KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.002	391	5	6	45	KED
⌈>	**In**	**115**		ug/L			944527	927750	4	Standard
|	**Ag**	**107**	**0.002**	ug/L	0.001	34	53	84	15	Standard
|	**Sb**	**121**	**0.252**	ug/L	0.009	3	99	3321	1	Standard
|	**Sb**	**123**	**0.258**	ug/L	0.017	6	75	2519	4	Standard
|	**Ba**	**135**	**0.000**	ug/L	0.000	167	12	12	8	Standard
⌊	**Ba**	**137**	**-0.000**	ug/L	0.001	138	21	17	22	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1095107	4	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.001	189	175	187	12	Standard

Sample Information

Sample Date/Time: Monday, June 18, 2018 14:08:30
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_C
Mass Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Calibration

Analyte	Mass	**r Corr Coef**	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Sc	45							
Cr	52	**0.9998**	0.016	0.50	10	20	50	100
Cr	53	**0.9999**	0.002	0.50	10	20	50	100
Mn	55	**0.9999**	0.024	0.50	10	20	50	100
Ge-1	72							
Ni	60	**0.9999**	0.016	0.50	10	20	50	100
Ni	62	**0.9999**	0.002	0.50	10	20	50	100
Cu	63	**0.9998**	0.042	0.50	10	20	50	100
Cu	65	**0.9999**	0.021	0.50	10	20	50	100
Zn	66	**0.9997**	0.006	4.00	10	20	50	100
Zn	67	**0.9995**	0.001	4.00	10	20	50	100
As	75	**1.0000**	0.004	0.20	10	20	50	100
Se-1	78	**0.9999**	0.000	0.50	10	20	50	100
Y	89							
Kr	83							
In-1	115							
Cd	111	**1.0000**	0.012	0.10	10	20	50	100
Cd	114	**1.0000**	0.030	0.10	10	20	50	100
In	115							
Ag	107	**1.0000**	0.016	0.20	10	20	50	100
Sb	121	**1.0000**	0.014	0.20	10	20	50	100
Sb	123	**1.0000**	0.010	0.20	10	20	50	100
Ba	135	**0.9998**	0.004	0.50	10	20	50	100
Ba	137	**0.9998**	0.007	0.50	10	20	50	100
Tb	159							
Pb	208	**0.9999**	0.035	0.10	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICV1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 14:23:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	28385	0	Standard
	Cl	**37**		ug/L			6308940	6409986	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1395847	0	Standard
|	**Cr**	**52**	**51.551**	ug/L	1.601	3	14875	1153838	2	Standard
|	**Cr**	**53**	**51.707**	ug/L	1.674	3	195	138855	2	Standard
⌊	**Mn**	**55**	**50.768**	ug/L	0.615	1	545	1667923	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	83006	1	KED
|	**Ni**	**60**	**50.075**	ug/L	1.289	2	15	67616	1	KED
|	**Ni**	**62**	**53.541**	ug/L	0.964	1	10	11073	1	KED
|	**Cu**	**63**	**51.393**	ug/L	1.379	2	46	178559	3	KED
|	**Cu**	**65**	**51.377**	ug/L	0.855	1	26	88214	0	KED
|	**Zn**	**66**	**50.368**	ug/L	1.200	2	68	24331	1	KED
|	**Zn**	**67**	**51.133**	ug/L	1.616	3	10	4045	2	KED
|	**As**	**75**	**49.905**	ug/L	0.573	1	4	15902	0	KED
⌊	**Se-1**	**78**	**77.210**	ug/L	0.979	1	12	3199	0	KED
	Y	**89**		ug/L			790194	762852	1	Standard
	Kr	**83**		ug/L			58	73	16	Standard
⌈>	**In-1**	**115**		ug/L			38158	37584	2	KED
|	**Cd**	**111**	**47.045**	ug/L	0.840	1	3	21094	1	KED
⌊	**Cd**	**114**	**46.974**	ug/L	0.381	0	5	53763	2	KED
⌈>	**In**	**115**		ug/L			944527	912221	0	Standard
|	**Ag**	**107**	**48.910**	ug/L	1.160	2	53	732577	2	Standard
|	**Sb**	**121**	**50.246**	ug/L	0.465	0	99	632842	0	Standard
|	**Sb**	**123**	**49.639**	ug/L	1.186	2	75	462776	2	Standard
|	**Ba**	**135**	**48.903**	ug/L	1.102	2	12	185972	2	Standard
⌊	**Ba**	**137**	**49.517**	ug/L	0.564	1	21	323803	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1098032	2	Standard
⌊	**Pb**	**208**	**50.643**	ug/L	0.265	0	175	1937444	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICB1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 14:30:51
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	27068	2	Standard
	Cl	**37**		ug/L			6308940	6067100	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1409259	0	Standard
|	**Cr**	**52**	**-0.045**	ug/L	0.034	76	14875	13852	5	Standard
|	**Cr**	**53**	**0.010**	ug/L	0.013	122	195	223	15	Standard
⌊	**Mn**	**55**	**0.011**	ug/L	0.019	170	545	910	68	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	85149	1	KED
|	**Ni**	**60**	**-0.008**	ug/L	0.001	17	15	3	50	KED
|	**Ni**	**62**	**-0.023**	ug/L	0.019	84	10	5	78	KED
|	**Cu**	**63**	**-0.003**	ug/L	0.001	45	46	34	13	KED
|	**Cu**	**65**	**-0.008**	ug/L	0.003	39	26	10	53	KED
|	**Zn**	**66**	**0.001**	ug/L	0.027	2969	68	67	20	KED
|	**Zn**	**67**	**0.058**	ug/L	0.041	70	10	15	21	KED
|	**As**	**75**	**-0.002**	ug/L	0.004	196	4	3	33	KED
⌊	**Se-1**	**78**	**0.045**	ug/L	0.042	93	12	14	13	KED
	Y	**89**		ug/L			790194	745030	3	Standard
	Kr	**83**		ug/L			58	61	31	Standard
⌈>	**In-1**	**115**		ug/L			38158	37478	2	KED
|	**Cd**	**111**	**-0.003**	ug/L	0.004	139	3	1	86	KED
⌊	**Cd**	**114**	**-0.003**	ug/L	0.002	52	5	1	122	KED
⌈>	**In**	**115**		ug/L			944527	943120	1	Standard
|	**Ag**	**107**	**0.018**	ug/L	0.029	164	53	323	137	Standard
|	**Sb**	**121**	**0.130**	ug/L	0.032	24	99	1787	22	Standard
|	**Sb**	**123**	**0.124**	ug/L	0.033	26	75	1268	24	Standard
|	**Ba**	**135**	**0.017**	ug/L	0.028	169	12	77	143	Standard
⌊	**Ba**	**137**	**0.015**	ug/L	0.028	183	21	125	152	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1095304	1	Standard
⌊	**Pb**	**208**	**0.018**	ug/L	0.029	157	175	880	127	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 14:37:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	24765	3	Standard
	Cl	**37**		ug/L			6308940	6396207	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1389323	1	Standard
|	**Cr**	**52**	**51.659**	ug/L	1.217	2	14875	1150726	1	Standard
|	**Cr**	**53**	**50.293**	ug/L	0.756	1	195	134446	2	Standard
⌊	**Mn**	**55**	**50.452**	ug/L	0.145	0	545	1649850	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	82232	2	KED
|	**Ni**	**60**	**49.906**	ug/L	0.711	1	15	66758	0	KED
|	**Ni**	**62**	**51.832**	ug/L	0.857	1	10	10619	2	KED
|	**Cu**	**63**	**50.541**	ug/L	1.773	3	46	173858	1	KED
|	**Cu**	**65**	**50.117**	ug/L	2.106	4	26	85210	2	KED
|	**Zn**	**66**	**51.643**	ug/L	1.032	1	68	24713	2	KED
|	**Zn**	**67**	**52.976**	ug/L	0.612	1	10	4151	1	KED
|	**As**	**75**	**50.147**	ug/L	1.385	2	4	15825	1	KED
⌊	**Se-1**	**78**	**51.257**	ug/L	2.387	4	12	2107	2	KED
	Y	**89**		ug/L			790194	724430	1	Standard
	Kr	**83**		ug/L			58	57	16	Standard
⌈>	**In-1**	**115**		ug/L			38158	35659	1	KED
|	**Cd**	**111**	**49.818**	ug/L	1.658	3	3	21194	2	KED
⌊	**Cd**	**114**	**49.326**	ug/L	1.327	2	5	53559	2	KED
⌈>	**In**	**115**		ug/L			944527	878342	1	Standard
|	**Ag**	**107**	**52.143**	ug/L	0.982	1	53	751850	0	Standard
|	**Sb**	**121**	**50.738**	ug/L	0.797	1	99	615228	0	Standard
|	**Sb**	**123**	**50.475**	ug/L	1.014	2	75	453017	1	Standard
|	**Ba**	**135**	**50.360**	ug/L	0.890	1	12	184378	1	Standard
⌊	**Ba**	**137**	**51.029**	ug/L	0.510	0	21	321269	0	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1069204	2	Standard
⌊	**Pb**	**208**	**52.122**	ug/L	1.909	3	175	1940796	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 14:45:35
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	26405	1	Standard
	Cl	**37**		ug/L			6308940	6081612	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1397589	0	Standard
|	**Cr**	**52**	**-0.054**	ug/L	0.015	28	14875	13546	2	Standard
|	**Cr**	**53**	**0.001**	ug/L	0.008	591	195	197	11	Standard
⌊	**Mn**	**55**	**-0.001**	ug/L	0.001	124	545	507	7	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	83850	0	KED
|	**Ni**	**60**	**-0.006**	ug/L	0.002	38	15	6	41	KED
|	**Ni**	**62**	**-0.034**	ug/L	0.005	15	10	2	43	KED
|	**Cu**	**63**	**-0.006**	ug/L	0.002	29	46	24	23	KED
|	**Cu**	**65**	**-0.006**	ug/L	0.004	62	26	13	47	KED
|	**Zn**	**66**	**-0.023**	ug/L	0.013	55	68	54	11	KED
|	**Zn**	**67**	**-0.034**	ug/L	0.048	141	10	7	50	KED
|	**As**	**75**	**-0.002**	ug/L	0.009	465	4	3	75	KED
⌊	**Se-1**	**78**	**0.016**	ug/L	0.019	117	12	12	5	KED
	Y	**89**		ug/L			790194	737472	1	Standard
	Kr	**83**		ug/L			58	55	19	Standard
⌈>	**In-1**	**115**		ug/L			38158	36257	1	KED
|	**Cd**	**111**	**0.005**	ug/L	0.003	56	3	5	21	KED
⌊	**Cd**	**114**	**-0.003**	ug/L	0.001	42	5	2	52	KED
⌈>	**In**	**115**		ug/L			944527	939795	2	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.001	96	53	64	16	Standard
|	**Sb**	**121**	**0.137**	ug/L	0.011	8	99	1878	8	Standard
|	**Sb**	**123**	**0.131**	ug/L	0.009	7	75	1336	4	Standard
|	**Ba**	**135**	**-0.001**	ug/L	0.001	55	12	8	26	Standard
⌊	**Ba**	**137**	**-0.000**	ug/L	0.000	178	21	19	14	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1077469	0	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	19	175	204	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CRL1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 14:50:18
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	27334	3	Standard
	Cl	**37**		ug/L			6308940	5961656	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1378946	2	Standard
|	**Cr**	**52**	**0.509**	ug/L	0.054	10	14875	25625	2	Standard
|	**Cr**	**53**	**0.528**	ug/L	0.006	1	195	1589	1	Standard
⌊	**Mn**	**55**	**0.528**	ug/L	0.007	1	545	17655	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	83863	1	KED
|	**Ni**	**60**	**0.514**	ug/L	0.015	2	15	716	3	KED
|	**Ni**	**62**	**0.488**	ug/L	0.097	19	10	111	19	KED
|	**Cu**	**63**	**0.518**	ug/L	0.009	1	46	1861	1	KED
|	**Cu**	**65**	**0.504**	ug/L	0.021	4	26	898	3	KED
|	**Zn**	**66**	**4.170**	ug/L	0.215	5	68	2095	4	KED
|	**Zn**	**67**	**4.043**	ug/L	0.040	0	10	332	2	KED
|	**As**	**75**	**0.188**	ug/L	0.017	9	4	64	7	KED
⌊	**Se-1**	**78**	**0.560**	ug/L	0.044	7	12	35	6	KED
	Y	**89**		ug/L			790194	720226	4	Standard
	Kr	**83**		ug/L			58	50	26	Standard
⌈>	**In-1**	**115**		ug/L			38158	37172	6	KED
|	**Cd**	**111**	**0.091**	ug/L	0.018	19	3	43	12	KED
⌊	**Cd**	**114**	**0.093**	ug/L	0.005	5	5	110	6	KED
⌈>	**In**	**115**		ug/L			944527	911963	2	Standard
|	**Ag**	**107**	**0.207**	ug/L	0.010	4	53	3149	2	Standard
|	**Sb**	**121**	**0.241**	ug/L	0.010	4	99	3131	2	Standard
|	**Sb**	**123**	**0.234**	ug/L	0.005	1	75	2252	2	Standard
|	**Ba**	**135**	**0.494**	ug/L	0.019	3	12	1889	2	Standard
⌊	**Ba**	**137**	**0.504**	ug/L	0.022	4	21	3317	4	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1075105	2	Standard
⌊	**Pb**	**208**	**0.105**	ug/L	0.003	2	175	4087	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFA1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 14:56:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	152213	1	Standard
	Cl	**37**		ug/L			6308940	14353043	2	Standard
>	**Sc**	**45**		ug/L			1410977	1368574	1	Standard
	Cr	**52**	**0.546**	ug/L	0.041	7	14875	26259	2	Standard
	Cr	**53**	**4.384**	ug/L	0.123	2	195	11718	3	Standard
	Mn	**55**	**0.145**	ug/L	0.003	2	545	5212	2	Standard
>	**Ge-1**	**72**		ug/L			87449	80788	1	KED
	Ni	**60**	**0.041**	ug/L	0.005	12	15	67	11	KED
	Ni	**62**	**0.155**	ug/L	0.036	23	10	40	19	KED
	Cu	**63**	**0.030**	ug/L	0.003	10	46	146	6	KED
	Cu	**65**	**0.040**	ug/L	0.006	14	26	91	10	KED
	Zn	**66**	**0.126**	ug/L	0.049	38	68	122	18	KED
	Zn	**67**	**0.085**	ug/L	0.032	37	10	16	13	KED
	As	**75**	**0.029**	ug/L	0.006	22	4	13	13	KED
	Se-1	**78**	**0.098**	ug/L	0.060	61	12	15	16	KED
	Y	**89**		ug/L			790194	727206	0	Standard
	Kr	**83**		ug/L			58	224	14	Standard
>	**In-1**	**115**		ug/L			38158	35473	1	KED
	Cd	**111**	**0.088**	ug/L	0.011	12	3	40	11	KED
	Cd	**114**	**0.072**	ug/L	0.017	23	5	82	21	KED
>	**In**	**115**		ug/L			944527	873750	2	Standard
	Ag	**107**	**0.010**	ug/L	0.002	16	53	189	9	Standard
	Sb	**121**	**0.041**	ug/L	0.002	5	99	587	5	Standard
	Sb	**123**	**0.036**	ug/L	0.001	3	75	391	4	Standard
	Ba	**135**	**0.017**	ug/L	0.003	15	12	74	10	Standard
	Ba	**137**	**0.016**	ug/L	0.002	12	21	121	11	Standard
>	**Tb**	**159**		ug/L			1118737	1072065	1	Standard
	Pb	**208**	**0.020**	ug/L	0.000	0	175	917	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFB1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 15:01:42
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	153695	2	Standard
	Cl	**37**		ug/L			6308940	14657818	0	Standard
⎡>	**Sc**	**45**		ug/L			1410977	1385769	1	Standard
⎢	**Cr**	**52**	**20.934**	ug/L	0.361	1	14875	473819	1	Standard
⎢	**Cr**	**53**	**24.066**	ug/L	0.606	2	195	64256	2	Standard
⎣	**Mn**	**55**	**20.119**	ug/L	0.580	2	545	656314	0	Standard
⎡>	**Ge-1**	**72**		ug/L			87449	79508	1	KED
⎢	**Ni**	**60**	**19.234**	ug/L	0.240	1	15	24891	2	KED
⎢	**Ni**	**62**	**19.898**	ug/L	0.435	2	10	3947	2	KED
⎢	**Cu**	**63**	**19.512**	ug/L	0.391	2	46	64945	0	KED
⎢	**Cu**	**65**	**19.143**	ug/L	0.473	2	26	31496	1	KED
⎢	**Zn**	**66**	**18.686**	ug/L	0.561	3	68	8685	1	KED
⎢	**Zn**	**67**	**16.864**	ug/L	0.622	3	10	1284	3	KED
⎢	**As**	**75**	**18.787**	ug/L	0.313	1	4	5736	0	KED
⎣	**Se-1**	**78**	**0.061**	ug/L	0.076	123	12	13	20	KED
	Y	**89**		ug/L			790194	728218	3	Standard
	Kr	**83**		ug/L			58	215	5	Standard
⎡>	**In-1**	**115**		ug/L			38158	34753	2	KED
⎢	**Cd**	**111**	**18.775**	ug/L	0.655	3	3	7784	1	KED
⎣	**Cd**	**114**	**18.758**	ug/L	0.192	1	5	19853	1	KED
⎡>	**In**	**115**		ug/L			944527	881735	2	Standard
⎢	**Ag**	**107**	**19.184**	ug/L	0.861	4	53	277605	2	Standard
⎢	**Sb**	**121**	**0.025**	ug/L	0.000	1	99	398	1	Standard
⎢	**Sb**	**123**	**0.023**	ug/L	0.007	28	75	279	20	Standard
⎢	**Ba**	**135**	**0.017**	ug/L	0.002	13	12	72	11	Standard
⎣	**Ba**	**137**	**0.017**	ug/L	0.003	14	21	128	10	Standard
⎡>	**Tb**	**159**		ug/L			1118737	1092198	1	Standard
⎣	**Pb**	**208**	**0.020**	ug/L	0.003	14	175	940	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 15:06:39
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	29896	1	Standard
	Cl	**37**		ug/L			6308940	6756769	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1304460	1	Standard
|	**Cr**	**52**	**200.292**	ug/L	2.387	1	14875	4149927	0	Standard
|	**Cr**	**53**	**203.593**	ug/L	0.338	0	195	510452	1	Standard
⌊	**Mn**	**55**	**194.735**	ug/L	3.495	1	545	5977103	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	76647	1	KED
|	**Ni**	**60**	**197.808**	ug/L	1.688	0	15	246640	1	KED
|	**Ni**	**62**	**202.828**	ug/L	4.762	2	10	38707	2	KED
|	**Cu**	**63**	**198.329**	ug/L	1.974	0	46	636042	0	KED
|	**Cu**	**65**	**193.831**	ug/L	2.939	1	26	307240	0	KED
|	**Zn**	**66**	**195.082**	ug/L	6.282	3	68	86836	1	KED
|	**Zn**	**67**	**191.958**	ug/L	4.473	2	10	13994	1	KED
|	**As**	**75**	**199.956**	ug/L	2.612	1	4	58821	0	KED
⌊	**Se-1**	**78**	**193.215**	ug/L	3.774	1	12	7377	1	KED
	Y	**89**		ug/L			790194	680161	0	Standard
	Kr	**83**		ug/L			58	182	12	Standard
⌈>	**In-1**	**115**		ug/L			38158	33950	0	KED
|	**Cd**	**111**	**192.596**	ug/L	0.980	0	3	78021	0	KED
⌊	**Cd**	**114**	**193.558**	ug/L	2.026	1	5	200094	0	KED
⌈>	**In**	**115**		ug/L			944527	853214	0	Standard
|	**Ag**	**107**	**186.924**	ug/L	3.107	1	53	2618585	1	Standard
|	**Sb**	**121**	**194.691**	ug/L	1.570	0	99	2293271	0	Standard
|	**Sb**	**123**	**196.243**	ug/L	3.258	1	75	1710971	1	Standard
|	**Ba**	**135**	**198.542**	ug/L	1.933	0	12	706168	0	Standard
⌊	**Ba**	**137**	**197.915**	ug/L	3.629	1	21	1210438	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1052416	1	Standard
⌊	**Pb**	**208**	**195.993**	ug/L	5.134	2	175	7184599	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 15:11:22
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	31020	1	Standard
	Cl	**37**		ug/L			6308940	6824809	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1268921	1	Standard
|	**Cr**	**52**	**297.570**	ug/L	5.566	1	14875	5990572	0	Standard
|	**Cr**	**53**	**304.083**	ug/L	10.454	3	195	741345	2	Standard
⌊	**Mn**	**55**	**291.022**	ug/L	8.432	2	545	8687744	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	73964	0	KED
|	**Ni**	**60**	**285.756**	ug/L	3.242	1	15	343817	0	KED
|	**Ni**	**62**	**296.866**	ug/L	6.090	2	10	54667	1	KED
|	**Cu**	**63**	**290.952**	ug/L	7.728	2	46	900431	2	KED
|	**Cu**	**65**	**282.274**	ug/L	3.093	1	26	431838	1	KED
|	**Zn**	**66**	**279.484**	ug/L	2.910	1	68	120061	1	KED
|	**Zn**	**67**	**283.038**	ug/L	4.190	1	10	19912	1	KED
|	**As**	**75**	**293.494**	ug/L	0.478	0	4	83323	0	KED
⌊	**Se-1**	**78**	**282.585**	ug/L	5.478	1	12	10409	2	KED
	Y	**89**		ug/L			790194	673180	0	Standard
	Kr	**83**		ug/L			58	311	13	Standard
⌈>	**In-1**	**115**		ug/L			38158	32330	1	KED
|	**Cd**	**111**	**287.794**	ug/L	5.679	1	3	111010	0	KED
⌊	**Cd**	**114**	**284.554**	ug/L	1.214	0	5	280136	0	KED
⌈>	**In**	**115**		ug/L			944527	822393	0	Standard
|	**Ag**	**107**	**276.568**	ug/L	3.435	1	53	3734304	0	Standard
|	**Sb**	**121**	**292.323**	ug/L	2.864	0	99	3318720	0	Standard
|	**Sb**	**123**	**296.206**	ug/L	0.800	0	75	2489308	0	Standard
|	**Ba**	**135**	**294.629**	ug/L	0.929	0	12	1010073	0	Standard
⌊	**Ba**	**137**	**291.159**	ug/L	3.968	1	21	1716352	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1006149	1	Standard
⌊	**Pb**	**208**	**291.332**	ug/L	7.507	2	175	10210693	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 15:18:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	33152	2	Standard
	Cl	**37**		ug/L			6308940	6583543	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1341209	1	Standard
|	**Cr**	**52**	**-0.034**	ug/L	0.030	86	14875	13422	6	Standard
|	**Cr**	**53**	**0.079**	ug/L	0.034	43	195	390	24	Standard
⌊	**Mn**	**55**	**0.033**	ug/L	0.046	139	545	1568	94	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	81754	1	KED
|	**Ni**	**60**	**-0.001**	ug/L	0.007	1078	15	13	65	KED
|	**Ni**	**62**	**-0.019**	ug/L	0.000	2	10	5	0	KED
|	**Cu**	**63**	**0.006**	ug/L	0.003	44	46	64	14	KED
|	**Cu**	**65**	**0.006**	ug/L	0.003	53	26	34	14	KED
|	**Zn**	**66**	**0.154**	ug/L	0.052	33	68	137	16	KED
|	**Zn**	**67**	**0.107**	ug/L	0.037	34	10	18	15	KED
|	**As**	**75**	**0.006**	ug/L	0.002	39	4	6	13	KED
⌊	**Se-1**	**78**	**0.141**	ug/L	0.041	29	12	17	11	KED
	Y	**89**		ug/L			790194	713592	3	Standard
	Kr	**83**		ug/L			58	44	21	Standard
⌈>	**In-1**	**115**		ug/L			38158	35821	3	KED
|	**Cd**	**111**	**0.382**	ug/L	0.527	138	3	161	134	KED
⌊	**Cd**	**114**	**0.374**	ug/L	0.528	141	5	401	138	KED
⌈>	**In**	**115**		ug/L			944527	897931	3	Standard
|	**Ag**	**107**	**0.034**	ug/L	0.049	144	53	549	131	Standard
|	**Sb**	**121**	**0.571**	ug/L	0.048	8	99	7168	8	Standard
|	**Sb**	**123**	**0.595**	ug/L	0.066	11	75	5526	10	Standard
|	**Ba**	**135**	**0.036**	ug/L	0.043	119	12	147	110	Standard
⌊	**Ba**	**137**	**0.036**	ug/L	0.040	111	21	253	102	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1053743	2	Standard
⌊	**Pb**	**208**	**0.037**	ug/L	0.048	129	175	1539	116	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 15:25:26
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	32699	1	Standard
	Cl	**37**		ug/L			6308940	6514318	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1361306	0	Standard
|	**Cr**	**52**	**-0.055**	ug/L	0.003	5	14875	13156	0	Standard
|	**Cr**	**53**	**0.041**	ug/L	0.005	12	195	296	3	Standard
⌊	**Mn**	**55**	**0.005**	ug/L	0.001	11	545	671	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	80563	1	KED
|	**Ni**	**60**	**0.003**	ug/L	0.003	109	15	17	22	KED
|	**Ni**	**62**	**-0.021**	ug/L	0.005	24	10	5	21	KED
|	**Cu**	**63**	**0.007**	ug/L	0.001	16	46	65	6	KED
|	**Cu**	**65**	**0.005**	ug/L	0.004	84	26	32	21	KED
|	**Zn**	**66**	**0.149**	ug/L	0.027	18	68	132	10	KED
|	**Zn**	**67**	**0.143**	ug/L	0.099	69	10	20	36	KED
|	**As**	**75**	**0.000**	ug/L	0.005	2968	4	4	33	KED
⌊	**Se-1**	**78**	**0.072**	ug/L	0.039	54	12	14	10	KED
	Y	**89**		ug/L			790194	711581	2	Standard
	Kr	**83**		ug/L			58	44	13	Standard
⌈>	**In-1**	**115**		ug/L			38158	36128	0	KED
|	**Cd**	**111**	**0.006**	ug/L	0.004	69	3	5	33	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.003	288	5	6	47	KED
⌈>	**In**	**115**		ug/L			944527	878898	3	Standard
|	**Ag**	**107**	**0.003**	ug/L	0.001	42	53	99	18	Standard
|	**Sb**	**121**	**0.159**	ug/L	0.005	3	99	2022	3	Standard
|	**Sb**	**123**	**0.161**	ug/L	0.005	3	75	1518	1	Standard
|	**Ba**	**135**	**0.012**	ug/L	0.000	3	12	53	0	Standard
⌊	**Ba**	**137**	**0.013**	ug/L	0.003	22	21	99	19	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1056671	0	Standard
⌊	**Pb**	**208**	**0.008**	ug/L	0.001	7	175	447	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 15:32:03
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	25314	1	Standard
	Cl	**37**		ug/L			6308940	6774421	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1332627	0	Standard
|	**Cr**	**52**	**51.731**	ug/L	0.871	1	14875	1105557	2	Standard
|	**Cr**	**53**	**51.115**	ug/L	0.278	0	195	131058	0	Standard
⌊	**Mn**	**55**	**50.980**	ug/L	0.391	0	545	1599037	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	80595	1	KED
|	**Ni**	**60**	**49.575**	ug/L	1.345	2	15	64991	1	KED
|	**Ni**	**62**	**50.556**	ug/L	0.975	1	10	10151	1	KED
|	**Cu**	**63**	**50.412**	ug/L	0.058	0	46	170052	1	KED
|	**Cu**	**65**	**49.256**	ug/L	0.885	1	26	82112	0	KED
|	**Zn**	**66**	**51.087**	ug/L	1.250	2	68	23961	1	KED
|	**Zn**	**67**	**51.126**	ug/L	2.182	4	10	3925	2	KED
|	**As**	**75**	**49.912**	ug/L	0.931	1	4	15441	0	KED
⌊	**Se-1**	**78**	**50.567**	ug/L	0.282	0	12	2038	1	KED
	Y	**89**		ug/L			790194	709265	1	Standard
	Kr	**83**		ug/L			58	64	30	Standard
⌈>	**In-1**	**115**		ug/L			38158	35215	3	KED
|	**Cd**	**111**	**49.218**	ug/L	1.476	2	3	20671	0	KED
⌊	**Cd**	**114**	**49.717**	ug/L	1.376	2	5	53287	0	KED
⌈>	**In**	**115**		ug/L			944527	887350	1	Standard
|	**Ag**	**107**	**48.790**	ug/L	0.111	0	53	710867	1	Standard
|	**Sb**	**121**	**49.149**	ug/L	0.363	0	99	602103	0	Standard
|	**Sb**	**123**	**50.088**	ug/L	0.291	0	75	454215	1	Standard
|	**Ba**	**135**	**49.027**	ug/L	0.939	1	12	181340	1	Standard
⌊	**Ba**	**137**	**50.301**	ug/L	0.936	1	21	319956	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1048252	1	Standard
⌊	**Pb**	**208**	**52.531**	ug/L	0.717	1	175	1918438	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 15:40:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	25390	1	Standard
	Cl	**37**		ug/L			6308940	6439303	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1337007	1	Standard
|	**Cr**	**52**	**-0.093**	ug/L	0.012	12	14875	12128	2	Standard
|	**Cr**	**53**	**0.029**	ug/L	0.009	31	195	259	10	Standard
⌊	**Mn**	**55**	**0.007**	ug/L	0.010	142	545	746	45	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	78322	6	KED
|	**Ni**	**60**	**-0.005**	ug/L	0.004	81	15	6	68	KED
|	**Ni**	**62**	**-0.047**	ug/L	0.000	0	10	0		KED
|	**Cu**	**63**	**-0.004**	ug/L	0.004	100	46	29	43	KED
|	**Cu**	**65**	**-0.005**	ug/L	0.002	41	26	14	27	KED
|	**Zn**	**66**	**-0.025**	ug/L	0.016	61	68	50	19	KED
|	**Zn**	**67**	**-0.052**	ug/L	0.046	88	10	5	57	KED
|	**As**	**75**	**0.005**	ug/L	0.009	168	4	5	51	KED
⌊	**Se-1**	**78**	**0.014**	ug/L	0.094	689	12	11	35	KED
	Y	**89**		ug/L			790194	705119	0	Standard
	Kr	**83**		ug/L			58	49	3	Standard
⌈>	**In-1**	**115**		ug/L			38158	35520	2	KED
|	**Cd**	**111**	**0.005**	ug/L	0.001	19	3	5	10	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.003	369	5	4	66	KED
⌈>	**In**	**115**		ug/L			944527	891851	2	Standard
|	**Ag**	**107**	**0.008**	ug/L	0.012	145	53	172	104	Standard
|	**Sb**	**121**	**0.175**	ug/L	0.007	4	99	2253	6	Standard
|	**Sb**	**123**	**0.172**	ug/L	0.004	2	75	1641	4	Standard
|	**Ba**	**135**	**0.007**	ug/L	0.010	143	12	38	102	Standard
⌊	**Ba**	**137**	**0.006**	ug/L	0.010	152	21	62	103	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1064389	2	Standard
⌊	**Pb**	**208**	**0.009**	ug/L	0.012	130	175	501	87	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0406-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 15:45:08
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	32179	1	Standard
	Cl	37		ug/L			6308940	6384932	1	Standard
>	Sc	45		ug/L			1410977	1339227	2	Standard
	Cr	52	-0.045	ug/L	0.016	36	14875	13161	0	Standard
	Cr	53	0.043	ug/L	0.003	6	195	296	2	Standard
	Mn	55	0.275	ug/L	0.010	3	545	9178	1	Standard
>	Ge-1	72		ug/L			87449	80785	1	KED
	Ni	60	0.028	ug/L	0.010	36	15	51	27	KED
	Ni	62	-0.006	ug/L	0.014	242	10	8	35	KED
	Cu	63	0.045	ug/L	0.007	16	46	194	14	KED
	Cu	65	0.046	ug/L	0.007	14	26	101	10	KED
	Zn	66	0.536	ug/L	0.049	9	68	314	8	KED
	Zn	67	0.506	ug/L	0.077	15	10	48	13	KED
	As	75	-0.003	ug/L	0.009	300	4	3	85	KED
	Se-1	78	0.134	ug/L	0.069	51	12	16	17	KED
	Y	89		ug/L			790194	711280	1	Standard
	Kr	83		ug/L			58	44	17	Standard
>	In-1	115		ug/L			38158	36252	2	KED
	Cd	111	-0.001	ug/L	0.004	337	3	2	57	KED
	Cd	114	-0.001	ug/L	0.004	351	5	3	116	KED
>	In	115		ug/L			944527	897723	0	Standard
	Ag	107	0.003	ug/L	0.001	20	53	88	8	Standard
	Sb	121	0.052	ug/L	0.008	16	99	738	14	Standard
	Sb	123	0.053	ug/L	0.004	8	75	554	7	Standard
	Ba	135	0.018	ug/L	0.001	5	12	78	4	Standard
	Ba	137	0.022	ug/L	0.002	10	21	160	9	Standard
>	Tb	159		ug/L			1118737	1043606	1	Standard
	Pb	208	0.007	ug/L	0.001	10	175	433	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0227-01
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 15:49:50
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	106792	0	Standard
	Cl	37		ug/L			6308940	5041506	0	Standard
>	Sc	45		ug/L			1410977	1153212	0	Standard
	Cr	52	22.058	ug/L	0.398	1	14875	414865	1	Standard
	Cr	53	21.235	ug/L	0.223	1	195	47210	1	Standard
	Mn	55	30.011	ug/L	0.210	0	545	814779	0	Standard
>	Ge-1	72		ug/L			87449	49568	0	KED
	Ni	60	15.697	ug/L	0.043	0	15	12665	0	KED
	Ni	62	18.627	ug/L	0.602	3	10	2304	3	KED
	Cu	63	1.331	ug/L	0.040	3	46	2787	3	KED
	Cu	65	1.089	ug/L	0.013	1	26	1131	1	KED
	Zn	66	46.209	ug/L	0.378	0	68	13335	0	KED
	Zn	67	43.432	ug/L	1.111	2	10	2052	2	KED
	As	75	0.285	ug/L	0.036	12	4	56	12	KED
	Se-1	78	0.478	ug/L	0.146	30	12	18	19	KED
	Y	89		ug/L			790194	596595	1	Standard
	Kr	83		ug/L			58	226	15	Standard
>	In-1	115		ug/L			38158	23657	5	KED
	Cd	111	0.740	ug/L	0.117	15	3	209	10	KED
	Cd	114	0.725	ug/L	0.046	6	5	524	4	KED
>	In	115		ug/L			944527	684717	0	Standard
	Ag	107	0.002	ug/L	0.000	17	53	58	4	Standard
	Sb	121	0.225	ug/L	0.007	2	99	2196	2	Standard
	Sb	123	0.228	ug/L	0.006	2	75	1646	1	Standard
	Ba	135	3.787	ug/L	0.126	3	12	10817	2	Standard
	Ba	137	3.874	ug/L	0.129	3	21	19024	2	Standard
>	Tb	159		ug/L			1118737	888004	2	Standard
	Pb	208	0.155	ug/L	0.006	3	175	4922	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0237-01
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, June 18, 2018 15:54:33
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	40132	0	Standard
	Cl	37		ug/L			6308940	8565749	1	Standard
>	Sc	45		ug/L			1410977	1736131	2	Standard
	Cr	52	14121.332	ug/L	434.950	3	14875	388037797	1	Standard
	Cr	53	13694.105	ug/L	159.112	1	195	45684922	3	Standard
	Mn	55	4.997	ug/L	0.187	3	545	204694	1	Standard
>	Ge-1	72		ug/L			87449	94476	1	KED
	Ni	60	0.373	ug/L	0.013	3	15	589	1	KED
	Ni	62	0.797	ug/L	0.114	14	10	198	12	KED
	Cu	63	11.356	ug/L	0.274	2	46	44943	3	KED
	Cu	65	11.103	ug/L	0.144	1	26	21719	0	KED
	Zn	66	13.223	ug/L	0.648	4	68	7322	3	KED
	Zn	67	11.776	ug/L	0.366	3	10	1069	2	KED
	As	75	0.059	ug/L	0.012	21	4	26	17	KED
	Se-1	78	0.060	ug/L	0.027	44	12	16	6	KED
	Y	89		ug/L			790194	813662	3	Standard
	Kr	83		ug/L			58	714	10	Standard
>	In-1	115		ug/L			38158	39477	1	KED
	Cd	111	0.649	ug/L	0.032	4	3	309	6	KED
	Cd	114	0.494	ug/L	0.004	0	5	599	1	KED
>	In	115		ug/L			944527	1052639	2	Standard
	Ag	107	6.742	ug/L	0.238	3	53	116611	5	Standard
	Sb	121	0.138	ug/L	0.003	2	99	2118	1	Standard
	Sb	123	0.166	ug/L	0.008	4	75	1873	5	Standard
	Ba	135	0.151	ug/L	0.011	6	12	677	4	Standard
	Ba	137	0.172	ug/L	0.008	4	21	1323	5	Standard
>	Tb	159		ug/L			1118737	1286846	1	Standard
	Pb	208	0.178	ug/L	0.004	2	175	8160	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0183-01RE1
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, June 18, 2018 15:59:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	38762	1	Standard
	Cl	37		ug/L			6308940	26571542	5	Standard
>	Sc	45		ug/L			1410977	1459451	0	Standard
	Cr	52	0.623	ug/L	0.011	1	14875	29788	0	Standard
	Cr	53	7.491	ug/L	0.238	3	195	21211	3	Standard
	Mn	55	4.555	ug/L	0.076	1	545	156969	0	Standard
>	Ge-1	72		ug/L			87449	77919	2	KED
	Ni	60	0.139	ug/L	0.016	11	15	189	9	KED
	Ni	62	0.580	ug/L	0.107	18	10	121	14	KED
	Cu	63	0.908	ug/L	0.006	0	46	3002	1	KED
	Cu	65	0.867	ug/L	0.016	1	26	1420	2	KED
	Zn	66	4.037	ug/L	0.055	1	68	1887	2	KED
	Zn	67	3.941	ug/L	0.341	8	10	301	8	KED
	As	75	0.173	ug/L	0.019	11	4	55	8	KED
	Se-1	78	0.195	ug/L	0.029	14	12	18	5	KED
	Y	89		ug/L			790194	723337	2	Standard
	Kr	83		ug/L			58	570	0	Standard
>	In-1	115		ug/L			38158	33674	0	KED
	Cd	111	0.004	ug/L	0.003	69	3	4	24	KED
	Cd	114	0.014	ug/L	0.002	16	5	18	11	KED
>	In	115		ug/L			944527	859640	1	Standard
	Ag	107	0.004	ug/L	0.001	26	53	107	15	Standard
	Sb	121	0.071	ug/L	0.002	2	99	936	3	Standard
	Sb	123	0.071	ug/L	0.001	2	75	689	3	Standard
	Ba	135	2.733	ug/L	0.068	2	12	9809	4	Standard
	Ba	137	2.768	ug/L	0.120	4	21	17072	3	Standard
>	Tb	159		ug/L			1118737	1119091	0	Standard
	Pb	208	0.129	ug/L	0.005	3	175	5212	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0237-01RE1
Sample Dil Factor: 10000
Comments:
Sample Date/Time: Monday, June 18, 2018 16:04:27
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	30298	1	Standard
	Cl	37		ug/L			6308940	7124404	0	Standard
>	Sc	45		ug/L			1410977	1365903	2	Standard
	Cr	52	158.455	ug/L	2.911	1	14875	3440239	1	Standard
	Cr	53	159.126	ug/L	5.266	3	195	417560	0	Standard
	Mn	55	0.093	ug/L	0.006	6	545	3521	3	Standard
>	Ge-1	72		ug/L			87449	85608	2	KED
	Ni	60	0.060	ug/L	0.014	23	15	98	19	KED
	Ni	62	0.195	ug/L	0.009	4	10	51	6	KED
	Cu	63	0.176	ug/L	0.013	7	46	675	9	KED
	Cu	65	0.183	ug/L	0.011	6	26	349	7	KED
	Zn	66	1.552	ug/L	0.039	2	68	838	4	KED
	Zn	67	1.355	ug/L	0.148	10	10	120	7	KED
	As	75	-0.001	ug/L	0.003	217	4	4	24	KED
	Se-1	78	0.079	ug/L	0.083	105	12	15	20	KED
	Y	89		ug/L			790194	757808	2	Standard
	Kr	83		ug/L			58	173	7	Standard
>	In-1	115		ug/L			38158	37660	1	KED
	Cd	111	0.001	ug/L	0.004	560	3	3	56	KED
	Cd	114	0.003	ug/L	0.004	131	5	9	53	KED
>	In	115		ug/L			944527	931106	1	Standard
	Ag	107	0.076	ug/L	0.002	3	53	1213	4	Standard
	Sb	121	0.019	ug/L	0.000	1	99	337	0	Standard
	Sb	123	0.017	ug/L	0.001	8	75	236	4	Standard
	Ba	135	0.019	ug/L	0.001	6	12	84	6	Standard
	Ba	137	0.021	ug/L	0.001	4	21	158	3	Standard
>	Tb	159		ug/L			1118737	1139418	1	Standard
	Pb	208	0.037	ug/L	0.001	2	175	1657	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0406-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 16:09:09
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26774	35676	1	Standard
Cl	37		ug/L			6308940	6499281	0	Standard
> Sc	45		ug/L			1410977	1460364	1	Standard
Cr	52	0.936	ug/L	0.082	8	14875	37008	3	Standard
Cr	53	1.104	ug/L	0.041	3	195	3298	3	Standard
Mn	55	76.356	ug/L	0.792	1	545	2624169	1	Standard
> Ge-1	72		ug/L			87449	80709	2	KED
Ni	60	4.096	ug/L	0.084	2	15	5394	4	KED
Ni	62	4.374	ug/L	0.210	4	10	887	2	KED
Cu	63	23.237	ug/L	0.449	1	46	78495	1	KED
Cu	65	22.891	ug/L	0.623	2	26	38228	2	KED
Zn	66	162.852	ug/L	4.252	2	68	76344	1	KED
Zn	67	151.736	ug/L	6.384	4	10	11645	1	KED
As	75	0.024	ug/L	0.014	55	4	11	33	KED
Se-1	78	0.187	ug/L	0.082	43	12	19	15	KED
Y	89		ug/L			790194	744975	2	Standard
Kr	83		ug/L			58	72	6	Standard
> In-1	115		ug/L			38158	35806	0	KED
Cd	111	5.807	ug/L	0.143	2	3	2483	2	KED
Cd	114	5.818	ug/L	0.192	3	5	6349	3	KED
> In	115		ug/L			944527	905271	3	Standard
Ag	107	0.006	ug/L	0.002	26	53	137	14	Standard
Sb	121	0.047	ug/L	0.001	1	99	687	2	Standard
Sb	123	0.047	ug/L	0.001	2	75	510	1	Standard
Ba	135	20.089	ug/L	0.604	3	12	75774	0	Standard
Ba	137	20.100	ug/L	0.283	1	21	130418	2	Standard
> Tb	159		ug/L			1118737	1127581	1	Standard
Pb	208	0.021	ug/L	0.003	12	175	989	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-09
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 16:13:52
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	37967	1	Standard
	Cl	37		ug/L			6308940	6448330	0	Standard
>	Sc	45		ug/L			1410977	1469721	0	Standard
	Cr	52	1.153	ug/L	0.435	37	14875	42334	23	Standard
	Cr	53	1.355	ug/L	0.331	24	195	4029	23	Standard
	Mn	55	75.834	ug/L	0.604	0	545	2623111	0	Standard
>	Ge-1	72		ug/L			87449	80624	1	KED
	Ni	60	4.185	ug/L	0.019	0	15	5503	1	KED
	Ni	62	4.218	ug/L	0.074	1	10	855	1	KED
	Cu	63	23.902	ug/L	0.138	0	46	80677	0	KED
	Cu	65	23.745	ug/L	0.197	0	26	39617	0	KED
	Zn	66	162.638	ug/L	1.442	0	68	76181	0	KED
	Zn	67	149.614	ug/L	4.361	2	10	11477	2	KED
	As	75	0.028	ug/L	0.005	17	4	13	11	KED
	Se-1	78	0.277	ug/L	0.039	14	12	22	7	KED
	Y	89		ug/L			790194	745665	0	Standard
	Kr	83		ug/L			58	53	14	Standard
>	In-1	115		ug/L			38158	34865	2	KED
	Cd	111	6.250	ug/L	0.211	3	3	2601	1	KED
	Cd	114	6.098	ug/L	0.082	1	5	6477	1	KED
>	In	115		ug/L			944527	898917	1	Standard
	Ag	107	0.004	ug/L	0.001	33	53	106	17	Standard
	Sb	121	0.050	ug/L	0.004	8	99	711	6	Standard
	Sb	123	0.042	ug/L	0.004	8	75	460	6	Standard
	Ba	135	20.385	ug/L	0.549	2	12	76387	1	Standard
	Ba	137	21.137	ug/L	0.196	0	21	136208	0	Standard
>	Tb	159		ug/L			1118737	1110566	1	Standard
	Pb	208	0.023	ug/L	0.001	4	175	1061	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0406-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 16:18:34
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	36497	1	Standard
	Cl	37		ug/L			6308940	6440085	0	Standard
>	Sc	45		ug/L			1410977	1452751	1	Standard
	Cr	52	24.739	ug/L	0.155	0	14875	584297	0	Standard
	Cr	53	24.404	ug/L	0.400	1	195	68312	0	Standard
	Mn	55	100.642	ug/L	1.370	1	545	3440596	0	Standard
>	Ge-1	72		ug/L			87449	79200	0	KED
	Ni	60	29.498	ug/L	0.765	2	15	38012	1	KED
	Ni	62	30.128	ug/L	0.455	1	10	5949	0	KED
	Cu	63	49.790	ug/L	0.666	1	46	165040	1	KED
	Cu	65	49.566	ug/L	1.082	2	26	81203	1	KED
	Zn	66	247.672	ug/L	9.214	3	68	113911	2	KED
	Zn	67	232.397	ug/L	1.232	0	10	17509	1	KED
	As	75	23.892	ug/L	0.430	1	4	7266	1	KED
	Se-1	78	75.085	ug/L	2.018	2	12	2969	2	KED
	Y	89		ug/L			790194	728819	3	Standard
	Kr	83		ug/L			58	59	9	Standard
>	In-1	115		ug/L			38158	34900	2	KED
	Cd	111	29.419	ug/L	0.797	2	3	12249	1	KED
	Cd	114	30.006	ug/L	1.619	5	5	31867	3	KED
>	In	115		ug/L			944527	889260	1	Standard
	Ag	107	23.715	ug/L	0.556	2	53	346226	1	Standard
	Sb	121	0.044	ug/L	0.006	14	99	636	14	Standard
	Sb	123	0.043	ug/L	0.004	8	75	458	6	Standard
	Ba	135	45.678	ug/L	0.633	1	12	169342	2	Standard
	Ba	137	46.194	ug/L	1.126	2	21	294403	1	Standard
>	Tb	159		ug/L			1118737	1095982	2	Standard
	Pb	208	25.419	ug/L	0.498	1	175	970569	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0406-MSD1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 16:23:17
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26774	34336	0	Standard
Cl	37		ug/L			6308940	6381695	0	Standard
Sc	45		ug/L			1410977	1443348	1	Standard
Cr	52	25.179	ug/L	0.274	1	14875	590554	1	Standard
Cr	53	25.071	ug/L	0.306	1	195	69721	0	Standard
Mn	55	101.533	ug/L	1.823	1	545	3448304	0	Standard
Ge-1	72		ug/L			87449	78441	1	KED
Ni	60	30.508	ug/L	0.573	1	15	38938	1	KED
Ni	62	31.462	ug/L	1.708	5	10	6153	5	KED
Cu	63	51.744	ug/L	0.739	1	46	169883	2	KED
Cu	65	50.517	ug/L	0.850	1	26	81974	1	KED
Zn	66	252.090	ug/L	1.077	0	68	114858	1	KED
Zn	67	235.323	ug/L	7.037	2	10	17556	2	KED
As	75	25.185	ug/L	0.571	2	4	7585	0	KED
Se-1	78	76.468	ug/L	1.612	2	12	2994	1	KED
Y	89		ug/L			790194	735430	2	Standard
Kr	83		ug/L			58	56	15	Standard
In-1	115		ug/L			38158	34673	2	KED
Cd	111	30.330	ug/L	0.561	1	3	12548	1	KED
Cd	114	30.579	ug/L	1.227	4	5	32274	2	KED
In	115		ug/L			944527	895702	2	Standard
Ag	107	24.047	ug/L	0.910	3	53	353526	2	Standard
Sb	121	0.042	ug/L	0.005	11	99	615	8	Standard
Sb	123	0.043	ug/L	0.003	6	75	465	6	Standard
Ba	135	45.230	ug/L	0.678	1	12	168873	1	Standard
Ba	137	45.376	ug/L	1.349	2	21	291271	2	Standard
Tb	159		ug/L			1118737	1096229	2	Standard
Pb	208	25.817	ug/L	0.266	1	175	986117	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0406-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 16:28:00
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	34298	1	Standard
	Cl	37		ug/L			6308940	7052028	0	Standard
>	Sc	45		ug/L			1410977	1346292	1	Standard
	Cr	52	26.667	ug/L	0.283	1	14875	582556	0	Standard
	Cr	53	26.218	ug/L	0.473	1	195	67997	0	Standard
	Mn	55	26.704	ug/L	0.415	1	545	846375	0	Standard
>	Ge-1	72		ug/L			87449	81167	2	KED
	Ni	60	26.591	ug/L	1.251	4	15	35100	2	KED
	Ni	62	27.338	ug/L	1.009	3	10	5530	1	KED
	Cu	63	27.606	ug/L	0.354	1	46	93784	0	KED
	Cu	65	27.311	ug/L	1.063	3	26	45845	1	KED
	Zn	66	86.605	ug/L	3.104	3	68	40857	2	KED
	Zn	67	81.195	ug/L	1.252	1	10	6274	1	KED
	As	75	25.120	ug/L	0.597	2	4	7828	1	KED
	Se-1	78	82.517	ug/L	2.161	2	12	3342	0	KED
	Y	89		ug/L			790194	721559	1	Standard
	Kr	83		ug/L			58	47	4	Standard
>	In-1	115		ug/L			38158	35819	2	KED
	Cd	111	25.305	ug/L	0.214	0	3	10817	2	KED
	Cd	114	25.470	ug/L	0.213	0	5	27788	2	KED
>	In	115		ug/L			944527	903951	1	Standard
	Ag	107	25.247	ug/L	0.675	2	53	374671	1	Standard
	Sb	121	0.003	ug/L	0.000	11	99	132	4	Standard
	Sb	123	0.003	ug/L	0.002	50	75	99	13	Standard
	Ba	135	24.473	ug/L	0.057	0	12	92232	1	Standard
	Ba	137	25.495	ug/L	0.251	0	21	165220	1	Standard
>	Tb	159		ug/L			1118737	1068892	0	Standard
	Pb	208	27.248	ug/L	0.414	1	175	1014940	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 16:33:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	24735	1	Standard
	Cl	**37**		ug/L			6308940	6964419	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1342597	0	Standard
|	**Cr**	**52**	**50.373**	ug/L	1.635	3	14875	1084867	3	Standard
|	**Cr**	**53**	**48.647**	ug/L	1.192	2	195	125672	2	Standard
⌊	**Mn**	**55**	**49.705**	ug/L	1.136	2	545	1570748	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	80610	0	KED
|	**Ni**	**60**	**49.944**	ug/L	1.263	2	15	65500	2	KED
|	**Ni**	**62**	**50.797**	ug/L	0.574	1	10	10203	0	KED
|	**Cu**	**63**	**50.693**	ug/L	1.637	3	46	171038	3	KED
|	**Cu**	**65**	**50.535**	ug/L	1.163	2	26	84271	2	KED
|	**Zn**	**66**	**50.657**	ug/L	0.981	1	68	23767	1	KED
|	**Zn**	**67**	**50.059**	ug/L	0.976	1	10	3846	1	KED
|	**As**	**75**	**49.435**	ug/L	0.419	0	4	15298	0	KED
⌊	**Se-1**	**78**	**50.114**	ug/L	0.597	1	12	2021	1	KED
	Y	**89**		ug/L			790194	701786	1	Standard
	Kr	**83**		ug/L			58	61	24	Standard
⌈>	**In-1**	**115**		ug/L			38158	34963	2	KED
|	**Cd**	**111**	**48.618**	ug/L	2.137	4	3	20273	3	KED
⌊	**Cd**	**114**	**49.130**	ug/L	1.723	3	5	52278	1	KED
⌈>	**In**	**115**		ug/L			944527	885705	2	Standard
|	**Ag**	**107**	**47.458**	ug/L	2.351	4	53	689761	3	Standard
|	**Sb**	**121**	**48.358**	ug/L	1.868	3	99	591070	2	Standard
|	**Sb**	**123**	**50.147**	ug/L	1.280	2	75	453786	1	Standard
|	**Ba**	**135**	**47.400**	ug/L	1.849	3	12	174944	2	Standard
⌊	**Ba**	**137**	**49.488**	ug/L	2.581	5	21	313952	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1074904	0	Standard
⌊	**Pb**	**208**	**49.987**	ug/L	0.968	1	175	1872008	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 16:41:34
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	25481	0	Standard
	Cl	**37**		ug/L			6308940	6953548	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1323406	0	Standard
|	**Cr**	**52**	**-0.096**	ug/L	0.024	24	14875	11947	3	Standard
|	**Cr**	**53**	**0.023**	ug/L	0.006	27	195	241	7	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.000	7	545	552	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	80725	1	KED
|	**Ni**	**60**	**0.000**	ug/L	0.007	1741	15	14	66	KED
|	**Ni**	**62**	**0.001**	ug/L	0.001	114	10	9	0	KED
|	**Cu**	**63**	**-0.002**	ug/L	0.009	491	46	37	81	KED
|	**Cu**	**65**	**-0.002**	ug/L	0.004	169	26	20	32	KED
|	**Zn**	**66**	**-0.029**	ug/L	0.016	54	68	49	15	KED
|	**Zn**	**67**	**0.019**	ug/L	0.025	129	10	11	16	KED
|	**As**	**75**	**0.004**	ug/L	0.004	101	4	5	24	KED
⌊	**Se-1**	**78**	**0.157**	ug/L	0.118	75	12	17	27	KED
	Y	**89**		ug/L			790194	683355	4	Standard
	Kr	**83**		ug/L			58	44	27	Standard
⌈>	**In-1**	**115**		ug/L			38158	36230	2	KED
|	**Cd**	**111**	**-0.000**	ug/L	0.002	760	3	2	33	KED
⌊	**Cd**	**114**	**-0.000**	ug/L	0.004	1824	5	4	96	KED
⌈>	**In**	**115**		ug/L			944527	865820	2	Standard
|	**Ag**	**107**	**0.002**	ug/L	0.001	53	53	80	22	Standard
|	**Sb**	**121**	**0.122**	ug/L	0.010	8	99	1549	5	Standard
|	**Sb**	**123**	**0.124**	ug/L	0.006	5	75	1166	2	Standard
|	**Ba**	**135**	**0.001**	ug/L	0.001	62	12	14	15	Standard
⌊	**Ba**	**137**	**-0.001**	ug/L	0.001	184	21	15	42	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1062216	2	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	40	175	203	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0419-BLK1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, June 18, 2018 16:47:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26774	30403	2	Standard
Cl	37		ug/L			6308940	6981606	0	Standard
Sc	45		ug/L			1410977	1374960	0	Standard
Cr	52	-0.058	ug/L	0.020	34	14875	13231	2	Standard
Cr	53	0.035	ug/L	0.008	24	195	281	7	Standard
Mn	55	0.012	ug/L	0.001	5	545	927	3	Standard
Ge-1	72		ug/L			87449	81654	2	KED
Ni	60	0.021	ug/L	0.005	23	15	42	18	KED
Ni	62	0.013	ug/L	0.013	105	10	12	24	KED
Cu	63	0.024	ug/L	0.003	14	46	125	11	KED
Cu	65	0.020	ug/L	0.004	20	26	58	10	KED
Zn	66	0.547	ug/L	0.012	2	68	323	3	KED
Zn	67	0.492	ug/L	0.045	9	10	48	6	KED
As	75	0.000	ug/L	0.008	2306	4	4	59	KED
Se-1	78	0.067	ug/L	0.013	19	12	14	5	KED
Y	89		ug/L			790194	713668	4	Standard
Kr	83		ug/L			58	48	12	Standard
In-1	115		ug/L			38158	36292	1	KED
Cd	111	-0.001	ug/L	0.003	286	3	2	57	KED
Cd	114	0.000	ug/L	0.003	1680	5	5	67	KED
In	115		ug/L			944527	905124	1	Standard
Ag	107	0.000	ug/L	0.001	153	53	56	14	Standard
Sb	121	0.036	ug/L	0.004	11	99	541	9	Standard
Sb	123	0.037	ug/L	0.005	14	75	413	12	Standard
Ba	135	0.009	ug/L	0.001	16	12	46	13	Standard
Ba	137	0.008	ug/L	0.003	37	21	73	27	Standard
Tb	159		ug/L			1118737	1091526	1	Standard
Pb	208	0.013	ug/L	0.002	11	175	677	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0215-01
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, June 18, 2018 16:52:07
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	648441	2	Standard
	Cl	37		ug/L			6308940	6632356	0	Standard
>	Sc	45		ug/L			1410977	1349266	0	Standard
	Cr	52	2.605	ug/L	0.040	1	14875	69870	0	Standard
	Cr	53	1.441	ug/L	0.046	3	195	3921	2	Standard
	Mn	55	22.640	ug/L	0.158	0	545	719317	0	Standard
>	Ge-1	72		ug/L			87449	68162	2	KED
	Ni	60	10.171	ug/L	0.408	4	15	11283	1	KED
	Ni	62	10.308	ug/L	0.396	3	10	1756	2	KED
	Cu	63	17.578	ug/L	0.496	2	46	50160	2	KED
	Cu	65	17.598	ug/L	0.367	2	26	24823	1	KED
	Zn	66	6.444	ug/L	0.142	2	68	2602	1	KED
	Zn	67	7.092	ug/L	0.354	4	10	467	5	KED
	As	75	0.117	ug/L	0.018	15	4	34	13	KED
	Se-1	78	0.190	ug/L	0.054	28	12	16	10	KED
	Y	89		ug/L			790194	718570	2	Standard
	Kr	83		ug/L			58	97	10	Standard
>	In-1	115		ug/L			38158	30702	0	KED
	Cd	111	0.022	ug/L	0.004	20	3	10	15	KED
	Cd	114	0.019	ug/L	0.011	58	5	22	47	KED
>	In	115		ug/L			944527	814586	1	Standard
	Ag	107	0.001	ug/L	0.001	66	53	60	17	Standard
	Sb	121	0.358	ug/L	0.010	2	99	4106	2	Standard
	Sb	123	0.347	ug/L	0.026	7	75	2954	7	Standard
	Ba	135	17.086	ug/L	0.546	3	12	58008	1	Standard
	Ba	137	17.777	ug/L	0.298	1	21	103803	0	Standard
>	Tb	159		ug/L			1118737	1054832	1	Standard
	Pb	208	0.025	ug/L	0.001	4	175	1082	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0232-01
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, June 18, 2018 16:56:49
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26774	71366	1	Standard
Cl	37		ug/L			6308940	6423655	0	Standard
> Sc	45		ug/L			1410977	1454870	0	Standard
Cr	52	42.824	ug/L	0.315	0	14875	1001711	0	Standard
Cr	53	40.440	ug/L	0.395	0	195	113250	1	Standard
Mn	55	235.681	ug/L	1.817	0	545	8068427	0	Standard
> Ge-1	72		ug/L			87449	82952	2	KED
Ni	60	36.402	ug/L	0.395	1	15	49127	1	KED
Ni	62	38.154	ug/L	1.515	3	10	7886	3	KED
Cu	63	188.094	ug/L	7.641	4	46	652487	1	KED
Cu	65	185.368	ug/L	3.666	1	26	317941	0	KED
Zn	66	1221.257	ug/L	50.161	4	68	587784	1	KED
Zn	67	1129.665	ug/L	51.511	4	10	89051	3	KED
As	75	4.530	ug/L	0.053	1	4	1446	1	KED
Se-1	78	0.512	ug/L	0.083	16	12	33	11	KED
Y	89		ug/L			790194	896219	1	Standard
Kr	83		ug/L			58	87	18	Standard
> In-1	115		ug/L			38158	35368	4	KED
Cd	111	2.438	ug/L	0.069	2	3	1030	2	KED
Cd	114	2.466	ug/L	0.213	8	5	2654	4	KED
> In	115		ug/L			944527	911311	1	Standard
Ag	107	0.798	ug/L	0.039	4	53	11992	3	Standard
Sb	121	0.534	ug/L	0.015	2	99	6810	1	Standard
Sb	123	0.538	ug/L	0.029	5	75	5083	4	Standard
Ba	135	122.726	ug/L	1.758	1	12	466198	1	Standard
Ba	137	122.638	ug/L	2.412	1	21	801096	1	Standard
> Tb	159		ug/L			1118737	1136689	2	Standard
Pb	208	185.996	ug/L	1.845	0	175	7364858	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0232-02
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, June 18, 2018 17:01:32
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	63783	1	Standard
	Cl	37		ug/L			6308940	6794039	0	Standard
>	Sc	45		ug/L			1410977	1465586	0	Standard
	Cr	52	500.698	ug/L	8.213	1	14875	11633678	1	Standard
	Cr	53	493.025	ug/L	9.039	1	195	1388469	1	Standard
	Mn	55	297.459	ug/L	5.065	1	545	10258946	1	Standard
>	Ge-1	72		ug/L			87449	83702	1	KED
	Ni	60	51.497	ug/L	0.923	1	15	70125	1	KED
	Ni	62	52.911	ug/L	0.924	1	10	11036	2	KED
	Cu	63	202.020	ug/L	4.874	2	46	707501	1	KED
	Cu	65	204.115	ug/L	3.747	1	26	353328	0	KED
	Zn	66	1004.984	ug/L	15.219	1	68	488369	1	KED
	Zn	67	923.981	ug/L	13.781	1	10	73535	1	KED
	As	75	5.167	ug/L	0.113	2	4	1664	2	KED
	Se-1	78	0.443	ug/L	0.028	6	12	30	4	KED
	Y	89		ug/L			790194	891277	1	Standard
	Kr	83		ug/L			58	97	17	Standard
>	In-1	115		ug/L			38158	36431	0	KED
	Cd	111	1.830	ug/L	0.045	2	3	798	2	KED
	Cd	114	1.912	ug/L	0.069	3	5	2126	3	KED
>	In	115		ug/L			944527	893365	1	Standard
	Ag	107	0.896	ug/L	0.010	1	53	13186	0	Standard
	Sb	121	0.299	ug/L	0.013	4	99	3786	3	Standard
	Sb	123	0.315	ug/L	0.007	2	75	2943	1	Standard
	Ba	135	96.295	ug/L	3.478	3	12	358456	1	Standard
	Ba	137	96.718	ug/L	2.970	3	21	619168	1	Standard
>	Tb	159		ug/L			1118737	1108714	1	Standard
	Pb	208	171.107	ug/L	5.060	2	175	6607671	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0232-05
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, June 18, 2018 17:06:14
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26774	67329	2	Standard
Cl	37		ug/L			6308940	6686213	0	Standard
> Sc	45		ug/L			1410977	1475338	0	Standard
Cr	52	293.521	ug/L	7.850	2	14875	6871024	2	Standard
Cr	53	292.435	ug/L	6.233	2	195	829099	1	Standard
Mn	55	321.384	ug/L	11.078	3	545	11156158	2	Standard
> Ge-1	72		ug/L			87449	83175	1	KED
Ni	60	117.301	ug/L	0.652	0	15	158724	1	KED
Ni	62	121.273	ug/L	3.407	2	10	25117	2	KED
Cu	63	219.266	ug/L	2.254	1	46	763107	0	KED
Cu	65	217.673	ug/L	3.694	1	26	374429	0	KED
Zn	66	1449.643	ug/L	27.514	1	68	699931	0	KED
Zn	67	1359.442	ug/L	33.529	2	10	107491	1	KED
As	75	5.179	ug/L	0.135	2	4	1657	2	KED
Se-1	78	0.628	ug/L	0.115	18	12	37	13	KED
Y	89		ug/L			790194	914483	2	Standard
Kr	83		ug/L			58	109	21	Standard
> In-1	115		ug/L			38158	36166	1	KED
Cd	111	3.161	ug/L	0.110	3	3	1366	1	KED
Cd	114	3.157	ug/L	0.057	1	5	3481	0	KED
> In	115		ug/L			944527	911122	1	Standard
Ag	107	0.921	ug/L	0.035	3	53	13825	2	Standard
Sb	121	0.338	ug/L	0.014	4	99	4344	2	Standard
Sb	123	0.324	ug/L	0.013	3	75	3094	5	Standard
Ba	135	117.521	ug/L	1.995	1	12	446353	1	Standard
Ba	137	120.221	ug/L	2.069	1	21	785240	2	Standard
> Tb	159		ug/L			1118737	1094149	0	Standard
Pb	208	218.111	ug/L	4.428	2	175	8314434	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0419-DUP1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, June 18, 2018 17:10:57
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	34199	1	Standard
	Cl	37		ug/L			6308940	6296774	0	Standard
>	Sc	45		ug/L			1410977	1434904	1	Standard
	Cr	52	22.673	ug/L	0.701	3	14875	530015	1	Standard
	Cr	53	21.848	ug/L	0.572	2	195	60412	0	Standard
	Mn	55	176.486	ug/L	5.094	2	545	5957277	1	Standard
>	Ge-1	72		ug/L			87449	83688	1	KED
	Ni	60	20.338	ug/L	0.696	3	15	27703	3	KED
	Ni	62	21.429	ug/L	0.326	1	10	4474	2	KED
	Cu	63	13.281	ug/L	0.207	1	46	46546	0	KED
	Cu	65	13.048	ug/L	0.144	1	26	22607	1	KED
	Zn	66	34.615	ug/L	0.211	0	68	16881	0	KED
	Zn	67	34.034	ug/L	0.248	0	10	2718	1	KED
	As	75	4.269	ug/L	0.068	1	4	1375	1	KED
	Se-1	78	0.323	ug/L	0.124	38	12	25	19	KED
	Y	89		ug/L			790194	840025	0	Standard
	Kr	83		ug/L			58	108	6	Standard
>	In-1	115		ug/L			38158	35051	2	KED
	Cd	111	0.035	ug/L	0.006	18	3	17	16	KED
	Cd	114	0.028	ug/L	0.006	20	5	34	16	KED
>	In	115		ug/L			944527	890747	0	Standard
	Ag	107	0.022	ug/L	0.001	4	53	365	4	Standard
	Sb	121	0.011	ug/L	0.000	3	99	226	2	Standard
	Sb	123	0.012	ug/L	0.004	29	75	180	17	Standard
	Ba	135	20.086	ug/L	0.333	1	12	74591	1	Standard
	Ba	137	20.220	ug/L	0.445	2	21	129126	2	Standard
>	Tb	159		ug/L			1118737	1092222	1	Standard
	Pb	208	3.283	ug/L	0.021	0	175	125078	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0157-08
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, June 18, 2018 17:15:39
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	33779	0	Standard
	Cl	37		ug/L			6308940	6271964	1	Standard
>	Sc	45		ug/L			1410977	1437204	0	Standard
	Cr	52	23.254	ug/L	0.734	3	14875	544226	2	Standard
	Cr	53	22.871	ug/L	0.363	1	195	63358	2	Standard
	Mn	55	182.209	ug/L	2.162	1	545	6162149	0	Standard
>	Ge-1	72		ug/L			87449	81587	2	KED
	Ni	60	21.473	ug/L	0.726	3	15	28498	1	KED
	Ni	62	22.468	ug/L	0.938	4	10	4570	2	KED
	Cu	63	13.690	ug/L	0.337	2	46	46767	1	KED
	Cu	65	13.585	ug/L	0.422	3	26	22936	1	KED
	Zn	66	34.465	ug/L	1.108	3	68	16380	1	KED
	Zn	67	32.934	ug/L	1.661	5	10	2562	2	KED
	As	75	4.046	ug/L	0.085	2	4	1271	0	KED
	Se-1	78	0.382	ug/L	0.076	19	12	27	9	KED
	Y	89		ug/L			790194	842434	1	Standard
	Kr	83		ug/L			58	104	12	Standard
>	In-1	115		ug/L			38158	35604	0	KED
	Cd	111	0.029	ug/L	0.009	30	3	15	25	KED
	Cd	114	0.035	ug/L	0.016	46	5	43	40	KED
>	In	115		ug/L			944527	885410	1	Standard
	Ag	107	0.021	ug/L	0.002	9	53	349	7	Standard
	Sb	121	0.008	ug/L	0.001	7	99	195	3	Standard
	Sb	123	0.009	ug/L	0.001	16	75	153	9	Standard
	Ba	135	16.567	ug/L	0.326	1	12	61151	1	Standard
	Ba	137	16.758	ug/L	0.261	1	21	106374	1	Standard
>	Tb	159		ug/L			1118737	1086311	2	Standard
	Pb	208	2.972	ug/L	0.014	0	175	112634	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0419-MS1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, June 18, 2018 17:20:22
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	31617	2	Standard
	Cl	37		ug/L			6308940	6310846	0	Standard
>	Sc	45		ug/L			1410977	1447587	1	Standard
	Cr	52	43.681	ug/L	0.875	2	14875	1016241	1	Standard
	Cr	53	43.321	ug/L	1.537	3	195	120658	2	Standard
	Mn	55	204.478	ug/L	6.513	3	545	6964037	2	Standard
>	Ge-1	72		ug/L			87449	81108	0	KED
	Ni	60	43.817	ug/L	0.305	0	15	57826	0	KED
	Ni	62	45.551	ug/L	1.745	3	10	9206	3	KED
	Cu	63	37.291	ug/L	0.500	1	46	126597	0	KED
	Cu	65	36.993	ug/L	0.164	0	26	62078	0	KED
	Zn	66	107.282	ug/L	0.964	0	68	50576	0	KED
	Zn	67	103.967	ug/L	0.298	0	10	8027	0	KED
	As	75	25.512	ug/L	0.489	1	4	7946	1	KED
	Se-1	78	69.134	ug/L	1.548	2	12	2801	2	KED
	Y	89		ug/L			790194	833354	2	Standard
	Kr	83		ug/L			58	109	12	Standard
>	In-1	115		ug/L			38158	35269	2	KED
	Cd	111	22.417	ug/L	0.122	0	3	9436	1	KED
	Cd	114	22.693	ug/L	0.692	3	5	24371	3	KED
>	In	115		ug/L			944527	882246	0	Standard
	Ag	107	20.421	ug/L	0.601	2	53	295837	2	Standard
	Sb	121	2.053	ug/L	0.053	2	99	25103	2	Standard
	Sb	123	2.073	ug/L	0.083	3	75	18759	3	Standard
	Ba	135	46.690	ug/L	0.391	0	12	171725	1	Standard
	Ba	137	45.803	ug/L	1.462	3	21	289633	2	Standard
>	Tb	159		ug/L			1118737	1084197	1	Standard
	Pb	208	26.580	ug/L	0.255	0	175	1004174	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0419-MSD1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, June 18, 2018 17:25:04
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26774	31692	2	Standard
Cl	37		ug/L			6308940	6277962	0	Standard
Sc	45		ug/L			1410977	1421078	1	Standard
Cr	52	45.591	ug/L	1.046	2	14875	1040475	0	Standard
Cr	53	45.380	ug/L	1.483	3	195	124063	1	Standard
Mn	55	215.045	ug/L	6.046	2	545	7189058	1	Standard
Ge-1	72		ug/L			87449	79006	4	KED
Ni	60	46.554	ug/L	2.954	6	15	59734	1	KED
Ni	62	47.087	ug/L	2.797	5	10	9254	1	KED
Cu	63	41.366	ug/L	2.468	5	46	136564	2	KED
Cu	65	40.689	ug/L	0.960	2	26	66464	2	KED
Zn	66	111.353	ug/L	6.933	6	68	51040	1	KED
Zn	67	107.766	ug/L	2.021	1	10	8101	3	KED
As	75	27.816	ug/L	1.118	4	4	8429	1	KED
Se-1	78	72.109	ug/L	3.438	4	12	2841	2	KED
Y	89		ug/L			790194	833693	2	Standard
Kr	83		ug/L			58	126	6	Standard
In-1	115		ug/L			38158	34500	4	KED
Cd	111	23.190	ug/L	1.362	5	3	9533	2	KED
Cd	114	23.091	ug/L	1.491	6	5	24217	2	KED
In	115		ug/L			944527	869464	2	Standard
Ag	107	22.341	ug/L	0.540	2	53	318855	1	Standard
Sb	121	2.195	ug/L	0.112	5	99	26411	2	Standard
Sb	123	2.096	ug/L	0.077	3	75	18684	3	Standard
Ba	135	41.964	ug/L	1.355	3	12	152023	1	Standard
Ba	137	42.633	ug/L	0.847	1	21	265643	1	Standard
Tb	159		ug/L			1118737	1066584	4	Standard
Pb	208	26.833	ug/L	1.669	6	175	995525	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0419-BS1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, June 18, 2018 17:29:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	30327	1	Standard
	Cl	37		ug/L			6308940	6223494	0	Standard
⌈>	Sc	45		ug/L			1410977	1347725	0	Standard
|	Cr	52	24.754	ug/L	0.409	1	14875	542358	0	Standard
|	Cr	53	24.452	ug/L	0.546	2	195	63495	1	Standard
⌊	Mn	55	24.678	ug/L	0.454	1	545	783053	1	Standard
⌈>	Ge-1	72		ug/L			87449	81907	2	KED
|	Ni	60	24.123	ug/L	0.907	3	15	32138	1	KED
|	Ni	62	24.373	ug/L	0.512	2	10	4978	1	KED
|	Cu	63	24.998	ug/L	0.283	1	46	85708	1	KED
|	Cu	65	25.228	ug/L	0.354	1	26	42751	1	KED
|	Zn	66	77.255	ug/L	1.596	2	68	36786	0	KED
|	Zn	67	72.019	ug/L	1.713	2	10	5617	2	KED
|	As	75	22.833	ug/L	0.118	0	4	7182	2	KED
⌊	Se-1	78	71.786	ug/L	0.984	1	12	2936	1	KED
	Y	89		ug/L			790194	703843	2	Standard
	Kr	83		ug/L			58	63	16	Standard
⌈>	In-1	115		ug/L			38158	36142	1	KED
|	Cd	111	22.740	ug/L	0.497	2	3	9807	1	KED
⌊	Cd	114	22.799	ug/L	0.413	1	5	25094	1	KED
⌈>	In	115		ug/L			944527	880223	2	Standard
|	Ag	107	24.644	ug/L	0.770	3	53	356052	1	Standard
|	Sb	121	23.755	ug/L	0.520	2	99	288660	0	Standard
|	Sb	123	24.204	ug/L	0.404	1	75	217723	0	Standard
|	Ba	135	22.970	ug/L	0.298	1	12	84280	0	Standard
⌊	Ba	137	23.738	ug/L	0.690	2	21	149743	1	Standard
⌈>	Tb	159		ug/L			1118737	1052604	2	Standard
⌊	Pb	208	25.054	ug/L	1.466	5	175	917882	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 17:35:35
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	24319	2	Standard
	Cl	**37**		ug/L			6308940	6391382	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1313805	1	Standard
|	**Cr**	**52**	**51.714**	ug/L	0.968	1	14875	1089396	0	Standard
|	**Cr**	**53**	**50.582**	ug/L	0.420	0	195	127872	1	Standard
⌊	**Mn**	**55**	**50.674**	ug/L	0.703	1	545	1566890	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	79678	2	KED
|	**Ni**	**60**	**49.130**	ug/L	2.355	4	15	63643	2	KED
|	**Ni**	**62**	**50.734**	ug/L	1.733	3	10	10067	1	KED
|	**Cu**	**63**	**49.310**	ug/L	1.491	3	46	164367	1	KED
|	**Cu**	**65**	**48.399**	ug/L	1.719	3	26	79733	1	KED
|	**Zn**	**66**	**50.980**	ug/L	2.086	4	68	23627	1	KED
|	**Zn**	**67**	**49.670**	ug/L	0.431	0	10	3771	1	KED
|	**As**	**75**	**49.034**	ug/L	1.214	2	4	14994	0	KED
⌊	**Se-1**	**78**	**49.757**	ug/L	0.621	1	12	1983	1	KED
	Y	**89**		ug/L			790194	682983	1	Standard
	Kr	**83**		ug/L			58	50	5	Standard
⌈>	**In-1**	**115**		ug/L			38158	34865	1	KED
|	**Cd**	**111**	**47.957**	ug/L	1.005	2	3	19949	0	KED
⌊	**Cd**	**114**	**47.962**	ug/L	0.485	1	5	50920	1	KED
⌈>	**In**	**115**		ug/L			944527	872170	1	Standard
|	**Ag**	**107**	**48.120**	ug/L	1.417	2	53	688920	1	Standard
|	**Sb**	**121**	**48.653**	ug/L	1.956	4	99	585682	2	Standard
|	**Sb**	**123**	**49.670**	ug/L	1.008	2	75	442691	1	Standard
|	**Ba**	**135**	**48.146**	ug/L	1.594	3	12	175000	1	Standard
⌊	**Ba**	**137**	**48.637**	ug/L	1.329	2	21	304017	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1029225	2	Standard
⌊	**Pb**	**208**	**51.582**	ug/L	2.502	4	175	1848314	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 17:43:22
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	25595	2	Standard
	Cl	**37**		ug/L			6308940	6225558	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1333110	0	Standard
|	**Cr**	**52**	**-0.109**	ug/L	0.007	6	14875	11745	1	Standard
|	**Cr**	**53**	**0.005**	ug/L	0.007	132	195	198	8	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.001	78	545	546	4	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	79861	2	KED
|	**Ni**	**60**	**0.004**	ug/L	0.003	65	15	19	20	KED
|	**Ni**	**62**	**-0.008**	ug/L	0.010	121	10	7	25	KED
|	**Cu**	**63**	**0.003**	ug/L	0.008	232	46	54	49	KED
|	**Cu**	**65**	**0.003**	ug/L	0.006	189	26	29	35	KED
|	**Zn**	**66**	**-0.016**	ug/L	0.026	161	68	55	24	KED
|	**Zn**	**67**	**-0.021**	ug/L	0.063	294	10	8	58	KED
|	**As**	**75**	**0.006**	ug/L	0.004	63	4	6	19	KED
⌊	**Se-1**	**78**	**0.127**	ug/L	0.058	45	12	16	14	KED
	Y	**89**		ug/L			790194	689150	5	Standard
	Kr	**83**		ug/L			58	53	12	Standard
⌈>	**In-1**	**115**		ug/L			38158	35242	1	KED
|	**Cd**	**111**	**-0.000**	ug/L	0.002	1573	3	2	33	KED
⌊	**Cd**	**114**	**-0.003**	ug/L	0.003	101	5	2	125	KED
⌈>	**In**	**115**		ug/L			944527	875502	1	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.001	100	53	64	22	Standard
|	**Sb**	**121**	**0.112**	ug/L	0.003	2	99	1450	3	Standard
|	**Sb**	**123**	**0.111**	ug/L	0.008	7	75	1062	6	Standard
|	**Ba**	**135**	**-0.000**	ug/L	0.002	327	12	9	60	Standard
⌊	**Ba**	**137**	**0.000**	ug/L	0.000	947	21	20	14	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1050805	0	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.001	51	175	224	14	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 17:49:54
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	36990	2	Standard
	Cl	37		ug/L			6308940	6183476	1	Standard
>	Sc	45		ug/L			1410977	1383812	1	Standard
	Cr	52	-0.065	ug/L	0.006	9	14875	13154	0	Standard
	Cr	53	0.033	ug/L	0.005	14	195	278	3	Standard
	Mn	55	0.121	ug/L	0.001	0	545	4459	1	Standard
>	Ge-1	72		ug/L			87449	81947	0	KED
	Ni	60	0.016	ug/L	0.014	82	15	36	50	KED
	Ni	62	0.003	ug/L	0.038	1211	10	10	75	KED
	Cu	63	0.080	ug/L	0.012	14	46	317	12	KED
	Cu	65	0.069	ug/L	0.007	10	26	141	8	KED
	Zn	66	0.324	ug/L	0.031	9	68	218	6	KED
	Zn	67	0.343	ug/L	0.037	10	10	36	7	KED
	As	75	0.003	ug/L	0.006	165	4	5	33	KED
	Se-1	78	0.124	ug/L	0.048	38	12	16	11	KED
	Y	89		ug/L			790194	728192	1	Standard
	Kr	83		ug/L			58	53	14	Standard
>	In-1	115		ug/L			38158	36314	1	KED
	Cd	111	0.003	ug/L	0.004	136	3	4	44	KED
	Cd	114	-0.002	ug/L	0.003	224	5	3	106	KED
>	In	115		ug/L			944527	890881	1	Standard
	Ag	107	0.000	ug/L	0.001	145	53	57	16	Standard
	Sb	121	0.037	ug/L	0.005	13	99	554	10	Standard
	Sb	123	0.038	ug/L	0.002	4	75	417	4	Standard
	Ba	135	0.009	ug/L	0.003	30	12	45	22	Standard
	Ba	137	0.010	ug/L	0.002	15	21	83	10	Standard
>	Tb	159		ug/L			1118737	1066826	2	Standard
	Pb	208	0.006	ug/L	0.000	7	175	395	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0232-01RE1
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, June 18, 2018 17:54:37
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	33197	3	Standard
	Cl	**37**		ug/L			6308940	6128873	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1389073	1	Standard
|	**Cr**	**52**	**8.164**	ug/L	0.133	1	14875	194166	0	Standard
|	**Cr**	**53**	**8.215**	ug/L	0.073	0	195	22117	1	Standard
⌊	**Mn**	**55**	**47.284**	ug/L	0.249	0	545	1546004	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	83055	1	KED
|	**Ni**	**60**	**6.950**	ug/L	0.045	0	15	9403	0	KED
|	**Ni**	**62**	**7.106**	ug/L	0.096	1	10	1478	0	KED
|	**Cu**	**63**	**36.016**	ug/L	0.424	1	46	125200	0	KED
|	**Cu**	**65**	**35.802**	ug/L	0.171	0	26	61521	0	KED
|	**Zn**	**66**	**241.618**	ug/L	9.058	3	68	116533	2	KED
|	**Zn**	**67**	**224.872**	ug/L	1.377	0	10	17767	1	KED
|	**As**	**75**	**0.928**	ug/L	0.068	7	4	300	6	KED
⌊	**Se-1**	**78**	**0.196**	ug/L	0.038	19	12	20	8	KED
	Y	**89**		ug/L			790194	727404	1	Standard
	Kr	**83**		ug/L			58	50	17	Standard
⌈>	**In-1**	**115**		ug/L			38158	35640	2	KED
|	**Cd**	**111**	**0.476**	ug/L	0.038	7	3	205	10	KED
⌊	**Cd**	**114**	**0.459**	ug/L	0.020	4	5	502	4	KED
⌈>	**In**	**115**		ug/L			944527	885762	1	Standard
|	**Ag**	**107**	**0.159**	ug/L	0.004	2	53	2357	1	Standard
|	**Sb**	**121**	**0.112**	ug/L	0.006	5	99	1459	3	Standard
|	**Sb**	**123**	**0.117**	ug/L	0.006	5	75	1129	4	Standard
|	**Ba**	**135**	**23.959**	ug/L	0.484	2	12	88468	1	Standard
⌊	**Ba**	**137**	**23.679**	ug/L	0.820	3	21	150341	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1045992	0	Standard
⌊	**Pb**	**208**	**38.778**	ug/L	1.231	3	175	1413555	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0232-02RE1
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, June 18, 2018 17:59:20
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	32875	1	Standard
	Cl	37		ug/L			6308940	6190011	0	Standard
>	Sc	45		ug/L			1410977	1355826	1	Standard
	Cr	52	105.557	ug/L	1.406	1	14875	2279984	0	Standard
	Cr	53	108.855	ug/L	1.507	1	195	283750	1	Standard
	Mn	55	63.308	ug/L	1.092	1	545	2019972	0	Standard
>	Ge-1	72		ug/L			87449	81965	3	KED
	Ni	60	10.584	ug/L	0.330	3	15	14118	1	KED
	Ni	62	10.924	ug/L	0.715	6	10	2235	3	KED
	Cu	63	42.809	ug/L	0.720	1	46	146825	1	KED
	Cu	65	42.369	ug/L	1.030	2	26	71815	1	KED
	Zn	66	211.928	ug/L	4.906	2	68	100858	0	KED
	Zn	67	197.472	ug/L	3.955	2	10	15392	1	KED
	As	75	1.094	ug/L	0.055	5	4	348	3	KED
	Se-1	78	0.179	ug/L	0.105	58	12	19	21	KED
	Y	89		ug/L			790194	740688	2	Standard
	Kr	83		ug/L			58	57	21	Standard
>	In-1	115		ug/L			38158	35896	0	KED
	Cd	111	0.417	ug/L	0.011	2	3	181	2	KED
	Cd	114	0.375	ug/L	0.049	12	5	415	12	KED
>	In	115		ug/L			944527	893819	1	Standard
	Ag	107	0.178	ug/L	0.008	4	53	2665	4	Standard
	Sb	121	0.067	ug/L	0.005	7	99	919	6	Standard
	Sb	123	0.071	ug/L	0.008	10	75	720	10	Standard
	Ba	135	19.326	ug/L	0.318	1	12	72010	1	Standard
	Ba	137	19.813	ug/L	0.181	0	21	126969	2	Standard
>	Tb	159		ug/L			1118737	1051072	2	Standard
	Pb	208	36.918	ug/L	0.948	2	175	1351422	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0232-05RE1
Sample Dil Factor: 200
Comments:
Sample Date/Time: Monday, June 18, 2018 18:04:02
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	30297	2	Standard
	Cl	37		ug/L			6308940	6277779	0	Standard
>	Sc	45		ug/L			1410977	1356479	1	Standard
	Cr	52	33.517	ug/L	0.411	1	14875	734007	0	Standard
	Cr	53	32.499	ug/L	0.792	2	195	84864	0	Standard
	Mn	55	35.896	ug/L	0.585	1	545	1146107	1	Standard
>	Ge-1	72		ug/L			87449	83066	2	KED
	Ni	60	11.606	ug/L	0.466	4	15	15688	2	KED
	Ni	62	12.440	ug/L	0.777	6	10	2579	4	KED
	Cu	63	22.748	ug/L	0.550	2	46	79085	2	KED
	Cu	65	22.177	ug/L	0.505	2	26	38108	0	KED
	Zn	66	152.761	ug/L	5.797	3	68	73676	1	KED
	Zn	67	142.234	ug/L	6.634	4	10	11232	1	KED
	As	75	0.539	ug/L	0.041	7	4	176	4	KED
	Se-1	78	0.189	ug/L	0.116	61	12	19	22	KED
	Y	89		ug/L			790194	731920	1	Standard
	Kr	83		ug/L			58	45	8	Standard
>	In-1	115		ug/L			38158	34344	13	KED
	Cd	111	0.355	ug/L	0.032	8	3	147	9	KED
	Cd	114	0.330	ug/L	0.055	16	5	345	9	KED
>	In	115		ug/L			944527	901580	1	Standard
	Ag	107	0.103	ug/L	0.004	3	53	1572	2	Standard
	Sb	121	0.040	ug/L	0.006	14	99	590	12	Standard
	Sb	123	0.039	ug/L	0.004	9	75	430	8	Standard
	Ba	135	12.412	ug/L	0.342	2	12	46643	0	Standard
	Ba	137	12.488	ug/L	0.131	1	21	80718	1	Standard
>	Tb	159		ug/L			1118737	1070539	1	Standard
	Pb	208	22.924	ug/L	0.072	0	175	855196	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0230-01
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 18:08:45
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	52644	0	Standard
	Cl	37		ug/L			6308940	5925450	0	Standard
>	Sc	45		ug/L			1410977	1334328	1	Standard
	Cr	52	122.305	ug/L	3.128	2	14875	2597158	1	Standard
	Cr	53	123.521	ug/L	2.349	1	195	316792	0	Standard
	Mn	55	16.008	ug/L	0.347	2	545	502997	0	Standard
>	Ge-1	72		ug/L			87449	64920	0	KED
	Ni	60	3.624	ug/L	0.103	2	15	3838	3	KED
	Ni	62	3.666	ug/L	0.322	8	10	600	8	KED
	Cu	63	18.904	ug/L	0.236	1	46	51387	1	KED
	Cu	65	18.834	ug/L	0.166	0	26	25307	0	KED
	Zn	66	17.565	ug/L	0.257	1	68	6670	1	KED
	Zn	67	16.021	ug/L	0.383	2	10	996	2	KED
	As	75	0.089	ug/L	0.010	11	4	25	10	KED
	Se-1	78	0.267	ug/L	0.097	36	12	17	17	KED
	Y	89		ug/L			790194	682314	4	Standard
	Kr	83		ug/L			58	141	3	Standard
>	In-1	115		ug/L			38158	29262	1	KED
	Cd	111	0.015	ug/L	0.010	64	3	7	43	KED
	Cd	114	0.013	ug/L	0.009	68	5	15	48	KED
>	In	115		ug/L			944527	805240	2	Standard
	Ag	107	0.006	ug/L	0.001	14	53	121	8	Standard
	Sb	121	0.253	ug/L	0.008	3	99	2896	3	Standard
	Sb	123	0.262	ug/L	0.009	3	75	2218	1	Standard
	Ba	135	0.687	ug/L	0.003	0	12	2315	2	Standard
	Ba	137	0.705	ug/L	0.015	2	21	4088	1	Standard
>	Tb	159		ug/L			1118737	1001552	1	Standard
	Pb	208	0.277	ug/L	0.002	0	175	9834	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0230-02
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 18:13:27
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	50997	0	Standard
	Cl	37		ug/L			6308940	5943480	0	Standard
>	Sc	45		ug/L			1410977	1338792	1	Standard
	Cr	52	68.395	ug/L	0.928	1	14875	1463680	0	Standard
	Cr	53	66.360	ug/L	1.133	1	195	170860	0	Standard
	Mn	55	16.868	ug/L	0.529	3	545	531767	1	Standard
>	Ge-1	72		ug/L			87449	67443	0	KED
	Ni	60	2.198	ug/L	0.040	1	15	2423	1	KED
	Ni	62	2.336	ug/L	0.138	5	10	400	5	KED
	Cu	63	11.166	ug/L	0.062	0	46	31546	0	KED
	Cu	65	11.060	ug/L	0.048	0	26	15447	0	KED
	Zn	66	9.282	ug/L	0.172	1	68	3686	1	KED
	Zn	67	8.801	ug/L	0.272	3	10	572	3	KED
	As	75	0.054	ug/L	0.011	20	4	17	16	KED
	Se-1	78	0.223	ug/L	0.063	28	12	17	12	KED
	Y	89		ug/L			790194	687783	1	Standard
	Kr	83		ug/L			58	105	15	Standard
>	In-1	115		ug/L			38158	29551	1	KED
	Cd	111	0.008	ug/L	0.007	80	3	5	44	KED
	Cd	114	0.014	ug/L	0.009	62	5	16	48	KED
>	In	115		ug/L			944527	799380	2	Standard
	Ag	107	0.004	ug/L	0.001	13	53	99	5	Standard
	Sb	121	0.246	ug/L	0.006	2	99	2793	2	Standard
	Sb	123	0.243	ug/L	0.009	3	75	2048	3	Standard
	Ba	135	0.673	ug/L	0.022	3	12	2253	2	Standard
	Ba	137	0.661	ug/L	0.030	4	21	3803	3	Standard
>	Tb	159		ug/L			1118737	1023243	0	Standard
	Pb	208	0.127	ug/L	0.003	2	175	4687	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0230-07
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 18:18:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	65444	1	Standard
	Cl	37		ug/L			6308940	5947584	0	Standard
>	Sc	45		ug/L			1410977	1384683	1	Standard
	Cr	52	53.972	ug/L	0.823	1	14875	1197634	1	Standard
	Cr	53	53.867	ug/L	1.270	2	195	143463	0	Standard
	Mn	55	16.110	ug/L	0.431	2	545	525266	0	Standard
>	Ge-1	72		ug/L			87449	70125	0	KED
	Ni	60	1.261	ug/L	0.025	2	15	1450	2	KED
	Ni	62	1.248	ug/L	0.106	8	10	226	8	KED
	Cu	63	8.589	ug/L	0.058	0	46	25240	0	KED
	Cu	65	8.559	ug/L	0.091	1	26	12434	0	KED
	Zn	66	6.481	ug/L	0.366	5	68	2692	5	KED
	Zn	67	5.936	ug/L	0.673	11	10	404	11	KED
	As	75	0.078	ug/L	0.015	19	4	24	17	KED
	Se-1	78	0.217	ug/L	0.063	29	12	17	12	KED
	Y	89		ug/L			790194	697535	3	Standard
	Kr	83		ug/L			58	88	16	Standard
>	In-1	115		ug/L			38158	30476	2	KED
	Cd	111	0.009	ug/L	0.007	77	3	5	44	KED
	Cd	114	-0.029	ug/L	0.020	67	5	-22	79	KED
>	In	115		ug/L			944527	812295	2	Standard
	Ag	107	0.005	ug/L	0.001	11	53	117	7	Standard
	Sb	121	0.219	ug/L	0.007	3	99	2543	1	Standard
	Sb	123	0.223	ug/L	0.009	3	75	1912	1	Standard
	Ba	135	0.585	ug/L	0.031	5	12	1988	2	Standard
	Ba	137	0.570	ug/L	0.033	5	21	3334	3	Standard
>	Tb	159		ug/L			1118737	1045891	3	Standard
	Pb	208	0.117	ug/L	0.005	4	175	4439	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0230-08
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 18:22:53
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	98308	1	Standard
	Cl	37		ug/L			6308940	6001369	0	Standard
>	Sc	45		ug/L			1410977	1359590	2	Standard
	Cr	52	40.749	ug/L	0.950	2	14875	891257	1	Standard
	Cr	53	39.712	ug/L	0.916	2	195	103904	1	Standard
	Mn	55	15.004	ug/L	0.181	1	545	480503	2	Standard
>	Ge-1	72		ug/L			87449	69463	0	KED
	Ni	60	2.054	ug/L	0.077	3	15	2333	3	KED
	Ni	62	2.332	ug/L	0.127	5	10	411	5	KED
	Cu	63	10.620	ug/L	0.120	1	46	30903	0	KED
	Cu	65	10.336	ug/L	0.269	2	26	14868	2	KED
	Zn	66	7.923	ug/L	0.163	2	68	3249	1	KED
	Zn	67	8.062	ug/L	0.384	4	10	540	4	KED
	As	75	0.108	ug/L	0.019	17	4	32	15	KED
	Se-1	78	0.277	ug/L	0.013	4	12	19	2	KED
	Y	89		ug/L			790194	689276	1	Standard
	Kr	83		ug/L			58	86	13	Standard
>	In-1	115		ug/L			38158	30144	1	KED
	Cd	111	0.004	ug/L	0.001	31	3	4	13	KED
	Cd	114	-0.003	ug/L	0.021	616	5	1	1409	KED
>	In	115		ug/L			944527	822948	1	Standard
	Ag	107	0.005	ug/L	0.000	7	53	115	3	Standard
	Sb	121	0.258	ug/L	0.006	2	99	3021	1	Standard
	Sb	123	0.260	ug/L	0.011	4	75	2256	5	Standard
	Ba	135	0.601	ug/L	0.017	2	12	2073	1	Standard
	Ba	137	0.599	ug/L	0.018	2	21	3554	1	Standard
>	Tb	159		ug/L			1118737	1046932	1	Standard
	Pb	208	0.067	ug/L	0.002	2	175	2598	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 18:27:35
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	41316	1	Standard
	Cl	37		ug/L			6308940	6248975	0	Standard
>	Sc	45		ug/L			1410977	1453055	1	Standard
	Cr	52	26.563	ug/L	1.043	3	14875	626160	2	Standard
	Cr	53	25.881	ug/L	1.314	5	195	72416	3	Standard
	Mn	55	26.261	ug/L	0.451	1	545	898299	0	Standard
>	Ge-1	72		ug/L			87449	81536	1	KED
	Ni	60	27.100	ug/L	0.417	1	15	35955	1	KED
	Ni	62	27.904	ug/L	1.476	5	10	5670	3	KED
	Cu	63	27.754	ug/L	0.883	3	46	94702	1	KED
	Cu	65	27.474	ug/L	0.207	0	26	46355	1	KED
	Zn	66	81.010	ug/L	1.103	1	68	38405	1	KED
	Zn	67	76.723	ug/L	2.276	2	10	5955	1	KED
	As	75	23.926	ug/L	0.435	1	4	7490	1	KED
	Se-1	78	73.927	ug/L	0.427	0	12	3010	1	KED
	Y	89		ug/L			790194	756203	3	Standard
	Kr	83		ug/L			58	57	16	Standard
>	In-1	115		ug/L			38158	36292	0	KED
	Cd	111	24.481	ug/L	0.399	1	3	10604	1	KED
	Cd	114	24.529	ug/L	0.041	0	5	27112	0	KED
>	In	115		ug/L			944527	919567	3	Standard
	Ag	107	25.485	ug/L	1.604	6	53	384321	3	Standard
	Sb	121	0.002	ug/L	0.002	90	99	120	17	Standard
	Sb	123	0.002	ug/L	0.003	187	75	88	33	Standard
	Ba	135	25.240	ug/L	0.706	2	12	96711	1	Standard
	Ba	137	25.756	ug/L	1.421	5	21	169596	2	Standard
>	Tb	159		ug/L			1118737	1131951	1	Standard
	Pb	208	26.283	ug/L	0.581	2	175	1036662	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0419-SRM1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, June 18, 2018 18:32:18
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	37571	0	Standard
	Cl	37		ug/L			6308940	6359842	0	Standard
>	Sc	45		ug/L			1410977	1483514	0	Standard
	Cr	52	80.349	ug/L	1.188	1	14875	1902741	0	Standard
	Cr	53	78.572	ug/L	2.323	2	195	224134	2	Standard
	Mn	55	324.008	ug/L	10.303	3	545	11309182	2	Standard
>	Ge-1	72		ug/L			87449	84462	1	KED
	Ni	60	65.457	ug/L	1.306	1	15	89932	1	KED
	Ni	62	66.451	ug/L	1.737	2	10	13978	1	KED
	Cu	63	59.749	ug/L	1.723	2	46	211133	1	KED
	Cu	65	58.187	ug/L	0.850	1	26	101667	2	KED
	Zn	66	176.078	ug/L	1.331	0	68	86395	1	KED
	Zn	67	168.534	ug/L	4.873	2	10	13539	1	KED
	As	75	133.130	ug/L	2.414	1	4	43155	1	KED
	Se-1	78	121.401	ug/L	2.385	1	12	5112	2	KED
	Y	89		ug/L			790194	1107673	1	Standard
	Kr	83		ug/L			58	128	3	Standard
>	In-1	115		ug/L			38158	37787	1	KED
	Cd	111	56.879	ug/L	1.500	2	3	25641	1	KED
	Cd	114	57.364	ug/L	1.613	2	5	65990	1	KED
>	In	115		ug/L			944527	918566	0	Standard
	Ag	107	45.579	ug/L	1.099	2	53	687468	2	Standard
	Sb	121	5.317	ug/L	0.160	3	99	67519	2	Standard
	Sb	123	5.371	ug/L	0.114	2	75	50489	2	Standard
	Ba	135	94.756	ug/L	1.921	2	12	362840	1	Standard
	Ba	137	96.789	ug/L	2.908	3	21	637306	2	Standard
>	Tb	159		ug/L			1118737	1151480	2	Standard
	Pb	208	89.575	ug/L	3.123	3	175	3591340	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 18:38:05
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	25546	2	Standard
	Cl	**37**		ug/L			6308940	6405686	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1362115	2	Standard
|	**Cr**	**52**	**52.547**	ug/L	1.373	2	14875	1147128	1	Standard
|	**Cr**	**53**	**50.673**	ug/L	2.039	4	195	132715	1	Standard
⌊	**Mn**	**55**	**51.541**	ug/L	1.799	3	545	1651582	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	84367	2	KED
|	**Ni**	**60**	**49.300**	ug/L	1.322	2	15	67655	1	KED
|	**Ni**	**62**	**50.496**	ug/L	0.901	1	10	10612	0	KED
|	**Cu**	**63**	**50.654**	ug/L	2.238	4	46	178750	2	KED
|	**Cu**	**65**	**49.617**	ug/L	1.258	2	26	86568	0	KED
|	**Zn**	**66**	**50.919**	ug/L	0.784	1	68	25006	3	KED
|	**Zn**	**67**	**51.179**	ug/L	0.721	1	10	4114	1	KED
|	**As**	**75**	**48.917**	ug/L	1.114	2	4	15839	0	KED
⌊	**Se-1**	**78**	**49.138**	ug/L	2.326	4	12	2073	2	KED
	Y	**89**		ug/L			790194	720627	2	Standard
	Kr	**83**		ug/L			58	59	26	Standard
⌈>	**In-1**	**115**		ug/L			38158	36101	2	KED
|	**Cd**	**111**	**49.046**	ug/L	1.495	3	3	21118	0	KED
⌊	**Cd**	**114**	**49.386**	ug/L	1.859	3	5	54258	1	KED
⌈>	**In**	**115**		ug/L			944527	884846	1	Standard
|	**Ag**	**107**	**50.518**	ug/L	1.120	2	53	733797	1	Standard
|	**Sb**	**121**	**50.635**	ug/L	0.984	1	99	618450	0	Standard
|	**Sb**	**123**	**50.669**	ug/L	1.511	2	75	458051	1	Standard
|	**Ba**	**135**	**49.325**	ug/L	1.106	2	12	181899	0	Standard
⌊	**Ba**	**137**	**51.044**	ug/L	1.668	3	21	323649	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1105646	1	Standard
⌊	**Pb**	**208**	**49.702**	ug/L	0.797	1	175	1914858	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 18:45:32
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	25405	0	Standard
	Cl	**37**		ug/L			6308940	6199307	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1392583	2	Standard
|	**Cr**	**52**	**-0.133**	ug/L	0.016	11	14875	11741	1	Standard
|	**Cr**	**53**	**-0.000**	ug/L	0.001	392	195	192	3	Standard
⌊	**Mn**	**55**	**0.002**	ug/L	0.001	30	545	601	3	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	84663	0	KED
|	**Ni**	**60**	**-0.001**	ug/L	0.001	135	15	13	14	KED
|	**Ni**	**62**	**-0.010**	ug/L	0.027	258	10	7	75	KED
|	**Cu**	**63**	**-0.004**	ug/L	0.001	18	46	29	9	KED
|	**Cu**	**65**	**-0.003**	ug/L	0.002	52	26	19	14	KED
|	**Zn**	**66**	**-0.026**	ug/L	0.035	133	68	53	32	KED
|	**Zn**	**67**	**-0.004**	ug/L	0.121	3163	10	10	96	KED
|	**As**	**75**	**0.001**	ug/L	0.001	157	4	4	10	KED
⌊	**Se-1**	**78**	**0.077**	ug/L	0.114	148	12	15	31	KED
	Y	**89**		ug/L			790194	727064	0	Standard
	Kr	**83**		ug/L			58	47	16	Standard
⌈>	**In-1**	**115**		ug/L			38158	36162	1	KED
|	**Cd**	**111**	**0.000**	ug/L	0.003	638	3	3	34	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.003	393	5	5	48	KED
⌈>	**In**	**115**		ug/L			944527	880938	1	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.001	55	53	69	16	Standard
|	**Sb**	**121**	**0.120**	ug/L	0.003	2	99	1551	2	Standard
|	**Sb**	**123**	**0.121**	ug/L	0.005	4	75	1161	3	Standard
|	**Ba**	**135**	**-0.000**	ug/L	0.001	258	12	10	28	Standard
⌊	**Ba**	**137**	**0.001**	ug/L	0.002	159	21	27	40	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1103736	0	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.001	48	175	250	15	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0270-BLK3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 18:53:06
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	35824	0	Standard
	Cl	**37**		ug/L			6308940	5992280	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1257468	10	Standard
|	**Cr**	**52**	**-0.034**	ug/L	0.053	156	14875	12515	2	Standard
|	**Cr**	**53**	**0.025**	ug/L	0.016	61	195	232	6	Standard
⌊	**Mn**	**55**	**0.066**	ug/L	0.011	17	545	2401	3	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	81785	2	KED
|	**Ni**	**60**	**0.005**	ug/L	0.000	6	15	20	0	KED
|	**Ni**	**62**	**0.010**	ug/L	0.020	204	10	11	33	KED
|	**Cu**	**63**	**0.021**	ug/L	0.004	19	46	114	13	KED
|	**Cu**	**65**	**0.022**	ug/L	0.006	26	26	61	14	KED
|	**Zn**	**66**	**0.271**	ug/L	0.028	10	68	193	8	KED
|	**Zn**	**67**	**0.337**	ug/L	0.131	39	10	36	27	KED
|	**As**	**75**	**0.009**	ug/L	0.008	85	4	7	35	KED
⌊	**Se-1**	**78**	**0.136**	ug/L	0.075	55	12	17	19	KED
	Y	**89**		ug/L			790194	683944	11	Standard
	Kr	**83**		ug/L			58	60	23	Standard
⌈>	**In-1**	**115**		ug/L			38158	36082	0	KED
|	**Cd**	**111**	**-0.006**	ug/L	0.001	23	3	0	86	KED
⌊	**Cd**	**114**	**-0.002**	ug/L	0.004	252	5	3	147	KED
⌈>	**In**	**115**		ug/L			944527	845729	11	Standard
|	**Ag**	**107**	**0.002**	ug/L	0.001	50	53	74	8	Standard
|	**Sb**	**121**	**0.032**	ug/L	0.009	28	99	453	10	Standard
|	**Sb**	**123**	**0.033**	ug/L	0.007	21	75	348	12	Standard
|	**Ba**	**135**	**0.047**	ug/L	0.011	22	12	175	8	Standard
⌊	**Ba**	**137**	**0.052**	ug/L	0.001	2	21	331	9	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1014450	9	Standard
⌊	**Pb**	**208**	**0.004**	ug/L	0.001	20	175	298	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0157-09
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, June 18, 2018 18:57:49
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	33922	2	Standard
	Cl	37		ug/L			6308940	6188912	0	Standard
>	Sc	45		ug/L			1410977	1442988	0	Standard
	Cr	52	25.709	ug/L	0.274	1	14875	602514	0	Standard
	Cr	53	24.423	ug/L	0.316	1	195	67915	1	Standard
	Mn	55	165.325	ug/L	8.971	5	545	5612005	4	Standard
>	Ge-1	72		ug/L			87449	83755	0	KED
	Ni	60	22.100	ug/L	0.125	0	15	30125	0	KED
	Ni	62	22.723	ug/L	0.521	2	10	4747	1	KED
	Cu	63	14.839	ug/L	0.211	1	46	52048	1	KED
	Cu	65	14.948	ug/L	0.333	2	26	25918	2	KED
	Zn	66	33.857	ug/L	0.836	2	68	16528	2	KED
	Zn	67	32.063	ug/L	1.908	5	10	2563	5	KED
	As	75	3.849	ug/L	0.115	2	4	1241	3	KED
	Se-1	78	0.341	ug/L	0.093	27	12	26	14	KED
	Y	89		ug/L			790194	831065	1	Standard
	Kr	83		ug/L			58	120	14	Standard
>	In-1	115		ug/L			38158	35481	0	KED
	Cd	111	0.045	ug/L	0.012	26	3	21	21	KED
	Cd	114	0.042	ug/L	0.006	13	5	50	12	KED
>	In	115		ug/L			944527	888949	1	Standard
	Ag	107	0.025	ug/L	0.002	8	53	408	7	Standard
	Sb	121	0.017	ug/L	0.002	9	99	305	7	Standard
	Sb	123	0.018	ug/L	0.000	1	75	237	1	Standard
	Ba	135	17.181	ug/L	0.415	2	12	63676	2	Standard
	Ba	137	17.234	ug/L	0.318	1	21	109825	0	Standard
>	Tb	159		ug/L			1118737	1111350	0	Standard
	Pb	208	3.531	ug/L	0.047	1	175	136876	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0157-10
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, June 18, 2018 19:02:32
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	31353	0	Standard
	Cl	37		ug/L			6308940	6143104	0	Standard
>	Sc	45		ug/L			1410977	1404827	1	Standard
	Cr	52	25.383	ug/L	0.667	2	14875	579211	1	Standard
	Cr	53	25.486	ug/L	0.655	2	195	68969	1	Standard
	Mn	55	165.712	ug/L	3.249	1	545	5477122	0	Standard
>	Ge-1	72		ug/L			87449	82741	0	KED
	Ni	60	23.646	ug/L	0.243	1	15	31839	0	KED
	Ni	62	24.851	ug/L	1.253	5	10	5128	5	KED
	Cu	63	13.511	ug/L	0.113	0	46	46821	1	KED
	Cu	65	13.498	ug/L	0.105	0	26	23123	0	KED
	Zn	66	34.349	ug/L	0.460	1	68	16563	1	KED
	Zn	67	33.152	ug/L	1.128	3	10	2618	3	KED
	As	75	4.173	ug/L	0.023	0	4	1329	0	KED
	Se-1	78	0.279	ug/L	0.052	18	12	23	9	KED
	Y	89		ug/L			790194	798429	0	Standard
	Kr	83		ug/L			58	101	16	Standard
>	In-1	115		ug/L			38158	34854	2	KED
	Cd	111	0.034	ug/L	0.011	32	3	17	27	KED
	Cd	114	0.037	ug/L	0.004	11	5	44	12	KED
>	In	115		ug/L			944527	878247	2	Standard
	Ag	107	0.021	ug/L	0.005	23	53	356	18	Standard
	Sb	121	0.013	ug/L	0.003	26	99	250	14	Standard
	Sb	123	0.018	ug/L	0.006	35	75	228	27	Standard
	Ba	135	17.487	ug/L	0.590	3	12	64007	2	Standard
	Ba	137	17.065	ug/L	0.152	0	21	107436	1	Standard
>	Tb	159		ug/L			1118737	1064514	1	Standard
	Pb	208	4.026	ug/L	0.061	1	175	149480	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-02
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 19:07:14
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	46895	2	Standard
	Cl	37		ug/L			6308940	6465908	0	Standard
>	Sc	45		ug/L			1410977	1419122	0	Standard
	Cr	52	0.650	ug/L	0.014	2	14875	29577	1	Standard
	Cr	53	0.532	ug/L	0.023	4	195	1646	4	Standard
	Mn	55	3.727	ug/L	0.037	0	545	125013	1	Standard
>	Ge-1	72		ug/L			87449	82128	1	KED
	Ni	60	0.482	ug/L	0.009	1	15	657	2	KED
	Ni	62	0.538	ug/L	0.071	13	10	119	11	KED
	Cu	63	4.294	ug/L	0.154	3	46	14797	2	KED
	Cu	65	4.289	ug/L	0.025	0	26	7309	1	KED
	Zn	66	6.600	ug/L	0.049	0	68	3211	1	KED
	Zn	67	6.216	ug/L	0.355	5	10	495	4	KED
	As	75	0.311	ug/L	0.009	2	4	102	3	KED
	Se-1	78	0.159	ug/L	0.035	22	12	18	7	KED
	Y	89		ug/L			790194	717850	2	Standard
	Kr	83		ug/L			58	52	23	Standard
>	In-1	115		ug/L			38158	36681	1	KED
	Cd	111	0.032	ug/L	0.010	30	3	17	24	KED
	Cd	114	0.025	ug/L	0.012	48	5	33	40	KED
>	In	115		ug/L			944527	888508	3	Standard
	Ag	107	0.006	ug/L	0.001	16	53	132	7	Standard
	Sb	121	0.104	ug/L	0.005	4	99	1369	3	Standard
	Sb	123	0.104	ug/L	0.006	6	75	1017	1	Standard
	Ba	135	2.591	ug/L	0.124	4	12	9594	1	Standard
	Ba	137	2.588	ug/L	0.155	5	21	16478	2	Standard
>	Tb	159		ug/L			1118737	1099465	2	Standard
	Pb	208	0.186	ug/L	0.004	2	175	7301	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-03
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 19:11:57
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	44403	1	Standard
	Cl	**37**		ug/L			6308940	6344841	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1416452	2	Standard
|	**Cr**	**52**	**0.297**	ug/L	0.026	8	14875	21575	0	Standard
|	**Cr**	**53**	**0.206**	ug/L	0.019	9	195	756	4	Standard
⌊	**Mn**	**55**	**5.273**	ug/L	0.239	4	545	176204	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	85780	1	KED
|	**Ni**	**60**	**0.233**	ug/L	0.029	12	15	340	11	KED
|	**Ni**	**62**	**0.207**	ug/L	0.071	34	10	53	26	KED
|	**Cu**	**63**	**1.018**	ug/L	0.026	2	46	3698	1	KED
|	**Cu**	**65**	**1.013**	ug/L	0.070	6	26	1822	6	KED
|	**Zn**	**66**	**7.903**	ug/L	0.398	5	68	4003	5	KED
|	**Zn**	**67**	**7.087**	ug/L	0.420	5	10	588	5	KED
|	**As**	**75**	**0.332**	ug/L	0.016	4	4	113	3	KED
⌊	**Se-1**	**78**	**0.177**	ug/L	0.055	31	12	19	11	KED
	Y	**89**		ug/L			790194	743447	4	Standard
	Kr	**83**		ug/L			58	39	19	Standard
⌈>	**In-1**	**115**		ug/L			38158	36621	5	KED
|	**Cd**	**111**	**0.010**	ug/L	0.001	11	3	7	12	KED
⌊	**Cd**	**114**	**0.012**	ug/L	0.002	13	5	18	4	KED
⌈>	**In**	**115**		ug/L			944527	932777	2	Standard
|	**Ag**	**107**	**0.000**	ug/L	0.001	175	53	57	16	Standard
|	**Sb**	**121**	**0.128**	ug/L	0.002	1	99	1740	2	Standard
|	**Sb**	**123**	**0.135**	ug/L	0.003	2	75	1361	4	Standard
|	**Ba**	**135**	**1.670**	ug/L	0.061	3	12	6500	1	Standard
⌊	**Ba**	**137**	**1.688**	ug/L	0.020	1	21	11305	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1105448	1	Standard
⌊	**Pb**	**208**	**0.093**	ug/L	0.001	1	175	3745	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0166-01
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 19:18:05
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	43115	0	Standard
	Cl	**37**		ug/L			6308940	6138658	0	Standard
>	**Sc**	**45**		ug/L			1410977	1367343	2	Standard
	Cr	**52**	**0.149**	ug/L	0.010	6	14875	17640	1	Standard
	Cr	**53**	**0.505**	ug/L	0.015	2	195	1516	0	Standard
	Mn	**55**	**1.412**	ug/L	0.039	2	545	45950	2	Standard
>	**Ge-1**	**72**		ug/L			87449	81100	1	KED
	Ni	**60**	**0.037**	ug/L	0.006	15	15	62	12	KED
	Ni	**62**	**0.039**	ug/L	0.050	130	10	17	58	KED
	Cu	**63**	**6.055**	ug/L	0.074	1	46	20588	1	KED
	Cu	**65**	**5.926**	ug/L	0.210	3	26	9959	2	KED
	Zn	**66**	**2.852**	ug/L	0.211	7	68	1405	5	KED
	Zn	**67**	**2.655**	ug/L	0.157	5	10	214	4	KED
	As	**75**	**0.418**	ug/L	0.024	5	4	134	7	KED
	Se-1	**78**	**0.185**	ug/L	0.052	28	12	19	9	KED
	Y	**89**		ug/L			790194	700957	0	Standard
	Kr	**83**		ug/L			58	44	17	Standard
>	**In-1**	**115**		ug/L			38158	35334	1	KED
	Cd	**111**	**-0.001**	ug/L	0.001	132	3	2	21	KED
	Cd	**114**	**-0.001**	ug/L	0.002	310	5	4	40	KED
>	**In**	**115**		ug/L			944527	880805	0	Standard
	Ag	**107**	**0.001**	ug/L	0.000	25	53	71	8	Standard
	Sb	**121**	**0.050**	ug/L	0.003	5	99	698	5	Standard
	Sb	**123**	**0.051**	ug/L	0.004	8	75	526	7	Standard
	Ba	**135**	**1.817**	ug/L	0.011	0	12	6682	0	Standard
	Ba	**137**	**1.803**	ug/L	0.027	1	21	11402	1	Standard
>	**Tb**	**159**		ug/L			1118737	1052237	2	Standard
	Pb	**208**	**0.069**	ug/L	0.002	2	175	2711	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0270-DUP3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 19:22:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	73364	0	Standard
	Cl	**37**		ug/L			6308940	6967949	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1338233	1	Standard
|	**Cr**	**52**	**14.083**	ug/L	0.192	1	14875	312465	0	Standard
|	**Cr**	**53**	**14.054**	ug/L	0.114	0	195	36320	1	Standard
⌊	**Mn**	**55**	**63.876**	ug/L	1.913	2	545	2011460	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	75487	2	KED
|	**Ni**	**60**	**2.987**	ug/L	0.043	1	15	3679	1	KED
|	**Ni**	**62**	**2.930**	ug/L	0.017	0	10	559	3	KED
|	**Cu**	**63**	**29.683**	ug/L	1.137	3	46	93728	1	KED
|	**Cu**	**65**	**29.545**	ug/L	1.756	5	26	46095	3	KED
|	**Zn**	**66**	**370.612**	ug/L	13.664	3	68	162377	2	KED
|	**Zn**	**67**	**334.441**	ug/L	9.579	2	10	23997	0	KED
|	**As**	**75**	**0.840**	ug/L	0.051	6	4	246	4	KED
⌊	**Se-1**	**78**	**0.312**	ug/L	0.054	17	12	22	10	KED
	Y	**89**		ug/L			790194	698775	2	Standard
	Kr	**83**		ug/L			58	50	14	Standard
⌈>	**In-1**	**115**		ug/L			38158	32938	5	KED
|	**Cd**	**111**	**0.290**	ug/L	0.051	17	3	115	12	KED
⌊	**Cd**	**114**	**0.273**	ug/L	0.030	10	5	278	10	KED
⌈>	**In**	**115**		ug/L			944527	867491	2	Standard
|	**Ag**	**107**	**0.021**	ug/L	0.002	9	53	342	6	Standard
|	**Sb**	**121**	**8.239**	ug/L	0.284	3	99	98715	1	Standard
|	**Sb**	**123**	**8.446**	ug/L	0.292	3	75	74905	1	Standard
|	**Ba**	**135**	**17.478**	ug/L	0.148	0	12	63209	1	Standard
⌊	**Ba**	**137**	**17.639**	ug/L	0.777	4	21	109638	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1059684	1	Standard
⌊	**Pb**	**208**	**4.181**	ug/L	0.152	3	175	154488	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0149-02
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 19:27:30
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	74201	1	Standard
	Cl	**37**		ug/L			6308940	6942932	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1331127	1	Standard
|	**Cr**	**52**	**14.063**	ug/L	0.325	2	14875	310347	1	Standard
|	**Cr**	**53**	**13.956**	ug/L	0.343	2	195	35872	1	Standard
⌊	**Mn**	**55**	**66.226**	ug/L	1.607	2	545	2074336	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	79538	2	KED
|	**Ni**	**60**	**2.868**	ug/L	0.172	5	15	3721	3	KED
|	**Ni**	**62**	**2.854**	ug/L	0.240	8	10	574	9	KED
|	**Cu**	**63**	**28.535**	ug/L	0.501	1	46	94986	0	KED
|	**Cu**	**65**	**28.512**	ug/L	0.620	2	26	46915	1	KED
|	**Zn**	**66**	**357.000**	ug/L	16.509	4	68	164790	2	KED
|	**Zn**	**67**	**325.513**	ug/L	5.874	1	10	24618	0	KED
|	**As**	**75**	**0.794**	ug/L	0.033	4	4	246	1	KED
⌊	**Se-1**	**78**	**0.292**	ug/L	0.118	40	12	23	22	KED
	Y	**89**		ug/L			790194	708286	4	Standard
	Kr	**83**		ug/L			58	52	11	Standard
⌈>	**In-1**	**115**		ug/L			38158	34599	1	KED
|	**Cd**	**111**	**0.258**	ug/L	0.034	13	3	109	12	KED
⌊	**Cd**	**114**	**0.246**	ug/L	0.037	14	5	264	15	KED
⌈>	**In**	**115**		ug/L			944527	892222	1	Standard
|	**Ag**	**107**	**0.018**	ug/L	0.002	13	53	314	9	Standard
|	**Sb**	**121**	**7.725**	ug/L	0.102	1	99	95230	1	Standard
|	**Sb**	**123**	**7.604**	ug/L	0.283	3	75	69367	2	Standard
|	**Ba**	**135**	**17.298**	ug/L	0.506	2	12	64328	1	Standard
⌊	**Ba**	**137**	**17.634**	ug/L	0.811	4	21	112741	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1062192	0	Standard
⌊	**Pb**	**208**	**4.192**	ug/L	0.065	1	175	155317	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0270-MS3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 19:32:12
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	57561	0	Standard
	Cl	**37**		ug/L			6308940	7023139	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1324430	1	Standard
|	**Cr**	**52**	**41.415**	ug/L	0.608	1	14875	882236	0	Standard
|	**Cr**	**53**	**39.661**	ug/L	0.724	1	195	101087	0	Standard
⌊	**Mn**	**55**	**88.342**	ug/L	2.481	2	545	2752777	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	77200	2	KED
|	**Ni**	**60**	**29.026**	ug/L	0.755	2	15	36452	0	KED
|	**Ni**	**62**	**29.204**	ug/L	1.083	3	10	5618	1	KED
|	**Cu**	**63**	**54.280**	ug/L	2.001	3	46	175307	2	KED
|	**Cu**	**65**	**52.626**	ug/L	0.327	0	26	84043	1	KED
|	**Zn**	**66**	**424.078**	ug/L	9.174	2	68	190094	2	KED
|	**Zn**	**67**	**386.934**	ug/L	8.387	2	10	28401	1	KED
|	**As**	**75**	**26.629**	ug/L	0.763	2	4	7891	1	KED
⌊	**Se-1**	**78**	**81.555**	ug/L	2.516	3	12	3141	1	KED
	Y	**89**		ug/L			790194	685822	1	Standard
	Kr	**83**		ug/L			58	62	13	Standard
⌈>	**In-1**	**115**		ug/L			38158	34210	0	KED
|	**Cd**	**111**	**25.152**	ug/L	0.201	0	3	10269	1	KED
⌊	**Cd**	**114**	**25.367**	ug/L	0.201	0	5	26428	0	KED
⌈>	**In**	**115**		ug/L			944527	862786	1	Standard
|	**Ag**	**107**	**24.902**	ug/L	0.677	2	53	352734	1	Standard
|	**Sb**	**121**	**33.491**	ug/L	0.367	1	99	398986	1	Standard
|	**Sb**	**123**	**33.836**	ug/L	0.418	1	75	298376	1	Standard
|	**Ba**	**135**	**42.937**	ug/L	0.349	0	12	154447	1	Standard
⌊	**Ba**	**137**	**43.549**	ug/L	0.971	2	21	269310	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1052716	2	Standard
⌊	**Pb**	**208**	**30.227**	ug/L	1.501	4	175	1107726	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0270-BS3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 19:36:55
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	40729	0	Standard
	Cl	**37**		ug/L			6308940	6302356	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1361176	1	Standard
|	**Cr**	**52**	**25.996**	ug/L	0.319	1	14875	574508	0	Standard
|	**Cr**	**53**	**25.233**	ug/L	0.425	1	195	66169	0	Standard
⌊	**Mn**	**55**	**25.576**	ug/L	0.465	1	545	819573	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	80538	0	KED
|	**Ni**	**60**	**25.001**	ug/L	0.628	2	15	32769	2	KED
|	**Ni**	**62**	**26.144**	ug/L	0.425	1	10	5251	2	KED
|	**Cu**	**63**	**25.772**	ug/L	0.533	2	46	86884	1	KED
|	**Cu**	**65**	**25.034**	ug/L	0.728	2	26	41716	2	KED
|	**Zn**	**66**	**82.169**	ug/L	2.364	2	68	38481	3	KED
|	**Zn**	**67**	**78.366**	ug/L	0.605	0	10	6010	0	KED
|	**As**	**75**	**24.754**	ug/L	0.464	1	4	7656	1	KED
⌊	**Se-1**	**78**	**78.965**	ug/L	1.283	1	12	3175	2	KED
	Y	**89**		ug/L			790194	724192	1	Standard
	Kr	**83**		ug/L			58	56	15	Standard
⌈>	**In-1**	**115**		ug/L			38158	34851	3	KED
|	**Cd**	**111**	**24.953**	ug/L	0.701	2	3	10373	0	KED
⌊	**Cd**	**114**	**25.148**	ug/L	0.386	1	5	26684	1	KED
⌈>	**In**	**115**		ug/L			944527	878913	1	Standard
|	**Ag**	**107**	**24.711**	ug/L	0.433	1	53	356594	1	Standard
|	**Sb**	**121**	**25.040**	ug/L	0.317	1	99	303872	0	Standard
|	**Sb**	**123**	**25.910**	ug/L	0.441	1	75	232725	0	Standard
|	**Ba**	**135**	**24.477**	ug/L	0.843	3	12	89658	2	Standard
⌊	**Ba**	**137**	**25.166**	ug/L	0.978	3	21	158528	3	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1070915	1	Standard
⌊	**Pb**	**208**	**25.640**	ug/L	0.221	0	175	956868	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 19:42:42
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	24155	0	Standard
	Cl	**37**		ug/L			6308940	6356043	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1304407	2	Standard
|	**Cr**	**52**	**51.880**	ug/L	1.125	2	14875	1084841	0	Standard
|	**Cr**	**53**	**50.996**	ug/L	0.535	1	195	127973	1	Standard
⌊	**Mn**	**55**	**50.660**	ug/L	1.020	2	545	1554982	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	80542	1	KED
|	**Ni**	**60**	**48.601**	ug/L	1.501	3	15	63666	1	KED
|	**Ni**	**62**	**49.918**	ug/L	2.171	4	10	10013	2	KED
|	**Cu**	**63**	**49.487**	ug/L	0.574	1	46	166843	2	KED
|	**Cu**	**65**	**50.117**	ug/L	0.921	1	26	83487	0	KED
|	**Zn**	**66**	**51.255**	ug/L	1.044	2	68	24022	0	KED
|	**Zn**	**67**	**51.052**	ug/L	1.355	2	10	3918	2	KED
|	**As**	**75**	**48.759**	ug/L	0.820	1	4	15074	0	KED
⌊	**Se-1**	**78**	**48.640**	ug/L	1.224	2	12	1960	2	KED
	Y	**89**		ug/L			790194	682465	4	Standard
	Kr	**83**		ug/L			58	62	5	Standard
⌈>	**In-1**	**115**		ug/L			38158	35609	0	KED
|	**Cd**	**111**	**47.624**	ug/L	1.297	2	3	20238	2	KED
⌊	**Cd**	**114**	**48.652**	ug/L	1.691	3	5	52755	3	KED
⌈>	**In**	**115**		ug/L			944527	863232	2	Standard
|	**Ag**	**107**	**49.663**	ug/L	2.045	4	53	703466	1	Standard
|	**Sb**	**121**	**50.426**	ug/L	1.304	2	99	600761	0	Standard
|	**Sb**	**123**	**49.871**	ug/L	0.875	1	75	439883	1	Standard
|	**Ba**	**135**	**48.886**	ug/L	0.862	1	12	175881	0	Standard
⌊	**Ba**	**137**	**49.447**	ug/L	1.360	2	21	305855	0	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1074071	2	Standard
⌊	**Pb**	**208**	**49.240**	ug/L	0.470	0	175	1842435	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 19:50:09
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	23757	2	Standard
	Cl	**37**		ug/L			6308940	6130424	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1285944	2	Standard
|	**Cr**	**52**	**-0.107**	ug/L	0.007	6	14875	11368	2	Standard
|	**Cr**	**53**	**0.001**	ug/L	0.006	925	195	179	7	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.001	121	545	517	3	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	79090	2	KED
|	**Ni**	**60**	**-0.006**	ug/L	0.003	40	15	5	57	KED
|	**Ni**	**62**	**-0.024**	ug/L	0.014	58	10	4	65	KED
|	**Cu**	**63**	**-0.005**	ug/L	0.001	30	46	26	16	KED
|	**Cu**	**65**	**-0.007**	ug/L	0.002	26	26	12	22	KED
|	**Zn**	**66**	**-0.087**	ug/L	0.020	23	68	22	42	KED
|	**Zn**	**67**	**-0.037**	ug/L	0.054	145	10	6	56	KED
|	**As**	**75**	**-0.000**	ug/L	0.006	5009	4	4	40	KED
⌊	**Se-1**	**78**	**0.095**	ug/L	0.055	57	12	15	15	KED
	Y	**89**		ug/L			790194	688972	2	Standard
	Kr	**83**		ug/L			58	50	8	Standard
⌈>	**In-1**	**115**		ug/L			38158	34787	2	KED
|	**Cd**	**111**	**-0.002**	ug/L	0.002	90	3	1	50	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.003	426	5	4	65	KED
⌈>	**In**	**115**		ug/L			944527	857476	1	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.001	54	53	66	15	Standard
|	**Sb**	**121**	**0.112**	ug/L	0.008	6	99	1419	6	Standard
|	**Sb**	**123**	**0.115**	ug/L	0.007	6	75	1075	4	Standard
|	**Ba**	**135**	**-0.001**	ug/L	0.001	149	12	7	66	Standard
⌊	**Ba**	**137**	**-0.000**	ug/L	0.001	666	21	19	20	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1018956	1	Standard
⌊	**Pb**	**208**	**-0.000**	ug/L	0.001	211	175	148	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0134-01
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, June 18, 2018 19:54:53
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	62365	0	Standard
	Cl	37		ug/L			6308940	6200822	1	Standard
>	Sc	45		ug/L			1410977	1426402	2	Standard
	Cr	52	23.853	ug/L	0.629	2	14875	553456	0	Standard
	~~Cr~~	~~53~~	~~23.131~~	ug/L	0.861	3	195	63546	0	Standard
	Mn	55	291.249	ug/L	12.016	4	545	9768332	1	Standard
>	Ge-1	72		ug/L			87449	80268	2	KED
	Ni	60	17.315	ug/L	1.214	7	15	22593	4	KED
	Ni	62	18.211	ug/L	0.443	2	10	3648	3	KED
	Cu	63	41.035	ug/L	1.685	4	46	137753	1	KED
	Cu	65	41.594	ug/L	1.840	4	26	69012	1	KED
	Zn	66	191.410	ug/L	9.037	4	68	89174	1	KED
	Zn	67	183.091	ug/L	10.187	5	10	13966	2	KED
	As	75	2.730	ug/L	0.187	6	4	844	3	KED
	Se-1	78	0.479	ug/L	0.032	6	12	30	4	KED
	Y	89		ug/L			790194	872542	0	Standard
	Kr	83		ug/L			58	92	22	Standard
>	In-1	115		ug/L			38158	35329	0	KED
	Cd	111	0.662	ug/L	0.054	8	3	281	8	KED
	Cd	114	0.633	ug/L	0.040	6	5	685	6	KED
>	In	115		ug/L			944527	876054	2	Standard
	Ag	107	0.093	ug/L	0.000	0	53	1386	3	Standard
	Sb	121	0.212	ug/L	0.014	6	99	2659	4	Standard
	Sb	123	0.213	ug/L	0.012	5	75	1976	4	Standard
	Ba	135	69.326	ug/L	3.774	5	12	252913	2	Standard
	Ba	137	68.631	ug/L	2.209	3	21	430747	1	Standard
>	Tb	159		ug/L			1118737	1047419	2	Standard
	~~Pb~~	208	~~29.007~~	ug/L	0.523	1	175	1058423	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0134-02
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, June 18, 2018 19:59:35
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	84948	2	Standard
	Cl	37		ug/L			6308940	6139513	0	Standard
>	Sc	45		ug/L			1410977	1362910	1	Standard
	Cr	52	15.932	ug/L	0.315	1	14875	358082	0	Standard
	~~Cr~~	~~53~~	~~15.193~~	ug/L	0.220	1	195	39971	1	Standard
	Mn	55	152.649	ug/L	1.002	0	545	4896146	1	Standard
>	Ge-1	72		ug/L			87449	79862	2	KED
	Ni	60	11.083	ug/L	0.404	3	15	14405	2	KED
	Ni	62	12.142	ug/L	0.793	6	10	2421	4	KED
	Cu	63	46.402	ug/L	1.321	2	46	155083	2	KED
	Cu	65	46.832	ug/L	2.431	5	26	77335	3	KED
	Zn	66	200.878	ug/L	11.625	5	68	93132	4	KED
	Zn	67	191.088	ug/L	9.369	4	10	14508	2	KED
	As	75	1.887	ug/L	0.147	7	4	582	5	KED
	Se-1	78	0.244	ug/L	0.106	43	12	21	18	KED
	Y	89		ug/L			790194	772432	2	Standard
	Kr	83		ug/L			58	67	9	Standard
>	In-1	115		ug/L			38158	35522	0	KED
	Cd	111	0.242	ug/L	0.017	7	3	105	7	KED
	Cd	114	0.208	ug/L	0.018	8	5	230	9	KED
>	In	115		ug/L			944527	876554	4	Standard
	Ag	107	0.086	ug/L	0.006	7	53	1281	6	Standard
	Sb	121	0.703	ug/L	0.018	2	99	8595	3	Standard
	Sb	123	0.709	ug/L	0.036	5	75	6412	1	Standard
	Ba	135	54.420	ug/L	2.620	4	12	198641	2	Standard
	Ba	137	54.620	ug/L	1.012	1	21	343087	2	Standard
>	Tb	159		ug/L			1118737	1067117	2	Standard
	~~Pb~~	~~208~~	~~39.219~~	ug/L	0.801	2	175	1457708	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 20:04:18
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	41859	0	Standard
	Cl	37		ug/L			6308940	5976449	1	Standard
>	Sc	45		ug/L			1410977	1391642	1	Standard
	Cr	52	0.521	ug/L	0.027	5	14875	26150	0	Standard
	Cr	53	0.628	ug/L	0.025	3	195	1870	2	Standard
	Mn	55	3.991	ug/L	0.114	2	545	131221	3	Standard
>	Ge-1	72		ug/L			87449	81827	2	KED
	Ni	60	0.542	ug/L	0.043	7	15	735	5	KED
	Ni	62	0.478	ug/L	0.053	11	10	106	8	KED
	Cu	63	0.981	ug/L	0.044	4	46	3406	6	KED
	Cu	65	0.968	ug/L	0.059	6	26	1662	4	KED
	Zn	66	9.151	ug/L	0.549	6	68	4408	5	KED
	Zn	67	8.894	ug/L	0.319	3	10	701	1	KED
	As	75	0.347	ug/L	0.049	14	4	113	12	KED
	Se-1	78	0.211	ug/L	0.102	48	12	20	19	KED
	Y	89		ug/L			790194	707342	3	Standard
	Kr	83		ug/L			58	54	19	Standard
>	In-1	115		ug/L			38158	36739	2	KED
	Cd	111	0.039	ug/L	0.007	18	3	20	14	KED
	Cd	114	0.041	ug/L	0.003	8	5	50	8	KED
>	In	115		ug/L			944527	903575	1	Standard
	Ag	107	0.001	ug/L	0.001	151	53	62	27	Standard
	Sb	121	0.114	ug/L	0.006	5	99	1522	5	Standard
	Sb	123	0.112	ug/L	0.006	5	75	1110	6	Standard
	Ba	135	1.695	ug/L	0.037	2	12	6396	2	Standard
	Ba	137	1.707	ug/L	0.023	1	21	11074	0	Standard
>	Tb	159		ug/L			1118737	1057751	0	Standard
	Pb	208	0.159	ug/L	0.004	2	175	6008	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-01
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 20:09:00
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	42135	0	Standard
	Cl	37		ug/L			6308940	6043805	0	Standard
>	Sc	45		ug/L			1410977	1382686	2	Standard
	Cr	52	0.516	ug/L	0.044	8	14875	25857	1	Standard
	Cr	53	0.580	ug/L	0.046	7	195	1731	4	Standard
	Mn	55	3.939	ug/L	0.167	4	545	128607	2	Standard
>	Ge-1	72		ug/L			87449	82264	2	KED
	Ni	60	0.457	ug/L	0.011	2	15	626	4	KED
	Ni	62	0.477	ug/L	0.026	5	10	107	4	KED
	Cu	63	0.925	ug/L	0.034	3	46	3226	2	KED
	Cu	65	0.901	ug/L	0.016	1	26	1556	3	KED
	Zn	66	9.058	ug/L	0.497	5	68	4387	3	KED
	Zn	67	8.848	ug/L	1.018	11	10	700	8	KED
	As	75	0.314	ug/L	0.017	5	4	103	3	KED
	Se-1	78	0.088	ug/L	0.033	37	12	15	9	KED
	Y	89		ug/L			790194	719111	4	Standard
	Kr	83		ug/L			58	52	24	Standard
>	In-1	115		ug/L			38158	36487	1	KED
	Cd	111	0.038	ug/L	0.014	36	3	19	29	KED
	Cd	114	0.038	ug/L	0.008	20	5	47	16	KED
>	In	115		ug/L			944527	900568	1	Standard
	Ag	107	0.001	ug/L	0.001	84	53	60	12	Standard
	Sb	121	0.104	ug/L	0.003	3	99	1386	4	Standard
	Sb	123	0.110	ug/L	0.003	2	75	1079	2	Standard
	Ba	135	1.667	ug/L	0.047	2	12	6269	1	Standard
	Ba	137	1.642	ug/L	0.050	3	21	10619	1	Standard
>	Tb	159		ug/L			1118737	1076929	3	Standard
	Pb	208	0.151	ug/L	0.013	8	175	5829	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 20:13:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	44986	1	Standard
	Cl	37		ug/L			6308940	6329536	0	Standard
>	Sc	45		ug/L			1410977	1374949	1	Standard
	Cr	52	28.006	ug/L	0.125	0	14875	624170	1	Standard
	Cr	53	27.134	ug/L	0.881	3	195	71859	2	Standard
	Mn	55	30.974	ug/L	0.301	0	545	1002554	0	Standard
>	Ge-1	72		ug/L			87449	80798	0	KED
	Ni	60	26.388	ug/L	0.522	1	15	34694	1	KED
	Ni	62	27.086	ug/L	1.077	3	10	5456	3	KED
	Cu	63	27.271	ug/L	0.498	1	46	92247	2	KED
	Cu	65	27.686	ug/L	0.639	2	26	46292	2	KED
	Zn	66	87.130	ug/L	1.070	1	68	40929	0	KED
	Zn	67	82.142	ug/L	1.611	1	10	6320	2	KED
	As	75	24.690	ug/L	0.114	0	4	7660	0	KED
	Se-1	78	73.811	ug/L	0.933	1	12	2978	0	KED
	Y	89		ug/L			790194	717921	2	Standard
	Kr	83		ug/L			58	54	19	Standard
>	In-1	115		ug/L			38158	35619	2	KED
	Cd	111	24.002	ug/L	0.848	3	3	10198	1	KED
	Cd	114	24.255	ug/L	1.031	4	5	26296	2	KED
>	In	115		ug/L			944527	876221	2	Standard
	Ag	107	26.647	ug/L	1.156	4	53	383167	2	Standard
	Sb	121	0.113	ug/L	0.005	4	99	1459	4	Standard
	Sb	123	0.112	ug/L	0.005	4	75	1067	2	Standard
	Ba	135	28.056	ug/L	0.790	2	12	102446	0	Standard
	Ba	137	28.208	ug/L	1.220	4	21	177072	2	Standard
>	Tb	159		ug/L			1118737	1079422	1	Standard
	~~Pb~~	208	~~26.964~~	ug/L	0.163	0	175	1014205	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-MSD1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 20:18:26
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26774	46674	2	Standard
Cl	37		ug/L			6308940	6452496	0	Standard
> Sc	45		ug/L			1410977	1389404	2	Standard
Cr	52	27.039	ug/L	0.856	3	14875	609170	0	Standard
Cr	53	26.210	ug/L	0.901	3	195	70130	1	Standard
Mn	55	30.021	ug/L	0.262	0	545	982039	2	Standard
> Ge-1	72		ug/L			87449	80571	0	KED
Ni	60	26.657	ug/L	0.046	0	15	34951	0	KED
Ni	62	27.415	ug/L	1.335	4	10	5507	4	KED
Cu	63	26.961	ug/L	0.417	1	46	90940	1	KED
Cu	65	27.153	ug/L	0.402	1	26	45269	1	KED
Zn	66	87.190	ug/L	0.975	1	68	40843	0	KED
Zn	67	82.960	ug/L	4.194	5	10	6363	4	KED
As	75	24.076	ug/L	0.294	1	4	7449	1	KED
Se-1	78	71.601	ug/L	0.943	1	12	2881	1	KED
Y	89		ug/L			790194	734066	0	Standard
Kr	83		ug/L			58	52	22	Standard
> In-1	115		ug/L			38158	35828	1	KED
Cd	111	23.386	ug/L	0.541	2	3	9999	1	KED
Cd	114	23.618	ug/L	0.456	1	5	25767	1	KED
> In	115		ug/L			944527	909462	1	Standard
Ag	107	25.331	ug/L	0.465	1	53	378266	1	Standard
Sb	121	0.108	ug/L	0.003	2	99	1450	3	Standard
Sb	123	0.108	ug/L	0.004	3	75	1076	2	Standard
Ba	135	26.718	ug/L	0.768	2	12	101280	1	Standard
Ba	137	26.891	ug/L	0.324	1	21	175322	1	Standard
> Tb	159		ug/L			1118737	1060888	2	Standard
Pb	208	27.008	ug/L	0.546	2	175	998142	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-DUP2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 20:23:08 DEL
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26774	45656	0	Standard
Cl	37		ug/L			6308940	174832716	0	Standard
> Sc	45		ug/L			1410977	1117291	1	Standard
Cr	52	1.061	ug/L	0.022	2	14875	30541	2	Standard
Cr	53	60.016	ug/L	0.217	0	195	128994	1	Standard
Mn	55	1.835	ug/L	0.011	0	545	48660	1	Standard
> Ge-1	72		ug/L			87449	40897	1	KED
Ni	60	2.520	ug/L	0.105	4	15	1683	4	KED
Ni	62	3.440	ug/L	0.246	7	10	354	6	KED
Cu	63	0.681	ug/L	0.026	3	46	1187	2	KED
Cu	65	0.520	ug/L	0.009	1	26	452	2	KED
Zn	66	9.638	ug/L	0.252	2	68	2320	2	KED
Zn	67	10.568	ug/L	0.488	4	10	415	4	KED
As	75	0.717	ug/L	0.040	5	4	114	6	KED
Se-1	78	0.873	ug/L	0.186	21	12	23	17	KED
Y	89		ug/L			790194	509061	1	Standard
Kr	83		ug/L			58	12865	4	Standard
> In-1	115		ug/L			38158	18630	1	KED
Cd	111	0.052	ug/L	0.017	32	3	13	27	KED
Cd	114	0.059	ug/L	0.009	15	5	36	14	KED
> In	115		ug/L			944527	555538	1	Standard
Ag	107	0.012	ug/L	0.001	8	53	144	5	Standard
Sb	121	0.087	ug/L	0.003	3	99	725	2	Standard
Sb	123	0.118	ug/L	0.007	6	75	711	7	Standard
Ba	135	38.080	ug/L	0.458	1	12	88182	0	Standard
Ba	137	39.078	ug/L	0.382	0	21	155625	1	Standard
> Tb	159		ug/L			1118737	764812	1	Standard
Pb	208	0.012	ug/L	0.001	7	175	444	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-08
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 20:27:51

DEL

Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26774	48201	2	Standard
Cl	37		ug/L			6308940	176025881	1	Standard
> Sc	45		ug/L			1410977	1203594	1	Standard
Cr	52	1.181	ug/L	0.041	3	14875	35194	0	Standard
Cr	53	67.473	ug/L	1.101	1	195	156178	0	Standard
Mn	55	1.740	ug/L	0.024	1	545	49744	0	Standard
> Ge-1	72		ug/L			87449	50053	1	KED
Ni	60	2.588	ug/L	0.120	4	15	2116	4	KED
Ni	62	5.381	ug/L	0.177	3	10	676	2	KED
Cu	63	0.947	ug/L	0.043	4	46	2009	3	KED
Cu	65	0.507	ug/L	0.037	7	26	539	7	KED
Zn	66	9.374	ug/L	0.266	2	68	2762	2	KED
Zn	67	10.016	ug/L	1.369	13	10	482	12	KED
As	75	0.728	ug/L	0.047	6	4	142	5	KED
Se-1	78	0.796	ug/L	0.132	16	12	26	11	KED
Y	89		ug/L			790194	527951	0	Standard
Kr	83		ug/L			58	14694	0	Standard
> In-1	115		ug/L			38158	20606	1	KED
Cd	111	0.052	ug/L	0.018	34	3	14	30	KED
Cd	114	0.041	ug/L	0.016	38	5	28	34	KED
> In	115		ug/L			944527	560781	1	Standard
Ag	107	0.011	ug/L	0.002	13	53	134	11	Standard
Sb	121	0.088	ug/L	0.001	0	99	738	1	Standard
Sb	123	0.115	ug/L	0.007	6	75	704	3	Standard
Ba	135	37.856	ug/L	0.293	0	12	88496	1	Standard
Ba	137	39.154	ug/L	0.996	2	21	157350	0	Standard
> Tb	159		ug/L			1118737	818355	1	Standard
Pb	208	0.012	ug/L	0.001	8	175	460	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-MS2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 20:32:34

DEL

Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26774	48663	1	Standard
Cl	37		ug/L			6308940	172405624	1	Standard
> Sc	45		ug/L			1410977	1145745	2	Standard
Cr	52	24.367	ug/L	0.470	1	14875	453943	0	Standard
Cr	53	87.920	ug/L	2.210	2	195	193625	0	Standard
Mn	55	23.800	ug/L	0.715	3	545	641736	0	Standard
> Ge-1	72		ug/L			87449	50148	0	KED
Ni	60	26.838	ug/L	0.185	0	15	21902	0	KED
Ni	62	30.965	ug/L	0.631	2	10	3871	2	KED
Cu	63	24.674	ug/L	0.094	0	46	51801	0	KED
Cu	65	23.803	ug/L	0.171	0	26	24702	0	KED
Zn	66	69.467	ug/L	0.290	0	68	20262	0	KED
Zn	67	67.023	ug/L	0.902	1	10	3201	1	KED
As	75	22.350	ug/L	0.159	0	4	4304	0	KED
Se-1	78	61.731	ug/L	1.711	2	12	1547	2	KED
Y	89		ug/L			790194	504697	3	Standard
Kr	83		ug/L			58	18919	1	Standard
> In-1	115		ug/L			38158	20341	2	KED
Cd	111	18.552	ug/L	0.685	3	3	4502	2	KED
Cd	114	18.457	ug/L	0.411	2	5	11431	0	KED
> In	115		ug/L			944527	553010	1	Standard
Ag	107	18.457	ug/L	0.539	2	53	167549	1	Standard
Sb	121	0.086	ug/L	0.008	8	99	716	6	Standard
Sb	123	0.110	ug/L	0.016	14	75	665	11	Standard
Ba	135	64.870	ug/L	1.775	2	12	149496	0	Standard
Ba	137	66.230	ug/L	2.170	3	21	262444	1	Standard
> Tb	159		ug/L			1118737	800504	1	Standard
Pb	208	17.374	ug/L	0.425	2	175	484599	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-MSD2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 20:37:16

DEL

Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26774	45093	2	Standard
Cl	37		ug/L			6308940	164503281	1	Standard
> Sc	45		ug/L			1410977	1027840	1	Standard
Cr	52	23.755	ug/L	0.351	1	14875	397405	2	Standard
Cr	53	88.102	ug/L	2.316	2	195	174107	2	Standard
Mn	55	23.230	ug/L	0.377	1	545	562209	2	Standard
> Ge-1	72		ug/L			87449	49505	0	KED
Ni	60	26.389	ug/L	0.256	0	15	21260	1	KED
Ni	62	30.308	ug/L	0.789	2	10	3740	2	KED
Cu	63	23.948	ug/L	0.083	0	46	49633	0	KED
Cu	65	23.225	ug/L	0.239	1	26	23793	0	KED
Zn	66	69.275	ug/L	0.224	0	68	19947	0	KED
Zn	67	67.030	ug/L	0.308	0	10	3160	1	KED
As	75	21.480	ug/L	0.147	0	4	4083	0	KED
Se-1	78	60.818	ug/L	0.875	1	12	1504	2	KED
Y	89		ug/L			790194	478819	0	Standard
Kr	83		ug/L			58	17822	5	Standard
> In-1	115		ug/L			38158	19771	1	KED
Cd	111	18.030	ug/L	0.335	1	3	4254	0	KED
Cd	114	17.857	ug/L	0.164	0	5	10752	0	KED
> In	115		ug/L			944527	518185	1	Standard
Ag	107	19.276	ug/L	0.164	0	53	164012	0	Standard
Sb	121	0.079	ug/L	0.004	4	99	619	3	Standard
Sb	123	0.112	ug/L	0.002	1	75	631	3	Standard
Ba	135	66.396	ug/L	1.599	2	12	143411	2	Standard
Ba	137	68.789	ug/L	2.000	2	21	255445	1	Standard
> Tb	159		ug/L			1118737	767346	0	Standard
Pb	208	16.732	ug/L	0.024	0	175	447451	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 20:43:03
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	22315	1	Standard
	Cl	**37**		ug/L			6308940	6221808	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1223148	1	Standard
|	**Cr**	**52**	**52.494**	ug/L	1.570	2	14875	1029305	2	Standard
|	**Cr**	**53**	**54.253**	ug/L	0.902	1	195	127657	0	Standard
⌊	**Mn**	**55**	**51.097**	ug/L	0.503	0	545	1471059	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	83584	1	KED
|	**Ni**	**60**	**49.683**	ug/L	0.289	0	15	67565	0	KED
|	**Ni**	**62**	**49.618**	ug/L	0.980	1	10	10333	2	KED
|	**Cu**	**63**	**50.410**	ug/L	0.607	1	46	176338	1	KED
|	**Cu**	**65**	**49.858**	ug/L	0.953	1	26	86200	0	KED
|	**Zn**	**66**	**51.513**	ug/L	0.851	1	68	25063	2	KED
|	**Zn**	**67**	**51.721**	ug/L	0.732	1	10	4119	0	KED
|	**As**	**75**	**48.261**	ug/L	1.086	2	4	15484	1	KED
⌊	**Se-1**	**78**	**48.798**	ug/L	1.380	2	12	2040	2	KED
	Y	**89**		ug/L			790194	596666	3	Standard
	Kr	**83**		ug/L			58	93	6	Standard
⌈>	**In-1**	**115**		ug/L			38158	34692	2	KED
|	**Cd**	**111**	**48.503**	ug/L	1.051	2	3	20073	0	KED
⌊	**Cd**	**114**	**48.409**	ug/L	0.095	0	5	51142	2	KED
⌈>	**In**	**115**		ug/L			944527	768560	1	Standard
|	**Ag**	**107**	**49.921**	ug/L	0.303	0	53	630000	1	Standard
|	**Sb**	**121**	**49.137**	ug/L	0.910	1	99	521350	1	Standard
|	**Sb**	**123**	**50.717**	ug/L	0.953	1	75	398407	2	Standard
|	**Ba**	**135**	**50.894**	ug/L	0.777	1	12	163044	0	Standard
⌊	**Ba**	**137**	**53.731**	ug/L	1.571	2	21	296032	3	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1060812	1	Standard
⌊	**Pb**	**208**	**40.868**	ug/L	0.836	2	175	1510575	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 20:50:31
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	22741	2	Standard
	Cl	**37**		ug/L			6308940	5791887	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1204914	1	Standard
|	**Cr**	**52**	**-0.098**	ug/L	0.011	11	14875	10830	2	Standard
|	**Cr**	**53**	**1.229**	ug/L	0.028	2	195	3013	3	Standard
⌊	**Mn**	**55**	**0.020**	ug/L	0.009	44	545	1035	25	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	85288	3	KED
|	**Ni**	**60**	**-0.005**	ug/L	0.002	43	15	7	43	KED
|	**Ni**	**62**	**0.193**	ug/L	0.075	38	10	50	31	KED
|	**Cu**	**63**	**0.003**	ug/L	0.005	159	46	57	34	KED
|	**Cu**	**65**	**-0.007**	ug/L	0.002	23	26	13	24	KED
|	**Zn**	**66**	**-0.084**	ug/L	0.018	21	68	25	36	KED
|	**Zn**	**67**	**-0.083**	ug/L	0.023	27	10	3	50	KED
|	**As**	**75**	**0.004**	ug/L	0.003	75	4	5	14	KED
⌊	**Se-1**	**78**	**0.127**	ug/L	0.071	55	12	17	17	KED
	Y	**89**		ug/L			790194	577958	1	Standard
	Kr	**83**		ug/L			58	53	10	Standard
⌈>	**In-1**	**115**		ug/L			38158	35417	1	KED
|	**Cd**	**111**	**0.002**	ug/L	0.002	111	3	3	25	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.001	99	5	6	16	KED
⌈>	**In**	**115**		ug/L			944527	770657	4	Standard
|	**Ag**	**107**	**0.006**	ug/L	0.009	149	53	115	93	Standard
|	**Sb**	**121**	**0.108**	ug/L	0.004	3	99	1229	3	Standard
|	**Sb**	**123**	**0.108**	ug/L	0.010	8	75	911	3	Standard
|	**Ba**	**135**	**0.004**	ug/L	0.008	202	12	22	115	Standard
⌊	**Ba**	**137**	**0.004**	ug/L	0.007	200	21	38	108	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1049178	3	Standard
⌊	**Pb**	**208**	**0.003**	ug/L	0.004	140	175	276	53	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-04
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 20:55:14
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	42335	1	Standard
	Cl	**37**		ug/L			6308940	6064241	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1255881	1	Standard
|	**Cr**	**52**	**0.331**	ug/L	0.034	10	14875	19808	1	Standard
|	**Cr**	**53**	**1.240**	ug/L	0.054	4	195	3163	2	Standard
⌊	**Mn**	**55**	**5.546**	ug/L	0.135	2	545	164352	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	85209	0	KED
|	**Ni**	**60**	**0.281**	ug/L	0.031	10	15	404	10	KED
|	**Ni**	**62**	**0.417**	ug/L	0.067	16	10	98	14	KED
|	**Cu**	**63**	**4.086**	ug/L	0.044	1	46	14611	0	KED
|	**Cu**	**65**	**4.021**	ug/L	0.186	4	26	7109	4	KED
|	**Zn**	**66**	**6.132**	ug/L	0.071	1	68	3100	1	KED
|	**Zn**	**67**	**5.678**	ug/L	0.188	3	10	470	3	KED
|	**As**	**75**	**0.339**	ug/L	0.033	9	4	115	9	KED
⌊	**Se-1**	**78**	**0.191**	ug/L	0.057	30	12	20	11	KED
	Y	**89**		ug/L			790194	590977	2	Standard
	Kr	**83**		ug/L			58	62	18	Standard
⌈>	**In-1**	**115**		ug/L			38158	33719	4	KED
|	**Cd**	**111**	**0.040**	ug/L	0.049	122	3	18	103	KED
⌊	**Cd**	**114**	**0.033**	ug/L	0.030	90	5	38	77	KED
⌈>	**In**	**115**		ug/L			944527	779805	4	Standard
|	**Ag**	**107**	**0.008**	ug/L	0.002	29	53	139	17	Standard
|	**Sb**	**121**	**0.153**	ug/L	0.006	3	99	1726	2	Standard
|	**Sb**	**123**	**0.150**	ug/L	0.010	6	75	1253	2	Standard
|	**Ba**	**135**	**3.071**	ug/L	0.141	4	12	9978	0	Standard
⌊	**Ba**	**137**	**3.214**	ug/L	0.156	4	21	17957	0	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1078881	1	Standard
⌊	**Pb**	**208**	**0.046**	ug/L	0.002	3	175	1910	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-05
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 20:59:57
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	44851	0	Standard
	Cl	37		ug/L			6308940	5797713	1	Standard
>	Sc	45		ug/L			1410977	1277390	1	Standard
	Cr	52	0.359	ug/L	0.005	1	14875	20720	0	Standard
	Cr	53	1.172	ug/L	0.039	3	195	3053	3	Standard
	Mn	55	5.998	ug/L	0.090	1	545	180770	0	Standard
>	Ge-1	72		ug/L			87449	89238	2	KED
	Ni	60	0.217	ug/L	0.015	6	15	330	4	KED
	Ni	62	0.352	ug/L	0.064	18	10	88	18	KED
	Cu	63	1.354	ug/L	0.017	1	46	5101	1	KED
	Cu	65	1.405	ug/L	0.036	2	26	2619	3	KED
	Zn	66	7.235	ug/L	0.277	3	68	3816	2	KED
	Zn	67	6.779	ug/L	0.244	3	10	586	3	KED
	As	75	0.324	ug/L	0.029	8	4	115	8	KED
	Se-1	78	0.099	ug/L	0.054	54	12	17	12	KED
	Y	89		ug/L			790194	614409	2	Standard
	Kr	83		ug/L			58	43	37	Standard
>	In-1	115		ug/L			38158	37444	0	KED
	Cd	111	0.009	ug/L	0.009	99	3	6	55	KED
	Cd	114	0.007	ug/L	0.005	72	5	13	44	KED
>	In	115		ug/L			944527	816702	1	Standard
	Ag	107	0.002	ug/L	0.001	59	53	75	22	Standard
	Sb	121	0.160	ug/L	0.009	5	99	1891	3	Standard
	Sb	123	0.162	ug/L	0.008	4	75	1418	4	Standard
	Ba	135	1.814	ug/L	0.070	3	12	6188	4	Standard
	Ba	137	1.936	ug/L	0.028	1	21	11349	1	Standard
>	Tb	159		ug/L			1118737	1075921	3	Standard
	Pb	208	0.083	ug/L	0.003	4	175	3273	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-06
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 21:04:39
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	47101	2	Standard
	Cl	**37**		ug/L			6308940	5907909	2	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1245851	5	Standard
|	**Cr**	**52**	**1.096**	ug/L	0.096	8	14875	34693	0	Standard
|	**Cr**	**53**	**1.680**	ug/L	0.084	4	195	4187	0	Standard
⌊	**Mn**	**55**	**6.210**	ug/L	0.349	5	545	182201	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	84441	0	KED
|	**Ni**	**60**	**0.262**	ug/L	0.028	10	15	375	10	KED
|	**Ni**	**62**	**0.428**	ug/L	0.105	24	10	99	22	KED
|	**Cu**	**63**	**4.576**	ug/L	0.128	2	46	16210	2	KED
|	**Cu**	**65**	**4.456**	ug/L	0.049	1	26	7807	1	KED
|	**Zn**	**66**	**4.985**	ug/L	0.170	3	68	2510	4	KED
|	**Zn**	**67**	**5.100**	ug/L	0.636	12	10	419	11	KED
|	**As**	**75**	**0.315**	ug/L	0.018	5	4	106	4	KED
⌊	**Se-1**	**78**	**0.157**	ug/L	0.089	56	12	18	20	KED
	Y	**89**		ug/L			790194	595004	3	Standard
	Kr	**83**		ug/L			58	52	4	Standard
⌈>	**In-1**	**115**		ug/L			38158	36198	3	KED
|	**Cd**	**111**	**0.011**	ug/L	0.005	43	3	7	25	KED
⌊	**Cd**	**114**	**0.011**	ug/L	0.003	31	5	17	21	KED
⌈>	**In**	**115**		ug/L			944527	787863	3	Standard
|	**Ag**	**107**	**0.008**	ug/L	0.002	22	53	144	11	Standard
|	**Sb**	**121**	**0.146**	ug/L	0.012	8	99	1665	4	Standard
|	**Sb**	**123**	**0.143**	ug/L	0.008	5	75	1211	6	Standard
|	**Ba**	**135**	**2.656**	ug/L	0.171	6	12	8717	2	Standard
⌊	**Ba**	**137**	**2.651**	ug/L	0.117	4	21	14977	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	1050933	3	Standard
⌊	**Pb**	**208**	**0.063**	ug/L	0.003	4	175	2469	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-07
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 21:09:22
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	46408	3	Standard
	Cl	37		ug/L			6308940	6066684	1	Standard
>	Sc	45		ug/L			1410977	1301144	1	Standard
	Cr	52	0.065	ug/L	0.035	53	14875	15054	3	Standard
	Cr	53	0.655	ug/L	0.018	2	195	1816	0	Standard
	Mn	55	4.102	ug/L	0.079	1	545	126072	0	Standard
>	Ge-1	72		ug/L			87449	88823	1	KED
	Ni	60	0.329	ug/L	0.032	9	15	490	8	KED
	Ni	62	3.012	ug/L	0.044	1	10	676	0	KED
	Cu	63	2134.202	ug/L	26.867	1	46	7931996	2	KED
	Cu	65	2145.540	ug/L	42.756	1	26	3940473	0	KED
	Zn	66	6.578	ug/L	0.127	1	68	3460	0	KED
	Zn	67	6.372	ug/L	0.596	9	10	549	9	KED
	As	75	0.094	ug/L	0.015	15	4	36	12	KED
	Se-1	78	0.143	ug/L	0.045	31	12	19	10	KED
	Y	89		ug/L			790194	614816	0	Standard
	Kr	83		ug/L			58	43	7	Standard
>	In-1	115		ug/L			38158	38232	0	KED
	Cd	111	0.026	ug/L	0.001	4	3	14	3	KED
	Cd	114	0.040	ug/L	0.011	26	5	52	23	KED
>	In	115		ug/L			944527	821696	1	Standard
	Ag	107	0.003	ug/L	0.001	19	53	82	7	Standard
	Sb	121	0.116	ug/L	0.010	8	99	1401	8	Standard
	Sb	123	0.121	ug/L	0.003	2	75	1084	1	Standard
	Ba	135	2.498	ug/L	0.070	2	12	8565	1	Standard
	Ba	137	2.461	ug/L	0.051	2	21	14512	1	Standard
>	Tb	159		ug/L			1118737	1079603	2	Standard
	Pb	208	0.071	ug/L	0.004	6	175	2840	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-08
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 21:14:04
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	43819	1	Standard
	Cl	37		ug/L			6308940	5940829	0	Standard
>	Sc	45		ug/L			1410977	1272594	0	Standard
	Cr	52	0.203	ug/L	0.027	13	14875	17509	2	Standard
	Cr	53	0.653	ug/L	0.030	4	195	1771	3	Standard
	Mn	55	3.349	ug/L	0.091	2	545	100765	1	Standard
>	Ge-1	72		ug/L			87449	85500	2	KED
	Ni	60	0.385	ug/L	0.034	8	15	549	8	KED
	Ni	62	1.873	ug/L	0.149	7	10	408	6	KED
	Cu	63	949.230	ug/L	17.571	1	46	3395336	1	KED
	Cu	65	956.778	ug/L	14.970	1	26	1691521	0	KED
	Zn	66	4.834	ug/L	0.203	4	68	2464	2	KED
	Zn	67	4.483	ug/L	0.376	8	10	375	9	KED
	As	75	0.031	ug/L	0.009	30	4	14	19	KED
	Se-1	78	0.153	ug/L	0.135	88	12	18	29	KED
	Y	89		ug/L			790194	613198	0	Standard
	Kr	83		ug/L			58	36	13	Standard
>	In-1	115		ug/L			38158	35341	4	KED
	Cd	111	0.027	ug/L	0.005	19	3	14	19	KED
	Cd	114	0.023	ug/L	0.002	8	5	29	6	KED
>	In	115		ug/L			944527	802258	2	Standard
	Ag	107	0.001	ug/L	0.001	60	53	57	12	Standard
	Sb	121	0.097	ug/L	0.005	5	99	1163	3	Standard
	Sb	123	0.096	ug/L	0.004	4	75	851	3	Standard
	Ba	135	2.652	ug/L	0.019	0	12	8880	2	Standard
	Ba	137	2.811	ug/L	0.057	2	21	16182	2	Standard
>	Tb	159		ug/L			1118737	1073881	3	Standard
	Pb	208	0.021	ug/L	0.001	6	175	942	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-01
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 21:18:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	37116	0	Standard
	Cl	37		ug/L			6308940	6030942	0	Standard
>	Sc	45		ug/L			1410977	1318000	2	Standard
	Cr	52	24.740	ug/L	0.617	2	14875	529979	0	Standard
	Cr	53	24.562	ug/L	1.227	4	195	62334	2	Standard
	Mn	55	2.261	ug/L	0.059	2	545	70604	0	Standard
>	Ge-1	72		ug/L			87449	89681	0	KED
	Ni	60	0.382	ug/L	0.023	5	15	572	5	KED
	Ni	62	0.479	ug/L	0.018	3	10	117	3	KED
	Cu	63	0.701	ug/L	0.027	3	46	2678	3	KED
	Cu	65	0.659	ug/L	0.042	6	26	1249	6	KED
	Zn	66	1.446	ug/L	0.045	3	68	822	2	KED
	Zn	67	1.359	ug/L	0.151	11	10	126	10	KED
	As	75	0.004	ug/L	0.008	219	4	6	47	KED
	Se-1	78	0.075	ug/L	0.029	38	12	16	7	KED
	Y	89		ug/L			790194	621014	0	Standard
	Kr	83		ug/L			58	50	16	Standard
>	In-1	115		ug/L			38158	30137	20	KED
	Cd	111	-0.002	ug/L	0.001	69	3	1		KED
	Cd	114	-0.001	ug/L	0.002	326	5	3	60	KED
>	In	115		ug/L			944527	827668	1	Standard
	Ag	107	-0.001	ug/L	0.001	88	53	37	20	Standard
	Sb	121	0.004	ug/L	0.001	35	99	135	11	Standard
	Sb	123	0.005	ug/L	0.002	38	75	110	15	Standard
	Ba	135	0.010	ug/L	0.002	20	12	43	15	Standard
	Ba	137	0.010	ug/L	0.002	23	21	80	16	Standard
>	Tb	159		ug/L			1118737	1091380	2	Standard
	Pb	208	0.005	ug/L	0.000	4	175	374	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-03
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 21:23:30

DEL

Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	38601	2	Standard
	Cl	**37**		ug/L			6308940	137554844	0	Standard
>	**Sc**	**45**		ug/L			1410977	894064	2	Standard
	Cr	**52**	**0.621**	ug/L	0.034	5	14875	18204	0	Standard
	Cr	**53**	**43.590**	ug/L	1.041	2	195	74984	1	Standard
	Mn	**55**	**299.313**	ug/L	7.377	2	545	6294825	0	Standard
>	**Ge-1**	**72**		ug/L			87449	41595	1	KED
	Ni	**60**	**0.943**	ug/L	0.071	7	15	645	6	KED
	Ni	**62**	**2.104**	ug/L	0.132	6	10	222	7	KED
	Cu	**63**	**0.445**	ug/L	0.031	7	46	796	6	KED
	Cu	**65**	**0.289**	ug/L	0.041	14	26	261	14	KED
	Zn	**66**	**4.138**	ug/L	0.030	0	68	1031	0	KED
	Zn	**67**	**4.622**	ug/L	0.650	14	10	187	13	KED
	As	**75**	**0.665**	ug/L	0.090	13	4	108	12	KED
	Se-1	**78**	**0.953**	ug/L	0.156	16	12	25	13	KED
	Y	**89**		ug/L			790194	434350	1	Standard
	Kr	**83**		ug/L			58	7023	2	Standard
>	**In-1**	**115**		ug/L			38158	17830	1	KED
	Cd	**111**	**0.032**	ug/L	0.003	9	3	8	6	KED
	Cd	**114**	**0.016**	ug/L	0.010	66	5	11	51	KED
>	**In**	**115**		ug/L			944527	481496	0	Standard
	Ag	**107**	**0.004**	ug/L	0.001	36	53	55	17	Standard
	Sb	**121**	**0.049**	ug/L	0.004	8	99	377	7	Standard
	Sb	**123**	**0.074**	ug/L	0.012	16	75	402	14	Standard
	Ba	**135**	**16.135**	ug/L	0.167	1	12	32390	1	Standard
	Ba	**137**	**16.704**	ug/L	0.289	1	21	57664	1	Standard
>	**Tb**	**159**		ug/L			1118737	682589	1	Standard
	Pb	**208**	**0.003**	ug/L	0.001	20	175	187	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-04
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 21:28:12

DEL

Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	37003	0	Standard
	Cl	**37**		ug/L			6308940	143033064	1	Standard
>	**Sc**	**45**		ug/L			1410977	841481	0	Standard
	Cr	**52**	**0.842**	ug/L	0.009	1	14875	20093	1	Standard
	Cr	**53**	**54.603**	ug/L	0.632	1	195	88401	1	Standard
	Mn	**55**	**375.973**	ug/L	2.224	0	545	7444659	0	Standard
>	**Ge-1**	**72**		ug/L			87449	40139	1	KED
	Ni	**60**	**0.740**	ug/L	0.035	4	15	490	3	KED
	Ni	**62**	**2.391**	ug/L	0.324	13	10	243	14	KED
	Cu	**63**	**0.717**	ug/L	0.025	3	46	1226	3	KED
	Cu	**65**	**0.512**	ug/L	0.045	8	26	436	7	KED
	Zn	**66**	**2.394**	ug/L	0.024	0	68	589	0	KED
	Zn	**67**	**3.782**	ug/L	0.324	8	10	149	7	KED
	As	**75**	**0.980**	ug/L	0.091	9	4	153	8	KED
	Se-1	**78**	**0.857**	ug/L	0.242	28	12	22	20	KED
	Y	**89**		ug/L			790194	407425	1	Standard
	Kr	**83**		ug/L			58	7163	2	Standard
>	**In-1**	**115**		ug/L			38158	17209	1	KED
	Cd	**111**	**0.030**	ug/L	0.018	60	3	7	50	KED
	Cd	**114**	**0.020**	ug/L	0.008	39	5	12	31	KED
>	**In**	**115**		ug/L			944527	449437	2	Standard
	Ag	**107**	**0.003**	ug/L	0.002	52	53	46	23	Standard
	Sb	**121**	**0.087**	ug/L	0.003	3	99	589	0	Standard
	Sb	**123**	**0.109**	ug/L	0.002	2	75	535	2	Standard
	Ba	**135**	**21.746**	ug/L	0.299	1	12	40741	1	Standard
	Ba	**137**	**22.407**	ug/L	0.062	0	21	72199	2	Standard
>	**Tb**	**159**		ug/L			1118737	645436	1	Standard
	Pb	**208**	**0.002**	ug/L	0.002	74	175	147	21	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-05
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 21:32:55

DEL

Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	32694	0	Standard
	Cl	**37**		ug/L			6308940	173440612	1	Standard
>	**Sc**	**45**		ug/L			1410977	798673	0	Standard
	Cr	**52**	**0.942**	ug/L	0.018	1	14875	20336	1	Standard
	Cr	**53**	**68.715**	ug/L	0.580	0	195	105557	1	Standard
	Mn	**55**	**114.124**	ug/L	1.790	1	545	2145184	2	Standard
>	**Ge-1**	**72**		ug/L			87449	33124	2	KED
	Ni	**60**	**0.934**	ug/L	0.064	6	15	508	4	KED
	Ni	**62**	**3.049**	ug/L	0.386	12	10	255	12	KED
	Cu	**63**	**1.244**	ug/L	0.038	3	46	1741	2	KED
	Cu	**65**	**0.789**	ug/L	0.094	11	26	549	9	KED
	Zn	**66**	**8.213**	ug/L	0.443	5	68	1603	3	KED
	Zn	**67**	**9.553**	ug/L	0.895	9	10	304	8	KED
	As	**75**	**1.165**	ug/L	0.045	3	4	149	2	KED
	Se-1	**78**	**1.155**	ug/L	0.192	16	12	23	15	KED
	Y	**89**		ug/L			790194	347151	1	Standard
	Kr	**83**		ug/L			58	12696	5	Standard
>	**In-1**	**115**		ug/L			38158	14348	1	KED
	Cd	**111**	**0.063**	ug/L	0.033	52	3	12	47	KED
	Cd	**114**	**0.052**	ug/L	0.026	50	5	24	47	KED
>	**In**	**115**		ug/L			944527	383099	1	Standard
	Ag	**107**	**0.007**	ug/L	0.001	16	53	64	9	Standard
	Sb	**121**	**0.141**	ug/L	0.006	4	99	784	2	Standard
	Sb	**123**	**0.194**	ug/L	0.004	2	75	790	3	Standard
	Ba	**135**	**20.682**	ug/L	0.528	2	12	33028	2	Standard
	Ba	**137**	**21.280**	ug/L	0.641	3	21	58424	1	Standard
>	**Tb**	**159**		ug/L			1118737	565567	0	Standard
	Pb	**208**	**0.002**	ug/L	0.001	34	175	131	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-06
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 21:37:37 DEL
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	38986	2	Standard
	Cl	**37**		ug/L			6308940	122939914	2	Standard
>	**Sc**	**45**		ug/L			1410977	903148	1	Standard
	Cr	**52**	**1.391**	ug/L	0.039	2	14875	29402	1	Standard
	Cr	**53**	**64.463**	ug/L	0.671	1	195	111978	0	Standard
	Mn	**55**	**8.899**	ug/L	0.104	1	545	189460	1	Standard
>	**Ge-1**	**72**		ug/L			87449	40487	0	KED
	Ni	**60**	**0.564**	ug/L	0.012	2	15	378	1	KED
	Ni	**62**	**2.409**	ug/L	0.101	4	10	247	5	KED
	Cu	**63**	**1.023**	ug/L	0.027	2	46	1754	3	KED
	Cu	**65**	**0.786**	ug/L	0.058	7	26	669	6	KED
	Zn	**66**	**2.742**	ug/L	0.024	0	68	676	1	KED
	Zn	**67**	**3.089**	ug/L	0.465	15	10	123	13	KED
	As	**75**	**1.155**	ug/L	0.052	4	4	181	3	KED
	Se-1	**78**	**0.838**	ug/L	0.088	10	12	22	8	KED
	Y	**89**		ug/L			790194	396275	2	Standard
	Kr	**83**		ug/L			58	4725	7	Standard
>	**In-1**	**115**		ug/L			38158	17273	4	KED
	Cd	**111**	**0.039**	ug/L	0.017	41	3	9	34	KED
	Cd	**114**	**0.027**	ug/L	0.006	21	5	16	20	KED
>	**In**	**115**		ug/L			944527	436391	1	Standard
	Ag	**107**	**0.003**	ug/L	0.000	13	53	46	6	Standard
	Sb	**121**	**0.086**	ug/L	0.003	4	99	561	2	Standard
	Sb	**123**	**0.113**	ug/L	0.002	1	75	540	0	Standard
	Ba	**135**	**7.316**	ug/L	0.138	1	12	13313	0	Standard
	Ba	**137**	**7.568**	ug/L	0.176	2	21	23679	1	Standard
>	**Tb**	**159**		ug/L			1118737	654311	1	Standard
	Pb	**208**	**0.005**	ug/L	0.001	14	175	217	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 21:43:25
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	22255	1	Standard
	Cl	**37**		ug/L			6308940	6254692	0	Standard
>	**Sc**	**45**		ug/L			1410977	1208814	2	Standard
	Cr	**52**	**51.838**	ug/L	2.775	5	14875	1004065	3	Standard
	Cr	**53**	**53.161**	ug/L	1.109	2	195	123600	0	Standard
	Mn	**55**	**50.445**	ug/L	3.420	6	545	1434141	5	Standard
>	**Ge-1**	**72**		ug/L			87449	77508	3	KED
	Ni	**60**	**51.020**	ug/L	1.897	3	15	64295	1	KED
	Ni	**62**	**52.094**	ug/L	2.180	4	10	10054	2	KED
	Cu	**63**	**51.382**	ug/L	1.661	3	46	166570	0	KED
	Cu	**65**	**50.682**	ug/L	0.594	1	26	81246	2	KED
	Zn	**66**	**52.022**	ug/L	2.033	3	68	23450	1	KED
	Zn	**67**	**52.856**	ug/L	2.697	5	10	3900	1	KED
	As	**75**	**48.633**	ug/L	1.716	3	4	14461	0	KED
	Se-1	**78**	**49.229**	ug/L	2.322	4	12	1907	2	KED
	Y	**89**		ug/L			790194	569376	4	Standard
	Kr	**83**		ug/L			58	81	10	Standard
>	**In-1**	**115**		ug/L			38158	33679	0	KED
	Cd	**111**	**47.584**	ug/L	1.152	2	3	19123	1	KED
	Cd	**114**	**47.338**	ug/L	0.776	1	5	48551	1	KED
>	**In**	**115**		ug/L			944527	769916	0	Standard
	Ag	**107**	**47.086**	ug/L	1.024	2	53	595199	1	Standard
	Sb	**121**	**47.858**	ug/L	0.577	1	99	508715	0	Standard
	Sb	**123**	**47.336**	ug/L	1.524	3	75	372412	2	Standard
	Ba	**135**	**50.041**	ug/L	2.231	4	12	160599	4	Standard
	Ba	**137**	**50.378**	ug/L	1.260	2	21	278011	1	Standard
>	**Tb**	**159**		ug/L			1118737	1036509	4	Standard
	Pb	**208**	**40.509**	ug/L	2.083	5	175	1460858	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 21:50:52
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	22586	2	Standard
	Cl	**37**		ug/L			6308940	5656039	0	Standard
>	**Sc**	**45**		ug/L			1410977	1134255	2	Standard
	Cr	**52**	**-0.097**	ug/L	0.012	12	14875	10204	1	Standard
	Cr	**53**	**1.098**	ug/L	0.053	4	195	2548	2	Standard
	Mn	**55**	**0.008**	ug/L	0.001	16	545	660	2	Standard
>	**Ge-1**	**72**		ug/L			87449	78987	1	KED
	Ni	**60**	**-0.003**	ug/L	0.004	115	15	9	52	KED
	Ni	**62**	**0.218**	ug/L	0.056	25	10	52	20	KED
	Cu	**63**	**0.002**	ug/L	0.003	125	46	49	17	KED
	Cu	**65**	**-0.003**	ug/L	0.002	49	26	18	11	KED
	Zn	**66**	**-0.088**	ug/L	0.016	18	68	21	35	KED
	Zn	**67**	**-0.079**	ug/L	0.067	84	10	3	132	KED
	As	**75**	**0.005**	ug/L	0.003	57	4	5	13	KED
	Se-1	**78**	**0.132**	ug/L	0.054	40	12	16	13	KED
	Y	**89**		ug/L			790194	560093	4	Standard
	Kr	**83**		ug/L			58	58	9	Standard
>	**In-1**	**115**		ug/L			38158	32554	1	KED
	Cd	**111**	**0.000**	ug/L	0.003	638	3	2	33	KED
	Cd	**114**	**-0.000**	ug/L	0.003	850	5	4	67	KED
>	**In**	**115**		ug/L			944527	737105	3	Standard
	Ag	**107**	**-0.001**	ug/L	0.001	214	53	34	36	Standard
	Sb	**121**	**0.112**	ug/L	0.006	5	99	1217	8	Standard
	Sb	**123**	**0.112**	ug/L	0.004	3	75	904	6	Standard
	Ba	**135**	**-0.001**	ug/L	0.001	89	12	5	57	Standard
	Ba	**137**	**-0.002**	ug/L	0.001	44	21	7	50	Standard
>	**Tb**	**159**		ug/L			1118737	1031626	4	Standard
	Pb	**208**	**0.000**	ug/L	0.001	185	175	175	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-07
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 21:55:35
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	42584	2	Standard
	Cl	37		ug/L			6308940	41572247	2	Standard
>	Sc	45		ug/L			1410977	1061139	2	Standard
	Cr	52	0.638	ug/L	0.040	6	14875	21898	2	Standard
	Cr	53	29.952	ug/L	0.586	1	195	61198	0	Standard
	Mn	55	41.529	ug/L	0.561	1	545	1037152	0	Standard
>	Ge-1	72		ug/L			87449	58072	0	KED
	Ni	60	0.786	ug/L	0.048	6	15	752	6	KED
	Ni	62	1.386	ug/L	0.122	8	10	206	7	KED
	Cu	63	1.768	ug/L	0.005	0	46	4326	0	KED
	Cu	65	1.688	ug/L	0.060	3	26	2045	3	KED
	Zn	66	3.455	ug/L	0.122	3	68	1210	3	KED
	Zn	67	3.457	ug/L	0.298	8	10	198	8	KED
	As	75	0.800	ug/L	0.078	9	4	181	8	KED
	Se-1	78	0.245	ug/L	0.145	59	12	15	26	KED
	Y	89		ug/L			790194	510766	0	Standard
	Kr	83		ug/L			58	191	9	Standard
>	In-1	115		ug/L			38158	25169	3	KED
	Cd	111	0.007	ug/L	0.007	97	3	4	48	KED
	Cd	114	0.006	ug/L	0.008	132	5	8	74	KED
>	In	115		ug/L			944527	606360	0	Standard
	Ag	107	0.001	ug/L	0.001	53	53	48	14	Standard
	Sb	121	0.154	ug/L	0.002	1	99	1353	1	Standard
	Sb	123	0.161	ug/L	0.006	4	75	1043	2	Standard
	Ba	135	6.084	ug/L	0.196	3	12	15384	2	Standard
	Ba	137	6.322	ug/L	0.197	3	21	27489	2	Standard
>	Tb	159		ug/L			1118737	897877	1	Standard
	Pb	208	0.019	ug/L	0.001	6	175	742	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-21
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 22:00:18
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	33001	1	Standard
	Cl	37		ug/L			6308940	5157565	0	Standard
>	Sc	45		ug/L			1410977	1151286	3	Standard
	Cr	52	0.044	ug/L	0.035	81	14875	12915	1	Standard
	Cr	53	0.891	ug/L	0.029	3	195	2128	1	Standard
	Mn	55	6856.604	ug/L	264.011	3	545	185561935	0	Standard
>	Ge-1	72		ug/L			87449	67544	1	KED
	Ni	60	54.241	ug/L	0.854	1	15	59602	0	KED
	Ni	62	54.891	ug/L	1.521	2	10	9236	1	KED
	Cu	63	57.486	ug/L	1.504	2	46	162469	1	KED
	Cu	65	56.368	ug/L	1.418	2	26	78746	1	KED
	Zn	66	698.016	ug/L	18.090	2	68	273691	1	KED
	Zn	67	640.132	ug/L	11.134	1	10	41111	1	KED
	As	75	0.057	ug/L	0.016	28	4	18	23	KED
	Se-1	78	0.322	ug/L	0.078	24	12	20	11	KED
	Y	89		ug/L			790194	719145	1	Standard
	Kr	83		ug/L			58	65	14	Standard
>	In-1	115		ug/L			38158	28660	0	KED
	Cd	111	8.598	ug/L	0.299	3	3	2942	2	KED
	Cd	114	8.528	ug/L	0.184	2	5	7445	1	KED
>	In	115		ug/L			944527	675047	2	Standard
	Ag	107	0.006	ug/L	0.000	3	53	102	4	Standard
	Sb	121	0.034	ug/L	0.005	13	99	388	9	Standard
	Sb	123	0.031	ug/L	0.005	15	75	269	9	Standard
	Ba	135	20.287	ug/L	0.309	1	12	57096	2	Standard
	Ba	137	21.015	ug/L	0.688	3	21	101657	1	Standard
>	Tb	159		ug/L			1118737	970009	0	Standard
	Pb	208	0.017	ug/L	0.001	5	175	726	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-23
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 22:05:01
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	31817	0	Standard
	Cl	37		ug/L			6308940	5005178	1	Standard
>	Sc	45		ug/L			1410977	1088449	0	Standard
	Cr	52	0.134	ug/L	0.025	18	14875	13777	3	Standard
	Cr	53	1.043	ug/L	0.053	5	195	2332	4	Standard
	Mn	55	298.924	ug/L	6.789	2	545	7656146	2	Standard
>	Ge-1	72		ug/L			87449	66623	1	KED
	Ni	60	4.432	ug/L	0.107	2	15	4813	1	KED
	Ni	62	4.483	ug/L	0.197	4	10	751	4	KED
	Cu	63	1.393	ug/L	0.017	1	46	3917	1	KED
	Cu	65	1.339	ug/L	0.014	1	26	1864	2	KED
	Zn	66	19.904	ug/L	1.029	5	68	7747	4	KED
	Zn	67	21.185	ug/L	0.671	3	10	1350	4	KED
	As	75	0.055	ug/L	0.014	25	4	17	18	KED
	Se-1	78	0.273	ug/L	0.049	17	12	18	6	KED
	Y	89		ug/L			790194	542276	2	Standard
	Kr	83		ug/L			58	43	26	Standard
>	In-1	115		ug/L			38158	28250	1	KED
	Cd	111	2.258	ug/L	0.040	1	3	763	2	KED
	Cd	114	2.319	ug/L	0.052	2	5	1998	1	KED
>	In	115		ug/L			944527	676327	3	Standard
	Ag	107	0.002	ug/L	0.000	21	53	61	4	Standard
	Sb	121	0.022	ug/L	0.002	8	99	279	9	Standard
	Sb	123	0.024	ug/L	0.001	6	75	216	4	Standard
	Ba	135	44.799	ug/L	3.314	7	12	126123	4	Standard
	Ba	137	47.020	ug/L	1.113	2	21	227841	1	Standard
>	Tb	159		ug/L			1118737	943481	0	Standard
	Pb	208	0.020	ug/L	0.001	7	175	822	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-25
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 22:09:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26774	30597	3	Standard
Cl	37		ug/L			6308940	5106773	1	Standard
> Sc	45		ug/L			1410977	1106541	1	Standard
Cr	52	0.215	ug/L	0.011	5	14875	15433	0	Standard
Cr	53	1.099	ug/L	0.046	4	195	2490	3	Standard
Mn	55	2.043	ug/L	0.108	5	545	53644	5	Standard
> Ge-1	72		ug/L			87449	68613	1	KED
Ni	60	0.317	ug/L	0.019	5	15	365	5	KED
Ni	62	0.426	ug/L	0.021	4	10	80	2	KED
Cu	63	0.243	ug/L	0.022	8	46	735	7	KED
Cu	65	0.255	ug/L	0.020	7	26	381	5	KED
Zn	66	2.863	ug/L	0.028	0	68	1194	2	KED
Zn	67	3.429	ug/L	0.520	15	10	231	12	KED
As	75	0.021	ug/L	0.013	61	4	9	38	KED
Se-1	78	0.267	ug/L	0.115	43	12	18	18	KED
Y	89		ug/L			790194	525143	1	Standard
Kr	83		ug/L			58	37	41	Standard
> In-1	115		ug/L			38158	29297	0	KED
Cd	111	0.392	ug/L	0.032	8	3	139	7	KED
Cd	114	0.358	ug/L	0.062	17	5	323	16	KED
> In	115		ug/L			944527	721013	2	Standard
Ag	107	0.000	ug/L	0.001	270	53	44	21	Standard
Sb	121	0.025	ug/L	0.003	11	99	321	6	Standard
Sb	123	0.024	ug/L	0.004	18	75	230	13	Standard
Ba	135	10.482	ug/L	0.257	2	12	31502	0	Standard
Ba	137	11.113	ug/L	0.524	4	21	57422	3	Standard
> Tb	159		ug/L			1118737	968001	0	Standard
Pb	208	0.010	ug/L	0.001	12	175	490	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-27
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 22:14:26
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	34775	1	Standard
	Cl	**37**		ug/L			6308940	4723441	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1109419	1	Standard
|	**Cr**	**52**	**-0.051**	ug/L	0.002	4	14875	10807	1	Standard
|	**Cr**	**53**	**0.657**	ug/L	0.013	1	195	1553	1	Standard
⌊	**Mn**	**55**	**762.792**	ug/L	3.420	0	545	19913500	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	66242	2	KED
|	**Ni**	**60**	**13.666**	ug/L	0.662	4	15	14728	3	KED
|	**Ni**	**62**	**13.868**	ug/L	0.318	2	10	2294	2	KED
|	**Cu**	**63**	**29.287**	ug/L	1.129	3	46	81162	1	KED
|	**Cu**	**65**	**28.928**	ug/L	0.784	2	26	39637	1	KED
|	**Zn**	**66**	**266.347**	ug/L	10.746	4	68	102409	1	KED
|	**Zn**	**67**	**246.216**	ug/L	10.923	4	10	15503	2	KED
|	**As**	**75**	**0.047**	ug/L	0.013	26	4	15	20	KED
⌊	**Se-1**	**78**	**0.164**	ug/L	0.060	36	12	14	14	KED
	Y	**89**		ug/L			790194	585215	0	Standard
	Kr	**83**		ug/L			58	51	9	Standard
⌈>	**In-1**	**115**		ug/L			38158	28002	2	KED
|	**Cd**	**111**	**1.716**	ug/L	0.041	2	3	575	1	KED
⌊	**Cd**	**114**	**1.821**	ug/L	0.025	1	5	1556	1	KED
⌈>	**In**	**115**		ug/L			944527	684852	1	Standard
|	**Ag**	**107**	**0.000**	ug/L	0.001	7562	53	38	23	Standard
|	**Sb**	**121**	**0.006**	ug/L	0.001	14	99	130	8	Standard
|	**Sb**	**123**	**0.006**	ug/L	0.001	15	75	98	8	Standard
|	**Ba**	**135**	**11.682**	ug/L	0.442	3	12	33345	2	Standard
⌊	**Ba**	**137**	**12.250**	ug/L	0.310	2	21	60135	0	Standard
⌈>	**Tb**	**159**		ug/L			1118737	942535	2	Standard
⌊	**Pb**	**208**	**0.068**	ug/L	0.003	4	175	2391	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-29
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 22:19:08
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	29493	0	Standard
	Cl	37		ug/L			6308940	4790357	0	Standard
>	Sc	45		ug/L			1410977	1060898	2	Standard
	Cr	52	-0.031	ug/L	0.032	102	14875	10652	2	Standard
	Cr	53	0.693	ug/L	0.060	8	195	1558	4	Standard
	Mn	55	272.392	ug/L	8.580	3	545	6796306	0	Standard
>	Ge-1	72		ug/L			87449	67967	0	KED
	Ni	60	8.756	ug/L	0.176	2	15	9692	2	KED
	Ni	62	8.661	ug/L	0.231	2	10	1473	1	KED
	Cu	63	7.294	ug/L	0.139	1	46	20777	0	KED
	Cu	65	7.199	ug/L	0.241	3	26	10138	2	KED
	Zn	66	162.653	ug/L	2.089	1	68	64233	1	KED
	Zn	67	147.738	ug/L	2.193	1	10	9554	1	KED
	As	75	0.033	ug/L	0.004	13	4	12	9	KED
	Se-1	78	0.237	ug/L	0.042	17	12	17	8	KED
	Y	89		ug/L			790194	549669	1	Standard
	Kr	83		ug/L			58	39	2	Standard
>	In-1	115		ug/L			38158	28542	0	KED
	Cd	111	1.638	ug/L	0.029	1	3	560	1	KED
	Cd	114	1.612	ug/L	0.029	1	5	1405	1	KED
>	In	115		ug/L			944527	677878	1	Standard
	Ag	107	0.000	ug/L	0.000	82	53	43	10	Standard
	Sb	121	0.046	ug/L	0.001	2	99	506	0	Standard
	Sb	123	0.047	ug/L	0.001	2	75	382	0	Standard
	Ba	135	13.376	ug/L	0.533	3	12	37786	2	Standard
	Ba	137	14.015	ug/L	0.588	4	21	68091	3	Standard
>	Tb	159		ug/L			1118737	941970	2	Standard
	Pb	208	0.017	ug/L	0.002	9	175	720	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-31
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 22:23:51
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	28277	3	Standard
	Cl	**37**		ug/L			6308940	4849285	0	Standard
>	**Sc**	**45**		ug/L			1410977	1034081	1	Standard
	Cr	**52**	**0.339**	ug/L	0.008	2	14875	16457	0	Standard
	Cr	**53**	**1.036**	ug/L	0.009	0	195	2201	1	Standard
	Mn	**55**	**0.748**	ug/L	0.009	1	545	18604	0	Standard
>	**Ge-1**	**72**		ug/L			87449	66705	0	KED
	Ni	**60**	**0.254**	ug/L	0.009	3	15	286	3	KED
	Ni	**62**	**0.305**	ug/L	0.062	20	10	58	17	KED
	Cu	**63**	**0.137**	ug/L	0.011	7	46	418	6	KED
	Cu	**65**	**0.127**	ug/L	0.012	9	26	195	8	KED
	Zn	**66**	**1.521**	ug/L	0.024	1	68	641	1	KED
	Zn	**67**	**2.133**	ug/L	0.256	12	10	143	11	KED
	As	**75**	**0.026**	ug/L	0.015	57	4	10	37	KED
	Se-1	**78**	**0.482**	ug/L	0.115	23	12	25	15	KED
	Y	**89**		ug/L			790194	519869	2	Standard
	Kr	**83**		ug/L			58	43	32	Standard
>	**In-1**	**115**		ug/L			38158	28585	1	KED
	Cd	**111**	**0.192**	ug/L	0.014	7	3	67	7	KED
	Cd	**114**	**0.183**	ug/L	0.010	5	5	163	3	KED
>	**In**	**115**		ug/L			944527	679356	0	Standard
	Ag	**107**	**-0.000**	ug/L	0.002	405	53	33	56	Standard
	Sb	**121**	**0.009**	ug/L	0.001	8	99	158	4	Standard
	Sb	**123**	**0.010**	ug/L	0.005	45	75	124	26	Standard
	Ba	**135**	**12.279**	ug/L	0.257	2	12	34782	1	Standard
	Ba	**137**	**13.015**	ug/L	0.390	2	21	63391	2	Standard
>	**Tb**	**159**		ug/L			1118737	946398	1	Standard
	Pb	**208**	**0.003**	ug/L	0.001	30	175	248	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-33
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 22:28:34
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	31211	2	Standard
	Cl	**37**		ug/L			6308940	4900992	2	Standard
>	**Sc**	**45**		ug/L			1410977	1028632	2	Standard
	Cr	**52**	**-0.075**	ug/L	0.027	36	14875	9619	3	Standard
	Cr	**53**	**0.650**	ug/L	0.022	3	195	1426	5	Standard
	Mn	**55**	**3.534**	ug/L	0.027	0	545	85932	2	Standard
>	**Ge-1**	**72**		ug/L			87449	69363	1	KED
	Ni	**60**	**0.066**	ug/L	0.008	12	15	86	11	KED
	Ni	**62**	**0.112**	ug/L	0.035	31	10	27	21	KED
	Cu	**63**	**0.259**	ug/L	0.011	4	46	789	4	KED
	Cu	**65**	**0.246**	ug/L	0.016	6	26	373	6	KED
	Zn	**66**	**0.607**	ug/L	0.081	13	68	299	11	KED
	Zn	**67**	**1.073**	ug/L	0.122	11	10	79	10	KED
	As	**75**	**0.116**	ug/L	0.005	4	4	34	2	KED
	Se-1	**78**	**0.769**	ug/L	0.059	7	12	36	6	KED
	Y	**89**		ug/L			790194	532716	3	Standard
	Kr	**83**		ug/L			58	40	58	Standard
>	**In-1**	**115**		ug/L			38158	28587	1	KED
	Cd	**111**	**0.012**	ug/L	0.004	37	3	6	22	KED
	Cd	**114**	**0.012**	ug/L	0.005	45	5	14	33	KED
>	**In**	**115**		ug/L			944527	696617	2	Standard
	Ag	**107**	**0.001**	ug/L	0.002	111	53	55	30	Standard
	Sb	**121**	**0.026**	ug/L	0.002	6	99	326	4	Standard
	Sb	**123**	**0.030**	ug/L	0.002	5	75	269	4	Standard
	Ba	**135**	**10.459**	ug/L	0.327	3	12	30389	4	Standard
	Ba	**137**	**11.011**	ug/L	0.301	2	21	54988	2	Standard
>	**Tb**	**159**		ug/L			1118737	960212	2	Standard
	Pb	**208**	**0.000**	ug/L	0.001	229	175	165	19	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-35
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 22:33:16
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	30287	1	Standard
	Cl	**37**		ug/L			6308940	4807239	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	1002963	3	Standard
|	**Cr**	**52**	**-0.054**	ug/L	0.031	56	14875	9698	1	Standard
|	**Cr**	**53**	**0.573**	ug/L	0.057	9	195	1240	5	Standard
⌊	**Mn**	**55**	**0.376**	ug/L	0.028	7	545	9248	3	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	70445	0	KED
|	**Ni**	**60**	**0.128**	ug/L	0.012	9	15	159	8	KED
|	**Ni**	**62**	**0.185**	ug/L	0.050	27	10	40	21	KED
|	**Cu**	**63**	**8.636**	ug/L	0.376	4	46	25493	4	KED
|	**Cu**	**65**	**8.553**	ug/L	0.132	1	26	12482	1	KED
|	**Zn**	**66**	**72.934**	ug/L	1.240	1	68	29880	1	KED
|	**Zn**	**67**	**67.441**	ug/L	3.063	4	10	4525	4	KED
|	**As**	**75**	**0.078**	ug/L	0.002	1	4	24	1	KED
⌊	**Se-1**	**78**	**0.101**	ug/L	0.043	42	12	13	11	KED
	Y	**89**		ug/L			790194	525033	2	Standard
	Kr	**83**		ug/L			58	40	31	Standard
⌈>	**In-1**	**115**		ug/L			38158	30198	2	KED
|	**Cd**	**111**	**0.449**	ug/L	0.024	5	3	164	6	KED
⌊	**Cd**	**114**	**0.444**	ug/L	0.018	4	5	412	1	KED
⌈>	**In**	**115**		ug/L			944527	673873	3	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.001	75	53	46	12	Standard
|	**Sb**	**121**	**0.055**	ug/L	0.002	3	99	586	5	Standard
|	**Sb**	**123**	**0.059**	ug/L	0.002	3	75	456	3	Standard
|	**Ba**	**135**	**5.112**	ug/L	0.107	2	12	14368	3	Standard
⌊	**Ba**	**137**	**5.455**	ug/L	0.192	3	21	26346	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	946399	1	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	27	175	180	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-37
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 22:37:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	30475	1	Standard
	Cl	37		ug/L			6308940	4696116	0	Standard
>	Sc	45		ug/L			1410977	1013366	0	Standard
	Cr	52	-0.098	ug/L	0.011	11	14875	9111	1	Standard
	Cr	53	0.517	ug/L	0.016	3	195	1146	2	Standard
	Mn	55	4.236	ug/L	0.087	2	545	101399	1	Standard
>	Ge-1	72		ug/L			87449	68913	1	KED
	Ni	60	1.103	ug/L	0.055	4	15	1247	3	KED
	Ni	62	1.223	ug/L	0.144	11	10	217	11	KED
	Cu	63	47.627	ug/L	0.439	0	46	137374	1	KED
	Cu	65	47.233	ug/L	0.368	0	26	67342	1	KED
	Zn	66	420.416	ug/L	12.586	2	68	168208	1	KED
	Zn	67	390.819	ug/L	5.155	1	10	25611	0	KED
	As	75	0.043	ug/L	0.009	22	4	14	15	KED
	Se-1	78	0.161	ug/L	0.038	23	12	15	7	KED
	Y	89		ug/L			790194	517464	1	Standard
	Kr	83		ug/L			58	43	30	Standard
>	In-1	115		ug/L			38158	28285	1	KED
	Cd	111	2.153	ug/L	0.068	3	3	729	4	KED
	Cd	114	2.252	ug/L	0.094	4	5	1943	3	KED
>	In	115		ug/L			944527	674970	0	Standard
	Ag	107	0.003	ug/L	0.001	26	53	72	12	Standard
	Sb	121	0.019	ug/L	0.002	9	99	248	6	Standard
	Sb	123	0.019	ug/L	0.004	22	75	185	14	Standard
	Ba	135	17.482	ug/L	0.454	2	12	49191	1	Standard
	Ba	137	18.441	ug/L	0.096	0	21	89237	0	Standard
>	Tb	159		ug/L			1118737	943367	3	Standard
	Pb	208	0.006	ug/L	0.001	24	175	339	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV9
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 22:43:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			26774	20330	2	Standard
	Cl	37		ug/L			6308940	4812113	1	Standard
>	Sc	45		ug/L			1410977	919504	1	Standard
	Cr	52	51.746	ug/L	2.143	4	14875	762820	3	Standard
	Cr	53	50.389	ug/L	0.696	1	195	89136	0	Standard
	Mn	55	49.881	ug/L	1.682	3	545	1079224	1	Standard
>	Ge-1	72		ug/L			87449	60240	21	KED
	Ni	60	60.126	ug/L	13.677	22	15	57038	1	KED
	Ni	62	60.839	ug/L	16.909	27	10	8773	3	KED
	Cu	63	60.155	ug/L	16.608	27	46	145758	3	KED
	Cu	65	58.489	ug/L	13.394	22	26	70536	1	KED
	Zn	66	61.159	ug/L	15.230	24	68	20683	0	KED
	Zn	67	59.850	ug/L	16.951	28	10	3298	3	KED
	As	75	55.335	ug/L	14.369	25	4	12328	1	KED
	Se-1	78	57.308	ug/L	15.003	26	12	1662	1	KED
	Y	89		ug/L			790194	524114	2	Standard
	Kr	83		ug/L			58	51	38	Standard
>	In-1	115		ug/L			38158	28322	1	KED
	Cd	111	47.767	ug/L	0.828	1	3	16141	0	KED
	Cd	114	47.794	ug/L	0.502	1	5	41219	1	KED
>	In	115		ug/L			944527	660176	0	Standard
	Ag	107	50.366	ug/L	0.143	0	53	545956	0	Standard
	Sb	121	48.619	ug/L	1.316	2	99	443164	2	Standard
	Sb	123	50.467	ug/L	0.202	0	75	340504	0	Standard
	Ba	135	51.340	ug/L	1.083	2	12	141299	2	Standard
	Ba	137	53.370	ug/L	1.166	2	21	252577	2	Standard
>	Tb	159		ug/L			1118737	906030	1	Standard
	Pb	208	40.252	ug/L	1.262	3	175	1270672	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB9
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 22:51:14
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	19397	5	Standard
	Cl	**37**		ug/L			6308940	4657808	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	894293	0	Standard
|	**Cr**	**52**	**-0.169**	ug/L	0.008	4	14875	7028	1	Standard
|	**Cr**	**53**	**0.313**	ug/L	0.019	5	195	661	4	Standard
⌊	**Mn**	**55**	**0.035**	ug/L	0.002	6	545	1073	4	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	67237	1	KED
|	**Ni**	**60**	**-0.005**	ug/L	0.002	31	15	5	33	KED
|	**Ni**	**62**	**-0.012**	ug/L	0.012	93	10	5	33	KED
|	**Cu**	**63**	**-0.001**	ug/L	0.005	433	46	33	40	KED
|	**Cu**	**65**	**-0.004**	ug/L	0.003	74	26	13	31	KED
|	**Zn**	**66**	**-0.078**	ug/L	0.009	12	68	22	17	KED
|	**Zn**	**67**	**-0.080**	ug/L	0.017	21	10	3	34	KED
|	**As**	**75**	**-0.001**	ug/L	0.003	420	4	3	24	KED
⌊	**Se-1**	**78**	**0.063**	ug/L	0.007	10	12	11	2	KED
	Y	**89**		ug/L			790194	509744	3	Standard
	Kr	**83**		ug/L			58	37	17	Standard
⌈>	**In-1**	**115**		ug/L			38158	27283	0	KED
|	**Cd**	**111**	**0.003**	ug/L	0.004	158	3	3	45	KED
⌊	**Cd**	**114**	**-0.004**	ug/L	0.001	33	5	0	282	KED
⌈>	**In**	**115**		ug/L			944527	658673	2	Standard
|	**Ag**	**107**	**0.000**	ug/L	0.001	578	53	38	13	Standard
|	**Sb**	**121**	**0.108**	ug/L	0.006	5	99	1050	2	Standard
|	**Sb**	**123**	**0.110**	ug/L	0.004	3	75	796	5	Standard
|	**Ba**	**135**	**0.000**	ug/L	0.001	187	12	9	20	Standard
⌊	**Ba**	**137**	**0.001**	ug/L	0.001	169	21	19	36	Standard
⌈>	**Tb**	**159**		ug/L			1118737	884363	3	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.000	44	175	122	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 22:55:57

DEL REST OF RUN

Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	26815	1	Standard
	Cl	**37**		ug/L			6308940	4611548	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	904550	0	Standard
|	**Cr**	**52**	**-0.159**	ug/L	0.017	10	14875	7262	2	Standard
|	**Cr**	**53**	**0.300**	ug/L	0.015	4	195	646	3	Standard
⌊	**Mn**	**55**	**0.141**	ug/L	0.005	3	545	3347	3	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	64918	0	KED
|	**Ni**	**60**	**0.010**	ug/L	0.001	9	15	21	5	KED
|	**Ni**	**62**	**0.016**	ug/L	0.073	442	10	10	114	KED
|	**Cu**	**63**	**0.043**	ug/L	0.008	17	46	151	12	KED
|	**Cu**	**65**	**0.034**	ug/L	0.006	17	26	65	11	KED
|	**Zn**	**66**	**0.274**	ug/L	0.025	9	68	154	6	KED
|	**Zn**	**67**	**0.425**	ug/L	0.090	21	10	34	16	KED
|	**As**	**75**	**0.008**	ug/L	0.005	57	4	5	20	KED
⌊	**Se-1**	**78**	**0.086**	ug/L	0.109	126	12	12	28	KED
	Y	**89**		ug/L			790194	502113	1	Standard
	Kr	**83**		ug/L			58	37	15	Standard
⌈>	**In-1**	**115**		ug/L			38158	26981	0	KED
|	**Cd**	**111**	**-0.000**	ug/L	0.005	6249	3	2	65	KED
⌊	**Cd**	**114**	**0.000**	ug/L	0.006	1691	5	4	124	KED
⌈>	**In**	**115**		ug/L			944527	668537	3	Standard
|	**Ag**	**107**	**-0.000**	ug/L	0.000	100	53	34	6	Standard
|	**Sb**	**121**	**0.023**	ug/L	0.003	13	99	285	12	Standard
|	**Sb**	**123**	**0.025**	ug/L	0.001	3	75	226	1	Standard
|	**Ba**	**135**	**0.006**	ug/L	0.002	42	12	24	25	Standard
⌊	**Ba**	**137**	**0.005**	ug/L	0.002	29	21	40	20	Standard
⌈>	**Tb**	**159**		ug/L			1118737	900703	1	Standard
⌊	**Pb**	**208**	**-0.000**	ug/L	0.000	76	175	130	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-39
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 23:00:40

DEL

Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	29210	0	Standard
	Cl	**37**		ug/L			6308940	3171559	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	830363	0	Standard
|	**Cr**	**52**	**0.122**	ug/L	0.004	3	14875	10352	1	Standard
|	**Cr**	**53**	**0.558**	ug/L	0.006	1	195	1005	0	Standard
⌊	**Mn**	**55**	**555.868**	ug/L	14.981	2	545	10860102	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	46275	1	KED
|	**Ni**	**60**	**0.299**	ug/L	0.029	9	15	233	9	KED
|	**Ni**	**62**	**0.212**	ug/L	0.108	50	10	29	42	KED
|	**Cu**	**63**	**0.529**	ug/L	0.053	10	46	1049	9	KED
|	**Cu**	**65**	**0.547**	ug/L	0.043	7	26	537	9	KED
|	**Zn**	**66**	**8.093**	ug/L	0.302	3	68	2210	3	KED
|	**Zn**	**67**	**7.926**	ug/L	0.654	8	10	354	7	KED
|	**As**	**75**	**0.148**	ug/L	0.007	4	4	28	5	KED
⌊	**Se-1**	**78**	**0.097**	ug/L	0.092	94	12	8	25	KED
	Y	**89**		ug/L			790194	430692	1	Standard
	Kr	**83**		ug/L			58	66	14	Standard
⌈>	**In-1**	**115**		ug/L			38158	20172	2	KED
|	**Cd**	**111**	**0.035**	ug/L	0.011	31	3	10	23	KED
⌊	**Cd**	**114**	**0.044**	ug/L	0.008	17	5	30	13	KED
⌈>	**In**	**115**		ug/L			944527	526092	1	Standard
|	**Ag**	**107**	**0.004**	ug/L	0.001	20	53	64	10	Standard
|	**Sb**	**121**	**0.038**	ug/L	0.006	16	99	335	14	Standard
|	**Sb**	**123**	**0.042**	ug/L	0.002	3	75	268	2	Standard
|	**Ba**	**135**	**15.429**	ug/L	0.418	2	12	33850	3	Standard
⌊	**Ba**	**137**	**16.095**	ug/L	0.049	0	21	60708	0	Standard
⌈>	**Tb**	**159**		ug/L			1118737	756581	0	Standard
⌊	**Pb**	**208**	**0.072**	ug/L	0.006	7	175	2027	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-41
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 23:05:23

DEL

Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	28510	1	Standard
	Cl	**37**		ug/L			6308940	3945137	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	917943	0	Standard
|	**Cr**	**52**	**0.600**	ug/L	0.040	6	14875	18392	2	Standard
|	**Cr**	**53**	**1.006**	ug/L	0.020	1	195	1901	1	Standard
⌊	**Mn**	**55**	**1.090**	ug/L	0.021	1	545	23901	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	59712	0	KED
|	**Ni**	**60**	**0.103**	ug/L	0.003	3	15	110	2	KED
|	**Ni**	**62**	**0.150**	ug/L	0.033	21	10	29	16	KED
|	**Cu**	**63**	**0.411**	ug/L	0.034	8	46	1059	7	KED
|	**Cu**	**65**	**0.395**	ug/L	0.014	3	26	506	2	KED
|	**Zn**	**66**	**0.779**	ug/L	0.080	10	68	316	8	KED
|	**Zn**	**67**	**1.057**	ug/L	0.279	26	10	67	22	KED
|	**As**	**75**	**0.328**	ug/L	0.012	3	4	78	3	KED
⌊	**Se-1**	**78**	**0.145**	ug/L	0.075	51	12	12	16	KED
	Y	**89**		ug/L			790194	497245	1	Standard
	Kr	**83**		ug/L			58	28	30	Standard
⌈>	**In-1**	**115**		ug/L			38158	23914	2	KED
|	**Cd**	**111**	**0.010**	ug/L	0.007	68	3	4	40	KED
⌊	**Cd**	**114**	**0.011**	ug/L	0.005	47	5	11	35	KED
⌈>	**In**	**115**		ug/L			944527	631653	2	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.001	259	53	41	35	Standard
|	**Sb**	**121**	**0.032**	ug/L	0.001	4	99	342	1	Standard
|	**Sb**	**123**	**0.034**	ug/L	0.003	9	75	267	8	Standard
|	**Ba**	**135**	**4.221**	ug/L	0.250	5	12	11112	3	Standard
⌊	**Ba**	**137**	**4.393**	ug/L	0.067	1	21	19900	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	910381	1	Standard
⌊	**Pb**	**208**	**0.013**	ug/L	0.001	7	175	542	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-57
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 23:10:05 DEL
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	29210	1	Standard
	Cl	**37**		ug/L			6308940	3917371	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	896662	3	Standard
|	**Cr**	**52**	**-0.067**	ug/L	0.016	23	14875	8490	1	Standard
|	**Cr**	**53**	**0.370**	ug/L	0.027	7	195	760	2	Standard
⌊	**Mn**	**55**	**2.642**	ug/L	0.071	2	545	56076	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	58693	2	KED
|	**Ni**	**60**	**0.191**	ug/L	0.028	14	15	191	11	KED
|	**Ni**	**62**	**0.231**	ug/L	0.047	20	10	40	19	KED
|	**Cu**	**63**	**1.464**	ug/L	0.078	5	46	3623	3	KED
|	**Cu**	**65**	**1.456**	ug/L	0.071	4	26	1783	2	KED
|	**Zn**	**66**	**4.691**	ug/L	0.407	8	68	1641	5	KED
|	**Zn**	**67**	**4.476**	ug/L	0.157	3	10	257	5	KED
|	**As**	**75**	**0.619**	ug/L	0.024	3	4	142	1	KED
⌊	**Se-1**	**78**	**0.048**	ug/L	0.069	144	12	9	21	KED
	Y	**89**		ug/L			790194	500605	1	Standard
	Kr	**83**		ug/L			58	32	26	Standard
⌈>	**In-1**	**115**		ug/L			38158	24530	1	KED
|	**Cd**	**111**	**0.045**	ug/L	0.004	8	3	15	6	KED
⌊	**Cd**	**114**	**0.030**	ug/L	0.009	29	5	25	25	KED
⌈>	**In**	**115**		ug/L			944527	633448	0	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.002	280	53	43	48	Standard
|	**Sb**	**121**	**0.056**	ug/L	0.002	3	99	560	2	Standard
|	**Sb**	**123**	**0.055**	ug/L	0.002	3	75	405	2	Standard
|	**Ba**	**135**	**4.516**	ug/L	0.116	2	12	11931	2	Standard
⌊	**Ba**	**137**	**4.969**	ug/L	0.075	1	21	22575	0	Standard
⌈>	**Tb**	**159**		ug/L			1118737	895032	3	Standard
⌊	**Pb**	**208**	**0.042**	ug/L	0.002	5	175	1460	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-59
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 23:14:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	30677	1	Standard
	Cl	**37**		ug/L			6308940	3897032	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	883544	2	Standard
|	**Cr**	**52**	**-0.057**	ug/L	0.026	45	14875	8506	1	Standard
|	**Cr**	**53**	**0.375**	ug/L	0.008	2	195	759	1	Standard
⌊	**Mn**	**55**	**3.541**	ug/L	0.105	2	545	73912	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	58374	1	KED
|	**Ni**	**60**	**0.169**	ug/L	0.021	12	15	170	13	KED
|	**Ni**	**62**	**0.159**	ug/L	0.007	4	10	29	3	KED
|	**Cu**	**63**	**1.518**	ug/L	0.036	2	46	3739	1	KED
|	**Cu**	**65**	**1.445**	ug/L	0.119	8	26	1760	6	KED
|	**Zn**	**66**	**5.163**	ug/L	0.189	3	68	1795	4	KED
|	**Zn**	**67**	**4.675**	ug/L	0.424	9	10	266	8	KED
|	**As**	**75**	**0.606**	ug/L	0.029	4	4	138	5	KED
⌊	**Se-1**	**78**	**0.127**	ug/L	0.061	48	12	12	14	KED
	Y	**89**		ug/L			790194	492716	0	Standard
	Kr	**83**		ug/L			58	31	24	Standard
⌈>	**In-1**	**115**		ug/L			38158	23766	1	KED
|	**Cd**	**111**	**0.043**	ug/L	0.004	9	3	14	6	KED
⌊	**Cd**	**114**	**0.035**	ug/L	0.002	5	5	28	6	KED
⌈>	**In**	**115**		ug/L			944527	619145	2	Standard
|	**Ag**	**107**	**0.000**	ug/L	0.001	407	53	37	28	Standard
|	**Sb**	**121**	**0.052**	ug/L	0.010	18	99	509	14	Standard
|	**Sb**	**123**	**0.059**	ug/L	0.008	13	75	425	11	Standard
|	**Ba**	**135**	**4.749**	ug/L	0.110	2	12	12261	2	Standard
⌊	**Ba**	**137**	**4.905**	ug/L	0.078	1	21	21777	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	883792	0	Standard
⌊	**Pb**	**208**	**0.036**	ug/L	0.003	7	175	1248	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 23:19:31
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	26882	2	Standard
	Cl	**37**		ug/L			6308940	3781010	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	888161	1	Standard
|	**Cr**	**52**	**0.103**	ug/L	0.015	14	14875	10814	1	Standard
|	**Cr**	**53**	**0.637**	ug/L	0.010	1	195	1210	2	Standard
⌊	**Mn**	**55**	**0.108**	ug/L	0.002	1	545	2608	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	55882	0	KED
|	**Ni**	**60**	**0.101**	ug/L	0.026	25	15	101	22	KED
|	**Ni**	**62**	**0.054**	ug/L	0.041	77	10	13	41	KED
|	**Cu**	**63**	**0.162**	ug/L	0.010	6	46	408	6	KED
|	**Cu**	**65**	**0.171**	ug/L	0.013	7	26	214	7	KED
|	**Zn**	**66**	**2.817**	ug/L	0.089	3	68	957	2	KED
|	**Zn**	**67**	**2.894**	ug/L	0.104	3	10	160	2	KED
|	**As**	**75**	**0.298**	ug/L	0.034	11	4	66	10	KED
⌊	**Se-1**	**78**	**0.608**	ug/L	0.020	3	12	24	2	KED
	Y	**89**		ug/L			790194	487519	0	Standard
	Kr	**83**		ug/L			58	30	10	Standard
⌈>	**In-1**	**115**		ug/L			38158	22761	0	KED
|	**Cd**	**111**	**0.044**	ug/L	0.002	4	3	13	3	KED
⌊	**Cd**	**114**	**0.031**	ug/L	0.004	14	5	25	12	KED
⌈>	**In**	**115**		ug/L			944527	606497	1	Standard
|	**Ag**	**107**	**0.000**	ug/L	0.000	101	53	37	7	Standard
|	**Sb**	**121**	**0.039**	ug/L	0.001	3	99	394	2	Standard
|	**Sb**	**123**	**0.040**	ug/L	0.003	6	75	294	4	Standard
|	**Ba**	**135**	**8.395**	ug/L	0.180	2	12	21230	1	Standard
⌊	**Ba**	**137**	**8.862**	ug/L	0.211	2	21	38542	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	849370	1	Standard
⌊	**Pb**	**208**	**0.003**	ug/L	0.002	47	175	232	19	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-05
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 23:24:13
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	25589	0	Standard
	Cl	**37**		ug/L			6308940	3737145	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	912697	0	Standard
|	**Cr**	**52**	**0.219**	ug/L	0.030	13	14875	12783	2	Standard
|	**Cr**	**53**	**0.728**	ug/L	0.012	1	195	1402	0	Standard
⌊	**Mn**	**55**	**0.130**	ug/L	0.001	0	545	3143	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	53443	0	KED
|	**Ni**	**60**	**0.041**	ug/L	0.012	28	15	45	23	KED
|	**Ni**	**62**	**0.044**	ug/L	0.021	48	10	12	24	KED
|	**Cu**	**63**	**0.162**	ug/L	0.007	4	46	391	4	KED
|	**Cu**	**65**	**0.171**	ug/L	0.033	19	26	205	18	KED
|	**Zn**	**66**	**3.160**	ug/L	0.233	7	68	1022	7	KED
|	**Zn**	**67**	**3.505**	ug/L	0.366	10	10	184	10	KED
|	**As**	**75**	**0.322**	ug/L	0.036	11	4	68	11	KED
⌊	**Se-1**	**78**	**0.572**	ug/L	0.048	8	12	22	5	KED
	Y	**89**		ug/L			790194	470597	2	Standard
	Kr	**83**		ug/L			58	34	24	Standard
⌈>	**In-1**	**115**		ug/L			38158	22271	0	KED
|	**Cd**	**111**	**0.023**	ug/L	0.006	24	3	7	18	KED
⌊	**Cd**	**114**	**0.032**	ug/L	0.004	11	5	24	10	KED
⌈>	**In**	**115**		ug/L			944527	580522	2	Standard
|	**Ag**	**107**	**0.000**	ug/L	0.000	659	53	33	3	Standard
|	**Sb**	**121**	**0.038**	ug/L	0.002	5	99	363	4	Standard
|	**Sb**	**123**	**0.035**	ug/L	0.004	12	75	256	8	Standard
|	**Ba**	**135**	**8.425**	ug/L	0.176	2	12	20401	4	Standard
⌊	**Ba**	**137**	**8.751**	ug/L	0.075	0	21	36424	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	845483	3	Standard
⌊	**Pb**	**208**	**0.004**	ug/L	0.001	17	175	257	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 23:28:56
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	27590	1	Standard
	Cl	**37**		ug/L			6308940	3704127	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	883405	1	Standard
|	**Cr**	**52**	**23.232**	ug/L	0.191	0	14875	334222	1	Standard
|	**Cr**	**53**	**22.375**	ug/L	0.279	1	195	38101	2	Standard
⌊	**Mn**	**55**	**22.900**	ug/L	0.206	0	545	476314	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	52766	0	KED
|	**Ni**	**60**	**27.185**	ug/L	0.429	1	15	23344	1	KED
|	**Ni**	**62**	**26.719**	ug/L	0.442	1	10	3515	1	KED
|	**Cu**	**63**	**26.959**	ug/L	0.535	1	46	59549	1	KED
|	**Cu**	**65**	**26.112**	ug/L	0.435	1	26	28512	1	KED
|	**Zn**	**66**	**87.986**	ug/L	2.307	2	68	26994	2	KED
|	**Zn**	**67**	**79.187**	ug/L	0.664	0	10	3978	0	KED
|	**As**	**75**	**23.737**	ug/L	0.201	0	4	4810	0	KED
⌊	**Se-1**	**78**	**75.534**	ug/L	0.555	0	12	1990	0	KED
	Y	**89**		ug/L			790194	481955	1	Standard
	Kr	**83**		ug/L			58	31	24	Standard
⌈>	**In-1**	**115**		ug/L			38158	21833	1	KED
|	**Cd**	**111**	**24.175**	ug/L	0.625	2	3	6298	1	KED
⌊	**Cd**	**114**	**24.543**	ug/L	0.216	0	5	16319	1	KED
⌈>	**In**	**115**		ug/L			944527	583182	2	Standard
|	**Ag**	**107**	**23.714**	ug/L	0.461	1	53	227018	0	Standard
|	**Sb**	**121**	**0.034**	ug/L	0.001	3	99	331	2	Standard
|	**Sb**	**123**	**0.038**	ug/L	0.003	7	75	274	3	Standard
|	**Ba**	**135**	**34.944**	ug/L	0.471	1	12	84944	1	Standard
⌊	**Ba**	**137**	**36.320**	ug/L	0.200	0	21	151846	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	845993	1	Standard
⌊	**Pb**	**208**	**21.054**	ug/L	0.490	2	175	620595	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-MSD1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 23:33:39
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	26806	1	Standard
	Cl	**37**		ug/L			6308940	3651112	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	881163	0	Standard
|	**Cr**	**52**	**23.004**	ug/L	0.533	2	14875	330218	2	Standard
|	**Cr**	**53**	**22.438**	ug/L	0.208	0	195	38112	1	Standard
⌊	**Mn**	**55**	**23.078**	ug/L	0.373	1	545	478847	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	52412	0	KED
|	**Ni**	**60**	**26.839**	ug/L	0.178	0	15	22892	1	KED
|	**Ni**	**62**	**26.444**	ug/L	1.065	4	10	3456	3	KED
|	**Cu**	**63**	**27.377**	ug/L	0.551	2	46	60063	1	KED
|	**Cu**	**65**	**26.357**	ug/L	0.051	0	26	28586	0	KED
|	**Zn**	**66**	**87.779**	ug/L	1.644	1	68	26748	1	KED
|	**Zn**	**67**	**79.548**	ug/L	3.643	4	10	3969	3	KED
|	**As**	**75**	**23.309**	ug/L	0.188	0	4	4691	0	KED
⌊	**Se-1**	**78**	**74.666**	ug/L	0.736	0	12	1954	0	KED
	Y	**89**		ug/L			790194	470252	1	Standard
	Kr	**83**		ug/L			58	37	15	Standard
⌈>	**In-1**	**115**		ug/L			38158	21821	0	KED
|	**Cd**	**111**	**24.567**	ug/L	0.133	0	3	6398	0	KED
⌊	**Cd**	**114**	**24.586**	ug/L	0.595	2	5	16336	1	KED
⌈>	**In**	**115**		ug/L			944527	593443	1	Standard
|	**Ag**	**107**	**23.079**	ug/L	0.603	2	53	224859	1	Standard
|	**Sb**	**121**	**0.035**	ug/L	0.005	14	99	350	10	Standard
|	**Sb**	**123**	**0.036**	ug/L	0.008	22	75	265	17	Standard
|	**Ba**	**135**	**33.649**	ug/L	0.934	2	12	83239	2	Standard
⌊	**Ba**	**137**	**35.623**	ug/L	1.185	3	21	151537	3	Standard
⌈>	**Tb**	**159**		ug/L			1118737	836030	2	Standard
⌊	**Pb**	**208**	**21.054**	ug/L	0.231	1	175	613279	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 23:38:21
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26774	26516	1	Standard
Cl	37		ug/L			6308940	3673209	0	Standard
> Sc	45		ug/L			1410977	801770	0	Standard
Cr	52	**25.544**	ug/L	0.656	2	14875	332696	2	Standard
Cr	53	**24.793**	ug/L	0.787	3	195	38298	2	Standard
Mn	55	**25.643**	ug/L	0.277	1	545	484098	1	Standard
> Ge-1	72		ug/L			87449	54099	0	KED
Ni	60	**27.104**	ug/L	0.165	0	15	23862	0	KED
Ni	62	**27.047**	ug/L	0.612	2	10	3649	2	KED
Cu	63	**28.544**	ug/L	0.217	0	46	64643	0	KED
Cu	65	**27.503**	ug/L	0.513	1	26	30785	1	KED
Zn	66	**91.741**	ug/L	0.569	0	68	28853	0	KED
Zn	67	**84.692**	ug/L	1.514	1	10	4362	1	KED
As	75	**23.867**	ug/L	0.173	0	4	4958	0	KED
Se-1	78	**78.013**	ug/L	0.382	0	12	2107	0	KED
Y	89		ug/L			790194	469224	0	Standard
Kr	83		ug/L			58	31	30	Standard
> In-1	115		ug/L			38158	22185	1	KED
Cd	111	**25.731**	ug/L	0.524	2	3	6813	2	KED
Cd	114	**25.638**	ug/L	0.632	2	5	17318	0	KED
> In	115		ug/L			944527	593041	0	Standard
Ag	107	**25.070**	ug/L	0.658	2	53	244120	2	Standard
Sb	121	**-0.003**	ug/L	0.000	14	99	36	10	Standard
Sb	123	**-0.004**	ug/L	0.001	28	75	22	30	Standard
Ba	135	**25.961**	ug/L	0.534	2	12	64189	2	Standard
Ba	137	**27.084**	ug/L	0.215	0	21	115149	1	Standard
> Tb	159		ug/L			1118737	816498	3	Standard
Pb	208	**22.091**	ug/L	0.132	0	175	628463	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVA
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 23:44:09
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26774	16959	1	Standard
Cl	37		ug/L			6308940	3455739	0	Standard
> Sc	45		ug/L			1410977	812297	0	Standard
Cr	52	**47.842**	ug/L	1.455	3	14875	623763	2	Standard
Cr	53	**46.990**	ug/L	0.665	1	195	73445	0	Standard
Mn	55	**46.987**	ug/L	1.121	2	545	898368	2	Standard
> Ge-1	72		ug/L			87449	52233	1	KED
Ni	60	**53.124**	ug/L	1.660	3	15	45139	2	KED
Ni	62	**52.776**	ug/L	2.724	5	10	6865	3	KED
Cu	63	**51.497**	ug/L	1.088	2	46	112559	0	KED
Cu	65	**51.641**	ug/L	1.069	2	26	55792	0	KED
Zn	66	**54.435**	ug/L	2.160	3	68	16542	2	KED
Zn	67	**52.962**	ug/L	2.487	4	10	2635	3	KED
As	75	**46.304**	ug/L	1.208	2	4	9284	2	KED
Se-1	78	**46.774**	ug/L	1.144	2	12	1222	2	KED
Y	89		ug/L			790194	465826	1	Standard
Kr	83		ug/L			58	35	12	Standard
> In-1	115		ug/L			38158	21791	5	KED
Cd	111	**47.969**	ug/L	3.526	7	3	12441	2	KED
Cd	114	**48.364**	ug/L	3.324	6	5	32014	1	KED
> In	115		ug/L			944527	572757	1	Standard
Ag	107	**45.904**	ug/L	0.548	1	53	431691	1	Standard
Sb	121	**48.584**	ug/L	0.928	1	99	384149	1	Standard
Sb	123	**50.703**	ug/L	1.336	2	75	296727	1	Standard
Ba	135	**51.010**	ug/L	1.730	3	12	121770	2	Standard
Ba	137	**53.945**	ug/L	2.114	3	21	221457	3	Standard
> Tb	159		ug/L			1118737	801212	3	Standard
Pb	208	**41.696**	ug/L	0.773	1	175	1163458	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBA
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 23:51:36
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			26774	16280	2	Standard
Cl	37		ug/L			6308940	3434862	0	Standard
> Sc	45		ug/L			1410977	811226	2	Standard
Cr	52	-0.230	ug/L	0.006	2	14875	5604	3	Standard
Cr	53	0.128	ug/L	0.020	15	195	311	8	Standard
Mn	55	0.010	ug/L	0.001	15	545	494	4	Standard
> Ge-1	72		ug/L			87449	52094	0	KED
Ni	60	-0.000	ug/L	0.006	2341	15	8	53	KED
Ni	62	-0.042	ug/L	0.008	20	10	0	173	KED
Cu	63	-0.005	ug/L	0.001	29	46	17	19	KED
Cu	65	-0.009	ug/L	0.003	31	26	6	45	KED
Zn	66	-0.106	ug/L	0.007	6	68	8	24	KED
Zn	67	-0.092	ug/L	0.066	72	10	1	173	KED
As	75	-0.002	ug/L	0.002	127	4	2	20	KED
Se-1	78	0.049	ug/L	0.120	244	12	8	35	KED
Y	89		ug/L			790194	445497	0	Standard
Kr	83		ug/L			58	39	15	Standard
> In-1	115		ug/L			38158	21470	5	KED
Cd	111	0.000	ug/L	0.003	941	3	1	50	KED
Cd	114	-0.001	ug/L	0.001	129	5	2	43	KED
> In	115		ug/L			944527	572326	3	Standard
Ag	107	0.001	ug/L	0.001	58	53	43	13	Standard
Sb	121	0.114	ug/L	0.002	2	99	959	1	Standard
Sb	123	0.112	ug/L	0.008	7	75	698	8	Standard
Ba	135	-0.001	ug/L	0.001	72	12	4	49	Standard
Ba	137	-0.001	ug/L	0.002	254	21	10	70	Standard
> Tb	159		ug/L			1118737	807719	3	Standard
Pb	208	-0.001	ug/L	0.001	44	175	89	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-01
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 18, 2018 23:56:20
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	26871	1	Standard
	Cl	**37**		ug/L			6308940	3278762	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	837415	2	Standard
|	**Cr**	**52**	**-0.091**	ug/L	0.026	28	14875	7619	1	Standard
|	**Cr**	**53**	**0.281**	ug/L	0.015	5	195	568	2	Standard
⌊	**Mn**	**55**	**1.882**	ug/L	0.045	2	545	37387	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	52154	2	KED
|	**Ni**	**60**	**0.237**	ug/L	0.040	16	15	210	17	KED
|	**Ni**	**62**	**0.280**	ug/L	0.067	24	10	42	22	KED
|	**Cu**	**63**	**0.766**	ug/L	0.050	6	46	1699	4	KED
|	**Cu**	**65**	**0.767**	ug/L	0.044	5	26	842	5	KED
|	**Zn**	**66**	**1.538**	ug/L	0.090	5	68	506	5	KED
|	**Zn**	**67**	**1.744**	ug/L	0.261	14	10	92	11	KED
|	**As**	**75**	**0.747**	ug/L	0.043	5	4	152	2	KED
⌊	**Se-1**	**78**	**0.035**	ug/L	0.109	314	12	8	35	KED
	Y	**89**		ug/L			790194	459978	2	Standard
	Kr	**83**		ug/L			58	38	7	Standard
⌈>	**In-1**	**115**		ug/L			38158	21472	0	KED
|	**Cd**	**111**	**0.018**	ug/L	0.009	52	3	6	37	KED
⌊	**Cd**	**114**	**0.026**	ug/L	0.008	29	5	20	25	KED
⌈>	**In**	**115**		ug/L			944527	581625	1	Standard
|	**Ag**	**107**	**0.002**	ug/L	0.002	93	53	49	30	Standard
|	**Sb**	**121**	**0.088**	ug/L	0.007	8	99	764	7	Standard
|	**Sb**	**123**	**0.099**	ug/L	0.005	5	75	632	4	Standard
|	**Ba**	**135**	**4.853**	ug/L	0.167	3	12	11771	2	Standard
⌊	**Ba**	**137**	**5.044**	ug/L	0.131	2	21	21037	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	820874	0	Standard
⌊	**Pb**	**208**	**0.047**	ug/L	0.003	6	175	1470	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-03
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 00:01:02
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	26112	2	Standard
	Cl	**37**		ug/L			6308940	3242702	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	854780	3	Standard
|	**Cr**	**52**	**-0.129**	ug/L	0.030	23	14875	7261	2	Standard
|	**Cr**	**53**	**0.243**	ug/L	0.019	7	195	516	2	Standard
⌊	**Mn**	**55**	**0.481**	ug/L	0.034	6	545	9988	3	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	51581	1	KED
|	**Ni**	**60**	**0.140**	ug/L	0.012	8	15	126	8	KED
|	**Ni**	**62**	**0.112**	ug/L	0.008	7	10	20	5	KED
|	**Cu**	**63**	**1.591**	ug/L	0.033	2	46	3462	3	KED
|	**Cu**	**65**	**1.476**	ug/L	0.032	2	26	1589	1	KED
|	**Zn**	**66**	**21.561**	ug/L	0.606	2	68	6495	1	KED
|	**Zn**	**67**	**19.672**	ug/L	1.013	5	10	971	6	KED
|	**As**	**75**	**0.497**	ug/L	0.029	5	4	101	6	KED
⌊	**Se-1**	**78**	**0.045**	ug/L	0.147	329	12	8	45	KED
	Y	**89**		ug/L			790194	457269	3	Standard
	Kr	**83**		ug/L			58	28	23	Standard
⌈>	**In-1**	**115**		ug/L			38158	21604	2	KED
|	**Cd**	**111**	**0.019**	ug/L	0.011	57	3	6	42	KED
⌊	**Cd**	**114**	**0.004**	ug/L	0.001	18	5	6	7	KED
⌈>	**In**	**115**		ug/L			944527	576537	3	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.001	189	53	37	22	Standard
|	**Sb**	**121**	**0.080**	ug/L	0.006	7	99	698	5	Standard
|	**Sb**	**123**	**0.077**	ug/L	0.002	2	75	496	2	Standard
|	**Ba**	**135**	**4.236**	ug/L	0.173	4	12	10177	1	Standard
⌊	**Ba**	**137**	**4.283**	ug/L	0.222	5	21	17691	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	815469	2	Standard
⌊	**Pb**	**208**	**0.061**	ug/L	0.001	1	175	1858	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-05
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 00:05:45
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	24866	0	Standard
	Cl	**37**		ug/L			6308940	3219639	0	Standard
>	**Sc**	**45**		ug/L			1410977	846858	0	Standard
	Cr	**52**	**-0.137**	ug/L	0.015	11	14875	7094	2	Standard
	Cr	**53**	**0.274**	ug/L	0.005	1	195	563	1	Standard
	Mn	**55**	**0.142**	ug/L	0.004	3	545	3150	2	Standard
>	**Ge-1**	**72**		ug/L			87449	51355	0	KED
	Ni	**60**	**0.114**	ug/L	0.014	12	15	104	10	KED
	Ni	**62**	**0.102**	ug/L	0.016	15	10	19	10	KED
	Cu	**63**	**1.309**	ug/L	0.043	3	46	2840	2	KED
	Cu	**65**	**1.338**	ug/L	0.072	5	26	1436	5	KED
	Zn	**66**	**17.243**	ug/L	0.263	1	68	5181	2	KED
	Zn	**67**	**15.425**	ug/L	1.471	9	10	759	9	KED
	As	**75**	**0.448**	ug/L	0.044	9	4	91	10	KED
	Se-1	**78**	**0.134**	ug/L	0.062	46	12	10	14	KED
	Y	**89**		ug/L			790194	443328	1	Standard
	Kr	**83**		ug/L			58	26	14	Standard
>	**In-1**	**115**		ug/L			38158	21539	2	KED
	Cd	**111**	**0.012**	ug/L	0.003	29	3	4	20	KED
	Cd	**114**	**0.006**	ug/L	0.005	82	5	7	44	KED
>	**In**	**115**		ug/L			944527	563518	1	Standard
	Ag	**107**	**-0.000**	ug/L	0.001	646	53	30	25	Standard
	Sb	**121**	**0.072**	ug/L	0.000	0	99	617	1	Standard
	Sb	**123**	**0.073**	ug/L	0.001	1	75	465	2	Standard
	Ba	**135**	**4.349**	ug/L	0.095	2	12	10223	2	Standard
	Ba	**137**	**4.541**	ug/L	0.090	1	21	18359	3	Standard
>	**Tb**	**159**		ug/L			1118737	803319	1	Standard
	Pb	**208**	**0.012**	ug/L	0.000	2	175	453	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-09
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 00:10:27
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	25031	1	Standard
	Cl	**37**		ug/L			6308940	2602297	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	871895	1	Standard
|	**Cr**	**52**	**-0.162**	ug/L	0.012	7	14875	6953	4	Standard
|	**Cr**	**53**	**0.201**	ug/L	0.012	5	195	457	5	Standard
⌊	**Mn**	**55**	**6411.671**	ug/L	67.628	1	545	131527342	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	41860	1	KED
|	**Ni**	**60**	**29.733**	ug/L	0.347	1	15	20253	1	KED
|	**Ni**	**62**	**30.379**	ug/L	1.450	4	10	3169	3	KED
|	**Cu**	**63**	**24.069**	ug/L	0.393	1	46	42174	0	KED
|	**Cu**	**65**	**23.640**	ug/L	0.407	1	26	20475	0	KED
|	**Zn**	**66**	**693.492**	ug/L	15.227	2	68	168534	1	KED
|	**Zn**	**67**	**632.380**	ug/L	1.628	0	10	25172	1	KED
|	**As**	**75**	**0.159**	ug/L	0.011	6	4	27	4	KED
⌊	**Se-1**	**78**	**0.322**	ug/L	0.035	10	12	12	4	KED
	Y	**89**		ug/L			790194	764568	1	Standard
	Kr	**83**		ug/L			58	78	11	Standard
⌈>	**In-1**	**115**		ug/L			38158	14478	39	KED
|	**Cd**	**111**	**10.486**	ug/L	5.419	51	3	1566	0	KED
⌊	**Cd**	**114**	**10.949**	ug/L	6.039	55	5	4127	3	KED
⌈>	**In**	**115**		ug/L			944527	505466	2	Standard
|	**Ag**	**107**	**0.002**	ug/L	0.001	36	53	41	13	Standard
|	**Sb**	**121**	**0.023**	ug/L	0.005	21	99	217	17	Standard
|	**Sb**	**123**	**0.024**	ug/L	0.003	11	75	166	10	Standard
|	**Ba**	**135**	**24.615**	ug/L	0.430	1	12	51881	3	Standard
⌊	**Ba**	**137**	**25.481**	ug/L	0.517	2	21	92310	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	758994	1	Standard
⌊	**Pb**	**208**	**0.069**	ug/L	0.003	3	175	1935	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-11
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 00:15:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	23939	2	Standard
	Cl	**37**		ug/L			6308940	2493238	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	842559	1	Standard
|	**Cr**	**52**	**-0.171**	ug/L	0.011	6	14875	6595	2	Standard
|	**Cr**	**53**	**0.187**	ug/L	0.012	6	195	420	3	Standard
⌊	**Mn**	**55**	**5013.708**	ug/L	37.463	0	545	99407606	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	41642	0	KED
|	**Ni**	**60**	**23.053**	ug/L	0.828	3	15	15622	3	KED
|	**Ni**	**62**	**24.367**	ug/L	0.693	2	10	2531	3	KED
|	**Cu**	**63**	**20.045**	ug/L	0.236	1	46	34950	1	KED
|	**Cu**	**65**	**19.722**	ug/L	0.379	1	26	16996	1	KED
|	**Zn**	**66**	**551.053**	ug/L	1.508	0	68	133243	0	KED
|	**Zn**	**67**	**502.301**	ug/L	7.787	1	10	19890	1	KED
|	**As**	**75**	**0.197**	ug/L	0.008	3	4	33	4	KED
⌊	**Se-1**	**78**	**0.340**	ug/L	0.109	32	12	13	17	KED
	Y	**89**		ug/L			790194	661724	1	Standard
	Kr	**83**		ug/L			58	61	6	Standard
⌈>	**In-1**	**115**		ug/L			38158	17431	1	KED
|	**Cd**	**111**	**6.019**	ug/L	0.163	2	3	1253	2	KED
⌊	**Cd**	**114**	**5.756**	ug/L	0.283	4	5	3056	3	KED
⌈>	**In**	**115**		ug/L			944527	507617	1	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.001	98	53	36	18	Standard
|	**Sb**	**121**	**0.029**	ug/L	0.006	19	99	259	14	Standard
|	**Sb**	**123**	**0.026**	ug/L	0.005	17	75	176	14	Standard
|	**Ba**	**135**	**21.622**	ug/L	0.368	1	12	45759	2	Standard
⌊	**Ba**	**137**	**22.232**	ug/L	0.582	2	21	80927	4	Standard
⌈>	**Tb**	**159**		ug/L			1118737	761705	2	Standard
⌊	**Pb**	**208**	**0.061**	ug/L	0.003	4	175	1740	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-13
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 00:19:53
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	25079	3	Standard
	Cl	**37**		ug/L			6308940	2646712	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	818452	1	Standard
|	**Cr**	**52**	**-0.164**	ug/L	0.003	1	14875	6498	1	Standard
|	**Cr**	**53**	**0.162**	ug/L	0.006	3	195	368	1	Standard
⌊	**Mn**	**55**	**1113.581**	ug/L	22.097	1	545	21444179	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	44292	0	KED
|	**Ni**	**60**	**5.484**	ug/L	0.081	1	15	3958	0	KED
|	**Ni**	**62**	**5.312**	ug/L	0.534	10	10	590	9	KED
|	**Cu**	**63**	**5.142**	ug/L	0.164	3	46	9554	3	KED
|	**Cu**	**65**	**5.037**	ug/L	0.306	6	26	4626	5	KED
|	**Zn**	**66**	**131.695**	ug/L	4.448	3	68	33891	2	KED
|	**Zn**	**67**	**125.832**	ug/L	7.093	5	10	5303	5	KED
|	**As**	**75**	**0.106**	ug/L	0.035	33	4	20	30	KED
⌊	**Se-1**	**78**	**0.166**	ug/L	0.090	53	12	10	19	KED
	Y	**89**		ug/L			790194	431721	1	Standard
	Kr	**83**		ug/L			58	33	26	Standard
⌈>	**In-1**	**115**		ug/L			38158	18600	1	KED
|	**Cd**	**111**	**1.241**	ug/L	0.089	7	3	276	6	KED
⌊	**Cd**	**114**	**1.345**	ug/L	0.030	2	5	764	2	KED
⌈>	**In**	**115**		ug/L			944527	542445	1	Standard
|	**Ag**	**107**	**-0.000**	ug/L	0.001	224	53	27	20	Standard
|	**Sb**	**121**	**0.049**	ug/L	0.006	12	99	426	10	Standard
|	**Sb**	**123**	**0.052**	ug/L	0.008	14	75	329	12	Standard
|	**Ba**	**135**	**11.024**	ug/L	0.239	2	12	24929	0	Standard
⌊	**Ba**	**137**	**11.768**	ug/L	0.080	0	21	45773	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	766264	3	Standard
⌊	**Pb**	**208**	**0.011**	ug/L	0.000	3	175	401	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-DUP2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 00:24:35
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	21770	2	Standard
	Cl	**37**		ug/L			6308940	2729374	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	807489	2	Standard
|	**Cr**	**52**	**-0.159**	ug/L	0.021	13	14875	6474	2	Standard
|	**Cr**	**53**	**0.183**	ug/L	0.021	11	195	395	6	Standard
⌊	**Mn**	**55**	**0.734**	ug/L	0.863	117	545	14108	113	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	45820	1	KED
|	**Ni**	**60**	**0.104**	ug/L	0.021	19	15	85	16	KED
|	**Ni**	**62**	**0.109**	ug/L	0.022	20	10	17	16	KED
|	**Cu**	**63**	**0.491**	ug/L	0.027	5	46	965	3	KED
|	**Cu**	**65**	**0.475**	ug/L	0.035	7	26	464	9	KED
|	**Zn**	**66**	**23.667**	ug/L	0.333	1	68	6330	1	KED
|	**Zn**	**67**	**21.113**	ug/L	0.941	4	10	925	3	KED
|	**As**	**75**	**0.479**	ug/L	0.033	6	4	86	6	KED
⌊	**Se-1**	**78**	**0.019**	ug/L	0.084	444	12	6	25	KED
	Y	**89**		ug/L			790194	407885	1	Standard
	Kr	**83**		ug/L			58	27	14	Standard
⌈>	**In-1**	**115**		ug/L			38158	18858	1	KED
|	**Cd**	**111**	**0.016**	ug/L	0.009	57	3	5	39	KED
⌊	**Cd**	**114**	**0.006**	ug/L	0.010	168	5	6	91	KED
⌈>	**In**	**115**		ug/L			944527	548999	1	Standard
|	**Ag**	**107**	**-0.000**	ug/L	0.001	296	53	27	42	Standard
|	**Sb**	**121**	**0.056**	ug/L	0.003	5	99	478	3	Standard
|	**Sb**	**123**	**0.061**	ug/L	0.002	2	75	385	3	Standard
|	**Ba**	**135**	**3.902**	ug/L	0.080	2	12	8935	2	Standard
⌊	**Ba**	**137**	**4.031**	ug/L	0.116	2	21	15874	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	768753	2	Standard
⌊	**Pb**	**208**	**0.004**	ug/L	0.001	31	175	227	17	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-07
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 00:29:18
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	22536	3	Standard
	Cl	**37**		ug/L			6308940	2688391	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	770057	2	Standard
|	**Cr**	**52**	**-0.132**	ug/L	0.006	4	14875	6501	1	Standard
|	**Cr**	**53**	**0.201**	ug/L	0.013	6	195	404	2	Standard
⌊	**Mn**	**55**	**0.185**	ug/L	0.005	2	545	3656	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	45390	2	KED
|	**Ni**	**60**	**0.137**	ug/L	0.020	14	15	109	15	KED
|	**Ni**	**62**	**0.122**	ug/L	0.036	29	10	19	20	KED
|	**Cu**	**63**	**0.462**	ug/L	0.009	2	46	902	1	KED
|	**Cu**	**65**	**0.465**	ug/L	0.028	6	26	450	7	KED
|	**Zn**	**66**	**23.057**	ug/L	0.459	1	68	6109	0	KED
|	**Zn**	**67**	**20.995**	ug/L	1.612	7	10	910	5	KED
|	**As**	**75**	**0.460**	ug/L	0.018	3	4	82	3	KED
⌊	**Se-1**	**78**	**0.055**	ug/L	0.060	107	12	7	19	KED
	Y	**89**		ug/L			790194	385945	3	Standard
	Kr	**83**		ug/L			58	26	22	Standard
⌈>	**In-1**	**115**		ug/L			38158	19052	1	KED
|	**Cd**	**111**	**0.022**	ug/L	0.011	49	3	6	37	KED
⌊	**Cd**	**114**	**0.008**	ug/L	0.010	131	5	7	80	KED
⌈>	**In**	**115**		ug/L			944527	519202	2	Standard
|	**Ag**	**107**	**-0.000**	ug/L	0.001	1742	53	28	34	Standard
|	**Sb**	**121**	**0.060**	ug/L	0.002	2	99	485	1	Standard
|	**Sb**	**123**	**0.071**	ug/L	0.002	2	75	417	3	Standard
|	**Ba**	**135**	**4.211**	ug/L	0.202	4	12	9114	2	Standard
⌊	**Ba**	**137**	**4.360**	ug/L	0.062	1	21	16235	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	762352	1	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.001	33	175	186	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-MS2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 00:34:01
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	25225	1	Standard
	Cl	**37**		ug/L			6308940	2742481	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	800754	3	Standard
|	**Cr**	**52**	**23.190**	ug/L	1.653	7	14875	301942	3	Standard
|	**Cr**	**53**	**22.917**	ug/L	0.969	4	195	35330	0	Standard
⌊	**Mn**	**55**	**24.450**	ug/L	1.530	6	545	460355	3	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	44415	3	KED
|	**Ni**	**60**	**27.746**	ug/L	0.730	2	15	20043	1	KED
|	**Ni**	**62**	**28.019**	ug/L	0.571	2	10	3101	1	KED
|	**Cu**	**63**	**28.609**	ug/L	1.491	5	46	53131	1	KED
|	**Cu**	**65**	**28.324**	ug/L	0.244	0	26	26034	4	KED
|	**Zn**	**66**	**115.620**	ug/L	4.562	3	68	29821	1	KED
|	**Zn**	**67**	**103.281**	ug/L	5.858	5	10	4361	3	KED
|	**As**	**75**	**24.223**	ug/L	1.097	4	4	4127	1	KED
⌊	**Se-1**	**78**	**74.422**	ug/L	2.833	3	12	1649	2	KED
	Y	**89**		ug/L			790194	403877	3	Standard
	Kr	**83**		ug/L			58	27	10	Standard
⌈>	**In-1**	**115**		ug/L			38158	18773	1	KED
|	**Cd**	**111**	**25.148**	ug/L	0.306	1	3	5634	0	KED
⌊	**Cd**	**114**	**24.758**	ug/L	0.129	0	5	14155	0	KED
⌈>	**In**	**115**		ug/L			944527	525161	2	Standard
|	**Ag**	**107**	**22.041**	ug/L	1.032	4	53	189917	2	Standard
|	**Sb**	**121**	**0.066**	ug/L	0.008	12	99	531	8	Standard
|	**Sb**	**123**	**0.069**	ug/L	0.009	12	75	410	8	Standard
|	**Ba**	**135**	**31.222**	ug/L	1.712	5	12	68293	3	Standard
⌊	**Ba**	**137**	**32.527**	ug/L	1.797	5	21	122339	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	758125	2	Standard
⌊	**Pb**	**208**	**21.596**	ug/L	0.783	3	175	570403	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-MSD2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 00:38:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	23175	4	Standard
	Cl	**37**		ug/L			6308940	2738108	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	793407	1	Standard
|	**Cr**	**52**	**23.986**	ug/L	0.821	3	14875	309588	2	Standard
|	**Cr**	**53**	**23.260**	ug/L	0.765	3	195	35556	1	Standard
⌊	**Mn**	**55**	**24.731**	ug/L	1.049	4	545	461823	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	45666	1	KED
|	**Ni**	**60**	**27.782**	ug/L	0.518	1	15	20646	2	KED
|	**Ni**	**62**	**27.609**	ug/L	0.851	3	10	3144	3	KED
|	**Cu**	**63**	**28.178**	ug/L	0.419	1	46	53860	1	KED
|	**Cu**	**65**	**27.171**	ug/L	0.285	1	26	25678	2	KED
|	**Zn**	**66**	**112.440**	ug/L	2.143	1	68	29838	0	KED
|	**Zn**	**67**	**101.598**	ug/L	3.533	3	10	4415	2	KED
|	**As**	**75**	**23.220**	ug/L	0.527	2	4	4071	0	KED
⌊	**Se-1**	**78**	**73.611**	ug/L	1.017	1	12	1678	1	KED
	Y	**89**		ug/L			790194	393055	1	Standard
	Kr	**83**		ug/L			58	26	36	Standard
⌈>	**In-1**	**115**		ug/L			38158	18543	0	KED
|	**Cd**	**111**	**25.426**	ug/L	0.485	1	3	5626	1	KED
⌊	**Cd**	**114**	**25.467**	ug/L	0.458	1	5	14382	1	KED
⌈>	**In**	**115**		ug/L			944527	519511	1	Standard
|	**Ag**	**107**	**23.309**	ug/L	0.694	2	53	198782	1	Standard
|	**Sb**	**121**	**0.064**	ug/L	0.004	6	99	513	5	Standard
|	**Sb**	**123**	**0.067**	ug/L	0.002	3	75	395	1	Standard
|	**Ba**	**135**	**31.398**	ug/L	0.446	1	12	67997	1	Standard
⌊	**Ba**	**137**	**32.966**	ug/L	1.411	4	21	122725	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	733042	2	Standard
⌊	**Pb**	**208**	**22.737**	ug/L	1.049	4	175	580556	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVB
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 00:44:31
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	14292	1	Standard
	Cl	**37**		ug/L			6308940	2752033	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	775071	3	Standard
|	**Cr**	**52**	**46.227**	ug/L	0.962	2	14875	575179	1	Standard
|	**Cr**	**53**	**45.056**	ug/L	1.668	3	195	67146	0	Standard
⌊	**Mn**	**55**	**45.530**	ug/L	0.672	1	545	830411	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	43152	2	KED
|	**Ni**	**60**	**52.984**	ug/L	1.558	2	15	37181	0	KED
|	**Ni**	**62**	**52.986**	ug/L	1.624	3	10	5694	1	KED
|	**Cu**	**63**	**53.618**	ug/L	1.251	2	46	96802	1	KED
|	**Cu**	**65**	**50.858**	ug/L	1.693	3	26	45376	0	KED
|	**Zn**	**66**	**56.575**	ug/L	1.772	3	68	14198	0	KED
|	**Zn**	**67**	**52.319**	ug/L	1.648	3	10	2150	1	KED
|	**As**	**75**	**46.209**	ug/L	1.016	2	4	7652	0	KED
⌊	**Se-1**	**78**	**48.158**	ug/L	1.666	3	12	1039	2	KED
	Y	**89**		ug/L			790194	377187	2	Standard
	Kr	**83**		ug/L			58	41	18	Standard
⌈>	**In-1**	**115**		ug/L			38158	18418	2	KED
|	**Cd**	**111**	**49.382**	ug/L	1.308	2	3	10850	1	KED
⌊	**Cd**	**114**	**49.383**	ug/L	1.194	2	5	27690	0	KED
⌈>	**In**	**115**		ug/L			944527	512511	1	Standard
|	**Ag**	**107**	**42.937**	ug/L	0.540	1	53	361287	0	Standard
|	**Sb**	**121**	**49.319**	ug/L	1.417	2	99	348890	1	Standard
|	**Sb**	**123**	**51.299**	ug/L	1.713	3	75	268614	1	Standard
|	**Ba**	**135**	**50.896**	ug/L	0.938	1	12	108725	0	Standard
⌊	**Ba**	**137**	**54.070**	ug/L	1.998	3	21	198575	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	722630	2	Standard
⌊	**Pb**	**208**	**42.372**	ug/L	0.960	2	175	1066752	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBB
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 00:51:58
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	14809	4	Standard
	Cl	**37**		ug/L			6308940	2766020	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	750305	0	Standard
|	**Cr**	**52**	**-0.223**	ug/L	0.000	0	14875	5259	0	Standard
|	**Cr**	**53**	**0.079**	ug/L	0.004	5	195	217	2	Standard
⌊	**Mn**	**55**	**0.031**	ug/L	0.004	13	545	837	8	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	44745	2	KED
|	**Ni**	**60**	**-0.005**	ug/L	0.000	2	15	3	0	KED
|	**Ni**	**62**	**-0.035**	ug/L	0.010	27	10	1	86	KED
|	**Cu**	**63**	**-0.005**	ug/L	0.003	59	46	15	33	KED
|	**Cu**	**65**	**-0.005**	ug/L	0.007	137	26	8	81	KED
|	**Zn**	**66**	**-0.079**	ug/L	0.028	36	68	14	49	KED
|	**Zn**	**67**	**-0.115**	ug/L	0.026	22	10	0	173	KED
|	**As**	**75**	**0.009**	ug/L	0.010	120	4	3	45	KED
⌊	**Se-1**	**78**	**0.039**	ug/L	0.096	247	12	7	30	KED
	Y	**89**		ug/L			790194	387787	0	Standard
	Kr	**83**		ug/L			58	26	23	Standard
⌈>	**In-1**	**115**		ug/L			38158	19332	0	KED
|	**Cd**	**111**	**-0.003**	ug/L	0.004	146	3	0	100	KED
⌊	**Cd**	**114**	**0.000**	ug/L	0.002	451	5	3	36	KED
⌈>	**In**	**115**		ug/L			944527	519959	2	Standard
|	**Ag**	**107**	**0.000**	ug/L	0.001	1402	53	29	26	Standard
|	**Sb**	**121**	**0.109**	ug/L	0.005	4	99	840	6	Standard
|	**Sb**	**123**	**0.112**	ug/L	0.002	1	75	637	2	Standard
|	**Ba**	**135**	**0.001**	ug/L	0.001	94	12	8	24	Standard
⌊	**Ba**	**137**	**-0.002**	ug/L	0.001	33	21	3	91	Standard
⌈>	**Tb**	**159**		ug/L			1118737	735240	3	Standard
⌊	**Pb**	**208**	**-0.000**	ug/L	0.001	150	175	103	14	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0408-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 00:56:41
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	18898	2	Standard
	Cl	**37**		ug/L			6308940	2748845	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	779042	1	Standard
|	**Cr**	**52**	**-0.225**	ug/L	0.006	2	14875	5437	1	Standard
|	**Cr**	**53**	**0.071**	ug/L	0.010	13	195	214	5	Standard
⌊	**Mn**	**55**	**0.619**	ug/L	0.026	4	545	11641	3	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	45962	0	KED
|	**Ni**	**60**	**0.023**	ug/L	0.014	59	15	25	41	KED
|	**Ni**	**62**	**-0.008**	ug/L	0.019	240	10	4	49	KED
|	**Cu**	**63**	**0.051**	ug/L	0.008	15	46	121	11	KED
|	**Cu**	**65**	**0.053**	ug/L	0.013	24	26	64	19	KED
|	**Zn**	**66**	**0.593**	ug/L	0.058	9	68	194	7	KED
|	**Zn**	**67**	**0.524**	ug/L	0.419	80	10	28	64	KED
|	**As**	**75**	**0.002**	ug/L	0.007	286	4	2	44	KED
⌊	**Se-1**	**78**	**0.038**	ug/L	0.024	63	12	7	7	KED
	Y	**89**		ug/L			790194	389657	1	Standard
	Kr	**83**		ug/L			58	16	35	Standard
⌈>	**In-1**	**115**		ug/L			38158	18816	4	KED
|	**Cd**	**111**	**-0.003**	ug/L	0.004	150	3	0	100	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.007	965	5	3	119	KED
⌈>	**In**	**115**		ug/L			944527	513424	3	Standard
|	**Ag**	**107**	**-0.000**	ug/L	0.001	465	53	27	26	Standard
|	**Sb**	**121**	**0.023**	ug/L	0.004	18	99	220	13	Standard
|	**Sb**	**123**	**0.024**	ug/L	0.005	22	75	166	13	Standard
|	**Ba**	**135**	**0.045**	ug/L	0.007	14	12	102	13	Standard
⌊	**Ba**	**137**	**0.048**	ug/L	0.006	11	21	187	8	Standard
⌈>	**Tb**	**159**		ug/L			1118737	728484	1	Standard
⌊	**Pb**	**208**	**0.003**	ug/L	0.001	17	175	189	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-15
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 01:01:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	24757	2	Standard
	Cl	**37**		ug/L			6308940	2676518	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	795874	2	Standard
|	**Cr**	**52**	**-0.113**	ug/L	0.018	15	14875	6964	2	Standard
|	**Cr**	**53**	**0.198**	ug/L	0.016	8	195	412	5	Standard
⌊	**Mn**	**55**	**12.133**	ug/L	0.437	3	545	227412	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	45292	2	KED
|	**Ni**	**60**	**0.263**	ug/L	0.005	1	15	201	4	KED
|	**Ni**	**62**	**0.271**	ug/L	0.133	48	10	35	38	KED
|	**Cu**	**63**	**1.690**	ug/L	0.048	2	46	3227	3	KED
|	**Cu**	**65**	**1.532**	ug/L	0.046	3	26	1448	4	KED
|	**Zn**	**66**	**7.315**	ug/L	0.275	3	68	1957	0	KED
|	**Zn**	**67**	**7.349**	ug/L	0.562	7	10	321	7	KED
|	**As**	**75**	**0.571**	ug/L	0.043	7	4	101	9	KED
⌊	**Se-1**	**78**	**0.050**	ug/L	0.058	115	12	7	16	KED
	Y	**89**		ug/L			790194	377666	3	Standard
	Kr	**83**		ug/L			58	20	24	Standard
⌈>	**In-1**	**115**		ug/L			38158	19154	1	KED
|	**Cd**	**111**	**0.050**	ug/L	0.009	18	3	13	16	KED
⌊	**Cd**	**114**	**0.040**	ug/L	0.017	42	5	26	39	KED
⌈>	**In**	**115**		ug/L			944527	525254	0	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.000	12	53	41	4	Standard
|	**Sb**	**121**	**0.066**	ug/L	0.002	3	99	533	3	Standard
|	**Sb**	**123**	**0.078**	ug/L	0.006	7	75	463	6	Standard
|	**Ba**	**135**	**5.087**	ug/L	0.070	1	12	11144	0	Standard
⌊	**Ba**	**137**	**5.406**	ug/L	0.155	2	21	20366	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	727473	3	Standard
⌊	**Pb**	**208**	**0.038**	ug/L	0.002	4	175	1083	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-17
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 01:06:06
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	21807	1	Standard
	Cl	**37**		ug/L			6308940	2677617	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	806725	0	Standard
|	**Cr**	**52**	**-0.146**	ug/L	0.015	10	14875	6640	2	Standard
|	**Cr**	**53**	**0.176**	ug/L	0.007	4	195	384	2	Standard
⌊	**Mn**	**55**	**0.176**	ug/L	0.012	6	545	3645	5	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	44937	0	KED
|	**Ni**	**60**	**0.168**	ug/L	0.008	4	15	130	4	KED
|	**Ni**	**62**	**0.158**	ug/L	0.067	42	10	22	33	KED
|	**Cu**	**63**	**0.505**	ug/L	0.026	5	46	972	4	KED
|	**Cu**	**65**	**0.458**	ug/L	0.045	9	26	439	9	KED
|	**Zn**	**66**	**25.977**	ug/L	0.788	3	68	6811	2	KED
|	**Zn**	**67**	**24.437**	ug/L	0.101	0	10	1049	0	KED
|	**As**	**75**	**0.436**	ug/L	0.018	4	4	77	3	KED
⌊	**Se-1**	**78**	**0.187**	ug/L	0.159	84	12	10	33	KED
	Y	**89**		ug/L			790194	384328	2	Standard
	Kr	**83**		ug/L			58	19	43	Standard
⌈>	**In-1**	**115**		ug/L			38158	19325	1	KED
|	**Cd**	**111**	**0.001**	ug/L	0.000	11	3	1		KED
⌊	**Cd**	**114**	**0.007**	ug/L	0.003	40	5	6	24	KED
⌈>	**In**	**115**		ug/L			944527	525982	0	Standard
|	**Ag**	**107**	**0.000**	ug/L	0.001	470	53	31	30	Standard
|	**Sb**	**121**	**0.076**	ug/L	0.005	6	99	605	5	Standard
|	**Sb**	**123**	**0.072**	ug/L	0.003	3	75	429	3	Standard
|	**Ba**	**135**	**4.159**	ug/L	0.126	3	12	9124	2	Standard
⌊	**Ba**	**137**	**4.417**	ug/L	0.079	1	21	16668	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	739559	2	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.000	10	175	160	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-19
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 01:10:49
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	22398	2	Standard
	Cl	**37**		ug/L			6308940	2654396	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	803352	3	Standard
|	**Cr**	**52**	**-0.123**	ug/L	0.038	31	14875	6898	3	Standard
|	**Cr**	**53**	**0.181**	ug/L	0.020	10	195	390	7	Standard
⌊	**Mn**	**55**	**4.729**	ug/L	0.271	5	545	89583	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	44439	1	KED
|	**Ni**	**60**	**0.177**	ug/L	0.052	29	15	135	27	KED
|	**Ni**	**62**	**0.159**	ug/L	0.041	25	10	22	22	KED
|	**Cu**	**63**	**1.648**	ug/L	0.051	3	46	3087	1	KED
|	**Cu**	**65**	**1.592**	ug/L	0.101	6	26	1476	6	KED
|	**Zn**	**66**	**5.908**	ug/L	0.021	0	68	1558	1	KED
|	**Zn**	**67**	**5.606**	ug/L	0.443	7	10	242	9	KED
|	**As**	**75**	**0.550**	ug/L	0.079	14	4	96	12	KED
⌊	**Se-1**	**78**	**0.078**	ug/L	0.007	8	12	8	0	KED
	Y	**89**		ug/L			790194	377892	0	Standard
	Kr	**83**		ug/L			58	31	30	Standard
⌈>	**In-1**	**115**		ug/L			38158	18755	1	KED
|	**Cd**	**111**	**0.048**	ug/L	0.016	33	3	12	30	KED
⌊	**Cd**	**114**	**0.042**	ug/L	0.011	26	5	26	24	KED
⌈>	**In**	**115**		ug/L			944527	527187	0	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.002	135	53	41	39	Standard
|	**Sb**	**121**	**0.054**	ug/L	0.002	3	99	449	3	Standard
|	**Sb**	**123**	**0.058**	ug/L	0.007	11	75	354	10	Standard
|	**Ba**	**135**	**4.846**	ug/L	0.030	0	12	10656	0	Standard
⌊	**Ba**	**137**	**4.950**	ug/L	0.153	3	21	18720	3	Standard
⌈>	**Tb**	**159**		ug/L			1118737	732661	3	Standard
⌊	**Pb**	**208**	**0.031**	ug/L	0.000	1	175	899	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-21
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 01:15:32
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	21714	3	Standard
	Cl	**37**		ug/L			6308940	2464996	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	738051	10	Standard
|	**Cr**	**52**	**-0.076**	ug/L	0.051	67	14875	6856	2	Standard
|	**Cr**	**53**	**0.194**	ug/L	0.022	11	195	374	3	Standard
⌊	**Mn**	**55**	**235.771**	ug/L	33.155	14	545	4055710	4	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	40096	0	KED
|	**Ni**	**60**	**1.101**	ug/L	0.054	4	15	725	4	KED
|	**Ni**	**62**	**1.136**	ug/L	0.126	11	10	118	11	KED
|	**Cu**	**63**	**1.562**	ug/L	0.013	0	46	2641	1	KED
|	**Cu**	**65**	**1.590**	ug/L	0.053	3	26	1330	3	KED
|	**Zn**	**66**	**35.094**	ug/L	0.911	2	68	8199	2	KED
|	**Zn**	**67**	**31.640**	ug/L	1.548	4	10	1210	4	KED
|	**As**	**75**	**0.465**	ug/L	0.021	4	4	73	4	KED
⌊	**Se-1**	**78**	**0.118**	ug/L	0.066	55	12	8	15	KED
	Y	**89**		ug/L			790194	340884	6	Standard
	Kr	**83**		ug/L			58	20	39	Standard
⌈>	**In-1**	**115**		ug/L			38158	17029	1	KED
|	**Cd**	**111**	**0.050**	ug/L	0.025	49	3	11	41	KED
⌊	**Cd**	**114**	**0.054**	ug/L	0.024	45	5	30	42	KED
⌈>	**In**	**115**		ug/L			944527	468389	7	Standard
|	**Ag**	**107**	**-0.001**	ug/L	0.001	143	53	21	22	Standard
|	**Sb**	**121**	**0.054**	ug/L	0.009	16	99	397	7	Standard
|	**Sb**	**123**	**0.053**	ug/L	0.007	13	75	288	4	Standard
|	**Ba**	**135**	**6.505**	ug/L	0.541	8	12	12655	1	Standard
⌊	**Ba**	**137**	**6.678**	ug/L	0.557	8	21	22341	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	675221	5	Standard
⌊	**Pb**	**208**	**0.035**	ug/L	0.005	14	175	927	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0408-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 01:20:14
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	18588	1	Standard
	Cl	**37**		ug/L			6308940	2541318	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	812580	3	Standard
|	**Cr**	**52**	**0.102**	ug/L	0.051	49	14875	9860	3	Standard
|	**Cr**	**53**	**0.454**	ug/L	0.026	5	195	820	2	Standard
⌊	**Mn**	**55**	**0.434**	ug/L	0.115	26	545	8655	28	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	42069	1	KED
|	**Ni**	**60**	**0.032**	ug/L	0.013	41	15	29	30	KED
|	**Ni**	**62**	**0.014**	ug/L	0.047	323	10	6	75	KED
|	**Cu**	**63**	**0.132**	ug/L	0.026	19	46	254	16	KED
|	**Cu**	**65**	**0.125**	ug/L	0.007	5	26	121	3	KED
|	**Zn**	**66**	**0.996**	ug/L	0.050	5	68	276	3	KED
|	**Zn**	**67**	**1.206**	ug/L	0.269	22	10	53	18	KED
|	**As**	**75**	**0.323**	ug/L	0.029	8	4	54	6	KED
⌊	**Se-1**	**78**	**0.638**	ug/L	0.081	12	12	19	7	KED
	Y	**89**		ug/L			790194	356195	2	Standard
	Kr	**83**		ug/L			58	34	19	Standard
⌈>	**In-1**	**115**		ug/L			38158	17551	0	KED
|	**Cd**	**111**	**0.042**	ug/L	0.014	33	3	10	28	KED
⌊	**Cd**	**114**	**0.029**	ug/L	0.015	51	5	18	43	KED
⌈>	**In**	**115**		ug/L			944527	501420	1	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.001	148	53	34	26	Standard
|	**Sb**	**121**	**0.024**	ug/L	0.004	15	99	217	12	Standard
|	**Sb**	**123**	**0.025**	ug/L	0.004	16	75	166	14	Standard
|	**Ba**	**135**	**8.970**	ug/L	0.089	0	12	18755	1	Standard
⌊	**Ba**	**137**	**9.297**	ug/L	0.164	1	21	33423	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	715795	1	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.001	53	175	140	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-06
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 01:24:57
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	19095	2	Standard
	Cl	**37**		ug/L			6308940	2533231	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	788741	1	Standard
|	**Cr**	**52**	**0.092**	ug/L	0.021	22	14875	9462	0	Standard
|	**Cr**	**53**	**0.452**	ug/L	0.003	0	195	794	1	Standard
⌊	**Mn**	**55**	**0.191**	ug/L	0.019	10	545	3837	7	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	41039	3	KED
|	**Ni**	**60**	**0.049**	ug/L	0.016	32	15	40	28	KED
|	**Ni**	**62**	**0.042**	ug/L	0.058	138	10	8	61	KED
|	**Cu**	**63**	**0.139**	ug/L	0.006	4	46	260	6	KED
|	**Cu**	**65**	**0.124**	ug/L	0.023	18	26	117	18	KED
|	**Zn**	**66**	**0.803**	ug/L	0.122	15	68	222	9	KED
|	**Zn**	**67**	**0.941**	ug/L	0.162	17	10	41	18	KED
|	**As**	**75**	**0.305**	ug/L	0.012	4	4	50	1	KED
⌊	**Se-1**	**78**	**0.638**	ug/L	0.059	9	12	18	3	KED
	Y	**89**		ug/L			790194	355266	1	Standard
	Kr	**83**		ug/L			58	26	44	Standard
⌈>	**In-1**	**115**		ug/L			38158	17243	1	KED
|	**Cd**	**111**	**0.041**	ug/L	0.015	36	3	9	29	KED
⌊	**Cd**	**114**	**0.027**	ug/L	0.005	16	5	16	13	KED
⌈>	**In**	**115**		ug/L			944527	480552	3	Standard
|	**Ag**	**107**	**0.000**	ug/L	0.000	23	53	29	3	Standard
|	**Sb**	**121**	**0.019**	ug/L	0.005	23	99	179	20	Standard
|	**Sb**	**123**	**0.026**	ug/L	0.003	12	75	167	7	Standard
|	**Ba**	**135**	**9.135**	ug/L	0.090	0	12	18301	2	Standard
⌊	**Ba**	**137**	**9.681**	ug/L	0.085	0	21	33352	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	703736	1	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.002	93	175	150	25	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0408-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 01:29:39
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	19549	1	Standard
	Cl	**37**		ug/L			6308940	2516105	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	771906	3	Standard
|	**Cr**	**52**	**23.564**	ug/L	0.955	4	14875	295868	1	Standard
|	**Cr**	**53**	**22.914**	ug/L	1.006	4	195	34060	1	Standard
⌊	**Mn**	**55**	**23.533**	ug/L	0.762	3	545	427431	0	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	41115	1	KED
|	**Ni**	**60**	**25.353**	ug/L	0.488	1	15	16965	2	KED
|	**Ni**	**62**	**26.051**	ug/L	0.449	1	10	2671	2	KED
|	**Cu**	**63**	**26.535**	ug/L	0.193	0	46	45670	0	KED
|	**Cu**	**65**	**25.303**	ug/L	0.608	2	26	21526	1	KED
|	**Zn**	**66**	**84.141**	ug/L	0.351	0	68	20115	1	KED
|	**Zn**	**67**	**76.732**	ug/L	2.819	3	10	3004	3	KED
|	**As**	**75**	**22.501**	ug/L	0.342	1	4	3552	1	KED
⌊	**Se-1**	**78**	**70.745**	ug/L	0.781	1	12	1452	1	KED
	Y	**89**		ug/L			790194	347527	1	Standard
	Kr	**83**		ug/L			58	33	31	Standard
⌈>	**In-1**	**115**		ug/L			38158	17709	0	KED
|	**Cd**	**111**	**22.783**	ug/L	0.399	1	3	4815	1	KED
⌊	**Cd**	**114**	**23.434**	ug/L	0.313	1	5	12638	1	KED
⌈>	**In**	**115**		ug/L			944527	479848	2	Standard
|	**Ag**	**107**	**20.937**	ug/L	0.494	2	53	164940	2	Standard
|	**Sb**	**121**	**0.025**	ug/L	0.006	23	99	218	15	Standard
|	**Sb**	**123**	**0.023**	ug/L	0.010	41	75	151	29	Standard
|	**Ba**	**135**	**35.610**	ug/L	0.664	1	12	71219	1	Standard
⌊	**Ba**	**137**	**37.127**	ug/L	1.421	3	21	127642	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	691713	4	Standard
⌊	**Pb**	**208**	**20.922**	ug/L	0.695	3	175	503796	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0408-MSD1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 01:34:22
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	20589	1	Standard
	Cl	**37**		ug/L			6308940	2509631	1	Standard
>	**Sc**	**45**		ug/L			1410977	765179	3	Standard
	Cr	**52**	**23.680**	ug/L	0.790	3	14875	294714	0	Standard
	Cr	**53**	**23.475**	ug/L	1.257	5	195	34574	1	Standard
	Mn	**55**	**23.978**	ug/L	1.049	4	545	431594	1	Standard
>	**Ge-1**	**72**		ug/L			87449	40368	0	KED
	Ni	**60**	**26.028**	ug/L	0.475	1	15	17099	2	KED
	Ni	**62**	**26.337**	ug/L	0.611	2	10	2651	2	KED
	Cu	**63**	**26.286**	ug/L	0.210	0	46	44422	1	KED
	Cu	**65**	**25.359**	ug/L	0.593	2	26	21182	1	KED
	Zn	**66**	**83.963**	ug/L	0.721	0	68	19708	0	KED
	Zn	**67**	**79.731**	ug/L	1.387	1	10	3065	2	KED
	As	**75**	**23.021**	ug/L	0.471	2	4	3569	2	KED
	Se-1	**78**	**72.555**	ug/L	1.543	2	12	1462	1	KED
	Y	**89**		ug/L			790194	340893	1	Standard
	Kr	**83**		ug/L			58	24	0	Standard
>	**In-1**	**115**		ug/L			38158	16995	1	KED
	Cd	**111**	**24.132**	ug/L	0.588	2	3	4894	2	KED
	Cd	**114**	**24.274**	ug/L	0.437	1	5	12564	2	KED
>	**In**	**115**		ug/L			944527	479886	2	Standard
	Ag	**107**	**20.738**	ug/L	1.091	5	53	163296	3	Standard
	Sb	**121**	**0.020**	ug/L	0.004	18	99	179	11	Standard
	Sb	**123**	**0.024**	ug/L	0.003	11	75	155	7	Standard
	Ba	**135**	**35.697**	ug/L	1.949	5	12	71356	3	Standard
	Ba	**137**	**37.022**	ug/L	2.222	6	21	127247	3	Standard
>	**Tb**	**159**		ug/L			1118737	681223	2	Standard
	Pb	**208**	**21.312**	ug/L	0.283	1	175	505898	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0408-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 01:39:05
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	20618	6	Standard
	Cl	**37**		ug/L			6308940	2597130	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	731541	1	Standard
|	**Cr**	**52**	**24.541**	ug/L	0.514	2	14875	291918	1	Standard
|	**Cr**	**53**	**24.195**	ug/L	0.750	3	195	34103	2	Standard
⌊	**Mn**	**55**	**25.284**	ug/L	0.455	1	545	435463	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	41949	1	KED
|	**Ni**	**60**	**26.136**	ug/L	0.464	1	15	17839	0	KED
|	**Ni**	**62**	**26.206**	ug/L	0.491	1	10	2741	0	KED
|	**Cu**	**63**	**26.766**	ug/L	0.143	0	46	47002	1	KED
|	**Cu**	**65**	**26.605**	ug/L	1.202	4	26	23090	4	KED
|	**Zn**	**66**	**90.411**	ug/L	2.801	3	68	22047	2	KED
|	**Zn**	**67**	**83.597**	ug/L	1.052	1	10	3339	2	KED
|	**As**	**75**	**22.696**	ug/L	0.252	1	4	3656	1	KED
⌊	**Se-1**	**78**	**78.314**	ug/L	0.647	0	12	1640	1	KED
	Y	**89**		ug/L			790194	341998	2	Standard
	Kr	**83**		ug/L			58	26	22	Standard
⌈>	**In-1**	**115**		ug/L			38158	17883	1	KED
|	**Cd**	**111**	**24.693**	ug/L	0.483	1	3	5269	0	KED
⌊	**Cd**	**114**	**24.911**	ug/L	0.593	2	5	13567	2	KED
⌈>	**In**	**115**		ug/L			944527	488416	2	Standard
|	**Ag**	**107**	**21.451**	ug/L	0.576	2	53	171973	0	Standard
|	**Sb**	**121**	**-0.002**	ug/L	0.001	34	99	38	10	Standard
|	**Sb**	**123**	**-0.002**	ug/L	0.001	63	75	29	19	Standard
|	**Ba**	**135**	**26.194**	ug/L	0.689	2	12	53319	1	Standard
⌊	**Ba**	**137**	**27.500**	ug/L	1.458	5	21	96253	4	Standard
⌈>	**Tb**	**159**		ug/L			1118737	683774	3	Standard
⌊	**Pb**	**208**	**21.484**	ug/L	0.365	1	175	511691	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVC
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 01:44:52
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	13136	4	Standard
	Cl	**37**		ug/L			6308940	2513955	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	716465	0	Standard
|	**Cr**	**52**	**49.470**	ug/L	1.565	3	14875	568618	2	Standard
|	**Cr**	**53**	**47.630**	ug/L	2.262	4	195	65648	3	Standard
⌊	**Mn**	**55**	**48.968**	ug/L	1.117	2	545	825722	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	40912	1	KED
|	**Ni**	**60**	**50.910**	ug/L	1.005	1	15	33882	0	KED
|	**Ni**	**62**	**50.408**	ug/L	1.971	3	10	5136	2	KED
|	**Cu**	**63**	**51.450**	ug/L	1.018	1	46	88080	0	KED
|	**Cu**	**65**	**51.117**	ug/L	0.896	1	26	43257	0	KED
|	**Zn**	**66**	**55.208**	ug/L	2.254	4	68	13140	3	KED
|	**Zn**	**67**	**50.561**	ug/L	0.511	1	10	1971	1	KED
|	**As**	**75**	**45.527**	ug/L	1.735	3	4	7148	2	KED
⌊	**Se-1**	**78**	**47.989**	ug/L	1.624	3	12	982	2	KED
	Y	**89**		ug/L			790194	338276	2	Standard
	Kr	**83**		ug/L			58	31	24	Standard
⌈>	**In-1**	**115**		ug/L			38158	17026	2	KED
|	**Cd**	**111**	**50.009**	ug/L	1.988	3	3	10155	1	KED
⌊	**Cd**	**114**	**50.709**	ug/L	2.104	4	5	26276	1	KED
⌈>	**In**	**115**		ug/L			944527	476174	2	Standard
|	**Ag**	**107**	**41.867**	ug/L	1.130	2	53	327212	0	Standard
|	**Sb**	**121**	**49.816**	ug/L	1.509	3	99	327370	0	Standard
|	**Sb**	**123**	**52.661**	ug/L	1.370	2	75	256177	0	Standard
|	**Ba**	**135**	**52.378**	ug/L	0.818	1	12	103951	0	Standard
⌊	**Ba**	**137**	**54.011**	ug/L	2.739	5	21	184261	3	Standard
⌈>	**Tb**	**159**		ug/L			1118737	682925	2	Standard
⌊	**Pb**	**208**	**41.083**	ug/L	0.457	1	175	977488	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBC
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 01:52:20
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	13058	3	Standard
	Cl	**37**		ug/L			6308940	2509655	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	722419	2	Standard
|	**Cr**	**52**	**-0.217**	ug/L	0.008	3	14875	5128	1	Standard
|	**Cr**	**53**	**0.063**	ug/L	0.004	7	195	187	4	Standard
⌊	**Mn**	**55**	**0.011**	ug/L	0.002	17	545	460	4	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	42284	2	KED
|	**Ni**	**60**	**-0.005**	ug/L	0.005	95	15	3	86	KED
|	**Ni**	**62**	**-0.041**	ug/L	0.010	25	10	0	173	KED
|	**Cu**	**63**	**-0.004**	ug/L	0.000	11	46	15	6	KED
|	**Cu**	**65**	**-0.009**	ug/L	0.004	50	26	5	78	KED
|	**Zn**	**66**	**-0.078**	ug/L	0.008	10	68	13	15	KED
|	**Zn**	**67**	**-0.051**	ug/L	0.026	51	10	3	34	KED
|	**As**	**75**	**-0.000**	ug/L	0.006	6414	4	2	44	KED
⌊	**Se-1**	**78**	**-0.040**	ug/L	0.055	136	12	5	24	KED
	Y	**89**		ug/L			790194	332361	0	Standard
	Kr	**83**		ug/L			58	20	24	Standard
⌈>	**In-1**	**115**		ug/L			38158	17493	0	KED
|	**Cd**	**111**	**0.004**	ug/L	0.007	188	3	2	65	KED
⌊	**Cd**	**114**	**-0.000**	ug/L	0.002	2293	5	2	45	KED
⌈>	**In**	**115**		ug/L			944527	486512	3	Standard
|	**Ag**	**107**	**-0.000**	ug/L	0.001	875	53	26	32	Standard
|	**Sb**	**121**	**0.113**	ug/L	0.002	2	99	812	2	Standard
|	**Sb**	**123**	**0.119**	ug/L	0.015	12	75	631	14	Standard
|	**Ba**	**135**	**-0.001**	ug/L	0.001	79	12	3	50	Standard
⌊	**Ba**	**137**	**-0.002**	ug/L	0.001	76	21	4	107	Standard
⌈>	**Tb**	**159**		ug/L			1118737	678675	3	Standard
⌊	**Pb**	**208**	**-0.002**	ug/L	0.000	29	175	69	17	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-23
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 01:57:03
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	19549	1	Standard
	Cl	**37**		ug/L			6308940	2281703	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	695325	0	Standard
|	**Cr**	**52**	**-0.052**	ug/L	0.004	8	14875	6757	0	Standard
|	**Cr**	**53**	**0.196**	ug/L	0.021	10	195	358	7	Standard
⌊	**Mn**	**55**	**286.651**	ug/L	6.206	2	545	4689820	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	38901	2	KED
|	**Ni**	**60**	**1.105**	ug/L	0.044	4	15	705	1	KED
|	**Ni**	**62**	**1.218**	ug/L	0.071	5	10	122	7	KED
|	**Cu**	**63**	**1.460**	ug/L	0.019	1	46	2397	2	KED
|	**Cu**	**65**	**1.409**	ug/L	0.008	0	26	1144	2	KED
|	**Zn**	**66**	**38.444**	ug/L	1.356	3	68	8708	1	KED
|	**Zn**	**67**	**36.878**	ug/L	0.991	2	10	1368	4	KED
|	**As**	**75**	**0.487**	ug/L	0.035	7	4	74	6	KED
⌊	**Se-1**	**78**	**0.171**	ug/L	0.024	14	12	8	3	KED
	Y	**89**		ug/L			790194	322295	2	Standard
	Kr	**83**		ug/L			58	23	32	Standard
⌈>	**In-1**	**115**		ug/L			38158	16406	1	KED
|	**Cd**	**111**	**0.053**	ug/L	0.031	59	3	11	52	KED
⌊	**Cd**	**114**	**0.059**	ug/L	0.014	24	5	31	21	KED
⌈>	**In**	**115**		ug/L			944527	469789	2	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.001	57	53	33	13	Standard
|	**Sb**	**121**	**0.077**	ug/L	0.007	9	99	552	10	Standard
|	**Sb**	**123**	**0.074**	ug/L	0.007	9	75	394	8	Standard
|	**Ba**	**135**	**6.227**	ug/L	0.204	3	12	12194	1	Standard
⌊	**Ba**	**137**	**6.540**	ug/L	0.244	3	21	22028	3	Standard
⌈>	**Tb**	**159**		ug/L			1118737	670073	4	Standard
⌊	**Pb**	**208**	**0.029**	ug/L	0.003	10	175	775	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-25
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 02:01:46
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	22206	1	Standard
	Cl	**37**		ug/L			6308940	2330333	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	724764	0	Standard
|	**Cr**	**52**	**-0.069**	ug/L	0.005	6	14875	6847	1	Standard
|	**Cr**	**53**	**0.187**	ug/L	0.002	1	195	360	1	Standard
⌊	**Mn**	**55**	**54.126**	ug/L	0.757	1	545	923305	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	40180	0	KED
|	**Ni**	**60**	**0.361**	ug/L	0.004	1	15	243	0	KED
|	**Ni**	**62**	**0.353**	ug/L	0.040	11	10	40	9	KED
|	**Cu**	**63**	**1.618**	ug/L	0.035	2	46	2741	1	KED
|	**Cu**	**65**	**1.575**	ug/L	0.027	1	26	1320	1	KED
|	**Zn**	**66**	**11.672**	ug/L	0.290	2	68	2753	2	KED
|	**Zn**	**67**	**10.994**	ug/L	0.829	7	10	424	6	KED
|	**As**	**75**	**0.568**	ug/L	0.065	11	4	89	10	KED
⌊	**Se-1**	**78**	**0.157**	ug/L	0.123	78	12	8	26	KED
	Y	**89**		ug/L			790194	326264	0	Standard
	Kr	**83**		ug/L			58	21	20	Standard
⌈>	**In-1**	**115**		ug/L			38158	17146	2	KED
|	**Cd**	**111**	**0.057**	ug/L	0.023	41	3	13	34	KED
⌊	**Cd**	**114**	**0.035**	ug/L	0.024	67	5	21	58	KED
⌈>	**In**	**115**		ug/L			944527	476692	1	Standard
|	**Ag**	**107**	**0.001**	ug/L	0.001	54	53	36	15	Standard
|	**Sb**	**121**	**0.064**	ug/L	0.010	15	99	471	14	Standard
|	**Sb**	**123**	**0.074**	ug/L	0.004	5	75	397	3	Standard
|	**Ba**	**135**	**5.188**	ug/L	0.140	2	12	10318	4	Standard
⌊	**Ba**	**137**	**5.368**	ug/L	0.147	2	21	18350	1	Standard
⌈>	**Tb**	**159**		ug/L			1118737	678708	4	Standard
⌊	**Pb**	**208**	**0.034**	ug/L	0.001	2	175	911	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 02:06:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	18589	1	Standard
	Cl	**37**		ug/L			6308940	2328366	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	749528	1	Standard
|	**Cr**	**52**	**-0.140**	ug/L	0.006	4	14875	6239	0	Standard
|	**Cr**	**53**	**0.133**	ug/L	0.007	5	195	294	2	Standard
⌊	**Mn**	**55**	**0.182**	ug/L	0.005	2	545	3503	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	39993	1	KED
|	**Ni**	**60**	**0.049**	ug/L	0.019	39	15	38	31	KED
|	**Ni**	**62**	**0.005**	ug/L	0.040	871	10	5	78	KED
|	**Cu**	**63**	**0.341**	ug/L	0.055	16	46	591	15	KED
|	**Cu**	**65**	**0.344**	ug/L	0.038	11	26	296	9	KED
|	**Zn**	**66**	**0.625**	ug/L	0.044	7	68	176	5	KED
|	**Zn**	**67**	**0.856**	ug/L	0.180	21	10	37	17	KED
|	**As**	**75**	**0.193**	ug/L	0.011	5	4	31	6	KED
⌊	**Se-1**	**78**	**0.566**	ug/L	0.136	23	12	16	15	KED
	Y	**89**		ug/L			790194	318955	2	Standard
	Kr	**83**		ug/L			58	29	18	Standard
⌈>	**In-1**	**115**		ug/L			38158	16810	0	KED
|	**Cd**	**111**	**0.022**	ug/L	0.008	38	3	5	28	KED
⌊	**Cd**	**114**	**0.016**	ug/L	0.010	66	5	10	51	KED
⌈>	**In**	**115**		ug/L			944527	478602	1	Standard
|	**Ag**	**107**	**-0.000**	ug/L	0.001	1529	53	26	25	Standard
|	**Sb**	**121**	**0.039**	ug/L	0.005	12	99	308	11	Standard
|	**Sb**	**123**	**0.041**	ug/L	0.005	11	75	237	7	Standard
|	**Ba**	**135**	**10.739**	ug/L	0.239	2	12	21429	1	Standard
⌊	**Ba**	**137**	**11.105**	ug/L	0.336	3	21	38110	3	Standard
⌈>	**Tb**	**159**		ug/L			1118737	675967	2	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.001	49	175	149	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-03
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 02:11:11
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	18203	0	Standard
	Cl	**37**		ug/L			6308940	2333362	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	731990	3	Standard
|	**Cr**	**52**	**-0.038**	ug/L	0.032	83	14875	7265	2	Standard
|	**Cr**	**53**	**0.211**	ug/L	0.013	6	195	397	1	Standard
⌊	**Mn**	**55**	**0.161**	ug/L	0.012	7	545	3043	4	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	40137	1	KED
|	**Ni**	**60**	**0.033**	ug/L	0.008	23	15	28	17	KED
|	**Ni**	**62**	**-0.009**	ug/L	0.019	219	10	3	50	KED
|	**Cu**	**63**	**0.147**	ug/L	0.007	4	46	268	5	KED
|	**Cu**	**65**	**0.130**	ug/L	0.009	7	26	119	4	KED
|	**Zn**	**66**	**0.454**	ug/L	0.067	14	68	137	10	KED
|	**Zn**	**67**	**0.785**	ug/L	0.059	7	10	34	8	KED
|	**As**	**75**	**0.146**	ug/L	0.010	6	4	24	6	KED
⌊	**Se-1**	**78**	**0.593**	ug/L	0.094	15	12	17	12	KED
	Y	**89**		ug/L			790194	320313	2	Standard
	Kr	**83**		ug/L			58	21	48	Standard
⌈>	**In-1**	**115**		ug/L			38158	16920	4	KED
|	**Cd**	**111**	**0.028**	ug/L	0.020	72	3	6	55	KED
⌊	**Cd**	**114**	**0.049**	ug/L	0.011	22	5	27	18	KED
⌈>	**In**	**115**		ug/L			944527	480207	1	Standard
|	**Ag**	**107**	**-0.001**	ug/L	0.000	25	53	16	17	Standard
|	**Sb**	**121**	**0.037**	ug/L	0.004	10	99	296	9	Standard
|	**Sb**	**123**	**0.044**	ug/L	0.004	9	75	253	8	Standard
|	**Ba**	**135**	**9.464**	ug/L	0.147	1	12	18953	2	Standard
⌊	**Ba**	**137**	**9.871**	ug/L	0.239	2	21	33990	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	685875	4	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	52	175	130	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-07
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 02:15:54
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	18848	2	Standard
	Cl	**37**		ug/L			6308940	2358783	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	741075	2	Standard
|	**Cr**	**52**	**-0.122**	ug/L	0.018	14	14875	6377	3	Standard
|	**Cr**	**53**	**0.163**	ug/L	0.010	6	195	334	2	Standard
⌊	**Mn**	**55**	**0.283**	ug/L	0.015	5	545	5208	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	40939	0	KED
|	**Ni**	**60**	**0.216**	ug/L	0.035	16	15	151	16	KED
|	**Ni**	**62**	**0.178**	ug/L	0.083	46	10	22	36	KED
|	**Cu**	**63**	**1.499**	ug/L	0.072	4	46	2588	4	KED
|	**Cu**	**65**	**1.478**	ug/L	0.098	6	26	1262	5	KED
|	**Zn**	**66**	**60.105**	ug/L	1.557	2	68	14315	1	KED
|	**Zn**	**67**	**53.204**	ug/L	1.062	1	10	2075	1	KED
|	**As**	**75**	**0.120**	ug/L	0.014	12	4	20	10	KED
⌊	**Se-1**	**78**	**-0.015**	ug/L	0.083	549	12	5	30	KED
	Y	**89**		ug/L			790194	331475	6	Standard
	Kr	**83**		ug/L			58	22	22	Standard
⌈>	**In-1**	**115**		ug/L			38158	17346	2	KED
|	**Cd**	**111**	**0.271**	ug/L	0.012	4	3	57	1	KED
⌊	**Cd**	**114**	**0.261**	ug/L	0.020	7	5	140	9	KED
⌈>	**In**	**115**		ug/L			944527	488031	3	Standard
|	**Ag**	**107**	**0.000**	ug/L	0.001	186	53	31	23	Standard
|	**Sb**	**121**	**0.050**	ug/L	0.004	8	99	391	7	Standard
|	**Sb**	**123**	**0.056**	ug/L	0.007	11	75	317	6	Standard
|	**Ba**	**135**	**5.703**	ug/L	0.179	3	12	11601	1	Standard
⌊	**Ba**	**137**	**6.132**	ug/L	0.083	1	21	21460	3	Standard
⌈>	**Tb**	**159**		ug/L			1118737	665527	4	Standard
⌊	**Pb**	**208**	**0.003**	ug/L	0.001	26	175	175	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-11
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 02:20:36
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	19810	1	Standard
	Cl	**37**		ug/L			6308940	2246975	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	748213	0	Standard
|	**Cr**	**52**	**0.285**	ug/L	0.012	4	14875	11269	1	Standard
|	**Cr**	**53**	**0.538**	ug/L	0.010	1	195	877	1	Standard
⌊	**Mn**	**55**	**31.555**	ug/L	0.613	1	545	555841	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	40522	2	KED
|	**Ni**	**60**	**2.008**	ug/L	0.095	4	15	1330	4	KED
|	**Ni**	**62**	**2.013**	ug/L	0.146	7	10	207	5	KED
|	**Cu**	**63**	**18.052**	ug/L	0.323	1	46	30623	0	KED
|	**Cu**	**65**	**18.146**	ug/L	0.635	3	26	15213	1	KED
|	**Zn**	**66**	**138.567**	ug/L	2.473	1	68	32620	0	KED
|	**Zn**	**67**	**128.646**	ug/L	4.233	3	10	4959	2	KED
|	**As**	**75**	**0.014**	ug/L	0.008	55	4	4	29	KED
⌊	**Se-1**	**78**	**0.224**	ug/L	0.059	26	12	10	10	KED
	Y	**89**		ug/L			790194	334752	3	Standard
	Kr	**83**		ug/L			58	28	24	Standard
⌈>	**In-1**	**115**		ug/L			38158	17125	2	KED
|	**Cd**	**111**	**0.942**	ug/L	0.060	6	3	193	3	KED
⌊	**Cd**	**114**	**0.969**	ug/L	0.032	3	5	507	2	KED
⌈>	**In**	**115**		ug/L			944527	473158	2	Standard
|	**Ag**	**107**	**0.000**	ug/L	0.001	248	53	29	19	Standard
|	**Sb**	**121**	**0.066**	ug/L	0.003	4	99	483	1	Standard
|	**Sb**	**123**	**0.066**	ug/L	0.010	15	75	355	11	Standard
|	**Ba**	**135**	**27.820**	ug/L	0.335	1	12	54872	1	Standard
⌊	**Ba**	**137**	**28.880**	ug/L	0.371	1	21	97955	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	673238	4	Standard
⌊	**Pb**	**208**	**0.023**	ug/L	0.000	1	175	644	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-13
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 02:25:19
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	20007	1	Standard
	Cl	**37**		ug/L			6308940	2335244	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	730248	0	Standard
|	**Cr**	**52**	**-0.067**	ug/L	0.018	26	14875	6918	2	Standard
|	**Cr**	**53**	**0.181**	ug/L	0.022	12	195	355	8	Standard
⌊	**Mn**	**55**	**10.890**	ug/L	0.154	1	545	187396	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	39828	1	KED
|	**Ni**	**60**	**0.198**	ug/L	0.005	2	15	135	2	KED
|	**Ni**	**62**	**0.255**	ug/L	0.071	27	10	29	22	KED
|	**Cu**	**63**	**1.485**	ug/L	0.034	2	46	2497	3	KED
|	**Cu**	**65**	**1.445**	ug/L	0.031	2	26	1201	1	KED
|	**Zn**	**66**	**6.346**	ug/L	0.339	5	68	1497	3	KED
|	**Zn**	**67**	**6.483**	ug/L	0.904	13	10	250	12	KED
|	**As**	**75**	**0.503**	ug/L	0.074	14	4	79	14	KED
⌊	**Se-1**	**78**	**0.152**	ug/L	0.070	46	12	8	17	KED
	Y	**89**		ug/L			790194	328730	1	Standard
	Kr	**83**		ug/L			58	22	8	Standard
⌈>	**In-1**	**115**		ug/L			38158	17130	1	KED
|	**Cd**	**111**	**0.057**	ug/L	0.009	15	3	13	15	KED
⌊	**Cd**	**114**	**0.043**	ug/L	0.016	36	5	24	34	KED
⌈>	**In**	**115**		ug/L			944527	483688	2	Standard
|	**Ag**	**107**	**0.005**	ug/L	0.009	178	53	69	109	Standard
|	**Sb**	**121**	**0.051**	ug/L	0.009	17	99	394	17	Standard
|	**Sb**	**123**	**0.054**	ug/L	0.009	16	75	303	17	Standard
|	**Ba**	**135**	**5.105**	ug/L	0.135	2	12	10297	2	Standard
⌊	**Ba**	**137**	**5.404**	ug/L	0.242	4	21	18738	3	Standard
⌈>	**Tb**	**159**		ug/L			1118737	672029	5	Standard
⌊	**Pb**	**208**	**0.042**	ug/L	0.010	23	175	1102	26	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-15
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 02:30:01
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	17337	4	Standard
	Cl	**37**		ug/L			6308940	2289888	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	728337	2	Standard
|	**Cr**	**52**	**-0.131**	ug/L	0.030	22	14875	6155	2	Standard
|	**Cr**	**53**	**0.129**	ug/L	0.009	6	195	280	1	Standard
⌊	**Mn**	**55**	**0.926**	ug/L	0.039	4	545	16141	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	41195	2	KED
|	**Ni**	**60**	**0.408**	ug/L	0.022	5	15	280	2	KED
|	**Ni**	**62**	**0.400**	ug/L	0.067	16	10	45	12	KED
|	**Cu**	**63**	**0.117**	ug/L	0.008	6	46	224	8	KED
|	**Cu**	**65**	**0.120**	ug/L	0.016	13	26	114	9	KED
|	**Zn**	**66**	**10.431**	ug/L	0.352	3	68	2525	2	KED
|	**Zn**	**67**	**9.677**	ug/L	0.316	3	10	384	4	KED
|	**As**	**75**	**0.023**	ug/L	0.008	36	4	5	24	KED
⌊	**Se-1**	**78**	**0.084**	ug/L	0.045	53	12	7	10	KED
	Y	**89**		ug/L			790194	322552	1	Standard
	Kr	**83**		ug/L			58	18	5	Standard
⌈>	**In-1**	**115**		ug/L			38158	17105	1	KED
|	**Cd**	**111**	**0.128**	ug/L	0.020	15	3	27	15	KED
⌊	**Cd**	**114**	**0.120**	ug/L	0.020	16	5	64	17	KED
⌈>	**In**	**115**		ug/L			944527	476912	1	Standard
|	**Ag**	**107**	**-0.000**	ug/L	0.001	638	53	26	23	Standard
|	**Sb**	**121**	**0.032**	ug/L	0.005	14	99	261	13	Standard
|	**Sb**	**123**	**0.039**	ug/L	0.008	20	75	228	15	Standard
|	**Ba**	**135**	**7.338**	ug/L	0.416	5	12	14585	4	Standard
⌊	**Ba**	**137**	**7.771**	ug/L	0.401	5	21	26559	3	Standard
⌈>	**Tb**	**159**		ug/L			1118737	678202	2	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.001	145	175	115	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0192-02
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 02:34:44
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	15176	1	Standard
	Cl	**37**		ug/L			6308940	1991655	0	Standard
⌈>	**Sc**	**45**		ug/L			1410977	481786	1	Standard
|	**Cr**	**52**	**0.015**	ug/L	0.027	177	14875	5194	3	Standard
|	**Cr**	**53**	**0.168**	ug/L	0.015	8	195	221	5	Standard
⌊	**Mn**	**55**	**972.068**	ug/L	11.622	1	545	11020013	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	30795	0	KED
|	**Ni**	**60**	**2.670**	ug/L	0.036	1	15	1342	1	KED
|	**Ni**	**62**	**2.463**	ug/L	0.177	7	10	192	6	KED
|	**Cu**	**63**	**0.237**	ug/L	0.022	9	46	321	8	KED
|	**Cu**	**65**	**0.248**	ug/L	0.043	17	26	166	16	KED
|	**Zn**	**66**	**24.433**	ug/L	0.774	3	68	4391	2	KED
|	**Zn**	**67**	**23.397**	ug/L	1.422	6	10	688	6	KED
|	**As**	**75**	**0.035**	ug/L	0.004	12	4	5	8	KED
⌊	**Se-1**	**78**	**0.365**	ug/L	0.083	22	12	10	12	KED
	Y	**89**		ug/L			790194	265273	2	Standard
	Kr	**83**		ug/L			58	37	38	Standard
⌈>	**In-1**	**115**		ug/L			38158	13646	2	KED
|	**Cd**	**111**	**0.026**	ug/L	0.006	22	3	5	20	KED
⌊	**Cd**	**114**	**0.025**	ug/L	0.013	51	5	12	45	KED
⌈>	**In**	**115**		ug/L			944527	412805	1	Standard
|	**Ag**	**107**	**-0.001**	ug/L	0.001	96	53	19	20	Standard
|	**Sb**	**121**	**0.022**	ug/L	0.002	9	99	168	7	Standard
|	**Sb**	**123**	**0.019**	ug/L	0.003	14	75	113	9	Standard
|	**Ba**	**135**	**7.569**	ug/L	0.190	2	12	13027	1	Standard
⌊	**Ba**	**137**	**7.882**	ug/L	0.290	3	21	23325	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	598612	2	Standard
⌊	**Pb**	**208**	**0.006**	ug/L	0.001	8	175	227	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0192-04
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 02:39:27
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	14537	3	Standard
	Cl	**37**		ug/L			6308940	1728269	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	434221	1	Standard
|	**Cr**	**52**	**0.089**	ug/L	0.006	7	14875	5192	0	Standard
|	**Cr**	**53**	**0.424**	ug/L	0.013	2	195	414	2	Standard
⌊	**Mn**	**55**	**2635.050**	ug/L	70.081	2	545	26918369	1	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	28388	2	KED
|	**Ni**	**60**	**25.898**	ug/L	0.839	3	15	11958	1	KED
|	**Ni**	**62**	**25.629**	ug/L	0.761	2	10	1815	5	KED
|	**Cu**	**63**	**326.039**	ug/L	13.952	4	46	387031	1	KED
|	**Cu**	**65**	**322.110**	ug/L	7.777	2	26	189058	1	KED
|	**Zn**	**66**	**3692.015**	ug/L	75.692	2	68	608270	0	KED
|	**Zn**	**67**	**3393.121**	ug/L	93.513	2	10	91543	1	KED
|	**As**	**75**	**0.155**	ug/L	0.011	6	4	18	7	KED
⌊	**Se-1**	**78**	**0.409**	ug/L	0.057	13	12	9	7	KED
	Y	**89**		ug/L			790194	362816	2	Standard
	Kr	**83**		ug/L			58	89	2	Standard
⌈>	**In-1**	**115**		ug/L			38158	12561	2	KED
|	**Cd**	**111**	**13.011**	ug/L	0.158	1	3	1950	1	KED
⌊	**Cd**	**114**	**13.215**	ug/L	0.177	1	5	5055	1	KED
⌈>	**In**	**115**		ug/L			944527	353722	1	Standard
|	**Ag**	**107**	**0.006**	ug/L	0.005	79	53	56	52	Standard
|	**Sb**	**121**	**0.006**	ug/L	0.005	90	99	66	40	Standard
|	**Sb**	**123**	**0.006**	ug/L	0.003	61	75	48	26	Standard
|	**Ba**	**135**	**17.230**	ug/L	0.221	1	12	25411	2	Standard
⌊	**Ba**	**137**	**17.539**	ug/L	0.207	1	21	44481	2	Standard
⌈>	**Tb**	**159**		ug/L			1118737	485516	1	Standard
⌊	**Pb**	**208**	**0.321**	ug/L	0.015	4	175	5510	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVD
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 02:45:14
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	11375	3	Standard
	Cl	**37**		ug/L			6308940	2074335	1	Standard
>	**Sc**	**45**		ug/L			1410977	593050	2	Standard
	Cr	**52**	**52.914**	ug/L	0.987	1	14875	502921	1	Standard
	Cr	**53**	**51.408**	ug/L	1.355	2	195	58631	0	Standard
	Mn	**55**	**53.969**	ug/L	0.981	1	545	753123	1	Standard
>	**Ge-1**	**72**		ug/L			87449	34374	0	KED
	Ni	**60**	**51.524**	ug/L	0.895	1	15	28814	1	KED
	Ni	**62**	**53.032**	ug/L	0.694	1	10	4542	1	KED
	Cu	**63**	**52.249**	ug/L	1.071	2	46	75174	2	KED
	Cu	**65**	**50.047**	ug/L	0.911	1	26	35588	1	KED
	Zn	**66**	**56.400**	ug/L	0.607	1	68	11280	0	KED
	Zn	**67**	**54.737**	ug/L	1.525	2	10	1793	3	KED
	As	**75**	**46.107**	ug/L	0.801	1	4	6084	0	KED
	Se-1	**78**	**49.146**	ug/L	1.377	2	12	845	2	KED
	Y	**89**		ug/L			790194	295399	1	Standard
	Kr	**83**		ug/L			58	29	28	Standard
>	**In-1**	**115**		ug/L			38158	14728	1	KED
	Cd	**111**	**49.353**	ug/L	1.187	2	3	8672	1	KED
	Cd	**114**	**50.023**	ug/L	1.094	2	5	22431	1	KED
>	**In**	**115**		ug/L			944527	448401	2	Standard
	Ag	**107**	**39.214**	ug/L	0.943	2	53	288624	1	Standard
	Sb	**121**	**50.095**	ug/L	1.491	2	99	309982	1	Standard
	Sb	**123**	**52.068**	ug/L	1.713	3	75	238471	1	Standard
	Ba	**135**	**51.554**	ug/L	0.522	1	12	96382	3	Standard
	Ba	**137**	**52.741**	ug/L	1.222	2	21	169484	2	Standard
>	**Tb**	**159**		ug/L			1118737	644255	3	Standard
	Pb	**208**	**41.905**	ug/L	0.648	1	175	940683	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBD
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 02:52:42
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	11761	4	Standard
	Cl	**37**		ug/L			6308940	2163251	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	627060	1	Standard
|	**Cr**	**52**	**-0.207**	ug/L	0.015	7	14875	4557	2	Standard
|	**Cr**	**53**	**0.046**	ug/L	0.016	34	195	142	12	Standard
⌊	**Mn**	**55**	**0.085**	ug/L	0.113	133	545	1479	111	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	37419	1	KED
|	**Ni**	**60**	**-0.005**	ug/L	0.004	66	15	3	69	KED
|	**Ni**	**62**	**-0.033**	ug/L	0.012	35	10	1	86	KED
|	**Cu**	**63**	**-0.006**	ug/L	0.004	62	46	10	60	KED
|	**Cu**	**65**	**-0.005**	ug/L	0.004	91	26	7	43	KED
|	**Zn**	**66**	**-0.077**	ug/L	0.011	13	68	12	17	KED
|	**Zn**	**67**	**-0.076**	ug/L	0.054	70	10	1	100	KED
|	**As**	**75**	**0.007**	ug/L	0.016	215	4	3	74	KED
⌊	**Se-1**	**78**	**-0.041**	ug/L	0.076	188	12	4	29	KED
	Y	**89**		ug/L			790194	300926	2	Standard
	Kr	**83**		ug/L			58	23	32	Standard
⌈>	**In-1**	**115**		ug/L			38158	15494	1	KED
|	**Cd**	**111**	**-0.002**	ug/L	0.005	276	3	0	100	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.004	418	5	1	109	KED
⌈>	**In**	**115**		ug/L			944527	459114	0	Standard
|	**Ag**	**107**	**0.002**	ug/L	0.004	167	53	41	63	Standard
|	**Sb**	**121**	**0.113**	ug/L	0.005	4	99	763	3	Standard
|	**Sb**	**123**	**0.119**	ug/L	0.011	9	75	594	9	Standard
|	**Ba**	**135**	**0.005**	ug/L	0.010	192	12	15	121	Standard
⌊	**Ba**	**137**	**0.001**	ug/L	0.004	280	21	15	87	Standard
⌈>	**Tb**	**159**		ug/L			1118737	651807	3	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.004	328	175	131	72	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 02:57:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	17615	3	Standard
	Cl	**37**		ug/L			6308940	2121718	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	716220	0	Standard
|	**Cr**	**52**	**-0.181**	ug/L	0.007	3	14875	5495	1	Standard
|	**Cr**	**53**	**0.030**	ug/L	0.011	36	195	140	10	Standard
⌊	**Mn**	**55**	**0.039**	ug/L	0.001	3	545	933	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	39663	0	KED
|	**Ni**	**60**	**0.000**	ug/L	0.003	3460	15	6	31	KED
|	**Ni**	**62**	**-0.027**	ug/L	0.019	70	10	1	100	KED
|	**Cu**	**63**	**0.006**	ug/L	0.004	65	46	31	21	KED
|	**Cu**	**65**	**0.012**	ug/L	0.003	21	26	21	10	KED
|	**Zn**	**66**	**0.163**	ug/L	0.074	45	68	68	24	KED
|	**Zn**	**67**	**0.072**	ug/L	0.099	138	10	7	50	KED
|	**As**	**75**	**0.007**	ug/L	0.008	110	4	3	37	KED
⌊	**Se-1**	**78**	**0.018**	ug/L	0.062	352	12	6	19	KED
	Y	**89**		ug/L			790194	338550	0	Standard
	Kr	**83**		ug/L			58	18	26	Standard
⌈>	**In-1**	**115**		ug/L			38158	17125	1	KED
|	**Cd**	**111**	**-0.002**	ug/L	0.005	198	3	0	100	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.000	17	5	1	6	KED
⌈>	**In**	**115**		ug/L			944527	509249	2	Standard
|	**Ag**	**107**	**-0.001**	ug/L	0.001	116	53	23	28	Standard
|	**Sb**	**121**	**0.046**	ug/L	0.002	3	99	379	2	Standard
|	**Sb**	**123**	**0.048**	ug/L	0.003	6	75	291	4	Standard
|	**Ba**	**135**	**0.005**	ug/L	0.002	43	12	17	29	Standard
⌊	**Ba**	**137**	**0.004**	ug/L	0.001	23	21	27	10	Standard
⌈>	**Tb**	**159**		ug/L			1118737	711943	2	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.001	91	175	132	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 03:02:07
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	17795	0	Standard
	Cl	**37**		ug/L			6308940	2165694	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	734726	2	Standard
|	**Cr**	**52**	**-0.190**	ug/L	0.018	9	14875	5529	2	Standard
|	**Cr**	**53**	**0.030**	ug/L	0.001	4	195	144	2	Standard
⌊	**Mn**	**55**	**0.036**	ug/L	0.007	20	545	910	15	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	39814	2	KED
|	**Ni**	**60**	**-0.001**	ug/L	0.012	1097	15	6	121	KED
|	**Ni**	**62**	**-0.027**	ug/L	0.000	1	10	1		KED
|	**Cu**	**63**	**0.002**	ug/L	0.006	352	46	24	40	KED
|	**Cu**	**65**	**0.006**	ug/L	0.004	57	26	17	19	KED
|	**Zn**	**66**	**0.087**	ug/L	0.020	22	68	51	11	KED
|	**Zn**	**67**	**0.155**	ug/L	0.104	66	10	10	36	KED
|	**As**	**75**	**0.009**	ug/L	0.002	24	4	3	7	KED
⌊	**Se-1**	**78**	**-0.007**	ug/L	0.081	1193	12	5	27	KED
	Y	**89**		ug/L			790194	345139	0	Standard
	Kr	**83**		ug/L			58	20	44	Standard
⌈>	**In-1**	**115**		ug/L			38158	17502	0	KED
|	**Cd**	**111**	**-0.001**	ug/L	0.011	1181	3	1	173	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.002	229	5	3	36	KED
⌈>	**In**	**115**		ug/L			944527	499424	1	Standard
|	**Ag**	**107**	**-0.000**	ug/L	0.001	189	53	25	22	Standard
|	**Sb**	**121**	**0.012**	ug/L	0.002	15	99	138	8	Standard
|	**Sb**	**123**	**0.013**	ug/L	0.001	11	75	106	8	Standard
|	**Ba**	**135**	**0.004**	ug/L	0.002	61	12	13	31	Standard
⌊	**Ba**	**137**	**0.006**	ug/L	0.004	59	21	33	37	Standard
⌈>	**Tb**	**159**		ug/L			1118737	703708	2	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.001	82	175	130	14	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 03:06:50
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	17450	3	Standard
	Cl	**37**		ug/L			6308940	2183125	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	739236	0	Standard
|	**Cr**	**52**	**-0.178**	ug/L	0.009	5	14875	5710	2	Standard
|	**Cr**	**53**	**0.033**	ug/L	0.008	24	195	149	7	Standard
⌊	**Mn**	**55**	**0.036**	ug/L	0.002	4	545	919	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	41311	0	KED
|	**Ni**	**60**	**-0.004**	ug/L	0.002	39	15	4	24	KED
|	**Ni**	**62**	**-0.047**	ug/L	0.000	0	10	0		KED
|	**Cu**	**63**	**0.006**	ug/L	0.005	78	46	33	26	KED
|	**Cu**	**65**	**0.000**	ug/L	0.007	1340	26	12	43	KED
|	**Zn**	**66**	**0.071**	ug/L	0.061	85	68	49	30	KED
|	**Zn**	**67**	**0.032**	ug/L	0.056	176	10	6	34	KED
|	**As**	**75**	**-0.002**	ug/L	0.008	472	4	1	66	KED
⌊	**Se-1**	**78**	**0.028**	ug/L	0.069	246	12	6	22	KED
	Y	**89**		ug/L			790194	345705	3	Standard
	Kr	**83**		ug/L			58	20	32	Standard
⌈>	**In-1**	**115**		ug/L			38158	17875	0	KED
|	**Cd**	**111**	**0.003**	ug/L	0.007	197	3	2	65	KED
⌊	**Cd**	**114**	**-0.004**	ug/L	0.002	58	5	0	234	KED
⌈>	**In**	**115**		ug/L			944527	516262	2	Standard
|	**Ag**	**107**	**-0.001**	ug/L	0.001	43	53	19	20	Standard
|	**Sb**	**121**	**0.006**	ug/L	0.001	25	99	95	8	Standard
|	**Sb**	**123**	**0.005**	ug/L	0.001	20	75	69	5	Standard
|	**Ba**	**135**	**0.004**	ug/L	0.002	38	12	15	21	Standard
⌊	**Ba**	**137**	**0.004**	ug/L	0.002	39	21	27	23	Standard
⌈>	**Tb**	**159**		ug/L			1118737	712003	2	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.001	2376	175	112	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 03:11:33
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	13720	0	Standard
	Cl	**37**		ug/L			6308940	2400791	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	690390	0	Standard
|	**Cr**	**52**	**-0.232**	ug/L	0.006	2	14875	4743	1	Standard
|	**Cr**	**53**	**0.039**	ug/L	0.003	8	195	147	2	Standard
⌊	**Mn**	**55**	**0.008**	ug/L	0.001	16	545	394	5	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	40159	0	KED
|	**Ni**	**60**	**-0.001**	ug/L	0.006	584	15	6	62	KED
|	**Ni**	**62**	**-0.027**	ug/L	0.033	121	10	1	173	KED
|	**Cu**	**63**	**-0.008**	ug/L	0.002	31	46	8	44	KED
|	**Cu**	**65**	**-0.008**	ug/L	0.005	61	26	5	66	KED
|	**Zn**	**66**	**-0.048**	ug/L	0.026	54	68	20	30	KED
|	**Zn**	**67**	**-0.030**	ug/L	0.051	170	10	3	50	KED
|	**As**	**75**	**-0.000**	ug/L	0.002	552	4	2	13	KED
⌊	**Se-1**	**78**	**0.069**	ug/L	0.021	29	12	7	6	KED
	Y	**89**		ug/L			790194	308563	2	Standard
	Kr	**83**		ug/L			58	23	16	Standard
⌈>	**In-1**	**115**		ug/L			38158	16734	1	KED
|	**Cd**	**111**	**0.004**	ug/L	0.003	64	3	2	24	KED
⌊	**Cd**	**114**	**-0.002**	ug/L	0.002	93	5	1	94	KED
⌈>	**In**	**115**		ug/L			944527	473998	2	Standard
|	**Ag**	**107**	**-0.001**	ug/L	0.000	28	53	15	21	Standard
|	**Sb**	**121**	**-0.001**	ug/L	0.001	109	99	42	18	Standard
|	**Sb**	**123**	**-0.001**	ug/L	0.002	242	75	34	23	Standard
|	**Ba**	**135**	**-0.002**	ug/L	0.001	47	12	1	100	Standard
⌊	**Ba**	**137**	**-0.001**	ug/L	0.001	92	21	6	69	Standard
⌈>	**Tb**	**159**		ug/L			1118737	638901	3	Standard
⌊	**Pb**	**208**	**-0.003**	ug/L	0.000	11	175	38	22	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 03:16:16
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	13789	1	Standard
	Cl	**37**		ug/L			6308940	2420593	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	667064	0	Standard
|	**Cr**	**52**	**-0.201**	ug/L	0.012	5	14875	4912	1	Standard
|	**Cr**	**53**	**0.043**	ug/L	0.002	5	195	147	1	Standard
⌊	**Mn**	**55**	**0.005**	ug/L	0.002	32	545	342	8	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	41007	1	KED
|	**Ni**	**60**	**-0.006**	ug/L	0.002	28	15	3	34	KED
|	**Ni**	**62**	**-0.041**	ug/L	0.011	26	10	0	173	KED
|	**Cu**	**63**	**-0.005**	ug/L	0.003	72	46	13	43	KED
|	**Cu**	**65**	**-0.004**	ug/L	0.003	84	26	8	32	KED
|	**Zn**	**66**	**-0.052**	ug/L	0.019	37	68	19	22	KED
|	**Zn**	**67**	**-0.032**	ug/L	0.086	272	10	3	86	KED
|	**As**	**75**	**0.002**	ug/L	0.003	140	4	2	21	KED
⌊	**Se-1**	**78**	**0.070**	ug/L	0.024	34	12	7	7	KED
	Y	**89**		ug/L			790194	309815	1	Standard
	Kr	**83**		ug/L			58	22	9	Standard
⌈>	**In-1**	**115**		ug/L			38158	17383	2	KED
|	**Cd**	**111**	**0.004**	ug/L	0.015	393	3	2	137	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.000	12	5	1	2	KED
⌈>	**In**	**115**		ug/L			944527	467600	2	Standard
|	**Ag**	**107**	**-0.001**	ug/L	0.001	83	53	19	29	Standard
|	**Sb**	**121**	**-0.003**	ug/L	0.001	31	99	32	15	Standard
|	**Sb**	**123**	**-0.002**	ug/L	0.001	48	75	26	19	Standard
|	**Ba**	**135**	**-0.001**	ug/L	0.001	89	12	3	50	Standard
⌊	**Ba**	**137**	**-0.002**	ug/L	0.001	29	21	3	50	Standard
⌈>	**Tb**	**159**		ug/L			1118737	649601	2	Standard
⌊	**Pb**	**208**	**-0.003**	ug/L	0.000	15	175	35	29	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 03:20:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMed1.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\061818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			26774	13873	2	Standard
	Cl	**37**		ug/L			6308940	2446428	1	Standard
⌈>	**Sc**	**45**		ug/L			1410977	695354	2	Standard
|	**Cr**	**52**	**-0.218**	ug/L	0.003	1	14875	4934	2	Standard
|	**Cr**	**53**	**0.046**	ug/L	0.004	8	195	158	2	Standard
⌊	**Mn**	**55**	**0.004**	ug/L	0.001	15	545	338	2	Standard
⌈>	**Ge-1**	**72**		ug/L			87449	41489	1	KED
|	**Ni**	**60**	**-0.004**	ug/L	0.002	42	15	4	24	KED
|	**Ni**	**62**	**-0.028**	ug/L	0.033	116	10	1	173	KED
|	**Cu**	**63**	**-0.005**	ug/L	0.004	65	46	12	48	KED
|	**Cu**	**65**	**-0.008**	ug/L	0.005	54	26	5	78	KED
|	**Zn**	**66**	**-0.043**	ug/L	0.011	26	68	22	13	KED
|	**Zn**	**67**	**-0.033**	ug/L	0.002	5	10	3	0	KED
|	**As**	**75**	**0.006**	ug/L	0.010	155	4	3	48	KED
⌊	**Se-1**	**78**	**0.004**	ug/L	0.030	828	12	6	12	KED
	Y	**89**		ug/L			790194	312815	0	Standard
	Kr	**83**		ug/L			58	17	6	Standard
⌈>	**In-1**	**115**		ug/L			38158	17503	1	KED
|	**Cd**	**111**	**-0.002**	ug/L	0.005	195	3	0	100	KED
⌊	**Cd**	**114**	**-0.000**	ug/L	0.002	1233	5	2	46	KED
⌈>	**In**	**115**		ug/L			944527	471118	2	Standard
|	**Ag**	**107**	**-0.001**	ug/L	0.000	37	53	17	16	Standard
|	**Sb**	**121**	**-0.004**	ug/L	0.001	28	99	20	39	Standard
|	**Sb**	**123**	**-0.002**	ug/L	0.003	143	75	27	45	Standard
|	**Ba**	**135**	**-0.003**	ug/L	0.001	19	12	0	173	Standard
⌊	**Ba**	**137**	**-0.001**	ug/L	0.001	74	21	6	41	Standard
⌈>	**Tb**	**159**		ug/L			1118737	651123	2	Standard
⌊	**Pb**	**208**	**-0.003**	ug/L	0.000	5	175	39	7	Standard

INITIAL CALIBRATION DATA

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00048
Instrument: ICPMS1
Calibration Date: 06/19/2018 11:27

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Arsenic-75a, Dissolved	0	0	0.2	180	10	155.3	20	157.3	50	151.48	100	141.5
Cadmium-111, Dissolved	0	0	0.1	160	10	129.4	20	133.7	50	122.28	100	117.47
Cadmium-114, Dissolved	0	0	0.1	340	10	365.8	20	359	50	336.38	100	327.15
Copper-63, Dissolved	0	0	0.5	2592	10	2466.2	20	2455.7	50	2351.58	100	2160.92
Copper-65, Dissolved	0	0	0.5	1244	10	1183.4	20	1173.05	50	1132.04	100	1041.1
Zinc-66, Dissolved	0	0	4	319.5	10	279.6	20	278.8	50	267.66	100	240.51
Zinc-67, Dissolved	0	0	4	49.5	10	44.7	20	46.5	50	43.94	100	39.79

INITIAL CALIBRATION DATA

EPA 6020A UCT-KED

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00048	Instrument:	ICPMS1
Calibration Date:	06/19/2018 11:27		

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Arsenic-75a, Dissolved	130.93	49.9	0.9986		0.998	
Cadmium-111, Dissolved	110.475	50.8	0.9991		0.998	
Cadmium-114, Dissolved	288.055	49.2	0.9995		0.998	
Copper-63, Dissolved	2004.4	49.5	0.9979		0.998	*
Copper-65, Dissolved	962.265	49.5	0.9980		0.998	*
Zinc-66, Dissolved	231.0117	50.2	0.9969		0.998	*
Zinc-67, Dissolved	37.405	49.7	0.9971		0.998	*

Analytical Resources, Incorporated
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ICP/MS - 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 6/19/18 **Analyst:** MS SEQ: SGFΦ262

All corrections made by analyst unless otherwise noted. MS 6/19/18 CALIB: BFΦΦ48

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	SEQ - CAL1			
	✓	- CAL2			
	✓	- CAL3			
	✓	- CAL4			In-1 noisy
	✓	- CAL5			
	✓	- CAL1			
	✓	- CAL2			
	✓	- CAL3			
	✓	- CAL4			Sc, Tb noisy
	✓	- CAL5			
		- CAL1	G5398		
		- CAL2	G546Φ		
		- CAL3	~~G54Φ~~ G562Φ		
		- CAL4	G5621		
		- CAL5	G5456		In-1 sl. noisy
		- CAL6	G5622		
		- IBL1	-		
		- ICV1	G51Φ3		
		- ICB1	G5398		
		- CCV1	G5456		
		- CCB1	G5398		
		- CRL1	G546Φ		
		- IFA1	G5Φ65		Cr53 ↑
		- IFB1	G5Φ66		↓

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS - 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 6/19/18 **Analyst:** MS

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-HCV1	GSΦ67		
		-HCV2	GSΦ68		
		-IBL2/3	—		
		-CCV2			
		-CCB2			
		BGFΦ435-BLK1	REN		
		18FΦ263-Φ1		5	Cd sl. noisy
		18FΦ261-Φ1			
		-Φ2			
	✓	18FΦ263-Φ1RE1		5	
		BGFΦ435-DUP1			
		18FΦ198-63			
		BGFΦ435-MS1			
		-MSD1			Cu %RT
		-BS1			
		SEQ-CCV3			
		-CCB3			
		BGFΦ367-BLK2	DW		Pb only
		18FΦ182-Φ1			
		18FΦ221-Φ1			
		-Φ2			
		18FΦΦ81-Φ1			
		18FΦΦ89-Φ1			
		18FΦ163-Φ1			

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ICP/MS - 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 6/10/18 **Analyst:** MB

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		18FΦ167-Φ1	DW		Pb only
		18FΦ179-Φ1	↓		↓
		BGFΦ367-BS2	↓		
		SEQ-CCV4			
		↓ -CCB4			
		18FΦ224-Φ1	DW		Pb only
		18FΦ253-Φ1	↓		↓
		18FΦ254-Φ1	↓		
		BGFΦ367-DUP2	↓		
		18FΦΦ91-Φ2	↓		
		BGFΦ367-MS2	↓		↓
		SEQ-CCV5			
		-CCB5			
	✓	-CAL1			
		-CCV6			
		↓ -CCB6			
		BGFΦ368-BLK1	REN		
		↓ -DUP1	↓		
		18FΦ198-Φ5	↓		
		BGFΦ368-MS1	↓		
		↓ -MSD1	↓		
		↓ -DUP2	↓		
		18FΦ142-Φ7	↓		
		BGFΦ368-MS2	↓		

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ICP/MS - 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 6/19/18 **Analyst:** MB

All corrections made by analyst unless otherwise noted. MB 6/19/18

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		BGFΦ368-MSD2	REN		
		↓ -BSD1	↓		
		SEQ-CCV7			
		↓ -CCB7			
	✓	-CAL1			
		-CCV8			
		↓ -CCB8			
		18FΦ134-Φ1	SVN	20	
		↓ -Φ2	↓	↓	
		18FΦ142-Φ1	REN		
		-Φ3			
		-Φ5			
		-Φ9			Mn,Zn > LR No Mn,Zn
		-11			↓ ↓
		-13			Mn > LR Sc,Tb noisy No Mn,Rb
		-15			
		↓ -17	↓		
		SEQ-CCV9			
		↓ -CCB9			
		BGFΦ4Φ8-BLK1	REN		Mn > RL (0.739) 192 > 10x
		18FΦ142-19			
		-21			
		-23			Mn > RL LR No Mn
		↓ -25	↓		

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ICP/MS - 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 6/19/18 **Analyst:** MB

All corrections made by analyst unless otherwise noted. MB 6/19/18

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		BGFΦ4Φ8-DUP1	REN		
		18FΦ198-Φ6	↓		
		BGFΦ4Φ8-MS1	↓		
		↓ -BSTMSD1	↓		
		↓ -BS1	↓		
		SEQ-CCVA			
		↓ -CCBA			
	✓	-CAL1			
		-CCVB			
		↓ -CCBB			
		18FΦ185-Φ1	REN		Pb only
		↓ -Φ3	↓	5	
		-Φ4		↓	Ge⁻¹ ↓ / Cr, Cd, Pb only ↓
		-Φ5			
		-Φ6			
		↓ -Φ7		~~↓~~ 1	↓ / Pb only
		18FΦ192-Φ2			Mn > ~~RL~~ LR / No Mn
		↓ -Φ4			Mn, Co, Zn > LR / Cd, Pb only
		↓ -Φ6			↓ / ↓
		18FΦ193-Φ2	↓		
		SEQ-CCVC			
		↓ CCBC			
	✓	18FΦ193-Φ4	REN		
	✓	18FΦ194-Φ2	↓		

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ICP/MS - 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 6/19/18 **Analyst:** MB

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	18F0194-04	REN		
	✓	↓ -06	↓		
		SEQ-CCV1			
		↓ -CCB1			Ge-1 noisy
		Rinse/DI			
			MB 6/19/18		

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Tuesday, June 19, 2018 11:27:18
Sample Description:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\STD Performance Check.5906
MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	14800.0	14799.996	103.359	0.7	Standard
	In	114.9	143428.2	-1473202.537	2735.679	0.2	Standard
	U	238.1	140896.1	140896.082	3552.371	2.5	Standard
⌈	CeO	155.9	2584.1	0.020	0.000	1.5	Standard
| >	Ce	139.9	129803.0	129803.044	2705.743	2.1	Standard
⌊	Ce++	70.0	3348.3	0.026	0.004	16.1	Standard
	Bkgd	220.0	0.7	0.667	0.441	66.1	Standard

Current Conditions File Data

Current Value	Description
0.98	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-11.50	Deflector Voltage
1600.00	ICP RF Power
-1825.00	Analog Stage Voltage
1400.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-14.00	Cell Rod Offset STD [CRO]
14.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
0.98	DRC Mode NEB
-7.00	DRC Mode QRO
-1.50	DRC Mode CRO
-6.00	DRC Mode Cell Entrance/Exit Voltage
0.10	Cell Gas A
0.00	Cell Gas B
200.00	Axial Field Voltage
-14.50	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-14.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
2.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Start Time: 6/19/2018 11:27:15 AM
End Time: 6/19/2018 11:34:52 AM

STD Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9): 14800.00
Obtained Intensity (In 115): 143428.22
Obtained Intensity (U 238): 140896.08
Obtained Intensity (Bkgd 220): 0.67
Obtained Formula (Ce++ 70 / Ce 140): 0.026 (=3348.27 / 129803.04)
Obtained Formula (CeO 156 / Ce 140): 0.020 (=2584.10 / 129803.04)

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
2.20 mm	-1.00 mm	159699.68

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 0.98
Obtained Intensity (In 115): 151723.44
Obtained Formula (CeO 156 / Ce 140): 0.0195 (=2626.24 / 134370.99)

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Optimization Status

Start Time: 6/19/2018 11:27:15 AM

STD Performance Check
	Optimization Settings:
		Method: STD Performance Check.mth.
		Intensity Criterion: Be 9 > 2000
		Intensity Criterion: In 115 > 40000
		Intensity Criterion: U 238 > 30000
		Intensity Criterion: Bkgd 220 <= 1
		Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
		Formula Criterion: CeO 156 / Ce 140 <= 0.025

	Optimization Results:
	Initial Try
		Obtained Intensity (Be 9): 14800.00
		Obtained Intensity (In 115): 143428.22
		Obtained Intensity (U 238): 140896.08
		Obtained Intensity (Bkgd 220): 0.67
		Obtained Formula (Ce++ 70 / Ce 140): 0.026 (=3348.27 / 129803.04)
		Obtained Formula (CeO 156 / Ce 140): 0.020 (=2584.10 / 129803.04)

[Passed] Optimum value(s): N/A

Torch Alignment
	Optimization Settings:
		Method: Torch Alignment.mth.
		Intensity Criterion: In 115 Maximum

	Optimization Results:
		Vertical	Horizontal	Intensity
[Passed]	2.20 mm	-1.00 mm	159699.68

Nebulizer Gas Flow STD/KED [NEB]
	Optimization Settings:
		Method: Optimize.mth.
			Initial Try - Start/End/Step: 0.9/1.1/0.02.
		Intensity Criterion: In 115 Maximum
		Formula Criterion: CeO 156 / Ce 140 <= 0.02

	Optimization Results:
	Initial Try

		Obtained Intensity (In 115): 151723.44
		Obtained Formula (CeO 156 / Ce 140): 0.0195 (=2626.24 / 134370.99)
[Passed] Optimum value(s): 0.98

End Time: 6/19/2018 11:34:52 AM

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Tuesday, June 19, 2018 11:48:04
Sample Description:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\STD Performance Check.5914
MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	17112.2	17112.177	193.030	1.1	Standard
	In	114.9	162189.8	162189.808	1271.503	0.8	Standard
	U	238.1	160914.0	160913.987	2176.173	1.4	Standard
⌈	CeO	155.9	2694.1	0.019	0.001	2.8	Standard
| >	Ce	139.9	141230.4	141230.421	619.592	0.4	Standard
⌊	Ce++	70.0	3049.9	0.022	0.000	0.8	Standard
	Bkgd	220.0	4.2	4.233	4.437	104.8	Standard

Current Conditions File Data

Current Value	Description
0.98	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-11.50	Deflector Voltage
1600.00	ICP RF Power
-1825.00	Analog Stage Voltage
1400.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-14.00	Cell Rod Offset STD [CRO]
14.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
0.98	DRC Mode NEB
-7.00	DRC Mode QRO
-1.50	DRC Mode CRO
-6.00	DRC Mode Cell Entrance/Exit Voltage
0.10	Cell Gas A
0.00	Cell Gas B
200.00	Axial Field Voltage
-14.50	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-14.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
2.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Start Time: 6/19/2018 11:35:02 AM
End Time: 6/19/2018 11:50:09 AM

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
2.27 mm	-1.15 mm	159064.65

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 0.98
Obtained Intensity (In 115): 155340.00
Obtained Formula (CeO 156 / Ce 140): 0.0185 (=2494.22 / 134713.19)

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.679)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.701)
Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.712)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.710)

QID STD/DRC - Optimum value(s): Correlation Coefficient = 0.997; Intercept = -13.75

KED Mode QID - Optimum value(s): Correlation Coefficient = 0.999; Intercept = -13.79

STD Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9): 17112.18
Obtained Intensity (In 115): 162189.81
Obtained Intensity (U 238): 160913.99
Obtained Intensity (Bkgd 220): 4.23
Obtained Formula (Ce++ 70 / Ce 140): 0.022 (=3049.93 / 141230.42)
Obtained Formula (CeO 156 / Ce 140): 0.019 (=2694.05 / 141230.42)

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Optimization Status

Start Time: 6/19/2018 11:35:02 AM

Torch Alignment
	Optimization Settings:
		Method: Torch Alignment.mth.
		Intensity Criterion: In 115 Maximum

	Optimization Results:
		Vertical	Horizontal	Intensity
[Passed]	2.27 mm	-1.15 mm	159064.65

Nebulizer Gas Flow STD/KED [NEB]
	Optimization Settings:
		Method: Optimize.mth.
			Initial Try - Start/End/Step: 0.9/1.1/0.02.
		Intensity Criterion: In 115 Maximum
		Formula Criterion: CeO 156 / Ce 140 <= 0.02

	Optimization Results:
	Initial Try

		Obtained Intensity (In 115): 155340.00
		Obtained Formula (CeO 156 / Ce 140): 0.0185 (=2494.22 / 134713.19)
[Passed] Optimum value(s): 0.98

Mass Calibration and Resolution
	Optimization Settings:
		Method: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Tuning3rep.mth.
		MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
		Iterations: 6
		Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution
		Peak height (%) for Res. Opt.: 10

	Optimization Results:
	Initial Try
		Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.679)
		Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.701)
		Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.712)
		Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.710)
[Passed] Optimum value(s): N/A

QID STD/DRC
	Optimization Settings:
		Method: QID Calibration.mth.
			Initial Try - Start/End/Step: -20/0/0.5.

	Optimization Results:
	Initial Try

  Optimum value(s): Correlation Coefficient = 0.997; Intercept = -13.75

	Analyte	Mass	Points	DAC	MaxIntensity

Li	7	41	-14	66289.4
Mg	24	41	-14	98434
In	115	41	-11	174762
Ce	140	41	-9.5	145323
Pb	208	41	-8	85285.8
U	238	41	-7.5	167015

KED Mode QID

Optimization Settings:

Method: QID Calibration.mth.

Initial Try - Start/End/Step: -16/-4/0.25.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 0.999; Intercept = -13.79

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	49	-14	56981.4
Mg	24	49	-14	79762
In	115	49	-11.25	131034
Ce	140	49	-10.25	116203
Pb	208	49	-8.25	48064.7
U	238	49	-6	108644

STD Performance Check

Optimization Settings:

Method: STD Performance Check.mth.

Intensity Criterion: Be 9 > 2000

Intensity Criterion: In 115 > 40000

Intensity Criterion: U 238 > 30000

Intensity Criterion: Bkgd 220 <= 10

Formula Criterion: Ce++ 70 / Ce 140 <= 0.03

Formula Criterion: CeO 156 / Ce 140 <= 0.025

Optimization Results:

Initial Try

Obtained Intensity (Be 9): 17112.18

Obtained Intensity (In 115): 162189.81

Obtained Intensity (U 238): 160913.99

Obtained Intensity (Bkgd 220): 4.23

Obtained Formula (Ce++ 70 / Ce 140): 0.022 (=3049.93 / 141230.42)

Obtained Formula (CeO 156 / Ce 140): 0.019 (=2694.05 / 141230.42)

[Passed] Optimum value(s): N/A

End Time: 6/19/2018 11:50:09 AM

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 12:22:15 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	**13**		ug/L				51886	2	Standard
Cl	**37**		ug/L				11174887	0	Standard
Sc	**45**		ug/L				2049892	0	Standard
Cr	**52**		ug/L				32723	2	Standard
Cr	**53**		ug/L				172	0	Standard
Mn	**55**		ug/L				719	4	Standard
Ge-1	**72**		ug/L				41658	1	KED
Ni	**60**		ug/L				10	10	KED
Ni	**62**		ug/L				3	91	KED
Cu	**63**		ug/L				24	27	KED
Cu	**65**		ug/L				12	52	KED
Zn	**66**		ug/L				28	30	KED
Zn	**67**		ug/L				3	91	KED
As	**75**		ug/L				2	24	KED
Y	**89**		ug/L				865671	1	Standard
Kr	**83**		ug/L				66	26	Standard
In-1	**115**		ug/L				9536	2	KED
Cd	**111**		ug/L				0	86	KED
Cd	**114**		ug/L				3	34	KED
Tb	**159**		ug/L				2149277	0	Standard
Pb	**208**		ug/L				689	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 12:26:10 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			51886	56766	0	Standard
	Cl	**37**		ug/L			11174887	11128379	3	Standard
⌈>	**Sc**	**45**		ug/L			2049892	2043600	1	Standard
|	**Cr**	**52**	**0.500**	ug/L	0.034	6	32723	48253	3	Standard
|	**Cr**	**53**	**0.500**	ug/L	0.004	0	172	2107	1	Standard
⌊	**Mn**	**55**	**0.500**	ug/L	0.006	1	719	22639	0	Standard
⌈>	**Ge-1**	**72**		ug/L			41658	40256	1	KED
|	**Ni**	**60**	**0.500**	ug/L	0.025	4	10	506	6	KED
|	**Ni**	**62**	**0.500**	ug/L	0.072	14	3	62	12	KED
|	**Cu**	**63**	**0.500**	ug/L	0.033	6	24	1278	4	KED
|	**Cu**	**65**	**0.500**	ug/L	0.014	2	12	578	3	KED
|	**Zn**	**66**	**4.000**	ug/L	0.089	2	28	1194	0	KED
|	**Zn**	**67**	**4.000**	ug/L	0.762	19	3	182	17	KED
⌊	**As**	**75**	**0.200**	ug/L	0.020	9	2	34	8	KED
	Y	**89**		ug/L			865671	880915	1	Standard
	Kr	**83**		ug/L			66	56	22	Standard
⌈>	**In-1**	**115**		ug/L			9536	9382	4	KED
|	**Cd**	**111**	**0.100**	ug/L	0.038	37	0	13	38	KED
⌊	**Cd**	**114**	**0.100**	ug/L	0.002	2	3	32	5	KED
⌈>	**Tb**	**159**		ug/L			2149277	2164649	0	Standard
⌊	**Pb**	**208**	**0.100**	ug/L	0.001	0	689	13046	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 12:30:04

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			51886	51710	3	Standard
	Cl	**37**		ug/L			11174887	11291027	1	Standard
⎡>	**Sc**	**45**		ug/L			2049892	2098794	1	Standard
⎢	**Cr**	**52**	**10.001**	ug/L	0.259	2	32723	366723	2	Standard
⎢	**Cr**	**53**	**9.999**	ug/L	0.334	3	172	38704	2	Standard
⎣	**Mn**	**55**	**9.999**	ug/L	0.136	1	719	436890	1	Standard
⎡>	**Ge-1**	**72**		ug/L			41658	40942	0	KED
⎢	**Ni**	**60**	**9.998**	ug/L	0.192	1	10	9479	2	KED
⎢	**Ni**	**62**	**10.005**	ug/L	0.409	4	3	1502	3	KED
⎢	**Cu**	**63**	**10.000**	ug/L	0.124	1	24	25238	0	KED
⎢	**Cu**	**65**	**10.001**	ug/L	0.144	1	12	12198	1	KED
⎢	**Zn**	**66**	**9.905**	ug/L	0.048	0	28	2801	1	KED
⎢	**Zn**	**67**	**10.044**	ug/L	0.376	3	3	476	4	KED
⎣	**As**	**75**	**10.000**	ug/L	0.231	2	2	1584	2	KED
	Y	**89**		ug/L			865671	881496	2	Standard
	Kr	**83**		ug/L			66	59	9	Standard
⎡>	**In-1**	**115**		ug/L			9536	9315	1	KED
⎢	**Cd**	**111**	**10.000**	ug/L	0.185	1	0	1363	3	KED
⎣	**Cd**	**114**	**10.000**	ug/L	0.656	6	3	3646	5	KED
⎡>	**Tb**	**159**		ug/L			2149277	2188199	0	Standard
⎣	**Pb**	**208**	**10.000**	ug/L	0.021	0	689	1188441	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 12:34:13 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			51886	51814	1	Standard
	Cl	**37**		ug/L			11174887	11154400	2	Standard
⌈>	**Sc**	**45**		ug/L			2049892	2082952	0	Standard
|	**Cr**	**52**	**20.015**	ug/L	0.332	1	32723	697065	1	Standard
|	**Cr**	**53**	**19.954**	ug/L	0.194	0	172	75800	1	Standard
⌊	**Mn**	**55**	**20.043**	ug/L	0.123	0	719	875828	0	Standard
⌈>	**Ge-1**	**72**		ug/L			41658	40380	1	KED
|	**Ni**	**60**	**20.066**	ug/L	0.297	1	10	19001	2	KED
|	**Ni**	**62**	**19.911**	ug/L	0.828	4	3	2894	2	KED
|	**Cu**	**63**	**19.993**	ug/L	0.154	0	24	49677	1	KED
|	**Cu**	**65**	**20.008**	ug/L	0.255	1	12	24092	1	KED
|	**Zn**	**66**	**19.929**	ug/L	0.451	2	28	5465	3	KED
|	**Zn**	**67**	**19.810**	ug/L	0.466	2	3	893	2	KED
⌊	**As**	**75**	**20.054**	ug/L	0.530	2	2	3164	1	KED
	Y	**89**		ug/L			865671	893896	1	Standard
	Kr	**83**		ug/L			66	60	14	Standard
⌈>	**In-1**	**115**		ug/L			9536	8713	10	KED
|	**Cd**	**111**	**20.221**	ug/L	2.514	12	0	2673	2	KED
⌊	**Cd**	**114**	**20.313**	ug/L	2.095	10	3	7334	1	KED
⌈>	**Tb**	**159**		ug/L			2149277	2179922	1	Standard
⌊	**Pb**	**208**	**20.059**	ug/L	0.185	0	689	2402569	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 12:38:31 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			51886	50074	0	Standard
	Cl	**37**		ug/L			11174887	11408855	1	Standard
⌈>	**Sc**	**45**		ug/L			2049892	2021013	0	Standard
|	**Cr**	**52**	**50.273**	ug/L	0.608	1	32723	1695449	1	Standard
|	**Cr**	**53**	**50.126**	ug/L	0.859	1	172	186858	2	Standard
⌊	**Mn**	**55**	**50.138**	ug/L	0.802	1	719	2154547	2	Standard
⌈>	**Ge-1**	**72**		ug/L			41658	38864	1	KED
|	**Ni**	**60**	**50.057**	ug/L	1.497	2	10	45851	1	KED
|	**Ni**	**62**	**49.780**	ug/L	1.084	2	3	6813	2	KED
|	**Cu**	**63**	**49.984**	ug/L	1.450	2	24	119298	2	KED
|	**Cu**	**65**	**49.978**	ug/L	1.550	3	12	57762	1	KED
|	**Zn**	**66**	**50.161**	ug/L	1.087	2	28	13403	1	KED
|	**Zn**	**67**	**50.291**	ug/L	2.673	5	3	2241	3	KED
⌊	**As**	**75**	**49.997**	ug/L	1.149	2	2	7588	1	KED
	Y	**89**		ug/L			865671	871881	1	Standard
	Kr	**83**		ug/L			66	64	7	Standard
⌈>	**In-1**	**115**		ug/L			9536	8901	1	KED
|	**Cd**	**111**	**49.689**	ug/L	0.304	0	0	6564	1	KED
⌊	**Cd**	**114**	**49.651**	ug/L	0.271	0	3	17821	1	KED
⌈>	**Tb**	**159**		ug/L			2149277	2214635	1	Standard
⌊	**Pb**	**208**	**49.801**	ug/L	0.539	1	689	5940799	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 12:44:29 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				50694	1	Standard
	Cl	**37**		ug/L				11447659	0	Standard
⌈>	**Sc**	**45**		ug/L				2143593	3	Standard
|	**Cr**	**52**		ug/L				32926	3	Standard
|	**Cr**	**53**		ug/L				180	11	Standard
⌊	**Mn**	**55**		ug/L				831	2	Standard
⌈>	**Ge-1**	**72**		ug/L				41842	1	KED
|	**Ni**	**60**		ug/L				10	39	KED
|	**Ni**	**62**		ug/L				3	69	KED
|	**Cu**	**63**		ug/L				23	18	KED
|	**Cu**	**65**		ug/L				8	65	KED
|	**Zn**	**66**		ug/L				28	13	KED
|	**Zn**	**67**		ug/L				5	0	KED
⌊	**As**	**75**		ug/L				2	20	KED
	Y	**89**		ug/L				892046	1	Standard
	Kr	**83**		ug/L				55	22	Standard
⌈>	**In-1**	**115**		ug/L				9431	3	KED
|	**Cd**	**111**		ug/L				1	69	KED
⌊	**Cd**	**114**		ug/L				2	114	KED
⌈>	**Tb**	**159**		ug/L				2225105	1	Standard
⌊	**Pb**	**208**		ug/L				1017	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 12:48:24

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50694	55421	1	Standard
	Cl	**37**		ug/L			11447659	11261615	1	Standard
⌈>	**Sc**	**45**		ug/L			2143593	2130638	1	Standard
|	**Cr**	**52**	**0.500**	ug/L	0.023	4	32926	51175	0	Standard
|	**Cr**	**53**	**0.500**	ug/L	0.018	3	180	2148	3	Standard
⌊	**Mn**	**55**	**0.500**	ug/L	0.007	1	831	23435	1	Standard
⌈>	**Ge-1**	**72**		ug/L			41842	41723	0	KED
|	**Ni**	**60**	**0.500**	ug/L	0.018	3	10	500	3	KED
|	**Ni**	**62**	**0.500**	ug/L	0.011	2	3	85	1	KED
|	**Cu**	**63**	**0.500**	ug/L	0.010	1	23	1325	2	KED
|	**Cu**	**65**	**0.500**	ug/L	0.015	2	8	646	3	KED
|	**Zn**	**66**	**4.000**	ug/L	0.173	4	28	1233	4	KED
|	**Zn**	**67**	**4.000**	ug/L	0.431	10	5	171	10	KED
⌊	**As**	**75**	**0.200**	ug/L	0.008	4	2	38	4	KED
	Y	**89**		ug/L			892046	891493	1	Standard
	Kr	**83**		ug/L			55	67	17	Standard
⌈>	**In-1**	**115**		ug/L			9431	9210	1	KED
|	**Cd**	**111**	**0.100**	ug/L	0.026	26	1	12	23	KED
⌊	**Cd**	**114**	**0.100**	ug/L	0.019	19	2	31	18	KED
⌈>	**Tb**	**159**		ug/L			2225105	2233085	2	Standard
⌊	**Pb**	**208**	**0.100**	ug/L	0.016	15	1017	14400	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 12:52:19

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50694	50763	1	Standard
	Cl	**37**		ug/L			11447659	11485645	2	Standard
⌈>	**Sc**	**45**		ug/L			2143593	2105392	0	Standard
|	**Cr**	**52**	**9.998**	ug/L	0.055	0	32926	375453	0	Standard
|	**Cr**	**53**	**10.000**	ug/L	0.084	0	180	39268	0	Standard
⌊	**Mn**	**55**	**10.000**	ug/L	0.075	0	831	446473	0	Standard
⌈>	**Ge-1**	**72**		ug/L			41842	40120	1	KED
|	**Ni**	**60**	**10.000**	ug/L	0.151	1	10	9411	1	KED
|	**Ni**	**62**	**9.997**	ug/L	0.512	5	3	1393	6	KED
|	**Cu**	**63**	**10.000**	ug/L	0.156	1	23	25203	1	KED
|	**Cu**	**65**	**10.000**	ug/L	0.128	1	8	12177	0	KED
|	**Zn**	**66**	**9.905**	ug/L	0.135	1	28	2734	0	KED
|	**Zn**	**67**	**10.131**	ug/L	0.534	5	5	445	5	KED
⌊	**As**	**75**	**10.000**	ug/L	0.117	1	2	1603	0	KED
	Y	**89**		ug/L			892046	872547	3	Standard
	Kr	**83**		ug/L			55	62	30	Standard
⌈>	**In-1**	**115**		ug/L			9431	9320	1	KED
|	**Cd**	**111**	**10.000**	ug/L	0.139	1	1	1336	2	KED
⌊	**Cd**	**114**	**10.000**	ug/L	0.124	1	2	3785	1	KED
⌈>	**Tb**	**159**		ug/L			2225105	2228550	0	Standard
⌊	**Pb**	**208**	**10.000**	ug/L	0.046	0	1017	1202387	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 12:56:27 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50694	51526	6	Standard
	Cl	**37**		ug/L			11447659	10924967	6	Standard
⌈>	**Sc**	**45**		ug/L			2143593	1927765	11	Standard
|	**Cr**	**52**	**20.293**	ug/L	1.393	6	32926	703352	6	Standard
|	**Cr**	**53**	**20.259**	ug/L	1.243	6	180	76274	6	Standard
⌊	**Mn**	**55**	**20.326**	ug/L	1.581	7	831	882494	5	Standard
⌈>	**Ge-1**	**72**		ug/L			41842	39220	0	KED
|	**Ni**	**60**	**20.077**	ug/L	0.190	0	10	18752	1	KED
|	**Ni**	**62**	**20.008**	ug/L	0.218	1	3	2727	1	KED
|	**Cu**	**63**	**19.966**	ug/L	0.497	2	23	48840	2	KED
|	**Cu**	**65**	**19.941**	ug/L	0.175	0	8	23457	0	KED
|	**Zn**	**66**	**20.132**	ug/L	0.438	2	28	5532	2	KED
|	**Zn**	**67**	**20.221**	ug/L	1.011	4	5	897	5	KED
⌊	**As**	**75**	**19.959**	ug/L	0.189	0	2	3101	1	KED
	Y	**89**		ug/L			892046	811931	9	Standard
	Kr	**83**		ug/L			55	74	18	Standard
⌈>	**In-1**	**115**		ug/L			9431	8967	1	KED
|	**Cd**	**111**	**20.273**	ug/L	0.724	3	1	2755	2	KED
⌊	**Cd**	**114**	**20.054**	ug/L	0.722	3	2	7378	2	KED
⌈>	**Tb**	**159**		ug/L			2225105	2053249	10	Standard
⌊	**Pb**	**208**	**20.299**	ug/L	1.606	7	1017	2377756	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 13:00:45

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50694	49434	1	Standard
	Cl	**37**		ug/L			11447659	11337119	2	Standard
⎡>	**Sc**	**45**		ug/L			2143593	2052637	0	Standard
⎢	**Cr**	**52**	**49.207**	ug/L	0.532	1	32926	1651683	1	Standard
⎢	**Cr**	**53**	**49.280**	ug/L	0.289	0	180	184933	0	Standard
⎣	**Mn**	**55**	**49.548**	ug/L	0.609	1	831	2203549	1	Standard
⎡>	**Ge-1**	**72**		ug/L			41842	39029	1	KED
⎢	**Ni**	**60**	**49.804**	ug/L	0.085	0	10	45388	1	KED
⎢	**Ni**	**62**	**49.957**	ug/L	1.487	2	3	6741	2	KED
⎢	**Cu**	**63**	**49.772**	ug/L	0.898	1	23	118421	2	KED
⎢	**Cu**	**65**	**49.720**	ug/L	1.760	3	8	56597	2	KED
⎢	**Zn**	**66**	**49.620**	ug/L	0.613	1	28	13051	2	KED
⎢	**Zn**	**67**	**50.246**	ug/L	2.086	4	5	2263	3	KED
⎣	**As**	**75**	**49.833**	ug/L	0.810	1	2	7576	2	KED
	Y	**89**		ug/L			892046	849720	0	Standard
	Kr	**83**		ug/L			55	74	15	Standard
⎡>	**In-1**	**115**		ug/L			9431	8913	2	KED
⎢	**Cd**	**111**	**49.580**	ug/L	1.267	2	1	6425	1	KED
⎣	**Cd**	**114**	**49.701**	ug/L	0.910	1	2	17646	1	KED
⎡>	**Tb**	**159**		ug/L			2225105	2201562	1	Standard
⎣	**Pb**	**208**	**49.328**	ug/L	0.203	0	1017	5836087	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 13:06:44
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				50669	0	Standard
	Cl	**37**		ug/L				11311799	0	Standard
⎡>	**Sc**	**45**		ug/L				2126832	2	Standard
⎢	**Cr**	**52**		ug/L				33180	1	Standard
⎢	**Cr**	**53**		ug/L				160	3	Standard
⎣	**Mn**	**55**		ug/L				722	5	Standard
⎡>	**Ge-1**	**72**		ug/L				40529	1	KED
⎢	**Ni**	**60**		ug/L				19	86	KED
⎢	**Ni**	**62**		ug/L				5	57	KED
⎢	**Cu**	**63**		ug/L				47	128	KED
⎢	**Cu**	**65**		ug/L				23	117	KED
⎢	**Zn**	**66**		ug/L				34	31	KED
⎢	**Zn**	**67**		ug/L				2	43	KED
⎣	**As**	**75**		ug/L				3	96	KED
	Y	**89**		ug/L				867590	1	Standard
	Kr	**83**		ug/L				66	32	Standard
⎡>	**In-1**	**115**		ug/L				9278	0	KED
⎢	**Cd**	**111**		ug/L				0	100	KED
⎣	**Cd**	**114**		ug/L				0	207	KED
⎡>	**Tb**	**159**		ug/L				2192253	1	Standard
⎣	**Pb**	**208**		ug/L				769	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 13:10:39
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	53439	0	Standard
	Cl	**37**		ug/L			11311799	11179057	0	Standard
⌈>	**Sc**	**45**		ug/L			2126832	2076412	1	Standard
|	**Cr**	**52**	**0.500**	ug/L	0.038	7	33180	49226	1	Standard
|	**Cr**	**53**	**0.500**	ug/L	0.025	5	160	2127	3	Standard
⌊	**Mn**	**55**	**0.500**	ug/L	0.025	5	722	23402	3	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	39966	2	KED
|	**Ni**	**60**	**0.500**	ug/L	0.036	7	19	521	5	KED
|	**Ni**	**62**	**0.500**	ug/L	0.055	11	5	75	8	KED
|	**Cu**	**63**	**0.500**	ug/L	0.013	2	47	1296	3	KED
|	**Cu**	**65**	**0.500**	ug/L	0.025	4	23	622	5	KED
|	**Zn**	**66**	**4.000**	ug/L	0.137	3	34	1278	4	KED
|	**Zn**	**67**	**4.000**	ug/L	0.604	15	2	198	14	KED
⌊	**As**	**75**	**0.200**	ug/L	0.025	12	3	36	10	KED
	Y	**89**		ug/L			867590	858745	3	Standard
	Kr	**83**		ug/L			66	67	18	Standard
⌈>	**In-1**	**115**		ug/L			9278	9042	1	KED
|	**Cd**	**111**	**0.100**	ug/L	0.017	16	0	16	15	KED
⌊	**Cd**	**114**	**0.100**	ug/L	0.030	29	0	34	29	KED
⌈>	**Tb**	**159**		ug/L			2192253	2219446	0	Standard
⌊	**Pb**	**208**	**0.100**	ug/L	0.001	0	769	13576	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 13:14:33
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	51788	0	Standard
	Cl	**37**		ug/L			11311799	11297327	0	Standard
⌈>	**Sc**	**45**		ug/L			2126832	2049318	2	Standard
|	**Cr**	**52**	**10.000**	ug/L	0.168	1	33180	367986	0	Standard
|	**Cr**	**53**	**9.999**	ug/L	0.375	3	160	38212	1	Standard
⌊	**Mn**	**55**	**9.999**	ug/L	0.170	1	722	436929	0	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	39986	0	KED
|	**Ni**	**60**	**9.998**	ug/L	0.109	1	19	9337	1	KED
|	**Ni**	**62**	**10.000**	ug/L	0.355	3	5	1398	3	KED
|	**Cu**	**63**	**10.000**	ug/L	0.092	0	47	24662	1	KED
|	**Cu**	**65**	**10.000**	ug/L	0.222	2	23	11834	2	KED
|	**Zn**	**66**	**9.829**	ug/L	0.107	1	34	2796	1	KED
|	**Zn**	**67**	**9.860**	ug/L	0.324	3	2	447	2	KED
⌊	**As**	**75**	**10.000**	ug/L	0.023	0	3	1553	0	KED
	Y	**89**		ug/L			867590	858520	0	Standard
	Kr	**83**		ug/L			66	73	29	Standard
⌈>	**In-1**	**115**		ug/L			9278	9100	2	KED
|	**Cd**	**111**	**10.000**	ug/L	0.546	5	0	1294	4	KED
⌊	**Cd**	**114**	**10.000**	ug/L	0.248	2	0	3658	0	KED
⌈>	**Tb**	**159**		ug/L			2192253	2215180	0	Standard
⌊	**Pb**	**208**	**10.000**	ug/L	0.019	0	769	1185603	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 13:18:42
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	50973	1	Standard
	Cl	**37**		ug/L			11311799	11268851	2	Standard
⌈>	**Sc**	**45**		ug/L			2126832	2053778	1	Standard
|	**Cr**	**52**	**19.993**	ug/L	0.365	1	33180	704380	0	Standard
|	**Cr**	**53**	**19.982**	ug/L	0.359	1	160	76143	2	Standard
⌊	**Mn**	**55**	**20.109**	ug/L	0.357	1	722	899554	0	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	39261	0	KED
|	**Ni**	**60**	**20.095**	ug/L	0.307	1	19	18762	1	KED
|	**Ni**	**62**	**20.094**	ug/L	0.136	0	5	2807	0	KED
|	**Cu**	**63**	**20.060**	ug/L	0.187	0	47	49114	0	KED
|	**Cu**	**65**	**20.042**	ug/L	0.311	1	23	23461	0	KED
|	**Zn**	**66**	**20.019**	ug/L	0.492	2	34	5576	3	KED
|	**Zn**	**67**	**20.203**	ug/L	0.751	3	2	930	4	KED
⌊	**As**	**75**	**20.127**	ug/L	0.436	2	3	3146	2	KED
	Y	**89**		ug/L			867590	861423	2	Standard
	Kr	**83**		ug/L			66	91	11	Standard
⌈>	**In-1**	**115**		ug/L			9278	9126	0	KED
|	**Cd**	**111**	**20.117**	ug/L	0.311	1	0	2674	1	KED
⌊	**Cd**	**114**	**19.911**	ug/L	0.269	1	0	7180	1	KED
⌈>	**Tb**	**159**		ug/L			2192253	2195514	2	Standard
⌊	**Pb**	**208**	**20.041**	ug/L	0.216	1	769	2373168	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 13:23:00
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	49769	1	Standard
	Cl	**37**		ug/L			11311799	11343861	1	Standard
⌈>	**Sc**	**45**		ug/L			2126832	2051738	2	Standard
|	**Cr**	**52**	**49.686**	ug/L	0.803	1	33180	1651098	3	Standard
|	**Cr**	**53**	**49.849**	ug/L	0.870	1	160	186705	2	Standard
⌊	**Mn**	**55**	**49.661**	ug/L	1.241	2	722	2145196	0	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	38759	2	KED
|	**Ni**	**60**	**49.752**	ug/L	0.959	1	19	44707	1	KED
|	**Ni**	**62**	**49.873**	ug/L	1.338	2	5	6783	1	KED
|	**Cu**	**63**	**49.775**	ug/L	1.304	2	47	117579	2	KED
|	**Cu**	**65**	**49.835**	ug/L	1.449	2	23	56602	1	KED
|	**Zn**	**66**	**49.799**	ug/L	0.584	1	34	13383	3	KED
|	**Zn**	**67**	**49.723**	ug/L	1.821	3	2	2197	2	KED
⌊	**As**	**75**	**49.854**	ug/L	1.276	2	3	7574	1	KED
	Y	**89**		ug/L			867590	862398	3	Standard
	Kr	**83**		ug/L			66	71	15	Standard
⌈>	**In-1**	**115**		ug/L			9278	8519	8	KED
|	**Cd**	**111**	**49.892**	ug/L	1.746	3	0	6114	5	KED
⌊	**Cd**	**114**	**50.017**	ug/L	2.450	4	0	16819	3	KED
⌈>	**Tb**	**159**		ug/L			2192253	2219255	0	Standard
⌊	**Pb**	**208**	**49.770**	ug/L	0.551	1	769	5822878	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL6
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 13:28:58
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	49265	2	Standard
	Cl	**37**		ug/L			11311799	11151646	1	Standard
⎡>	**Sc**	**45**		ug/L			2126832	1949378	1	Standard
⎢	**Cr**	**52**	**100.020**	ug/L	0.804	0	33180	3128170	0	Standard
⎢	**Cr**	**53**	**99.201**	ug/L	1.812	1	160	343748	2	Standard
⎣	**Mn**	**55**	**99.481**	ug/L	0.354	0	722	4014413	1	Standard
⎡>	**Ge-1**	**72**		ug/L			40529	36753	3	KED
⎢	**Ni**	**60**	**99.314**	ug/L	2.243	2	19	82713	1	KED
⎢	**Ni**	**62**	**99.347**	ug/L	2.206	2	5	12536	1	KED
⎢	**Cu**	**63**	**99.178**	ug/L	3.416	3	47	216092	0	KED
⎢	**Cu**	**65**	**99.208**	ug/L	1.080	1	23	104110	2	KED
⎢	**Zn**	**66**	**98.674**	ug/L	1.425	1	34	24051	1	KED
⎢	**Zn**	**67**	**98.787**	ug/L	0.692	0	2	3979	2	KED
⎣	**As**	**75**	**99.588**	ug/L	2.244	2	3	14150	0	KED
	Y	**89**		ug/L			867590	796965	2	Standard
	Kr	**83**		ug/L			66	79	3	Standard
⎡>	**In-1**	**115**		ug/L			9278	8442	0	KED
⎢	**Cd**	**111**	**99.186**	ug/L	1.441	1	0	11747	1	KED
⎣	**Cd**	**114**	**99.510**	ug/L	0.907	0	0	32715	1	KED
⎡>	**Tb**	**159**		ug/L			2192253	2169948	0	Standard
⎣	**Pb**	**208**	**98.801**	ug/L	0.538	0	769	10867133	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 13:35:37
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	49506	3	Standard
	Cl	**37**		ug/L			11311799	11007277	3	Standard
⌈>	**Sc**	**45**		ug/L			2126832	2020879	2	Standard
|	**Cr**	**52**	**0.023**	ug/L	0.070	304	33180	32231	4	Standard
|	**Cr**	**53**	**0.002**	ug/L	0.001	58	160	158	3	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.001	107	722	715	2	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	40026	1	KED
|	**Ni**	**60**	**-0.007**	ug/L	0.003	38	19	12	17	KED
|	**Ni**	**62**	**-0.032**	ug/L	0.008	25	5	0	173	KED
|	**Cu**	**63**	**-0.011**	ug/L	0.004	33	47	20	39	KED
|	**Cu**	**65**	**-0.008**	ug/L	0.001	15	23	14	7	KED
|	**Zn**	**66**	**-0.039**	ug/L	0.013	33	34	24	16	KED
|	**Zn**	**67**	**0.001**	ug/L	0.051	3751	2	2	86	KED
⌊	**As**	**75**	**-0.012**	ug/L	0.004	36	3	2	35	KED
	Y	**89**		ug/L			867590	817338	1	Standard
	Kr	**83**		ug/L			66	65	6	Standard
⌈>	**In-1**	**115**		ug/L			9278	9075	2	KED
|	**Cd**	**111**	**0.015**	ug/L	0.008	52	0	2	33	KED
⌊	**Cd**	**114**	**0.007**	ug/L	0.009	115	0	3	95	KED
⌈>	**Tb**	**159**		ug/L			2192253	2163418	0	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	14	769	909	2	Standard

Sample Information

Sample Date/Time: Tuesday, June 19, 2018 13:28:58
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2
Mass Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

Calibration

Analyte	Mass	**r Corr Coef**	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Sc	45							
Cr	52	**1.0000**	0.016	0.50	10	20	50	100
Cr	53	**0.9999**	0.002	0.50	10	20	50	100
Mn	55	**0.9999**	0.021	0.50	10	20	50	100
Ge-1	72							
Ni	60	**0.9999**	0.023	0.50	10	20	50	100
Ni	62	**0.9999**	0.003	0.50	10	20	50	100
Cu	63	**0.9999**	0.059	0.50	10	20	50	100
Cu	65	**0.9999**	0.029	0.50	10	20	50	100
Zn	66	**0.9997**	0.007	4.00	10	20	50	100
Zn	67	**0.9997**	0.001	4.00	10	20	50	100
As	75	**1.0000**	0.004	0.20	10	20	50	100
Y	89							
Kr	83							
In-1	115							
Cd	111	**0.9999**	0.014	0.10	10	20	50	100
Cd	114	**1.0000**	0.039	0.10	10	20	50	100
Tb	159							
Pb	208	**0.9997**	0.051	0.10	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICV1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 13:43:45
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	49703	1	Standard
	Cl	**37**		ug/L			11311799	11542753	1	Standard
⌈>	**Sc**	**45**		ug/L			2126832	2019051	1	Standard
|	**Cr**	**52**	**50.576**	ug/L	1.262	2	33180	1653792	1	Standard
|	**Cr**	**53**	**51.016**	ug/L	2.025	3	160	183109	2	Standard
⌊	**Mn**	**55**	**51.041**	ug/L	0.705	1	722	2133793	2	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	38763	2	KED
|	**Ni**	**60**	**50.471**	ug/L	2.054	4	19	44339	2	KED
|	**Ni**	**62**	**49.807**	ug/L	1.538	3	5	6634	4	KED
|	**Cu**	**63**	**49.454**	ug/L	0.906	1	47	113725	1	KED
|	**Cu**	**65**	**50.344**	ug/L	1.333	2	23	55723	1	KED
|	**Zn**	**66**	**48.965**	ug/L	1.658	3	34	12601	1	KED
|	**Zn**	**67**	**48.925**	ug/L	2.089	4	2	2078	2	KED
⌊	**As**	**75**	**49.493**	ug/L	0.535	1	3	7421	1	KED
	Y	**89**		ug/L			867590	827683	2	Standard
	Kr	**83**		ug/L			66	81	18	Standard
⌈>	**In-1**	**115**		ug/L			9278	8897	1	KED
|	**Cd**	**111**	**50.141**	ug/L	1.416	2	0	6257	1	KED
⌊	**Cd**	**114**	**48.763**	ug/L	1.393	2	0	16893	2	KED
⌈>	**Tb**	**159**		ug/L			2192253	2208757	1	Standard
⌊	**Pb**	**208**	**50.056**	ug/L	0.543	1	769	5603896	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICB1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 13:49:11
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	49549	2	Standard
	Cl	**37**		ug/L			11311799	11287441	2	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1986897	2	Standard
|	**Cr**	**52**	**0.018**	ug/L	0.014	81	33180	31552	1	Standard
|	**Cr**	**53**	**0.005**	ug/L	0.001	24	160	167	2	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.001	62	722	720	2	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	40133	0	KED
|	**Ni**	**60**	**-0.009**	ug/L	0.001	14	19	10	10	KED
|	**Ni**	**62**	**-0.027**	ug/L	0.008	29	5	1	86	KED
|	**Cu**	**63**	**-0.008**	ug/L	0.003	36	47	27	23	KED
|	**Cu**	**65**	**-0.007**	ug/L	0.002	23	23	15	12	KED
|	**Zn**	**66**	**-0.027**	ug/L	0.009	31	34	27	8	KED
|	**Zn**	**67**	**0.073**	ug/L	0.075	103	2	5	57	KED
⌊	**As**	**75**	**-0.009**	ug/L	0.012	136	3	2	75	KED
	Y	**89**		ug/L			867590	824474	1	Standard
	Kr	**83**		ug/L			66	59	6	Standard
⌈>	**In-1**	**115**		ug/L			9278	8932	1	KED
|	**Cd**	**111**	**0.005**	ug/L	0.016	298	0	1	124	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.003	152	0	1	86	KED
⌈>	**Tb**	**159**		ug/L			2192253	2154703	0	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.000	32	769	789	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 13:54:07
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	48072	1	Standard
	Cl	**37**		ug/L			11311799	11250547	1	Standard
⎡>	**Sc**	**45**		ug/L			2126832	1985237	2	Standard
⎢	**Cr**	**52**	**51.276**	ug/L	1.175	2	33180	1647689	0	Standard
⎢	**Cr**	**53**	**51.536**	ug/L	1.926	3	160	181830	2	Standard
⎣	**Mn**	**55**	**50.618**	ug/L	1.146	2	722	2079560	0	Standard
⎡>	**Ge-1**	**72**		ug/L			40529	37932	1	KED
⎢	**Ni**	**60**	**52.169**	ug/L	0.651	1	19	44867	1	KED
⎢	**Ni**	**62**	**51.101**	ug/L	1.233	2	5	6660	2	KED
⎢	**Cu**	**63**	**51.919**	ug/L	0.374	0	47	116860	1	KED
⎢	**Cu**	**65**	**51.394**	ug/L	0.667	1	23	55687	1	KED
⎢	**Zn**	**66**	**52.144**	ug/L	0.719	1	34	13138	2	KED
⎢	**Zn**	**67**	**53.694**	ug/L	1.605	2	2	2233	3	KED
⎣	**As**	**75**	**50.984**	ug/L	0.865	1	3	7480	0	KED
	Y	**89**		ug/L			867590	810119	2	Standard
	Kr	**83**		ug/L			66	69	8	Standard
⎡>	**In-1**	**115**		ug/L			9278	8590	0	KED
⎢	**Cd**	**111**	**52.028**	ug/L	0.357	0	0	6270	0	KED
⎣	**Cd**	**114**	**51.200**	ug/L	0.541	1	0	17127	1	KED
⎡>	**Tb**	**159**		ug/L			2192253	2161522	2	Standard
⎣	**Pb**	**208**	**52.047**	ug/L	0.875	1	769	5701530	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 13:58:25
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	47840	1	Standard
	Cl	**37**		ug/L			11311799	10909014	1	Standard
⎡>	**Sc**	**45**		ug/L			2126832	1949022	0	Standard
⎢	**Cr**	**52**	**0.022**	ug/L	0.009	40	33180	31076	0	Standard
⎢	**Cr**	**53**	**0.001**	ug/L	0.006	636	160	149	13	Standard
⎣	**Mn**	**55**	**0.000**	ug/L	0.001	1339	722	664	3	Standard
⎡>	**Ge-1**	**72**		ug/L			40529	39570	4	KED
⎢	**Ni**	**60**	**-0.012**	ug/L	0.005	45	19	8	58	KED
⎢	**Ni**	**62**	**-0.018**	ug/L	0.007	40	5	2	43	KED
⎢	**Cu**	**63**	**-0.009**	ug/L	0.004	45	47	24	35	KED
⎢	**Cu**	**65**	**-0.013**	ug/L	0.005	41	23	8	74	KED
⎢	**Zn**	**66**	**-0.031**	ug/L	0.008	26	34	26	4	KED
⎢	**Zn**	**67**	**0.089**	ug/L	0.101	113	2	6	69	KED
⎣	**As**	**75**	**-0.009**	ug/L	0.001	14	3	2	10	KED
	Y	**89**		ug/L			867590	793412	2	Standard
	Kr	**83**		ug/L			66	64	25	Standard
⎡>	**In-1**	**115**		ug/L			9278	8702	0	KED
⎢	**Cd**	**111**	**0.055**	ug/L	0.001	1	0	7	0	KED
⎣	**Cd**	**114**	**0.008**	ug/L	0.003	44	0	3	37	KED
⎡>	**Tb**	**159**		ug/L			2192253	2115979	0	Standard
⎣	**Pb**	**208**	**0.001**	ug/L	0.001	64	769	840	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CRL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 14:02:20
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	52738	3	Standard
	Cl	**37**		ug/L			11311799	11171730	1	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1971285	1	Standard
|	**Cr**	**52**	**0.542**	ug/L	0.030	5	33180	47718	1	Standard
|	**Cr**	**53**	**0.526**	ug/L	0.003	0	160	1989	1	Standard
⌊	**Mn**	**55**	**0.498**	ug/L	0.016	3	722	20987	2	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	39039	2	KED
|	**Ni**	**60**	**0.469**	ug/L	0.032	6	19	433	4	KED
|	**Ni**	**62**	**0.470**	ug/L	0.017	3	5	67	3	KED
|	**Cu**	**63**	**0.495**	ug/L	0.023	4	47	1191	2	KED
|	**Cu**	**65**	**0.524**	ug/L	0.031	5	23	606	4	KED
|	**Zn**	**66**	**4.138**	ug/L	0.079	1	34	1103	0	KED
|	**Zn**	**67**	**4.061**	ug/L	0.395	9	2	175	7	KED
⌊	**As**	**75**	**0.184**	ug/L	0.037	20	3	31	17	KED
	Y	**89**		ug/L			867590	794274	2	Standard
	Kr	**83**		ug/L			66	65	8	Standard
⌈>	**In-1**	**115**		ug/L			9278	8690	1	KED
|	**Cd**	**111**	**0.086**	ug/L	0.007	8	0	11	8	KED
⌊	**Cd**	**114**	**0.128**	ug/L	0.025	19	0	43	19	KED
⌈>	**Tb**	**159**		ug/L			2192253	2126781	0	Standard
⌊	**Pb**	**208**	**0.101**	ug/L	0.001	0	769	11687	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFA1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 14:06:34
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	268643	2	Standard
	Cl	**37**		ug/L			11311799	24828962	3	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1918080	3	Standard
|	**Cr**	**52**	**0.758**	ug/L	0.034	4	33180	53010	1	Standard
|	**Cr**	**53**	**6.049**	ug/L	0.022	0	160	20757	3	Standard
⌊	**Mn**	**55**	**0.076**	ug/L	0.005	6	722	3679	3	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	33574	1	KED
|	**Ni**	**60**	**0.063**	ug/L	0.015	24	19	64	18	KED
|	**Ni**	**62**	**0.123**	ug/L	0.036	29	5	18	21	KED
|	**Cu**	**63**	**0.057**	ug/L	0.005	9	47	153	6	KED
|	**Cu**	**65**	**0.053**	ug/L	0.008	14	23	70	9	KED
|	**Zn**	**66**	**1.341**	ug/L	0.083	6	34	326	4	KED
|	**Zn**	**67**	**0.944**	ug/L	0.400	42	2	36	40	KED
⌊	**As**	**75**	**0.037**	ug/L	0.016	42	3	8	25	KED
	Y	**89**		ug/L			867590	928361	1	Standard
	Kr	**83**		ug/L			66	107	22	Standard
⌈>	**In-1**	**115**		ug/L			9278	7723	1	KED
|	**Cd**	**111**	**0.069**	ug/L	0.006	8	0	8	6	KED
⌊	**Cd**	**114**	**0.046**	ug/L	0.017	37	0	14	34	KED
⌈>	**Tb**	**159**		ug/L			2192253	2173690	0	Standard
⌊	**Pb**	**208**	**0.053**	ug/L	0.002	2	769	6553	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFB1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 14:10:29
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	268154	1	Standard
	Cl	**37**		ug/L			11311799	25316488	1	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1871115	7	Standard
|	**Cr**	**52**	**20.906**	ug/L	1.997	9	33180	647645	1	Standard
|	**Cr**	**53**	**26.638**	ug/L	2.826	10	160	88208	2	Standard
⌊	**Mn**	**55**	**20.289**	ug/L	1.772	8	722	782742	0	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	33594	1	KED
|	**Ni**	**60**	**20.178**	ug/L	0.470	2	19	15377	1	KED
|	**Ni**	**62**	**19.584**	ug/L	0.704	3	5	2262	2	KED
|	**Cu**	**63**	**19.527**	ug/L	0.408	2	47	38941	1	KED
|	**Cu**	**65**	**19.714**	ug/L	0.160	0	23	18930	2	KED
|	**Zn**	**66**	**19.849**	ug/L	0.377	1	34	4445	0	KED
|	**Zn**	**67**	**18.975**	ug/L	1.376	7	2	700	8	KED
⌊	**As**	**75**	**18.973**	ug/L	0.237	1	3	2467	0	KED
	Y	**89**		ug/L			867590	910007	3	Standard
	Kr	**83**		ug/L			66	120	10	Standard
⌈>	**In-1**	**115**		ug/L			9278	7829	2	KED
|	**Cd**	**111**	**19.477**	ug/L	0.819	4	0	2138	1	KED
⌊	**Cd**	**114**	**19.222**	ug/L	0.587	3	0	5857	0	KED
⌈>	**Tb**	**159**		ug/L			2192253	2106132	6	Standard
⌊	**Pb**	**208**	**0.069**	ug/L	0.004	5	769	8107	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 14:17:13
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	56478	0	Standard
	Cl	**37**		ug/L			11311799	10944349	4	Standard
⎡>	**Sc**	**45**		ug/L			2126832	1745953	1	Standard
⎢	**Cr**	**52**	**196.656**	ug/L	2.436	1	33180	5482825	2	Standard
⎢	**Cr**	**53**	**202.638**	ug/L	2.301	1	160	628810	2	Standard
⎣	**Mn**	**55**	**195.413**	ug/L	3.735	1	722	7061186	1	Standard
⎡>	**Ge-1**	**72**		ug/L			40529	33076	0	KED
⎢	**Ni**	**60**	**204.104**	ug/L	0.977	0	19	153027	0	KED
⎢	**Ni**	**62**	**200.898**	ug/L	4.910	2	5	22820	2	KED
⎢	**Cu**	**63**	**200.372**	ug/L	1.733	0	47	393122	0	KED
⎢	**Cu**	**65**	**199.151**	ug/L	1.739	0	23	188101	1	KED
⎢	**Zn**	**66**	**195.412**	ug/L	1.653	0	34	42848	0	KED
⎢	**Zn**	**67**	**193.186**	ug/L	1.627	0	2	7002	1	KED
⎣	**As**	**75**	**200.841**	ug/L	1.485	0	3	25691	1	KED
	Y	**89**		ug/L			867590	762007	3	Standard
	Kr	**83**		ug/L			66	122	6	Standard
⎡>	**In-1**	**115**		ug/L			9278	7357	1	KED
⎢	**Cd**	**111**	**203.384**	ug/L	4.622	2	0	20990	2	KED
⎣	**Cd**	**114**	**202.962**	ug/L	3.492	1	0	58140	1	KED
⎡>	**Tb**	**159**		ug/L			2192253	2119891	1	Standard
⎣	**Pb**	**208**	**197.189**	ug/L	2.403	1	769	21186577	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 14:21:07
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	57149	1	Standard
	Cl	**37**		ug/L			11311799	10652416	2	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1658034	1	Standard
|	**Cr**	**52**	**295.813**	ug/L	3.570	1	33180	7818091	0	Standard
|	**Cr**	**53**	**303.573**	ug/L	4.562	1	160	894335	1	Standard
⌊	**Mn**	**55**	**294.114**	ug/L	10.595	3	722	10090100	2	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	30174	0	KED
|	**Ni**	**60**	**299.566**	ug/L	2.544	0	19	204884	0	KED
|	**Ni**	**62**	**296.601**	ug/L	2.855	0	5	30733	0	KED
|	**Cu**	**63**	**288.371**	ug/L	1.112	0	47	516122	0	KED
|	**Cu**	**65**	**288.933**	ug/L	1.930	0	23	248954	1	KED
|	**Zn**	**66**	**284.060**	ug/L	0.946	0	34	56811	0	KED
|	**Zn**	**67**	**279.263**	ug/L	8.256	2	2	9235	3	KED
⌊	**As**	**75**	**295.368**	ug/L	1.384	0	3	34464	0	KED
	Y	**89**		ug/L			867590	713305	0	Standard
	Kr	**83**		ug/L			66	132	18	Standard
⌈>	**In-1**	**115**		ug/L			9278	6714	2	KED
|	**Cd**	**111**	**293.283**	ug/L	11.777	4	0	27606	1	KED
⌊	**Cd**	**114**	**288.363**	ug/L	10.498	3	0	75352	1	KED
⌈>	**Tb**	**159**		ug/L			2192253	2124327	1	Standard
⌊	**Pb**	**208**	**279.396**	ug/L	2.848	1	769	30081622	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 14:29:57
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	51083	2	Standard
	Cl	**37**		ug/L			11311799	10788951	0	Standard
⎡>	**Sc**	**45**		ug/L			2126832	1851905	2	Standard
⎢	**Cr**	**52**	**0.025**	ug/L	0.033	131	33180	29616	2	Standard
⎢	**Cr**	**53**	**0.053**	ug/L	0.002	3	160	312	0	Standard
⎣	**Mn**	**55**	**0.005**	ug/L	0.001	26	722	838	4	Standard
⎡>	**Ge-1**	**72**		ug/L			40529	37294	1	KED
⎢	**Ni**	**60**	**0.001**	ug/L	0.004	332	19	18	15	KED
⎢	**Ni**	**62**	**-0.027**	ug/L	0.009	32	5	1	86	KED
⎢	**Cu**	**63**	**0.017**	ug/L	0.001	5	47	81	2	KED
⎢	**Cu**	**65**	**0.020**	ug/L	0.006	31	23	43	16	KED
⎢	**Zn**	**66**	**0.199**	ug/L	0.050	25	34	81	15	KED
⎢	**Zn**	**67**	**0.191**	ug/L	0.051	26	2	10	21	KED
⎣	**As**	**75**	**0.010**	ug/L	0.012	124	3	5	35	KED
	Y	**89**		ug/L			867590	754509	1	Standard
	Kr	**83**		ug/L			66	63	14	Standard
⎡>	**In-1**	**115**		ug/L			9278	8148	1	KED
⎢	**Cd**	**111**	**0.023**	ug/L	0.013	56	0	3	41	KED
⎣	**Cd**	**114**	**0.014**	ug/L	0.009	61	0	5	56	KED
⎡>	**Tb**	**159**		ug/L			2192253	2113213	2	Standard
⎣	**Pb**	**208**	**0.011**	ug/L	0.001	6	769	1939	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 14:35:46
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	50245	1	Standard
	Cl	**37**		ug/L			11311799	10610052	2	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1817043	0	Standard
|	**Cr**	**52**	**0.039**	ug/L	0.024	62	33180	29479	2	Standard
|	**Cr**	**53**	**0.033**	ug/L	0.003	8	160	242	4	Standard
⌊	**Mn**	**55**	**0.008**	ug/L	0.002	26	722	926	9	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	37776	1	KED
|	**Ni**	**60**	**-0.009**	ug/L	0.004	50	19	10	39	KED
|	**Ni**	**62**	**-0.012**	ug/L	0.023	187	5	3	91	KED
|	**Cu**	**63**	**0.013**	ug/L	0.003	21	47	73	7	KED
|	**Cu**	**65**	**0.006**	ug/L	0.004	57	23	28	13	KED
|	**Zn**	**66**	**0.202**	ug/L	0.020	10	34	83	4	KED
|	**Zn**	**67**	**0.189**	ug/L	0.074	38	2	10	28	KED
⌊	**As**	**75**	**-0.004**	ug/L	0.012	317	3	3	56	KED
	Y	**89**		ug/L			867590	741379	2	Standard
	Kr	**83**		ug/L			66	68	20	Standard
⌈>	**In-1**	**115**		ug/L			9278	8225	0	KED
|	**Cd**	**111**	**0.004**	ug/L	0.012	344	0	1	114	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.003	148	0	1	86	KED
⌈>	**Tb**	**159**		ug/L			2192253	2097183	0	Standard
⌊	**Pb**	**208**	**0.013**	ug/L	0.004	29	769	2074	18	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 14:41:35
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	48136	1	Standard
	Cl	**37**		ug/L			11311799	11097812	2	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1856749	0	Standard
|	**Cr**	**52**	**50.582**	ug/L	1.235	2	33180	1521348	3	Standard
|	**Cr**	**53**	**50.320**	ug/L	0.456	0	160	166152	1	Standard
⌊	**Mn**	**55**	**50.060**	ug/L	0.144	0	722	1924357	0	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	35728	2	KED
|	**Ni**	**60**	**51.372**	ug/L	0.586	1	19	41614	2	KED
|	**Ni**	**62**	**51.294**	ug/L	2.121	4	5	6293	2	KED
|	**Cu**	**63**	**50.761**	ug/L	2.013	3	47	107537	1	KED
|	**Cu**	**65**	**51.649**	ug/L	1.239	2	23	52689	1	KED
|	**Zn**	**66**	**53.878**	ug/L	1.366	2	34	12778	0	KED
|	**Zn**	**67**	**52.933**	ug/L	2.471	4	2	2072	2	KED
⌊	**As**	**75**	**51.108**	ug/L	0.241	0	3	7063	2	KED
	Y	**89**		ug/L			867590	766139	1	Standard
	Kr	**83**		ug/L			66	71	12	Standard
⌈>	**In-1**	**115**		ug/L			9278	7912	3	KED
|	**Cd**	**111**	**53.001**	ug/L	1.928	3	0	5878	1	KED
⌊	**Cd**	**114**	**52.113**	ug/L	0.854	1	0	16052	1	KED
⌈>	**Tb**	**159**		ug/L			2192253	2130637	1	Standard
⌊	**Pb**	**208**	**52.406**	ug/L	0.619	1	769	5659640	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 14:46:34
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	48956	1	Standard
	Cl	**37**		ug/L			11311799	10925837	1	Standard
⎡>	**Sc**	**45**		ug/L			2126832	1844650	2	Standard
⎢	**Cr**	**52**	**-0.014**	ug/L	0.025	176	33180	28344	1	Standard
⎢	**Cr**	**53**	**0.017**	ug/L	0.004	22	160	194	6	Standard
⎣	**Mn**	**55**	**0.000**	ug/L	0.001	119	722	643	4	Standard
⎡>	**Ge-1**	**72**		ug/L			40529	36610	0	KED
⎢	**Ni**	**60**	**-0.005**	ug/L	0.004	66	19	12	22	KED
⎢	**Ni**	**62**	**-0.016**	ug/L	0.023	144	5	2	114	KED
⎢	**Cu**	**63**	**-0.009**	ug/L	0.007	72	47	22	62	KED
⎢	**Cu**	**65**	**-0.006**	ug/L	0.004	65	23	14	30	KED
⎢	**Zn**	**66**	**-0.007**	ug/L	0.012	165	34	29	9	KED
⎢	**Zn**	**67**	**0.022**	ug/L	0.100	442	2	3	124	KED
⎣	**As**	**75**	**-0.003**	ug/L	0.008	279	3	3	34	KED
	Y	**89**		ug/L			867590	752347	0	Standard
	Kr	**83**		ug/L			66	55	14	Standard
⎡>	**In-1**	**115**		ug/L			9278	8064	1	KED
⎢	**Cd**	**111**	**0.004**	ug/L	0.005	121	0	1	43	KED
⎣	**Cd**	**114**	**0.003**	ug/L	0.007	280	0	1	176	KED
⎡>	**Tb**	**159**		ug/L			2192253	2083608	0	Standard
⎣	**Pb**	**208**	**0.002**	ug/L	0.001	34	769	923	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0435-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 14:56:25
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			50669	61792	2	Standard
	Cl	37		ug/L			11311799	10465475	1	Standard
⌈>	Sc	45		ug/L			2126832	1775722	1	Standard
|	Cr	52	0.024	ug/L	0.020	82	33180	28388	1	Standard
|	Cr	53	0.033	ug/L	0.007	22	160	237	8	Standard
⌊	Mn	55	0.391	ug/L	0.005	1	722	14955	1	Standard
⌈>	Ge-1	72		ug/L			40529	37131	1	KED
|	Ni	60	0.012	ug/L	0.004	36	19	27	14	KED
|	Ni	62	0.013	ug/L	0.023	171	5	6	45	KED
|	Cu	63	0.052	ug/L	0.013	24	47	158	18	KED
|	Cu	65	0.047	ug/L	0.010	21	23	71	14	KED
|	Zn	66	0.332	ug/L	0.043	12	34	113	7	KED
|	Zn	67	0.350	ug/L	0.170	48	2	16	40	KED
⌊	As	75	-0.001	ug/L	0.012	1098	3	3	47	KED
	Y	89		ug/L			867590	719554	3	Standard
	Kr	83		ug/L			66	62	12	Standard
⌈>	In-1	115		ug/L			9278	8048	1	KED
|	Cd	111	0.007	ug/L	0.005	70	0	1	34	KED
⌊	Cd	114	0.000	ug/L	0.003	2920	0	0	173	KED
⌈>	Tb	159		ug/L			2192253	2003737	2	Standard
⌊	Pb	208	0.000	ug/L	0.001	3839	769	704	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0263-01
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 19, 2018 15:00:19
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			50669	416206	1	Standard
	Cl	37		ug/L			11311799	10601855	1	Standard
>	Sc	45		ug/L			2126832	1755792	2	Standard
	Cr	52	144.109	ug/L	7.749	5	33180	4043760	2	Standard
	Cr	53	145.731	ug/L	5.873	4	160	454415	1	Standard
	Mn	55	28.007	ug/L	0.655	2	722	1017939	0	Standard
>	Ge-1	72		ug/L			40529	34216	0	KED
	Ni	60	3.680	ug/L	0.050	1	19	2869	0	KED
	Ni	62	3.656	ug/L	0.213	5	5	433	4	KED
	Cu	63	4.103	ug/L	0.108	2	47	8367	2	KED
	Cu	65	4.091	ug/L	0.087	2	23	4016	1	KED
	Zn	66	157.330	ug/L	3.940	2	34	35687	1	KED
	Zn	67	148.966	ug/L	0.600	0	2	5586	1	KED
	As	75	0.102	ug/L	0.018	17	3	16	13	KED
	Y	89		ug/L			867590	760382	1	Standard
	Kr	83		ug/L			66	70	11	Standard
>	In-1	115		ug/L			9278	7340	1	KED
	Cd	111	0.943	ug/L	0.144	15	0	97	14	KED
	Cd	114	0.886	ug/L	0.057	6	0	253	5	KED
>	Tb	159		ug/L			2192253	1972155	1	Standard
	Pb	208	0.211	ug/L	0.003	1	769	21733	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0261-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 15:04:13
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			50669	118052	1	Standard
	Cl	37		ug/L			11311799	10448171	3	Standard
⌈>	Sc	45		ug/L			2126832	1573359	2	Standard
|	Cr	52	37.767	ug/L	1.077	2	33180	968343	1	Standard
|	Cr	53	39.090	ug/L	0.627	1	160	109384	2	Standard
⌊	Mn	55	13.599	ug/L	0.607	4	722	443077	2	Standard
⌈>	Ge-1	72		ug/L			40529	27328	0	KED
|	Ni	60	1.993	ug/L	0.039	1	19	1247	1	KED
|	Ni	62	2.170	ug/L	0.118	5	5	206	4	KED
|	Cu	63	7.469	ug/L	0.140	1	47	12137	1	KED
|	Cu	65	7.448	ug/L	0.104	1	23	5827	1	KED
|	Zn	66	8.170	ug/L	0.236	2	34	1502	3	KED
|	Zn	67	7.751	ug/L	1.200	15	2	233	14	KED
⌊	As	75	0.078	ug/L	0.016	20	3	10	15	KED
	Y	89		ug/L			867590	685149	2	Standard
	Kr	83		ug/L			66	85	15	Standard
⌈>	In-1	115		ug/L			9278	6575	1	KED
|	Cd	111	0.013	ug/L	0.018	133	0	1	86	KED
⌊	Cd	114	0.016	ug/L	0.012	75	0	4	68	KED
⌈>	Tb	159		ug/L			2192253	1850441	0	Standard
⌊	Pb	208	0.063	ug/L	0.002	3	769	6517	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0261-02
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 15:08:07
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			50669	134397	1	Standard
	Cl	37		ug/L			11311799	10318690	2	Standard
>	Sc	45		ug/L			2126832	1655428	1	Standard
	Cr	52	57.297	ug/L	0.388	0	33180	1532888	1	Standard
	Cr	53	58.579	ug/L	0.710	1	160	172400	0	Standard
	Mn	55	15.488	ug/L	0.171	1	722	531248	2	Standard
>	Ge-1	72		ug/L			40529	28663	1	KED
	Ni	60	3.766	ug/L	0.187	4	19	2459	3	KED
	Ni	62	3.846	ug/L	0.253	6	5	382	7	KED
	Cu	63	9.591	ug/L	0.185	1	47	16336	1	KED
	Cu	65	9.594	ug/L	0.109	1	23	7867	0	KED
	Zn	66	16.522	ug/L	0.481	2	34	3161	1	KED
	Zn	67	15.255	ug/L	1.060	6	2	480	5	KED
	As	75	0.175	ug/L	0.020	11	3	22	10	KED
	Y	89		ug/L			867590	687645	1	Standard
	Kr	83		ug/L			66	69	10	Standard
>	In-1	115		ug/L			9278	6446	2	KED
	Cd	111	0.031	ug/L	0.007	21	0	3	15	KED
	Cd	114	0.021	ug/L	0.012	58	0	5	54	KED
>	Tb	159		ug/L			2192253	1924830	2	Standard
	Pb	208	0.128	ug/L	0.002	1	769	13117	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0263-01RE1
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 19, 2018 15:16:49

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	393961	1	Standard
	Cl	**37**		ug/L			11311799	10720904	0	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1716847	0	Standard
|	**Cr**	**52**	**145.396**	ug/L	2.967	2	33180	3992568	1	Standard
|	**Cr**	**53**	**146.019**	ug/L	2.416	1	160	445507	1	Standard
⌊	**Mn**	**55**	**28.823**	ug/L	0.340	1	722	1024787	1	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	34831	1	KED
|	**Ni**	**60**	**3.464**	ug/L	0.093	2	19	2750	1	KED
|	**Ni**	**62**	**3.503**	ug/L	0.455	12	5	422	11	KED
|	**Cu**	**63**	**3.860**	ug/L	0.097	2	47	8014	2	KED
|	**Cu**	**65**	**3.857**	ug/L	0.096	2	23	3855	3	KED
|	**Zn**	**66**	**154.543**	ug/L	4.317	2	34	35683	1	KED
|	**Zn**	**67**	**142.019**	ug/L	2.914	2	2	5420	0	KED
⌊	**As**	**75**	**0.150**	ug/L	0.032	21	3	23	19	KED
	Y	**89**		ug/L			867590	675916	0	Standard
	Kr	**83**		ug/L			66	66	25	Standard
⌈>	**In-1**	**115**		ug/L			9278	7421	2	KED
|	**Cd**	**111**	**0.803**	ug/L	0.140	17	0	84	15	KED
⌊	**Cd**	**114**	**0.884**	ug/L	0.087	9	0	255	7	KED
⌈>	**Tb**	**159**		ug/L			2192253	2015739	2	Standard
⌊	**Pb**	**208**	**0.202**	ug/L	0.003	1	769	21295	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0435-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 15:20:44
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			50669	67797	0	Standard
	Cl	37		ug/L			11311799	10230858	1	Standard
⌈>	Sc	45		ug/L			2126832	1782573	2	Standard
|	Cr	52	0.211	ug/L	0.040	19	33180	33756	1	Standard
|	Cr	53	0.189	ug/L	0.012	6	160	731	2	Standard
⌊	Mn	55	3.459	ug/L	0.065	1	722	128191	0	Standard
⌈>	Ge-1	72		ug/L			40529	36639	0	KED
|	Ni	60	0.190	ug/L	0.019	10	19	174	8	KED
|	Ni	62	0.160	ug/L	0.031	19	5	24	15	KED
|	Cu	63	1.481	ug/L	0.023	1	47	3261	1	KED
|	Cu	65	1.450	ug/L	0.066	4	23	1538	4	KED
|	Zn	66	4.402	ug/L	0.282	6	34	1100	6	KED
|	Zn	67	4.657	ug/L	0.123	2	2	189	2	KED
⌊	As	75	0.683	ug/L	0.038	5	3	100	5	KED
	Y	89		ug/L			867590	696153	1	Standard
	Kr	83		ug/L			66	62	13	Standard
⌈>	In-1	115		ug/L			9278	7678	2	KED
|	Cd	111	0.051	ug/L	0.026	49	0	6	45	KED
⌊	Cd	114	0.042	ug/L	0.007	16	0	13	17	KED
⌈>	Tb	159		ug/L			2192253	2068801	2	Standard
⌊	Pb	208	0.050	ug/L	0.002	3	769	5975	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-63
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 15:24:38
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			50669	68205	2	Standard
	Cl	37		ug/L			11311799	10283783	2	Standard
⌈>	Sc	45		ug/L			2126832	1802470	2	Standard
|	Cr	52	0.205	ug/L	0.019	9	33180	33987	1	Standard
|	Cr	53	0.176	ug/L	0.015	8	160	699	9	Standard
⌊	Mn	55	3.795	ug/L	0.151	3	722	142080	1	Standard
⌈>	Ge-1	72		ug/L			40529	36387	0	KED
|	Ni	60	0.167	ug/L	0.021	12	19	154	11	KED
|	Ni	62	0.131	ug/L	0.040	30	5	20	24	KED
|	Cu	63	1.546	ug/L	0.010	0	47	3378	0	KED
|	Cu	65	1.549	ug/L	0.061	3	23	1630	4	KED
|	Zn	66	4.188	ug/L	0.364	8	34	1041	8	KED
|	Zn	67	4.690	ug/L	0.203	4	2	189	3	KED
⌊	As	75	0.673	ug/L	0.054	8	3	98	8	KED
	Y	89		ug/L			867590	699656	2	Standard
	Kr	83		ug/L			66	55	29	Standard
⌈>	In-1	115		ug/L			9278	7806	1	KED
|	Cd	111	0.071	ug/L	0.031	43	0	8	38	KED
⌊	Cd	114	0.041	ug/L	0.020	48	0	12	45	KED
⌈>	Tb	159		ug/L			2192253	2076307	0	Standard
⌊	Pb	208	0.048	ug/L	0.002	3	769	5820	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0435-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 15:28:32
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			50669	68301	2	Standard
	Cl	37		ug/L			11311799	10427620	1	Standard
>	Sc	45		ug/L			2126832	1777827	1	Standard
	Cr	52	25.751	ug/L	0.570	2	33180	755056	1	Standard
	Cr	53	25.569	ug/L	0.632	2	160	80895	2	Standard
	Mn	55	28.929	ug/L	1.351	4	722	1064714	3	Standard
>	Ge-1	72		ug/L			40529	36595	2	KED
	Ni	60	25.331	ug/L	0.285	1	19	21026	2	KED
	Ni	62	24.957	ug/L	1.265	5	5	3141	6	KED
	Cu	63	26.720	ug/L	0.517	1	47	58046	3	KED
	Cu	65	26.935	ug/L	0.409	1	23	28159	1	KED
	Zn	66	83.787	ug/L	2.721	3	34	20336	1	KED
	Zn	67	77.471	ug/L	2.950	3	2	3108	4	KED
	As	75	25.325	ug/L	0.389	1	3	3587	3	KED
	Y	89		ug/L			867590	676618	2	Standard
	Kr	83		ug/L			66	51	3	Standard
>	In-1	115		ug/L			9278	7938	0	KED
	Cd	111	25.734	ug/L	0.519	2	0	2866	1	KED
	Cd	114	24.359	ug/L	0.571	2	0	7530	2	KED
>	Tb	159		ug/L			2192253	2066057	0	Standard
	Pb	208	26.157	ug/L	0.046	0	769	2739799	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0435-MSD1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 15:32:26
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			50669	73405	0	Standard
	Cl	37		ug/L			11311799	10240147	1	Standard
>	Sc	45		ug/L			2126832	1791285	1	Standard
	Cr	52	25.733	ug/L	0.659	2	33180	760245	2	Standard
	Cr	53	26.481	ug/L	0.832	3	160	84395	2	Standard
	Mn	55	30.554	ug/L	0.656	2	722	1133111	0	Standard
>	Ge-1	72		ug/L			40529	36072	2	KED
	Ni	60	26.034	ug/L	0.072	0	19	21301	2	KED
	Ni	62	26.405	ug/L	0.860	3	5	3274	3	KED
	Cu	63	51.742	ug/L	1.137	2	47	110705	1	KED
	Cu	65	53.085	ug/L	0.920	1	23	54679	0	KED
	Zn	66	99.773	ug/L	2.457	2	34	23866	1	KED
	Zn	67	90.808	ug/L	2.603	2	2	3590	3	KED
	As	75	25.771	ug/L	0.283	1	3	3597	2	KED
	Y	89		ug/L			867590	662133	1	Standard
	Kr	83		ug/L			66	52	23	Standard
>	In-1	115		ug/L			9278	7564	6	KED
	Cd	111	27.183	ug/L	2.263	8	0	2875	2	KED
	Cd	114	26.675	ug/L	2.409	9	0	7826	2	KED
>	Tb	159		ug/L			2192253	1988693	0	Standard
	Pb	208	28.883	ug/L	0.380	1	769	2911849	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0435-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 15:36:20
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			50669	59351	1	Standard
	Cl	37		ug/L			11311799	10379306	1	Standard
⌈>	Sc	45		ug/L			2126832	1690669	2	Standard
|	Cr	52	25.312	ug/L	0.640	2	33180	706264	3	Standard
|	Cr	53	26.050	ug/L	0.279	1	160	78361	1	Standard
⌊	Mn	55	26.744	ug/L	0.217	0	722	936261	2	Standard
⌈>	Ge-1	72		ug/L			40529	36109	1	KED
|	Ni	60	25.232	ug/L	0.583	2	19	20665	2	KED
|	Ni	62	24.506	ug/L	0.397	1	5	3042	1	KED
|	Cu	63	25.156	ug/L	0.795	3	47	53907	2	KED
|	Cu	65	25.408	ug/L	0.552	2	23	26212	1	KED
|	Zn	66	83.823	ug/L	0.840	1	34	20082	0	KED
|	Zn	67	79.602	ug/L	4.327	5	2	3150	5	KED
⌊	As	75	25.269	ug/L	0.648	2	3	3531	2	KED
	Y	89		ug/L			867590	659565	3	Standard
	Kr	83		ug/L			66	66	13	Standard
⌈>	In-1	115		ug/L			9278	7879	0	KED
|	Cd	111	25.640	ug/L	0.446	1	0	2834	2	KED
⌊	Cd	114	25.320	ug/L	0.552	2	0	7770	2	KED
⌈>	Tb	159		ug/L			2192253	1954756	1	Standard
⌊	Pb	208	26.560	ug/L	0.269	1	769	2631991	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 15:41:19
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	44137	0	Standard
	Cl	**37**		ug/L			11311799	10269532	2	Standard
⎡>	**Sc**	**45**		ug/L			2126832	1643783	2	Standard
⎢	**Cr**	**52**	**51.786**	ug/L	1.260	2	33180	1377572	0	Standard
⎢	**Cr**	**53**	**51.884**	ug/L	0.990	1	160	151598	0	Standard
⎣	**Mn**	**55**	**51.150**	ug/L	1.420	2	722	1739854	0	Standard
⎡>	**Ge-1**	**72**		ug/L			40529	34925	2	KED
⎢	**Ni**	**60**	**50.113**	ug/L	0.778	1	19	39675	0	KED
⎢	**Ni**	**62**	**50.071**	ug/L	0.337	0	5	6008	2	KED
⎢	**Cu**	**63**	**50.079**	ug/L	0.581	1	47	103763	1	KED
⎢	**Cu**	**65**	**49.943**	ug/L	0.380	0	23	49819	1	KED
⎢	**Zn**	**66**	**50.679**	ug/L	1.227	2	34	11752	0	KED
⎢	**Zn**	**67**	**52.092**	ug/L	1.513	2	2	1995	2	KED
⎣	**As**	**75**	**51.033**	ug/L	0.646	1	3	6894	1	KED
	Y	**89**		ug/L			867590	640148	1	Standard
	Kr	**83**		ug/L			66	53	9	Standard
⎡>	**In-1**	**115**		ug/L			9278	7366	3	KED
⎢	**Cd**	**111**	**51.884**	ug/L	1.649	3	0	5358	0	KED
⎣	**Cd**	**114**	**50.119**	ug/L	1.097	2	0	14370	0	KED
⎡>	**Tb**	**159**		ug/L			2192253	1979390	1	Standard
⎣	**Pb**	**208**	**51.589**	ug/L	0.411	0	769	5176240	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 15:46:18
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	39602	0	Standard
	Cl	**37**		ug/L			11311799	10151366	2	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1644159	0	Standard
|	**Cr**	**52**	**0.010**	ug/L	0.025	252	33180	25905	2	Standard
|	**Cr**	**53**	**0.013**	ug/L	0.004	31	160	161	7	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.001	71	722	606	5	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	35875	0	KED
|	**Ni**	**60**	**-0.011**	ug/L	0.009	83	19	8	87	KED
|	**Ni**	**62**	**-0.011**	ug/L	0.018	166	5	3	69	KED
|	**Cu**	**63**	**-0.014**	ug/L	0.002	17	47	13	37	KED
|	**Cu**	**65**	**-0.014**	ug/L	0.002	15	23	6	34	KED
|	**Zn**	**66**	**-0.034**	ug/L	0.064	188	34	22	66	KED
|	**Zn**	**67**	**0.007**	ug/L	0.027	376	2	2	43	KED
⌊	**As**	**75**	**-0.009**	ug/L	0.007	78	3	2	44	KED
	Y	**89**		ug/L			867590	639155	1	Standard
	Kr	**83**		ug/L			66	46	12	Standard
⌈>	**In-1**	**115**		ug/L			9278	7718	0	KED
|	**Cd**	**111**	**0.002**	ug/L	0.009	583	0	0	100	KED
⌊	**Cd**	**114**	**-0.002**	ug/L	0.000	5	0	0	34	KED
⌈>	**Tb**	**159**		ug/L			2192253	1930174	1	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.000	33	769	576	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0367-BLK2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 15:55:44
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	46303	1	Standard
	Cl	**37**		ug/L			11311799	10215672	2	Standard
⎡>	**Sc**	**45**		ug/L			2126832	1640417	1	Standard
⎢	**Cr**	**52**	**0.095**	ug/L	0.023	24	33180	28066	3	Standard
⎢	**Cr**	**53**	**0.037**	ug/L	0.004	11	160	232	6	Standard
⎣	**Mn**	**55**	**0.016**	ug/L	0.001	6	722	1106	3	Standard
⎡>	**Ge-1**	**72**		ug/L			40529	36576	1	KED
⎢	**Ni**	**60**	**0.010**	ug/L	0.005	49	19	25	15	KED
⎢	**Ni**	**62**	**-0.006**	ug/L	0.027	449	5	3	86	KED
⎢	**Cu**	**63**	**0.028**	ug/L	0.006	22	47	102	12	KED
⎢	**Cu**	**65**	**0.037**	ug/L	0.003	8	23	60	4	KED
⎢	**Zn**	**66**	**1.976**	ug/L	0.130	6	34	510	6	KED
⎢	**Zn**	**67**	**1.483**	ug/L	0.423	28	2	61	26	KED
⎣	**As**	**75**	**0.003**	ug/L	0.007	255	3	3	24	KED
	Y	**89**		ug/L			867590	619073	3	Standard
	Kr	**83**		ug/L			66	52	16	Standard
⎡>	**In-1**	**115**		ug/L			9278	7595	1	KED
⎢	**Cd**	**111**	**0.008**	ug/L	0.010	136	0	1	69	KED
⎣	**Cd**	**114**	**0.001**	ug/L	0.004	602	0	0	180	KED
⎡>	**Tb**	**159**		ug/L			2192253	1919506	0	Standard
⎣	**Pb**	**208**	**0.024**	ug/L	0.001	3	769	3000	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0182-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 16:03:07
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	110687	2	Standard
	Cl	**37**		ug/L			11311799	9911488	1	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1564525	1	Standard
|	**Cr**	**52**	**0.267**	ug/L	0.009	3	33180	31046	1	Standard
|	**Cr**	**53**	**0.415**	ug/L	0.019	4	160	1272	3	Standard
⌊	**Mn**	**55**	**0.833**	ug/L	0.018	2	722	27510	1	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	34806	0	KED
|	**Ni**	**60**	**0.102**	ug/L	0.013	13	19	97	11	KED
|	**Ni**	**62**	**0.112**	ug/L	0.008	7	5	17	6	KED
|	**Cu**	**63**	**17.041**	ug/L	0.210	1	47	35217	0	KED
|	**Cu**	**65**	**17.354**	ug/L	0.434	2	23	17267	2	KED
|	**Zn**	**66**	**4.572**	ug/L	0.204	4	34	1084	4	KED
|	**Zn**	**67**	**4.103**	ug/L	0.640	15	2	158	15	KED
⌊	**As**	**75**	**0.454**	ug/L	0.049	10	3	64	9	KED
	Y	**89**		ug/L			867590	590895	2	Standard
	Kr	**83**		ug/L			66	43	13	Standard
⌈>	**In-1**	**115**		ug/L			9278	7251	2	KED
|	**Cd**	**111**	**-0.004**	ug/L	0.006	135	0	0	173	KED
⌊	**Cd**	**114**	**0.009**	ug/L	0.007	80	0	3	71	KED
⌈>	**Tb**	**159**		ug/L			2192253	1866428	1	Standard
⌊	**Pb**	**208**	**0.205**	ug/L	0.001	0	769	20056	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0221-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 16:08:43
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	74575	1	Standard
	Cl	**37**		ug/L			11311799	9855302	2	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1593241	0	Standard
|	**Cr**	**52**	**0.155**	ug/L	0.021	13	33180	28786	2	Standard
|	**Cr**	**53**	**0.365**	ug/L	0.005	1	160	1153	0	Standard
⌊	**Mn**	**55**	**1.001**	ug/L	0.007	0	722	33564	0	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	35195	1	KED
|	**Ni**	**60**	**0.051**	ug/L	0.016	30	19	57	20	KED
|	**Ni**	**62**	**0.074**	ug/L	0.017	22	5	13	14	KED
|	**Cu**	**63**	**118.334**	ug/L	2.208	1	47	247032	1	KED
|	**Cu**	**65**	**118.144**	ug/L	1.978	1	23	118741	1	KED
|	**Zn**	**66**	**15.632**	ug/L	0.872	5	34	3676	6	KED
|	**Zn**	**67**	**14.372**	ug/L	0.734	5	2	556	4	KED
⌊	**As**	**75**	**0.412**	ug/L	0.005	1	3	59	0	KED
	Y	**89**		ug/L			867590	588288	1	Standard
	Kr	**83**		ug/L			66	45	30	Standard
⌈>	**In-1**	**115**		ug/L			9278	7310	1	KED
|	**Cd**	**111**	**0.021**	ug/L	0.009	45	0	2	33	KED
⌊	**Cd**	**114**	**0.011**	ug/L	0.007	63	0	3	55	KED
⌈>	**Tb**	**159**		ug/L			2192253	1882504	0	Standard
⌊	**Pb**	**208**	**0.476**	ug/L	0.009	1	769	46031	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0221-02
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 16:12:37
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	80103	1	Standard
	Cl	**37**		ug/L			11311799	9998189	0	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1582817	1	Standard
|	**Cr**	**52**	**0.166**	ug/L	0.071	42	33180	28848	4	Standard
|	**Cr**	**53**	**0.392**	ug/L	0.013	3	160	1221	1	Standard
⌊	**Mn**	**55**	**1.942**	ug/L	0.110	5	722	64134	4	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	34876	1	KED
|	**Ni**	**60**	**0.104**	ug/L	0.009	8	19	98	8	KED
|	**Ni**	**62**	**0.102**	ug/L	0.063	62	5	16	43	KED
|	**Cu**	**63**	**169.805**	ug/L	2.073	1	47	351254	1	KED
|	**Cu**	**65**	**171.324**	ug/L	1.458	0	23	170612	1	KED
|	**Zn**	**66**	**27.778**	ug/L	0.290	1	34	6447	1	KED
|	**Zn**	**67**	**26.003**	ug/L	0.377	1	2	995	0	KED
⌊	**As**	**75**	**0.352**	ug/L	0.010	2	3	50	3	KED
	Y	**89**		ug/L			867590	587976	1	Standard
	Kr	**83**		ug/L			66	53	7	Standard
⌈>	**In-1**	**115**		ug/L			9278	7275	1	KED
|	**Cd**	**111**	**0.002**	ug/L	0.009	453	0	0	100	KED
⌊	**Cd**	**114**	**-0.006**	ug/L	0.004	59	0	-1	79	KED
⌈>	**Tb**	**159**		ug/L			2192253	1873010	1	Standard
⌊	**Pb**	**208**	**0.753**	ug/L	0.006	0	769	72131	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0081-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 16:21:51
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	95182	0	Standard
	Cl	**37**		ug/L			11311799	10263478	1	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1624004	1	Standard
|	**Cr**	**52**	**0.429**	ug/L	0.029	6	33180	36389	1	Standard
|	**Cr**	**53**	**0.868**	ug/L	0.025	2	160	2627	2	Standard
⌊	**Mn**	**55**	**0.692**	ug/L	0.003	0	722	23805	0	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	33792	2	KED
|	**Ni**	**60**	**1.528**	ug/L	0.053	3	19	1186	4	KED
|	**Ni**	**62**	**1.494**	ug/L	0.156	10	5	177	12	KED
|	**Cu**	**63**	**478.277**	ug/L	7.243	1	47	958533	1	KED
|	**Cu**	**65**	**489.961**	ug/L	6.396	1	23	472826	3	KED
|	**Zn**	**66**	**17.846**	ug/L	0.772	4	34	4024	4	KED
|	**Zn**	**67**	**16.984**	ug/L	0.594	3	2	631	5	KED
⌊	**As**	**75**	**1.641**	ug/L	0.061	3	3	217	2	KED
	Y	**89**		ug/L			867590	583188	0	Standard
	Kr	**83**		ug/L			66	52	11	Standard
⌈>	**In-1**	**115**		ug/L			9278	6982	2	KED
|	**Cd**	**111**	**-0.001**	ug/L	0.006	731	0	0	86	KED
⌊	**Cd**	**114**	**0.009**	ug/L	0.011	116	0	2	100	KED
⌈>	**Tb**	**159**		ug/L			2192253	1863768	0	Standard
⌊	**Pb**	**208**	**0.708**	ug/L	0.012	1	769	67527	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0089-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 16:25:45
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	83002	1	Standard
	Cl	**37**		ug/L			11311799	9566083	2	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1626235	2	Standard
|	**Cr**	**52**	**0.123**	ug/L	0.032	25	33180	28566	4	Standard
|	**Cr**	**53**	**0.282**	ug/L	0.013	4	160	938	4	Standard
⌊	**Mn**	**55**	**4.226**	ug/L	0.092	2	722	142786	3	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	35090	4	KED
|	**Ni**	**60**	**13.003**	ug/L	0.286	2	19	10351	2	KED
|	**Ni**	**62**	**13.007**	ug/L	0.218	1	5	1570	2	KED
|	**Cu**	**63**	**26.676**	ug/L	1.476	5	47	55474	1	KED
|	**Cu**	**65**	**26.522**	ug/L	1.551	5	23	26552	2	KED
|	**Zn**	**66**	**34.926**	ug/L	1.795	5	34	8138	1	KED
|	**Zn**	**67**	**31.527**	ug/L	1.448	4	2	1212	1	KED
⌊	**As**	**75**	**0.197**	ug/L	0.038	19	3	30	20	KED
	Y	**89**		ug/L			867590	585892	4	Standard
	Kr	**83**		ug/L			66	53	14	Standard
⌈>	**In-1**	**115**		ug/L			9278	7064	1	KED
|	**Cd**	**111**	**0.009**	ug/L	0.006	64	0	1	34	KED
⌊	**Cd**	**114**	**0.000**	ug/L	0.004	1062	0	0	217	KED
⌈>	**Tb**	**159**		ug/L			2192253	1889809	3	Standard
⌊	**Pb**	**208**	**0.164**	ug/L	0.006	3	769	16385	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0163-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 16:29:39
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	127623	2	Standard
	Cl	**37**		ug/L			11311799	9669855	0	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1576409	0	Standard
|	**Cr**	**52**	**0.401**	ug/L	0.023	5	33180	34645	1	Standard
|	**Cr**	**53**	**0.594**	ug/L	0.004	0	160	1783	0	Standard
⌊	**Mn**	**55**	**0.598**	ug/L	0.017	2	722	20046	3	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	34947	1	KED
|	**Ni**	**60**	**0.099**	ug/L	0.010	10	19	94	9	KED
|	**Ni**	**62**	**0.074**	ug/L	0.040	54	5	13	37	KED
|	**Cu**	**63**	**22.793**	ug/L	0.570	2	47	47281	2	KED
|	**Cu**	**65**	**22.866**	ug/L	0.748	3	23	22832	2	KED
|	**Zn**	**66**	**21.468**	ug/L	0.716	3	34	5000	3	KED
|	**Zn**	**67**	**20.007**	ug/L	0.753	3	2	768	4	KED
⌊	**As**	**75**	**0.567**	ug/L	0.061	10	3	80	8	KED
	Y	**89**		ug/L			867590	585613	1	Standard
	Kr	**83**		ug/L			66	41	30	Standard
⌈>	**In-1**	**115**		ug/L			9278	7126	2	KED
|	**Cd**	**111**	**0.009**	ug/L	0.006	67	0	1	34	KED
⌊	**Cd**	**114**	**0.014**	ug/L	0.017	115	0	4	102	KED
⌈>	**Tb**	**159**		ug/L			2192253	1872678	1	Standard
⌊	**Pb**	**208**	**0.394**	ug/L	0.005	1	769	38077	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0167-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 16:33:33
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	78828	2	Standard
	Cl	**37**		ug/L			11311799	10023925	0	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1544744	1	Standard
|	**Cr**	**52**	**0.217**	ug/L	0.035	16	33180	29418	3	Standard
|	**Cr**	**53**	**0.494**	ug/L	0.008	1	160	1473	2	Standard
⌊	**Mn**	**55**	**1.613**	ug/L	0.045	2	722	52075	1	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	34847	1	KED
|	**Ni**	**60**	**0.071**	ug/L	0.028	40	19	72	31	KED
|	**Ni**	**62**	**0.070**	ug/L	0.018	25	5	12	17	KED
|	**Cu**	**63**	**4.457**	ug/L	0.107	2	47	9253	3	KED
|	**Cu**	**65**	**4.528**	ug/L	0.166	3	23	4524	2	KED
|	**Zn**	**66**	**0.749**	ug/L	0.139	18	34	203	16	KED
|	**Zn**	**67**	**0.856**	ug/L	0.143	16	2	34	16	KED
⌊	**As**	**75**	**0.397**	ug/L	0.050	12	3	56	12	KED
	Y	**89**		ug/L			867590	597025	0	Standard
	Kr	**83**		ug/L			66	51	22	Standard
⌈>	**In-1**	**115**		ug/L			9278	7089	0	KED
|	**Cd**	**111**	**0.015**	ug/L	0.005	36	0	2	24	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.004	187	0	0	106	KED
⌈>	**Tb**	**159**		ug/L			2192253	1891062	0	Standard
⌊	**Pb**	**208**	**0.097**	ug/L	0.001	1	769	10005	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0179-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 16:37:28
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	59590	3	Standard
	Cl	**37**		ug/L			11311799	9955163	3	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1562945	1	Standard
|	**Cr**	**52**	**0.182**	ug/L	0.073	40	33180	28914	8	Standard
|	**Cr**	**53**	**0.439**	ug/L	0.059	13	160	1338	13	Standard
⌊	**Mn**	**55**	**1.024**	ug/L	0.028	2	722	33678	4	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	35461	1	KED
|	**Ni**	**60**	**0.024**	ug/L	0.016	67	19	35	35	KED
|	**Ni**	**62**	**0.010**	ug/L	0.015	148	5	5	33	KED
|	**Cu**	**63**	**31.649**	ug/L	0.505	1	47	66603	1	KED
|	**Cu**	**65**	**31.643**	ug/L	0.594	1	23	32059	2	KED
|	**Zn**	**66**	**1.885**	ug/L	0.112	5	34	473	3	KED
|	**Zn**	**67**	**1.599**	ug/L	0.521	32	2	64	29	KED
⌊	**As**	**75**	**0.443**	ug/L	0.069	15	3	64	14	KED
	Y	**89**		ug/L			867590	581458	3	Standard
	Kr	**83**		ug/L			66	59	34	Standard
⌈>	**In-1**	**115**		ug/L			9278	7260	1	KED
|	**Cd**	**111**	**0.014**	ug/L	0.005	35	0	2	24	KED
⌊	**Cd**	**114**	**0.009**	ug/L	0.008	83	0	3	72	KED
⌈>	**Tb**	**159**		ug/L			2192253	1889339	1	Standard
⌊	**Pb**	**208**	**0.273**	ug/L	0.045	16	769	26769	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0367-BS2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 16:41:22
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	48463	1	Standard
	Cl	**37**		ug/L			11311799	10483182	4	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1761416	0	Standard
|	**Cr**	**52**	**25.660**	ug/L	0.221	0	33180	745587	0	Standard
|	**Cr**	**53**	**25.763**	ug/L	0.467	1	160	80749	0	Standard
⌊	**Mn**	**55**	**25.730**	ug/L	0.325	1	722	938602	1	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	37151	0	KED
|	**Ni**	**60**	**24.886**	ug/L	0.210	0	19	20971	0	KED
|	**Ni**	**62**	**24.482**	ug/L	1.136	4	5	3127	4	KED
|	**Cu**	**63**	**24.716**	ug/L	0.293	1	47	54505	1	KED
|	**Cu**	**65**	**25.021**	ug/L	0.474	1	23	26564	2	KED
|	**Zn**	**66**	**83.270**	ug/L	1.123	1	34	20528	1	KED
|	**Zn**	**67**	**79.575**	ug/L	1.295	1	2	3241	1	KED
⌊	**As**	**75**	**24.876**	ug/L	0.367	1	3	3577	1	KED
	Y	**89**		ug/L			867590	667812	0	Standard
	Kr	**83**		ug/L			66	56	7	Standard
⌈>	**In-1**	**115**		ug/L			9278	8016	2	KED
|	**Cd**	**111**	**25.661**	ug/L	0.533	2	0	2885	1	KED
⌊	**Cd**	**114**	**25.084**	ug/L	0.542	2	0	7831	3	KED
⌈>	**Tb**	**159**		ug/L			2192253	2020986	2	Standard
⌊	**Pb**	**208**	**26.317**	ug/L	0.721	2	769	2695076	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 16:46:21
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	44695	1	Standard
	Cl	**37**		ug/L			11311799	10745197	1	Standard
⎡>	**Sc**	**45**		ug/L			2126832	1738250	0	Standard
⎢	**Cr**	**52**	**51.815**	ug/L	0.554	1	33180	1458212	1	Standard
⎢	**Cr**	**53**	**52.510**	ug/L	1.203	2	160	162308	2	Standard
⎣	**Mn**	**55**	**51.351**	ug/L	0.721	1	722	1848021	1	Standard
⎡>	**Ge-1**	**72**		ug/L			40529	35658	1	KED
⎢	**Ni**	**60**	**50.778**	ug/L	0.248	0	19	41052	1	KED
⎢	**Ni**	**62**	**49.335**	ug/L	1.618	3	5	6045	4	KED
⎢	**Cu**	**63**	**49.872**	ug/L	0.868	1	47	105494	0	KED
⎢	**Cu**	**65**	**49.450**	ug/L	1.121	2	23	50354	0	KED
⎢	**Zn**	**66**	**51.297**	ug/L	1.524	2	34	12147	2	KED
⎢	**Zn**	**67**	**50.836**	ug/L	1.781	3	2	1987	2	KED
⎣	**As**	**75**	**51.380**	ug/L	0.992	1	3	7086	1	KED
	Y	**89**		ug/L			867590	667791	0	Standard
	Kr	**83**		ug/L			66	62	18	Standard
⎡>	**In-1**	**115**		ug/L			9278	7838	0	KED
⎢	**Cd**	**111**	**50.178**	ug/L	1.675	3	0	5518	3	KED
⎣	**Cd**	**114**	**49.584**	ug/L	1.499	3	0	15135	2	KED
⎡>	**Tb**	**159**		ug/L			2192253	2106585	0	Standard
⎣	**Pb**	**208**	**50.077**	ug/L	0.429	0	769	5347561	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 16:51:20
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	39264	0	Standard
	Cl	**37**		ug/L			11311799	10238341	2	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1661494	4	Standard
|	**Cr**	**52**	**0.023**	ug/L	0.045	195	33180	26495	2	Standard
|	**Cr**	**53**	**0.015**	ug/L	0.004	28	160	168	3	Standard
⌊	**Mn**	**55**	**-0.000**	ug/L	0.001	309	722	554	2	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	36422	1	KED
|	**Ni**	**60**	**-0.015**	ug/L	0.006	39	19	5	94	KED
|	**Ni**	**62**	**-0.036**	ug/L	0.000	0	5	0		KED
|	**Cu**	**63**	**-0.012**	ug/L	0.002	19	47	17	29	KED
|	**Cu**	**65**	**-0.008**	ug/L	0.005	62	23	13	37	KED
|	**Zn**	**66**	**-0.072**	ug/L	0.009	12	34	13	15	KED
|	**Zn**	**67**	**-0.009**	ug/L	0.048	513	2	1	100	KED
⌊	**As**	**75**	**0.001**	ug/L	0.005	857	3	3	19	KED
	Y	**89**		ug/L			867590	636514	2	Standard
	Kr	**83**		ug/L			66	58	9	Standard
⌈>	**In-1**	**115**		ug/L			9278	7741	0	KED
|	**Cd**	**111**	**0.007**	ug/L	0.013	182	0	1	91	KED
⌊	**Cd**	**114**	**0.007**	ug/L	0.010	140	0	2	115	KED
⌈>	**Tb**	**159**		ug/L			2192253	1963875	0	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.001	84	769	579	15	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0224-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 17:01:52
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	134240	1	Standard
	Cl	**37**		ug/L			11311799	9895989	1	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1570140	1	Standard
|	**Cr**	**52**	**0.385**	ug/L	0.006	1	33180	34103	1	Standard
|	**Cr**	**53**	**0.571**	ug/L	0.008	1	160	1710	0	Standard
⌊	**Mn**	**55**	**1.273**	ug/L	0.069	5	722	41880	4	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	36052	2	KED
|	**Ni**	**60**	**0.022**	ug/L	0.018	79	19	34	38	KED
|	**Ni**	**62**	**0.005**	ug/L	0.019	393	5	5	43	KED
|	**Cu**	**63**	**7.781**	ug/L	0.140	1	47	16676	1	KED
|	**Cu**	**65**	**7.727**	ug/L	0.215	2	23	7973	2	KED
|	**Zn**	**66**	**68.016**	ug/L	1.489	2	34	16271	1	KED
|	**Zn**	**67**	**63.560**	ug/L	0.895	1	2	2512	2	KED
⌊	**As**	**75**	**0.454**	ug/L	0.032	7	3	66	5	KED
	Y	**89**		ug/L			867590	586135	2	Standard
	Kr	**83**		ug/L			66	36	11	Standard
⌈>	**In-1**	**115**		ug/L			9278	7450	2	KED
|	**Cd**	**111**	**0.041**	ug/L	0.015	35	0	5	28	KED
⌊	**Cd**	**114**	**0.046**	ug/L	0.013	28	0	13	29	KED
⌈>	**Tb**	**159**		ug/L			2192253	1864431	1	Standard
⌊	**Pb**	**208**	**0.246**	ug/L	0.001	0	769	23899	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0253-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 17:05:46
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	121274	1	Standard
	Cl	**37**		ug/L			11311799	9824084	2	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1587936	0	Standard
|	**Cr**	**52**	**0.346**	ug/L	0.013	3	33180	33509	1	Standard
|	**Cr**	**53**	**0.512**	ug/L	0.004	0	160	1562	1	Standard
⌊	**Mn**	**55**	**0.818**	ug/L	0.024	2	722	27409	3	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	34747	0	KED
|	**Ni**	**60**	**0.890**	ug/L	0.040	4	19	717	5	KED
|	**Ni**	**62**	**0.777**	ug/L	0.123	15	5	97	15	KED
|	**Cu**	**63**	**41.293**	ug/L	0.338	0	47	85137	0	KED
|	**Cu**	**65**	**42.214**	ug/L	0.281	0	23	41900	0	KED
|	**Zn**	**66**	**31.099**	ug/L	0.441	1	34	7188	0	KED
|	**Zn**	**67**	**30.765**	ug/L	0.270	0	2	1173	1	KED
⌊	**As**	**75**	**0.448**	ug/L	0.012	2	3	63	2	KED
	Y	**89**		ug/L			867590	594800	0	Standard
	Kr	**83**		ug/L			66	45	13	Standard
⌈>	**In-1**	**115**		ug/L			9278	7265	1	KED
|	**Cd**	**111**	**0.005**	ug/L	0.011	209	0	1	86	KED
⌊	**Cd**	**114**	**0.008**	ug/L	0.010	124	0	2	105	KED
⌈>	**Tb**	**159**		ug/L			2192253	1874081	0	Standard
⌊	**Pb**	**208**	**0.569**	ug/L	0.017	2	769	54703	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0254-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 17:09:40
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	245388	3	Standard
	Cl	**37**		ug/L			11311799	10288096	0	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1624116	3	Standard
|	**Cr**	**52**	**0.436**	ug/L	0.051	11	33180	36551	1	Standard
|	**Cr**	**53**	**0.604**	ug/L	0.046	7	160	1862	5	Standard
⌊	**Mn**	**55**	**1.534**	ug/L	0.035	2	722	52087	1	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	32902	1	KED
|	**Ni**	**60**	**0.577**	ug/L	0.015	2	19	445	2	KED
|	**Ni**	**62**	**0.677**	ug/L	0.125	18	5	80	17	KED
|	**Cu**	**63**	**709.942**	ug/L	14.313	2	47	1385538	2	KED
|	**Cu**	**65**	**701.147**	ug/L	9.176	1	23	658652	0	KED
|	**Zn**	**66**	**180.346**	ug/L	3.057	1	34	39336	1	KED
|	**Zn**	**67**	**168.536**	ug/L	1.921	1	2	6076	0	KED
⌊	**As**	**75**	**1.602**	ug/L	0.023	1	3	206	0	KED
	Y	**89**		ug/L			867590	588301	0	Standard
	Kr	**83**		ug/L			66	57	39	Standard
⌈>	**In-1**	**115**		ug/L			9278	6959	1	KED
|	**Cd**	**111**	**0.035**	ug/L	0.024	69	0	4	58	KED
⌊	**Cd**	**114**	**0.029**	ug/L	0.024	84	0	8	80	KED
⌈>	**Tb**	**159**		ug/L			2192253	1886005	1	Standard
⌊	**Pb**	**208**	**10.360**	ug/L	0.103	0	769	990927	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0367-DUP2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 17:15:27
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	262962	2	Standard
	Cl	**37**		ug/L			11311799	9829709	1	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1622507	1	Standard
|	**Cr**	**52**	**1.083**	ug/L	0.099	9	33180	53209	3	Standard
|	**Cr**	**53**	**0.925**	ug/L	0.047	5	160	2787	3	Standard
⌊	**Mn**	**55**	**2.242**	ug/L	0.070	3	722	75810	1	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	34162	1	KED
|	**Ni**	**60**	**0.191**	ug/L	0.003	1	19	163		KED
|	**Ni**	**62**	**0.158**	ug/L	0.028	17	5	22	14	KED
|	**Cu**	**63**	**29.629**	ug/L	0.174	0	47	60077	1	KED
|	**Cu**	**65**	**29.604**	ug/L	0.466	1	23	28895	1	KED
|	**Zn**	**66**	**7.603**	ug/L	0.216	2	34	1750	3	KED
|	**Zn**	**67**	**6.595**	ug/L	0.266	4	2	248	2	KED
⌊	**As**	**75**	**0.125**	ug/L	0.029	23	3	19	20	KED
	Y	**89**		ug/L			867590	591523	2	Standard
	Kr	**83**		ug/L			66	62	30	Standard
⌈>	**In-1**	**115**		ug/L			9278	7005	1	KED
|	**Cd**	**111**	**0.006**	ug/L	0.015	262	0	1	114	KED
⌊	**Cd**	**114**	**0.007**	ug/L	0.010	141	0	2	117	KED
⌈>	**Tb**	**159**		ug/L			2192253	1921154	1	Standard
⌊	**Pb**	**208**	**0.442**	ug/L	0.012	2	769	43690	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0091-02
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 17:19:21
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	260533	1	Standard
	Cl	**37**		ug/L			11311799	9970739	0	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1564095	2	Standard
|	**Cr**	**52**	**1.150**	ug/L	0.133	11	33180	52927	3	Standard
|	**Cr**	**53**	**0.932**	ug/L	0.036	3	160	2705	1	Standard
⌊	**Mn**	**55**	**2.294**	ug/L	0.086	3	722	74736	1	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	33874	1	KED
|	**Ni**	**60**	**0.195**	ug/L	0.014	7	19	165	7	KED
|	**Ni**	**62**	**0.133**	ug/L	0.008	6	5	19	5	KED
|	**Cu**	**63**	**29.861**	ug/L	0.591	1	47	60025	1	KED
|	**Cu**	**65**	**30.167**	ug/L	0.411	1	23	29195	1	KED
|	**Zn**	**66**	**7.427**	ug/L	0.404	5	34	1695	4	KED
|	**Zn**	**67**	**6.944**	ug/L	0.597	8	2	259	7	KED
⌊	**As**	**75**	**0.119**	ug/L	0.025	21	3	18	18	KED
	Y	**89**		ug/L			867590	578153	1	Standard
	Kr	**83**		ug/L			66	59	14	Standard
⌈>	**In-1**	**115**		ug/L			9278	6957	2	KED
|	**Cd**	**111**	**0.009**	ug/L	0.005	60	0	1	34	KED
⌊	**Cd**	**114**	**0.012**	ug/L	0.014	118	0	3	104	KED
⌈>	**Tb**	**159**		ug/L			2192253	1879141	1	Standard
⌊	**Pb**	**208**	**0.452**	ug/L	0.007	1	769	43704	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0367-MS2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 17:23:15
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	194602	1	Standard
	Cl	**37**		ug/L			11311799	9757194	1	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1578181	3	Standard
|	**Cr**	**52**	**25.521**	ug/L	1.302	5	33180	663921	2	Standard
|	**Cr**	**53**	**25.405**	ug/L	0.496	1	160	71327	1	Standard
⌊	**Mn**	**55**	**26.527**	ug/L	0.731	2	722	866481	0	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	34191	1	KED
|	**Ni**	**60**	**24.636**	ug/L	0.996	4	19	19102	2	KED
|	**Ni**	**62**	**24.543**	ug/L	0.885	3	5	2885	3	KED
|	**Cu**	**63**	**53.826**	ug/L	1.290	2	47	109178	1	KED
|	**Cu**	**65**	**54.041**	ug/L	1.175	2	23	52769	1	KED
|	**Zn**	**66**	**102.439**	ug/L	3.713	3	34	23229	2	KED
|	**Zn**	**67**	**100.854**	ug/L	2.393	2	2	3779	1	KED
⌊	**As**	**75**	**28.385**	ug/L	0.459	1	3	3755	0	KED
	Y	**89**		ug/L			867590	578851	1	Standard
	Kr	**83**		ug/L			66	48	9	Standard
⌈>	**In-1**	**115**		ug/L			9278	7099	3	KED
|	**Cd**	**111**	**27.494**	ug/L	0.116	0	0	2738	3	KED
⌊	**Cd**	**114**	**26.155**	ug/L	0.550	2	0	7227	1	KED
⌈>	**Tb**	**159**		ug/L			2192253	1881718	1	Standard
⌊	**Pb**	**208**	**26.592**	ug/L	0.263	0	769	2536749	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 17:27:16
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	57464	0	Standard
	Cl	**37**		ug/L			11311799	10796278	1	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1718625	2	Standard
|	**Cr**	**52**	**51.213**	ug/L	0.990	1	33180	1425376	3	Standard
|	**Cr**	**53**	**51.808**	ug/L	0.381	0	160	158316	1	Standard
⌊	**Mn**	**55**	**51.430**	ug/L	1.230	2	722	1829355	0	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	35772	0	KED
|	**Ni**	**60**	**48.700**	ug/L	0.577	1	19	39501	1	KED
|	**Ni**	**62**	**48.217**	ug/L	0.681	1	5	5926	1	KED
|	**Cu**	**63**	**48.436**	ug/L	0.905	1	47	102806	1	KED
|	**Cu**	**65**	**48.636**	ug/L	0.716	1	23	49697	1	KED
|	**Zn**	**66**	**50.708**	ug/L	0.412	0	34	12048	0	KED
|	**Zn**	**67**	**49.050**	ug/L	1.069	2	2	1924	2	KED
⌊	**As**	**75**	**50.386**	ug/L	0.238	0	3	6972	0	KED
	Y	**89**		ug/L			867590	655470	1	Standard
	Kr	**83**		ug/L			66	46	36	Standard
⌈>	**In-1**	**115**		ug/L			9278	7629	1	KED
|	**Cd**	**111**	**50.908**	ug/L	1.285	2	0	5448	2	KED
⌊	**Cd**	**114**	**49.076**	ug/L	2.045	4	0	14577	3	KED
⌈>	**Tb**	**159**		ug/L			2192253	2086805	0	Standard
⌊	**Pb**	**208**	**50.196**	ug/L	0.405	0	769	5310149	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 17:32:15
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			50669	45083	1	Standard
	Cl	**37**		ug/L			11311799	10538796	0	Standard
⌈>	**Sc**	**45**		ug/L			2126832	1671228	0	Standard
|	**Cr**	**52**	**0.036**	ug/L	0.020	55	33180	27021	1	Standard
|	**Cr**	**53**	**0.018**	ug/L	0.008	44	160	180	12	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.001	126	722	594	5	Standard
⌈>	**Ge-1**	**72**		ug/L			40529	36503	2	KED
|	**Ni**	**60**	**-0.014**	ug/L	0.002	16	19	5	33	KED
|	**Ni**	**62**	**-0.036**	ug/L	0.000	0	5	0		KED
|	**Cu**	**63**	**-0.009**	ug/L	0.003	36	47	23	32	KED
|	**Cu**	**65**	**-0.009**	ug/L	0.003	36	23	12	24	KED
|	**Zn**	**66**	**-0.013**	ug/L	0.062	460	34	27	50	KED
|	**Zn**	**67**	**0.053**	ug/L	0.053	99	2	4	49	KED
⌊	**As**	**75**	**-0.003**	ug/L	0.003	119	3	3	17	KED
	Y	**89**		ug/L			867590	628140	1	Standard
	Kr	**83**		ug/L			66	46	6	Standard
⌈>	**In-1**	**115**		ug/L			9278	7874	2	KED
|	**Cd**	**111**	**0.004**	ug/L	0.013	321	0	1	114	KED
⌊	**Cd**	**114**	**0.009**	ug/L	0.004	44	0	3	36	KED
⌈>	**Tb**	**159**		ug/L			2192253	1994841	3	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.000	12	769	566	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 17:51:57
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				41109	3	Standard
	Cl	**37**		ug/L				10356455	1	Standard
⌈>	**Sc**	**45**		ug/L				1681522	0	Standard
|	**Cr**	**52**		ug/L				26753	2	Standard
|	**Cr**	**53**		ug/L				164	10	Standard
⌊	**Mn**	**55**		ug/L				579	4	Standard
⌈>	**Ge-1**	**72**		ug/L				37304	3	KED
|	**Ni**	**60**		ug/L				9	0	KED
|	**Ni**	**62**		ug/L				0	173	KED
|	**Cu**	**63**		ug/L				11	60	KED
|	**Cu**	**65**		ug/L				8	13	KED
|	**Zn**	**66**		ug/L				12	32	KED
|	**Zn**	**67**		ug/L				3	34	KED
⌊	**As**	**75**		ug/L				3	77	KED
	Y	**89**		ug/L				620546	1	Standard
	Kr	**83**		ug/L				48	8	Standard
⌈>	**In-1**	**115**		ug/L				7791	0	KED
|	**Cd**	**111**		ug/L				0	100	KED
⌊	**Cd**	**114**		ug/L				1	180	KED
⌈>	**Tb**	**159**		ug/L				1942746	2	Standard
⌊	**Pb**	**208**		ug/L				414	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 17:55:51
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			41109	40349	3	Standard
	Cl	**37**		ug/L			10356455	10662912	1	Standard
⌈>	**Sc**	**45**		ug/L			1681522	1527004	1	Standard
|	**Cr**	**52**	**50.002**	ug/L	0.732	1	26753	1237284	0	Standard
|	**Cr**	**53**	**51.040**	ug/L	0.653	1	164	138626	2	Standard
⌊	**Mn**	**55**	**49.397**	ug/L	1.503	3	579	1561521	3	Standard
⌈>	**Ge-1**	**72**		ug/L			37304	33603	0	KED
|	**Ni**	**60**	**48.175**	ug/L	0.931	1	9	36701	2	KED
|	**Ni**	**62**	**47.040**	ug/L	1.008	2	0	5427	1	KED
|	**Cu**	**63**	**48.148**	ug/L	0.392	0	11	95968	0	KED
|	**Cu**	**65**	**47.824**	ug/L	0.895	1	8	45888	1	KED
|	**Zn**	**66**	**50.482**	ug/L	0.329	0	12	11249	0	KED
|	**Zn**	**67**	**50.903**	ug/L	1.690	3	3	1876	3	KED
⌊	**As**	**75**	**50.497**	ug/L	0.713	1	3	6563	0	KED
	Y	**89**		ug/L			620546	582281	3	Standard
	Kr	**83**		ug/L			48	71	17	Standard
⌈>	**In-1**	**115**		ug/L			7791	6938	2	KED
|	**Cd**	**111**	**52.110**	ug/L	1.815	3	0	5070	1	KED
⌊	**Cd**	**114**	**50.948**	ug/L	1.468	2	1	13763	2	KED
⌈>	**Tb**	**159**		ug/L			1942746	1931649	1	Standard
⌊	**Pb**	**208**	**49.423**	ug/L	1.061	2	414	4837954	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 17:59:46
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			41109	36241	1	Standard
	Cl	**37**		ug/L			10356455	10224726	2	Standard
⌈>	**Sc**	**45**		ug/L			1681522	1437009	3	Standard
|	**Cr**	**52**	**0.009**	ug/L	0.030	317	26753	23058	1	Standard
|	**Cr**	**53**	**-0.001**	ug/L	0.009	1653	164	138	13	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.001	102	579	513	6	Standard
⌈>	**Ge-1**	**72**		ug/L			37304	33849	0	KED
|	**Ni**	**60**	**-0.008**	ug/L	0.004	47	9	2	114	KED
|	**Ni**	**62**	**0.011**	ug/L	0.016	143	0	1	100	KED
|	**Cu**	**63**	**0.003**	ug/L	0.001	29	11	17	11	KED
|	**Cu**	**65**	**-0.002**	ug/L	0.005	198	8	5	94	KED
|	**Zn**	**66**	**0.050**	ug/L	0.019	37	12	22	19	KED
|	**Zn**	**67**	**0.076**	ug/L	0.051	66	3	5	33	KED
⌊	**As**	**75**	**0.005**	ug/L	0.007	157	3	3	28	KED
	Y	**89**		ug/L			620546	565099	0	Standard
	Kr	**83**		ug/L			48	44	17	Standard
⌈>	**In-1**	**115**		ug/L			7791	6938	2	KED
|	**Cd**	**111**	**0.014**	ug/L	0.006	39	0	2	24	KED
⌊	**Cd**	**114**	**0.003**	ug/L	0.007	253	1	1	102	KED
⌈>	**Tb**	**159**		ug/L			1942746	1833219	3	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.001	39	414	556	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 18:08:38
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			41109	57558	1	Standard
	Cl	37		ug/L			10356455	10625563	0	Standard
⌈>	Sc	45		ug/L			1681522	1589704	1	Standard
|	Cr	52	0.014	ug/L	0.021	151	26753	25634	1	Standard
|	Cr	53	0.020	ug/L	0.005	26	164	213	6	Standard
⌊	Mn	55	0.111	ug/L	0.002	1	579	4185	1	Standard
⌈>	Ge-1	72		ug/L			37304	36452	2	KED
|	Ni	60	0.005	ug/L	0.004	89	9	13	24	KED
|	Ni	62	0.005	ug/L	0.009	171	0	1	86	KED
|	Cu	63	0.038	ug/L	0.007	17	11	94	17	KED
|	Cu	65	0.043	ug/L	0.007	16	8	53	16	KED
|	Zn	66	0.382	ug/L	0.028	7	12	104	8	KED
|	Zn	67	0.508	ug/L	0.224	44	3	23	39	KED
⌊	As	75	0.008	ug/L	0.014	163	3	4	46	KED
	Y	89		ug/L			620546	605698	2	Standard
	Kr	83		ug/L			48	42	2	Standard
⌈>	In-1	115		ug/L			7791	7522	1	KED
|	Cd	111	0.000	ug/L	0.009	3119	0	0	100	KED
⌊	Cd	114	0.003	ug/L	0.008	298	1	1	114	KED
⌈>	Tb	159		ug/L			1942746	1962510	1	Standard
⌊	Pb	208	0.002	ug/L	0.001	35	414	570	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 18:12:32
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			41109	61068	1	Standard
	Cl	37		ug/L			10356455	11483631	2	Standard
⌈>	Sc	45		ug/L			1681522	1789456	1	Standard
|	Cr	52	0.305	ug/L	0.050	16	26753	37118	2	Standard
|	Cr	53	0.668	ug/L	0.034	5	164	2298	4	Standard
⌊	Mn	55	0.084	ug/L	0.001	0	579	3711	1	Standard
⌈>	Ge-1	72		ug/L			37304	35329	0	KED
|	Ni	60	0.053	ug/L	0.012	22	9	51	18	KED
|	Ni	62	0.079	ug/L	0.040	50	0	10	47	KED
|	Cu	63	0.144	ug/L	0.010	7	11	311	6	KED
|	Cu	65	0.156	ug/L	0.024	15	8	165	14	KED
|	Zn	66	2.555	ug/L	0.060	2	12	609	2	KED
|	Zn	67	3.269	ug/L	0.046	1	3	129	1	KED
⌊	As	75	0.339	ug/L	0.014	4	3	49	3	KED
	Y	89		ug/L			620546	673744	0	Standard
	Kr	83		ug/L			48	62	15	Standard
⌈>	In-1	115		ug/L			7791	7671	0	KED
|	Cd	111	0.065	ug/L	0.027	42	0	7	36	KED
⌊	Cd	114	0.025	ug/L	0.007	29	1	8	24	KED
⌈>	Tb	159		ug/L			1942746	2099086	1	Standard
⌊	Pb	208	0.007	ug/L	0.000	6	414	1215	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-05
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 18:16:27
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			41109	61750	5	Standard
	Cl	37		ug/L			10356455	12155772	5	Standard
⌈>	Sc	45		ug/L			1681522	1950708	7	Standard
|	Cr	52	0.435	ug/L	0.047	10	26753	44528	8	Standard
|	Cr	53	0.812	ug/L	0.073	8	164	2994	4	Standard
⌊	Mn	55	0.143	ug/L	0.042	29	579	6396	22	Standard
⌈>	Ge-1	72		ug/L			37304	37579	1	KED
|	Ni	60	0.051	ug/L	0.009	16	9	53	12	KED
|	Ni	62	0.039	ug/L	0.015	37	0	5	33	KED
|	Cu	63	0.153	ug/L	0.008	4	11	352	4	KED
|	Cu	65	0.158	ug/L	0.029	18	8	178	19	KED
|	Zn	66	2.806	ug/L	0.149	5	12	711	7	KED
|	Zn	67	3.502	ug/L	0.167	4	3	147	3	KED
⌊	As	75	0.343	ug/L	0.029	8	3	52	9	KED
	Y	89		ug/L			620546	742901	10	Standard
	Kr	83		ug/L			48	52	29	Standard
⌈>	In-1	115		ug/L			7791	7344	3	KED
|	Cd	111	0.040	ug/L	0.033	80	0	5	65	KED
⌊	Cd	114	0.042	ug/L	0.024	57	1	12	50	KED
⌈>	Tb	159		ug/L			1942746	2189105	2	Standard
⌊	Pb	208	0.028	ug/L	0.035	122	414	3569	104	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 18:20:21
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			41109	67575	2	Standard
	Cl	37		ug/L			10356455	12915524	0	Standard
⌈>	Sc	45		ug/L			1681522	2099214	1	Standard
|	Cr	52	24.501	ug/L	0.490	2	26753	850472	1	Standard
|	Cr	53	24.682	ug/L	0.412	1	164	92251	1	Standard
⌊	Mn	55	24.069	ug/L	0.665	2	579	1046186	1	Standard
⌈>	Ge-1	72		ug/L			37304	39090	2	KED
|	Ni	60	24.905	ug/L	0.526	2	9	22069	0	KED
|	Ni	62	24.157	ug/L	0.734	3	0	3242	2	KED
|	Cu	63	25.061	ug/L	0.094	0	11	58119	2	KED
|	Cu	65	24.732	ug/L	0.286	1	8	27615	2	KED
|	Zn	66	78.208	ug/L	1.596	2	12	20260	0	KED
|	Zn	67	76.001	ug/L	3.279	4	3	3256	2	KED
⌊	As	75	25.488	ug/L	0.242	0	3	3855	2	KED
	Y	89		ug/L			620546	786225	1	Standard
	Kr	83		ug/L			48	67	21	Standard
⌈>	In-1	115		ug/L			7791	8799	4	KED
|	Cd	111	24.742	ug/L	0.337	1	0	3054	2	KED
⌊	Cd	114	24.444	ug/L	0.391	1	1	8374	2	KED
⌈>	Tb	159		ug/L			1942746	2271299	1	Standard
⌊	Pb	208	25.571	ug/L	0.671	2	414	2943495	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-MSD1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 18:24:15
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			41109	69257	1	Standard
	Cl	37		ug/L			10356455	13026792	2	Standard
⌈>	Sc	45		ug/L			1681522	2096065	2	Standard
|	Cr	52	25.119	ug/L	0.678	2	26753	869580	1	Standard
|	Cr	53	25.080	ug/L	0.190	0	164	93593	2	Standard
⌊	Mn	55	25.066	ug/L	0.654	2	579	1087957	3	Standard
⌈>	Ge-1	72		ug/L			37304	38947	1	KED
|	Ni	60	25.132	ug/L	0.308	1	9	22193	1	KED
|	Ni	62	24.134	ug/L	0.882	3	0	3227	2	KED
|	Cu	63	24.569	ug/L	0.282	1	11	56759	0	KED
|	Cu	65	25.051	ug/L	0.185	0	8	27865	1	KED
|	Zn	66	78.390	ug/L	2.213	2	12	20238	2	KED
|	Zn	67	75.145	ug/L	2.161	2	3	3210	4	KED
⌊	As	75	25.228	ug/L	0.253	1	3	3802	0	KED
	Y	89		ug/L			620546	796568	1	Standard
	Kr	83		ug/L			48	55	13	Standard
⌈>	In-1	115		ug/L			7791	8673	0	KED
|	Cd	111	25.145	ug/L	0.299	1	0	3060	1	KED
⌊	Cd	114	24.025	ug/L	0.447	1	1	8115	2	KED
⌈>	Tb	159		ug/L			1942746	2301824	2	Standard
⌊	Pb	208	25.374	ug/L	0.327	1	414	2960349	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-DUP2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 18:28:09
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			41109	63250	1	Standard
	Cl	37		ug/L			10356455	12555128	2	Standard
⌈>	Sc	45		ug/L			1681522	2078184	2	Standard
|	Cr	52	0.033	ug/L	0.027	81	26753	34137	1	Standard
|	Cr	53	0.116	ug/L	0.003	2	164	633	3	Standard
⌊	Mn	55	0.100	ug/L	0.002	2	579	5005	3	Standard
⌈>	Ge-1	72		ug/L			37304	41220	1	KED
|	Ni	60	0.116	ug/L	0.009	7	9	119	8	KED
|	Ni	62	0.107	ug/L	0.026	24	0	15	24	KED
|	Cu	63	0.434	ug/L	0.020	4	11	1073	5	KED
|	Cu	65	0.456	ug/L	0.021	4	8	546	6	KED
|	Zn	66	20.771	ug/L	0.330	1	12	5684	1	KED
|	Zn	67	19.461	ug/L	0.664	3	3	882	4	KED
⌊	As	75	0.493	ug/L	0.024	4	3	81	4	KED
	Y	89		ug/L			620546	788123	1	Standard
	Kr	83		ug/L			48	49	25	Standard
⌈>	In-1	115		ug/L			7791	8944	1	KED
|	Cd	111	0.012	ug/L	0.009	78	0	2	43	KED
⌊	Cd	114	0.011	ug/L	0.006	51	1	5	39	KED
⌈>	Tb	159		ug/L			1942746	2277574	0	Standard
⌊	Pb	208	0.006	ug/L	0.000	4	414	1171	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-07
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 18:32:04
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			41109	65542	1	Standard
	Cl	37		ug/L			10356455	12565651	0	Standard
⌈>	Sc	45		ug/L			1681522	2043661	2	Standard
|	Cr	52	0.053	ug/L	0.053	99	26753	34213	4	Standard
|	Cr	53	0.145	ug/L	0.006	3	164	727	3	Standard
⌊	Mn	55	0.111	ug/L	0.002	1	579	5383	3	Standard
⌈>	Ge-1	72		ug/L			37304	41355	2	KED
|	Ni	60	0.160	ug/L	0.017	10	9	160	9	KED
|	Ni	62	0.231	ug/L	0.062	26	0	33	28	KED
|	Cu	63	0.438	ug/L	0.014	3	11	1087	5	KED
|	Cu	65	0.477	ug/L	0.007	1	8	572	3	KED
|	Zn	66	21.350	ug/L	0.550	2	12	5860	0	KED
|	Zn	67	19.230	ug/L	0.550	2	3	874	4	KED
⌊	As	75	0.525	ug/L	0.067	12	3	87	9	KED
	Y	89		ug/L			620546	784478	1	Standard
	Kr	83		ug/L			48	57	12	Standard
⌈>	In-1	115		ug/L			7791	8922	1	KED
|	Cd	111	0.012	ug/L	0.016	138	0	2	78	KED
⌊	Cd	114	0.006	ug/L	0.006	94	1	3	54	KED
⌈>	Tb	159		ug/L			1942746	2314586	0	Standard
⌊	Pb	208	0.008	ug/L	0.001	8	414	1412	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-MS2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 18:35:58
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			41109	74241	0	Standard
	Cl	37		ug/L			10356455	12720542	0	Standard
⌈>	Sc	45		ug/L			1681522	1993519	1	Standard
|	Cr	52	26.016	ug/L	1.092	4	26753	855555	3	Standard
|	Cr	53	26.788	ug/L	0.451	1	164	95066	0	Standard
⌊	Mn	55	27.044	ug/L	0.113	0	579	1116508	1	Standard
⌈>	Ge-1	72		ug/L			37304	41651	0	KED
|	Ni	60	25.508	ug/L	0.341	1	9	24089	0	KED
|	Ni	62	25.557	ug/L	1.134	4	0	3655	4	KED
|	Cu	63	25.646	ug/L	0.392	1	11	63364	1	KED
|	Cu	65	25.708	ug/L	0.627	2	8	30579	1	KED
|	Zn	66	100.479	ug/L	0.393	0	12	27739	1	KED
|	Zn	67	94.741	ug/L	2.766	2	3	4326	2	KED
⌊	As	75	25.153	ug/L	0.156	0	3	4054	0	KED
	Y	89		ug/L			620546	765211	2	Standard
	Kr	83		ug/L			48	62	1	Standard
⌈>	In-1	115		ug/L			7791	9107	3	KED
|	Cd	111	25.066	ug/L	0.130	0	0	3203	3	KED
⌊	Cd	114	24.639	ug/L	0.668	2	1	8735	0	KED
⌈>	Tb	159		ug/L			1942746	2314275	1	Standard
⌊	Pb	208	26.025	ug/L	0.236	0	414	3052969	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-MSD2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 18:39:52
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			41109	70283	1	Standard
	Cl	37		ug/L			10356455	12676295	1	Standard
⌈>	Sc	45		ug/L			1681522	2032573	0	Standard
|	Cr	52	26.047	ug/L	0.622	2	26753	873587	2	Standard
|	Cr	53	26.472	ug/L	0.475	1	164	95794	1	Standard
⌊	Mn	55	25.791	ug/L	0.800	3	579	1085746	3	Standard
⌈>	Ge-1	72		ug/L			37304	41257	0	KED
|	Ni	60	26.086	ug/L	0.708	2	9	24407	3	KED
|	Ni	62	25.499	ug/L	0.431	1	0	3613	2	KED
|	Cu	63	26.369	ug/L	0.053	0	11	64537	0	KED
|	Cu	65	26.537	ug/L	0.852	3	8	31276	4	KED
|	Zn	66	99.674	ug/L	2.657	2	12	27261	3	KED
|	Zn	67	95.393	ug/L	0.885	0	3	4315	1	KED
⌊	As	75	25.546	ug/L	0.428	1	3	4078	2	KED
	Y	89		ug/L			620546	767706	1	Standard
	Kr	83		ug/L			48	62	26	Standard
⌈>	In-1	115		ug/L			7791	9007	1	KED
|	Cd	111	25.503	ug/L	0.940	3	0	3222	3	KED
⌊	Cd	114	25.982	ug/L	0.716	2	1	9112	1	KED
⌈>	Tb	159		ug/L			1942746	2288164	0	Standard
⌊	Pb	208	26.776	ug/L	0.177	0	414	3105795	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0368-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 18:43:46
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			41109	63893	2	Standard
	Cl	37		ug/L			10356455	12585488	0	Standard
⌈>	Sc	45		ug/L			1681522	1941554	0	Standard
|	Cr	52	25.877	ug/L	0.441	1	26753	829164	1	Standard
|	Cr	53	26.473	ug/L	0.096	0	164	91509	0	Standard
⌊	Mn	55	26.770	ug/L	0.107	0	579	1076390	0	Standard
⌈>	Ge-1	72		ug/L			37304	41577	0	KED
|	Ni	60	25.505	ug/L	0.405	1	9	24044	1	KED
|	Ni	62	24.988	ug/L	1.422	5	0	3566	4	KED
|	Cu	63	25.224	ug/L	0.084	0	11	62213	0	KED
|	Cu	65	24.973	ug/L	0.857	3	8	29649	2	KED
|	Zn	66	85.772	ug/L	0.355	0	12	23639	0	KED
|	Zn	67	77.175	ug/L	2.172	2	3	3519	3	KED
⌊	As	75	25.197	ug/L	0.652	2	3	4053	1	KED
	Y	89		ug/L			620546	752251	1	Standard
	Kr	83		ug/L			48	60	28	Standard
⌈>	In-1	115		ug/L			7791	8916	3	KED
|	Cd	111	26.163	ug/L	1.139	4	0	3270	2	KED
⌊	Cd	114	25.861	ug/L	0.767	2	1	8978	4	KED
⌈>	Tb	159		ug/L			1942746	2269057	1	Standard
⌊	Pb	208	26.359	ug/L	0.333	1	414	3031763	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 18:48:45
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			41109	42353	3	Standard
	Cl	**37**		ug/L			10356455	12756800	0	Standard
⌈>	**Sc**	**45**		ug/L			1681522	1877156	3	Standard
|	**Cr**	**52**	**51.695**	ug/L	2.660	5	26753	1570057	2	Standard
|	**Cr**	**53**	**51.426**	ug/L	2.859	5	164	171474	2	Standard
⌊	**Mn**	**55**	**49.640**	ug/L	0.771	1	579	1928483	1	Standard
⌈>	**Ge-1**	**72**		ug/L			37304	39307	0	KED
|	**Ni**	**60**	**49.271**	ug/L	0.364	0	9	43905	0	KED
|	**Ni**	**62**	**48.919**	ug/L	1.225	2	0	6602	2	KED
|	**Cu**	**63**	**48.216**	ug/L	0.480	0	11	112420	0	KED
|	**Cu**	**65**	**47.908**	ug/L	0.709	1	8	53774	0	KED
|	**Zn**	**66**	**48.457**	ug/L	1.410	2	12	12630	2	KED
|	**Zn**	**67**	**48.529**	ug/L	1.457	3	3	2093	3	KED
⌊	**As**	**75**	**49.385**	ug/L	0.479	0	3	7509	1	KED
	Y	**89**		ug/L			620546	739188	1	Standard
	Kr	**83**		ug/L			48	56	11	Standard
⌈>	**In-1**	**115**		ug/L			7791	8407	3	KED
|	**Cd**	**111**	**50.593**	ug/L	1.971	3	0	5961	0	KED
⌊	**Cd**	**114**	**49.317**	ug/L	1.307	2	1	16141	3	KED
⌈>	**Tb**	**159**		ug/L			1942746	2297948	1	Standard
⌊	**Pb**	**208**	**48.377**	ug/L	0.973	2	414	5633666	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 18:53:44
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			41109	40052	2	Standard
	Cl	**37**		ug/L			10356455	12535213	1	Standard
⌈>	**Sc**	**45**		ug/L			1681522	1883025	2	Standard
|	**Cr**	**52**	**-0.029**	ug/L	0.015	52	26753	29091	2	Standard
|	**Cr**	**53**	**-0.002**	ug/L	0.006	306	164	178	12	Standard
⌊	**Mn**	**55**	**0.002**	ug/L	0.001	68	579	709	6	Standard
⌈>	**Ge-1**	**72**		ug/L			37304	40844	1	KED
|	**Ni**	**60**	**-0.004**	ug/L	0.001	29	9	6	17	KED
|	**Ni**	**62**	**0.004**	ug/L	0.008	191	0	1	86	KED
|	**Cu**	**63**	**0.002**	ug/L	0.002	104	11	17	29	KED
|	**Cu**	**65**	**0.003**	ug/L	0.003	104	8	12	31	KED
|	**Zn**	**66**	**0.036**	ug/L	0.015	40	12	22	16	KED
|	**Zn**	**67**	**0.050**	ug/L	0.040	81	3	5	33	KED
⌊	**As**	**75**	**0.011**	ug/L	0.003	30	3	5	10	KED
	Y	**89**		ug/L			620546	732365	2	Standard
	Kr	**83**		ug/L			48	43	15	Standard
⌈>	**In-1**	**115**		ug/L			7791	8991	2	KED
|	**Cd**	**111**	**0.007**	ug/L	0.008	121	0	1	50	KED
⌊	**Cd**	**114**	**-0.003**	ug/L	0.003	122	1	0	217	KED
⌈>	**Tb**	**159**		ug/L			1942746	2237676	1	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.000	31	414	648	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 19:00:04
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				40205	1	Standard
	Cl	**37**		ug/L				12032085	2	Standard
⌈>	**Sc**	**45**		ug/L				1749354	13	Standard
|	**Cr**	**52**		ug/L				28037	1	Standard
|	**Cr**	**53**		ug/L				194	6	Standard
⌊	**Mn**	**55**		ug/L				709	4	Standard
⌈>	**Ge-1**	**72**		ug/L				40999	0	KED
|	**Ni**	**60**		ug/L				6	34	KED
|	**Ni**	**62**		ug/L				1	100	KED
|	**Cu**	**63**		ug/L				20	14	KED
|	**Cu**	**65**		ug/L				11	57	KED
|	**Zn**	**66**		ug/L				32	15	KED
|	**Zn**	**67**		ug/L				3	132	KED
⌊	**As**	**75**		ug/L				2	44	KED
	Y	**89**		ug/L				690517	9	Standard
	Kr	**83**		ug/L				60	14	Standard
⌈>	**In-1**	**115**		ug/L				8800	2	KED
|	**Cd**	**111**		ug/L				1	124	KED
⌊	**Cd**	**114**		ug/L				1	90	KED
⌈>	**Tb**	**159**		ug/L				2080936	13	Standard
⌊	**Pb**	**208**		ug/L				518	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 19:03:58
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			40205	40851	1	Standard
	Cl	**37**		ug/L			12032085	12558856	2	Standard
⌈>	**Sc**	**45**		ug/L			1749354	1836031	0	Standard
|	**Cr**	**52**	**51.314**	ug/L	0.279	0	28037	1526387	0	Standard
|	**Cr**	**53**	**51.773**	ug/L	0.942	1	194	169109	2	Standard
⌊	**Mn**	**55**	**51.470**	ug/L	0.735	1	709	1956488	1	Standard
⌈>	**Ge-1**	**72**		ug/L			40999	38707	2	KED
|	**Ni**	**60**	**49.577**	ug/L	0.913	1	6	43484	1	KED
|	**Ni**	**62**	**47.856**	ug/L	0.878	1	1	6360	1	KED
|	**Cu**	**63**	**49.001**	ug/L	1.299	2	20	112491	3	KED
|	**Cu**	**65**	**48.804**	ug/L	1.367	2	11	53929	2	KED
|	**Zn**	**66**	**49.847**	ug/L	1.018	2	32	12808	0	KED
|	**Zn**	**67**	**49.645**	ug/L	2.527	5	3	2108	4	KED
⌊	**As**	**75**	**50.473**	ug/L	0.534	1	2	7556	2	KED
	Y	**89**		ug/L			690517	715296	1	Standard
	Kr	**83**		ug/L			60	55	18	Standard
⌈>	**In-1**	**115**		ug/L			8800	8389	0	KED
|	**Cd**	**111**	**49.772**	ug/L	1.074	2	1	5858	1	KED
⌊	**Cd**	**114**	**47.986**	ug/L	0.507	1	1	15677	1	KED
⌈>	**Tb**	**159**		ug/L			2080936	2276470	1	Standard
⌊	**Pb**	**208**	**48.211**	ug/L	0.365	0	518	5562957	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 19:07:53
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			40205	39000	1	Standard
	Cl	**37**		ug/L			12032085	12449953	1	Standard
⌈>	**Sc**	**45**		ug/L			1749354	1859872	1	Standard
|	**Cr**	**52**	**-0.045**	ug/L	0.008	18	28037	28472	2	Standard
|	**Cr**	**53**	**-0.006**	ug/L	0.007	109	194	187	13	Standard
⌊	**Mn**	**55**	**0.002**	ug/L	0.008	324	709	847	36	Standard
⌈>	**Ge-1**	**72**		ug/L			40999	40259	1	KED
|	**Ni**	**60**	**0.006**	ug/L	0.004	72	6	11	33	KED
|	**Ni**	**62**	**0.009**	ug/L	0.008	81	1	3	34	KED
|	**Cu**	**63**	**-0.001**	ug/L	0.005	913	20	18	66	KED
|	**Cu**	**65**	**0.001**	ug/L	0.001	116	11	12	9	KED
|	**Zn**	**66**	**-0.016**	ug/L	0.043	265	32	27	40	KED
|	**Zn**	**67**	**0.002**	ug/L	0.043	2598	3	3	50	KED
⌊	**As**	**75**	**0.014**	ug/L	0.001	10	2	4	5	KED
	Y	**89**		ug/L			690517	716105	2	Standard
	Kr	**83**		ug/L			60	52	35	Standard
⌈>	**In-1**	**115**		ug/L			8800	8681	3	KED
|	**Cd**	**111**	**-0.008**	ug/L	0.004	57	1	0	86	KED
⌊	**Cd**	**114**	**0.000**	ug/L	0.003	1332	1	1	90	KED
⌈>	**Tb**	**159**		ug/L			2080936	2234330	1	Standard
⌊	**Pb**	**208**	**0.004**	ug/L	0.006	140	518	1019	64	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0134-01
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, June 19, 2018 19:11:48
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			40205	118321	1	Standard
	Cl	**37**		ug/L			12032085	12582188	1	Standard
⌈>	**Sc**	**45**		ug/L			1749354	2052001	2	Standard
|	**Cr**	**52**	**24.269**	ug/L	1.174	4	28037	823468	2	Standard
|	**Cr**	**53**	**24.512**	ug/L	0.746	3	194	89543	0	Standard
⌊	**Mn**	**55**	**315.618**	ug/L	11.618	3	709	13395376	0	Standard
⌈>	**Ge-1**	**72**		ug/L			40999	39449	3	KED
|	**Ni**	**60**	**18.071**	ug/L	0.590	3	6	16151	1	KED
|	**Ni**	**62**	**17.910**	ug/L	0.448	2	1	2427	3	KED
|	**Cu**	**63**	**40.521**	ug/L	1.072	2	20	94770	1	KED
|	**Cu**	**65**	**40.675**	ug/L	1.083	2	11	45800	1	KED
|	**Zn**	**66**	**192.534**	ug/L	5.566	2	32	50318	1	KED
|	**Zn**	**67**	**185.040**	ug/L	8.661	4	3	7997	4	KED
⌊	**As**	**75**	**2.913**	ug/L	0.146	5	2	446	1	KED
	Y	**89**		ug/L			690517	937040	2	Standard
	Kr	**83**		ug/L			60	92	20	Standard
⌈>	**In-1**	**115**		ug/L			8800	8747	2	KED
|	**Cd**	**111**	**0.641**	ug/L	0.105	16	1	80	17	KED
⌊	**Cd**	**114**	**0.593**	ug/L	0.053	8	1	203	10	KED
⌈>	**Tb**	**159**		ug/L			2080936	2361863	1	Standard
⌊	**Pb**	**208**	**27.729**	ug/L	0.051	0	518	3320014	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0134-02
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, June 19, 2018 19:22:10
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			40205	155750	1	Standard
	Cl	**37**		ug/L			12032085	12677997	0	Standard
⌈>	**Sc**	**45**		ug/L			1749354	2015272	0	Standard
|	**Cr**	**52**	**15.542**	ug/L	0.515	3	28037	529887	2	Standard
|	**Cr**	**53**	**15.788**	ug/L	0.263	1	194	56754	1	Standard
⌊	**Mn**	**55**	**155.865**	ug/L	0.963	0	709	6501635	0	Standard
⌈>	**Ge-1**	**72**		ug/L			40999	40131	1	KED
|	**Ni**	**60**	**12.005**	ug/L	0.150	1	6	10924	0	KED
|	**Ni**	**62**	**12.116**	ug/L	0.171	1	1	1671	0	KED
|	**Cu**	**63**	**46.267**	ug/L	0.750	1	20	110150	2	KED
|	**Cu**	**65**	**46.404**	ug/L	0.582	1	11	53181	1	KED
|	**Zn**	**66**	**201.160**	ug/L	1.950	0	32	53517	2	KED
|	**Zn**	**67**	**193.470**	ug/L	4.814	2	3	8511	3	KED
⌊	**As**	**75**	**2.008**	ug/L	0.071	3	2	314	2	KED
	Y	**89**		ug/L			690517	849620	1	Standard
	Kr	**83**		ug/L			60	78	21	Standard
⌈>	**In-1**	**115**		ug/L			8800	8544	2	KED
|	**Cd**	**111**	**0.227**	ug/L	0.063	27	1	28	28	KED
⌊	**Cd**	**114**	**0.265**	ug/L	0.054	20	1	89	20	KED
⌈>	**Tb**	**159**		ug/L			2080936	2311898	0	Standard
⌊	**Pb**	**208**	**39.601**	ug/L	0.162	0	518	4640957	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 19:27:12
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	67935	1	Standard
	Cl	37		ug/L			12032085	12178376	2	Standard
⌈>	Sc	45		ug/L			1749354	1985067	1	Standard
|	Cr	52	0.160	ug/L	0.015	9	28037	36856	0	Standard
|	Cr	53	0.169	ug/L	0.005	3	194	818	2	Standard
⌊	Mn	55	2.029	ug/L	0.027	1	709	84170	1	Standard
⌈>	Ge-1	72		ug/L			40999	41632	2	KED
|	Ni	60	0.263	ug/L	0.029	11	6	254	12	KED
|	Ni	62	0.253	ug/L	0.032	12	1	38	10	KED
|	Cu	63	0.748	ug/L	0.029	3	20	1869	5	KED
|	Cu	65	0.745	ug/L	0.016	2	11	897	0	KED
|	Zn	66	1.521	ug/L	0.142	9	32	452	8	KED
|	Zn	67	1.473	ug/L	0.225	15	3	71	15	KED
⌊	As	75	0.803	ug/L	0.018	2	2	132	3	KED
	Y	89		ug/L			690517	757706	3	Standard
	Kr	83		ug/L			60	54	19	Standard
⌈>	In-1	115		ug/L			8800	8735	1	KED
|	Cd	111	0.026	ug/L	0.016	61	1	4	40	KED
⌊	Cd	114	0.036	ug/L	0.006	16	1	13	15	KED
⌈>	Tb	159		ug/L			2080936	2278833	1	Standard
⌊	Pb	208	0.067	ug/L	0.001	1	518	8253	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-03
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 19:31:06
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	65636	2	Standard
	Cl	37		ug/L			12032085	11882675	1	Standard
>	Sc	45		ug/L			1749354	1999712	2	Standard
	Cr	52	0.087	ug/L	0.020	23	28037	34798	1	Standard
	Cr	53	0.129	ug/L	0.003	2	194	679	0	Standard
	Mn	55	0.445	ug/L	0.006	1	709	19204	1	Standard
>	Ge-1	72		ug/L			40999	40701	2	KED
	Ni	60	0.125	ug/L	0.022	17	6	121	14	KED
	Ni	62	0.133	ug/L	0.095	71	1	20	63	KED
	Cu	63	1.401	ug/L	0.039	2	20	3401	0	KED
	Cu	65	1.437	ug/L	0.045	3	11	1681	4	KED
	Zn	66	19.214	ug/L	0.044	0	32	5213	2	KED
	Zn	67	17.415	ug/L	1.045	6	3	779	3	KED
	As	75	0.544	ug/L	0.042	7	2	88	6	KED
	Y	89		ug/L			690517	772897	2	Standard
	Kr	83		ug/L			60	55	26	Standard
>	In-1	115		ug/L			8800	8854	1	KED
	Cd	111	0.018	ug/L	0.020	112	1	3	66	KED
	Cd	114	0.004	ug/L	0.008	222	1	2	114	KED
>	Tb	159		ug/L			2080936	2303678	1	Standard
	Pb	208	0.070	ug/L	0.001	1	518	8729	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-05
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 19:35:00
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	64500	3	Standard
	Cl	37		ug/L			12032085	12071395	0	Standard
⌈>	Sc	45		ug/L			1749354	1986612	2	Standard
|	Cr	52	0.091	ug/L	0.028	30	28037	34717	2	Standard
|	Cr	53	0.128	ug/L	0.005	4	194	674	3	Standard
⌊	Mn	55	0.138	ug/L	0.005	3	709	6479	1	Standard
⌈>	Ge-1	72		ug/L			40999	40457	3	KED
|	Ni	60	0.106	ug/L	0.009	8	6	102	5	KED
|	Ni	62	0.064	ug/L	0.018	27	1	10	20	KED
|	Cu	63	1.227	ug/L	0.026	2	20	2962	1	KED
|	Cu	65	1.250	ug/L	0.056	4	11	1454	5	KED
|	Zn	66	15.581	ug/L	0.876	5	32	4204	3	KED
|	Zn	67	15.029	ug/L	1.407	9	3	668	6	KED
⌊	As	75	0.471	ug/L	0.029	6	2	76	5	KED
	Y	89		ug/L			690517	748135	2	Standard
	Kr	83		ug/L			60	57	20	Standard
⌈>	In-1	115		ug/L			8800	9043	4	KED
|	Cd	111	0.030	ug/L	0.011	37	1	5	26	KED
⌊	Cd	114	0.024	ug/L	0.022	92	1	9	81	KED
⌈>	Tb	159		ug/L			2080936	2254477	1	Standard
⌊	Pb	208	0.013	ug/L	0.001	6	518	2089	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-09
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 19:38:54
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	72261	1	Standard
	Cl	37		ug/L			12032085	12244448	0	Standard
>	Sc	45		ug/L			1749354	2152538	2	Standard
	Cr	52	-0.043	ug/L	0.027	64	28037	33030	2	Standard
	Cr	53	0.147	ug/L	0.010	6	194	799	2	Standard
	Mn	55	7327.414	ug/L	165.999	2	709	326329876	0	Standard
>	Ge-1	72		ug/L			40999	32658	2	KED
	Ni	60	27.838	ug/L	0.975	3	6	20603	2	KED
	Ni	62	27.366	ug/L	0.830	3	1	3070	4	KED
	Cu	63	22.236	ug/L	0.419	1	20	43078	0	KED
	Cu	65	22.291	ug/L	0.450	2	11	20790	0	KED
	Zn	66	609.076	ug/L	10.385	1	32	131784	1	KED
	Zn	67	572.150	ug/L	12.791	2	3	20469	1	KED
	As	75	0.261	ug/L	0.030	11	2	35	12	KED
	Y	89		ug/L			690517	1772008	2	Standard
	Kr	83		ug/L			60	184	4	Standard
>	In-1	115		ug/L			8800	7265	2	KED
	Cd	111	7.243	ug/L	0.417	5	1	738	3	KED
	Cd	114	7.416	ug/L	0.366	4	1	2097	3	KED
>	Tb	159		ug/L			2080936	2343647	1	Standard
	Pb	208	0.085	ug/L	0.003	3	518	10696	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-11
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 19:42:48
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	69438	2	Standard
	Cl	37		ug/L			12032085	12144613	1	Standard
>	Sc	45		ug/L			1749354	2101565	3	Standard
	Cr	52	-0.044	ug/L	0.021	48	28037	32203	1	Standard
	Cr	53	0.115	ug/L	0.010	8	194	662	2	Standard
	Mn	55	5800.544	ug/L	156.731	2	709	252180274	1	Standard
>	Ge-1	72		ug/L			40999	33400	1	KED
	Ni	60	22.220	ug/L	0.215	0	6	16824	0	KED
	Ni	62	21.020	ug/L	0.518	2	1	2412	2	KED
	Cu	63	18.589	ug/L	0.249	1	20	36842	2	KED
	Cu	65	18.799	ug/L	0.383	2	11	17934	1	KED
	Zn	66	499.710	ug/L	3.344	0	32	110597	0	KED
	Zn	67	464.939	ug/L	13.529	2	3	17014	2	KED
	As	75	0.321	ug/L	0.030	9	2	43	8	KED
	Y	89		ug/L			690517	1488387	2	Standard
	Kr	83		ug/L			60	161	15	Standard
>	In-1	115		ug/L			8800	7230	1	KED
	Cd	111	5.816	ug/L	0.303	5	1	591	6	KED
	Cd	114	5.622	ug/L	0.250	4	1	1583	4	KED
>	Tb	159		ug/L			2080936	2326775	1	Standard
	Pb	208	0.073	ug/L	0.001	1	518	9141	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-13
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 19:46:42
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	71058	2	Standard
	Cl	37		ug/L			12032085	11852770	2	Standard
>	Sc	45		ug/L			1749354	1897412	14	Standard
	Cr	52	0.067	ug/L	0.155	233	28037	31968	3	Standard
	Cr	53	0.110	ug/L	0.035	31	194	569	4	Standard
	Mn	55	1361.943	ug/L	215.757	15	709	52661022	0	Standard
>	Ge-1	72		ug/L			40999	37363	2	KED
	Ni	60	5.058	ug/L	0.065	1	6	4288	1	KED
	Ni	62	4.633	ug/L	0.090	1	1	596	3	KED
	Cu	63	4.747	ug/L	0.079	1	20	10535	1	KED
	Cu	65	4.754	ug/L	0.099	2	11	5080	1	KED
	Zn	66	118.412	ug/L	2.047	1	32	29333	1	KED
	Zn	67	109.073	ug/L	3.673	3	3	4466	1	KED
	As	75	0.151	ug/L	0.015	10	2	24	11	KED
	Y	89		ug/L			690517	847180	6	Standard
	Kr	83		ug/L			60	79	32	Standard
>	In-1	115		ug/L			8800	8165	0	KED
	Cd	111	1.359	ug/L	0.141	10	1	157	10	KED
	Cd	114	1.321	ug/L	0.049	3	1	421	3	KED
>	Tb	159		ug/L			2080936	2153917	10	Standard
	Pb	208	0.013	ug/L	0.001	10	518	1981	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-15
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 19:50:37
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	73143	0	Standard
	Cl	37		ug/L			12032085	12272366	0	Standard
⌈>	Sc	45		ug/L			1749354	2014933	0	Standard
|	Cr	52	0.019	ug/L	0.018	96	28037	32902	2	Standard
|	Cr	53	0.126	ug/L	0.011	8	194	673	6	Standard
⌊	Mn	55	12.433	ug/L	0.487	3	709	519235	3	Standard
⌈>	Ge-1	72		ug/L			40999	39027	1	KED
|	Ni	60	0.252	ug/L	0.027	10	6	229	10	KED
|	Ni	62	0.209	ug/L	0.088	41	1	29	39	KED
|	Cu	63	1.571	ug/L	0.052	3	20	3655	2	KED
|	Cu	65	1.508	ug/L	0.091	6	11	1690	4	KED
|	Zn	66	6.591	ug/L	0.387	5	32	1734	5	KED
|	Zn	67	5.870	ug/L	0.295	5	3	254	4	KED
⌊	As	75	0.679	ug/L	0.027	3	2	105	3	KED
	Y	89		ug/L			690517	798355	1	Standard
	Kr	83		ug/L			60	50	7	Standard
⌈>	In-1	115		ug/L			8800	8327	1	KED
|	Cd	111	0.061	ug/L	0.046	75	1	8	61	KED
⌊	Cd	114	0.038	ug/L	0.018	47	1	13	44	KED
⌈>	Tb	159		ug/L			2080936	2286098	1	Standard
⌊	Pb	208	0.044	ug/L	0.001	3	518	5681	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-17
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 19:54:31
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	64727	2	Standard
	Cl	37		ug/L			12032085	12055702	2	Standard
>	Sc	45		ug/L			1749354	1958459	1	Standard
	Cr	52	0.016	ug/L	0.006	37	28037	31870	0	Standard
	Cr	53	0.106	ug/L	0.010	9	194	585	6	Standard
	Mn	55	0.119	ug/L	0.046	38	709	5607	33	Standard
>	Ge-1	72		ug/L			40999	38929	1	KED
	Ni	60	0.158	ug/L	0.023	14	6	145	12	KED
	Ni	62	0.176	ug/L	0.057	32	1	25	31	KED
	Cu	63	0.468	ug/L	0.012	2	20	1099	1	KED
	Cu	65	0.474	ug/L	0.055	11	11	537	10	KED
	Zn	66	23.857	ug/L	0.840	3	32	6182	2	KED
	Zn	67	21.934	ug/L	0.120	0	3	939	1	KED
	As	75	0.549	ug/L	0.067	12	2	85	12	KED
	Y	89		ug/L			690517	776406	0	Standard
	Kr	83		ug/L			60	66	14	Standard
>	In-1	115		ug/L			8800	8638	3	KED
	Cd	111	0.008	ug/L	0.005	62	1	2	21	KED
	Cd	114	0.013	ug/L	0.021	156	1	5	121	KED
>	Tb	159		ug/L			2080936	2250303	2	Standard
	Pb	208	0.003	ug/L	0.000	11	518	902	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV9
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 19:59:30
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			40205	41334	2	Standard
	Cl	**37**		ug/L			12032085	12151056	1	Standard
⌈>	**Sc**	**45**		ug/L			1749354	1809817	0	Standard
|	**Cr**	**52**	**51.630**	ug/L	1.189	2	28037	1513640	2	Standard
|	**Cr**	**53**	**51.086**	ug/L	0.268	0	194	164469	0	Standard
⌊	**Mn**	**55**	**50.430**	ug/L	0.841	1	709	1889644	1	Standard
⌈>	**Ge-1**	**72**		ug/L			40999	37518	0	KED
|	**Ni**	**60**	**49.838**	ug/L	1.063	2	6	42389	2	KED
|	**Ni**	**62**	**48.638**	ug/L	1.018	2	1	6268	2	KED
|	**Cu**	**63**	**48.197**	ug/L	0.639	1	20	107263	0	KED
|	**Cu**	**65**	**48.435**	ug/L	0.479	0	11	51895	0	KED
|	**Zn**	**66**	**49.816**	ug/L	0.724	1	32	12411	1	KED
|	**Zn**	**67**	**51.031**	ug/L	1.229	2	3	2101	2	KED
⌊	**As**	**75**	**50.014**	ug/L	0.360	0	2	7258	1	KED
	Y	**89**		ug/L			690517	734394	0	Standard
	Kr	**83**		ug/L			60	62	30	Standard
⌈>	**In-1**	**115**		ug/L			8800	8063	4	KED
|	**Cd**	**111**	**50.396**	ug/L	1.938	3	1	5694	0	KED
⌊	**Cd**	**114**	**48.938**	ug/L	1.851	3	1	15349	1	KED
⌈>	**Tb**	**159**		ug/L			2080936	2265498	0	Standard
⌊	**Pb**	**208**	**49.211**	ug/L	0.415	0	518	5651086	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB9
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 20:04:29
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			40205	35604	1	Standard
	Cl	**37**		ug/L			12032085	12199435	1	Standard
⌈>	**Sc**	**45**		ug/L			1749354	1846776	4	Standard
|	**Cr**	**52**	**-0.088**	ug/L	0.032	36	28037	27002	0	Standard
|	**Cr**	**53**	**-0.016**	ug/L	0.001	6	194	153	6	Standard
⌊	**Mn**	**55**	**-0.002**	ug/L	0.001	62	709	663	4	Standard
⌈>	**Ge-1**	**72**		ug/L			40999	40022	1	KED
|	**Ni**	**60**	**0.000**	ug/L	0.001	702	6	6	17	KED
|	**Ni**	**62**	**-0.004**	ug/L	0.008	184	1	1	86	KED
|	**Cu**	**63**	**-0.000**	ug/L	0.002	2730	20	19	31	KED
|	**Cu**	**65**	**-0.003**	ug/L	0.006	193	11	7	90	KED
|	**Zn**	**66**	**-0.054**	ug/L	0.032	59	32	17	48	KED
|	**Zn**	**67**	**0.032**	ug/L	0.068	213	3	5	57	KED
⌊	**As**	**75**	**0.020**	ug/L	0.012	59	2	5	32	KED
	Y	**89**		ug/L			690517	725837	3	Standard
	Kr	**83**		ug/L			60	54	8	Standard
⌈>	**In-1**	**115**		ug/L			8800	8316	0	KED
|	**Cd**	**111**	**-0.013**	ug/L	0.000	0	1	0		KED
⌊	**Cd**	**114**	**-0.004**	ug/L	0.000	4	1	0	100	KED
⌈>	**Tb**	**159**		ug/L			2080936	2226838	0	Standard
⌊	**Pb**	**208**	**-0.000**	ug/L	0.000	63	518	513	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0408-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 20:08:24
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	53291	1	Standard
	Cl	37		ug/L			12032085	12041984	1	Standard
>	Sc	45		ug/L			1749354	1871648	1	Standard
	Cr	52	-0.031	ug/L	0.003	8	28037	29065	0	Standard
	Cr	53	0.003	ug/L	0.004	130	194	217	4	Standard
	Mn	55	0.739	ug/L	0.011	1	709	29398	1	Standard
>	Ge-1	72		ug/L			40999	39278	0	KED
	Ni	60	0.027	ug/L	0.005	19	6	29	14	KED
	Ni	62	0.048	ug/L	0.030	62	1	8	48	KED
	Cu	63	0.053	ug/L	0.008	15	20	142	13	KED
	Cu	65	0.059	ug/L	0.001	2	11	76	1	KED
	Zn	66	0.576	ug/L	0.111	19	32	180	15	KED
	Zn	67	0.712	ug/L	0.134	18	3	34	16	KED
	As	75	0.005	ug/L	0.005	93	2	3	20	KED
	Y	89		ug/L			690517	724232	1	Standard
	Kr	83		ug/L			60	41	41	Standard
>	In-1	115		ug/L			8800	8405	1	KED
	Cd	111	-0.002	ug/L	0.005	235	1	1	43	KED
	Cd	114	-0.000	ug/L	0.009	6817	1	1	273	KED
>	Tb	159		ug/L			2080936	2213383	0	Standard
	Pb	208	0.004	ug/L	0.000	8	518	1000	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-19
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 20:12:18
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	65746	2	Standard
	Cl	37		ug/L			12032085	11897186	1	Standard
⌈>	Sc	45		ug/L			1749354	1917345	0	Standard
|	Cr	52	0.087	ug/L	0.027	31	28037	33373	1	Standard
|	Cr	53	0.130	ug/L	0.006	4	194	656	2	Standard
⌊	Mn	55	4.958	ug/L	0.093	1	709	197510	1	Standard
⌈>	Ge-1	72		ug/L			40999	39589	0	KED
|	Ni	60	0.184	ug/L	0.019	10	6	171	10	KED
|	Ni	62	0.220	ug/L	0.009	3	1	31	3	KED
|	Cu	63	1.462	ug/L	0.054	3	20	3451	3	KED
|	Cu	65	1.532	ug/L	0.030	1	11	1742	2	KED
|	Zn	66	5.253	ug/L	0.118	2	32	1408	2	KED
|	Zn	67	4.966	ug/L	0.133	2	3	219	2	KED
⌊	As	75	0.619	ug/L	0.013	2	2	97	2	KED
	Y	89		ug/L			690517	749427	3	Standard
	Kr	83		ug/L			60	49	25	Standard
⌈>	In-1	115		ug/L			8800	8375	2	KED
|	Cd	111	0.063	ug/L	0.026	41	1	8	32	KED
⌊	Cd	114	0.039	ug/L	0.026	67	1	13	61	KED
⌈>	Tb	159		ug/L			2080936	2288051	1	Standard
⌊	Pb	208	0.038	ug/L	0.001	2	518	5023	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-21
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 20:16:12
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	68892	1	Standard
	Cl	37		ug/L			12032085	12208139	1	Standard
⌈>	Sc	45		ug/L			1749354	1862386	1	Standard
|	Cr	52	0.077	ug/L	0.025	32	28037	32117	1	Standard
|	Cr	53	0.134	ug/L	0.005	3	194	651	2	Standard
⌊	Mn	55	252.811	ug/L	4.013	1	709	9746450	2	Standard
⌈>	Ge-1	72		ug/L			40999	36639	0	KED
|	Ni	60	0.983	ug/L	0.041	4	6	821	3	KED
|	Ni	62	0.915	ug/L	0.055	5	1	116	5	KED
|	Cu	63	1.440	ug/L	0.025	1	20	3148	1	KED
|	Cu	65	1.458	ug/L	0.119	8	11	1535	7	KED
|	Zn	66	30.350	ug/L	0.214	0	32	7396	0	KED
|	Zn	67	28.150	ug/L	0.200	0	3	1133	0	KED
⌊	As	75	0.531	ug/L	0.026	4	2	77	4	KED
	Y	89		ug/L			690517	754559	0	Standard
	Kr	83		ug/L			60	86	10	Standard
⌈>	In-1	115		ug/L			8800	7623	2	KED
|	Cd	111	0.091	ug/L	0.027	29	1	11	24	KED
⌊	Cd	114	0.074	ug/L	0.011	14	1	22	12	KED
⌈>	Tb	159		ug/L			2080936	2224072	0	Standard
⌊	Pb	208	0.042	ug/L	0.001	1	518	5322	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-23
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 20:20:06
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	68572	0	Standard
	Cl	37		ug/L			12032085	12268754	0	Standard
>	Sc	45		ug/L			1749354	1903597	0	Standard
	Cr	52	0.050	ug/L	0.034	68	28037	32019	3	Standard
	Cr	53	0.150	ug/L	0.006	3	194	719	1	Standard
	Mn	55	290.863	ug/L	2.045	0	709	11460631	1	Standard
>	Ge-1	72		ug/L			40999	35127	1	KED
	Ni	60	1.132	ug/L	0.045	3	6	906	4	KED
	Ni	62	1.198	ug/L	0.155	12	1	146	12	KED
	Cu	63	1.356	ug/L	0.029	2	20	2842	3	KED
	Cu	65	1.382	ug/L	0.031	2	11	1395	1	KED
	Zn	66	34.526	ug/L	0.775	2	32	8061	1	KED
	Zn	67	32.984	ug/L	1.590	4	3	1272	4	KED
	As	75	0.522	ug/L	0.031	6	2	73	6	KED
	Y	89		ug/L			690517	746003	1	Standard
	Kr	83		ug/L			60	86	17	Standard
>	In-1	115		ug/L			8800	7596	2	KED
	Cd	111	0.085	ug/L	0.024	28	1	10	27	KED
	Cd	114	0.047	ug/L	0.038	80	1	14	72	KED
>	Tb	159		ug/L			2080936	2201583	2	Standard
	Pb	208	0.035	ug/L	0.000	0	518	4408	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-25
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 20:24:00
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	71907	2	Standard
	Cl	37		ug/L			12032085	12410122	3	Standard
⌈>	Sc	45		ug/L			1749354	1907654	1	Standard
|	Cr	52	0.102	ug/L	0.018	17	28037	33664	1	Standard
|	Cr	53	0.168	ug/L	0.011	6	194	782	6	Standard
⌊	Mn	55	56.346	ug/L	0.667	1	709	2225183	1	Standard
⌈>	Ge-1	72		ug/L			40999	37515	1	KED
|	Ni	60	0.330	ug/L	0.008	2	6	286	1	KED
|	Ni	62	0.336	ug/L	0.076	22	1	45	23	KED
|	Cu	63	1.552	ug/L	0.030	1	20	3472	0	KED
|	Cu	65	1.498	ug/L	0.027	1	11	1615	3	KED
|	Zn	66	10.364	ug/L	0.097	0	32	2605	1	KED
|	Zn	67	10.387	ug/L	0.631	6	3	430	6	KED
⌊	As	75	0.618	ug/L	0.023	3	2	92	4	KED
	Y	89		ug/L			690517	765845	1	Standard
	Kr	83		ug/L			60	62	22	Standard
⌈>	In-1	115		ug/L			8800	8319	1	KED
|	Cd	111	0.055	ug/L	0.054	96	1	7	78	KED
⌊	Cd	114	0.030	ug/L	0.021	67	1	11	60	KED
⌈>	Tb	159		ug/L			2080936	2256069	0	Standard
⌊	Pb	208	0.041	ug/L	0.001	1	518	5255	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0408-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 20:27:54
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	58130	4	Standard
	Cl	37		ug/L			12032085	12558856	2	Standard
⌈>	Sc	45		ug/L			1749354	1955349	2	Standard
|	Cr	52	0.253	ug/L	0.052	20	28037	39190	3	Standard
|	Cr	53	0.659	ug/L	0.026	3	194	2504	1	Standard
⌊	Mn	55	0.272	ug/L	0.006	2	709	11813	2	Standard
⌈>	Ge-1	72		ug/L			40999	37221	2	KED
|	Ni	60	0.055	ug/L	0.017	31	6	52	26	KED
|	Ni	62	0.052	ug/L	0.039	75	1	8	58	KED
|	Cu	63	0.114	ug/L	0.010	8	20	269	7	KED
|	Cu	65	0.118	ug/L	0.011	9	11	135	10	KED
|	Zn	66	1.004	ug/L	0.127	12	32	276	11	KED
|	Zn	67	1.595	ug/L	0.132	8	3	68	10	KED
⌊	As	75	0.400	ug/L	0.037	9	2	60	8	KED
	Y	89		ug/L			690517	744305	1	Standard
	Kr	83		ug/L			60	62	30	Standard
⌈>	In-1	115		ug/L			8800	7962	1	KED
|	Cd	111	0.041	ug/L	0.013	32	1	6	24	KED
⌊	Cd	114	0.023	ug/L	0.010	42	1	8	35	KED
⌈>	Tb	159		ug/L			2080936	2225551	0	Standard
⌊	Pb	208	0.003	ug/L	0.000	12	518	905	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-06
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 20:31:48
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	59912	0	Standard
	Cl	37		ug/L			12032085	12603480	2	Standard
⌈>	Sc	45		ug/L			1749354	1949149	3	Standard
|	Cr	52	0.258	ug/L	0.063	24	28037	39193	2	Standard
|	Cr	53	0.649	ug/L	0.003	0	194	2463	3	Standard
⌊	Mn	55	0.160	ug/L	0.003	2	709	7227	3	Standard
⌈>	Ge-1	72		ug/L			40999	36368	0	KED
|	Ni	60	0.046	ug/L	0.009	18	6	43	15	KED
|	Ni	62	0.047	ug/L	0.026	55	1	7	43	KED
|	Cu	63	0.106	ug/L	0.011	10	20	246	10	KED
|	Cu	65	0.106	ug/L	0.021	20	11	120	18	KED
|	Zn	66	0.674	ug/L	0.087	12	32	191	10	KED
|	Zn	67	1.141	ug/L	0.379	33	3	48	31	KED
⌊	As	75	0.377	ug/L	0.034	9	2	55	8	KED
	Y	89		ug/L			690517	739636	2	Standard
	Kr	83		ug/L			60	50	14	Standard
⌈>	In-1	115		ug/L			8800	7839	1	KED
|	Cd	111	0.036	ug/L	0.020	56	1	5	40	KED
⌊	Cd	114	0.048	ug/L	0.025	51	1	15	48	KED
⌈>	Tb	159		ug/L			2080936	2251223	0	Standard
⌊	Pb	208	0.001	ug/L	0.000	28	518	725	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0408-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 20:35:43
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	63539	1	Standard
	Cl	37		ug/L			12032085	12701575	1	Standard
⌈>	Sc	45		ug/L			1749354	1923930	1	Standard
|	Cr	52	24.547	ug/L	0.446	1	28037	781158	1	Standard
|	Cr	53	25.304	ug/L	0.554	2	194	86695	1	Standard
⌊	Mn	55	24.443	ug/L	0.771	3	709	974029	3	Standard
⌈>	Ge-1	72		ug/L			40999	36991	0	KED
|	Ni	60	24.468	ug/L	0.376	1	6	20520	1	KED
|	Ni	62	24.023	ug/L	1.214	5	1	3053	5	KED
|	Cu	63	24.279	ug/L	0.255	1	20	53285	1	KED
|	Cu	65	24.035	ug/L	0.537	2	11	25395	2	KED
|	Zn	66	72.477	ug/L	1.607	2	32	17790	2	KED
|	Zn	67	71.693	ug/L	1.083	1	3	2908	1	KED
⌊	As	75	24.685	ug/L	0.093	0	2	3533	0	KED
	Y	89		ug/L			690517	741791	3	Standard
	Kr	83		ug/L			60	55	9	Standard
⌈>	In-1	115		ug/L			8800	8061	2	KED
|	Cd	111	23.905	ug/L	0.575	2	1	2703	0	KED
⌊	Cd	114	23.294	ug/L	0.619	2	1	7311	1	KED
⌈>	Tb	159		ug/L			2080936	2262464	1	Standard
⌊	Pb	208	25.000	ug/L	0.005	0	518	2867447	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0408-MSD1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 20:39:37
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	63520	1	Standard
	Cl	37		ug/L			12032085	12527106	1	Standard
⌈>	Sc	45		ug/L			1749354	1952071	2	Standard
|	Cr	52	24.840	ug/L	0.678	2	28037	801408	0	Standard
|	Cr	53	25.382	ug/L	0.521	2	194	88235	2	Standard
⌊	Mn	55	24.500	ug/L	1.216	4	709	989965	3	Standard
⌈>	Ge-1	72		ug/L			40999	36780	2	KED
|	Ni	60	24.932	ug/L	0.842	3	6	20778	1	KED
|	Ni	62	24.781	ug/L	0.105	0	1	3131	2	KED
|	Cu	63	24.423	ug/L	0.677	2	20	53273	0	KED
|	Cu	65	24.643	ug/L	0.890	3	11	25874	1	KED
|	Zn	66	76.161	ug/L	1.633	2	32	18580	1	KED
|	Zn	67	72.993	ug/L	2.228	3	3	2943	2	KED
⌊	As	75	25.588	ug/L	0.766	2	2	3639	1	KED
	Y	89		ug/L			690517	749498	1	Standard
	Kr	83		ug/L			60	66	21	Standard
⌈>	In-1	115		ug/L			8800	7683	2	KED
|	Cd	111	25.437	ug/L	1.367	5	1	2740	3	KED
⌊	Cd	114	25.038	ug/L	1.168	4	1	7487	3	KED
⌈>	Tb	159		ug/L			2080936	2288164	1	Standard
⌊	Pb	208	24.980	ug/L	0.243	0	518	2897393	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0408-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 20:43:31
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			40205	62519	0	Standard
	Cl	37		ug/L			12032085	12642414	2	Standard
>	Sc	45		ug/L			1749354	1780003	2	Standard
	Cr	52	26.730	ug/L	0.817	3	28037	784207	1	Standard
	Cr	53	27.089	ug/L	0.503	1	194	85853	1	Standard
	Mn	55	27.074	ug/L	0.853	3	709	997694	1	Standard
>	Ge-1	72		ug/L			40999	38463	1	KED
	Ni	60	25.119	ug/L	0.247	0	6	21903	1	KED
	Ni	62	24.102	ug/L	0.879	3	1	3183	2	KED
	Cu	63	24.744	ug/L	0.057	0	20	56467	1	KED
	Cu	65	24.913	ug/L	0.116	0	11	27370	1	KED
	Zn	66	81.850	ug/L	1.673	2	32	20883	0	KED
	Zn	67	76.457	ug/L	2.366	3	3	3224	1	KED
	As	75	24.794	ug/L	0.114	0	2	3690	1	KED
	Y	89		ug/L			690517	705170	0	Standard
	Kr	83		ug/L			60	57	23	Standard
>	In-1	115		ug/L			8800	8140	2	KED
	Cd	111	25.953	ug/L	0.263	1	1	2964	2	KED
	Cd	114	25.076	ug/L	0.297	1	1	7948	0	KED
>	Tb	159		ug/L			2080936	2219170	0	Standard
	Pb	208	26.009	ug/L	0.022	0	518	2925999	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVA
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 20:48:30
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			40205	40890	3	Standard
	Cl	**37**		ug/L			12032085	12283525	1	Standard
⎡>	**Sc**	**45**		ug/L			1749354	1829385	1	Standard
⎢	**Cr**	**52**	**49.415**	ug/L	0.687	1	28037	1465567	1	Standard
⎢	**Cr**	**53**	**49.562**	ug/L	0.455	0	194	161283	0	Standard
⎣	**Mn**	**55**	**47.966**	ug/L	0.633	1	709	1816717	1	Standard
⎡>	**Ge-1**	**72**		ug/L			40999	36942	1	KED
⎢	**Ni**	**60**	**48.906**	ug/L	0.223	0	6	40956	2	KED
⎢	**Ni**	**62**	**47.870**	ug/L	0.949	1	1	6072	0	KED
⎢	**Cu**	**63**	**47.652**	ug/L	0.459	0	20	104415	1	KED
⎢	**Cu**	**65**	**47.180**	ug/L	0.192	0	11	49777	2	KED
⎢	**Zn**	**66**	**49.942**	ug/L	1.089	2	32	12249	1	KED
⎢	**Zn**	**67**	**48.308**	ug/L	2.108	4	3	1957	2	KED
⎣	**As**	**75**	**50.095**	ug/L	0.305	0	2	7157	1	KED
	Y	**89**		ug/L			690517	694905	3	Standard
	Kr	**83**		ug/L			60	53	31	Standard
⎡>	**In-1**	**115**		ug/L			8800	8033	1	KED
⎢	**Cd**	**111**	**49.251**	ug/L	0.864	1	1	5550	0	KED
⎣	**Cd**	**114**	**47.443**	ug/L	1.539	3	1	14839	2	KED
⎡>	**Tb**	**159**		ug/L			2080936	2286608	0	Standard
⎣	**Pb**	**208**	**48.061**	ug/L	0.420	0	518	5570548	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBA
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 20:53:29
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			40205	35170	2	Standard
	Cl	**37**		ug/L			12032085	11955581	2	Standard
⌈>	**Sc**	**45**		ug/L			1749354	1784063	2	Standard
|	**Cr**	**52**	**-0.098**	ug/L	0.021	21	28037	25799	2	Standard
|	**Cr**	**53**	**-0.009**	ug/L	0.009	100	194	169	19	Standard
⌊	**Mn**	**55**	**-0.002**	ug/L	0.001	55	709	649	5	Standard
⌈>	**Ge-1**	**72**		ug/L			40999	38388	1	KED
|	**Ni**	**60**	**-0.003**	ug/L	0.003	106	6	3	91	KED
|	**Ni**	**62**	**-0.004**	ug/L	0.008	214	1	1	86	KED
|	**Cu**	**63**	**-0.001**	ug/L	0.003	327	20	17	38	KED
|	**Cu**	**65**	**-0.005**	ug/L	0.004	79	11	5	66	KED
|	**Zn**	**66**	**-0.064**	ug/L	0.016	25	32	13	31	KED
|	**Zn**	**67**	**0.006**	ug/L	0.078	1365	3	3	86	KED
⌊	**As**	**75**	**0.015**	ug/L	0.012	81	2	4	36	KED
	Y	**89**		ug/L			690517	685564	0	Standard
	Kr	**83**		ug/L			60	48	9	Standard
⌈>	**In-1**	**115**		ug/L			8800	8161	2	KED
|	**Cd**	**111**	**0.001**	ug/L	0.010	892	1	1	69	KED
⌊	**Cd**	**114**	**0.000**	ug/L	0.003	809	1	1	86	KED
⌈>	**Tb**	**159**		ug/L			2080936	2227744	0	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.001	104	518	637	14	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 20:57:23
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				34961	3	Standard
	Cl	**37**		ug/L				12029590	2	Standard
⌈>	**Sc**	**45**		ug/L				1763048	1	Standard
|	**Cr**	**52**		ug/L				25966	3	Standard
|	**Cr**	**53**		ug/L				160	1	Standard
⌊	**Mn**	**55**		ug/L				626	4	Standard
⌈>	**Ge-1**	**72**		ug/L				37922	2	KED
|	**Ni**	**60**		ug/L				2	43	KED
|	**Ni**	**62**		ug/L				1	100	KED
|	**Cu**	**63**		ug/L				16	6	KED
|	**Cu**	**65**		ug/L				8	58	KED
|	**Zn**	**66**		ug/L				10	71	KED
|	**Zn**	**67**		ug/L				1		KED
⌊	**As**	**75**		ug/L				3	33	KED
	Y	**89**		ug/L				692873	2	Standard
	Kr	**83**		ug/L				51	16	Standard
⌈>	**In-1**	**115**		ug/L				7693	10	KED
|	**Cd**	**111**		ug/L				3	96	KED
⌊	**Cd**	**114**		ug/L				10	47	KED
⌈>	**Tb**	**159**		ug/L				2213970	1	Standard
⌊	**Pb**	**208**		ug/L				490	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVB
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:01:18
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	38586	1	Standard
	Cl	**37**		ug/L			12029590	12133921	1	Standard
⌈>	**Sc**	**45**		ug/L			1763048	1790547	1	Standard
|	**Cr**	**52**	**49.295**	ug/L	1.532	3	25966	1428703	3	Standard
|	**Cr**	**53**	**50.869**	ug/L	0.497	0	160	161993	1	Standard
⌊	**Mn**	**55**	**49.660**	ug/L	0.498	1	626	1841005	1	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	37123	0	KED
|	**Ni**	**60**	**48.466**	ug/L	0.972	2	2	40786	2	KED
|	**Ni**	**62**	**48.639**	ug/L	1.615	3	1	6200	2	KED
|	**Cu**	**63**	**46.515**	ug/L	0.621	1	16	102435	1	KED
|	**Cu**	**65**	**47.107**	ug/L	0.160	0	8	49939	0	KED
|	**Zn**	**66**	**50.150**	ug/L	0.726	1	10	12343	0	KED
|	**Zn**	**67**	**50.143**	ug/L	2.325	4	1	2040	3	KED
⌊	**As**	**75**	**49.972**	ug/L	0.606	1	3	7176	0	KED
	Y	**89**		ug/L			692873	675191	2	Standard
	Kr	**83**		ug/L			51	45	26	Standard
⌈>	**In-1**	**115**		ug/L			7693	7731	2	KED
|	**Cd**	**111**	**50.800**	ug/L	1.893	3	3	5509	1	KED
⌊	**Cd**	**114**	**49.624**	ug/L	1.608	3	10	14942	1	KED
⌈>	**Tb**	**159**		ug/L			2213970	2252008	1	Standard
⌊	**Pb**	**208**	**48.192**	ug/L	0.409	0	490	5500695	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBB
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:05:12
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	34493	1	Standard
	Cl	**37**		ug/L			12029590	12076267	3	Standard
⌈>	**Sc**	**45**		ug/L			1763048	1771238	4	Standard
|	**Cr**	**52**	**0.004**	ug/L	0.041	935	25966	26181	2	Standard
|	**Cr**	**53**	**-0.001**	ug/L	0.001	203	160	159	2	Standard
⌊	**Mn**	**55**	**0.000**	ug/L	0.001	336	626	642	4	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	38124	1	KED
|	**Ni**	**60**	**0.005**	ug/L	0.010	203	2	6	128	KED
|	**Ni**	**62**	**0.005**	ug/L	0.033	732	1	2	173	KED
|	**Cu**	**63**	**0.008**	ug/L	0.011	141	16	34	75	KED
|	**Cu**	**65**	**0.003**	ug/L	0.007	192	8	12	59	KED
|	**Zn**	**66**	**0.047**	ug/L	0.034	70	10	22	38	KED
|	**Zn**	**67**	**-0.000**	ug/L	0.001	225	1	1		KED
⌊	**As**	**75**	**0.011**	ug/L	0.005	43	3	5	13	KED
	Y	**89**		ug/L			692873	675458	1	Standard
	Kr	**83**		ug/L			51	48	40	Standard
⌈>	**In-1**	**115**		ug/L			7693	7929	1	KED
|	**Cd**	**111**	**-0.018**	ug/L	0.005	27	3	1	43	KED
⌊	**Cd**	**114**	**-0.031**	ug/L	0.004	11	10	0	180	KED
⌈>	**Tb**	**159**		ug/L			2213970	2220868	1	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	24	490	584	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:09:07
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	61852	0	Standard
	Cl	**37**		ug/L			12029590	12123957	0	Standard
⌈>	**Sc**	**45**		ug/L			1763048	1887525	2	Standard
|	**Cr**	**52**	**24.417**	ug/L	0.544	2	25966	759788	0	Standard
|	**Cr**	**53**	**24.916**	ug/L	0.591	2	160	83693	0	Standard
⌊	**Mn**	**55**	**2.237**	ug/L	0.068	3	626	88036	1	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	38996	1	KED
|	**Ni**	**60**	**0.363**	ug/L	0.027	7	2	323	5	KED
|	**Ni**	**62**	**0.374**	ug/L	0.062	16	1	52	17	KED
|	**Cu**	**63**	**0.601**	ug/L	0.019	3	16	1407	2	KED
|	**Cu**	**65**	**0.606**	ug/L	0.073	12	8	683	11	KED
|	**Zn**	**66**	**1.354**	ug/L	0.106	7	10	360	5	KED
|	**Zn**	**67**	**1.395**	ug/L	0.122	8	1	61	9	KED
⌊	**As**	**75**	**0.000**	ug/L	0.009	2503	3	3	34	KED
	Y	**89**		ug/L			692873	735899	1	Standard
	Kr	**83**		ug/L			51	52	7	Standard
⌈>	**In-1**	**115**		ug/L			7693	8297	1	KED
|	**Cd**	**111**	**-0.008**	ug/L	0.012	162	3	2	57	KED
⌊	**Cd**	**114**	**-0.025**	ug/L	0.009	37	10	2	108	KED
⌈>	**Tb**	**159**		ug/L			2213970	2305432	1	Standard
⌊	**Pb**	**208**	**0.007**	ug/L	0.001	8	490	1273	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-03
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:13:01
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			34961	50074	3	Standard
	Cl	37		ug/L			12029590	73700777	2	Standard
>	Sc	45		ug/L			1763048	1427116	1	Standard
	Cr	52	0.613	ug/L	0.003	0	25966	34913	1	Standard
	Cr	53	43.191	ug/L	0.844	1	160	109630	1	Standard
	Mn	55	68.631	ug/L	1.765	2	626	2027840	3	Standard
>	Ge-1	72		ug/L			37922	22744	1	KED
	Ni	60	0.233	ug/L	0.039	16	2	121	17	KED
	Ni	62	0.376	ug/L	0.092	24	1	30	22	KED
	Cu	63	0.094	ug/L	0.009	9	16	136	7	KED
	Cu	65	0.071	ug/L	0.010	14	8	50	12	KED
	Zn	66	1.495	ug/L	0.088	5	10	231	5	KED
	Zn	67	1.485	ug/L	0.220	14	1	38	13	KED
	As	75	0.274	ug/L	0.077	27	3	26	24	KED
	Y	89		ug/L			692873	553430	0	Standard
	Kr	83		ug/L			51	1367	5	Standard
>	In-1	115		ug/L			7693	5821	4	KED
	Cd	111	-0.014	ug/L	0.013	95	3	1	86	KED
	Cd	114	-0.022	ug/L	0.004	19	10	2	35	KED
>	Tb	159		ug/L			2213970	1853039	1	Standard
	Pb	208	0.032	ug/L	0.001	2	490	3429	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-04
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:16:55
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			34961	51029	0	Standard
	Cl	37		ug/L			12029590	79726673	4	Standard
>	Sc	45		ug/L			1763048	1445972	3	Standard
	Cr	52	0.670	ug/L	0.055	8	25966	36666	0	Standard
	Cr	53	44.500	ug/L	2.219	4	160	114320	2	Standard
	Mn	55	84.176	ug/L	3.099	3	626	2517424	1	Standard
>	Ge-1	72		ug/L			37922	21743	0	KED
	Ni	60	0.145	ug/L	0.030	20	2	73	19	KED
	Ni	62	0.368	ug/L	0.115	31	1	28	30	KED
	Cu	63	0.127	ug/L	0.001	0	16	173	1	KED
	Cu	65	0.127	ug/L	0.037	28	8	83	27	KED
	Zn	66	1.054	ug/L	0.150	14	10	158	13	KED
	Zn	67	1.047	ug/L	0.086	8	1	26	8	KED
	As	75	0.335	ug/L	0.018	5	3	30	5	KED
	Y	89		ug/L			692873	538864	0	Standard
	Kr	83		ug/L			51	855	1	Standard
>	In-1	115		ug/L			7693	5590	1	KED
	Cd	111	-0.009	ug/L	0.007	72	3	1	34	KED
	Cd	114	-0.028	ug/L	0.005	17	10	1	90	KED
>	Tb	159		ug/L			2213970	1851075	0	Standard
	Pb	208	0.031	ug/L	0.002	5	490	3322	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-05
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:20:50
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			34961	51400	1	Standard
	Cl	37		ug/L			12029590	105010061	2	Standard
>	Sc	45		ug/L			1763048	1365631	1	Standard
	Cr	52	0.786	ug/L	0.034	4	25966	37166	1	Standard
	Cr	53	55.243	ug/L	0.753	1	160	134143	1	Standard
	Mn	55	25.776	ug/L	0.311	1	626	728928	1	Standard
>	Ge-1	72		ug/L			37922	18223	1	KED
	Ni	60	0.172	ug/L	0.015	8	2	72	9	KED
	Ni	62	0.340	ug/L	0.095	27	1	22	27	KED
	Cu	63	0.165	ug/L	0.022	13	16	186	13	KED
	Cu	65	0.156	ug/L	0.015	9	8	85	7	KED
	Zn	66	1.843	ug/L	0.252	13	10	227	14	KED
	Zn	67	1.891	ug/L	0.444	23	1	38	24	KED
	As	75	0.405	ug/L	0.033	8	3	30	6	KED
	Y	89		ug/L			692873	531622	1	Standard
	Kr	83		ug/L			51	1527	2	Standard
>	In-1	115		ug/L			7693	5058	4	KED
	Cd	111	0.006	ug/L	0.019	322	3	2	57	KED
	Cd	114	-0.021	ug/L	0.015	71	10	2	117	KED
>	Tb	159		ug/L			2213970	1754010	0	Standard
	Pb	208	0.034	ug/L	0.001	1	490	3452	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-06
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:24:44
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			34961	50262	1	Standard
	Cl	37		ug/L			12029590	71092407	2	Standard
>	Sc	45		ug/L			1763048	1527801	0	Standard
	Cr	52	0.627	ug/L	0.015	2	25966	37711	0	Standard
	Cr	53	37.774	ug/L	0.650	1	160	102675	1	Standard
	Mn	55	2.031	ug/L	0.018	0	626	64756	1	Standard
>	Ge-1	72		ug/L			37922	22609	0	KED
	Ni	60	0.120	ug/L	0.016	13	2	62	13	KED
	Ni	62	0.255	ug/L	0.040	15	1	20	15	KED
	Cu	63	0.177	ug/L	0.018	10	16	247	10	KED
	Cu	65	0.160	ug/L	0.012	7	8	107	6	KED
	Zn	66	0.971	ug/L	0.139	14	10	151	13	KED
	Zn	67	1.211	ug/L	0.122	10	1	31	9	KED
	As	75	0.275	ug/L	0.056	20	3	26	19	KED
	Y	89		ug/L			692873	568357	1	Standard
	Kr	83		ug/L			51	540	4	Standard
>	In-1	115		ug/L			7693	5650	0	KED
	Cd	111	-0.002	ug/L	0.038	2383	3	2	137	KED
	Cd	114	-0.023	ug/L	0.010	43	10	2	94	KED
>	Tb	159		ug/L			2213970	1904784	1	Standard
	Pb	208	0.025	ug/L	0.001	3	490	2801	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-07
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:28:38
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	68262	4	Standard
	Cl	**37**		ug/L			12029590	77054531	5	Standard
>	**Sc**	**45**		ug/L			1763048	1643927	1	Standard
	Cr	**52**	**0.553**	ug/L	0.052	9	25966	38635	1	Standard
	Cr	**53**	**36.855**	ug/L	0.724	1	160	107776	0	Standard
	Mn	**55**	**41.751**	ug/L	1.020	2	626	1420733	0	Standard
>	**Ge-1**	**72**		ug/L			37922	21760	1	KED
	Ni	**60**	**0.656**	ug/L	0.029	4	2	325	5	KED
	Ni	**62**	**0.980**	ug/L	0.162	16	1	74	16	KED
	Cu	**63**	**1.416**	ug/L	0.031	2	16	1836	2	KED
	Cu	**65**	**1.365**	ug/L	0.047	3	8	852	3	KED
	Zn	**66**	**2.840**	ug/L	0.343	12	10	415	12	KED
	Zn	**67**	**2.481**	ug/L	0.705	28	1	60	28	KED
	As	**75**	**0.876**	ug/L	0.169	19	3	75	18	KED
	Y	**89**		ug/L			692873	573554	1	Standard
	Kr	**83**		ug/L			51	800	2	Standard
>	**In-1**	**115**		ug/L			7693	5487	1	KED
	Cd	**111**	**0.036**	ug/L	0.051	140	3	5	78	KED
	Cd	**114**	**-0.005**	ug/L	0.005	102	10	6	17	KED
>	**Tb**	**159**		ug/L			2213970	1897995	1	Standard
	Pb	**208**	**0.026**	ug/L	0.001	2	490	2940	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0192-02
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:32:32
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			34961	56449	1	Standard
	Cl	37		ug/L			12029590	11235386	2	Standard
⌈>	Sc	45		ug/L			1763048	1730852	2	Standard
|	Cr	52	0.148	ug/L	0.014	9	25966	29567	3	Standard
|	Cr	53	1.812	ug/L	0.083	4	160	5724	2	Standard
⌊	Mn	55	870.338	ug/L	3.903	0	626	31176296	2	Standard
⌈>	Ge-1	72		ug/L			37922	26100	2	KED
|	Ni	60	2.482	ug/L	0.183	7	2	1469	6	KED
|	Ni	62	2.437	ug/L	0.082	3	1	219	4	KED
|	Cu	63	0.218	ug/L	0.018	8	16	349	9	KED
|	Cu	65	0.227	ug/L	0.015	6	8	175	8	KED
|	Zn	66	21.002	ug/L	0.350	1	10	3638	1	KED
|	Zn	67	19.797	ug/L	0.659	3	1	567	5	KED
⌊	As	75	0.045	ug/L	0.026	58	3	7	35	KED
	Y	89		ug/L			692873	631978	2	Standard
	Kr	83		ug/L			51	150	5	Standard
⌈>	In-1	115		ug/L			7693	4983	4	KED
|	Cd	111	0.007	ug/L	0.034	461	3	2	94	KED
⌊	Cd	114	0.001	ug/L	0.018	2212	10	6	51	KED
⌈>	Tb	159		ug/L			2213970	2165413	1	Standard
⌊	Pb	208	0.011	ug/L	0.000	1	490	1697	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0192-04
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:36:26
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			34961	60936	0	Standard
	Cl	37		ug/L			12029590	10321470	2	Standard
>	Sc	45		ug/L			1763048	1808626	2	Standard
	Cr	52	0.236	ug/L	0.027	11	25966	33415	1	Standard
	Cr	53	1.364	ug/L	0.020	1	160	4546	2	Standard
	Mn	55	2434.385	ug/L	58.308	2	626	91091708	0	Standard
>	Ge-1	72		ug/L			37922	26925	2	KED
	Ni	60	25.316	ug/L	0.453	1	2	15447	0	KED
	Ni	62	24.299	ug/L	0.602	2	1	2247	1	KED
	Cu	63	303.967	ug/L	5.878	1	16	485314	1	KED
	Cu	65	301.947	ug/L	6.550	2	8	232077	1	KED
	Zn	66	3287.778	ug/L	46.026	1	10	586363	0	KED
	Zn	67	3029.919	ug/L	57.357	1	1	89359	1	KED
	As	75	0.238	ug/L	0.048	20	3	27	17	KED
	Y	89		ug/L			692873	1072421	1	Standard
	Kr	83		ug/L			51	179	9	Standard
>	In-1	115		ug/L			7693	5226	1	KED
	Cd	111	13.490	ug/L	0.590	4	3	990	3	KED
	Cd	114	13.050	ug/L	0.209	1	10	2662	0	KED
>	Tb	159		ug/L			2213970	2412959	0	Standard
	Pb	208	0.282	ug/L	0.003	1	490	35061	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0192-06
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:40:20
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			34961	67717	1	Standard
	Cl	37		ug/L			12029590	10556789	2	Standard
>	Sc	45		ug/L			1763048	1784044	1	Standard
	Cr	52	0.028	ug/L	0.020	69	25966	27066	0	Standard
	Cr	53	0.755	ug/L	0.011	1	160	2556	1	Standard
	Mn	55	1167.292	ug/L	8.437	0	626	43098742	0	Standard
>	Ge-1	72		ug/L			37922	25665	0	KED
	Ni	60	3.986	ug/L	0.128	3	2	2320	3	KED
	Ni	62	3.834	ug/L	0.203	5	1	339	4	KED
	Cu	63	847.848	ug/L	17.243	2	16	1290709	2	KED
	Cu	65	835.459	ug/L	15.220	1	8	612193	1	KED
	Zn	66	7162.654	ug/L	116.288	1	10	1217913	1	KED
	Zn	67	6587.230	ug/L	31.869	0	1	185229	1	KED
	As	75	0.099	ug/L	0.014	13	3	12	10	KED
	Y	89		ug/L			692873	934308	0	Standard
	Kr	83		ug/L			51	180	8	Standard
>	In-1	115		ug/L			7693	5374	0	KED
	Cd	111	28.977	ug/L	0.605	2	3	2186	2	KED
	Cd	114	28.340	ug/L	1.195	4	10	5936	3	KED
>	Tb	159		ug/L			2213970	2217040	0	Standard
	Pb	208	6.968	ug/L	0.053	0	490	783465	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0193-02
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:44:14
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	72965	1	Standard
	Cl	**37**		ug/L			12029590	11025075	2	Standard
⌈>	**Sc**	**45**		ug/L			1763048	1928146	1	Standard
|	**Cr**	**52**	**0.155**	ug/L	0.038	24	25966	33155	3	Standard
|	**Cr**	**53**	**1.004**	ug/L	0.026	2	160	3614	0	Standard
⌊	**Mn**	**55**	**10.359**	ug/L	0.141	1	626	414076	2	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	34437	1	KED
|	**Ni**	**60**	**0.140**	ug/L	0.020	14	2	111	12	KED
|	**Ni**	**62**	**0.114**	ug/L	0.075	65	1	15	57	KED
|	**Cu**	**63**	**0.478**	ug/L	0.028	5	16	991	7	KED
|	**Cu**	**65**	**0.495**	ug/L	0.020	4	8	493	2	KED
|	**Zn**	**66**	**1.990**	ug/L	0.383	19	10	464	20	KED
|	**Zn**	**67**	**1.940**	ug/L	0.063	3	1	74	2	KED
⌊	**As**	**75**	**0.427**	ug/L	0.048	11	3	60	11	KED
	Y	**89**		ug/L			692873	710286	1	Standard
	Kr	**83**		ug/L			51	49	7	Standard
⌈>	**In-1**	**115**		ug/L			7693	7250	3	KED
|	**Cd**	**111**	**-0.020**	ug/L	0.010	48	3	0	100	KED
⌊	**Cd**	**114**	**-0.021**	ug/L	0.008	36	10	3	61	KED
⌈>	**Tb**	**159**		ug/L			2213970	2280955	0	Standard
⌊	**Pb**	**208**	**0.173**	ug/L	0.002	1	490	20533	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVC
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:49:13
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	37885	0	Standard
	Cl	**37**		ug/L			12029590	11077520	0	Standard
⌈>	**Sc**	**45**		ug/L			1763048	1736566	1	Standard
|	**Cr**	**52**	**49.922**	ug/L	2.448	4	25966	1402377	3	Standard
|	**Cr**	**53**	**50.865**	ug/L	1.714	3	160	157037	1	Standard
⌊	**Mn**	**55**	**48.995**	ug/L	2.286	4	626	1760669	3	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	34081	2	KED
|	**Ni**	**60**	**49.192**	ug/L	0.781	1	2	38000	2	KED
|	**Ni**	**62**	**47.779**	ug/L	0.551	1	1	5592	1	KED
|	**Cu**	**63**	**47.532**	ug/L	0.382	0	16	96083	1	KED
|	**Cu**	**65**	**47.931**	ug/L	0.245	0	8	46649	2	KED
|	**Zn**	**66**	**51.237**	ug/L	3.597	7	10	11577	7	KED
|	**Zn**	**67**	**50.721**	ug/L	2.922	5	1	1894	5	KED
⌊	**As**	**75**	**49.724**	ug/L	0.249	0	3	6556	2	KED
	Y	**89**		ug/L			692873	664571	1	Standard
	Kr	**83**		ug/L			51	54	36	Standard
⌈>	**In-1**	**115**		ug/L			7693	7185	2	KED
|	**Cd**	**111**	**49.795**	ug/L	0.386	0	3	5022	3	KED
⌊	**Cd**	**114**	**48.355**	ug/L	2.268	4	10	13527	1	KED
⌈>	**Tb**	**159**		ug/L			2213970	2297070	1	Standard
⌊	**Pb**	**208**	**47.386**	ug/L	0.680	1	490	5517044	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBC
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:54:12
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	34142	3	Standard
	Cl	**37**		ug/L			12029590	11118402	1	Standard
⌈>	**Sc**	**45**		ug/L			1763048	1709965	1	Standard
|	**Cr**	**52**	**-0.008**	ug/L	0.016	193	25966	24961	3	Standard
|	**Cr**	**53**	**0.371**	ug/L	0.008	2	160	1282	0	Standard
⌊	**Mn**	**55**	**0.003**	ug/L	0.001	32	626	710	4	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	35534	0	KED
|	**Ni**	**60**	**0.000**	ug/L	0.003	1283	2	2	86	KED
|	**Ni**	**62**	**-0.004**	ug/L	0.009	217	1	1	86	KED
|	**Cu**	**63**	**0.005**	ug/L	0.003	60	16	25	22	KED
|	**Cu**	**65**	**0.001**	ug/L	0.002	193	8	8	24	KED
|	**Zn**	**66**	**0.030**	ug/L	0.028	93	10	17	38	KED
|	**Zn**	**67**	**0.035**	ug/L	0.101	286	1	3	124	KED
⌊	**As**	**75**	**0.003**	ug/L	0.002	73	3	3	6	KED
	Y	**89**		ug/L			692873	649151	1	Standard
	Kr	**83**		ug/L			51	43	11	Standard
⌈>	**In-1**	**115**		ug/L			7693	7034	2	KED
|	**Cd**	**111**	**-0.020**	ug/L	0.009	47	3	0	100	KED
⌊	**Cd**	**114**	**-0.031**	ug/L	0.004	12	10	0	180	KED
⌈>	**Tb**	**159**		ug/L			2213970	2243823	2	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.000	45	490	377	14	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0193-04
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 21:58:08 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	57319	1	Standard
	Cl	**37**		ug/L			12029590	10981231	2	Standard
⌈>	**Sc**	**45**		ug/L			1763048	1887674	2	Standard
|	**Cr**	**52**	**0.291**	ug/L	0.020	6	25966	36519	1	Standard
|	**Cr**	**53**	**0.784**	ug/L	0.029	3	160	2800	1	Standard
⌊	**Mn**	**55**	**0.565**	ug/L	0.024	4	626	22749	2	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	34839	1	KED
|	**Ni**	**60**	**0.070**	ug/L	0.028	39	2	57	38	KED
|	**Ni**	**62**	**0.107**	ug/L	0.063	58	1	14	52	KED
|	**Cu**	**63**	**0.197**	ug/L	0.012	6	16	421	4	KED
|	**Cu**	**65**	**0.197**	ug/L	0.022	11	8	203	11	KED
|	**Zn**	**66**	**1.638**	ug/L	0.032	1	10	387	2	KED
|	**Zn**	**67**	**1.717**	ug/L	0.093	5	1	67	6	KED
⌊	**As**	**75**	**0.426**	ug/L	0.044	10	3	60	10	KED
	Y	**89**		ug/L			692873	670809	2	Standard
	Kr	**83**		ug/L			51	45	14	Standard
⌈>	**In-1**	**115**		ug/L			7693	7387	2	KED
|	**Cd**	**111**	**-0.011**	ug/L	0.009	78	3	1	50	KED
⌊	**Cd**	**114**	**-0.021**	ug/L	0.006	30	10	3	52	KED
⌈>	**Tb**	**159**		ug/L			2213970	2253571	0	Standard
⌊	**Pb**	**208**	**0.046**	ug/L	0.001	2	490	5761	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0194-02
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 22:02:02

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	62353	1	Standard
	Cl	**37**		ug/L			12029590	11206183	1	Standard
⌈>	**Sc**	**45**		ug/L			1763048	1885203	1	Standard
|	**Cr**	**52**	**0.074**	ug/L	0.028	38	25966	29975	1	Standard
|	**Cr**	**53**	**0.818**	ug/L	0.011	1	160	2912	2	Standard
⌊	**Mn**	**55**	**8.151**	ug/L	0.167	2	626	318638	1	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	35585	1	KED
|	**Ni**	**60**	**0.197**	ug/L	0.021	10	2	161	9	KED
|	**Ni**	**62**	**0.162**	ug/L	0.009	5	1	21	5	KED
|	**Cu**	**63**	**0.421**	ug/L	0.017	4	16	904	3	KED
|	**Cu**	**65**	**0.386**	ug/L	0.015	3	8	400	2	KED
|	**Zn**	**66**	**1.441**	ug/L	0.099	6	10	349	6	KED
|	**Zn**	**67**	**2.002**	ug/L	0.624	31	1	80	31	KED
⌊	**As**	**75**	**0.406**	ug/L	0.087	21	3	59	20	KED
	Y	**89**		ug/L			692873	657510	3	Standard
	Kr	**83**		ug/L			51	53	6	Standard
⌈>	**In-1**	**115**		ug/L			7693	7209	2	KED
|	**Cd**	**111**	**-0.014**	ug/L	0.014	101	3	1	91	KED
⌊	**Cd**	**114**	**-0.023**	ug/L	0.014	58	10	2	131	KED
⌈>	**Tb**	**159**		ug/L			2213970	2269326	0	Standard
⌊	**Pb**	**208**	**0.087**	ug/L	0.001	1	490	10550	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0194-04
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 22:05:56

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	65432	1	Standard
	Cl	**37**		ug/L			12029590	11316879	1	Standard
⌈>	**Sc**	**45**		ug/L			1763048	1835247	2	Standard
|	**Cr**	**52**	**0.139**	ug/L	0.022	16	25966	31084	2	Standard
|	**Cr**	**53**	**0.848**	ug/L	0.017	1	160	2929	1	Standard
⌊	**Mn**	**55**	**3.429**	ug/L	0.155	4	626	130783	1	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	34476	2	KED
|	**Ni**	**60**	**0.197**	ug/L	0.035	17	2	156	19	KED
|	**Ni**	**62**	**0.272**	ug/L	0.127	46	1	33	42	KED
|	**Cu**	**63**	**0.528**	ug/L	0.014	2	16	1094	2	KED
|	**Cu**	**65**	**0.531**	ug/L	0.012	2	8	530	4	KED
|	**Zn**	**66**	**2.639**	ug/L	0.056	2	10	612	4	KED
|	**Zn**	**67**	**2.930**	ug/L	0.601	20	1	112	19	KED
⌊	**As**	**75**	**0.443**	ug/L	0.109	24	3	62	22	KED
	Y	**89**		ug/L			692873	663389	1	Standard
	Kr	**83**		ug/L			51	46	34	Standard
⌈>	**In-1**	**115**		ug/L			7693	7266	2	KED
|	**Cd**	**111**	**-0.001**	ug/L	0.019	1737	3	2	66	KED
⌊	**Cd**	**114**	**-0.022**	ug/L	0.007	29	10	3	58	KED
⌈>	**Tb**	**159**		ug/L			2213970	2286749	1	Standard
⌊	**Pb**	**208**	**0.086**	ug/L	0.001	1	490	10417	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0194-06
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 22:09:50 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	62284	1	Standard
	Cl	**37**		ug/L			12029590	11263811	0	Standard
⌈>	**Sc**	**45**		ug/L			1763048	1825628	3	Standard
|	**Cr**	**52**	**0.149**	ug/L	0.070	47	25966	31160	3	Standard
|	**Cr**	**53**	**0.847**	ug/L	0.034	3	160	2910	1	Standard
⌊	**Mn**	**55**	**4.285**	ug/L	0.126	2	626	162454	0	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	35044	2	KED
|	**Ni**	**60**	**0.171**	ug/L	0.016	9	2	137	8	KED
|	**Ni**	**62**	**0.116**	ug/L	0.088	75	1	15	68	KED
|	**Cu**	**63**	**0.734**	ug/L	0.037	5	16	1541	5	KED
|	**Cu**	**65**	**0.733**	ug/L	0.027	3	8	740	3	KED
|	**Zn**	**66**	**1.693**	ug/L	0.169	9	10	402	8	KED
|	**Zn**	**67**	**1.646**	ug/L	0.428	26	1	64	23	KED
⌊	**As**	**75**	**0.441**	ug/L	0.045	10	3	63	10	KED
	Y	**89**		ug/L			692873	663181	1	Standard
	Kr	**83**		ug/L			51	59	7	Standard
⌈>	**In-1**	**115**		ug/L			7693	7080	2	KED
|	**Cd**	**111**	**-0.004**	ug/L	0.015	403	3	2	57	KED
⌊	**Cd**	**114**	**-0.022**	ug/L	0.007	33	10	3	64	KED
⌈>	**Tb**	**159**		ug/L			2213970	2252185	1	Standard
⌊	**Pb**	**208**	**0.063**	ug/L	0.000	0	490	7652	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVD
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 22:14:49
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	36322	4	Standard
	Cl	**37**		ug/L			12029590	10998236	1	Standard
⌈>	**Sc**	**45**		ug/L			1763048	1618026	0	Standard
|	**Cr**	**52**	**52.931**	ug/L	0.953	1	25966	1384654	1	Standard
|	**Cr**	**53**	**52.320**	ug/L	1.987	3	160	150538	3	Standard
⌊	**Mn**	**55**	**50.562**	ug/L	1.852	3	626	1693731	3	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	34424	0	KED
|	**Ni**	**60**	**48.991**	ug/L	0.395	0	2	38226	0	KED
|	**Ni**	**62**	**47.371**	ug/L	0.783	1	1	5601	1	KED
|	**Cu**	**63**	**46.778**	ug/L	1.007	2	16	95523	2	KED
|	**Cu**	**65**	**46.237**	ug/L	1.402	3	8	45451	2	KED
|	**Zn**	**66**	**49.060**	ug/L	0.410	0	10	11198	0	KED
|	**Zn**	**67**	**49.955**	ug/L	2.774	5	1	1885	5	KED
⌊	**As**	**75**	**49.478**	ug/L	0.764	1	3	6589	1	KED
	Y	**89**		ug/L			692873	644742	3	Standard
	Kr	**83**		ug/L			51	48	13	Standard
⌈>	**In-1**	**115**		ug/L			7693	6823	2	KED
|	**Cd**	**111**	**50.135**	ug/L	2.443	4	3	4797	2	KED
⌊	**Cd**	**114**	**48.680**	ug/L	0.607	1	10	12942	2	KED
⌈>	**Tb**	**159**		ug/L			2213970	2235334	1	Standard
⌊	**Pb**	**208**	**47.007**	ug/L	0.358	0	490	5325884	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBD
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 22:19:47
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	32614	3	Standard
	Cl	**37**		ug/L			12029590	10879381	1	Standard
⌈>	**Sc**	**45**		ug/L			1763048	1658997	0	Standard
|	**Cr**	**52**	**0.034**	ug/L	0.026	77	25966	25324	2	Standard
|	**Cr**	**53**	**0.192**	ug/L	0.010	5	160	717	4	Standard
⌊	**Mn**	**55**	**0.002**	ug/L	0.001	29	626	657	3	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	33172	10	KED
|	**Ni**	**60**	**0.006**	ug/L	0.003	51	2	6	41	KED
|	**Ni**	**62**	**-0.002**	ug/L	0.022	1139	1	1	173	KED
|	**Cu**	**63**	**0.003**	ug/L	0.002	56	16	20	24	KED
|	**Cu**	**65**	**0.003**	ug/L	0.004	130	8	10	28	KED
|	**Zn**	**66**	**0.026**	ug/L	0.005	17	10	15	12	KED
|	**Zn**	**67**	**0.010**	ug/L	0.060	582	1	1	100	KED
⌊	**As**	**75**	**0.018**	ug/L	0.017	93	3	5	35	KED
	Y	**89**		ug/L			692873	623638	1	Standard
	Kr	**83**		ug/L			51	40	18	Standard
⌈>	**In-1**	**115**		ug/L			7693	7417	4	KED
|	**Cd**	**111**	**-0.011**	ug/L	0.001	6	3	1		KED
⌊	**Cd**	**114**	**-0.027**	ug/L	0.006	22	10	1	100	KED
⌈>	**Tb**	**159**		ug/L			2213970	2207448	1	Standard
⌊	**Pb**	**208**	**-0.000**	ug/L	0.000	341	490	478	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 22:23:41
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	63490	2	Standard
	Cl	**37**		ug/L			12029590	11348590	2	Standard
⌈>	**Sc**	**45**		ug/L			1763048	2024178	1	Standard
|	**Cr**	**52**	**0.139**	ug/L	0.056	40	25966	34278	3	Standard
|	**Cr**	**53**	**0.169**	ug/L	0.011	6	160	792	3	Standard
⌊	**Mn**	**55**	**0.056**	ug/L	0.012	21	626	3061	16	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	37986	0	KED
|	**Ni**	**60**	**0.147**	ug/L	0.016	10	2	128	10	KED
|	**Ni**	**62**	**0.161**	ug/L	0.030	18	1	22	16	KED
|	**Cu**	**63**	**0.035**	ug/L	0.003	7	16	94	6	KED
|	**Cu**	**65**	**0.042**	ug/L	0.011	25	8	53	20	KED
|	**Zn**	**66**	**0.585**	ug/L	0.018	3	10	158	3	KED
|	**Zn**	**67**	**0.549**	ug/L	0.049	8	1	24	7	KED
⌊	**As**	**75**	**-0.000**	ug/L	0.007	21592	3	3	25	KED
	Y	**89**		ug/L			692873	744178	1	Standard
	Kr	**83**		ug/L			51	55	27	Standard
⌈>	**In-1**	**115**		ug/L			7693	8246	3	KED
|	**Cd**	**111**	**-0.015**	ug/L	0.010	66	3	1	69	KED
⌊	**Cd**	**114**	**-0.026**	ug/L	0.009	35	10	2	123	KED
⌈>	**Tb**	**159**		ug/L			2213970	2460873	1	Standard
⌊	**Pb**	**208**	**0.026**	ug/L	0.009	36	490	3758	32	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 22:27:36
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	63373	0	Standard
	Cl	**37**		ug/L			12029590	11391447	1	Standard
⌈>	**Sc**	**45**		ug/L			1763048	2052701	0	Standard
|	**Cr**	**52**	**0.098**	ug/L	0.010	9	25966	33433	1	Standard
|	**Cr**	**53**	**0.153**	ug/L	0.005	3	160	744	2	Standard
⌊	**Mn**	**55**	**0.051**	ug/L	0.002	3	626	2895	2	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	38303	1	KED
|	**Ni**	**60**	**0.147**	ug/L	0.011	7	2	130	7	KED
|	**Ni**	**62**	**0.135**	ug/L	0.034	25	1	19	22	KED
|	**Cu**	**63**	**0.044**	ug/L	0.004	8	16	117	5	KED
|	**Cu**	**65**	**0.038**	ug/L	0.006	15	8	49	13	KED
|	**Zn**	**66**	**0.528**	ug/L	0.052	9	10	144	8	KED
|	**Zn**	**67**	**0.589**	ug/L	0.234	39	1	26	37	KED
⌊	**As**	**75**	**0.012**	ug/L	0.010	85	3	5	26	KED
	Y	**89**		ug/L			692873	757065	2	Standard
	Kr	**83**		ug/L			51	46	23	Standard
⌈>	**In-1**	**115**		ug/L			7693	8193	2	KED
|	**Cd**	**111**	**-0.013**	ug/L	0.015	117	3	1	86	KED
⌊	**Cd**	**114**	**-0.032**	ug/L	0.003	10	10	0	241	KED
⌈>	**Tb**	**159**		ug/L			2213970	2492487	2	Standard
⌊	**Pb**	**208**	**0.020**	ug/L	0.000	0	490	3031	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 22:31:31
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	63657	2	Standard
	Cl	**37**		ug/L			12029590	11275398	2	Standard
⌈>	**Sc**	**45**		ug/L			1763048	2045328	3	Standard
|	**Cr**	**52**	**0.093**	ug/L	0.040	43	25966	33103	0	Standard
|	**Cr**	**53**	**0.144**	ug/L	0.008	5	160	710	1	Standard
⌊	**Mn**	**55**	**0.050**	ug/L	0.003	5	626	2823	6	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	38154	1	KED
|	**Ni**	**60**	**0.135**	ug/L	0.016	11	2	119	13	KED
|	**Ni**	**62**	**0.116**	ug/L	0.002	2	1	17	0	KED
|	**Cu**	**63**	**0.041**	ug/L	0.003	8	16	109	7	KED
|	**Cu**	**65**	**0.031**	ug/L	0.010	32	8	42	25	KED
|	**Zn**	**66**	**0.530**	ug/L	0.054	10	10	144	8	KED
|	**Zn**	**67**	**0.516**	ug/L	0.133	25	1	23	23	KED
⌊	**As**	**75**	**0.017**	ug/L	0.017	101	3	6	38	KED
	Y	**89**		ug/L			692873	752141	1	Standard
	Kr	**83**		ug/L			51	53	6	Standard
⌈>	**In-1**	**115**		ug/L			7693	8245	1	KED
|	**Cd**	**111**	**-0.013**	ug/L	0.000	1	3	1		KED
⌊	**Cd**	**114**	**-0.028**	ug/L	0.010	37	10	1	194	KED
⌈>	**Tb**	**159**		ug/L			2213970	2474165	1	Standard
⌊	**Pb**	**208**	**0.019**	ug/L	0.001	3	490	2958	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 22:35:25
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	40321	2	Standard
	Cl	**37**		ug/L			12029590	10252527	2	Standard
⎡>	**Sc**	**45**		ug/L			1763048	1604079	4	Standard
⎢	**Cr**	**52**	**0.009**	ug/L	0.030	330	25966	23839	1	Standard
⎢	**Cr**	**53**	**0.152**	ug/L	0.006	4	160	579	4	Standard
⎣	**Mn**	**55**	**-0.007**	ug/L	0.000	6	626	331	1	Standard
⎡>	**Ge-1**	**72**		ug/L			37922	34723	2	KED
⎢	**Ni**	**60**	**0.036**	ug/L	0.008	23	2	30	18	KED
⎢	**Ni**	**62**	**0.022**	ug/L	0.024	106	1	4	65	KED
⎢	**Cu**	**63**	**0.000**	ug/L	0.004	3004	16	15	54	KED
⎢	**Cu**	**65**	**0.000**	ug/L	0.000	344	8	7	0	KED
⎢	**Zn**	**66**	**0.068**	ug/L	0.018	26	10	25	15	KED
⎢	**Zn**	**67**	**0.071**	ug/L	0.075	105	1	4	65	KED
⎣	**As**	**75**	**0.009**	ug/L	0.009	91	3	4	26	KED
	Y	**89**		ug/L			692873	589045	2	Standard
	Kr	**83**		ug/L			51	51	23	Standard
⎡>	**In-1**	**115**		ug/L			7693	6949	1	KED
⎢	**Cd**	**111**	**-0.013**	ug/L	0.011	83	3	1	69	KED
⎣	**Cd**	**114**	**-0.024**	ug/L	0.011	44	10	2	118	KED
⎡>	**Tb**	**159**		ug/L			2213970	2164741	0	Standard
⎣	**Pb**	**208**	**-0.002**	ug/L	0.000	18	490	281	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 22:39:19
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	38480	2	Standard
	Cl	**37**		ug/L			12029590	10139986	1	Standard
⌈>	**Sc**	**45**		ug/L			1763048	1515960	0	Standard
|	**Cr**	**52**	**0.047**	ug/L	0.016	33	25966	23471	1	Standard
|	**Cr**	**53**	**0.150**	ug/L	0.009	6	160	542	4	Standard
⌊	**Mn**	**55**	**-0.007**	ug/L	0.000	5	626	314	3	Standard
⌈>	**Ge-1**	**72**		ug/L			37922	34632	1	KED
|	**Ni**	**60**	**0.024**	ug/L	0.004	17	2	20	15	KED
|	**Ni**	**62**	**0.028**	ug/L	0.033	117	1	5	78	KED
|	**Cu**	**63**	**-0.000**	ug/L	0.002	837	16	14	27	KED
|	**Cu**	**65**	**-0.001**	ug/L	0.001	90	8	6	17	KED
|	**Zn**	**66**	**0.051**	ug/L	0.040	77	10	21	43	KED
|	**Zn**	**67**	**0.056**	ug/L	0.135	241	1	3	132	KED
⌊	**As**	**75**	**0.011**	ug/L	0.007	64	3	4	20	KED
	Y	**89**		ug/L			692873	584746	3	Standard
	Kr	**83**		ug/L			51	43	17	Standard
⌈>	**In-1**	**115**		ug/L			7693	6730	0	KED
|	**Cd**	**111**	**0.068**	ug/L	0.077	112	3	9	78	KED
⌊	**Cd**	**114**	**-0.013**	ug/L	0.012	91	10	5	57	KED
⌈>	**Tb**	**159**		ug/L			2213970	2122615	1	Standard
⌊	**Pb**	**208**	**-0.002**	ug/L	0.000	19	490	268	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 19, 2018 22:43:14
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort(2)ELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\061918.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			34961	38725	0	Standard
	Cl	**37**		ug/L			12029590	10220179	2	Standard
⎡>	**Sc**	**45**		ug/L			1763048	1545191	1	Standard
⎢	**Cr**	**52**	**0.017**	ug/L	0.035	208	25966	23159	2	Standard
⎢	**Cr**	**53**	**0.155**	ug/L	0.008	5	160	566	3	Standard
⎣	**Mn**	**55**	**-0.007**	ug/L	0.001	8	626	326	4	Standard
⎡>	**Ge-1**	**72**		ug/L			37922	34676	1	KED
⎢	**Ni**	**60**	**0.027**	ug/L	0.011	42	2	23	37	KED
⎢	**Ni**	**62**	**0.028**	ug/L	0.040	142	1	5	94	KED
⎢	**Cu**	**63**	**-0.003**	ug/L	0.001	40	16	8	35	KED
⎢	**Cu**	**65**	**0.000**	ug/L	0.003	7185	8	7	43	KED
⎢	**Zn**	**66**	**0.085**	ug/L	0.048	57	10	29	37	KED
⎢	**Zn**	**67**	**0.038**	ug/L	0.077	201	1	3	91	KED
⎣	**As**	**75**	**0.011**	ug/L	0.007	65	3	4	20	KED
	Y	**89**		ug/L			692873	577635	1	Standard
	Kr	**83**		ug/L			51	39	24	Standard
⎡>	**In-1**	**115**		ug/L			7693	6970	0	KED
⎢	**Cd**	**111**	**0.149**	ug/L	0.036	24	3	17	20	KED
⎣	**Cd**	**114**	**0.037**	ug/L	0.029	77	10	19	40	KED
⎡>	**Tb**	**159**		ug/L			2213970	2095563	0	Standard
⎣	**Pb**	**208**	**-0.001**	ug/L	0.000	32	490	316	14	Standard

INITIAL CALIBRATION DATA

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00049
Instrument: ICPMS1
Calibration Date: 06/20/2018 11:22

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Copper-63, Dissolved	0	0	0.5	1800	10	1759.1	20	1796.25	50	1672.64	100	1620.31
Copper-65, Dissolved	0	0	0.5	834	10	835.9	20	850.25	50	790.22	100	766.57
Zinc-66, Dissolved	0	0	4	227	10	220.3	20	223.1	50	207.34	100	194.53
Zinc-67, Dissolved	0	0	4	34.25	10	39	20	35.6	50	35.1	100	31.59

INITIAL CALIBRATION DATA

EPA 6020A UCT-KED

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00049	Instrument:	ICPMS1
Calibration Date:	06/20/2018 11:22		

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Copper-63, Dissolved	1441.383	49.2	0.9994		0.998	
Copper-65, Dissolved	679.49	49.2	0.9994		0.998	
Zinc-66, Dissolved	178.7117	49.4	0.9986		0.998	
Zinc-67, Dissolved	29.25667	49.7	0.9969		0.998	*

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS - 02 SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 85DN5032601

Analysis Date: 6/20/18 **Analyst:** MB

SEQ: SGFØ278
CAL: BFØØØ49

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CAL1	G5639		
		-CAL2	G5695		
		-CAL3	G562Ø		
		-CAL4	G5621		
		-CAL5	G5696		
		-CAL6	G5622		
		-IBL1	—		
		-ICV1	G51Ø3		
		-ICB1	G5639		
		-CCV1	G5696		
		-CCB1	G5639		
		-CRL1	G5695		
		-IFA1	G5Ø65		Cr^{53} ↑
		-IFB1	G5697		↓
		-HCV1	G5ØC7		
		-HCV2	G5Ø68		
		-IBL2/3	—		
	✓	-CCV2			In^{1} noisy
	✓	-CCB2			
		-CCV2			
		↓ -CCB2			
		BGFØ477-BLK1	REN		Mn > RL (0.560) All samples > 10x
	✓	BGFØ4Ø8-BLK2	↓		
		18FØ271-Ø1	↓	10	Zn > LR, Cd sl. noisy No Zn

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS - 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 6/20/18 **Analyst:** MB

All corrections made by analyst unless otherwise noted. MB 6/20/18

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		18FΦ281-Φ1	REN	10	Cd sl. noisy
		18FΦ287-Φ1	↓	5	
	✓	BGFΦ477-BLK2	↓		
		↓ -DUP1	↓		
		18FΦ284-Φ1	↓		
		BGFΦ477-MS1	↓		Sc↑ Co%R↓ Cr, Mn NR
		↓ -BS1	↓		
		SEQ-CCV3			
		↓ -CCB3			
		18FΦ198-Φ2	REN		Mn NR
		↓ -Φ4	↓		↓
		-Φ8	↓		
		↓ -12	↓		Sc↑ ↓
		18FΦ193-Φ4	↓		↓ - Not needed
		18FΦ198-14	↓		↓ Mn NR
		SEQ-CAL4			Empty tube
		↓ -IBL5			
		-CCV4			
		-CCB4			
	✓	-CAL1			
		-CCV5			
		↓ -CCB5			
		18FΦ198-16	REN		Mn NR
		↓ -18	↓		Mn, Zn > LR No Mn, Zn Cd sl. noisy

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS - 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 6/20/18 **Analyst:** MB

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments	
		18FΦ198-2Φ	REN			Mn NR
		18FΦ194-Φ2	↓			
		SEQ-IBL6				
		BGFΦ477-MS2	REN			Mn, Cr only
		18FΦ198-22			Mn, Zn >LR	No Mn, Zn
		↓ -24			Mn >LR	No Mn
		↓ -26			Cd noisy	Mn NR, No Cd
	✓	BGFΦ435-MS02	↓			
		SEQ-CCV6				
		↓ -CCB6				
		18FΦ198-12RE1	REN	2		Mn only
		↓ -14RE1		↓		↓
		-Φ1				
		-Φ3				
		↓ -Φ7				
		-11				
		-13			Sc, Tb noisy	No Mn, Pb
		-15				
		↓ -17			Mn, Zn >LR	No Mn, Zn
		18FΦ142-Φ9	↓	50		
		SEQ-CCV7				
		↓ -CCB7				
		18FΦ198-19	REN			
		↓ -21	↓		Mn, Zn >LR	Cu, Pb only

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS - 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 6/20/18 **Analyst:** MB

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		18FΦ198-25	REN		
		-31			
		-23			Mn>LR No Mn
		-33			
		-27			Mn>LR No Mn
		-29			↓ ↓
		-35			
		-37			Zn>LR No Zn
		SEQ-CCV8			
		↓ -CCB8			
		18FΦ198-39	REN		Mn>LR No Mn
		-41			
		-43			Mn>LR No Mn
		-45			Ge^{-1}, In^{-1} ↓, Mn>LR Pb only
		18FΦ142-11		50	
		18FΦ198-47			Mn, Zn>LR No Mn, Zn
		-49			↓ Calc. noisy ↓
		-51			
		-53			
		18FΦ192-ΦZ		10	
		SEQ-CCV9			
		-CCB9			
	✓	-CAL1			
		-CCVA			

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ICP/MS - 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 6/20/18 **Analyst:** MB

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CCBA			
18FΦ198 -55 > REN 1x		18FΦ198-57	REN		
		↓ -59	↓		
		↓ -61	↓		
		18FΦ192-Φ4	↓	20	
		18FΦ198-65	↓		
		↓ -67	↓		
		18FΦ142-13	↓		Mn>LR Pb only
		↓ -23	↓	5	
		18FΦ192-Φ6	↓	50	
		SEQ-CCVB			
		↓ -CCBB			
		18FΦ185-Φ7	REN	5	Cu, Zn only
		18FΦ194-Φ4	↓		
		↓ -Φ6	↓		
		18FΦ258-Φ1	↓		Ge⁻¹, In⁻¹ ↓ Cr, Pb only
266 -> 26Φ		18FΦ26Φ-Φ1	↓		
		18FΦ264-Φ1	↓	5	Cr, Zn>LR No Cr, Zn
		18FΦ265-Φ1	↓	↓	Cd noisy No Cd
		SEQ-ICL7			
		↓ -CCVC			
		↓ -CCBC			
		Rinse/DI			

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Wednesday, June 20, 2018 11:22:37
Sample Description:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\STD Performance Check.5915
MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	6367.2	6367.154	238.581	3.7	Standard
	In	114.9	76456.3	76456.344	1007.345	1.3	Standard
	U	238.1	74355.6	74355.616	643.806	0.9	Standard
⌈	CeO	155.9	1170.6	0.014	0.001	4.1	Standard
| >	Ce	139.9	81475.7	81475.692	681.993	0.8	Standard
⌊	Ce++	70.0	673.3	0.008	0.001	8.5	Standard
	Bkgd	220.0	1.1	1.067	0.418	39.2	Standard

Current Conditions File Data

Current Value	Description
0.98	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-11.50	Deflector Voltage
1600.00	ICP RF Power
-1825.00	Analog Stage Voltage
1400.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-14.00	Cell Rod Offset STD [CRO]
14.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
0.98	DRC Mode NEB
-7.00	DRC Mode QRO
-1.50	DRC Mode CRO
-6.00	DRC Mode Cell Entrance/Exit Voltage
0.10	Cell Gas A
0.00	Cell Gas B
200.00	Axial Field Voltage
-14.50	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-14.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
2.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Wednesday, June 20, 2018 11:42:40
Sample Description:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\STD Performance Check.5921
MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	10469.2	10469.235	146.800	1.4	Standard
	In	114.9	134475.7	134475.705	490.333	0.4	Standard
	U	238.1	115230.1	115230.087	940.283	0.8	Standard
⌈	CeO	155.9	2003.3	0.015	0.000	1.1	Standard
| >	Ce	139.9	135473.8	135473.808	665.914	0.5	Standard
⌊	Ce++	70.0	1653.4	0.012	0.000	1.7	Standard
	Bkgd	220.0	0.4	0.433	0.435	100.3	Standard

Current Conditions File Data

Current Value	Description
0.98	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-11.50	Deflector Voltage
1600.00	ICP RF Power
-1825.00	Analog Stage Voltage
1400.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-14.00	Cell Rod Offset STD [CRO]
14.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
0.98	DRC Mode NEB
-7.00	DRC Mode QRO
-1.50	DRC Mode CRO
-6.00	DRC Mode Cell Entrance/Exit Voltage
0.10	Cell Gas A
0.00	Cell Gas B
200.00	Axial Field Voltage
-14.50	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-14.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
2.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Start Time: 6/20/2018 11:21:39 AM
End Time: 6/20/2018 11:44:45 AM

STD Performance Check - [Failed]
Obtained Intensity (Be 9): 6367.15
Obtained Intensity (In 115): 76456.34
Obtained Intensity (U 238): 74355.62
Obtained Intensity (Bkgd 220): 1.07 - <Target not achieved>
Obtained Formula (Ce++ 70 / Ce 140): 0.008 (=673.35 / 81475.69)
Obtained Formula (CeO 156 / Ce 140): 0.014 (=1170.58 / 81475.69)

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
1.85 mm	-0.97 mm	138509.23

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 0.98
Obtained Intensity (In 115): 131107.88
Obtained Formula (CeO 156 / Ce 140): 0.0143 (=1728.10 / 120650.34)

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.694)
Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.711)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.707)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.708)

QID STD/DRC - Optimum value(s): Correlation Coefficient = 0.995; Intercept = -12.71

KED Mode QID - Optimum value(s): Correlation Coefficient = 0.999; Intercept = -14.13

STD Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9): 10469.24
Obtained Intensity (In 115): 134475.70
Obtained Intensity (U 238): 115230.09
Obtained Intensity (Bkgd 220): 0.43
Obtained Formula (Ce++ 70 / Ce 140): 0.012 (=1653.43 / 135473.81)
Obtained Formula (CeO 156 / Ce 140): 0.015 (=2003.27 / 135473.81)

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Optimization Status

Start Time: 6/20/2018 11:21:39 AM

STD Performance Check
	Optimization Settings:
		Method: STD Performance Check.mth.
		Intensity Criterion: Be 9 > 2000
		Intensity Criterion: In 115 > 40000
		Intensity Criterion: U 238 > 30000
		Intensity Criterion: Bkgd 220 <= 1
		Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
		Formula Criterion: CeO 156 / Ce 140 <= 0.025

	Optimization Results:
	Initial Try
		Obtained Intensity (Be 9): 6367.15
		Obtained Intensity (In 115): 76456.34
		Obtained Intensity (U 238): 74355.62
		Obtained Intensity (Bkgd 220): 1.07 - <Target not achieved>
		Obtained Formula (Ce++ 70 / Ce 140): 0.008 (=673.35 / 81475.69)
		Obtained Formula (CeO 156 / Ce 140): 0.014 (=1170.58 / 81475.69)

		[Failed]
[Failed]

Torch Alignment
	Optimization Settings:
		Method: Torch Alignment.mth.
		Intensity Criterion: In 115 Maximum

	Optimization Results:
		Vertical	Horizontal	Intensity
[Passed]	1.85 mm	-0.97 mm	138509.23

Nebulizer Gas Flow STD/KED [NEB]
	Optimization Settings:
		Method: Optimize.mth.
			Initial Try - Start/End/Step: 0.9/1.1/0.02.
		Intensity Criterion: In 115 Maximum
		Formula Criterion: CeO 156 / Ce 140 <= 0.02

	Optimization Results:
	Initial Try

		Obtained Intensity (In 115): 131107.88
		Obtained Formula (CeO 156 / Ce 140): 0.0143 (=1728.10 / 120650.34)
[Passed] Optimum value(s): 0.98

Mass Calibration and Resolution
	Optimization Settings:
		Method: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Tuning3rep.mth.
		MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
		Iterations: 6

Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution
Peak height (%) for Res. Opt.: 10

Optimization Results:
Initial Try
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.694)
Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.711)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.707)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.708)
[Passed] Optimum value(s): N/A

QID STD/DRC
Optimization Settings:
Method: QID Calibration.mth.
Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:
Initial Try

Optimum value(s): Correlation Coefficient = 0.995; Intercept = -12.71

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-13	38600.1
Mg	24	41	-13	56110
In	115	41	-10	146216
Ce	140	41	-8.5	138052
Pb	208	41	-7.5	64424.9
U	238	41	-7	120538

KED Mode QID
Optimization Settings:
Method: QID Calibration.mth.
Initial Try - Start/End/Step: -16/-4/0.25.

Optimization Results:
Initial Try

Optimum value(s): Correlation Coefficient = 0.999; Intercept = -14.13

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	49	-13.75	34986.8
Mg	24	49	-13.25	41399.9
In	115	49	-11	88324.2
Ce	140	49	-10	82718.8
Pb	208	49	-5.75	36394.3
U	238	49	-5.25	77964.2

STD Performance Check
Optimization Settings:
Method: STD Performance Check.mth.
Intensity Criterion: Be 9 > 2000
Intensity Criterion: In 115 > 40000
Intensity Criterion: U 238 > 30000
Intensity Criterion: Bkgd 220 <= 10
Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
Formula Criterion: CeO 156 / Ce 140 <= 0.025

```
       Optimization Results:
       Initial Try
               Obtained Intensity (Be 9): 10469.24
               Obtained Intensity (In 115): 134475.70
               Obtained Intensity (U 238): 115230.09
               Obtained Intensity (Bkgd 220): 0.43
               Obtained Formula (Ce++ 70 / Ce 140): 0.012 (=1653.43 / 135473.81)
               Obtained Formula (CeO 156 / Ce 140): 0.015 (=2003.27 / 135473.81)

[Passed]  Optimum value(s): N/A

End Time: 6/20/2018 11:44:45 AM
```

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 12:25:30
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				35404	1	Standard
	Cl	**37**		ug/L				9301639	1	Standard
⌈>	**Sc**	**45**		ug/L				1379189	1	Standard
|	**Cr**	**52**		ug/L				21394	1	Standard
|	**Cr**	**53**		ug/L				196	1	Standard
⌊	**Mn**	**55**		ug/L				479	3	Standard
⌈>	**Ge-1**	**72**		ug/L				32950	1	KED
|	**Ni**	**60**		ug/L				5	57	KED
|	**Ni**	**62**		ug/L				0	173	KED
|	**Cu**	**63**		ug/L				10	10	KED
|	**Cu**	**65**		ug/L				8	58	KED
|	**Zn**	**66**		ug/L				15	27	KED
⌊	**Zn**	**67**		ug/L				3	50	KED
	Y	**89**		ug/L				650172	2	Standard
	Kr	**83**		ug/L				56	22	Standard
⌈>	**In-1**	**115**		ug/L				6263	0	KED
|	**Cd**	**111**		ug/L				1	69	KED
⌊	**Cd**	**114**		ug/L				1	102	KED
⌈>	**Tb**	**159**		ug/L				2069049	1	Standard
⌊	**Pb**	**208**		ug/L				458	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 12:29:18
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	32053	3	Standard
	Cl	**37**		ug/L			9301639	9189812	1	Standard
⎡>	**Sc**	**45**		ug/L			1379189	1367379	1	Standard
⎢	**Cr**	**52**	**0.500**	ug/L	0.042	8	21394	31720	2	Standard
⎢	**Cr**	**53**	**0.500**	ug/L	0.021	4	196	1471	1	Standard
⎣	**Mn**	**55**	**0.500**	ug/L	0.005	1	479	14360	1	Standard
⎡>	**Ge-1**	**72**		ug/L			32950	32417	2	KED
⎢	**Ni**	**60**	**0.500**	ug/L	0.010	1	5	358	3	KED
⎢	**Ni**	**62**	**0.500**	ug/L	0.086	17	0	51	16	KED
⎢	**Cu**	**63**	**0.500**	ug/L	0.024	4	10	900	2	KED
⎢	**Cu**	**65**	**0.500**	ug/L	0.006	1	8	417	1	KED
⎢	**Zn**	**66**	**4.000**	ug/L	0.131	3	15	908	3	KED
⎣	**Zn**	**67**	**4.000**	ug/L	0.465	11	3	137	11	KED
	Y	**89**		ug/L			650172	646900	0	Standard
	Kr	**83**		ug/L			56	65	4	Standard
⎡>	**In-1**	**115**		ug/L			6263	6155	2	KED
⎢	**Cd**	**111**	**0.100**	ug/L	0.008	8	1	7	6	KED
⎣	**Cd**	**114**	**0.100**	ug/L	0.017	16	1	15	12	KED
⎡>	**Tb**	**159**		ug/L			2069049	2009975	1	Standard
⎣	**Pb**	**208**	**0.100**	ug/L	0.002	2	458	9744	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 12:33:05
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	40032	6	Standard
	Cl	**37**		ug/L			9301639	9311512	1	Standard
⎡>	**Sc**	**45**		ug/L			1379189	1367088	1	Standard
⎢	**Cr**	**52**	**10.002**	ug/L	0.314	3	21394	246862	1	Standard
⎢	**Cr**	**53**	**10.000**	ug/L	0.187	1	196	25669	0	Standard
⎣	**Mn**	**55**	**10.001**	ug/L	0.320	3	479	290801	2	Standard
⎡>	**Ge-1**	**72**		ug/L			32950	33109	1	KED
⎢	**Ni**	**60**	**9.999**	ug/L	0.130	1	5	7052	2	KED
⎢	**Ni**	**62**	**10.000**	ug/L	0.726	7	0	1051	5	KED
⎢	**Cu**	**63**	**9.999**	ug/L	0.093	0	10	17591	1	KED
⎢	**Cu**	**65**	**10.000**	ug/L	0.125	1	8	8359	2	KED
⎢	**Zn**	**66**	**9.942**	ug/L	0.199	2	15	2203	1	KED
⎣	**Zn**	**67**	**10.165**	ug/L	1.017	10	3	390	11	KED
	Y	**89**		ug/L			650172	660347	3	Standard
	Kr	**83**		ug/L			56	56	10	Standard
⎡>	**In-1**	**115**		ug/L			6263	6252	3	KED
⎢	**Cd**	**111**	**10.000**	ug/L	0.179	1	1	842	2	KED
⎣	**Cd**	**114**	**10.000**	ug/L	0.850	8	1	2269	5	KED
⎡>	**Tb**	**159**		ug/L			2069049	2094615	0	Standard
⎣	**Pb**	**208**	**10.000**	ug/L	0.069	0	458	957891	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 12:37:06
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	39358	0	Standard
	Cl	**37**		ug/L			9301639	9496594	0	Standard
⌈>	**Sc**	**45**		ug/L			1379189	1410609	0	Standard
|	**Cr**	**52**	**19.845**	ug/L	0.425	2	21394	470100	1	Standard
|	**Cr**	**53**	**19.936**	ug/L	0.601	3	196	51947	3	Standard
⌊	**Mn**	**55**	**19.834**	ug/L	0.573	2	479	575602	2	Standard
⌈>	**Ge-1**	**72**		ug/L			32950	33134	1	KED
|	**Ni**	**60**	**19.930**	ug/L	0.375	1	5	13867	1	KED
|	**Ni**	**62**	**19.878**	ug/L	1.286	6	0	2042	6	KED
|	**Cu**	**63**	**20.081**	ug/L	0.414	2	10	35925	1	KED
|	**Cu**	**65**	**20.066**	ug/L	0.186	0	8	17005	2	KED
|	**Zn**	**66**	**20.044**	ug/L	0.480	2	15	4462	1	KED
⌊	**Zn**	**67**	**19.677**	ug/L	1.164	5	3	712	5	KED
	Y	**89**		ug/L			650172	660260	0	Standard
	Kr	**83**		ug/L			56	52	16	Standard
⌈>	**In-1**	**115**		ug/L			6263	6292	3	KED
|	**Cd**	**111**	**20.036**	ug/L	0.250	1	1	1710	2	KED
⌊	**Cd**	**114**	**19.958**	ug/L	0.813	4	1	4522	0	KED
⌈>	**Tb**	**159**		ug/L			2069049	2118497	1	Standard
⌊	**Pb**	**208**	**20.026**	ug/L	0.236	1	458	1949752	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 12:41:17
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	31482	2	Standard
	Cl	**37**		ug/L			9301639	9608018	1	Standard
⌈>	**Sc**	**45**		ug/L			1379189	1344292	1	Standard
|	**Cr**	**52**	**49.924**	ug/L	0.721	1	21394	1087310	0	Standard
|	**Cr**	**53**	**49.869**	ug/L	2.257	4	196	121906	3	Standard
⌊	**Mn**	**55**	**50.124**	ug/L	1.777	3	479	1402814	3	Standard
⌈>	**Ge-1**	**72**		ug/L			32950	31920	2	KED
|	**Ni**	**60**	**49.942**	ug/L	1.632	3	5	33265	1	KED
|	**Ni**	**62**	**50.073**	ug/L	1.626	3	0	4991	1	KED
|	**Cu**	**63**	**49.750**	ug/L	0.813	1	10	83632	0	KED
|	**Cu**	**65**	**49.729**	ug/L	0.682	1	8	39511	1	KED
|	**Zn**	**66**	**49.728**	ug/L	1.720	3	15	10367	1	KED
⌊	**Zn**	**67**	**50.079**	ug/L	0.372	0	3	1755	1	KED
	Y	**89**		ug/L			650172	653425	0	Standard
	Kr	**83**		ug/L			56	55	17	Standard
⌈>	**In-1**	**115**		ug/L			6263	6048	1	KED
|	**Cd**	**111**	**50.036**	ug/L	1.885	3	1	4117	2	KED
⌊	**Cd**	**114**	**50.105**	ug/L	1.961	3	1	11034	3	KED
⌈>	**Tb**	**159**		ug/L			2069049	2115682	1	Standard
⌊	**Pb**	**208**	**49.590**	ug/L	0.459	0	458	4631613	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL6
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 12:47:08
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	38927	2	Standard
	Cl	**37**		ug/L			9301639	9572812	0	Standard
⌈>	**Sc**	**45**		ug/L			1379189	1314542	2	Standard
|	**Cr**	**52**	**100.576**	ug/L	3.380	3	21394	2161642	1	Standard
|	**Cr**	**53**	**99.599**	ug/L	3.306	3	196	234742	1	Standard
⌊	**Mn**	**55**	**99.436**	ug/L	1.944	1	479	2670538	1	Standard
⌈>	**Ge-1**	**72**		ug/L			32950	30965	2	KED
|	**Ni**	**60**	**100.289**	ug/L	3.320	3	5	65414	0	KED
|	**Ni**	**62**	**99.919**	ug/L	4.039	4	0	9632	1	KED
|	**Cu**	**63**	**99.856**	ug/L	2.221	2	10	162031	1	KED
|	**Cu**	**65**	**99.881**	ug/L	1.754	1	8	76657	1	KED
|	**Zn**	**66**	**99.110**	ug/L	3.729	3	15	19453	2	KED
⌊	**Zn**	**67**	**98.308**	ug/L	3.581	3	3	3159	1	KED
	Y	**89**		ug/L			650172	628808	2	Standard
	Kr	**83**		ug/L			56	62	6	Standard
⌈>	**In-1**	**115**		ug/L			6263	5877	2	KED
|	**Cd**	**111**	**99.190**	ug/L	1.870	1	1	7723	0	KED
⌊	**Cd**	**114**	**99.202**	ug/L	1.755	1	1	20681	2	KED
⌈>	**Tb**	**159**		ug/L			2069049	2072303	0	Standard
⌊	**Pb**	**208**	**99.459**	ug/L	1.935	1	458	8936873	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 12:53:40
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	34296	2	Standard
	Cl	**37**		ug/L			9301639	9241503	1	Standard
⌈>	**Sc**	**45**		ug/L			1379189	1344593	2	Standard
|	**Cr**	**52**	**0.028**	ug/L	0.020	72	21394	21456	1	Standard
|	**Cr**	**53**	**-0.008**	ug/L	0.004	53	196	172	5	Standard
⌊	**Mn**	**55**	**-0.000**	ug/L	0.001	450	479	462	5	Standard
⌈>	**Ge-1**	**72**		ug/L			32950	33560	2	KED
|	**Ni**	**60**	**0.008**	ug/L	0.008	105	5	11	50	KED
|	**Ni**	**62**	**-0.006**	ug/L	0.000	0	0	0		KED
|	**Cu**	**63**	**0.002**	ug/L	0.003	159	10	14	37	KED
|	**Cu**	**65**	**-0.003**	ug/L	0.007	254	8	6	86	KED
|	**Zn**	**66**	**-0.016**	ug/L	0.014	83	15	12	22	KED
⌊	**Zn**	**67**	**-0.019**	ug/L	0.066	341	3	3	69	KED
	Y	**89**		ug/L			650172	639123	1	Standard
	Kr	**83**		ug/L			56	55	8	Standard
⌈>	**In-1**	**115**		ug/L			6263	6127	1	KED
|	**Cd**	**111**	**0.016**	ug/L	0.011	69	1	2	33	KED
⌊	**Cd**	**114**	**-0.006**	ug/L	0.005	84	1	0	197	KED
⌈>	**Tb**	**159**		ug/L			2069049	2063942	0	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.001	38	458	658	11	Standard

Sample Information

Sample Date/Time: Wednesday, June 20, 2018 12:47:08
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShor
Mass Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

Calibration

Analyte	Mass	**r Corr Coef**	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Sc	45							
Cr	52	**0.9999**	0.016	0.50	10	20	50	100
Cr	53	**1.0000**	0.002	0.50	10	20	50	100
Mn	55	**0.9999**	0.020	0.50	10	20	50	100
Ge-1	72							
Ni	60	**1.0000**	0.021	0.50	10	20	50	100
Ni	62	**1.0000**	0.003	0.50	10	20	50	100
Cu	63	**1.0000**	0.052	0.50	10	20	50	100
Cu	65	**1.0000**	0.025	0.50	10	20	50	100
Zn	66	**0.9998**	0.006	4.00	10	20	50	100
Zn	67	**0.9995**	0.001	4.00	10	20	50	100
Y	89							
Kr	83							
In-1	115							
Cd	111	**0.9999**	0.013	0.10	10	20	50	100
Cd	114	**0.9999**	0.035	0.10	10	20	50	100
Tb	159							
Pb	208	**0.9999**	0.043	0.10	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICV1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 12:58:31
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	39670	2	Standard
	Cl	**37**		ug/L			9301639	9513002	0	Standard
⌈>	**Sc**	**45**		ug/L			1379189	1405251	0	Standard
|	**Cr**	**52**	**48.190**	ug/L	1.028	2	21394	1119034	1	Standard
|	**Cr**	**53**	**49.036**	ug/L	2.224	4	196	123680	3	Standard
⌊	**Mn**	**55**	**49.510**	ug/L	1.517	3	479	1421985	3	Standard
⌈>	**Ge-1**	**72**		ug/L			32950	32859	1	KED
|	**Ni**	**60**	**49.673**	ug/L	1.658	3	5	34393	2	KED
|	**Ni**	**62**	**49.637**	ug/L	0.733	1	0	5081	1	KED
|	**Cu**	**63**	**50.022**	ug/L	1.628	3	10	86165	3	KED
|	**Cu**	**65**	**49.785**	ug/L	1.145	2	8	40553	1	KED
|	**Zn**	**66**	**48.315**	ug/L	0.530	1	15	10078	2	KED
⌊	**Zn**	**67**	**49.709**	ug/L	1.905	3	3	1697	3	KED
	Y	**89**		ug/L			650172	647637	2	Standard
	Kr	**83**		ug/L			56	57	15	Standard
⌈>	**In-1**	**115**		ug/L			6263	6148	2	KED
|	**Cd**	**111**	**50.217**	ug/L	1.953	3	1	4090	1	KED
⌊	**Cd**	**114**	**49.410**	ug/L	1.512	3	1	10774	1	KED
⌈>	**Tb**	**159**		ug/L			2069049	2101336	1	Standard
⌊	**Pb**	**208**	**50.262**	ug/L	0.479	0	458	4579822	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICB1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 13:02:43
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	33372	2	Standard
	Cl	**37**		ug/L			9301639	9418791	3	Standard
⌈>	**Sc**	**45**		ug/L			1379189	1340154	7	Standard
|	**Cr**	**52**	**0.037**	ug/L	0.066	178	21394	21523	0	Standard
|	**Cr**	**53**	**-0.012**	ug/L	0.004	36	196	162	1	Standard
⌊	**Mn**	**55**	**-0.000**	ug/L	0.001	469	479	457	1	Standard
⌈>	**Ge-1**	**72**		ug/L			32950	33401	4	KED
|	**Ni**	**60**	**-0.002**	ug/L	0.004	232	5	4	65	KED
|	**Ni**	**62**	**0.005**	ug/L	0.020	369	0	1	173	KED
|	**Cu**	**63**	**0.002**	ug/L	0.001	64	10	13	15	KED
|	**Cu**	**65**	**-0.003**	ug/L	0.006	168	8	5	88	KED
|	**Zn**	**66**	**-0.009**	ug/L	0.021	224	15	13	28	KED
⌊	**Zn**	**67**	**-0.074**	ug/L	0.033	44	3	1	86	KED
	Y	**89**		ug/L			650172	618615	7	Standard
	Kr	**83**		ug/L			56	66	2	Standard
⌈>	**In-1**	**115**		ug/L			6263	6160	1	KED
|	**Cd**	**111**	**-0.004**	ug/L	0.007	180	1	1	43	KED
⌊	**Cd**	**114**	**-0.003**	ug/L	0.010	349	1	1	184	KED
⌈>	**Tb**	**159**		ug/L			2069049	1996023	6	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.000	14	458	643	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 13:07:00
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	30440	1	Standard
	Cl	**37**		ug/L			9301639	9424689	1	Standard
⌈>	**Sc**	**45**		ug/L			1379189	1352620	2	Standard
|	**Cr**	**52**	**49.138**	ug/L	0.510	1	21394	1097844	1	Standard
|	**Cr**	**53**	**50.771**	ug/L	2.332	4	196	123193	2	Standard
⌊	**Mn**	**55**	**49.104**	ug/L	0.516	1	479	1357333	1	Standard
⌈>	**Ge-1**	**72**		ug/L			32950	31846	1	KED
|	**Ni**	**60**	**50.021**	ug/L	1.506	3	5	33570	1	KED
|	**Ni**	**62**	**49.437**	ug/L	1.189	2	0	4904	2	KED
|	**Cu**	**63**	**50.427**	ug/L	1.507	2	10	84165	1	KED
|	**Cu**	**65**	**50.354**	ug/L	0.311	0	8	39758	0	KED
|	**Zn**	**66**	**51.025**	ug/L	1.352	2	15	10311	1	KED
⌊	**Zn**	**67**	**51.114**	ug/L	1.478	2	3	1692	2	KED
	Y	**89**		ug/L			650172	624617	0	Standard
	Kr	**83**		ug/L			56	57	16	Standard
⌈>	**In-1**	**115**		ug/L			6263	5973	2	KED
|	**Cd**	**111**	**50.309**	ug/L	1.038	2	1	3982	3	KED
⌊	**Cd**	**114**	**52.559**	ug/L	2.379	4	1	11129	2	KED
⌈>	**Tb**	**159**		ug/L			2069049	2058381	0	Standard
⌊	**Pb**	**208**	**50.727**	ug/L	0.182	0	458	4527960	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 13:11:12
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	33887	3	Standard
	Cl	**37**		ug/L			9301639	9630557	0	Standard
⌈>	**Sc**	**45**		ug/L			1379189	1400084	0	Standard
|	**Cr**	**52**	**-0.019**	ug/L	0.010	50	21394	21280	0	Standard
|	**Cr**	**53**	**-0.012**	ug/L	0.004	29	196	169	5	Standard
⌊	**Mn**	**55**	**-0.000**	ug/L	0.001	272	479	480	2	Standard
⌈>	**Ge-1**	**72**		ug/L			32950	33690	2	KED
|	**Ni**	**60**	**0.003**	ug/L	0.006	165	5	8	48	KED
|	**Ni**	**62**	**0.012**	ug/L	0.000	3	0	1		KED
|	**Cu**	**63**	**0.005**	ug/L	0.003	53	10	20	23	KED
|	**Cu**	**65**	**-0.002**	ug/L	0.007	370	8	6	83	KED
|	**Zn**	**66**	**0.013**	ug/L	0.032	244	15	19	36	KED
⌊	**Zn**	**67**	**-0.075**	ug/L	0.063	84	3	1	173	KED
	Y	**89**		ug/L			650172	634543	2	Standard
	Kr	**83**		ug/L			56	57	15	Standard
⌈>	**In-1**	**115**		ug/L			6263	6301	0	KED
|	**Cd**	**111**	**0.008**	ug/L	0.017	231	1	2	65	KED
⌊	**Cd**	**114**	**-0.006**	ug/L	0.005	87	1	0	188	KED
⌈>	**Tb**	**159**		ug/L			2069049	2037509	3	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.000	17	458	621	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CRL1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 13:17:06
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	31275	3	Standard
	Cl	**37**		ug/L			9301639	9329881	1	Standard
⌈>	**Sc**	**45**		ug/L			1379189	1352469	0	Standard
|	**Cr**	**52**	**0.512**	ug/L	0.023	4	21394	32192	2	Standard
|	**Cr**	**53**	**0.499**	ug/L	0.007	1	196	1401	1	Standard
⌊	**Mn**	**55**	**0.503**	ug/L	0.012	2	479	14383	3	Standard
⌈>	**Ge-1**	**72**		ug/L			32950	33751	0	KED
|	**Ni**	**60**	**0.487**	ug/L	0.026	5	5	352	4	KED
|	**Ni**	**62**	**0.489**	ug/L	0.083	17	0	52	16	KED
|	**Cu**	**63**	**0.507**	ug/L	0.025	4	10	907	4	KED
|	**Cu**	**65**	**0.527**	ug/L	0.042	7	8	449	7	KED
|	**Zn**	**66**	**4.121**	ug/L	0.158	3	15	897	4	KED
⌊	**Zn**	**67**	**3.713**	ug/L	0.290	7	3	133	8	KED
	Y	**89**		ug/L			650172	634354	2	Standard
	Kr	**83**		ug/L			56	58	12	Standard
⌈>	**In-1**	**115**		ug/L			6263	6301	2	KED
|	**Cd**	**111**	**0.069**	ug/L	0.041	60	1	7	45	KED
⌊	**Cd**	**114**	**0.093**	ug/L	0.013	13	1	22	14	KED
⌈>	**Tb**	**159**		ug/L			2069049	2057702	0	Standard
⌊	**Pb**	**208**	**0.103**	ug/L	0.001	0	458	9637	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFA1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 13:20:55
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	194238	0	Standard
	Cl	**37**		ug/L			9301639	21698433	0	Standard
⌈>	**Sc**	**45**		ug/L			1379189	1501402	2	Standard
|	**Cr**	**52**	**0.734**	ug/L	0.054	7	21394	41128	1	Standard
|	**Cr**	**53**	**5.696**	ug/L	0.198	3	196	15532	1	Standard
⌊	**Mn**	**55**	**0.082**	ug/L	0.003	4	479	3026	0	Standard
⌈>	**Ge-1**	**72**		ug/L			32950	29770	0	KED
|	**Ni**	**60**	**0.107**	ug/L	0.013	11	5	72	11	KED
|	**Ni**	**62**	**0.117**	ug/L	0.021	18	0	11	16	KED
|	**Cu**	**63**	**0.069**	ug/L	0.010	14	10	116	12	KED
|	**Cu**	**65**	**0.073**	ug/L	0.012	15	8	61	14	KED
|	**Zn**	**66**	**1.505**	ug/L	0.119	7	15	298	8	KED
⌊	**Zn**	**67**	**1.451**	ug/L	0.161	11	3	48	9	KED
	Y	**89**		ug/L			650172	773475	0	Standard
	Kr	**83**		ug/L			56	89	5	Standard
⌈>	**In-1**	**115**		ug/L			6263	5775	1	KED
|	**Cd**	**111**	**0.093**	ug/L	0.020	21	1	8	19	KED
⌊	**Cd**	**114**	**0.071**	ug/L	0.035	49	1	16	44	KED
⌈>	**Tb**	**159**		ug/L			2069049	2123824	0	Standard
⌊	**Pb**	**208**	**0.049**	ug/L	0.001	2	458	4946	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFB1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 13:24:42
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	190823	1	Standard
	Cl	**37**		ug/L			9301639	21174441	3	Standard
⌈>	**Sc**	**45**		ug/L			1379189	1522773	2	Standard
|	**Cr**	**52**	**20.730**	ug/L	0.379	1	21394	535065	2	Standard
|	**Cr**	**53**	**25.628**	ug/L	0.721	2	196	70140	0	Standard
⌊	**Mn**	**55**	**20.175**	ug/L	0.628	3	479	627957	1	Standard
⌈>	**Ge-1**	**72**		ug/L			32950	30544	1	KED
|	**Ni**	**60**	**19.904**	ug/L	0.162	0	5	12817	0	KED
|	**Ni**	**62**	**20.008**	ug/L	0.527	2	0	1904	2	KED
|	**Cu**	**63**	**19.674**	ug/L	0.194	0	10	31507	0	KED
|	**Cu**	**65**	**19.860**	ug/L	0.322	1	8	15044	1	KED
|	**Zn**	**66**	**19.049**	ug/L	1.024	5	15	3700	4	KED
⌊	**Zn**	**67**	**17.471**	ug/L	1.323	7	3	556	6	KED
	Y	**89**		ug/L			650172	795276	1	Standard
	Kr	**83**		ug/L			56	84	14	Standard
⌈>	**In-1**	**115**		ug/L			6263	5810	0	KED
|	**Cd**	**111**	**20.000**	ug/L	0.108	0	1	1541	0	KED
⌊	**Cd**	**114**	**19.826**	ug/L	0.291	1	1	4087	1	KED
⌈>	**Tb**	**159**		ug/L			2069049	2090194	1	Standard
⌊	**Pb**	**208**	**0.028**	ug/L	0.001	2	458	2995	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 13:28:47
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	44789	2	Standard
	Cl	**37**		ug/L			9301639	10012739	1	Standard
⌈>	**Sc**	**45**		ug/L			1379189	1442465	2	Standard
|	**Cr**	**52**	**197.025**	ug/L	5.341	2	21394	4625451	0	Standard
|	**Cr**	**53**	**200.838**	ug/L	5.737	2	196	519265	1	Standard
⌊	**Mn**	**55**	**199.366**	ug/L	8.233	4	479	5872732	2	Standard
⌈>	**Ge-1**	**72**		ug/L			32950	29736	1	KED
|	**Ni**	**60**	**201.105**	ug/L	5.528	2	5	126005	1	KED
|	**Ni**	**62**	**196.639**	ug/L	2.005	1	0	18215	0	KED
|	**Cu**	**63**	**201.353**	ug/L	1.882	0	10	313877	2	KED
|	**Cu**	**65**	**200.693**	ug/L	4.127	2	8	147921	0	KED
|	**Zn**	**66**	**191.906**	ug/L	2.958	1	15	36177	0	KED
⌊	**Zn**	**67**	**192.786**	ug/L	0.910	0	3	5951	1	KED
	Y	**89**		ug/L			650172	715992	3	Standard
	Kr	**83**		ug/L			56	93	16	Standard
⌈>	**In-1**	**115**		ug/L			6263	5850	1	KED
|	**Cd**	**111**	**192.979**	ug/L	5.323	2	1	14954	1	KED
⌊	**Cd**	**114**	**198.305**	ug/L	5.409	2	1	41142	1	KED
⌈>	**Tb**	**159**		ug/L			2069049	2089069	1	Standard
⌊	**Pb**	**208**	**203.765**	ug/L	3.857	1	458	18454450	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 13:32:35
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	45739	1	Standard
	Cl	**37**		ug/L			9301639	9795036	1	Standard
⎡>	**Sc**	**45**		ug/L			1379189	1337453	1	Standard
⎢	**Cr**	**52**	**297.589**	ug/L	2.491	0	21394	6469542	0	Standard
⎢	**Cr**	**53**	**299.359**	ug/L	3.136	1	196	717848	1	Standard
⎣	**Mn**	**55**	**299.439**	ug/L	4.556	1	479	8182583	1	Standard
⎡>	**Ge-1**	**72**		ug/L			32950	27554	1	KED
⎢	**Ni**	**60**	**301.178**	ug/L	3.450	1	5	174883	0	KED
⎢	**Ni**	**62**	**297.692**	ug/L	4.212	1	0	25551	0	KED
⎢	**Cu**	**63**	**298.984**	ug/L	5.881	1	10	431820	2	KED
⎢	**Cu**	**65**	**293.964**	ug/L	7.569	2	8	200820	3	KED
⎢	**Zn**	**66**	**278.645**	ug/L	2.342	0	15	48673	1	KED
⎣	**Zn**	**67**	**287.722**	ug/L	1.581	0	3	8228	2	KED
	Y	**89**		ug/L			650172	651389	0	Standard
	Kr	**83**		ug/L			56	104	26	Standard
⎡>	**In-1**	**115**		ug/L			6263	5332	2	KED
⎢	**Cd**	**111**	**287.570**	ug/L	11.532	4	1	20301	1	KED
⎣	**Cd**	**114**	**289.481**	ug/L	8.868	3	1	54722	0	KED
⎡>	**Tb**	**159**		ug/L			2069049	2026423	2	Standard
⎣	**Pb**	**208**	**294.599**	ug/L	10.439	3	458	25868219	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 13:39:06
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	39753	0	Standard
	Cl	**37**		ug/L			9301639	9724235	1	Standard
⌈>	**Sc**	**45**		ug/L			1379189	1463560	1	Standard
|	**Cr**	**52**	**0.062**	ug/L	0.086	139	21394	24192	10	Standard
|	**Cr**	**53**	**0.081**	ug/L	0.076	93	196	423	48	Standard
⌊	**Mn**	**55**	**0.054**	ug/L	0.079	145	479	2158	111	Standard
⌈>	**Ge-1**	**72**		ug/L			32950	33589	1	KED
|	**Ni**	**60**	**0.010**	ug/L	0.013	136	5	12	73	KED
|	**Ni**	**62**	**0.024**	ug/L	0.028	115	0	3	91	KED
|	**Cu**	**63**	**0.021**	ug/L	0.010	47	10	48	35	KED
|	**Cu**	**65**	**0.022**	ug/L	0.006	26	8	26	18	KED
|	**Zn**	**66**	**0.401**	ug/L	0.038	9	15	101	8	KED
⌊	**Zn**	**67**	**0.435**	ug/L	0.143	32	3	19	26	KED
	Y	**89**		ug/L			650172	714953	0	Standard
	Kr	**83**		ug/L			56	62	9	Standard
⌈>	**In-1**	**115**		ug/L			6263	6248	2	KED
|	**Cd**	**111**	**-0.015**	ug/L	0.007	44	1	0	173	KED
⌊	**Cd**	**114**	**0.008**	ug/L	0.015	174	1	3	86	KED
⌈>	**Tb**	**159**		ug/L			2069049	2143589	0	Standard
⌊	**Pb**	**208**	**0.075**	ug/L	0.106	140	458	7515	132	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 13:44:49
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	39486	3	Standard
	Cl	**37**		ug/L			9301639	10036695	0	Standard
⎡>	**Sc**	**45**		ug/L			1379189	1485586	2	Standard
⎢	**Cr**	**52**	**0.011**	ug/L	0.016	141	21394	23315	1	Standard
⎢	**Cr**	**53**	**0.024**	ug/L	0.009	35	196	276	10	Standard
⎣	**Mn**	**55**	**0.005**	ug/L	0.001	16	479	682	2	Standard
⎡>	**Ge-1**	**72**		ug/L			32950	34554	1	KED
⎢	**Ni**	**60**	**0.010**	ug/L	0.005	49	5	13	28	KED
⎢	**Ni**	**62**	**0.006**	ug/L	0.021	360	0	1	173	KED
⎢	**Cu**	**63**	**0.020**	ug/L	0.001	4	10	46	4	KED
⎢	**Cu**	**65**	**0.014**	ug/L	0.005	31	8	20	18	KED
⎢	**Zn**	**66**	**0.490**	ug/L	0.060	12	15	123	9	KED
⎣	**Zn**	**67**	**0.419**	ug/L	0.133	31	3	19	26	KED
	Y	**89**		ug/L			650172	700062	0	Standard
	Kr	**83**		ug/L			56	50	10	Standard
⎡>	**In-1**	**115**		ug/L			6263	6497	1	KED
⎢	**Cd**	**111**	**0.011**	ug/L	0.032	306	1	2	108	KED
⎣	**Cd**	**114**	**-0.000**	ug/L	0.008	2180	1	1	103	KED
⎡>	**Tb**	**159**		ug/L			2069049	2134046	1	Standard
⎣	**Pb**	**208**	**0.010**	ug/L	0.001	5	458	1400	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 13:50:31 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	33765	2	Standard
	Cl	**37**		ug/L			9301639	9968427	1	Standard
⌈>	**Sc**	**45**		ug/L			1379189	1431653	2	Standard
|	**Cr**	**52**	**50.253**	ug/L	0.926	1	21394	1187643	1	Standard
|	**Cr**	**53**	**49.534**	ug/L	2.014	4	196	127240	2	Standard
⌊	**Mn**	**55**	**49.368**	ug/L	0.796	1	479	1444192	1	Standard
⌈>	**Ge-1**	**72**		ug/L			32950	33448	1	KED
|	**Ni**	**60**	**50.129**	ug/L	0.734	1	5	35337	0	KED
|	**Ni**	**62**	**48.422**	ug/L	0.939	1	0	5045	2	KED
|	**Cu**	**63**	**50.285**	ug/L	1.043	2	10	88152	0	KED
|	**Cu**	**65**	**50.358**	ug/L	0.429	0	8	41764	1	KED
|	**Zn**	**66**	**50.822**	ug/L	0.900	1	15	10788	1	KED
⌊	**Zn**	**67**	**49.428**	ug/L	2.327	4	3	1718	3	KED
	Y	**89**		ug/L			650172	665503	1	Standard
	Kr	**83**		ug/L			56	57	13	Standard
⌈>	**In-1**	**115**		ug/L			6263	5413	11	KED
|	**Cd**	**111**	**60.138**	ug/L	7.075	11	1	4276	1	KED
⌊	**Cd**	**114**	**61.077**	ug/L	6.661	10	1	11633	0	KED
⌈>	**Tb**	**159**		ug/L			2069049	2115187	1	Standard
⌊	**Pb**	**208**	**51.113**	ug/L	0.764	1	458	4687758	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 13:55:23 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	35849	2	Standard
	Cl	**37**		ug/L			9301639	9964257	3	Standard
⌈>	**Sc**	**45**		ug/L			1379189	1443680	2	Standard
|	**Cr**	**52**	**0.012**	ug/L	0.015	125	21394	22671	0	Standard
|	**Cr**	**53**	**0.008**	ug/L	0.010	127	196	226	10	Standard
⌊	**Mn**	**55**	**0.003**	ug/L	0.004	151	479	582	20	Standard
⌈>	**Ge-1**	**72**		ug/L			32950	34414	1	KED
|	**Ni**	**60**	**0.028**	ug/L	0.045	159	5	26	122	KED
|	**Ni**	**62**	**0.030**	ug/L	0.062	209	0	3	173	KED
|	**Cu**	**63**	**0.030**	ug/L	0.041	136	10	64	112	KED
|	**Cu**	**65**	**0.022**	ug/L	0.037	165	8	27	113	KED
|	**Zn**	**66**	**0.032**	ug/L	0.083	256	15	23	75	KED
⌊	**Zn**	**67**	**0.013**	ug/L	0.061	481	3	4	49	KED
	Y	**89**		ug/L			650172	686637	1	Standard
	Kr	**83**		ug/L			56	54	19	Standard
⌈>	**In-1**	**115**		ug/L			6263	6365	1	KED
|	**Cd**	**111**	**-0.004**	ug/L	0.013	311	1	1	86	KED
⌊	**Cd**	**114**	**-0.000**	ug/L	0.008	2073	1	1	105	KED
⌈>	**Tb**	**159**		ug/L			2069049	2114677	1	Standard
⌊	**Pb**	**208**	**0.007**	ug/L	0.006	91	458	1069	52	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 14:00:40
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	33653	1	Standard
	Cl	**37**		ug/L			9301639	10202356	0	Standard
⎡>	**Sc**	**45**		ug/L			1379189	1448933	0	Standard
⎢	**Cr**	**52**	**48.583**	ug/L	0.582	1	21394	1163105	1	Standard
⎢	**Cr**	**53**	**50.295**	ug/L	0.960	1	196	130812	1	Standard
⎣	**Mn**	**55**	**50.143**	ug/L	0.886	1	479	1484954	2	Standard
⎡>	**Ge-1**	**72**		ug/L			32950	32869	1	KED
⎢	**Ni**	**60**	**51.026**	ug/L	1.110	2	5	35345	1	KED
⎢	**Ni**	**62**	**51.384**	ug/L	1.737	3	0	5261	2	KED
⎢	**Cu**	**63**	**50.660**	ug/L	1.049	2	10	87277	1	KED
⎢	**Cu**	**65**	**50.997**	ug/L	0.869	1	8	41555	0	KED
⎢	**Zn**	**66**	**51.363**	ug/L	2.289	4	15	10711	3	KED
⎣	**Zn**	**67**	**51.996**	ug/L	1.446	2	3	1777	4	KED
	Y	**89**		ug/L			650172	688112	2	Standard
	Kr	**83**		ug/L			56	67	19	Standard
⎡>	**In-1**	**115**		ug/L			6263	6035	2	KED
⎢	**Cd**	**111**	**52.847**	ug/L	1.779	3	1	4226	3	KED
⎣	**Cd**	**114**	**52.805**	ug/L	1.369	2	1	11305	2	KED
⎡>	**Tb**	**159**		ug/L			2069049	2121971	1	Standard
⎣	**Pb**	**208**	**50.873**	ug/L	0.574	1	458	4681079	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 14:05:31
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	36581	1	Standard
	Cl	**37**		ug/L			9301639	10164396	2	Standard
⌈>	**Sc**	**45**		ug/L			1379189	1486906	2	Standard
|	**Cr**	**52**	**0.027**	ug/L	0.009	32	21394	23705	2	Standard
|	**Cr**	**53**	**0.000**	ug/L	0.012	9380	196	212	17	Standard
⌊	**Mn**	**55**	**0.010**	ug/L	0.016	168	479	818	63	Standard
⌈>	**Ge-1**	**72**		ug/L			32950	34109	0	KED
|	**Ni**	**60**	**0.008**	ug/L	0.010	124	5	11	60	KED
|	**Ni**	**62**	**-0.006**	ug/L	0.000	0	0	0		KED
|	**Cu**	**63**	**0.002**	ug/L	0.004	168	10	15	45	KED
|	**Cu**	**65**	**0.000**	ug/L	0.003	847	8	8	32	KED
|	**Zn**	**66**	**-0.003**	ug/L	0.022	854	15	15	30	KED
⌊	**Zn**	**67**	**-0.004**	ug/L	0.054	1427	3	3	50	KED
	Y	**89**		ug/L			650172	693498	0	Standard
	Kr	**83**		ug/L			56	54	14	Standard
⌈>	**In-1**	**115**		ug/L			6263	6548	2	KED
|	**Cd**	**111**	**-0.008**	ug/L	0.011	129	1	0	100	KED
⌊	**Cd**	**114**	**-0.003**	ug/L	0.009	291	1	1	180	KED
⌈>	**Tb**	**159**		ug/L			2069049	2147735	0	Standard
⌊	**Pb**	**208**	**0.015**	ug/L	0.023	147	458	1904	110	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0477-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 14:09:53
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	45195	1	Standard
	Cl	**37**		ug/L			9301639	9948850	2	Standard
⌈>	**Sc**	**45**		ug/L			1379189	1499821	2	Standard
|	**Cr**	**52**	**0.059**	ug/L	0.021	36	21394	24691	0	Standard
|	**Cr**	**53**	**0.009**	ug/L	0.010	113	196	237	10	Standard
⌊	**Mn**	**55**	**0.560**	ug/L	0.015	2	479	17666	0	Standard
⌈>	**Ge-1**	**72**		ug/L			32950	35662	2	KED
|	**Ni**	**60**	**0.050**	ug/L	0.010	20	5	43	19	KED
|	**Ni**	**62**	**0.057**	ug/L	0.044	77	0	6	68	KED
|	**Cu**	**63**	**0.059**	ug/L	0.009	15	10	123	16	KED
|	**Cu**	**65**	**0.067**	ug/L	0.010	15	8	67	11	KED
|	**Zn**	**66**	**0.750**	ug/L	0.020	2	15	186	3	KED
⌊	**Zn**	**67**	**0.691**	ug/L	0.270	39	3	29	36	KED
	Y	**89**		ug/L			650172	721496	0	Standard
	Kr	**83**		ug/L			56	57	17	Standard
⌈>	**In-1**	**115**		ug/L			6263	6635	2	KED
|	**Cd**	**111**	**-0.001**	ug/L	0.007	674	1	1	34	KED
⌊	**Cd**	**114**	**-0.008**	ug/L	0.009	122	1	0	1128	KED
⌈>	**Tb**	**159**		ug/L			2069049	2179979	1	Standard
⌊	**Pb**	**208**	**0.006**	ug/L	0.000	6	458	1058	3	Standard

Cont OK. Samples >10x

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0408-BLK2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 14:13:41 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	52149	4	Standard
	Cl	**37**		ug/L			9301639	9919243	1	Standard
⌈>	**Sc**	**45**		ug/L			1379189	1544885	0	Standard
|	**Cr**	**52**	**0.045**	ug/L	0.003	7	21394	25079	0	Standard
|	**Cr**	**53**	**0.009**	ug/L	0.003	30	196	245	2	Standard
⌊	**Mn**	**55**	**0.743**	ug/L	0.018	2	479	24001	1	Standard
⌈>	**Ge-1**	**72**		ug/L			32950	35630	1	KED
|	**Ni**	**60**	**0.035**	ug/L	0.003	8	5	32	5	KED
|	**Ni**	**62**	**0.034**	ug/L	0.011	31	0	4	24	KED
|	**Cu**	**63**	**0.067**	ug/L	0.010	15	10	135	12	KED
|	**Cu**	**65**	**0.065**	ug/L	0.003	4	8	66	2	KED
|	**Zn**	**66**	**0.773**	ug/L	0.042	5	15	191	6	KED
⌊	**Zn**	**67**	**0.593**	ug/L	0.284	47	3	26	40	KED
	Y	**89**		ug/L			650172	716011	0	Standard
	Kr	**83**		ug/L			56	55	20	Standard
⌈>	**In-1**	**115**		ug/L			6263	6608	2	KED
|	**Cd**	**111**	**-0.008**	ug/L	0.011	125	1	0	100	KED
⌊	**Cd**	**114**	**-0.012**	ug/L	0.005	38	1	0	132	KED
⌈>	**Tb**	**159**		ug/L			2069049	2191262	2	Standard
⌊	**Pb**	**208**	**0.006**	ug/L	0.000	7	458	1083	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0271-01
Sample Dil Factor: 10
Comments:
Sample Date/Time: Wednesday, June 20, 2018 14:17:28
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			35404	277482	3	Standard
	Cl	37		ug/L			9301639	10213268	1	Standard
>	Sc	45		ug/L			1379189	1574074	3	Standard
	Cr	52	18.812	ug/L	0.542	2	21394	503952	1	Standard
	Cr	53	19.320	ug/L	0.757	3	196	54691	2	Standard
	Mn	55	32.707	ug/L	1.515	4	479	1051435	1	Standard
>	Ge-1	72		ug/L			32950	34659	1	KED
	Ni	60	2.486	ug/L	0.043	1	5	1821	1	KED
	Ni	62	2.180	ug/L	0.131	6	0	236	7	KED
	Cu	63	4.150	ug/L	0.046	1	10	7550	1	KED
	Cu	65	4.072	ug/L	0.155	3	8	3507	4	KED
	Zn	66	639.403	ug/L	8.582	1	15	140445	0	KED
	Zn	67	604.792	ug/L	13.481	2	3	21745	1	KED
	Y	89		ug/L			650172	748801	1	Standard
	Kr	83		ug/L			56	54	14	Standard
>	In-1	115		ug/L			6263	6561	2	KED
	Cd	111	2.594	ug/L	0.162	6	1	227	7	KED
	Cd	114	2.690	ug/L	0.265	9	1	628	12	KED
>	Tb	159		ug/L			2069049	2235660	0	Standard
	Pb	208	0.160	ug/L	0.002	0	458	16044	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0281-01
Sample Dil Factor: 10
Comments:
Sample Date/Time: Wednesday, June 20, 2018 14:21:16
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			35404	177621	1	Standard
	Cl	37		ug/L			9301639	10460383	1	Standard
>	Sc	45		ug/L			1379189	1581048	1	Standard
	Cr	52	131.324	ug/L	1.156	0	21394	3388854	1	Standard
	Cr	53	128.752	ug/L	1.212	0	196	365114	2	Standard
	Mn	55	21.928	ug/L	0.409	1	479	708780	0	Standard
>	Ge-1	72		ug/L			32950	34858	1	KED
	Ni	60	2.684	ug/L	0.016	0	5	1977	1	KED
	Ni	62	2.751	ug/L	0.376	13	0	299	14	KED
	Cu	63	4.429	ug/L	0.081	1	10	8105	2	KED
	Cu	65	4.397	ug/L	0.039	0	8	3808	0	KED
	Zn	66	216.695	ug/L	7.346	3	15	47902	4	KED
	Zn	67	200.226	ug/L	2.680	1	3	7245	2	KED
	Y	89		ug/L			650172	767048	1	Standard
	Kr	83		ug/L			56	67	14	Standard
>	In-1	115		ug/L			6263	6581	3	KED
	Cd	111	2.772	ug/L	0.243	8	1	243	8	KED
	Cd	114	2.904	ug/L	0.049	1	1	680	4	KED
>	Tb	159		ug/L			2069049	2234804	0	Standard
	Pb	208	0.598	ug/L	0.004	0	458	58427	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0287-01
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, June 20, 2018 14:25:03
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	42595	1	Standard
	Cl	**37**		ug/L			9301639	10206474	1	Standard
⌈>	**Sc**	**45**		ug/L			1379189	1616130	2	Standard
|	**Cr**	**52**	**9.540**	ug/L	0.251	2	21394	274853	2	Standard
|	**Cr**	**53**	**10.026**	ug/L	0.052	0	196	29270	1	Standard
⌊	**Mn**	**55**	**85.808**	ug/L	2.547	2	479	2832714	0	Standard
⌈>	**Ge-1**	**72**		ug/L			32950	35036	2	KED
|	**Ni**	**60**	**1.872**	ug/L	0.100	5	5	1387	3	KED
|	**Ni**	**62**	**1.863**	ug/L	0.281	15	0	203	14	KED
|	**Cu**	**63**	**6.125**	ug/L	0.067	1	10	11259	2	KED
|	**Cu**	**65**	**6.193**	ug/L	0.184	2	8	5385	1	KED
|	**Zn**	**66**	**689.513**	ug/L	15.594	2	15	153082	1	KED
⌊	**Zn**	**67**	**639.325**	ug/L	13.426	2	3	23234	0	KED
	Y	**89**		ug/L			650172	801761	0	Standard
	Kr	**83**		ug/L			56	66	18	Standard
⌈>	**In-1**	**115**		ug/L			6263	6446	2	KED
|	**Cd**	**111**	**0.029**	ug/L	0.012	41	1	4	26	KED
⌊	**Cd**	**114**	**0.027**	ug/L	0.021	79	1	8	59	KED
⌈>	**Tb**	**159**		ug/L			2069049	2255538	0	Standard
⌊	**Pb**	**208**	**2.879**	ug/L	0.033	1	458	282100	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0477-BLK2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 14:31:41 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	47942	3	Standard
	Cl	**37**		ug/L			9301639	10224025	3	Standard
⌈>	**Sc**	**45**		ug/L			1379189	1573663	1	Standard
|	**Cr**	**52**	**0.048**	ug/L	0.043	89	21394	25640	3	Standard
|	**Cr**	**53**	**0.012**	ug/L	0.004	37	196	257	5	Standard
⌊	**Mn**	**55**	**0.586**	ug/L	0.018	3	479	19373	2	Standard
⌈>	**Ge-1**	**72**		ug/L			32950	36833	1	KED
|	**Ni**	**60**	**0.058**	ug/L	0.004	6	5	51	3	KED
|	**Ni**	**62**	**0.088**	ug/L	0.033	37	0	10	36	KED
|	**Cu**	**63**	**0.060**	ug/L	0.005	8	10	127	5	KED
|	**Cu**	**65**	**0.050**	ug/L	0.004	6	8	55	5	KED
|	**Zn**	**66**	**0.678**	ug/L	0.053	7	15	175	5	KED
⌊	**Zn**	**67**	**0.651**	ug/L	0.191	29	3	29	26	KED
	Y	**89**		ug/L			650172	775193	1	Standard
	Kr	**83**		ug/L			56	55	20	Standard
⌈>	**In-1**	**115**		ug/L			6263	7029	3	KED
|	**Cd**	**111**	**-0.002**	ug/L	0.016	893	1	1	91	KED
⌊	**Cd**	**114**	**-0.003**	ug/L	0.005	164	1	1	98	KED
⌈>	**Tb**	**159**		ug/L			2069049	2262060	0	Standard
⌊	**Pb**	**208**	**0.005**	ug/L	0.000	1	458	999	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0477-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 14:35:28
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			35404	65475	1	Standard
	Cl	37		ug/L			9301639	10842539	0	Standard
⌈>	Sc	45		ug/L			1379189	1692436	1	Standard
|	Cr	52	1.240	ug/L	0.009	0	21394	60263	1	Standard
|	Cr	53	1.746	ug/L	0.055	3	196	5535	1	Standard
⌊	Mn	55	28.833	ug/L	0.371	1	479	997747	3	Standard
⌈>	Ge-1	72		ug/L			32950	33575	1	KED
|	Ni	60	4.405	ug/L	0.093	2	5	3122	2	KED
|	Ni	62	4.560	ug/L	0.449	9	0	477	9	KED
|	Cu	63	234.651	ug/L	8.859	3	10	412840	2	KED
|	Cu	65	234.288	ug/L	5.877	2	8	194973	1	KED
|	Zn	66	150.616	ug/L	4.196	2	15	32059	1	KED
⌊	Zn	67	138.961	ug/L	0.894	0	3	4843	0	KED
	Y	89		ug/L			650172	783786	1	Standard
	Kr	83		ug/L			56	67	16	Standard
⌈>	In-1	115		ug/L			6263	6496	0	KED
|	Cd	111	0.088	ug/L	0.050	56	1	9	46	KED
⌊	Cd	114	0.042	ug/L	0.064	151	1	11	126	KED
⌈>	Tb	159		ug/L			2069049	2231811	1	Standard
⌊	Pb	208	28.446	ug/L	0.303	1	458	2753213	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0284-01
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 14:39:16
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			35404	65274	3	Standard
	Cl	37		ug/L			9301639	11025816	4	Standard
⌈>	Sc	45		ug/L			1379189	1719189	2	Standard
|	Cr	52	1.132	ug/L	0.071	6	21394	58168	1	Standard
|	Cr	53	1.669	ug/L	0.066	3	196	5385	3	Standard
⌊	Mn	55	30.168	ug/L	0.698	2	479	1059921	0	Standard
⌈>	Ge-1	72		ug/L			32950	33227	1	KED
|	Ni	60	5.310	ug/L	0.240	4	5	3723	3	KED
|	Ni	62	4.973	ug/L	0.241	4	0	515	5	KED
|	Cu	63	252.579	ug/L	8.015	3	10	439824	2	KED
|	Cu	65	250.538	ug/L	4.147	1	8	206352	0	KED
|	Zn	66	154.290	ug/L	1.056	0	15	32506	0	KED
⌊	Zn	67	145.638	ug/L	4.037	2	3	5025	3	KED
	Y	89		ug/L			650172	796023	0	Standard
	Kr	83		ug/L			56	53	2	Standard
⌈>	In-1	115		ug/L			6263	6408	4	KED
|	Cd	111	0.085	ug/L	0.024	28	1	8	26	KED
⌊	Cd	114	0.035	ug/L	0.013	37	1	9	33	KED
⌈>	Tb	159		ug/L			2069049	2220026	0	Standard
⌊	Pb	208	29.816	ug/L	0.432	1	458	2870491	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0477-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 14:43:03
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35404	66886	1	Standard
Cl	37		ug/L			9301639	10864507	1	Standard
> Sc	45		ug/L			1379189	1734228	1	Standard
Cr	52	25.298	ug/L	0.400	1	21394	737884	2	Standard
Cr	53	26.379	ug/L	0.401	1	196	82235	1	Standard
Mn	55	53.499	ug/L	0.995	1	479	1896083	1	Standard
> Ge-1	72		ug/L			32950	33254	1	KED
Ni	60	31.464	ug/L	0.646	2	5	22051	0	KED
Ni	62	31.450	ug/L	0.646	2	0	3258	2	KED
Cu	63	252.052	ug/L	4.204	1	10	439276	0	KED
Cu	65	251.156	ug/L	3.690	1	8	207017	0	KED
Zn	66	230.736	ug/L	2.797	1	15	48643	1	KED
Zn	67	217.601	ug/L	5.366	2	3	7508	0	KED
Y	89		ug/L			650172	796816	0	Standard
Kr	83		ug/L			56	76	6	Standard
> In-1	115		ug/L			6263	6319	0	KED
Cd	111	26.571	ug/L	0.969	3	1	2225	3	KED
Cd	114	26.763	ug/L	0.240	0	1	6000	0	KED
> Tb	159		ug/L			2069049	2205913	1	Standard
Pb	208	57.388	ug/L	0.720	1	458	5488946	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0477-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 14:46:50
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			35404	53554	3	Standard
	Cl	37		ug/L			9301639	10608532	3	Standard
⌈>	Sc	45		ug/L			1379189	1614867	0	Standard
|	Cr	52	26.313	ug/L	0.865	3	21394	713530	3	Standard
|	Cr	53	27.007	ug/L	0.129	0	196	78399	0	Standard
⌊	Mn	55	27.808	ug/L	0.354	1	479	918005	0	Standard
⌈>	Ge-1	72		ug/L			32950	35641	1	KED
|	Ni	60	27.693	ug/L	0.675	2	5	20802	1	KED
|	Ni	62	27.676	ug/L	0.910	3	0	3072	2	KED
|	Cu	63	28.654	ug/L	0.100	0	10	53542	1	KED
|	Cu	65	28.655	ug/L	0.635	2	8	25322	1	KED
|	Zn	66	88.609	ug/L	0.743	0	15	20032	1	KED
⌊	Zn	67	84.727	ug/L	0.375	0	3	3136	1	KED
	Y	89		ug/L			650172	757976	1	Standard
	Kr	83		ug/L			56	72	20	Standard
⌈>	In-1	115		ug/L			6263	6809	1	KED
|	Cd	111	26.896	ug/L	0.794	2	1	2427	1	KED
⌊	Cd	114	27.550	ug/L	0.595	2	1	6655	0	KED
⌈>	Tb	159		ug/L			2069049	2200621	0	Standard
⌊	Pb	208	28.097	ug/L	0.340	1	458	2681622	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 14:51:43
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	36519	1	Standard
	Cl	**37**		ug/L			9301639	10716305	2	Standard
⌈>	**Sc**	**45**		ug/L			1379189	1540100	0	Standard
|	**Cr**	**52**	**49.936**	ug/L	0.233	0	21394	1270059	1	Standard
|	**Cr**	**53**	**50.346**	ug/L	1.586	3	196	139206	3	Standard
⌊	**Mn**	**55**	**51.564**	ug/L	0.704	1	479	1623150	1	Standard
⌈>	**Ge-1**	**72**		ug/L			32950	35015	0	KED
|	**Ni**	**60**	**50.013**	ug/L	0.201	0	5	36914	1	KED
|	**Ni**	**62**	**49.871**	ug/L	0.655	1	0	5441	1	KED
|	**Cu**	**63**	**51.391**	ug/L	1.807	3	10	94313	2	KED
|	**Cu**	**65**	**50.904**	ug/L	0.788	1	8	44191	1	KED
|	**Zn**	**66**	**51.729**	ug/L	0.556	1	15	11496	1	KED
⌊	**Zn**	**67**	**50.651**	ug/L	0.691	1	3	1843	1	KED
	Y	**89**		ug/L			650172	758936	2	Standard
	Kr	**83**		ug/L			56	64	21	Standard
⌈>	**In-1**	**115**		ug/L			6263	6745	1	KED
|	**Cd**	**111**	**49.934**	ug/L	0.907	1	1	4464	2	KED
⌊	**Cd**	**114**	**49.443**	ug/L	0.885	1	1	11830	0	KED
⌈>	**Tb**	**159**		ug/L			2069049	2240053	0	Standard
⌊	**Pb**	**208**	**50.427**	ug/L	0.628	1	458	4898616	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 14:56:35
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	37320	2	Standard
	Cl	**37**		ug/L			9301639	10578770	2	Standard
⌈>	**Sc**	**45**		ug/L			1379189	1564819	0	Standard
|	**Cr**	**52**	**0.022**	ug/L	0.031	138	21394	24839	2	Standard
|	**Cr**	**53**	**-0.006**	ug/L	0.003	59	196	206	4	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.002	115	479	586	8	Standard
⌈>	**Ge-1**	**72**		ug/L			32950	35904	3	KED
|	**Ni**	**60**	**0.005**	ug/L	0.005	104	5	10	43	KED
|	**Ni**	**62**	**0.011**	ug/L	0.017	154	0	1	100	KED
|	**Cu**	**63**	**0.008**	ug/L	0.004	54	10	26	31	KED
|	**Cu**	**65**	**0.014**	ug/L	0.004	27	8	21	18	KED
|	**Zn**	**66**	**0.074**	ug/L	0.041	55	15	34	29	KED
⌊	**Zn**	**67**	**0.194**	ug/L	0.083	42	3	11	28	KED
	Y	**89**		ug/L			650172	764080	0	Standard
	Kr	**83**		ug/L			56	52	9	Standard
⌈>	**In-1**	**115**		ug/L			6263	6891	3	KED
|	**Cd**	**111**	**-0.002**	ug/L	0.012	760	1	1	69	KED
⌊	**Cd**	**114**	**-0.004**	ug/L	0.005	127	1	1	94	KED
⌈>	**Tb**	**159**		ug/L			2069049	2171660	2	Standard
⌊	**Pb**	**208**	**0.003**	ug/L	0.000	7	458	753	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-02
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 15:00:38
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			35404	57585	2	Standard
	Cl	37		ug/L			9301639	10427477	3	Standard
>	Sc	45		ug/L			1379189	1702947	1	Standard
	Cr	52	0.066	ug/L	0.041	61	21394	28227	2	Standard
	Cr	53	0.121	ug/L	0.006	4	196	610	3	Standard
	Mn	55	0.478	ug/L	0.020	4	479	17232	2	Standard
>	Ge-1	72		ug/L			32950	35315	2	KED
	Ni	60	0.090	ug/L	0.024	26	5	73	24	KED
	Ni	62	0.052	ug/L	0.011	20	0	6	17	KED
	Cu	63	1.023	ug/L	0.006	0	10	1905	1	KED
	Cu	65	1.024	ug/L	0.058	5	8	905	6	KED
	Zn	66	1.050	ug/L	0.028	2	15	252	4	KED
	Zn	67	1.834	ug/L	0.383	20	3	71	18	KED
	Y	89		ug/L			650172	808077	0	Standard
	Kr	83		ug/L			56	67	7	Standard
>	In-1	115		ug/L			6263	6862	1	KED
	Cd	111	0.023	ug/L	0.011	47	1	3	25	KED
	Cd	114	0.032	ug/L	0.026	82	1	9	65	KED
>	Tb	159		ug/L			2069049	2234160	0	Standard
	Pb	208	0.016	ug/L	0.000	2	458	2027	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-04
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 15:04:26
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			35404	56648	1	Standard
	Cl	37		ug/L			9301639	10514516	2	Standard
>	Sc	45		ug/L			1379189	1699873	1	Standard
	Cr	52	0.113	ug/L	0.014	12	21394	29472	0	Standard
	Cr	53	0.172	ug/L	0.014	8	196	767	6	Standard
	Mn	55	0.419	ug/L	0.013	3	479	15143	2	Standard
>	Ge-1	72		ug/L			32950	35475	2	KED
	Ni	60	0.051	ug/L	0.019	37	5	44	32	KED
	Ni	62	0.046	ug/L	0.031	67	0	5	57	KED
	Cu	63	0.212	ug/L	0.021	9	10	405	10	KED
	Cu	65	0.217	ug/L	0.019	8	8	200	7	KED
	Zn	66	0.738	ug/L	0.063	8	15	182	7	KED
	Zn	67	1.355	ug/L	0.070	5	3	53	5	KED
	Y	89		ug/L			650172	822240	1	Standard
	Kr	83		ug/L			56	57	16	Standard
>	In-1	115		ug/L			6263	6823	3	KED
	Cd	111	0.023	ug/L	0.019	80	1	3	43	KED
	Cd	114	0.033	ug/L	0.027	80	1	9	63	KED
>	Tb	159		ug/L			2069049	2250466	0	Standard
	Pb	208	0.006	ug/L	0.000	2	458	1117	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-08
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 15:08:13
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			35404	58749	0	Standard
	Cl	37		ug/L			9301639	10584434	3	Standard
>	Sc	45		ug/L			1379189	1673875	1	Standard
	Cr	52	0.113	ug/L	0.024	21	21394	29022	3	Standard
	Cr	53	0.132	ug/L	0.007	5	196	633	2	Standard
	Mn	55	0.403	ug/L	0.003	0	479	14374	1	Standard
>	Ge-1	72		ug/L			32950	36076	1	KED
	Ni	60	0.188	ug/L	0.027	14	5	149	12	KED
	Ni	62	0.192	ug/L	0.052	27	0	22	26	KED
	Cu	63	1.589	ug/L	0.048	3	10	3015	2	KED
	Cu	65	1.521	ug/L	0.107	7	8	1370	8	KED
	Zn	66	53.614	ug/L	0.893	1	15	12275	2	KED
	Zn	67	52.844	ug/L	2.294	4	3	1981	4	KED
	Y	89		ug/L			650172	815449	1	Standard
	Kr	83		ug/L			56	59	26	Standard
>	In-1	115		ug/L			6263	7015	2	KED
	Cd	111	0.193	ug/L	0.050	25	1	19	21	KED
	Cd	114	0.223	ug/L	0.024	10	1	57	8	KED
>	Tb	159		ug/L			2069049	2253939	0	Standard
	Pb	208	0.007	ug/L	0.000	4	458	1151	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-12
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 15:12:01
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			35404	62244	1	Standard
	Cl	37		ug/L			9301639	10450666	0	Standard
>	Sc	45		ug/L			1379189	1755338	1	Standard
	Cr	52	0.165	ug/L	0.012	7	21394	31917	2	Standard
	Cr	53	0.199	ug/L	0.010	4	196	876	2	Standard
	Mn	55	~~31.248~~	ug/L	0.677	2	479	1121183	2	Standard
>	Ge-1	72		ug/L			32950	35741	0	KED
	Ni	60	1.935	ug/L	0.057	2	5	1463	2	KED
	Ni	62	2.001	ug/L	0.117	5	0	223	5	KED
	Cu	63	18.148	ug/L	0.409	2	10	34013	2	KED
	Cu	65	18.513	ug/L	0.505	2	8	16412	3	KED
	Zn	66	127.228	ug/L	1.839	1	15	28836	1	KED
	Zn	67	118.914	ug/L	1.383	1	3	4413	1	KED
	Y	89		ug/L			650172	912767	1	Standard
	Kr	83		ug/L			56	69	31	Standard
>	In-1	115		ug/L			6263	7043	1	KED
	Cd	111	1.053	ug/L	0.064	6	1	100	5	KED
	Cd	114	0.985	ug/L	0.047	4	1	248	3	KED
>	Tb	159		ug/L			2069049	2260108	1	Standard
	Pb	208	0.011	ug/L	0.001	6	458	1578	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0193-04
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 15:15:48
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			35404	59605	3	Standard
	Cl	37		ug/L			9301639	10633592	0	Standard
>	Sc OK	45		ug/L			1379189	1785487	0	Standard
	Cr	52	0.326	ug/L	0.013	3	21394	37135	1	Standard
	Cr	53	0.486	ug/L	0.009	1	196	1808	2	Standard
	Mn	55	0.585	ug/L	0.006	1	479	21953	1	Standard
>	Ge-1	72		ug/L			32950	36230	3	KED
	Ni	60	0.058	ug/L	0.007	12	5	50	7	KED
	Ni	62	0.078	ug/L	0.018	22	0	9	20	KED
	Cu	63	0.220	ug/L	0.012	5	10	428	3	KED
	Cu	65	0.214	ug/L	0.011	5	8	201	7	KED
	Zn	66	1.565	ug/L	0.061	3	15	376	2	KED
	Zn	67	1.473	ug/L	0.281	19	3	59	19	KED
	Y	89		ug/L			650172	848284	2	Standard
	Kr	83		ug/L			56	61	28	Standard
>	In-1	115		ug/L			6263	6991	2	KED
	Cd	111	0.001	ug/L	0.018	1272	1	1	86	KED
	Cd	114	-0.005	ug/L	0.008	181	1	0	213	KED
>	Tb	159		ug/L			2069049	2232717	0	Standard
	Pb	208	0.052	ug/L	0.001	2	458	5479	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-14
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 15:19:36
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			35404	59133	2	Standard
Cl	37		ug/L			9301639	10600828	1	Standard
> Sc	45		ug/L			1379189	1737876	1	Standard
Cr	52	0.129	ug/L	0.024	18	21394	30589	2	Standard
Cr	53	0.118	ug/L	0.007	6	196	615	3	Standard
Mn	55	~~10.048~~	ug/L	0.251	2	479	357331	1	Standard
> Ge-1	72		ug/L			32950	36818	1	KED
Ni	60	0.198	ug/L	0.014	7	5	160	6	KED
Ni	62	0.132	ug/L	0.025	19	0	15	18	KED
Cu	63	1.033	ug/L	0.024	2	10	2004	1	KED
Cu	65	1.092	ug/L	0.055	5	8	1005	4	KED
Zn	66	5.266	ug/L	0.263	4	15	1247	5	KED
Zn	67	4.839	ug/L	0.643	13	3	189	13	KED
Y	89		ug/L			650172	847671	1	Standard
Kr	83		ug/L			56	58	27	Standard
> In-1	115		ug/L			6263	7187	2	KED
Cd	111	0.021	ug/L	0.009	44	1	3	25	KED
Cd	114	0.040	ug/L	0.036	90	1	12	72	KED
> Tb	159		ug/L			2069049	2259747	1	Standard
Pb	208	0.010	ug/L	0.000	4	458	1447	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 15:24:14
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	13426	75	Standard
	Cl	**37**		ug/L			9301639	2803628	93	Standard
⌈>	**Sc**	**45**		ug/L			1379189	1219094	159	Standard
|	**Cr**	**52**	**0.059**	ug/L	0.981	1650	21394	4711	112	Standard
|	**Cr**	**53**	**0.240**	ug/L	0.325	135	196	95	62	Standard
⌊	**Mn**	**55**	**0.026**	ug/L	0.042	157	479	183	82	Standard
⌈>	**Ge-1**	**72**		ug/L			32950	17344	157	KED
|	**Ni**	**60**	**0.088**	ug/L	0.163	185	5	3	100	KED
|	**Ni**	**62**	**0.259**	ug/L	0.244	94	0	1	86	KED
|	**Cu**	**63**	**0.166**	ug/L	0.295	177	10	15	114	KED
|	**Cu**	**65**	**0.205**	ug/L	0.336	163	8	8	113	KED
|	**Zn**	**66**	**0.453**	ug/L	0.466	102	15	7	0	KED
⌊	**Zn**	**67**	**-0.111**	ug/L	0.000	0	3	0		KED
	Y	**89**		ug/L			650172	569436	158	Standard
	Kr	**83**		ug/L			56	33	63	Standard
⌈>	**In-1**	**115**		ug/L			6263	19896	2	KED
|	**Cd**	**111**	**-0.008**	ug/L	0.006	73	1	2	57	KED
⌊	**Cd**	**114**	**-0.003**	ug/L	0.005	158	1	3	101	KED
⌈>	**Tb**	**159**		ug/L			2069049	1899542	156	Standard
⌊	**Pb**	**208**	**0.006**	ug/L	0.012	195	458	170	78	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL5
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 15:28:35
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	40785	2	Standard
	Cl	**37**		ug/L			9301639	10636800	1	Standard
⌈>	**Sc**	**45**		ug/L			1379189	1653762	1	Standard
|	**Cr**	**52**	**0.012**	ug/L	0.037	315	21394	25954	2	Standard
|	**Cr**	**53**	**-0.008**	ug/L	0.003	32	196	210	2	Standard
⌊	**Mn**	**55**	**0.003**	ug/L	0.001	21	479	693	5	Standard
⌈>	**Ge-1**	**72**		ug/L			32950	35755	1	KED
|	**Ni**	**60**	**0.007**	ug/L	0.005	71	5	11	33	KED
|	**Ni**	**62**	**0.005**	ug/L	0.010	187	0	1	86	KED
|	**Cu**	**63**	**0.008**	ug/L	0.001	7	10	27	4	KED
|	**Cu**	**65**	**0.007**	ug/L	0.002	26	8	15	12	KED
|	**Zn**	**66**	**0.073**	ug/L	0.012	17	15	33	6	KED
⌊	**Zn**	**67**	**0.093**	ug/L	0.086	92	3	7	43	KED
	Y	**89**		ug/L			650172	796805	2	Standard
	Kr	**83**		ug/L			56	53	25	Standard
⌈>	**In-1**	**115**		ug/L			6263	6933	4	KED
|	**Cd**	**111**	**-0.002**	ug/L	0.005	270	1	1	34	KED
⌊	**Cd**	**114**	**-0.009**	ug/L	0.000	2	1	0	49	KED
⌈>	**Tb**	**159**		ug/L			2069049	2223153	0	Standard
⌊	**Pb**	**208**	**0.009**	ug/L	0.000	5	458	1388	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 15:33:48
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	36670	2	Standard
	Cl	**37**		ug/L			9301639	10795485	1	Standard
⎡>	**Sc**	**45**		ug/L			1379189	1579129	0	Standard
⎢	**Cr**	**52**	**48.245**	ug/L	0.301	0	21394	1258948	0	Standard
⎢	**Cr**	**53**	**50.207**	ug/L	0.978	1	196	142332	2	Standard
⎣	**Mn**	**55**	**49.848**	ug/L	0.339	0	479	1608839	0	Standard
⎡>	**Ge-1**	**72**		ug/L			32950	34500	1	KED
⎢	**Ni**	**60**	**51.632**	ug/L	0.225	0	5	37545	1	KED
⎢	**Ni**	**62**	**50.266**	ug/L	0.655	1	0	5402	1	KED
⎢	**Cu**	**63**	**52.344**	ug/L	0.494	0	10	94677	2	KED
⎢	**Cu**	**65**	**52.292**	ug/L	0.754	1	8	44727	1	KED
⎢	**Zn**	**66**	**52.059**	ug/L	0.848	1	15	11397	0	KED
⎣	**Zn**	**67**	**52.667**	ug/L	0.588	1	3	1889	1	KED
	Y	**89**		ug/L			650172	772940	0	Standard
	Kr	**83**		ug/L			56	78	22	Standard
⎡>	**In-1**	**115**		ug/L			6263	6778	3	KED
⎢	**Cd**	**111**	**50.325**	ug/L	3.036	6	1	4514	2	KED
⎣	**Cd**	**114**	**51.462**	ug/L	1.097	2	1	12371	2	KED
⎡>	**Tb**	**159**		ug/L			2069049	2224178	0	Standard
⎣	**Pb**	**208**	**51.253**	ug/L	0.565	1	458	4943459	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 15:38:40
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35404	35480	2	Standard
	Cl	**37**		ug/L			9301639	10766567	2	Standard
⌈>	**Sc**	**45**		ug/L			1379189	1596392	4	Standard
|	**Cr**	**52**	**-0.007**	ug/L	0.038	535	21394	24550	0	Standard
|	**Cr**	**53**	**-0.009**	ug/L	0.002	23	196	200	2	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.001	55	479	588	1	Standard
⌈>	**Ge-1**	**72**		ug/L			32950	36166	1	KED
|	**Ni**	**60**	**0.004**	ug/L	0.002	56	5	9	20	KED
|	**Ni**	**62**	**0.011**	ug/L	0.030	270	0	1	173	KED
|	**Cu**	**63**	**0.004**	ug/L	0.002	49	10	19	17	KED
|	**Cu**	**65**	**-0.000**	ug/L	0.004	1927	8	8	44	KED
|	**Zn**	**66**	**0.068**	ug/L	0.041	59	15	33	27	KED
⌊	**Zn**	**67**	**0.058**	ug/L	0.032	54	3	6	17	KED
	Y	**89**		ug/L			650172	764382	0	Standard
	Kr	**83**		ug/L			56	71	9	Standard
⌈>	**In-1**	**115**		ug/L			6263	6856	2	KED
|	**Cd**	**111**	**0.002**	ug/L	0.028	1364	1	1	132	KED
⌊	**Cd**	**114**	**-0.004**	ug/L	0.005	128	1	1	90	KED
⌈>	**Tb**	**159**		ug/L			2069049	2173138	0	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.001	35	458	674	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 15:43:00
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				36280	1	Standard
	Cl	**37**		ug/L				10699365	1	Standard
⌈>	**Sc**	**45**		ug/L				1557606	2	Standard
|	**Cr**	**52**		ug/L				24627	2	Standard
|	**Cr**	**53**		ug/L				193	7	Standard
⌊	**Mn**	**55**		ug/L				588	3	Standard
⌈>	**Ge-1**	**72**		ug/L				35993	1	KED
|	**Ni**	**60**		ug/L				11	28	KED
|	**Ni**	**62**		ug/L				1	100	KED
|	**Cu**	**63**		ug/L				19	26	KED
|	**Cu**	**65**		ug/L				11	44	KED
|	**Zn**	**66**		ug/L				41	0	KED
⌊	**Zn**	**67**		ug/L				7	50	KED
	Y	**89**		ug/L				759231	0	Standard
	Kr	**83**		ug/L				50	4	Standard
⌈>	**In-1**	**115**		ug/L				7102	1	KED
|	**Cd**	**111**		ug/L				1	34	KED
⌊	**Cd**	**114**		ug/L				0	196	KED
⌈>	**Tb**	**159**		ug/L				2182731	0	Standard
⌊	**Pb**	**208**		ug/L				607	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 15:46:48
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			36280	35020	2	Standard
	Cl	**37**		ug/L			10699365	10578042	2	Standard
⌈>	**Sc**	**45**		ug/L			1557606	1557741	0	Standard
|	**Cr**	**52**	**48.246**	ug/L	1.053	2	24627	1242259	1	Standard
|	**Cr**	**53**	**51.221**	ug/L	1.112	2	193	143217	2	Standard
⌊	**Mn**	**55**	**50.915**	ug/L	0.942	1	588	1621083	2	Standard
⌈>	**Ge-1**	**72**		ug/L			35993	35026	2	KED
|	**Ni**	**60**	**50.361**	ug/L	0.512	1	11	37186	2	KED
|	**Ni**	**62**	**50.260**	ug/L	0.936	1	1	5484	1	KED
|	**Cu**	**63**	**51.295**	ug/L	0.869	1	19	94179	1	KED
|	**Cu**	**65**	**51.150**	ug/L	0.782	1	11	44423	2	KED
|	**Zn**	**66**	**50.757**	ug/L	1.069	2	41	11304	0	KED
⌊	**Zn**	**67**	**53.359**	ug/L	2.552	4	7	1945	3	KED
	Y	**89**		ug/L			759231	769677	1	Standard
	Kr	**83**		ug/L			50	64	21	Standard
⌈>	**In-1**	**115**		ug/L			7102	6647	5	KED
|	**Cd**	**111**	**50.082**	ug/L	3.927	7	1	4399	2	KED
⌊	**Cd**	**114**	**51.761**	ug/L	1.949	3	0	12190	2	KED
⌈>	**Tb**	**159**		ug/L			2182731	2197388	1	Standard
⌊	**Pb**	**208**	**50.930**	ug/L	0.442	0	607	4852903	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 15:50:36
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			36280	35876	3	Standard
	Cl	**37**		ug/L			10699365	10714396	1	Standard
⌈>	**Sc**	**45**		ug/L			1557606	1549553	0	Standard
|	**Cr**	**52**	**-0.009**	ug/L	0.027	296	24627	24268	2	Standard
|	**Cr**	**53**	**0.000**	ug/L	0.004	1287	193	193	6	Standard
⌊	**Mn**	**55**	**0.002**	ug/L	0.001	53	588	645	5	Standard
⌈>	**Ge-1**	**72**		ug/L			35993	36120	2	KED
|	**Ni**	**60**	**-0.002**	ug/L	0.004	205	11	10	28	KED
|	**Ni**	**62**	**-0.006**	ug/L	0.010	174	1	1	86	KED
|	**Cu**	**63**	**-0.002**	ug/L	0.000	17	19	14	7	KED
|	**Cu**	**65**	**-0.004**	ug/L	0.004	88	11	7	43	KED
|	**Zn**	**66**	**-0.065**	ug/L	0.027	42	41	27	24	KED
⌊	**Zn**	**67**	**0.015**	ug/L	0.125	840	7	8	58	KED
	Y	**89**		ug/L			759231	765925	3	Standard
	Kr	**83**		ug/L			50	52	23	Standard
⌈>	**In-1**	**115**		ug/L			7102	7030	1	KED
|	**Cd**	**111**	**0.014**	ug/L	0.027	195	1	2	88	KED
⌊	**Cd**	**114**	**0.038**	ug/L	0.070	185	0	10	174	KED
⌈>	**Tb**	**159**		ug/L			2182731	2208452	1	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.001	49	607	802	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-16
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 15:54:53
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			36280	51957	1	Standard
	Cl	37		ug/L			10699365	10275261	1	Standard
⌈>	Sc	45		ug/L			1557606	1657125	2	Standard
|	Cr	52	0.100	ug/L	0.026	26	24627	28885	2	Standard
|	Cr	53	0.125	ug/L	0.011	8	193	576	2	Standard
⌊	Mn	55	0.942	ug/L	0.015	1	588	32512	1	Standard
⌈>	Ge-1	72		ug/L			35993	36730	0	KED
|	Ni	60	0.384	ug/L	0.038	9	11	308	8	KED
|	Ni	62	0.355	ug/L	0.083	23	1	42	22	KED
|	Cu	63	0.157	ug/L	0.006	3	19	322	2	KED
|	Cu	65	0.160	ug/L	0.033	20	11	156	18	KED
|	Zn	66	9.735	ug/L	0.121	1	41	2308	0	KED
⌊	Zn	67	9.777	ug/L	0.032	0	7	380	1	KED
	Y	89		ug/L			759231	828050	1	Standard
	Kr	83		ug/L			50	54	7	Standard
⌈>	In-1	115		ug/L			7102	6983	2	KED
|	Cd	111	0.099	ug/L	0.021	21	1	10	20	KED
⌊	Cd	114	0.114	ug/L	0.009	8	0	28	10	KED
⌈>	Tb	159		ug/L			2182731	2264650	0	Standard
⌊	Pb	208	0.004	ug/L	0.001	13	607	1000	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-18
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 15:58:40
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			36280	70624	0	Standard
	Cl	37		ug/L			10699365	10276807	2	Standard
>	Sc	45		ug/L			1557606	1940844	1	Standard
	Cr	52	-0.016	ug/L	0.018	113	24627	30189	1	Standard
	Cr	53	0.086	ug/L	0.003	3	193	541	3	Standard
	Mn	55	1683.154	ug/L	10.877	0	588	66743711	0	Standard
>	Ge-1	72		ug/L			35993	29804	0	KED
	Ni	60	16.226	ug/L	0.137	0	11	10201	0	KED
	Ni	62	16.627	ug/L	0.562	3	1	1545	3	KED
	Cu	63	26.231	ug/L	0.206	0	19	40993	0	KED
	Cu	65	26.686	ug/L	0.443	1	11	19725	1	KED
	Zn	66	552.404	ug/L	10.908	1	41	104378	1	KED
	Zn	67	511.943	ug/L	2.174	0	7	15835	0	KED
	Y	89		ug/L			759231	1606410	2	Standard
	Kr	83		ug/L			50	167	14	Standard
>	In-1	115		ug/L			7102	5872	0	KED
	Cd	111	3.663	ug/L	0.322	8	1	286	9	KED
	Cd	114	3.751	ug/L	0.195	5	0	781	5	KED
>	Tb	159		ug/L			2182731	2160129	0	Standard
	Pb	208	0.162	ug/L	0.002	1	607	15731	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-20
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 16:02:27
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			36280	55514	1	Standard
	Cl	37		ug/L			10699365	10556009	1	Standard
>	Sc	45		ug/L			1557606	1817756	3	Standard
	Cr	52	0.355	ug/L	0.038	10	24627	39185	0	Standard
	Cr	53	0.461	ug/L	0.008	1	193	1727	3	Standard
	Mn	55	0.295	ug/L	0.014	4	588	11639	1	Standard
>	Ge-1	72		ug/L			35993	34276	0	KED
	Ni	60	0.146	ug/L	0.032	22	11	116	20	KED
	Ni	62	0.149	ug/L	0.027	18	1	17	16	KED
	Cu	63	0.534	ug/L	0.031	5	19	977	5	KED
	Cu	65	0.585	ug/L	0.045	7	11	507	7	KED
	Zn	66	6.662	ug/L	0.408	6	41	1487	5	KED
	Zn	67	6.974	ug/L	0.205	2	7	255	2	KED
	Y	89		ug/L			759231	1041391	2	Standard
	Kr	83		ug/L			50	78	28	Standard
>	In-1	115		ug/L			7102	6821	0	KED
	Cd	111	0.081	ug/L	0.021	26	1	8	22	KED
	Cd	114	0.071	ug/L	0.010	13	0	17	12	KED
>	Tb	159		ug/L			2182731	2117924	0	Standard
	Pb	208	0.095	ug/L	0.002	2	607	9290	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0194-02
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 16:06:14
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			36280	64743	1	Standard
	Cl	**37**		ug/L			10699365	11212873	1	Standard
⌈>	**Sc**	**45**		ug/L			1557606	1817575	1	Standard
|	**Cr**	**52**	**0.058**	ug/L	0.011	18	24627	30452	2	Standard
|	**Cr**	**53**	**0.542**	ug/L	0.011	2	193	1991	2	Standard
⌊	**Mn**	**55**	**8.683**	ug/L	0.279	3	588	323013	1	Standard
⌈>	**Ge-1**	**72**		ug/L			35993	35689	0	KED
|	**Ni**	**60**	**0.195**	ug/L	0.017	8	11	158	8	KED
|	**Ni**	**62**	**0.211**	ug/L	0.020	9	1	25	8	KED
|	**Cu**	**63**	**0.454**	ug/L	0.026	5	19	868	5	KED
|	**Cu**	**65**	**0.435**	ug/L	0.018	4	11	396	3	KED
|	**Zn**	**66**	**1.372**	ug/L	0.188	13	41	351	11	KED
⌊	**Zn**	**67**	**1.595**	ug/L	0.347	21	7	66	19	KED
	Y	**89**		ug/L			759231	959208	2	Standard
	Kr	**83**		ug/L			50	65	4	Standard
⌈>	**In-1**	**115**		ug/L			7102	7044	2	KED
|	**Cd**	**111**	**0.000**	ug/L	0.006	2639	1	1	34	KED
⌊	**Cd**	**114**	**0.004**	ug/L	0.008	197	0	1	122	KED
⌈>	**Tb**	**159**		ug/L			2182731	2183665	1	Standard
⌊	**Pb**	**208**	**0.095**	ug/L	0.001	1	607	9570	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL6
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 16:13:54
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			36280	42079	1	Standard
	Cl	**37**		ug/L			10699365	10986375	2	Standard
⌈>	**Sc**	**45**		ug/L			1557606	1680329	0	Standard
|	**Cr**	**52**	**-0.050**	ug/L	0.009	17	24627	25212	0	Standard
|	**Cr**	**53**	**-0.002**	ug/L	0.005	243	193	202	6	Standard
⌊	**Mn**	**55**	**-0.002**	ug/L	0.001	39	588	568	4	Standard
⌈>	**Ge-1**	**72**		ug/L			35993	37165	2	KED
|	**Ni**	**60**	**-0.010**	ug/L	0.006	63	11	3	132	KED
|	**Ni**	**62**	**-0.011**	ug/L	0.010	82	1	0	173	KED
|	**Cu**	**63**	**-0.003**	ug/L	0.001	24	19	13	14	KED
|	**Cu**	**65**	**-0.009**	ug/L	0.002	24	11	3	69	KED
|	**Zn**	**66**	**-0.113**	ug/L	0.038	33	41	16	52	KED
⌊	**Zn**	**67**	**-0.139**	ug/L	0.073	52	7	2	114	KED
	Y	**89**		ug/L			759231	874670	1	Standard
	Kr	**83**		ug/L			50	71	19	Standard
⌈>	**In-1**	**115**		ug/L			7102	7002	2	KED
|	**Cd**	**111**	**-0.013**	ug/L	0.006	43	1	0	173	KED
⌊	**Cd**	**114**	**0.003**	ug/L	0.009	346	0	1	180	KED
⌈>	**Tb**	**159**		ug/L			2182731	2150133	0	Standard
⌊	**Pb**	**208**	**-0.002**	ug/L	0.000	18	607	375	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0477-MS2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 16:18:02
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			36280	66258	0	Standard
	Cl	**37**		ug/L			10699365	11325479	2	Standard
⌈>	**Sc**	**45**		ug/L			1557606	1794379	1	Standard
|	**Cr**	**52**	**25.108**	ug/L	1.162	4	24627	758001	2	Standard
|	**Cr**	**53**	**26.673**	ug/L	1.165	4	193	85965	2	Standard
⌊	**Mn**	**55**	**54.385**	ug/L	2.892	5	588	1993306	3	Standard
⌈>	**Ge-1**	**72**		ug/L			35993	33886	0	KED
|	**Ni**	**60**	**31.416**	ug/L	0.321	1	11	22447	1	KED
|	**Ni**	**62**	**30.822**	ug/L	1.288	4	1	3254	3	KED
|	**Cu**	**63**	**252.666**	ug/L	5.724	2	19	448758	1	KED
|	**Cu**	**65**	**253.480**	ug/L	2.261	0	11	212951	1	KED
|	**Zn**	**66**	**225.417**	ug/L	3.528	1	41	48454	2	KED
⌊	**Zn**	**67**	**215.417**	ug/L	3.715	1	7	7580	2	KED
	Y	**89**		ug/L			759231	903432	0	Standard
	Kr	**83**		ug/L			50	74	6	Standard
⌈>	**In-1**	**115**		ug/L			7102	6589	1	KED
|	**Cd**	**111**	**26.279**	ug/L	1.096	4	1	2295	3	KED
⌊	**Cd**	**114**	**26.718**	ug/L	0.440	1	0	6245	1	KED
⌈>	**Tb**	**159**		ug/L			2182731	2165038	0	Standard
⌊	**Pb**	**208**	**58.882**	ug/L	0.514	0	607	5528070	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-22
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 16:21:49
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			36280	64153	0	Standard
	Cl	37		ug/L			10699365	10702379	0	Standard
>	Sc	45		ug/L			1557606	1904313	2	Standard
	Cr	52	0.059	ug/L	0.037	62	24627	31917	1	Standard
	Cr	53	0.144	ug/L	0.015	10	193	727	5	Standard
	Mn	55	7222.596	ug/L	190.023	2	588	280902568	0	Standard
>	Ge-1	72		ug/L			35993	30430	1	KED
	Ni	60	54.726	ug/L	1.540	2	11	35100	2	KED
	Ni	62	53.276	ug/L	1.650	3	1	5052	4	KED
	Cu	63	57.516	ug/L	0.537	0	19	91756	1	KED
	Cu	65	57.862	ug/L	0.807	1	11	43653	0	KED
	Zn	66	670.849	ug/L	10.744	1	41	129403	1	KED
	Zn	67	620.390	ug/L	2.879	0	7	19591	1	KED
	Y	89		ug/L			759231	1461916	3	Standard
	Kr	83		ug/L			50	133	6	Standard
>	In-1	115		ug/L			7102	6018	2	KED
	Cd	111	8.675	ug/L	0.113	1	1	693	2	KED
	Cd	114	9.024	ug/L	0.363	4	0	1927	5	KED
>	Tb	159		ug/L			2182731	2152326	1	Standard
	Pb	208	0.024	ug/L	0.001	5	607	2870	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-24
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 16:25:36
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			36280	57244	1	Standard
	Cl	37		ug/L			10699365	10598776	1	Standard
>	Sc	45		ug/L			1557606	1858742	0	Standard
	Cr	52	0.174	ug/L	0.018	10	24627	34621	1	Standard
	Cr	53	0.256	ug/L	0.013	4	193	1084	4	Standard
	Mn	55	333.097	ug/L	1.925	0	588	12650896	0	Standard
>	Ge-1	72		ug/L			35993	31437	1	KED
	Ni	60	4.608	ug/L	0.011	0	11	3063	1	KED
	Ni	62	4.313	ug/L	0.095	2	1	424	3	KED
	Cu	63	1.469	ug/L	0.016	1	19	2436	0	KED
	Cu	65	1.461	ug/L	0.029	2	11	1148	2	KED
	Zn	66	19.306	ug/L	0.544	2	41	3882	1	KED
	Zn	67	20.181	ug/L	0.679	3	7	664	3	KED
	Y	89		ug/L			759231	1111091	2	Standard
	Kr	83		ug/L			50	117	6	Standard
>	In-1	115		ug/L			7102	6146	1	KED
	Cd	111	2.586	ug/L	0.162	6	1	212	7	KED
	Cd	114	2.690	ug/L	0.249	9	0	587	10	KED
>	Tb	159		ug/L			2182731	2018623	3	Standard
	Pb	208	0.009	ug/L	0.001	5	607	1346	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-26
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 16:29:24
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			36280	59267	1	Standard
	Cl	37		ug/L			10699365	10664497	2	Standard
>	Sc	45		ug/L			1557606	1808997	2	Standard
	Cr	52	0.295	ug/L	0.043	14	24627	37239	2	Standard
	Cr	53	0.386	ug/L	0.007	1	193	1477	2	Standard
	Mn	55	2.158	ug/L	0.077	3	588	80410	1	Standard
>	Ge-1	72		ug/L			35993	33894	0	KED
	Ni	60	0.347	ug/L	0.032	9	11	259	9	KED
	Ni	62	0.284	ug/L	0.051	17	1	31	17	KED
	Cu	63	0.800	ug/L	0.031	3	19	1440	4	KED
	Cu	65	0.775	ug/L	0.085	10	11	662	10	KED
	Zn	66	2.107	ug/L	0.063	2	41	492	2	KED
	Zn	67	2.557	ug/L	0.431	16	7	97	16	KED
	Y	89		ug/L			759231	1019566	3	Standard
	Kr	83		ug/L			50	72	25	Standard
>	In-1	115		ug/L			7102	6619	1	KED
	Cd	111	0.379	ug/L	0.131	34	1	34	31	KED
	Cd	114	0.370	ug/L	0.049	13	0	87	11	KED
>	Tb	159		ug/L			2182731	2100770	0	Standard
	Pb	208	0.015	ug/L	0.001	7	607	1986	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0435-MSD2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 16:33:11

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			36280	69419	0	Standard
	Cl	**37**		ug/L			10699365	11066997	1	Standard
⌈>	**Sc**	**45**		ug/L			1557606	1793944	0	Standard
|	**Cr**	**52**	**25.219**	ug/L	0.545	2	24627	761376	1	Standard
|	**Cr**	**53**	**25.524**	ug/L	0.483	1	193	82288	1	Standard
⌊	**Mn**	**55**	**30.704**	ug/L	0.566	1	588	1126027	1	Standard
⌈>	**Ge-1**	**72**		ug/L			35993	36042	1	KED
|	**Ni**	**60**	**26.982**	ug/L	0.494	1	11	20506	2	KED
|	**Ni**	**62**	**27.642**	ug/L	0.788	2	1	3105	3	KED
|	**Cu**	**63**	**55.506**	ug/L	1.045	1	19	104865	0	KED
|	**Cu**	**65**	**55.101**	ug/L	1.347	2	11	49235	1	KED
|	**Zn**	**66**	**99.793**	ug/L	1.194	1	41	22835	0	KED
⌊	**Zn**	**67**	**95.750**	ug/L	4.524	4	7	3586	3	KED
	Y	**89**		ug/L			759231	982675	3	Standard
	Kr	**83**		ug/L			50	76	31	Standard
⌈>	**In-1**	**115**		ug/L			7102	7089	1	KED
|	**Cd**	**111**	**26.539**	ug/L	0.939	3	1	2494	3	KED
⌊	**Cd**	**114**	**26.561**	ug/L	1.129	4	0	6678	3	KED
⌈>	**Tb**	**159**		ug/L			2182731	2232547	0	Standard
⌊	**Pb**	**208**	**30.147**	ug/L	0.351	1	607	2919096	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 16:38:03
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			36280	37574	0	Standard
	Cl	**37**		ug/L			10699365	10928708	1	Standard
⌈>	**Sc**	**45**		ug/L			1557606	1639287	2	Standard
|	**Cr**	**52**	**47.923**	ug/L	1.240	2	24627	1298311	0	Standard
|	**Cr**	**53**	**50.375**	ug/L	0.482	0	193	148193	1	Standard
⌊	**Mn**	**55**	**51.245**	ug/L	1.930	3	588	1716337	2	Standard
⌈>	**Ge-1**	**72**		ug/L			35993	34319	0	KED
|	**Ni**	**60**	**51.353**	ug/L	0.455	0	11	37153	0	KED
|	**Ni**	**62**	**51.091**	ug/L	1.141	2	1	5464	2	KED
|	**Cu**	**63**	**51.763**	ug/L	0.291	0	19	93133	0	KED
|	**Cu**	**65**	**52.339**	ug/L	1.175	2	11	44537	1	KED
|	**Zn**	**66**	**51.699**	ug/L	0.202	0	41	11285	0	KED
⌊	**Zn**	**67**	**50.604**	ug/L	1.844	3	7	1809	3	KED
	Y	**89**		ug/L			759231	867979	0	Standard
	Kr	**83**		ug/L			50	81	16	Standard
⌈>	**In-1**	**115**		ug/L			7102	6799	2	KED
|	**Cd**	**111**	**51.208**	ug/L	0.237	0	1	4614	2	KED
⌊	**Cd**	**114**	**50.965**	ug/L	1.345	2	0	12288	0	KED
⌈>	**Tb**	**159**		ug/L			2182731	2169042	1	Standard
⌊	**Pb**	**208**	**52.714**	ug/L	0.804	1	607	4958052	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 16:42:54
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			36280	37592	2	Standard
	Cl	**37**		ug/L			10699365	10683724	1	Standard
⎡>	**Sc**	**45**		ug/L			1557606	1629212	0	Standard
⎢	**Cr**	**52**	**-0.075**	ug/L	0.050	66	24627	23772	5	Standard
⎢	**Cr**	**53**	**-0.010**	ug/L	0.004	44	193	173	8	Standard
⎣	**Mn**	**55**	**0.000**	ug/L	0.001	691	588	619	4	Standard
⎡>	**Ge-1**	**72**		ug/L			35993	35428	3	KED
⎢	**Ni**	**60**	**0.003**	ug/L	0.003	94	11	13	14	KED
⎢	**Ni**	**62**	**0.018**	ug/L	0.030	169	1	3	86	KED
⎢	**Cu**	**63**	**-0.000**	ug/L	0.004	916	19	17	37	KED
⎢	**Cu**	**65**	**-0.003**	ug/L	0.003	122	11	8	32	KED
⎢	**Zn**	**66**	**-0.025**	ug/L	0.032	127	41	35	17	KED
⎣	**Zn**	**67**	**0.034**	ug/L	0.178	516	7	8	75	KED
	Y	**89**		ug/L			759231	866805	1	Standard
	Kr	**83**		ug/L			50	59	18	Standard
⎡>	**In-1**	**115**		ug/L			7102	6958	0	KED
⎢	**Cd**	**111**	**-0.013**	ug/L	0.006	44	1	0	173	KED
⎣	**Cd**	**114**	**0.010**	ug/L	0.016	156	0	3	127	KED
⎡>	**Tb**	**159**		ug/L			2182731	2172056	1	Standard
⎣	**Pb**	**208**	**0.001**	ug/L	0.000	13	607	721	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-12RE1
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, June 20, 2018 16:49:46
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			36280	49939	1	Standard
	Cl	**37**		ug/L			10699365	10408744	4	Standard
⌈>	**Sc**	**45**		ug/L			1557606	1726691	2	Standard
|	**Cr**	**52**	**0.047**	ug/L	0.021	44	24627	28607	2	Standard
|	**Cr**	**53**	**0.094**	ug/L	0.001	1	193	506	1	Standard
⌊	**Mn**	**55**	**15.816**	ug/L	0.285	1	588	558539	1	Standard
⌈>	**Ge-1**	**72**		ug/L			35993	36745	1	KED
|	**Ni**	**60**	**0.939**	ug/L	0.086	9	11	739	10	KED
|	**Ni**	**62**	**0.910**	ug/L	0.225	24	1	106	23	KED
|	**Cu**	**63**	**9.024**	ug/L	0.154	1	19	17397	0	KED
|	**Cu**	**65**	**9.157**	ug/L	0.131	1	11	8353	2	KED
|	**Zn**	**66**	**65.549**	ug/L	1.437	2	41	15311	3	KED
⌊	**Zn**	**67**	**62.413**	ug/L	1.416	2	7	2387	3	KED
	Y	**89**		ug/L			759231	918788	0	Standard
	Kr	**83**		ug/L			50	70	17	Standard
⌈>	**In-1**	**115**		ug/L			7102	7188	3	KED
|	**Cd**	**111**	**0.449**	ug/L	0.057	12	1	44	15	KED
⌊	**Cd**	**114**	**0.490**	ug/L	0.083	16	0	125	19	KED
⌈>	**Tb**	**159**		ug/L			2182731	2220280	0	Standard
⌊	**Pb**	**208**	**0.020**	ug/L	0.000	2	607	2591	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-14RE1
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, June 20, 2018 16:53:33
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			36280	47295	3	Standard
	Cl	**37**		ug/L			10699365	10708472	1	Standard
⌈>	**Sc**	**45**		ug/L			1557606	1642721	1	Standard
|	**Cr**	**52**	**0.052**	ug/L	0.009	17	24627	27357	0	Standard
|	**Cr**	**53**	**0.066**	ug/L	0.004	5	193	397	2	Standard
⌊	**Mn**	**55**	**5.213**	ug/L	0.062	1	588	175555	0	Standard
⌈>	**Ge-1**	**72**		ug/L			35993	36947	1	KED
|	**Ni**	**60**	**0.211**	ug/L	0.003	1	11	175	2	KED
|	**Ni**	**62**	**0.192**	ug/L	0.038	19	1	24	19	KED
|	**Cu**	**63**	**0.542**	ug/L	0.016	2	19	1068	3	KED
|	**Cu**	**65**	**0.552**	ug/L	0.013	2	11	517	1	KED
|	**Zn**	**66**	**2.941**	ug/L	0.339	11	41	732	11	KED
⌊	**Zn**	**67**	**2.977**	ug/L	0.116	3	7	121	2	KED
	Y	**89**		ug/L			759231	875148	0	Standard
	Kr	**83**		ug/L			50	71	32	Standard
⌈>	**In-1**	**115**		ug/L			7102	7051	3	KED
|	**Cd**	**111**	**0.038**	ug/L	0.018	46	1	5	28	KED
⌊	**Cd**	**114**	**0.013**	ug/L	0.008	64	0	3	51	KED
⌈>	**Tb**	**159**		ug/L			2182731	2193816	1	Standard
⌊	**Pb**	**208**	**0.014**	ug/L	0.002	14	607	1913	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-01
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 17:00:27
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			36280	55198	1	Standard
	Cl	37		ug/L			10699365	10556698	2	Standard
⌈>	Sc	45		ug/L			1557606	1692932	2	Standard
|	Cr	52	0.040	ug/L	0.034	86	24627	27845	1	Standard
|	Cr	53	0.099	ug/L	0.013	13	193	509	8	Standard
⌊	Mn	55	0.146	ug/L	0.003	2	588	5670	0	Standard
⌈>	Ge-1	72		ug/L			35993	36017	1	KED
|	Ni	60	0.038	ug/L	0.007	19	11	40	12	KED
|	Ni	62	0.017	ug/L	0.017	99	1	3	50	KED
|	Cu	63	0.330	ug/L	0.024	7	19	641	6	KED
|	Cu	65	0.343	ug/L	0.009	2	11	317	1	KED
|	Zn	66	0.503	ug/L	0.037	7	41	156	4	KED
⌊	Zn	67	1.124	ug/L	0.328	29	7	49	23	KED
	Y	89		ug/L			759231	892812	0	Standard
	Kr	83		ug/L			50	66	17	Standard
⌈>	In-1	115		ug/L			7102	6853	3	KED
|	Cd	111	0.011	ug/L	0.016	144	1	2	57	KED
⌊	Cd	114	0.033	ug/L	0.027	81	0	8	77	KED
⌈>	Tb	159		ug/L			2182731	2182596	0	Standard
⌊	Pb	208	-0.001	ug/L	0.000	15	607	525	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-03
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 17:04:14
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			36280	54717	1	Standard
	Cl	37		ug/L			10699365	10792251	4	Standard
⌈>	Sc	45		ug/L			1557606	1709340	2	Standard
|	Cr	52	0.108	ug/L	0.010	8	24627	30008	2	Standard
|	Cr	53	0.180	ug/L	0.002	0	193	764	2	Standard
⌊	Mn	55	0.130	ug/L	0.007	5	588	5178	1	Standard
⌈>	Ge-1	72		ug/L			35993	35163	1	KED
|	Ni	60	0.022	ug/L	0.009	43	11	27	26	KED
|	Ni	62	0.047	ug/L	0.026	55	1	6	41	KED
|	Cu	63	0.149	ug/L	0.018	11	19	293	12	KED
|	Cu	65	0.129	ug/L	0.025	19	11	123	16	KED
|	Zn	66	0.354	ug/L	0.054	15	41	120	11	KED
⌊	Zn	67	1.101	ug/L	0.209	18	7	47	16	KED
	Y	89		ug/L			759231	860670	2	Standard
	Kr	83		ug/L			50	83	14	Standard
⌈>	In-1	115		ug/L			7102	6884	2	KED
|	Cd	111	0.021	ug/L	0.006	26	1	3	15	KED
⌊	Cd	114	0.030	ug/L	0.005	17	0	7	14	KED
⌈>	Tb	159		ug/L			2182731	2206698	2	Standard
⌊	Pb	208	0.000	ug/L	0.000	382	607	622	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-07
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 17:08:01
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			36280	55710	2	Standard
	Cl	37		ug/L			10699365	10644049	2	Standard
>	Sc	45		ug/L			1557606	1695149	1	Standard
	Cr	52	0.070	ug/L	0.009	13	24627	28727	0	Standard
	Cr	53	0.129	ug/L	0.010	7	193	602	5	Standard
	Mn	55	0.246	ug/L	0.001	0	588	9173	1	Standard
>	Ge-1	72		ug/L			35993	36646	0	KED
	Ni	60	0.207	ug/L	0.078	37	11	171	34	KED
	Ni	62	0.206	ug/L	0.114	55	1	25	51	KED
	Cu	63	1.693	ug/L	0.229	13	19	3271	13	KED
	Cu	65	1.665	ug/L	0.226	13	11	1523	13	KED
	Zn	66	52.760	ug/L	0.891	1	41	12295	1	KED
	Zn	67	49.813	ug/L	2.774	5	7	1901	4	KED
	Y	89		ug/L			759231	875578	2	Standard
	Kr	83		ug/L			50	73	14	Standard
>	In-1	115		ug/L			7102	6807	4	KED
	Cd	111	0.224	ug/L	0.065	28	1	21	30	KED
	Cd	114	0.269	ug/L	0.081	30	0	64	24	KED
>	Tb	159		ug/L			2182731	2209323	1	Standard
	Pb	208	0.003	ug/L	0.000	15	607	911	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-11
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 17:13:07
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			36280	60873	2	Standard
	Cl	37		ug/L			10699365	10583005	2	Standard
⌈>	Sc	45		ug/L			1557606	1741897	3	Standard
|	Cr	52	0.441	ug/L	0.066	14	24627	39957	1	Standard
|	Cr	53	0.536	ug/L	0.031	5	193	1888	3	Standard
⌊	Mn	55	33.293	ug/L	1.497	4	588	1184451	2	Standard
⌈>	Ge-1	72		ug/L			35993	36259	2	KED
|	Ni	60	2.008	ug/L	0.034	1	11	1546	2	KED
|	Ni	62	1.994	ug/L	0.288	14	1	226	11	KED
|	Cu	63	18.238	ug/L	0.454	2	19	34668	0	KED
|	Cu	65	18.293	ug/L	0.371	2	11	16448	1	KED
|	Zn	66	126.178	ug/L	3.348	2	41	29029	2	KED
⌊	Zn	67	120.194	ug/L	2.080	1	7	4527	1	KED
	Y	89		ug/L			759231	929776	2	Standard
	Kr	83		ug/L			50	80	31	Standard
⌈>	In-1	115		ug/L			7102	7031	4	KED
|	Cd	111	0.976	ug/L	0.047	4	1	92	1	KED
⌊	Cd	114	0.999	ug/L	0.070	6	0	250	11	KED
⌈>	Tb	159		ug/L			2182731	2187916	1	Standard
⌊	Pb	208	0.027	ug/L	0.001	3	607	3149	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-13
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 17:23:04
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			36280	59144	0	Standard
	Cl	37		ug/L			10699365	10757889	1	Standard
>	Sc	45		ug/L			1557606	1607173	11	Standard
	Cr	52	0.155	ug/L	0.084	54	24627	29273	4	Standard
	Cr	53	0.149	ug/L	0.028	18	193	622	1	Standard
	Mn	55	11.707	ug/L	1.689	14	588	380867	3	Standard
>	Ge-1	72		ug/L			35993	36659	1	KED
	Ni	60	0.196	ug/L	0.023	11	11	163	9	KED
	Ni	62	0.111	ug/L	0.039	35	1	14	30	KED
	Cu	63	1.492	ug/L	0.027	1	19	2886	3	KED
	Cu	65	1.507	ug/L	0.097	6	11	1380	5	KED
	Zn	66	5.462	ug/L	0.057	1	41	1311	2	KED
	Zn	67	5.602	ug/L	0.630	11	7	220	11	KED
	Y	89		ug/L			759231	816862	12	Standard
	Kr	83		ug/L			50	74	14	Standard
>	In-1	115		ug/L			7102	7133	0	KED
	Cd	111	0.050	ug/L	0.021	42	1	6	31	KED
	Cd	114	0.047	ug/L	0.026	55	0	12	53	KED
>	Tb	159		ug/L			2182731	2082294	11	Standard
	Pb	208	0.045	ug/L	0.006	13	607	4560	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-15
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 17:26:51
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			36280	55208	1	Standard
	Cl	37		ug/L			10699365	10650311	3	Standard
⌈>	Sc	45		ug/L			1557606	1724049	2	Standard
|	Cr	52	0.022	ug/L	0.029	135	24627	27855	2	Standard
|	Cr	53	0.097	ug/L	0.010	10	193	512	5	Standard
⌊	Mn	55	0.894	ug/L	0.031	3	588	32134	1	Standard
⌈>	Ge-1	72		ug/L			35993	36549	0	KED
|	Ni	60	0.373	ug/L	0.059	15	11	299	14	KED
|	Ni	62	0.412	ug/L	0.149	36	1	48	35	KED
|	Cu	63	0.117	ug/L	0.011	9	19	243	9	KED
|	Cu	65	0.113	ug/L	0.019	17	11	113	15	KED
|	Zn	66	9.651	ug/L	0.360	3	41	2277	3	KED
⌊	Zn	67	9.883	ug/L	1.399	14	7	382	13	KED
	Y	89		ug/L			759231	895798	2	Standard
	Kr	83		ug/L			50	74	6	Standard
⌈>	In-1	115		ug/L			7102	6772	1	KED
|	Cd	111	0.121	ug/L	0.038	31	1	12	26	KED
⌊	Cd	114	0.123	ug/L	0.027	21	0	30	22	KED
⌈>	Tb	159		ug/L			2182731	2217125	0	Standard
⌊	Pb	208	-0.000	ug/L	0.000	22	607	572	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-17
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 17:31:53
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			36280	65939	0	Standard
	Cl	37		ug/L			10699365	10345010	0	Standard
⌈>	Sc	45		ug/L			1557606	1919297	1	Standard
|	Cr	52	-0.014	ug/L	0.012	90	24627	29917	0	Standard
|	Cr	53	0.108	ug/L	0.013	11	193	610	8	Standard
⌊	Mn	55	1704.590	ug/L	43.408	2	588	66828023	1	Standard
⌈>	Ge-1	72		ug/L			35993	29383	0	KED
|	Ni	60	16.668	ug/L	0.474	2	11	10332	3	KED
|	Ni	62	16.392	ug/L	0.820	5	1	1502	5	KED
|	Cu	63	27.467	ug/L	0.754	2	19	42324	3	KED
|	Cu	65	27.385	ug/L	0.299	1	11	19956	1	KED
|	Zn	66	574.246	ug/L	9.548	1	41	106978	2	KED
⌊	Zn	67	532.165	ug/L	7.271	1	7	16227	0	KED
	Y	89		ug/L			759231	1615895	3	Standard
	Kr	83		ug/L			50	186	15	Standard
⌈>	In-1	115		ug/L			7102	5691	2	KED
|	Cd	111	3.736	ug/L	0.092	2	1	282	1	KED
⌊	Cd	114	3.755	ug/L	0.088	2	0	758	0	KED
⌈>	Tb	159		ug/L			2182731	2144424	1	Standard
⌊	Pb	208	0.163	ug/L	0.004	2	607	15718	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-09
Sample Dil Factor: 50
Comments:
Sample Date/Time: Wednesday, June 20, 2018 17:37:57
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			36280	38768	2	Standard
	Cl	**37**		ug/L			10699365	10628486	1	Standard
⌈>	**Sc**	**45**		ug/L			1557606	1700347	1	Standard
|	**Cr**	**52**	**-0.051**	ug/L	0.017	33	24627	25476	0	Standard
|	**Cr**	**53**	**-0.006**	ug/L	0.001	21	193	191	3	Standard
⌊	**Mn**	**55**	**177.338**	ug/L	1.341	0	588	6161405	1	Standard
⌈>	**Ge-1**	**72**		ug/L			35993	36202	3	KED
|	**Ni**	**60**	**0.533**	ug/L	0.050	9	11	419	12	KED
|	**Ni**	**62**	**0.515**	ug/L	0.133	25	1	60	27	KED
|	**Cu**	**63**	**0.498**	ug/L	0.014	2	19	964	3	KED
|	**Cu**	**65**	**0.488**	ug/L	0.028	5	11	450	7	KED
|	**Zn**	**66**	**14.680**	ug/L	0.281	1	41	3409	3	KED
⌊	**Zn**	**67**	**13.723**	ug/L	0.165	1	7	523	4	KED
	Y	**89**		ug/L			759231	952782	0	Standard
	Kr	**83**		ug/L			50	97	3	Standard
⌈>	**In-1**	**115**		ug/L			7102	7093	1	KED
|	**Cd**	**111**	**0.179**	ug/L	0.022	12	1	18	10	KED
⌊	**Cd**	**114**	**0.154**	ug/L	0.033	21	0	39	19	KED
⌈>	**Tb**	**159**		ug/L			2182731	2185193	1	Standard
⌊	**Pb**	**208**	**0.011**	ug/L	0.000	2	607	1681	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 17:42:49
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			36280	37445	1	Standard
	Cl	**37**		ug/L			10699365	10654014	0	Standard
⌈>	**Sc**	**45**		ug/L			1557606	1617605	2	Standard
|	**Cr**	**52**	**48.568**	ug/L	2.151	4	24627	1297612	1	Standard
|	**Cr**	**53**	**51.229**	ug/L	1.144	2	193	148698	2	Standard
⌊	**Mn**	**55**	**51.751**	ug/L	1.422	2	588	1710150	0	Standard
⌈>	**Ge-1**	**72**		ug/L			35993	35188	1	KED
|	**Ni**	**60**	**50.093**	ug/L	0.644	1	11	37157	1	KED
|	**Ni**	**62**	**50.040**	ug/L	1.426	2	1	5486	1	KED
|	**Cu**	**63**	**51.840**	ug/L	1.242	2	19	95623	1	KED
|	**Cu**	**65**	**52.240**	ug/L	0.325	0	11	45577	0	KED
|	**Zn**	**66**	**51.475**	ug/L	0.639	1	41	11519	0	KED
⌊	**Zn**	**67**	**51.308**	ug/L	2.475	4	7	1880	4	KED
	Y	**89**		ug/L			759231	902723	2	Standard
	Kr	**83**		ug/L			50	73	2	Standard
⌈>	**In-1**	**115**		ug/L			7102	6583	0	KED
|	**Cd**	**111**	**51.633**	ug/L	2.098	4	1	4503	3	KED
⌊	**Cd**	**114**	**52.734**	ug/L	1.323	2	0	12313	1	KED
⌈>	**Tb**	**159**		ug/L			2182731	2196066	1	Standard
⌊	**Pb**	**208**	**52.555**	ug/L	1.342	2	607	5004125	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 17:47:41
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			36280	37759	3	Standard
	Cl	**37**		ug/L			10699365	10487560	1	Standard
⌈>	**Sc**	**45**		ug/L			1557606	1637027	1	Standard
|	**Cr**	**52**	**-0.070**	ug/L	0.020	28	24627	24037	3	Standard
|	**Cr**	**53**	**-0.013**	ug/L	0.003	25	193	165	7	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.001	83	588	640	3	Standard
⌈>	**Ge-1**	**72**		ug/L			35993	36513	2	KED
|	**Ni**	**60**	**-0.004**	ug/L	0.005	124	11	8	53	KED
|	**Ni**	**62**	**0.005**	ug/L	0.025	486	1	2	114	KED
|	**Cu**	**63**	**0.003**	ug/L	0.001	25	19	24	7	KED
|	**Cu**	**65**	**-0.002**	ug/L	0.004	158	11	9	34	KED
|	**Zn**	**66**	**0.014**	ug/L	0.100	742	41	45	51	KED
⌊	**Zn**	**67**	**0.063**	ug/L	0.125	197	7	10	47	KED
	Y	**89**		ug/L			759231	892368	3	Standard
	Kr	**83**		ug/L			50	78	12	Standard
⌈>	**In-1**	**115**		ug/L			7102	6984	2	KED
|	**Cd**	**111**	**0.007**	ug/L	0.015	216	1	2	65	KED
⌊	**Cd**	**114**	**0.005**	ug/L	0.008	155	0	1	106	KED
⌈>	**Tb**	**159**		ug/L			2182731	2185468	1	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	28	607	715	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-19
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 17:56:20
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			36280	53291	1	Standard
	Cl	37		ug/L			10699365	10547734	2	Standard
>	Sc	45		ug/L			1557606	1770938	2	Standard
	Cr	52	0.311	ug/L	0.034	11	24627	36896	0	Standard
	Cr	53	0.401	ug/L	0.020	4	193	1491	1	Standard
	Mn	55	0.424	ug/L	0.008	1	588	16017	1	Standard
>	Ge-1	72		ug/L			35993	34558	0	KED
	Ni	60	0.163	ug/L	0.014	8	11	129	7	KED
	Ni	62	0.136	ug/L	0.067	49	1	16	43	KED
	Cu	63	0.622	ug/L	0.044	7	19	1144	6	KED
	Cu	65	0.601	ug/L	0.035	5	11	525	6	KED
	Zn	66	7.404	ug/L	0.341	4	41	1661	4	KED
	Zn	67	7.236	ug/L	0.623	8	7	266	7	KED
	Y	89		ug/L			759231	936006	1	Standard
	Kr	83		ug/L			50	83	13	Standard
>	In-1	115		ug/L			7102	6700	2	KED
	Cd	111	0.072	ug/L	0.014	19	1	7	18	KED
	Cd	114	0.090	ug/L	0.038	41	0	22	43	KED
>	Tb	159		ug/L			2182731	2157122	1	Standard
	Pb	208	0.101	ug/L	0.001	1	607	10010	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-21
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 18:06:47
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			36280	58092	1	Standard
	Cl	37		ug/L			10699365	10658703	2	Standard
>	Sc	45		ug/L			1557606	1871949	2	Standard
	Cr	52	0.092	ug/L	0.041	44	24627	32362	2	Standard
	Cr	53	0.166	ug/L	0.012	7	193	787	4	Standard
	Mn	55	7430.355	ug/L	207.842	2	588	284166974	3	Standard
>	Ge-1	72		ug/L			35993	30993	0	KED
	Ni	60	54.992	ug/L	1.434	2	11	35929	2	KED
	Ni	62	53.450	ug/L	0.901	1	1	5162	1	KED
	Cu	63	57.843	ug/L	0.312	0	19	93984	0	KED
	Cu	65	57.601	ug/L	0.276	0	11	44265	0	KED
	Zn	66	679.642	ug/L	2.960	0	41	133538	0	KED
	Zn	67	632.585	ug/L	5.133	0	7	20345	0	KED
	Y	89		ug/L			759231	1466055	1	Standard
	Kr	83		ug/L			50	139	2	Standard
>	In-1	115		ug/L			7102	5996	3	KED
	Cd	111	9.455	ug/L	0.381	4	1	752	3	KED
	Cd	114	9.398	ug/L	0.209	2	0	1998	1	KED
>	Tb	159		ug/L			2182731	2146943	1	Standard
	Pb	208	0.020	ug/L	0.000	2	607	2495	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-25
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 18:11:59
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			36280	56455	0	Standard
	Cl	37		ug/L			10699365	10566026	3	Standard
⌈>	Sc	45		ug/L			1557606	1788921	1	Standard
|	Cr	52	0.298	ug/L	0.041	13	24627	36902	2	Standard
|	Cr	53	0.368	ug/L	0.002	0	193	1401	1	Standard
⌊	Mn	55	2.066	ug/L	0.065	3	588	76155	2	Standard
⌈>	Ge-1	72		ug/L			35993	34378	1	KED
|	Ni	60	0.350	ug/L	0.014	3	11	264	5	KED
|	Ni	62	0.296	ug/L	0.105	35	1	33	34	KED
|	Cu	63	0.249	ug/L	0.024	9	19	467	10	KED
|	Cu	65	0.254	ug/L	0.033	12	11	227	13	KED
|	Zn	66	2.276	ug/L	0.241	10	41	535	9	KED
⌊	Zn	67	3.200	ug/L	0.476	14	7	121	12	KED
	Y	89		ug/L			759231	1006359	2	Standard
	Kr	83		ug/L			50	74	20	Standard
⌈>	In-1	115		ug/L			7102	6659	1	KED
|	Cd	111	0.368	ug/L	0.019	5	1	33	3	KED
⌊	Cd	114	0.439	ug/L	0.057	12	0	104	14	KED
⌈>	Tb	159		ug/L			2182731	2123046	0	Standard
⌊	Pb	208	0.014	ug/L	0.001	5	607	1869	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-31
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 18:16:26
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			36280	53821	4	Standard
	Cl	37		ug/L			10699365	10655417	3	Standard
⌈>	Sc	45		ug/L			1557606	1779215	3	Standard
|	Cr	52	0.415	ug/L	0.032	7	24627	40086	1	Standard
|	Cr	53	0.519	ug/L	0.025	4	193	1875	4	Standard
⌊	Mn	55	0.770	ug/L	0.047	6	588	28631	3	Standard
⌈>	Ge-1	72		ug/L			35993	33252	0	KED
|	Ni	60	0.274	ug/L	0.043	15	11	202	15	KED
|	Ni	62	0.265	ug/L	0.101	38	1	29	35	KED
|	Cu	63	0.135	ug/L	0.011	7	19	253	7	KED
|	Cu	65	0.146	ug/L	0.004	3	11	130	2	KED
|	Zn	66	1.449	ug/L	0.120	8	41	344	7	KED
⌊	Zn	67	2.374	ug/L	0.669	28	7	88	25	KED
	Y	89		ug/L			759231	995752	2	Standard
	Kr	83		ug/L			50	85	24	Standard
⌈>	In-1	115		ug/L			7102	6447	1	KED
|	Cd	111	0.187	ug/L	0.100	53	1	17	49	KED
⌊	Cd	114	0.204	ug/L	0.021	10	0	47	11	KED
⌈>	Tb	159		ug/L			2182731	2095542	0	Standard
⌊	Pb	208	0.003	ug/L	0.000	4	607	873	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-23
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 18:21:01
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			36280	56188	4	Standard
	Cl	37		ug/L			10699365	10446508	1	Standard
>	Sc	45		ug/L			1557606	1838384	1	Standard
	Cr	52	0.145	ug/L	0.036	24	24627	33370	3	Standard
	Cr	53	0.249	ug/L	0.014	5	193	1047	3	Standard
	Mn	55	325.711	ug/L	2.224	0	588	12234187	0	Standard
>	Ge-1	72		ug/L			35993	31188	0	KED
	Ni	60	4.607	ug/L	0.152	3	11	3037	2	KED
	Ni	62	4.445	ug/L	0.179	4	1	433	4	KED
	Cu	63	1.427	ug/L	0.072	5	19	2348	5	KED
	Cu	65	1.424	ug/L	0.067	4	11	1111	4	KED
	Zn	66	19.426	ug/L	0.408	2	41	3876	2	KED
	Zn	67	20.410	ug/L	1.729	8	7	667	9	KED
	Y	89		ug/L			759231	1111295	0	Standard
	Kr	83		ug/L			50	113	10	Standard
>	In-1	115		ug/L			7102	6295	2	KED
	Cd	111	2.327	ug/L	0.043	1	1	195	4	KED
	Cd	114	2.266	ug/L	0.215	9	0	505	7	KED
>	Tb	159		ug/L			2182731	2090441	1	Standard
	Pb	208	0.024	ug/L	0.001	4	607	2752	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-33
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 18:25:27
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			36280	59329	2	Standard
	Cl	37		ug/L			10699365	10877757	2	Standard
⌈>	Sc	45		ug/L			1557606	1786835	0	Standard
|	Cr	52	0.037	ug/L	0.009	25	24627	29309	1	Standard
|	Cr	53	0.127	ug/L	0.010	8	193	629	5	Standard
⌊	Mn	55	3.557	ug/L	0.017	0	588	130520	0	Standard
⌈>	Ge-1	72		ug/L			35993	35098	0	KED
|	Ni	60	0.080	ug/L	0.033	40	11	70	35	KED
|	Ni	62	0.041	ug/L	0.027	65	1	6	45	KED
|	Cu	63	0.259	ug/L	0.017	6	19	495	5	KED
|	Cu	65	0.254	ug/L	0.036	14	11	231	13	KED
|	Zn	66	0.633	ug/L	0.089	14	41	181	10	KED
⌊	Zn	67	1.381	ug/L	0.243	17	7	57	16	KED
	Y	89		ug/L			759231	978674	4	Standard
	Kr	83		ug/L			50	71	25	Standard
⌈>	In-1	115		ug/L			7102	6709	1	KED
|	Cd	111	0.019	ug/L	0.017	88	1	3	45	KED
⌊	Cd	114	0.007	ug/L	0.027	377	0	2	290	KED
⌈>	Tb	159		ug/L			2182731	2167769	0	Standard
⌊	Pb	208	0.001	ug/L	0.000	15	607	693	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-27
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 18:29:52
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			36280	63370	0	Standard
	Cl	37		ug/L			10699365	10427749	1	Standard
>	Sc	45		ug/L			1557606	1867988	0	Standard
	Cr	52	0.096	ug/L	0.019	20	24627	32447	1	Standard
	Cr	53	0.188	ug/L	0.017	9	193	859	5	Standard
	Mn	55	864.685	ug/L	13.731	1	588	32998872	0	Standard
>	Ge-1	72		ug/L			35993	32299	2	KED
	Ni	60	13.628	ug/L	0.128	0	11	9286	1	KED
	Ni	62	13.502	ug/L	0.193	1	1	1360	0	KED
	Cu	63	29.072	ug/L	0.385	1	19	49233	2	KED
	Cu	65	29.356	ug/L	0.342	1	11	23513	1	KED
	Zn	66	245.852	ug/L	7.800	3	41	50346	1	KED
	Zn	67	235.767	ug/L	4.793	2	7	7905	0	KED
	Y	89		ug/L			759231	1220002	3	Standard
	Kr	83		ug/L			50	115	17	Standard
>	In-1	115		ug/L			7102	6356	2	KED
	Cd	111	1.946	ug/L	0.153	7	1	165	8	KED
	Cd	114	1.948	ug/L	0.094	4	0	439	6	KED
>	Tb	159		ug/L			2182731	2138065	0	Standard
	Pb	208	0.092	ug/L	0.002	2	607	9152	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-29
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 18:35:15
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			36280	55953	3	Standard
	Cl	37		ug/L			10699365	10684997	1	Standard
>	Sc	45		ug/L			1557606	1859485	0	Standard
	Cr	52	0.042	ug/L	0.012	27	24627	30663	0	Standard
	Cr	53	0.145	ug/L	0.011	7	193	712	4	Standard
	Mn	55	293.909	ug/L	3.514	1	588	11166375	0	Standard
>	Ge-1	72		ug/L			35993	33438	1	KED
	Ni	60	8.791	ug/L	0.191	2	11	6206	2	KED
	Ni	62	8.376	ug/L	0.185	2	1	874	2	KED
	Cu	63	7.246	ug/L	0.124	1	19	12718	2	KED
	Cu	65	7.300	ug/L	0.043	0	11	6062	1	KED
	Zn	66	151.087	ug/L	0.443	0	41	32058	1	KED
	Zn	67	144.240	ug/L	1.726	1	7	5010	0	KED
	Y	89		ug/L			759231	1122350	2	Standard
	Kr	83		ug/L			50	109	8	Standard
>	In-1	115		ug/L			7102	6579	3	KED
	Cd	111	1.709	ug/L	0.168	9	1	150	10	KED
	Cd	114	1.762	ug/L	0.074	4	0	411	2	KED
>	Tb	159		ug/L			2182731	2134195	0	Standard
	Pb	208	0.025	ug/L	0.002	7	607	2916	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-35
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 18:39:45
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			36280	57667	2	Standard
	Cl	**37**		ug/L			10699365	10806307	0	Standard
⌈>	**Sc**	**45**		ug/L			1557606	1722429	0	Standard
|	**Cr**	**52**	**0.063**	ug/L	0.032	50	24627	28983	2	Standard
|	**Cr**	**53**	**0.104**	ug/L	0.009	8	193	535	4	Standard
⌊	**Mn**	**55**	**0.395**	ug/L	0.046	11	588	14555	10	Standard
⌈>	**Ge-1**	**72**		ug/L			35993	35273	1	KED
|	**Ni**	**60**	**0.115**	ug/L	0.020	17	11	96	13	KED
|	**Ni**	**62**	**0.179**	ug/L	0.052	29	1	21	26	KED
|	**Cu**	**63**	**8.606**	ug/L	0.167	1	19	15926	0	KED
|	**Cu**	**65**	**8.802**	ug/L	0.398	4	11	7703	2	KED
|	**Zn**	**66**	**70.777**	ug/L	1.401	1	41	15859	0	KED
⌊	**Zn**	**67**	**66.798**	ug/L	4.511	6	7	2449	4	KED
	Y	**89**		ug/L			759231	983809	0	Standard
	Kr	**83**		ug/L			50	62	13	Standard
⌈>	**In-1**	**115**		ug/L			7102	7002	2	KED
|	**Cd**	**111**	**0.507**	ug/L	0.035	6	1	48	3	KED
⌊	**Cd**	**114**	**0.436**	ug/L	0.038	8	0	108	11	KED
⌈>	**Tb**	**159**		ug/L			2182731	2152729	0	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.000	33	607	643	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-37
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 18:44:23
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			36280	56325	0	Standard
	Cl	**37**		ug/L			10699365	10688972	2	Standard
⌈>	**Sc**	**45**		ug/L			1557606	1726730	2	Standard
|	**Cr**	**52**	**0.024**	ug/L	0.022	89	24627	27979	2	Standard
|	**Cr**	**53**	**0.093**	ug/L	0.010	11	193	500	3	Standard
⌊	**Mn**	**55**	**4.405**	ug/L	0.062	1	588	156024	1	Standard
⌈>	**Ge-1**	**72**		ug/L			35993	34865	0	KED
|	**Ni**	**60**	**1.117**	ug/L	0.066	5	11	831	5	KED
|	**Ni**	**62**	**0.994**	ug/L	0.036	3	1	109	3	KED
|	**Cu**	**63**	**48.748**	ug/L	0.669	1	19	89106	1	KED
|	**Cu**	**65**	**48.648**	ug/L	0.603	1	11	42059	1	KED
|	**Zn**	**66**	**414.904**	ug/L	5.839	1	41	91718	0	KED
⌊	**Zn**	**67**	**384.751**	ug/L	5.397	1	7	13923	1	KED
	Y	**89**		ug/L			759231	980814	3	Standard
	Kr	**83**		ug/L			50	74	22	Standard
⌈>	**In-1**	**115**		ug/L			7102	6790	3	KED
|	**Cd**	**111**	**2.373**	ug/L	0.040	1	1	214	2	KED
⌊	**Cd**	**114**	**2.443**	ug/L	0.132	5	0	588	2	KED
⌈>	**Tb**	**159**		ug/L			2182731	2185150	1	Standard
⌊	**Pb**	**208**	**0.008**	ug/L	0.001	6	607	1356	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 18:49:15
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			36280	34971	3	Standard
	Cl	**37**		ug/L			10699365	10863909	2	Standard
⌈>	**Sc**	**45**		ug/L			1557606	1572222	1	Standard
|	**Cr**	**52**	**48.840**	ug/L	0.948	1	24627	1268882	0	Standard
|	**Cr**	**53**	**49.713**	ug/L	1.745	3	193	140260	2	Standard
⌊	**Mn**	**55**	**51.645**	ug/L	1.115	2	588	1659475	2	Standard
⌈>	**Ge-1**	**72**		ug/L			35993	33603	0	KED
|	**Ni**	**60**	**51.510**	ug/L	0.621	1	11	36490	1	KED
|	**Ni**	**62**	**50.666**	ug/L	1.366	2	1	5305	2	KED
|	**Cu**	**63**	**51.941**	ug/L	0.325	0	19	91508	1	KED
|	**Cu**	**65**	**52.107**	ug/L	0.929	1	11	43417	1	KED
|	**Zn**	**66**	**51.111**	ug/L	1.001	1	41	10924	1	KED
⌊	**Zn**	**67**	**52.484**	ug/L	0.870	1	7	1836	2	KED
	Y	**89**		ug/L			759231	875858	2	Standard
	Kr	**83**		ug/L			50	66	15	Standard
⌈>	**In-1**	**115**		ug/L			7102	6607	2	KED
|	**Cd**	**111**	**50.091**	ug/L	2.188	4	1	4384	3	KED
⌊	**Cd**	**114**	**51.214**	ug/L	1.822	3	0	11996	0	KED
⌈>	**Tb**	**159**		ug/L			2182731	2154470	1	Standard
⌊	**Pb**	**208**	**53.161**	ug/L	0.985	1	607	4965584	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 18:54:06
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			36280	37132	0	Standard
	Cl	**37**		ug/L			10699365	10841551	2	Standard
⌈>	**Sc**	**45**		ug/L			1557606	1588353	1	Standard
|	**Cr**	**52**	**-0.079**	ug/L	0.007	9	24627	23068	2	Standard
|	**Cr**	**53**	**-0.011**	ug/L	0.004	34	193	164	6	Standard
⌊	**Mn**	**55**	**-0.001**	ug/L	0.000	44	588	566	1	Standard
⌈>	**Ge-1**	**72**		ug/L			35993	34865	0	KED
|	**Ni**	**60**	**-0.007**	ug/L	0.003	35	11	5	33	KED
|	**Ni**	**62**	**-0.011**	ug/L	0.010	91	1	0	173	KED
|	**Cu**	**63**	**-0.003**	ug/L	0.002	69	19	12	36	KED
|	**Cu**	**65**	**-0.003**	ug/L	0.003	79	11	8	26	KED
|	**Zn**	**66**	**-0.049**	ug/L	0.042	86	41	29	31	KED
⌊	**Zn**	**67**	**-0.099**	ug/L	0.053	53	7	3	50	KED
	Y	**89**		ug/L			759231	850706	2	Standard
	Kr	**83**		ug/L			50	63	18	Standard
⌈>	**In-1**	**115**		ug/L			7102	6593	3	KED
|	**Cd**	**111**	**0.005**	ug/L	0.011	222	1	1	50	KED
⌊	**Cd**	**114**	**0.006**	ug/L	0.008	143	0	1	100	KED
⌈>	**Tb**	**159**		ug/L			2182731	2160065	0	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.000	28	607	515	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-39
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 19:00:32
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			36280	59318	1	Standard
	Cl	37		ug/L			10699365	9202504	0	Standard
>	Sc	45		ug/L			1557606	1635140	3	Standard
	Cr	52	0.281	ug/L	0.024	8	24627	33282	1	Standard
	Cr	53	0.338	ug/L	0.027	8	193	1191	3	Standard
	Mn	55	633.071	ug/L	25.410	4	588	21132893	1	Standard
>	Ge-1	72		ug/L			35993	22973	0	KED
	Ni	60	0.350	ug/L	0.029	8	11	176	7	KED
	Ni	62	0.240	ug/L	0.059	24	1	18	23	KED
	Cu	63	0.529	ug/L	0.016	3	19	648	3	KED
	Cu	65	0.583	ug/L	0.006	1	11	339	0	KED
	Zn	66	7.324	ug/L	0.394	5	41	1092	4	KED
	Zn	67	7.577	ug/L	0.608	8	7	185	7	KED
	Y	89		ug/L			759231	970645	1	Standard
	Kr	83		ug/L			50	177	7	Standard
>	In-1	115		ug/L			7102	4311	2	KED
	Cd	111	0.033	ug/L	0.027	83	1	2	57	KED
	Cd	114	0.070	ug/L	0.039	55	0	11	55	KED
>	Tb	159		ug/L			2182731	1836563	0	Standard
	Pb	208	0.105	ug/L	0.002	1	607	8851	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-41
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 19:04:19
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			36280	58323	2	Standard
	Cl	37		ug/L			10699365	10684477	1	Standard
⌈>	Sc	45		ug/L			1557606	1762529	1	Standard
|	Cr	52	0.688	ug/L	0.015	2	24627	47513	0	Standard
|	Cr	53	0.802	ug/L	0.019	2	193	2752	1	Standard
⌊	Mn	55	1.146	ug/L	0.016	1	588	41939	1	Standard
⌈>	Ge-1	72		ug/L			35993	33807	3	KED
|	Ni	60	0.139	ug/L	0.019	13	11	109	10	KED
|	Ni	62	0.113	ug/L	0.123	108	1	13	95	KED
|	Cu	63	0.425	ug/L	0.033	7	19	768	4	KED
|	Cu	65	0.417	ug/L	0.012	2	11	360	5	KED
|	Zn	66	0.714	ug/L	0.133	18	41	193	18	KED
⌊	Zn	67	0.892	ug/L	0.401	45	7	38	39	KED
	Y	89		ug/L			759231	976470	4	Standard
	Kr	83		ug/L			50	66	30	Standard
⌈>	In-1	115		ug/L			7102	6547	1	KED
|	Cd	111	0.016	ug/L	0.030	181	1	2	88	KED
⌊	Cd	114	0.011	ug/L	0.013	125	0	3	104	KED
⌈>	Tb	159		ug/L			2182731	2151817	0	Standard
⌊	Pb	208	0.022	ug/L	0.000	1	607	2644	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-43
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 19:08:06
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			36280	60926	1	Standard
	Cl	37		ug/L			10699365	9139537	0	Standard
⌈>	Sc	45		ug/L			1557606	1636933	1	Standard
|	Cr	52	0.485	ug/L	0.035	7	24627	38757	2	Standard
|	Cr	53	0.539	ug/L	0.008	1	193	1784	0	Standard
⌊	Mn	55	580.783	ug/L	2.285	0	588	19424716	1	Standard
⌈>	Ge-1	72		ug/L			35993	22214	1	KED
|	Ni	60	0.422	ug/L	0.014	3	11	204	3	KED
|	Ni	62	0.442	ug/L	0.180	40	1	31	38	KED
|	Cu	63	0.576	ug/L	0.020	3	19	682	5	KED
|	Cu	65	0.638	ug/L	0.064	10	11	358	8	KED
|	Zn	66	10.122	ug/L	0.325	3	41	1451	4	KED
⌊	Zn	67	11.123	ug/L	0.587	5	7	260	4	KED
	Y	89		ug/L			759231	1000701	1	Standard
	Kr	83		ug/L			50	167	3	Standard
⌈>	In-1	115		ug/L			7102	4288	3	KED
|	Cd	111	0.067	ug/L	0.003	4	1	4	0	KED
⌊	Cd	114	0.054	ug/L	0.033	60	0	8	56	KED
⌈>	Tb	159		ug/L			2182731	1851256	1	Standard
⌊	Pb	208	0.121	ug/L	0.001	0	607	10233	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-45
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 19:11:54
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			36280	51178	0	Standard
	Cl	37		ug/L			10699365	7566783	1	Standard
>	Sc	45		ug/L			1557606	1562376	3	Standard
	Cr	52	0.805	ug/L	0.014	1	24627	45078	2	Standard
	Cr	53	0.884	ug/L	0.002	0	193	2670	3	Standard
	Mn	55	837.100	ug/L	20.690	2	588	26711436	2	Standard
>	Ge-1	72		ug/L			35993	16862	0	KED
	Ni	60	1.237	ug/L	0.020	1	11	445	0	KED
	Ni	62	0.914	ug/L	0.120	13	1	48	12	KED
	Cu	63	0.305	ug/L	0.009	3	19	278	3	KED
	Cu	65	0.320	ug/L	0.034	10	11	139	9	KED
	Zn	66	13.262	ug/L	0.260	1	41	1436	1	KED
	Zn	67	11.406	ug/L	1.006	8	7	203	9	KED
	Y	89		ug/L			759231	891179	2	Standard
	Kr	83		ug/L			50	218	8	Standard
>	In-1	115		ug/L			7102	3233	0	KED
	Cd	111	0.087	ug/L	0.046	53	1	4	44	KED
	Cd	114	0.064	ug/L	0.035	54	0	7	52	KED
>	Tb	159		ug/L			2182731	1643355	0	Standard
	Pb	208	0.017	ug/L	0.001	3	607	1692	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-11
Sample Dil Factor: 50
Comments:
Sample Date/Time: Wednesday, June 20, 2018 19:15:41
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			36280	38593	2	Standard
	Cl	**37**		ug/L			10699365	10520778	1	Standard
⌈>	**Sc**	**45**		ug/L			1557606	1604991	1	Standard
|	**Cr**	**52**	**-0.049**	ug/L	0.020	40	24627	24084	0	Standard
|	**Cr**	**53**	**-0.009**	ug/L	0.002	19	193	173	2	Standard
⌊	**Mn**	**55**	**132.895**	ug/L	0.507	0	588	4358491	1	Standard
⌈>	**Ge-1**	**72**		ug/L			35993	33395	1	KED
|	**Ni**	**60**	**0.422**	ug/L	0.061	14	11	307	13	KED
|	**Ni**	**62**	**0.448**	ug/L	0.139	30	1	48	28	KED
|	**Cu**	**63**	**0.427**	ug/L	0.011	2	19	765	4	KED
|	**Cu**	**65**	**0.432**	ug/L	0.005	1	11	368	2	KED
|	**Zn**	**66**	**11.459**	ug/L	0.208	1	41	2464	2	KED
⌊	**Zn**	**67**	**10.807**	ug/L	0.838	7	7	381	8	KED
	Y	**89**		ug/L			759231	955593	0	Standard
	Kr	**83**		ug/L			50	65	21	Standard
⌈>	**In-1**	**115**		ug/L			7102	6337	2	KED
|	**Cd**	**111**	**0.104**	ug/L	0.011	10	1	10	10	KED
⌊	**Cd**	**114**	**0.113**	ug/L	0.016	13	0	25	15	KED
⌈>	**Tb**	**159**		ug/L			2182731	2138921	0	Standard
⌊	**Pb**	**208**	**0.007**	ug/L	0.000	4	607	1253	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-47
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 19:19:28
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			36280	58486	3	Standard
	Cl	37		ug/L			10699365	10138843	1	Standard
>	Sc	45		ug/L			1557606	1785188	2	Standard
	Cr	52	2.382	ug/L	0.075	3	24627	97091	1	Standard
	Cr	53	2.592	ug/L	0.057	2	193	8516	4	Standard
	Mn	55	878.855	ug/L	31.303	3	588	32040935	1	Standard
>	Ge-1	72		ug/L			35993	30758	1	KED
	Ni	60	34.903	ug/L	0.358	1	11	22635	2	KED
	Ni	62	33.296	ug/L	0.321	0	1	3192	1	KED
	Cu	63	162.063	ug/L	0.464	0	19	261292	1	KED
	Cu	65	162.462	ug/L	0.206	0	11	123882	1	KED
	Zn	66	810.045	ug/L	12.868	1	41	157938	1	KED
	Zn	67	753.917	ug/L	0.802	0	7	24063	1	KED
	Y	89		ug/L			759231	1134828	1	Standard
	Kr	83		ug/L			50	97	10	Standard
>	In-1	115		ug/L			7102	6067	2	KED
	Cd	111	4.330	ug/L	0.068	1	1	349	3	KED
	Cd	114	4.696	ug/L	0.332	7	0	1012	8	KED
>	Tb	159		ug/L			2182731	2130311	0	Standard
	Pb	208	0.028	ug/L	0.001	3	607	3171	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-49
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 19:24:32
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			36280	58495	2	Standard
	Cl	37		ug/L			10699365	10173087	1	Standard
>	Sc	45		ug/L			1557606	1812798	2	Standard
	Cr	52	0.543	ug/L	0.045	8	24627	44603	3	Standard
	Cr	53	0.643	ug/L	0.032	5	193	2312	3	Standard
	Mn	55	1254.575	ug/L	29.107	2	588	46449552	0	Standard
>	Ge-1	72		ug/L			35993	31753	1	KED
	Ni	60	16.533	ug/L	0.459	2	11	11072	1	KED
	Ni	62	16.843	ug/L	0.912	5	1	1667	4	KED
	Cu	63	23.196	ug/L	0.491	2	19	38619	1	KED
	Cu	65	22.902	ug/L	0.175	0	11	18036	0	KED
	Zn	66	440.761	ug/L	6.287	1	41	88736	1	KED
	Zn	67	403.054	ug/L	12.249	3	7	13281	2	KED
	Y	89		ug/L			759231	1189256	3	Standard
	Kr	83		ug/L			50	109	5	Standard
>	In-1	115		ug/L			7102	6159	3	KED
	Cd	111	2.724	ug/L	0.123	4	1	223	6	KED
	Cd	114	2.797	ug/L	0.225	8	0	611	8	KED
>	Tb	159		ug/L			2182731	2134627	1	Standard
	Pb	208	0.488	ug/L	0.010	2	607	45727	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-51
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 19:28:19
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			36280	57630	3	Standard
	Cl	**37**		ug/L			10699365	10477713	2	Standard
⌈>	**Sc**	**45**		ug/L			1557606	1713306	0	Standard
|	**Cr**	**52**	**0.103**	ug/L	0.006	5	24627	29958	0	Standard
|	**Cr**	**53**	**0.141**	ug/L	0.010	7	193	646	4	Standard
⌊	**Mn**	**55**	**5.186**	ug/L	0.113	2	588	182184	2	Standard
⌈>	**Ge-1**	**72**		ug/L			35993	34412	1	KED
|	**Ni**	**60**	**0.194**	ug/L	0.028	14	11	151	11	KED
|	**Ni**	**62**	**0.161**	ug/L	0.063	38	1	19	34	KED
|	**Cu**	**63**	**0.728**	ug/L	0.012	1	19	1332	1	KED
|	**Cu**	**65**	**0.700**	ug/L	0.023	3	11	608	2	KED
|	**Zn**	**66**	**1.351**	ug/L	0.121	8	41	334	7	KED
⌊	**Zn**	**67**	**1.539**	ug/L	0.431	27	7	62	24	KED
	Y	**89**		ug/L			759231	990696	3	Standard
	Kr	**83**		ug/L			50	66	29	Standard
⌈>	**In-1**	**115**		ug/L			7102	6593	0	KED
|	**Cd**	**111**	**0.016**	ug/L	0.033	206	1	2	100	KED
⌊	**Cd**	**114**	**0.016**	ug/L	0.008	49	0	4	43	KED
⌈>	**Tb**	**159**		ug/L			2182731	2200303	1	Standard
⌊	**Pb**	**208**	**0.064**	ug/L	0.001	1	607	6748	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-53
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 19:32:06
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			36280	58551	0	Standard
	Cl	37		ug/L			10699365	10457564	1	Standard
⌈>	Sc	45		ug/L			1557606	1700966	1	Standard
|	Cr	52	0.121	ug/L	0.018	14	24627	30229	1	Standard
|	Cr	53	0.150	ug/L	0.004	2	193	669	1	Standard
⌊	Mn	55	2.198	ug/L	0.033	1	588	77029	2	Standard
⌈>	Ge-1	72		ug/L			35993	34043	2	KED
|	Ni	60	0.177	ug/L	0.005	2	11	137	3	KED
|	Ni	62	0.229	ug/L	0.068	29	1	26	27	KED
|	Cu	63	1.664	ug/L	0.049	2	19	2985	2	KED
|	Cu	65	1.720	ug/L	0.064	3	11	1463	6	KED
|	Zn	66	2.664	ug/L	0.436	16	41	615	17	KED
⌊	Zn	67	2.557	ug/L	0.455	17	7	97	18	KED
	Y	89		ug/L			759231	943440	2	Standard
	Kr	83		ug/L			50	67	22	Standard
⌈>	In-1	115		ug/L			7102	6552	2	KED
|	Cd	111	0.031	ug/L	0.028	90	1	4	58	KED
⌊	Cd	114	0.010	ug/L	0.008	77	0	2	61	KED
⌈>	Tb	159		ug/L			2182731	2188928	1	Standard
⌊	Pb	208	0.058	ug/L	0.002	2	607	6120	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0192-02
Sample Dil Factor: 10
Comments:
Sample Date/Time: Wednesday, June 20, 2018 19:35:53
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			36280	39825	1	Standard
	Cl	**37**		ug/L			10699365	10747938	2	Standard
⌈>	**Sc**	**45**		ug/L			1557606	1622728	0	Standard
|	**Cr**	**52**	**0.003**	ug/L	0.031	1205	24627	25720	2	Standard
|	**Cr**	**53**	**0.007**	ug/L	0.008	118	193	220	9	Standard
⌊	**Mn**	**55**	**94.815**	ug/L	3.815	4	588	3143793	3	Standard
⌈>	**Ge-1**	**72**		ug/L			35993	32814	0	KED
|	**Ni**	**60**	**0.266**	ug/L	0.026	9	11	194	9	KED
|	**Ni**	**62**	**0.194**	ug/L	0.044	22	1	21	20	KED
|	**Cu**	**63**	**0.031**	ug/L	0.008	24	19	71	19	KED
|	**Cu**	**65**	**0.016**	ug/L	0.009	57	11	23	32	KED
|	**Zn**	**66**	**3.067**	ug/L	0.149	4	41	676	5	KED
⌊	**Zn**	**67**	**2.034**	ug/L	0.045	2	7	76	2	KED
	Y	**89**		ug/L			759231	914853	1	Standard
	Kr	**83**		ug/L			50	64	7	Standard
⌈>	**In-1**	**115**		ug/L			7102	6157	1	KED
|	**Cd**	**111**	**0.030**	ug/L	0.019	65	1	3	43	KED
⌊	**Cd**	**114**	**0.003**	ug/L	0.005	179	0	1	94	KED
⌈>	**Tb**	**159**		ug/L			2182731	2134252	0	Standard
⌊	**Pb**	**208**	**0.004**	ug/L	0.001	17	607	991	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV9
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 19:40:45
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			36280	34743	2	Standard
	Cl	**37**		ug/L			10699365	10398741	2	Standard
⌈>	**Sc**	**45**		ug/L			1557606	1530299	2	Standard
|	**Cr**	**52**	**48.165**	ug/L	1.435	2	24627	1218312	3	Standard
|	**Cr**	**53**	**50.014**	ug/L	2.202	4	193	137292	2	Standard
⌊	**Mn**	**55**	**52.136**	ug/L	0.472	0	588	1630553	2	Standard
⌈>	**Ge-1**	**72**		ug/L			35993	31652	2	KED
|	**Ni**	**60**	**50.624**	ug/L	0.887	1	11	33774	1	KED
|	**Ni**	**62**	**50.652**	ug/L	1.377	2	1	4994	1	KED
|	**Cu**	**63**	**50.931**	ug/L	0.550	1	19	84503	1	KED
|	**Cu**	**65**	**50.635**	ug/L	0.199	0	11	39740	2	KED
|	**Zn**	**66**	**52.033**	ug/L	1.013	1	41	10471	0	KED
⌊	**Zn**	**67**	**51.033**	ug/L	3.128	6	7	1681	4	KED
	Y	**89**		ug/L			759231	838164	2	Standard
	Kr	**83**		ug/L			50	66	7	Standard
⌈>	**In-1**	**115**		ug/L			7102	6000	2	KED
|	**Cd**	**111**	**50.309**	ug/L	1.787	3	1	3998	1	KED
⌊	**Cd**	**114**	**50.892**	ug/L	0.671	1	0	10833	3	KED
⌈>	**Tb**	**159**		ug/L			2182731	2162477	0	Standard
⌊	**Pb**	**208**	**52.572**	ug/L	0.611	1	607	4929814	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB9
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 19:45:37
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			36280	35655	1	Standard
	Cl	**37**		ug/L			10699365	10358170	1	Standard
⌈>	**Sc**	**45**		ug/L			1557606	1517940	1	Standard
|	**Cr**	**52**	**-0.028**	ug/L	0.015	55	24627	23320	2	Standard
|	**Cr**	**53**	**-0.020**	ug/L	0.006	29	193	134	11	Standard
⌊	**Mn**	**55**	**-0.000**	ug/L	0.001	366	588	565	4	Standard
⌈>	**Ge-1**	**72**		ug/L			35993	32982	1	KED
|	**Ni**	**60**	**-0.003**	ug/L	0.006	174	11	8	48	KED
|	**Ni**	**62**	**0.001**	ug/L	0.019	1263	1	1	100	KED
|	**Cu**	**63**	**-0.001**	ug/L	0.006	1077	19	16	58	KED
|	**Cu**	**65**	**0.000**	ug/L	0.006	1603	11	10	44	KED
|	**Zn**	**66**	**-0.099**	ug/L	0.038	38	41	17	44	KED
⌊	**Zn**	**67**	**-0.055**	ug/L	0.142	257	7	5	94	KED
	Y	**89**		ug/L			759231	809756	3	Standard
	Kr	**83**		ug/L			50	55	22	Standard
⌈>	**In-1**	**115**		ug/L			7102	6132	2	KED
|	**Cd**	**111**	**0.003**	ug/L	0.018	611	1	1	91	KED
⌊	**Cd**	**114**	**0.015**	ug/L	0.015	101	0	3	86	KED
⌈>	**Tb**	**159**		ug/L			2182731	2130290	0	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.001	76	607	527	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 19:49:25
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				35569	1	Standard
	Cl	**37**		ug/L				10241095	2	Standard
⌈>	**Sc**	**45**		ug/L				1519328	1	Standard
|	**Cr**	**52**		ug/L				22867	1	Standard
|	**Cr**	**53**		ug/L				146	11	Standard
⌊	**Mn**	**55**		ug/L				587	3	Standard
⌈>	**Ge-1**	**72**		ug/L				33040	0	KED
|	**Ni**	**60**		ug/L				7	90	KED
|	**Ni**	**62**		ug/L				1	86	KED
|	**Cu**	**63**		ug/L				12	43	KED
|	**Cu**	**65**		ug/L				6	56	KED
|	**Zn**	**66**		ug/L				20	41	KED
⌊	**Zn**	**67**		ug/L				3	91	KED
	Y	**89**		ug/L				819517	1	Standard
	Kr	**83**		ug/L				46	12	Standard
⌈>	**In-1**	**115**		ug/L				6266	0	KED
|	**Cd**	**111**		ug/L				0		KED
⌊	**Cd**	**114**		ug/L				0	188	KED
⌈>	**Tb**	**159**		ug/L				2155198	1	Standard
⌊	**Pb**	**208**		ug/L				474	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVA
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 19:53:12
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35569	34156	1	Standard
	Cl	**37**		ug/L			10241095	10353246	1	Standard
⌈>	**Sc**	**45**		ug/L			1519328	1456382	1	Standard
|	**Cr**	**52**	**48.945**	ug/L	1.117	2	22867	1176676	0	Standard
|	**Cr**	**53**	**49.954**	ug/L	0.860	1	146	130517	0	Standard
⌊	**Mn**	**55**	**50.815**	ug/L	1.068	2	587	1512373	1	Standard
⌈>	**Ge-1**	**72**		ug/L			33040	31528	1	KED
|	**Ni**	**60**	**50.561**	ug/L	0.665	1	7	33598	0	KED
|	**Ni**	**62**	**49.079**	ug/L	0.663	1	1	4821	0	KED
|	**Cu**	**63**	**51.036**	ug/L	0.238	0	12	84351	1	KED
|	**Cu**	**65**	**50.553**	ug/L	0.756	1	6	39511	0	KED
|	**Zn**	**66**	**51.206**	ug/L	0.280	0	20	10251	1	KED
⌊	**Zn**	**67**	**52.447**	ug/L	0.931	1	3	1718	1	KED
	Y	**89**		ug/L			819517	770607	1	Standard
	Kr	**83**		ug/L			46	76	1	Standard
⌈>	**In-1**	**115**		ug/L			6266	5900	4	KED
|	**Cd**	**111**	**50.601**	ug/L	1.582	3	0	3951	1	KED
⌊	**Cd**	**114**	**50.837**	ug/L	1.487	2	0	10631	1	KED
⌈>	**Tb**	**159**		ug/L			2155198	2127128	1	Standard
⌊	**Pb**	**208**	**52.126**	ug/L	0.503	0	474	4808084	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBA
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 19:57:00
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35569	33975	3	Standard
	Cl	**37**		ug/L			10241095	9891949	1	Standard
⎡>	**Sc**	**45**		ug/L			1519328	1471308	2	Standard
⎢	**Cr**	**52**	**-0.010**	ug/L	0.022	217	22867	21906	2	Standard
⎢	**Cr**	**53**	**0.002**	ug/L	0.005	299	146	146	8	Standard
⎣	**Mn**	**55**	**0.006**	ug/L	0.013	207	587	757	51	Standard
⎡>	**Ge-1**	**72**		ug/L			33040	31909	1	KED
⎢	**Ni**	**60**	**-0.001**	ug/L	0.002	272	7	6	15	KED
⎢	**Ni**	**62**	**-0.006**	ug/L	0.011	178	1	0	173	KED
⎢	**Cu**	**63**	**0.005**	ug/L	0.001	22	12	20	10	KED
⎢	**Cu**	**65**	**0.007**	ug/L	0.003	50	6	12	24	KED
⎢	**Zn**	**66**	**0.004**	ug/L	0.067	1680	20	20	63	KED
⎣	**Zn**	**67**	**0.059**	ug/L	0.162	274	3	5	108	KED
	Y	**89**		ug/L			819517	745466	2	Standard
	Kr	**83**		ug/L			46	57	7	Standard
⎡>	**In-1**	**115**		ug/L			6266	6013	1	KED
⎢	**Cd**	**111**	**0.036**	ug/L	0.012	33	0	2	33	KED
⎣	**Cd**	**114**	**0.006**	ug/L	0.000	3	0	1	3	KED
⎡>	**Tb**	**159**		ug/L			2155198	2095174	0	Standard
⎣	**Pb**	**208**	**0.002**	ug/L	0.001	34	474	655	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-55
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 20:00:48
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35569	57153	2	Standard
	Cl	**37**		ug/L			10241095	9856510	0	Standard
⌈>	**Sc**	**45**		ug/L			1519328	1548595	0	Standard
|	**Cr**	**52**	**0.157**	ug/L	0.011	7	22867	27238	1	Standard
|	**Cr**	**53**	**0.150**	ug/L	0.013	8	146	565	5	Standard
⌊	**Mn**	**55**	**13.459**	ug/L	0.191	1	587	426478	2	Standard
⌈>	**Ge-1**	**72**		ug/L			33040	32881	0	KED
|	**Ni**	**60**	**0.222**	ug/L	0.030	13	7	161	13	KED
|	**Ni**	**62**	**0.223**	ug/L	0.039	17	1	24	16	KED
|	**Cu**	**63**	**1.560**	ug/L	0.019	1	12	2701	1	KED
|	**Cu**	**65**	**1.553**	ug/L	0.024	1	6	1272	1	KED
|	**Zn**	**66**	**6.746**	ug/L	0.203	3	20	1426	2	KED
⌊	**Zn**	**67**	**6.645**	ug/L	0.783	11	3	229	11	KED
	Y	**89**		ug/L			819517	810664	1	Standard
	Kr	**83**		ug/L			46	67	13	Standard
⌈>	**In-1**	**115**		ug/L			6266	6168	0	KED
|	**Cd**	**111**	**0.047**	ug/L	0.035	75	0	3	75	KED
⌊	**Cd**	**114**	**0.046**	ug/L	0.009	20	0	10	19	KED
⌈>	**Tb**	**159**		ug/L			2155198	2179378	1	Standard
⌊	**Pb**	**208**	**0.050**	ug/L	0.002	3	474	5159	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-57
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 20:04:35
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			35569	55842	4	Standard
	Cl	37		ug/L			10241095	10026796	2	Standard
[>	Sc	45		ug/L			1519328	1558756	2	Standard
|	Cr	52	0.169	ug/L	0.025	14	22867	27734	1	Standard
|	Cr	53	0.156	ug/L	0.001	0	146	587	2	Standard
[	Mn	55	2.660	ug/L	0.021	0	587	85321	1	Standard
[>	Ge-1	72		ug/L			33040	33521	1	KED
|	Ni	60	0.182	ug/L	0.014	7	7	136	7	KED
|	Ni	62	0.188	ug/L	0.016	8	1	20	9	KED
|	Cu	63	1.377	ug/L	0.066	4	12	2431	3	KED
|	Cu	65	1.388	ug/L	0.128	9	6	1160	8	KED
|	Zn	66	4.281	ug/L	0.090	2	20	930	2	KED
[	Zn	67	3.872	ug/L	0.319	8	3	137	6	KED
	Y	89		ug/L			819517	827700	0	Standard
	Kr	83		ug/L			46	63	22	Standard
[>	In-1	115		ug/L			6266	6226	1	KED
|	Cd	111	0.077	ug/L	0.019	24	0	6	22	KED
[	Cd	114	0.020	ug/L	0.030	144	0	5	127	KED
[>	Tb	159		ug/L			2155198	2194092	1	Standard
[	Pb	208	0.050	ug/L	0.001	2	474	5285	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-59
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 20:08:22
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			35569	58881	2	Standard
	Cl	37		ug/L			10241095	9822473	1	Standard
⌈>	Sc	45		ug/L			1519328	1547964	1	Standard
|	Cr	52	0.201	ug/L	0.025	12	22867	28341	1	Standard
|	Cr	53	0.184	ug/L	0.009	5	146	659	4	Standard
⌊	Mn	55	3.748	ug/L	0.103	2	587	119082	0	Standard
⌈>	Ge-1	72		ug/L			33040	32513	1	KED
|	Ni	60	0.193	ug/L	0.022	11	7	139	10	KED
|	Ni	62	0.233	ug/L	0.117	50	1	24	46	KED
|	Cu	63	1.508	ug/L	0.047	3	12	2581	1	KED
|	Cu	65	1.478	ug/L	0.083	5	6	1197	4	KED
|	Zn	66	4.828	ug/L	0.101	2	20	1015	1	KED
⌊	Zn	67	4.502	ug/L	0.124	2	3	154	1	KED
	Y	89		ug/L			819517	808033	2	Standard
	Kr	83		ug/L			46	54	10	Standard
⌈>	In-1	115		ug/L			6266	6133	2	KED
|	Cd	111	0.062	ug/L	0.016	26	0	5	28	KED
⌊	Cd	114	0.044	ug/L	0.031	69	0	10	65	KED
⌈>	Tb	159		ug/L			2155198	2198322	1	Standard
⌊	Pb	208	0.046	ug/L	0.001	1	474	4838	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-61
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 20:12:09
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			35569	54065	2	Standard
	Cl	37		ug/L			10241095	9901692	2	Standard
⌈>	Sc	45		ug/L			1519328	1551117	3	Standard
|	Cr	52	0.170	ug/L	0.050	29	22867	27597	1	Standard
|	Cr	53	0.146	ug/L	0.006	3	146	555	5	Standard
⌊	Mn	55	1.212	ug/L	0.080	6	587	38939	3	Standard
⌈>	Ge-1	72		ug/L			33040	32577	0	KED
|	Ni	60	0.154	ug/L	0.015	9	7	113	8	KED
|	Ni	62	0.113	ug/L	0.077	67	1	12	60	KED
|	Cu	63	0.713	ug/L	0.024	3	12	1229	3	KED
|	Cu	65	0.724	ug/L	0.030	4	6	591	4	KED
|	Zn	66	1.824	ug/L	0.146	7	20	397	8	KED
⌊	Zn	67	2.614	ug/L	0.218	8	3	91	7	KED
	Y	89		ug/L			819517	784680	1	Standard
	Kr	83		ug/L			46	63	13	Standard
⌈>	In-1	115		ug/L			6266	6115	4	KED
|	Cd	111	0.008	ug/L	0.007	86	0	0	86	KED
⌊	Cd	114	0.014	ug/L	0.011	73	0	3	61	KED
⌈>	Tb	159		ug/L			2155198	2154675	1	Standard
⌊	Pb	208	0.030	ug/L	0.000	0	474	3310	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0192-04
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, June 20, 2018 20:15:56
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			35569	35566	3	Standard
	Cl	37		ug/L			10241095	9625608	1	Standard
>	Sc	45		ug/L			1519328	1456498	1	Standard
	Cr	52	-0.006	ug/L	0.010	163	22867	21770	0	Standard
	Cr	53	0.014	ug/L	0.003	20	146	176	5	Standard
	Mn	55	134.978	ug/L	1.771	1	587	4017260	1	Standard
>	Ge-1	72		ug/L			33040	31306	0	KED
	Ni	60	1.265	ug/L	0.024	1	7	841	0	KED
	Ni	62	1.322	ug/L	0.032	2	1	130	3	KED
	Cu	63	17.939	ug/L	0.220	1	12	29448	1	KED
	Cu	65	17.900	ug/L	0.265	1	6	13898	1	KED
	Zn	66	200.419	ug/L	3.555	1	20	39784	2	KED
	Zn	67	184.558	ug/L	1.276	0	3	5996	0	KED
	Y	89		ug/L			819517	778963	1	Standard
	Kr	83		ug/L			46	59	14	Standard
>	In-1	115		ug/L			6266	5865	0	KED
	Cd	111	0.707	ug/L	0.049	6	0	54	7	KED
	Cd	114	0.781	ug/L	0.078	10	0	163	9	KED
>	Tb	159		ug/L			2155198	2047359	3	Standard
	Pb	208	0.025	ug/L	0.001	5	474	2709	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-65
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 20:19:44
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			35569	52873	2	Standard
	Cl	37		ug/L			10241095	9689316	1	Standard
⌈>	Sc	45		ug/L			1519328	1479858	1	Standard
|	Cr	52	0.218	ug/L	0.006	2	22867	27495	2	Standard
|	Cr	53	0.193	ug/L	0.011	5	146	654	3	Standard
⌊	Mn	55	3.713	ug/L	0.046	1	587	112837	1	Standard
⌈>	Ge-1	72		ug/L			33040	32011	1	KED
|	Ni	60	0.210	ug/L	0.012	5	7	149	5	KED
|	Ni	62	0.172	ug/L	0.055	32	1	18	29	KED
|	Cu	63	1.571	ug/L	0.069	4	12	2647	3	KED
|	Cu	65	1.493	ug/L	0.052	3	6	1191	3	KED
|	Zn	66	5.026	ug/L	0.531	10	20	1039	9	KED
⌊	Zn	67	5.106	ug/L	0.274	5	3	172	6	KED
	Y	89		ug/L			819517	797450	1	Standard
	Kr	83		ug/L			46	72	5	Standard
⌈>	In-1	115		ug/L			6266	5857	3	KED
|	Cd	111	0.062	ug/L	0.022	35	0	4	34	KED
⌊	Cd	114	0.061	ug/L	0.014	22	0	13	20	KED
⌈>	Tb	159		ug/L			2155198	2076829	4	Standard
⌊	Pb	208	0.056	ug/L	0.002	3	474	5505	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-67
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 20:23:31
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			35569	55069	1	Standard
	Cl	37		ug/L			10241095	9531514	3	Standard
>	Sc	45		ug/L			1519328	1576911	1	Standard
	Cr	52	1.882	ug/L	0.095	5	22867	71799	1	Standard
	Cr	53	1.978	ug/L	0.019	0	146	5742	2	Standard
	Mn	55	160.485	ug/L	3.548	2	587	5170996	2	Standard
>	Ge-1	72		ug/L			33040	30546	1	KED
	Ni	60	9.478	ug/L	0.215	2	7	6108	2	KED
	Ni	62	9.257	ug/L	0.678	7	1	882	8	KED
	Cu	63	22.140	ug/L	0.121	0	12	35458	0	KED
	Cu	65	22.119	ug/L	0.470	2	6	16753	1	KED
	Zn	66	98.922	ug/L	1.336	1	20	19168	0	KED
	Zn	67	93.482	ug/L	2.372	2	3	2965	2	KED
	Y	89		ug/L			819517	985316	3	Standard
	Kr	83		ug/L			46	90	19	Standard
>	In-1	115		ug/L			6266	5909	4	KED
	Cd	111	0.768	ug/L	0.080	10	0	60	6	KED
	Cd	114	0.879	ug/L	0.070	7	0	184	3	KED
>	Tb	159		ug/L			2155198	2055273	3	Standard
	Pb	208	0.025	ug/L	0.000	1	474	2667	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-13
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 20:27:18
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35569	56066	2	Standard
	Cl	**37**		ug/L			10241095	9676636	0	Standard
⌈>	**Sc**	**45**		ug/L			1519328	1488144	2	Standard
|	**Cr**	**52**	**0.142**	ug/L	0.026	18	22867	25822	1	Standard
|	**Cr**	**53**	**0.108**	ug/L	0.012	11	146	432	5	Standard
⌊	**Mn**	**55**	**1379.420**	ug/L	33.138	2	587	41928517	0	Standard
⌈>	**Ge-1**	**72**		ug/L			33040	30237	1	KED
|	**Ni**	**60**	**5.009**	ug/L	0.125	2	7	3199	3	KED
|	**Ni**	**62**	**5.267**	ug/L	0.418	7	1	497	7	KED
|	**Cu**	**63**	**4.911**	ug/L	0.123	2	12	7793	1	KED
|	**Cu**	**65**	**4.848**	ug/L	0.181	3	6	3639	2	KED
|	**Zn**	**66**	**119.690**	ug/L	2.723	2	20	22952	1	KED
⌊	**Zn**	**67**	**113.156**	ug/L	1.265	1	3	3552	0	KED
	Y	**89**		ug/L			819517	852760	7	Standard
	Kr	**83**		ug/L			46	88	13	Standard
⌈>	**In-1**	**115**		ug/L			6266	5860	2	KED
|	**Cd**	**111**	**1.341**	ug/L	0.055	4	0	104	5	KED
⌊	**Cd**	**114**	**1.379**	ug/L	0.106	7	0	286	5	KED
⌈>	**Tb**	**159**		ug/L			2155198	1914687	6	Standard
⌊	**Pb**	**208**	**0.014**	ug/L	0.001	8	474	1545	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-23
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, June 20, 2018 20:31:05
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35569	38927	1	Standard
	Cl	**37**		ug/L			10241095	9775719	0	Standard
⌈>	**Sc**	**45**		ug/L			1519328	1431799	1	Standard
|	**Cr**	**52**	**0.044**	ug/L	0.048	109	22867	22558	4	Standard
|	**Cr**	**53**	**0.036**	ug/L	0.001	3	146	231	1	Standard
⌊	**Mn**	**55**	**63.094**	ug/L	2.017	3	587	1845623	1	Standard
⌈>	**Ge-1**	**72**		ug/L			33040	30677	1	KED
|	**Ni**	**60**	**0.241**	ug/L	0.009	3	7	162	2	KED
|	**Ni**	**62**	**0.187**	ug/L	0.051	27	1	19	26	KED
|	**Cu**	**63**	**0.299**	ug/L	0.021	7	12	492	6	KED
|	**Cu**	**65**	**0.303**	ug/L	0.013	4	6	236	4	KED
|	**Zn**	**66**	**8.069**	ug/L	0.190	2	20	1588	1	KED
⌊	**Zn**	**67**	**7.389**	ug/L	0.282	3	3	238	4	KED
	Y	**89**		ug/L			819517	787381	1	Standard
	Kr	**83**		ug/L			46	76	14	Standard
⌈>	**In-1**	**115**		ug/L			6266	5821	1	KED
|	**Cd**	**111**	**0.045**	ug/L	0.025	55	0	3	56	KED
⌊	**Cd**	**114**	**0.012**	ug/L	0.005	44	0	3	37	KED
⌈>	**Tb**	**159**		ug/L			2155198	1976012	0	Standard
⌊	**Pb**	**208**	**0.013**	ug/L	0.000	2	474	1521	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0192-06
Sample Dil Factor: 50
Comments:
Sample Date/Time: Wednesday, June 20, 2018 20:34:52
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			35569	35728	1	Standard
	Cl	37		ug/L			10241095	9809028	2	Standard
>	Sc	45		ug/L			1519328	1409102	2	Standard
	Cr	52	0.001	ug/L	0.027	5390	22867	21210	0	Standard
	Cr	53	0.009	ug/L	0.006	60	146	159	6	Standard
	Mn	55	24.724	ug/L	0.696	2	587	712077	0	Standard
>	Ge-1	72		ug/L			33040	30748	0	KED
	Ni	60	0.087	ug/L	0.013	14	7	63	12	KED
	Ni	62	0.034	ug/L	0.011	33	1	4	24	KED
	Cu	63	18.765	ug/L	0.383	2	12	30257	2	KED
	Cu	65	18.579	ug/L	0.277	1	6	14167	1	KED
	Zn	66	170.731	ug/L	2.279	1	20	33290	1	KED
	Zn	67	161.274	ug/L	7.865	4	3	5147	4	KED
	Y	89		ug/L			819517	748161	0	Standard
	Kr	83		ug/L			46	57	20	Standard
>	In-1	115		ug/L			6266	5639	4	KED
	Cd	111	0.604	ug/L	0.049	8	0	45	6	KED
	Cd	114	0.608	ug/L	0.121	19	0	122	21	KED
>	Tb	159		ug/L			2155198	1921132	0	Standard
	Pb	208	0.189	ug/L	0.004	2	474	16145	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVB
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 20:39:44
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35569	31687	1	Standard
	Cl	**37**		ug/L			10241095	9620710	1	Standard
⌈>	**Sc**	**45**		ug/L			1519328	1327631	1	Standard
|	**Cr**	**52**	**48.069**	ug/L	2.243	4	22867	1053529	3	Standard
|	**Cr**	**53**	**49.332**	ug/L	1.016	2	146	117491	0	Standard
⌊	**Mn**	**55**	**50.553**	ug/L	0.329	0	587	1371770	1	Standard
⌈>	**Ge-1**	**72**		ug/L			33040	29495	1	KED
|	**Ni**	**60**	**49.302**	ug/L	1.013	2	7	30646	1	KED
|	**Ni**	**62**	**48.198**	ug/L	3.037	6	1	4426	4	KED
|	**Cu**	**63**	**49.892**	ug/L	0.240	0	12	77150	2	KED
|	**Cu**	**65**	**49.948**	ug/L	0.596	1	6	36522	1	KED
|	**Zn**	**66**	**49.271**	ug/L	0.343	0	20	9229	2	KED
⌊	**Zn**	**67**	**50.671**	ug/L	2.725	5	3	1552	4	KED
	Y	**89**		ug/L			819517	710060	3	Standard
	Kr	**83**		ug/L			46	53	7	Standard
⌈>	**In-1**	**115**		ug/L			6266	5498	2	KED
|	**Cd**	**111**	**49.592**	ug/L	1.525	3	0	3612	3	KED
⌊	**Cd**	**114**	**50.206**	ug/L	1.289	2	0	9789	1	KED
⌈>	**Tb**	**159**		ug/L			2155198	1905208	0	Standard
⌊	**Pb**	**208**	**55.013**	ug/L	0.932	1	474	4544811	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBB
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 20:44:36
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35569	32209	1	Standard
	Cl	**37**		ug/L			10241095	9485669	0	Standard
⌈>	**Sc**	**45**		ug/L			1519328	1315655	0	Standard
|	**Cr**	**52**	**-0.011**	ug/L	0.021	188	22867	19566	2	Standard
|	**Cr**	**53**	**-0.005**	ug/L	0.005	97	146	115	10	Standard
⌊	**Mn**	**55**	**0.000**	ug/L	0.001	525	587	515	6	Standard
⌈>	**Ge-1**	**72**		ug/L			33040	29523	1	KED
|	**Ni**	**60**	**0.006**	ug/L	0.002	26	7	10	10	KED
|	**Ni**	**62**	**0.029**	ug/L	0.000	1	1	3	0	KED
|	**Cu**	**63**	**0.002**	ug/L	0.003	149	12	14	32	KED
|	**Cu**	**65**	**-0.001**	ug/L	0.003	341	6	5	33	KED
|	**Zn**	**66**	**0.046**	ug/L	0.013	29	20	27	8	KED
⌊	**Zn**	**67**	**0.031**	ug/L	0.061	193	3	3	50	KED
	Y	**89**		ug/L			819517	690101	2	Standard
	Kr	**83**		ug/L			46	64	2	Standard
⌈>	**In-1**	**115**		ug/L			6266	5547	3	KED
|	**Cd**	**111**	**0.017**	ug/L	0.015	86	0	1	86	KED
⌊	**Cd**	**114**	**0.000**	ug/L	0.006	2571	0	0	188	KED
⌈>	**Tb**	**159**		ug/L			2155198	1878021	0	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.001	50	474	496	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-07
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, June 20, 2018 20:48:24
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35569	38894	0	Standard
	Cl	**37**		ug/L			10241095	20904813	1	Standard
⌈>	**Sc**	**45**		ug/L			1519328	1300726	2	Standard
|	**Cr**	**52**	**0.198**	ug/L	0.023	11	22867	23737	2	Standard
|	**Cr**	**53**	**8.852**	ug/L	0.232	2	146	20759	2	Standard
⌊	**Mn**	**55**	**9.497**	ug/L	0.139	1	587	252830	1	Standard
⌈>	**Ge-1**	**72**		ug/L			33040	25862	1	KED
|	**Ni**	**60**	**0.167**	ug/L	0.011	6	7	97	7	KED
|	**Ni**	**62**	**0.239**	ug/L	0.103	43	1	20	42	KED
|	**Cu**	**63**	**0.360**	ug/L	0.013	3	12	498	4	KED
|	**Cu**	**65**	**0.376**	ug/L	0.035	9	6	246	9	KED
|	**Zn**	**66**	**1.482**	ug/L	0.144	9	20	259	10	KED
⌊	**Zn**	**67**	**1.016**	ug/L	0.340	33	3	29	32	KED
	Y	**89**		ug/L			819517	653031	5	Standard
	Kr	**83**		ug/L			46	139	77	Standard
⌈>	**In-1**	**115**		ug/L			6266	5063	1	KED
|	**Cd**	**111**	**0.024**	ug/L	0.008	34	0	1	34	KED
⌊	**Cd**	**114**	**0.011**	ug/L	0.016	140	0	2	114	KED
⌈>	**Tb**	**159**		ug/L			2155198	1827573	2	Standard
⌊	**Pb**	**208**	**0.046**	ug/L	0.005	9	474	4061	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0194-04
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 20:52:11
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35569	57526	3	Standard
	Cl	**37**		ug/L			10241095	9967414	2	Standard
⌈>	**Sc**	**45**		ug/L			1519328	1432730	1	Standard
|	**Cr**	**52**	**0.139**	ug/L	0.033	23	22867	24782	1	Standard
|	**Cr**	**53**	**0.728**	ug/L	0.012	1	146	2008	0	Standard
⌊	**Mn**	**55**	**3.342**	ug/L	0.139	4	587	98336	2	Standard
⌈>	**Ge-1**	**72**		ug/L			33040	29502	0	KED
|	**Ni**	**60**	**0.181**	ug/L	0.036	19	7	119	18	KED
|	**Ni**	**62**	**0.174**	ug/L	0.163	93	1	17	88	KED
|	**Cu**	**63**	**0.534**	ug/L	0.024	4	12	837	3	KED
|	**Cu**	**65**	**0.558**	ug/L	0.026	4	6	414	4	KED
|	**Zn**	**66**	**2.389**	ug/L	0.090	3	20	465	3	KED
⌊	**Zn**	**67**	**2.688**	ug/L	0.232	8	3	85	7	KED
	Y	**89**		ug/L			819517	697972	0	Standard
	Kr	**83**		ug/L			46	72	7	Standard
⌈>	**In-1**	**115**		ug/L			6266	5320	3	KED
|	**Cd**	**111**	**0.014**	ug/L	0.013	98	0	0	100	KED
⌊	**Cd**	**114**	**0.018**	ug/L	0.011	62	0	3	55	KED
⌈>	**Tb**	**159**		ug/L			2155198	1980883	1	Standard
⌊	**Pb**	**208**	**0.094**	ug/L	0.000	0	474	8548	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0194-06
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 20:55:58
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35569	57029	2	Standard
	Cl	**37**		ug/L			10241095	9747515	0	Standard
⌈>	**Sc**	**45**		ug/L			1519328	1409624	1	Standard
|	**Cr**	**52**	**0.129**	ug/L	0.032	24	22867	24157	3	Standard
|	**Cr**	**53**	**0.660**	ug/L	0.018	2	146	1804	2	Standard
⌊	**Mn**	**55**	**4.326**	ug/L	0.119	2	587	125104	1	Standard
⌈>	**Ge-1**	**72**		ug/L			33040	29519	1	KED
|	**Ni**	**60**	**0.211**	ug/L	0.009	4	7	137	2	KED
|	**Ni**	**62**	**0.181**	ug/L	0.032	17	1	17	16	KED
|	**Cu**	**63**	**0.767**	ug/L	0.013	1	12	1198	3	KED
|	**Cu**	**65**	**0.769**	ug/L	0.097	12	6	569	13	KED
|	**Zn**	**66**	**1.670**	ug/L	0.153	9	20	330	7	KED
⌊	**Zn**	**67**	**1.590**	ug/L	0.395	24	3	51	22	KED
	Y	**89**		ug/L			819517	699726	1	Standard
	Kr	**83**		ug/L			46	58	4	Standard
⌈>	**In-1**	**115**		ug/L			6266	5326	2	KED
|	**Cd**	**111**	**0.032**	ug/L	0.008	25	0	2	24	KED
⌊	**Cd**	**114**	**0.005**	ug/L	0.011	198	0	1	133	KED
⌈>	**Tb**	**159**		ug/L			2155198	1999958	4	Standard
⌊	**Pb**	**208**	**0.070**	ug/L	0.003	4	474	6474	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0258-01
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 20:59:46
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			35569	1918714	0	Standard
	Cl	37		ug/L			10241095	9106618	2	Standard
>	Sc	45		ug/L			1519328	1282085	2	Standard
	Cr	52	8.311	ug/L	0.165	1	22867	191910	0	Standard
	Cr	53	3.397	ug/L	0.046	1	146	7930	2	Standard
	Mn	55	237.716	ug/L	7.600	3	587	6224830	1	Standard
>	Ge-1	72		ug/L			33040	16178	1	KED
	Ni	60	15.208	ug/L	0.406	2	7	5189	3	KED
	Ni	62	14.063	ug/L	0.618	4	1	709	3	KED
	Cu	63	1.086	ug/L	0.048	4	12	927	4	KED
	Cu	65	1.145	ug/L	0.090	7	6	462	8	KED
	Zn	66	17.896	ug/L	1.008	5	20	1844	4	KED
	Zn	67	20.413	ug/L	2.311	11	3	344	11	KED
	Y	89		ug/L			819517	734675	1	Standard
	Kr	83		ug/L			46	173	8	Standard
>	In-1	115		ug/L			6266	2729	0	KED
	Cd	111	0.246	ug/L	0.068	27	0	8	26	KED
	Cd	114	0.103	ug/L	0.044	42	0	10	41	KED
>	Tb	159		ug/L			2155198	1673698	1	Standard
	Pb	208	0.089	ug/L	0.001	1	474	6794	0	Standard

ICP-MS Quantitative Analysis - Summary Report

260

Sample ID: 18F0266-01

Sample Dil Factor:

Comments:

Sample Date/Time: Wednesday, June 20, 2018 21:03:33 MB 6/20/18

Number of Replicates: 3

Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth

Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun

Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac

Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			35569	83313	1	Standard
	Cl	37		ug/L			10241095	21282851	5	Standard
>	Sc	45		ug/L			1519328	1363813	1	Standard
	Cr	52	166.891	ug/L	3.472	2	22867	3708110	1	Standard
	Cr	53	171.813	ug/L	5.655	3	146	420024	2	Standard
	Mn	55	14.666	ug/L	0.402	2	587	409134	2	Standard
>	Ge-1	72		ug/L			33040	23960	1	KED
	Ni	60	10.086	ug/L	0.170	1	7	5097	0	KED
	Ni	62	9.698	ug/L	0.483	4	1	724	3	KED
	Cu	63	19.547	ug/L	0.333	1	12	24553	0	KED
	Cu	65	19.323	ug/L	0.245	1	6	11481	1	KED
	Zn	66	25.757	ug/L	0.725	2	20	3926	2	KED
	Zn	67	23.413	ug/L	0.570	2	3	584	1	KED
	Y	89		ug/L			819517	695821	1	Standard
	Kr	83		ug/L			46	94	3	Standard
>	In-1	115		ug/L			6266	4611	3	KED
	Cd	111	1.088	ug/L	0.092	8	0	66	6	KED
	Cd	114	1.010	ug/L	0.106	10	0	165	10	KED
>	Tb	159		ug/L			2155198	1866172	1	Standard
	Pb	208	0.924	ug/L	0.019	2	474	75207	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0264-01
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, June 20, 2018 21:07:20
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			35569	355203	1	Standard
	Cl	37		ug/L			10241095	9795751	2	Standard
>	Sc	45		ug/L			1519328	1369056	1	Standard
	Cr	52	554.428	ug/L	9.685	1	22867	12320070	2	Standard
	Cr	53	551.048	ug/L	10.666	1	146	1352128	0	Standard
	Mn	55	49.457	ug/L	1.648	3	587	1383574	2	Standard
>	Ge-1	72		ug/L			33040	27422	0	KED
	Ni	60	3.022	ug/L	0.048	1	7	1753	2	KED
	Ni	62	2.753	ug/L	0.216	7	1	236	7	KED
	Cu	63	9.276	ug/L	0.050	0	12	13343	0	KED
	Cu	65	8.927	ug/L	0.223	2	6	6073	2	KED
	Zn	66	671.444	ug/L	9.836	1	20	116713	1	KED
	Zn	67	619.463	ug/L	3.897	0	3	17625	0	KED
	Y	89		ug/L			819517	711371	1	Standard
	Kr	83		ug/L			46	57	10	Standard
>	In-1	115		ug/L			6266	4946	2	KED
	Cd	111	2.306	ug/L	0.137	5	0	151	6	KED
	Cd	114	2.292	ug/L	0.218	9	0	401	6	KED
>	Tb	159		ug/L			2155198	1932461	0	Standard
	Pb	208	0.476	ug/L	0.005	1	474	40286	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0265-01
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, June 20, 2018 21:11:07
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			35569	342151	3	Standard
	Cl	37		ug/L			10241095	9141629	3	Standard
>	Sc	45		ug/L			1519328	1336583	2	Standard
	Cr	52	131.901	ug/L	1.562	1	22867	2876149	1	Standard
	Cr	53	128.230	ug/L	4.529	3	146	307143	1	Standard
	Mn	55	43.574	ug/L	0.802	1	587	1190070	0	Standard
>	Ge-1	72		ug/L			33040	26196	0	KED
	Ni	60	5.536	ug/L	0.012	0	7	3062	0	KED
	Ni	62	5.440	ug/L	0.321	5	1	445	6	KED
	Cu	63	2.426	ug/L	0.104	4	12	3341	4	KED
	Cu	65	2.401	ug/L	0.159	6	6	1565	7	KED
	Zn	66	202.428	ug/L	3.274	1	20	33624	1	KED
	Zn	67	187.500	ug/L	2.557	1	3	5098	1	KED
	Y	89		ug/L			819517	696907	1	Standard
	Kr	83		ug/L			46	78	25	Standard
>	In-1	115		ug/L			6266	4644	1	KED
	Cd	111	0.962	ug/L	0.276	28	0	59	30	KED
	Cd	114	0.932	ug/L	0.072	7	0	154	8	KED
>	Tb	159		ug/L			2155198	1907042	1	Standard
	Pb	208	0.220	ug/L	0.002	1	474	18625	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL7
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 21:15:19
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35569	38692	1	Standard
	Cl	**37**		ug/L			10241095	9399915	1	Standard
⎡>	**Sc**	**45**		ug/L			1519328	1298532	0	Standard
⎢	**Cr**	**52**	**0.003**	ug/L	0.008	277	22867	19606	0	Standard
⎢	**Cr**	**53**	**0.048**	ug/L	0.003	7	146	238	3	Standard
⎣	**Mn**	**55**	**-0.001**	ug/L	0.001	81	587	468	5	Standard
⎡>	**Ge-1**	**72**		ug/L			33040	27668	2	KED
⎢	**Ni**	**60**	**-0.008**	ug/L	0.006	71	7	1	173	KED
⎢	**Ni**	**62**	**-0.012**	ug/L	0.000	0	1	0		KED
⎢	**Cu**	**63**	**0.000**	ug/L	0.005	4265	12	10	61	KED
⎢	**Cu**	**65**	**0.003**	ug/L	0.003	100	6	7	25	KED
⎢	**Zn**	**66**	**-0.023**	ug/L	0.045	189	20	13	57	KED
⎣	**Zn**	**67**	**-0.026**	ug/L	0.001	5	3	1		KED
	Y	**89**		ug/L			819517	668236	1	Standard
	Kr	**83**		ug/L			46	64	15	Standard
⎡>	**In-1**	**115**		ug/L			6266	4979	1	KED
⎢	**Cd**	**111**	**0.015**	ug/L	0.014	99	0	0	100	KED
⎣	**Cd**	**114**	**0.004**	ug/L	0.006	141	0	1	86	KED
⎡>	**Tb**	**159**		ug/L			2155198	1849748	2	Standard
⎣	**Pb**	**208**	**-0.001**	ug/L	0.000	31	474	335	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVC
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 21:19:31
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35569	33663	4	Standard
	Cl	**37**		ug/L			10241095	9501947	2	Standard
⎡>	**Sc**	**45**		ug/L			1519328	1280041	2	Standard
⎢	**Cr**	**52**	**48.382**	ug/L	1.813	3	22867	1022065	1	Standard
⎢	**Cr**	**53**	**49.055**	ug/L	1.308	2	146	112616	0	Standard
⎣	**Mn**	**55**	**49.474**	ug/L	1.355	2	587	1293949	2	Standard
⎡>	**Ge-1**	**72**		ug/L			33040	27266	2	KED
⎢	**Ni**	**60**	**49.509**	ug/L	0.795	1	7	28456	2	KED
⎢	**Ni**	**62**	**48.511**	ug/L	1.856	3	1	4119	2	KED
⎢	**Cu**	**63**	**50.650**	ug/L	0.937	1	12	72381	0	KED
⎢	**Cu**	**65**	**48.558**	ug/L	0.951	1	6	32823	2	KED
⎢	**Zn**	**66**	**50.577**	ug/L	0.650	1	20	8755	0	KED
⎣	**Zn**	**67**	**49.219**	ug/L	1.106	2	3	1394	3	KED
	Y	**89**		ug/L			819517	662633	0	Standard
	Kr	**83**		ug/L			46	55	16	Standard
⎡>	**In-1**	**115**		ug/L			6266	4672	4	KED
⎢	**Cd**	**111**	**51.550**	ug/L	3.123	6	0	3185	2	KED
⎣	**Cd**	**114**	**52.343**	ug/L	1.782	3	0	8667	1	KED
⎡>	**Tb**	**159**		ug/L			2155198	1930391	0	Standard
⎣	**Pb**	**208**	**53.742**	ug/L	0.455	0	474	4498604	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBC
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 21:24:22
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35569	33249	4	Standard
	Cl	**37**		ug/L			10241095	9302171	1	Standard
⌈>	**Sc**	**45**		ug/L			1519328	1269860	1	Standard
|	**Cr**	**52**	**0.015**	ug/L	0.029	200	22867	19406	1	Standard
|	**Cr**	**53**	**0.045**	ug/L	0.023	50	146	223	21	Standard
⌊	**Mn**	**55**	**0.006**	ug/L	0.010	168	587	645	39	Standard
⌈>	**Ge-1**	**72**		ug/L			33040	27767	0	KED
|	**Ni**	**60**	**0.003**	ug/L	0.007	237	7	8	53	KED
|	**Ni**	**62**	**0.002**	ug/L	0.013	550	1	1	86	KED
|	**Cu**	**63**	**0.004**	ug/L	0.002	50	12	16	17	KED
|	**Cu**	**65**	**0.001**	ug/L	0.003	460	6	6	34	KED
|	**Zn**	**66**	**-0.013**	ug/L	0.032	241	20	15	37	KED
⌊	**Zn**	**67**	**-0.027**	ug/L	0.066	248	3	1	100	KED
	Y	**89**		ug/L			819517	666574	2	Standard
	Kr	**83**		ug/L			46	49	13	Standard
⌈>	**In-1**	**115**		ug/L			6266	5256	2	KED
|	**Cd**	**111**	**0.018**	ug/L	0.007	40	0	1	43	KED
⌊	**Cd**	**114**	**0.007**	ug/L	0.018	235	0	1	173	KED
⌈>	**Tb**	**159**		ug/L			2155198	1915630	0	Standard
⌊	**Pb**	**208**	**0.007**	ug/L	0.012	158	474	1040	94	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 21:28:10
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35569	50981	5	Standard
	Cl	**37**		ug/L			10241095	9767223	1	Standard
⌈>	**Sc**	**45**		ug/L			1519328	1561100	1	Standard
|	**Cr**	**52**	**0.093**	ug/L	0.010	11	22867	25856	1	Standard
|	**Cr**	**53**	**0.034**	ug/L	0.005	14	146	245	7	Standard
⌊	**Mn**	**55**	**0.047**	ug/L	0.004	9	587	2108	6	Standard
⌈>	**Ge-1**	**72**		ug/L			33040	30796	2	KED
|	**Ni**	**60**	**0.126**	ug/L	0.032	25	7	88	24	KED
|	**Ni**	**62**	**0.167**	ug/L	0.076	45	1	17	40	KED
|	**Cu**	**63**	**0.043**	ug/L	0.008	19	12	81	17	KED
|	**Cu**	**65**	**0.036**	ug/L	0.010	28	6	34	24	KED
|	**Zn**	**66**	**0.602**	ug/L	0.022	3	20	137	4	KED
⌊	**Zn**	**67**	**0.682**	ug/L	0.113	16	3	24	15	KED
	Y	**89**		ug/L			819517	771699	0	Standard
	Kr	**83**		ug/L			46	74	17	Standard
⌈>	**In-1**	**115**		ug/L			6266	5814	1	KED
|	**Cd**	**111**	**0.008**	ug/L	0.007	86	0	0	86	KED
⌊	**Cd**	**114**	**0.003**	ug/L	0.010	341	0	1	180	KED
⌈>	**Tb**	**159**		ug/L			2155198	2213319	0	Standard
⌊	**Pb**	**208**	**0.022**	ug/L	0.001	3	474	2596	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 21:31:57
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35569	50707	2	Standard
	Cl	**37**		ug/L			10241095	10069588	4	Standard
⌈>	**Sc**	**45**		ug/L			1519328	1605433	1	Standard
|	**Cr**	**52**	**0.075**	ug/L	0.018	24	22867	26107	0	Standard
|	**Cr**	**53**	**0.033**	ug/L	0.008	23	146	249	9	Standard
⌊	**Mn**	**55**	**0.048**	ug/L	0.003	6	587	2189	3	Standard
⌈>	**Ge-1**	**72**		ug/L			33040	31314	1	KED
|	**Ni**	**60**	**0.152**	ug/L	0.033	21	7	107	19	KED
|	**Ni**	**62**	**0.124**	ug/L	0.051	41	1	13	37	KED
|	**Cu**	**63**	**0.032**	ug/L	0.001	4	12	64	5	KED
|	**Cu**	**65**	**0.049**	ug/L	0.012	24	6	44	19	KED
|	**Zn**	**66**	**0.578**	ug/L	0.070	12	20	134	10	KED
⌊	**Zn**	**67**	**0.415**	ug/L	0.235	56	3	16	46	KED
	Y	**89**		ug/L			819517	794220	0	Standard
	Kr	**83**		ug/L			46	50	21	Standard
⌈>	**In-1**	**115**		ug/L			6266	6071	3	KED
|	**Cd**	**111**	**0.027**	ug/L	0.038	138	0	2	137	KED
⌊	**Cd**	**114**	**0.006**	ug/L	0.016	291	0	1	197	KED
⌈>	**Tb**	**159**		ug/L			2155198	2280835	1	Standard
⌊	**Pb**	**208**	**0.022**	ug/L	0.000	2	474	2693	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 21:35:45
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35569	52303	1	Standard
	Cl	**37**		ug/L			10241095	9839881	1	Standard
⌈>	**Sc**	**45**		ug/L			1519328	1576664	2	Standard
|	**Cr**	**52**	**0.071**	ug/L	0.053	74	22867	25514	2	Standard
|	**Cr**	**53**	**0.029**	ug/L	0.003	10	146	234	4	Standard
⌊	**Mn**	**55**	**0.048**	ug/L	0.002	3	587	2139	1	Standard
⌈>	**Ge-1**	**72**		ug/L			33040	31300	2	KED
|	**Ni**	**60**	**0.140**	ug/L	0.025	18	7	99	19	KED
|	**Ni**	**62**	**0.126**	ug/L	0.081	64	1	13	57	KED
|	**Cu**	**63**	**0.041**	ug/L	0.007	17	12	78	14	KED
|	**Cu**	**65**	**0.037**	ug/L	0.011	29	6	35	22	KED
|	**Zn**	**66**	**0.528**	ug/L	0.042	7	20	124	4	KED
⌊	**Zn**	**67**	**0.458**	ug/L	0.231	50	3	17	40	KED
	Y	**89**		ug/L			819517	789016	0	Standard
	Kr	**83**		ug/L			46	54	8	Standard
⌈>	**In-1**	**115**		ug/L			6266	5952	2	KED
|	**Cd**	**111**	**0.032**	ug/L	0.008	23	0	2	21	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.005	242	0	1	108	KED
⌈>	**Tb**	**159**		ug/L			2155198	2251209	1	Standard
⌊	**Pb**	**208**	**0.022**	ug/L	0.001	2	474	2629	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 21:39:32
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35569	37698	1	Standard
	Cl	**37**		ug/L			10241095	9130664	0	Standard
⌈>	**Sc**	**45**		ug/L			1519328	1228692	2	Standard
|	**Cr**	**52**	**0.005**	ug/L	0.022	410	22867	18592	1	Standard
|	**Cr**	**53**	**0.027**	ug/L	0.010	37	146	177	13	Standard
⌊	**Mn**	**55**	**-0.005**	ug/L	0.008	146	587	344	58	Standard
⌈>	**Ge-1**	**72**		ug/L			33040	28624	1	KED
|	**Ni**	**60**	**0.021**	ug/L	0.009	43	7	19	26	KED
|	**Ni**	**62**	**0.030**	ug/L	0.056	184	1	3	132	KED
|	**Cu**	**63**	**-0.000**	ug/L	0.005	2629	12	10	71	KED
|	**Cu**	**65**	**0.001**	ug/L	0.007	507	6	6	68	KED
|	**Zn**	**66**	**-0.009**	ug/L	0.011	121	20	16	13	KED
⌊	**Zn**	**67**	**-0.007**	ug/L	0.074	1112	3	2	86	KED
	Y	**89**		ug/L			819517	622700	0	Standard
	Kr	**83**		ug/L			46	53	25	Standard
⌈>	**In-1**	**115**		ug/L			6266	5101	1	KED
|	**Cd**	**111**	**0.019**	ug/L	0.021	113	0	1	114	KED
⌊	**Cd**	**114**	**0.000**	ug/L	0.006	2289	0	0	206	KED
⌈>	**Tb**	**159**		ug/L			2155198	1891802	1	Standard
⌊	**Pb**	**208**	**-0.002**	ug/L	0.002	110	474	262	64	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 21:43:20
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35569	37231	2	Standard
	Cl	**37**		ug/L			10241095	8902153	2	Standard
⌈>	**Sc**	**45**		ug/L			1519328	1226263	2	Standard
|	**Cr**	**52**	**0.028**	ug/L	0.010	33	22867	19017	2	Standard
|	**Cr**	**53**	**0.017**	ug/L	0.004	23	146	155	8	Standard
⌊	**Mn**	**55**	**-0.010**	ug/L	0.001	5	587	226	5	Standard
⌈>	**Ge-1**	**72**		ug/L			33040	28542	1	KED
|	**Ni**	**60**	**0.023**	ug/L	0.010	44	7	20	28	KED
|	**Ni**	**62**	**0.016**	ug/L	0.033	200	1	2	114	KED
|	**Cu**	**63**	**-0.001**	ug/L	0.003	186	12	8	44	KED
|	**Cu**	**65**	**-0.004**	ug/L	0.002	38	6	3	34	KED
|	**Zn**	**66**	**0.044**	ug/L	0.028	63	20	26	18	KED
⌊	**Zn**	**67**	**-0.006**	ug/L	0.100	1634	3	2	114	KED
	Y	**89**		ug/L			819517	601635	1	Standard
	Kr	**83**		ug/L			46	49	16	Standard
⌈>	**In-1**	**115**		ug/L			6266	4911	1	KED
|	**Cd**	**111**	**0.039**	ug/L	0.008	21	0	2	21	KED
⌊	**Cd**	**114**	**0.004**	ug/L	0.013	293	0	1	180	KED
⌈>	**Tb**	**159**		ug/L			2155198	1871819	0	Standard
⌊	**Pb**	**208**	**-0.003**	ug/L	0.000	11	474	168	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 20, 2018 21:47:07
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominSeKED_UCT_CrShortShortELEMENT.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062018.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			35569	37051	2	Standard
	Cl	**37**		ug/L			10241095	8959989	1	Standard
⎡>	**Sc**	**45**		ug/L			1519328	1188465	1	Standard
⎢	**Cr**	**52**	**0.035**	ug/L	0.019	54	22867	18557	2	Standard
⎢	**Cr**	**53**	**0.019**	ug/L	0.003	15	146	154	3	Standard
⎣	**Mn**	**55**	**-0.009**	ug/L	0.001	7	587	238	8	Standard
⎡>	**Ge-1**	**72**		ug/L			33040	27789	2	KED
⎢	**Ni**	**60**	**0.019**	ug/L	0.013	64	7	17	40	KED
⎢	**Ni**	**62**	**0.009**	ug/L	0.037	408	1	1	173	KED
⎢	**Cu**	**63**	**-0.003**	ug/L	0.003	111	12	6	75	KED
⎢	**Cu**	**65**	**0.001**	ug/L	0.002	230	6	6	17	KED
⎢	**Zn**	**66**	**0.001**	ug/L	0.007	716	20	17	6	KED
⎣	**Zn**	**67**	**-0.003**	ug/L	0.104	4099	3	2	114	KED
	Y	**89**		ug/L			819517	609882	0	Standard
	Kr	**83**		ug/L			46	52	11	Standard
⎡>	**In-1**	**115**		ug/L			6266	4829	1	KED
⎢	**Cd**	**111**	**0.025**	ug/L	0.017	68	0	1	69	KED
⎣	**Cd**	**114**	**0.000**	ug/L	0.006	1355	0	0	197	KED
⎡>	**Tb**	**159**		ug/L			2155198	1866143	0	Standard
⎣	**Pb**	**208**	**-0.003**	ug/L	0.000	5	474	161	8	Standard

INITIAL CALIBRATION DATA

EPA 6020A UCT-KED

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00056	Instrument:	ICPMS1
Calibration Date:	06/22/2018 11:08		

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Arsenic-75a, Dissolved	0	0	0.2	120	10	73.4	20	73.5	50	72.56	100	67.63

INITIAL CALIBRATION DATA

EPA 6020A UCT-KED

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00056	Instrument:	ICPMS1
Calibration Date:	06/22/2018 11:08		

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Arsenic-75a, Dissolved	67.84833	56.7	0.9987		0.998	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS - 02 SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 85DN5032601

Analysis Date: 6/22/18 **Analyst:** MB

SEQ: SGF0314
CAL: BF000056

All corrections made by analyst unless otherwise noted. MB 6/22/18

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	~~CAL~~SEQ-CAL1			
		SEQ-CAL2			
		-CAL3			
		-CAL4			
		-CAL5			
		-CAL6			
		-IBL1			
		-ICV1			
		-ICB1			
		-CCV1			
	✓	-CCB1			SCT
		SEQ-CAL1	G5639		
		-CAL2	G5695		
		-CAL3	G5629		
		-CAL4	G5621		
		-CAL5	G5696		
		-CAL6	G5622		
		-IBL1	-		
		-ICV1	G5103		
		-ICB1	G5639		
		-CCV1	G5696		
		-CCB1	G5639		
		-CRL1	G5695		
		-IFA1	G5699		Cr53

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS - 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 6/22/18 **Analyst:** MB

All corrections made by analyst unless otherwise noted. MB 6/22/18

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-IFB1	G5697		
		-HCV1	G57ΦΦ		Pb↓ Pb < 100
		-HCV2	G5701		↓
		-IBL2/3			
		-CCV2			
		↓ -CCB2			
		BGFΦ546-BLK1	REN		Cu, Pb, Zn > ARL
		↓ -BS1	↓		
		18FΦ317-Φ1			Cu, Pb, Zn NR
~~—~~		~~18FΦ318-Φ1~~			~~—~~
	✓	BGFΦ564-BLK1	REN		Test only
		18FΦ318-Φ1	↓		Ge^{-1}, In^{-1} ↓ Cr, Pb only rest NR
		SEQ-CCV3			
		-CCB3			
	✓	-CAL1			
		-CCV4			Ag ↓
		↓ -CCB4			
	✓	BGFΦ546-BLK1	REN		
		18FΦ158-Φ7			Cu > LR Pb only rest NR
		↓ -Φ8			↓ Pb only ↓
		18FΦ142-13		10	
		18FΦ185-Φ7		5	
		18FΦ158-Φ4			
		18FΦ319-Φ9	↓		Cu, Pb, Zn NR

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS - 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 6/22/18 **Analyst:** NB

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		BGFΦ546-DUP1	REN		Cu, Pb, Zn NR
		↓ -MS1	↓		↓
		↓ -MSD1			
		SEQ-CCV5			Ag↓
		↓ -CCB5			
		18FΦ158-Φ5	REN		
		-Φ6			
		-Φ7RE1		20	Cu only
		-Φ8RE1		10	↓
		18FΦ313-Φ1			Zn NR
	✓	18FΦ318-Φ1RE1		2	Ge⁻¹, In⁻¹↓
		18FΦ158-Φ1			Pb only
		BGFΦ364-DUP3			↓
		↓ -MS3			
		↓ -MSD3			
		SEQ-CCV6			Ag↓
		↓ -CCB6			
		BGFΦ437-BLK1	REN		
		↓ -BS1			
		18FΦ318-Φ1RE1		5	Ni, Cd only / Cu, Zn, Pb NR
		18FΦ313-Φ2			Zn NR
		-Φ3			↓
		-Φ4			
		↓ -Φ5	↓		

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ICP/MS - 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 6/22/18 **Analyst:** MB

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		18FΦ323-Φ1	REN		Ge^{-1}, In^{-1} ↓ No Ni, Cd, Cu, Zn, Pb NR
		18FΦ264-Φ1	↓	50	
		18FΦ198-28	↓		Mn > LR No Mn, Cd
		SEQ-CCV7			Ag ↓
		-CCB7			
	✓	-CAL1			
		-CCV8			Ag ↓
		-CCB8			
	✓	18FΦ198-3Φ	REN		Missed tube
		-32			No Cd
		-34			
		-17		10	
		-10			
		BGFΦ437-DUP1			Cd sl. noisy
		18FΦ198-18		10	
		BGFΦ437-MS1			(source: F198-1Φ) Mn %R ↓
		-MSD1			↓
	✓	18FΦ265-Φ1	↓	5	Cd noisy
		SEQ-CCV9			Ag ↓
		-CCB9			
		18FΦ198-3Φ	REN		No Mn
		-36			
		-21		50	Zn only
		-4Φ	↓		Ge^{-1}, In^{-1} ↓ Pb only

Analytical Resources, Incorporated
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ICP/MS - 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 6/22/18 **Analyst:** NB

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		18FΦ198-42	REN		No Mn
		-44			Ge^{-1}, In^{-1} ↓ Pb only
		-22		50	Zn only
		-38			Zn>LR, Cd noisy Cu, Pb only
		-46			Ge^{-1}, In^{-1} ↓ Pb only
	✓	-23		5	
		SEQ-CCVA			Cr^{52} ↓ Mn, Ni^{62}, Ag ↓
		↓ -CCBA			
		18FΦ198-48	REN		Cu, Pb only
		-5Φ			Mn, Zn>LR No Mn, Zn
	✓	-24		5	
		-52			No Mn
		-54			↓
		-56			Cd noisy No Mn, Cd
	✓	-27		5	
		-58			No Mn
		-6Φ			↓
		SEQ-IBL4			
		-CCVB			Mn, Ag ↓
		↓ -CCBB			
	✓	18FΦ198-29	REN	5	
		-62			No Mn
		-66			↓
		-37		5	

Analytical Resources, Incorporated
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ICP/MS - 02 SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 85DN5032601

Analysis Date: 6/22/18 **Analyst:** MB

All corrections made by analyst unless otherwise noted. 6/22/18 MB

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	18FØ258-Ø1	REN		Ge^{-1}, In^{-1} ↓
	✓	18FØ271-Ø1	↓	10	Zn > LR
		18FØ198-13	↓		Pb only
	✓	↓ -26	↓	2	Cd noisy
	✓	↓ -39	↓	10	
	✓	↓ -43	↓	10	
		SEQ-CCVC			Mn, Cu^{65}, Ag ↓
		↓ -CCBC			
		18FØ198-47	REN	10	Zn only
	✓	↓ -45	↓		Ge^{-1}, In^{-1} ↓
	✓	↓ -45RE1	↓	10	
		↓ -49	↓	10	Zn only
		SEQ-IBL5			
		↓ -CCVD			Mn, Ni^{62}, Cu^{65}, Ag ↓
		↓ ~~-CCV~~CCBD			
		Rinse /DI			

MB 6/22/18

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Friday, June 22, 2018 11:08:57
Sample Description:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\STD Performance Check.5930
MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	1608.6	1608.557	21.409	1.3	Standard
	In	114.9	18600.8	-935806.582	552.910	0.1	Standard
	U	238.1	23497.5	23497.461	828.135	3.5	Standard
⌈	CeO	155.9	172.1	0.009	0.001	6.3	Standard
| >	Ce	139.9	19218.4	19218.393	544.028	2.8	Standard
⌊	Ce++	70.0	1935.6	0.101	0.002	1.9	Standard
	Bkgd	220.0	0.1	0.067	0.091	136.9	Standard

Current Conditions File Data

Current Value	Description
0.96	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-11.50	Deflector Voltage
1600.00	ICP RF Power
-1825.00	Analog Stage Voltage
1400.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-14.00	Cell Rod Offset STD [CRO]
14.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
0.96	DRC Mode NEB
-7.00	DRC Mode QRO
-1.50	DRC Mode CRO
-6.00	DRC Mode Cell Entrance/Exit Voltage
0.10	Cell Gas A
0.00	Cell Gas B
200.00	Axial Field Voltage
-14.50	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-14.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
2.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Start Time: 6/22/2018 11:08:52 AM
End Time: 6/22/2018 11:17:47 AM

STD Performance Check - [Failed]
Obtained Intensity (Be 9): 1608.56 - <Target not achieved>
Obtained Intensity (In 115): 18600.78 - <Target not achieved>
Obtained Intensity (U 238): 23497.46 - <Target not achieved>
Obtained Intensity (Bkgd 220): 0.07
Obtained Formula (Ce++ 70 / Ce 140): 0.101 (=1935.60 / 19218.39) - <Target not achieved>
Obtained Formula (CeO 156 / Ce 140): 0.009 (=172.07 / 19218.39)

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
1.86 mm	-1.38 mm	25168.15

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 1
Obtained Intensity (In 115): 33342.87
Obtained Formula (CeO 156 / Ce 140): 0.0161 (=486.01 / 30268.03)

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.703)
Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.688)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.708)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.710)

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Optimization Status

Start Time: 6/22/2018 11:08:52 AM

STD Performance Check
	Optimization Settings:
		Method: STD Performance Check.mth.
		Intensity Criterion: Be 9 > 2000
		Intensity Criterion: In 115 > 40000
		Intensity Criterion: U 238 > 30000
		Intensity Criterion: Bkgd 220 <= 1
		Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
		Formula Criterion: CeO 156 / Ce 140 <= 0.025

	Optimization Results:
	Initial Try
		Obtained Intensity (Be 9): 1608.56 - <Target not achieved>
		Obtained Intensity (In 115): 18600.78 - <Target not achieved>
		Obtained Intensity (U 238): 23497.46 - <Target not achieved>
		Obtained Intensity (Bkgd 220): 0.07
		Obtained Formula (Ce++ 70 / Ce 140): 0.101 (=1935.60 / 19218.39) - <Target not achieved>
		Obtained Formula (CeO 156 / Ce 140): 0.009 (=172.07 / 19218.39)

		[Failed]
[Failed]

Torch Alignment
	Optimization Settings:
		Method: Torch Alignment.mth.
		Intensity Criterion: In 115 Maximum

	Optimization Results:
		Vertical	Horizontal	Intensity
[Passed]	1.86 mm	-1.38 mm	25168.15

Nebulizer Gas Flow STD/KED [NEB]
	Optimization Settings:
		Method: Optimize.mth.
			Initial Try - Start/End/Step: 0.9/1.1/0.02.
		Intensity Criterion: In 115 Maximum
		Formula Criterion: CeO 156 / Ce 140 <= 0.02

	Optimization Results:
	Initial Try

		Obtained Intensity (In 115): 33342.87
		Obtained Formula (CeO 156 / Ce 140): 0.0161 (=486.01 / 30268.03)
[Passed] Optimum value(s): 1

Mass Calibration and Resolution
	Optimization Settings:
		Method: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Tuning3rep.mth.
		MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
		Iterations: 6

```
        Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution
        Peak height (%) for Res. Opt.: 10

    Optimization Results:
    Initial Try
        Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.667) - <Target not achieved>
        Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.686)
        Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.706)
        Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.703)
        [Failed]
    Retry 1
        Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.703)
        Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.688)
        Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.708)
        Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.710)
[Passed]  Optimum value(s): N/A

End Time: 6/22/2018 11:17:47 AM
```

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Friday, June 22, 2018 11:18:03
Sample Description:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\STD Performance Check.5935
MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	13490.6	13490.634	94.555	0.7	Standard
	In	114.9	112566.0	112566.023	541.655	0.5	Standard
	U	238.1	177056.5	177056.547	896.538	0.5	Standard
⌈	CeO	155.9	1676.4	0.016	0.000	1.3	Standard
| >	Ce	139.9	108122.0	108121.956	301.116	0.3	Standard
⌊	Ce++	70.0	3349.9	0.031	0.001	4.0	Standard
	Bkgd	220.0	0.2	0.167	0.204	122.5	Standard

Current Conditions File Data

Current Value	Description
1.00	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-11.50	Deflector Voltage
1600.00	ICP RF Power
-1825.00	Analog Stage Voltage
1400.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-14.00	Cell Rod Offset STD [CRO]
14.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
1.00	DRC Mode NEB
-7.00	DRC Mode QRO
-1.50	DRC Mode CRO
-6.00	DRC Mode Cell Entrance/Exit Voltage
0.10	Cell Gas A
0.00	Cell Gas B
200.00	Axial Field Voltage
-14.50	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-14.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
2.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Friday, June 22, 2018 11:34:39
Sample Description:
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\STD Performance Check.mth
Dataset File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\DataSet\Default\STD Performance Check.5941
MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	16518.7	16518.680	258.660	1.6	Standard
	In	114.9	150089.6	150089.602	1712.036	1.1	Standard
	U	238.1	152942.4	152942.435	1032.168	0.7	Standard
⌈	CeO	155.9	1784.7	0.015	0.000	3.1	Standard
| >	Ce	139.9	122936.7	122936.718	699.602	0.6	Standard
⌊	Ce++	70.0	2298.3	0.019	0.004	20.1	Standard
	Bkgd	220.0	0.1	0.133	0.139	104.6	Standard

Current Conditions File Data

Current Value	Description
1.00	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-11.50	Deflector Voltage
1600.00	ICP RF Power
-1825.00	Analog Stage Voltage
1400.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-14.00	Cell Rod Offset STD [CRO]
14.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.45	RPq
1.00	DRC Mode NEB
-7.00	DRC Mode QRO
-1.50	DRC Mode CRO
-6.00	DRC Mode Cell Entrance/Exit Voltage
0.10	Cell Gas A
0.00	Cell Gas B
200.00	Axial Field Voltage
-14.50	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-14.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
2.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Start Time: 6/22/2018 11:18:00 AM
End Time: 6/22/2018 11:36:43 AM

STD Performance Check - [Failed]
Obtained Intensity (Be 9): 13490.63
Obtained Intensity (In 115): 112566.02
Obtained Intensity (U 238): 177056.55
Obtained Intensity (Bkgd 220): 0.17
Obtained Formula (Ce++ 70 / Ce 140): 0.031 (=3349.86 / 108121.96) - <Target not achieved>
Obtained Formula (CeO 156 / Ce 140): 0.016 (=1676.43 / 108121.96)

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
1.56 mm	-1.57 mm	82009.72

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 1
Obtained Intensity (In 115): 97859.03
Obtained Formula (CeO 156 / Ce 140): 0.0169 (=1590.09 / 93917.71)

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/6.975), Target/Obtained resolution (0.7/0.706)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.681)
Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.705)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.707)

QID STD/DRC - Optimum value(s): Correlation Coefficient = 0.999; Intercept = -14.80

KED Mode QID - Optimum value(s): Correlation Coefficient = 1.000; Intercept = -14.18

STD Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9): 16518.68
Obtained Intensity (In 115): 150089.60
Obtained Intensity (U 238): 152942.44
Obtained Intensity (Bkgd 220): 0.13
Obtained Formula (Ce++ 70 / Ce 140): 0.019 (=2298.26 / 122936.72)
Obtained Formula (CeO 156 / Ce 140): 0.015 (=1784.71 / 122936.72)

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Wizard\SmartTune\ARISmartTuneDailyUCT.swz

Optimization Status

Start Time: 6/22/2018 11:18:00 AM

STD Performance Check
	Optimization Settings:
		Method: STD Performance Check.mth.
		Intensity Criterion: Be 9 > 2000
		Intensity Criterion: In 115 > 40000
		Intensity Criterion: U 238 > 30000
		Intensity Criterion: Bkgd 220 <= 1
		Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
		Formula Criterion: CeO 156 / Ce 140 <= 0.025

	Optimization Results:
	Initial Try
		Obtained Intensity (Be 9): 13490.63
		Obtained Intensity (In 115): 112566.02
		Obtained Intensity (U 238): 177056.55
		Obtained Intensity (Bkgd 220): 0.17
		Obtained Formula (Ce++ 70 / Ce 140): 0.031 (=3349.86 / 108121.96) - <Target not achieved>
		Obtained Formula (CeO 156 / Ce 140): 0.016 (=1676.43 / 108121.96)

		[Failed]
[Failed]

Torch Alignment
	Optimization Settings:
		Method: Torch Alignment.mth.
		Intensity Criterion: In 115 Maximum

	Optimization Results:
		Vertical	Horizontal	Intensity
[Passed]	1.56 mm	-1.57 mm	82009.72

Nebulizer Gas Flow STD/KED [NEB]
	Optimization Settings:
		Method: Optimize.mth.
			Initial Try - Start/End/Step: 0.9/1.1/0.02.
		Intensity Criterion: In 115 Maximum
		Formula Criterion: CeO 156 / Ce 140 <= 0.02

	Optimization Results:
	Initial Try

		Obtained Intensity (In 115): 97859.03
		Obtained Formula (CeO 156 / Ce 140): 0.0169 (=1590.09 / 93917.71)
[Passed] Optimum value(s): 1

Mass Calibration and Resolution
	Optimization Settings:
		Method: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\Tuning3rep.mth.
		MassCal File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
		Iterations: 6

Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution
Peak height (%) for Res. Opt.: 10

Optimization Results:
Initial Try
Target/Obtained mass (7.016/6.975), Target/Obtained resolution (0.7/0.706)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.681)
Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.705)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.707)
[Passed] Optimum value(s): N/A

QID STD/DRC
Optimization Settings:
Method: QID Calibration.mth.
Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:
Initial Try

Optimum value(s): Correlation Coefficient = 0.999; Intercept = -14.80

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-15	66695.3
Mg	24	41	-15	77996.3
In	115	41	-12	160306
Ce	140	41	-10.5	127341
Pb	208	41	-8.5	80791.8
U	238	41	-8	159599

KED Mode QID
Optimization Settings:
Method: QID Calibration.mth.
Initial Try - Start/End/Step: -16/-4/0.25.

Optimization Results:
Initial Try

Optimum value(s): Correlation Coefficient = 1.000; Intercept = -14.18

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	49	-14.75	60375.3
Mg	24	49	-15.5	76673.2
In	115	49	-12.25	129617
Ce	140	49	-11	112731
Pb	208	49	-8.5	44408.9
U	238	49	-7	95095.5

STD Performance Check
Optimization Settings:
Method: STD Performance Check.mth.
Intensity Criterion: Be 9 > 2000
Intensity Criterion: In 115 > 40000
Intensity Criterion: U 238 > 30000
Intensity Criterion: Bkgd 220 <= 10
Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
Formula Criterion: CeO 156 / Ce 140 <= 0.025

```
       Optimization Results:
       Initial Try
               Obtained Intensity (Be 9): 16518.68
               Obtained Intensity (In 115): 150089.60
               Obtained Intensity (U 238): 152942.44
               Obtained Intensity (Bkgd 220): 0.13
               Obtained Formula (Ce++ 70 / Ce 140): 0.019 (=2298.26 / 122936.72)
               Obtained Formula (CeO 156 / Ce 140): 0.015 (=1784.71 / 122936.72)

[Passed]  Optimum value(s): N/A

End Time: 6/22/2018 11:36:43 AM
```

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 12:18:53 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				64725	1	Standard
	Cl	**37**		ug/L				10897530	0	Standard
⌈>	**Sc**	**45**		ug/L				2648114	2	Standard
|	**Cr**	**52**		ug/L				34690	3	Standard
|	**Cr**	**53**		ug/L				185	6	Standard
⌊	**Mn**	**55**		ug/L				754	4	Standard
⌈>	**Ge-1**	**72**		ug/L				17976	0	KED
|	**Ni**	**60**		ug/L				4	89	KED
|	**Ni**	**62**		ug/L				0		KED
|	**Cu**	**63**		ug/L				7	43	KED
|	**Cu**	**65**		ug/L				4	107	KED
|	**Zn**	**66**		ug/L				6	41	KED
|	**Zn**	**67**		ug/L				0		KED
⌊	**As**	**75**		ug/L				4	16	KED
	Y	**89**		ug/L				746455	1	Standard
	Kr	**83**		ug/L				50	15	Standard
⌈>	**In-1**	**115**		ug/L				4201	4	KED
|	**Cd**	**111**		ug/L				2	43	KED
⌊	**Cd**	**114**		ug/L				0	180	KED
⌈>	**In**	**115**		ug/L				2585473	1	Standard
⌊	**Ag**	**107**		ug/L				125	6	Standard
⌈>	**Tb**	**159**		ug/L				2349306	1	Standard
⌊	**Pb**	**208**		ug/L				577	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 12:22:52

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64725	61867	0	Standard
	Cl	**37**		ug/L			10897530	10811737	2	Standard
⌈>	**Sc**	**45**		ug/L			2648114	2678352	2	Standard
|	**Cr**	**52**	**0.500**	ug/L	0.029	5	34690	51397	3	Standard
|	**Cr**	**53**	**0.500**	ug/L	0.026	5	185	1935	3	Standard
⌊	**Mn**	**55**	**0.500**	ug/L	0.020	3	754	20742	2	Standard
⌈>	**Ge-1**	**72**		ug/L			17976	17748	2	KED
|	**Ni**	**60**	**0.500**	ug/L	0.062	12	4	198	11	KED
|	**Ni**	**62**	**0.500**	ug/L	0.131	26	0	31	27	KED
|	**Cu**	**63**	**0.500**	ug/L	0.048	9	7	525	7	KED
|	**Cu**	**65**	**0.500**	ug/L	0.067	13	4	238	11	KED
|	**Zn**	**66**	**4.000**	ug/L	0.332	8	6	499	6	KED
|	**Zn**	**67**	**4.000**	ug/L	0.398	9	0	74	11	KED
⌊	**As**	**75**	**0.200**	ug/L	0.067	33	4	20	24	KED
	Y	**89**		ug/L			746455	756823	0	Standard
	Kr	**83**		ug/L			50	62	28	Standard
⌈>	**In-1**	**115**		ug/L			4201	4276	4	KED
|	**Cd**	**111**	**0.100**	ug/L	0.076	76	2	6	39	KED
⌊	**Cd**	**114**	**0.100**	ug/L	0.017	16	0	17	19	KED
⌈>	**In**	**115**		ug/L			2585473	2559780	0	Standard
⌊	**Ag**	**107**	**0.200**	ug/L	0.005	2	125	4097	3	Standard
⌈>	**Tb**	**159**		ug/L			2349306	2333630	0	Standard
⌊	**Pb**	**208**	**0.100**	ug/L	0.001	0	577	12679	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 12:26:52

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64725	90266	2	Standard
	Cl	**37**		ug/L			10897530	10787652	0	Standard
⎡>	**Sc**	**45**		ug/L			2648114	2779516	0	Standard
⎢	**Cr**	**52**	**9.998**	ug/L	0.331	3	34690	350209	2	Standard
⎢	**Cr**	**53**	**9.999**	ug/L	0.159	1	185	35571	1	Standard
⎣	**Mn**	**55**	**9.998**	ug/L	0.184	1	754	388474	1	Standard
⎡>	**Ge-1**	**72**		ug/L			17976	18150	1	KED
⎢	**Ni**	**60**	**9.999**	ug/L	0.257	2	4	3860	1	KED
⎢	**Ni**	**62**	**9.995**	ug/L	0.770	7	0	533	5	KED
⎢	**Cu**	**63**	**9.998**	ug/L	0.183	1	7	9932	0	KED
⎢	**Cu**	**65**	**10.000**	ug/L	0.294	2	4	4885	1	KED
⎢	**Zn**	**66**	**9.702**	ug/L	0.603	6	6	1036	4	KED
⎢	**Zn**	**67**	**10.065**	ug/L	0.754	7	0	200	7	KED
⎣	**As**	**75**	**9.999**	ug/L	0.263	2	4	615	2	KED
	Y	**89**		ug/L			746455	785692	2	Standard
	Kr	**83**		ug/L			50	57	18	Standard
⎡>	**In-1**	**115**		ug/L			4201	4412	1	KED
⎢	**Cd**	**111**	**10.000**	ug/L	0.279	2	2	499	1	KED
⎣	**Cd**	**114**	**10.000**	ug/L	0.780	7	0	1394	8	KED
⎡>	**In**	**115**		ug/L			2585473	2592498	0	Standard
⎣	**Ag**	**107**	**10.000**	ug/L	0.069	0	125	212281	0	Standard
⎡>	**Tb**	**159**		ug/L			2349306	2426959	3	Standard
⎣	**Pb**	**208**	**10.000**	ug/L	0.345	3	577	1236667	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 12:31:05

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64725	72612	3	Standard
	Cl	**37**		ug/L			10897530	10507241	2	Standard
⌈>	**Sc**	**45**		ug/L			2648114	2755419	1	Standard
|	**Cr**	**52**	**20.140**	ug/L	0.542	2	34690	680788	3	Standard
|	**Cr**	**53**	**20.103**	ug/L	0.458	2	185	72166	1	Standard
⌊	**Mn**	**55**	**20.145**	ug/L	0.354	1	754	798345	2	Standard
⌈>	**Ge-1**	**72**		ug/L			17976	18307	0	KED
|	**Ni**	**60**	**20.219**	ug/L	0.518	2	4	8230	3	KED
|	**Ni**	**62**	**20.310**	ug/L	0.706	3	0	1166	3	KED
|	**Cu**	**63**	**20.070**	ug/L	0.109	0	7	20393	0	KED
|	**Cu**	**65**	**20.025**	ug/L	0.167	0	4	9917	0	KED
|	**Zn**	**66**	**20.340**	ug/L	0.358	1	6	2322	2	KED
|	**Zn**	**67**	**19.834**	ug/L	1.893	9	0	387	10	KED
⌊	**As**	**75**	**20.021**	ug/L	0.268	1	4	1243	1	KED
	Y	**89**		ug/L			746455	791299	1	Standard
	Kr	**83**		ug/L			50	67	18	Standard
⌈>	**In-1**	**115**		ug/L			4201	4285	0	KED
|	**Cd**	**111**	**20.194**	ug/L	0.597	2	2	1016	3	KED
⌊	**Cd**	**114**	**20.193**	ug/L	0.404	2	0	2844	1	KED
⌈>	**In**	**115**		ug/L			2585473	2672457	0	Standard
⌊	**Ag**	**107**	**19.817**	ug/L	0.282	1	125	418233	1	Standard
⌈>	**Tb**	**159**		ug/L			2349306	2451146	0	Standard
⌊	**Pb**	**208**	**20.040**	ug/L	0.225	1	577	2524251	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 12:35:28

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64725	63408	0	Standard
	Cl	**37**		ug/L			10897530	10464436	1	Standard
⌈>	**Sc**	**45**		ug/L			2648114	2725665	0	Standard
|	**Cr**	**52**	**49.792**	ug/L	0.080	0	34690	1579956	0	Standard
|	**Cr**	**53**	**49.883**	ug/L	1.298	2	185	174824	2	Standard
⌊	**Mn**	**55**	**49.543**	ug/L	1.785	3	754	1855917	3	Standard
⌈>	**Ge-1**	**72**		ug/L			17976	18038	2	KED
|	**Ni**	**60**	**49.560**	ug/L	1.556	3	4	19021	1	KED
|	**Ni**	**62**	**49.563**	ug/L	3.018	6	0	2684	3	KED
|	**Cu**	**63**	**49.606**	ug/L	1.495	3	7	47746	0	KED
|	**Cu**	**65**	**49.482**	ug/L	1.371	2	4	22939	1	KED
|	**Zn**	**66**	**49.410**	ug/L	1.430	2	6	5247	3	KED
|	**Zn**	**67**	**48.928**	ug/L	2.138	4	0	853	2	KED
⌊	**As**	**75**	**49.823**	ug/L	1.295	2	4	2989	1	KED
	Y	**89**		ug/L			746455	777905	1	Standard
	Kr	**83**		ug/L			50	60	9	Standard
⌈>	**In-1**	**115**		ug/L			4201	4168	2	KED
|	**Cd**	**111**	**49.914**	ug/L	0.421	0	2	2419	2	KED
⌊	**Cd**	**114**	**49.863**	ug/L	1.517	3	0	6742	5	KED
⌈>	**In**	**115**		ug/L			2585473	2638073	1	Standard
⌊	**Ag**	**107**	**49.291**	ug/L	2.066	4	125	958508	3	Standard
⌈>	**Tb**	**159**		ug/L			2349306	2525891	0	Standard
⌊	**Pb**	**208**	**49.579**	ug/L	0.189	0	577	6174250	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL6
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 12:41:31

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64725	65642	1	Standard
	Cl	**37**		ug/L			10897530	10718020	2	Standard
⌈>	**Sc**	**45**		ug/L			2648114	2828539	4	Standard
|	**Cr**	**52**	**100.478**	ug/L	4.415	4	34690	3320107	3	Standard
|	**Cr**	**53**	**98.839**	ug/L	3.586	3	185	345569	1	Standard
⌊	**Mn**	**55**	**100.669**	ug/L	4.993	4	754	3996270	1	Standard
⌈>	**Ge-1**	**72**		ug/L			17976	17601	1	KED
|	**Ni**	**60**	**99.232**	ug/L	0.952	0	4	36251	2	KED
|	**Ni**	**62**	**99.743**	ug/L	1.488	1	0	5232	2	KED
|	**Cu**	**63**	**99.312**	ug/L	1.312	1	7	91216	1	KED
|	**Cu**	**65**	**99.836**	ug/L	1.063	1	4	44928	1	KED
|	**Zn**	**66**	**99.216**	ug/L	0.869	0	6	10015	2	KED
|	**Zn**	**67**	**98.847**	ug/L	2.712	2	0	1621	4	KED
⌊	**As**	**75**	**99.589**	ug/L	0.912	0	4	5749	1	KED
	Y	**89**		ug/L			746455	781221	2	Standard
	Kr	**83**		ug/L			50	88	8	Standard
⌈>	**In-1**	**115**		ug/L			4201	3988	2	KED
|	**Cd**	**111**	**99.692**	ug/L	3.122	3	2	4572	1	KED
⌊	**Cd**	**114**	**99.326**	ug/L	3.692	3	0	12555	1	KED
⌈>	**In**	**115**		ug/L			2585473	2715034	1	Standard
⌊	**Ag**	**107**	**97.889**	ug/L	1.519	1	125	1830369	1	Standard
⌈>	**Tb**	**159**		ug/L			2349306	2636319	1	Standard
⌊	**Pb**	**208**	**98.941**	ug/L	1.159	1	577	12419772	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 12:48:14

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64725	63971	0	Standard
	Cl	**37**		ug/L			10897530	10586032	0	Standard
⌈>	**Sc**	**45**		ug/L			2648114	2916623	0	Standard
|	**Cr**	**52**	**0.062**	ug/L	0.025	40	34690	40280	1	Standard
|	**Cr**	**53**	**0.000**	ug/L	0.004	1344	185	205	7	Standard
⌊	**Mn**	**55**	**0.002**	ug/L	0.000	24	754	911	2	Standard
⌈>	**Ge-1**	**72**		ug/L			17976	18980	1	KED
|	**Ni**	**60**	**-0.005**	ug/L	0.006	103	4	2	86	KED
|	**Ni**	**62**	**0.034**	ug/L	0.000	1	0	1		KED
|	**Cu**	**63**	**0.008**	ug/L	0.008	100	7	15	49	KED
|	**Cu**	**65**	**0.003**	ug/L	0.004	130	4	6	34	KED
|	**Zn**	**66**	**0.020**	ug/L	0.046	233	6	9	52	KED
|	**Zn**	**67**	**0.108**	ug/L	0.107	99	0	1	100	KED
⌊	**As**	**75**	**0.057**	ug/L	0.044	77	4	8	33	KED
	Y	**89**		ug/L			746455	798218	0	Standard
	Kr	**83**		ug/L			50	55	6	Standard
⌈>	**In-1**	**115**		ug/L			4201	4179	1	KED
|	**Cd**	**111**	**-0.019**	ug/L	0.030	157	2	1	91	KED
⌊	**Cd**	**114**	**0.010**	ug/L	0.015	154	0	1	103	KED
⌈>	**In**	**115**		ug/L			2585473	2804931	1	Standard
⌊	**Ag**	**107**	**-0.001**	ug/L	0.001	105	125	116	17	Standard
⌈>	**Tb**	**159**		ug/L			2349306	2521675	1	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.000	8	577	838	2	Standard

Sample Information

DEL

Sample Date/Time: Friday, June 22, 2018 12:41:31
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3E
Mass Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Conditions File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

Calibration

Analyte	Mass	**r Corr Coef**	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Sc	45							
Cr	52	**0.9999**	0.012	0.50	10	20	50	100
Cr	53	**0.9998**	0.001	0.50	10	20	50	100
Mn	55	**0.9999**	0.014	0.50	10	20	50	100
Ge-1	72							
Ni	60	**0.9998**	0.021	0.50	10	20	50	100
Ni	62	**0.9999**	0.003	0.50	10	20	50	100
Cu	63	**0.9999**	0.052	0.50	10	20	50	100
Cu	65	**0.9999**	0.026	0.50	10	20	50	100
Zn	66	**0.9998**	0.006	4.00	10	20	50	100
Zn	67	**0.9995**	0.001	4.00	10	20	50	100
As	75	**1.0000**	0.003	0.20	10	20	50	100
Y	89							
Kr	83							
In-1	115							
Cd	111	**1.0000**	0.011	0.10	10	20	50	100
Cd	114	**0.9999**	0.032	0.10	10	20	50	100
In	115							
Ag	107	**0.9991**	0.007	0.20	10	20	50	100
Tb	159							
Pb	208	**0.9998**	0.048	0.10	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICV1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 12:54:00

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64725	65089	1	Standard
	Cl	**37**		ug/L			10897530	11235880	2	Standard
⌈>	**Sc**	**45**		ug/L			2648114	2995600	2	Standard
|	**Cr**	**52**	**50.272**	ug/L	1.397	2	34690	1780984	4	Standard
|	**Cr**	**53**	**52.148**	ug/L	2.475	4	185	193264	2	Standard
⌊	**Mn**	**55**	**54.055**	ug/L	0.534	0	754	2276037	1	Standard
⌈>	**Ge-1**	**72**		ug/L			17976	18890	1	KED
|	**Ni**	**60**	**50.418**	ug/L	0.520	1	4	19770	2	KED
|	**Ni**	**62**	**49.735**	ug/L	2.037	4	0	2799	2	KED
|	**Cu**	**63**	**50.163**	ug/L	0.466	0	7	49456	1	KED
|	**Cu**	**65**	**49.996**	ug/L	1.573	3	4	24145	1	KED
|	**Zn**	**66**	**49.491**	ug/L	2.082	4	6	5364	3	KED
|	**Zn**	**67**	**51.035**	ug/L	0.797	1	0	898	2	KED
⌊	**As**	**75**	**49.949**	ug/L	0.634	1	4	3096	0	KED
	Y	**89**		ug/L			746455	835085	4	Standard
	Kr	**83**		ug/L			50	73	31	Standard
⌈>	**In-1**	**115**		ug/L			4201	4338	1	KED
|	**Cd**	**111**	**48.450**	ug/L	0.961	1	2	2419	2	KED
⌊	**Cd**	**114**	**49.133**	ug/L	0.710	1	0	6761	3	KED
⌈>	**In**	**115**		ug/L			2585473	2874708	1	Standard
⌊	**Ag**	**107**	**50.461**	ug/L	1.164	2	125	999038	1	Standard
⌈>	**Tb**	**159**		ug/L			2349306	2701012	0	Standard
⌊	**Pb**	**208**	**49.446**	ug/L	0.635	1	577	6360373	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICB1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 12:59:43

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64725	63812	2	Standard
	Cl	**37**		ug/L			10897530	10935749	3	Standard
⌈>	**Sc**	**45**		ug/L			2648114	3159722	0	Standard
|	**Cr**	**52**	**0.096**	ug/L	0.030	31	34690	44905	2	Standard
|	**Cr**	**53**	**0.001**	ug/L	0.005	754	185	224	8	Standard
⌊	**Mn**	**55**	**0.002**	ug/L	0.001	35	754	967	2	Standard
⌈>	**Ge-1**	**72**		ug/L			17976	20043	1	KED
|	**Ni**	**60**	**-0.004**	ug/L	0.005	122	4	3	69	KED
|	**Ni**	**62**	**0.032**	ug/L	0.031	98	0	1	100	KED
|	**Cu**	**63**	**0.000**	ug/L	0.004	1246	7	8	49	KED
|	**Cu**	**65**	**-0.008**	ug/L	0.002	25	4	0	173	KED
|	**Zn**	**66**	**0.015**	ug/L	0.050	324	6	9	60	KED
|	**Zn**	**67**	**0.000**	ug/L	0.000		0	0		KED
⌊	**As**	**75**	**-0.012**	ug/L	0.019	156	4	4	29	KED
	Y	**89**		ug/L			746455	843034	0	Standard
	Kr	**83**		ug/L			50	68	21	Standard
⌈>	**In-1**	**115**		ug/L			4201	4507	1	KED
|	**Cd**	**111**	**-0.010**	ug/L	0.038	374	2	2	89	KED
⌊	**Cd**	**114**	**0.017**	ug/L	0.008	46	0	3	35	KED
⌈>	**In**	**115**		ug/L			2585473	2923869	0	Standard
⌊	**Ag**	**107**	**-0.002**	ug/L	0.000	24	125	104	9	Standard
⌈>	**Tb**	**159**		ug/L			2349306	2610024	1	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.000	33	577	702	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 13:06:42

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64725	62120	2	Standard
	Cl	**37**		ug/L			10897530	11300653	5	Standard
⌈>	**Sc**	**45**		ug/L			2648114	3189550	1	Standard
|	**Cr**	**52**	**50.115**	ug/L	0.768	1	34690	1889974	1	Standard
|	**Cr**	**53**	**52.320**	ug/L	2.043	3	185	206522	2	Standard
⌊	**Mn**	**55**	**54.475**	ug/L	0.651	1	754	2442540	1	Standard
⌈>	**Ge-1**	**72**		ug/L			17976	19766	1	KED
|	**Ni**	**60**	**50.429**	ug/L	1.524	3	4	20686	2	KED
|	**Ni**	**62**	**51.694**	ug/L	1.337	2	0	3044	0	KED
|	**Cu**	**63**	**52.456**	ug/L	0.508	0	7	54107	0	KED
|	**Cu**	**65**	**52.056**	ug/L	0.821	1	4	26306	0	KED
|	**Zn**	**66**	**50.673**	ug/L	1.412	2	6	5747	2	KED
|	**Zn**	**67**	**50.088**	ug/L	1.162	2	0	922	3	KED
⌊	**As**	**75**	**50.979**	ug/L	0.791	1	4	3307	1	KED
	Y	**89**		ug/L			746455	879859	4	Standard
	Kr	**83**		ug/L			50	79	14	Standard
⌈>	**In-1**	**115**		ug/L			4201	4493	3	KED
|	**Cd**	**111**	**51.071**	ug/L	2.833	5	2	2638	1	KED
⌊	**Cd**	**114**	**50.372**	ug/L	3.064	6	0	7172	5	KED
⌈>	**In**	**115**		ug/L			2585473	2978682	0	Standard
⌊	**Ag**	**107**	**51.571**	ug/L	1.293	2	125	1058007	2	Standard
⌈>	**Tb**	**159**		ug/L			2349306	2701861	0	Standard
⌊	**Pb**	**208**	**51.889**	ug/L	0.156	0	577	6676405	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 13:11:45

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			64725	64234	3	Standard
Cl	37		ug/L			10897530	11379378	1	Standard
> Sc	45		ug/L			2648114	3379176	0	Standard
Cr	52	0.183	ug/L	0.012	6	34690	51433	1	Standard
Cr	53	0.001	ug/L	0.004	484	185	240	7	Standard
Mn	55	0.002	ug/L	0.001	66	754	1044	5	Standard
> Ge-1	72		ug/L			17976	20982	2	KED
Ni	60	-0.002	ug/L	0.003	148	4	4	24	KED
Ni	62	0.020	ug/L	0.035	173	0	1	173	KED
Cu	63	0.005	ug/L	0.008	182	7	13	67	KED
Cu	65	0.004	ug/L	0.003	72	4	7	25	KED
Zn	66	-0.026	ug/L	0.009	36	6	5	21	KED
Zn	67	0.000	ug/L	0.000		0	0		KED
As	75	-0.006	ug/L	0.026	450	4	4	36	KED
Y	89		ug/L			746455	921238	1	Standard
Kr	83		ug/L			50	66	13	Standard
> In-1	115		ug/L			4201	4777	0	KED
Cd	111	-0.029	ug/L	0.010	33	2	1	43	KED
Cd	114	0.016	ug/L	0.014	89	0	3	69	KED
> In	115		ug/L			2585473	3075098	2	Standard
Ag	107	-0.002	ug/L	0.001	50	125	113	17	Standard
> Tb	159		ug/L			2349306	2671279	0	Standard
Pb	208	0.001	ug/L	0.000	40	577	740	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 13:20:10
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				64779	2	Standard
	Cl	**37**		ug/L				11408543	1	Standard
⎡>	**Sc**	**45**		ug/L				3464044	0	Standard
⎢	**Cr**	**52**		ug/L				51629	2	Standard
⎢	**Cr**	**53**		ug/L				247	2	Standard
⎣	**Mn**	**55**		ug/L				1071	4	Standard
⎡>	**Ge-1**	**72**		ug/L				21785	2	KED
⎢	**Ni**	**60**		ug/L				3	50	KED
⎢	**Ni**	**62**		ug/L				0	173	KED
⎢	**Cu**	**63**		ug/L				6	31	KED
⎢	**Cu**	**65**		ug/L				5	33	KED
⎢	**Zn**	**66**		ug/L				6	34	KED
⎢	**Zn**	**67**		ug/L				2	43	KED
⎣	**As**	**75**		ug/L				6	14	KED
	Y	**89**		ug/L				946771	1	Standard
	Kr	**83**		ug/L				76	27	Standard
⎡>	**In-1**	**115**		ug/L				4990	1	KED
⎢	**Cd**	**111**		ug/L				0	100	KED
⎣	**Cd**	**114**		ug/L				0	207	KED
⎡>	**In**	**115**		ug/L				3144831	1	Standard
⎣	**Ag**	**107**		ug/L				94	6	Standard
⎡>	**Tb**	**159**		ug/L				2696626	0	Standard
⎣	**Pb**	**208**		ug/L				594	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 13:24:09
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	64352	0	Standard
	Cl	**37**		ug/L			11408543	11589365	4	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3598601	1	Standard
|	**Cr**	**52**	**0.500**	ug/L	0.065	12	51629	72366	2	Standard
|	**Cr**	**53**	**0.500**	ug/L	0.010	2	247	2578	0	Standard
⌊	**Mn**	**55**	**0.500**	ug/L	0.018	3	1071	27620	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	21363	0	KED
|	**Ni**	**60**	**0.500**	ug/L	0.020	3	3	260	4	KED
|	**Ni**	**62**	**0.500**	ug/L	0.023	4	0	40	4	KED
|	**Cu**	**63**	**0.500**	ug/L	0.028	5	6	655	5	KED
|	**Cu**	**65**	**0.500**	ug/L	0.048	9	5	294	9	KED
|	**Zn**	**66**	**4.000**	ug/L	0.361	9	6	570	8	KED
|	**Zn**	**67**	**4.000**	ug/L	0.766	19	2	86	18	KED
⌊	**As**	**75**	**0.200**	ug/L	0.034	16	6	24	12	KED
	Y	**89**		ug/L			946771	946995	2	Standard
	Kr	**83**		ug/L			76	60	28	Standard
⌈>	**In-1**	**115**		ug/L			4990	5059	2	KED
|	**Cd**	**111**	**0.100**	ug/L	0.054	54	0	5	44	KED
⌊	**Cd**	**114**	**0.100**	ug/L	0.032	31	0	17	29	KED
⌈>	**In**	**115**		ug/L			3144831	3158138	1	Standard
⌊	**Ag**	**107**	**0.200**	ug/L	0.005	2	94	4871	1	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2735145	0	Standard
⌊	**Pb**	**208**	**0.100**	ug/L	0.000	0	594	14494	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 13:28:09
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	83441	1	Standard
	Cl	**37**		ug/L			11408543	11744282	3	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3560314	1	Standard
|	**Cr**	**52**	**10.003**	ug/L	0.248	2	51629	481843	1	Standard
|	**Cr**	**53**	**10.001**	ug/L	0.280	2	247	47439	4	Standard
⌊	**Mn**	**55**	**10.001**	ug/L	0.157	1	1071	546671	3	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	21917	2	KED
|	**Ni**	**60**	**9.997**	ug/L	0.089	0	3	4773	1	KED
|	**Ni**	**62**	**9.996**	ug/L	1.048	10	0	704	9	KED
|	**Cu**	**63**	**9.998**	ug/L	0.313	3	6	12225	1	KED
|	**Cu**	**65**	**10.000**	ug/L	0.267	2	5	6008	4	KED
|	**Zn**	**66**	**9.901**	ug/L	0.482	4	6	1354	4	KED
|	**Zn**	**67**	**9.991**	ug/L	0.562	5	2	217	4	KED
⌊	**As**	**75**	**9.999**	ug/L	0.312	3	6	734	2	KED
	Y	**89**		ug/L			946771	974096	1	Standard
	Kr	**83**		ug/L			76	69	13	Standard
⌈>	**In-1**	**115**		ug/L			4990	4994	0	KED
|	**Cd**	**111**	**10.000**	ug/L	0.311	3	0	591	2	KED
⌊	**Cd**	**114**	**10.000**	ug/L	0.147	1	0	1659	0	KED
⌈>	**In**	**115**		ug/L			3144831	3196764	2	Standard
⌊	**Ag**	**107**	**10.000**	ug/L	0.018	0	94	241426	2	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2793931	0	Standard
⌊	**Pb**	**208**	**10.000**	ug/L	0.029	0	594	1380913	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 13:32:22
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	76616	1	Standard
	Cl	**37**		ug/L			11408543	11754753	0	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3580618	1	Standard
|	**Cr**	**52**	**19.933**	ug/L	0.338	1	51629	901522	1	Standard
|	**Cr**	**53**	**20.177**	ug/L	0.195	0	247	99476	1	Standard
⌊	**Mn**	**55**	**19.998**	ug/L	0.416	2	1071	1097594	1	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	21966	1	KED
|	**Ni**	**60**	**20.158**	ug/L	0.348	1	3	9956	1	KED
|	**Ni**	**62**	**20.039**	ug/L	0.246	1	0	1426	1	KED
|	**Cu**	**63**	**20.055**	ug/L	0.431	2	6	24846	0	KED
|	**Cu**	**65**	**20.023**	ug/L	0.489	2	5	12107	3	KED
|	**Zn**	**66**	**20.129**	ug/L	0.359	1	6	2816	3	KED
|	**Zn**	**67**	**20.665**	ug/L	1.785	8	2	506	8	KED
⌊	**As**	**75**	**20.010**	ug/L	0.417	2	6	1470	2	KED
	Y	**89**		ug/L			946771	981326	2	Standard
	Kr	**83**		ug/L			76	60	31	Standard
⌈>	**In-1**	**115**		ug/L			4990	4949	3	KED
|	**Cd**	**111**	**19.877**	ug/L	1.133	5	0	1135	2	KED
⌊	**Cd**	**114**	**19.846**	ug/L	0.723	3	0	3162	2	KED
⌈>	**In**	**115**		ug/L			3144831	3167459	0	Standard
⌊	**Ag**	**107**	**20.141**	ug/L	1.038	5	94	495564	4	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2796548	0	Standard
⌊	**Pb**	**208**	**20.054**	ug/L	0.378	1	594	2801611	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 13:36:45
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	62568	0	Standard
	Cl	**37**		ug/L			11408543	11717105	2	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3549880	0	Standard
|	**Cr**	**52**	**50.428**	ug/L	0.927	1	51629	2275448	1	Standard
|	**Cr**	**53**	**49.567**	ug/L	0.832	1	247	231872	1	Standard
⌊	**Mn**	**55**	**50.320**	ug/L	1.725	3	1071	2827337	4	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	21402	1	KED
|	**Ni**	**60**	**49.482**	ug/L	0.745	1	3	22635	1	KED
|	**Ni**	**62**	**49.636**	ug/L	1.867	3	0	3318	1	KED
|	**Cu**	**63**	**49.707**	ug/L	0.744	1	6	58290	0	KED
|	**Cu**	**65**	**49.583**	ug/L	0.857	1	5	28020	0	KED
|	**Zn**	**66**	**49.390**	ug/L	1.509	3	6	6349	3	KED
|	**Zn**	**67**	**48.121**	ug/L	1.607	3	2	970	4	KED
⌊	**As**	**75**	**50.135**	ug/L	0.171	0	6	3628	1	KED
	Y	**89**		ug/L			946771	965860	2	Standard
	Kr	**83**		ug/L			76	69	16	Standard
⌈>	**In-1**	**115**		ug/L			4990	4965	2	KED
|	**Cd**	**111**	**49.774**	ug/L	0.510	1	0	2790	1	KED
⌊	**Cd**	**114**	**49.939**	ug/L	0.893	1	0	7938	1	KED
⌈>	**In**	**115**		ug/L			3144831	3188970	0	Standard
⌊	**Ag**	**107**	**49.196**	ug/L	1.184	2	94	1128113	2	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2847044	1	Standard
⌊	**Pb**	**208**	**49.751**	ug/L	0.462	0	594	6902802	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL6
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 13:42:48
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	70376	0	Standard
	Cl	**37**		ug/L			11408543	12059716	1	Standard
⎡>	**Sc**	**45**		ug/L			3464044	3547500	3	Standard
⎢	**Cr**	**52**	**99.107**	ug/L	2.964	2	51629	4289579	2	Standard
⎢	**Cr**	**53**	**99.152**	ug/L	3.960	3	247	450293	3	Standard
⎣	**Mn**	**55**	**99.355**	ug/L	6.252	6	1071	5452396	3	Standard
⎡>	**Ge-1**	**72**		ug/L			21785	20063	2	KED
⎢	**Ni**	**60**	**99.110**	ug/L	0.527	0	3	41278	2	KED
⎢	**Ni**	**62**	**99.341**	ug/L	1.730	1	0	6092	1	KED
⎢	**Cu**	**63**	**99.193**	ug/L	1.453	1	6	106173	1	KED
⎢	**Cu**	**65**	**99.223**	ug/L	2.218	2	5	51223	0	KED
⎢	**Zn**	**66**	**98.909**	ug/L	1.545	1	6	11494	1	KED
⎢	**Zn**	**67**	**100.045**	ug/L	2.012	2	2	1891	4	KED
⎣	**As**	**75**	**99.952**	ug/L	1.957	1	6	6763	0	KED
	Y	**89**		ug/L			946771	973106	3	Standard
	Kr	**83**		ug/L			76	101	15	Standard
⎡>	**In-1**	**115**		ug/L			4990	4664	3	KED
⎢	**Cd**	**111**	**99.220**	ug/L	4.464	4	0	5089	1	KED
⎣	**Cd**	**114**	**98.831**	ug/L	2.657	2	0	14203	2	KED
⎡>	**In**	**115**		ug/L			3144831	3149113	0	Standard
⎣	**Ag**	**107**	**99.694**	ug/L	1.684	1	94	2234665	2	Standard
⎡>	**Tb**	**159**		ug/L			2696626	2917516	0	Standard
⎣	**Pb**	**208**	**98.722**	ug/L	0.585	0	594	13463337	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 13:49:31
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	66986	0	Standard
	Cl	**37**		ug/L			11408543	11944058	2	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3750174	0	Standard
|	**Cr**	**52**	**-0.006**	ug/L	0.019	300	51629	55607	1	Standard
|	**Cr**	**53**	**-0.003**	ug/L	0.000	16	247	254	1	Standard
⌊	**Mn**	**55**	**0.003**	ug/L	0.001	22	1071	1355	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	22608	3	KED
|	**Ni**	**60**	**-0.003**	ug/L	0.005	159	3	2	86	KED
|	**Ni**	**62**	**-0.010**	ug/L	0.000	0	0	0		KED
|	**Cu**	**63**	**0.002**	ug/L	0.005	197	6	10	57	KED
|	**Cu**	**65**	**-0.004**	ug/L	0.003	84	5	3	50	KED
|	**Zn**	**66**	**-0.026**	ug/L	0.009	33	6	3	34	KED
|	**Zn**	**67**	**-0.005**	ug/L	0.050	1004	2	2	43	KED
⌊	**As**	**75**	**-0.016**	ug/L	0.012	77	6	5	14	KED
	Y	**89**		ug/L			946771	1018157	2	Standard
	Kr	**83**		ug/L			76	69	5	Standard
⌈>	**In-1**	**115**		ug/L			4990	4997	1	KED
|	**Cd**	**111**	**0.114**	ug/L	0.153	133	0	7	116	KED
⌊	**Cd**	**114**	**0.053**	ug/L	0.078	145	0	8	137	KED
⌈>	**In**	**115**		ug/L			3144831	3356569	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	35	94	132	8	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2823409	1	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.000	20	594	829	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICV1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 13:54:34
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	68870	1	Standard
	Cl	**37**		ug/L			11408543	12296126	0	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3782915	2	Standard
|	**Cr**	**52**	**51.858**	ug/L	0.867	1	51629	2420915	1	Standard
|	**Cr**	**53**	**51.349**	ug/L	2.485	4	247	248733	2	Standard
⌊	**Mn**	**55**	**49.887**	ug/L	2.700	5	1071	2921194	3	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	22126	0	KED
|	**Ni**	**60**	**49.841**	ug/L	0.324	0	3	22895	0	KED
|	**Ni**	**62**	**49.556**	ug/L	1.527	3	0	3353	3	KED
|	**Cu**	**63**	**49.976**	ug/L	0.573	1	6	59014	1	KED
|	**Cu**	**65**	**50.329**	ug/L	0.398	0	5	28669	1	KED
|	**Zn**	**66**	**47.396**	ug/L	0.628	1	6	6079	1	KED
|	**Zn**	**67**	**50.108**	ug/L	1.837	3	2	1045	3	KED
⌊	**As**	**75**	**47.913**	ug/L	0.892	1	6	3580	2	KED
	Y	**89**		ug/L			946771	1040207	2	Standard
	Kr	**83**		ug/L			76	79	21	Standard
⌈>	**In-1**	**115**		ug/L			4990	5008	1	KED
|	**Cd**	**111**	**48.917**	ug/L	1.234	2	0	2697	3	KED
⌊	**Cd**	**114**	**49.809**	ug/L	0.851	1	0	7689	3	KED
⌈>	**In**	**115**		ug/L			3144831	3326627	0	Standard
⌊	**Ag**	**107**	**48.639**	ug/L	0.486	1	94	1151724	0	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2959304	0	Standard
⌊	**Pb**	**208**	**49.942**	ug/L	0.613	1	594	6909038	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICB1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 13:59:37
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	65103	1	Standard
	Cl	**37**		ug/L			11408543	12158058	3	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3732689	3	Standard
|	**Cr**	**52**	**-0.019**	ug/L	0.053	285	51629	54741	1	Standard
|	**Cr**	**53**	**-0.003**	ug/L	0.004	139	247	252	10	Standard
⌊	**Mn**	**55**	**0.003**	ug/L	0.002	60	1071	1331	4	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	22612	1	KED
|	**Ni**	**60**	**-0.003**	ug/L	0.002	73	3	2	43	KED
|	**Ni**	**62**	**-0.001**	ug/L	0.016	2881	0	0	173	KED
|	**Cu**	**63**	**0.002**	ug/L	0.005	189	6	10	54	KED
|	**Cu**	**65**	**-0.003**	ug/L	0.004	142	5	4	49	KED
|	**Zn**	**66**	**0.022**	ug/L	0.052	233	6	9	72	KED
|	**Zn**	**67**	**-0.033**	ug/L	0.091	274	2	1	100	KED
⌊	**As**	**75**	**-0.032**	ug/L	0.026	80	6	4	44	KED
	Y	**89**		ug/L			946771	1020904	4	Standard
	Kr	**83**		ug/L			76	67	9	Standard
⌈>	**In-1**	**115**		ug/L			4990	5078	1	KED
|	**Cd**	**111**	**0.028**	ug/L	0.010	34	0	2	21	KED
⌊	**Cd**	**114**	**0.017**	ug/L	0.007	41	0	3	34	KED
⌈>	**In**	**115**		ug/L			3144831	3348591	2	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	8	94	126	3	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2821584	1	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	25	594	796	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 14:05:43
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	62834	0	Standard
	Cl	**37**		ug/L			11408543	12045673	1	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3579062	3	Standard
|	**Cr**	**52**	**52.296**	ug/L	0.747	1	51629	2309356	1	Standard
|	**Cr**	**53**	**52.214**	ug/L	3.558	6	247	239173	4	Standard
⌊	**Mn**	**55**	**51.865**	ug/L	3.580	6	1071	2871676	3	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	21521	0	KED
|	**Ni**	**60**	**51.029**	ug/L	0.590	1	3	22799	1	KED
|	**Ni**	**62**	**51.090**	ug/L	1.302	2	0	3362	2	KED
|	**Cu**	**63**	**51.390**	ug/L	0.606	1	6	59019	0	KED
|	**Cu**	**65**	**51.709**	ug/L	1.544	2	5	28646	2	KED
|	**Zn**	**66**	**51.852**	ug/L	0.548	1	6	6468	0	KED
|	**Zn**	**67**	**53.129**	ug/L	2.285	4	2	1078	3	KED
⌊	**As**	**75**	**49.720**	ug/L	0.521	1	6	3613	0	KED
	Y	**89**		ug/L			946771	998598	1	Standard
	Kr	**83**		ug/L			76	76	9	Standard
⌈>	**In-1**	**115**		ug/L			4990	4877	1	KED
|	**Cd**	**111**	**51.332**	ug/L	1.170	2	0	2755	2	KED
⌊	**Cd**	**114**	**51.303**	ug/L	0.761	1	0	7710	0	KED
⌈>	**In**	**115**		ug/L			3144831	3239033	1	Standard
⌊	**Ag**	**107**	**48.225**	ug/L	1.333	2	94	1111690	2	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2874244	0	Standard
⌊	**Pb**	**208**	**50.691**	ug/L	0.225	0	594	6810682	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 14:12:27
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	66449	1	Standard
	Cl	**37**		ug/L			11408543	11958322	3	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3765813	1	Standard
|	**Cr**	**52**	**-0.031**	ug/L	0.036	116	51629	54710	2	Standard
|	**Cr**	**53**	**0.001**	ug/L	0.001	117	247	273	3	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.001	77	1071	1243	4	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	22686	0	KED
|	**Ni**	**60**	**0.001**	ug/L	0.010	1023	3	4	107	KED
|	**Ni**	**62**	**-0.010**	ug/L	0.000	0	0	0		KED
|	**Cu**	**63**	**0.002**	ug/L	0.003	147	6	9	34	KED
|	**Cu**	**65**	**-0.001**	ug/L	0.005	334	5	5	57	KED
|	**Zn**	**66**	**0.003**	ug/L	0.022	771	6	6	41	KED
|	**Zn**	**67**	**-0.094**	ug/L	0.052	54	2	0	173	KED
⌊	**As**	**75**	**-0.012**	ug/L	0.004	29	6	6	4	KED
	Y	**89**		ug/L			946771	1030355	1	Standard
	Kr	**83**		ug/L			76	66	9	Standard
⌈>	**In-1**	**115**		ug/L			4990	5024	5	KED
|	**Cd**	**111**	**0.028**	ug/L	0.008	28	0	2	21	KED
⌊	**Cd**	**114**	**0.004**	ug/L	0.007	163	0	1	90	KED
⌈>	**In**	**115**		ug/L			3144831	3313326	0	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.000	240	94	104	10	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2781933	0	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.000	130	594	652	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CRL1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 14:16:25
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	67044	1	Standard
	Cl	**37**		ug/L			11408543	11851133	4	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3753046	0	Standard
|	**Cr**	**52**	**0.464**	ug/L	0.080	17	51629	76939	4	Standard
|	**Cr**	**53**	**0.529**	ug/L	0.003	0	247	2807	1	Standard
⌊	**Mn**	**55**	**0.495**	ug/L	0.013	2	1071	29913	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	22388	2	KED
|	**Ni**	**60**	**0.521**	ug/L	0.051	9	3	245	8	KED
|	**Ni**	**62**	**0.510**	ug/L	0.040	7	0	35	8	KED
|	**Cu**	**63**	**0.540**	ug/L	0.030	5	6	651	3	KED
|	**Cu**	**65**	**0.549**	ug/L	0.089	16	5	322	17	KED
|	**Zn**	**66**	**4.064**	ug/L	0.104	2	6	533	2	KED
|	**Zn**	**67**	**3.639**	ug/L	0.347	9	2	79	11	KED
⌊	**As**	**75**	**0.216**	ug/L	0.045	20	6	23	15	KED
	Y	**89**		ug/L			946771	1017092	2	Standard
	Kr	**83**		ug/L			76	76	14	Standard
⌈>	**In-1**	**115**		ug/L			4990	4971	3	KED
|	**Cd**	**111**	**0.109**	ug/L	0.082	74	0	6	67	KED
⌊	**Cd**	**114**	**0.100**	ug/L	0.033	32	0	15	27	KED
⌈>	**In**	**115**		ug/L			3144831	3273694	2	Standard
⌊	**Ag**	**107**	**0.202**	ug/L	0.003	1	94	4799	1	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2755745	1	Standard
⌊	**Pb**	**208**	**0.105**	ug/L	0.001	1	594	14155	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFA1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 14:21:26
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	318459	0	Standard
	Cl	**37**		ug/L			11408543	31263139	4	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3620825	1	Standard
|	**Cr**	**52**	**0.759**	ug/L	0.051	6	51629	87104	3	Standard
|	**Cr**	**53**	**1.656**	ug/L	0.078	4	247	7936	4	Standard
⌊	**Mn**	**55**	**0.119**	ug/L	0.027	23	1071	7780	20	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	18895	3	KED
|	**Ni**	**60**	**0.044**	ug/L	0.014	31	3	20	23	KED
|	**Ni**	**62**	**0.111**	ug/L	0.035	31	0	6	31	KED
|	**Cu**	**63**	**0.043**	ug/L	0.017	38	6	49	33	KED
|	**Cu**	**65**	**0.037**	ug/L	0.007	20	5	22	16	KED
|	**Zn**	**66**	**0.325**	ug/L	0.075	23	6	41	22	KED
|	**Zn**	**67**	**0.193**	ug/L	0.205	106	2	5	66	KED
⌊	**As**	**75**	**0.076**	ug/L	0.043	56	6	10	27	KED
	Y	**89**		ug/L			946771	995377	1	Standard
	Kr	**83**		ug/L			76	147	4	Standard
⌈>	**In-1**	**115**		ug/L			4990	4597	3	KED
|	**Cd**	**111**	**0.053**	ug/L	0.043	80	0	3	56	KED
⌊	**Cd**	**114**	**0.032**	ug/L	0.028	87	0	4	79	KED
⌈>	**In**	**115**		ug/L			3144831	3092300	0	Standard
⌊	**Ag**	**107**	**0.027**	ug/L	0.022	81	94	695	70	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2940373	0	Standard
⌊	**Pb**	**208**	**0.073**	ug/L	0.016	21	594	10722	19	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFB1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 14:25:24
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	332371	1	Standard
	Cl	**37**		ug/L			11408543	31380201	3	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3681538	1	Standard
|	**Cr**	**52**	**18.884**	ug/L	0.401	2	51629	893187	3	Standard
|	**Cr**	**53**	**20.659**	ug/L	0.161	0	247	97637	1	Standard
⌊	**Mn**	**55**	**18.171**	ug/L	0.213	1	1071	1037225	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	18568	2	KED
|	**Ni**	**60**	**20.160**	ug/L	0.258	1	3	7774	3	KED
|	**Ni**	**62**	**20.639**	ug/L	1.593	7	0	1170	5	KED
|	**Cu**	**63**	**19.731**	ug/L	0.173	0	6	19553	2	KED
|	**Cu**	**65**	**20.074**	ug/L	0.210	1	5	9599	3	KED
|	**Zn**	**66**	**18.533**	ug/L	0.287	1	6	1997	1	KED
|	**Zn**	**67**	**17.912**	ug/L	1.044	5	2	314	4	KED
⌊	**As**	**75**	**19.002**	ug/L	0.577	3	6	1195	4	KED
	Y	**89**		ug/L			946771	973932	1	Standard
	Kr	**83**		ug/L			76	142	6	Standard
⌈>	**In-1**	**115**		ug/L			4990	4424	1	KED
|	**Cd**	**111**	**19.537**	ug/L	0.518	2	0	952	3	KED
⌊	**Cd**	**114**	**18.722**	ug/L	0.481	2	0	2553	3	KED
⌈>	**In**	**115**		ug/L			3144831	3118005	0	Standard
⌊	**Ag**	**107**	**20.368**	ug/L	0.877	4	94	452027	3	Standard
⌈>	**Tb**	**159**		ug/L			2696626	3001465	0	Standard
⌊	**Pb**	**208**	**0.053**	ug/L	0.001	2	594	8134	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 14:30:20
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	70350	1	Standard
	Cl	**37**		ug/L			11408543	11905474	2	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3374141	1	Standard
|	**Cr**	**52**	**187.799**	ug/L	3.155	1	51629	7689051	0	Standard
|	**Cr**	**53**	**185.764**	ug/L	3.637	1	247	802563	1	Standard
⌊	**Mn**	**55**	**181.265**	ug/L	4.735	2	1071	9470769	1	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	17732	1	KED
|	**Ni**	**60**	**195.689**	ug/L	1.970	1	3	72034	2	KED
|	**Ni**	**62**	**194.150**	ug/L	2.271	1	0	10526	1	KED
|	**Cu**	**63**	**189.776**	ug/L	1.290	0	6	179577	1	KED
|	**Cu**	**65**	**193.704**	ug/L	2.686	1	5	88415	2	KED
|	**Zn**	**66**	**183.816**	ug/L	3.038	1	6	18882	2	KED
|	**Zn**	**67**	**183.250**	ug/L	2.809	1	2	3059	1	KED
⌊	**As**	**75**	**191.925**	ug/L	0.731	0	6	11476	1	KED
	Y	**89**		ug/L			946771	911456	1	Standard
	Kr	**83**		ug/L			76	131	9	Standard
⌈>	**In-1**	**115**		ug/L			4990	4156	1	KED
|	**Cd**	**111**	**193.338**	ug/L	0.332	0	0	8843	1	KED
⌊	**Cd**	**114**	**191.261**	ug/L	1.298	0	0	24497	1	KED
⌈>	**In**	**115**		ug/L			3144831	3044535	2	Standard
⌊	**Ag**	**107**	**189.466**	ug/L	5.926	3	94	4103514	0	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2990352	0	Standard
⌊	**Pb**	**208**	**177.870**	ug/L	0.905	0	594	24862435	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 14:34:19
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	71703	1	Standard
	Cl	**37**		ug/L			11408543	11622089	2	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3186433	1	Standard
|	**Cr**	**52**	**295.773**	ug/L	3.431	1	51629	11409716	1	Standard
|	**Cr**	**53**	**289.300**	ug/L	6.823	2	247	1180302	2	Standard
⌊	**Mn**	**55**	**274.989**	ug/L	1.025	0	1071	13571375	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	16551	1	KED
|	**Ni**	**60**	**298.739**	ug/L	4.091	1	3	102627	1	KED
|	**Ni**	**62**	**293.769**	ug/L	3.491	1	0	14865	0	KED
|	**Cu**	**63**	**288.579**	ug/L	1.497	0	6	254883	2	KED
|	**Cu**	**65**	**288.198**	ug/L	3.046	1	5	122775	1	KED
|	**Zn**	**66**	**274.175**	ug/L	7.497	2	6	26280	2	KED
|	**Zn**	**67**	**276.370**	ug/L	6.456	2	2	4304	0	KED
⌊	**As**	**75**	**290.847**	ug/L	1.992	0	6	16229	1	KED
	Y	**89**		ug/L			946771	864513	1	Standard
	Kr	**83**		ug/L			76	186	15	Standard
⌈>	**In-1**	**115**		ug/L			4990	3722	4	KED
|	**Cd**	**111**	**292.054**	ug/L	10.472	3	0	11953	1	KED
⌊	**Cd**	**114**	**286.714**	ug/L	9.692	3	0	32871	2	KED
⌈>	**In**	**115**		ug/L			3144831	2989959	0	Standard
⌊	**Ag**	**107**	**272.783**	ug/L	6.119	2	94	5804552	1	Standard
⌈>	**Tb**	**159**		ug/L			2696626	3000631	1	Standard
⌊	**Pb**	**208**	**269.503**	ug/L	4.936	1	594	37791775	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 14:41:47
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	70301	1	Standard
	Cl	**37**		ug/L			11408543	12266325	1	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3709938	0	Standard
|	**Cr**	**52**	**0.033**	ug/L	0.023	70	51629	56791	2	Standard
|	**Cr**	**53**	**0.027**	ug/L	0.025	93	247	392	30	Standard
⌊	**Mn**	**55**	**0.027**	ug/L	0.016	57	1071	2717	32	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	21893	2	KED
|	**Ni**	**60**	**0.015**	ug/L	0.012	77	3	10	50	KED
|	**Ni**	**62**	**0.000**	ug/L	0.017	8923	0	0	173	KED
|	**Cu**	**63**	**0.042**	ug/L	0.007	15	6	55	12	KED
|	**Cu**	**65**	**0.035**	ug/L	0.010	27	5	25	22	KED
|	**Zn**	**66**	**0.564**	ug/L	0.103	18	6	78	18	KED
|	**Zn**	**67**	**0.738**	ug/L	0.090	12	2	17	12	KED
⌊	**As**	**75**	**0.022**	ug/L	0.048	223	6	8	40	KED
	Y	**89**		ug/L			946771	1031497	0	Standard
	Kr	**83**		ug/L			76	69	13	Standard
⌈>	**In-1**	**115**		ug/L			4990	4648	1	KED
|	**Cd**	**111**	**0.058**	ug/L	0.039	67	0	3	50	KED
⌊	**Cd**	**114**	**0.009**	ug/L	0.013	146	0	1	106	KED
⌈>	**In**	**115**		ug/L			3144831	3435730	0	Standard
⌊	**Ag**	**107**	**0.006**	ug/L	0.006	104	94	244	59	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2867714	1	Standard
⌊	**Pb**	**208**	**0.035**	ug/L	0.011	31	594	5383	28	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 14:47:41
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	71931	1	Standard
	Cl	**37**		ug/L			11408543	12223728	1	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3724870	2	Standard
|	**Cr**	**52**	**0.002**	ug/L	0.036	2336	51629	55585	3	Standard
|	**Cr**	**53**	**0.017**	ug/L	0.004	23	247	345	5	Standard
⌊	**Mn**	**55**	**0.014**	ug/L	0.002	11	1071	1963	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	21980	1	KED
|	**Ni**	**60**	**0.027**	ug/L	0.011	42	3	15	30	KED
|	**Ni**	**62**	**0.066**	ug/L	0.018	26	0	5	21	KED
|	**Cu**	**63**	**0.038**	ug/L	0.012	32	6	51	25	KED
|	**Cu**	**65**	**0.033**	ug/L	0.011	33	5	24	26	KED
|	**Zn**	**66**	**0.554**	ug/L	0.044	7	6	76	6	KED
|	**Zn**	**67**	**0.556**	ug/L	0.357	64	2	13	51	KED
⌊	**As**	**75**	**-0.020**	ug/L	0.024	123	6	5	32	KED
	Y	**89**		ug/L			946771	1038415	2	Standard
	Kr	**83**		ug/L			76	67	15	Standard
⌈>	**In-1**	**115**		ug/L			4990	4821	0	KED
|	**Cd**	**111**	**0.061**	ug/L	0.058	95	0	4	74	KED
⌊	**Cd**	**114**	**0.022**	ug/L	0.013	61	0	3	52	KED
⌈>	**In**	**115**		ug/L			3144831	3397338	0	Standard
⌊	**Ag**	**107**	**0.003**	ug/L	0.001	19	94	166	6	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2850064	0	Standard
⌊	**Pb**	**208**	**0.025**	ug/L	0.001	4	594	3993	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 14:53:35
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	65248	3	Standard
	Cl	**37**		ug/L			11408543	12521767	2	Standard
⎡>	**Sc**	**45**		ug/L			3464044	3694243	3	Standard
⎢	**Cr**	**52**	**50.705**	ug/L	1.607	3	51629	2312143	1	Standard
⎢	**Cr**	**53**	**49.746**	ug/L	2.154	4	247	235360	2	Standard
⎣	**Mn**	**55**	**48.059**	ug/L	1.705	3	1071	2748862	1	Standard
⎡>	**Ge-1**	**72**		ug/L			21785	20772	3	KED
⎢	**Ni**	**60**	**51.377**	ug/L	1.189	2	3	22144	1	KED
⎢	**Ni**	**62**	**51.260**	ug/L	0.418	0	0	3256	4	KED
⎢	**Cu**	**63**	**51.482**	ug/L	0.755	1	6	57058	2	KED
⎢	**Cu**	**65**	**52.306**	ug/L	1.500	2	5	27953	0	KED
⎢	**Zn**	**66**	**51.184**	ug/L	0.780	1	6	6160	1	KED
⎢	**Zn**	**67**	**51.707**	ug/L	2.234	4	2	1014	7	KED
⎣	**As**	**75**	**50.320**	ug/L	0.864	1	6	3528	2	KED
	Y	**89**		ug/L			946771	986651	3	Standard
	Kr	**83**		ug/L			76	77	22	Standard
⎡>	**In-1**	**115**		ug/L			4990	4580	3	KED
⎢	**Cd**	**111**	**50.973**	ug/L	2.836	5	0	2566	2	KED
⎣	**Cd**	**114**	**49.081**	ug/L	0.460	0	0	6927	3	KED
⎡>	**In**	**115**		ug/L			3144831	3293698	1	Standard
⎣	**Ag**	**107**	**47.170**	ug/L	1.662	3	94	1105874	3	Standard
⎡>	**Tb**	**159**		ug/L			2696626	2874781	0	Standard
⎣	**Pb**	**208**	**51.488**	ug/L	0.050	0	594	6919269	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 15:00:19
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	67800	2	Standard
	Cl	**37**		ug/L			11408543	12284110	1	Standard
⎡>	**Sc**	**45**		ug/L			3464044	3711241	3	Standard
⎢	**Cr**	**52**	**-0.048**	ug/L	0.078	163	51629	53113	3	Standard
⎢	**Cr**	**53**	**-0.004**	ug/L	0.004	115	247	248	10	Standard
⎣	**Mn**	**55**	**0.002**	ug/L	0.001	34	1071	1287	5	Standard
⎡>	**Ge-1**	**72**		ug/L			21785	22284	1	KED
⎢	**Ni**	**60**	**0.005**	ug/L	0.005	88	3	6	34	KED
⎢	**Ni**	**62**	**-0.010**	ug/L	0.000	0	0	0		KED
⎢	**Cu**	**63**	**0.003**	ug/L	0.006	182	6	10	61	KED
⎢	**Cu**	**65**	**-0.002**	ug/L	0.007	291	5	4	89	KED
⎢	**Zn**	**66**	**-0.011**	ug/L	0.017	150	6	5	43	KED
⎢	**Zn**	**67**	**-0.094**	ug/L	0.052	55	2	0	173	KED
⎣	**As**	**75**	**0.015**	ug/L	0.018	122	6	7	17	KED
	Y	**89**		ug/L			946771	1000291	2	Standard
	Kr	**83**		ug/L			76	67	12	Standard
⎡>	**In-1**	**115**		ug/L			4990	4864	2	KED
⎢	**Cd**	**111**	**0.000**	ug/L	0.000	93	0	0		KED
⎣	**Cd**	**114**	**0.005**	ug/L	0.014	307	0	1	176	KED
⎡>	**In**	**115**		ug/L			3144831	3380169	0	Standard
⎣	**Ag**	**107**	**0.000**	ug/L	0.001	563	94	104	16	Standard
⎡>	**Tb**	**159**		ug/L			2696626	2793959	1	Standard
⎣	**Pb**	**208**	**0.002**	ug/L	0.001	32	594	937	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0546-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 15:06:24
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			64779	90063	1	Standard
	Cl	37		ug/L			11408543	12182312	1	Standard
⌈>	Sc	45		ug/L			3464044	3794687	1	Standard
|	Cr	52	0.014	ug/L	0.048	350	51629	57181	3	Standard
|	Cr	53	0.012	ug/L	0.002	15	247	329	4	Standard
⌊	Mn	55	1.810	ug/L	0.048	2	1071	107530	3	Standard
⌈>	Ge-1	72		ug/L			21785	22350	0	KED
|	Ni	60	0.283	ug/L	0.029	10	3	135	9	KED
|	Ni	62	0.325	ug/L	0.099	30	0	22	30	KED
|	Cu	63	8.492	ug/L	0.037	0	6	10134	0	KED
|	Cu	65	8.308	ug/L	0.156	1	5	4784	1	KED
|	Zn	66	6.641	ug/L	0.233	3	6	866	3	KED
|	Zn	67	6.310	ug/L	0.946	14	2	135	14	KED
⌊	As	75	0.015	ug/L	0.010	68	6	7	9	KED
	Y	89		ug/L			946771	1051683	1	Standard
	Kr	83		ug/L			76	61	29	Standard
⌈>	In-1	115		ug/L			4990	5018	2	KED
|	Cd	111	0.046	ug/L	0.011	23	0	3	15	KED
⌊	Cd	114	-0.028	ug/L	0.055	195	0	-3	227	KED
⌈>	In	115		ug/L			3144831	3367061	1	Standard
⌊	Ag	107	0.001	ug/L	0.000	12	94	130	0	Standard
⌈>	Tb	159		ug/L			2696626	2809445	2	Standard
⌊	Pb	208	0.344	ug/L	0.005	1	594	45771	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0546-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 15:10:23
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			64779	100554	1	Standard
	Cl	37		ug/L			11408543	12460891	2	Standard
⌈>	Sc	45		ug/L			3464044	3835183	2	Standard
|	Cr	52	26.176	ug/L	0.637	2	51629	1266976	0	Standard
|	Cr	53	27.644	ug/L	0.507	1	247	135950	1	Standard
⌊	Mn	55	28.083	ug/L	1.922	6	1071	1667021	4	Standard
⌈>	Ge-1	72		ug/L			21785	22560	2	KED
|	Ni	60	27.795	ug/L	0.557	2	3	13021	3	KED
|	Ni	62	28.176	ug/L	0.684	2	0	1944	4	KED
|	Cu	63	28.649	ug/L	0.274	0	6	34491	1	KED
|	Cu	65	28.415	ug/L	0.386	1	5	16505	2	KED
|	Zn	66	89.846	ug/L	1.158	1	6	11744	2	KED
|	Zn	67	87.900	ug/L	1.283	1	2	1868	0	KED
⌊	As	75	25.998	ug/L	0.398	1	6	1984	3	KED
	Y	89		ug/L			946771	1062180	0	Standard
	Kr	83		ug/L			76	72	12	Standard
⌈>	In-1	115		ug/L			4990	4982	2	KED
|	Cd	111	26.903	ug/L	0.743	2	0	1476	4	KED
⌊	Cd	114	27.444	ug/L	0.403	1	0	4215	3	KED
⌈>	In	115		ug/L			3144831	3408960	1	Standard
⌊	Ag	107	25.747	ug/L	0.445	1	94	624876	2	Standard
⌈>	Tb	159		ug/L			2696626	2825934	1	Standard
⌊	Pb	208	28.683	ug/L	0.444	1	594	3789861	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0317-01
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 15:14:22
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	145669	1	Standard
	Cl	**37**		ug/L			11408543	13231686	0	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3742844	0	Standard
|	**Cr**	**52**	**1.370**	ug/L	0.139	10	51629	117638	5	Standard
|	**Cr**	**53**	**1.353**	ug/L	0.025	1	247	6752	1	Standard
⌊	**Mn**	**55**	**422.444**	ug/L	15.178	3	1071	24487468	3	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	19998	2	KED
|	**Ni**	**60**	**4.747**	ug/L	0.120	2	3	1973	2	KED
|	**Ni**	**62**	**5.028**	ug/L	0.268	5	0	307	5	KED
|	~~**Cu**~~	**63**	~~**4.985**~~	ug/L	0.151	3	6	5324	3	KED
|	**Cu**	**65**	**4.921**	ug/L	0.209	4	5	2539	6	KED
|	~~**Zn**~~	**66**	~~**57.091**~~	ug/L	1.406	2	6	6616	2	KED
|	**Zn**	**67**	**55.773**	ug/L	1.089	1	2	1052	4	KED
⌊	**As**	**75**	**1.677**	ug/L	0.084	5	6	119	6	KED
	Y	**89**		ug/L			946771	990419	1	Standard
	Kr	**83**		ug/L			76	111	14	Standard
⌈>	**In-1**	**115**		ug/L			4990	4266	2	KED
|	**Cd**	**111**	**0.220**	ug/L	0.068	31	0	11	27	KED
⌊	**Cd**	**114**	**0.123**	ug/L	0.077	62	0	16	62	KED
⌈>	**In**	**115**		ug/L			3144831	3309217	0	Standard
⌊	**Ag**	**107**	**0.011**	ug/L	0.001	11	94	354	7	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2981806	0	Standard
⌊	~~**Pb**~~	**208**	~~**1.442**~~	ug/L	0.016	1	594	201570	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0564-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 15:34:19

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	85125	0	Standard
	Cl	**37**		ug/L			11408543	12768856	4	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3992507	2	Standard
|	**Cr**	**52**	**0.061**	ug/L	0.043	70	51629	62428	1	Standard
|	**Cr**	**53**	**0.009**	ug/L	0.004	49	247	329	8	Standard
⌊	**Mn**	**55**	**0.279**	ug/L	0.004	1	1071	18494	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	23962	0	KED
|	**Ni**	**60**	**0.068**	ug/L	0.020	30	3	38	26	KED
|	**Ni**	**62**	**0.069**	ug/L	0.045	65	0	5	57	KED
|	**Cu**	**63**	**0.056**	ug/L	0.002	3	6	78	2	KED
|	**Cu**	**65**	**0.057**	ug/L	0.016	27	5	41	22	KED
|	**Zn**	**66**	**0.640**	ug/L	0.107	16	6	95	16	KED
|	**Zn**	**67**	**0.694**	ug/L	0.274	39	2	18	33	KED
⌊	**As**	**75**	**0.019**	ug/L	0.019	97	6	8	16	KED
	Y	**89**		ug/L			946771	1085081	0	Standard
	Kr	**83**		ug/L			76	65	21	Standard
⌈>	**In-1**	**115**		ug/L			4990	5112	4	KED
|	**Cd**	**111**	**0.016**	ug/L	0.016	99	0	1	50	KED
⌊	**Cd**	**114**	**-0.008**	ug/L	0.012	139	0	0	242	KED
⌈>	**In**	**115**		ug/L			3144831	3548934	0	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.001	185	94	114	11	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2957882	0	Standard
⌊	**Pb**	**208**	**0.009**	ug/L	0.001	5	594	1920	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0318-01
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 15:38:53
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			64779	4312355	0	Standard
Cl	37		ug/L			11408543	11203376	1	Standard
> Sc	45		ug/L			3464044	3116672	3	Standard
Cr	52	8.273	ug/L	0.249	3	51629	357134	1	Standard
Cr	53	2.946	ug/L	0.077	2	247	11973	2	Standard
Mn	55	152.581	ug/L	4.069	2	1071	7361409	0	Standard
> Ge-1	72		ug/L			21785	9500	1	KED
Ni	60	28.939	ug/L	0.555	1	3	5707	1	KED
Ni	62	27.251	ug/L	0.580	2	0	791	1	KED
Cu	63	1.730	ug/L	0.062	3	6	880	4	KED
Cu	65	1.701	ug/L	0.100	5	5	418	5	KED
Zn	66	11.093	ug/L	0.523	4	6	613	6	KED
Zn	67	12.940	ug/L	0.482	3	2	116	5	KED
As	75	0.598	ug/L	0.065	10	6	22	10	KED
Y	89		ug/L			946771	891586	0	Standard
Kr	83		ug/L			76	196	9	Standard
> In-1	115		ug/L			4990	1986	6	KED
Cd	111	0.160	ug/L	0.088	54	0	3	43	KED
Cd	114	0.055	ug/L	0.074	135	0	3	129	KED
> In	115		ug/L			3144831	2558655	1	Standard
Ag	107	0.003	ug/L	0.001	33	94	127	13	Standard
> Tb	159		ug/L			2696626	2560569	0	Standard
Pb	208	0.041	ug/L	0.001	3	594	5438	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 15:43:57
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	83486	0	Standard
	Cl	**37**		ug/L			11408543	13010150	2	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3961636	0	Standard
|	**Cr**	**52**	**51.533**	ug/L	0.976	1	51629	2520507	1	Standard
|	**Cr**	**53**	**50.528**	ug/L	0.746	1	247	256522	0	Standard
⌊	**Mn**	**55**	**49.691**	ug/L	2.118	4	1071	3049474	3	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	20541	0	KED
|	**Ni**	**60**	**50.686**	ug/L	1.006	1	3	21616	2	KED
|	**Ni**	**62**	**50.136**	ug/L	1.081	2	0	3149	2	KED
|	**Cu**	**63**	**50.611**	ug/L	0.539	1	6	55480	1	KED
|	**Cu**	**65**	**50.377**	ug/L	0.229	0	5	26640	0	KED
|	**Zn**	**66**	**50.159**	ug/L	0.504	1	6	5972	1	KED
|	**Zn**	**67**	**52.803**	ug/L	2.013	3	2	1022	3	KED
⌊	**As**	**75**	**49.905**	ug/L	0.299	0	6	3461	0	KED
	Y	**89**		ug/L			946771	1061482	2	Standard
	Kr	**83**		ug/L			76	95	10	Standard
⌈>	**In-1**	**115**		ug/L			4990	4435	2	KED
|	**Cd**	**111**	**50.217**	ug/L	2.645	5	0	2449	2	KED
⌊	**Cd**	**114**	**50.888**	ug/L	0.743	1	0	6955	1	KED
⌈>	**In**	**115**		ug/L			3144831	3542380	1	Standard
⌊	**Ag**	**107**	**45.602**	ug/L	2.459	5	94	1149128	3	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2979585	0	Standard
⌊	**Pb**	**208**	**51.078**	ug/L	0.568	1	594	7114085	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 15:50:41
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			64779	72092	0	Standard
	Cl	**37**		ug/L			11408543	12841592	2	Standard
⌈>	**Sc**	**45**		ug/L			3464044	3946236	0	Standard
|	**Cr**	**52**	**0.009**	ug/L	0.003	40	51629	59227	1	Standard
|	**Cr**	**53**	**-0.002**	ug/L	0.003	141	247	269	5	Standard
⌊	**Mn**	**55**	**0.002**	ug/L	0.001	80	1071	1334	6	Standard
⌈>	**Ge-1**	**72**		ug/L			21785	21535	3	KED
|	**Ni**	**60**	**-0.001**	ug/L	0.005	326	3	3	69	KED
|	**Ni**	**62**	**-0.010**	ug/L	0.000	0	0	0		KED
|	**Cu**	**63**	**0.002**	ug/L	0.003	145	6	9	40	KED
|	**Cu**	**65**	**-0.002**	ug/L	0.004	198	5	4	49	KED
|	**Zn**	**66**	**0.036**	ug/L	0.029	81	6	10	36	KED
|	**Zn**	**67**	**0.029**	ug/L	0.188	639	2	3	124	KED
⌊	**As**	**75**	**0.007**	ug/L	0.014	196	6	7	17	KED
	Y	**89**		ug/L			946771	1079925	0	Standard
	Kr	**83**		ug/L			76	64	7	Standard
⌈>	**In-1**	**115**		ug/L			4990	4768	3	KED
|	**Cd**	**111**	**0.018**	ug/L	0.031	168	0	1	86	KED
⌊	**Cd**	**114**	**0.039**	ug/L	0.006	15	0	6	18	KED
⌈>	**In**	**115**		ug/L			3144831	3595895	1	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.001	376	94	113	17	Standard
⌈>	**Tb**	**159**		ug/L			2696626	2925496	1	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	38	594	815	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 15:56:50
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				66961	2	Standard
	Cl	**37**		ug/L				12853154	1	Standard
⎡>	**Sc**	**45**		ug/L				3905122	1	Standard
⎢	**Cr**	**52**		ug/L				58825	1	Standard
⎢	**Cr**	**53**		ug/L				248	1	Standard
⎣	**Mn**	**55**		ug/L				1215	3	Standard
⎡>	**Ge-1**	**72**		ug/L				21995	1	KED
⎢	**Ni**	**60**		ug/L				0		KED
⎢	**Ni**	**62**		ug/L				1	100	KED
⎢	**Cu**	**63**		ug/L				8	32	KED
⎢	**Cu**	**65**		ug/L				6	41	KED
⎢	**Zn**	**66**		ug/L				4	49	KED
⎢	**Zn**	**67**		ug/L				1	86	KED
⎣	**As**	**75**		ug/L				5	28	KED
	Y	**89**		ug/L				1091100	0	Standard
	Kr	**83**		ug/L				57	13	Standard
⎡>	**In-1**	**115**		ug/L				4662	2	KED
⎢	**Cd**	**111**		ug/L				2	89	KED
⎣	**Cd**	**114**		ug/L				2	121	KED
⎡>	**In**	**115**		ug/L				3590130	1	Standard
⎣	**Ag**	**107**		ug/L				86	5	Standard
⎡>	**Tb**	**159**		ug/L				2885209	0	Standard
⎣	**Pb**	**208**		ug/L				514	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 16:00:49
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	66409	3	Standard
	Cl	**37**		ug/L			12853154	12867015	2	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3846907	1	Standard
|	**Cr**	**52**	**52.045**	ug/L	0.744	1	58825	2471862	1	Standard
|	**Cr**	**53**	**50.709**	ug/L	3.621	7	248	249833	5	Standard
⌊	**Mn**	**55**	**49.097**	ug/L	0.548	1	1215	2926041	1	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	20942	0	KED
|	**Ni**	**60**	**51.289**	ug/L	1.238	2	0	22294	2	KED
|	**Ni**	**62**	**52.361**	ug/L	1.274	2	1	3354	2	KED
|	**Cu**	**63**	**52.180**	ug/L	1.261	2	8	58311	1	KED
|	**Cu**	**65**	**51.183**	ug/L	1.199	2	6	27593	2	KED
|	**Zn**	**66**	**51.540**	ug/L	1.866	3	4	6253	2	KED
|	**Zn**	**67**	**54.112**	ug/L	1.400	2	1	1067	2	KED
⌊	**As**	**75**	**49.921**	ug/L	0.583	1	5	3528	0	KED
	Y	**89**		ug/L			1091100	1032050	1	Standard
	Kr	**83**		ug/L			57	73	9	Standard
⌈>	**In-1**	**115**		ug/L			4662	4519	2	KED
|	**Cd**	**111**	**52.181**	ug/L	0.800	1	2	2597	3	KED
⌊	**Cd**	**114**	**50.278**	ug/L	1.115	2	2	7002	1	KED
⌈>	**In**	**115**		ug/L			3590130	3368400	1	Standard
⌊	**Ag**	**107**	**44.957**	ug/L	0.750	1	86	1078059	2	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2933136	1	Standard
⌊	**Pb**	**208**	**50.644**	ug/L	0.602	1	514	6943461	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 16:04:49
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	65656	1	Standard
	Cl	**37**		ug/L			12853154	12974243	2	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3954872	1	Standard
|	**Cr**	**52**	**-0.035**	ug/L	0.022	61	58825	57898	0	Standard
|	**Cr**	**53**	**-0.000**	ug/L	0.004	952	248	249	8	Standard
⌊	**Mn**	**55**	**0.002**	ug/L	0.002	101	1215	1334	8	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	22290	0	KED
|	**Ni**	**60**	**0.011**	ug/L	0.005	42	0	5	43	KED
|	**Ni**	**62**	**-0.009**	ug/L	0.033	343	1	1	173	KED
|	**Cu**	**63**	**0.003**	ug/L	0.004	159	8	12	39	KED
|	**Cu**	**65**	**-0.002**	ug/L	0.003	144	6	5	33	KED
|	**Zn**	**66**	**0.029**	ug/L	0.023	79	4	8	35	KED
|	**Zn**	**67**	**-0.001**	ug/L	0.053	8048	1	1	86	KED
⌊	**As**	**75**	**0.018**	ug/L	0.003	18	5	6	4	KED
	Y	**89**		ug/L			1091100	1067877	3	Standard
	Kr	**83**		ug/L			57	55	20	Standard
⌈>	**In-1**	**115**		ug/L			4662	4751	2	KED
|	**Cd**	**111**	**-0.025**	ug/L	0.018	71	2	0	100	KED
⌊	**Cd**	**114**	**0.004**	ug/L	0.020	462	2	3	91	KED
⌈>	**In**	**115**		ug/L			3590130	3569608	1	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.002	87	86	139	31	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2876246	1	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.001	58	514	846	22	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0546-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 16:11:01

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			66961	89289	3	Standard
	Cl	37		ug/L			12853154	12773013	1	Standard
>	Sc	45		ug/L			3905122	3900167	1	Standard
	Cr	52	0.034	ug/L	0.010	30	58825	60358	0	Standard
	Cr	53	0.023	ug/L	0.004	15	248	363	6	Standard
	Mn	55	1.808	ug/L	0.040	2	1215	110401	1	Standard
>	Ge-1	72		ug/L			21995	22664	1	KED
	Ni	60	0.291	ug/L	0.051	17	0	136	16	KED
	Ni	62	0.384	ug/L	0.006	1	1	28	0	KED
	Cu	63	8.407	ug/L	0.138	1	8	10174	0	KED
	Cu	65	8.320	ug/L	0.159	1	6	4859	0	KED
	Zn	66	5.726	ug/L	0.381	6	4	755	5	KED
	Zn	67	5.087	ug/L	0.928	18	1	109	18	KED
	As	75	0.031	ug/L	0.014	46	5	7	13	KED
	Y	89		ug/L			1091100	1085635	2	Standard
	Kr	83		ug/L			57	68	10	Standard
>	In-1	115		ug/L			4662	4833	1	KED
	Cd	111	-0.002	ug/L	0.041	2180	2	2	98	KED
	Cd	114	-0.031	ug/L	0.060	191	2	-2	438	KED
>	In	115		ug/L			3590130	3567752	1	Standard
	Ag	107	0.002	ug/L	0.001	56	86	132	17	Standard
>	Tb	159		ug/L			2885209	2895212	1	Standard
	Pb	208	0.343	ug/L	0.003	0	514	46932	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-07
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 16:15:40
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			66961	130430	0	Standard
	Cl	37		ug/L			12853154	13703440	1	Standard
>	Sc	45		ug/L			3905122	4210817	2	Standard
	Cr	52	0.176	ug/L	0.080	45	58825	72295	4	Standard
	Cr	53	0.084	ug/L	0.006	6	248	717	2	Standard
	Mn	55	3.824	ug/L	0.111	2	1215	250567	1	Standard
>	Ge-1	72		ug/L			21995	23278	0	KED
	Ni	60	0.329	ug/L	0.006	1	0	158	1	KED
	Ni	62	0.409	ug/L	0.134	32	1	31	30	KED
	Cu	63	2438.776	ug/L	15.378	0	8	3029364	1	KED
	Cu	65	2288.658	ug/L	20.646	0	6	1371322	1	KED
	Zn	66	6.267	ug/L	0.320	5	4	849	5	KED
	Zn	67	5.911	ug/L	0.758	12	1	130	12	KED
	As	75	0.123	ug/L	0.006	5	5	15	3	KED
	Y	89		ug/L			1091100	1139501	1	Standard
	Kr	83		ug/L			57	69	13	Standard
>	In-1	115		ug/L			4662	5238	3	KED
	Cd	111	0.028	ug/L	0.038	134	2	4	53	KED
	Cd	114	0.043	ug/L	0.036	83	2	9	63	KED
>	In	115		ug/L			3590130	3663071	1	Standard
	Ag	107	0.003	ug/L	0.001	24	86	167	9	Standard
>	Tb	159		ug/L			2885209	3024952	0	Standard
	Pb	208	0.078	ug/L	0.001	1	514	11546	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-08
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 16:22:57
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			66961	124165	2	Standard
	Cl	37		ug/L			12853154	13513928	2	Standard
>	Sc	45		ug/L			3905122	4189529	1	Standard
	Cr	52	0.189	ug/L	0.014	7	58825	72664	0	Standard
	Cr	53	0.077	ug/L	0.003	4	248	682	3	Standard
	Mn	55	2.896	ug/L	0.098	3	1215	189195	3	Standard
>	Ge-1	72		ug/L			21995	20887	2	KED
	Ni	60	0.418	ug/L	0.018	4	0	180	2	KED
	Ni	62	0.357	ug/L	0.121	33	1	24	33	KED
	Cu	63	1032.523	ug/L	17.491	1	8	1150488	1	KED
	Cu	65	1027.586	ug/L	25.800	2	6	552244	1	KED
	Zn	66	5.009	ug/L	0.244	4	4	609	1	KED
	Zn	67	4.359	ug/L	0.381	8	1	86	11	KED
	As	75	0.049	ug/L	0.028	56	5	8	20	KED
	Y	89		ug/L			1091100	1100113	1	Standard
	Kr	83		ug/L			57	76	12	Standard
>	In-1	115		ug/L			4662	4752	0	KED
	Cd	111	0.011	ug/L	0.031	279	2	2	57	KED
	Cd	114	0.010	ug/L	0.007	78	2	3	28	KED
>	In	115		ug/L			3590130	3413342	0	Standard
	Ag	107	0.003	ug/L	0.001	33	86	151	15	Standard
>	Tb	159		ug/L			2885209	2951593	0	Standard
	Pb	208	0.027	ug/L	0.000	0	514	4271	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0142-13
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, June 22, 2018 16:27:49
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	75716	1	Standard
	Cl	**37**		ug/L			12853154	12851907	3	Standard
⌈>	**Sc**	**45**		ug/L			3905122	4072359	1	Standard
|	**Cr**	**52**	**0.001**	ug/L	0.017	1973	58825	61388	2	Standard
|	**Cr**	**53**	**0.023**	ug/L	0.003	13	248	379	5	Standard
⌊	**Mn**	**55**	**132.577**	ug/L	2.182	1	1215	8362040	1	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	22636	0	KED
|	**Ni**	**60**	**0.579**	ug/L	0.058	10	0	272	10	KED
|	**Ni**	**62**	**0.522**	ug/L	0.031	5	1	38	5	KED
|	**Cu**	**63**	**0.567**	ug/L	0.030	5	8	693	5	KED
|	**Cu**	**65**	**0.546**	ug/L	0.028	5	6	325	5	KED
|	**Zn**	**66**	**14.021**	ug/L	0.487	3	4	1842	3	KED
|	**Zn**	**67**	**11.745**	ug/L	0.925	7	1	251	7	KED
⌊	**As**	**75**	**0.019**	ug/L	0.010	51	5	6	10	KED
	Y	**89**		ug/L			1091100	1089171	1	Standard
	Kr	**83**		ug/L			57	75	14	Standard
⌈>	**In-1**	**115**		ug/L			4662	4932	0	KED
|	**Cd**	**111**	**0.237**	ug/L	0.061	25	2	15	22	KED
⌊	**Cd**	**114**	**0.112**	ug/L	0.037	33	2	19	28	KED
⌈>	**In**	**115**		ug/L			3590130	3515656	0	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.002	91	86	131	32	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2896478	1	Standard
⌊	**Pb**	**208**	**0.016**	ug/L	0.001	7	514	2667	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-07
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, June 22, 2018 16:33:04
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	81378	2	Standard
	Cl	**37**		ug/L			12853154	33460617	3	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3748363	3	Standard
|	**Cr**	**52**	**0.188**	ug/L	0.039	21	58825	64905	1	Standard
|	**Cr**	**53**	**4.877**	ug/L	0.130	2	248	23632	2	Standard
⌊	**Mn**	**55**	**8.462**	ug/L	0.368	4	1215	491967	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	18015	0	KED
|	**Ni**	**60**	**0.233**	ug/L	0.049	20	0	86	20	KED
|	**Ni**	**62**	**0.179**	ug/L	0.060	33	1	11	28	KED
|	**Cu**	**63**	**0.381**	ug/L	0.020	5	8	373	5	KED
|	**Cu**	**65**	**0.400**	ug/L	0.006	1	6	191	1	KED
|	**Zn**	**66**	**1.980**	ug/L	0.166	8	4	210	8	KED
|	**Zn**	**67**	**1.774**	ug/L	0.344	19	1	31	18	KED
⌊	**As**	**75**	**0.288**	ug/L	0.076	26	5	21	20	KED
	Y	**89**		ug/L			1091100	1011302	1	Standard
	Kr	**83**		ug/L			57	80	5	Standard
⌈>	**In-1**	**115**		ug/L			4662	4116	1	KED
|	**Cd**	**111**	**0.034**	ug/L	0.032	94	2	3	41	KED
⌊	**Cd**	**114**	**0.006**	ug/L	0.008	132	2	2	35	KED
⌈>	**In**	**115**		ug/L			3590130	3147863	1	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.001	247	86	71	20	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2731063	1	Standard
⌊	**Pb**	**208**	**0.071**	ug/L	0.001	1	514	9578	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-04
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 16:38:05
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	124028	0	Standard
	Cl	**37**		ug/L			12853154	13872115	1	Standard
⌈>	**Sc**	**45**		ug/L			3905122	4120294	2	Standard
|	**Cr**	**52**	**0.264**	ug/L	0.053	20	58825	75179	3	Standard
|	**Cr**	**53**	**0.220**	ug/L	0.009	3	248	1424	0	Standard
⌊	**Mn**	**55**	**4.826**	ug/L	0.127	2	1215	309135	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	20620	0	KED
|	**Ni**	**60**	**0.346**	ug/L	0.056	16	0	147	16	KED
|	**Ni**	**62**	**0.274**	ug/L	0.122	44	1	19	40	KED
|	**Cu**	**63**	**3.976**	ug/L	0.059	1	8	4382	2	KED
|	**Cu**	**65**	**3.926**	ug/L	0.082	2	6	2090	1	KED
|	**Zn**	**66**	**5.825**	ug/L	0.396	6	4	699	6	KED
|	**Zn**	**67**	**5.144**	ug/L	0.458	8	1	100	8	KED
⌊	**As**	**75**	**0.400**	ug/L	0.085	21	5	32	18	KED
	Y	**89**		ug/L			1091100	1107452	1	Standard
	Kr	**83**		ug/L			57	76	5	Standard
⌈>	**In-1**	**115**		ug/L			4662	4547	2	KED
|	**Cd**	**111**	**-0.018**	ug/L	0.029	160	2	1	114	KED
⌊	**Cd**	**114**	**0.010**	ug/L	0.029	293	2	3	107	KED
⌈>	**In**	**115**		ug/L			3590130	3460118	1	Standard
⌊	**Ag**	**107**	**0.007**	ug/L	0.002	21	86	261	14	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2930582	1	Standard
⌊	**Pb**	**208**	**0.062**	ug/L	0.001	2	514	8996	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0319-09
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 16:42:04
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			66961	99910	0	Standard
	Cl	37		ug/L			12853154	13029806	3	Standard
>	Sc	45		ug/L			3905122	4262322	1	Standard
	Cr	52	0.279	ug/L	0.012	4	58825	78549	2	Standard
	Cr	53	0.583	ug/L	0.016	2	248	3452	1	Standard
	Mn	55	0.950	ug/L	0.018	1	1215	64034	0	Standard
>	Ge-1	72		ug/L			21995	19202	0	KED
	Ni	60	0.277	ug/L	0.041	14	0	110	15	KED
	Ni	62	0.285	ug/L	0.066	23	1	18	21	KED
	~~Cu~~	63	0.310	ug/L	0.027	8	8	325	8	KED
	Cu	65	0.296	ug/L	0.041	13	6	152	13	KED
	~~Zn~~	66	1.599	ug/L	0.153	9	4	181	8	KED
	Zn	67	2.116	ug/L	0.311	14	1	39	14	KED
	As	75	1.406	ug/L	0.084	6	5	95	5	KED
	Y	89		ug/L			1091100	1067873	2	Standard
	Kr	83		ug/L			57	88	8	Standard
>	In-1	115		ug/L			4662	4183	1	KED
	Cd	111	-0.030	ug/L	0.024	80	2	0	173	KED
	Cd	114	-0.012	ug/L	0.008	71	2	0	156	KED
>	In	115		ug/L			3590130	3402745	2	Standard
	Ag	107	0.002	ug/L	0.001	42	86	122	11	Standard
>	Tb	159		ug/L			2885209	2912550	1	Standard
	~~Pb~~	208	0.040	ug/L	0.001	2	514	5942	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0546-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 16:47:21
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			66961	98749	0	Standard
	Cl	37		ug/L			12853154	12789589	1	Standard
>	Sc	45		ug/L			3905122	4218208	1	Standard
	Cr	52	0.294	ug/L	0.036	12	58825	78475	1	Standard
	Cr	53	0.619	ug/L	0.019	3	248	3611	1	Standard
	Mn	55	0.838	ug/L	0.004	0	1215	56082	1	Standard
>	Ge-1	72		ug/L			21995	19148	0	KED
	Ni	60	0.262	ug/L	0.033	12	0	104	13	KED
	Ni	62	0.253	ug/L	0.080	31	1	16	29	KED
	Cu	63	0.306	ug/L	0.010	3	8	320	3	KED
	Cu	65	0.314	ug/L	0.050	15	6	160	14	KED
	Zn	66	1.035	ug/L	0.145	14	4	118	14	KED
	Zn	67	1.385	ug/L	0.967	69	1	26	66	KED
	As	75	1.252	ug/L	0.073	5	5	85	6	KED
	Y	89		ug/L			1091100	1050287	2	Standard
	Kr	83		ug/L			57	81	14	Standard
>	In-1	115		ug/L			4662	4034	2	KED
	Cd	111	-0.000	ug/L	0.021	4973	2	1	50	KED
	Cd	114	-0.012	ug/L	0.025	214	2	0	507	KED
>	In	115		ug/L			3590130	3389777	0	Standard
	Ag	107	0.002	ug/L	0.001	39	86	125	13	Standard
>	Tb	159		ug/L			2885209	2879733	1	Standard
	Pb	208	0.040	ug/L	0.000	1	514	5950	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0546-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 16:52:16
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			66961	107424	0	Standard
Cl	37		ug/L			12853154	12974204	4	Standard
> Sc	45		ug/L			3905122	4198691	2	Standard
Cr	52	23.136	ug/L	0.248	1	58825	1234208	1	Standard
Cr	53	23.950	ug/L	0.953	3	248	128933	2	Standard
Mn	55	23.054	ug/L	0.327	1	1215	1500278	2	Standard
> Ge-1	72		ug/L			21995	19125	0	KED
Ni	60	26.328	ug/L	0.379	1	0	10450	0	KED
Ni	62	26.664	ug/L	0.620	2	1	1560	1	KED
~~Cu~~	63	26.123	ug/L	1.138	4	8	26660	3	KED
Cu	65	26.412	ug/L	0.262	0	6	13007	0	KED
~~Zn~~	66	78.246	ug/L	2.474	3	4	8668	2	KED
Zn	67	74.406	ug/L	2.982	4	1	1339	3	KED
As	75	26.366	ug/L	0.232	0	5	1704	1	KED
Y	89		ug/L			1091100	1037243	1	Standard
Kr	83		ug/L			57	81	9	Standard
> In-1	115		ug/L			4662	4184	4	KED
Cd	111	25.599	ug/L	1.811	7	2	1178	2	KED
Cd	114	24.422	ug/L	0.975	3	2	3148	1	KED
> In	115		ug/L			3590130	3352675	1	Standard
Ag	107	22.600	ug/L	0.587	2	86	539468	3	Standard
> Tb	159		ug/L			2885209	2867580	0	Standard
~~Pb~~	208	25.510	ug/L	0.114	0	514	3419785	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0546-MSD1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 16:56:15
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			66961	103681	0	Standard
	Cl	37		ug/L			12853154	13080834	2	Standard
>	Sc	45		ug/L			3905122	4286794	2	Standard
	Cr	52	22.220	ug/L	0.244	1	58825	1213114	3	Standard
	Cr	53	23.277	ug/L	0.127	0	248	128023	3	Standard
	Mn	55	21.855	ug/L	0.608	2	1215	1451494	0	Standard
>	Ge-1	72		ug/L			21995	18796	4	KED
	Ni	60	26.539	ug/L	0.732	2	0	10348	2	KED
	Ni	62	26.494	ug/L	0.824	3	1	1523	2	KED
	~~Cu~~	63	26.082	ug/L	0.927	3	8	26146	2	KED
	Cu	65	26.431	ug/L	0.953	3	6	12780	0	KED
	~~Zn~~	66	81.881	ug/L	3.092	3	4	8906	0	KED
	Zn	67	76.379	ug/L	5.347	7	1	1349	2	KED
	As	75	26.495	ug/L	0.830	3	5	1682	2	KED
	Y	89		ug/L			1091100	1041441	2	Standard
	Kr	83		ug/L			57	90	17	Standard
>	In-1	115		ug/L			4662	4142	3	KED
	Cd	111	24.718	ug/L	1.310	5	2	1127	1	KED
	Cd	114	24.846	ug/L	0.259	1	2	3173	2	KED
>	In	115		ug/L			3590130	3372006	0	Standard
	Ag	107	22.231	ug/L	0.453	2	86	533635	2	Standard
>	Tb	159		ug/L			2885209	2885633	0	Standard
	~~Pb~~	208	25.299	ug/L	0.323	1	514	3412720	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 17:01:19
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	64089	0	Standard
	Cl	**37**		ug/L			12853154	12932724	3	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3813121	2	Standard
|	**Cr**	**52**	**49.436**	ug/L	0.458	0	58825	2329929	1	Standard
|	**Cr**	**53**	**49.652**	ug/L	1.086	2	248	242549	0	Standard
⌊	**Mn**	**55**	**48.906**	ug/L	2.231	4	1215	2888413	4	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	20190	1	KED
|	**Ni**	**60**	**51.598**	ug/L	1.180	2	0	21625	2	KED
|	**Ni**	**62**	**50.832**	ug/L	0.871	1	1	3139	0	KED
|	**Cu**	**63**	**50.942**	ug/L	1.060	2	8	54882	1	KED
|	**Cu**	**65**	**50.618**	ug/L	1.290	2	6	26306	1	KED
|	**Zn**	**66**	**49.905**	ug/L	1.006	2	4	5839	2	KED
|	**Zn**	**67**	**53.515**	ug/L	2.913	5	1	1017	5	KED
⌊	**As**	**75**	**49.429**	ug/L	0.611	1	5	3368	0	KED
	Y	**89**		ug/L			1091100	1032121	0	Standard
	Kr	**83**		ug/L			57	84	27	Standard
⌈>	**In-1**	**115**		ug/L			4662	4286	2	KED
|	**Cd**	**111**	**48.943**	ug/L	1.131	2	2	2309	1	KED
⌊	**Cd**	**114**	**49.535**	ug/L	2.286	4	2	6540	2	KED
⌈>	**In**	**115**		ug/L			3590130	3439337	0	Standard
⌊	**Ag**	**107**	**41.333**	ug/L	0.600	1	86	1011912	1	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2931134	0	Standard
⌊	**Pb**	**208**	**49.981**	ug/L	0.147	0	514	6848133	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 17:08:03
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	63673	0	Standard
	Cl	**37**		ug/L			12853154	12645363	1	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3763411	2	Standard
|	**Cr**	**52**	**-0.072**	ug/L	0.017	23	58825	53404	1	Standard
|	**Cr**	**53**	**0.003**	ug/L	0.002	72	248	253	6	Standard
⌊	**Mn**	**55**	**-0.000**	ug/L	0.001	558	1215	1159	6	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	21397	0	KED
|	**Ni**	**60**	**0.006**	ug/L	0.002	43	0	2	43	KED
|	**Ni**	**62**	**-0.009**	ug/L	0.017	189	1	1	86	KED
|	**Cu**	**63**	**0.000**	ug/L	0.003	1173	8	8	32	KED
|	**Cu**	**65**	**0.002**	ug/L	0.007	461	6	7	50	KED
|	**Zn**	**66**	**0.021**	ug/L	0.023	108	4	6	41	KED
|	**Zn**	**67**	**0.065**	ug/L	0.109	168	1	2	86	KED
⌊	**As**	**75**	**0.033**	ug/L	0.020	59	5	7	18	KED
	Y	**89**		ug/L			1091100	1040386	2	Standard
	Kr	**83**		ug/L			57	64	5	Standard
⌈>	**In-1**	**115**		ug/L			4662	4501	1	KED
|	**Cd**	**111**	**0.059**	ug/L	0.042	72	2	5	43	KED
⌊	**Cd**	**114**	**0.006**	ug/L	0.021	386	2	3	94	KED
⌈>	**In**	**115**		ug/L			3590130	3487077	1	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.001	54	86	123	16	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2830702	1	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	42	514	607	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-05
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 17:15:20
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	115349	0	Standard
	Cl	**37**		ug/L			12853154	13098372	1	Standard
⌈>	**Sc**	**45**		ug/L			3905122	4021093	1	Standard
|	**Cr**	**52**	**0.725**	ug/L	0.083	11	58825	95753	5	Standard
|	**Cr**	**53**	**0.751**	ug/L	0.014	1	248	4122	0	Standard
⌊	**Mn**	**55**	**5.466**	ug/L	0.034	0	1215	341584	1	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	22039	1	KED
|	**Ni**	**60**	**0.258**	ug/L	0.048	18	0	118	18	KED
|	**Ni**	**62**	**0.245**	ug/L	0.029	11	1	18	11	KED
|	**Cu**	**63**	**1.420**	ug/L	0.050	3	8	1678	3	KED
|	**Cu**	**65**	**1.393**	ug/L	0.054	3	6	797	4	KED
|	**Zn**	**66**	**6.784**	ug/L	0.193	2	4	870	4	KED
|	**Zn**	**67**	**7.136**	ug/L	0.211	2	1	149	1	KED
⌊	**As**	**75**	**0.327**	ug/L	0.042	12	5	29	10	KED
	Y	**89**		ug/L			1091100	1128908	2	Standard
	Kr	**83**		ug/L			57	74	22	Standard
⌈>	**In-1**	**115**		ug/L			4662	4744	3	KED
|	**Cd**	**111**	**-0.000**	ug/L	0.039	9584	2	2	89	KED
⌊	**Cd**	**114**	**0.017**	ug/L	0.015	89	2	4	44	KED
⌈>	**In**	**115**		ug/L			3590130	3603453	1	Standard
⌊	**Ag**	**107**	**0.003**	ug/L	0.001	46	86	156	19	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2907634	0	Standard
⌊	**Pb**	**208**	**0.113**	ug/L	0.001	0	514	15903	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-06
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 17:19:19
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	126297	1	Standard
	Cl	**37**		ug/L			12853154	13547639	2	Standard
⌈>	**Sc**	**45**		ug/L			3905122	4068563	3	Standard
|	**Cr**	**52**	**0.934**	ug/L	0.082	8	58825	107006	0	Standard
|	**Cr**	**53**	**0.873**	ug/L	0.048	5	248	4803	2	Standard
⌊	**Mn**	**55**	**5.462**	ug/L	0.065	1	1215	345327	1	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	20557	1	KED
|	**Ni**	**60**	**0.290**	ug/L	0.031	10	0	123	11	KED
|	**Ni**	**62**	**0.154**	ug/L	0.054	35	1	11	28	KED
|	**Cu**	**63**	**4.494**	ug/L	0.051	1	8	4937	1	KED
|	**Cu**	**65**	**4.510**	ug/L	0.113	2	6	2392	1	KED
|	**Zn**	**66**	**5.013**	ug/L	0.450	8	4	601	10	KED
|	**Zn**	**67**	**5.683**	ug/L	0.184	3	1	111	3	KED
⌊	**As**	**75**	**0.335**	ug/L	0.018	5	5	28	4	KED
	Y	**89**		ug/L			1091100	1103335	1	Standard
	Kr	**83**		ug/L			57	62	20	Standard
⌈>	**In-1**	**115**		ug/L			4662	4502	3	KED
|	**Cd**	**111**	**0.002**	ug/L	0.030	1771	2	2	65	KED
⌊	**Cd**	**114**	**-0.016**	ug/L	0.008	53	2	0	770	KED
⌈>	**In**	**115**		ug/L			3590130	3388056	1	Standard
⌊	**Ag**	**107**	**0.007**	ug/L	0.001	9	86	257	6	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2861588	1	Standard
⌊	**Pb**	**208**	**0.079**	ug/L	0.001	1	514	11103	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-07RE1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, June 22, 2018 17:23:18
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			66961	72528	1	Standard
	Cl	37		ug/L			12853154	13344642	4	Standard
>	Sc	45		ug/L			3905122	3918599	1	Standard
	Cr	52	0.030	ug/L	0.025	82	58825	60445	1	Standard
	Cr	53	0.026	ug/L	0.006	23	248	380	6	Standard
	Mn	55	0.201	ug/L	0.008	4	1215	13418	2	Standard
>	Ge-1	72		ug/L			21995	21932	0	KED
	Ni	60	0.107	ug/L	0.011	10	0	48	9	KED
	Ni	62	0.104	ug/L	0.058	55	1	8	44	KED
	Cu	63	115.613	ug/L	1.044	0	8	135306	0	KED
	Cu	65	117.196	ug/L	2.566	2	6	66162	2	KED
	Zn	66	2.341	ug/L	0.196	8	4	301	7	KED
	Zn	67	2.032	ug/L	0.209	10	1	43	9	KED
	As	75	0.035	ug/L	0.021	59	5	7	18	KED
	Y	89		ug/L			1091100	1060405	1	Standard
	Kr	83		ug/L			57	81	16	Standard
>	In-1	115		ug/L			4662	4613	1	KED
	Cd	111	-0.018	ug/L	0.029	159	2	1	114	KED
	Cd	114	0.009	ug/L	0.000	2	2	3	0	KED
>	In	115		ug/L			3590130	3520772	2	Standard
	Ag	107	0.000	ug/L	0.001	415	86	93	36	Standard
>	Tb	159		ug/L			2885209	2826875	1	Standard
	Pb	208	0.026	ug/L	0.000	0	514	3920	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-08RE1
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, June 22, 2018 17:27:17
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	74010	0	Standard
	Cl	**37**		ug/L			12853154	13137579	1	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3864825	2	Standard
|	**Cr**	**52**	**0.007**	ug/L	0.051	738	58825	58513	2	Standard
|	**Cr**	**53**	**0.031**	ug/L	0.005	15	248	400	3	Standard
⌊	**Mn**	**55**	**0.309**	ug/L	0.011	3	1215	19693	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	21564	2	KED
|	**Ni**	**60**	**0.177**	ug/L	0.079	44	0	78	42	KED
|	**Ni**	**62**	**0.087**	ug/L	0.049	56	1	7	43	KED
|	**Cu**	**63**	**103.526**	ug/L	1.472	1	8	119124	2	KED
|	**Cu**	**65**	**104.215**	ug/L	2.850	2	6	57833	1	KED
|	**Zn**	**66**	**2.107**	ug/L	0.315	14	4	267	14	KED
|	**Zn**	**67**	**1.746**	ug/L	0.753	43	1	36	43	KED
⌊	**As**	**75**	**0.025**	ug/L	0.066	263	5	7	67	KED
	Y	**89**		ug/L			1091100	1024024	0	Standard
	Kr	**83**		ug/L			57	61	23	Standard
⌈>	**In-1**	**115**		ug/L			4662	4485	4	KED
|	**Cd**	**111**	**0.021**	ug/L	0.030	139	2	3	45	KED
⌊	**Cd**	**114**	**0.006**	ug/L	0.042	670	2	3	180	KED
⌈>	**In**	**115**		ug/L			3590130	3442306	1	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.000	42	86	89	2	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2817056	1	Standard
⌊	**Pb**	**208**	**0.029**	ug/L	0.001	4	514	4273	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0313-01
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 17:31:29
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	94193	0	Standard
	Cl	**37**		ug/L			12853154	12830966	3	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3967950	2	Standard
|	**Cr**	**52**	**2.646**	ug/L	0.158	5	58825	186285	3	Standard
|	**Cr**	**53**	**2.784**	ug/L	0.090	3	248	14389	2	Standard
⌊	**Mn**	**55**	**2.027**	ug/L	0.042	2	1215	125777	0	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	21381	1	KED
|	**Ni**	**60**	**1.761**	ug/L	0.077	4	0	781	5	KED
|	**Ni**	**62**	**2.090**	ug/L	0.202	9	1	138	9	KED
|	**Cu**	**63**	**0.744**	ug/L	0.049	6	8	857	6	KED
|	**Cu**	**65**	**0.720**	ug/L	0.034	4	6	403	5	KED
|	~~**Zn**~~	**66**	~~**5.516**~~	ug/L	0.383	6	4	687	5	KED
|	**Zn**	**67**	**5.428**	ug/L	0.369	6	1	110	7	KED
⌊	**As**	**75**	**0.128**	ug/L	0.027	20	5	14	12	KED
	Y	**89**		ug/L			1091100	1051923	1	Standard
	Kr	**83**		ug/L			57	68	23	Standard
⌈>	**In-1**	**115**		ug/L			4662	4602	3	KED
|	**Cd**	**111**	**0.077**	ug/L	0.048	62	2	6	36	KED
⌊	**Cd**	**114**	**0.038**	ug/L	0.010	26	2	7	19	KED
⌈>	**In**	**115**		ug/L			3590130	3450088	0	Standard
⌊	**Ag**	**107**	**0.006**	ug/L	0.001	16	86	227	10	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2788618	0	Standard
⌊	**Pb**	**208**	**0.267**	ug/L	0.003	0	514	35303	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0318-01RE1
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, June 22, 2018 17:36:08

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	1819967	0	Standard
	Cl	**37**		ug/L			12853154	11754246	0	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3367989	0	Standard
|	**Cr**	**52**	**4.267**	ug/L	0.134	3	58825	223977	1	Standard
|	**Cr**	**53**	**1.516**	ug/L	0.017	1	248	6752	0	Standard
⌊	**Mn**	**55**	**79.300**	ug/L	1.311	1	1215	4137604	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	13375	2	KED
|	**Ni**	**60**	**13.481**	ug/L	0.142	1	0	3742	1	KED
|	**Ni**	**62**	**13.334**	ug/L	0.712	5	1	546	3	KED
|	**Cu**	**63**	**0.836**	ug/L	0.031	3	8	601	1	KED
|	**Cu**	**65**	**0.849**	ug/L	0.076	8	6	296	8	KED
|	**Zn**	**66**	**5.844**	ug/L	0.169	2	4	455	3	KED
|	**Zn**	**67**	**7.669**	ug/L	0.606	7	1	97	5	KED
⌊	**As**	**75**	**0.288**	ug/L	0.067	23	5	16	15	KED
	Y	**89**		ug/L			1091100	884612	0	Standard
	Kr	**83**		ug/L			57	130	6	Standard
⌈>	**In-1**	**115**		ug/L			4662	2621	1	KED
|	**Cd**	**111**	**0.078**	ug/L	0.084	108	2	3	68	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.026	1210	2	1	135	KED
⌈>	**In**	**115**		ug/L			3590130	2885048	0	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	51	86	96	14	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2661241	0	Standard
⌊	**Pb**	**208**	**0.032**	ug/L	0.000	1	514	4412	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0158-01
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 17:42:11
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	113775	0	Standard
	Cl	**37**		ug/L			12853154	13666572	3	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3861541	3	Standard
|	**Cr**	**52**	**0.635**	ug/L	0.017	2	58825	87723	3	Standard
|	**Cr**	**53**	**0.569**	ug/L	0.027	4	248	3055	0	Standard
⌊	**Mn**	**55**	**3.502**	ug/L	0.191	5	1215	210379	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	20249	1	KED
|	**Ni**	**60**	**0.529**	ug/L	0.033	6	0	222	5	KED
|	**Ni**	**62**	**0.431**	ug/L	0.264	61	1	28	59	KED
|	**Cu**	**63**	**0.902**	ug/L	0.061	6	8	981	4	KED
|	**Cu**	**65**	**0.934**	ug/L	0.101	10	6	492	9	KED
|	**Zn**	**66**	**9.494**	ug/L	0.415	4	4	1116	3	KED
|	**Zn**	**67**	**7.792**	ug/L	0.930	11	1	149	13	KED
⌊	**As**	**75**	**0.343**	ug/L	0.045	13	5	28	12	KED
	Y	**89**		ug/L			1091100	1023045	3	Standard
	Kr	**83**		ug/L			57	59	20	Standard
⌈>	**In-1**	**115**		ug/L			4662	4180	3	KED
|	**Cd**	**111**	**0.060**	ug/L	0.018	30	2	4	20	KED
⌊	**Cd**	**114**	**0.045**	ug/L	0.008	17	2	7	14	KED
⌈>	**In**	**115**		ug/L			3590130	3531347	1	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.000	11	86	80	2	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2905512	0	Standard
⌊	**Pb**	**208**	**0.148**	ug/L	0.002	1	514	20666	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-DUP3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 17:46:10
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	111311	2	Standard
	Cl	**37**		ug/L			12853154	13645202	0	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3862988	2	Standard
|	**Cr**	**52**	**0.650**	ug/L	0.066	10	58825	88416	2	Standard
|	**Cr**	**53**	**0.600**	ug/L	0.013	2	248	3212	2	Standard
⌊	**Mn**	**55**	**3.611**	ug/L	0.049	1	1215	217273	3	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	20917	1	KED
|	**Ni**	**60**	**0.572**	ug/L	0.031	5	0	248	5	KED
|	**Ni**	**62**	**0.587**	ug/L	0.168	28	1	39	27	KED
|	**Cu**	**63**	**0.964**	ug/L	0.062	6	8	1085	6	KED
|	**Cu**	**65**	**0.882**	ug/L	0.009	1	6	481	1	KED
|	**Zn**	**66**	**9.024**	ug/L	0.956	10	4	1097	10	KED
|	**Zn**	**67**	**8.391**	ug/L	1.026	12	1	166	12	KED
⌊	**As**	**75**	**0.344**	ug/L	0.024	7	5	29	5	KED
	Y	**89**		ug/L			1091100	1067343	2	Standard
	Kr	**83**		ug/L			57	70	7	Standard
⌈>	**In-1**	**115**		ug/L			4662	4276	0	KED
|	**Cd**	**111**	**0.051**	ug/L	0.031	60	2	4	32	KED
⌊	**Cd**	**114**	**0.024**	ug/L	0.025	106	2	5	61	KED
⌈>	**In**	**115**		ug/L			3590130	3619059	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	114	86	107	19	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2905314	0	Standard
⌊	**Pb**	**208**	**0.150**	ug/L	0.001	0	514	20907	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-MS3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 17:50:09
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			66961	112333	1	Standard
	Cl	37		ug/L			12853154	13021842	1	Standard
⌈>	Sc	45		ug/L			3905122	3866419	3	Standard
|	Cr	52	24.789	ug/L	1.276	5	58825	1212477	1	Standard
|	Cr	53	25.474	ug/L	1.008	3	248	126229	1	Standard
⌊	Mn	55	27.422	ug/L	0.810	2	1215	1642064	0	Standard
⌈>	Ge-1	72		ug/L			21995	19859	2	KED
|	Ni	60	26.374	ug/L	0.836	3	0	10866	0	KED
|	Ni	62	25.665	ug/L	0.485	1	1	1560	2	KED
|	Cu	63	25.900	ug/L	0.559	2	8	27444	0	KED
|	Cu	65	26.095	ug/L	0.740	2	6	13338	0	KED
|	Zn	66	81.238	ug/L	2.264	2	4	9344	2	KED
|	Zn	67	75.284	ug/L	3.729	4	1	1408	6	KED
⌊	As	75	23.736	ug/L	0.886	3	5	1592	2	KED
	Y	89		ug/L			1091100	1054038	0	Standard
	Kr	83		ug/L			57	74	10	Standard
⌈>	In-1	115		ug/L			4662	4122	4	KED
|	Cd	111	24.379	ug/L	1.606	6	2	1106	3	KED
⌊	Cd	114	23.619	ug/L	0.710	3	2	3000	2	KED
⌈>	In	115		ug/L			3590130	3482948	2	Standard
⌊	Ag	107	20.705	ug/L	0.365	1	86	513288	2	Standard
⌈>	Tb	159		ug/L			2885209	2979338	0	Standard
⌊	Pb	208	24.526	ug/L	0.299	1	514	3415769	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-MSD3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 17:54:08
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	116988	0	Standard
	Cl	**37**		ug/L			12853154	13056801	0	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3829324	0	Standard
|	**Cr**	**52**	**24.601**	ug/L	0.760	3	58825	1193717	3	Standard
|	**Cr**	**53**	**25.835**	ug/L	0.068	0	248	126897	1	Standard
⌊	**Mn**	**55**	**27.225**	ug/L	1.172	4	1215	1615784	4	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	19742	1	KED
|	**Ni**	**60**	**26.352**	ug/L	0.278	1	0	10797	1	KED
|	**Ni**	**62**	**26.051**	ug/L	1.083	4	1	1573	2	KED
|	**Cu**	**63**	**25.984**	ug/L	0.489	1	8	27374	0	KED
|	**Cu**	**65**	**26.189**	ug/L	0.041	0	6	13314	2	KED
|	**Zn**	**66**	**80.810**	ug/L	0.104	0	4	9242	1	KED
|	**Zn**	**67**	**79.894**	ug/L	2.553	3	1	1485	5	KED
⌊	**As**	**75**	**23.769**	ug/L	0.514	2	5	1586	0	KED
	Y	**89**		ug/L			1091100	1081947	4	Standard
	Kr	**83**		ug/L			57	78	7	Standard
⌈>	**In-1**	**115**		ug/L			4662	4310	1	KED
|	**Cd**	**111**	**23.675**	ug/L	0.833	3	2	1124	2	KED
⌊	**Cd**	**114**	**23.388**	ug/L	0.246	1	2	3109	0	KED
⌈>	**In**	**115**		ug/L			3590130	3465517	1	Standard
⌊	**Ag**	**107**	**20.306**	ug/L	0.423	2	86	501087	3	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2973721	0	Standard
⌊	**Pb**	**208**	**24.036**	ug/L	0.056	0	514	3341463	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 17:59:11
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	62845	1	Standard
	Cl	**37**		ug/L			12853154	12751253	1	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3580094	1	Standard
|	**Cr**	**52**	**50.098**	ug/L	3.284	6	58825	2214700	4	Standard
|	**Cr**	**53**	**48.519**	ug/L	0.573	1	248	222574	1	Standard
⌊	**Mn**	**55**	**49.049**	ug/L	1.723	3	1215	2719504	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	19537	2	KED
|	**Ni**	**60**	**50.233**	ug/L	0.601	1	0	20368	0	KED
|	**Ni**	**62**	**49.944**	ug/L	2.657	5	1	2983	3	KED
|	**Cu**	**63**	**49.612**	ug/L	1.144	2	8	51724	2	KED
|	**Cu**	**65**	**49.653**	ug/L	1.907	3	6	24966	2	KED
|	**Zn**	**66**	**50.226**	ug/L	1.544	3	4	5684	1	KED
|	**Zn**	**67**	**51.177**	ug/L	1.347	2	1	941	1	KED
⌊	**As**	**75**	**50.403**	ug/L	0.524	1	5	3323	1	KED
	Y	**89**		ug/L			1091100	981323	3	Standard
	Kr	**83**		ug/L			57	66	10	Standard
⌈>	**In-1**	**115**		ug/L			4662	3995	4	KED
|	**Cd**	**111**	**51.138**	ug/L	2.870	5	2	2247	2	KED
⌊	**Cd**	**114**	**50.360**	ug/L	1.543	3	2	6201	4	KED
⌈>	**In**	**115**		ug/L			3590130	3341486	1	Standard
⌊	**Ag**	**107**	**39.886**	ug/L	0.567	1	86	948747	2	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2866236	2	Standard
⌊	**Pb**	**208**	**49.032**	ug/L	0.696	1	514	6568402	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 18:05:55
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	60790	0	Standard
	Cl	**37**		ug/L			12853154	12269716	1	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3547710	3	Standard
|	**Cr**	**52**	**-0.095**	ug/L	0.020	21	58825	49338	1	Standard
|	**Cr**	**53**	**-0.002**	ug/L	0.002	102	248	218	6	Standard
⌊	**Mn**	**55**	**-0.001**	ug/L	0.001	102	1215	1067	3	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	20770	3	KED
|	**Ni**	**60**	**0.006**	ug/L	0.003	47	0	2	43	KED
|	**Ni**	**62**	**-0.028**	ug/L			1	0		KED
|	**Cu**	**63**	**0.000**	ug/L	0.006	1858	8	8	81	KED
|	**Cu**	**65**	**-0.004**	ug/L	0.006	151	6	4	65	KED
|	**Zn**	**66**	**0.029**	ug/L	0.016	55	4	7	25	KED
|	**Zn**	**67**	**-0.030**	ug/L	0.055	184	1	0	173	KED
⌊	**As**	**75**	**0.029**	ug/L	0.010	33	5	7	11	KED
	Y	**89**		ug/L			1091100	979793	2	Standard
	Kr	**83**		ug/L			57	72	11	Standard
⌈>	**In-1**	**115**		ug/L			4662	4075	3	KED
|	**Cd**	**111**	**0.041**	ug/L	0.019	44	2	3	25	KED
⌊	**Cd**	**114**	**-0.003**	ug/L	0.014	488	2	1	100	KED
⌈>	**In**	**115**		ug/L			3590130	3323471	0	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.001	516	86	83	20	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2741292	2	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	39	514	614	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0437-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 18:11:37
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			66961	75684	1	Standard
	Cl	37		ug/L			12853154	11748855	1	Standard
>	Sc	45		ug/L			3905122	3474603	3	Standard
	Cr	52	-0.043	ug/L	0.044	102	58825	50530	3	Standard
	Cr	53	0.012	ug/L	0.002	14	248	273	3	Standard
	Mn	55	0.437	ug/L	0.009	2	1215	24588	1	Standard
>	Ge-1	72		ug/L			21995	20599	1	KED
	Ni	60	0.025	ug/L	0.002	9	0	10	10	KED
	Ni	62	0.002	ug/L	0.031	1513	1	1	100	KED
	Cu	63	0.034	ug/L	0.019	58	8	45	46	KED
	Cu	65	0.050	ug/L	0.029	57	6	33	46	KED
	Zn	66	0.741	ug/L	0.114	15	4	92	15	KED
	Zn	67	0.856	ug/L	0.112	13	1	17	12	KED
	As	75	0.028	ug/L	0.018	63	5	6	17	KED
	Y	89		ug/L			1091100	993033	3	Standard
	Kr	83		ug/L			57	67	3	Standard
>	In-1	115		ug/L			4662	4148	2	KED
	Cd	111	0.026	ug/L	0.023	90	2	3	34	KED
	Cd	114	0.021	ug/L	0.003	13	2	4	5	KED
>	In	115		ug/L			3590130	3303114	0	Standard
	Ag	107	0.003	ug/L	0.006	179	86	161	90	Standard
>	Tb	159		ug/L			2885209	2734119	2	Standard
	Pb	208	0.007	ug/L	0.006	79	514	1365	49	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0437-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 18:15:36
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			66961	83178	2	Standard
	Cl	37		ug/L			12853154	12067888	2	Standard
>	Sc	45		ug/L			3905122	3469478	4	Standard
	Cr	52	24.916	ug/L	1.359	5	58825	1092762	1	Standard
	Cr	53	25.828	ug/L	1.385	5	248	114745	0	Standard
	Mn	55	24.877	ug/L	1.025	4	1215	1336082	1	Standard
>	Ge-1	72		ug/L			21995	20630	0	KED
	Ni	60	26.154	ug/L	0.282	1	0	11199	1	KED
	Ni	62	26.536	ug/L	0.833	3	1	1675	3	KED
	Cu	63	26.886	ug/L	0.097	0	8	29605	0	KED
	Cu	65	26.573	ug/L	0.299	1	6	14116	1	KED
	Zn	66	85.453	ug/L	0.492	0	4	10213	1	KED
	Zn	67	79.058	ug/L	3.429	4	1	1535	4	KED
	As	75	25.787	ug/L	0.508	1	5	1798	2	KED
	Y	89		ug/L			1091100	963441	3	Standard
	Kr	83		ug/L			57	71	23	Standard
>	In-1	115		ug/L			4662	4263	4	KED
	Cd	111	25.717	ug/L	0.859	3	2	1207	2	KED
	Cd	114	25.578	ug/L	1.017	3	2	3358	1	KED
>	In	115		ug/L			3590130	3309187	2	Standard
	Ag	107	21.703	ug/L	1.253	5	86	510759	3	Standard
>	Tb	159		ug/L			2885209	2768535	1	Standard
	Pb	208	26.421	ug/L	0.659	2	514	3418493	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0318-01RE1
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, June 22, 2018 18:20:15
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	779566	1	Standard
	Cl	**37**		ug/L			12853154	12084140	2	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3247255	2	Standard
|	**Cr**	**52**	**1.764**	ug/L	0.069	3	58825	117940	0	Standard
|	**Cr**	**53**	**0.643**	ug/L	0.021	3	248	2880	1	Standard
⌊	**Mn**	**55**	**31.063**	ug/L	1.376	4	1215	1562229	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	16352	2	KED
|	**Ni**	**60**	**5.098**	ug/L	0.125	2	0	1729	0	KED
|	**Ni**	**62**	**5.355**	ug/L	0.354	6	1	269	7	KED
|	**~~Cu~~**	**63**	**0.342**	ug/L	0.030	8	8	304	7	KED
|	**Cu**	**65**	**0.331**	ug/L	0.033	10	6	144	10	KED
|	**~~Zn~~**	**66**	**4.217**	ug/L	0.383	9	4	402	8	KED
|	**Zn**	**67**	**5.176**	ug/L	0.641	12	1	80	13	KED
⌊	**As**	**75**	**0.151**	ug/L	0.085	56	5	12	38	KED
	Y	**89**		ug/L			1091100	861918	0	Standard
	Kr	**83**		ug/L			57	85	17	Standard
⌈>	**In-1**	**115**		ug/L			4662	3095	3	KED
|	**Cd**	**111**	**0.022**	ug/L	0.019	83	2	2	24	KED
⌊	**Cd**	**114**	**-0.005**	ug/L	0.030	650	2	1	238	KED
⌈>	**In**	**115**		ug/L			3590130	2995593	2	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	37	86	103	9	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2632463	1	Standard
⌊	**Pb**	**208**	**0.037**	ug/L	0.001	2	514	5067	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0313-02
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 18:25:17
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	91784	1	Standard
	Cl	**37**		ug/L			12853154	11697502	2	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3648885	4	Standard
|	**Cr**	**52**	**4.855**	ug/L	0.189	3	58825	268354	2	Standard
|	**Cr**	**53**	**5.216**	ug/L	0.219	4	248	24578	4	Standard
⌊	**Mn**	**55**	**69.157**	ug/L	4.599	6	1215	3901763	3	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	19072	1	KED
|	**Ni**	**60**	**2.996**	ug/L	0.130	4	0	1185	2	KED
|	**Ni**	**62**	**2.630**	ug/L	0.129	4	1	154	2	KED
|	**Cu**	**63**	**1.118**	ug/L	0.018	1	8	1145	3	KED
|	**Cu**	**65**	**1.154**	ug/L	0.092	7	6	572	8	KED
|	**Zn**	**66**	**5.450**	ug/L	0.186	3	4	605	3	KED
|	**Zn**	**67**	**5.238**	ug/L	0.654	12	1	95	14	KED
⌊	**As**	**75**	**0.110**	ug/L	0.041	36	5	11	20	KED
	Y	**89**		ug/L			1091100	953464	2	Standard
	Kr	**83**		ug/L			57	61	15	Standard
⌈>	**In-1**	**115**		ug/L			4662	4021	2	KED
|	**Cd**	**111**	**0.123**	ug/L	0.072	58	2	7	41	KED
⌊	**Cd**	**114**	**0.161**	ug/L	0.055	34	2	22	32	KED
⌈>	**In**	**115**		ug/L			3590130	3272770	2	Standard
⌊	**Ag**	**107**	**0.005**	ug/L	0.000	0	86	206	1	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2736064	1	Standard
⌊	**Pb**	**208**	**0.198**	ug/L	0.000	0	514	25781	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0313-03
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 18:29:16
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	91706	0	Standard
	Cl	**37**		ug/L			12853154	12151978	1	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3705741	2	Standard
|	**Cr**	**52**	**2.600**	ug/L	0.048	1	58825	172025	3	Standard
|	**Cr**	**53**	**2.935**	ug/L	0.124	4	248	14163	5	Standard
⌊	**Mn**	**55**	**462.919**	ug/L	6.306	1	1215	26564777	1	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	19226	1	KED
|	**Ni**	**60**	**10.366**	ug/L	0.317	3	0	4136	3	KED
|	**Ni**	**62**	**10.201**	ug/L	0.323	3	1	601	3	KED
|	**Cu**	**63**	**3.142**	ug/L	0.053	1	8	3230	0	KED
|	**Cu**	**65**	**3.075**	ug/L	0.047	1	6	1527	0	KED
|	**~~Zn~~**	**66**	**12.941**	ug/L	0.199	1	4	1444	1	KED
|	**Zn**	**67**	**11.373**	ug/L	0.992	8	1	206	9	KED
⌊	**As**	**75**	**0.131**	ug/L	0.036	27	5	13	16	KED
	Y	**89**		ug/L			1091100	982069	0	Standard
	Kr	**83**		ug/L			57	84	10	Standard
⌈>	**In-1**	**115**		ug/L			4662	4028	0	KED
|	**Cd**	**111**	**0.701**	ug/L	0.199	28	2	33	27	KED
⌊	**Cd**	**114**	**0.584**	ug/L	0.098	16	2	74	16	KED
⌈>	**In**	**115**		ug/L			3590130	3269511	1	Standard
⌊	**Ag**	**107**	**0.006**	ug/L	0.003	41	86	221	28	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2760315	1	Standard
⌊	**Pb**	**208**	**0.637**	ug/L	0.009	1	514	82730	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0313-04
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 18:33:15
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	88966	1	Standard
	Cl	**37**		ug/L			12853154	11972339	1	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3676846	1	Standard
|	**Cr**	**52**	**1.273**	ug/L	0.023	1	58825	111841	1	Standard
|	**Cr**	**53**	**1.554**	ug/L	0.112	7	248	7550	8	Standard
⌊	**Mn**	**55**	**1.431**	ug/L	0.017	1	1215	82638	2	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	19530	2	KED
|	**Ni**	**60**	**1.527**	ug/L	0.034	2	0	619	1	KED
|	**Ni**	**62**	**1.389**	ug/L	0.300	21	1	84	19	KED
|	**Cu**	**63**	**0.990**	ug/L	0.015	1	8	1040	2	KED
|	**Cu**	**65**	**1.054**	ug/L	0.052	4	6	535	2	KED
|	**~~Zn~~**	**66**	**1.982**	ug/L	0.282	14	4	228	16	KED
|	**Zn**	**67**	**1.837**	ug/L	0.295	16	1	34	16	KED
⌊	**As**	**75**	**0.091**	ug/L	0.027	29	5	10	18	KED
	Y	**89**		ug/L			1091100	964506	1	Standard
	Kr	**83**		ug/L			57	73	8	Standard
⌈>	**In-1**	**115**		ug/L			4662	4074	1	KED
|	**Cd**	**111**	**0.056**	ug/L	0.044	79	2	4	44	KED
⌊	**Cd**	**114**	**0.036**	ug/L	0.047	133	2	6	90	KED
⌈>	**In**	**115**		ug/L			3590130	3268559	1	Standard
⌊	**Ag**	**107**	**0.003**	ug/L	0.001	16	86	154	7	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2754542	1	Standard
⌊	**Pb**	**208**	**0.035**	ug/L	0.001	3	514	5031	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0313-05
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 18:37:14
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	88513	2	Standard
	Cl	**37**		ug/L			12853154	11870152	2	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3636360	2	Standard
|	**Cr**	**52**	**0.892**	ug/L	0.015	1	58825	93866	2	Standard
|	**Cr**	**53**	**1.084**	ug/L	0.020	1	248	5277	1	Standard
⌊	**Mn**	**55**	**593.710**	ug/L	11.137	1	1215	33425357	1	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	19508	2	KED
|	**Ni**	**60**	**1.535**	ug/L	0.102	6	0	622	8	KED
|	**Ni**	**62**	**1.624**	ug/L	0.185	11	1	98	9	KED
|	**Cu**	**63**	**3.013**	ug/L	0.102	3	8	3142	1	KED
|	**Cu**	**65**	**3.024**	ug/L	0.080	2	6	1523	0	KED
|	**Zn**	**66**	**11.805**	ug/L	0.145	1	4	1337	3	KED
|	**Zn**	**67**	**11.134**	ug/L	0.925	8	1	205	10	KED
⌊	**As**	**75**	**0.104**	ug/L	0.020	19	5	11	10	KED
	Y	**89**		ug/L			1091100	963979	4	Standard
	Kr	**83**		ug/L			57	76	17	Standard
⌈>	**In-1**	**115**		ug/L			4662	4026	4	KED
|	**Cd**	**111**	**0.223**	ug/L	0.053	23	2	11	16	KED
⌊	**Cd**	**114**	**0.281**	ug/L	0.103	36	2	37	36	KED
⌈>	**In**	**115**		ug/L			3590130	3263577	1	Standard
⌊	**Ag**	**107**	**0.004**	ug/L	0.000	11	86	173	4	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2725743	0	Standard
⌊	**Pb**	**208**	**0.656**	ug/L	0.006	0	514	84022	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0323-01
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 18:42:50
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			66961	909062	1	Standard
	Cl	37		ug/L			12853154	12170140	2	Standard
>	Sc	45		ug/L			3905122	2987762	3	Standard
	Cr	52	2.732	ug/L	0.150	5	58825	143317	1	Standard
	Cr	53	1.579	ug/L	0.062	3	248	6224	1	Standard
	Mn	55	15.570	ug/L	0.745	4	1215	720617	1	Standard
>	Ge-1	72		ug/L			21995	12658	1	KED
	Ni	60	9.659	ug/L	0.429	4	0	2538	5	KED
	Ni	62	9.893	ug/L	0.465	4	1	384	5	KED
	Cu	63	7.117	ug/L	0.079	1	8	4812	2	KED
	Cu	65	7.057	ug/L	0.235	3	6	2303	4	KED
	Zn	66	6.805	ug/L	0.460	6	4	500	4	KED
	Zn	67	8.261	ug/L	0.813	9	1	99	8	KED
	As	75	0.370	ug/L	0.040	10	5	18	7	KED
	Y	89		ug/L			1091100	829624	1	Standard
	Kr	83		ug/L			57	114	17	Standard
>	In-1	115		ug/L			4662	2488	4	KED
	Cd	111	0.130	ug/L	0.030	22	2	4	20	KED
	Cd	114	0.036	ug/L	0.101	281	2	3	194	KED
>	In	115		ug/L			3590130	2705475	0	Standard
	Ag	107	0.001	ug/L	0.001	137	86	75	18	Standard
>	Tb	159		ug/L			2885209	2553098	1	Standard
	Pb	208	0.028	ug/L	0.000	1	514	3736	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0264-01
Sample Dil Factor: 50
Comments:
Sample Date/Time: Friday, June 22, 2018 18:49:53
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	122159	1	Standard
	Cl	**37**		ug/L			12853154	12195433	1	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3289674	2	Standard
|	**Cr**	**52**	**59.920**	ug/L	2.645	4	58825	2424319	2	Standard
|	**Cr**	**53**	**57.436**	ug/L	1.491	2	248	241983	0	Standard
⌊	**Mn**	**55**	**4.722**	ug/L	0.160	3	1215	241412	0	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	18712	1	KED
|	**Ni**	**60**	**0.327**	ug/L	0.027	8	0	126	7	KED
|	**Ni**	**62**	**0.427**	ug/L	0.098	23	1	26	21	KED
|	**Cu**	**63**	**0.912**	ug/L	0.045	4	8	918	5	KED
|	**Cu**	**65**	**0.955**	ug/L	0.049	5	6	466	5	KED
|	**Zn**	**66**	**70.018**	ug/L	0.364	0	4	7591	1	KED
|	**Zn**	**67**	**67.041**	ug/L	1.481	2	1	1181	3	KED
⌊	**As**	**75**	**0.121**	ug/L	0.036	29	5	12	19	KED
	Y	**89**		ug/L			1091100	910656	2	Standard
	Kr	**83**		ug/L			57	79	24	Standard
⌈>	**In-1**	**115**		ug/L			4662	3693	3	KED
|	**Cd**	**111**	**0.240**	ug/L	0.133	55	2	11	46	KED
⌊	**Cd**	**114**	**0.245**	ug/L	0.134	54	2	29	48	KED
⌈>	**In**	**115**		ug/L			3590130	3268513	1	Standard
⌊	**Ag**	**107**	**0.026**	ug/L	0.004	16	86	677	15	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2658751	1	Standard
⌊	**Pb**	**208**	**0.062**	ug/L	0.001	1	514	8225	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-28
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 18:53:51
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			66961	96772	1	Standard
	Cl	37		ug/L			12853154	11081560	2	Standard
>	Sc	45		ug/L			3905122	3573669	3	Standard
	Cr	52	0.112	ug/L	0.022	19	58825	58669	3	Standard
	Cr	53	0.168	ug/L	0.008	4	248	994	1	Standard
	Mn	55	828.820	ug/L	24.722	2	1215	45843820	0	Standard
>	Ge-1	72		ug/L			21995	16690	0	KED
	Ni	60	13.015	ug/L	0.487	3	0	4508	3	KED
	Ni	62	13.248	ug/L	0.992	7	1	677	7	KED
	Cu	63	27.659	ug/L	0.508	1	8	24637	1	KED
	Cu	65	27.385	ug/L	0.795	2	6	11768	2	KED
	Zn	66	246.289	ug/L	3.614	1	4	23806	1	KED
	Zn	67	229.297	ug/L	2.360	1	1	3601	0	KED
	As	75	0.108	ug/L	0.063	58	5	10	34	KED
	Y	89		ug/L			1091100	1060502	4	Standard
	Kr	83		ug/L			57	112	14	Standard
>	In-1	115		ug/L			4662	3352	3	KED
	Cd	111	1.864	ug/L	0.404	21	2	70	19	KED
	Cd	114	1.807	ug/L	0.024	1	2	188	3	KED
>	In	115		ug/L			3590130	3158789	1	Standard
	Ag	107	0.003	ug/L	0.001	18	86	149	9	Standard
>	Tb	159		ug/L			2885209	2770247	1	Standard
	Pb	208	0.093	ug/L	0.001	0	514	12494	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 18:58:55
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	60359	1	Standard
	Cl	**37**		ug/L			12853154	12017652	1	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3340842	1	Standard
|	**Cr**	**52**	**47.211**	ug/L	0.985	2	58825	1951716	0	Standard
|	**Cr**	**53**	**47.869**	ug/L	0.562	1	248	204951	1	Standard
⌊	**Mn**	**55**	**48.116**	ug/L	0.214	0	1215	2490524	1	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	18074	0	KED
|	**Ni**	**60**	**49.931**	ug/L	1.122	2	0	18732	2	KED
|	**Ni**	**62**	**49.690**	ug/L	1.115	2	1	2747	1	KED
|	**Cu**	**63**	**49.922**	ug/L	1.113	2	8	48157	2	KED
|	**Cu**	**65**	**48.622**	ug/L	0.462	0	6	22626	1	KED
|	**Zn**	**66**	**50.816**	ug/L	1.124	2	4	5322	2	KED
|	**Zn**	**67**	**51.272**	ug/L	0.982	1	1	873	2	KED
⌊	**As**	**75**	**50.459**	ug/L	0.410	0	5	3078	1	KED
	Y	**89**		ug/L			1091100	944954	1	Standard
	Kr	**83**		ug/L			57	69	22	Standard
⌈>	**In-1**	**115**		ug/L			4662	3578	5	KED
|	**Cd**	**111**	**50.547**	ug/L	1.591	3	2	1989	3	KED
⌊	**Cd**	**114**	**49.085**	ug/L	2.188	4	2	5407	3	KED
⌈>	**In**	**115**		ug/L			3590130	3214168	1	Standard
⌊	**Ag**	**107**	**39.856**	ug/L	0.157	0	86	911860	0	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2750142	1	Standard
⌊	**Pb**	**208**	**49.609**	ug/L	0.268	0	514	6377262	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 19:05:38
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			66961	58065	1	Standard
	Cl	**37**		ug/L			12853154	11668168	2	Standard
⌈>	**Sc**	**45**		ug/L			3905122	3366186	1	Standard
|	**Cr**	**52**	**-0.065**	ug/L	0.029	44	58825	48071	1	Standard
|	**Cr**	**53**	**0.000**	ug/L	0.003	898	248	215	7	Standard
⌊	**Mn**	**55**	**0.005**	ug/L	0.007	151	1215	1290	28	Standard
⌈>	**Ge-1**	**72**		ug/L			21995	19115	3	KED
|	**Ni**	**60**	**0.010**	ug/L	0.012	130	0	3	132	KED
|	**Ni**	**62**	**-0.007**	ug/L	0.037	530	1	1	173	KED
|	**Cu**	**63**	**-0.000**	ug/L	0.008	3979	8	7	108	KED
|	**Cu**	**65**	**-0.002**	ug/L	0.008	383	6	5	78	KED
|	**Zn**	**66**	**0.050**	ug/L	0.050	99	4	9	60	KED
|	**Zn**	**67**	**0.079**	ug/L	0.058	73	1	2	43	KED
⌊	**As**	**75**	**0.047**	ug/L	0.056	119	5	7	43	KED
	Y	**89**		ug/L			1091100	939810	0	Standard
	Kr	**83**		ug/L			57	81	14	Standard
⌈>	**In-1**	**115**		ug/L			4662	3921	3	KED
|	**Cd**	**111**	**-0.015**	ug/L	0.033	223	2	1	114	KED
⌊	**Cd**	**114**	**-0.007**	ug/L	0.009	129	2	1	86	KED
⌈>	**In**	**115**		ug/L			3590130	3246425	1	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.001	792	86	80	19	Standard
⌈>	**Tb**	**159**		ug/L			2885209	2677193	0	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	19	514	608	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 19:11:13
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				56254	0	Standard
	Cl	**37**		ug/L				11457090	1	Standard
⌈>	**Sc**	**45**		ug/L				3217224	1	Standard
|	**Cr**	**52**		ug/L				46408	1	Standard
|	**Cr**	**53**		ug/L				200	6	Standard
⌊	**Mn**	**55**		ug/L				945	6	Standard
⌈>	**Ge-1**	**72**		ug/L				18903	1	KED
|	**Ni**	**60**		ug/L				2	43	KED
|	**Ni**	**62**		ug/L				0		KED
|	**Cu**	**63**		ug/L				3	100	KED
|	**Cu**	**65**		ug/L				4	137	KED
|	**Zn**	**66**		ug/L				7	66	KED
|	**Zn**	**67**		ug/L				3	34	KED
⌊	**As**	**75**		ug/L				8	46	KED
	Y	**89**		ug/L				907188	1	Standard
	Kr	**83**		ug/L				61	15	Standard
⌈>	**In-1**	**115**		ug/L				3910	1	KED
|	**Cd**	**111**		ug/L				1	50	KED
⌊	**Cd**	**114**		ug/L				2	88	KED
⌈>	**In**	**115**		ug/L				3218354	2	Standard
⌊	**Ag**	**107**		ug/L				60	11	Standard
⌈>	**Tb**	**159**		ug/L				2625347	0	Standard
⌊	**Pb**	**208**		ug/L				405	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 19:15:12
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	53170	1	Standard
	Cl	**37**		ug/L			11457090	11678652	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	3183869	2	Standard
|	**Cr**	**52**	**46.229**	ug/L	1.351	2	46408	1819694	0	Standard
|	**Cr**	**53**	**48.050**	ug/L	1.439	2	200	195997	2	Standard
⌊	**Mn**	**55**	**46.851**	ug/L	0.989	2	945	2310219	0	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	17939	0	KED
|	**Ni**	**60**	**48.246**	ug/L	1.665	3	2	17966	3	KED
|	**Ni**	**62**	**48.586**	ug/L	0.570	1	0	2665	1	KED
|	**Cu**	**63**	**48.099**	ug/L	2.208	4	3	46049	4	KED
|	**Cu**	**65**	**48.316**	ug/L	1.093	2	4	22313	2	KED
|	**Zn**	**66**	**48.756**	ug/L	0.710	1	7	5072	1	KED
|	**Zn**	**67**	**48.910**	ug/L	3.397	6	3	828	6	KED
⌊	**As**	**75**	**49.306**	ug/L	1.058	2	8	2989	2	KED
	Y	**89**		ug/L			907188	919642	0	Standard
	Kr	**83**		ug/L			61	72	14	Standard
⌈>	**In-1**	**115**		ug/L			3910	3635	2	KED
|	**Cd**	**111**	**49.562**	ug/L	0.937	1	1	1984	2	KED
⌊	**Cd**	**114**	**48.063**	ug/L	0.979	2	2	5386	1	KED
⌈>	**In**	**115**		ug/L			3218354	3062550	1	Standard
⌊	**Ag**	**107**	**38.437**	ug/L	0.759	1	60	837790	1	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2650021	2	Standard
⌊	**Pb**	**208**	**49.446**	ug/L	0.470	0	405	6124281	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 19:19:12
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	57147	0	Standard
	Cl	**37**		ug/L			11457090	11359814	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	3223084	2	Standard
|	**Cr**	**52**	**-0.059**	ug/L	0.045	76	46408	44192	2	Standard
|	**Cr**	**53**	**-0.002**	ug/L	0.004	160	200	190	9	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.001	98	945	985	4	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	18804	1	KED
|	**Ni**	**60**	**0.003**	ug/L	0.005	147	2	3	50	KED
|	**Ni**	**62**	**0.011**	ug/L	0.019	173	0	0	173	KED
|	**Cu**	**63**	**0.006**	ug/L	0.001	16	3	10	10	KED
|	**Cu**	**65**	**-0.005**	ug/L	0.004	76	4	1	100	KED
|	**Zn**	**66**	**-0.041**	ug/L	0.010	24	7	3	34	KED
|	**Zn**	**67**	**0.074**	ug/L	0.226	305	3	4	89	KED
⌊	**As**	**75**	**-0.017**	ug/L	0.026	156	8	7	23	KED
	Y	**89**		ug/L			907188	916479	3	Standard
	Kr	**83**		ug/L			61	58	9	Standard
⌈>	**In-1**	**115**		ug/L			3910	3712	1	KED
|	**Cd**	**111**	**0.049**	ug/L	0.062	126	1	3	66	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.025	1763	2	2	115	KED
⌈>	**In**	**115**		ug/L			3218354	3103383	0	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	50	60	85	15	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2574710	1	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.000	11	405	643	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-30
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 19:26:54

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	14652	42	Standard
	Cl	**37**		ug/L			11457090	2355378	74	Standard
⌈>	**Sc**	**45**		ug/L			3217224	1174039	160	Standard
|	**Cr**	**52**	**1.605**	ug/L	3.813	237	46408	5071	122	Standard
|	**Cr**	**53**	**0.434**	ug/L	0.729	168	200	37	65	Standard
⌊	**Mn**	**55**	**0.145**	ug/L	0.238	163	945	212	87	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	43177	5	KED
|	**Ni**	**60**	**-0.001**	ug/L	0.005	340	2	4	89	KED
|	**Ni**	**62**	**0.005**	ug/L	0.009	173	0	0	173	KED
|	**Cu**	**63**	**0.000**	ug/L	0.002	1285	3	8	44	KED
|	**Cu**	**65**	**-0.006**	ug/L	0.003	39	4	3	91	KED
|	**Zn**	**66**	**-0.052**	ug/L	0.017	31	7	4	98	KED
|	**Zn**	**67**	**-0.132**	ug/L	0.003	2	3	1		KED
⌊	**As**	**75**	**-0.042**	ug/L	0.018	42	8	12	14	KED
	Y	**89**		ug/L			907188	393946	159	Standard
	Kr	**83**		ug/L			61	33	69	Standard
⌈>	**In-1**	**115**		ug/L			3910	8020	4	KED
|	**Cd**	**111**	**-0.022**	ug/L	0.011	49	1	1	50	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.008	337	2	5	33	KED
⌈>	**In**	**115**		ug/L			3218354	1251945	157	Standard
⌊	**Ag**	**107**	**0.145**	ug/L	0.228	157	60	64	35	Standard
⌈>	**Tb**	**159**		ug/L			2625347	1106537	150	Standard
⌊	**Pb**	**208**	**0.107**	ug/L	0.168	156	405	436	33	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-32
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 19:30:52
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	80997	0	Standard
	Cl	37		ug/L			11457090	10784976	1	Standard
>	Sc	45		ug/L			3217224	3164113	0	Standard
	Cr	52	0.366	ug/L	0.023	6	46408	59601	1	Standard
	Cr	53	0.401	ug/L	0.010	2	200	1821	2	Standard
	Mn	55	0.773	ug/L	0.022	2	945	38806	2	Standard
>	Ge-1	72		ug/L			18903	16291	1	KED
	Ni	60	0.243	ug/L	0.034	13	2	84	14	KED
	Ni	62	0.380	ug/L	0.246	64	0	19	65	KED
	Cu	63	0.284	ug/L	0.010	3	3	250	2	KED
	Cu	65	0.232	ug/L	0.018	7	4	100	6	KED
	Zn	66	1.566	ug/L	0.093	5	7	154	4	KED
	Zn	67	2.274	ug/L	1.167	51	3	37	46	KED
	As	75	0.058	ug/L	0.035	60	8	10	19	KED
	Y	89		ug/L			907188	843048	4	Standard
	Kr	83		ug/L			61	76	23	Standard
>	In-1	115		ug/L			3910	3210	2	KED
	Cd	111	0.190	ug/L	0.138	72	1	8	59	KED
	Cd	114	0.239	ug/L	0.005	2	2	25	4	KED
>	In	115		ug/L			3218354	2912452	2	Standard
	Ag	107	0.001	ug/L	0.000	28	60	71	4	Standard
>	Tb	159		ug/L			2625347	2513384	2	Standard
	Pb	208	0.008	ug/L	0.001	7	405	1327	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-34
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 19:34:50
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	82304	2	Standard
	Cl	37		ug/L			11457090	10934892	3	Standard
⌈>	Sc	45		ug/L			3217224	3136830	2	Standard
|	Cr	52	0.132	ug/L	0.084	63	46408	50226	5	Standard
|	Cr	53	0.162	ug/L	0.010	5	200	844	6	Standard
⌊	Mn	55	2.532	ug/L	0.129	5	945	123922	5	Standard
⌈>	Ge-1	72		ug/L			18903	17374	0	KED
|	Ni	60	0.067	ug/L	0.009	13	2	26	12	KED
|	Ni	62	0.072	ug/L	0.095	132	0	3	132	KED
|	Cu	63	0.426	ug/L	0.034	8	3	398	7	KED
|	Cu	65	0.387	ug/L	0.036	9	4	177	8	KED
|	Zn	66	1.104	ug/L	0.208	18	7	118	18	KED
|	Zn	67	1.762	ug/L	0.477	27	3	31	24	KED
⌊	As	75	0.139	ug/L	0.041	29	8	15	16	KED
	Y	89		ug/L			907188	871441	3	Standard
	Kr	83		ug/L			61	55	16	Standard
⌈>	In-1	115		ug/L			3910	3470	1	KED
|	Cd	111	0.072	ug/L	0.039	53	1	4	32	KED
⌊	Cd	114	0.040	ug/L	0.021	51	2	6	35	KED
⌈>	In	115		ug/L			3218354	2991722	1	Standard
⌊	Ag	107	0.004	ug/L	0.001	23	60	132	14	Standard
⌈>	Tb	159		ug/L			2625347	2543647	1	Standard
⌊	Pb	208	0.017	ug/L	0.001	4	405	2453	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-17
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, June 22, 2018 19:38:49
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	66250	1	Standard
	Cl	**37**		ug/L			11457090	10843279	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	3145200	1	Standard
|	**Cr**	**52**	**0.011**	ug/L	0.053	486	46408	45774	3	Standard
|	**Cr**	**53**	**0.032**	ug/L	0.002	6	200	324	3	Standard
⌊	**Mn**	**55**	**179.905**	ug/L	6.227	3	945	8761486	2	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	17961	1	KED
|	**Ni**	**60**	**1.659**	ug/L	0.054	3	2	620	4	KED
|	**Ni**	**62**	**1.562**	ug/L	0.197	12	0	85	11	KED
|	**Cu**	**63**	**2.717**	ug/L	0.179	6	3	2606	5	KED
|	**Cu**	**65**	**2.749**	ug/L	0.174	6	4	1274	6	KED
|	**Zn**	**66**	**66.697**	ug/L	2.715	4	7	6942	3	KED
|	**Zn**	**67**	**62.294**	ug/L	4.080	6	3	1055	5	KED
⌊	**As**	**75**	**0.030**	ug/L	0.026	85	8	9	17	KED
	Y	**89**		ug/L			907188	911661	3	Standard
	Kr	**83**		ug/L			61	95	16	Standard
⌈>	**In-1**	**115**		ug/L			3910	3704	1	KED
|	**Cd**	**111**	**0.478**	ug/L	0.078	16	1	21	13	KED
⌊	**Cd**	**114**	**0.362**	ug/L	0.058	16	2	43	15	KED
⌈>	**In**	**115**		ug/L			3218354	3042302	0	Standard
⌊	**Ag**	**107**	**0.005**	ug/L	0.001	26	60	163	17	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2584302	0	Standard
⌊	**Pb**	**208**	**0.039**	ug/L	0.001	2	405	5086	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-10
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 19:42:48
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	82470	2	Standard
	Cl	37		ug/L			11457090	10675137	3	Standard
>	Sc	45		ug/L			3217224	3136561	2	Standard
	Cr	52	0.463	ug/L	0.067	14	46408	62687	1	Standard
	Cr	53	0.512	ug/L	0.022	4	200	2249	3	Standard
	Mn	55	73.338	ug/L	1.945	2	945	3562195	2	Standard
>	Ge-1	72		ug/L			18903	17515	2	KED
	Ni	60	3.417	ug/L	0.106	3	2	1245	5	KED
	Ni	62	3.235	ug/L	0.121	3	0	173	6	KED
	Cu	63	20.007	ug/L	0.291	1	3	18697	0	KED
	Cu	65	19.908	ug/L	0.519	2	4	8976	1	KED
	Zn	66	142.628	ug/L	2.566	1	7	14469	0	KED
	Zn	67	137.688	ug/L	3.791	2	3	2271	1	KED
	As	75	0.050	ug/L	0.033	65	8	10	20	KED
	Y	89		ug/L			907188	902573	2	Standard
	Kr	83		ug/L			61	67	9	Standard
>	In-1	115		ug/L			3910	3596	1	KED
	Cd	111	5.136	ug/L	0.159	3	1	205	4	KED
	Cd	114	5.339	ug/L	0.306	5	2	593	4	KED
>	In	115		ug/L			3218354	2947540	1	Standard
	Ag	107	0.002	ug/L	0.001	30	60	93	11	Standard
>	Tb	159		ug/L			2625347	2525014	0	Standard
	Pb	208	0.048	ug/L	0.001	1	405	6062	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0437-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 19:46:47
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	82300	3	Standard
	Cl	37		ug/L			11457090	10908598	1	Standard
>	Sc	45		ug/L			3217224	3193947	1	Standard
	Cr	52	0.228	ug/L	0.026	11	46408	54835	0	Standard
	Cr	53	0.225	ug/L	0.004	1	200	1116	2	Standard
	Mn	55	74.472	ug/L	2.397	3	945	3683470	2	Standard
>	Ge-1	72		ug/L			18903	17290	1	KED
	Ni	60	3.506	ug/L	0.101	2	2	1260	1	KED
	Ni	62	3.491	ug/L	0.457	13	0	184	14	KED
	Cu	63	20.139	ug/L	0.402	1	3	18585	2	KED
	Cu	65	19.793	ug/L	0.519	2	4	8812	3	KED
	Zn	66	146.159	ug/L	1.642	1	7	14639	0	KED
	Zn	67	134.650	ug/L	6.238	4	3	2192	3	KED
	As	75	0.020	ug/L	0.033	164	8	8	22	KED
	Y	89		ug/L			907188	888859	2	Standard
	Kr	83		ug/L			61	71	18	Standard
>	In-1	115		ug/L			3910	3516	1	KED
	Cd	111	5.502	ug/L	0.405	7	1	214	7	KED
	Cd	114	4.950	ug/L	0.227	4	2	538	3	KED
>	In	115		ug/L			3218354	2971471	1	Standard
	Ag	107	0.001	ug/L	0.001	47	60	80	13	Standard
>	Tb	159		ug/L			2625347	2548818	0	Standard
	Pb	208	0.039	ug/L	0.001	2	405	4997	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-18
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, June 22, 2018 19:50:46
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	65328	1	Standard
	Cl	**37**		ug/L			11457090	10540576	0	Standard
⌈>	**Sc**	**45**		ug/L			3217224	3041333	1	Standard
|	**Cr**	**52**	**0.002**	ug/L	0.039	2015	46408	43941	3	Standard
|	**Cr**	**53**	**0.029**	ug/L	0.003	10	200	303	4	Standard
⌊	**Mn**	**55**	**172.980**	ug/L	3.845	2	945	8146376	1	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	17489	2	KED
|	**Ni**	**60**	**1.610**	ug/L	0.155	9	2	587	11	KED
|	**Ni**	**62**	**1.455**	ug/L	0.344	23	0	78	25	KED
|	**Cu**	**63**	**2.677**	ug/L	0.031	1	3	2502	3	KED
|	**Cu**	**65**	**2.539**	ug/L	0.109	4	4	1147	5	KED
|	**Zn**	**66**	**62.903**	ug/L	1.233	1	7	6375	0	KED
|	**Zn**	**67**	**59.697**	ug/L	0.465	0	3	985	3	KED
⌊	**As**	**75**	**0.056**	ug/L	0.047	83	8	10	26	KED
	Y	**89**		ug/L			907188	891487	1	Standard
	Kr	**83**		ug/L			61	86	12	Standard
⌈>	**In-1**	**115**		ug/L			3910	3510	1	KED
|	**Cd**	**111**	**0.407**	ug/L	0.090	21	1	17	20	KED
⌊	**Cd**	**114**	**0.330**	ug/L	0.030	9	2	37	8	KED
⌈>	**In**	**115**		ug/L			3218354	2952589	1	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.001	30	60	104	15	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2539947	0	Standard
⌊	**Pb**	**208**	**0.039**	ug/L	0.001	3	405	5069	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0437-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 19:54:45
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	85724	1	Standard
	Cl	37		ug/L			11457090	10830145	1	Standard
>	Sc	45		ug/L			3217224	3205841	2	Standard
	Cr	52	23.360	ug/L	0.582	2	46408	948772	0	Standard
	Cr	53	24.143	ug/L	0.422	1	200	99257	1	Standard
	Mn	55	91.326	ug/L	3.890	4	945	4532132	2	Standard
>	Ge-1	72		ug/L			18903	17306	1	KED
	Ni	60	29.084	ug/L	0.620	2	2	10451	3	KED
	Ni	62	27.677	ug/L	2.081	7	0	1464	7	KED
	Cu	63	44.416	ug/L	0.878	1	3	41013	0	KED
	Cu	65	44.774	ug/L	0.451	1	4	19947	0	KED
	Zn	66	220.454	ug/L	3.869	1	7	22100	2	KED
	Zn	67	203.805	ug/L	8.851	4	3	3322	5	KED
	As	75	24.434	ug/L	0.919	3	8	1433	4	KED
	Y	89		ug/L			907188	883963	2	Standard
	Kr	83		ug/L			61	77	18	Standard
>	In-1	115		ug/L			3910	3395	4	KED
	Cd	111	31.028	ug/L	1.943	6	1	1158	1	KED
	Cd	114	31.397	ug/L	1.071	3	2	3284	2	KED
>	In	115		ug/L			3218354	2954186	1	Standard
	Ag	107	21.073	ug/L	0.339	1	60	443099	1	Standard
>	Tb	159		ug/L			2625347	2501761	1	Standard
	Pb	208	26.006	ug/L	0.397	1	405	3041566	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0437-MSD1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 19:59:01
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	84359	3	Standard
	Cl	37		ug/L			11457090	10822663	1	Standard
⌈>	Sc	45		ug/L			3217224	3149272	2	Standard
|	Cr	52	23.919	ug/L	0.580	2	46408	953430	2	Standard
|	Cr	53	24.930	ug/L	0.692	2	200	100657	1	Standard
⌊	Mn	55	98.566	ug/L	5.015	5	945	4805049	3	Standard
⌈>	Ge-1	72		ug/L			18903	17122	2	KED
|	Ni	60	28.932	ug/L	0.161	0	2	10284	2	KED
|	Ni	62	28.931	ug/L	1.231	4	0	1513	2	KED
|	Cu	63	45.601	ug/L	0.948	2	3	41655	1	KED
|	Cu	65	45.366	ug/L	1.513	3	4	19988	1	KED
|	Zn	66	227.185	ug/L	3.521	1	7	22527	0	KED
|	Zn	67	213.642	ug/L	7.665	3	3	3442	1	KED
⌊	As	75	24.630	ug/L	0.697	2	8	1428	0	KED
	Y	89		ug/L			907188	896284	4	Standard
	Kr	83		ug/L			61	81	16	Standard
⌈>	In-1	115		ug/L			3910	3484	1	KED
|	Cd	111	30.744	ug/L	0.904	2	1	1180	2	KED
⌊	Cd	114	29.928	ug/L	0.845	2	2	3215	2	KED
⌈>	In	115		ug/L			3218354	2951566	1	Standard
⌊	Ag	107	21.345	ug/L	0.522	2	60	448496	2	Standard
⌈>	Tb	159		ug/L			2625347	2523175	0	Standard
⌊	Pb	208	26.061	ug/L	0.173	0	405	3073916	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0265-01
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, June 22, 2018 20:03:02

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	566320	1	Standard
	Cl	**37**		ug/L			11457090	10832471	3	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2959202	1	Standard
|	**Cr**	**52**	**132.769**	ug/L	1.760	1	46408	4779857	1	Standard
|	**Cr**	**53**	**128.910**	ug/L	0.991	0	200	488516	0	Standard
⌊	**Mn**	**55**	**40.066**	ug/L	0.298	0	945	1836901	0	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	16249	1	KED
|	**Ni**	**60**	**5.563**	ug/L	0.121	2	2	1878	3	KED
|	**Ni**	**62**	**5.224**	ug/L	0.320	6	0	259	7	KED
|	**Cu**	**63**	**2.240**	ug/L	0.077	3	3	1944	3	KED
|	**Cu**	**65**	**2.259**	ug/L	0.056	2	4	948	1	KED
|	**Zn**	**66**	**201.005**	ug/L	8.240	4	7	18913	2	KED
|	**Zn**	**67**	**186.684**	ug/L	1.961	1	3	2856	0	KED
⌊	**As**	**75**	**0.102**	ug/L	0.007	6	8	12	2	KED
	Y	**89**		ug/L			907188	842661	0	Standard
	Kr	**83**		ug/L			61	74	15	Standard
⌈>	**In-1**	**115**		ug/L			3910	3253	0	KED
|	**Cd**	**111**	**0.976**	ug/L	0.235	24	1	36	22	KED
⌊	**Cd**	**114**	**0.773**	ug/L	0.123	15	2	79	15	KED
⌈>	**In**	**115**		ug/L			3218354	2873573	1	Standard
⌊	**Ag**	**107**	**0.079**	ug/L	0.003	3	60	1676	2	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2530150	0	Standard
⌊	**Pb**	**208**	**0.211**	ug/L	0.001	0	405	25390	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV9
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 20:08:06
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	57034	1	Standard
	Cl	**37**		ug/L			11457090	11106685	2	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2980296	0	Standard
|	**Cr**	**52**	**46.096**	ug/L	2.528	5	46408	1699584	5	Standard
|	**Cr**	**53**	**47.422**	ug/L	1.949	4	200	181137	4	Standard
⌊	**Mn**	**55**	**47.552**	ug/L	0.780	1	945	2195613	1	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	16657	1	KED
|	**Ni**	**60**	**49.117**	ug/L	1.087	2	2	16980	0	KED
|	**Ni**	**62**	**48.742**	ug/L	0.898	1	0	2482	1	KED
|	**Cu**	**63**	**48.930**	ug/L	2.163	4	3	43478	3	KED
|	**Cu**	**65**	**48.800**	ug/L	1.640	3	4	20925	3	KED
|	**Zn**	**66**	**51.802**	ug/L	1.176	2	7	5002	0	KED
|	**Zn**	**67**	**50.663**	ug/L	3.650	7	3	796	5	KED
⌊	**As**	**75**	**49.616**	ug/L	1.584	3	8	2792	2	KED
	Y	**89**		ug/L			907188	817964	0	Standard
	Kr	**83**		ug/L			61	52	19	Standard
⌈>	**In-1**	**115**		ug/L			3910	3409	1	KED
|	**Cd**	**111**	**48.692**	ug/L	2.273	4	1	1827	3	KED
⌊	**Cd**	**114**	**48.716**	ug/L	1.540	3	2	5120	2	KED
⌈>	**In**	**115**		ug/L			3218354	2917399	1	Standard
⌊	**Ag**	**107**	**38.061**	ug/L	0.901	2	60	790295	2	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2521965	1	Standard
⌊	**Pb**	**208**	**50.117**	ug/L	0.428	0	405	5907819	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB9
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 20:14:49
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	56996	1	Standard
	Cl	**37**		ug/L			11457090	11082274	3	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2951026	1	Standard
|	**Cr**	**52**	**-0.047**	ug/L	0.011	24	46408	40899	2	Standard
|	**Cr**	**53**	**-0.005**	ug/L	0.002	42	200	164	6	Standard
⌊	**Mn**	**55**	**0.000**	ug/L	0.001	377	945	878	4	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	17441	1	KED
|	**Ni**	**60**	**0.004**	ug/L	0.011	260	2	3	100	KED
|	**Ni**	**62**	**0.024**	ug/L	0.020	86	0	1	86	KED
|	**Cu**	**63**	**0.003**	ug/L	0.006	207	3	6	91	KED
|	**Cu**	**65**	**-0.002**	ug/L	0.002	118	4	3	34	KED
|	**Zn**	**66**	**0.018**	ug/L	0.060	334	7	8	68	KED
|	**Zn**	**67**	**-0.025**	ug/L	0.174	698	3	2	114	KED
⌊	**As**	**75**	**0.025**	ug/L	0.024	95	8	9	13	KED
	Y	**89**		ug/L			907188	809692	1	Standard
	Kr	**83**		ug/L			61	57	11	Standard
⌈>	**In-1**	**115**		ug/L			3910	3608	1	KED
|	**Cd**	**111**	**-0.020**	ug/L	0.024	121	1	0	100	KED
⌊	**Cd**	**114**	**0.007**	ug/L	0.009	136	2	3	34	KED
⌈>	**In**	**115**		ug/L			3218354	2906179	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	30	60	77	7	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2435080	1	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	14	405	516	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-30
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 20:18:49
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	81766	0	Standard
	Cl	37		ug/L			11457090	10465943	1	Standard
>	Sc	45		ug/L			3217224	3043512	1	Standard
	Cr	52	0.133	ug/L	0.003	2	46408	48793	1	Standard
	Cr	53	0.131	ug/L	0.005	3	200	700	1	Standard
	Mn	55	268.803	ug/L	3.840	1	945	12668942	0	Standard
>	Ge-1	72		ug/L			18903	15998	0	KED
	Ni	60	8.170	ug/L	0.387	4	2	2715	4	KED
	Ni	62	8.113	ug/L	0.403	4	0	396	4	KED
	Cu	63	6.968	ug/L	0.224	3	3	5951	3	KED
	Cu	65	6.833	ug/L	0.266	3	4	2817	3	KED
	Zn	66	151.232	ug/L	3.118	2	7	14017	2	KED
	Zn	67	141.598	ug/L	1.021	0	3	2134	0	KED
	As	75	0.029	ug/L	0.035	119	8	8	22	KED
	Y	89		ug/L			907188	880690	3	Standard
	Kr	83		ug/L			61	90	6	Standard
>	In-1	115		ug/L			3910	3195	4	KED
	Cd	111	1.692	ug/L	0.119	7	1	60	4	KED
	Cd	114	1.718	ug/L	0.138	8	2	171	9	KED
>	In	115		ug/L			3218354	2860791	1	Standard
	Ag	107	0.002	ug/L	0.001	44	60	88	17	Standard
>	Tb	159		ug/L			2625347	2455043	1	Standard
	Pb	208	0.019	ug/L	0.001	3	405	2606	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-36
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 20:22:48
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	77474	1	Standard
	Cl	37		ug/L			11457090	11026374	2	Standard
⌈>	Sc	45		ug/L			3217224	3088211	2	Standard
|	Cr	52	0.102	ug/L	0.046	45	46408	48331	3	Standard
|	Cr	53	0.130	ug/L	0.011	8	200	705	4	Standard
⌊	Mn	55	0.468	ug/L	0.084	17	945	23217	14	Standard
⌈>	Ge-1	72		ug/L			18903	17351	0	KED
|	Ni	60	0.138	ug/L	0.017	12	2	52	11	KED
|	Ni	62	0.180	ug/L	0.037	20	0	9	20	KED
|	Cu	63	8.357	ug/L	0.158	1	3	7740	1	KED
|	Cu	65	8.183	ug/L	0.150	1	4	3658	1	KED
|	Zn	66	71.547	ug/L	0.687	0	7	7196	1	KED
|	Zn	67	66.502	ug/L	4.981	7	3	1088	6	KED
⌊	As	75	0.085	ug/L	0.038	44	8	12	17	KED
	Y	89		ug/L			907188	829045	0	Standard
	Kr	83		ug/L			61	58	15	Standard
⌈>	In-1	115		ug/L			3910	3410	4	KED
|	Cd	111	0.522	ug/L	0.030	5	1	21	9	KED
⌊	Cd	114	0.503	ug/L	0.083	16	2	54	12	KED
⌈>	In	115		ug/L			3218354	2987085	0	Standard
⌊	Ag	107	0.007	ug/L	0.005	69	60	205	50	Standard
⌈>	Tb	159		ug/L			2625347	2503466	1	Standard
⌊	Pb	208	0.016	ug/L	0.006	36	405	2240	30	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-21
Sample Dil Factor: 50
Comments:
Sample Date/Time: Friday, June 22, 2018 20:26:47
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	61879	0	Standard
	Cl	**37**		ug/L			11457090	10778675	2	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2917152	3	Standard
|	**Cr**	**52**	**-0.001**	ug/L	0.068	5430	46408	41987	2	Standard
|	**Cr**	**53**	**0.023**	ug/L	0.008	37	200	265	9	Standard
⌊	**Mn**	**55**	**145.538**	ug/L	5.136	3	945	6571906	2	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	17573	0	KED
|	**Ni**	**60**	**1.134**	ug/L	0.020	1	2	415	2	KED
|	**Ni**	**62**	**1.146**	ug/L	0.184	16	0	61	15	KED
|	**Cu**	**63**	**1.164**	ug/L	0.042	3	3	1095	3	KED
|	**Cu**	**65**	**1.162**	ug/L	0.086	7	4	529	7	KED
|	**Zn**	**66**	**16.602**	ug/L	0.215	1	7	1696	1	KED
|	**Zn**	**67**	**15.531**	ug/L	1.179	7	3	259	7	KED
⌊	**As**	**75**	**0.039**	ug/L	0.040	102	8	10	23	KED
	Y	**89**		ug/L			907188	833953	0	Standard
	Kr	**83**		ug/L			61	84	22	Standard
⌈>	**In-1**	**115**		ug/L			3910	3496	1	KED
|	**Cd**	**111**	**0.186**	ug/L	0.034	18	1	8	16	KED
⌊	**Cd**	**114**	**0.167**	ug/L	0.047	28	2	20	27	KED
⌈>	**In**	**115**		ug/L			3218354	2947050	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	91	60	74	23	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2436184	0	Standard
⌊	**Pb**	**208**	**0.030**	ug/L	0.002	6	405	3784	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-40
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 20:30:46
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	13		ug/L			56254	86063	1	Standard
Cl	37		ug/L			11457090	8900490	1	Standard
> Sc	45		ug/L			3217224	2549420	2	Standard
Cr	52	**0.130**	ug/L	0.049	37	46408	40745	2	Standard
Cr	53	**0.105**	ug/L	0.010	9	200	500	4	Standard
Mn	55	**545.606**	ug/L	11.286	2	945	21537917	2	Standard
> Ge-1	72		ug/L			18903	10969	1	KED
Ni	60	**0.233**	ug/L	0.009	4	2	54	4	KED
Ni	62	**0.095**	ug/L	0.033	34	0	3	34	KED
Cu	63	**0.041**	ug/L	0.006	15	3	26	15	KED
Cu	65	**0.067**	ug/L	0.003	4	4	21	5	KED
Zn	66	**1.218**	ug/L	0.190	15	7	81	16	KED
Zn	67	**1.240**	ug/L	0.409	32	3	14	27	KED
As	75	**0.309**	ug/L	0.098	31	8	16	20	KED
Y	89		ug/L			907188	702391	2	Standard
Kr	83		ug/L			61	139	17	Standard
> In-1	115		ug/L			3910	2130	2	KED
Cd	111	**0.104**	ug/L	0.093	89	1	3	62	KED
Cd	114	**0.012**	ug/L	0.017	137	2	2	50	KED
> In	115		ug/L			3218354	2423717	2	Standard
Ag	107	**0.001**	ug/L	0.000	46	60	63	15	Standard
> Tb	159		ug/L			2625347	2406232	0	Standard
Pb	208	**0.002**	ug/L	0.000	14	405	608	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-42
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 20:34:45
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	78535	0	Standard
	Cl	37		ug/L			11457090	10526078	3	Standard
>	Sc	45		ug/L			3217224	3014556	2	Standard
	Cr	52	0.661	ug/L	0.045	6	46408	67502	2	Standard
	Cr	53	0.726	ug/L	0.018	2	200	2989	4	Standard
	Mn	55	0.662	ug/L	0.247	37	945	31634	33	Standard
>	Ge-1	72		ug/L			18903	15996	0	KED
	Ni	60	0.095	ug/L	0.036	38	2	33	36	KED
	Ni	62	0.117	ug/L	0.039	33	0	5	33	KED
	Cu	63	0.651	ug/L	0.025	3	3	559	4	KED
	Cu	65	0.671	ug/L	0.046	6	4	280	7	KED
	Zn	66	13.599	ug/L	0.258	1	7	1266	1	KED
	Zn	67	11.925	ug/L	1.044	8	3	182	9	KED
	As	75	0.383	ug/L	0.031	8	8	27	6	KED
	Y	89		ug/L			907188	811688	0	Standard
	Kr	83		ug/L			61	53	11	Standard
>	In-1	115		ug/L			3910	3179	1	KED
	Cd	111	0.046	ug/L	0.056	121	1	3	62	KED
	Cd	114	-0.007	ug/L	0.003	45	2	1	25	KED
>	In	115		ug/L			3218354	2932247	0	Standard
	Ag	107	0.001	ug/L	0.000	47	60	75	12	Standard
>	Tb	159		ug/L			2625347	2496866	1	Standard
	Pb	208	0.019	ug/L	0.001	3	405	2617	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-44
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 20:38:43
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	90397	1	Standard
	Cl	37		ug/L			11457090	8731854	2	Standard
>	Sc	45		ug/L			3217224	2558777	1	Standard
	Cr	52	0.102	ug/L	0.032	30	46408	40057	3	Standard
	Cr	53	0.128	ug/L	0.015	11	200	578	9	Standard
	Mn	55	563.342	ug/L	2.888	0	945	22324246	1	Standard
>	Ge-1	72		ug/L			18903	10592	1	KED
	Ni	60	0.222	ug/L	0.044	19	2	50	17	KED
	Ni	62	0.157	ug/L	0.036	23	0	5	21	KED
	Cu	63	0.078	ug/L	0.004	5	3	46	6	KED
	Cu	65	0.058	ug/L	0.025	43	4	18	39	KED
	Zn	66	1.545	ug/L	0.033	2	7	99	1	KED
	Zn	67	2.175	ug/L	0.449	20	3	23	20	KED
	As	75	0.369	ug/L	0.189	51	8	17	37	KED
	Y	89		ug/L			907188	723469	0	Standard
	Kr	83		ug/L			61	121	5	Standard
>	In-1	115		ug/L			3910	1997	1	KED
	Cd	111	0.043	ug/L	0.044	103	1	1	50	KED
	Cd	114	0.023	ug/L	0.018	76	2	2	40	KED
>	In	115		ug/L			3218354	2435603	2	Standard
	Ag	107	0.001	ug/L	0.001	83	60	71	29	Standard
>	Tb	159		ug/L			2625347	2439926	0	Standard
	Pb	208	0.005	ug/L	0.000	4	405	890	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-22
Sample Dil Factor: 50
Comments:
Sample Date/Time: Friday, June 22, 2018 20:42:42
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	60956	2	Standard
	Cl	**37**		ug/L			11457090	10266713	2	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2930812	2	Standard
|	**Cr**	**52**	**-0.062**	ug/L	0.024	38	46408	40076	0	Standard
|	**Cr**	**53**	**0.024**	ug/L	0.006	25	200	271	9	Standard
⌊	**Mn**	**55**	**138.273**	ug/L	6.163	4	945	6273805	3	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	16500	3	KED
|	**Ni**	**60**	**1.185**	ug/L	0.252	21	2	406	18	KED
|	**Ni**	**62**	**1.207**	ug/L	0.257	21	0	60	22	KED
|	**Cu**	**63**	**1.208**	ug/L	0.065	5	3	1066	2	KED
|	**Cu**	**65**	**1.105**	ug/L	0.076	6	4	472	3	KED
|	**Zn**	**66**	**17.247**	ug/L	0.774	4	7	1654	4	KED
|	**Zn**	**67**	**14.927**	ug/L	1.275	8	3	234	11	KED
⌊	**As**	**75**	**0.016**	ug/L	0.022	132	8	8	11	KED
	Y	**89**		ug/L			907188	814429	2	Standard
	Kr	**83**		ug/L			61	67	14	Standard
⌈>	**In-1**	**115**		ug/L			3910	3085	3	KED
|	**Cd**	**111**	**0.198**	ug/L	0.095	48	1	8	40	KED
⌊	**Cd**	**114**	**0.207**	ug/L	0.057	27	2	21	22	KED
⌈>	**In**	**115**		ug/L			3218354	2983471	3	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.001	210	60	61	17	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2571852	0	Standard
⌊	**Pb**	**208**	**0.025**	ug/L	0.000	1	405	3373	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-38
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 20:46:41
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	81019	1	Standard
	Cl	37		ug/L			11457090	10409549	3	Standard
>	Sc	45		ug/L			3217224	2977671	2	Standard
	Cr	52	0.121	ug/L	0.055	45	46408	47260	1	Standard
	Cr	53	0.098	ug/L	0.001	1	200	557	2	Standard
	Mn	55	3.350	ug/L	0.076	2	945	155280	0	Standard
>	Ge-1	72		ug/L			18903	16305	0	KED
	Ni	60	1.091	ug/L	0.074	6	2	371	7	KED
	Ni	62	1.237	ug/L	0.483	39	0	61	38	KED
	Cu	63	43.434	ug/L	0.392	0	3	37794	1	KED
	Cu	65	43.125	ug/L	0.598	1	4	18103	1	KED
	Zn	66	385.963	ug/L	8.070	2	7	36450	2	KED
	Zn	67	362.513	ug/L	5.874	1	3	5564	1	KED
	As	75	0.073	ug/L	0.021	28	8	11	9	KED
	Y	89		ug/L			907188	852210	0	Standard
	Kr	83		ug/L			61	67	9	Standard
>	In-1	115		ug/L			3910	3098	0	KED
	Cd	111	2.407	ug/L	0.449	18	1	83	17	KED
	Cd	114	2.295	ug/L	0.073	3	2	221	4	KED
>	In	115		ug/L			3218354	2997575	2	Standard
	Ag	107	0.003	ug/L	0.001	32	60	115	16	Standard
>	Tb	159		ug/L			2625347	2558857	0	Standard
	Pb	208	0.008	ug/L	0.000	4	405	1309	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-46
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 20:50:40
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	76346	0	Standard
	Cl	37		ug/L			11457090	7734510	0	Standard
>	Sc	45		ug/L			3217224	2228350	1	Standard
	Cr	52	**0.091**	ug/L	0.053	58	46408	34594	4	Standard
	Cr	53	**0.130**	ug/L	0.004	3	200	508	2	Standard
	Mn	55	**773.583**	ug/L	13.732	1	945	26692283	0	Standard
>	Ge-1	72		ug/L			18903	7847	0	KED
	Ni	60	**0.762**	ug/L	0.060	7	2	125	7	KED
	Ni	62	**0.503**	ug/L	0.120	23	0	12	24	KED
	Cu	63	**0.060**	ug/L	0.028	46	3	26	43	KED
	Cu	65	**0.057**	ug/L	0.025	43	4	13	37	KED
	Zn	66	**10.790**	ug/L	0.595	5	7	493	4	KED
	Zn	67	**9.969**	ug/L	0.834	8	3	74	8	KED
	As	75	**0.429**	ug/L	0.062	14	8	14	11	KED
	Y	89		ug/L			907188	670327	1	Standard
	Kr	83		ug/L			61	185	5	Standard
>	In-1	115		ug/L			3910	1453	3	KED
	Cd	111	**0.135**	ug/L	0.059	44	1	2	33	KED
	Cd	114	**0.031**	ug/L	0.030	94	2	2	53	KED
>	In	115		ug/L			3218354	2117616	5	Standard
	Ag	107	**0.001**	ug/L	0.001	71	60	53	21	Standard
>	Tb	159		ug/L			2625347	2334762	1	Standard
	Pb	208	**0.002**	ug/L	0.000	22	405	547	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-23
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, June 22, 2018 20:54:39 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	64462	2	Standard
	Cl	**37**		ug/L			11457090	10164045	0	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2896125	1	Standard
|	**Cr**	**52**	**0.046**	ug/L	0.030	65	46408	43366	2	Standard
|	**Cr**	**53**	**0.078**	ug/L	0.011	14	200	470	7	Standard
⌊	**Mn**	**55**	**63.623**	ug/L	1.791	2	945	2853772	1	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	15386	3	KED
|	**Ni**	**60**	**0.961**	ug/L	0.045	4	2	308	1	KED
|	**Ni**	**62**	**1.102**	ug/L	0.367	33	0	51	30	KED
|	**Cu**	**63**	**0.305**	ug/L	0.040	13	3	253	13	KED
|	**Cu**	**65**	**0.257**	ug/L	0.015	6	4	105	2	KED
|	**Zn**	**66**	**6.057**	ug/L	0.230	3	7	546	5	KED
|	**Zn**	**67**	**6.342**	ug/L	0.738	11	3	94	14	KED
⌊	**As**	**75**	**0.052**	ug/L	0.041	79	8	9	19	KED
	Y	**89**		ug/L			907188	819401	0	Standard
	Kr	**83**		ug/L			61	73	10	Standard
⌈>	**In-1**	**115**		ug/L			3910	3106	2	KED
|	**Cd**	**111**	**0.476**	ug/L	0.091	19	1	17	16	KED
⌊	**Cd**	**114**	**0.525**	ug/L	0.198	37	2	52	37	KED
⌈>	**In**	**115**		ug/L			3218354	2892443	2	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	46	60	72	9	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2537450	0	Standard
⌊	**Pb**	**208**	**0.028**	ug/L	0.000	0	405	3703	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVA
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 20:59:43
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	51319	1	Standard
	Cl	37		ug/L			11457090	10623316	0	Standard
>	Sc	45		ug/L			3217224	2823544	0	Standard
	Cr	52	44.924	ug/L	0.736	1	46408	1570033	1	Standard
	Cr	53	47.392	ug/L	0.913	1	200	171472	1	Standard
	Mn	55	43.385	ug/L	0.999	2	945	1897911	2	Standard
>	Ge-1	72		ug/L			18903	15531	1	KED
	Ni	60	48.206	ug/L	0.580	1	2	15541	0	KED
	Ni	62	44.439	ug/L	0.786	1	0	2109	0	KED
	Cu	63	47.285	ug/L	0.941	1	3	39188	2	KED
	Cu	65	46.208	ug/L	0.883	1	4	18472	0	KED
	Zn	66	48.859	ug/L	1.510	3	7	4401	4	KED
	Zn	67	49.428	ug/L	1.258	2	3	725	3	KED
	As	75	48.407	ug/L	0.364	0	8	2540	0	KED
	Y	89		ug/L			907188	822456	2	Standard
	Kr	83		ug/L			61	66	2	Standard
>	In-1	115		ug/L			3910	2990	5	KED
	Cd	111	49.939	ug/L	2.767	5	1	1641	1	KED
	Cd	114	48.336	ug/L	2.377	4	2	4448	3	KED
>	In	115		ug/L			3218354	2827726	1	Standard
	Ag	107	37.114	ug/L	0.427	1	60	747073	2	Standard
>	Tb	159		ug/L			2625347	2507074	0	Standard
	Pb	208	49.440	ug/L	0.310	0	405	5794176	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBA
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 21:06:26
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	51911	2	Standard
	Cl	**37**		ug/L			11457090	10427944	2	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2774258	1	Standard
|	**Cr**	**52**	**-0.047**	ug/L	0.018	38	46408	38437	2	Standard
|	**Cr**	**53**	**-0.000**	ug/L	0.002	2130	200	172	3	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.002	227	945	844	7	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	16438	1	KED
|	**Ni**	**60**	**0.001**	ug/L	0.006	633	2	2	86	KED
|	**Ni**	**62**	**0.025**	ug/L	0.043	173	0	1	173	KED
|	**Cu**	**63**	**0.008**	ug/L	0.003	42	3	10	28	KED
|	**Cu**	**65**	**0.003**	ug/L	0.002	86	4	5	21	KED
|	**Zn**	**66**	**0.004**	ug/L	0.030	838	7	6	41	KED
|	**Zn**	**67**	**-0.054**	ug/L	0.216	403	3	1	173	KED
⌊	**As**	**75**	**0.011**	ug/L	0.028	253	8	7	18	KED
	Y	**89**		ug/L			907188	787301	1	Standard
	Kr	**83**		ug/L			61	60	12	Standard
⌈>	**In-1**	**115**		ug/L			3910	3143	2	KED
|	**Cd**	**111**	**0.011**	ug/L	0.028	257	1	1	50	KED
⌊	**Cd**	**114**	**-0.021**	ug/L	0.001	2	2	0	173	KED
⌈>	**In**	**115**		ug/L			3218354	2818544	1	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.000	45	60	62	4	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2428911	0	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	38	405	514	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-48
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 21:10:26
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	81948	2	Standard
	Cl	37		ug/L			11457090	10177621	3	Standard
>	Sc	45		ug/L			3217224	2943808	1	Standard
	Cr	52	0.587	ug/L	0.029	4	46408	63299	1	Standard
	Cr	53	0.617	ug/L	0.019	3	200	2507	2	Standard
	Mn	55	769.770	ug/L	18.420	2	945	35100673	3	Standard
>	Ge-1	72		ug/L			18903	15070	0	KED
	Ni	60	31.151	ug/L	1.171	3	2	9746	3	KED
	Ni	62	31.285	ug/L	0.927	2	0	1441	2	KED
	Cu	63	144.552	ug/L	2.181	1	3	116245	1	KED
	Cu	65	142.166	ug/L	2.512	1	4	55145	1	KED
	Zn	66	785.854	ug/L	17.978	2	7	68581	2	KED
	Zn	67	728.910	ug/L	21.078	2	3	10337	2	KED
	As	75	0.073	ug/L	0.047	64	8	10	23	KED
	Y	89		ug/L			907188	859812	1	Standard
	Kr	83		ug/L			61	100	14	Standard
>	In-1	115		ug/L			3910	2840	3	KED
	Cd	111	4.874	ug/L	0.305	6	1	153	9	KED
	Cd	114	4.322	ug/L	0.723	16	2	378	13	KED
>	In	115		ug/L			3218354	2917866	2	Standard
	Ag	107	0.002	ug/L	0.001	25	60	101	13	Standard
>	Tb	159		ug/L			2625347	2516100	1	Standard
	Pb	208	0.028	ug/L	0.001	2	405	3692	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-50
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 21:14:25
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	81761	1	Standard
	Cl	37		ug/L			11457090	10316469	1	Standard
⌈>	Sc	45		ug/L			3217224	3037937	1	Standard
|	Cr	52	0.141	ug/L	0.007	5	46408	48979	1	Standard
|	Cr	53	0.219	ug/L	0.012	5	200	1038	3	Standard
⌊	Mn	55	1119.331	ug/L	21.323	1	945	52655100	1	Standard
⌈>	Ge-1	72		ug/L			18903	15281	2	KED
|	Ni	60	15.810	ug/L	0.541	3	2	5013	0	KED
|	Ni	62	14.528	ug/L	0.805	5	0	678	2	KED
|	Cu	63	20.580	ug/L	0.546	2	3	16775	0	KED
|	Cu	65	20.587	ug/L	0.409	1	4	8098	1	KED
|	Zn	66	433.391	ug/L	19.452	4	7	38325	2	KED
|	Zn	67	404.260	ug/L	10.240	2	3	5812	1	KED
⌊	As	75	0.093	ug/L	0.016	16	8	11	4	KED
	Y	89		ug/L			907188	887477	3	Standard
	Kr	83		ug/L			61	95	2	Standard
⌈>	In-1	115		ug/L			3910	3043	4	KED
|	Cd	111	2.687	ug/L	0.371	13	1	91	16	KED
⌊	Cd	114	2.549	ug/L	0.040	1	2	240	3	KED
⌈>	In	115		ug/L			3218354	2940864	1	Standard
⌊	Ag	107	0.002	ug/L	0.001	40	60	91	17	Standard
⌈>	Tb	159		ug/L			2625347	2536085	1	Standard
⌊	Pb	208	0.396	ug/L	0.002	0	405	47330	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-24
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, June 22, 2018 21:18:24 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	61423	1	Standard
	Cl	**37**		ug/L			11457090	10302399	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2878164	4	Standard
|	**Cr**	**52**	**0.008**	ug/L	0.056	661	46408	41759	1	Standard
|	**Cr**	**53**	**0.064**	ug/L	0.009	13	200	413	3	Standard
⌊	**Mn**	**55**	**63.150**	ug/L	2.475	3	945	2812720	0	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	16111	1	KED
|	**Ni**	**60**	**0.916**	ug/L	0.116	12	2	308	13	KED
|	**Ni**	**62**	**0.971**	ug/L	0.390	40	0	47	38	KED
|	**Cu**	**63**	**0.305**	ug/L	0.022	7	3	265	6	KED
|	**Cu**	**65**	**0.263**	ug/L	0.028	10	4	113	11	KED
|	**Zn**	**66**	**5.437**	ug/L	0.238	4	7	513	4	KED
|	**Zn**	**67**	**4.714**	ug/L	0.710	15	3	74	16	KED
⌊	**As**	**75**	**0.028**	ug/L	0.006	21	8	8	5	KED
	Y	**89**		ug/L			907188	807836	3	Standard
	Kr	**83**		ug/L			61	71	6	Standard
⌈>	**In-1**	**115**		ug/L			3910	3200	1	KED
|	**Cd**	**111**	**0.433**	ug/L	0.070	16	1	16	16	KED
⌊	**Cd**	**114**	**0.454**	ug/L	0.032	7	2	46	8	KED
⌈>	**In**	**115**		ug/L			3218354	2879905	1	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.001	832	60	55	19	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2455142	1	Standard
⌊	**Pb**	**208**	**0.022**	ug/L	0.000	1	405	2901	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-52
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 21:22:23
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	76872	0	Standard
	Cl	37		ug/L			11457090	10358248	2	Standard
>	Sc	45		ug/L			3217224	2903200	1	Standard
	Cr	52	0.079	ug/L	0.033	42	46408	44636	1	Standard
	Cr	53	0.117	ug/L	0.005	4	200	614	1	Standard
	Mn	55	1.163	ug/L	0.035	3	945	53126	3	Standard
>	Ge-1	72		ug/L			18903	16385	3	KED
	Ni	60	0.174	ug/L	0.033	18	2	61	20	KED
	Ni	62	0.151	ug/L	0.032	21	0	7	25	KED
	Cu	63	0.490	ug/L	0.066	13	3	429	9	KED
	Cu	65	0.500	ug/L	0.046	9	4	214	10	KED
	Zn	66	1.582	ug/L	0.237	15	7	156	15	KED
	Zn	67	1.759	ug/L	0.268	15	3	29	13	KED
	As	75	0.641	ug/L	0.128	19	8	42	13	KED
	Y	89		ug/L			907188	826526	1	Standard
	Kr	83		ug/L			61	67	14	Standard
>	In-1	115		ug/L			3910	3190	1	KED
	Cd	111	0.074	ug/L	0.058	78	1	4	48	KED
	Cd	114	0.021	ug/L	0.012	57	2	4	27	KED
>	In	115		ug/L			3218354	2935741	1	Standard
	Ag	107	0.000	ug/L	0.000	71	60	65	9	Standard
>	Tb	159		ug/L			2625347	2453119	1	Standard
	Pb	208	0.020	ug/L	0.000	2	405	2668	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-54
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 21:26:22
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	75567	0	Standard
	Cl	37		ug/L			11457090	10418981	0	Standard
>	Sc	45		ug/L			3217224	2923134	1	Standard
	Cr	52	0.164	ug/L	0.019	11	46408	47930	2	Standard
	Cr	53	0.208	ug/L	0.015	7	200	960	4	Standard
	Mn	55	1.664	ug/L	0.045	2	945	76201	3	Standard
>	Ge-1	72		ug/L			18903	16841	2	KED
	Ni	60	0.182	ug/L	0.032	17	2	66	19	KED
	Ni	62	0.136	ug/L	0.021	15	0	6	15	KED
	Cu	63	1.422	ug/L	0.070	4	3	1281	4	KED
	Cu	65	1.382	ug/L	0.057	4	4	603	5	KED
	Zn	66	2.699	ug/L	0.368	13	7	269	12	KED
	Zn	67	3.301	ug/L	0.688	20	3	55	20	KED
	As	75	0.659	ug/L	0.095	14	8	44	12	KED
	Y	89		ug/L			907188	828712	0	Standard
	Kr	83		ug/L			61	66	26	Standard
>	In-1	115		ug/L			3910	3266	0	KED
	Cd	111	0.035	ug/L	0.027	76	1	2	33	KED
	Cd	114	0.062	ug/L	0.029	46	2	8	35	KED
>	In	115		ug/L			3218354	2921019	0	Standard
	Ag	107	0.001	ug/L	0.001	36	60	85	12	Standard
>	Tb	159		ug/L			2625347	2476924	1	Standard
	Pb	208	0.044	ug/L	0.001	3	405	5523	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-56
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 21:30:20
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	75934	0	Standard
	Cl	37		ug/L			11457090	10490860	1	Standard
>	Sc	45		ug/L			3217224	2914474	1	Standard
	Cr	52	0.074	ug/L	0.034	46	46408	44629	2	Standard
	Cr	53	0.121	ug/L	0.007	5	200	631	3	Standard
	Mn	55	10.528	ug/L	0.143	1	945	475997	0	Standard
>	Ge-1	72		ug/L			18903	16368	2	KED
	Ni	60	0.229	ug/L	0.031	13	2	80	10	KED
	Ni	62	0.177	ug/L	0.056	31	0	8	32	KED
	Cu	63	1.103	ug/L	0.077	6	3	967	8	KED
	Cu	65	1.067	ug/L	0.044	4	4	453	2	KED
	Zn	66	5.998	ug/L	0.181	3	7	575	4	KED
	Zn	67	6.055	ug/L	0.565	9	3	95	6	KED
	As	75	0.411	ug/L	0.015	3	8	29	3	KED
	Y	89		ug/L			907188	818209	3	Standard
	Kr	83		ug/L			61	57	21	Standard
>	In-1	115		ug/L			3910	3085	1	KED
	Cd	111	0.097	ug/L	0.100	103	1	4	69	KED
	Cd	114	0.054	ug/L	0.024	43	2	7	30	KED
>	In	115		ug/L			3218354	2893746	1	Standard
	Ag	107	0.001	ug/L	0.000	60	60	70	12	Standard
>	Tb	159		ug/L			2625347	2492947	0	Standard
	Pb	208	0.016	ug/L	0.001	3	405	2209	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-27
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, June 22, 2018 21:34:19

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	59359	2	Standard
	Cl	**37**		ug/L			11457090	9805871	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2834659	1	Standard
|	**Cr**	**52**	**-0.039**	ug/L	0.011	27	46408	39569	2	Standard
|	**Cr**	**53**	**0.041**	ug/L	0.004	10	200	325	3	Standard
⌊	**Mn**	**55**	**164.853**	ug/L	2.703	1	945	7236996	1	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	16507	3	KED
|	**Ni**	**60**	**2.555**	ug/L	0.142	5	2	877	5	KED
|	**Ni**	**62**	**2.653**	ug/L	0.534	20	0	133	17	KED
|	**Cu**	**63**	**5.460**	ug/L	0.058	1	3	4811	2	KED
|	**Cu**	**65**	**5.404**	ug/L	0.256	4	4	2299	5	KED
|	**Zn**	**66**	**52.441**	ug/L	1.324	2	7	5016	0	KED
|	**Zn**	**67**	**51.438**	ug/L	2.132	4	3	801	3	KED
⌊	**As**	**75**	**-0.020**	ug/L	0.055	274	8	6	47	KED
	Y	**89**		ug/L			907188	814254	1	Standard
	Kr	**83**		ug/L			61	84	6	Standard
⌈>	**In-1**	**115**		ug/L			3910	3221	3	KED
|	**Cd**	**111**	**0.410**	ug/L	0.153	37	1	16	35	KED
⌊	**Cd**	**114**	**0.395**	ug/L	0.064	16	2	41	11	KED
⌈>	**In**	**115**		ug/L			3218354	2829722	2	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	19	60	80	7	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2424582	2	Standard
⌊	**Pb**	**208**	**0.027**	ug/L	0.001	2	405	3411	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-58
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 21:38:18
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	73877	1	Standard
	Cl	37		ug/L			11457090	10456239	3	Standard
>	Sc	45		ug/L			3217224	2895372	1	Standard
	Cr	52	0.059	ug/L	0.023	39	46408	43834	1	Standard
	Cr	53	0.087	ug/L	0.003	3	200	501	2	Standard
	Mn	55	1.637	ug/L	0.028	1	945	74262	1	Standard
>	Ge-1	72		ug/L			18903	16708	2	KED
	Ni	60	0.125	ug/L	0.016	12	2	45	14	KED
	Ni	62	0.151	ug/L	0.100	66	0	7	66	KED
	Cu	63	1.030	ug/L	0.028	2	3	921	3	KED
	Cu	65	1.017	ug/L	0.081	7	4	440	6	KED
	Zn	66	3.773	ug/L	0.175	4	7	372	7	KED
	Zn	67	3.613	ug/L	0.424	11	3	59	13	KED
	As	75	0.490	ug/L	0.064	13	8	34	12	KED
	Y	89		ug/L			907188	808448	1	Standard
	Kr	83		ug/L			61	64	15	Standard
>	In-1	115		ug/L			3910	3174	1	KED
	Cd	111	0.056	ug/L	0.042	74	1	3	41	KED
	Cd	114	0.061	ug/L	0.010	17	2	7	13	KED
>	In	115		ug/L			3218354	2878175	1	Standard
	Ag	107	0.001	ug/L	0.001	74	60	69	15	Standard
>	Tb	159		ug/L			2625347	2407838	0	Standard
	Pb	208	0.012	ug/L	0.000	2	405	1698	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-60
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 21:42:17
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	71649	2	Standard
	Cl	37		ug/L			11457090	10325043	3	Standard
⌈>	Sc	45		ug/L			3217224	2767177	2	Standard
|	Cr	52	0.063	ug/L	0.064	101	46408	42020	6	Standard
|	Cr	53	0.071	ug/L	0.012	16	200	424	8	Standard
⌊	Mn	55	2.753	ug/L	0.053	1	945	118749	1	Standard
⌈>	Ge-1	72		ug/L			18903	16665	2	KED
|	Ni	60	0.153	ug/L	0.012	7	2	55	9	KED
|	Ni	62	0.160	ug/L	0.111	69	0	8	70	KED
|	Cu	63	1.168	ug/L	0.032	2	3	1041	3	KED
|	Cu	65	1.170	ug/L	0.062	5	4	505	4	KED
|	Zn	66	5.070	ug/L	0.454	8	7	496	10	KED
|	Zn	67	5.500	ug/L	0.951	17	3	88	15	KED
⌊	As	75	0.683	ug/L	0.093	13	8	45	13	KED
	Y	89		ug/L			907188	795953	2	Standard
	Kr	83		ug/L			61	54	8	Standard
⌈>	In-1	115		ug/L			3910	3047	1	KED
|	Cd	111	0.032	ug/L	0.044	139	1	2	57	KED
⌊	Cd	114	0.037	ug/L	0.021	56	2	5	34	KED
⌈>	In	115		ug/L			3218354	2807523	2	Standard
⌊	Ag	107	0.001	ug/L	0.000	48	60	73	11	Standard
⌈>	Tb	159		ug/L			2625347	2368484	1	Standard
⌊	Pb	208	0.029	ug/L	0.001	4	405	3538	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 21:46:17
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	54687	0	Standard
	Cl	**37**		ug/L			11457090	9995500	2	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2544761	2	Standard
|	**Cr**	**52**	**-0.101**	ug/L	0.028	28	46408	33610	1	Standard
|	**Cr**	**53**	**0.006**	ug/L	0.002	41	200	176	2	Standard
⌊	**Mn**	**55**	**0.003**	ug/L	0.001	40	945	874	7	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	16221	1	KED
|	**Ni**	**60**	**0.010**	ug/L	0.010	92	2	5	57	KED
|	**Ni**	**62**	**0.038**	ug/L	0.001	1	0	1		KED
|	**Cu**	**63**	**0.003**	ug/L	0.000	3	3	5	0	KED
|	**Cu**	**65**	**0.002**	ug/L	0.005	345	4	4	49	KED
|	**Zn**	**66**	**-0.009**	ug/L	0.021	246	7	5	33	KED
|	**Zn**	**67**	**-0.178**	ug/L	0.000	0	3	0		KED
⌊	**As**	**75**	**0.048**	ug/L	0.033	69	8	9	18	KED
	Y	**89**		ug/L			907188	741437	0	Standard
	Kr	**83**		ug/L			61	69	22	Standard
⌈>	**In-1**	**115**		ug/L			3910	2804	0	KED
|	**Cd**	**111**	**0.028**	ug/L	0.018	65	1	2	24	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.022	4197	2	1	103	KED
⌈>	**In**	**115**		ug/L			3218354	2652200	1	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.000	17	60	57	3	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2264437	0	Standard
⌊	**Pb**	**208**	**-0.000**	ug/L	0.000	148	405	323	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 21:51:20
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	49125	1	Standard
	Cl	37		ug/L			11457090	10291240	2	Standard
>	Sc	45		ug/L			3217224	2636690	1	Standard
	Cr	52	45.531	ug/L	1.069	2	46408	1485177	0	Standard
	Cr	53	47.078	ug/L	0.208	0	200	159070	0	Standard
	Mn	55	44.380	ug/L	1.005	2	945	1812612	1	Standard
>	Ge-1	72		ug/L			18903	15382	1	KED
	Ni	60	47.232	ug/L	1.202	2	2	15084	3	KED
	Ni	62	47.071	ug/L	0.591	1	0	2214	2	KED
	Cu	63	47.018	ug/L	0.615	1	3	38600	2	KED
	Cu	65	46.960	ug/L	0.807	1	4	18598	2	KED
	Zn	66	48.914	ug/L	2.419	4	7	4362	4	KED
	Zn	67	48.261	ug/L	1.461	3	3	700	2	KED
	As	75	48.604	ug/L	1.541	3	8	2527	4	KED
	Y	89		ug/L			907188	739635	1	Standard
	Kr	83		ug/L			61	77	22	Standard
>	In-1	115		ug/L			3910	2885	1	KED
	Cd	111	49.910	ug/L	1.022	2	1	1585	1	KED
	Cd	114	48.478	ug/L	1.843	3	2	4311	2	KED
>	In	115		ug/L			3218354	2599839	1	Standard
	Ag	107	37.014	ug/L	1.066	2	60	684764	1	Standard
>	Tb	159		ug/L			2625347	2302171	1	Standard
	Pb	208	50.034	ug/L	0.344	0	405	5384490	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 21:58:03
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	50281	1	Standard
	Cl	**37**		ug/L			11457090	10117901	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2537805	0	Standard
|	**Cr**	**52**	**-0.070**	ug/L	0.005	7	46408	34463	0	Standard
|	**Cr**	**53**	**-0.003**	ug/L	0.003	93	200	148	6	Standard
⌊	**Mn**	**55**	**0.004**	ug/L	0.001	20	945	912	3	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	15724	1	KED
|	**Ni**	**60**	**0.001**	ug/L	0.007	539	2	2	86	KED
|	**Ni**	**62**	**0.026**	ug/L	0.023	86	0	1	86	KED
|	**Cu**	**63**	**0.004**	ug/L	0.004	94	3	6	45	KED
|	**Cu**	**65**	**0.002**	ug/L	0.003	155	4	4	24	KED
|	**Zn**	**66**	**-0.000**	ug/L	0.043	11137	7	6	62	KED
|	**Zn**	**67**	**-0.050**	ug/L	0.002	4	3	1		KED
⌊	**As**	**75**	**-0.001**	ug/L	0.009	1003	8	6	8	KED
	Y	**89**		ug/L			907188	732274	1	Standard
	Kr	**83**		ug/L			61	61	28	Standard
⌈>	**In-1**	**115**		ug/L			3910	2835	3	KED
|	**Cd**	**111**	**0.037**	ug/L	0.015	41	1	2	21	KED
⌊	**Cd**	**114**	**0.015**	ug/L	0.024	159	2	3	69	KED
⌈>	**In**	**115**		ug/L			3218354	2595142	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	62	60	73	20	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2214395	1	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	40	405	439	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-29
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, June 22, 2018 22:02:03 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	56435	0	Standard
	Cl	**37**		ug/L			11457090	9869592	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2575384	1	Standard
|	**Cr**	**52**	**-0.006**	ug/L	0.020	338	46408	36960	0	Standard
|	**Cr**	**53**	**0.040**	ug/L	0.006	14	200	293	5	Standard
⌊	**Mn**	**55**	**58.642**	ug/L	0.836	1	945	2339270	0	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	15600	4	KED
|	**Ni**	**60**	**1.670**	ug/L	0.072	4	2	542	0	KED
|	**Ni**	**62**	**1.510**	ug/L	0.207	13	0	71	9	KED
|	**Cu**	**63**	**1.433**	ug/L	0.013	0	3	1195	3	KED
|	**Cu**	**65**	**1.462**	ug/L	0.042	2	4	590	3	KED
|	**Zn**	**66**	**32.069**	ug/L	1.505	4	7	2899	2	KED
|	**Zn**	**67**	**31.274**	ug/L	1.394	4	3	461	5	KED
⌊	**As**	**75**	**0.045**	ug/L	0.021	45	8	9	13	KED
	Y	**89**		ug/L			907188	758253	1	Standard
	Kr	**83**		ug/L			61	56	25	Standard
⌈>	**In-1**	**115**		ug/L			3910	2940	1	KED
|	**Cd**	**111**	**0.367**	ug/L	0.046	12	1	13	12	KED
⌊	**Cd**	**114**	**0.307**	ug/L	0.056	18	2	29	16	KED
⌈>	**In**	**115**		ug/L			3218354	2658930	2	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.001	1290	60	49	21	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2265576	2	Standard
⌊	**Pb**	**208**	**0.016**	ug/L	0.000	2	405	2081	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-62
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 22:06:02
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	67737	0	Standard
	Cl	37		ug/L			11457090	10005841	1	Standard
>	Sc	45		ug/L			3217224	2655085	1	Standard
	Cr	52	0.075	ug/L	0.015	20	46408	40700	0	Standard
	Cr	53	0.093	ug/L	0.001	1	200	480	1	Standard
	Mn	55	0.870	ug/L	0.017	1	945	36556	0	Standard
>	Ge-1	72		ug/L			18903	15494	3	KED
	Ni	60	0.132	ug/L	0.037	27	2	44	25	KED
	Ni	62	0.173	ug/L	0.054	31	0	8	35	KED
	Cu	63	0.546	ug/L	0.025	4	3	454	5	KED
	Cu	65	0.483	ug/L	0.037	7	4	196	6	KED
	Zn	66	1.986	ug/L	0.219	11	7	184	13	KED
	Zn	67	2.656	ug/L	0.215	8	3	41	5	KED
	As	75	0.216	ug/L	0.075	34	8	17	18	KED
	Y	89		ug/L			907188	755852	0	Standard
	Kr	83		ug/L			61	64	12	Standard
>	In-1	115		ug/L			3910	3018	2	KED
	Cd	111	0.023	ug/L	0.074	319	1	2	107	KED
	Cd	114	0.009	ug/L	0.012	128	2	2	40	KED
>	In	115		ug/L			3218354	2690131	0	Standard
	Ag	107	0.001	ug/L	0.001	91	60	65	20	Standard
>	Tb	159		ug/L			2625347	2272325	0	Standard
	Pb	208	0.009	ug/L	0.000	3	405	1292	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-66
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 22:10:01
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	72466	3	Standard
	Cl	37		ug/L			11457090	10166319	0	Standard
>	Sc	45		ug/L			3217224	2692235	0	Standard
	Cr	52	0.090	ug/L	0.047	52	46408	41753	3	Standard
	Cr	53	0.104	ug/L	0.008	8	200	525	5	Standard
	Mn	55	2.367	ug/L	0.079	3	945	99456	2	Standard
>	Ge-1	72		ug/L			18903	16045	2	KED
	Ni	60	0.146	ug/L	0.045	30	2	50	30	KED
	Ni	62	0.168	ug/L	0.019	11	0	8	13	KED
	Cu	63	1.078	ug/L	0.033	3	3	925	2	KED
	Cu	65	1.004	ug/L	0.040	3	4	418	2	KED
	Zn	66	5.028	ug/L	0.223	4	7	473	5	KED
	Zn	67	5.331	ug/L	0.261	4	3	83	4	KED
	As	75	0.551	ug/L	0.037	6	8	36	7	KED
	Y	89		ug/L			907188	764892	3	Standard
	Kr	83		ug/L			61	48	19	Standard
>	In-1	115		ug/L			3910	3045	2	KED
	Cd	111	0.032	ug/L	0.044	137	1	2	57	KED
	Cd	114	0.091	ug/L	0.051	55	2	10	44	KED
>	In	115		ug/L			3218354	2678504	0	Standard
	Ag	107	0.001	ug/L	0.001	50	60	79	18	Standard
>	Tb	159		ug/L			2625347	2289628	1	Standard
	Pb	208	0.019	ug/L	0.000	0	405	2375	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-37
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, June 22, 2018 22:14:00
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	57397	1	Standard
	Cl	**37**		ug/L			11457090	9856834	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2642831	1	Standard
|	**Cr**	**52**	**-0.022**	ug/L	0.049	225	46408	37416	2	Standard
|	**Cr**	**53**	**0.022**	ug/L	0.001	6	200	238	0	Standard
⌊	**Mn**	**55**	**0.890**	ug/L	0.010	1	945	37221	1	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	15917	3	KED
|	**Ni**	**60**	**0.222**	ug/L	0.048	21	2	74	17	KED
|	**Ni**	**62**	**0.287**	ug/L	0.040	14	0	13	15	KED
|	**Cu**	**63**	**8.744**	ug/L	0.334	3	3	7423	2	KED
|	**Cu**	**65**	**8.566**	ug/L	0.647	7	4	3506	3	KED
|	**Zn**	**66**	**83.820**	ug/L	1.417	1	7	7729	2	KED
|	**Zn**	**67**	**78.648**	ug/L	5.060	6	3	1179	4	KED
⌊	**As**	**75**	**0.035**	ug/L	0.059	166	8	8	38	KED
	Y	**89**		ug/L			907188	756170	1	Standard
	Kr	**83**		ug/L			61	63	6	Standard
⌈>	**In-1**	**115**		ug/L			3910	3063	1	KED
|	**Cd**	**111**	**0.419**	ug/L	0.198	47	1	15	41	KED
⌊	**Cd**	**114**	**0.427**	ug/L	0.159	37	2	42	36	KED
⌈>	**In**	**115**		ug/L			3218354	2686297	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	131	60	64	28	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2287478	1	Standard
⌊	**Pb**	**208**	**0.026**	ug/L	0.001	4	405	3153	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0258-01
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 22:17:59 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	3066142	1	Standard
	Cl	**37**		ug/L			11457090	8922185	2	Standard
>	**Sc**	**45**		ug/L			3217224	2014277	7	Standard
	Cr	**52**	**8.898**	ug/L	0.685	7	46408	244415	2	Standard
	Cr	**53**	**3.261**	ug/L	0.266	8	200	8502	3	Standard
	Mn	**55**	**216.847**	ug/L	16.448	7	945	6741150	2	Standard
>	**Ge-1**	**72**		ug/L			18903	8137	0	KED
	Ni	**60**	**14.360**	ug/L	0.359	2	2	2426	1	KED
	Ni	**62**	**13.936**	ug/L	0.484	3	0	346	2	KED
	Cu	**63**	**1.052**	ug/L	0.127	12	3	458	11	KED
	Cu	**65**	**1.150**	ug/L	0.163	14	4	242	13	KED
	Zn	**66**	**17.564**	ug/L	0.806	4	7	831	5	KED
	Zn	**67**	**21.226**	ug/L	1.515	7	3	163	6	KED
	As	**75**	**0.635**	ug/L	0.079	12	8	20	9	KED
	Y	**89**		ug/L			907188	598309	2	Standard
	Kr	**83**		ug/L			61	175	14	Standard
>	**In-1**	**115**		ug/L			3910	1445	2	KED
	Cd	**111**	**0.295**	ug/L	0.039	13	1	5	10	KED
	Cd	**114**	**0.104**	ug/L	0.061	58	2	5	50	KED
>	**In**	**115**		ug/L			3218354	1885503	1	Standard
	Ag	**107**	**0.002**	ug/L	0.000	21	60	62	9	Standard
>	**Tb**	**159**		ug/L			2625347	1914718	2	Standard
	Pb	**208**	**0.079**	ug/L	0.003	3	405	7355	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0271-01
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, June 22, 2018 22:21:57

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	341325	1	Standard
	Cl	**37**		ug/L			11457090	9798999	0	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2522185	0	Standard
|	**Cr**	**52**	**17.404**	ug/L	0.141	0	46408	565617	0	Standard
|	**Cr**	**53**	**17.402**	ug/L	0.382	2	200	56344	2	Standard
⌊	**Mn**	**55**	**28.412**	ug/L	0.633	2	945	1110419	1	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	13966	2	KED
|	**Ni**	**60**	**2.134**	ug/L	0.069	3	2	620	2	KED
|	**Ni**	**62**	**2.102**	ug/L	0.437	20	0	89	18	KED
|	**Cu**	**63**	**3.627**	ug/L	0.024	0	3	2706	2	KED
|	**Cu**	**65**	**3.589**	ug/L	0.154	4	4	1292	3	KED
|	**Zn**	**66**	**601.827**	ug/L	15.289	2	7	48669	2	KED
|	**Zn**	**67**	**563.052**	ug/L	23.900	4	3	7397	2	KED
⌊	**As**	**75**	**0.086**	ug/L	0.014	16	8	10	5	KED
	Y	**89**		ug/L			907188	734637	0	Standard
	Kr	**83**		ug/L			61	69	47	Standard
⌈>	**In-1**	**115**		ug/L			3910	2653	2	KED
|	**Cd**	**111**	**2.720**	ug/L	0.261	9	1	80	7	KED
⌊	**Cd**	**114**	**2.321**	ug/L	0.194	8	2	191	6	KED
⌈>	**In**	**115**		ug/L			3218354	2665576	0	Standard
⌊	**Ag**	**107**	**0.008**	ug/L	0.004	53	60	203	40	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2325961	1	Standard
⌊	**Pb**	**208**	**0.168**	ug/L	0.013	7	405	18683	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-13
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 22:25:56
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	82853	1	Standard
	Cl	**37**		ug/L			11457090	9762533	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2572879	1	Standard
|	**Cr**	**52**	**0.071**	ug/L	0.015	21	46408	39316	1	Standard
|	**Cr**	**53**	**0.122**	ug/L	0.004	3	200	560	3	Standard
⌊	**Mn**	**55**	**9.482**	ug/L	0.282	2	945	378462	1	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	14454	2	KED
|	**Ni**	**60**	**0.197**	ug/L	0.021	10	2	60	9	KED
|	**Ni**	**62**	**0.245**	ug/L	0.103	41	0	10	40	KED
|	**Cu**	**63**	**1.308**	ug/L	0.104	7	3	1012	8	KED
|	**Cu**	**65**	**1.293**	ug/L	0.017	1	4	484	3	KED
|	**Zn**	**66**	**5.047**	ug/L	0.226	4	7	428	6	KED
|	**Zn**	**67**	**5.147**	ug/L	0.256	4	3	72	2	KED
⌊	**As**	**75**	**0.659**	ug/L	0.021	3	8	38	1	KED
	Y	**89**		ug/L			907188	750533	2	Standard
	Kr	**83**		ug/L			61	59	28	Standard
⌈>	**In-1**	**115**		ug/L			3910	2826	1	KED
|	**Cd**	**111**	**0.119**	ug/L	0.035	29	1	5	21	KED
⌊	**Cd**	**114**	**0.058**	ug/L	0.052	89	2	6	65	KED
⌈>	**In**	**115**		ug/L			3218354	2633857	1	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.000	33	60	57	3	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2288263	1	Standard
⌊	**Pb**	**208**	**0.039**	ug/L	0.001	2	405	4574	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-26
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, June 22, 2018 22:29:55 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			56254	64897	2	Standard
	Cl	37		ug/L			11457090	9756596	3	Standard
>	Sc	45		ug/L			3217224	2579876	2	Standard
	Cr	52	0.104	ug/L	0.051	49	46408	40436	3	Standard
	Cr	53	0.191	ug/L	0.016	8	200	791	4	Standard
	Mn	55	0.907	ug/L	0.020	2	945	36969	0	Standard
>	Ge-1	72		ug/L			18903	14078	1	KED
	Ni	60	0.223	ug/L	0.046	20	2	67	21	KED
	Ni	62	0.235	ug/L	0.107	45	0	10	47	KED
	Cu	63	0.429	ug/L	0.072	16	3	324	15	KED
	Cu	65	0.366	ug/L	0.026	7	4	135	4	KED
	Zn	66	2.308	ug/L	0.191	8	7	193	6	KED
	Zn	67	1.838	ug/L	0.287	15	3	26	12	KED
	As	75	0.044	ug/L	0.040	90	8	8	23	KED
	Y	89		ug/L			907188	742850	2	Standard
	Kr	83		ug/L			61	55	25	Standard
>	In-1	115		ug/L			3910	2697	4	KED
	Cd	111	0.278	ug/L	0.117	42	1	9	36	KED
	Cd	114	0.224	ug/L	0.120	53	2	20	51	KED
>	In	115		ug/L			3218354	2612472	1	Standard
	Ag	107	0.001	ug/L	0.001	96	60	62	20	Standard
>	Tb	159		ug/L			2625347	2253600	1	Standard
	Pb	208	0.021	ug/L	0.001	3	405	2539	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-39
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, June 22, 2018 22:33:54 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	55888	2	Standard
	Cl	**37**		ug/L			11457090	9599470	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2401754	2	Standard
|	**Cr**	**52**	**-0.022**	ug/L	0.032	149	46408	34024	3	Standard
|	**Cr**	**53**	**0.041**	ug/L	0.003	7	200	275	2	Standard
⌊	**Mn**	**55**	**64.844**	ug/L	1.377	2	945	2411993	1	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	14019	0	KED
|	**Ni**	**60**	**0.061**	ug/L	0.033	53	2	19	48	KED
|	**Ni**	**62**	**0.015**	ug/L	0.026	173	0	0	173	KED
|	**Cu**	**63**	**0.075**	ug/L	0.020	26	3	59	25	KED
|	**Cu**	**65**	**0.058**	ug/L	0.015	26	4	24	22	KED
|	**Zn**	**66**	**1.542**	ug/L	0.145	9	7	130	8	KED
|	**Zn**	**67**	**1.652**	ug/L	0.836	50	3	24	45	KED
⌊	**As**	**75**	**0.048**	ug/L	0.031	63	8	8	17	KED
	Y	**89**		ug/L			907188	713879	1	Standard
	Kr	**83**		ug/L			61	50	5	Standard
⌈>	**In-1**	**115**		ug/L			3910	2530	3	KED
|	**Cd**	**111**	**0.037**	ug/L	0.056	151	1	2	65	KED
⌊	**Cd**	**114**	**-0.006**	ug/L	0.014	242	2	1	94	KED
⌈>	**In**	**115**		ug/L			3218354	2578122	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	92	60	59	17	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2244743	1	Standard
⌊	**Pb**	**208**	**0.020**	ug/L	0.001	4	405	2397	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-43
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, June 22, 2018 22:37:53 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	54064	2	Standard
	Cl	**37**		ug/L			11457090	9476147	0	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2469672	2	Standard
|	**Cr**	**52**	**-0.028**	ug/L	0.015	53	46408	34783	2	Standard
|	**Cr**	**53**	**0.060**	ug/L	0.006	10	200	343	6	Standard
⌊	**Mn**	**55**	**58.321**	ug/L	1.049	1	945	2230755	0	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	14119	1	KED
|	**Ni**	**60**	**0.067**	ug/L	0.030	45	2	21	41	KED
|	**Ni**	**62**	**0.147**	ug/L	0.068	46	0	6	45	KED
|	**Cu**	**63**	**0.074**	ug/L	0.009	12	3	58	13	KED
|	**Cu**	**65**	**0.068**	ug/L	0.030	43	4	27	37	KED
|	**Zn**	**66**	**1.996**	ug/L	0.158	7	7	168	8	KED
|	**Zn**	**67**	**2.543**	ug/L	0.248	9	3	36	10	KED
⌊	**As**	**75**	**0.060**	ug/L	0.033	54	8	9	18	KED
	Y	**89**		ug/L			907188	728550	2	Standard
	Kr	**83**		ug/L			61	53	12	Standard
⌈>	**In-1**	**115**		ug/L			3910	2536	8	KED
|	**Cd**	**111**	**0.093**	ug/L	0.061	65	1	3	43	KED
⌊	**Cd**	**114**	**0.020**	ug/L	0.039	194	2	3	97	KED
⌈>	**In**	**115**		ug/L			3218354	2551315	2	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.000	110	60	54	10	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2262987	0	Standard
⌊	**Pb**	**208**	**0.022**	ug/L	0.001	5	405	2699	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVC
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 22:42:56
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	47411	2	Standard
	Cl	**37**		ug/L			11457090	9963854	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2459419	3	Standard
|	**Cr**	**52**	**45.388**	ug/L	0.694	1	46408	1380894	2	Standard
|	**Cr**	**53**	**46.978**	ug/L	1.723	3	200	147932	0	Standard
⌊	**Mn**	**55**	**44.326**	ug/L	1.865	4	945	1687234	0	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	14198	2	KED
|	**Ni**	**60**	**45.699**	ug/L	1.060	2	2	13465	0	KED
|	**Ni**	**62**	**45.689**	ug/L	1.755	3	0	1982	1	KED
|	**Cu**	**63**	**45.420**	ug/L	0.980	2	3	34405	1	KED
|	**Cu**	**65**	**44.578**	ug/L	0.612	1	4	16291	1	KED
|	**Zn**	**66**	**48.331**	ug/L	0.760	1	7	3980	3	KED
|	**Zn**	**67**	**46.368**	ug/L	1.948	4	3	621	3	KED
⌊	**As**	**75**	**47.200**	ug/L	0.888	1	8	2265	3	KED
	Y	**89**		ug/L			907188	749716	1	Standard
	Kr	**83**		ug/L			61	66	7	Standard
⌈>	**In-1**	**115**		ug/L			3910	2680	5	KED
|	**Cd**	**111**	**48.928**	ug/L	2.100	4	1	1442	4	KED
⌊	**Cd**	**114**	**48.159**	ug/L	1.350	2	2	3975	2	KED
⌈>	**In**	**115**		ug/L			3218354	2528970	0	Standard
⌊	**Ag**	**107**	**35.934**	ug/L	0.360	1	60	646846	0	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2234620	1	Standard
⌊	**Pb**	**208**	**49.757**	ug/L	0.752	1	405	5196638	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBC
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 22:49:40
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	47954	2	Standard
	Cl	**37**		ug/L			11457090	9785488	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2433564	2	Standard
|	**Cr**	**52**	**-0.081**	ug/L	0.021	25	46408	32720	4	Standard
|	**Cr**	**53**	**-0.004**	ug/L	0.001	15	200	140	3	Standard
⌊	**Mn**	**55**	**0.003**	ug/L	0.000	6	945	833	2	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	14826	0	KED
|	**Ni**	**60**	**0.002**	ug/L	0.009	541	2	2	114	KED
|	**Ni**	**62**	**0.028**	ug/L	0.024	86	0	1	86	KED
|	**Cu**	**63**	**0.006**	ug/L	0.002	41	3	7	25	KED
|	**Cu**	**65**	**0.006**	ug/L	0.005	86	4	5	33	KED
|	**Zn**	**66**	**0.041**	ug/L	0.023	54	7	9	20	KED
|	**Zn**	**67**	**0.049**	ug/L	0.079	160	3	3	34	KED
⌊	**As**	**75**	**0.080**	ug/L	0.011	14	8	10	4	KED
	Y	**89**		ug/L			907188	708867	1	Standard
	Kr	**83**		ug/L			61	67	18	Standard
⌈>	**In-1**	**115**		ug/L			3910	2693	3	KED
|	**Cd**	**111**	**0.054**	ug/L	0.086	159	1	2	88	KED
⌊	**Cd**	**114**	**0.009**	ug/L	0.014	153	2	2	46	KED
⌈>	**In**	**115**		ug/L			3218354	2490836	0	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.000	53	60	45	2	Standard
⌈>	**Tb**	**159**		ug/L			2625347	1979050	0	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	32	405	417	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-47
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, June 22, 2018 22:53:39
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	51935	2	Standard
	Cl	**37**		ug/L			11457090	9505701	2	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2474699	1	Standard
|	**Cr**	**52**	**0.172**	ug/L	0.037	21	46408	40820	3	Standard
|	**Cr**	**53**	**0.251**	ug/L	0.009	3	200	948	3	Standard
⌊	**Mn**	**55**	**82.979**	ug/L	3.125	3	945	3180671	3	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	14953	0	KED
|	**Ni**	**60**	**3.110**	ug/L	0.257	8	2	967	7	KED
|	**Ni**	**62**	**3.235**	ug/L	0.269	8	0	147	8	KED
|	**Cu**	**63**	**14.689**	ug/L	0.371	2	3	11723	2	KED
|	**Cu**	**65**	**14.656**	ug/L	0.266	1	4	5643	1	KED
|	**Zn**	**66**	**84.763**	ug/L	1.037	1	7	7346	1	KED
|	**Zn**	**67**	**79.488**	ug/L	5.062	6	3	1120	5	KED
⌊	**As**	**75**	**-0.001**	ug/L	0.039	7525	8	6	30	KED
	Y	**89**		ug/L			907188	726213	4	Standard
	Kr	**83**		ug/L			61	59	8	Standard
⌈>	**In-1**	**115**		ug/L			3910	2659	3	KED
|	**Cd**	**111**	**0.565**	ug/L	0.115	20	1	17	17	KED
⌊	**Cd**	**114**	**0.367**	ug/L	0.025	6	2	31	3	KED
⌈>	**In**	**115**		ug/L			3218354	2501641	0	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.001	195	60	53	21	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2159409	6	Standard
⌊	**Pb**	**208**	**0.014**	ug/L	0.000	0	405	1705	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-45
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 22:57:38 DEL
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	68739	2	Standard
	Cl	**37**		ug/L			11457090	7736172	2	Standard
>	**Sc**	**45**		ug/L			3217224	1902632	2	Standard
	Cr	**52**	**0.930**	ug/L	0.062	6	46408	48773	2	Standard
	Cr	**53**	**0.989**	ug/L	0.029	2	200	2527	1	Standard
	Mn	**55**	**814.366**	ug/L	32.596	4	945	23988446	3	Standard
>	**Ge-1**	**72**		ug/L			18903	7499	1	KED
	Ni	**60**	**1.108**	ug/L	0.183	16	2	173	15	KED
	Ni	**62**	**1.052**	ug/L	0.091	8	0	24	9	KED
	Cu	**63**	**0.302**	ug/L	0.069	22	3	122	22	KED
	Cu	**65**	**0.293**	ug/L	0.074	25	4	58	24	KED
	Zn	**66**	**12.852**	ug/L	0.509	3	7	561	4	KED
	Zn	**67**	**12.326**	ug/L	1.031	8	3	88	8	KED
	As	**75**	**0.322**	ug/L	0.096	29	8	11	22	KED
	Y	**89**		ug/L			907188	580952	0	Standard
	Kr	**83**		ug/L			61	165	5	Standard
>	**In-1**	**115**		ug/L			3910	1243	4	KED
	Cd	**111**	**0.164**	ug/L	0.069	42	1	2	33	KED
	Cd	**114**	**0.136**	ug/L	0.070	51	2	6	48	KED
>	**In**	**115**		ug/L			3218354	1840910	1	Standard
	Ag	**107**	**0.001**	ug/L	0.001	51	60	50	14	Standard
>	**Tb**	**159**		ug/L			2625347	1947083	0	Standard
	Pb	**208**	**0.019**	ug/L	0.001	4	405	2074	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-45RE1
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, June 22, 2018 23:01:37

DEL

Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	54476	1	Standard
	Cl	**37**		ug/L			11457090	9185603	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2443442	2	Standard
|	**Cr**	**52**	**-0.017**	ug/L	0.040	232	46408	34723	2	Standard
|	**Cr**	**53**	**0.111**	ug/L	0.019	17	200	498	14	Standard
⌊	**Mn**	**55**	**82.427**	ug/L	2.485	3	945	3120254	4	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	12647	2	KED
|	**Ni**	**60**	**0.122**	ug/L	0.026	21	2	33	19	KED
|	**Ni**	**62**	**0.330**	ug/L	0.131	39	0	12	37	KED
|	**Cu**	**63**	**0.046**	ug/L	0.009	20	3	33	18	KED
|	**Cu**	**65**	**0.024**	ug/L	0.003	10	4	10	10	KED
|	**Zn**	**66**	**2.159**	ug/L	0.205	9	7	163	8	KED
|	**Zn**	**67**	**1.960**	ug/L	0.506	25	3	25	22	KED
⌊	**As**	**75**	**0.072**	ug/L	0.039	53	8	8	16	KED
	Y	**89**		ug/L			907188	674458	0	Standard
	Kr	**83**		ug/L			61	57	18	Standard
⌈>	**In-1**	**115**		ug/L			3910	2275	3	KED
|	**Cd**	**111**	**0.057**	ug/L	0.043	75	1	2	43	KED
⌊	**Cd**	**114**	**0.015**	ug/L	0.018	117	2	2	45	KED
⌈>	**In**	**115**		ug/L			3218354	2594594	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	71	60	63	16	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2297410	0	Standard
⌊	**Pb**	**208**	**0.011**	ug/L	0.001	8	405	1563	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-49
Sample Dil Factor: 10
Comments:
Sample Date/Time: Friday, June 22, 2018 23:05:36
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	53125	2	Standard
	Cl	**37**		ug/L			11457090	9523927	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2491694	2	Standard
|	**Cr**	**52**	**-0.033**	ug/L	0.029	87	46408	34950	2	Standard
|	**Cr**	**53**	**0.074**	ug/L	0.011	15	200	390	10	Standard
⌊	**Mn**	**55**	**115.787**	ug/L	3.337	2	945	4469519	4	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	13799	2	KED
|	**Ni**	**60**	**1.561**	ug/L	0.057	3	2	448	4	KED
|	**Ni**	**62**	**1.622**	ug/L	0.203	12	0	68	14	KED
|	**Cu**	**63**	**2.231**	ug/L	0.094	4	3	1645	3	KED
|	**Cu**	**65**	**2.162**	ug/L	0.192	8	4	770	6	KED
|	**Zn**	**66**	**46.422**	ug/L	0.444	0	7	3715	2	KED
|	**Zn**	**67**	**43.423**	ug/L	2.115	4	3	565	2	KED
⌊	**As**	**75**	**0.024**	ug/L	0.056	228	8	7	35	KED
	Y	**89**		ug/L			907188	734433	1	Standard
	Kr	**83**		ug/L			61	57	8	Standard
⌈>	**In-1**	**115**		ug/L			3910	2570	3	KED
|	**Cd**	**111**	**0.315**	ug/L	0.118	37	1	10	32	KED
⌊	**Cd**	**114**	**0.268**	ug/L	0.090	33	2	22	28	KED
⌈>	**In**	**115**		ug/L			3218354	2658048	1	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.000	117	60	53	6	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2269686	0	Standard
⌊	**Pb**	**208**	**0.054**	ug/L	0.000	0	405	6104	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 23:10:00
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	51115	3	Standard
	Cl	**37**		ug/L			11457090	9134237	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2339666	2	Standard
|	**Cr**	**52**	**-0.173**	ug/L	0.024	13	46408	28854	1	Standard
|	**Cr**	**53**	**-0.002**	ug/L	0.002	124	200	140	3	Standard
⌊	**Mn**	**55**	**-0.005**	ug/L	0.001	18	945	490	5	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	13506	1	KED
|	**Ni**	**60**	**0.023**	ug/L	0.028	120	2	8	93	KED
|	**Ni**	**62**	**0.047**	ug/L	0.081	173	0	1	173	KED
|	**Cu**	**63**	**0.002**	ug/L	0.002	67	3	4	24	KED
|	**Cu**	**65**	**0.000**	ug/L	0.003	12942	4	3	34	KED
|	**Zn**	**66**	**-0.013**	ug/L	0.013	102	7	4	24	KED
|	**Zn**	**67**	**-0.079**	ug/L	0.086	108	3	1	86	KED
⌊	**As**	**75**	**0.038**	ug/L	0.009	25	8	7	6	KED
	Y	**89**		ug/L			907188	664173	0	Standard
	Kr	**83**		ug/L			61	50	28	Standard
⌈>	**In-1**	**115**		ug/L			3910	2442	1	KED
|	**Cd**	**111**	**0.122**	ug/L	0.084	68	1	4	49	KED
⌊	**Cd**	**114**	**0.021**	ug/L	0.031	143	2	3	70	KED
⌈>	**In**	**115**		ug/L			3218354	2484218	1	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.000	519	60	45	15	Standard
⌈>	**Tb**	**159**		ug/L			2625347	1972087	0	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.000	136	405	316	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVD
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 23:14:23
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	46515	1	Standard
	Cl	**37**		ug/L			11457090	9474679	2	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2404494	2	Standard
|	**Cr**	**52**	**45.308**	ug/L	2.248	4	46408	1347214	2	Standard
|	**Cr**	**53**	**46.641**	ug/L	0.391	0	200	143705	1	Standard
⌊	**Mn**	**55**	**43.972**	ug/L	0.790	1	945	1637642	0	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	13725	1	KED
|	**Ni**	**60**	**45.995**	ug/L	0.638	1	2	13106	2	KED
|	**Ni**	**62**	**43.444**	ug/L	1.689	3	0	1823	4	KED
|	**Cu**	**63**	**46.509**	ug/L	0.712	1	3	34061	0	KED
|	**Cu**	**65**	**44.767**	ug/L	0.456	1	4	15818	1	KED
|	**Zn**	**66**	**48.882**	ug/L	0.241	0	7	3890	1	KED
|	**Zn**	**67**	**47.355**	ug/L	1.704	3	3	613	4	KED
⌊	**As**	**75**	**48.311**	ug/L	1.555	3	8	2241	3	KED
	Y	**89**		ug/L			907188	719322	2	Standard
	Kr	**83**		ug/L			61	62	18	Standard
⌈>	**In-1**	**115**		ug/L			3910	2525	3	KED
|	**Cd**	**111**	**49.892**	ug/L	1.199	2	1	1387	3	KED
⌊	**Cd**	**114**	**47.142**	ug/L	0.615	1	2	3670	2	KED
⌈>	**In**	**115**		ug/L			3218354	2456783	1	Standard
⌊	**Ag**	**107**	**36.545**	ug/L	0.326	0	60	639120	2	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2193667	0	Standard
⌊	**Pb**	**208**	**49.953**	ug/L	0.429	0	405	5122287	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBD
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 23:21:06
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	47814	2	Standard
	Cl	**37**		ug/L			11457090	9330284	0	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2415297	1	Standard
|	**Cr**	**52**	**-0.089**	ug/L	0.002	1	46408	32254	1	Standard
|	**Cr**	**53**	**0.004**	ug/L	0.004	83	200	163	6	Standard
⌊	**Mn**	**55**	**0.003**	ug/L	0.001	38	945	831	5	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	14209	3	KED
|	**Ni**	**60**	**0.004**	ug/L	0.007	170	2	3	69	KED
|	**Ni**	**62**	**0.029**	ug/L	0.025	86	0	1	86	KED
|	**Cu**	**63**	**0.004**	ug/L	0.004	111	3	5	57	KED
|	**Cu**	**65**	**-0.004**	ug/L	0.005	127	4	1	100	KED
|	**Zn**	**66**	**0.007**	ug/L	0.012	165	7	6	17	KED
|	**Zn**	**67**	**-0.035**	ug/L	0.140	395	3	1	100	KED
⌊	**As**	**75**	**0.042**	ug/L	0.042	99	8	8	27	KED
	Y	**89**		ug/L			907188	715007	3	Standard
	Kr	**83**		ug/L			61	52	11	Standard
⌈>	**In-1**	**115**		ug/L			3910	2625	3	KED
|	**Cd**	**111**	**-0.011**	ug/L	0.001	10	1	0		KED
⌊	**Cd**	**114**	**0.017**	ug/L	0.025	149	2	3	70	KED
⌈>	**In**	**115**		ug/L			3218354	2492008	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	49	60	57	8	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2031358	5	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.001	41	405	442	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 23:25:05
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	51422	0	Standard
	Cl	**37**		ug/L			11457090	9760376	3	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2772696	2	Standard
|	**Cr**	**52**	**0.004**	ug/L	0.053	1212	46408	40119	2	Standard
|	**Cr**	**53**	**0.001**	ug/L	0.005	407	200	177	13	Standard
⌊	**Mn**	**55**	**0.051**	ug/L	0.001	2	945	3010	2	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	15361	1	KED
|	**Ni**	**60**	**0.023**	ug/L	0.022	92	2	9	72	KED
|	**Ni**	**62**	**0.027**	ug/L	0.023	86	0	1	86	KED
|	**Cu**	**63**	**0.017**	ug/L	0.004	25	3	17	22	KED
|	**Cu**	**65**	**0.009**	ug/L	0.006	66	4	6	31	KED
|	**Zn**	**66**	**0.052**	ug/L	0.045	87	7	10	36	KED
|	**Zn**	**67**	**-0.091**	ug/L	0.076	83	3	1	86	KED
⌊	**As**	**75**	**-0.004**	ug/L	0.005	118	8	6	4	KED
	Y	**89**		ug/L			907188	840930	3	Standard
	Kr	**83**		ug/L			61	57	19	Standard
⌈>	**In-1**	**115**		ug/L			3910	2897	5	KED
|	**Cd**	**111**	**0.022**	ug/L	0.090	404	1	2	137	KED
⌊	**Cd**	**114**	**0.021**	ug/L	0.019	91	2	3	49	KED
⌈>	**In**	**115**		ug/L			3218354	2737717	0	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.001	56	60	85	21	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2355284	1	Standard
⌊	**Pb**	**208**	**0.005**	ug/L	0.000	4	405	915	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 23:29:05
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	49112	0	Standard
	Cl	**37**		ug/L			11457090	9641860	2	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2651228	3	Standard
|	**Cr**	**52**	**-0.017**	ug/L	0.017	100	46408	37714	4	Standard
|	**Cr**	**53**	**0.001**	ug/L	0.001	62	200	167	3	Standard
⌊	**Mn**	**55**	**0.049**	ug/L	0.000	0	945	2779	3	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	14862	1	KED
|	**Ni**	**60**	**0.022**	ug/L	0.013	59	2	8	44	KED
|	**Ni**	**62**	**0.042**	ug/L	0.041	98	0	1	100	KED
|	**Cu**	**63**	**0.017**	ug/L	0.006	32	3	16	26	KED
|	**Cu**	**65**	**0.004**	ug/L	0.008	183	4	5	57	KED
|	**Zn**	**66**	**0.034**	ug/L	0.047	137	7	8	44	KED
|	**Zn**	**67**	**0.002**	ug/L	0.156	8327	3	2	86	KED
⌊	**As**	**75**	**0.023**	ug/L	0.043	189	8	7	27	KED
	Y	**89**		ug/L			907188	803770	1	Standard
	Kr	**83**		ug/L			61	69	20	Standard
⌈>	**In-1**	**115**		ug/L			3910	2959	3	KED
|	**Cd**	**111**	**0.004**	ug/L	0.044	1207	1	1	91	KED
⌊	**Cd**	**114**	**-0.014**	ug/L	0.012	89	2	0	188	KED
⌈>	**In**	**115**		ug/L			3218354	2730329	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	32	60	67	5	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2307179	2	Standard
⌊	**Pb**	**208**	**0.005**	ug/L	0.000	6	405	878	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 23:33:04
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	49966	2	Standard
	Cl	**37**		ug/L			11457090	9757310	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2707196	1	Standard
|	**Cr**	**52**	**-0.020**	ug/L	0.038	191	46408	38394	3	Standard
|	**Cr**	**53**	**-0.000**	ug/L	0.002	456	200	166	3	Standard
⌊	**Mn**	**55**	**0.047**	ug/L	0.002	4	945	2771	2	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	14929	3	KED
|	**Ni**	**60**	**0.020**	ug/L	0.009	43	2	8	35	KED
|	**Ni**	**62**	**0.027**	ug/L	0.024	86	0	1	86	KED
|	**Cu**	**63**	**0.011**	ug/L	0.003	26	3	12	18	KED
|	**Cu**	**65**	**0.004**	ug/L	0.012	276	4	5	86	KED
|	**Zn**	**66**	**0.099**	ug/L	0.059	60	7	14	37	KED
|	**Zn**	**67**	**-0.132**	ug/L	0.081	61	3	0	173	KED
⌊	**As**	**75**	**0.024**	ug/L	0.059	243	8	7	40	KED
	Y	**89**		ug/L			907188	845352	2	Standard
	Kr	**83**		ug/L			61	67	8	Standard
⌈>	**In-1**	**115**		ug/L			3910	3005	0	KED
|	**Cd**	**111**	**0.081**	ug/L	0.073	90	1	4	58	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.000	36	2	1	1	KED
⌈>	**In**	**115**		ug/L			3218354	2701662	2	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	84	60	67	21	Standard
⌈>	**Tb**	**159**		ug/L			2625347	2312945	1	Standard
⌊	**Pb**	**208**	**0.005**	ug/L	0.000	4	405	880	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 23:37:03
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	48541	0	Standard
	Cl	**37**		ug/L			11457090	9324750	0	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2276919	3	Standard
|	**Cr**	**52**	**-0.113**	ug/L	0.035	31	46408	29742	4	Standard
|	**Cr**	**53**	**-0.001**	ug/L	0.002	135	200	138	6	Standard
⌊	**Mn**	**55**	**-0.007**	ug/L	0.000	4	945	405	3	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	14176	1	KED
|	**Ni**	**60**	**0.019**	ug/L	0.011	57	2	7	43	KED
|	**Ni**	**62**	**0.044**	ug/L	0.001	1	0	1		KED
|	**Cu**	**63**	**0.005**	ug/L	0.004	80	3	6	45	KED
|	**Cu**	**65**	**0.003**	ug/L	0.006	197	4	4	49	KED
|	**Zn**	**66**	**0.008**	ug/L	0.028	345	7	6	34	KED
|	**Zn**	**67**	**-0.084**	ug/L	0.082	98	3	1	86	KED
⌊	**As**	**75**	**0.076**	ug/L	0.037	48	8	9	19	KED
	Y	**89**		ug/L			907188	668120	0	Standard
	Kr	**83**		ug/L			61	38	2	Standard
⌈>	**In-1**	**115**		ug/L			3910	2600	3	KED
|	**Cd**	**111**	**0.011**	ug/L	0.018	163	1	1	34	KED
⌊	**Cd**	**114**	**0.018**	ug/L	0.014	76	2	3	34	KED
⌈>	**In**	**115**		ug/L			3218354	2371547	0	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.001	557	60	46	24	Standard
⌈>	**Tb**	**159**		ug/L			2625347	1916468	1	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.000	51	405	320	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 23:41:02
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	49127	1	Standard
	Cl	**37**		ug/L			11457090	9078869	1	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2149066	6	Standard
|	**Cr**	**52**	**-0.085**	ug/L	0.067	78	46408	28717	1	Standard
|	**Cr**	**53**	**-0.001**	ug/L	0.006	510	200	129	6	Standard
⌊	**Mn**	**55**	**-0.007**	ug/L	0.001	8	945	402	6	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	14395	1	KED
|	**Ni**	**60**	**0.017**	ug/L	0.008	45	2	6	31	KED
|	**Ni**	**62**	**0.072**	ug/L	0.026	35	0	3	34	KED
|	**Cu**	**63**	**0.004**	ug/L	0.000	2	3	5	0	KED
|	**Cu**	**65**	**-0.004**	ug/L	0.005	127	4	1	100	KED
|	**Zn**	**66**	**0.014**	ug/L	0.052	378	7	6	62	KED
|	**Zn**	**67**	**-0.131**	ug/L	0.082	62	3	0	173	KED
⌊	**As**	**75**	**0.074**	ug/L	0.034	45	8	9	15	KED
	Y	**89**		ug/L			907188	639789	3	Standard
	Kr	**83**		ug/L			61	57	17	Standard
⌈>	**In-1**	**115**		ug/L			3910	2408	4	KED
|	**Cd**	**111**	**0.101**	ug/L	0.078	76	1	3	50	KED
⌊	**Cd**	**114**	**-0.005**	ug/L	0.014	296	2	1	90	KED
⌈>	**In**	**115**		ug/L			3218354	2337550	3	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.000	117	60	42	2	Standard
⌈>	**Tb**	**159**		ug/L			2625347	1880463	1	Standard
⌊	**Pb**	**208**	**-0.000**	ug/L	0.000	85	405	265	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, June 22, 2018 23:45:01
Number of Replicates: 3
Method File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\200.8nominKED_UCT_CrShort3Element.mth
Tuning File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\MassCal\Default.tun
Optimization File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Conditions\Default.dac
Calibration File: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\System\062218.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			56254	46637	2	Standard
	Cl	**37**		ug/L			11457090	8809410	2	Standard
⌈>	**Sc**	**45**		ug/L			3217224	2125975	5	Standard
|	**Cr**	**52**	**-0.062**	ug/L	0.039	62	46408	29053	2	Standard
|	**Cr**	**53**	**-0.003**	ug/L	0.004	172	200	125	13	Standard
⌊	**Mn**	**55**	**-0.008**	ug/L	0.002	23	945	372	10	Standard
⌈>	**Ge-1**	**72**		ug/L			18903	13988	1	KED
|	**Ni**	**60**	**0.007**	ug/L	0.017	262	2	3	132	KED
|	**Ni**	**62**	**0.030**	ug/L	0.026	86	0	1	86	KED
|	**Cu**	**63**	**0.008**	ug/L	0.005	66	3	8	44	KED
|	**Cu**	**65**	**-0.006**	ug/L	0.003	54	4	1	86	KED
|	**Zn**	**66**	**0.047**	ug/L	0.080	168	7	9	69	KED
|	**Zn**	**67**	**-0.082**	ug/L	0.083	101	3	1	86	KED
⌊	**As**	**75**	**0.042**	ug/L	0.028	65	8	8	15	KED
	Y	**89**		ug/L			907188	608891	1	Standard
	Kr	**83**		ug/L			61	55	9	Standard
⌈>	**In-1**	**115**		ug/L			3910	2431	2	KED
|	**Cd**	**111**	**0.027**	ug/L	0.002	7	1	1		KED
⌊	**Cd**	**114**	**-0.004**	ug/L	0.014	338	2	1	86	KED
⌈>	**In**	**115**		ug/L			3218354	2231442	2	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	40	60	50	5	Standard
⌈>	**Tb**	**159**		ug/L			2625347	1833533	1	Standard
⌊	**Pb**	**208**	**-0.000**	ug/L	0.000	382	405	278	5	Standard

INITIAL CALIBRATION DATA

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00060
Instrument: ICPMS2
Calibration Date: 06/25/2018 10:57

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Arsenic-75a, Dissolved	0	0	0.2	325	10	309.9	20	314.1	50	299.26	100	286.1
Cadmium-111, Dissolved	0	0	0.1	470	10	406.3	20	409.5	50	396.92	100	380.42
Cadmium-114, Dissolved	0	0	0.1	1080	10	1043	20	1036.35	50	1013.92	100	967.73
Copper-63, Dissolved	0	0	0.5	4278	10	4197.1	20	4217.75	50	3917.54	100	3668.22
Copper-65, Dissolved	0	0	0.5	1988	10	2006.1	20	1991.15	50	1889.54	100	1795.71
Zinc-66, Dissolved	0	0	4	508.75	10	524.8	20	506.2	50	468.62	100	450.72
Zinc-67, Dissolved	0	0	4	75.5	10	82.7	20	84.4	50	78.04	100	76.05

INITIAL CALIBRATION DATA

EPA 6020A UCT-KED

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00060	Instrument:	ICPMS2
Calibration Date:	06/25/2018 10:57		

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Arsenic-75a, Dissolved	255.7267	49.3	0.9993		0.998	
Cadmium-111, Dissolved	343.8567	49.8	0.9994		0.998	
Cadmium-114, Dissolved	856.8333	49.2	0.9994		0.998	
Copper-63, Dissolved	3379.768	49.5	0.9984		0.998	
Copper-65, Dissolved	1611.75	49.2	0.9991		0.998	
Zinc-66, Dissolved	409.8483	49.5	0.9994		0.998	
Zinc-67, Dissolved	66.115	49.3	0.9995		0.998	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6/25/18 **Analyst:** MB **Sequence:** SGFΦ319

Cal 6: BFΦΦCΦ

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ - CAL1	G5639		
		- CAL2	G5695		
		- CAL3	G562Φ		
		- CAL4	G5621		
		- CAL5	G5696		
		- CAL6	G5622		
		- IBL1	–		
		- ICV1	G51Φ3		
		- ICB1	G5639		
		- CCV1	G5696		
		- CCB1	G5639		
		- CRL1	G5695		
		- IFA1	G5699		Cr^{53} ↑
		- IFB1	G5697		Cr^{53} ↑, Zn^{67} ↓
		- HCV1	G57ΦΦ		Ag ↓
	✓	- HCV2	G57Φ1		Zn, Ag, Pb ↓
		- HCV2	–		Ag, Pb
		- IBL2/3	–		
		- CCV2			Cr^{52} ↑
		- CCB2			
		BGFΦ58Φ - BLK1	REN		
		↓ - BS1	↓		
		18FΦ317 - Φ1RE1			
		18FΦ318 - Φ1RE1	↓		

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6/25/18 **Analyst:** MB **Sequence:** —

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		18FΦ198-13	REN	2	
		-21		50	
		-22		↓	
		18FΦ313-ΦIREI			
		BGFΦ580-DUP1			
		-MS1			
		SEQ-CCV3			Cr^{52}↑
		-CCB3			
		18FΦ185-Φ3	REN	5	
		-Φ4		10	
		-Φ5			
		-Φ6		↓	
		-Φ8		5	No Cr, Pb
		SEQ-IBL4	—		
		BGFΦ364-DUP2		5	No Cr, Pb
		-MS2			↓
		-MSD2		↓	
		SEQ-IBL5			
		-CCV4			Cr^{52}, Mn, Pb↑, Pb↓
		-CCB4			
	✓	CAL1			
		CCV5			Cr^{52}, Mn↑
		CCB5			
		18FΦ271-Φ1	REN	50	

Analytical Resources, Incorporated
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ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6/25/18 **Analyst:** MB **Sequence:** —

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		18FΦ198-26	REN	2	
		↓ -45	↓	↓	Mn NR
		18FΦ258-Φ1			
		18FΦ323-Φ1		↓	
		18FΦ198-32			
		-4Φ			Mn NR
		-44			↓
		↓ -46			
		18FΦ265-Φ1	↓	5	
		SEQ-CCV6			Cr^{52} ↑
		↓ -CCB6			
	✓	BGFΦ548-BLK1	REN		Mn > RL, Int. STDs noisy
		-BS1			Mn %R ↑
		-BLK1			Mn > RL
	✓	↓ -BS1			Mn %R ↑
		18FΦ198-68			Mn NR
		↓ -64			↓
		BGFΦ548-DUP1			
		-MS1			
		↓ -MSD1	↓		
		18FΦ198-56	↓		
		SEQ-CCV7			
		↓ -CCB7			
		18FΦ198-23	REN	5	

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ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6/25/18 **Analyst:** MB **Sequence:** _____

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		18F0198-24	REN	5	
		-27		↓	
		-28		10	
		-29		5	
	✓	-30			Mn >LR
		-36			
		-38		2	
		-39		10	Sc sl. noisy
Add REI		-40 REI		5	Mn only
		SEQ-CCV8			Cr52↑
		-CCB8			
	✓	-CAL1			
		-CCV9			Cr52↑
		-CCB9			
		18F0198-42	REN		
		-43		10	
~~Add REI~~		-44 REI		5	Mn only
Add REI		-45 REI		10	↓
		-46 REI			
		-47			
		-48			
		-49			
		-50		↓	
		-52			

Analytical Resources, Incorporated
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ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6/25/18 **Analyst:** MB **Sequence:** —

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CCVA			Cr^{52} ↑
		↓ -CCBA			
		18FΦ198-54	REN		
		-58	↓		
		-6Φ			
		-62			
		↓ -66			
		18FΦ323-Φ1RE1			Cr, Pb, Zn only
		18FΦ313-Φ2RE1			Zn only
		-Φ3RE1			↓
		-Φ4RE1			
		↓ -Φ5RE1	↓		
		SEQ-CCVB			
		↓ -CCBB			
		Rinse/DI			

MB 6/25/18

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Monday, June 25, 2018 10:57:51
Sample Description:
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\STD Performance Check.mth
Dataset File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\DataSet\Default\STD Performance Check.15219
MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	10793.8	10793.810	130.280	1.2	Standard
	In	114.9	112897.4	112897.359	629.323	0.6	Standard
	U	238.1	59912.6	59912.572	266.388	0.4	Standard
⌈	CeO	155.9	4216.5	0.041	0.001	3.4	Standard
| >	Ce	139.9	103326.3	103326.312	1391.530	1.3	Standard
⌊	Ce++	70.0	2452.5	0.024	0.000	1.2	Standard
	Bkgd	220.0	0.1	0.067	0.091	136.9	Standard

Current Conditions File Data

Current Value	Description
0.96	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-9.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-3.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
0.96	DRC Mode NEB
-10.00	DRC Mode QRO
-3.00	DRC Mode CRO
-7.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-13.00	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
0.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 6/25/2018 10:57:46 AM
End Time: 6/25/2018 11:18:24 AM

STD Performance Check - [Failed]
Obtained Intensity (Be 9): 10793.81
Obtained Intensity (In 115): 112897.36
Obtained Intensity (U 238): 59912.57
Obtained Intensity (Bkgd 220): 0.07
Obtained Formula (Ce++ 70 / Ce 140): 0.024 (=2452.48 / 103326.31)
Obtained Formula (CeO 156 / Ce 140): 0.041 (=4216.49 / 103326.31) - <Target not achieved>

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
0.17 mm	0.05 mm	98370.52

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 0.94
Obtained Intensity (In 115): 91685.28
Obtained Formula (CeO 156 / Ce 140): 0.0233 (=1935.13 / 82915.93)

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.707)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.692)
Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.700)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.698)

QID STD/DRC - Optimum value(s): Correlation Coefficient = 0.991; Intercept = -12.87

KED Mode QID - Optimum value(s): Correlation Coefficient = 1.000; Intercept = -13.27

SmartTune Wizard - Details

```
Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 6/25/2018 10:57:46 AM

STD Performance Check
        Optimization Settings:
                Method: STD Performance Check.mth.
                Intensity Criterion: Be 9 > 2000
                Intensity Criterion: In 115 > 40000
                Intensity Criterion: U 238 > 30000
                Intensity Criterion: Bkgd 220 <= 1
                Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
                Formula Criterion: CeO 156 / Ce 140 <= 0.025

        Optimization Results:
        Initial Try
                Obtained Intensity (Be 9): 10793.81
                Obtained Intensity (In 115): 112897.36
                Obtained Intensity (U 238): 59912.57
                Obtained Intensity (Bkgd 220): 0.07
                Obtained Formula (Ce++ 70 / Ce 140): 0.024 (=2452.48 / 103326.31)
                Obtained Formula (CeO 156 / Ce 140): 0.041 (=4216.49 / 103326.31) - <Target not achieved>

                [Failed]
[Failed]

Torch Alignment
        Optimization Settings:
                Method: Torch Alignment.mth.
                Intensity Criterion: In 115 Maximum

        Optimization Results:
                Vertical      Horizontal      Intensity
[Passed]        0.17 mm     0.05 mm       98370.52

Nebulizer Gas Flow STD/KED [NEB]
        Optimization Settings:
                Method: Optimize.mth.
                        Initial Try - Start/End/Step: 0.88/1.1/0.02.
                Intensity Criterion: In 115 Maximum
                Formula Criterion: CeO 156 / Ce 140 <= 0.025

        Optimization Results:
        Initial Try

                Obtained Intensity (In 115): 91685.28
                Obtained Formula (CeO 156 / Ce 140): 0.0233 (=1935.13 / 82915.93)
[Passed]  Optimum value(s): 0.94

Mass Calibration and Resolution
        Optimization Settings:
                Method: Tuning.mth.
                MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
                Iterations: 6
```

Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution
Peak height (%) for Res. Opt.: 10

Optimization Results:
Initial Try
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.707)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.692)
Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.700)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.698)
[Passed] Optimum value(s): N/A

QID STD/DRC
Optimization Settings:
Method: QID Calibration.mth.
Initial Try - Start/End/Step: -16/0/0.5.

Optimization Results:
Initial Try

Optimum value(s): Correlation Coefficient = 0.991; Intercept = -12.87

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	33	-13	37801.9
Mg	24	33	-12.5	44079.9
In	115	33	-9	97918.4
Ce	140	33	-7	99138.8
Pb	208	33	-6	34261
U	238	33	-5.5	53106.5

KED Mode QID
Optimization Settings:
Method: QID Calibration.mth.
Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:
Initial Try

Optimum value(s): Correlation Coefficient = 1.000; Intercept = -13.27

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-13	24541.1
Mg	24	41	-12.5	29241.9
In	115	41	-9	71611
Ce	140	41	-8	62134.8
Pb	208	41	-4.5	24440.9
U	238	41	-3.5	56150.1

End Time: 6/25/2018 11:18:24 AM

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Monday, June 25, 2018 11:21:45
Sample Description:
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\STD Performance Check.mth
Dataset File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\DataSet\Default\STD Performance Check.15226
MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	8898.6	8898.571	133.456	1.5	Standard
	In	114.9	93138.7	93138.663	1052.282	1.1	Standard
	U	238.1	51447.9	51447.878	361.142	0.7	Standard
⌈	CeO	155.9	2296.1	0.024	0.002	8.6	Standard
| >	Ce	139.9	96370.0	96370.044	826.556	0.9	Standard
⌊	Ce++	70.0	1234.2	0.013	0.000	3.6	Standard
	Bkgd	220.0	0.1	0.100	0.149	149.1	Standard

Current Conditions File Data

Current Value	Description
0.94	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-9.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-3.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
0.94	DRC Mode NEB
-10.00	DRC Mode QRO
-3.00	DRC Mode CRO
-7.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-13.00	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
0.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 6/25/2018 11:18:36 AM
End Time: 6/25/2018 11:23:50 AM

QID STD/DRC - Optimum value(s): Correlation Coefficient = 0.998; Intercept = -13.31

STD Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9): 8898.57
Obtained Intensity (In 115): 93138.66
Obtained Intensity (U 238): 51447.88
Obtained Intensity (Bkgd 220): 0.10
Obtained Formula (Ce++ 70 / Ce 140): 0.013 (=1234.19 / 96370.04)
Obtained Formula (CeO 156 / Ce 140): 0.024 (=2296.12 / 96370.04)

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 6/25/2018 11:18:36 AM

QID STD/DRC

Optimization Settings:

Method: QID Calibration.mth.

Initial Try - Start/End/Step: -16/0/0.5.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 0.998; Intercept = -13.31

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	33	-13	32039.9
Mg	24	33	-12	43939.5
In	115	33	-8.5	98381.6
Ce	140	33	-7.5	95627
Pb	208	33	-6.5	31715.2
U	238	33	-5.5	53732.9

STD Performance Check

Optimization Settings:

Method: STD Performance Check.mth.

Intensity Criterion: Be 9 > 2000

Intensity Criterion: In 115 > 40000

Intensity Criterion: U 238 > 30000

Intensity Criterion: Bkgd 220 <= 1

Formula Criterion: Ce++ 70 / Ce 140 <= 0.03

Formula Criterion: CeO 156 / Ce 140 <= 0.025

Optimization Results:

Initial Try

Obtained Intensity (Be 9): 8898.57

Obtained Intensity (In 115): 93138.66

Obtained Intensity (U 238): 51447.88

Obtained Intensity (Bkgd 220): 0.10

Obtained Formula (Ce++ 70 / Ce 140): 0.013 (=1234.19 / 96370.04)

Obtained Formula (CeO 156 / Ce 140): 0.024 (=2296.12 / 96370.04)

[Passed] Optimum value(s): N/A

End Time: 6/25/2018 11:23:50 AM

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 12:06:11
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	**13**		ug/L				25880	0	Standard
Cl	**37**		ug/L				6867746	0	Standard
Sc	**45**		ug/L				1665701	2	Standard
Cr	**52**		ug/L				28467	1	Standard
Cr	**53**		ug/L				176	1	Standard
Mn	**55**		ug/L				868	5	Standard
Ge-1	**72**		ug/L				73509	3	KED
Ni	**60**		ug/L				59	14	KED
Ni	**62**		ug/L				7	0	KED
Cu	**63**		ug/L				125	15	KED
Cu	**65**		ug/L				57	1	KED
Zn	**66**		ug/L				259	8	KED
Zn	**67**		ug/L				44	10	KED
As	**75**		ug/L				4	17	KED
Y	**89**		ug/L				841263	2	Standard
Kr	**83**		ug/L				56	11	Standard
In-1	**115**		ug/L				30919	1	KED
Cd	**111**		ug/L				1	50	KED
Cd	**114**		ug/L				5	60	KED
In	**115**		ug/L				1116661	2	Standard
Ag	**107**		ug/L				71	14	Standard
Tb	**159**		ug/L				1224547	1	Standard
Pb	**208**		ug/L				512	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 12:10:40
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	26748	3	Standard
	Cl	**37**		ug/L			6867746	6871497	0	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1681421	1	Standard
|	**Cr**	**52**	**0.500**	ug/L	0.036	7	28467	43067	1	Standard
|	**Cr**	**53**	**0.500**	ug/L	0.013	2	176	1915	3	Standard
⌊	**Mn**	**55**	**0.500**	ug/L	0.018	3	868	21709	3	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	74554	1	KED
|	**Ni**	**60**	**0.500**	ug/L	0.067	13	59	802	10	KED
|	**Ni**	**62**	**0.500**	ug/L	0.019	3	7	131	5	KED
|	**Cu**	**63**	**0.500**	ug/L	0.016	3	125	2139	3	KED
|	**Cu**	**65**	**0.500**	ug/L	0.023	4	57	994	5	KED
|	**Zn**	**66**	**4.000**	ug/L	0.079	1	259	2035	2	KED
|	**Zn**	**67**	**4.000**	ug/L	0.420	10	44	302	7	KED
⌊	**As**	**75**	**0.200**	ug/L	0.015	7	4	65	7	KED
	Y	**89**		ug/L			841263	840116	2	Standard
	Kr	**83**		ug/L			56	47	17	Standard
⌈>	**In-1**	**115**		ug/L			30919	30222	1	KED
|	**Cd**	**111**	**0.100**	ug/L	0.019	19	1	47	18	KED
⌊	**Cd**	**114**	**0.100**	ug/L	0.018	17	5	108	14	KED
⌈>	**In**	**115**		ug/L			1116661	1094749	4	Standard
⌊	**Ag**	**107**	**0.200**	ug/L	0.012	6	71	4163	2	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1228467	3	Standard
⌊	**Pb**	**208**	**0.100**	ug/L	0.006	5	512	4626	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 12:15:08
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	32775	2	Standard
	Cl	**37**		ug/L			6867746	7204867	0	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1721766	2	Standard
|	**Cr**	**52**	**10.000**	ug/L	0.487	4	28467	328006	2	Standard
|	**Cr**	**53**	**10.000**	ug/L	0.223	2	176	35462	1	Standard
⌊	**Mn**	**55**	**10.000**	ug/L	0.495	4	868	427454	2	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	75314	1	KED
|	**Ni**	**60**	**10.001**	ug/L	0.442	4	59	15534	3	KED
|	**Ni**	**62**	**10.000**	ug/L	0.441	4	7	2459	3	KED
|	**Cu**	**63**	**10.001**	ug/L	0.156	1	125	41971	2	KED
|	**Cu**	**65**	**10.001**	ug/L	0.137	1	57	20061	1	KED
|	**Zn**	**66**	**10.142**	ug/L	0.201	1	259	5248	2	KED
|	**Zn**	**67**	**10.238**	ug/L	0.321	3	44	827	3	KED
⌊	**As**	**75**	**10.000**	ug/L	0.049	0	4	3099	0	KED
	Y	**89**		ug/L			841263	876702	2	Standard
	Kr	**83**		ug/L			56	61	31	Standard
⌈>	**In-1**	**115**		ug/L			30919	30735	0	KED
|	**Cd**	**111**	**10.000**	ug/L	0.153	1	1	4063	0	KED
⌊	**Cd**	**114**	**10.000**	ug/L	0.361	3	5	10430	3	KED
⌈>	**In**	**115**		ug/L			1116661	1154581	2	Standard
⌊	**Ag**	**107**	**10.000**	ug/L	0.437	4	71	204916	2	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1273471	2	Standard
⌊	**Pb**	**208**	**10.000**	ug/L	0.216	2	512	460240	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 12:19:50
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	30392	0	Standard
	Cl	**37**		ug/L			6867746	7437107	0	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1741175	1	Standard
|	**Cr**	**52**	**20.026**	ug/L	0.202	1	28467	638014	0	Standard
|	**Cr**	**53**	**20.005**	ug/L	0.546	2	176	71645	1	Standard
⌊	**Mn**	**55**	**20.010**	ug/L	0.013	0	868	866354	1	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	74815	0	KED
|	**Ni**	**60**	**20.025**	ug/L	0.492	2	59	31005	2	KED
|	**Ni**	**62**	**19.995**	ug/L	0.151	0	7	4873	1	KED
|	**Cu**	**63**	**20.053**	ug/L	0.226	1	125	84355	0	KED
|	**Cu**	**65**	**20.003**	ug/L	0.187	0	57	39823	0	KED
|	**Zn**	**66**	**20.045**	ug/L	0.006	0	259	10124	0	KED
|	**Zn**	**67**	**20.350**	ug/L	0.387	1	44	1688	1	KED
⌊	**As**	**75**	**20.082**	ug/L	0.359	1	4	6282	1	KED
	Y	**89**		ug/L			841263	880128	1	Standard
	Kr	**83**		ug/L			56	52	31	Standard
⌈>	**In-1**	**115**		ug/L			30919	30677	2	KED
|	**Cd**	**111**	**20.043**	ug/L	1.079	5	1	8190	2	KED
⌊	**Cd**	**114**	**19.986**	ug/L	1.010	5	5	20727	2	KED
⌈>	**In**	**115**		ug/L			1116661	1149113	2	Standard
⌊	**Ag**	**107**	**20.184**	ug/L	0.454	2	71	427440	1	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1266433	2	Standard
⌊	**Pb**	**208**	**19.970**	ug/L	0.588	2	512	907959	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 12:24:42
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	24225	0	Standard
	Cl	**37**		ug/L			6867746	7478065	0	Standard
⎡>	**Sc**	**45**		ug/L			1665701	1742418	1	Standard
⎢	**Cr**	**52**	**49.538**	ug/L	1.581	3	28467	1468805	2	Standard
⎢	**Cr**	**53**	**49.803**	ug/L	0.624	1	176	174798	1	Standard
⎣	**Mn**	**55**	**48.816**	ug/L	2.567	5	868	1889407	4	Standard
⎡>	**Ge-1**	**72**		ug/L			73509	70465	6	KED
⎢	**Ni**	**60**	**49.793**	ug/L	4.164	8	59	70811	2	KED
⎢	**Ni**	**62**	**50.088**	ug/L	1.651	3	7	11573	3	KED
⎢	**Cu**	**63**	**49.931**	ug/L	2.631	5	125	195877	1	KED
⎢	**Cu**	**65**	**50.090**	ug/L	2.675	5	57	94477	1	KED
⎢	**Zn**	**66**	**50.023**	ug/L	2.234	4	259	23431	2	KED
⎢	**Zn**	**67**	**50.143**	ug/L	2.715	5	44	3902	1	KED
⎣	**As**	**75**	**50.151**	ug/L	2.628	5	4	14963	1	KED
	Y	**89**		ug/L			841263	893261	1	Standard
	Kr	**83**		ug/L			56	64	8	Standard
⎡>	**In-1**	**115**		ug/L			30919	29238	1	KED
⎢	**Cd**	**111**	**50.150**	ug/L	0.105	0	1	19846	1	KED
⎣	**Cd**	**114**	**50.207**	ug/L	1.587	3	5	50696	1	KED
⎡>	**In**	**115**		ug/L			1116661	1128563	1	Standard
⎣	**Ag**	**107**	**49.630**	ug/L	1.381	2	71	995397	2	Standard
⎡>	**Tb**	**159**		ug/L			1224547	1270581	2	Standard
⎣	**Pb**	**208**	**49.485**	ug/L	1.119	2	512	2146322	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 12:31:14
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	28442	1	Standard
	Cl	**37**		ug/L			6867746	7449066	0	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1709886	0	Standard
|	**Cr**	**52**	**97.104**	ug/L	1.161	1	28467	2554268	1	Standard
|	**Cr**	**53**	**99.741**	ug/L	1.760	1	176	340449	2	Standard
⌊	**Mn**	**55**	**98.340**	ug/L	1.818	1	868	3539517	1	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	70887	2	KED
|	**Ni**	**60**	**99.522**	ug/L	1.363	1	59	140533	1	KED
|	**Ni**	**62**	**99.197**	ug/L	0.866	0	7	22477	1	KED
|	**Cu**	**63**	**98.242**	ug/L	1.962	1	125	366822	1	KED
|	**Cu**	**65**	**98.671**	ug/L	1.966	1	57	179571	1	KED
|	**Zn**	**66**	**99.044**	ug/L	2.465	2	259	45072	0	KED
|	**Zn**	**67**	**99.409**	ug/L	2.813	2	44	7605	1	KED
⌊	**As**	**75**	**98.842**	ug/L	2.494	2	4	28610	0	KED
	Y	**89**		ug/L			841263	864661	0	Standard
	Kr	**83**		ug/L			56	94	12	Standard
⌈>	**In-1**	**115**		ug/L			30919	29731	2	KED
|	**Cd**	**111**	**98.691**	ug/L	1.922	1	1	38042	1	KED
⌊	**Cd**	**114**	**98.616**	ug/L	3.271	3	5	96773	0	KED
⌈>	**In**	**115**		ug/L			1116661	1101917	1	Standard
⌊	**Ag**	**107**	**98.622**	ug/L	2.474	2	71	1846710	2	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1232091	1	Standard
⌊	**Pb**	**208**	**98.137**	ug/L	2.743	2	512	3885984	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 12:38:27
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	25083	1	Standard
	Cl	**37**		ug/L			6867746	7318019	1	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1763891	2	Standard
|	**Cr**	**52**	**0.016**	ug/L	0.031	198	28467	30563	2	Standard
|	**Cr**	**53**	**0.006**	ug/L	0.002	32	176	209	4	Standard
⌊	**Mn**	**55**	**0.003**	ug/L	0.001	27	868	1033	1	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	74807	4	KED
|	**Ni**	**60**	**0.003**	ug/L	0.010	380	59	64	24	KED
|	**Ni**	**62**	**0.002**	ug/L	0.013	578	7	8	35	KED
|	**Cu**	**63**	**0.011**	ug/L	0.002	15	125	169	1	KED
|	**Cu**	**65**	**0.006**	ug/L	0.008	131	57	71	26	KED
|	**Zn**	**66**	**0.158**	ug/L	0.071	45	259	338	7	KED
|	**Zn**	**67**	**0.000**	ug/L	0.078	145325	44	45	10	KED
⌊	**As**	**75**	**0.002**	ug/L	0.003	138	4	5	13	KED
	Y	**89**		ug/L			841263	889034	1	Standard
	Kr	**83**		ug/L			56	63	11	Standard
⌈>	**In-1**	**115**		ug/L			30919	31057	2	KED
|	**Cd**	**111**	**0.008**	ug/L	0.003	43	1	5	28	KED
⌊	**Cd**	**114**	**-0.003**	ug/L	0.002	79	5	2	73	KED
⌈>	**In**	**115**		ug/L			1116661	1159645	0	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	54	71	97	12	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1243923	2	Standard
⌊	**Pb**	**208**	**0.003**	ug/L	0.001	38	512	655	7	Standard

Sample Information

Sample Date/Time: Monday, June 25, 2018 12:31:14
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_C
Mass Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

Calibration

Analyte	Mass	**r Corr Coef**	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Sc	45							
Cr	52	**0.9985**	0.015	0.50	10	20	50	100
Cr	53	**1.0000**	0.002	0.50	10	20	50	100
Mn	55	**0.9992**	0.021	0.50	10	20	50	100
Ge-1	72							
Ni	60	**1.0000**	0.020	0.50	10	20	50	100
Ni	62	**0.9999**	0.003	0.50	10	20	50	100
Cu	63	**0.9995**	0.053	0.50	10	20	50	100
Cu	65	**0.9997**	0.026	0.50	10	20	50	100
Zn	66	**0.9998**	0.006	4.00	10	20	50	100
Zn	67	**0.9999**	0.001	4.00	10	20	50	100
As	75	**0.9998**	0.004	0.20	10	20	50	100
Y	89							
Kr	83							
In-1	115							
Cd	111	**0.9997**	0.013	0.10	10	20	50	100
Cd	114	**0.9997**	0.033	0.10	10	20	50	100
In	115							
Ag	107	**0.9996**	0.017	0.20	10	20	50	100
Tb	159							
Pb	208	**0.9994**	0.032	0.10	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICV1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 12:47:38
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	27806	1	Standard
	Cl	**37**		ug/L			6867746	7513685	2	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1769935	0	Standard
|	**Cr**	**52**	**54.518**	ug/L	0.768	1	28467	1497588	0	Standard
|	**Cr**	**53**	**50.076**	ug/L	0.182	0	176	177006	0	Standard
⌊	**Mn**	**55**	**50.547**	ug/L	1.093	2	868	1883646	1	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	72583	1	KED
|	**Ni**	**60**	**50.612**	ug/L	0.192	0	59	73226	1	KED
|	**Ni**	**62**	**50.346**	ug/L	0.761	1	7	11687	2	KED
|	**Cu**	**63**	**50.924**	ug/L	1.797	3	125	194804	3	KED
|	**Cu**	**65**	**51.186**	ug/L	1.439	2	57	95417	1	KED
|	**Zn**	**66**	**48.666**	ug/L	1.092	2	259	22812	0	KED
|	**Zn**	**67**	**46.814**	ug/L	0.690	1	44	3691	0	KED
⌊	**As**	**75**	**50.267**	ug/L	1.487	2	4	14904	1	KED
	Y	**89**		ug/L			841263	863522	1	Standard
	Kr	**83**		ug/L			56	67	21	Standard
⌈>	**In-1**	**115**		ug/L			30919	29973	1	KED
|	**Cd**	**111**	**50.283**	ug/L	0.990	1	1	19544	1	KED
⌊	**Cd**	**114**	**49.886**	ug/L	0.365	0	5	49383	1	KED
⌈>	**In**	**115**		ug/L			1116661	1106166	2	Standard
⌊	**Ag**	**107**	**52.097**	ug/L	1.598	3	71	978820	0	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1224607	1	Standard
⌊	**Pb**	**208**	**55.055**	ug/L	1.402	2	512	2167027	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICB1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 12:54:50
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	24991	3	Standard
	Cl	**37**		ug/L			6867746	7325165	1	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1755030	0	Standard
|	**Cr**	**52**	**0.006**	ug/L	0.012	194	28467	30156	0	Standard
|	**Cr**	**53**	**0.003**	ug/L	0.002	63	176	196	4	Standard
⌊	**Mn**	**55**	**0.003**	ug/L	0.001	31	868	1043	4	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	75005	2	KED
|	**Ni**	**60**	**0.002**	ug/L	0.008	431	59	62	16	KED
|	**Ni**	**62**	**0.015**	ug/L	0.028	184	7	11	60	KED
|	**Cu**	**63**	**0.008**	ug/L	0.007	91	125	158	18	KED
|	**Cu**	**65**	**0.005**	ug/L	0.004	69	57	69	9	KED
|	**Zn**	**66**	**0.157**	ug/L	0.012	7	259	339	3	KED
|	**Zn**	**67**	**-0.013**	ug/L	0.135	1072	44	44	25	KED
⌊	**As**	**75**	**0.001**	ug/L	0.001	162	4	5	5	KED
	Y	**89**		ug/L			841263	880592	3	Standard
	Kr	**83**		ug/L			56	60	27	Standard
⌈>	**In-1**	**115**		ug/L			30919	30352	1	KED
|	**Cd**	**111**	**0.004**	ug/L	0.002	36	1	3	15	KED
⌊	**Cd**	**114**	**0.000**	ug/L	0.003	6564	5	5	62	KED
⌈>	**In**	**115**		ug/L			1116661	1150995	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	83	71	101	22	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1210360	2	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.001	24	512	593	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 12:59:35
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	23525	2	Standard
	Cl	**37**		ug/L			6867746	7579673	1	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1748640	1	Standard
|	**Cr**	**52**	**54.607**	ug/L	0.681	1	28467	1481936	0	Standard
|	**Cr**	**53**	**50.544**	ug/L	0.637	1	176	176493	0	Standard
⌊	**Mn**	**55**	**50.038**	ug/L	0.673	1	868	1842260	0	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	72438	2	KED
|	**Ni**	**60**	**50.418**	ug/L	0.178	0	59	72795	2	KED
|	**Ni**	**62**	**49.792**	ug/L	1.093	2	7	11531	1	KED
|	**Cu**	**63**	**50.928**	ug/L	1.056	2	125	194388	1	KED
|	**Cu**	**65**	**50.660**	ug/L	1.446	2	57	94229	1	KED
|	**Zn**	**66**	**50.791**	ug/L	1.069	2	259	23746	1	KED
|	**Zn**	**67**	**49.929**	ug/L	1.949	3	44	3926	3	KED
⌊	**As**	**75**	**50.419**	ug/L	0.683	1	4	14919	1	KED
	Y	**89**		ug/L			841263	879868	1	Standard
	Kr	**83**		ug/L			56	74	5	Standard
⌈>	**In-1**	**115**		ug/L			30919	29619	1	KED
|	**Cd**	**111**	**51.241**	ug/L	0.735	1	1	19682	1	KED
⌊	**Cd**	**114**	**50.799**	ug/L	0.679	1	5	49688	1	KED
⌈>	**In**	**115**		ug/L			1116661	1133145	1	Standard
⌊	**Ag**	**107**	**50.976**	ug/L	2.825	5	71	981485	5	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1228034	2	Standard
⌊	**Pb**	**208**	**54.686**	ug/L	2.314	4	512	2157619	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 13:06:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	24931	3	Standard
	Cl	**37**		ug/L			6867746	7344025	0	Standard
⎡>	**Sc**	**45**		ug/L			1665701	1739843	0	Standard
⎢	**Cr**	**52**	**0.004**	ug/L	0.040	913	28467	29847	3	Standard
⎢	**Cr**	**53**	**0.010**	ug/L	0.008	76	176	220	12	Standard
⎣	**Mn**	**55**	**0.007**	ug/L	0.008	106	868	1173	24	Standard
⎡>	**Ge-1**	**72**		ug/L			73509	73721	2	KED
⎢	**Ni**	**60**	**-0.002**	ug/L	0.012	528	59	55	31	KED
⎢	**Ni**	**62**	**0.005**	ug/L	0.016	310	7	8	44	KED
⎢	**Cu**	**63**	**0.007**	ug/L	0.005	73	125	153	13	KED
⎢	**Cu**	**65**	**0.011**	ug/L	0.003	29	57	78	8	KED
⎢	**Zn**	**66**	**0.175**	ug/L	0.065	37	259	342	8	KED
⎢	**Zn**	**67**	**0.016**	ug/L	0.078	495	44	45	11	KED
⎣	**As**	**75**	**-0.002**	ug/L	0.004	227	4	4	29	KED
	Y	**89**		ug/L			841263	885304	1	Standard
	Kr	**83**		ug/L			56	48	4	Standard
⎡>	**In-1**	**115**		ug/L			30919	30222	2	KED
⎢	**Cd**	**111**	**0.011**	ug/L	0.007	69	1	6	48	KED
⎣	**Cd**	**114**	**-0.001**	ug/L	0.001	175	5	4	20	KED
⎡>	**In**	**115**		ug/L			1116661	1164437	2	Standard
⎣	**Ag**	**107**	**0.004**	ug/L	0.006	133	71	159	71	Standard
⎡>	**Tb**	**159**		ug/L			1224547	1224745	4	Standard
⎣	**Pb**	**208**	**0.006**	ug/L	0.009	148	512	756	47	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CRL1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 13:13:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	26254	1	Standard
	Cl	**37**		ug/L			6867746	7323064	1	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1758816	0	Standard
|	**Cr**	**52**	**0.523**	ug/L	0.022	4	28467	44059	1	Standard
|	**Cr**	**53**	**0.493**	ug/L	0.027	5	176	1917	4	Standard
⌊	**Mn**	**55**	**0.578**	ug/L	0.013	2	868	22297	1	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	73123	1	KED
|	**Ni**	**60**	**0.472**	ug/L	0.029	6	59	746	4	KED
|	**Ni**	**62**	**0.521**	ug/L	0.064	12	7	129	12	KED
|	**Cu**	**63**	**0.506**	ug/L	0.002	0	125	2075	1	KED
|	**Cu**	**65**	**0.509**	ug/L	0.016	3	57	1013	2	KED
|	**Zn**	**66**	**3.665**	ug/L	0.086	2	259	1969	3	KED
|	**Zn**	**67**	**3.230**	ug/L	0.036	1	44	297	0	KED
⌊	**As**	**75**	**0.220**	ug/L	0.015	6	4	70	7	KED
	Y	**89**		ug/L			841263	884265	1	Standard
	Kr	**83**		ug/L			56	50	26	Standard
⌈>	**In-1**	**115**		ug/L			30919	29905	4	KED
|	**Cd**	**111**	**0.098**	ug/L	0.013	12	1	39	7	KED
⌊	**Cd**	**114**	**0.110**	ug/L	0.006	5	5	113	4	KED
⌈>	**In**	**115**		ug/L			1116661	1121765	0	Standard
⌊	**Ag**	**107**	**0.216**	ug/L	0.007	3	71	4194	3	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1217669	2	Standard
⌊	**Pb**	**208**	**0.107**	ug/L	0.003	3	512	4679	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFA1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 13:18:40
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	148969	2	Standard
	Cl	**37**		ug/L			6867746	15034712	3	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1744033	1	Standard
|	**Cr**	**52**	**0.608**	ug/L	0.015	2	28467	45924	1	Standard
|	**Cr**	**53**	**4.333**	ug/L	0.071	1	176	15263	2	Standard
⌊	**Mn**	**55**	**0.063**	ug/L	0.001	1	868	3211	2	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	70432	0	KED
|	**Ni**	**60**	**0.011**	ug/L	0.005	41	59	72	9	KED
|	**Ni**	**62**	**0.111**	ug/L	0.017	15	7	32	11	KED
|	**Cu**	**63**	**0.012**	ug/L	0.003	21	125	165	6	KED
|	**Cu**	**65**	**0.022**	ug/L	0.004	18	57	95	8	KED
|	**Zn**	**66**	**-0.259**	ug/L	0.046	17	259	131	15	KED
|	**Zn**	**67**	**-0.303**	ug/L	0.037	12	44	19	14	KED
⌊	**As**	**75**	**0.027**	ug/L	0.005	16	4	12	10	KED
	Y	**89**		ug/L			841263	840014	1	Standard
	Kr	**83**		ug/L			56	177	7	Standard
⌈>	**In-1**	**115**		ug/L			30919	28751	1	KED
|	**Cd**	**111**	**0.126**	ug/L	0.015	12	1	48	12	KED
⌊	**Cd**	**114**	**0.084**	ug/L	0.016	19	5	84	18	KED
⌈>	**In**	**115**		ug/L			1116661	1141405	3	Standard
⌊	**Ag**	**107**	**0.010**	ug/L	0.001	7	71	267	2	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1322738	0	Standard
⌊	**Pb**	**208**	**0.012**	ug/L	0.001	10	512	1045	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFB1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 13:23:08
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	149292	4	Standard
	Cl	**37**		ug/L			6867746	14715071	1	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1695727	3	Standard
|	**Cr**	**52**	**22.739**	ug/L	0.623	2	28467	615040	0	Standard
|	**Cr**	**53**	**24.844**	ug/L	1.674	6	176	84105	3	Standard
⌊	**Mn**	**55**	**22.661**	ug/L	0.606	2	868	809156	0	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	73372	2	KED
|	**Ni**	**60**	**19.560**	ug/L	0.488	2	59	28633	0	KED
|	**Ni**	**62**	**19.908**	ug/L	0.677	3	7	4673	1	KED
|	**Cu**	**63**	**19.668**	ug/L	0.291	1	125	76122	0	KED
|	**Cu**	**65**	**19.756**	ug/L	0.063	0	57	37271	1	KED
|	**Zn**	**66**	**17.948**	ug/L	0.631	3	259	8666	2	KED
|	**Zn**	**67**	**15.984**	ug/L	0.881	5	44	1302	4	KED
⌊	**As**	**75**	**19.665**	ug/L	0.487	2	4	5896	0	KED
	Y	**89**		ug/L			841263	857163	1	Standard
	Kr	**83**		ug/L			56	172	6	Standard
⌈>	**In-1**	**115**		ug/L			30919	30954	1	KED
|	**Cd**	**111**	**19.232**	ug/L	0.085	0	1	7721	1	KED
⌊	**Cd**	**114**	**19.018**	ug/L	0.271	1	5	19442	0	KED
⌈>	**In**	**115**		ug/L			1116661	1139987	1	Standard
⌊	**Ag**	**107**	**19.000**	ug/L	0.550	2	71	368091	2	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1353475	1	Standard
⌊	**Pb**	**208**	**0.014**	ug/L	0.001	5	512	1156	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 13:30:55
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	28167	1	Standard
	Cl	**37**		ug/L			6867746	7723448	1	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1749575	1	Standard
|	**Cr**	**52**	**192.466**	ug/L	0.603	0	28467	5150738	1	Standard
|	**Cr**	**53**	**198.941**	ug/L	0.933	0	176	694610	2	Standard
⌊	**Mn**	**55**	**196.668**	ug/L	0.622	0	868	7242951	2	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	74069	1	KED
|	**Ni**	**60**	**200.630**	ug/L	7.092	3	59	295961	2	KED
|	**Ni**	**62**	**197.649**	ug/L	4.122	2	7	46787	0	KED
|	**Cu**	**63**	**193.610**	ug/L	2.903	1	125	755401	0	KED
|	**Cu**	**65**	**198.122**	ug/L	7.189	3	57	376691	2	KED
|	**Zn**	**66**	**196.652**	ug/L	3.608	1	259	93282	1	KED
|	**Zn**	**67**	**186.273**	ug/L	7.564	4	44	14854	2	KED
⌊	**As**	**75**	**202.229**	ug/L	4.908	2	4	61174	1	KED
	Y	**89**		ug/L			841263	851798	1	Standard
	Kr	**83**		ug/L			56	173	7	Standard
⌈>	**In-1**	**115**		ug/L			30919	30391	2	KED
|	**Cd**	**111**	**195.825**	ug/L	3.800	1	1	77158	0	KED
⌊	**Cd**	**114**	**197.070**	ug/L	3.828	1	5	197763	2	KED
⌈>	**In**	**115**		ug/L			1116661	1141994	0	Standard
⌊	**Ag**	**107**	**170.316**	ug/L	2.582	1	71	3305555	2	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1316334	1	Standard
⌊	**Pb**	**208**	**185.515**	ug/L	2.771	1	512	7849229	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 13:35:23

DEL

Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	28894	3	Standard
	Cl	**37**		ug/L			6867746	7602784	1	Standard
>	**Sc**	**45**		ug/L			1665701	1720369	2	Standard
	Cr	**52**	**287.255**	ug/L	6.222	2	28467	7542750	1	Standard
	Cr	**53**	**293.977**	ug/L	7.679	2	176	1008846	1	Standard
	Mn	**55**	**291.774**	ug/L	11.492	3	868	10559309	1	Standard
>	**Ge-1**	**72**		ug/L			73509	71739	0	KED
	Ni	**60**	**282.622**	ug/L	5.400	1	59	403839	1	KED
	Ni	**62**	**280.199**	ug/L	3.499	1	7	64247	0	KED
	Cu	**63**	**278.181**	ug/L	0.198	0	125	1051320	1	KED
	Cu	**65**	**275.171**	ug/L	4.743	1	57	506867	1	KED
	Zn	**66**	**269.291**	ug/L	4.477	1	259	123634	1	KED
	Zn	**67**	**266.698**	ug/L	5.432	2	44	20584	1	KED
	As	**75**	**292.781**	ug/L	1.570	0	4	85794	0	KED
	Y	**89**		ug/L			841263	848732	0	Standard
	Kr	**83**		ug/L			56	226	5	Standard
>	**In-1**	**115**		ug/L			30919	28645	1	KED
	Cd	**111**	**291.205**	ug/L	3.970	1	1	108168	0	KED
	Cd	**114**	**286.964**	ug/L	9.888	3	5	271424	3	KED
>	**In**	**115**		ug/L			1116661	1078984	0	Standard
	Ag	**107**	**261.780**	ug/L	9.434	3	71	4798863	2	Standard
>	**Tb**	**159**		ug/L			1224547	1277029	0	Standard
	Pb	**208**	**259.179**	ug/L	7.847	3	512	10637903	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 13:46:34
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	25686	2	Standard
	Cl	**37**		ug/L			6867746	7746340	1	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1691538	1	Standard
|	**Cr**	**52**	**293.640**	ug/L	10.220	3	28467	7579328	1	Standard
|	**Cr**	**53**	**295.688**	ug/L	6.372	2	176	997805	1	Standard
⌊	**Mn**	**55**	**300.528**	ug/L	8.022	2	868	10696875	1	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	68918	1	KED
|	**Ni**	**60**	**294.391**	ug/L	6.578	2	59	404090	1	KED
|	**Ni**	**62**	**298.541**	ug/L	5.699	1	7	65758	1	KED
|	**Cu**	**63**	**285.032**	ug/L	0.603	0	125	1034852	1	KED
|	**Cu**	**65**	**288.086**	ug/L	5.036	1	57	509750	1	KED
|	**Zn**	**66**	**283.478**	ug/L	4.935	1	259	125017	1	KED
|	**Zn**	**67**	**274.400**	ug/L	3.217	1	44	20349	2	KED
⌊	**As**	**75**	**308.797**	ug/L	1.059	0	4	86933	1	KED
	Y	**89**		ug/L			841263	860990	1	Standard
	Kr	**83**		ug/L			56	239	10	Standard
⌈>	**In-1**	**115**		ug/L			30919	28583	1	KED
|	**Cd**	**111**	**288.607**	ug/L	3.815	1	1	106971	1	KED
⌊	**Cd**	**114**	**286.178**	ug/L	5.272	1	5	270087	1	KED
⌈>	**In**	**115**		ug/L			1116661	1064430	1	Standard
⌊	**Ag**	**107**	**256.802**	ug/L	1.527	0	71	4645055	1	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1213839	2	Standard
⌊	**Pb**	**208**	**268.012**	ug/L	5.737	2	512	10454622	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 13:53:45
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	28315	1	Standard
	Cl	**37**		ug/L			6867746	7943044	0	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1770708	1	Standard
|	**Cr**	**52**	**0.106**	ug/L	0.093	87	28467	33129	8	Standard
|	**Cr**	**53**	**0.062**	ug/L	0.092	147	176	409	80	Standard
⌊	**Mn**	**55**	**0.049**	ug/L	0.078	158	868	2780	106	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	77893	1	KED
|	**Ni**	**60**	**-0.007**	ug/L	0.039	560	59	51	115	KED
|	**Ni**	**62**	**0.021**	ug/L	0.028	132	7	13	51	KED
|	**Cu**	**63**	**0.009**	ug/L	0.044	487	125	168	104	KED
|	**Cu**	**65**	**0.006**	ug/L	0.038	590	57	73	102	KED
|	**Zn**	**66**	**-0.286**	ug/L	0.066	23	259	132	23	KED
|	**Zn**	**67**	**-0.357**	ug/L	0.129	36	44	17	61	KED
⌊	**As**	**75**	**0.027**	ug/L	0.030	112	4	13	69	KED
	Y	**89**		ug/L			841263	926022	3	Standard
	Kr	**83**		ug/L			56	56	9	Standard
⌈>	**In-1**	**115**		ug/L			30919	32108	1	KED
|	**Cd**	**111**	**0.007**	ug/L	0.007	93	1	5	57	KED
⌊	**Cd**	**114**	**0.005**	ug/L	0.005	101	5	11	50	KED
⌈>	**In**	**115**		ug/L			1116661	1187271	3	Standard
⌊	**Ag**	**107**	**0.043**	ug/L	0.062	144	71	920	131	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1242604	3	Standard
⌊	**Pb**	**208**	**0.034**	ug/L	0.057	169	512	1815	120	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 14:00:09
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	27674	2	Standard
	Cl	**37**		ug/L			6867746	7814758	1	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1796453	2	Standard
|	**Cr**	**52**	**0.015**	ug/L	0.072	477	28467	31089	4	Standard
|	**Cr**	**53**	**0.008**	ug/L	0.003	37	176	220	3	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.001	110	868	973	3	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	77401	0	KED
|	**Ni**	**60**	**-0.018**	ug/L	0.010	55	59	34	42	KED
|	**Ni**	**62**	**-0.002**	ug/L	0.023	1477	7	7	75	KED
|	**Cu**	**63**	**-0.010**	ug/L	0.007	75	125	93	30	KED
|	**Cu**	**65**	**-0.005**	ug/L	0.010	212	57	51	37	KED
|	**Zn**	**66**	**-0.130**	ug/L	0.051	39	259	208	12	KED
|	**Zn**	**67**	**-0.257**	ug/L	0.141	54	44	25	45	KED
⌊	**As**	**75**	**0.005**	ug/L	0.013	250	4	6	61	KED
	Y	**89**		ug/L			841263	896367	2	Standard
	Kr	**83**		ug/L			56	58	32	Standard
⌈>	**In-1**	**115**		ug/L			30919	31960	3	KED
|	**Cd**	**111**	**0.007**	ug/L	0.006	90	1	4	52	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.002	108	5	7	24	KED
⌈>	**In**	**115**		ug/L			1116661	1187589	1	Standard
⌊	**Ag**	**107**	**0.003**	ug/L	0.001	25	71	140	10	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1253332	2	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.001	234	512	547	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 14:06:32
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	24096	2	Standard
	Cl	**37**		ug/L			6867746	7982806	0	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1742523	1	Standard
|	**Cr**	**52**	**58.216**	ug/L	0.815	1	28467	1572278	0	Standard
|	**Cr**	**53**	**52.514**	ug/L	1.424	2	176	182694	1	Standard
⌊	**Mn**	**55**	**54.215**	ug/L	1.454	2	868	1988859	2	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	78209	1	KED
|	**Ni**	**60**	**48.978**	ug/L	0.452	0	59	76360	2	KED
|	**Ni**	**62**	**47.951**	ug/L	1.181	2	7	11994	3	KED
|	**Cu**	**63**	**49.191**	ug/L	0.979	1	125	202741	0	KED
|	**Cu**	**65**	**49.681**	ug/L	0.347	0	57	99822	2	KED
|	**Zn**	**66**	**49.397**	ug/L	1.111	2	259	24944	0	KED
|	**Zn**	**67**	**47.356**	ug/L	1.947	4	44	4023	3	KED
⌊	**As**	**75**	**50.062**	ug/L	0.273	0	4	15998	2	KED
	Y	**89**		ug/L			841263	914617	3	Standard
	Kr	**83**		ug/L			56	62	16	Standard
⌈>	**In-1**	**115**		ug/L			30919	31021	2	KED
|	**Cd**	**111**	**50.466**	ug/L	0.687	1	1	20300	1	KED
⌊	**Cd**	**114**	**50.415**	ug/L	1.330	2	5	51629	0	KED
⌈>	**In**	**115**		ug/L			1116661	1157970	2	Standard
⌊	**Ag**	**107**	**50.735**	ug/L	0.629	1	71	998237	2	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1247396	1	Standard
⌊	**Pb**	**208**	**54.174**	ug/L	1.345	2	512	2172133	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 14:13:44
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	23770	3	Standard
	Cl	**37**		ug/L			6867746	8026744	1	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1761452	4	Standard
|	**Cr**	**52**	**0.046**	ug/L	0.056	122	28467	31291	2	Standard
|	**Cr**	**53**	**0.012**	ug/L	0.012	104	176	226	17	Standard
⌊	**Mn**	**55**	**0.012**	ug/L	0.011	93	868	1341	25	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	80256	4	KED
|	**Ni**	**60**	**-0.001**	ug/L	0.002	165	59	62	0	KED
|	**Ni**	**62**	**0.010**	ug/L	0.018	181	7	10	40	KED
|	**Cu**	**63**	**0.008**	ug/L	0.002	32	125	168	2	KED
|	**Cu**	**65**	**0.006**	ug/L	0.001	20	57	75	7	KED
|	**Zn**	**66**	**0.132**	ug/L	0.045	34	259	349	3	KED
|	**Zn**	**67**	**-0.037**	ug/L	0.124	334	44	45	19	KED
⌊	**As**	**75**	**0.004**	ug/L	0.007	153	4	6	37	KED
	Y	**89**		ug/L			841263	884173	2	Standard
	Kr	**83**		ug/L			56	65	14	Standard
⌈>	**In-1**	**115**		ug/L			30919	32460	3	KED
|	**Cd**	**111**	**0.011**	ug/L	0.006	51	1	6	37	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.002	228	5	6	31	KED
⌈>	**In**	**115**		ug/L			1116661	1221014	0	Standard
⌊	**Ag**	**107**	**0.005**	ug/L	0.007	134	71	185	77	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1220682	3	Standard
⌊	**Pb**	**208**	**0.010**	ug/L	0.014	140	512	904	58	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0580-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 14:20:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25880	33717	2	Standard
	Cl	37		ug/L			6867746	7937535	2	Standard
>	Sc	45		ug/L			1665701	1805863	1	Standard
	Cr	52	0.078	ug/L	0.024	31	28467	33003	1	Standard
	Cr	53	0.019	ug/L	0.001	2	176	261	2	Standard
	Mn	55	0.300	ug/L	0.006	2	868	12338	1	Standard
>	Ge-1	72		ug/L			73509	79055	2	KED
	Ni	60	0.031	ug/L	0.004	12	59	111	4	KED
	Ni	62	0.058	ug/L	0.020	33	7	22	22	KED
	Cu	63	0.097	ug/L	0.009	9	125	539	5	KED
	Cu	65	0.100	ug/L	0.012	12	57	264	8	KED
	Zn	66	0.152	ug/L	0.059	38	259	354	7	KED
	Zn	67	0.275	ug/L	0.026	9	44	71	4	KED
	As	75	0.003	ug/L	0.005	172	4	6	24	KED
	Y	89		ug/L			841263	931654	1	Standard
	Kr	83		ug/L			56	52	7	Standard
>	In-1	115		ug/L			30919	31867	0	KED
	Cd	111	0.003	ug/L	0.004	121	1	3	45	KED
	Cd	114	0.001	ug/L	0.002	148	5	7	29	KED
>	In	115		ug/L			1116661	1201327	1	Standard
	Ag	107	0.001	ug/L	0.001	136	71	98	28	Standard
>	Tb	159		ug/L			1224547	1263612	2	Standard
	Pb	208	0.002	ug/L	0.002	101	512	598	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0580-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 14:25:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25880	36876	3	Standard
	Cl	37		ug/L			6867746	7809835	2	Standard
>	Sc	45		ug/L			1665701	1805374	2	Standard
	Cr	52	29.819	ug/L	0.973	3	28467	849350	3	Standard
	Cr	53	26.945	ug/L	0.724	2	176	97221	3	Standard
	Mn	55	29.948	ug/L	1.130	3	868	1138076	0	Standard
>	Ge-1	72		ug/L			73509	78196	1	KED
	Ni	60	26.880	ug/L	1.407	5	59	41904	3	KED
	Ni	62	26.864	ug/L	0.398	1	7	6721	1	KED
	Cu	63	27.035	ug/L	0.665	2	125	111460	1	KED
	Cu	65	27.532	ug/L	0.314	1	57	55338	2	KED
	Zn	66	87.047	ug/L	0.979	1	259	43744	0	KED
	Zn	67	76.359	ug/L	1.610	2	44	6457	0	KED
	As	75	26.225	ug/L	0.627	2	4	8379	0	KED
	Y	89		ug/L			841263	917209	2	Standard
	Kr	83		ug/L			56	69	23	Standard
>	In-1	115		ug/L			30919	32541	1	KED
	Cd	111	25.890	ug/L	0.647	2	1	10927	2	KED
	Cd	114	25.852	ug/L	0.870	3	5	27781	3	KED
>	In	115		ug/L			1116661	1203133	0	Standard
	Ag	107	27.548	ug/L	0.975	3	71	563239	3	Standard
>	Tb	159		ug/L			1224547	1261460	3	Standard
	Pb	208	28.728	ug/L	0.812	2	512	1164696	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0317-01RE1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 14:32:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25880	60585	2	Standard
	Cl	37		ug/L			6867746	8515544	1	Standard
>	Sc	45		ug/L			1665701	1923117	2	Standard
	Cr	52	1.694	ug/L	0.063	3	28467	82388	2	Standard
	Cr	53	1.724	ug/L	0.046	2	176	6816	0	Standard
	Mn	55	413.395	ug/L	12.042	2	868	16725063	0	Standard
>	Ge-1	72		ug/L			73509	77737	1	KED
	Ni	60	4.435	ug/L	0.057	1	59	6929	2	KED
	Ni	62	4.574	ug/L	0.241	5	7	1144	4	KED
	Cu	63	4.630	ug/L	0.075	1	125	19095	2	KED
	Cu	65	4.551	ug/L	0.194	4	57	9144	4	KED
	Zn	66	52.530	ug/L	0.672	1	259	26358	2	KED
	Zn	67	53.854	ug/L	1.126	2	44	4541	1	KED
	As	75	1.663	ug/L	0.071	4	4	533	5	KED
	Y	89		ug/L			841263	900742	0	Standard
	Kr	83		ug/L			56	71	14	Standard
>	In-1	115		ug/L			30919	30390	1	KED
	Cd	111	0.185	ug/L	0.020	10	1	74	11	KED
	Cd	114	0.149	ug/L	0.033	22	5	154	22	KED
>	In	115		ug/L			1116661	1163106	2	Standard
	Ag	107	0.009	ug/L	0.001	7	71	256	6	Standard
>	Tb	159		ug/L			1224547	1259403	3	Standard
	Pb	208	1.626	ug/L	0.059	3	512	66271	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0318-01RE1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 14:37:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25880	1760955	0	Standard
	Cl	37		ug/L			6867746	7475878	0	Standard
>	Sc	45		ug/L			1665701	1679976	0	Standard
	Cr	52	8.883	ug/L	0.090	1	28467	255653	0	Standard
	Cr	53	3.016	ug/L	0.048	1	176	10286	0	Standard
	Mn	55	157.054	ug/L	1.045	0	868	5554148	1	Standard
>	Ge-1	72		ug/L			73509	62584	0	KED
	Ni	60	24.466	ug/L	0.224	0	59	30546	1	KED
	Ni	62	24.249	ug/L	0.477	1	7	4856	1	KED
	Cu	63	1.490	ug/L	0.029	1	125	5018	1	KED
	Cu	65	1.459	ug/L	0.014	0	57	2393	1	KED
	Zn	66	7.937	ug/L	0.199	2	259	3393	2	KED
	Zn	67	12.740	ug/L	0.382	2	44	893	3	KED
	As	75	0.246	ug/L	0.023	9	4	66	8	KED
	Y	89		ug/L			841263	829462	1	Standard
	Kr	83		ug/L			56	183	8	Standard
>	In-1	115		ug/L			30919	25377	1	KED
	Cd	111	0.035	ug/L	0.007	18	1	13	15	KED
	Cd	114	0.032	ug/L	0.003	8	5	31	8	KED
>	In	115		ug/L			1116661	957101	2	Standard
	Ag	107	0.003	ug/L	0.002	62	71	107	28	Standard
>	Tb	159		ug/L			1224547	1183035	1	Standard
	Pb	208	0.018	ug/L	0.002	13	512	1161	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-13
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, June 25, 2018 14:41:56
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	46193	3	Standard
	Cl	**37**		ug/L			6867746	7981816	0	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1722198	0	Standard
|	**Cr**	**52**	**0.121**	ug/L	0.031	25	28467	32612	2	Standard
|	**Cr**	**53**	**0.096**	ug/L	0.005	5	176	512	3	Standard
⌊	**Mn**	**55**	**6.212**	ug/L	0.067	1	868	226054	1	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	79634	1	KED
|	**Ni**	**60**	**0.108**	ug/L	0.011	9	59	234	5	KED
|	**Ni**	**62**	**0.115**	ug/L	0.010	8	7	37	7	KED
|	**Cu**	**63**	**0.729**	ug/L	0.034	4	125	3194	2	KED
|	**Cu**	**65**	**0.682**	ug/L	0.017	2	57	1455	2	KED
|	**Zn**	**66**	**3.031**	ug/L	0.035	1	259	1822	2	KED
|	**Zn**	**67**	**2.594**	ug/L	0.290	11	44	269	8	KED
⌊	**As**	**75**	**0.281**	ug/L	0.016	5	4	96	5	KED
	Y	**89**		ug/L			841263	895949	0	Standard
	Kr	**83**		ug/L			56	60	5	Standard
⌈>	**In-1**	**115**		ug/L			30919	32312	1	KED
|	**Cd**	**111**	**0.026**	ug/L	0.011	39	1	13	32	KED
⌊	**Cd**	**114**	**0.022**	ug/L	0.006	28	5	29	23	KED
⌈>	**In**	**115**		ug/L			1116661	1130839	0	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	79	71	83	10	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1200931	2	Standard
⌊	**Pb**	**208**	**0.044**	ug/L	0.001	2	512	2196	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-21
Sample Dil Factor: 50
Comments:
Sample Date/Time: Monday, June 25, 2018 14:46:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	32123	3	Standard
	Cl	**37**		ug/L			6867746	8097435	0	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1669780	0	Standard
|	**Cr**	**52**	**0.038**	ug/L	0.015	40	28467	29498	1	Standard
|	**Cr**	**53**	**0.032**	ug/L	0.004	11	176	282	4	Standard
⌊	**Mn**	**55**	**162.593**	ug/L	2.882	1	868	5714953	1	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	75502	1	KED
|	**Ni**	**60**	**1.062**	ug/L	0.060	5	59	1657	5	KED
|	**Ni**	**62**	**1.041**	ug/L	0.200	19	7	259	18	KED
|	**Cu**	**63**	**1.167**	ug/L	0.046	3	125	4768	2	KED
|	**Cu**	**65**	**1.160**	ug/L	0.061	5	57	2308	5	KED
|	**Zn**	**66**	**15.217**	ug/L	0.701	4	259	7604	4	KED
|	**Zn**	**67**	**13.209**	ug/L	0.440	3	44	1116	1	KED
⌊	**As**	**75**	**0.006**	ug/L	0.004	76	4	6	21	KED
	Y	**89**		ug/L			841263	890196	1	Standard
	Kr	**83**		ug/L			56	62	7	Standard
⌈>	**In-1**	**115**		ug/L			30919	31097	1	KED
|	**Cd**	**111**	**0.169**	ug/L	0.013	7	1	70	5	KED
⌊	**Cd**	**114**	**0.190**	ug/L	0.013	6	5	200	5	KED
⌈>	**In**	**115**		ug/L			1116661	1112034	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	180	71	81	21	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1175930	4	Standard
⌊	**Pb**	**208**	**0.012**	ug/L	0.001	10	512	943	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-22
Sample Dil Factor: 50
Comments:
Sample Date/Time: Monday, June 25, 2018 14:50:52
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	27653	1	Standard
	Cl	**37**		ug/L			6867746	7935202	0	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1658440	0	Standard
|	**Cr**	**52**	**0.033**	ug/L	0.018	56	28467	29168	1	Standard
|	**Cr**	**53**	**0.018**	ug/L	0.001	7	176	235	1	Standard
⌊	**Mn**	**55**	**152.563**	ug/L	4.063	2	868	5325078	1	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	75904	1	KED
|	**Ni**	**60**	**0.985**	ug/L	0.097	9	59	1548	8	KED
|	**Ni**	**62**	**1.027**	ug/L	0.090	8	7	257	9	KED
|	**Cu**	**63**	**1.071**	ug/L	0.027	2	125	4411	1	KED
|	**Cu**	**65**	**1.118**	ug/L	0.017	1	57	2238	2	KED
|	**Zn**	**66**	**14.851**	ug/L	0.492	3	259	7465	2	KED
|	**Zn**	**67**	**12.802**	ug/L	0.485	3	44	1088	2	KED
⌊	**As**	**75**	**0.001**	ug/L	0.005	863	4	5	28	KED
	Y	**89**		ug/L			841263	873209	1	Standard
	Kr	**83**		ug/L			56	63	18	Standard
⌈>	**In-1**	**115**		ug/L			30919	30906	0	KED
|	**Cd**	**111**	**0.190**	ug/L	0.020	10	1	78	9	KED
⌊	**Cd**	**114**	**0.182**	ug/L	0.010	5	5	190	4	KED
⌈>	**In**	**115**		ug/L			1116661	1093325	2	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.000	79	71	64	7	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1167572	3	Standard
⌊	**Pb**	**208**	**0.011**	ug/L	0.002	15	512	907	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0313-01RE1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 14:55:20
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25880	34789	0	Standard
	Cl	37		ug/L			6867746	7868860	0	Standard
>	Sc	45		ug/L			1665701	1787009	1	Standard
	Cr	52	3.058	ug/L	0.034	1	28467	113661	2	Standard
	Cr	53	2.749	ug/L	0.061	2	176	9989	1	Standard
	Mn	55	1.956	ug/L	0.030	1	868	74491	2	Standard
>	Ge-1	72		ug/L			73509	76076	1	KED
	Ni	60	1.697	ug/L	0.096	5	59	2631	3	KED
	Ni	62	1.664	ug/L	0.167	10	7	412	7	KED
	Cu	63	0.662	ug/L	0.028	4	125	2780	2	KED
	Cu	65	0.651	ug/L	0.021	3	57	1330	1	KED
	Zn	66	2.951	ug/L	0.020	0	259	1701	1	KED
	Zn	67	2.596	ug/L	0.277	10	44	257	7	KED
	As	75	0.083	ug/L	0.011	12	4	30	11	KED
	Y	89		ug/L			841263	907370	0	Standard
	Kr	83		ug/L			56	64	5	Standard
>	In-1	115		ug/L			30919	32540	1	KED
	Cd	111	0.103	ug/L	0.009	9	1	45	9	KED
	Cd	114	0.094	ug/L	0.013	13	5	106	13	KED
>	In	115		ug/L			1116661	1114239	0	Standard
	Ag	107	0.008	ug/L	0.001	16	71	227	12	Standard
>	Tb	159		ug/L			1224547	1180546	2	Standard
	Pb	208	0.306	ug/L	0.013	4	512	12110	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0580-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 14:59:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25880	36287	2	Standard
	Cl	37		ug/L			6867746	7923830	0	Standard
⌈>	Sc	45		ug/L			1665701	1803805	0	Standard
|	Cr	52	3.160	ug/L	0.064	2	28467	117498	1	Standard
|	Cr	53	2.984	ug/L	0.087	2	176	10928	3	Standard
⌊	Mn	55	1.835	ug/L	0.062	3	868	70613	3	Standard
⌈>	Ge-1	72		ug/L			73509	78121	1	KED
|	Ni	60	1.637	ug/L	0.017	1	59	2609	1	KED
|	Ni	62	1.628	ug/L	0.062	3	7	414	4	KED
|	Cu	63	0.660	ug/L	0.023	3	125	2847	2	KED
|	Cu	65	0.648	ug/L	0.023	3	57	1361	5	KED
|	Zn	66	3.222	ug/L	0.157	4	259	1882	3	KED
|	Zn	67	2.851	ug/L	0.076	2	44	286	1	KED
⌊	As	75	0.082	ug/L	0.003	3	4	31	2	KED
	Y	89		ug/L			841263	930937	1	Standard
	Kr	83		ug/L			56	57	11	Standard
⌈>	In-1	115		ug/L			30919	33438	5	KED
|	Cd	111	0.112	ug/L	0.006	5	1	50	6	KED
⌊	Cd	114	0.093	ug/L	0.006	6	5	108	3	KED
⌈>	In	115		ug/L			1116661	1126733	3	Standard
⌊	Ag	107	0.009	ug/L	0.000	4	71	238	4	Standard
⌈>	Tb	159		ug/L			1224547	1216554	1	Standard
⌊	Pb	208	0.291	ug/L	0.007	2	512	11905	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0580-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 15:04:17
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	40436	2	Standard
	Cl	**37**		ug/L			6867746	7939600	2	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1808622	1	Standard
|	**Cr**	**52**	**30.540**	ug/L	0.087	0	28467	870908	1	Standard
|	**Cr**	**53**	**27.789**	ug/L	0.492	1	176	100446	1	Standard
⌊	**Mn**	**55**	**30.261**	ug/L	0.626	2	868	1152682	1	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	79983	1	KED
|	**Ni**	**60**	**26.077**	ug/L	0.526	2	59	41609	2	KED
|	**Ni**	**62**	**25.976**	ug/L	0.809	3	7	6646	1	KED
|	**Cu**	**63**	**25.942**	ug/L	0.471	1	125	109411	0	KED
|	**Cu**	**65**	**25.790**	ug/L	0.523	2	57	53011	0	KED
|	**Zn**	**66**	**80.943**	ug/L	2.289	2	259	41625	2	KED
|	**Zn**	**67**	**73.032**	ug/L	4.792	6	44	6316	5	KED
⌊	**As**	**75**	**24.754**	ug/L	0.310	1	4	8091	0	KED
	Y	**89**		ug/L			841263	921292	3	Standard
	Kr	**83**		ug/L			56	65	26	Standard
⌈>	**In-1**	**115**		ug/L			30919	33235	2	KED
|	**Cd**	**111**	**25.162**	ug/L	0.577	2	1	10842	0	KED
⌊	**Cd**	**114**	**24.262**	ug/L	0.538	2	5	26627	1	KED
⌈>	**In**	**115**		ug/L			1116661	1122794	3	Standard
⌊	**Ag**	**107**	**28.214**	ug/L	1.293	4	71	537795	1	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1214525	4	Standard
⌊	**Pb**	**208**	**28.274**	ug/L	1.794	6	512	1102189	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 15:09:50
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	21444	4	Standard
	Cl	**37**		ug/L			6867746	8000555	1	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1635638	2	Standard
|	**Cr**	**52**	**56.707**	ug/L	0.866	1	28467	1438199	0	Standard
|	**Cr**	**53**	**53.028**	ug/L	1.925	3	176	173142	2	Standard
⌊	**Mn**	**55**	**54.464**	ug/L	0.938	1	868	1876102	3	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	75330	2	KED
|	**Ni**	**60**	**47.509**	ug/L	1.362	2	59	71336	3	KED
|	**Ni**	**62**	**48.211**	ug/L	1.211	2	7	11612	2	KED
|	**Cu**	**63**	**48.236**	ug/L	0.582	1	125	191513	2	KED
|	**Cu**	**65**	**47.425**	ug/L	1.605	3	57	91727	0	KED
|	**Zn**	**66**	**48.381**	ug/L	2.078	4	259	23545	5	KED
|	**Zn**	**67**	**48.431**	ug/L	1.959	4	44	3964	5	KED
⌊	**As**	**75**	**50.909**	ug/L	1.165	2	4	15663	0	KED
	Y	**89**		ug/L			841263	891209	3	Standard
	Kr	**83**		ug/L			56	70	13	Standard
⌈>	**In-1**	**115**		ug/L			30919	30216	2	KED
|	**Cd**	**111**	**49.907**	ug/L	0.345	0	1	19559	2	KED
⌊	**Cd**	**114**	**49.654**	ug/L	0.810	1	5	49537	1	KED
⌈>	**In**	**115**		ug/L			1116661	1065466	2	Standard
⌊	**Ag**	**107**	**52.790**	ug/L	0.438	0	71	955716	2	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1151298	0	Standard
⌊	**Pb**	**208**	**53.263**	ug/L	0.414	0	512	1971568	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 15:17:02
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	21230	0	Standard
	Cl	**37**		ug/L			6867746	7935886	0	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1700190	0	Standard
|	**Cr**	**52**	**0.020**	ug/L	0.038	188	28467	29580	3	Standard
|	**Cr**	**53**	**0.013**	ug/L	0.007	58	176	222	10	Standard
⌊	**Mn**	**55**	**0.005**	ug/L	0.001	20	868	1067	3	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	76499	1	KED
|	**Ni**	**60**	**-0.006**	ug/L	0.002	38	59	52	7	KED
|	**Ni**	**62**	**0.012**	ug/L	0.004	33	7	10	10	KED
|	**Cu**	**63**	**0.008**	ug/L	0.001	7	125	164	2	KED
|	**Cu**	**65**	**0.012**	ug/L	0.007	56	57	83	15	KED
|	**Zn**	**66**	**0.109**	ug/L	0.066	60	259	322	8	KED
|	**Zn**	**67**	**0.141**	ug/L	0.192	136	44	57	26	KED
⌊	**As**	**75**	**0.004**	ug/L	0.002	60	4	6	13	KED
	Y	**89**		ug/L			841263	882442	4	Standard
	Kr	**83**		ug/L			56	62	10	Standard
⌈>	**In-1**	**115**		ug/L			30919	31353	3	KED
|	**Cd**	**111**	**0.009**	ug/L	0.008	87	1	5	53	KED
⌊	**Cd**	**114**	**0.005**	ug/L	0.006	132	5	10	60	KED
⌈>	**In**	**115**		ug/L			1116661	1092191	3	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.001	80	71	99	25	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1163960	2	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.001	66	512	557	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-03
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, June 25, 2018 15:22:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	32175	2	Standard
	Cl	**37**		ug/L			6867746	49098991	2	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1641647	0	Standard
|	**Cr**	**52**	**0.490**	ug/L	0.012	2	28467	40293	0	Standard
|	**Cr**	**53**	**31.783**	ug/L	0.687	2	176	104273	2	Standard
⌊	**Mn**	**55**	**77.616**	ug/L	0.781	1	868	2682518	0	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	62584	0	KED
|	**Ni**	**60**	**0.192**	ug/L	0.019	9	59	289	8	KED
|	**Ni**	**62**	**0.339**	ug/L	0.018	5	7	74	4	KED
|	**Cu**	**63**	**0.069**	ug/L	0.011	15	125	333	10	KED
|	**Cu**	**65**	**0.045**	ug/L	0.004	9	57	121	5	KED
|	**Zn**	**66**	**1.480**	ug/L	0.128	8	259	812	6	KED
|	**Zn**	**67**	**1.534**	ug/L	0.264	17	44	140	12	KED
⌊	**As**	**75**	**0.177**	ug/L	0.007	4	4	49	3	KED
	Y	**89**		ug/L			841263	818570	2	Standard
	Kr	**83**		ug/L			56	1149	4	Standard
⌈>	**In-1**	**115**		ug/L			30919	25297	2	KED
|	**Cd**	**111**	**0.011**	ug/L	0.005	44	1	5	28	KED
⌊	**Cd**	**114**	**0.015**	ug/L	0.007	48	5	17	34	KED
⌈>	**In**	**115**		ug/L			1116661	917656	4	Standard
⌊	**Ag**	**107**	**0.004**	ug/L	0.001	28	71	127	11	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1035352	1	Standard
⌊	**Pb**	**208**	**0.064**	ug/L	0.001	2	512	2553	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-04
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, June 25, 2018 15:28:04
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25880	28266	3	Standard
	Cl	37		ug/L			6867746	30811902	0	Standard
>	Sc	45		ug/L			1665701	1653559	2	Standard
	Cr	52	0.470	ug/L	0.011	2	28467	40070	2	Standard
	Cr	53	17.604	ug/L	0.278	1	176	58237	0	Standard
	Mn	55	54.974	ug/L	2.034	3	868	1913243	2	Standard
>	Ge-1	72		ug/L			73509	69227	0	KED
	Ni	60	0.082	ug/L	0.003	4	59	168	2	KED
	Ni	62	0.817	ug/L	0.050	6	7	187	5	KED
	Cu	63	0.090	ug/L	0.008	8	125	446	5	KED
	Cu	65	0.052	ug/L	0.010	18	57	146	11	KED
	Zn	66	0.714	ug/L	0.088	12	259	560	7	KED
	Zn	67	0.700	ug/L	0.271	38	44	93	22	KED
	As	75	0.118	ug/L	0.016	13	4	37	12	KED
	Y	89		ug/L			841263	851411	2	Standard
	Kr	83		ug/L			56	1022	7	Standard
>	In-1	115		ug/L			30919	27399	2	KED
	Cd	111	0.010	ug/L	0.004	44	1	5	28	KED
	Cd	114	0.001	ug/L	0.009	825	5	5	134	KED
>	In	115		ug/L			1116661	1003835	0	Standard
	Ag	107	0.000	ug/L	0.000	84	71	71	8	Standard
>	Tb	159		ug/L			1224547	1113402	2	Standard
	Pb	208	0.030	ug/L	0.002	6	512	1521	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-05
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, June 25, 2018 15:32:34
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25880	29061	2	Standard
	Cl	37		ug/L			6867746	39187995	3	Standard
>	Sc	45		ug/L			1665701	1658635	0	Standard
	Cr	52	0.361	ug/L	0.016	4	28467	37447	0	Standard
	Cr	53	20.963	ug/L	0.488	2	176	69540	2	Standard
	Mn	55	17.059	ug/L	0.096	0	868	596351	0	Standard
>	Ge-1	72		ug/L			73509	66860	1	KED
	Ni	60	0.127	ug/L	0.014	11	59	223	9	KED
	Ni	62	0.969	ug/L	0.053	5	7	213	6	KED
	Cu	63	0.177	ug/L	0.011	6	125	738	5	KED
	Cu	65	0.106	ug/L	0.005	4	57	234	4	KED
	Zn	66	3.346	ug/L	0.121	3	259	1664	2	KED
	Zn	67	3.172	ug/L	0.451	14	44	268	13	KED
	As	75	0.167	ug/L	0.013	7	4	49	5	KED
	Y	89		ug/L			841263	825485	2	Standard
	Kr	83		ug/L			56	1727	3	Standard
>	In-1	115		ug/L			30919	26608	1	KED
	Cd	111	0.015	ug/L	0.005	31	1	6	24	KED
	Cd	114	0.008	ug/L	0.009	112	5	11	66	KED
>	In	115		ug/L			1116661	961392	3	Standard
	Ag	107	0.003	ug/L	0.001	43	71	109	15	Standard
>	Tb	159		ug/L			1224547	1106854	4	Standard
	Pb	208	0.046	ug/L	0.002	5	512	2114	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-06
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, June 25, 2018 15:37:02
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25880	28911	2	Standard
	Cl	37		ug/L			6867746	27432167	2	Standard
>	Sc	45		ug/L			1665701	1692026	2	Standard
	Cr	52	0.319	ug/L	0.069	21	28467	37085	2	Standard
	Cr	53	13.786	ug/L	0.439	3	176	46693	0	Standard
	Mn	55	1.282	ug/L	0.004	0	868	46538	2	Standard
>	Ge-1	72		ug/L			73509	73220	1	KED
	Ni	60	0.062	ug/L	0.011	17	59	149	11	KED
	Ni	62	0.907	ug/L	0.061	6	7	219	5	KED
	Cu	63	0.123	ug/L	0.005	4	125	598	4	KED
	Cu	65	0.073	ug/L	0.010	13	57	194	10	KED
	Zn	66	0.855	ug/L	0.033	3	259	657	1	KED
	Zn	67	0.788	ug/L	0.230	29	44	106	15	KED
	As	75	0.142	ug/L	0.010	6	4	47	6	KED
	Y	89		ug/L			841263	856293	3	Standard
	Kr	83		ug/L			56	1254	6	Standard
>	In-1	115		ug/L			30919	29895	2	KED
	Cd	111	0.013	ug/L	0.011	86	1	6	62	KED
	Cd	114	0.005	ug/L	0.006	128	5	9	59	KED
>	In	115		ug/L			1116661	1016065	1	Standard
	Ag	107	0.000	ug/L	0.000	92	71	73	10	Standard
>	Tb	159		ug/L			1224547	1219756	1	Standard
	Pb	208	0.023	ug/L	0.001	4	512	1395	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-08
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, June 25, 2018 15:41:37
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	32179	1	Standard
	Cl	**37**		ug/L			6867746	48959125	1	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1627739	0	Standard
|	**Cr**	**52**	**0.397**	ug/L	0.016	4	28467	37639	1	Standard
|	**Cr**	**53**	**24.280**	ug/L	0.358	1	176	79013	0	Standard
⌊	**Mn**	**55**	**0.461**	ug/L	0.006	1	868	16637	1	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	67390	1	KED
|	**Ni**	**60**	**0.546**	ug/L	0.003	0	59	786	0	KED
|	**Ni**	**62**	**1.591**	ug/L	0.078	4	7	349	6	KED
|	**Cu**	**63**	**0.169**	ug/L	0.015	8	125	713	7	KED
|	**Cu**	**65**	**0.088**	ug/L	0.005	5	57	205	2	KED
|	**Zn**	**66**	**2.552**	ug/L	0.117	4	259	1335	2	KED
|	**Zn**	**67**	**2.665**	ug/L	0.073	2	44	233	3	KED
⌊	**As**	**75**	**0.142**	ug/L	0.013	9	4	43	8	KED
	Y	**89**		ug/L			841263	789262	2	Standard
	Kr	**83**		ug/L			56	2839	1	Standard
⌈>	**In-1**	**115**		ug/L			30919	27201	3	KED
|	**Cd**	**111**	**0.015**	ug/L	0.013	84	1	6	64	KED
⌊	**Cd**	**114**	**0.007**	ug/L	0.002	31	5	10	20	KED
⌈>	**In**	**115**		ug/L			1116661	962004	1	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.001	432	71	64	20	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1181889	0	Standard
⌊	**Pb**	**208**	**0.024**	ug/L	0.002	6	512	1393	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 15:46:54
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	25009	2	Standard
	Cl	**37**		ug/L			6867746	7953709	1	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1686678	0	Standard
|	**Cr**	**52**	**0.145**	ug/L	0.019	12	28467	32532	1	Standard
|	**Cr**	**53**	**1.898**	ug/L	0.075	3	176	6567	3	Standard
⌊	**Mn**	**55**	**-0.000**	ug/L	0.001	447	868	871	3	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	86103	1	KED
|	**Ni**	**60**	**-0.037**	ug/L	0.002	5	59	5	66	KED
|	**Ni**	**62**	**0.353**	ug/L	0.168	47	7	105	42	KED
|	**Cu**	**63**	**-0.008**	ug/L	0.004	58	125	112	16	KED
|	**Cu**	**65**	**-0.015**	ug/L	0.002	11	57	34	11	KED
|	**Zn**	**66**	**-0.438**	ug/L	0.024	5	259	62	21	KED
|	**Zn**	**67**	**-0.440**	ug/L	0.054	12	44	11	44	KED
⌊	**As**	**75**	**0.003**	ug/L	0.006	172	4	6	32	KED
	Y	**89**		ug/L			841263	872139	3	Standard
	Kr	**83**		ug/L			56	190	14	Standard
⌈>	**In-1**	**115**		ug/L			30919	34932	1	KED
|	**Cd**	**111**	**0.004**	ug/L	0.002	60	1	3	25	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.003	280	5	4	80	KED
⌈>	**In**	**115**		ug/L			1116661	1086910	1	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.001	1028	71	71	18	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1260057	2	Standard
⌊	**Pb**	**208**	**-0.005**	ug/L	0.001	28	512	320	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-DUP2
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, June 25, 2018 15:54:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25880	33275	3	Standard
	Cl	37		ug/L			6867746	50170221	9	Standard
>	Sc	45		ug/L			1665701	1649739	1	Standard
	Cr	52	0.446	ug/L	0.030	6	28467	39389	3	Standard
	Cr	53	28.650	ug/L	0.691	2	176	94439	0	Standard
	Mn	55	0.464	ug/L	0.004	0	868	16970	2	Standard
>	Ge-1	72		ug/L			73509	69509	0	KED
	Ni	60	0.546	ug/L	0.015	2	59	812	2	KED
	Ni	62	1.314	ug/L	0.103	7	7	299	7	KED
	Cu	63	0.143	ug/L	0.012	8	125	640	6	KED
	Cu	65	0.099	ug/L	0.005	5	57	231	3	KED
	Zn	66	2.588	ug/L	0.073	2	259	1393	1	KED
	Zn	67	2.857	ug/L	0.129	4	44	255	3	KED
	As	75	0.134	ug/L	0.012	8	4	42	7	KED
	Y	89		ug/L			841263	800141	1	Standard
	Kr	83		ug/L			56	2465	6	Standard
>	In-1	115		ug/L			30919	26572	1	KED
	Cd	111	0.012	ug/L	0.010	85	1	5	60	KED
	Cd	114	0.009	ug/L	0.003	28	5	12	17	KED
>	In	115		ug/L			1116661	938347	1	Standard
	Ag	107	0.002	ug/L	0.001	61	71	86	18	Standard
>	Tb	159		ug/L			1224547	1182572	0	Standard
	Pb	208	0.025	ug/L	0.002	8	512	1431	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-MS2
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, June 25, 2018 16:03:20
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25880	33217	3	Standard
	Cl	37		ug/L			6867746	48900784	5	Standard
>	Sc	45		ug/L			1665701	1689106	0	Standard
	Cr	52	5.924	ug/L	0.077	1	28467	181042	0	Standard
	Cr	53	33.329	ug/L	0.559	1	176	112484	1	Standard
	Mn	55	5.930	ug/L	0.127	2	868	211678	1	Standard
>	Ge-1	72		ug/L			73509	69660	1	KED
	Ni	60	5.466	ug/L	0.060	1	59	7638	1	KED
	Ni	62	6.017	ug/L	0.087	1	7	1346	0	KED
	Cu	63	4.992	ug/L	0.048	0	125	18437	2	KED
	Cu	65	4.756	ug/L	0.064	1	57	8560	1	KED
	Zn	66	16.820	ug/L	0.415	2	259	7728	2	KED
	Zn	67	16.001	ug/L	0.399	2	44	1238	1	KED
	As	75	5.272	ug/L	0.063	1	4	1504	1	KED
	Y	89		ug/L			841263	830944	0	Standard
	Kr	83		ug/L			56	2748	3	Standard
>	In-1	115		ug/L			30919	28056	0	KED
	Cd	111	4.312	ug/L	0.051	1	1	1570	1	KED
	Cd	114	4.362	ug/L	0.028	0	5	4046	0	KED
>	In	115		ug/L			1116661	937861	1	Standard
	Ag	107	4.867	ug/L	0.190	3	71	77596	2	Standard
>	Tb	159		ug/L			1224547	1223634	0	Standard
	Pb	208	4.289	ug/L	0.081	1	512	169190	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-MSD2
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, June 25, 2018 16:12:12
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			25880	33736	2	Standard
	Cl	37		ug/L			6867746	48928476	2	Standard
>	Sc	45		ug/L			1665701	1638927	1	Standard
	Cr	52	6.277	ug/L	0.074	1	28467	184485	2	Standard
	Cr	53	34.148	ug/L	1.103	3	176	111797	2	Standard
	Mn	55	6.112	ug/L	0.068	1	868	211655	1	Standard
>	Ge-1	72		ug/L			73509	71396	1	KED
	Ni	60	5.444	ug/L	0.018	0	59	7798	1	KED
	Ni	62	6.564	ug/L	0.295	4	7	1504	3	KED
	Cu	63	4.826	ug/L	0.038	0	125	18270	0	KED
	Cu	65	4.724	ug/L	0.043	0	57	8715	2	KED
	Zn	66	15.862	ug/L	0.596	3	259	7484	3	KED
	Zn	67	15.604	ug/L	0.641	4	44	1239	4	KED
	As	75	5.202	ug/L	0.096	1	4	1521	1	KED
	Y	89		ug/L			841263	815003	3	Standard
	Kr	83		ug/L			56	3786	4	Standard
>	In-1	115		ug/L			30919	28000	1	KED
	Cd	111	4.442	ug/L	0.124	2	1	1614	2	KED
	Cd	114	4.432	ug/L	0.217	4	5	4101	3	KED
>	In	115		ug/L			1116661	942080	0	Standard
	Ag	107	4.933	ug/L	0.059	1	71	79033	0	Standard
>	Tb	159		ug/L			1224547	1260548	2	Standard
	Pb	208	4.065	ug/L	0.109	2	512	165168	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 16:21:04
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	25311	2	Standard
	Cl	**37**		ug/L			6867746	7592010	2	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1651673	0	Standard
|	**Cr**	**52**	**0.142**	ug/L	0.023	16	28467	31789	1	Standard
|	**Cr**	**53**	**1.873**	ug/L	0.064	3	176	6346	2	Standard
⌊	**Mn**	**55**	**0.006**	ug/L	0.002	24	868	1084	4	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	86581	0	KED
|	**Ni**	**60**	**-0.029**	ug/L	0.001	4	59	19	11	KED
|	**Ni**	**62**	**0.085**	ug/L	0.027	32	7	32	23	KED
|	**Cu**	**63**	**-0.012**	ug/L	0.004	34	125	91	21	KED
|	**Cu**	**65**	**-0.016**	ug/L	0.003	18	57	33	18	KED
|	**Zn**	**66**	**-0.034**	ug/L	0.049	144	259	286	9	KED
|	**Zn**	**67**	**-0.037**	ug/L	0.068	185	44	48	12	KED
⌊	**As**	**75**	**0.004**	ug/L	0.007	178	4	6	34	KED
	Y	**89**		ug/L			841263	838882	1	Standard
	Kr	**83**		ug/L			56	229	13	Standard
⌈>	**In-1**	**115**		ug/L			30919	35063	1	KED
|	**Cd**	**111**	**0.006**	ug/L	0.003	48	1	5	28	KED
⌊	**Cd**	**114**	**-0.002**	ug/L	0.003	122	5	3	90	KED
⌈>	**In**	**115**		ug/L			1116661	1096939	3	Standard
⌊	**Ag**	**107**	**-0.001**	ug/L	0.000	15	71	53	3	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1310801	1	Standard
⌊	**Pb**	**208**	**-0.004**	ug/L	0.001	22	512	387	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 16:29:57
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	20951	1	Standard
	Cl	**37**		ug/L			6867746	7417599	2	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1629895	2	Standard
|	**Cr**	**52**	**57.416**	ug/L	0.560	0	28467	1450757	1	Standard
|	**Cr**	**53**	**52.985**	ug/L	1.992	3	176	172352	1	Standard
⌊	**Mn**	**55**	**56.825**	ug/L	1.973	3	868	1948885	0	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	84936	1	KED
|	**Ni**	**60**	**45.910**	ug/L	1.495	3	59	77716	2	KED
|	**Ni**	**62**	**45.752**	ug/L	0.484	1	7	12428	1	KED
|	**Cu**	**63**	**46.123**	ug/L	1.402	3	125	206469	2	KED
|	**Cu**	**65**	**46.473**	ug/L	1.007	2	57	101393	1	KED
|	**Zn**	**66**	**47.836**	ug/L	0.842	1	259	26246	0	KED
|	**Zn**	**67**	**46.581**	ug/L	1.588	3	44	4299	2	KED
⌊	**As**	**75**	**49.459**	ug/L	0.830	1	4	17162	0	KED
	Y	**89**		ug/L			841263	824764	3	Standard
	Kr	**83**		ug/L			56	81	15	Standard
⌈>	**In-1**	**115**		ug/L			30919	34075	0	KED
|	**Cd**	**111**	**49.428**	ug/L	1.150	2	1	21844	2	KED
⌊	**Cd**	**114**	**49.230**	ug/L	0.567	1	5	55404	1	KED
⌈>	**In**	**115**		ug/L			1116661	1038466	5	Standard
⌊	**Ag**	**107**	**53.864**	ug/L	1.385	2	71	949767	3	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1320055	0	Standard
⌊	**Pb**	**208**	**44.490**	ug/L	0.712	1	512	1888192	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 16:37:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			25880	21013	4	Standard
	Cl	**37**		ug/L			6867746	7404137	2	Standard
⌈>	**Sc**	**45**		ug/L			1665701	1685949	2	Standard
|	**Cr**	**52**	**-0.018**	ug/L	0.031	171	28467	28337	2	Standard
|	**Cr**	**53**	**0.309**	ug/L	0.003	1	176	1218	3	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.001	97	868	913	3	Standard
⌈>	**Ge-1**	**72**		ug/L			73509	87093	0	KED
|	**Ni**	**60**	**-0.024**	ug/L	0.008	32	59	27	49	KED
|	**Ni**	**62**	**-0.007**	ug/L	0.008	105	7	6	31	KED
|	**Cu**	**63**	**-0.012**	ug/L	0.002	12	125	94	7	KED
|	**Cu**	**65**	**-0.008**	ug/L	0.005	64	57	49	25	KED
|	**Zn**	**66**	**-0.250**	ug/L	0.017	6	259	167	5	KED
|	**Zn**	**67**	**-0.292**	ug/L	0.083	28	44	25	31	KED
⌊	**As**	**75**	**0.005**	ug/L	0.006	120	4	7	28	KED
	Y	**89**		ug/L			841263	859399	2	Standard
	Kr	**83**		ug/L			56	62	28	Standard
⌈>	**In-1**	**115**		ug/L			30919	35335	1	KED
|	**Cd**	**111**	**0.003**	ug/L	0.005	180	1	3	68	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.004	305	5	4	82	KED
⌈>	**In**	**115**		ug/L			1116661	1152919	2	Standard
⌊	**Ag**	**107**	**-0.001**	ug/L	0.001	160	71	60	36	Standard
⌈>	**Tb**	**159**		ug/L			1224547	1312000	2	Standard
⌊	**Pb**	**208**	**-0.005**	ug/L	0.000	8	512	317	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 16:42:14
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				20912	2	Standard
	Cl	**37**		ug/L				7569021	1	Standard
⌈>	**Sc**	**45**		ug/L				1631314	0	Standard
|	**Cr**	**52**		ug/L				28028	2	Standard
|	**Cr**	**53**		ug/L				957	2	Standard
⌊	**Mn**	**55**		ug/L				841	3	Standard
⌈>	**Ge-1**	**72**		ug/L				86095	0	KED
|	**Ni**	**60**		ug/L				27	27	KED
|	**Ni**	**62**		ug/L				3	50	KED
|	**Cu**	**63**		ug/L				98	13	KED
|	**Cu**	**65**		ug/L				36	23	KED
|	**Zn**	**66**		ug/L				160	26	KED
|	**Zn**	**67**		ug/L				31	27	KED
⌊	**As**	**75**		ug/L				4	47	KED
	Y	**89**		ug/L				838447	2	Standard
	Kr	**83**		ug/L				66	12	Standard
⌈>	**In-1**	**115**		ug/L				34735	2	KED
|	**Cd**	**111**		ug/L				2	57	KED
⌊	**Cd**	**114**		ug/L				4	146	KED
⌈>	**In**	**115**		ug/L				1124355	2	Standard
⌊	**Ag**	**107**		ug/L				54	16	Standard
⌈>	**Tb**	**159**		ug/L				1304758	1	Standard
⌊	**Pb**	**208**		ug/L				287	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 16:46:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	21813	2	Standard
	Cl	**37**		ug/L			7569021	7628620	3	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1639055	0	Standard
|	**Cr**	**52**	**57.075**	ug/L	0.716	1	28028	1450860	1	Standard
|	**Cr**	**53**	**53.133**	ug/L	0.825	1	957	174702	1	Standard
⌊	**Mn**	**55**	**56.405**	ug/L	2.404	4	841	1946421	3	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	85360	0	KED
|	**Ni**	**60**	**46.579**	ug/L	1.399	3	27	79218	3	KED
|	**Ni**	**62**	**45.486**	ug/L	1.004	2	3	12413	2	KED
|	**Cu**	**63**	**48.232**	ug/L	0.404	0	98	216958	0	KED
|	**Cu**	**65**	**46.346**	ug/L	0.526	1	36	101601	0	KED
|	**Zn**	**66**	**47.592**	ug/L	0.953	2	160	26104	1	KED
|	**Zn**	**67**	**48.301**	ug/L	0.363	0	31	4458	0	KED
⌊	**As**	**75**	**48.892**	ug/L	0.806	1	4	17051	1	KED
	Y	**89**		ug/L			838447	854925	3	Standard
	Kr	**83**		ug/L			66	70	8	Standard
⌈>	**In-1**	**115**		ug/L			34735	34489	0	KED
|	**Cd**	**111**	**48.184**	ug/L	1.760	3	2	21550	3	KED
⌊	**Cd**	**114**	**47.466**	ug/L	0.302	0	4	54063	1	KED
⌈>	**In**	**115**		ug/L			1124355	1078468	2	Standard
⌊	**Ag**	**107**	**51.603**	ug/L	1.872	3	54	945366	2	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1323783	2	Standard
⌊	**Pb**	**208**	**45.946**	ug/L	3.082	6	287	1953402	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 16:51:12
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	20648	3	Standard
	Cl	**37**		ug/L			7569021	7502899	5	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1618337	3	Standard
|	**Cr**	**52**	**-0.006**	ug/L	0.065	1029	28028	27609	2	Standard
|	**Cr**	**53**	**-0.056**	ug/L	0.003	5	957	768	2	Standard
⌊	**Mn**	**55**	**0.002**	ug/L	0.002	102	841	903	4	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	85723	1	KED
|	**Ni**	**60**	**0.001**	ug/L	0.005	438	27	29	29	KED
|	**Ni**	**62**	**0.028**	ug/L	0.006	22	3	11	16	KED
|	**Cu**	**63**	**0.001**	ug/L	0.004	737	98	100	17	KED
|	**Cu**	**65**	**0.001**	ug/L	0.003	232	36	39	14	KED
|	**Zn**	**66**	**0.006**	ug/L	0.004	74	160	163	1	KED
|	**Zn**	**67**	**-0.129**	ug/L	0.163	126	31	19	75	KED
⌊	**As**	**75**	**0.008**	ug/L	0.002	27	4	7	10	KED
	Y	**89**		ug/L			838447	805187	1	Standard
	Kr	**83**		ug/L			66	54	8	Standard
⌈>	**In-1**	**115**		ug/L			34735	34212	1	KED
|	**Cd**	**111**	**0.008**	ug/L	0.013	163	2	6	91	KED
⌊	**Cd**	**114**	**0.004**	ug/L	0.003	76	4	8	36	KED
⌈>	**In**	**115**		ug/L			1124355	1127675	2	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	11	54	68	2	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1291144	2	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.002	154	287	332	21	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0271-01
Sample Dil Factor: 50
Comments:
Sample Date/Time: Monday, June 25, 2018 16:58:06
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	59724	3	Standard
	Cl	**37**		ug/L			7569021	7480166	0	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1649394	1	Standard
|	**Cr**	**52**	**4.517**	ug/L	0.085	1	28028	141614	0	Standard
|	**Cr**	**53**	**3.899**	ug/L	0.013	0	957	13799	1	Standard
⌊	**Mn**	**55**	**7.748**	ug/L	0.052	0	841	269780	1	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	84768	0	KED
|	**Ni**	**60**	**0.477**	ug/L	0.031	6	27	832	5	KED
|	**Ni**	**62**	**0.464**	ug/L	0.042	8	3	129	8	KED
|	**Cu**	**63**	**0.809**	ug/L	0.011	1	98	3707	1	KED
|	**Cu**	**65**	**0.774**	ug/L	0.008	1	36	1720	0	KED
|	**Zn**	**66**	**127.458**	ug/L	2.255	1	160	69160	1	KED
|	**Zn**	**67**	**115.549**	ug/L	4.691	4	31	10546	3	KED
⌊	**As**	**75**	**0.017**	ug/L	0.002	11	4	10	6	KED
	Y	**89**		ug/L			838447	836453	2	Standard
	Kr	**83**		ug/L			66	58	11	Standard
⌈>	**In-1**	**115**		ug/L			34735	34290	0	KED
|	**Cd**	**111**	**0.505**	ug/L	0.037	7	2	227	6	KED
⌊	**Cd**	**114**	**0.505**	ug/L	0.008	1	4	576	2	KED
⌈>	**In**	**115**		ug/L			1124355	1102966	3	Standard
⌊	**Ag**	**107**	**0.003**	ug/L	0.002	57	54	106	25	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1303582	2	Standard
⌊	**Pb**	**208**	**0.077**	ug/L	0.004	4	287	3508	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-26
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, June 25, 2018 17:03:32
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	32860	3	Standard
	Cl	**37**		ug/L			7569021	7650033	1	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1732772	0	Standard
|	**Cr**	**52**	**0.172**	ug/L	0.018	10	28028	34306	1	Standard
|	**Cr**	**53**	**0.093**	ug/L	0.007	7	957	1338	2	Standard
⌊	**Mn**	**55**	**1.206**	ug/L	0.022	1	841	44864	2	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	85905	1	KED
|	**Ni**	**60**	**0.204**	ug/L	0.011	5	27	377	4	KED
|	**Ni**	**62**	**0.215**	ug/L	0.052	24	3	62	21	KED
|	**Cu**	**63**	**0.394**	ug/L	0.002	0	98	1881	1	KED
|	**Cu**	**65**	**0.381**	ug/L	0.022	5	36	877	5	KED
|	**Zn**	**66**	**1.917**	ug/L	0.058	3	160	1212	3	KED
|	**Zn**	**67**	**2.190**	ug/L	0.110	5	31	233	4	KED
⌊	**As**	**75**	**0.018**	ug/L	0.005	28	4	11	15	KED
	Y	**89**		ug/L			838447	842898	1	Standard
	Kr	**83**		ug/L			66	48	19	Standard
⌈>	**In-1**	**115**		ug/L			34735	34773	0	KED
|	**Cd**	**111**	**0.211**	ug/L	0.033	15	2	98	15	KED
⌊	**Cd**	**114**	**0.208**	ug/L	0.007	3	4	243	3	KED
⌈>	**In**	**115**		ug/L			1124355	1120845	0	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	74	54	71	17	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1364327	3	Standard
⌊	**Pb**	**208**	**0.092**	ug/L	0.003	3	287	4348	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-45
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, June 25, 2018 17:09:07
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20912	34403	3	Standard
	Cl	37		ug/L			7569021	6541729	0	Standard
>	Sc	45		ug/L			1631314	1447934	2	Standard
	Cr	52	0.509	ug/L	0.049	9	28028	36071	0	Standard
	Cr	53	0.350	ug/L	0.015	4	957	1859	1	Standard
	Mn	55	446.888	ug/L	10.480	2	841	13613722	1	Standard
>	Ge-1	72		ug/L			86095	73862	0	KED
	Ni	60	0.657	ug/L	0.020	3	27	989	2	KED
	Ni	62	0.570	ug/L	0.101	17	3	137	16	KED
	Cu	63	0.120	ug/L	0.002	1	98	550	1	KED
	Cu	65	0.130	ug/L	0.014	10	36	278	8	KED
	Zn	66	7.448	ug/L	0.247	3	160	3651	3	KED
	Zn	67	6.910	ug/L	0.409	5	31	575	5	KED
	As	75	0.028	ug/L	0.016	57	4	12	38	KED
	Y	89		ug/L			838447	774626	2	Standard
	Kr	83		ug/L			66	121	9	Standard
>	In-1	115		ug/L			34735	29467	4	KED
	Cd	111	0.021	ug/L	0.007	35	2	10	27	KED
	Cd	114	0.010	ug/L	0.001	7	4	13	9	KED
>	In	115		ug/L			1124355	999050	1	Standard
	Ag	107	0.002	ug/L	0.001	36	54	88	16	Standard
>	Tb	159		ug/L			1304758	1428319	1	Standard
	Pb	208	0.028	ug/L	0.002	5	287	1604	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0258-01
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, June 25, 2018 17:13:35
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20912	1011991	1	Standard
	Cl	37		ug/L			7569021	7278099	1	Standard
⌈>	Sc	45		ug/L			1631314	1603285	3	Standard
|	Cr	52	4.577	ug/L	0.198	4	28028	139041	0	Standard
|	Cr	53	1.601	ug/L	0.049	3	957	6059	0	Standard
⌊	Mn	55	122.488	ug/L	3.118	2	841	4131709	1	Standard
⌈>	Ge-1	72		ug/L			86095	74525	0	KED
|	Ni	60	7.326	ug/L	0.141	1	27	10899	2	KED
|	Ni	62	6.968	ug/L	0.144	2	3	1662	2	KED
|	Cu	63	0.542	ug/L	0.010	1	98	2214	2	KED
|	Cu	65	0.556	ug/L	0.011	1	36	1095	1	KED
|	Zn	66	10.579	ug/L	0.124	1	160	5174	0	KED
|	Zn	67	12.914	ug/L	0.786	6	31	1060	6	KED
⌊	As	75	0.139	ug/L	0.010	7	4	46	7	KED
	Y	89		ug/L			838447	795682	2	Standard
	Kr	83		ug/L			66	128	25	Standard
⌈>	In-1	115		ug/L			34735	30404	1	KED
|	Cd	111	0.067	ug/L	0.014	20	2	28	18	KED
⌊	Cd	114	0.061	ug/L	0.023	38	4	65	35	KED
⌈>	In	115		ug/L			1124355	1033136	1	Standard
⌊	Ag	107	0.001	ug/L	0.001	72	54	72	21	Standard
⌈>	Tb	159		ug/L			1304758	1446173	0	Standard
⌊	Pb	208	0.060	ug/L	0.003	4	287	3113	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0323-01
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, June 25, 2018 17:18:03
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	298712	2	Standard
	Cl	**37**		ug/L			7569021	7882175	0	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1670218	2	Standard
|	**Cr**	**52**	**1.650**	ug/L	0.055	3	28028	70585	1	Standard
|	**Cr**	**53**	**0.804**	ug/L	0.026	3	957	3659	1	Standard
⌊	**Mn**	**55**	**10.552**	ug/L	0.408	3	841	371544	1	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	79713	2	KED
|	**Ni**	**60**	**4.796**	ug/L	0.232	4	27	7635	2	KED
|	**Ni**	**62**	**4.431**	ug/L	0.288	6	3	1131	4	KED
|	**Cu**	**63**	**3.697**	ug/L	0.069	1	98	15614	2	KED
|	**Cu**	**65**	**3.714**	ug/L	0.036	0	36	7633	1	KED
|	**Zn**	**66**	**4.241**	ug/L	0.106	2	160	2307	1	KED
|	**Zn**	**67**	**4.671**	ug/L	0.158	3	31	429	3	KED
⌊	**As**	**75**	**0.100**	ug/L	0.012	11	4	37	8	KED
	Y	**89**		ug/L			838447	813511	1	Standard
	Kr	**83**		ug/L			66	96	8	Standard
⌈>	**In-1**	**115**		ug/L			34735	32407	1	KED
|	**Cd**	**111**	**0.016**	ug/L	0.004	26	2	9	17	KED
⌊	**Cd**	**114**	**0.015**	ug/L	0.003	22	4	20	19	KED
⌈>	**In**	**115**		ug/L			1124355	1101144	2	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	82	54	73	21	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1444245	5	Standard
⌊	**Pb**	**208**	**0.043**	ug/L	0.011	24	287	2278	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-32
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 17:22:31
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	45714	1	Standard
	Cl	**37**		ug/L			7569021	7677530	3	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1841056	3	Standard
|	**Cr**	**52**	**0.371**	ug/L	0.052	13	28028	41990	0	Standard
|	**Cr**	**53**	**0.282**	ug/L	0.024	8	957	2113	0	Standard
⌊	**Mn**	**55**	**0.987**	ug/L	0.023	2	841	39191	1	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	87421	0	KED
|	**Ni**	**60**	**0.274**	ug/L	0.028	10	27	504	9	KED
|	**Ni**	**62**	**0.275**	ug/L	0.045	16	3	80	15	KED
|	**Cu**	**63**	**0.260**	ug/L	0.003	1	98	1296	0	KED
|	**Cu**	**65**	**0.262**	ug/L	0.019	7	36	626	6	KED
|	**Zn**	**66**	**1.367**	ug/L	0.063	4	160	926	3	KED
|	**Zn**	**67**	**1.990**	ug/L	0.079	3	31	219	3	KED
⌊	**As**	**75**	**0.023**	ug/L	0.003	14	4	13	9	KED
	Y	**89**		ug/L			838447	872202	2	Standard
	Kr	**83**		ug/L			66	55	13	Standard
⌈>	**In-1**	**115**		ug/L			34735	34669	0	KED
|	**Cd**	**111**	**0.174**	ug/L	0.018	10	2	80	9	KED
⌊	**Cd**	**114**	**0.186**	ug/L	0.030	16	4	216	16	KED
⌈>	**In**	**115**		ug/L			1124355	1185101	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	165	54	68	26	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1482753	0	Standard
⌊	**Pb**	**208**	**0.004**	ug/L	0.001	11	287	534	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-40
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 17:27:00
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20912	46110	1	Standard
	Cl	37		ug/L			7569021	6830966	0	Standard
>	Sc	45		ug/L			1631314	1627521	1	Standard
	Cr	52	0.089	ug/L	0.018	20	28028	30173	2	Standard
	Cr	53	-0.028	ug/L	0.009	33	957	864	2	Standard
	Mn	55	581.475	ug/L	2.497	0	841	19917943	0	Standard
>	Ge-1	72		ug/L			86095	74559	1	KED
	Ni	60	0.278	ug/L	0.019	6	27	437	6	KED
	Ni	62	0.127	ug/L	0.051	40	3	33	37	KED
	Cu	63	0.023	ug/L	0.005	23	98	174	10	KED
	Cu	65	0.038	ug/L	0.008	21	36	105	15	KED
	Zn	66	0.858	ug/L	0.015	1	160	547	2	KED
	Zn	67	1.426	ug/L	0.132	9	31	141	6	KED
	As	75	0.151	ug/L	0.024	15	4	50	13	KED
	Y	89		ug/L			838447	777290	1	Standard
	Kr	83		ug/L			66	128	5	Standard
>	In-1	115		ug/L			34735	29625	1	KED
	Cd	111	-0.001	ug/L	0.004	619	2	2	65	KED
	Cd	114	0.003	ug/L	0.005	157	4	6	73	KED
>	In	115		ug/L			1124355	1028095	0	Standard
	Ag	107	0.001	ug/L	0.000	42	54	67	11	Standard
>	Tb	159		ug/L			1304758	1394183	0	Standard
	Pb	208	-0.001	ug/L	0.001	62	287	252	14	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-44
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 17:31:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20912	46711	0	Standard
	Cl	37		ug/L			7569021	7054386	0	Standard
>	Sc	45		ug/L			1631314	1650771	2	Standard
	Cr	52	0.118	ug/L	0.040	34	28028	31300	0	Standard
	Cr	53	-0.021	ug/L	0.006	28	957	900	2	Standard
	Mn	55	620.011	ug/L	14.386	2	841	21535035	1	Standard
>	Ge-1	72		ug/L			86095	72933	0	KED
	Ni	60	0.295	ug/L	0.011	3	27	452	2	KED
	Ni	62	0.207	ug/L	0.055	26	3	51	24	KED
	Cu	63	0.043	ug/L	0.013	30	98	246	19	KED
	Cu	65	0.050	ug/L	0.003	6	36	125	4	KED
	Zn	66	1.137	ug/L	0.075	6	160	666	6	KED
	Zn	67	1.920	ug/L	0.292	15	31	177	12	KED
	As	75	0.137	ug/L	0.013	9	4	44	7	KED
	Y	89		ug/L			838447	791460	1	Standard
	Kr	83		ug/L			66	136	10	Standard
>	In-1	115		ug/L			34735	29995	1	KED
	Cd	111	0.001	ug/L	0.002	245	2	2	33	KED
	Cd	114	0.004	ug/L	0.001	15	4	7	9	KED
>	In	115		ug/L			1124355	1037685	1	Standard
	Ag	107	0.002	ug/L	0.001	59	54	84	23	Standard
>	Tb	159		ug/L			1304758	1349783	1	Standard
	Pb	208	0.002	ug/L	0.000	23	287	387	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-46
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 17:35:56
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20912	40659	0	Standard
	Cl	37		ug/L			7569021	6616366	1	Standard
>	Sc	45		ug/L			1631314	1548693	1	Standard
	Cr	52	0.080	ug/L	0.011	14	28028	28480	1	Standard
	Cr	53	-0.019	ug/L	0.003	14	957	850	2	Standard
	Mn	55	842.154	ug/L	28.621	3	841	27440684	1	Standard
>	Ge-1	72		ug/L			86095	67168	0	KED
	Ni	60	0.821	ug/L	0.065	7	27	1120	8	KED
	Ni	62	0.646	ug/L	0.095	14	3	141	14	KED
	Cu	63	0.027	ug/L	0.008	29	98	173	17	KED
	Cu	65	0.049	ug/L	0.010	20	36	113	15	KED
	Zn	66	10.999	ug/L	0.456	4	160	4844	4	KED
	Zn	67	10.059	ug/L	1.076	10	31	750	10	KED
	As	75	0.055	ug/L	0.016	29	4	19	23	KED
	Y	89		ug/L			838447	733511	1	Standard
	Kr	83		ug/L			66	184	12	Standard
>	In-1	115		ug/L			34735	26837	1	KED
	Cd	111	0.037	ug/L	0.011	30	2	15	27	KED
	Cd	114	0.027	ug/L	0.007	24	4	27	22	KED
>	In	115		ug/L			1124355	924599	2	Standard
	Ag	107	0.002	ug/L	0.001	44	54	69	16	Standard
>	Tb	159		ug/L			1304758	1250250	1	Standard
	Pb	208	0.003	ug/L	0.005	159	287	415	54	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0265-01
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, June 25, 2018 17:40:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	303574	1	Standard
	Cl	**37**		ug/L			7569021	7970871	0	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1793908	2	Standard
|	**Cr**	**52**	**130.418**	ug/L	1.831	1	28028	3588091	0	Standard
|	**Cr**	**53**	**129.576**	ug/L	3.964	3	957	464585	0	Standard
⌊	**Mn**	**55**	**49.362**	ug/L	1.851	3	841	1863600	1	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	85602	1	KED
|	**Ni**	**60**	**5.454**	ug/L	0.044	0	27	9326	1	KED
|	**Ni**	**62**	**5.384**	ug/L	0.381	7	3	1475	5	KED
|	**Cu**	**63**	**2.256**	ug/L	0.042	1	98	10272	3	KED
|	**Cu**	**65**	**2.221**	ug/L	0.101	4	36	4918	5	KED
|	**Zn**	**66**	**201.661**	ug/L	6.812	3	160	110378	2	KED
|	**Zn**	**67**	**176.902**	ug/L	5.765	3	31	16285	1	KED
⌊	**As**	**75**	**0.104**	ug/L	0.010	9	4	41	9	KED
	Y	**89**		ug/L			838447	879797	3	Standard
	Kr	**83**		ug/L			66	66	24	Standard
⌈>	**In-1**	**115**		ug/L			34735	34499	1	KED
|	**Cd**	**111**	**0.910**	ug/L	0.044	4	2	409	3	KED
⌊	**Cd**	**114**	**0.824**	ug/L	0.030	3	4	942	5	KED
⌈>	**In**	**115**		ug/L			1124355	1157395	1	Standard
⌊	**Ag**	**107**	**0.108**	ug/L	0.009	8	54	2176	8	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1428444	4	Standard
⌊	**Pb**	**208**	**0.269**	ug/L	0.018	6	287	12623	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 17:45:57
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	26642	2	Standard
	Cl	**37**		ug/L			7569021	8330762	0	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1711502	1	Standard
|	**Cr**	**52**	**56.182**	ug/L	0.879	1	28028	1491533	1	Standard
|	**Cr**	**53**	**50.475**	ug/L	0.414	0	957	173338	1	Standard
⌊	**Mn**	**55**	**52.387**	ug/L	0.602	1	841	1887871	1	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	85520	1	KED
|	**Ni**	**60**	**47.392**	ug/L	0.862	1	27	80752	2	KED
|	**Ni**	**62**	**45.222**	ug/L	1.010	2	3	12364	2	KED
|	**Cu**	**63**	**47.700**	ug/L	0.622	1	98	214942	0	KED
|	**Cu**	**65**	**47.845**	ug/L	0.471	0	36	105087	1	KED
|	**Zn**	**66**	**48.988**	ug/L	1.620	3	160	26911	2	KED
|	**Zn**	**67**	**46.936**	ug/L	2.717	5	31	4339	4	KED
⌊	**As**	**75**	**50.080**	ug/L	0.847	1	4	17495	0	KED
	Y	**89**		ug/L			838447	865486	1	Standard
	Kr	**83**		ug/L			66	67	19	Standard
⌈>	**In-1**	**115**		ug/L			34735	34728	1	KED
|	**Cd**	**111**	**49.863**	ug/L	1.453	2	2	22451	1	KED
⌊	**Cd**	**114**	**48.062**	ug/L	0.611	1	4	55117	1	KED
⌈>	**In**	**115**		ug/L			1124355	1127471	1	Standard
⌊	**Ag**	**107**	**50.940**	ug/L	2.249	4	54	975694	3	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1350628	2	Standard
⌊	**Pb**	**208**	**49.247**	ug/L	1.174	2	287	2137540	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 17:53:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	22652	4	Standard
	Cl	**37**		ug/L			7569021	8220041	2	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1736561	2	Standard
|	**Cr**	**52**	**0.012**	ug/L	0.053	438	28028	30138	3	Standard
|	**Cr**	**53**	**-0.168**	ug/L	0.005	3	957	436	4	Standard
⌊	**Mn**	**55**	**0.004**	ug/L	0.007	167	841	1039	24	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	85408	0	KED
|	**Ni**	**60**	**-0.001**	ug/L	0.006	438	27	25	38	KED
|	**Ni**	**62**	**0.002**	ug/L	0.004	168	3	4	24	KED
|	**Cu**	**63**	**-0.007**	ug/L	0.001	14	98	66	7	KED
|	**Cu**	**65**	**-0.003**	ug/L	0.003	94	36	29	22	KED
|	**Zn**	**66**	**-0.087**	ug/L	0.017	19	160	111	7	KED
|	**Zn**	**67**	**-0.163**	ug/L	0.068	41	31	16	37	KED
⌊	**As**	**75**	**-0.002**	ug/L	0.004	164	4	4	29	KED
	Y	**89**		ug/L			838447	892656	3	Standard
	Kr	**83**		ug/L			66	46	20	Standard
⌈>	**In-1**	**115**		ug/L			34735	34580	2	KED
|	**Cd**	**111**	**0.006**	ug/L	0.006	110	2	5	53	KED
⌊	**Cd**	**114**	**-0.000**	ug/L	0.003	576	4	3	90	KED
⌈>	**In**	**115**		ug/L			1124355	1153739	5	Standard
⌊	**Ag**	**107**	**0.005**	ug/L	0.007	133	54	168	92	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1346613	1	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.007	316	287	394	77	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0548-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 17:58:04 DEL
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20912	31326	0	Standard
	Cl	37		ug/L			7569021	8178240	2	Standard
>	Sc	45		ug/L			1631314	1651010	7	Standard
	Cr	52	0.094	ug/L	0.086	90	28028	30632	1	Standard
	Cr	53	-0.141	ug/L	0.012	8	957	503	4	Standard
	Mn	55	1.595	ug/L	0.138	8	841	56050	1	Standard
>	Ge-1	72		ug/L			86095	85539	1	KED
	Ni	60	0.158	ug/L	0.007	4	27	297	3	KED
	Ni	62	0.147	ug/L	0.028	18	3	43	15	KED
	Cu	63	0.046	ug/L	0.001	1	98	305	3	KED
	Cu	65	0.045	ug/L	0.009	19	36	134	13	KED
	Zn	66	1.091	ug/L	0.073	6	160	754	3	KED
	Zn	67	0.758	ug/L	0.240	31	31	100	20	KED
	As	75	0.006	ug/L	0.003	50	4	6	14	KED
	Y	89		ug/L			838447	859062	4	Standard
	Kr	83		ug/L			66	59	11	Standard
>	In-1	115		ug/L			34735	34476	1	KED
	Cd	111	0.000	ug/L	0.007	7101	2	2	100	KED
	Cd	114	-0.018	ug/L	0.007	37	4	-15	47	KED
>	In	115		ug/L			1124355	1080334	11	Standard
	Ag	107	0.001	ug/L	0.000	35	54	71	18	Standard
>	Tb	159		ug/L			1304758	1231144	8	Standard
	Pb	208	0.016	ug/L	0.002	12	287	897	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0548-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 18:02:33
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20912	32896	3	Standard
	Cl	37		ug/L			7569021	8312536	1	Standard
>	Sc	45		ug/L			1631314	1738582	1	Standard
	Cr	52	30.291	ug/L	0.809	2	28028	830656	2	Standard
	Cr	53	26.891	ug/L	0.239	0	957	94300	2	Standard
	Mn	55	33.457	ug/L	0.261	0	841	1225041	1	Standard
>	Ge-1	72		ug/L			86095	86914	1	KED
	Ni	60	25.155	ug/L	1.274	5	27	43548	3	KED
	Ni	62	24.443	ug/L	0.669	2	3	6791	1	KED
	Cu	63	26.247	ug/L	0.716	2	98	120233	1	KED
	Cu	65	25.777	ug/L	0.639	2	36	57541	1	KED
	Zn	66	81.915	ug/L	3.578	4	160	45623	3	KED
	Zn	67	74.370	ug/L	1.241	1	31	6971	0	KED
	As	75	25.634	ug/L	0.458	1	4	9103	0	KED
	Y	89		ug/L			838447	937122	1	Standard
	Kr	83		ug/L			66	67	16	Standard
>	In-1	115		ug/L			34735	35255	2	KED
	Cd	111	25.464	ug/L	0.761	2	2	11640	2	KED
	Cd	114	25.621	ug/L	0.918	3	4	29814	1	KED
>	In	115		ug/L			1124355	1170742	3	Standard
	Ag	107	27.549	ug/L	1.370	4	54	547815	4	Standard
>	Tb	159		ug/L			1304758	1362450	1	Standard
	Pb	208	26.917	ug/L	0.729	2	287	1178820	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0548-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 18:07:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20912	31370	5	Standard
	Cl	37		ug/L			7569021	8255954	3	Standard
>	Sc	45		ug/L			1631314	1737193	1	Standard
	Cr	52	0.086	ug/L	0.020	22	28028	32114	1	Standard
	Cr	53	-0.155	ug/L	0.001	0	957	481	1	Standard
	Mn	55	1.565	ug/L	0.027	1	841	58112	1	Standard
>	Ge-1	72		ug/L			86095	85476	1	KED
	Ni	60	0.150	ug/L	0.013	8	27	283	9	KED
	Ni	62	0.163	ug/L	0.038	23	3	48	21	KED
	Cu	63	0.055	ug/L	0.006	10	98	345	8	KED
	Cu	65	0.057	ug/L	0.010	16	36	162	12	KED
	Zn	66	1.248	ug/L	0.015	1	160	840	1	KED
	Zn	67	1.200	ug/L	0.285	23	31	141	18	KED
	As	75	0.003	ug/L	0.001	42	4	6	9	KED
	Y	89		ug/L			838447	891993	3	Standard
	Kr	83		ug/L			66	57	12	Standard
>	In-1	115		ug/L			34735	34184	1	KED
	Cd	111	0.034	ug/L	0.042	122	2	17	102	KED
	Cd	114	0.026	ug/L	0.068	259	4	32	229	KED
>	In	115		ug/L			1124355	1146944	2	Standard
	Ag	107	0.003	ug/L	0.002	61	54	106	26	Standard
>	Tb	159		ug/L			1304758	1318050	1	Standard
	Pb	208	0.019	ug/L	0.002	11	287	1091	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0548-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 18:11:52

DEL

Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	35179	0	Standard
	Cl	**37**		ug/L			7569021	8234663	0	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1762573	1	Standard
|	**Cr**	**52**	**29.812**	ug/L	0.954	3	28028	829138	1	Standard
|	**Cr**	**53**	**26.754**	ug/L	0.697	2	957	95088	1	Standard
⌊	**Mn**	**55**	**33.004**	ug/L	1.357	4	841	1224771	2	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	85217	1	KED
|	**Ni**	**60**	**25.184**	ug/L	0.292	1	27	42768	1	KED
|	**Ni**	**62**	**26.150**	ug/L	0.414	1	3	7124	1	KED
|	**Cu**	**63**	**26.342**	ug/L	0.069	0	98	118341	2	KED
|	**Cu**	**65**	**26.486**	ug/L	0.721	2	36	57980	3	KED
|	**Zn**	**66**	**83.274**	ug/L	3.168	3	160	45463	2	KED
|	**Zn**	**67**	**75.482**	ug/L	1.050	1	31	6938	2	KED
⌊	**As**	**75**	**25.816**	ug/L	0.666	2	4	8989	2	KED
	Y	**89**		ug/L			838447	908177	5	Standard
	Kr	**83**		ug/L			66	67	21	Standard
⌈>	**In-1**	**115**		ug/L			34735	34180	4	KED
|	**Cd**	**111**	**25.729**	ug/L	0.746	2	2	11399	2	KED
⌊	**Cd**	**114**	**25.163**	ug/L	0.658	2	4	28391	3	KED
⌈>	**In**	**115**		ug/L			1124355	1199976	3	Standard
⌊	**Ag**	**107**	**26.876**	ug/L	0.406	1	54	548030	3	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1315627	1	Standard
⌊	**Pb**	**208**	**27.349**	ug/L	0.847	3	287	1156430	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-68
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 18:16:29
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20912	37908	0	Standard
	Cl	37		ug/L			7569021	8065626	1	Standard
>	Sc	45		ug/L			1631314	1917688	1	Standard
	Cr	52	0.544	ug/L	0.010	1	28028	48803	0	Standard
	Cr	53	0.421	ug/L	0.015	3	957	2735	2	Standard
	Mn	55	153.866	ug/L	1.441	0	841	6211206	1	Standard
>	Ge-1	72		ug/L			86095	82749	1	KED
	Ni	60	8.498	ug/L	0.489	5	27	14024	4	KED
	Ni	62	8.207	ug/L	0.409	4	3	2172	3	KED
	Cu	63	20.123	ug/L	0.286	1	98	87789	0	KED
	Cu	65	19.893	ug/L	0.253	1	36	42291	0	KED
	Zn	66	93.620	ug/L	2.010	2	160	49621	0	KED
	Zn	67	83.567	ug/L	3.473	4	31	7452	2	KED
	As	75	0.075	ug/L	0.022	29	4	30	25	KED
	Y	89		ug/L			838447	1108786	2	Standard
	Kr	83		ug/L			66	71	11	Standard
>	In-1	115		ug/L			34735	34243	1	KED
	Cd	111	0.824	ug/L	0.069	8	2	368	7	KED
	Cd	114	0.788	ug/L	0.010	1	4	894	0	KED
>	In	115		ug/L			1124355	1198274	1	Standard
	Ag	107	0.006	ug/L	0.005	80	54	181	53	Standard
>	Tb	159		ug/L			1304758	1368295	2	Standard
	Pb	208	0.023	ug/L	0.004	16	287	1321	15	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-64
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 18:22:25
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	38395	1	Standard
	Cl	**37**		ug/L			7569021	8136805	1	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1808667	1	Standard
|	**Cr**	**52**	**0.193**	ug/L	0.073	37	28028	36375	4	Standard
|	**Cr**	**53**	**-0.015**	ug/L	0.019	128	957	1007	6	Standard
⌊	**Mn**	**55**	**3.913**	ug/L	0.136	3	841	149863	3	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	85087	2	KED
|	**Ni**	**60**	**0.181**	ug/L	0.026	14	27	334	11	KED
|	**Ni**	**62**	**0.196**	ug/L	0.041	20	3	57	21	KED
|	**Cu**	**63**	**1.514**	ug/L	0.008	0	98	6881	2	KED
|	**Cu**	**65**	**1.508**	ug/L	0.113	7	36	3326	4	KED
|	**Zn**	**66**	**4.387**	ug/L	0.095	2	160	2542	3	KED
|	**Zn**	**67**	**4.177**	ug/L	0.284	6	31	413	8	KED
⌊	**As**	**75**	**0.684**	ug/L	0.016	2	4	242	1	KED
	Y	**89**		ug/L			838447	902214	4	Standard
	Kr	**83**		ug/L			66	52	28	Standard
⌈>	**In-1**	**115**		ug/L			34735	34761	2	KED
|	**Cd**	**111**	**0.038**	ug/L	0.002	6	2	20	4	KED
⌊	**Cd**	**114**	**0.034**	ug/L	0.011	32	4	42	28	KED
⌈>	**In**	**115**		ug/L			1124355	1186483	3	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.001	20	54	107	11	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1333417	3	Standard
⌊	**Pb**	**208**	**0.057**	ug/L	0.001	2	287	2720	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0548-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 18:28:41
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20912	37718	3	Standard
	Cl	37		ug/L			7569021	8007774	1	Standard
>	Sc	45		ug/L			1631314	1762934	1	Standard
	Cr	52	0.208	ug/L	0.044	21	28028	35842	1	Standard
	Cr	53	-0.023	ug/L	0.008	35	957	953	1	Standard
	Mn	55	4.125	ug/L	0.131	3	841	153909	2	Standard
>	Ge-1	72		ug/L			86095	84016	3	KED
	Ni	60	0.195	ug/L	0.026	13	27	353	12	KED
	Ni	62	0.224	ug/L	0.077	34	3	63	29	KED
	Cu	63	1.526	ug/L	0.044	2	98	6849	4	KED
	Cu	65	1.530	ug/L	0.004	0	36	3334	3	KED
	Zn	66	4.472	ug/L	0.186	4	160	2556	5	KED
	Zn	67	3.680	ug/L	0.196	5	31	362	1	KED
	As	75	0.729	ug/L	0.013	1	4	254	1	KED
	Y	89		ug/L			838447	935917	1	Standard
	Kr	83		ug/L			66	60	9	Standard
>	In-1	115		ug/L			34735	34846	0	KED
	Cd	111	0.036	ug/L	0.023	63	2	19	54	KED
	Cd	114	0.030	ug/L	0.004	14	4	38	13	KED
>	In	115		ug/L			1124355	1167173	1	Standard
	Ag	107	0.002	ug/L	0.000	26	54	91	10	Standard
>	Tb	159		ug/L			1304758	1324479	2	Standard
	Pb	208	0.055	ug/L	0.005	9	287	2636	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0548-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 18:33:09
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20912	35798	1	Standard
	Cl	37		ug/L			7569021	7947112	2	Standard
>	Sc	45		ug/L			1631314	1785098	1	Standard
	Cr	52	29.381	ug/L	0.784	2	28028	828118	1	Standard
	Cr	53	26.231	ug/L	0.472	1	957	94447	0	Standard
	Mn	55	34.109	ug/L	0.486	1	841	1282331	1	Standard
>	Ge-1	72		ug/L			86095	84030	0	KED
	Ni	60	25.472	ug/L	0.404	1	27	42657	1	KED
	Ni	62	24.480	ug/L	0.931	3	3	6578	3	KED
	Cu	63	27.505	ug/L	0.757	2	98	121842	2	KED
	Cu	65	26.900	ug/L	0.303	1	36	58070	1	KED
	Zn	66	82.093	ug/L	0.665	0	160	44216	0	KED
	Zn	67	77.163	ug/L	2.768	3	31	6993	3	KED
	As	75	26.084	ug/L	0.310	1	4	8957	1	KED
	Y	89		ug/L			838447	888155	0	Standard
	Kr	83		ug/L			66	52	30	Standard
>	In-1	115		ug/L			34735	35245	0	KED
	Cd	111	24.824	ug/L	0.168	0	2	11348	0	KED
	Cd	114	24.464	ug/L	0.327	1	4	28474	0	KED
>	In	115		ug/L			1124355	1179658	1	Standard
	Ag	107	27.404	ug/L	0.715	2	54	549299	1	Standard
>	Tb	159		ug/L			1304758	1323679	2	Standard
	Pb	208	27.514	ug/L	0.994	3	287	1170259	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0548-MSD1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 18:37:38
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20912	36680	4	Standard
	Cl	37		ug/L			7569021	7986788	2	Standard
>	Sc	45		ug/L			1631314	1762569	0	Standard
	Cr	52	30.167	ug/L	1.041	3	28028	838809	2	Standard
	Cr	53	26.952	ug/L	0.195	0	957	95804	0	Standard
	Mn	55	34.848	ug/L	0.271	0	841	1293634	1	Standard
>	Ge-1	72		ug/L			86095	84999	0	KED
	Ni	60	25.155	ug/L	0.372	1	27	42611	1	KED
	Ni	62	24.471	ug/L	1.451	5	3	6649	5	KED
	Cu	63	27.676	ug/L	0.311	1	98	124010	1	KED
	Cu	65	26.979	ug/L	0.831	3	36	58902	2	KED
	Zn	66	81.430	ug/L	1.465	1	160	44362	1	KED
	Zn	67	74.686	ug/L	1.554	2	31	6847	2	KED
	As	75	25.867	ug/L	0.563	2	4	8984	1	KED
	Y	89		ug/L			838447	916763	2	Standard
	Kr	83		ug/L			66	71	17	Standard
>	In-1	115		ug/L			34735	34293	1	KED
	Cd	111	25.386	ug/L	0.471	1	2	11294	3	KED
	Cd	114	25.201	ug/L	0.791	3	4	28538	3	KED
>	In	115		ug/L			1124355	1156120	2	Standard
	Ag	107	29.149	ug/L	2.171	7	54	572018	5	Standard
>	Tb	159		ug/L			1304758	1313034	1	Standard
	Pb	208	27.624	ug/L	0.493	1	287	1166035	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-56
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 18:43:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	36358	3	Standard
	Cl	**37**		ug/L			7569021	8052861	0	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1753223	4	Standard
|	**Cr**	**52**	**0.215**	ug/L	0.069	32	28028	35805	2	Standard
|	**Cr**	**53**	**-0.016**	ug/L	0.011	69	957	972	5	Standard
⌊	**Mn**	**55**	**14.348**	ug/L	0.597	4	841	529714	0	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	82465	1	KED
|	**Ni**	**60**	**0.234**	ug/L	0.017	7	27	411	7	KED
|	**Ni**	**62**	**0.222**	ug/L	0.005	2	3	62	3	KED
|	**Cu**	**63**	**1.139**	ug/L	0.031	2	98	5041	1	KED
|	**Cu**	**65**	**1.165**	ug/L	0.008	0	36	2501	0	KED
|	**Zn**	**66**	**5.752**	ug/L	0.088	1	160	3183	2	KED
|	**Zn**	**67**	**5.839**	ug/L	0.785	13	31	546	11	KED
⌊	**As**	**75**	**0.520**	ug/L	0.027	5	4	179	3	KED
	Y	**89**		ug/L			838447	882461	3	Standard
	Kr	**83**		ug/L			66	54	5	Standard
⌈>	**In-1**	**115**		ug/L			34735	34530	1	KED
|	**Cd**	**111**	**0.039**	ug/L	0.007	17	2	20	13	KED
⌊	**Cd**	**114**	**0.040**	ug/L	0.002	5	4	49	4	KED
⌈>	**In**	**115**		ug/L			1124355	1148118	3	Standard
⌊	**Ag**	**107**	**0.009**	ug/L	0.011	124	54	227	93	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1274778	1	Standard
⌊	**Pb**	**208**	**0.023**	ug/L	0.014	61	287	1215	46	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 18:48:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	19662	2	Standard
	Cl	**37**		ug/L			7569021	8466475	3	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1723126	0	Standard
|	**Cr**	**52**	**53.789**	ug/L	2.952	5	28028	1438929	4	Standard
|	**Cr**	**53**	**50.518**	ug/L	1.337	2	957	174670	2	Standard
⌊	**Mn**	**55**	**52.859**	ug/L	1.873	3	841	1917897	3	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	80729	2	KED
|	**Ni**	**60**	**47.831**	ug/L	3.039	6	27	76841	3	KED
|	**Ni**	**62**	**46.201**	ug/L	0.579	1	3	11923	3	KED
|	**Cu**	**63**	**48.472**	ug/L	0.460	0	98	206245	3	KED
|	**Cu**	**65**	**47.178**	ug/L	1.646	3	36	97756	1	KED
|	**Zn**	**66**	**48.224**	ug/L	2.448	5	160	24991	2	KED
|	**Zn**	**67**	**48.208**	ug/L	1.380	2	31	4206	0	KED
⌊	**As**	**75**	**50.304**	ug/L	1.248	2	4	16584	0	KED
	Y	**89**		ug/L			838447	911312	3	Standard
	Kr	**83**		ug/L			66	73	11	Standard
⌈>	**In-1**	**115**		ug/L			34735	33465	2	KED
|	**Cd**	**111**	**48.359**	ug/L	1.486	3	2	20982	1	KED
⌊	**Cd**	**114**	**47.179**	ug/L	1.294	2	4	52122	0	KED
⌈>	**In**	**115**		ug/L			1124355	1130527	4	Standard
⌊	**Ag**	**107**	**52.524**	ug/L	1.100	2	54	1008671	3	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1290313	3	Standard
⌊	**Pb**	**208**	**50.483**	ug/L	1.742	3	287	2092594	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 18:55:56
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	21298	2	Standard
	Cl	**37**		ug/L			7569021	8144977	0	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1695042	2	Standard
|	**Cr**	**52**	**0.056**	ug/L	0.032	56	28028	30556	2	Standard
|	**Cr**	**53**	**-0.186**	ug/L	0.011	5	957	366	9	Standard
⌊	**Mn**	**55**	**-0.001**	ug/L	0.001	70	841	832	4	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	80239	4	KED
|	**Ni**	**60**	**0.009**	ug/L	0.018	212	27	40	74	KED
|	**Ni**	**62**	**0.011**	ug/L	0.008	72	3	6	34	KED
|	**Cu**	**63**	**-0.003**	ug/L	0.011	330	98	78	58	KED
|	**Cu**	**65**	**0.003**	ug/L	0.019	711	36	40	98	KED
|	**Zn**	**66**	**-0.095**	ug/L	0.026	27	160	101	17	KED
|	**Zn**	**67**	**-0.152**	ug/L	0.046	30	31	16	24	KED
⌊	**As**	**75**	**0.010**	ug/L	0.009	97	4	7	40	KED
	Y	**89**		ug/L			838447	880908	2	Standard
	Kr	**83**		ug/L			66	57	8	Standard
⌈>	**In-1**	**115**		ug/L			34735	33507	2	KED
|	**Cd**	**111**	**-0.001**	ug/L	0.004	301	2	2	65	KED
⌊	**Cd**	**114**	**-0.002**	ug/L	0.001	61	4	2	47	KED
⌈>	**In**	**115**		ug/L			1124355	1140742	0	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	42	54	83	13	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1245357	1	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.000	37	287	229	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-23
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, June 25, 2018 19:02:44
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	26804	2	Standard
	Cl	**37**		ug/L			7569021	8074446	1	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1771816	1	Standard
|	**Cr**	**52**	**0.087**	ug/L	0.035	39	28028	32797	3	Standard
|	**Cr**	**53**	**-0.101**	ug/L	0.005	4	957	683	1	Standard
⌊	**Mn**	**55**	**70.657**	ug/L	2.173	3	841	2635603	2	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	82441	0	KED
|	**Ni**	**60**	**0.897**	ug/L	0.048	5	27	1499	4	KED
|	**Ni**	**62**	**0.917**	ug/L	0.083	9	3	245	8	KED
|	**Cu**	**63**	**0.275**	ug/L	0.024	8	98	1288	7	KED
|	**Cu**	**65**	**0.275**	ug/L	0.022	7	36	616	6	KED
|	**Zn**	**66**	**5.289**	ug/L	0.143	2	160	2938	2	KED
|	**Zn**	**67**	**5.558**	ug/L	0.362	6	31	522	6	KED
⌊	**As**	**75**	**0.011**	ug/L	0.006	53	4	8	22	KED
	Y	**89**		ug/L			838447	919552	3	Standard
	Kr	**83**		ug/L			66	52	11	Standard
⌈>	**In-1**	**115**		ug/L			34735	33432	0	KED
|	**Cd**	**111**	**0.516**	ug/L	0.049	9	2	226	9	KED
⌊	**Cd**	**114**	**0.539**	ug/L	0.043	8	4	599	8	KED
⌈>	**In**	**115**		ug/L			1124355	1173352	1	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.000	18	54	93	5	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1298321	3	Standard
⌊	**Pb**	**208**	**0.079**	ug/L	0.002	2	287	3563	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-24
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, June 25, 2018 19:07:42
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	26446	2	Standard
	Cl	**37**		ug/L			7569021	8409246	3	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1783765	2	Standard
|	**Cr**	**52**	**0.076**	ug/L	0.048	62	28028	32691	3	Standard
|	**Cr**	**53**	**-0.103**	ug/L	0.010	9	957	678	3	Standard
⌊	**Mn**	**55**	**70.393**	ug/L	2.643	3	841	2642325	1	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	82184	0	KED
|	**Ni**	**60**	**0.881**	ug/L	0.036	4	27	1468	3	KED
|	**Ni**	**62**	**0.907**	ug/L	0.077	8	3	241	7	KED
|	**Cu**	**63**	**0.288**	ug/L	0.005	1	98	1341	1	KED
|	**Cu**	**65**	**0.265**	ug/L	0.013	4	36	594	4	KED
|	**Zn**	**66**	**5.506**	ug/L	0.208	3	160	3043	3	KED
|	**Zn**	**67**	**5.378**	ug/L	0.308	5	31	504	4	KED
⌊	**As**	**75**	**0.011**	ug/L	0.006	54	4	8	23	KED
	Y	**89**		ug/L			838447	902390	0	Standard
	Kr	**83**		ug/L			66	56	5	Standard
⌈>	**In-1**	**115**		ug/L			34735	33459	1	KED
|	**Cd**	**111**	**0.524**	ug/L	0.027	5	2	229	3	KED
⌊	**Cd**	**114**	**0.486**	ug/L	0.012	2	4	540	3	KED
⌈>	**In**	**115**		ug/L			1124355	1185426	2	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.001	75	54	90	27	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1302963	0	Standard
⌊	**Pb**	**208**	**0.075**	ug/L	0.002	2	287	3444	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-27
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, June 25, 2018 19:12:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	26303	1	Standard
	Cl	**37**		ug/L			7569021	7942177	1	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1775468	1	Standard
|	**Cr**	**52**	**0.059**	ug/L	0.041	70	28028	32091	3	Standard
|	**Cr**	**53**	**-0.125**	ug/L	0.004	3	957	597	1	Standard
⌊	**Mn**	**55**	**187.506**	ug/L	3.080	1	841	7006020	0	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	80777	2	KED
|	**Ni**	**60**	**2.576**	ug/L	0.087	3	27	4168	1	KED
|	**Ni**	**62**	**2.556**	ug/L	0.029	1	3	663	3	KED
|	**Cu**	**63**	**5.745**	ug/L	0.191	3	98	24523	1	KED
|	**Cu**	**65**	**5.620**	ug/L	0.037	0	36	11691	2	KED
|	**Zn**	**66**	**53.983**	ug/L	2.854	5	160	27979	3	KED
|	**Zn**	**67**	**47.590**	ug/L	1.979	4	31	4155	2	KED
⌊	**As**	**75**	**0.015**	ug/L	0.007	42	4	9	22	KED
	Y	**89**		ug/L			838447	928506	2	Standard
	Kr	**83**		ug/L			66	64	21	Standard
⌈>	**In-1**	**115**		ug/L			34735	33108	2	KED
|	**Cd**	**111**	**0.394**	ug/L	0.006	1	2	171	3	KED
⌊	**Cd**	**114**	**0.375**	ug/L	0.007	1	4	414	3	KED
⌈>	**In**	**115**		ug/L			1124355	1186175	3	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	68	54	77	18	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1310134	0	Standard
⌊	**Pb**	**208**	**0.091**	ug/L	0.004	3	287	4117	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-28
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, June 25, 2018 19:16:38
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	24466	1	Standard
	Cl	**37**		ug/L			7569021	8087980	1	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1773184	2	Standard
|	**Cr**	**52**	**-0.003**	ug/L	0.046	1845	28028	30385	3	Standard
|	**Cr**	**53**	**-0.143**	ug/L	0.008	5	957	533	2	Standard
⌊	**Mn**	**55**	**96.809**	ug/L	6.610	6	841	3609417	4	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	82237	2	KED
|	**Ni**	**60**	**1.336**	ug/L	0.043	3	27	2213	1	KED
|	**Ni**	**62**	**1.378**	ug/L	0.054	3	3	365	1	KED
|	**Cu**	**63**	**2.804**	ug/L	0.009	0	98	12242	2	KED
|	**Cu**	**65**	**2.831**	ug/L	0.079	2	36	6012	2	KED
|	**Zn**	**66**	**28.773**	ug/L	0.316	1	160	15264	1	KED
|	**Zn**	**67**	**25.013**	ug/L	0.706	2	31	2238	3	KED
⌊	**As**	**75**	**0.012**	ug/L	0.012	99	4	8	48	KED
	Y	**89**		ug/L			838447	937496	2	Standard
	Kr	**83**		ug/L			66	55	6	Standard
⌈>	**In-1**	**115**		ug/L			34735	33567	0	KED
|	**Cd**	**111**	**0.213**	ug/L	0.003	1	2	95	2	KED
⌊	**Cd**	**114**	**0.169**	ug/L	0.015	8	4	191	7	KED
⌈>	**In**	**115**		ug/L			1124355	1178600	2	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.000	6	54	88	1	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1292255	3	Standard
⌊	**Pb**	**208**	**0.097**	ug/L	0.003	2	287	4309	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-29
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, June 25, 2018 19:21:07
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	27305	3	Standard
	Cl	**37**		ug/L			7569021	7953574	1	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1755095	3	Standard
|	**Cr**	**52**	**0.053**	ug/L	0.046	85	28028	31554	1	Standard
|	**Cr**	**53**	**-0.126**	ug/L	0.006	5	957	589	3	Standard
⌊	**Mn**	**55**	**65.414**	ug/L	1.879	2	841	2415698	0	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	83160	1	KED
|	**Ni**	**60**	**1.637**	ug/L	0.062	3	27	2738	2	KED
|	**Ni**	**62**	**1.632**	ug/L	0.038	2	3	437	2	KED
|	**Cu**	**63**	**1.417**	ug/L	0.085	5	98	6304	6	KED
|	**Cu**	**65**	**1.395**	ug/L	0.085	6	36	3013	4	KED
|	**Zn**	**66**	**32.397**	ug/L	0.791	2	160	17358	0	KED
|	**Zn**	**67**	**28.640**	ug/L	0.200	0	31	2588	2	KED
⌊	**As**	**75**	**0.010**	ug/L	0.003	25	4	8	10	KED
	Y	**89**		ug/L			838447	913477	0	Standard
	Kr	**83**		ug/L			66	63	22	Standard
⌈>	**In-1**	**115**		ug/L			34735	33768	2	KED
|	**Cd**	**111**	**0.332**	ug/L	0.021	6	2	148	8	KED
⌊	**Cd**	**114**	**0.357**	ug/L	0.033	9	4	401	7	KED
⌈>	**In**	**115**		ug/L			1124355	1152481	3	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	132	54	73	27	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1307742	1	Standard
⌊	**Pb**	**208**	**0.076**	ug/L	0.002	2	287	3462	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-30
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 19:25:34

DEL

Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	37226	2	Standard
	Cl	**37**		ug/L			7569021	7983490	1	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1823321	0	Standard
|	**Cr**	**52**	**0.089**	ug/L	0.003	3	28028	33791	0	Standard
|	**Cr**	**53**	**-0.052**	ug/L	0.011	21	957	881	3	Standard
⌊	**Mn**	**55**	**286.367**	ug/L	4.695	1	841	10990245	1	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	80096	1	KED
|	**Ni**	**60**	**7.922**	ug/L	0.405	5	27	12657	3	KED
|	**Ni**	**62**	**7.916**	ug/L	0.033	0	3	2029	1	KED
|	**Cu**	**63**	**6.816**	ug/L	0.246	3	98	28844	3	KED
|	**Cu**	**65**	**6.689**	ug/L	0.274	4	36	13783	2	KED
|	**Zn**	**66**	**144.987**	ug/L	6.880	4	160	74285	3	KED
|	**Zn**	**67**	**127.718**	ug/L	0.627	0	31	11014	2	KED
⌊	**As**	**75**	**0.027**	ug/L	0.010	38	4	13	25	KED
	Y	**89**		ug/L			838447	956840	1	Standard
	Kr	**83**		ug/L			66	64	13	Standard
⌈>	**In-1**	**115**		ug/L			34735	32519	1	KED
|	**Cd**	**111**	**1.624**	ug/L	0.035	2	2	687	2	KED
⌊	**Cd**	**114**	**1.616**	ug/L	0.021	1	4	1739	1	KED
⌈>	**In**	**115**		ug/L			1124355	1167362	4	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.000	79	54	65	11	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1307944	1	Standard
⌊	**Pb**	**208**	**0.017**	ug/L	0.001	7	287	988	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-36
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 19:30:02
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	33776	3	Standard
	Cl	**37**		ug/L			7569021	8295606	2	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1838708	1	Standard
|	**Cr**	**52**	**0.069**	ug/L	0.025	36	28028	33525	1	Standard
|	**Cr**	**53**	**-0.079**	ug/L	0.011	14	957	788	4	Standard
⌊	**Mn**	**55**	**0.484**	ug/L	0.017	3	841	19677	2	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	82126	2	KED
|	**Ni**	**60**	**0.136**	ug/L	0.010	7	27	248	9	KED
|	**Ni**	**62**	**0.115**	ug/L	0.040	35	3	33	28	KED
|	**Cu**	**63**	**8.544**	ug/L	0.094	1	98	37054	3	KED
|	**Cu**	**65**	**8.515**	ug/L	0.292	3	36	17984	3	KED
|	**Zn**	**66**	**70.577**	ug/L	3.736	5	160	37140	2	KED
|	**Zn**	**67**	**62.312**	ug/L	4.110	6	31	5519	4	KED
⌊	**As**	**75**	**0.082**	ug/L	0.004	4	4	32	6	KED
	Y	**89**		ug/L			838447	922628	2	Standard
	Kr	**83**		ug/L			66	59	13	Standard
⌈>	**In-1**	**115**		ug/L			34735	33429	1	KED
|	**Cd**	**111**	**0.512**	ug/L	0.039	7	2	224	6	KED
⌊	**Cd**	**114**	**0.452**	ug/L	0.047	10	4	503	11	KED
⌈>	**In**	**115**		ug/L			1124355	1199826	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	18	54	83	6	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1323240	3	Standard
⌊	**Pb**	**208**	**0.006**	ug/L	0.001	20	287	543	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-38
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, June 25, 2018 19:34:31
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20912	29201	3	Standard
	Cl	37		ug/L			7569021	8217427	1	Standard
>	Sc	45		ug/L			1631314	1813931	2	Standard
	Cr	52	0.011	ug/L	0.011	99	28028	31481	2	Standard
	Cr	53	-0.109	ug/L	0.007	6	957	670	2	Standard
	Mn	55	2.264	ug/L	0.085	3	841	87307	1	Standard
>	Ge-1	72		ug/L			86095	81504	2	KED
	Ni	60	0.549	ug/L	0.003	0	27	917	1	KED
	Ni	62	0.634	ug/L	0.068	10	3	168	11	KED
	Cu	63	22.035	ug/L	0.287	1	98	94689	2	KED
	Cu	65	22.021	ug/L	0.645	2	36	46095	0	KED
	Zn	66	190.135	ug/L	4.817	2	160	99112	2	KED
	Zn	67	172.992	ug/L	4.790	2	31	15164	1	KED
	As	75	0.030	ug/L	0.004	13	4	14	11	KED
	Y	89		ug/L			838447	915991	2	Standard
	Kr	83		ug/L			66	58	8	Standard
>	In-1	115		ug/L			34735	33574	0	KED
	Cd	111	1.077	ug/L	0.013	1	2	471	0	KED
	Cd	114	1.129	ug/L	0.058	5	4	1255	5	KED
>	In	115		ug/L			1124355	1183261	0	Standard
	Ag	107	0.002	ug/L	0.001	23	54	105	9	Standard
>	Tb	159		ug/L			1304758	1265555	2	Standard
	Pb	208	0.055	ug/L	0.004	7	287	2498	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-39
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, June 25, 2018 19:38:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	25406	4	Standard
	Cl	**37**		ug/L			7569021	8137037	1	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1685601	6	Standard
|	**Cr**	**52**	**0.082**	ug/L	0.056	68	28028	30998	2	Standard
|	**Cr**	**53**	**-0.115**	ug/L	0.011	9	957	600	3	Standard
⌊	**Mn**	**55**	**72.848**	ug/L	3.307	4	841	2580014	2	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	78506	1	KED
|	**Ni**	**60**	**0.075**	ug/L	0.008	10	27	142	8	KED
|	**Ni**	**62**	**0.077**	ug/L	0.032	41	3	22	36	KED
|	**Cu**	**63**	**0.075**	ug/L	0.008	11	98	399	8	KED
|	**Cu**	**65**	**0.075**	ug/L	0.003	4	36	184	4	KED
|	**Zn**	**66**	**2.227**	ug/L	0.093	4	160	1263	4	KED
|	**Zn**	**67**	**2.179**	ug/L	0.085	3	31	212	4	KED
⌊	**As**	**75**	**0.017**	ug/L	0.007	43	4	10	23	KED
	Y	**89**		ug/L			838447	836942	4	Standard
	Kr	**83**		ug/L			66	64	17	Standard
⌈>	**In-1**	**115**		ug/L			34735	33399	2	KED
|	**Cd**	**111**	**0.007**	ug/L	0.006	84	2	5	44	KED
⌊	**Cd**	**114**	**0.008**	ug/L	0.009	112	4	12	75	KED
⌈>	**In**	**115**		ug/L			1124355	1112992	5	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.001	56	54	95	22	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1227844	5	Standard
⌊	**Pb**	**208**	**0.095**	ug/L	0.003	3	287	4018	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-40 RE1
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, June 25, 2018 19:43:27 MB 6/25/18
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	27873	2	Standard
	Cl	**37**		ug/L			7569021	8175553	3	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1721281	2	Standard
|	**Cr**	**52**	**0.074**	ug/L	0.056	76	28028	31475	2	Standard
|	**Cr**	**53**	**-0.137**	ug/L	0.006	4	957	540	2	Standard
⌊	**Mn**	**55**	**132.295**	ug/L	4.020	3	841	4791062	0	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	77107	2	KED
|	**Ni**	**60**	**0.104**	ug/L	0.010	9	27	184	7	KED
|	**Ni**	**62**	**0.071**	ug/L	0.009	12	3	20	9	KED
|	**Cu**	**63**	**0.032**	ug/L	0.011	33	98	216	18	KED
|	**Cu**	**65**	**0.036**	ug/L	0.005	15	36	104	9	KED
|	**Zn**	**66**	**1.515**	ug/L	0.240	15	160	888	11	KED
|	**Zn**	**67**	**1.481**	ug/L	0.140	9	31	151	8	KED
⌊	**As**	**75**	**0.040**	ug/L	0.005	13	4	17	11	KED
	Y	**89**		ug/L			838447	885848	4	Standard
	Kr	**83**		ug/L			66	68	12	Standard
⌈>	**In-1**	**115**		ug/L			34735	31719	0	KED
|	**Cd**	**111**	**0.006**	ug/L	0.004	60	2	5	28	KED
⌊	**Cd**	**114**	**-0.000**	ug/L	0.003	1089	4	3	87	KED
⌈>	**In**	**115**		ug/L			1124355	1128716	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	78	54	82	26	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1280684	1	Standard
⌊	**Pb**	**208**	**0.069**	ug/L	0.003	4	287	3131	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 19:49:00
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	20754	2	Standard
	Cl	**37**		ug/L			7569021	8178887	1	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1676347	0	Standard
|	**Cr**	**52**	**57.215**	ug/L	0.790	1	28028	1487372	1	Standard
|	**Cr**	**53**	**51.574**	ug/L	0.631	1	957	173461	0	Standard
⌊	**Mn**	**55**	**54.635**	ug/L	1.577	2	841	1928586	3	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	78014	2	KED
|	**Ni**	**60**	**47.412**	ug/L	1.972	4	27	73658	2	KED
|	**Ni**	**62**	**46.979**	ug/L	2.189	4	3	11712	4	KED
|	**Cu**	**63**	**48.201**	ug/L	0.666	1	98	198202	3	KED
|	**Cu**	**65**	**48.021**	ug/L	0.526	1	36	96202	1	KED
|	**Zn**	**66**	**47.192**	ug/L	2.902	6	160	23637	3	KED
|	**Zn**	**67**	**48.786**	ug/L	0.519	1	31	4116	3	KED
⌊	**As**	**75**	**50.695**	ug/L	0.691	1	4	16155	0	KED
	Y	**89**		ug/L			838447	866504	3	Standard
	Kr	**83**		ug/L			66	67	32	Standard
⌈>	**In-1**	**115**		ug/L			34735	32140	1	KED
|	**Cd**	**111**	**49.780**	ug/L	1.086	2	2	20746	0	KED
⌊	**Cd**	**114**	**49.287**	ug/L	0.682	1	4	52317	2	KED
⌈>	**In**	**115**		ug/L			1124355	1119703	2	Standard
⌊	**Ag**	**107**	**51.036**	ug/L	1.302	2	54	970712	0	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1272452	1	Standard
⌊	**Pb**	**208**	**51.743**	ug/L	0.217	0	287	2116666	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 19:56:13
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20912	20980	3	Standard
	Cl	**37**		ug/L			7569021	8105558	2	Standard
⌈>	**Sc**	**45**		ug/L			1631314	1710749	3	Standard
|	**Cr**	**52**	**-0.022**	ug/L	0.048	219	28028	28801	1	Standard
|	**Cr**	**53**	**-0.202**	ug/L	0.003	1	957	314	5	Standard
⌊	**Mn**	**55**	**-0.002**	ug/L	0.001	71	841	818	2	Standard
⌈>	**Ge-1**	**72**		ug/L			86095	81558	1	KED
|	**Ni**	**60**	**-0.005**	ug/L	0.006	120	27	18	52	KED
|	**Ni**	**62**	**-0.002**	ug/L	0.011	706	3	3	91	KED
|	**Cu**	**63**	**-0.009**	ug/L	0.002	18	98	52	14	KED
|	**Cu**	**65**	**-0.001**	ug/L	0.002	206	36	32	15	KED
|	**Zn**	**66**	**-0.081**	ug/L	0.019	23	160	109	8	KED
|	**Zn**	**67**	**-0.141**	ug/L	0.074	52	31	17	37	KED
⌊	**As**	**75**	**0.001**	ug/L	0.001	115	4	4	5	KED
	Y	**89**		ug/L			838447	873123	2	Standard
	Kr	**83**		ug/L			66	61	23	Standard
⌈>	**In-1**	**115**		ug/L			34735	32064	1	KED
|	**Cd**	**111**	**-0.000**	ug/L	0.005	1958	2	2	78	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.005	297	4	5	91	KED
⌈>	**In**	**115**		ug/L			1124355	1160811	2	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	57	54	78	16	Standard
⌈>	**Tb**	**159**		ug/L			1304758	1231145	2	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.001	86	287	243	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 20:00:41
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				20640	7	Standard
	Cl	**37**		ug/L				8161285	2	Standard
⌈>	**Sc**	**45**		ug/L				1731398	2	Standard
|	**Cr**	**52**		ug/L				29739	3	Standard
|	**Cr**	**53**		ug/L				293	6	Standard
⌊	**Mn**	**55**		ug/L				791	2	Standard
⌈>	**Ge-1**	**72**		ug/L				80395	2	KED
|	**Ni**	**60**		ug/L				20	31	KED
|	**Ni**	**62**		ug/L				6	31	KED
|	**Cu**	**63**		ug/L				59	31	KED
|	**Cu**	**65**		ug/L				24	19	KED
|	**Zn**	**66**		ug/L				111	6	KED
|	**Zn**	**67**		ug/L				18	26	KED
⌊	**As**	**75**		ug/L				7	26	KED
	Y	**89**		ug/L				890395	3	Standard
	Kr	**83**		ug/L				55	9	Standard
⌈>	**In-1**	**115**		ug/L				32964	0	KED
|	**Cd**	**111**		ug/L				3	83	KED
⌊	**Cd**	**114**		ug/L				4	25	KED
⌈>	**In**	**115**		ug/L				1164708	3	Standard
⌊	**Ag**	**107**		ug/L				76	11	Standard
⌈>	**Tb**	**159**		ug/L				1225002	2	Standard
⌊	**Pb**	**208**		ug/L				206	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV9
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 20:05:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	20382	2	Standard
	Cl	**37**		ug/L			8161285	8369130	1	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1680785	1	Standard
|	**Cr**	**52**	**57.094**	ug/L	0.766	1	29739	1488081	1	Standard
|	**Cr**	**53**	**51.661**	ug/L	0.323	0	293	173525	2	Standard
⌊	**Mn**	**55**	**53.641**	ug/L	0.593	1	791	1898059	0	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	77920	0	KED
|	**Ni**	**60**	**47.261**	ug/L	0.445	0	20	73366	1	KED
|	**Ni**	**62**	**46.662**	ug/L	1.169	2	6	11626	2	KED
|	**Cu**	**63**	**48.952**	ug/L	1.663	3	59	200980	3	KED
|	**Cu**	**65**	**48.349**	ug/L	0.924	1	24	96742	1	KED
|	**Zn**	**66**	**47.786**	ug/L	1.176	2	111	23887	2	KED
|	**Zn**	**67**	**48.843**	ug/L	1.436	2	18	4104	2	KED
⌊	**As**	**75**	**50.148**	ug/L	1.099	2	7	15967	1	KED
	Y	**89**		ug/L			890395	873132	3	Standard
	Kr	**83**		ug/L			55	74	14	Standard
⌈>	**In-1**	**115**		ug/L			32964	31879	1	KED
|	**Cd**	**111**	**49.827**	ug/L	0.311	0	3	20601	0	KED
⌊	**Cd**	**114**	**49.820**	ug/L	0.711	1	4	52445	0	KED
⌈>	**In**	**115**		ug/L			1164708	1152762	1	Standard
⌊	**Ag**	**107**	**48.214**	ug/L	2.363	4	76	944034	3	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1242913	2	Standard
⌊	**Pb**	**208**	**52.054**	ug/L	1.725	3	206	2079202	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB9
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 20:09:38
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	20401	3	Standard
	Cl	**37**		ug/L			8161285	8298220	0	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1667581	1	Standard
|	**Cr**	**52**	**0.058**	ug/L	0.026	44	29739	30115	1	Standard
|	**Cr**	**53**	**0.002**	ug/L	0.005	240	293	290	5	Standard
⌊	**Mn**	**55**	**0.002**	ug/L	0.001	53	791	815	5	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	80094	3	KED
|	**Ni**	**60**	**0.069**	ug/L	0.038	54	20	131	44	KED
|	**Ni**	**62**	**0.068**	ug/L	0.069	101	6	24	70	KED
|	**Cu**	**63**	**0.075**	ug/L	0.046	61	59	372	49	KED
|	**Cu**	**65**	**0.067**	ug/L	0.043	63	24	161	52	KED
|	**Zn**	**66**	**0.083**	ug/L	0.001	0	111	153	2	KED
|	**Zn**	**67**	**0.044**	ug/L	0.049	111	18	22	21	KED
⌊	**As**	**75**	**0.069**	ug/L	0.016	23	7	29	15	KED
	Y	**89**		ug/L			890395	856617	3	Standard
	Kr	**83**		ug/L			55	58	18	Standard
⌈>	**In-1**	**115**		ug/L			32964	32043	1	KED
|	**Cd**	**111**	**0.006**	ug/L	0.001	21	3	6	9	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.007	606	4	5	128	KED
⌈>	**In**	**115**		ug/L			1164708	1134964	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	45	76	100	9	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1190864	3	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.001	64	206	240	13	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-42
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 20:14:07
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	34066	4	Standard
	Cl	**37**		ug/L			8161285	8118103	1	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1828086	2	Standard
|	**Cr**	**52**	**0.871**	ug/L	0.012	1	29739	55606	1	Standard
|	**Cr**	**53**	**0.833**	ug/L	0.032	3	293	3345	1	Standard
⌊	**Mn**	**55**	**0.691**	ug/L	0.011	1	791	27411	1	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	77018	2	KED
|	**Ni**	**60**	**0.104**	ug/L	0.022	20	20	179	16	KED
|	**Ni**	**62**	**0.068**	ug/L	0.005	7	6	23	4	KED
|	**Cu**	**63**	**0.300**	ug/L	0.011	3	59	1271	1	KED
|	**Cu**	**65**	**0.294**	ug/L	0.010	3	24	603	1	KED
|	**Zn**	**66**	**0.834**	ug/L	0.116	13	111	516	9	KED
|	**Zn**	**67**	**1.015**	ug/L	0.173	17	18	101	14	KED
⌊	**As**	**75**	**0.395**	ug/L	0.030	7	7	131	4	KED
	Y	**89**		ug/L			890395	904385	1	Standard
	Kr	**83**		ug/L			55	46	26	Standard
⌈>	**In-1**	**115**		ug/L			32964	33373	3	KED
|	**Cd**	**111**	**0.015**	ug/L	0.005	34	3	10	21	KED
⌊	**Cd**	**114**	**0.014**	ug/L	0.004	27	4	19	22	KED
⌈>	**In**	**115**		ug/L			1164708	1120008	0	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	52	76	85	6	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1269243	5	Standard
⌊	**Pb**	**208**	**0.005**	ug/L	0.001	16	206	435	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-43
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, June 25, 2018 20:18:36
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	24427	2	Standard
	Cl	**37**		ug/L			8161285	8224426	1	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1691986	1	Standard
|	**Cr**	**52**	**0.092**	ug/L	0.023	25	29739	31435	0	Standard
|	**Cr**	**53**	**0.088**	ug/L	0.007	8	293	586	5	Standard
⌊	**Mn**	**55**	**63.329**	ug/L	1.301	2	791	2255435	0	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	77276	3	KED
|	**Ni**	**60**	**0.057**	ug/L	0.009	16	20	107	13	KED
|	**Ni**	**62**	**0.070**	ug/L	0.002	2	6	24	4	KED
|	**Cu**	**63**	**0.069**	ug/L	0.013	18	59	338	13	KED
|	**Cu**	**65**	**0.074**	ug/L	0.010	13	24	170	9	KED
|	**Zn**	**66**	**1.889**	ug/L	0.091	4	111	1038	0	KED
|	**Zn**	**67**	**1.754**	ug/L	0.366	20	18	162	14	KED
⌊	**As**	**75**	**0.008**	ug/L	0.008	97	7	9	27	KED
	Y	**89**		ug/L			890395	877487	1	Standard
	Kr	**83**		ug/L			55	59	18	Standard
⌈>	**In-1**	**115**		ug/L			32964	32197	2	KED
|	**Cd**	**111**	**0.003**	ug/L	0.004	135	3	4	40	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.002	122	4	6	37	KED
⌈>	**In**	**115**		ug/L			1164708	1144872	2	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	78	76	93	13	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1246684	1	Standard
⌊	**Pb**	**208**	**0.050**	ug/L	0.004	7	206	2217	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-44RE1
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, June 25, 2018 20:23:04
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	26551	1	Standard
	Cl	**37**		ug/L			8161285	8109919	0	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1744341	2	Standard
|	**Cr**	**52**	**0.042**	ug/L	0.036	85	29739	31064	1	Standard
|	**Cr**	**53**	**0.047**	ug/L	0.004	9	293	460	2	Standard
⌊	**Mn**	**55**	**134.684**	ug/L	1.237	0	791	4944796	1	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	76640	0	KED
|	**Ni**	**60**	**0.072**	ug/L	0.010	13	20	129	11	KED
|	**Ni**	**62**	**0.032**	ug/L	0.012	36	6	14	19	KED
|	**Cu**	**63**	**0.016**	ug/L	0.001	5	59	121	2	KED
|	**Cu**	**65**	**0.019**	ug/L	0.005	28	24	60	17	KED
|	**Zn**	**66**	**0.776**	ug/L	0.110	14	111	485	11	KED
|	**Zn**	**67**	**0.944**	ug/L	0.050	5	18	95	4	KED
⌊	**As**	**75**	**0.021**	ug/L	0.017	81	7	13	39	KED
	Y	**89**		ug/L			890395	875291	3	Standard
	Kr	**83**		ug/L			55	69	15	Standard
⌈>	**In-1**	**115**		ug/L			32964	31070	4	KED
|	**Cd**	**111**	**-0.002**	ug/L	0.005	232	3	2	78	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.001	181	4	3	32	KED
⌈>	**In**	**115**		ug/L			1164708	1155460	5	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	48	76	88	8	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1265358	2	Standard
⌊	**Pb**	**208**	**0.032**	ug/L	0.001	3	206	1533	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-45RE1
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, June 25, 2018 20:27:32 MB 6/25/18
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20640	24575	3	Standard
	Cl	37		ug/L			8161285	8177507	1	Standard
>	Sc	45		ug/L			1731398	1727680	1	Standard
	Cr	52	0.161	ug/L	0.059	36	29739	33900	3	Standard
	Cr	53	0.129	ug/L	0.014	10	293	738	6	Standard
	Mn	55	99.417	ug/L	3.278	3	791	3614776	2	Standard
>	Ge-1	72		ug/L			80395	77947	1	KED
	Ni	60	0.144	ug/L	0.004	2	20	243	1	KED
	Ni	62	0.103	ug/L	0.029	28	6	32	23	KED
	Cu	63	0.032	ug/L	0.005	15	59	188	11	KED
	Cu	65	0.035	ug/L	0.006	18	24	92	12	KED
	Zn	66	2.084	ug/L	0.087	4	111	1144	3	KED
	Zn	67	2.076	ug/L	0.243	11	18	191	11	KED
	As	75	0.001	ug/L	0.006	454	7	7	22	KED
	Y	89		ug/L			890395	895406	0	Standard
	Kr	83		ug/L			55	60	10	Standard
>	In-1	115		ug/L			32964	31184	0	KED
	Cd	111	0.004	ug/L	0.004	113	3	4	34	KED
	Cd	114	0.002	ug/L	0.001	43	4	6	15	KED
>	In	115		ug/L			1164708	1138205	2	Standard
	Ag	107	-0.000	ug/L	0.001	313	76	70	17	Standard
>	Tb	159		ug/L			1225002	1270817	2	Standard
	Pb	208	0.036	ug/L	0.002	6	206	1668	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-46RE1
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, June 25, 2018 20:32:00
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	24449	5	Standard
	Cl	**37**		ug/L			8161285	8259057	0	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1733218	1	Standard
|	**Cr**	**52**	**0.026**	ug/L	0.018	67	29739	30460	1	Standard
|	**Cr**	**53**	**0.030**	ug/L	0.002	6	293	397	0	Standard
⌊	**Mn**	**55**	**96.438**	ug/L	1.829	1	791	3518312	1	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	77933	0	KED
|	**Ni**	**60**	**0.101**	ug/L	0.012	11	20	177	9	KED
|	**Ni**	**62**	**0.087**	ug/L	0.015	16	6	28	13	KED
|	**Cu**	**63**	**0.010**	ug/L	0.002	20	59	99	9	KED
|	**Cu**	**65**	**0.014**	ug/L	0.005	33	24	50	17	KED
|	**Zn**	**66**	**2.031**	ug/L	0.203	10	111	1118	8	KED
|	**Zn**	**67**	**1.986**	ug/L	0.447	22	18	184	20	KED
⌊	**As**	**75**	**0.001**	ug/L	0.003	429	7	7	13	KED
	Y	**89**		ug/L			890395	871123	2	Standard
	Kr	**83**		ug/L			55	61	12	Standard
⌈>	**In-1**	**115**		ug/L			32964	31790	1	KED
|	**Cd**	**111**	**-0.003**	ug/L	0.004	130	3	2	65	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.000	5	4	5	0	KED
⌈>	**In**	**115**		ug/L			1164708	1125726	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	63	76	92	14	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1263155	3	Standard
⌊	**Pb**	**208**	**0.034**	ug/L	0.001	1	206	1596	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-47
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, June 25, 2018 20:36:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	24063	2	Standard
	Cl	**37**		ug/L			8161285	8251948	1	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1725096	3	Standard
|	**Cr**	**52**	**0.288**	ug/L	0.016	5	29739	37190	1	Standard
|	**Cr**	**53**	**0.279**	ug/L	0.024	8	293	1250	3	Standard
⌊	**Mn**	**55**	**92.803**	ug/L	1.638	1	791	3370770	4	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	78886	2	KED
|	**Ni**	**60**	**3.205**	ug/L	0.055	1	20	5054	0	KED
|	**Ni**	**62**	**2.957**	ug/L	0.177	5	6	753	8	KED
|	**Cu**	**63**	**15.495**	ug/L	0.589	3	59	64428	3	KED
|	**Cu**	**65**	**15.372**	ug/L	0.533	3	24	31143	1	KED
|	**Zn**	**66**	**84.992**	ug/L	3.217	3	111	42909	1	KED
|	**Zn**	**67**	**77.048**	ug/L	2.250	2	18	6542	2	KED
⌊	**As**	**75**	**-0.003**	ug/L	0.001	49	7	6	8	KED
	Y	**89**		ug/L			890395	878443	2	Standard
	Kr	**83**		ug/L			55	50	15	Standard
⌈>	**In-1**	**115**		ug/L			32964	32617	1	KED
|	**Cd**	**111**	**0.471**	ug/L	0.036	7	3	202	6	KED
⌊	**Cd**	**114**	**0.486**	ug/L	0.027	5	4	527	6	KED
⌈>	**In**	**115**		ug/L			1164708	1157720	0	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.000	121	76	69	11	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1234854	2	Standard
⌊	**Pb**	**208**	**0.038**	ug/L	0.001	3	206	1728	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-48
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, June 25, 2018 20:40:56
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20640	24137	1	Standard
	Cl	37		ug/L			8161285	8351454	1	Standard
>	Sc	45		ug/L			1731398	1700979	0	Standard
	Cr	52	0.093	ug/L	0.057	60	29739	31629	4	Standard
	Cr	53	0.086	ug/L	0.002	2	293	579	1	Standard
	Mn	55	95.915	ug/L	3.374	3	791	3433852	2	Standard
>	Ge-1	72		ug/L			80395	77158	3	KED
	Ni	60	3.342	ug/L	0.194	5	20	5148	2	KED
	Ni	62	3.207	ug/L	0.236	7	6	796	4	KED
	Cu	63	15.933	ug/L	0.474	2	59	64763	1	KED
	Cu	65	15.637	ug/L	0.545	3	24	30972	0	KED
	Zn	66	89.608	ug/L	4.323	4	111	44216	1	KED
	Zn	67	77.511	ug/L	0.578	0	18	6438	3	KED
	As	75	0.002	ug/L	0.009	559	7	7	34	KED
	Y	89		ug/L			890395	864971	2	Standard
	Kr	83		ug/L			55	53	16	Standard
>	In-1	115		ug/L			32964	32231	2	KED
	Cd	111	0.460	ug/L	0.036	7	3	195	7	KED
	Cd	114	0.479	ug/L	0.050	10	4	513	9	KED
>	In	115		ug/L			1164708	1125557	1	Standard
	Ag	107	0.000	ug/L	0.000	693	76	75	11	Standard
>	Tb	159		ug/L			1225002	1226452	1	Standard
	Pb	208	0.037	ug/L	0.002	4	206	1676	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-49
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, June 25, 2018 20:45:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	23452	2	Standard
	Cl	**37**		ug/L			8161285	8447626	1	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1716458	1	Standard
|	**Cr**	**52**	**0.071**	ug/L	0.031	42	29739	31337	1	Standard
|	**Cr**	**53**	**0.098**	ug/L	0.006	6	293	626	3	Standard
⌊	**Mn**	**55**	**131.997**	ug/L	2.416	1	791	4768466	0	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	78744	1	KED
|	**Ni**	**60**	**1.620**	ug/L	0.086	5	20	2560	4	KED
|	**Ni**	**62**	**1.473**	ug/L	0.100	6	6	377	8	KED
|	**Cu**	**63**	**2.280**	ug/L	0.054	2	59	9513	1	KED
|	**Cu**	**65**	**2.253**	ug/L	0.004	0	24	4577	1	KED
|	**Zn**	**66**	**46.941**	ug/L	1.490	3	111	23710	1	KED
|	**Zn**	**67**	**41.472**	ug/L	1.473	3	18	3523	2	KED
⌊	**As**	**75**	**0.009**	ug/L	0.010	108	7	10	32	KED
	Y	**89**		ug/L			890395	876446	0	Standard
	Kr	**83**		ug/L			55	64	33	Standard
⌈>	**In-1**	**115**		ug/L			32964	31427	2	KED
|	**Cd**	**111**	**0.274**	ug/L	0.017	6	3	114	5	KED
⌊	**Cd**	**114**	**0.297**	ug/L	0.028	9	4	311	7	KED
⌈>	**In**	**115**		ug/L			1164708	1149875	0	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.001	189	76	66	25	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1240391	3	Standard
⌊	**Pb**	**208**	**0.088**	ug/L	0.007	7	206	3704	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-50
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, June 25, 2018 20:49:52
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20640	23974	0	Standard
	Cl	37		ug/L			8161285	8313477	2	Standard
⌈>	Sc	45		ug/L			1731398	1733581	2	Standard
|	Cr	52	0.019	ug/L	0.007	37	29739	30277	2	Standard
|	Cr	53	0.044	ug/L	0.007	16	293	448	7	Standard
⌊	Mn	55	133.863	ug/L	3.291	2	791	4886696	4	Standard
⌈>	Ge-1	72		ug/L			80395	79555	3	KED
|	Ni	60	1.567	ug/L	0.118	7	20	2501	5	KED
|	Ni	62	1.594	ug/L	0.100	6	6	412	9	KED
|	Cu	63	2.151	ug/L	0.030	1	59	9070	1	KED
|	Cu	65	2.240	ug/L	0.085	3	24	4599	5	KED
|	Zn	66	45.934	ug/L	2.357	5	111	23424	2	KED
|	Zn	67	40.643	ug/L	2.717	6	18	3485	3	KED
⌊	As	75	-0.005	ug/L	0.003	51	7	5	14	KED
	Y	89		ug/L			890395	882679	1	Standard
	Kr	83		ug/L			55	67	14	Standard
⌈>	In-1	115		ug/L			32964	32213	4	KED
|	Cd	111	0.308	ug/L	0.044	14	3	131	11	KED
⌊	Cd	114	0.286	ug/L	0.020	6	4	307	3	KED
⌈>	In	115		ug/L			1164708	1162933	3	Standard
⌊	Ag	107	-0.001	ug/L	0.001	87	76	59	23	Standard
⌈>	Tb	159		ug/L			1225002	1239332	3	Standard
⌊	Pb	208	0.083	ug/L	0.001	0	206	3517	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-52
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 20:54:20
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	36074	3	Standard
	Cl	**37**		ug/L			8161285	8371622	0	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1794806	2	Standard
|	**Cr**	**52**	**0.121**	ug/L	0.039	32	29739	34113	1	Standard
|	**Cr**	**53**	**0.139**	ug/L	0.007	4	293	800	0	Standard
⌊	**Mn**	**55**	**1.486**	ug/L	0.041	2	791	56943	1	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	79876	1	KED
|	**Ni**	**60**	**0.178**	ug/L	0.021	11	20	304	11	KED
|	**Ni**	**62**	**0.154**	ug/L	0.048	31	6	46	27	KED
|	**Cu**	**63**	**0.463**	ug/L	0.004	0	59	2007	2	KED
|	**Cu**	**65**	**0.450**	ug/L	0.022	4	24	946	2	KED
|	**Zn**	**66**	**1.280**	ug/L	0.064	5	111	763	2	KED
|	**Zn**	**67**	**1.333**	ug/L	0.060	4	18	132	5	KED
⌊	**As**	**75**	**0.613**	ug/L	0.047	7	7	207	6	KED
	Y	**89**		ug/L			890395	931122	1	Standard
	Kr	**83**		ug/L			55	53	11	Standard
⌈>	**In-1**	**115**		ug/L			32964	32949	0	KED
|	**Cd**	**111**	**0.016**	ug/L	0.004	28	3	10	19	KED
⌊	**Cd**	**114**	**0.014**	ug/L	0.008	61	4	19	46	KED
⌈>	**In**	**115**		ug/L			1164708	1158669	3	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.001	330	76	80	16	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1209368	1	Standard
⌊	**Pb**	**208**	**0.019**	ug/L	0.001	6	206	926	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVA
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 20:59:53
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	20041	3	Standard
	Cl	**37**		ug/L			8161285	8298696	1	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1657157	1	Standard
|	**Cr**	**52**	**56.628**	ug/L	2.251	3	29739	1455215	3	Standard
|	**Cr**	**53**	**51.821**	ug/L	0.691	1	293	171582	0	Standard
⌊	**Mn**	**55**	**54.745**	ug/L	1.425	2	791	1910061	2	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	75914	0	KED
|	**Ni**	**60**	**47.472**	ug/L	0.659	1	20	71798	1	KED
|	**Ni**	**62**	**47.275**	ug/L	0.853	1	6	11476	1	KED
|	**Cu**	**63**	**47.661**	ug/L	0.991	2	59	190641	2	KED
|	**Cu**	**65**	**47.139**	ug/L	0.692	1	24	91899	1	KED
|	**Zn**	**66**	**48.115**	ug/L	1.589	3	111	23435	3	KED
|	**Zn**	**67**	**48.693**	ug/L	0.994	2	18	3986	2	KED
⌊	**As**	**75**	**51.264**	ug/L	0.428	0	7	15902	0	KED
	Y	**89**		ug/L			890395	875619	1	Standard
	Kr	**83**		ug/L			55	74	1	Standard
⌈>	**In-1**	**115**		ug/L			32964	31022	0	KED
|	**Cd**	**111**	**49.155**	ug/L	0.402	0	3	19777	0	KED
⌊	**Cd**	**114**	**49.293**	ug/L	0.852	1	4	50500	1	KED
⌈>	**In**	**115**		ug/L			1164708	1091788	2	Standard
⌊	**Ag**	**107**	**51.888**	ug/L	2.837	5	76	961889	3	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1203211	1	Standard
⌊	**Pb**	**208**	**53.138**	ug/L	1.164	2	206	2055274	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBA
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 21:07:05
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	20187	3	Standard
	Cl	**37**		ug/L			8161285	8377424	0	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1704681	1	Standard
|	**Cr**	**52**	**-0.013**	ug/L	0.028	213	29739	28937	2	Standard
|	**Cr**	**53**	**0.003**	ug/L	0.001	35	293	300	1	Standard
⌊	**Mn**	**55**	**0.005**	ug/L	0.004	76	791	974	16	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	74451	1	KED
|	**Ni**	**60**	**0.022**	ug/L	0.017	74	20	52	45	KED
|	**Ni**	**62**	**0.029**	ug/L	0.022	75	6	13	37	KED
|	**Cu**	**63**	**0.022**	ug/L	0.019	83	59	140	50	KED
|	**Cu**	**65**	**0.030**	ug/L	0.024	79	24	80	56	KED
|	**Zn**	**66**	**0.025**	ug/L	0.023	89	111	114	8	KED
|	**Zn**	**67**	**0.009**	ug/L	0.032	367	18	17	16	KED
⌊	**As**	**75**	**0.020**	ug/L	0.020	99	7	12	45	KED
	Y	**89**		ug/L			890395	878129	2	Standard
	Kr	**83**		ug/L			55	46	25	Standard
⌈>	**In-1**	**115**		ug/L			32964	31522	4	KED
|	**Cd**	**111**	**0.006**	ug/L	0.005	89	3	5	33	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.003	258	4	5	62	KED
⌈>	**In**	**115**		ug/L			1164708	1138713	3	Standard
⌊	**Ag**	**107**	**0.003**	ug/L	0.003	92	76	128	36	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1200477	1	Standard
⌊	**Pb**	**208**	**0.004**	ug/L	0.002	64	206	341	24	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-54
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 21:11:34
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	35128	3	Standard
	Cl	**37**		ug/L			8161285	8266899	1	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1763248	1	Standard
|	**Cr**	**52**	**0.298**	ug/L	0.050	16	29739	38288	3	Standard
|	**Cr**	**53**	**0.254**	ug/L	0.013	5	293	1194	4	Standard
⌊	**Mn**	**55**	**2.179**	ug/L	0.042	1	791	81646	0	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	78477	0	KED
|	**Ni**	**60**	**0.197**	ug/L	0.010	5	20	328	4	KED
|	**Ni**	**62**	**0.133**	ug/L	0.047	35	6	40	28	KED
|	**Cu**	**63**	**1.442**	ug/L	0.011	0	59	6017	0	KED
|	**Cu**	**65**	**1.460**	ug/L	0.028	1	24	2964	1	KED
|	**Zn**	**66**	**4.879**	ug/L	0.187	3	111	2553	3	KED
|	**Zn**	**67**	**4.766**	ug/L	0.446	9	18	419	9	KED
⌊	**As**	**75**	**0.756**	ug/L	0.049	6	7	249	5	KED
	Y	**89**		ug/L			890395	939957	3	Standard
	Kr	**83**		ug/L			55	60	1	Standard
⌈>	**In-1**	**115**		ug/L			32964	32652	1	KED
|	**Cd**	**111**	**0.029**	ug/L	0.010	33	3	15	27	KED
⌊	**Cd**	**114**	**0.032**	ug/L	0.007	20	4	39	17	KED
⌈>	**In**	**115**		ug/L			1164708	1146009	2	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	118	76	89	16	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1211345	2	Standard
⌊	**Pb**	**208**	**0.048**	ug/L	0.003	5	206	2087	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-58
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 21:16:02
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	34158	1	Standard
	Cl	**37**		ug/L			8161285	8011695	0	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1747963	1	Standard
|	**Cr**	**52**	**0.132**	ug/L	0.033	25	29739	33535	1	Standard
|	**Cr**	**53**	**0.120**	ug/L	0.010	8	293	715	5	Standard
⌊	**Mn**	**55**	**2.181**	ug/L	0.016	0	791	81012	1	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	77843	2	KED
|	**Ni**	**60**	**0.157**	ug/L	0.024	15	20	263	14	KED
|	**Ni**	**62**	**0.128**	ug/L	0.034	26	6	38	24	KED
|	**Cu**	**63**	**1.051**	ug/L	0.046	4	59	4363	2	KED
|	**Cu**	**65**	**1.054**	ug/L	0.021	1	24	2129	2	KED
|	**Zn**	**66**	**3.570**	ug/L	0.077	2	111	1882	3	KED
|	**Zn**	**67**	**3.279**	ug/L	0.131	4	18	292	6	KED
⌊	**As**	**75**	**0.534**	ug/L	0.006	1	7	177	2	KED
	Y	**89**		ug/L			890395	901491	0	Standard
	Kr	**83**		ug/L			55	69	19	Standard
⌈>	**In-1**	**115**		ug/L			32964	32243	2	KED
|	**Cd**	**111**	**0.042**	ug/L	0.007	17	3	20	16	KED
⌊	**Cd**	**114**	**0.028**	ug/L	0.006	20	4	33	17	KED
⌈>	**In**	**115**		ug/L			1164708	1151213	4	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.000	95	76	81	4	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1234724	3	Standard
⌊	**Pb**	**208**	**0.011**	ug/L	0.001	9	206	661	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-60
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 21:20:30
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	32468	3	Standard
	Cl	**37**		ug/L			8161285	8174429	0	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1723223	1	Standard
|	**Cr**	**52**	**0.119**	ug/L	0.008	6	29739	32707	1	Standard
|	**Cr**	**53**	**0.094**	ug/L	0.006	6	293	617	5	Standard
⌊	**Mn**	**55**	**3.666**	ug/L	0.129	3	791	133711	3	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	75895	0	KED
|	**Ni**	**60**	**0.144**	ug/L	0.013	8	20	237	8	KED
|	**Ni**	**62**	**0.161**	ug/L	0.020	12	6	45	11	KED
|	**Cu**	**63**	**1.290**	ug/L	0.039	2	59	5213	2	KED
|	**Cu**	**65**	**1.267**	ug/L	0.050	3	24	2491	4	KED
|	**Zn**	**66**	**4.917**	ug/L	0.209	4	111	2487	3	KED
|	**Zn**	**67**	**4.727**	ug/L	0.402	8	18	402	7	KED
⌊	**As**	**75**	**0.651**	ug/L	0.015	2	7	208	2	KED
	Y	**89**		ug/L			890395	888279	4	Standard
	Kr	**83**		ug/L			55	59	22	Standard
⌈>	**In-1**	**115**		ug/L			32964	31532	3	KED
|	**Cd**	**111**	**0.041**	ug/L	0.005	11	3	20	8	KED
⌊	**Cd**	**114**	**0.036**	ug/L	0.011	31	4	41	31	KED
⌈>	**In**	**115**		ug/L			1164708	1132940	1	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	75	76	86	8	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1191591	1	Standard
⌊	**Pb**	**208**	**0.033**	ug/L	0.001	2	206	1469	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-62
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 21:24:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	32228	2	Standard
	Cl	**37**		ug/L			8161285	7958045	2	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1730791	2	Standard
|	**Cr**	**52**	**0.136**	ug/L	0.033	24	29739	33281	0	Standard
|	**Cr**	**53**	**0.111**	ug/L	0.011	9	293	677	4	Standard
⌊	**Mn**	**55**	**1.223**	ug/L	0.054	4	791	45322	2	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	78965	0	KED
|	**Ni**	**60**	**0.148**	ug/L	0.008	5	20	253	4	KED
|	**Ni**	**62**	**0.141**	ug/L	0.044	31	6	42	26	KED
|	**Cu**	**63**	**0.509**	ug/L	0.008	1	59	2174	2	KED
|	**Cu**	**65**	**0.519**	ug/L	0.036	6	24	1076	6	KED
|	**Zn**	**66**	**1.946**	ug/L	0.136	6	111	1090	5	KED
|	**Zn**	**67**	**1.997**	ug/L	0.428	21	18	187	19	KED
⌊	**As**	**75**	**0.241**	ug/L	0.007	3	7	84	3	KED
	Y	**89**		ug/L			890395	888663	1	Standard
	Kr	**83**		ug/L			55	53	20	Standard
⌈>	**In-1**	**115**		ug/L			32964	31507	7	KED
|	**Cd**	**111**	**0.009**	ug/L	0.007	80	3	6	39	KED
⌊	**Cd**	**114**	**0.022**	ug/L	0.009	37	4	27	27	KED
⌈>	**In**	**115**		ug/L			1164708	1163585	4	Standard
⌊	**Ag**	**107**	**-0.001**	ug/L	0.001	119	76	66	15	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1210161	2	Standard
⌊	**Pb**	**208**	**0.008**	ug/L	0.001	10	206	534	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-66
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 21:29:27
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	34323	1	Standard
	Cl	**37**		ug/L			8161285	8028491	2	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1731794	1	Standard
|	**Cr**	**52**	**0.141**	ug/L	0.020	14	29739	33444	0	Standard
|	**Cr**	**53**	**0.126**	ug/L	0.015	12	293	727	6	Standard
⌊	**Mn**	**55**	**3.164**	ug/L	0.138	4	791	116077	3	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	77446	1	KED
|	**Ni**	**60**	**0.183**	ug/L	0.021	11	20	302	9	KED
|	**Ni**	**62**	**0.171**	ug/L	0.033	19	6	48	15	KED
|	**Cu**	**63**	**1.057**	ug/L	0.035	3	59	4369	4	KED
|	**Cu**	**65**	**1.096**	ug/L	0.021	1	24	2202	2	KED
|	**Zn**	**66**	**4.278**	ug/L	0.159	3	111	2223	4	KED
|	**Zn**	**67**	**3.976**	ug/L	0.375	9	18	348	9	KED
⌊	**As**	**75**	**0.537**	ug/L	0.026	4	7	176	3	KED
	Y	**89**		ug/L			890395	885809	0	Standard
	Kr	**83**		ug/L			55	57	5	Standard
⌈>	**In-1**	**115**		ug/L			32964	32644	1	KED
|	**Cd**	**111**	**0.033**	ug/L	0.008	24	3	17	19	KED
⌊	**Cd**	**114**	**0.024**	ug/L	0.006	26	4	30	24	KED
⌈>	**In**	**115**		ug/L			1164708	1113207	1	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.000	103	76	81	10	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1182906	4	Standard
⌊	**Pb**	**208**	**0.014**	ug/L	0.001	10	206	741	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0323-01RE1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 21:33:55
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			20640	459006	4	Standard
	Cl	37		ug/L			8161285	8375348	2	Standard
>	Sc	45		ug/L			1731398	1650779	1	Standard
	Cr	52	2.941	ug/L	0.049	1	29739	102171	1	Standard
	Cr	53	1.820	ug/L	0.060	3	293	6271	1	Standard
	Mn	55	19.304	ug/L	0.235	1	791	671491	2	Standard
>	Ge-1	72		ug/L			80395	67355	1	KED
	Ni	60	9.084	ug/L	0.167	1	20	12205	2	KED
	Ni	62	8.902	ug/L	0.341	3	6	1922	4	KED
	Cu	63	6.728	ug/L	0.072	1	59	23920	1	KED
	Cu	65	6.645	ug/L	0.191	2	24	11508	1	KED
	Zn	66	6.513	ug/L	0.132	2	111	2894	1	KED
	Zn	67	7.644	ug/L	0.139	1	18	568	2	KED
	As	75	0.135	ug/L	0.018	13	7	43	10	KED
	Y	89		ug/L			890395	822706	2	Standard
	Kr	83		ug/L			55	111	5	Standard
>	In-1	115		ug/L			32964	27505	1	KED
	Cd	111	0.043	ug/L	0.021	47	3	18	41	KED
	Cd	114	0.035	ug/L	0.004	10	4	35	11	KED
>	In	115		ug/L			1164708	1031780	0	Standard
	Ag	107	0.000	ug/L	0.000	58	76	74	4	Standard
>	Tb	159		ug/L			1225002	1212531	1	Standard
	Pb	208	0.026	ug/L	0.000	1	206	1234	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0313-02RE1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 21:38:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	39335	2	Standard
	Cl	**37**		ug/L			8161285	8166330	2	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1833145	0	Standard
|	**Cr**	**52**	**5.890**	ug/L	0.291	4	29739	195714	4	Standard
|	**Cr**	**53**	**5.530**	ug/L	0.161	2	293	20533	2	Standard
⌊	**Mn**	**55**	**81.071**	ug/L	1.733	2	791	3128359	1	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	79331	1	KED
|	**Ni**	**60**	**2.851**	ug/L	0.115	4	20	4522	2	KED
|	**Ni**	**62**	**2.842**	ug/L	0.125	4	6	727	2	KED
|	**Cu**	**63**	**1.157**	ug/L	0.052	4	59	4891	2	KED
|	**Cu**	**65**	**1.116**	ug/L	0.021	1	24	2297	2	KED
|	**Zn**	**66**	**4.098**	ug/L	0.416	10	111	2183	8	KED
|	**Zn**	**67**	**3.753**	ug/L	0.122	3	18	337	1	KED
⌊	**As**	**75**	**0.063**	ug/L	0.003	4	7	27	2	KED
	Y	**89**		ug/L			890395	895552	3	Standard
	Kr	**83**		ug/L			55	54	12	Standard
⌈>	**In-1**	**115**		ug/L			32964	32252	2	KED
|	**Cd**	**111**	**0.103**	ug/L	0.009	8	3	46	10	KED
⌊	**Cd**	**114**	**0.109**	ug/L	0.011	9	4	119	8	KED
⌈>	**In**	**115**		ug/L			1164708	1128655	4	Standard
⌊	**Ag**	**107**	**0.007**	ug/L	0.001	16	76	203	9	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1225503	2	Standard
⌊	**Pb**	**208**	**0.229**	ug/L	0.009	3	206	9234	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0313-03RE1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 21:43:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	33350	2	Standard
	Cl	**37**		ug/L			8161285	8184238	1	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1847874	2	Standard
|	**Cr**	**52**	**3.235**	ug/L	0.097	2	29739	122620	1	Standard
|	**Cr**	**53**	**3.012**	ug/L	0.091	3	293	11411	0	Standard
⌊	**Mn**	**55**	**472.021**	ug/L	8.900	1	791	18354008	0	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	77854	0	KED
|	**Ni**	**60**	**9.242**	ug/L	0.431	4	20	14351	4	KED
|	**Ni**	**62**	**9.498**	ug/L	0.323	3	6	2369	2	KED
|	**Cu**	**63**	**2.792**	ug/L	0.080	2	59	11504	2	KED
|	**Cu**	**65**	**2.716**	ug/L	0.045	1	24	5451	2	KED
|	**Zn**	**66**	**10.211**	ug/L	0.128	1	111	5185	1	KED
|	**Zn**	**67**	**9.115**	ug/L	0.330	3	18	779	2	KED
⌊	**As**	**75**	**0.048**	ug/L	0.011	22	7	22	14	KED
	Y	**89**		ug/L			890395	890933	1	Standard
	Kr	**83**		ug/L			55	67	8	Standard
⌈>	**In-1**	**115**		ug/L			32964	31985	1	KED
|	**Cd**	**111**	**0.528**	ug/L	0.024	4	3	222	4	KED
⌊	**Cd**	**114**	**0.493**	ug/L	0.014	2	4	525	3	KED
⌈>	**In**	**115**		ug/L			1164708	1112008	2	Standard
⌊	**Ag**	**107**	**0.005**	ug/L	0.001	18	76	173	9	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1230888	2	Standard
⌊	**Pb**	**208**	**0.650**	ug/L	0.020	3	206	25915	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0313-04RE1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 21:47:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	34075	5	Standard
	Cl	**37**		ug/L			8161285	8173317	2	Standard
>	**Sc**	**45**		ug/L			1731398	1834710	2	Standard
	Cr	**52**	**1.881**	ug/L	0.072	3	29739	83970	2	Standard
	Cr	**53**	**1.822**	ug/L	0.024	1	293	6979	2	Standard
	Mn	**55**	**1.355**	ug/L	0.146	10	791	53088	9	Standard
>	**Ge-1**	**72**		ug/L			80395	78662	2	KED
	Ni	**60**	**1.297**	ug/L	0.036	2	20	2050	1	KED
	Ni	**62**	**1.333**	ug/L	0.121	9	6	341	6	KED
	Cu	**63**	**0.909**	ug/L	0.012	1	59	3822	1	KED
	Cu	**65**	**0.948**	ug/L	0.028	3	24	1937	0	KED
	Zn	**66**	**0.898**	ug/L	0.058	6	111	560	5	KED
	Zn	**67**	**0.953**	ug/L	0.114	11	18	98	7	KED
	As	**75**	**0.023**	ug/L	0.006	27	7	14	14	KED
	Y	**89**		ug/L			890395	912586	3	Standard
	Kr	**83**		ug/L			55	64	6	Standard
>	**In-1**	**115**		ug/L			32964	33379	1	KED
	Cd	**111**	**0.046**	ug/L	0.027	59	3	23	49	KED
	Cd	**114**	**0.049**	ug/L	0.007	13	4	58	12	KED
>	**In**	**115**		ug/L			1164708	1153482	0	Standard
	Ag	**107**	**0.004**	ug/L	0.001	19	76	158	9	Standard
>	**Tb**	**159**		ug/L			1225002	1228475	2	Standard
	Pb	**208**	**0.069**	ug/L	0.004	5	206	2925	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0313-05RE1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 21:52:11
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	32312	7	Standard
	Cl	**37**		ug/L			8161285	8181220	1	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1873393	2	Standard
|	**Cr**	**52**	**1.117**	ug/L	0.070	6	29739	63974	0	Standard
|	**Cr**	**53**	**1.129**	ug/L	0.033	2	293	4535	0	Standard
⌊	**Mn**	**55**	**638.653**	ug/L	28.264	4	791	25162510	2	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	78784	1	KED
|	**Ni**	**60**	**1.431**	ug/L	0.068	4	20	2266	6	KED
|	**Ni**	**62**	**1.438**	ug/L	0.021	1	6	368	1	KED
|	**Cu**	**63**	**2.945**	ug/L	0.151	5	59	12274	4	KED
|	**Cu**	**65**	**2.907**	ug/L	0.038	1	24	5904	2	KED
|	**Zn**	**66**	**9.881**	ug/L	0.265	2	111	5079	1	KED
|	**Zn**	**67**	**8.481**	ug/L	0.286	3	18	735	2	KED
⌊	**As**	**75**	**0.049**	ug/L	0.024	49	7	23	33	KED
	Y	**89**		ug/L			890395	884915	2	Standard
	Kr	**83**		ug/L			55	45	19	Standard
⌈>	**In-1**	**115**		ug/L			32964	32769	1	KED
|	**Cd**	**111**	**0.265**	ug/L	0.005	2	3	116	2	KED
⌊	**Cd**	**114**	**0.285**	ug/L	0.011	4	4	312	4	KED
⌈>	**In**	**115**		ug/L			1164708	1171666	3	Standard
⌊	**Ag**	**107**	**0.004**	ug/L	0.001	20	76	153	7	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1224283	1	Standard
⌊	**Pb**	**208**	**0.724**	ug/L	0.033	4	206	28693	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 21:57:45
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	19939	1	Standard
	Cl	**37**		ug/L			8161285	8366626	1	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1685537	2	Standard
|	**Cr**	**52**	**55.028**	ug/L	3.914	7	29739	1437600	4	Standard
|	**Cr**	**53**	**50.159**	ug/L	2.763	5	293	168808	3	Standard
⌊	**Mn**	**55**	**54.948**	ug/L	0.351	0	791	1949821	2	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	76629	0	KED
|	**Ni**	**60**	**48.111**	ug/L	0.800	1	20	73448	1	KED
|	**Ni**	**62**	**46.887**	ug/L	1.037	2	6	11488	1	KED
|	**Cu**	**63**	**47.594**	ug/L	2.147	4	59	192147	4	KED
|	**Cu**	**65**	**46.755**	ug/L	1.066	2	24	91999	1	KED
|	**Zn**	**66**	**47.515**	ug/L	0.132	0	111	23361	1	KED
|	**Zn**	**67**	**47.607**	ug/L	1.218	2	18	3934	2	KED
⌊	**As**	**75**	**50.285**	ug/L	0.263	0	7	15745	0	KED
	Y	**89**		ug/L			890395	869294	3	Standard
	Kr	**83**		ug/L			55	66	14	Standard
⌈>	**In-1**	**115**		ug/L			32964	31416	2	KED
|	**Cd**	**111**	**49.210**	ug/L	1.791	3	3	20042	1	KED
⌊	**Cd**	**114**	**48.913**	ug/L	2.001	4	4	50719	2	KED
⌈>	**In**	**115**		ug/L			1164708	1123057	3	Standard
⌊	**Ag**	**107**	**50.390**	ug/L	1.347	2	76	961238	1	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1187815	3	Standard
⌊	**Pb**	**208**	**52.931**	ug/L	3.799	7	206	2017454	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 22:04:57
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	19724	0	Standard
	Cl	**37**		ug/L			8161285	8260914	1	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1670552	1	Standard
|	**Cr**	**52**	**0.055**	ug/L	0.013	23	29739	30095	1	Standard
|	**Cr**	**53**	**0.020**	ug/L	0.011	56	293	350	9	Standard
⌊	**Mn**	**55**	**0.095**	ug/L	0.142	150	791	4051	121	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	75879	1	KED
|	**Ni**	**60**	**0.001**	ug/L	0.007	828	20	20	47	KED
|	**Ni**	**62**	**-0.014**	ug/L	0.009	65	6	3	69	KED
|	**Cu**	**63**	**0.002**	ug/L	0.001	33	59	64	3	KED
|	**Cu**	**65**	**0.004**	ug/L	0.004	107	24	30	27	KED
|	**Zn**	**66**	**-0.004**	ug/L	0.022	501	111	102	11	KED
|	**Zn**	**67**	**-0.042**	ug/L	0.038	90	18	13	20	KED
⌊	**As**	**75**	**-0.005**	ug/L	0.001	20	7	5	5	KED
	Y	**89**		ug/L			890395	869825	2	Standard
	Kr	**83**		ug/L			55	55	24	Standard
⌈>	**In-1**	**115**		ug/L			32964	31333	0	KED
|	**Cd**	**111**	**0.004**	ug/L	0.002	67	3	4	20	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.002	133	4	5	34	KED
⌈>	**In**	**115**		ug/L			1164708	1096573	2	Standard
⌊	**Ag**	**107**	**0.006**	ug/L	0.009	152	76	182	91	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1150680	1	Standard
⌊	**Pb**	**208**	**0.006**	ug/L	0.009	141	206	420	75	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 22:09:26
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	29559	0	Standard
	Cl	**37**		ug/L			8161285	8548587	2	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1917917	2	Standard
|	**Cr**	**52**	**0.079**	ug/L	0.032	40	29739	35231	0	Standard
|	**Cr**	**53**	**0.008**	ug/L	0.008	88	293	358	8	Standard
⌊	**Mn**	**55**	**0.110**	ug/L	0.068	62	791	5301	51	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	83708	4	KED
|	**Ni**	**60**	**-0.004**	ug/L	0.002	55	20	15	24	KED
|	**Ni**	**62**	**-0.011**	ug/L	0.003	31	6	4	24	KED
|	**Cu**	**63**	**-0.004**	ug/L	0.002	44	59	41	18	KED
|	**Cu**	**65**	**-0.001**	ug/L	0.005	333	24	22	52	KED
|	**Zn**	**66**	**-0.142**	ug/L	0.004	2	111	40	9	KED
|	**Zn**	**67**	**-0.144**	ug/L	0.060	41	18	6	86	KED
⌊	**As**	**75**	**-0.006**	ug/L	0.004	76	7	5	22	KED
	Y	**89**		ug/L			890395	997083	5	Standard
	Kr	**83**		ug/L			55	56	15	Standard
⌈>	**In-1**	**115**		ug/L			32964	36105	2	KED
|	**Cd**	**111**	**0.001**	ug/L	0.003	474	3	4	35	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.003	444	4	5	61	KED
⌈>	**In**	**115**		ug/L			1164708	1260262	0	Standard
⌊	**Ag**	**107**	**0.005**	ug/L	0.005	101	76	192	57	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1327491	3	Standard
⌊	**Pb**	**208**	**0.006**	ug/L	0.007	111	206	502	63	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 22:13:54
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	29159	2	Standard
	Cl	**37**		ug/L			8161285	8432039	2	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1919925	0	Standard
|	**Cr**	**52**	**0.039**	ug/L	0.010	26	29739	34111	0	Standard
|	**Cr**	**53**	**0.003**	ug/L	0.008	281	293	336	9	Standard
⌊	**Mn**	**55**	**0.034**	ug/L	0.001	3	791	2240	1	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	86628	0	KED
|	**Ni**	**60**	**-0.002**	ug/L	0.005	213	20	18	48	KED
|	**Ni**	**62**	**-0.004**	ug/L	0.017	406	6	6	75	KED
|	**Cu**	**63**	**-0.006**	ug/L	0.001	13	59	38	8	KED
|	**Cu**	**65**	**0.000**	ug/L	0.004	1278	24	26	32	KED
|	**Zn**	**66**	**-0.152**	ug/L	0.021	13	111	35	32	KED
|	**Zn**	**67**	**-0.165**	ug/L	0.024	14	18	4	49	KED
⌊	**As**	**75**	**-0.011**	ug/L	0.006	53	7	3	54	KED
	Y	**89**		ug/L			890395	1034465	1	Standard
	Kr	**83**		ug/L			55	54	25	Standard
⌈>	**In-1**	**115**		ug/L			32964	35957	2	KED
|	**Cd**	**111**	**-0.001**	ug/L	0.001	78	3	3	17	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.002	200	4	3	53	KED
⌈>	**In**	**115**		ug/L			1164708	1299889	2	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.000	88	76	76	13	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1368439	3	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.000	10	206	165	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 22:18:23
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	28797	0	Standard
	Cl	**37**		ug/L			8161285	8506541	2	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1924074	3	Standard
|	**Cr**	**52**	**0.071**	ug/L	0.037	51	29739	35120	2	Standard
|	**Cr**	**53**	**0.003**	ug/L	0.000	9	293	339	3	Standard
⌊	**Mn**	**55**	**0.033**	ug/L	0.003	8	791	2206	2	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	86825	1	KED
|	**Ni**	**60**	**-0.005**	ug/L	0.004	71	20	13	51	KED
|	**Ni**	**62**	**-0.002**	ug/L	0.017	787	6	6	68	KED
|	**Cu**	**63**	**-0.006**	ug/L	0.001	22	59	34	16	KED
|	**Cu**	**65**	**-0.003**	ug/L	0.002	53	24	18	23	KED
|	**Zn**	**66**	**-0.145**	ug/L	0.013	9	111	39	19	KED
|	**Zn**	**67**	**-0.138**	ug/L	0.023	16	18	6	31	KED
⌊	**As**	**75**	**-0.007**	ug/L	0.005	73	7	5	34	KED
	Y	**89**		ug/L			890395	1017342	3	Standard
	Kr	**83**		ug/L			55	55	5	Standard
⌈>	**In-1**	**115**		ug/L			32964	37471	1	KED
|	**Cd**	**111**	**-0.002**	ug/L	0.003	154	3	2	57	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.001	64	4	6	15	KED
⌈>	**In**	**115**		ug/L			1164708	1300675	3	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.000	534	76	85	1	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1356944	3	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.000	23	206	165	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 22:22:51
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	21865	1	Standard
	Cl	**37**		ug/L			8161285	7860175	2	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1593277	2	Standard
|	**Cr**	**52**	**0.041**	ug/L	0.034	83	29739	28353	2	Standard
|	**Cr**	**53**	**0.007**	ug/L	0.006	86	293	292	7	Standard
⌊	**Mn**	**55**	**-0.012**	ug/L	0.001	5	791	334	5	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	73246	4	KED
|	**Ni**	**60**	**-0.009**	ug/L	0.002	16	20	5	33	KED
|	**Ni**	**62**	**-0.011**	ug/L	0.014	127	6	3	86	KED
|	**Cu**	**63**	**-0.007**	ug/L	0.002	25	59	28	24	KED
|	**Cu**	**65**	**-0.004**	ug/L	0.001	27	24	13	20	KED
|	**Zn**	**66**	**-0.083**	ug/L	0.014	16	111	62	10	KED
|	**Zn**	**67**	**-0.026**	ug/L	0.087	335	18	14	45	KED
⌊	**As**	**75**	**-0.002**	ug/L	0.006	329	7	6	27	KED
	Y	**89**		ug/L			890395	843451	5	Standard
	Kr	**83**		ug/L			55	66	7	Standard
⌈>	**In-1**	**115**		ug/L			32964	30506	1	KED
|	**Cd**	**111**	**0.001**	ug/L	0.001	200	3	3	15	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.003	134	4	6	47	KED
⌈>	**In**	**115**		ug/L			1164708	1050432	4	Standard
⌊	**Ag**	**107**	**-0.001**	ug/L	0.000	10	76	50	5	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1079380	1	Standard
⌊	**Pb**	**208**	**-0.003**	ug/L	0.000	10	206	90	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 22:27:19
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	21346	2	Standard
	Cl	**37**		ug/L			8161285	7774508	2	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1548409	1	Standard
|	**Cr**	**52**	**0.081**	ug/L	0.038	47	29739	28500	2	Standard
|	**Cr**	**53**	**0.009**	ug/L	0.003	29	293	292	1	Standard
⌊	**Mn**	**55**	**-0.011**	ug/L	0.001	4	791	339	3	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	72988	3	KED
|	**Ni**	**60**	**-0.010**	ug/L	0.003	31	20	4	98	KED
|	**Ni**	**62**	**-0.016**	ug/L	0.005	31	6	2	43	KED
|	**Cu**	**63**	**-0.006**	ug/L	0.001	9	59	31	3	KED
|	**Cu**	**65**	**-0.005**	ug/L	0.001	29	24	12	22	KED
|	**Zn**	**66**	**-0.111**	ug/L	0.004	3	111	48	2	KED
|	**Zn**	**67**	**-0.148**	ug/L	0.053	35	18	5	78	KED
⌊	**As**	**75**	**-0.006**	ug/L	0.006	93	7	4	31	KED
	Y	**89**		ug/L			890395	815096	1	Standard
	Kr	**83**		ug/L			55	50	19	Standard
⌈>	**In-1**	**115**		ug/L			32964	28853	1	KED
|	**Cd**	**111**	**0.004**	ug/L	0.006	173	3	4	53	KED
⌊	**Cd**	**114**	**-0.002**	ug/L	0.002	91	4	1	103	KED
⌈>	**In**	**115**		ug/L			1164708	1053585	4	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.000	291	76	70	0	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1044034	4	Standard
⌊	**Pb**	**208**	**-0.003**	ug/L	0.000	6	206	80	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, June 25, 2018 22:31:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062518.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			20640	22032	1	Standard
	Cl	**37**		ug/L			8161285	7781691	0	Standard
⌈>	**Sc**	**45**		ug/L			1731398	1584613	2	Standard
|	**Cr**	**52**	**0.058**	ug/L	0.004	6	29739	28618	2	Standard
|	**Cr**	**53**	**0.009**	ug/L	0.003	37	293	297	5	Standard
⌊	**Mn**	**55**	**-0.012**	ug/L	0.000	1	791	321	2	Standard
⌈>	**Ge-1**	**72**		ug/L			80395	71666	1	KED
|	**Ni**	**60**	**-0.010**	ug/L	0.001	12	20	3	50	KED
|	**Ni**	**62**	**-0.016**	ug/L	0.005	29	6	2	43	KED
|	**Cu**	**63**	**-0.008**	ug/L	0.001	15	59	20	24	KED
|	**Cu**	**65**	**-0.008**	ug/L	0.003	32	24	6	75	KED
|	**Zn**	**66**	**-0.126**	ug/L	0.008	6	111	41	9	KED
|	**Zn**	**67**	**-0.107**	ug/L	0.055	51	18	8	53	KED
⌊	**As**	**75**	**-0.008**	ug/L	0.005	69	7	4	34	KED
	Y	**89**		ug/L			890395	798345	4	Standard
	Kr	**83**		ug/L			55	56	14	Standard
⌈>	**In-1**	**115**		ug/L			32964	28576	0	KED
|	**Cd**	**111**	**-0.002**	ug/L	0.003	135	3	2	49	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.004	588	4	3	129	KED
⌈>	**In**	**115**		ug/L			1164708	1053583	1	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.001	321	76	64	25	Standard
⌈>	**Tb**	**159**		ug/L			1225002	1053547	2	Standard
⌊	**Pb**	**208**	**-0.003**	ug/L	0.000	15	206	88	17	Standard

INITIAL CALIBRATION DATA

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00061
Instrument: ICPMS2
Calibration Date: 06/26/2018 10:03

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Arsenic-75a, Dissolved	0	0	0.2	400	10	354.4	20	360.9	50	340.44	100	324.56
Cadmium-111, Dissolved	0	0	0.1	470	10	518.8	20	518.7	50	493.44	100	466.1
Cadmium-114, Dissolved	0	0	0.1	1240	10	1328.5	20	1332.25	50	1251.66	100	1186.95
Copper-63, Dissolved	0	0	0.5	4386	10	4352.1	20	4204.75	50	3959.38	100	3610.31
Copper-65, Dissolved	0	0	0.5	2140	10	2141.2	20	2111.1	50	1899.82	100	1795.69
Zinc-66, Dissolved	0	0	4	557	10	548.3	20	531.95	50	497.46	100	466.83
Zinc-67, Dissolved	0	0	4	80.75	10	90.2	20	85.2	50	86.6	100	77.45

INITIAL CALIBRATION DATA

EPA 6020A UCT-KED

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00061	Instrument:	ICPMS2
Calibration Date:	06/26/2018 10:03		

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Arsenic-75a, Dissolved	296.7167	49.7	0.9991		0.998	
Cadmium-111, Dissolved	411.1733	49.3	0.9989		0.998	
Cadmium-114, Dissolved	1056.56	49.3	0.9989		0.998	
Copper-63, Dissolved	3418.757	49.7	0.9973		0.998	*
Copper-65, Dissolved	1681.302	49.7	0.9983		0.998	
Zinc-66, Dissolved	433.59	49.6	0.9987		0.998	
Zinc-67, Dissolved	70.03333	49.4	0.9966		0.998	*

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 10-26-18 **Analyst:** YH **Sequence:** SGF0345

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CAL1	GS828		
		-CAL2	GS695		
		-CAL3	GS620		
		-CAL4	GS621		
		-CAL5	GS696		
		-CAL6	GS622		
		-ISL1	—		
		-ICV1	GS103		
		-ICB1	GS828		
		-CCV1	GS696		
		-CCB1	GS828		
		-CRL1	GS695		
		-IFA1	GS699		Cr, Ba ↑
		-IFB1	GS697		↓
		-HCV1	GS700		Ag ↓
		-HCV2	GS701		Ag, Pb ↓
		-ISL2			
		-CCV2			
		-CCB2			
	✓	BGF0620-BLK1	REN		0.519 Mn
		18F0198-30		5	Mn only
		-02REE1			
		-04REE1			
		-08REE1			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6-26-18 **Analyst:** TH **Sequence:** —

All corrections made by analyst unless otherwise noted. ~~TH~~ 6-26-18

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		BG1F0364-DUP4	TREN	10	Cr, Pb only
		18F0185-08	↓	↓	↓
		BG1F0364-MS4			
		↓ -MSD4		↓	
	✓	BG1F0620-BS1	↓		Mn 1.24
		SEQ-CCV3			
		↓ -CCB3			
	✓	BG1F0620-BLK1	TREN		0.505 Mn
		BG1F0621-BLK1	↓		
		BG1F0478-BLK1			
		18F0359-01			
		18F0208-02		5	
		↓ -03		↓	
		↓ -04			
		BG1F0620-BS1			
		BG1F0621-BS1			
		BG1F0478-BS1	↓		
		SEQ-CCV4	—		
		↓ -CCB4	—		
	✓	BG1F0620-BLK1	TREN		
	↓	18F0198-20RE2	↑		
		↓ -26RE1			
		↓ -68RE1			
		BG1F0621-DUP1	↓		Cr 7.72 No Cr, Pb

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6-26-18 **Analyst:** JH **Sequence:** —

All corrections made by analyst unless otherwise noted. JH 6-26-18

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		18F0360-01	REN		Cr 7LR No Cr, Pb
		BGF0621-MS1	↓		↓ ↓
		BGF0478-DUP1		5	
		18F0208-01		↓	
		BGF0478-MS1			
		SEQ-CCV5			Cr^{52}, Mn ↑ Pb↓
		↓ -CCB5			Cr^{53}, U:^{62} ↑
		SEQ-ICBL3-ICBL5			Rinse
		-CAL1			
		-CCV6			Cr^{52}, Mn ↑ ~~Pb~~ Pb ↓
		↓ -CCB6			
		18F0226-01	REN	5	No Cr, Pb
		-02			
		-03			
		-04			
		-05			
		-06			
		-07			
		-08			
		↓ -09			
		18F0248-01			
		SEQ-CCV7			Cr, Mn↑ Pb↓
		↓ -CCB7			Cr^{53}, U:^{62} ↑
		18F0248-02	REN	5	No Cr, Pb

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6-26-18 **Analyst:** QH **Sequence:** —

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		18F0248-03	TEN	5	No Cr, Pb
		-04			↓
		-05			Ge-1, In-1 ↓ Ag only
		-06			No Cr, Pb
		-07			Ge-1 ↓ Cd, Ag only
		SEQ-CCV8			Cr, Mn ↑ Pb ↓
		+ -CCB8			Cr^{53}, U: 62 ↑
		TUNE/DL			
		QH 6-26-18			

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Tuesday, June 26, 2018 09:21:32
Sample Description:
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\STD Performance Check.mth
Dataset File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\DataSet\Default\STD Performance Check.15239
MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	4005.8	4005.765	332.503	8.3	Standard
	In	114.9	74863.0	-1089845.808	4697.558	0.4	Standard
	U	238.1	40074.7	40074.699	2900.317	7.2	Standard
⌈	CeO	155.9	1526.2	0.019	0.001	4.4	Standard
| >	Ce	139.9	79170.6	79170.644	5378.605	6.8	Standard
⌊	Ce++	70.0	1109.5	0.014	0.003	20.8	Standard
	Bkgd	220.0	0.1	0.100	0.149	149.1	Standard

Current Conditions File Data

Current Value	Description
0.94	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-9.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-3.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
0.94	DRC Mode NEB
-10.00	DRC Mode QRO
-3.00	DRC Mode CRO
-7.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-13.00	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
0.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 6/26/2018 9:21:29 AM
End Time: 6/26/2018 9:32:14 AM

STD Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9): 4005.76
Obtained Intensity (In 115): 74862.99
Obtained Intensity (U 238): 40074.70
Obtained Intensity (Bkgd 220): 0.10
Obtained Formula (Ce++ 70 / Ce 140): 0.014 (=1109.51 / 79170.64)
Obtained Formula (CeO 156 / Ce 140): 0.019 (=1526.22 / 79170.64)

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
0.22 mm	-0.09 mm	91010.98

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 0.94
Obtained Intensity (In 115): 87465.94
Obtained Formula (CeO 156 / Ce 140): 0.0221 (=1880.12 / 84926.69)

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.696)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.690)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.704)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.688)

QID STD/DRC - Optimum value(s): Correlation Coefficient = 0.988; Intercept = -11.32

KED Mode QID - Optimum value(s): Correlation Coefficient = 0.999; Intercept = -10.73

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 6/26/2018 9:21:29 AM

STD Performance Check
	Optimization Settings:
		Method: STD Performance Check.mth.
		Intensity Criterion: Be 9 > 2000
		Intensity Criterion: In 115 > 40000
		Intensity Criterion: U 238 > 30000
		Intensity Criterion: Bkgd 220 <= 1
		Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
		Formula Criterion: CeO 156 / Ce 140 <= 0.025

	Optimization Results:
	Initial Try
		Obtained Intensity (Be 9): 4005.76
		Obtained Intensity (In 115): 74862.99
		Obtained Intensity (U 238): 40074.70
		Obtained Intensity (Bkgd 220): 0.10
		Obtained Formula (Ce++ 70 / Ce 140): 0.014 (=1109.51 / 79170.64)
		Obtained Formula (CeO 156 / Ce 140): 0.019 (=1526.22 / 79170.64)

[Passed] Optimum value(s): N/A

Torch Alignment
	Optimization Settings:
		Method: Torch Alignment.mth.
		Intensity Criterion: In 115 Maximum

	Optimization Results:
		Vertical	Horizontal	Intensity
[Passed]	0.22 mm	-0.09 mm	91010.98

Nebulizer Gas Flow STD/KED [NEB]
	Optimization Settings:
		Method: Optimize.mth.
			Initial Try - Start/End/Step: 0.88/1.1/0.02.
		Intensity Criterion: In 115 Maximum
		Formula Criterion: CeO 156 / Ce 140 <= 0.025

	Optimization Results:
	Initial Try

		Obtained Intensity (In 115): 87465.94
		Obtained Formula (CeO 156 / Ce 140): 0.0221 (=1880.12 / 84926.69)
[Passed] Optimum value(s): 0.94

Mass Calibration and Resolution
	Optimization Settings:
		Method: Tuning.mth.
		MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
		Iterations: 6
		Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution

```
                Peak height (%) for Res. Opt.: 10

        Optimization Results:
        Initial Try
                Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.696)
                Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.690)
                Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.704)
                Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.688)
[Passed]  Optimum value(s): N/A

QID STD/DRC
        Optimization Settings:
                Method: QID Calibration.mth.
                        Initial Try - Start/End/Step: -16/0/0.5.

        Optimization Results:
        Initial Try

  Optimum value(s): Correlation Coefficient = 0.988; Intercept = -11.32

        Analyte      Mass    Points       DAC   MaxIntensity

             Li         7        33     -11.5        22553.8
             Mg        24        33       -11        42844.2
             In       115        33      -8.5          87974
             Ce       140        33        -7         106451
             Pb       208        33        -6        31971.7
              U       238        33        -3        50276.3

KED Mode QID
        Optimization Settings:
                Method: QID Calibration.mth.
                        Initial Try - Start/End/Step: -20/0/0.5.

        Optimization Results:
        Initial Try

  Optimum value(s): Correlation Coefficient = 0.999; Intercept = -10.73

        Analyte      Mass    Points       DAC   MaxIntensity

             Li         7        41       -11        17787.1
             Mg        24        41     -11.5        27466.4
             In       115        41        -8        73038.2
             Ce       140        41        -7        68363.2
             Pb       208        41      -3.5        26356.3
              U       238        41      -2.5        61793.4

End Time: 6/26/2018 9:32:14 AM
```

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Tuesday, June 26, 2018 09:34:44
Sample Description:
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\STD Performance Check.mth
Dataset File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\DataSet\Default\STD Performance Check.15247
MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	6012.8	6012.799	118.946	2.0	Standard
	In	114.9	88328.4	88328.395	1931.759	2.2	Standard
	U	238.1	50614.7	50614.718	648.363	1.3	Standard
⌈	CeO	155.9	2211.1	0.024	0.001	3.0	Standard
| >	Ce	139.9	93982.7	93982.674	553.657	0.6	Standard
⌊	Ce++	70.0	1405.1	0.015	0.001	3.4	Standard
	Bkgd	220.0	0.0	0.033	0.075	223.6	Standard

Current Conditions File Data

Current Value	Description
0.94	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-9.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-3.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
0.94	DRC Mode NEB
-10.00	DRC Mode QRO
-3.00	DRC Mode CRO
-7.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-13.00	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
0.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 6/26/2018 9:33:41 AM
End Time: 6/26/2018 9:36:49 AM

QID STD/DRC - Optimum value(s): Correlation Coefficient = 1.000; Intercept = -10.86

STD Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9): 6012.80
Obtained Intensity (In 115): 88328.40
Obtained Intensity (U 238): 50614.72
Obtained Intensity (Bkgd 220): 0.03
Obtained Formula (Ce++ 70 / Ce 140): 0.015 (=1405.14 / 93982.67)
Obtained Formula (CeO 156 / Ce 140): 0.024 (=2211.10 / 93982.67)

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 6/26/2018 9:33:41 AM

QID STD/DRC

Optimization Settings:

Method: QID Calibration.mth.

Initial Try - Start/End/Step: -16/0/0.5.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 1.000; Intercept = -10.86

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	33	-11	24008.2
Mg	24	33	-11	43686.7
In	115	33	-8.5	95457.9
Ce	140	33	-7.5	95623
Pb	208	33	-5	31554.8
U	238	33	-3	50019.4

STD Performance Check

Optimization Settings:

Method: STD Performance Check.mth.

Intensity Criterion: Be 9 > 2000

Intensity Criterion: In 115 > 40000

Intensity Criterion: U 238 > 30000

Intensity Criterion: Bkgd 220 <= 1

Formula Criterion: Ce++ 70 / Ce 140 <= 0.03

Formula Criterion: CeO 156 / Ce 140 <= 0.025

Optimization Results:

Initial Try

Obtained Intensity (Be 9): 6012.80

Obtained Intensity (In 115): 88328.40

Obtained Intensity (U 238): 50614.72

Obtained Intensity (Bkgd 220): 0.03

Obtained Formula (Ce++ 70 / Ce 140): 0.015 (=1405.14 / 93982.67)

Obtained Formula (CeO 156 / Ce 140): 0.024 (=2211.10 / 93982.67)

[Passed] Optimum value(s): N/A

End Time: 6/26/2018 9:36:49 AM

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 10:03:50
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				17935	1	Standard
	Cl	**37**		ug/L				7300856	0	Standard
⌈>	**Sc**	**45**		ug/L				1595659	1	Standard
|	**Cr**	**52**		ug/L				29586	1	Standard
|	**Cr**	**53**		ug/L				269	1	Standard
⌊	**Mn**	**55**		ug/L				664	3	Standard
⌈>	**Ge-1**	**72**		ug/L				82831	1	KED
|	**Ni**	**60**		ug/L				11	72	KED
|	**Ni**	**62**		ug/L				5	43	KED
|	**Cu**	**63**		ug/L				20	21	KED
|	**Cu**	**65**		ug/L				13	34	KED
|	**Zn**	**66**		ug/L				40	21	KED
|	**Zn**	**67**		ug/L				2	43	KED
⌊	**As**	**75**		ug/L				5	46	KED
	Y	**89**		ug/L				806387	5	Standard
	Kr	**83**		ug/L				48	37	Standard
⌈>	**In-1**	**115**		ug/L				39343	1	KED
|	**Cd**	**111**		ug/L				3	50	KED
⌊	**Cd**	**114**		ug/L				2	120	KED
⌈>	**In**	**115**		ug/L				1058527	2	Standard
⌊	**Ag**	**107**		ug/L				67	40	Standard
⌈>	**Tb**	**159**		ug/L				1231255	3	Standard
⌊	**Pb**	**208**		ug/L				93	13	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 10:08:19
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	21373	2	Standard
	Cl	**37**		ug/L			7300856	7265688	0	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1570583	1	Standard
|	**Cr**	**52**	**0.500**	ug/L	0.024	4	29586	45166	1	Standard
|	**Cr**	**53**	**0.500**	ug/L	0.020	4	269	2059	1	Standard
⌊	**Mn**	**55**	**0.500**	ug/L	0.003	0	664	21975	1	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	82925	2	KED
|	**Ni**	**60**	**0.500**	ug/L	0.030	6	11	767	3	KED
|	**Ni**	**62**	**0.500**	ug/L	0.124	24	5	125	21	KED
|	**Cu**	**63**	**0.500**	ug/L	0.021	4	20	2193	2	KED
|	**Cu**	**65**	**0.500**	ug/L	0.027	5	13	1070	5	KED
|	**Zn**	**66**	**4.000**	ug/L	0.143	3	40	2228	2	KED
|	**Zn**	**67**	**4.000**	ug/L	0.158	3	2	323	2	KED
⌊	**As**	**75**	**0.200**	ug/L	0.011	5	5	80	7	KED
	Y	**89**		ug/L			806387	824512	2	Standard
	Kr	**83**		ug/L			48	57	8	Standard
⌈>	**In-1**	**115**		ug/L			39343	38802	2	KED
|	**Cd**	**111**	**0.100**	ug/L	0.023	22	3	47	19	KED
⌊	**Cd**	**114**	**0.100**	ug/L	0.014	14	2	124	12	KED
⌈>	**In**	**115**		ug/L			1058527	1038597	3	Standard
⌊	**Ag**	**107**	**0.200**	ug/L	0.018	8	67	4028	6	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1218065	3	Standard
⌊	**Pb**	**208**	**0.100**	ug/L	0.006	6	93	4156	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 10:12:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	26717	4	Standard
	Cl	**37**		ug/L			7300856	7403270	0	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1626783	0	Standard
|	**Cr**	**52**	**9.997**	ug/L	0.137	1	29586	331197	1	Standard
|	**Cr**	**53**	**10.000**	ug/L	0.155	1	269	36940	1	Standard
⌊	**Mn**	**55**	**10.000**	ug/L	0.161	1	664	444708	1	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	83712	2	KED
|	**Ni**	**60**	**10.002**	ug/L	0.245	2	11	16532	1	KED
|	**Ni**	**62**	**10.001**	ug/L	0.449	4	5	2552	2	KED
|	**Cu**	**63**	**10.000**	ug/L	0.326	3	20	43521	1	KED
|	**Cu**	**65**	**10.000**	ug/L	0.071	0	13	21412	1	KED
|	**Zn**	**66**	**9.979**	ug/L	0.107	1	40	5483	3	KED
|	**Zn**	**67**	**10.139**	ug/L	0.778	7	2	902	6	KED
⌊	**As**	**75**	**10.000**	ug/L	0.126	1	5	3544	1	KED
	Y	**89**		ug/L			806387	846635	3	Standard
	Kr	**83**		ug/L			48	62	12	Standard
⌈>	**In-1**	**115**		ug/L			39343	40011	0	KED
|	**Cd**	**111**	**10.000**	ug/L	0.103	1	3	5188	1	KED
⌊	**Cd**	**114**	**10.000**	ug/L	0.076	0	2	13285	1	KED
⌈>	**In**	**115**		ug/L			1058527	1070203	3	Standard
⌊	**Ag**	**107**	**10.000**	ug/L	0.232	2	67	211859	1	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1232532	0	Standard
⌊	**Pb**	**208**	**10.000**	ug/L	0.220	2	93	404649	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 10:17:29
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	26572	1	Standard
	Cl	**37**		ug/L			7300856	7518962	1	Standard
⎡>	**Sc**	**45**		ug/L			1595659	1612553	1	Standard
⎢	**Cr**	**52**	**20.127**	ug/L	0.205	1	29586	646175	1	Standard
⎢	**Cr**	**53**	**19.989**	ug/L	0.119	0	269	72775	1	Standard
⎣	**Mn**	**55**	**19.987**	ug/L	0.130	0	664	878070	1	Standard
⎡>	**Ge-1**	**72**		ug/L			82831	83032	2	KED
⎢	**Ni**	**60**	**19.943**	ug/L	0.282	1	11	32313	1	KED
⎢	**Ni**	**62**	**20.042**	ug/L	1.077	5	5	5109	3	KED
⎢	**Cu**	**63**	**19.895**	ug/L	0.529	2	20	84095	1	KED
⎢	**Cu**	**65**	**19.978**	ug/L	0.287	1	13	42222	2	KED
⎢	**Zn**	**66**	**19.908**	ug/L	0.414	2	40	10639	2	KED
⎢	**Zn**	**67**	**19.845**	ug/L	0.926	4	2	1704	3	KED
⎣	**As**	**75**	**20.108**	ug/L	0.454	2	5	7218	1	KED
	Y	**89**		ug/L			806387	843981	1	Standard
	Kr	**83**		ug/L			48	64	9	Standard
⎡>	**In-1**	**115**		ug/L			39343	39477	2	KED
⎢	**Cd**	**111**	**20.055**	ug/L	0.330	1	3	10374	1	KED
⎣	**Cd**	**114**	**20.066**	ug/L	0.412	2	2	26645	2	KED
⎡>	**In**	**115**		ug/L			1058527	1080624	2	Standard
⎣	**Ag**	**107**	**19.859**	ug/L	0.431	2	67	413392	4	Standard
⎡>	**Tb**	**159**		ug/L			1231255	1266332	2	Standard
⎣	**Pb**	**208**	**20.016**	ug/L	0.631	3	93	834761	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 10:22:21
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	20134	3	Standard
	Cl	**37**		ug/L			7300856	7339066	2	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1525512	3	Standard
|	**Cr**	**52**	**49.725**	ug/L	1.733	3	29586	1429143	0	Standard
|	**Cr**	**53**	**49.696**	ug/L	2.441	4	269	165553	1	Standard
⌊	**Mn**	**55**	**49.300**	ug/L	1.419	2	664	1913288	2	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	77539	1	KED
|	**Ni**	**60**	**49.895**	ug/L	0.827	1	11	74709	0	KED
|	**Ni**	**62**	**49.999**	ug/L	0.446	0	5	11906	1	KED
|	**Cu**	**63**	**50.023**	ug/L	0.396	0	20	197969	1	KED
|	**Cu**	**65**	**49.678**	ug/L	1.031	2	13	94991	2	KED
|	**Zn**	**66**	**49.990**	ug/L	0.412	0	40	24873	1	KED
|	**Zn**	**67**	**50.643**	ug/L	1.732	3	2	4330	2	KED
⌊	**As**	**75**	**50.129**	ug/L	0.331	0	5	17022	1	KED
	Y	**89**		ug/L			806387	790910	2	Standard
	Kr	**83**		ug/L			48	64	13	Standard
⌈>	**In-1**	**115**		ug/L			39343	38547	4	KED
|	**Cd**	**111**	**49.813**	ug/L	1.824	3	3	24672	1	KED
⌊	**Cd**	**114**	**49.705**	ug/L	0.766	1	2	62583	3	KED
⌈>	**In**	**115**		ug/L			1058527	1003602	1	Standard
⌊	**Ag**	**107**	**49.653**	ug/L	1.377	2	67	927041	0	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1160094	0	Standard
⌊	**Pb**	**208**	**49.838**	ug/L	0.995	1	93	1874049	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL6
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 10:28:53
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	23177	4	Standard
	Cl	**37**		ug/L			7300856	7404675	0	Standard
⎡>	**Sc**	**45**		ug/L			1595659	1505024	1	Standard
⎢	**Cr**	**52**	**97.305**	ug/L	2.838	2	29586	2511020	2	Standard
⎢	**Cr**	**53**	**99.797**	ug/L	2.335	2	269	325885	1	Standard
⎣	**Mn**	**55**	**97.898**	ug/L	0.569	0	664	3503776	1	Standard
⎡>	**Ge-1**	**72**		ug/L			82831	75528	0	KED
⎢	**Ni**	**60**	**98.971**	ug/L	2.184	2	11	139555	1	KED
⎢	**Ni**	**62**	**98.529**	ug/L	3.711	3	5	21777	3	KED
⎢	**Cu**	**63**	**98.462**	ug/L	1.446	1	20	361031	1	KED
⎢	**Cu**	**65**	**99.148**	ug/L	0.987	0	13	179569	1	KED
⎢	**Zn**	**66**	**99.143**	ug/L	3.312	3	40	46683	2	KED
⎢	**Zn**	**67**	**98.283**	ug/L	1.415	1	2	7745	1	KED
⎣	**As**	**75**	**99.564**	ug/L	1.054	1	5	32456	1	KED
	Y	**89**		ug/L			806387	796465	1	Standard
	Kr	**83**		ug/L			48	76	17	Standard
⎡>	**In-1**	**115**		ug/L			39343	37008	1	KED
⎢	**Cd**	**111**	**99.515**	ug/L	1.623	1	3	46610	0	KED
⎣	**Cd**	**114**	**99.569**	ug/L	2.018	2	2	118695	1	KED
⎡>	**In**	**115**		ug/L			1058527	959880	2	Standard
⎣	**Ag**	**107**	**100.086**	ug/L	2.837	2	67	1792394	2	Standard
⎡>	**Tb**	**159**		ug/L			1231255	1165282	1	Standard
⎣	**Pb**	**208**	**98.527**	ug/L	2.073	2	93	3546221	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 10:36:06
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	17361	3	Standard
	Cl	**37**		ug/L			7300856	7328328	2	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1523491	0	Standard
|	**Cr**	**52**	**0.005**	ug/L	0.026	484	29586	28386	2	Standard
|	**Cr**	**53**	**-0.008**	ug/L	0.001	11	269	231	1	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.000	28	664	671	1	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	79932	3	KED
|	**Ni**	**60**	**0.049**	ug/L	0.050	101	11	83	89	KED
|	**Ni**	**62**	**0.042**	ug/L	0.041	98	5	14	64	KED
|	**Cu**	**63**	**0.048**	ug/L	0.042	88	20	203	80	KED
|	**Cu**	**65**	**0.037**	ug/L	0.035	94	13	84	79	KED
|	**Zn**	**66**	**0.044**	ug/L	0.036	80	40	60	26	KED
|	**Zn**	**67**	**0.061**	ug/L	0.037	61	2	7	43	KED
⌊	**As**	**75**	**0.036**	ug/L	0.039	108	5	17	75	KED
	Y	**89**		ug/L			806387	787261	1	Standard
	Kr	**83**		ug/L			48	52	26	Standard
⌈>	**In-1**	**115**		ug/L			39343	38902	1	KED
|	**Cd**	**111**	**0.002**	ug/L	0.012	581	3	4	124	KED
⌊	**Cd**	**114**	**0.004**	ug/L	0.000	0	2	7	0	KED
⌈>	**In**	**115**		ug/L			1058527	1017094	4	Standard
⌊	**Ag**	**107**	**0.003**	ug/L	0.001	22	67	125	14	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1167344	1	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.000	10	93	153	3	Standard

Sample Information

Sample Date/Time: Tuesday, June 26, 2018 10:28:53
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_C
Mass Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

Calibration

Analyte	Mass	**r Corr Coef**	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Sc	45							
Cr	52	**0.9988**	0.017	0.50	10	20	50	100
Cr	53	**1.0000**	0.002	0.50	10	20	50	100
Mn	55	**0.9991**	0.024	0.50	10	20	50	100
Ge-1	72							
Ni	60	**0.9998**	0.019	0.50	10	20	50	100
Ni	62	**0.9996**	0.003	0.50	10	20	50	100
Cu	63	**0.9996**	0.049	0.50	10	20	50	100
Cu	65	**0.9999**	0.024	0.50	10	20	50	100
Zn	66	**0.9999**	0.006	4.00	10	20	50	100
Zn	67	**0.9994**	0.001	4.00	10	20	50	100
As	75	**1.0000**	0.004	0.20	10	20	50	100
Y	89							
Kr	83							
In-1	115							
Cd	111	**1.0000**	0.013	0.10	10	20	50	100
Cd	114	**0.9999**	0.032	0.10	10	20	50	100
In	115							
Ag	107	**1.0000**	0.019	0.20	10	20	50	100
Tb	159							
Pb	208	**0.9996**	0.031	0.10	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICV1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 10:43:19
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	21668	1	Standard
	Cl	**37**		ug/L			7300856	7442225	1	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1540124	1	Standard
|	**Cr**	**52**	**53.172**	ug/L	0.816	1	29586	1417416	2	Standard
|	**Cr**	**53**	**49.961**	ug/L	0.224	0	269	167090	0	Standard
⌊	**Mn**	**55**	**52.170**	ug/L	1.521	2	664	1911212	3	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	78451	1	KED
|	**Ni**	**60**	**50.790**	ug/L	0.587	1	11	74407	2	KED
|	**Ni**	**62**	**50.250**	ug/L	0.364	0	5	11539	1	KED
|	**Cu**	**63**	**51.208**	ug/L	0.272	0	20	195060	2	KED
|	**Cu**	**65**	**50.849**	ug/L	0.786	1	13	95648	1	KED
|	**Zn**	**66**	**49.608**	ug/L	0.827	1	40	24288	3	KED
|	**Zn**	**67**	**50.743**	ug/L	1.677	3	2	4155	4	KED
⌊	**As**	**75**	**50.013**	ug/L	0.570	1	5	16934	0	KED
	Y	**89**		ug/L			806387	812271	4	Standard
	Kr	**83**		ug/L			48	56	7	Standard
⌈>	**In-1**	**115**		ug/L			39343	38642	2	KED
|	**Cd**	**111**	**49.537**	ug/L	0.450	0	3	24227	1	KED
⌊	**Cd**	**114**	**50.046**	ug/L	0.881	1	2	62282	0	KED
⌈>	**In**	**115**		ug/L			1058527	1002213	2	Standard
⌊	**Ag**	**107**	**51.469**	ug/L	2.479	4	67	961986	2	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1194534	3	Standard
⌊	**Pb**	**208**	**51.174**	ug/L	1.618	3	93	1887185	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICB1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 10:50:31
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	17267	1	Standard
	Cl	**37**		ug/L			7300856	7273933	2	Standard
⎡>	**Sc**	**45**		ug/L			1595659	1556183	0	Standard
⎢	**Cr**	**52**	**-0.005**	ug/L	0.011	195	29586	28711	0	Standard
⎢	**Cr**	**53**	**-0.004**	ug/L	0.004	97	269	250	4	Standard
⎣	**Mn**	**55**	**0.000**	ug/L	0.001	579	664	651	2	Standard
⎡>	**Ge-1**	**72**		ug/L			82831	80109	1	KED
⎢	**Ni**	**60**	**-0.002**	ug/L	0.005	197	11	7	90	KED
⎢	**Ni**	**62**	**-0.002**	ug/L	0.013	661	5	4	65	KED
⎢	**Cu**	**63**	**0.001**	ug/L	0.002	162	20	25	36	KED
⎢	**Cu**	**65**	**0.000**	ug/L	0.001	629	13	13	20	KED
⎢	**Zn**	**66**	**0.014**	ug/L	0.003	22	40	45	4	KED
⎢	**Zn**	**67**	**0.054**	ug/L	0.065	120	2	6	78	KED
⎣	**As**	**75**	**-0.000**	ug/L	0.001	198	5	5	5	KED
	Y	**89**		ug/L			806387	815788	4	Standard
	Kr	**83**		ug/L			48	69	3	Standard
⎡>	**In-1**	**115**		ug/L			39343	40212	1	KED
⎢	**Cd**	**111**	**-0.000**	ug/L	0.002	1063	3	3	25	KED
⎣	**Cd**	**114**	**0.001**	ug/L	0.000	13	2	3	2	KED
⎡>	**In**	**115**		ug/L			1058527	1041517	0	Standard
⎣	**Ag**	**107**	**0.002**	ug/L	0.000	9	67	99	2	Standard
⎡>	**Tb**	**159**		ug/L			1231255	1168416	2	Standard
⎣	**Pb**	**208**	**0.001**	ug/L	0.000	23	93	113	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 10:54:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	19842	1	Standard
	Cl	**37**		ug/L			7300856	7322001	0	Standard
⎡>	**Sc**	**45**		ug/L			1595659	1507569	4	Standard
⎢	**Cr**	**52**	**54.343**	ug/L	2.613	4	29586	1416166	3	Standard
⎢	**Cr**	**53**	**50.897**	ug/L	2.396	4	269	166444	2	Standard
⎣	**Mn**	**55**	**53.734**	ug/L	3.605	6	664	1923157	2	Standard
⎡>	**Ge-1**	**72**		ug/L			82831	77778	2	KED
⎢	**Ni**	**60**	**50.524**	ug/L	1.980	3	11	73326	1	KED
⎢	**Ni**	**62**	**50.088**	ug/L	1.603	3	5	11398	1	KED
⎢	**Cu**	**63**	**51.389**	ug/L	0.463	0	20	194039	2	KED
⎢	**Cu**	**65**	**49.540**	ug/L	1.654	3	13	92350	1	KED
⎢	**Zn**	**66**	**51.081**	ug/L	1.632	3	40	24777	1	KED
⎢	**Zn**	**67**	**49.926**	ug/L	1.084	2	2	4052	3	KED
⎣	**As**	**75**	**50.017**	ug/L	1.198	2	5	16786	1	KED
	Y	**89**		ug/L			806387	807418	2	Standard
	Kr	**83**		ug/L			48	69	22	Standard
⎡>	**In-1**	**115**		ug/L			39343	37995	0	KED
⎢	**Cd**	**111**	**50.830**	ug/L	0.785	1	3	24448	2	KED
⎣	**Cd**	**114**	**51.426**	ug/L	0.493	0	2	62947	1	KED
⎡>	**In**	**115**		ug/L			1058527	958270	1	Standard
⎣	**Ag**	**107**	**53.254**	ug/L	1.341	2	67	952268	2	Standard
⎡>	**Tb**	**159**		ug/L			1231255	1169064	1	Standard
⎣	**Pb**	**208**	**51.417**	ug/L	1.160	2	93	1857075	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 11:01:52
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	17361	2	Standard
	Cl	**37**		ug/L			7300856	7177285	1	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1497029	1	Standard
|	**Cr**	**52**	**0.011**	ug/L	0.028	254	29586	28035	1	Standard
|	**Cr**	**53**	**-0.009**	ug/L	0.004	43	269	222	5	Standard
⌊	**Mn**	**55**	**0.001**	ug/L	0.001	80	664	652	2	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	77992	0	KED
|	**Ni**	**60**	**-0.002**	ug/L	0.002	106	11	7	43	KED
|	**Ni**	**62**	**0.001**	ug/L	0.017	1365	5	5	78	KED
|	**Cu**	**63**	**0.003**	ug/L	0.003	108	20	29	37	KED
|	**Cu**	**65**	**-0.003**	ug/L	0.002	92	13	8	53	KED
|	**Zn**	**66**	**-0.021**	ug/L	0.006	26	40	27	10	KED
|	**Zn**	**67**	**0.049**	ug/L	0.027	56	2	6	34	KED
⌊	**As**	**75**	**0.001**	ug/L	0.004	306	5	5	26	KED
	Y	**89**		ug/L			806387	791756	1	Standard
	Kr	**83**		ug/L			48	58	4	Standard
⌈>	**In-1**	**115**		ug/L			39343	39211	2	KED
|	**Cd**	**111**	**0.008**	ug/L	0.014	175	3	7	87	KED
⌊	**Cd**	**114**	**0.015**	ug/L	0.018	119	2	21	104	KED
⌈>	**In**	**115**		ug/L			1058527	994971	2	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.001	53	67	95	18	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1146915	1	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	15	93	135	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CRL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 11:06:20
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	19529	2	Standard
	Cl	**37**		ug/L			7300856	7250064	1	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1557425	1	Standard
|	**Cr**	**52**	**0.570**	ug/L	0.021	3	29586	43938	0	Standard
|	**Cr**	**53**	**0.525**	ug/L	0.012	2	269	2035	2	Standard
⌊	**Mn**	**55**	**0.592**	ug/L	0.017	2	664	22551	1	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	81519	1	KED
|	**Ni**	**60**	**0.513**	ug/L	0.022	4	11	791	2	KED
|	**Ni**	**62**	**0.570**	ug/L	0.048	8	5	140	7	KED
|	**Cu**	**63**	**0.576**	ug/L	0.021	3	20	2297	3	KED
|	**Cu**	**65**	**0.558**	ug/L	0.022	4	13	1104	3	KED
|	**Zn**	**66**	**4.809**	ug/L	0.346	7	40	2479	5	KED
|	**Zn**	**67**	**4.470**	ug/L	0.231	5	2	382	6	KED
⌊	**As**	**75**	**0.195**	ug/L	0.016	8	5	74	5	KED
	Y	**89**		ug/L			806387	815403	5	Standard
	Kr	**83**		ug/L			48	58	16	Standard
⌈>	**In-1**	**115**		ug/L			39343	39567	4	KED
|	**Cd**	**111**	**0.104**	ug/L	0.022	20	3	56	22	KED
⌊	**Cd**	**114**	**0.110**	ug/L	0.005	4	2	143	3	KED
⌈>	**In**	**115**		ug/L			1058527	982981	2	Standard
⌊	**Ag**	**107**	**0.225**	ug/L	0.019	8	67	4186	5	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1165307	1	Standard
⌊	**Pb**	**208**	**0.138**	ug/L	0.005	3	93	5049	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFA1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 11:10:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	122496	2	Standard
	Cl	**37**		ug/L			7300856	15204702	1	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1666771	1	Standard
|	**Cr**	**52**	**0.654**	ug/L	0.057	8	29586	49368	2	Standard
|	**Cr**	**53**	**6.556**	ug/L	0.106	1	269	23976	2	Standard
⌊	**Mn**	**55**	**0.068**	ug/L	0.003	3	664	3396	1	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	82797	1	KED
|	**Ni**	**60**	**0.044**	ug/L	0.004	8	11	79	8	KED
|	**Ni**	**62**	**0.152**	ug/L	0.049	32	5	41	28	KED
|	**Cu**	**63**	**0.039**	ug/L	0.004	11	20	175	11	KED
|	**Cu**	**65**	**0.046**	ug/L	0.011	25	13	104	22	KED
|	**Zn**	**66**	**0.144**	ug/L	0.041	28	40	114	17	KED
|	**Zn**	**67**	**0.184**	ug/L	0.013	7	2	18	5	KED
⌊	**As**	**75**	**0.029**	ug/L	0.005	17	5	16	12	KED
	Y	**89**		ug/L			806387	850540	0	Standard
	Kr	**83**		ug/L			48	153	11	Standard
⌈>	**In-1**	**115**		ug/L			39343	34807	16	KED
|	**Cd**	**111**	**0.129**	ug/L	0.011	8	3	60	24	KED
⌊	**Cd**	**114**	**0.081**	ug/L	0.014	17	2	91	6	KED
⌈>	**In**	**115**		ug/L			1058527	1101364	2	Standard
⌊	**Ag**	**107**	**0.010**	ug/L	0.001	11	67	283	9	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1346610	0	Standard
⌊	**Pb**	**208**	**0.018**	ug/L	0.000	1	93	845	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFB1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 11:15:16
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	123953	2	Standard
	Cl	**37**		ug/L			7300856	14596948	2	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1653405	1	Standard
|	**Cr**	**52**	**21.979**	ug/L	0.222	1	29586	646889	0	Standard
|	**Cr**	**53**	**25.996**	ug/L	0.644	2	269	93451	1	Standard
⌊	**Mn**	**55**	**22.060**	ug/L	0.370	1	664	867799	1	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	82783	1	KED
|	**Ni**	**60**	**20.635**	ug/L	0.475	2	11	31895	0	KED
|	**Ni**	**62**	**20.375**	ug/L	0.453	2	5	4941	3	KED
|	**Cu**	**63**	**20.203**	ug/L	0.243	1	20	81205	0	KED
|	**Cu**	**65**	**20.001**	ug/L	0.543	2	13	39705	2	KED
|	**Zn**	**66**	**19.242**	ug/L	0.199	1	40	9963	1	KED
|	**Zn**	**67**	**16.155**	ug/L	0.578	3	2	1396	1	KED
⌊	**As**	**75**	**19.594**	ug/L	0.309	1	5	7005	2	KED
	Y	**89**		ug/L			806387	881088	2	Standard
	Kr	**83**		ug/L			48	154	9	Standard
⌈>	**In-1**	**115**		ug/L			39343	37749	1	KED
|	**Cd**	**111**	**19.793**	ug/L	0.145	0	3	9459	1	KED
⌊	**Cd**	**114**	**20.085**	ug/L	0.319	1	2	24424	1	KED
⌈>	**In**	**115**		ug/L			1058527	1093718	4	Standard
⌊	**Ag**	**107**	**18.612**	ug/L	0.961	5	67	379369	1	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1366789	0	Standard
⌊	**Pb**	**208**	**0.020**	ug/L	0.001	6	93	954	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 11:19:44
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	22198	2	Standard
	Cl	**37**		ug/L			7300856	7431036	1	Standard
>	**Sc**	**45**		ug/L			1595659	1558600	2	Standard
	Cr	**52**	**198.457**	ug/L	4.657	2	29586	5273324	2	Standard
	Cr	**53**	**201.114**	ug/L	6.532	3	269	679483	0	Standard
	Mn	**55**	**197.742**	ug/L	8.480	4	664	7322293	1	Standard
>	**Ge-1**	**72**		ug/L			82831	79911	1	KED
	Ni	**60**	**207.710**	ug/L	5.980	2	11	309802	1	KED
	Ni	**62**	**204.618**	ug/L	2.538	1	5	47847	0	KED
	Cu	**63**	**202.795**	ug/L	4.506	2	20	786644	1	KED
	Cu	**65**	**204.475**	ug/L	2.627	1	13	391743	0	KED
	Zn	**66**	**199.138**	ug/L	3.361	1	40	99167	0	KED
	Zn	**67**	**193.714**	ug/L	5.085	2	2	16148	2	KED
	As	**75**	**200.757**	ug/L	3.411	1	5	69225	0	KED
	Y	**89**		ug/L			806387	789227	2	Standard
	Kr	**83**		ug/L			48	144	15	Standard
>	**In-1**	**115**		ug/L			39343	37060	3	KED
	Cd	**111**	**206.183**	ug/L	5.976	2	3	96651	0	KED
	Cd	**114**	**208.008**	ug/L	3.923	1	2	248232	1	KED
>	**In**	**115**		ug/L			1058527	1010504	1	Standard
	Ag	**107**	**172.672**	ug/L	6.046	3	67	3255921	3	Standard
>	**Tb**	**159**		ug/L			1231255	1245418	1	Standard
	Pb	**208**	**184.301**	ug/L	4.307	2	93	7089198	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 11:24:12
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	24179	2	Standard
	Cl	**37**		ug/L			7300856	7451790	0	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1507460	1	Standard
|	**Cr**	**52**	**296.357**	ug/L	3.104	1	29586	7604898	2	Standard
|	**Cr**	**53**	**294.390**	ug/L	6.289	2	269	962286	0	Standard
⌊	**Mn**	**55**	**288.281**	ug/L	6.352	2	664	10330803	0	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	76228	0	KED
|	**Ni**	**60**	**292.350**	ug/L	9.555	3	11	415981	2	KED
|	**Ni**	**62**	**301.342**	ug/L	4.091	1	5	67223	1	KED
|	**Cu**	**63**	**293.307**	ug/L	1.899	0	20	1085429	0	KED
|	**Cu**	**65**	**290.222**	ug/L	7.498	2	13	530418	2	KED
|	**Zn**	**66**	**282.305**	ug/L	4.040	1	40	134096	0	KED
|	**Zn**	**67**	**276.656**	ug/L	6.707	2	2	21996	1	KED
⌊	**As**	**75**	**294.147**	ug/L	3.073	1	5	96759	0	KED
	Y	**89**		ug/L			806387	792684	2	Standard
	Kr	**83**		ug/L			48	234	5	Standard
⌈>	**In-1**	**115**		ug/L			39343	35516	0	KED
|	**Cd**	**111**	**302.343**	ug/L	3.260	1	3	135905	0	KED
⌊	**Cd**	**114**	**303.861**	ug/L	5.826	1	2	347634	1	KED
⌈>	**In**	**115**		ug/L			1058527	958073	1	Standard
⌊	**Ag**	**107**	**254.873**	ug/L	6.851	2	67	4557914	3	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1199059	0	Standard
⌊	**Pb**	**208**	**253.888**	ug/L	2.585	1	93	9404772	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 11:31:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	24074	4	Standard
	Cl	**37**		ug/L			7300856	7485333	2	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1538037	7	Standard
|	**Cr**	**52**	**0.057**	ug/L	0.065	114	29586	29928	1	Standard
|	**Cr**	**53**	**0.067**	ug/L	0.011	16	269	480	2	Standard
⌊	**Mn**	**55**	**0.045**	ug/L	0.005	11	664	2263	2	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	82377	1	KED
|	**Ni**	**60**	**0.019**	ug/L	0.006	29	11	40	20	KED
|	**Ni**	**62**	**0.026**	ug/L	0.028	106	5	11	60	KED
|	**Cu**	**63**	**0.038**	ug/L	0.003	9	20	172	8	KED
|	**Cu**	**65**	**0.027**	ug/L	0.008	28	13	66	22	KED
|	**Zn**	**66**	**0.802**	ug/L	0.058	7	40	451	6	KED
|	**Zn**	**67**	**0.694**	ug/L	0.043	6	2	62	7	KED
⌊	**As**	**75**	**0.005**	ug/L	0.006	105	5	7	27	KED
	Y	**89**		ug/L			806387	801493	8	Standard
	Kr	**83**		ug/L			48	64	16	Standard
⌈>	**In-1**	**115**		ug/L			39343	39370	2	KED
|	**Cd**	**111**	**0.011**	ug/L	0.004	30	3	9	17	KED
⌊	**Cd**	**114**	**0.017**	ug/L	0.010	54	2	24	46	KED
⌈>	**In**	**115**		ug/L			1058527	1017704	8	Standard
⌊	**Ag**	**107**	**0.010**	ug/L	0.001	8	67	253	7	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1202494	7	Standard
⌊	**Pb**	**208**	**0.019**	ug/L	0.002	8	93	812	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 11:36:14
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	20411	2	Standard
	Cl	**37**		ug/L			7300856	7612813	1	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1564444	2	Standard
|	**Cr**	**52**	**53.836**	ug/L	1.235	2	29586	1456939	0	Standard
|	**Cr**	**53**	**51.180**	ug/L	0.580	1	269	173847	1	Standard
⌊	**Mn**	**55**	**52.429**	ug/L	2.447	4	664	1949545	2	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	82371	1	KED
|	**Ni**	**60**	**49.647**	ug/L	1.240	2	11	76369	3	KED
|	**Ni**	**62**	**49.922**	ug/L	0.598	1	5	12038	2	KED
|	**Cu**	**63**	**50.752**	ug/L	0.804	1	20	202949	1	KED
|	**Cu**	**65**	**50.562**	ug/L	0.908	1	13	99895	3	KED
|	**Zn**	**66**	**50.237**	ug/L	1.226	2	40	25814	1	KED
|	**Zn**	**67**	**50.011**	ug/L	1.053	2	2	4299	2	KED
⌊	**As**	**75**	**48.842**	ug/L	0.608	1	5	17364	0	KED
	Y	**89**		ug/L			806387	826160	3	Standard
	Kr	**83**		ug/L			48	71	17	Standard
⌈>	**In-1**	**115**		ug/L			39343	38832	3	KED
|	**Cd**	**111**	**51.451**	ug/L	1.038	2	3	25280	1	KED
⌊	**Cd**	**114**	**52.495**	ug/L	1.533	2	2	65635	1	KED
⌈>	**In**	**115**		ug/L			1058527	1041942	1	Standard
⌊	**Ag**	**107**	**50.067**	ug/L	3.169	6	67	973075	5	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1227636	0	Standard
⌊	**Pb**	**208**	**50.321**	ug/L	1.818	3	93	1908397	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB2
Sample Dil Factor: cal data cleared
Comments: TH 06-26-18
Sample Date/Time: Tuesday, June 26, 2018 11:43:26
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			0	18148	3	Standard
	Cl	**37**		ug/L			0	7325885	0	Standard
⎡>	**Sc**	**45**		ug/L			0	1575888	0	Standard
⎢	**Cr**	**52**		ug/L			0	28314	1	Standard
⎢	**Cr**	**53**		ug/L			0	329	1	Standard
⎣	**Mn**	**55**		ug/L			0	795	3	Standard
⎡>	**Ge-1**	**72**		ug/L			0	83904	0	KED
⎢	**Ni**	**60**		ug/L			0	12	17	KED
⎢	**Ni**	**62**		ug/L			0	4	89	KED
⎢	**Cu**	**63**		ug/L			0	43	5	KED
⎢	**Cu**	**65**		ug/L			0	17	48	KED
⎢	**Zn**	**66**		ug/L			0	76	10	KED
⎢	**Zn**	**67**		ug/L			0	14	60	KED
⎣	**As**	**75**		ug/L			0	9	10	KED
	Y	**89**		ug/L			0	807043	2	Standard
	Kr	**83**		ug/L			0	61	9	Standard
⎡>	**In-1**	**115**		ug/L			0	39423	0	KED
⎢	**Cd**	**111**		ug/L			0	45	122	KED
⎣	**Cd**	**114**		ug/L			0	105	106	KED
⎡>	**In**	**115**		ug/L			0	1047157	5	Standard
⎣	**Ag**	**107**		ug/L			0	131	2	Standard
⎡>	**Tb**	**159**		ug/L			0	1231720	1	Standard
⎣	**Pb**	**208**		ug/L			0	231	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB2 CAL DATA RE-LOADED. RE-PROCESSED CCB2
Sample Dil Factor: TH 06-26-18
Comments:
Sample Date/Time: Tuesday, June 26, 2018 11:43:26
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	18148	3	Standard
	Cl	**37**		ug/L			7300856	7325885	0	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1575888	0	Standard
|	**Cr**	**52**	**-0.034**	ug/L	0.017	51	29586	28314	1	Standard
|	**Cr**	**53**	**0.019**	ug/L	0.002	8	269	329	1	Standard
⌊	**Mn**	**55**	**0.004**	ug/L	0.001	18	664	795	3	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	83904	0	KED
|	**Ni**	**60**	**0.001**	ug/L	0.001	199	11	12	17	KED
|	**Ni**	**62**	**-0.003**	ug/L	0.016	565	5	4	89	KED
|	**Cu**	**63**	**0.006**	ug/L	0.000	8	20	43	5	KED
|	**Cu**	**65**	**0.001**	ug/L	0.004	276	13	17	48	KED
|	**Zn**	**66**	**0.068**	ug/L	0.015	22	40	76	10	KED
|	**Zn**	**67**	**0.137**	ug/L	0.099	72	2	14	60	KED
⌊	**As**	**75**	**0.011**	ug/L	0.003	25	5	9	10	KED
	Y	**89**		ug/L			806387	807043	2	Standard
	Kr	**83**		ug/L			48	61	9	Standard
⌈>	**In-1**	**115**		ug/L			39343	39423	0	KED
|	**Cd**	**111**	**0.084**	ug/L	0.113	134	3	45	122	KED
⌊	**Cd**	**114**	**0.081**	ug/L	0.088	108	2	105	106	KED
⌈>	**In**	**115**		ug/L			1058527	1047157	5	Standard
⌊	**Ag**	**107**	**0.003**	ug/L	0.001	16	67	131	2	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1231720	1	Standard
⌊	**Pb**	**208**	**0.004**	ug/L	0.000	5	93	231	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0620-BLK1 DEL
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 11:48:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	28099	4	Standard
	Cl	**37**		ug/L			7300856	7359111	0	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1580666	3	Standard
|	**Cr**	**52**	**0.044**	ug/L	0.036	81	29586	30470	1	Standard
|	**Cr**	**53**	**0.041**	ug/L	0.009	22	269	407	3	Standard
⌊	**Mn**	**55**	**0.519**	ug/L	0.020	3	664	20129	0	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	78985	9	KED
|	**Ni**	**60**	**0.052**	ug/L	0.019	35	11	86	21	KED
|	**Ni**	**62**	**0.048**	ug/L	0.046	95	5	15	57	KED
|	**Cu**	**63**	**0.067**	ug/L	0.015	22	20	273	19	KED
|	**Cu**	**65**	**0.072**	ug/L	0.014	20	13	147	10	KED
|	**Zn**	**66**	**0.480**	ug/L	0.090	18	40	271	6	KED
|	**Zn**	**67**	**0.619**	ug/L	0.154	24	2	52	13	KED
⌊	**As**	**75**	**0.011**	ug/L	0.008	69	5	9	18	KED
	Y	**89**		ug/L			806387	823266	5	Standard
	Kr	**83**		ug/L			48	60	17	Standard
⌈>	**In-1**	**115**		ug/L			39343	40358	2	KED
|	**Cd**	**111**	**0.004**	ug/L	0.004	107	3	5	33	KED
⌊	**Cd**	**114**	**0.006**	ug/L	0.007	122	2	9	91	KED
⌈>	**In**	**115**		ug/L			1058527	1068995	4	Standard
⌊	**Ag**	**107**	**0.003**	ug/L	0.000	10	67	134	5	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1222267	2	Standard
⌊	**Pb**	**208**	**0.008**	ug/L	0.001	9	93	398	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-30
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 11:53:27
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	21595	3	Standard
	Cl	**37**		ug/L			7300856	7267068	2	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1612163	2	Standard
|	**Cr**	**52**	**-0.032**	ug/L	0.037	115	29586	29020	4	Standard
|	**Cr**	**53**	**0.049**	ug/L	0.008	16	269	442	8	Standard
⌊	**Mn**	**55**	**60.471**	ug/L	1.342	2	664	2318048	2	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	85506	1	KED
|	**Ni**	**60**	**1.778**	ug/L	0.019	1	11	2849	1	KED
|	**Ni**	**62**	**1.723**	ug/L	0.134	7	5	436	7	KED
|	**Cu**	**63**	**1.507**	ug/L	0.101	6	20	6273	5	KED
|	**Cu**	**65**	**1.513**	ug/L	0.075	4	13	3114	3	KED
|	**Zn**	**66**	**33.161**	ug/L	0.696	2	40	17703	1	KED
|	**Zn**	**67**	**30.562**	ug/L	1.363	4	2	2727	2	KED
⌊	**As**	**75**	**0.003**	ug/L	0.002	60	5	6	7	KED
	Y	**89**		ug/L			806387	842819	2	Standard
	Kr	**83**		ug/L			48	61	15	Standard
⌈>	**In-1**	**115**		ug/L			39343	39878	0	KED
|	**Cd**	**111**	**0.350**	ug/L	0.020	5	3	180	4	KED
⌊	**Cd**	**114**	**0.353**	ug/L	0.011	3	2	455	2	KED
⌈>	**In**	**115**		ug/L			1058527	1094636	0	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.001	41	67	111	15	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1285496	2	Standard
⌊	**Pb**	**208**	**0.023**	ug/L	0.001	6	93	994	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-02RE1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 11:57:54
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	30871	2	Standard
	Cl	37		ug/L			7300856	7539521	0	Standard
>	Sc	45		ug/L			1595659	1665554	1	Standard
	Cr	52	0.133	ug/L	0.025	18	29586	34620	0	Standard
	Cr	53	0.229	ug/L	0.007	3	269	1107	1	Standard
	Mn	55	0.643	ug/L	0.018	2	664	26166	1	Standard
>	Ge-1	72		ug/L			82831	82757	2	KED
	Ni	60	0.108	ug/L	0.006	5	11	178	6	KED
	Ni	62	0.095	ug/L	0.011	11	5	27	7	KED
	Cu	63	0.465	ug/L	0.034	7	20	1885	5	KED
	Cu	65	0.453	ug/L	0.031	6	13	912	7	KED
	Zn	66	0.765	ug/L	0.100	13	40	433	9	KED
	Zn	67	1.517	ug/L	0.348	22	2	133	24	KED
	As	75	0.230	ug/L	0.008	3	5	87	1	KED
	Y	89		ug/L			806387	862220	1	Standard
	Kr	83		ug/L			48	69	24	Standard
>	In-1	115		ug/L			39343	39777	0	KED
	Cd	111	0.025	ug/L	0.005	21	3	16	16	KED
	Cd	114	0.017	ug/L	0.008	44	2	24	39	KED
>	In	115		ug/L			1058527	1142493	4	Standard
	Ag	107	0.001	ug/L	0.001	56	67	102	18	Standard
>	Tb	159		ug/L			1231255	1283153	0	Standard
	Pb	208	0.018	ug/L	0.001	3	93	825	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-04RE1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 12:02:21
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	28340	0	Standard
	Cl	37		ug/L			7300856	7414508	2	Standard
>	Sc	45		ug/L			1595659	1674838	3	Standard
	Cr	52	0.097	ug/L	0.033	33	29586	33801	2	Standard
	Cr	53	0.225	ug/L	0.016	7	269	1096	2	Standard
	Mn	55	0.369	ug/L	0.009	2	664	15386	1	Standard
>	Ge-1	72		ug/L			82831	82644	0	KED
	Ni	60	0.102	ug/L	0.015	14	11	168	13	KED
	Ni	62	0.066	ug/L	0.047	72	5	20	55	KED
	Cu	63	0.229	ug/L	0.018	7	20	937	7	KED
	Cu	65	0.224	ug/L	0.022	9	13	458	10	KED
	Zn	66	0.862	ug/L	0.070	8	40	483	6	KED
	Zn	67	1.583	ug/L	0.168	10	2	139	10	KED
	As	75	0.207	ug/L	0.028	13	5	79	12	KED
	Y	89		ug/L			806387	844885	3	Standard
	Kr	83		ug/L			48	53	8	Standard
>	In-1	115		ug/L			39343	40272	0	KED
	Cd	111	0.029	ug/L	0.017	58	3	18	47	KED
	Cd	114	0.033	ug/L	0.011	33	2	45	31	KED
>	In	115		ug/L			1058527	1119262	1	Standard
	Ag	107	0.002	ug/L	0.001	37	67	114	13	Standard
>	Tb	159		ug/L			1231255	1268421	1	Standard
	Pb	208	0.008	ug/L	0.002	18	93	420	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-08RE1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 12:06:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	30620	0	Standard
	Cl	**37**		ug/L			7300856	7399007	0	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1659006	3	Standard
|	**Cr**	**52**	**0.111**	ug/L	0.042	37	29586	33847	0	Standard
|	**Cr**	**53**	**0.179**	ug/L	0.017	9	269	921	3	Standard
⌊	**Mn**	**55**	**0.513**	ug/L	0.023	4	664	20901	1	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	85085	0	KED
|	**Ni**	**60**	**0.211**	ug/L	0.002	0	11	347	0	KED
|	**Ni**	**62**	**0.226**	ug/L	0.012	5	5	61	4	KED
|	**Cu**	**63**	**1.522**	ug/L	0.032	2	20	6309	2	KED
|	**Cu**	**65**	**1.595**	ug/L	0.025	1	13	3268	1	KED
|	**Zn**	**66**	**53.865**	ug/L	1.813	3	40	28594	3	KED
|	**Zn**	**67**	**48.332**	ug/L	1.038	2	2	4292	2	KED
⌊	**As**	**75**	**0.140**	ug/L	0.018	13	5	57	11	KED
	Y	**89**		ug/L			806387	849790	3	Standard
	Kr	**83**		ug/L			48	58	30	Standard
⌈>	**In-1**	**115**		ug/L			39343	41156	2	KED
|	**Cd**	**111**	**0.257**	ug/L	0.023	9	3	137	7	KED
⌊	**Cd**	**114**	**0.261**	ug/L	0.006	2	2	349	3	KED
⌈>	**In**	**115**		ug/L			1058527	1109029	2	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.001	62	67	106	23	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1298528	1	Standard
⌊	**Pb**	**208**	**0.010**	ug/L	0.001	5	93	485	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-DUP4
Sample Dil Factor: 10
Comments:
Sample Date/Time: Tuesday, June 26, 2018 12:11:17
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	24751	2	Standard
	Cl	37		ug/L			7300856	28807255	3	Standard
>	Sc	45		ug/L			1595659	1575726	1	Standard
	Cr	52	0.335	ug/L	0.030	8	29586	38155	1	Standard
	Cr	53	22.773	ug/L	0.361	1	269	78060	0	Standard
	Mn	55	0.232	ug/L	0.003	1	664	9332	0	Standard
>	Ge-1	72		ug/L			82831	75356	5	KED
	Ni	60	0.319	ug/L	0.037	11	11	457	7	KED
	Ni	62	0.430	ug/L	0.046	10	5	99	5	KED
	Cu	63	0.063	ug/L	0.015	23	20	247	17	KED
	Cu	65	0.065	ug/L	0.005	7	13	130	3	KED
	Zn	66	1.395	ug/L	0.122	8	40	690	5	KED
	Zn	67	1.675	ug/L	0.022	1	2	133	5	KED
	As	75	0.070	ug/L	0.010	14	5	27	10	KED
	Y	89		ug/L			806387	797042	5	Standard
	Kr	83		ug/L			48	492	7	Standard
>	In-1	115		ug/L			39343	34793	1	KED
	Cd	111	0.007	ug/L	0.002	30	3	6	14	KED
	Cd	114	0.014	ug/L	0.002	12	2	18	10	KED
>	In	115		ug/L			1058527	959028	3	Standard
	Ag	107	0.003	ug/L	0.000	10	67	118	4	Standard
>	Tb	159		ug/L			1231255	1155964	1	Standard
	Pb	208	0.029	ug/L	0.001	2	93	1123	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0185-08
Sample Dil Factor: 10
Comments:
Sample Date/Time: Tuesday, June 26, 2018 12:15:45
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	24443	1	Standard
	Cl	37		ug/L			7300856	28852379	3	Standard
⌈>	Sc	45		ug/L			1595659	1581170	2	Standard
|	Cr	52	0.346	ug/L	0.018	5	29586	38576	0	Standard
|	Cr	53	21.768	ug/L	0.470	2	269	74875	1	Standard
⌊	Mn	55	0.227	ug/L	0.005	2	664	9183	1	Standard
⌈>	Ge-1	72		ug/L			82831	75370	1	KED
|	Ni	60	0.283	ug/L	0.021	7	11	408	6	KED
|	Ni	62	0.512	ug/L	0.053	10	5	117	10	KED
|	Cu	63	0.072	ug/L	0.008	10	20	281	11	KED
|	Cu	65	0.058	ug/L	0.004	7	13	118	6	KED
|	Zn	66	1.450	ug/L	0.089	6	40	717	6	KED
|	Zn	67	1.561	ug/L	0.069	4	2	125	5	KED
⌊	As	75	0.075	ug/L	0.006	8	5	29	6	KED
	Y	89		ug/L			806387	775150	4	Standard
	Kr	83		ug/L			48	393	4	Standard
⌈>	In-1	115		ug/L			39343	35024	2	KED
|	Cd	111	0.009	ug/L	0.006	68	3	7	37	KED
⌊	Cd	114	0.012	ug/L	0.006	45	2	15	37	KED
⌈>	In	115		ug/L			1058527	953943	0	Standard
⌊	Ag	107	0.003	ug/L	0.001	18	67	109	8	Standard
⌈>	Tb	159		ug/L			1231255	1173271	2	Standard
⌊	Pb	208	0.025	ug/L	0.001	3	93	1000	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-MS4
Sample Dil Factor: 10
Comments:
Sample Date/Time: Tuesday, June 26, 2018 12:20:13
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	24298	1	Standard
	Cl	37		ug/L			7300856	28739191	1	Standard
>	Sc	45		ug/L			1595659	1608538	3	Standard
	Cr	52	3.119	ug/L	0.162	5	29586	114817	0	Standard
	Cr	53	24.486	ug/L	0.850	3	269	85598	0	Standard
	Mn	55	2.975	ug/L	0.087	2	664	114371	0	Standard
>	Ge-1	72		ug/L			82831	75015	1	KED
	Ni	60	3.032	ug/L	0.207	6	11	4255	5	KED
	Ni	62	3.164	ug/L	0.050	1	5	699	1	KED
	Cu	63	2.708	ug/L	0.050	1	20	9880	0	KED
	Cu	65	2.690	ug/L	0.034	1	13	4850	1	KED
	Zn	66	8.995	ug/L	0.191	2	40	4239	1	KED
	Zn	67	9.423	ug/L	0.236	2	2	739	3	KED
	As	75	2.778	ug/L	0.034	1	5	904	2	KED
	Y	89		ug/L			806387	787913	3	Standard
	Kr	83		ug/L			48	461	0	Standard
>	In-1	115		ug/L			39343	35182	3	KED
	Cd	111	2.455	ug/L	0.087	3	3	1096	4	KED
	Cd	114	2.601	ug/L	0.033	1	2	2950	3	KED
>	In	115		ug/L			1058527	950705	2	Standard
	Ag	107	2.428	ug/L	0.098	4	67	43111	1	Standard
>	Tb	159		ug/L			1231255	1202183	1	Standard
	Pb	208	2.357	ug/L	0.025	1	93	87621	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0364-MSD4
Sample Dil Factor: 10
Comments:
Sample Date/Time: Tuesday, June 26, 2018 12:24:41
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	24703	1	Standard
	Cl	37		ug/L			7300856	28177185	1	Standard
>	Sc	45		ug/L			1595659	1604762	1	Standard
	Cr	52	3.068	ug/L	0.023	0	29586	113265	1	Standard
	Cr	53	24.848	ug/L	0.223	0	269	86721	0	Standard
	Mn	55	2.979	ug/L	0.028	0	664	114336	1	Standard
>	Ge-1	72		ug/L			82831	76791	1	KED
	Ni	60	2.955	ug/L	0.163	5	11	4245	5	KED
	Ni	62	3.306	ug/L	0.184	5	5	747	4	KED
	Cu	63	2.672	ug/L	0.030	1	20	9981	2	KED
	Cu	65	2.556	ug/L	0.135	5	13	4721	6	KED
	Zn	66	9.242	ug/L	0.356	3	40	4456	2	KED
	Zn	67	8.509	ug/L	0.412	4	2	683	4	KED
	As	75	2.650	ug/L	0.080	3	5	883	4	KED
	Y	89		ug/L			806387	796228	0	Standard
	Kr	83		ug/L			48	385	8	Standard
>	In-1	115		ug/L			39343	35486	2	KED
	Cd	111	2.441	ug/L	0.051	2	3	1099	3	KED
	Cd	114	2.495	ug/L	0.061	2	2	2853	2	KED
>	In	115		ug/L			1058527	961280	1	Standard
	Ag	107	2.368	ug/L	0.019	0	67	42545	2	Standard
>	Tb	159		ug/L			1231255	1230490	1	Standard
	Pb	208	2.296	ug/L	0.077	3	93	87333	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0620-BS1 DEL
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 12:29:09
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	30136	1	Standard
	Cl	**37**		ug/L			7300856	7745240	0	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1539741	0	Standard
|	**Cr**	**52**	**29.003**	ug/L	0.562	1	29586	785808	1	Standard
|	**Cr**	**53**	**28.362**	ug/L	0.760	2	269	94956	3	Standard
⌊	**Mn**	**55**	**30.468**	ug/L	0.268	0	664	1115984	0	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	86828	0	KED
|	**Ni**	**60**	**26.479**	ug/L	0.464	1	11	42937	2	KED
|	**Ni**	**62**	**27.564**	ug/L	0.721	2	5	7009	2	KED
|	**Cu**	**63**	**27.726**	ug/L	0.587	2	20	116900	2	KED
|	**Cu**	**65**	**27.880**	ug/L	1.014	3	13	58062	4	KED
|	**Zn**	**66**	**86.541**	ug/L	0.463	0	40	46856	0	KED
|	**Zn**	**67**	**82.182**	ug/L	2.080	2	2	7446	3	KED
⌊	**As**	**75**	**25.434**	ug/L	0.340	1	5	9535	0	KED
	Y	**89**		ug/L			806387	811480	0	Standard
	Kr	**83**		ug/L			48	92	8	Standard
⌈>	**In-1**	**115**		ug/L			39343	39693	2	KED
|	**Cd**	**111**	**27.284**	ug/L	0.780	2	3	13704	0	KED
⌊	**Cd**	**114**	**27.593**	ug/L	0.765	2	2	35268	0	KED
⌈>	**In**	**115**		ug/L			1058527	1060115	0	Standard
⌊	**Ag**	**107**	**26.601**	ug/L	0.740	2	67	526327	2	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1227939	1	Standard
⌊	**Pb**	**208**	**26.569**	ug/L	0.318	1	93	1007867	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 12:34:42
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	18976	1	Standard
	Cl	**37**		ug/L			7300856	7625334	0	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1520802	1	Standard
|	**Cr**	**52**	**53.819**	ug/L	0.552	1	29586	1416214	1	Standard
|	**Cr**	**53**	**51.431**	ug/L	0.264	0	269	169842	0	Standard
⌊	**Mn**	**55**	**53.740**	ug/L	1.624	3	664	1943767	3	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	81676	0	KED
|	**Ni**	**60**	**48.347**	ug/L	1.520	3	11	73737	3	KED
|	**Ni**	**62**	**51.022**	ug/L	1.751	3	5	12199	3	KED
|	**Cu**	**63**	**49.755**	ug/L	0.390	0	20	197304	0	KED
|	**Cu**	**65**	**48.176**	ug/L	1.071	2	13	94364	2	KED
|	**Zn**	**66**	**50.639**	ug/L	0.064	0	40	25807	0	KED
|	**Zn**	**67**	**49.904**	ug/L	2.615	5	2	4253	5	KED
⌊	**As**	**75**	**49.449**	ug/L	0.477	0	5	17434	1	KED
	Y	**89**		ug/L			806387	798885	2	Standard
	Kr	**83**		ug/L			48	66	13	Standard
⌈>	**In-1**	**115**		ug/L			39343	39581	0	KED
|	**Cd**	**111**	**50.133**	ug/L	0.834	1	3	25117	1	KED
⌊	**Cd**	**114**	**51.316**	ug/L	0.771	1	2	65433	1	KED
⌈>	**In**	**115**		ug/L			1058527	1014558	1	Standard
⌊	**Ag**	**107**	**48.632**	ug/L	0.943	1	67	920765	1	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1206553	0	Standard
⌊	**Pb**	**208**	**49.099**	ug/L	1.257	2	93	1829955	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 12:41:55
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	17183	0	Standard
	Cl	**37**		ug/L			7300856	7327461	1	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1514348	2	Standard
|	**Cr**	**52**	**-0.038**	ug/L	0.022	58	29586	27102	1	Standard
|	**Cr**	**53**	**0.218**	ug/L	0.018	8	269	970	4	Standard
⌊	**Mn**	**55**	**0.005**	ug/L	0.001	24	664	827	5	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	83912	0	KED
|	**Ni**	**60**	**0.002**	ug/L	0.003	201	11	13	34	KED
|	**Ni**	**62**	**0.083**	ug/L	0.030	35	5	25	28	KED
|	**Cu**	**63**	**0.017**	ug/L	0.005	31	20	90	23	KED
|	**Cu**	**65**	**0.012**	ug/L	0.006	49	13	37	31	KED
|	**Zn**	**66**	**0.038**	ug/L	0.032	84	40	60	27	KED
|	**Zn**	**67**	**0.072**	ug/L	0.050	69	2	8	49	KED
⌊	**As**	**75**	**-0.000**	ug/L	0.006	2604	5	5	36	KED
	Y	**89**		ug/L			806387	803313	1	Standard
	Kr	**83**		ug/L			48	60	16	Standard
⌈>	**In-1**	**115**		ug/L			39343	39735	2	KED
|	**Cd**	**111**	**0.003**	ug/L	0.002	61	3	5	20	KED
⌊	**Cd**	**114**	**0.003**	ug/L	0.002	62	2	6	41	KED
⌈>	**In**	**115**		ug/L			1058527	998440	2	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.001	28	67	106	13	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1182949	1	Standard
⌊	**Pb**	**208**	**0.004**	ug/L	0.000	6	93	249	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0620-BLK1
Sample Dil Factor: DEL
Comments:
Sample Date/Time: Tuesday, June 26, 2018 12:46:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	26257	1	Standard
	Cl	**37**		ug/L			7300856	7433943	2	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1534436	2	Standard
|	**Cr**	**52**	**0.063**	ug/L	0.029	46	29586	30089	0	Standard
|	**Cr**	**53**	**0.192**	ug/L	0.008	4	269	897	1	Standard
⌊	**Mn**	**55**	**0.505**	ug/L	0.021	4	664	19056	2	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	83320	2	KED
|	**Ni**	**60**	**0.038**	ug/L	0.002	6	11	71	3	KED
|	**Ni**	**62**	**0.131**	ug/L	0.035	26	5	36	20	KED
|	**Cu**	**63**	**0.066**	ug/L	0.009	13	20	289	13	KED
|	**Cu**	**65**	**0.068**	ug/L	0.010	15	13	150	13	KED
|	**Zn**	**66**	**0.495**	ug/L	0.004	0	40	297	2	KED
|	**Zn**	**67**	**0.454**	ug/L	0.086	18	2	41	16	KED
⌊	**As**	**75**	**0.003**	ug/L	0.006	203	5	6	32	KED
	Y	**89**		ug/L			806387	796682	1	Standard
	Kr	**83**		ug/L			48	55	7	Standard
⌈>	**In-1**	**115**		ug/L			39343	40044	1	KED
|	**Cd**	**111**	**0.001**	ug/L	0.001	103	3	4	12	KED
⌊	**Cd**	**114**	**-0.002**	ug/L	0.002	119	2	0	1054	KED
⌈>	**In**	**115**		ug/L			1058527	1036478	3	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	77	67	86	17	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1169269	2	Standard
⌊	**Pb**	**208**	**0.007**	ug/L	0.000	6	93	356	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0621-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 12:50:52
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	27063	2	Standard
	Cl	37		ug/L			7300856	7320621	2	Standard
>	Sc	45		ug/L			1595659	1516817	2	Standard
	Cr	52	0.057	ug/L	0.033	57	29586	29577	0	Standard
	Cr	53	0.170	ug/L	0.010	5	269	814	2	Standard
	Mn	55	0.488	ug/L	0.014	2	664	18219	3	Standard
>	Ge-1	72		ug/L			82831	81656	1	KED
	Ni	60	0.042	ug/L	0.008	20	11	75	18	KED
	Ni	62	0.122	ug/L	0.021	17	5	34	16	KED
	Cu	63	0.031	ug/L	0.001	3	20	144	1	KED
	Cu	65	0.027	ug/L	0.005	17	13	66	13	KED
	Zn	66	0.418	ug/L	0.034	8	40	252	5	KED
	Zn	67	0.396	ug/L	0.070	17	2	36	15	KED
	As	75	-0.001	ug/L	0.003	526	5	5	22	KED
	Y	89		ug/L			806387	795229	2	Standard
	Kr	83		ug/L			48	73	15	Standard
>	In-1	115		ug/L			39343	40218	1	KED
	Cd	111	-0.002	ug/L	0.004	176	3	2	66	KED
	Cd	114	-0.000	ug/L	0.006	3941	2	2	361	KED
>	In	115		ug/L			1058527	1007993	2	Standard
	Ag	107	0.001	ug/L	0.001	64	67	83	13	Standard
>	Tb	159		ug/L			1231255	1190080	1	Standard
	Pb	208	0.004	ug/L	0.000	9	93	227	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0478-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 12:55:20
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	28843	2	Standard
	Cl	37		ug/L			7300856	7289874	0	Standard
>	Sc	45		ug/L			1595659	1534661	1	Standard
	Cr	52	0.072	ug/L	0.021	28	29586	30344	2	Standard
	Cr	53	0.170	ug/L	0.004	2	269	824	0	Standard
	Mn	55	0.239	ug/L	0.005	1	664	9355	0	Standard
>	Ge-1	72		ug/L			82831	83227	1	KED
	Ni	60	0.034	ug/L	0.003	9	11	63	6	KED
	Ni	62	0.078	ug/L	0.019	24	5	24	18	KED
	Cu	63	0.046	ug/L	0.004	9	20	206	8	KED
	Cu	65	0.045	ug/L	0.009	19	13	104	15	KED
	Zn	66	0.652	ug/L	0.057	8	40	377	6	KED
	Zn	67	0.643	ug/L	0.091	14	2	58	14	KED
	As	75	-0.003	ug/L	0.009	275	5	4	66	KED
	Y	89		ug/L			806387	803242	1	Standard
	Kr	83		ug/L			48	52	5	Standard
>	In-1	115		ug/L			39343	40627	2	KED
	Cd	111	0.001	ug/L	0.003	282	3	4	32	KED
	Cd	114	0.003	ug/L	0.006	202	2	6	119	KED
>	In	115		ug/L			1058527	1028885	2	Standard
	Ag	107	0.001	ug/L	0.001	126	67	78	21	Standard
>	Tb	159		ug/L			1231255	1217155	1	Standard
	Pb	208	0.005	ug/L	0.001	15	93	296	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0359-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 12:59:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	44297	2	Standard
	Cl	37		ug/L			7300856	18110576	5	Standard
>	Sc	45		ug/L			1595659	1619436	2	Standard
	Cr	52	49.583	ug/L	0.481	0	29586	1391581	2	Standard
	Cr	53	59.315	ug/L	1.403	2	269	208492	2	Standard
	Mn	55	18.521	ug/L	0.614	3	664	713364	1	Standard
>	Ge-1	72		ug/L			82831	78459	1	KED
	Ni	60	9.615	ug/L	0.158	1	11	14093	1	KED
	Ni	62	9.661	ug/L	0.344	3	5	2222	2	KED
	Cu	63	15.983	ug/L	0.326	2	20	60904	3	KED
	Cu	65	15.678	ug/L	0.318	2	13	29502	1	KED
	Zn	66	19.662	ug/L	0.709	3	40	9647	2	KED
	Zn	67	18.646	ug/L	1.021	5	2	1528	6	KED
	As	75	0.361	ug/L	0.003	0	5	127	1	KED
	Y	89		ug/L			806387	789502	1	Standard
	Kr	83		ug/L			48	182	7	Standard
>	In-1	115		ug/L			39343	36298	0	KED
	Cd	111	1.494	ug/L	0.022	1	3	689	1	KED
	Cd	114	1.469	ug/L	0.085	5	2	1719	5	KED
>	In	115		ug/L			1058527	946757	0	Standard
	Ag	107	0.018	ug/L	0.002	8	67	378	6	Standard
>	Tb	159		ug/L			1231255	1217073	0	Standard
	Pb	208	0.957	ug/L	0.008	0	93	36057	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0208-02
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 13:04:16
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	30419	0	Standard
	Cl	37		ug/L			7300856	40332567	3	Standard
>	Sc	45		ug/L			1595659	1578650	5	Standard
	Cr	52	0.561	ug/L	0.048	8	29586	44236	3	Standard
	Cr	53	31.388	ug/L	1.623	5	269	107501	1	Standard
	Mn	55	39.287	ug/L	2.501	6	664	1471729	0	Standard
>	Ge-1	72		ug/L			82831	73420	1	KED
	Ni	60	0.237	ug/L	0.033	14	11	334	12	KED
	Ni	62	0.685	ug/L	0.109	15	5	151	15	KED
	Cu	63	0.429	ug/L	0.021	4	20	1545	3	KED
	Cu	65	0.402	ug/L	0.027	6	13	718	4	KED
	Zn	66	0.897	ug/L	0.165	18	40	445	16	KED
	Zn	67	1.055	ug/L	0.133	12	2	83	13	KED
	As	75	0.227	ug/L	0.024	10	5	76	8	KED
	Y	89		ug/L			806387	755079	7	Standard
	Kr	83		ug/L			48	842	6	Standard
>	In-1	115		ug/L			39343	33752	1	KED
	Cd	111	0.010	ug/L	0.004	38	3	7	21	KED
	Cd	114	0.012	ug/L	0.004	29	2	15	24	KED
>	In	115		ug/L			1058527	897353	6	Standard
	Ag	107	0.003	ug/L	0.000	3	67	107	5	Standard
>	Tb	159		ug/L			1231255	1174042	5	Standard
	Pb	208	0.343	ug/L	0.022	6	93	12496	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0208-03
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 13:08:45
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	29535	1	Standard
	Cl	37		ug/L			7300856	43967371	3	Standard
>	Sc	45		ug/L			1595659	1658608	0	Standard
	Cr	52	0.418	ug/L	0.016	3	29586	42506	0	Standard
	Cr	53	31.790	ug/L	0.723	2	269	114598	1	Standard
	Mn	55	13.872	ug/L	0.295	2	664	547719	1	Standard
>	Ge-1	72		ug/L			82831	76416	0	KED
	Ni	60	0.144	ug/L	0.016	11	11	215	11	KED
	Ni	62	0.789	ug/L	0.058	7	5	180	6	KED
	Cu	63	0.372	ug/L	0.023	6	20	1398	6	KED
	Cu	65	0.333	ug/L	0.038	11	13	624	11	KED
	Zn	66	0.882	ug/L	0.034	3	40	456	2	KED
	Zn	67	0.862	ug/L	0.192	22	2	71	22	KED
	As	75	0.102	ug/L	0.020	19	5	38	17	KED
	Y	89		ug/L			806387	755791	0	Standard
	Kr	83		ug/L			48	744	5	Standard
>	In-1	115		ug/L			39343	34965	0	KED
	Cd	111	0.004	ug/L	0.001	30	3	5	10	KED
	Cd	114	0.003	ug/L	0.003	95	2	5	57	KED
>	In	115		ug/L			1058527	914007	2	Standard
	Ag	107	0.002	ug/L	0.000	18	67	93	8	Standard
>	Tb	159		ug/L			1231255	1226544	1	Standard
	Pb	208	0.019	ug/L	0.001	6	93	824	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0208-04
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 13:13:13
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	28617	1	Standard
	Cl	37		ug/L			7300856	41233099	0	Standard
⌈>	Sc	45		ug/L			1595659	1651354	0	Standard
|	Cr	52	0.416	ug/L	0.020	4	29586	42261	1	Standard
|	Cr	53	29.000	ug/L	0.259	0	269	104111	0	Standard
⌊	Mn	55	15.255	ug/L	0.085	0	664	599601	0	Standard
⌈>	Ge-1	72		ug/L			82831	75849	1	KED
|	Ni	60	0.151	ug/L	0.017	11	11	224	9	KED
|	Ni	62	0.878	ug/L	0.074	8	5	199	7	KED
|	Cu	63	0.416	ug/L	0.009	2	20	1548	1	KED
|	Cu	65	0.375	ug/L	0.011	2	13	695	2	KED
|	Zn	66	0.987	ug/L	0.008	0	40	502	0	KED
|	Zn	67	0.965	ug/L	0.088	9	2	78	10	KED
⌊	As	75	0.107	ug/L	0.007	6	5	40	4	KED
	Y	89		ug/L			806387	779285	2	Standard
	Kr	83		ug/L			48	803	3	Standard
⌈>	In-1	115		ug/L			39343	33630	1	KED
|	Cd	111	0.001	ug/L	0.004	345	3	3	50	KED
⌊	Cd	114	0.008	ug/L	0.008	104	2	10	83	KED
⌈>	In	115		ug/L			1058527	924326	2	Standard
⌊	Ag	107	0.001	ug/L	0.001	40	67	84	10	Standard
⌈>	Tb	159		ug/L			1231255	1211503	1	Standard
⌊	Pb	208	0.021	ug/L	0.001	6	93	859	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0620-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 13:17:41
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	29598	1	Standard
	Cl	37		ug/L			7300856	7497964	1	Standard
>	Sc	45		ug/L			1595659	1579597	0	Standard
	Cr	52	28.805	ug/L	0.885	3	29586	800781	2	Standard
	Cr	53	27.326	ug/L	0.501	1	269	93858	2	Standard
	Mn	55	29.674	ug/L	0.854	2	664	1114893	2	Standard
>	Ge-1	72		ug/L			82831	89405	1	KED
	Ni	60	26.761	ug/L	0.417	1	11	44673	1	KED
	Ni	62	28.467	ug/L	0.215	0	5	7452	1	KED
	Cu	63	27.938	ug/L	0.496	1	20	121270	1	KED
	Cu	65	27.412	ug/L	0.765	2	13	58768	2	KED
	Zn	66	88.512	ug/L	0.821	0	40	49342	1	KED
	Zn	67	83.090	ug/L	2.655	3	2	7748	1	KED
	As	75	25.512	ug/L	0.337	1	5	9847	0	KED
	Y	89		ug/L			806387	846877	3	Standard
	Kr	83		ug/L			48	123	10	Standard
>	In-1	115		ug/L			39343	41901	1	KED
	Cd	111	26.475	ug/L	0.348	1	3	14042	0	KED
	Cd	114	26.602	ug/L	0.640	2	2	35900	1	KED
>	In	115		ug/L			1058527	1027569	2	Standard
	Ag	107	27.298	ug/L	1.034	3	67	523527	4	Standard
>	Tb	159		ug/L			1231255	1259543	0	Standard
	Pb	208	25.099	ug/L	0.477	1	93	976667	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0621-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 13:22:08
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	27537	4	Standard
	Cl	37		ug/L			7300856	7337930	2	Standard
>	Sc	45		ug/L			1595659	1527992	1	Standard
	Cr	52	29.413	ug/L	0.821	2	29586	790301	1	Standard
	Cr	53	26.773	ug/L	0.892	3	269	88935	2	Standard
	Mn	55	29.836	ug/L	0.481	1	664	1084418	1	Standard
>	Ge-1	72		ug/L			82831	86366	2	KED
	Ni	60	26.954	ug/L	0.802	2	11	43453	1	KED
	Ni	62	26.762	ug/L	1.374	5	5	6763	2	KED
	Cu	63	27.987	ug/L	0.673	2	20	117320	0	KED
	Cu	65	26.982	ug/L	1.130	4	13	55849	1	KED
	Zn	66	86.265	ug/L	0.960	1	40	46455	2	KED
	Zn	67	78.940	ug/L	2.495	3	2	7110	1	KED
	As	75	25.680	ug/L	0.969	3	5	9571	1	KED
	Y	89		ug/L			806387	797967	3	Standard
	Kr	83		ug/L			48	81	16	Standard
>	In-1	115		ug/L			39343	41138	3	KED
	Cd	111	26.216	ug/L	0.725	2	3	13645	0	KED
	Cd	114	26.658	ug/L	0.442	1	2	35317	1	KED
>	In	115		ug/L			1058527	1029867	2	Standard
	Ag	107	26.767	ug/L	0.641	2	67	514439	3	Standard
>	Tb	159		ug/L			1231255	1215281	0	Standard
	Pb	208	25.767	ug/L	0.310	1	93	967441	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0478-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 13:26:36
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	29565	1	Standard
	Cl	37		ug/L			7300856	7358134	2	Standard
⌈>	Sc	45		ug/L			1595659	1535546	2	Standard
|	Cr	52	28.723	ug/L	0.736	2	29586	776103	1	Standard
|	Cr	53	27.042	ug/L	0.908	3	269	90262	2	Standard
⌊	Mn	55	29.288	ug/L	1.064	3	664	1069276	2	Standard
⌈>	Ge-1	72		ug/L			82831	85969	2	KED
|	Ni	60	26.619	ug/L	0.959	3	11	42713	1	KED
|	Ni	62	27.581	ug/L	0.202	0	5	6943	1	KED
|	Cu	63	27.683	ug/L	1.112	4	20	115560	4	KED
|	Cu	65	27.389	ug/L	0.680	2	13	56452	0	KED
|	Zn	66	83.776	ug/L	1.329	1	40	44911	2	KED
|	Zn	67	78.942	ug/L	2.251	2	2	7080	2	KED
⌊	As	75	24.575	ug/L	0.511	2	5	9121	1	KED
	Y	89		ug/L			806387	825866	0	Standard
	Kr	83		ug/L			48	84	14	Standard
⌈>	In-1	115		ug/L			39343	41164	3	KED
|	Cd	111	26.004	ug/L	0.594	2	3	13545	1	KED
⌊	Cd	114	25.601	ug/L	0.867	3	2	33929	1	KED
⌈>	In	115		ug/L			1058527	994515	1	Standard
⌊	Ag	107	28.072	ug/L	0.165	0	67	521025	1	Standard
⌈>	Tb	159		ug/L			1231255	1252032	0	Standard
⌊	Pb	208	24.886	ug/L	0.186	0	93	962664	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 13:32:08
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	18785	4	Standard
	Cl	**37**		ug/L			7300856	7030944	2	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1473886	1	Standard
|	**Cr**	**52**	**54.772**	ug/L	0.293	0	29586	1396404	1	Standard
|	**Cr**	**53**	**52.077**	ug/L	0.956	1	269	166654	1	Standard
⌊	**Mn**	**55**	**54.198**	ug/L	0.591	1	664	1899836	1	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	81638	1	KED
|	**Ni**	**60**	**51.539**	ug/L	0.610	1	11	78553	0	KED
|	**Ni**	**62**	**50.209**	ug/L	0.367	0	5	11998	1	KED
|	**Cu**	**63**	**51.409**	ug/L	0.777	1	20	203731	0	KED
|	**Cu**	**65**	**50.745**	ug/L	1.708	3	13	99301	1	KED
|	**Zn**	**66**	**52.738**	ug/L	0.571	1	40	26863	2	KED
|	**Zn**	**67**	**50.153**	ug/L	1.145	2	2	4272	1	KED
⌊	**As**	**75**	**50.415**	ug/L	1.006	1	5	17762	0	KED
	Y	**89**		ug/L			806387	799557	4	Standard
	Kr	**83**		ug/L			48	65	25	Standard
⌈>	**In-1**	**115**		ug/L			39343	39889	1	KED
|	**Cd**	**111**	**49.880**	ug/L	1.105	2	3	25180	0	KED
⌊	**Cd**	**114**	**50.838**	ug/L	0.959	1	2	65316	0	KED
⌈>	**In**	**115**		ug/L			1058527	980768	0	Standard
⌊	**Ag**	**107**	**50.749**	ug/L	0.725	1	67	928845	0	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1212459	3	Standard
⌊	**Pb**	**208**	**47.007**	ug/L	1.839	3	93	1759172	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 13:39:21
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	16350	3	Standard
	Cl	**37**		ug/L			7300856	7125492	1	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1498198	1	Standard
|	**Cr**	**52**	**-0.001**	ug/L	0.010	810	29586	27750	2	Standard
|	**Cr**	**53**	**0.218**	ug/L	0.008	3	269	962	3	Standard
⌊	**Mn**	**55**	**0.005**	ug/L	0.001	22	664	787	3	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	84217	1	KED
|	**Ni**	**60**	**0.009**	ug/L	0.013	143	11	25	76	KED
|	**Ni**	**62**	**0.152**	ug/L	0.011	6	5	42	6	KED
|	**Cu**	**63**	**0.033**	ug/L	0.029	87	20	155	74	KED
|	**Cu**	**65**	**0.021**	ug/L	0.019	93	13	55	67	KED
|	**Zn**	**66**	**0.069**	ug/L	0.017	24	40	76	11	KED
|	**Zn**	**67**	**0.129**	ug/L	0.060	46	2	13	39	KED
⌊	**As**	**75**	**0.020**	ug/L	0.025	126	5	12	67	KED
	Y	**89**		ug/L			806387	794851	5	Standard
	Kr	**83**		ug/L			48	52	18	Standard
⌈>	**In-1**	**115**		ug/L			39343	40050	2	KED
|	**Cd**	**111**	**0.008**	ug/L	0.014	177	3	7	90	KED
⌊	**Cd**	**114**	**0.004**	ug/L	0.005	133	2	7	88	KED
⌈>	**In**	**115**		ug/L			1058527	1017875	2	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	28	67	90	7	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1206568	3	Standard
⌊	**Pb**	**208**	**0.004**	ug/L	0.000	5	93	227	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0620-BLK1
Sample Dil Factor: DEL
Comments:
Sample Date/Time: Tuesday, June 26, 2018 13:43:52
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	24749	1	Standard
	Cl	**37**		ug/L			7300856	7032288	0	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1505658	2	Standard
|	**Cr**	**52**	**0.109**	ug/L	0.045	41	29586	30681	2	Standard
|	**Cr**	**53**	**0.231**	ug/L	0.008	3	269	1006	0	Standard
⌊	**Mn**	**55**	**0.445**	ug/L	0.020	4	664	16559	2	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	83957	1	KED
|	**Ni**	**60**	**0.032**	ug/L	0.007	22	11	60	17	KED
|	**Ni**	**62**	**0.093**	ug/L	0.044	46	5	27	37	KED
|	**Cu**	**63**	**0.056**	ug/L	0.003	6	20	250	4	KED
|	**Cu**	**65**	**0.045**	ug/L	0.009	20	13	104	17	KED
|	**Zn**	**66**	**0.454**	ug/L	0.035	7	40	278	6	KED
|	**Zn**	**67**	**0.340**	ug/L	0.056	16	2	32	15	KED
⌊	**As**	**75**	**0.003**	ug/L	0.002	66	5	6	10	KED
	Y	**89**		ug/L			806387	770191	4	Standard
	Kr	**83**		ug/L			48	52	13	Standard
⌈>	**In-1**	**115**		ug/L			39343	40248	0	KED
|	**Cd**	**111**	**0.003**	ug/L	0.004	131	3	5	36	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.004	262	2	4	122	KED
⌈>	**In**	**115**		ug/L			1058527	991381	3	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.001	59	67	92	19	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1193348	2	Standard
⌊	**Pb**	**208**	**0.006**	ug/L	0.002	25	93	323	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-20RE2
Sample Dil Factor:
Comments: DEL
Sample Date/Time: Tuesday, June 26, 2018 13:48:19
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	31879	1	Standard
	Cl	**37**		ug/L			7300856	7152842	2	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1666966	2	Standard
|	**Cr**	**52**	**0.374**	ug/L	0.032	8	29586	41477	1	Standard
|	**Cr**	**53**	**0.543**	ug/L	0.007	1	269	2244	2	Standard
⌊	**Mn**	**55**	**0.300**	ug/L	0.001	0	664	12579	2	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	83316	2	KED
|	**Ni**	**60**	**0.165**	ug/L	0.012	7	11	267	5	KED
|	**Ni**	**62**	**0.197**	ug/L	0.023	11	5	53	12	KED
|	**Cu**	**63**	**0.498**	ug/L	0.013	2	20	2034	2	KED
|	**Cu**	**65**	**0.479**	ug/L	0.016	3	13	969	2	KED
|	**Zn**	**66**	**6.602**	ug/L	0.453	6	40	3462	3	KED
|	**Zn**	**67**	**6.632**	ug/L	0.317	4	2	578	2	KED
⌊	**As**	**75**	**0.066**	ug/L	0.009	13	5	29	13	KED
	Y	**89**		ug/L			806387	852368	3	Standard
	Kr	**83**		ug/L			48	57	6	Standard
⌈>	**In-1**	**115**		ug/L			39343	40453	2	KED
|	**Cd**	**111**	**0.096**	ug/L	0.004	3	3	53	4	KED
⌊	**Cd**	**114**	**0.099**	ug/L	0.004	3	2	131	4	KED
⌈>	**In**	**115**		ug/L			1058527	1059194	1	Standard
⌊	**Ag**	**107**	**0.003**	ug/L	0.001	18	67	132	7	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1296554	2	Standard
⌊	**Pb**	**208**	**0.065**	ug/L	0.004	5	93	2695	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-26RE1
Sample Dil Factor: DEL
Comments:
Sample Date/Time: Tuesday, June 26, 2018 13:52:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	29396	4	Standard
	Cl	**37**		ug/L			7300856	6914593	0	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1616911	0	Standard
|	**Cr**	**52**	**0.320**	ug/L	0.042	13	29586	38749	2	Standard
|	**Cr**	**53**	**0.515**	ug/L	0.006	1	269	2079	1	Standard
⌊	**Mn**	**55**	**2.021**	ug/L	0.030	1	664	78365	1	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	86269	2	KED
|	**Ni**	**60**	**0.378**	ug/L	0.024	6	11	620	5	KED
|	**Ni**	**62**	**0.358**	ug/L	0.045	12	5	95	14	KED
|	**Cu**	**63**	**0.241**	ug/L	0.014	5	20	1031	4	KED
|	**Cu**	**65**	**0.223**	ug/L	0.009	3	13	474	3	KED
|	**Zn**	**66**	**2.243**	ug/L	0.059	2	40	1247	2	KED
|	**Zn**	**67**	**2.721**	ug/L	0.189	6	2	247	8	KED
⌊	**As**	**75**	**0.014**	ug/L	0.005	37	5	11	15	KED
	Y	**89**		ug/L			806387	848528	0	Standard
	Kr	**83**		ug/L			48	73	12	Standard
⌈>	**In-1**	**115**		ug/L			39343	40212	0	KED
|	**Cd**	**111**	**0.412**	ug/L	0.037	9	3	213	8	KED
⌊	**Cd**	**114**	**0.441**	ug/L	0.043	9	2	573	9	KED
⌈>	**In**	**115**		ug/L			1058527	1096920	4	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.000	311	67	72	5	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1348655	2	Standard
⌊	**Pb**	**208**	**0.009**	ug/L	0.001	12	93	480	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0198-68RE1
Sample Dil Factor: DEL
Comments:
Sample Date/Time: Tuesday, June 26, 2018 13:57:14
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	30642	4	Standard
	Cl	**37**		ug/L			7300856	6611699	2	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1591025	1	Standard
|	**Cr**	**52**	**0.614**	ug/L	0.054	8	29586	46062	1	Standard
|	**Cr**	**53**	**0.724**	ug/L	0.021	2	269	2766	2	Standard
⌊	**Mn**	**55**	**160.545**	ug/L	4.728	2	664	6072647	2	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	86078	0	KED
|	**Ni**	**60**	**9.065**	ug/L	0.151	1	11	14580	2	KED
|	**Ni**	**62**	**9.252**	ug/L	0.324	3	5	2335	2	KED
|	**Cu**	**63**	**22.136**	ug/L	0.410	1	20	92523	1	KED
|	**Cu**	**65**	**21.816**	ug/L	0.552	2	13	45038	2	KED
|	**Zn**	**66**	**100.215**	ug/L	2.247	2	40	53781	1	KED
|	**Zn**	**67**	**91.712**	ug/L	1.337	1	2	8236	0	KED
⌊	**As**	**75**	**0.057**	ug/L	0.005	8	5	26	6	KED
	Y	**89**		ug/L			806387	999433	5	Standard
	Kr	**83**		ug/L			48	83	24	Standard
⌈>	**In-1**	**115**		ug/L			39343	40084	0	KED
|	**Cd**	**111**	**0.849**	ug/L	0.098	11	3	434	11	KED
⌊	**Cd**	**114**	**0.835**	ug/L	0.027	3	2	1080	3	KED
⌈>	**In**	**115**		ug/L			1058527	1129973	3	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.001	33	67	110	15	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1397848	1	Standard
⌊	**Pb**	**208**	**0.019**	ug/L	0.001	6	93	933	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0621-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 14:01:42
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	38074	2	Standard
	Cl	37		ug/L			7300856	6400593	1	Standard
>	Sc	45		ug/L			1595659	1327633	1	Standard
	Cr	52	407.696	ug/L	11.332	2	29586	9202196	1	Standard
	Cr	53	424.196	ug/L	9.719	2	269	1221167	1	Standard
	Mn	55	25.209	ug/L	0.270	1	664	796311	1	Standard
>	Ge-1	72		ug/L			82831	71631	1	KED
	Ni	60	3.649	ug/L	0.067	1	11	4889	2	KED
	Ni	62	3.858	ug/L	0.099	2	5	813	4	KED
	Cu	63	16.676	ug/L	0.378	2	20	57996	1	KED
	Cu	65	16.462	ug/L	0.189	1	13	28281	0	KED
	Zn	66	42.196	ug/L	0.686	1	40	18865	2	KED
	Zn	67	37.740	ug/L	0.974	2	2	2821	1	KED
	As	75	0.095	ug/L	0.015	15	5	34	13	KED
	Y	89		ug/L			806387	759899	2	Standard
	Kr	83		ug/L			48	95	14	Standard
>	In-1	115		ug/L			39343	32627	1	KED
	Cd	111	0.017	ug/L	0.007	40	3	10	27	KED
	Cd	114	0.019	ug/L	0.006	33	2	21	29	KED
>	In	115		ug/L			1058527	1007071	1	Standard
	Ag	107	0.025	ug/L	0.000	1	67	535	1	Standard
>	Tb	159		ug/L			1231255	1404870	1	Standard
	Pb	208	0.526	ug/L	0.008	1	93	22927	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0360-01
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 14:06:09
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	35951	2	Standard
	Cl	37		ug/L			7300856	6393923	2	Standard
>	Sc	45		ug/L			1595659	1318878	1	Standard
	Cr	52	397.112	ug/L	1.171	0	29586	8906240	1	Standard
	Cr	53	407.179	ug/L	8.460	2	269	1164388	1	Standard
	Mn	55	24.998	ug/L	0.460	1	664	784250	0	Standard
>	Ge-1	72		ug/L			82831	70961	0	KED
	Ni	60	3.706	ug/L	0.089	2	11	4919	2	KED
	Ni	62	3.871	ug/L	0.381	9	5	808	10	KED
	Cu	63	16.176	ug/L	0.213	1	20	55742	1	KED
	Cu	65	16.089	ug/L	0.143	0	13	27385	1	KED
	Zn	66	40.294	ug/L	0.487	1	40	17848	1	KED
	Zn	67	37.399	ug/L	0.850	2	2	2770	2	KED
	As	75	0.103	ug/L	0.004	3	5	36	3	KED
	Y	89		ug/L			806387	765210	2	Standard
	Kr	83		ug/L			48	82	10	Standard
>	In-1	115		ug/L			39343	31970	0	KED
	Cd	111	0.094	ug/L	0.014	14	3	41	12	KED
	Cd	114	0.089	ug/L	0.020	22	2	93	22	KED
>	In	115		ug/L			1058527	1035078	1	Standard
	Ag	107	0.010	ug/L	0.002	18	67	262	12	Standard
>	Tb	159		ug/L			1231255	1389654	0	Standard
	Pb	208	0.566	ug/L	0.004	0	93	24399	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0621-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 14:10:37
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	35669	1	Standard
	Cl	37		ug/L			7300856	6325749	0	Standard
>	Sc	45		ug/L			1595659	1333815	1	Standard
	Cr	52	418.429	ug/L	6.773	1	29586	9488546	1	Standard
	Cr	53	426.429	ug/L	4.956	1	269	1233282	0	Standard
	Mn	55	50.086	ug/L	1.318	2	664	1588443	1	Standard
>	Ge-1	72		ug/L			82831	71837	0	KED
	Ni	60	29.925	ug/L	0.556	1	11	40142	1	KED
	Ni	62	29.922	ug/L	1.213	4	5	6293	3	KED
	Cu	63	42.000	ug/L	0.026	0	20	146492	0	KED
	Cu	65	41.876	ug/L	0.417	0	13	72137	0	KED
	Zn	66	115.339	ug/L	3.463	3	40	51649	2	KED
	Zn	67	107.015	ug/L	3.136	2	2	8020	2	KED
	As	75	25.565	ug/L	0.257	1	5	7930	1	KED
	Y	89		ug/L			806387	767523	3	Standard
	Kr	83		ug/L			48	99	13	Standard
>	In-1	115		ug/L			39343	32694	0	KED
	Cd	111	24.505	ug/L	0.131	0	3	10143	0	KED
	Cd	114	24.609	ug/L	0.577	2	2	25921	2	KED
>	In	115		ug/L			1058527	1054400	0	Standard
	Ag	107	21.310	ug/L	0.417	1	67	419354	1	Standard
>	Tb	159		ug/L			1231255	1392457	1	Standard
	Pb	208	20.165	ug/L	0.506	2	93	867404	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0478-DUP1
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 14:15:05
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	27800	3	Standard
	Cl	37		ug/L			7300856	53587238	4	Standard
>	Sc	45		ug/L			1595659	1522877	1	Standard
	Cr	52	0.801	ug/L	0.014	1	29586	48933	1	Standard
	Cr	53	40.546	ug/L	0.259	0	269	134140	1	Standard
	Mn	55	0.253	ug/L	0.009	3	664	9777	2	Standard
>	Ge-1	72		ug/L			82831	71100	0	KED
	Ni	60	0.119	ug/L	0.035	28	11	168	27	KED
	Ni	62	0.745	ug/L	0.049	6	5	159	5	KED
	Cu	63	0.293	ug/L	0.076	26	20	1029	25	KED
	Cu	65	0.255	ug/L	0.066	25	13	446	24	KED
	Zn	66	0.803	ug/L	0.176	21	40	389	19	KED
	Zn	67	0.955	ug/L	0.086	8	2	73	8	KED
	As	75	0.499	ug/L	0.070	13	5	157	12	KED
	Y	89		ug/L			806387	705759	1	Standard
	Kr	83		ug/L			48	834	1	Standard
>	In-1	115		ug/L			39343	32632	1	KED
	Cd	111	0.004	ug/L	0.007	178	3	4	60	KED
	Cd	114	0.006	ug/L	0.006	99	2	8	75	KED
>	In	115		ug/L			1058527	888008	3	Standard
	Ag	107	0.005	ug/L	0.001	18	67	147	7	Standard
>	Tb	159		ug/L			1231255	1195509	1	Standard
	Pb	208	0.020	ug/L	0.002	10	93	826	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0208-01
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 14:19:33
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	25802	2	Standard
	Cl	37		ug/L			7300856	51695498	1	Standard
>	Sc	45		ug/L			1595659	1514238	3	Standard
	Cr	52	0.790	ug/L	0.102	12	29586	48340	4	Standard
	Cr	53	37.431	ug/L	0.491	1	269	123120	1	Standard
	Mn	55	0.269	ug/L	0.021	7	664	10310	6	Standard
>	Ge-1	72		ug/L			82831	75107	3	KED
	Ni	60	0.098	ug/L	0.003	2	11	147	0	KED
	Ni	62	1.112	ug/L	0.057	5	5	248	4	KED
	Cu	63	0.261	ug/L	0.007	2	20	970	3	KED
	Cu	65	0.177	ug/L	0.010	5	13	332	5	KED
	Zn	66	0.731	ug/L	0.073	9	40	379	12	KED
	Zn	67	0.915	ug/L	0.269	29	2	73	25	KED
	As	75	0.442	ug/L	0.060	13	5	148	9	KED
	Y	89		ug/L			806387	732739	2	Standard
	Kr	83		ug/L			48	1126	3	Standard
>	In-1	115		ug/L			39343	32991	2	KED
	Cd	111	0.008	ug/L	0.002	29	3	6	17	KED
	Cd	114	0.005	ug/L	0.001	17	2	7	13	KED
>	In	115		ug/L			1058527	909705	1	Standard
	Ag	107	0.004	ug/L	0.002	35	67	132	22	Standard
>	Tb	159		ug/L			1231255	1216897	1	Standard
	Pb	208	0.017	ug/L	0.002	11	93	727	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0478-MS1
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 14:24:01
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	25999	3	Standard
	Cl	37		ug/L			7300856	52369251	3	Standard
⌈>	Sc	45		ug/L			1595659	1472490	3	Standard
|	Cr	52	6.341	ug/L	0.214	3	29586	185568	2	Standard
|	Cr	53	41.955	ug/L	0.669	1	269	134156	2	Standard
⌊	Mn	55	5.795	ug/L	0.199	3	664	203348	1	Standard
⌈>	Ge-1	72		ug/L			82831	75300	2	KED
|	Ni	60	5.521	ug/L	0.139	2	11	7769	1	KED
|	Ni	62	6.936	ug/L	0.200	2	5	1532	3	KED
|	Cu	63	5.508	ug/L	0.028	0	20	20153	3	KED
|	Cu	65	5.361	ug/L	0.116	2	13	9690	3	KED
|	Zn	66	14.974	ug/L	0.112	0	40	7060	2	KED
|	Zn	67	14.058	ug/L	1.165	8	2	1105	6	KED
⌊	As	75	5.606	ug/L	0.161	2	5	1825	1	KED
	Y	89		ug/L			806387	694974	1	Standard
	Kr	83		ug/L			48	1676	2	Standard
⌈>	In-1	115		ug/L			39343	33172	2	KED
|	Cd	111	4.764	ug/L	0.074	1	3	2002	1	KED
⌊	Cd	114	4.820	ug/L	0.098	2	2	5153	4	KED
⌈>	In	115		ug/L			1058527	881625	0	Standard
⌊	Ag	107	4.459	ug/L	0.111	2	67	73408	1	Standard
⌈>	Tb	159		ug/L			1231255	1210760	2	Standard
⌊	Pb	208	3.778	ug/L	0.077	2	93	141352	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 14:29:34
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			17935	17072	2	Standard
	Cl	37		ug/L			7300856	6429262	2	Standard
>	Sc	45		ug/L			1595659	1376476	3	Standard
	Cr	52	56.726	ug/L	2.183	3	29586	1348652	0	Standard
	Cr	53	54.497	ug/L	0.963	1	269	162821	1	Standard
	Mn	55	56.604	ug/L	1.532	2	664	1852176	1	Standard
>	Ge-1	72		ug/L			82831	88542	1	KED
	Ni	60	48.866	ug/L	1.818	3	11	80768	2	KED
	Ni	62	50.524	ug/L	1.036	2	5	13098	3	KED
	Cu	63	50.776	ug/L	0.509	1	20	218277	1	KED
	Cu	65	49.664	ug/L	0.883	1	13	105437	0	KED
	Zn	66	50.496	ug/L	0.828	1	40	27895	0	KED
	Zn	67	50.740	ug/L	2.688	5	2	4689	5	KED
	As	75	48.737	ug/L	0.694	1	5	18626	0	KED
	Y	89		ug/L			806387	747385	1	Standard
	Kr	83		ug/L			48	264	16	Standard
>	In-1	115		ug/L			39343	40558	1	KED
	Cd	111	50.041	ug/L	0.471	0	3	25688	0	KED
	Cd	114	51.115	ug/L	0.839	1	2	66775	0	KED
>	In	115		ug/L			1058527	988291	0	Standard
	Ag	107	49.735	ug/L	0.802	1	67	917325	1	Standard
>	Tb	159		ug/L			1231255	1248257	2	Standard
	Pb	208	43.141	ug/L	0.542	1	93	1663432	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 14:36:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	15598	4	Standard
	Cl	**37**		ug/L			7300856	6250050	2	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1299449	3	Standard
|	**Cr**	**52**	**0.072**	ug/L	0.040	54	29586	25667	0	Standard
|	**Cr**	**53**	**0.624**	ug/L	0.029	4	269	1977	4	Standard
⌊	**Mn**	**55**	**0.012**	ug/L	0.001	9	664	902	3	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	79451	13	KED
|	**Ni**	**60**	**0.010**	ug/L	0.005	57	11	24	27	KED
|	**Ni**	**62**	**0.595**	ug/L	0.056	9	5	142	8	KED
|	**Cu**	**63**	**0.036**	ug/L	0.008	21	20	156	5	KED
|	**Cu**	**65**	**0.009**	ug/L	0.005	55	13	30	16	KED
|	**Zn**	**66**	**0.051**	ug/L	0.051	99	40	61	24	KED
|	**Zn**	**67**	**0.049**	ug/L	0.033	67	2	6	34	KED
⌊	**As**	**75**	**0.004**	ug/L	0.002	47	5	6	21	KED
	Y	**89**		ug/L			806387	747163	1	Standard
	Kr	**83**		ug/L			48	61	21	Standard
⌈>	**In-1**	**115**		ug/L			39343	40686	3	KED
|	**Cd**	**111**	**-0.000**	ug/L	0.004	1701	3	3	50	KED
⌊	**Cd**	**114**	**-0.000**	ug/L	0.002	1286	2	2	127	KED
⌈>	**In**	**115**		ug/L			1058527	1009735	3	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.002	112	67	97	35	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1239454	1	Standard
⌊	**Pb**	**208**	**0.005**	ug/L	0.002	42	93	283	29	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 14:42:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	19212	3	Standard
	Cl	**37**		ug/L			7300856	5993758	3	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1298653	2	Standard
|	**Cr**	**52**	**0.032**	ug/L	0.031	97	29586	24767	0	Standard
|	**Cr**	**53**	**0.490**	ug/L	0.012	2	269	1597	0	Standard
⌊	**Mn**	**55**	**0.004**	ug/L	0.000	4	664	657	2	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	84743	0	KED
|	**Ni**	**60**	**0.005**	ug/L	0.004	73	11	19	29	KED
|	**Ni**	**62**	**0.253**	ug/L	0.006	2	5	67	1	KED
|	**Cu**	**63**	**0.014**	ug/L	0.003	21	20	78	16	KED
|	**Cu**	**65**	**0.007**	ug/L	0.004	60	13	28	30	KED
|	**Zn**	**66**	**0.081**	ug/L	0.016	19	40	83	10	KED
|	**Zn**	**67**	**0.064**	ug/L	0.013	19	2	8	13	KED
⌊	**As**	**75**	**0.001**	ug/L	0.006	605	5	6	33	KED
	Y	**89**		ug/L			806387	718111	3	Standard
	Kr	**83**		ug/L			48	58	14	Standard
⌈>	**In-1**	**115**		ug/L			39343	41375	0	KED
|	**Cd**	**111**	**0.003**	ug/L	0.008	325	3	5	83	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.001	65	2	5	35	KED
⌈>	**In**	**115**		ug/L			1058527	975198	2	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.001	385	67	57	32	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1267378	2	Standard
⌊	**Pb**	**208**	**0.003**	ug/L	0.000	12	93	224	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 14:47:11
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	18551	1	Standard
	Cl	**37**		ug/L			7300856	6058011	2	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1313367	1	Standard
|	**Cr**	**52**	**0.036**	ug/L	0.034	95	29586	25138	1	Standard
|	**Cr**	**53**	**0.442**	ug/L	0.010	2	269	1480	2	Standard
⌊	**Mn**	**55**	**0.003**	ug/L	0.000	1	664	640	0	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	85976	1	KED
|	**Ni**	**60**	**0.001**	ug/L	0.002	470	11	12	31	KED
|	**Ni**	**62**	**0.110**	ug/L	0.010	9	5	33	8	KED
|	**Cu**	**63**	**0.007**	ug/L	0.001	11	20	49	7	KED
|	**Cu**	**65**	**0.003**	ug/L	0.004	154	13	19	40	KED
|	**Zn**	**66**	**0.042**	ug/L	0.010	24	40	64	7	KED
|	**Zn**	**67**	**0.077**	ug/L	0.094	121	2	9	87	KED
⌊	**As**	**75**	**-0.004**	ug/L	0.003	82	5	4	26	KED
	Y	**89**		ug/L			806387	740871	3	Standard
	Kr	**83**		ug/L			48	53	14	Standard
⌈>	**In-1**	**115**		ug/L			39343	40600	1	KED
|	**Cd**	**111**	**0.004**	ug/L	0.005	114	3	6	39	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.002	118	2	4	49	KED
⌈>	**In**	**115**		ug/L			1058527	982325	4	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.000	83	67	57	8	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1236696	1	Standard
⌊	**Pb**	**208**	**0.004**	ug/L	0.000	0	93	238	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 14:55:07
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			17935	16962	3	Standard
	Cl	**37**		ug/L			7300856	5872594	1	Standard
⌈>	**Sc**	**45**		ug/L			1595659	1298203	1	Standard
|	**Cr**	**52**	**0.090**	ug/L	0.033	36	29586	26062	3	Standard
|	**Cr**	**53**	**0.394**	ug/L	0.002	0	269	1328	1	Standard
⌊	**Mn**	**55**	**0.049**	ug/L	0.003	5	664	2057	3	Standard
⌈>	**Ge-1**	**72**		ug/L			82831	87586	0	KED
|	**Ni**	**60**	**0.121**	ug/L	0.004	2	11	209	3	KED
|	**Ni**	**62**	**0.167**	ug/L	0.049	29	5	48	26	KED
|	**Cu**	**63**	**0.113**	ug/L	0.010	8	20	500	8	KED
|	**Cu**	**65**	**0.127**	ug/L	0.003	2	13	280	2	KED
|	**Zn**	**66**	**1.578**	ug/L	0.090	5	40	903	6	KED
|	**Zn**	**67**	**1.263**	ug/L	0.108	8	2	118	8	KED
⌊	**As**	**75**	**0.000**	ug/L	0.003	850	5	6	20	KED
	Y	**89**		ug/L			806387	754763	3	Standard
	Kr	**83**		ug/L			48	53	15	Standard
⌈>	**In-1**	**115**		ug/L			39343	41159	1	KED
|	**Cd**	**111**	**0.006**	ug/L	0.004	64	3	7	30	KED
⌊	**Cd**	**114**	**0.004**	ug/L	0.004	98	2	8	67	KED
⌈>	**In**	**115**		ug/L			1058527	1045817	3	Standard
⌊	**Ag**	**107**	**0.010**	ug/L	0.001	12	67	257	9	Standard
⌈>	**Tb**	**159**		ug/L			1231255	1327410	2	Standard
⌊	**Pb**	**208**	**0.039**	ug/L	0.001	3	93	1714	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 14:59:36
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				14674	2	Standard
	Cl	**37**		ug/L				5841457	0	Standard
⌈>	**Sc**	**45**		ug/L				1241343	1	Standard
|	**Cr**	**52**		ug/L				23556	1	Standard
|	**Cr**	**53**		ug/L				1089	2	Standard
⌊	**Mn**	**55**		ug/L				637	2	Standard
⌈>	**Ge-1**	**72**		ug/L				82877	0	KED
|	**Ni**	**60**		ug/L				21	18	KED
|	**Ni**	**62**		ug/L				19	14	KED
|	**Cu**	**63**		ug/L				68	30	KED
|	**Cu**	**65**		ug/L				31	34	KED
|	**Zn**	**66**		ug/L				75	18	KED
|	**Zn**	**67**		ug/L				16	17	KED
⌊	**As**	**75**		ug/L				6	10	KED
	Y	**89**		ug/L				707302	3	Standard
	Kr	**83**		ug/L				55	27	Standard
⌈>	**In-1**	**115**		ug/L				40285	2	KED
|	**Cd**	**111**		ug/L				6	79	KED
⌊	**Cd**	**114**		ug/L				5	57	KED
⌈>	**In**	**115**		ug/L				1020321	2	Standard
⌊	**Ag**	**107**		ug/L				62	16	Standard
⌈>	**Tb**	**159**		ug/L				1263003	0	Standard
⌊	**Pb**	**208**		ug/L				212	19	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 15:04:04
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			14674	15600	2	Standard
	Cl	**37**		ug/L			5841457	5902912	0	Standard
>	**Sc**	**45**		ug/L			1241343	1236938	2	Standard
	Cr	**52**	**56.661**	ug/L	0.483	0	23556	1211944	1	Standard
	Cr	**53**	**52.710**	ug/L	1.057	2	1089	142415	1	Standard
	Mn	**55**	**57.997**	ug/L	0.784	1	637	1705946	1	Standard
>	**Ge-1**	**72**		ug/L			82877	84586	1	KED
	Ni	**60**	**49.677**	ug/L	1.057	2	21	78482	3	KED
	Ni	**62**	**49.872**	ug/L	0.364	0	19	12364	1	KED
	Cu	**63**	**50.610**	ug/L	0.867	1	68	207928	3	KED
	Cu	**65**	**49.762**	ug/L	0.942	1	31	100969	3	KED
	Zn	**66**	**50.611**	ug/L	1.244	2	75	26750	3	KED
	Zn	**67**	**48.508**	ug/L	1.509	3	16	4295	2	KED
	As	**75**	**48.424**	ug/L	0.555	1	6	17683	2	KED
	Y	**89**		ug/L			707302	705972	2	Standard
	Kr	**83**		ug/L			55	62	20	Standard
>	**In-1**	**115**		ug/L			40285	38595	2	KED
	Cd	**111**	**50.487**	ug/L	0.645	1	6	24664	0	KED
	Cd	**114**	**51.541**	ug/L	0.688	1	5	64083	2	KED
>	**In**	**115**		ug/L			1020321	976026	3	Standard
	Ag	**107**	**50.415**	ug/L	2.101	4	62	917413	0	Standard
>	**Tb**	**159**		ug/L			1263003	1284475	1	Standard
	Pb	**208**	**41.508**	ug/L	1.165	2	212	1646892	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 15:11:17
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			14674	14281	2	Standard
	Cl	**37**		ug/L			5841457	5660693	1	Standard
⌈>	**Sc**	**45**		ug/L			1241343	1210383	2	Standard
|	**Cr**	**52**	**-0.009**	ug/L	0.075	844	23556	22768	4	Standard
|	**Cr**	**53**	**-0.094**	ug/L	0.026	27	1089	815	6	Standard
⌊	**Mn**	**55**	**-0.000**	ug/L	0.000	1546	637	620	2	Standard
⌈>	**Ge-1**	**72**		ug/L			82877	84624	2	KED
|	**Ni**	**60**	**0.001**	ug/L	0.005	548	21	23	33	KED
|	**Ni**	**62**	**-0.048**	ug/L	0.031	64	19	8	93	KED
|	**Cu**	**63**	**0.004**	ug/L	0.007	176	68	86	33	KED
|	**Cu**	**65**	**0.007**	ug/L	0.004	63	31	46	19	KED
|	**Zn**	**66**	**-0.020**	ug/L	0.010	48	75	66	7	KED
|	**Zn**	**67**	**-0.056**	ug/L	0.098	176	16	12	72	KED
⌊	**As**	**75**	**0.004**	ug/L	0.007	204	6	8	31	KED
	Y	**89**		ug/L			707302	723147	1	Standard
	Kr	**83**		ug/L			55	58	18	Standard
⌈>	**In-1**	**115**		ug/L			40285	39720	2	KED
|	**Cd**	**111**	**-0.006**	ug/L	0.005	81	6	3	66	KED
⌊	**Cd**	**114**	**-0.004**	ug/L	0.001	21	5	0	257	KED
⌈>	**In**	**115**		ug/L			1020321	1005233	3	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.001	494	62	64	22	Standard
⌈>	**Tb**	**159**		ug/L			1263003	1239558	0	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.000	54	212	231	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0226-01
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 15:16:46
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	27351	2	Standard
	Cl	37		ug/L			5841457	65914735	2	Standard
>	Sc	45		ug/L			1241343	1382194	1	Standard
	Cr	52	0.732	ug/L	0.106	14	23556	43381	5	Standard
	Cr	53	52.323	ug/L	1.739	3	1089	157969	2	Standard
	Mn	55	5.783	ug/L	0.059	1	637	190717	1	Standard
>	Ge-1	72		ug/L			82877	70037	1	KED
	Ni	60	0.217	ug/L	0.014	6	21	302	5	KED
	Ni	62	1.124	ug/L	0.060	5	19	246	5	KED
	Cu	63	0.332	ug/L	0.030	9	68	1187	7	KED
	Cu	65	0.249	ug/L	0.008	3	31	445	4	KED
	Zn	66	1.443	ug/L	0.057	3	75	693	2	KED
	Zn	67	1.479	ug/L	0.176	11	16	121	9	KED
	As	75	0.230	ug/L	0.007	3	6	75	3	KED
	Y	89		ug/L			707302	638447	1	Standard
	Kr	83		ug/L			55	1367	2	Standard
>	In-1	115		ug/L			40285	30681	2	KED
	Cd	111	0.017	ug/L	0.007	39	6	12	24	KED
	Cd	114	0.017	ug/L	0.010	62	5	20	50	KED
>	In	115		ug/L			1020321	767015	2	Standard
	Ag	107	0.005	ug/L	0.001	23	62	121	12	Standard
>	Tb	159		ug/L			1263003	1113332	0	Standard
	Pb	208	0.019	ug/L	0.001	5	212	829	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0226-02
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 15:22:38
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	25141	3	Standard
	Cl	37		ug/L			5841457	63272224	2	Standard
>	Sc	45		ug/L			1241343	1329647	1	Standard
	Cr	52	0.660	ug/L	0.053	8	23556	40113	2	Standard
	Cr	53	47.593	ug/L	1.589	3	1089	138376	3	Standard
	Mn	55	4.351	ug/L	0.156	3	637	138186	2	Standard
>	Ge-1	72		ug/L			82877	71191	1	KED
	Ni	60	0.127	ug/L	0.014	11	21	187	10	KED
	Ni	62	1.458	ug/L	0.033	2	19	320	2	KED
	Cu	63	0.367	ug/L	0.017	4	68	1327	5	KED
	Cu	65	0.242	ug/L	0.020	8	31	439	6	KED
	Zn	66	1.307	ug/L	0.116	8	75	644	7	KED
	Zn	67	1.349	ug/L	0.246	18	16	114	15	KED
	As	75	0.296	ug/L	0.022	7	6	96	5	KED
	Y	89		ug/L			707302	632801	2	Standard
	Kr	83		ug/L			55	2113	1	Standard
>	In-1	115		ug/L			40285	31104	0	KED
	Cd	111	0.032	ug/L	0.005	14	6	18	10	KED
	Cd	114	0.012	ug/L	0.006	52	5	15	38	KED
>	In	115		ug/L			1020321	786081	1	Standard
	Ag	107	0.002	ug/L	0.000	20	62	74	8	Standard
>	Tb	159		ug/L			1263003	1106097	1	Standard
	Pb	208	0.013	ug/L	0.000	3	212	634	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0226-03
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 15:28:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	24403	1	Standard
	Cl	37		ug/L			5841457	60532223	3	Standard
>	Sc	45		ug/L			1241343	1239778	1	Standard
	Cr	52	0.623	ug/L	0.006	0	23556	36631	1	Standard
	Cr	53	44.590	ug/L	0.500	1	1089	120936	0	Standard
	Mn	55	1.289	ug/L	0.021	1	637	38628	2	Standard
>	Ge-1	72		ug/L			82877	70057	1	KED
	Ni	60	0.131	ug/L	0.002	1	21	189	2	KED
	Ni	62	1.676	ug/L	0.114	6	19	360	5	KED
	Cu	63	0.668	ug/L	0.012	1	68	2330	0	KED
	Cu	65	0.556	ug/L	0.042	7	31	960	6	KED
	Zn	66	0.449	ug/L	0.034	7	75	259	6	KED
	Zn	67	0.782	ug/L	0.058	7	16	71	6	KED
	As	75	0.313	ug/L	0.013	4	6	100	2	KED
	Y	89		ug/L			707302	633441	1	Standard
	Kr	83		ug/L			55	2600	6	Standard
>	In-1	115		ug/L			40285	30683	0	KED
	Cd	111	0.015	ug/L	0.012	80	6	11	42	KED
	Cd	114	0.004	ug/L	0.004	83	5	8	42	KED
>	In	115		ug/L			1020321	775951	2	Standard
	Ag	107	0.003	ug/L	0.001	29	62	87	13	Standard
>	Tb	159		ug/L			1263003	1103744	1	Standard
	Pb	208	0.017	ug/L	0.000	1	212	753	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0226-04
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 15:34:18
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	22741	1	Standard
	Cl	37		ug/L			5841457	32318257	4	Standard
>	Sc	45		ug/L			1241343	1210669	2	Standard
	Cr	52	0.810	ug/L	0.028	3	23556	39602	1	Standard
	Cr	53	26.058	ug/L	0.410	1	1089	69450	0	Standard
	Mn	55	11.243	ug/L	0.113	1	637	324202	1	Standard
>	Ge-1	72		ug/L			82877	73199	0	KED
	Ni	60	1.160	ug/L	0.032	2	21	1603	1	KED
	Ni	62	2.470	ug/L	0.118	4	19	546	5	KED
	Cu	63	0.422	ug/L	0.005	1	68	1560	0	KED
	Cu	65	0.330	ug/L	0.027	8	31	606	7	KED
	Zn	66	1.985	ug/L	0.140	7	75	971	5	KED
	Zn	67	2.170	ug/L	0.111	5	16	180	5	KED
	As	75	0.185	ug/L	0.013	7	6	64	6	KED
	Y	89		ug/L			707302	652982	1	Standard
	Kr	83		ug/L			55	1847	2	Standard
>	In-1	115		ug/L			40285	33420	1	KED
	Cd	111	0.010	ug/L	0.003	31	6	10	14	KED
	Cd	114	0.019	ug/L	0.008	40	5	24	32	KED
>	In	115		ug/L			1020321	849920	2	Standard
	Ag	107	0.000	ug/L	0.001	174	62	57	14	Standard
>	Tb	159		ug/L			1263003	1178095	3	Standard
	Pb	208	0.009	ug/L	0.000	3	212	517	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0226-05
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 15:38:46
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	22567	0	Standard
	Cl	37		ug/L			5841457	41690053	3	Standard
>	Sc	45		ug/L			1241343	1177432	1	Standard
	Cr	52	0.409	ug/L	0.016	4	23556	30515	0	Standard
	Cr	53	30.578	ug/L	0.383	1	1089	79098	1	Standard
	Mn	55	47.332	ug/L	1.087	2	637	1325700	2	Standard
>	Ge-1	72		ug/L			82877	69647	0	KED
	Ni	60	0.235	ug/L	0.002	0	21	323	0	KED
	Ni	62	1.720	ug/L	0.085	4	19	366	4	KED
	Cu	63	0.147	ug/L	0.005	3	68	556	3	KED
	Cu	65	0.033	ug/L	0.011	34	31	81	23	KED
	Zn	66	0.732	ug/L	0.082	11	75	380	8	KED
	Zn	67	0.814	ug/L	0.100	12	16	73	9	KED
	As	75	0.128	ug/L	0.007	5	6	44	4	KED
	Y	89		ug/L			707302	644546	2	Standard
	Kr	83		ug/L			55	2323	4	Standard
>	In-1	115		ug/L			40285	31797	0	KED
	Cd	111	-0.001	ug/L	0.008	720	6	5	60	KED
	Cd	114	0.004	ug/L	0.004	101	5	8	48	KED
>	In	115		ug/L			1020321	815469	5	Standard
	Ag	107	0.001	ug/L	0.001	55	62	66	18	Standard
>	Tb	159		ug/L			1263003	1081521	5	Standard
	Pb	208	0.008	ug/L	0.001	8	212	462	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0226-06
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 15:43:14
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	20214	2	Standard
	Cl	37		ug/L			5841457	54872128	2	Standard
>	Sc	45		ug/L			1241343	1099309	2	Standard
	Cr	52	0.404	ug/L	0.027	6	23556	28385	1	Standard
	Cr	53	37.543	ug/L	0.754	2	1089	90419	1	Standard
	Mn	55	22.614	ug/L	0.608	2	637	591301	0	Standard
>	Ge-1	72		ug/L			82877	64439	1	KED
	Ni	60	0.381	ug/L	0.018	4	21	474	4	KED
	Ni	62	2.092	ug/L	0.108	5	19	409	3	KED
	Cu	63	0.400	ug/L	0.031	7	68	1304	6	KED
	Cu	65	0.228	ug/L	0.019	8	31	377	6	KED
	Zn	66	2.093	ug/L	0.013	0	75	899	1	KED
	Zn	67	2.123	ug/L	0.191	9	16	155	8	KED
	As	75	0.161	ug/L	0.017	10	6	50	10	KED
	Y	89		ug/L			707302	611385	4	Standard
	Kr	83		ug/L			55	4132	3	Standard
>	In-1	115		ug/L			40285	29243	0	KED
	Cd	111	0.018	ug/L	0.006	33	6	11	18	KED
	Cd	114	0.024	ug/L	0.003	12	5	26	10	KED
>	In	115		ug/L			1020321	741032	3	Standard
	Ag	107	0.002	ug/L	0.000	22	62	70	9	Standard
>	Tb	159		ug/L			1263003	1005706	3	Standard
	Pb	208	0.010	ug/L	0.000	4	212	479	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0226-07
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 15:47:42
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	19293	1	Standard
	Cl	37		ug/L			5841457	72557926	5	Standard
>	Sc	45		ug/L			1241343	1004436	0	Standard
	Cr	52	0.379	ug/L	0.024	6	23556	25525	1	Standard
	Cr	53	44.210	ug/L	0.288	0	1089	97162	0	Standard
	Mn	55	27.787	ug/L	0.336	1	637	664080	0	Standard
>	Ge-1	72		ug/L			82877	57141	1	KED
	Ni	60	0.183	ug/L	0.016	8	21	210	6	KED
	Ni	62	2.710	ug/L	0.024	0	19	466	0	KED
	Cu	63	0.328	ug/L	0.005	1	68	956	2	KED
	Cu	65	0.033	ug/L	0.008	23	31	66	14	KED
	Zn	66	0.636	ug/L	0.035	5	75	278	5	KED
	Zn	67	0.929	ug/L	0.189	20	16	66	15	KED
	As	75	0.253	ug/L	0.006	2	6	67	1	KED
	Y	89		ug/L			707302	584038	2	Standard
	Kr	83		ug/L			55	7723	4	Standard
>	In-1	115		ug/L			40285	26335	2	KED
	Cd	111	0.002	ug/L	0.006	380	6	5	39	KED
	Cd	114	0.002	ug/L	0.004	200	5	5	62	KED
>	In	115		ug/L			1020321	705976	2	Standard
	Ag	107	0.002	ug/L	0.001	68	62	65	21	Standard
>	Tb	159		ug/L			1263003	931744	3	Standard
	Pb	208	0.018	ug/L	0.002	8	212	678	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0226-08
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 15:52:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	18232	2	Standard
	Cl	37		ug/L			5841457	50077641	3	Standard
>	Sc	45		ug/L			1241343	1006614	1	Standard
	Cr	52	0.351	ug/L	0.073	20	23556	25077	3	Standard
	Cr	53	28.119	ug/L	0.798	2	1089	62249	2	Standard
	Mn	55	0.368	ug/L	0.013	3	637	9321	1	Standard
>	Ge-1	72		ug/L			82877	60035	0	KED
	Ni	60	0.112	ug/L	0.005	4	21	140	4	KED
	Ni	62	2.792	ug/L	0.094	3	19	504	3	KED
	Cu	63	0.459	ug/L	0.017	3	68	1388	3	KED
	Cu	65	0.200	ug/L	0.010	5	31	310	4	KED
	Zn	66	0.888	ug/L	0.108	12	75	386	10	KED
	Zn	67	1.076	ug/L	0.213	19	16	79	17	KED
	As	75	0.333	ug/L	0.037	11	6	91	10	KED
	Y	89		ug/L			707302	582056	2	Standard
	Kr	83		ug/L			55	7516	0	Standard
>	In-1	115		ug/L			40285	28414	0	KED
	Cd	111	0.007	ug/L	0.007	93	6	7	33	KED
	Cd	114	0.007	ug/L	0.006	80	5	10	50	KED
>	In	115		ug/L			1020321	723843	2	Standard
	Ag	107	0.002	ug/L	0.000	25	62	67	7	Standard
>	Tb	159		ug/L			1263003	980857	1	Standard
	Pb	208	0.010	ug/L	0.001	12	212	471	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0226-09
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 15:56:38
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	17895	4	Standard
	Cl	37		ug/L			5841457	38063298	2	Standard
>	Sc	45		ug/L			1241343	997880	1	Standard
	Cr	52	0.206	ug/L	0.021	10	23556	22428	2	Standard
	Cr	53	20.825	ug/L	0.458	2	1089	45926	1	Standard
	Mn	55	1.790	ug/L	0.002	0	637	42989	1	Standard
>	Ge-1	72		ug/L			82877	59956	1	KED
	Ni	60	0.358	ug/L	0.056	15	21	415	14	KED
	Ni	62	2.866	ug/L	0.180	6	19	516	5	KED
	Cu	63	0.415	ug/L	0.014	3	68	1258	2	KED
	Cu	65	0.195	ug/L	0.009	4	31	303	4	KED
	Zn	66	1.274	ug/L	0.094	7	75	530	5	KED
	Zn	67	1.495	ug/L	0.062	4	16	105	2	KED
	As	75	0.144	ug/L	0.014	9	6	42	7	KED
	Y	89		ug/L			707302	602494	4	Standard
	Kr	83		ug/L			55	6793	1	Standard
>	In-1	115		ug/L			40285	29445	3	KED
	Cd	111	0.014	ug/L	0.011	78	6	10	39	KED
	Cd	114	0.019	ug/L	0.002	9	5	22	7	KED
>	In	115		ug/L			1020321	756113	1	Standard
	Ag	107	-0.000	ug/L	0.000	780	62	45	8	Standard
>	Tb	159		ug/L			1263003	1004263	1	Standard
	Pb	208	0.010	ug/L	0.001	11	212	471	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0248-01
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 16:01:06
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	17779	3	Standard
	Cl	37		ug/L			5841457	44238773	5	Standard
>	Sc	45		ug/L			1241343	962349	2	Standard
	Cr	52	0.197	ug/L	0.045	22	23556	21472	1	Standard
	Cr	53	23.270	ug/L	1.006	4	1089	49377	2	Standard
	Mn	55	65.533	ug/L	1.078	1	637	1499601	0	Standard
>	Ge-1	72		ug/L			82877	56428	0	KED
	Ni	60	0.176	ug/L	0.010	5	21	200	5	KED
	Ni	62	3.141	ug/L	0.188	5	19	532	5	KED
	Cu	63	0.316	ug/L	0.033	10	68	911	9	KED
	Cu	65	0.059	ug/L	0.021	35	31	100	27	KED
	Zn	66	1.728	ug/L	0.019	1	75	659	0	KED
	Zn	67	1.405	ug/L	0.402	28	16	93	25	KED
	As	75	0.226	ug/L	0.003	1	6	59	1	KED
	Y	89		ug/L			707302	580888	2	Standard
	Kr	83		ug/L			55	7720	1	Standard
>	In-1	115		ug/L			40285	27685	2	KED
	Cd	111	0.004	ug/L	0.003	88	6	6	18	KED
	Cd	114	0.009	ug/L	0.001	14	5	11	9	KED
>	In	115		ug/L			1020321	711513	2	Standard
	Ag	107	0.002	ug/L	0.001	55	62	68	20	Standard
>	Tb	159		ug/L			1263003	934599	1	Standard
	Pb	208	0.009	ug/L	0.001	15	212	421	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 16:08:19
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			14674	15489	3	Standard
	Cl	**37**		ug/L			5841457	5406503	1	Standard
>	**Sc**	**45**		ug/L			1241343	1056687	2	Standard
	Cr	**52**	**56.329**	ug/L	0.799	1	23556	1029363	2	Standard
	Cr	**53**	**57.813**	ug/L	0.437	0	1089	133382	2	Standard
	Mn	**55**	**55.459**	ug/L	1.742	3	637	1393177	0	Standard
>	**Ge-1**	**72**		ug/L			82877	75019	2	KED
	Ni	**60**	**52.070**	ug/L	1.304	2	21	72924	2	KED
	Ni	**62**	**54.243**	ug/L	1.121	2	19	11927	4	KED
	Cu	**63**	**50.836**	ug/L	0.256	0	68	185221	3	KED
	Cu	**65**	**52.391**	ug/L	1.804	3	31	94217	2	KED
	Zn	**66**	**52.867**	ug/L	1.024	1	75	24771	2	KED
	Zn	**67**	**50.584**	ug/L	1.963	3	16	3975	6	KED
	As	**75**	**50.839**	ug/L	1.594	3	6	16455	0	KED
	Y	**89**		ug/L			707302	637269	1	Standard
	Kr	**83**		ug/L			55	7697	1	Standard
>	**In-1**	**115**		ug/L			40285	35766	1	KED
	Cd	**111**	**51.231**	ug/L	1.375	2	6	23193	1	KED
	Cd	**114**	**51.927**	ug/L	0.834	1	5	59829	1	KED
>	**In**	**115**		ug/L			1020321	835607	3	Standard
	Ag	**107**	**53.379**	ug/L	1.063	1	62	832060	2	Standard
>	**Tb**	**159**		ug/L			1263003	1128944	5	Standard
	Pb	**208**	**39.453**	ug/L	1.894	4	212	1373907	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 16:15:31
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			14674	14486	0	Standard
	Cl	**37**		ug/L			5841457	5382597	3	Standard
⌈>	**Sc**	**45**		ug/L			1241343	1034606	1	Standard
|	**Cr**	**52**	**0.164**	ug/L	0.021	12	23556	22516	1	Standard
|	**Cr**	**53**	**4.102**	ug/L	0.062	1	1089	10108	0	Standard
⌊	**Mn**	**55**	**0.047**	ug/L	0.003	6	637	1686	3	Standard
⌈>	**Ge-1**	**72**		ug/L			82877	74725	2	KED
|	**Ni**	**60**	**0.001**	ug/L	0.005	747	21	20	32	KED
|	**Ni**	**62**	**1.850**	ug/L	0.175	9	19	421	6	KED
|	**Cu**	**63**	**0.069**	ug/L	0.016	22	68	310	15	KED
|	**Cu**	**65**	**0.006**	ug/L	0.005	83	31	40	21	KED
|	**Zn**	**66**	**0.015**	ug/L	0.038	252	75	74	21	KED
|	**Zn**	**67**	**-0.019**	ug/L	0.088	453	16	13	51	KED
⌊	**As**	**75**	**0.004**	ug/L	0.004	116	6	7	16	KED
	Y	**89**		ug/L			707302	597836	5	Standard
	Kr	**83**		ug/L			55	6242	0	Standard
⌈>	**In-1**	**115**		ug/L			40285	34748	7	KED
|	**Cd**	**111**	**0.002**	ug/L	0.014	633	6	6	79	KED
⌊	**Cd**	**114**	**0.014**	ug/L	0.022	156	5	18	114	KED
⌈>	**In**	**115**		ug/L			1020321	842381	2	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	70	62	65	14	Standard
⌈>	**Tb**	**159**		ug/L			1263003	1102773	3	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.001	344	212	192	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0248-02
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 16:20:00
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	18426	2	Standard
	Cl	37		ug/L			5841457	43644127	4	Standard
>	Sc	45		ug/L			1241343	971899	1	Standard
	Cr	52	0.255	ug/L	0.032	12	23556	22646	3	Standard
	Cr	53	27.167	ug/L	0.230	0	1089	58105	1	Standard
	Mn	55	29.589	ug/L	0.427	1	637	684149	0	Standard
>	Ge-1	72		ug/L			82877	54786	1	KED
	Ni	60	0.211	ug/L	0.021	9	21	229	7	KED
	Ni	62	3.062	ug/L	0.121	3	19	504	5	KED
	Cu	63	0.684	ug/L	0.046	6	68	1862	5	KED
	Cu	65	0.422	ug/L	0.047	11	31	574	9	KED
	Zn	66	1.097	ug/L	0.109	9	75	424	8	KED
	Zn	67	1.319	ug/L	0.061	4	16	86	5	KED
	As	75	0.185	ug/L	0.012	6	6	48	5	KED
	Y	89		ug/L			707302	576193	1	Standard
	Kr	83		ug/L			55	12330	0	Standard
>	In-1	115		ug/L			40285	27001	0	KED
	Cd	111	0.007	ug/L	0.004	62	6	6	20	KED
	Cd	114	0.008	ug/L	0.007	79	5	10	52	KED
>	In	115		ug/L			1020321	704503	2	Standard
	Ag	107	0.002	ug/L	0.000	24	62	65	11	Standard
>	Tb	159		ug/L			1263003	943299	1	Standard
	Pb	208	0.008	ug/L	0.001	13	212	396	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0248-03
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 16:24:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	17057	0	Standard
	Cl	37		ug/L			5841457	49577811	2	Standard
>	Sc	45		ug/L			1241343	914440	0	Standard
	Cr	52	0.192	ug/L	0.022	11	23556	20328	1	Standard
	Cr	53	27.924	ug/L	0.769	2	1089	56177	3	Standard
	Mn	55	17.213	ug/L	0.315	1	637	374679	1	Standard
>	Ge-1	72		ug/L			82877	51451	3	KED
	Ni	60	0.242	ug/L	0.003	1	21	245	3	KED
	Ni	62	4.020	ug/L	0.338	8	19	616	5	KED
	Cu	63	0.596	ug/L	0.008	1	68	1530	1	KED
	Cu	65	0.236	ug/L	0.025	10	31	309	7	KED
	Zn	66	1.439	ug/L	0.119	8	75	507	7	KED
	Zn	67	1.761	ug/L	0.208	11	16	104	11	KED
	As	75	0.167	ug/L	0.014	8	6	41	10	KED
	Y	89		ug/L			707302	560293	6	Standard
	Kr	83		ug/L			55	13006	1	Standard
>	In-1	115		ug/L			40285	25987	2	KED
	Cd	111	0.001	ug/L	0.008	996	6	4	52	KED
	Cd	114	0.004	ug/L	0.005	138	5	6	63	KED
>	In	115		ug/L			1020321	656021	2	Standard
	Ag	107	0.001	ug/L	0.001	75	62	49	15	Standard
>	Tb	159		ug/L			1263003	882413	2	Standard
	Pb	208	0.008	ug/L	0.001	7	212	359	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0248-04
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 16:28:56
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	17057	2	Standard
	Cl	37		ug/L			5841457	44669733	5	Standard
>	Sc	45		ug/L			1241343	878316	4	Standard
	Cr	52	0.197	ug/L	0.051	25	23556	19582	0	Standard
	Cr	53	24.389	ug/L	0.768	3	1089	47218	5	Standard
	Mn	55	0.653	ug/L	0.032	4	637	14073	1	Standard
>	Ge-1	72		ug/L			82877	51470	2	KED
	Ni	60	0.128	ug/L	0.011	8	21	136	7	KED
	Ni	62	4.171	ug/L	0.141	3	19	640	0	KED
	Cu	63	0.688	ug/L	0.049	7	68	1759	4	KED
	Cu	65	0.326	ug/L	0.029	8	31	420	6	KED
	Zn	66	0.809	ug/L	0.073	9	75	306	9	KED
	Zn	67	1.212	ug/L	0.287	23	16	75	22	KED
	As	75	0.534	ug/L	0.018	3	6	122	4	KED
	Y	89		ug/L			707302	550831	5	Standard
	Kr	83		ug/L			55	15275	0	Standard
>	In-1	115		ug/L			40285	26361	1	KED
	Cd	111	0.009	ug/L	0.011	114	6	7	45	KED
	Cd	114	0.011	ug/L	0.004	39	5	12	29	KED
>	In	115		ug/L			1020321	640759	4	Standard
	Ag	107	0.002	ug/L	0.001	51	62	57	14	Standard
>	Tb	159		ug/L			1263003	855285	4	Standard
	Pb	208	0.010	ug/L	0.002	18	212	399	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0248-05
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 16:33:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	14936	2	Standard
	Cl	37		ug/L			5841457	61212450	4	Standard
>	Sc	45		ug/L			1241343	820337	4	Standard
	Cr	52	0.199	ug/L	0.050	24	23556	18312	0	Standard
	Cr	53	32.937	ug/L	0.809	2	1089	59295	4	Standard
	Mn	55	0.456	ug/L	0.017	3	637	9297	0	Standard
>	Ge-1	72		ug/L			82877	45748	0	KED
	Ni	60	0.168	ug/L	0.016	9	21	155	9	KED
	Ni	62	4.610	ug/L	0.117	2	19	627	2	KED
	Cu	63	0.829	ug/L	0.027	3	68	1878	2	KED
	Cu	65	0.287	ug/L	0.012	4	31	332	3	KED
	Zn	66	1.680	ug/L	0.092	5	75	520	5	KED
	Zn	67	1.633	ug/L	0.213	13	16	86	11	KED
	As	75	0.276	ug/L	0.030	10	6	58	10	KED
	Y	89		ug/L			707302	513515	1	Standard
	Kr	83		ug/L			55	22000	2	Standard
>	In-1	115		ug/L			40285	22817	4	KED
	Cd	111	0.012	ug/L	0.008	69	6	7	30	KED
	Cd	114	0.019	ug/L	0.008	42	5	16	37	KED
>	In	115		ug/L			1020321	618661	1	Standard
	Ag	107	0.005	ug/L	0.001	16	62	92	11	Standard
>	Tb	159		ug/L			1263003	806357	1	Standard
	Pb	208	0.011	ug/L	0.000	3	212	410	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0248-06
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 16:37:52
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			14674	16385	1	Standard
	Cl	37		ug/L			5841457	34895452	2	Standard
>	Sc	45		ug/L			1241343	886680	4	Standard
	Cr	52	0.162	ug/L	0.062	38	23556	19236	0	Standard
	Cr	53	18.518	ug/L	0.947	5	1089	36326	1	Standard
	Mn	55	0.420	ug/L	0.023	5	637	9302	1	Standard
>	Ge-1	72		ug/L			82877	53335	0	KED
	Ni	60	0.112	ug/L	0.016	14	21	125	12	KED
	Ni	62	4.099	ug/L	0.479	11	19	652	10	KED
	Cu	63	0.634	ug/L	0.024	3	68	1685	3	KED
	Cu	65	0.282	ug/L	0.017	6	31	380	5	KED
	Zn	66	1.315	ug/L	0.101	7	75	485	7	KED
	Zn	67	1.554	ug/L	0.288	18	16	97	16	KED
	As	75	0.228	ug/L	0.027	12	6	56	11	KED
	Y	89		ug/L			707302	555421	2	Standard
	Kr	83		ug/L			55	23796	1	Standard
>	In-1	115		ug/L			40285	26910	2	KED
	Cd	111	0.006	ug/L	0.009	146	6	6	42	KED
	Cd	114	0.009	ug/L	0.007	79	5	11	53	KED
>	In	115		ug/L			1020321	701100	4	Standard
	Ag	107	0.001	ug/L	0.001	58	62	57	18	Standard
>	Tb	159		ug/L			1263003	919582	3	Standard
	Pb	208	0.008	ug/L	0.001	13	212	375	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0248-07
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, June 26, 2018 16:42:21
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			14674	15926	3	Standard
	Cl	**37**		ug/L			5841457	44965663	3	Standard
>	**Sc**	**45**		ug/L			1241343	867940	3	Standard
	Cr	**52**	**0.142**	ug/L	0.011	7	23556	18571	4	Standard
	Cr	**53**	**23.268**	ug/L	0.987	4	1089	44512	1	Standard
	Mn	**55**	**0.716**	ug/L	0.025	3	637	15200	0	Standard
>	**Ge-1**	**72**		ug/L			82877	48780	0	KED
	Ni	**60**	**0.154**	ug/L	0.035	22	21	153	20	KED
	Ni	**62**	**4.550**	ug/L	0.393	8	19	660	8	KED
	Cu	**63**	**0.727**	ug/L	0.004	0	68	1762	1	KED
	Cu	**65**	**0.260**	ug/L	0.029	11	31	322	10	KED
	Zn	**66**	**1.979**	ug/L	0.181	9	75	645	8	KED
	Zn	**67**	**1.980**	ug/L	0.186	9	16	110	8	KED
	As	**75**	**0.825**	ug/L	0.007	0	6	177	1	KED
	Y	**89**		ug/L			707302	529307	5	Standard
	Kr	**83**		ug/L			55	30946	0	Standard
>	**In-1**	**115**		ug/L			40285	25085	0	KED
	Cd	**111**	**0.007**	ug/L	0.003	40	6	6	14	KED
	Cd	**114**	**0.014**	ug/L	0.006	43	5	14	33	KED
>	**In**	**115**		ug/L			1020321	647827	1	Standard
	Ag	**107**	**0.001**	ug/L	0.000	59	62	48	9	Standard
>	**Tb**	**159**		ug/L			1263003	859528	1	Standard
	Pb	**208**	**0.154**	ug/L	0.005	2	212	4227	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 16:49:34
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			14674	16237	1	Standard
	Cl	**37**		ug/L			5841457	5516722	1	Standard
>	**Sc**	**45**		ug/L			1241343	1033116	2	Standard
	Cr	**52**	**56.702**	ug/L	2.098	3	23556	1012440	1	Standard
	Cr	**53**	**56.751**	ug/L	1.831	3	1089	127976	2	Standard
	Mn	**55**	**56.582**	ug/L	1.268	2	637	1390168	2	Standard
>	**Ge-1**	**72**		ug/L			82877	73795	1	KED
	Ni	**60**	**50.146**	ug/L	0.333	0	21	69110	2	KED
	Ni	**62**	**53.456**	ug/L	3.200	5	19	11557	5	KED
	Cu	**63**	**52.133**	ug/L	1.575	3	68	186807	2	KED
	Cu	**65**	**52.893**	ug/L	0.988	1	31	93627	3	KED
	Zn	**66**	**51.869**	ug/L	1.270	2	75	23909	1	KED
	Zn	**67**	**51.153**	ug/L	1.632	3	16	3951	1	KED
	As	**75**	**50.362**	ug/L	1.314	2	6	16040	1	KED
	Y	**89**		ug/L			707302	622972	2	Standard
	Kr	**83**		ug/L			55	31940	0	Standard
>	**In-1**	**115**		ug/L			40285	35332	1	KED
	Cd	**111**	**50.637**	ug/L	0.552	1	6	22648	1	KED
	Cd	**114**	**51.715**	ug/L	1.607	3	5	58841	1	KED
>	**In**	**115**		ug/L			1020321	824259	4	Standard
	Ag	**107**	**53.748**	ug/L	2.154	4	62	826023	2	Standard
>	**Tb**	**159**		ug/L			1263003	1042268	2	Standard
	Pb	**208**	**41.624**	ug/L	0.591	1	212	1340087	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 16:56:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			14674	14669	2	Standard
	Cl	**37**		ug/L			5841457	5330132	4	Standard
⌈>	**Sc**	**45**		ug/L			1241343	1021961	3	Standard
|	**Cr**	**52**	**0.092**	ug/L	0.029	31	23556	20971	1	Standard
|	**Cr**	**53**	**4.229**	ug/L	0.125	2	1089	10261	0	Standard
⌊	**Mn**	**55**	**0.042**	ug/L	0.003	7	637	1555	2	Standard
⌈>	**Ge-1**	**72**		ug/L			82877	74575	1	KED
|	**Ni**	**60**	**0.002**	ug/L	0.009	570	21	21	58	KED
|	**Ni**	**62**	**2.139**	ug/L	0.211	9	19	484	9	KED
|	**Cu**	**63**	**0.088**	ug/L	0.003	3	68	380	3	KED
|	**Cu**	**65**	**0.014**	ug/L	0.002	13	31	53	7	KED
|	**Zn**	**66**	**0.007**	ug/L	0.032	491	75	71	21	KED
|	**Zn**	**67**	**-0.060**	ug/L	0.013	20	16	10	10	KED
⌊	**As**	**75**	**0.022**	ug/L	0.011	49	6	13	25	KED
	Y	**89**		ug/L			707302	606438	3	Standard
	Kr	**83**		ug/L			55	27110	1	Standard
⌈>	**In-1**	**115**		ug/L			40285	34937	2	KED
|	**Cd**	**111**	**-0.007**	ug/L	0.002	27	6	2	33	KED
⌊	**Cd**	**114**	**-0.000**	ug/L	0.004	822	5	4	102	KED
⌈>	**In**	**115**		ug/L			1020321	844641	0	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	29	62	66	7	Standard
⌈>	**Tb**	**159**		ug/L			1263003	1058774	1	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.001	81	212	219	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 17:01:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			14674	17095	1	Standard
	Cl	**37**		ug/L			5841457	5584835	1	Standard
⌈>	**Sc**	**45**		ug/L			1241343	1141341	0	Standard
|	**Cr**	**52**	**0.097**	ug/L	0.025	25	23556	23531	1	Standard
|	**Cr**	**53**	**3.579**	ug/L	0.037	1	1089	9857	0	Standard
⌊	**Mn**	**55**	**0.071**	ug/L	0.002	2	637	2520	1	Standard
⌈>	**Ge-1**	**72**		ug/L			82877	78701	0	KED
|	**Ni**	**60**	**0.009**	ug/L	0.005	53	21	33	20	KED
|	**Ni**	**62**	**2.221**	ug/L	0.134	6	19	530	5	KED
|	**Cu**	**63**	**0.065**	ug/L	0.003	5	68	313	3	KED
|	**Cu**	**65**	**0.001**	ug/L	0.002	188	31	31	9	KED
|	**Zn**	**66**	**-0.036**	ug/L	0.018	49	75	53	16	KED
|	**Zn**	**67**	**-0.137**	ug/L	0.013	9	16	4	24	KED
⌊	**As**	**75**	**0.009**	ug/L	0.004	44	6	9	13	KED
	Y	**89**		ug/L			707302	701074	0	Standard
	Kr	**83**		ug/L			55	25629	0	Standard
⌈>	**In-1**	**115**		ug/L			40285	38306	7	KED
|	**Cd**	**111**	**-0.005**	ug/L	0.004	75	6	4	35	KED
⌊	**Cd**	**114**	**-0.002**	ug/L	0.002	91	5	2	117	KED
⌈>	**In**	**115**		ug/L			1020321	955059	2	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.001	862	62	59	21	Standard
⌈>	**Tb**	**159**		ug/L			1263003	1228509	3	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.000	38	212	165	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 17:05:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			14674	16164	2	Standard
	Cl	**37**		ug/L			5841457	5427403	2	Standard
⌈>	**Sc**	**45**		ug/L			1241343	1141658	1	Standard
|	**Cr**	**52**	**0.052**	ug/L	0.021	40	23556	22662	0	Standard
|	**Cr**	**53**	**2.675**	ug/L	0.025	0	1089	7622	0	Standard
⌊	**Mn**	**55**	**0.067**	ug/L	0.001	1	637	2404	0	Standard
⌈>	**Ge-1**	**72**		ug/L			82877	79466	0	KED
|	**Ni**	**60**	**0.011**	ug/L	0.005	48	21	36	20	KED
|	**Ni**	**62**	**2.392**	ug/L	0.044	1	19	575	2	KED
|	**Cu**	**63**	**0.094**	ug/L	0.011	11	68	427	10	KED
|	**Cu**	**65**	**-0.001**	ug/L	0.004	418	31	28	29	KED
|	**Zn**	**66**	**-0.030**	ug/L	0.016	55	75	57	13	KED
|	**Zn**	**67**	**-0.130**	ug/L	0.013	10	16	5	21	KED
⌊	**As**	**75**	**0.015**	ug/L	0.013	86	6	11	36	KED
	Y	**89**		ug/L			707302	717068	1	Standard
	Kr	**83**		ug/L			55	22930	1	Standard
⌈>	**In-1**	**115**		ug/L			40285	38731	1	KED
|	**Cd**	**111**	**-0.009**	ug/L	0.002	25	6	2	43	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.001	127	5	4	24	KED
⌈>	**In**	**115**		ug/L			1020321	965397	2	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.000	258	62	57	10	Standard
⌈>	**Tb**	**159**		ug/L			1263003	1195615	3	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.001	58	212	147	19	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 17:10:12
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			14674	16328	2	Standard
	Cl	**37**		ug/L			5841457	5359424	1	Standard
⌈>	**Sc**	**45**		ug/L			1241343	1141129	0	Standard
|	**Cr**	**52**	**-0.039**	ug/L	0.026	65	23556	20892	2	Standard
|	**Cr**	**53**	**1.762**	ug/L	0.025	1	1089	5361	1	Standard
⌊	**Mn**	**55**	**0.062**	ug/L	0.001	1	637	2280	1	Standard
⌈>	**Ge-1**	**72**		ug/L			82877	79259	1	KED
|	**Ni**	**60**	**0.009**	ug/L	0.005	51	21	34	19	KED
|	**Ni**	**62**	**2.613**	ug/L	0.114	4	19	624	4	KED
|	**Cu**	**63**	**0.099**	ug/L	0.001	1	68	445	2	KED
|	**Cu**	**65**	**0.000**	ug/L	0.002	3253	31	30	12	KED
|	**Zn**	**66**	**-0.017**	ug/L	0.042	250	75	64	32	KED
|	**Zn**	**67**	**-0.107**	ug/L	0.047	43	16	6	56	KED
⌊	**As**	**75**	**0.003**	ug/L	0.006	225	6	7	27	KED
	Y	**89**		ug/L			707302	713382	6	Standard
	Kr	**83**		ug/L			55	14618	2	Standard
⌈>	**In-1**	**115**		ug/L			40285	37760	1	KED
|	**Cd**	**111**	**-0.008**	ug/L	0.001	14	6	2	21	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.002	142	5	3	54	KED
⌈>	**In**	**115**		ug/L			1020321	942976	3	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.000	62	62	53	3	Standard
⌈>	**Tb**	**159**		ug/L			1263003	1209189	4	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.001	59	212	162	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 17:14:40
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			14674	20560	1	Standard
	Cl	**37**		ug/L			5841457	5057631	0	Standard
⌈>	**Sc**	**45**		ug/L			1241343	931247	1	Standard
|	**Cr**	**52**	**-0.034**	ug/L	0.023	69	23556	17133	0	Standard
|	**Cr**	**53**	**1.171**	ug/L	0.006	0	1089	3181	1	Standard
⌊	**Mn**	**55**	**0.024**	ug/L	0.002	7	637	1012	3	Standard
⌈>	**Ge-1**	**72**		ug/L			82877	71144	3	KED
|	**Ni**	**60**	**-0.005**	ug/L	0.003	51	21	11	28	KED
|	**Ni**	**62**	**3.612**	ug/L	0.232	6	19	768	7	KED
|	**Cu**	**63**	**0.134**	ug/L	0.007	5	68	523	6	KED
|	**Cu**	**65**	**0.001**	ug/L	0.002	159	31	29	13	KED
|	**Zn**	**66**	**-0.029**	ug/L	0.005	18	75	52	5	KED
|	**Zn**	**67**	**-0.132**	ug/L	0.037	28	16	4	65	KED
⌊	**As**	**75**	**0.007**	ug/L	0.007	105	6	8	26	KED
	Y	**89**		ug/L			707302	584236	2	Standard
	Kr	**83**		ug/L			55	6353	4	Standard
⌈>	**In-1**	**115**		ug/L			40285	33608	0	KED
|	**Cd**	**111**	**-0.005**	ug/L	0.004	81	6	3	43	KED
⌊	**Cd**	**114**	**-0.003**	ug/L	0.002	68	5	1	103	KED
⌈>	**In**	**115**		ug/L			1020321	787993	1	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.001	425	62	46	17	Standard
⌈>	**Tb**	**159**		ug/L			1263003	1046414	2	Standard
⌊	**Pb**	**208**	**-0.003**	ug/L	0.000	9	212	71	15	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 17:19:08
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			14674	20069	2	Standard
	Cl	**37**		ug/L			5841457	4989933	0	Standard
⎡>	**Sc**	**45**		ug/L			1241343	936368	1	Standard
⎢	**Cr**	**52**	**-0.062**	ug/L	0.029	47	23556	16789	2	Standard
⎢	**Cr**	**53**	**0.617**	ug/L	0.016	2	1089	2074	2	Standard
⎣	**Mn**	**55**	**0.021**	ug/L	0.001	2	637	958	0	Standard
⎡>	**Ge-1**	**72**		ug/L			82877	68809	0	KED
⎢	**Ni**	**60**	**-0.007**	ug/L	0.004	52	21	8	53	KED
⎢	**Ni**	**62**	**3.460**	ug/L	0.144	4	19	713	4	KED
⎢	**Cu**	**63**	**0.120**	ug/L	0.007	5	68	458	4	KED
⎢	**Cu**	**65**	**-0.004**	ug/L	0.005	128	31	20	37	KED
⎢	**Zn**	**66**	**-0.040**	ug/L	0.020	51	75	45	19	KED
⎢	**Zn**	**67**	**-0.076**	ug/L	0.040	52	16	8	35	KED
⎣	**As**	**75**	**0.001**	ug/L	0.005	624	6	6	24	KED
	Y	**89**		ug/L			707302	574891	0	Standard
	Kr	**83**		ug/L			55	2640	1	Standard
⎡>	**In-1**	**115**		ug/L			40285	32720	6	KED
⎢	**Cd**	**111**	**-0.010**	ug/L	0.001	14	6	1	34	KED
⎣	**Cd**	**114**	**-0.001**	ug/L	0.003	264	5	3	94	KED
⎡>	**In**	**115**		ug/L			1020321	826423	2	Standard
⎣	**Ag**	**107**	**-0.001**	ug/L	0.000	37	62	38	10	Standard
⎡>	**Tb**	**159**		ug/L			1263003	1056967	1	Standard
⎣	**Pb**	**208**	**-0.004**	ug/L	0.000	10	212	56	22	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, June 26, 2018 17:23:37
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrMnsHORT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062618A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			14674	20306	3	Standard
	Cl	**37**		ug/L			5841457	4990971	0	Standard
⌈>	**Sc**	**45**		ug/L			1241343	925331	2	Standard
|	**Cr**	**52**	**-0.092**	ug/L	0.041	44	23556	16107	2	Standard
|	**Cr**	**53**	**0.355**	ug/L	0.021	5	1089	1524	3	Standard
⌊	**Mn**	**55**	**0.015**	ug/L	0.001	4	637	802	1	Standard
⌈>	**Ge-1**	**72**		ug/L			82877	67886	2	KED
|	**Ni**	**60**	**-0.002**	ug/L	0.003	140	21	14	32	KED
|	**Ni**	**62**	**2.998**	ug/L	0.228	7	19	610	4	KED
|	**Cu**	**63**	**0.112**	ug/L	0.003	2	68	426	5	KED
|	**Cu**	**65**	**-0.008**	ug/L	0.002	18	31	12	17	KED
|	**Zn**	**66**	**-0.047**	ug/L	0.029	60	75	41	27	KED
|	**Zn**	**67**	**-0.101**	ug/L	0.043	42	16	6	45	KED
⌊	**As**	**75**	**0.002**	ug/L	0.007	443	6	6	33	KED
	Y	**89**		ug/L			707302	592593	0	Standard
	Kr	**83**		ug/L			55	1380	2	Standard
⌈>	**In-1**	**115**		ug/L			40285	32071	1	KED
|	**Cd**	**111**	**-0.010**	ug/L	0.001	13	6	1	34	KED
⌊	**Cd**	**114**	**-0.003**	ug/L	0.002	66	5	1	193	KED
⌈>	**In**	**115**		ug/L			1020321	824148	1	Standard
⌊	**Ag**	**107**	**-0.001**	ug/L	0.001	74	62	37	25	Standard
⌈>	**Tb**	**159**		ug/L			1263003	1061570	4	Standard
⌊	**Pb**	**208**	**-0.003**	ug/L	0.000	13	212	81	20	Standard

INITIAL CALIBRATION DATA

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00064
Instrument: ICPMS2
Calibration Date: 06/27/2018 10:22

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Arsenic-75a, Dissolved	0	0	0.2	280	10	269	20	270.65	50	259.86	100	258.76
Cadmium-111, Dissolved	0	0	0.1	420	10	372.4	20	373.5	50	349.86	100	349.2
Cadmium-114, Dissolved	0	0	0.1	980	10	939.8	20	945.85	50	898.42	100	903.21
Copper-63, Dissolved	0	0	0.5	3144	10	3058.8	20	3011.6	50	2837.32	100	2756.27
Copper-65, Dissolved	0	0	0.5	1540	10	1526.2	20	1469.85	50	1395.3	100	1334.87
Zinc-66, Dissolved	0	0	4	439.5	10	407.1	20	401.95	50	372.04	100	364.73
Zinc-67, Dissolved	0	0	4	66.75	10	63.6	20	66.15	50	61.5	100	60.53

INITIAL CALIBRATION DATA

EPA 6020A UCT-KED

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00064	Instrument:	ICPMS2
Calibration Date:	06/27/2018 10:22		

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Arsenic-75a, Dissolved	223.045	49.1	0.9999		0.998	
Cadmium-111, Dissolved	310.8267	49.7	0.9998		0.998	
Cadmium-114, Dissolved	777.88	49.1	0.9999		0.998	
Copper-63, Dissolved	2467.998	49.3	0.9995		0.998	
Copper-65, Dissolved	1211.037	49.4	0.9993		0.998	
Zinc-66, Dissolved	330.8867	49.7	0.9997		0.998	
Zinc-67, Dissolved	53.08833	49.2	0.9997		0.998	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 6-27-18 **Analyst:** TH **Sequence:** SGF0355

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CAL1	GS628		
		-CAL2	GS695		
		-CAL3	GS620		
		-CAL4	GS621		
		-CAL5	GS856		
		-CAL6	GS622		
		-IBL1	—		
		-ICV1	GS103		Cr66 Sl. noisy
		-ICB1	GS828		
		-CCV1	GS856		
		-CCB1	GS828		
		-CRL1	GS695		
		-IFA1	GS699		Cr53 ↑
		-IFB1	GS697		↓
		-HCV1	GS700		
		-HCV2	GS701		
		-IBL2-IBL3			
	✓	-CCV2			Cr1 noisy
		CCV2 -~~CCB2~~			
		-CCB2			
		BGF0651-BLK1	TEN		No Se
		18F0370-01	↓		
		18F0380-01			
		18F0384-01			

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 6-27-18 **Analyst:** TH **Sequence:** —

All corrections made by analyst unless otherwise noted. TH 6-27-18

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		18F0379-01	REN	5	
		18F0385-01	↓	↓	
		BGF0651-DUP1	↓		Ni RPD ~~RED~~ Mn TLR Mn NR No Se
		18F0367-01	↓		↓ ↓ ↓
		BGF0651-MS1	↓		↓ ↓ ↓
		↓ -~~MS~~ BS1	↓		↓
		SEQ-CCV3			
		↓ -CCB3			
		BGF0579-BLK1	REN		No Ag
		18F0341-01	↓		
		↓ -02	↓		
		↓ -03	↓		
		↓ -04	↓		
		18F0367-02	↓		No Ag
		BGF0651-DUP2	↓	5	Mn only
		18F0367-01RE1	↓	↓	↓
		BGF0651-MS2	↓		Mn STL
		BGF0579-BS1	↓		No Ag
		SEQ-CCV4			Ag ↓
		↓ -CCB4			
		SEQ-CAL1			
		↓ -CCV5			Ag ↓
		↓ -CCB5			
		18F0367-03	REN		No Ag

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Nexion ICP-MS Sample Run Log

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Version 001
1/3/2012

Analytical Resources, Incorporated
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ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6-27-18 **Analyst:** TH **Sequence:** —

All corrections made by analyst unless otherwise noted. TH 6-27-18

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		18F0367-04	REN		No Ag
	✓	18F0371-01			
	↓	↓ -03			
		18F0248-05		10	As, Cd, Cu, Zn only
		↓ -07		↓	As, Cu, Zn only
		BGF0579-DUP1			No Ag
		18F0335-07			
		BGF0579-MS1			Mn STL
MSD1		↓ ~~-BS1~~ MSD1	↓		↓
		SEQ-CCV6			Cr53, Ag ↓
		↓ -CCB6			
	✓	18F0371-04	REN		
	↓	↓ -05			
		18F0360-02			No Cr
		↓ -03			
		18F0369-01			
		-03			
		-05			
		↓ -07			
		18F0381-01	↓		Cr, Ni, Zn 7LR Cu, Cd, Pb only
		SEQ-CCV7			Ag ↓
		↓ -CCB7			
564		BGF0~~654~~ 564 - BLK1	REN		
		18F0302-01RE1	↓		

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ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6-27-18 **Analyst:** [illegible] **Sequence:** —

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
304		18F0~~304~~ 304-01REI	REN		
564		18F0~~564~~ 564-DUP1		50	Salty
		18F0300-01RE1		↓	↓
564		18F0~~564~~ 564-MS1		↓	↓ Spike diluted
↓		↓ -ISS1	↓		
		SEQ-CCV8			CS3, Ag ↓
		↓ -CCB8			
	✓	18F0376-02	REN	100	test only
	↓	↓ -01	↓	↓	↓
		RINSE1D1			
		[illegible]	6-27-18		

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Wednesday, June 27, 2018 08:57:10
Sample Description:
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\STD Performance Check.mth
Dataset File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\DataSet\Default\STD Performance Check.15248
MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	4264.8	4264.837	49.693	1.2	Standard
	In	114.9	54126.2	-1110582.581	482.004	0.0	Standard
	U	238.1	30769.4	30769.435	111.994	0.4	Standard
⌈	CeO	155.9	1619.5	0.022	0.001	3.2	Standard
| >	Ce	139.9	72958.9	72958.924	982.750	1.3	Standard
⌊	Ce++	70.0	652.3	0.009	0.000	4.0	Standard
	Bkgd	220.0	0.0	0.033	0.075	223.6	Standard

Current Conditions File Data

Current Value	Description
0.94	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-9.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-3.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
0.94	DRC Mode NEB
-10.00	DRC Mode QRO
-3.00	DRC Mode CRO
-7.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-13.00	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
0.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 6/27/2018 8:57:07 AM
End Time: 6/27/2018 9:13:49 AM

STD Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9): 4264.84
Obtained Intensity (In 115): 54126.22
Obtained Intensity (U 238): 30769.43
Obtained Intensity (Bkgd 220): 0.03
Obtained Formula (Ce++ 70 / Ce 140): 0.009 (=652.35 / 72958.92)
Obtained Formula (CeO 156 / Ce 140): 0.022 (=1619.49 / 72958.92)

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
0.26 mm	-0.29 mm	65347.12

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 0.94
Obtained Intensity (In 115): 60618.34
Obtained Formula (CeO 156 / Ce 140): 0.0243 (=1710.10 / 70369.89)

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.717)
Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.699)
Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.685)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.688)

QID STD/DRC - Optimum value(s): Correlation Coefficient = 0.989; Intercept = -11.67

KED Mode QID - Optimum value(s): Correlation Coefficient = 0.996; Intercept = -12.10

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 6/27/2018 8:57:07 AM

STD Performance Check
	Optimization Settings:
		Method: STD Performance Check.mth.
		Intensity Criterion: Be 9 > 2000
		Intensity Criterion: In 115 > 40000
		Intensity Criterion: U 238 > 30000
		Intensity Criterion: Bkgd 220 <= 1
		Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
		Formula Criterion: CeO 156 / Ce 140 <= 0.025

	Optimization Results:
	Initial Try
		Obtained Intensity (Be 9): 4264.84
		Obtained Intensity (In 115): 54126.22
		Obtained Intensity (U 238): 30769.43
		Obtained Intensity (Bkgd 220): 0.03
		Obtained Formula (Ce++ 70 / Ce 140): 0.009 (=652.35 / 72958.92)
		Obtained Formula (CeO 156 / Ce 140): 0.022 (=1619.49 / 72958.92)

[Passed] Optimum value(s): N/A

Torch Alignment
	Optimization Settings:
		Method: Torch Alignment.mth.
		Intensity Criterion: In 115 Maximum

	Optimization Results:
		Vertical	Horizontal	Intensity
[Passed]	0.26 mm	-0.29 mm	65347.12

Nebulizer Gas Flow STD/KED [NEB]
	Optimization Settings:
		Method: Optimize.mth.
			Initial Try - Start/End/Step: 0.88/1.1/0.02.
		Intensity Criterion: In 115 Maximum
		Formula Criterion: CeO 156 / Ce 140 <= 0.025

	Optimization Results:
	Initial Try

		Obtained Intensity (In 115): 60618.34
		Obtained Formula (CeO 156 / Ce 140): 0.0243 (=1710.10 / 70369.89)
[Passed] Optimum value(s): 0.94

Mass Calibration and Resolution
	Optimization Settings:
		Method: Tuning.mth.
		MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
		Iterations: 6
		Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution

```
                Peak height (%) for Res. Opt.: 10

        Optimization Results:
        Initial Try
                Target/Obtained mass (7.016/6.975), Target/Obtained resolution (0.7/0.711)
                Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.697)
                Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.715)
                Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.740) - <Target not achieved>
                [Failed]
        Retry 1
                Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.717)
                Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.699)
                Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.685)
                Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.688)
[Passed]  Optimum value(s): N/A

QID STD/DRC
        Optimization Settings:
                Method: QID Calibration.mth.
                        Initial Try - Start/End/Step: -16/0/0.5.

        Optimization Results:
        Initial Try

  Optimum value(s): Correlation Coefficient = 0.989; Intercept = -11.67

        Analyte      Mass    Points       DAC   MaxIntensity

             Li         7        33       -12        19192.9
             Mg        24        33     -11.5        28664.7
             In       115        33      -8.5        57407.1
             Ce       140        33      -7.5        76190.6
             Pb       208        33      -7.5        19188.9
              U       238        33        -2        34854.5

KED Mode QID
        Optimization Settings:
                Method: QID Calibration.mth.
                        Initial Try - Start/End/Step: -20/0/0.5.

        Optimization Results:
        Initial Try

  Optimum value(s): Correlation Coefficient = 0.996; Intercept = -12.10

        Analyte      Mass    Points       DAC   MaxIntensity

             Li         7        41       -12        14531.4
             Mg        24        41       -12        22277.4
             In       115        41      -7.5        48417.9
             Ce       140        41        -7        43642.6
             Pb       208        41      -3.5        16954.1
              U       238        41      -2.5        40701.9

End Time: 6/27/2018 9:13:49 AM
```

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Wednesday, June 27, 2018 09:15:00
Sample Description:
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\STD Performance Check.mth
Dataset File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\DataSet\Default\STD Performance Check.15256
MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	5001.3	5001.342	114.943	2.3	Standard
	In	114.9	57472.1	57472.058	795.017	1.4	Standard
	U	238.1	32982.8	32982.766	198.853	0.6	Standard
⌈	CeO	155.9	1678.2	0.022	0.001	2.4	Standard
| >	Ce	139.9	74801.6	74801.641	1348.017	1.8	Standard
⌊	Ce++	70.0	689.1	0.009	0.000	5.1	Standard
	Bkgd	220.0	0.1	0.133	0.183	136.9	Standard

Current Conditions File Data

Current Value	Description
0.94	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-9.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-3.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
0.94	DRC Mode NEB
-10.00	DRC Mode QRO
-3.00	DRC Mode CRO
-7.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-13.00	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
0.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 6/27/2018 9:14:00 AM
End Time: 6/27/2018 9:17:04 AM

QID STD/DRC - Optimum value(s): Correlation Coefficient = 0.999; Intercept = -11.62

STD Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9): 5001.34
Obtained Intensity (In 115): 57472.06
Obtained Intensity (U 238): 32982.77
Obtained Intensity (Bkgd 220): 0.13
Obtained Formula (Ce++ 70 / Ce 140): 0.009 (=689.15 / 74801.64)
Obtained Formula (CeO 156 / Ce 140): 0.022 (=1678.23 / 74801.64)

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 6/27/2018 9:14:00 AM

QID STD/DRC

Optimization Settings:

Method: QID Calibration.mth.

Initial Try - Start/End/Step: -16/0/0.5.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 0.999; Intercept = -11.62

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	33	-12	13942.8
Mg	24	33	-12	29310
In	115	33	-8	56535.6
Ce	140	33	-7.5	73400.1
Pb	208	33	-6.5	18636.1
U	238	33	-1.5	35443.9

STD Performance Check

Optimization Settings:

Method: STD Performance Check.mth.

Intensity Criterion: Be 9 > 2000

Intensity Criterion: In 115 > 40000

Intensity Criterion: U 238 > 30000

Intensity Criterion: Bkgd 220 <= 1

Formula Criterion: Ce++ 70 / Ce 140 <= 0.03

Formula Criterion: CeO 156 / Ce 140 <= 0.025

Optimization Results:

Initial Try

Obtained Intensity (Be 9): 5001.34

Obtained Intensity (In 115): 57472.06

Obtained Intensity (U 238): 32982.77

Obtained Intensity (Bkgd 220): 0.13

Obtained Formula (Ce++ 70 / Ce 140): 0.009 (=689.15 / 74801.64)

Obtained Formula (CeO 156 / Ce 140): 0.022 (=1678.23 / 74801.64)

[Passed] Optimum value(s): N/A

End Time: 6/27/2018 9:17:04 AM

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARISmartTuneDual.swz

Start Time: 6/27/2018 9:17:44 AM
End Time: 6/27/2018 9:33:03 AM

Detector Voltages - [Passed]
Pulse Stage Voltage - [Passed] Optimum value(s): 1300
Analog Stage Voltage - [Passed] Optimum value(s): -1600
Pulse Stage Voltage (Fine-tune) - [Passed] Optimum value(s): 1300

Dual Detector Calibration
Points Collected: 401
Calibration unsuccessful for some masses due to insufficient pulse/analog crossover points

STD Performance Check - [Failed]
[Cancelled]

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARISmartTuneDual.swz

Optimization Status

Start Time: 6/27/2018 9:17:44 AM

Detector Voltages
	Pulse Stage Voltage Optimization Settings:
		Method: Pulse Stage Optimization.mth.
			Initial Try - Start/End/Step: 600/1300/50.
			Retry 1 - Start/End/Step: 600/1800/50.
		Optimization Criterion (Pulse 76): 0.1

	Analog Stage Voltage Optimization Settings:
		Method: Analog Stage Optimization.mth.
		Initial Try - Start/End: -1500/-1900.
		Retry 1 - Start/End: -1600/-2400.
		Optimization Criterion (Analog 80): Target Gain 10000

	Pulse Stage Voltage Results:
	Initial Try

		Intensity Obtained For Criterion (Pulse 76): 41582.43
[Passed] Optimum value(s): 1300
	Analog Stage Voltage Results:
	Initial Try
		Interim Gain Values: 15357.3 (-1700V), 10145.6 (-1600V)
		Analyte: Analog 80
		ACEM(volts): -1600
		Achieved Gain: 10145.6
		Achieved NMax: 1.234e+009
		Conversion Factor: 0.103728
		Passes: 2
		Points Collected: 31
		Points Used: 3
		Coefficient: 0.999991
[Passed] Optimum value(s): -1600
	Pulse Stage Voltage (Fine-tune) Results:
	Initial Try

		Intensity Obtained For Criterion (Pulse 76): 40830.27
[Passed] Optimum value(s): 1300

Dual Detector Calibration
	Optimization Settings:
		Method: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\DualDetectorNew.mth.
			Initial Try - Start/End/Step: -20/0/0.05.

	Optimization Results:
	Initial Try
	Points Collected: 401
	Calibration unsuccessful for some masses due to insufficient pulse/analog crossover points

```
STD Performance Check
        Optimization Settings:
                Method: STD Performance Check.mth.
                Intensity Criterion: Be 9 > 2000
                Intensity Criterion: In 115 > 40000
                Intensity Criterion: U 238 > 30000
                Intensity Criterion: Bkgd 220 <= 10
                Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
                Formula Criterion: CeO 156 / Ce 140 <= 0.025

        Optimization Results:
        Initial Try
                [Cancelled]
[Failed]

[Cancelled]

End Time: 6/27/2018 9:33:03 AM
```

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Wednesday, June 27, 2018 09:52:05
Sample Description:
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\STD Performance Check.mth
Dataset File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\DataSet\Default\STD Performance Check.15265
MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	4928.5	4928.451	213.236	4.3	Standard
	In	114.9	57784.8	57784.805	3318.114	5.7	Standard
	U	238.1	32643.5	32643.456	1576.577	4.8	Standard
⌈	CeO	155.9	1588.8	0.022	0.001	3.8	Standard
| >	Ce	139.9	73609.9	73609.913	888.310	1.2	Standard
⌊	Ce++	70.0	976.1	0.013	0.004	27.8	Standard
	Bkgd	220.0	0.2	0.233	0.435	186.3	Standard

Current Conditions File Data

Current Value	Description
0.94	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-9.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-3.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
0.94	DRC Mode NEB
-10.00	DRC Mode QRO
-3.00	DRC Mode CRO
-7.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-13.00	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
0.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARISmartTuneDual.swz

Start Time: 6/27/2018 9:39:13 AM
End Time: 6/27/2018 9:54:09 AM

Dual Detector Calibration
Points Collected: 401
Calibration unsuccessful for some masses due to insufficient pulse/analog crossover points

STD Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9): 4928.45
Obtained Intensity (In 115): 57784.81
Obtained Intensity (U 238): 32643.46
Obtained Intensity (Bkgd 220): 0.23
Obtained Formula (Ce++ 70 / Ce 140): 0.013 (=976.10 / 73609.91)
Obtained Formula (CeO 156 / Ce 140): 0.022 (=1588.76 / 73609.91)

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARISmartTuneDual.swz

Optimization Status

Start Time: 6/27/2018 9:39:13 AM

Dual Detector Calibration
	Optimization Settings:
		Method: C:\Users\Public\Documents\PerkinElmer Syngistix\ICPMS\Method\DualDetectorNew.mth.
			Initial Try - Start/End/Step: -20/0/0.05.

	Optimization Results:
	Initial Try
	Points Collected: 401
	Calibration unsuccessful for some masses due to insufficient pulse/analog crossover points

STD Performance Check
	Optimization Settings:
		Method: STD Performance Check.mth.
		Intensity Criterion: Be 9 > 2000
		Intensity Criterion: In 115 > 40000
		Intensity Criterion: U 238 > 30000
		Intensity Criterion: Bkgd 220 <= 10
		Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
		Formula Criterion: CeO 156 / Ce 140 <= 0.025

	Optimization Results:
	Initial Try
		Obtained Intensity (Be 9): 4928.45
		Obtained Intensity (In 115): 57784.81
		Obtained Intensity (U 238): 32643.46
		Obtained Intensity (Bkgd 220): 0.23
		Obtained Formula (Ce++ 70 / Ce 140): 0.013 (=976.10 / 73609.91)
		Obtained Formula (CeO 156 / Ce 140): 0.022 (=1588.76 / 73609.91)

[Passed] Optimum value(s): N/A

End Time: 6/27/2018 9:54:09 AM

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 10:22:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
C	**13**		ug/L				12287	2	Standard
Cl	**37**		ug/L				5801884	3	Standard
Sc	**45**		ug/L				912284	1	Standard
Cr	**52**		ug/L				14804	1	Standard
Cr	**53**		ug/L				546	2	Standard
Mn	**55**		ug/L				392	1	Standard
Ge-1	**72**		ug/L				65774	1	KED
Ni	**60**		ug/L				132	6	KED
Ni	**62**		ug/L				19	59	KED
Cu	**63**		ug/L				35	26	KED
Cu	**65**		ug/L				21	36	KED
Zn	**66**		ug/L				44	17	KED
Zn	**67**		ug/L				12	48	KED
As	**75**		ug/L				4	19	KED
Y	**89**		ug/L				537136	2	Standard
Kr	**83**		ug/L				41	4	Standard
In-1	**115**		ug/L				29528	1	KED
Cd	**111**		ug/L				3	110	KED
Cd	**114**		ug/L				4	22	KED
In	**115**		ug/L				675898	3	Standard
Ag	**107**		ug/L				64	1	Standard
Tb	**159**		ug/L				852362	1	Standard
Pb	**208**		ug/L				206	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 10:26:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			12287	14222	1	Standard
	Cl	**37**		ug/L			5801884	5611712	1	Standard
⌈>	**Sc**	**45**		ug/L			912284	883479	3	Standard
|	**Cr**	**52**	**0.500**	ug/L	0.060	12	14804	22880	0	Standard
|	**Cr**	**53**	**0.500**	ug/L	0.016	3	546	1502	3	Standard
⌊	**Mn**	**55**	**0.500**	ug/L	0.026	5	392	11987	1	Standard
⌈>	**Ge-1**	**72**		ug/L			65774	65569	1	KED
|	**Ni**	**60**	**0.500**	ug/L	0.056	11	132	634	10	KED
|	**Ni**	**62**	**0.500**	ug/L	0.071	14	19	102	11	KED
|	**Cu**	**63**	**0.500**	ug/L	0.014	2	35	1572	3	KED
|	**Cu**	**65**	**0.500**	ug/L	0.028	5	21	770	5	KED
|	**Zn**	**66**	**4.000**	ug/L	0.101	2	44	1758	2	KED
|	**Zn**	**67**	**4.000**	ug/L	0.433	10	12	267	11	KED
⌊	**As**	**75**	**0.200**	ug/L	0.011	5	4	56	4	KED
	Y	**89**		ug/L			537136	529360	1	Standard
	Kr	**83**		ug/L			41	42	40	Standard
⌈>	**In-1**	**115**		ug/L			29528	29411	1	KED
|	**Cd**	**111**	**0.100**	ug/L	0.013	13	3	42	12	KED
⌊	**Cd**	**114**	**0.100**	ug/L	0.011	10	4	98	9	KED
⌈>	**In**	**115**		ug/L			675898	659298	1	Standard
⌊	**Ag**	**107**	**0.200**	ug/L	0.010	5	64	2729	3	Standard
⌈>	**Tb**	**159**		ug/L			852362	864738	4	Standard
⌊	**Pb**	**208**	**0.100**	ug/L	0.011	10	206	2604	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 10:31:11
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			12287	19956	2	Standard
	Cl	**37**		ug/L			5801884	5811060	3	Standard
⌈>	**Sc**	**45**		ug/L			912284	919961	1	Standard
|	**Cr**	**52**	**9.997**	ug/L	0.149	1	14804	173648	0	Standard
|	**Cr**	**53**	**9.999**	ug/L	0.200	1	546	20028	1	Standard
⌊	**Mn**	**55**	**9.999**	ug/L	0.341	3	392	228733	1	Standard
⌈>	**Ge-1**	**72**		ug/L			65774	66985	2	KED
|	**Ni**	**60**	**10.002**	ug/L	0.502	5	132	11352	2	KED
|	**Ni**	**62**	**10.002**	ug/L	0.179	1	19	1854	1	KED
|	**Cu**	**63**	**9.999**	ug/L	0.141	1	35	30588	1	KED
|	**Cu**	**65**	**10.000**	ug/L	0.404	4	21	15262	3	KED
|	**Zn**	**66**	**9.881**	ug/L	0.123	1	44	4071	1	KED
|	**Zn**	**67**	**9.942**	ug/L	0.900	9	12	636	9	KED
⌊	**As**	**75**	**10.000**	ug/L	0.180	1	4	2690	0	KED
	Y	**89**		ug/L			537136	557241	2	Standard
	Kr	**83**		ug/L			41	35	17	Standard
⌈>	**In-1**	**115**		ug/L			29528	29650	2	KED
|	**Cd**	**111**	**10.000**	ug/L	0.411	4	3	3724	1	KED
⌊	**Cd**	**114**	**10.000**	ug/L	0.381	3	4	9398	1	KED
⌈>	**In**	**115**		ug/L			675898	684591	2	Standard
⌊	**Ag**	**107**	**10.000**	ug/L	0.280	2	64	134739	2	Standard
⌈>	**Tb**	**159**		ug/L			852362	861649	2	Standard
⌊	**Pb**	**208**	**10.000**	ug/L	0.172	1	206	233162	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 10:35:54
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			12287	17124	3	Standard
	Cl	**37**		ug/L			5801884	5668408	1	Standard
⌈>	**Sc**	**45**		ug/L			912284	897536	2	Standard
|	**Cr**	**52**	**20.221**	ug/L	0.175	0	14804	342293	1	Standard
|	**Cr**	**53**	**20.050**	ug/L	0.095	0	546	39034	2	Standard
⌊	**Mn**	**55**	**20.131**	ug/L	0.271	1	392	461084	0	Standard
⌈>	**Ge-1**	**72**		ug/L			65774	66222	1	KED
|	**Ni**	**60**	**20.054**	ug/L	0.633	3	132	22617	1	KED
|	**Ni**	**62**	**19.941**	ug/L	0.637	3	19	3594	4	KED
|	**Cu**	**63**	**19.984**	ug/L	0.594	2	35	60232	4	KED
|	**Cu**	**65**	**19.897**	ug/L	0.532	2	21	29397	1	KED
|	**Zn**	**66**	**19.965**	ug/L	0.343	1	44	8039	2	KED
|	**Zn**	**67**	**20.246**	ug/L	0.513	2	12	1323	2	KED
⌊	**As**	**75**	**20.073**	ug/L	0.454	2	4	5413	1	KED
	Y	**89**		ug/L			537136	543607	0	Standard
	Kr	**83**		ug/L			41	33	8	Standard
⌈>	**In-1**	**115**		ug/L			29528	29499	0	KED
|	**Cd**	**111**	**20.030**	ug/L	0.190	0	3	7470	0	KED
⌊	**Cd**	**114**	**20.044**	ug/L	0.162	0	4	18917	1	KED
⌈>	**In**	**115**		ug/L			675898	665981	1	Standard
⌊	**Ag**	**107**	**20.143**	ug/L	0.589	2	64	271771	3	Standard
⌈>	**Tb**	**159**		ug/L			852362	858934	1	Standard
⌊	**Pb**	**208**	**20.007**	ug/L	0.393	1	206	465474	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 10:40:46
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			12287	12276	4	Standard
	Cl	**37**		ug/L			5801884	5596181	2	Standard
⌈>	**Sc**	**45**		ug/L			912284	908119	0	Standard
|	**Cr**	**52**	**49.342**	ug/L	1.389	2	14804	773879	2	Standard
|	**Cr**	**53**	**49.400**	ug/L	0.447	0	546	91084	1	Standard
⌊	**Mn**	**55**	**49.317**	ug/L	1.680	3	392	1069392	2	Standard
⌈>	**Ge-1**	**72**		ug/L			65774	66048	0	KED
|	**Ni**	**60**	**49.557**	ug/L	0.866	1	132	53220	1	KED
|	**Ni**	**62**	**49.294**	ug/L	1.704	3	19	8251	3	KED
|	**Cu**	**63**	**49.514**	ug/L	1.189	2	35	141866	2	KED
|	**Cu**	**65**	**49.537**	ug/L	1.738	3	21	69765	3	KED
|	**Zn**	**66**	**49.359**	ug/L	2.158	4	44	18602	4	KED
|	**Zn**	**67**	**49.542**	ug/L	2.188	4	12	3075	4	KED
⌊	**As**	**75**	**49.712**	ug/L	0.331	0	4	12993	0	KED
	Y	**89**		ug/L			537136	535788	0	Standard
	Kr	**83**		ug/L			41	46	16	Standard
⌈>	**In-1**	**115**		ug/L			29528	29212	1	KED
|	**Cd**	**111**	**49.544**	ug/L	1.055	2	3	17493	0	KED
⌊	**Cd**	**114**	**49.670**	ug/L	0.880	1	4	44921	0	KED
⌈>	**In**	**115**		ug/L			675898	664712	2	Standard
⌊	**Ag**	**107**	**49.523**	ug/L	1.092	2	64	636384	1	Standard
⌈>	**Tb**	**159**		ug/L			852362	864963	2	Standard
⌊	**Pb**	**208**	**49.332**	ug/L	2.613	5	206	1082283	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL6
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 10:47:18
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			12287	14631	5	Standard
	Cl	**37**		ug/L			5801884	5542942	1	Standard
⌈>	**Sc**	**45**		ug/L			912284	876355	2	Standard
|	**Cr**	**52**	**100.133**	ug/L	4.212	4	14804	1506854	2	Standard
|	**Cr**	**53**	**100.585**	ug/L	2.865	2	546	181915	1	Standard
⌊	**Mn**	**55**	**100.116**	ug/L	3.926	3	392	2101891	1	Standard
⌈>	**Ge-1**	**72**		ug/L			65774	64639	0	KED
|	**Ni**	**60**	**100.232**	ug/L	5.695	5	132	106005	4	KED
|	**Ni**	**62**	**100.837**	ug/L	3.280	3	19	16971	2	KED
|	**Cu**	**63**	**99.605**	ug/L	1.128	1	35	275627	0	KED
|	**Cu**	**65**	**99.260**	ug/L	1.183	1	21	133487	1	KED
|	**Zn**	**66**	**99.766**	ug/L	1.392	1	44	36473	1	KED
|	**Zn**	**67**	**99.966**	ug/L	1.308	1	12	6053	2	KED
⌊	**As**	**75**	**100.269**	ug/L	1.497	1	4	25876	1	KED
	Y	**89**		ug/L			537136	534372	2	Standard
	Kr	**83**		ug/L			41	56	21	Standard
⌈>	**In-1**	**115**		ug/L			29528	28608	2	KED
|	**Cd**	**111**	**100.232**	ug/L	2.434	2	3	34920	0	KED
⌊	**Cd**	**114**	**100.458**	ug/L	3.652	3	4	90321	1	KED
⌈>	**In**	**115**		ug/L			675898	635163	1	Standard
⌊	**Ag**	**107**	**100.240**	ug/L	1.249	1	64	1240851	0	Standard
⌈>	**Tb**	**159**		ug/L			852362	823315	2	Standard
⌊	**Pb**	**208**	**99.644**	ug/L	1.149	1	206	2057788	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 10:54:30
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			12287	11317	3	Standard
	Cl	**37**		ug/L			5801884	5532217	0	Standard
⌈>	**Sc**	**45**		ug/L			912284	885821	1	Standard
|	**Cr**	**52**	**0.041**	ug/L	0.021	50	14804	14986	0	Standard
|	**Cr**	**53**	**0.030**	ug/L	0.044	147	546	584	11	Standard
⌊	**Mn**	**55**	**0.044**	ug/L	0.035	79	392	1308	55	Standard
⌈>	**Ge-1**	**72**		ug/L			65774	66629	2	KED
|	**Ni**	**60**	**-0.087**	ug/L	0.007	8	132	39	20	KED
|	**Ni**	**62**	**-0.075**	ug/L	0.023	30	19	6	56	KED
|	**Cu**	**63**	**0.004**	ug/L	0.002	62	35	46	16	KED
|	**Cu**	**65**	**-0.005**	ug/L	0.002	34	21	15	12	KED
|	**Zn**	**66**	**0.014**	ug/L	0.015	112	44	50	10	KED
|	**Zn**	**67**	**-0.064**	ug/L	0.071	112	12	8	49	KED
⌊	**As**	**75**	**0.011**	ug/L	0.001	5	4	7	0	KED
	Y	**89**		ug/L			537136	524461	1	Standard
	Kr	**83**		ug/L			41	40	8	Standard
⌈>	**In-1**	**115**		ug/L			29528	29082	2	KED
|	**Cd**	**111**	**0.037**	ug/L	0.057	155	3	16	124	KED
⌊	**Cd**	**114**	**0.040**	ug/L	0.069	175	4	41	157	KED
⌈>	**In**	**115**		ug/L			675898	653633	3	Standard
⌊	**Ag**	**107**	**0.039**	ug/L	0.034	86	64	563	76	Standard
⌈>	**Tb**	**159**		ug/L			852362	806171	3	Standard
⌊	**Pb**	**208**	**0.043**	ug/L	0.035	81	206	1044	65	Standard

Sample Information

Sample Date/Time: Wednesday, June 27, 2018 10:47:18
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_C
Mass Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

Calibration

Analyte	Mass	**r Corr Coef**	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
C	13							
Cl	37							
Sc	45							
Cr	52	**0.9999**	0.017	0.50	10	20	50	100
Cr	53	**0.9999**	0.002	0.50	10	20	50	100
Mn	55	**0.9999**	0.024	0.50	10	20	50	100
Ge-1	72							
Ni	60	**0.9999**	0.016	0.50	10	20	50	100
Ni	62	**0.9998**	0.003	0.50	10	20	50	100
Cu	63	**0.9999**	0.043	0.50	10	20	50	100
Cu	65	**0.9999**	0.021	0.50	10	20	50	100
Zn	66	**0.9999**	0.006	4.00	10	20	50	100
Zn	67	**0.9999**	0.001	4.00	10	20	50	100
As	75	**1.0000**	0.004	0.20	10	20	50	100
Y	89							
Kr	83							
In-1	115							
Cd	111	**0.9999**	0.012	0.10	10	20	50	100
Cd	114	**0.9999**	0.031	0.10	10	20	50	100
In	115							
Ag	107	**0.9999**	0.019	0.20	10	20	50	100
Tb	159							
Pb	208	**0.9999**	0.025	0.10	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICV1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 11:01:42
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			12287	14124	7	Standard
	Cl	**37**		ug/L			5801884	5754192	3	Standard
⌈>	**Sc**	**45**		ug/L			912284	891229	3	Standard
|	**Cr**	**52**	**51.358**	ug/L	0.609	1	14804	793318	2	Standard
|	**Cr**	**53**	**50.954**	ug/L	1.601	3	546	93981	3	Standard
⌊	**Mn**	**55**	**52.453**	ug/L	0.857	1	392	1120332	2	Standard
⌈>	**Ge-1**	**72**		ug/L			65774	67831	3	KED
|	**Ni**	**60**	**47.367**	ug/L	3.202	6	132	52579	3	KED
|	**Ni**	**62**	**45.937**	ug/L	3.800	8	19	8110	5	KED
|	**Cu**	**63**	**47.038**	ug/L	2.753	5	35	136464	3	KED
|	**Cu**	**65**	**47.950**	ug/L	3.234	6	21	67603	4	KED
|	**Zn**	**66**	**45.906**	ug/L	4.298	9	44	17601	6	KED
|	**Zn**	**67**	**45.897**	ug/L	3.079	6	12	2919	3	KED
⌊	**As**	**75**	**46.758**	ug/L	3.490	7	4	12645	4	KED
	Y	**89**		ug/L			537136	547043	0	Standard
	Kr	**83**		ug/L			41	52	24	Standard
⌈>	**In-1**	**115**		ug/L			29528	29800	1	KED
|	**Cd**	**111**	**49.505**	ug/L	1.230	2	3	17967	0	KED
⌊	**Cd**	**114**	**48.225**	ug/L	1.780	3	4	45169	1	KED
⌈>	**In**	**115**		ug/L			675898	645862	2	Standard
⌊	**Ag**	**107**	**50.305**	ug/L	1.752	3	64	633070	2	Standard
⌈>	**Tb**	**159**		ug/L			852362	835783	2	Standard
⌊	**Pb**	**208**	**50.602**	ug/L	2.063	4	206	1060481	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICB1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 11:08:55
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			12287	12070	2	Standard
	Cl	**37**		ug/L			5801884	5545908	0	Standard
⎡>	**Sc**	**45**		ug/L			912284	881100	2	Standard
⎢	**Cr**	**52**	**0.029**	ug/L	0.036	125	14804	14720	1	Standard
⎢	**Cr**	**53**	**-0.027**	ug/L	0.012	42	546	478	2	Standard
⎣	**Mn**	**55**	**0.004**	ug/L	0.002	45	392	461	10	Standard
⎡>	**Ge-1**	**72**		ug/L			65774	68254	0	KED
⎢	**Ni**	**60**	**-0.071**	ug/L	0.008	11	132	58	16	KED
⎢	**Ni**	**62**	**-0.051**	ug/L	0.001	1	19	11	0	KED
⎢	**Cu**	**63**	**0.003**	ug/L	0.002	68	35	44	10	KED
⎢	**Cu**	**65**	**-0.003**	ug/L	0.007	204	21	17	54	KED
⎢	**Zn**	**66**	**-0.008**	ug/L	0.012	162	44	43	10	KED
⎢	**Zn**	**67**	**-0.067**	ug/L	0.063	94	12	8	44	KED
⎣	**As**	**75**	**0.006**	ug/L	0.009	163	4	6	43	KED
	Y	**89**		ug/L			537136	541533	1	Standard
	Kr	**83**		ug/L			41	33	31	Standard
⎡>	**In-1**	**115**		ug/L			29528	30812	3	KED
⎢	**Cd**	**111**	**-0.005**	ug/L	0.004	95	3	1	86	KED
⎣	**Cd**	**114**	**-0.002**	ug/L	0.001	62	4	2	47	KED
⎡>	**In**	**115**		ug/L			675898	658751	3	Standard
⎣	**Ag**	**107**	**0.000**	ug/L	0.002	621	64	65	27	Standard
⎡>	**Tb**	**159**		ug/L			852362	821178	1	Standard
⎣	**Pb**	**208**	**0.002**	ug/L	0.001	48	206	244	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 11:13:23
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			12287	11061	6	Standard
	Cl	**37**		ug/L			5801884	5456138	0	Standard
⎡>	**Sc**	**45**		ug/L			912284	898791	1	Standard
⎢	**Cr**	**52**	**49.805**	ug/L	1.001	2	14804	776374	1	Standard
⎢	**Cr**	**53**	**47.943**	ug/L	1.350	2	546	89227	2	Standard
⎣	**Mn**	**55**	**49.914**	ug/L	1.099	2	392	1075530	2	Standard
⎡>	**Ge-1**	**72**		ug/L			65774	65075	2	KED
⎢	**Ni**	**60**	**49.345**	ug/L	1.883	3	132	52587	1	KED
⎢	**Ni**	**62**	**49.814**	ug/L	0.939	1	19	8452	3	KED
⎢	**Cu**	**63**	**51.049**	ug/L	0.950	1	35	142227	2	KED
⎢	**Cu**	**65**	**51.900**	ug/L	2.434	4	21	70221	2	KED
⎢	**Zn**	**66**	**50.370**	ug/L	1.143	2	44	18554	0	KED
⎢	**Zn**	**67**	**49.709**	ug/L	0.933	1	12	3036	2	KED
⎣	**As**	**75**	**50.149**	ug/L	2.039	4	4	13023	1	KED
	Y	**89**		ug/L			537136	533178	4	Standard
	Kr	**83**		ug/L			41	40	18	Standard
⎡>	**In-1**	**115**		ug/L			29528	29481	2	KED
⎢	**Cd**	**111**	**49.037**	ug/L	1.106	2	3	17606	0	KED
⎣	**Cd**	**114**	**47.782**	ug/L	1.085	2	4	44279	0	KED
⎡>	**In**	**115**		ug/L			675898	651650	2	Standard
⎣	**Ag**	**107**	**49.151**	ug/L	1.096	2	64	624181	1	Standard
⎡>	**Tb**	**159**		ug/L			852362	820090	1	Standard
⎣	**Pb**	**208**	**50.773**	ug/L	1.447	2	206	1044370	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 11:20:16
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			12287	11898	3	Standard
	Cl	**37**		ug/L			5801884	5628686	1	Standard
⌈>	**Sc**	**45**		ug/L			912284	903931	2	Standard
|	**Cr**	**52**	**0.031**	ug/L	0.062	201	14804	15128	4	Standard
|	**Cr**	**53**	**-0.020**	ug/L	0.012	58	546	504	1	Standard
⌊	**Mn**	**55**	**0.002**	ug/L	0.002	83	392	431	7	Standard
⌈>	**Ge-1**	**72**		ug/L			65774	66679	1	KED
|	**Ni**	**60**	**-0.085**	ug/L	0.010	11	132	41	26	KED
|	**Ni**	**62**	**-0.056**	ug/L	0.018	31	19	10	28	KED
|	**Cu**	**63**	**0.000**	ug/L	0.002	4120	35	36	13	KED
|	**Cu**	**65**	**-0.005**	ug/L	0.001	25	21	15	12	KED
|	**Zn**	**66**	**0.019**	ug/L	0.024	130	44	52	17	KED
|	**Zn**	**67**	**-0.084**	ug/L	0.029	34	12	7	25	KED
⌊	**As**	**75**	**0.008**	ug/L	0.006	82	4	6	26	KED
	Y	**89**		ug/L			537136	532445	4	Standard
	Kr	**83**		ug/L			41	36	45	Standard
⌈>	**In-1**	**115**		ug/L			29528	29839	1	KED
|	**Cd**	**111**	**0.003**	ug/L	0.002	64	3	4	12	KED
⌊	**Cd**	**114**	**-0.002**	ug/L	0.001	52	4	2	41	KED
⌈>	**In**	**115**		ug/L			675898	681367	2	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.000	54	64	72	5	Standard
⌈>	**Tb**	**159**		ug/L			852362	830353	3	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.001	152	206	216	14	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CRL1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 11:24:44
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			12287	13142	1	Standard
	Cl	**37**		ug/L			5801884	5502969	1	Standard
⌈>	**Sc**	**45**		ug/L			912284	890246	2	Standard
|	**Cr**	**52**	**0.589**	ug/L	0.022	3	14804	23361	0	Standard
|	**Cr**	**53**	**0.513**	ug/L	0.015	2	546	1472	0	Standard
⌊	**Mn**	**55**	**0.550**	ug/L	0.027	4	392	12112	2	Standard
⌈>	**Ge-1**	**72**		ug/L			65774	66321	2	KED
|	**Ni**	**60**	**0.472**	ug/L	0.044	9	132	643	5	KED
|	**Ni**	**62**	**0.412**	ug/L	0.064	15	19	90	10	KED
|	**Cu**	**63**	**0.549**	ug/L	0.013	2	35	1594	3	KED
|	**Cu**	**65**	**0.600**	ug/L	0.029	4	21	848	2	KED
|	**Zn**	**66**	**4.928**	ug/L	0.288	5	44	1889	3	KED
|	**Zn**	**67**	**4.496**	ug/L	0.344	7	12	291	6	KED
⌊	**As**	**75**	**0.205**	ug/L	0.046	22	4	58	20	KED
	Y	**89**		ug/L			537136	525805	2	Standard
	Kr	**83**		ug/L			41	43	15	Standard
⌈>	**In-1**	**115**		ug/L			29528	29809	0	KED
|	**Cd**	**111**	**0.102**	ug/L	0.016	15	3	40	14	KED
⌊	**Cd**	**114**	**0.116**	ug/L	0.003	2	4	113	1	KED
⌈>	**In**	**115**		ug/L			675898	677538	3	Standard
⌊	**Ag**	**107**	**0.206**	ug/L	0.000	0	64	2779	3	Standard
⌈>	**Tb**	**159**		ug/L			852362	798611	3	Standard
⌊	**Pb**	**208**	**0.140**	ug/L	0.003	1	206	3003	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFA1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 11:30:05
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			12287	90643	0	Standard
	Cl	**37**		ug/L			5801884	10911270	3	Standard
⌈>	**Sc**	**45**		ug/L			912284	944324	2	Standard
|	**Cr**	**52**	**0.579**	ug/L	0.060	10	14804	24615	2	Standard
|	**Cr**	**53**	**4.878**	ug/L	0.105	2	546	10045	2	Standard
⌊	**Mn**	**55**	**0.082**	ug/L	0.004	4	392	2270	3	Standard
⌈>	**Ge-1**	**72**		ug/L			65774	64250	1	KED
|	**Ni**	**60**	**0.086**	ug/L	0.027	31	132	219	12	KED
|	**Ni**	**62**	**0.204**	ug/L	0.040	19	19	53	12	KED
|	**Cu**	**63**	**0.041**	ug/L	0.002	4	35	147	2	KED
|	**Cu**	**65**	**0.062**	ug/L	0.007	11	21	104	8	KED
|	**Zn**	**66**	**0.494**	ug/L	0.020	4	44	222	3	KED
|	**Zn**	**67**	**0.143**	ug/L	0.067	46	12	20	18	KED
⌊	**As**	**75**	**0.029**	ug/L	0.010	36	4	11	22	KED
	Y	**89**		ug/L			537136	539452	1	Standard
	Kr	**83**		ug/L			41	92	7	Standard
⌈>	**In-1**	**115**		ug/L			29528	27898	0	KED
|	**Cd**	**111**	**0.091**	ug/L	0.017	18	3	34	17	KED
⌊	**Cd**	**114**	**0.071**	ug/L	0.027	37	4	66	36	KED
⌈>	**In**	**115**		ug/L			675898	684601	4	Standard
⌊	**Ag**	**107**	**0.009**	ug/L	0.001	6	64	189	8	Standard
⌈>	**Tb**	**159**		ug/L			852362	933865	0	Standard
⌊	**Pb**	**208**	**0.028**	ug/L	0.001	3	206	887	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFB1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 11:34:33
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			12287	93601	2	Standard
	Cl	**37**		ug/L			5801884	11012718	1	Standard
⎡>	**Sc**	**45**		ug/L			912284	934120	2	Standard
⎢	**Cr**	**52**	**20.245**	ug/L	0.501	2	14804	336872	0	Standard
⎢	**Cr**	**53**	**24.523**	ug/L	0.425	1	546	47699	1	Standard
⎣	**Mn**	**55**	**20.144**	ug/L	0.173	0	392	451291	1	Standard
⎡>	**Ge-1**	**72**		ug/L			65774	62530	0	KED
⎢	**Ni**	**60**	**20.355**	ug/L	0.606	2	132	20932	3	KED
⎢	**Ni**	**62**	**19.860**	ug/L	0.654	3	19	3248	3	KED
⎢	**Cu**	**63**	**20.782**	ug/L	0.285	1	35	55656	0	KED
⎢	**Cu**	**65**	**20.592**	ug/L	0.538	2	21	26800	1	KED
⎢	**Zn**	**66**	**20.718**	ug/L	0.587	2	44	7361	3	KED
⎢	**Zn**	**67**	**18.976**	ug/L	0.712	3	12	1121	3	KED
⎣	**As**	**75**	**19.396**	ug/L	0.280	1	4	4845	1	KED
	Y	**89**		ug/L			537136	557174	1	Standard
	Kr	**83**		ug/L			41	106	2	Standard
⎡>	**In-1**	**115**		ug/L			29528	27241	2	KED
⎢	**Cd**	**111**	**20.183**	ug/L	0.299	1	3	6698	1	KED
⎣	**Cd**	**114**	**19.791**	ug/L	0.549	2	4	16947	1	KED
⎡>	**In**	**115**		ug/L			675898	686383	2	Standard
⎣	**Ag**	**107**	**17.002**	ug/L	0.756	4	64	227346	1	Standard
⎡>	**Tb**	**159**		ug/L			852362	934414	1	Standard
⎣	**Pb**	**208**	**0.066**	ug/L	0.006	9	206	1775	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 11:39:02
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			12287	17043	3	Standard
	Cl	**37**		ug/L			5801884	5907887	1	Standard
⌈>	**Sc**	**45**		ug/L			912284	899973	1	Standard
|	**Cr**	**52**	**199.828**	ug/L	2.445	1	14804	3074897	1	Standard
|	**Cr**	**53**	**196.315**	ug/L	2.724	1	546	364155	1	Standard
⌊	**Mn**	**55**	**199.682**	ug/L	8.378	4	392	4305422	3	Standard
⌈>	**Ge-1**	**72**		ug/L			65774	62377	2	KED
|	**Ni**	**60**	**211.364**	ug/L	7.530	3	132	215509	1	KED
|	**Ni**	**62**	**203.070**	ug/L	8.054	3	19	32949	2	KED
|	**Cu**	**63**	**205.324**	ug/L	8.048	3	35	547934	1	KED
|	**Cu**	**65**	**211.919**	ug/L	4.142	1	21	274951	2	KED
|	**Zn**	**66**	**205.580**	ug/L	6.859	3	44	72447	1	KED
|	**Zn**	**67**	**197.941**	ug/L	9.017	4	12	11546	2	KED
⌊	**As**	**75**	**204.098**	ug/L	5.845	2	4	50801	0	KED
	Y	**89**		ug/L			537136	535609	3	Standard
	Kr	**83**		ug/L			41	99	25	Standard
⌈>	**In-1**	**115**		ug/L			29528	27457	0	KED
|	**Cd**	**111**	**205.027**	ug/L	3.542	1	3	68571	1	KED
⌊	**Cd**	**114**	**198.610**	ug/L	3.676	1	4	171457	1	KED
⌈>	**In**	**115**		ug/L			675898	655047	2	Standard
⌊	**Ag**	**107**	**183.090**	ug/L	9.079	4	64	2335964	3	Standard
⌈>	**Tb**	**159**		ug/L			852362	854907	1	Standard
⌊	**Pb**	**208**	**205.455**	ug/L	8.787	4	206	4405747	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 11:43:29
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			12287	15943	2	Standard
	Cl	**37**		ug/L			5801884	5559810	4	Standard
⌈>	**Sc**	**45**		ug/L			912284	859405	2	Standard
|	**Cr**	**52**	**298.847**	ug/L	9.503	3	14804	4383059	1	Standard
|	**Cr**	**53**	**297.425**	ug/L	4.126	1	546	526644	2	Standard
⌊	**Mn**	**55**	**291.989**	ug/L	5.276	1	392	6012550	0	Standard
⌈>	**Ge-1**	**72**		ug/L			65774	61380	2	KED
|	**Ni**	**60**	**304.689**	ug/L	15.188	4	132	305634	3	KED
|	**Ni**	**62**	**300.782**	ug/L	3.778	1	19	48032	1	KED
|	**Cu**	**63**	**292.343**	ug/L	4.901	1	35	768097	2	KED
|	**Cu**	**65**	**294.540**	ug/L	4.390	1	21	376000	0	KED
|	**Zn**	**66**	**297.168**	ug/L	2.644	0	44	103087	2	KED
|	**Zn**	**67**	**283.788**	ug/L	1.648	0	12	16296	1	KED
⌊	**As**	**75**	**300.421**	ug/L	6.301	2	4	73595	1	KED
	Y	**89**		ug/L			537136	531279	3	Standard
	Kr	**83**		ug/L			41	125	1	Standard
⌈>	**In-1**	**115**		ug/L			29528	26433	4	KED
|	**Cd**	**111**	**305.477**	ug/L	13.539	4	3	98242	0	KED
⌊	**Cd**	**114**	**299.119**	ug/L	11.144	3	4	248359	1	KED
⌈>	**In**	**115**		ug/L			675898	621318	3	Standard
⌊	**Ag**	**107**	**276.245**	ug/L	7.269	2	64	3343577	1	Standard
⌈>	**Tb**	**159**		ug/L			852362	813028	2	Standard
⌊	**Pb**	**208**	**294.103**	ug/L	15.920	5	206	5992211	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 11:50:49
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			12287	16283	5	Standard
	Cl	**37**		ug/L			5801884	5787399	1	Standard
⌈>	**Sc**	**45**		ug/L			912284	920625	2	Standard
|	**Cr**	**52**	**0.078**	ug/L	0.031	39	14804	16164	4	Standard
|	**Cr**	**53**	**0.099**	ug/L	0.031	31	546	740	10	Standard
⌊	**Mn**	**55**	**0.091**	ug/L	0.048	52	392	2407	46	Standard
⌈>	**Ge-1**	**72**		ug/L			65774	68256	2	KED
|	**Ni**	**60**	**-0.073**	ug/L	0.013	17	132	55	23	KED
|	**Ni**	**62**	**-0.040**	ug/L	0.020	50	19	13	24	KED
|	**Cu**	**63**	**0.051**	ug/L	0.006	11	35	186	7	KED
|	**Cu**	**65**	**0.055**	ug/L	0.010	17	21	100	15	KED
|	**Zn**	**66**	**1.094**	ug/L	0.013	1	44	467	2	KED
|	**Zn**	**67**	**0.998**	ug/L	0.061	6	12	76	5	KED
⌊	**As**	**75**	**0.018**	ug/L	0.010	56	4	9	31	KED
	Y	**89**		ug/L			537136	548382	1	Standard
	Kr	**83**		ug/L			41	33	14	Standard
⌈>	**In-1**	**115**		ug/L			29528	29983	1	KED
|	**Cd**	**111**	**0.031**	ug/L	0.036	116	3	14	88	KED
⌊	**Cd**	**114**	**0.028**	ug/L	0.037	131	4	30	113	KED
⌈>	**In**	**115**		ug/L			675898	690421	1	Standard
⌊	**Ag**	**107**	**0.046**	ug/L	0.056	121	64	686	110	Standard
⌈>	**Tb**	**159**		ug/L			852362	856605	4	Standard
⌊	**Pb**	**208**	**0.071**	ug/L	0.053	74	206	1763	70	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 11:55:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			12287	16733	6	Standard
	Cl	**37**		ug/L			5801884	5953526	3	Standard
⌈>	**Sc**	**45**		ug/L			912284	934645	2	Standard
|	**Cr**	**52**	**0.078**	ug/L	0.036	45	14804	16404	3	Standard
|	**Cr**	**53**	**0.026**	ug/L	0.006	23	546	610	1	Standard
⌊	**Mn**	**55**	**0.058**	ug/L	0.000	0	392	1700	3	Standard
⌈>	**Ge-1**	**72**		ug/L			65774	67452	3	KED
|	**Ni**	**60**	**-0.078**	ug/L	0.008	10	132	48	15	KED
|	**Ni**	**62**	**-0.039**	ug/L	0.024	61	19	13	28	KED
|	**Cu**	**63**	**0.043**	ug/L	0.005	11	35	161	8	KED
|	**Cu**	**65**	**0.042**	ug/L	0.013	31	21	81	26	KED
|	**Zn**	**66**	**1.162**	ug/L	0.089	7	44	487	4	KED
|	**Zn**	**67**	**1.154**	ug/L	0.074	6	12	85	4	KED
⌊	**As**	**75**	**0.014**	ug/L	0.006	40	4	8	15	KED
	Y	**89**		ug/L			537136	558263	2	Standard
	Kr	**83**		ug/L			41	34	30	Standard
⌈>	**In-1**	**115**		ug/L			29528	29792	1	KED
|	**Cd**	**111**	**-0.001**	ug/L	0.006	576	3	3	62	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.001	51	4	6	19	KED
⌈>	**In**	**115**		ug/L			675898	665344	1	Standard
⌊	**Ag**	**107**	**0.008**	ug/L	0.001	15	64	162	8	Standard
⌈>	**Tb**	**159**		ug/L			852362	851907	0	Standard
⌊	**Pb**	**208**	**0.036**	ug/L	0.002	5	206	979	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV2
Sample Dil Factor: DEL
Comments:
Sample Date/Time: Wednesday, June 27, 2018 12:00:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			12287	12062	2	Standard
	Cl	**37**		ug/L			5801884	5881167	4	Standard
>	**Sc**	**45**		ug/L			912284	916203	1	Standard
	Cr	**52**	**49.336**	ug/L	0.655	1	14804	784070	0	Standard
	Cr	**53**	**47.865**	ug/L	1.029	2	546	90807	1	Standard
	Mn	**55**	**48.728**	ug/L	0.580	1	392	1070207	0	Standard
>	**Ge-1**	**72**		ug/L			65774	63419	12	KED
	Ni	**60**	**53.782**	ug/L	6.494	12	132	55310	1	KED
	Ni	**62**	**51.428**	ug/L	6.740	13	19	8409	2	KED
	Cu	**63**	**53.668**	ug/L	7.429	13	35	144026	0	KED
	Cu	**65**	**55.194**	ug/L ✓	9.270	16	21	71797	2	KED
	Zn	**66**	**52.428**	ug/L	6.117	11	44	18640	2	KED
	Zn	**67**	**52.926**	ug/L	8.251	15	12	3108	1	KED
	As	**75**	**52.337**	ug/L	6.549	12	4	13113	1	KED
	Y	**89**		ug/L			537136	535127	2	Standard
	Kr	**83**		ug/L			41	50	30	Standard
>	**In-1**	**115**		ug/L			29528	29102	1	KED
	Cd	**111**	**50.066**	ug/L	0.570	1	3	17750	0	KED
	Cd	**114**	**49.244**	ug/L	0.823	1	4	45069	2	KED
>	**In**	**115**		ug/L			675898	660659	1	Standard
	Ag	**107**	**50.656**	ug/L	1.721	3	64	652077	1	Standard
>	**Tb**	**159**		ug/L			852362	876839	1	Standard
	Pb	**208**	**50.357**	ug/L	2.673	5	206	1107308	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 12:11:53
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			12287	12270	1	Standard
	Cl	**37**		ug/L			5801884	5970394	0	Standard
⌈>	**Sc**	**45**		ug/L			912284	913600	2	Standard
|	**Cr**	**52**	**49.477**	ug/L	0.628	1	14804	783965	1	Standard
|	**Cr**	**53**	**48.632**	ug/L	1.009	2	546	91979	1	Standard
⌊	**Mn**	**55**	**50.612**	ug/L	0.381	0	392	1108386	1	Standard
⌈>	**Ge-1**	**72**		ug/L			65774	66683	4	KED
|	**Ni**	**60**	**49.832**	ug/L	2.114	4	132	54387	0	KED
|	**Ni**	**62**	**48.114**	ug/L	2.106	4	19	8356	1	KED
|	**Cu**	**63**	**49.791**	ug/L	1.909	3	35	142014	0	KED
|	**Cu**	**65**	**51.749**	ug/L	2.791	5	21	71696	1	KED
|	**Zn**	**66**	**50.357**	ug/L	2.192	4	44	18992	0	KED
|	**Zn**	**67**	**50.229**	ug/L	2.176	4	12	3140	1	KED
⌊	**As**	**75**	**49.552**	ug/L	2.230	4	4	13178	0	KED
	Y	**89**		ug/L			537136	546469	0	Standard
	Kr	**83**		ug/L			41	40	28	Standard
⌈>	**In-1**	**115**		ug/L			29528	29536	1	KED
|	**Cd**	**111**	**49.790**	ug/L	0.942	1	3	17912	0	KED
⌊	**Cd**	**114**	**47.690**	ug/L	0.971	2	4	44282	0	KED
⌈>	**In**	**115**		ug/L			675898	668663	1	Standard
⌊	**Ag**	**107**	**49.617**	ug/L	2.591	5	64	646321	3	Standard
⌈>	**Tb**	**159**		ug/L			852362	848400	4	Standard
⌊	**Pb**	**208**	**52.823**	ug/L	3.898	7	206	1122016	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 12:19:05
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			12287	12314	2	Standard
	Cl	**37**		ug/L			5801884	5836230	3	Standard
⌈>	**Sc**	**45**		ug/L			912284	885117	1	Standard
|	**Cr**	**52**	**0.008**	ug/L	0.015	191	14804	14481	2	Standard
|	**Cr**	**53**	**-0.017**	ug/L	0.037	215	546	498	12	Standard
⌊	**Mn**	**55**	**0.014**	ug/L	0.017	119	392	682	51	Standard
⌈>	**Ge-1**	**72**		ug/L			65774	67385	2	KED
|	**Ni**	**60**	**-0.098**	ug/L	0.008	7	132	27	32	KED
|	**Ni**	**62**	**-0.075**	ug/L	0.014	18	19	6	31	KED
|	**Cu**	**63**	**-0.002**	ug/L	0.003	124	35	29	25	KED
|	**Cu**	**65**	**-0.005**	ug/L	0.004	74	21	15	33	KED
|	**Zn**	**66**	**0.030**	ug/L	0.029	94	44	57	20	KED
|	**Zn**	**67**	**-0.035**	ug/L	0.072	207	12	10	40	KED
⌊	**As**	**75**	**0.004**	ug/L	0.003	72	4	5	13	KED
	Y	**89**		ug/L			537136	526231	4	Standard
	Kr	**83**		ug/L			41	45	27	Standard
⌈>	**In-1**	**115**		ug/L			29528	30068	1	KED
|	**Cd**	**111**	**0.002**	ug/L	0.005	343	3	4	48	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.003	153	4	6	46	KED
⌈>	**In**	**115**		ug/L			675898	669632	3	Standard
⌊	**Ag**	**107**	**0.008**	ug/L	0.014	168	64	165	102	Standard
⌈>	**Tb**	**159**		ug/L			852362	816730	4	Standard
⌊	**Pb**	**208**	**0.010**	ug/L	0.014	144	206	387	68	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0651-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 12:23:35
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			12287	18357	3	Standard
	Cl	37		ug/L			5801884	5868523	2	Standard
⌈>	Sc	45		ug/L			912284	936240	3	Standard
|	Cr	52	0.061	ug/L	0.029	47	14804	16153	2	Standard
|	Cr	53	-0.033	ug/L	0.012	36	546	497	1	Standard
⌊	Mn	55	0.225	ug/L	0.008	3	392	5439	0	Standard
⌈>	Ge-1	72		ug/L			65774	67854	0	KED
|	Ni	60	0.101	ug/L	0.041	40	132	248	17	KED
|	Ni	62	0.104	ug/L	0.022	20	19	38	10	KED
|	Cu	63	0.099	ug/L	0.008	7	35	324	6	KED
|	Cu	65	0.092	ug/L	0.014	15	21	151	12	KED
|	Zn	66	0.720	ug/L	0.040	5	44	321	3	KED
|	Zn	67	0.455	ug/L	0.113	24	12	41	16	KED
⌊	As	75	0.015	ug/L	0.010	66	4	8	31	KED
	Y	89		ug/L			537136	535420	3	Standard
	Kr	83		ug/L			41	45	16	Standard
⌈>	In-1	115		ug/L			29528	30703	1	KED
|	Cd	111	0.001	ug/L	0.006	443	3	4	53	KED
⌊	Cd	114	0.001	ug/L	0.007	1116	4	5	137	KED
⌈>	In	115		ug/L			675898	679917	0	Standard
⌊	Ag	107	-0.000	ug/L	0.000	142	64	62	3	Standard
⌈>	Tb	159		ug/L			852362	832656	1	Standard
⌊	Pb	208	0.004	ug/L	0.001	26	206	288	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0370-01
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 12:28:03
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			12287	30193	4	Standard
	Cl	37		ug/L			5801884	11950216	4	Standard
>	Sc	45		ug/L			912284	945746	1	Standard
	Cr	52	258.011	ug/L	3.262	1	14804	4167788	1	Standard
	Cr	53	255.209	ug/L	7.895	3	546	497230	1	Standard
	Mn	55	20.436	ug/L	0.553	2	392	463455	1	Standard
>	Ge-1	72		ug/L			65774	62662	1	KED
	Ni	60	10.291	ug/L	0.267	2	132	10668	3	KED
	Ni	62	10.169	ug/L	0.404	3	19	1675	2	KED
	Cu	63	21.809	ug/L	0.380	1	35	58528	1	KED
	Cu	65	21.729	ug/L	0.439	2	21	28348	3	KED
	Zn	66	53.979	ug/L	1.342	2	44	19146	1	KED
	Zn	67	49.231	ug/L	3.021	6	12	2895	5	KED
	As	75	0.479	ug/L	0.022	4	4	123	3	KED
	Y	89		ug/L			537136	538759	2	Standard
	Kr	83		ug/L			41	56	18	Standard
>	In-1	115		ug/L			29528	27638	0	KED
	Cd	111	1.474	ug/L	0.086	5	3	499	5	KED
	Cd	114	1.401	ug/L	0.051	3	4	1221	3	KED
>	In	115		ug/L			675898	641098	2	Standard
	Ag	107	0.027	ug/L	0.004	13	64	392	12	Standard
>	Tb	159		ug/L			852362	842261	1	Standard
	Pb	208	1.824	ug/L	0.069	3	206	38733	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0380-01
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 12:32:31
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			12287	803707	0	Standard
	Cl	37		ug/L			5801884	17759754	5	Standard
>	Sc	45		ug/L			912284	986382	0	Standard
	Cr	52	19.069	ug/L	0.132	0	14804	336132	0	Standard
	Cr	53	25.766	ug/L	0.120	0	546	52905	0	Standard
	Mn	55	2.041	ug/L	0.018	0	392	48662	1	Standard
>	Ge-1	72		ug/L			65774	57863	2	KED
	Ni	60	17.328	ug/L	0.218	1	132	16502	0	KED
	Ni	62	17.063	ug/L	1.288	7	19	2583	6	KED
	Cu	63	1.462	ug/L	0.005	0	35	3653	1	KED
	Cu	65	1.499	ug/L	0.046	3	21	1822	1	KED
	Zn	66	11.835	ug/L	0.385	3	44	3905	1	KED
	Zn	67	14.910	ug/L	0.212	1	12	817	3	KED
	As	75	0.475	ug/L	0.036	7	4	113	6	KED
	Y	89		ug/L			537136	542487	2	Standard
	Kr	83		ug/L			41	109	11	Standard
>	In-1	115		ug/L			29528	25733	1	KED
	Cd	111	0.061	ug/L	0.015	24	3	22	20	KED
	Cd	114	0.038	ug/L	0.006	17	4	34	15	KED
>	In	115		ug/L			675898	628378	4	Standard
	Ag	107	0.005	ug/L	0.002	42	64	119	18	Standard
>	Tb	159		ug/L			852362	938145	0	Standard
	Pb	208	0.020	ug/L	0.001	4	206	705	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0384-01
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 12:36:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			12287	1100929	0	Standard
	Cl	37		ug/L			5801884	5979199	1	Standard
>	Sc	45		ug/L			912284	961134	1	Standard
	Cr	52	21.103	ug/L	0.176	0	14804	360762	1	Standard
	Cr	53	16.442	ug/L	0.445	2	546	33094	1	Standard
	Mn	55	2.867	ug/L	0.044	1	392	66439	0	Standard
>	Ge-1	72		ug/L			65774	53312	3	KED
	Ni	60	17.334	ug/L	0.851	4	132	15194	1	KED
	Ni	62	16.552	ug/L	0.882	5	19	2308	1	KED
	Cu	63	1.764	ug/L	0.041	2	35	4052	1	KED
	Cu	65	1.858	ug/L	0.118	6	21	2075	2	KED
	Zn	66	19.375	ug/L	0.857	4	44	5864	0	KED
	Zn	67	22.993	ug/L	0.165	0	12	1156	3	KED
	As	75	0.554	ug/L	0.029	5	4	121	7	KED
	Y	89		ug/L			537136	504877	1	Standard
	Kr	83		ug/L			41	90	10	Standard
>	In-1	115		ug/L			29528	25223	2	KED
	Cd	111	0.133	ug/L	0.021	15	3	43	13	KED
	Cd	114	0.118	ug/L	0.017	14	4	97	15	KED
>	In	115		ug/L			675898	620672	2	Standard
	Ag	107	0.009	ug/L	0.003	34	64	172	24	Standard
>	Tb	159		ug/L			852362	941442	1	Standard
	Pb	208	0.040	ug/L	0.001	1	206	1173	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0379-01
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, June 27, 2018 12:41:27
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			12287	178772	5	Standard
	Cl	37		ug/L			5801884	6324879	2	Standard
>	Sc	45		ug/L			912284	940160	3	Standard
	Cr	52	102.920	ug/L	1.197	1	14804	1661986	3	Standard
	Cr	53	102.742	ug/L	1.521	1	546	199343	2	Standard
	Mn	55	30.250	ug/L	1.128	3	392	681453	1	Standard
>	Ge-1	72		ug/L			65774	65426	0	KED
	Ni	60	10.838	ug/L	0.426	3	132	11719	3	KED
	Ni	62	11.346	ug/L	0.516	4	19	1949	3	KED
	Cu	63	3.214	ug/L	0.098	3	35	9036	2	KED
	Cu	65	3.231	ug/L	0.082	2	21	4418	1	KED
	Zn	66	147.007	ug/L	1.738	1	44	54382	1	KED
	Zn	67	135.234	ug/L	4.127	3	12	8283	2	KED
	As	75	0.130	ug/L	0.008	6	4	38	5	KED
	Y	89		ug/L			537136	550948	3	Standard
	Kr	83		ug/L			41	41	38	Standard
>	In-1	115		ug/L			29528	28916	2	KED
	Cd	111	1.358	ug/L	0.059	4	3	481	2	KED
	Cd	114	1.266	ug/L	0.110	8	4	1153	6	KED
>	In	115		ug/L			675898	664395	2	Standard
	Ag	107	0.079	ug/L	0.005	6	64	1081	9	Standard
>	Tb	159		ug/L			852362	942442	1	Standard
	Pb	208	0.196	ug/L	0.010	5	206	4858	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0385-01
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, June 27, 2018 12:45:54
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			12287	129327	2	Standard
	Cl	37		ug/L			5801884	6074252	1	Standard
>	Sc	45		ug/L			912284	930139	1	Standard
	Cr	52	119.274	ug/L	1.451	1	14804	1902939	0	Standard
	Cr	53	119.766	ug/L	1.716	1	546	229833	1	Standard
	Mn	55	25.538	ug/L	1.185	4	392	569320	2	Standard
>	Ge-1	72		ug/L			65774	66953	1	KED
	Ni	60	15.590	ug/L	0.319	2	132	17197	2	KED
	Ni	62	15.373	ug/L	0.795	5	19	2696	3	KED
	Cu	63	3.626	ug/L	0.095	2	35	10431	3	KED
	Cu	65	3.704	ug/L	0.068	1	21	5181	2	KED
	Zn	66	122.228	ug/L	2.532	2	44	46274	2	KED
	Zn	67	111.623	ug/L	5.694	5	12	6997	3	KED
	As	75	0.108	ug/L	0.005	4	4	33	4	KED
	Y	89		ug/L			537136	549176	1	Standard
	Kr	83		ug/L			41	43	23	Standard
>	In-1	115		ug/L			29528	29580	0	KED
	Cd	111	0.672	ug/L	0.048	7	3	245	7	KED
	Cd	114	0.687	ug/L	0.039	5	4	642	5	KED
>	In	115		ug/L			675898	682806	1	Standard
	Ag	107	0.116	ug/L	0.011	9	64	1607	9	Standard
>	Tb	159		ug/L			852362	941867	1	Standard
	Pb	208	0.170	ug/L	0.005	3	206	4236	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0651-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 12:50:23
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			12287	39393	3	Standard
	Cl	37		ug/L			5801884	27048481	1	Standard
>	Sc	45		ug/L			912284	937893	3	Standard
	Cr	52	0.378	ug/L	0.067	17	14804	21228	2	Standard
	Cr	53	22.876	ug/L	0.458	2	546	44705	1	Standard
	Mn	55	398.730	ug/L	15.545	3	392	8955023	1	Standard
>	Ge-1	72		ug/L			65774	54525	0	KED
	Ni	60	4.811	ug/L	0.038	0	132	4397	0	KED
	Ni	62	5.091	ug/L	0.345	6	19	738	6	KED
	Cu	63	3.138	ug/L	0.088	2	35	7353	1	KED
	Cu	65	3.087	ug/L	0.175	5	21	3517	4	KED
	Zn	66	3.323	ug/L	0.083	2	44	1060	1	KED
	Zn	67	6.109	ug/L	0.087	1	12	321	1	KED
	As	75	0.701	ug/L	0.012	1	4	156	2	KED
	Y	89		ug/L			537136	522495	2	Standard
	Kr	83		ug/L			41	241	13	Standard
>	In-1	115		ug/L			29528	24758	0	KED
	Cd	111	0.006	ug/L	0.008	136	3	4	52	KED
	Cd	114	0.006	ug/L	0.008	142	4	8	79	KED
>	In	115		ug/L			675898	569075	2	Standard
	Ag	107	0.003	ug/L	0.001	18	64	85	6	Standard
>	Tb	159		ug/L			852362	820521	0	Standard
	Pb	208	0.034	ug/L	0.000	1	206	895	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0367-01
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 12:54:51
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			12287	38674	4	Standard
	Cl	37		ug/L			5801884	26990078	2	Standard
>	Sc	45		ug/L			912284	958135	2	Standard
	Cr	52	0.333	ug/L	0.016	4	14804	20977	1	Standard
	Cr	53	20.264	ug/L	0.163	0	546	40539	2	Standard
	Mn	55	387.352	ug/L	7.925	2	392	8895412	3	Standard
>	Ge-1	72		ug/L			65774	55424	1	KED
	Ni	60	3.734	ug/L	0.134	3	132	3493	2	KED
	Ni	62	4.024	ug/L	0.092	2	19	596	3	KED
	Cu	63	2.697	ug/L	0.057	2	35	6429	1	KED
	Cu	65	2.776	ug/L	0.091	3	21	3217	2	KED
	Zn	66	3.794	ug/L	0.094	2	44	1225	2	KED
	Zn	67	6.152	ug/L	0.308	5	12	329	5	KED
	As	75	0.716	ug/L	0.071	9	4	161	8	KED
	Y	89		ug/L			537136	518006	0	Standard
	Kr	83		ug/L			41	469	5	Standard
>	In-1	115		ug/L			29528	24970	1	KED
	Cd	111	0.015	ug/L	0.009	58	3	7	37	KED
	Cd	114	0.010	ug/L	0.006	61	4	11	42	KED
>	In	115		ug/L			675898	576625	2	Standard
	Ag	107	0.003	ug/L	0.000	12	64	85	4	Standard
>	Tb	159		ug/L			852362	815948	1	Standard
	Pb	208	0.031	ug/L	0.001	3	206	827	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0651-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 12:59:18
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			12287	37071	4	Standard
	Cl	37		ug/L			5801884	27267106	2	Standard
>	Sc	45		ug/L			912284	971437	1	Standard
	Cr	52	22.987	ug/L	0.689	2	14804	395748	2	Standard
	Cr	53	39.744	ug/L	1.622	4	546	80032	3	Standard
	Mn	55	404.944	ug/L	3.307	0	392	9427704	1	Standard
>	Ge-1	72		ug/L			65774	54733	0	KED
	Ni	60	29.806	ug/L	0.499	1	132	26774	0	KED
	Ni	62	31.142	ug/L	1.030	3	19	4449	2	KED
	Cu	63	27.957	ug/L	0.399	1	35	65527	0	KED
	Cu	65	27.860	ug/L	0.599	2	21	31736	2	KED
	Zn	66	73.407	ug/L	1.002	1	44	22732	0	KED
	Zn	67	71.990	ug/L	2.432	3	12	3693	2	KED
	As	75	25.871	ug/L	0.634	2	4	5655	2	KED
	Y	89		ug/L			537136	516856	0	Standard
	Kr	83		ug/L			41	577	7	Standard
>	In-1	115		ug/L			29528	24660	5	KED
	Cd	111	23.140	ug/L	1.484	6	3	6938	1	KED
	Cd	114	22.915	ug/L	1.478	6	4	17732	1	KED
>	In	115		ug/L			675898	594597	0	Standard
	Ag	107	20.465	ug/L	0.445	2	64	237206	1	Standard
>	Tb	159		ug/L			852362	846136	0	Standard
	Pb	208	23.056	ug/L	0.327	1	206	489568	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0651-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 13:03:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			12287	24171	3	Standard
	Cl	37		ug/L			5801884	6194898	2	Standard
>	Sc	45		ug/L			912284	943231	3	Standard
	Cr	52	26.210	ug/L	1.345	5	14804	435489	1	Standard
	Cr	53	26.407	ug/L	1.542	5	546	51764	2	Standard
	Mn	55	26.771	ug/L	0.836	3	392	605067	1	Standard
>	Ge-1	72		ug/L			65774	70088	2	KED
	Ni	60	27.419	ug/L	1.343	4	132	31532	2	KED
	Ni	62	27.729	ug/L	0.475	1	19	5075	0	KED
	Cu	63	27.933	ug/L	0.902	3	35	83830	3	KED
	Cu	65	28.206	ug/L	0.401	1	21	41137	0	KED
	Zn	66	87.471	ug/L	0.649	0	44	34680	1	KED
	Zn	67	78.427	ug/L	3.897	4	12	5150	3	KED
	As	75	25.386	ug/L	0.671	2	4	7105	1	KED
	Y	89		ug/L			537136	570618	4	Standard
	Kr	83		ug/L			41	81	14	Standard
>	In-1	115		ug/L			29528	31021	2	KED
	Cd	111	25.748	ug/L	1.287	4	3	9725	3	KED
	Cd	114	25.643	ug/L	1.104	4	4	24995	1	KED
>	In	115		ug/L			675898	720096	3	Standard
	Ag	107	25.282	ug/L	0.715	2	64	354680	2	Standard
>	Tb	159		ug/L			852362	923724	2	Standard
	Pb	208	26.643	ug/L	1.029	3	206	617198	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 13:09:20
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			12287	14550	1	Standard
	Cl	**37**		ug/L			5801884	6012102	1	Standard
⌈>	**Sc**	**45**		ug/L			912284	919610	1	Standard
|	**Cr**	**52**	**48.535**	ug/L	1.086	2	14804	774464	2	Standard
|	**Cr**	**53**	**48.820**	ug/L	1.802	3	546	92920	1	Standard
⌊	**Mn**	**55**	**48.059**	ug/L	0.947	1	392	1059440	2	Standard
⌈>	**Ge-1**	**72**		ug/L			65774	68103	2	KED
|	**Ni**	**60**	**49.223**	ug/L	2.712	5	132	54888	3	KED
|	**Ni**	**62**	**50.249**	ug/L	1.651	3	19	8919	3	KED
|	**Cu**	**63**	**50.492**	ug/L	0.942	1	35	147189	0	KED
|	**Cu**	**65**	**50.394**	ug/L	1.670	3	21	71373	0	KED
|	**Zn**	**66**	**49.899**	ug/L	1.944	3	44	19233	2	KED
|	**Zn**	**67**	**52.456**	ug/L	0.785	1	12	3353	3	KED
⌊	**As**	**75**	**48.829**	ug/L	1.384	2	4	13273	1	KED
	Y	**89**		ug/L			537136	555200	2	Standard
	Kr	**83**		ug/L			41	45	35	Standard
⌈>	**In-1**	**115**		ug/L			29528	30110	2	KED
|	**Cd**	**111**	**50.366**	ug/L	1.852	3	3	18463	0	KED
⌊	**Cd**	**114**	**49.754**	ug/L	0.922	1	4	47090	1	KED
⌈>	**In**	**115**		ug/L			675898	673672	2	Standard
⌊	**Ag**	**107**	**48.290**	ug/L	1.496	3	64	633740	0	Standard
⌈>	**Tb**	**159**		ug/L			852362	875217	2	Standard
⌊	**Pb**	**208**	**50.597**	ug/L	1.643	3	206	1110391	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 13:16:32
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			12287	14248	0	Standard
	Cl	**37**		ug/L			5801884	5964780	2	Standard
⌈>	**Sc**	**45**		ug/L			912284	906581	1	Standard
|	**Cr**	**52**	**0.014**	ug/L	0.039	285	14804	14920	3	Standard
|	**Cr**	**53**	**0.171**	ug/L	0.001	0	546	861	1	Standard
⌊	**Mn**	**55**	**0.023**	ug/L	0.013	54	392	895	30	Standard
⌈>	**Ge-1**	**72**		ug/L			65774	69933	2	KED
|	**Ni**	**60**	**-0.095**	ug/L	0.004	4	132	32	17	KED
|	**Ni**	**62**	**-0.028**	ug/L	0.035	125	19	15	38	KED
|	**Cu**	**63**	**0.005**	ug/L	0.004	73	35	52	21	KED
|	**Cu**	**65**	**-0.002**	ug/L	0.007	307	21	19	56	KED
|	**Zn**	**66**	**0.046**	ug/L	0.021	45	44	65	14	KED
|	**Zn**	**67**	**-0.032**	ug/L	0.076	238	12	11	44	KED
⌊	**As**	**75**	**0.007**	ug/L	0.004	55	4	6	18	KED
	Y	**89**		ug/L			537136	540215	1	Standard
	Kr	**83**		ug/L			41	41	4	Standard
⌈>	**In-1**	**115**		ug/L			29528	29915	0	KED
|	**Cd**	**111**	**-0.000**	ug/L	0.005	4051	3	3	56	KED
⌊	**Cd**	**114**	**-0.000**	ug/L	0.002	223160	4	4	50	KED
⌈>	**In**	**115**		ug/L			675898	650516	1	Standard
⌊	**Ag**	**107**	**0.003**	ug/L	0.004	140	64	93	47	Standard
⌈>	**Tb**	**159**		ug/L			852362	872857	2	Standard
⌊	**Pb**	**208**	**0.005**	ug/L	0.004	83	206	324	27	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0579-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 13:22:51
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			12287	20411	4	Standard
	Cl	37		ug/L			5801884	5808544	2	Standard
>	Sc	45		ug/L			912284	897333	0	Standard
	Cr	52	0.067	ug/L	0.006	8	14804	15590	1	Standard
	Cr	53	0.115	ug/L	0.024	20	546	750	5	Standard
	Mn	55	0.364	ug/L	0.003	0	392	8222	1	Standard
>	Ge-1	72		ug/L			65774	67584	3	KED
	Ni	60	-0.035	ug/L	0.010	28	132	97	13	KED
	Ni	62	0.033	ug/L	0.072	219	19	26	48	KED
	Cu	63	0.065	ug/L	0.007	10	35	225	12	KED
	Cu	65	0.059	ug/L	0.004	6	21	104	7	KED
	Zn	66	0.640	ug/L	0.083	12	44	289	9	KED
	Zn	67	0.407	ug/L	0.059	14	12	38	7	KED
	As	75	0.015	ug/L	0.006	41	4	8	22	KED
	Y	89		ug/L			537136	530447	1	Standard
	Kr	83		ug/L			41	44	17	Standard
>	In-1	115		ug/L			29528	30628	0	KED
	Cd	111	-0.004	ug/L	0.006	171	3	2	107	KED
	Cd	114	-0.005	ug/L	0.004	75	4	0	534	KED
>	In	115		ug/L			675898	657385	0	Standard
	Ag	107	-0.001	ug/L	0.000	41	64	47	13	Standard
>	Tb	159		ug/L			852362	869509	2	Standard
	Pb	208	0.003	ug/L	0.002	58	206	269	11	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0341-01
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 13:27:19
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			12287	46008	2	Standard
	Cl	37		ug/L			5801884	5949210	2	Standard
>	Sc	45		ug/L			912284	931461	1	Standard
	Cr	52	58.498	ug/L	1.175	2	14804	942332	0	Standard
	Cr	53	56.813	ug/L	1.210	2	546	109503	3	Standard
	Mn	55	23.170	ug/L	0.670	2	392	517492	1	Standard
>	Ge-1	72		ug/L			65774	57701	1	KED
	Ni	60	4.813	ug/L	0.051	1	132	4655	1	KED
	Ni	62	4.990	ug/L	0.106	2	19	766	3	KED
	Cu	63	8.416	ug/L	0.164	1	35	20817	2	KED
	Cu	65	8.153	ug/L	0.221	2	21	9805	3	KED
	Zn	66	16.235	ug/L	0.305	1	44	5330	1	KED
	Zn	67	15.877	ug/L	1.030	6	12	867	5	KED
	As	75	0.169	ug/L	0.010	5	4	42	6	KED
	Y	89		ug/L			537136	512855	2	Standard
	Kr	83		ug/L			41	57	8	Standard
>	In-1	115		ug/L			29528	25784	2	KED
	Cd	111	0.009	ug/L	0.003	39	3	5	16	KED
	Cd	114	0.006	ug/L	0.001	23	4	8	11	KED
>	In	115		ug/L			675898	630135	0	Standard
	Ag	107	0.006	ug/L	0.001	13	64	133	6	Standard
>	Tb	159		ug/L			852362	951056	1	Standard
	Pb	208	0.120	ug/L	0.007	5	206	3088	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0341-02
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 13:31:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			12287	38513	0	Standard
	Cl	37		ug/L			5801884	5951858	1	Standard
>	Sc	45		ug/L			912284	910708	4	Standard
	Cr	52	26.185	ug/L	1.871	7	14804	419810	2	Standard
	Cr	53	25.815	ug/L	1.230	4	546	48876	1	Standard
	Mn	55	15.144	ug/L	0.337	2	392	330700	2	Standard
>	Ge-1	72		ug/L			65774	55106	0	KED
	Ni	60	3.444	ug/L	0.053	1	132	3213	2	KED
	Ni	62	3.784	ug/L	0.157	4	19	558	3	KED
	Cu	63	5.279	ug/L	0.088	1	35	12481	1	KED
	Cu	65	5.323	ug/L	0.074	1	21	6120	2	KED
	Zn	66	8.211	ug/L	0.338	4	44	2592	3	KED
	Zn	67	7.368	ug/L	1.166	15	12	389	14	KED
	As	75	0.153	ug/L	0.023	15	4	37	13	KED
	Y	89		ug/L			537136	486068	6	Standard
	Kr	83		ug/L			41	46	12	Standard
>	In-1	115		ug/L			29528	24412	1	KED
	Cd	111	0.004	ug/L	0.007	161	3	4	48	KED
	Cd	114	0.002	ug/L	0.004	159	4	5	50	KED
>	In	115		ug/L			675898	620786	7	Standard
	Ag	107	0.005	ug/L	0.002	36	64	113	10	Standard
>	Tb	159		ug/L			852362	961218	5	Standard
	Pb	208	0.048	ug/L	0.002	4	206	1391	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0341-03
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 13:36:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			12287	33946	5	Standard
	Cl	37		ug/L			5801884	5973877	2	Standard
>	Sc	45		ug/L			912284	936720	1	Standard
	Cr	52	85.266	ug/L	2.576	3	14804	1374230	2	Standard
	Cr	53	84.409	ug/L	1.488	1	546	163320	2	Standard
	Mn	55	12.173	ug/L	0.189	1	392	273636	0	Standard
>	Ge-1	72		ug/L			65774	53763	1	KED
	Ni	60	2.538	ug/L	0.031	1	132	2337	1	KED
	Ni	62	2.814	ug/L	0.040	1	19	409	1	KED
	Cu	63	6.308	ug/L	0.107	1	35	14545	1	KED
	Cu	65	6.323	ug/L	0.214	3	21	7088	3	KED
	Zn	66	12.145	ug/L	0.332	2	44	3724	1	KED
	Zn	67	11.617	ug/L	0.715	6	12	594	6	KED
	As	75	0.128	ug/L	0.033	25	4	30	21	KED
	Y	89		ug/L			537136	484507	1	Standard
	Kr	83		ug/L			41	48	21	Standard
>	In-1	115		ug/L			29528	23747	0	KED
	Cd	111	0.007	ug/L	0.009	129	3	4	52	KED
	Cd	114	0.009	ug/L	0.011	122	4	10	80	KED
>	In	115		ug/L			675898	633759	1	Standard
	Ag	107	0.003	ug/L	0.000	12	64	102	3	Standard
>	Tb	159		ug/L			852362	987990	3	Standard
	Pb	208	0.166	ug/L	0.009	5	206	4356	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0341-04
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 13:40:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			12287	34968	1	Standard
	Cl	37		ug/L			5801884	5846438	2	Standard
⌈>	Sc	45		ug/L			912284	917647	0	Standard
|	Cr	52	80.759	ug/L	0.509	0	14804	1276155	0	Standard
|	Cr	53	81.071	ug/L	2.153	2	546	153685	2	Standard
⌊	Mn	55	14.774	ug/L	0.045	0	392	325306	0	Standard
⌈>	Ge-1	72		ug/L			65774	50424	1	KED
|	Ni	60	2.643	ug/L	0.048	1	132	2279	0	KED
|	Ni	62	2.682	ug/L	0.252	9	19	366	9	KED
|	Cu	63	5.618	ug/L	0.052	0	35	12153	0	KED
|	Cu	65	5.645	ug/L	0.026	0	21	5937	0	KED
|	Zn	66	12.972	ug/L	0.912	7	44	3727	5	KED
|	Zn	67	10.860	ug/L	1.225	11	12	521	9	KED
⌊	As	75	0.092	ug/L	0.006	6	4	21	5	KED
	Y	89		ug/L			537136	469437	1	Standard
	Kr	83		ug/L			41	56	18	Standard
⌈>	In-1	115		ug/L			29528	22916	0	KED
|	Cd	111	0.002	ug/L	0.005	311	3	3	45	KED
⌊	Cd	114	-0.005	ug/L	0.014	290	4	0	4614	KED
⌈>	In	115		ug/L			675898	610852	3	Standard
⌊	Ag	107	0.001	ug/L	0.001	58	64	72	14	Standard
⌈>	Tb	159		ug/L			852362	972443	1	Standard
⌊	Pb	208	0.138	ug/L	0.009	6	206	3596	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0367-02
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 13:45:11
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			12287	35370	1	Standard
	Cl	37		ug/L			5801884	27058570	4	Standard
>	Sc	45		ug/L			912284	965984	0	Standard
	Cr	52	0.362	ug/L	0.022	6	14804	21619	1	Standard
	Cr	53	17.298	ug/L	0.401	2	546	34976	2	Standard
	Mn	55	362.467	ug/L	8.619	2	392	8390544	1	Standard
>	Ge-1	72		ug/L			65774	49286	1	KED
	Ni	60	4.146	ug/L	0.262	6	132	3438	5	KED
	Ni	62	4.499	ug/L	0.252	5	19	591	6	KED
	Cu	63	2.890	ug/L	0.140	4	35	6123	4	KED
	Cu	65	2.912	ug/L	0.133	4	21	3000	3	KED
	Zn	66	5.725	ug/L	0.186	3	44	1627	3	KED
	Zn	67	7.859	ug/L	0.821	10	12	371	9	KED
	As	75	0.832	ug/L	0.035	4	4	166	5	KED
	Y	89		ug/L			537136	474481	2	Standard
	Kr	83		ug/L			41	640	3	Standard
>	In-1	115		ug/L			29528	22795	1	KED
	Cd	111	0.023	ug/L	0.016	66	3	9	48	KED
	Cd	114	0.014	ug/L	0.008	61	4	13	47	KED
>	In	115		ug/L			675898	588817	1	Standard
	Ag	107	0.003	ug/L	0.001	51	64	85	17	Standard
>	Tb	159		ug/L			852362	879450	1	Standard
	Pb	208	0.057	ug/L	0.001	2	206	1469	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0651-DUP2
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, June 27, 2018 13:49:39
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			12287	20311	3	Standard
	Cl	**37**		ug/L			5801884	10488133	2	Standard
⌈>	**Sc**	**45**		ug/L			912284	937821	0	Standard
|	**Cr**	**52**	**0.075**	ug/L	0.001	1	14804	16408	0	Standard
|	**Cr**	**53**	**4.850**	ug/L	0.069	1	546	9924	1	Standard
⌊	**Mn**	**55**	**86.593**	ug/L	1.787	2	392	1946425	1	Standard
⌈>	**Ge-1**	**72**		ug/L			65774	60706	2	KED
|	**Ni**	**60**	**0.935**	ug/L	0.070	7	132	1048	4	KED
|	**Ni**	**62**	**1.142**	ug/L	0.148	12	19	198	9	KED
|	**Cu**	**63**	**0.671**	ug/L	0.022	3	35	1775	2	KED
|	**Cu**	**65**	**0.651**	ug/L	0.065	9	21	841	7	KED
|	**Zn**	**66**	**1.023**	ug/L	0.056	5	44	391	5	KED
|	**Zn**	**67**	**1.562**	ug/L	0.089	5	12	100	2	KED
⌊	**As**	**75**	**0.159**	ug/L	0.008	5	4	42	3	KED
	Y	**89**		ug/L			537136	528077	2	Standard
	Kr	**83**		ug/L			41	126	16	Standard
⌈>	**In-1**	**115**		ug/L			29528	26650	2	KED
|	**Cd**	**111**	**-0.004**	ug/L	0.005	138	3	1	86	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.003	221	4	5	57	KED
⌈>	**In**	**115**		ug/L			675898	657293	1	Standard
⌊	**Ag**	**107**	**-0.001**	ug/L	0.001	57	64	43	24	Standard
⌈>	**Tb**	**159**		ug/L			852362	942582	2	Standard
⌊	**Pb**	**208**	**0.015**	ug/L	0.002	15	206	575	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0367-01RE1
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, June 27, 2018 13:54:07
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			12287	19605	3	Standard
	Cl	**37**		ug/L			5801884	10422302	5	Standard
⌈>	**Sc**	**45**		ug/L			912284	937377	2	Standard
|	**Cr**	**52**	**0.070**	ug/L	0.025	35	14804	16321	2	Standard
|	**Cr**	**53**	**5.156**	ug/L	0.200	3	546	10506	2	Standard
⌊	**Mn**	**55**	**88.083**	ug/L	4.001	4	392	1977711	2	Standard
⌈>	**Ge-1**	**72**		ug/L			65774	58800	1	KED
|	**Ni**	**60**	**0.703**	ug/L	0.030	4	132	794	4	KED
|	**Ni**	**62**	**0.990**	ug/L	0.069	6	19	168	4	KED
|	**Cu**	**63**	**0.615**	ug/L	0.025	4	35	1580	2	KED
|	**Cu**	**65**	**0.607**	ug/L	0.007	1	21	761	0	KED
|	**Zn**	**66**	**1.071**	ug/L	0.026	2	44	395	3	KED
|	**Zn**	**67**	**1.800**	ug/L	0.326	18	12	110	17	KED
⌊	**As**	**75**	**0.163**	ug/L	0.006	3	4	42	4	KED
	Y	**89**		ug/L			537136	529641	1	Standard
	Kr	**83**		ug/L			41	98	18	Standard
⌈>	**In-1**	**115**		ug/L			29528	25935	1	KED
|	**Cd**	**111**	**-0.001**	ug/L	0.008	1339	3	2	88	KED
⌊	**Cd**	**114**	**-0.002**	ug/L	0.003	162	4	2	134	KED
⌈>	**In**	**115**		ug/L			675898	647109	3	Standard
⌊	**Ag**	**107**	**-0.002**	ug/L	0.000	14	64	38	10	Standard
⌈>	**Tb**	**159**		ug/L			852362	966784	1	Standard
⌊	**Pb**	**208**	**0.012**	ug/L	0.002	15	206	536	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0651-MS2
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, June 27, 2018 13:58:36
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units		Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				12287	20296	4	Standard
	Cl	**37**		ug/L				5801884	10279134	1	Standard
⌈>	**Sc**	**45**		ug/L				912284	924075	0	Standard
|	**Cr**	**52**	**4.976**	ug/L		0.228	4	14804	93231	2	Standard
|	**Cr**	**53**	**10.045**	ug/L		0.124	1	546	19661	1	Standard
⌊	**Mn**	**55**	**89.350**	ug/L	STL	3.338	3	392	1978645	2	Standard
⌈>	**Ge-1**	**72**		ug/L				65774	59917	2	KED
|	**Ni**	**60**	**6.334**	ug/L		0.068	1	132	6322	1	KED
|	**Ni**	**62**	**6.348**	ug/L		0.147	2	19	1007	5	KED
|	**Cu**	**63**	**5.994**	ug/L		0.305	5	35	15391	2	KED
|	**Cu**	**65**	**5.994**	ug/L		0.122	2	21	7487	0	KED
|	**Zn**	**66**	**17.685**	ug/L		0.093	0	44	6026	2	KED
|	**Zn**	**67**	**17.284**	ug/L		0.308	1	12	979	3	KED
⌊	**As**	**75**	**5.346**	ug/L		0.176	3	4	1282	2	KED
	Y	**89**		ug/L				537136	530747	2	Standard
	Kr	**83**		ug/L				41	108	10	Standard
⌈>	**In-1**	**115**		ug/L				29528	26108	0	KED
|	**Cd**	**111**	**5.196**	ug/L		0.059	1	3	1655	1	KED
⌊	**Cd**	**114**	**5.108**	ug/L		0.097	1	4	4196	1	KED
⌈>	**In**	**115**		ug/L				675898	653904	3	Standard
⌊	**Ag**	**107**	**4.369**	ug/L		0.191	4	64	55693	1	Standard
⌈>	**Tb**	**159**		ug/L				852362	953487	3	Standard
⌊	**Pb**	**208**	**5.114**	ug/L		0.228	4	206	122439	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0579-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 14:03:04
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			12287	26548	0	Standard
	Cl	37		ug/L			5801884	6337299	4	Standard
>	Sc	45		ug/L			912284	960841	2	Standard
	Cr	52	25.121	ug/L	0.494	1	14804	426252	1	Standard
	Cr	53	24.316	ug/L	0.695	2	546	48650	2	Standard
	Mn	55	26.042	ug/L	1.095	4	392	599613	1	Standard
>	Ge-1	72		ug/L			65774	65413	2	KED
	Ni	60	26.549	ug/L	1.364	5	132	28494	2	KED
	Ni	62	26.467	ug/L	1.051	3	19	4520	1	KED
	Cu	63	27.547	ug/L	0.500	1	35	77165	2	KED
	Cu	65	28.198	ug/L	0.628	2	21	38388	3	KED
	Zn	66	86.144	ug/L	2.288	2	44	31866	1	KED
	Zn	67	82.728	ug/L	2.300	2	12	5070	2	KED
	As	75	24.686	ug/L	0.606	2	4	6448	1	KED
	Y	89		ug/L			537136	554533	2	Standard
	Kr	83		ug/L			41	66	16	Standard
>	In-1	115		ug/L			29528	28689	2	KED
	Cd	111	26.186	ug/L	0.647	2	3	9150	0	KED
	Cd	114	25.902	ug/L	0.150	0	4	23366	1	KED
>	In	115		ug/L			675898	726537	0	Standard
	Ag	107	22.538	ug/L	0.459	2	64	319232	2	Standard
>	Tb	159		ug/L			852362	984899	2	Standard
	Pb	208	27.836	ug/L	1.155	4	206	687750	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 14:08:37
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			12287	15502	3	Standard
	Cl	**37**		ug/L			5801884	6028215	0	Standard
⌈>	**Sc**	**45**		ug/L			912284	928326	3	Standard
|	**Cr**	**52**	**47.500**	ug/L	1.643	3	14804	764916	0	Standard
|	**Cr**	**53**	**47.114**	ug/L	1.396	2	546	90519	0	Standard
⌊	**Mn**	**55**	**47.534**	ug/L	1.605	3	392	1057215	2	Standard
⌈>	**Ge-1**	**72**		ug/L			65774	61925	2	KED
|	**Ni**	**60**	**53.397**	ug/L	1.272	2	132	54157	1	KED
|	**Ni**	**62**	**50.999**	ug/L	1.967	3	19	8229	2	KED
|	**Cu**	**63**	**53.109**	ug/L	0.882	1	35	140781	0	KED
|	**Cu**	**65**	**54.165**	ug/L	2.685	4	21	69738	2	KED
|	**Zn**	**66**	**53.739**	ug/L	3.258	6	44	18824	3	KED
|	**Zn**	**67**	**51.734**	ug/L	2.701	5	12	3005	3	KED
⌊	**As**	**75**	**49.576**	ug/L	2.064	4	4	12252	2	KED
	Y	**89**		ug/L			537136	546487	1	Standard
	Kr	**83**		ug/L			41	50	2	Standard
⌈>	**In-1**	**115**		ug/L			29528	27211	0	KED
|	**Cd**	**111**	**51.264**	ug/L	0.576	1	3	16994	0	KED
⌊	**Cd**	**114**	**50.481**	ug/L	0.211	0	4	43194	0	KED
⌈>	**In**	**115**		ug/L			675898	682391	4	Standard
⌊	**Ag**	**107**	**42.964**	ug/L	2.003	4	64	570744	0	Standard
⌈>	**Tb**	**159**		ug/L			852362	978907	0	Standard
⌊	**Pb**	**208**	**51.378**	ug/L	0.309	0	206	1261904	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 14:15:50
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			12287	15446	0	Standard
	Cl	**37**		ug/L			5801884	6165981	2	Standard
⌈>	**Sc**	**45**		ug/L			912284	930808	1	Standard
|	**Cr**	**52**	**-0.085**	ug/L	0.042	48	14804	13750	3	Standard
|	**Cr**	**53**	**-0.028**	ug/L	0.014	49	546	504	3	Standard
⌊	**Mn**	**55**	**0.009**	ug/L	0.003	36	392	598	10	Standard
⌈>	**Ge-1**	**72**		ug/L			65774	62687	1	KED
|	**Ni**	**60**	**-0.087**	ug/L	0.004	4	132	36	13	KED
|	**Ni**	**62**	**0.041**	ug/L	0.035	85	19	25	22	KED
|	**Cu**	**63**	**0.005**	ug/L	0.001	21	35	46	4	KED
|	**Cu**	**65**	**-0.002**	ug/L	0.005	208	21	17	34	KED
|	**Zn**	**66**	**0.069**	ug/L	0.026	37	44	66	14	KED
|	**Zn**	**67**	**-0.087**	ug/L	0.019	21	12	6	15	KED
⌊	**As**	**75**	**0.001**	ug/L	0.003	204	4	4	16	KED
	Y	**89**		ug/L			537136	530010	1	Standard
	Kr	**83**		ug/L			41	42	9	Standard
⌈>	**In-1**	**115**		ug/L			29528	27963	2	KED
|	**Cd**	**111**	**-0.003**	ug/L	0.002	57	3	2	24	KED
⌊	**Cd**	**114**	**0.000**	ug/L	0.001	545	4	4	27	KED
⌈>	**In**	**115**		ug/L			675898	664596	1	Standard
⌊	**Ag**	**107**	**-0.001**	ug/L	0.001	120	64	54	20	Standard
⌈>	**Tb**	**159**		ug/L			852362	952106	0	Standard
⌊	**Pb**	**208**	**0.003**	ug/L	0.001	22	206	295	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 14:20:21
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L				15262	3	Standard
	Cl	**37**		ug/L				6177289	1	Standard
⌈>	**Sc**	**45**		ug/L				914004	2	Standard
|	**Cr**	**52**		ug/L				13847	2	Standard
|	**Cr**	**53**		ug/L				443	3	Standard
⌊	**Mn**	**55**		ug/L				542	2	Standard
⌈>	**Ge-1**	**72**		ug/L				62629	0	KED
|	**Ni**	**60**		ug/L				32	31	KED
|	**Ni**	**62**		ug/L				21	53	KED
|	**Cu**	**63**		ug/L				38	10	KED
|	**Cu**	**65**		ug/L				17	29	KED
|	**Zn**	**66**		ug/L				51	19	KED
|	**Zn**	**67**		ug/L				11	33	KED
⌊	**As**	**75**		ug/L				5	24	KED
	Y	**89**		ug/L				545742	1	Standard
	Kr	**83**		ug/L				46	10	Standard
⌈>	**In-1**	**115**		ug/L				28147	1	KED
|	**Cd**	**111**		ug/L				2	66	KED
⌊	**Cd**	**114**		ug/L				4	28	KED
⌈>	**In**	**115**		ug/L				694743	0	Standard
⌊	**Ag**	**107**		ug/L				42	29	Standard
⌈>	**Tb**	**159**		ug/L				967294	2	Standard
⌊	**Pb**	**208**		ug/L				274	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 14:24:50
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			15262	15487	2	Standard
	Cl	**37**		ug/L			6177289	6149007	1	Standard
⌈>	**Sc**	**45**		ug/L			914004	913676	1	Standard
|	**Cr**	**52**	**48.055**	ug/L	1.147	2	13847	760940	1	Standard
|	**Cr**	**53**	**46.917**	ug/L	2.143	4	443	88637	3	Standard
⌊	**Mn**	**55**	**48.562**	ug/L	1.277	2	542	1063683	2	Standard
⌈>	**Ge-1**	**72**		ug/L			62629	60977	3	KED
|	**Ni**	**60**	**52.723**	ug/L	4.222	8	32	52482	4	KED
|	**Ni**	**62**	**53.610**	ug/L	3.027	5	21	8513	2	KED
|	**Cu**	**63**	**53.750**	ug/L	1.542	2	38	140247	1	KED
|	**Cu**	**65**	**54.548**	ug/L	2.098	3	17	69142	0	KED
|	**Zn**	**66**	**54.911**	ug/L	4.377	7	51	18936	5	KED
|	**Zn**	**67**	**51.853**	ug/L	0.404	0	11	2966	2	KED
⌊	**As**	**75**	**50.252**	ug/L	2.208	4	5	12224	0	KED
	Y	**89**		ug/L			545742	540054	3	Standard
	Kr	**83**		ug/L			46	41	20	Standard
⌈>	**In-1**	**115**		ug/L			28147	27463	2	KED
|	**Cd**	**111**	**51.423**	ug/L	0.475	0	2	17202	2	KED
⌊	**Cd**	**114**	**49.575**	ug/L	0.927	1	4	42802	2	KED
⌈>	**In**	**115**		ug/L			694743	657383	4	Standard
⌊	**Ag**	**107**	**44.662**	ug/L	1.359	3	42	571856	2	Standard
⌈>	**Tb**	**159**		ug/L			967294	962997	2	Standard
⌊	**Pb**	**208**	**51.935**	ug/L	1.562	3	274	1254594	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 14:32:02
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			15262	14402	4	Standard
	Cl	**37**		ug/L			6177289	6073285	3	Standard
⌈>	**Sc**	**45**		ug/L			914004	929075	1	Standard
|	**Cr**	**52**	**-0.013**	ug/L	0.015	117	13847	13875	0	Standard
|	**Cr**	**53**	**-0.043**	ug/L	0.011	26	443	369	6	Standard
⌊	**Mn**	**55**	**-0.003**	ug/L	0.000	4	542	486	1	Standard
⌈>	**Ge-1**	**72**		ug/L			62629	62348	3	KED
|	**Ni**	**60**	**0.005**	ug/L	0.028	561	32	37	77	KED
|	**Ni**	**62**	**-0.004**	ug/L	0.073	1935	21	20	56	KED
|	**Cu**	**63**	**0.017**	ug/L	0.030	180	38	83	96	KED
|	**Cu**	**65**	**0.017**	ug/L	0.023	135	17	39	76	KED
|	**Zn**	**66**	**-0.041**	ug/L	0.065	157	51	36	62	KED
|	**Zn**	**67**	**-0.032**	ug/L	0.027	84	11	9	20	KED
⌊	**As**	**75**	**0.009**	ug/L	0.027	305	5	8	82	KED
	Y	**89**		ug/L			545742	534676	2	Standard
	Kr	**83**		ug/L			46	46	16	Standard
⌈>	**In-1**	**115**		ug/L			28147	28133	0	KED
|	**Cd**	**111**	**-0.000**	ug/L	0.006	98319	2	2	66	KED
⌊	**Cd**	**114**	**0.000**	ug/L	0.005	5120	4	4	91	KED
⌈>	**In**	**115**		ug/L			694743	720616	2	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.000	252	42	43	6	Standard
⌈>	**Tb**	**159**		ug/L			967294	975196	3	Standard
⌊	**Pb**	**208**	**-0.006**	ug/L	0.000	3	274	137	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0367-03
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 14:36:31
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			15262	36010	5	Standard
	Cl	37		ug/L			6177289	29880295	5	Standard
>	Sc	45		ug/L			914004	997920	2	Standard
	Cr	52	0.355	ug/L	0.039	10	13847	21144	1	Standard
	Cr	53	20.717	ug/L	0.151	0	443	43033	1	Standard
	Mn	55	315.818	ug/L	10.001	3	542	7549377	0	Standard
>	Ge-1	72		ug/L			62629	51555	0	KED
	Ni	60	4.090	ug/L	0.047	1	32	3473	1	KED
	Ni	62	4.474	ug/L	0.098	2	21	617	2	KED
	Cu	63	2.787	ug/L	0.034	1	38	6182	1	KED
	Cu	65	2.642	ug/L	0.043	1	17	2847	1	KED
	Zn	66	5.240	ug/L	0.364	6	51	1568	6	KED
	Zn	67	7.840	ug/L	0.052	0	11	387	0	KED
	As	75	0.979	ug/L	0.031	3	5	206	3	KED
	Y	89		ug/L			545742	505517	3	Standard
	Kr	83		ug/L			46	627	8	Standard
>	In-1	115		ug/L			28147	23713	1	KED
	Cd	111	0.008	ug/L	0.005	66	2	4	34	KED
	Cd	114	0.010	ug/L	0.004	39	4	11	28	KED
>	In	115		ug/L			694743	584076	0	Standard
	Ag	107	0.004	ug/L	0.001	26	42	83	14	Standard
>	Tb	159		ug/L			967294	871412	2	Standard
	Pb	208	0.040	ug/L	0.001	1	274	1112	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0367-04
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 14:40:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			15262	38119	1	Standard
	Cl	37		ug/L			6177289	28475768	1	Standard
>	Sc	45		ug/L			914004	996064	3	Standard
	Cr	52	0.420	ug/L	0.058	13	13847	22193	1	Standard
	Cr	53	20.077	ug/L	0.673	3	443	41622	1	Standard
	Mn	55	285.458	ug/L	10.302	3	542	6809661	0	Standard
>	Ge-1	72		ug/L			62629	52367	1	KED
	Ni	60	4.080	ug/L	0.195	4	32	3521	6	KED
	Ni	62	4.729	ug/L	0.017	0	21	662	1	KED
	Cu	63	2.751	ug/L	0.171	6	38	6194	4	KED
	Cu	65	2.744	ug/L	0.062	2	17	3002	1	KED
	Zn	66	6.124	ug/L	0.351	5	51	1855	7	KED
	Zn	67	8.871	ug/L	0.112	1	11	443	0	KED
	As	75	0.975	ug/L	0.014	1	5	208	2	KED
	Y	89		ug/L			545742	498702	2	Standard
	Kr	83		ug/L			46	981	1	Standard
>	In-1	115		ug/L			28147	23619	2	KED
	Cd	111	0.013	ug/L	0.007	56	2	6	32	KED
	Cd	114	0.011	ug/L	0.004	34	4	11	26	KED
>	In	115		ug/L			694743	584068	1	Standard
	Ag	107	0.003	ug/L	0.000	9	42	67	4	Standard
>	Tb	159		ug/L			967294	873789	2	Standard
	Pb	208	0.062	ug/L	0.003	4	274	1599	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0371-01 DEL
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 14:45:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			15262	32584	2	Standard
	Cl	**37**		ug/L			6177289	6817501	1	Standard
⌈>	**Sc**	**45**		ug/L			914004	1061769	1	Standard
|	**Cr**	**52**	**0.116**	ug/L	0.004	3	13847	18179	1	Standard
|	**Cr**	**53**	**2.134**	ug/L	0.046	2	443	5180	3	Standard
⌊	**Mn**	**55**	**97.627**	ug/L	0.805	0	542	2484569	1	Standard
⌈>	**Ge-1**	**72**		ug/L			62629	59347	0	KED
|	**Ni**	**60**	**3.946**	ug/L	0.103	2	32	3858	2	KED
|	**Ni**	**62**	**4.006**	ug/L	0.251	6	21	638	5	KED
|	**Cu**	**63**	**0.297**	ug/L	0.012	3	38	790	3	KED
|	**Cu**	**65**	**0.275**	ug/L	0.043	15	17	356	14	KED
|	**Zn**	**66**	**2.407**	ug/L	0.138	5	51	855	5	KED
|	**Zn**	**67**	**5.172**	ug/L	0.381	7	11	297	7	KED
⌊	**As**	**75**	**0.468**	ug/L	0.044	9	5	116	9	KED
	Y	**89**		ug/L			545742	526363	3	Standard
	Kr	**83**		ug/L			46	135	15	Standard
⌈>	**In-1**	**115**		ug/L			28147	26482	1	KED
|	**Cd**	**111**	**0.141**	ug/L	0.031	21	2	47	18	KED
⌊	**Cd**	**114**	**0.152**	ug/L	0.029	18	4	130	19	KED
⌈>	**In**	**115**		ug/L			694743	622292	0	Standard
⌊	**Ag**	**107**	**0.005**	ug/L	0.002	35	42	102	21	Standard
⌈>	**Tb**	**159**		ug/L			967294	914543	1	Standard
⌊	**Pb**	**208**	**0.039**	ug/L	0.005	12	274	1160	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0371-03 DEL
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 14:49:56
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			15262	35848	1	Standard
	Cl	**37**		ug/L			6177289	9717013	2	Standard
⌈>	**Sc**	**45**		ug/L			914004	1109996	2	Standard
|	**Cr**	**52**	**1.788**	ug/L	0.117	6	13847	50557	2	Standard
|	**Cr**	**53**	**5.825**	ug/L	0.214	3	443	13839	0	Standard
⌊	**Mn**	**55**	**2.240**	ug/L	0.070	3	542	60213	0	Standard
⌈>	**Ge-1**	**72**		ug/L			62629	50423	0	KED
|	**Ni**	**60**	**31.742**	ug/L	0.712	2	32	26185	1	KED
|	**Ni**	**62**	**32.024**	ug/L	1.234	3	21	4216	2	KED
|	**Cu**	**63**	**2.192**	ug/L	0.086	3	38	4762	3	KED
|	**Cu**	**65**	**2.235**	ug/L	0.039	1	17	2357	0	KED
|	**Zn**	**66**	**278.943**	ug/L	8.355	2	51	79487	2	KED
|	**Zn**	**67**	**253.829**	ug/L	5.709	2	11	11973	1	KED
⌊	**As**	**75**	**0.697**	ug/L	0.042	6	5	145	6	KED
	Y	**89**		ug/L			545742	421220	0	Standard
	Kr	**83**		ug/L			46	85	9	Standard
⌈>	**In-1**	**115**		ug/L			28147	22362	0	KED
|	**Cd**	**111**	**19.141**	ug/L	0.588	3	2	5215	2	KED
⌊	**Cd**	**114**	**18.633**	ug/L	0.435	2	4	13103	1	KED
⌈>	**In**	**115**		ug/L			694743	580873	0	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.001	27	42	60	11	Standard
⌈>	**Tb**	**159**		ug/L			967294	983596	0	Standard
⌊	**Pb**	**208**	**0.337**	ug/L	0.016	4	274	8595	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0248-05
Sample Dil Factor: 10
Comments:
Sample Date/Time: Wednesday, June 27, 2018 14:54:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			15262	21908	2	Standard
	Cl	37		ug/L			6177289	41348350	3	Standard
>	Sc	45		ug/L			914004	921730	1	Standard
	Cr	52	0.642	ug/L	0.017	2	13847	24034	2	Standard
	Cr	53	35.441	ug/L	0.810	2	443	67676	1	Standard
	Mn	55	0.201	ug/L	0.005	2	542	4997	0	Standard
>	Ge-1	72		ug/L			62629	47152	1	KED
	Ni	60	0.099	ug/L	0.015	15	32	100	11	KED
	Ni	62	0.478	ug/L	0.193	40	21	74	32	KED
	Cu	63	0.201	ug/L	0.001	0	38	435	0	KED
	Cu	65	0.175	ug/L	0.018	10	17	184	8	KED
	Zn	66	1.213	ug/L	0.147	12	51	361	11	KED
	Zn	67	1.316	ug/L	0.157	11	11	66	11	KED
	As	75	0.158	ug/L	0.022	14	5	34	11	KED
	Y	89		ug/L			545742	451097	1	Standard
	Kr	83		ug/L			46	1133	2	Standard
>	In-1	115		ug/L			28147	22358	0	KED
	Cd	111	0.018	ug/L	0.002	12	2	7	7	KED
	Cd	114	0.015	ug/L	0.004	24	4	14	19	KED
>	In	115		ug/L			694743	565287	1	Standard
	Ag	107	0.002	ug/L	0.001	70	42	57	29	Standard
>	Tb	159		ug/L			967294	866216	1	Standard
	Pb	208	0.014	ug/L	0.001	4	274	558	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0248-07
Sample Dil Factor: 10
Comments:
Sample Date/Time: Wednesday, June 27, 2018 14:58:52
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			15262	20463	4	Standard
	Cl	**37**		ug/L			6177289	32242354	1	Standard
⌈>	**Sc**	**45**		ug/L			914004	934802	2	Standard
|	**Cr**	**52**	**0.504**	ug/L	0.032	6	13847	22171	0	Standard
|	**Cr**	**53**	**25.753**	ug/L	1.003	3	443	49971	1	Standard
⌊	**Mn**	**55**	**0.314**	ug/L	0.018	5	542	7581	2	Standard
⌈>	**Ge-1**	**72**		ug/L			62629	52408	0	KED
|	**Ni**	**60**	**0.073**	ug/L	0.006	8	32	89	5	KED
|	**Ni**	**62**	**0.720**	ug/L	0.078	10	21	116	9	KED
|	**Cu**	**63**	**0.201**	ug/L	0.006	3	38	482	2	KED
|	**Cu**	**65**	**0.146**	ug/L	0.013	8	17	173	8	KED
|	**Zn**	**66**	**1.272**	ug/L	0.102	7	51	419	6	KED
|	**Zn**	**67**	**0.984**	ug/L	0.099	10	11	57	8	KED
⌊	**As**	**75**	**0.448**	ug/L	0.009	1	5	98	1	KED
	Y	**89**		ug/L			545742	485586	1	Standard
	Kr	**83**		ug/L			46	1117	4	Standard
⌈>	**In-1**	**115**		ug/L			28147	24346	0	KED
|	**Cd**	**111**	**0.008**	ug/L	0.006	83	2	4	40	KED
⌊	**Cd**	**114**	**0.007**	ug/L	0.005	69	4	9	42	KED
⌈>	**In**	**115**		ug/L			694743	592868	3	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.001	864	42	34	25	Standard
⌈>	**Tb**	**159**		ug/L			967294	909843	0	Standard
⌊	**Pb**	**208**	**0.101**	ug/L	0.007	6	274	2561	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0579-DUP1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 15:03:20
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			15262	26928	2	Standard
	Cl	37		ug/L			6177289	6196805	2	Standard
>	Sc	45		ug/L			914004	970714	2	Standard
	Cr	52	0.055	ug/L	0.049	87	13847	15613	3	Standard
	Cr	53	2.173	ug/L	0.072	3	443	4810	1	Standard
	Mn	55	141.758	ug/L	5.572	3	542	3296526	1	Standard
>	Ge-1	72		ug/L			62629	56271	1	KED
	Ni	60	1.387	ug/L	0.066	4	32	1304	5	KED
	Ni	62	1.496	ug/L	0.192	12	21	238	10	KED
	Cu	63	0.187	ug/L	0.016	8	38	486	8	KED
	Cu	65	0.194	ug/L	0.017	8	17	242	8	KED
	Zn	66	1.418	ug/L	0.150	10	51	497	9	KED
	Zn	67	2.593	ug/L	0.413	15	11	146	14	KED
	As	75	0.598	ug/L	0.028	4	5	139	3	KED
	Y	89		ug/L			545742	484178	0	Standard
	Kr	83		ug/L			46	220	21	Standard
>	In-1	115		ug/L			28147	26142	1	KED
	Cd	111	0.027	ug/L	0.001	5	2	11	4	KED
	Cd	114	0.020	ug/L	0.006	27	4	20	22	KED
>	In	115		ug/L			694743	619148	3	Standard
	Ag	107	0.001	ug/L	0.000	51	42	48	8	Standard
>	Tb	159		ug/L			967294	1002553	1	Standard
	Pb	208	0.017	ug/L	0.003	18	274	714	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0335-07
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 15:07:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			15262	26395	2	Standard
	Cl	37		ug/L			6177289	5747347	1	Standard
⌈>	Sc	45		ug/L			914004	935900	1	Standard
|	Cr	52	0.019	ug/L	0.038	201	13847	14473	3	Standard
|	Cr	53	1.340	ug/L	0.018	1	443	3034	2	Standard
⌊	Mn	55	139.601	ug/L	1.789	1	542	3131406	0	Standard
⌈>	Ge-1	72		ug/L			62629	52096	1	KED
|	Ni	60	1.392	ug/L	0.101	7	32	1211	6	KED
|	Ni	62	1.475	ug/L	0.046	3	21	217	3	KED
|	Cu	63	0.164	ug/L	0.014	8	38	398	7	KED
|	Cu	65	0.152	ug/L	0.024	16	17	179	12	KED
|	Zn	66	1.209	ug/L	0.132	10	51	398	7	KED
|	Zn	67	2.325	ug/L	0.441	18	11	122	15	KED
⌊	As	75	0.530	ug/L	0.028	5	5	115	3	KED
	Y	89		ug/L			545742	422410	0	Standard
	Kr	83		ug/L			46	97	11	Standard
⌈>	In-1	115		ug/L			28147	23090	1	KED
|	Cd	111	0.015	ug/L	0.010	65	2	6	42	KED
⌊	Cd	114	0.017	ug/L	0.006	33	4	15	25	KED
⌈>	In	115		ug/L			694743	604196	2	Standard
⌊	Ag	107	0.001	ug/L	0.001	134	42	43	18	Standard
⌈>	Tb	159		ug/L			967294	1008022	2	Standard
⌊	Pb	208	0.019	ug/L	0.002	10	274	777	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0579-MS1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 15:12:16
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units		Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L				15262	26767	4	Standard
	Cl	37		ug/L				6177289	5448035	1	Standard
>	Sc	45		ug/L				914004	913766	0	Standard
	Cr	52	22.592	ug/L		0.649	2	13847	365139	2	Standard
	Cr	53	22.356	ug/L		0.084	0	443	42491	0	Standard
	Mn	55	165.070	ug/L	STL	3.833	2	542	3614864	1	Standard
>	Ge-1	72		ug/L				62629	48110	3	KED
	Ni	60	29.593	ug/L		1.187	4	32	23279	1	KED
	Ni	62	27.712	ug/L		0.360	1	21	3483	1	KED
	Cu	63	27.520	ug/L		1.018	3	38	56665	1	KED
	Cu	65	27.653	ug/L		0.750	2	17	27673	1	KED
	Zn	66	82.948	ug/L		4.558	5	51	22558	2	KED
	Zn	67	78.341	ug/L		5.005	6	11	3528	3	KED
	As	75	26.794	ug/L		0.667	2	5	5147	1	KED
	Y	89		ug/L				545742	403617	1	Standard
	Kr	83		ug/L				46	67	19	Standard
>	In-1	115		ug/L				28147	21943	1	KED
	Cd	111	25.136	ug/L		0.653	2	2	6718	1	KED
	Cd	114	25.031	ug/L		0.344	1	4	17273	2	KED
>	In	115		ug/L				694743	593778	1	Standard
	Ag	107	18.234	ug/L		0.516	2	42	210982	1	Standard
>	Tb	159		ug/L				967294	1031301	0	Standard
	Pb	208	24.818	ug/L		0.547	2	274	642376	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0579-~~BS1~~ MSD1 TH 06-27-18
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 15:16:44
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			15262	28705	2	Standard
	Cl	37		ug/L			6177289	5532138	1	Standard
⌈>	Sc	45		ug/L			914004	888945	6	Standard
|	Cr	52	22.687	ug/L	1.680	7	13847	355618	1	Standard
|	Cr	53	22.583	ug/L	1.507	6	443	41638	1	Standard
⌊	Mn	55	165.873	ug/L STL	14.544	8	542	3520845	1	Standard
⌈>	Ge-1	72		ug/L			62629	47247	1	KED
|	Ni	60	28.828	ug/L	0.771	2	32	22287	2	KED
|	Ni	62	28.920	ug/L	1.215	4	21	3571	5	KED
|	Cu	63	27.589	ug/L	0.924	3	38	55821	2	KED
|	Cu	65	27.164	ug/L	0.564	2	17	26705	0	KED
|	Zn	66	82.718	ug/L	1.588	1	51	22114	1	KED
|	Zn	67	78.370	ug/L	0.803	1	11	3470	1	KED
⌊	As	75	26.417	ug/L	0.248	0	5	4986	1	KED
	Y	89		ug/L			545742	388199	6	Standard
	Kr	83		ug/L			46	78	4	Standard
⌈>	In-1	115		ug/L			28147	20968	0	KED
|	Cd	111	25.964	ug/L	0.305	1	2	6633	0	KED
⌊	Cd	114	25.386	ug/L	0.320	1	4	16738	0	KED
⌈>	In	115		ug/L			694743	572545	6	Standard
⌊	Ag	107	18.481	ug/L	1.578	8	42	205492	1	Standard
⌈>	Tb	159		ug/L			967294	969205	7	Standard
⌊	Pb	208	26.657	ug/L	1.606	6	274	646356	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 15:22:17
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			15262	15705	3	Standard
	Cl	**37**		ug/L			6177289	5712498	3	Standard
>	**Sc**	**45**		ug/L			914004	896455	2	Standard
	Cr	**52**	**45.859**	ug/L	0.471	1	13847	713150	1	Standard
	Cr	**53**	**44.950**	ug/L	0.521	1	443	83370	1	Standard
	Mn	**55**	**46.644**	ug/L	0.775	1	542	1002428	1	Standard
>	**Ge-1**	**72**		ug/L			62629	53232	1	KED
	Ni	**60**	**53.386**	ug/L	1.847	3	32	46466	2	KED
	Ni	**62**	**53.716**	ug/L	1.213	2	21	7454	1	KED
	Cu	**63**	**54.988**	ug/L	0.965	1	38	125351	3	KED
	Cu	**65**	**53.183**	ug/L	2.063	3	17	58886	3	KED
	Zn	**66**	**53.077**	ug/L	2.014	3	51	16001	3	KED
	Zn	**67**	**50.510**	ug/L	1.740	3	11	2522	2	KED
	As	**75**	**49.295**	ug/L	1.058	2	5	10477	0	KED
	Y	**89**		ug/L			545742	460240	1	Standard
	Kr	**83**		ug/L			46	47	34	Standard
>	**In-1**	**115**		ug/L			28147	23654	1	KED
	Cd	**111**	**51.952**	ug/L	0.079	0	2	14971	0	KED
	Cd	**114**	**50.627**	ug/L	0.619	1	4	37653	0	KED
>	**In**	**115**		ug/L			694743	628076	3	Standard
	Ag	**107**	**39.004**	ug/L	1.241	3	42	477149	0	Standard
>	**Tb**	**159**		ug/L			967294	1054521	2	Standard
	Pb	**208**	**50.546**	ug/L	1.770	3	274	1336501	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 15:29:30
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			15262	15201	1	Standard
	Cl	**37**		ug/L			6177289	5997683	3	Standard
⌈>	**Sc**	**45**		ug/L			914004	859050	5	Standard
|	**Cr**	**52**	**-0.018**	ug/L	0.049	274	13847	12733	2	Standard
|	**Cr**	**53**	**0.085**	ug/L	0.017	20	443	565	1	Standard
⌊	**Mn**	**55**	**0.005**	ug/L	0.003	56	542	607	5	Standard
⌈>	**Ge-1**	**72**		ug/L			62629	56240	1	KED
|	**Ni**	**60**	**-0.018**	ug/L	0.006	32	32	12	45	KED
|	**Ni**	**62**	**0.024**	ug/L	0.015	61	21	22	8	KED
|	**Cu**	**63**	**-0.002**	ug/L	0.002	126	38	31	15	KED
|	**Cu**	**65**	**-0.007**	ug/L	0.003	46	17	6	56	KED
|	**Zn**	**66**	**-0.076**	ug/L	0.033	43	51	22	47	KED
|	**Zn**	**67**	**-0.099**	ug/L	0.020	20	11	5	21	KED
⌊	**As**	**75**	**-0.008**	ug/L	0.008	98	5	3	51	KED
	Y	**89**		ug/L			545742	456772	4	Standard
	Kr	**83**		ug/L			46	48	9	Standard
⌈>	**In-1**	**115**		ug/L			28147	24475	8	KED
|	**Cd**	**111**	**0.001**	ug/L	0.010	1448	2	2	108	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.004	225	4	5	58	KED
⌈>	**In**	**115**		ug/L			694743	646319	4	Standard
⌊	**Ag**	**107**	**0.001**	ug/L	0.001	146	42	48	25	Standard
⌈>	**Tb**	**159**		ug/L			967294	995592	1	Standard
⌊	**Pb**	**208**	**-0.005**	ug/L	0.001	15	274	151	14	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0371-04
Sample Dil Factor: DEL
Comments:
Sample Date/Time: Wednesday, June 27, 2018 15:33:58
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			15262	28474	1	Standard
	Cl	**37**		ug/L			6177289	6274447	1	Standard
⌈>	**Sc**	**45**		ug/L			914004	1045924	1	Standard
|	**Cr**	**52**	**0.414**	ug/L	0.018	4	13847	23212	2	Standard
|	**Cr**	**53**	**1.017**	ug/L	0.029	2	443	2697	3	Standard
⌊	**Mn**	**55**	**1.182**	ug/L	0.043	3	542	30242	4	Standard
⌈>	**Ge-1**	**72**		ug/L			62629	50388	0	KED
|	**Ni**	**60**	**1.329**	ug/L	0.165	12	32	1120	11	KED
|	**Ni**	**62**	**1.059**	ug/L	0.089	8	21	156	7	KED
|	**Cu**	**63**	**0.983**	ug/L	0.063	6	38	2151	6	KED
|	**Cu**	**65**	**0.987**	ug/L	0.098	9	17	1048	9	KED
|	**Zn**	**66**	**1.354**	ug/L	0.059	4	51	426	4	KED
|	**Zn**	**67**	**4.508**	ug/L	0.192	4	11	221	4	KED
⌊	**As**	**75**	**0.376**	ug/L	0.029	7	5	80	7	KED
	Y	**89**		ug/L			545742	437039	2	Standard
	Kr	**83**		ug/L			46	48	15	Standard
⌈>	**In-1**	**115**		ug/L			28147	22945	1	KED
|	**Cd**	**111**	**0.004**	ug/L	0.007	168	2	3	56	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.004	331	4	4	66	KED
⌈>	**In**	**115**		ug/L			694743	602354	3	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.000	675	42	36	18	Standard
⌈>	**Tb**	**159**		ug/L			967294	998304	0	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.001	58	274	305	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0371-05 DEL
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 15:38:27
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			15262	29342	1	Standard
	Cl	**37**		ug/L			6177289	8415616	4	Standard
⌈>	**Sc**	**45**		ug/L			914004	1034419	0	Standard
|	**Cr**	**52**	**0.549**	ug/L	0.011	1	13847	25334	0	Standard
|	**Cr**	**53**	**3.680**	ug/L	0.011	0	443	8337	0	Standard
⌊	**Mn**	**55**	**0.798**	ug/L	0.005	0	542	20404	1	Standard
⌈>	**Ge-1**	**72**		ug/L			62629	46431	0	KED
|	**Ni**	**60**	**5.829**	ug/L	0.232	3	32	4447	3	KED
|	**Ni**	**62**	**5.645**	ug/L	0.100	1	21	697	1	KED
|	**Cu**	**63**	**2.634**	ug/L	0.081	3	38	5263	3	KED
|	**Cu**	**65**	**2.613**	ug/L	0.066	2	17	2536	2	KED
|	**Zn**	**66**	**1.960**	ug/L	0.086	4	51	552	4	KED
|	**Zn**	**67**	**6.957**	ug/L	0.646	9	11	310	9	KED
⌊	**As**	**75**	**1.150**	ug/L	0.033	2	5	217	2	KED
	Y	**89**		ug/L			545742	409598	3	Standard
	Kr	**83**		ug/L			46	52	12	Standard
⌈>	**In-1**	**115**		ug/L			28147	21251	1	KED
|	**Cd**	**111**	**0.026**	ug/L	0.014	55	2	8	43	KED
⌊	**Cd**	**114**	**0.025**	ug/L	0.005	20	4	19	16	KED
⌈>	**In**	**115**		ug/L			694743	569846	0	Standard
⌊	**Ag**	**107**	**0.002**	ug/L	0.000	19	42	54	7	Standard
⌈>	**Tb**	**159**		ug/L			967294	973956	0	Standard
⌊	**Pb**	**208**	**0.052**	ug/L	0.002	3	274	1534	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0360-02
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 15:42:55
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			15262	34458	2	Standard
	Cl	37		ug/L			6177289	5503750	1	Standard
>	Sc	45		ug/L			914004	860462	2	Standard
	Cr	52	67.127	ug/L	1.792	2	13847	995682	1	Standard
	Cr	53	64.822	ug/L	1.583	2	443	115182	1	Standard
	Mn	55	26.513	ug/L	0.739	2	542	547003	1	Standard
>	Ge-1	72		ug/L			62629	43962	1	KED
	Ni	60	3.200	ug/L	0.045	1	32	2322	0	KED
	Ni	62	2.874	ug/L	0.374	13	21	344	13	KED
	Cu	63	6.413	ug/L	0.078	1	38	12095	2	KED
	Cu	65	6.377	ug/L	0.187	2	17	5842	1	KED
	Zn	66	12.166	ug/L	0.282	2	51	3056	0	KED
	Zn	67	11.543	ug/L	0.726	6	11	482	6	KED
	As	75	0.105	ug/L	0.013	12	5	22	8	KED
	Y	89		ug/L			545742	371845	2	Standard
	Kr	83		ug/L			46	33	26	Standard
>	In-1	115		ug/L			28147	19548	2	KED
	Cd	111	0.005	ug/L	0.013	255	2	3	96	KED
	Cd	114	0.002	ug/L	0.005	203	4	4	66	KED
>	In	115		ug/L			694743	540339	2	Standard
	Ag	107	0.006	ug/L	0.002	43	42	92	26	Standard
>	Tb	159		ug/L			967294	1013173	3	Standard
	Pb	208	0.107	ug/L	0.005	4	274	2991	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0360-03
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 15:47:23
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			15262	36823	1	Standard
	Cl	37		ug/L			6177289	5526153	1	Standard
>	Sc	45		ug/L			914004	877783	1	Standard
	Cr	52	38.434	ug/L	0.214	0	13847	587461	0	Standard
	Cr	53	37.680	ug/L	0.519	1	443	68500	0	Standard
	Mn	55	21.626	ug/L	0.300	1	542	455397	0	Standard
>	Ge-1	72		ug/L			62629	43423	0	KED
	Ni	60	3.334	ug/L	0.032	0	32	2388	0	KED
	Ni	62	3.218	ug/L	0.261	8	21	378	7	KED
	Cu	63	5.731	ug/L	0.072	1	38	10678	1	KED
	Cu	65	5.673	ug/L	0.264	4	17	5135	4	KED
	Zn	66	8.966	ug/L	0.201	2	51	2235	2	KED
	Zn	67	7.908	ug/L	0.738	9	11	328	8	KED
	As	75	0.096	ug/L	0.027	27	5	20	22	KED
	Y	89		ug/L			545742	368189	1	Standard
	Kr	83		ug/L			46	58	7	Standard
>	In-1	115		ug/L			28147	19412	1	KED
	Cd	111	0.006	ug/L	0.006	94	2	3	41	KED
	Cd	114	0.005	ug/L	0.004	76	4	6	38	KED
>	In	115		ug/L			694743	559981	1	Standard
	Ag	107	0.005	ug/L	0.001	23	42	88	13	Standard
>	Tb	159		ug/L			967294	1031639	1	Standard
	Pb	208	0.070	ug/L	0.005	7	274	2092	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0369-01
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 15:51:51
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			15262	37014	4	Standard
	Cl	**37**		ug/L			6177289	5734173	2	Standard
⌈>	**Sc**	**45**		ug/L			914004	930884	1	Standard
|	**Cr**	**52**	**1.980**	ug/L	0.073	3	13847	45472	2	Standard
|	**Cr**	**53**	**2.093**	ug/L	0.037	1	443	4460	0	Standard
⌊	**Mn**	**55**	**93.706**	ug/L	2.480	2	542	2090996	2	Standard
⌈>	**Ge-1**	**72**		ug/L			62629	52428	1	KED
|	**Ni**	**60**	**3.280**	ug/L	0.214	6	32	2836	5	KED
|	**Ni**	**62**	**3.263**	ug/L	0.284	8	21	462	7	KED
|	**Cu**	**63**	**12.425**	ug/L	0.236	1	38	27914	1	KED
|	**Cu**	**65**	**12.406**	ug/L	0.295	2	17	13543	2	KED
|	**Zn**	**66**	**95.180**	ug/L	2.927	3	51	28225	1	KED
|	**Zn**	**67**	**87.561**	ug/L	1.649	1	11	4300	1	KED
⌊	**As**	**75**	**19.516**	ug/L	0.334	1	5	4088	0	KED
	Y	**89**		ug/L			545742	442797	0	Standard
	Kr	**83**		ug/L			46	43	10	Standard
⌈>	**In-1**	**115**		ug/L			28147	20987	12	KED
|	**Cd**	**111**	**0.121**	ug/L	0.015	12	2	32	4	KED
⌊	**Cd**	**114**	**0.097**	ug/L	0.033	33	4	65	19	KED
⌈>	**In**	**115**		ug/L			694743	623597	0	Standard
⌊	**Ag**	**107**	**0.010**	ug/L	0.002	18	42	164	13	Standard
⌈>	**Tb**	**159**		ug/L			967294	1036624	2	Standard
⌊	**Pb**	**208**	**2.845**	ug/L	0.071	2	274	74241	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0369-03
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 15:56:19
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			15262	37262	6	Standard
	Cl	**37**		ug/L			6177289	5709029	2	Standard
⌈>	**Sc**	**45**		ug/L			914004	931874	1	Standard
|	**Cr**	**52**	**2.770**	ug/L	0.153	5	13847	58024	3	Standard
|	**Cr**	**53**	**2.695**	ug/L	0.038	1	443	5620	1	Standard
⌊	**Mn**	**55**	**108.774**	ug/L	1.462	1	542	2429515	0	Standard
⌈>	**Ge-1**	**72**		ug/L			62629	54085	0	KED
|	**Ni**	**60**	**3.721**	ug/L	0.066	1	32	3317	2	KED
|	**Ni**	**62**	**3.465**	ug/L	0.227	6	21	506	5	KED
|	**Cu**	**63**	**17.064**	ug/L	0.375	2	38	39539	2	KED
|	**Cu**	**65**	**17.482**	ug/L	0.069	0	17	19682	1	KED
|	**Zn**	**66**	**137.983**	ug/L	4.579	3	51	42201	3	KED
|	**Zn**	**67**	**125.706**	ug/L	1.800	1	11	6365	1	KED
⌊	**As**	**75**	**8.958**	ug/L	0.029	0	5	1939	0	KED
	Y	**89**		ug/L			545742	465479	2	Standard
	Kr	**83**		ug/L			46	43	11	Standard
⌈>	**In-1**	**115**		ug/L			28147	23398	1	KED
|	**Cd**	**111**	**0.216**	ug/L	0.031	14	2	64	15	KED
⌊	**Cd**	**114**	**0.172**	ug/L	0.009	5	4	130	6	KED
⌈>	**In**	**115**		ug/L			694743	644610	4	Standard
⌊	**Ag**	**107**	**0.012**	ug/L	0.002	19	42	192	10	Standard
⌈>	**Tb**	**159**		ug/L			967294	1054021	2	Standard
⌊	**Pb**	**208**	**3.616**	ug/L	0.102	2	274	95875	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0369-05
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 16:00:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			15262	32817	2	Standard
	Cl	37		ug/L			6177289	5935201	2	Standard
>	Sc	45		ug/L			914004	986953	1	Standard
	Cr	52	3.786	ug/L	0.110	2	13847	78529	0	Standard
	Cr	53	3.825	ug/L	0.195	5	443	8243	2	Standard
	Mn	55	269.166	ug/L	7.575	2	542	6364747	0	Standard
>	Ge-1	72		ug/L			62629	53777	1	KED
	Ni	60	5.848	ug/L	0.191	3	32	5167	1	KED
	Ni	62	5.938	ug/L	0.264	4	21	848	3	KED
	Cu	63	4.736	ug/L	0.033	0	38	10934	1	KED
	Cu	65	4.659	ug/L	0.058	1	17	5226	0	KED
	Zn	66	52.596	ug/L	0.946	1	51	16022	2	KED
	Zn	67	47.851	ug/L	0.709	1	11	2415	1	KED
	As	75	3.762	ug/L	0.140	3	5	812	3	KED
	Y	89		ug/L			545742	456813	1	Standard
	Kr	83		ug/L			46	38	11	Standard
>	In-1	115		ug/L			28147	23225	1	KED
	Cd	111	0.054	ug/L	0.009	17	2	17	15	KED
	Cd	114	0.073	ug/L	0.024	32	4	56	28	KED
>	In	115		ug/L			694743	628620	3	Standard
	Ag	107	0.003	ug/L	0.002	62	42	77	28	Standard
>	Tb	159		ug/L			967294	1028856	2	Standard
	Pb	208	0.995	ug/L	0.033	3	274	25954	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0369-07
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 16:05:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			15262	31008	0	Standard
	Cl	37		ug/L			6177289	5701191	0	Standard
>	Sc	45		ug/L			914004	1006689	3	Standard
	Cr	52	26.500	ug/L	0.554	2	13847	469031	1	Standard
	Cr	53	26.403	ug/L	0.389	1	443	55179	2	Standard
	Mn	55	333.321	ug/L	14.228	4	542	8033370	0	Standard
>	Ge-1	72		ug/L			62629	54038	2	KED
	Ni	60	8.699	ug/L	0.116	1	32	7710	1	KED
	Ni	62	8.415	ug/L	0.607	7	21	1200	4	KED
	Cu	63	17.267	ug/L	0.680	3	38	39966	3	KED
	Cu	65	16.853	ug/L	0.909	5	17	18943	3	KED
	Zn	66	189.551	ug/L	3.881	2	51	57889	0	KED
	Zn	67	179.350	ug/L	4.823	2	11	9067	1	KED
	As	75	12.314	ug/L	0.473	3	5	2659	1	KED
	Y	89		ug/L			545742	486357	4	Standard
	Kr	83		ug/L			46	48	9	Standard
>	In-1	115		ug/L			28147	23631	2	KED
	Cd	111	0.513	ug/L	0.024	4	2	150	7	KED
	Cd	114	0.519	ug/L	0.065	12	4	388	10	KED
>	In	115		ug/L			694743	632066	2	Standard
	Ag	107	0.008	ug/L	0.001	11	42	135	6	Standard
>	Tb	159		ug/L			967294	1036824	2	Standard
	Pb	208	10.179	ug/L	0.358	3	274	264876	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0381-01
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 16:09:44
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			15262	612330	2	Standard
	Cl	37		ug/L			6177289	17636579	4	Standard
>	Sc	45		ug/L			914004	1044627	1	Standard
	Cr	52	5819.471	ug/L	74.264	1	13847	103476918	1	Standard
	Cr	53	5676.887	ug/L	18.415	0	443	12206979	1	Standard
	Mn	55	670.504	ug/L	2.226	0	542	16786937	1	Standard
>	Ge-1	72		ug/L			62629	51811	2	KED
	Ni	60	1775.748	ug/L	60.442	3	32	1503281	1	KED
	Ni	62	1805.885	ug/L	18.936	1	21	243357	1	KED
	Cu	63	56.501	ug/L	2.313	4	38	125281	2	KED
	Cu	65	57.131	ug/L	1.982	3	17	61555	1	KED
	Zn	66	2900.826	ug/L	76.471	2	51	848809	1	KED
	Zn	67	2657.285	ug/L	29.027	1	11	128711	1	KED
	As	75	1.756	ug/L	0.053	2	5	367	1	KED
	Y	89		ug/L			545742	463901	3	Standard
	Kr	83		ug/L			46	91	14	Standard
>	In-1	115		ug/L			28147	23264	0	KED
	Cd	111	16.695	ug/L	0.108	0	2	4733	0	KED
	Cd	114	16.197	ug/L	0.189	1	4	11851	1	KED
>	In	115		ug/L			694743	568437	3	Standard
	Ag	107	0.859	ug/L	0.067	7	42	9546	7	Standard
>	Tb	159		ug/L			967294	953086	1	Standard
	Pb	208	2.537	ug/L	0.086	3	274	60913	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 16:15:17
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			15262	25855	0	Standard
	Cl	**37**		ug/L			6177289	5917526	0	Standard
>	**Sc**	**45**		ug/L			914004	904495	1	Standard
	Cr	**52**	**45.699**	ug/L	0.570	1	13847	717114	0	Standard
	Cr	**53**	**45.094**	ug/L	0.881	1	443	84385	1	Standard
	Mn	**55**	**47.055**	ug/L	0.335	0	542	1020501	1	Standard
>	**Ge-1**	**72**		ug/L			62629	57434	1	KED
	Ni	**60**	**51.070**	ug/L	2.237	4	32	47954	3	KED
	Ni	**62**	**50.082**	ug/L	3.173	6	21	7496	4	KED
	Cu	**63**	**53.132**	ug/L	1.097	2	38	130662	2	KED
	Cu	**65**	**52.230**	ug/L	0.714	1	17	62409	1	KED
	Zn	**66**	**52.300**	ug/L	1.258	2	51	17012	0	KED
	Zn	**67**	**51.594**	ug/L	1.658	3	11	2779	1	KED
	As	**75**	**48.311**	ug/L	0.595	1	5	11080	0	KED
	Y	**89**		ug/L			545742	473746	2	Standard
	Kr	**83**		ug/L			46	48	9	Standard
>	**In-1**	**115**		ug/L			28147	24646	2	KED
	Cd	**111**	**51.118**	ug/L	1.223	2	2	15343	0	KED
	Cd	**114**	**50.306**	ug/L	1.595	3	4	38971	1	KED
>	**In**	**115**		ug/L			694743	634944	0	Standard
	Ag	**107**	**39.770**	ug/L	0.245	0	42	492202	0	Standard
>	**Tb**	**159**		ug/L			967294	1005472	1	Standard
	Pb	**208**	**50.282**	ug/L	0.590	1	274	1268344	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 16:22:29
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			15262	16697	1	Standard
	Cl	**37**		ug/L			6177289	5819878	0	Standard
⌈>	**Sc**	**45**		ug/L			914004	901410	1	Standard
|	**Cr**	**52**	**-0.042**	ug/L	0.015	35	13847	13017	1	Standard
|	**Cr**	**53**	**0.098**	ug/L	0.013	13	443	619	2	Standard
⌊	**Mn**	**55**	**0.000**	ug/L	0.001	1150	542	537	3	Standard
⌈>	**Ge-1**	**72**		ug/L			62629	57219	0	KED
|	**Ni**	**60**	**-0.019**	ug/L	0.004	22	32	12	32	KED
|	**Ni**	**62**	**-0.060**	ug/L	0.048	79	21	10	66	KED
|	**Cu**	**63**	**-0.006**	ug/L	0.002	28	38	19	22	KED
|	**Cu**	**65**	**-0.005**	ug/L	0.004	82	17	9	52	KED
|	**Zn**	**66**	**-0.041**	ug/L	0.009	21	51	33	8	KED
|	**Zn**	**67**	**-0.171**	ug/L	0.021	11	11	1	86	KED
⌊	**As**	**75**	**-0.004**	ug/L	0.008	206	5	4	43	KED
	Y	**89**		ug/L			545742	470574	1	Standard
	Kr	**83**		ug/L			46	36	28	Standard
⌈>	**In-1**	**115**		ug/L			28147	24753	6	KED
|	**Cd**	**111**	**-0.001**	ug/L	0.002	165	2	2	24	KED
⌊	**Cd**	**114**	**-0.002**	ug/L	0.001	78	4	2	45	KED
⌈>	**In**	**115**		ug/L			694743	641025	3	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.000	171	42	41	10	Standard
⌈>	**Tb**	**159**		ug/L			967294	1009937	1	Standard
⌊	**Pb**	**208**	**-0.006**	ug/L	0.001	9	274	135	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~**BGF0654-BLK1**~~ BGF0564-BLK1
Sample Dil Factor: TH 06-27-18
Comments:
Sample Date/Time: Wednesday, June 27, 2018 16:26:58
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			15262	24226	0	Standard
	Cl	**37**		ug/L			6177289	6008315	3	Standard
⌈>	**Sc**	**45**		ug/L			914004	921577	2	Standard
|	**Cr**	**52**	**-0.042**	ug/L	0.048	116	13847	13299	3	Standard
|	**Cr**	**53**	**0.057**	ug/L	0.009	14	443	555	4	Standard
⌊	**Mn**	**55**	**0.277**	ug/L	0.002	0	542	6655	1	Standard
⌈>	**Ge-1**	**72**		ug/L			62629	57716	3	KED
|	**Ni**	**60**	**0.038**	ug/L	0.003	6	32	66	6	KED
|	**Ni**	**62**	**-0.014**	ug/L	0.016	112	21	17	16	KED
|	**Cu**	**63**	**0.047**	ug/L	0.009	19	38	151	11	KED
|	**Cu**	**65**	**0.042**	ug/L	0.008	18	17	66	13	KED
|	**Zn**	**66**	**0.469**	ug/L	0.038	8	51	200	9	KED
|	**Zn**	**67**	**0.360**	ug/L	0.105	29	11	29	16	KED
⌊	**As**	**75**	**-0.001**	ug/L	0.008	1148	5	5	32	KED
	Y	**89**		ug/L			545742	484004	1	Standard
	Kr	**83**		ug/L			46	37	12	Standard
⌈>	**In-1**	**115**		ug/L			28147	26577	2	KED
|	**Cd**	**111**	**-0.003**	ug/L	0.002	48	2	1	34	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.004	549	4	4	65	KED
⌈>	**In**	**115**		ug/L			694743	666358	2	Standard
⌊	**Ag**	**107**	**-0.001**	ug/L	0.001	75	42	31	24	Standard
⌈>	**Tb**	**159**		ug/L			967294	1017885	3	Standard
⌊	**Pb**	**208**	**-0.000**	ug/L	0.001	874	274	285	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0302-01RE1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 16:31:27
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			15262	24382	2	Standard
	Cl	37		ug/L			6177289	5969190	2	Standard
>	Sc	45		ug/L			914004	908304	1	Standard
	Cr	52	0.067	ug/L	0.005	7	13847	14796	0	Standard
	Cr	53	0.084	ug/L	0.027	32	443	597	7	Standard
	Mn	55	0.699	ug/L	0.031	4	542	15742	3	Standard
>	Ge-1	72		ug/L			62629	59855	1	KED
	Ni	60	0.233	ug/L	0.013	5	32	259	6	KED
	Ni	62	0.182	ug/L	0.080	43	21	48	23	KED
	Cu	63	0.376	ug/L	0.017	4	38	1000	3	KED
	Cu	65	0.385	ug/L	0.021	5	17	495	5	KED
	Zn	66	1.023	ug/L	0.065	6	51	394	4	KED
	Zn	67	0.892	ug/L	0.163	18	11	60	16	KED
	As	75	-0.005	ug/L	0.003	62	5	4	16	KED
	Y	89		ug/L			545742	480310	1	Standard
	Kr	83		ug/L			46	31	21	Standard
>	In-1	115		ug/L			28147	26266	1	KED
	Cd	111	0.001	ug/L	0.008	1186	2	2	88	KED
	Cd	114	-0.005	ug/L	0.009	189	4	0	20314	KED
>	In	115		ug/L			694743	655563	3	Standard
	Ag	107	-0.000	ug/L	0.000	259	42	38	10	Standard
>	Tb	159		ug/L			967294	1027140	3	Standard
	Pb	208	0.014	ug/L	0.000	2	274	640	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~18F0309-01RE1~~ 18F0304-01RE1
Sample Dil Factor: TH 06-27-18
Comments:
Sample Date/Time: Wednesday, June 27, 2018 16:35:55
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			15262	33938	3	Standard
	Cl	37		ug/L			6177289	8237016	3	Standard
>	Sc	45		ug/L			914004	1097404	1	Standard
	Cr	52	0.157	ug/L	0.022	13	13847	19558	0	Standard
	Cr	53	5.182	ug/L	0.048	0	443	12239	2	Standard
	Mn	55	4.258	ug/L	0.069	1	542	112602	0	Standard
>	Ge-1	72		ug/L			62629	55269	0	KED
	Ni	60	0.719	ug/L	0.059	8	32	678	7	KED
	Ni	62	0.675	ug/L	0.114	16	21	116	14	KED
	Cu	63	1.898	ug/L	0.012	0	38	4524	0	KED
	Cu	65	1.911	ug/L	0.087	4	17	2212	4	KED
	Zn	66	27.542	ug/L	0.592	2	51	8644	1	KED
	Zn	67	27.680	ug/L	2.012	7	11	1440	6	KED
	As	75	1.196	ug/L	0.084	7	5	269	6	KED
	Y	89		ug/L			545742	462644	0	Standard
	Kr	83		ug/L			46	41	19	Standard
>	In-1	115		ug/L			28147	23014	0	KED
	Cd	111	0.015	ug/L	0.007	43	2	6	28	KED
	Cd	114	0.007	ug/L	0.007	94	4	8	56	KED
>	In	115		ug/L			694743	607521	3	Standard
	Ag	107	0.001	ug/L	0.000	31	42	53	8	Standard
>	Tb	159		ug/L			967294	1015476	1	Standard
	Pb	208	0.117	ug/L	0.004	3	274	3257	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~**BGF0654-DUP1**~~ BGF0564-DUP1
Sample Dil Factor: **50** TH 06-27-18
Comments:
Sample Date/Time: Wednesday, June 27, 2018 16:40:23
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			15262	17334	1	Standard
	Cl	**37**		ug/L			6177289	14611508	4	Standard
⌈>	**Sc**	**45**		ug/L			914004	927718	1	Standard
|	**Cr**	**52**	**0.286**	ug/L	0.051	17	13847	18558	3	Standard
|	**Cr**	**53**	**11.502**	ug/L	0.135	1	443	22411	0	Standard
⌊	**Mn**	**55**	**0.149**	ug/L	0.008	5	542	3857	3	Standard
⌈>	**Ge-1**	**72**		ug/L			62629	55333	1	KED
|	**Ni**	**60**	**0.013**	ug/L	0.022	161	32	40	47	KED
|	**Ni**	**62**	**-0.057**	ug/L	0.055	95	21	10	71	KED
|	**Cu**	**63**	**0.037**	ug/L	0.003	7	38	121	4	KED
|	**Cu**	**65**	**0.031**	ug/L	0.017	53	17	50	38	KED
|	**Zn**	**66**	**0.289**	ug/L	0.056	19	51	135	13	KED
|	**Zn**	**67**	**0.210**	ug/L	0.162	77	11	20	39	KED
⌊	**As**	**75**	**0.064**	ug/L	0.017	25	5	19	19	KED
	Y	**89**		ug/L			545742	471477	3	Standard
	Kr	**83**		ug/L			46	64	20	Standard
⌈>	**In-1**	**115**		ug/L			28147	24230	1	KED
|	**Cd**	**111**	**-0.004**	ug/L	0.005	125	2	1	114	KED
⌊	**Cd**	**114**	**-0.003**	ug/L	0.003	96	4	1	115	KED
⌈>	**In**	**115**		ug/L			694743	589016	2	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.001	369	42	32	40	Standard
⌈>	**Tb**	**159**		ug/L			967294	944290	2	Standard
⌊	**Pb**	**208**	**0.001**	ug/L	0.001	87	274	298	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0300-01RE1
Sample Dil Factor: 50
Comments:
Sample Date/Time: Wednesday, June 27, 2018 16:44:51
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			15262	17587	6	Standard
	Cl	37		ug/L			6177289	15395206	7	Standard
>	Sc	45		ug/L			914004	943256	1	Standard
	Cr	52	0.309	ug/L	0.019	6	13847	19252	3	Standard
	Cr	53	12.188	ug/L	0.165	1	443	24118	0	Standard
	Mn	55	0.159	ug/L	0.001	0	542	4143	1	Standard
>	Ge-1	72		ug/L			62629	54883	1	KED
	Ni	60	0.010	ug/L	0.018	178	32	37	43	KED
	Ni	62	0.001	ug/L	0.024	2370	21	19	17	KED
	Cu	63	0.044	ug/L	0.004	9	38	137	5	KED
	Cu	65	0.033	ug/L	0.006	17	17	52	11	KED
	Zn	66	0.234	ug/L	0.011	4	51	117	2	KED
	Zn	67	0.151	ug/L	0.081	53	11	17	24	KED
	As	75	0.061	ug/L	0.015	24	5	18	17	KED
	Y	89		ug/L			545742	460379	0	Standard
	Kr	83		ug/L			46	78	11	Standard
>	In-1	115		ug/L			28147	24284	0	KED
	Cd	111	-0.004	ug/L	0.005	123	2	1	114	KED
	Cd	114	0.003	ug/L	0.008	246	4	6	98	KED
>	In	115		ug/L			694743	601638	3	Standard
	Ag	107	-0.001	ug/L	0.000	56	42	28	13	Standard
>	Tb	159		ug/L			967294	962156	0	Standard
	Pb	208	0.000	ug/L	0.001	455	274	277	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~**BGF0654-MS1**~~ BGF0564-MS1
Sample Dil Factor: **50** TH 06-27-18
Comments:
Sample Date/Time: Wednesday, June 27, 2018 16:49:19
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			15262	18009	3	Standard
	Cl	**37**		ug/L			6177289	14810272	2	Standard
⌈>	**Sc**	**45**		ug/L			914004	935463	2	Standard
|	**Cr**	**52**	**0.746**	ug/L	0.057	7	13847	26036	0	Standard
|	**Cr**	**53**	**12.095**	ug/L	0.344	2	443	23730	0	Standard
⌊	**Mn**	**55**	**0.630**	ug/L	0.019	2	542	14679	2	Standard
⌈>	**Ge-1**	**72**		ug/L			62629	57122	0	KED
|	**Ni**	**60**	**0.561**	ug/L	0.020	3	32	553	3	KED
|	**Ni**	**62**	**0.508**	ug/L	0.180	35	21	95	28	KED
|	**Cu**	**63**	**0.535**	ug/L	0.037	6	38	1344	6	KED
|	**Cu**	**65**	**0.562**	ug/L	0.026	4	17	683	4	KED
|	**Zn**	**66**	**1.816**	ug/L	0.082	4	51	633	4	KED
|	**Zn**	**67**	**1.862**	ug/L	0.293	15	11	109	14	KED
⌊	**As**	**75**	**0.567**	ug/L	0.035	6	5	134	6	KED
	Y	**89**		ug/L			545742	471882	1	Standard
	Kr	**83**		ug/L			46	105	5	Standard
⌈>	**In-1**	**115**		ug/L			28147	24330	3	KED
|	**Cd**	**111**	**0.498**	ug/L	0.072	14	2	150	17	KED
⌊	**Cd**	**114**	**0.487**	ug/L	0.011	2	4	376	1	KED
⌈>	**In**	**115**		ug/L			694743	607738	1	Standard
⌊	**Ag**	**107**	**0.406**	ug/L	0.016	3	42	4848	5	Standard
⌈>	**Tb**	**159**		ug/L			967294	955045	3	Standard
⌊	**Pb**	**208**	**0.484**	ug/L	0.013	2	274	11864	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~BGF0654-BS1~~ BGF0564-BS1
Sample Dil Factor: TH 06-27-18
Comments:
Sample Date/Time: Wednesday, June 27, 2018 16:53:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	13		ug/L			15262	24230	1	Standard
	Cl	37		ug/L			6177289	6159825	1	Standard
>	Sc	45		ug/L			914004	941967	2	Standard
	Cr	52	24.486	ug/L	0.849	3	13847	406609	0	Standard
	Cr	53	23.807	ug/L	0.808	3	443	46594	1	Standard
	Mn	55	24.552	ug/L	0.732	2	542	554604	1	Standard
>	Ge-1	72		ug/L			62629	62453	1	KED
	Ni	60	27.503	ug/L	0.560	2	32	28109	2	KED
	Ni	62	26.402	ug/L	0.930	3	21	4309	2	KED
	Cu	63	27.869	ug/L	0.648	2	38	74533	1	KED
	Cu	65	27.950	ug/L	0.476	1	17	36324	1	KED
	Zn	66	87.670	ug/L	0.622	0	51	30984	1	KED
	Zn	67	81.690	ug/L	2.878	3	11	4779	2	KED
	As	75	24.528	ug/L	0.236	0	5	6120	0	KED
	Y	89		ug/L			545742	492225	2	Standard
	Kr	83		ug/L			46	46	22	Standard
>	In-1	115		ug/L			28147	26793	1	KED
	Cd	111	25.980	ug/L	0.098	0	2	8481	0	KED
	Cd	114	25.468	ug/L	0.630	2	4	21455	1	KED
>	In	115		ug/L			694743	649046	3	Standard
	Ag	107	21.656	ug/L	0.293	1	42	273985	3	Standard
>	Tb	159		ug/L			967294	1025977	1	Standard
	Pb	208	25.943	ug/L	0.881	3	274	667841	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 16:59:20
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			15262	16142	0	Standard
	Cl	**37**		ug/L			6177289	5916175	1	Standard
>	**Sc**	**45**		ug/L			914004	921530	2	Standard
	Cr	**52**	**45.645**	ug/L	1.429	3	13847	729544	1	Standard
	Cr	**53**	**43.987**	ug/L	1.249	2	443	83852	0	Standard
	Mn	**55**	**46.554**	ug/L	0.865	1	542	1028404	0	Standard
>	**Ge-1**	**72**		ug/L			62629	57380	2	KED
	Ni	**60**	**53.249**	ug/L	1.503	2	32	49951	1	KED
	Ni	**62**	**52.628**	ug/L	1.273	2	21	7873	2	KED
	Cu	**63**	**53.882**	ug/L	1.047	1	38	132342	0	KED
	Cu	**65**	**54.295**	ug/L	2.332	4	17	64809	4	KED
	Zn	**66**	**55.017**	ug/L ✓	1.573	2	51	17873	1	KED
	Zn	**67**	**51.544**	ug/L	0.738	1	11	2774	1	KED
	As	**75**	**48.913**	ug/L	2.073	4	5	11202	2	KED
	Y	**89**		ug/L			545742	463064	2	Standard
	Kr	**83**		ug/L			46	46	35	Standard
>	**In-1**	**115**		ug/L			28147	25376	1	KED
	Cd	**111**	**50.716**	ug/L	0.214	0	2	15679	1	KED
	Cd	**114**	**49.833**	ug/L	1.089	2	4	39761	1	KED
>	**In**	**115**		ug/L			694743	630212	1	Standard
	Ag	**107**	**40.700**	ug/L	0.424	1	42	499931	1	Standard
>	**Tb**	**159**		ug/L			967294	1008650	2	Standard
	Pb	**208**	**50.538**	ug/L	1.776	3	274	1278529	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 17:06:33
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			15262	15200	4	Standard
	Cl	**37**		ug/L			6177289	5990864	1	Standard
⌈>	**Sc**	**45**		ug/L			914004	914230	2	Standard
|	**Cr**	**52**	**-0.052**	ug/L	0.027	51	13847	13034	0	Standard
|	**Cr**	**53**	**0.042**	ug/L	0.020	48	443	521	6	Standard
⌊	**Mn**	**55**	**-0.002**	ug/L	0.001	36	542	501	3	Standard
⌈>	**Ge-1**	**72**		ug/L			62629	58791	2	KED
|	**Ni**	**60**	**-0.017**	ug/L	0.004	23	32	13	28	KED
|	**Ni**	**62**	**-0.033**	ug/L	0.066	196	21	15	66	KED
|	**Cu**	**63**	**-0.004**	ug/L	0.003	58	38	25	24	KED
|	**Cu**	**65**	**-0.002**	ug/L	0.002	120	17	13	20	KED
|	**Zn**	**66**	**-0.067**	ug/L	0.003	4	51	26	4	KED
|	**Zn**	**67**	**-0.114**	ug/L	0.021	18	11	4	24	KED
⌊	**As**	**75**	**-0.006**	ug/L	0.006	109	5	4	35	KED
	Y	**89**		ug/L			545742	486777	1	Standard
	Kr	**83**		ug/L			46	34	56	Standard
⌈>	**In-1**	**115**		ug/L			28147	25066	1	KED
|	**Cd**	**111**	**-0.004**	ug/L	0.005	112	2	1	114	KED
⌊	**Cd**	**114**	**-0.003**	ug/L	0.000	5	4	1	4	KED
⌈>	**In**	**115**		ug/L			694743	642148	1	Standard
⌊	**Ag**	**107**	**-0.001**	ug/L	0.001	77	42	29	26	Standard
⌈>	**Tb**	**159**		ug/L			967294	1013142	1	Standard
⌊	**Pb**	**208**	**-0.006**	ug/L	0.001	9	274	137	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0376-02
Sample Dil Factor: 100 DEL
Comments:
Sample Date/Time: Wednesday, June 27, 2018 17:11:02
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			15262	17146	2	Standard
	Cl	**37**		ug/L			6177289	5786843	0	Standard
⌈>	**Sc**	**45**		ug/L			914004	934323	2	Standard
|	**Cr**	**52**	**0.072**	ug/L	0.036	49	13847	15298	1	Standard
|	**Cr**	**53**	**0.105**	ug/L	0.008	7	443	654	1	Standard
⌊	**Mn**	**55**	**2.699**	ug/L	0.022	0	542	60975	1	Standard
⌈>	**Ge-1**	**72**		ug/L			62629	58730	1	KED
|	**Ni**	**60**	**-0.010**	ug/L	0.005	52	32	20	24	KED
|	**Ni**	**62**	**-0.041**	ug/L	0.037	91	21	13	41	KED
|	**Cu**	**63**	**0.376**	ug/L	0.044	11	38	982	11	KED
|	**Cu**	**65**	**0.363**	ug/L	0.023	6	17	459	5	KED
|	**Zn**	**66**	**0.186**	ug/L	0.031	16	51	109	8	KED
|	**Zn**	**67**	**0.336**	ug/L	0.085	25	11	29	16	KED
⌊	**As**	**75**	**-0.009**	ug/L	0.006	60	5	3	37	KED
	Y	**89**		ug/L			545742	475378	1	Standard
	Kr	**83**		ug/L			46	34	3	Standard
⌈>	**In-1**	**115**		ug/L			28147	25537	1	KED
|	**Cd**	**111**	**-0.001**	ug/L	0.004	312	2	2	49	KED
⌊	**Cd**	**114**	**-0.003**	ug/L	0.001	37	4	1	90	KED
⌈>	**In**	**115**		ug/L			694743	644343	5	Standard
⌊	**Ag**	**107**	**0.248**	ug/L	0.025	10	42	3164	15	Standard
⌈>	**Tb**	**159**		ug/L			967294	1004232	0	Standard
⌊	**Pb**	**208**	**0.002**	ug/L	0.001	55	274	324	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0376-01
Sample Dil Factor: 100 DEL
Comments:
Sample Date/Time: Wednesday, June 27, 2018 17:15:30
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			15262	30731	2	Standard
	Cl	**37**		ug/L			6177289	5581723	0	Standard
⌈>	**Sc**	**45**		ug/L			914004	930859	2	Standard
|	**Cr**	**52**	**1.318**	ug/L	0.067	5	13847	34962	1	Standard
|	**Cr**	**53**	**1.254**	ug/L	0.068	5	443	2852	1	Standard
⌊	**Mn**	**55**	**34.013**	ug/L	1.302	3	542	758817	1	Standard
⌈>	**Ge-1**	**72**		ug/L			62629	56476	1	KED
|	**Ni**	**60**	**0.038**	ug/L	0.013	33	32	64	17	KED
|	**Ni**	**62**	**0.032**	ug/L	0.009	29	21	24	4	KED
|	**Cu**	**63**	**0.002**	ug/L	0.004	262	38	38	25	KED
|	**Cu**	**65**	**0.007**	ug/L	0.003	36	17	24	12	KED
|	**Zn**	**66**	**0.248**	ug/L	0.027	10	51	125	8	KED
|	**Zn**	**67**	**0.154**	ug/L	0.044	28	11	18	11	KED
⌊	**As**	**75**	**-0.009**	ug/L	0.008	94	5	3	57	KED
	Y	**89**		ug/L			545742	430608	3	Standard
	Kr	**83**		ug/L			46	46	17	Standard
⌈>	**In-1**	**115**		ug/L			28147	23901	0	KED
|	**Cd**	**111**	**0.005**	ug/L	0.003	69	2	3	25	KED
⌊	**Cd**	**114**	**-0.002**	ug/L	0.003	105	4	1	104	KED
⌈>	**In**	**115**		ug/L			694743	627269	1	Standard
⌊	**Ag**	**107**	**0.059**	ug/L	0.002	3	42	758	2	Standard
⌈>	**Tb**	**159**		ug/L			967294	1034984	2	Standard
⌊	**Pb**	**208**	**0.000**	ug/L	0.002	473	274	304	18	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 17:19:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			15262	18421	2	Standard
	Cl	**37**		ug/L			6177289	5765301	1	Standard
⌈>	**Sc**	**45**		ug/L			914004	1025898	1	Standard
|	**Cr**	**52**	**-0.059**	ug/L	0.031	52	13847	14515	2	Standard
|	**Cr**	**53**	**-0.068**	ug/L	0.007	10	443	353	4	Standard
⌊	**Mn**	**55**	**0.033**	ug/L	0.008	24	542	1430	14	Standard
⌈>	**Ge-1**	**72**		ug/L			62629	58056	1	KED
|	**Ni**	**60**	**0.002**	ug/L	0.005	201	32	32	15	KED
|	**Ni**	**62**	**-0.057**	ug/L	0.045	79	21	11	60	KED
|	**Cu**	**63**	**0.005**	ug/L	0.003	55	38	48	14	KED
|	**Cu**	**65**	**0.006**	ug/L	0.007	121	17	22	36	KED
|	**Zn**	**66**	**0.052**	ug/L	0.029	54	51	64	13	KED
|	**Zn**	**67**	**0.027**	ug/L	0.039	144	11	12	18	KED
⌊	**As**	**75**	**-0.005**	ug/L	0.002	43	5	4	11	KED
	Y	**89**		ug/L			545742	482331	1	Standard
	Kr	**83**		ug/L			46	34	8	Standard
⌈>	**In-1**	**115**		ug/L			28147	26096	1	KED
|	**Cd**	**111**	**-0.002**	ug/L	0.005	224	2	1	86	KED
⌊	**Cd**	**114**	**-0.002**	ug/L	0.003	154	4	2	112	KED
⌈>	**In**	**115**		ug/L			694743	676936	2	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.000	162	42	45	10	Standard
⌈>	**Tb**	**159**		ug/L			967294	1122602	2	Standard
⌊	**Pb**	**208**	**-0.002**	ug/L	0.002	65	274	247	17	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 17:24:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			15262	18821	3	Standard
	Cl	**37**		ug/L			6177289	5946204	3	Standard
⌈>	**Sc**	**45**		ug/L			914004	1046972	2	Standard
|	**Cr**	**52**	**-0.080**	ug/L	0.025	31	13847	14438	1	Standard
|	**Cr**	**53**	**-0.086**	ug/L	0.018	20	443	322	9	Standard
⌊	**Mn**	**55**	**0.024**	ug/L	0.002	6	542	1227	5	Standard
⌈>	**Ge-1**	**72**		ug/L			62629	58680	1	KED
|	**Ni**	**60**	**-0.004**	ug/L	0.003	66	32	26	11	KED
|	**Ni**	**62**	**-0.070**	ug/L	0.025	35	21	9	40	KED
|	**Cu**	**63**	**0.005**	ug/L	0.006	132	38	48	32	KED
|	**Cu**	**65**	**0.007**	ug/L	0.008	113	17	24	37	KED
|	**Zn**	**66**	**0.087**	ug/L	0.035	40	51	76	14	KED
|	**Zn**	**67**	**-0.009**	ug/L	0.133	1527	11	10	70	KED
⌊	**As**	**75**	**-0.010**	ug/L	0.008	78	5	3	56	KED
	Y	**89**		ug/L			545742	488104	0	Standard
	Kr	**83**		ug/L			46	41	20	Standard
⌈>	**In-1**	**115**		ug/L			28147	26321	2	KED
|	**Cd**	**111**	**-0.003**	ug/L	0.004	128	2	1	91	KED
⌊	**Cd**	**114**	**0.000**	ug/L	0.004	1186	4	4	68	KED
⌈>	**In**	**115**		ug/L			694743	675772	1	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.001	348	42	36	48	Standard
⌈>	**Tb**	**159**		ug/L			967294	1162173	2	Standard
⌊	**Pb**	**208**	**-0.002**	ug/L	0.000	13	274	263	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 17:28:56
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			15262	18507	1	Standard
	Cl	**37**		ug/L			6177289	5877553	0	Standard
⌈>	**Sc**	**45**		ug/L			914004	1041965	1	Standard
|	**Cr**	**52**	**-0.073**	ug/L	0.010	14	13847	14494	2	Standard
|	**Cr**	**53**	**-0.090**	ug/L	0.005	5	443	312	2	Standard
⌊	**Mn**	**55**	**0.024**	ug/L	0.002	8	542	1209	3	Standard
⌈>	**Ge-1**	**72**		ug/L			62629	59794	1	KED
|	**Ni**	**60**	**0.009**	ug/L	0.003	32	32	39	7	KED
|	**Ni**	**62**	**-0.067**	ug/L	0.017	25	21	10	28	KED
|	**Cu**	**63**	**0.003**	ug/L	0.003	100	38	45	17	KED
|	**Cu**	**65**	**0.002**	ug/L	0.003	151	17	19	20	KED
|	**Zn**	**66**	**0.033**	ug/L	0.020	59	51	60	12	KED
|	**Zn**	**67**	**-0.014**	ug/L	0.110	810	11	10	60	KED
⌊	**As**	**75**	**-0.006**	ug/L	0.003	47	5	4	17	KED
	Y	**89**		ug/L			545742	485023	2	Standard
	Kr	**83**		ug/L			46	37	29	Standard
⌈>	**In-1**	**115**		ug/L			28147	25911	1	KED
|	**Cd**	**111**	**0.001**	ug/L	0.008	1158	2	2	88	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.005	363	4	2	133	KED
⌈>	**In**	**115**		ug/L			694743	670566	1	Standard
⌊	**Ag**	**107**	**0.000**	ug/L	0.001	819	42	42	28	Standard
⌈>	**Tb**	**159**		ug/L			967294	1092048	1	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.001	105	274	291	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 17:33:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			15262	18338	5	Standard
	Cl	**37**		ug/L			6177289	5604059	1	Standard
⌈>	**Sc**	**45**		ug/L			914004	862437	1	Standard
|	**Cr**	**52**	**-0.006**	ug/L	0.037	660	13847	12979	2	Standard
|	**Cr**	**53**	**-0.076**	ug/L	0.009	11	443	283	4	Standard
⌊	**Mn**	**55**	**-0.005**	ug/L	0.001	13	542	402	3	Standard
⌈>	**Ge-1**	**72**		ug/L			62629	55761	4	KED
|	**Ni**	**60**	**0.002**	ug/L	0.002	122	32	30	10	KED
|	**Ni**	**62**	**-0.039**	ug/L	0.060	153	21	13	62	KED
|	**Cu**	**63**	**0.013**	ug/L	0.003	23	38	64	7	KED
|	**Cu**	**65**	**0.016**	ug/L	0.008	45	17	34	25	KED
|	**Zn**	**66**	**0.572**	ug/L	0.029	5	51	226	7	KED
|	**Zn**	**67**	**0.372**	ug/L	0.205	55	11	29	39	KED
⌊	**As**	**75**	**-0.003**	ug/L	0.007	278	5	4	33	KED
	Y	**89**		ug/L			545742	440032	2	Standard
	Kr	**83**		ug/L			46	26	18	Standard
⌈>	**In-1**	**115**		ug/L			28147	24282	2	KED
|	**Cd**	**111**	**-0.003**	ug/L	0.004	117	2	1	69	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.004	459	4	3	97	KED
⌈>	**In**	**115**		ug/L			694743	591362	4	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.001	259	42	33	26	Standard
⌈>	**Tb**	**159**		ug/L			967294	968568	3	Standard
⌊	**Pb**	**208**	**-0.008**	ug/L	0.000	6	274	86	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 17:37:53
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			15262	17950	6	Standard
	Cl	**37**		ug/L			6177289	5708579	4	Standard
⌈>	**Sc**	**45**		ug/L			914004	879325	3	Standard
|	**Cr**	**52**	**-0.060**	ug/L	0.016	26	13847	12420	1	Standard
|	**Cr**	**53**	**-0.076**	ug/L	0.014	17	443	287	6	Standard
⌊	**Mn**	**55**	**-0.006**	ug/L	0.001	13	542	393	3	Standard
⌈>	**Ge-1**	**72**		ug/L			62629	56847	0	KED
|	**Ni**	**60**	**0.007**	ug/L	0.004	53	32	36	10	KED
|	**Ni**	**62**	**-0.055**	ug/L	0.034	61	21	11	44	KED
|	**Cu**	**63**	**0.015**	ug/L	0.003	19	38	71	10	KED
|	**Cu**	**65**	**0.012**	ug/L	0.013	109	17	29	50	KED
|	**Zn**	**66**	**0.579**	ug/L	0.104	17	51	232	13	KED
|	**Zn**	**67**	**0.594**	ug/L	0.160	26	11	41	19	KED
⌊	**As**	**75**	**-0.005**	ug/L	0.005	93	5	4	26	KED
	Y	**89**		ug/L			545742	434514	2	Standard
	Kr	**83**		ug/L			46	34	11	Standard
⌈>	**In-1**	**115**		ug/L			28147	24075	2	KED
|	**Cd**	**111**	**0.000**	ug/L	0.010	2125	2	2	114	KED
⌊	**Cd**	**114**	**0.000**	ug/L	0.002	3470	4	3	50	KED
⌈>	**In**	**115**		ug/L			694743	610512	1	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.000	98	42	34	9	Standard
⌈>	**Tb**	**159**		ug/L			967294	947383	1	Standard
⌊	**Pb**	**208**	**-0.008**	ug/L	0.000	4	274	82	10	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, June 27, 2018 17:42:22
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nominKED_UCT_CrShortAg.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062718A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
	C	**13**		ug/L			15262	17726	0	Standard
	Cl	**37**		ug/L			6177289	5902379	2	Standard
⌈>	**Sc**	**45**		ug/L			914004	874841	3	Standard
|	**Cr**	**52**	**-0.037**	ug/L	0.021	55	13847	12697	1	Standard
|	**Cr**	**53**	**-0.092**	ug/L	0.014	15	443	258	6	Standard
⌊	**Mn**	**55**	**-0.005**	ug/L	0.001	27	542	414	5	Standard
⌈>	**Ge-1**	**72**		ug/L			62629	57817	0	KED
|	**Ni**	**60**	**0.005**	ug/L	0.015	326	32	34	41	KED
|	**Ni**	**62**	**-0.035**	ug/L	0.007	19	21	14	7	KED
|	**Cu**	**63**	**0.018**	ug/L	0.008	44	38	81	25	KED
|	**Cu**	**65**	**0.022**	ug/L	0.003	14	17	42	9	KED
|	**Zn**	**66**	**0.476**	ug/L	0.085	17	51	203	14	KED
|	**Zn**	**67**	**0.462**	ug/L	0.163	35	11	35	25	KED
⌊	**As**	**75**	**0.005**	ug/L	0.006	113	5	6	21	KED
	Y	**89**		ug/L			545742	452695	1	Standard
	Kr	**83**		ug/L			46	34	14	Standard
⌈>	**In-1**	**115**		ug/L			28147	24378	0	KED
|	**Cd**	**111**	**-0.005**	ug/L	0.003	61	2	0	100	KED
⌊	**Cd**	**114**	**-0.000**	ug/L	0.004	8338	4	3	90	KED
⌈>	**In**	**115**		ug/L			694743	608936	2	Standard
⌊	**Ag**	**107**	**-0.000**	ug/L	0.001	205	42	31	33	Standard
⌈>	**Tb**	**159**		ug/L			967294	956499	2	Standard
⌊	**Pb**	**208**	**-0.008**	ug/L	0.000	1	274	82	1	Standard

INITIAL CALIBRATION DATA

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00069
Instrument: ICPMS2
Calibration Date: 06/29/2018 7:54

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Arsenic-75a, Dissolved	0	0	0.2	345	10	329.3	20	334.5	50	317.68	100	312.81
Cadmium-111, Dissolved	0	0	0.1	480	10	445.3	20	449.75	50	419.64	100	410.82
Cadmium-114, Dissolved	0	0	0.1	1030	10	1137.4	20	1185	50	1073.68	100	1049.99
Copper-63, Dissolved	0	0	0.5	4018	10	3758.8	20	3898.1	50	3632.22	100	3339.19
Copper-65, Dissolved	0	0	0.5	1940	10	1841.1	20	1852.75	50	1719.54	100	1677.2
Zinc-66, Dissolved	0	0	4	601	10	526	20	545.2	50	482.86	100	461.51
Zinc-67, Dissolved	0	0	4	92	10	86.8	20	85.9	50	81.32	100	76.5

INITIAL CALIBRATION DATA

EPA 6020A UCT-KED

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00069	Instrument:	ICPMS2
Calibration Date:	06/29/2018 7:54		

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Arsenic-75a, Dissolved	273.215	49.2	0.9998		0.998	
Cadmium-111, Dissolved	367.585	49.4	0.9996		0.998	
Cadmium-114, Dissolved	912.6783	49.4	0.9993		0.998	
Copper-63, Dissolved	3107.718	49.6	0.9976		0.998	*
Copper-65, Dissolved	1505.098	49.4	0.9995		0.998	
Zinc-66, Dissolved	436.095	50.3	0.9988		0.998	
Zinc-67, Dissolved	70.42	49.6	0.9989		0.998	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6-28-18 **Analyst:** TH **Sequence:** SGF0392

All corrections made by analyst unless otherwise noted. TH 6-28-18

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	SEQ-CAL1			
	↓	-CAL2			
	↓	-CAL3			
	↓	-CAL4			
	↓	-CAL5			no solution
	↓	Rinse			
		SEQ-CAL1	GS628		
		-CAL2	GS695		
		-CAL3	GS620		
		-CAL4	GS621		
		-CAL5	GS856		
		-CAL6	GS622		
		-IBL1	—		
		-ICV1	GS703		
		-ICB1	GS628		
		-CCV1	GS656		
		-CCB1	GS628		
		-CRL1	GS695		
		-IFA1	GS699		V-1, Cr 53 ↑ Li ↑
		-IFB1	GS697		↓ ↓
		-HCV1	GS700		Be, Ag ↓
		-HCV2	GS701		Ag ↓
		-IBL2-IBL3			
		-CCV2			

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ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6-28-18 **Analyst:** TH **Sequence:** —

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CCB2			
		BGFO506-BLK1	SWN	20	
		18FO174-02	↓	↓	
		18FO241-01			
	✓	↓ -02			Cd noisy
		↓ -03			
		BGFO506-DUP1			Pb RPD↑ (ER)
		18FO174-01			
		BGFO506-MS1			
		↓ -MSD1			
		↓ -BS1	↓	↓	
		SEQ-CCV3			
		↓ -CCB3			
		BGFO579-BLK2	KEN		Ag, Ba, Co, Sb, Se, Tl, U only
		BGFO480-BLK1	↓		
		18FO241-04	SWN	20	
	✓	↓ -05			no sample
		↓ -06			
		18FO242-01			
		↓ -02			
		18FO256-01			
		↓ -02	↓	↓	
		BGFO480-BS1	KEN		
		SEQ-CCV4			BeV

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ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6-28-18 **Analyst:** TH **Sequence:** —

All corrections made by analyst unless otherwise noted. TH 6-28-18

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CCV4			
		18F0332-01	REN		NO ISe
		18F0360-02	↓	5	Cr only
		18F0367-02	↓	↓	Ag only
		↓ -03	↓	↓	↓
		↓ -04	↓	↓	↓
		BGF0579-DUP2	↓	↓	Ag, Co, Sb, Se, Tl, V only
		18F0335-07	↓	↓	↓
		BGF0579-MS2	↓	↓	↓
		↓ -MSD2	↓	↓	↓
		↓ -ISS2	↓	↓	↓
		SEQ-CCV5			ISc 135 ↑ ISe ↓
		↓ -CCIS5			
		BGF0546-ISLK2	REN		~~As~~, Se, Tl only
		18F0319-01	↓	↓	
		↓ -03	↓	↓	
		18F0241-02	SUN	20	
		↓ -05	↓	↓	
		BGF0546-DUP2	REN		Se, Tl only
		18F0319-09	↓	↓	↓
		BGF0546-MS2	↓	↓	↓
		↓ -MSD2	↓	↓	↓
		↓ -ISS2	↓	↓	↓
		SEQ-CCV6			Be ↓

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ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6-28-18 **Analyst:** TH **Sequence:** —

All corrections made by analyst unless otherwise noted: TH 6-28-18

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CCV6			
525		BGFO~~545~~525-BLK2	TCEN		Sb, ~~As~~, Se, Tl only
		18FO319-05			
		↓ -07			
		↓ -12			
		18FO297-01			
		↓ -03			
		BGFO525-DUP2			Sb, ~~As~~, Se, Tl only
		18FO294-01			
		BGFO525-MS2			
		↓ -BS2			
		SEQ-CCV7			ICV
		↓ -CCB7			
		18FO297-05	TCEN		
		-07			
		-09			
		-11			
		-13			
		↓ -15			
		BGFO480-DUP1		10	
		18FO248-08		↓	
		BGFO480-MS1	↓		
		SEQ-ICB4			
		↓ -CCV8			ICV

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ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6-28-18 **Analyst:** TH **Sequence:** —

All corrections made by analyst unless otherwise noted. TH 06-28-18

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-CCI58			
		↓ -CAL1			
		-CCV9			ISe↓
		↓ -CCB9			
		18F0297-17	TCEN		
		18F0304-01	↓		No ISe
		18F0334-02			No ISc, ISe, Ag
		18F0338-01			↓
		↓ -03			
		-05			
		-09			
		↓ -11			↓
		18F0371-01			Se only
		↓ -03	↓		↓
		SEQ-CCVA			Be, Ag ↓ ISc 133, 137 ↑
		↓ -CCBA			
		ISGF0651-ISLK2	TCEN		Se only
		18F0371-04	↓		↓
		↓ -05			
		18F0381-01		50	Cr, Zn only
DUP3		ISGF0651-~~DUP2~~ DUP3			Se only
		18F0367-01			↓
MS3		ISGF0651-~~MS2~~ MS3			
		↓ -BS2	↓		↓

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ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 6-28-18 **Analyst:** TK **Sequence:** —

All corrections made by analyst unless otherwise noted. TK 6-28-18

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		SEQ-~~CCV6~~ CCV13			~~Ba~~ Be↓
		↓ -~~CCB6~~ CCB13			Ni: 60, 62 ↑
		18F0334-01	REN		No Ni, Be, Ba, Ag
	✓	18F0376-02	|	50	
	↓	↓ -01	↓	20	
		SEQ-CCVC			Be, Ag↓ Ba 135, 137 ↑
		↓ -CCBC			
		Rinse/DI			
		TK 6-28-18			

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Thursday, June 28, 2018 06:38:29
Sample Description:
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\STD Performance Check.mth
Dataset File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\DataSet\Default\STD Performance Check.15266
MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	4283.9	4283.909	94.554	2.2	Standard
	In	114.9	45715.7	-1118993.084	773.360	0.1	Standard
	U	238.1	26083.7	26083.725	167.921	0.6	Standard
⌈	CeO	155.9	1258.7	0.019	0.000	1.8	Standard
| >	Ce	139.9	64872.9	64872.903	471.561	0.7	Standard
⌊	Ce++	70.0	451.2	0.007	0.000	1.3	Standard
	Bkgd	220.0	0.0	0.033	0.075	223.6	Standard

Current Conditions File Data

Current Value	Description
0.94	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-9.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-3.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
0.94	DRC Mode NEB
-10.00	DRC Mode QRO
-3.00	DRC Mode CRO
-7.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-13.00	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
0.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 6/28/2018 6:38:24 AM
End Time: 6/28/2018 6:48:25 AM

STD Performance Check - [Failed]
Obtained Intensity (Be 9): 4283.91
Obtained Intensity (In 115): 45715.71
Obtained Intensity (U 238): 26083.73 - <Target not achieved>
Obtained Intensity (Bkgd 220): 0.03
Obtained Formula (Ce++ 70 / Ce 140): 0.007 (=451.21 / 64872.90)
Obtained Formula (CeO 156 / Ce 140): 0.019 (=1258.72 / 64872.90)

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
0.00 mm	0.19 mm	65340.09

Nebulizer Gas Flow STD/KED [NEB] - [Passed] Optimum value(s): 0.94
Obtained Intensity (In 115): 69744.84
Obtained Formula (CeO 156 / Ce 140): 0.0199 (=1627.09 / 81664.75)

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.710)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.703)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.702)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.714)

QID STD/DRC - Optimum value(s): Correlation Coefficient = 0.993; Intercept = -11.63

KED Mode QID - Optimum value(s): Correlation Coefficient = 1.000; Intercept = -12.67

SmartTune Wizard - Details

```
Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 6/28/2018 6:38:24 AM

STD Performance Check
        Optimization Settings:
                Method: STD Performance Check.mth.
                Intensity Criterion: Be 9 > 2000
                Intensity Criterion: In 115 > 40000
                Intensity Criterion: U 238 > 30000
                Intensity Criterion: Bkgd 220 <= 1
                Formula Criterion: Ce++ 70 / Ce 140 <= 0.03
                Formula Criterion: CeO 156 / Ce 140 <= 0.025

        Optimization Results:
        Initial Try
                Obtained Intensity (Be 9): 4283.91
                Obtained Intensity (In 115): 45715.71
                Obtained Intensity (U 238): 26083.73 - <Target not achieved>
                Obtained Intensity (Bkgd 220): 0.03
                Obtained Formula (Ce++ 70 / Ce 140): 0.007 (=451.21 / 64872.90)
                Obtained Formula (CeO 156 / Ce 140): 0.019 (=1258.72 / 64872.90)

                [Failed]
[Failed]

Torch Alignment
        Optimization Settings:
                Method: Torch Alignment.mth.
                Intensity Criterion: In 115 Maximum

        Optimization Results:
                Vertical      Horizontal      Intensity
[Passed]        0.00 mm     0.19 mm       65340.09

Nebulizer Gas Flow STD/KED [NEB]
        Optimization Settings:
                Method: Optimize.mth.
                        Initial Try - Start/End/Step: 0.88/1.1/0.02.
                Intensity Criterion: In 115 Maximum
                Formula Criterion: CeO 156 / Ce 140 <= 0.025

        Optimization Results:
        Initial Try

                Obtained Intensity (In 115): 69744.84
                Obtained Formula (CeO 156 / Ce 140): 0.0199 (=1627.09 / 81664.75)
[Passed]  Optimum value(s): 0.94

Mass Calibration and Resolution
        Optimization Settings:
                Method: Tuning.mth.
                MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
                Iterations: 6
```

Target accuracy (+/- amu): 0.05 for Mass Cal. and 0.03 for Resolution
Peak height (%) for Res. Opt.: 10

Optimization Results:
Initial Try
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.710)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.703)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.702)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.714)
[Passed] Optimum value(s): N/A

QID STD/DRC
Optimization Settings:
Method: QID Calibration.mth.
Initial Try - Start/End/Step: -16/0/0.5.

Optimization Results:
Initial Try

Optimum value(s): Correlation Coefficient = 0.993; Intercept = -11.63

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	33	-12.5	23900
Mg	24	33	-13	40577.5
In	115	33	-9	69954.9
Ce	140	33	-7.5	87986.1
Pb	208	33	-7	22405.6
U	238	33	-2.5	34810.4

KED Mode QID
Optimization Settings:
Method: QID Calibration.mth.
Initial Try - Start/End/Step: -20/0/0.5.

Optimization Results:
Initial Try

Optimum value(s): Correlation Coefficient = 1.000; Intercept = -12.67

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	41	-12.5	19337.1
Mg	24	41	-12	27197.9
In	115	41	-8	54431.5
Ce	140	41	-7	47807.9
Pb	208	41	-4.5	16958.1
U	238	41	-3.5	45921.7

End Time: 6/28/2018 6:48:25 AM

Performance Check Report

Sample ID: STD Performance Check
Sample Date/Time: Thursday, June 28, 2018 06:50:12
Sample Description:
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\STD Performance Check.mth
Dataset File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\DataSet\Default\STD Performance Check.15273
MassCal File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 35
Current Dead Time (ns): 35
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	6066.4	6066.355	94.084	1.6	Standard
	In	114.9	63219.4	63219.355	1289.136	2.0	Standard
	U	238.1	35676.8	35676.831	365.571	1.0	Standard
⌈	CeO	155.9	1880.1	0.022	0.001	3.5	Standard
| >	Ce	139.9	86312.0	86311.978	879.121	1.0	Standard
⌊	Ce++	70.0	716.9	0.008	0.000	5.3	Standard
	Bkgd	220.0	0.1	0.067	0.091	136.9	Standard

Current Conditions File Data

Current Value	Description
0.94	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1600.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-9.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-3.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
0.94	DRC Mode NEB
-10.00	DRC Mode QRO
-3.00	DRC Mode CRO
-7.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-13.00	KED Mode CRO
-12.00	KED Mode QRO
-5.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
0.00	KED Cell Gas B
0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Start Time: 6/28/2018 6:48:51 AM
End Time: 6/28/2018 6:52:17 AM

QID STD/DRC - Optimum value(s): Correlation Coefficient = 0.999; Intercept = -13.26

STD Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9): 6066.35
Obtained Intensity (In 115): 63219.35
Obtained Intensity (U 238): 35676.83
Obtained Intensity (Bkgd 220): 0.07
Obtained Formula (Ce++ 70 / Ce 140): 0.008 (=716.88 / 86311.98)
Obtained Formula (CeO 156 / Ce 140): 0.022 (=1880.12 / 86311.98)

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Wizard\SmartTune\ARIdaily_UCT.swz

Optimization Status

Start Time: 6/28/2018 6:48:51 AM

QID STD/DRC

Optimization Settings:

Method: QID Calibration.mth.

Initial Try - Start/End/Step: -16/0/0.5.

Optimization Results:

Initial Try

Optimum value(s): Correlation Coefficient = 0.999; Intercept = -13.26

Analyte	Mass	Points	DAC	MaxIntensity
Li	7	33	-13	20094.1
Mg	24	33	-12	35873
In	115	33	-8	70372.9
Ce	140	33	-7.5	88694.5
Pb	208	33	-6	21712.5
U	238	33	-2	35343.7

STD Performance Check

Optimization Settings:

Method: STD Performance Check.mth.

Intensity Criterion: Be 9 > 2000

Intensity Criterion: In 115 > 40000

Intensity Criterion: U 238 > 30000

Intensity Criterion: Bkgd 220 <= 1

Formula Criterion: Ce++ 70 / Ce 140 <= 0.03

Formula Criterion: CeO 156 / Ce 140 <= 0.025

Optimization Results:

Initial Try

Obtained Intensity (Be 9): 6066.35

Obtained Intensity (In 115): 63219.35

Obtained Intensity (U 238): 35676.83

Obtained Intensity (Bkgd 220): 0.07

Obtained Formula (Ce++ 70 / Ce 140): 0.008 (=716.88 / 86311.98)

Obtained Formula (CeO 156 / Ce 140): 0.022 (=1880.12 / 86311.98)

[Passed] Optimum value(s): N/A

End Time: 6/28/2018 6:52:17 AM

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments: DEL
Sample Date/Time: Thursday, June 28, 2018 07:21:08
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L				566143	8	Standard
⌊	**Be**	**9**		ug/L				10	39	Standard
	C	**13**		ug/L				17339	3	Standard
	Cl	**37**		ug/L				6584934	0	Standard
⌈>	**Sc**	**45**		ug/L				1071650	1	Standard
⌈	**V**	**51**		ug/L				5460	2	Standard
⌈	**V-1**	**51**		ug/L				936	2	Standard
⌈	**Cr**	**52**		ug/L				16212	2	Standard
⌈	**Cr**	**53**		ug/L				385	2	Standard
⌊	**Mn**	**55**		ug/L				391	8	Standard
⌈>	**Ge-1**	**72**		ug/L				79625	1	KED
⌈	**Co**	**59**		ug/L				31	38	KED
⌈	**Ni**	**60**		ug/L				15	69	KED
⌈	**Ni**	**62**		ug/L				5	57	KED
⌈	**Cu**	**63**		ug/L				31	18	KED
⌈	**Cu**	**65**		ug/L				20	65	KED
⌈	**Zn**	**66**		ug/L				41	7	KED
⌈	**Zn**	**67**		ug/L				8	58	KED
⌈	**As**	**75**		ug/L				5	27	KED
⌊	**Se-1**	**78**		ug/L				27	26	KED
	Y	**89**		ug/L				600665	6	Standard
	Kr	**83**		ug/L				34	31	Standard
⌈>	**In-1**	**115**		ug/L				34335	2	KED
⌈	**Mo**	**98**		ug/L				1	105	KED
⌈	**Cd**	**111**		ug/L				0	100	KED
⌊	**Cd**	**114**		ug/L				1	100	KED
⌈>	**In**	**115**		ug/L				750140	0	Standard
⌈	**Ag**	**107**		ug/L				47	24	Standard
⌈	**Sb**	**121**		ug/L				34	17	Standard
⌈	**Sb**	**123**		ug/L				43	28	Standard
⌈	**Ba**	**135**		ug/L				10	21	Standard
⌊	**Ba**	**137**		ug/L				15	21	Standard
⌈>	**Tb**	**159**		ug/L				1030845	4	Standard
⌈	**Tl**	**205**		ug/L				19	55	Standard
⌊	**Pb**	**208**		ug/L				79	25	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2
Sample Dil Factor: DEL
Comments:
Sample Date/Time: Thursday, June 28, 2018 07:26:04
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			566143	573088	6	Standard
⌊	**Be**	**9**	**0.200**	ug/L	0.011	5	10	1017	5	Standard
	C	**13**		ug/L			17339	18890	3	Standard
	Cl	**37**		ug/L			6584934	6436204	4	Standard
⌈>	**Sc**	**45**		ug/L			1071650	1090773	1	Standard
⌈	**V**	**51**	**0.200**	ug/L	0.014	7	5460	10064	2	Standard
⌊	**V-1**	**51**	**0.200**	ug/L	0.002	1	936	5530	1	Standard
⌈	**Cr**	**52**	**0.500**	ug/L	0.057	11	16212	25685	3	Standard
⌊	**Cr**	**53**	**0.500**	ug/L	0.011	2	385	1452	1	Standard
⌊	**Mn**	**55**	**0.500**	ug/L	0.012	2	391	14064	1	Standard
⌈>	**Ge-1**	**72**		ug/L			79625	81694	1	KED
⌈	**Co**	**59**	**0.200**	ug/L	0.012	5	31	1099	5	KED
⌈	**Ni**	**60**	**0.500**	ug/L	0.013	2	15	736	1	KED
⌊	**Ni**	**62**	**0.500**	ug/L	0.129	25	5	118	22	KED
⌈	**Cu**	**63**	**0.500**	ug/L	0.018	3	31	1878	3	KED
⌊	**Cu**	**65**	**0.500**	ug/L	0.048	9	20	942	9	KED
⌈	**Zn**	**66**	**4.000**	ug/L	0.240	6	41	2383	7	KED
⌊	**Zn**	**67**	**4.000**	ug/L	0.400	9	8	353	11	KED
⌈	**As**	**75**	**0.200**	ug/L	0.007	3	5	67	2	KED
⌊	**Se-1**	**78**	**0.500**	ug/L	0.028	5	27	45	1	KED
	Y	**89**		ug/L			600665	626880	3	Standard
	Kr	**83**		ug/L			34	37	7	Standard
⌈>	**In-1**	**115**		ug/L			34335	35600	0	KED
⌈	**Mo**	**98**	**0.200**	ug/L	0.007	3	1	268	3	KED
⌈	**Cd**	**111**	**0.100**	ug/L	0.018	18	0	56	18	KED
⌊	**Cd**	**114**	**0.100**	ug/L	0.013	13	1	110	13	KED
⌈>	**In**	**115**		ug/L			750140	764527	4	Standard
⌈	**Ag**	**107**	**0.200**	ug/L	0.018	9	47	3100	4	Standard
⌈	**Sb**	**121**	**0.200**	ug/L	0.016	7	34	2196	3	Standard
⌊	**Sb**	**123**	**0.200**	ug/L	0.006	3	43	1833	4	Standard
⌈	**Ba**	**135**	**0.500**	ug/L	0.005	1	10	2179	3	Standard
⌊	**Ba**	**137**	**0.500**	ug/L	0.026	5	15	3695	0	Standard
⌈>	**Tb**	**159**		ug/L			1030845	1050659	1	Standard
⌈	**Tl**	**205**	**0.200**	ug/L	0.005	2	19	3976	2	Standard
⌊	**Pb**	**208**	**0.100**	ug/L	0.010	9	79	2746	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3
Sample Dil Factor: DEL
Comments:
Sample Date/Time: Thursday, June 28, 2018 07:30:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			566143	582939	7	Standard
⌊	**Be**	**9**	**10.000**	ug/L	0.453	4	10	49848	4	Standard
	C	**13**		ug/L			17339	26534	4	Standard
	Cl	**37**		ug/L			6584934	6570978	3	Standard
⌈>	**Sc**	**45**		ug/L			1071650	1123006	1	Standard
⌈	**V**	**51**	**10.000**	ug/L	0.192	1	5460	234867	1	Standard
⌊	**V-1**	**51**	**10.000**	ug/L	0.045	0	936	233900	1	Standard
⌈	**Cr**	**52**	**9.999**	ug/L	0.331	3	16212	200316	1	Standard
⌊	**Cr**	**53**	**10.000**	ug/L	0.397	3	385	22326	4	Standard
⌊	**Mn**	**55**	**9.999**	ug/L	0.382	3	391	273847	3	Standard
⌈>	**Ge-1**	**72**		ug/L			79625	81819	3	KED
⌈	**Co**	**59**	**10.000**	ug/L	0.429	4	31	48505	0	KED
⌊	**Ni**	**60**	**10.000**	ug/L	0.729	7	15	14283	3	KED
⌈	**Ni**	**62**	**10.001**	ug/L	0.062	0	5	2327	2	KED
⌈	**Cu**	**63**	**10.000**	ug/L	0.129	1	31	37206	2	KED
⌊	**Cu**	**65**	**10.000**	ug/L	0.586	5	20	18429	2	KED
⌈	**Zn**	**66**	**9.879**	ug/L	0.701	7	41	5411	3	KED
⌊	**Zn**	**67**	**10.009**	ug/L	0.713	7	8	874	3	KED
⌈	**As**	**75**	**10.000**	ug/L	0.391	3	5	3284	2	KED
⌊	**Se-1**	**78**	**10.004**	ug/L	0.359	3	27	442	2	KED
	Y	**89**		ug/L			600665	624443	5	Standard
	Kr	**83**		ug/L			34	38	30	Standard
⌈>	**In-1**	**115**		ug/L			34335	35745	2	KED
⌈	**Mo**	**98**	**10.000**	ug/L	0.321	3	1	13859	2	KED
⌈	**Cd**	**111**	**10.000**	ug/L	0.324	3	0	4424	0	KED
⌊	**Cd**	**114**	**10.000**	ug/L	0.246	2	1	11417	0	KED
⌈>	**In**	**115**		ug/L			750140	770960	2	Standard
⌈	**Ag**	**107**	**10.000**	ug/L	0.383	3	47	150184	2	Standard
⌈	**Sb**	**121**	**10.000**	ug/L	0.289	2	34	117769	0	Standard
⌊	**Sb**	**123**	**10.000**	ug/L	0.241	2	43	88836	1	Standard
⌈	**Ba**	**135**	**9.998**	ug/L	0.555	5	10	40052	4	Standard
⌊	**Ba**	**137**	**9.999**	ug/L	0.255	2	15	70484	3	Standard
⌈>	**Tb**	**159**		ug/L			1030845	1040381	2	Standard
⌈	**Tl**	**205**	**10.000**	ug/L	0.417	4	19	198478	3	Standard
⌊	**Pb**	**208**	**10.000**	ug/L	0.320	3	79	248727	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4
Sample Dil Factor: DEL
Comments:
Sample Date/Time: Thursday, June 28, 2018 07:36:09
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			566143	573125	1	Standard
⌊	**Be**	**9**	**19.889**	ug/L	0.498	2	10	95569	4	Standard
	C	**13**		ug/L			17339	23390	0	Standard
	Cl	**37**		ug/L			6584934	6648501	4	Standard
⌈>	**Sc**	**45**		ug/L			1071650	1123669	0	Standard
⌈	**V**	**51**	**19.998**	ug/L	0.190	0	5460	464096	1	Standard
⌊	**V-1**	**51**	**19.932**	ug/L	0.111	0	936	459262	0	Standard
⌈	**Cr**	**52**	**20.118**	ug/L	0.834	4	16212	395034	4	Standard
⌊	**Cr**	**53**	**19.890**	ug/L	0.464	2	385	43092	2	Standard
	Mn	**55**	**19.858**	ug/L	0.448	2	391	528880	2	Standard
⌈>	**Ge-1**	**72**		ug/L			79625	82660	0	KED
⌈	**Co**	**59**	**20.014**	ug/L	0.488	2	31	98430	2	KED
⌊	**Ni**	**60**	**19.907**	ug/L	0.419	2	15	28236	1	KED
⌈	**Ni**	**62**	**19.718**	ug/L	0.992	5	5	4385	4	KED
⌈	**Cu**	**63**	**20.076**	ug/L	0.377	1	31	76602	2	KED
⌊	**Cu**	**65**	**19.925**	ug/L	0.606	3	20	36576	2	KED
⌈	**Zn**	**66**	**19.778**	ug/L	0.338	1	41	10520	1	KED
⌊	**Zn**	**67**	**19.933**	ug/L	1.509	7	8	1734	7	KED
⌈	**As**	**75**	**19.949**	ug/L	0.058	0	5	6551	0	KED
⌊	**Se-1**	**78**	**20.142**	ug/L	0.991	4	27	895	4	KED
	Y	**89**		ug/L			600665	635248	0	Standard
	Kr	**83**		ug/L			34	44	10	Standard
⌈>	**In-1**	**115**		ug/L			34335	34990	1	KED
⌈	**Mo**	**98**	**20.108**	ug/L	0.663	3	1	27881	1	KED
⌈	**Cd**	**111**	**20.116**	ug/L	0.347	1	0	8922	1	KED
⌊	**Cd**	**114**	**20.134**	ug/L	0.761	3	1	23120	1	KED
⌈>	**In**	**115**		ug/L			750140	761017	2	Standard
⌈	**Ag**	**107**	**20.005**	ug/L	0.948	4	47	296883	3	Standard
⌈	**Sb**	**121**	**19.996**	ug/L	1.119	5	34	232145	3	Standard
⌊	**Sb**	**123**	**20.059**	ug/L	0.563	2	43	177941	1	Standard
⌈	**Ba**	**135**	**20.002**	ug/L	0.840	4	10	79113	2	Standard
⌊	**Ba**	**137**	**20.158**	ug/L	0.763	3	15	144767	2	Standard
⌈>	**Tb**	**159**		ug/L			1030845	1020802	3	Standard
⌈	**Tl**	**205**	**19.935**	ug/L	0.451	2	19	383373	3	Standard
⌊	**Pb**	**208**	**20.059**	ug/L	0.838	4	79	495117	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5
Sample Dil Factor: DEL
Comments:
Sample Date/Time: Thursday, June 28, 2018 07:41:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			566143	1249661	117	Standard
⌊	**Be**	**9**	**0.297**	ug/L	0.528	177	10	8	86	Standard
	C	**13**		ug/L			17339	28611	141	Standard
	Cl	**37**		ug/L			6584934	3587692	66	Standard
⌈>	**Sc**	**45**		ug/L			1071650	2241120	110	Standard
⌈	**V**	**51**	**9.364**	ug/L	17.763	189	5460	3826	100	Standard
⌊	**V-1**	**51**	**11.629**	ug/L	20.315	174	936	1125	10	Standard
⌈	**Cr**	**52**	**23.987**	ug/L	45.546	189	16212	11253	101	Standard
⌊	**Cr**	**53**	**27.585**	ug/L	48.362	175	385	407	16	Standard
⌊	**Mn**	**55**	**1.841**	ug/L	3.034	164	391	2287	156	Standard
⌈>	**Ge-1**	**72**		ug/L			79625	391	135	KED
⌈	**Co**	**59**	**24.235**	ug/L	25.771	106	31	56	62	KED
⌊	**Ni**	**60**	**12.512**	ug/L	7.532	60	15	8	81	KED
⌈	**Ni**	**62**	**45.253**	ug/L	37.077	81	5	9	20	KED
⌈	**Cu**	**63**	**5.643**	ug/L	1.657	29	31	18	129	KED
⌊	**Cu**	**65**	**2.402**	ug/L	4.279	178	20	9	173	KED
⌈	**Zn**	**66**	**12.874**	ug/L	11.556	89	41	2	43	KED
⌊	**Zn**	**67**	**2.825**	ug/L	5.848	207	8	0	173	KED
⌈	**As**	**75**	**27.635**	ug/L	27.355	98	5	4	44	KED
⌊	**Se-1**	**78**	**58.163**	ug/L	57.554	98	27	17	4	KED
	Y	**89**		ug/L			600665	1157238	109	Standard
	Kr	**83**		ug/L			34	695	166	Standard
⌈>	**In-1**	**115**		ug/L			34335	31613	169	KED
⌈	**Mo**	**98**	**0.257**	ug/L	0.223	86	1	12	154	KED
⌈	**Cd**	**111**	**1.183**	ug/L	1.401	118	0	2	43	KED
⌊	**Cd**	**114**	**0.899**	ug/L	1.055	117	1	4	41	KED
⌈>	**In**	**115**		ug/L			750140	1372191	112	Standard
⌈	**Ag**	**107**	**0.538**	ug/L	0.939	174	47	71	66	Standard
⌈	**Sb**	**121**	**0.344**	ug/L	0.598	173	34	62	89	Standard
⌈	**Sb**	**123**	**0.242**	ug/L	0.448	184	43	38	96	Standard
⌈	**Ba**	**135**	**0.140**	ug/L	0.249	177	10	17	126	Standard
⌊	**Ba**	**137**	**0.076**	ug/L	0.134	176	15	22	91	Standard
⌈>	**Tb**	**159**		ug/L			1030845	1764284	104	Standard
⌈	**Tl**	**205**	**1.242**	ug/L	2.131	171	19	119	28	Standard
⌊	**Pb**	**208**	**0.429**	ug/L	0.745	173	79	137	77	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 07:49:59
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			0	584285	7	Standard
⌊	**Be**	**9**		ug/L			0	12	9	Standard
	C	**13**		ug/L			0	21163	1	Standard
	Cl	**37**		ug/L			0	6433742	0	Standard
⌈>	**Sc**	**45**		ug/L			0	1143069	1	Standard
⌈	**V**	**51**		ug/L			0	5834	3	Standard
⌈	**V-1**	**51**		ug/L			0	790	5	Standard
⌈	**Cr**	**52**		ug/L			0	17412	2	Standard
⌈	**Cr**	**53**		ug/L			0	354	3	Standard
⌊	**Mn**	**55**		ug/L			0	753	0	Standard
⌈>	**Ge-1**	**72**		ug/L			0	82334	1	KED
⌈	**Co**	**59**		ug/L			0	59	44	KED
⌈	**Ni**	**60**		ug/L			0	97	12	KED
⌈	**Ni**	**62**		ug/L			0	12	59	KED
⌈	**Cu**	**63**		ug/L			0	181	31	KED
⌈	**Cu**	**65**		ug/L			0	94	35	KED
⌈	**Zn**	**66**		ug/L			0	379	6	KED
⌈	**Zn**	**67**		ug/L			0	53	8	KED
⌈	**As**	**75**		ug/L			0	8	51	KED
⌊	**Se-1**	**78**		ug/L			0	22	10	KED
	Y	**89**		ug/L			0	619652	1	Standard
	Kr	**83**		ug/L			0	41	9	Standard
⌈>	**In-1**	**115**		ug/L			0	35372	2	KED
⌈	**Mo**	**98**		ug/L			0	8	42	KED
⌈	**Cd**	**111**		ug/L			0	1	50	KED
⌊	**Cd**	**114**		ug/L			0	4	21	KED
⌈>	**In**	**115**		ug/L			0	760614	2	Standard
⌈	**Ag**	**107**		ug/L			0	69	11	Standard
⌈	**Sb**	**121**		ug/L			0	133	20	Standard
⌈	**Sb**	**123**		ug/L			0	106	12	Standard
⌈	**Ba**	**135**		ug/L			0	97	19	Standard
⌊	**Ba**	**137**		ug/L			0	212	12	Standard
⌈>	**Tb**	**159**		ug/L			0	1074663	2	Standard
⌈	**Tl**	**205**		ug/L			0	35	24	Standard
⌊	**Pb**	**208**		ug/L			0	638	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 07:54:55
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L				572696	4	Standard
⌊	**Be**	**9**		ug/L				27	114	Standard
	C	**13**		ug/L				17606	0	Standard
	Cl	**37**		ug/L				6613771	1	Standard
⌈>	**Sc**	**45**		ug/L				1108166	1	Standard
⎢	**V**	**51**		ug/L				5706	0	Standard
⎢	**V-1**	**51**		ug/L				834	11	Standard
⎢	**Cr**	**52**		ug/L				16644	0	Standard
⎢	**Cr**	**53**		ug/L				322	5	Standard
⌊	**Mn**	**55**		ug/L				466	26	Standard
⌈>	**Ge-1**	**72**		ug/L				81114	4	KED
⎢	**Co**	**59**		ug/L				31	12	KED
⎢	**Ni**	**60**		ug/L				44	6	KED
⎢	**Ni**	**62**		ug/L				7	25	KED
⎢	**Cu**	**63**		ug/L				57	30	KED
⎢	**Cu**	**65**		ug/L				19	39	KED
⎢	**Zn**	**66**		ug/L				56	7	KED
⎢	**Zn**	**67**		ug/L				7	43	KED
⎢	**As**	**75**		ug/L				6	18	KED
⌊	**Se-1**	**78**		ug/L				25	13	KED
	Y	**89**		ug/L				619356	1	Standard
	Kr	**83**		ug/L				31	9	Standard
⌈>	**In-1**	**115**		ug/L				34809	1	KED
⎢	**Mo**	**98**		ug/L				3	0	KED
⎢	**Cd**	**111**		ug/L				2	24	KED
⌊	**Cd**	**114**		ug/L				3	72	KED
⌈>	**In**	**115**		ug/L				769572	2	Standard
⎢	**Ag**	**107**		ug/L				121	111	Standard
⎢	**Sb**	**121**		ug/L				91	108	Standard
⎢	**Sb**	**123**		ug/L				78	86	Standard
⎢	**Ba**	**135**		ug/L				23	100	Standard
⌊	**Ba**	**137**		ug/L				48	99	Standard
⌈>	**Tb**	**159**		ug/L				1026127	2	Standard
⎢	**Tl**	**205**		ug/L				86	139	Standard
⌊	**Pb**	**208**		ug/L				191	71	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 07:59:50
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	622674	2	Standard
⌊	**Be**	**9**	**0.200**	ug/L	0.010	5	27	975	3	Standard
	C	**13**		ug/L			17606	18928	1	Standard
	Cl	**37**		ug/L			6613771	6496210	2	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1131118	2	Standard
⌈	**V**	**51**	**0.200**	ug/L	0.007	3	5706	10294	1	Standard
⌊	**V-1**	**51**	**0.200**	ug/L	0.001	0	834	5515	2	Standard
⌈	**Cr**	**52**	**0.500**	ug/L	0.017	3	16644	26238	1	Standard
⌊	**Cr**	**53**	**0.500**	ug/L	0.007	1	322	1436	3	Standard
	Mn	**55**	**0.500**	ug/L	0.009	1	466	14230	0	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	82099	3	KED
⌈	**Co**	**59**	**0.200**	ug/L	0.016	8	31	1139	4	KED
⌊	**Ni**	**60**	**0.500**	ug/L	0.009	1	44	797	4	KED
⌈	**Ni**	**62**	**0.500**	ug/L	0.065	13	7	127	14	KED
⌈	**Cu**	**63**	**0.500**	ug/L	0.006	1	57	2009	2	KED
⌊	**Cu**	**65**	**0.500**	ug/L	0.028	5	19	970	4	KED
⌈	**Zn**	**66**	**4.000**	ug/L	0.060	1	56	2404	1	KED
⌊	**Zn**	**67**	**4.000**	ug/L	0.579	14	7	368	10	KED
⌈	**As**	**75**	**0.200**	ug/L	0.028	13	6	69	9	KED
⌊	**Se-1**	**78**	**0.500**	ug/L	0.086	17	25	47	10	KED
	Y	**89**		ug/L			619356	635440	2	Standard
	Kr	**83**		ug/L			31	41	7	Standard
⌈>	**In-1**	**115**		ug/L			34809	35754	2	KED
⌈	**Mo**	**98**	**0.200**	ug/L	0.016	7	3	284	6	KED
⌈	**Cd**	**111**	**0.100**	ug/L	0.009	9	2	48	8	KED
⌊	**Cd**	**114**	**0.100**	ug/L	0.011	11	3	103	8	KED
⌈>	**In**	**115**		ug/L			769572	779210	2	Standard
⌈	**Ag**	**107**	**0.200**	ug/L	0.012	5	121	3077	4	Standard
⌈	**Sb**	**121**	**0.200**	ug/L	0.003	1	91	2336	1	Standard
⌊	**Sb**	**123**	**0.200**	ug/L	0.012	5	78	1826	4	Standard
⌈	**Ba**	**135**	**0.500**	ug/L	0.017	3	23	2163	4	Standard
⌊	**Ba**	**137**	**0.500**	ug/L	0.013	2	48	3871	4	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1066249	3	Standard
⌈	**Tl**	**205**	**0.200**	ug/L	0.011	5	86	4026	5	Standard
⌊	**Pb**	**208**	**0.100**	ug/L	0.002	2	191	2735	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 08:04:46
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	606677	6	Standard
⌊	**Be**	**9**	**10.000**	ug/L	0.403	4	27	48687	2	Standard
	C	**13**		ug/L			17606	28673	5	Standard
	Cl	**37**		ug/L			6613771	6696352	0	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1136472	1	Standard
⌈	**V**	**51**	**10.000**	ug/L	0.193	1	5706	231217	1	Standard
⌊	**V-1**	**51**	**10.000**	ug/L	0.226	2	834	228056	1	Standard
⌈	**Cr**	**52**	**10.000**	ug/L	0.136	1	16644	204520	2	Standard
⌊	**Cr**	**53**	**9.999**	ug/L	0.173	1	322	22099	0	Standard
⌊	**Mn**	**55**	**9.999**	ug/L	0.071	0	466	269537	1	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	84256	2	KED
⌈	**Co**	**59**	**9.999**	ug/L	0.188	1	31	50124	0	KED
⌈	**Ni**	**60**	**9.998**	ug/L	0.382	3	44	14596	2	KED
⌊	**Ni**	**62**	**9.997**	ug/L	0.491	4	7	2177	3	KED
⌈	**Cu**	**63**	**9.998**	ug/L	0.277	2	57	37588	2	KED
⌊	**Cu**	**65**	**9.998**	ug/L	0.371	3	19	18411	1	KED
⌈	**Zn**	**66**	**9.788**	ug/L	0.762	7	56	5260	5	KED
⌊	**Zn**	**67**	**9.891**	ug/L	0.156	1	7	868	3	KED
⌈	**As**	**75**	**10.000**	ug/L	0.293	2	6	3293	1	KED
⌊	**Se-1**	**78**	**9.999**	ug/L	0.447	4	25	457	3	KED
	Y	**89**		ug/L			619356	631931	6	Standard
	Kr	**83**		ug/L			31	51	32	Standard
⌈>	**In-1**	**115**		ug/L			34809	35458	1	KED
⌈	**Mo**	**98**	**10.000**	ug/L	0.071	0	3	13596	1	KED
⌈	**Cd**	**111**	**10.000**	ug/L	0.082	0	2	4453	1	KED
⌊	**Cd**	**114**	**10.000**	ug/L	0.339	3	3	11374	2	KED
⌈>	**In**	**115**		ug/L			769572	766240	1	Standard
⌈	**Ag**	**107**	**10.000**	ug/L	0.176	1	121	146343	2	Standard
⌈	**Sb**	**121**	**10.000**	ug/L	0.020	0	91	114485	1	Standard
⌊	**Sb**	**123**	**10.000**	ug/L	0.193	1	78	89269	2	Standard
⌈	**Ba**	**135**	**9.999**	ug/L	0.385	3	23	40421	4	Standard
⌊	**Ba**	**137**	**9.998**	ug/L	0.497	4	48	70009	6	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1034480	1	Standard
⌈	**Tl**	**205**	**10.000**	ug/L	0.288	2	86	199699	3	Standard
⌊	**Pb**	**208**	**10.000**	ug/L	0.246	2	191	247924	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 08:09:56
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	566720	4	Standard
⌊	**Be**	**9**	**20.317**	ug/L	1.366	6	27	98616	3	Standard
	C	**13**		ug/L			17606	23187	6	Standard
	Cl	**37**		ug/L			6613771	6799666	5	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1133135	0	Standard
⌈	**V**	**51**	**20.049**	ug/L	0.783	3	5706	460908	4	Standard
⌊	**V-1**	**51**	**20.071**	ug/L	0.635	3	834	462218	3	Standard
⌈	**Cr**	**52**	**20.105**	ug/L	0.393	1	16644	400802	1	Standard
⌊	**Cr**	**53**	**20.175**	ug/L	0.246	1	322	45709	1	Standard
⌊	**Mn**	**55**	**20.100**	ug/L	0.294	1	466	550812	2	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	83602	0	KED
⌈	**Co**	**59**	**20.181**	ug/L	0.072	0	31	104129	0	KED
⌊	**Ni**	**60**	**20.121**	ug/L	0.741	3	44	29833	3	KED
⌈	**Ni**	**62**	**20.207**	ug/L	1.209	5	7	4549	5	KED
⌈	**Cu**	**63**	**20.177**	ug/L	0.251	1	57	77962	1	KED
⌊	**Cu**	**65**	**20.055**	ug/L	0.802	4	19	37055	4	KED
⌈	**Zn**	**66**	**20.121**	ug/L	1.021	5	56	10904	4	KED
⌊	**Zn**	**67**	**19.958**	ug/L	0.365	1	7	1718	1	KED
⌈	**As**	**75**	**20.095**	ug/L	0.054	0	6	6690	0	KED
⌊	**Se-1**	**78**	**20.232**	ug/L	0.623	3	25	934	3	KED
	Y	**89**		ug/L			619356	644554	5	Standard
	Kr	**83**		ug/L			31	38	19	Standard
⌈>	**In-1**	**115**		ug/L			34809	36078	1	KED
⌈	**Mo**	**98**	**20.117**	ug/L	0.293	1	3	28495	1	KED
⌈	**Cd**	**111**	**19.971**	ug/L	0.340	1	2	8995	2	KED
⌊	**Cd**	**114**	**20.094**	ug/L	0.310	1	3	23700	0	KED
⌈>	**In**	**115**		ug/L			769572	753047	3	Standard
⌈	**Ag**	**107**	**20.175**	ug/L	0.869	4	121	300260	1	Standard
⌈	**Sb**	**121**	**20.184**	ug/L	0.522	2	91	235559	0	Standard
⌊	**Sb**	**123**	**20.080**	ug/L	0.897	4	78	178800	2	Standard
⌈	**Ba**	**135**	**20.044**	ug/L	0.431	2	23	80271	1	Standard
⌊	**Ba**	**137**	**20.224**	ug/L	0.180	0	48	145571	3	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1069952	2	Standard
⌈	**Tl**	**205**	**19.854**	ug/L	0.531	2	86	398155	0	Standard
⌊	**Pb**	**208**	**19.884**	ug/L	0.362	1	191	498037	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL5
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 08:15:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⎡>	**Li**	**6**		ug/L			572696	546419	6	Standard
⎣	**Be**	**9**	**49.601**	ug/L	1.840	3	27	223258	2	Standard
	C	**13**		ug/L			17606	16741	5	Standard
	Cl	**37**		ug/L			6613771	6649401	2	Standard
⎡>	**Sc**	**45**		ug/L			1108166	1099978	3	Standard
⎢	**V**	**51**	**49.774**	ug/L	1.018	2	5706	1077563	1	Standard
⎢	**V-1**	**51**	**49.804**	ug/L	0.994	1	834	1090295	1	Standard
⎢	**Cr**	**52**	**49.583**	ug/L	1.735	3	16644	897953	0	Standard
⎢	**Cr**	**53**	**49.694**	ug/L	1.513	3	322	105540	0	Standard
⎣	**Mn**	**55**	**49.283**	ug/L	1.369	2	466	1221973	0	Standard
⎡>	**Ge-1**	**72**		ug/L			81114	81398	0	KED
⎢	**Co**	**59**	**49.719**	ug/L	1.831	3	31	242873	2	KED
⎢	**Ni**	**60**	**49.509**	ug/L	0.681	1	44	68067	1	KED
⎢	**Ni**	**62**	**49.565**	ug/L	1.043	2	7	10402	2	KED
⎢	**Cu**	**63**	**49.708**	ug/L	0.781	1	57	181611	1	KED
⎢	**Cu**	**65**	**49.622**	ug/L	1.745	3	19	85977	2	KED
⎢	**Zn**	**66**	**49.246**	ug/L	0.860	1	56	24143	0	KED
⎢	**Zn**	**67**	**49.763**	ug/L	3.233	6	7	4066	6	KED
⎢	**As**	**75**	**49.837**	ug/L	1.253	2	6	15884	1	KED
⎣	**Se-1**	**78**	**49.568**	ug/L	1.097	2	25	2102	1	KED
	Y	**89**		ug/L			619356	638378	3	Standard
	Kr	**83**		ug/L			31	43	6	Standard
⎡>	**In-1**	**115**		ug/L			34809	34332	4	KED
⎢	**Mo**	**98**	**49.994**	ug/L	4.350	8	3	67188	4	KED
⎢	**Cd**	**111**	**49.832**	ug/L	1.848	3	2	20982	0	KED
⎣	**Cd**	**114**	**49.637**	ug/L	2.793	5	3	53684	2	KED
⎡>	**In**	**115**		ug/L			769572	747302	4	Standard
⎢	**Ag**	**107**	**49.425**	ug/L	2.527	5	121	689795	1	Standard
⎢	**Sb**	**121**	**49.317**	ug/L	3.084	6	91	534125	4	Standard
⎢	**Sb**	**123**	**49.349**	ug/L	1.828	3	78	409252	0	Standard
⎢	**Ba**	**135**	**49.013**	ug/L	3.143	6	23	177062	3	Standard
⎣	**Ba**	**137**	**49.165**	ug/L	1.113	2	48	323934	2	Standard
⎡>	**Tb**	**159**		ug/L			1026127	1008579	4	Standard
⎢	**Tl**	**205**	**49.560**	ug/L	1.247	2	86	897283	2	Standard
⎣	**Pb**	**208**	**49.592**	ug/L	1.001	2	191	1124343	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL6
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 08:22:14
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	489153	5	Standard
⌊	**Be**	**9**	**101.151**	ug/L	2.177	2	27	424147	4	Standard
	C	**13**		ug/L			17606	19284	2	Standard
	Cl	**37**		ug/L			6613771	6561684	3	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1094532	2	Standard
⌈	**V**	**51**	**100.084**	ug/L	0.147	0	5706	2157174	2	Standard
⌊	**V-1**	**51**	**99.970**	ug/L	0.855	0	834	2175521	2	Standard
⌈	**Cr**	**52**	**99.233**	ug/L	3.256	3	16644	1728684	2	Standard
⌊	**Cr**	**53**	**98.879**	ug/L	1.533	1	322	201208	1	Standard
⌊	**Mn**	**55**	**99.731**	ug/L	1.770	1	466	2438953	1	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	79649	2	KED
⌈	**Co**	**59**	**99.450**	ug/L	1.871	1	31	466910	3	KED
⌈	**Ni**	**60**	**99.310**	ug/L	3.324	3	44	130483	0	KED
⌊	**Ni**	**62**	**99.225**	ug/L	4.945	4	7	19839	2	KED
⌈	**Cu**	**63**	**98.405**	ug/L	1.716	1	57	333919	1	KED
⌊	**Cu**	**65**	**99.762**	ug/L	5.134	5	19	167720	4	KED
⌈	**Zn**	**66**	**99.142**	ug/L	5.336	5	56	46151	2	KED
⌊	**Zn**	**67**	**99.009**	ug/L	5.653	5	7	7650	3	KED
⌈	**As**	**75**	**100.082**	ug/L	2.584	2	6	31281	0	KED
⌊	**Se-1**	**78**	**99.583**	ug/L	2.161	2	25	4049	0	KED
	Y	**89**		ug/L			619356	615730	2	Standard
	Kr	**83**		ug/L			31	55	18	Standard
⌈>	**In-1**	**115**		ug/L			34809	33639	1	KED
⌈	**Mo**	**98**	**100.291**	ug/L	1.473	1	3	133655	1	KED
⌈	**Cd**	**111**	**99.882**	ug/L	0.681	0	2	41082	1	KED
⌊	**Cd**	**114**	**99.756**	ug/L	1.022	1	3	104999	1	KED
⌈>	**In**	**115**		ug/L			769572	696059	4	Standard
⌈	**Ag**	**107**	**101.014**	ug/L	5.733	5	121	1359039	3	Standard
⌈	**Sb**	**121**	**100.568**	ug/L	3.553	3	91	1034252	0	Standard
⌊	**Sb**	**123**	**101.014**	ug/L	4.681	4	78	807228	0	Standard
⌈	**Ba**	**135**	**100.229**	ug/L	4.131	4	23	340001	1	Standard
⌊	**Ba**	**137**	**100.405**	ug/L	4.309	4	48	624392	3	Standard
⌈>	**Tb**	**159**		ug/L			1026127	956755	1	Standard
⌈	**Tl**	**205**	**99.693**	ug/L	2.241	2	86	1695818	3	Standard
⌊	**Pb**	**208**	**99.827**	ug/L	0.991	0	191	2135681	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 08:29:54
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	531414	6	Standard
⌊	**Be**	**9**	**-0.001**	ug/L	0.002	163	27	19	50	Standard
	C	**13**		ug/L			17606	17270	4	Standard
	Cl	**37**		ug/L			6613771	6746758	1	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1119468	2	Standard
⌈	**V**	**51**	**-0.010**	ug/L	0.004	38	5706	5556	3	Standard
⌊	**V-1**	**51**	**-0.008**	ug/L	0.002	24	834	670	8	Standard
⌈	**Cr**	**52**	**-0.023**	ug/L	0.005	20	16644	16410	2	Standard
⌊	**Cr**	**53**	**-0.016**	ug/L	0.006	36	322	292	2	Standard
⌊	**Mn**	**55**	**-0.001**	ug/L	0.001	186	466	458	7	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	82692	2	KED
⌈	**Co**	**59**	**-0.001**	ug/L	0.001	100	31	29	9	KED
⌊	**Ni**	**60**	**0.002**	ug/L	0.013	523	44	48	38	KED
⌈	**Ni**	**62**	**0.011**	ug/L	0.010	89	7	10	21	KED
⌈	**Cu**	**63**	**-0.002**	ug/L	0.007	277	57	50	48	KED
⌊	**Cu**	**65**	**-0.001**	ug/L	0.001	223	19	19	10	KED
⌈	**Zn**	**66**	**-0.017**	ug/L	0.014	83	56	49	15	KED
⌊	**Zn**	**67**	**0.006**	ug/L	0.026	449	7	8	26	KED
⌈	**As**	**75**	**-0.005**	ug/L	0.004	72	6	5	24	KED
⌊	**Se-1**	**78**	**-0.020**	ug/L	0.042	212	25	25	8	KED
	Y	**89**		ug/L			619356	637810	3	Standard
	Kr	**83**		ug/L			31	26	16	Standard
⌈>	**In-1**	**115**		ug/L			34809	35245	1	KED
⌈	**Mo**	**98**	**0.019**	ug/L	0.005	26	3	29	23	KED
⌊	**Cd**	**111**	**0.001**	ug/L	0.002	153	2	2	33	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.002	321	3	3	52	KED
⌈>	**In**	**115**		ug/L			769572	733267	3	Standard
⌈	**Ag**	**107**	**-0.001**	ug/L	0.002	294	121	106	23	Standard
⌈	**Sb**	**121**	**0.185**	ug/L	0.004	2	91	2092	2	Standard
⌊	**Sb**	**123**	**0.188**	ug/L	0.017	9	78	1659	6	Standard
⌈	**Ba**	**135**	**-0.002**	ug/L	0.003	192	23	16	65	Standard
⌊	**Ba**	**137**	**-0.003**	ug/L	0.001	29	48	23	26	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1005446	3	Standard
⌈	**Tl**	**205**	**0.001**	ug/L	0.001	108	86	106	24	Standard
⌊	**Pb**	**208**	**-0.001**	ug/L	0.002	318	191	174	29	Standard

Sample Information

Sample Date/Time: Thursday, June 28, 2018 08:22:14
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.m
Mass Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Conditions File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	**0.9997**	0.009	0.20	10	20	50	100
C	13							
Cl	37							
Sc	45							
V	51	**1.0000**	0.020	0.20	10	20	50	100
V-1	51	**1.0000**	0.020	0.20	10	20	50	100
Cr	52	**0.9999**	0.016	0.50	10	20	50	100
Cr	53	**0.9998**	0.002	0.50	10	20	50	100
Mn	55	**0.9999**	0.022	0.50	10	20	50	100
Ge-1	72							
Co	59	**0.9999**	0.059	0.20	10	20	50	100
Ni	60	**0.9999**	0.017	0.50	10	20	50	100
Ni	62	**0.9998**	0.003	0.50	10	20	50	100
Cu	63	**0.9995**	0.043	0.50	10	20	50	100
Cu	65	**1.0000**	0.021	0.50	10	20	50	100
Zn	66	**0.9997**	0.006	4.00	10	20	50	100
Zn	67	**0.9998**	0.001	4.00	10	20	50	100
As	75	**1.0000**	0.004	0.20	10	20	50	100
Se-1	78	**0.9999**	0.001	0.50	10	20	50	100
Y	89							
Kr	83							
In-1	115							
Mo	98	**1.0000**	0.040	0.20	10	20	50	100
Cd	111	**1.0000**	0.012	0.10	10	20	50	100
Cd	114	**1.0000**	0.031	0.10	10	20	50	100
In	115							
Ag	107	**0.9998**	0.019	0.20	10	20	50	100
Sb	121	**0.9998**	0.015	0.20	10	20	50	100
Sb	123	**0.9997**	0.011	0.20	10	20	50	100
Ba	135	**0.9998**	0.005	0.50	10	20	50	100
Ba	137	**0.9998**	0.009	0.50	10	20	50	100
Tb	159							
Tl	205	**0.9999**	0.018	0.20	10	20	50	100
Pb	208	**1.0000**	0.022	0.10	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICV1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 08:37:34
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	520539	6	Standard
⌊	**Be**	**9**	**49.157**	ug/L	2.567	5	27	219170	4	Standard
	C	**13**		ug/L			17606	18569	1	Standard
	Cl	**37**		ug/L			6613771	6900849	3	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1135658	1	Standard
⌈	**V**	**51**	**49.727**	ug/L	0.340	0	5706	1114975	0	Standard
⌊	**V-1**	**51**	**49.793**	ug/L	0.337	0	834	1124681	0	Standard
⌈	**Cr**	**52**	**50.613**	ug/L	0.288	0	16644	923476	1	Standard
⌊	**Cr**	**53**	**50.804**	ug/L	0.210	0	322	107456	1	Standard
⌊	**Mn**	**55**	**50.616**	ug/L	0.581	1	466	1284792	0	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	84284	0	KED
⌈	**Co**	**59**	**50.605**	ug/L	0.650	1	31	251407	1	KED
⌊	**Ni**	**60**	**50.067**	ug/L	0.838	1	44	69681	2	KED
⌈	**Ni**	**62**	**50.485**	ug/L	0.537	1	7	10695	1	KED
⌈	**Cu**	**63**	**49.307**	ug/L	1.638	3	57	177128	3	KED
⌊	**Cu**	**65**	**50.058**	ug/L	0.313	0	19	89117	1	KED
⌈	**Zn**	**66**	**50.146**	ug/L	1.192	2	56	24755	2	KED
⌊	**Zn**	**67**	**48.232**	ug/L	1.460	3	7	3952	3	KED
⌈	**As**	**75**	**48.450**	ug/L	0.920	1	6	16034	1	KED
⌊	**Se-1**	**78**	**75.239**	ug/L	1.654	2	25	3245	1	KED
	Y	**89**		ug/L			619356	645594	1	Standard
	Kr	**83**		ug/L			31	58	4	Standard
⌈>	**In-1**	**115**		ug/L			34809	36019	0	KED
⌈	**Mo**	**98**	**47.149**	ug/L	0.789	1	3	67281	1	KED
⌈	**Cd**	**111**	**48.032**	ug/L	0.675	1	2	21155	0	KED
⌊	**Cd**	**114**	**48.054**	ug/L	0.466	0	3	54162	1	KED
⌈>	**In**	**115**		ug/L			769572	734206	4	Standard
⌈	**Ag**	**107**	**49.842**	ug/L	2.306	4	121	707375	0	Standard
⌈	**Sb**	**121**	**50.201**	ug/L	1.328	2	91	544928	3	Standard
⌊	**Sb**	**123**	**50.547**	ug/L	2.346	4	78	426163	1	Standard
⌈	**Ba**	**135**	**50.959**	ug/L	3.590	7	23	182217	3	Standard
⌊	**Ba**	**137**	**52.110**	ug/L	2.718	5	48	341611	1	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1003566	4	Standard
⌈	**Tl**	**205**	**49.210**	ug/L	1.408	2	86	877183	2	Standard
⌊	**Pb**	**208**	**50.840**	ug/L	1.020	2	191	1140223	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-ICB1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 08:45:13
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	493718	7	Standard
⌊	**Be**	**9**	**-0.003**	ug/L	0.001	31	27	9	52	Standard
	C	**13**		ug/L			17606	16479	2	Standard
	Cl	**37**		ug/L			6613771	6718503	1	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1137471	1	Standard
⌈	**V**	**51**	**-0.011**	ug/L	0.005	51	5706	5618	0	Standard
⌊	**V-1**	**51**	**-0.010**	ug/L	0.002	20	834	626	5	Standard
⌈	**Cr**	**52**	**-0.028**	ug/L	0.017	60	16644	16575	0	Standard
⌊	**Cr**	**53**	**-0.026**	ug/L	0.009	35	322	276	6	Standard
⌊	**Mn**	**55**	**-0.001**	ug/L	0.001	91	466	442	5	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	83511	2	KED
⌈	**Co**	**59**	**0.000**	ug/L	0.001	421	31	34	20	KED
⌊	**Ni**	**60**	**0.004**	ug/L	0.006	179	44	50	19	KED
⌈	**Ni**	**62**	**0.002**	ug/L	0.020	863	7	8	48	KED
⌈	**Cu**	**63**	**0.002**	ug/L	0.006	315	57	66	30	KED
⌊	**Cu**	**65**	**0.005**	ug/L	0.001	16	19	29	7	KED
⌈	**Zn**	**66**	**-0.020**	ug/L	0.018	89	56	48	20	KED
⌊	**Zn**	**67**	**-0.027**	ug/L	0.023	85	7	5	33	KED
⌈	**As**	**75**	**-0.003**	ug/L	0.009	324	6	6	48	KED
⌊	**Se-1**	**78**	**0.061**	ug/L	0.042	68	25	28	4	KED
	Y	**89**		ug/L			619356	632727	3	Standard
	Kr	**83**		ug/L			31	36	11	Standard
⌈>	**In-1**	**115**		ug/L			34809	35715	1	KED
⌈	**Mo**	**98**	**0.011**	ug/L	0.005	44	3	19	37	KED
⌈	**Cd**	**111**	**0.003**	ug/L	0.008	273	2	3	95	KED
⌊	**Cd**	**114**	**0.000**	ug/L	0.005	1082	3	3	138	KED
⌈>	**In**	**115**		ug/L			769572	739408	1	Standard
⌈	**Ag**	**107**	**-0.002**	ug/L	0.000	6	121	81	4	Standard
⌈	**Sb**	**121**	**0.090**	ug/L	0.005	5	91	1069	6	Standard
⌊	**Sb**	**123**	**0.089**	ug/L	0.006	6	78	830	5	Standard
⌈	**Ba**	**135**	**-0.003**	ug/L	0.002	55	23	10	65	Standard
⌊	**Ba**	**137**	**-0.004**	ug/L	0.001	18	48	21	22	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1035151	2	Standard
⌈	**Tl**	**205**	**0.001**	ug/L	0.000	34	86	109	8	Standard
⌊	**Pb**	**208**	**-0.002**	ug/L	0.000	22	191	145	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 08:50:09
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	532594	12	Standard
⌊	**Be**	**9**	**49.217**	ug/L	7.433	15	27	222077	2	Standard
	C	**13**		ug/L			17606	16790	1	Standard
	Cl	**37**		ug/L			6613771	6804274	2	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1128411	3	Standard
⌈	**V**	**51**	**49.802**	ug/L	0.364	0	5706	1109410	2	Standard
⌊	**V-1**	**51**	**49.787**	ug/L	0.909	1	834	1117004	1	Standard
⌈	**Cr**	**52**	**50.372**	ug/L	0.651	1	16644	913360	3	Standard
⌊	**Cr**	**53**	**50.298**	ug/L	1.934	3	322	105638	2	Standard
⌊	**Mn**	**55**	**50.696**	ug/L	0.339	0	466	1278534	2	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	84167	4	KED
⌈	**Co**	**59**	**50.578**	ug/L	2.276	4	31	250670	3	KED
⌈	**Ni**	**60**	**48.945**	ug/L	3.815	7	44	67861	3	KED
⌊	**Ni**	**62**	**51.645**	ug/L	2.753	5	7	10910	3	KED
⌈	**Cu**	**63**	**50.212**	ug/L	2.699	5	57	179847	1	KED
⌊	**Cu**	**65**	**49.155**	ug/L	1.832	3	19	87291	1	KED
⌈	**Zn**	**66**	**49.227**	ug/L	3.262	6	56	24220	2	KED
⌊	**Zn**	**67**	**48.735**	ug/L	2.345	4	7	3982	2	KED
⌈	**As**	**75**	**48.814**	ug/L	2.351	4	6	16110	1	KED
⌊	**Se-1**	**78**	**49.949**	ug/L	2.104	4	25	2157	0	KED
	Y	**89**		ug/L			619356	650111	1	Standard
	Kr	**83**		ug/L			31	44	17	Standard
⌈>	**In-1**	**115**		ug/L			34809	35562	1	KED
⌈	**Mo**	**98**	**47.794**	ug/L	0.318	0	3	67335	0	KED
⌈	**Cd**	**111**	**49.470**	ug/L	0.928	1	2	21508	0	KED
⌊	**Cd**	**114**	**48.396**	ug/L	0.475	0	3	53850	0	KED
⌈>	**In**	**115**		ug/L			769572	731689	0	Standard
⌈	**Ag**	**107**	**50.555**	ug/L	2.245	4	121	715771	3	Standard
⌈	**Sb**	**121**	**49.841**	ug/L	0.804	1	91	539443	2	Standard
⌊	**Sb**	**123**	**48.967**	ug/L	0.547	1	78	411926	1	Standard
⌈	**Ba**	**135**	**51.004**	ug/L	1.554	3	23	182116	3	Standard
⌊	**Ba**	**137**	**49.953**	ug/L	1.184	2	48	326858	3	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1017450	4	Standard
⌈	**Tl**	**205**	**49.898**	ug/L	1.610	3	86	901770	1	Standard
⌊	**Pb**	**208**	**49.017**	ug/L	2.729	5	191	1113569	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 08:57:29
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	496497	2	Standard
	Be	**9**	**-0.002**	ug/L	0.000	19	27	15	12	Standard
	C	**13**		ug/L			17606	16649	4	Standard
	Cl	**37**		ug/L			6613771	6792516	3	Standard
>	**Sc**	**45**		ug/L			1108166	1094473	4	Standard
	V	**51**	**-0.007**	ug/L	0.002	32	5706	5491	3	Standard
	V-1	**51**	**-0.010**	ug/L	0.001	6	834	597	1	Standard
	Cr	**52**	**-0.012**	ug/L	0.015	121	16644	16220	2	Standard
	Cr	**53**	**-0.025**	ug/L	0.011	44	322	267	4	Standard
	Mn	**55**	**-0.001**	ug/L	0.001	179	466	445	4	Standard
>	**Ge-1**	**72**		ug/L			81114	86444	1	KED
	Co	**59**	**-0.002**	ug/L	0.002	99	31	25	33	KED
	Ni	**60**	**-0.000**	ug/L	0.005	2120	44	46	14	KED
	Ni	**62**	**0.018**	ug/L	0.005	25	7	12	9	KED
	Cu	**63**	**-0.002**	ug/L	0.003	156	57	53	20	KED
	Cu	**65**	**0.006**	ug/L	0.003	47	19	32	15	KED
	Zn	**66**	**0.018**	ug/L	0.034	194	56	69	26	KED
	Zn	**67**	**-0.006**	ug/L	0.024	407	7	7	25	KED
	As	**75**	**-0.005**	ug/L	0.002	40	6	5	9	KED
	Se-1	**78**	**-0.056**	ug/L	0.005	8	25	24	1	KED
	Y	**89**		ug/L			619356	624504	1	Standard
	Kr	**83**		ug/L			31	34	11	Standard
>	**In-1**	**115**		ug/L			34809	35821	2	KED
	Mo	**98**	**0.012**	ug/L	0.003	25	3	19	18	KED
	Cd	**111**	**-0.000**	ug/L	0.005	3734	2	2	89	KED
	Cd	**114**	**-0.001**	ug/L	0.003	408	3	2	115	KED
>	**In**	**115**		ug/L			769572	752625	1	Standard
	Ag	**107**	**-0.003**	ug/L	0.000	5	121	70	2	Standard
	Sb	**121**	**0.130**	ug/L	0.011	8	91	1532	8	Standard
	Sb	**123**	**0.130**	ug/L	0.012	8	78	1197	7	Standard
	Ba	**135**	**-0.004**	ug/L	0.001	21	23	8	32	Standard
	Ba	**137**	**-0.004**	ug/L	0.001	32	48	17	58	Standard
>	**Tb**	**159**		ug/L			1026127	951568	0	Standard
	Tl	**205**	**0.001**	ug/L	0.001	73	86	95	12	Standard
	Pb	**208**	**-0.002**	ug/L	0.000	24	191	138	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CRL1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 09:02:25
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	505938	3	Standard
⌊	**Be**	**9**	**0.203**	ug/L	0.022	10	27	901	7	Standard
	C	**13**		ug/L			17606	16179	7	Standard
	Cl	**37**		ug/L			6613771	6617836	1	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1106930	1	Standard
⌈	**V**	**51**	**0.203**	ug/L	0.008	3	5706	10106	2	Standard
⌊	**V-1**	**51**	**0.199**	ug/L	0.004	2	834	5212	2	Standard
⌈	**Cr**	**52**	**0.521**	ug/L	0.026	5	16644	25712	2	Standard
⌊	**Cr**	**53**	**0.496**	ug/L	0.003	0	322	1340	0	Standard
⌊	**Mn**	**55**	**0.520**	ug/L	0.009	1	466	13321	2	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	83421	1	KED
⌈	**Co**	**59**	**0.200**	ug/L	0.005	2	31	1017	1	KED
⌊	**Ni**	**60**	**0.509**	ug/L	0.027	5	44	747	6	KED
⌈	**Ni**	**62**	**0.444**	ug/L	0.070	15	7	100	14	KED
⌈	**Cu**	**63**	**0.524**	ug/L	0.039	7	57	1922	6	KED
⌊	**Cu**	**65**	**0.535**	ug/L	0.040	7	19	961	6	KED
⌈	**Zn**	**66**	**4.223**	ug/L	0.103	2	56	2116	1	KED
⌊	**Zn**	**67**	**3.758**	ug/L	0.274	7	7	311	5	KED
⌈	**As**	**75**	**0.198**	ug/L	0.017	8	6	71	6	KED
⌊	**Se-1**	**78**	**0.519**	ug/L	0.023	4	25	48	1	KED
	Y	**89**		ug/L			619356	622575	1	Standard
	Kr	**83**		ug/L			31	38	2	Standard
⌈>	**In-1**	**115**		ug/L			34809	35771	1	KED
⌈	**Mo**	**98**	**0.182**	ug/L	0.022	11	3	261	12	KED
⌈	**Cd**	**111**	**0.083**	ug/L	0.016	19	2	38	17	KED
⌊	**Cd**	**114**	**0.090**	ug/L	0.026	28	3	104	27	KED
⌈>	**In**	**115**		ug/L			769572	728499	2	Standard
⌈	**Ag**	**107**	**0.210**	ug/L	0.008	3	121	3073	1	Standard
⌈	**Sb**	**121**	**0.239**	ug/L	0.009	3	91	2663	4	Standard
⌊	**Sb**	**123**	**0.240**	ug/L	0.003	1	78	2083	1	Standard
⌈	**Ba**	**135**	**0.543**	ug/L	0.022	4	23	1953	5	Standard
⌊	**Ba**	**137**	**0.489**	ug/L	0.031	6	48	3232	7	Standard
⌈>	**Tb**	**159**		ug/L			1026127	991023	2	Standard
⌈	**Tl**	**205**	**0.204**	ug/L	0.013	6	86	3672	4	Standard
⌊	**Pb**	**208**	**0.104**	ug/L	0.002	2	191	2494	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFA1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 09:07:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	800020	3	Standard
	Be	**9**	**-0.000**	ug/L	0.000	142	27	36	7	Standard
	C	**13**		ug/L			17606	120339	1	Standard
	Cl	**37**		ug/L			6613771	12419191	4	Standard
>	**Sc**	**45**		ug/L			1108166	1110946	0	Standard
	V	**51**	**0.090**	ug/L	0.033	36	5706	7683	9	Standard
	V-1	**51**	**1.907**	ug/L	0.029	1	834	42935	1	Standard
	Cr	**52**	**0.565**	ug/L	0.014	2	16644	26585	1	Standard
	Cr	**53**	**6.765**	ug/L	0.122	1	322	14277	1	Standard
	Mn	**55**	**0.059**	ug/L	0.002	4	466	1938	2	Standard
>	**Ge-1**	**72**		ug/L			81114	71654	1	KED
	Co	**59**	**0.006**	ug/L	0.003	45	31	54	21	KED
	Ni	**60**	**0.026**	ug/L	0.010	36	44	70	15	KED
	Ni	**62**	**0.170**	ug/L	0.041	24	7	37	20	KED
	Cu	**63**	**0.032**	ug/L	0.004	12	57	149	8	KED
	Cu	**65**	**0.039**	ug/L	0.010	26	19	76	19	KED
	Zn	**66**	**0.204**	ug/L	0.018	8	56	135	6	KED
	Zn	**67**	**0.259**	ug/L	0.024	9	7	24	7	KED
	As	**75**	**0.023**	ug/L	0.013	57	6	12	30	KED
	Se-1	**78**	**0.039**	ug/L	0.096	247	25	23	13	KED
	Y	**89**		ug/L			619356	512326	2	Standard
	Kr	**83**		ug/L			31	111	17	Standard
>	**In-1**	**115**		ug/L			34809	30583	0	KED
	Mo	**98**	**402.870**	ug/L	8.562	2	3	488098	1	KED
	Cd	**111**	**0.080**	ug/L	0.013	15	2	32	15	KED
	Cd	**114**	**0.065**	ug/L	0.005	8	3	64	7	KED
>	**In**	**115**		ug/L			769572	686103	1	Standard
	Ag	**107**	**0.004**	ug/L	0.001	26	121	158	9	Standard
	Sb	**121**	**0.031**	ug/L	0.002	5	91	392	3	Standard
	Sb	**123**	**0.032**	ug/L	0.003	10	78	319	9	Standard
	Ba	**135**	**0.030**	ug/L	0.002	7	23	121	7	Standard
	Ba	**137**	**0.020**	ug/L	0.005	26	48	166	19	Standard
>	**Tb**	**159**		ug/L			1026127	1061365	0	Standard
	Tl	**205**	**0.001**	ug/L	0.001	55	86	115	12	Standard
	Pb	**208**	**0.018**	ug/L	0.002	13	191	624	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IFB1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 09:12:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	814002	3	Standard
	Be	**9**	**-0.000**	ug/L	0.002	443	27	37	33	Standard
	C	**13**		ug/L			17606	121348	2	Standard
	Cl	**37**		ug/L			6613771	11977955	2	Standard
>	**Sc**	**45**		ug/L			1108166	1122050	0	Standard
	V	**51**	**-0.055**	ug/L	0.191	348	5706	4556	91	Standard
	V-1	**51**	**1.825**	ug/L	0.020	1	834	41534	1	Standard
	Cr	**52**	**19.391**	ug/L	0.439	2	16644	359925	1	Standard
	Cr	**53**	**25.041**	ug/L	0.372	1	322	52497	2	Standard
	Mn	**55**	**19.262**	ug/L	0.343	1	466	483440	2	Standard
>	**Ge-1**	**72**		ug/L			81114	68768	1	KED
	Co	**59**	**20.952**	ug/L	0.437	2	31	84931	1	KED
	Ni	**60**	**20.213**	ug/L	0.585	2	44	22968	1	KED
	Ni	**62**	**20.941**	ug/L	0.618	2	7	3622	1	KED
	Cu	**63**	**20.790**	ug/L	0.400	1	57	60957	0	KED
	Cu	**65**	**19.641**	ug/L	0.361	1	19	28540	2	KED
	Zn	**66**	**19.839**	ug/L	0.315	1	56	8018	0	KED
	Zn	**67**	**17.380**	ug/L	0.649	3	7	1166	4	KED
	As	**75**	**19.585**	ug/L	0.372	1	6	5291	0	KED
	Se-1	**78**	**0.042**	ug/L	0.188	445	25	23	29	KED
	Y	**89**		ug/L			619356	506550	1	Standard
	Kr	**83**		ug/L			31	128	12	Standard
>	**In-1**	**115**		ug/L			34809	29922	1	KED
	Mo	**98**	**393.450**	ug/L	14.950	3	3	466230	2	KED
	Cd	**111**	**19.482**	ug/L	0.663	3	2	7127	2	KED
	Cd	**114**	**19.243**	ug/L	0.971	5	3	18008	3	KED
>	**In**	**115**		ug/L			769572	701416	3	Standard
	Ag	**107**	**16.038**	ug/L	0.862	5	121	217499	1	Standard
	Sb	**121**	**0.023**	ug/L	0.003	13	91	318	7	Standard
	Sb	**123**	**0.023**	ug/L	0.002	7	78	258	3	Standard
	Ba	**135**	**0.035**	ug/L	0.008	22	23	142	21	Standard
	Ba	**137**	**0.023**	ug/L	0.003	12	48	187	13	Standard
>	**Tb**	**159**		ug/L			1026127	1099467	0	Standard
	Tl	**205**	**0.003**	ug/L	0.002	56	86	146	19	Standard
	Pb	**208**	**0.024**	ug/L	0.001	2	191	792	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 09:17:29
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	638723	5	Standard
⌊	**Be**	**9**	**178.739**	ug/L	8.712	4	27	977626	2	Standard
	C	**13**		ug/L			17606	20840	0	Standard
	Cl	**37**		ug/L			6613771	6409207	0	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1034597	2	Standard
⌈	**V**	**51**	**201.513**	ug/L	5.232	2	5706	4098465	1	Standard
⌈	**V-1**	**51**	**200.155**	ug/L	4.376	2	834	4114898	1	Standard
⌈	**Cr**	**52**	**202.231**	ug/L	6.926	3	16644	3313063	1	Standard
⌈	**Cr**	**53**	**197.551**	ug/L	4.362	2	322	379631	0	Standard
⌊	**Mn**	**55**	**199.247**	ug/L	4.093	2	466	4605146	1	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	68802	1	KED
⌈	**Co**	**59**	**205.008**	ug/L	9.051	4	31	831514	5	KED
⌈	**Ni**	**60**	**209.455**	ug/L	3.625	1	44	237794	0	KED
⌈	**Ni**	**62**	**216.712**	ug/L	4.372	2	7	37449	1	KED
⌈	**Cu**	**63**	**202.596**	ug/L	4.943	2	57	593844	1	KED
⌈	**Cu**	**65**	**203.514**	ug/L	2.364	1	19	295736	2	KED
⌈	**Zn**	**66**	**202.295**	ug/L	9.118	4	56	81347	3	KED
⌈	**Zn**	**67**	**195.323**	ug/L	9.584	4	7	13039	3	KED
⌈	**As**	**75**	**201.891**	ug/L	2.712	1	6	54522	0	KED
⌊	**Se-1**	**78**	**197.667**	ug/L	3.728	1	25	6924	0	KED
	Y	**89**		ug/L			619356	519327	0	Standard
	Kr	**83**		ug/L			31	102	26	Standard
⌈>	**In-1**	**115**		ug/L			34809	30467	2	KED
⌈	**Mo**	**98**	**205.274**	ug/L	11.685	5	3	247502	2	KED
⌈	**Cd**	**111**	**197.762**	ug/L	3.939	1	2	73646	1	KED
⌊	**Cd**	**114**	**199.341**	ug/L	8.450	4	3	189893	1	KED
⌈>	**In**	**115**		ug/L			769572	669410	2	Standard
⌈	**Ag**	**107**	**178.249**	ug/L	8.132	4	121	2307336	1	Standard
⌈	**Sb**	**121**	**198.332**	ug/L	5.897	2	91	1962443	0	Standard
⌈	**Sb**	**123**	**198.214**	ug/L	7.969	4	78	1524559	3	Standard
⌈	**Ba**	**135**	**212.353**	ug/L	8.328	3	23	693454	4	Standard
⌊	**Ba**	**137**	**196.222**	ug/L	0.598	0	48	1174334	2	Standard
⌈>	**Tb**	**159**		ug/L			1026127	987271	3	Standard
⌈	**Tl**	**205**	**209.493**	ug/L	9.333	4	86	3673049	1	Standard
⌊	**Pb**	**208**	**202.212**	ug/L	3.825	1	191	4461896	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-HCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 09:22:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	541508	7	Standard
	Be	**9**	**277.349**	ug/L	18.617	6	27	1283750	0	Standard
	C	**13**		ug/L			17606	20832	3	Standard
	Cl	**37**		ug/L			6613771	6402163	1	Standard
>	**Sc**	**45**		ug/L			1108166	1020628	0	Standard
	V	**51**	**301.397**	ug/L	5.477	1	5706	6047319	2	Standard
	V-1	**51**	**298.460**	ug/L	3.664	1	834	6055084	1	Standard
	Cr	**52**	**300.658**	ug/L	3.736	1	16644	4854411	1	Standard
	Cr	**53**	**290.634**	ug/L	3.068	1	322	551031	0	Standard
	Mn	**55**	**298.866**	ug/L	5.431	1	466	6815999	1	Standard
>	**Ge-1**	**72**		ug/L			81114	70744	0	KED
	Co	**59**	**294.992**	ug/L	2.458	0	31	1229911	0	KED
	Ni	**60**	**298.694**	ug/L	4.399	1	44	348721	1	KED
	Ni	**62**	**300.572**	ug/L	2.699	0	7	53413	1	KED
	Cu	**63**	**295.711**	ug/L	6.803	2	57	891379	2	KED
	Cu	**65**	**289.664**	ug/L	1.171	0	19	432761	1	KED
	Zn	**66**	**288.842**	ug/L	3.107	1	56	119452	1	KED
	Zn	**67**	**276.479**	ug/L	8.159	2	7	18981	2	KED
	As	**75**	**292.010**	ug/L	2.786	0	6	81089	0	KED
	Se-1	**78**	**279.258**	ug/L	3.087	1	25	10050	0	KED
	Y	**89**		ug/L			619356	533462	1	Standard
	Kr	**83**		ug/L			31	158	10	Standard
>	**In-1**	**115**		ug/L			34809	30926	2	KED
	Mo	**98**	**300.966**	ug/L	6.193	2	3	368667	0	KED
	Cd	**111**	**289.002**	ug/L	5.834	2	2	109257	0	KED
	Cd	**114**	**287.880**	ug/L	9.179	3	3	278481	1	KED
>	**In**	**115**		ug/L			769572	649062	0	Standard
	Ag	**107**	**269.045**	ug/L	8.871	3	121	3379427	3	Standard
	Sb	**121**	**296.601**	ug/L	4.438	1	91	2846926	1	Standard
	Sb	**123**	**292.622**	ug/L	9.374	3	78	2182918	2	Standard
	Ba	**135**	**294.477**	ug/L	4.424	1	23	932414	1	Standard
	Ba	**137**	**286.876**	ug/L	7.038	2	48	1664502	1	Standard
>	**Tb**	**159**		ug/L			1026127	911223	0	Standard
	Tl	**205**	**304.392**	ug/L	4.917	1	86	4931028	2	Standard
	Pb	**208**	**298.908**	ug/L	3.640	1	191	6089591	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 09:30:04
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	641060	1	Standard
⌊	**Be**	**9**	**0.004**	ug/L	0.001	20	27	53	8	Standard
	C	**13**		ug/L			17606	21953	4	Standard
	Cl	**37**		ug/L			6613771	6416794	2	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1079571	1	Standard
⌈	**V**	**51**	**0.001**	ug/L	0.003	227	5706	5583	0	Standard
⌊	**V-1**	**51**	**-0.002**	ug/L	0.001	49	834	772	3	Standard
⌈	**Cr**	**52**	**0.001**	ug/L	0.004	380	16644	16233	1	Standard
⌊	**Cr**	**53**	**-0.009**	ug/L	0.003	35	322	295	3	Standard
⌊	**Mn**	**55**	**0.017**	ug/L	0.001	5	466	862	2	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	80830	2	KED
⌈	**Co**	**59**	**0.004**	ug/L	0.003	73	31	52	27	KED
⌊	**Ni**	**60**	**-0.005**	ug/L	0.010	185	44	36	33	KED
⌈	**Ni**	**62**	**0.010**	ug/L	0.051	494	7	9	105	KED
⌈	**Cu**	**63**	**0.010**	ug/L	0.003	34	57	92	13	KED
⌊	**Cu**	**65**	**0.012**	ug/L	0.007	60	19	39	28	KED
⌈	**Zn**	**66**	**0.305**	ug/L	0.083	27	56	200	17	KED
⌊	**Zn**	**67**	**0.274**	ug/L	0.107	38	7	29	30	KED
⌈	**As**	**75**	**0.008**	ug/L	0.004	47	6	9	14	KED
⌊	**Se-1**	**78**	**-0.061**	ug/L	0.053	87	25	23	11	KED
	Y	**89**		ug/L			619356	587647	4	Standard
	Kr	**83**		ug/L			31	35	44	Standard
⌈>	**In-1**	**115**		ug/L			34809	33855	1	KED
⌈	**Mo**	**98**	**0.050**	ug/L	0.011	22	3	70	21	KED
⌊	**Cd**	**111**	**0.006**	ug/L	0.005	74	2	4	40	KED
⌊	**Cd**	**114**	**0.008**	ug/L	0.001	10	3	11	9	KED
⌈>	**In**	**115**		ug/L			769572	707633	3	Standard
⌈	**Ag**	**107**	**0.006**	ug/L	0.002	37	121	191	12	Standard
⌈	**Sb**	**121**	**0.553**	ug/L	0.024	4	91	5867	5	Standard
⌊	**Sb**	**123**	**0.531**	ug/L	0.018	3	78	4387	4	Standard
⌈	**Ba**	**135**	**0.016**	ug/L	0.003	19	23	76	11	Standard
⌊	**Ba**	**137**	**0.012**	ug/L	0.002	14	48	120	8	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1028314	1	Standard
⌈	**Tl**	**205**	**0.053**	ug/L	0.002	3	86	1054	3	Standard
⌊	**Pb**	**208**	**0.013**	ug/L	0.002	14	191	480	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 09:36:54
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	642631	9	Standard
⌊	**Be**	**9**	**-0.002**	ug/L	0.001	60	27	22	34	Standard
	C	**13**		ug/L			17606	21970	2	Standard
	Cl	**37**		ug/L			6613771	6483075	2	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1058376	1	Standard
⌈	**V**	**51**	**-0.004**	ug/L	0.003	80	5706	5360	1	Standard
⌈	**V-1**	**51**	**-0.007**	ug/L	0.003	35	834	640	10	Standard
⌈	**Cr**	**52**	**0.002**	ug/L	0.004	202	16644	15931	1	Standard
⌈	**Cr**	**53**	**-0.009**	ug/L	0.008	88	322	290	7	Standard
⌊	**Mn**	**55**	**0.014**	ug/L	0.001	9	466	778	5	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	79143	0	KED
⌈	**Co**	**59**	**0.001**	ug/L	0.002	168	31	37	28	KED
⌈	**Ni**	**60**	**-0.017**	ug/L	0.005	30	44	20	32	KED
⌈	**Ni**	**62**	**-0.005**	ug/L	0.015	267	7	6	45	KED
⌈	**Cu**	**63**	**0.003**	ug/L	0.003	125	57	65	17	KED
⌈	**Cu**	**65**	**0.009**	ug/L	0.002	19	19	34	8	KED
⌈	**Zn**	**66**	**0.333**	ug/L	0.026	7	56	208	5	KED
⌈	**Zn**	**67**	**0.259**	ug/L	0.112	43	7	27	31	KED
⌈	**As**	**75**	**-0.002**	ug/L	0.001	62	6	6	4	KED
⌊	**Se-1**	**78**	**-0.004**	ug/L	0.038	910	25	24	5	KED
	Y	**89**		ug/L			619356	585053	2	Standard
	Kr	**83**		ug/L			31	33	25	Standard
⌈>	**In-1**	**115**		ug/L			34809	33636	0	KED
⌈	**Mo**	**98**	**0.012**	ug/L	0.008	65	3	19	54	KED
⌈	**Cd**	**111**	**0.002**	ug/L	0.004	231	2	2	57	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.003	160	3	4	61	KED
⌈>	**In**	**115**		ug/L			769572	738103	2	Standard
⌈	**Ag**	**107**	**-0.001**	ug/L	0.001	113	121	102	17	Standard
⌈	**Sb**	**121**	**0.150**	ug/L	0.005	3	91	1727	5	Standard
⌈	**Sb**	**123**	**0.142**	ug/L	0.008	5	78	1282	7	Standard
⌈	**Ba**	**135**	**0.011**	ug/L	0.004	39	23	62	27	Standard
⌊	**Ba**	**137**	**0.009**	ug/L	0.002	24	48	104	11	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1022502	3	Standard
⌈	**Tl**	**205**	**0.029**	ug/L	0.002	7	86	606	6	Standard
⌊	**Pb**	**208**	**0.007**	ug/L	0.001	11	191	361	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 09:42:04
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	592367	5	Standard
⌊	**Be**	**9**	**47.429**	ug/L	1.006	2	27	240841	2	Standard
	C	**13**		ug/L			17606	17701	2	Standard
	Cl	**37**		ug/L			6613771	6610951	1	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1085028	1	Standard
⌈	**V**	**51**	**49.346**	ug/L	0.972	1	5706	1057094	1	Standard
⌊	**V-1**	**51**	**49.130**	ug/L	0.958	1	834	1060164	1	Standard
⌈	**Cr**	**52**	**49.478**	ug/L	0.669	1	16644	862744	0	Standard
⌊	**Cr**	**53**	**48.733**	ug/L	0.896	1	322	98471	0	Standard
⌊	**Mn**	**55**	**49.703**	ug/L	0.410	0	466	1205579	2	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	78313	1	KED
⌈	**Co**	**59**	**51.143**	ug/L	0.561	1	31	236097	2	KED
⌊	**Ni**	**60**	**49.853**	ug/L	1.301	2	44	64452	1	KED
⌈	**Ni**	**62**	**52.488**	ug/L	1.623	3	7	10328	1	KED
⌊	**Cu**	**63**	**51.742**	ug/L	1.772	3	57	172730	4	KED
⌈	**Cu**	**65**	**51.227**	ug/L	2.169	4	19	84711	3	KED
⌊	**Zn**	**66**	**50.315**	ug/L	1.993	3	56	23069	2	KED
⌈	**Zn**	**67**	**51.259**	ug/L	1.033	2	7	3901	1	KED
⌊	**As**	**75**	**49.284**	ug/L	0.398	0	6	15155	1	KED
⌊	**Se-1**	**78**	**48.257**	ug/L	0.803	1	25	1942	0	KED
	Y	**89**		ug/L			619356	589700	1	Standard
	Kr	**83**		ug/L			31	41	16	Standard
⌈>	**In-1**	**115**		ug/L			34809	33889	1	KED
⌈	**Mo**	**98**	**49.183**	ug/L	0.922	1	3	66027	0	KED
⌊	**Cd**	**111**	**48.690**	ug/L	0.826	1	2	20175	0	KED
⌊	**Cd**	**114**	**49.181**	ug/L	1.170	2	3	52155	2	KED
⌈>	**In**	**115**		ug/L			769572	718265	1	Standard
⌈	**Ag**	**107**	**47.289**	ug/L	1.676	3	121	657187	2	Standard
⌈	**Sb**	**121**	**49.137**	ug/L	2.172	4	91	521909	3	Standard
⌊	**Sb**	**123**	**49.134**	ug/L	1.582	3	78	405646	2	Standard
⌈	**Ba**	**135**	**52.962**	ug/L	1.360	2	23	185574	2	Standard
⌊	**Ba**	**137**	**50.645**	ug/L	0.754	1	48	325213	0	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1007109	2	Standard
⌈	**Tl**	**205**	**51.329**	ug/L	2.263	4	86	918460	2	Standard
⌊	**Pb**	**208**	**51.238**	ug/L	1.650	3	191	1153404	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 09:51:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	585885	3	Standard
⌊	**Be**	**9**	**-0.002**	ug/L	0.001	55	27	20	19	Standard
	C	**13**		ug/L			17606	17772	4	Standard
	Cl	**37**		ug/L			6613771	6710519	2	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1064139	2	Standard
⌈	**V**	**51**	**-0.004**	ug/L	0.003	80	5706	5391	1	Standard
⌊	**V-1**	**51**	**-0.014**	ug/L	0.002	12	834	510	4	Standard
⌈	**Cr**	**52**	**-0.006**	ug/L	0.012	204	16644	15880	1	Standard
⌊	**Cr**	**53**	**-0.038**	ug/L	0.006	15	322	233	2	Standard
⌊	**Mn**	**55**	**-0.001**	ug/L	0.001	100	466	427	4	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	81496	3	KED
⌈	**Co**	**59**	**0.001**	ug/L	0.001	151	31	36	15	KED
⌊	**Ni**	**60**	**0.010**	ug/L	0.003	25	44	58	9	KED
⌈	**Ni**	**62**	**0.029**	ug/L	0.050	171	7	13	74	KED
⌈	**Cu**	**63**	**-0.002**	ug/L	0.003	167	57	51	19	KED
⌊	**Cu**	**65**	**0.004**	ug/L	0.003	69	19	27	22	KED
⌈	**Zn**	**66**	**0.005**	ug/L	0.014	284	56	59	8	KED
⌊	**Zn**	**67**	**0.008**	ug/L	0.016	205	7	8	13	KED
⌈	**As**	**75**	**-0.002**	ug/L	0.005	297	6	6	27	KED
⌊	**Se-1**	**78**	**-0.036**	ug/L	0.046	125	25	24	4	KED
	Y	**89**		ug/L			619356	593218	2	Standard
	Kr	**83**		ug/L			31	45	25	Standard
⌈>	**In-1**	**115**		ug/L			34809	32234	12	KED
⌈	**Mo**	**98**	**0.016**	ug/L	0.008	46	3	23	27	KED
⌈	**Cd**	**111**	**0.001**	ug/L	0.007	643	2	2	114	KED
⌊	**Cd**	**114**	**-0.000**	ug/L	0.002	653	3	2	90	KED
⌈>	**In**	**115**		ug/L			769572	725834	3	Standard
⌈	**Ag**	**107**	**-0.003**	ug/L	0.001	16	121	71	13	Standard
⌈	**Sb**	**121**	**0.170**	ug/L	0.007	3	91	1909	4	Standard
⌊	**Sb**	**123**	**0.161**	ug/L	0.003	2	78	1414	1	Standard
⌈	**Ba**	**135**	**-0.002**	ug/L	0.002	81	23	13	51	Standard
⌊	**Ba**	**137**	**-0.004**	ug/L	0.001	14	48	17	22	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1016494	3	Standard
⌈	**Tl**	**205**	**0.004**	ug/L	0.001	15	86	150	4	Standard
⌊	**Pb**	**208**	**-0.002**	ug/L	0.001	32	191	147	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0506-BLK1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 09:56:20
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	Li	6		ug/L			572696	643062	6	Standard
⌊	Be	9	-0.002	ug/L	0.001	42	27	21	13	Standard
	C	13		ug/L			17606	23296	2	Standard
	Cl	37		ug/L			6613771	6615757	3	Standard
⌈>	Sc	45		ug/L			1108166	1099762	1	Standard
⌈	V	51	-0.003	ug/L	0.008	269	5706	5596	4	Standard
⌊	V-1	51	-0.014	ug/L	0.001	5	834	514	4	Standard
⌈	Cr	52	-0.004	ug/L	0.029	696	16644	16448	3	Standard
⌊	Cr	53	-0.042	ug/L	0.005	10	322	233	3	Standard
⌊	Mn	55	0.009	ug/L	0.002	20	466	680	6	Standard
⌈>	Ge-1	72		ug/L			81114	80717	0	KED
⌈	Co	59	0.002	ug/L	0.004	176	31	43	47	KED
⌊	Ni	60	-0.013	ug/L	0.007	56	44	27	35	KED
⌈	Ni	62	-0.006	ug/L	0.023	381	7	6	75	KED
⌊	Cu	63	-0.002	ug/L	0.002	137	57	52	15	KED
⌈	Cu	65	0.003	ug/L	0.002	54	19	25	11	KED
⌊	Zn	66	0.199	ug/L	0.043	21	56	149	12	KED
⌈	Zn	67	0.130	ug/L	0.054	41	7	17	24	KED
⌊	As	75	-0.004	ug/L	0.002	62	6	5	13	KED
⌊	Se-1	78	-0.001	ug/L	0.059	4981	25	25	10	KED
	Y	89		ug/L			619356	589916	1	Standard
	Kr	83		ug/L			31	43	31	Standard
⌈>	In-1	115		ug/L			34809	34484	1	KED
⌈	Mo	98	0.005	ug/L	0.007	139	3	10	91	KED
⌊	Cd	111	-0.003	ug/L	0.002	76	2	0	100	KED
⌊	Cd	114	0.000	ug/L	0.002	1231	3	3	57	KED
⌈>	In	115		ug/L			769572	737477	2	Standard
⌈	Ag	107	-0.004	ug/L	0.001	14	121	55	18	Standard
⌈	Sb	121	0.050	ug/L	0.002	4	91	631	6	Standard
⌊	Sb	123	0.053	ug/L	0.003	5	78	519	3	Standard
⌈	Ba	135	0.306	ug/L	0.010	3	23	1123	4	Standard
⌊	Ba	137	0.304	ug/L	0.007	2	48	2048	3	Standard
⌈>	Tb	159		ug/L			1026127	1024645	2	Standard
⌈	Tl	205	0.001	ug/L	0.001	78	86	108	15	Standard
⌊	Pb	208	0.005	ug/L	0.001	21	191	295	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0174-02
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 10:01:16
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	Li	6		ug/L			572696	661103	5	Standard
[	Be	9	0.072	ug/L	0.009	12	27	436	6	Standard
	C	13		ug/L			17606	30783	2	Standard
	Cl	37		ug/L			6613771	6740786	4	Standard
[>	Sc	45		ug/L			1108166	1158289	1	Standard
[	V	51	23.819	ug/L	0.089	0	5706	547815	1	Standard
[	V-1	51	23.628	ug/L	0.067	0	834	544811	1	Standard
[	Cr	52	6.980	ug/L	0.346	4	16644	144856	3	Standard
[	Cr	53	7.006	ug/L	0.164	2	322	15407	3	Standard
[	Mn	55	74.318	ug/L	4.341	5	466	1924474	6	Standard
[>	Ge-1	72		ug/L			81114	81994	3	KED
[	Co	59	2.322	ug/L	0.026	1	31	11252	2	KED
[	Ni	60	5.049	ug/L	0.179	3	44	6870	1	KED
[	Ni	62	5.083	ug/L	0.151	2	7	1054	1	KED
[	Cu	63	8.538	ug/L	0.190	2	57	29888	3	KED
[	Cu	65	8.414	ug/L	0.359	4	19	14576	1	KED
[	Zn	66	22.550	ug/L	0.657	2	56	10854	0	KED
[	Zn	67	22.201	ug/L	1.040	4	7	1772	1	KED
[	As	75	1.970	ug/L	0.050	2	6	640	1	KED
[	Se-1	78	0.168	ug/L	0.069	40	25	32	10	KED
	Y	89		ug/L			619356	714103	4	Standard
	Kr	83		ug/L			31	58	17	Standard
[>	In-1	115		ug/L			34809	35684	1	KED
[	Mo	98	0.111	ug/L	0.020	18	3	159	16	KED
[	Cd	111	0.020	ug/L	0.004	18	2	11	13	KED
[	Cd	114	0.022	ug/L	0.005	21	3	27	17	KED
[>	In	115		ug/L			769572	744847	3	Standard
[	Ag	107	0.028	ug/L	0.005	19	121	518	11	Standard
[	Sb	121	0.045	ug/L	0.001	3	91	583	4	Standard
[	Sb	123	0.045	ug/L	0.006	13	78	460	13	Standard
[	Ba	135	13.103	ug/L	0.583	4	23	47596	3	Standard
[	Ba	137	12.830	ug/L	0.618	4	48	85444	4	Standard
[>	Tb	159		ug/L			1026127	1034747	3	Standard
[	Tl	205	0.020	ug/L	0.001	4	86	452	5	Standard
[	Pb	208	2.764	ug/L	0.114	4	191	64089	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0241-01
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 10:06:11
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	Li	6		ug/L			572696	654672	9	Standard
⌊	Be	9	0.088	ug/L	0.014	15	27	521	12	Standard
	C	13		ug/L			17606	40275	1	Standard
	Cl	37		ug/L			6613771	6896056	0	Standard
⌈>	Sc	45		ug/L			1108166	1184476	2	Standard
⌈	V	51	28.366	ug/L	1.257	4	5706	665563	2	Standard
⌊	V-1	51	28.286	ug/L	1.222	4	834	666324	2	Standard
⌈	Cr	52	12.719	ug/L	0.459	3	16644	255227	1	Standard
⌊	Cr	53	13.074	ug/L	0.393	3	322	29083	0	Standard
⌊	Mn	55	183.487	ug/L	6.583	3	466	4854259	1	Standard
⌈>	Ge-1	72		ug/L			81114	81441	2	KED
⌈	Co	59	3.792	ug/L	0.139	3	31	18223	2	KED
⌊	Ni	60	12.806	ug/L	0.445	3	44	17248	3	KED
⌈	Ni	62	13.116	ug/L	0.532	4	7	2688	1	KED
⌈	Cu	63	10.763	ug/L	0.347	3	57	37393	2	KED
⌊	Cu	65	10.653	ug/L	0.185	1	19	18336	1	KED
⌈	Zn	66	40.455	ug/L	1.933	4	56	19292	2	KED
⌊	Zn	67	37.244	ug/L	1.795	4	7	2948	2	KED
⌈	As	75	5.854	ug/L	0.169	2	6	1876	0	KED
⌊	Se-1	78	0.174	ug/L	0.124	71	25	32	16	KED
	Y	89		ug/L			619356	762079	0	Standard
	Kr	83		ug/L			31	52	16	Standard
⌈>	In-1	115		ug/L			34809	35369	2	KED
⌈	Mo	98	0.363	ug/L	0.006	1	3	512	3	KED
⌈	Cd	111	0.037	ug/L	0.006	15	2	18	15	KED
⌊	Cd	114	0.033	ug/L	0.007	20	3	39	21	KED
⌈>	In	115		ug/L			769572	736766	1	Standard
⌈	Ag	107	0.027	ug/L	0.001	5	121	495	2	Standard
⌈	Sb	121	0.594	ug/L	0.023	3	91	6555	1	Standard
⌊	Sb	123	0.555	ug/L	0.004	0	78	4775	2	Standard
⌈	Ba	135	14.446	ug/L	0.196	1	23	51948	2	Standard
⌊	Ba	137	14.143	ug/L	0.194	1	48	93190	1	Standard
⌈>	Tb	159		ug/L			1026127	1082289	4	Standard
⌈	Tl	205	0.023	ug/L	0.004	17	86	524	10	Standard
⌊	Pb	208	39.939	ug/L	1.613	4	191	965618	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0241-02
Sample Dil Factor: 20 DEL
Comments:
Sample Date/Time: Thursday, June 28, 2018 10:11:06
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	702700	1	Standard
	Be	**9**	**0.100**	ug/L	0.006	5	27	638	3	Standard
	C	**13**		ug/L			17606	33421	2	Standard
	Cl	**37**		ug/L			6613771	6804605	2	Standard
>	**Sc**	**45**		ug/L			1108166	1189381	2	Standard
	V	**51**	**25.807**	ug/L	0.530	2	5706	608935	2	Standard
	V-1	**51**	**25.506**	ug/L	0.481	1	834	603771	2	Standard
	Cr	**52**	**6.870**	ug/L	0.171	2	16644	146676	1	Standard
	Cr	**53**	**6.601**	ug/L	0.025	0	322	14923	1	Standard
	Mn	**55**	**71.951**	ug/L	2.059	2	466	1911980	1	Standard
>	**Ge-1**	**72**		ug/L			81114	81073	1	KED
	Co	**59**	**2.514**	ug/L	0.046	1	31	12045	2	KED
	Ni	**60**	**5.993**	ug/L	0.169	2	44	8060	2	KED
	Ni	**62**	**6.021**	ug/L	0.509	8	7	1233	7	KED
	Cu	**63**	**7.824**	ug/L	0.103	1	57	27084	2	KED
	Cu	**65**	**7.603**	ug/L	0.130	1	19	13035	1	KED
	Zn	**66**	**19.534**	ug/L	0.433	2	56	9310	2	KED
	Zn	**67**	**18.156**	ug/L	0.352	1	7	1435	2	KED
	As	**75**	**2.304**	ug/L	0.048	2	6	739	1	KED
	Se-1	**78**	**0.248**	ug/L	0.097	39	25	35	9	KED
	Y	**89**		ug/L			619356	722632	4	Standard
	Kr	**83**		ug/L			31	43	23	Standard
>	**In-1**	**115**		ug/L			34809	33874	4	KED
	Mo	**98**	**0.142**	ug/L	0.010	6	3	193	11	KED
	Cd	**111**	**0.191**	ug/L	0.311	162	2	79	157	KED
	Cd	**114**	**0.082**	ug/L	0.112	136	3	87	131	KED
>	**In**	**115**		ug/L			769572	740001	2	Standard
	Ag	**107**	**0.016**	ug/L	0.003	21	121	347	11	Standard
	Sb	**121**	**0.022**	ug/L	0.002	9	91	333	7	Standard
	Sb	**123**	**0.023**	ug/L	0.003	13	78	272	12	Standard
	Ba	**135**	**10.148**	ug/L	0.432	4	23	36641	3	Standard
	Ba	**137**	**9.785**	ug/L	0.662	6	48	64726	5	Standard
>	**Tb**	**159**		ug/L			1026127	1045989	0	Standard
	Tl	**205**	**0.020**	ug/L	0.001	4	86	460	3	Standard
	Pb	**208**	**1.549**	ug/L	0.005	0	191	36428	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0241-03
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 10:16:02
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	703119	10	Standard
	Be	9	0.057	ug/L	0.008	13	27	374	2	Standard
	C	13		ug/L			17606	31612	2	Standard
	Cl	37		ug/L			6613771	6832449	2	Standard
>	Sc	45		ug/L			1108166	1155674	1	Standard
	V	51	24.983	ug/L	0.477	1	5706	572926	1	Standard
	V-1	51	24.808	ug/L	0.463	1	834	570582	1	Standard
	Cr	52	6.996	ug/L	0.215	3	16644	144808	1	Standard
	Cr	53	7.121	ug/L	0.138	1	322	15613	0	Standard
	Mn	55	56.451	ug/L	1.374	2	466	1457903	1	Standard
>	Ge-1	72		ug/L			81114	81330	1	KED
	Co	59	1.959	ug/L	0.035	1	31	9424	3	KED
	Ni	60	4.742	ug/L	0.122	2	44	6406	0	KED
	Ni	62	5.311	ug/L	0.417	7	7	1092	8	KED
	Cu	63	9.183	ug/L	0.060	0	57	31880	2	KED
	Cu	65	9.133	ug/L	0.243	2	19	15701	1	KED
	Zn	66	19.198	ug/L	0.999	5	56	9175	3	KED
	Zn	67	18.303	ug/L	1.208	6	7	1451	6	KED
	As	75	2.121	ug/L	0.044	2	6	683	1	KED
	Se-1	78	0.242	ug/L	0.163	67	25	35	17	KED
	Y	89		ug/L			619356	683742	2	Standard
	Kr	83		ug/L			31	54	21	Standard
>	In-1	115		ug/L			34809	34604	3	KED
	Mo	98	0.180	ug/L	0.037	20	3	249	16	KED
	Cd	111	0.025	ug/L	0.009	36	2	12	26	KED
	Cd	114	0.025	ug/L	0.007	26	3	29	20	KED
>	In	115		ug/L			769572	734506	0	Standard
	Ag	107	0.025	ug/L	0.003	11	121	467	8	Standard
	Sb	121	0.022	ug/L	0.004	16	91	328	11	Standard
	Sb	123	0.021	ug/L	0.000	1	78	249	1	Standard
	Ba	135	11.606	ug/L	0.457	3	23	41606	3	Standard
	Ba	137	11.101	ug/L	0.633	5	48	72936	5	Standard
>	Tb	159		ug/L			1026127	1045212	2	Standard
	Tl	205	0.021	ug/L	0.005	22	86	473	16	Standard
	Pb	208	2.990	ug/L	0.161	5	191	70018	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0506-DUP1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 10:20:57
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	692054	8	Standard
	Be	9	0.052	ug/L	0.008	15	27	341	13	Standard
	C	13		ug/L			17606	41030	2	Standard
	Cl	37		ug/L			6613771	6790491	2	Standard
>	Sc	45		ug/L			1108166	1171893	1	Standard
	V	51	26.265	ug/L	0.311	1	5706	610512	1	Standard
	V-1	51	25.976	ug/L	0.274	1	834	605850	1	Standard
	Cr	52	7.278	ug/L	0.225	3	16644	152046	1	Standard
	Cr	53	7.054	ug/L	0.029	0	322	15690	1	Standard
	Mn	55	72.566	ug/L	0.737	1	466	1900459	0	Standard
>	Ge-1	72		ug/L			81114	82015	3	KED
	Co	59	2.381	ug/L	0.018	0	31	11542	4	KED
	Ni	60	4.912	ug/L	0.379	7	44	6680	4	KED
	Ni	62	4.997	ug/L	0.063	1	7	1036	2	KED
	Cu	63	7.492	ug/L	0.258	3	57	26216	0	KED
	Cu	65	7.267	ug/L	0.224	3	19	12610	5	KED
	Zn	66	19.053	ug/L	1.059	5	56	9176	2	KED
	Zn	67	19.424	ug/L	2.035	10	7	1549	6	KED
	As	75	1.880	ug/L	0.047	2	6	611	4	KED
	Se-1	78	0.307	ug/L	0.095	30	25	38	8	KED
	Y	89		ug/L			619356	704802	3	Standard
	Kr	83		ug/L			31	42	6	Standard
>	In-1	115		ug/L			34809	35017	1	KED
	Mo	98	2.294	ug/L	0.011	0	3	3185	1	KED
	Cd	111	0.022	ug/L	0.005	22	2	11	16	KED
	Cd	114	0.022	ug/L	0.007	34	3	27	28	KED
>	In	115		ug/L			769572	732453	1	Standard
	Ag	107	0.025	ug/L	0.001	3	121	475	3	Standard
	Sb	121	0.014	ug/L	0.002	13	91	240	8	Standard
	Sb	123	0.013	ug/L	0.000	3	78	181	0	Standard
	Ba	135	15.134	ug/L	0.156	1	23	54095	0	Standard
	Ba	137	14.590	ug/L	0.241	1	48	95603	3	Standard
>	Tb	159		ug/L			1026127	1080576	0	Standard
	Tl	205	0.019	ug/L	0.002	12	86	447	9	Standard
	Pb	208	1.867	ug/L	0.005	0	191	45313	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0174-01
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 10:25:53
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	704176	4	Standard
	Be	9	0.061	ug/L	0.005	8	27	401	7	Standard
	C	13		ug/L			17606	32334	0	Standard
	Cl	37		ug/L			6613771	6719681	2	Standard
>	Sc	45		ug/L			1108166	1141276	1	Standard
	V	51	25.691	ug/L	0.694	2	5706	581640	2	Standard
	V-1	51	25.428	ug/L	0.684	2	834	577511	2	Standard
	Cr	52	7.759	ug/L	0.112	1	16644	156754	0	Standard
	Cr	53	7.582	ug/L	0.207	2	322	16392	0	Standard
	Mn	55	72.991	ug/L	3.084	4	466	1860921	2	Standard
>	Ge-1	72		ug/L			81114	82042	2	KED
	Co	59	2.358	ug/L	0.094	3	31	11435	4	KED
	Ni	60	4.842	ug/L	0.165	3	44	6599	4	KED
	Ni	62	4.978	ug/L	0.311	6	7	1033	5	KED
	Cu	63	8.874	ug/L	0.265	2	57	31078	3	KED
	Cu	65	8.759	ug/L	0.367	4	19	15189	3	KED
	Zn	66	21.233	ug/L	0.181	0	56	10234	1	KED
	Zn	67	20.644	ug/L	0.605	2	7	1651	4	KED
	As	75	1.938	ug/L	0.061	3	6	630	4	KED
	Se-1	78	0.284	ug/L	0.077	27	25	37	6	KED
	Y	89		ug/L			619356	708719	2	Standard
	Kr	83		ug/L			31	49	10	Standard
>	In-1	115		ug/L			34809	34133	3	KED
	Mo	98	0.113	ug/L	0.007	5	3	155	8	KED
	Cd	111	0.029	ug/L	0.010	34	2	14	30	KED
	Cd	114	0.024	ug/L	0.006	25	3	28	24	KED
>	In	115		ug/L			769572	745851	1	Standard
	Ag	107	0.024	ug/L	0.002	10	121	471	6	Standard
	Sb	121	0.013	ug/L	0.001	8	91	235	6	Standard
	Sb	123	0.016	ug/L	0.001	6	78	209	3	Standard
	Ba	135	12.795	ug/L	0.328	2	23	46571	1	Standard
	Ba	137	12.407	ug/L	0.508	4	48	82755	3	Standard
>	Tb	159		ug/L			1026127	1038810	2	Standard
	Tl	205	0.020	ug/L	0.003	15	86	448	10	Standard
	Pb	208	2.322	ug/L	0.073	3	191	54085	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0506-MS1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 10:30:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	677114	7	Standard
	Be	9	22.436	ug/L	2.392	10	27	129693	4	Standard
	C	13		ug/L			17606	30340	4	Standard
	Cl	37		ug/L			6613771	6899208	3	Standard
>	Sc	45		ug/L			1108166	1153241	1	Standard
	V	51	49.910	ug/L	0.379	0	5706	1136499	1	Standard
	V-1	51	49.860	ug/L	0.242	0	834	1143686	1	Standard
	Cr	52	31.589	ug/L	0.533	1	16644	591700	0	Standard
	Cr	53	32.154	ug/L	1.388	4	322	69160	3	Standard
	Mn	55	108.634	ug/L	2.807	2	466	2799207	1	Standard
>	Ge-1	72		ug/L			81114	82619	2	KED
	Co	59	27.476	ug/L	0.707	2	31	133768	1	KED
	Ni	60	30.706	ug/L	0.736	2	44	41888	0	KED
	Ni	62	31.525	ug/L	1.721	5	7	6545	4	KED
	Cu	63	33.958	ug/L	0.336	0	57	119582	1	KED
	Cu	65	33.872	ug/L	0.582	1	19	59124	3	KED
	Zn	66	99.971	ug/L	3.794	3	56	48288	1	KED
	Zn	67	93.837	ug/L	1.697	1	7	7527	1	KED
	As	75	25.396	ug/L	0.429	1	6	8240	0	KED
	Se-1	78	75.810	ug/L	1.783	2	25	3204	1	KED
	Y	89		ug/L			619356	723285	1	Standard
	Kr	83		ug/L			31	57	25	Standard
>	In-1	115		ug/L			34809	33893	4	KED
	Mo	98	0.117	ug/L	0.009	7	3	159	7	KED
	Cd	111	25.345	ug/L	1.043	4	2	10493	0	KED
	Cd	114	24.900	ug/L	1.057	4	3	26379	0	KED
>	In	115		ug/L			769572	738032	4	Standard
	Ag	107	24.034	ug/L	1.621	6	121	342688	2	Standard
	Sb	121	0.014	ug/L	0.001	7	91	236	3	Standard
	Sb	123	0.011	ug/L	0.001	9	78	170	7	Standard
	Ba	135	41.221	ug/L	0.624	1	23	148455	5	Standard
	Ba	137	40.276	ug/L	2.330	5	48	265320	1	Standard
>	Tb	159		ug/L			1026127	1044298	1	Standard
	Tl	205	26.699	ug/L	0.477	1	86	495782	3	Standard
	Pb	208	29.588	ug/L	0.766	2	191	690913	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0506-MSD1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 10:35:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	Li	6		ug/L			572696	682792	11	Standard
⌊	Be	9	21.247	ug/L	2.422	11	27	123399	0	Standard
	C	13		ug/L			17606	28595	3	Standard
	Cl	37		ug/L			6613771	6791166	1	Standard
⌈>	Sc	45		ug/L			1108166	1143066	1	Standard
⌈	V	51	47.750	ug/L	0.090	0	5706	1077914	1	Standard
⌊	V-1	51	47.479	ug/L	0.162	0	834	1079491	1	Standard
⌈	Cr	52	30.912	ug/L	0.168	0	16644	574327	0	Standard
⌊	Cr	53	30.661	ug/L	0.278	0	322	65403	1	Standard
⌊	Mn	55	104.173	ug/L	1.395	1	466	2661306	2	Standard
⌈>	Ge-1	72		ug/L			81114	80290	3	KED
⌈	Co	59	27.367	ug/L	0.908	3	31	129420	0	KED
⌊	Ni	60	30.986	ug/L	2.079	6	44	41025	2	KED
⌈	Ni	62	31.681	ug/L	1.535	4	7	6389	2	KED
⌈	Cu	63	34.707	ug/L	1.415	4	57	118669	0	KED
⌊	Cu	65	33.527	ug/L	1.126	3	19	56826	2	KED
⌈	Zn	66	101.340	ug/L	3.187	3	56	47561	0	KED
⌊	Zn	67	92.635	ug/L	3.022	3	7	7218	1	KED
⌈	As	75	25.534	ug/L	0.707	2	6	8048	1	KED
⌊	Se-1	78	75.106	ug/L	3.376	4	25	3083	1	KED
	Y	89		ug/L			619356	710158	3	Standard
	Kr	83		ug/L			31	50	10	Standard
⌈>	In-1	115		ug/L			34809	34276	2	KED
⌈	Mo	98	0.174	ug/L	0.015	8	3	239	6	KED
⌈	Cd	111	24.185	ug/L	0.451	1	2	10135	0	KED
⌊	Cd	114	23.753	ug/L	0.759	3	3	25467	1	KED
⌈>	In	115		ug/L			769572	700045	3	Standard
⌈	Ag	107	23.896	ug/L	0.744	3	121	323589	0	Standard
⌈	Sb	121	0.023	ug/L	0.003	11	91	319	5	Standard
⌊	Sb	123	0.023	ug/L	0.004	16	78	253	15	Standard
⌈	Ba	135	40.746	ug/L	1.924	4	23	139020	1	Standard
⌊	Ba	137	39.999	ug/L	2.136	5	48	250342	6	Standard
⌈>	Tb	159		ug/L			1026127	1032128	2	Standard
⌈	Tl	205	25.850	ug/L	0.734	2	86	474176	0	Standard
⌊	Pb	208	27.759	ug/L	0.974	3	191	640474	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0506-BS1
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 10:40:39
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	661636	7	Standard
⌊	**Be**	**9**	**21.478**	ug/L	0.976	4	27	121652	3	Standard
	C	**13**		ug/L			17606	22517	0	Standard
	Cl	**37**		ug/L			6613771	6869867	2	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1077121	2	Standard
⌈	**V**	**51**	**25.182**	ug/L	0.640	2	5706	538173	2	Standard
⌊	**V-1**	**51**	**25.225**	ug/L	0.710	2	834	540661	2	Standard
⌈	**Cr**	**52**	**25.277**	ug/L	0.224	0	16644	445466	1	Standard
⌊	**Cr**	**53**	**25.419**	ug/L	0.566	2	322	51133	0	Standard
⌊	**Mn**	**55**	**26.129**	ug/L	0.614	2	466	629191	2	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	81088	1	KED
⌈	**Co**	**59**	**25.096**	ug/L	0.626	2	31	119966	3	KED
⌊	**Ni**	**60**	**26.090**	ug/L	0.328	1	44	34951	1	KED
⌈	**Ni**	**62**	**26.933**	ug/L	0.749	2	7	5491	1	KED
⌈	**Cu**	**63**	**26.493**	ug/L	0.293	1	57	91582	0	KED
⌊	**Cu**	**65**	**25.941**	ug/L	0.491	1	19	44431	0	KED
⌈	**Zn**	**66**	**82.781**	ug/L	2.880	3	56	39267	2	KED
⌊	**Zn**	**67**	**75.736**	ug/L	4.893	6	7	5961	4	KED
⌈	**As**	**75**	**24.241**	ug/L	0.572	2	6	7720	0	KED
⌊	**Se-1**	**78**	**77.545**	ug/L	0.938	1	25	3217	0	KED
	Y	**89**		ug/L			619356	595268	3	Standard
	Kr	**83**		ug/L			31	42	22	Standard
⌈>	**In-1**	**115**		ug/L			34809	34637	1	KED
⌈	**Mo**	**98**	**0.001**	ug/L	0.002	164	3	5	60	KED
⌈	**Cd**	**111**	**24.491**	ug/L	0.190	0	2	10374	1	KED
⌊	**Cd**	**114**	**24.441**	ug/L	0.857	3	3	26484	2	KED
⌈>	**In**	**115**		ug/L			769572	717746	1	Standard
⌈	**Ag**	**107**	**25.144**	ug/L	1.041	4	121	349222	2	Standard
⌈	**Sb**	**121**	**0.003**	ug/L	0.001	40	91	120	13	Standard
⌊	**Sb**	**123**	**0.003**	ug/L	0.001	32	78	94	7	Standard
⌈	**Ba**	**135**	**28.029**	ug/L	0.886	3	23	98154	2	Standard
⌊	**Ba**	**137**	**25.856**	ug/L	0.495	1	48	165971	2	Standard
⌈>	**Tb**	**159**		ug/L			1026127	995687	4	Standard
⌈	**Tl**	**205**	**26.793**	ug/L	1.442	5	86	473592	1	Standard
⌊	**Pb**	**208**	**27.360**	ug/L	1.083	3	191	608637	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 10:46:39
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	599581	9	Standard
	Be	**9**	**45.580**	ug/L	4.546	9	27	233075	1	Standard
	C	**13**		ug/L			17606	18163	4	Standard
	Cl	**37**		ug/L			6613771	6973420	2	Standard
>	**Sc**	**45**		ug/L			1108166	1104694	2	Standard
	V	**51**	**47.754**	ug/L	0.918	1	5706	1042089	4	Standard
	V-1	**51**	**47.553**	ug/L	0.898	1	834	1045135	4	Standard
	Cr	**52**	**49.718**	ug/L	1.528	3	16644	882278	1	Standard
	Cr	**53**	**48.949**	ug/L	1.579	3	322	100671	1	Standard
	Mn	**55**	**48.374**	ug/L	1.913	3	466	1194062	3	Standard
>	**Ge-1**	**72**		ug/L			81114	78664	2	KED
	Co	**59**	**50.718**	ug/L	2.036	4	31	235144	4	KED
	Ni	**60**	**50.517**	ug/L	0.056	0	44	65613	2	KED
	Ni	**62**	**51.241**	ug/L	1.893	3	7	10126	2	KED
	Cu	**63**	**51.369**	ug/L	0.399	0	57	172246	2	KED
	Cu	**65**	**49.746**	ug/L	1.302	2	19	82658	3	KED
	Zn	**66**	**51.207**	ug/L	1.459	2	56	23585	2	KED
	Zn	**67**	**49.294**	ug/L	1.970	3	7	3768	3	KED
	As	**75**	**49.831**	ug/L	1.505	3	6	15385	0	KED
	Se-1	**78**	**49.612**	ug/L	2.211	4	25	2004	2	KED
	Y	**89**		ug/L			619356	600624	3	Standard
	Kr	**83**		ug/L			31	40	37	Standard
>	**In-1**	**115**		ug/L			34809	33378	2	KED
	Mo	**98**	**48.579**	ug/L	1.751	3	3	64207	1	KED
	Cd	**111**	**49.194**	ug/L	0.991	2	2	20073	1	KED
	Cd	**114**	**49.645**	ug/L	1.061	2	3	51839	1	KED
>	**In**	**115**		ug/L			769572	718440	1	Standard
	Ag	**107**	**47.852**	ug/L	1.104	2	121	665288	1	Standard
	Sb	**121**	**48.308**	ug/L	0.323	0	91	513310	0	Standard
	Sb	**123**	**48.979**	ug/L	0.117	0	78	404556	1	Standard
	Ba	**135**	**52.259**	ug/L	2.313	4	23	183160	4	Standard
	Ba	**137**	**48.363**	ug/L	2.189	4	48	310697	4	Standard
>	**Tb**	**159**		ug/L			1026127	1017992	3	Standard
	Tl	**205**	**49.043**	ug/L	0.958	1	86	887901	5	Standard
	Pb	**208**	**49.900**	ug/L	1.693	3	191	1134985	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 10:54:19
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	617832	4	Standard
⌊	**Be**	**9**	**0.002**	ug/L	0.006	291	27	41	78	Standard
	C	**13**		ug/L			17606	18001	3	Standard
	Cl	**37**		ug/L			6613771	6853369	3	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1082660	3	Standard
⌈	**V**	**51**	**-0.004**	ug/L	0.005	130	5706	5498	2	Standard
⌈	**V-1**	**51**	**-0.016**	ug/L	0.005	28	834	472	20	Standard
⌈	**Cr**	**52**	**-0.007**	ug/L	0.000	6	16644	16148	2	Standard
⌈	**Cr**	**53**	**-0.049**	ug/L	0.008	17	322	217	10	Standard
⌊	**Mn**	**55**	**0.012**	ug/L	0.007	52	466	755	19	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	80983	3	KED
⌈	**Co**	**59**	**0.000**	ug/L	0.005	2300	31	33	73	KED
⌈	**Ni**	**60**	**0.032**	ug/L	0.001	3	44	87	4	KED
⌈	**Ni**	**62**	**0.028**	ug/L	0.024	84	7	13	37	KED
⌈	**Cu**	**63**	**0.009**	ug/L	0.004	42	57	89	12	KED
⌈	**Cu**	**65**	**0.011**	ug/L	0.008	70	19	39	37	KED
⌈	**Zn**	**66**	**0.236**	ug/L	0.028	11	56	167	5	KED
⌈	**Zn**	**67**	**0.226**	ug/L	0.122	53	7	25	38	KED
⌈	**As**	**75**	**0.001**	ug/L	0.004	347	6	6	14	KED
⌊	**Se-1**	**78**	**0.003**	ug/L	0.072	2860	25	25	8	KED
	Y	**89**		ug/L			619356	596093	5	Standard
	Kr	**83**		ug/L			31	25	31	Standard
⌈>	**In-1**	**115**		ug/L			34809	33817	1	KED
⌈	**Mo**	**98**	**0.011**	ug/L	0.004	39	3	18	33	KED
⌈	**Cd**	**111**	**0.001**	ug/L	0.001	143	2	2	21	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.002	300	3	3	50	KED
⌈>	**In**	**115**		ug/L			769572	722530	1	Standard
⌈	**Ag**	**107**	**0.000**	ug/L	0.007	80085	121	114	87	Standard
⌈	**Sb**	**121**	**0.120**	ug/L	0.007	5	91	1365	6	Standard
⌈	**Sb**	**123**	**0.113**	ug/L	0.012	11	78	1009	11	Standard
⌈	**Ba**	**135**	**0.007**	ug/L	0.009	128	23	46	67	Standard
⌊	**Ba**	**137**	**0.003**	ug/L	0.005	146	48	66	46	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1010599	1	Standard
⌈	**Tl**	**205**	**0.006**	ug/L	0.005	93	86	190	52	Standard
⌊	**Pb**	**208**	**0.043**	ug/L	0.006	15	191	1154	13	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0579-BLK2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 10:59:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	Li	6		ug/L			572696	633813	3	Standard
[	Be	9	-0.003	ug/L	0.001	38	27	15	38	Standard
	C	13		ug/L			17606	26052	0	Standard
	Cl	37		ug/L			6613771	6843452	4	Standard
[>	Sc	45		ug/L			1108166	1118701	1	Standard
[	V	51	-0.002	ug/L	0.008	488	5706	5726	3	Standard
[	V-1	51	-0.014	ug/L	0.001	4	834	525	2	Standard
[	Cr	52	0.006	ug/L	0.031	534	16644	16904	3	Standard
[	Cr	53	-0.038	ug/L	0.008	20	322	246	4	Standard
[	Mn	55	0.321	ug/L	0.004	1	466	8498	2	Standard
[>	Ge-1	72		ug/L			81114	80306	2	KED
[	Co	59	0.001	ug/L	0.002	135	31	37	21	KED
[	Ni	60	0.047	ug/L	0.009	20	44	106	13	KED
[	Ni	62	0.060	ug/L	0.037	61	7	19	40	KED
[	Cu	63	0.056	ug/L	0.006	10	57	248	5	KED
[	Cu	65	0.066	ug/L	0.007	10	19	132	10	KED
[	Zn	66	1.470	ug/L	0.067	4	56	745	4	KED
[	Zn	67	1.039	ug/L	0.201	19	7	88	15	KED
[	As	75	-0.004	ug/L	0.002	51	6	5	13	KED
[	Se-1	78	0.050	ug/L	0.064	126	25	27	7	KED
	Y	89		ug/L			619356	613941	4	Standard
	Kr	83		ug/L			31	43	33	Standard
[>	In-1	115		ug/L			34809	34246	2	KED
[	Mo	98	0.006	ug/L	0.003	47	3	11	32	KED
[	Cd	111	0.001	ug/L	0.003	420	2	2	57	KED
[	Cd	114	0.007	ug/L	0.003	48	3	10	33	KED
[>	In	115		ug/L			769572	755897	3	Standard
[	Ag	107	-0.004	ug/L	0.001	18	121	64	15	Standard
[	Sb	121	0.029	ug/L	0.001	3	91	417	5	Standard
[	Sb	123	0.026	ug/L	0.002	8	78	301	9	Standard
[	Ba	135	0.017	ug/L	0.002	14	23	84	9	Standard
[	Ba	137	0.010	ug/L	0.002	20	48	116	12	Standard
[>	Tb	159		ug/L			1026127	1053246	1	Standard
[	Tl	205	-0.001	ug/L	0.001	91	86	77	12	Standard
[	Pb	208	0.008	ug/L	0.001	11	191	394	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0480-BLK1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 11:04:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	Li	6		ug/L			572696	712326	1	Standard
[	Be	9	-0.003	ug/L	0.001	34	27	17	33	Standard
	C	13		ug/L			17606	27397	2	Standard
	Cl	37		ug/L			6613771	6923821	2	Standard
[>	Sc	45		ug/L			1108166	1117867	1	Standard
[	V	51	-0.000	ug/L	0.005	4433	5706	5754	2	Standard
[	V-1	51	-0.016	ug/L	0.001	3	834	488	0	Standard
[	Cr	52	0.038	ug/L	0.010	26	16644	17467	1	Standard
[	Cr	53	-0.017	ug/L	0.007	41	322	289	4	Standard
[	Mn	55	0.243	ug/L	0.008	3	466	6548	4	Standard
[>	Ge-1	72		ug/L			81114	82174	0	KED
[	Co	59	0.004	ug/L	0.002	68	31	49	23	KED
[	Ni	60	0.027	ug/L	0.010	37	44	81	16	KED
[	Ni	62	0.015	ug/L	0.023	154	7	10	44	KED
[	Cu	63	0.037	ug/L	0.010	25	57	189	18	KED
[	Cu	65	0.039	ug/L	0.004	10	19	87	7	KED
[	Zn	66	0.711	ug/L	0.050	7	56	398	5	KED
[	Zn	67	0.628	ug/L	0.108	17	7	57	14	KED
[	As	75	-0.001	ug/L	0.014	1157	6	6	70	KED
[	Se-1	78	0.080	ug/L	0.184	229	25	29	25	KED
	Y	89		ug/L			619356	622932	3	Standard
	Kr	83		ug/L			31	36	13	Standard
[>	In-1	115		ug/L			34809	35197	1	KED
[	Mo	98	0.002	ug/L	0.002	109	3	6	49	KED
[	Cd	111	0.003	ug/L	0.006	220	2	3	78	KED
[	Cd	114	0.001	ug/L	0.007	537	3	4	168	KED
[>	In	115		ug/L			769572	763021	0	Standard
[	Ag	107	-0.005	ug/L	0.001	21	121	53	27	Standard
[	Sb	121	0.023	ug/L	0.003	14	91	350	10	Standard
[	Sb	123	0.022	ug/L	0.003	15	78	268	9	Standard
[	Ba	135	0.007	ug/L	0.002	30	23	48	15	Standard
[	Ba	137	0.004	ug/L	0.001	32	48	76	12	Standard
[>	Tb	159		ug/L			1026127	1046274	1	Standard
[	Tl	205	-0.000	ug/L	0.000	1485	86	88	10	Standard
[	Pb	208	-0.001	ug/L	0.002	216	191	173	28	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0241-04
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 11:09:06
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	634158	6	Standard
⌊	**Be**	**9**	**0.273**	ug/L	0.025	9	27	1508	3	Standard
	C	**13**		ug/L			17606	42830	4	Standard
	Cl	**37**		ug/L			6613771	6771676	1	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1212130	1	Standard
⌈	**V**	**51**	**54.580**	ug/L	1.305	2	5706	1305497	1	Standard
⌊	**V-1**	**51**	**54.155**	ug/L	1.363	2	834	1305400	1	Standard
⌈	**Cr**	**52**	**30.251**	ug/L	0.521	1	16644	596406	1	Standard
⌊	**Cr**	**53**	**29.779**	ug/L	0.722	2	322	67362	1	Standard
⌊	**Mn**	**55**	**548.139**	ug/L	8.623	1	466	14845648	1	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	78263	1	KED
⌈	**Co**	**59**	**10.091**	ug/L	0.353	3	31	46557	2	KED
⌊	**Ni**	**60**	**38.831**	ug/L	0.937	2	44	50178	1	KED
⌈	**Ni**	**62**	**41.154**	ug/L	0.014	0	7	8096	1	KED
⌈	**Cu**	**63**	**209.405**	ug/L	1.696	0	57	698308	1	KED
⌊	**Cu**	**65**	**204.691**	ug/L	5.868	2	19	338215	1	KED
⌈	**Zn**	**66**	**242.089**	ug/L	2.532	1	56	110752	0	KED
⌊	**Zn**	**67**	**222.837**	ug/L	4.255	1	7	16925	1	KED
⌈	**As**	**75**	**14.308**	ug/L	0.430	3	6	4400	1	KED
⌊	**Se-1**	**78**	**0.537**	ug/L	0.106	19	25	46	10	KED
	Y	**89**		ug/L			619356	936801	5	Standard
	Kr	**83**		ug/L			31	116	5	Standard
⌈>	**In-1**	**115**		ug/L			34809	33449	2	KED
⌈	**Mo**	**98**	**2.280**	ug/L	0.072	3	3	3022	0	KED
⌊	**Cd**	**111**	**0.213**	ug/L	0.027	12	2	89	10	KED
⌊	**Cd**	**114**	**0.152**	ug/L	0.022	14	3	161	13	KED
⌈>	**In**	**115**		ug/L			769572	697949	0	Standard
⌈	**Ag**	**107**	**0.161**	ug/L	0.009	5	121	2282	5	Standard
⌈	**Sb**	**121**	**0.178**	ug/L	0.010	5	91	1924	4	Standard
⌊	**Sb**	**123**	**0.179**	ug/L	0.010	5	78	1510	5	Standard
⌈	**Ba**	**135**	**54.929**	ug/L	2.938	5	23	187005	4	Standard
⌊	**Ba**	**137**	**53.040**	ug/L	2.141	4	48	330953	3	Standard
⌈>	**Tb**	**159**		ug/L			1026127	976068	4	Standard
⌈	**Tl**	**205**	**0.052**	ug/L	0.008	15	86	989	9	Standard
⌊	**Pb**	**208**	**119.631**	ug/L	5.184	4	191	2608231	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0241-05
Sample Dil Factor: 20 DEL
Comments:
Sample Date/Time: Thursday, June 28, 2018 11:14:01
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	615261	8	Standard
⌊	**Be**	**9**	**-0.004**	ug/L	0.002	49	27	11	88	Standard
	C	**13**		ug/L			17606	19074	3	Standard
	Cl	**37**		ug/L			6613771	6913798	1	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1080830	4	Standard
⌈	**V**	**51**	**-0.008**	ug/L	0.004	49	5706	5394	4	Standard
⌊	**V-1**	**51**	**-0.020**	ug/L	0.001	4	834	386	0	Standard
⌈	**Cr**	**52**	**-0.022**	ug/L	0.022	97	16644	15848	4	Standard
⌊	**Cr**	**53**	**-0.062**	ug/L	0.008	12	322	189	8	Standard
⌊	**Mn**	**55**	**0.006**	ug/L	0.001	9	466	591	6	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	82266	0	KED
⌈	**Co**	**59**	**0.002**	ug/L	0.000	28	31	40	5	KED
⌊	**Ni**	**60**	**-0.008**	ug/L	0.004	52	44	34	16	KED
⌈	**Ni**	**62**	**-0.013**	ug/L	0.014	110	7	5	57	KED
⌊	**Cu**	**63**	**0.004**	ug/L	0.005	111	57	73	23	KED
⌈	**Cu**	**65**	**0.008**	ug/L	0.004	55	19	33	22	KED
⌊	**Zn**	**66**	**0.153**	ug/L	0.018	11	56	130	5	KED
⌈	**Zn**	**67**	**0.086**	ug/L	0.027	31	7	14	15	KED
⌊	**As**	**75**	**-0.005**	ug/L	0.007	139	6	5	39	KED
⌊	**Se-1**	**78**	**0.030**	ug/L	0.126	424	25	27	18	KED
	Y	**89**		ug/L			619356	598807	6	Standard
	Kr	**83**		ug/L			31	37	22	Standard
⌈>	**In-1**	**115**		ug/L			34809	34250	2	KED
⌈	**Mo**	**98**	**0.002**	ug/L	0.005	219	3	6	106	KED
⌊	**Cd**	**111**	**0.004**	ug/L	0.006	155	2	3	66	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.003	224	3	1	174	KED
⌈>	**In**	**115**		ug/L			769572	719643	6	Standard
⌈	**Ag**	**107**	**-0.006**	ug/L	0.000	5	121	29	18	Standard
⌈	**Sb**	**121**	**0.004**	ug/L	0.001	38	91	125	16	Standard
⌊	**Sb**	**123**	**0.003**	ug/L	0.001	40	78	99	7	Standard
⌈	**Ba**	**135**	**0.332**	ug/L	0.037	11	23	1182	4	Standard
⌊	**Ba**	**137**	**0.323**	ug/L	0.027	8	48	2114	4	Standard
⌈>	**Tb**	**159**		ug/L			1026127	988471	3	Standard
⌈	**Tl**	**205**	**-0.003**	ug/L	0.000	14	86	29	22	Standard
⌊	**Pb**	**208**	**0.005**	ug/L	0.002	42	191	299	12	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0241-06
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 11:18:56
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	641683	9	Standard
⌊	**Be**	**9**	**0.114**	ug/L	0.020	17	27	650	9	Standard
	C	**13**		ug/L			17606	35447	4	Standard
	Cl	**37**		ug/L			6613771	6977074	1	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1189875	2	Standard
⌈	**V**	**51**	**33.822**	ug/L	1.605	4	5706	796114	3	Standard
⌊	**V-1**	**51**	**33.505**	ug/L	1.599	4	834	792816	3	Standard
⌈	**Cr**	**52**	**13.112**	ug/L	0.548	4	16644	263716	1	Standard
⌊	**Cr**	**53**	**12.863**	ug/L	0.543	4	322	28745	2	Standard
⌊	**Mn**	**55**	**297.912**	ug/L	13.365	4	466	7914447	1	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	81654	2	KED
⌈	**Co**	**59**	**7.349**	ug/L	0.162	2	31	35394	2	KED
⌊	**Ni**	**60**	**21.240**	ug/L	0.351	1	44	28656	1	KED
⌈	**Ni**	**62**	**22.152**	ug/L	0.911	4	7	4548	2	KED
⌊	**Cu**	**63**	**49.049**	ug/L	0.693	1	57	170677	1	KED
⌈	**Cu**	**65**	**49.248**	ug/L	1.002	2	19	84914	0	KED
⌊	**Zn**	**66**	**218.456**	ug/L	6.567	3	56	104242	0	KED
⌈	**Zn**	**67**	**201.928**	ug/L	8.026	3	7	15995	1	KED
⌊	**As**	**75**	**9.205**	ug/L	0.261	2	6	2955	0	KED
⌊	**Se-1**	**78**	**0.349**	ug/L	0.149	42	25	40	14	KED
	Y	**89**		ug/L			619356	804305	0	Standard
	Kr	**83**		ug/L			31	67	8	Standard
⌈>	**In-1**	**115**		ug/L			34809	34851	1	KED
⌈	**Mo**	**98**	**1.712**	ug/L	0.041	2	3	2367	3	KED
⌊	**Cd**	**111**	**0.180**	ug/L	0.025	13	2	78	12	KED
⌊	**Cd**	**114**	**0.189**	ug/L	0.028	14	3	209	14	KED
⌈>	**In**	**115**		ug/L			769572	727128	2	Standard
⌈	**Ag**	**107**	**0.081**	ug/L	0.006	7	121	1250	5	Standard
⌈	**Sb**	**121**	**0.120**	ug/L	0.005	4	91	1375	1	Standard
⌊	**Sb**	**123**	**0.109**	ug/L	0.007	6	78	981	3	Standard
⌈	**Ba**	**135**	**70.301**	ug/L	4.406	6	23	249177	4	Standard
⌊	**Ba**	**137**	**66.257**	ug/L	2.780	4	48	430424	1	Standard
⌈>	**Tb**	**159**		ug/L			1026127	992275	3	Standard
⌈	**Tl**	**205**	**0.027**	ug/L	0.001	2	86	554	4	Standard
⌊	**Pb**	**208**	**199.501**	ug/L	5.369	2	191	4425762	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0242-01
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 11:23:52
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	Li	6		ug/L			572696	675915	11	Standard
[	Be	9	0.079	ug/L	0.013	16	27	487	7	Standard
	C	13		ug/L			17606	36072	4	Standard
	Cl	37		ug/L			6613771	6961000	2	Standard
[>	Sc	45		ug/L			1108166	1131452	3	Standard
[	V	51	20.163	ug/L	0.276	1	5706	453783	2	Standard
[	V-1	51	20.004	ug/L	0.305	1	834	450552	2	Standard
[	Cr	52	6.773	ug/L	0.212	3	16644	137776	2	Standard
[	Cr	53	6.768	ug/L	0.266	3	322	14535	1	Standard
[	Mn	55	118.717	ug/L	3.308	2	466	3000186	1	Standard
[>	Ge-1	72	TH 06-28-18	ug/L			81114	82071	1	KED
[	Co	59	2.598	ug/L	0.068	2	31	12598	2	KED
[	Ni	60	5.551	ug/L	0.032	0	44	7562	0	KED
[	Ni	62	Cu65 5.873	ug/L	0.361	6	7	1217	5	KED
[	Cu	63	21.904	ug/L	1.310	5	57	76623	4	KED
[	Cu	65	21.261	ug/L	0.276	1	19	36869	2	KED
[	Zn	66	92.121	ug/L	0.951	1	56	44231	0	KED
[	Zn	67	85.045	ug/L	4.088	4	7	6778	4	KED
[	As	75	3.476	ug/L	0.102	2	6	1126	2	KED
[	Se-1	78	0.309	ug/L	0.044	14	25	38	3	KED
	Y	89		ug/L			619356	731275	4	Standard
	Kr	83		ug/L			31	54	20	Standard
[>	In-1	115		ug/L			34809	34265	3	KED
[	Mo	98	0.291	ug/L	0.007	2	3	397	3	KED
[	Cd	111	0.098	ug/L	0.016	16	2	43	16	KED
[	Cd	114	0.093	ug/L	0.013	13	3	102	11	KED
[>	In	115		ug/L			769572	709240	1	Standard
[	Ag	107	0.034	ug/L	0.003	9	121	583	5	Standard
[	Sb	121	0.054	ug/L	0.003	5	91	647	4	Standard
[	Sb	123	0.054	ug/L	0.006	10	78	512	7	Standard
[	Ba	135	37.679	ug/L	0.882	2	23	130365	1	Standard
[	Ba	137	35.941	ug/L	0.417	1	48	227949	2	Standard
[>	Tb	159		ug/L			1026127	1022258	2	Standard
[	Tl	205	0.025	ug/L	0.002	8	86	533	8	Standard
[	Pb	208	182.296	ug/L	2.981	1	191	4165889	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0242-02
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 11:28:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	650941	7	Standard
⌊	**Be**	**9**	**0.174**	ug/L	0.008	4	27	1002	7	Standard
	C	**13**		ug/L			17606	36570	5	Standard
	Cl	**37**		ug/L			6613771	6842353	0	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1142679	3	Standard
⌈	**V**	**51**	**29.473**	ug/L	0.859	2	5706	666965	0	Standard
⌊	**V-1**	**51**	**29.219**	ug/L	0.902	3	834	664010	0	Standard
⌈	**Cr**	**52**	**16.490**	ug/L	0.662	4	16644	314146	3	Standard
⌊	**Cr**	**53**	**16.141**	ug/L	0.709	4	322	34553	2	Standard
⌊	**Mn**	**55**	**178.605**	ug/L	2.364	1	466	4561562	4	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	79604	0	KED
⌈	**Co**	**59**	**4.988**	ug/L	0.014	0	31	23430	0	KED
⌊	**Ni**	**60**	**18.208**	ug/L	0.373	2	44	23959	1	KED
⌈	**Ni**	**62**	**18.655**	ug/L	0.608	3	7	3736	3	KED
⌊	**Cu**	**63**	**20.799**	ug/L	0.594	2	57	70614	3	KED
⌈	**Cu**	**65**	**20.149**	ug/L	0.697	3	19	33889	3	KED
⌈	**Zn**	**66**	**45.514**	ug/L	0.811	1	56	21225	1	KED
⌊	**Zn**	**67**	**41.816**	ug/L	1.271	3	7	3237	3	KED
⌈	**As**	**75**	**5.138**	ug/L	0.108	2	6	1611	1	KED
⌊	**Se-1**	**78**	**0.437**	ug/L	0.147	33	25	42	13	KED
	Y	**89**		ug/L			619356	784395	2	Standard
	Kr	**83**		ug/L			31	57	21	Standard
⌈>	**In-1**	**115**		ug/L			34809	33414	1	KED
⌈	**Mo**	**98**	**0.616**	ug/L	0.045	7	3	819	8	KED
⌈	**Cd**	**111**	**0.102**	ug/L	0.010	10	2	43	10	KED
⌊	**Cd**	**114**	**0.091**	ug/L	0.007	7	3	97	6	KED
⌈>	**In**	**115**		ug/L			769572	709596	2	Standard
⌈	**Ag**	**107**	**0.076**	ug/L	0.004	5	121	1157	3	Standard
⌈	**Sb**	**121**	**0.036**	ug/L	0.003	7	91	457	5	Standard
⌊	**Sb**	**123**	**0.034**	ug/L	0.001	1	78	352	3	Standard
⌈	**Ba**	**135**	**22.344**	ug/L	1.565	7	23	77305	5	Standard
⌊	**Ba**	**137**	**21.852**	ug/L	1.224	5	48	138549	3	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1041328	0	Standard
⌈	**Tl**	**205**	**0.080**	ug/L	0.000	0	86	1570	0	Standard
⌊	**Pb**	**208**	**9.403**	ug/L	0.245	2	191	219095	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0256-01
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 11:33:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	709509	10	Standard
	Be	9	0.127	ug/L	0.011	8	27	803	1	Standard
	C	13		ug/L			17606	47736	2	Standard
	Cl	37		ug/L			6613771	7084361	1	Standard
>	Sc	45		ug/L			1108166	1190002	1	Standard
	V	51	30.427	ug/L	0.961	3	5706	717029	1	Standard
	V-1	51	30.128	ug/L	0.867	2	834	713211	1	Standard
	Cr	52	10.846	ug/L	0.566	5	16644	221321	3	Standard
	Cr	53	10.610	ug/L	0.080	0	322	23788	1	Standard
	Mn	55	401.900	ug/L	14.181	3	466	10683450	2	Standard
>	Ge-1	72		ug/L			81114	81009	1	KED
	Co	59	4.776	ug/L	0.154	3	31	22836	4	KED
	Ni	60	9.164	ug/L	0.550	5	44	12289	4	KED
	Ni	62	9.860	ug/L	0.575	5	7	2012	4	KED
	Cu	63	12.049	ug/L	0.222	1	57	41640	0	KED
	Cu	65	11.615	ug/L	0.245	2	19	19888	2	KED
	Zn	66	34.555	ug/L	1.253	3	56	16408	2	KED
	Zn	67	34.641	ug/L	2.154	6	7	2729	5	KED
	As	75	5.137	ug/L	0.157	3	6	1639	1	KED
	Se-1	78	0.356	ug/L	0.058	16	25	40	4	KED
	Y	89		ug/L			619356	789614	3	Standard
	Kr	83		ug/L			31	68	19	Standard
>	In-1	115		ug/L			34809	34317	0	KED
	Mo	98	0.461	ug/L	0.008	1	3	630	2	KED
	Cd	111	0.048	ug/L	0.002	4	2	22	4	KED
	Cd	114	0.045	ug/L	0.003	6	3	51	5	KED
>	In	115		ug/L			769572	724669	2	Standard
	Ag	107	0.045	ug/L	0.004	8	121	751	9	Standard
	Sb	121	0.017	ug/L	0.002	11	91	266	4	Standard
	Sb	123	0.014	ug/L	0.003	18	78	190	10	Standard
	Ba	135	22.049	ug/L	0.632	2	23	77943	2	Standard
	Ba	137	21.847	ug/L	0.448	2	48	141631	4	Standard
>	Tb	159		ug/L			1026127	1011767	2	Standard
	Tl	205	0.030	ug/L	0.001	4	86	626	2	Standard
	Pb	208	13.143	ug/L	0.685	5	191	297331	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0256-02
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 11:38:38
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	662795	3	Standard
	Be	9	0.134	ug/L	0.006	4	27	793	2	Standard
	C	13		ug/L			17606	38359	2	Standard
	Cl	37		ug/L			6613771	6898082	2	Standard
>	Sc	45		ug/L			1108166	1154570	2	Standard
	V	51	26.702	ug/L	0.319	1	5706	611508	2	Standard
	V-1	51	26.514	ug/L	0.409	1	834	609319	2	Standard
	Cr	52	10.073	ug/L	0.068	0	16644	200732	1	Standard
	Cr	53	10.100	ug/L	0.450	4	322	21982	4	Standard
	Mn	55	86.321	ug/L	2.511	2	466	2227900	4	Standard
>	Ge-1	72		ug/L			81114	80056	2	KED
	Co	59	3.757	ug/L	0.035	0	31	17755	1	KED
	Ni	60	9.010	ug/L	0.105	1	44	11943	1	KED
	Ni	62	8.870	ug/L	0.117	1	7	1790	1	KED
	Cu	63	15.949	ug/L	0.262	1	57	54447	0	KED
	Cu	65	16.183	ug/L	0.207	1	19	27377	2	KED
	Zn	66	44.775	ug/L	1.617	3	56	20989	1	KED
	Zn	67	43.831	ug/L	1.597	3	7	3409	1	KED
	As	75	3.969	ug/L	0.120	3	6	1253	2	KED
	Se-1	78	0.374	ug/L	0.067	17	25	40	8	KED
	Y	89		ug/L			619356	743039	1	Standard
	Kr	83		ug/L			31	64	20	Standard
>	In-1	115		ug/L			34809	33380	2	KED
	Mo	98	0.379	ug/L	0.019	5	3	504	3	KED
	Cd	111	0.080	ug/L	0.011	13	2	34	10	KED
	Cd	114	0.092	ug/L	0.014	15	3	99	12	KED
>	In	115		ug/L			769572	718594	1	Standard
	Ag	107	0.052	ug/L	0.001	2	121	833	3	Standard
	Sb	121	0.012	ug/L	0.001	7	91	211	5	Standard
	Sb	123	0.011	ug/L	0.003	25	78	164	12	Standard
	Ba	135	36.363	ug/L	0.671	1	23	127520	3	Standard
	Ba	137	34.389	ug/L	1.043	3	48	221028	4	Standard
>	Tb	159		ug/L			1026127	1054796	3	Standard
	Tl	205	0.029	ug/L	0.003	10	86	627	12	Standard
	Pb	208	20.541	ug/L	0.209	1	191	484521	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0480-BS1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 11:43:33
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	723931	4	Standard
⌊	**Be**	**9**	**20.167**	ug/L	0.599	2	27	125163	2	Standard
	C	**13**		ug/L			17606	31367	3	Standard
	Cl	**37**		ug/L			6613771	6835362	2	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1074431	2	Standard
⌈	**V**	**51**	**26.064**	ug/L	0.155	0	5706	555582	2	Standard
⌊	**V-1**	**51**	**26.039**	ug/L	0.085	0	834	556866	2	Standard
⌈	**Cr**	**52**	**26.952**	ug/L	0.482	1	16644	472668	1	Standard
⌊	**Cr**	**53**	**26.830**	ug/L	0.451	1	322	53822	0	Standard
⌊	**Mn**	**55**	**27.468**	ug/L	0.376	1	466	659875	2	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	79111	0	KED
⌈	**Co**	**59**	**27.749**	ug/L	0.623	2	31	129423	2	KED
⌊	**Ni**	**60**	**28.815**	ug/L	0.142	0	44	37657	0	KED
⌈	**Ni**	**62**	**28.091**	ug/L	0.056	0	7	5589	0	KED
⌈	**Cu**	**63**	**28.404**	ug/L	0.871	3	57	95809	3	KED
⌊	**Cu**	**65**	**28.034**	ug/L	0.577	2	19	46853	2	KED
⌈	**Zn**	**66**	**82.848**	ug/L	0.828	0	56	38354	1	KED
⌊	**Zn**	**67**	**74.915**	ug/L	0.739	0	7	5757	0	KED
⌈	**As**	**75**	**24.662**	ug/L	0.213	0	6	7664	0	KED
⌊	**Se-1**	**78**	**74.151**	ug/L	1.783	2	25	3002	1	KED
	Y	**89**		ug/L			619356	598700	0	Standard
	Kr	**83**		ug/L			31	45	31	Standard
⌈>	**In-1**	**115**		ug/L			34809	34155	2	KED
⌈	**Mo**	**98**	**0.003**	ug/L	0.003	96	3	8	55	KED
⌈	**Cd**	**111**	**24.548**	ug/L	0.510	2	2	10251	0	KED
⌊	**Cd**	**114**	**25.209**	ug/L	0.700	2	3	26940	2	KED
⌈>	**In**	**115**		ug/L			769572	721778	4	Standard
⌈	**Ag**	**107**	**26.103**	ug/L	0.996	3	121	364274	1	Standard
⌈	**Sb**	**121**	**0.003**	ug/L	0.001	37	91	120	6	Standard
⌊	**Sb**	**123**	**0.001**	ug/L	0.001	118	78	82	9	Standard
⌈	**Ba**	**135**	**27.504**	ug/L	0.849	3	23	96778	2	Standard
⌊	**Ba**	**137**	**27.631**	ug/L	1.377	4	48	178126	3	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1040937	1	Standard
⌈	**Tl**	**205**	**27.452**	ug/L	1.441	5	86	507755	3	Standard
⌊	**Pb**	**208**	**27.379**	ug/L	1.130	4	191	637142	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 11:49:34
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	640629	9	Standard
	Be	**9**	**42.831**	ug/L	3.369	7	27	234226	2	Standard
	C	**13**		ug/L			17606	17868	1	Standard
	Cl	**37**		ug/L			6613771	7025084	3	Standard
>	**Sc**	**45**		ug/L			1108166	1049747	4	Standard
	V	**51**	**50.001**	ug/L	1.726	3	5706	1035311	0	Standard
	V-1	**51**	**49.708**	ug/L	1.902	3	834	1036769	0	Standard
	Cr	**52**	**51.664**	ug/L	1.153	2	16644	870460	2	Standard
	Cr	**53**	**50.597**	ug/L	1.795	3	322	98828	1	Standard
	Mn	**55**	**50.700**	ug/L	2.226	4	466	1188250	1	Standard
>	**Ge-1**	**72**		ug/L			81114	79897	1	KED
	Co	**59**	**48.752**	ug/L	1.464	3	31	229573	3	KED
	Ni	**60**	**50.573**	ug/L	1.720	3	44	66700	2	KED
	Ni	**62**	**51.357**	ug/L	1.817	3	7	10309	1	KED
	Cu	**63**	**50.471**	ug/L	0.736	1	57	171845	0	KED
	Cu	**65**	**49.179**	ug/L	1.069	2	19	82992	2	KED
	Zn	**66**	**51.237**	ug/L	0.693	1	56	23972	0	KED
	Zn	**67**	**50.342**	ug/L	2.992	5	7	3907	4	KED
	As	**75**	**48.258**	ug/L	0.666	1	6	15138	0	KED
	Se-1	**78**	**48.537**	ug/L	1.163	2	25	1993	2	KED
	Y	**89**		ug/L			619356	613113	1	Standard
	Kr	**83**		ug/L			31	41	13	Standard
>	**In-1**	**115**		ug/L			34809	32529	1	KED
	Mo	**98**	**51.102**	ug/L	1.736	3	3	65833	1	KED
	Cd	**111**	**50.275**	ug/L	1.465	2	2	19993	1	KED
	Cd	**114**	**50.426**	ug/L	1.588	3	3	51317	2	KED
>	**In**	**115**		ug/L			769572	702860	1	Standard
	Ag	**107**	**47.480**	ug/L	0.863	1	121	645797	0	Standard
	Sb	**121**	**50.550**	ug/L	1.377	2	91	525385	1	Standard
	Sb	**123**	**49.426**	ug/L	1.472	2	78	399286	1	Standard
	Ba	**135**	**51.890**	ug/L	3.115	6	23	177853	4	Standard
	Ba	**137**	**50.159**	ug/L	2.569	5	48	315088	3	Standard
>	**Tb**	**159**		ug/L			1026127	982616	2	Standard
	Tl	**205**	**50.840**	ug/L	1.250	2	86	887751	1	Standard
	Pb	**208**	**50.499**	ug/L	1.119	2	191	1109389	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 11:57:13
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	633858	3	Standard
⌊	**Be**	**9**	**-0.003**	ug/L	0.002	89	27	17	77	Standard
	C	**13**		ug/L			17606	18297	1	Standard
	Cl	**37**		ug/L			6613771	7140447	3	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1065159	1	Standard
⌈	**V**	**51**	**-0.000**	ug/L	0.004	999	5706	5478	2	Standard
⌊	**V-1**	**51**	**-0.021**	ug/L	0.000	1	834	354	2	Standard
⌈	**Cr**	**52**	**0.013**	ug/L	0.019	147	16644	16214	3	Standard
⌊	**Cr**	**53**	**-0.059**	ug/L	0.008	14	322	193	9	Standard
⌊	**Mn**	**55**	**0.009**	ug/L	0.001	11	466	665	2	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	80061	1	KED
⌈	**Co**	**59**	**-0.001**	ug/L	0.002	144	31	26	27	KED
⌊	**Ni**	**60**	**0.019**	ug/L	0.007	39	44	68	15	KED
⌈	**Ni**	**62**	**0.051**	ug/L	0.010	19	7	17	12	KED
⌈	**Cu**	**63**	**0.009**	ug/L	0.008	89	57	89	33	KED
⌊	**Cu**	**65**	**0.018**	ug/L	0.008	47	19	49	29	KED
⌈	**Zn**	**66**	**0.231**	ug/L	0.038	16	56	163	9	KED
⌊	**Zn**	**67**	**0.214**	ug/L	0.097	45	7	24	29	KED
⌈	**As**	**75**	**-0.002**	ug/L	0.004	183	6	5	23	KED
⌊	**Se-1**	**78**	**-0.056**	ug/L	0.149	267	25	23	28	KED
	Y	**89**		ug/L			619356	589857	4	Standard
	Kr	**83**		ug/L			31	29	20	Standard
⌈>	**In-1**	**115**		ug/L			34809	33574	3	KED
⌈	**Mo**	**98**	**0.011**	ug/L	0.009	74	3	18	62	KED
⌈	**Cd**	**111**	**0.006**	ug/L	0.008	129	2	4	72	KED
⌊	**Cd**	**114**	**0.005**	ug/L	0.009	183	3	8	116	KED
⌈>	**In**	**115**		ug/L			769572	720052	3	Standard
⌈	**Ag**	**107**	**-0.004**	ug/L	0.000	9	121	54	8	Standard
⌈	**Sb**	**121**	**0.110**	ug/L	0.005	4	91	1257	2	Standard
⌊	**Sb**	**123**	**0.110**	ug/L	0.007	6	78	986	9	Standard
⌈	**Ba**	**135**	**0.001**	ug/L	0.000	21	23	26	0	Standard
⌊	**Ba**	**137**	**-0.000**	ug/L	0.002	554	48	43	25	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1006500	2	Standard
⌈	**Tl**	**205**	**0.001**	ug/L	0.000	39	86	102	3	Standard
⌊	**Pb**	**208**	**0.040**	ug/L	0.001	3	191	1084	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0332-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 12:03:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	699025	8	Standard
	Be	9	-0.003	ug/L	0.001	18	27	13	28	Standard
	C	13		ug/L			17606	30610	1	Standard
	Cl	37		ug/L			6613771	8864611	0	Standard
>	Sc	45		ug/L			1108166	1126455	0	Standard
	V	51	1.375	ug/L	0.013	0	5706	36228	1	Standard
	V-1	51	1.859	ug/L	0.030	1	834	42470	0	Standard
	Cr	52	2.062	ug/L	0.093	4	16644	53539	2	Standard
	Cr	53	3.691	ug/L	0.193	5	322	8046	4	Standard
	Mn	55	0.630	ug/L	0.006	0	466	16341	0	Standard
>	Ge-1	72		ug/L			81114	70332	0	KED
	Co	59	0.023	ug/L	0.003	12	31	121	9	KED
	Ni	60	0.525	ug/L	0.029	5	44	648	4	KED
	Ni	62	0.462	ug/L	0.080	17	7	88	16	KED
	Cu	63	0.881	ug/L	0.033	3	57	2690	3	KED
	Cu	65	0.918	ug/L	0.047	5	19	1381	5	KED
	Zn	66	2.809	ug/L	0.010	0	56	1203	0	KED
	Zn	67	10.706	ug/L	0.416	3	7	737	4	KED
	As	75	0.613	ug/L	0.040	6	6	175	6	KED
	Se-1	78	3.158	ug/L	0.163	5	25	134	4	KED
	Y	89		ug/L			619356	555153	3	Standard
	Kr	83		ug/L			31	52	20	Standard
>	In-1	115		ug/L			34809	29699	1	KED
	Mo	98	1.324	ug/L	0.090	6	3	1559	5	KED
	Cd	111	0.004	ug/L	0.006	137	2	3	62	KED
	Cd	114	0.009	ug/L	0.004	41	3	11	32	KED
>	In	115		ug/L			769572	654211	3	Standard
	Ag	107	0.010	ug/L	0.001	6	121	228	0	Standard
	Sb	121	0.113	ug/L	0.008	6	91	1172	2	Standard
	Sb	123	0.115	ug/L	0.002	1	78	929	2	Standard
	Ba	135	160.446	ug/L	2.767	1	23	511891	2	Standard
	Ba	137	156.094	ug/L	3.396	2	48	912539	2	Standard
>	Tb	159		ug/L			1026127	965891	1	Standard
	Tl	205	0.003	ug/L	0.001	21	86	133	8	Standard
	Pb	208	0.603	ug/L	0.013	2	191	13211	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0360-02
Sample Dil Factor: 5
Comments:
Sample Date/Time: Thursday, June 28, 2018 12:08:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	880728	9	Standard
⌊	**Be**	**9**	**-0.004**	ug/L	0.001	17	27	14	39	Standard
	C	**13**		ug/L			17606	25670	1	Standard
	Cl	**37**		ug/L			6613771	6541916	3	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1022388	0	Standard
⌈	**V**	**51**	**0.474**	ug/L	0.095	19	5706	14783	12	Standard
⌊	**V-1**	**51**	**0.527**	ug/L	0.022	4	834	11471	4	Standard
⌈	**Cr**	**52**	**15.197**	ug/L	0.225	1	16644	260350	0	Standard
⌊	**Cr**	**53**	**14.783**	ug/L	0.170	1	322	28360	1	Standard
⌊	**Mn**	**55**	**5.949**	ug/L	0.062	1	466	136348	1	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	72213	0	KED
⌈	**Co**	**59**	**0.100**	ug/L	0.006	5	31	455	5	KED
⌊	**Ni**	**60**	**0.551**	ug/L	0.059	10	44	696	10	KED
⌈	**Ni**	**62**	**0.554**	ug/L	0.055	9	7	107	9	KED
⌈	**Cu**	**63**	**1.274**	ug/L	0.044	3	57	3971	4	KED
⌊	**Cu**	**65**	**1.240**	ug/L	0.028	2	19	1908	1	KED
⌈	**Zn**	**66**	**2.859**	ug/L	0.153	5	56	1256	4	KED
⌊	**Zn**	**67**	**2.747**	ug/L	0.356	12	7	199	13	KED
⌈	**As**	**75**	**0.018**	ug/L	0.010	54	6	11	24	KED
⌊	**Se-1**	**78**	**0.149**	ug/L	0.126	84	25	28	17	KED
	Y	**89**		ug/L			619356	538083	5	Standard
	Kr	**83**		ug/L			31	41	19	Standard
⌈>	**In-1**	**115**		ug/L			34809	28864	5	KED
⌈	**Mo**	**98**	**3.473**	ug/L	0.186	5	3	3966	1	KED
⌈	**Cd**	**111**	**0.001**	ug/L	0.005	363	2	2	65	KED
⌊	**Cd**	**114**	**-0.000**	ug/L	0.003	1853	3	2	111	KED
⌈>	**In**	**115**		ug/L			769572	666907	4	Standard
⌈	**Ag**	**107**	**-0.003**	ug/L	0.001	49	121	70	23	Standard
⌈	**Sb**	**121**	**0.078**	ug/L	0.003	3	91	847	5	Standard
⌈	**Sb**	**123**	**0.077**	ug/L	0.008	10	78	660	13	Standard
⌈	**Ba**	**135**	**0.479**	ug/L	0.032	6	23	1576	5	Standard
⌊	**Ba**	**137**	**0.491**	ug/L	0.017	3	48	2965	2	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1068312	1	Standard
⌈	**Tl**	**205**	**-0.000**	ug/L	0.001	433	86	86	19	Standard
⌊	**Pb**	**208**	**0.031**	ug/L	0.002	5	191	937	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0367-02
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 12:13:19
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	722323	5	Standard
⌊	**Be**	**9**	**-0.004**	ug/L	0.000	6	27	7	25	Standard
	C	**13**		ug/L			17606	53087	2	Standard
	Cl	**37**		ug/L			6613771	36031262	4	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1166823	1	Standard
⌈	**V**	**51**	**0.488**	ug/L	0.188	38	5706	17162	24	Standard
⌈	**V-1**	**51**	**7.706**	ug/L	0.194	2	834	179550	1	Standard
⌈	**Cr**	**52**	**0.402**	ug/L	0.025	6	16644	24912	1	Standard
⌈	**Cr**	**53**	**25.113**	ug/L	0.144	0	322	54745	1	Standard
⌊	**Mn**	**55**	**396.459**	ug/L	8.218	2	466	10335312	0	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	68302	1	KED
⌈	**Co**	**59**	**0.479**	ug/L	0.009	1	31	1955	1	KED
⌈	**Ni**	**60**	**4.080**	ug/L	0.119	2	44	4635	2	KED
⌈	**Ni**	**62**	**4.298**	ug/L	0.262	6	7	744	7	KED
⌈	**Cu**	**63**	**2.745**	ug/L	0.122	4	57	8033	3	KED
⌈	**Cu**	**65**	**2.798**	ug/L	0.042	1	19	4053	2	KED
⌈	**Zn**	**66**	**5.823**	ug/L	0.056	0	56	2371	2	KED
⌈	**Zn**	**67**	**8.431**	ug/L	0.172	2	7	565	2	KED
⌈	**As**	**75**	**0.806**	ug/L	0.037	4	6	221	3	KED
⌊	**Se-1**	**78**	**0.409**	ug/L	0.143	35	25	35	14	KED
	Y	**89**		ug/L			619356	593055	0	Standard
	Kr	**83**		ug/L			31	294	4	Standard
⌈>	**In-1**	**115**		ug/L			34809	29380	1	KED
⌈	**Mo**	**98**	**11.240**	ug/L	0.020	0	3	13085	1	KED
⌈	**Cd**	**111**	**0.018**	ug/L	0.006	34	2	8	26	KED
⌊	**Cd**	**114**	**0.017**	ug/L	0.005	28	3	17	25	KED
⌈>	**In**	**115**		ug/L			769572	627952	1	Standard
⌈	**Ag**	**107**	**-0.001**	ug/L	0.001	98	121	88	10	Standard
⌈	**Sb**	**121**	**0.521**	ug/L	0.005	0	91	4912	1	Standard
⌈	**Sb**	**123**	**0.513**	ug/L	0.023	4	78	3769	4	Standard
⌈	**Ba**	**135**	**54.725**	ug/L	1.999	3	23	167625	2	Standard
⌊	**Ba**	**137**	**52.547**	ug/L	0.996	1	48	295037	2	Standard
⌈>	**Tb**	**159**		ug/L			1026127	929304	3	Standard
⌈	**Tl**	**205**	**-0.001**	ug/L	0.001	67	86	60	23	Standard
⌊	**Pb**	**208**	**0.072**	ug/L	0.005	7	191	1676	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0367-03
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 12:18:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	666375	9	Standard
⌊	**Be**	**9**	**-0.004**	ug/L	0.000	7	27	8	12	Standard
	C	**13**		ug/L			17606	51965	4	Standard
	Cl	**37**		ug/L			6613771	37661459	1	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1128758	8	Standard
⌈	**V**	**51**	**0.671**	ug/L	0.129	19	5706	20652	14	Standard
⌊	**V-1**	**51**	**8.030**	ug/L	0.609	7	834	180223	1	Standard
⌈	**Cr**	**52**	**0.404**	ug/L	0.128	31	16644	24016	1	Standard
⌊	**Cr**	**53**	**25.603**	ug/L	2.112	8	322	53743	1	Standard
⌊	**Mn**	**55**	**370.553**	ug/L	33.732	9	466	9298978	0	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	70578	3	KED
⌈	**Co**	**59**	**0.437**	ug/L	0.013	2	31	1845	0	KED
⌊	**Ni**	**60**	**4.098**	ug/L	0.235	5	44	4804	2	KED
⌈	**Ni**	**62**	**4.246**	ug/L	0.135	3	7	758	1	KED
⌈	**Cu**	**63**	**2.656**	ug/L	0.096	3	57	8032	0	KED
⌊	**Cu**	**65**	**2.624**	ug/L	0.065	2	19	3925	1	KED
⌈	**Zn**	**66**	**5.521**	ug/L	0.197	3	56	2323	0	KED
⌊	**Zn**	**67**	**7.425**	ug/L	0.317	4	7	515	7	KED
⌈	**As**	**75**	**0.928**	ug/L	0.018	1	6	262	4	KED
⌊	**Se-1**	**78**	**0.267**	ug/L	0.086	32	25	31	8	KED
	Y	**89**		ug/L			619356	549289	7	Standard
	Kr	**83**		ug/L			31	393	6	Standard
⌈>	**In-1**	**115**		ug/L			34809	29085	1	KED
⌈	**Mo**	**98**	**11.638**	ug/L	0.199	1	3	13411	0	KED
⌈	**Cd**	**111**	**0.019**	ug/L	0.007	36	2	8	29	KED
⌊	**Cd**	**114**	**0.012**	ug/L	0.003	21	3	13	16	KED
⌈>	**In**	**115**		ug/L			769572	608328	10	Standard
⌈	**Ag**	**107**	**-0.001**	ug/L	0.001	140	121	87	2	Standard
⌈	**Sb**	**121**	**0.526**	ug/L	0.050	9	91	4774	2	Standard
⌊	**Sb**	**123**	**0.541**	ug/L	0.048	8	78	3821	2	Standard
⌈	**Ba**	**135**	**59.718**	ug/L	5.139	8	23	176220	2	Standard
⌊	**Ba**	**137**	**56.670**	ug/L	5.411	9	48	306296	2	Standard
⌈>	**Tb**	**159**		ug/L			1026127	894936	10	Standard
⌈	**Tl**	**205**	**-0.001**	ug/L	0.001	50	86	59	3	Standard
⌊	**Pb**	**208**	**0.049**	ug/L	0.003	5	191	1153	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0367-04
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 12:23:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	708507	3	Standard
⌊	**Be**	**9**	**-0.004**	ug/L	0.001	20	27	9	52	Standard
	C	**13**		ug/L			17606	53246	4	Standard
	Cl	**37**		ug/L			6613771	37004298	3	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1188931	1	Standard
⌈	**V**	**51**	**0.714**	ug/L	0.139	19	5706	22774	12	Standard
⌊	**V-1**	**51**	**7.522**	ug/L	0.152	2	834	178605	0	Standard
⌈	**Cr**	**52**	**0.361**	ug/L	0.014	3	16644	24616	0	Standard
⌊	**Cr**	**53**	**23.679**	ug/L	0.060	0	322	52615	1	Standard
⌊	**Mn**	**55**	**321.154**	ug/L	4.722	1	466	8531106	0	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	71796	0	KED
⌈	**Co**	**59**	**0.415**	ug/L	0.016	3	31	1784	4	KED
⌊	**Ni**	**60**	**3.972**	ug/L	0.059	1	44	4744	1	KED
⌈	**Ni**	**62**	**4.319**	ug/L	0.122	2	7	785	2	KED
⌈	**Cu**	**63**	**2.654**	ug/L	0.024	0	57	8168	0	KED
⌊	**Cu**	**65**	**2.595**	ug/L	0.045	1	19	3951	2	KED
⌈	**Zn**	**66**	**5.969**	ug/L	0.211	3	56	2553	3	KED
⌊	**Zn**	**67**	**8.598**	ug/L	0.611	7	7	605	7	KED
⌈	**As**	**75**	**0.993**	ug/L	0.026	2	6	285	3	KED
⌊	**Se-1**	**78**	**0.337**	ug/L	0.127	37	25	34	13	KED
	Y	**89**		ug/L			619356	587485	2	Standard
	Kr	**83**		ug/L			31	420	4	Standard
⌈>	**In-1**	**115**		ug/L			34809	29339	2	KED
⌈	**Mo**	**98**	**11.840**	ug/L	0.331	2	3	13759	0	KED
⌈	**Cd**	**111**	**0.020**	ug/L	0.001	6	2	9	5	KED
⌊	**Cd**	**114**	**0.012**	ug/L	0.002	15	3	13	11	KED
⌈>	**In**	**115**		ug/L			769572	612742	2	Standard
⌈	**Ag**	**107**	**-0.002**	ug/L	0.001	33	121	71	11	Standard
⌈	**Sb**	**121**	**0.523**	ug/L	0.014	2	91	4808	1	Standard
⌊	**Sb**	**123**	**0.518**	ug/L	0.025	4	78	3710	3	Standard
⌈	**Ba**	**135**	**58.633**	ug/L	2.438	4	23	175187	2	Standard
⌊	**Ba**	**137**	**57.160**	ug/L	1.678	2	48	313091	2	Standard
⌈>	**Tb**	**159**		ug/L			1026127	944353	2	Standard
⌈	**Tl**	**205**	**-0.001**	ug/L	0.000	38	86	61	11	Standard
⌊	**Pb**	**208**	**0.064**	ug/L	0.003	5	191	1518	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0579-DUP2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 12:28:05
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	Li	6		ug/L			572696	742110	3	Standard
⌊	Be	9	-0.004	ug/L	0.001	24	27	10	61	Standard
	C	13		ug/L			17606	32680	3	Standard
	Cl	37		ug/L			6613771	6825657	1	Standard
⌈>	Sc	45		ug/L			1108166	1060226	3	Standard
|	V	51	0.030	ug/L	0.002	6	5706	6076	2	Standard
|	V-1	51	0.346	ug/L	0.010	2	834	8095	5	Standard
|	Cr	52	-0.038	ug/L	0.015	40	16644	15295	5	Standard
|	Cr	53	1.048	ug/L	0.050	4	322	2374	7	Standard
⌊	Mn	55	154.830	ug/L	1.745	1	466	3668071	3	Standard
⌈>	Ge-1	72		ug/L			81114	72824	0	KED
|	Co	59	0.158	ug/L	0.010	6	31	705	5	KED
|	Ni	60	1.257	ug/L	0.114	9	44	1550	8	KED
|	Ni	62	1.424	ug/L	0.174	12	7	267	11	KED
|	Cu	63	0.155	ug/L	0.011	7	57	533	6	KED
|	Cu	65	0.165	ug/L	0.011	6	19	271	6	KED
|	Zn	66	1.197	ug/L	0.055	4	56	560	4	KED
|	Zn	67	2.645	ug/L	0.522	19	7	193	18	KED
|	As	75	0.570	ug/L	0.012	2	6	168	2	KED
⌊	Se-1	78	0.066	ug/L	0.173	262	25	25	25	KED
	Y	89		ug/L			619356	556051	3	Standard
	Kr	83		ug/L			31	83	20	Standard
⌈>	In-1	115		ug/L			34809	30708	2	KED
|	Mo	98	21.162	ug/L	0.762	3	3	25736	1	KED
|	Cd	111	0.029	ug/L	0.006	19	2	13	18	KED
⌊	Cd	114	0.015	ug/L	0.005	35	3	17	30	KED
⌈>	In	115		ug/L			769572	651478	1	Standard
|	Ag	107	-0.003	ug/L	0.001	19	121	64	13	Standard
|	Sb	121	0.019	ug/L	0.002	11	91	262	9	Standard
|	Sb	123	0.019	ug/L	0.003	16	78	211	12	Standard
|	Ba	135	29.855	ug/L	0.793	2	23	94883	1	Standard
⌊	Ba	137	28.749	ug/L	1.066	3	48	167420	2	Standard
⌈>	Tb	159		ug/L			1026127	1021582	2	Standard
|	Tl	205	0.007	ug/L	0.002	28	86	212	14	Standard
⌊	Pb	208	0.015	ug/L	0.001	5	191	535	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0335-07
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 12:33:01
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	Li	6		ug/L			572696	858450	2	Standard
[	Be	9	-0.005	ug/L	0.001	11	27	7	50	Standard
	C	13		ug/L			17606	33022	3	Standard
	Cl	37		ug/L			6613771	6373723	2	Standard
[>	Sc	45		ug/L			1108166	1047991	2	Standard
[	V	51	0.024	ug/L	0.007	30	5706	5891	2	Standard
[	V-1	51	0.179	ug/L	0.009	5	834	4520	4	Standard
[	Cr	52	-0.034	ug/L	0.024	70	16644	15171	1	Standard
[	Cr	53	0.499	ug/L	0.035	6	322	1275	5	Standard
[	Mn	55	153.394	ug/L	3.521	2	466	3591541	1	Standard
[>	Ge-1	72		ug/L			81114	66557	1	KED
[	Co	59	0.163	ug/L	0.002	1	31	666	2	KED
[	Ni	60	1.335	ug/L	0.032	2	44	1502	1	KED
[	Ni	62	1.314	ug/L	0.165	12	7	226	13	KED
[	Cu	63	0.144	ug/L	0.003	2	57	455	2	KED
[	Cu	65	0.131	ug/L	0.007	5	19	200	5	KED
[	Zn	66	1.113	ug/L	0.027	2	56	479	2	KED
[	Zn	67	2.520	ug/L	0.191	7	7	168	6	KED
[	As	75	0.546	ug/L	0.035	6	6	147	5	KED
[	Se-1	78	0.042	ug/L	0.075	179	25	22	11	KED
	Y	89		ug/L			619356	516627	6	Standard
	Kr	83		ug/L			31	59	9	Standard
[>	In-1	115		ug/L			34809	28170	1	KED
[	Mo	98	21.012	ug/L	0.368	1	3	23448	0	KED
[	Cd	111	0.018	ug/L	0.003	18	2	7	13	KED
[	Cd	114	0.021	ug/L	0.008	37	3	21	34	KED
[>	In	115		ug/L			769572	656857	2	Standard
[	Ag	107	-0.004	ug/L	0.000	7	121	55	6	Standard
[	Sb	121	0.018	ug/L	0.002	8	91	252	3	Standard
[	Sb	123	0.017	ug/L	0.004	23	78	197	13	Standard
[	Ba	135	29.337	ug/L	1.161	3	23	93966	1	Standard
[	Ba	137	28.814	ug/L	1.612	5	48	169073	2	Standard
[>	Tb	159		ug/L			1026127	1037035	3	Standard
[	Tl	205	0.007	ug/L	0.001	8	86	219	6	Standard
[	Pb	208	0.025	ug/L	0.001	3	191	769	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0579-MS2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 12:37:56
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	934093	2	Standard
⌊	**Be**	**9**	**17.255**	ug/L	0.331	1	27	138311	3	Standard
	C	**13**		ug/L			17606	37229	1	Standard
	Cl	**37**		ug/L			6613771	6162208	2	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1037637	1	Standard
⌈	**V**	**51**	**23.661**	ug/L	0.771	3	5706	487366	1	Standard
⌈	**V-1**	**51**	**23.556**	ug/L	0.810	3	834	486385	1	Standard
⌈	**Cr**	**52**	**23.516**	ug/L	0.884	3	16644	400172	1	Standard
⌈	**Cr**	**53**	**23.163**	ug/L	0.902	3	322	44905	1	Standard
⌊	**Mn**	**55**	**176.134**	ug/L	6.372	3	466	4082448	2	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	62990	0	KED
⌈	**Co**	**59**	**28.126**	ug/L	0.316	1	31	104442	1	KED
⌈	**Ni**	**60**	**28.541**	ug/L	0.616	2	44	29695	1	KED
⌈	**Ni**	**62**	**29.344**	ug/L	0.587	1	7	4647	1	KED
⌈	**Cu**	**63**	**26.670**	ug/L	0.375	1	57	71628	2	KED
⌈	**Cu**	**65**	**26.334**	ug/L	0.176	0	19	35045	1	KED
⌈	**Zn**	**66**	**81.343**	ug/L	0.922	1	56	29981	0	KED
⌈	**Zn**	**67**	**75.563**	ug/L	1.427	1	7	4623	1	KED
⌈	**As**	**75**	**26.798**	ug/L	0.409	1	6	6630	0	KED
⌊	**Se-1**	**78**	**81.835**	ug/L	1.219	1	25	2636	0	KED
	Y	**89**		ug/L			619356	472114	4	Standard
	Kr	**83**		ug/L			31	63	43	Standard
⌈>	**In-1**	**115**		ug/L			34809	26537	1	KED
⌈	**Mo**	**98**	**48.219**	ug/L	2.267	4	3	50672	3	KED
⌈	**Cd**	**111**	**25.046**	ug/L	0.995	3	2	8126	3	KED
⌊	**Cd**	**114**	**24.919**	ug/L	0.991	3	3	20686	2	KED
⌈>	**In**	**115**		ug/L			769572	632788	0	Standard
⌈	**Ag**	**107**	**19.646**	ug/L	0.466	2	121	240646	1	Standard
⌈	**Sb**	**121**	**25.526**	ug/L	0.255	1	91	238932	0	Standard
⌈	**Sb**	**123**	**25.845**	ug/L	0.310	1	78	188045	0	Standard
⌈	**Ba**	**135**	**59.249**	ug/L	5.092	8	23	182901	8	Standard
⌊	**Ba**	**137**	**58.720**	ug/L	1.589	2	48	332260	3	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1061120	0	Standard
⌈	**Tl**	**205**	**25.620**	ug/L	1.599	6	86	483267	5	Standard
⌊	**Pb**	**208**	**24.828**	ug/L	0.543	2	191	589173	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0579-MSD2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 12:42:51
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	Li	6		ug/L			572696	874244	3	Standard
⌊	Be	9	18.311	ug/L	0.616	3	27	137284	2	Standard
	C	13		ug/L			17606	38098	3	Standard
	Cl	37		ug/L			6613771	6086777	0	Standard
⌈>	Sc	45		ug/L			1108166	1019347	2	Standard
⌈	V	51	23.761	ug/L	0.715	3	5706	480839	2	Standard
⌊	V-1	51	23.695	ug/L	0.779	3	834	480677	2	Standard
⌈	Cr	52	23.569	ug/L	0.558	2	16644	394044	0	Standard
⌊	Cr	53	23.350	ug/L	0.699	2	322	44475	1	Standard
⌊	Mn	55	176.942	ug/L	9.347	5	466	4027600	3	Standard
⌈>	Ge-1	72		ug/L			81114	61414	1	KED
⌈	Co	59	27.495	ug/L	0.179	0	31	99540	2	KED
⌊	Ni	60	28.775	ug/L	1.177	4	44	29177	2	KED
⌈	Ni	62	27.782	ug/L	1.187	4	7	4288	2	KED
⌊	Cu	63	26.819	ug/L	0.270	1	57	70217	1	KED
⌈	Cu	65	26.512	ug/L	0.182	0	19	34398	2	KED
⌊	Zn	66	80.870	ug/L	1.873	2	56	29054	0	KED
⌈	Zn	67	75.080	ug/L	2.386	3	7	4477	1	KED
⌊	As	75	26.754	ug/L	0.790	2	6	6451	1	KED
⌊	Se-1	78	80.685	ug/L	1.641	2	25	2534	1	KED
	Y	89		ug/L			619356	452143	4	Standard
	Kr	83		ug/L			31	54	34	Standard
⌈>	In-1	115		ug/L			34809	25657	2	KED
⌈	Mo	98	49.503	ug/L	1.217	2	3	50308	2	KED
⌊	Cd	111	25.414	ug/L	0.645	2	2	7971	0	KED
⌊	Cd	114	25.473	ug/L	0.486	1	3	20446	0	KED
⌈>	In	115		ug/L			769572	613185	3	Standard
⌈	Ag	107	19.998	ug/L	0.715	3	121	237192	0	Standard
⌊	Sb	121	27.103	ug/L	0.368	1	91	245767	2	Standard
⌈	Sb	123	25.973	ug/L	1.012	3	78	182957	0	Standard
⌊	Ba	135	62.551	ug/L	1.491	2	23	187173	5	Standard
⌊	Ba	137	59.062	ug/L	1.832	3	48	323590	1	Standard
⌈>	Tb	159		ug/L			1026127	1032032	0	Standard
⌈	Tl	205	26.157	ug/L	0.230	0	86	479972	1	Standard
⌊	Pb	208	25.627	ug/L	0.533	2	191	591577	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0579-BS2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 12:47:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	799901	1	Standard
	Be	9	19.949	ug/L	0.275	1	27	136922	2	Standard
	C	13		ug/L			17606	32172	2	Standard
	Cl	37		ug/L			6613771	6955704	3	Standard
>	Sc	45		ug/L			1108166	967694	3	Standard
	V	51	25.099	ug/L	0.732	2	5706	481711	0	Standard
	V-1	51	24.839	ug/L	0.582	2	834	478203	1	Standard
	Cr	52	26.883	ug/L	0.698	2	16644	424522	1	Standard
	Cr	53	25.923	ug/L	0.479	1	322	46849	2	Standard
	Mn	55	26.999	ug/L	1.057	3	466	583690	0	Standard
>	Ge-1	72		ug/L			81114	70000	1	KED
	Co	59	26.969	ug/L	0.559	2	31	111284	2	KED
	Ni	60	27.587	ug/L	0.903	3	44	31890	1	KED
	Ni	62	28.115	ug/L	0.083	0	7	4949	1	KED
	Cu	63	28.107	ug/L	0.953	3	57	83846	1	KED
	Cu	65	28.195	ug/L	0.308	1	19	41695	2	KED
	Zn	66	88.422	ug/L	1.993	2	56	36221	3	KED
	Zn	67	84.447	ug/L	0.895	1	7	5741	1	KED
	As	75	24.755	ug/L	0.446	1	6	6806	2	KED
	Se-1	78	80.618	ug/L	2.080	2	25	2885	0	KED
	Y	89		ug/L			619356	524039	2	Standard
	Kr	83		ug/L			31	36	22	Standard
>	In-1	115		ug/L			34809	29025	1	KED
	Mo	98	26.258	ug/L	0.868	3	3	30190	2	KED
	Cd	111	26.045	ug/L	0.671	2	2	9242	1	KED
	Cd	114	26.750	ug/L	0.365	1	3	24295	1	KED
>	In	115		ug/L			769572	667479	2	Standard
	Ag	107	23.740	ug/L	0.522	2	121	306631	0	Standard
	Sb	121	26.113	ug/L	1.055	4	91	257670	1	Standard
	Sb	123	26.017	ug/L	0.765	2	78	199587	0	Standard
	Ba	135	28.975	ug/L	0.591	2	23	94337	0	Standard
	Ba	137	28.140	ug/L	1.075	3	48	167860	1	Standard
>	Tb	159		ug/L			1026127	1044215	3	Standard
	Tl	205	27.680	ug/L	0.515	1	86	513838	3	Standard
	Pb	208	26.793	ug/L	0.799	2	191	625355	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 12:53:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	750196	2	Standard
	Be	**9**	**39.884**	ug/L	0.475	1	27	256634	1	Standard
	C	**13**		ug/L			17606	19133	2	Standard
	Cl	**37**		ug/L			6613771	6670586	1	Standard
>	**Sc**	**45**		ug/L			1108166	972712	1	Standard
	V	**51**	**48.654**	ug/L	0.723	1	5706	934514	1	Standard
	V-1	**51**	**48.643**	ug/L	1.048	2	834	941103	2	Standard
	Cr	**52**	**50.062**	ug/L	1.309	2	16644	782322	1	Standard
	Cr	**53**	**49.968**	ug/L	1.303	2	322	90509	1	Standard
	Mn	**55**	**49.540**	ug/L	0.146	0	466	1077156	1	Standard
>	**Ge-1**	**72**		ug/L			81114	68976	1	KED
	Co	**59**	**52.937**	ug/L	0.571	1	31	215204	0	KED
	Ni	**60**	**52.560**	ug/L	2.363	4	44	59836	3	KED
	Ni	**62**	**54.235**	ug/L	1.117	2	7	9400	0	KED
	Cu	**63**	**53.350**	ug/L	1.462	2	57	156813	1	KED
	Cu	**65**	**52.038**	ug/L	0.812	1	19	75804	0	KED
	Zn	**66**	**53.582**	ug/L	1.289	2	56	21639	0	KED
	Zn	**67**	**50.735**	ug/L	1.244	2	7	3401	2	KED
	As	**75**	**50.223**	ug/L	1.225	2	6	13600	1	KED
	Se-1	**78**	**50.355**	ug/L	1.011	2	25	1784	1	KED
	Y	**89**		ug/L			619356	544146	2	Standard
	Kr	**83**		ug/L			31	38	20	Standard
>	**In-1**	**115**		ug/L			34809	29863	1	KED
	Mo	**98**	**50.468**	ug/L	1.895	3	3	59691	2	KED
	Cd	**111**	**49.534**	ug/L	0.255	0	2	18088	1	KED
	Cd	**114**	**49.968**	ug/L	2.033	4	3	46675	2	KED
>	**In**	**115**		ug/L			769572	656727	1	Standard
	Ag	**107**	**47.009**	ug/L	1.853	3	121	597309	2	Standard
	Sb	**121**	**51.523**	ug/L	0.702	1	91	500535	2	Standard
	Sb	**123**	**50.761**	ug/L	0.915	1	78	383206	1	Standard
	Ba	**135**	**56.449**	ug/L	2.241	3	23	180867	4	Standard
	Ba	**137**	**53.029**	ug/L	1.431	2	48	311471	4	Standard
>	**Tb**	**159**		ug/L			1026127	1013828	2	Standard
	Tl	**205**	**51.710**	ug/L	2.377	4	86	931629	3	Standard
	Pb	**208**	**51.460**	ug/L	2.077	4	191	1166202	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 13:01:27
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	700887	5	Standard
	Be	**9**	**-0.001**	ug/L	0.006	436	27	24	135	Standard
	C	**13**		ug/L			17606	17421	1	Standard
	Cl	**37**		ug/L			6613771	6754384	4	Standard
>	**Sc**	**45**		ug/L			1108166	980665	3	Standard
	V	**51**	**-0.014**	ug/L	0.006	45	5706	4773	1	Standard
	V-1	**51**	**0.017**	ug/L	0.002	13	834	1076	6	Standard
	Cr	**52**	**-0.053**	ug/L	0.038	71	16644	13898	0	Standard
	Cr	**53**	**0.057**	ug/L	0.014	25	322	388	4	Standard
	Mn	**55**	**0.008**	ug/L	0.003	33	466	581	11	Standard
>	**Ge-1**	**72**		ug/L			81114	73088	1	KED
	Co	**59**	**-0.001**	ug/L	0.001	123	31	23	28	KED
	Ni	**60**	**-0.014**	ug/L	0.005	35	44	23	26	KED
	Ni	**62**	**-0.010**	ug/L	0.012	119	7	5	43	KED
	Cu	**63**	**-0.002**	ug/L	0.001	36	57	44	6	KED
	Cu	**65**	**-0.002**	ug/L	0.003	165	19	15	25	KED
	Zn	**66**	**0.058**	ug/L	0.007	12	56	75	5	KED
	Zn	**67**	**0.073**	ug/L	0.040	55	7	12	24	KED
	As	**75**	**-0.006**	ug/L	0.006	104	6	4	40	KED
	Se-1	**78**	**-0.014**	ug/L	0.048	355	25	22	9	KED
	Y	**89**		ug/L			619356	549275	1	Standard
	Kr	**83**		ug/L			31	34	13	Standard
>	**In-1**	**115**		ug/L			34809	30625	2	KED
	Mo	**98**	**0.014**	ug/L	0.005	34	3	19	29	KED
	Cd	**111**	**-0.003**	ug/L	0.003	92	2	0	100	KED
	Cd	**114**	**0.002**	ug/L	0.002	99	3	4	46	KED
>	**In**	**115**		ug/L			769572	657177	2	Standard
	Ag	**107**	**-0.002**	ug/L	0.002	152	121	83	38	Standard
	Sb	**121**	**0.117**	ug/L	0.013	10	91	1212	11	Standard
	Sb	**123**	**0.124**	ug/L	0.007	5	78	1003	4	Standard
	Ba	**135**	**0.001**	ug/L	0.008	690	23	24	111	Standard
	Ba	**137**	**0.001**	ug/L	0.006	493	48	48	70	Standard
>	**Tb**	**159**		ug/L			1026127	1004156	1	Standard
	Tl	**205**	**0.008**	ug/L	0.006	72	86	223	44	Standard
	Pb	**208**	**0.009**	ug/L	0.005	58	191	391	29	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0546-BLK2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 13:07:35
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	696562	1	Standard
	Be	**9**	**-0.005**	ug/L	0.000	3	27	6	15	Standard
	C	**13**		ug/L			17606	27319	0	Standard
	Cl	**37**		ug/L			6613771	6817766	4	Standard
>	**Sc**	**45**		ug/L			1108166	1003439	2	Standard
	V	**51**	**-0.001**	ug/L	0.005	423	5706	5143	2	Standard
	V-1	**51**	**0.017**	ug/L	0.004	22	834	1084	5	Standard
	Cr	**52**	**-0.005**	ug/L	0.017	328	16644	14991	3	Standard
	Cr	**53**	**0.056**	ug/L	0.010	18	322	395	6	Standard
	Mn	**55**	**1.951**	ug/L	0.083	4	466	44136	1	Standard
>	**Ge-1**	**72**		ug/L			81114	73370	3	KED
	Co	**59**	**0.002**	ug/L	0.003	142	31	36	29	KED
	Ni	**60**	**0.232**	ug/L	0.005	2	44	320	5	KED
	Ni	**62**	**0.259**	ug/L	0.026	10	7	54	11	KED
	Cu	**63**	**8.884**	ug/L	0.099	1	57	27819	2	KED
	Cu	**65**	**8.305**	ug/L	0.164	1	19	12880	1	KED
	Zn	**66**	**6.360**	ug/L	0.284	4	56	2776	3	KED
	Zn	**67**	**5.715**	ug/L	0.249	4	7	413	1	KED
	As	**75**	**0.003**	ug/L	0.009	331	6	6	38	KED
	Se-1	**78**	**0.043**	ug/L	0.097	226	25	24	16	KED
	Y	**89**		ug/L			619356	568127	2	Standard
	Kr	**83**		ug/L			31	41	0	Standard
>	**In-1**	**115**		ug/L			34809	31800	0	KED
	Mo	**98**	**0.004**	ug/L	0.002	58	3	8	36	KED
	Cd	**111**	**-0.000**	ug/L	0.002	737	2	1	50	KED
	Cd	**114**	**-0.009**	ug/L	0.011	117	3	-6	171	KED
>	**In**	**115**		ug/L			769572	659095	1	Standard
	Ag	**107**	**-0.004**	ug/L	0.000	6	121	55	5	Standard
	Sb	**121**	**0.036**	ug/L	0.003	7	91	429	6	Standard
	Sb	**123**	**0.036**	ug/L	0.004	12	78	340	9	Standard
	Ba	**135**	**0.013**	ug/L	0.000	2	23	63	1	Standard
	Ba	**137**	**0.014**	ug/L	0.001	10	48	125	6	Standard
>	**Tb**	**159**		ug/L			1026127	1017859	2	Standard
	Tl	**205**	**0.000**	ug/L	0.001	371	86	88	12	Standard
	Pb	**208**	**0.345**	ug/L	0.011	3	191	8043	0	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0319-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 13:12:30
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	726596	4	Standard
⌊	**Be**	**9**	**-0.004**	ug/L	0.000	10	27	8	35	Standard
	C	**13**		ug/L			17606	39498	2	Standard
	Cl	**37**		ug/L			6613771	7257453	1	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1115127	5	Standard
⌈	**V**	**51**	**20.995**	ug/L	1.359	6	5706	464542	1	Standard
⌊	**V-1**	**51**	**21.085**	ug/L	1.354	6	834	467110	1	Standard
⌈	**Cr**	**52**	**0.615**	ug/L	0.030	4	16644	27558	4	Standard
⌊	**Cr**	**53**	**1.746**	ug/L	0.057	3	322	3935	2	Standard
	Mn	**55**	**0.844**	ug/L	0.016	1	466	21495	3	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	66689	0	KED
⌈	**Co**	**59**	**0.109**	ug/L	0.014	12	31	453	12	KED
⌊	**Ni**	**60**	**1.044**	ug/L	0.050	4	44	1184	3	KED
⌈	**Ni**	**62**	**1.169**	ug/L	0.145	12	7	201	11	KED
⌈	**Cu**	**63**	**2.087**	ug/L	0.066	3	57	5977	2	KED
⌊	**Cu**	**65**	**2.047**	ug/L	0.082	3	19	2898	3	KED
⌈	**Zn**	**66**	**1.192**	ug/L	0.143	11	56	510	9	KED
⌊	**Zn**	**67**	**2.367**	ug/L	0.188	7	7	159	7	KED
⌈	**As**	**75**	**3.495**	ug/L	0.054	1	6	920	0	KED
⌊	**Se-1**	**78**	**0.609**	ug/L	0.180	29	25	41	13	KED
	Y	**89**		ug/L			619356	513153	0	Standard
	Kr	**83**		ug/L			31	43	25	Standard
⌈>	**In-1**	**115**		ug/L			34809	27967	1	KED
⌈	**Mo**	**98**	**1.615**	ug/L	0.046	2	3	1792	3	KED
⌈	**Cd**	**111**	**0.004**	ug/L	0.004	106	2	3	45	KED
⌊	**Cd**	**114**	**-0.005**	ug/L	0.011	223	3	-1	540	KED
⌈>	**In**	**115**		ug/L			769572	619906	4	Standard
⌈	**Ag**	**107**	**-0.004**	ug/L	0.000	7	121	47	12	Standard
⌈	**Sb**	**121**	**0.080**	ug/L	0.003	3	91	805	6	Standard
⌊	**Sb**	**123**	**0.079**	ug/L	0.004	5	78	626	1	Standard
⌈	**Ba**	**135**	**19.098**	ug/L	0.710	3	23	57757	4	Standard
⌊	**Ba**	**137**	**18.063**	ug/L	1.182	6	48	100001	3	Standard
⌈>	**Tb**	**159**		ug/L			1026127	976297	5	Standard
⌈	**Tl**	**205**	**0.002**	ug/L	0.001	30	86	120	14	Standard
⌊	**Pb**	**208**	**0.024**	ug/L	0.002	9	191	714	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0319-03
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 13:17:26
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	804508	3	Standard
	Be	9	0.001	ug/L	0.001	194	27	43	17	Standard
	C	13		ug/L			17606	48663	1	Standard
	Cl	37		ug/L			6613771	9067665	2	Standard
>	Sc	45		ug/L			1108166	1136420	1	Standard
	V	51	16.949	ug/L	0.378	2	5706	384114	1	Standard
	V-1	51	17.605	ug/L	0.355	2	834	398449	1	Standard
	Cr	52	0.097	ug/L	0.032	32	16644	18798	2	Standard
	Cr	53	3.023	ug/L	0.039	1	322	6708	1	Standard
	Mn	55	929.102	ug/L	13.554	1	466	23591105	0	Standard
>	Ge-1	72		ug/L			81114	60990	0	KED
	Co	59	2.025	ug/L	0.055	2	31	7301	2	KED
	Ni	60	11.823	ug/L	0.641	5	44	11931	5	KED
	Ni	62	12.236	ug/L	0.302	2	7	1880	2	KED
	Cu	63	5.155	ug/L	0.134	2	57	13439	2	KED
	Cu	65	5.122	ug/L	0.193	3	19	6611	3	KED
	Zn	66	1.768	ug/L	0.082	4	56	672	4	KED
	Zn	67	3.552	ug/L	0.412	11	7	215	11	KED
	As	75	3.926	ug/L	0.069	1	6	944	1	KED
	Se-1	78	0.271	ug/L	0.061	22	25	27	6	KED
	Y	89		ug/L			619356	493833	2	Standard
	Kr	83		ug/L			31	63	9	Standard
>	In-1	115		ug/L			34809	26328	0	KED
	Mo	98	4.482	ug/L	0.186	4	3	4675	3	KED
	Cd	111	0.054	ug/L	0.011	20	2	19	18	KED
	Cd	114	0.048	ug/L	0.029	59	3	41	56	KED
>	In	115		ug/L			769572	591521	2	Standard
	Ag	107	-0.002	ug/L	0.001	54	121	67	19	Standard
	Sb	121	0.159	ug/L	0.003	1	91	1462	3	Standard
	Sb	123	0.154	ug/L	0.003	2	78	1104	2	Standard
	Ba	135	56.581	ug/L	0.759	1	23	163301	2	Standard
	Ba	137	55.560	ug/L	1.870	3	48	293718	1	Standard
>	Tb	159		ug/L			1026127	1008666	2	Standard
	Tl	205	0.119	ug/L	0.003	2	86	2212	1	Standard
	Pb	208	0.045	ug/L	0.001	1	191	1207	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0241-02
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 13:22:21
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	796037	5	Standard
	Be	9	0.088	ug/L	0.006	6	27	638	3	Standard
	C	13		ug/L			17606	34447	4	Standard
	Cl	37		ug/L			6613771	6895566	1	Standard
>	Sc	45		ug/L			1108166	1035041	2	Standard
	V	51	26.961	ug/L	0.723	2	5706	553142	0	Standard
	V-1	51	26.710	ug/L	0.687	2	834	549954	0	Standard
	Cr	52	7.241	ug/L	0.261	3	16644	133657	1	Standard
	Cr	53	7.174	ug/L	0.115	1	322	14083	1	Standard
	Mn	55	75.461	ug/L	1.975	2	466	1745219	2	Standard
>	Ge-1	72		ug/L			81114	73344	2	KED
	Co	59	2.627	ug/L	0.051	1	31	11382	2	KED
	Ni	60	6.222	ug/L	0.167	2	44	7570	3	KED
	Ni	62	6.227	ug/L	0.117	1	7	1153	1	KED
	Cu	63	7.936	ug/L	0.174	2	57	24845	0	KED
	Cu	65	7.991	ug/L	0.059	0	19	12392	1	KED
	Zn	66	20.396	ug/L	0.499	2	56	8789	0	KED
	Zn	67	19.993	ug/L	0.340	1	7	1429	0	KED
	As	75	2.368	ug/L	0.030	1	6	687	1	KED
	Se-1	78	0.272	ug/L	0.101	37	25	33	9	KED
	Y	89		ug/L			619356	678335	1	Standard
	Kr	83		ug/L			31	48	39	Standard
>	In-1	115		ug/L			34809	32248	0	KED
	Mo	98	0.136	ug/L	0.017	12	3	177	12	KED
	Cd	111	0.013	ug/L	0.008	58	2	7	41	KED
	Cd	114	0.018	ug/L	0.010	51	3	21	44	KED
>	In	115		ug/L			769572	693332	0	Standard
	Ag	107	0.014	ug/L	0.001	5	121	292	3	Standard
	Sb	121	0.009	ug/L	0.000	4	91	172	2	Standard
	Sb	123	0.009	ug/L	0.001	17	78	139	7	Standard
	Ba	135	10.557	ug/L	0.156	1	23	35728	1	Standard
	Ba	137	10.537	ug/L	0.272	2	48	65356	2	Standard
>	Tb	159		ug/L			1026127	1082537	5	Standard
	Tl	205	0.022	ug/L	0.002	8	86	518	2	Standard
	Pb	208	1.544	ug/L	0.058	3	191	37530	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0241-05
Sample Dil Factor: 20
Comments:
Sample Date/Time: Thursday, June 28, 2018 13:27:17
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	764513	9	Standard
	Be	9	0.105	ug/L	0.003	2	27	727	8	Standard
	C	13		ug/L			17606	34963	5	Standard
	Cl	37		ug/L			6613771	6785367	1	Standard
>	Sc	45		ug/L			1108166	1072520	1	Standard
	V	51	28.622	ug/L	0.706	2	5706	608470	3	Standard
	V-1	51	28.384	ug/L	0.656	2	834	605846	2	Standard
	Cr	52	14.849	ug/L	0.467	3	16644	267154	1	Standard
	Cr	53	14.586	ug/L	0.416	2	322	29349	1	Standard
	Mn	55	291.882	ug/L	8.451	2	466	6993399	1	Standard
>	Ge-1	72		ug/L			81114	73890	1	KED
	Co	59	4.878	ug/L	0.210	4	31	21271	4	KED
	Ni	60	14.430	ug/L	0.081	0	44	17634	1	KED
	Ni	62	14.506	ug/L	0.395	2	7	2698	2	KED
	Cu	63	200.592	ug/L	0.385	0	57	631577	0	KED
	Cu	65	201.172	ug/L	2.980	1	19	313944	2	KED
	Zn	66	164.903	ug/L	2.907	1	56	71240	0	KED
	Zn	67	151.080	ug/L	4.318	2	7	10837	3	KED
	As	75	8.598	ug/L	0.119	1	6	2499	1	KED
	Se-1	78	0.340	ug/L	0.044	12	25	36	5	KED
	Y	89		ug/L			619356	688371	2	Standard
	Kr	83		ug/L			31	68	4	Standard
>	In-1	115		ug/L			34809	31307	0	KED
	Mo	98	0.956	ug/L	0.018	1	3	1188	1	KED
	Cd	111	0.098	ug/L	0.007	7	2	39	6	KED
	Cd	114	0.028	ug/L	0.008	30	3	29	27	KED
>	In	115		ug/L			769572	673101	0	Standard
	Ag	107	0.109	ug/L	0.002	1	121	1530	1	Standard
	Sb	121	0.139	ug/L	0.005	3	91	1462	3	Standard
	Sb	123	0.134	ug/L	0.008	6	78	1107	5	Standard
	Ba	135	43.870	ug/L	1.090	2	23	144093	3	Standard
	Ba	137	43.606	ug/L	1.023	2	48	262473	2	Standard
>	Tb	159		ug/L			1026127	1005162	3	Standard
	Tl	205	0.025	ug/L	0.002	9	86	529	6	Standard
	Pb	208	109.144	ug/L	5.979	5	191	2449587	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0546-DUP2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 13:32:12
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	742426	2	Standard
	Be	**9**	**-0.004**	ug/L	0.001	16	27	10	43	Standard
	C	**13**		ug/L			17606	31949	1	Standard
	Cl	**37**		ug/L			6613771	6526583	0	Standard
>	**Sc**	**45**		ug/L			1108166	1135807	1	Standard
	V	**51**	**32.058**	ug/L	0.529	1	5706	720892	0	Standard
	V-1	**51**	**31.818**	ug/L	0.522	1	834	718980	0	Standard
	Cr	**52**	**0.261**	ug/L	0.029	11	16644	21733	1	Standard
	Cr	**53**	**0.718**	ug/L	0.034	4	322	1844	2	Standard
	Mn	**55**	**0.896**	ug/L	0.013	1	466	23213	0	Standard
>	**Ge-1**	**72**		ug/L			81114	68525	1	KED
	Co	**59**	**0.203**	ug/L	0.005	2	31	845	3	KED
	Ni	**60**	**0.273**	ug/L	0.036	13	44	346	11	KED
	Ni	**62**	**0.228**	ug/L	0.049	21	7	45	19	KED
	Cu	**63**	**0.324**	ug/L	0.011	3	57	995	2	KED
	Cu	**65**	**0.306**	ug/L	0.015	5	19	459	5	KED
	Zn	**66**	**1.174**	ug/L	0.058	4	56	517	2	KED
	Zn	**67**	**1.547**	ug/L	0.108	6	7	109	5	KED
	As	**75**	**1.289**	ug/L	0.058	4	6	352	4	KED
	Se-1	**78**	**0.183**	ug/L	0.062	34	25	27	7	KED
	Y	**89**		ug/L			619356	531397	3	Standard
	Kr	**83**		ug/L			31	36	7	Standard
>	**In-1**	**115**		ug/L			34809	29265	2	KED
	Mo	**98**	**0.918**	ug/L	0.069	7	3	1066	6	KED
	Cd	**111**	**0.000**	ug/L	0.005	4592	2	1	86	KED
	Cd	**114**	**-0.009**	ug/L	0.006	65	3	-5	94	KED
>	**In**	**115**		ug/L			769572	655809	1	Standard
	Ag	**107**	**-0.003**	ug/L	0.001	25	121	64	14	Standard
	Sb	**121**	**0.010**	ug/L	0.001	7	91	170	4	Standard
	Sb	**123**	**0.010**	ug/L	0.002	23	78	138	12	Standard
	Ba	**135**	**5.400**	ug/L	0.131	2	23	17294	1	Standard
	Ba	**137**	**5.151**	ug/L	0.268	5	48	30234	4	Standard
>	**Tb**	**159**		ug/L			1026127	1023391	4	Standard
	Tl	**205**	**-0.001**	ug/L	0.001	199	86	75	23	Standard
	Pb	**208**	**0.041**	ug/L	0.001	2	191	1130	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0319-09
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 13:37:07
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	796673	4	Standard
	Be	**9**	**-0.005**	ug/L	0.000	5	27	3	50	Standard
	C	**13**		ug/L			17606	32384	2	Standard
	Cl	**37**		ug/L			6613771	6414768	1	Standard
>	**Sc**	**45**		ug/L			1108166	1123150	0	Standard
	V	**51**	**32.264**	ug/L	1.628	5	5706	717479	4	Standard
	V-1	**51**	**32.018**	ug/L	1.604	5	834	715526	4	Standard
	Cr	**52**	**0.208**	ug/L	0.040	19	16644	20551	3	Standard
	Cr	**53**	**0.657**	ug/L	0.015	2	322	1697	1	Standard
	Mn	**55**	**0.952**	ug/L	0.017	1	466	24354	1	Standard
>	**Ge-1**	**72**		ug/L			81114	67585	1	KED
	Co	**59**	**0.201**	ug/L	0.017	8	31	826	9	KED
	Ni	**60**	**0.250**	ug/L	0.026	10	44	315	9	KED
	Ni	**62**	**0.262**	ug/L	0.020	7	7	50	7	KED
	Cu	**63**	**0.290**	ug/L	0.005	1	57	884	2	KED
	Cu	**65**	**0.293**	ug/L	0.014	4	19	434	5	KED
	Zn	**66**	**1.145**	ug/L	0.092	7	56	499	6	KED
	Zn	**67**	**1.522**	ug/L	0.472	31	7	106	28	KED
	As	**75**	**1.268**	ug/L	0.025	1	6	341	2	KED
	Se-1	**78**	**0.309**	ug/L	0.071	22	25	31	8	KED
	Y	**89**		ug/L			619356	541096	2	Standard
	Kr	**83**		ug/L			31	38	22	Standard
>	**In-1**	**115**		ug/L			34809	29164	1	KED
	Mo	**98**	**0.899**	ug/L	0.075	8	3	1041	7	KED
	Cd	**111**	**0.002**	ug/L	0.003	167	2	2	43	KED
	Cd	**114**	**-0.008**	ug/L	0.006	77	3	-4	118	KED
>	**In**	**115**		ug/L			769572	647272	3	Standard
	Ag	**107**	**-0.004**	ug/L	0.000	9	121	53	12	Standard
	Sb	**121**	**0.011**	ug/L	0.002	19	91	182	8	Standard
	Sb	**123**	**0.008**	ug/L	0.001	18	78	124	10	Standard
	Ba	**135**	**5.374**	ug/L	0.164	3	23	16977	1	Standard
	Ba	**137**	**5.186**	ug/L	0.190	3	48	30025	1	Standard
>	**Tb**	**159**		ug/L			1026127	1040350	3	Standard
	Tl	**205**	**-0.001**	ug/L	0.001	74	86	69	18	Standard
	Pb	**208**	**0.036**	ug/L	0.002	5	191	1024	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0546-MS2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 13:42:03
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	767843	6	Standard
	Be	**9**	**20.386**	ug/L	1.166	5	27	133965	1	Standard
	C	**13**		ug/L			17606	34645	1	Standard
	Cl	**37**		ug/L			6613771	6581756	3	Standard
>	**Sc**	**45**		ug/L			1108166	1115291	2	Standard
	V	**51**	**54.599**	ug/L	2.434	4	5706	1201289	3	Standard
	V-1	**51**	**54.203**	ug/L	2.273	4	834	1201878	3	Standard
	Cr	**52**	**22.884**	ug/L	0.990	4	16644	419171	4	Standard
	Cr	**53**	**22.807**	ug/L	0.531	2	322	47554	3	Standard
	Mn	**55**	**23.474**	ug/L	0.363	1	466	585331	1	Standard
>	**Ge-1**	**72**		ug/L			81114	68489	1	KED
	Co	**59**	**27.180**	ug/L	0.543	1	31	109735	2	KED
	Ni	**60**	**27.052**	ug/L	0.412	1	44	30611	2	KED
	Ni	**62**	**27.982**	ug/L	1.708	6	7	4821	6	KED
	Cu	**63**	**27.871**	ug/L	0.547	1	57	81391	2	KED
	Cu	**65**	**27.430**	ug/L	0.910	3	19	39684	2	KED
	Zn	**66**	**83.651**	ug/L	1.469	1	56	33520	0	KED
	Zn	**67**	**79.194**	ug/L	1.893	2	7	5268	1	KED
	As	**75**	**27.381**	ug/L	0.475	1	6	7365	0	KED
	Se-1	**78**	**79.870**	ug/L	0.731	0	25	2798	0	KED
	Y	**89**		ug/L			619356	522375	3	Standard
	Kr	**83**		ug/L			31	43	30	Standard
>	**In-1**	**115**		ug/L			34809	28729	3	KED
	Mo	**98**	**0.954**	ug/L	0.059	6	3	1087	2	KED
	Cd	**111**	**25.754**	ug/L	0.994	3	2	9040	1	KED
	Cd	**114**	**25.987**	ug/L	0.915	3	3	23345	1	KED
>	**In**	**115**		ug/L			769572	647877	4	Standard
	Ag	**107**	**23.126**	ug/L	1.617	6	121	289444	2	Standard
	Sb	**121**	**0.007**	ug/L	0.001	10	91	145	9	Standard
	Sb	**123**	**0.010**	ug/L	0.003	25	78	139	13	Standard
	Ba	**135**	**35.461**	ug/L	0.326	0	23	112071	3	Standard
	Ba	**137**	**33.586**	ug/L	0.934	2	48	194477	3	Standard
>	**Tb**	**159**		ug/L			1026127	1023329	2	Standard
	Tl	**205**	**26.951**	ug/L	0.882	3	86	490248	3	Standard
	Pb	**208**	**26.314**	ug/L	0.715	2	191	602122	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0546-MSD2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 13:46:58
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	757016	10	Standard
	Be	**9**	**21.211**	ug/L	2.354	11	27	136724	1	Standard
	C	**13**		ug/L			17606	33467	6	Standard
	Cl	**37**		ug/L			6613771	6535521	1	Standard
>	**Sc**	**45**		ug/L			1108166	1110730	0	Standard
	V	**51**	**54.940**	ug/L	2.723	4	5706	1204239	4	Standard
	V-1	**51**	**54.717**	ug/L	2.645	4	834	1208710	4	Standard
	Cr	**52**	**22.625**	ug/L	0.601	2	16644	412966	2	Standard
	Cr	**53**	**23.164**	ug/L	0.430	1	322	48094	1	Standard
	Mn	**55**	**22.923**	ug/L	0.370	1	466	569398	1	Standard
>	**Ge-1**	**72**		ug/L			81114	68060	1	KED
	Co	**59**	**27.144**	ug/L	0.946	3	31	108866	1	KED
	Ni	**60**	**26.666**	ug/L	1.036	3	44	29971	2	KED
	Ni	**62**	**28.371**	ug/L	1.362	4	7	4854	3	KED
	Cu	**63**	**27.200**	ug/L	0.305	1	57	78931	2	KED
	Cu	**65**	**26.807**	ug/L	0.838	3	19	38535	2	KED
	Zn	**66**	**85.637**	ug/L	2.161	2	56	34098	1	KED
	Zn	**67**	**78.861**	ug/L	1.316	1	7	5213	0	KED
	As	**75**	**26.584**	ug/L	0.536	2	6	7105	0	KED
	Se-1	**78**	**77.470**	ug/L	1.687	2	25	2697	0	KED
	Y	**89**		ug/L			619356	529660	3	Standard
	Kr	**83**		ug/L			31	35	13	Standard
>	**In-1**	**115**		ug/L			34809	29033	1	KED
	Mo	**98**	**0.891**	ug/L	0.051	5	3	1027	4	KED
	Cd	**111**	**25.531**	ug/L	0.238	0	2	9064	1	KED
	Cd	**114**	**25.948**	ug/L	0.124	0	3	23575	1	KED
>	**In**	**115**		ug/L			769572	633695	0	Standard
	Ag	**107**	**22.985**	ug/L	0.789	3	121	281926	2	Standard
	Sb	**121**	**0.010**	ug/L	0.001	8	91	167	4	Standard
	Sb	**123**	**0.008**	ug/L	0.000	2	78	125	0	Standard
	Ba	**135**	**35.580**	ug/L	1.445	4	23	110039	4	Standard
	Ba	**137**	**34.228**	ug/L	0.394	1	48	193961	1	Standard
>	**Tb**	**159**		ug/L			1026127	1001200	1	Standard
	Tl	**205**	**27.304**	ug/L	1.407	5	86	486192	6	Standard
	Pb	**208**	**26.762**	ug/L	0.471	1	191	599201	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0546-BS2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 13:51:53
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	738135	4	Standard
⌊	**Be**	**9**	**22.050**	ug/L	0.670	3	27	139522	2	Standard
	C	**13**		ug/L			17606	31824	3	Standard
	Cl	**37**		ug/L			6613771	6847504	2	Standard
⌈>	**Sc**	**45**		ug/L			1108166	963712	0	Standard
⌈	**V**	**51**	**27.321**	ug/L	0.089	0	5706	522083	0	Standard
⌊	**V-1**	**51**	**27.167**	ug/L	0.213	0	834	521069	1	Standard
⌈	**Cr**	**52**	**28.010**	ug/L	0.497	1	16644	440134	2	Standard
⌊	**Cr**	**53**	**27.457**	ug/L	0.358	1	322	49410	1	Standard
⌊	**Mn**	**55**	**30.209**	ug/L	0.805	2	466	650883	2	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	72709	3	KED
⌈	**Co**	**59**	**27.823**	ug/L	0.898	3	31	119175	0	KED
⌊	**Ni**	**60**	**29.032**	ug/L	1.042	3	44	34864	4	KED
⌈	**Ni**	**62**	**29.926**	ug/L	1.017	3	7	5468	2	KED
⌈	**Cu**	**63**	**29.475**	ug/L	1.410	4	57	91274	1	KED
⌊	**Cu**	**65**	**28.714**	ug/L	0.932	3	19	44105	4	KED
⌈	**Zn**	**66**	**92.953**	ug/L	2.561	2	56	39521	1	KED
⌊	**Zn**	**67**	**87.890**	ug/L	4.651	5	7	6201	3	KED
⌈	**As**	**75**	**25.739**	ug/L	0.535	2	6	7348	1	KED
⌊	**Se-1**	**78**	**84.815**	ug/L	1.432	1	25	3152	2	KED
	Y	**89**		ug/L			619356	544921	0	Standard
	Kr	**83**		ug/L			31	43	15	Standard
⌈>	**In-1**	**115**		ug/L			34809	30704	2	KED
⌈	**Mo**	**98**	**0.006**	ug/L	0.003	52	3	10	35	KED
⌈	**Cd**	**111**	**27.095**	ug/L	0.419	1	2	10171	0	KED
⌊	**Cd**	**114**	**27.543**	ug/L	1.142	4	3	26450	2	KED
⌈>	**In**	**115**		ug/L			769572	688854	1	Standard
⌈	**Ag**	**107**	**25.095**	ug/L	0.180	0	121	334633	2	Standard
⌈	**Sb**	**121**	**0.001**	ug/L	0.002	213	91	92	24	Standard
⌊	**Sb**	**123**	**-0.001**	ug/L	0.001	158	78	64	13	Standard
⌈	**Ba**	**135**	**29.965**	ug/L	1.807	6	23	100683	5	Standard
⌊	**Ba**	**137**	**27.786**	ug/L	1.472	5	48	171070	3	Standard
⌈>	**Tb**	**159**		ug/L			1026127	993985	2	Standard
⌈	**Tl**	**205**	**29.108**	ug/L	0.621	2	86	514407	3	Standard
⌊	**Pb**	**208**	**28.974**	ug/L	0.468	1	191	644035	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 13:57:54
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	722697	5	Standard
	Be	**9**	**38.885**	ug/L	2.426	6	27	240621	3	Standard
	C	**13**		ug/L			17606	18925	3	Standard
	Cl	**37**		ug/L			6613771	6834396	2	Standard
>	**Sc**	**45**		ug/L			1108166	964119	3	Standard
	V	**51**	**49.762**	ug/L	0.503	1	5706	947118	2	Standard
	V-1	**51**	**49.441**	ug/L	0.535	1	834	948004	2	Standard
	Cr	**52**	**50.468**	ug/L	1.149	2	16644	781479	2	Standard
	Cr	**53**	**49.341**	ug/L	0.492	0	322	88590	2	Standard
	Mn	**55**	**50.854**	ug/L	0.965	1	466	1095732	2	Standard
>	**Ge-1**	**72**		ug/L			81114	72935	0	KED
	Co	**59**	**50.743**	ug/L	0.903	1	31	218151	1	KED
	Ni	**60**	**49.116**	ug/L	0.627	1	44	59148	0	KED
	Ni	**62**	**50.783**	ug/L	1.043	2	7	9309	2	KED
	Cu	**63**	**51.783**	ug/L	1.246	2	57	160980	2	KED
	Cu	**65**	**49.719**	ug/L	1.413	2	19	76590	2	KED
	Zn	**66**	**51.526**	ug/L	0.649	1	56	22009	1	KED
	Zn	**67**	**50.452**	ug/L	0.603	1	7	3576	1	KED
	As	**75**	**48.573**	ug/L	0.477	0	6	13911	0	KED
	Se-1	**78**	**48.937**	ug/L	0.717	1	25	1834	1	KED
	Y	**89**		ug/L			619356	553152	0	Standard
	Kr	**83**		ug/L			31	52	13	Standard
>	**In-1**	**115**		ug/L			34809	30369	0	KED
	Mo	**98**	**49.917**	ug/L	0.264	0	3	60061	1	KED
	Cd	**111**	**49.518**	ug/L	1.030	2	2	18388	1	KED
	Cd	**114**	**49.369**	ug/L	0.314	0	3	46917	1	KED
>	**In**	**115**		ug/L			769572	674626	2	Standard
	Ag	**107**	**45.853**	ug/L	2.445	5	121	598144	2	Standard
	Sb	**121**	**49.503**	ug/L	2.062	4	91	493582	1	Standard
	Sb	**123**	**49.753**	ug/L	1.169	2	78	385720	0	Standard
	Ba	**135**	**52.992**	ug/L	2.414	4	23	174287	2	Standard
	Ba	**137**	**50.529**	ug/L	1.960	3	48	304619	2	Standard
>	**Tb**	**159**		ug/L			1026127	985512	1	Standard
	Tl	**205**	**50.139**	ug/L	2.177	4	86	878183	3	Standard
	Pb	**208**	**51.554**	ug/L	1.231	2	191	1135937	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 14:05:34
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	721248	4	Standard
⌊	**Be**	**9**	**-0.005**	ug/L	0.000	9	27	5	57	Standard
	C	**13**		ug/L			17606	17973	2	Standard
	Cl	**37**		ug/L			6613771	7017391	4	Standard
⌈>	**Sc**	**45**		ug/L			1108166	987292	3	Standard
⌈	**V**	**51**	**-0.015**	ug/L	0.009	59	5706	4784	1	Standard
⌊	**V-1**	**51**	**-0.015**	ug/L	0.002	15	834	450	10	Standard
⌈	**Cr**	**52**	**-0.036**	ug/L	0.035	98	16644	14262	2	Standard
⌊	**Cr**	**53**	**-0.034**	ug/L	0.002	4	322	225	4	Standard
	Mn	**55**	**0.004**	ug/L	0.001	33	466	493	5	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	73575	2	KED
⌈	**Co**	**59**	**0.001**	ug/L	0.003	220	31	34	36	KED
⌊	**Ni**	**60**	**-0.026**	ug/L	0.001	2	44	8	12	KED
⌈	**Ni**	**62**	**-0.020**	ug/L	0.006	31	7	3	34	KED
⌊	**Cu**	**63**	**-0.002**	ug/L	0.004	277	57	47	31	KED
⌈	**Cu**	**65**	**0.005**	ug/L	0.004	82	19	26	27	KED
⌊	**Zn**	**66**	**0.093**	ug/L	0.021	22	56	91	10	KED
⌈	**Zn**	**67**	**0.126**	ug/L	0.058	46	7	15	24	KED
⌊	**As**	**75**	**-0.002**	ug/L	0.006	341	6	5	27	KED
	Se-1	**78**	**-0.024**	ug/L	0.080	331	25	22	10	KED
	Y	**89**		ug/L			619356	558739	0	Standard
	Kr	**83**		ug/L			31	34	16	Standard
⌈>	**In-1**	**115**		ug/L			34809	29794	4	KED
⌈	**Mo**	**98**	**0.008**	ug/L	0.005	65	3	12	53	KED
⌊	**Cd**	**111**	**-0.002**	ug/L	0.001	78	2	1	43	KED
	Cd	**114**	**-0.001**	ug/L	0.000	6	3	1	2	KED
⌈>	**In**	**115**		ug/L			769572	677458	1	Standard
⌈	**Ag**	**107**	**-0.005**	ug/L	0.001	19	121	48	25	Standard
⌈	**Sb**	**121**	**0.108**	ug/L	0.003	2	91	1158	1	Standard
⌊	**Sb**	**123**	**0.110**	ug/L	0.005	4	78	926	4	Standard
⌈	**Ba**	**135**	**0.001**	ug/L	0.002	149	23	25	28	Standard
⌊	**Ba**	**137**	**0.001**	ug/L	0.003	523	48	45	37	Standard
⌈>	**Tb**	**159**		ug/L			1026127	991679	2	Standard
⌈	**Tl**	**205**	**0.001**	ug/L	0.000	23	86	107	6	Standard
⌊	**Pb**	**208**	**0.004**	ug/L	0.001	25	191	264	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~**BGF0545-BLK2**~~ BGF0525-BLK2
Sample Dil Factor: TH 06-28-18
Comments:
Sample Date/Time: Thursday, June 28, 2018 14:10:30
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	734907	3	Standard
	Be	**9**	**-0.005**	ug/L	0.001	15	27	6	68	Standard
	C	**13**		ug/L			17606	31571	0	Standard
	Cl	**37**		ug/L			6613771	6872396	2	Standard
>	**Sc**	**45**		ug/L			1108166	985899	0	Standard
	V	**51**	**0.016**	ug/L	0.006	35	5706	5395	2	Standard
	V-1	**51**	**-0.003**	ug/L	0.001	38	834	678	2	Standard
	Cr	**52**	**0.058**	ug/L	0.018	30	16644	15712	2	Standard
	Cr	**53**	**-0.011**	ug/L	0.006	51	322	266	2	Standard
	Mn	**55**	**1.232**	ug/L	0.016	1	466	27563	1	Standard
>	**Ge-1**	**72**		ug/L			81114	75616	1	KED
	Co	**59**	**0.002**	ug/L	0.001	76	31	37	14	KED
	Ni	**60**	**0.162**	ug/L	0.022	13	44	243	10	KED
	Ni	**62**	**0.153**	ug/L	0.024	15	7	36	13	KED
	Cu	**63**	**6.342**	ug/L	0.028	0	57	20487	1	KED
	Cu	**65**	**6.070**	ug/L	0.121	1	19	9711	2	KED
	Zn	**66**	**4.660**	ug/L	0.269	5	56	2111	5	KED
	Zn	**67**	**4.199**	ug/L	0.386	9	7	314	7	KED
	As	**75**	**-0.005**	ug/L	0.004	70	6	4	26	KED
	Se-1	**78**	**-0.009**	ug/L	0.077	845	25	23	13	KED
	Y	**89**		ug/L			619356	561412	0	Standard
	Kr	**83**		ug/L			31	30	45	Standard
>	**In-1**	**115**		ug/L			34809	31345	2	KED
	Mo	**98**	**0.004**	ug/L	0.004	85	3	8	53	KED
	Cd	**111**	**-0.003**	ug/L	0.004	156	2	0	173	KED
	Cd	**114**	**-0.012**	ug/L	0.011	98	3	-8	131	KED
>	**In**	**115**		ug/L			769572	688928	2	Standard
	Ag	**107**	**-0.003**	ug/L	0.001	18	121	65	14	Standard
	Sb	**121**	**0.029**	ug/L	0.001	4	91	376	2	Standard
	Sb	**123**	**0.025**	ug/L	0.004	16	78	266	13	Standard
	Ba	**135**	**0.011**	ug/L	0.001	5	23	57	3	Standard
	Ba	**137**	**0.013**	ug/L	0.004	33	48	122	21	Standard
>	**Tb**	**159**		ug/L			1026127	984237	4	Standard
	Tl	**205**	**0.001**	ug/L	0.001	63	86	105	8	Standard
	Pb	**208**	**0.202**	ug/L	0.012	5	191	4628	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0319-05
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 14:15:25
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	854608	3	Standard
	Be	9	-0.000	ug/L	0.001	454	27	40	17	Standard
	C	13		ug/L			17606	76898	1	Standard
	Cl	37		ug/L			6613771	17875091	6	Standard
>	Sc	45		ug/L			1108166	1120667	1	Standard
	V	51	2.083	ug/L	0.084	4	5706	51613	2	Standard
	V-1	51	4.468	ug/L	0.103	2	834	100346	1	Standard
	Cr	52	0.363	ug/L	0.009	2	16644	23246	0	Standard
	Cr	53	8.596	ug/L	0.194	2	322	18211	2	Standard
	Mn	55	4758.954	ug/L	73.675	1	466	119158957	1	Standard
>	Ge-1	72		ug/L			81114	57565	0	KED
	Co	59	8.999	ug/L	0.159	1	31	30550	0	KED
	Ni	60	64.017	ug/L	0.370	0	44	60839	1	KED
	Ni	62	66.766	ug/L	2.441	3	7	9656	2	KED
	Cu	63	3.745	ug/L	0.030	0	57	9226	0	KED
	Cu	65	3.677	ug/L	0.056	1	19	4483	0	KED
	Zn	66	3.650	ug/L	0.183	5	56	1267	3	KED
	Zn	67	6.658	ug/L	0.372	5	7	377	4	KED
	As	75	2.201	ug/L	0.016	0	6	502	1	KED
	Se-1	78	0.124	ug/L	0.040	32	25	21	5	KED
	Y	89		ug/L			619356	454361	2	Standard
	Kr	83		ug/L			31	104	14	Standard
>	In-1	115		ug/L			34809	24665	4	KED
	Mo	98	9.153	ug/L	0.364	3	3	8936	1	KED
	Cd	111	0.014	ug/L	0.009	64	2	5	44	KED
	Cd	114	-0.001	ug/L	0.005	771	3	1	245	KED
>	In	115		ug/L			769572	573490	2	Standard
	Ag	107	-0.001	ug/L	0.002	250	121	82	27	Standard
	Sb	121	0.215	ug/L	0.002	0	91	1889	1	Standard
	Sb	123	0.220	ug/L	0.021	9	78	1509	9	Standard
	Ba	135	83.613	ug/L	0.607	0	23	233928	1	Standard
	Ba	137	83.440	ug/L	3.061	3	48	427922	4	Standard
>	Tb	159		ug/L			1026127	959075	1	Standard
	Tl	205	0.007	ug/L	0.001	15	86	198	9	Standard
	Pb	208	0.096	ug/L	0.003	3	191	2236	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0319-07
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 14:20:21
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	849212	4	Standard
⌊	**Be**	**9**	**-0.005**	ug/L	0.000	5	27	7	25	Standard
	C	**13**		ug/L			17606	35147	2	Standard
	Cl	**37**		ug/L			6613771	7660053	2	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1113998	2	Standard
⌈	**V**	**51**	**15.784**	ug/L	0.652	4	5706	350905	2	Standard
⌊	**V-1**	**51**	**15.903**	ug/L	0.637	4	834	352748	2	Standard
⌈	**Cr**	**52**	**1.352**	ug/L	0.082	6	16644	40457	2	Standard
⌊	**Cr**	**53**	**2.339**	ug/L	0.061	2	322	5160	2	Standard
⌊	**Mn**	**55**	**52.550**	ug/L	1.434	2	466	1307962	1	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	62906	0	KED
⌈	**Co**	**59**	**1.609**	ug/L	0.017	1	31	5987	0	KED
⌊	**Ni**	**60**	**0.653**	ug/L	0.043	6	44	712	6	KED
⌈	**Ni**	**62**	**0.602**	ug/L	0.031	5	7	100	4	KED
⌈	**Cu**	**63**	**0.927**	ug/L	0.032	3	57	2529	2	KED
⌊	**Cu**	**65**	**0.919**	ug/L	0.052	5	19	1235	5	KED
⌈	**Zn**	**66**	**1.646**	ug/L	0.068	4	56	648	3	KED
⌊	**Zn**	**67**	**6.665**	ug/L	0.551	8	7	412	8	KED
⌈	**As**	**75**	**0.821**	ug/L	0.091	11	6	207	10	KED
⌊	**Se-1**	**78**	**5.299**	ug/L	0.288	5	25	189	5	KED
	Y	**89**		ug/L			619356	511146	0	Standard
	Kr	**83**		ug/L			31	63	4	Standard
⌈>	**In-1**	**115**		ug/L			34809	26668	2	KED
⌈	**Mo**	**98**	**1.050**	ug/L	0.050	4	3	1111	3	KED
⌊	**Cd**	**111**	**0.006**	ug/L	0.003	42	2	3	25	KED
⌊	**Cd**	**114**	**-0.006**	ug/L	0.006	102	3	-2	195	KED
⌈>	**In**	**115**		ug/L			769572	624953	2	Standard
⌈	**Ag**	**107**	**-0.002**	ug/L	0.000	25	121	76	5	Standard
⌈	**Sb**	**121**	**0.027**	ug/L	0.002	8	91	323	8	Standard
⌊	**Sb**	**123**	**0.025**	ug/L	0.003	11	78	244	9	Standard
⌈	**Ba**	**135**	**126.883**	ug/L	3.390	2	23	386787	2	Standard
⌊	**Ba**	**137**	**123.184**	ug/L	0.571	0	48	688317	2	Standard
⌈>	**Tb**	**159**		ug/L			1026127	999266	3	Standard
⌈	**Tl**	**205**	**0.020**	ug/L	0.001	5	86	431	1	Standard
⌊	**Pb**	**208**	**0.033**	ug/L	0.001	3	191	920	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0319-12
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 14:25:16
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	841152	4	Standard
⌊	**Be**	**9**	**-0.005**	ug/L	0.000	10	27	7	50	Standard
	C	**13**		ug/L			17606	32850	0	Standard
	Cl	**37**		ug/L			6613771	6892773	0	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1120803	1	Standard
⌈	**V**	**51**	**50.146**	ug/L	0.663	1	5706	1109532	0	Standard
⌊	**V-1**	**51**	**49.780**	ug/L	0.672	1	834	1109593	0	Standard
⌈	**Cr**	**52**	**1.509**	ug/L	0.029	1	16644	43509	1	Standard
⌊	**Cr**	**53**	**2.216**	ug/L	0.093	4	322	4936	2	Standard
⌊	**Mn**	**55**	**1.506**	ug/L	0.020	1	466	38191	0	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	64482	0	KED
⌈	**Co**	**59**	**0.093**	ug/L	0.004	4	31	377	3	KED
⌊	**Ni**	**60**	**0.501**	ug/L	0.022	4	44	568	4	KED
⌈	**Ni**	**62**	**0.515**	ug/L	0.096	18	7	89	17	KED
⌈	**Cu**	**63**	**0.364**	ug/L	0.020	5	57	1047	5	KED
⌊	**Cu**	**65**	**0.347**	ug/L	0.016	4	19	487	4	KED
⌈	**Zn**	**66**	**1.066**	ug/L	0.072	6	56	446	5	KED
⌊	**Zn**	**67**	**4.153**	ug/L	0.594	14	7	266	14	KED
⌈	**As**	**75**	**3.932**	ug/L	0.169	4	6	1000	3	KED
⌊	**Se-1**	**78**	**0.660**	ug/L	0.080	12	25	41	5	KED
	Y	**89**		ug/L			619356	522786	3	Standard
	Kr	**83**		ug/L			31	43	28	Standard
⌈>	**In-1**	**115**		ug/L			34809	27018	0	KED
⌈	**Mo**	**98**	**3.114**	ug/L	0.072	2	3	3336	2	KED
⌈	**Cd**	**111**	**0.004**	ug/L	0.002	37	2	3	17	KED
⌊	**Cd**	**114**	**0.009**	ug/L	0.003	37	3	9	28	KED
⌈>	**In**	**115**		ug/L			769572	609994	2	Standard
⌈	**Ag**	**107**	**-0.004**	ug/L	0.001	26	121	47	24	Standard
⌈	**Sb**	**121**	**0.029**	ug/L	0.003	9	91	331	6	Standard
⌊	**Sb**	**123**	**0.029**	ug/L	0.003	9	78	266	6	Standard
⌈	**Ba**	**135**	**65.676**	ug/L	1.571	2	23	195409	2	Standard
⌊	**Ba**	**137**	**63.961**	ug/L	4.532	7	48	348943	8	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1049618	1	Standard
⌈	**Tl**	**205**	**-0.000**	ug/L	0.000	191	86	84	9	Standard
⌊	**Pb**	**208**	**0.023**	ug/L	0.001	3	191	725	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0297-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 14:30:11
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	850116	1	Standard
⌊	**Be**	**9**	**-0.005**	ug/L	0.001	10	27	5	66	Standard
	C	**13**		ug/L			17606	40686	1	Standard
	Cl	**37**		ug/L			6613771	13615791	2	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1180590	2	Standard
⌈	**V**	**51**	**24.462**	ug/L	0.930	3	5706	572995	1	Standard
⌊	**V-1**	**51**	**25.483**	ug/L	0.940	3	834	598497	1	Standard
⌈	**Cr**	**52**	**4.280**	ug/L	0.064	1	16644	97396	0	Standard
⌊	**Cr**	**53**	**8.587**	ug/L	0.163	1	322	19161	1	Standard
⌊	**Mn**	**55**	**3.539**	ug/L	0.069	1	466	93831	1	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	65109	1	KED
⌈	**Co**	**59**	**9.170**	ug/L	0.244	2	31	35206	1	KED
⌊	**Ni**	**60**	**9.886**	ug/L	0.197	1	44	10654	0	KED
⌈	**Ni**	**62**	**10.264**	ug/L	0.302	2	7	1684	3	KED
⌈	**Cu**	**63**	**1.045**	ug/L	0.036	3	57	2946	4	KED
⌊	**Cu**	**65**	**1.077**	ug/L	0.035	3	19	1496	2	KED
⌈	**Zn**	**66**	**3.176**	ug/L	0.111	3	56	1253	2	KED
⌊	**Zn**	**67**	**7.056**	ug/L	0.437	6	7	452	7	KED
⌈	**As**	**75**	**2.860**	ug/L	0.062	2	6	736	2	KED
⌊	**Se-1**	**78**	**0.215**	ug/L	0.015	7	25	27	1	KED
	Y	**89**		ug/L			619356	540842	1	Standard
	Kr	**83**		ug/L			31	65	13	Standard
⌈>	**In-1**	**115**		ug/L			34809	28168	2	KED
⌈	**Mo**	**98**	**2.160**	ug/L	0.064	2	3	2413	3	KED
⌈	**Cd**	**111**	**0.005**	ug/L	0.004	87	2	3	41	KED
⌊	**Cd**	**114**	**0.005**	ug/L	0.023	433	3	7	270	KED
⌈>	**In**	**115**		ug/L			769572	623966	4	Standard
⌈	**Ag**	**107**	**0.056**	ug/L	0.004	6	121	776	3	Standard
⌈	**Sb**	**121**	**0.022**	ug/L	0.003	12	91	280	5	Standard
⌊	**Sb**	**123**	**0.027**	ug/L	0.001	5	78	257	6	Standard
⌈	**Ba**	**135**	**99.557**	ug/L	5.660	5	23	302603	1	Standard
⌊	**Ba**	**137**	**95.980**	ug/L	5.806	6	48	534557	2	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1009758	2	Standard
⌈	**Tl**	**205**	**-0.001**	ug/L	0.000	9	86	71	3	Standard
⌊	**Pb**	**208**	**0.047**	ug/L	0.001	2	191	1241	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0297-03
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 14:35:07
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	**Li**	**6**		ug/L			572696	823850	2	Standard
[	**Be**	**9**	**-0.004**	ug/L	0.001	19	27	13	37	Standard
	C	**13**		ug/L			17606	34743	3	Standard
	Cl	**37**		ug/L			6613771	8199956	3	Standard
[>	**Sc**	**45**		ug/L			1108166	1122088	2	Standard
[	**V**	**51**	**23.833**	ug/L	0.392	1	5706	530890	1	Standard
[	**V-1**	**51**	**24.250**	ug/L	0.405	1	834	541495	1	Standard
[	**Cr**	**52**	**0.502**	ug/L	0.028	5	16644	25726	1	Standard
[	**Cr**	**53**	**2.868**	ug/L	0.083	2	322	6298	0	Standard
[	**Mn**	**55**	**0.906**	ug/L	0.308	34	466	23078	30	Standard
[>	**Ge-1**	**72**		ug/L			81114	68664	1	KED
[	**Co**	**59**	**0.196**	ug/L	0.010	5	31	820	5	KED
[	**Ni**	**60**	**3.182**	ug/L	0.074	2	44	3643	3	KED
[	**Ni**	**62**	**3.173**	ug/L	0.313	9	7	553	9	KED
[	**Cu**	**63**	**3.074**	ug/L	0.159	5	57	9037	3	KED
[	**Cu**	**65**	**2.954**	ug/L	0.051	1	19	4299	1	KED
[	**Zn**	**66**	**1.048**	ug/L	0.055	5	56	468	5	KED
[	**Zn**	**67**	**2.055**	ug/L	0.475	23	7	143	22	KED
[	**As**	**75**	**11.688**	ug/L	0.218	1	6	3155	1	KED
[	**Se-1**	**78**	**0.626**	ug/L	0.119	19	25	43	11	KED
	Y	**89**		ug/L			619356	544379	3	Standard
	Kr	**83**		ug/L			31	41	19	Standard
[>	**In-1**	**115**		ug/L			34809	27814	1	KED
[	**Mo**	**98**	**2.047**	ug/L	0.096	4	3	2256	2	KED
[	**Cd**	**111**	**0.013**	ug/L	0.014	112	2	6	79	KED
[	**Cd**	**114**	**-0.016**	ug/L	0.017	104	3	-11	127	KED
[>	**In**	**115**		ug/L			769572	622126	2	Standard
[	**Ag**	**107**	**-0.005**	ug/L	0.001	23	121	40	30	Standard
[	**Sb**	**121**	**0.104**	ug/L	0.008	7	91	1029	5	Standard
[	**Sb**	**123**	**0.099**	ug/L	0.007	6	78	774	6	Standard
[	**Ba**	**135**	**21.556**	ug/L	0.385	1	23	65432	1	Standard
[	**Ba**	**137**	**20.445**	ug/L	0.872	4	48	113805	6	Standard
[>	**Tb**	**159**		ug/L			1026127	1014708	1	Standard
[	**Tl**	**205**	**0.016**	ug/L	0.001	7	86	381	6	Standard
[	**Pb**	**208**	**0.018**	ug/L	0.001	6	191	608	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0525-DUP2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 14:40:02
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	903957	11	Standard
	Be	**9**	**0.000**	ug/L	0.000	204	27	45	7	Standard
	C	**13**		ug/L			17606	46927	5	Standard
	Cl	**37**		ug/L			6613771	16809889	3	Standard
>	**Sc**	**45**		ug/L			1108166	1079635	1	Standard
	V	**51**	**0.091**	ug/L	0.423	464	5706	7505	120	Standard
	V-1	**51**	**5.242**	ug/L	0.114	2	834	113265	0	Standard
	Cr	**52**	**67.848**	ug/L	1.366	2	16644	1171157	1	Standard
	Cr	**53**	**82.751**	ug/L	1.631	1	322	166162	0	Standard
	Mn	**55**	**17.317**	ug/L	0.315	1	466	418130	0	Standard
>	**Ge-1**	**72**		ug/L			81114	69183	2	KED
	Co	**59**	**0.908**	ug/L	0.011	1	31	3728	1	KED
	Ni	**60**	**9.747**	ug/L	0.261	2	44	11159	1	KED
	Ni	**62**	**9.986**	ug/L	0.506	5	7	1740	3	KED
	Cu	**63**	**19.744**	ug/L	0.307	1	57	58232	1	KED
	Cu	**65**	**19.578**	ug/L	0.092	0	19	28617	2	KED
	Zn	**66**	**28.581**	ug/L	1.416	4	56	11592	2	KED
	Zn	**67**	**26.088**	ug/L	1.723	6	7	1757	7	KED
	As	**75**	**0.382**	ug/L	0.005	1	6	109	1	KED
	Se-1	**78**	**0.061**	ug/L	0.081	131	25	23	13	KED
	Y	**89**		ug/L			619356	578053	1	Standard
	Kr	**83**		ug/L			31	41	19	Standard
>	**In-1**	**115**		ug/L			34809	29388	1	KED
	Mo	**98**	**1.028**	ug/L	0.046	4	3	1199	2	KED
	Cd	**111**	**1.552**	ug/L	0.043	2	2	559	1	KED
	Cd	**114**	**1.532**	ug/L	0.047	3	3	1411	3	KED
>	**In**	**115**		ug/L			769572	652952	1	Standard
	Ag	**107**	**0.025**	ug/L	0.002	6	121	424	5	Standard
	Sb	**121**	**2.591**	ug/L	0.070	2	91	25085	1	Standard
	Sb	**123**	**2.541**	ug/L	0.080	3	78	19144	4	Standard
	Ba	**135**	**3.470**	ug/L	0.180	5	23	11069	4	Standard
	Ba	**137**	**3.308**	ug/L	0.119	3	48	19349	3	Standard
>	**Tb**	**159**		ug/L			1026127	1021558	3	Standard
	Tl	**205**	**0.002**	ug/L	0.001	40	86	115	10	Standard
	Pb	**208**	**2.092**	ug/L	0.048	2	191	47960	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0294-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 14:44:58
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	Li	6		ug/L			572696	877242	3	Standard
[	Be	9	0.000	ug/L	0.000	64	27	46	8	Standard
	C	13		ug/L			17606	50850	1	Standard
	Cl	37		ug/L			6613771	17850821	3	Standard
[>	Sc	45		ug/L			1108166	1089935	1	Standard
[	V	51	-0.231	ug/L	0.498	215	5706	780	1368	Standard
[	V-1	51	5.384	ug/L	0.140	2	834	117421	1	Standard
[	Cr	52	68.412	ug/L	0.745	1	16644	1192074	0	Standard
[	Cr	53	84.867	ug/L	2.866	3	322	172005	2	Standard
[	Mn	55	17.647	ug/L	0.319	1	466	430198	1	Standard
[>	Ge-1	72		ug/L			81114	68445	9	KED
[	Co	59	0.946	ug/L	0.100	10	31	3816	1	KED
[	Ni	60	10.180	ug/L	0.894	8	44	11472	2	KED
[	Ni	62	9.969	ug/L	0.726	7	7	1713	5	KED
[	Cu	63	20.728	ug/L	1.991	9	57	60137	1	KED
[	Cu	65	20.469	ug/L	2.231	10	19	29401	1	KED
[	Zn	66	30.106	ug/L	3.550	11	56	12000	2	KED
[	Zn	67	27.329	ug/L	3.526	12	7	1807	5	KED
[	As	75	0.420	ug/L	0.068	16	6	117	5	KED
[	Se-1	78	0.190	ug/L	0.110	57	25	27	3	KED
	Y	89		ug/L			619356	584006	1	Standard
	Kr	83		ug/L			31	45	11	Standard
[>	In-1	115		ug/L			34809	29918	1	KED
[	Mo	98	1.049	ug/L	0.021	2	3	1246	3	KED
[	Cd	111	1.558	ug/L	0.015	0	2	571	2	KED
[	Cd	114	1.553	ug/L	0.043	2	3	1456	1	KED
[>	In	115		ug/L			769572	652595	3	Standard
[	Ag	107	0.032	ug/L	0.003	10	121	505	4	Standard
[	Sb	121	2.577	ug/L	0.114	4	91	24920	1	Standard
[	Sb	123	2.541	ug/L	0.057	2	78	19121	1	Standard
[	Ba	135	3.438	ug/L	0.150	4	23	10955	1	Standard
[	Ba	137	3.304	ug/L	0.099	3	48	19304	0	Standard
[>	Tb	159		ug/L			1026127	1031958	3	Standard
[	Tl	205	0.002	ug/L	0.002	96	86	118	21	Standard
[	Pb	208	2.117	ug/L	0.121	5	191	48964	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0525-MS2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 14:49:53
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	Li	6		ug/L			572696	773729	5	Standard
[	Be	9	21.706	ug/L	1.287	5	27	143806	1	Standard
	C	13		ug/L			17606	47087	3	Standard
	Cl	37		ug/L			6613771	17308508	2	Standard
[>	Sc	45		ug/L			1108166	1109649	0	Standard
[	V	51	24.978	ug/L	1.123	4	5706	549994	3	Standard
[	V-1	51	30.489	ug/L	0.623	2	834	673164	1	Standard
[	Cr	52	95.057	ug/L	2.001	2	16644	1679856	1	Standard
[	Cr	53	111.096	ug/L	0.358	0	322	229213	0	Standard
[	Mn	55	41.672	ug/L	0.344	0	466	1033673	0	Standard
[>	Ge-1	72		ug/L			81114	73451	0	KED
[	Co	59	29.271	ug/L	0.821	2	31	126723	2	KED
[	Ni	60	36.404	ug/L	0.905	2	44	44157	1	KED
[	Ni	62	37.660	ug/L	0.996	2	7	6954	2	KED
[	Cu	63	46.572	ug/L	0.992	2	57	145786	1	KED
[	Cu	65	46.084	ug/L	1.855	4	19	71480	3	KED
[	Zn	66	107.473	ug/L	3.568	3	56	46168	2	KED
[	Zn	67	101.708	ug/L	2.680	2	7	7255	3	KED
[	As	75	25.817	ug/L	0.132	0	6	7449	0	KED
[	Se-1	78	77.398	ug/L	1.451	1	25	2908	0	KED
	Y	89		ug/L			619356	590288	0	Standard
	Kr	83		ug/L			31	61	12	Standard
[>	In-1	115		ug/L			34809	30211	0	KED
[	Mo	98	29.671	ug/L	0.390	1	3	35519	2	KED
[	Cd	111	26.390	ug/L	0.452	1	2	9749	1	KED
[	Cd	114	26.394	ug/L	0.555	2	3	24957	2	KED
[>	In	115		ug/L			769572	671336	1	Standard
[	Ag	107	23.292	ug/L	0.350	1	121	302672	0	Standard
[	Sb	121	29.083	ug/L	1.068	3	91	288789	3	Standard
[	Sb	123	29.054	ug/L	1.101	3	78	224205	2	Standard
[	Ba	135	31.358	ug/L	1.365	4	23	102720	4	Standard
[	Ba	137	31.054	ug/L	1.772	5	48	186333	4	Standard
[>	Tb	159		ug/L			1026127	1016965	4	Standard
[	Tl	205	26.231	ug/L	0.920	3	86	473918	3	Standard
[	Pb	208	27.762	ug/L	0.887	3	191	630858	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0525-BS2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 14:54:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	719160	3	Standard
⌊	**Be**	**9**	**22.088**	ug/L	0.712	3	27	136201	1	Standard
	C	**13**		ug/L			17606	28646	4	Standard
	Cl	**37**		ug/L			6613771	7401932	3	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1015125	2	Standard
⌈	**V**	**51**	**26.187**	ug/L	0.531	2	5706	527206	1	Standard
⌊	**V-1**	**51**	**26.348**	ug/L	0.285	1	834	532253	1	Standard
⌈	**Cr**	**52**	**26.310**	ug/L	0.719	2	16644	436266	1	Standard
⌊	**Cr**	**53**	**26.858**	ug/L	0.953	3	322	50911	3	Standard
⌊	**Mn**	**55**	**27.532**	ug/L	0.112	0	466	624948	2	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	78191	1	KED
⌈	**Co**	**59**	**26.886**	ug/L	0.566	2	31	123947	3	KED
⌊	**Ni**	**60**	**27.466**	ug/L	0.295	1	44	35479	1	KED
⌈	**Ni**	**62**	**27.624**	ug/L	1.100	3	7	5430	2	KED
⌈	**Cu**	**63**	**28.747**	ug/L	0.464	1	57	95821	1	KED
⌊	**Cu**	**65**	**27.500**	ug/L	0.401	1	19	45423	1	KED
⌈	**Zn**	**66**	**90.423**	ug/L	2.314	2	56	41359	1	KED
⌊	**Zn**	**67**	**82.182**	ug/L	0.804	0	7	6241	0	KED
⌈	**As**	**75**	**25.684**	ug/L	0.184	0	6	7889	1	KED
⌊	**Se-1**	**78**	**83.241**	ug/L	1.221	1	25	3328	1	KED
	Y	**89**		ug/L			619356	556351	2	Standard
	Kr	**83**		ug/L			31	36	13	Standard
⌈>	**In-1**	**115**		ug/L			34809	32238	0	KED
⌈	**Mo**	**98**	**25.563**	ug/L	0.985	3	3	32644	2	KED
⌈	**Cd**	**111**	**26.541**	ug/L	0.862	3	2	10462	2	KED
⌊	**Cd**	**114**	**26.785**	ug/L	0.255	0	3	27021	0	KED
⌈>	**In**	**115**		ug/L			769572	672836	0	Standard
⌈	**Ag**	**107**	**26.723**	ug/L	0.675	2	121	348041	2	Standard
⌈	**Sb**	**121**	**26.761**	ug/L	0.074	0	91	266358	0	Standard
⌈	**Sb**	**123**	**26.437**	ug/L	0.718	2	78	204517	2	Standard
⌈	**Ba**	**135**	**28.623**	ug/L	0.527	1	23	93968	1	Standard
⌊	**Ba**	**137**	**28.363**	ug/L	0.607	2	48	170649	1	Standard
⌈>	**Tb**	**159**		ug/L			1026127	997732	5	Standard
⌈	**Tl**	**205**	**28.151**	ug/L	1.692	6	86	498215	1	Standard
⌊	**Pb**	**208**	**28.404**	ug/L	2.249	7	191	631886	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 15:00:49
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	705487	9	Standard
	Be	**9**	**40.433**	ug/L	3.765	9	27	243243	0	Standard
	C	**13**		ug/L			17606	18937	2	Standard
	Cl	**37**		ug/L			6613771	7455357	1	Standard
>	**Sc**	**45**		ug/L			1108166	979451	1	Standard
	V	**51**	**49.877**	ug/L	1.152	2	5706	964603	3	Standard
	V-1	**51**	**49.517**	ug/L	1.350	2	834	964587	2	Standard
	Cr	**52**	**50.814**	ug/L	1.685	3	16644	799751	4	Standard
	Cr	**53**	**49.543**	ug/L	1.945	3	322	90366	3	Standard
	Mn	**55**	**49.722**	ug/L	1.407	2	466	1088448	2	Standard
>	**Ge-1**	**72**		ug/L			81114	75132	1	KED
	Co	**59**	**50.252**	ug/L	1.247	2	31	222586	3	KED
	Ni	**60**	**50.090**	ug/L	1.854	3	44	62127	3	KED
	Ni	**62**	**51.178**	ug/L	1.007	1	7	9662	0	KED
	Cu	**63**	**50.375**	ug/L	1.252	2	57	161347	3	KED
	Cu	**65**	**49.638**	ug/L	1.261	2	19	78783	3	KED
	Zn	**66**	**50.301**	ug/L	0.543	1	56	22133	0	KED
	Zn	**67**	**50.039**	ug/L	2.153	4	7	3653	3	KED
	As	**75**	**48.614**	ug/L	0.511	1	6	14341	0	KED
	Se-1	**78**	**48.794**	ug/L	0.406	0	25	1884	0	KED
	Y	**89**		ug/L			619356	558964	1	Standard
	Kr	**83**		ug/L			31	34	11	Standard
>	**In-1**	**115**		ug/L			34809	31169	1	KED
	Mo	**98**	**49.924**	ug/L	2.214	4	3	61619	2	KED
	Cd	**111**	**49.136**	ug/L	1.176	2	2	18724	1	KED
	Cd	**114**	**50.074**	ug/L	1.232	2	3	48825	0	KED
>	**In**	**115**		ug/L			769572	659482	1	Standard
	Ag	**107**	**49.081**	ug/L	2.152	4	121	626200	2	Standard
	Sb	**121**	**51.021**	ug/L	1.844	3	91	497510	2	Standard
	Sb	**123**	**50.322**	ug/L	0.707	1	78	381515	1	Standard
	Ba	**135**	**52.295**	ug/L	1.566	2	23	168225	2	Standard
	Ba	**137**	**53.504**	ug/L	1.245	2	48	315530	3	Standard
>	**Tb**	**159**		ug/L			1026127	989893	0	Standard
	Tl	**205**	**51.766**	ug/L	2.277	4	86	910779	3	Standard
	Pb	**208**	**51.386**	ug/L	2.215	4	191	1137216	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 15:08:29
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	721872	1	Standard
	Be	**9**	**-0.002**	ug/L	0.006	405	27	25	147	Standard
	C	**13**		ug/L			17606	18351	2	Standard
	Cl	**37**		ug/L			6613771	7175270	1	Standard
>	**Sc**	**45**		ug/L			1108166	967692	1	Standard
	V	**51**	**-0.014**	ug/L	0.007	48	5706	4717	0	Standard
	V-1	**51**	**0.030**	ug/L	0.006	20	834	1303	8	Standard
	Cr	**52**	**-0.043**	ug/L	0.017	38	16644	13873	0	Standard
	Cr	**53**	**0.108**	ug/L	0.011	10	322	475	4	Standard
	Mn	**55**	**0.014**	ug/L	0.015	109	466	699	44	Standard
>	**Ge-1**	**72**		ug/L			81114	73722	1	KED
	Co	**59**	**0.001**	ug/L	0.001	75	31	33	11	KED
	Ni	**60**	**-0.021**	ug/L	0.005	21	44	14	37	KED
	Ni	**62**	**-0.006**	ug/L	0.021	318	7	5	66	KED
	Cu	**63**	**-0.004**	ug/L	0.005	133	57	40	40	KED
	Cu	**65**	**0.006**	ug/L	0.003	44	19	27	16	KED
	Zn	**66**	**0.086**	ug/L	0.011	12	56	88	4	KED
	Zn	**67**	**0.090**	ug/L	0.026	28	7	13	14	KED
	As	**75**	**-0.001**	ug/L	0.010	1650	6	5	48	KED
	Se-1	**78**	**0.067**	ug/L	0.180	269	25	25	25	KED
	Y	**89**		ug/L			619356	540621	2	Standard
	Kr	**83**		ug/L			31	33	8	Standard
>	**In-1**	**115**		ug/L			34809	30543	1	KED
	Mo	**98**	**0.012**	ug/L	0.005	40	3	16	33	KED
	Cd	**111**	**0.002**	ug/L	0.004	246	2	2	57	KED
	Cd	**114**	**0.002**	ug/L	0.003	202	3	4	69	KED
>	**In**	**115**		ug/L			769572	680961	3	Standard
	Ag	**107**	**0.004**	ug/L	0.014	345	121	164	116	Standard
	Sb	**121**	**0.114**	ug/L	0.010	8	91	1229	10	Standard
	Sb	**123**	**0.119**	ug/L	0.022	18	78	1003	19	Standard
	Ba	**135**	**0.006**	ug/L	0.011	163	23	43	85	Standard
	Ba	**137**	**0.008**	ug/L	0.017	217	48	92	116	Standard
>	**Tb**	**159**		ug/L			1026127	973561	5	Standard
	Tl	**205**	**0.013**	ug/L	0.011	84	86	309	60	Standard
	Pb	**208**	**0.008**	ug/L	0.011	139	191	357	67	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0297-05
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 15:13:25
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	749587	8	Standard
	Be	9	-0.004	ug/L	0.001	20	27	13	28	Standard
	C	13		ug/L			17606	32980	0	Standard
	Cl	37		ug/L			6613771	7763288	2	Standard
>	Sc	45		ug/L			1108166	1106294	3	Standard
	V	51	18.268	ug/L	0.697	3	5706	402367	2	Standard
	V-1	51	18.433	ug/L	0.687	3	834	405860	2	Standard
	Cr	52	0.260	ug/L	0.050	19	16644	21138	1	Standard
	Cr	53	1.551	ug/L	0.043	2	322	3505	1	Standard
	Mn	55	0.822	ug/L	0.023	2	466	20767	2	Standard
>	Ge-1	72		ug/L			81114	67017	1	KED
	Co	59	0.149	ug/L	0.004	2	31	614	3	KED
	Ni	60	0.953	ug/L	0.097	10	44	1091	10	KED
	Ni	62	1.019	ug/L	0.009	0	7	177	0	KED
	Cu	63	1.950	ug/L	0.082	4	57	5613	3	KED
	Cu	65	1.971	ug/L	0.028	1	19	2805	2	KED
	Zn	66	14.927	ug/L	0.599	4	56	5890	3	KED
	Zn	67	14.323	ug/L	0.869	6	7	937	4	KED
	As	75	4.331	ug/L	0.061	1	6	1144	2	KED
	Se-1	78	0.704	ug/L	0.131	18	25	45	10	KED
	Y	89		ug/L			619356	535323	0	Standard
	Kr	83		ug/L			31	36	21	Standard
>	In-1	115		ug/L			34809	28164	2	KED
	Mo	98	1.605	ug/L	0.049	3	3	1792	1	KED
	Cd	111	0.002	ug/L	0.004	195	2	2	57	KED
	Cd	114	-0.003	ug/L	0.007	267	3	0	4857	KED
>	In	115		ug/L			769572	624972	2	Standard
	Ag	107	-0.004	ug/L	0.001	16	121	46	17	Standard
	Sb	121	0.109	ug/L	0.004	3	91	1078	4	Standard
	Sb	123	0.107	ug/L	0.007	6	78	828	4	Standard
	Ba	135	22.361	ug/L	1.449	6	23	68136	4	Standard
	Ba	137	21.235	ug/L	0.812	3	48	118639	2	Standard
>	Tb	159		ug/L			1026127	994558	2	Standard
	Tl	205	0.003	ug/L	0.001	16	86	144	4	Standard
	Pb	208	0.032	ug/L	0.000	1	191	902	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0297-07
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 15:18:20
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	798163	6	Standard
⌊	**Be**	**9**	**-0.002**	ug/L	0.003	167	27	27	79	Standard
	C	**13**		ug/L			17606	35202	3	Standard
	Cl	**37**		ug/L			6613771	7770729	2	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1141723	2	Standard
⌈	**V**	**51**	**18.720**	ug/L	0.787	4	5706	425492	3	Standard
⌊	**V-1**	**51**	**18.974**	ug/L	0.766	4	834	431241	3	Standard
⌈	**Cr**	**52**	**0.603**	ug/L	0.078	12	16644	27979	3	Standard
⌊	**Cr**	**53**	**2.203**	ug/L	0.041	1	322	5000	1	Standard
⌊	**Mn**	**55**	**0.815**	ug/L	0.071	8	466	21251	6	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	67364	1	KED
⌈	**Co**	**59**	**0.167**	ug/L	0.012	7	31	688	6	KED
⌊	**Ni**	**60**	**1.238**	ug/L	0.084	6	44	1412	7	KED
⌈	**Ni**	**62**	**1.112**	ug/L	0.286	25	7	194	24	KED
⌈	**Cu**	**63**	**1.903**	ug/L	0.018	0	57	5508	0	KED
⌊	**Cu**	**65**	**1.814**	ug/L	0.098	5	19	2595	4	KED
⌈	**Zn**	**66**	**1.603**	ug/L	0.097	6	56	677	4	KED
⌊	**Zn**	**67**	**2.516**	ug/L	0.225	8	7	170	9	KED
⌈	**As**	**75**	**5.842**	ug/L	0.218	3	6	1549	2	KED
⌊	**Se-1**	**78**	**0.619**	ug/L	0.100	16	25	42	7	KED
	Y	**89**		ug/L			619356	535699	1	Standard
	Kr	**83**		ug/L			31	33	19	Standard
⌈>	**In-1**	**115**		ug/L			34809	27880	3	KED
⌈	**Mo**	**98**	**1.761**	ug/L	0.116	6	3	1945	3	KED
⌈	**Cd**	**111**	**0.008**	ug/L	0.005	68	2	4	44	KED
⌊	**Cd**	**114**	**-0.004**	ug/L	0.002	66	3	0	267	KED
⌈>	**In**	**115**		ug/L			769572	634475	3	Standard
⌈	**Ag**	**107**	**-0.005**	ug/L	0.003	62	121	43	75	Standard
⌈	**Sb**	**121**	**0.117**	ug/L	0.012	10	91	1167	5	Standard
⌊	**Sb**	**123**	**0.120**	ug/L	0.001	0	78	942	3	Standard
⌈	**Ba**	**135**	**21.156**	ug/L	1.720	8	23	65375	4	Standard
⌊	**Ba**	**137**	**20.213**	ug/L	0.868	4	48	114601	3	Standard
⌈>	**Tb**	**159**		ug/L			1026127	998813	3	Standard
⌈	**Tl**	**205**	**0.004**	ug/L	0.003	65	86	153	30	Standard
⌊	**Pb**	**208**	**0.062**	ug/L	0.004	6	191	1567	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0297-09
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 15:23:16
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	865295	6	Standard
	Be	9	-0.003	ug/L	0.001	36	27	18	53	Standard
	C	13		ug/L			17606	80503	1	Standard
	Cl	37		ug/L			6613771	31021669	0	Standard
>	Sc	45		ug/L			1108166	1204686	1	Standard
	V	51	19.908	ug/L	0.281	1	5706	477176	1	Standard
	V-1	51	23.071	ug/L	0.238	1	834	553214	1	Standard
	Cr	52	0.302	ug/L	0.033	10	16644	23820	1	Standard
	Cr	53	11.918	ug/L	0.201	1	322	27008	2	Standard
	Mn	55	4.533	ug/L	0.059	1	466	122503	0	Standard
>	Ge-1	72		ug/L			81114	65238	0	KED
	Co	59	2.176	ug/L	0.049	2	31	8391	2	KED
	Ni	60	29.435	ug/L	0.100	0	44	31721	0	KED
	Ni	62	29.180	ug/L	0.994	3	7	4786	2	KED
	Cu	63	3.671	ug/L	0.071	1	57	10250	1	KED
	Cu	65	3.606	ug/L	0.149	4	19	4983	4	KED
	Zn	66	1.708	ug/L	0.097	5	56	696	5	KED
	Zn	67	4.537	ug/L	0.335	7	7	293	7	KED
	As	75	1.484	ug/L	0.040	2	6	385	3	KED
	Se-1	78	0.209	ug/L	0.121	58	25	27	14	KED
	Y	89		ug/L			619356	540420	0	Standard
	Kr	83		ug/L			31	110	23	Standard
>	In-1	115		ug/L			34809	27451	1	KED
	Mo	98	0.629	ug/L	0.028	4	3	686	3	KED
	Cd	111	0.011	ug/L	0.004	38	2	5	26	KED
	Cd	114	0.009	ug/L	0.015	167	3	9	125	KED
>	In	115		ug/L			769572	601485	1	Standard
	Ag	107	-0.002	ug/L	0.002	86	121	73	25	Standard
	Sb	121	0.054	ug/L	0.001	1	91	553	3	Standard
	Sb	123	0.055	ug/L	0.004	6	78	440	5	Standard
	Ba	135	66.430	ug/L	0.448	0	23	194944	1	Standard
	Ba	137	64.914	ug/L	1.566	2	48	349115	2	Standard
>	Tb	159		ug/L			1026127	975973	3	Standard
	Tl	205	0.014	ug/L	0.001	8	86	320	3	Standard
	Pb	208	0.042	ug/L	0.003	7	191	1099	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0297-11
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 15:28:11
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	845296	3	Standard
⌊	**Be**	**9**	**-0.005**	ug/L	0.001	13	27	6	62	Standard
	C	**13**		ug/L			17606	33968	2	Standard
	Cl	**37**		ug/L			6613771	7509497	3	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1051666	2	Standard
⌈	**V**	**51**	**-0.006**	ug/L	0.018	311	5706	5300	9	Standard
⌊	**V-1**	**51**	**0.431**	ug/L	0.005	1	834	9799	3	Standard
⌈	**Cr**	**52**	**0.018**	ug/L	0.032	176	16644	16103	6	Standard
⌊	**Cr**	**53**	**1.512**	ug/L	0.053	3	322	3258	4	Standard
	Mn	**55**	**28.351**	ug/L	0.751	2	466	666313	0	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	71069	2	KED
⌈	**Co**	**59**	**0.019**	ug/L	0.006	31	31	107	23	KED
⌊	**Ni**	**60**	**0.172**	ug/L	0.023	13	44	240	12	KED
⌈	**Ni**	**62**	**0.184**	ug/L	0.039	20	7	39	14	KED
⌈	**Cu**	**63**	**0.259**	ug/L	0.023	9	57	833	8	KED
⌊	**Cu**	**65**	**0.256**	ug/L	0.016	6	19	400	4	KED
⌈	**Zn**	**66**	**1.404**	ug/L	0.128	9	56	631	5	KED
⌊	**Zn**	**67**	**5.606**	ug/L	0.493	8	7	393	8	KED
⌈	**As**	**75**	**0.245**	ug/L	0.007	2	6	74	3	KED
⌊	**Se-1**	**78**	**-0.017**	ug/L	0.059	337	25	21	9	KED
	Y	**89**		ug/L			619356	569745	0	Standard
	Kr	**83**		ug/L			31	40	28	Standard
⌈>	**In-1**	**115**		ug/L			34809	29468	0	KED
⌈	**Mo**	**98**	**2.842**	ug/L	0.033	1	3	3321	1	KED
⌈	**Cd**	**111**	**0.006**	ug/L	0.003	47	2	4	26	KED
⌊	**Cd**	**114**	**-0.020**	ug/L	0.010	48	3	-16	56	KED
⌈>	**In**	**115**		ug/L			769572	661500	2	Standard
⌈	**Ag**	**107**	**-0.005**	ug/L	0.000	1	121	37	2	Standard
⌈	**Sb**	**121**	**0.013**	ug/L	0.001	7	91	202	3	Standard
⌊	**Sb**	**123**	**0.013**	ug/L	0.001	6	78	168	5	Standard
⌈	**Ba**	**135**	**73.977**	ug/L	3.392	4	23	238908	6	Standard
⌊	**Ba**	**137**	**73.559**	ug/L	1.458	1	48	434972	1	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1029630	5	Standard
⌈	**Tl**	**205**	**-0.000**	ug/L	0.001	184	86	78	24	Standard
⌊	**Pb**	**208**	**0.035**	ug/L	0.003	9	191	998	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0297-13
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 15:33:06
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	926315	6	Standard
	Be	9	-0.004	ug/L	0.000	8	27	12	24	Standard
	C	13		ug/L			17606	87268	2	Standard
	Cl	37		ug/L			6613771	41794088	2	Standard
>	Sc	45		ug/L			1108166	1263315	1	Standard
	V	51	10.302	ug/L	0.190	1	5706	262159	3	Standard
	V-1	51	14.897	ug/L	0.167	1	834	375027	2	Standard
	Cr	52	0.381	ug/L	0.036	9	16644	26555	1	Standard
	Cr	53	16.511	ug/L	0.125	0	322	39095	1	Standard
	Mn	55	101.035	ug/L	2.132	2	466	2852002	0	Standard
>	Ge-1	72		ug/L			81114	65726	0	KED
	Co	59	3.956	ug/L	0.057	1	31	15350	1	KED
	Ni	60	45.137	ug/L	0.531	1	44	48987	1	KED
	Ni	62	46.259	ug/L	1.372	2	7	7642	2	KED
	Cu	63	5.158	ug/L	0.066	1	57	14493	1	KED
	Cu	65	4.997	ug/L	0.108	2	19	6951	2	KED
	Zn	66	1.352	ug/L	0.028	2	56	565	1	KED
	Zn	67	3.815	ug/L	0.218	5	7	249	6	KED
	As	75	0.803	ug/L	0.050	6	6	212	6	KED
	Se-1	78	0.169	ug/L	0.167	98	25	26	21	KED
	Y	89		ug/L			619356	578338	3	Standard
	Kr	83		ug/L			31	149	7	Standard
>	In-1	115		ug/L			34809	28016	2	KED
	Mo	98	0.543	ug/L	0.026	4	3	605	2	KED
	Cd	111	0.013	ug/L	0.006	42	2	6	31	KED
	Cd	114	0.009	ug/L	0.015	162	3	10	122	KED
>	In	115		ug/L			769572	591859	1	Standard
	Ag	107	0.002	ug/L	0.001	51	121	118	12	Standard
	Sb	121	0.049	ug/L	0.003	6	91	498	3	Standard
	Sb	123	0.052	ug/L	0.002	4	78	411	4	Standard
	Ba	135	70.408	ug/L	4.057	5	23	203343	6	Standard
	Ba	137	69.204	ug/L	2.134	3	48	366192	3	Standard
>	Tb	159		ug/L			1026127	991546	1	Standard
	Tl	205	0.022	ug/L	0.001	4	86	478	4	Standard
	Pb	208	0.028	ug/L	0.002	7	191	800	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0297-15
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 15:38:02
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	853438	5	Standard
⌊	**Be**	**9**	**-0.002**	ug/L	0.001	44	27	25	33	Standard
	C	**13**		ug/L			17606	40589	4	Standard
	Cl	**37**		ug/L			6613771	8669381	1	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1141917	2	Standard
⌈	**V**	**51**	**13.168**	ug/L	0.204	1	5706	301219	3	Standard
⌊	**V-1**	**51**	**13.868**	ug/L	0.213	1	834	315590	3	Standard
⌈	**Cr**	**52**	**0.383**	ug/L	0.039	10	16644	24038	2	Standard
⌊	**Cr**	**53**	**3.292**	ug/L	0.068	2	322	7312	2	Standard
	Mn	**55**	**0.852**	ug/L	0.039	4	466	22235	6	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	72980	1	KED
⌈	**Co**	**59**	**0.233**	ug/L	0.009	3	31	1031	4	KED
⌊	**Ni**	**60**	**1.613**	ug/L	0.032	1	44	1981	0	KED
⌈	**Ni**	**62**	**1.595**	ug/L	0.090	5	7	299	4	KED
⌈	**Cu**	**63**	**2.523**	ug/L	0.033	1	57	7896	0	KED
⌊	**Cu**	**65**	**2.581**	ug/L	0.084	3	19	3995	3	KED
⌈	**Zn**	**66**	**1.076**	ug/L	0.074	6	56	509	7	KED
⌊	**Zn**	**67**	**2.327**	ug/L	0.418	17	7	171	16	KED
⌈	**As**	**75**	**4.780**	ug/L	0.140	2	6	1374	2	KED
⌊	**Se-1**	**78**	**0.586**	ug/L	0.202	34	25	44	17	KED
	Y	**89**		ug/L			619356	549802	2	Standard
	Kr	**83**		ug/L			31	46	16	Standard
⌈>	**In-1**	**115**		ug/L			34809	29502	0	KED
⌈	**Mo**	**98**	**2.022**	ug/L	0.052	2	3	2365	2	KED
⌈	**Cd**	**111**	**0.009**	ug/L	0.011	124	2	5	78	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.014	1038	3	1	895	KED
⌈>	**In**	**115**		ug/L			769572	637664	2	Standard
⌈	**Ag**	**107**	**-0.004**	ug/L	0.000	13	121	55	9	Standard
⌈	**Sb**	**121**	**0.115**	ug/L	0.001	1	91	1161	1	Standard
⌊	**Sb**	**123**	**0.115**	ug/L	0.009	7	78	907	5	Standard
⌈	**Ba**	**135**	**22.624**	ug/L	0.759	3	23	70376	2	Standard
⌊	**Ba**	**137**	**21.958**	ug/L	0.581	2	48	125222	3	Standard
⌈>	**Tb**	**159**		ug/L			1026127	1045059	0	Standard
⌈	**Tl**	**205**	**0.003**	ug/L	0.000	11	86	140	4	Standard
⌊	**Pb**	**208**	**0.028**	ug/L	0.001	4	191	851	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0480-DUP1
Sample Dil Factor: 10
Comments:
Sample Date/Time: Thursday, June 28, 2018 15:42:57
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	790279	3	Standard
	Be	**9**	**-0.005**	ug/L	0.000	4	27	1	100	Standard
	C	**13**		ug/L			17606	32599	3	Standard
	Cl	**37**		ug/L			6613771	54188837	3	Standard
>	**Sc**	**45**		ug/L			1108166	1152260	1	Standard
	V	**51**	**0.437**	ug/L	0.321	73	5706	15843	45	Standard
	V-1	**51**	**13.993**	ug/L	0.175	1	834	321275	0	Standard
	Cr	**52**	**1.144**	ug/L	0.048	4	16644	38075	1	Standard
	Cr	**53**	**47.519**	ug/L	1.458	3	322	101978	2	Standard
	Mn	**55**	**0.076**	ug/L	0.003	3	466	2438	3	Standard
>	**Ge-1**	**72**		ug/L			81114	68696	0	KED
	Co	**59**	**0.010**	ug/L	0.002	19	31	69	12	KED
	Ni	**60**	**0.043**	ug/L	0.006	15	44	86	9	KED
	Ni	**62**	**0.143**	ug/L	0.056	39	7	31	31	KED
	Cu	**63**	**0.129**	ug/L	0.014	10	57	427	10	KED
	Cu	**65**	**0.135**	ug/L	0.003	2	19	212	1	KED
	Zn	**66**	**0.670**	ug/L	0.122	18	56	316	15	KED
	Zn	**67**	**0.657**	ug/L	0.244	37	7	50	31	KED
	As	**75**	**0.463**	ug/L	0.017	3	6	130	4	KED
	Se-1	**78**	**0.208**	ug/L	0.045	21	25	28	5	KED
	Y	**89**		ug/L			619356	579148	4	Standard
	Kr	**83**		ug/L			31	400	12	Standard
>	**In-1**	**115**		ug/L			34809	27894	2	KED
	Mo	**98**	**0.929**	ug/L	0.021	2	3	1028	0	KED
	Cd	**111**	**0.041**	ug/L	0.005	11	2	15	9	KED
	Cd	**114**	**0.035**	ug/L	0.006	16	3	33	17	KED
>	**In**	**115**		ug/L			769572	607768	1	Standard
	Ag	**107**	**-0.001**	ug/L	0.001	74	121	80	15	Standard
	Sb	**121**	**0.469**	ug/L	0.026	5	91	4283	4	Standard
	Sb	**123**	**0.483**	ug/L	0.005	1	78	3437	1	Standard
	Ba	**135**	**2.884**	ug/L	0.057	1	23	8569	2	Standard
	Ba	**137**	**2.827**	ug/L	0.051	1	48	15394	0	Standard
>	**Tb**	**159**		ug/L			1026127	926305	2	Standard
	Tl	**205**	**0.005**	ug/L	0.001	10	86	160	6	Standard
	Pb	**208**	**0.021**	ug/L	0.003	14	191	610	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0248-08
Sample Dil Factor: 10
Comments:
Sample Date/Time: Thursday, June 28, 2018 15:47:53
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			572696	811246	1	Standard
	Be	9	-0.005	ug/L	0.000	8	27	4	65	Standard
	C	13		ug/L			17606	33760	2	Standard
	Cl	37		ug/L			6613771	58338534	1	Standard
>	Sc	45		ug/L			1108166	1212986	0	Standard
	V	51	0.443	ug/L	0.090	20	5706	16788	11	Standard
	V-1	51	13.967	ug/L	0.079	0	834	337628	1	Standard
	Cr	52	1.204	ug/L	0.041	3	16644	41259	2	Standard
	Cr	53	47.467	ug/L	0.580	1	322	107265	2	Standard
	Mn	55	0.120	ug/L	0.001	1	466	3765	1	Standard
>	Ge-1	72		ug/L			81114	76986	2	KED
	Co	59	0.007	ug/L	0.001	18	31	64	12	KED
	Ni	60	0.060	ug/L	0.013	21	44	118	11	KED
	Ni	62	0.170	ug/L	0.027	16	7	40	12	KED
	Cu	63	0.183	ug/L	0.007	3	57	653	1	KED
	Cu	65	0.190	ug/L	0.019	9	19	326	6	KED
	Zn	66	0.446	ug/L	0.069	15	56	254	14	KED
	Zn	67	0.624	ug/L	0.106	16	7	53	17	KED
	As	75	0.464	ug/L	0.023	4	6	146	1	KED
	Se-1	78	0.190	ug/L	0.140	73	25	31	14	KED
	Y	89		ug/L			619356	605988	1	Standard
	Kr	83		ug/L			31	455	2	Standard
>	In-1	115		ug/L			34809	30451	1	KED
	Mo	98	0.903	ug/L	0.021	2	3	1092	3	KED
	Cd	111	0.037	ug/L	0.005	14	2	15	12	KED
	Cd	114	0.033	ug/L	0.003	8	3	34	8	KED
>	In	115		ug/L			769572	641379	0	Standard
	Ag	107	-0.002	ug/L	0.001	65	121	78	18	Standard
	Sb	121	0.465	ug/L	0.012	2	91	4483	3	Standard
	Sb	123	0.454	ug/L	0.022	4	78	3414	4	Standard
	Ba	135	2.811	ug/L	0.158	5	23	8811	4	Standard
	Ba	137	2.720	ug/L	0.066	2	48	15640	3	Standard
>	Tb	159		ug/L			1026127	922069	0	Standard
	Tl	205	0.004	ug/L	0.001	16	86	136	6	Standard
	Pb	208	0.019	ug/L	0.001	6	191	566	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0480-MS1
Sample Dil Factor: 10
Comments:
Sample Date/Time: Thursday, June 28, 2018 15:52:48
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	820734	5	Standard
	Be	**9**	**2.053**	ug/L	0.117	5	27	14463	1	Standard
	C	**13**		ug/L			17606	33808	1	Standard
	Cl	**37**		ug/L			6613771	56184217	2	Standard
>	**Sc**	**45**		ug/L			1108166	1189447	1	Standard
	V	**51**	**2.936**	ug/L	0.295	10	5706	74656	7	Standard
	V-1	**51**	**16.286**	ug/L	0.163	1	834	385861	0	Standard
	Cr	**52**	**3.748**	ug/L	0.125	3	16644	88141	1	Standard
	Cr	**53**	**49.413**	ug/L	0.813	1	322	109481	2	Standard
	Mn	**55**	**2.576**	ug/L	0.016	0	466	68973	1	Standard
>	**Ge-1**	**72**		ug/L			81114	77300	2	KED
	Co	**59**	**2.870**	ug/L	0.029	1	31	13101	1	KED
	Ni	**60**	**2.772**	ug/L	0.065	2	44	3576	1	KED
	Ni	**62**	**2.849**	ug/L	0.096	3	7	560	0	KED
	Cu	**63**	**2.684**	ug/L	0.092	3	57	8890	1	KED
	Cu	**65**	**2.653**	ug/L	0.114	4	19	4346	2	KED
	Zn	**66**	**7.901**	ug/L	0.225	2	56	3620	0	KED
	Zn	**67**	**7.809**	ug/L	0.351	4	7	592	1	KED
	As	**75**	**3.059**	ug/L	0.063	2	6	934	1	KED
	Se-1	**78**	**7.938**	ug/L	0.441	5	25	335	3	KED
	Y	**89**		ug/L			619356	590313	1	Standard
	Kr	**83**		ug/L			31	529	4	Standard
>	**In-1**	**115**		ug/L			34809	30407	2	KED
	Mo	**98**	**1.005**	ug/L	0.072	7	3	1212	5	KED
	Cd	**111**	**2.365**	ug/L	0.094	3	2	880	1	KED
	Cd	**114**	**2.329**	ug/L	0.123	5	3	2217	4	KED
>	**In**	**115**		ug/L			769572	614143	3	Standard
	Ag	**107**	**2.479**	ug/L	0.075	3	121	29535	0	Standard
	Sb	**121**	**0.492**	ug/L	0.022	4	91	4537	2	Standard
	Sb	**123**	**0.486**	ug/L	0.017	3	78	3494	5	Standard
	Ba	**135**	**5.851**	ug/L	0.326	5	23	17530	3	Standard
	Ba	**137**	**5.463**	ug/L	0.311	5	48	30001	3	Standard
>	**Tb**	**159**		ug/L			1026127	931080	2	Standard
	Tl	**205**	**2.482**	ug/L	0.096	3	86	41136	2	Standard
	Pb	**208**	**2.463**	ug/L	0.011	0	191	51445	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-IBL4
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 15:57:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	695343	1	Standard
	Be	**9**	**-0.005**	ug/L	0.001	16	27	5	94	Standard
	C	**13**		ug/L			17606	22447	2	Standard
	Cl	**37**		ug/L			6613771	8285675	1	Standard
>	**Sc**	**45**		ug/L			1108166	1093692	2	Standard
	V	**51**	**0.061**	ug/L	0.010	15	5706	6953	5	Standard
	V-1	**51**	**0.668**	ug/L	0.034	5	834	15353	7	Standard
	Cr	**52**	**0.155**	ug/L	0.019	12	16644	19109	4	Standard
	Cr	**53**	**2.228**	ug/L	0.108	4	322	4845	6	Standard
	Mn	**55**	**0.022**	ug/L	0.002	8	466	986	3	Standard
>	**Ge-1**	**72**		ug/L			81114	87286	1	KED
	Co	**59**	**-0.000**	ug/L	0.001	888	31	33	11	KED
	Ni	**60**	**-0.009**	ug/L	0.004	49	44	35	17	KED
	Ni	**62**	**0.044**	ug/L	0.025	56	7	17	30	KED
	Cu	**63**	**0.009**	ug/L	0.005	52	57	95	20	KED
	Cu	**65**	**0.018**	ug/L	0.006	35	19	53	21	KED
	Zn	**66**	**0.335**	ug/L	0.017	5	56	231	4	KED
	Zn	**67**	**0.375**	ug/L	0.097	25	7	40	21	KED
	As	**75**	**0.003**	ug/L	0.007	217	6	8	29	KED
	Se-1	**78**	**0.057**	ug/L	0.069	121	25	30	9	KED
	Y	**89**		ug/L			619356	574145	0	Standard
	Kr	**83**		ug/L			31	76	19	Standard
>	**In-1**	**115**		ug/L			34809	35082	1	KED
	Mo	**98**	**0.001**	ug/L	0.002	328	3	4	63	KED
	Cd	**111**	**-0.001**	ug/L	0.002	300	2	1	50	KED
	Cd	**114**	**0.001**	ug/L	0.003	281	3	4	72	KED
>	**In**	**115**		ug/L			769572	693007	5	Standard
	Ag	**107**	**-0.005**	ug/L	0.001	11	121	38	18	Standard
	Sb	**121**	**-0.004**	ug/L	0.001	37	91	45	34	Standard
	Sb	**123**	**-0.003**	ug/L	0.000	12	78	47	10	Standard
	Ba	**135**	**0.017**	ug/L	0.005	28	23	76	15	Standard
	Ba	**137**	**0.011**	ug/L	0.000	3	48	111	3	Standard
>	**Tb**	**159**		ug/L			1026127	1001029	1	Standard
	Tl	**205**	**0.028**	ug/L	0.001	3	86	584	1	Standard
	Pb	**208**	**0.004**	ug/L	0.001	18	191	271	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 16:03:44
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			572696	630357	7	Standard
	Be	**9**	**44.502**	ug/L	4.506	10	27	239547	3	Standard
	C	**13**		ug/L			17606	18599	3	Standard
	Cl	**37**		ug/L			6613771	7742395	3	Standard
>	**Sc**	**45**		ug/L			1108166	1044634	1	Standard
	V	**51**	**48.794**	ug/L	1.033	2	5706	1006367	1	Standard
	V-1	**51**	**48.932**	ug/L	0.558	1	834	1016616	1	Standard
	Cr	**52**	**50.190**	ug/L	0.574	1	16644	842360	0	Standard
	Cr	**53**	**50.607**	ug/L	1.541	3	322	98464	3	Standard
	Mn	**55**	**48.957**	ug/L	0.743	1	466	1143133	1	Standard
>	**Ge-1**	**72**		ug/L			81114	81577	2	KED
	Co	**59**	**50.242**	ug/L	0.956	1	31	241515	0	KED
	Ni	**60**	**48.790**	ug/L	1.665	3	44	65684	1	KED
	Ni	**62**	**50.417**	ug/L	1.301	2	7	10335	2	KED
	Cu	**63**	**50.191**	ug/L	2.089	4	57	174407	2	KED
	Cu	**65**	**49.553**	ug/L	0.521	1	19	85376	2	KED
	Zn	**66**	**50.583**	ug/L	0.588	1	56	24166	2	KED
	Zn	**67**	**48.267**	ug/L	1.103	2	7	3826	0	KED
	As	**75**	**48.451**	ug/L	0.604	1	6	15518	1	KED
	Se-1	**78**	**48.855**	ug/L	1.283	2	25	2048	1	KED
	Y	**89**		ug/L			619356	566200	2	Standard
	Kr	**83**		ug/L			31	66	9	Standard
>	**In-1**	**115**		ug/L			34809	33323	5	KED
	Mo	**98**	**49.105**	ug/L	2.672	5	3	64713	0	KED
	Cd	**111**	**48.777**	ug/L	2.725	5	2	19839	0	KED
	Cd	**114**	**48.823**	ug/L	2.346	4	3	50834	1	KED
>	**In**	**115**		ug/L			769572	668912	3	Standard
	Ag	**107**	**51.121**	ug/L	1.202	2	121	661573	1	Standard
	Sb	**121**	**50.714**	ug/L	1.563	3	91	501454	0	Standard
	Sb	**123**	**50.419**	ug/L	1.908	3	78	387451	1	Standard
	Ba	**135**	**53.698**	ug/L	2.897	5	23	175098	3	Standard
	Ba	**137**	**52.257**	ug/L	3.341	6	48	312189	3	Standard
>	**Tb**	**159**		ug/L			1026127	968596	2	Standard
	Tl	**205**	**52.417**	ug/L	2.392	4	86	901839	1	Standard
	Pb	**208**	**51.480**	ug/L	0.579	1	191	1114810	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 16:11:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			572696	671726	4	Standard
⌊	**Be**	**9**	**-0.003**	ug/L	0.002	70	27	13	102	Standard
	C	**13**		ug/L			17606	18190	0	Standard
	Cl	**37**		ug/L			6613771	7530496	0	Standard
⌈>	**Sc**	**45**		ug/L			1108166	1030058	1	Standard
⌈	**V**	**51**	**-0.009**	ug/L	0.005	53	5706	5124	0	Standard
⌊	**V-1**	**51**	**0.143**	ug/L	0.008	5	834	3710	4	Standard
⌈	**Cr**	**52**	**-0.042**	ug/L	0.008	18	16644	14783	0	Standard
⌊	**Cr**	**53**	**0.480**	ug/L	0.025	5	322	1218	4	Standard
⌊	**Mn**	**55**	**0.011**	ug/L	0.002	16	466	690	4	Standard
⌈>	**Ge-1**	**72**		ug/L			81114	78648	1	KED
⌈	**Co**	**59**	**0.001**	ug/L	0.001	137	31	34	16	KED
⌊	**Ni**	**60**	**-0.016**	ug/L	0.011	69	44	22	60	KED
⌈	**Ni**	**62**	**0.049**	ug/L	0.028	56	7	17	33	KED
⌈	**Cu**	**63**	**0.001**	ug/L	0.005	424	57	59	25	KED
⌊	**Cu**	**65**	**0.006**	ug/L	0.008	133	19	28	43	KED
⌈	**Zn**	**66**	**0.088**	ug/L	0.016	17	56	95	7	KED
⌊	**Zn**	**67**	**0.086**	ug/L	0.030	35	7	13	15	KED
⌈	**As**	**75**	**-0.005**	ug/L	0.004	80	6	4	24	KED
⌊	**Se-1**	**78**	**0.079**	ug/L	0.069	87	25	27	9	KED
	Y	**89**		ug/L			619356	550473	0	Standard
	Kr	**83**		ug/L			31	33	14	Standard
⌈>	**In-1**	**115**		ug/L			34809	33585	2	KED
⌈	**Mo**	**98**	**0.013**	ug/L	0.009	70	3	20	58	KED
⌈	**Cd**	**111**	**-0.001**	ug/L	0.001	105	2	1	34	KED
⌊	**Cd**	**114**	**-0.001**	ug/L	0.003	250	3	1	203	KED
⌈>	**In**	**115**		ug/L			769572	680294	4	Standard
⌈	**Ag**	**107**	**-0.003**	ug/L	0.002	68	121	62	54	Standard
⌈	**Sb**	**121**	**0.110**	ug/L	0.007	6	91	1185	6	Standard
⌊	**Sb**	**123**	**0.113**	ug/L	0.006	5	78	952	2	Standard
⌈	**Ba**	**135**	**0.000**	ug/L	0.002	569	23	21	22	Standard
⌊	**Ba**	**137**	**0.001**	ug/L	0.003	312	48	48	41	Standard
⌈>	**Tb**	**159**		ug/L			1026127	982681	1	Standard
⌈	**Tl**	**205**	**0.009**	ug/L	0.002	19	86	232	12	Standard
⌊	**Pb**	**208**	**0.005**	ug/L	0.002	41	191	290	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CAL1
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 16:16:19
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L				680888	10	Standard
	Be	**9**		ug/L				2	86	Standard
	C	**13**		ug/L				18086	1	Standard
	Cl	**37**		ug/L				7449359	1	Standard
>	**Sc**	**45**		ug/L				978216	7	Standard
	V	**51**		ug/L				4861	1	Standard
	V-1	**51**		ug/L				2839	2	Standard
	Cr	**52**		ug/L				14201	2	Standard
	Cr	**53**		ug/L				957	5	Standard
	Mn	**55**		ug/L				647	3	Standard
>	**Ge-1**	**72**		ug/L				76539	1	KED
	Co	**59**		ug/L				33	3	KED
	Ni	**60**		ug/L				15	25	KED
	Ni	**62**		ug/L				16	40	KED
	Cu	**63**		ug/L				45	14	KED
	Cu	**65**		ug/L				20	23	KED
	Zn	**66**		ug/L				108	8	KED
	Zn	**67**		ug/L				17	40	KED
	As	**75**		ug/L				5	28	KED
	Se-1	**78**		ug/L				24	4	KED
	Y	**89**		ug/L				538258	9	Standard
	Kr	**83**		ug/L				36	31	Standard
>	**In-1**	**115**		ug/L				32248	1	KED
	Mo	**98**		ug/L				11	9	KED
	Cd	**111**		ug/L				0	86	KED
	Cd	**114**		ug/L				1	225	KED
>	**In**	**115**		ug/L				647272	3	Standard
	Ag	**107**		ug/L				55	48	Standard
	Sb	**121**		ug/L				308	3	Standard
	Sb	**123**		ug/L				245	2	Standard
	Ba	**135**		ug/L				22	38	Standard
	Ba	**137**		ug/L				45	4	Standard
>	**Tb**	**159**		ug/L				939696	10	Standard
	Tl	**205**		ug/L				211	8	Standard
	Pb	**208**		ug/L				282	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCV9
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 16:21:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	735127	2	Standard
	Be	**9**	**37.937**	ug/L	0.229	0	2	239198	1	Standard
	C	**13**		ug/L			18086	19001	3	Standard
	Cl	**37**		ug/L			7449359	7421872	2	Standard
>	**Sc**	**45**		ug/L			978216	989399	1	Standard
	V	**51**	**48.760**	ug/L	0.379	0	4861	952377	0	Standard
	V-1	**51**	**48.722**	ug/L	0.526	1	2839	960844	0	Standard
	Cr	**52**	**49.747**	ug/L	1.094	2	14201	790563	2	Standard
	Cr	**53**	**49.579**	ug/L	1.005	2	957	92041	2	Standard
	Mn	**55**	**49.293**	ug/L	2.332	4	647	1090410	4	Standard
>	**Ge-1**	**72**		ug/L			76539	76756	1	KED
	Co	**59**	**49.603**	ug/L	1.328	2	33	224359	1	KED
	Ni	**60**	**50.237**	ug/L	0.850	1	15	63630	0	KED
	Ni	**62**	**50.988**	ug/L	1.414	2	16	9843	1	KED
	Cu	**63**	**50.337**	ug/L	2.037	4	45	164610	2	KED
	Cu	**65**	**48.651**	ug/L	1.169	2	20	78863	1	KED
	Zn	**66**	**50.086**	ug/L	0.707	1	108	22569	0	KED
	Zn	**67**	**47.508**	ug/L	2.023	4	17	3554	3	KED
	As	**75**	**47.502**	ug/L	1.206	2	5	14312	1	KED
	Se-1	**78**	**48.787**	ug/L	1.270	2	24	1925	1	KED
	Y	**89**		ug/L			538258	549506	3	Standard
	Kr	**83**		ug/L			36	45	19	Standard
>	**In-1**	**115**		ug/L			32248	31845	4	KED
	Mo	**98**	**48.841**	ug/L	2.317	4	11	61549	0	KED
	Cd	**111**	**48.591**	ug/L	2.169	4	0	18897	1	KED
	Cd	**114**	**48.424**	ug/L	2.419	4	1	48189	1	KED
>	**In**	**115**		ug/L			647272	671994	3	Standard
	Ag	**107**	**46.792**	ug/L	2.765	5	55	607753	2	Standard
	Sb	**121**	**50.023**	ug/L	1.688	3	308	497078	0	Standard
	Sb	**123**	**48.371**	ug/L	0.610	1	245	373789	2	Standard
	Ba	**135**	**50.382**	ug/L	1.629	3	22	165072	0	Standard
	Ba	**137**	**50.243**	ug/L	2.304	4	45	301695	3	Standard
>	**Tb**	**159**		ug/L			939696	994020	5	Standard
	Tl	**205**	**51.825**	ug/L	4.944	9	211	913232	5	Standard
	Pb	**208**	**51.745**	ug/L	2.565	4	282	1148337	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCB9
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 16:28:55
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	744523	8	Standard
	Be	**9**	**0.000**	ug/L	0.000	131	2	4	49	Standard
	C	**13**		ug/L			18086	18426	3	Standard
	Cl	**37**		ug/L			7449359	7200003	1	Standard
>	**Sc**	**45**		ug/L			978216	994315	4	Standard
	V	**51**	**-0.006**	ug/L	0.001	19	4861	4823	3	Standard
	V-1	**51**	**-0.064**	ug/L	0.001	1	2839	1621	3	Standard
	Cr	**52**	**-0.023**	ug/L	0.003	11	14201	14077	3	Standard
	Cr	**53**	**-0.220**	ug/L	0.002	1	957	566	3	Standard
	Mn	**55**	**-0.005**	ug/L	0.001	27	647	555	5	Standard
>	**Ge-1**	**72**		ug/L			76539	72319	3	KED
	Co	**59**	**-0.000**	ug/L	0.002	336	33	29	26	KED
	Ni	**60**	**0.011**	ug/L	0.013	119	15	27	58	KED
	Ni	**62**	**-0.031**	ug/L	0.031	100	16	10	57	KED
	Cu	**63**	**0.002**	ug/L	0.002	93	45	50	9	KED
	Cu	**65**	**-0.003**	ug/L	0.003	103	20	14	32	KED
	Zn	**66**	**-0.071**	ug/L	0.030	41	108	72	17	KED
	Zn	**67**	**-0.031**	ug/L	0.095	311	17	14	45	KED
	As	**75**	**0.007**	ug/L	0.005	74	5	6	20	KED
	Se-1	**78**	**-0.032**	ug/L	0.079	250	24	22	13	KED
	Y	**89**		ug/L			538258	552143	1	Standard
	Kr	**83**		ug/L			36	34	6	Standard
>	**In-1**	**115**		ug/L			32248	31071	0	KED
	Mo	**98**	**0.004**	ug/L	0.003	90	11	15	25	KED
	Cd	**111**	**0.006**	ug/L	0.002	41	0	2	33	KED
	Cd	**114**	**0.003**	ug/L	0.003	91	1	4	70	KED
>	**In**	**115**		ug/L			647272	672253	2	Standard
	Ag	**107**	**0.000**	ug/L	0.001	399	55	61	23	Standard
	Sb	**121**	**0.096**	ug/L	0.011	11	308	1274	6	Standard
	Sb	**123**	**0.095**	ug/L	0.008	8	245	985	3	Standard
	Ba	**135**	**-0.002**	ug/L	0.000	25	22	17	6	Standard
	Ba	**137**	**-0.000**	ug/L	0.001	308	45	45	15	Standard
>	**Tb**	**159**		ug/L			939696	1011171	1	Standard
	Tl	**205**	**-0.002**	ug/L	0.001	61	211	193	9	Standard
	Pb	**208**	**-0.000**	ug/L	0.001	315	282	295	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0297-17
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 16:33:51
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			680888	837201	3	Standard
⌊	**Be**	**9**	**0.001**	ug/L	0.000	37	2	7	25	Standard
	C	**13**		ug/L			18086	51495	1	Standard
	Cl	**37**		ug/L			7449359	17417702	3	Standard
⌈>	**Sc**	**45**		ug/L			978216	1178103	1	Standard
⌈	**V**	**51**	**17.781**	ug/L	0.157	0	4861	417251	0	Standard
⌊	**V-1**	**51**	**19.006**	ug/L	0.161	0	2839	448396	1	Standard
⌈	**Cr**	**52**	**0.207**	ug/L	0.016	7	14201	20955	2	Standard
⌊	**Cr**	**53**	**5.109**	ug/L	0.083	1	957	12328	2	Standard
⌊	**Mn**	**55**	**17.606**	ug/L	0.167	0	647	464256	2	Standard
⌈>	**Ge-1**	**72**		ug/L			76539	64925	3	KED
⌈	**Co**	**59**	**2.760**	ug/L	0.054	1	33	10586	3	KED
⌊	**Ni**	**60**	**15.475**	ug/L	0.554	3	15	16581	1	KED
⌈	**Ni**	**62**	**15.433**	ug/L	0.876	5	16	2527	3	KED
⌈	**Cu**	**63**	**5.403**	ug/L	0.174	3	45	14976	0	KED
⌊	**Cu**	**65**	**5.420**	ug/L	0.068	1	20	7447	1	KED
⌈	**Zn**	**66**	**1.470**	ug/L	0.032	2	108	649	2	KED
⌊	**Zn**	**67**	**8.669**	ug/L	0.103	1	17	561	4	KED
⌈	**As**	**75**	**3.825**	ug/L	0.088	2	5	978	2	KED
⌊	**Se-1**	**78**	**0.233**	ug/L	0.071	30	24	28	9	KED
	Y	**89**		ug/L			538258	537202	2	Standard
	Kr	**83**		ug/L			36	85	4	Standard
⌈>	**In-1**	**115**		ug/L			32248	27249	1	KED
⌈	**Mo**	**98**	**0.525**	ug/L	0.066	12	11	576	12	KED
⌈	**Cd**	**111**	**0.020**	ug/L	0.004	22	0	7	19	KED
⌊	**Cd**	**114**	**0.003**	ug/L	0.010	300	1	3	227	KED
⌈>	**In**	**115**		ug/L			647272	593155	2	Standard
⌈	**Ag**	**107**	**0.002**	ug/L	0.001	47	55	77	14	Standard
⌈	**Sb**	**121**	**0.069**	ug/L	0.008	10	308	890	5	Standard
⌊	**Sb**	**123**	**0.068**	ug/L	0.000	0	245	687	2	Standard
⌈	**Ba**	**135**	**165.414**	ug/L	7.838	4	22	478349	2	Standard
⌊	**Ba**	**137**	**161.243**	ug/L	12.322	7	45	854179	5	Standard
⌈>	**Tb**	**159**		ug/L			939696	963784	2	Standard
⌈	**Tl**	**205**	**0.010**	ug/L	0.000	2	211	382	2	Standard
⌊	**Pb**	**208**	**0.059**	ug/L	0.003	5	282	1553	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0304-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 16:38:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			680888	854385	6	Standard
	Be	9	0.001	ug/L	0.001	78	2	11	60	Standard
	C	13		ug/L			18086	48357	3	Standard
	Cl	37		ug/L			7449359	11087473	4	Standard
>	Sc	45		ug/L			978216	1168284	1	Standard
	V	51	3.166	ug/L	0.073	2	4861	78467	3	Standard
	V-1	51	4.827	ug/L	0.072	1	2839	115478	3	Standard
	Cr	52	0.198	ug/L	0.029	14	14201	20622	4	Standard
	Cr	53	6.003	ug/L	0.090	1	957	14166	2	Standard
	Mn	55	5.122	ug/L	0.084	1	647	134496	3	Standard
>	Ge-1	72		ug/L			76539	69161	1	KED
	Co	59	0.080	ug/L	0.001	1	33	354	1	KED
	Ni	60	0.769	ug/L	0.032	4	15	891	4	KED
	Ni	62	0.754	ug/L	0.068	9	16	146	9	KED
	Cu	63	2.496	ug/L	0.089	3	45	7394	1	KED
	Cu	65	2.474	ug/L	0.070	2	20	3632	4	KED
	Zn	66	30.801	ug/L	1.930	6	108	12536	4	KED
	Zn	67	30.402	ug/L	0.840	2	17	2055	1	KED
	As	75	1.251	ug/L	0.049	3	5	343	2	KED
	Se-1	78	0.173	ug/L	0.111	64	24	28	12	KED
	Y	89		ug/L			538258	542812	1	Standard
	Kr	83		ug/L			36	46	30	Standard
>	In-1	115		ug/L			32248	28217	0	KED
	Mo	98	0.443	ug/L	0.009	1	11	505	2	KED
	Cd	111	0.021	ug/L	0.009	39	0	7	36	KED
	Cd	114	0.009	ug/L	0.007	77	1	8	68	KED
>	In	115		ug/L			647272	638841	3	Standard
	Ag	107	0.001	ug/L	0.001	92	55	71	17	Standard
	Sb	121	0.162	ug/L	0.010	5	308	1832	1	Standard
	Sb	123	0.158	ug/L	0.003	1	245	1403	2	Standard
	Ba	135	39.771	ug/L	0.594	1	22	124015	5	Standard
	Ba	137	37.802	ug/L	1.396	3	45	215808	2	Standard
>	Tb	159		ug/L			939696	998571	2	Standard
	Tl	205	-0.008	ug/L	0.001	12	211	81	23	Standard
	Pb	208	0.139	ug/L	0.005	3	282	3397	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0334-02
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 16:43:42
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			680888	892928	2	Standard
	Be	9	0.001	ug/L	0.000	86	2	7	50	Standard
	C	13		ug/L			18086	34457	3	Standard
	Cl	37		ug/L			7449359	7147796	0	Standard
>	Sc	45		ug/L			978216	1028871	1	Standard
	V	51	-0.015	ug/L	0.004	29	4861	4813	1	Standard
	V-1	51	-0.008	ug/L	0.004	43	2839	2822	3	Standard
	Cr	52	-0.050	ug/L	0.030	61	14201	14130	3	Standard
	Cr	53	-0.025	ug/L	0.003	13	957	960	1	Standard
	Mn	55	48.090	ug/L	0.561	1	647	1106127	0	Standard
>	Ge-1	72		ug/L			76539	65721	1	KED
	Co	59	0.009	ug/L	0.005	61	33	62	34	KED
	Ni	60	0.127	ug/L	0.020	15	15	150	14	KED
	Ni	62	0.080	ug/L	0.015	18	16	27	8	KED
	Cu	63	0.364	ug/L	0.027	7	45	1059	8	KED
	Cu	65	0.372	ug/L	0.044	11	20	533	12	KED
	Zn	66	9.510	ug/L	0.394	4	108	3743	2	KED
	Zn	67	10.825	ug/L	0.227	2	17	705	1	KED
	As	75	3.012	ug/L	0.082	2	5	781	2	KED
	Se-1	78	0.033	ug/L	0.021	65	24	22	3	KED
	Y	89		ug/L			538258	518993	0	Standard
	Kr	83		ug/L			36	46	42	Standard
>	In-1	115		ug/L			32248	26926	2	KED
	Mo	98	15.466	ug/L	0.365	2	11	16503	1	KED
	Cd	111	0.014	ug/L	0.005	34	0	5	28	KED
	Cd	114	0.015	ug/L	0.009	56	1	13	51	KED
>	In	115		ug/L			647272	603147	1	Standard
	Ag	107	-0.001	ug/L	0.001	78	55	38	25	Standard
	Sb	121	-0.007	ug/L	0.003	41	308	226	12	Standard
	Sb	123	-0.008	ug/L	0.003	38	245	175	10	Standard
	Ba	135	50.708	ug/L	0.157	0	22	149230	2	Standard
	Ba	137	48.838	ug/L	0.954	1	45	263413	3	Standard
>	Tb	159		ug/L			939696	1021608	1	Standard
	Tl	205	-0.009	ug/L	0.000	4	211	69	12	Standard
	Pb	208	0.041	ug/L	0.001	3	282	1239	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0335-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 16:48:38
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			680888	943159	7	Standard
	Be	9	0.003	ug/L	0.002	59	2	24	48	Standard
	C	13		ug/L			18086	35914	1	Standard
	Cl	37		ug/L			7449359	6437727	1	Standard
>	Sc	45		ug/L			978216	959976	1	Standard
	V	51	1.161	ug/L	0.059	5	4861	26657	2	Standard
	V-1	51	1.164	ug/L	0.048	4	2839	24978	2	Standard
	Cr	52	0.730	ug/L	0.073	9	14201	24973	3	Standard
	Cr	53	0.755	ug/L	0.023	3	957	2285	0	Standard
	Mn	55	0.220	ug/L	0.014	6	647	5359	4	Standard
>	Ge-1	72		ug/L			76539	58855	1	KED
	Co	59	0.062	ug/L	0.002	3	33	239	2	KED
	Ni	60	1.573	ug/L	0.058	3	15	1538	2	KED
	Ni	62	1.504	ug/L	0.105	6	16	234	6	KED
	Cu	63	1.828	ug/L	0.086	4	45	4617	3	KED
	Cu	65	1.833	ug/L	0.043	2	20	2294	4	KED
	Zn	66	1.444	ug/L	0.090	6	108	579	3	KED
	Zn	67	5.390	ug/L	0.407	7	17	321	6	KED
	As	75	1.231	ug/L	0.058	4	5	288	3	KED
	Se-1	78	4.776	ug/L	0.258	5	24	161	4	KED
	Y	89		ug/L			538258	436238	4	Standard
	Kr	83		ug/L			36	57	34	Standard
>	In-1	115		ug/L			32248	23952	1	KED
	Mo	98	2.835	ug/L	0.169	5	11	2696	3	KED
	Cd	111	0.113	ug/L	0.043	38	0	33	37	KED
	Cd	114	0.111	ug/L	0.021	19	1	83	18	KED
>	In	115		ug/L			647272	547561	3	Standard
	Ag	107	0.010	ug/L	0.000	4	55	153	5	Standard
	Sb	121	0.049	ug/L	0.003	5	308	657	5	Standard
	Sb	123	0.051	ug/L	0.007	13	245	530	9	Standard
	Ba	135	112.123	ug/L	2.737	2	22	299383	0	Standard
	Ba	137	110.039	ug/L	4.502	4	45	539170	7	Standard
>	Tb	159		ug/L			939696	1013289	0	Standard
	Tl	205	-0.007	ug/L	0.001	10	211	97	13	Standard
	Pb	208	0.310	ug/L	0.004	1	282	7336	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0335-03
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 16:53:33
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			680888	1013610	5	Standard
	Be	9	0.001	ug/L	0.001	110	2	10	65	Standard
	C	13		ug/L			18086	33604	2	Standard
	Cl	37		ug/L			7449359	6289686	2	Standard
>	Sc	45		ug/L			978216	953088	2	Standard
	V	51	1.552	ug/L	0.084	5	4861	33771	2	Standard
	V-1	51	1.512	ug/L	0.069	4	2839	31389	2	Standard
	Cr	52	0.334	ug/L	0.044	13	14201	18840	1	Standard
	Cr	53	0.245	ug/L	0.014	5	957	1367	4	Standard
	Mn	55	151.966	ug/L	4.692	3	647	3235534	1	Standard
>	Ge-1	72		ug/L			76539	57667	1	KED
	Co	59	0.831	ug/L	0.029	3	33	2849	3	KED
	Ni	60	5.453	ug/L	0.165	3	15	5199	3	KED
	Ni	62	5.659	ug/L	0.322	5	16	831	4	KED
	Cu	63	2.333	ug/L	0.073	3	45	5767	3	KED
	Cu	65	2.335	ug/L	0.086	3	20	2858	4	KED
	Zn	66	4.839	ug/L	0.176	3	108	1711	2	KED
	Zn	67	7.055	ug/L	0.666	9	17	408	9	KED
	As	75	1.594	ug/L	0.098	6	5	364	5	KED
	Se-1	78	29.816	ug/L	0.398	1	24	891	0	KED
	Y	89		ug/L			538258	454825	4	Standard
	Kr	83		ug/L			36	48	9	Standard
>	In-1	115		ug/L			32248	23926	0	KED
	Mo	98	5.510	ug/L	0.057	1	11	5231	1	KED
	Cd	111	0.296	ug/L	0.031	10	0	86	10	KED
	Cd	114	0.308	ug/L	0.037	11	1	231	11	KED
>	In	115		ug/L			647272	562407	1	Standard
	Ag	107	0.004	ug/L	0.002	65	55	87	30	Standard
	Sb	121	0.578	ug/L	0.023	3	308	5075	2	Standard
	Sb	123	0.592	ug/L	0.021	3	245	4038	1	Standard
	Ba	135	74.035	ug/L	1.887	2	22	203104	1	Standard
	Ba	137	71.467	ug/L	2.491	3	45	359265	2	Standard
>	Tb	159		ug/L			939696	1044450	0	Standard
	Tl	205	-0.006	ug/L	0.001	11	211	130	8	Standard
	Pb	208	0.037	ug/L	0.003	7	282	1172	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0335-05
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 16:58:28
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			680888	1028852	3	Standard
	Be	9	0.001	ug/L	0.001	47	2	13	31	Standard
	C	13		ug/L			18086	35329	1	Standard
	Cl	37		ug/L			7449359	6045269	1	Standard
>	Sc	45		ug/L			978216	966874	1	Standard
	V	51	0.832	ug/L	0.024	2	4861	20593	1	Standard
	V-1	51	0.804	ug/L	0.015	1	2839	18251	1	Standard
	Cr	52	0.568	ug/L	0.027	4	14201	22699	0	Standard
	Cr	53	0.484	ug/L	0.020	4	957	1815	3	Standard
	Mn	55	0.407	ug/L	0.010	2	647	9432	2	Standard
>	Ge-1	72		ug/L			76539	55309	0	KED
	Co	59	0.027	ug/L	0.004	15	33	113	11	KED
	Ni	60	1.207	ug/L	0.036	2	15	1113	3	KED
	Ni	62	1.240	ug/L	0.268	21	16	184	20	KED
	Cu	63	2.890	ug/L	0.010	0	45	6842	0	KED
	Cu	65	2.830	ug/L	0.117	4	20	3320	4	KED
	Zn	66	2.119	ug/L	0.064	3	108	763	2	KED
	Zn	67	3.761	ug/L	0.382	10	17	214	8	KED
	As	75	1.200	ug/L	0.075	6	5	264	6	KED
	Se-1	78	9.865	ug/L	0.212	2	24	294	2	KED
	Y	89		ug/L			538258	421186	4	Standard
	Kr	83		ug/L			36	46	13	Standard
>	In-1	115		ug/L			32248	23061	0	KED
	Mo	98	7.385	ug/L	0.027	0	11	6755	0	KED
	Cd	111	0.113	ug/L	0.019	16	0	32	16	KED
	Cd	114	0.110	ug/L	0.019	17	1	80	17	KED
>	In	115		ug/L			647272	550266	2	Standard
	Ag	107	0.005	ug/L	0.001	13	55	102	8	Standard
	Sb	121	0.064	ug/L	0.006	9	308	778	4	Standard
	Sb	123	0.077	ug/L	0.005	6	245	693	4	Standard
	Ba	135	55.400	ug/L	1.843	3	22	148740	4	Standard
	Ba	137	53.533	ug/L	0.709	1	45	263384	2	Standard
>	Tb	159		ug/L			939696	1056261	0	Standard
	Tl	205	-0.006	ug/L	0.002	28	211	126	24	Standard
	Pb	208	0.137	ug/L	0.008	5	282	3543	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0335-09
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 17:03:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	Li	6		ug/L			680888	1023404	4	Standard
[	Be	9	0.004	ug/L	0.001	23	2	34	22	Standard
	C	13		ug/L			18086	37862	1	Standard
	Cl	37		ug/L			7449359	6227086	2	Standard
[>	Sc	45		ug/L			978216	938131	2	Standard
[	V	51	0.050	ug/L	0.015	28	4861	5588	2	Standard
[	V-1	51	0.029	ug/L	0.007	24	2839	3254	1	Standard
[	Cr	52	0.051	ug/L	0.040	78	14201	14369	1	Standard
[	Cr	53	-0.023	ug/L	0.038	162	957	877	6	Standard
[	Mn	55	112.235	ug/L	2.859	2	647	2352174	0	Standard
[>	Ge-1	72		ug/L			76539	54401	5	KED
[	Co	59	0.302	ug/L	0.018	5	33	991	4	KED
[	Ni	60	1.785	ug/L	0.128	7	15	1609	3	KED
[	Ni	62	1.843	ug/L	0.144	7	16	262	2	KED
[	Cu	63	2.830	ug/L	0.173	6	45	6581	3	KED
[	Cu	65	2.734	ug/L	0.168	6	20	3148	0	KED
[	Zn	66	38.372	ug/L	1.560	4	108	12257	1	KED
[	Zn	67	37.004	ug/L	2.006	5	17	1962	0	KED
[	As	75	2.168	ug/L	0.095	4	5	465	1	KED
[	Se-1	78	0.038	ug/L	0.045	118	24	18	11	KED
	Y	89		ug/L			538258	443151	5	Standard
	Kr	83		ug/L			36	45	31	Standard
[>	In-1	115		ug/L			32248	23382	1	KED
[	Mo	98	16.808	ug/L	0.503	2	11	15573	1	KED
[	Cd	111	0.017	ug/L	0.005	29	0	5	26	KED
[	Cd	114	0.008	ug/L	0.011	135	1	6	119	KED
[>	In	115		ug/L			647272	572645	6	Standard
[	Ag	107	0.002	ug/L	0.001	53	55	66	11	Standard
[	Sb	121	0.036	ug/L	0.005	14	308	575	5	Standard
[	Sb	123	0.037	ug/L	0.007	19	245	456	4	Standard
[	Ba	135	46.338	ug/L	2.547	5	22	129259	4	Standard
[	Ba	137	43.858	ug/L	3.721	8	45	224038	6	Standard
[>	Tb	159		ug/L			939696	1067944	1	Standard
[	Tl	205	-0.006	ug/L	0.000	7	211	120	8	Standard
[	Pb	208	0.284	ug/L	0.011	3	282	7109	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0335-11
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 17:08:19
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	Li	6		ug/L			680888	1054394	2	Standard
[	Be	9	0.000	ug/L	0.001	254	2	6	96	Standard
	C	13		ug/L			18086	33324	2	Standard
	Cl	37		ug/L			7449359	5928409	1	Standard
[>	Sc	45		ug/L			978216	922526	1	Standard
[	V	51	0.010	ug/L	0.002	19	4861	4763	2	Standard
[	V-1	51	-0.041	ug/L	0.002	3	2839	1932	2	Standard
[	Cr	52	-0.069	ug/L	0.010	14	14201	12386	1	Standard
[	Cr	53	-0.239	ug/L	0.013	5	957	494	2	Standard
[	Mn	55	153.724	ug/L	4.228	2	647	3168481	1	Standard
[>	Ge-1	72		ug/L			76539	55328	1	KED
[	Co	59	0.173	ug/L	0.005	2	33	588	1	KED
[	Ni	60	1.397	ug/L	0.032	2	15	1285	1	KED
[	Ni	62	1.254	ug/L	0.127	10	16	186	8	KED
[	Cu	63	0.169	ug/L	0.004	2	45	431	0	KED
[	Cu	65	0.194	ug/L	0.019	9	20	241	8	KED
[	Zn	66	1.101	ug/L	0.103	9	108	434	6	KED
[	Zn	67	2.059	ug/L	0.397	19	17	123	15	KED
[	As	75	0.542	ug/L	0.037	6	5	121	6	KED
[	Se-1	78	-0.039	ug/L	0.095	242	24	16	15	KED
	Y	89		ug/L			538258	422024	3	Standard
	Kr	83		ug/L			36	45	8	Standard
[>	In-1	115		ug/L			32248	23062	1	KED
[	Mo	98	21.749	ug/L	0.909	4	11	19868	2	KED
[	Cd	111	0.022	ug/L	0.009	41	0	6	37	KED
[	Cd	114	0.014	ug/L	0.005	34	1	10	33	KED
[>	In	115		ug/L			647272	551454	0	Standard
[	Ag	107	-0.000	ug/L	0.000	149	55	44	10	Standard
[	Sb	121	-0.006	ug/L	0.002	29	308	211	6	Standard
[	Sb	123	-0.008	ug/L	0.004	52	245	160	15	Standard
[	Ba	135	32.313	ug/L	1.289	3	22	86956	4	Standard
[	Ba	137	31.981	ug/L	1.444	4	45	157727	4	Standard
[>	Tb	159		ug/L			939696	1019152	1	Standard
[	Tl	205	-0.003	ug/L	0.001	51	211	180	13	Standard
[	Pb	208	0.009	ug/L	0.001	8	282	521	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0371-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 17:13:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			680888	1053508	2	Standard
⌊	**Be**	**9**	**0.004**	ug/L	0.001	28	2	42	24	Standard
	C	**13**		ug/L			18086	42677	1	Standard
	Cl	**37**		ug/L			7449359	7278690	3	Standard
⌈>	**Sc**	**45**		ug/L			978216	1063765	2	Standard
⌈	**V**	**51**	**1.738**	ug/L	0.090	5	4861	41566	1	Standard
⌊	**V-1**	**51**	**1.872**	ug/L	0.093	4	2839	42620	1	Standard
⌈	**Cr**	**52**	**-0.029**	ug/L	0.011	37	14201	14956	1	Standard
⌊	**Cr**	**53**	**0.499**	ug/L	0.021	4	957	2027	0	Standard
⌊	**Mn**	**55**	**104.058**	ug/L	2.238	2	647	2473096	0	Standard
⌈>	**Ge-1**	**72**		ug/L			76539	55872	1	KED
⌈	**Co**	**59**	**0.873**	ug/L	0.014	1	33	2896	1	KED
⌊	**Ni**	**60**	**4.110**	ug/L	0.130	3	15	3798	1	KED
⌈	**Ni**	**62**	**4.074**	ug/L	0.142	3	16	583	1	KED
⌈	**Cu**	**63**	**0.298**	ug/L	0.003	1	45	741	1	KED
⌊	**Cu**	**65**	**0.285**	ug/L	0.026	8	20	351	7	KED
⌈	**Zn**	**66**	**2.469**	ug/L	0.139	5	108	885	4	KED
⌊	**Zn**	**67**	**4.299**	ug/L	0.474	11	17	245	8	KED
⌈	**As**	**75**	**0.456**	ug/L	0.017	3	5	103	2	KED
⌊	**Se-1**	**78**	**1.327**	ug/L	0.231	17	24	55	10	KED
	Y	**89**		ug/L			538258	473206	5	Standard
	Kr	**83**		ug/L			36	36	26	Standard
⌈>	**In-1**	**115**		ug/L			32248	23673	2	KED
⌈	**Mo**	**98**	**4.685**	ug/L	0.109	2	11	4401	1	KED
⌈	**Cd**	**111**	**0.128**	ug/L	0.015	11	0	37	9	KED
⌊	**Cd**	**114**	**0.162**	ug/L	0.026	16	1	121	18	KED
⌈>	**In**	**115**		ug/L			647272	568454	3	Standard
⌈	**Ag**	**107**	**0.004**	ug/L	0.001	13	55	91	5	Standard
⌈	**Sb**	**121**	**0.002**	ug/L	0.002	84	308	292	9	Standard
⌊	**Sb**	**123**	**0.000**	ug/L	0.003	7646	245	216	12	Standard
⌈	**Ba**	**135**	**58.600**	ug/L	1.934	3	22	162523	4	Standard
⌊	**Ba**	**137**	**57.399**	ug/L	3.253	5	45	291419	3	Standard
⌈>	**Tb**	**159**		ug/L			939696	1028095	2	Standard
⌈	**Tl**	**205**	**0.003**	ug/L	0.001	48	211	285	7	Standard
⌊	**Pb**	**208**	**0.037**	ug/L	0.003	8	282	1163	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0371-03
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 17:18:10
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	1146417	2	Standard
	Be	**9**	**0.016**	ug/L	0.002	10	2	165	9	Standard
	C	**13**		ug/L			18086	47188	2	Standard
	Cl	**37**		ug/L			7449359	9828113	1	Standard
>	**Sc**	**45**		ug/L			978216	1037779	0	Standard
	V	**51**	**8.637**	ug/L	0.119	1	4861	181215	1	Standard
	V-1	**51**	**9.722**	ug/L	0.130	1	2839	203530	1	Standard
	Cr	**52**	**1.785**	ug/L	0.033	1	14201	44273	1	Standard
	Cr	**53**	**5.773**	ug/L	0.183	3	957	12139	2	Standard
	Mn	**55**	**2.360**	ug/L	0.011	0	647	55412	0	Standard
>	**Ge-1**	**72**		ug/L			76539	50784	0	KED
	Co	**59**	**0.489**	ug/L	0.011	2	33	1485	2	KED
	Ni	**60**	**32.576**	ug/L	0.598	1	15	27306	1	KED
	Ni	**62**	**33.320**	ug/L	0.892	2	16	4260	1	KED
	Cu	**63**	**2.252**	ug/L	0.041	1	45	4903	1	KED
	Cu	**65**	**2.256**	ug/L	0.058	2	20	2433	2	KED
	Zn	**66**	**283.893**	ug/L	2.559	0	108	84312	0	KED
	Zn	**67**	**257.258**	ug/L	10.636	4	17	12684	3	KED
	As	**75**	**0.710**	ug/L	0.028	3	5	144	3	KED
	Se-1	**78**	**269.623**	ug/L	5.074	1	24	6966	1	KED
	Y	**89**		ug/L			538258	387727	7	Standard
	Kr	**83**		ug/L			36	57	25	Standard
>	**In-1**	**115**		ug/L			32248	21707	1	KED
	Mo	**98**	**79.754**	ug/L	1.532	1	11	68581	0	KED
	Cd	**111**	**18.732**	ug/L	0.383	2	0	4971	1	KED
	Cd	**114**	**18.590**	ug/L	0.222	1	1	12625	0	KED
>	**In**	**115**		ug/L			647272	502939	1	Standard
	Ag	**107**	**0.002**	ug/L	0.001	54	55	58	14	Standard
	Sb	**121**	**0.454**	ug/L	0.014	3	308	3616	2	Standard
	Sb	**123**	**0.458**	ug/L	0.014	3	245	2837	2	Standard
	Ba	**135**	**57.606**	ug/L	2.508	4	22	141320	3	Standard
	Ba	**137**	**55.986**	ug/L	2.224	3	45	251708	3	Standard
>	**Tb**	**159**		ug/L			939696	982366	1	Standard
	Tl	**205**	**0.103**	ug/L	0.006	5	211	2015	4	Standard
	Pb	**208**	**0.330**	ug/L	0.013	3	282	7546	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVA
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 17:24:11
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			680888	960571	7	Standard
	Be	9	35.072	ug/L	3.004	8	2	287759	2	Standard
	C	13		ug/L			18086	20885	2	Standard
	Cl	37		ug/L			7449359	6534845	3	Standard
>	Sc	45		ug/L			978216	893361	1	Standard
	V	51	47.519	ug/L	0.868	1	4861	838068	0	Standard
	V-1	51	47.419	ug/L	0.890	1	2839	844379	0	Standard
	Cr	52	48.434	ug/L	0.929	1	14201	695200	1	Standard
	Cr	53	48.054	ug/L	0.343	0	957	80575	0	Standard
	Mn	55	48.086	ug/L	0.563	1	647	960346	0	Standard
>	Ge-1	72		ug/L			76539	61496	1	KED
	Co	59	52.706	ug/L	1.223	2	33	191033	2	KED
	Ni	60	52.824	ug/L	0.719	1	15	53609	0	KED
	Ni	62	54.329	ug/L	0.352	0	16	8404	0	KED
	Cu	63	53.285	ug/L	0.499	0	45	139647	0	KED
	Cu	65	52.574	ug/L	0.447	0	20	68287	0	KED
	Zn	66	53.754	ug/L	1.942	3	108	19397	2	KED
	Zn	67	50.422	ug/L	2.143	4	17	3023	4	KED
	As	75	48.953	ug/L	0.575	1	5	11819	0	KED
	Se-1	78	48.541	ug/L	0.537	1	24	1535	0	KED
	Y	89		ug/L			538258	493273	3	Standard
	Kr	83		ug/L			36	34	8	Standard
>	In-1	115		ug/L			32248	25680	0	KED
	Mo	98	50.751	ug/L	1.380	2	11	51640	2	KED
	Cd	111	50.802	ug/L	1.139	2	0	15951	1	KED
	Cd	114	51.115	ug/L	0.876	1	1	41072	1	KED
>	In	115		ug/L			647272	611585	2	Standard
	Ag	107	42.250	ug/L	0.367	0	55	500084	2	Standard
	Sb	121	51.006	ug/L	1.270	2	308	461436	1	Standard
	Sb	123	50.488	ug/L	0.074	0	245	355172	2	Standard
	Ba	135	57.059	ug/L	0.785	1	22	170285	3	Standard
	Ba	137	57.221	ug/L	0.817	1	45	312989	3	Standard
>	Tb	159		ug/L			939696	1053566	1	Standard
	Tl	205	50.529	ug/L	0.849	1	211	946626	2	Standard
	Pb	208	50.774	ug/L	0.751	1	282	1196444	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBA
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 17:31:51
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			680888	941601	5	Standard
⌊	**Be**	**9**	**0.000**	ug/L	0.001	215	2	6	96	Standard
	C	**13**		ug/L			18086	19511	1	Standard
	Cl	**37**		ug/L			7449359	6690380	2	Standard
⌈>	**Sc**	**45**		ug/L			978216	894257	1	Standard
⌈	**V**	**51**	**-0.014**	ug/L	0.010	72	4861	4206	4	Standard
⌊	**V-1**	**51**	**-0.089**	ug/L	0.001	0	2839	1009	1	Standard
⌈	**Cr**	**52**	**-0.042**	ug/L	0.031	72	14201	12390	4	Standard
⌊	**Cr**	**53**	**-0.300**	ug/L	0.004	1	957	377	3	Standard
⌊	**Mn**	**55**	**-0.006**	ug/L	0.001	11	647	467	3	Standard
⌈>	**Ge-1**	**72**		ug/L			76539	63856	1	KED
⌈	**Co**	**59**	**-0.001**	ug/L	0.001	80	33	23	12	KED
⌊	**Ni**	**60**	**0.004**	ug/L	0.004	116	15	16	26	KED
⌈	**Ni**	**62**	**-0.062**	ug/L	0.023	37	16	3	100	KED
⌈	**Cu**	**63**	**0.001**	ug/L	0.001	125	45	40	7	KED
⌊	**Cu**	**65**	**0.004**	ug/L	0.004	104	20	22	24	KED
⌈	**Zn**	**66**	**-0.007**	ug/L	0.044	666	108	88	20	KED
⌊	**Zn**	**67**	**-0.024**	ug/L	0.111	452	17	13	51	KED
⌈	**As**	**75**	**0.006**	ug/L	0.004	66	5	5	16	KED
⌊	**Se-1**	**78**	**-0.017**	ug/L	0.069	408	24	20	12	KED
	Y	**89**		ug/L			538258	508867	1	Standard
	Kr	**83**		ug/L			36	33	12	Standard
⌈>	**In-1**	**115**		ug/L			32248	27141	1	KED
⌈	**Mo**	**98**	**0.003**	ug/L	0.005	155	11	13	38	KED
⌈	**Cd**	**111**	**0.000**	ug/L	0.003	1128	0	0	173	KED
⌊	**Cd**	**114**	**0.003**	ug/L	0.002	92	1	3	66	KED
⌈>	**In**	**115**		ug/L			647272	626902	1	Standard
⌈	**Ag**	**107**	**-0.001**	ug/L	0.001	74	55	43	16	Standard
⌈	**Sb**	**121**	**0.080**	ug/L	0.003	3	308	1042	3	Standard
⌊	**Sb**	**123**	**0.079**	ug/L	0.011	13	245	806	10	Standard
⌈	**Ba**	**135**	**-0.000**	ug/L	0.002	182486	22	22	35	Standard
⌊	**Ba**	**137**	**0.001**	ug/L	0.001	102	45	50	13	Standard
⌈>	**Tb**	**159**		ug/L			939696	1050234	1	Standard
⌈	**Tl**	**205**	**-0.006**	ug/L	0.001	11	211	130	10	Standard
⌊	**Pb**	**208**	**-0.002**	ug/L	0.002	109	282	271	16	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0651-BLK2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 17:36:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			680888	940093	2	Standard
⌊	**Be**	**9**	**0.019**	ug/L	0.033	171	2	156	167	Standard
	C	**13**		ug/L			18086	28213	2	Standard
	Cl	**37**		ug/L			7449359	7156865	1	Standard
⌈>	**Sc**	**45**		ug/L			978216	964773	3	Standard
⌈	**V**	**51**	**0.013**	ug/L	0.039	310	4861	5045	17	Standard
⌈	**V-1**	**51**	**-0.068**	ug/L	0.041	59	2839	1502	55	Standard
⌈	**Cr**	**52**	**-0.006**	ug/L	0.027	478	14201	13926	5	Standard
⌈	**Cr**	**53**	**-0.282**	ug/L	0.036	12	957	440	17	Standard
⌊	**Mn**	**55**	**0.324**	ug/L	0.157	48	647	7693	47	Standard
⌈>	**Ge-1**	**72**		ug/L			76539	67070	0	KED
⌈	**Co**	**59**	**0.002**	ug/L	0.000	12	33	38	2	KED
⌈	**Ni**	**60**	**0.231**	ug/L	0.011	4	15	269	4	KED
⌈	**Ni**	**62**	**0.174**	ug/L	0.039	22	16	43	15	KED
⌈	**Cu**	**63**	**0.115**	ug/L	0.011	9	45	369	8	KED
⌈	**Cu**	**65**	**0.100**	ug/L	0.016	16	20	159	14	KED
⌈	**Zn**	**66**	**0.666**	ug/L	0.075	11	108	356	8	KED
⌈	**Zn**	**67**	**0.561**	ug/L	0.334	59	17	52	41	KED
⌈	**As**	**75**	**0.005**	ug/L	0.006	135	5	5	30	KED
⌊	**Se-1**	**78**	**-0.050**	ug/L	0.090	178	24	19	15	KED
	Y	**89**		ug/L			538258	525523	2	Standard
	Kr	**83**		ug/L			36	24	27	Standard
⌈>	**In-1**	**115**		ug/L			32248	28137	1	KED
⌈	**Mo**	**98**	**0.002**	ug/L	0.002	115	11	12	22	KED
⌈	**Cd**	**111**	**0.008**	ug/L	0.004	56	0	3	45	KED
⌊	**Cd**	**114**	**0.005**	ug/L	0.001	28	1	4	21	KED
⌈>	**In**	**115**		ug/L			647272	673278	0	Standard
⌈	**Ag**	**107**	**0.008**	ug/L	0.017	197	55	167	128	Standard
⌈	**Sb**	**121**	**0.014**	ug/L	0.018	130	308	460	39	Standard
⌈	**Sb**	**123**	**0.017**	ug/L	0.016	92	245	388	31	Standard
⌈	**Ba**	**135**	**0.058**	ug/L	0.076	130	22	214	116	Standard
⌊	**Ba**	**137**	**0.078**	ug/L	0.116	147	45	519	133	Standard
⌈>	**Tb**	**159**		ug/L			939696	1058034	0	Standard
⌈	**Tl**	**205**	**0.011**	ug/L	0.033	313	211	434	142	Standard
⌊	**Pb**	**208**	**0.021**	ug/L	0.038	183	282	807	110	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0371-04
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 17:41:43
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	900206	7	Standard
	Be	**9**	**0.002**	ug/L	0.001	34	2	16	35	Standard
	C	**13**		ug/L			18086	37703	1	Standard
	Cl	**37**		ug/L			7449359	7529980	2	Standard
>	**Sc**	**45**		ug/L			978216	1037394	1	Standard
	V	**51**	**2.139**	ug/L	0.038	1	4861	48732	1	Standard
	V-1	**51**	**2.202**	ug/L	0.036	1	2839	48413	0	Standard
	Cr	**52**	**0.388**	ug/L	0.017	4	14201	21404	0	Standard
	Cr	**53**	**0.676**	ug/L	0.023	3	957	2316	1	Standard
	Mn	**55**	**1.209**	ug/L	0.045	3	647	28699	2	Standard
>	**Ge-1**	**72**		ug/L			76539	60005	1	KED
	Co	**59**	**0.049**	ug/L	0.005	10	33	197	7	KED
	Ni	**60**	**1.204**	ug/L	0.071	5	15	1203	6	KED
	Ni	**62**	**1.068**	ug/L	0.021	1	16	173	3	KED
	Cu	**63**	**0.942**	ug/L	0.056	5	45	2445	6	KED
	Cu	**65**	**0.939**	ug/L	0.004	0	20	1206	1	KED
	Zn	**66**	**1.080**	ug/L	0.107	9	108	463	6	KED
	Zn	**67**	**3.609**	ug/L	0.432	11	17	224	12	KED
	As	**75**	**0.339**	ug/L	0.012	3	5	83	4	KED
	Se-1	**78**	**8.023**	ug/L	0.462	5	24	263	6	KED
	Y	**89**		ug/L			538258	497312	4	Standard
	Kr	**83**		ug/L			36	46	45	Standard
>	**In-1**	**115**		ug/L			32248	25268	1	KED
	Mo	**98**	**1.281**	ug/L	0.030	2	11	1291	1	KED
	Cd	**111**	**0.007**	ug/L	0.005	70	0	2	57	KED
	Cd	**114**	**0.011**	ug/L	0.004	31	1	9	29	KED
>	**In**	**115**		ug/L			647272	567213	5	Standard
	Ag	**107**	**-0.001**	ug/L	0.000	16	55	40	7	Standard
	Sb	**121**	**0.031**	ug/L	0.005	15	308	532	7	Standard
	Sb	**123**	**0.033**	ug/L	0.001	2	245	432	5	Standard
	Ba	**135**	**69.146**	ug/L	3.131	4	22	191108	3	Standard
	Ba	**137**	**66.111**	ug/L	2.740	4	45	334802	1	Standard
>	**Tb**	**159**		ug/L			939696	1020567	2	Standard
	Tl	**205**	**-0.002**	ug/L	0.001	52	211	193	8	Standard
	Pb	**208**	**-0.002**	ug/L	0.001	36	282	267	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0371-05
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 17:46:38
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	1041992	1	Standard
	Be	**9**	**0.004**	ug/L	0.001	17	2	39	16	Standard
	C	**13**		ug/L			18086	41202	1	Standard
	Cl	**37**		ug/L			7449359	10341073	3	Standard
>	**Sc**	**45**		ug/L			978216	1047118	1	Standard
	V	**51**	**5.307**	ug/L	0.108	2	4861	114343	2	Standard
	V-1	**51**	**6.215**	ug/L	0.112	1	2839	132384	2	Standard
	Cr	**52**	**0.575**	ug/L	0.027	4	14201	24690	0	Standard
	Cr	**53**	**3.875**	ug/L	0.051	1	957	8559	2	Standard
	Mn	**55**	**0.836**	ug/L	0.010	1	647	20258	1	Standard
>	**Ge-1**	**72**		ug/L			76539	57022	0	KED
	Co	**59**	**0.126**	ug/L	0.012	9	33	448	8	KED
	Ni	**60**	**5.554**	ug/L	0.067	1	15	5237	1	KED
	Ni	**62**	**5.804**	ug/L	0.372	6	16	843	5	KED
	Cu	**63**	**2.599**	ug/L	0.009	0	45	6348	1	KED
	Cu	**65**	**2.486**	ug/L	0.068	2	20	3007	1	KED
	Zn	**66**	**2.211**	ug/L	0.208	9	108	817	7	KED
	Zn	**67**	**5.959**	ug/L	0.526	8	17	342	8	KED
	As	**75**	**1.175**	ug/L	0.097	8	5	266	7	KED
	Se-1	**78**	**104.093**	ug/L	1.103	1	24	3031	1	KED
	Y	**89**		ug/L			538258	495645	1	Standard
	Kr	**83**		ug/L			36	52	11	Standard
>	**In-1**	**115**		ug/L			32248	24046	1	KED
	Mo	**98**	**27.082**	ug/L	1.354	4	11	25816	6	KED
	Cd	**111**	**0.036**	ug/L	0.005	14	0	11	13	KED
	Cd	**114**	**0.031**	ug/L	0.012	39	1	24	39	KED
>	**In**	**115**		ug/L			647272	560294	1	Standard
	Ag	**107**	**0.001**	ug/L	0.002	219	55	56	32	Standard
	Sb	**121**	**0.092**	ug/L	0.003	2	308	1031	2	Standard
	Sb	**123**	**0.089**	ug/L	0.006	6	245	786	5	Standard
	Ba	**135**	**125.351**	ug/L	4.604	3	22	342610	3	Standard
	Ba	**137**	**120.688**	ug/L	2.476	2	45	604683	3	Standard
>	**Tb**	**159**		ug/L			939696	992103	2	Standard
	Tl	**205**	**-0.002**	ug/L	0.001	78	211	195	12	Standard
	Pb	**208**	**0.051**	ug/L	0.002	4	282	1435	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0381-01
Sample Dil Factor: 50
Comments:
Sample Date/Time: Thursday, June 28, 2018 17:51:33
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			680888	894059	3	Standard
⌊	**Be**	**9**	**0.000**	ug/L	0.000	55	2	5	21	Standard
	C	**13**		ug/L			18086	35714	2	Standard
	Cl	**37**		ug/L			7449359	7614188	2	Standard
⌈>	**Sc**	**45**		ug/L			978216	910299	1	Standard
⌈	**V**	**51**	**-1.535**	ug/L	3.729	242	4861	-22163	300	Standard
⌊	**V-1**	**51**	**0.198**	ug/L	0.006	3	2839	6231	3	Standard
⌈	**Cr**	**52**	**142.787**	ug/L	11.178	7	14201	2064574	9	Standard
⌊	**Cr**	**53**	**142.907**	ug/L	2.254	1	957	242377	0	Standard
	Mn	**55**	**16.862**	ug/L	0.240	1	647	343524	0	Standard
⌈>	**Ge-1**	**72**		ug/L			76539	66229	0	KED
⌈	**Co**	**59**	**0.750**	ug/L	0.021	2	33	2956	3	KED
⌊	**Ni**	**60**	**36.650**	ug/L	0.142	0	15	40064	0	KED
⌈	**Ni**	**62**	**36.316**	ug/L	0.221	0	16	6055	1	KED
⌈	**Cu**	**63**	**1.197**	ug/L	0.041	3	45	3418	4	KED
⌊	**Cu**	**65**	**1.196**	ug/L	0.043	3	20	1690	3	KED
⌈	**Zn**	**66**	**66.987**	ug/L	1.583	2	108	26021	3	KED
⌊	**Zn**	**67**	**60.908**	ug/L	2.323	3	17	3928	2	KED
	As	**75**	**0.036**	ug/L	0.014	39	5	13	27	KED
	Se-1	**78**	**-0.019**	ug/L	0.036	186	24	20	5	KED
	Y	**89**		ug/L			538258	526989	1	Standard
	Kr	**83**		ug/L			36	31	3	Standard
⌈>	**In-1**	**115**		ug/L			32248	27332	3	KED
⌈	**Mo**	**98**	**0.180**	ug/L	0.010	5	11	205	7	KED
⌈	**Cd**	**111**	**0.335**	ug/L	0.010	2	0	112	5	KED
⌊	**Cd**	**114**	**0.385**	ug/L	0.039	10	1	329	8	KED
⌈>	**In**	**115**		ug/L			647272	617370	2	Standard
⌈	**Ag**	**107**	**0.019**	ug/L	0.006	29	55	275	22	Standard
⌈	**Sb**	**121**	**0.001**	ug/L	0.006	389	308	307	16	Standard
⌊	**Sb**	**123**	**0.005**	ug/L	0.003	60	245	268	10	Standard
⌈	**Ba**	**135**	**2.557**	ug/L	0.109	4	22	7718	3	Standard
⌊	**Ba**	**137**	**2.607**	ug/L	0.083	3	45	14426	2	Standard
⌈>	**Tb**	**159**		ug/L			939696	1038724	0	Standard
⌈	**Tl**	**205**	**-0.006**	ug/L	0.001	9	211	128	7	Standard
⌊	**Pb**	**208**	**0.059**	ug/L	0.003	5	282	1683	4	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0651-~~DUP2~~ DUP3 TH 06-28-18
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 17:56:29
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	798808	5	Standard
	Be	**9**	**0.000**	ug/L	0.000	237	2	3	50	Standard
	C	**13**		ug/L			18086	53606	1	Standard
	Cl	**37**		ug/L			7449359	37537317	3	Standard
>	**Sc**	**45**		ug/L			978216	1027241	1	Standard
	V	**51**	**0.432**	ug/L	0.071	16	4861	13802	8	Standard
	V-1	**51**	**8.383**	ug/L	0.225	2	2839	174071	1	Standard
	Cr	**52**	**0.418**	ug/L	0.057	13	14201	21679	2	Standard
	Cr	**53**	**27.636**	ug/L	0.712	2	957	53702	1	Standard
	Mn	**55**	**448.834**	ug/L	8.511	1	647	10300605	0	Standard
>	**Ge-1**	**72**		ug/L			76539	62051	0	KED
	Co	**59**	**0.483**	ug/L	0.008	1	33	1793	1	KED
	Ni	**60**	**5.056**	ug/L	0.160	3	15	5188	2	KED
	Ni	**62**	**5.145**	ug/L	0.228	4	16	815	4	KED
	Cu	**63**	**3.212**	ug/L	0.070	2	45	8528	1	KED
	Cu	**65**	**3.219**	ug/L	0.072	2	20	4234	2	KED
	Zn	**66**	**3.323**	ug/L	0.079	2	108	1292	2	KED
	Zn	**67**	**5.729**	ug/L	0.534	9	17	359	9	KED
	As	**75**	**0.713**	ug/L	0.027	3	5	177	3	KED
	Se-1	**78**	**0.168**	ug/L	0.130	77	24	25	16	KED
	Y	**89**		ug/L			538258	520272	3	Standard
	Kr	**83**		ug/L			36	104	20	Standard
>	**In-1**	**115**		ug/L			32248	25777	2	KED
	Mo	**98**	**11.969**	ug/L	0.432	3	11	12224	0	KED
	Cd	**111**	**0.014**	ug/L	0.006	47	0	4	40	KED
	Cd	**114**	**0.012**	ug/L	0.004	32	1	10	30	KED
>	**In**	**115**		ug/L			647272	556495	4	Standard
	Ag	**107**	**0.002**	ug/L	0.001	50	55	71	20	Standard
	Sb	**121**	**0.506**	ug/L	0.009	1	308	4431	3	Standard
	Sb	**123**	**0.491**	ug/L	0.015	2	245	3353	4	Standard
	Ba	**135**	**55.425**	ug/L	2.885	5	22	150260	1	Standard
	Ba	**137**	**53.773**	ug/L	1.881	3	45	267477	4	Standard
>	**Tb**	**159**		ug/L			939696	895990	5	Standard
	Tl	**205**	**-0.009**	ug/L	0.000	4	211	60	15	Standard
	Pb	**208**	**0.018**	ug/L	0.002	10	282	626	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0367-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 18:01:24
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			680888	848255	2	Standard
⌊	**Be**	**9**	**-0.000**	ug/L	0.000	146	2	1	100	Standard
	C	**13**		ug/L			18086	54631	0	Standard
	Cl	**37**		ug/L			7449359	37360094	1	Standard
⌈>	**Sc**	**45**		ug/L			978216	1105453	2	Standard
⌈	**V**	**51**	**0.461**	ug/L	0.094	20	4861	15505	13	Standard
⌊	**V-1**	**51**	**8.149**	ug/L	0.092	1	2839	182217	1	Standard
⌈	**Cr**	**52**	**0.404**	ug/L	0.006	1	14201	23099	2	Standard
⌊	**Cr**	**53**	**26.725**	ug/L	0.479	1	957	55923	1	Standard
⌊	**Mn**	**55**	**437.813**	ug/L	10.807	2	647	10811531	1	Standard
⌈>	**Ge-1**	**72**		ug/L			76539	65333	0	KED
⌈	**Co**	**59**	**0.486**	ug/L	0.006	1	33	1898	1	KED
⌊	**Ni**	**60**	**4.011**	ug/L	0.211	5	15	4335	4	KED
⌈	**Ni**	**62**	**4.123**	ug/L	0.244	5	16	690	6	KED
⌈	**Cu**	**63**	**2.878**	ug/L	0.048	1	45	8049	2	KED
⌊	**Cu**	**65**	**2.769**	ug/L	0.132	4	20	3836	3	KED
⌈	**Zn**	**66**	**3.948**	ug/L	0.162	4	108	1599	3	KED
⌊	**Zn**	**67**	**5.558**	ug/L	0.448	8	17	367	8	KED
⌈	**As**	**75**	**0.710**	ug/L	0.012	1	5	186	2	KED
⌊	**Se-1**	**78**	**0.209**	ug/L	0.031	14	24	27	3	KED
	Y	**89**		ug/L			538258	546399	0	Standard
	Kr	**83**		ug/L			36	193	5	Standard
⌈>	**In-1**	**115**		ug/L			32248	27274	1	KED
⌈	**Mo**	**98**	**11.489**	ug/L	0.260	2	11	12423	2	KED
⌈	**Cd**	**111**	**0.022**	ug/L	0.012	52	0	7	49	KED
⌊	**Cd**	**114**	**0.009**	ug/L	0.010	106	1	8	96	KED
⌈>	**In**	**115**		ug/L			647272	572782	2	Standard
⌈	**Ag**	**107**	**0.004**	ug/L	0.001	20	55	93	10	Standard
⌈	**Sb**	**121**	**0.491**	ug/L	0.014	2	308	4434	4	Standard
⌊	**Sb**	**123**	**0.491**	ug/L	0.014	2	245	3447	1	Standard
⌈	**Ba**	**135**	**53.748**	ug/L	0.318	0	22	150200	2	Standard
⌊	**Ba**	**137**	**53.401**	ug/L	0.283	0	45	273476	1	Standard
⌈>	**Tb**	**159**		ug/L			939696	947857	5	Standard
⌈	**Tl**	**205**	**-0.010**	ug/L	0.000	4	211	52	11	Standard
⌊	**Pb**	**208**	**0.024**	ug/L	0.001	3	282	784	5	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0651-MS2 MS3 TH 06-28-18
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 18:06:20
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
[>	**Li**	**6**		ug/L			680888	823730	8	Standard
[	**Be**	**9**	**18.301**	ug/L	1.894	10	2	128567	2	Standard
	C	**13**		ug/L			18086	52228	3	Standard
	Cl	**37**		ug/L			7449359	36958937	3	Standard
[>	**Sc**	**45**		ug/L			978216	1102837	2	Standard
[	**V**	**51**	**23.747**	ug/L	0.337	1	4861	519720	1	Standard
[	**V-1**	**51**	**29.164**	ug/L	0.415	1	2839	642268	1	Standard
[	**Cr**	**52**	**22.831**	ug/L	0.498	2	14201	412901	0	Standard
[	**Cr**	**53**	**41.412**	ug/L	0.774	1	957	85847	0	Standard
[	**Mn**	**55**	**437.098**	ug/L	5.467	1	647	10769448	1	Standard
[>	**Ge-1**	**72**		ug/L			76539	67662	0	KED
[	**Co**	**59**	**27.670**	ug/L	0.549	1	33	110361	1	KED
[	**Ni**	**60**	**29.532**	ug/L	0.340	1	15	32984	1	KED
[	**Ni**	**62**	**30.310**	ug/L	1.194	3	16	5165	3	KED
[	**Cu**	**63**	**27.296**	ug/L	0.160	0	45	78733	0	KED
[	**Cu**	**65**	**26.919**	ug/L	0.585	2	20	38479	1	KED
[	**Zn**	**66**	**73.752**	ug/L	1.699	2	108	29252	1	KED
[	**Zn**	**67**	**68.481**	ug/L	3.781	5	17	4510	5	KED
[	**As**	**75**	**24.995**	ug/L	0.294	1	5	6642	1	KED
[	**Se-1**	**78**	**70.384**	ug/L	0.896	1	24	2439	1	KED
	Y	**89**		ug/L			538258	539920	1	Standard
	Kr	**83**		ug/L			36	318	9	Standard
[>	**In-1**	**115**		ug/L			32248	27025	1	KED
[	**Mo**	**98**	**11.817**	ug/L	0.251	2	11	12664	3	KED
[	**Cd**	**111**	**22.906**	ug/L	0.214	0	0	7569	0	KED
[	**Cd**	**114**	**23.009**	ug/L	0.365	1	1	19455	0	KED
[>	**In**	**115**		ug/L			647272	584682	0	Standard
[	**Ag**	**107**	**22.514**	ug/L	0.419	1	55	254805	2	Standard
[	**Sb**	**121**	**0.475**	ug/L	0.014	2	308	4387	3	Standard
[	**Sb**	**123**	**0.471**	ug/L	0.019	3	245	3383	3	Standard
[	**Ba**	**135**	**78.896**	ug/L	2.466	3	22	225025	2	Standard
[	**Ba**	**137**	**75.625**	ug/L	1.799	2	45	395308	1	Standard
[>	**Tb**	**159**		ug/L			939696	921297	1	Standard
[	**Tl**	**205**	**24.799**	ug/L	0.796	3	211	406367	3	Standard
[	**Pb**	**208**	**24.163**	ug/L	0.426	1	282	497942	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: BGF0651-BS2
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 18:11:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	824791	2	Standard
	Be	**9**	**19.725**	ug/L	0.832	4	2	139466	2	Standard
	C	**13**		ug/L			18086	30050	0	Standard
	Cl	**37**		ug/L			7449359	7927403	2	Standard
>	**Sc**	**45**		ug/L			978216	995413	2	Standard
	V	**51**	**25.360**	ug/L	0.960	3	4861	500417	1	Standard
	V-1	**51**	**25.574**	ug/L	0.957	3	2839	508489	1	Standard
	Cr	**52**	**25.859**	ug/L	1.019	3	14201	420037	1	Standard
	Cr	**53**	**26.570**	ug/L	0.993	3	957	50045	1	Standard
	Mn	**55**	**26.006**	ug/L	1.027	3	647	578783	3	Standard
>	**Ge-1**	**72**		ug/L			76539	75133	2	KED
	Co	**59**	**27.520**	ug/L	0.496	1	33	121879	2	KED
	Ni	**60**	**27.290**	ug/L	0.789	2	15	33831	0	KED
	Ni	**62**	**28.227**	ug/L	0.369	1	16	5341	1	KED
	Cu	**63**	**28.106**	ug/L	0.618	2	45	90004	2	KED
	Cu	**65**	**28.138**	ug/L	1.156	4	20	44655	4	KED
	Zn	**66**	**85.149**	ug/L	1.240	1	108	37479	1	KED
	Zn	**67**	**77.943**	ug/L	1.303	1	17	5698	2	KED
	As	**75**	**24.786**	ug/L	0.629	2	5	7311	1	KED
	Se-1	**78**	**78.142**	ug/L	1.463	1	24	3003	1	KED
	Y	**89**		ug/L			538258	538090	1	Standard
	Kr	**83**		ug/L			36	114	17	Standard
>	**In-1**	**115**		ug/L			32248	31641	1	KED
	Mo	**98**	**-0.006**	ug/L	0.001	16	11	4	26	KED
	Cd	**111**	**25.204**	ug/L	0.244	0	0	9751	1	KED
	Cd	**114**	**25.438**	ug/L	0.413	1	1	25188	2	KED
>	**In**	**115**		ug/L			647272	630670	1	Standard
	Ag	**107**	**27.766**	ug/L	0.856	3	55	338856	2	Standard
	Sb	**121**	**-0.023**	ug/L	0.001	4	308	83	13	Standard
	Sb	**123**	**-0.024**	ug/L	0.003	11	245	65	29	Standard
	Ba	**135**	**29.220**	ug/L	1.508	5	22	89888	4	Standard
	Ba	**137**	**27.701**	ug/L	0.983	3	45	156194	2	Standard
>	**Tb**	**159**		ug/L			939696	993375	4	Standard
	Tl	**205**	**28.346**	ug/L	1.493	5	211	500312	4	Standard
	Pb	**208**	**27.726**	ug/L	1.129	4	282	615475	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVB
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 18:17:15
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	792085	4	Standard
	Be	**9**	**38.700**	ug/L	2.175	5	2	262476	1	Standard
	C	**13**		ug/L			18086	18581	1	Standard
	Cl	**37**		ug/L			7449359	7206596	1	Standard
>	**Sc**	**45**		ug/L			978216	934801	2	Standard
	V	**51**	**48.064**	ug/L	1.057	2	4861	886977	2	Standard
	V-1	**51**	**47.852**	ug/L	1.017	2	2839	891586	1	Standard
	Cr	**52**	**48.477**	ug/L	1.747	3	14201	727979	3	Standard
	Cr	**53**	**47.736**	ug/L	1.656	3	957	83735	2	Standard
	Mn	**55**	**48.752**	ug/L	1.551	3	647	1018465	0	Standard
>	**Ge-1**	**72**		ug/L			76539	69326	1	KED
	Co	**59**	**51.021**	ug/L	3.163	6	33	208435	5	KED
	Ni	**60**	**51.252**	ug/L	1.402	2	15	58631	1	KED
	Ni	**62**	**52.578**	ug/L	1.239	2	16	9168	1	KED
	Cu	**63**	**51.655**	ug/L	1.063	2	45	152642	3	KED
	Cu	**65**	**50.530**	ug/L	1.724	3	20	73982	2	KED
	Zn	**66**	**52.725**	ug/L	1.740	3	108	21451	2	KED
	Zn	**67**	**49.561**	ug/L	1.344	2	17	3349	2	KED
	As	**75**	**49.281**	ug/L	0.981	1	5	13412	1	KED
	Se-1	**78**	**48.213**	ug/L	1.732	3	24	1718	2	KED
	Y	**89**		ug/L			538258	521066	0	Standard
	Kr	**83**		ug/L			36	93	8	Standard
>	**In-1**	**115**		ug/L			32248	27993	1	KED
	Mo	**98**	**51.736**	ug/L	1.008	1	11	57379	1	KED
	Cd	**111**	**51.287**	ug/L	0.147	0	0	17555	1	KED
	Cd	**114**	**51.506**	ug/L	2.164	4	1	45095	2	KED
>	**In**	**115**		ug/L			647272	626235	1	Standard
	Ag	**107**	**46.822**	ug/L	1.193	2	55	567314	0	Standard
	Sb	**121**	**49.274**	ug/L	1.722	3	308	456442	1	Standard
	Sb	**123**	**49.569**	ug/L	0.635	1	245	357015	1	Standard
	Ba	**135**	**53.924**	ug/L	0.224	0	22	164769	2	Standard
	Ba	**137**	**52.209**	ug/L	1.095	2	45	292416	3	Standard
>	**Tb**	**159**		ug/L			939696	953979	2	Standard
	Tl	**205**	**53.237**	ug/L	1.713	3	211	903152	4	Standard
	Pb	**208**	**53.562**	ug/L	0.581	1	282	1142856	3	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBB
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 18:24:55
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	867944	7	Standard
	Be	**9**	**-0.000**	ug/L	0.000	1410	2	3	34	Standard
	C	**13**		ug/L			18086	19198	3	Standard
	Cl	**37**		ug/L			7449359	7069426	0	Standard
>	**Sc**	**45**		ug/L			978216	913495	3	Standard
	V	**51**	**-0.035**	ug/L	0.010	29	4861	3908	1	Standard
	V-1	**51**	**-0.036**	ug/L	0.003	9	2839	2002	4	Standard
	Cr	**52**	**-0.110**	ug/L	0.030	27	14201	11665	1	Standard
	Cr	**53**	**-0.110**	ug/L	0.010	8	957	708	5	Standard
	Mn	**55**	**0.052**	ug/L	0.002	4	647	1660	2	Standard
>	**Ge-1**	**72**		ug/L			76539	66730	1	KED
	Co	**59**	**0.062**	ug/L	0.092	149	33	270	133	KED
	Ni	**60**	**0.506**	ug/L	0.165	32	15	569	31	KED
	Ni	**62**	**0.554**	ug/L	0.166	29	16	107	25	KED
	Cu	**63**	**0.060**	ug/L	0.097	161	45	209	130	KED
	Cu	**65**	**0.065**	ug/L	0.104	159	20	109	133	KED
	Zn	**66**	**0.056**	ug/L	0.166	299	108	116	55	KED
	Zn	**67**	**0.025**	ug/L	0.164	657	17	17	61	KED
	As	**75**	**0.049**	ug/L	0.059	120	5	17	89	KED
	Se-1	**78**	**0.088**	ug/L	0.167	190	24	24	23	KED
	Y	**89**		ug/L			538258	533200	3	Standard
	Kr	**83**		ug/L			36	44	34	Standard
>	**In-1**	**115**		ug/L			32248	27541	2	KED
	Mo	**98**	**0.004**	ug/L	0.005	126	11	14	39	KED
	Cd	**111**	**0.006**	ug/L	0.004	58	0	2	43	KED
	Cd	**114**	**0.001**	ug/L	0.002	229	1	1	110	KED
>	**In**	**115**		ug/L			647272	623480	3	Standard
	Ag	**107**	**-0.001**	ug/L	0.000	29	55	41	12	Standard
	Sb	**121**	**0.078**	ug/L	0.009	11	308	1017	4	Standard
	Sb	**123**	**0.090**	ug/L	0.014	15	245	879	8	Standard
	Ba	**135**	**0.005**	ug/L	0.002	27	22	38	15	Standard
	Ba	**137**	**0.003**	ug/L	0.002	70	45	58	14	Standard
>	**Tb**	**159**		ug/L			939696	982285	2	Standard
	Tl	**205**	**-0.002**	ug/L	0.001	72	211	189	10	Standard
	Pb	**208**	**-0.002**	ug/L	0.001	48	282	255	6	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0334-01
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 18:29:51
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			680888	776678	0	Standard
	Be	9	0.030	ug/L	0.003	11	2	203	11	Standard
	C	13		ug/L			18086	671748	2	Standard
	Cl	37		ug/L			7449359	32323517	3	Standard
>	Sc	45		ug/L			978216	1042215	1	Standard
	V	51	41.658	ug/L	0.857	2	4861	857717	0	Standard
	V-1	51	47.378	ug/L	0.684	1	2839	984315	1	Standard
	Cr	52	84.192	ug/L	2.020	2	14201	1398448	0	Standard
	Cr	53	102.060	ug/L	1.825	1	957	198510	2	Standard
	Mn	55	68.363	ug/L	2.042	2	647	1592166	1	Standard
>	Ge-1	72		ug/L			76539	61020	0	KED
	Co	59	13.708	ug/L	0.282	2	33	49327	2	KED
	Ni	60	64.177	ug/L	2.046	3	15	64622	2	KED
	Ni	62	65.461	ug/L	1.452	2	16	10044	1	KED
	Cu	63	6.039	ug/L	0.151	2	45	15737	2	KED
	Cu	65	5.961	ug/L	0.092	1	20	7696	0	KED
	Zn	66	24.908	ug/L	0.970	3	108	8966	3	KED
	Zn	67	34.700	ug/L	1.034	2	17	2068	3	KED
	As	75	49.231	ug/L	0.647	1	5	11795	0	KED
	Se-1	78	0.929	ug/L	0.151	16	24	48	9	KED
	Y	89		ug/L			538258	533884	2	Standard
	Kr	83		ug/L			36	318	5	Standard
>	In-1	115		ug/L			32248	25194	2	KED
	Mo	98	7.217	ug/L	0.148	2	11	7211	0	KED
	Cd	111	0.090	ug/L	0.020	22	0	28	21	KED
	Cd	114	0.066	ug/L	0.053	80	1	53	78	KED
>	In	115		ug/L			647272	561523	2	Standard
	Ag	107	0.149	ug/L	0.019	12	55	1669	9	Standard
	Sb	121	3.457	ug/L	0.134	3	308	28955	1	Standard
	Sb	123	3.414	ug/L	0.052	1	245	22243	1	Standard
	Ba	135	272.245	ug/L	5.948	2	22	745581	1	Standard
	Ba	137	252.268	ug/L	0.796	0	45	1266517	2	Standard
>	Tb	159		ug/L			939696	880299	0	Standard
	Tl	205	-0.007	ug/L	0.001	15	211	82	21	Standard
	Pb	208	1.368	ug/L	0.017	1	282	27190	1	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0376-02 DEL
Sample Dil Factor: 50
Comments:
Sample Date/Time: Thursday, June 28, 2018 18:37:31
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	749645	4	Standard
	Be	**9**	**0.000**	ug/L	0.001	239	2	5	108	Standard
	C	**13**		ug/L			18086	22946	0	Standard
	Cl	**37**		ug/L			7449359	7366553	3	Standard
>	**Sc**	**45**		ug/L			978216	954577	4	Standard
	V	**51**	**0.025**	ug/L	0.005	21	4861	5205	2	Standard
	V-1	**51**	**0.073**	ug/L	0.002	2	2839	4149	4	Standard
	Cr	**52**	**0.282**	ug/L	0.037	13	14201	18097	3	Standard
	Cr	**53**	**0.436**	ug/L	0.024	5	957	1707	3	Standard
	Mn	**55**	**7.412**	ug/L	0.216	2	647	158595	1	Standard
>	**Ge-1**	**72**		ug/L			76539	73368	2	KED
	Co	**59**	**0.010**	ug/L	0.005	56	33	73	32	KED
	Ni	**60**	**0.351**	ug/L	0.018	5	15	440	7	KED
	Ni	**62**	**0.546**	ug/L	0.060	10	16	116	7	KED
	Cu	**63**	**0.804**	ug/L	0.040	5	45	2554	2	KED
	Cu	**65**	**0.789**	ug/L	0.069	8	20	1240	5	KED
	Zn	**66**	**0.188**	ug/L	0.017	9	108	184	4	KED
	Zn	**67**	**0.245**	ug/L	0.128	52	17	34	24	KED
	As	**75**	**0.011**	ug/L	0.002	19	5	8	5	KED
	Se-1	**78**	**0.059**	ug/L	0.104	177	24	25	12	KED
	Y	**89**		ug/L			538258	502455	1	Standard
	Kr	**83**		ug/L			36	82	21	Standard
>	**In-1**	**115**		ug/L			32248	29566	2	KED
	Mo	**98**	**0.010**	ug/L	0.002	20	11	23	12	KED
	Cd	**111**	**0.007**	ug/L	0.001	18	0	3	17	KED
	Cd	**114**	**0.003**	ug/L	0.000	3	1	3	3	KED
>	**In**	**115**		ug/L			647272	632481	3	Standard
	Ag	**107**	**0.350**	ug/L	0.020	5	55	4331	1	Standard
	Sb	**121**	**-0.009**	ug/L	0.002	21	308	212	9	Standard
	Sb	**123**	**-0.012**	ug/L	0.001	4	245	154	1	Standard
	Ba	**135**	**2.725**	ug/L	0.105	3	22	8424	2	Standard
	Ba	**137**	**2.615**	ug/L	0.197	7	45	14810	5	Standard
>	**Tb**	**159**		ug/L			939696	941738	3	Standard
	Tl	**205**	**-0.004**	ug/L	0.000	6	211	146	4	Standard
	Pb	**208**	**0.009**	ug/L	0.001	15	282	467	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: 18F0376-01
Sample Dil Factor: 20 DEL
Comments:
Sample Date/Time: Thursday, June 28, 2018 18:42:26
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	1056434	2	Standard
	Be	**9**	**0.002**	ug/L	0.000	14	2	17	12	Standard
	C	**13**		ug/L			18086	134825	0	Standard
	Cl	**37**		ug/L			7449359	5416986	3	Standard
>	**Sc**	**45**		ug/L			978216	870331	2	Standard
	V	**51**	**0.219**	ug/L	0.070	31	4861	8053	12	Standard
	V-1	**51**	**0.189**	ug/L	0.009	4	2839	5791	1	Standard
	Cr	**52**	**8.378**	ug/L	0.149	1	14201	127590	0	Standard
	Cr	**53**	**7.946**	ug/L	0.070	0	957	13694	3	Standard
	Mn	**55**	**216.157**	ug/L	6.374	2	647	4202833	2	Standard
>	**Ge-1**	**72**		ug/L			76539	60735	2	KED
	Co	**59**	**0.010**	ug/L	0.002	23	33	60	15	KED
	Ni	**60**	**0.715**	ug/L	0.007	0	15	728	1	KED
	Ni	**62**	**0.900**	ug/L	0.049	5	16	150	7	KED
	Cu	**63**	**0.031**	ug/L	0.005	15	45	116	10	KED
	Cu	**65**	**0.032**	ug/L	0.008	23	20	57	17	KED
	Zn	**66**	**1.074**	ug/L	0.114	10	108	466	6	KED
	Zn	**67**	**0.926**	ug/L	0.161	17	17	68	12	KED
	As	**75**	**0.012**	ug/L	0.008	62	5	6	25	KED
	Se-1	**78**	**1.057**	ug/L	0.119	11	24	52	5	KED
	Y	**89**		ug/L			538258	405506	3	Standard
	Kr	**83**		ug/L			36	87	13	Standard
>	**In-1**	**115**		ug/L			32248	23242	0	KED
	Mo	**98**	**0.015**	ug/L	0.004	23	11	22	14	KED
	Cd	**111**	**0.005**	ug/L	0.003	66	0	1	50	KED
	Cd	**114**	**0.000**	ug/L	0.002	1352	1	0	156	KED
>	**In**	**115**		ug/L			647272	510961	2	Standard
	Ag	**107**	**0.224**	ug/L	0.010	4	55	2256	2	Standard
	Sb	**121**	**0.050**	ug/L	0.005	9	308	619	7	Standard
	Sb	**123**	**0.036**	ug/L	0.006	17	245	405	10	Standard
	Ba	**135**	**0.482**	ug/L	0.032	6	22	1217	4	Standard
	Ba	**137**	**0.491**	ug/L	0.035	7	45	2282	8	Standard
>	**Tb**	**159**		ug/L			939696	1003330	1	Standard
	Tl	**205**	**-0.011**	ug/L	0.000	3	211	32	21	Standard
	Pb	**208**	**0.006**	ug/L	0.002	29	282	443	9	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCVC
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 18:50:07
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	Li	6		ug/L			680888	1057685	6	Standard
	Be	9	32.326	ug/L	3.079	9	2	292063	3	Standard
	C	13		ug/L			18086	20875	2	Standard
	Cl	37		ug/L			7449359	5813959	2	Standard
>	Sc	45		ug/L			978216	873991	0	Standard
	V	51	46.615	ug/L	0.756	1	4861	804554	2	Standard
	V-1	51	46.261	ug/L	0.849	1	2839	806126	2	Standard
	Cr	52	47.640	ug/L	0.205	0	14201	669249	0	Standard
	Cr	53	46.389	ug/L	0.531	1	957	76128	0	Standard
	Mn	55	47.440	ug/L	0.456	0	647	927030	1	Standard
>	Ge-1	72		ug/L			76539	55076	1	KED
	Co	59	52.646	ug/L	1.677	3	33	170883	2	KED
	Ni	60	53.997	ug/L	0.277	0	15	49084	1	KED
	Ni	62	54.289	ug/L	0.416	0	16	7521	1	KED
	Cu	63	53.722	ug/L	1.175	2	45	126098	2	KED
	Cu	65	53.374	ug/L	1.443	2	20	62092	2	KED
	Zn	66	53.354	ug/L	1.078	2	108	17246	1	KED
	Zn	67	50.947	ug/L	0.975	1	17	2734	1	KED
	As	75	48.309	ug/L	0.882	1	5	10446	1	KED
	Se-1	78	47.780	ug/L	1.145	2	24	1353	1	KED
	Y	89		ug/L			538258	427060	2	Standard
	Kr	83		ug/L			36	47	18	Standard
>	In-1	115		ug/L			32248	22576	1	KED
	Mo	98	52.933	ug/L	1.218	2	11	47343	1	KED
	Cd	111	51.253	ug/L	0.671	1	0	14147	0	KED
	Cd	114	51.822	ug/L	0.581	1	1	36613	2	KED
>	In	115		ug/L			647272	544881	3	Standard
	Ag	107	41.840	ug/L	1.542	3	55	440812	0	Standard
	Sb	121	53.171	ug/L	1.700	3	308	428387	1	Standard
	Sb	123	51.927	ug/L	1.379	2	245	325251	2	Standard
	Ba	135	59.754	ug/L	2.166	3	22	158838	4	Standard
	Ba	137	60.297	ug/L	0.444	0	45	293752	3	Standard
>	Tb	159		ug/L			939696	1046472	1	Standard
	Tl	205	51.666	ug/L	1.747	3	211	961344	3	Standard
	Pb	208	50.961	ug/L	0.797	1	282	1192778	2	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: SEQ-CCBC
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 18:57:47
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	1028687	1	Standard
	Be	**9**	**0.000**	ug/L	0.000	357	2	4	49	Standard
	C	**13**		ug/L			18086	19545	2	Standard
	Cl	**37**		ug/L			7449359	6126896	1	Standard
>	**Sc**	**45**		ug/L			978216	878246	2	Standard
	V	**51**	**-0.039**	ug/L	0.007	18	4861	3696	1	Standard
	V-1	**51**	**-0.099**	ug/L	0.002	1	2839	821	0	Standard
	Cr	**52**	**-0.130**	ug/L	0.026	19	14201	10944	1	Standard
	Cr	**53**	**-0.333**	ug/L	0.008	2	957	317	3	Standard
	Mn	**55**	**0.028**	ug/L	0.007	24	647	1135	9	Standard
>	**Ge-1**	**72**		ug/L			76539	55510	1	KED
	Co	**59**	**0.009**	ug/L	0.004	44	33	52	25	KED
	Ni	**60**	**0.365**	ug/L	0.079	21	15	344	20	KED
	Ni	**62**	**0.418**	ug/L	0.170	40	16	70	35	KED
	Cu	**63**	**0.004**	ug/L	0.006	142	45	43	33	KED
	Cu	**65**	**0.005**	ug/L	0.003	57	20	20	15	KED
	Zn	**66**	**0.019**	ug/L	0.025	131	108	85	11	KED
	Zn	**67**	**-0.051**	ug/L	0.102	199	17	10	54	KED
	As	**75**	**0.013**	ug/L	0.007	53	5	6	23	KED
	Se-1	**78**	**0.082**	ug/L	0.040	48	24	20	7	KED
	Y	**89**		ug/L			538258	458040	3	Standard
	Kr	**83**		ug/L			36	29	46	Standard
>	**In-1**	**115**		ug/L			32248	22648	1	KED
	Mo	**98**	**0.019**	ug/L	0.003	14	11	25	8	KED
	Cd	**111**	**0.008**	ug/L	0.007	94	0	2	78	KED
	Cd	**114**	**0.005**	ug/L	0.002	32	1	4	28	KED
>	**In**	**115**		ug/L			647272	570367	5	Standard
	Ag	**107**	**0.012**	ug/L	0.003	26	55	179	21	Standard
	Sb	**121**	**0.090**	ug/L	0.006	6	308	1027	6	Standard
	Sb	**123**	**0.087**	ug/L	0.003	3	245	784	5	Standard
	Ba	**135**	**0.010**	ug/L	0.006	57	22	47	36	Standard
	Ba	**137**	**0.003**	ug/L	0.006	188	45	57	59	Standard
>	**Tb**	**159**		ug/L			939696	1043283	0	Standard
	Tl	**205**	**-0.002**	ug/L	0.006	302	211	198	53	Standard
	Pb	**208**	**0.001**	ug/L	0.007	866	282	332	50	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 19:02:42
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	1162856	3	Standard
	Be	**9**	**0.000**	ug/L	0.000	286	2	5	43	Standard
	C	**13**		ug/L			18086	22360	3	Standard
	Cl	**37**		ug/L			7449359	6437476	1	Standard
>	**Sc**	**45**		ug/L			978216	1017443	2	Standard
	V	**51**	**-0.040**	ug/L	0.008	19	4861	4261	4	Standard
	V-1	**51**	**-0.108**	ug/L	0.002	1	2839	768	3	Standard
	Cr	**52**	**-0.142**	ug/L	0.025	17	14201	12494	4	Standard
	Cr	**53**	**-0.371**	ug/L	0.001	0	957	294	2	Standard
	Mn	**55**	**0.056**	ug/L	0.002	4	647	1941	0	Standard
>	**Ge-1**	**72**		ug/L			76539	60518	2	KED
	Co	**59**	**0.012**	ug/L	0.006	51	33	68	30	KED
	Ni	**60**	**0.427**	ug/L	0.114	26	15	438	25	KED
	Ni	**62**	**0.286**	ug/L	0.029	10	16	56	5	KED
	Cu	**63**	**0.001**	ug/L	0.004	310	45	39	26	KED
	Cu	**65**	**0.005**	ug/L	0.005	101	20	22	30	KED
	Zn	**66**	**-0.142**	ug/L	0.015	10	108	35	12	KED
	Zn	**67**	**-0.130**	ug/L	0.040	30	17	6	34	KED
	As	**75**	**0.006**	ug/L	0.009	157	5	5	40	KED
	Se-1	**78**	**-0.076**	ug/L	0.074	97	24	17	14	KED
	Y	**89**		ug/L			538258	501610	2	Standard
	Kr	**83**		ug/L			36	35	27	Standard
>	**In-1**	**115**		ug/L			32248	25447	0	KED
	Mo	**98**	**0.006**	ug/L	0.002	33	11	14	12	KED
	Cd	**111**	**0.000**	ug/L	0.004	799	0	0	173	KED
	Cd	**114**	**0.002**	ug/L	0.003	135	1	2	90	KED
>	**In**	**115**		ug/L			647272	636357	1	Standard
	Ag	**107**	**0.005**	ug/L	0.001	24	55	118	13	Standard
	Sb	**121**	**0.029**	ug/L	0.003	10	308	577	3	Standard
	Sb	**123**	**0.033**	ug/L	0.007	20	245	481	9	Standard
	Ba	**135**	**-0.000**	ug/L	0.002	2400	22	22	21	Standard
	Ba	**137**	**-0.002**	ug/L	0.003	126	45	33	43	Standard
>	**Tb**	**159**		ug/L			939696	1185016	1	Standard
	Tl	**205**	**-0.010**	ug/L	0.001	9	211	65	28	Standard
	Pb	**208**	**-0.008**	ug/L	0.000	5	282	139	8	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 19:07:38
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	1186944	2	Standard
	Be	**9**	**-0.000**	ug/L	0.000	93	2	3	34	Standard
	C	**13**		ug/L			18086	22384	2	Standard
	Cl	**37**		ug/L			7449359	6517050	1	Standard
>	**Sc**	**45**		ug/L			978216	1018248	0	Standard
	V	**51**	**-0.039**	ug/L	0.003	8	4861	4276	0	Standard
	V-1	**51**	**-0.113**	ug/L	0.001	1	2839	659	3	Standard
	Cr	**52**	**-0.124**	ug/L	0.011	8	14201	12791	1	Standard
	Cr	**53**	**-0.375**	ug/L	0.005	1	957	288	3	Standard
	Mn	**55**	**0.049**	ug/L	0.004	8	647	1799	4	Standard
>	**Ge-1**	**72**		ug/L			76539	61872	1	KED
	Co	**59**	**0.020**	ug/L	0.018	87	33	99	62	KED
	Ni	**60**	**0.333**	ug/L	0.034	10	15	351	8	KED
	Ni	**62**	**0.437**	ug/L	0.064	14	16	81	11	KED
	Cu	**63**	**0.016**	ug/L	0.022	141	45	77	73	KED
	Cu	**65**	**0.012**	ug/L	0.014	114	20	31	53	KED
	Zn	**66**	**-0.150**	ug/L	0.007	4	108	33	6	KED
	Zn	**67**	**-0.113**	ug/L	0.055	48	17	7	43	KED
	As	**75**	**0.016**	ug/L	0.010	65	5	7	30	KED
	Se-1	**78**	**-0.028**	ug/L	0.128	462	24	19	22	KED
	Y	**89**		ug/L			538258	512251	3	Standard
	Kr	**83**		ug/L			36	42	37	Standard
>	**In-1**	**115**		ug/L			32248	25552	2	KED
	Mo	**98**	**-0.002**	ug/L	0.006	245	11	6	85	KED
	Cd	**111**	**0.002**	ug/L	0.005	192	0	1	114	KED
	Cd	**114**	**0.002**	ug/L	0.001	73	1	2	46	KED
>	**In**	**115**		ug/L			647272	623917	2	Standard
	Ag	**107**	**0.002**	ug/L	0.001	33	55	74	7	Standard
	Sb	**121**	**-0.007**	ug/L	0.002	28	308	234	9	Standard
	Sb	**123**	**-0.006**	ug/L	0.004	55	245	191	16	Standard
	Ba	**135**	**-0.001**	ug/L	0.001	156	22	19	20	Standard
	Ba	**137**	**-0.003**	ug/L	0.001	32	45	25	22	Standard
>	**Tb**	**159**		ug/L			939696	1152590	3	Standard
	Tl	**205**	**-0.009**	ug/L	0.001	6	211	66	17	Standard
	Pb	**208**	**-0.008**	ug/L	0.000	5	282	128	7	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: RINSE
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 19:12:34
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			680888	1218114	4	Standard
⌊	**Be**	**9**	**0.000**	ug/L	0.000	510	2	5	57	Standard
	C	**13**		ug/L			18086	22582	0	Standard
	Cl	**37**		ug/L			7449359	6610130	3	Standard
⌈>	**Sc**	**45**		ug/L			978216	1016298	1	Standard
⌈	**V**	**51**	**-0.040**	ug/L	0.005	13	4861	4255	1	Standard
⌊	**V-1**	**51**	**-0.117**	ug/L	0.002	2	2839	585	7	Standard
⌈	**Cr**	**52**	**-0.134**	ug/L	0.026	19	14201	12598	2	Standard
⌊	**Cr**	**53**	**-0.395**	ug/L	0.009	2	957	249	5	Standard
⌊	**Mn**	**55**	**0.045**	ug/L	0.001	3	647	1695	1	Standard
⌈>	**Ge-1**	**72**		ug/L			76539	62504	2	KED
⌈	**Co**	**59**	**0.009**	ug/L	0.001	10	33	60	7	KED
⌊	**Ni**	**60**	**0.270**	ug/L	0.030	11	15	290	8	KED
⌈	**Ni**	**62**	**0.245**	ug/L	0.116	47	16	52	35	KED
⌈	**Cu**	**63**	**0.001**	ug/L	0.003	278	45	40	17	KED
⌊	**Cu**	**65**	**0.003**	ug/L	0.004	148	20	20	28	KED
⌈	**Zn**	**66**	**-0.131**	ug/L	0.040	30	108	40	35	KED
⌊	**Zn**	**67**	**-0.093**	ug/L	0.073	78	17	8	49	KED
⌈	**As**	**75**	**0.008**	ug/L	0.004	45	5	6	13	KED
⌊	**Se-1**	**78**	**-0.075**	ug/L	0.151	201	24	17	28	KED
	Y	**89**		ug/L			538258	510642	4	Standard
	Kr	**83**		ug/L			36	30	28	Standard
⌈>	**In-1**	**115**		ug/L			32248	27099	1	KED
⌈	**Mo**	**98**	**-0.006**	ug/L	0.001	13	11	2	31	KED
⌈	**Cd**	**111**	**0.006**	ug/L	0.007	109	0	2	86	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.003	188	1	2	121	KED
⌈>	**In**	**115**		ug/L			647272	631258	3	Standard
⌈	**Ag**	**107**	**0.001**	ug/L	0.001	91	55	64	11	Standard
⌈	**Sb**	**121**	**-0.017**	ug/L	0.002	13	308	142	15	Standard
⌊	**Sb**	**123**	**-0.015**	ug/L	0.002	15	245	127	15	Standard
⌈	**Ba**	**135**	**-0.000**	ug/L	0.000	214	22	21	5	Standard
⌊	**Ba**	**137**	**-0.004**	ug/L	0.001	14	45	23	12	Standard
⌈>	**Tb**	**159**		ug/L			939696	1145345	6	Standard
⌈	**Tl**	**205**	**-0.010**	ug/L	0.001	6	211	56	23	Standard
⌊	**Pb**	**208**	**-0.008**	ug/L	0.001	9	282	140	14	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 19:17:30
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			680888	965439	3	Standard
⌊	**Be**	**9**	**-0.000**	ug/L	0.000	218	2	2	86	Standard
	C	**13**		ug/L			18086	19437	2	Standard
	Cl	**37**		ug/L			7449359	6573772	1	Standard
⌈>	**Sc**	**45**		ug/L			978216	856057	1	Standard
⌈	**V**	**51**	**-0.035**	ug/L	0.007	19	4861	3668	2	Standard
⌊	**V-1**	**51**	**-0.116**	ug/L	0.002	1	2839	503	5	Standard
⌈	**Cr**	**52**	**-0.118**	ug/L	0.032	26	14201	10825	2	Standard
⌊	**Cr**	**53**	**-0.394**	ug/L	0.022	5	957	211	15	Standard
⌊	**Mn**	**55**	**0.005**	ug/L	0.001	23	647	669	3	Standard
⌈>	**Ge-1**	**72**		ug/L			76539	59146	2	KED
⌈	**Co**	**59**	**0.008**	ug/L	0.002	28	33	53	14	KED
⌊	**Ni**	**60**	**0.217**	ug/L	0.016	7	15	223	5	KED
⌈	**Ni**	**62**	**0.265**	ug/L	0.042	15	16	52	11	KED
⌊	**Cu**	**63**	**0.002**	ug/L	0.003	122	45	40	17	KED
⌈	**Cu**	**65**	**0.002**	ug/L	0.010	531	20	17	65	KED
⌊	**Zn**	**66**	**-0.095**	ug/L	0.053	55	108	50	34	KED
⌈	**Zn**	**67**	**-0.118**	ug/L	0.019	15	17	6	15	KED
⌊	**As**	**75**	**0.009**	ug/L	0.005	50	5	6	19	KED
⌊	**Se-1**	**78**	**-0.056**	ug/L	0.055	98	24	17	6	KED
	Y	**89**		ug/L			538258	463415	1	Standard
	Kr	**83**		ug/L			36	36	13	Standard
⌈>	**In-1**	**115**		ug/L			32248	23728	0	KED
⌈	**Mo**	**98**	**-0.005**	ug/L	0.003	56	11	4	60	KED
⌊	**Cd**	**111**	**0.003**	ug/L	0.002	68	0	1	43	KED
⌊	**Cd**	**114**	**0.002**	ug/L	0.001	61	1	2	43	KED
⌈>	**In**	**115**		ug/L			647272	572739	2	Standard
⌈	**Ag**	**107**	**-0.002**	ug/L	0.001	45	55	25	41	Standard
⌈	**Sb**	**121**	**-0.026**	ug/L	0.001	3	308	50	16	Standard
⌊	**Sb**	**123**	**-0.027**	ug/L	0.000	0	245	40	3	Standard
⌈	**Ba**	**135**	**-0.005**	ug/L	0.000	7	22	5	21	Standard
⌊	**Ba**	**137**	**-0.004**	ug/L	0.001	28	45	18	33	Standard
⌈>	**Tb**	**159**		ug/L			939696	1009745	2	Standard
⌈	**Tl**	**205**	**-0.001**	ug/L	0.002	211	211	213	10	Standard
⌊	**Pb**	**208**	**-0.010**	ug/L	0.001	6	282	69	23	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 19:22:26
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
>	**Li**	**6**		ug/L			680888	914978	4	Standard
	Be	**9**	**0.000**	ug/L	0.000	713	2	3	86	Standard
	C	**13**		ug/L			18086	19114	1	Standard
	Cl	**37**		ug/L			7449359	6587052	2	Standard
>	**Sc**	**45**		ug/L			978216	847956	1	Standard
	V	**51**	**-0.036**	ug/L	0.006	16	4861	3608	2	Standard
	V-1	**51**	**-0.118**	ug/L	0.001	0	2839	470	2	Standard
	Cr	**52**	**-0.126**	ug/L	0.014	10	14201	10619	1	Standard
	Cr	**53**	**-0.403**	ug/L	0.008	1	957	196	6	Standard
	Mn	**55**	**0.001**	ug/L	0.001	181	647	574	2	Standard
>	**Ge-1**	**72**		ug/L			76539	58321	1	KED
	Co	**59**	**0.004**	ug/L	0.001	27	33	38	11	KED
	Ni	**60**	**0.158**	ug/L	0.020	12	15	163	12	KED
	Ni	**62**	**0.143**	ug/L	0.049	34	16	33	22	KED
	Cu	**63**	**-0.003**	ug/L	0.005	168	45	26	49	KED
	Cu	**65**	**-0.002**	ug/L	0.006	357	20	13	62	KED
	Zn	**66**	**-0.118**	ug/L	0.025	21	108	42	22	KED
	Zn	**67**	**-0.061**	ug/L	0.082	134	17	10	47	KED
	As	**75**	**0.009**	ug/L	0.012	123	5	6	43	KED
	Se-1	**78**	**-0.102**	ug/L	0.048	46	24	15	9	KED
	Y	**89**		ug/L			538258	458874	3	Standard
	Kr	**83**		ug/L			36	33	3	Standard
>	**In-1**	**115**		ug/L			32248	23394	1	KED
	Mo	**98**	**-0.005**	ug/L	0.000	1	11	3	3	KED
	Cd	**111**	**0.004**	ug/L	0.002	47	0	1	34	KED
	Cd	**114**	**0.004**	ug/L	0.004	110	1	3	87	KED
>	**In**	**115**		ug/L			647272	570704	2	Standard
	Ag	**107**	**-0.002**	ug/L	0.001	44	55	31	22	Standard
	Sb	**121**	**-0.027**	ug/L	0.001	2	308	40	13	Standard
	Sb	**123**	**-0.028**	ug/L	0.001	2	245	35	11	Standard
	Ba	**135**	**-0.004**	ug/L	0.001	31	22	7	50	Standard
	Ba	**137**	**-0.005**	ug/L	0.001	11	45	14	19	Standard
>	**Tb**	**159**		ug/L			939696	961069	3	Standard
	Tl	**205**	**-0.004**	ug/L	0.002	46	211	148	17	Standard
	Pb	**208**	**-0.010**	ug/L	0.001	7	282	66	27	Standard

ICP-MS Quantitative Analysis - Summary Report

Sample ID: DI
Sample Dil Factor:
Comments:
Sample Date/Time: Thursday, June 28, 2018 19:27:21
Number of Replicates: 3
Method File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Method\200.8nomin_KED_UCT.mth
Tuning File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\MassCal\Default.tun
Optimization File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\Conditions\Default.dac
Calibration File: C:\Users\metals\Documents\PerkinElmer Syngistix\ICPMS_metals\System\062818.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD	Mode
⌈>	**Li**	**6**		ug/L			680888	921831	2	Standard
⌊	**Be**	**9**	**-0.000**	ug/L	0.000	415	2	3	34	Standard
	C	**13**		ug/L			18086	18270	3	Standard
	Cl	**37**		ug/L			7449359	6546219	0	Standard
⌈>	**Sc**	**45**		ug/L			978216	847399	3	Standard
⌈	**V**	**51**	**-0.038**	ug/L	0.008	21	4861	3571	3	Standard
⌊	**V-1**	**51**	**-0.120**	ug/L	0.001	1	2839	437	7	Standard
⌈	**Cr**	**52**	**-0.127**	ug/L	0.036	28	14201	10599	2	Standard
⌊	**Cr**	**53**	**-0.403**	ug/L	0.009	2	957	195	4	Standard
⌊	**Mn**	**55**	**0.000**	ug/L	0.001	355	647	567	1	Standard
⌈>	**Ge-1**	**72**		ug/L			76539	57687	5	KED
⌈	**Co**	**59**	**0.004**	ug/L	0.001	17	33	40	9	KED
⌊	**Ni**	**60**	**0.155**	ug/L	0.027	17	15	158	16	KED
⌈	**Ni**	**62**	**0.152**	ug/L	0.024	16	16	34	5	KED
⌈	**Cu**	**63**	**-0.001**	ug/L	0.005	697	45	33	43	KED
⌊	**Cu**	**65**	**0.003**	ug/L	0.003	86	20	19	20	KED
⌈	**Zn**	**66**	**-0.083**	ug/L	0.010	12	108	53	8	KED
⌊	**Zn**	**67**	**-0.070**	ug/L	0.056	80	17	9	34	KED
⌈	**As**	**75**	**0.002**	ug/L	0.002	103	5	4	11	KED
⌊	**Se-1**	**78**	**-0.029**	ug/L	0.089	312	24	17	9	KED
	Y	**89**		ug/L			538258	464335	1	Standard
	Kr	**83**		ug/L			36	41	16	Standard
⌈>	**In-1**	**115**		ug/L			32248	23868	2	KED
⌈	**Mo**	**98**	**-0.008**	ug/L	0.001	16	11	1	101	KED
⌈	**Cd**	**111**	**0.003**	ug/L	0.002	65	0	1	43	KED
⌊	**Cd**	**114**	**0.001**	ug/L	0.000	15	1	1	7	KED
⌈>	**In**	**115**		ug/L			647272	572716	1	Standard
⌈	**Ag**	**107**	**-0.001**	ug/L	0.000	29	55	33	13	Standard
⌈	**Sb**	**121**	**-0.028**	ug/L	0.000	0	308	31	6	Standard
⌊	**Sb**	**123**	**-0.029**	ug/L	0.001	4	245	23	33	Standard
⌈	**Ba**	**135**	**-0.005**	ug/L	0.001	19	22	5	57	Standard
⌊	**Ba**	**137**	**-0.005**	ug/L	0.001	18	45	13	37	Standard
⌈>	**Tb**	**159**		ug/L			939696	961100	2	Standard
⌈	**Tl**	**205**	**-0.005**	ug/L	0.000	6	211	134	4	Standard
⌊	**Pb**	**208**	**-0.011**	ug/L	0.000	0	282	59	3	Standard

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00044
Control Limt: +/- 10.00%
Sequence: SGF0239

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0239-ICV1	Arsenic-75a (dissolved)	50.000	49.9	99.8	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	47.0	94.1	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	47.0	93.9	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	51.4	103	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	51.4	103	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	50.4	101	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	51.1	102	ug/L	PA 6020A UCT-KE
SGF0239-CCV1	Arsenic-75a (dissolved)	50.000	50.1	100	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	49.8	99.6	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	49.3	98.7	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	50.5	101	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	50.1	100	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	51.6	103	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	53.0	106	ug/L	PA 6020A UCT-KE
SGF0239-CCV2	Arsenic-75a (dissolved)	50.000	49.9	99.8	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	49.2	98.4	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	49.7	99.4	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	50.4	101	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	49.3	98.5	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	51.1	102	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	51.1	102	ug/L	PA 6020A UCT-KE
SGF0239-CCV3	Arsenic-75a (dissolved)	50.000	49.4	98.9	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	48.6	97.2	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	49.1	98.3	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	50.7	101	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	50.5	101	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	50.7	101	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	50.1	100	ug/L	PA 6020A UCT-KE
SGF0239-CCV4	Arsenic-75a (dissolved)	50.000	49.0	98.1	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	48.0	95.9	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	48.0	95.9	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	49.3	98.6	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	48.4	96.8	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	51.0	102	ug/L	PA 6020A UCT-KE

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00044
Control Limt: +/- 10.00%
Sequence: SGF0239

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0239-CCV4	Zinc-67 (dissolved)	50.000	49.7	99.3	ug/L	PA 6020A UCT-KE
SGF0239-CCV5	Arsenic-75a (dissolved)	50.000	48.9	97.8	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	49.0	98.1	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	49.4	98.8	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	50.7	101	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	49.6	99.2	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	50.9	102	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	51.2	102	ug/L	PA 6020A UCT-KE
SGF0239-CCV6	Arsenic-75a (dissolved)	50.000	48.8	97.5	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	47.6	95.2	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	48.7	97.3	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	49.5	99.0	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	50.1	100	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	51.3	103	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	51.1	102	ug/L	PA 6020A UCT-KE
SGF0239-CCV7	Arsenic-75a (dissolved)	50.000	48.3	96.5	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	48.5	97.0	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	48.4	96.8	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	50.4	101	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	49.9	99.7	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	51.5	103	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	51.7	103	ug/L	PA 6020A UCT-KE
SGF0239-CCV8	Arsenic-75a (dissolved)	50.000	48.6	97.3	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	47.6	95.2	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	47.3	94.7	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	51.4	103	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	50.7	101	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	52.0	104	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	52.9	106	ug/L	PA 6020A UCT-KE
SGF0239-CCV9	Arsenic-75a (dissolved)	50.000	55.3	111	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	47.8	95.5	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	47.8	95.6	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	60.2	120	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	58.5	117	ug/L	PA 6020A UCT-KE

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00044
Control Limt: +/- 10.00%
Sequence: SGF0239

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0239-CCV9	Zinc-66 (dissolved)	50.000	61.2	122	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	59.9	120	ug/L	PA 6020A UCT-KE

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00048
Control Limt: +/- 10.00%
Sequence: SGF0262

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0262-ICV1	Arsenic-75a (dissolved)	50.000	49.5	99.0	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	50.1	100	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	48.8	97.5	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	49.5	98.9	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	50.3	101	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	49.0	97.9	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	48.9	97.9	ug/L	PA 6020A UCT-KE
SGF0262-CCV1	Arsenic-75a (dissolved)	50.000	51.0	102	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	52.0	104	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	51.2	102	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	51.9	104	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	51.4	103	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	52.1	104	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	53.7	107	ug/L	PA 6020A UCT-KE
SGF0262-CCV2	Arsenic-75a (dissolved)	50.000	51.1	102	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	53.0	106	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	52.1	104	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	50.8	102	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	51.6	103	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	53.9	108	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	52.9	106	ug/L	PA 6020A UCT-KE
SGF0262-CCV3	Arsenic-75a (dissolved)	50.000	51.0	102	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	51.9	104	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	50.1	100	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	50.1	100	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	49.9	99.9	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	50.7	101	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	52.1	104	ug/L	PA 6020A UCT-KE
SGF0262-CCV4	Arsenic-75a (dissolved)	50.000	51.4	103	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	50.2	100	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	49.6	99.2	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	49.9	99.7	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	49.5	98.9	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	51.3	103	ug/L	PA 6020A UCT-KE

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00048
Control Limt: +/- 10.00%
Sequence: SGF0262

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0262-CCV4	Zinc-67 (dissolved)	50.000	50.8	102	ug/L	PA 6020A UCT-KE
SGF0262-CCV5	Arsenic-75a (dissolved)	50.000	50.4	101	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	50.9	102	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	49.1	98.2	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	48.4	96.9	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	48.6	97.3	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	50.7	101	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	49.1	98.1	ug/L	PA 6020A UCT-KE
SGF0262-CCV6	Arsenic-75a (dissolved)	50.000	50.5	101	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	52.1	104	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	50.9	102	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	48.1	96.3	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	47.8	95.6	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	50.5	101	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	50.9	102	ug/L	PA 6020A UCT-KE
SGF0262-CCV7	Arsenic-75a (dissolved)	50.000	49.4	98.8	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	50.6	101	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	49.3	98.6	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	48.2	96.4	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	47.9	95.8	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	48.5	96.9	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	48.5	97.1	ug/L	PA 6020A UCT-KE
SGF0262-CCV8	Arsenic-75a (dissolved)	50.000	50.5	101	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	49.8	99.5	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	48.0	96.0	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	49.0	98.0	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	48.8	97.6	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	49.8	99.7	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	49.6	99.3	ug/L	PA 6020A UCT-KE
SGF0262-CCV9	Arsenic-75a (dissolved)	50.000	50.0	100	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	50.4	101	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	48.9	97.9	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	48.2	96.4	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	48.4	96.9	ug/L	PA 6020A UCT-KE

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00048
Control Limt: +/- 10.00%
Sequence: SGF0262

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0262-CCV9	Zinc-66 (dissolved)	50.000	49.8	99.6	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	51.0	102	ug/L	PA 6020A UCT-KE
SGF0262-CCVA	Arsenic-75a (dissolved)	50.000	50.1	100	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	49.3	98.5	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	47.4	94.9	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	47.7	95.3	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	47.2	94.4	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	49.9	99.9	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	48.3	96.6	ug/L	PA 6020A UCT-KE
SGF0262-CCVB	Arsenic-75a (dissolved)	50.000	50.0	99.9	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	50.8	102	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	49.6	99.2	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	46.5	93.0	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	47.1	94.2	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	50.2	100	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	50.1	100	ug/L	PA 6020A UCT-KE
SGF0262-CCVC	Arsenic-75a (dissolved)	50.000	49.7	99.4	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	49.8	99.6	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	48.4	96.7	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	47.5	95.1	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	47.9	95.9	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	51.2	102	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	50.7	101	ug/L	PA 6020A UCT-KE
SGF0262-CCVD	Arsenic-75a (dissolved)	50.000	49.5	99.0	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	50.1	100	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	48.7	97.4	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	46.8	93.6	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	46.2	92.5	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	49.1	98.1	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	50.0	99.9	ug/L	PA 6020A UCT-KE

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00049
Control Limt: +/- 10.00%
Sequence: SGF0278

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0278-ICV1	Copper-63 (dissolved)	50.000	50.0	100	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	49.8	99.6	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	48.3	96.6	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	49.7	99.4	ug/L	PA 6020A UCT-KE
SGF0278-CCV1	Copper-63 (dissolved)	50.000	50.4	101	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	50.4	101	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	51.0	102	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	51.1	102	ug/L	PA 6020A UCT-KE
SGF0278-CCV2	Copper-63 (dissolved)	50.000	50.7	101	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	51.0	102	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	51.4	103	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	52.0	104	ug/L	PA 6020A UCT-KE
SGF0278-CCV3	Copper-63 (dissolved)	50.000	51.4	103	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	50.9	102	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	51.7	103	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	50.7	101	ug/L	PA 6020A UCT-KE
SGF0278-CCV4	Copper-63 (dissolved)	50.000	52.3	105	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	52.3	105	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	52.1	104	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	52.7	105	ug/L	PA 6020A UCT-KE
SGF0278-CCV5	Copper-63 (dissolved)	50.000	51.3	103	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	51.2	102	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	50.8	102	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	53.4	107	ug/L	PA 6020A UCT-KE
SGF0278-CCV6	Copper-63 (dissolved)	50.000	51.8	104	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	52.3	105	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	51.7	103	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	50.6	101	ug/L	PA 6020A UCT-KE
SGF0278-CCV7	Copper-63 (dissolved)	50.000	51.8	104	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	52.2	104	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	51.5	103	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	51.3	103	ug/L	PA 6020A UCT-KE
SGF0278-CCV8	Copper-63 (dissolved)	50.000	51.9	104	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	52.1	104	ug/L	PA 6020A UCT-KE

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00049
Control Limt: +/- 10.00%
Sequence: SGF0278

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0278-CCV8	Zinc-66 (dissolved)	50.000	51.1	102	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	52.5	105	ug/L	PA 6020A UCT-KE
SGF0278-CCV9	Copper-63 (dissolved)	50.000	50.9	102	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	50.6	101	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	52.0	104	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	51.0	102	ug/L	PA 6020A UCT-KE
SGF0278-CCVA	Copper-63 (dissolved)	50.000	51.0	102	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	50.6	101	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	51.2	102	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	52.4	105	ug/L	PA 6020A UCT-KE
SGF0278-CCVB	Copper-63 (dissolved)	50.000	49.9	99.8	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	49.9	99.9	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	49.3	98.5	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	50.7	101	ug/L	PA 6020A UCT-KE
SGF0278-CCVC	Copper-63 (dissolved)	50.000	50.7	101	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	48.6	97.1	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	50.6	101	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	49.2	98.4	ug/L	PA 6020A UCT-KE

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00056
Control Limt: +/- 10.00%
Sequence: SGF0310

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0310-ICV1	Arsenic-75a (dissolved)	50.000	47.9	95.8	ug/L	PA 6020A UCT-KE
SGF0310-CCV1	Arsenic-75a (dissolved)	50.000	49.7	99.4	ug/L	PA 6020A UCT-KE
SGF0310-CCV2	Arsenic-75a (dissolved)	50.000	50.3	101	ug/L	PA 6020A UCT-KE
SGF0310-CCV3	Arsenic-75a (dissolved)	50.000	49.9	99.8	ug/L	PA 6020A UCT-KE
SGF0310-CCV4	Arsenic-75a (dissolved)	50.000	49.9	99.8	ug/L	PA 6020A UCT-KE
SGF0310-CCV5	Arsenic-75a (dissolved)	50.000	49.4	98.9	ug/L	PA 6020A UCT-KE
SGF0310-CCV6	Arsenic-75a (dissolved)	50.000	50.4	101	ug/L	PA 6020A UCT-KE
SGF0310-CCV7	Arsenic-75a (dissolved)	50.000	50.5	101	ug/L	PA 6020A UCT-KE
SGF0310-CCV8	Arsenic-75a (dissolved)	50.000	49.3	98.6	ug/L	PA 6020A UCT-KE
SGF0310-CCV9	Arsenic-75a (dissolved)	50.000	49.6	99.2	ug/L	PA 6020A UCT-KE
SGF0310-CCVA	Arsenic-75a (dissolved)	50.000	48.4	96.8	ug/L	PA 6020A UCT-KE
SGF0310-CCVB	Arsenic-75a (dissolved)	50.000	48.6	97.2	ug/L	PA 6020A UCT-KE
SGF0310-CCVC	Arsenic-75a (dissolved)	50.000	47.2	94.4	ug/L	PA 6020A UCT-KE
SGF0310-CCVD	Arsenic-75a (dissolved)	50.000	48.3	96.6	ug/L	PA 6020A UCT-KE

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00060
Control Limt: +/- 10.00%
Sequence: SGF0319

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0319-ICV1	Arsenic-75a (dissolved)	50.000	50.3	101	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	50.3	101	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	49.9	99.8	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	50.9	102	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	51.2	102	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	48.7	97.3	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	46.8	93.6	ug/L	PA 6020A UCT-KE
SGF0319-CCV1	Arsenic-75a (dissolved)	50.000	50.4	101	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	51.2	102	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	50.8	102	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	50.9	102	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	50.7	101	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	50.8	102	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	49.9	99.9	ug/L	PA 6020A UCT-KE
SGF0319-CCV2	Arsenic-75a (dissolved)	50.000	50.1	100	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	50.5	101	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	50.4	101	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	49.2	98.4	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	49.7	99.4	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	49.4	98.8	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	47.4	94.7	ug/L	PA 6020A UCT-KE
SGF0319-CCV3	Arsenic-75a (dissolved)	50.000	50.9	102	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	49.9	99.8	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	49.7	99.3	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	48.2	96.5	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	47.4	94.9	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	48.4	96.8	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	48.4	96.9	ug/L	PA 6020A UCT-KE
SGF0319-CCV4	Arsenic-75a (dissolved)	50.000	49.5	98.9	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	49.4	98.9	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	49.2	98.5	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	46.1	92.2	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	46.5	92.9	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	47.8	95.7	ug/L	PA 6020A UCT-KE

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00060
Control Limt: +/- 10.00%
Sequence: SGF0319

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0319-CCV4	Zinc-67 (dissolved)	50.000	46.6	93.2	ug/L	PA 6020A UCT-KE
SGF0319-CCV5	Arsenic-75a (dissolved)	50.000	48.9	97.8	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	48.2	96.4	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	47.5	94.9	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	48.2	96.5	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	46.3	92.7	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	47.6	95.2	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	48.3	96.6	ug/L	PA 6020A UCT-KE
SGF0319-CCV6	Arsenic-75a (dissolved)	50.000	50.1	100	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	49.9	99.7	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	48.1	96.1	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	47.7	95.4	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	47.8	95.7	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	49.0	98.0	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	46.9	93.9	ug/L	PA 6020A UCT-KE
SGF0319-CCV7	Arsenic-75a (dissolved)	50.000	50.3	101	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	48.4	96.7	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	47.2	94.4	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	48.5	96.9	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	47.2	94.4	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	48.2	96.4	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	48.2	96.4	ug/L	PA 6020A UCT-KE
SGF0319-CCV8	Arsenic-75a (dissolved)	50.000	50.7	101	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	49.8	99.6	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	49.3	98.6	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	48.2	96.4	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	48.0	96.0	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	47.2	94.4	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	48.8	97.6	ug/L	PA 6020A UCT-KE
SGF0319-CCV9	Arsenic-75a (dissolved)	50.000	50.1	100	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	49.8	99.7	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	49.8	99.6	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	49.0	97.9	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	48.3	96.7	ug/L	PA 6020A UCT-KE

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00060
Control Limt: +/- 10.00%
Sequence: SGF0319

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0319-CCV9	Zinc-66 (dissolved)	50.000	47.8	95.6	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	48.8	97.7	ug/L	PA 6020A UCT-KE
SGF0319-CCVA	Arsenic-75a (dissolved)	50.000	51.3	103	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	49.2	98.3	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	49.3	98.6	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	47.7	95.3	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	47.1	94.3	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	48.1	96.2	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	48.7	97.4	ug/L	PA 6020A UCT-KE
SGF0319-CCVB	Arsenic-75a (dissolved)	50.000	50.3	101	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	49.2	98.4	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	48.9	97.8	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	47.6	95.2	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	46.8	93.5	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	47.5	95.0	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	47.6	95.2	ug/L	PA 6020A UCT-KE

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00061
Control Limt: +/- 10.00%
Sequence: SGF0345

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0345-ICV1	Arsenic-75a (dissolved)	50.000	50.0	100	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	49.5	99.1	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	50.0	100	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	51.2	102	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	50.8	102	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	49.6	99.2	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	50.7	101	ug/L	PA 6020A UCT-KE
SGF0345-CCV1	Arsenic-75a (dissolved)	50.000	50.0	100	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	50.8	102	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	51.4	103	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	51.4	103	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	49.5	99.1	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	51.1	102	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	49.9	99.9	ug/L	PA 6020A UCT-KE
SGF0345-CCV2	Arsenic-75a (dissolved)	50.000	48.8	97.7	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	51.5	103	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	52.5	105	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	50.8	102	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	50.6	101	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	50.2	100	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	50.0	100	ug/L	PA 6020A UCT-KE
SGF0345-CCV3	Arsenic-75a (dissolved)	50.000	49.4	98.9	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	50.1	100	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	51.3	103	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	49.8	99.5	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	48.2	96.4	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	50.6	101	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	49.9	99.8	ug/L	PA 6020A UCT-KE
SGF0345-CCV4	Arsenic-75a (dissolved)	50.000	50.4	101	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	49.9	99.8	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	50.8	102	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	51.4	103	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	50.7	101	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	52.7	105	ug/L	PA 6020A UCT-KE

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00061
Control Limt: +/- 10.00%
Sequence: SGF0345

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0345-CCV4	Zinc-67 (dissolved)	50.000	50.2	100	ug/L	PA 6020A UCT-KE
SGF0345-CCV5	Arsenic-75a (dissolved)	50.000	48.7	97.5	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	50.0	100	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	51.1	102	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	50.8	102	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	49.7	99.3	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	50.5	101	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	50.7	101	ug/L	PA 6020A UCT-KE
SGF0345-CCV6	Arsenic-75a (dissolved)	50.000	48.4	96.8	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	50.5	101	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	51.5	103	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	50.6	101	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	49.8	99.5	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	50.6	101	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	48.5	97.0	ug/L	PA 6020A UCT-KE
SGF0345-CCV7	Arsenic-75a (dissolved)	50.000	50.8	102	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	51.2	102	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	51.9	104	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	50.8	102	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	52.4	105	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	52.9	106	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	50.6	101	ug/L	PA 6020A UCT-KE
SGF0345-CCV8	Arsenic-75a (dissolved)	50.000	50.4	101	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	50.6	101	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	51.7	103	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	52.1	104	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	52.9	106	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	51.9	104	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	51.2	102	ug/L	PA 6020A UCT-KE

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00064
Control Limt: +/- 10.00%
Sequence: SGF0355

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0355-ICV1	Arsenic-75a (dissolved)	50.000	46.8	93.5	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	49.5	99.0	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	48.2	96.5	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	47.0	94.1	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	48.0	95.9	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	45.9	91.8	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	45.9	91.8	ug/L	PA 6020A UCT-KE
SGF0355-CCV1	Arsenic-75a (dissolved)	50.000	50.1	100	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	49.0	98.1	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	47.8	95.6	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	51.0	102	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	51.9	104	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	50.4	101	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	49.7	99.4	ug/L	PA 6020A UCT-KE
SGF0355-CCV2	Arsenic-75a (dissolved)	50.000	49.6	99.1	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	49.8	99.6	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	47.7	95.4	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	49.8	99.6	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	51.7	103	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	50.4	101	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	50.2	100	ug/L	PA 6020A UCT-KE
SGF0355-CCV3	Arsenic-75a (dissolved)	50.000	48.8	97.7	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	50.4	101	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	49.8	99.5	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	50.5	101	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	50.4	101	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	49.9	99.8	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	52.5	105	ug/L	PA 6020A UCT-KE
SGF0355-CCV4	Arsenic-75a (dissolved)	50.000	49.6	99.2	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	51.3	103	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	50.5	101	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	53.1	106	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	54.2	108	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	53.7	107	ug/L	PA 6020A UCT-KE

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00064
Control Limt: +/- 10.00%
Sequence: SGF0355

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0355-CCV4	Zinc-67 (dissolved)	50.000	51.7	103	ug/L	PA 6020A UCT-KE
SGF0355-CCV5	Arsenic-75a (dissolved)	50.000	50.3	101	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	51.4	103	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	49.6	99.2	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	53.8	108	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	54.5	109	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	54.9	110	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	51.9	104	ug/L	PA 6020A UCT-KE
SGF0355-CCV6	Arsenic-75a (dissolved)	50.000	49.3	98.6	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	52.0	104	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	50.6	101	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	55.0	110	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	53.2	106	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	53.1	106	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	50.5	101	ug/L	PA 6020A UCT-KE
SGF0355-CCV7	Arsenic-75a (dissolved)	50.000	48.3	96.6	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	51.1	102	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	50.3	101	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	53.1	106	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	52.2	104	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	52.3	105	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	51.6	103	ug/L	PA 6020A UCT-KE
SGF0355-CCV8	Arsenic-75a (dissolved)	50.000	48.9	97.8	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	50.7	101	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	49.8	99.7	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	53.9	108	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	54.3	109	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	55.0	110	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	51.5	103	ug/L	PA 6020A UCT-KE

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00069
Control Limt: +/- 10.00%
Sequence: SGF0392

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0392-ICV1	Arsenic-75a (dissolved)	50.000	48.5	96.9	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	48.0	96.1	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	48.1	96.1	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	49.3	98.6	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	50.1	100	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	50.1	100	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	48.2	96.5	ug/L	PA 6020A UCT-KE
SGF0392-CCV1	Arsenic-75a (dissolved)	50.000	48.8	97.6	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	49.5	98.9	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	48.4	96.8	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	50.2	100	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	49.2	98.3	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	49.2	98.5	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	48.7	97.5	ug/L	PA 6020A UCT-KE
SGF0392-CCV2	Arsenic-75a (dissolved)	50.000	49.3	98.6	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	48.7	97.4	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	49.2	98.4	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	51.7	103	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	51.2	102	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	50.3	101	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	51.3	103	ug/L	PA 6020A UCT-KE
SGF0392-CCV3	Arsenic-75a (dissolved)	50.000	49.8	99.7	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	49.2	98.4	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	49.6	99.3	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	51.4	103	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	49.7	99.5	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	51.2	102	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	49.3	98.6	ug/L	PA 6020A UCT-KE
SGF0392-CCV4	Arsenic-75a (dissolved)	50.000	48.3	96.5	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	50.3	101	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	50.4	101	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	50.5	101	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	49.2	98.4	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	51.2	102	ug/L	PA 6020A UCT-KE

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00069
Control Limt: +/- 10.00%
Sequence: SGF0392

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0392-CCV4	Zinc-67 (dissolved)	50.000	50.3	101	ug/L	PA 6020A UCT-KE
SGF0392-CCV5	Arsenic-75a (dissolved)	50.000	50.2	100	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	49.5	99.1	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	50.0	99.9	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	53.4	107	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	52.0	104	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	53.6	107	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	50.7	101	ug/L	PA 6020A UCT-KE
SGF0392-CCV6	Arsenic-75a (dissolved)	50.000	48.6	97.1	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	49.5	99.0	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	49.4	98.7	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	51.8	104	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	49.7	99.4	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	51.5	103	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	50.5	101	ug/L	PA 6020A UCT-KE
SGF0392-CCV7	Arsenic-75a (dissolved)	50.000	48.6	97.2	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	49.1	98.3	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	50.1	100	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	50.4	101	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	49.6	99.3	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	50.3	101	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	50.0	100	ug/L	PA 6020A UCT-KE
SGF0392-CCV8	Arsenic-75a (dissolved)	50.000	48.5	96.9	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	48.8	97.6	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	48.8	97.6	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	50.2	100	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	49.6	99.1	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	50.6	101	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	48.3	96.5	ug/L	PA 6020A UCT-KE
SGF0392-CCV9	Arsenic-75a (dissolved)	50.000	47.5	95.0	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	48.6	97.2	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	48.4	96.8	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	50.3	101	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	48.7	97.3	ug/L	PA 6020A UCT-KE

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00069
Control Limt: +/- 10.00%
Sequence: SGF0392

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0392-CCV9	Zinc-66 (dissolved)	50.000	50.1	100	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	47.5	95.0	ug/L	PA 6020A UCT-KE
SGF0392-CCVA	Arsenic-75a (dissolved)	50.000	49.0	97.9	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	50.8	102	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	51.1	102	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	53.3	107	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	52.6	105	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	53.8	108	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	50.4	101	ug/L	PA 6020A UCT-KE
SGF0392-CCVB	Arsenic-75a (dissolved)	50.000	49.3	98.6	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	51.3	103	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	51.5	103	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	51.7	103	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	50.5	101	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	52.7	105	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	49.6	99.1	ug/L	PA 6020A UCT-KE
SGF0392-CCVC	Arsenic-75a (dissolved)	50.000	48.3	96.6	ug/L	PA 6020A UCT-KE
	Cadmium-111 (dissolved)	50.000	51.3	103	ug/L	PA 6020A UCT-KE
	Cadmium-114 (dissolved)	50.000	51.8	104	ug/L	PA 6020A UCT-KE
	Copper-63 (dissolved)	50.000	53.7	107	ug/L	PA 6020A UCT-KE
	Copper-65 (dissolved)	50.000	53.4	107	ug/L	PA 6020A UCT-KE
	Zinc-66 (dissolved)	50.000	53.4	107	ug/L	PA 6020A UCT-KE
	Zinc-67 (dissolved)	50.000	50.9	102	ug/L	PA 6020A UCT-KE

* Values outside of QC limits

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A UCT-KED

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGF0239	Instrument:	ICPMS2
		Calibration:	BF00044

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SGF0239-CAL1	XDT_m2180618-006	NA	06/18/18 13:42
CAL 1 - LOW CHECK	SGF0239-CAL2	XDT_m2180618-007	NA	06/18/18 13:46
CAL 2	SGF0239-CAL3	XDT_m2180618-008	NA	06/18/18 13:51
CAL 3	SGF0239-CAL4	XDT_m2180618-009	NA	06/18/18 13:56
CAL 4	SGF0239-CAL5	XDT_m2180618-010	NA	06/18/18 14:01
CAL 5	SGF0239-CAL6	XDT_m2180618-011	NA	06/18/18 14:08
RINSE	SGF0239-IBL1	XDT_m2180618-012	NA	06/18/18 14:15
Initial Cal Check	SGF0239-ICV1	XDT_m2180618-014	NA	06/18/18 14:23
Initial Cal Blank	SGF0239-ICB1	XDT_m2180618-015	NA	06/18/18 14:30
Calibration Check	SGF0239-CCV1	XDT_m2180618-016	NA	06/18/18 14:37
Calibration Blank	SGF0239-CCB1	XDT_m2180618-017	NA	06/18/18 14:45
Instrument RL Check	SGF0239-CRL1	XDT_m2180618-018	NA	06/18/18 14:50
Interference Check A	SGF0239-IFA1	XDT_m2180618-019	NA	06/18/18 14:56
Interference Check B	SGF0239-IFB1	XDT_m2180618-020	NA	06/18/18 15:01
LR200	SGF0239-HCV1	XDT_m2180618-021	NA	06/18/18 15:06
LR300	SGF0239-HCV2	XDT_m2180618-022	NA	06/18/18 15:11
Instrument Blank	SGF0239-IBL2	XDT_m2180618-023	NA	06/18/18 15:18
Instrument Blank	SGF0239-IBL3	XDT_m2180618-024	NA	06/18/18 15:25
Calibration Check	SGF0239-CCV2	XDT_m2180618-025	NA	06/18/18 15:32
Calibration Blank	SGF0239-CCB2	XDT_m2180618-026	NA	06/18/18 15:40
Calibration Check	SGF0239-CCV3	XDT_m2180618-037	NA	06/18/18 16:33
Calibration Blank	SGF0239-CCB3	XDT_m2180618-038	NA	06/18/18 16:41
ZZZZZ	18F0157-08	XDT_m2180618-045	Solid	06/18/18 17:15
ZZZZZ	18F0157-08	XDT_m2180618-045	Solid	06/18/18 17:15
ZZZZZ	18F0157-08	XDT_m2180618-045	Solid	06/18/18 17:15
ZZZZZ	18F0157-08	XDT_m2180618-045	Solid	06/18/18 17:15
ZZZZZ	18F0157-08	XDT_m2180618-045	Solid	06/18/18 17:15
Calibration Check	SGF0239-CCV4	XDT_m2180618-049	NA	06/18/18 17:35
Calibration Blank	SGF0239-CCB4	XDT_m2180618-050	NA	06/18/18 17:43
Blank	BGF0364-BLK1	XDT_m2180618-051	Water	06/18/18 17:49

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Sequence: SGF0239

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Instrument: ICPMS2
Calibration: BF00044

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
LCS	BGF0364-BS1	XDT_m2180618-059	Water	06/18/18 18:27
Calibration Check	SGF0239-CCV5	XDT_m2180618-061	NA	06/18/18 18:38
Calibration Blank	SGF0239-CCB5	XDT_m2180618-062	NA	06/18/18 18:45
ZZZZZ	18F0157-09	XDT_m2180618-064	Solid	06/18/18 18:57
ZZZZZ	18F0157-09	XDT_m2180618-064	Solid	06/18/18 18:57
ZZZZZ	18F0157-09	XDT_m2180618-064	Solid	06/18/18 18:57
ZZZZZ	18F0157-09	XDT_m2180618-064	Solid	06/18/18 18:57
ZZZZZ	18F0157-09	XDT_m2180618-064	Solid	06/18/18 18:57
ZZZZZ	18F0157-10	XDT_m2180618-065	Solid	06/18/18 19:02
ZZZZZ	18F0157-10	XDT_m2180618-065	Solid	06/18/18 19:02
ZZZZZ	18F0157-10	XDT_m2180618-065	Solid	06/18/18 19:02
ZZZZZ	18F0157-10	XDT_m2180618-065	Solid	06/18/18 19:02
ZZZZZ	18F0157-10	XDT_m2180618-065	Solid	06/18/18 19:02
Calibration Check	SGF0239-CCV6	XDT_m2180618-073	NA	06/18/18 19:42
Calibration Blank	SGF0239-CCB6	XDT_m2180618-074	NA	06/18/18 19:50
ZZZZZ	18F0158-01	XDT_m2180618-078	Water	06/18/18 20:09
ZZZZZ	18F0158-01	XDT_m2180618-078	Water	06/18/18 20:09
ZZZZZ	18F0158-01	XDT_m2180618-078	Water	06/18/18 20:09
ZZZZZ	18F0158-01	XDT_m2180618-078	Water	06/18/18 20:09
Calibration Check	SGF0239-CCV7	XDT_m2180618-085	NA	06/18/18 20:43
Calibration Blank	SGF0239-CCB7	XDT_m2180618-086	NA	06/18/18 20:50
LDW18-SP-RB1	18F0185-01	XDT_m2180618-092	Water	06/18/18 21:18
LDW18-SP-RB1	18F0185-01	XDT_m2180618-092	Water	06/18/18 21:18
LDW18-SP-RB1	18F0185-01	XDT_m2180618-092	Water	06/18/18 21:18
LDW18-SP-RB1	18F0185-01	XDT_m2180618-092	Water	06/18/18 21:18
Calibration Check	SGF0239-CCV8	XDT_m2180618-097	NA	06/18/18 21:43
Calibration Blank	SGF0239-CCB8	XDT_m2180618-098	NA	06/18/18 21:50
LDW18-SP-42	18F0185-07	XDT_m2180618-099	Water	06/18/18 21:55
Calibration Check	SGF0239-CCV9	XDT_m2180618-109	NA	06/18/18 22:43
Calibration Blank	SGF0239-CCB9	XDT_m2180618-110	NA	06/18/18 22:51

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Sequence: SGF0262
SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Instrument: ICPMS1
Calibration: BF00048

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SGF0262-CAL1	XDT_m1180619-013	NA	06/19/18 13:06
CAL 1 - LOW CHECK	SGF0262-CAL2	XDT_m1180619-014	NA	06/19/18 13:10
CAL 2	SGF0262-CAL3	XDT_m1180619-015	NA	06/19/18 13:14
CAL 3	SGF0262-CAL4	XDT_m1180619-016	NA	06/19/18 13:18
CAL 4	SGF0262-CAL5	XDT_m1180619-017	NA	06/19/18 13:23
CAL 5	SGF0262-CAL6	XDT_m1180619-018	NA	06/19/18 13:28
RINSE	SGF0262-IBL1	XDT_m1180619-019	NA	06/19/18 13:35
Initial Cal Check	SGF0262-ICV1	XDT_m1180619-021	NA	06/19/18 13:43
Initial Cal Blank	SGF0262-ICB1	XDT_m1180619-022	NA	06/19/18 13:49
Calibration Check	SGF0262-CCV1	XDT_m1180619-023	NA	06/19/18 13:54
Calibration Blank	SGF0262-CCB1	XDT_m1180619-024	NA	06/19/18 13:58
Instrument RL Check	SGF0262-CRL1	XDT_m1180619-025	NA	06/19/18 14:02
Interference Check A	SGF0262-IFA1	XDT_m1180619-026	NA	06/19/18 14:06
Interference Check B	SGF0262-IFB1	XDT_m1180619-027	NA	06/19/18 14:10
LR200	SGF0262-HCV1	XDT_m1180619-028	NA	06/19/18 14:17
LR300	SGF0262-HCV2	XDT_m1180619-029	NA	06/19/18 14:21
Instrument Blank	SGF0262-IBL2	XDT_m1180619-030	NA	06/19/18 14:29
Instrument Blank	SGF0262-IBL3	XDT_m1180619-031	NA	06/19/18 14:35
Calibration Check	SGF0262-CCV2	XDT_m1180619-032	NA	06/19/18 14:41
Calibration Blank	SGF0262-CCB2	XDT_m1180619-033	NA	06/19/18 14:46
Calibration Check	SGF0262-CCV3	XDT_m1180619-044	NA	06/19/18 15:41
Calibration Blank	SGF0262-CCB3	XDT_m1180619-045	NA	06/19/18 15:46
Calibration Check	SGF0262-CCV4	XDT_m1180619-056	NA	06/19/18 16:46
Calibration Blank	SGF0262-CCB4	XDT_m1180619-057	NA	06/19/18 16:51
Calibration Check	SGF0262-CCV5	XDT_m1180619-064	NA	06/19/18 17:27
Calibration Blank	SGF0262-CCB5	XDT_m1180619-065	NA	06/19/18 17:32
Calibration Check	SGF0262-CCV6	XDT_m1180619-067	NA	06/19/18 17:55
Calibration Blank	SGF0262-CCB6	XDT_m1180619-068	NA	06/19/18 17:59
Calibration Check	SGF0262-CCV7	XDT_m1180619-079	NA	06/19/18 18:48
Calibration Blank	SGF0262-CCB7	XDT_m1180619-080	NA	06/19/18 18:53

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A UCT-KED

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGF0262	Instrument:	ICPMS1
		Calibration:	BF00048

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Check	SGF0262-CCV8	XDT_m1180619-082	NA	06/19/18 19:03
Calibration Blank	SGF0262-CCB8	XDT_m1180619-083	NA	06/19/18 19:07
Calibration Check	SGF0262-CCV9	XDT_m1180619-094	NA	06/19/18 19:59
Calibration Blank	SGF0262-CCB9	XDT_m1180619-095	NA	06/19/18 20:04
Calibration Check	SGF0262-CCVA	XDT_m1180619-106	NA	06/19/18 20:48
Calibration Blank	SGF0262-CCBA	XDT_m1180619-107	NA	06/19/18 20:53
Calibration Check	SGF0262-CCVB	XDT_m1180619-109	NA	06/19/18 21:01
Calibration Blank	SGF0262-CCBB	XDT_m1180619-110	NA	06/19/18 21:05
LDW18-SP-30	18F0185-03	XDT_m1180619-112	Water	06/19/18 21:13
LDW18-SP-30	18F0185-03	XDT_m1180619-112	Water	06/19/18 21:13
LDW18-SP-30	18F0185-03	XDT_m1180619-112	Water	06/19/18 21:13
LDW18-SP-30	18F0185-03	XDT_m1180619-112	Water	06/19/18 21:13
LDW18-SP-32	18F0185-04	XDT_m1180619-113	Water	06/19/18 21:16
LDW18-SP-35	18F0185-05	XDT_m1180619-114	Water	06/19/18 21:20
LDW18-SP-38	18F0185-06	XDT_m1180619-115	Water	06/19/18 21:24
Calibration Check	SGF0262-CCVC	XDT_m1180619-121	NA	06/19/18 21:49
Calibration Blank	SGF0262-CCBC	XDT_m1180619-122	NA	06/19/18 21:54
Calibration Check	SGF0262-CCVD	XDT_m1180619-127	NA	06/19/18 22:14
Calibration Blank	SGF0262-CCBD	XDT_m1180619-128	NA	06/19/18 22:19

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A UCT-KED

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGF0278	Instrument:	ICPMS1
		Calibration:	BF00049

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SGF0278-CAL1	XDT_m1180620-006	NA	06/20/18 12:25
CAL 1 - LOW CHECK	SGF0278-CAL2	XDT_m1180620-007	NA	06/20/18 12:29
CAL 2	SGF0278-CAL3	XDT_m1180620-008	NA	06/20/18 12:33
CAL 3	SGF0278-CAL4	XDT_m1180620-009	NA	06/20/18 12:37
CAL 4	SGF0278-CAL5	XDT_m1180620-010	NA	06/20/18 12:41
CAL 5	SGF0278-CAL6	XDT_m1180620-011	NA	06/20/18 12:47
RINSE	SGF0278-IBL1	XDT_m1180620-012	NA	06/20/18 12:53
Initial Cal Check	SGF0278-ICV1	XDT_m1180620-014	NA	06/20/18 12:58
Initial Cal Blank	SGF0278-ICB1	XDT_m1180620-015	NA	06/20/18 13:02
Calibration Check	SGF0278-CCV1	XDT_m1180620-016	NA	06/20/18 13:07
Calibration Blank	SGF0278-CCB1	XDT_m1180620-017	NA	06/20/18 13:11
Instrument RL Check	SGF0278-CRL1	XDT_m1180620-018	NA	06/20/18 13:17
Interference Check A	SGF0278-IFA1	XDT_m1180620-019	NA	06/20/18 13:20
Interference Check B	SGF0278-IFB1	XDT_m1180620-020	NA	06/20/18 13:24
LR200	SGF0278-HCV1	XDT_m1180620-021	NA	06/20/18 13:28
LR300	SGF0278-HCV2	XDT_m1180620-022	NA	06/20/18 13:32
Instrument Blank	SGF0278-IBL2	XDT_m1180620-023	NA	06/20/18 13:39
Instrument Blank	SGF0278-IBL3	XDT_m1180620-024	NA	06/20/18 13:44
Calibration Check	SGF0278-CCV2	XDT_m1180620-027	NA	06/20/18 14:00
Calibration Blank	SGF0278-CCB2	XDT_m1180620-028	NA	06/20/18 14:05
Calibration Check	SGF0278-CCV3	XDT_m1180620-039	NA	06/20/18 14:51
Calibration Blank	SGF0278-CCB3	XDT_m1180620-040	NA	06/20/18 14:56
Instrument Blank	SGF0278-IBL4	XDT_m1180620-047	NA	06/20/18 15:24
Instrument Blank	SGF0278-IBL5	XDT_m1180620-048	NA	06/20/18 15:28
Calibration Check	SGF0278-CCV4	XDT_m1180620-049	NA	06/20/18 15:33
Calibration Blank	SGF0278-CCB4	XDT_m1180620-050	NA	06/20/18 15:38
Calibration Check	SGF0278-CCV5	XDT_m1180620-052	NA	06/20/18 15:46
Calibration Blank	SGF0278-CCB5	XDT_m1180620-053	NA	06/20/18 15:50
Instrument Blank	SGF0278-IBL6	XDT_m1180620-058	NA	06/20/18 16:13
Calibration Check	SGF0278-CCV6	XDT_m1180620-064	NA	06/20/18 16:38

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A UCT-KED

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGF0278	Instrument:	ICPMS1
		Calibration:	BF00049

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Blank	SGF0278-CCB6	XDT_m1180620-065	NA	06/20/18 16:42
Calibration Check	SGF0278-CCV7	XDT_m1180620-076	NA	06/20/18 17:42
Calibration Blank	SGF0278-CCB7	XDT_m1180620-077	NA	06/20/18 17:47
Calibration Check	SGF0278-CCV8	XDT_m1180620-088	NA	06/20/18 18:49
Calibration Blank	SGF0278-CCB8	XDT_m1180620-089	NA	06/20/18 18:54
Calibration Check	SGF0278-CCV9	XDT_m1180620-100	NA	06/20/18 19:40
Calibration Blank	SGF0278-CCB9	XDT_m1180620-101	NA	06/20/18 19:45
Calibration Check	SGF0278-CCVA	XDT_m1180620-103	NA	06/20/18 19:53
Calibration Blank	SGF0278-CCBA	XDT_m1180620-104	NA	06/20/18 19:57
Calibration Check	SGF0278-CCVB	XDT_m1180620-115	NA	06/20/18 20:39
Calibration Blank	SGF0278-CCBB	XDT_m1180620-116	NA	06/20/18 20:44
LDW18-SP-42	18F0185-07	XDT_m1180620-117	Water	06/20/18 20:48
LDW18-SP-42	18F0185-07	XDT_m1180620-117	Water	06/20/18 20:48
Instrument Blank	SGF0278-IBL7	XDT_m1180620-124	NA	06/20/18 21:15
Calibration Check	SGF0278-CCVC	XDT_m1180620-125	NA	06/20/18 21:19
Calibration Blank	SGF0278-CCBC	XDT_m1180620-126	NA	06/20/18 21:24

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A UCT-KED

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGF0310	Instrument:	ICPMS1
		Calibration:	BF00056

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SGF0310-CAL1	XDT_m1180622-018	NA	06/22/18 13:20
CAL 1 - LOW CHECK	SGF0310-CAL2	XDT_m1180622-019	NA	06/22/18 13:24
CAL 2	SGF0310-CAL3	XDT_m1180622-020	NA	06/22/18 13:28
CAL 3	SGF0310-CAL4	XDT_m1180622-021	NA	06/22/18 13:32
CAL 4	SGF0310-CAL5	XDT_m1180622-022	NA	06/22/18 13:36
CAL 5	SGF0310-CAL6	XDT_m1180622-023	NA	06/22/18 13:42
RINSE	SGF0310-IBL1	XDT_m1180622-024	NA	06/22/18 13:49
Initial Cal Check	SGF0310-ICV1	XDT_m1180622-025	NA	06/22/18 13:54
Initial Cal Blank	SGF0310-ICB1	XDT_m1180622-026	NA	06/22/18 13:59
Calibration Check	SGF0310-CCV1	XDT_m1180622-027	NA	06/22/18 14:05
Calibration Blank	SGF0310-CCB1	XDT_m1180622-028	NA	06/22/18 14:12
Instrument RL Check	SGF0310-CRL1	XDT_m1180622-029	NA	06/22/18 14:16
Interference Check A	SGF0310-IFA1	XDT_m1180622-030	NA	06/22/18 14:21
Interference Check B	SGF0310-IFB1	XDT_m1180622-031	NA	06/22/18 14:25
LR200	SGF0310-HCV1	XDT_m1180622-032	NA	06/22/18 14:30
LR300	SGF0310-HCV2	XDT_m1180622-033	NA	06/22/18 14:34
Instrument Blank	SGF0310-IBL2	XDT_m1180622-034	NA	06/22/18 14:41
Instrument Blank	SGF0310-IBL3	XDT_m1180622-035	NA	06/22/18 14:47
Calibration Check	SGF0310-CCV2	XDT_m1180622-036	NA	06/22/18 14:53
Calibration Blank	SGF0310-CCB2	XDT_m1180622-037	NA	06/22/18 15:00
Calibration Check	SGF0310-CCV3	XDT_m1180622-043	NA	06/22/18 15:43
Calibration Blank	SGF0310-CCB3	XDT_m1180622-044	NA	06/22/18 15:50
Calibration Check	SGF0310-CCV4	XDT_m1180622-046	NA	06/22/18 16:00
Calibration Blank	SGF0310-CCB4	XDT_m1180622-047	NA	06/22/18 16:04
LDW18-SP-42	18F0185-07	XDT_m1180622-052	Water	06/22/18 16:33
Calibration Check	SGF0310-CCV5	XDT_m1180622-058	NA	06/22/18 17:01
Calibration Blank	SGF0310-CCB5	XDT_m1180622-059	NA	06/22/18 17:08
Calibration Check	SGF0310-CCV6	XDT_m1180622-070	NA	06/22/18 17:59
Calibration Blank	SGF0310-CCB6	XDT_m1180622-071	NA	06/22/18 18:05
Calibration Check	SGF0310-CCV7	XDT_m1180622-082	NA	06/22/18 18:58

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0310
Instrument: ICPMS1
Calibration: BF00056

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Blank	SGF0310-CCB7	XDT_m1180622-083	NA	06/22/18 19:05
Calibration Check	SGF0310-CCV8	XDT_m1180622-085	NA	06/22/18 19:15
Calibration Blank	SGF0310-CCB8	XDT_m1180622-086	NA	06/22/18 19:19
Calibration Check	SGF0310-CCV9	XDT_m1180622-097	NA	06/22/18 20:08
Calibration Blank	SGF0310-CCB9	XDT_m1180622-098	NA	06/22/18 20:14
Calibration Check	SGF0310-CCVA	XDT_m1180622-109	NA	06/22/18 20:59
Calibration Blank	SGF0310-CCBA	XDT_m1180622-110	NA	06/22/18 21:06
Instrument Blank	SGF0310-IBL4	XDT_m1180622-120	NA	06/22/18 21:46
Calibration Check	SGF0310-CCVB	XDT_m1180622-121	NA	06/22/18 21:51
Calibration Blank	SGF0310-CCBB	XDT_m1180622-122	NA	06/22/18 21:58
Calibration Check	SGF0310-CCVC	XDT_m1180622-133	NA	06/22/18 22:42
Calibration Blank	SGF0310-CCBC	XDT_m1180622-134	NA	06/22/18 22:49
Instrument Blank	SGF0310-IBL5	XDT_m1180622-139	NA	06/22/18 23:10
Calibration Check	SGF0310-CCVD	XDT_m1180622-140	NA	06/22/18 23:14
Calibration Blank	SGF0310-CCBD	XDT_m1180622-141	NA	06/22/18 23:21

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Sequence: SGF0319

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Instrument: ICPMS2
Calibration: BF00060

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SGF0319-CAL1	XDT_m2180625-006	NA	06/25/18 12:06
CAL 1 - LOW CHECK	SGF0319-CAL2	XDT_m2180625-007	NA	06/25/18 12:10
CAL 2	SGF0319-CAL3	XDT_m2180625-008	NA	06/25/18 12:15
CAL 3	SGF0319-CAL4	XDT_m2180625-009	NA	06/25/18 12:19
CAL 4	SGF0319-CAL5	XDT_m2180625-010	NA	06/25/18 12:24
CAL 5	SGF0319-CAL6	XDT_m2180625-011	NA	06/25/18 12:31
RINSE	SGF0319-IBL1	XDT_m2180625-012	NA	06/25/18 12:38
Initial Cal Check	SGF0319-ICV1	XDT_m2180625-014	NA	06/25/18 12:47
Initial Cal Blank	SGF0319-ICB1	XDT_m2180625-015	NA	06/25/18 12:54
Calibration Check	SGF0319-CCV1	XDT_m2180625-016	NA	06/25/18 12:59
Calibration Blank	SGF0319-CCB1	XDT_m2180625-017	NA	06/25/18 13:06
Instrument RL Check	SGF0319-CRL1	XDT_m2180625-018	NA	06/25/18 13:13
Interference Check A	SGF0319-IFA1	XDT_m2180625-019	NA	06/25/18 13:18
Interference Check B	SGF0319-IFB1	XDT_m2180625-020	NA	06/25/18 13:23
LR200	SGF0319-HCV1	XDT_m2180625-021	NA	06/25/18 13:30
LR300	SGF0319-HCV2	XDT_m2180625-023	NA	06/25/18 13:46
Instrument Blank	SGF0319-IBL2	XDT_m2180625-024	NA	06/25/18 13:53
Instrument Blank	SGF0319-IBL3	XDT_m2180625-025	NA	06/25/18 14:00
Calibration Check	SGF0319-CCV2	XDT_m2180625-026	NA	06/25/18 14:06
Calibration Blank	SGF0319-CCB2	XDT_m2180625-027	NA	06/25/18 14:13
Calibration Check	SGF0319-CCV3	XDT_m2180625-038	NA	06/25/18 15:09
Calibration Blank	SGF0319-CCB3	XDT_m2180625-039	NA	06/25/18 15:17
LDW18-SP-32	18F0185-04	XDT_m2180625-041	Water	06/25/18 15:28
LDW18-SP-32	18F0185-04	XDT_m2180625-041	Water	06/25/18 15:28
LDW18-SP-32	18F0185-04	XDT_m2180625-041	Water	06/25/18 15:28
LDW18-SP-35	18F0185-05	XDT_m2180625-042	Water	06/25/18 15:32
LDW18-SP-35	18F0185-05	XDT_m2180625-042	Water	06/25/18 15:32
LDW18-SP-35	18F0185-05	XDT_m2180625-042	Water	06/25/18 15:32
LDW18-SP-38	18F0185-06	XDT_m2180625-043	Water	06/25/18 15:37
LDW18-SP-38	18F0185-06	XDT_m2180625-043	Water	06/25/18 15:37

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Sequence: SGF0319

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Instrument: ICPMS2
Calibration: BF00060

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
LDW18-SP-38	18F0185-06	XDT_m2180625-043	Water	06/25/18 15:37
LDW18-SP-43	18F0185-08	XDT_m2180625-044	Water	06/25/18 15:41
LDW18-SP-43	18F0185-08	XDT_m2180625-044	Water	06/25/18 15:41
LDW18-SP-43	18F0185-08	XDT_m2180625-044	Water	06/25/18 15:41
LDW18-SP-43	18F0185-08	XDT_m2180625-044	Water	06/25/18 15:41
Instrument Blank	SGF0319-IBL4	XDT_m2180625-045	NA	06/25/18 15:46
LDW18-SP-43	BGF0364-DUP2	XDT_m2180625-046	Water	06/25/18 15:54
LDW18-SP-43	BGF0364-DUP2	XDT_m2180625-046	Water	06/25/18 15:54
LDW18-SP-43	BGF0364-DUP2	XDT_m2180625-046	Water	06/25/18 15:54
LDW18-SP-43	BGF0364-DUP2	XDT_m2180625-046	Water	06/25/18 15:54
LDW18-SP-43	BGF0364-DUP2	XDT_m2180625-046	Water	06/25/18 15:54
LDW18-SP-43	BGF0364-MS2	XDT_m2180625-047	Water	06/25/18 16:03
LDW18-SP-43	BGF0364-MS2	XDT_m2180625-047	Water	06/25/18 16:03
LDW18-SP-43	BGF0364-MS2	XDT_m2180625-047	Water	06/25/18 16:03
LDW18-SP-43	BGF0364-MS2	XDT_m2180625-047	Water	06/25/18 16:03
LDW18-SP-43	BGF0364-MS2	XDT_m2180625-047	Water	06/25/18 16:03
LDW18-SP-43	BGF0364-MSD2	XDT_m2180625-048	Water	06/25/18 16:12
LDW18-SP-43	BGF0364-MSD2	XDT_m2180625-048	Water	06/25/18 16:12
LDW18-SP-43	BGF0364-MSD2	XDT_m2180625-048	Water	06/25/18 16:12
LDW18-SP-43	BGF0364-MSD2	XDT_m2180625-048	Water	06/25/18 16:12
LDW18-SP-43	BGF0364-MSD2	XDT_m2180625-048	Water	06/25/18 16:12
Instrument Blank	SGF0319-IBL5	XDT_m2180625-049	NA	06/25/18 16:21
Calibration Check	SGF0319-CCV4	XDT_m2180625-050	NA	06/25/18 16:29
Calibration Blank	SGF0319-CCB4	XDT_m2180625-051	NA	06/25/18 16:37
Calibration Check	SGF0319-CCV5	XDT_m2180625-053	NA	06/25/18 16:46
Calibration Blank	SGF0319-CCB5	XDT_m2180625-054	NA	06/25/18 16:51
Calibration Check	SGF0319-CCV6	XDT_m2180625-065	NA	06/25/18 17:45
Calibration Blank	SGF0319-CCB6	XDT_m2180625-066	NA	06/25/18 17:53
Calibration Check	SGF0319-CCV7	XDT_m2180625-077	NA	06/25/18 18:48
Calibration Blank	SGF0319-CCB7	XDT_m2180625-078	NA	06/25/18 18:55

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A UCT-KED

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGF0319	Instrument:	ICPMS2
		Calibration:	BF00060

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Check	SGF0319-CCV8	XDT_m2180625-089	NA	06/25/18 19:49
Calibration Blank	SGF0319-CCB8	XDT_m2180625-090	NA	06/25/18 19:56
Calibration Check	SGF0319-CCV9	XDT_m2180625-092	NA	06/25/18 20:05
Calibration Blank	SGF0319-CCB9	XDT_m2180625-093	NA	06/25/18 20:09
Calibration Check	SGF0319-CCVA	XDT_m2180625-104	NA	06/25/18 20:59
Calibration Blank	SGF0319-CCBA	XDT_m2180625-105	NA	06/25/18 21:07
Calibration Check	SGF0319-CCVB	XDT_m2180625-116	NA	06/25/18 21:57
Calibration Blank	SGF0319-CCBB	XDT_m2180625-117	NA	06/25/18 22:04

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Sequence: SGF0345
SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Instrument: ICPMS2
Calibration: BF00061

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SGF0345-CAL1	XDT_m2180626-006	NA	06/26/18 10:03
CAL 1 - LOW CHECK	SGF0345-CAL2	XDT_m2180626-007	NA	06/26/18 10:08
CAL 2	SGF0345-CAL3	XDT_m2180626-008	NA	06/26/18 10:12
CAL 3	SGF0345-CAL4	XDT_m2180626-009	NA	06/26/18 10:17
CAL 4	SGF0345-CAL5	XDT_m2180626-010	NA	06/26/18 10:22
CAL 5	SGF0345-CAL6	XDT_m2180626-011	NA	06/26/18 10:28
RINSE	SGF0345-IBL1	XDT_m2180626-012	NA	06/26/18 10:36
Initial Cal Check	SGF0345-ICV1	XDT_m2180626-014	NA	06/26/18 10:43
Initial Cal Blank	SGF0345-ICB1	XDT_m2180626-015	NA	06/26/18 10:50
Calibration Check	SGF0345-CCV1	XDT_m2180626-016	NA	06/26/18 10:54
Calibration Blank	SGF0345-CCB1	XDT_m2180626-017	NA	06/26/18 11:01
Instrument RL Check	SGF0345-CRL1	XDT_m2180626-018	NA	06/26/18 11:06
Interference Check A	SGF0345-IFA1	XDT_m2180626-019	NA	06/26/18 11:10
Interference Check B	SGF0345-IFB1	XDT_m2180626-020	NA	06/26/18 11:15
LR200	SGF0345-HCV1	XDT_m2180626-021	NA	06/26/18 11:19
LR300	SGF0345-HCV2	XDT_m2180626-022	NA	06/26/18 11:24
Instrument Blank	SGF0345-IBL2	XDT_m2180626-023	NA	06/26/18 11:31
Calibration Check	SGF0345-CCV2	XDT_m2180626-024	NA	06/26/18 11:36
Calibration Blank	SGF0345-CCB2	XDT_m2180626-026	NA	06/26/18 11:43
Calibration Check	SGF0345-CCV3	XDT_m2180626-037	NA	06/26/18 12:34
Calibration Blank	SGF0345-CCB3	XDT_m2180626-038	NA	06/26/18 12:41
Blank	BGF0478-BLK1	XDT_m2180626-041	Water	06/26/18 12:55
LDW18-SP-33	18F0208-02	XDT_m2180626-043	Water	06/26/18 13:04
LDW18-SP-33	18F0208-02	XDT_m2180626-043	Water	06/26/18 13:04
LDW18-SP-33	18F0208-02	XDT_m2180626-043	Water	06/26/18 13:04
LDW18-SP-33	18F0208-02	XDT_m2180626-043	Water	06/26/18 13:04
LDW18-SP-24	18F0208-03	XDT_m2180626-044	Water	06/26/18 13:08
LDW18-SP-24	18F0208-03	XDT_m2180626-044	Water	06/26/18 13:08
LDW18-SP-24	18F0208-03	XDT_m2180626-044	Water	06/26/18 13:08
LDW18-SP-24	18F0208-03	XDT_m2180626-044	Water	06/26/18 13:08

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Sequence: SGF0345

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Instrument: ICPMS2
Calibration: BF00061

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
LDW18-SP-24-FD	18F0208-04	XDT_m2180626-045	Water	06/26/18 13:13
LDW18-SP-24-FD	18F0208-04	XDT_m2180626-045	Water	06/26/18 13:13
LDW18-SP-24-FD	18F0208-04	XDT_m2180626-045	Water	06/26/18 13:13
LDW18-SP-24-FD	18F0208-04	XDT_m2180626-045	Water	06/26/18 13:13
LCS	BGF0478-BS1	XDT_m2180626-048	Water	06/26/18 13:26
Calibration Check	SGF0345-CCV4	XDT_m2180626-049	NA	06/26/18 13:32
Calibration Blank	SGF0345-CCB4	XDT_m2180626-050	NA	06/26/18 13:39
LDW18-SP-06	BGF0478-DUP1	XDT_m2180626-058	Water	06/26/18 14:15
LDW18-SP-06	BGF0478-DUP1	XDT_m2180626-058	Water	06/26/18 14:15
LDW18-SP-06	BGF0478-DUP1	XDT_m2180626-058	Water	06/26/18 14:15
LDW18-SP-06	BGF0478-DUP1	XDT_m2180626-058	Water	06/26/18 14:15
LDW18-SP-06	BGF0478-DUP1	XDT_m2180626-058	Water	06/26/18 14:15
LDW18-SP-06	18F0208-01	XDT_m2180626-059	Water	06/26/18 14:19
LDW18-SP-06	18F0208-01	XDT_m2180626-059	Water	06/26/18 14:19
LDW18-SP-06	18F0208-01	XDT_m2180626-059	Water	06/26/18 14:19
LDW18-SP-06	18F0208-01	XDT_m2180626-059	Water	06/26/18 14:19
LDW18-SP-06	BGF0478-MS1	XDT_m2180626-060	Water	06/26/18 14:24
LDW18-SP-06	BGF0478-MS1	XDT_m2180626-060	Water	06/26/18 14:24
LDW18-SP-06	BGF0478-MS1	XDT_m2180626-060	Water	06/26/18 14:24
LDW18-SP-06	BGF0478-MS1	XDT_m2180626-060	Water	06/26/18 14:24
LDW18-SP-06	BGF0478-MS1	XDT_m2180626-060	Water	06/26/18 14:24
Calibration Check	SGF0345-CCV5	XDT_m2180626-061	NA	06/26/18 14:29
Calibration Blank	SGF0345-CCB5	XDT_m2180626-062	NA	06/26/18 14:36
Instrument Blank	SGF0345-IBL3	XDT_m2180626-063	NA	06/26/18 14:42
Instrument Blank	SGF0345-IBL4	XDT_m2180626-064	NA	06/26/18 14:47
Instrument Blank	SGF0345-IBL5	XDT_m2180626-065	NA	06/26/18 14:55
Calibration Check	SGF0345-CCV6	XDT_m2180626-067	NA	06/26/18 15:04
Calibration Blank	SGF0345-CCB6	XDT_m2180626-068	NA	06/26/18 15:11
LDW18-SP-05	18F0226-01	XDT_m2180626-069	Water	06/26/18 15:16
LDW18-SP-05	18F0226-01	XDT_m2180626-069	Water	06/26/18 15:16

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Sequence: SGF0345
SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Instrument: ICPMS2
Calibration: BF00061

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
LDW18-SP-05	18F0226-01	XDT_m2180626-069	Water	06/26/18 15:16
LDW18-SP-05	18F0226-01	XDT_m2180626-069	Water	06/26/18 15:16
LDW18-SP-57	18F0226-02	XDT_m2180626-070	Water	06/26/18 15:22
LDW18-SP-57	18F0226-02	XDT_m2180626-070	Water	06/26/18 15:22
LDW18-SP-57	18F0226-02	XDT_m2180626-070	Water	06/26/18 15:22
LDW18-SP-57	18F0226-02	XDT_m2180626-070	Water	06/26/18 15:22
LDW18-SP-73	18F0226-03	XDT_m2180626-071	Water	06/26/18 15:28
LDW18-SP-73	18F0226-03	XDT_m2180626-071	Water	06/26/18 15:28
LDW18-SP-73	18F0226-03	XDT_m2180626-071	Water	06/26/18 15:28
LDW18-SP-73	18F0226-03	XDT_m2180626-071	Water	06/26/18 15:28
LDW18-SP-74	18F0226-04	XDT_m2180626-072	Water	06/26/18 15:34
LDW18-SP-74	18F0226-04	XDT_m2180626-072	Water	06/26/18 15:34
LDW18-SP-74	18F0226-04	XDT_m2180626-072	Water	06/26/18 15:34
LDW18-SP-74	18F0226-04	XDT_m2180626-072	Water	06/26/18 15:34
LDW18-SP-77	18F0226-05	XDT_m2180626-073	Water	06/26/18 15:38
LDW18-SP-77	18F0226-05	XDT_m2180626-073	Water	06/26/18 15:38
LDW18-SP-77	18F0226-05	XDT_m2180626-073	Water	06/26/18 15:38
LDW18-SP-77	18F0226-05	XDT_m2180626-073	Water	06/26/18 15:38
LDW18-SP-78	18F0226-06	XDT_m2180626-074	Water	06/26/18 15:43
LDW18-SP-78	18F0226-06	XDT_m2180626-074	Water	06/26/18 15:43
LDW18-SP-78	18F0226-06	XDT_m2180626-074	Water	06/26/18 15:43
LDW18-SP-78	18F0226-06	XDT_m2180626-074	Water	06/26/18 15:43
LDW18-SP-79	18F0226-07	XDT_m2180626-075	Water	06/26/18 15:47
LDW18-SP-79	18F0226-07	XDT_m2180626-075	Water	06/26/18 15:47
LDW18-SP-79	18F0226-07	XDT_m2180626-075	Water	06/26/18 15:47
LDW18-SP-79	18F0226-07	XDT_m2180626-075	Water	06/26/18 15:47
LDW18-SP-84	18F0226-08	XDT_m2180626-076	Water	06/26/18 15:52
LDW18-SP-84	18F0226-08	XDT_m2180626-076	Water	06/26/18 15:52
LDW18-SP-84	18F0226-08	XDT_m2180626-076	Water	06/26/18 15:52
LDW18-SP-84	18F0226-08	XDT_m2180626-076	Water	06/26/18 15:52

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Sequence: SGF0345
SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Instrument: ICPMS2
Calibration: BF00061

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
LDW18-SP-87	18F0226-09	XDT_m2180626-077	Water	06/26/18 15:56
LDW18-SP-87	18F0226-09	XDT_m2180626-077	Water	06/26/18 15:56
LDW18-SP-87	18F0226-09	XDT_m2180626-077	Water	06/26/18 15:56
LDW18-SP-87	18F0226-09	XDT_m2180626-077	Water	06/26/18 15:56
LDW18-SP-01	18F0248-01	XDT_m2180626-078	Water	06/26/18 16:01
LDW18-SP-01	18F0248-01	XDT_m2180626-078	Water	06/26/18 16:01
LDW18-SP-01	18F0248-01	XDT_m2180626-078	Water	06/26/18 16:01
LDW18-SP-01	18F0248-01	XDT_m2180626-078	Water	06/26/18 16:01
Calibration Check	SGF0345-CCV7	XDT_m2180626-079	NA	06/26/18 16:08
Calibration Blank	SGF0345-CCB7	XDT_m2180626-080	NA	06/26/18 16:15
LDW18-SP-45	18F0248-02	XDT_m2180626-081	Water	06/26/18 16:20
LDW18-SP-45	18F0248-02	XDT_m2180626-081	Water	06/26/18 16:20
LDW18-SP-45	18F0248-02	XDT_m2180626-081	Water	06/26/18 16:20
LDW18-SP-45	18F0248-02	XDT_m2180626-081	Water	06/26/18 16:20
LDW18-SP-47	18F0248-03	XDT_m2180626-082	Water	06/26/18 16:24
LDW18-SP-47	18F0248-03	XDT_m2180626-082	Water	06/26/18 16:24
LDW18-SP-47	18F0248-03	XDT_m2180626-082	Water	06/26/18 16:24
LDW18-SP-47	18F0248-03	XDT_m2180626-082	Water	06/26/18 16:24
LDW18-SP-66	18F0248-04	XDT_m2180626-083	Water	06/26/18 16:28
LDW18-SP-66	18F0248-04	XDT_m2180626-083	Water	06/26/18 16:28
LDW18-SP-66	18F0248-04	XDT_m2180626-083	Water	06/26/18 16:28
LDW18-SP-66	18F0248-04	XDT_m2180626-083	Water	06/26/18 16:28
LDW18-SP-83	18F0248-06	XDT_m2180626-085	Water	06/26/18 16:37
LDW18-SP-83	18F0248-06	XDT_m2180626-085	Water	06/26/18 16:37
LDW18-SP-83	18F0248-06	XDT_m2180626-085	Water	06/26/18 16:37
LDW18-SP-83	18F0248-06	XDT_m2180626-085	Water	06/26/18 16:37
LDW18-SP-86	18F0248-07	XDT_m2180626-086	Water	06/26/18 16:42
Calibration Check	SGF0345-CCV8	XDT_m2180626-087	NA	06/26/18 16:49
Calibration Blank	SGF0345-CCB8	XDT_m2180626-088	NA	06/26/18 16:56

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A UCT-KED

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGF0355	Instrument:	ICPMS2
		Calibration:	BF00064

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SGF0355-CAL1	XDT_m2180627-006	NA	06/27/18 10:22
CAL 1 - LOW CHECK	SGF0355-CAL2	XDT_m2180627-007	NA	06/27/18 10:26
CAL 2	SGF0355-CAL3	XDT_m2180627-008	NA	06/27/18 10:31
CAL 3	SGF0355-CAL4	XDT_m2180627-009	NA	06/27/18 10:35
CAL 4	SGF0355-CAL5	XDT_m2180627-010	NA	06/27/18 10:40
CAL 5	SGF0355-CAL6	XDT_m2180627-011	NA	06/27/18 10:47
RINSE	SGF0355-IBL1	XDT_m2180627-012	NA	06/27/18 10:54
Initial Cal Check	SGF0355-ICV1	XDT_m2180627-014	NA	06/27/18 11:01
Initial Cal Blank	SGF0355-ICB1	XDT_m2180627-015	NA	06/27/18 11:08
Calibration Check	SGF0355-CCV1	XDT_m2180627-016	NA	06/27/18 11:13
Calibration Blank	SGF0355-CCB1	XDT_m2180627-017	NA	06/27/18 11:20
Instrument RL Check	SGF0355-CRL1	XDT_m2180627-018	NA	06/27/18 11:24
Interference Check A	SGF0355-IFA1	XDT_m2180627-019	NA	06/27/18 11:30
Interference Check B	SGF0355-IFB1	XDT_m2180627-020	NA	06/27/18 11:34
LR200	SGF0355-HCV1	XDT_m2180627-021	NA	06/27/18 11:39
LR300	SGF0355-HCV2	XDT_m2180627-022	NA	06/27/18 11:43
Instrument Blank	SGF0355-IBL2	XDT_m2180627-023	NA	06/27/18 11:50
Instrument Blank	SGF0355-IBL3	XDT_m2180627-024	NA	06/27/18 11:55
Calibration Check	SGF0355-CCV2	XDT_m2180627-026	NA	06/27/18 12:11
Calibration Blank	SGF0355-CCB2	XDT_m2180627-027	NA	06/27/18 12:19
Calibration Check	SGF0355-CCV3	XDT_m2180627-038	NA	06/27/18 13:09
Calibration Blank	SGF0355-CCB3	XDT_m2180627-039	NA	06/27/18 13:16
Calibration Check	SGF0355-CCV4	XDT_m2180627-050	NA	06/27/18 14:08
Calibration Blank	SGF0355-CCB4	XDT_m2180627-051	NA	06/27/18 14:15
Calibration Check	SGF0355-CCV5	XDT_m2180627-053	NA	06/27/18 14:24
Calibration Blank	SGF0355-CCB5	XDT_m2180627-054	NA	06/27/18 14:32
LDW18-SP-70	18F0248-05	XDT_m2180627-059	Water	06/27/18 14:54
LDW18-SP-70	18F0248-05	XDT_m2180627-059	Water	06/27/18 14:54
LDW18-SP-70	18F0248-05	XDT_m2180627-059	Water	06/27/18 14:54
LDW18-SP-70	18F0248-05	XDT_m2180627-059	Water	06/27/18 14:54

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A UCT-KED

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGF0355	Instrument:	ICPMS2
		Calibration:	BF00064

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
LDW18-SP-86	18F0248-07	XDT_m2180627-060	Water	06/27/18 14:58
LDW18-SP-86	18F0248-07	XDT_m2180627-060	Water	06/27/18 14:58
LDW18-SP-86	18F0248-07	XDT_m2180627-060	Water	06/27/18 14:58
Calibration Check	SGF0355-CCV6	XDT_m2180627-065	NA	06/27/18 15:22
Calibration Blank	SGF0355-CCB6	XDT_m2180627-066	NA	06/27/18 15:29
Calibration Check	SGF0355-CCV7	XDT_m2180627-076	NA	06/27/18 16:15
Calibration Blank	SGF0355-CCB7	XDT_m2180627-077	NA	06/27/18 16:22
Calibration Check	SGF0355-CCV8	XDT_m2180627-085	NA	06/27/18 16:59
Calibration Blank	SGF0355-CCB8	XDT_m2180627-086	NA	06/27/18 17:06

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Sequence: SGF0392

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Instrument: ICPMS2
Calibration: BF00069

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SGF0392-CAL1	XDT_m2180628-012	NA	06/28/18 07:54
CAL 1 - LOW CHECK	SGF0392-CAL2	XDT_m2180628-013	NA	06/28/18 07:59
CAL 2	SGF0392-CAL3	XDT_m2180628-014	NA	06/28/18 08:04
CAL 3	SGF0392-CAL4	XDT_m2180628-015	NA	06/28/18 08:09
CAL 4	SGF0392-CAL5	XDT_m2180628-016	NA	06/28/18 08:15
CAL 5	SGF0392-CAL6	XDT_m2180628-017	NA	06/28/18 08:22
RINSE	SGF0392-IBL1	XDT_m2180628-018	NA	06/28/18 08:29
Initial Cal Check	SGF0392-ICV1	XDT_m2180628-020	NA	06/28/18 08:37
Initial Cal Blank	SGF0392-ICB1	XDT_m2180628-021	NA	06/28/18 08:45
Calibration Check	SGF0392-CCV1	XDT_m2180628-022	NA	06/28/18 08:50
Calibration Blank	SGF0392-CCB1	XDT_m2180628-023	NA	06/28/18 08:57
Instrument RL Check	SGF0392-CRL1	XDT_m2180628-024	NA	06/28/18 09:02
Interference Check A	SGF0392-IFA1	XDT_m2180628-025	NA	06/28/18 09:07
Interference Check B	SGF0392-IFB1	XDT_m2180628-026	NA	06/28/18 09:12
LR200	SGF0392-HCV1	XDT_m2180628-027	NA	06/28/18 09:17
LR300	SGF0392-HCV2	XDT_m2180628-028	NA	06/28/18 09:22
Instrument Blank	SGF0392-IBL2	XDT_m2180628-029	NA	06/28/18 09:30
Instrument Blank	SGF0392-IBL3	XDT_m2180628-030	NA	06/28/18 09:36
Calibration Check	SGF0392-CCV2	XDT_m2180628-031	NA	06/28/18 09:42
Calibration Blank	SGF0392-CCB2	XDT_m2180628-032	NA	06/28/18 09:51
ZZZZZ	18F0174-02	XDT_m2180628-034	Solid	06/28/18 10:01
ZZZZZ	18F0174-02	XDT_m2180628-034	Solid	06/28/18 10:01
ZZZZZ	18F0174-02	XDT_m2180628-034	Solid	06/28/18 10:01
ZZZZZ	18F0174-02	XDT_m2180628-034	Solid	06/28/18 10:01
ZZZZZ	18F0241-01	XDT_m2180628-035	Solid	06/28/18 10:06
ZZZZZ	18F0241-01	XDT_m2180628-035	Solid	06/28/18 10:06
ZZZZZ	18F0241-01	XDT_m2180628-035	Solid	06/28/18 10:06
ZZZZZ	18F0241-01	XDT_m2180628-035	Solid	06/28/18 10:06
ZZZZZ	18F0241-03	XDT_m2180628-037	Solid	06/28/18 10:16
ZZZZZ	18F0241-03	XDT_m2180628-037	Solid	06/28/18 10:16

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A UCT-KED

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGF0392	Instrument:	ICPMS2
		Calibration:	BF00069

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	18F0241-03	XDT_m2180628-037	Solid	06/28/18 10:16
ZZZZZ	18F0241-03	XDT_m2180628-037	Solid	06/28/18 10:16
ZZZZZ	18F0174-01	XDT_m2180628-039	Solid	06/28/18 10:25
ZZZZZ	18F0174-01	XDT_m2180628-039	Solid	06/28/18 10:25
ZZZZZ	18F0174-01	XDT_m2180628-039	Solid	06/28/18 10:25
ZZZZZ	18F0174-01	XDT_m2180628-039	Solid	06/28/18 10:25
Calibration Check	SGF0392-CCV3	XDT_m2180628-043	NA	06/28/18 10:46
Calibration Blank	SGF0392-CCB3	XDT_m2180628-044	NA	06/28/18 10:54
Blank	BGF0480-BLK1	XDT_m2180628-046	Water	06/28/18 11:04
ZZZZZ	18F0241-04	XDT_m2180628-047	Solid	06/28/18 11:09
ZZZZZ	18F0241-04	XDT_m2180628-047	Solid	06/28/18 11:09
ZZZZZ	18F0241-04	XDT_m2180628-047	Solid	06/28/18 11:09
ZZZZZ	18F0241-04	XDT_m2180628-047	Solid	06/28/18 11:09
ZZZZZ	18F0241-06	XDT_m2180628-049	Solid	06/28/18 11:18
ZZZZZ	18F0241-06	XDT_m2180628-049	Solid	06/28/18 11:18
ZZZZZ	18F0241-06	XDT_m2180628-049	Solid	06/28/18 11:18
ZZZZZ	18F0241-06	XDT_m2180628-049	Solid	06/28/18 11:18
ZZZZZ	18F0242-01	XDT_m2180628-050	Solid	06/28/18 11:23
ZZZZZ	18F0242-01	XDT_m2180628-050	Solid	06/28/18 11:23
ZZZZZ	18F0242-01	XDT_m2180628-050	Solid	06/28/18 11:23
ZZZZZ	18F0242-01	XDT_m2180628-050	Solid	06/28/18 11:23
ZZZZZ	18F0242-02	XDT_m2180628-051	Solid	06/28/18 11:28
ZZZZZ	18F0242-02	XDT_m2180628-051	Solid	06/28/18 11:28
ZZZZZ	18F0242-02	XDT_m2180628-051	Solid	06/28/18 11:28
ZZZZZ	18F0242-02	XDT_m2180628-051	Solid	06/28/18 11:28
ZZZZZ	18F0256-01	XDT_m2180628-052	Solid	06/28/18 11:33
ZZZZZ	18F0256-01	XDT_m2180628-052	Solid	06/28/18 11:33
ZZZZZ	18F0256-01	XDT_m2180628-052	Solid	06/28/18 11:33
ZZZZZ	18F0256-01	XDT_m2180628-052	Solid	06/28/18 11:33
ZZZZZ	18F0256-02	XDT_m2180628-053	Solid	06/28/18 11:38

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Sequence: SGF0392

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Instrument: ICPMS2
Calibration: BF00069

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	18F0256-02	XDT_m2180628-053	Solid	06/28/18 11:38
ZZZZZ	18F0256-02	XDT_m2180628-053	Solid	06/28/18 11:38
ZZZZZ	18F0256-02	XDT_m2180628-053	Solid	06/28/18 11:38
LCS	BGF0480-BS1	XDT_m2180628-054	Water	06/28/18 11:43
Calibration Check	SGF0392-CCV4	XDT_m2180628-055	NA	06/28/18 11:49
Calibration Blank	SGF0392-CCB4	XDT_m2180628-056	NA	06/28/18 11:57
Calibration Check	SGF0392-CCV5	XDT_m2180628-067	NA	06/28/18 12:53
Calibration Blank	SGF0392-CCB5	XDT_m2180628-068	NA	06/28/18 13:01
ZZZZZ	18F0241-02	XDT_m2180628-072	Solid	06/28/18 13:22
ZZZZZ	18F0241-02	XDT_m2180628-072	Solid	06/28/18 13:22
ZZZZZ	18F0241-02	XDT_m2180628-072	Solid	06/28/18 13:22
ZZZZZ	18F0241-02	XDT_m2180628-072	Solid	06/28/18 13:22
ZZZZZ	18F0241-05	XDT_m2180628-073	Solid	06/28/18 13:27
ZZZZZ	18F0241-05	XDT_m2180628-073	Solid	06/28/18 13:27
ZZZZZ	18F0241-05	XDT_m2180628-073	Solid	06/28/18 13:27
ZZZZZ	18F0241-05	XDT_m2180628-073	Solid	06/28/18 13:27
Calibration Check	SGF0392-CCV6	XDT_m2180628-079	NA	06/28/18 13:57
Calibration Blank	SGF0392-CCB6	XDT_m2180628-080	NA	06/28/18 14:05
Calibration Check	SGF0392-CCV7	XDT_m2180628-091	NA	06/28/18 15:00
Calibration Blank	SGF0392-CCB7	XDT_m2180628-092	NA	06/28/18 15:08
LDW18-SP-88	BGF0480-DUP1	XDT_m2180628-099	Water	06/28/18 15:42
LDW18-SP-88	BGF0480-DUP1	XDT_m2180628-099	Water	06/28/18 15:42
LDW18-SP-88	BGF0480-DUP1	XDT_m2180628-099	Water	06/28/18 15:42
LDW18-SP-88	BGF0480-DUP1	XDT_m2180628-099	Water	06/28/18 15:42
LDW18-SP-88	BGF0480-DUP1	XDT_m2180628-099	Water	06/28/18 15:42
LDW18-SP-88	BGF0480-DUP1	XDT_m2180628-099	Water	06/28/18 15:42
LDW18-SP-88	BGF0480-DUP1	XDT_m2180628-099	Water	06/28/18 15:42
LDW18-SP-88	18F0248-08	XDT_m2180628-100	Water	06/28/18 15:47
LDW18-SP-88	18F0248-08	XDT_m2180628-100	Water	06/28/18 15:47
LDW18-SP-88	18F0248-08	XDT_m2180628-100	Water	06/28/18 15:47

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6020A UCT-KED

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGF0392	Instrument:	ICPMS2
		Calibration:	BF00069

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
LDW18-SP-88	18F0248-08	XDT_m2180628-100	Water	06/28/18 15:47
LDW18-SP-88	BGF0480-MS1	XDT_m2180628-101	Water	06/28/18 15:52
LDW18-SP-88	BGF0480-MS1	XDT_m2180628-101	Water	06/28/18 15:52
LDW18-SP-88	BGF0480-MS1	XDT_m2180628-101	Water	06/28/18 15:52
LDW18-SP-88	BGF0480-MS1	XDT_m2180628-101	Water	06/28/18 15:52
LDW18-SP-88	BGF0480-MS1	XDT_m2180628-101	Water	06/28/18 15:52
LDW18-SP-88	BGF0480-MS1	XDT_m2180628-101	Water	06/28/18 15:52
LDW18-SP-88	BGF0480-MS1	XDT_m2180628-101	Water	06/28/18 15:52
Instrument Blank	SGF0392-IBL4	XDT_m2180628-102	NA	06/28/18 15:57
Calibration Check	SGF0392-CCV8	XDT_m2180628-103	NA	06/28/18 16:03
Calibration Blank	SGF0392-CCB8	XDT_m2180628-104	NA	06/28/18 16:11
Calibration Check	SGF0392-CCV9	XDT_m2180628-106	NA	06/28/18 16:21
Calibration Blank	SGF0392-CCB9	XDT_m2180628-107	NA	06/28/18 16:28
Calibration Check	SGF0392-CCVA	XDT_m2180628-118	NA	06/28/18 17:24
Calibration Blank	SGF0392-CCBA	XDT_m2180628-119	NA	06/28/18 17:31
Calibration Check	SGF0392-CCVB	XDT_m2180628-128	NA	06/28/18 18:17
Calibration Blank	SGF0392-CCBB	XDT_m2180628-129	NA	06/28/18 18:24
Calibration Check	SGF0392-CCVC	XDT_m2180628-133	NA	06/28/18 18:50
Calibration Blank	SGF0392-CCBC	XDT_m2180628-134	NA	06/28/18 18:57

ICP INTERFERENCE CHECK SAMPLE

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00044
Sequence: SGF0239
Standard ID: G005065

Lab Sample ID	Analyte	True	Found	%R	Units
SGF0239-IFA1	Arsenic-75a (dissolved)	0	0.0290		ug/L
	Cadmium-111 (dissolved)	0	0.0880		ug/L
	Cadmium-114 (dissolved)	0	0.0720		ug/L
	Copper-63 (dissolved)	0	0.0300		ug/L
	Copper-65 (dissolved)	0	0.0400		ug/L
	Zinc-66 (dissolved)	0	0.1260		ug/L
	Zinc-67 (dissolved)	0	0.0850		ug/L

* Indicates %R outside of QC limits
NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00044
Sequence: SGF0239
Standard ID: G005065

Lab Sample ID	Analyte	True	Found	%R	Units
SGF0239-IFB1	Arsenic-75a (dissolved)	20.000	18.787	93.9	ug/L
	Cadmium-111 (dissolved)	20.000	18.775	93.9	ug/L
	Cadmium-114 (dissolved)	20.000	18.758	93.8	ug/L
	Copper-63 (dissolved)	20.000	19.512	97.6	ug/L
	Copper-65 (dissolved)	20.000	19.143	95.7	ug/L
	Zinc-66 (dissolved)	20.000	18.686	93.4	ug/L
	Zinc-67 (dissolved)	20.000	16.864	84.3	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00048
Sequence: SGF0262
Standard ID: G005065

Lab Sample ID	Analyte	True	Found	%R	Units
SGF0262-IFA1	Arsenic-75a (dissolved)	0	0.0370		ug/L
	Cadmium-111 (dissolved)	0	0.0690		ug/L
	Cadmium-114 (dissolved)	0	0.0460		ug/L
	Copper-63 (dissolved)	0	0.0570		ug/L
	Copper-65 (dissolved)	0	0.0530		ug/L
	Zinc-66 (dissolved)	0	1.3410		ug/L
	Zinc-67 (dissolved)	0	0.9440		ug/L

* Indicates %R outside of QC limits
NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00048
Sequence: SGF0262
Standard ID: G005065

Lab Sample ID	Analyte	True	Found	%R	Units
SGF0262-IFB1	Arsenic-75a (dissolved)	20.000	18.973	94.9	ug/L
	Cadmium-111 (dissolved)	20.000	19.477	97.4	ug/L
	Cadmium-114 (dissolved)	20.000	19.222	96.1	ug/L
	Copper-63 (dissolved)	20.000	19.527	97.6	ug/L
	Copper-65 (dissolved)	20.000	19.714	98.6	ug/L
	Zinc-66 (dissolved)	20.000	19.849	99.2	ug/L
	Zinc-67 (dissolved)	20.000	18.975	94.9	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00049
Sequence: SGF0278
Standard ID: G005065

Lab Sample ID	Analyte	True	Found	%R	Units
SGF0278-IFA1	Copper-63 (dissolved)	0	0.0690		ug/L
	Copper-65 (dissolved)	0	0.0730		ug/L
	Zinc-66 (dissolved)	0	1.5050		ug/L
	Zinc-67 (dissolved)	0	1.4510		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00049
Sequence: SGF0278
Standard ID: G005065

Lab Sample ID	Analyte	True	Found	%R	Units
SGF0278-IFB1	Copper-63 (dissolved)	20.000	19.674	98.4	ug/L
	Copper-65 (dissolved)	20.000	19.860	99.3	ug/L
	Zinc-66 (dissolved)	20.000	19.049	95.2	ug/L
	Zinc-67 (dissolved)	20.000	17.471	87.4	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00056
Sequence: SGF0310
Standard ID: G005699

Lab Sample ID	Analyte	True	Found	%R	Units
SGF0310-IFA1	Arsenic-75a (dissolved)	0	0.0760		ug/L

* Indicates %R outside of QC limits
NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00056
Sequence: SGF0310
Standard ID: G005699

Lab Sample ID	Analyte	True	Found	%R	Units
SGF0310-IFB1	Arsenic-75a (dissolved)	20.000	19.002	95.0	ug/L

* Indicates %R outside of QC limits
NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00060
Sequence: SGF0319
Standard ID: G005699

Lab Sample ID	Analyte	True	Found	%R	Units
SGF0319-IFA1	Arsenic-75a (dissolved)	0	0.0270		ug/L
	Cadmium-111 (dissolved)	0	0.1260		ug/L
	Cadmium-114 (dissolved)	0	0.0840		ug/L
	Copper-63 (dissolved)	0	0.0120		ug/L
	Copper-65 (dissolved)	0	0.0220		ug/L
	Zinc-66 (dissolved)	0	-0.2590		ug/L
	Zinc-67 (dissolved)	0	-0.3030		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00060
Sequence: SGF0319
Standard ID: G005699

Lab Sample ID	Analyte	True	Found	%R	Units
SGF0319-IFB1	Arsenic-75a (dissolved)	20.000	19.665	98.3	ug/L
	Cadmium-111 (dissolved)	20.000	19.232	96.2	ug/L
	Cadmium-114 (dissolved)	20.000	19.018	95.1	ug/L
	Copper-63 (dissolved)	20.000	19.668	98.3	ug/L
	Copper-65 (dissolved)	20.000	19.756	98.8	ug/L
	Zinc-66 (dissolved)	20.000	17.948	89.7	ug/L
	Zinc-67 (dissolved)	20.000	15.984	79.9	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00061
Sequence: SGF0345
Standard ID: G005699

Lab Sample ID	Analyte	True	Found	%R	Units
SGF0345-IFA1	Arsenic-75a (dissolved)	0	0.0290		ug/L
	Cadmium-111 (dissolved)	0	0.1290		ug/L
	Cadmium-114 (dissolved)	0	0.0810		ug/L
	Copper-63 (dissolved)	0	0.0390		ug/L
	Copper-65 (dissolved)	0	0.0460		ug/L
	Zinc-66 (dissolved)	0	0.1440		ug/L
	Zinc-67 (dissolved)	0	0.1840		ug/L

* Indicates %R outside of QC limits
NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00061
Sequence: SGF0345
Standard ID: G005699

Lab Sample ID	Analyte	True	Found	%R	Units
SGF0345-IFB1	Arsenic-75a (dissolved)	20.000	19.594	98.0	ug/L
	Cadmium-111 (dissolved)	20.000	19.793	99.0	ug/L
	Cadmium-114 (dissolved)	20.000	20.085	100	ug/L
	Copper-63 (dissolved)	20.000	20.203	101	ug/L
	Copper-65 (dissolved)	20.000	20.001	100	ug/L
	Zinc-66 (dissolved)	20.000	19.242	96.2	ug/L
	Zinc-67 (dissolved)	20.000	16.155	80.8	ug/L

* Indicates %R outside of QC limits
NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00064
Sequence: SGF0355
Standard ID: G005699

Lab Sample ID	Analyte	True	Found	%R	Units
SGF0355-IFA1	Arsenic-75a (dissolved)	0	0.0290		ug/L
	Cadmium-111 (dissolved)	0	0.0910		ug/L
	Cadmium-114 (dissolved)	0	0.0710		ug/L
	Copper-63 (dissolved)	0	0.0410		ug/L
	Copper-65 (dissolved)	0	0.0620		ug/L
	Zinc-66 (dissolved)	0	0.4940		ug/L
	Zinc-67 (dissolved)	0	0.1430		ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00064
Sequence: SGF0355
Standard ID: G005699

Lab Sample ID	Analyte	True	Found	%R	Units
SGF0355-IFB1	Arsenic-75a (dissolved)	20.000	19.396	97.0	ug/L
	Cadmium-111 (dissolved)	20.000	20.183	101	ug/L
	Cadmium-114 (dissolved)	20.000	19.791	99.0	ug/L
	Copper-63 (dissolved)	20.000	20.782	104	ug/L
	Copper-65 (dissolved)	20.000	20.592	103	ug/L
	Zinc-66 (dissolved)	20.000	20.718	104	ug/L
	Zinc-67 (dissolved)	20.000	18.976	94.9	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00069
Sequence: SGF0392
Standard ID: G005699

Lab Sample ID	Analyte	True	Found	%R	Units
SGF0392-IFA1	Arsenic-75a (dissolved)	0	0.0230		ug/L
	Cadmium-111 (dissolved)	0	0.0800		ug/L
	Cadmium-114 (dissolved)	0	0.0650		ug/L
	Copper-63 (dissolved)	0	0.0320		ug/L
	Copper-65 (dissolved)	0	0.0390		ug/L
	Zinc-66 (dissolved)	0	0.2040		ug/L
	Zinc-67 (dissolved)	0	0.2590		ug/L

* Indicates %R outside of QC limits
NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

ICP INTERFERENCE CHECK SAMPLE

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00069
Sequence: SGF0392
Standard ID: G005699

Lab Sample ID	Analyte	True	Found	%R	Units
SGF0392-IFB1	Arsenic-75a (dissolved)	20.000	19.585	97.9	ug/L
	Cadmium-111 (dissolved)	20.000	19.482	97.4	ug/L
	Cadmium-114 (dissolved)	20.000	19.243	96.2	ug/L
	Copper-63 (dissolved)	20.000	20.790	104	ug/L
	Copper-65 (dissolved)	20.000	19.641	98.2	ug/L
	Zinc-66 (dissolved)	20.000	19.839	99.2	ug/L
	Zinc-67 (dissolved)	20.000	17.380	86.9	ug/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

DETECTION LEVEL STANDARD
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00044
Sequence: SGF0239
Lab Sample ID: SGF0239-CRL1

Analyte	True	Found	%R	Units	QC Limts
Arsenic-75a (dissolved)	0.20000	0.188	94.0	ug/L	50 - 150
Cadmium-111 (dissolved)	0.10000	0.0910	91.0	ug/L	50 - 150
Cadmium-114 (dissolved)	0.10000	0.0930	93.0	ug/L	50 - 150
Copper-63 (dissolved)	0.50000	0.518	104	ug/L	50 - 150
Copper-65 (dissolved)	0.50000	0.504	101	ug/L	50 - 150
Zinc-66 (dissolved)	4.0000	4.17	104	ug/L	50 - 150
Zinc-67 (dissolved)	4.0000	4.04	101	ug/L	50 - 150

* Values outside of QC limits

DETECTION LEVEL STANDARD
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00048
Sequence: SGF0262
Lab Sample ID: SGF0262-CRL1

Analyte	True	Found	%R	Units	QC Limts
Arsenic-75a (dissolved)	0.20000	0.184	92.0	ug/L	50 - 150
Cadmium-111 (dissolved)	0.10000	0.0860	86.0	ug/L	50 - 150
Cadmium-114 (dissolved)	0.10000	0.128	128	ug/L	50 - 150
Copper-63 (dissolved)	0.50000	0.495	99.0	ug/L	50 - 150
Copper-65 (dissolved)	0.50000	0.524	105	ug/L	50 - 150
Zinc-66 (dissolved)	4.0000	4.14	103	ug/L	50 - 150
Zinc-67 (dissolved)	4.0000	4.06	102	ug/L	50 - 150

* Values outside of QC limits

DETECTION LEVEL STANDARD
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00049
Sequence: SGF0278
Lab Sample ID: SGF0278-CRL1

Analyte	True	Found	%R	Units	QC Limts
Copper-63 (dissolved)	0.50000	0.507	101	ug/L	50 - 150
Copper-65 (dissolved)	0.50000	0.527	105	ug/L	50 - 150
Zinc-66 (dissolved)	4.0000	4.12	103	ug/L	50 - 150
Zinc-67 (dissolved)	4.0000	3.71	92.8	ug/L	50 - 150

* Values outside of QC limits

DETECTION LEVEL STANDARD
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS1
Calibration: BF00056
Sequence: SGF0310
Lab Sample ID: SGF0310-CRL1

Analyte	True	Found	%R	Units	QC Limts
Arsenic-75a (dissolved)	0.20000	0.216	108	ug/L	50 - 150

* Values outside of QC limits

DETECTION LEVEL STANDARD
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00060
Sequence: SGF0319
Lab Sample ID: SGF0319-CRL1

Analyte	True	Found	%R	Units	QC Limts
Arsenic-75a (dissolved)	0.20000	0.220	110	ug/L	50 - 150
Cadmium-111 (dissolved)	0.10000	0.0980	98.0	ug/L	50 - 150
Cadmium-114 (dissolved)	0.10000	0.110	110	ug/L	50 - 150
Copper-63 (dissolved)	0.50000	0.506	101	ug/L	50 - 150
Copper-65 (dissolved)	0.50000	0.509	102	ug/L	50 - 150
Zinc-66 (dissolved)	4.0000	3.67	91.6	ug/L	50 - 150
Zinc-67 (dissolved)	4.0000	3.23	80.8	ug/L	50 - 150

* Values outside of QC limits

DETECTION LEVEL STANDARD
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00061
Sequence: SGF0345
Lab Sample ID: SGF0345-CRL1

Analyte	True	Found	%R	Units	QC Limts
Arsenic-75a (dissolved)	0.20000	0.195	97.5	ug/L	50 - 150
Cadmium-111 (dissolved)	0.10000	0.104	104	ug/L	50 - 150
Cadmium-114 (dissolved)	0.10000	0.110	110	ug/L	50 - 150
Copper-63 (dissolved)	0.50000	0.576	115	ug/L	50 - 150
Copper-65 (dissolved)	0.50000	0.558	112	ug/L	50 - 150
Zinc-66 (dissolved)	4.0000	4.81	120	ug/L	50 - 150
Zinc-67 (dissolved)	4.0000	4.47	112	ug/L	50 - 150

* Values outside of QC limits

DETECTION LEVEL STANDARD
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00064
Sequence: SGF0355
Lab Sample ID: SGF0355-CRL1

Analyte	True	Found	%R	Units	QC Limts
Arsenic-75a (dissolved)	0.20000	0.205	103	ug/L	50 - 150
Cadmium-111 (dissolved)	0.10000	0.102	102	ug/L	50 - 150
Cadmium-114 (dissolved)	0.10000	0.116	116	ug/L	50 - 150
Copper-63 (dissolved)	0.50000	0.549	110	ug/L	50 - 150
Copper-65 (dissolved)	0.50000	0.600	120	ug/L	50 - 150
Zinc-66 (dissolved)	4.0000	4.93	123	ug/L	50 - 150
Zinc-67 (dissolved)	4.0000	4.50	112	ug/L	50 - 150

* Values outside of QC limits

DETECTION LEVEL STANDARD
EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: ICPMS2
Calibration: BF00069
Sequence: SGF0392
Lab Sample ID: SGF0392-CRL1

Analyte	True	Found	%R	Units	QC Limts
Arsenic-75a (dissolved)	0.20000	0.198	99.0	ug/L	50 - 150
Cadmium-111 (dissolved)	0.10000	0.0830	83.0	ug/L	50 - 150
Cadmium-114 (dissolved)	0.10000	0.0900	90.0	ug/L	50 - 150
Copper-63 (dissolved)	0.50000	0.524	105	ug/L	50 - 150
Copper-65 (dissolved)	0.50000	0.535	107	ug/L	50 - 150
Zinc-66 (dissolved)	4.0000	4.22	106	ug/L	50 - 150
Zinc-67 (dissolved)	4.0000	3.76	94.0	ug/L	50 - 150

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00044
Laboratory ID: SGF0239-HCV1
Sequence: SGF0239
Standard ID: G005067

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a (dissolved)	200.00	200	-0.02	10.00
Cadmium-111 (dissolved)	200.00	193	-3.7	10.00
Cadmium-114 (dissolved)	200.00	194	-3.2	10.00
Copper-63 (dissolved)	200.00	198	-0.8	10.00
Copper-65 (dissolved)	200.00	194	-3.1	10.00
Zinc-66 (dissolved)	200.00	195	-2.5	10.00
Zinc-67 (dissolved)	200.00	192	-4.0	10.00

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00044
Laboratory ID: SGF0239-HCV2
Sequence: SGF0239
Standard ID: G005068

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a (dissolved)	300.00	293	-2.2	10.00
Cadmium-111 (dissolved)	300.00	288	-4.1	10.00
Cadmium-114 (dissolved)	300.00	285	-5.1	10.00
Copper-63 (dissolved)	300.00	291	-3.0	10.00
Copper-65 (dissolved)	300.00	282	-5.9	10.00
Zinc-66 (dissolved)	300.00	279	-6.8	10.00
Zinc-67 (dissolved)	300.00	283	-5.7	10.00

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00048
Laboratory ID: SGF0262-HCV1
Sequence: SGF0262
Standard ID: G005067

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a (dissolved)	200.00	201	0.4	10.00
Cadmium-111 (dissolved)	200.00	203	1.7	10.00
Cadmium-114 (dissolved)	200.00	203	1.5	10.00
Copper-63 (dissolved)	200.00	200	0.2	10.00
Copper-65 (dissolved)	200.00	199	-0.4	10.00
Zinc-66 (dissolved)	200.00	195	-2.3	10.00
Zinc-67 (dissolved)	200.00	193	-3.4	10.00

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00048
Laboratory ID: SGF0262-HCV2
Sequence: SGF0262
Standard ID: G005068

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a (dissolved)	300.00	295	-1.5	10.00
Cadmium-111 (dissolved)	300.00	293	-2.2	10.00
Cadmium-114 (dissolved)	300.00	288	-3.9	10.00
Copper-63 (dissolved)	300.00	288	-3.9	10.00
Copper-65 (dissolved)	300.00	289	-3.7	10.00
Zinc-66 (dissolved)	300.00	284	-5.3	10.00
Zinc-67 (dissolved)	300.00	279	-6.9	10.00

* Values outside of QC limits

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00049
Laboratory ID: SGF0278-HCV1
Sequence: SGF0278
Standard ID: G005067

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Copper-63 (dissolved)	200.00	201	0.7	10.00
Copper-65 (dissolved)	200.00	201	0.3	10.00
Zinc-66 (dissolved)	200.00	192	-4.0	10.00
Zinc-67 (dissolved)	200.00	193	-3.6	10.00

* Values outside of QC limits

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00049
Laboratory ID: SGF0278-HCV2
Sequence: SGF0278
Standard ID: G005068

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Copper-63 (dissolved)	300.00	299	-0.3	10.00
Copper-65 (dissolved)	300.00	294	-2.0	10.00
Zinc-66 (dissolved)	300.00	279	-7.1	10.00
Zinc-67 (dissolved)	300.00	288	-4.1	10.00

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00056
Laboratory ID: SGF0310-HCV1
Sequence: SGF0310
Standard ID: G005700

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a (dissolved)	200.00	192	-4.0	10.00

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00056
Laboratory ID: SGF0310-HCV2
Sequence: SGF0310
Standard ID: G005701

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a (dissolved)	300.00	291	-3.1	10.00

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00060
Laboratory ID: SGF0319-HCV1
Sequence: SGF0319
Standard ID: G005700

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a (dissolved)	200.00	202	1.1	10.00
Cadmium-111 (dissolved)	200.00	196	-2.1	10.00
Cadmium-114 (dissolved)	200.00	197	-1.5	10.00
Copper-63 (dissolved)	200.00	194	-3.2	10.00
Copper-65 (dissolved)	200.00	198	-0.9	10.00
Zinc-66 (dissolved)	200.00	197	-1.7	10.00
Zinc-67 (dissolved)	200.00	186	-6.9	10.00

* Values outside of QC limits

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00060
Laboratory ID: SGF0319-HCV2
Sequence: SGF0319
Standard ID: G005701

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a (dissolved)	300.00	309	2.9	10.00
Cadmium-111 (dissolved)	300.00	289	-3.8	10.00
Cadmium-114 (dissolved)	300.00	286	-4.6	10.00
Copper-63 (dissolved)	300.00	285	-5.0	10.00
Copper-65 (dissolved)	300.00	288	-4.0	10.00
Zinc-66 (dissolved)	300.00	283	-5.5	10.00
Zinc-67 (dissolved)	300.00	274	-8.5	10.00

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00061
Laboratory ID: SGF0345-HCV1
Sequence: SGF0345
Standard ID: G005700

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a (dissolved)	200.00	201	0.4	10.00
Cadmium-111 (dissolved)	200.00	206	3.1	10.00
Cadmium-114 (dissolved)	200.00	208	4.0	10.00
Copper-63 (dissolved)	200.00	203	1.4	10.00
Copper-65 (dissolved)	200.00	204	2.2	10.00
Zinc-66 (dissolved)	200.00	199	-0.4	10.00
Zinc-67 (dissolved)	200.00	194	-3.1	10.00

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00061
Laboratory ID: SGF0345-HCV2
Sequence: SGF0345
Standard ID: G005701

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a (dissolved)	300.00	294	-2.0	10.00
Cadmium-111 (dissolved)	300.00	302	0.8	10.00
Cadmium-114 (dissolved)	300.00	304	1.3	10.00
Copper-63 (dissolved)	300.00	293	-2.2	10.00
Copper-65 (dissolved)	300.00	290	-3.3	10.00
Zinc-66 (dissolved)	300.00	282	-5.9	10.00
Zinc-67 (dissolved)	300.00	277	-7.8	10.00

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00064
Laboratory ID: SGF0355-HCV1
Sequence: SGF0355
Standard ID: G005700

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a (dissolved)	200.00	204	2.0	10.00
Cadmium-111 (dissolved)	200.00	205	2.5	10.00
Cadmium-114 (dissolved)	200.00	199	-0.7	10.00
Copper-63 (dissolved)	200.00	205	2.7	10.00
Copper-65 (dissolved)	200.00	212	6.0	10.00
Zinc-66 (dissolved)	200.00	206	2.8	10.00
Zinc-67 (dissolved)	200.00	198	-1.0	10.00

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00064
Laboratory ID: SGF0355-HCV2
Sequence: SGF0355
Standard ID: G005701

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a (dissolved)	300.00	300	0.1	10.00
Cadmium-111 (dissolved)	300.00	305	1.8	10.00
Cadmium-114 (dissolved)	300.00	299	-0.3	10.00
Copper-63 (dissolved)	300.00	292	-2.6	10.00
Copper-65 (dissolved)	300.00	295	-1.8	10.00
Zinc-66 (dissolved)	300.00	297	-0.9	10.00
Zinc-67 (dissolved)	300.00	284	-5.4	10.00

* Values outside of QC limits

Analytical Resources, Incorporated
Analytical Chemists and Consultants

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00069
Laboratory ID: SGF0392-HCV1
Sequence: SGF0392
Standard ID: G005700

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a (dissolved)	200.00	202	0.9	10.00
Cadmium-111 (dissolved)	200.00	198	-1.1	10.00
Cadmium-114 (dissolved)	200.00	199	-0.3	10.00
Copper-63 (dissolved)	200.00	203	1.3	10.00
Copper-65 (dissolved)	200.00	204	1.8	10.00
Zinc-66 (dissolved)	200.00	202	1.1	10.00
Zinc-67 (dissolved)	200.00	195	-2.3	10.00

* Values outside of QC limits

HIGH-CONCENTRATION CALIBRATION VERIFICATION

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BF00069
Laboratory ID: SGF0392-HCV2
Sequence: SGF0392
Standard ID: G005701

ANALYTE	EXPECTED (ug/L)	FOUND (ug/L)	% DRIFT	QC LIMIT
Arsenic-75a (dissolved)	300.00	292	-2.7	10.00
Cadmium-111 (dissolved)	300.00	289	-3.7	10.00
Cadmium-114 (dissolved)	300.00	288	-4.0	10.00
Copper-63 (dissolved)	300.00	296	-1.4	10.00
Copper-65 (dissolved)	300.00	290	-3.4	10.00
Zinc-66 (dissolved)	300.00	289	-3.7	10.00
Zinc-67 (dissolved)	300.00	276	-7.8	10.00

* Values outside of QC limits

HOLDING TIME SUMMARY

Analysis: EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW18-SP-RB1 18F0185-01	06/11/18 16:12	06/12/18 14:55	06/15/18 05:21	3	180	06/18/18 21:18	7	180	
LDW18-SP-30 18F0185-03	06/12/18 12:06	06/12/18 14:55	06/15/18 05:21	2	180	06/19/18 21:13	7	180	
LDW18-SP-32 18F0185-04	06/12/18 09:19	06/12/18 14:55	06/15/18 05:21	2	180	06/19/18 21:16	7	180	
LDW18-SP-32 18F0185-04	06/12/18 09:19	06/12/18 14:55	06/15/18 05:21	2	180	06/25/18 15:28	13	180	
LDW18-SP-35 18F0185-05	06/12/18 10:56	06/12/18 14:55	06/15/18 05:21	2	180	06/19/18 21:20	7	180	
LDW18-SP-35 18F0185-05	06/12/18 10:56	06/12/18 14:55	06/15/18 05:21	2	180	06/25/18 15:32	13	180	
LDW18-SP-38 18F0185-06	06/12/18 10:27	06/12/18 14:55	06/15/18 05:21	2	180	06/19/18 21:24	7	180	
LDW18-SP-38 18F0185-06	06/12/18 10:27	06/12/18 14:55	06/15/18 05:21	2	180	06/25/18 15:37	13	180	
LDW18-SP-42 18F0185-07	06/12/18 12:05	06/12/18 14:55	06/15/18 05:21	2	180	06/20/18 20:48	8	180	
LDW18-SP-42 18F0185-07	06/12/18 12:05	06/12/18 14:55	06/15/18 05:21	2	180	06/22/18 16:33	10	180	
LDW18-SP-42 18F0185-07	06/12/18 12:05	06/12/18 14:55	06/15/18 05:21	2	180	06/18/18 21:55	6	180	
LDW18-SP-43 18F0185-08	06/12/18 13:00	06/12/18 14:55	06/15/18 05:21	2	180	06/25/18 15:41	13	180	
LDW18-SP-06 18F0208-01	06/13/18 09:53	06/13/18 16:26	06/20/18 04:48	6	180	06/26/18 14:19	13	180	
LDW18-SP-33 18F0208-02	06/13/18 12:17	06/13/18 16:26	06/20/18 04:48	6	180	06/26/18 13:04	13	180	
LDW18-SP-24 18F0208-03	06/13/18 12:35	06/13/18 16:26	06/20/18 04:48	6	180	06/26/18 13:08	13	180	
LDW18-SP-24-FD 18F0208-04	06/13/18 12:42	06/13/18 16:26	06/20/18 04:48	6	180	06/26/18 13:13	13	180	
LDW18-SP-05 18F0226-01	06/14/18 14:08	06/14/18 15:45	06/20/18 04:48	5	180	06/26/18 15:16	12	180	
LDW18-SP-57 18F0226-02	06/14/18 10:41	06/14/18 15:45	06/20/18 04:48	5	180	06/26/18 15:22	12	180	
LDW18-SP-73 18F0226-03	06/14/18 13:08	06/14/18 15:45	06/20/18 04:48	5	180	06/26/18 15:28	12	180	
LDW18-SP-74 18F0226-04	06/14/18 13:14	06/14/18 15:45	06/20/18 04:48	5	180	06/26/18 15:34	12	180	
LDW18-SP-77 18F0226-05	06/14/18 12:10	06/14/18 15:45	06/20/18 04:48	5	180	06/26/18 15:38	12	180	
LDW18-SP-78 18F0226-06	06/14/18 12:04	06/14/18 15:45	06/20/18 04:48	5	180	06/26/18 15:43	12	180	

HOLDING TIME SUMMARY

Analysis: EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW18-SP-79 18F0226-07	06/14/18 09:50	06/14/18 15:45	06/20/18 04:48	5	180	06/26/18 15:47	12	180	
LDW18-SP-84 18F0226-08	06/14/18 09:53	06/14/18 15:45	06/20/18 04:48	5	180	06/26/18 15:52	12	180	
LDW18-SP-87 18F0226-09	06/14/18 11:11	06/14/18 15:45	06/20/18 04:48	5	180	06/26/18 15:56	12	180	
LDW18-SP-01 18F0248-01	06/15/18 11:33	06/15/18 16:10	06/20/18 04:48	4	180	06/26/18 16:01	11	180	
LDW18-SP-45 18F0248-02	06/15/18 13:45	06/15/18 16:10	06/20/18 04:48	4	180	06/26/18 16:20	11	180	
LDW18-SP-47 18F0248-03	06/15/18 13:16	06/15/18 16:10	06/20/18 04:48	4	180	06/26/18 16:24	11	180	
LDW18-SP-66 18F0248-04	06/15/18 13:25	06/15/18 16:10	06/20/18 04:48	4	180	06/26/18 16:28	11	180	
LDW18-SP-70 18F0248-05	06/15/18 11:13	06/15/18 16:10	06/20/18 04:48	4	180	06/27/18 14:54	12	180	
LDW18-SP-83 18F0248-06	06/15/18 12:08	06/15/18 16:10	06/20/18 04:48	4	180	06/26/18 16:37	11	180	
LDW18-SP-86 18F0248-07	06/15/18 12:19	06/15/18 16:10	06/20/18 04:48	4	180	06/27/18 14:58	12	180	
LDW18-SP-86 18F0248-07	06/15/18 12:19	06/15/18 16:10	06/20/18 04:48	4	180	06/26/18 16:42	11	180	
LDW18-SP-88 18F0248-08	06/15/18 10:52	06/15/18 16:10	06/20/18 05:07	4	180	06/28/18 15:47	13	180	
Duplicate BGF0364-DUP2	06/12/18 13:00	06/12/18 14:55	06/15/18 05:21	2	180	06/25/18 15:54	13	180	
Matrix Spike BGF0364-MS2	06/12/18 13:00	06/12/18 14:55	06/15/18 05:21	2	180	06/25/18 16:03	13	180	
Matrix Spike Dup BGF0364-MSD2	06/12/18 13:00	06/12/18 14:55	06/15/18 05:21	2	180	06/25/18 16:12	13	180	
Duplicate BGF0478-DUP1	06/13/18 09:53	06/13/18 16:26	06/20/18 04:48	6	180	06/26/18 14:15	13	180	
Matrix Spike BGF0478-MS1	06/13/18 09:53	06/13/18 16:26	06/20/18 04:48	6	180	06/26/18 14:24	13	180	
Duplicate BGF0480-DUP1	06/15/18 10:52	06/15/18 16:10	06/20/18 05:07	4	180	06/28/18 15:42	13	180	
Matrix Spike BGF0480-MS1	06/15/18 10:52	06/15/18 16:10	06/20/18 05:07	4	180	06/28/18 15:52	13	180	

* Indicates hold time exceedance.

METHOD DETECTION AND REPORTING LIMITS

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Matrix: Water Instrument: ICPMS1

Analyte	MDL	RL	Units
Arsenic-75a (dissolved)	0.0220	0.200	ug/L
Cadmium-111 (dissolved)	0.0300	0.100	ug/L
Cadmium-114 (dissolved)	0.0400	0.100	ug/L
Copper-63 (dissolved)	0.340	0.500	ug/L
Copper-65 (dissolved)	0.350	0.500	ug/L
Zinc-66 (dissolved)	0.820	4.00	ug/L
Zinc-67 (dissolved)	0.940	4.00	ug/L

METHOD DETECTION AND REPORTING LIMITS

EPA 6020A UCT-KED

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Matrix: Water
Instrument: ICPMS2

Analyte	MDL	RL	Units
Arsenic-75a (dissolved)	0.0220	0.200	ug/L
Cadmium-111 (dissolved)	0.0300	0.100	ug/L
Cadmium-114 (dissolved)	0.0400	0.100	ug/L
Copper-63 (dissolved)	0.340	0.500	ug/L
Copper-65 (dissolved)	0.350	0.500	ug/L
Zinc-66 (dissolved)	0.820	4.00	ug/L
Zinc-67 (dissolved)	0.940	4.00	ug/L

INORGANIC VENTURES
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inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGAS10
Lot Number:	N2-AS666653
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Arsenic
Starting Material:	As Metal
Starting Material Lot#:	1971 and 1851
Starting Material Purity:	99.9991%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10050 ± 42 µg/mL

Density: 1.029 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10066 ± 48 µg/mL**
ICP Assay NIST SRM 3103a Lot Number: 100818

Assay Method #2 **10006 ± 80 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2 (u_{char\ a})^2 + (w_b)^2 (u_{char\ b})^2]^{½}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Ag	<	0.002234	M	Eu	<	0.000466	O	Na		0.007590	M	Se	<	0.002797	O	Zn		0.003664
O	Al		0.019629	O	Fe		0.000785	O	Nb	<	0.005585	O	Si		0.041876	M	Zr	<	0.001865
s	As	<		M	Ga	<	0.000466	M	Nd	<	0.000466	M	Sm	<	0.000466				
M	Au	<	0.002796	M	Gd	<	0.000466	M	Ni		0.004807	M	Sn	<	0.000932				
O	B		0.005496	M	Ge	<	0.000932	M	Os	<	0.000466	M	Sr	<	0.001865				
O	Ba	<	0.000670	M	Hf	<	0.000466	O	P	<	0.027925	M	Ta	<	0.000466				
O	Be	<	0.000111	M	Hg	<	0.009321	M	Pb	<	0.002797	M	Tb	<	0.000466				
M	Bi	<	0.000466	M	Ho	<	0.000466	M	Pd	<	0.000466	M	Te	<	0.004663				
O	Ca		0.004972	M	In	<	0.023315	M	Pr	<	0.000466	M	Th	<	0.000466				
M	Cd	<	0.000466	M	Ir	<	0.000466	M	Pt	<	0.000466	O	Ti		0.000523				
M	Ce	<	0.000466	O	K		0.001832	M	Rb	<	0.001865	M	Tl	<	0.000466				
M	Co	<	0.000466	M	La	<	0.000466	M	Re	<	0.000466	M	Tm	<	0.000466				
O	Cr	<	0.002122	O	Li	<	0.000111	M	Rh	<	0.000466	M	U	<	0.000466				
M	Cs	<	0.000932	M	Lu	<	0.000466	M	Ru	<	0.000466	M	V	<	0.001865				
O	Cu	<	0.002904	O	Mg		0.000340	O	S	<	0.017872	M	W	<	0.004663				
M	Dy	<	0.000466	O	Mn		0.000182	M	Sb	<	0.000466	O	Y	<	0.000558				
M	Er	<	0.000466	M	Mo	<	0.000466	O	Sc	<	0.001005	M	Yb	<	0.000466				

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 74.92 ; mix of +3 and +5 ; 6 ; H3AsO4 and HAsO2
Chemical Compatibility - Arsenic has no cationic chemistry. It is soluble in HCl, HNO3,H3PO4, H2SO4 and HF aqueous matrices water and NH4OH . It is stable with most inorganic anions (forms arsenate when boiled with chromate) but many cationic metals form the insoluble arsenates under pH neutral conditions. When fluorinated and / or under acidic conditions arsenate formation is typically not a problem at moderate to low concentrations.
Stability - 2-100 ppb levels stable for months alone or mixed with other elements at equivalent levels in 1% HNO3 / LDPE container.
As Containing Samples (Preparation and Solution) - Metal (soluble in 1:1 H2O / HNO3); Oxides (the oxide exists in crystalline and amorphous forms where the amorphic form is more water soluble. The oxides typically dissolve in dilute acidic solutions when boiled); Minerals (one gram of powered sample is fused in a Ni crucible with 10 grams of a 1:1 mix of K2CO3 and KNO3 and the melt extracted with hot water); Organic Matrices (0.2 to 0.5 grams of sample are fused with 15 grams of a 1:1 Na2CO3 / Na2O2 mix in a Ni crucible. The fuseate is extracted with water and acidified with HNO3).
Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 75 amu	20 ppt	N/A	40Ar35Cl, 59Co16O, 36Ar38Ar1H,8Ar37Cl,Ar39K, 150Nd2+,150Sm2+
ICP-OES 189.042 nm	0.05/0.005 µg/mL	1	Cr
ICP-OES 193.696 nm	0.1/0.01 µg/mL	1	V, Ge
ICP-OES 228.812 nm	0.1/0.01 µg/mL	1	Cd, Pt, Ir, Co

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 09, 2018

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **April 09, 2022**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Supervisor, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



INORGANIC VENTURES
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CERTIFICATE OF ANALYSIS

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGCD10
Lot Number:	M2-CD657496
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Cadmium
Starting Material:	Cd Shot
Starting Material Lot#:	1954
Starting Material Purity:	99.9998%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 9990 ± 27 µg/mL

Certified Density: 1.029 g/mL (measured at 20 ± 1 ºC)

Assay Information:

Assay Method #1 **9995 ± 39 µg/mL**
ICP Assay NIST SRM 3108 Lot Number: 130116

Assay Method #2 **9986 ± 32 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2 (u_{char\ a})^2 + (w_b)^2 (u_{char\ b})^2]^{½}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	0.000832	O	Eu	<	0.002146	O	Na	0.003351	M	Se	<	0.003997	O	Zn	0.000251	
O	Al	0.002430	O	Fe	<	0.001180	M	Nb	< 0.000399	O	Si	0.009496	M	Zr	<	0.000399	
M	As	< 0.003997	M	Ga	<	0.000399	M	Nd	< 0.000399	M	Sm	<	0.000799				
M	Au	< 0.002809	M	Gd	<	0.000399	M	Ni	< 0.002398	M	Sn	<	0.000799				
M	B	< 0.005197	M	Ge	<	0.004397	M	Os	< 0.000401	O	Sr	<	0.000107				
M	Ba	< 0.000399	M	Hf	<	0.000399	O	P	< 0.023606	M	Ta	<	0.000399				
O	Be	< 0.000107	O	Hg	<	0.010730	M	Pb	< 0.001599	M	Tb	<	0.000399				
M	Bi	< 0.000399	M	Ho	<	0.000399	M	Pd	< 0.000799	M	Te	<	0.005596				
O	Ca	0.001396	O	In	<	0.015558	M	Pr	< 0.000399	M	Th	<	0.000399				
s	Cd	<	M	Ir	<	0.000401	M	Pt	< 0.000399	O	Ti	<	0.000536				
M	Ce	< 0.000399	O	K		0.004469	M	Rb	< 0.000399	M	Tl		0.000624				
M	Co	< 0.000399	M	La	<	0.000399	M	Re	< 0.000399	M	Tm	<	0.000399				
M	Cr	< 0.001199	O	Li	<	0.000214	M	Rh	< 0.000399	M	U	<	0.000399				
M	Cs	< 0.000399	M	Lu	<	0.000399	M	Ru	< 0.000401	M	V	<	0.001599				
O	Cu	< 0.003219	O	Mg		0.000083	O	S	< 0.021460	M	W	<	0.000799				
M	Dy	< 0.000399	O	Mn	<	0.000429	M	Sb	< 0.001599	M	Y	<	0.000399				
M	Er	< 0.000399	M	Mo	<	0.000399	O	Sc	< 0.000429	M	Yb	<	0.000399				

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag keep cap tightly sealed when not in use. Store and use at 20° ± 4° C. Do not pippette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 112.41 +2 4 Cd2(OH) (aq)3+ and Cd(OH)(aq)
Chemical Compatibility -Stable in HCl, HNO3, H2SO4 , and HF. Avoid basic media forming insoluble carbonate and hydroxide.
Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5 % HNO3 / LDPE container.
Cd Containing Samples (Preparation and Solution) -Metal (soluble in HNO3); Oxides (soluble in HCl or HNO3); Ores (dissolve in HCl /HNO3 then take to fumes with H2SO4. The silica and lead sulfate are filtered off after the addition of water); Organic based (dry ash at 450°C and dissolve ash in HCl), (sulfuric / peroxide acid digestion).
Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 111 amu	11 ppt	n/a	95Mo16O
ICP-OES 214.438 nm	0.003 / 0.0003 µg/mL	1	Pt, Ir
ICP-OES 226.502 nm	0.003 / 0.0003 µg/mL	1	Ir
ICP-OES 228.802 nm	0.003 / 0.0003 µg/mL	1	Co, Ir, As, Pt

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 06, 2017

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 06, 2021**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year from the date of removal from the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being handled and stored in accordance with the instructions given in Sec 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

James King Jr
Chemist, Technical Manager



Certificate Approved By:

Michael Booth
Supervisor, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



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CERTIFICATE OF ANALYSIS

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGCU10
Lot Number:	M2-CU661944
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Copper
Starting Material:	Cu Metal
Starting Material Lot#:	1806
Starting Material Purity:	99.9997%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10032 ± 23 µg/mL

Density: 1.033 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10018 ± 42 µg/mL**
ICP Assay NIST SRM 3114 Lot Number: 121207

Assay Method #2 **10037 ± 25 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2 (u_{char\ a})^2 + (w_b)^2 (u_{char\ b})^2]^{½}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.002602	M	Eu	<	0.000867	O	Na		0.004040	M	Se	<	0.022551	O	Zn	<	0.006649
O	Al		0.000323	O	Fe		0.005980	M	Nb	<	0.000867	O	Si		0.002585	M	Zr	<	0.001734
O	As	<	0.006045	M	Ga	<	0.000867	M	Nd	<	0.000867	M	Sm	<	0.000867				
M	Au	<	0.002596	M	Gd	<	0.000867	M	Ni	<	0.019949	M	Sn	<	0.003469				
O	B	<	0.002418	M	Ge	<	0.006938	M	Os	<	0.000865	O	Sr	<	0.000241				
O	Ba	<	0.000483	M	Hf	<	0.000867	O	P	<	0.019344	M	Ta	<	0.000867				
O	Be	<	0.000362	M	Hg	<	0.003461	M	Pb		0.001507	M	Tb	<	0.000867				
M	Bi	<	0.000867	M	Ho	<	0.000867	M	Pd	<	0.001734	M	Te	<	0.001734				
O	Ca		0.001777	M	In	<	0.000867	M	Pr	<	0.000867	M	Th	<	0.000867				
M	Cd	<	0.000867	M	Ir	<	0.000865	M	Pt	<	0.000867	M	Ti	<	0.006071				
M	Ce	<	0.000867	O	K		0.002101	M	Rb	<	0.005204	M	Tl	<	0.000867				
O	Co		0.000484	M	La	<	0.000867	M	Re	<	0.000867	M	Tm	<	0.000867				
M	Cr		0.000579	O	Li	<	0.000048	O	Rh	<	0.015475	M	U	<	0.000867				
M	Cs	<	0.015612	M	Lu	<	0.000867	M	Ru	<	0.010385	M	V	<	0.002602				
s	Cu	<		O	Mg		0.000323	O	S		0.013091	M	W	<	0.004336				
M	Dy	<	0.000867	O	Mn		0.000145	M	Sb		0.000347	M	Y	<	0.000867				
M	Er	<	0.000867	M	Mo	<	0.003469	O	Sc	<	0.001088	M	Yb	<	0.000867				

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 63.55 +2 6 $Cu(H_2O)_6^{2+}$
Chemical Compatibility -Stable in HCl, HNO_3, H_2SO_4, HF, H_3PO_4. Avoid basic media. Stable with most metals and inorganic anions in acidic media.
Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO_3 / LDPE container.
Cu Containing Samples (Preparation and Solution) -Metal (soluble in HNO_3); Oxides (Soluble in HCl); Ores (Dissolve in HCl / HNO_3).
Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 63 amu	10 ppt	n/a	40Ar23Na 47Ti16O, 14N12C37Cl, 16O12C35Cl, 23Na40Ca
ICP-OES 219.958 nm	0.01/.002 µg/mL	1	Th, Ta, Nb, U, Hf
ICP-OES 224.700 nm	0.01/.001 µg/mL	1	Pb, Ir, Ni, W
ICP-OES 324.754 nm	0.06/.001 µg/mL		Nb, U, Th, Mo, Hf

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

October 17, 2017

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **October 17, 2021**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Supervisor, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGZN10
Lot Number:	M2-ZN659185
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Zinc
Starting Material:	Zn Shot
Starting Material Lot#:	1887
Starting Material Purity:	99.9994%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10014 ± 24 µg/mL

Density: 1.030 g/mL (measured at 20 ± 4 ºC)

Assay Information:

Assay Method #1 **10010 ± 28 µg/mL**
ICP Assay NIST SRM 3168a Lot Number: 120629

Assay Method #2 **10018 ± 32 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2 (u_{char\ a})^2 + (w_b)^2 (u_{char\ b})^2]^{½}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.001528	M	Eu	<	0.000509	O	Na		0.007061	M	Se	<	0.050920	s	Zn	<	
O	Al	<	0.011300	O	Fe		0.004626	M	Nb	<	0.000509	O	Si	<	0.022600	O	Zr	<	0.001130
M	As	<	0.005092	M	Ga	<	0.005092	M	Nd	<	0.001018	M	Sm	<	0.000509				
M	Au	<	0.000509	M	Gd	<	0.002037	O	Ni	<	0.000904	M	Sn	<	0.000509				
O	B	<	0.001130	M	Ge	<	0.001018	n	Os	<		O	Sr		0.000084				
O	Ba	<	0.001130	M	Hf	<	0.000509	O	P	<	0.033900	M	Ta	<	0.000509				
O	Be	<	0.000113	O	Hg	<	0.002260	O	Pb		0.041636	M	Tb	<	0.000509				
M	Bi	<	0.010184	M	Ho	<	0.000509	M	Pd	<	0.000509	M	Te	<	0.005092				
O	Ca		0.005917	M	In	<	0.000509	M	Pr	<	0.000509	M	Th	<	0.000509				
O	Cd		0.002849	M	Ir	<	0.000509	M	Pt	<	0.000509	O	Ti	<	0.000565				
M	Ce	<	0.000509	O	K		0.003165	M	Rb	<	0.000509	M	Tl		0.003072				
M	Co	<	0.000509	M	La	<	0.000509	M	Re	<	0.000509	O	Tm	<	0.000379				
O	Cr	<	0.002260	O	Li	<	0.000565	M	Rh	<	0.000509	M	U	<	0.000509				
M	Cs	<	0.001528	M	Lu	<	0.000509	O	Ru	<	0.006780	O	V	<	0.001130				
O	Cu		0.001461	O	Mg		0.000226	O	S	<	0.011300	M	W	<	0.000509				
M	Dy	<	0.000509	O	Mn	<	0.000226	M	Sb	<	0.000509	O	Y		0.000803				
M	Er	<	0.000509	M	Mo	<	0.001528	O	Sc	<	0.000565	M	Yb	<	0.000509				

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 65.39 +2 4 Zn(OH)(aq)1+
Chemical Compatibility -Stable in HCl, HNO3, H2SO4 ,HF, H3PO4. Avoid basic media forming insoluble carbonate and hydroxide. Stable with most metals and inorganic anions in acidic media.
Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1-5% HNO3 / LDPE container.
Zn Containing Samples (Preparation and Solution) -Metal (soluble in HNO3); Oxides (Soluble in HCl); Ores (Dissolve in HCl / HNO3); Organic based (dry ash at 4500C and dissolve ash in HCl) (sulfuric/peroxide acid digestion)
Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 66 amu	7 ppt	N/A	50Ti16O,50Cr16O, 50V16O, 34S16O2, 32S16O18O, 32S17O2, 33S16O17O, 32S34S, 33S2
ICP-OES 202.548 nm	0.004/0.0002 µg/mL	1	Nb, Cu, Co, Hf
ICP-OES 206.200 nm	0.006/0.0006 µg/mL	1	Sb, Ta, Bi, Os
ICP-OES 213.856 nm	0.002/0.0004 µg/mL	1	Ni, Cu, V

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 06, 2017

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **July 06, 2021**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Supervisor, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



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CERTIFICATE OF ANALYSIS

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	AR-ICVMS-3
Lot Number:	N2-MEB668116
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	250 µg/mL ea:

Aluminum,	Calcium,	Iron,
Potassium,	Magnesium,	Sodium,

4 µg/mL ea:
Selenium,

2.5 µg/mL ea:

Thorium,	Thallium,	Uranium,
Vanadium,	Zinc,	Manganese,
Cadmium,	Cobalt,	Chromium,
Copper,	Arsenic,	Barium,
Beryllium,	Nickel,	Lead,
Silver		

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	250.0 ± 0.9 µg/mL	Arsenic, As	2.501 ± 0.022 µg/mL
Barium, Ba	2.501 ± 0.014 µg/mL	Beryllium, Be	2.500 ± 0.016 µg/mL
Cadmium, Cd	2.500 ± 0.019 µg/mL	Calcium, Ca	250.0 ± 1.3 µg/mL
Chromium, Cr	2.500 ± 0.017 µg/mL	Cobalt, Co	2.500 ± 0.014 µg/mL
Copper, Cu	2.500 ± 0.012 µg/mL	Iron, Fe	250.1 ± 1.0 µg/mL
Lead, Pb	2.501 ± 0.013 µg/mL	Magnesium, Mg	250.0 ± 1.3 µg/mL
Manganese, Mn	2.500 ± 0.012 µg/mL	Nickel, Ni	2.500 ± 0.013 µg/mL
Potassium, K	250.0 ± 1.2 µg/mL	Selenium, Se	4.000 ± 0.020 µg/mL
Silver, Ag	2.500 ± 0.020 µg/mL	Sodium, Na	250.0 ± 1.2 µg/mL
Thallium, Tl	2.499 ± 0.017 µg/mL	Thorium, Th	2.500 ± 0.014 µg/mL
Uranium, U	2.501 ± 0.020 µg/mL	Vanadium, V	2.500 ± 0.013 µg/mL
Zinc, Zn	2.501 ± 0.013 µg/mL		

Density: 1.044 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	992212
Ag	Volhard	999b	999b
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
Ba	ICP Assay	3104a	070222
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	060531
Cd	EDTA	928	928
Co	ICP Assay	3113	000630 Co
Co	EDTA	928	928
Cr	ICP Assay	3112a	030730Cr3
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Th	EDTA	928	928
Th	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	993012
Tl	Calculated		See Sec. 4.2
U	ICP Assay	3164	891509
U	Calculated		See Sec. 4.2
V	EDTA	928	928
V	ICP Assay	3165	992706
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2 (u_{char\ a})^2 + (w_b)^2 (u_{char\ b})^2]^{½}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Uranium 238U	99.7 ± 0.1
Uranium 235U	0.29 ± 0.05

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Low Silver Note: This solution contains “LOW” levels of Silver. Please store this entire bottle inside a sealed glass jar.

Uranium Note: If uranium is present in this standard, it is natural abundance unless specified in Section 3

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 17, 2018

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 17, 2021**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Supervisor, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Form I
INORGANIC ANALYSIS DATA SHEET
EPA 7470A

Dissolved Metals

LDW18-SP-RB1

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-01	SDG:	18F0185
Sampled:	06/11/18 16:12	Prepared:	06/20/18 08:28	File ID:	XDT_HG180625-1-055
% Solids:	0.00	Preparation:	TWM EPA 7470A	Analyzed:	06/25/18 12:54
Batch:	BGF0375	Sequence:	SGF0312	Initial/Final:	20 mL / 20 mL
Instrument:	CETAC			Calibration:	BF00057

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury, Dissolved	0.000100	1	0.000007	0.000100	U

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 7470A

Dissolved Metals

LDW18-SP-30

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-03	SDG:	18F0185
Sampled:	06/12/18 12:06	Prepared:	06/20/18 08:28	File ID:	XDT_HG180625-1-056
% Solids:	0.00	Preparation:	TWM EPA 7470A	Analyzed:	06/25/18 12:55
Batch:	BGF0375	Sequence:	SGF0312	Initial/Final:	20 mL / 20 mL
Instrument:	CETAC			Calibration:	BF00057

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury, Dissolved	0.000100	1	0.000007	0.000100	U

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EPA 7470A

Dissolved Metals

LDW18-SP-32

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-04	SDG:	18F0185
Sampled:	06/12/18 09:19	Prepared:	06/20/18 08:28	File ID:	XDT_HG180625-1-057
% Solids:	0.00	Preparation:	TWM EPA 7470A	Analyzed:	06/25/18 12:57
Batch:	BGF0375	Sequence:	SGF0312	Initial/Final:	20 mL / 20 mL
Instrument:	CETAC			Calibration:	BF00057

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury, Dissolved	0.000100	1	0.000007	0.000100	U

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Dissolved Metals

LDW18-SP-35

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-05	SDG:	18F0185
Sampled:	06/12/18 10:56	Prepared:	06/20/18 08:28	File ID:	XDT_HG180625-1-058
% Solids:	0.00	Preparation:	TWM EPA 7470A	Analyzed:	06/25/18 12:59
Batch:	BGF0375	Sequence:	SGF0312	Initial/Final:	20 mL / 20 mL
Instrument:	CETAC			Calibration:	BF00057

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury, Dissolved	0.000100	1	0.000007	0.000100	U

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Dissolved Metals

LDW18-SP-38

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-06	SDG:	18F0185
Sampled:	06/12/18 10:27	Prepared:	06/20/18 08:28	File ID:	XDT_HG180625-1-059
% Solids:	0.00	Preparation:	TWM EPA 7470A	Analyzed:	06/25/18 13:00
Batch:	BGF0375	Sequence:	SGF0312	Initial/Final:	20 mL / 20 mL
Instrument:	CETAC			Calibration:	BF00057

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury, Dissolved	0.000100	1	0.000007	0.000100	U

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Dissolved Metals

LDW18-SP-42

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-07	SDG:	18F0185
Sampled:	06/12/18 12:05	Prepared:	06/20/18 08:28	File ID:	XDT_HG180625-1-060
% Solids:	0.00	Preparation:	TWM EPA 7470A	Analyzed:	06/25/18 13:02
Batch:	BGF0375	Sequence:	SGF0312	Initial/Final:	20 mL / 20 mL
Instrument:	CETAC			Calibration:	BF00057

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury, Dissolved	0.000100	1	0.000007	0.000100	U

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Dissolved Metals

LDW18-SP-43

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-08	SDG:	18F0185
Sampled:	06/12/18 13:00	Prepared:	06/20/18 08:28	File ID:	XDT_HG180625-1-061
% Solids:	0.00	Preparation:	TWM EPA 7470A	Analyzed:	06/25/18 13:03
Batch:	BGF0375	Sequence:	SGF0312	Initial/Final:	20 mL / 20 mL
Instrument:	CETAC			Calibration:	BF00057

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury, Dissolved	0.000100	1	0.000007	0.000100	U

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Dissolved Metals

LDW18-SP-06

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-01	SDG:	18F0185
Sampled:	06/13/18 09:53	Prepared:	06/20/18 04:54	File ID:	XDT_HG180625-1-017
% Solids:	0.00	Preparation:	TWM EPA 7470A	Analyzed:	06/25/18 11:36
Batch:	BGF0479	Sequence:	SGF0312	Initial/Final:	20 mL / 20 mL
Instrument:	CETAC			Calibration:	BF00057

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury, Dissolved	0.000100	1	0.000007	0.000100	U

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Dissolved Metals

LDW18-SP-33

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-02	SDG:	18F0185
Sampled:	06/13/18 12:17	Prepared:	06/20/18 04:54	File ID:	XDT_HG180625-1-018
% Solids:	0.00	Preparation:	TWM EPA 7470A	Analyzed:	06/25/18 11:38
Batch:	BGF0479	Sequence:	SGF0312	Initial/Final:	20 mL / 20 mL
Instrument:	CETAC			Calibration:	BF00057

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury, Dissolved	0.000100	1	0.000007	0.000100	U

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Dissolved Metals

LDW18-SP-24

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-03	SDG:	18F0185
Sampled:	06/13/18 12:35	Prepared:	06/20/18 04:54	File ID:	XDT_HG180625-1-019
% Solids:	0.00	Preparation:	TWM EPA 7470A	Analyzed:	06/25/18 11:39
Batch:	BGF0479	Sequence:	SGF0312	Initial/Final:	20 mL / 20 mL
Instrument:	CETAC			Calibration:	BF00057

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury, Dissolved	0.000100	1	0.000007	0.000100	U

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Dissolved Metals

LDW18-SP-24-FD

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-04	SDG:	18F0185
Sampled:	06/13/18 12:42	Prepared:	06/20/18 04:54	File ID:	XDT_HG180625-1-020
% Solids:	0.00	Preparation:	TWM EPA 7470A	Analyzed:	06/25/18 11:41
Batch:	BGF0479	Sequence:	SGF0312	Initial/Final:	20 mL / 20 mL
Instrument:	CETAC			Calibration:	BF00057

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury, Dissolved	0.000100	1	0.000007	0.000100	U

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Dissolved Metals

LDW18-SP-05

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-01	SDG:	18F0185
Sampled:	06/14/18 14:08	Prepared:	06/20/18 04:54	File ID:	XDT_HG180625-1-021
% Solids:	0.00	Preparation:	TWM EPA 7470A	Analyzed:	06/25/18 11:43
Batch:	BGF0479	Sequence:	SGF0312	Initial/Final:	20 mL / 20 mL
Instrument:	CETAC			Calibration:	BF00057

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury, Dissolved	0.000100	1	0.000007	0.000100	U

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Dissolved Metals

LDW18-SP-57

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-02	SDG:	18F0185
Sampled:	06/14/18 10:41	Prepared:	06/20/18 04:54	File ID:	XDT_HG180625-1-024
% Solids:	0.00	Preparation:	TWM EPA 7470A	Analyzed:	06/25/18 11:47
Batch:	BGF0479	Sequence:	SGF0312	Initial/Final:	20 mL / 20 mL
Instrument:	CETAC			Calibration:	BF00057

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury, Dissolved	0.000100	1	0.000007	0.000100	U

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Dissolved Metals

LDW18-SP-73

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-03	SDG:	18F0185
Sampled:	06/14/18 13:08	Prepared:	06/20/18 04:54	File ID:	XDT_HG180625-1-027
% Solids:	0.00	Preparation:	TWM EPA 7470A	Analyzed:	06/25/18 11:58
Batch:	BGF0479	Sequence:	SGF0312	Initial/Final:	20 mL / 20 mL
Instrument:	CETAC			Calibration:	BF00057

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury, Dissolved	0.000100	1	0.000007	0.000100	U

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Dissolved Metals

LDW18-SP-74

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-04	SDG:	18F0185
Sampled:	06/14/18 13:14	Prepared:	06/20/18 04:54	File ID:	XDT_HG180625-1-028
% Solids:	0.00	Preparation:	TWM EPA 7470A	Analyzed:	06/25/18 12:00
Batch:	BGF0479	Sequence:	SGF0312	Initial/Final:	20 mL / 20 mL
Instrument:	CETAC			Calibration:	BF00057

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury, Dissolved	0.000100	1	0.000007	0.000100	U

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Dissolved Metals

LDW18-SP-77

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-05	SDG:	18F0185
Sampled:	06/14/18 12:10	Prepared:	06/20/18 04:54	File ID:	XDT_HG180625-1-029
% Solids:	0.00	Preparation:	TWM EPA 7470A	Analyzed:	06/25/18 12:01
Batch:	BGF0479	Sequence:	SGF0312	Initial/Final:	20 mL / 20 mL
Instrument:	CETAC			Calibration:	BF00057

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury, Dissolved	0.000100	1	0.000007	0.000100	U

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Dissolved Metals

LDW18-SP-78

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-06	SDG:	18F0185
Sampled:	06/14/18 12:04	Prepared:	06/20/18 04:54	File ID:	XDT_HG180625-1-030
% Solids:	0.00	Preparation:	TWM EPA 7470A	Analyzed:	06/25/18 12:03
Batch:	BGF0479	Sequence:	SGF0312	Initial/Final:	20 mL / 20 mL
Instrument:	CETAC			Calibration:	BF00057

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury, Dissolved	0.000100	1	0.000007	0.000100	U

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Dissolved Metals

LDW18-SP-79

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-07	SDG:	18F0185
Sampled:	06/14/18 09:50	Prepared:	06/20/18 04:54	File ID:	XDT_HG180625-1-031
% Solids:	0.00	Preparation:	TWM EPA 7470A	Analyzed:	06/25/18 12:05
Batch:	BGF0479	Sequence:	SGF0312	Initial/Final:	20 mL / 20 mL
Instrument:	CETAC			Calibration:	BF00057

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury, Dissolved	0.000100	1	0.000007	0.000100	U

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Dissolved Metals

LDW18-SP-84

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-08	SDG:	18F0185
Sampled:	06/14/18 09:53	Prepared:	06/20/18 04:54	File ID:	XDT_HG180625-1-032
% Solids:	0.00	Preparation:	TWM EPA 7470A	Analyzed:	06/25/18 12:06
Batch:	BGF0479	Sequence:	SGF0312	Initial/Final:	20 mL / 20 mL
Instrument:	CETAC			Calibration:	BF00057

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury, Dissolved	0.000100	1	0.000007	0.000100	U

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Dissolved Metals

LDW18-SP-87

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-09	SDG:	18F0185
Sampled:	06/14/18 11:11	Prepared:	06/20/18 04:54	File ID:	XDT_HG180625-1-033
% Solids:	0.00	Preparation:	TWM EPA 7470A	Analyzed:	06/25/18 12:08
Batch:	BGF0479	Sequence:	SGF0312	Initial/Final:	20 mL / 20 mL
Instrument:	CETAC			Calibration:	BF00057

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury, Dissolved	0.000100	1	0.000007	0.000100	U

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Dissolved Metals

LDW18-SP-01

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-01	SDG:	18F0185
Sampled:	06/15/18 11:33	Prepared:	06/20/18 04:54	File ID:	XDT_HG180625-1-034
% Solids:	0.00	Preparation:	TWM EPA 7470A	Analyzed:	06/25/18 12:09
Batch:	BGF0479	Sequence:	SGF0312	Initial/Final:	20 mL / 20 mL
Instrument:	CETAC			Calibration:	BF00057

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury, Dissolved	0.000100	1	0.000007	0.000100	U

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Dissolved Metals

LDW18-SP-45

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-02	SDG:	18F0185
Sampled:	06/15/18 13:45	Prepared:	06/20/18 04:54	File ID:	XDT_HG180625-1-035
% Solids:	0.00	Preparation:	TWM EPA 7470A	Analyzed:	06/25/18 12:11
Batch:	BGF0479	Sequence:	SGF0312	Initial/Final:	20 mL / 20 mL
Instrument:	CETAC			Calibration:	BF00057

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury, Dissolved	0.000100	1	0.000007	0.000100	U

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Dissolved Metals

LDW18-SP-47

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-03	SDG:	18F0185
Sampled:	06/15/18 13:16	Prepared:	06/20/18 04:54	File ID:	XDT_HG180625-1-036
% Solids:	0.00	Preparation:	TWM EPA 7470A	Analyzed:	06/25/18 12:13
Batch:	BGF0479	Sequence:	SGF0312	Initial/Final:	20 mL / 20 mL
Instrument:	CETAC			Calibration:	BF00057

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury, Dissolved	0.000100	1	0.000007	0.000100	U

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Dissolved Metals

LDW18-SP-66

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-04	SDG:	18F0185
Sampled:	06/15/18 13:25	Prepared:	06/20/18 04:54	File ID:	XDT_HG180625-1-048
% Solids:	0.00	Preparation:	TWM EPA 7470A	Analyzed:	06/25/18 12:39
Batch:	BGF0479	Sequence:	SGF0312	Initial/Final:	20 mL / 20 mL
Instrument:	CETAC			Calibration:	BF00057

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury, Dissolved	0.000100	1	0.000007	0.000100	U

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Dissolved Metals

LDW18-SP-70

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-05	SDG:	18F0185
Sampled:	06/15/18 11:13	Prepared:	06/20/18 04:54	File ID:	XDT_HG180625-1-049
% Solids:	0.00	Preparation:	TWM EPA 7470A	Analyzed:	06/25/18 12:40
Batch:	BGF0479	Sequence:	SGF0312	Initial/Final:	20 mL / 20 mL
Instrument:	CETAC			Calibration:	BF00057

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury, Dissolved	0.000100	1	0.000007	0.000100	U

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Dissolved Metals

LDW18-SP-83

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-06	SDG:	18F0185
Sampled:	06/15/18 12:08	Prepared:	06/20/18 04:54	File ID:	XDT_HG180625-1-050
% Solids:	0.00	Preparation:	TWM EPA 7470A	Analyzed:	06/25/18 12:42
Batch:	BGF0479	Sequence:	SGF0312	Initial/Final:	20 mL / 20 mL
Instrument:	CETAC			Calibration:	BF00057

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury, Dissolved	0.000100	1	0.000007	0.000100	U

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Dissolved Metals

LDW18-SP-86

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-07	SDG:	18F0185
Sampled:	06/15/18 12:19	Prepared:	06/20/18 04:54	File ID:	XDT_HG180625-1-072
% Solids:	0.00	Preparation:	TWM EPA 7470A	Analyzed:	06/25/18 13:22
Batch:	BGF0479	Sequence:	SGF0312	Initial/Final:	20 mL / 20 mL
Instrument:	CETAC			Calibration:	BF00057

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury, Dissolved	0.000100	1	0.000007	0.000100	U

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Dissolved Metals

LDW18-SP-88

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-08	SDG:	18F0185
Sampled:	06/15/18 10:52	Prepared:	06/20/18 04:54	File ID:	XDT_HG180625-1-071
% Solids:	0.00	Preparation:	TWM EPA 7470A	Analyzed:	06/25/18 13:20
Batch:	BGF0375	Sequence:	SGF0312	Initial/Final:	20 mL / 20 mL
Instrument:	CETAC			Calibration:	BF00057

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury, Dissolved	0.000100	1	0.000007	0.000100	U

PREPARATION BATCH SUMMARY

EPA 7470A

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGF0375 Batch Matrix: Water Preparation: TWM EPA 7470A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-RB1	18F0185-01	XDT_HG180625-1-055	06/20/18 08:28	
LDW18-SP-30	18F0185-03	XDT_HG180625-1-056	06/20/18 08:28	
LDW18-SP-32	18F0185-04	XDT_HG180625-1-057	06/20/18 08:28	
LDW18-SP-35	18F0185-05	XDT_HG180625-1-058	06/20/18 08:28	
LDW18-SP-38	18F0185-06	XDT_HG180625-1-059	06/20/18 08:28	
LDW18-SP-42	18F0185-07	XDT_HG180625-1-060	06/20/18 08:28	
LDW18-SP-43	18F0185-08	XDT_HG180625-1-061	06/20/18 08:28	
LDW18-SP-88	18F0248-08	XDT_HG180625-1-071	06/20/18 04:54	
Blank	BGF0375-BLK1	XDT_HG180625-1-053	06/20/18 08:28	
Blank	BGF0375-BLK1	XDT_HG180625-1-053	06/20/18 08:28	
LCS	BGF0375-BS1	XDT_HG180625-1-054	06/20/18 08:28	
LCS	BGF0375-BS1	XDT_HG180625-1-054	06/20/18 08:28	
LDW18-SP-43	BGF0375-DUP1	XDT_HG180625-1-062	06/20/18 08:28	
LDW18-SP-43	BGF0375-DUP1	XDT_HG180625-1-062	06/20/18 08:28	
LDW18-SP-43	BGF0375-MS1	XDT_HG180625-1-069	06/20/18 08:28	
LDW18-SP-43	BGF0375-MS1	XDT_HG180625-1-069	06/20/18 08:28	
LDW18-SP-43	BGF0375-MSD1	XDT_HG180625-1-070	06/20/18 08:28	
LDW18-SP-43	BGF0375-MSD1	XDT_HG180625-1-070	06/20/18 08:28	

PREPARATION BATCH SUMMARY

EPA 7470A

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGF0479 Batch Matrix: Water Preparation: TWM EPA 7470A

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-06	18F0208-01	XDT_HG180625-1-017	06/20/18 04:54	
LDW18-SP-33	18F0208-02	XDT_HG180625-1-018	06/20/18 04:54	
LDW18-SP-24	18F0208-03	XDT_HG180625-1-019	06/20/18 04:54	
LDW18-SP-24-FD	18F0208-04	XDT_HG180625-1-020	06/20/18 04:54	
LDW18-SP-05	18F0226-01	XDT_HG180625-1-021	06/20/18 04:54	
LDW18-SP-57	18F0226-02	XDT_HG180625-1-024	06/20/18 04:54	
LDW18-SP-73	18F0226-03	XDT_HG180625-1-027	06/20/18 04:54	
LDW18-SP-74	18F0226-04	XDT_HG180625-1-028	06/20/18 04:54	
LDW18-SP-77	18F0226-05	XDT_HG180625-1-029	06/20/18 04:54	
LDW18-SP-78	18F0226-06	XDT_HG180625-1-030	06/20/18 04:54	
LDW18-SP-79	18F0226-07	XDT_HG180625-1-031	06/20/18 04:54	
LDW18-SP-84	18F0226-08	XDT_HG180625-1-032	06/20/18 04:54	
LDW18-SP-87	18F0226-09	XDT_HG180625-1-033	06/20/18 04:54	
LDW18-SP-01	18F0248-01	XDT_HG180625-1-034	06/20/18 04:54	
LDW18-SP-45	18F0248-02	XDT_HG180625-1-035	06/20/18 04:54	
LDW18-SP-47	18F0248-03	XDT_HG180625-1-036	06/20/18 04:54	
LDW18-SP-66	18F0248-04	XDT_HG180625-1-048	06/20/18 04:54	
LDW18-SP-70	18F0248-05	XDT_HG180625-1-049	06/20/18 04:54	
LDW18-SP-83	18F0248-06	XDT_HG180625-1-050	06/20/18 04:54	
LDW18-SP-86	18F0248-07	XDT_HG180625-1-072	06/20/18 04:54	
Blank	BGF0479-BLK1	XDT_HG180625-1-015	06/20/18 04:54	
Blank	BGF0479-BLK1	XDT_HG180625-1-015	06/20/18 04:54	
Blank	BGF0479-BLK1	XDT_HG180625-1-015	06/20/18 04:54	
LCS	BGF0479-BS1	XDT_HG180625-1-016	06/20/18 04:54	
LCS	BGF0479-BS1	XDT_HG180625-1-016	06/20/18 04:54	
LCS	BGF0479-BS1	XDT_HG180625-1-016	06/20/18 04:54	
LDW18-SP-05	BGF0479-DUP1	XDT_HG180625-1-022	06/20/18 04:54	
LDW18-SP-05	BGF0479-DUP1	XDT_HG180625-1-022	06/20/18 04:54	
LDW18-SP-05	BGF0479-DUP1	XDT_HG180625-1-022	06/20/18 04:54	
LDW18-SP-05	BGF0479-MS1	XDT_HG180625-1-023	06/20/18 04:54	
LDW18-SP-05	BGF0479-MS1	XDT_HG180625-1-023	06/20/18 04:54	
LDW18-SP-05	BGF0479-MS1	XDT_HG180625-1-023	06/20/18 04:54	

Form I

METHOD BLANK DATA SHEET

EPA 7470A

Dissolved Metals

Blank

Batch: BGF0375 Laboratory ID: BGF0375-BLK1 Prepared: 06/20/18 08:28

Matrix: Water Preparation: TWM EPA 7470A Analyzed: 06/25/18 12:51

Sequence: SGF0312 Calibration: BF00057 Instrument: CETAC

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury	ND	1	0.000007	0.000100	U

Form I

METHOD BLANK DATA SHEET

EPA 7470A

Dissolved Metals

Blank

Batch: BGF0479 Laboratory ID: BGF0479-BLK1 Prepared: 06/20/18 04:54

Matrix: Water Preparation: TWM EPA 7470A Analyzed: 06/25/18 11:33

Sequence: SGF0312 Calibration: BF00057 Instrument: CETAC

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
7439-97-6	Mercury	ND	1	0.000007	0.000100	U

DUPLICATES

EPA 7470A

Dissolved Metals

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Matrix: Water
Laboratory ID: BGF0375-DUP1
Batch: BGF0375
Lab Source ID: 18F0185-08
Preparation: TWM EPA 7470A
Initial/Final: 20 mL / 20 mL
Source Sample Name: LDW18-SP-43
% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Mercury (dissolved)	20	ND	ND		

*: Values outside of QC limits
L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD

DUPLICATES

EPA 7470A

Dissolved Metals

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Matrix: Water
Laboratory ID: BGF0479-DUP1
Batch: BGF0479
Lab Source ID: 18F0226-01
Preparation: TWM EPA 7470A
Initial/Final: 20 mL / 20 mL
Source Sample Name: LDW18-SP-05
% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Mercury (dissolved)	20	ND	ND	0.00	

*: Values outside of QC limits
L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD

INSTRUMENT BLANKS
EPA 7470A

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Instrument ID: CETAC
Sequence: SGF0312

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Calibration: BF00057
Date Analyzed: 06/25/18 11:19

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0312-ICB1	Mercury (dissolved)	0.000030	0.000013	0.000100	mg/L	
SGF0312-CCB1	Mercury (dissolved)	0.000040	0.000013	0.000100	mg/L	
SGF0312-CCB2	Mercury (dissolved)	0.00	0.000013	0.000100	mg/L	
SGF0312-CCB3	Mercury (dissolved)	0.000010	0.000013	0.000100	mg/L	
SGF0312-CCB4	Mercury (dissolved)	-0.000060	0.000013	0.000100	mg/L	
SGF0312-CCB5	Mercury (dissolved)	0.000040	0.000013	0.000100	mg/L	
SGF0312-CCB6	Mercury (dissolved)	0.000030	0.000013	0.000100	mg/L	
SGF0312-CCB7	Mercury (dissolved)	0.000040	0.000013	0.000100	mg/L	
SGF0312-CCB8	Mercury (dissolved)	0.000010	0.000013	0.000100	mg/L	
SGF0312-CCB9	Mercury (dissolved)	-0.000010	0.000013	0.000100	mg/L	

LCS / LCS DUPLICATE RECOVERY

EPA 7470A

Dissolved Metals

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/25/18 12:52
Batch:	BGF0375	Laboratory ID:	BGF0375-BS1
Preparation:	TWM EPA 7470A	Sequence Name:	LCS
Initial/Final:	20 mL / 20 mL		

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	Q	LCS % REC. #	QC LIMITS REC.
Mercury (dissolved)	0.00200	0.00226		113	80 - 120

* Indicates values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

EPA 7470A

Dissolved Metals

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/25/18 11:35
Batch:	BGF0479	Laboratory ID:	BGF0479-BS1
Preparation:	TWM EPA 7470A	Sequence Name:	LCS
Initial/Final:	20 mL / 20 mL		

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	Q	LCS % REC. #	QC LIMITS REC.
Mercury (dissolved)	0.00200	0.00222		111	80 - 120

* Indicates values outside of QC limits

MS / MS DUPLICATE RECOVERY

EPA 7470A

Dissolved Metals

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/25/18 13:17
Batch:	BGF0375	Laboratory ID:	BGF0375-MS1
Preparation:	TWM EPA 7470A	Sequence Name:	Matrix Spike
Initial/Final:	20 mL / 20 mL	Source Sample:	LDW18-SP-43

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	Q	MS CONCENTRATION (mg/L)	Q	MS % REC. #	QC LIMITS REC.
Mercury (dissolved)	0.00100	ND	U	0.00117		117	75 - 125

* Values outside of QC limits

MS / MS DUPLICATE RECOVERY

EPA 7470A

Dissolved Metals

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/25/18 13:18
Batch:	BGF0375	Laboratory ID:	BGF0375-MSD1
Preparation:	TWM EPA 7470A	Sequence Name:	Matrix Spike Dup
Initial/Final:	20 mL / 20 mL	Source Sample:	LDW18-SP-43

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	Q	MSD % REC. #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Mercury (dissolved)	0.00100	0.00114		114	2.60	20	75 - 125

* Values outside of QC limits

LDW18-SP-05

MS / MS DUPLICATE RECOVERY

EPA 7470A

Dissolved Metals

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/25/18 11:46
Batch:	BGF0479	Laboratory ID:	BGF0479-MS1
Preparation:	TWM EPA 7470A	Sequence Name:	Matrix Spike
Initial/Final:	20 mL / 20 mL	Source Sample:	LDW18-SP-05

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	Q	MS CONCENTRATION (mg/L)	Q	MS % REC. #	QC LIMITS REC.
Mercury (dissolved)	0.00100	ND	U	0.00126		125	75 - 125

* Values outside of QC limits

INITIAL CALIBRATION DATA

EPA 7470A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00057	Instrument:	CETAC
Calibration Date:	06/25/2018 13:46		

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Mercury, Dissolved	0	0	0.0001	2335100	0.0005	2179040	0.001	2308120	0.002	2525825	0.005	3158510

INITIAL CALIBRATION DATA

EPA 7470A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00057	Instrument:	CETAC
Calibration Date:	06/25/2018 13:46		

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
		RF		RF		RF		RF		RF		RF
Mercury, Dissolved	0.01	3220013										

INITIAL CALIBRATION DATA

EPA 7470A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BF00057	Instrument:	CETAC
Calibration Date:	06/25/2018 13:46		

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Mercury, Dissolved	2246658	47.8	0.9983		0.99	

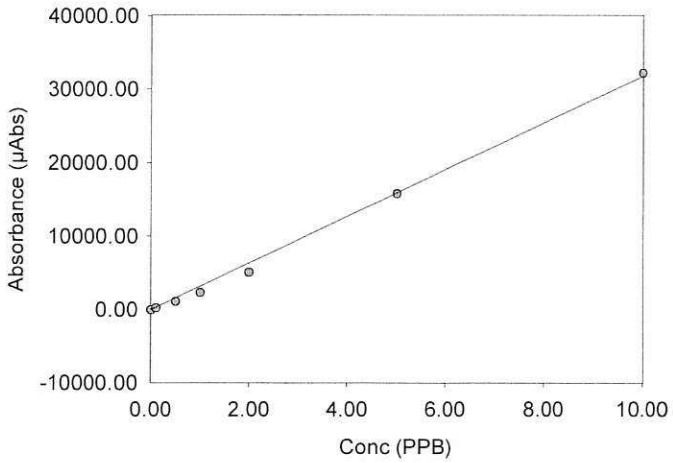
CETAC Hg Analysis Report - 18062501.DB - Monday, June 25, 2018, 1:38:35 PM

Analyst
Date Started Monday, June 25, 2018, 11:04:19
Worksheet ARI 10ppb CALIB
Comment

5GF0312
BF00057

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Flags
Calibration Zero	25-Jun-2018, 11:04	0.00	5.52	-57.10	
Standard #1	25-Jun-2018, 11:07	0.10	5.54	234.00	
Standard #2	25-Jun-2018, 11:08	0.50	2.31	1090.00	
Standard #3	25-Jun-2018, 11:10	1.00	2.12	2310.00	
Standard #4	25-Jun-2018, 11:11	2.00	0.90	5050.00	
Standard #5	25-Jun-2018, 11:13	5.00	2.84	15800.00	
Standard #6	25-Jun-2018, 11:15	10.00	1.37	32200.00	

Calibration Data



Int.	0.000
Slope	3177.825
Correlation	0.99831

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Flags
ICV	25-Jun-2018, 11:17	8.58	0.76	27300.00	
ICB	25-Jun-2018, 11:19	0.03	3.80	90.10	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Flags
QC Standard	25-Jun-2018, 11:21	4.03	2.39	12800.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Flags
QC Blank	25-Jun-2018, 11:23	0.04	6.15	129.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Flags
CRA	25-Jun-2018, 11:24	0.13	1.13	417.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Flags
QC Standard	25-Jun-2018, 11:30	4.10	3.54	13000.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Flags
QC Blank	25-Jun-2018, 11:31	-0.00	178.00	-3.91	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Flags
BGF0479-BLK1	25-Jun-2018, 11:33	0.01	7.47	18.40	
BGF0479-BS1	25-Jun-2018, 11:35	2.22	0.70	7060.00	
18F0208-01	25-Jun-2018, 11:36	0.00	36.40	15.10	
18F0208-02	25-Jun-2018, 11:38	-0.00	39.20	-5.74	
18F0208-03	25-Jun-2018, 11:39	0.00	165.00	2.97	
18F0208-04	25-Jun-2018, 11:41	0.00	1930.00	0.37	
18F0226-01	25-Jun-2018, 11:43	0.01	29.10	18.10	
BGF0479-DUP1	25-Jun-2018, 11:44	0.01	11.80	26.90	
BGF0479-MS1	25-Jun-2018, 11:46	1.26	1.65	4020.00	
18F0226-02	25-Jun-2018, 11:47	0.01	33.20	22.00	

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Analyst
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Worksheet ARI 10ppb CALIB
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Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Flags
QC Standard	25-Jun-2018, 11:54	4.05	2.23	12900.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Flags
QC Blank	25-Jun-2018, 11:57	0.01	35.50	25.20	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Flags
18F0226-03	25-Jun-2018, 11:58	-0.00	82.50	-6.13	
18F0226-04	25-Jun-2018, 12:00	-0.02	4.96	-59.90	
18F0226-05	25-Jun-2018, 12:01	-0.00	27.90	-10.10	
18F0226-06	25-Jun-2018, 12:03	0.00	19.90	14.60	
18F0226-07	25-Jun-2018, 12:05	0.01	6.51	36.30	
18F0226-08	25-Jun-2018, 12:06	0.03	6.81	106.00	
18F0226-09	25-Jun-2018, 12:08	0.03	5.81	90.10	
18F0248-01	25-Jun-2018, 12:09	0.03	7.22	97.20	
18F0248-02	25-Jun-2018, 12:11	0.01	32.80	24.30	
18F0248-03	25-Jun-2018, 12:13	0.00	148.00	4.60	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Flags
QC Standard	25-Jun-2018, 12:20	4.09	0.72	13000.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Flags
QC Blank	25-Jun-2018, 12:21	-0.06	3.40	-186.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Flags
QC Standard	25-Jun-2018, 12:24	4.18	0.36	13300.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Flags
QC Blank	25-Jun-2018, 12:26	0.04	6.60	131.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Flags
BGF0526-BLK1	25-Jun-2018, 12:27	0.10	1.04	310.00	
BGF0526-BS1	25-Jun-2018, 12:29	2.62	1.77	8330.00	
18F0166-01	25-Jun-2018, 12:31	0.11	1.32	345.00	
18F0293-01	25-Jun-2018, 12:32	0.23	1.27	738.00	
BGF0526-DUP1	25-Jun-2018, 12:34	0.23	0.89	716.00	
BGF0526-MS1	25-Jun-2018, 12:35	1.46	2.59	4640.00	
18F0302-01	25-Jun-2018, 12:37	0.10	1.79	330.00	
18F0248-04	25-Jun-2018, 12:39	0.06	2.69	179.00	
18F0248-05	25-Jun-2018, 12:40	0.06	2.91	179.00	
18F0248-06	25-Jun-2018, 12:42	0.07	2.63	208.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Flags
QC Standard	25-Jun-2018, 12:46	4.10	1.74	13000.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Flags
QC Blank	25-Jun-2018, 12:49	0.03	10.70	85.60	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Flags
BGF0375-BLK1	25-Jun-2018, 12:51	0.01	5.76	40.50	
BGF0375-BS1	25-Jun-2018, 12:52	2.26	0.63	7180.00	
18F0185-01	25-Jun-2018, 12:54	0.01	16.30	23.40	
18F0185-03	25-Jun-2018, 12:55	0.01	6.03	27.60	
18F0185-04	25-Jun-2018, 12:57	0.01	14.60	23.90	
18F0185-05	25-Jun-2018, 12:59	0.00	47.10	13.80	
18F0185-06	25-Jun-2018, 13:00	-0.01	14.00	-30.30	
18F0185-07	25-Jun-2018, 13:02	-0.01	17.00	-20.90	
18F0185-08	25-Jun-2018, 13:03	-0.02	6.63	-60.90	
BGF0375-DUP1	25-Jun-2018, 13:05	-0.02	5.91	-56.60	

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Analyst
Date Started Monday, June 25, 2018, 13:07:40
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Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Flags
QC Standard	25-Jun-2018, 13:07	4.12	1.02	13100.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Flags
QC Blank	25-Jun-2018, 13:09	0.04	5.75	113.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Flags
BGF0493-BLK1	25-Jun-2018, 13:10	0.04	5.08	126.00	
18F0267-01	25-Jun-2018, 13:12	0.04	3.83	115.00	
BGF0493-DUP1	25-Jun-2018, 13:14	0.05	1.65	146.00	
BGF0493-MS1	25-Jun-2018, 13:15	1.14	0.40	3620.00	
BGF0375-MS1	25-Jun-2018, 13:17	1.17	4.24	3720.00	
BGF0375-MSD1	25-Jun-2018, 13:18	1.14	2.14	3620.00	
18F0248-08	25-Jun-2018, 13:20	0.02	16.70	61.00	
18F0248-07	25-Jun-2018, 13:22	0.01	6.00	44.30	
BGF0526-BLK1	25-Jun-2018, 13:24	0.07	3.07	226.00	
BGF0526-BS1	25-Jun-2018, 13:26	2.47	0.65	7860.00	high

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Flags
QC Standard	25-Jun-2018, 13:28	4.52	2.71	14400.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Flags
QC Blank	25-Jun-2018, 13:30	0.01	11.40	37.60	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Flags
BGF0526-BS1	25-Jun-2018, 13:33	2.38	0.58	7560.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Flags
QC Standard	25-Jun-2018, 13:36	4.19	1.90	13300.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Flags
QC Blank	25-Jun-2018, 13:37	-0.01	21.60	-36.10	

Analyst	
Date Created:	Thursday, July 13, 2000
Worksheet	ARI 10ppb CALIB
Comment	
Sip Duration (Sec.):	30
Rinse Duration (Sec.):	60
Read Delay:	52
Integration Time/Replicate:	1.50
# of Replicates:	4
# of Repeats:	1
Baseline Correction Enabled:	False
Baseline Point 1 Start Time:	10
Baseline Point 1 End Time:	16
2-Point Baseline Corr. Enabled:	False
Baseline Point 2 Start Time:	
Baseline Point 2 End Time:	
Gas Flow (ml/min):	180
Calibration Algorithm:	Linear, Zero Intercept
Recalibration Frequency:	0
Reslope Frequency:	0
Reslope Standard:	5
Calibration Standard #1 Conc.:	0.10 PPB
Calibration Standard #2 Conc.:	0.50 PPB
Calibration Standard #3 Conc.:	1.00 PPB
Calibration Standard #4 Conc.:	2.00 PPB
Calibration Standard #5 Conc.:	5.00 PPB
Calibration Standard #6 Conc.:	10.00 PPB
QC Enabled:	True
QC-RSD Enabled:	True
Limit Condition & Error Action:	If %RSD > 5.0%, if µAbs. > 1500, Flag and Continue
QC-Std Enabled:	True
Limit Condition & Error Action:	If outside 80% .. 120%,Stop
QC-Blank Enabled:	True
Limit Condition & Error Action:	If outside -100 .. 100,Stop

Mercury Analysis Log

Analyst: DP

Instrument: CETAC

Date: 6/25/18

Page: 1 of 3

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
Std 0.0	TWM	1x		
0.1				
0.5				
1.0				
2.0				
5.0				
10.0				
ICV			8.58	%R= 107
ICB			0.03	✓
CCV1			4.03	%R= 101
CCB1			0.04	✓
CRA1			0.13	
CCV2			4.10	%R=103
CCB2			0.00	✓
BGF0479-BLK1			0.01	✓
" -BS1			2.22	%R= 111 ✓
18F0208-01			0.00	
" -02			0.00	
" -03			0.00	
" -04			0.00	
18F0226-01			0.01	
BGF0479-DUP1			0.01	NORPD ✓
" -MS1			~~0.0~~ ①	%R= ~~126~~ 125 ~~[illegible]~~ ✓
18F0226-02			0.01	
CCV3			4.05	%R= 101
CCB3			0.01	✓
18F0226-03			0.00	
" -04			-0.02	
" -05			0.00	
" -06	TWM	1x	0.00	

① 1.26 DP 6/25/18

Chemical/Reagent ID:

10% $SnCl_2$: G4708

Standard ID:

Standard: G5371-5377

14% NH_2OH/NaCl: G2139

ICV/CCV: G5778/5776

5026F

Revision 4
1/26/01

Mercury Analysis Log

Analyst: _____ Date: _____

Instrument: _____ Page: 2 of 3

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
18F0226 - 07	Twm	1x	0.01	
" 08	"	"	0.03	
18F0226 - 09	"	"	0.03	
18F0248-01	"	"	0.003	
" -02	"	"	0.01	
" -03	"	"	0.00	
CCV4	"	"	4.09	%R=102 ✓
CCB4	"	"	0.06	✓
CCV5	"	"	4.18	%R=105 ✓
CCB5	"	"	4.04	✓
BGF0526-BLK1	"	"	0.10	high
" -BS1	"	"	2.62	%R=131 high
18F0166-01	"	"	0.11	
18F0293-01	"	"	~~0.11~~ ①	
BGF0526-Dup1	"	"	0.23	Diff <0.1
" - MS1	"	"	1.46	%R=123 ✓
18F0302-01	"	"	0.10	
18F0248-04	"	"	0.06	
" -05	"	"	0.06	
" -06	"	"	0.07	
CCV6	"	"	4.10	%R=103 ✓
CCB6	"	"	0.03	✓
BGF0375-BLK1	"	"	0.01	✓
BS1	"	"	2.26	%R=113
18F0185-01	"	"	0.01	
" -03	"	"	0.01	
" -04	"	"	0.01	
" -05	"	"	0.00	
" -06	"	"	-0.01	
" -07	Twm	1x	-0.01	

① 0.23 DP 6/25/18

Chemical/Reagent ID:

10% $SnCl_2$: _____ 14% NH_2OH/NaCl: _____

Standard ID:

Standard: _____ ICV/CCV: _____

Mercury Analysis Log

Analyst: _____ Date: _____

Instrument: _____ Page: 3 of 3

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
18F0185-08	Thm	1x	-0.02	
BGF0375-Dup1	"	"	-0.02	no RPD
CCV7	"	"	4.12	%R = 103 ✓
CCB7	"	"	0.04	✓
BGF0493-BLK	"	"	0.04	✓
18F0267-01	"	"	0.01	
BGF0493-Dup1	"	"	0.05	no RPD ✓
" -MS1	"	"	1.14	%R=114 ✓
BGF0375-MS1	"	"	1.17	%=117 ✓
" -MSD1	"	"	1.14	%R=114 ✓
18F0248-08	"	"	0.02	
" -07	Thm	1x	0.01	
BGF0526-BLK1	Thm	1x	0.07	✓
" -BS1	"	"	2.47	%R=124 high ✓
CCV8	"	"	4.52	%R=113 ✓
CCB8	"	"	0.01	✓
BGF0526-BS1	"	"	2.38	%R=119 ✓
CCV9	"	"	4.19	%R=105
CCB9	Thm	1x	-0.01	
		AP 6/25/18		

Chemical/Reagent ID:

10% $SnCl_2$: _____ 14% NH_2OH/NaCl: _____

Standard ID:

Standard: _____ ICV/CCV: _____

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 7470A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: CETAC
Calibration: BF00057
Control Limt: +/- 20.00%
Sequence: SGF0312

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0312-ICV1	Mercury (dissolved)	0.0080000	0.00858	107	mg/L	EPA 7470A
SGF0312-CCV1	Mercury (dissolved)	0.0050000	0.00403	80.6	mg/L	EPA 7470A
SGF0312-CCV2	Mercury (dissolved)	0.0050000	0.00410	82.0	mg/L	EPA 7470A
SGF0312-CCV3	Mercury (dissolved)	0.0050000	0.00405	81.0	mg/L	EPA 7470A
SGF0312-CCV4	Mercury (dissolved)	0.0050000	0.00409	81.8	mg/L	EPA 7470A
SGF0312-CCV5	Mercury (dissolved)	0.0050000	0.00418	83.6	mg/L	EPA 7470A
SGF0312-CCV6	Mercury (dissolved)	0.0050000	0.00410	82.0	mg/L	EPA 7470A
SGF0312-CCV7	Mercury (dissolved)	0.0040000	0.00412	103	mg/L	EPA 7470A
SGF0312-CCV8	Mercury (dissolved)	0.0040000	0.00452	113	mg/L	EPA 7470A
SGF0312-CCV9	Mercury (dissolved)	0.0040000	0.00419	105	mg/L	EPA 7470A

* Values outside of QC limits

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 7470A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0312
Instrument: CETAC
Calibration: BF00057

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Cal Standard	SGF0312-CAL1	XDT_HG180625-1-001	NA	06/25/18 11:04
Cal Standard	SGF0312-CAL2	XDT_HG180625-1-002	NA	06/25/18 11:07
Cal Standard	SGF0312-CAL3	XDT_HG180625-1-003	NA	06/25/18 11:08
Cal Standard	SGF0312-CAL4	XDT_HG180625-1-004	NA	06/25/18 11:10
Cal Standard	SGF0312-CAL5	XDT_HG180625-1-005	NA	06/25/18 11:11
Cal Standard	SGF0312-CAL6	XDT_HG180625-1-006	NA	06/25/18 11:13
Cal Standard	SGF0312-CAL7	XDT_HG180625-1-007	NA	06/25/18 11:15
Initial Cal Check	SGF0312-ICV1	XDT_HG180625-1-008	NA	06/25/18 11:17
Initial Cal Blank	SGF0312-ICB1	XDT_HG180625-1-009	NA	06/25/18 11:19
Calibration Check	SGF0312-CCV1	XDT_HG180625-1-010	NA	06/25/18 11:21
Calibration Blank	SGF0312-CCB1	XDT_HG180625-1-011	NA	06/25/18 11:23
Instrument RL Check	SGF0312-CRL1	XDT_HG180625-1-012	NA	06/25/18 11:24
Calibration Check	SGF0312-CCV2	XDT_HG180625-1-013	NA	06/25/18 11:30
Calibration Blank	SGF0312-CCB2	XDT_HG180625-1-014	NA	06/25/18 11:31
Blank	BGF0479-BLK1	XDT_HG180625-1-015	Water	06/25/18 11:33
LCS	BGF0479-BS1	XDT_HG180625-1-016	Water	06/25/18 11:35
LDW18-SP-06	18F0208-01	XDT_HG180625-1-017	Water	06/25/18 11:36
LDW18-SP-33	18F0208-02	XDT_HG180625-1-018	Water	06/25/18 11:38
LDW18-SP-24	18F0208-03	XDT_HG180625-1-019	Water	06/25/18 11:39
LDW18-SP-24-FD	18F0208-04	XDT_HG180625-1-020	Water	06/25/18 11:41
LDW18-SP-05	18F0226-01	XDT_HG180625-1-021	Water	06/25/18 11:43
LDW18-SP-05	BGF0479-DUP1	XDT_HG180625-1-022	Water	06/25/18 11:44
LDW18-SP-05	BGF0479-MS1	XDT_HG180625-1-023	Water	06/25/18 11:46
LDW18-SP-57	18F0226-02	XDT_HG180625-1-024	Water	06/25/18 11:47
Calibration Check	SGF0312-CCV3	XDT_HG180625-1-025	NA	06/25/18 11:54
Calibration Blank	SGF0312-CCB3	XDT_HG180625-1-026	NA	06/25/18 11:57
LDW18-SP-73	18F0226-03	XDT_HG180625-1-027	Water	06/25/18 11:58
LDW18-SP-74	18F0226-04	XDT_HG180625-1-028	Water	06/25/18 12:00
LDW18-SP-77	18F0226-05	XDT_HG180625-1-029	Water	06/25/18 12:01
LDW18-SP-78	18F0226-06	XDT_HG180625-1-030	Water	06/25/18 12:03

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 7470A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0312
Instrument: CETAC
Calibration: BF00057

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
LDW18-SP-79	18F0226-07	XDT_HG180625-1-031	Water	06/25/18 12:05
LDW18-SP-84	18F0226-08	XDT_HG180625-1-032	Water	06/25/18 12:06
LDW18-SP-87	18F0226-09	XDT_HG180625-1-033	Water	06/25/18 12:08
LDW18-SP-01	18F0248-01	XDT_HG180625-1-034	Water	06/25/18 12:09
LDW18-SP-45	18F0248-02	XDT_HG180625-1-035	Water	06/25/18 12:11
LDW18-SP-47	18F0248-03	XDT_HG180625-1-036	Water	06/25/18 12:13
Calibration Check	SGF0312-CCV4	XDT_HG180625-1-037	NA	06/25/18 12:20
Calibration Blank	SGF0312-CCB4	XDT_HG180625-1-038	NA	06/25/18 12:21
Calibration Check	SGF0312-CCV5	XDT_HG180625-1-039	NA	06/25/18 12:24
Calibration Blank	SGF0312-CCB5	XDT_HG180625-1-040	NA	06/25/18 12:26
LDW18-SP-66	18F0248-04	XDT_HG180625-1-048	Water	06/25/18 12:39
LDW18-SP-70	18F0248-05	XDT_HG180625-1-049	Water	06/25/18 12:40
LDW18-SP-83	18F0248-06	XDT_HG180625-1-050	Water	06/25/18 12:42
Calibration Check	SGF0312-CCV6	XDT_HG180625-1-051	NA	06/25/18 12:46
Calibration Blank	SGF0312-CCB6	XDT_HG180625-1-052	NA	06/25/18 12:49
Blank	BGF0375-BLK1	XDT_HG180625-1-053	Water	06/25/18 12:51
LCS	BGF0375-BS1	XDT_HG180625-1-054	Water	06/25/18 12:52
LDW18-SP-RB1	18F0185-01	XDT_HG180625-1-055	Water	06/25/18 12:54
LDW18-SP-30	18F0185-03	XDT_HG180625-1-056	Water	06/25/18 12:55
LDW18-SP-32	18F0185-04	XDT_HG180625-1-057	Water	06/25/18 12:57
LDW18-SP-35	18F0185-05	XDT_HG180625-1-058	Water	06/25/18 12:59
LDW18-SP-38	18F0185-06	XDT_HG180625-1-059	Water	06/25/18 13:00
LDW18-SP-42	18F0185-07	XDT_HG180625-1-060	Water	06/25/18 13:02
LDW18-SP-43	18F0185-08	XDT_HG180625-1-061	Water	06/25/18 13:03
LDW18-SP-43	BGF0375-DUP1	XDT_HG180625-1-062	Water	06/25/18 13:05
Calibration Check	SGF0312-CCV7	XDT_HG180625-1-063	NA	06/25/18 13:07
Calibration Blank	SGF0312-CCB7	XDT_HG180625-1-064	NA	06/25/18 13:09
LDW18-SP-43	BGF0375-MS1	XDT_HG180625-1-069	Water	06/25/18 13:17
LDW18-SP-43	BGF0375-MSD1	XDT_HG180625-1-070	Water	06/25/18 13:18
LDW18-SP-88	18F0248-08	XDT_HG180625-1-071	Water	06/25/18 13:20

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 7470A

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGF0312	Instrument:	CETAC
		Calibration:	BF00057

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
LDW18-SP-86	18F0248-07	XDT_HG180625-1-072	Water	06/25/18 13:22
Calibration Check	SGF0312-CCV8	XDT_HG180625-1-075	NA	06/25/18 13:28
Calibration Blank	SGF0312-CCB8	XDT_HG180625-1-076	NA	06/25/18 13:30
Calibration Check	SGF0312-CCV9	XDT_HG180625-1-078	NA	06/25/18 13:36
Calibration Blank	SGF0312-CCB9	XDT_HG180625-1-079	NA	06/25/18 13:37

DETECTION LEVEL STANDARD
EPA 7470A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: CETAC
Calibration: BF00057
Sequence: SGF0312
Lab Sample ID: SGF0312-CRL1

Analyte	True	Found	%R	Units	QC Limts
Mercury (dissolved)	0.000100	0.000130	130	mg/L	70 - 130

* Values outside of QC limits

HOLDING TIME SUMMARY

Analysis: EPA 7470A

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW18-SP-RB1 18F0185-01	06/11/18 16:12	06/12/18 14:55	06/20/18 08:28	8	28	06/25/18 12:54	14	28	
LDW18-SP-30 18F0185-03	06/12/18 12:06	06/12/18 14:55	06/20/18 08:28	7	28	06/25/18 12:55	13	28	
LDW18-SP-32 18F0185-04	06/12/18 09:19	06/12/18 14:55	06/20/18 08:28	7	28	06/25/18 12:57	13	28	
LDW18-SP-35 18F0185-05	06/12/18 10:56	06/12/18 14:55	06/20/18 08:28	7	28	06/25/18 12:59	13	28	
LDW18-SP-38 18F0185-06	06/12/18 10:27	06/12/18 14:55	06/20/18 08:28	7	28	06/25/18 13:00	13	28	
LDW18-SP-42 18F0185-07	06/12/18 12:05	06/12/18 14:55	06/20/18 08:28	7	28	06/25/18 13:02	13	28	
LDW18-SP-43 18F0185-08	06/12/18 13:00	06/12/18 14:55	06/20/18 08:28	7	28	06/25/18 13:03	13	28	
LDW18-SP-06 18F0208-01	06/13/18 09:53	06/13/18 16:26	06/20/18 04:54	6	28	06/25/18 11:36	12	28	
LDW18-SP-33 18F0208-02	06/13/18 12:17	06/13/18 16:26	06/20/18 04:54	6	28	06/25/18 11:38	12	28	
LDW18-SP-24 18F0208-03	06/13/18 12:35	06/13/18 16:26	06/20/18 04:54	6	28	06/25/18 11:39	12	28	
LDW18-SP-24-FD 18F0208-04	06/13/18 12:42	06/13/18 16:26	06/20/18 04:54	6	28	06/25/18 11:41	12	28	
LDW18-SP-05 18F0226-01	06/14/18 14:08	06/14/18 15:45	06/20/18 04:54	5	28	06/25/18 11:43	11	28	
LDW18-SP-57 18F0226-02	06/14/18 10:41	06/14/18 15:45	06/20/18 04:54	5	28	06/25/18 11:47	11	28	
LDW18-SP-73 18F0226-03	06/14/18 13:08	06/14/18 15:45	06/20/18 04:54	5	28	06/25/18 11:58	11	28	
LDW18-SP-74 18F0226-04	06/14/18 13:14	06/14/18 15:45	06/20/18 04:54	5	28	06/25/18 12:00	11	28	
LDW18-SP-77 18F0226-05	06/14/18 12:10	06/14/18 15:45	06/20/18 04:54	5	28	06/25/18 12:01	11	28	
LDW18-SP-78 18F0226-06	06/14/18 12:04	06/14/18 15:45	06/20/18 04:54	5	28	06/25/18 12:03	11	28	
LDW18-SP-79 18F0226-07	06/14/18 09:50	06/14/18 15:45	06/20/18 04:54	5	28	06/25/18 12:05	11	28	
LDW18-SP-84 18F0226-08	06/14/18 09:53	06/14/18 15:45	06/20/18 04:54	5	28	06/25/18 12:06	11	28	
LDW18-SP-87 18F0226-09	06/14/18 11:11	06/14/18 15:45	06/20/18 04:54	5	28	06/25/18 12:08	11	28	
LDW18-SP-01 18F0248-01	06/15/18 11:33	06/15/18 16:10	06/20/18 04:54	4	28	06/25/18 12:09	10	28	
LDW18-SP-45 18F0248-02	06/15/18 13:45	06/15/18 16:10	06/20/18 04:54	4	28	06/25/18 12:11	10	28	

HOLDING TIME SUMMARY

Analysis: EPA 7470A

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW18-SP-47 18F0248-03	06/15/18 13:16	06/15/18 16:10	06/20/18 04:54	4	28	06/25/18 12:13	10	28	
LDW18-SP-66 18F0248-04	06/15/18 13:25	06/15/18 16:10	06/20/18 04:54	4	28	06/25/18 12:39	10	28	
LDW18-SP-70 18F0248-05	06/15/18 11:13	06/15/18 16:10	06/20/18 04:54	4	28	06/25/18 12:40	10	28	
LDW18-SP-83 18F0248-06	06/15/18 12:08	06/15/18 16:10	06/20/18 04:54	4	28	06/25/18 12:42	10	28	
LDW18-SP-86 18F0248-07	06/15/18 12:19	06/15/18 16:10	06/20/18 04:54	4	28	06/25/18 13:22	10	28	
LDW18-SP-88 18F0248-08	06/15/18 10:52	06/15/18 16:10	06/20/18 04:54	4	28	06/25/18 13:20	10	28	
Duplicate BGF0375-DUP1	06/12/18 13:00	06/12/18 14:55	06/20/18 08:28	7	28	06/25/18 13:05	13	28	
Matrix Spike BGF0375-MS1	06/12/18 13:00	06/12/18 14:55	06/20/18 08:28	7	28	06/25/18 13:17	13	28	
Matrix Spike Dup BGF0375-MSD1	06/12/18 13:00	06/12/18 14:55	06/20/18 08:28	7	28	06/25/18 13:18	13	28	
Duplicate BGF0479-DUP1	06/14/18 14:08	06/14/18 15:45	06/20/18 04:54	5	28	06/25/18 11:44	11	28	
Matrix Spike BGF0479-MS1	06/14/18 14:08	06/14/18 15:45	06/20/18 04:54	5	28	06/25/18 11:46	11	28	

* Indicates hold time exceedance.

METHOD DETECTION AND REPORTING LIMITS

EPA 7470A

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Matrix: Water
Instrument: CETAC

Analyte	MDL	RL	Units
Mercury (dissolved)	0.000013	0.000100	mg/L

INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	QCP-QCS-4
Lot Number:	M2-MEB663298
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	5 µg/mL ea: Mercury

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Mercury, Hg	**5.000 ± 0.022 µg/mL**		

Density: 1.034 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Hg	ICP Assay	3133	061204
Hg	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2 (u_{char\ a})^2 + (w_b)^2 (u_{char\ b})^2]^{½}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

November 17, 2017

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **November 17, 2021**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Supervisor, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



INORGANIC VENTURES
300 Technology Drive
Christiansburg, VA 24073 · USA
inorganicventures.com

CERTIFICATE OF ANALYSIS

tel: 800.669.6799 · 540.585.3030
fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO Guide 34, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGHG1
Lot Number:	K2-HG653768
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Mercury
Starting Material:	Hg metal
Starting Material Lot#:	05214TX, R307HGA1, 1780
Starting Material Purity:	99.9994%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1004 ± 3 µg/mL

Certified Density: 1.026 g/mL (measured at 20 ± 1 ºC)

Assay Information:

Assay Method #1 **1000 ± 4 µg/mL**
ICP Assay NIST SRM 3133 Lot Number: 061204

Assay Method #2 **1006 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two Methods

Certified Value, $X_{CRM/RM}$, where two methods of characterization are used is the weighted mean of the two results:

$X_{CRM/RM} = [(w_a)(X_a) + (w_b)(X_b)]$

X_a = mean of Assay Method A with standard uncertainty $u_{char\ a}$

X_b = mean of Assay Method B with standard uncertainty $u_{char\ b}$

w_a and w_b = the weighting factors for each method calculated using the inverse square of the variance:

$w_a = (1/u_{char\ a})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

$w_b = (1/u_{char\ b})^2 / ((1/u_{char\ a})^2 + (1/u_{char\ b})^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a\&b} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a\&b} = [(w_a)^2 (u_{char\ a})^2 + (w_b)^2 (u_{char\ b})^2]^{½}$ where $u_{char\ a}$ and $u_{char\ b}$ are the square root of the sum of the squares of errors from characterization which include instrument measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM}$ = mean of Assay Method A with standard uncertainty $u_{char\ a}$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2 in all cases at Inorganic Ventures

$u_{char\ a}$ = square root of the sum of the squares of the errors from characterization which include instrumental measurement, density, NIST SRM uncertainty, weighing, and volume

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag		0.001716	M	Eu	<	0.000203	O	Na		0.000767	M	Se	<	0.013814	O	Zn		0.000124
O	Al		0.000161	O	Fe		0.000146	M	Nb	<	0.000203	O	Si		0.000445	M	Zr	<	0.001219
M	As	<	0.002844	M	Ga	<	0.000203	M	Nd	<	0.000203	M	Sm	<	0.000203				
O	Au	<	0.003219	M	Gd	<	0.000203	O	Ni	<	0.001812	M	Sn	<	0.000203				
O	B	<	0.002479	M	Ge	<	0.000609	M	Os	<	0.000202	O	Sr	<	0.000152				
M	Ba	<	0.000203	M	Hf	<	0.000203	O	P	<	0.010730	M	Ta	<	0.000203				
O	Be	<	0.000322	s	Hg	<		M	Pb	<	0.000203	M	Tb	<	0.000203				
M	Bi	<	0.013001	M	Ho	<	0.000203	M	Pd	<	0.000404	M	Te	<	0.001422				
O	Ca		0.001767	M	In	<	0.004063	M	Pr	<	0.000203	M	Th	<	0.000203				
M	Cd		0.000074	M	Ir	<	0.000202	M	Pt	<	0.000203	O	Ti	<	0.000530				
M	Ce	<	0.000203	M	K		0.000432	M	Rb	<	0.001219	O	Tl	<	0.002788				
M	Co	<	0.000406	M	La	<	0.000203	M	Re	<	0.001016	M	Tm	<	0.000203				
O	Cr		0.000167	O	Li	<	0.000180	M	Rh	<	0.000203	M	U	<	0.000813				
M	Cs	<	0.000203	M	Lu	<	0.000203	M	Ru	<	0.000202	M	V	<	0.000406				
M	Cu	<	0.000406	O	Mg		0.000379	O	S	<	0.023508	M	W	<	0.000609				
M	Dy	<	0.000203	M	Mn	<	0.000203	O	Sb	<	0.009657	M	Y	<	0.000203				
M	Er	<	0.000203	O	Mo	<	0.002152	M	Sc	<	0.000406	M	Yb	<	0.000203				

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag keep cap tightly sealed when not in use. Store and use at 20° ± 4° C. Do not pippette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 200.59 +2 4 Hg(OH)(aq) 1+
Chemical Compatibility - Stable in HNO3. Avoid basic media forming insoluble carbonate. The sulfide, basic carbonate, oxalate, phosphate, arsenite, arsenate and iodide are insoluble in water.
Stability - 2-100 ppb levels not stable in 1% HNO3 / LDPE container, stable in 10% HNO3 packaged in borosilicate glass. 1-100 ppm levels stable in 7% HNO3 packaged in borosilicate glass. 1000-10,000 ppm solutions are chemically stable for years in 5-10% HNO3 / LDPE container.
Hg Containing Samples (Preparation and Solution) - Metal (soluble in HNO3); Oxide (Soluble in HNO3); Ores and Organic based (The literature has more references to the preparation of Hg containing samples than any other element. Please consult the literature for your specific sample type, since such preparations are prone to error. Or e-mail our technical staff and we will contact you to discuss your particular sample preparation questions in further detail.).
Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 202 amu	9 ppt	n/a	186W16O
ICP-OES 184.950 nm	0.03 / 0.005 µg/mL	1	
ICP-OES 194.227 nm	0.03 / 0.005 µg/mL	1	V
ICP-OES 253.652 nm	0.1 / 0.03 µg/mL	1	Ta, Co, Th ,Rh , Fe, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.4 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.5 ISO Guide 34 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 13, 2017

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 13, 2021**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year from the date of removal from the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being handled and stored in accordance with the instructions given in Sec 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician



Certificate Approved By:

Michael Booth
Supervisor, Quality Control



Certifying Officer:

Paul Gaines
CEO, Senior Technical Director



Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 D-97

LDW18-SP-RB1

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-01	SDG:	18F0185
Sampled:	06/11/18 16:12	Prepared:	06/18/18 06:56	File ID:	
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/18/18 06:56
Batch:	BGF0409	Sequence:		Initial/Final:	500 mL / 1000 mL
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	2	1	2	2	U

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 D-97

LDW18-SP-30

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-03	SDG:	18F0185
Sampled:	06/12/18 12:06	Prepared:	06/18/18 06:56	File ID:	
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/18/18 06:56
Batch:	BGF0409	Sequence:		Initial/Final:	500 mL / 1000 mL
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	47	1	2	2	

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 D-97

LDW18-SP-32

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-04	SDG:	18F0185
Sampled:	06/12/18 09:19	Prepared:	06/18/18 06:56	File ID:	
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/18/18 06:56
Batch:	BGF0409	Sequence:		Initial/Final:	500 mL / 1000 mL
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	4	1	2	2	

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 D-97

LDW18-SP-35

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-05	SDG:	18F0185
Sampled:	06/12/18 10:56	Prepared:	06/18/18 06:56	File ID:	
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/18/18 06:56
Batch:	BGF0409	Sequence:		Initial/Final:	490 mL / 1000 mL
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	29	1	2	2	

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 D-97

LDW18-SP-38

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-06	SDG:	18F0185
Sampled:	06/12/18 10:27	Prepared:	06/18/18 06:56	File ID:	
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/18/18 06:56
Batch:	BGF0409	Sequence:		Initial/Final:	500 mL / 1000 mL
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	7	1	2	2	

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 D-97

LDW18-SP-42

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-07	SDG:	18F0185
Sampled:	06/12/18 12:05	Prepared:	06/18/18 06:56	File ID:	
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/18/18 06:56
Batch:	BGF0409	Sequence:		Initial/Final:	510 mL / 1000 mL
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	56	1	2	2	

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 D-97

LDW18-SP-43

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-08	SDG:	18F0185
Sampled:	06/12/18 13:00	Prepared:	06/18/18 06:56	File ID:	
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/18/18 06:56
Batch:	BGF0409	Sequence:		Initial/Final:	510 mL / 1000 mL
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	3	1	2	2	

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 D-97

LDW18-SP-06

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-01	SDG:	18F0185
Sampled:	06/13/18 09:53	Prepared:	06/19/18 07:00	File ID:	
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/19/18 07:00
Batch:	BGF0438	Sequence:		Initial/Final:	500 mL / 1000 mL
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	8	1	2	2	

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 D-97

LDW18-SP-33

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-02	SDG:	18F0185
Sampled:	06/13/18 12:17	Prepared:	06/19/18 07:00	File ID:	
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/19/18 07:00
Batch:	BGF0438	Sequence:		Initial/Final:	500 mL / 1000 mL
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	36	1	2	2	

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 D-97

LDW18-SP-24

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-03	SDG:	18F0185
Sampled:	06/13/18 12:35	Prepared:	06/19/18 07:00	File ID:	
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/19/18 07:00
Batch:	BGF0438	Sequence:		Initial/Final:	500 mL / 1000 mL
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	33	1	2	2	

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 D-97

LDW18-SP-24-FD

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-04	SDG:	18F0185
Sampled:	06/13/18 12:42	Prepared:	06/19/18 07:00	File ID:	
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/19/18 07:00
Batch:	BGF0438	Sequence:		Initial/Final:	510 mL / 1000 mL
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	22	1	2	2	

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 D-97

LDW18-SP-05

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-01	SDG:	18F0185
Sampled:	06/14/18 14:08	Prepared:	06/19/18 07:00	File ID:	
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/19/18 07:00
Batch:	BGF0438	Sequence:		Initial/Final:	490 mL / 1000 mL
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	11	1	2	2	

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 D-97

LDW18-SP-57

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-02	SDG:	18F0185
Sampled:	06/14/18 10:41	Prepared:	06/19/18 07:00	File ID:	
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/19/18 07:00
Batch:	BGF0438	Sequence:		Initial/Final:	500 mL / 1000 mL
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	17	1	2	2	

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 D-97

LDW18-SP-73

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-03	SDG:	18F0185
Sampled:	06/14/18 13:08	Prepared:	06/19/18 07:00	File ID:	
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/19/18 07:00
Batch:	BGF0438	Sequence:		Initial/Final:	500 mL / 1000 mL
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	39	1	2	2	

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 D-97

LDW18-SP-74

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-04	SDG:	18F0185
Sampled:	06/14/18 13:14	Prepared:	06/19/18 07:00	File ID:	
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/19/18 07:00
Batch:	BGF0438	Sequence:		Initial/Final:	490 mL / 1000 mL
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	28	1	2	2	

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 D-97

LDW18-SP-77

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-05	SDG:	18F0185
Sampled:	06/14/18 12:10	Prepared:	06/19/18 07:00	File ID:	
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/19/18 07:00
Batch:	BGF0438	Sequence:		Initial/Final:	500 mL / 1000 mL
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	9	1	2	2	

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 D-97

LDW18-SP-78

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-06	SDG:	18F0185
Sampled:	06/14/18 12:04	Prepared:	06/19/18 07:00	File ID:	
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/19/18 07:00
Batch:	BGF0438	Sequence:		Initial/Final:	510 mL / 1000 mL
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	7	1	2	2	

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 D-97

LDW18-SP-79

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-07	SDG:	18F0185
Sampled:	06/14/18 09:50	Prepared:	06/19/18 07:00	File ID:	
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/19/18 07:00
Batch:	BGF0438	Sequence:		Initial/Final:	500 mL / 1000 mL
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	21	1	2	2	

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 D-97

LDW18-SP-84

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-08	SDG:	18F0185
Sampled:	06/14/18 09:53	Prepared:	06/19/18 07:00	File ID:	
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/19/18 07:00
Batch:	BGF0438	Sequence:		Initial/Final:	490 mL / 1000 mL
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	9	1	2	2	

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 D-97

LDW18-SP-87

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-09	SDG:	18F0185
Sampled:	06/14/18 11:11	Prepared:	06/19/18 07:00	File ID:	
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/19/18 07:00
Batch:	BGF0438	Sequence:		Initial/Final:	510 mL / 1000 mL
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	16	1	2	2	

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 D-97

LDW18-SP-01

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-01	SDG:	18F0185
Sampled:	06/15/18 11:33	Prepared:	06/19/18 07:18	File ID:	
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/19/18 07:18
Batch:	BGF0439	Sequence:		Initial/Final:	250 mL / 1000 mL
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	39	1	4	4	

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 D-97

LDW18-SP-45

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-02	SDG:	18F0185
Sampled:	06/15/18 13:45	Prepared:	06/19/18 07:18	File ID:	
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/19/18 07:18
Batch:	BGF0439	Sequence:		Initial/Final:	510 mL / 1000 mL
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	82	1	2	2	

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 D-97

LDW18-SP-47

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-03	SDG:	18F0185
Sampled:	06/15/18 13:16	Prepared:	06/19/18 07:18	File ID:	
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/19/18 07:18
Batch:	BGF0439	Sequence:		Initial/Final:	500 mL / 1000 mL
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	206	1	2	2	

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 D-97

LDW18-SP-66

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-04	SDG:	18F0185
Sampled:	06/15/18 13:25	Prepared:	06/19/18 07:18	File ID:	
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/19/18 07:18
Batch:	BGF0439	Sequence:		Initial/Final:	500 mL / 1000 mL
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	9	1	2	2	

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 D-97

LDW18-SP-70

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-05	SDG:	18F0185
Sampled:	06/15/18 11:13	Prepared:	06/19/18 07:18	File ID:	
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/19/18 07:18
Batch:	BGF0439	Sequence:		Initial/Final:	500 mL / 1000 mL
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	5	1	2	2	

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 D-97

LDW18-SP-83

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-06	SDG:	18F0185
Sampled:	06/15/18 12:08	Prepared:	06/19/18 07:18	File ID:	
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/19/18 07:18
Batch:	BGF0439	Sequence:		Initial/Final:	500 mL / 1000 mL
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	10	1	2	2	

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 D-97

LDW18-SP-86

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-07	SDG:	18F0185
Sampled:	06/15/18 12:19	Prepared:	06/19/18 07:18	File ID:	
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/19/18 07:18
Batch:	BGF0439	Sequence:		Initial/Final:	500 mL / 1000 mL
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	22	1	2	2	

Form I
INORGANIC ANALYSIS DATA SHEET
SM 2540 D-97

LDW18-SP-88

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-08	SDG:	18F0185
Sampled:	06/15/18 10:52	Prepared:	06/19/18 07:18	File ID:	
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/19/18 07:18
Batch:	BGF0439	Sequence:		Initial/Final:	510 mL / 1000 mL
Instrument:	BAL2			Calibration:	

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	7	1	2	2	

PREPARATION BATCH SUMMARY

SM 2540 D-97

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGF0409 Batch Matrix: Water Preparation: No Prep Wet Chem

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-RB1	18F0185-01		06/18/18 06:56	
LDW18-SP-30	18F0185-03		06/18/18 06:56	
LDW18-SP-32	18F0185-04		06/18/18 06:56	
LDW18-SP-35	18F0185-05		06/18/18 06:56	
LDW18-SP-38	18F0185-06		06/18/18 06:56	
LDW18-SP-42	18F0185-07		06/18/18 06:56	
LDW18-SP-43	18F0185-08		06/18/18 06:56	
Blank	BGF0409-BLK1		06/18/18 06:56	
LCS	BGF0409-BS1		06/18/18 06:56	
LDW18-SP-43	BGF0409-DUP1		06/18/18 06:56	

TOTAL SUSPENDED SOLIDS / VOLATILE SUSPENDED SOLIDS (TSS/TVSS)
Methods:SM 2540 D-97, 2540 E-97

Batch:	BGF0409
Date:	6/18/2018 6:56
Analyst:	KLE

Instrumentation	**Drying Ovens:**	12	**Analytical Balance:**	BAL2	**Muffle Furnace:**	FURNACE1

TSS (mg/l) calculated as:
Final dry wt (mg) = (minimum Dry Wt - Tare Wt)*1000
TSS = [(Final Dry Wt)/ ml Sample] * 1000

Loss on Ignition (LOI) = TVSS (mg/L) calculated as:
LOI (mg) = Dry wt(mg) - ((min ash wt - tare wt) * 1000)
TVSS (mg/L) = LOI / mL sample * 1000

LCS **Standard ID:**	**B001773**	**Dilute**	0.05	**grams to**	1000	**mL =**	**50**	**mg/L TSS**

Balance Calibration

Record weights to 4 places												
	Cal Weight ID	CV-02	CV-02	CV-02	CV-02	CV-02		CV-02	CV-02	CV-02	CV-02	
	Date & Time		6/18/18 8:24	6/18/18 11:14								
	Cal Wt (g) 10.0000		9.9999	9.9999								
			Cal OK!	Cal OK!								

Sample ID	**Dish #**	**Filtered Vol (mL)**	**Tare Wt (grams)**	**Dry Wt 104C (grams) 1**	**2**	**3**	**4**	**Dry Wt (mg)**	**TSS (mg/L)**	**TSS Notes**	**ASH WT 550C (grams) 1**	**2**	**3**	**4**	**LOI (mg)**	**TVSS (mg/L)**	**TVSS Notes**
BGF0409-BLK1	A0453021	1000	0.1079	0.1079	0.1079	STOP		0.0	**0.0**								
BGF0409-BS1	A0453022	1000	0.1063	0.1562	0.1560	STOP		49.7	**49.7**	%REC=99.4							
18F0185-08 C	A0453023	510	0.1067	0.1085	0.1084	STOP		1.7	**3.3**								
18F0185-08 DUP1	A0453024	500	0.1070	0.1085	0.1084	STOP		1.4	**2.8**	RPD=16.4							
18F0183-01 A	A0453025	940	0.1052	0.1084	0.1083	STOP		3.1	**3.3**								
18F0183-02 A	A0453026	920	0.1046	0.1128	0.1127	STOP		8.1	**8.8**								
18F0185-01 C	A0453027	500	0.1053	0.1052	0.1052	STOP		-0.1	**-0.2**								
18F0185-03 C	A0453028	500	0.1088	0.1327	0.1325	STOP		23.7	**47.4**								
18F0185-04 C	A0453029	500	0.1063	0.1084	0.1084	STOP		2.1	**4.2**								
18F0185-05 C	A0453030	490	0.1065	0.1210	0.1209	STOP		14.4	**29.4**								
18F0185-06 C	A0453031	500	0.1061	0.1096	0.1096	STOP		3.5	**7.0**								
18F0185-07 C	A0453032	510	0.1067	0.1352	0.1350	STOP		28.3	**55.5**								
18F0227-01 A	A0453033	940	0.1071	0.1130	0.1130	STOP		5.9	**6.3**								

Analytical Resources, Incorporated
Analytical Chemists and Consultants

PREPARATION BATCH SUMMARY

SM 2540 D-97

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGF0438 Batch Matrix: Water Preparation: No Prep Wet Chem

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-06	18F0208-01		06/19/18 07:00	
LDW18-SP-33	18F0208-02		06/19/18 07:00	
LDW18-SP-24	18F0208-03		06/19/18 07:00	
LDW18-SP-24-FD	18F0208-04		06/19/18 07:00	
LDW18-SP-05	18F0226-01		06/19/18 07:00	
LDW18-SP-57	18F0226-02		06/19/18 07:00	
LDW18-SP-73	18F0226-03		06/19/18 07:00	
LDW18-SP-74	18F0226-04		06/19/18 07:00	
LDW18-SP-77	18F0226-05		06/19/18 07:00	
LDW18-SP-78	18F0226-06		06/19/18 07:00	
LDW18-SP-79	18F0226-07		06/19/18 07:00	
LDW18-SP-84	18F0226-08		06/19/18 07:00	
LDW18-SP-87	18F0226-09		06/19/18 07:00	
Blank	BGF0438-BLK1		06/19/18 07:00	
Blank	BGF0438-BLK1		06/19/18 07:00	
LCS	BGF0438-BS1		06/19/18 07:00	
LCS	BGF0438-BS1		06/19/18 07:00	
LDW18-SP-57	BGF0438-DUP1		06/19/18 07:00	
LDW18-SP-57	BGF0438-DUP1		06/19/18 07:00	

TOTAL SUSPENDED SOLIDS / VOLATILE SUSPENDED SOLIDS (TSS/TVSS)
Methods:SM 2540 D-97, 2540 E-97

Batch:	BGF0438
Date:	6/19/2018 7:00
Analyst:	KLE

Instrumentation	**Drying Ovens:**	12	**Analytical Balance:**	BAL2	**Muffle Furnace:**	FURNACE1

TSS (mg/l) calculated as:
Final dry wt (mg) = (minimum Dry Wt - Tare Wt)*1000
TSS = [(Final Dry Wt)/ ml Sample] * 1000

Loss on Ignition (LOI) = TVSS (mg/L) calculated as:
LOI (mg) = Dry wt(mg) - ((min ash wt - tare wt) * 1000)
TVSS (mg/L) = LOI / mL sample * 1000

LCS	**Standard ID:**	**B001773**	**Dilute**	0.05	**grams to**	1000	**mL =**	**50**	**mg/L TSS**

Balance Calibration

Record weights to 4 places

| | | |

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Corrective Actions
Inorganic Analyses

Criteria Flagged:

ARI Job No.: 18F0226/BGF0438

Unacceptable Blank: ☐

Date of Event: 6-19-18

Unacceptable Duplicate: ☑

Client ID:

Unacceptable Spike: ☐

Method/Element: TSS

Unacceptable Reference: ☐

Prep Code:

Details of Problem/Recommended Corrective Action:

High RPD

While inspecting Samples Analyst observed a higher amount of Particulate in 1-Bottle & Not To much particulate in other. When filtered more particulate show on one after than the other

Samples Affected: 02

Corrective Action Taken: None - client Dup Reported as is

Analyst Initials: (W)

Supervisor: CDC

Date: 6-19-18

Date: 6-19-18

5049F

Revision 007
6/11/10

PREPARATION BATCH SUMMARY

SM 2540 D-97

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGF0439 Batch Matrix: Water Preparation: No Prep Wet Chem

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-01	18F0248-01		06/19/18 07:18	
LDW18-SP-45	18F0248-02		06/19/18 07:18	
LDW18-SP-47	18F0248-03		06/19/18 07:18	
LDW18-SP-66	18F0248-04		06/19/18 07:18	
LDW18-SP-70	18F0248-05		06/19/18 07:18	
LDW18-SP-83	18F0248-06		06/19/18 07:18	
LDW18-SP-86	18F0248-07		06/19/18 07:18	
LDW18-SP-88	18F0248-08		06/19/18 07:18	
Blank	BGF0439-BLK1		06/19/18 07:18	
LCS	BGF0439-BS1		06/19/18 07:18	
LDW18-SP-01	BGF0439-DUP1		06/19/18 07:18	

TOTAL SUSPENDED SOLIDS / VOLATILE SUSPENDED SOLIDS (TSS/TVSS)
Methods:SM 2540 D-97, 2540 E-97

Batch:	BGF0439
Date:	6/19/2018 7:18
Analyst:	KLE

Instrumentation	**Drying Ovens:**	12	**Analytical Balance:**	BAL2	**Muffle Furnace:**	FURNACE1

TSS (mg/l) calculated as:
Final dry wt (mg) = (minimum Dry Wt - Tare Wt)*1000
TSS = [(Final Dry Wt)/ ml Sample] * 1000

Loss on Ignition (LOI) = TVSS (mg/L) calculated as:
LOI (mg) = Dry wt(mg) - ((min ash wt - tare wt) * 1000)
TVSS (mg/L) = LOI / mL sample * 1000

LCS **Standard ID:**	**B001773**	**Dilute**	0.05	**grams to**	1000	**mL =**	**50**	**mg/L TSS**

Balance Calibration

Record weights to 4 places												
	Cal Weight ID	CV-02	CV-02	CV-02	CV-02	CV-02		CV-02	CV-02	CV-02	CV-02	
	Date & Time		6/19/18 9:38	6/19/18 11:46								
	Cal Wt (g)	10.0000	9.9999	9.9999								
			Cal OK!	Cal OK!								

Sample ID	**Dish #**	**Filtered Vol (mL)**	**Tare Wt (grams)**	**Dry Wt 104C (grams)**				**Dry Wt (mg)**	**TSS (mg/L)**	**TSS Notes**	**ASH WT 550C (grams)**				**LOI (mg)**	**TVSS (mg/L)**	**TVSS Notes**
				1	**2**	**3**	**4**				**1**	**2**	**3**	**4**			
BGF0439-BLK1	A0453173	1000	0.1070	0.1070	0.1070	STOP		0.0	**0.0**								
BGF0439-BS1	A0453174	1000	0.1064	0.1566	0.1566	STOP		50.2	**50.2**	%REC=100.4							
18F0248-01 C	A0453175	250	0.1076	0.1174	0.1173	STOP		9.7	**38.8**								
18F0248-01 DUP1	A0453176	250	0.1077	0.1186	0.1185	STOP		10.8	**43.2**	RPD=10.7							
18F0248-02 C	A0453177	510	0.1074	0.1498	0.1494	STOP		42.0	**82.4**								
18F0248-03 C	A0453178	500	0.1075	0.2108	0.2103	STOP		102.8	**205.6**								
18F0248-04 C	A0453179	500	0.1058	0.1106	0.1103	STOP		4.5	**9.0**								
18F0248-05 C	A0453180	500	0.1081	0.1105	0.1104	STOP		2.3	**4.6**								
18F0248-06 C	A0453034	500	0.1058	0.1109	0.1107	STOP		4.9	**9.8**								
18F0248-07 C	A0453035	500	0.1064	0.1176	0.1174	STOP		11.0	**22.0**								
18F0248-08 C	A0453036	510	0.1055	0.1089	0.1088	STOP		3.3	**6.5**								

Form I

METHOD BLANK DATA SHEET

SM 2540 D-97

TotalAnalytes

Blank

Batch: BGF0409 Laboratory ID: BGF0409-BLK1 Prepared: 06/18/18 06:56

Matrix: Water Preparation: No Prep Wet Chem Analyzed: 06/18/18 06:56

Sequence: Calibration: Instrument: BAL2

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	ND	1	1	1	U

Form I

METHOD BLANK DATA SHEET

SM 2540 D-97

TotalAnalytes

Blank

Batch: BGF0438 Laboratory ID: BGF0438-BLK1 Prepared: 06/19/18 07:00

Matrix: Water Preparation: No Prep Wet Chem Analyzed: 06/19/18 07:00

Sequence: Calibration: Instrument: BAL2

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	ND	1	1	1	U

Form I

METHOD BLANK DATA SHEET

SM 2540 D-97

TotalAnalytes

Blank

Batch: BGF0439 Laboratory ID: BGF0439-BLK1 Prepared: 06/19/18 07:18

Matrix: Water Preparation: No Prep Wet Chem Analyzed: 06/19/18 07:18

Sequence: Calibration: Instrument: BAL2

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Suspended Solids	ND	1	1	1	U

DUPLICATES

SM 2540 D-97

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Matrix: Water
Laboratory ID: BGF0409-DUP1
Batch: BGF0409
Lab Source ID: 18F0185-08
Preparation: No Prep Wet Chem
Initial/Final: 500 mL / 1000 mL
Source Sample Name: LDW18-SP-43
% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Suspended Solids	20	3	3	16.4	

*: Values outside of QC limits
L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD

DUPLICATES

SM 2540 D-97

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Matrix: Water
Laboratory ID: BGF0438-DUP1
Batch: BGF0438
Lab Source ID: 18F0226-02
Preparation: No Prep Wet Chem
Initial/Final: 500 mL / 1000 mL
Source Sample Name: LDW18-SP-57
% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Suspended Solids	20	17	7	88.1	*

*: Values outside of QC limits
L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD

DUPLICATES

SM 2540 D-97

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Matrix: Water
Laboratory ID: BGF0439-DUP1
Batch: BGF0439
Lab Source ID: 18F0248-01
Preparation: No Prep Wet Chem
Initial/Final: 250 mL / 1000 mL
Source Sample Name: LDW18-SP-01
% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Suspended Solids	20	39	43	10.7	

*: Values outside of QC limits
L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD

LCS / LCS DUPLICATE RECOVERY

SM 2540 D-97

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/18/18 06:56
Batch:	BGF0409	Laboratory ID:	BGF0409-BS1
Preparation:	No Prep Wet Chem	Sequence Name:	LCS
Initial/Final:	1000 mL / 1000 mL		

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	Q	LCS % REC. #	QC LIMITS REC.
Suspended Solids	50.00	50		99.4	90 - 110

* Indicates values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SM 2540 D-97

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/19/18 07:00
Batch:	BGF0438	Laboratory ID:	BGF0438-BS1
Preparation:	No Prep Wet Chem	Sequence Name:	LCS
Initial/Final:	1000 mL / 1000 mL		

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	Q	LCS % REC. #	QC LIMITS REC.
Suspended Solids	50.00	49		98.2	90 - 110

* Indicates values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SM 2540 D-97

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/19/18 07:18
Batch:	BGF0439	Laboratory ID:	BGF0439-BS1
Preparation:	No Prep Wet Chem	Sequence Name:	LCS
Initial/Final:	1000 mL / 1000 mL		

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	Q	LCS % REC. #	QC LIMITS REC.
Suspended Solids	50.00	50		100	90 - 110

* Indicates values outside of QC limits

HOLDING TIME SUMMARY

Analysis: SM 2540 D-97

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW18-SP-RB1 18F0185-01	06/11/18 16:12	06/12/18 14:55	06/18/18 06:56	6	7	06/18/18 06:56	7	7	
LDW18-SP-30 18F0185-03	06/12/18 12:06	06/12/18 14:55	06/18/18 06:56	5	7	06/18/18 06:56	6	7	
LDW18-SP-32 18F0185-04	06/12/18 09:19	06/12/18 14:55	06/18/18 06:56	5	7	06/18/18 06:56	6	7	
LDW18-SP-35 18F0185-05	06/12/18 10:56	06/12/18 14:55	06/18/18 06:56	5	7	06/18/18 06:56	6	7	
LDW18-SP-38 18F0185-06	06/12/18 10:27	06/12/18 14:55	06/18/18 06:56	5	7	06/18/18 06:56	6	7	
LDW18-SP-42 18F0185-07	06/12/18 12:05	06/12/18 14:55	06/18/18 06:56	5	7	06/18/18 06:56	6	7	
LDW18-SP-43 18F0185-08	06/12/18 13:00	06/12/18 14:55	06/18/18 06:56	5	7	06/18/18 06:56	6	7	
LDW18-SP-06 18F0208-01	06/13/18 09:53	06/13/18 16:26	06/19/18 07:00	5	7	06/19/18 07:00	6	7	
LDW18-SP-33 18F0208-02	06/13/18 12:17	06/13/18 16:26	06/19/18 07:00	5	7	06/19/18 07:00	6	7	
LDW18-SP-24 18F0208-03	06/13/18 12:35	06/13/18 16:26	06/19/18 07:00	5	7	06/19/18 07:00	6	7	
LDW18-SP-24-FD 18F0208-04	06/13/18 12:42	06/13/18 16:26	06/19/18 07:00	5	7	06/19/18 07:00	6	7	
LDW18-SP-05 18F0226-01	06/14/18 14:08	06/14/18 15:45	06/19/18 07:00	4	7	06/19/18 07:00	5	7	
LDW18-SP-57 18F0226-02	06/14/18 10:41	06/14/18 15:45	06/19/18 07:00	4	7	06/19/18 07:00	5	7	
LDW18-SP-73 18F0226-03	06/14/18 13:08	06/14/18 15:45	06/19/18 07:00	4	7	06/19/18 07:00	5	7	
LDW18-SP-74 18F0226-04	06/14/18 13:14	06/14/18 15:45	06/19/18 07:00	4	7	06/19/18 07:00	5	7	
LDW18-SP-77 18F0226-05	06/14/18 12:10	06/14/18 15:45	06/19/18 07:00	4	7	06/19/18 07:00	5	7	
LDW18-SP-78 18F0226-06	06/14/18 12:04	06/14/18 15:45	06/19/18 07:00	4	7	06/19/18 07:00	5	7	
LDW18-SP-79 18F0226-07	06/14/18 09:50	06/14/18 15:45	06/19/18 07:00	4	7	06/19/18 07:00	5	7	
LDW18-SP-84 18F0226-08	06/14/18 09:53	06/14/18 15:45	06/19/18 07:00	4	7	06/19/18 07:00	5	7	
LDW18-SP-87 18F0226-09	06/14/18 11:11	06/14/18 15:45	06/19/18 07:00	4	7	06/19/18 07:00	5	7	
LDW18-SP-01 18F0248-01	06/15/18 11:33	06/15/18 16:10	06/19/18 07:18	3	7	06/19/18 07:18	4	7	
LDW18-SP-45 18F0248-02	06/15/18 13:45	06/15/18 16:10	06/19/18 07:18	3	7	06/19/18 07:18	4	7	

HOLDING TIME SUMMARY

Analysis: SM 2540 D-97

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW18-SP-47 18F0248-03	06/15/18 13:16	06/15/18 16:10	06/19/18 07:18	3	7	06/19/18 07:18	4	7	
LDW18-SP-66 18F0248-04	06/15/18 13:25	06/15/18 16:10	06/19/18 07:18	3	7	06/19/18 07:18	4	7	
LDW18-SP-70 18F0248-05	06/15/18 11:13	06/15/18 16:10	06/19/18 07:18	3	7	06/19/18 07:18	4	7	
LDW18-SP-83 18F0248-06	06/15/18 12:08	06/15/18 16:10	06/19/18 07:18	3	7	06/19/18 07:18	4	7	
LDW18-SP-86 18F0248-07	06/15/18 12:19	06/15/18 16:10	06/19/18 07:18	3	7	06/19/18 07:18	4	7	
LDW18-SP-88 18F0248-08	06/15/18 10:52	06/15/18 16:10	06/19/18 07:18	3	7	06/19/18 07:18	4	7	
Duplicate BGF0409-DUP1	06/12/18 13:00	06/12/18 14:55	06/18/18 06:56	5	7	06/18/18 06:56	6	7	
Duplicate BGF0438-DUP1	06/14/18 10:41	06/14/18 15:45	06/19/18 07:00	4	7	06/19/18 07:00	5	7	
Duplicate BGF0439-DUP1	06/15/18 11:33	06/15/18 16:10	06/19/18 07:18	3	7	06/19/18 07:18	4	7	

* Indicates hold time exceedance.

METHOD DETECTION AND REPORTING LIMITS

SM 2540 D-97

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Matrix: Water
Instrument:

Analyte	MDL	RL	Units
Suspended Solids	1	1	mg/L

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LDW18-SP-RB1

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-01	SDG:	18F0185
Sampled:	06/11/18 16:12	Prepared:	06/13/18 12:37	File ID:	ShimadzuData_06282018@1023-042
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/16/18 10:22
Batch:	BGF0300	Sequence:	SGF0376	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	UNASSIGNED

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	0.50	1	0.50	0.50	

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INORGANIC ANALYSIS DATA SHEET
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Dissolved Analytes

LDW18-SP-RB1

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-01RE1	SDG:	18F0185
Sampled:	06/11/18 16:12	Prepared:	06/13/18 12:38	File ID:	ShimadzuData_07022018@1039-027
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/29/18 01:02
Batch:	BGF0301	Sequence:	SGG0007	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00004

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	0.50	1	0.50	0.50	U

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LDW18-SP-30

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-03	SDG:	18F0185
Sampled:	06/12/18 12:06	Prepared:	06/13/18 12:37	File ID:	ShimadzuData_06282018@1023-043
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/16/18 10:40
Batch:	BGF0300	Sequence:	SGF0376	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	UNASSIGNED

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.24	1	0.50	0.50	

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Dissolved Analytes

LDW18-SP-30

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-03RE1	SDG:	18F0185
Sampled:	06/12/18 12:06	Prepared:	06/13/18 12:38	File ID:	ShimadzuData_07022018@1039-028
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/29/18 01:19
Batch:	BGF0301	Sequence:	SGG0007	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00004

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	1.26	1	0.50	0.50	

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LDW18-SP-32

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-04	SDG:	18F0185
Sampled:	06/12/18 09:19	Prepared:	06/13/18 12:37	File ID:	ShimadzuData_06282018@1023-044
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/16/18 11:07
Batch:	BGF0300	Sequence:	SGF0376	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	UNASSIGNED

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.67	1	0.50	0.50	

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Dissolved Analytes

LDW18-SP-32

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-04RE1	SDG:	18F0185
Sampled:	06/12/18 09:19	Prepared:	06/13/18 12:38	File ID:	ShimadzuData_07022018@1039-029
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/29/18 01:41
Batch:	BGF0301	Sequence:	SGG0007	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00004

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	1.39	1	0.50	0.50	

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LDW18-SP-35

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-05	SDG:	18F0185
Sampled:	06/12/18 10:56	Prepared:	06/13/18 12:37	File ID:	ShimadzuData_06282018@1023-045
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/16/18 11:30
Batch:	BGF0300	Sequence:	SGF0376	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	UNASSIGNED

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	3.33	1	0.50	0.50	

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Dissolved Analytes

LDW18-SP-35

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-05RE1	SDG:	18F0185
Sampled:	06/12/18 10:56	Prepared:	06/13/18 12:38	File ID:	ShimadzuData_07022018@1039-030
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/29/18 01:59
Batch:	BGF0301	Sequence:	SGG0007	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00004

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	1.71	1	0.50	0.50	

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LDW18-SP-38

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-06	SDG:	18F0185
Sampled:	06/12/18 10:27	Prepared:	06/13/18 12:37	File ID:	ShimadzuData_06282018@1023-046
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/16/18 11:58
Batch:	BGF0300	Sequence:	SGF0376	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	UNASSIGNED

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.89	1	0.50	0.50	

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Dissolved Analytes

LDW18-SP-38

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-06RE1	SDG:	18F0185
Sampled:	06/12/18 10:27	Prepared:	06/13/18 12:38	File ID:	ShimadzuData_07022018@1039-031
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/29/18 02:21
Batch:	BGF0301	Sequence:	SGG0007	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00004

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	1.68	1	0.50	0.50	

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LDW18-SP-42

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-07	SDG:	18F0185
Sampled:	06/12/18 12:05	Prepared:	06/13/18 12:37	File ID:	ShimadzuData_06282018@1023-047
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/16/18 12:16
Batch:	BGF0300	Sequence:	SGF0376	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	UNASSIGNED

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	3.37	1	0.50	0.50	

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INORGANIC ANALYSIS DATA SHEET
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Dissolved Analytes

LDW18-SP-42

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-07RE1	SDG:	18F0185
Sampled:	06/12/18 12:05	Prepared:	06/13/18 12:38	File ID:	ShimadzuData_07022018@1039-032
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/29/18 02:40
Batch:	BGF0301	Sequence:	SGG0007	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00004

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	1.76	1	0.50	0.50	

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LDW18-SP-43

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-08	SDG:	18F0185
Sampled:	06/12/18 13:00	Prepared:	06/13/18 12:37	File ID:	ShimadzuData_06282018@1023-048
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/16/18 12:47
Batch:	BGF0300	Sequence:	SGF0376	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	UNASSIGNED

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	0.87	1	0.50	0.50	

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INORGANIC ANALYSIS DATA SHEET
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Dissolved Analytes

LDW18-SP-43

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0185-08RE1	SDG:	18F0185
Sampled:	06/12/18 13:00	Prepared:	06/13/18 12:38	File ID:	ShimadzuData_07022018@1039-033
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/29/18 02:58
Batch:	BGF0301	Sequence:	SGG0007	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00004

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	0.81	1	0.50	0.50	

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LDW18-SP-06

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-01	SDG:	18F0185
Sampled:	06/13/18 09:53	Prepared:	06/14/18 10:36	File ID:	ShimadzuData_06282018@1023-029
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/16/18 04:58
Batch:	BGF0336	Sequence:	SGF0376	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	UNASSIGNED

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.65	1	0.50	0.50	

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Dissolved Analytes

LDW18-SP-06

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-01	SDG:	18F0185
Sampled:	06/13/18 09:53	Prepared:	06/14/18 14:35	File ID:	ShimadzuData_07022018@1234-055
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	07/01/18 09:05
Batch:	BGF0349	Sequence:	SGG0011	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00004

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	1.31	1	0.50	0.50	

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LDW18-SP-33

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-02	SDG:	18F0185
Sampled:	06/13/18 12:17	Prepared:	06/14/18 10:36	File ID:	ShimadzuData_06282018@1023-030
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/16/18 05:25
Batch:	BGF0336	Sequence:	SGF0376	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	UNASSIGNED

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	5.79	1	0.50	0.50	

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Dissolved Analytes

LDW18-SP-33

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-02	SDG:	18F0185
Sampled:	06/13/18 12:17	Prepared:	06/14/18 14:35	File ID:	ShimadzuData_07022018@1234-058
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	07/01/18 10:11
Batch:	BGF0349	Sequence:	SGG0011	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00004

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	3.81	1	0.50	0.50	

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LDW18-SP-24

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-03	SDG:	18F0185
Sampled:	06/13/18 12:35	Prepared:	06/14/18 10:36	File ID:	ShimadzuData_06282018@1023-031
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/16/18 05:50
Batch:	BGF0336	Sequence:	SGF0376	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	UNASSIGNED

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	3.61	1	0.50	0.50	

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Dissolved Analytes

LDW18-SP-24

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-03	SDG:	18F0185
Sampled:	06/13/18 12:35	Prepared:	06/14/18 14:35	File ID:	ShimadzuData_07022018@1234-059
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	07/01/18 10:33
Batch:	BGF0349	Sequence:	SGG0011	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00004

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	2.71	1	0.50	0.50	

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LDW18-SP-24-FD

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-04	SDG:	18F0185
Sampled:	06/13/18 12:42	Prepared:	06/14/18 10:36	File ID:	ShimadzuData_06282018@1023-032
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	06/16/18 06:18
Batch:	BGF0336	Sequence:	SGF0376	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	UNASSIGNED

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	3.65	1	0.50	0.50	

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Dissolved Analytes

LDW18-SP-24-FD

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0208-04	SDG:	18F0185
Sampled:	06/13/18 12:42	Prepared:	06/14/18 14:35	File ID:	ShimadzuData_07022018@1234-060
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	07/01/18 10:59
Batch:	BGF0349	Sequence:	SGG0011	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00004

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	2.81	1	0.50	0.50	

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Dissolved Analytes

LDW18-SP-05

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-01RE1	SDG:	18F0185
Sampled:	06/14/18 14:08	Prepared:	07/03/18 18:27	File ID:	ShimadzuData_07112018@1607-060
% Solids:	0.00	Preparation:	SM 5310 A-00, 0.45um filtration	Analyzed:	07/10/18 17:18
Batch:	BGG0063	Sequence:	SGG0144	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00035

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	1.57	1	0.50	0.50	

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LDW18-SP-05

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-01RE3	SDG:	18F0185
Sampled:	06/14/18 14:08	Prepared:	07/09/18 16:26	File ID:	ShimadzuData_07162018@1235-025
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	07/13/18 22:32
Batch:	BGG0172	Sequence:	SGG0222	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00050

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.33	1	0.50	0.50	H

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Dissolved Analytes

LDW18-SP-57

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-02RE1	SDG:	18F0185
Sampled:	06/14/18 10:41	Prepared:	07/03/18 18:27	File ID:	ShimadzuData_07112018@1607-061
% Solids:	0.00	Preparation:	SM 5310 A-00, 0.45um filtration	Analyzed:	07/10/18 17:40
Batch:	BGG0063	Sequence:	SGG0144	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00035

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	1.42	1	0.50	0.50	

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LDW18-SP-57

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-02RE4	SDG:	18F0185
Sampled:	06/14/18 10:41	Prepared:	07/09/18 16:26	File ID:	ShimadzuData_07162018@1235-026
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	07/13/18 22:54
Batch:	BGG0172	Sequence:	SGG0222	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00050

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.31	1	0.50	0.50	H

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LDW18-SP-73

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-03RE3	SDG:	18F0185
Sampled:	06/14/18 13:08	Prepared:	07/09/18 16:26	File ID:	ShimadzuData_07162018@1235-027
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	07/13/18 23:16
Batch:	BGG0172	Sequence:	SGG0222	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00050

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.90	1	0.50	0.50	H

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Dissolved Analytes

LDW18-SP-73

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-03RE3	SDG:	18F0185
Sampled:	06/14/18 13:08	Prepared:	07/03/18 18:27	File ID:	ShimadzuData_07162018@1235-016
% Solids:	0.00	Preparation:	SM 5310 A-00, 0.45um filtration	Analyzed:	07/13/18 19:27
Batch:	BGG0063	Sequence:	SGG0222	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00050

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	3.03	1	0.50	0.50	H

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LDW18-SP-74

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-04RE3	SDG:	18F0185
Sampled:	06/14/18 13:14	Prepared:	07/09/18 16:26	File ID:	ShimadzuData_07162018@1235-028
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	07/13/18 23:35
Batch:	BGG0172	Sequence:	SGG0222	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00050

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	2.24	1	0.50	0.50	H

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Dissolved Analytes

LDW18-SP-74

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-04RE3	SDG:	18F0185
Sampled:	06/14/18 13:14	Prepared:	07/03/18 18:27	File ID:	ShimadzuData_07162018@1235-017
% Solids:	0.00	Preparation:	SM 5310 A-00, 0.45um filtration	Analyzed:	07/13/18 19:45
Batch:	BGG0063	Sequence:	SGG0222	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00050

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	2.33	1	0.50	0.50	H

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LDW18-SP-77

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-05RE3	SDG:	18F0185
Sampled:	06/14/18 12:10	Prepared:	07/09/18 16:26	File ID:	ShimadzuData_07162018@1235-029
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	07/13/18 23:53
Batch:	BGG0172	Sequence:	SGG0222	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00050

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	5.51	1	0.50	0.50	H

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Dissolved Analytes

LDW18-SP-77

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-05RE3	SDG:	18F0185
Sampled:	06/14/18 12:10	Prepared:	07/03/18 18:27	File ID:	ShimadzuData_07162018@1235-018
% Solids:	0.00	Preparation:	SM 5310 A-00, 0.45um filtration	Analyzed:	07/13/18 20:04
Batch:	BGG0063	Sequence:	SGG0222	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00050

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	4.40	1	0.50	0.50	H

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LDW18-SP-78

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-06RE3	SDG:	18F0185
Sampled:	06/14/18 12:04	Prepared:	07/09/18 16:26	File ID:	ShimadzuData_07162018@1235-030
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	07/14/18 00:16
Batch:	BGG0172	Sequence:	SGG0222	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00050

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.63	1	0.50	0.50	H

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Dissolved Analytes

LDW18-SP-78

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-06RE3	SDG:	18F0185
Sampled:	06/14/18 12:04	Prepared:	07/03/18 18:27	File ID:	ShimadzuData_07162018@1235-019
% Solids:	0.00	Preparation:	SM 5310 A-00, 0.45um filtration	Analyzed:	07/13/18 20:27
Batch:	BGG0063	Sequence:	SGG0222	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00050

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	1.61	1	0.50	0.50	H

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LDW18-SP-79

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-07RE3	SDG:	18F0185
Sampled:	06/14/18 09:50	Prepared:	07/09/18 16:26	File ID:	ShimadzuData_07162018@1235-031
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	07/14/18 00:34
Batch:	BGG0172	Sequence:	SGG0222	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00050

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.73	1	0.50	0.50	H

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Dissolved Analytes

LDW18-SP-79

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-07RE3	SDG:	18F0185
Sampled:	06/14/18 09:50	Prepared:	07/03/18 18:27	File ID:	ShimadzuData_07162018@1235-020
% Solids:	0.00	Preparation:	SM 5310 A-00, 0.45um filtration	Analyzed:	07/13/18 20:45
Batch:	BGG0063	Sequence:	SGG0222	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00050

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	1.76	1	0.50	0.50	H

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LDW18-SP-84

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-08RE3	SDG:	18F0185
Sampled:	06/14/18 09:53	Prepared:	07/09/18 16:26	File ID:	ShimadzuData_07162018@1235-032
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	07/14/18 00:53
Batch:	BGG0172	Sequence:	SGG0222	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00050

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.26	1	0.50	0.50	H

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Dissolved Analytes

LDW18-SP-84

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-08RE3	SDG:	18F0185
Sampled:	06/14/18 09:53	Prepared:	07/03/18 18:27	File ID:	ShimadzuData_07162018@1235-021
% Solids:	0.00	Preparation:	SM 5310 A-00, 0.45um filtration	Analyzed:	07/13/18 21:03
Batch:	BGG0063	Sequence:	SGG0222	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00050

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	1.42	1	0.50	0.50	H

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LDW18-SP-87

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-09RE3	SDG:	18F0185
Sampled:	06/14/18 11:11	Prepared:	07/09/18 16:26	File ID:	ShimadzuData_07162018@1235-033
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	07/14/18 01:11
Batch:	BGG0172	Sequence:	SGG0222	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00050

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.07	1	0.50	0.50	H

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Dissolved Analytes

LDW18-SP-87

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0226-09RE3	SDG:	18F0185
Sampled:	06/14/18 11:11	Prepared:	07/03/18 18:27	File ID:	ShimadzuData_07162018@1235-024
% Solids:	0.00	Preparation:	SM 5310 A-00, 0.45um filtration	Analyzed:	07/13/18 22:07
Batch:	BGG0063	Sequence:	SGG0222	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00050

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	1.21	1	0.50	0.50	H

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Dissolved Analytes

LDW18-SP-01

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-01	SDG:	18F0185
Sampled:	06/15/18 11:33	Prepared:	07/03/18 18:27	File ID:	ShimadzuData_07112018@0923-026
% Solids:	0.00	Preparation:	SM 5310 A-00, 0.45um filtration	Analyzed:	07/06/18 20:16
Batch:	BGG0063	Sequence:	SGG0134	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00035

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	1.70	1	0.50	0.50	*

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LDW18-SP-01

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-01RE2	SDG:	18F0185
Sampled:	06/15/18 11:33	Prepared:	07/06/18 20:56	File ID:	ShimadzuData_07162018@1217-036
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	07/13/18 03:19
Batch:	BGG0293	Sequence:	SGG0219	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00049

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.70	1	0.50	0.50	*

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LDW18-SP-01

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-01RE3	SDG:	18F0185
Sampled:	06/15/18 11:33	Prepared:	07/06/18 20:56	File ID:	ShimadzuData_07162018@1235-036
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	07/14/18 02:14
Batch:	BGG0293	Sequence:	SGG0222	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00050

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.77	1	0.50	0.50	H

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Dissolved Analytes

LDW18-SP-01

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-01RE3	SDG:	18F0185
Sampled:	06/15/18 11:33	Prepared:	07/03/18 18:27	File ID:	ShimadzuData_07202018@1158-014
% Solids:	0.00	Preparation:	SM 5310 A-00, 0.45um filtration	Analyzed:	07/19/18 19:52
Batch:	BGG0063	Sequence:	SGG0302	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00066

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	2.52	1	0.50	0.50	H

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Dissolved Analytes

LDW18-SP-45

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-02	SDG:	18F0185
Sampled:	06/15/18 13:45	Prepared:	07/03/18 18:27	File ID:	ShimadzuData_07112018@0923-027
% Solids:	0.00	Preparation:	SM 5310 A-00, 0.45um filtration	Analyzed:	07/06/18 20:38
Batch:	BGG0063	Sequence:	SGG0134	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00035

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	1.74	1	0.50	0.50	*

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LDW18-SP-45

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-02RE2	SDG:	18F0185
Sampled:	06/15/18 13:45	Prepared:	07/06/18 20:56	File ID:	ShimadzuData_07162018@1217-037
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	07/13/18 03:38
Batch:	BGG0293	Sequence:	SGG0219	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00049

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.69	1	0.50	0.50	*

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LDW18-SP-45

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-02RE3	SDG:	18F0185
Sampled:	06/15/18 13:45	Prepared:	07/06/18 20:56	File ID:	ShimadzuData_07162018@1235-037
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	07/14/18 02:32
Batch:	BGG0293	Sequence:	SGG0222	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00050

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.81	1	0.50	0.50	H

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Dissolved Analytes

LDW18-SP-45

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-02RE3	SDG:	18F0185
Sampled:	06/15/18 13:45	Prepared:	07/03/18 18:27	File ID:	ShimadzuData_07202018@1158-015
% Solids:	0.00	Preparation:	SM 5310 A-00, 0.45um filtration	Analyzed:	07/19/18 20:15
Batch:	BGG0063	Sequence:	SGG0302	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00066

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	3.87	1	0.50	0.50	H

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Dissolved Analytes

LDW18-SP-47

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-03	SDG:	18F0185
Sampled:	06/15/18 13:16	Prepared:	07/03/18 18:27	File ID:	ShimadzuData_07112018@0923-028
% Solids:	0.00	Preparation:	SM 5310 A-00, 0.45um filtration	Analyzed:	07/06/18 20:56
Batch:	BGG0063	Sequence:	SGG0134	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00035

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	1.55	1	0.50	0.50	*

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LDW18-SP-47

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-03RE2	SDG:	18F0185
Sampled:	06/15/18 13:16	Prepared:	07/06/18 20:56	File ID:	ShimadzuData_07162018@1217-038
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	07/13/18 03:56
Batch:	BGG0293	Sequence:	SGG0219	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00049

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.51	1	0.50	0.50	*

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LDW18-SP-47

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-03RE3	SDG:	18F0185
Sampled:	06/15/18 13:16	Prepared:	07/06/18 20:56	File ID:	ShimadzuData_07162018@1235-038
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	07/14/18 02:50
Batch:	BGG0293	Sequence:	SGG0222	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00050

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.63	1	0.50	0.50	H

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Dissolved Analytes

LDW18-SP-47

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-03RE3	SDG:	18F0185
Sampled:	06/15/18 13:16	Prepared:	07/03/18 18:27	File ID:	ShimadzuData_07202018@1158-016
% Solids:	0.00	Preparation:	SM 5310 A-00, 0.45um filtration	Analyzed:	07/19/18 20:41
Batch:	BGG0063	Sequence:	SGG0302	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00066

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	2.86	1	0.50	0.50	H

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Dissolved Analytes

LDW18-SP-66

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-04	SDG:	18F0185
Sampled:	06/15/18 13:25	Prepared:	07/03/18 18:27	File ID:	ShimadzuData_07112018@0923-029
% Solids:	0.00	Preparation:	SM 5310 A-00, 0.45um filtration	Analyzed:	07/06/18 21:14
Batch:	BGG0063	Sequence:	SGG0134	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00035

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	1.36	1	0.50	0.50	*

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LDW18-SP-66

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-04RE2	SDG:	18F0185
Sampled:	06/15/18 13:25	Prepared:	07/06/18 20:56	File ID:	ShimadzuData_07162018@1217-039
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	07/13/18 04:14
Batch:	BGG0293	Sequence:	SGG0219	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00049

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.37	1	0.50	0.50	*

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LDW18-SP-66

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-04RE3	SDG:	18F0185
Sampled:	06/15/18 13:25	Prepared:	07/06/18 20:56	File ID:	ShimadzuData_07162018@1235-039
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	07/14/18 03:08
Batch:	BGG0293	Sequence:	SGG0222	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00050

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.43	1	0.50	0.50	H

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Dissolved Analytes

LDW18-SP-66

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-04RE3	SDG:	18F0185
Sampled:	06/15/18 13:25	Prepared:	07/03/18 18:27	File ID:	ShimadzuData_07202018@1158-017
% Solids:	0.00	Preparation:	SM 5310 A-00, 0.45um filtration	Analyzed:	07/19/18 21:03
Batch:	BGG0063	Sequence:	SGG0302	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00066

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	1.57	1	0.50	0.50	H

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Dissolved Analytes

LDW18-SP-70

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-05	SDG:	18F0185
Sampled:	06/15/18 11:13	Prepared:	07/03/18 18:27	File ID:	ShimadzuData_07112018@0923-030
% Solids:	0.00	Preparation:	SM 5310 A-00, 0.45um filtration	Analyzed:	07/06/18 21:32
Batch:	BGG0063	Sequence:	SGG0134	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00035

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	0.90	1	0.50	0.50	*

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LDW18-SP-70

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-05RE2	SDG:	18F0185
Sampled:	06/15/18 11:13	Prepared:	07/06/18 20:56	File ID:	ShimadzuData_07162018@1217-040
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	07/13/18 04:36
Batch:	BGG0293	Sequence:	SGG0219	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00049

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	0.90	1	0.50	0.50	*

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LDW18-SP-70

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-05RE3	SDG:	18F0185
Sampled:	06/15/18 11:13	Prepared:	07/06/18 20:56	File ID:	ShimadzuData_07162018@1235-040
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	07/14/18 03:27
Batch:	BGG0293	Sequence:	SGG0222	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00050

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	0.94	1	0.50	0.50	H

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Dissolved Analytes

LDW18-SP-70

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-05RE3	SDG:	18F0185
Sampled:	06/15/18 11:13	Prepared:	07/03/18 18:27	File ID:	ShimadzuData_07202018@1158-018
% Solids:	0.00	Preparation:	SM 5310 A-00, 0.45um filtration	Analyzed:	07/19/18 21:29
Batch:	BGG0063	Sequence:	SGG0302	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00066

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	1.23	1	0.50	0.50	H

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Dissolved Analytes

LDW18-SP-83

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-06	SDG:	18F0185
Sampled:	06/15/18 12:08	Prepared:	07/03/18 18:27	File ID:	ShimadzuData_07112018@0923-031
% Solids:	0.00	Preparation:	SM 5310 A-00, 0.45um filtration	Analyzed:	07/06/18 21:53
Batch:	BGG0063	Sequence:	SGG0134	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00035

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	1.15	1	0.50	0.50	*

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LDW18-SP-83

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-06RE2	SDG:	18F0185
Sampled:	06/15/18 12:08	Prepared:	07/06/18 20:56	File ID:	ShimadzuData_07162018@1217-041
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	07/13/18 04:58
Batch:	BGG0293	Sequence:	SGG0219	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00049

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.18	1	0.50	0.50	*

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LDW18-SP-83

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-06RE3	SDG:	18F0185
Sampled:	06/15/18 12:08	Prepared:	07/06/18 20:56	File ID:	ShimadzuData_07162018@1235-041
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	07/14/18 03:45
Batch:	BGG0293	Sequence:	SGG0222	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00050

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.24	1	0.50	0.50	H

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Dissolved Analytes

LDW18-SP-83

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-06RE3	SDG:	18F0185
Sampled:	06/15/18 12:08	Prepared:	07/03/18 18:27	File ID:	ShimadzuData_07202018@1158-019
% Solids:	0.00	Preparation:	SM 5310 A-00, 0.45um filtration	Analyzed:	07/19/18 21:54
Batch:	BGG0063	Sequence:	SGG0302	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00066

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	1.49	1	0.50	0.50	H

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Dissolved Analytes

LDW18-SP-86

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-07	SDG:	18F0185
Sampled:	06/15/18 12:19	Prepared:	07/03/18 18:27	File ID:	ShimadzuData_07112018@0923-032
% Solids:	0.00	Preparation:	SM 5310 A-00, 0.45um filtration	Analyzed:	07/06/18 22:23
Batch:	BGG0063	Sequence:	SGG0134	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00035

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	1.44	1	0.50	0.50	*

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LDW18-SP-86

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-07RE2	SDG:	18F0185
Sampled:	06/15/18 12:19	Prepared:	07/06/18 20:56	File ID:	ShimadzuData_07162018@1217-042
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	07/13/18 05:24
Batch:	BGG0293	Sequence:	SGG0219	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00049

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.45	1	0.50	0.50	*

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LDW18-SP-86

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-07RE3	SDG:	18F0185
Sampled:	06/15/18 12:19	Prepared:	07/06/18 20:56	File ID:	ShimadzuData_07162018@1235-042
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	07/14/18 04:03
Batch:	BGG0293	Sequence:	SGG0222	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00050

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.49	1	0.50	0.50	H

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Dissolved Analytes

LDW18-SP-86

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-07RE3	SDG:	18F0185
Sampled:	06/15/18 12:19	Prepared:	07/03/18 18:27	File ID:	ShimadzuData_07202018@1158-020
% Solids:	0.00	Preparation:	SM 5310 A-00, 0.45um filtration	Analyzed:	07/19/18 22:20
Batch:	BGG0063	Sequence:	SGG0302	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00066

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	1.84	1	0.50	0.50	H

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Dissolved Analytes

LDW18-SP-88

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-08	SDG:	18F0185
Sampled:	06/15/18 10:52	Prepared:	07/03/18 18:27	File ID:	ShimadzuData_07112018@0923-033
% Solids:	0.00	Preparation:	SM 5310 A-00, 0.45um filtration	Analyzed:	07/06/18 22:41
Batch:	BGG0063	Sequence:	SGG0134	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00035

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	1.08	1	0.50	0.50	*

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LDW18-SP-88

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-08RE2	SDG:	18F0185
Sampled:	06/15/18 10:52	Prepared:	07/06/18 20:56	File ID:	ShimadzuData_07162018@1217-043
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	07/13/18 05:45
Batch:	BGG0293	Sequence:	SGG0219	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00049

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.09	1	0.50	0.50	*

Form I
INORGANIC ANALYSIS DATA SHEET
SM 5310 B-00

LDW18-SP-88

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-08RE3	SDG:	18F0185
Sampled:	06/15/18 10:52	Prepared:	07/06/18 20:56	File ID:	ShimadzuData_07162018@1235-043
% Solids:	0.00	Preparation:	No Prep Wet Chem	Analyzed:	07/14/18 04:21
Batch:	BGG0293	Sequence:	SGG0222	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00050

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	1.12	1	0.50	0.50	H

Form I
INORGANIC ANALYSIS DATA SHEET
SM 5310 B-00

Dissolved Analytes

LDW18-SP-88

Laboratory:	Analytical Resources, Inc.				
Client:	Windward Environmental, LLC				
Project:	AOC3 Task 4 (Seeps)				
Matrix:	Water	Laboratory ID:	18F0248-08RE3	SDG:	18F0185
Sampled:	06/15/18 10:52	Prepared:	07/03/18 18:27	File ID:	ShimadzuData_07202018@1158-021
% Solids:	0.00	Preparation:	SM 5310 A-00, 0.45um filtration	Analyzed:	07/19/18 22:42
Batch:	BGG0063	Sequence:	SGG0302	Initial/Final:	20 mL / 20 mL
Instrument:	TOC-LCSH			Calibration:	BG00066

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon, Dissolved	1.25	1	0.50	0.50	H

Analytical Resources, Incorporated
Analytical Chemists and Consultants

PREPARATION BATCH SUMMARY

SM 5310 B-00

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGF0300 Batch Matrix: Water Preparation: No Prep Wet Chem

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-RB1	18F0185-01	dzuData_06282018@102	06/13/18 12:37	
LDW18-SP-30	18F0185-03	dzuData_06282018@102	06/13/18 12:37	
LDW18-SP-32	18F0185-04	dzuData_06282018@102	06/13/18 12:37	
LDW18-SP-35	18F0185-05	dzuData_06282018@102	06/13/18 12:37	
LDW18-SP-38	18F0185-06	dzuData_06282018@102	06/13/18 12:37	
LDW18-SP-42	18F0185-07	dzuData_06282018@102	06/13/18 12:37	
LDW18-SP-43	18F0185-08	dzuData_06282018@102	06/13/18 12:37	
Blank	BGF0300-BLK1	dzuData_06282018@102	06/13/18 12:37	
LCS	BGF0300-BS1	dzuData_06282018@102	06/13/18 12:37	
LDW18-SP-43	BGF0300-DUP1	dzuData_06282018@102	06/13/18 12:37	
MRL Check	BGF0300-MRL1	dzuData_06282018@102	06/13/18 12:37	
LDW18-SP-43	BGF0300-MS1	dzuData_06282018@102	06/13/18 12:37	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

PREPARATION BATCH SUMMARY

SM 5310 B-00

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGF0301 Batch Matrix: Water Preparation: No Prep Wet Chem

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-RB1	18F0185-01RE1	dzuData_07022018@103	06/13/18 12:38	Added 7/2/2018 by CDE
LDW18-SP-30	18F0185-03RE1	dzuData_07022018@103	06/13/18 12:38	Added 7/2/2018 by CDE
LDW18-SP-32	18F0185-04RE1	dzuData_07022018@103	06/13/18 12:38	Added 7/2/2018 by CDE
LDW18-SP-35	18F0185-05RE1	dzuData_07022018@103	06/13/18 12:38	Added 7/2/2018 by CDE
LDW18-SP-38	18F0185-06RE1	dzuData_07022018@103	06/13/18 12:38	Added 7/2/2018 by CDE
LDW18-SP-42	18F0185-07RE1	dzuData_07022018@103	06/13/18 12:38	Added 7/2/2018 by CDE
LDW18-SP-43	18F0185-08RE1	dzuData_07022018@103	06/13/18 12:38	Added 7/2/2018 by CDE
Blank	BGF0301-BLK2	dzuData_07022018@103	06/13/18 12:38	Added 7/2/2018 by CDE
LCS	BGF0301-BS2	dzuData_07022018@103	06/13/18 12:38	Added 7/2/2018 by CDE
LDW18-SP-43	BGF0301-DUP2	dzuData_07022018@103	06/13/18 12:38	Added 7/2/2018 by CDE
MRL Check	BGF0301-MRL2	dzuData_07022018@103	06/13/18 12:38	Added 7/2/2018 by CDE
LDW18-SP-43	BGF0301-MS2	dzuData_07022018@103	06/13/18 12:38	Added 7/2/2018 by CDE

PREPARATION BATCH SUMMARY

SM 5310 B-00

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGF0336 Batch Matrix: Water Preparation: No Prep Wet Chem

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-06	18F0208-01	dzuData_06282018@102	06/14/18 10:36	
LDW18-SP-33	18F0208-02	dzuData_06282018@102	06/14/18 10:36	
LDW18-SP-24	18F0208-03	dzuData_06282018@102	06/14/18 10:36	
LDW18-SP-24-FD	18F0208-04	dzuData_06282018@102	06/14/18 10:36	
Blank	BGF0336-BLK1	dzuData_06282018@102	06/14/18 10:36	
LCS	BGF0336-BS1	dzuData_06282018@102	06/14/18 10:36	
MRL Check	BGF0336-MRL1	dzuData_06282018@102	06/14/18 10:36	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

PREPARATION BATCH SUMMARY

SM 5310 B-00

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGF0349 Batch Matrix: Water Preparation: No Prep Wet Chem

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-06	18F0208-01	dzuData_07022018@123	06/14/18 14:35	
LDW18-SP-33	18F0208-02	dzuData_07022018@123	06/14/18 14:35	
LDW18-SP-24	18F0208-03	dzuData_07022018@123	06/14/18 14:35	
LDW18-SP-24-FD	18F0208-04	dzuData_07022018@123	06/14/18 14:35	
Blank	BGF0349-BLK2	dzuData_07022018@123	06/14/18 14:35	Added 7/2/2018 by CDE
LCS	BGF0349-BS2	dzuData_07022018@123	06/14/18 14:35	Added 7/2/2018 by CDE
LDW18-SP-06	BGF0349-DUP1	dzuData_07022018@123	06/14/18 14:35	
MRL Check	BGF0349-MRL2	dzuData_07022018@123	06/14/18 14:35	Added 7/2/2018 by CDE
LDW18-SP-06	BGF0349-MS1	dzuData_07022018@123	06/14/18 14:35	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

PREPARATION BATCH SUMMARY

SM 5310 B-00

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGG0063 Batch Matrix: Water Preparation: SM 5310 A-00, 0.45um filtration

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-05	18F0226-01RE1	dzuData_07112018@160	07/03/18 18:27	Added 7/11/2018 By CDE
LDW18-SP-57	18F0226-02RE1	dzuData_07112018@160	07/03/18 18:27	Added 7/11/2018 By CDE
LDW18-SP-73	18F0226-03RE3	dzuData_07162018@123	07/03/18 18:27	Added 7/16/2018 by CDE
LDW18-SP-74	18F0226-04RE3	dzuData_07162018@123	07/03/18 18:27	Added 7/16/2018 by CDE
LDW18-SP-77	18F0226-05RE3	dzuData_07162018@123	07/03/18 18:27	Added 7/16/2018 by CDE
LDW18-SP-78	18F0226-06RE3	dzuData_07162018@123	07/03/18 18:27	Added 7/16/2018 by CDE
LDW18-SP-79	18F0226-07RE3	dzuData_07162018@123	07/03/18 18:27	Added 7/16/2018 by CDE
LDW18-SP-84	18F0226-08RE3	dzuData_07162018@123	07/03/18 18:27	Added 7/16/2018 by CDE
LDW18-SP-87	18F0226-09RE3	dzuData_07162018@123	07/03/18 18:27	Added 7/16/2018 by CDE
LDW18-SP-01	18F0248-01	dzuData_07112018@092	07/03/18 18:27	
LDW18-SP-01	18F0248-01RE3	dzuData_07202018@115	07/03/18 18:27	Added 7/16/2018 by CDE
LDW18-SP-45	18F0248-02	dzuData_07112018@092	07/03/18 18:27	
LDW18-SP-45	18F0248-02RE3	dzuData_07202018@115	07/03/18 18:27	Added 7/16/2018 by CDE
LDW18-SP-47	18F0248-03	dzuData_07112018@092	07/03/18 18:27	
LDW18-SP-47	18F0248-03RE3	dzuData_07202018@115	07/03/18 18:27	Added 7/16/2018 by CDE
LDW18-SP-66	18F0248-04	dzuData_07112018@092	07/03/18 18:27	
LDW18-SP-66	18F0248-04RE3	dzuData_07202018@115	07/03/18 18:27	Added 7/20/2018 by CDE
LDW18-SP-70	18F0248-05	dzuData_07112018@092	07/03/18 18:27	
LDW18-SP-70	18F0248-05RE3	dzuData_07202018@115	07/03/18 18:27	Added 7/20/2018 by CDE
LDW18-SP-83	18F0248-06	dzuData_07112018@092	07/03/18 18:27	
LDW18-SP-83	18F0248-06RE3	dzuData_07202018@115	07/03/18 18:27	Added 7/20/2018 by CDE
LDW18-SP-86	18F0248-07	dzuData_07112018@092	07/03/18 18:27	
LDW18-SP-86	18F0248-07RE3	dzuData_07202018@115	07/03/18 18:27	Added 7/20/2018 by CDE
LDW18-SP-88	18F0248-08	dzuData_07112018@092	07/03/18 18:27	
LDW18-SP-88	18F0248-08RE3	dzuData_07202018@115	07/03/18 18:27	Added 7/20/2018 by CDE
Blank	BGG0063-BLK1	dzuData_07112018@172	07/03/18 18:27	BGF0400-BLK1
Blank	BGG0063-BLK1	dzuData_07112018@172	07/03/18 18:27	BGF0400-BLK1
LCS	BGG0063-BS3	dzuData_07162018@123	07/03/18 18:27	Added 7/16/2018 by CDE
LCS	BGG0063-BS3	dzuData_07162018@123	07/03/18 18:27	Added 7/16/2018 by CDE
LDW18-SP-57	BGG0063-DUP5	dzuData_07162018@123	07/03/18 18:27	Added 7/16/2018 by CDE
LDW18-SP-57	BGG0063-DUP5	dzuData_07162018@123	07/03/18 18:27	Added 7/16/2018 by CDE
MRL Check	BGG0063-MRL1	dzuData_07112018@172	07/03/18 18:27	BGF0400-MRL1
MRL Check	BGG0063-MRL1	dzuData_07112018@172	07/03/18 18:27	BGF0400-MRL1

PREPARATION BATCH SUMMARY

SM 5310 B-00

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGG0063 Batch Matrix: Water Preparation: SM 5310 A-00, 0.45um filtration

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-57	BGG0063-MS5	dzuData_07162018@123	07/03/18 18:27	Added 7/16/2018 by CDE
LDW18-SP-57	BGG0063-MS5	dzuData_07162018@123	07/03/18 18:27	Added 7/16/2018 by CDE

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Conventionals Laboratory Analyst Notes

ARI Job No.: BGG0063

Client ID:

Parameter: DOC

Client Project:

List problems, concerns, corrective actions and any other pertinent information
Sample Reinjects that are reportable are out of hold due to instrument issues.

Analyst Initials:	CK	Date:	7-20-18

Analytical Resources, Incorporated
Analytical Chemists and Consultants

PREPARATION BATCH SUMMARY

SM 5310 B-00

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGG0172 Batch Matrix: Water Preparation: No Prep Wet Chem

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-05	18F0226-01RE3	dzuData_07162018@123	07/09/18 16:26	Added 7/16/2018 by CDE
LDW18-SP-57	18F0226-02RE4	dzuData_07162018@123	07/09/18 16:26	Added 7/16/2018 by CDE
LDW18-SP-73	18F0226-03RE3	dzuData_07162018@123	07/09/18 16:26	Added 7/16/2018 by CDE
LDW18-SP-74	18F0226-04RE3	dzuData_07162018@123	07/09/18 16:26	Added 7/16/2018 by CDE
LDW18-SP-77	18F0226-05RE3	dzuData_07162018@123	07/09/18 16:26	Added 7/16/2018 by CDE
LDW18-SP-78	18F0226-06RE3	dzuData_07162018@123	07/09/18 16:26	Added 7/16/2018 by CDE
LDW18-SP-79	18F0226-07RE3	dzuData_07162018@123	07/09/18 16:26	Added 7/16/2018 by CDE
LDW18-SP-84	18F0226-08RE3	dzuData_07162018@123	07/09/18 16:26	Added 7/16/2018 by CDE
LDW18-SP-87	18F0226-09RE3	dzuData_07162018@123	07/09/18 16:26	Added 7/16/2018 by CDE
Blank	BGG0172-BLK4	dzuData_07162018@123	07/09/18 16:26	Added 7/16/2018 by CDE
LCS	BGG0172-BS4	dzuData_07162018@123	07/09/18 16:26	Added 7/16/2018 by CDE
LDW18-SP-57	BGG0172-DUP7	dzuData_07162018@123	07/09/18 16:26	Added 7/16/2018 by CDE
LDW18-SP-57	BGG0172-MS6	dzuData_07162018@123	07/09/18 16:26	Added 7/16/2018 by CDE

Analytical Resources, Incorporated
Analytical Chemists and Consultants

PREPARATION BATCH SUMMARY

SM 5310 B-00

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Batch: BGG0293 Batch Matrix: Water Preparation: No Prep Wet Chem

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
LDW18-SP-01	18F0248-01RE2	dzuData_07162018@121	07/06/18 20:56	Added 7/16/2018 by CDE
LDW18-SP-01	18F0248-01RE3	dzuData_07162018@123	07/06/18 20:56	Added 7/16/2018 by CDE
LDW18-SP-45	18F0248-02RE2	dzuData_07162018@121	07/06/18 20:56	Added 7/16/2018 by CDE
LDW18-SP-45	18F0248-02RE3	dzuData_07162018@123	07/06/18 20:56	Added 7/16/2018 by CDE
LDW18-SP-47	18F0248-03RE2	dzuData_07162018@121	07/06/18 20:56	Added 7/16/2018 by CDE
LDW18-SP-47	18F0248-03RE3	dzuData_07162018@123	07/06/18 20:56	Added 7/16/2018 by CDE
LDW18-SP-66	18F0248-04RE2	dzuData_07162018@121	07/06/18 20:56	Added 7/16/2018 by CDE
LDW18-SP-66	18F0248-04RE3	dzuData_07162018@123	07/06/18 20:56	Added 7/16/2018 by CDE
LDW18-SP-70	18F0248-05RE2	dzuData_07162018@121	07/06/18 20:56	Added 7/16/2018 by CDE
LDW18-SP-70	18F0248-05RE3	dzuData_07162018@123	07/06/18 20:56	Added 7/16/2018 by CDE
LDW18-SP-83	18F0248-06RE2	dzuData_07162018@121	07/06/18 20:56	Added 7/16/2018 by CDE
LDW18-SP-83	18F0248-06RE3	dzuData_07162018@123	07/06/18 20:56	Added 7/16/2018 by CDE
LDW18-SP-86	18F0248-07RE2	dzuData_07162018@121	07/06/18 20:56	Added 7/16/2018 by CDE
LDW18-SP-86	18F0248-07RE3	dzuData_07162018@123	07/06/18 20:56	Added 7/16/2018 by CDE
LDW18-SP-88	18F0248-08RE2	dzuData_07162018@121	07/06/18 20:56	Added 7/16/2018 by CDE
LDW18-SP-88	18F0248-08RE3	dzuData_07162018@123	07/06/18 20:56	Added 7/16/2018 by CDE
Blank	BGG0293-BLK1	dzuData_07192018@114	07/06/18 20:56	
LCS	BGG0293-BS1	dzuData_07192018@114	07/06/18 20:56	
LDW18-SP-01	BGG0293-DUP1	dzuData_07192018@114	07/06/18 20:56	
MRL Check	BGG0293-MRL1	dzuData_07192018@114	07/06/18 20:56	
LDW18-SP-01	BGG0293-MS1	dzuData_07192018@114	07/06/18 20:56	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Corrective Actions
Inorganic Analyses

BGG0293

Criteria Flagged:		ARI Job No.:	18F0248
Unacceptable Blank:	☐	Date of Event:	7-18-18
Unacceptable Duplicate:	☒	Client ID:	
Unacceptable Spike:	☐	Method/Element:	TOC (w)
Unacceptable Reference:	☐	Prep Code:	

Details of Problem/Recommended Corrective Action:
RPD High ~~@ ≈ 42%~~ 7-26-18 CPL > +/- 1x MRL

Samples Affected: -01, -DUP1, -DUP2

Corrective Action Taken: Re-read to verify with similar results. Data reported as-is.

Analyst Initials: CDL **Supervisor:** W

Date: 7-26-18 **Date:** 7-26-18

5049F

Revision 007
6/11/10

Form I

METHOD BLANK DATA SHEET

SM 5310 B-00

TotalAnalytes

Blank

Batch: BGF0300 Laboratory ID: BGF0300-BLK1 Prepared: 06/13/18 12:37

Matrix: Water Preparation: No Prep Wet Chem Analyzed: 06/16/18 07:01

Sequence: SGF0376 Calibration: N/A Instrument: TOC-LCSH

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	ND	1	0.50	0.50	U

Form I

METHOD BLANK DATA SHEET

Blank

SM 5310 B-00

DissolvedAnalytes

Batch: BGF0301 Laboratory ID: BGF0301-BLK2 Prepared: 06/13/18 12:38

Matrix: Water Preparation: No Prep Wet Chem Analyzed: 06/29/18 00:16

Sequence: SGG0007 Calibration: BG00004 Instrument: TOC-LCSH

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon	ND	1	0.50	0.50	U

Form I

METHOD BLANK DATA SHEET

SM 5310 B-00

TotalAnalytes

Blank

Batch: BGF0336 Laboratory ID: BGF0336-BLK1 Prepared: 06/14/18 10:36

Matrix: Water Preparation: No Prep Wet Chem Analyzed: 06/15/18 20:02

Sequence: SGF0376 Calibration: N/A Instrument: TOC-LCSH

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	ND	1	0.50	0.50	U

Form I

METHOD BLANK DATA SHEET

SM 5310 B-00

DissolvedAnalytes

Blank

Batch: BGF0349 Laboratory ID: BGF0349-BLK2 Prepared: 06/14/18 14:35

Matrix: Water Preparation: No Prep Wet Chem Analyzed: 07/01/18 08:20

Sequence: SGG0011 Calibration: BG00004 Instrument: TOC-LCSH

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon	ND	1	0.50	0.50	U

Form I

METHOD BLANK DATA SHEET

SM 5310 B-00

DissolvedAnalytes

Blank

Batch: BGG0063 Laboratory ID: BGG0063-BLK1 Prepared: 07/03/18 18:27

Matrix: Water Preparation: SM 5310 A-00, 0.45um fil Analyzed: 07/04/18 09:02

Sequence: SGG0155 Calibration: BF00005 Instrument: DX2100

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Dissolved Organic Carbon	ND	1	0.50	0.50	U

Form I

METHOD BLANK DATA SHEET

SM 5310 B-00

TotalAnalytes

Blank

Batch: BGG0172 Laboratory ID: BGG0172-BLK4 Prepared: 07/09/18 16:26

Matrix: Water Preparation: No Prep Wet Chem Analyzed: 07/14/18 08:01

Sequence: SGG0222 Calibration: BG00050 Instrument: TOC-LCSH

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	ND	1	0.50	0.50	U

Form I

METHOD BLANK DATA SHEET

SM 5310 B-00

TotalAnalytes

Blank

Batch: BGG0293 Laboratory ID: BGG0293-BLK1 Prepared: 07/06/18 20:56

Matrix: Water Preparation: No Prep Wet Chem Analyzed: 07/17/18 23:57

Sequence: SGG0270 Calibration: N/A Instrument: Orion115

CAS NO.	Analyte	Concentration (mg/L)	Dilution Factor	MDL	MRL	Q
	Total Organic Carbon	ND	1	0.50	0.50	U

DUPLICATES

SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Matrix: Water
Laboratory ID: BGF0300-DUP1
Batch: BGF0300
Lab Source ID: 18F0185-08
Preparation: No Prep Wet Chem
Initial/Final: 20 mL / 20 mL
Source Sample Name: LDW18-SP-43
% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Total Organic Carbon	20	0.87	0.91	4.97	

*: Values outside of QC limits
L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD

DUPLICATES

SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Matrix: Water
Laboratory ID: BGF0301-DUP2
Batch: BGF0301
Lab Source ID: 18F0185-08
Preparation: No Prep Wet Chem
Initial/Final: 20 mL / 20 mL
Source Sample Name: LDW18-SP-43
% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Dissolved Organic Carbon	20	0.87	ND		

*: Values outside of QC limits
L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD

DUPLICATES

SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Matrix: Water
Laboratory ID: BGF0349-DUP1
Batch: BGF0349
Lab Source ID: 18F0208-01
Preparation: No Prep Wet Chem
Initial/Final: 20 mL / 20 mL
Source Sample Name: LDW18-SP-06
% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Dissolved Organic Carbon	20	1.31	1.27	2.48	

*: Values outside of QC limits
L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD

DUPLICATES

SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Matrix: Water
Laboratory ID: BGG0063-DUP5
Batch: BGG0063
Lab Source ID: 18F0226-02RE1
Preparation: SM 5310 A-00, 0.45um filtration
Initial/Final: 20 mL / 20 mL
Source Sample Name: LDW18-SP-57
% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Dissolved Organic Carbon	20	1.42	1.36	4.10	

*: Values outside of QC limits
L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD

DUPLICATES

SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Matrix: Water
Laboratory ID: BGG0172-DUP7
Batch: BGG0172
Lab Source ID: 18F0226-02RE4
Preparation: No Prep Wet Chem
Initial/Final: 20 mL / 20 mL
Source Sample Name: LDW18-SP-57
% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Total Organic Carbon	20	1.31	1.59	19.3	

*: Values outside of QC limits
L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD

DUPLICATES

SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Matrix: Water
Laboratory ID: BGG0293-DUP1
Batch: BGG0293
Lab Source ID: 18F0248-01
Preparation: No Prep Wet Chem
Initial/Final: 20 mL / 20 mL
Source Sample Name: LDW18-SP-01
% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION	DUPLICATE CONCENTRATION	RPD %	Q
Total Organic Carbon	20	1.77	2.70	41.8	*

*: Values outside of QC limits
L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD

MS / MS DUPLICATE RECOVERY
SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/16/18 14:11
Batch:	BGF0300	Laboratory ID:	BGF0300-MS1
Preparation:	No Prep Wet Chem	Sequence Name:	Matrix Spike
Initial/Final:	20 mL / 20 mL	Source Sample:	LDW18-SP-43

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	Q	MS CONCENTRATION (mg/L)	Q	MS % REC. #	QC LIMITS REC.
Total Organic Carbon	20.01	0.87		22.61		109	75 - 125

* Values outside of QC limits

MS / MS DUPLICATE RECOVERY
SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/29/18 04:27
Batch:	BGF0301	Laboratory ID:	BGF0301-MS2
Preparation:	No Prep Wet Chem	Sequence Name:	Matrix Spike
Initial/Final:	20 mL / 20 mL	Source Sample:	LDW18-SP-43

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	Q	MS CONCENTRATION (mg/L)	Q	MS % REC. #	QC LIMITS REC.
Dissolved Organic Carbon	20.01	0.87		22.63		109	75 - 125

* Values outside of QC limits

MS / MS DUPLICATE RECOVERY
SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	07/01/18 09:53
Batch:	BGF0349	Laboratory ID:	BGF0349-MS1
Preparation:	No Prep Wet Chem	Sequence Name:	Matrix Spike
Initial/Final:	20 mL / 20 mL	Source Sample:	LDW18-SP-06

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	Q	MS CONCENTRATION (mg/L)	Q	MS % REC. #	QC LIMITS REC.
Dissolved Organic Carbon	20.01	1.31		23.22		110	75 - 125

* Values outside of QC limits

MS / MS DUPLICATE RECOVERY
SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	07/13/18 19:00
Batch:	BGG0063	Laboratory ID:	BGG0063-MS5
Preparation:	SM 5310 A-00, 0.45um filtration	Sequence Name:	Matrix Spike
Initial/Final:	20 mL / 20 mL	Source Sample:	LDW18-SP-57

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	Q	MS CONCENTRATION (mg/L)	Q	MS % REC. #	QC LIMITS REC.
Dissolved Organic Carbon	20.02	1.42		20.73		96.5	75 - 125

* Values outside of QC limits

MS / MS DUPLICATE RECOVERY
SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	07/14/18 11:28
Batch:	BGG0172	Laboratory ID:	BGG0172-MS6
Preparation:	No Prep Wet Chem	Sequence Name:	Matrix Spike
Initial/Final:	20 mL / 20 mL	Source Sample:	LDW18-SP-57

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	Q	MS CONCENTRATION (mg/L)	Q	MS % REC. #	QC LIMITS REC.
Total Organic Carbon	20.02	1.31	H	20.86		97.7	75 - 125

* Values outside of QC limits

LDW18-SP-01

MS / MS DUPLICATE RECOVERY
SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	07/18/18 01:50
Batch:	BGG0293	Laboratory ID:	BGG0293-MS1
Preparation:	No Prep Wet Chem	Sequence Name:	Matrix Spike
Initial/Final:	20 mL / 20 mL	Source Sample:	LDW18-SP-01

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	Q	MS CONCENTRATION (mg/L)	Q	MS % REC. #	QC LIMITS REC.
Total Organic Carbon	20.02	1.77		22.05	H	101	75 - 125

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/16/18 07:22
Batch:	BGF0300	Laboratory ID:	BGF0300-BS1
Preparation:	No Prep Wet Chem	Sequence Name:	LCS
Initial/Final:	20 mL / 20 mL		

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	Q	LCS % REC. #	QC LIMITS REC.
Total Organic Carbon	20.00	18.65		93.3	90 - 110

* Indicates values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/29/18 00:39
Batch:	BGF0301	Laboratory ID:	BGF0301-BS2
Preparation:	No Prep Wet Chem	Sequence Name:	LCS
Initial/Final:	20 mL / 20 mL		

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	Q	LCS % REC. #	QC LIMITS REC.
Dissolved Organic Carbon	20.00	18.47		92.4	90 - 110

* Indicates values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	06/15/18 20:26
Batch:	BGF0336	Laboratory ID:	BGF0336-BS1
Preparation:	No Prep Wet Chem	Sequence Name:	LCS
Initial/Final:	20 mL / 20 mL		

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	Q	LCS % REC. #	QC LIMITS REC.
Total Organic Carbon	20.00	19.34		96.7	90 - 110

* Indicates values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	07/01/18 08:39
Batch:	BGF0349	Laboratory ID:	BGF0349-BS2
Preparation:	No Prep Wet Chem	Sequence Name:	LCS
Initial/Final:	20 mL / 20 mL		

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	Q	LCS % REC. #	QC LIMITS REC.
Dissolved Organic Carbon	20.00	19.66		98.3	90 - 110

* Indicates values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	07/13/18 18:14
Batch:	BGG0063	Laboratory ID:	BGG0063-BS3
Preparation:	SM 5310 A-00, 0.45um filtration	Sequence Name:	LCS
Initial/Final:	20 mL / 20 mL		

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	Q	LCS % REC. #	QC LIMITS REC.
Dissolved Organic Carbon	20.00	18.84		94.2	90 - 110

* Indicates values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	07/14/18 08:29
Batch:	BGG0172	Laboratory ID:	BGG0172-BS4
Preparation:	No Prep Wet Chem	Sequence Name:	LCS
Initial/Final:	20 mL / 20 mL		

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	Q	LCS % REC. #	QC LIMITS REC.
Total Organic Carbon	20.00	18.74		93.7	90 - 110

* Indicates values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Matrix:	Water	Analyzed:	07/18/18 01:07
Batch:	BGG0293	Laboratory ID:	BGG0293-BS1
Preparation:	No Prep Wet Chem	Sequence Name:	LCS
Initial/Final:	20 mL / 20 mL		

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	Q	LCS % REC. #	QC LIMITS REC.
Total Organic Carbon	20.00	18.61		93.1	90 - 110

* Indicates values outside of QC limits

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGF0376
Instrument: TOC-LCSH
Calibration: UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
1	SGF0376-ICV1	dzuData_06282018@102	NA	06/15/18 18:31
1	SGF0376-ICB1	dzuData_06282018@102	NA	06/15/18 18:54
MRL Check	BGF0336-MRL1	dzuData_06282018@102	Water	06/15/18 19:40
Blank	BGF0336-BLK1	dzuData_06282018@102	Water	06/15/18 20:02
LCS	BGF0336-BS1	dzuData_06282018@102	Water	06/15/18 20:26
1	SGF0376-CCV1	dzuData_06282018@102	NA	06/15/18 23:09
1	SGF0376-CCB1	dzuData_06282018@102	NA	06/15/18 23:35
1	SGF0376-CCV2	dzuData_06282018@102	NA	06/16/18 03:49
1	SGF0376-CCB2	dzuData_06282018@102	NA	06/16/18 04:15
LDW18-SP-06	18F0208-01	dzuData_06282018@102	Water	06/16/18 04:58
LDW18-SP-33	18F0208-02	dzuData_06282018@102	Water	06/16/18 05:25
LDW18-SP-24	18F0208-03	dzuData_06282018@102	Water	06/16/18 05:50
LDW18-SP-24-FD	18F0208-04	dzuData_06282018@102	Water	06/16/18 06:18
MRL Check	BGF0300-MRL1	dzuData_06282018@102	Water	06/16/18 06:40
Blank	BGF0300-BLK1	dzuData_06282018@102	Water	06/16/18 07:01
LCS	BGF0300-BS1	dzuData_06282018@102	Water	06/16/18 07:22
1	SGF0376-CCV3	dzuData_06282018@102	NA	06/16/18 08:47
1	SGF0376-CCB3	dzuData_06282018@102	NA	06/16/18 09:07
LDW18-SP-RB1	18F0185-01	dzuData_06282018@102	Water	06/16/18 10:22
LDW18-SP-30	18F0185-03	dzuData_06282018@102	Water	06/16/18 10:40
LDW18-SP-32	18F0185-04	dzuData_06282018@102	Water	06/16/18 11:07
LDW18-SP-35	18F0185-05	dzuData_06282018@102	Water	06/16/18 11:30
LDW18-SP-38	18F0185-06	dzuData_06282018@102	Water	06/16/18 11:58
LDW18-SP-42	18F0185-07	dzuData_06282018@102	Water	06/16/18 12:16
LDW18-SP-43	18F0185-08	dzuData_06282018@102	Water	06/16/18 12:47
LDW18-SP-43	BGF0300-DUP1	dzuData_06282018@102	Water	06/16/18 13:05
1	SGF0376-CCV4	dzuData_06282018@102	NA	06/16/18 13:25
1	SGF0376-CCB4	dzuData_06282018@102	NA	06/16/18 13:51
LDW18-SP-43	BGF0300-MS1	dzuData_06282018@102	Water	06/16/18 14:11
Calibration Check	SGF0376-CCV5	dzuData_06282018@102	NA	06/16/18 18:13

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGF0376	Instrument:	TOC-LCSH
		Calibration:	UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
Calibration Blank	SGF0376-CCB5	dzuData_06282018@102	NA	06/16/18 18:37
Calibration Check	SGF0376-CCV6	dzuData_06282018@102	NA	06/16/18 23:04
Calibration Blank	SGF0376-CCB6	dzuData_06282018@102	NA	06/16/18 23:31
Interference Check A	SGF0376-IFA2	dzuData_06282018@102	NA	06/16/18 23:51
Calibration Check	SGF0376-CCV7	dzuData_06282018@102	NA	06/17/18 00:14
Calibration Blank	SGF0376-CCB7	dzuData_06282018@102	NA	06/17/18 00:37

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes	Status	Date / Time	Vial
1	Unknown	NPOC	Rinse		NPOC 0.5 -	1.000	NPOC:0.2247mg/L		Completed	6/15/2018 6:	0
2	Control	NPOC	SEQ-ICV1	CVS 20	CVS 20 pp	1.000	NPOC:19.00ppm	Control valu	Completed	6/15/2018 6:	3
3	Control	NPOC	SEQ-ICB1		ICB CCB.tpl	1.000	NPOC:0.1736mg/L	Control valu	Completed	6/15/2018 7:	4
4	Unknown	NPOC	SEQ-IFA1		NPOC 0.5 -	1.000	NPOC:22.10mg/L		Completed	6/15/2018 7:	9
5	Unknown	NPOC	BGF0336-MRL1		NPOC 0.5 -	1.000	NPOC:0.8542mg/L		Completed	6/15/2018 7:	10
6	Unknown	NPOC	BGF0336-BLK1		NPOC 0.5 -	1.000	NPOC:0.1823mg/L		Completed	6/15/2018 8:	11
7	Unknown	NPOC	BGF0336-BS1		NPOC 0.5 -	1.000	NPOC:19.34mg/L		Completed	6/15/2018 8:	12
8	Unknown	NPOC	18F0198-41		NPOC 0.5 -	1.000	NPOC:0.4374mg/L		Completed	6/15/2018 9:	13
9	Unknown	NPOC	18F0198-43		NPOC 0.5 -	1.000	NPOC:0.8106mg/L		Completed	6/15/2018 9:	14
10	Unknown	NPOC	18F0198-45		NPOC 0.5 -	1.000	NPOC:0.5076mg/L		Completed	6/15/2018 9:	15
11	Unknown	NPOC	18F0198-47		NPOC 0.5 -	1.000	NPOC:0.5703mg/L		Completed	6/15/2018 1	16
12	Unknown	NPOC	18F0198-49		NPOC 0.5 -	1.000	NPOC:0.5315mg/L		Completed	6/15/2018 1	17
13	Unknown	NPOC	18F0198-51		NPOC 0.5 -	1.000	NPOC:0.6088mg/L		Completed	6/15/2018 1	18
14	Control	NPOC	SEQ-CCV1	CVS 20	CVS 20 pp	1.000	NPOC:19.21ppm	Control valu	Completed	6/15/2018 1	3
15	Control	NPOC	SEQ-CCB1		ICB CCB.tpl	1.000	NPOC:0.03084mg/	Control valu	Completed	6/15/2018 1	4
16	Unknown	NPOC	18F0198-53		NPOC 0.5 -	1.000	NPOC:0.6696mg/L		Completed	6/16/2018 1	19
17	Unknown	NPOC	18F0198-55		NPOC 0.5 -	1.000	NPOC:0.6104mg/L		Completed	6/16/2018 1	20
18	Unknown	NPOC	18F0198-57		NPOC 0.5 -	1.000	NPOC:0.6445mg/L		Completed	6/16/2018 1	21
19	Unknown	NPOC	18F0198-59		NPOC 0.5 -	1.000	NPOC:0.6453mg/L		Completed	6/16/2018 1:	22
20	Unknown	NPOC	18F0198-61		NPOC 0.5 -	1.000	NPOC:0.4665mg/L		Completed	6/16/2018 1:	23
21	Unknown	NPOC	18F0198-63		NPOC 0.5 -	1.000	NPOC:0.5872mg/L		Completed	6/16/2018 1:	24
22	Unknown	NPOC	BGF0336-DUP1		NPOC 0.5 -	1.000	NPOC:0.6005mg/L		Completed	6/16/2018 2:	25
23	Unknown	NPOC	BGF0336-MS1		NPOC 0.5 -	1.000	NPOC:18.54mg/L		Completed	6/16/2018 2:	26
24	Unknown	NPOC	BGF0336-MSD1		NPOC 0.5 -	1.000	NPOC:21.91mg/L		Completed	6/16/2018 3:	27
25	Unknown	NPOC	18F0198-65		NPOC 0.5 -	1.000	NPOC:0.6877mg/L		Completed	6/16/2018 3:	28
26	Control	NPOC	SEQ-CCV2	CVS 20	CVS 20 pp	1.000	NPOC:19.56ppm	Control valu	Completed	6/16/2018 3:	3
27	Control	NPOC	SEQ-CCB2		ICB CCB.tpl	1.000	NPOC:0.06247mg/	Control valu	Completed	6/16/2018 4:	4
28	Unknown	NPOC	18F0198-67		NPOC 0.5 -	1.000	NPOC:0.4208mg/L		Completed	6/16/2018 4:	29
29	Unknown	NPOC	18F0208-01		NPOC 0.5 -	1.000	NPOC:1.653mg/L		Completed	6/16/2018 5:	30
30	Unknown	NPOC	18F0208-02		NPOC 0.5 -	1.000	NPOC:5.793mg/L		Completed	6/16/2018 5:	31
31	Unknown	NPOC	18F0208-03		NPOC 0.5 -	1.000	NPOC:3.608mg/L		Completed	6/16/2018 6:	32
32	Unknown	NPOC	18F0208-04		NPOC 0.5 -	1.000	NPOC:3.649mg/L		Completed	6/16/2018 6:	33
33	Unknown	NPOC	BGF0300-MRL1		NPOC 0.5 -	1.000	NPOC:0.6830mg/L		Completed	6/16/2018 6:	34
34	Unknown	NPOC	BGF0300-BLK1		NPOC 0.5 -	1.000	NPOC:0.1786mg/L		Completed	6/16/2018 7:	35
35	Unknown	NPOC	BGF0300-BS1		NPOC 0.5 -	1.000	NPOC:18.65mg/L		Completed	6/16/2018 7:	36
36	Unknown	NPOC	18F0118-01		NPOC 0.5 -	1.000	NPOC:13.11mg/L		Completed	6/16/2018 7:	37
37	Unknown	NPOC	BGF0300-DUP2		NPOC 0.5 -	1.000	NPOC:12.97mg/L		Completed	6/16/2018 8:	38
38	Control	NPOC	SEQ-CCV3	CVS 20	CVS 20 pp	1.000	NPOC:19.17ppm	Control valu	Completed	6/16/2018 8:	5
39	Control	NPOC	SEQ-CCB3		ICB CCB.tpl	1.000	NPOC:0.4379mg/L	Control valu	Completed	6/16/2018 9:	6
40	Unknown	NPOC	BGF0300-MS2		NPOC 0.5 -	1.000	NPOC:33.13mg/L		Completed	6/16/2018 9:	39

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes	Status	Date / Time	Vial
41	Unknown	NPOC	18F0118-02		NPOC 0.5 -	1.000	NPOC:16.25mg/L		Completed	6/16/2018 1	40
42	Unknown	NPOC	18F0185-01		NPOC 0.5 -	1.000	NPOC:0.5018mg/L		Completed	6/16/2018 1	41
43	Unknown	NPOC	18F0185-03		NPOC 0.5 -	1.000	NPOC:2.236mg/L		Completed	6/16/2018 1	42
44	Unknown	NPOC	18F0185-04		NPOC 0.5 -	1.000	NPOC:1.668mg/L		Completed	6/16/2018 1	43
45	Unknown	NPOC	18F0185-05		NPOC 0.5 -	1.000	NPOC:3.327mg/L		Completed	6/16/2018 1	44
46	Unknown	NPOC	18F0185-06		NPOC 0.5 -	1.000	NPOC:1.887mg/L		Completed	6/16/2018 1	45
47	Unknown	NPOC	18F0185-07		NPOC 0.5 -	1.000	NPOC:3.373mg/L		Completed	6/16/2018 1	46
48	Unknown	NPOC	18F0185-08		NPOC 0.5 -	1.000	NPOC:0.8693mg/L		Completed	6/16/2018 1	47
49	Unknown	NPOC	BGF0300-DUP1		NPOC 0.5 -	1.000	NPOC:0.9136mg/L		Completed	6/16/2018 1:	48
50	Control	NPOC	SEQ-CCV4	CVS 20	CVS 20 pp	1.000	NPOC:19.00ppm	Control valu	Completed	6/16/2018 1:	5
51	Control	NPOC	SEQ-CCB4		ICB CCB.tpl	1.000	NPOC:0.01119mg/	Control valu	Completed	6/16/2018 1:	6
52	Unknown	NPOC	BGF0300-MS1		NPOC 0.5 -	1.000	NPOC:22.61mg/L		Completed	6/16/2018 2:	49
53	Unknown	NPOC	BGF0293-MRL1		NPOC 0.5 -	1.000	NPOC:0.7214mg/L		Completed	6/16/2018 2:	50
54	Unknown	NPOC	BGF0293-BLK1		NPOC 0.5 -	1.000	NPOC:0.1469mg/L		Completed	6/16/2018 3:	51
55	Unknown	NPOC	BGF0293-BS1		NPOC 0.5 -	1.000	NPOC:18.40mg/L		Completed	6/16/2018 3:	52
56	Unknown	NPOC	18F0076-01		NPOC 0.5 -	1.000	NPOC:4.542mg/L		Completed	6/16/2018 4:	53
57	Unknown	NPOC	BGF0293-DUP1		NPOC 0.5 -	1.000	NPOC:4.609mg/L		Completed	6/16/2018 4:	54
58	Unknown	NPOC	BGF0293-MS1		NPOC 0.5 -	1.000	NPOC:26.41mg/L		Completed	6/16/2018 4:	55
59	Unknown	NPOC	18F0088-01		NPOC 0.5 -	1.000	NPOC:4.768mg/L		Completed	6/16/2018 5:	56
60	Unknown	NPOC	18F0147-01		NPOC 0.5 -	1.000	NPOC:0.2290mg/L		Completed	6/16/2018 5:	57
61	Unknown	NPOC	18F0147-03		NPOC 0.5 -	1.000	NPOC:1.075mg/L		Completed	6/16/2018 6:	58
62	Control	NPOC	SEQ-CCV5	CVS 20	CVS 20 pp	1.000	NPOC:18.63ppm	Control valu	Completed	6/16/2018 6:	5
63	Control	NPOC	SEQ-CCB5		ICB CCB.tpl	1.000	NPOC:0.1094mg/L	Control valu	Completed	6/16/2018 6:	6
64	Unknown	NPOC	18F0147-05		NPOC 0.5 -	1.000	NPOC:0.4770mg/L		Completed	6/16/2018 7:	59
65	Unknown	NPOC	18F0177-01		NPOC 0.5 -	1.000	NPOC:0.2283mg/L		Completed	6/16/2018 7:	60
66	Unknown	NPOC	18F0177-02		NPOC 0.5 -	1.000	NPOC:0.1768mg/L		Completed	6/16/2018 8:	61
67	Unknown	NPOC	18F0177-03		NPOC 0.5 -	1.000	NPOC:0.6260mg/L		Completed	6/16/2018 8:	62
68	Unknown	NPOC	18F0177-04		NPOC 0.5 -	1.000	NPOC:1.236mg/L		Completed	6/16/2018 8:	63
69	Unknown	NPOC	18F0177-05		NPOC 0.5 -	1.000	NPOC:0.3979mg/L		Completed	6/16/2018 9:	64
70	Unknown	NPOC	18F0177-06		NPOC 0.5 -	1.000	NPOC:0.2335mg/L		Completed	6/16/2018 9:	65
71	Unknown	NPOC	18F0177-07		NPOC 0.5 -	1.000	NPOC:0.2912mg/L		Completed	6/16/2018 1	66
72	Unknown	NPOC	18F0177-08		NPOC 0.5 -	1.000	NPOC:0.1771mg/L		Completed	6/16/2018 1	67
73	Unknown	NPOC	18F0178-01		NPOC 0.5 -	1.000	NPOC:0.2155mg/L		Completed	6/16/2018 1	68
74	Control	NPOC	SEQ-CCV6	CVS 20	CVS 20 pp	1.000	NPOC:20.75ppm	Control valu	Completed	6/16/2018 1	7
75	Control	NPOC	SEQ-CCB6		ICB CCB.tpl	1.000	NPOC:0.05203mg/	Control valu	Completed	6/16/2018 1	8
76	Unknown	NPOC	SEQ-IFA2		NPOC 0.5 -	1.000	NPOC:20.89mg/L		Completed	6/17/2018 1	2
77	Control	NPOC	SEQ-CCV7	CVS 20	CVS 20 pp	1.000	NPOC:21.91ppm	Control valu	Completed	6/17/2018 1	7
78	Control	NPOC	SEQ-CCB7		ICB CCB.tpl	1.000	NPOC:0.1923mg/L	Control valu	Completed	6/17/2018 1	8

TOC-Control L Report

CDE
2018_06_15_001.tlx

Instr.Information

Instrument Options: TOC/ASI/IC Unit/
Catalyst: Regular Sensitivity

Sample

Sample Name: Rinse
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status: Completed
Chk. Result:

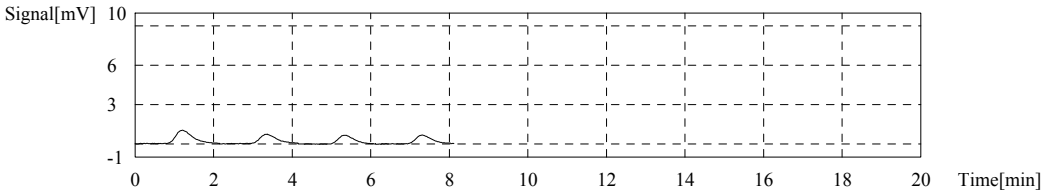
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2247mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.990	0.3482mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 6:08:35 PM
2	1.996	0.2325mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 6:11:56 PM
3	1.897	0.2209mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 6:15:24 PM
4	1.896	0.2208mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 6:18:56 PM

Mean Area 1.930
Mean Conc. 0.2247mg/L



Control Sample

Sample Name: SEQ-ICV1
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status: Completed
Chk. Result: Control value: 19.00 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

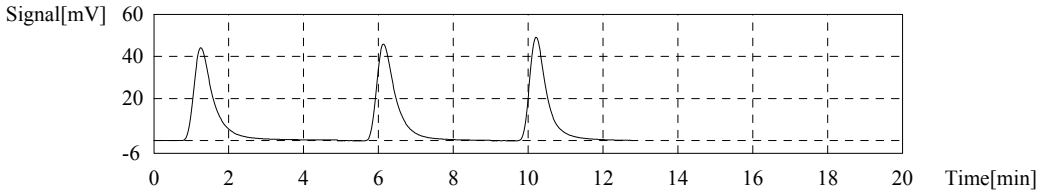
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:19.00ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	164.9	19.03ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 6:31:33 PM
2	166.5	19.21ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 6:36:37 PM
3	162.7	18.77ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 6:41:21 PM

Mean Area 164.7
Mean Conc. 19.00ppm



Control Sample

Sample Name: SEQ-ICB1
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1736 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

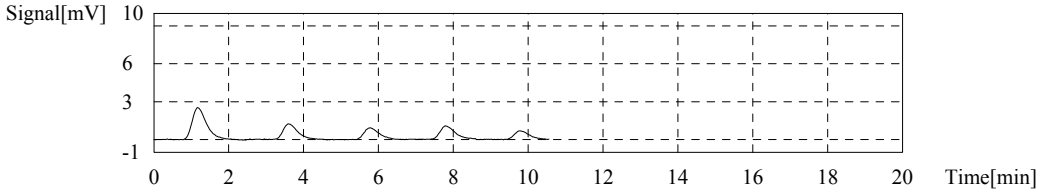
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1736mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.986	0.6361mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 6:51:39 PM
2	3.585	0.2400mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 6:54:52 PM
3	2.632	0.1290mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 6:58:15 PM
4	2.828	0.1518mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 7:01:43 PM
5	1.874	0.04073mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 7:05:11 PM

Mean Area 3.015
Mean Conc. 0.1736mg/L



Sample

Sample Name: SEQ-IFA1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

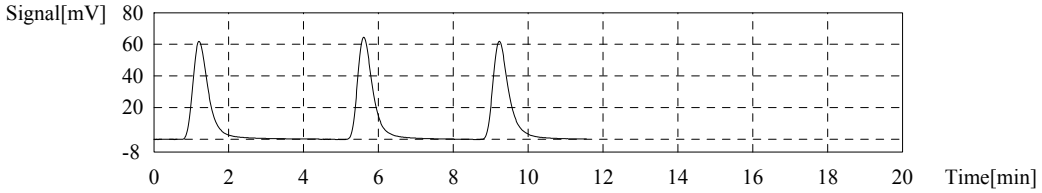
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:22.10mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	187.4	21.82mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 7:17:20 PM
2	191.3	22.28mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 7:21:57 PM
3	190.6	22.20mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 7:26:29 PM

Mean Area 189.8
Mean Conc. 22.10mg/L



Sample

Sample Name: BGF0336-MRL1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

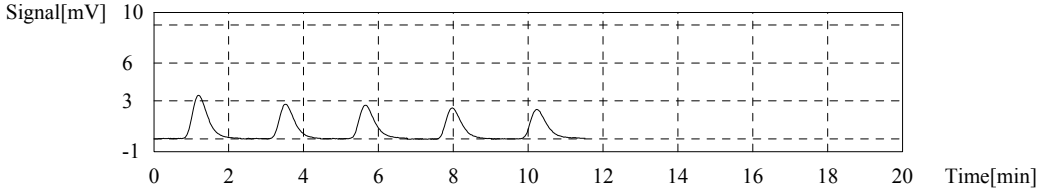
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8542mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.853	1.147mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 7:36:41 PM
2	7.685	0.8950mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 7:40:17 PM
3	7.785	0.9067mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 7:44:15 PM
4	7.208	0.8395mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 7:47:58 PM
5	7.111	0.8282mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 7:52:00 PM

Mean Area 7.335
Mean Conc. 0.8542mg/L



Sample

Sample Name: BGF0336-BLK1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

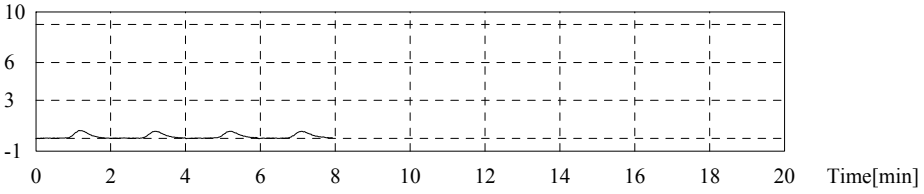
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1823mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.619	0.1886mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 8:02:10 PM
2	1.539	0.1792mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 8:05:57 PM
3	1.401	0.1632mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 8:09:38 PM
4	1.538	0.1791mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 8:13:32 PM

Mean Area 1.565
Mean Conc. 0.1823mg/L



Sample

Sample Name: BGF0336-BS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

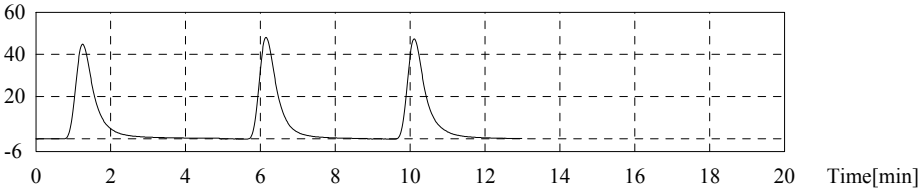
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:19.34mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	163.7	19.06mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 8:26:09 PM
2	166.7	19.41mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 8:31:05 PM
3	167.8	19.54mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 8:36:12 PM

Mean Area 166.1
Mean Conc. 19.34mg/L



Sample

Sample Name: 18F0198-41
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

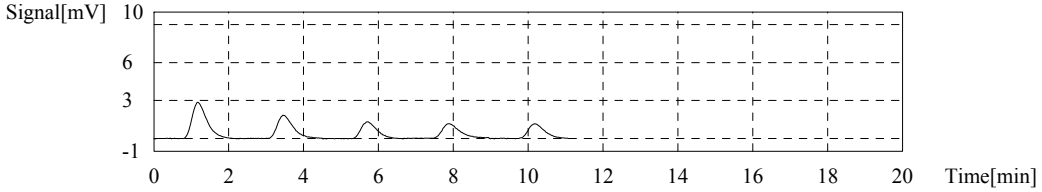
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4374mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.077	0.9407mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 8:46:21 PM
2	5.314	0.6189mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 8:50:06 PM
3	3.959	0.4611mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 8:53:49 PM
4	3.665	0.4268mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 8:57:43 PM
5	3.642	0.4242mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 9:01:29 PM

Mean Area 3.755
Mean Conc. 0.4374mg/L



Sample

Sample Name: 18F0198-43
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

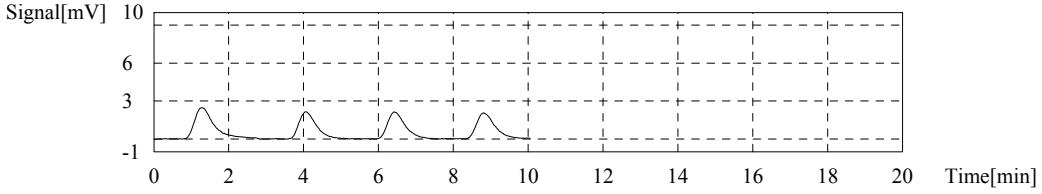
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8106mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.033	1.052mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 9:11:59 PM
2	6.871	0.8002mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 9:15:20 PM
3	7.089	0.8256mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 9:19:07 PM
4	6.921	0.8060mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 9:23:03 PM

Mean Area 6.960
Mean Conc. 0.8106mg/L



Sample

Sample Name: 18F0198-45
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

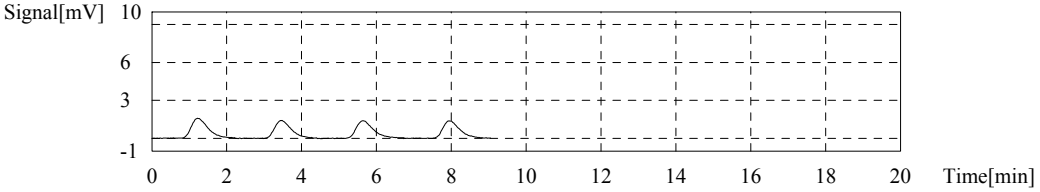
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5076mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.841	0.5638mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 9:33:25 PM
2	4.319	0.5030mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 9:37:10 PM
3	4.407	0.5132mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 9:41:05 PM
4	4.350	0.5066mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 9:44:53 PM

Mean Area 4.359
Mean Conc. 0.5076mg/L



Sample

Sample Name: 18F0198-47
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

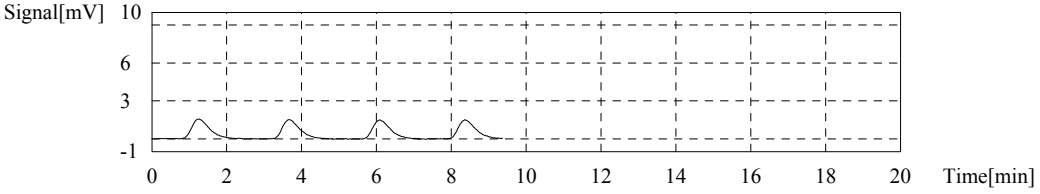
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5703mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.147	0.5994mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 9:55:00 PM
2	4.988	0.5809mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 9:58:46 PM
3	4.876	0.5679mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 10:02:27 PM
4	4.826	0.5620mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 10:06:11 PM

Mean Area 4.897
Mean Conc. 0.5703mg/L



Sample

Sample Name: 18F0198-49
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

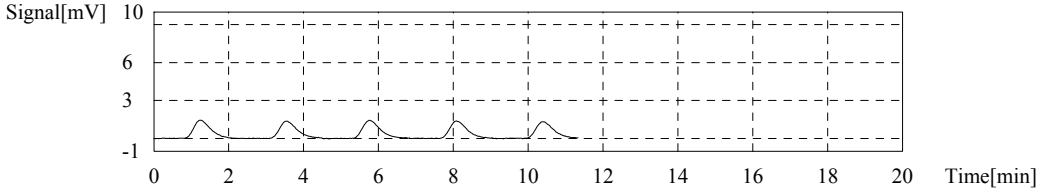
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5315mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.592	0.5348mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 10:16:10 PM
2	4.365	0.5084mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 10:19:53 PM
3	4.648	0.5413mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 10:23:47 PM
4	4.450	0.5183mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 10:27:32 PM
5	4.232	0.4929mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 10:31:13 PM

Mean Area 4.563
Mean Conc. 0.5315mg/L



Sample

Sample Name: 18F0198-51
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

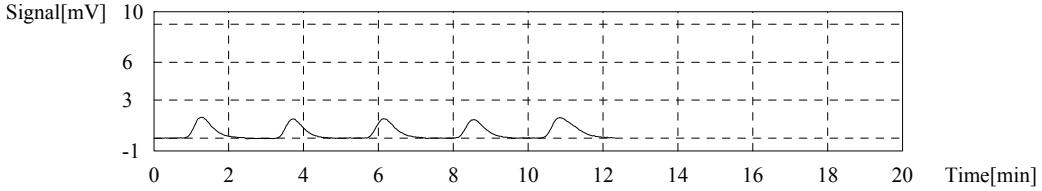
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6088mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.694	0.6631mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 10:41:21 PM
2	5.211	0.6069mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 10:45:07 PM
3	5.412	0.6303mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 10:48:53 PM
4	5.059	0.5892mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 10:52:34 PM
5	7.023	0.8179mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 10:56:48 PM

Mean Area 5.227
Mean Conc. 0.6088mg/L



Control Sample

Sample Name: SEQ-CCV1
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 19.21 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

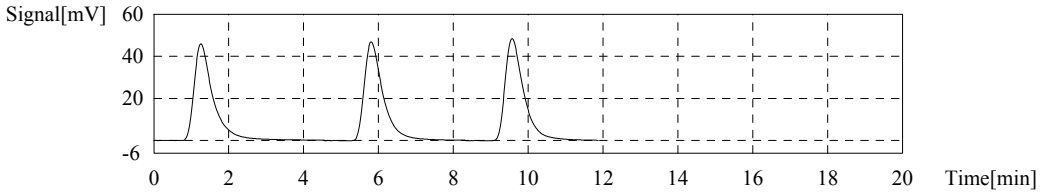
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:19.21ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	164.1	18.93ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 11:09:14 PM
2	165.9	19.14ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 11:13:59 PM
3	169.3	19.54ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 11:18:32 PM

Mean Area 166.4
Mean Conc. 19.21ppm



Control Sample

Sample Name: SEQ-CCB1
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.03084 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

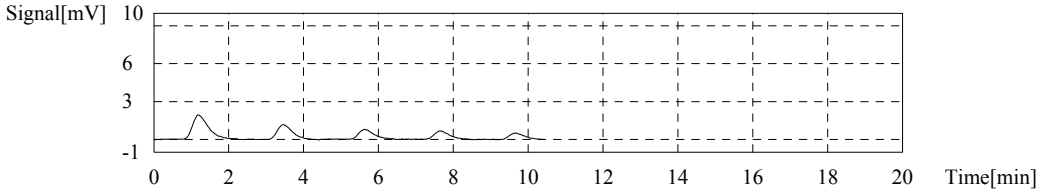
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.03084mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.558	0.4698mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 11:28:38 PM
2	3.460	0.2254mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 11:32:04 PM
3	2.127	0.07020mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 11:35:24 PM
4	1.824	0.03491mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 11:38:54 PM
5	1.416	-0.01260mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 11:42:21 PM

Mean Area 1.789
Mean Conc. 0.03084mg/L



Sample

Sample Name: 18F0198-53
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

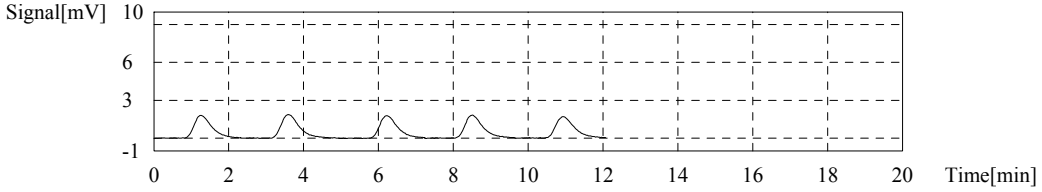
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6696mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.779	0.6730mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 11:52:31 PM
2	6.382	0.7433mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/15/2018 11:56:37 PM
3	5.699	0.6637mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 12:00:03 AM
4	5.997	0.6984mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 12:03:58 AM
5	5.770	0.6720mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 12:07:45 AM

Mean Area 5.749
Mean Conc. 0.6696mg/L



Sample

Sample Name: 18F0198-55
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

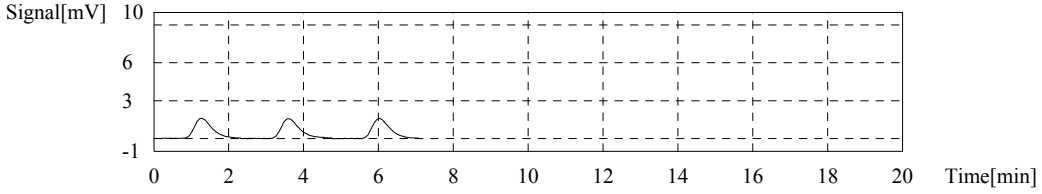
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6104mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.143	0.5990mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 12:17:46 AM
2	5.302	0.6175mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 12:21:40 AM
3	5.279	0.6148mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 12:25:22 AM

Mean Area 5.241
Mean Conc. 0.6104mg/L



Sample

Sample Name: 18F0198-57
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

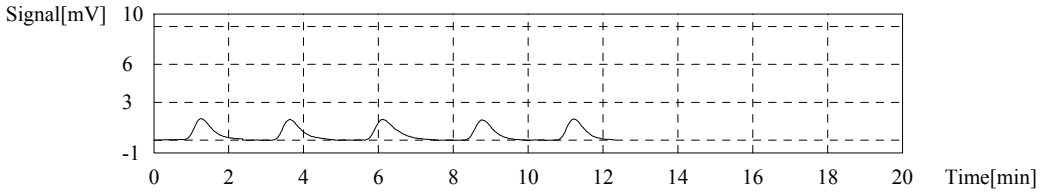
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6445mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.427	0.6320mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 12:35:26 AM
2	5.762	0.6711mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 12:39:19 AM
3	6.226	0.7251mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 12:43:18 AM
4	5.619	0.6544mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 12:46:52 AM
5	5.557	0.6472mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 12:50:33 AM

Mean Area 5.534
Mean Conc. 0.6445mg/L



Sample

Sample Name: 18F0198-59
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

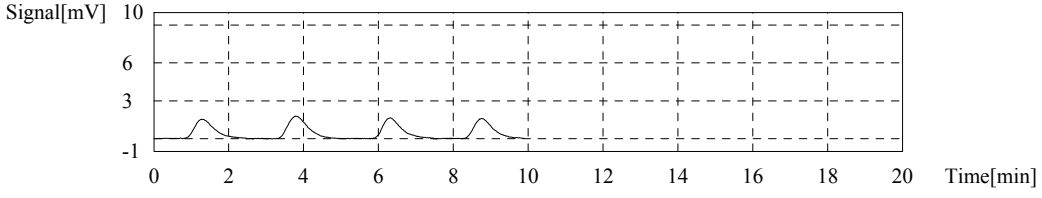
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6453mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.454	0.6352mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 1:00:43 AM
2	6.825	0.7948mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 1:04:36 AM
3	5.573	0.6490mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 1:08:15 AM
4	5.595	0.6516mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 1:12:01 AM

Mean Area 5.541
Mean Conc. 0.6453mg/L



Sample

Sample Name: 18F0198-61
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

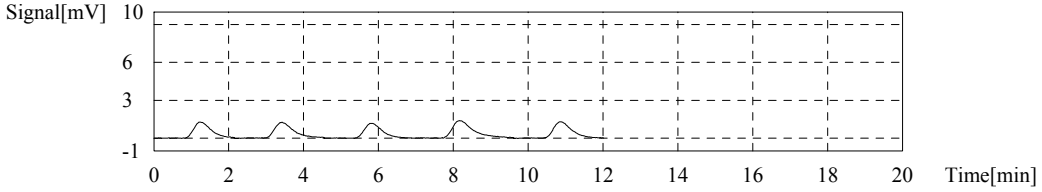
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4665mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.942	0.4591mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 1:21:52 AM
2	4.155	0.4839mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 1:25:54 AM
3	3.919	0.4564mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 1:29:37 AM
4	5.262	0.6128mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 1:33:47 AM
5	4.392	0.5115mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 1:37:16 AM

Mean Area 4.005
Mean Conc. 0.4665mg/L



Sample

Sample Name: 18F0198-63
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

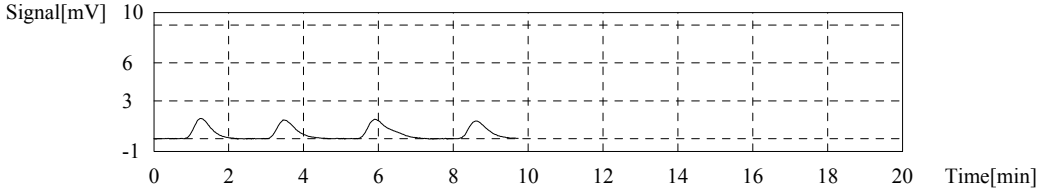
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5872mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.059	0.5892mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 1:47:11 AM
2	5.097	0.5936mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 1:51:10 AM
3	6.242	0.7270mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 1:55:14 AM
4	4.969	0.5787mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 1:58:43 AM

Mean Area 5.042
Mean Conc. 0.5872mg/L



Sample

Sample Name: BGF0336-DUP1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

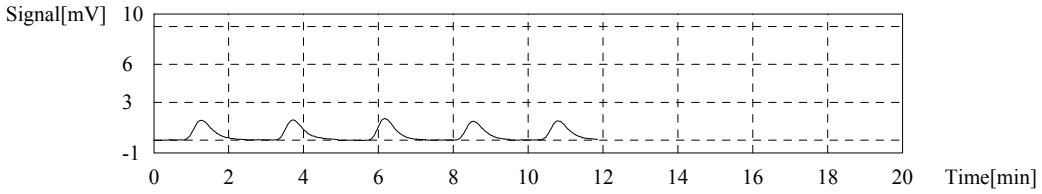
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6005mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.480	0.6382mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 2:08:51 AM
2	5.301	0.6174mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 2:12:41 AM
3	5.625	0.6551mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 2:16:19 AM
4	5.054	0.5886mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 2:20:02 AM
5	5.113	0.5955mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 2:23:53 AM

Mean Area 5.156
Mean Conc. 0.6005mg/L



Sample

Sample Name: BGF0336-MS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

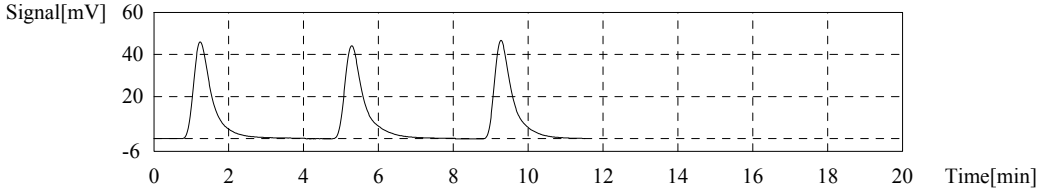
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.54mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	158.1	18.41mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 2:35:37 AM
2	160.0	18.63mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 2:40:37 AM
3	159.6	18.59mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 2:45:04 AM

Mean Area 159.2
Mean Conc. 18.54mg/L



Sample

Sample Name: BGF0336-MSD1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

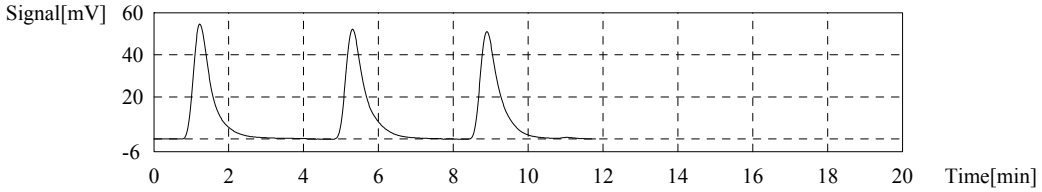
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:21.91mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	187.3	21.81mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 2:57:01 AM
2	190.7	22.21mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 3:01:36 AM
3	186.4	21.71mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 3:06:43 AM

Mean Area 188.1
Mean Conc. 21.91mg/L



Sample

Sample Name: 18F0198-65
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

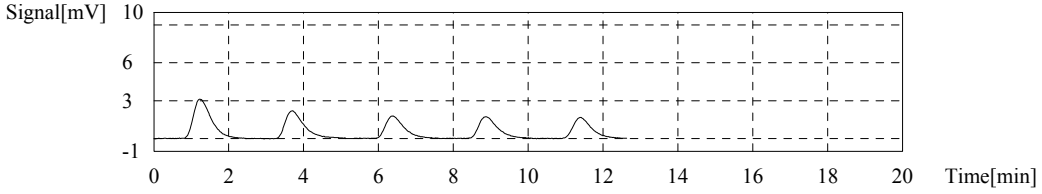
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6877mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.32	1.202mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 3:17:03 AM
2	7.718	0.8988mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 3:21:03 AM
3	6.110	0.7116mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 3:24:40 AM
4	5.994	0.6981mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 3:28:27 AM
5	5.611	0.6535mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 3:32:15 AM

Mean Area 5.905
Mean Conc. 0.6877mg/L



Control Sample

Sample Name: SEQ-CCV2
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 19.56 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

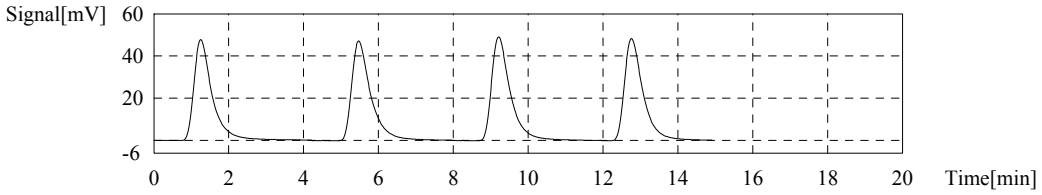
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:19.56ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	163.9	18.91ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 3:44:39 AM
2	168.8	19.48ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 3:49:23 AM
3	171.9	19.84ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 3:53:56 AM
4	167.8	19.36ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 3:58:20 AM

Mean Area 169.5
Mean Conc. 19.56ppm



Control Sample

Sample Name: SEQ-CCB2
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.06247 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

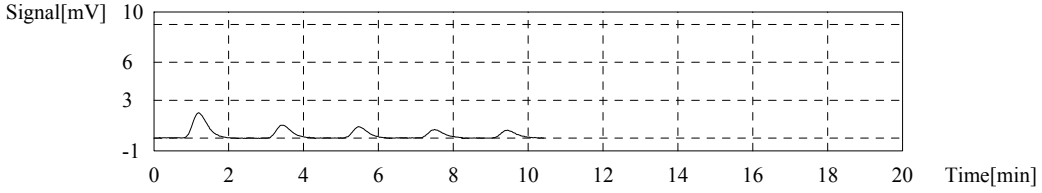
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.06247mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.669	0.4827mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 4:08:27 AM
2	2.916	0.1621mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 4:11:45 AM
3	2.531	0.1172mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 4:15:14 AM
4	1.790	0.03095mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 4:18:40 AM
5	1.861	0.03922mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 4:22:24 AM

Mean Area 2.061
Mean Conc. 0.06247mg/L



Sample

Sample Name: 18F0198-67
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

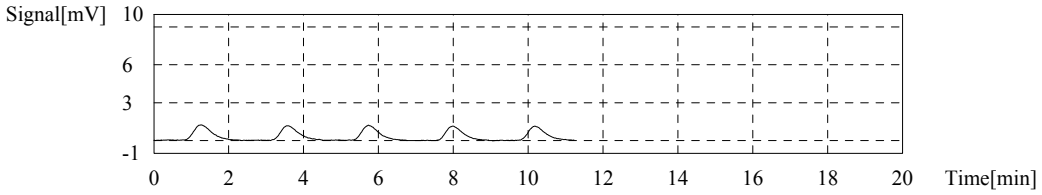
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4208mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.054	0.4721mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 4:33:11 AM
2	3.613	0.4208mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 4:36:50 AM
3	3.821	0.4450mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 4:40:41 AM
4	3.608	0.4202mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 4:44:24 AM
5	3.618	0.4214mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 4:48:17 AM

Mean Area 3.613
Mean Conc. 0.4208mg/L



Sample

Sample Name: 18F0208-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

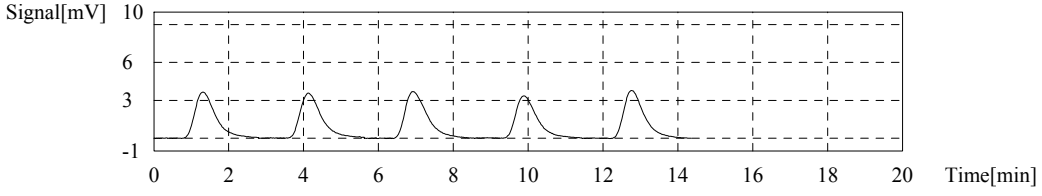
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.653mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.06	1.637mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 4:58:49 AM
2	13.84	1.612mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 5:02:38 AM
3	15.44	1.798mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 5:06:35 AM
4	13.06	1.521mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 5:10:27 AM
5	14.67	1.708mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 5:14:21 AM

Mean Area 14.19
Mean Conc. 1.653mg/L



Sample

Sample Name: 18F0208-02
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

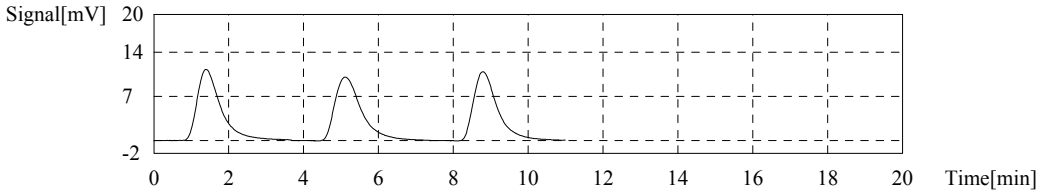
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.793mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	49.45	5.759mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 5:25:55 AM
2	50.47	5.878mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 5:30:37 AM
3	49.30	5.742mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 5:35:12 AM

Mean Area 49.74
Mean Conc. 5.793mg/L



Sample

Sample Name: 18F0208-03
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

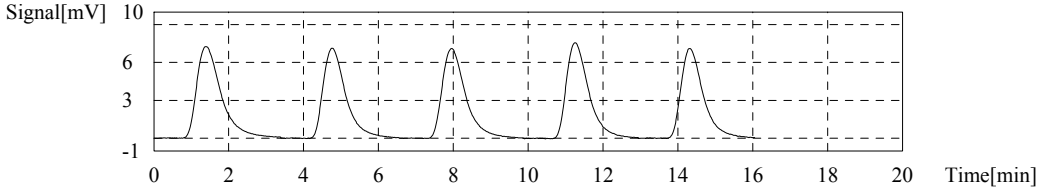
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.608mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	32.94	3.836mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 5:46:28 AM
2	30.18	3.515mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 5:50:37 AM
3	31.16	3.629mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 5:54:56 AM
4	31.60	3.680mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 5:58:58 AM
5	29.46	3.431mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 6:03:04 AM

Mean Area 30.98
Mean Conc. 3.608mg/L



Sample

Sample Name: 18F0208-04
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

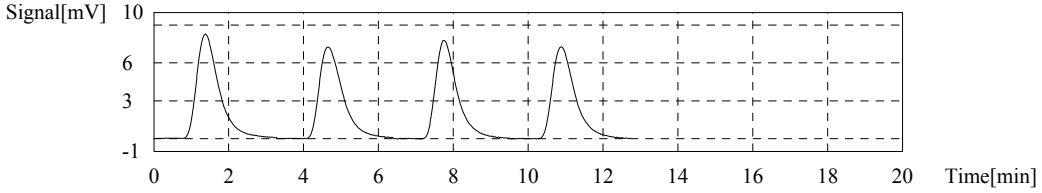
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.649mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	34.40	4.006mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 6:14:14 AM
2	31.47	3.665mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 6:18:19 AM
3	31.49	3.667mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 6:22:25 AM
4	31.03	3.614mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 6:26:38 AM

Mean Area 31.33
Mean Conc. 3.649mg/L



Sample

Sample Name: BGF0300-MRL1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

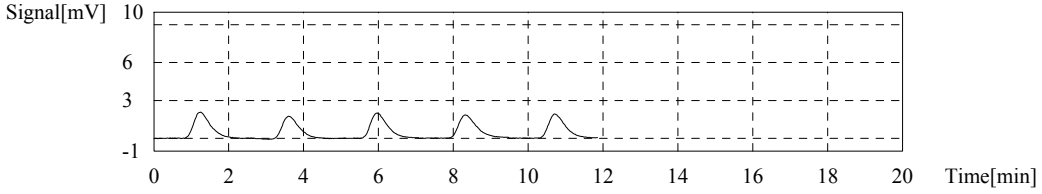
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6830mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.569	0.7650mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 6:36:52 AM
2	5.734	0.6678mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 6:40:41 AM
3	6.195	0.7215mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 6:44:25 AM
4	5.952	0.6932mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 6:48:17 AM
5	5.908	0.6881mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 6:52:01 AM

Mean Area 5.865
Mean Conc. 0.6830mg/L



Sample

Sample Name: BGF0300-BLK1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

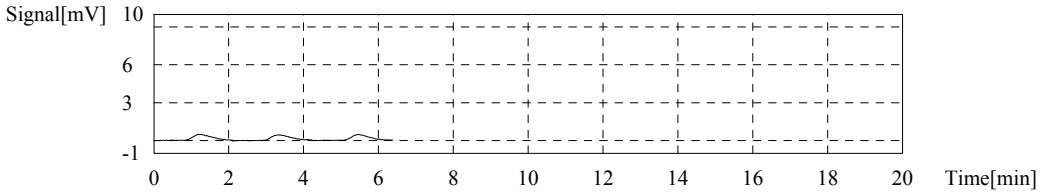
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1786mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.578	0.1838mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 7:01:49 AM
2	1.571	0.1830mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 7:05:40 AM
3	1.452	0.1691mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 7:09:26 AM

Mean Area 1.534
Mean Conc. 0.1786mg/L



Sample

Sample Name: BGF0300-BS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

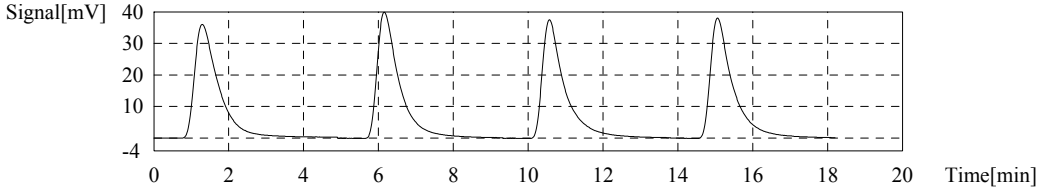
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.65mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	161.1	18.76mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 7:22:02 AM
2	165.2	19.24mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 7:27:26 AM
3	158.2	18.42mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 7:32:54 AM
4	161.0	18.75mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 7:38:18 AM

Mean Area 160.1
Mean Conc. 18.65mg/L



Sample

Sample Name: 18F0118-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

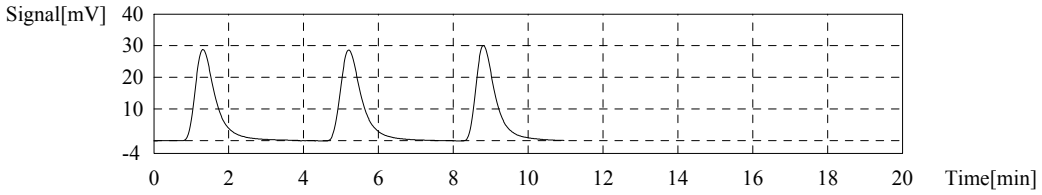
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:13.11mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	111.1	12.94mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 7:50:01 AM
2	114.8	13.37mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 7:54:39 AM
3	111.7	13.01mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 7:59:05 AM

Mean Area 112.5
Mean Conc. 13.11mg/L



Sample

Sample Name: BGF0300-DUP2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

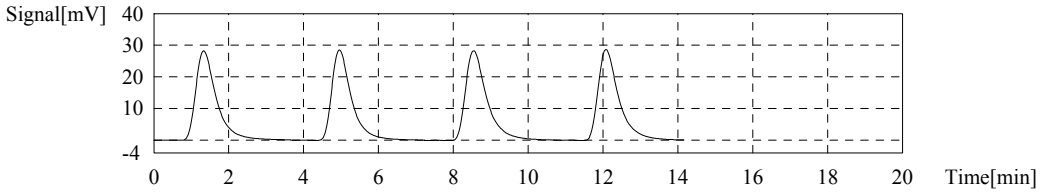
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:12.97mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	109.1	12.71mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 8:10:37 AM
2	105.5	12.29mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 8:15:10 AM
3	113.3	13.20mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 8:19:41 AM
4	111.8	13.02mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 8:24:04 AM

Mean Area 111.4
Mean Conc. 12.97mg/L



Control Sample

Sample Name: SEQ-CCV3
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 19.17 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

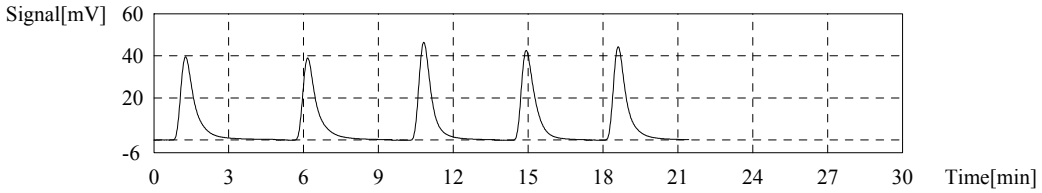
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:19.17ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	160.2	18.48ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 8:37:01 AM
2	156.8	18.08ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 8:42:38 AM
3	167.5	19.33ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 8:47:44 AM
4	164.1	18.93ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 8:52:24 AM
5	166.8	19.25ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 8:57:29 AM

Mean Area 166.1
Mean Conc. 19.17ppm



Control Sample

Sample Name: SEQ-CCB3
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.4379 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

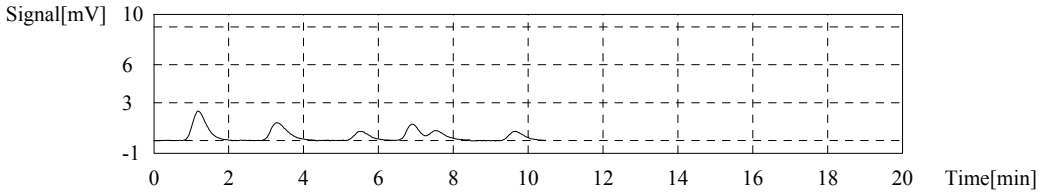
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.4379mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.184	0.5427mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 9:07:27 AM
2	4.373	0.3318mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 9:11:06 AM
3	2.039	0.05995mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 9:14:24 AM
4	5.295	0.4391mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 9:17:58 AM
5	2.080	0.06473mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 9:21:23 AM

Mean Area 5.284
Mean Conc. 0.4379mg/L



Sample

Sample Name: BGF0300-MS2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

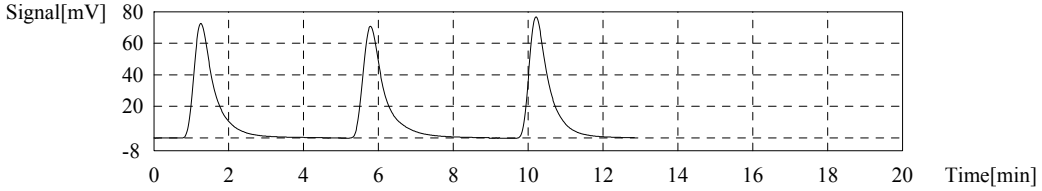
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:33.13mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	278.7	32.46mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 9:33:41 AM
2	285.4	33.24mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 9:39:07 AM
3	289.4	33.70mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 9:43:59 AM

Mean Area 284.5
Mean Conc. 33.13mg/L



Sample

Sample Name: 18F0118-02
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

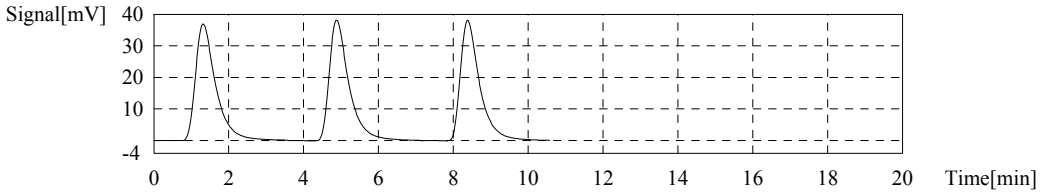
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:16.25mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	139.7	16.27mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 9:55:27 AM
2	141.0	16.42mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 9:59:57 AM
3	137.8	16.05mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 10:04:24 AM

Mean Area 139.5
Mean Conc. 16.25mg/L



Sample

Sample Name: 18F0185-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

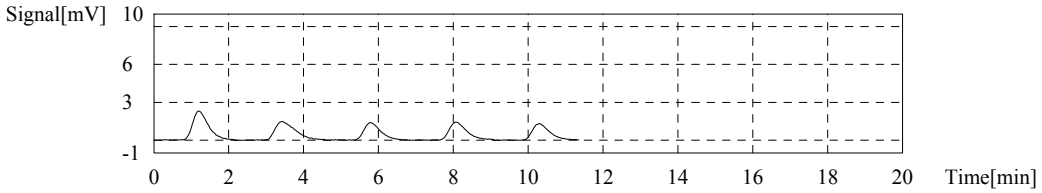
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5018mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.668	0.7766mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 10:14:28 AM
2	5.352	0.6233mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 10:18:27 AM
3	4.337	0.5051mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 10:22:07 AM
4	4.444	0.5176mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 10:25:52 AM
5	4.146	0.4828mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 10:29:42 AM

Mean Area 4.309
Mean Conc. 0.5018mg/L



Sample

Sample Name: 18F0185-03
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

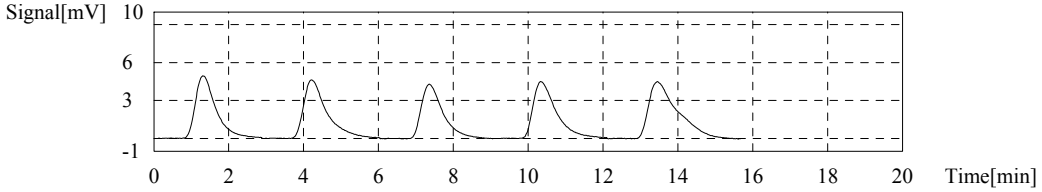
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.236mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.66	2.173mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 10:40:19 AM
2	19.85	2.312mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 10:44:28 AM
3	17.54	2.043mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 10:48:28 AM
4	19.08	2.222mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 10:52:32 AM
5	24.55	2.859mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 10:57:06 AM

Mean Area 19.20
Mean Conc. 2.236mg/L



Sample

Sample Name: 18F0185-04
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

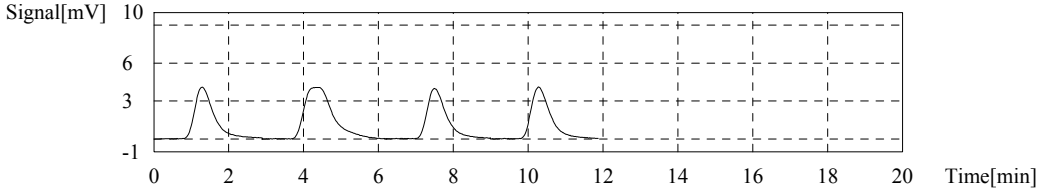
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.668mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.39	1.676mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 11:07:54 AM
2	21.84	2.544mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 11:12:13 AM
3	14.07	1.639mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 11:15:59 AM
4	14.51	1.690mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 11:19:52 AM

Mean Area 14.32
Mean Conc. 1.668mg/L



Sample

Sample Name: 18F0185-05
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

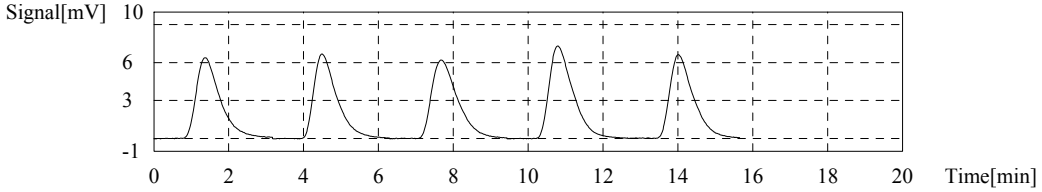
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.327mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	28.07	3.269mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 11:30:56 AM
2	28.77	3.351mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 11:35:03 AM
3	29.92	3.485mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 11:39:12 AM
4	32.54	3.790mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 11:43:25 AM
5	28.87	3.362mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 11:47:25 AM

Mean Area 28.57
Mean Conc. 3.327mg/L



Sample

Sample Name: 18F0185-06
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

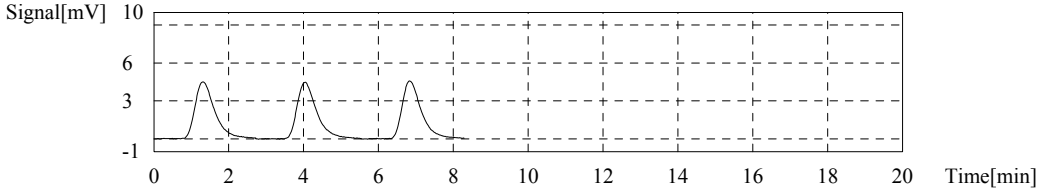
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.887mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	16.32	1.901mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 11:58:02 AM
2	16.19	1.886mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 12:01:55 PM
3	16.10	1.875mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 12:05:40 PM

Mean Area 16.20
Mean Conc. 1.887mg/L



Sample

Sample Name: 18F0185-07
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

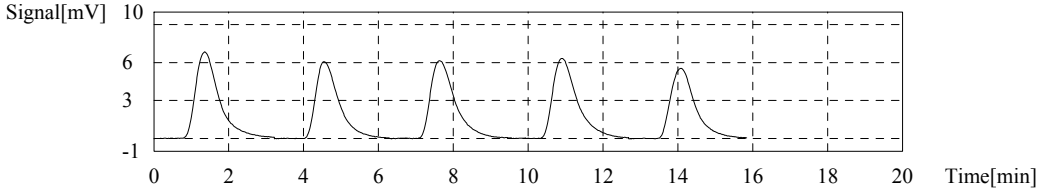
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.373mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	29.66	3.454mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 12:16:40 PM
2	26.03	3.031mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 12:20:44 PM
3	28.25	3.290mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 12:25:00 PM
4	28.97	3.374mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 12:29:08 PM
5	25.37	2.955mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 12:33:17 PM

Mean Area 28.96
Mean Conc. 3.373mg/L



Sample

Sample Name: 18F0185-08
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

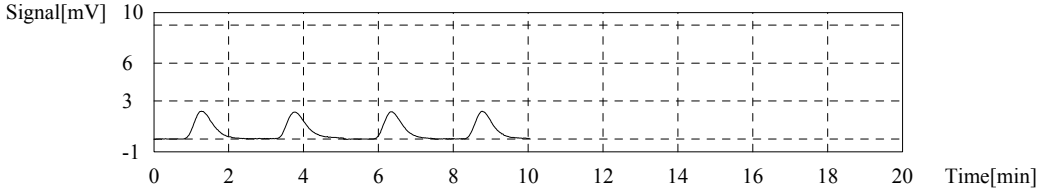
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8693mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.851	0.9143mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 12:43:41 PM
2	7.584	0.8832mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 12:47:34 PM
3	7.455	0.8682mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 12:51:12 PM
4	7.355	0.8566mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 12:55:05 PM

Mean Area 7.465
Mean Conc. 0.8693mg/L



Sample

Sample Name: BGF0300-DUP1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

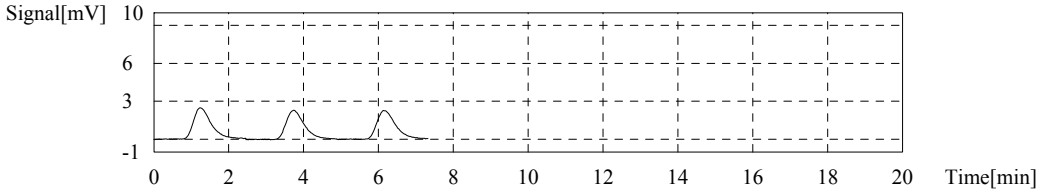
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.9136mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.022	0.9343mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 1:05:34 PM
2	7.738	0.9012mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 1:09:20 PM
3	7.774	0.9054mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 1:13:07 PM

Mean Area 7.845
Mean Conc. 0.9136mg/L



Control Sample

Sample Name: SEQ-CCV4
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 19.00 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

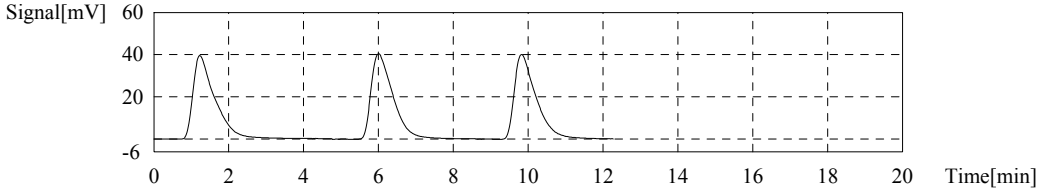
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:19.00ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	163.6	18.88ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 1:25:37 PM
2	166.1	19.17ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 1:30:27 PM
3	164.3	18.96ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 1:35:08 PM

Mean Area 164.7
Mean Conc. 19.00ppm



Control Sample

Sample Name: SEQ-CCB4
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.01119 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

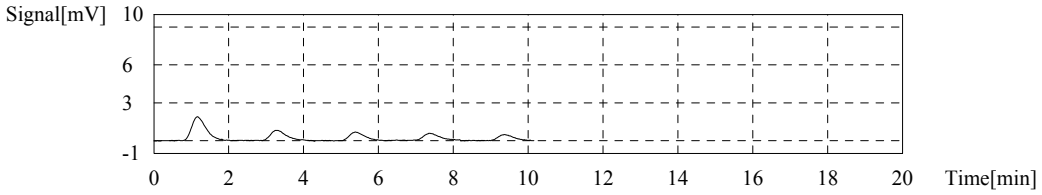
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.01119mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.091	0.4154mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 1:45:07 PM
2	2.387	0.1005mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 1:48:38 PM
3	1.923	0.04644mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 1:51:59 PM
4	1.567	0.00498mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 1:55:31 PM
5	1.371	-0.01785mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 1:58:59 PM

Mean Area 1.620
Mean Conc. 0.01119mg/L



Sample

Sample Name: BGF0300-MS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

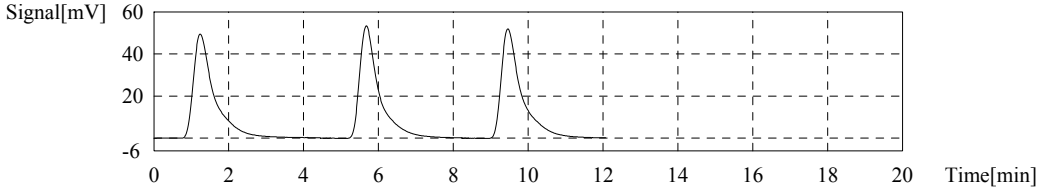
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:22.61mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	192.1	22.37mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 2:11:25 PM
2	193.5	22.54mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 2:16:12 PM
3	196.7	22.91mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 2:21:02 PM

Mean Area 194.1
Mean Conc. 22.61mg/L



Sample

Sample Name: BGF0293-MRL1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

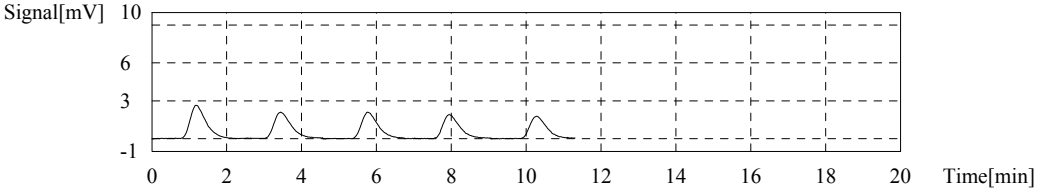
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7214mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.790	0.9072mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 2:31:12 PM
2	6.552	0.7631mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 2:35:05 PM
3	6.279	0.7313mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 2:38:43 PM
4	5.753	0.6700mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 2:42:38 PM
5	5.423	0.6316mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 2:46:20 PM

Mean Area 6.195
Mean Conc. 0.7214mg/L



Sample

Sample Name: BGF0293-BLK1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

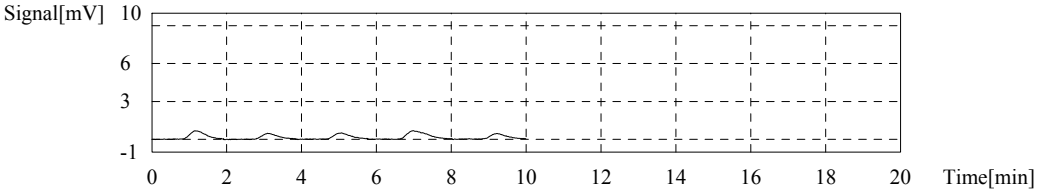
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1469mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.808	0.2106mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 2:56:00 PM
2	1.207	0.1406mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 2:59:46 PM
3	1.356	0.1579mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 3:03:34 PM
4	2.428	0.2828mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 3:07:40 PM
5	1.221	0.1422mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 3:11:10 PM

Mean Area 1.261
Mean Conc. 0.1469mg/L



Sample

Sample Name: BGF0293-BS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

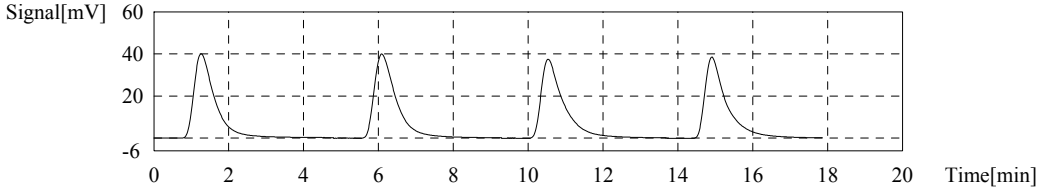
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.40mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	158.2	18.42mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 3:23:42 PM
2	165.9	19.32mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 3:29:10 PM
3	158.3	18.44mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 3:34:32 PM
4	157.4	18.33mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 3:39:42 PM

Mean Area 158.0
Mean Conc. 18.40mg/L



Sample

Sample Name: 18F0076-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

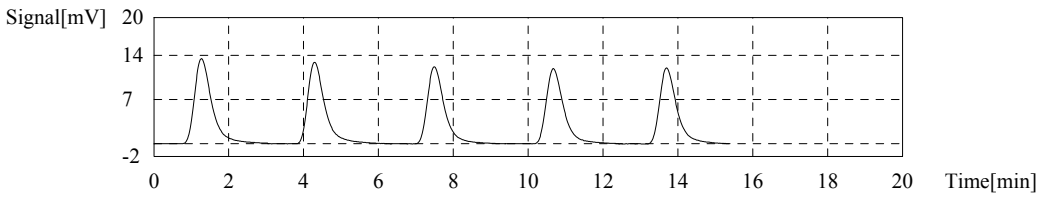
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.542mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	43.68	5.087mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 3:50:38 PM
2	41.55	4.839mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 3:54:48 PM
3	39.19	4.564mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 3:58:57 PM
4	38.92	4.533mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 4:02:57 PM
5	38.88	4.528mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 4:06:54 PM

Mean Area 39.00
Mean Conc. 4.542mg/L



Sample

Sample Name: BGF0293-DUP1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

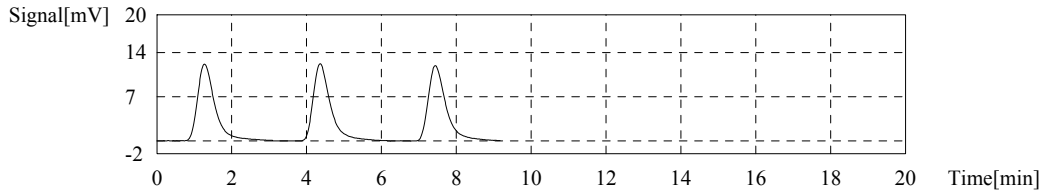
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.609mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	39.23	4.569mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 4:17:52 PM
2	39.70	4.624mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 4:21:56 PM
3	39.79	4.634mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 4:25:56 PM

Mean Area 39.57
Mean Conc. 4.609mg/L



Sample

Sample Name: BGF0293-MS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

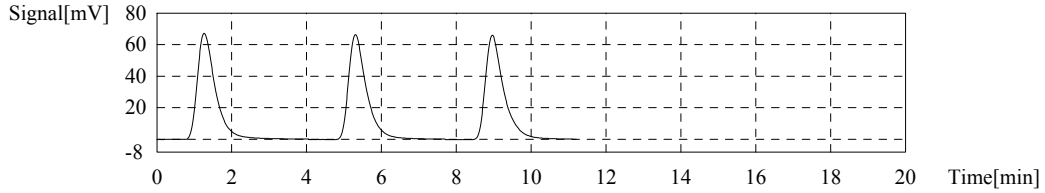
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.41mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	229.2	26.69mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 4:37:53 PM
2	223.8	26.06mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 4:42:31 PM
3	227.4	26.48mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 4:47:00 PM

Mean Area 226.8
Mean Conc. 26.41mg/L



Sample

Sample Name: 18F0088-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

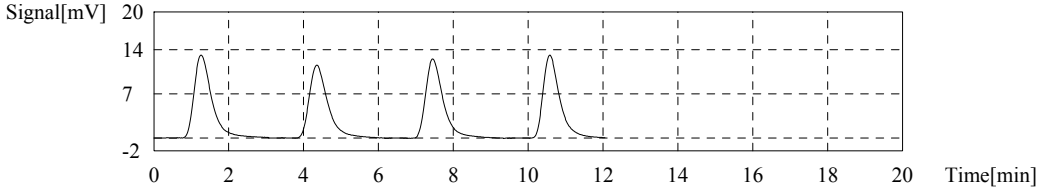
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.768mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	43.05	5.014mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 4:57:57 PM
2	40.26	4.689mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 5:02:03 PM
3	41.61	4.846mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 5:06:12 PM
4	40.95	4.769mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 5:09:54 PM

Mean Area 40.94
Mean Conc. 4.768mg/L



Sample

Sample Name: 18F0147-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

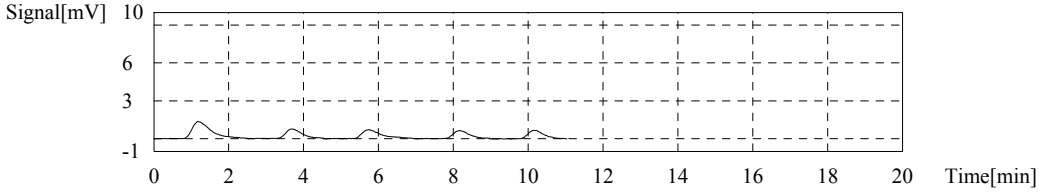
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2290mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.743	0.5524mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 5:20:14 PM
2	2.148	0.2502mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 5:23:33 PM
3	2.511	0.2924mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 5:27:44 PM
4	1.767	0.2058mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 5:31:05 PM
5	1.983	0.2309mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 5:34:56 PM

Mean Area 1.966
Mean Conc. 0.2290mg/L



Sample

Sample Name: 18F0147-03
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

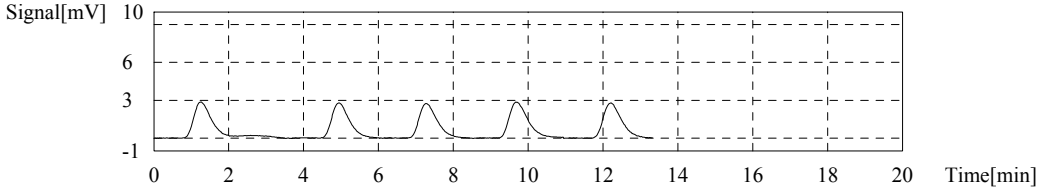
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.075mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.91	1.271mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 5:46:21 PM
2	9.098	1.060mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 5:49:40 PM
3	9.119	1.062mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 5:53:31 PM
4	9.727	1.133mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 5:57:23 PM
5	9.469	1.103mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 6:01:03 PM

Mean Area 9.229
Mean Conc. 1.075mg/L



Control Sample

Sample Name: SEQ-CCV5
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.63 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

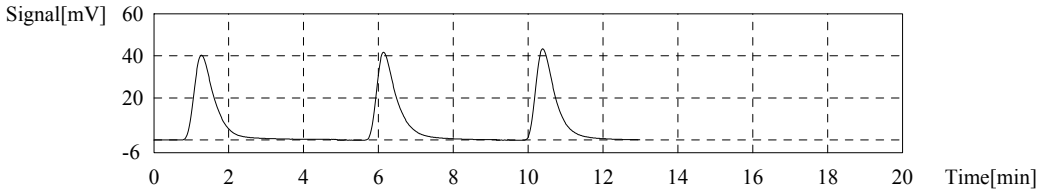
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.63ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	158.2	18.25ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 6:13:46 PM
2	163.1	18.82ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 6:19:00 PM
3	163.2	18.83ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 6:23:49 PM

Mean Area 161.5
Mean Conc. 18.63ppm



Control Sample

Sample Name: SEQ-CCB5
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1094 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

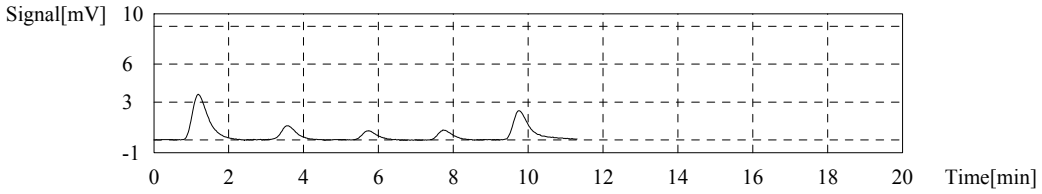
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1094mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.90	1.092mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 6:34:06 PM
2	3.081	0.1813mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 6:37:21 PM
3	2.061	0.06251mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 6:40:43 PM
4	2.249	0.08441mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 6:44:12 PM
5	7.133	0.6532mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 6:48:26 PM

Mean Area 2.464
Mean Conc. 0.1094mg/L



Sample

Sample Name: 18F0147-05
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

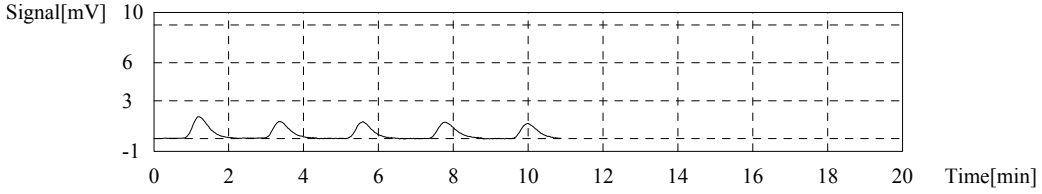
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4770mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.060	0.5893mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 6:58:38 PM
2	3.954	0.4605mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 7:02:28 PM
3	4.030	0.4693mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 7:06:14 PM
4	4.304	0.5013mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 7:10:04 PM
5	3.648	0.4249mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 7:13:43 PM

Mean Area 4.096
Mean Conc. 0.4770mg/L



Sample

Sample Name: 18F0177-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

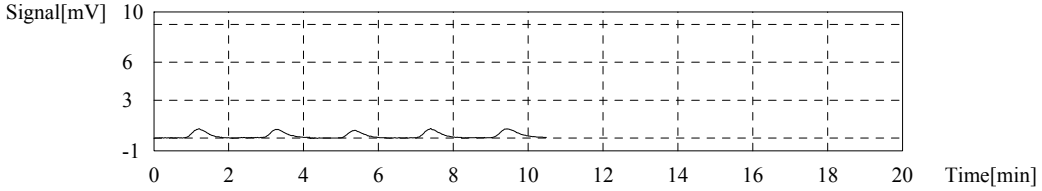
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2283mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.031	0.2365mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 7:23:34 PM
2	1.809	0.2107mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 7:27:19 PM
3	1.655	0.1927mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 7:31:04 PM
4	2.040	0.2376mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 7:34:50 PM
5	2.375	0.2766mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 7:38:52 PM

Mean Area 1.960
Mean Conc. 0.2283mg/L



Sample

Sample Name: 18F0177-02
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

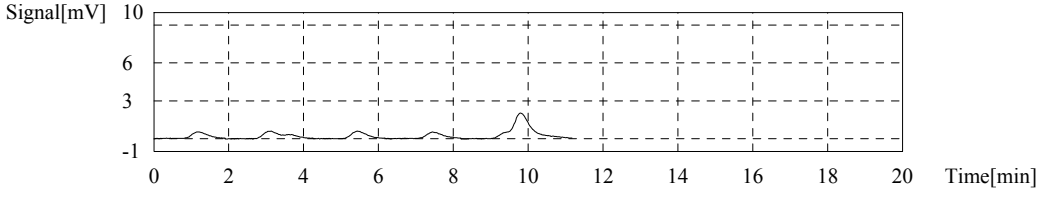
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1768mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.392	0.1621mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 7:48:32 PM
2	2.301	0.2680mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 7:52:46 PM
3	1.680	0.1957mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 7:56:13 PM
4	1.483	0.1727mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 7:59:55 PM
5	7.279	0.8477mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 8:04:44 PM

Mean Area 1.518
Mean Conc. 0.1768mg/L



Sample

Sample Name: 18F0177-03
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

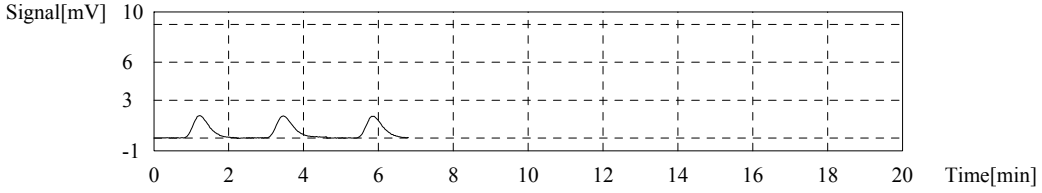
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6260mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.348	0.6228mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 8:14:54 PM
2	5.357	0.6239mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 8:18:52 PM
3	5.420	0.6312mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 8:22:26 PM

Mean Area 5.375
Mean Conc. 0.6260mg/L



Sample

Sample Name: 18F0177-04
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

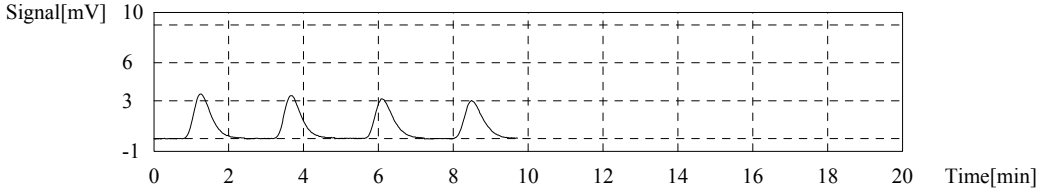
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.236mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.54	1.344mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 8:32:37 PM
2	10.80	1.258mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 8:36:24 PM
3	10.50	1.223mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 8:40:09 PM
4	10.55	1.229mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 8:44:03 PM

Mean Area 10.62
Mean Conc. 1.236mg/L



Sample

Sample Name: 18F0177-05
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

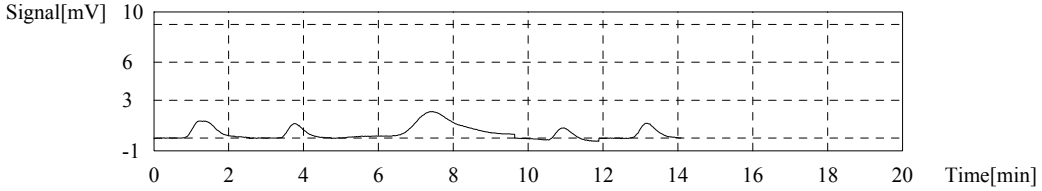
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3979mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.757	0.6705mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 8:54:49 PM
2	3.469	0.4040mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 8:58:14 PM
3	14.40	1.677mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 9:04:44 PM
4	3.105	0.3616mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 9:07:59 PM
5	3.675	0.4280mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 9:11:42 PM

Mean Area 3.416
Mean Conc. 0.3979mg/L



Sample

Sample Name: 18F0177-06
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

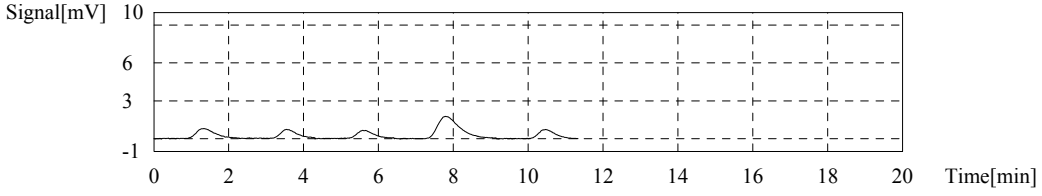
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2335mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.651	0.3087mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 9:21:45 PM
2	1.967	0.2291mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 9:25:16 PM
3	1.848	0.2152mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 9:29:09 PM
4	7.130	0.8304mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 9:33:33 PM
5	2.200	0.2562mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 9:36:47 PM

Mean Area 2.005
Mean Conc. 0.2335mg/L



Sample

Sample Name: 18F0177-07
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

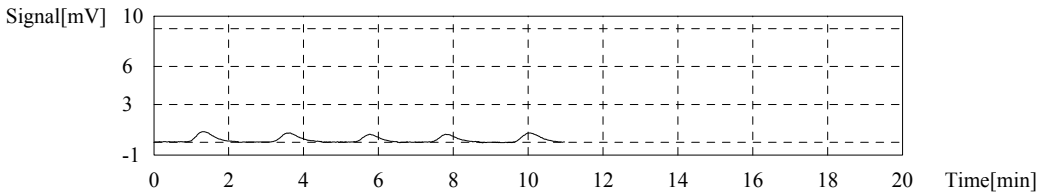
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2912mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.621	0.3052mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 9:46:48 PM
2	2.288	0.2665mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 9:50:33 PM
3	1.748	0.2036mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 9:54:09 PM
4	1.837	0.2139mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 9:58:05 PM
5	2.592	0.3019mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 10:01:58 PM

Mean Area 2.500
Mean Conc. 0.2912mg/L



Sample

Sample Name: 18F0177-08
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

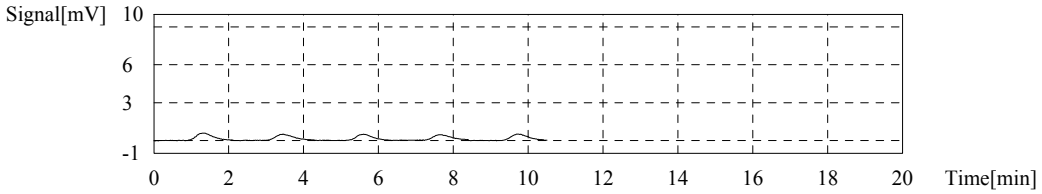
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1771mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.814	0.2113mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 10:11:51 PM
2	1.533	0.1785mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 10:15:41 PM
3	1.414	0.1647mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 10:19:21 PM
4	1.270	0.1479mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 10:23:09 PM
5	1.614	0.1880mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 10:26:58 PM

Mean Area 1.520
Mean Conc. 0.1771mg/L



Sample

Sample Name: 18F0178-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

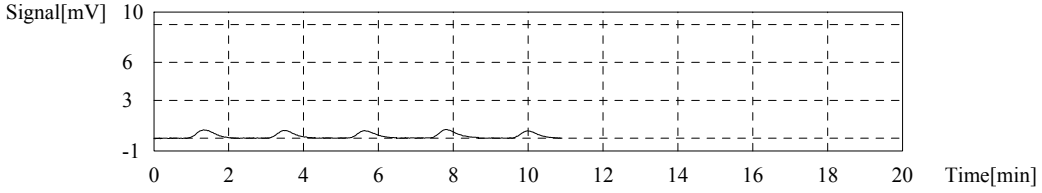
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2155mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.160	0.2516mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 10:36:54 PM
2	1.851	0.2156mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 10:40:39 PM
3	1.945	0.2265mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 10:44:29 PM
4	2.063	0.2403mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 10:48:16 PM
5	1.754	0.2043mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 10:52:06 PM

Mean Area 1.850
Mean Conc. 0.2155mg/L



Control Sample

Sample Name: SEQ-CCV6
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 20.75 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

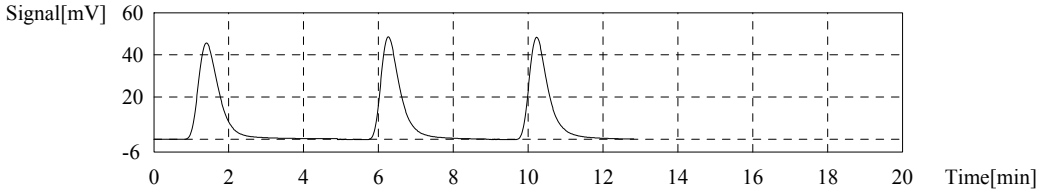
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:20.75ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	180.0	20.79ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 11:04:49 PM
2	179.5	20.73ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 11:09:47 PM
3	179.6	20.74ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 11:14:44 PM

Mean Area 179.7
Mean Conc. 20.75ppm



Control Sample

Sample Name: SEQ-CCB6
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.05203 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

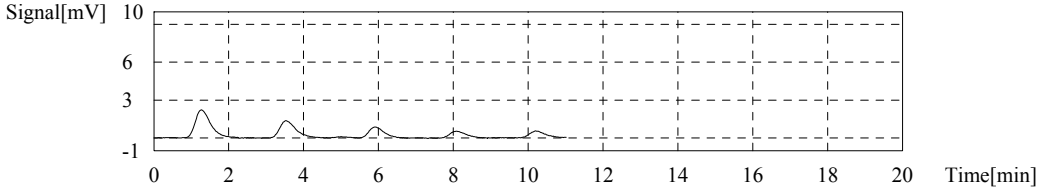
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.05203mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.260	0.5515mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 11:24:53 PM
2	4.161	0.3071mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 11:28:30 PM
3	2.768	0.1449mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 11:31:48 PM
4	1.673	0.01733mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 11:35:16 PM
5	1.472	-0.00608mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 11:38:44 PM

Mean Area 1.971
Mean Conc. 0.05203mg/L



Sample

Sample Name: SEQ-IFA2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

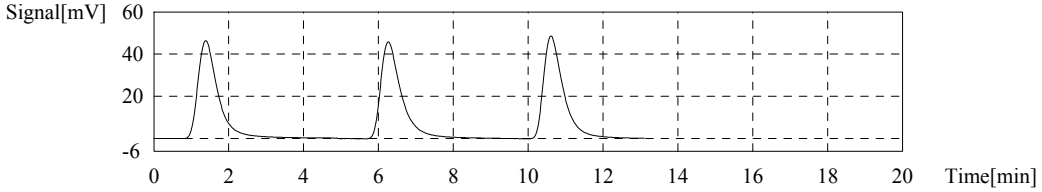
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:20.89mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	176.9	20.60mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 11:51:34 PM
2	178.8	20.82mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/16/2018 11:56:55 PM
3	182.3	21.23mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/17/2018 12:01:46 AM

Mean Area 179.3
Mean Conc. 20.89mg/L



Control Sample

Sample Name: SEQ-CCV7
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 21.91 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

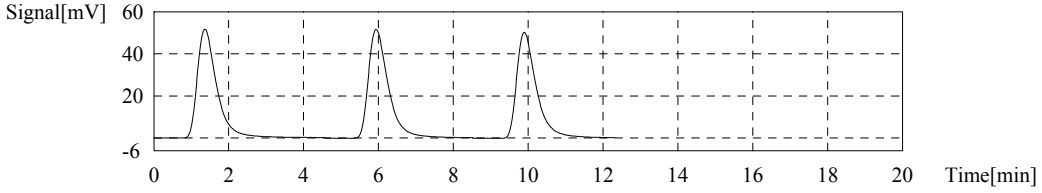
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:21.91ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	190.0	21.95ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/17/2018 12:14:16 AM
2	192.8	22.28ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/17/2018 12:19:13 AM
3	186.1	21.50ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/17/2018 12:24:00 AM

Mean Area 189.6
Mean Conc. 21.91ppm



Control Sample

Sample Name: SEQ-CCB7
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1923 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

TOC-Control L Report

CDE
2018_06_15_001.tlx

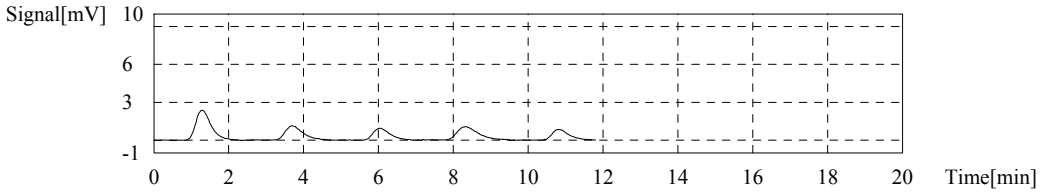
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1923mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.877	0.6234mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/17/2018 12:34:16 AM
2	3.756	0.2599mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/17/2018 12:37:45 AM
3	3.023	0.1745mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/17/2018 12:41:07 AM
4	4.235	0.3157mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/17/2018 12:44:58 AM
5	2.747	0.1424mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/17/2018 12:48:15 AM

Mean Area 3.175
Mean Conc. 0.1923mg/L



Analytical Resources, Incorporated
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGF0377	Instrument:	TOC-LCSH
		Calibration:	UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
1	SGF0377-ICV1	dzuData_06282018@122	NA	06/18/18 15:55
1	SGF0377-ICB1	dzuData_06282018@122	NA	06/18/18 16:19
1	SGF0377-IFA1	dzuData_06282018@122	NA	06/18/18 16:42
1	SGF0377-CCV1	dzuData_06282018@122	NA	06/18/18 20:51
1	SGF0377-CCB1	dzuData_06282018@122	NA	06/18/18 21:17
1	SGF0377-CCV2	dzuData_06282018@122	NA	06/19/18 01:35
1	SGF0377-CCB2	dzuData_06282018@122	NA	06/19/18 02:02

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes	Status	Date / Time	Vial
1	Unknown	NPOC	Rinse		NPOC 0.5 -	1.000	NPOC:0.2126mg/L		Completed	6/18/2018 3:	0
2	Control	NPOC	SEQ-ICV1	CVS 20	CVS 20 pp	1.000	NPOC:21.34ppm	Control valu	Completed	6/18/2018 4:	3
3	Control	NPOC	SEQ-ICB1		ICB CCB.tpl	1.000	NPOC:0.09244mg/	Control valu	Completed	6/18/2018 4:	4
4	Unknown	NPOC	SEQ-IFA1		NPOC 0.5 -	1.000	NPOC:21.25mg/L		Completed	6/18/2018 4:	9
5	Unknown	NPOC	18F0178-02		NPOC 0.5 -	1.000	NPOC:0.4743mg/L		Completed	6/18/2018 5:	10
6	Unknown	NPOC	18F0178-03		NPOC 0.5 -	1.000	NPOC:5.038mg/L		Completed	6/18/2018 5:	11
7	Unknown	NPOC	18F0178-04		NPOC 0.5 -	1.000	NPOC:0.2952mg/L		Completed	6/18/2018 6:	12
8	Unknown	NPOC	18F0178-05		NPOC 0.5 -	1.000	NPOC:0.1832mg/L		Completed	6/18/2018 6:	13
9	Unknown	NPOC	18F0178-06		NPOC 0.5 -	1.000	NPOC:0.1953mg/L		Completed	6/18/2018 6:	14
10	Unknown	NPOC	18F0070-01RE1		NPOC 0.5 -	1.000	NPOC:40.87mg/L		Completed	6/18/2018 7:	15
11	Unknown	NPOC	18F0070-02RE1		NPOC 0.5 -	1.000	NPOC:12.14mg/L		Completed	6/18/2018 7:	16
12	Unknown	NPOC	BGF0292-DUP3		NPOC 0.5 -	1.000	NPOC:12.20mg/L		Completed	6/18/2018 8:	17
13	Unknown	NPOC	BGF0292-MS3		NPOC 0.5 -	1.000	NPOC:37.02mg/L		Completed	6/18/2018 8:	18
14	Control	NPOC	SEQ-CCV1	CVS 20	CVS 20 pp	1.000	NPOC:21.27ppm	Control valu	Completed	6/18/2018 9:	3
15	Control	NPOC	SEQ-CCB1		ICB CCB.tpl	1.000	NPOC:0.1230mg/L	Control valu	Completed	6/18/2018 9:	4
16	Unknown	NPOC	18F0070-04RE1		NPOC 0.5 -	1.000	NPOC:39.26mg/L		Completed	6/18/2018 9:	19
17	Unknown	NPOC	18F0070-06RE1		NPOC 0.5 -	1.000	NPOC:39.46mg/L		Completed	6/18/2018 1	20
18	Unknown	NPOC	18F0070-07RE1		NPOC 0.5 -	1.000	NPOC:7.561mg/L		Completed	6/18/2018 1	21
19	Unknown	NPOC	18F0142-01RE1		NPOC 0.5 -	1.000	NPOC:0.9434mg/L		Completed	6/18/2018 1	22
20	Unknown	NPOC	18F0142-03RE1		NPOC 0.5 -	1.000	NPOC:0.6841mg/L		Completed	6/18/2018 1	23
21	Unknown	NPOC	18F0142-05RE1		NPOC 0.5 -	1.000	NPOC:0.6359mg/L		Completed	6/18/2018 1	24
22	Unknown	NPOC	18F0142-07		NPOC 0.5 -	1.000	NPOC:0.6195mg/L		Completed	6/19/2018 1	25
23	Unknown	NPOC	BGF0292-DUP1		NPOC 0.5 -	1.000	NPOC:0.6338mg/L		Completed	6/19/2018 1	26
24	Unknown	NPOC	BGF0292-MS1		NPOC 0.5 -	1.000	NPOC:25.31mg/L		Completed	6/19/2018 1	27
25	Unknown	NPOC	BGF0292-MSD1		NPOC 0.5 -	1.000	NPOC:25.31mg/L		Completed	6/19/2018 1:	28
26	Control	NPOC	SEQ-CCV2	CVS 20	CVS 20 pp	1.000	NPOC:21.94ppm	Control valu	Completed	6/19/2018 1:	3
27	Control	NPOC	SEQ-CCB2		ICB CCB.tpl	1.000	NPOC:0.1268mg/L	Control valu	Completed	6/19/2018 2:	4
28	Unknown	NPOC	18F0142-09		NPOC 0.5 -	1.000	NPOC:0.7066mg/L		Completed	6/19/2018 2:	29
29	Unknown	NPOC	18F0142-11		NPOC 0.5 -	1.000	NPOC:0.7200mg/L		Completed	6/19/2018 2:	30
30	Unknown	NPOC	18F0142-13		NPOC 0.5 -	1.000	NPOC:0.6734mg/L		Completed	6/19/2018 3:	31
31	Unknown	NPOC	18F0142-15		NPOC 0.5 -	1.000	NPOC:0.7408mg/L		Completed	6/19/2018 3:	32
32	Unknown	NPOC	18F0142-17		NPOC 0.5 -	1.000	NPOC:0.6039mg/L		Completed	6/19/2018 4:	33
33	Unknown	NPOC	18F0142-19		NPOC 0.5 -	1.000	NPOC:0.6877mg/L		Completed	6/19/2018 4:	34
34	Unknown	NPOC	18F0142-21		NPOC 0.5 -	1.000	NPOC:0.7883mg/L		Completed	6/19/2018 4:	35
35	Unknown	NPOC	18F0142-23		NPOC 0.5 -	1.000	NPOC:0.7428mg/L		Completed	6/19/2018 5:	36
36	Unknown	NPOC	18F0142-25		NPOC 0.5 -	1.000	NPOC:0.7165mg/L		Completed	6/19/2018 5:	37
37	Unknown	NPOC	BGF0335-MRL1		NPOC 0.5 -	1.000	NPOC:0.4065mg/L		Completed	6/19/2018 6:	38
38	Control	NPOC	SEQ-CCV3	CVS 20	CVS 20 pp	1.000	NPOC:22.41ppm	Control valu	Completed	6/19/2018 6:	5
39	Control	NPOC	SEQ-CCB3		ICB CCB.tpl	1.000	NPOC:0.05397mg/	Control valu	Completed	6/19/2018 6:	6
40	Unknown	NPOC	BGF0335-BLK1		NPOC 0.5 -	1.000	NPOC:0.2114mg/L		Completed	6/19/2018 7:	39

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes	Status	Date / Time	Vial
41	Unknown	NPOC	BGF0335-BS1		NPOC 0.5 -	1.000	NPOC:22.25mg/L		Completed	6/19/2018 7:	40
42	Unknown	NPOC	18F0198-01		NPOC 0.5 -	1.000	NPOC:0.6635mg/L		Completed	6/19/2018 8:	41
43	Unknown	NPOC	18F0198-03		NPOC 0.5 -	1.000	NPOC:0.4172mg/L		Completed	6/19/2018 8:	42
44	Unknown	NPOC	18F0198-05		NPOC 0.5 -	1.000	NPOC:0.2262mg/L		Completed	6/19/2018 8:	43
45	Unknown	NPOC	BGF0335-DUP1		NPOC 0.5 -	1.000	NPOC:0.2504mg/L		Completed	6/19/2018 9:	44
46	Unknown	NPOC	BGF0335-MS1		NPOC 0.5 -	1.000	NPOC:24.83mg/L		Completed	6/19/2018 9:	45
47	Unknown	NPOC	BGF0335-MSD1		NPOC 0.5 -	1.000	NPOC:23.86mg/L		Completed	6/19/2018 1	46
48	Unknown	NPOC	18F0198-07		NPOC 0.5 -	1.000	NPOC:1.024mg/L		Completed	6/19/2018 1	47
49	Unknown	NPOC	18F0198-09		NPOC 0.5 -	1.000	NPOC:0.4773mg/L		Completed	6/19/2018 1	48
50	Control	NPOC	SEQ-CCV4	CVS 20	CVS 20 pp	1.000	NPOC:27.82ppm	Control valu	Completed	6/19/2018 1	5
51	Control	NPOC	SEQ-CCB4		ICB CCB.tpl	1.000	NPOC:0.07777mg/	Control valu	Completed	6/19/2018 1	6
52	Unknown	NPOC	BGF0335-DUP2		NPOC 0.5 -	1.000	NPOC:0.5240mg/L		Completed	6/19/2018 1	49
53	Unknown	NPOC	BGF0335-MS2		NPOC 0.5 -	1.000	NPOC:31.00mg/L		Completed	6/19/2018 1	50
54	Unknown	NPOC	BGF0335-MSD2		NPOC 0.5 -	1.000	NPOC:30.75mg/L		Completed	6/19/2018 1:	51
55	Unknown	NPOC	18F0198-11		NPOC 0.5 -	1.000	NPOC:0.6231mg/L		Completed	6/19/2018 1:	52
56	Unknown	NPOC	18F0198-13		NPOC 0.5 -	1.000	NPOC:0.8936mg/L		Completed	6/19/2018 1:	53
57	Unknown	NPOC	18F0198-15		NPOC 0.5 -	1.000	NPOC:0.3409mg/L		Completed	6/19/2018 2:	54
58	Unknown	NPOC	18F0198-17		NPOC 0.5 -	1.000	NPOC:0.5561mg/L		Completed	6/19/2018 2:	55
59	Unknown	NPOC	18F0198-19		NPOC 0.5 -	1.000	NPOC:0.4561mg/L		Completed	6/19/2018 2:	56
60	Unknown	NPOC	18F0198-21		NPOC 0.5 -	1.000	NPOC:0.9230mg/L		Completed	6/19/2018 3:	57
61	Unknown	NPOC	18F0198-23		NPOC 0.5 -	1.000	NPOC:0.6433mg/L		Completed	6/19/2018 3:	58
62	Control	NPOC	SEQ-CCV5	CVS 20	CVS 20 pp	1.000	NPOC:27.10ppm	Control valu	Completed	6/19/2018 4:	7
63	Control	NPOC	SEQ-CCB5		ICB CCB.tpl	1.000	NPOC:0.1643mg/L	Control valu	Completed	6/19/2018 4:	8
64	Unknown	NPOC	18F0198-25		NPOC 0.5 -	1.000	NPOC:0.6511mg/L		Completed	6/19/2018 5:	59
65	Unknown	NPOC	18F0198-27		NPOC 0.5 -	1.000	NPOC:0.6435mg/L		Completed	6/19/2018 5:	60
66	Unknown	NPOC	18F0198-29		NPOC 0.5 -	1.000	NPOC:0.8022mg/L		Completed	6/19/2018 5:	61
67	Unknown	NPOC	18F0198-31		NPOC 0.5 -	1.000	NPOC:0.5930mg/L		Completed	6/19/2018 6:	62
68	Unknown	NPOC	18F0198-33		NPOC 0.5 -	1.000	NPOC:0.6322mg/L		Completed	6/19/2018 6:	63
69	Unknown	NPOC	18F0198-35		NPOC 0.5 -	1.000	NPOC:0.7623mg/L		Completed	6/19/2018 7:	64
70	Unknown	NPOC	18F0198-37		NPOC 0.5 -	1.000	NPOC:1.121mg/L		Completed	6/19/2018 7:	65
71	Unknown	NPOC	18F0198-39		NPOC 0.5 -	1.000	NPOC:1.700mg/L		Completed	6/19/2018 8:	66
72	Unknown	NPOC	BGF0349-MRL1		NPOC 0.5 -	1.000	NPOC:0.3834mg/L		Completed	6/19/2018 8:	67
73	Unknown	NPOC	BGF0349-BLK1		NPOC 0.5 -	1.000	NPOC:0.2362mg/L		Completed	6/19/2018 9:	68
74	Control	NPOC	SEQ-CCV6	CVS 20	CVS 20 pp	1.000	NPOC:39.96ppm	Control valu	Completed	6/19/2018 9:	7
75	Control	NPOC	SEQ-CCB6		ICB CCB.tpl	1.000	NPOC:0.1991mg/L	Control valu	Completed	6/19/2018 1	8
76	Unknown	NPOC	BGF0349-BS1		NPOC 0.5 -	1.000	NPOC:39.42mg/L		Completed	6/19/2018 1	1
77	Control	NPOC	SEQ-CCV7	CVS 20	CVS 20 pp	1.000	NPOC:38.64ppm	Control valu	Completed	6/19/2018 1	7
78	Control	NPOC	SEQ-CCB7		ICB CCB.tpl	1.000	NPOC:0.2950mg/L	Control valu	Completed	6/20/2018 1	8

TOC-Control L Report

CDE
2018_06_18_001.tlx

Instr.Information

Instrument Options: TOC/ASI/IC Unit/
Catalyst: Regular Sensitivity

Sample

Sample Name: Rinse
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status: Completed
Chk. Result:

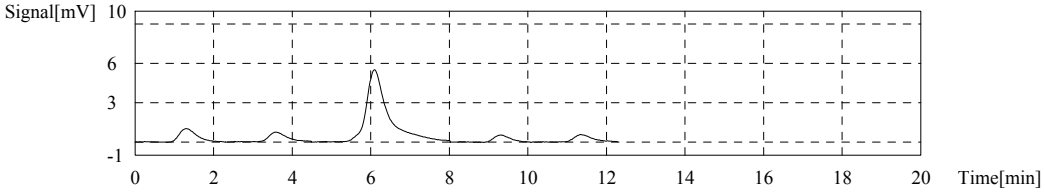
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2126mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.241	0.3775mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 3:27:11 PM
2	2.165	0.2521mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 3:30:34 PM
3	20.90	2.434mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 3:35:25 PM
4	1.615	0.1881mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 3:38:32 PM
5	1.697	0.1976mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 3:42:12 PM

Mean Area 1.826
Mean Conc. 0.2126mg/L



Control Sample

Sample Name: SEQ-ICV1
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status: Completed
Chk. Result: Control value: 21.34 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

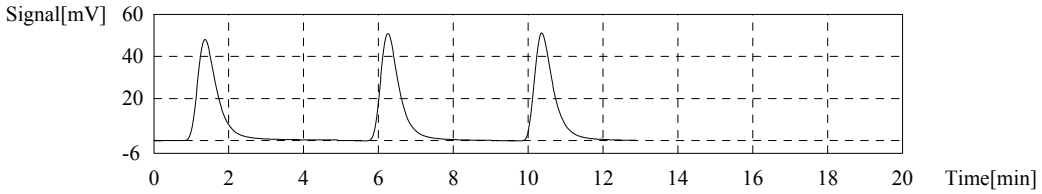
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:21.34ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	183.0	21.13ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 3:55:17 PM
2	184.2	21.27ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 4:00:24 PM
3	187.0	21.60ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 4:05:16 PM

Mean Area 184.7
Mean Conc. 21.34ppm



Control Sample

Sample Name: SEQ-ICB1
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.09244 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

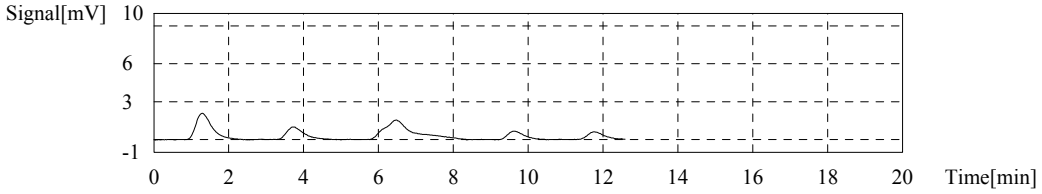
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.09244mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.361	0.5633mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 4:15:35 PM
2	3.231	0.1988mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 4:19:07 PM
3	8.233	0.7813mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 4:23:38 PM
4	1.938	0.04819mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 4:26:46 PM
5	1.785	0.03037mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 4:30:14 PM

Mean Area 2.318
Mean Conc. 0.09244mg/L



Sample

Sample Name: SEQ-IFA1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

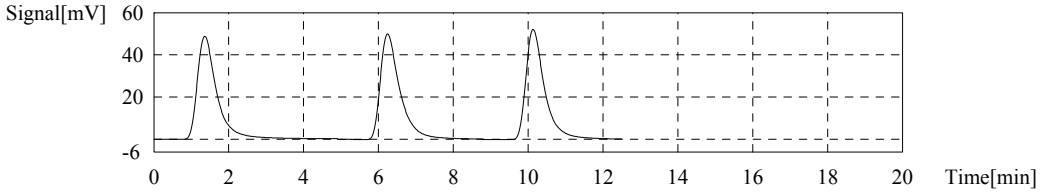
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:21.25mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	179.4	20.89mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 4:42:54 PM
2	184.3	21.46mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 4:47:47 PM
3	183.7	21.39mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 4:52:29 PM

Mean Area 182.5
Mean Conc. 21.25mg/L



Sample

Sample Name: 18F0178-02
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

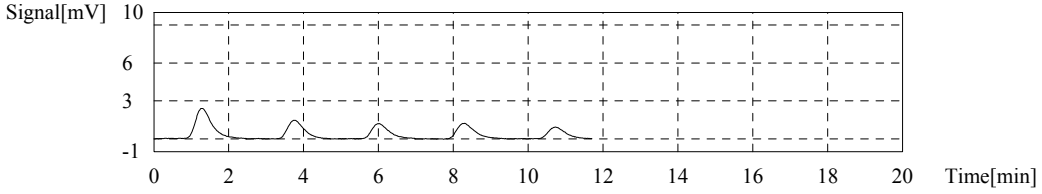
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4743mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.230	0.8420mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 5:02:50 PM
2	4.467	0.5202mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 5:06:25 PM
3	3.670	0.4274mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 5:10:13 PM
4	4.081	0.4753mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 5:14:10 PM
5	2.870	0.3342mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 5:17:49 PM

Mean Area 4.073
Mean Conc. 0.4743mg/L



Sample

Sample Name: 18F0178-03
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

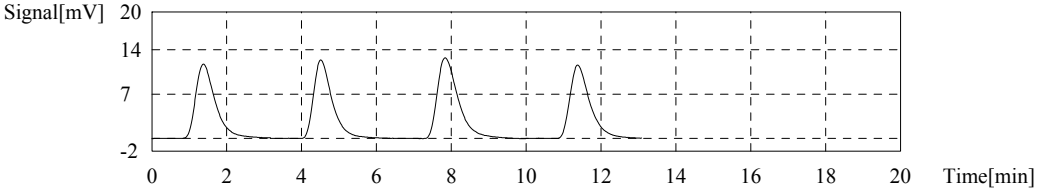
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.038mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	43.24	5.036mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 5:28:42 PM
2	43.10	5.019mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 5:32:59 PM
3	50.47	5.878mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 5:37:31 PM
4	43.43	5.058mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 5:41:37 PM

Mean Area 43.26
Mean Conc. 5.038mg/L



Sample

Sample Name: 18F0178-04
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

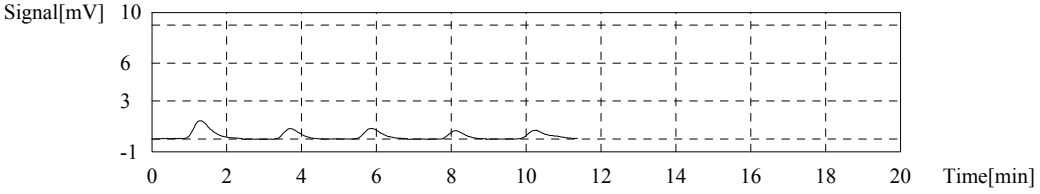
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2952mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.628	0.5390mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 5:51:55 PM
2	2.540	0.2958mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 5:55:27 PM
3	2.644	0.3079mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 5:59:21 PM
4	1.890	0.2201mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 6:02:59 PM
5	2.420	0.2818mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 6:07:05 PM

Mean Area 2.535
Mean Conc. 0.2952mg/L



Sample

Sample Name: 18F0178-05
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

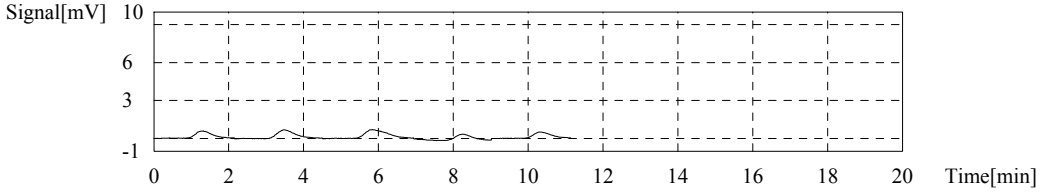
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1832mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.703	0.1983mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 6:16:57 PM
2	2.286	0.2662mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 6:20:56 PM
3	2.750	0.3203mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 6:24:48 PM
4	1.484	0.1728mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 6:28:14 PM
5	1.532	0.1784mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 6:32:03 PM

Mean Area 1.573
Mean Conc. 0.1832mg/L



Sample

Sample Name: 18F0178-06
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

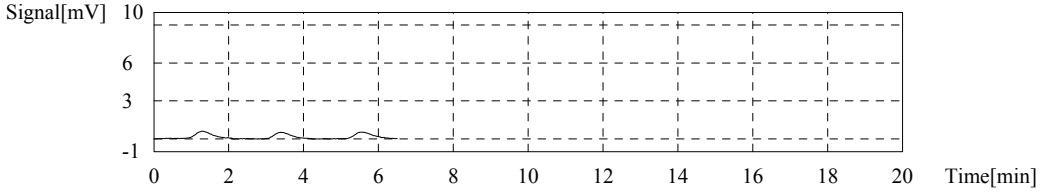
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1953mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.702	0.1982mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 6:41:51 PM
2	1.575	0.1834mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 6:45:40 PM
3	1.753	0.2042mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 6:49:36 PM

Mean Area 1.677
Mean Conc. 0.1953mg/L



Sample

Sample Name: 18F0070-01RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

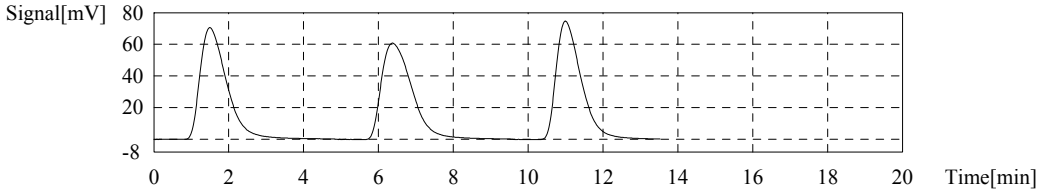
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:40.87mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	353.0	41.11mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 7:02:08 PM
2	348.2	40.55mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 7:07:48 PM
3	351.5	40.94mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 7:12:47 PM

Mean Area 350.9
Mean Conc. 40.87mg/L



Sample

Sample Name: 18F0070-02RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

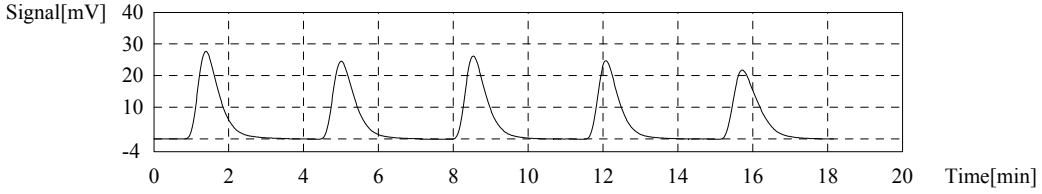
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:12.14mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	113.0	13.16mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 7:24:16 PM
2	103.1	12.01mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 7:28:47 PM
3	106.8	12.44mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 7:33:19 PM
4	98.69	11.49mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 7:37:54 PM
5	102.9	11.98mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 7:42:45 PM

Mean Area 104.3
Mean Conc. 12.14mg/L



Sample

Sample Name: BGF0292-DUP3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

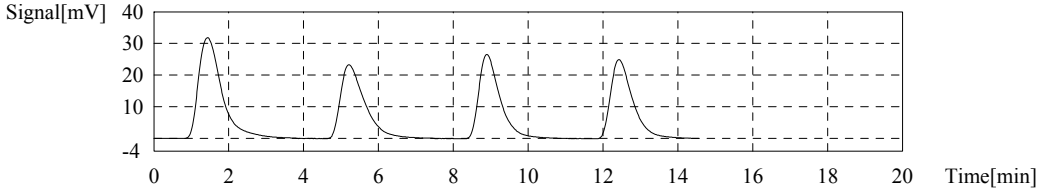
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:12.20mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	138.8	16.16mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 7:54:26 PM
2	105.6	12.30mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 7:59:07 PM
3	105.4	12.28mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 8:03:37 PM
4	103.3	12.03mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 8:08:07 PM

Mean Area 104.8
Mean Conc. 12.20mg/L



Sample

Sample Name: BGF0292-MS3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

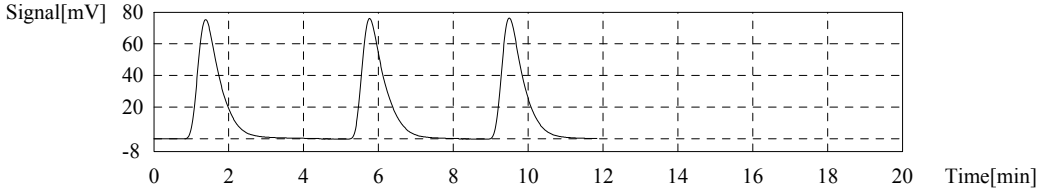
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:37.02mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	319.0	37.15mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 8:20:25 PM
2	322.0	37.50mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 8:25:08 PM
3	312.5	36.39mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 8:29:49 PM

Mean Area 317.8
Mean Conc. 37.02mg/L



Control Sample

Sample Name: SEQ-CCV1
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 21.27 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

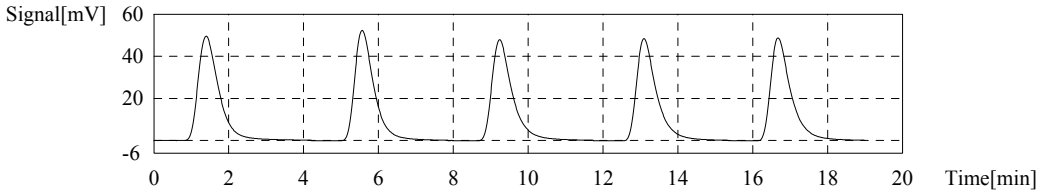
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:21.27ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	192.5	22.24ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 8:42:00 PM
2	189.8	21.93ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 8:46:38 PM
3	184.3	21.29ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 8:51:29 PM
4	182.4	21.07ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 8:56:03 PM
5	185.7	21.45ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 9:00:43 PM

Mean Area 184.1
Mean Conc. 21.27ppm



Control Sample

Sample Name: SEQ-CCB1
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1230 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

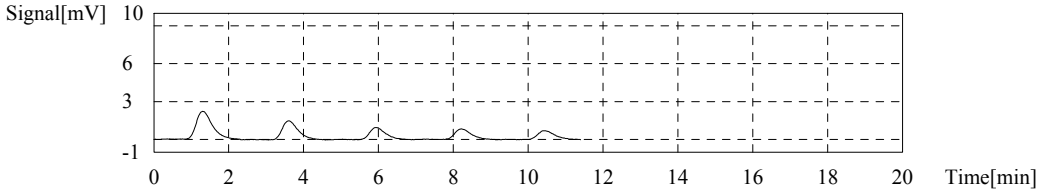
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1230mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.616	0.5930mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 9:10:54 PM
2	4.510	0.3477mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 9:14:26 PM
3	2.968	0.1681mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 9:17:52 PM
4	2.533	0.1175mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 9:21:19 PM
5	2.239	0.08324mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 9:24:53 PM

Mean Area 2.580
Mean Conc. 0.1230mg/L



Sample

Sample Name: 18F0070-04RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

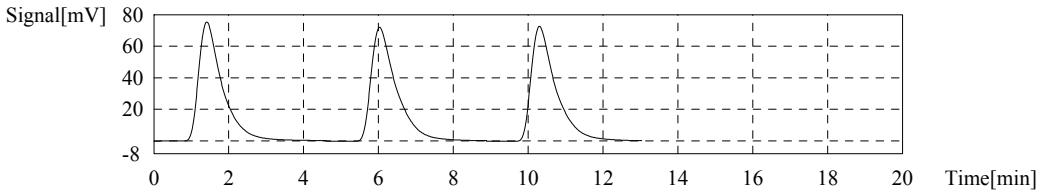
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:39.26mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	334.7	38.98mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 9:37:36 PM
2	340.2	39.62mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 9:42:52 PM
3	336.4	39.18mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 9:48:00 PM

Mean Area 337.1
Mean Conc. 39.26mg/L



Sample

Sample Name: 18F0070-06RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

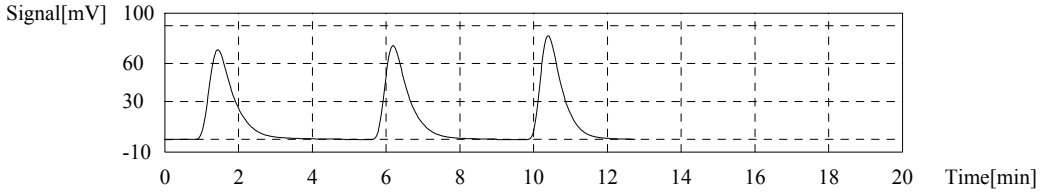
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:39.46mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	337.1	39.26mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 10:00:39 PM
2	335.7	39.10mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 10:05:52 PM
3	343.8	40.04mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 10:10:36 PM

Mean Area 338.9
Mean Conc. 39.46mg/L



Sample

Sample Name: 18F0070-07RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

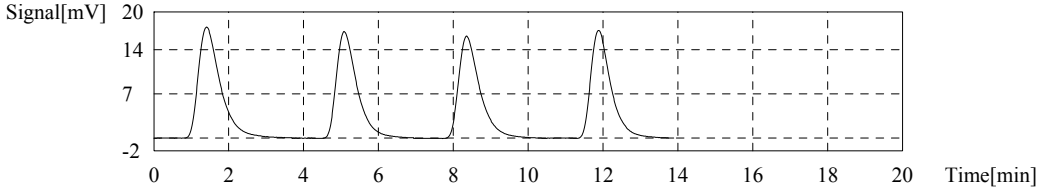
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7.561mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	72.92	8.492mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 10:22:10 PM
2	65.38	7.614mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 10:26:24 PM
3	64.70	7.535mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 10:30:57 PM
4	64.69	7.534mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 10:35:19 PM

Mean Area 64.92
Mean Conc. 7.561mg/L



Sample

Sample Name: 18F0142-01RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

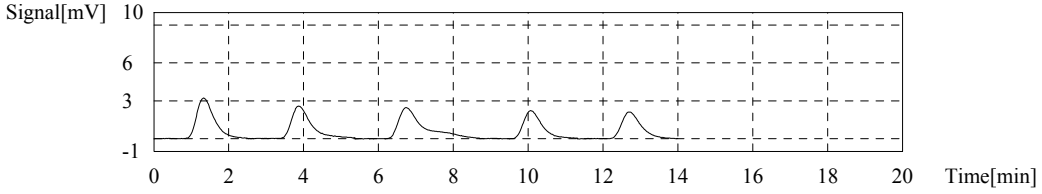
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.9434mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.56	1.230mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 10:45:43 PM
2	9.132	1.064mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 10:49:50 PM
3	11.32	1.318mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 10:54:09 PM
4	7.568	0.8814mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 10:57:45 PM
5	7.602	0.8853mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 11:01:35 PM

Mean Area 8.101
Mean Conc. 0.9434mg/L



Sample

Sample Name: 18F0142-03RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

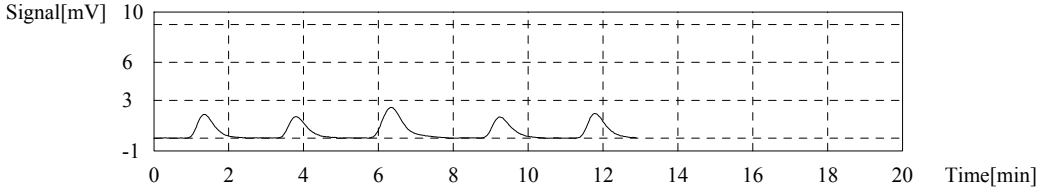
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6841mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.022	0.7013mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 11:11:52 PM
2	5.691	0.6628mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 11:15:40 PM
3	9.600	1.118mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 11:19:59 PM
4	5.908	0.6881mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 11:23:31 PM
5	6.698	0.7801mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 11:27:12 PM

Mean Area 5.874
Mean Conc. 0.6841mg/L



Sample

Sample Name: 18F0142-05RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

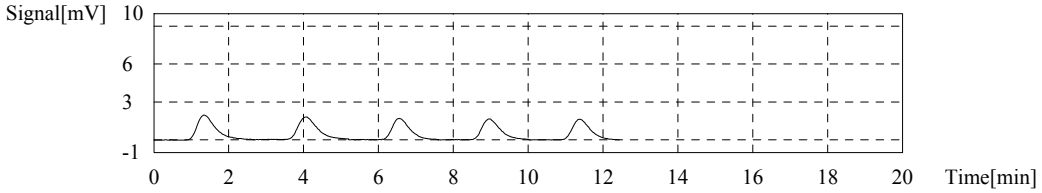
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6359mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.924	0.8064mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 11:37:35 PM
2	6.159	0.7173mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 11:41:12 PM
3	5.470	0.6370mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 11:44:52 PM
4	5.534	0.6445mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 11:48:40 PM
5	5.376	0.6261mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/18/2018 11:52:27 PM

Mean Area 5.460
Mean Conc. 0.6359mg/L



Sample

Sample Name: 18F0142-07
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

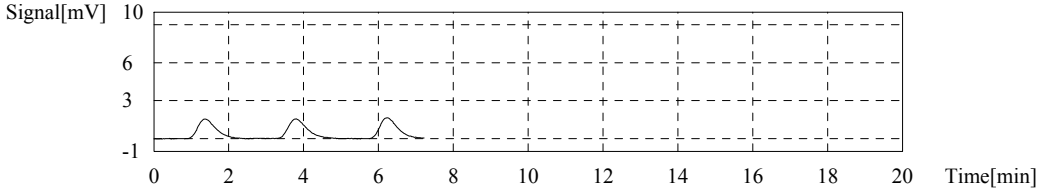
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6195mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.247	0.6111mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 12:02:34 AM
2	5.305	0.6178mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 12:06:23 AM
3	5.406	0.6296mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 12:10:04 AM

Mean Area 5.319
Mean Conc. 0.6195mg/L



Sample

Sample Name: BGF0292-DUP1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

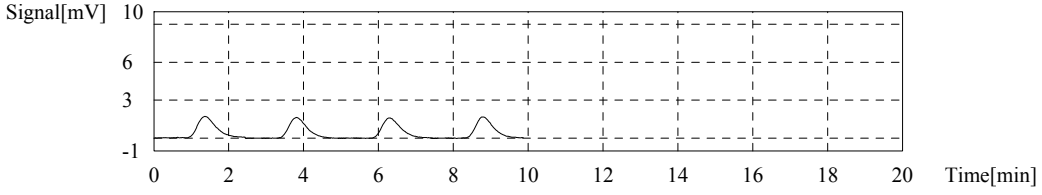
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6338mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.716	0.6657mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 12:20:12 AM
2	5.401	0.6290mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 12:24:02 AM
3	5.532	0.6443mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 12:27:51 AM
4	5.393	0.6281mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 12:31:33 AM

Mean Area 5.442
Mean Conc. 0.6338mg/L



Sample

Sample Name: BGF0292-MS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

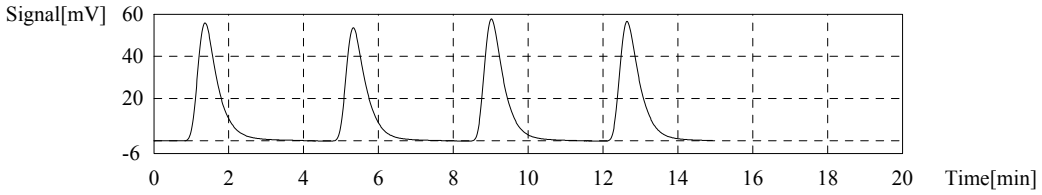
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.31mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	216.6	25.23mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 12:43:15 AM
2	204.4	23.80mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 12:47:55 AM
3	217.1	25.28mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 12:52:31 AM
4	218.2	25.41mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 12:57:08 AM

Mean Area 217.3
Mean Conc. 25.31mg/L



Sample

Sample Name: BGF0292-MSD1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

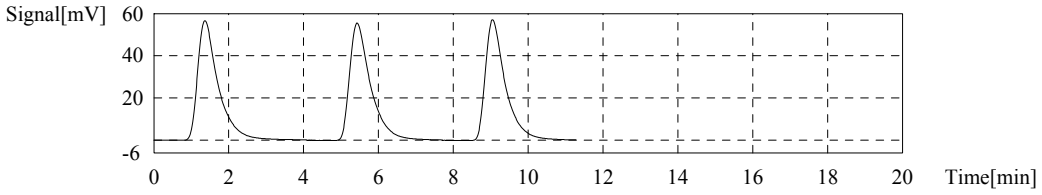
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.31mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	219.2	25.53mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 1:09:06 AM
2	218.3	25.42mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 1:13:44 AM
3	214.5	24.98mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 1:18:18 AM

Mean Area 217.3
Mean Conc. 25.31mg/L



Control Sample

Sample Name: SEQ-CCV2
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 21.94 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

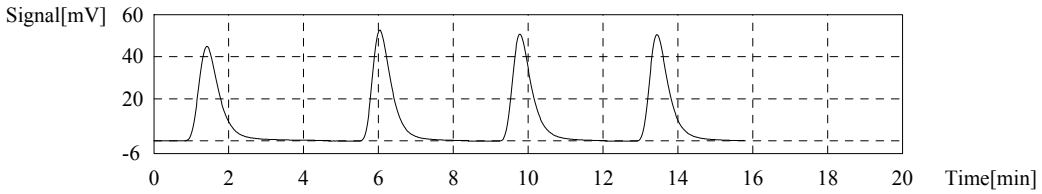
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:21.94ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	179.2	20.69ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 1:30:52 AM
2	193.1	22.31ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 1:35:36 AM
3	188.8	21.81ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 1:40:16 AM
4	187.8	21.69ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 1:44:58 AM

Mean Area 189.9
Mean Conc. 21.94ppm



Control Sample

Sample Name: SEQ-CCB2
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1268 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

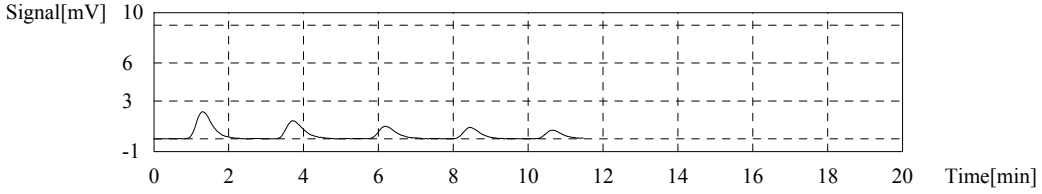
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1268mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.553	0.5857mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 1:55:14 AM
2	4.731	0.3735mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 1:58:52 AM
3	3.082	0.1814mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 2:02:08 AM
4	2.752	0.1430mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 2:05:34 AM
5	2.004	0.05587mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 2:09:00 AM

Mean Area 2.613
Mean Conc. 0.1268mg/L



Sample

Sample Name: 18F0142-09
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

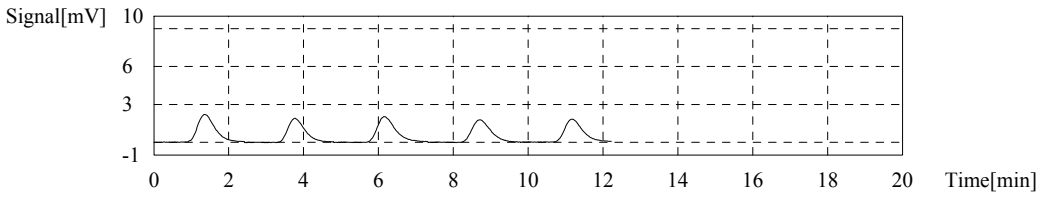
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7066mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.991	0.8142mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 2:19:24 AM
2	5.993	0.6980mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 2:23:09 AM
3	6.813	0.7935mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 2:27:04 AM
4	6.277	0.7310mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 2:30:49 AM
5	5.933	0.6910mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 2:34:32 AM

Mean Area 6.068
Mean Conc. 0.7066mg/L



Sample

Sample Name: 18F0142-11
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

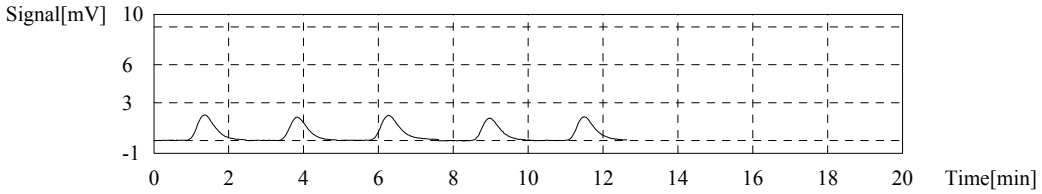
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7200mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.662	0.7759mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 2:44:43 AM
2	6.188	0.7207mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 2:48:29 AM
3	7.034	0.8192mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 2:52:33 AM
4	6.054	0.7051mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 2:56:09 AM
5	6.305	0.7343mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 2:59:54 AM

Mean Area 6.182
Mean Conc. 0.7200mg/L



Sample

Sample Name: 18F0142-13
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

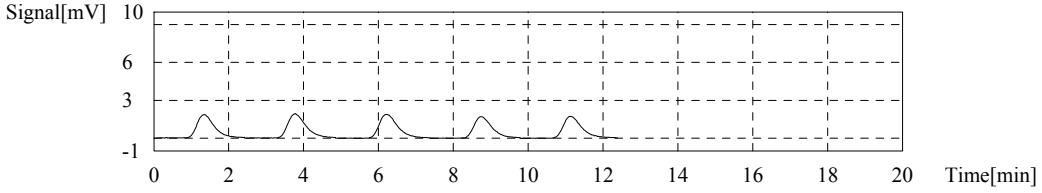
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6734mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.836	0.6797mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 3:10:30 AM
2	6.366	0.7414mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 3:14:18 AM
3	6.468	0.7533mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 3:18:16 AM
4	5.599	0.6521mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 3:22:03 AM
5	5.911	0.6884mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 3:26:05 AM

Mean Area 5.782
Mean Conc. 0.6734mg/L



Sample

Sample Name: 18F0142-15
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

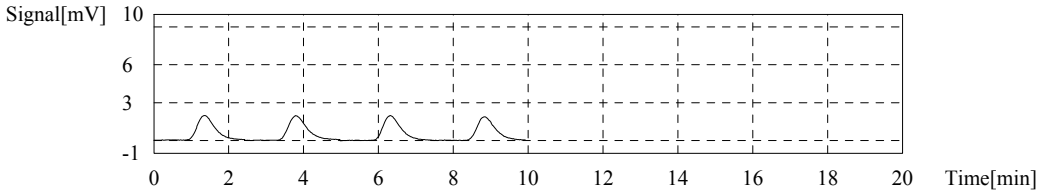
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7408mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.305	0.7343mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 3:36:29 AM
2	6.587	0.7671mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 3:40:24 AM
3	6.484	0.7551mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 3:44:08 AM
4	6.293	0.7329mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 3:47:52 AM

Mean Area 6.361
Mean Conc. 0.7408mg/L



Sample

Sample Name: 18F0142-17
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

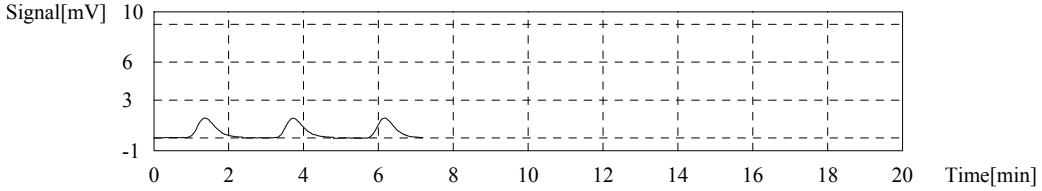
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6039mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.134	0.5979mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 3:57:58 AM
2	5.230	0.6091mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 4:01:49 AM
3	5.193	0.6048mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 4:05:33 AM

Mean Area 5.186
Mean Conc. 0.6039mg/L



Sample

Sample Name: 18F0142-19
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

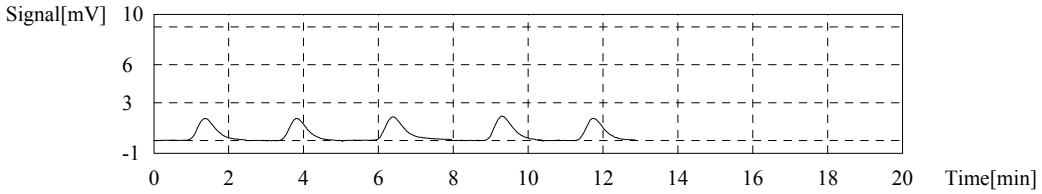
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6877mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.818	0.6776mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 4:15:44 AM
2	6.036	0.7030mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 4:19:39 AM
3	6.818	0.7940mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 4:23:46 AM
4	6.541	0.7618mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 4:27:11 AM
5	5.861	0.6826mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 4:31:00 AM

Mean Area 5.905
Mean Conc. 0.6877mg/L



Sample

Sample Name: 18F0142-21
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

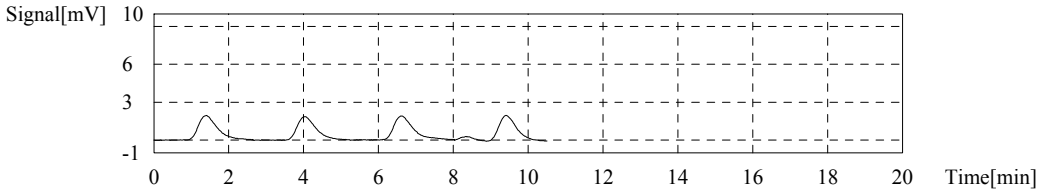
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7883mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.748	0.7859mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 4:41:50 AM
2	6.414	0.7470mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 4:45:35 AM
3	6.903	0.8039mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 4:49:34 AM
4	6.654	0.7749mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 4:53:01 AM

Mean Area 6.768
Mean Conc. 0.7883mg/L



Sample

Sample Name: 18F0142-23
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

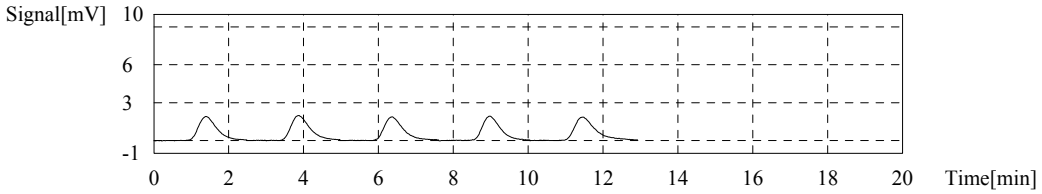
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7428mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.333	0.7376mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 5:03:13 AM
2	6.751	0.7862mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 5:07:00 AM
3	6.529	0.7604mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 5:10:56 AM
4	6.271	0.7303mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 5:14:32 AM
5	7.090	0.8257mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 5:18:44 AM

Mean Area 6.378
Mean Conc. 0.7428mg/L



Sample

Sample Name: 18F0142-25
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

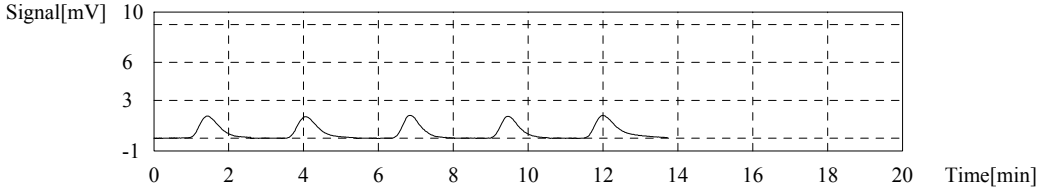
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7165mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.184	0.7202mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 5:29:13 AM
2	6.538	0.7614mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 5:33:14 AM
3	6.268	0.7300mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 5:36:51 AM
4	6.006	0.6995mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 5:40:30 AM
5	7.693	0.8959mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 5:44:56 AM

Mean Area 6.153
Mean Conc. 0.7165mg/L



Sample

Sample Name: BGF0335-MRL1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

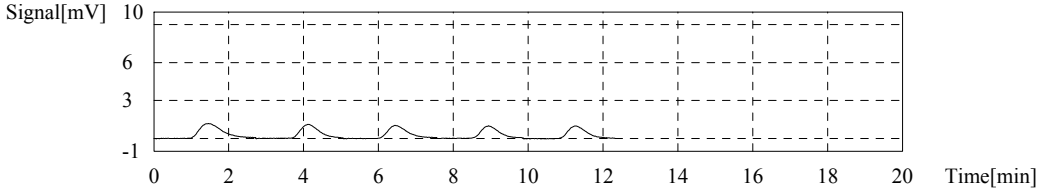
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4065mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.822	0.5616mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 5:55:33 AM
2	3.656	0.4258mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 5:58:57 AM
3	3.525	0.4105mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 6:02:54 AM
4	3.145	0.3663mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 6:06:30 AM
5	3.289	0.3830mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 6:10:25 AM

Mean Area 3.490
Mean Conc. 0.4065mg/L



Control Sample

Sample Name: SEQ-CCV3
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 22.41 / Control exceeds range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

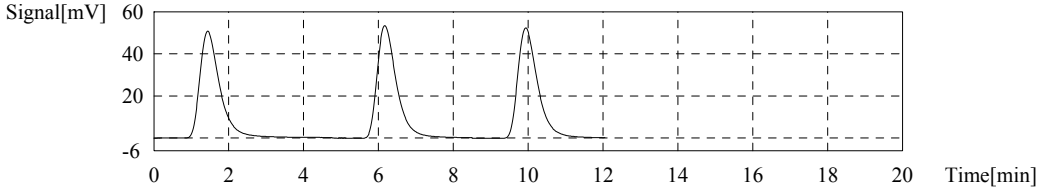
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:22.41ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	191.3	22.10ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 6:23:03 AM
2	195.3	22.57ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 6:27:47 AM
3	195.3	22.57ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 6:32:19 AM

Mean Area 194.0
Mean Conc. 22.41ppm



Control Sample

Sample Name: SEQ-CCB3
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.05397 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

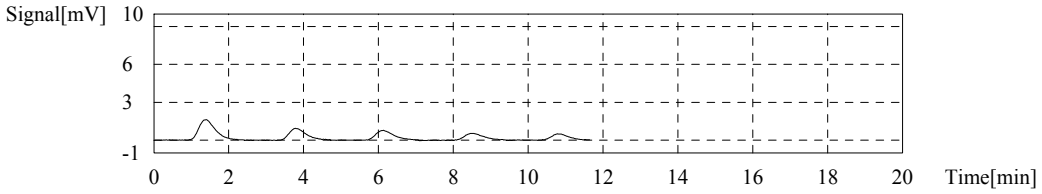
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.05397mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.020	0.4071mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 6:42:37 AM
2	2.958	0.1670mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 6:46:00 AM
3	2.499	0.1135mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 6:49:33 AM
4	1.954	0.05005mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 6:53:03 AM
5	1.510	-0.00166mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 6:56:25 AM

Mean Area 1.988
Mean Conc. 0.05397mg/L



Sample

Sample Name: BGF0335-BLK1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

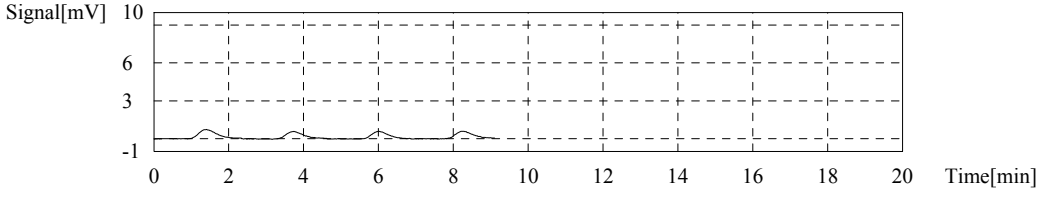
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2114mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.286	0.2662mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 7:07:01 AM
2	1.798	0.2094mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 7:10:45 AM
3	1.835	0.2137mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 7:14:30 AM
4	1.813	0.2111mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 7:18:16 AM

Mean Area 1.815
Mean Conc. 0.2114mg/L



Sample

Sample Name: BGF0335-BS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

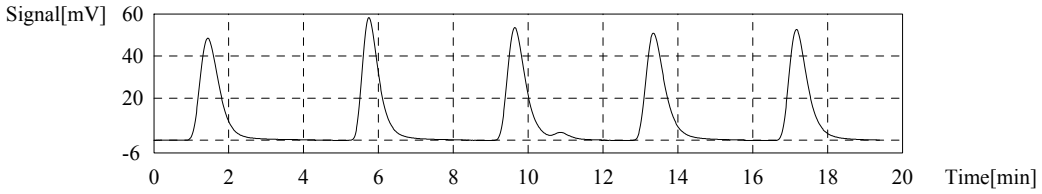
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:22.25mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	182.7	21.28mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 7:30:17 AM
2	192.7	22.44mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 7:35:12 AM
3	199.2	23.20mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 7:39:54 AM
4	188.5	21.95mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 7:44:42 AM
5	191.9	22.35mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 7:49:18 AM

Mean Area 191.0
Mean Conc. 22.25mg/L



Sample

Sample Name: 18F0198-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

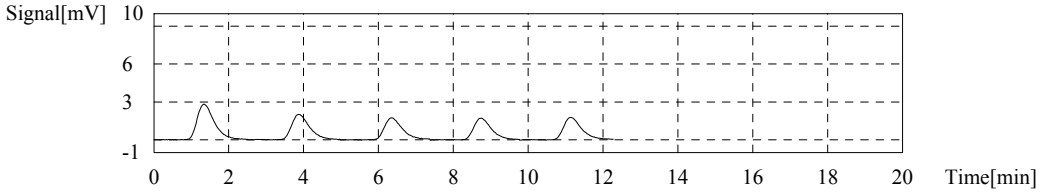
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6635mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.916	1.038mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 7:59:42 AM
2	6.645	0.7739mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 8:03:28 AM
3	5.606	0.6529mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 8:07:09 AM
4	5.596	0.6517mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 8:10:57 AM
5	5.889	0.6858mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 8:14:50 AM

Mean Area 5.697
Mean Conc. 0.6635mg/L



Sample

Sample Name: 18F0198-03
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

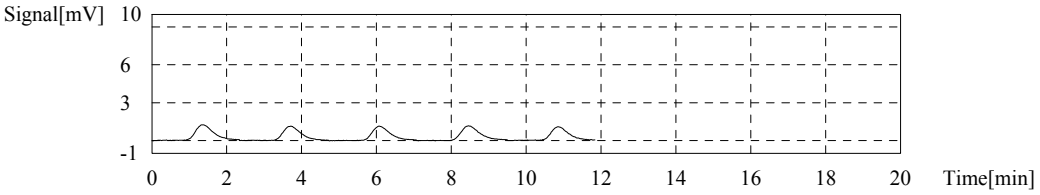
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4172mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.927	0.4573mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 8:25:21 AM
2	3.685	0.4292mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 8:29:11 AM
3	3.629	0.4226mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 8:32:56 AM
4	3.954	0.4605mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 8:36:48 AM
5	3.432	0.3997mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 8:40:29 AM

Mean Area 3.582
Mean Conc. 0.4172mg/L



Sample

Sample Name: 18F0198-05
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

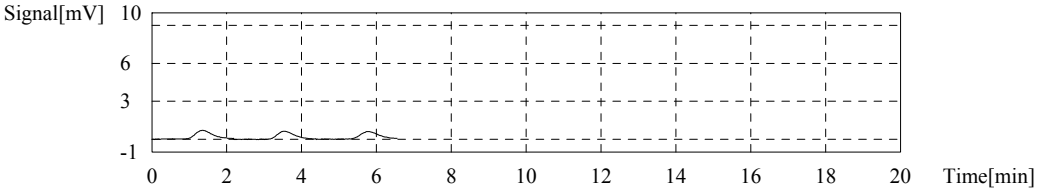
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2262mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.014	0.2346mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 8:50:23 AM
2	1.955	0.2277mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 8:54:11 AM
3	1.858	0.2164mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 8:57:56 AM

Mean Area 1.942
Mean Conc. 0.2262mg/L



Sample

Sample Name: BGF0335-DUP1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

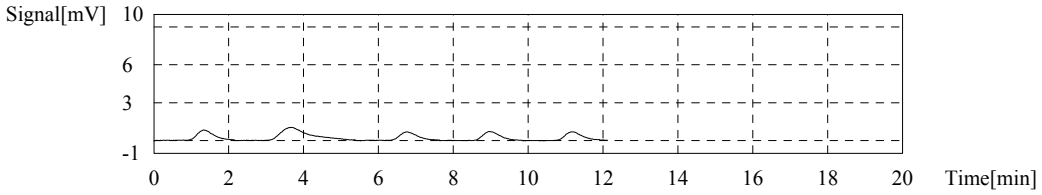
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2504mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.375	0.2766mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 9:07:48 AM
2	5.525	0.6434mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 9:12:41 AM
3	2.089	0.2433mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 9:15:54 AM
4	2.201	0.2563mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 9:19:38 AM
5	2.160	0.2516mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 9:23:30 AM

Mean Area 2.150
Mean Conc. 0.2504mg/L



Sample

Sample Name: BGF0335-MS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

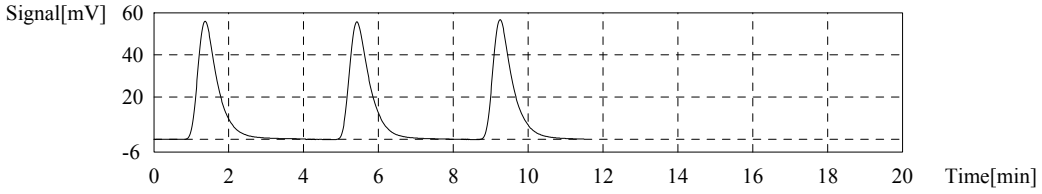
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.83mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	210.6	24.53mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 9:35:16 AM
2	215.2	25.06mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 9:40:05 AM
3	213.7	24.89mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 9:44:40 AM

Mean Area 213.2
Mean Conc. 24.83mg/L



Sample

Sample Name: BGF0335-MSD1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

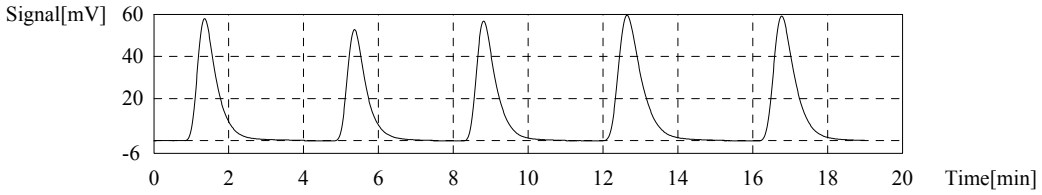
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:23.86mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	214.1	24.93mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 9:56:35 AM
2	189.7	22.09mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 10:01:03 AM
3	210.9	24.56mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 10:05:35 AM
4	261.7	30.48mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 10:10:48 AM
5	242.8	28.28mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 10:15:34 AM

Mean Area 204.9
Mean Conc. 23.86mg/L



Sample

Sample Name: 18F0198-07
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

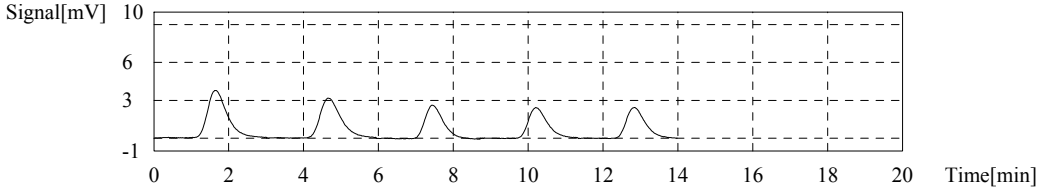
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.024mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.49	1.571mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 10:26:28 AM
2	12.12	1.412mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 10:30:25 AM
3	9.281	1.081mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 10:34:12 AM
4	8.493	0.9891mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 10:37:48 AM
5	8.615	1.003mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 10:41:36 AM

Mean Area 8.796
Mean Conc. 1.024mg/L



Sample

Sample Name: 18F0198-09
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

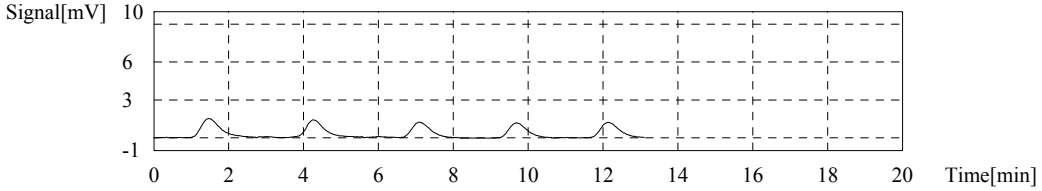
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4773mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.379	0.6264mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 10:52:14 AM
2	4.724	0.5502mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 10:56:10 AM
3	4.213	0.4907mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 10:59:47 AM
4	3.943	0.4592mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 11:03:21 AM
5	4.139	0.4820mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 11:07:12 AM

Mean Area 4.098
Mean Conc. 0.4773mg/L



Control Sample

Sample Name: SEQ-CCV4
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 27.82 / Control exceeds range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

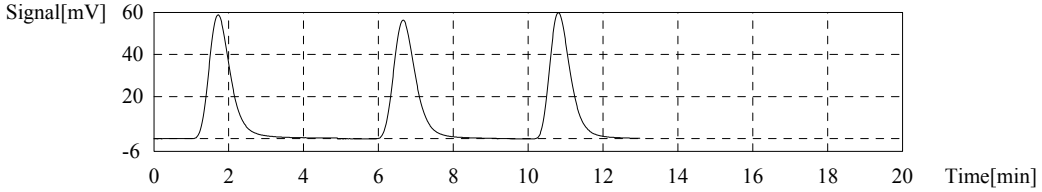
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:27.82ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	244.6	28.31ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 11:20:19 AM
2	238.6	27.61ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 11:25:34 AM
3	238.1	27.55ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 11:30:24 AM

Mean Area 240.4
Mean Conc. 27.82ppm



Control Sample

Sample Name: SEQ-CCB4
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.07777 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

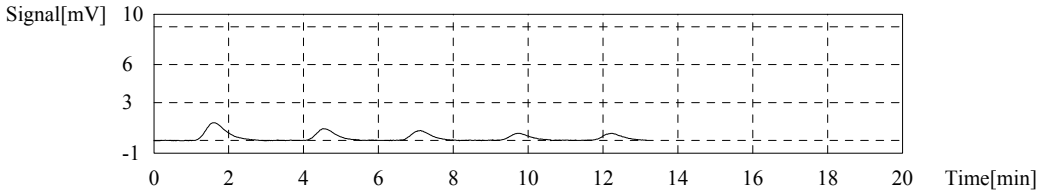
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.07777mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.610	0.4758mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 11:41:16 AM
2	3.165	0.1911mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 11:44:47 AM
3	2.800	0.1486mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 11:48:27 AM
4	1.846	0.03747mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 11:51:54 AM
5	1.930	0.04726mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 11:55:29 AM

Mean Area 2.192
Mean Conc. 0.07777mg/L



Sample

Sample Name: BGF0335-DUP2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

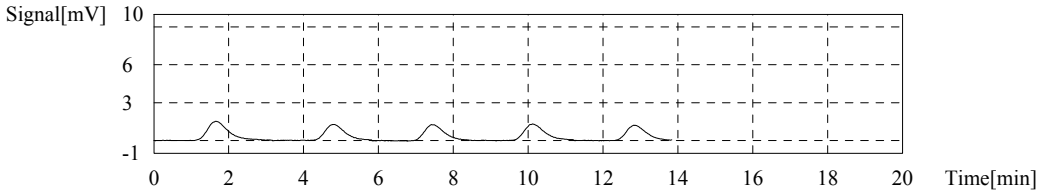
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5240mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.036	0.7030mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 12:06:48 PM
2	4.457	0.5191mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 12:10:27 PM
3	4.632	0.5394mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 12:14:14 PM
4	4.772	0.5558mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 12:18:05 PM
5	4.410	0.5136mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 12:21:45 PM

Mean Area 4.500
Mean Conc. 0.5240mg/L



Sample

Sample Name: BGF0335-MS2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

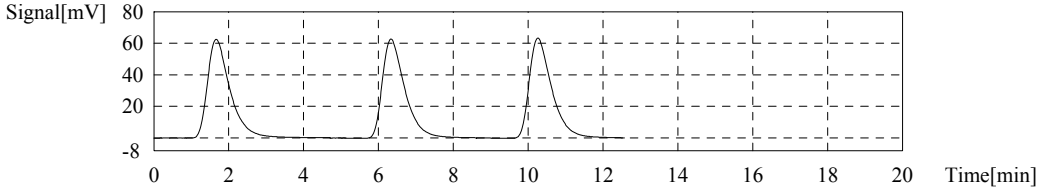
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:31.00mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	266.3	31.01mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 12:34:24 PM
2	264.3	30.78mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 12:39:19 PM
3	267.9	31.20mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 12:44:16 PM

Mean Area 266.2
Mean Conc. 31.00mg/L



Sample

Sample Name: BGF0335-MSD2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

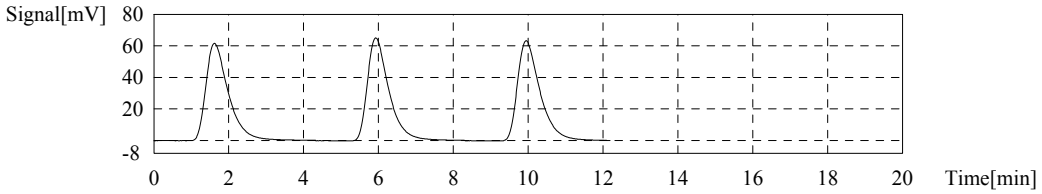
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:30.75mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	260.4	30.33mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 12:56:31 PM
2	263.8	30.72mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 1:01:30 PM
3	268.0	31.21mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 1:06:23 PM

Mean Area 264.1
Mean Conc. 30.75mg/L



Sample

Sample Name: 18F0198-11
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

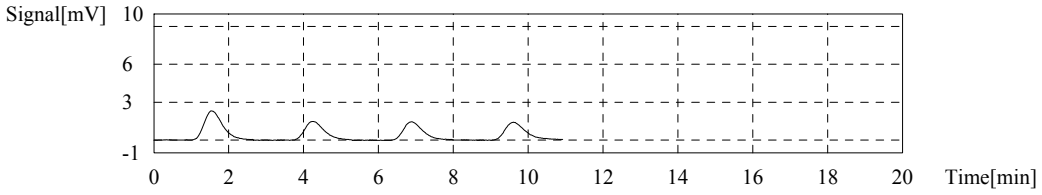
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6231mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.873	0.9169mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 1:16:58 PM
2	5.335	0.6213mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 1:20:45 PM
3	5.294	0.6165mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 1:24:34 PM
4	5.421	0.6313mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 1:28:36 PM

Mean Area 5.350
Mean Conc. 0.6231mg/L



Sample

Sample Name: 18F0198-13
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

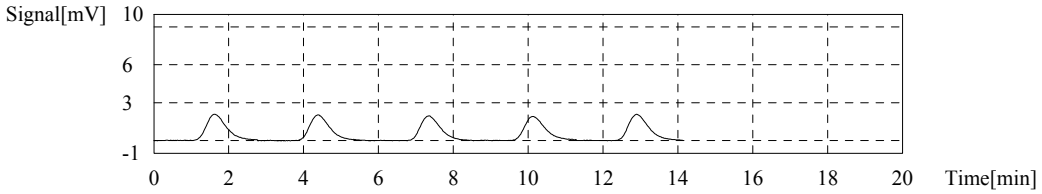
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8936mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.620	0.8874mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 1:39:18 PM
2	7.687	0.8952mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 1:43:17 PM
3	7.259	0.8454mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 1:47:05 PM
4	7.108	0.8278mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 1:50:50 PM
5	7.713	0.8983mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 1:54:41 PM

Mean Area 7.673
Mean Conc. 0.8936mg/L



Sample

Sample Name: 18F0198-15
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

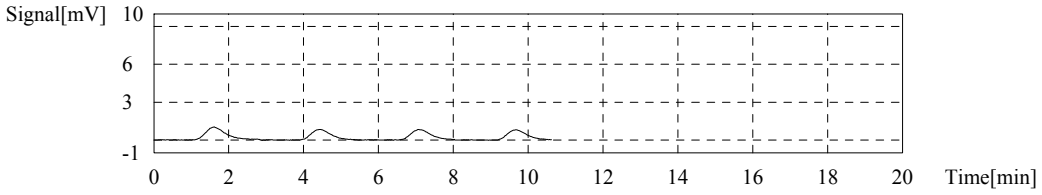
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3409mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.788	0.4412mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 2:05:27 PM
2	2.999	0.3493mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 2:09:06 PM
3	2.929	0.3411mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 2:12:46 PM
4	2.854	0.3324mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 2:16:34 PM

Mean Area 2.927
Mean Conc. 0.3409mg/L



Sample

Sample Name: 18F0198-17
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

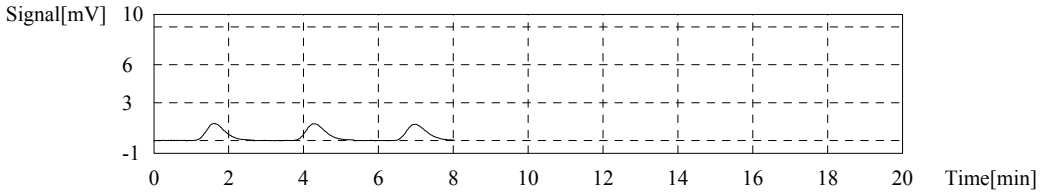
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5561mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.721	0.5498mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 2:27:13 PM
2	4.762	0.5546mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 2:31:00 PM
3	4.842	0.5639mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 2:34:49 PM

Mean Area 4.775
Mean Conc. 0.5561mg/L



Sample

Sample Name: 18F0198-19
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

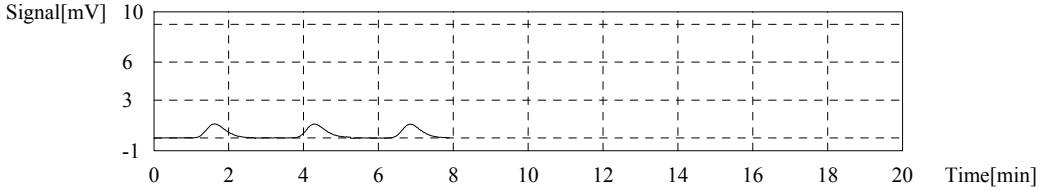
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4561mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.987	0.4643mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 2:45:23 PM
2	3.816	0.4444mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 2:49:01 PM
3	3.947	0.4597mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 2:52:53 PM

Mean Area 3.917
Mean Conc. 0.4561mg/L



Sample

Sample Name: 18F0198-21
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

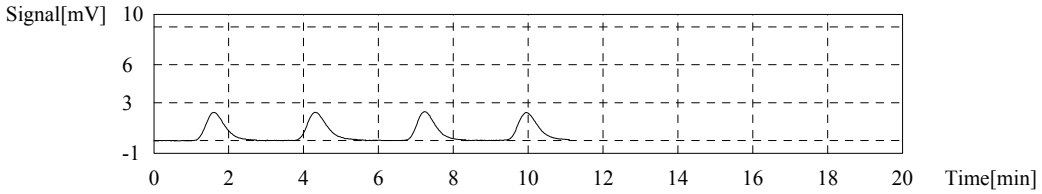
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.9230mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.915	0.9218mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 3:03:33 PM
2	8.256	0.9615mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 3:07:31 PM
3	7.860	0.9154mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 3:11:11 PM
4	8.002	0.9319mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 3:15:02 PM

Mean Area 7.926
Mean Conc. 0.9230mg/L



Sample

Sample Name: 18F0198-23
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

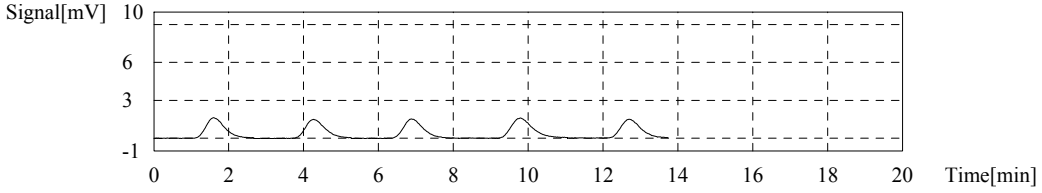
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6433mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.593	0.6514mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 3:25:30 PM
2	5.317	0.6192mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 3:29:13 PM
3	5.609	0.6532mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 3:33:16 PM
4	6.259	0.7289mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 3:37:10 PM
5	5.370	0.6254mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 3:40:50 PM

Mean Area 5.524
Mean Conc. 0.6433mg/L



Control Sample

Sample Name: SEQ-CCV5
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 27.10 / Control exceeds range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

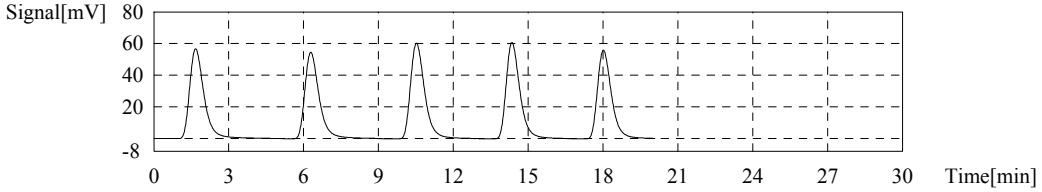
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:27.10ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	229.2	26.52ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 3:53:27 PM
2	219.2	25.35ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 3:58:38 PM
3	239.1	27.67ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 4:03:27 PM
4	234.3	27.11ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 4:08:08 PM
5	219.8	25.42ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 4:12:48 PM

Mean Area 234.2
Mean Conc. 27.10ppm



Control Sample

Sample Name: SEQ-CCB5
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1643 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

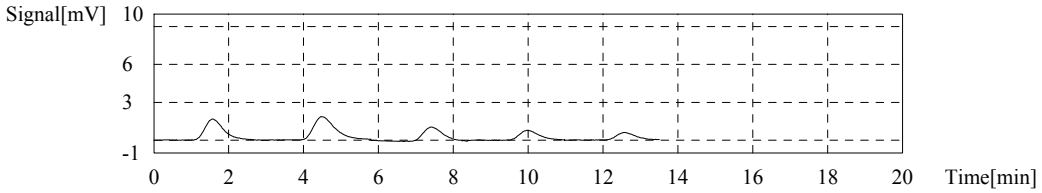
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1643mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.727	0.4895mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 4:23:35 PM
2	7.213	0.6625mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 4:27:28 PM
3	4.152	0.3060mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 4:31:02 PM
4	2.698	0.1367mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 4:34:36 PM
5	1.954	0.05005mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 4:38:07 PM

Mean Area 2.935
Mean Conc. 0.1643mg/L



Sample

Sample Name: 18F0198-25
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

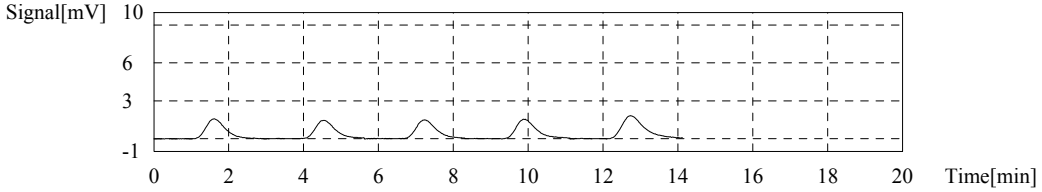
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6511mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.756	0.6704mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 4:49:05 PM
2	5.115	0.5957mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 4:52:45 PM
3	5.354	0.6235mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 4:56:31 PM
4	5.663	0.6595mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 5:00:26 PM
5	7.449	0.8675mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 5:04:25 PM

Mean Area 5.591
Mean Conc. 0.6511mg/L



Sample

Sample Name: 18F0198-27
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

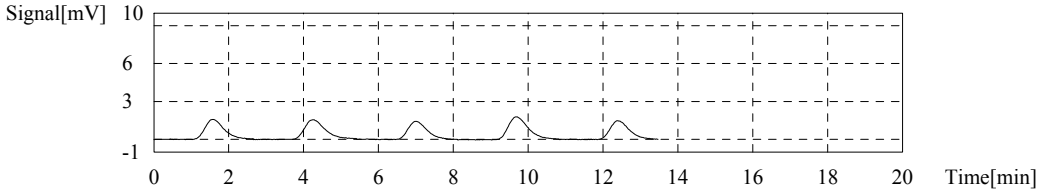
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6435mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.542	0.6454mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 5:14:59 PM
2	5.750	0.6697mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 5:18:53 PM
3	5.057	0.5889mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 5:22:35 PM
4	6.634	0.7726mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 5:26:24 PM
5	5.285	0.6155mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 5:30:07 PM

Mean Area 5.526
Mean Conc. 0.6435mg/L



Sample

Sample Name: 18F0198-29
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

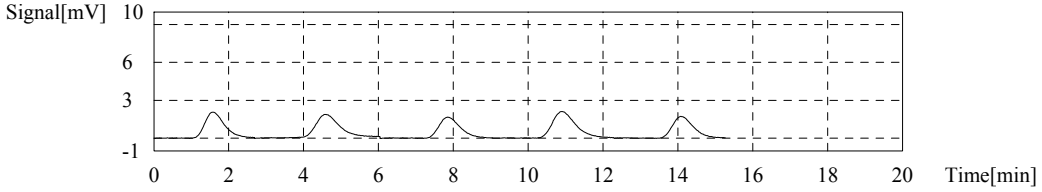
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8022mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.368	0.8581mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 5:40:44 PM
2	7.718	0.8988mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 5:45:11 PM
3	6.548	0.7626mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 5:49:11 PM
4	9.169	1.068mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 5:53:24 PM
5	6.748	0.7859mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 5:57:22 PM

Mean Area 6.888
Mean Conc. 0.8022mg/L



Sample

Sample Name: 18F0198-31
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

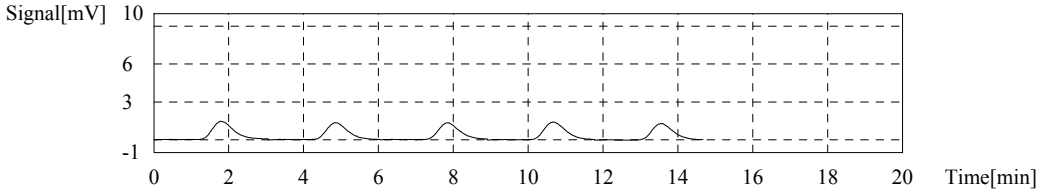
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5930mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.634	0.6561mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 6:08:21 PM
2	5.167	0.6018mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 6:12:19 PM
3	5.007	0.5831mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 6:16:10 PM
4	5.505	0.6411mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 6:20:01 PM
5	5.101	0.5941mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 6:23:54 PM

Mean Area 5.092
Mean Conc. 0.5930mg/L



Sample

Sample Name: 18F0198-33
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

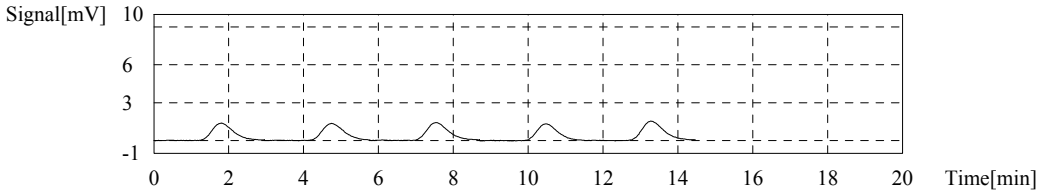
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6322mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.333	0.6211mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 6:34:48 PM
2	5.340	0.6219mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 6:38:37 PM
3	5.611	0.6535mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 6:42:33 PM
4	5.030	0.5858mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 6:46:21 PM
5	6.127	0.7136mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 6:50:19 PM

Mean Area 5.428
Mean Conc. 0.6322mg/L



Sample

Sample Name: 18F0198-35
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

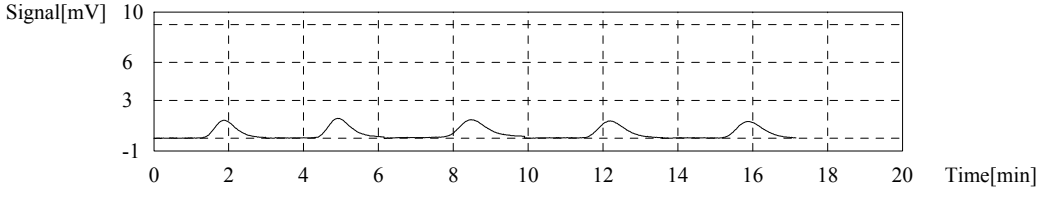
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7623mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.643	0.6572mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 7:01:15 PM
2	6.468	0.7533mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 7:05:25 PM
3	6.867	0.7997mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 7:10:10 PM
4	6.537	0.7613mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 7:14:50 PM
5	6.632	0.7724mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 7:19:24 PM

Mean Area 6.546
Mean Conc. 0.7623mg/L



Sample

Sample Name: 18F0198-37
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

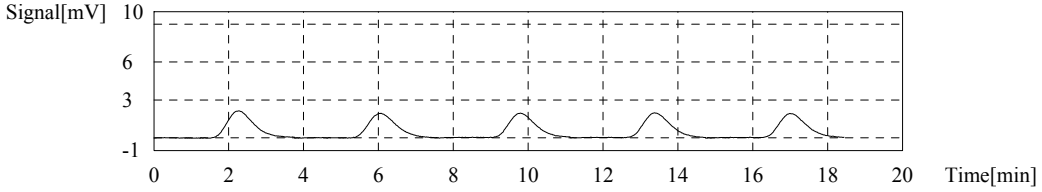
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.121mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.57	1.231mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 7:31:07 PM
2	10.06	1.172mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 7:35:53 PM
3	9.469	1.103mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 7:40:28 PM
4	9.779	1.139mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 7:45:06 PM
5	9.618	1.120mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 7:49:47 PM

Mean Area 9.622
Mean Conc. 1.121mg/L



Sample

Sample Name: 18F0198-39
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

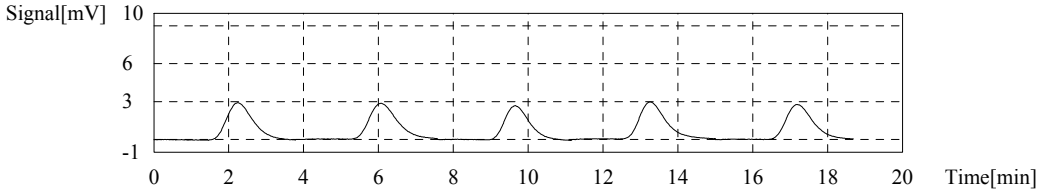
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.700mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.88	1.733mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 8:01:31 PM
2	14.62	1.703mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 8:06:18 PM
3	12.61	1.469mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 8:10:53 PM
4	14.29	1.664mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 8:15:44 PM
5	13.66	1.591mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 8:20:25 PM

Mean Area 14.60
Mean Conc. 1.700mg/L



Sample

Sample Name: BGF0349-MRL1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

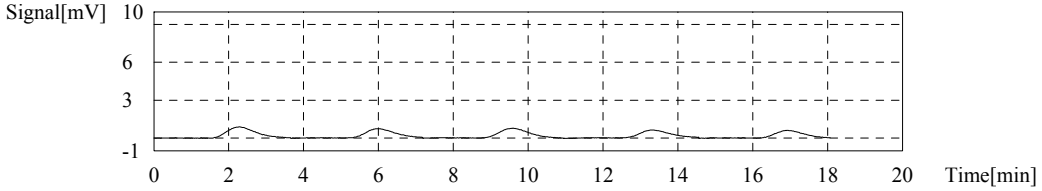
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3834mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.761	0.5545mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 8:32:01 PM
2	3.693	0.4301mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 8:36:33 PM
3	4.146	0.4828mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 8:41:19 PM
4	3.188	0.3713mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 8:45:55 PM
5	2.994	0.3487mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 8:50:26 PM

Mean Area 3.292
Mean Conc. 0.3834mg/L



Sample

Sample Name: BGF0349-BLK1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

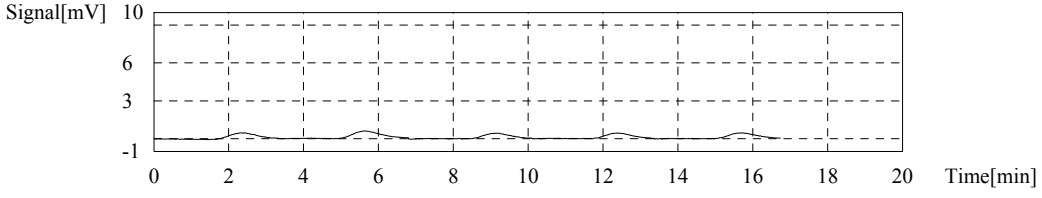
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2362mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.423	0.2822mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 9:01:44 PM
2	2.916	0.3396mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 9:06:11 PM
3	1.987	0.2314mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 9:10:29 PM
4	1.989	0.2316mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 9:14:45 PM
5	2.108	0.2455mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 9:19:07 PM

Mean Area 2.028
Mean Conc. 0.2362mg/L



Control Sample

Sample Name: SEQ-CCV6
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 39.96 / Control exceeds range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

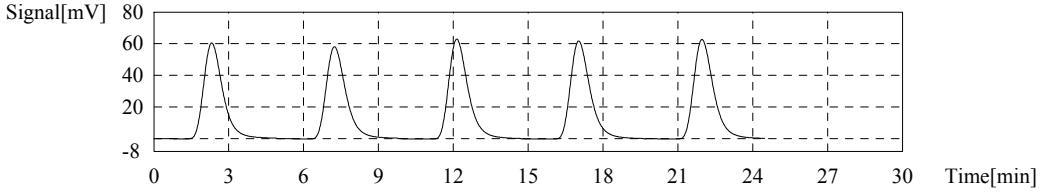
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:39.96ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	324.6	37.63ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 9:32:01 PM
2	322.3	37.36ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 9:37:55 PM
3	344.2	39.91ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 9:43:47 PM
4	340.9	39.52ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 9:49:41 PM
5	348.9	40.46ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 9:55:35 PM

Mean Area 344.7
Mean Conc. 39.96ppm



Control Sample

Sample Name: SEQ-CCB6
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1991 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

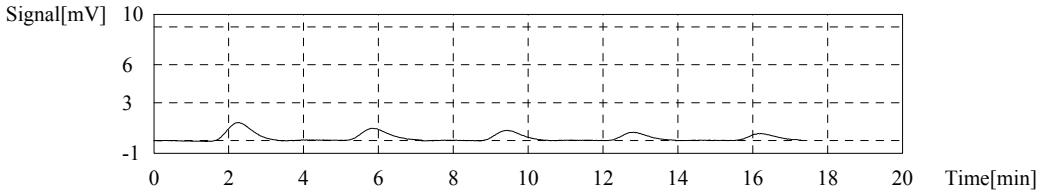
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1991mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.170	0.6575mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 10:07:03 PM
2	4.670	0.3664mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 10:11:37 PM
3	3.957	0.2833mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 10:16:03 PM
4	3.129	0.1869mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 10:20:24 PM
5	2.616	0.1271mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 10:24:45 PM

Mean Area 3.234
Mean Conc. 0.1991mg/L



Sample

Sample Name: BGF0349-BS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

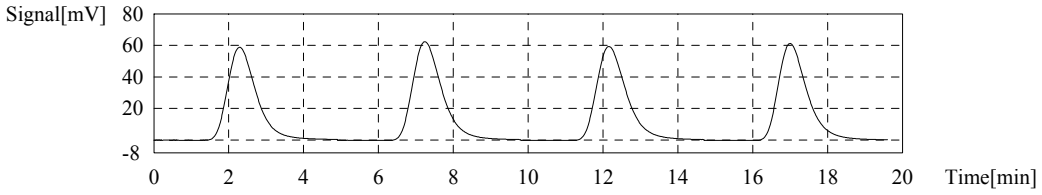
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:39.42mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	317.4	36.96mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 10:37:45 PM
2	345.7	40.26mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 10:43:39 PM
3	335.1	39.03mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 10:49:33 PM
4	334.7	38.98mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 10:55:27 PM

Mean Area 338.5
Mean Conc. 39.42mg/L



Control Sample

Sample Name: SEQ-CCV7
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 38.64 / Control exceeds range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

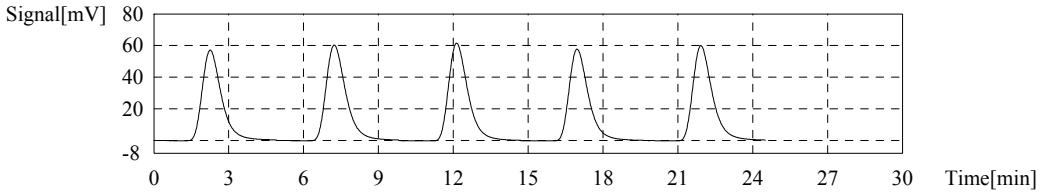
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:38.64ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	308.2	35.72ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 11:08:18 PM
2	335.8	38.93ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 11:14:12 PM
3	336.0	38.95ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 11:20:06 PM
4	313.2	36.30ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 11:26:00 PM
5	328.1	38.03ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 11:31:54 PM

Mean Area 333.3
Mean Conc. 38.64ppm



Control Sample

Sample Name: SEQ-CCB7
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.2950 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

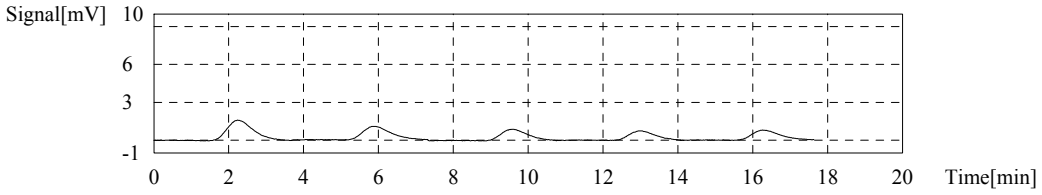
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.2950mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.005	0.7548mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 11:43:28 PM
2	5.522	0.4656mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 11:48:07 PM
3	4.607	0.3590mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 11:52:34 PM
4	3.582	0.2397mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/19/2018 11:56:52 PM
5	3.983	0.2864mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_01_05_11_44_01.cal	6/20/2018 12:01:26 AM

Mean Area 4.057
Mean Conc. 0.2950mg/L



Analytical Resources, Incorporated
Analytical Chemists and Consultants

Corrective Actions
Inorganic Analyses

Criteria Flagged:		ARI Job No.:	SGF0377
Unacceptable Blank:	☐	Date of Event:	6-18-18
Unacceptable Duplicate:	☐	Client ID:	
Unacceptable Spike:	☐	Method/Element:	TOC/DOC
Unacceptable Reference:	☒	Prep Code:	

Details of Problem/Recommended Corrective Action:
-CCV3 High (C=112%)

Samples Affected: All samples following -CCV3

Corrective Action Taken: All samples not bracketed within acceptable verification will be re-analized.

Analyst Initials: CDC **Supervisor:** AGW

Date: 6-28-18 **Date:** 6/28/18

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGG0007	Instrument:	TOC-LCSH
		Calibration:	BG00004

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
1	SGG0007-CAL1	dzuData_07022018@103	NA	06/28/18 16:39
10	SGG0007-CAL2	dzuData_07022018@103	NA	06/28/18 16:57
5	SGG0007-CAL3	dzuData_07022018@103	NA	06/28/18 17:16
2	SGG0007-CAL4	dzuData_07022018@103	NA	06/28/18 17:33
1	SGG0007-CAL5	dzuData_07022018@103	NA	06/28/18 17:50
5	SGG0007-CAL6	dzuData_07022018@103	NA	06/28/18 18:11
2	SGG0007-CAL7	dzuData_07022018@103	NA	06/28/18 18:30
1	SGG0007-CAL8	dzuData_07022018@103	NA	06/28/18 18:49
1	SGG0007-ICV1	dzuData_07022018@103	NA	06/28/18 19:10
1	SGG0007-ICB1	dzuData_07022018@103	NA	06/28/18 19:32
1	SGG0007-IFA1	dzuData_07022018@103	NA	06/28/18 19:54
1	SGG0007-CCV1	dzuData_07022018@103	NA	06/28/18 23:12
1	SGG0007-CCB1	dzuData_07022018@103	NA	06/28/18 23:34
MRL Check	BGF0301-MRL2	dzuData_07022018@103	Water	06/28/18 23:54
Blank	BGF0301-BLK2	dzuData_07022018@103	Water	06/29/18 00:16
LCS	BGF0301-BS2	dzuData_07022018@103	Water	06/29/18 00:39
LDW18-SP-RB1	18F0185-01RE1	dzuData_07022018@103	Water	06/29/18 01:02
LDW18-SP-30	18F0185-03RE1	dzuData_07022018@103	Water	06/29/18 01:19
LDW18-SP-32	18F0185-04RE1	dzuData_07022018@103	Water	06/29/18 01:41
LDW18-SP-35	18F0185-05RE1	dzuData_07022018@103	Water	06/29/18 01:59
LDW18-SP-38	18F0185-06RE1	dzuData_07022018@103	Water	06/29/18 02:21
LDW18-SP-42	18F0185-07RE1	dzuData_07022018@103	Water	06/29/18 02:40
LDW18-SP-43	18F0185-08RE1	dzuData_07022018@103	Water	06/29/18 02:58
1	SGG0007-CCV2	dzuData_07022018@103	NA	06/29/18 03:17
1	SGG0007-CCB2	dzuData_07022018@103	NA	06/29/18 03:44
LDW18-SP-43	BGF0301-DUP2	dzuData_07022018@103	Water	06/29/18 04:08
LDW18-SP-43	BGF0301-MS2	dzuData_07022018@103	Water	06/29/18 04:27
1	SGG0007-CCV3	dzuData_07022018@103	NA	06/29/18 07:30
1	SGG0007-CCB3	dzuData_07022018@103	NA	06/29/18 07:52
1	SGG0007-CCV4	dzuData_07022018@103	NA	06/29/18 11:35

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

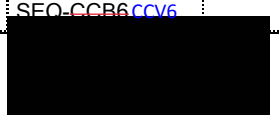
SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGG0007	Instrument:	TOC-LCSH
		Calibration:	BG00004

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
1	SGG0007-CCB4	dzuData_07022018@103	NA	06/29/18 12:00
Calibration Check	SGG0007-CCV5	dzuData_07022018@103	NA	06/29/18 15:34
Calibration Blank	SGG0007-CCB5	dzuData_07022018@103	NA	06/29/18 16:00
Calibration Blank	SGG0007-CCB6	dzuData_07022018@103	NA	06/29/18 19:32
Calibration Check	SGG0007-CCV6	dzuData_07022018@103	NA	06/29/18 19:57

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes	Status	Date / Time	Vial
1	Unknown	NPOC	Rinse		NPOC 0.5 -	1.000	NPOC:0.1282mg/L		Completed	6/28/2018 4:32:03 P	0
2	Standard	NPOC	SEQ-CAL	Curve	NPOC 0.5 -	1.000			Completed	6/28/2018 6:58:55 P	0, 1, 1, 1, 1,
3	Control	NPOC	SEQ-ICV1	CVS 20	CVS 20 pp	1.000	NPOC:19.50ppm	Control valu	Completed	6/28/2018 7:18:21 P	3
4	Control	NPOC	SEQ-ICB1		ICB CCB.tpl	1.000	NPOC:0.2716mg/L	Control valu	Completed	6/28/2018 7:42:40 P	4
5	Unknown	NPOC	SEQ-IFA1		NPOC 0.5 -	1.000	NPOC:19.07mg/L		Completed	6/28/2018 8:03:00 P	9
6	Unknown	NPOC	BGF0299-MRL2 D		NPOC 0.5 -	1.000	NPOC:0.2273mg/L		Completed	6/28/2018 8:28:11 P	10
7	Unknown	NPOC	BGF0299-BLK2 D		NPOC 0.5 -	1.000	NPOC:0.1500mg/L		Completed	6/28/2018 8:45:32 P	11
8	Unknown	NPOC	BGF0299-BS2 DO		NPOC 0.5 -	1.000	NPOC:18.63mg/L		Completed	6/28/2018 9:06:14 P	12
9	Unknown	NPOC	18F0158-01RE1 D		NPOC 0.5 -	1.000	NPOC:1.668mg/L		Completed	6/28/2018 9:27:55 P	13
10	Unknown	NPOC	BGF0299-DUP2 D		NPOC 0.5 -	1.000	NPOC:1.642mg/L		Completed	6/28/2018 9:45:43 P	14
11	Unknown	NPOC	BGF0299-MS2 D		NPOC 0.5 -	1.000	NPOC:23.14mg/L		Completed	6/28/2018 10:06:14	15
12	Unknown	NPOC	18F0158-03RE1 D		NPOC 0.5 -	1.000	NPOC:2.857mg/L		Completed	6/28/2018 10:24:27	16
13	Unknown	NPOC	18F0158-05RE1 D		NPOC 0.5 -	1.000	NPOC:3.779mg/L		Completed	6/28/2018 10:42:35	17
14	Unknown	NPOC	18F0158-07RE1 D		NPOC 0.5 -	1.000	NPOC:2.155mg/L		Completed	6/28/2018 11:00:40	18
15	Control	NPOC	SEQ-CCV1	CVS 20	CVS 20 pp	1.000	NPOC:19.43ppm	Control valu	Completed	6/28/2018 11:20:33	3
16	Control	NPOC	SEQ-CCB1		ICB CCB.tpl	1.000	NPOC:0.2176mg/L	Control valu	Completed	6/28/2018 11:44:47	4
17	Unknown	NPOC	BGF0301-MRL2 D		NPOC 0.5 -	1.000	NPOC:0.1390mg/L		Completed	6/29/2018 12:02:35	19
18	Unknown	NPOC	BGF0301-BLK2 D		NPOC 0.5 -	1.000	NPOC:0.1178mg/L		Completed	6/29/2018 12:27:30	20
19	Unknown	NPOC	BGF0301-BS2 DO		NPOC 0.5 -	1.000	NPOC:18.47mg/L		Completed	6/29/2018 12:48:06	21
20	Unknown	NPOC	18F0185-01RE1 D		NPOC 0.5 -	1.000	NPOC:0.3307mg/L		Completed	6/29/2018 1:09:36 A	22
21	Unknown	NPOC	18F0185-03RE1 D		NPOC 0.5 -	1.000	NPOC:1.264mg/L		Completed	6/29/2018 1:31:10 A	23
22	Unknown	NPOC	18F0185-04RE1 D		NPOC 0.5 -	1.000	NPOC:1.391mg/L		Completed	6/29/2018 1:49:27 A	24
23	Unknown	NPOC	18F0185-05RE1 D		NPOC 0.5 -	1.000	NPOC:1.708mg/L		Completed	6/29/2018 2:07:31 A	25
24	Unknown	NPOC	18F0185-06RE1 D		NPOC 0.5 -	1.000	NPOC:1.683mg/L		Completed	6/29/2018 2:29:27 A	26
25	Unknown	NPOC	18F0185-07RE1 D		NPOC 0.5 -	1.000	NPOC:1.762mg/L		Completed	6/29/2018 2:47:38 A	27
26	Unknown	NPOC	18F0185-08RE1 D		NPOC 0.5 -	1.000	NPOC:0.8124mg/L		Completed	6/29/2018 3:05:31 A	28
27	Control	NPOC	SEQ-CCV2	CVS 20	CVS 20 pp	1.000	NPOC:18.98ppm	Control valu	Completed	6/29/2018 3:26:49 A	3
28	Control	NPOC	SEQ-CCB2		ICB CCB.tpl	1.000	NPOC:0.2255mg/L	Control valu	Completed	6/29/2018 3:50:58 A	4
29	Unknown	NPOC	BGF0301-DUP2 D		NPOC 0.5 -	1.000	NPOC:0.04861mg/		Completed	6/29/2018 4:16:30 A	29
30	Unknown	NPOC	BGF0301-MS2 D		NPOC 0.5 -	1.000	NPOC:22.63mg/L		Completed	6/29/2018 4:39:44 A	30
31	Unknown	NPOC	BGF0291-MRL2 D		NPOC 0.5 -	1.000	NPOC:0.2194mg/L		Completed	6/29/2018 5:01:11 A	31
32	Unknown	NPOC	BGF0291-BLK2 D		NPOC 0.5 -	1.000	NPOC:0.1929mg/L		Completed	6/29/2018 5:26:10 A	32
33	Unknown	NPOC	BGF0291-BS2 DO		NPOC 0.5 -	1.000	NPOC:18.46mg/L		Completed	6/29/2018 5:46:24 A	33
34	Unknown	NPOC	18F0076-01RE1 D		NPOC 0.5 -	1.000	NPOC:4.085mg/L		Completed	6/29/2018 6:04:47 A	34
35	Unknown	NPOC	BGF0291-DUP4 D		NPOC 0.5 -	1.000	NPOC:3.989mg/L		Completed	6/29/2018 6:23:03 A	35
36	Unknown	NPOC	BGF0291-MS4 D		NPOC 0.5 -	1.000	NPOC:25.76mg/L		Completed	6/29/2018 6:42:31 A	36
37	Unknown	NPOC	18F0088-01RE1 D		NPOC 0.5 -	1.000	NPOC:4.176mg/L		Completed	6/29/2018 7:00:43 A	37
38	Unknown	NPOC	18F0142-01RE1 D		NPOC 0.5 -	1.000	NPOC:0.7597mg/L		Completed	6/29/2018 7:18:33 A	38
39	Control	NPOC	SEQ-CCV3	CVS 20	CVS 20 pp	1.000	NPOC:19.43ppm	Control valu	Completed	6/29/2018 7:38:31 A	5
40	Control	NPOC	SEQ-CCB3		ICB CCB.tpl	1.000	NPOC:0.1613mg/L	Control valu	Completed	6/29/2018 8:02:27 A	6

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes	Status	Date / Time	Vial
41	Unknown	NPOC	18F0142-03RE1 D		NPOC 0.5 -	1.000	NPOC:0.6531mg/L		Completed	6/29/2018 8:20:15 A	39
42	Unknown	NPOC	18F0142-05RE1 D		NPOC 0.5 -	1.000	NPOC:0.5916mg/L		Completed	6/29/2018 8:45:27 A	40
43	Unknown	NPOC	18F0142-07RE1 D		NPOC 0.5 -	1.000	NPOC:0.5381mg/L		Completed	6/29/2018 9:03:08 A	41
44	Unknown	NPOC	BGF0291-DUP3 D		NPOC 0.5 -	1.000	NPOC:0.5423mg/L		Completed	6/29/2018 9:24:36 A	42
45	Unknown	NPOC	BGF0291-MS3 D		NPOC 0.5 -	1.000	NPOC:22.24mg/L		Completed	6/29/2018 9:44:03 A	43
46	Unknown	NPOC	BGF0291-MSD3 D		NPOC 0.5 -	1.000	NPOC:21.63mg/L		Completed	6/29/2018 10:03:55	44
47	Unknown	NPOC	18F0142-09RE1 D		NPOC 0.5 -	1.000	NPOC:0.6483mg/L		Completed	6/29/2018 10:25:30	45
48	Unknown	NPOC	18F0142-11RE1 D		NPOC 0.5 -	1.000	NPOC:0.8987mg/L		Completed	6/29/2018 10:43:18	46
49	Unknown	NPOC	18F0142-13RE1 D		NPOC 0.5 -	1.000	NPOC:0.6436mg/L		Completed	6/29/2018 11:05:12	47
50	Unknown	NPOC	18F0142-15RE1 D		NPOC 0.5 -	1.000	NPOC:0.6799mg/L		Completed	6/29/2018 11:23:00	48
51	Control	NPOC	SEQ-CCV4	CVS 20	CVS 20 pp	1.000	NPOC:19.53ppm	Control valu	Completed	6/29/2018 11:43:26	5
52	Control	NPOC	SEQ-CCB4		ICB CCB.tpl	1.000	NPOC:0.1210mg/L	Control valu	Completed	6/29/2018 12:07:21	6
53	Unknown	NPOC	18F0142-17RE1 D		NPOC 0.5 -	1.000	NPOC:0.6146mg/L		Completed	6/29/2018 12:25:14	49
54	Unknown	NPOC	18F0142-19RE1 D		NPOC 0.5 -	1.000	NPOC:0.6143mg/L		Completed	6/29/2018 12:46:41	50
55	Unknown	NPOC	18F0142-21RE1 D		NPOC 0.5 -	1.000	NPOC:0.7773mg/L		Completed	6/29/2018 1:11:55 P	51
56	Unknown	NPOC	18F0142-23RE1 D		NPOC 0.5 -	1.000	NPOC:0.6750mg/L		Completed	6/29/2018 1:29:38 P	52
57	Unknown	NPOC	18F0142-25RE1 D		NPOC 0.5 -	1.000	NPOC:1.025mg/L		Completed	6/29/2018 1:51:12 P	53
58	Unknown	NPOC	18F0147-01RE1 D		NPOC 0.5 -	1.000	NPOC:1.230mg/L		Completed	6/29/2018 2:09:26 P	54
59	Unknown	NPOC	18F0147-03RE1 D		NPOC 0.5 -	1.000	NPOC:1.118mg/L		Completed	6/29/2018 2:27:10 P	55
60	Unknown	NPOC	18F0147-05RE1 D		NPOC 0.5 -	1.000	NPOC:0.5583mg/L		Completed	6/29/2018 2:44:48 P	56
61	Unknown	NPOC	BGF0292-MRL2		NPOC 0.5 -	1.000	NPOC:0.1617mg/L		Completed	6/29/2018 3:05:59 P	57
62	Unknown	NPOC	BGF0292-BLK2		NPOC 0.5 -	1.000	NPOC:0.1333mg/L		Completed	6/29/2018 3:23:18 P	58
63	Control	NPOC	SEQ-CCV5	CVS 20	CVS 20 pp	1.000	NPOC:19.59ppm	Control valu	Completed	6/29/2018 3:43:02 P	5
64	Control	NPOC	SEQ-CCB5		ICB CCB.tpl	1.000	NPOC:0.1255mg/L	Control valu	Completed	6/29/2018 4:06:56 P	6
65	Unknown	NPOC	BGF0292-BS2		NPOC 0.5 -	1.000	NPOC:19.21mg/L		Completed	6/29/2018 4:26:30 P	59
~~66~~	~~Unknown~~	~~NPOC~~	~~18F0070-01RE1~~		~~NPOC 0.5 -~~	~~1.000~~	~~NPOC:36.34mg/L~~		~~Completed~~	~~6/29/2018 4:46:13 P~~	~~60~~
~~67~~	~~Unknown~~	~~NPOC~~	~~18F0070-02RE1~~		~~NPOC 0.5 -~~	~~1.000~~	~~NPOC:11.02mg/L~~		~~Completed~~	~~6/29/2018 5:05:24 P~~	~~61~~
~~68~~	~~Unknown~~	~~NPOC~~	~~BGF0292-DUP4~~		~~NPOC 0.5 -~~	~~1.000~~	~~NPOC:10.96mg/L~~		~~Completed~~	~~6/29/2018 5:24:36 P~~	~~62~~
~~69~~	~~Unknown~~	~~NPOC~~	~~BGF0292-MS4~~		~~NPOC 0.5 -~~	~~1.000~~	~~NPOC:32.49mg/L~~		~~Completed~~	~~6/29/2018 5:44:47 P~~	~~63~~
~~70~~	~~Unknown~~	~~NPOC~~	~~18F0070-04RE1~~		~~NPOC 0.5 -~~	~~1.000~~	~~NPOC:34.98mg/L~~		~~Completed~~	~~6/29/2018 6:04:15 P~~	~~64~~
~~71~~	~~Unknown~~	~~NPOC~~	~~18F0070-06RE1~~		~~NPOC 0.5 -~~	~~1.000~~	~~NPOC:35.07mg/L~~		~~Completed~~	~~6/29/2018 6:23:49 P~~	~~65~~
~~72~~	~~Unknown~~	~~NPOC~~	~~18F0070-07RE1~~		~~NPOC 0.5 -~~	~~1.000~~	~~NPOC:6.833mg/L~~		~~Completed~~	~~6/29/2018 6:43:04 P~~	~~66~~
~~73~~	~~Unknown~~	~~NPOC~~	~~18F0142-01RE1~~		~~NPOC 0.5 -~~	~~1.000~~	~~NPOC:0.7634mg/L~~		~~Completed~~	~~6/29/2018 7:04:46 P~~	~~67~~
~~74~~	~~Unknown~~	~~NPOC~~	~~18F0142-03RE1~~		~~NPOC 0.5 -~~	~~1.000~~	~~NPOC:0.5716mg/L~~		~~Completed~~	~~6/29/2018 7:22:28 P~~	~~68~~
75	Control	NPOC	SEQ-~~CCV6~~ CCB6	CVS 20	CVS 20 pp	1.000	NPOC:0.1467ppm	Control valu	Completed	6/29/2018 7:46:23 P	7
76	Control	NPOC	SEQ-~~CCB6~~ CCV6		ICB CCB.tpl	1.000	NPOC:19.79mg/L	Control valu	Completed	6/29/2018 8:05:44 P	8



TOC-Control L Report

CDE
2018_06_28_001.tlx

Instr.Information

Instrument Options: TOC/ASI/IC Unit/
Catalyst: Regular Sensitivity

Sample

Sample Name: Rinse
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status: Completed
Chk. Result

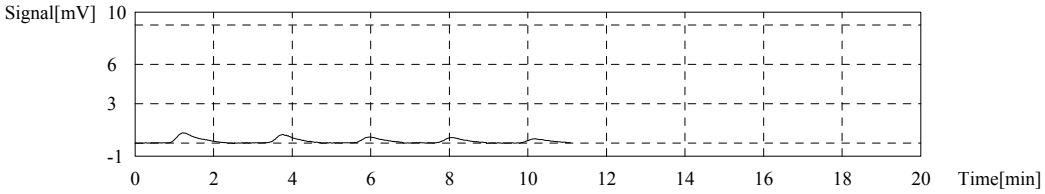
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1282mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.984	0.2981mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_26_16_10_11.cal	6/28/2018 4:18:26 PM
2	2.080	0.2078mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_26_16_10_11.cal	6/28/2018 4:21:37 PM
3	1.438	0.1437mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_26_16_10_11.cal	6/28/2018 4:24:59 PM
4	1.361	0.1360mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_26_16_10_11.cal	6/28/2018 4:28:31 PM
5	1.051	0.1050mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_26_16_10_11.cal	6/28/2018 4:32:03 PM

Mean Area 1.283
Mean Conc. 0.1282mg/L



Cal. Curve

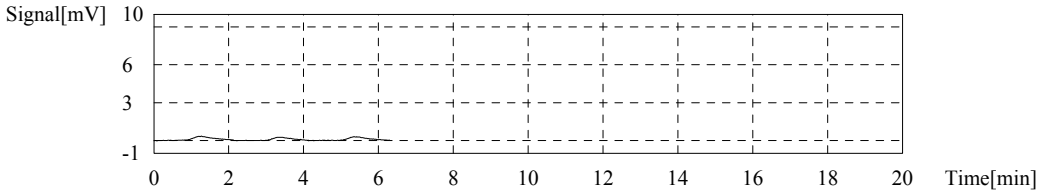
Sample Name: SEQ-CAL
Sample ID: Curve
Cal. Curve: NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal
Status: Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1.017	100uL	1.000	*******		6/28/2018 4:39:45 PM
2	0.8758	100uL	1.000	*******		6/28/2018 4:43:09 PM
3	0.9630	100uL	1.000	*******		6/28/2018 4:46:47 PM

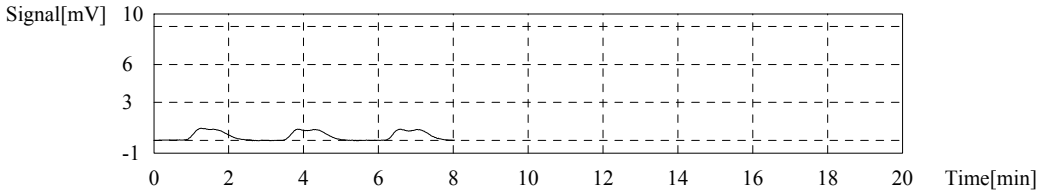
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 0.9519



Conc: 0.5000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	5.087	100uL	10.00	*******		6/28/2018 4:57:36 PM
2	5.237	100uL	10.00	*******		6/28/2018 5:02:34 PM
3	5.213	100uL	10.00	*******		6/28/2018 5:07:25 PM

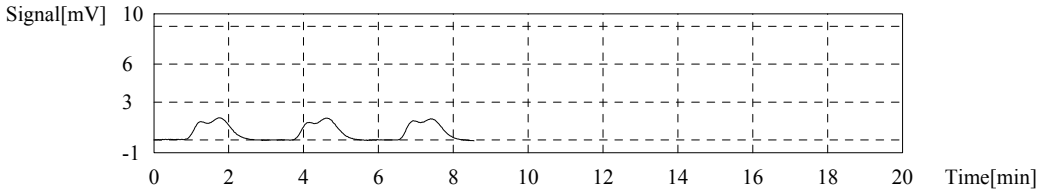
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 5.179



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	9.951	100uL	5.000	*******		6/28/2018 5:16:38 PM
2	9.813	100uL	5.000	*******		6/28/2018 5:20:25 PM
3	9.992	100uL	5.000	*******		6/28/2018 5:24:16 PM

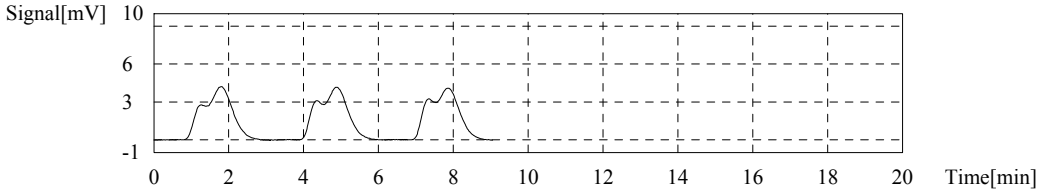
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 9.919



Conc: 2.500mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	23.82	100uL	2.000	*******		6/28/2018 5:33:52 PM
2	23.91	100uL	2.000	*******		6/28/2018 5:37:51 PM
3	23.95	100uL	2.000	*******		6/28/2018 5:41:47 PM

Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 23.89



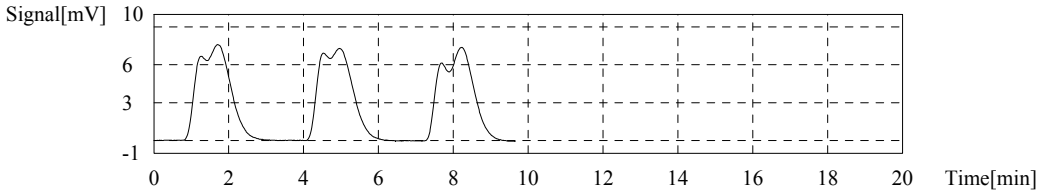
Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	46.68	100uL	1.000	*******		6/28/2018 5:50:57 PM
2	45.85	100uL	1.000	*******		6/28/2018 5:55:06 PM
3	46.11	100uL	1.000	*******		6/28/2018 5:59:17 PM

TOC-Control L Report

CDE
2018_06_28_001.tlx

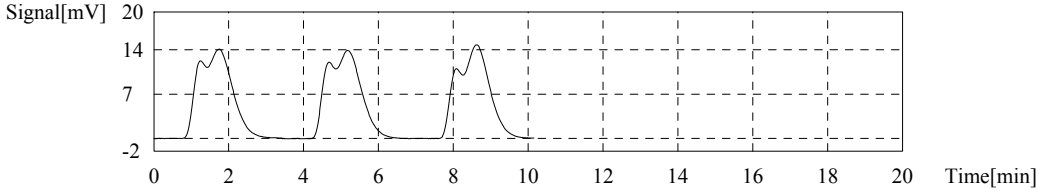
Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	46.21



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	90.46	100uL	5.000	*******		6/28/2018 6:11:11 PM
2	90.29	100uL	5.000	*******		6/28/2018 6:15:36 PM
3	90.30	100uL	5.000	*******		6/28/2018 6:19:53 PM

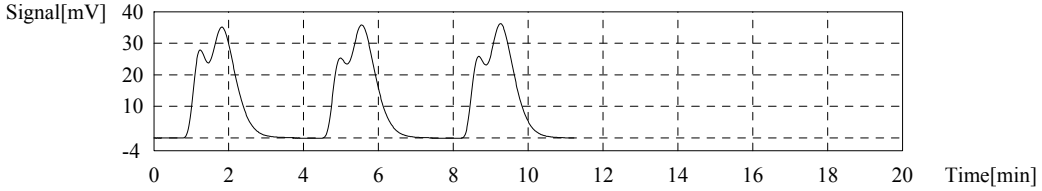
Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	90.35



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	229.9	100uL	2.000	*******		6/28/2018 6:30:06 PM
2	230.0	100uL	2.000	*******		6/28/2018 6:34:48 PM
3	231.8	100uL	2.000	*******		6/28/2018 6:39:34 PM

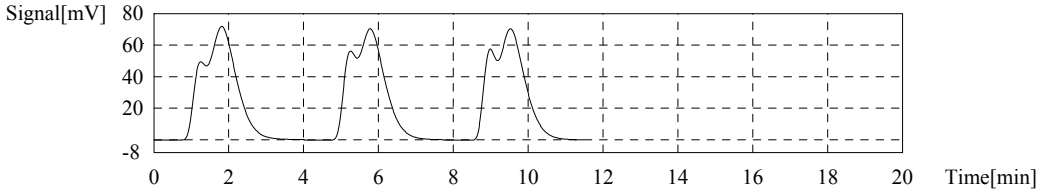
Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	230.6



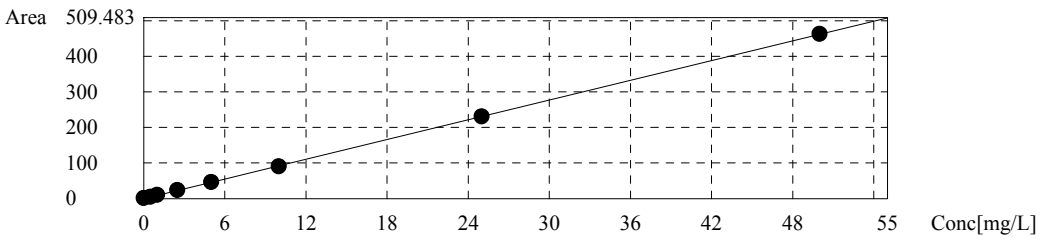
Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	464.9	100uL	1.000	*******		6/28/2018 6:49:28 PM
2	462.4	100uL	1.000	*******		6/28/2018 6:54:12 PM
3	462.2	100uL	1.000	*******		6/28/2018 6:58:55 PM

Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	463.2



Slope:	9.245
Intercept	0.000
r^2	1.0000
r	1.0000
Zero Shift	Yes



Control Sample

Sample Name: SEQ-ICV1
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 19.50 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

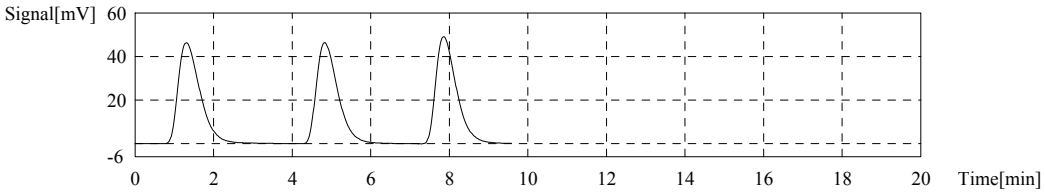
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:19.50ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	181.2	19.58ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 7:10:19 PM
2	177.7	19.21ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 7:14:21 PM
3	182.3	19.70ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 7:18:21 PM

Mean Area 180.4
Mean Conc. 19.50ppm



Control Sample

Sample Name: SEQ-ICB1
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.2716 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

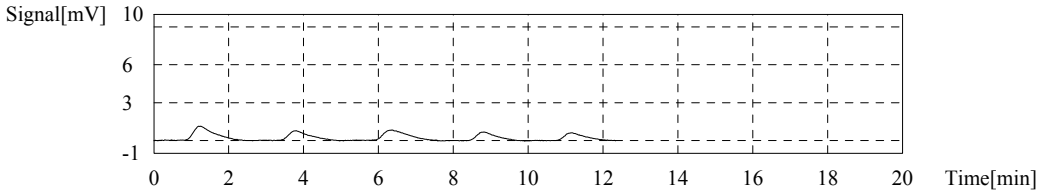
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.2716mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.241	0.4421mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 7:28:47 PM
2	3.009	0.3088mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 7:32:17 PM
3	3.564	0.3689mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 7:35:46 PM
4	2.587	0.2632mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 7:39:06 PM
5	2.399	0.2429mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 7:42:40 PM

Mean Area 2.665
Mean Conc. 0.2716mg/L



Sample

Sample Name: SEQ-IFA1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

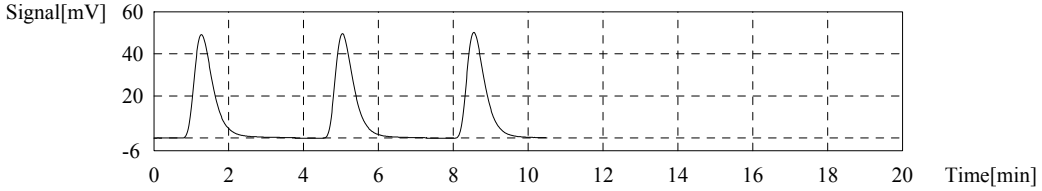
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:19.07mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	177.3	19.18mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 7:54:18 PM
2	175.9	19.03mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 7:58:48 PM
3	175.7	19.01mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 8:03:00 PM

Mean Area 176.3
Mean Conc. 19.07mg/L



Sample

Sample Name: BGF0299-MRL2 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

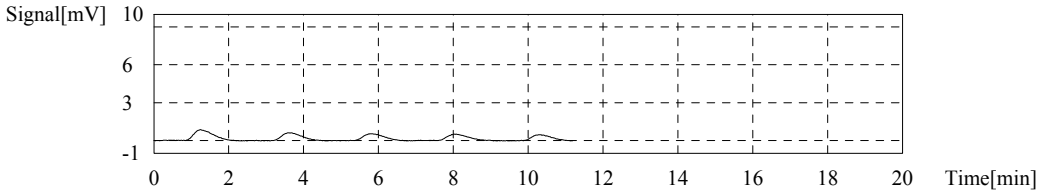
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2273mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.051	0.3300mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 8:13:13 PM
2	2.287	0.2474mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 8:16:50 PM
3	2.115	0.2288mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 8:20:42 PM
4	1.902	0.2057mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 8:24:30 PM
5	1.690	0.1828mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 8:28:11 PM

Mean Area 2.101
Mean Conc. 0.2273mg/L



Sample

Sample Name: BGF0299-BLK2 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

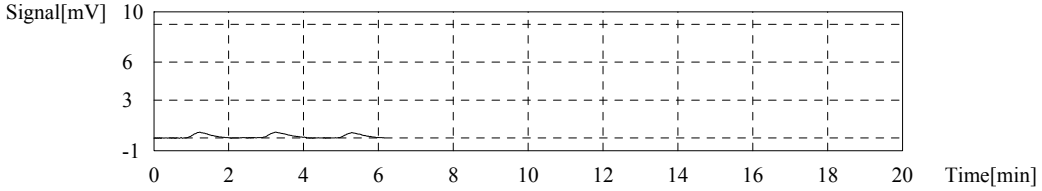
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1500mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.461	0.1580mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 8:37:55 PM
2	1.363	0.1474mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 8:41:42 PM
3	1.335	0.1444mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 8:45:32 PM

Mean Area 1.386
Mean Conc. 0.1500mg/L



Sample

Sample Name: BGF0299-BS2 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

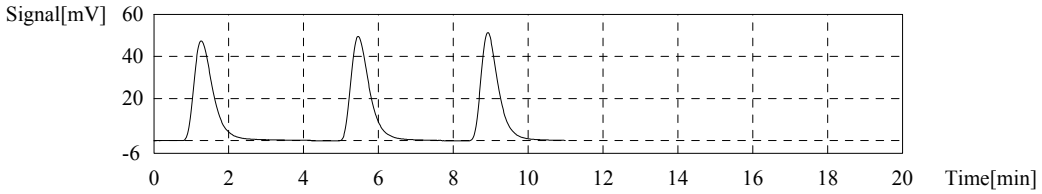
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.63mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	171.6	18.56mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 8:57:26 PM
2	174.8	18.91mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 9:01:55 PM
3	170.4	18.43mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 9:06:14 PM

Mean Area 172.3
Mean Conc. 18.63mg/L



Sample

Sample Name: 18F0158-01RE1 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

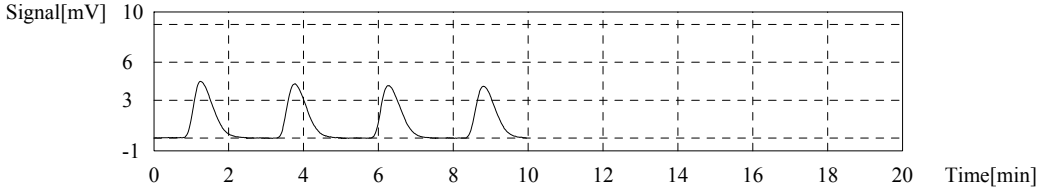
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.668mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	16.16	1.748mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 9:16:37 PM
2	15.73	1.702mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 9:20:26 PM
3	15.33	1.658mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 9:24:13 PM
4	15.19	1.643mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 9:27:55 PM

Mean Area 15.42
Mean Conc. 1.668mg/L



Sample

Sample Name: BGF0299-DUP2 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

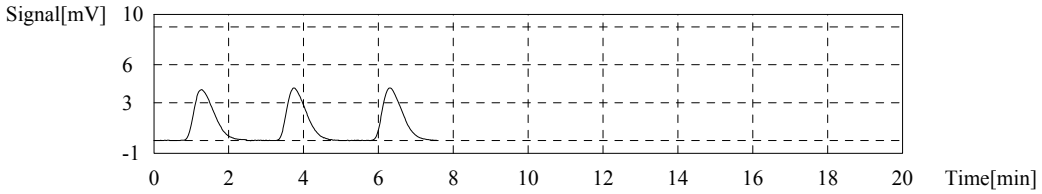
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.642mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.93	1.615mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 9:38:07 PM
2	15.25	1.650mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 9:41:58 PM
3	15.37	1.663mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 9:45:43 PM

Mean Area 15.18
Mean Conc. 1.642mg/L



Sample

Sample Name: BGF0299-MS2 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

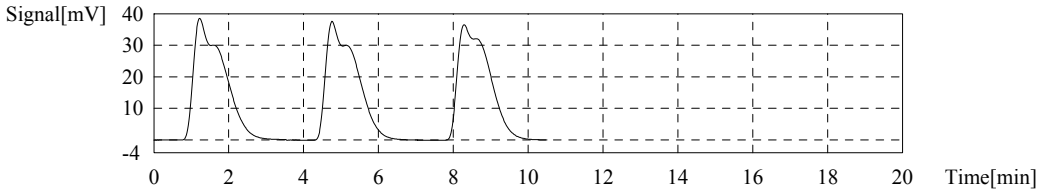
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:23.14mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	215.2	23.28mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 9:57:16 PM
2	212.6	23.00mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 10:01:47 PM
3	213.9	23.14mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 10:06:14 PM

Mean Area 213.9
Mean Conc. 23.14mg/L



Sample

Sample Name: 18F0158-03RE1 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

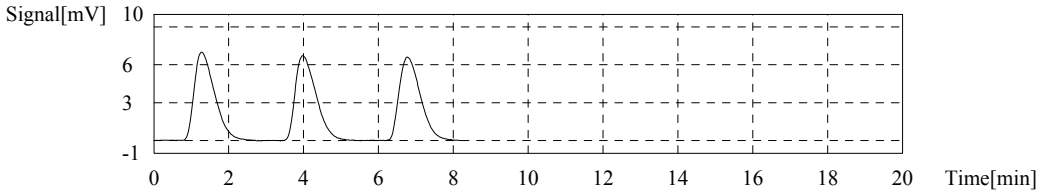
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.857mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	26.61	2.878mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 10:16:50 PM
2	26.28	2.843mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 10:20:40 PM
3	26.36	2.851mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 10:24:27 PM

Mean Area 26.42
Mean Conc. 2.857mg/L



Sample

Sample Name: 18F0158-05RE1 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

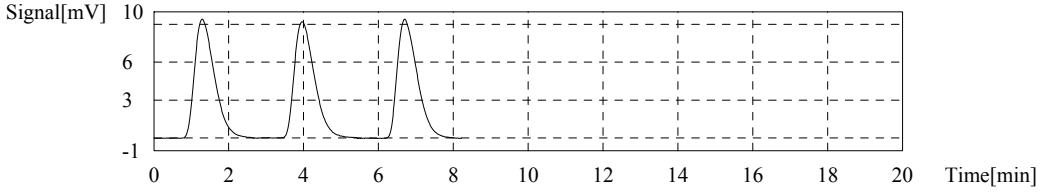
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.779mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	34.96	3.782mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 10:34:54 PM
2	34.64	3.747mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 10:38:47 PM
3	35.21	3.809mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 10:42:35 PM

Mean Area 34.94
Mean Conc. 3.779mg/L



Sample

Sample Name: 18F0158-07RE1 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

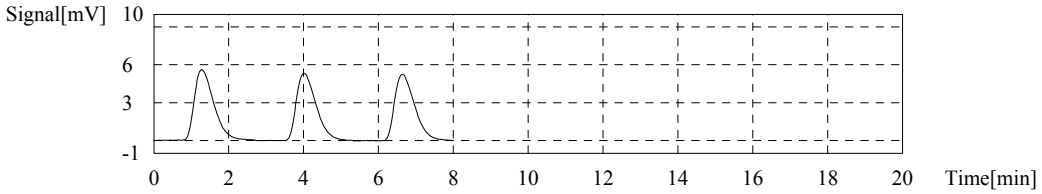
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.155mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.31	2.197mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 10:53:11 PM
2	19.76	2.137mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 10:56:52 PM
3	19.70	2.131mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 11:00:40 PM

Mean Area 19.92
Mean Conc. 2.155mg/L



Control Sample

Sample Name: SEQ-CCV1
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 19.43 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

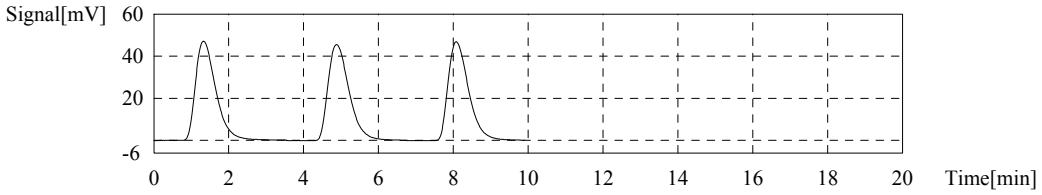
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:19.43ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	179.6	19.41ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 11:12:13 PM
2	179.7	19.42ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 11:16:25 PM
3	180.1	19.46ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 11:20:33 PM

Mean Area 179.8
Mean Conc. 19.43ppm



Control Sample

Sample Name: SEQ-CCB1
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.2176 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

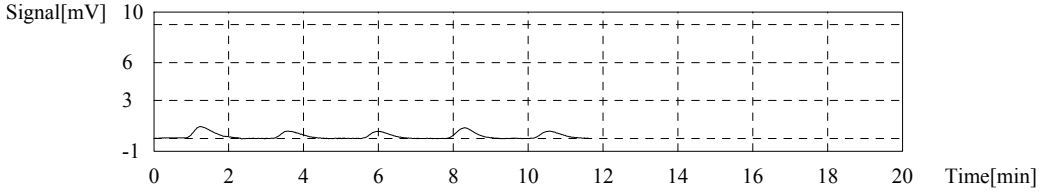
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.2176mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.207	0.3303mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 11:30:45 PM
2	2.274	0.2293mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 11:34:19 PM
3	2.110	0.2116mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 11:37:42 PM
4	2.918	0.2990mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 11:41:12 PM
5	2.112	0.2118mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 11:44:47 PM

Mean Area 2.165
Mean Conc. 0.2176mg/L



Sample

Sample Name: BGF0301-MRL2 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

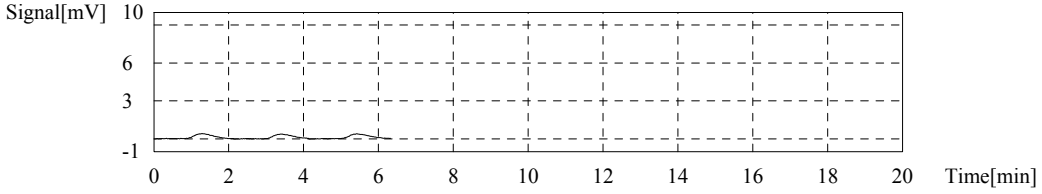
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1390mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.347	0.1457mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 11:54:57 PM
2	1.194	0.1292mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/28/2018 11:58:38 PM
3	1.315	0.1422mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 12:02:35 AM

Mean Area 1.285
Mean Conc. 0.1390mg/L



Sample

Sample Name: BGF0301-BLK2 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

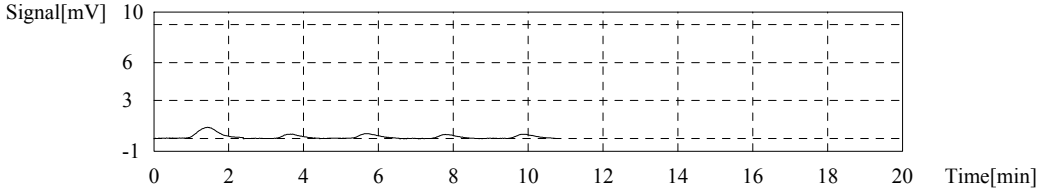
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1178mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.182	0.3442mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 12:12:40 AM
2	1.110	0.1201mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 12:16:06 AM
3	1.241	0.1342mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 12:19:57 AM
4	1.034	0.1118mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 12:23:41 AM
5	1.122	0.1214mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 12:27:30 AM

Mean Area 1.089
Mean Conc. 0.1178mg/L



Sample

Sample Name: BGF0301-BS2 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

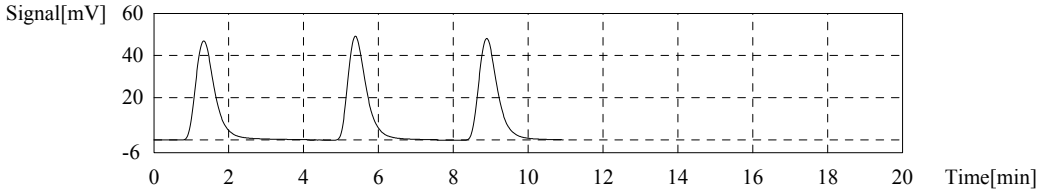
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.47mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	170.3	18.42mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 12:39:17 AM
2	171.4	18.54mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 12:43:45 AM
3	170.6	18.45mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 12:48:06 AM

Mean Area 170.8
Mean Conc. 18.47mg/L



Sample

Sample Name: 18F0185-01RE1 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

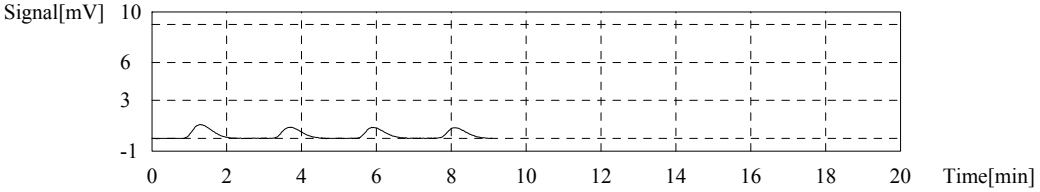
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3307mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.039	0.4369mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 12:58:23 AM
2	3.167	0.3426mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 1:02:00 AM
3	3.026	0.3273mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 1:05:44 AM
4	2.979	0.3222mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 1:09:36 AM

Mean Area 3.057
Mean Conc. 0.3307mg/L



Sample

Sample Name: 18F0185-03RE1 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

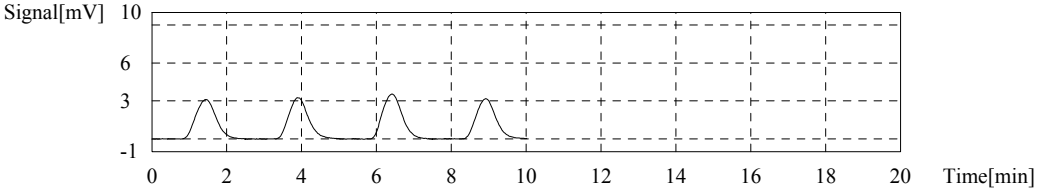
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.264mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.78	1.274mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 1:19:48 AM
2	11.72	1.268mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 1:23:36 AM
3	13.07	1.414mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 1:27:21 AM
4	11.56	1.250mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 1:31:10 AM

Mean Area 11.69
Mean Conc. 1.264mg/L



Sample

Sample Name: 18F0185-04RE1 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

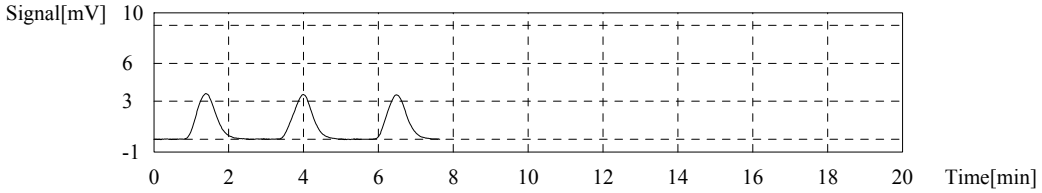
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.391mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.93	1.399mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 1:41:50 AM
2	12.80	1.385mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 1:45:39 AM
3	12.86	1.391mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 1:49:27 AM

Mean Area 12.86
Mean Conc. 1.391mg/L



Sample

Sample Name: 18F0185-05RE1 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

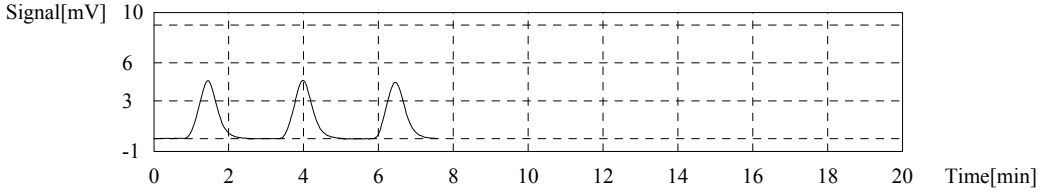
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.708mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.62	1.690mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 1:59:57 AM
2	16.02	1.733mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 2:03:43 AM
3	15.72	1.700mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 2:07:31 AM

Mean Area 15.79
Mean Conc. 1.708mg/L



Sample

Sample Name: 18F0185-06RE1 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

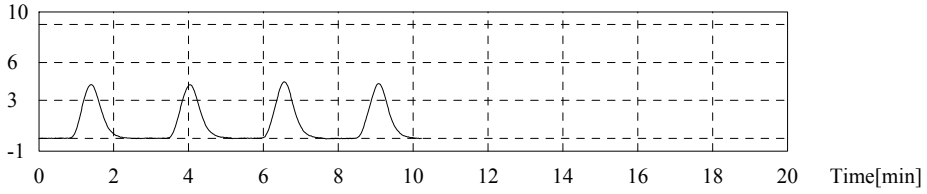
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.683mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.11	1.634mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 2:18:08 AM
2	15.30	1.655mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 2:21:49 AM
3	15.76	1.705mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 2:25:35 AM
4	15.62	1.690mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 2:29:27 AM

Mean Area 15.56
Mean Conc. 1.683mg/L



Sample

Sample Name: 18F0185-07RE1 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

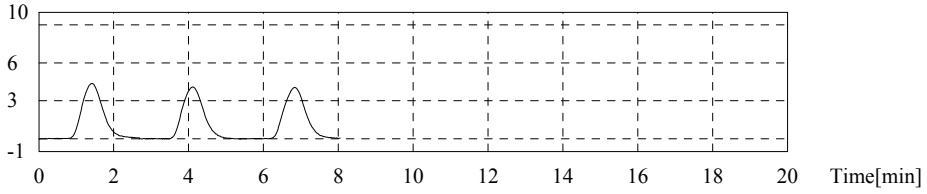
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.762mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	16.63	1.799mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 2:40:05 AM
2	16.08	1.739mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 2:43:53 AM
3	16.16	1.748mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 2:47:38 AM

Mean Area 16.29
Mean Conc. 1.762mg/L



Sample

Sample Name: 18F0185-08RE1 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

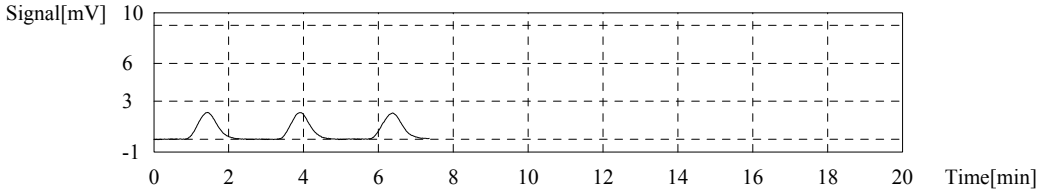
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8124mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.538	0.8154mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 2:58:00 AM
2	7.503	0.8116mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 3:01:44 AM
3	7.491	0.8103mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 3:05:31 AM

Mean Area 7.511
Mean Conc. 0.8124mg/L



Control Sample

Sample Name: SEQ-CCV2
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.98 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

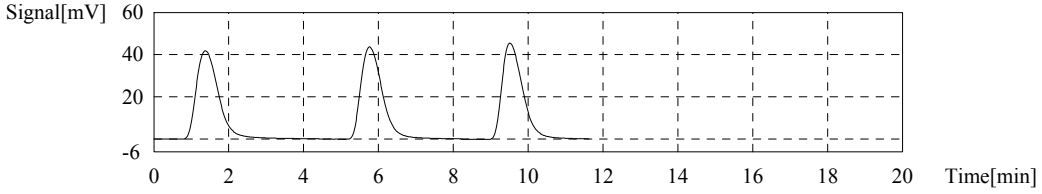
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.98ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	174.7	18.88ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 3:17:38 AM
2	175.8	19.00ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 3:22:25 AM
3	176.4	19.06ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 3:26:49 AM

Mean Area 175.6
Mean Conc. 18.98ppm



Control Sample

Sample Name: SEQ-CCB2
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.2255 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

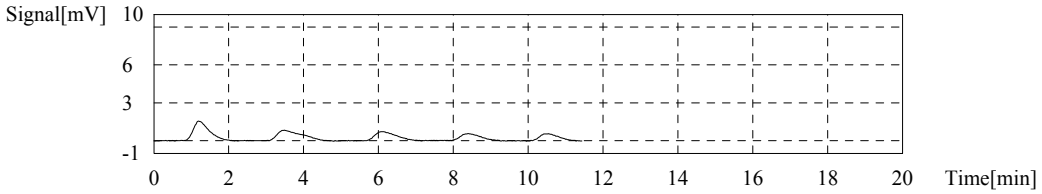
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.2255mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.655	0.4869mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 3:36:56 AM
2	3.743	0.3882mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 3:40:48 AM
3	2.843	0.2909mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 3:44:04 AM
4	1.877	0.1864mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 3:47:23 AM
5	1.996	0.1993mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 3:50:58 AM

Mean Area 2.239
Mean Conc. 0.2255mg/L



Sample

Sample Name: BGF0301-DUP2 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

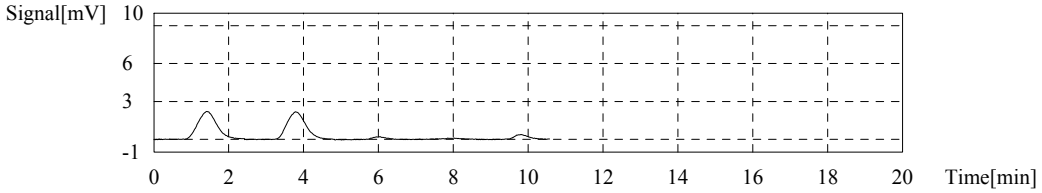
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04861mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.633	0.8257mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 4:01:50 AM
2	7.652	0.8277mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 4:05:36 AM
3	0.4852	0.05248mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 4:08:53 AM
4	0.000	0.000mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 4:12:40 AM
5	0.8631	0.09336mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 4:16:30 AM

Mean Area 0.4494
Mean Conc. 0.04861mg/L



Sample

Sample Name: BGF0301-MS2 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

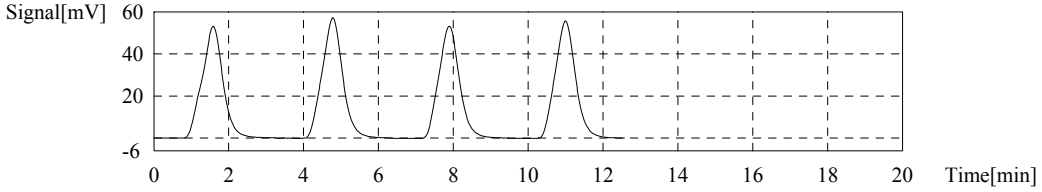
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:22.63mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	207.6	22.46mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 4:27:27 AM
2	222.0	24.01mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 4:31:35 AM
3	206.2	22.30mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 4:35:40 AM
4	213.9	23.14mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 4:39:44 AM

Mean Area 209.2
Mean Conc. 22.63mg/L



Sample

Sample Name: BGF0291-MRL2 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

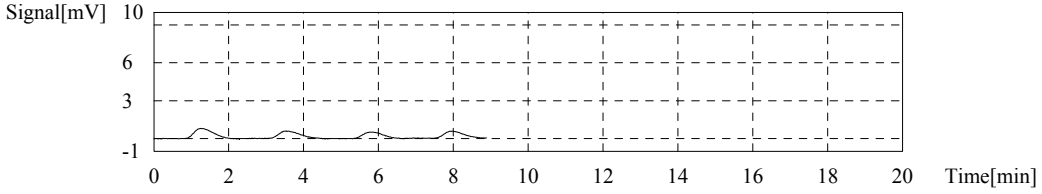
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2194mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.984	0.3228mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 4:49:54 AM
2	2.128	0.2302mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 4:53:38 AM
3	1.958	0.2118mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 4:57:24 AM
4	1.999	0.2162mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 5:01:11 AM

Mean Area 2.028
Mean Conc. 0.2194mg/L



Sample

Sample Name: BGF0291-BLK2 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

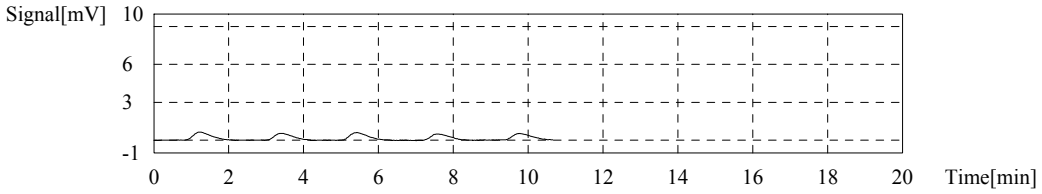
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1929mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.134	0.2308mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 5:11:04 AM
2	1.798	0.1945mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 5:14:42 AM
3	1.983	0.2145mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 5:18:37 AM
4	1.815	0.1963mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 5:22:26 AM
5	1.736	0.1878mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 5:26:10 AM

Mean Area 1.783
Mean Conc. 0.1929mg/L



Sample

Sample Name: BGF0291-BS2 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

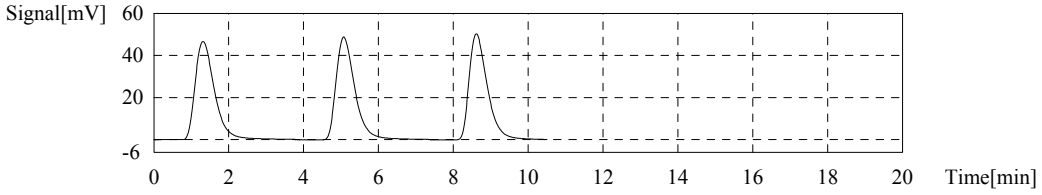
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.46mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	169.2	18.30mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 5:37:40 AM
2	171.4	18.54mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 5:42:15 AM
3	171.4	18.54mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 5:46:24 AM

Mean Area 170.7
Mean Conc. 18.46mg/L



Sample

Sample Name: 18F0076-01RE1 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

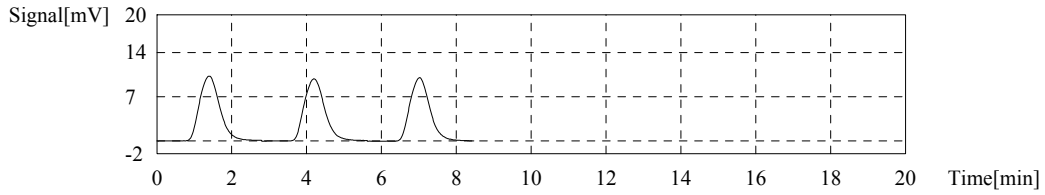
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.085mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	38.57	4.172mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 5:57:07 AM
2	37.43	4.049mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 6:00:56 AM
3	37.29	4.034mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 6:04:47 AM

Mean Area 37.76
Mean Conc. 4.085mg/L



Sample

Sample Name: BGF0291-DUP4 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

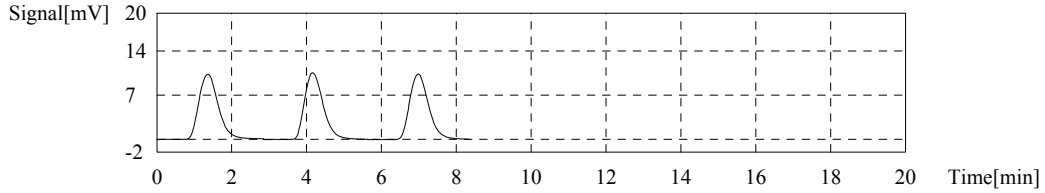
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.989mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	37.16	4.020mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 6:15:33 AM
2	36.85	3.986mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 6:19:20 AM
3	36.63	3.962mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 6:23:03 AM

Mean Area 36.88
Mean Conc. 3.989mg/L



Sample

Sample Name: BGF0291-MS4 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

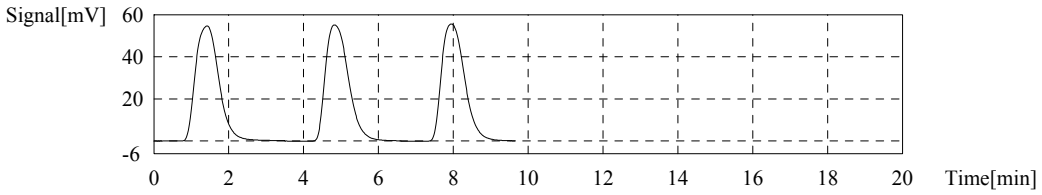
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.76mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	238.4	25.79mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 6:34:22 AM
2	236.9	25.63mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 6:38:28 AM
3	239.0	25.85mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 6:42:31 AM

Mean Area 238.1
Mean Conc. 25.76mg/L



Sample

Sample Name: 18F0088-01RE1 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

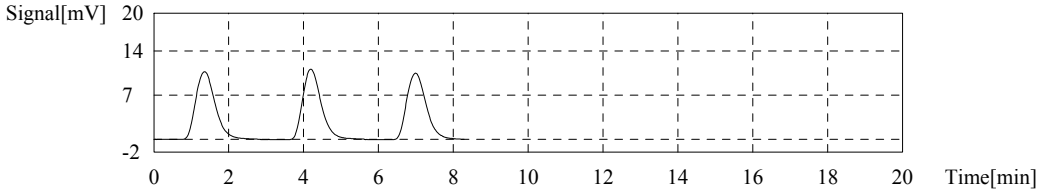
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.176mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	39.00	4.219mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 6:53:17 AM
2	38.59	4.174mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 6:57:04 AM
3	38.22	4.134mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 7:00:43 AM

Mean Area 38.60
Mean Conc. 4.176mg/L



Sample

Sample Name: 18F0142-01RE1 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

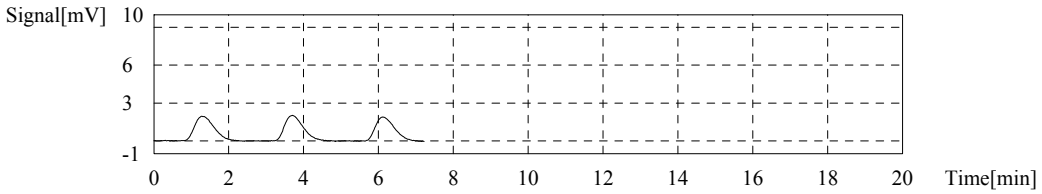
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7597mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.135	0.7718mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 7:11:01 AM
2	6.983	0.7553mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 7:14:48 AM
3	6.952	0.7520mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 7:18:33 AM

Mean Area 7.023
Mean Conc. 0.7597mg/L



Control Sample

Sample Name: SEQ-CCV3
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 19.43 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

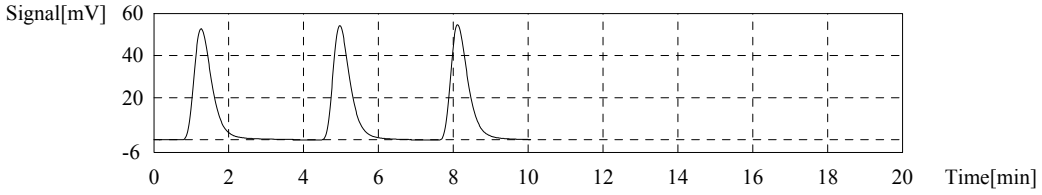
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:19.43ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	180.4	19.50ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 7:30:10 AM
2	177.9	19.23ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 7:34:19 AM
3	181.0	19.56ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 7:38:31 AM

Mean Area 179.8
Mean Conc. 19.43ppm



Control Sample

Sample Name: SEQ-CCB3
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1613 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

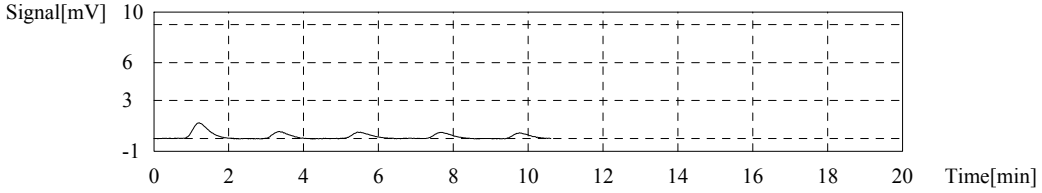
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1613mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.630	0.3760mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 7:48:33 AM
2	1.778	0.1757mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 7:52:01 AM
3	1.618	0.1584mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 7:55:35 AM
4	1.539	0.1498mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 7:58:59 AM
5	1.361	0.1306mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 8:02:27 AM

Mean Area 1.645
Mean Conc. 0.1613mg/L



Sample

Sample Name: 18F0142-03RE1 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

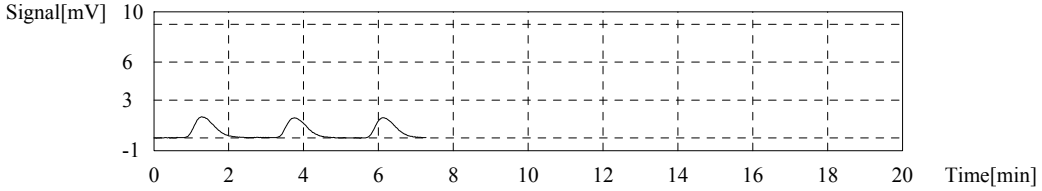
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6531mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.173	0.6677mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 8:12:43 AM
2	5.944	0.6430mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 8:16:25 AM
3	5.996	0.6486mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 8:20:15 AM

Mean Area 6.038
Mean Conc. 0.6531mg/L



Sample

Sample Name: 18F0142-05RE1 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

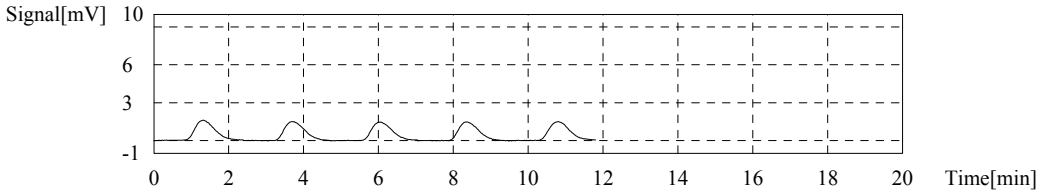
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5916mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.717	0.6184mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 8:30:21 AM
2	5.698	0.6163mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 8:34:05 AM
3	5.421	0.5864mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 8:37:52 AM
4	5.444	0.5889mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 8:41:43 AM
5	5.544	0.5997mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 8:45:27 AM

Mean Area 5.470
Mean Conc. 0.5916mg/L



Sample

Sample Name: 18F0142-07RE1 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

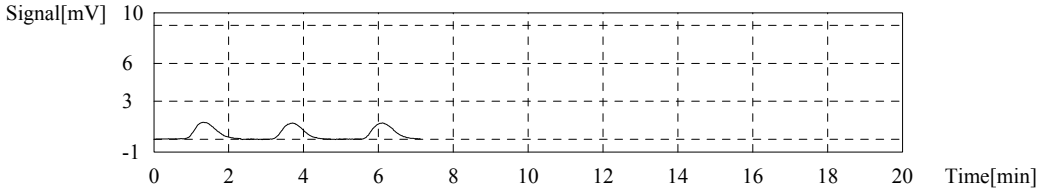
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5381mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.036	0.5447mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 8:55:29 AM
2	4.951	0.5355mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 8:59:21 AM
3	4.936	0.5339mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 9:03:08 AM

Mean Area 4.974
Mean Conc. 0.5381mg/L



Sample

Sample Name: BGF0291-DUP3 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

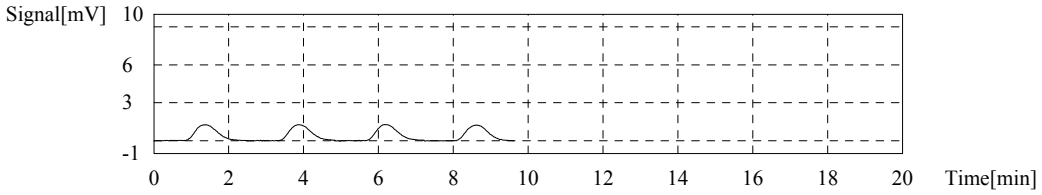
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5423mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.099	0.5516mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 9:13:21 AM
2	4.821	0.5215mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 9:16:58 AM
3	4.919	0.5321mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 9:20:48 AM
4	5.022	0.5432mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 9:24:36 AM

Mean Area 5.013
Mean Conc. 0.5423mg/L



Sample

Sample Name: BGF0291-MS3 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

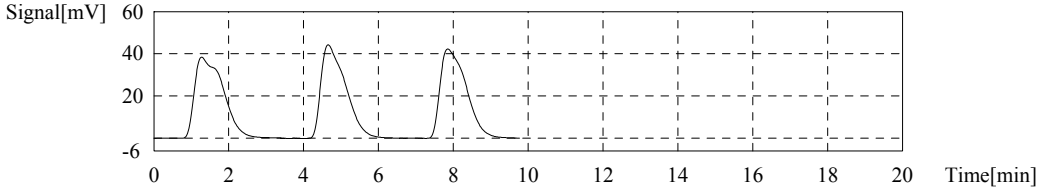
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:22.24mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	205.2	22.20mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 9:35:42 AM
2	205.2	22.20mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 9:39:52 AM
3	206.3	22.32mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 9:44:03 AM

Mean Area 205.6
Mean Conc. 22.24mg/L



Sample

Sample Name: BGF0291-MSD3 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

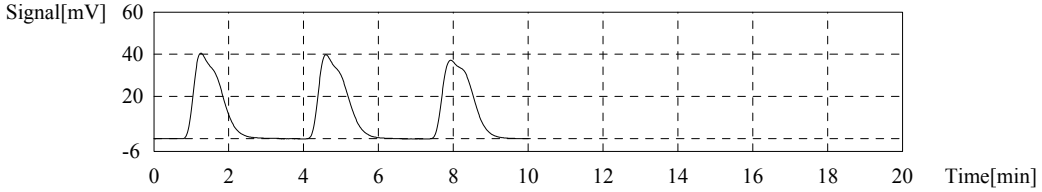
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:21.63mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	199.0	21.53mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 9:55:17 AM
2	199.4	21.57mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 9:59:33 AM
3	201.5	21.80mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 10:03:55 AM

Mean Area 200.0
Mean Conc. 21.63mg/L



Sample

Sample Name: 18F0142-09RE1 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

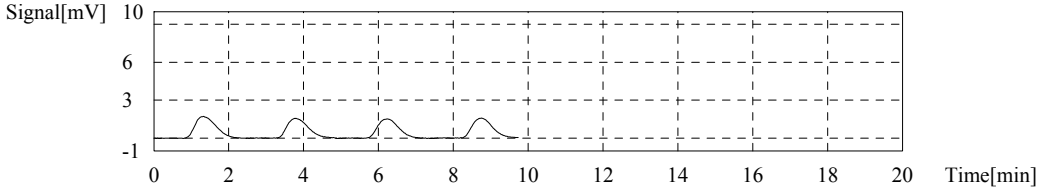
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6483mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.779	0.7333mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 10:14:17 AM
2	6.086	0.6583mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 10:18:00 AM
3	6.023	0.6515mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 10:21:55 AM
4	5.871	0.6351mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 10:25:30 AM

Mean Area 5.993
Mean Conc. 0.6483mg/L



Sample

Sample Name: 18F0142-11RE1 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

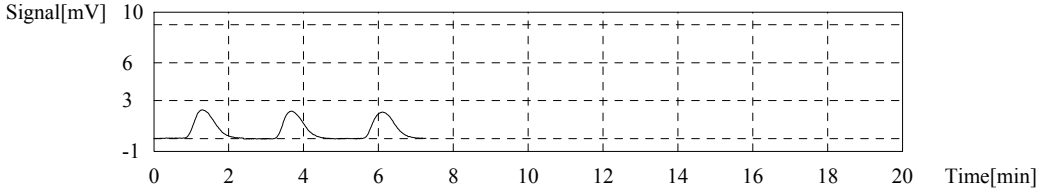
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8987mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.375	0.9059mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 10:35:36 AM
2	8.168	0.8835mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 10:39:22 AM
3	8.382	0.9067mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 10:43:18 AM

Mean Area 8.308
Mean Conc. 0.8987mg/L



Sample

Sample Name: 18F0142-13RE1 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

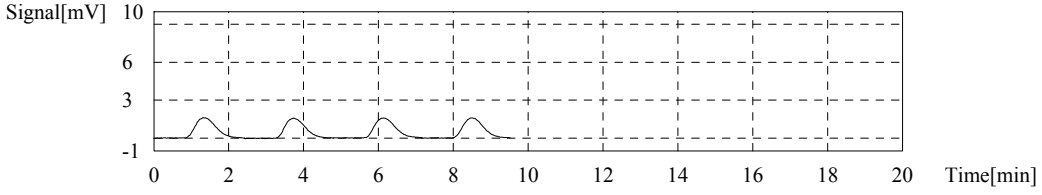
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6436mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.126	0.6626mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 10:53:54 AM
2	5.898	0.6380mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 10:57:39 AM
3	5.918	0.6401mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 11:01:24 AM
4	6.034	0.6527mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 11:05:12 AM

Mean Area 5.950
Mean Conc. 0.6436mg/L



Sample

Sample Name: 18F0142-15RE1 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

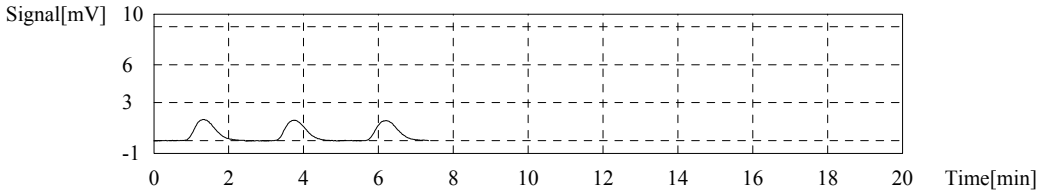
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6799mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.243	0.6753mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 11:15:21 AM
2	6.270	0.6782mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 11:19:08 AM
3	6.343	0.6861mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 11:23:00 AM

Mean Area 6.285
Mean Conc. 0.6799mg/L



Control Sample

Sample Name: SEQ-CCV4
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 19.53 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

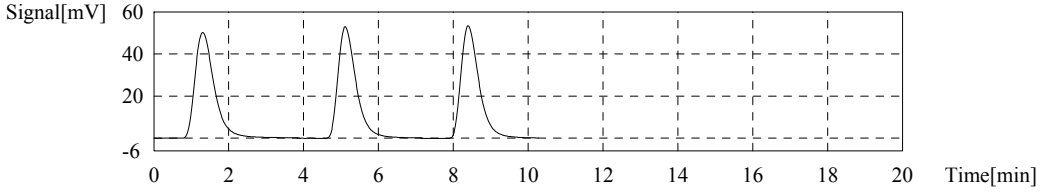
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:19.53ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	181.8	19.65ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 11:35:02 AM
2	179.4	19.39ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 11:39:19 AM
3	181.0	19.56ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 11:43:26 AM

Mean Area 180.7
Mean Conc. 19.53ppm



Control Sample

Sample Name: SEQ-CCB4
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1210 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

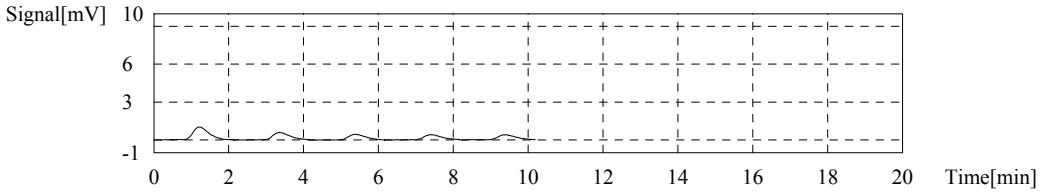
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1210mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.976	0.3053mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 11:53:27 AM
2	1.712	0.1685mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 11:56:50 AM
3	1.382	0.1328mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 12:00:20 PM
4	1.199	0.1130mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 12:03:48 PM
5	1.237	0.1172mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 12:07:21 PM

Mean Area 1.273
Mean Conc. 0.1210mg/L



Sample

Sample Name: 18F0142-17RE1 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

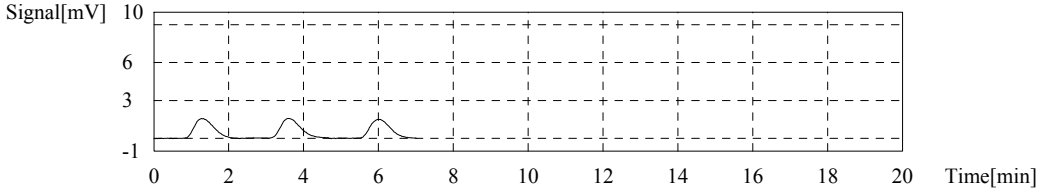
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6146mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.709	0.6175mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 12:17:37 PM
2	5.691	0.6156mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 12:21:28 PM
3	5.645	0.6106mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 12:25:14 PM

Mean Area 5.682
Mean Conc. 0.6146mg/L



Sample

Sample Name: 18F0142-19RE1 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

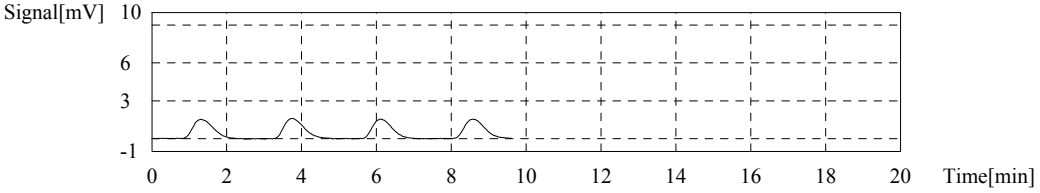
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6143mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.740	0.6209mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 12:35:25 PM
2	6.018	0.6510mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 12:39:08 PM
3	5.556	0.6010mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 12:43:00 PM
4	5.741	0.6210mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 12:46:41 PM

Mean Area 5.679
Mean Conc. 0.6143mg/L



Sample

Sample Name: 18F0142-21RE1 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

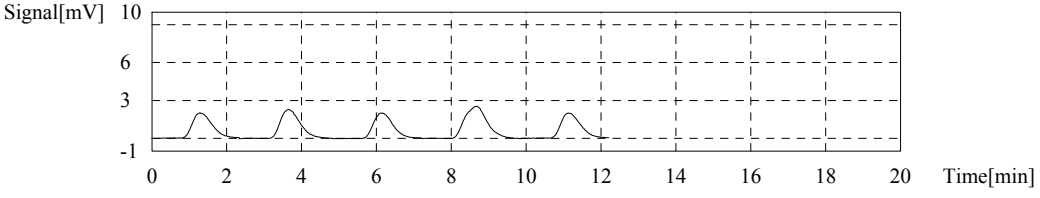
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7773mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.236	0.7827mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 12:56:46 PM
2	8.430	0.9119mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 1:00:42 PM
3	7.279	0.7874mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 1:04:23 PM
4	10.73	1.161mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 1:08:26 PM
5	7.042	0.7617mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 1:11:55 PM

Mean Area 7.186
Mean Conc. 0.7773mg/L



Sample

Sample Name: 18F0142-23RE1 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

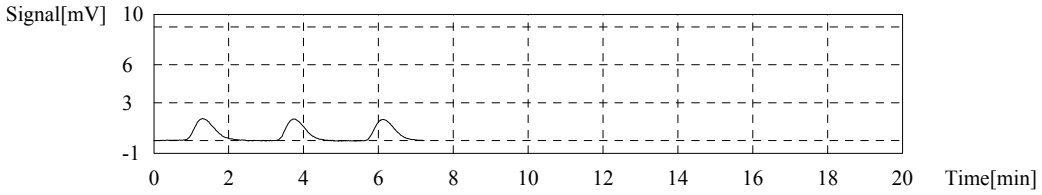
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6750mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.330	0.6847mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 1:22:07 PM
2	6.192	0.6698mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 1:25:49 PM
3	6.198	0.6704mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 1:29:38 PM

Mean Area 6.240
Mean Conc. 0.6750mg/L



Sample

Sample Name: 18F0142-25RE1 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

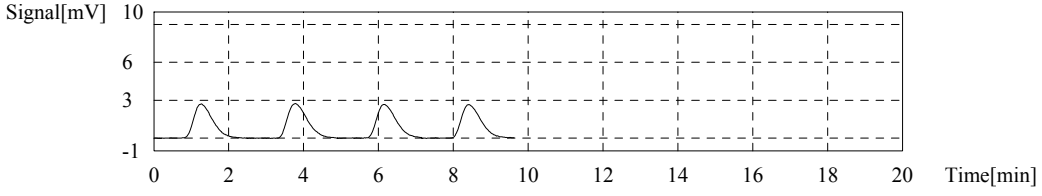
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.025mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.490	1.027mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 1:39:53 PM
2	10.05	1.087mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 1:43:34 PM
3	9.315	1.008mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 1:47:12 PM
4	9.634	1.042mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 1:51:12 PM

Mean Area 9.480
Mean Conc. 1.025mg/L



Sample

Sample Name: 18F0147-01RE1 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

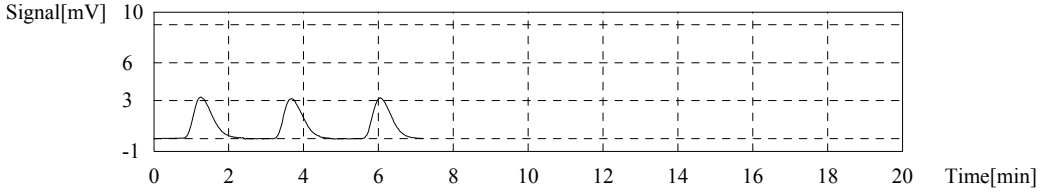
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.230mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.38	1.231mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 2:01:50 PM
2	11.42	1.235mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 2:05:35 PM
3	11.31	1.223mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 2:09:26 PM

Mean Area 11.37
Mean Conc. 1.230mg/L



Sample

Sample Name: 18F0147-03RE1 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

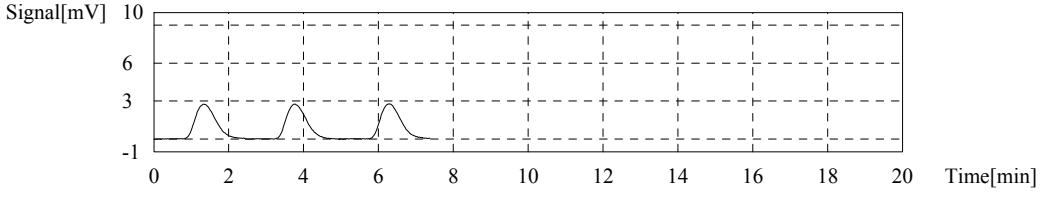
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.118mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.32	1.116mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 2:19:37 PM
2	10.37	1.122mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 2:23:29 PM
3	10.32	1.116mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 2:27:10 PM

Mean Area 10.34
Mean Conc. 1.118mg/L



Sample

Sample Name: 18F0147-05RE1 DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

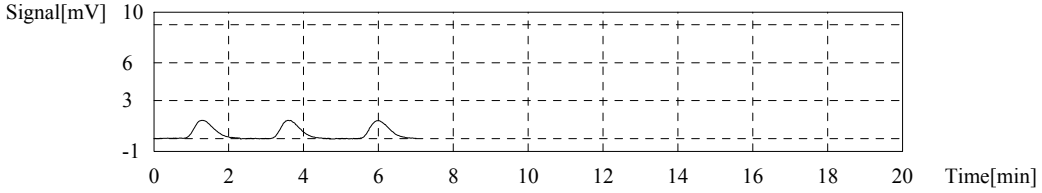
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5583mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.169	0.5591mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 2:37:13 PM
2	5.192	0.5616mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 2:41:05 PM
3	5.122	0.5540mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 2:44:48 PM

Mean Area 5.161
Mean Conc. 0.5583mg/L



Sample

Sample Name: BGF0292-MRL2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

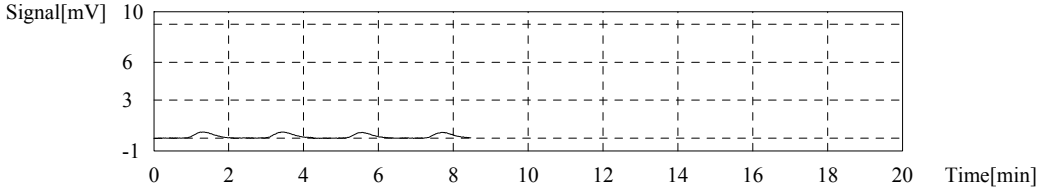
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1617mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.672	0.1809mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 2:54:41 PM
2	1.552	0.1679mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 2:58:27 PM
3	1.456	0.1575mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 3:02:15 PM
4	1.476	0.1597mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 3:05:59 PM

Mean Area 1.495
Mean Conc. 0.1617mg/L



Sample

Sample Name: BGF0292-BLK2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

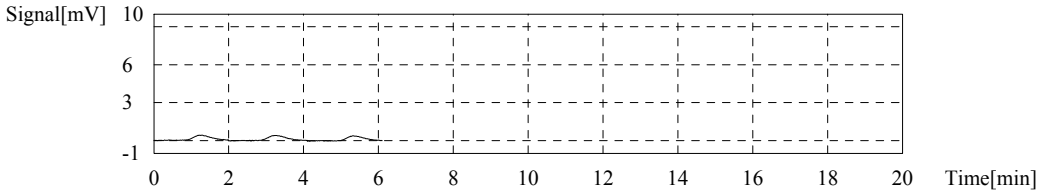
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1333mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.215	0.1314mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 3:15:43 PM
2	1.325	0.1433mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 3:19:38 PM
3	1.156	0.1250mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 3:23:18 PM

Mean Area 1.232
Mean Conc. 0.1333mg/L



Control Sample

Sample Name: SEQ-CCV5
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 19.59 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

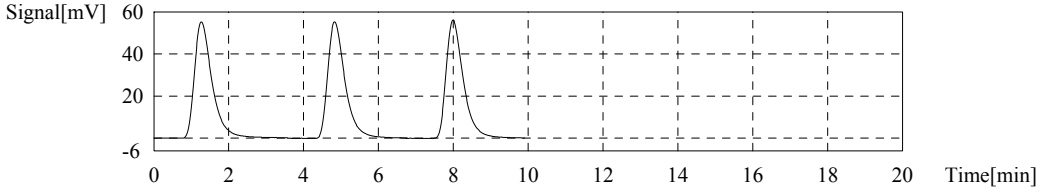
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:19.59ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	182.7	19.75ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 3:34:42 PM
2	179.8	19.43ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 3:38:52 PM
3	181.3	19.59ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 3:43:02 PM

Mean Area 181.3
Mean Conc. 19.59ppm



Control Sample

Sample Name: SEQ-CCB5
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1255 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

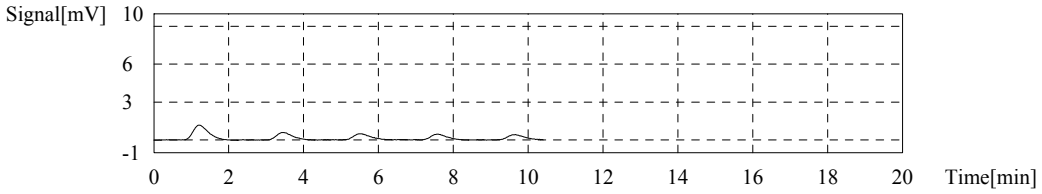
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1255mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.404	0.3516mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 3:53:09 PM
2	1.756	0.1733mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 3:56:30 PM
3	1.443	0.1394mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 4:00:00 PM
4	1.320	0.1261mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 4:03:29 PM
5	1.179	0.1109mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 4:06:56 PM

Mean Area 1.314
Mean Conc. 0.1255mg/L



Sample

Sample Name: BGF0292-BS2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

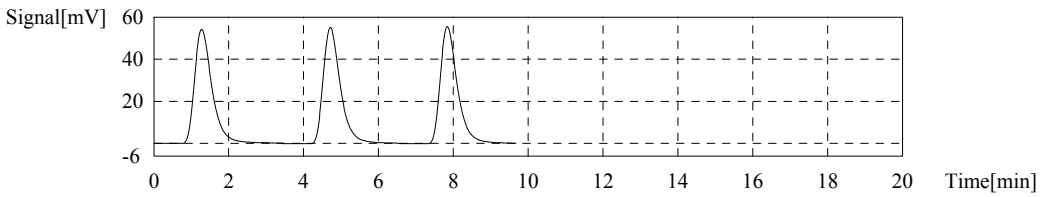
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:19.21mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	176.8	19.12mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 4:18:16 PM
2	177.7	19.22mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 4:22:24 PM
3	178.2	19.28mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 4:26:30 PM

Mean Area 177.6
Mean Conc. 19.21mg/L



Sample

Sample Name: 18F0070-01RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

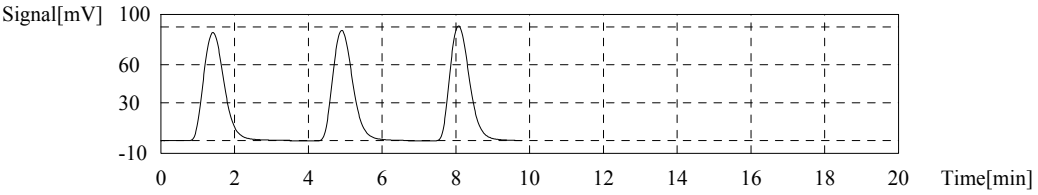
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:36.34mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	334.6	36.19mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 4:37:56 PM
2	333.2	36.04mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 4:42:08 PM
3	340.1	36.79mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 4:46:13 PM

Mean Area 336.0
Mean Conc. 36.34mg/L



Sample

Sample Name: 18F0070-02RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

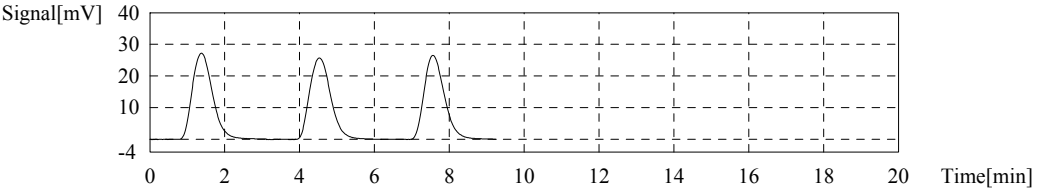
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:11.02mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	103.5	11.20mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 4:57:15 PM
2	101.6	10.99mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 5:01:19 PM
3	100.6	10.88mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 5:05:24 PM

Mean Area 101.9
Mean Conc. 11.02mg/L



Sample

Sample Name: BGF0292-DUP4
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

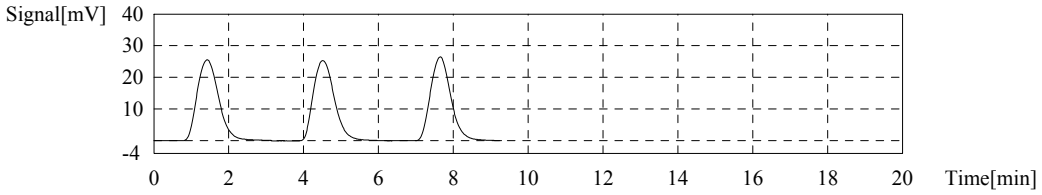
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.96mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	102.3	11.07mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 5:16:28 PM
2	100.3	10.85mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 5:20:32 PM
3	101.3	10.96mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 5:24:36 PM

Mean Area 101.3
Mean Conc. 10.96mg/L



Sample

Sample Name: BGF0292-MS4
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

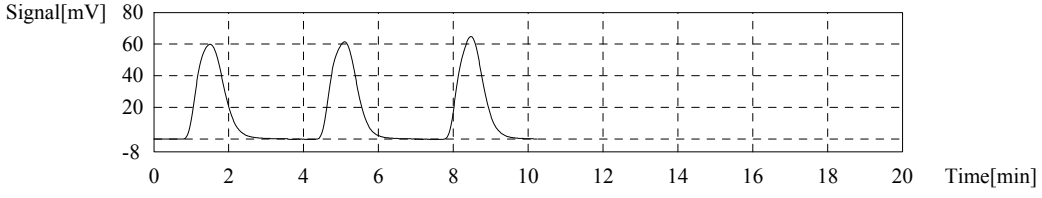
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:32.49mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	300.3	32.48mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 5:36:07 PM
2	299.6	32.41mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 5:40:31 PM
3	301.3	32.59mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 5:44:47 PM

Mean Area 300.4
Mean Conc. 32.49mg/L



Sample

Sample Name: 18F0070-04RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

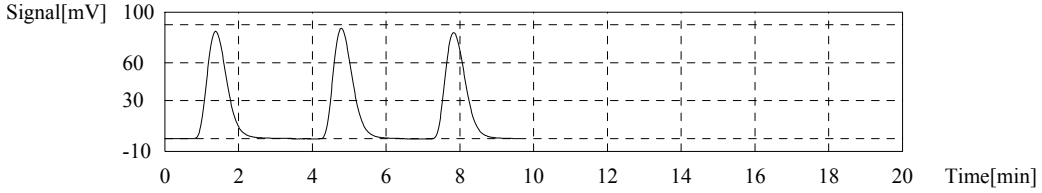
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:34.98mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	322.4	34.87mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 5:56:09 PM
2	324.0	35.05mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 6:00:10 PM
3	323.8	35.03mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 6:04:15 PM

Mean Area 323.4
Mean Conc. 34.98mg/L



Sample

Sample Name: 18F0070-06RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

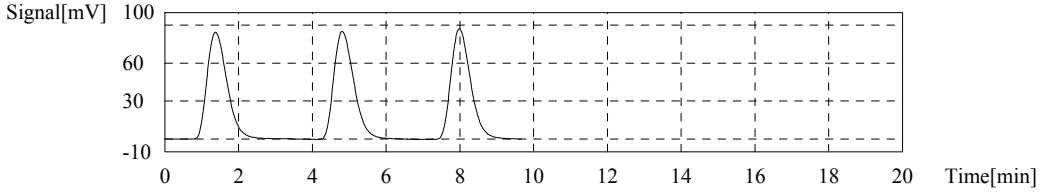
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:35.07mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	321.5	34.78mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 6:15:37 PM
2	324.6	35.11mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 6:19:45 PM
3	326.5	35.32mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 6:23:49 PM

Mean Area 324.2
Mean Conc. 35.07mg/L



Sample

Sample Name: 18F0070-07RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

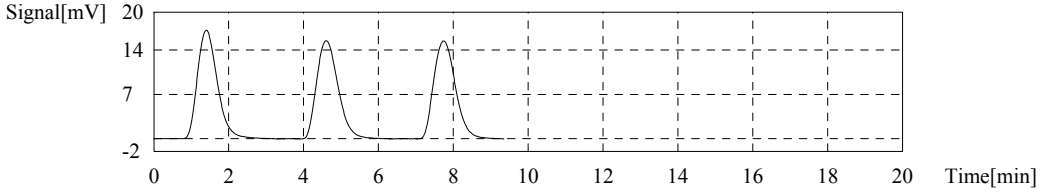
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.833mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	63.82	6.903mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 6:34:56 PM
2	62.51	6.762mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 6:39:02 PM
3	63.18	6.834mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 6:43:04 PM

Mean Area 63.17
Mean Conc. 6.833mg/L



Sample

Sample Name: 18F0142-01RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

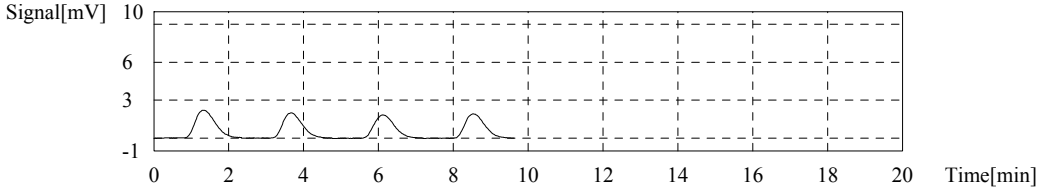
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7634mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.040	0.8697mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 6:53:20 PM
2	7.172	0.7758mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 6:57:12 PM
3	6.933	0.7499mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 7:01:01 PM
4	7.067	0.7644mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 7:04:46 PM

Mean Area 7.057
Mean Conc. 0.7634mg/L



Sample

Sample Name: 18F0142-03RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

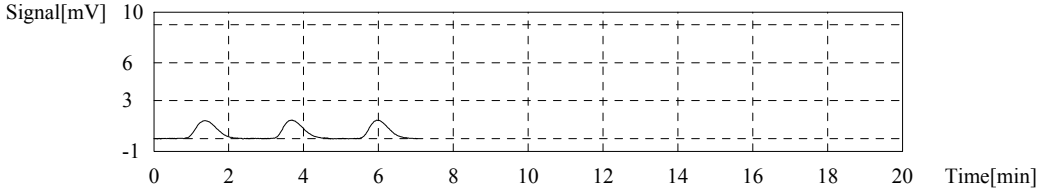
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5716mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.359	0.5797mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 7:14:52 PM
2	5.242	0.5670mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 7:18:36 PM
3	5.253	0.5682mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 7:22:28 PM

Mean Area 5.285
Mean Conc. 0.5716mg/L



Control Sample

Sample Name: SEQ-CCV6
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 0.1467 / Control exceeds range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

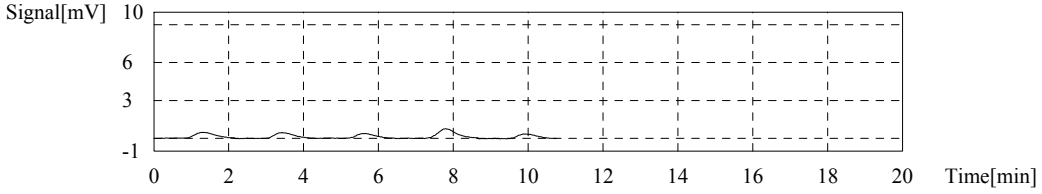
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1467ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.624	0.1590ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 7:32:26 PM
2	1.643	0.1611ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 7:35:58 PM
3	1.240	0.1175ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 7:39:24 PM
4	2.461	0.2496ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 7:42:59 PM
5	1.262	0.1199ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 7:46:23 PM

Mean Area 1.510
Mean Conc. 0.1467ppm



TOC-Control L Report

CDE
2018_06_28_001.tlx

Control Sample

Sample Name: SEQ-CCB6
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 19.79 / Control exceeds range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

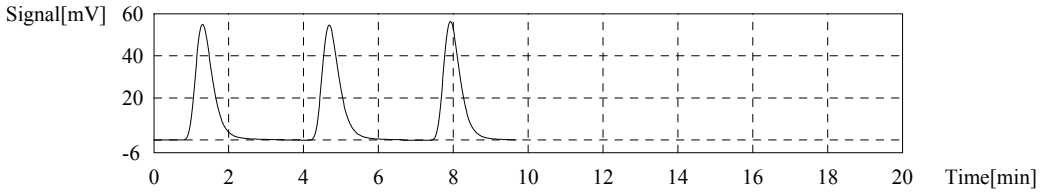
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:19.79mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	182.7	19.75mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 7:57:29 PM
2	183.1	19.79mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 8:01:42 PM
3	183.5	19.83mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/29/2018 8:05:44 PM

Mean Area 183.1
Mean Conc. 19.79mg/L



ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Sequence: SGG0011
Instrument: TOC-LCSH
Calibration: BG00004

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
1	SGG0011-ICV1	dzuData_07022018@123	NA	06/30/18 14:38
1	SGG0011-ICB1	dzuData_07022018@123	NA	06/30/18 15:03
1	SGG0011-IFA1	dzuData_07022018@123	NA	06/30/18 15:21
1	SGG0011-CCV1	dzuData_07022018@123	NA	06/30/18 18:57
1	SGG0011-CCB1	dzuData_07022018@123	NA	06/30/18 19:22
1	SGG0011-CCV2	dzuData_07022018@123	NA	06/30/18 23:08
1	SGG0011-CCB2	dzuData_07022018@123	NA	06/30/18 23:33
1	SGG0011-CCV3	dzuData_07022018@123	NA	07/01/18 03:23
1	SGG0011-CCB3	dzuData_07022018@123	NA	07/01/18 03:44
1	SGG0011-CCV4	dzuData_07022018@123	NA	07/01/18 07:17
1	SGG0011-CCB4	dzuData_07022018@123	NA	07/01/18 07:38
MRL Check	BGF0349-MRL2	dzuData_07022018@123	Water	07/01/18 07:59
Blank	BGF0349-BLK2	dzuData_07022018@123	Water	07/01/18 08:20
LCS	BGF0349-BS2	dzuData_07022018@123	Water	07/01/18 08:39
LDW18-SP-06	18F0208-01	dzuData_07022018@123	Water	07/01/18 09:05
LDW18-SP-06	BGF0349-DUP1	dzuData_07022018@123	Water	07/01/18 09:23
LDW18-SP-06	BGF0349-MS1	dzuData_07022018@123	Water	07/01/18 09:53
LDW18-SP-33	18F0208-02	dzuData_07022018@123	Water	07/01/18 10:11
LDW18-SP-24	18F0208-03	dzuData_07022018@123	Water	07/01/18 10:33
LDW18-SP-24-FD	18F0208-04	dzuData_07022018@123	Water	07/01/18 10:59
Calibration Check	SGG0011-CCV5	dzuData_07022018@123	NA	07/01/18 11:37
Calibration Blank	SGG0011-CCB5	dzuData_07022018@123	NA	07/01/18 11:59
Calibration Check	SGG0011-CCV6	dzuData_07022018@123	NA	07/01/18 15:30
Calibration Blank	SGG0011-CCB6	dzuData_07022018@123	NA	07/01/18 15:55

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes	Status	Date / Time	Vial
1	Unknown	NPOC	Rinse		NPOC 0.5 -	1.000	NPOC:0.1857mg/L		Completed	6/30/2018 2:27:06 P	0
2	Control	NPOC	SEQ-ICV1	CVS 20	CVS 20 pp	1.000	NPOC:19.44ppm	Control valu	Completed	6/30/2018 2:46:30 P	3
3	Control	NPOC	SEQ-ICB1		ICB CCB.tpl	1.000	NPOC:0.1466mg/L	Control valu	Completed	6/30/2018 3:10:28 P	4
4	Unknown	NPOC	SEQ-IFA1		NPOC 0.5 -	1.000	NPOC:19.70mg/L		Completed	6/30/2018 3:29:47 P	9
5	~~Unknown~~	~~NPOC~~	~~18F0142-05RE1~~		~~NPOC 0.5 -~~	~~1.000~~	~~NPOC:0.6735mg/L~~		~~Completed~~	~~6/30/2018 3:51:27 P~~	~~10~~
6	Unknown	NPOC	18F0142-09RE1		NPOC 0.5 -	1.000	NPOC:0.5850mg/L		Completed	6/30/2018 4:09:03 P	11
7	Unknown	NPOC	18F0142-11RE1		NPOC 0.5 -	1.000	NPOC:0.5894mg/L		Completed	6/30/2018 4:30:24 P	12
8	Unknown	NPOC	18F0142-13RE1		NPOC 0.5 -	1.000	NPOC:0.5767mg/L		Completed	6/30/2018 4:51:46 P	13
9	Unknown	NPOC	18F0142-15RE1		NPOC 0.5 -	1.000	NPOC:0.6406mg/L		Completed	6/30/2018 5:16:55 P	14
10	Unknown	NPOC	18F0142-17RE1		NPOC 0.5 -	1.000	NPOC:0.5308mg/L		Completed	6/30/2018 5:38:17 P	15
11	Unknown	NPOC	18F0142-19RE1		NPOC 0.5 -	1.000	NPOC:0.6105mg/L		Completed	6/30/2018 5:59:47 P	16
12	Unknown	NPOC	18F0142-21RE1		NPOC 0.5 -	1.000	NPOC:0.6518mg/L		Completed	6/30/2018 6:21:11 P	17
13	Unknown	NPOC	18F0142-23RE1		NPOC 0.5 -	1.000	NPOC:0.6328mg/L		Completed	6/30/2018 6:46:21 P	18
14	Control	NPOC	SEQ-CCV1	CVS 20	CVS 20 pp	1.000	NPOC:19.72ppm	Control valu	Completed	6/30/2018 7:05:43 P	3
15	Control	NPOC	SEQ-CCB1		ICB CCB.tpl	1.000	NPOC:0.1115mg/L	Control valu	Completed	6/30/2018 7:29:37 P	4
16	Unknown	NPOC	18F0142-25RE1		NPOC 0.5 -	1.000	NPOC:0.5561mg/L		Completed	6/30/2018 7:54:51 P	19
17	Unknown	NPOC	BGF0335-MRL2		NPOC 0.5 -	1.000	NPOC:0.1425mg/L		Completed	6/30/2018 8:12:08 P	20
18	Unknown	NPOC	BGF0335-BLK2		NPOC 0.5 -	1.000	NPOC:0.1577mg/L		Completed	6/30/2018 8:33:17 P	21
19	Unknown	NPOC	BGF0335-BS2		NPOC 0.5 -	1.000	NPOC:18.23mg/L		Completed	6/30/2018 8:56:35 P	22
20	Unknown	NPOC	18F0198-01RE1		NPOC 0.5 -	1.000	NPOC:0.5414mg/L		Completed	6/30/2018 9:21:54 P	23
21	Unknown	NPOC	18F0198-03RE1		NPOC 0.5 -	1.000	NPOC:0.3341mg/L		Completed	6/30/2018 9:43:12 P	24
22	Unknown	NPOC	18F0198-05RE1		NPOC 0.5 -	1.000	NPOC:0.1837mg/L		Completed	6/30/2018 10:00:34	25
23	Unknown	NPOC	BGF0335-DUP3		NPOC 0.5 -	1.000	NPOC:0.1898mg/L		Completed	6/30/2018 10:18:04	26
24	Unknown	NPOC	BGF0335-MS3		NPOC 0.5 -	1.000	NPOC:20.61mg/L		Completed	6/30/2018 10:37:21	27
25	Unknown	NPOC	BGF0335-MSD3		NPOC 0.5 -	1.000	NPOC:21.18mg/L		Completed	6/30/2018 10:56:50	28
26	Control	NPOC	SEQ-CCV2	CVS 20	CVS 20 pp	1.000	NPOC:19.79ppm	Control valu	Completed	6/30/2018 11:16:10	3
27	Control	NPOC	SEQ-CCB2		ICB CCB.tpl	1.000	NPOC:0.1497mg/L	Control valu	Completed	6/30/2018 11:40:17	4
28	Unknown	NPOC	18F0198-07RE1		NPOC 0.5 -	1.000	NPOC:0.7616mg/L		Completed	7/1/2018 12:06:16 A	29
29	Unknown	NPOC	18F0198-09RE1		NPOC 0.5 -	1.000	NPOC:0.3463mg/L		Completed	7/1/2018 12:27:43 A	30
30	Unknown	NPOC	BGF0335-DUP4		NPOC 0.5 -	1.000	NPOC:0.3618mg/L		Completed	7/1/2018 12:45:15 A	31
31	Unknown	NPOC	BGF0335-MS4		NPOC 0.5 -	1.000	NPOC:20.70mg/L		Completed	7/1/2018 1:04:45 AM	32
32	Unknown	NPOC	BGF0335-MSD4		NPOC 0.5 -	1.000	NPOC:20.71mg/L		Completed	7/1/2018 1:24:13 AM	33
33	Unknown	NPOC	18F0198-11RE1		NPOC 0.5 -	1.000	NPOC:0.4060mg/L		Completed	7/1/2018 1:45:57 AM	34
34	Unknown	NPOC	18F0198-13RE1		NPOC 0.5 -	1.000	NPOC:0.5816mg/L		Completed	7/1/2018 2:07:49 AM	35
35	Unknown	NPOC	18F0198-15RE1		NPOC 0.5 -	1.000	NPOC:0.2522mg/L		Completed	7/1/2018 2:29:01 AM	36
36	Unknown	NPOC	18F0198-17RE1		NPOC 0.5 -	1.000	NPOC:0.3897mg/L		Completed	7/1/2018 2:50:24 AM	37
37	Unknown	NPOC	18F0198-19RE1		NPOC 0.5 -	1.000	NPOC:0.3132mg/L		Completed	7/1/2018 3:11:46 AM	38
38	Control	NPOC	SEQ-CCV3	CVS 20	CVS 20 pp	1.000	NPOC:19.72ppm	Control valu	Completed	7/1/2018 3:31:03 AM	5
39	Control	NPOC	SEQ-CCB3		ICB CCB.tpl	1.000	NPOC:0.1445mg/L	Control valu	Completed	7/1/2018 3:54:57 AM	6
40	Unknown	NPOC	18F0198-21RE1		NPOC 0.5 -	1.000	NPOC:0.6769mg/L		Completed	7/1/2018 4:12:38 AM	39

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes	Status	Date / Time	Vial
41	Unknown	NPOC	18F0198-23RE1		NPOC 0.5 -	1.000	NPOC:0.4567mg/L		Completed	7/1/2018 4:37:46 AM	40
42	Unknown	NPOC	18F0198-25RE1		NPOC 0.5 -	1.000	NPOC:0.3882mg/L		Completed	7/1/2018 4:55:17 AM	41
43	Unknown	NPOC	18F0198-27RE1		NPOC 0.5 -	1.000	NPOC:0.4190mg/L		Completed	7/1/2018 5:12:50 AM	42
44	Unknown	NPOC	18F0198-29RE1		NPOC 0.5 -	1.000	NPOC:0.4833mg/L		Completed	7/1/2018 5:30:27 AM	43
45	Unknown	NPOC	18F0198-31RE1		NPOC 0.5 -	1.000	NPOC:0.3669mg/L		Completed	7/1/2018 5:51:47 AM	44
46	Unknown	NPOC	18F0198-33RE1		NPOC 0.5 -	1.000	NPOC:0.3715mg/L		Completed	7/1/2018 6:13:07 AM	45
47	Unknown	NPOC	18F0198-35RE1		NPOC 0.5 -	1.000	NPOC:0.3796mg/L		Completed	7/1/2018 6:30:40 AM	46
48	Unknown	NPOC	18F0198-37RE1		NPOC 0.5 -	1.000	NPOC:0.5598mg/L		Completed	7/1/2018 6:48:20 AM	47
49	Unknown	NPOC	18F0198-39RE1		NPOC 0.5 -	1.000	NPOC:0.8421mg/L		Completed	7/1/2018 7:06:05 AM	48
50	Control	NPOC	SEQ-CCV4	CVS 20	CVS 20 pp	1.000	NPOC:19.67ppm	Control valu	Completed	7/1/2018 7:25:17 AM	5
51	Control	NPOC	SEQ-CCB4		ICB CCB.tpl	1.000	NPOC:0.1319mg/L	Control valu	Completed	7/1/2018 7:49:10 AM	6
52	Unknown	NPOC	BGF0349-MRL2 D		NPOC 0.5 -	1.000	NPOC:0.1093mg/L		Completed	7/1/2018 8:10:29 AM	49
53	Unknown	NPOC	BGF0349-BLK2 D		NPOC 0.5 -	1.000	NPOC:0.1699mg/L		Completed	7/1/2018 8:27:51 AM	50
54	Unknown	NPOC	BGF0349-BS2 D		NPOC 0.5 -	1.000	NPOC:19.66mg/L		Completed	7/1/2018 8:47:10 AM	51
55	Unknown	NPOC	18F0208-01 D		NPOC 0.5 -	1.000	NPOC:1.306mg/L		Completed	7/1/2018 9:12:40 AM	52
56	Unknown	NPOC	BGF0349-DUP1 D		NPOC 0.5 -	1.000	NPOC:1.274mg/L		Completed	7/1/2018 9:38:01 AM	53
57	Unknown	NPOC	BGF0349-MS1 D		NPOC 0.5 -	1.000	NPOC:23.22mg/L		Completed	7/1/2018 10:01:28 A	54
58	Unknown	NPOC	18F0208-02 D		NPOC 0.5 -	1.000	NPOC:3.807mg/L		Completed	7/1/2018 10:19:35 A	55
59	Unknown	NPOC	18F0208-03 D		NPOC 0.5 -	1.000	NPOC:2.705mg/L		Completed	7/1/2018 10:45:13 A	56
60	Unknown	NPOC	18F0208-04 D		NPOC 0.5 -	1.000	NPOC:2.810mg/L		Completed	7/1/2018 11:07:12 A	57
61	Unknown	NPOC	BGF0337-MRL1 D		NPOC 0.5 -	1.000	NPOC:0.6542mg/L		Completed	7/1/2018 11:25:06 A	58
62	Control	NPOC	SEQ-CCV5	CVS 20	CVS 20 pp	1.000	NPOC:19.39ppm	Control valu	Completed	7/1/2018 11:45:49 A	5
63	Control	NPOC	SEQ-CCB5		ICB CCB.tpl	1.000	NPOC:0.1564mg/L	Control valu	Completed	7/1/2018 12:09:42 P	6
64	Unknown	NPOC	BGF0337-BLK1 D		NPOC 0.5 -	1.000	NPOC:0.1254mg/L		Completed	7/1/2018 12:27:10 P	59
65	Unknown	NPOC	BGF0337-BS1 D		NPOC 0.5 -	1.000	NPOC:18.96mg/L		Completed	7/1/2018 12:46:38 P	60
66	Unknown	NPOC	18F0198-01 D		NPOC 0.5 -	1.000	NPOC:0.5763mg/L		Completed	7/1/2018 1:12:00 PM	61
67	Unknown	NPOC	18F0198-03 D		NPOC 0.5 -	1.000	NPOC:0.3681mg/L		Completed	7/1/2018 1:33:20 PM	62
68	Unknown	NPOC	18F0198-05 D		NPOC 0.5 -	1.000	NPOC:0.3055mg/L		Completed	7/1/2018 1:58:31 PM	63
69	Unknown	NPOC	BGF0337-DUP1 D		NPOC 0.5 -	1.000	NPOC:0.2939mg/L		Completed	7/1/2018 2:15:57 PM	64
70	Unknown	NPOC	BGF0337-MS1 D		NPOC 0.5 -	1.000	NPOC:21.78mg/L		Completed	7/1/2018 2:34:55 PM	65
71	Unknown	NPOC	BGF0337-MSD1 D		NPOC 0.5 -	1.000	NPOC:21.88mg/L		Completed	7/1/2018 2:54:07 PM	66
72	Unknown	NPOC	18F0198-07 D		NPOC 0.5 -	1.000	NPOC:0.8018mg/L		Completed	7/1/2018 3:19:27 PM	67
73	Control	NPOC	SEQ-CCV6	CVS 20	CVS 20 pp	1.000	NPOC:19.61ppm	Control valu	Completed	7/1/2018 3:38:43 PM	7
74	Control	NPOC	SEQ-CCB6		ICB CCB.tpl	1.000	NPOC:0.1213mg/L	Control valu	Completed	7/1/2018 4:02:35 PM	8

TOC-Control L Report

CDE
2018_06_30_001.tlx

Instr.Information

Instrument Options: TOC/ASI/IC Unit/
Catalyst: Regular Sensitivity

Sample

Sample Name: Rinse
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status: Completed
Chk. Result:

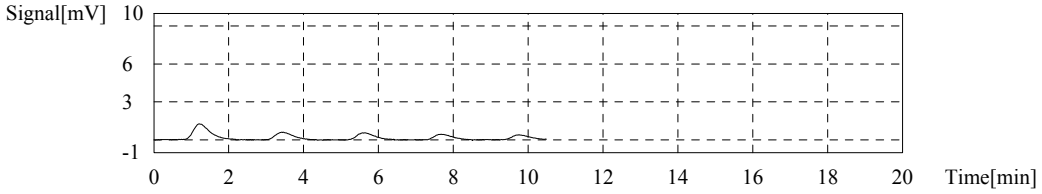
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1857mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.707	0.4010mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 2:13:18 PM
2	1.937	0.2095mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 2:16:47 PM
3	1.746	0.1889mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 2:20:11 PM
4	1.468	0.1588mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 2:23:42 PM
5	1.176	0.1272mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 2:27:06 PM

Mean Area 1.717
Mean Conc. 0.1857mg/L



Control Sample

Sample Name: SEQ-ICV1
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status: Completed
Chk. Result: Control value: 19.44 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

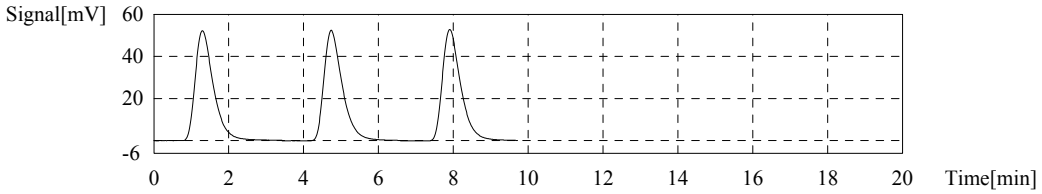
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:19.44ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	178.3	19.27ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 2:38:14 PM
2	179.9	19.44ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 2:42:23 PM
3	181.4	19.61ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 2:46:30 PM

Mean Area 179.9
Mean Conc. 19.44ppm



Control Sample

Sample Name: SEQ-ICB1
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1466 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

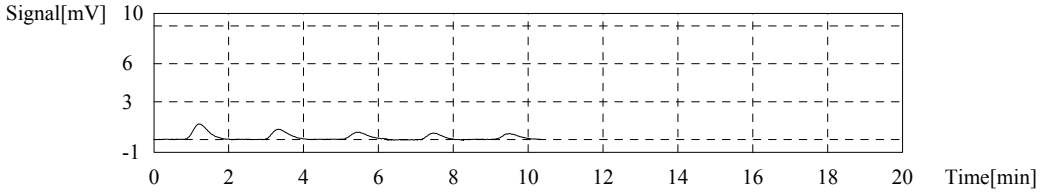
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1466mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.537	0.3659mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 2:56:30 PM
2	2.490	0.2527mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 3:00:00 PM
3	1.606	0.1571mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 3:03:26 PM
4	1.575	0.1537mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 3:06:55 PM
5	1.347	0.1291mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 3:10:28 PM

Mean Area 1.509
Mean Conc. 0.1466mg/L



Sample

Sample Name: SEQ-IFA1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

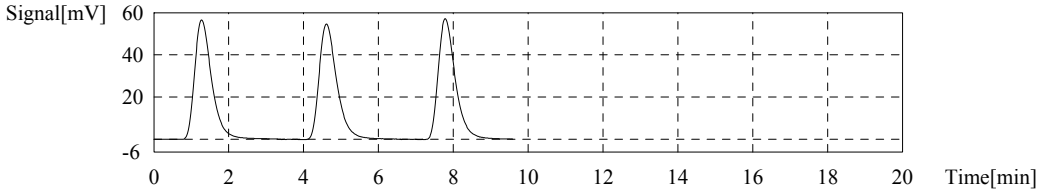
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:19.70mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	181.0	19.58mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 3:21:32 PM
2	181.2	19.60mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 3:25:42 PM
3	184.2	19.92mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 3:29:47 PM

Mean Area 182.1
Mean Conc. 19.70mg/L



Sample

Sample Name: 18F0142-05RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

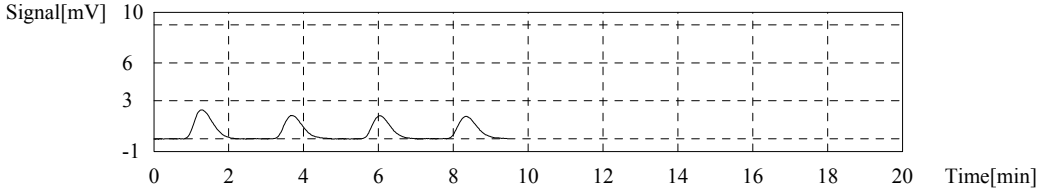
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6735mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.033	0.8689mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 3:40:04 PM
2	6.283	0.6796mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 3:43:49 PM
3	6.214	0.6722mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 3:47:32 PM
4	6.183	0.6688mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 3:51:27 PM

Mean Area 6.227
Mean Conc. 0.6735mg/L



Sample

Sample Name: 18F0142-09RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

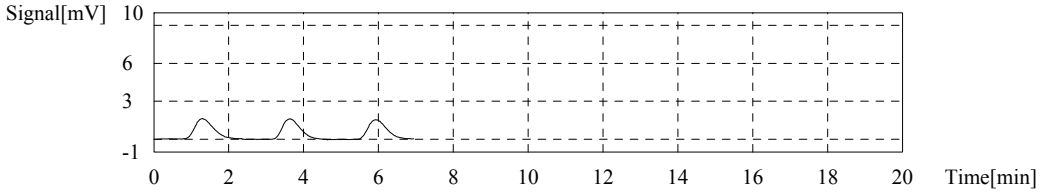
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5850mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.467	0.5914mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 4:01:31 PM
2	5.433	0.5877mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 4:05:13 PM
3	5.325	0.5760mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 4:09:03 PM

Mean Area 5.408
Mean Conc. 0.5850mg/L



Sample

Sample Name: 18F0142-11RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

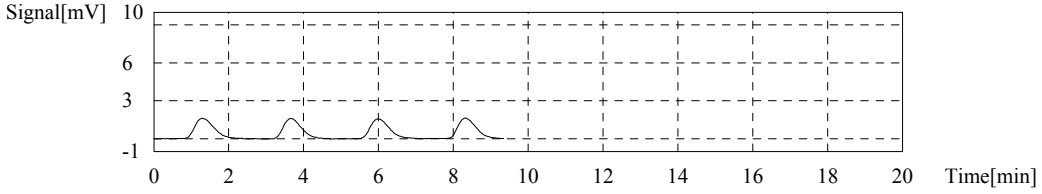
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5894mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.664	0.6127mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 4:19:08 PM
2	5.384	0.5824mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 4:22:51 PM
3	5.518	0.5969mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 4:26:42 PM
4	5.444	0.5889mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 4:30:24 PM

Mean Area 5.449
Mean Conc. 0.5894mg/L



Sample

Sample Name: 18F0142-13RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

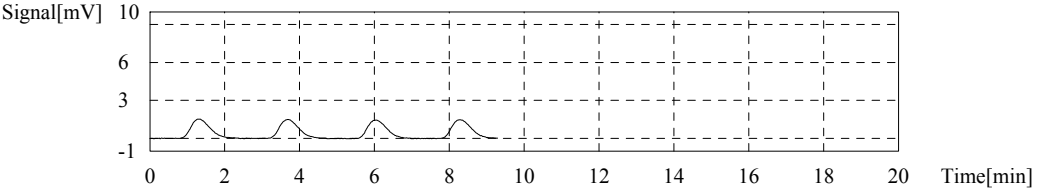
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5767mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.376	0.5815mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 4:40:29 PM
2	5.280	0.5711mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 4:44:14 PM
3	5.141	0.5561mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 4:47:55 PM
4	5.338	0.5774mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 4:51:46 PM

Mean Area 5.331
Mean Conc. 0.5767mg/L



Sample

Sample Name: 18F0142-15RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

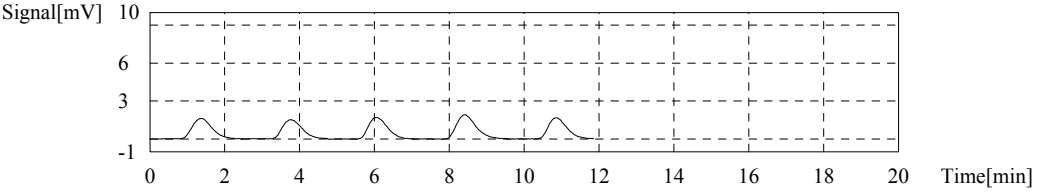
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6406mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.976	0.6464mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 5:01:55 PM
2	5.465	0.5911mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 5:05:35 PM
3	6.097	0.6595mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 5:09:22 PM
4	6.949	0.7517mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 5:13:19 PM
5	5.694	0.6159mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 5:16:55 PM

Mean Area 5.922
Mean Conc. 0.6406mg/L



Sample

Sample Name: 18F0142-17RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

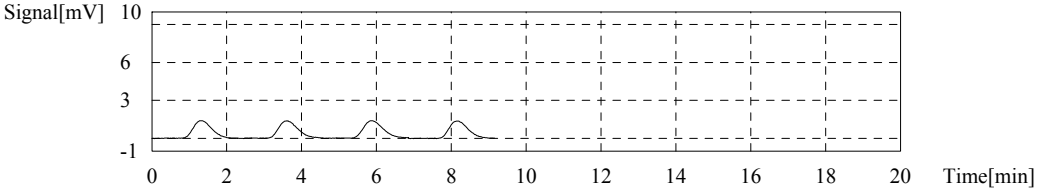
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5308mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.760	0.5149mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 5:26:55 PM
2	4.887	0.5286mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 5:30:41 PM
3	4.981	0.5388mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 5:34:30 PM
4	4.854	0.5251mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 5:38:17 PM

Mean Area 4.907
Mean Conc. 0.5308mg/L



Sample

Sample Name: 18F0142-19RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

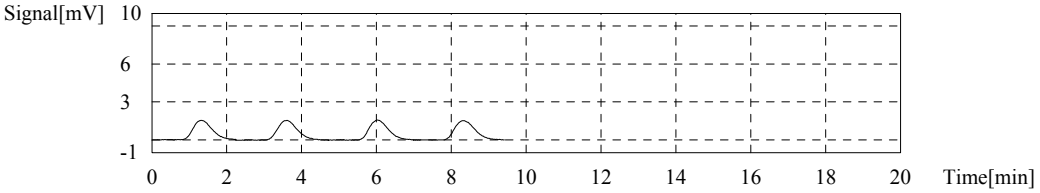
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6105mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.312	0.5746mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 5:48:14 PM
2	5.693	0.6158mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 5:52:15 PM
3	5.525	0.5976mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 5:55:51 PM
4	5.713	0.6180mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 5:59:47 PM

Mean Area 5.644
Mean Conc. 0.6105mg/L



Sample

Sample Name: 18F0142-21RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

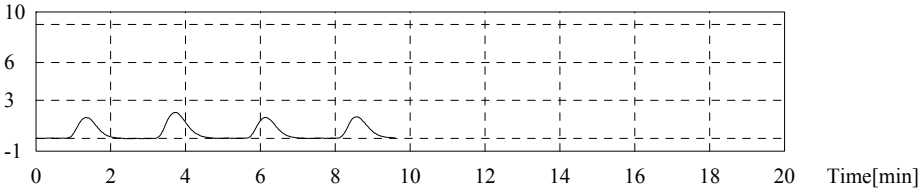
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6518mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.944	0.6430mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 6:09:50 PM
2	7.888	0.8532mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 6:13:42 PM
3	6.029	0.6522mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 6:17:30 PM
4	6.104	0.6603mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 6:21:11 PM

Mean Area 6.026
Mean Conc. 0.6518mg/L



Sample

Sample Name: 18F0142-23RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

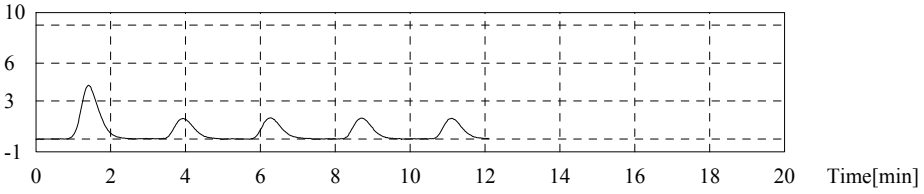
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6328mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.18	1.534mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 6:31:28 PM
2	5.677	0.6141mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 6:35:00 PM
3	5.982	0.6471mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 6:38:53 PM
4	5.892	0.6373mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 6:42:39 PM
5	5.539	0.5991mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 6:46:21 PM

Mean Area 5.850
Mean Conc. 0.6328mg/L



Control Sample

Sample Name: SEQ-CCV1
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 19.72 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

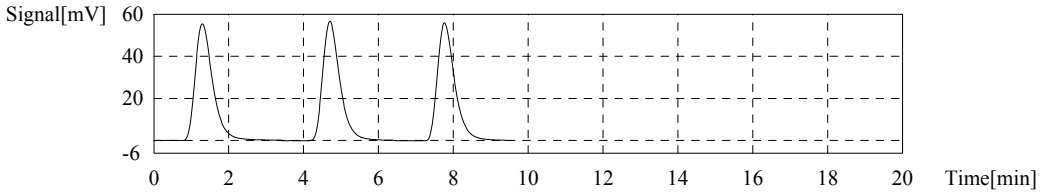
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:19.72ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	182.6	19.74ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 6:57:34 PM
2	182.8	19.76ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 7:01:37 PM
3	182.1	19.68ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 7:05:43 PM

Mean Area 182.5
Mean Conc. 19.72ppm



Control Sample

Sample Name: SEQ-CCB1
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1115 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

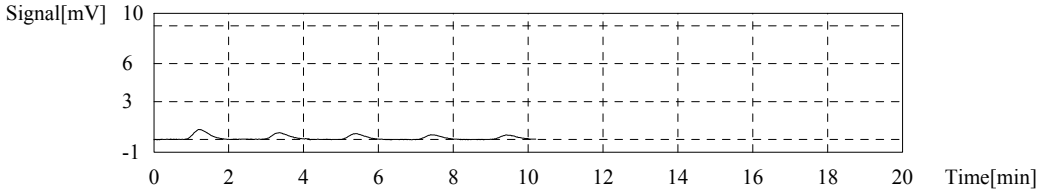
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1115mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.319	0.2342mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 7:15:42 PM
2	1.535	0.1494mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 7:19:09 PM
3	1.376	0.1322mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 7:22:38 PM
4	1.134	0.1060mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 7:26:06 PM
5	1.045	0.09639mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 7:29:37 PM

Mean Area 1.185
Mean Conc. 0.1115mg/L



Sample

Sample Name: 18F0142-25RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

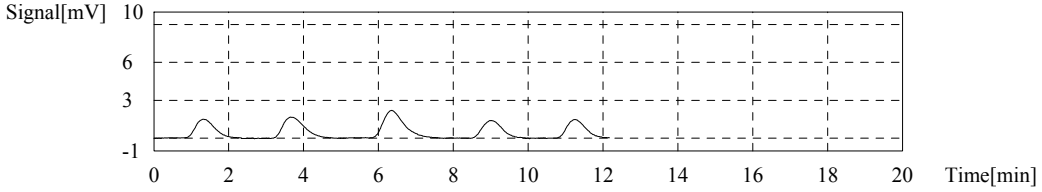
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5561mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.229	0.5656mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 7:39:48 PM
2	6.840	0.7399mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 7:43:54 PM
3	8.489	0.9182mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 7:47:41 PM
4	5.101	0.5518mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 7:51:06 PM
5	5.094	0.5510mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 7:54:51 PM

Mean Area 5.141
Mean Conc. 0.5561mg/L



Sample

Sample Name: BGF0335-MRL2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

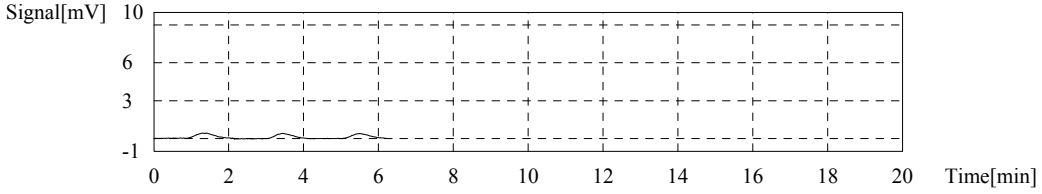
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1425mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.412	0.1527mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 8:04:42 PM
2	1.322	0.1430mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 8:08:22 PM
3	1.218	0.1318mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 8:12:08 PM

Mean Area 1.317
Mean Conc. 0.1425mg/L



Sample

Sample Name: BGF0335-BLK2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

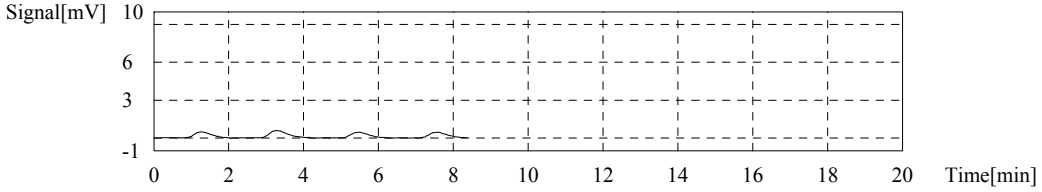
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1577mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.437	0.1554mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 8:21:51 PM
2	1.892	0.2047mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 8:25:47 PM
3	1.436	0.1553mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 8:29:29 PM
4	1.500	0.1623mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 8:33:17 PM

Mean Area 1.458
Mean Conc. 0.1577mg/L



Sample

Sample Name: BGF0335-BS2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

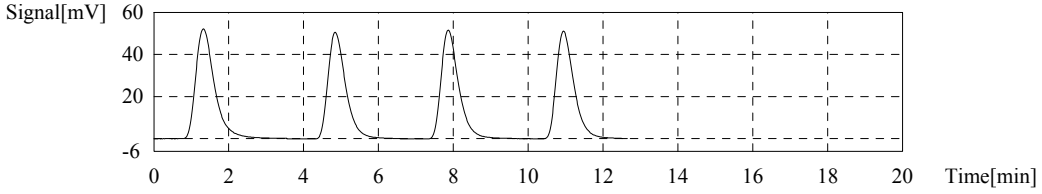
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.23mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	184.0	19.90mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 8:44:32 PM
2	167.2	18.09mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 8:48:32 PM
3	169.4	18.32mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 8:52:36 PM
4	169.1	18.29mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 8:56:35 PM

Mean Area 168.6
Mean Conc. 18.23mg/L



Sample

Sample Name: 18F0198-01RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

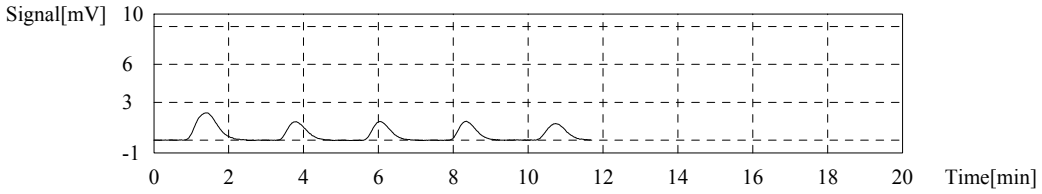
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5414mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.627	0.9332mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 9:06:57 PM
2	5.145	0.5565mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 9:10:31 PM
3	4.965	0.5371mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 9:14:21 PM
4	4.904	0.5305mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 9:18:07 PM
5	4.711	0.5096mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 9:21:54 PM

Mean Area 5.005
Mean Conc. 0.5414mg/L



Sample

Sample Name: 18F0198-03RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

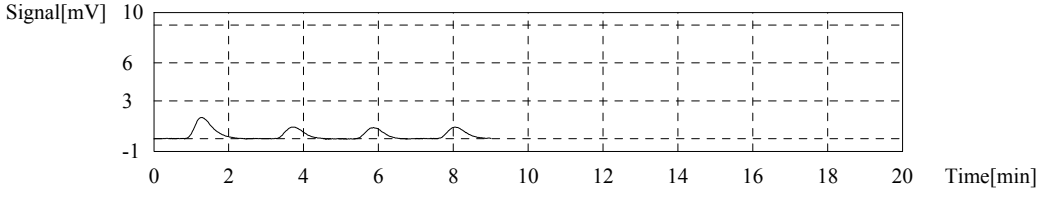
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3341mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.704	0.6170mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 9:32:01 PM
2	3.068	0.3319mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 9:35:31 PM
3	3.084	0.3336mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 9:39:22 PM
4	3.115	0.3369mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 9:43:12 PM

Mean Area 3.089
Mean Conc. 0.3341mg/L



Sample

Sample Name: 18F0198-05RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

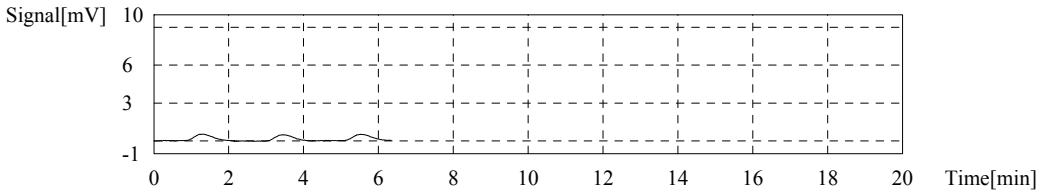
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1837mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.728	0.1869mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 9:53:03 PM
2	1.699	0.1838mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 9:56:46 PM
3	1.667	0.1803mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 10:00:34 PM

Mean Area 1.698
Mean Conc. 0.1837mg/L



Sample

Sample Name: BGF0335-DUP3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

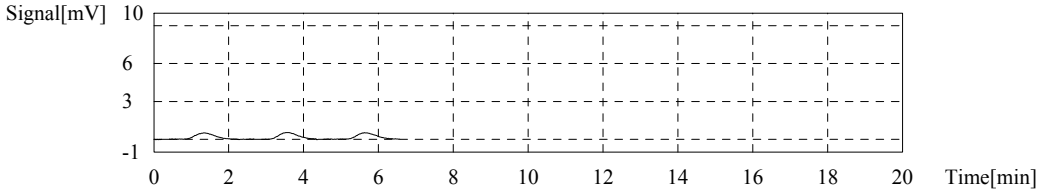
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1898mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.737	0.1879mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 10:10:30 PM
2	1.774	0.1919mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 10:14:09 PM
3	1.752	0.1895mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 10:18:04 PM

Mean Area 1.754
Mean Conc. 0.1898mg/L



Sample

Sample Name: BGF0335-MS3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

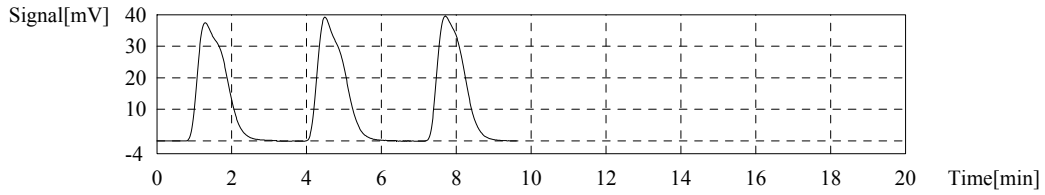
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:20.61mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	190.0	20.55mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 10:28:59 PM
2	190.0	20.55mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 10:33:10 PM
3	191.7	20.74mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 10:37:21 PM

Mean Area 190.6
Mean Conc. 20.61mg/L



Sample

Sample Name: BGF0335-MSD3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

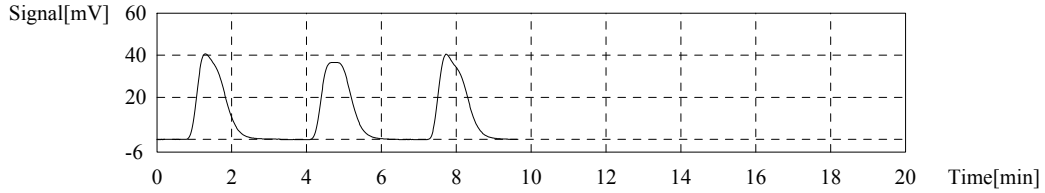
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:21.18mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	195.6	21.16mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 10:48:33 PM
2	195.6	21.16mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 10:52:41 PM
3	196.3	21.23mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 10:56:50 PM

Mean Area 195.8
Mean Conc. 21.18mg/L



Control Sample

Sample Name: SEQ-CCV2
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 19.79 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

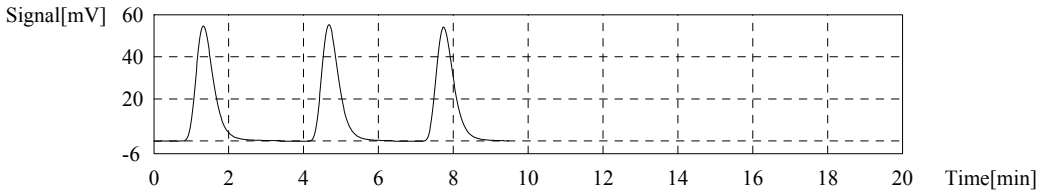
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:19.79ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	184.2	19.91ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 11:08:05 PM
2	181.8	19.65ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 11:12:07 PM
3	183.4	19.82ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 11:16:10 PM

Mean Area 183.1
Mean Conc. 19.79ppm



Control Sample

Sample Name: SEQ-CCB2
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1497 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

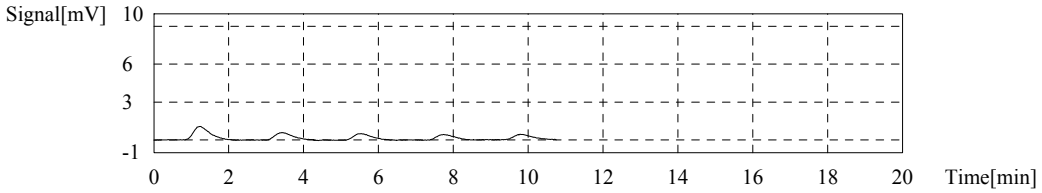
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1497mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.254	0.3353mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 11:26:14 PM
2	1.846	0.1830mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 11:29:40 PM
3	1.696	0.1668mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 11:33:17 PM
4	1.441	0.1392mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 11:36:37 PM
5	1.476	0.1430mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 11:40:17 PM

Mean Area 1.538
Mean Conc. 0.1497mg/L



Sample

Sample Name: 18F0198-07RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

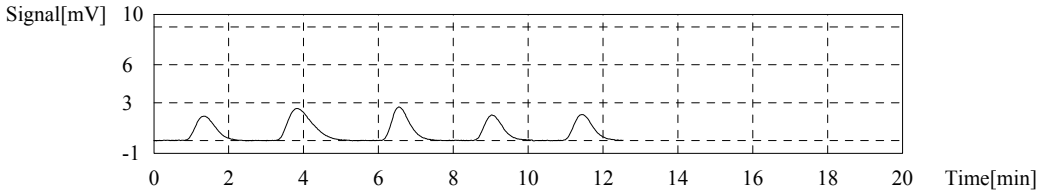
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7616mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.111	0.7692mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 11:51:09 PM
2	11.64	1.259mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 11:55:18 PM
3	8.913	0.9641mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	6/30/2018 11:58:46 PM
4	6.765	0.7318mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 12:02:28 AM
5	7.246	0.7838mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 12:06:16 AM

Mean Area 7.041
Mean Conc. 0.7616mg/L



Sample

Sample Name: 18F0198-09RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

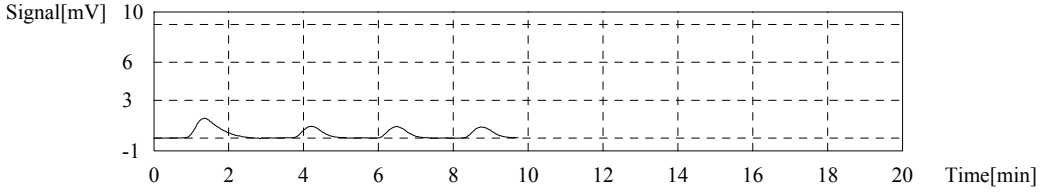
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3463mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.074	0.7652mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 12:16:51 AM
2	3.218	0.3481mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 12:20:08 AM
3	3.226	0.3490mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 12:23:53 AM
4	3.160	0.3418mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 12:27:43 AM

Mean Area 3.201
Mean Conc. 0.3463mg/L



Sample

Sample Name: BGF0335-DUP4
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

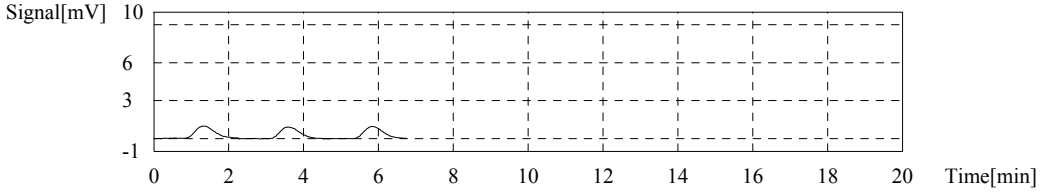
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3618mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.416	0.3695mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 12:37:43 AM
2	3.292	0.3561mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 12:41:28 AM
3	3.326	0.3598mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 12:45:15 AM

Mean Area 3.345
Mean Conc. 0.3618mg/L



Sample

Sample Name: BGF0335-MS4
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

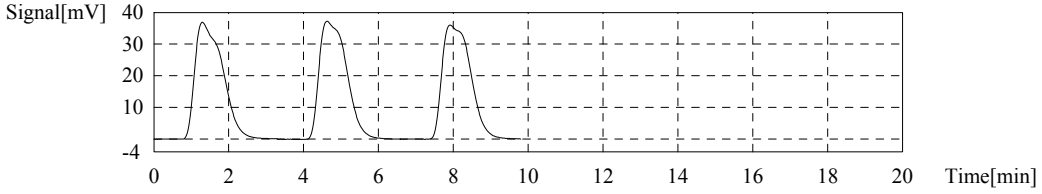
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:20.70mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	191.3	20.69mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 12:56:17 AM
2	191.4	20.70mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 1:00:33 AM
3	191.3	20.69mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 1:04:45 AM

Mean Area 191.3
Mean Conc. 20.70mg/L



Sample

Sample Name: BGF0335-MSD4
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

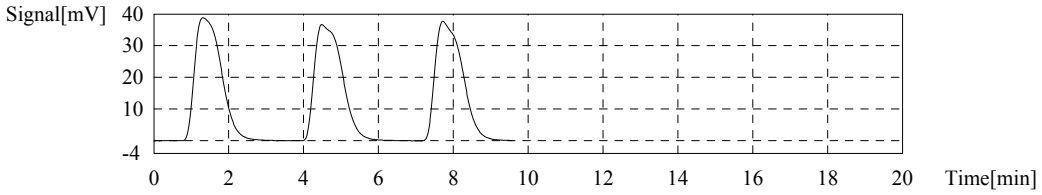
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:20.71mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	192.5	20.82mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 1:15:50 AM
2	189.7	20.52mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 1:20:02 AM
3	192.1	20.78mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 1:24:13 AM

Mean Area 191.4
Mean Conc. 20.71mg/L



Sample

Sample Name: 18F0198-11RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

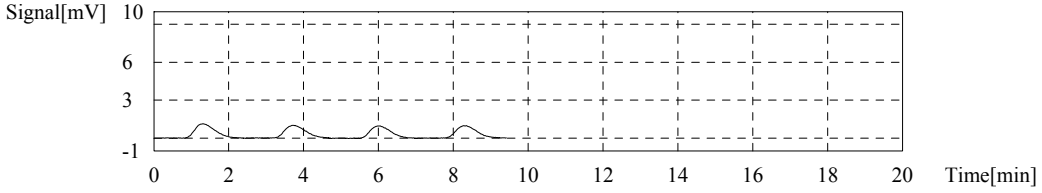
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4060mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.292	0.4643mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 1:34:30 AM
2	3.835	0.4148mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 1:38:12 AM
3	3.686	0.3987mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 1:41:59 AM
4	3.740	0.4046mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 1:45:57 AM

Mean Area 3.754
Mean Conc. 0.4060mg/L



Sample

Sample Name: 18F0198-13RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

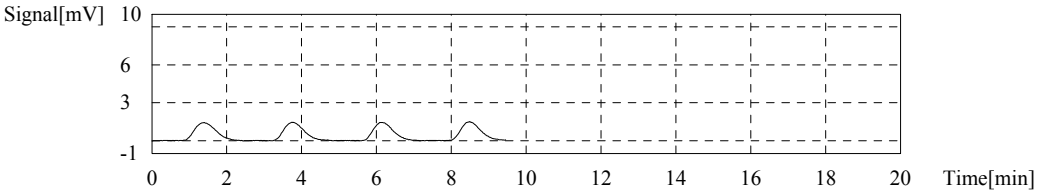
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5816mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.655	0.6117mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 1:56:33 AM
2	5.442	0.5887mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 2:00:20 AM
3	5.354	0.5791mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 2:04:03 AM
4	5.333	0.5769mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 2:07:49 AM

Mean Area 5.376
Mean Conc. 0.5816mg/L



Sample

Sample Name: 18F0198-15RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

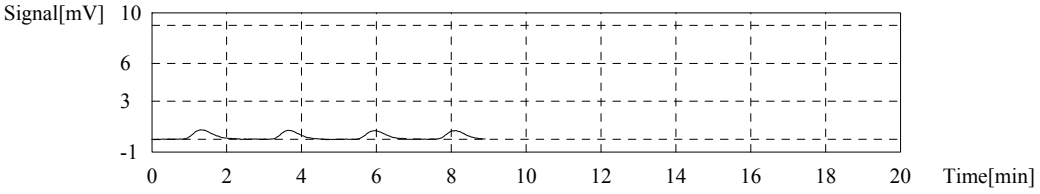
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2522mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.733	0.2956mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 2:17:54 AM
2	2.412	0.2609mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 2:21:36 AM
3	2.286	0.2473mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 2:25:17 AM
4	2.296	0.2484mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 2:29:01 AM

Mean Area 2.331
Mean Conc. 0.2522mg/L



Sample

Sample Name: 18F0198-17RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

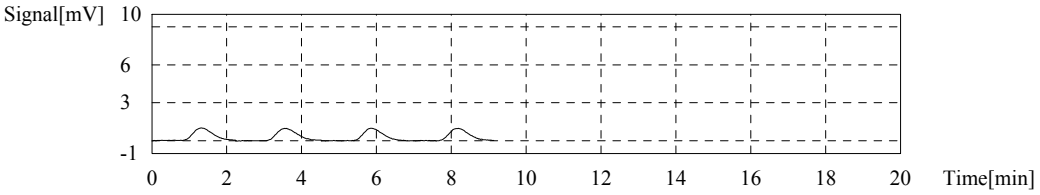
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3897mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.441	0.3722mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 2:38:59 AM
2	3.594	0.3888mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 2:42:50 AM
3	3.637	0.3934mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 2:46:35 AM
4	3.576	0.3868mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 2:50:24 AM

Mean Area 3.602
Mean Conc. 0.3897mg/L



Sample

Sample Name: 18F0198-19RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

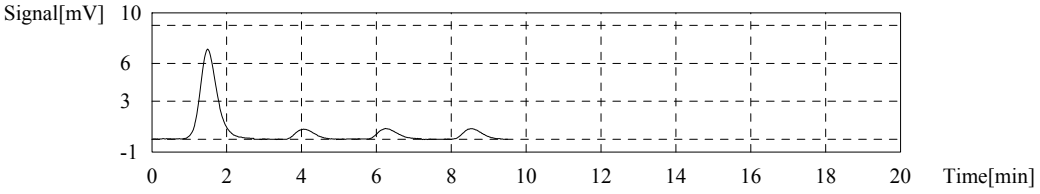
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3132mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	22.37	2.420mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 3:00:50 AM
2	2.815	0.3045mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 3:04:07 AM
3	2.927	0.3166mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 3:07:57 AM
4	2.945	0.3186mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 3:11:46 AM

Mean Area 2.896
Mean Conc. 0.3132mg/L



Control Sample

Sample Name: SEQ-CCV3
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 19.72 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

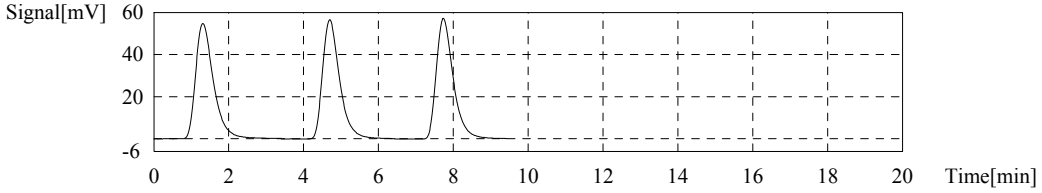
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:19.72ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	183.4	19.82ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 3:23:03 AM
2	181.1	19.57ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 3:27:04 AM
3	182.9	19.77ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 3:31:03 AM

Mean Area 182.5
Mean Conc. 19.72ppm



Control Sample

Sample Name: SEQ-CCB3
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1445 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

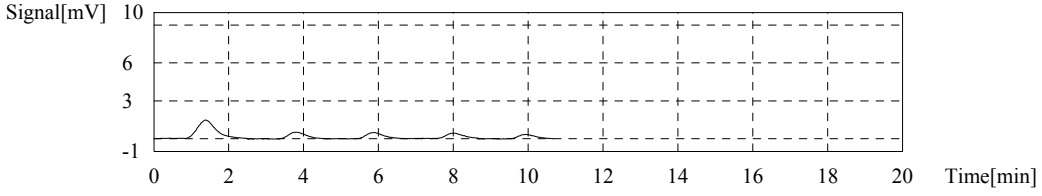
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1445mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.989	0.5230mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 3:41:26 AM
2	1.700	0.1672mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 3:44:31 AM
3	1.544	0.1504mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 3:48:05 AM
4	1.226	0.1160mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 3:51:22 AM
5	1.039	0.09574mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 3:54:57 AM

Mean Area 1.490
Mean Conc. 0.1445mg/L



Sample

Sample Name: 18F0198-21RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

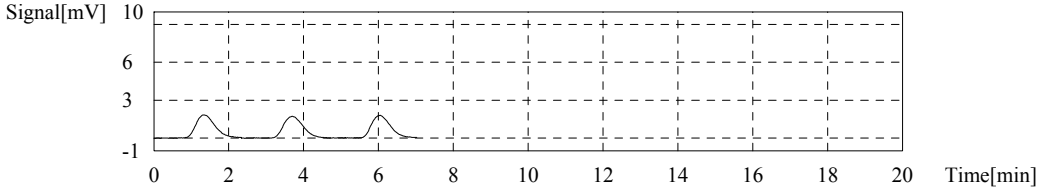
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6769mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.315	0.6831mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 4:05:05 AM
2	6.280	0.6793mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 4:08:54 AM
3	6.177	0.6682mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 4:12:38 AM

Mean Area 6.257
Mean Conc. 0.6769mg/L



Sample

Sample Name: 18F0198-23RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

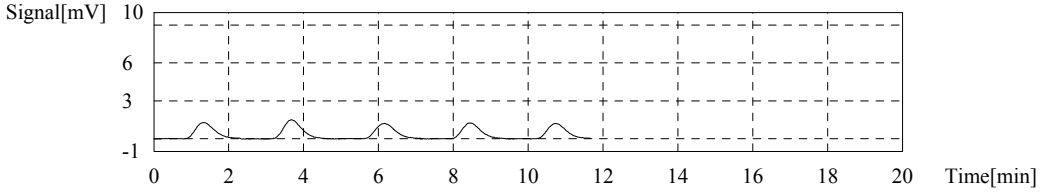
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4567mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.478	0.4844mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 4:22:40 AM
2	5.233	0.5660mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 4:26:36 AM
3	4.286	0.4636mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 4:30:15 AM
4	4.240	0.4586mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 4:33:58 AM
5	4.139	0.4477mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 4:37:46 AM

Mean Area 4.222
Mean Conc. 0.4567mg/L



Sample

Sample Name: 18F0198-25RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

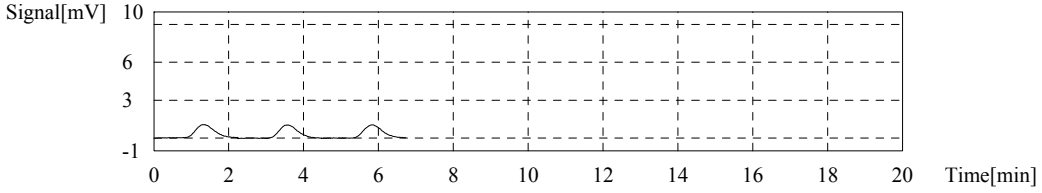
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3882mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.568	0.3859mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 4:47:43 AM
2	3.594	0.3888mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 4:51:31 AM
3	3.604	0.3898mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 4:55:17 AM

Mean Area 3.589
Mean Conc. 0.3882mg/L



Sample

Sample Name: 18F0198-27RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

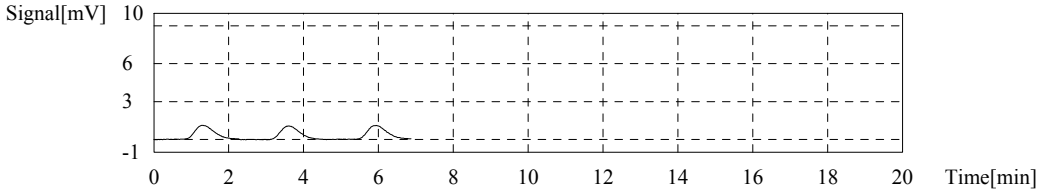
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4190mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.809	0.4120mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 5:05:16 AM
2	3.936	0.4258mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 5:09:07 AM
3	3.876	0.4193mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 5:12:50 AM

Mean Area 3.874
Mean Conc. 0.4190mg/L



Sample

Sample Name: 18F0198-29RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

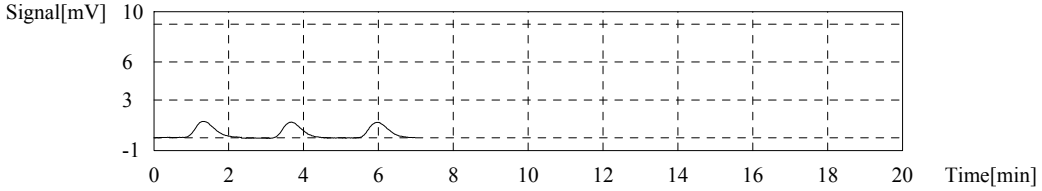
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4833mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.560	0.4933mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 5:22:53 AM
2	4.469	0.4834mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 5:26:38 AM
3	4.374	0.4731mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 5:30:27 AM

Mean Area 4.468
Mean Conc. 0.4833mg/L



Sample

Sample Name: 18F0198-31RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

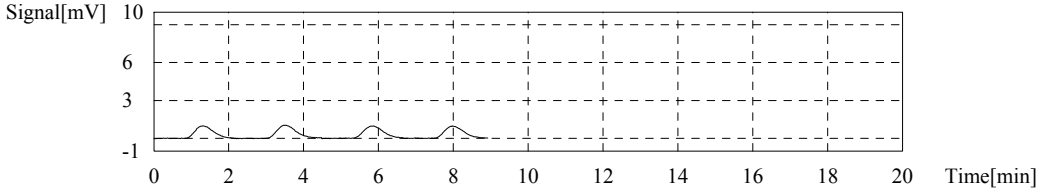
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3669mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.383	0.3659mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 5:40:21 AM
2	3.621	0.3917mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 5:44:15 AM
3	3.409	0.3687mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 5:47:54 AM
4	3.384	0.3660mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 5:51:47 AM

Mean Area 3.392
Mean Conc. 0.3669mg/L



Sample

Sample Name: 18F0198-33RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

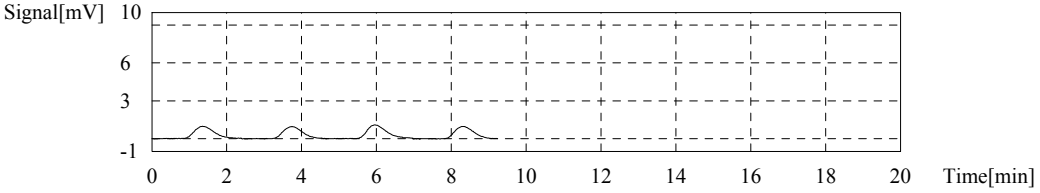
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3715mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.435	0.3716mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 6:01:53 AM
2	3.446	0.3728mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 6:05:33 AM
3	3.807	0.4118mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 6:09:23 AM
4	3.422	0.3702mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 6:13:07 AM

Mean Area 3.434
Mean Conc. 0.3715mg/L



Sample

Sample Name: 18F0198-35RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

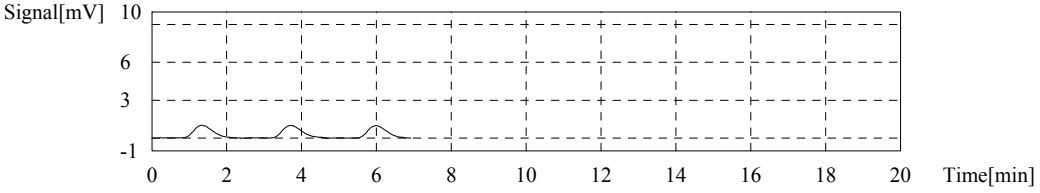
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3796mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.544	0.3834mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 6:23:12 AM
2	3.561	0.3852mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 6:26:54 AM
3	3.423	0.3703mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 6:30:40 AM

Mean Area 3.509
Mean Conc. 0.3796mg/L



Sample

Sample Name: 18F0198-37RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

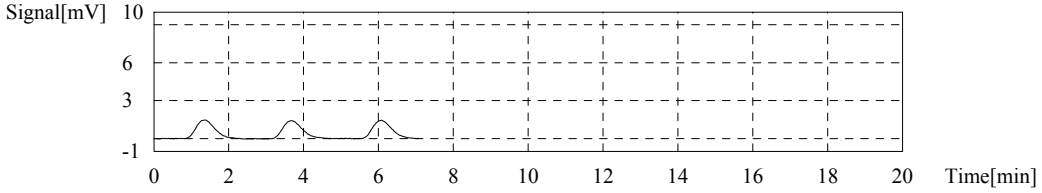
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5598mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.146	0.5566mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 6:40:43 AM
2	5.187	0.5611mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 6:44:35 AM
3	5.192	0.5616mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 6:48:20 AM

Mean Area 5.175
Mean Conc. 0.5598mg/L



Sample

Sample Name: 18F0198-39RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

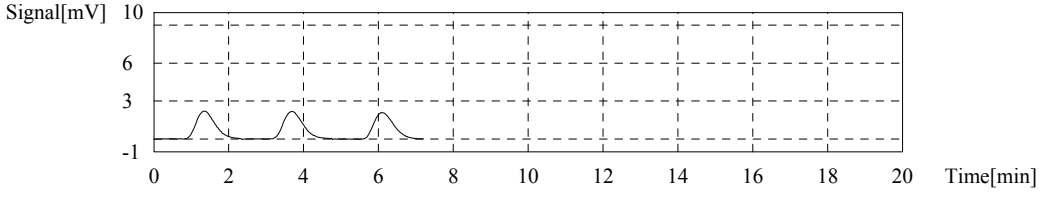
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8421mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.695	0.8324mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 6:58:24 AM
2	7.826	0.8465mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 7:02:16 AM
3	7.833	0.8473mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 7:06:05 AM

Mean Area 7.785
Mean Conc. 0.8421mg/L



Control Sample

Sample Name: SEQ-CCV4
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 19.67 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

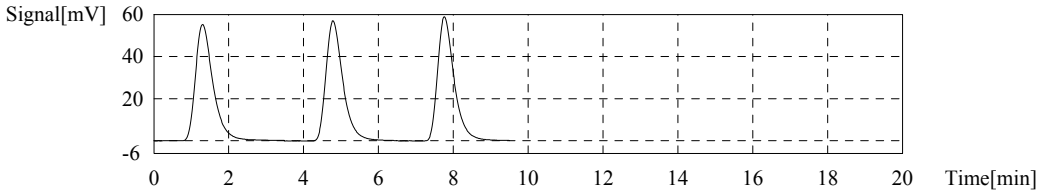
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:19.67ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	182.0	19.67ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 7:17:18 AM
2	181.1	19.57ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 7:21:17 AM
3	183.0	19.78ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 7:25:17 AM

Mean Area 182.0
Mean Conc. 19.67ppm



Control Sample

Sample Name: SEQ-CCB4
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1319 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

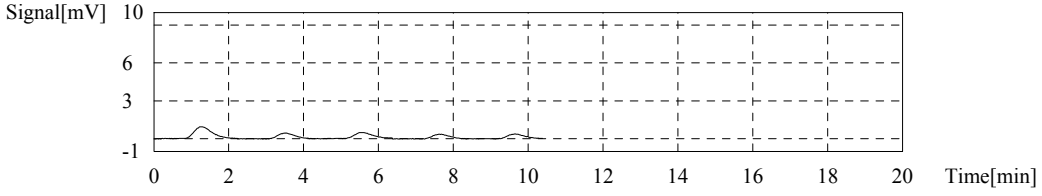
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1319mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.115	0.3203mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 7:35:24 AM
2	1.475	0.1429mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 7:38:43 AM
3	1.466	0.1419mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 7:42:15 AM
4	1.178	0.1108mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 7:45:41 AM
5	1.110	0.1034mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 7:49:10 AM

Mean Area 1.373
Mean Conc. 0.1319mg/L



Sample

Sample Name: BGF0349-MRL2 D
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

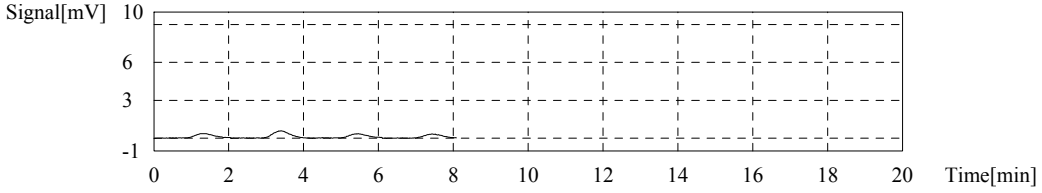
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1093mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.062	0.1149mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 7:59:12 AM
2	1.815	0.1963mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 8:03:02 AM
3	0.9583	0.1037mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 8:06:40 AM
4	1.012	0.1095mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 8:10:29 AM

Mean Area 1.011
Mean Conc. 0.1093mg/L



Sample

Sample Name: BGF0349-BLK2 D
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

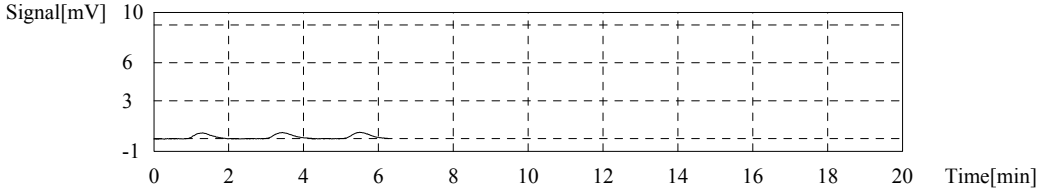
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1699mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.506	0.1629mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 8:20:22 AM
2	1.597	0.1727mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 8:24:06 AM
3	1.609	0.1740mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 8:27:51 AM

Mean Area 1.571
Mean Conc. 0.1699mg/L



Sample

Sample Name: BGF0349-BS2 D
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

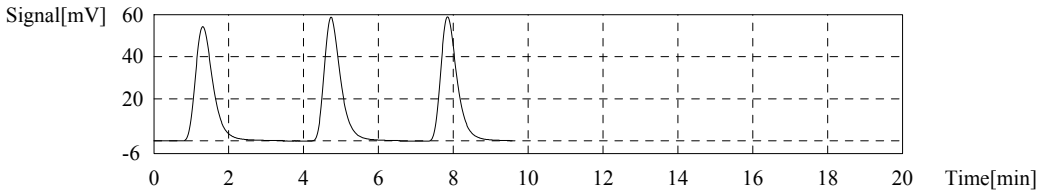
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:19.66mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	179.8	19.45mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 8:39:03 AM
2	182.6	19.75mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 8:43:10 AM
3	182.8	19.77mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 8:47:10 AM

Mean Area 181.7
Mean Conc. 19.66mg/L



Sample

Sample Name: 18F0208-01 D
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

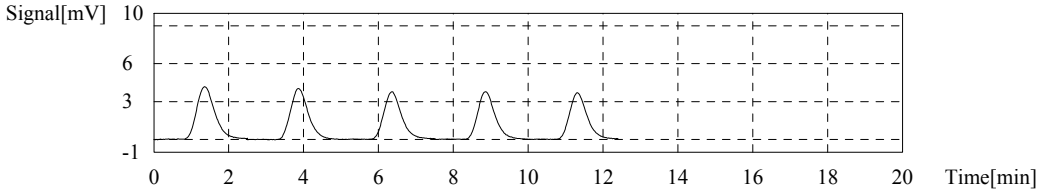
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.306mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.98	1.512mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 8:57:36 AM
2	13.51	1.461mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 9:01:23 AM
3	12.24	1.324mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 9:05:11 AM
4	12.21	1.321mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 9:08:53 AM
5	11.78	1.274mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 9:12:40 AM

Mean Area 12.08
Mean Conc. 1.306mg/L



Sample

Sample Name: BGF0349-DUP1 D
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

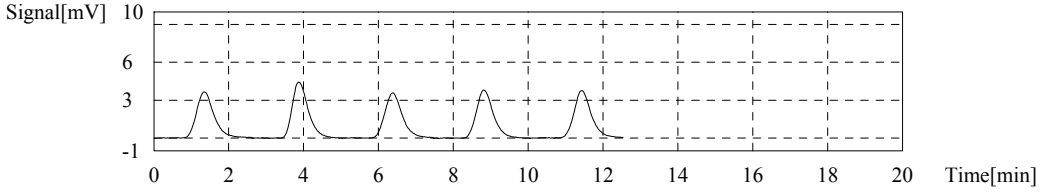
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.274mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.87	1.284mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 9:23:02 AM
2	13.35	1.444mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 9:26:35 AM
3	11.56	1.250mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 9:30:26 AM
4	12.21	1.321mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 9:34:20 AM
5	11.89	1.286mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 9:38:01 AM

Mean Area 11.77
Mean Conc. 1.274mg/L



Sample

Sample Name: BGF0349-MS1 D
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

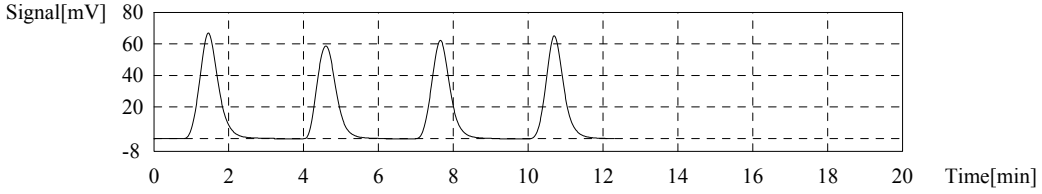
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:23.22mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	236.5	25.58mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 9:49:26 AM
2	211.5	22.88mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 9:53:24 AM
3	215.3	23.29mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 9:57:25 AM
4	217.3	23.51mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 10:01:28 AM

Mean Area 214.7
Mean Conc. 23.22mg/L



Sample

Sample Name: 18F0208-02 D
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

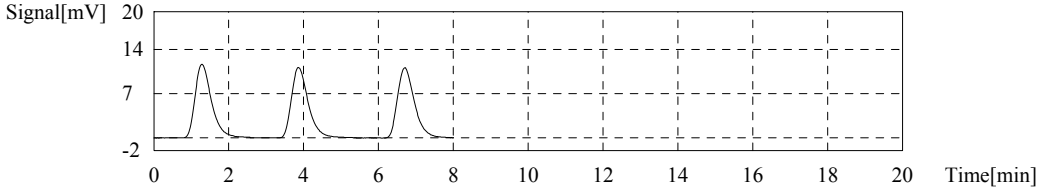
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.807mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	35.37	3.826mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 10:11:57 AM
2	34.87	3.772mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 10:16:00 AM
3	35.35	3.824mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 10:19:35 AM

Mean Area 35.20
Mean Conc. 3.807mg/L



Sample

Sample Name: 18F0208-03 D
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

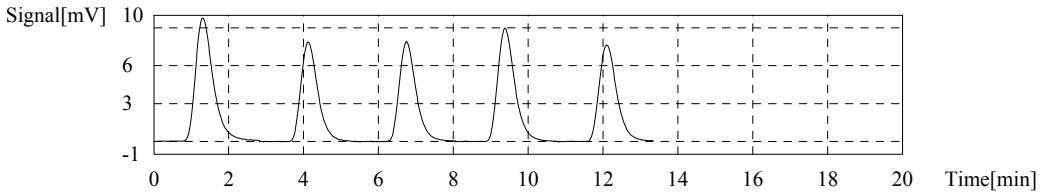
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.705mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	32.10	3.472mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 10:30:21 AM
2	25.12	2.717mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 10:33:58 AM
3	24.77	2.679mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 10:37:43 AM
4	29.01	3.138mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 10:41:36 AM
5	25.14	2.719mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 10:45:13 AM

Mean Area 25.01
Mean Conc. 2.705mg/L



Sample

Sample Name: 18F0208-04 D
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

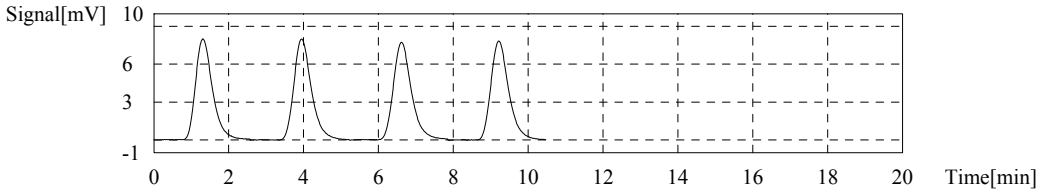
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.810mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	25.15	2.720mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 10:55:48 AM
2	26.19	2.833mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 10:59:40 AM
3	25.73	2.783mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 11:03:26 AM
4	26.00	2.812mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 11:07:12 AM

Mean Area 25.97
Mean Conc. 2.810mg/L



Sample

Sample Name: BGF0337-MRL1 D
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

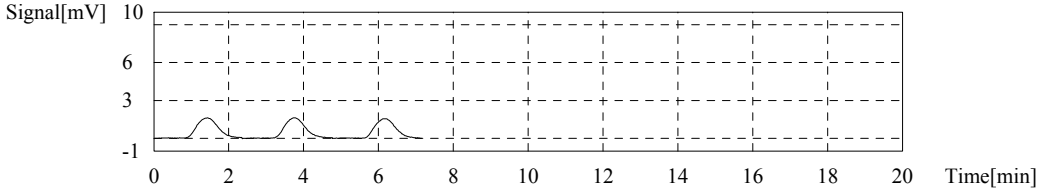
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6542mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.132	0.6633mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 11:17:30 AM
2	6.063	0.6558mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 11:21:21 AM
3	5.950	0.6436mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 11:25:06 AM

Mean Area 6.048
Mean Conc. 0.6542mg/L



Control Sample

Sample Name: SEQ-CCV5
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 19.39 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

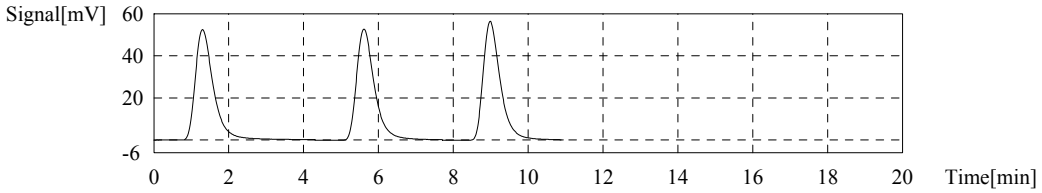
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:19.39ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	178.9	19.33ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 11:37:13 AM
2	177.4	19.17ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 11:41:36 AM
3	182.0	19.67ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 11:45:49 AM

Mean Area 179.4
Mean Conc. 19.39ppm



Control Sample

Sample Name: SEQ-CCB5
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1564 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

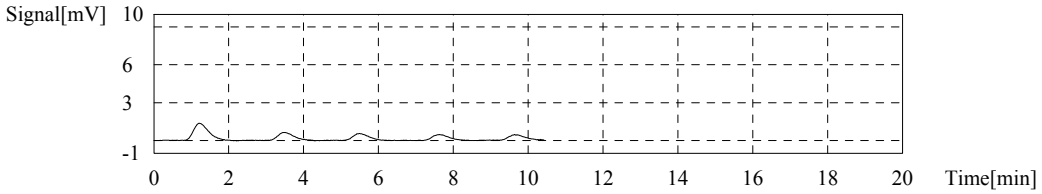
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1564mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.852	0.4000mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 11:55:57 AM
2	1.767	0.1745mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 11:59:12 AM
3	1.616	0.1582mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 12:02:49 PM
4	1.416	0.1365mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 12:06:15 PM
5	1.258	0.1194mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 12:09:42 PM

Mean Area 1.600
Mean Conc. 0.1564mg/L



Sample

Sample Name: BGF0337-BLK1 D
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

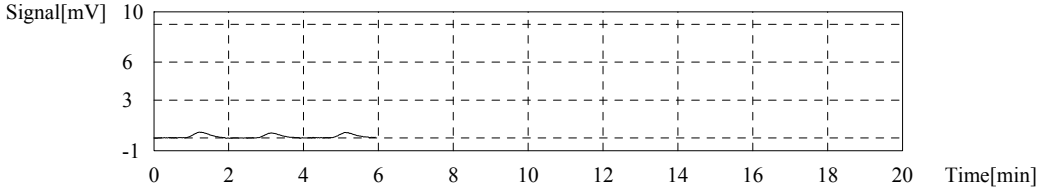
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1254mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.264	0.1367mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 12:19:29 PM
2	1.103	0.1193mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 12:23:22 PM
3	1.112	0.1203mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 12:27:10 PM

Mean Area 1.160
Mean Conc. 0.1254mg/L



Sample

Sample Name: BGF0337-BS1 D
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

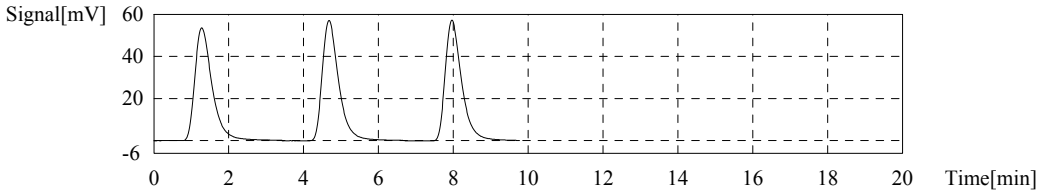
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.96mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	173.3	18.75mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 12:38:19 PM
2	176.3	19.07mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 12:42:35 PM
3	176.3	19.07mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 12:46:38 PM

Mean Area 175.3
Mean Conc. 18.96mg/L



Sample

Sample Name: 18F0198-01 D
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

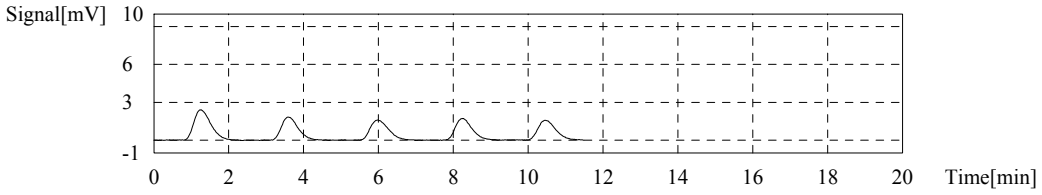
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5763mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.691	0.8319mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 12:56:52 PM
2	5.806	0.6280mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 1:00:42 PM
3	5.400	0.5841mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 1:04:24 PM
4	5.337	0.5773mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 1:08:06 PM
5	5.246	0.5675mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 1:12:00 PM

Mean Area 5.328
Mean Conc. 0.5763mg/L



Sample

Sample Name: 18F0198-03 D
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

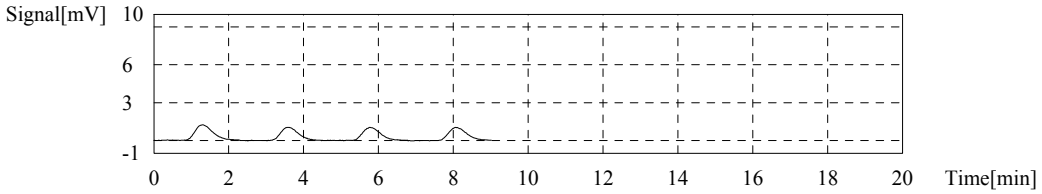
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3681mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.025	0.4354mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 1:22:03 PM
2	3.428	0.3708mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 1:25:43 PM
3	3.404	0.3682mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 1:29:37 PM
4	3.377	0.3653mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 1:33:20 PM

Mean Area 3.403
Mean Conc. 0.3681mg/L



Sample

Sample Name: 18F0198-05 D
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

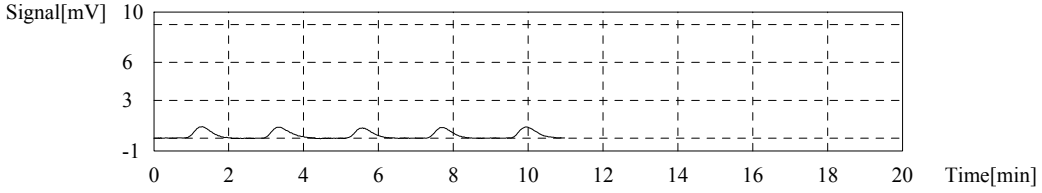
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3055mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.796	0.3024mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 1:43:09 PM
2	3.020	0.3267mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 1:47:06 PM
3	2.598	0.2810mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 1:50:47 PM
4	2.774	0.3001mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 1:54:40 PM
5	2.903	0.3140mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 1:58:31 PM

Mean Area 2.824
Mean Conc. 0.3055mg/L



Sample

Sample Name: BGF0337-DUP1 D
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

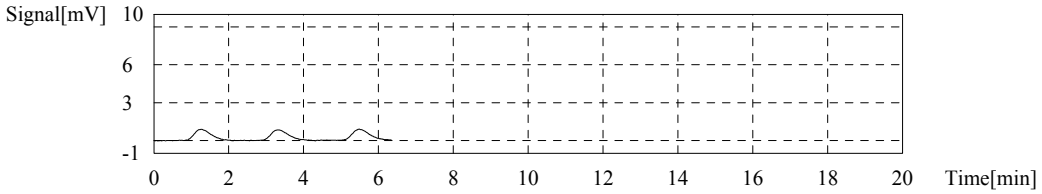
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2939mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.727	0.2950mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 2:08:19 PM
2	2.681	0.2900mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 2:12:13 PM
3	2.744	0.2968mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 2:15:57 PM

Mean Area 2.717
Mean Conc. 0.2939mg/L



Sample

Sample Name: BGF0337-MS1 D
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

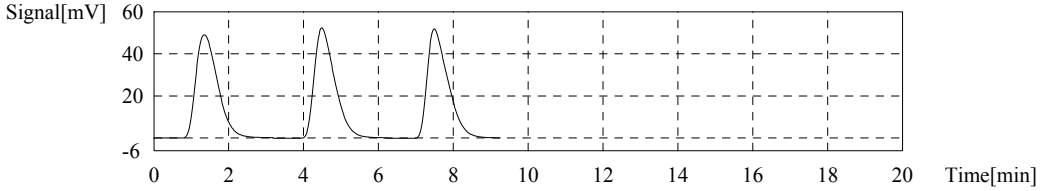
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:21.78mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	200.7	21.71mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 2:26:53 PM
2	201.5	21.80mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 2:30:54 PM
3	201.8	21.83mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 2:34:55 PM

Mean Area 201.3
Mean Conc. 21.78mg/L



Sample

Sample Name: BGF0337-MSD1 D
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

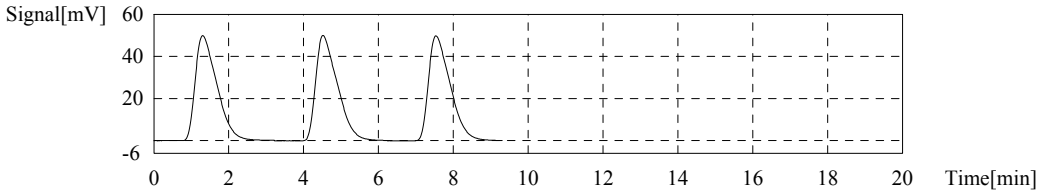
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:21.88mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	202.1	21.86mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 2:46:04 PM
2	202.4	21.89mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 2:50:04 PM
3	202.3	21.88mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 2:54:07 PM

Mean Area 202.3
Mean Conc. 21.88mg/L



Sample

Sample Name: 18F0198-07 D
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

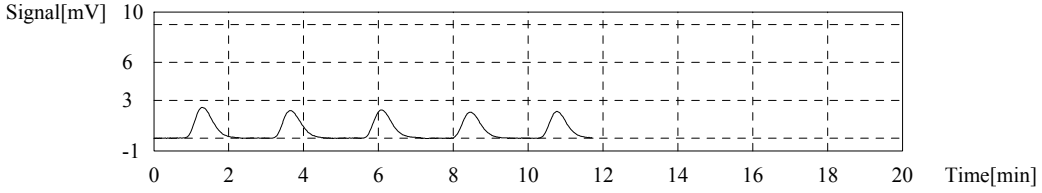
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8018mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.124	0.8788mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 3:04:24 PM
2	7.544	0.8160mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 3:08:15 PM
3	7.581	0.8200mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 3:11:59 PM
4	7.113	0.7694mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 3:15:44 PM
5	6.975	0.7545mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 3:19:27 PM

Mean Area 7.413
Mean Conc. 0.8018mg/L



Control Sample

Sample Name: SEQ-CCV6
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 19.61 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

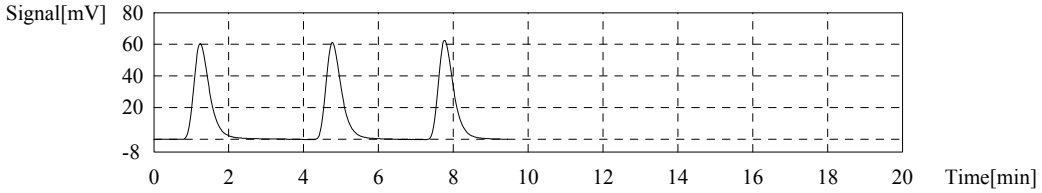
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:19.61ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	181.6	19.63ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 3:30:50 PM
2	180.6	19.52ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 3:34:49 PM
3	182.0	19.67ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 3:38:43 PM

Mean Area 181.4
Mean Conc. 19.61ppm



Control Sample

Sample Name: SEQ-CCB6
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1213 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

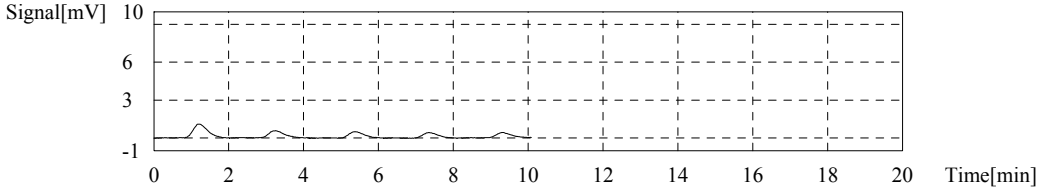
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1213mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.036	0.3118mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 3:48:37 PM
2	1.674	0.1644mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 3:52:14 PM
3	1.449	0.1401mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 3:55:35 PM
4	1.257	0.1193mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 3:59:04 PM
5	1.121	0.1046mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/1/2018 4:02:35 PM

Mean Area 1.276
Mean Conc. 0.1213mg/L



Analytical Resources, Incorporated
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGG0134	Instrument:	TOC-LCSH
		Calibration:	BG00035

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
1	SGG0134-CAL1	adzuData_07112018@092	NA	07/06/18 11:59
10	SGG0134-CAL2	adzuData_07112018@092	NA	07/06/18 12:16
5	SGG0134-CAL3	adzuData_07112018@092	NA	07/06/18 12:35
2	SGG0134-CAL4	adzuData_07112018@092	NA	07/06/18 12:51
1	SGG0134-CAL5	adzuData_07112018@092	NA	07/06/18 13:07
5	SGG0134-CAL6	adzuData_07112018@092	NA	07/06/18 13:26
2	SGG0134-CAL7	adzuData_07112018@092	NA	07/06/18 13:44
1	SGG0134-CAL8	adzuData_07112018@092	NA	07/06/18 14:02
1	SGG0134-ICV1	adzuData_07112018@092	NA	07/06/18 14:28
1	SGG0134-ICB1	adzuData_07112018@092	NA	07/06/18 14:57
1	SGG0134-IFA1	adzuData_07112018@092	NA	07/06/18 15:16
LDW18-SP-01	18F0248-01	adzuData_07112018@092	Water	07/06/18 20:16
LDW18-SP-45	18F0248-02	adzuData_07112018@092	Water	07/06/18 20:38
LDW18-SP-47	18F0248-03	adzuData_07112018@092	Water	07/06/18 20:56
LDW18-SP-66	18F0248-04	adzuData_07112018@092	Water	07/06/18 21:14
LDW18-SP-70	18F0248-05	adzuData_07112018@092	Water	07/06/18 21:32
LDW18-SP-83	18F0248-06	adzuData_07112018@092	Water	07/06/18 21:53
LDW18-SP-86	18F0248-07	adzuData_07112018@092	Water	07/06/18 22:23
LDW18-SP-88	18F0248-08	adzuData_07112018@092	Water	07/06/18 22:41

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes	Status	Date / Time	Vial
1	Unknown	NPOC	Rinse		NPOC 0.5 -	1.000	NPOC:0.1895mg/L		Completed	7/6/2018 11:48:24 A	0
2	Standard	NPOC	SEQ-CAL	Curve	NPOC 0.5 -	1.000			Completed	7/6/2018 2:11:47 PM	0, 1, 1, 1, 1,
3	Control	NPOC	SEQ-ICV1	CVS 20	CVS 20 pp	1.000	NPOC:18.52ppm	Control valu	Completed	7/6/2018 2:40:50 PM	3
4	Control	NPOC	SEQ-ICB1		ICB CCB.tpl	1.000	NPOC:0.2756mg/L	Control valu	Completed	7/6/2018 3:04:45 PM	4
5	Unknown	NPOC	SEQ-IFA1		NPOC 0.5 -	1.000	NPOC:18.17mg/L		Completed	7/6/2018 3:25:15 PM	9
6	Unknown	NPOC	18F0226-01		NPOC 0.5 -	1.000	NPOC:1.380mg/L		Completed	7/6/2018 3:50:35 PM	10
7	Unknown	NPOC	18F0226-02		NPOC 0.5 -	1.000	NPOC:1.264mg/L		Completed	7/6/2018 4:08:15 PM	11
8	Unknown	NPOC	BGG0063-DUP1		NPOC 0.5 -	1.000	NPOC:1.241mg/L		Completed	7/6/2018 4:25:56 PM	12
9	Unknown	NPOC	BGG0063-MS1		NPOC 0.5 -	1.000	NPOC:0.05309mg/		Completed	7/6/2018 4:51:34 PM	13
10	Unknown	NPOC	18F0226-03		NPOC 0.5 -	1.000	NPOC:2.736mg/L		Completed	7/6/2018 5:13:08 PM	14
11	Unknown	NPOC	18F0226-04		NPOC 0.5 -	1.000	NPOC:2.190mg/L		Completed	7/6/2018 5:31:28 PM	15
12	Unknown	NPOC	18F0226-05		NPOC 0.5 -	1.000	NPOC:4.136mg/L		Completed	7/6/2018 5:49:49 PM	16
13	Unknown	NPOC	18F0226-06		NPOC 0.5 -	1.000	NPOC:1.465mg/L		Completed	7/6/2018 6:11:27 PM	17
14	Unknown	NPOC	18F0226-07		NPOC 0.5 -	1.000	NPOC:1.620mg/L		Completed	7/6/2018 6:29:11 PM	18
15	Control	NPOC	SEQ-CCV1	CVS 20	CVS 20 pp	1.000	NPOC:17.70ppm	Control valu	Completed	7/6/2018 6:54:54 PM	3
16	Control	NPOC	SEQ-CCB1		ICB CCB.tpl	1.000	NPOC:0.2429mg/L	Control valu	Completed	7/6/2018 7:18:54 PM	4
17	Unknown	NPOC	18F0226-08		NPOC 0.5 -	1.000	NPOC:1.341mg/L		Completed	7/6/2018 7:44:22 PM	19
18	Unknown	NPOC	18F0226-09		NPOC 0.5 -	1.000	NPOC:1.059mg/L		Completed	7/6/2018 8:02:33 PM	20
19	Unknown	NPOC	18F0248-01		NPOC 0.5 -	1.000	NPOC:1.702mg/L		Completed	7/6/2018 8:28:00 PM	21
20	Unknown	NPOC	18F0248-02		NPOC 0.5 -	1.000	NPOC:1.741mg/L		Completed	7/6/2018 8:46:01 PM	22
21	Unknown	NPOC	18F0248-03		NPOC 0.5 -	1.000	NPOC:1.547mg/L		Completed	7/6/2018 9:04:11 PM	23
22	Unknown	NPOC	18F0248-04		NPOC 0.5 -	1.000	NPOC:1.361mg/L		Completed	7/6/2018 9:22:08 PM	24
23	Unknown	NPOC	18F0248-05		NPOC 0.5 -	1.000	NPOC:0.8951mg/L		Completed	7/6/2018 9:43:33 PM	25
24	Unknown	NPOC	18F0248-06		NPOC 0.5 -	1.000	NPOC:1.149mg/L		Completed	7/6/2018 10:05:00 P	26
25	Unknown	NPOC	18F0248-07		NPOC 0.5 -	1.000	NPOC:1.441mg/L		Completed	7/6/2018 10:30:57 P	27
26	Unknown	NPOC	18F0248-08		NPOC 0.5 -	1.000	NPOC:1.078mg/L		Completed	7/6/2018 10:49:06 P	28
27	Control	NPOC	SEQ-CCV2	CVS 20	CVS 20 pp	1.000	NPOC:17.33ppm	Control valu	Completed	7/6/2018 11:10:24 P	3
28	Control	NPOC	SEQ-CCB2		ICB CCB.tpl	1.000	NPOC:0.2020mg/L	Control valu	Completed	7/6/2018 11:34:13 P	4
29	Unknown	NPOC	BGG0064-MRL1		NPOC 0.5 -	1.000	NPOC:0.1990mg/L		Completed	7/6/2018 11:55:37 P	29
30	Unknown	NPOC	BGG0064-BLK1		NPOC 0.5 -	1.000	NPOC:0.1412mg/L		Completed	7/7/2018 12:12:59 A	30
31	Unknown	NPOC	BGG0064-BS1		NPOC 0.5 -	1.000	NPOC:17.52mg/L		Completed	7/7/2018 12:33:47 A	31
32	Unknown	NPOC	18F0346-01		NPOC 0.5 -	1.000	NPOC:13.40mg/L		Completed	7/7/2018 1:01:36 AM	32
33	Unknown	NPOC	18F0346-05		NPOC 0.5 -	1.000	NPOC:13.80mg/L		Completed	7/7/2018 1:29:22 AM	33
34	Unknown	NPOC	18F0218-05		NPOC 0.5 -	1.000	NPOC:4.519mg/L		Completed	7/7/2018 1:56:14 AM	34
35	Unknown	NPOC	BGG0064-DUP1		NPOC 0.5 -	1.000	NPOC:4.413mg/L		Completed	7/7/2018 2:15:19 AM	35
36	Unknown	NPOC	BGG0064-MS1		NPOC 0.5 -	1.000	NPOC:22.97mg/L		Completed	7/7/2018 2:45:05 AM	36
37	Unknown	NPOC	18F0272-07		NPOC 0.5 -	1.000	NPOC:7.423mg/L		Completed	7/7/2018 3:08:39 AM	37
38	Unknown	NPOC	18F0272-14		NPOC 0.5 -	1.000	NPOC:3.459mg/L		Completed	7/7/2018 3:30:38 AM	38
39	Control	NPOC	SEQ-CCV3	CVS 20	CVS 20 pp	1.000	NPOC:17.49ppm	Control valu	Completed	7/7/2018 3:52:41 AM	5
40	Control	NPOC	SEQ-CCB3		ICB CCB.tpl	1.000	NPOC:0.2403mg/L	Control valu	Completed	7/7/2018 4:16:36 AM	6

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes	Status	Date / Time	Vial
41	Unknown	NPOC	18F0310-04		NPOC 0.5 -	1.000	NPOC:5.377mg/L		Completed	7/7/2018 4:36:12 AM	39
42	Unknown	NPOC	18F0311-07		NPOC 0.5 -	1.000	NPOC:9.267mg/L		Completed	7/7/2018 5:00:36 AM	40
43	Unknown	NPOC	18F0328-07		NPOC 0.5 -	1.000	NPOC:6.834mg/L		Completed	7/7/2018 5:20:25 AM	41
44	Unknown	NPOC	BGG0109-MRL1		NPOC 0.5 -	1.000	NPOC:0.1951mg/L		Completed	7/7/2018 5:45:33 AM	42
45	Unknown	NPOC	BGG0109-BLK1		NPOC 0.5 -	1.000	NPOC:0.1350mg/L		Completed	7/7/2018 6:02:52 AM	43
46	Unknown	NPOC	BGG0109-BS1		NPOC 0.5 -	1.000	NPOC:17.95mg/L		Completed	7/7/2018 6:23:55 AM	44
47	Unknown	NPOC	18F0313-01		NPOC 0.5 -	1.000	NPOC:0.3536mg/L		Completed	7/7/2018 6:49:05 AM	45
48	Unknown	NPOC	18F0313-02		NPOC 0.5 -	1.000	NPOC:0.3838mg/L		Completed	7/7/2018 7:14:09 AM	46
49	Unknown	NPOC	18F0313-03		NPOC 0.5 -	1.000	NPOC:0.3219mg/L		Completed	7/7/2018 7:39:11 AM	47
50	Unknown	NPOC	18F0313-04		NPOC 0.5 -	1.000	NPOC:0.2661mg/L		Completed	7/7/2018 8:04:10 AM	48
51	Control	NPOC	SEQ-CCV4	CVS 20	CVS 20 pp	1.000	NPOC:18.29ppm	Control valu	Completed	7/7/2018 8:25:07 AM	5
52	Control	NPOC	SEQ-CCB4		ICB CCB.tpl	1.000	NPOC:0.1691mg/L	Control valu	Completed	7/7/2018 8:49:03 AM	6
53	Unknown	NPOC	18F0313-05		NPOC 0.5 -	1.000	NPOC:0.3368mg/L		Completed	7/7/2018 9:06:43 AM	49
54	Unknown	NPOC	18F0336-01		NPOC 0.5 -	1.000	NPOC:0.2642mg/L		Completed	7/7/2018 9:24:09 AM	50
55	Unknown	NPOC	18F0336-03		NPOC 0.5 -	1.000	NPOC:3.216mg/L		Completed	7/7/2018 9:46:09 AM	51
56	Unknown	NPOC	18F0336-05		NPOC 0.5 -	1.000	NPOC:2.809mg/L		Completed	7/7/2018 10:04:14 A	52
57	Unknown	NPOC	18F0336-07		NPOC 0.5 -	1.000	NPOC:1.864mg/L		Completed	7/7/2018 10:26:14 A	53
58	Unknown	NPOC	18F0336-09		NPOC 0.5 -	1.000	NPOC:1.021mg/L		Completed	7/7/2018 10:47:47 A	54
59	Unknown	NPOC	18F0336-11		NPOC 0.5 -	1.000	NPOC:1.865mg/L		Completed	7/7/2018 11:13:06 A	55
60	Unknown	NPOC	18F0424-01		NPOC 0.5 -	1.000	NPOC:0.9107mg/L		Completed	7/7/2018 11:38:20 A	56
61	Unknown	NPOC	BGG0109-DUP1		NPOC 0.5 -	1.000	NPOC:0.7898mg/L		Completed	7/7/2018 12:03:29 P	57
62	Unknown	NPOC	BGG0109-MS1		NPOC 0.5 -	1.000	NPOC:20.50mg/L		Completed	7/7/2018 12:23:39 P	58
63	Control	NPOC	SEQ-CCV5	CVS 20	CVS 20 pp	1.000	NPOC:18.52ppm	Control valu	Completed	7/7/2018 12:44:27 P	5
64	Control	NPOC	SEQ-CCB5		ICB CCB.tpl	1.000	NPOC:0.2406mg/L	Control valu	Completed	7/7/2018 1:08:20 PM	6
65	Unknown	NPOC	18F0424-03		NPOC 0.5 -	1.000	NPOC:1.125mg/L		Completed	7/7/2018 1:30:06 PM	59
66	Unknown	NPOC	18F0424-05		NPOC 0.5 -	1.000	NPOC:1.465mg/L		Completed	7/7/2018 1:55:55 PM	60
67	Unknown	NPOC	18F0424-07		NPOC 0.5 -	1.000	NPOC:0.6846mg/L		Completed	7/7/2018 2:21:23 PM	61
68	Unknown	NPOC	18F0424-09		NPOC 0.5 -	1.000	NPOC:0.6398mg/L		Completed	7/7/2018 2:46:39 PM	62
69	Control	NPOC	SEQ-CCV6	CVS 20	CVS 20 pp	1.000	NPOC:18.40ppm	Control valu	Completed	7/7/2018 3:10:54 PM	7
70	Control	NPOC	SEQ-CCB6		ICB CCB.tpl	1.000	NPOC:0.1740mg/L	Control valu	Completed	7/7/2018 3:34:46 PM	8
71	Unknown	NPOC	18F0309-09		NPOC 0.5 -	1.000	NPOC:92.78mg/L		Completed	7/7/2018 4:05:20 PM	63
72	Unknown	NPOC	18F0312-09		NPOC 0.5 -	1.000	NPOC:50.86mg/L		Completed	7/7/2018 4:35:39 PM	64
73	Unknown	NPOC	18F0327-05		NPOC 0.5 -	1.000	NPOC:37.28mg/L		Completed	7/7/2018 5:06:00 PM	65
74	Control	NPOC	SEQ-CCV7	CVS 20	CVS 20 pp	1.000	NPOC:18.71ppm	Control valu	Completed	7/7/2018 5:26:36 PM	7
75	Control	NPOC	SEQ-CCB7		ICB CCB.tpl	1.000	NPOC:0.1931mg/L	Control valu	Completed	7/7/2018 5:50:30 PM	8

TOC-Control L Report

CDE
2018_07_06_001.tlx

Instr.Information

Instrument Options: TOC/ASI/IC Unit/
Catalyst: Regular Sensitivity

Sample

Sample Name: Rinse
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status: Completed
Chk. Result

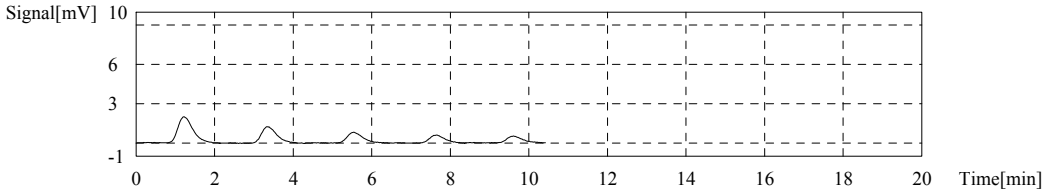
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1895mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.355	0.5792mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/6/2018 11:34:28 AM
2	3.507	0.3793mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/6/2018 11:38:02 AM
3	2.249	0.2433mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/6/2018 11:41:27 AM
4	1.651	0.1786mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/6/2018 11:44:49 AM
5	1.357	0.1468mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/6/2018 11:48:24 AM

Mean Area 1.752
Mean Conc. 0.1895mg/L



Cal. Curve

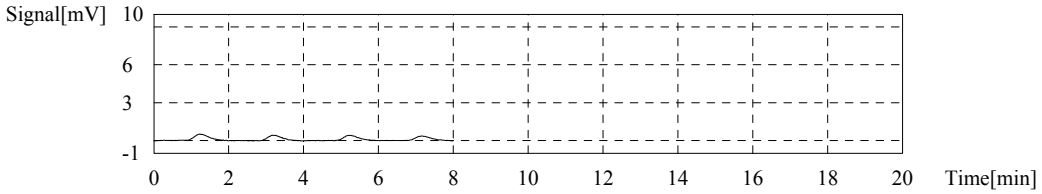
Sample Name: SEQ-CAL
Sample ID: Curve
Cal. Curve: NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal
Status: Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1.285	100uL	1.000	*******	E	7/6/2018 11:55:57 AM
2	1.192	100uL	1.000	*******		7/6/2018 11:59:31 AM
3	1.074	100uL	1.000	*******		7/6/2018 12:02:55 PM
4	1.049	100uL	1.000	*******		7/6/2018 12:06:32 PM

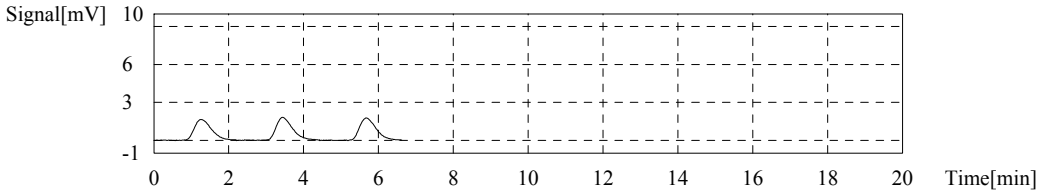
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 1.105



Conc: 0.5000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	5.238	100uL	10.00	*******		7/6/2018 12:16:53 PM
2	5.405	100uL	10.00	*******		7/6/2018 12:21:46 PM
3	5.344	100uL	10.00	*******		7/6/2018 12:26:37 PM

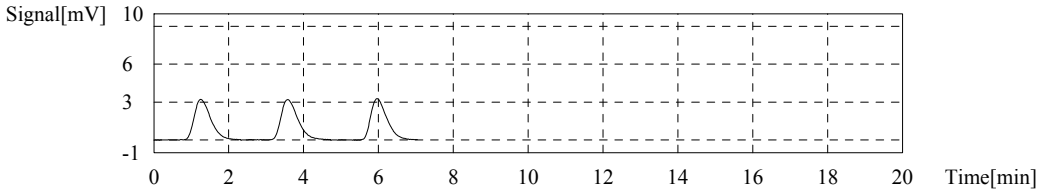
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 5.329



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	9.839	100uL	5.000	*******		7/6/2018 12:35:16 PM
2	9.943	100uL	5.000	*******		7/6/2018 12:39:00 PM
3	9.885	100uL	5.000	*******		7/6/2018 12:42:34 PM

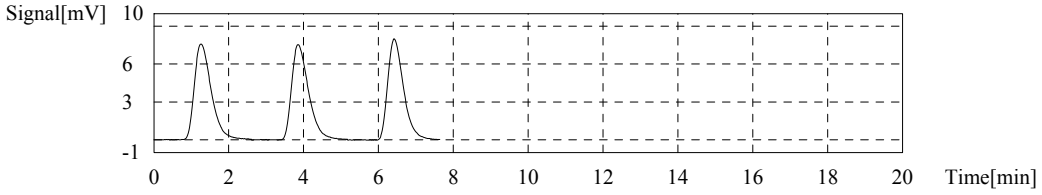
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 9.889



Conc: 2.500mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	23.91	100uL	2.000	*******		7/6/2018 12:51:30 PM
2	23.86	100uL	2.000	*******		7/6/2018 12:55:07 PM
3	23.66	100uL	2.000	*******		7/6/2018 12:58:40 PM

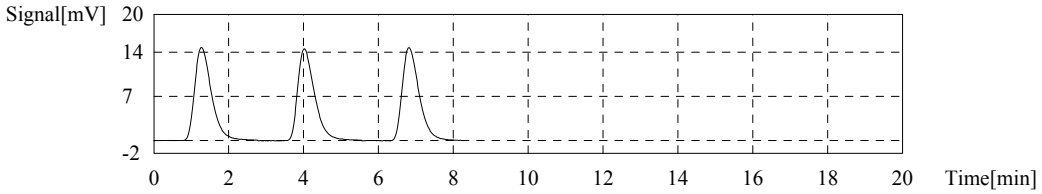
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 23.81



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	46.33	100uL	1.000	*******		7/6/2018 1:07:11 PM
2	45.74	100uL	1.000	*******		7/6/2018 1:10:57 PM
3	46.69	100uL	1.000	*******		7/6/2018 1:14:41 PM

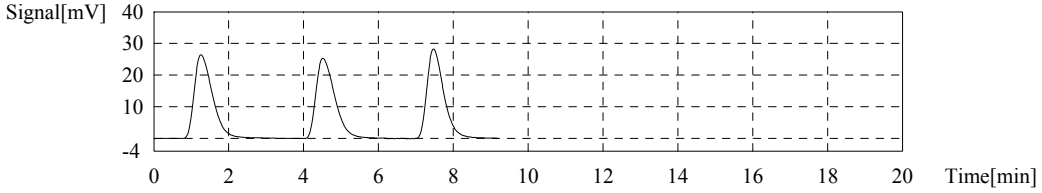
Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	46.25



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	90.34	100uL	5.000	*******		7/6/2018 1:26:25 PM
2	89.06	100uL	5.000	*******		7/6/2018 1:30:22 PM
3	89.66	100uL	5.000	*******		7/6/2018 1:34:20 PM

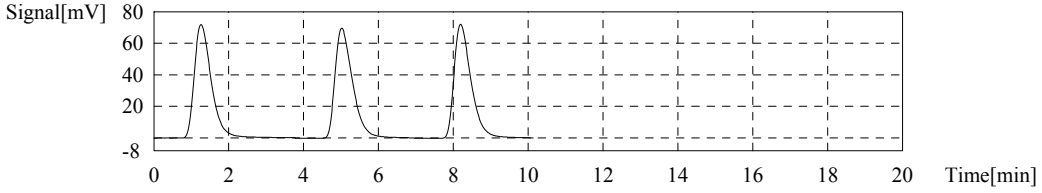
Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	89.69



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	229.5	100uL	2.000	*******		7/6/2018 1:44:36 PM
2	228.7	100uL	2.000	*******		7/6/2018 1:48:46 PM
3	229.9	100uL	2.000	*******		7/6/2018 1:52:56 PM

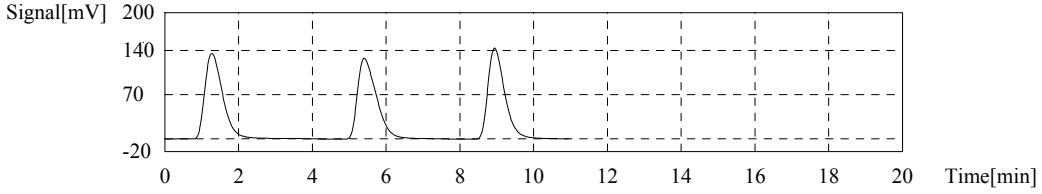
Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	229.4



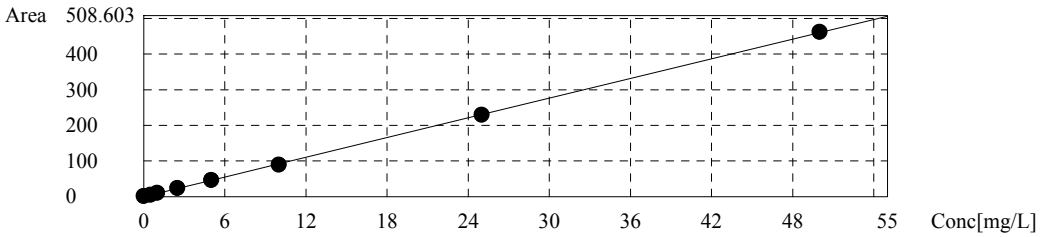
Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	462.6	100uL	1.000	*******		7/6/2018 2:02:59 PM
2	462.1	100uL	1.000	*******		7/6/2018 2:07:31 PM
3	462.4	100uL	1.000	*******		7/6/2018 2:11:47 PM

Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	462.4



Slope:	9.222
Intercept	0.000
r^2	0.9999
r	1.0000
Zero Shift	Yes



Control Sample

Sample Name: SEQ-ICV1
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.52 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

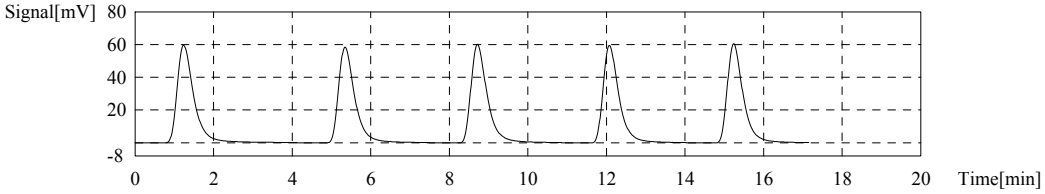
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.52ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	178.7	19.36ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 2:23:48 PM
2	170.6	18.49ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 2:28:10 PM
3	176.4	19.12ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 2:32:32 PM
4	169.8	18.40ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 2:36:42 PM
5	172.2	18.66ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 2:40:50 PM

Mean Area 170.9
Mean Conc. 18.52ppm



Control Sample

Sample Name: SEQ-ICB1
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.2756 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

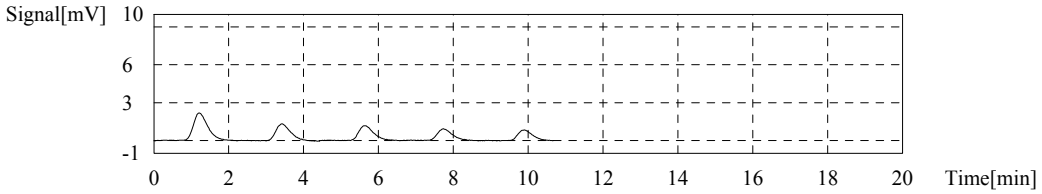
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.2756mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.815	0.6184mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 2:50:56 PM
2	3.771	0.3968mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 2:54:26 PM
3	3.181	0.3328mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 2:57:49 PM
4	2.528	0.2620mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 3:01:23 PM
5	2.250	0.2319mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 3:04:45 PM

Mean Area 2.653
Mean Conc. 0.2756mg/L



Sample

Sample Name: SEQ-IFA1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

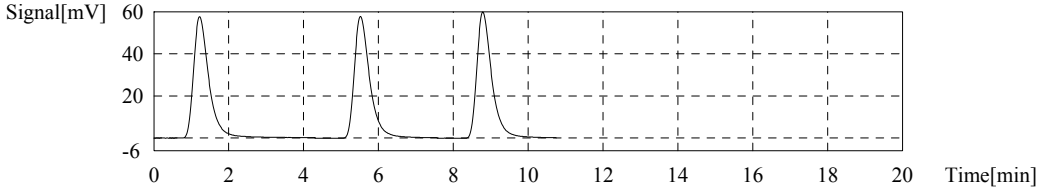
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.17mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	167.1	18.12mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 3:16:49 PM
2	167.3	18.14mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 3:21:04 PM
3	168.4	18.26mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 3:25:15 PM

Mean Area 167.6
Mean Conc. 18.17mg/L



Sample

Sample Name: 18F0226-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

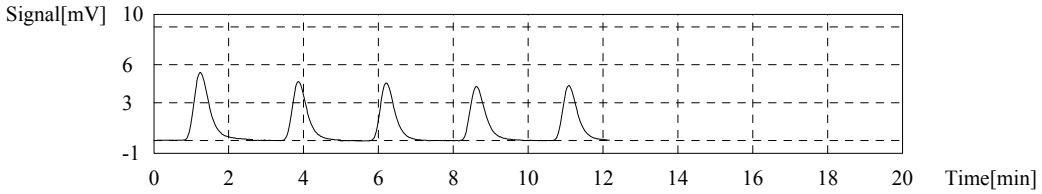
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.380mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.67	1.699mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 3:35:47 PM
2	13.01	1.411mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 3:39:18 PM
3	12.79	1.387mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 3:43:07 PM
4	12.39	1.343mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 3:46:59 PM
5	12.13	1.315mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 3:50:35 PM

Mean Area 12.73
Mean Conc. 1.380mg/L



Sample

Sample Name: 18F0226-02
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

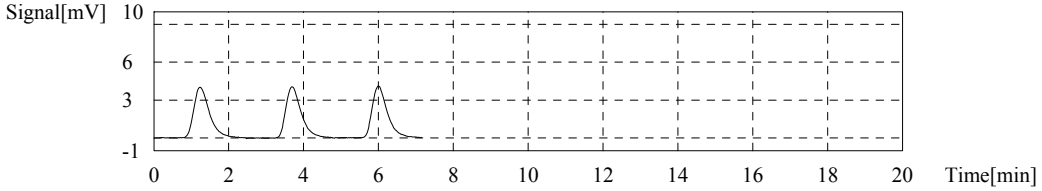
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.264mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.78	1.277mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 4:00:46 PM
2	11.61	1.259mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 4:04:23 PM
3	11.57	1.255mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 4:08:15 PM

Mean Area 11.65
Mean Conc. 1.264mg/L



Sample

Sample Name: BGG0063-DUP1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

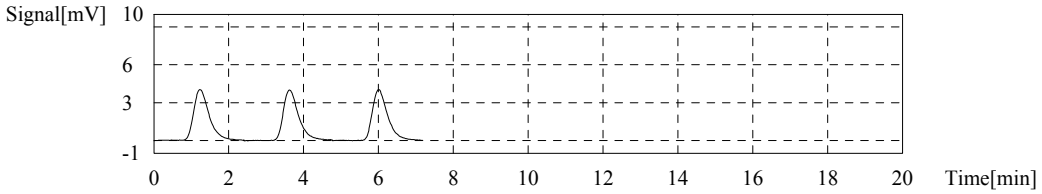
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.241mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.55	1.252mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 4:18:22 PM
2	11.27	1.222mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 4:22:07 PM
3	11.52	1.249mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 4:25:56 PM

Mean Area 11.45
Mean Conc. 1.241mg/L



Sample

Sample Name: BGG0063-MS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

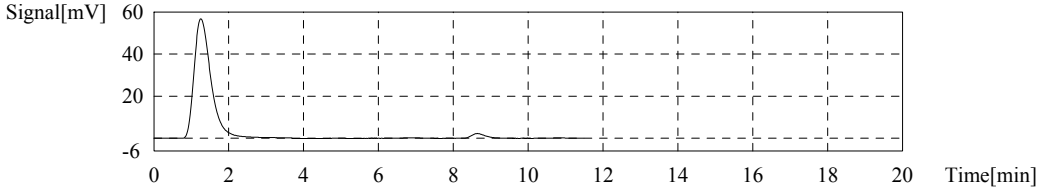
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.05309mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	180.2	19.54mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 4:37:20 PM
2	0.3169	0.03436mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 4:40:14 PM
3	0.6460	0.07005mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 4:44:00 PM
4	5.881	0.6377mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 4:47:59 PM
5	0.5059	0.05486mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 4:51:34 PM

Mean Area 0.4896
Mean Conc. 0.05309mg/L



Sample

Sample Name: 18F0226-03
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

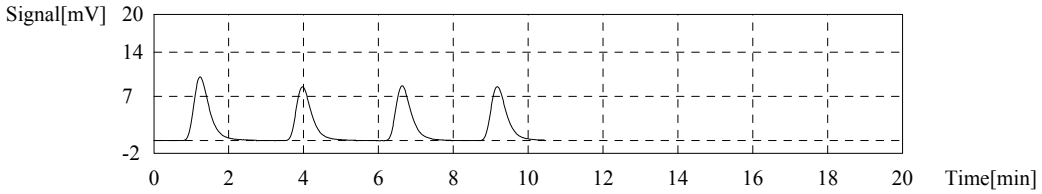
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.736mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	29.61	3.211mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 5:02:01 PM
2	25.10	2.722mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 5:05:44 PM
3	25.44	2.758mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 5:09:23 PM
4	25.16	2.728mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 5:13:08 PM

Mean Area 25.23
Mean Conc. 2.736mg/L



Sample

Sample Name: 18F0226-04
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

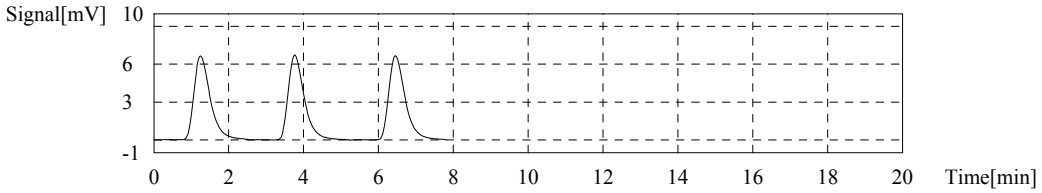
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.190mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	19.94	2.162mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 5:23:49 PM
2	20.23	2.194mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 5:27:46 PM
3	20.42	2.214mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 5:31:28 PM

Mean Area 20.20
Mean Conc. 2.190mg/L



Sample

Sample Name: 18F0226-05
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

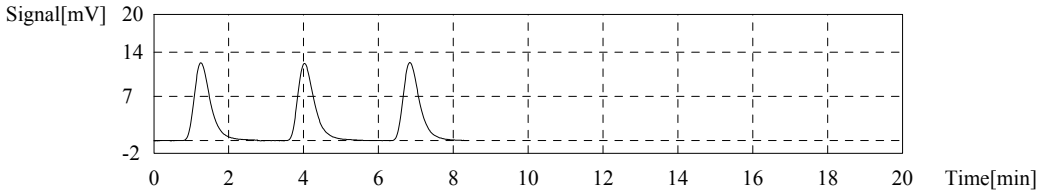
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.136mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	37.67	4.085mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 5:42:10 PM
2	38.38	4.162mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 5:46:00 PM
3	38.39	4.163mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 5:49:49 PM

Mean Area 38.15
Mean Conc. 4.136mg/L



Sample

Sample Name: 18F0226-06
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

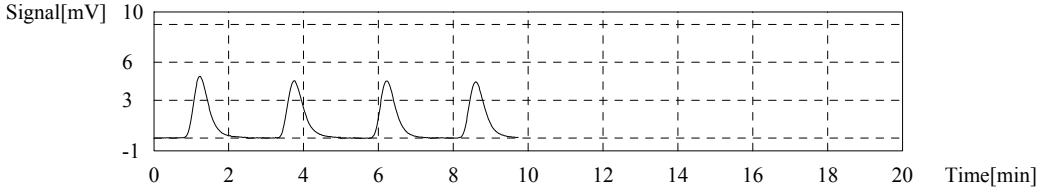
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.465mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.05	1.523mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 6:00:13 PM
2	13.78	1.494mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 6:03:59 PM
3	13.32	1.444mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 6:07:39 PM
4	13.42	1.455mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 6:11:27 PM

Mean Area 13.51
Mean Conc. 1.465mg/L



Sample

Sample Name: 18F0226-07
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

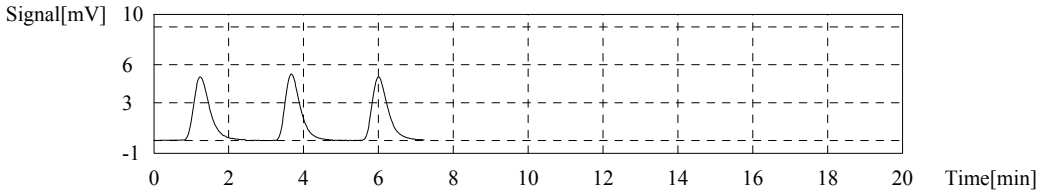
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.620mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.06	1.633mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 6:21:37 PM
2	14.86	1.611mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 6:25:16 PM
3	14.89	1.615mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 6:29:11 PM

Mean Area 14.94
Mean Conc. 1.620mg/L



Control Sample

Sample Name: SEQ-CCV1
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 17.70 / Control exceeds range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

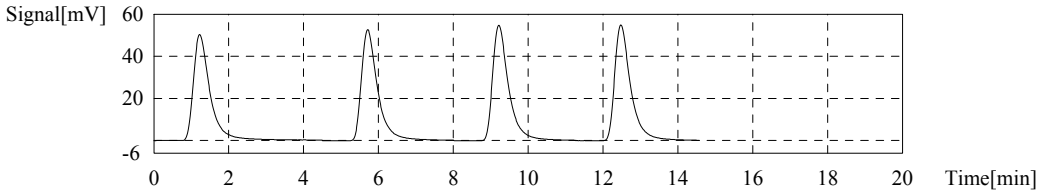
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:17.70ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	157.3	17.04ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 6:41:50 PM
2	160.6	17.40ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 6:46:20 PM
3	164.3	17.80ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 6:50:36 PM
4	165.1	17.89ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 6:54:54 PM

Mean Area 163.3
Mean Conc. 17.70ppm



Control Sample

Sample Name: SEQ-CCB1
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.2429 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

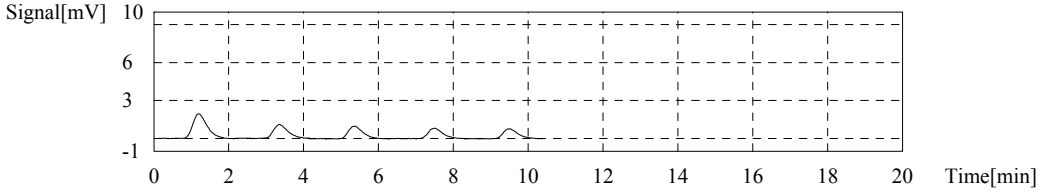
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.2429mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.288	0.5613mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 7:04:57 PM
2	2.865	0.2985mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 7:08:18 PM
3	2.767	0.2879mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 7:11:56 PM
4	2.166	0.2227mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 7:15:18 PM
5	2.122	0.2180mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 7:18:54 PM

Mean Area 2.352
Mean Conc. 0.2429mg/L



Sample

Sample Name: 18F0226-08
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

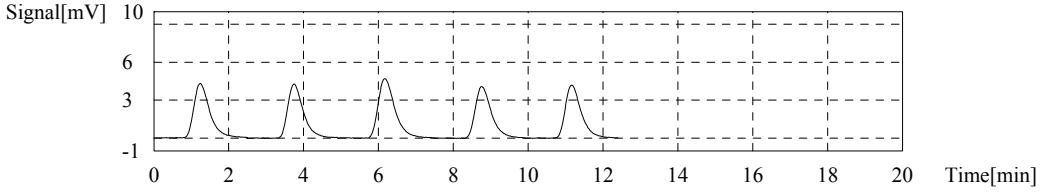
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.341mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.80	1.388mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 7:29:16 PM
2	12.41	1.346mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 7:32:56 PM
3	14.70	1.594mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 7:36:55 PM
4	12.29	1.333mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 7:40:31 PM
5	12.41	1.346mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 7:44:22 PM

Mean Area 12.37
Mean Conc. 1.341mg/L



Sample

Sample Name: 18F0226-09
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

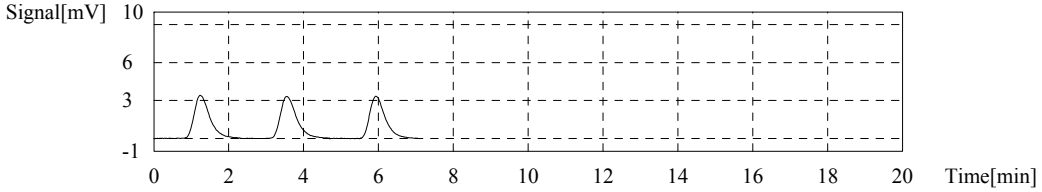
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.059mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.776	1.060mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 7:54:51 PM
2	9.869	1.070mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 7:58:43 PM
3	9.662	1.048mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 8:02:33 PM

Mean Area 9.769
Mean Conc. 1.059mg/L



Sample

Sample Name: 18F0248-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

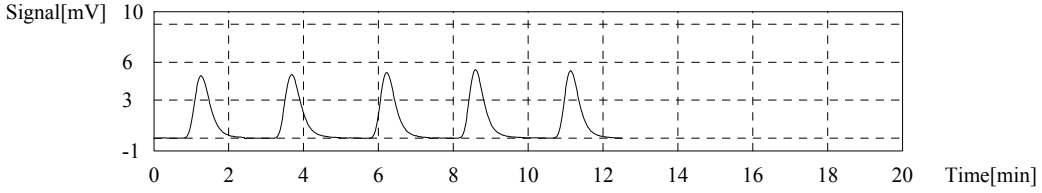
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.702mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.90	1.616mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 8:12:40 PM
2	15.62	1.694mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 8:16:35 PM
3	15.15	1.643mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 8:20:12 PM
4	15.75	1.708mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 8:24:08 PM
5	15.73	1.706mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 8:28:00 PM

Mean Area 15.70
Mean Conc. 1.702mg/L



Sample

Sample Name: 18F0248-02
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

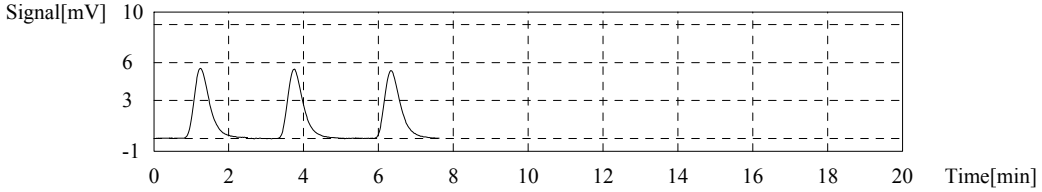
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.741mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	16.10	1.746mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 8:38:25 PM
2	16.11	1.747mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 8:42:17 PM
3	15.96	1.731mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 8:46:01 PM

Mean Area 16.06
Mean Conc. 1.741mg/L



Sample

Sample Name: 18F0248-03
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

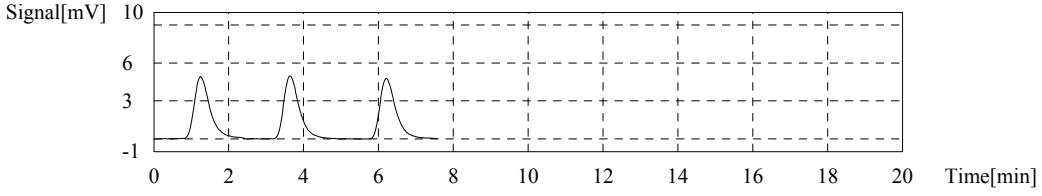
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.547mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.13	1.532mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 8:56:25 PM
2	14.47	1.569mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 9:00:22 PM
3	14.20	1.540mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 9:04:11 PM

Mean Area 14.27
Mean Conc. 1.547mg/L



Sample

Sample Name: 18F0248-04
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

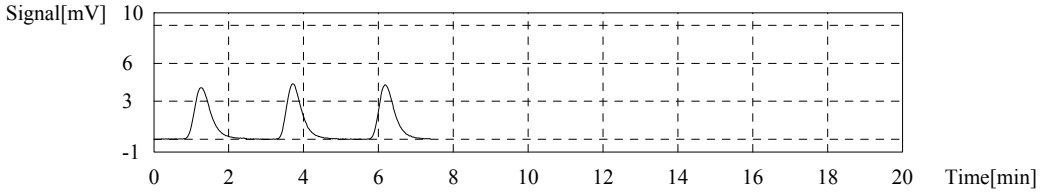
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.361mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.39	1.343mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 9:14:35 PM
2	12.58	1.364mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 9:18:22 PM
3	12.68	1.375mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 9:22:08 PM

Mean Area 12.55
Mean Conc. 1.361mg/L



Sample

Sample Name: 18F0248-05
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

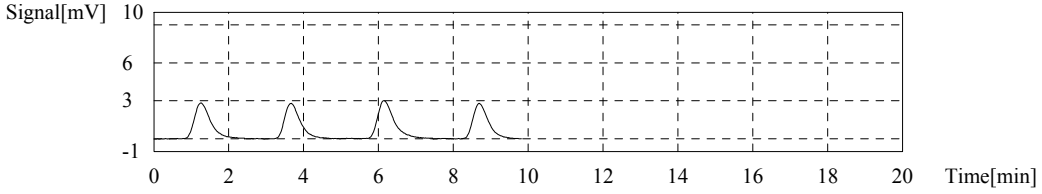
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8951mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.399	0.9107mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 9:32:15 PM
2	8.276	0.8974mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 9:36:06 PM
3	9.160	0.9932mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 9:39:57 PM
4	8.091	0.8773mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 9:43:33 PM

Mean Area 8.255
Mean Conc. 0.8951mg/L



Sample

Sample Name: 18F0248-06
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

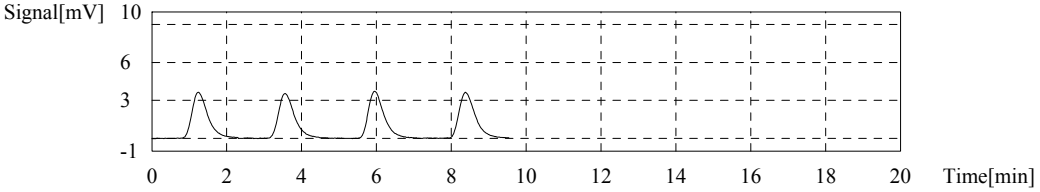
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.149mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.56	1.145mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 9:53:33 PM
2	10.48	1.136mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 9:57:26 PM
3	10.99	1.192mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 10:01:15 PM
4	10.74	1.165mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 10:05:00 PM

Mean Area 10.59
Mean Conc. 1.149mg/L



Sample

Sample Name: 18F0248-07
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

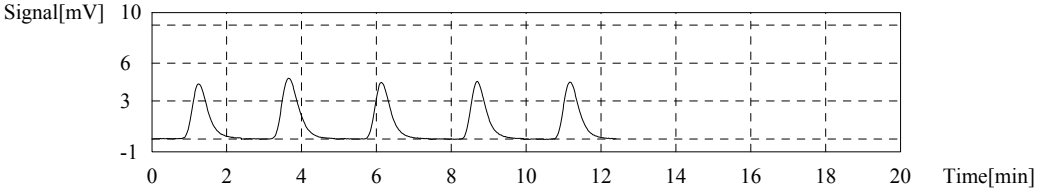
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.441mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.70	1.377mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 10:15:43 PM
2	15.32	1.661mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 10:19:37 PM
3	13.24	1.436mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 10:23:28 PM
4	13.15	1.426mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 10:27:09 PM
5	13.48	1.462mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 10:30:57 PM

Mean Area 13.29
Mean Conc. 1.441mg/L



Sample

Sample Name: 18F0248-08
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

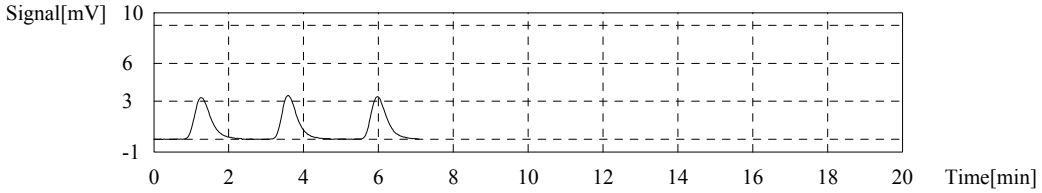
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.078mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.963	1.080mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 10:41:30 PM
2	9.931	1.077mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 10:45:18 PM
3	9.919	1.076mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 10:49:06 PM

Mean Area 9.938
Mean Conc. 1.078mg/L



Control Sample

Sample Name: SEQ-CCV2
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 17.33 / Control exceeds range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

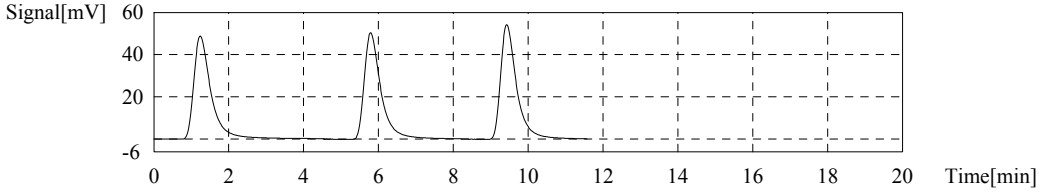
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:17.33ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	158.3	17.15ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 11:01:23 PM
2	158.2	17.14ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 11:06:02 PM
3	163.2	17.68ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 11:10:24 PM

Mean Area 159.9
Mean Conc. 17.33ppm



Control Sample

Sample Name: SEQ-CCB2
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.2020 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

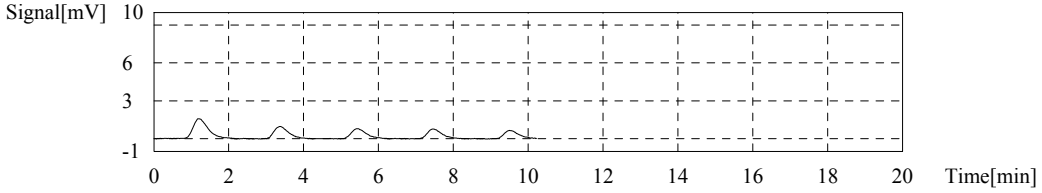
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.2020mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.275	0.4514mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 11:20:27 PM
2	2.608	0.2707mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 11:23:52 PM
3	2.182	0.2245mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 11:27:20 PM
4	1.994	0.2041mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 11:30:51 PM
5	1.747	0.1773mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 11:34:13 PM

Mean Area 1.974
Mean Conc. 0.2020mg/L



Sample

Sample Name: BGG0064-MRL1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

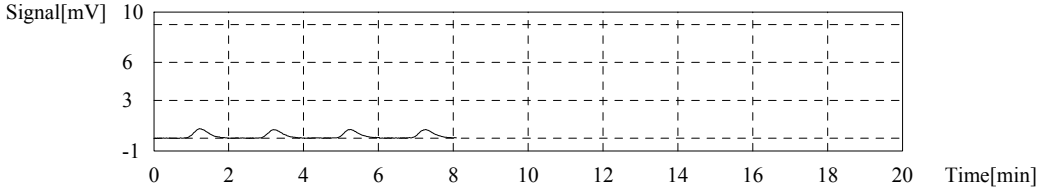
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1990mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.021	0.2191mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 11:44:11 PM
2	1.852	0.2008mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 11:48:01 PM
3	1.828	0.1982mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 11:51:46 PM
4	1.827	0.1981mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/6/2018 11:55:37 PM

Mean Area 1.836
Mean Conc. 0.1990mg/L



Sample

Sample Name: BGG0064-BLK1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

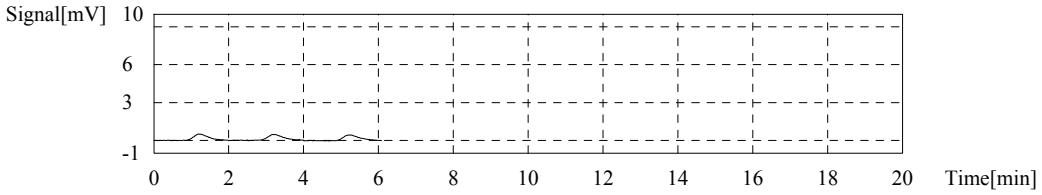
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1412mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.316	0.1427mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 12:05:19 AM
2	1.258	0.1364mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 12:09:09 AM
3	1.334	0.1446mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 12:12:59 AM

Mean Area 1.303
Mean Conc. 0.1412mg/L



Sample

Sample Name: BGG0064-BS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

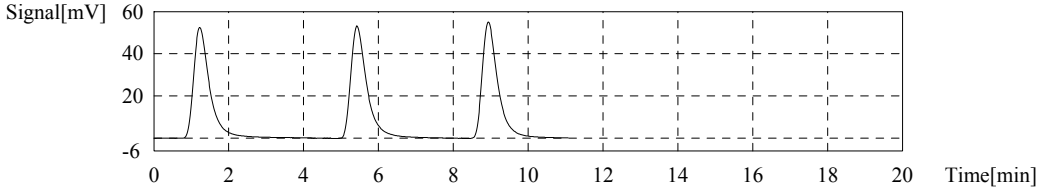
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:17.52mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	159.7	17.32mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 12:24:55 AM
2	162.2	17.59mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 12:29:27 AM
3	162.9	17.66mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 12:33:47 AM

Mean Area 161.6
Mean Conc. 17.52mg/L



Sample

Sample Name: 18F0346-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

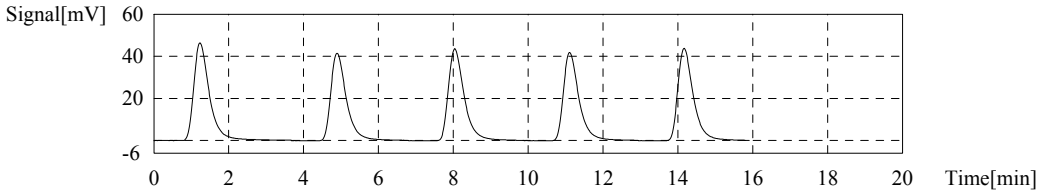
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:13.40mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	136.0	14.75mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 12:45:22 AM
2	121.2	13.14mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 12:49:31 AM
3	129.6	14.05mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 12:53:35 AM
4	122.0	13.23mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 12:57:38 AM
5	127.5	13.82mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 1:01:36 AM

Mean Area 123.6
Mean Conc. 13.40mg/L



Sample

Sample Name: 18F0346-05
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

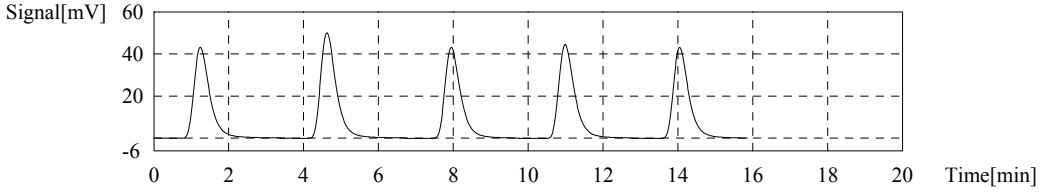
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:13.80mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	128.5	13.93mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 1:12:54 AM
2	148.0	16.05mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 1:17:14 AM
3	128.0	13.88mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 1:21:16 AM
4	133.4	14.46mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 1:25:20 AM
5	125.4	13.60mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 1:29:22 AM

Mean Area 127.3
Mean Conc. 13.80mg/L



Sample

Sample Name: 18F0218-05
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

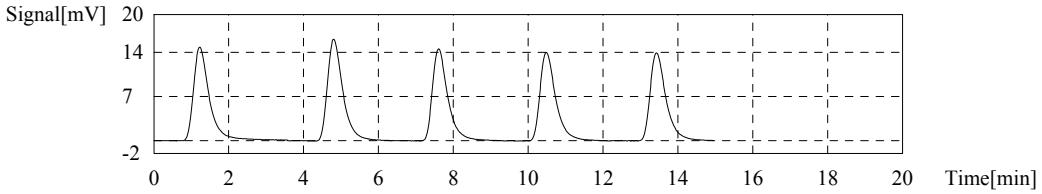
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.519mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	43.94	4.764mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 1:40:51 AM
2	46.73	5.067mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 1:44:40 AM
3	42.07	4.562mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 1:48:32 AM
4	41.50	4.500mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 1:52:28 AM
5	41.47	4.497mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 1:56:14 AM

Mean Area 41.68
Mean Conc. 4.519mg/L



Sample

Sample Name: BGG0064-DUP1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

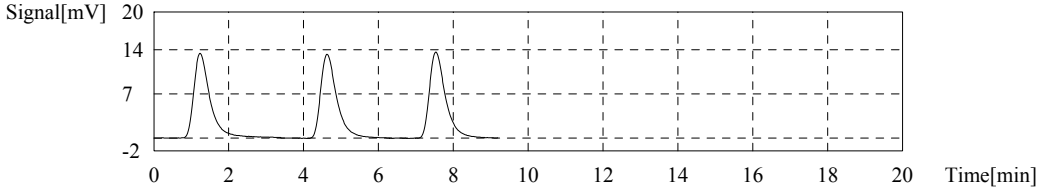
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.413mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	40.61	4.403mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 2:07:31 AM
2	40.34	4.374mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 2:11:25 AM
3	41.16	4.463mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 2:15:19 AM

Mean Area 40.70
Mean Conc. 4.413mg/L



Sample

Sample Name: BGG0064-MS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

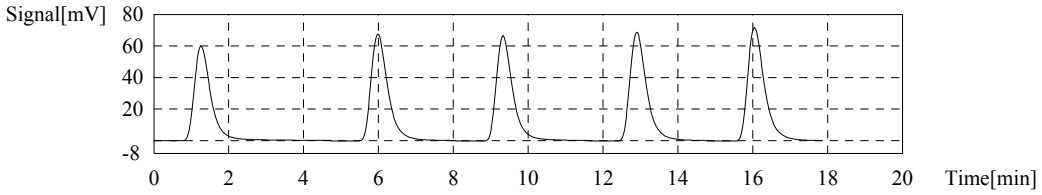
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:22.97mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	188.4	20.43mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 2:27:57 AM
2	214.7	23.28mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 2:32:18 AM
3	205.0	22.23mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 2:36:52 AM
4	215.9	23.41mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 2:41:01 AM
5	227.9	24.71mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 2:45:05 AM

Mean Area 211.9
Mean Conc. 22.97mg/L



Sample

Sample Name: 18F0272-07
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

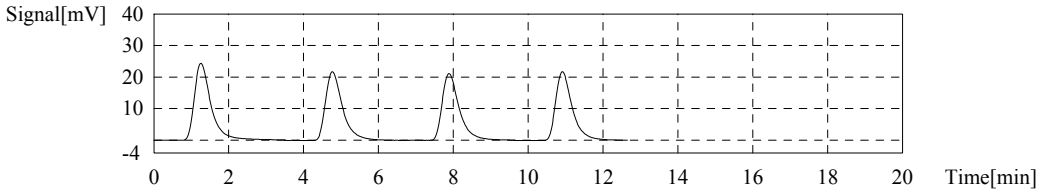
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7.423mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	75.90	8.230mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 2:56:30 AM
2	70.01	7.591mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 3:00:37 AM
3	67.70	7.341mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 3:04:39 AM
4	67.66	7.336mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 3:08:39 AM

Mean Area 68.46
Mean Conc. 7.423mg/L



Sample

Sample Name: 18F0272-14
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

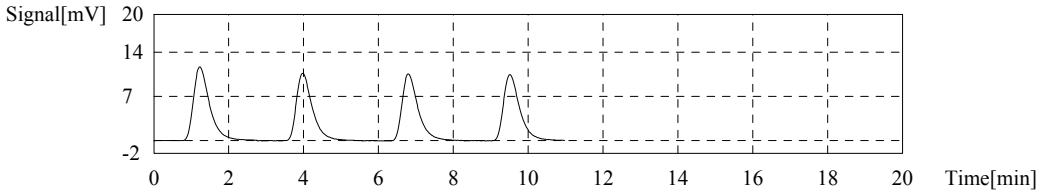
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.459mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	35.17	3.814mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 3:19:19 AM
2	32.28	3.500mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 3:23:11 AM
3	31.65	3.432mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 3:26:53 AM
4	31.76	3.444mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 3:30:38 AM

Mean Area 31.90
Mean Conc. 3.459mg/L



Control Sample

Sample Name: SEQ-CCV3
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 17.49 / Control exceeds range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

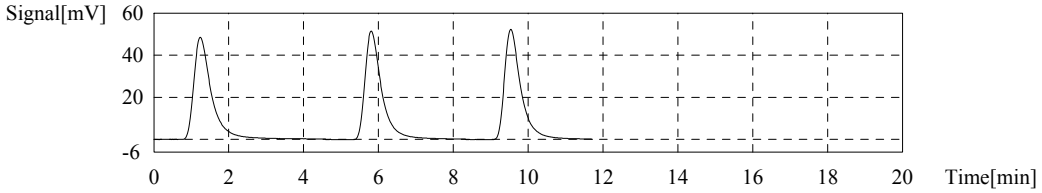
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:17.49ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	161.3	17.48ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 3:43:33 AM
2	161.4	17.49ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 3:48:17 AM
3	161.6	17.51ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 3:52:41 AM

Mean Area 161.4
Mean Conc. 17.49ppm



Control Sample

Sample Name: SEQ-CCB3
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.2403 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

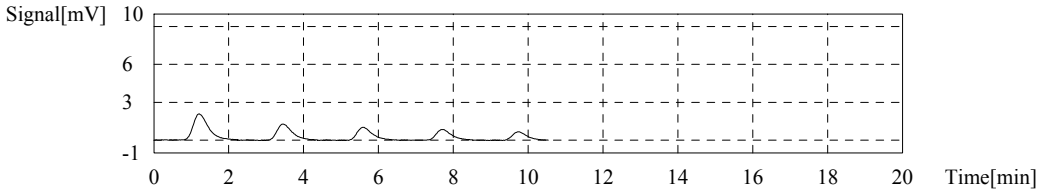
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.2403mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.780	0.6146mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 4:02:49 AM
2	3.637	0.3822mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 4:06:13 AM
3	2.839	0.2957mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 4:09:42 AM
4	2.329	0.2404mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 4:13:07 AM
5	1.816	0.1848mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 4:16:36 AM

Mean Area 2.328
Mean Conc. 0.2403mg/L



Sample

Sample Name: 18F0310-04
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

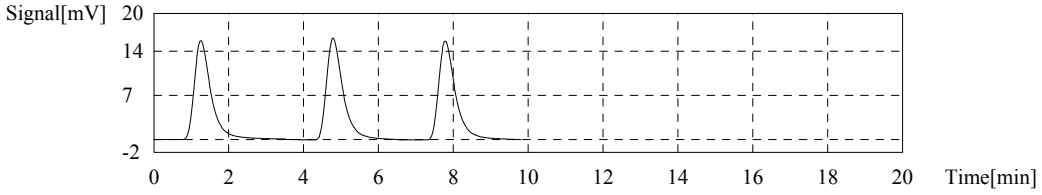
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.377mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	49.33	5.349mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 4:27:56 AM
2	50.01	5.423mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 4:31:56 AM
3	49.44	5.361mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 4:36:12 AM

Mean Area 49.59
Mean Conc. 5.377mg/L



Sample

Sample Name: 18F0311-07
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

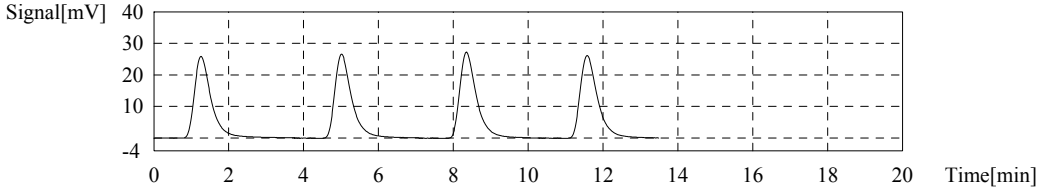
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.267mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	82.15	8.908mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 4:47:52 AM
2	84.55	9.168mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 4:52:12 AM
3	86.12	9.338mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 4:56:25 AM
4	85.73	9.296mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 5:00:36 AM

Mean Area 85.47
Mean Conc. 9.267mg/L



Sample

Sample Name: 18F0328-07
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

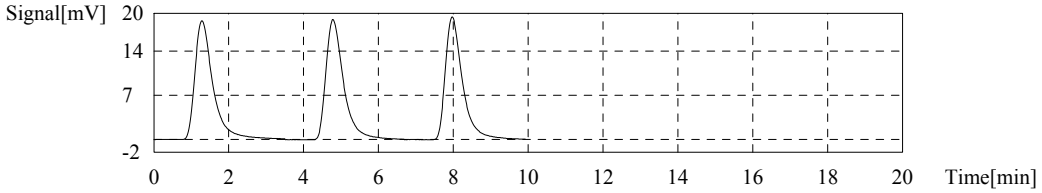
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.834mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	63.37	6.871mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 5:12:01 AM
2	63.14	6.846mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 5:16:12 AM
3	62.58	6.786mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 5:20:25 AM

Mean Area 63.03
Mean Conc. 6.834mg/L



Sample

Sample Name: BGG0109-MRL1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

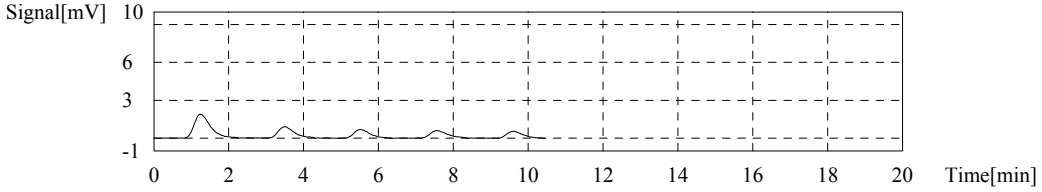
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1951mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.545	0.6012mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 5:30:33 AM
2	2.481	0.2690mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 5:34:08 AM
3	1.967	0.2133mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 5:37:55 AM
4	1.819	0.1972mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 5:41:43 AM
5	1.611	0.1747mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 5:45:33 AM

Mean Area 1.799
Mean Conc. 0.1951mg/L



Sample

Sample Name: BGG0109-BLK1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

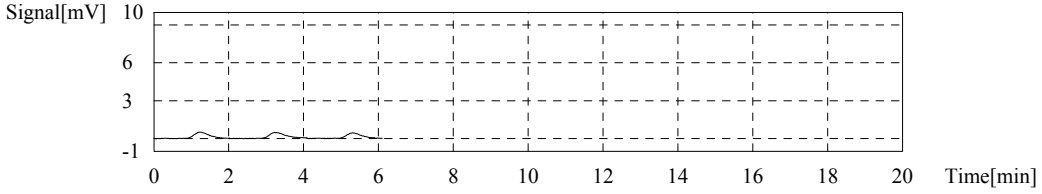
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1350mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.302	0.1412mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 5:55:17 AM
2	1.275	0.1382mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 5:59:07 AM
3	1.158	0.1256mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 6:02:52 AM

Mean Area 1.245
Mean Conc. 0.1350mg/L



Sample

Sample Name: BGG0109-BS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

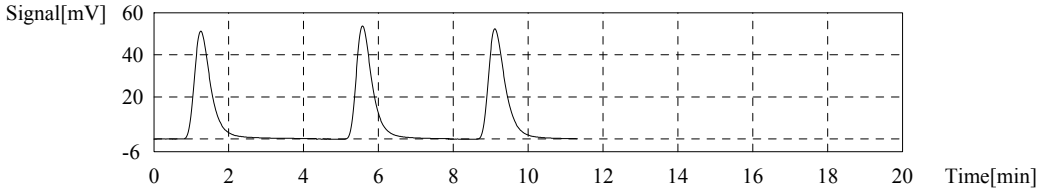
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:17.95mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	162.7	17.64mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 6:14:56 AM
2	165.3	17.92mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 6:19:28 AM
3	168.6	18.28mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 6:23:55 AM

Mean Area 165.5
Mean Conc. 17.95mg/L



Sample

Sample Name: 18F0313-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

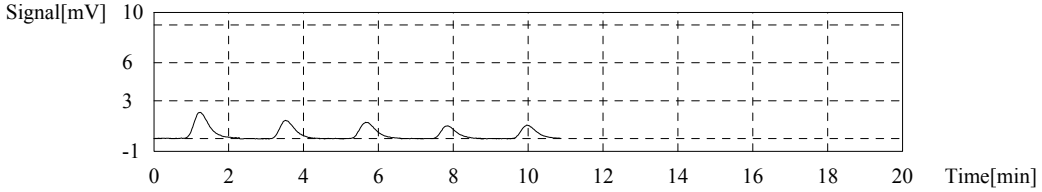
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3536mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.877	0.6372mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 6:34:07 AM
2	4.103	0.4449mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 6:37:45 AM
3	3.885	0.4213mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 6:41:35 AM
4	2.873	0.3115mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 6:45:19 AM
5	3.025	0.3280mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 6:49:05 AM

Mean Area 3.261
Mean Conc. 0.3536mg/L



Sample

Sample Name: 18F0313-02
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

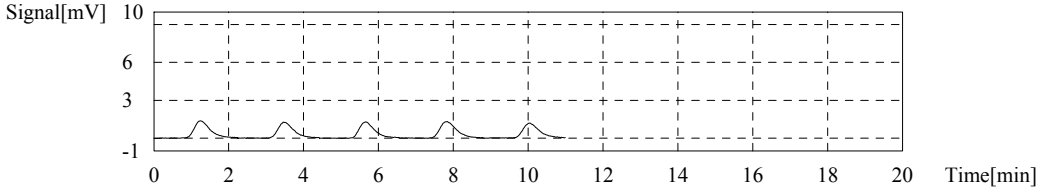
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3838mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.873	0.4200mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 6:59:03 AM
2	3.583	0.3885mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 7:02:47 AM
3	3.550	0.3849mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 7:06:31 AM
4	4.012	0.4350mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 7:10:24 AM
5	3.487	0.3781mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 7:14:09 AM

Mean Area 3.540
Mean Conc. 0.3838mg/L



Sample

Sample Name: 18F0313-03
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

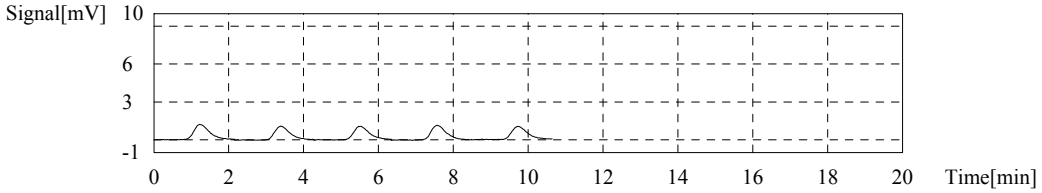
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3219mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.426	0.3715mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 7:24:03 AM
2	3.019	0.3274mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 7:27:48 AM
3	2.969	0.3219mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 7:31:32 AM
4	3.310	0.3589mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 7:35:24 AM
5	2.919	0.3165mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 7:39:11 AM

Mean Area 2.969
Mean Conc. 0.3219mg/L



Sample

Sample Name: 18F0313-04
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

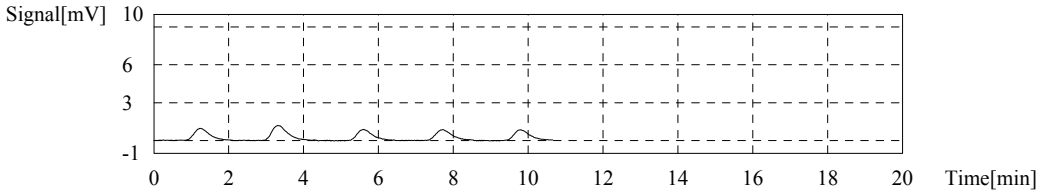
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2661mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.670	0.2895mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 7:49:01 AM
2	3.403	0.3690mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 7:52:59 AM
3	2.478	0.2687mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 7:56:36 AM
4	2.473	0.2681mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 8:00:23 AM
5	2.410	0.2613mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 8:04:10 AM

Mean Area 2.454
Mean Conc. 0.2661mg/L



Control Sample

Sample Name: SEQ-CCV4
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.29 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

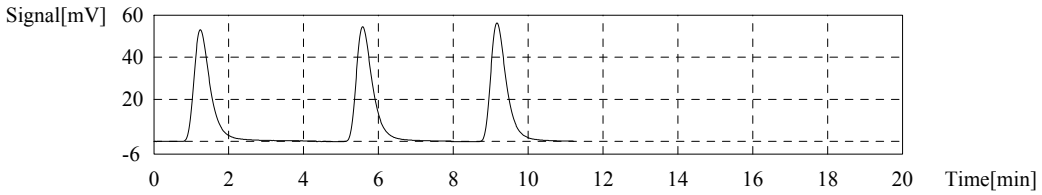
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.29ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	166.4	18.03ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 8:16:14 AM
2	170.2	18.44ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 8:20:51 AM
3	169.7	18.39ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 8:25:07 AM

Mean Area 168.8
Mean Conc. 18.29ppm



Control Sample

Sample Name: SEQ-CCB4
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1691 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

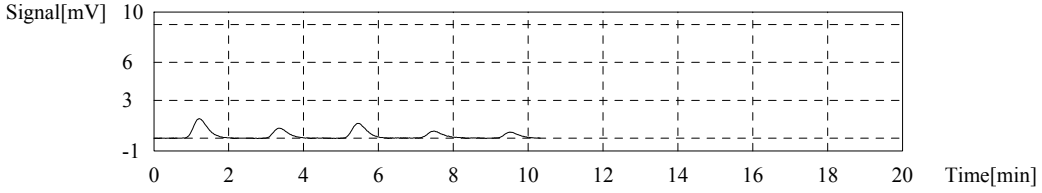
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1691mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.238	0.4474mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 8:35:10 AM
2	2.266	0.2336mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 8:38:36 AM
3	3.210	0.3359mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 8:42:03 AM
4	1.513	0.1519mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 8:45:34 AM
5	1.235	0.1218mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 8:49:03 AM

Mean Area 1.671
Mean Conc. 0.1691mg/L



Sample

Sample Name: 18F0313-05
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

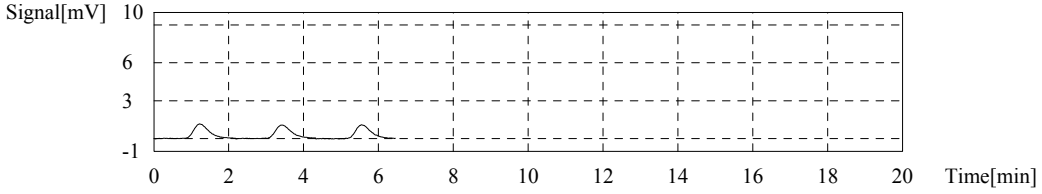
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3368mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.206	0.3476mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 8:59:12 AM
2	3.038	0.3294mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 9:02:56 AM
3	3.075	0.3334mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 9:06:43 AM

Mean Area 3.106
Mean Conc. 0.3368mg/L



Sample

Sample Name: 18F0336-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

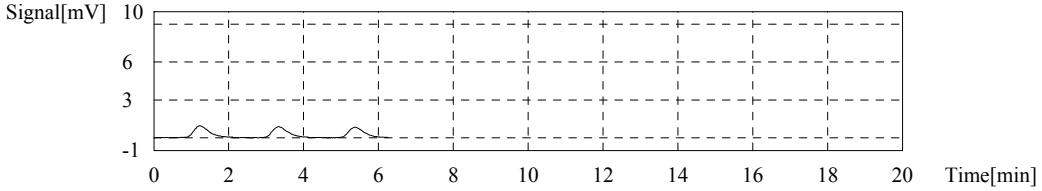
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2642mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.548	0.2763mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 9:16:34 AM
2	2.372	0.2572mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 9:20:17 AM
3	2.390	0.2591mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 9:24:09 AM

Mean Area 2.437
Mean Conc. 0.2642mg/L



Sample

Sample Name: 18F0336-03
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

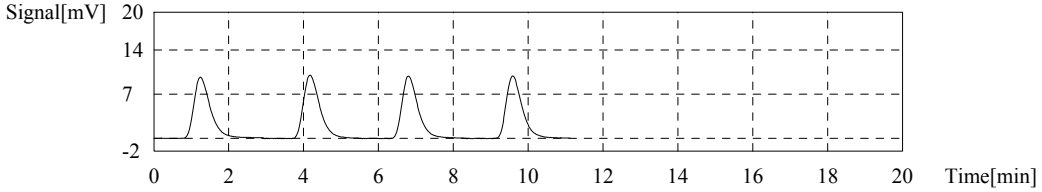
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.216mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	29.66	3.216mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 9:34:49 AM
2	30.80	3.340mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 9:38:27 AM
3	29.64	3.214mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 9:42:22 AM
4	29.69	3.219mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 9:46:09 AM

Mean Area 29.66
Mean Conc. 3.216mg/L



Sample

Sample Name: 18F0336-05
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

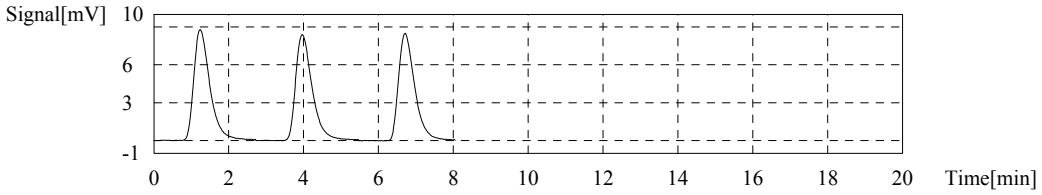
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.809mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	26.27	2.848mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 9:56:48 AM
2	25.79	2.796mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 10:00:37 AM
3	25.65	2.781mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 10:04:14 AM

Mean Area 25.90
Mean Conc. 2.809mg/L



Sample

Sample Name: 18F0336-07
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

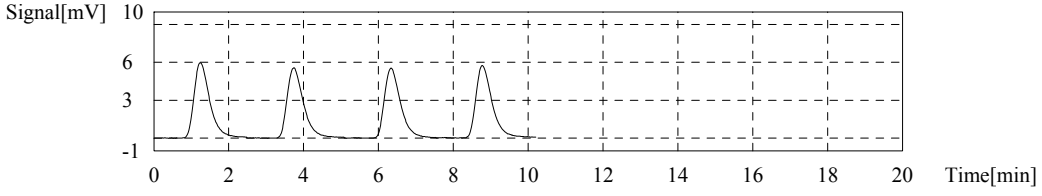
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.864mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.42	1.889mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 10:14:42 AM
2	16.96	1.839mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 10:18:36 AM
3	16.46	1.785mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 10:22:14 AM
4	17.20	1.865mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 10:26:14 AM

Mean Area 17.19
Mean Conc. 1.864mg/L



Sample

Sample Name: 18F0336-09
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

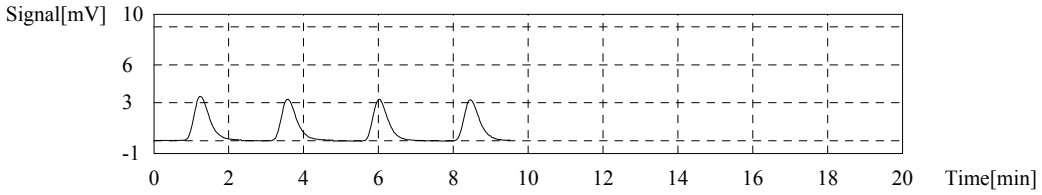
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.021mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.06	1.091mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 10:36:28 AM
2	9.548	1.035mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 10:40:22 AM
3	9.316	1.010mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 10:44:08 AM
4	9.386	1.018mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 10:47:47 AM

Mean Area 9.417
Mean Conc. 1.021mg/L



Sample

Sample Name: 18F0336-11
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

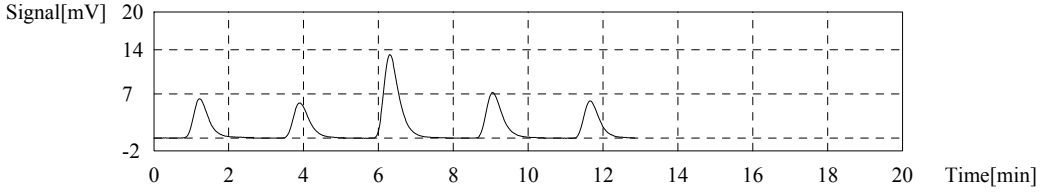
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.865mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.57	1.905mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 10:58:11 AM
2	16.75	1.816mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 11:01:44 AM
3	38.65	4.191mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 11:05:50 AM
4	21.78	2.362mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 11:09:30 AM
5	17.29	1.875mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 11:13:06 AM

Mean Area 17.20
Mean Conc. 1.865mg/L



Sample

Sample Name: 18F0424-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

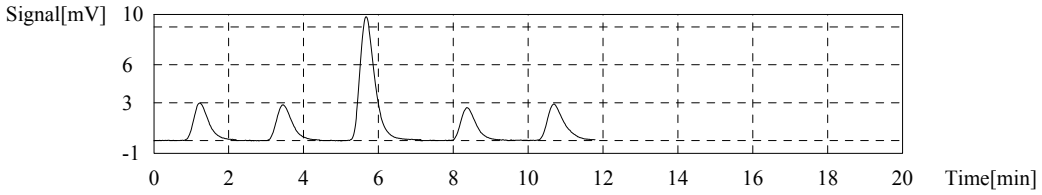
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.9107mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.191	0.8882mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 11:23:03 AM
2	8.146	0.8833mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 11:26:52 AM
3	27.14	2.943mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 11:31:07 AM
4	7.363	0.7984mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 11:34:30 AM
5	8.861	0.9608mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 11:38:20 AM

Mean Area 8.399
Mean Conc. 0.9107mg/L



Sample

Sample Name: BGG0109-DUP1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

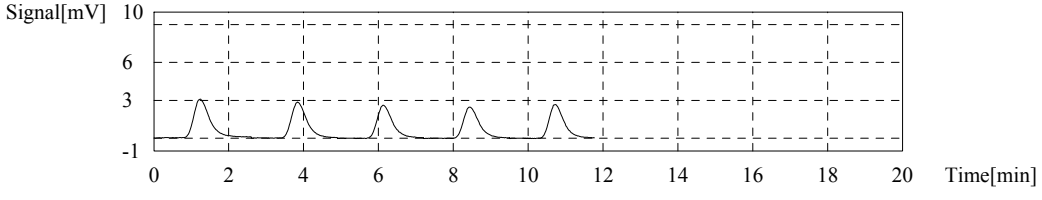
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7898mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.943	0.9697mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 11:48:41 AM
2	8.098	0.8781mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 11:52:10 AM
3	7.363	0.7984mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 11:55:57 AM
4	7.154	0.7757mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_59:44 AM	7/7/2018 11:59:44 AM
5	7.334	0.7952mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 12:03:29 PM

Mean Area 7.284
Mean Conc. 0.7898mg/L



Sample

Sample Name: BGG0109-MS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

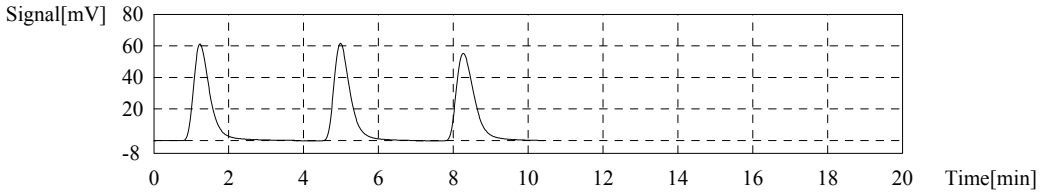
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:20.50mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	188.9	20.48mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 12:14:59 PM
2	190.1	20.61mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 12:19:14 PM
3	188.3	20.42mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 12:23:39 PM

Mean Area 189.1
Mean Conc. 20.50mg/L



Control Sample

Sample Name: SEQ-CCV5
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.52 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

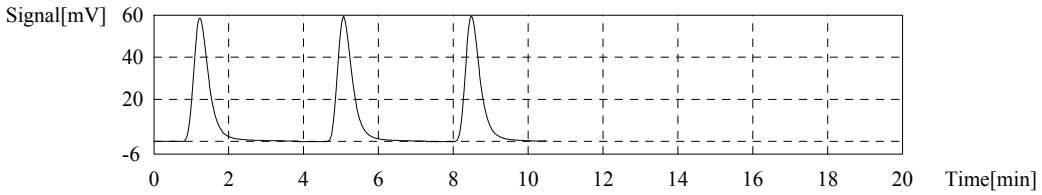
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.52ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	172.0	18.64ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 12:35:48 PM
2	170.2	18.44ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 12:40:13 PM
3	170.4	18.46ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 12:44:27 PM

Mean Area 170.9
Mean Conc. 18.52ppm



Control Sample

Sample Name: SEQ-CCB5
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.2406 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

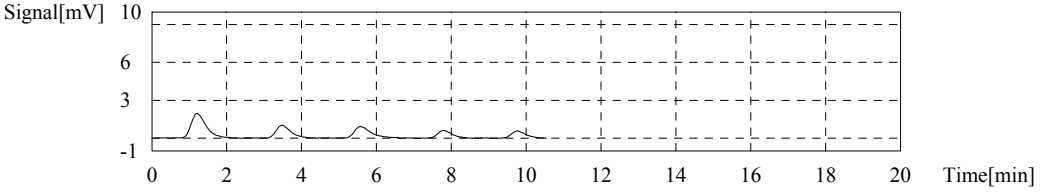
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.2406mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.361	0.5692mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 12:54:37 PM
2	2.731	0.2840mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 12:57:56 PM
3	2.666	0.2770mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 1:01:35 PM
4	1.594	0.1607mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 1:04:49 PM
5	1.522	0.1529mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 1:08:20 PM

Mean Area 2.330
Mean Conc. 0.2406mg/L



Sample

Sample Name: 18F0424-03
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

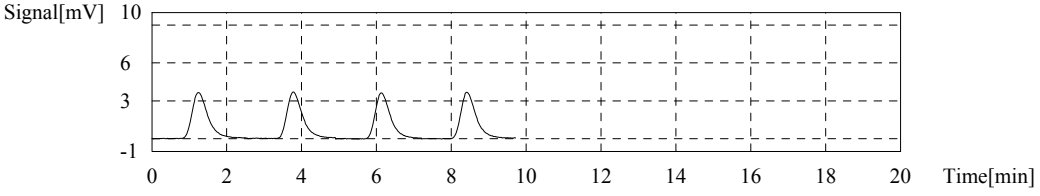
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.125mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.75	1.166mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 1:18:47 PM
2	10.54	1.143mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 1:22:22 PM
3	10.24	1.110mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 1:26:06 PM
4	10.35	1.122mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 1:30:06 PM

Mean Area 10.38
Mean Conc. 1.125mg/L



Sample

Sample Name: 18F0424-05
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

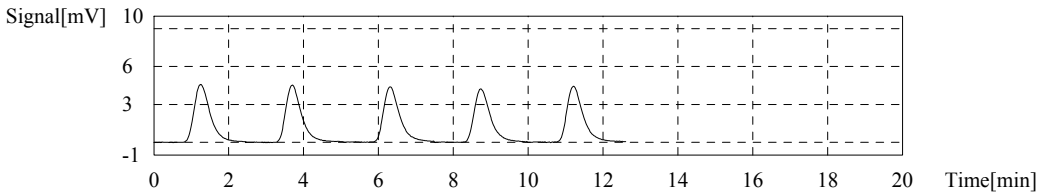
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.465mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.72	1.488mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 1:40:36 PM
2	13.40	1.453mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 1:44:33 PM
3	12.92	1.401mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 1:48:08 PM
4	12.72	1.379mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 1:51:59 PM
5	13.42	1.455mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 1:55:55 PM

Mean Area 13.51
Mean Conc. 1.465mg/L



Sample

Sample Name: 18F0424-07
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

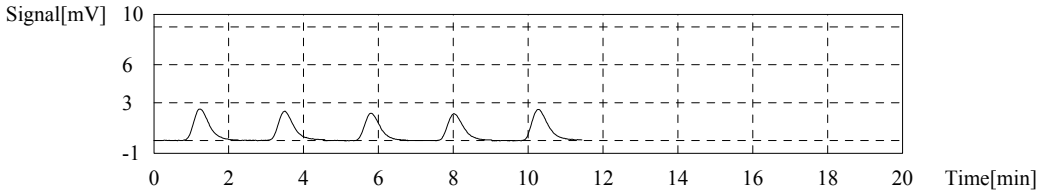
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6846mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.243	0.7854mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 2:06:07 PM
2	6.496	0.7044mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 2:09:56 PM
3	6.233	0.6758mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 2:13:38 PM
4	6.211	0.6735mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 2:17:27 PM
5	7.394	0.8017mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 2:21:23 PM

Mean Area 6.313
Mean Conc. 0.6846mg/L



Sample

Sample Name: 18F0424-09
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

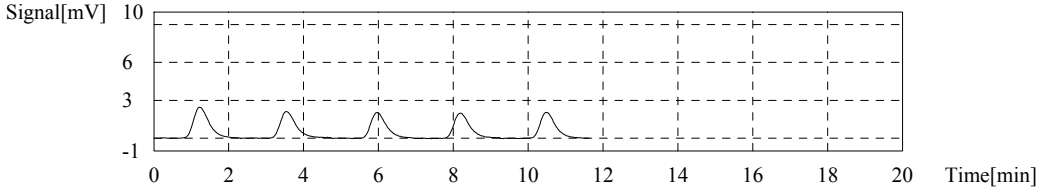
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6398mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.174	0.7779mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 2:31:28 PM
2	6.168	0.6688mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 2:35:21 PM
3	5.932	0.6432mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 2:38:56 PM
4	5.797	0.6286mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 2:42:48 PM
5	5.974	0.6478mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 2:46:39 PM

Mean Area 5.901
Mean Conc. 0.6398mg/L



Control Sample

Sample Name: SEQ-CCV6
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.40 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

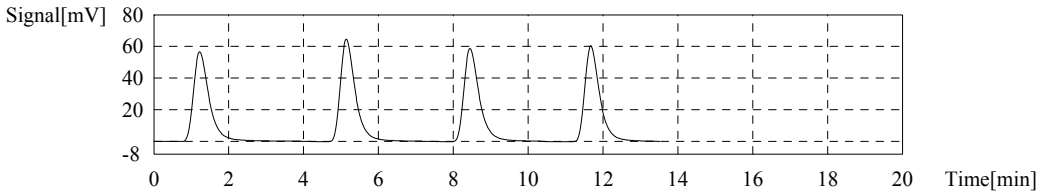
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.40ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	167.9	18.19ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 2:58:19 PM
2	183.1	19.84ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 3:02:36 PM
3	171.3	18.56ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 3:06:50 PM
4	170.2	18.44ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 3:10:54 PM

Mean Area 169.8
Mean Conc. 18.40ppm



Control Sample

Sample Name: SEQ-CCB6
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1740 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

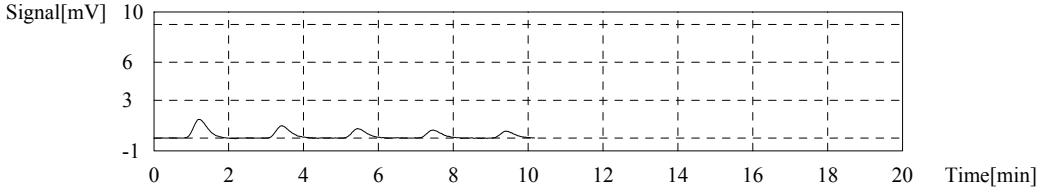
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1740mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.034	0.4253mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 3:21:00 PM
2	2.629	0.2730mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 3:24:20 PM
3	2.010	0.2058mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 3:27:48 PM
4	1.712	0.1735mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 3:31:16 PM
5	1.426	0.1425mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 3:34:46 PM

Mean Area 1.716
Mean Conc. 0.1740mg/L



Sample

Sample Name: 18F0309-09
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

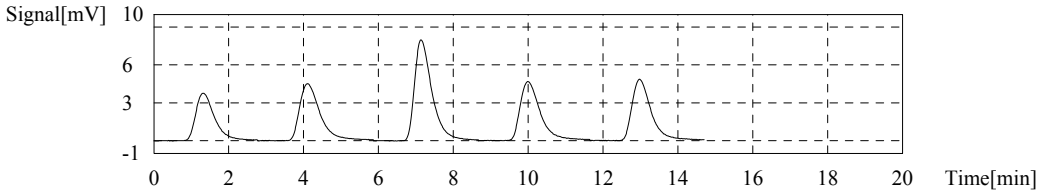
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:92.78mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.07	70.86mg/L	100uL	50.00	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 3:45:43 PM
2	17.04	92.38mg/L	100uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 3:50:53 PM
3	25.84	140.1mg/L	100uL	50.00	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 3:55:25 PM
4	17.17	93.09mg/L	100uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 4:00:26 PM
5	17.13	92.87mg/L	100uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 4:05:20 PM

Mean Area 17.11
Mean Conc. 92.78mg/L



Sample

Sample Name: 18F0312-09
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

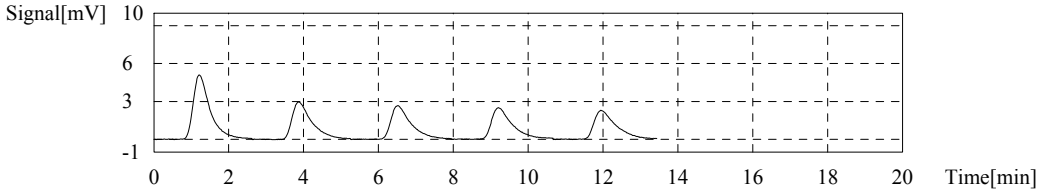
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:50.86mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.79	85.61mg/L	100uL	50.00	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 4:16:10 PM
2	10.69	57.96mg/L	100uL	50.00	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 4:21:01 PM
3	9.745	52.83mg/L	100uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 4:25:54 PM
4	9.267	50.24mg/L	100uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 4:30:47 PM
5	9.130	49.50mg/L	100uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 4:35:39 PM

Mean Area 9.381
Mean Conc. 50.86mg/L



Sample

Sample Name: 18F0327-05
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

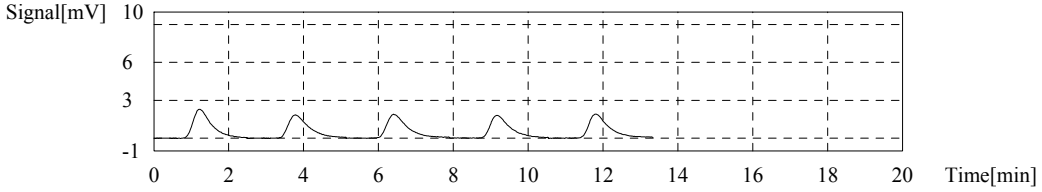
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:37.28mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.781	42.18mg/L	100uL	50.00	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 4:46:24 PM
2	6.761	36.66mg/L	100uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 4:51:20 PM
3	6.998	37.94mg/L	100uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 4:56:18 PM
4	6.421	34.81mg/L	100uL	50.00	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 5:01:00 PM
5	6.871	37.25mg/L	100uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 5:06:00 PM

Mean Area 6.877
Mean Conc. 37.28mg/L



Control Sample

Sample Name: SEQ-CCV7
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.71 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

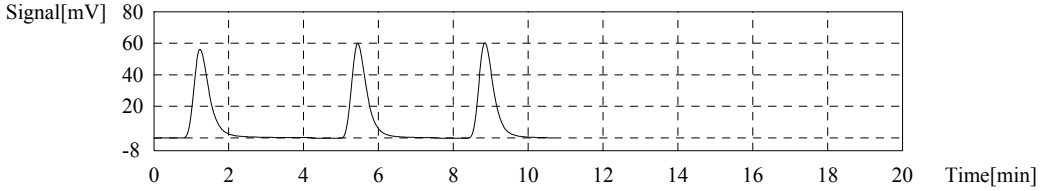
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.71ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	169.6	18.38ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 5:18:09 PM
2	175.4	19.01ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 5:22:32 PM
3	173.0	18.75ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 5:26:36 PM

Mean Area 172.7
Mean Conc. 18.71ppm



Control Sample

TOC-Control L Report

CDE
2018_07_06_001.tlx

Sample Name: SEQ-CCB7
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1931 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

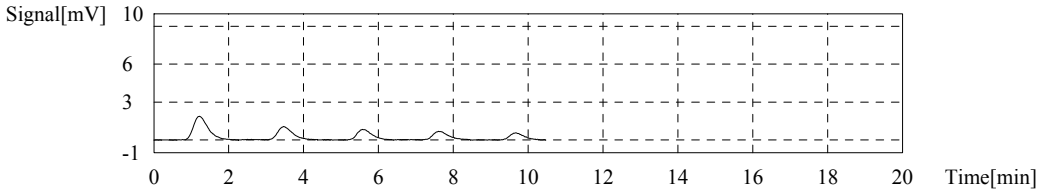
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1931mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.164	0.5478mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 5:36:45 PM
2	2.948	0.3075mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 5:40:07 PM
3	2.262	0.2332mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 5:43:31 PM
4	1.877	0.1914mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 5:47:03 PM
5	1.540	0.1549mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/7/2018 5:50:30 PM

Mean Area 1.893
Mean Conc. 0.1931mg/L



Analytical Resources, Incorporated
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGG0144	Instrument:	TOC-LCSH
		Calibration:	BG00035

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
1	SGG0144-ICV1	adzuData_07112018@160′	NA	07/09/18 18:30
1	SGG0144-ICB1	adzuData_07112018@160′	NA	07/09/18 18:56
1	SGG0144-IFA1	adzuData_07112018@160′	NA	07/09/18 19:14
1	SGG0144-CCV2	adzuData_07112018@160′	NA	07/10/18 03:35
1	SGG0144-CCB2	adzuData_07112018@160′	NA	07/10/18 04:01
1	SGG0144-CCV3	adzuData_07112018@160′	NA	07/10/18 09:25
1	SGG0144-CCB3	adzuData_07112018@160′	NA	07/10/18 09:51
1	SGG0144-CCV4	adzuData_07112018@160′	NA	07/10/18 13:49
1	SGG0144-CCB4	adzuData_07112018@160′	NA	07/10/18 14:15
LDW18-SP-05	18F0226-01RE1	adzuData_07112018@160′	Water	07/10/18 17:18
LDW18-SP-57	18F0226-02RE1	adzuData_07112018@160′	Water	07/10/18 17:40
Calibration Check	SGG0144-CCV5	adzuData_07112018@160′	NA	07/10/18 18:04
Calibration Blank	SGG0144-CCB5	adzuData_07112018@160′	NA	07/10/18 18:29
Calibration Check	SGG0144-CCV8	adzuData_07112018@160′	NA	07/11/18 08:14
Calibration Blank	SGG0144-CCB8	adzuData_07112018@160′	NA	07/11/18 08:37
Calibration Check	SGG0144-CCV9	adzuData_07112018@160′	NA	07/11/18 13:25
Calibration Blank	SGG0144-CCB9	adzuData_07112018@160′	NA	07/11/18 13:48

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes	Status	Date / Time	Vial
1	Unknown	NPOC	Rinse		NPOC 0.5 -	1.000	NPOC:0.1259mg/L		Completed	7/9/2018 6:18:37 PM	0
2	Control	NPOC	SEQ-ICV1	CVS 20	CVS 20 pp	1.000	NPOC:18.14ppm	Control valu	Completed	7/9/2018 6:39:07 PM	3
3	Control	NPOC	SEQ-ICB1		ICB CCB.tpl	1.000	NPOC:0.1959mg/L	Control valu	Completed	7/9/2018 7:03:02 PM	4
4	Unknown	NPOC	SEQ-IFA1		NPOC 0.5 -	1.000	NPOC:18.42mg/L		Completed	7/9/2018 7:23:14 PM	9
5	Unknown	NPOC	BGG0172-MRL1		NPOC 0.5 -	1.000	NPOC:0.7011mg/L		Completed	7/9/2018 7:48:37 PM	10
6	Unknown	NPOC	BGG0172-BLK1		NPOC 0.5 -	1.000	NPOC:0.1124mg/L		Completed	7/9/2018 8:09:39 PM	11
7	Unknown	NPOC	BGG0172-BS1		NPOC 0.5 -	1.000	NPOC:18.35mg/L		Completed	7/9/2018 8:29:41 PM	12
8	Unknown	NPOC	18F0226-01		NPOC 0.5 -	1.000	NPOC:1.366mg/L		Completed	7/9/2018 8:55:13 PM	13
9	Unknown	NPOC	18F0226-02		NPOC 0.5 -	1.000	NPOC:1.392mg/L		Completed	7/9/2018 9:13:35 PM	14
10	Unknown	NPOC	BGG0172-DUP1		NPOC 0.5 -	1.000	NPOC:1.332mg/L		Completed	7/9/2018 9:39:01 PM	15
11	Unknown	NPOC	BGG0172-MS1		NPOC 0.5 -	1.000	NPOC:20.19mg/L		Completed	7/9/2018 9:59:10 PM	16
12	Unknown	NPOC	18F0226-03		NPOC 0.5 -	1.000	NPOC:3.649mg/L		Completed	7/9/2018 10:25:25 P	17
13	Unknown	NPOC	18F0226-04		NPOC 0.5 -	1.000	NPOC:2.274mg/L		Completed	7/9/2018 10:47:27 P	18
14	Control	NPOC	SEQ-CCV1	CVS 20	CVS 20 pp	1.000	NPOC:17.91ppm	Control valu	Completed	7/9/2018 11:13:10 P	3
15	Control	NPOC	SEQ-CCB1		ICB CCB.tpl	1.000	NPOC:0.1854mg/L	Control valu	Completed	7/9/2018 11:37:02 P	4
16	Unknown	NPOC	18F0226-05		NPOC 0.5 -	1.000	NPOC:5.556mg/L		Completed	7/9/2018 11:55:58 P	19
17	Unknown	NPOC	18F0226-06		NPOC 0.5 -	1.000	NPOC:1.848mg/L		Completed	7/10/2018 12:21:31	20
18	Unknown	NPOC	18F0226-07		NPOC 0.5 -	1.000	NPOC:1.815mg/L		Completed	7/10/2018 12:43:21	21
19	Unknown	NPOC	18F0226-08		NPOC 0.5 -	1.000	NPOC:1.335mg/L		Completed	7/10/2018 1:01:35 A	22
20	Unknown	NPOC	18F0226-09		NPOC 0.5 -	1.000	NPOC:1.239mg/L		Completed	7/10/2018 1:27:24 A	23
21	Unknown	NPOC	18F0298-01		NPOC 0.5 -	1.000	NPOC:25.06mg/L		Completed	7/10/2018 1:52:46 A	24
22	Unknown	NPOC	18F0298-02		NPOC 0.5 -	1.000	NPOC:48.14mg/L		Completed	7/10/2018 2:13:33 A	25
23	Unknown	NPOC	18F0298-03		NPOC 0.5 -	1.000	NPOC:25.87mg/L		Completed	7/10/2018 2:33:18 A	26
24	Unknown	NPOC	18F0298-04		NPOC 0.5 -	1.000	NPOC:101.2mg/L		Completed	7/10/2018 2:56:04 A	27
25	Unknown	NPOC	18F0298-05		NPOC 0.5 -	1.000	NPOC:6.431mg/L		Completed	7/10/2018 3:23:24 A	28
26	Control	NPOC	SEQ-CCV2	CVS 20	CVS 20 pp	1.000	NPOC:18.58ppm	Control valu	Completed	7/10/2018 3:44:26 A	3
27	Control	NPOC	SEQ-CCB2		ICB CCB.tpl	1.000	NPOC:0.2472mg/L	Control valu	Completed	7/10/2018 4:08:22 A	4
28	Unknown	NPOC	18F0298-06		NPOC 0.5 -	1.000	NPOC:7156mg/L		Completed	7/10/2018 4:55:48 A	29
29	Unknown	NPOC	BGG0172-DUP2		NPOC 0.5 -	1.000	NPOC:7303mg/L		Completed	7/10/2018 5:48:54 A	30
30	Unknown	NPOC	BGG0172-MS2		NPOC 0.5 -	1.000	NPOC:7245mg/L		Completed	7/10/2018 6:36:01 A	31
31	Unknown	NPOC	BGG0170-MRL1		NPOC 0.5 -	1.000	NPOC:2.906mg/L		Completed	7/10/2018 7:01:14 A	32
32	Unknown	NPOC	BGG0170-BLK1		NPOC 0.5 -	1.000	NPOC:1.192mg/L		Completed	7/10/2018 7:26:32 A	33
33	Unknown	NPOC	BGG0170-BS1		NPOC 0.5 -	1.000	NPOC:19.55mg/L		Completed	7/10/2018 7:47:51 A	34
34	Unknown	NPOC	18F0329-01		NPOC 0.5 -	1.000	NPOC:3.604mg/L		Completed	7/10/2018 8:13:41 A	35
35	Unknown	NPOC	18F0329-02		NPOC 0.5 -	1.000	NPOC:18.11mg/L		Completed	7/10/2018 8:33:33 A	36
36	Unknown	NPOC	18F0329-03		NPOC 0.5 -	1.000	NPOC:9.952mg/L		Completed	7/10/2018 8:52:46 A	37
37	Unknown	NPOC	18F0329-04		NPOC 0.5 -	1.000	NPOC:26.87mg/L		Completed	7/10/2018 9:12:53 A	38
38	Control	NPOC	SEQ-CCV3	CVS 20	CVS 20 pp	1.000	NPOC:19.01ppm	Control valu	Completed	7/10/2018 9:34:08 A	5
39	Control	NPOC	SEQ-CCB3		ICB CCB.tpl	1.000	NPOC:0.4081mg/L	Control valu	Completed	7/10/2018 9:58:12 A	6
40	Unknown	NPOC	18F0330-01		NPOC 0.5 -	1.000	NPOC:16.24mg/L		Completed	7/10/2018 10:22:07	39

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes	Status	Date / Time	Vial
41	Unknown	NPOC	18F0330-02		NPOC 0.5 -	1.000	NPOC:32.00mg/L		Completed	7/10/2018 10:42:32	40
42	Unknown	NPOC	18F0330-03		NPOC 0.5 -	1.000	NPOC:10.63mg/L		Completed	7/10/2018 11:01:30	41
43	Unknown	NPOC	BGG0170-DUP1		NPOC 0.5 -	1.000	NPOC:10.43mg/L		Completed	7/10/2018 11:20:48	42
44	Unknown	NPOC	BGG0170-MS1		NPOC 0.5 -	1.000	NPOC:30.49mg/L		Completed	7/10/2018 11:41:03	43
45	Unknown	NPOC	18F0330-04		NPOC 0.5 -	1.000	NPOC:16.14mg/L		Completed	7/10/2018 12:00:52	44
46	Unknown	NPOC	18F0330-05		NPOC 0.5 -	1.000	NPOC:38.71mg/L		Completed	7/10/2018 12:21:07	45
47	Unknown	NPOC	18F0330-06		NPOC 0.5 -	1.000	NPOC:667.2mg/L		Completed	7/10/2018 12:57:38	46
48	Unknown	NPOC	18F0330-07		NPOC 0.5 -	1.000	NPOC:33.92mg/L		Completed	7/10/2018 1:17:52 P	47
49	Unknown	NPOC	18F0330-08		NPOC 0.5 -	1.000	NPOC:25.51mg/L		Completed	7/10/2018 1:37:49 P	48
50	Control	NPOC	SEQ-CCV4	CVS 20	CVS 20 pp	1.000	NPOC:18.89ppm	Control valu	Completed	7/10/2018 1:58:28 P	5
51	Control	NPOC	SEQ-CCB4		ICB CCB.tpl	1.000	NPOC:0.4038mg/L	Control valu	Completed	7/10/2018 2:22:31 P	6
52	Unknown	NPOC	18F0330-09		NPOC 0.5 -	1.000	NPOC:31.59mg/L		Completed	7/10/2018 2:43:05 P	49
53	Unknown	NPOC	18F0330-10		NPOC 0.5 -	1.000	NPOC:14.15mg/L		Completed	7/10/2018 3:02:20 P	50
54	Unknown	NPOC	18F0330-11		NPOC 0.5 -	1.000	NPOC:10.72mg/L		Completed	7/10/2018 3:21:44 P	51
55	Unknown	NPOC	18F0330-12		NPOC 0.5 -	1.000	NPOC:59.53mg/L		Completed	7/10/2018 3:42:19 P	52
56	Unknown	NPOC	18F0330-13		NPOC 0.5 -	1.000	NPOC:39.95mg/L		Completed	7/10/2018 4:02:20 P	53
57	Unknown	NPOC	18F0330-14		NPOC 0.5 -	1.000	NPOC:18.92mg/L		Completed	7/10/2018 4:21:41 P	54
58	Unknown	NPOC	18F0330-15		NPOC 0.5 -	1.000	NPOC:25.61mg/L		Completed	7/10/2018 4:41:26 P	55
59	Unknown	NPOC	18F0330-16		NPOC 0.5 -	1.000	NPOC:15.74mg/L		Completed	7/10/2018 5:00:33 P	56
60	Unknown	NPOC	18F0226-01RE1DOC		NPOC 0.5 -	1.000	NPOC:1.574mg/L		Completed	7/10/2018 5:26:03 P	57
61	Unknown	NPOC	18F0226-02RE1DOC		NPOC 0.5 -	1.000	NPOC:1.418mg/L		Completed	7/10/2018 5:47:45 P	58
62	Control	NPOC	SEQ-CCV5	CVS 20	CVS 20 pp	1.000	NPOC:18.44ppm	Control valu	Completed	7/10/2018 6:12:56 P	5
63	Control	NPOC	SEQ-CCB5		ICB CCB.tpl	1.000	NPOC:0.2579mg/L	Control valu	Completed	7/10/2018 6:36:53 P	6
64	Unknown	NPOC	BGG0063-DUP2DOC		NPOC 0.5 -	1.000	NPOC:1.343mg/L		Completed	7/10/2018 7:02:21 P	59
65	Unknown	NPOC	BGG0063-MS2DOC		NPOC 0.5 -	1.000	NPOC:20.43mg/L		Completed	7/10/2018 7:22:05 P	60
66	Unknown	NPOC	18F0226-03RE1DOC		NPOC 0.5 -	1.000	NPOC:2.815mg/L		Completed	7/10/2018 7:44:08 P	61
67	Unknown	NPOC	18F0226-04RE1DOC		NPOC 0.5 -	1.000	NPOC:2.257mg/L		Completed	7/10/2018 8:02:21 P	62
68	Unknown	NPOC	18F0226-05RE1DOC		NPOC 0.5 -	1.000	NPOC:4.355mg/L		Completed	7/10/2018 8:21:32 P	63
69	Unknown	NPOC	18F0226-06RE1DOC		NPOC 0.5 -	1.000	NPOC:1.665mg/L		Completed	7/10/2018 8:47:28 P	64
70	Unknown	NPOC	18F0226-07RE1DOC		NPOC 0.5 -	1.000	NPOC:1.732mg/L		Completed	7/10/2018 9:05:38 P	65
71	Unknown	NPOC	18F0226-08RE1DOC		NPOC 0.5 -	1.000	NPOC:1.556mg/L		Completed	7/10/2018 9:23:46 P	66
72	Unknown	NPOC	18F0226-09RE1DOC		NPOC 0.5 -	1.000	NPOC:1.276mg/L		Completed	7/10/2018 9:49:17 P	67
73	Unknown	NPOC	18F0248-01RE1DOC		NPOC 0.5 -	1.000	NPOC:1.699mg/L		Completed	7/10/2018 10:11:31	68
74	Control	NPOC	SEQ-CCV6	CVS 20	CVS 20 pp	1.000	NPOC:17.30ppm	Control valu	Completed	7/10/2018 10:41:33	7
75	Control	NPOC	SEQ-CCB6		ICB CCB.tpl	1.000	NPOC:0.3022mg/L	Control valu	Completed	7/10/2018 11:05:49	8
76	Unknown	NPOC	18F0248-02RE1DOC		NPOC 0.5 -	1.000	NPOC:1.784mg/L		Completed	7/10/2018 11:24:10	1
77	Unknown	NPOC	18F0248-03RE1DOC		NPOC 0.5 -	1.000	NPOC:1.632mg/L		Completed	7/10/2018 11:50:05	2
78	Unknown	NPOC	BGG0172-MRL2		NPOC 0.5 -	1.000	NPOC:0.6039mg/L		Completed	7/11/2018 12:11:32	10
79	Unknown	NPOC	BGG0172-BLK2		NPOC 0.5 -	1.000	NPOC:0.1715mg/L		Completed	7/11/2018 12:28:47	11
80	Unknown	NPOC	BGG0172-BS2		NPOC 0.5 -	1.000	NPOC:17.82mg/L		Completed	7/11/2018 12:58:56	12

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes	Status	Date / Time	Vial
81	Unknown	NPOC	18F0226-01RE1		NPOC 0.5 -	1.000	NPOC:1.467mg/L		Completed	7/11/2018 1:24:26 A	13
82	Unknown	NPOC	18F0226-02RE2		NPOC 0.5 -	1.000	NPOC:1.351mg/L		Completed	7/11/2018 1:50:12 A	14
83	Unknown	NPOC	BGG0172-DUP3		NPOC 0.5 -	1.000	NPOC:1.296mg/L		Completed	7/11/2018 2:07:57 A	15
84	Unknown	NPOC	BGG0172-MS3		NPOC 0.5 -	1.000	NPOC:0.06043mg/		Completed	7/11/2018 2:29:24 A	16
85	Unknown	NPOC	18F0226-03RE1		NPOC 0.5 -	1.000	NPOC:3.303mg/L		Completed	7/11/2018 2:51:47 A	17
86	Control	NPOC	SEQ-CCV7	CVS 20	CVS 20 pp	1.000	NPOC:17.55ppm	Control valu	Completed	7/11/2018 3:22:35 A	7
87	Control	NPOC	SEQ-CCB7		ICB CCB.tpl	1.000	NPOC:0.2699mg/L	Control valu	Completed	7/11/2018 3:46:32 A	8
88	Unknown	NPOC	18F0226-04RE1		NPOC 0.5 -	1.000	NPOC:2.021mg/L		Completed	7/11/2018 4:11:56 A	18
89	Unknown	NPOC	18F0226-05RE1		NPOC 0.5 -	1.000	NPOC:5.075mg/L		Completed	7/11/2018 4:38:38 A	19
90	Unknown	NPOC	18F0226-06RE1		NPOC 0.5 -	1.000	NPOC:1.769mg/L		Completed	7/11/2018 5:00:35 A	20
91	Unknown	NPOC	18F0226-07RE1		NPOC 0.5 -	1.000	NPOC:1.756mg/L		Completed	7/11/2018 5:26:16 A	21
92	Unknown	NPOC	18F0226-08RE1		NPOC 0.5 -	1.000	NPOC:1.364mg/L		Completed	7/11/2018 5:52:09 A	22
93	Unknown	NPOC	18F0226-09RE1		NPOC 0.5 -	1.000	NPOC:1.179mg/L		Completed	7/11/2018 6:17:55 A	23
94	Unknown	NPOC	18F0298-01RE1		NPOC 0.5 -	1.000	NPOC:24.14mg/L		Completed	7/11/2018 6:49:14 A	24
95	Unknown	NPOC	18F0298-02RE1		NPOC 0.5 -	1.000	NPOC:44.15mg/L		Completed	7/11/2018 7:12:24 A	25
96	Unknown	NPOC	18F0298-03RE1		NPOC 0.5 -	1.000	NPOC:25.54mg/L		Completed	7/11/2018 7:32:56 A	26
97	Unknown	NPOC	18F0298-04RE1		NPOC 0.5 -	1.000	NPOC:93.60mg/L		Completed	7/11/2018 7:57:12 A	27
98	Control	NPOC	SEQ-CCV8	CVS 20	CVS 20 pp	1.000	NPOC:18.45ppm	Control valu	Completed	7/11/2018 8:23:27 A	7
99	Control	NPOC	SEQ-CCB8		ICB CCB.tpl	1.000	NPOC:0.6790mg/L	Control valu	Completed	7/11/2018 8:47:48 A	8
100	Unknown	NPOC	18F0298-05RE1		NPOC 0.5 -	1.000	NPOC:5.730mg/L		Completed	7/11/2018 9:16:35 A	28
101	Unknown	NPOC	18F0298-06RE1		NPOC 0.5 -	1.000	NPOC:6505mg/L		Completed	7/11/2018 9:43:11 A	29
102	Unknown	NPOC	BGG0172-DUP4		NPOC 0.5 -	1.000	NPOC:6623mg/L		Completed	7/11/2018 10:09:40	30
103	Unknown	NPOC	18F0298-06RE2		NPOC 0.5 -	1.000	NPOC:5758mg/L		Completed	7/11/2018 10:40:45	29
104	Unknown	NPOC	BGG0172-DUP5		NPOC 0.5 -	1.000	NPOC:5868mg/L		Completed	7/11/2018 11:12:52	30
105	Unknown	NPOC	BGG0172-MS4		NPOC 0.5 -	1.000	NPOC:5524mg/L		Completed	7/11/2018 11:43:24	31
106	Unknown	NPOC	BGG0170-MRL2		NPOC 0.5 -	1.000	NPOC:2.196mg/L		Completed	7/11/2018 12:09:06	32
107	Unknown	NPOC	BGG0170-BLK2		NPOC 0.5 -	1.000	NPOC:0.7401mg/L		Completed	7/11/2018 12:35:46	33
108	Unknown	NPOC	18F0330-12RE1		NPOC 0.5 -	1.000	NPOC:54.47mg/L		Completed	7/11/2018 1:03:28 P	52
109	Control	NPOC	SEQ-CCV9	CVS 20	CVS 20 pp	1.000	NPOC:18.83ppm	Control valu	Completed	7/11/2018 1:34:22 P	3
110	Control	NPOC	SEQ-CCB9		ICB CCB.tpl	1.000	NPOC:0.7720mg/L	Control valu	Completed	7/11/2018 1:58:50 P	4

TOC-Control L Report

CDE
2018_07_09_001.tlx

Instr.Information

Instrument Options: TOC/ASI/IC Unit/
Catalyst: Regular Sensitivity

Sample

Sample Name: Rinse
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status: Completed
Chk. Result:

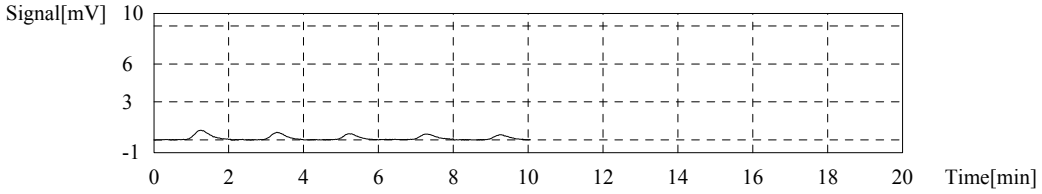
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1259mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.065	0.2239mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 6:04:37 PM
2	1.522	0.1650mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 6:08:00 PM
3	1.282	0.1390mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 6:11:37 PM
4	1.133	0.1229mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 6:15:02 PM
5	1.068	0.1158mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 6:18:37 PM

Mean Area 1.161
Mean Conc. 0.1259mg/L



Control Sample

Sample Name: SEQ-ICV1
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status: Completed
Chk. Result: Control value: 18.14 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

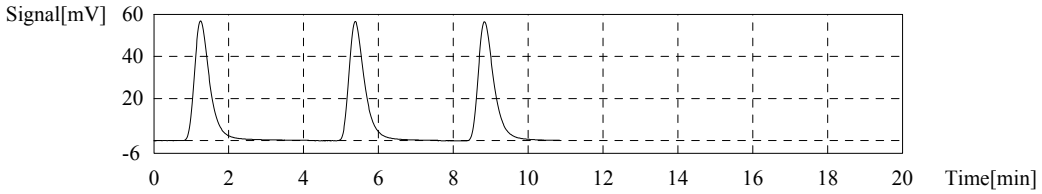
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.14ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	166.3	18.02ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 6:30:27 PM
2	166.9	18.08ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 6:34:53 PM
3	168.9	18.30ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 6:39:07 PM

Mean Area 167.4
Mean Conc. 18.14ppm



Control Sample

Sample Name: SEQ-ICB1
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1959 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

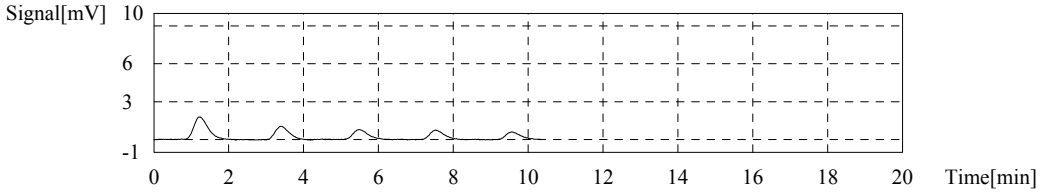
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1959mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.657	0.4928mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 6:49:10 PM
2	2.828	0.2945mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 6:52:35 PM
3	2.101	0.2157mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 6:56:03 PM
4	1.955	0.1999mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 6:59:32 PM
5	1.698	0.1720mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 7:03:02 PM

Mean Area 1.918
Mean Conc. 0.1959mg/L



Sample

Sample Name: SEQ-IFA1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

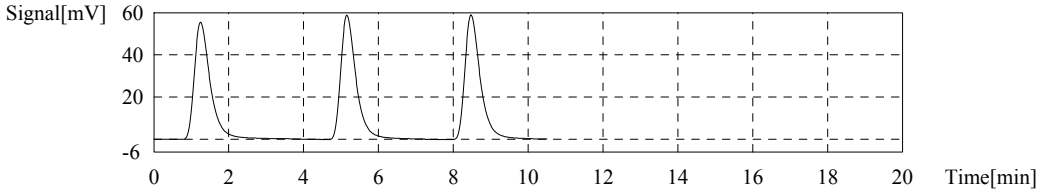
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.42mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	167.2	18.13mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 7:14:41 PM
2	170.0	18.43mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 7:18:59 PM
3	172.4	18.69mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 7:23:14 PM

Mean Area 169.9
Mean Conc. 18.42mg/L



Sample

Sample Name: BGG0172-MRL1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

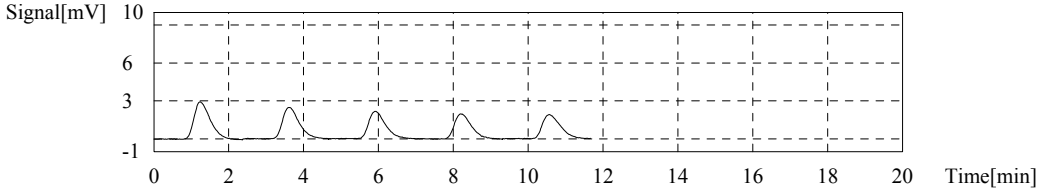
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7011mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.094	0.9861mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 7:33:29 PM
2	7.664	0.8310mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 7:37:12 PM
3	6.723	0.7290mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 7:40:58 PM
4	6.326	0.6859mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 7:44:49 PM
5	6.349	0.6884mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 7:48:37 PM

Mean Area 6.466
Mean Conc. 0.7011mg/L



Sample

Sample Name: BGG0172-BLK1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

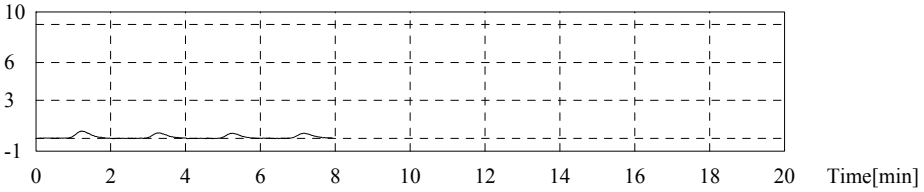
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1124mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.535	0.1664mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 7:58:22 PM
2	1.091	0.1183mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 8:02:04 PM
3	0.9872	0.1070mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 8:05:48 PM
4	1.032	0.1119mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 8:09:39 PM

Mean Area 1.037
Mean Conc. 0.1124mg/L



Sample

Sample Name: BGG0172-BS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

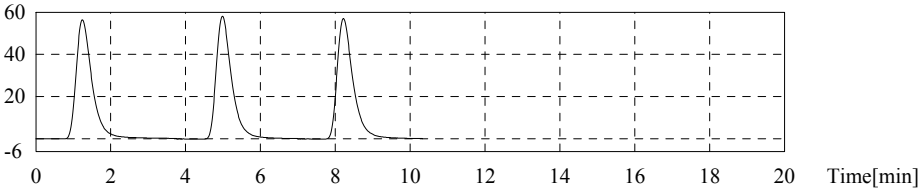
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.35mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	167.8	18.19mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 8:21:06 PM
2	169.3	18.36mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 8:25:21 PM
3	170.6	18.50mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 8:29:41 PM

Mean Area 169.2
Mean Conc. 18.35mg/L



Sample

Sample Name: 18F0226-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

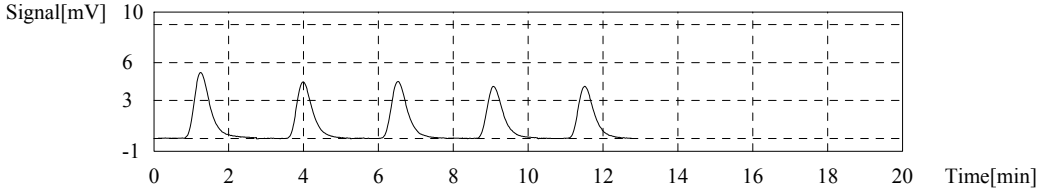
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.366mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.55	1.686mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 8:40:19 PM
2	13.37	1.450mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 8:43:53 PM
3	13.62	1.477mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 8:47:43 PM
4	12.15	1.317mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 8:51:22 PM
5	12.26	1.329mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 8:55:13 PM

Mean Area 12.59
Mean Conc. 1.366mg/L



Sample

Sample Name: 18F0226-02
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

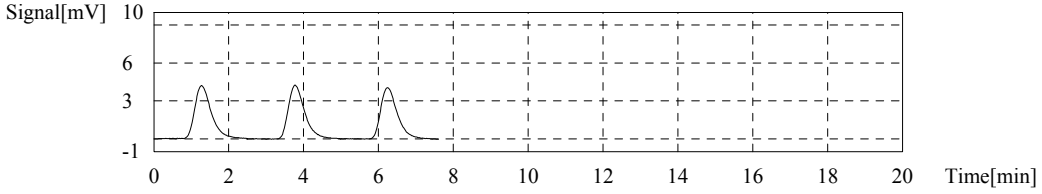
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.392mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.86	1.394mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 9:05:53 PM
2	12.96	1.405mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 9:09:38 PM
3	12.69	1.376mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 9:13:35 PM

Mean Area 12.84
Mean Conc. 1.392mg/L



Sample

Sample Name: BGG0172-DUP1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

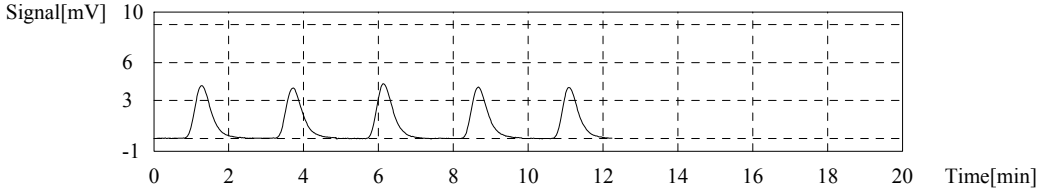
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.332mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.83	1.391mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 9:23:55 PM
2	12.17	1.320mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 9:27:42 PM
3	13.41	1.454mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 9:31:35 PM
4	12.43	1.348mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 9:35:16 PM
5	12.26	1.329mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 9:39:01 PM

Mean Area 12.29
Mean Conc. 1.332mg/L



Sample

Sample Name: BGG0172-MS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

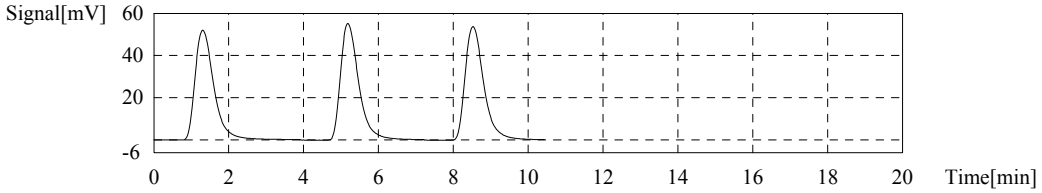
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:20.19mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	182.9	19.83mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 9:50:38 PM
2	187.7	20.35mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 9:54:57 PM
3	187.9	20.37mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 9:59:10 PM

Mean Area 186.2
Mean Conc. 20.19mg/L



Sample

Sample Name: 18F0226-03
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

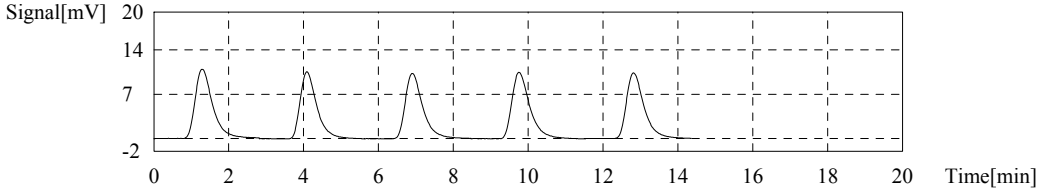
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.649mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	35.61	3.861mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 10:09:53 PM
2	33.14	3.593mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 10:13:41 PM
3	33.68	3.652mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 10:17:32 PM
4	35.43	3.842mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 10:21:36 PM
5	34.13	3.701mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 10:25:25 PM

Mean Area 33.65
Mean Conc. 3.649mg/L



Sample

Sample Name: 18F0226-04
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

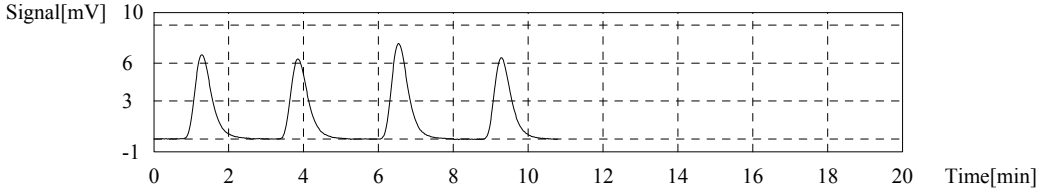
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.274mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.29	2.308mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 10:35:53 PM
2	20.87	2.263mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 10:39:47 PM
3	23.93	2.595mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 10:43:38 PM
4	20.75	2.250mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 10:47:27 PM

Mean Area 20.97
Mean Conc. 2.274mg/L



Control Sample

Sample Name: SEQ-CCV1
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 17.91 / Control exceeds range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

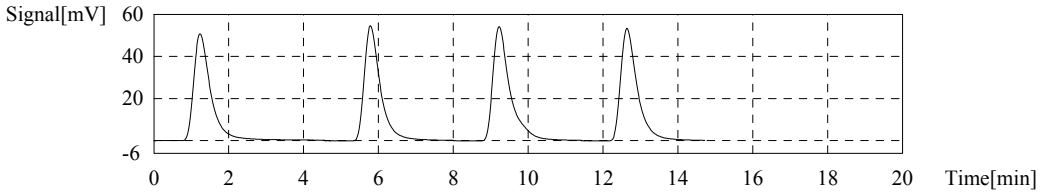
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:17.91ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	162.9	17.65ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 11:00:01 PM
2	165.2	17.90ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 11:04:27 PM
3	174.9	18.95ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 11:08:52 PM
4	167.7	18.17ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 11:13:10 PM

Mean Area 165.3
Mean Conc. 17.91ppm



Control Sample

Sample Name: SEQ-CCB1
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1854 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

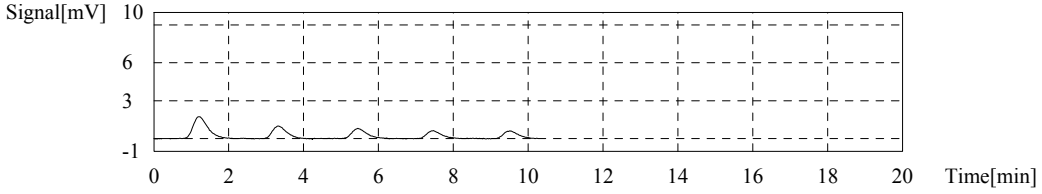
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1854mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.797	0.5080mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 11:23:11 PM
2	2.749	0.2860mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 11:26:41 PM
3	2.120	0.2178mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 11:30:04 PM
4	1.678	0.1698mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 11:33:37 PM
5	1.667	0.1686mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 11:37:02 PM

Mean Area 1.822
Mean Conc. 0.1854mg/L



Sample

Sample Name: 18F0226-05
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

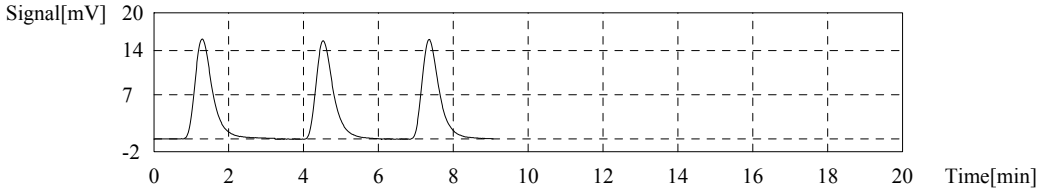
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.556mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.90	5.628mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 11:48:08 PM
2	50.65	5.492mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 11:51:58 PM
3	51.18	5.549mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/9/2018 11:55:58 PM

Mean Area 51.24
Mean Conc. 5.556mg/L



Sample

Sample Name: 18F0226-06
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

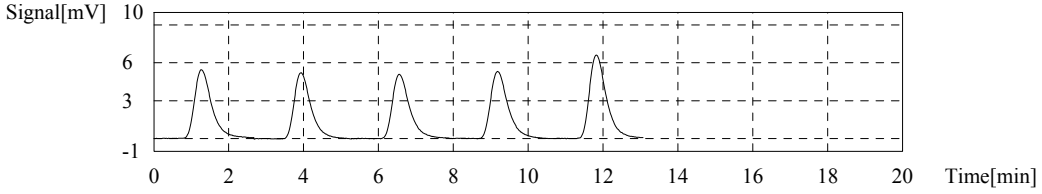
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.848mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.29	1.875mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 12:06:32 AM
2	16.46	1.785mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 12:10:16 AM
3	16.33	1.771mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 12:14:03 AM
4	17.37	1.883mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 12:17:52 AM
5	20.78	2.253mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 12:21:31 AM

Mean Area 17.04
Mean Conc. 1.848mg/L



Sample

Sample Name: 18F0226-07
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

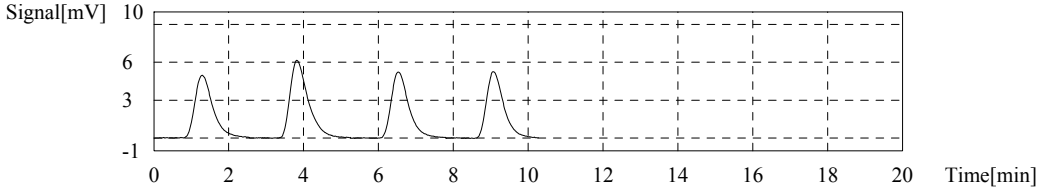
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.815mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	16.43	1.782mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 12:32:05 AM
2	20.85	2.261mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 12:36:01 AM
3	16.89	1.831mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 12:39:39 AM
4	16.89	1.831mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 12:43:21 AM

Mean Area 16.74
Mean Conc. 1.815mg/L



Sample

Sample Name: 18F0226-08
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

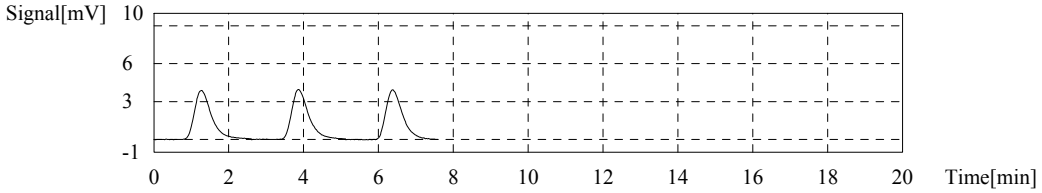
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.335mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.24	1.327mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 12:54:09 AM
2	12.40	1.345mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 12:57:51 AM
3	12.30	1.334mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 1:01:35 AM

Mean Area 12.31
Mean Conc. 1.335mg/L



Sample

Sample Name: 18F0226-09
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

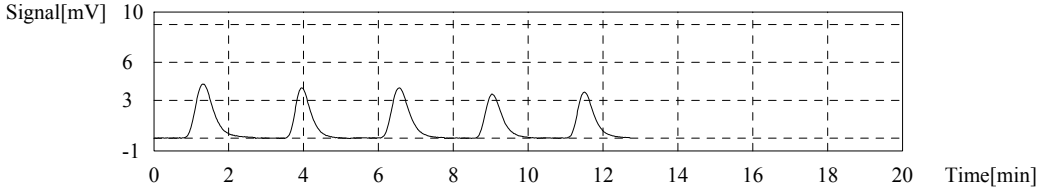
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.239mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.57	1.580mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 1:12:29 AM
2	11.94	1.295mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 1:16:07 AM
3	13.20	1.431mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 1:19:52 AM
4	10.99	1.192mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 1:23:36 AM
5	11.36	1.232mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 1:27:24 AM

Mean Area 11.43
Mean Conc. 1.239mg/L



Sample

Sample Name: 18F0298-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

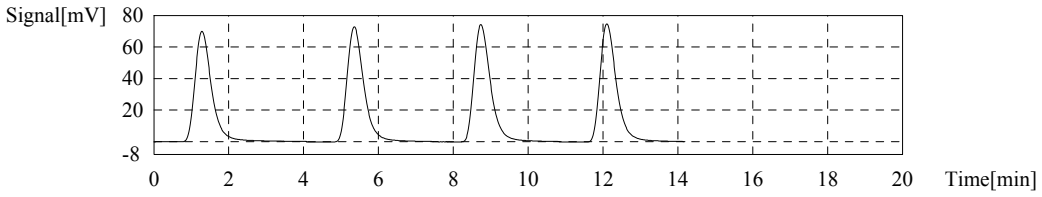
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.06mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	219.6	23.81mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 1:39:39 AM
2	228.8	24.81mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 1:44:03 AM
3	232.5	25.21mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 1:48:25 AM
4	232.0	25.16mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 1:52:46 AM

Mean Area 231.1
Mean Conc. 25.06mg/L



Sample

Sample Name: 18F0298-02
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

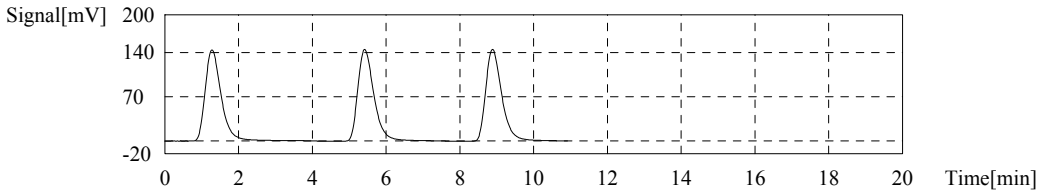
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:48.14mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	440.4	47.75mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 2:04:48 AM
2	446.6	48.43mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 2:09:15 AM
3	444.8	48.23mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 2:13:33 AM

Mean Area 443.9
Mean Conc. 48.14mg/L



Sample

Sample Name: 18F0298-03
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

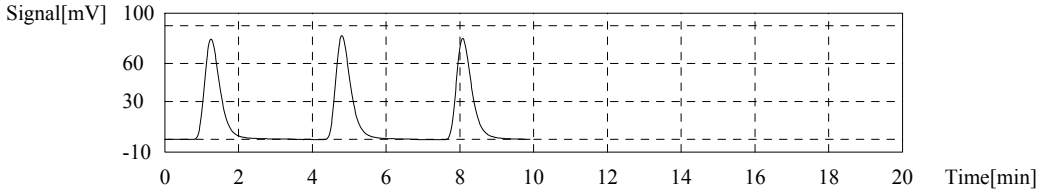
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.87mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	237.8	25.78mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 2:25:00 AM
2	240.1	26.03mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 2:29:15 AM
3	237.9	25.80mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 2:33:18 AM

Mean Area 238.6
Mean Conc. 25.87mg/L



Sample

Sample Name: 18F0298-04
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

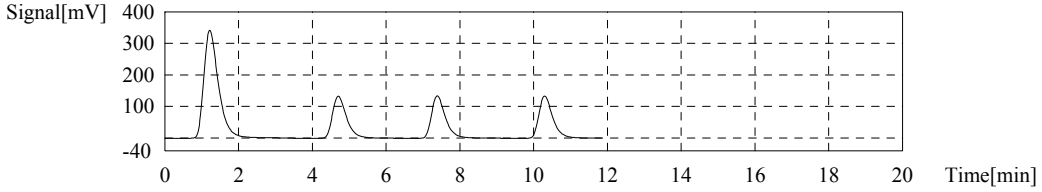
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:101.2mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	957.8	103.9mg/L	100uL	1.000	R	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 2:44:41 AM
2	357.7	102.1mg/L	38uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 2:48:22 AM
3	354.1	101.0mg/L	38uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 2:52:21 AM
4	352.3	100.5mg/L	38uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 2:56:04 AM

Mean Area 354.7
Mean Conc. 101.2mg/L



Sample

Sample Name: 18F0298-05
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

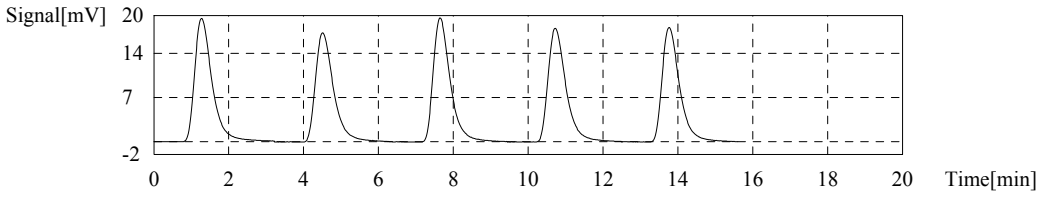
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.431mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	63.51	6.886mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 3:07:05 AM
2	58.56	6.350mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 3:11:13 AM
3	62.88	6.818mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 3:15:16 AM
4	60.02	6.508mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 3:19:18 AM
5	59.35	6.435mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 3:23:24 AM

Mean Area 59.31
Mean Conc. 6.431mg/L



Control Sample

Sample Name: SEQ-CCV2
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.58 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

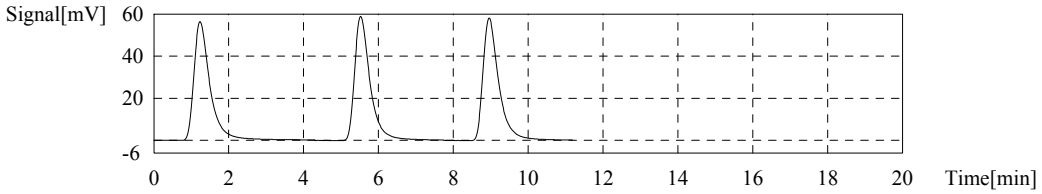
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.58ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	170.9	18.52ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 3:35:35 AM
2	171.0	18.53ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 3:40:00 AM
3	172.6	18.70ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 3:44:26 AM

Mean Area 171.5
Mean Conc. 18.58ppm



Control Sample

Sample Name: SEQ-CCB2
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.2472 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

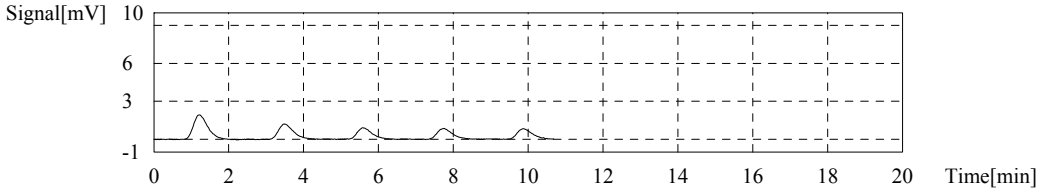
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.2472mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.275	0.5599mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 3:54:35 AM
2	3.370	0.3533mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 3:57:55 AM
3	2.413	0.2495mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 4:01:27 AM
4	2.462	0.2548mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 4:04:57 AM
5	2.299	0.2372mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 4:08:22 AM

Mean Area 2.391
Mean Conc. 0.2472mg/L



Sample

Sample Name: 18F0298-06
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

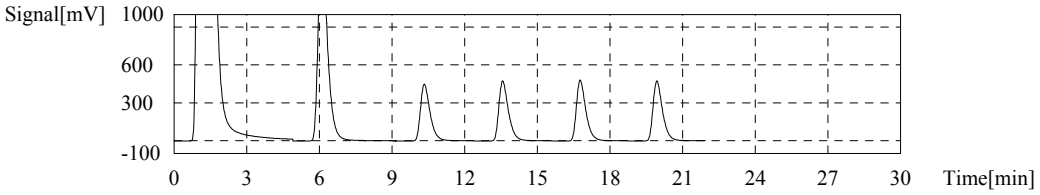
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7156mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7599	824.0mg/L	100uL	1.000	R	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 4:21:14 AM
2	3656	6533mg/L	100uL	16.48	R	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 4:31:48 AM
3	1247	6761mg/L	100uL	50.00	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 4:41:19 AM
4	1322	7167mg/L	100uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 4:46:07 AM
5	1323	7173mg/L	100uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 4:50:55 AM
6	1315	7129mg/L	100uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 4:55:48 AM

Mean Area 1320
Mean Conc. 7156mg/L



Sample

Sample Name: BGG0172-DUP2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

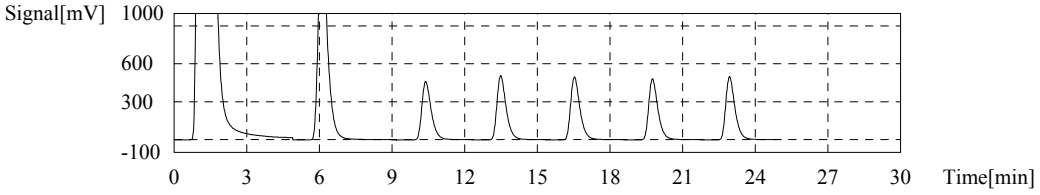
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7303mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7644	828.8mg/L	100uL	1.000	R	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 5:08:39 AM
2	3648	6557mg/L	100uL	16.58	R	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 5:19:54 AM
3	1255	6804mg/L	100uL	50.00	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 5:29:18 AM
4	1357	7357mg/L	100uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 5:34:05 AM
5	1342	7276mg/L	100uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 5:39:07 AM
6	1294	7015mg/L	100uL	50.00	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 5:43:55 AM
7	1342	7276mg/L	100uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 5:48:54 AM

Mean Area 1347
Mean Conc. 7303mg/L



Sample

Sample Name: BGG0172-MS2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

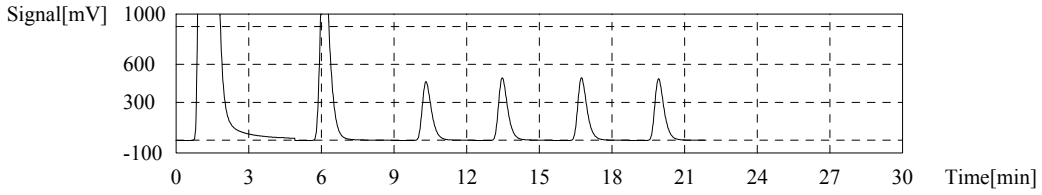
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7245mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7678	832.5mg/L	100uL	1.000	R	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 6:01:32 AM
2	3644	6579mg/L	100uL	16.65	R	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 6:12:07 AM
3	1262	6842mg/L	100uL	50.00	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 6:21:34 AM
4	1339	7259mg/L	100uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 6:26:31 AM
5	1345	7292mg/L	100uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 6:31:16 AM
6	1325	7184mg/L	100uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 6:36:01 AM

Mean Area 1336
Mean Conc. 7245mg/L



Sample

Sample Name: BGG0170-MRL1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

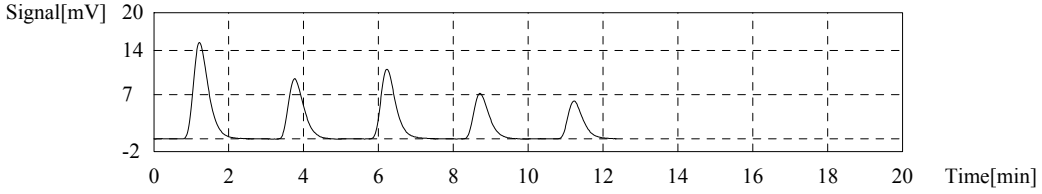
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.906mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	43.60	4.728mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 6:46:17 AM
2	28.35	3.074mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 6:50:00 AM
3	30.93	3.354mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 6:53:48 AM
4	21.12	2.290mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 6:57:37 AM
5	17.21	1.866mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 7:01:14 AM

Mean Area 26.80
Mean Conc. 2.906mg/L



Sample

Sample Name: BGG0170-BLK1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

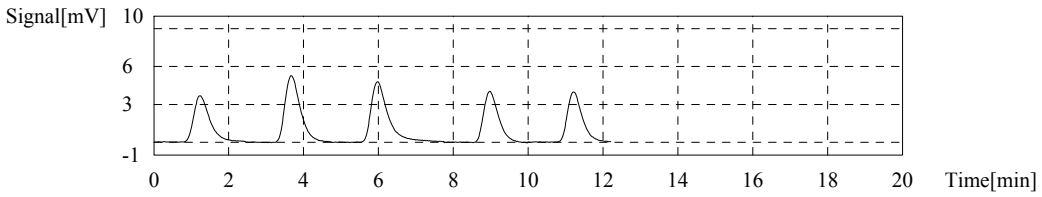
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.192mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.78	1.169mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 7:11:24 AM
2	15.20	1.648mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 7:15:03 AM
3	15.18	1.646mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 7:19:33 AM
4	11.28	1.223mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 7:22:47 AM
5	10.92	1.184mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 7:26:32 AM

Mean Area 10.99
Mean Conc. 1.192mg/L



Sample

Sample Name: BGG0170-BS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

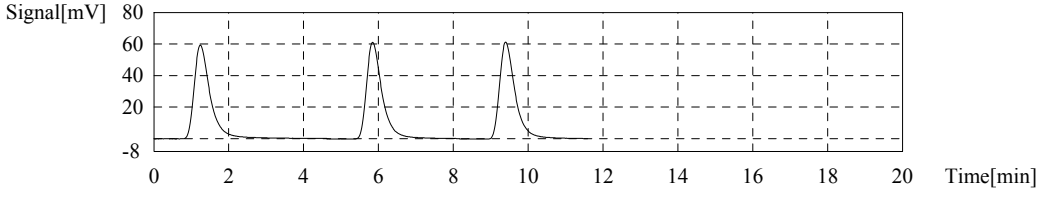
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:19.55mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	181.0	19.63mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 7:38:53 AM
2	180.0	19.52mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 7:43:26 AM
3	179.8	19.50mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 7:47:51 AM

Mean Area 180.3
Mean Conc. 19.55mg/L



Sample

Sample Name: 18F0329-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

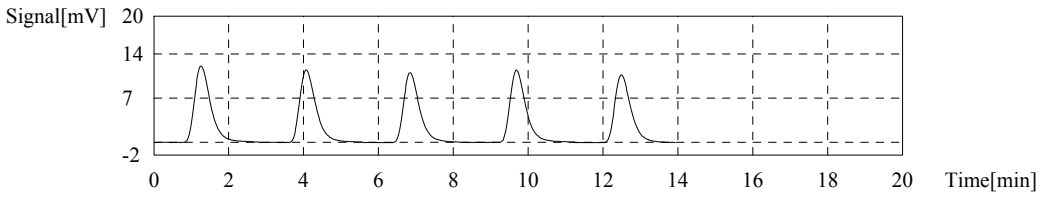
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.604mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	36.66	3.975mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 7:58:35 AM
2	35.13	3.809mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 8:02:21 AM
3	33.25	3.605mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 8:06:12 AM
4	33.89	3.675mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 8:10:00 AM
5	32.56	3.531mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 8:13:41 AM

Mean Area 33.23
Mean Conc. 3.604mg/L



Sample

Sample Name: 18F0329-02
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

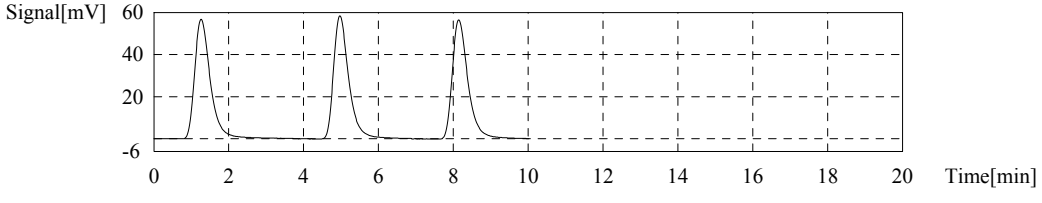
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.11mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	167.5	18.16mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 8:25:15 AM
2	167.3	18.14mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 8:29:25 AM
3	166.3	18.03mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 8:33:33 AM

Mean Area 167.0
Mean Conc. 18.11mg/L



Sample

Sample Name: 18F0329-03
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

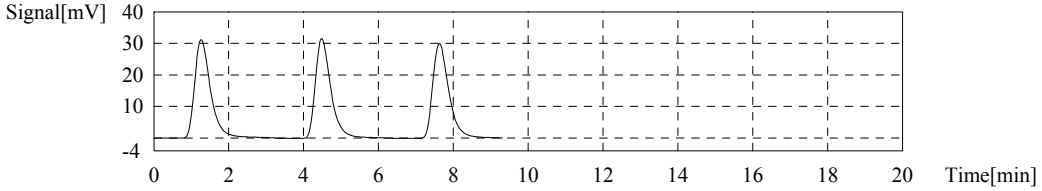
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.952mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	92.91	10.07mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 8:44:42 AM
2	91.96	9.971mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 8:48:50 AM
3	90.48	9.811mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 8:52:46 AM

Mean Area 91.78
Mean Conc. 9.952mg/L



Sample

Sample Name: 18F0329-04
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

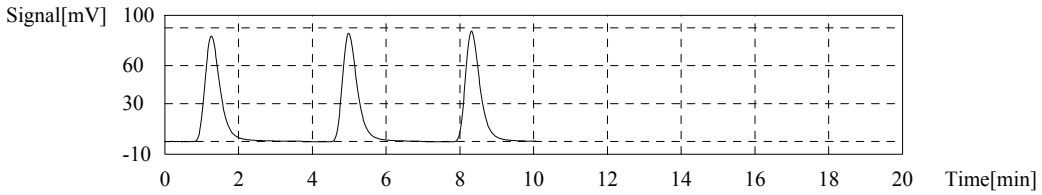
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:26.87mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	246.2	26.70mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 9:04:25 AM
2	248.0	26.89mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 9:08:45 AM
3	249.3	27.03mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 9:12:53 AM

Mean Area 247.8
Mean Conc. 26.87mg/L



Control Sample

Sample Name: SEQ-CCV3
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 19.01 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

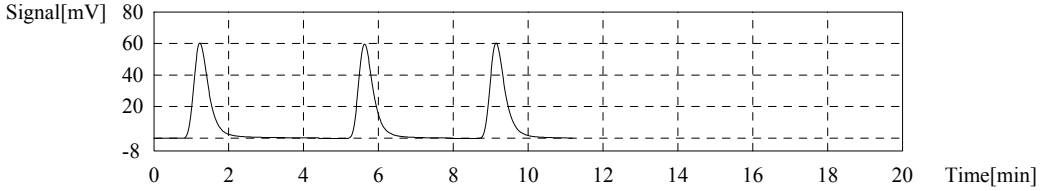
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:19.01ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	177.8	19.27ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 9:25:21 AM
2	172.6	18.70ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 9:29:52 AM
3	176.0	19.07ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 9:34:08 AM

Mean Area 175.5
Mean Conc. 19.01ppm



Control Sample

Sample Name: SEQ-CCB3
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.4081 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

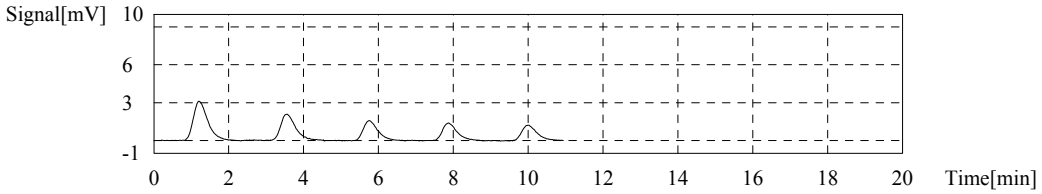
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.4081mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.465	0.9058mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 9:44:22 AM
2	5.707	0.6067mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 9:47:44 AM
3	4.304	0.4546mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 9:51:09 AM
4	3.830	0.4032mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 9:54:39 AM
5	3.492	0.3665mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 9:58:12 AM

Mean Area 3.875
Mean Conc. 0.4081mg/L



Sample

Sample Name: 18F0330-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

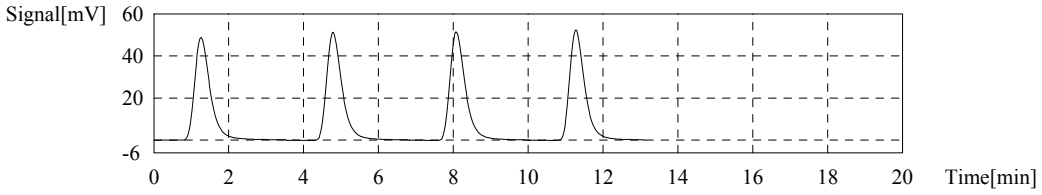
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:16.24mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	143.8	15.59mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 10:09:33 AM
2	149.7	16.23mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 10:13:50 AM
3	149.7	16.23mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 10:18:01 AM
4	149.8	16.24mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 10:22:07 AM

Mean Area 149.7
Mean Conc. 16.24mg/L



Sample

Sample Name: 18F0330-02
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

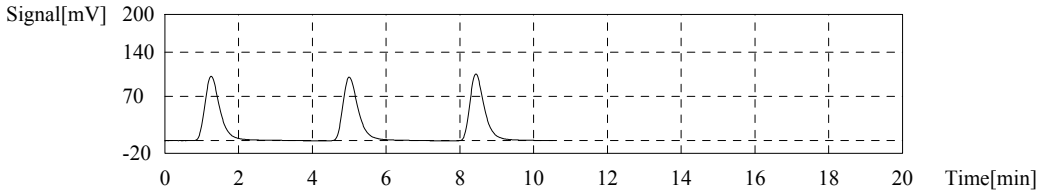
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:32.00mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	294.3	31.91mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 10:33:47 AM
2	295.9	32.08mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 10:38:13 AM
3	295.1	32.00mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 10:42:32 AM

Mean Area 295.1
Mean Conc. 32.00mg/L



Sample

Sample Name: 18F0330-03
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

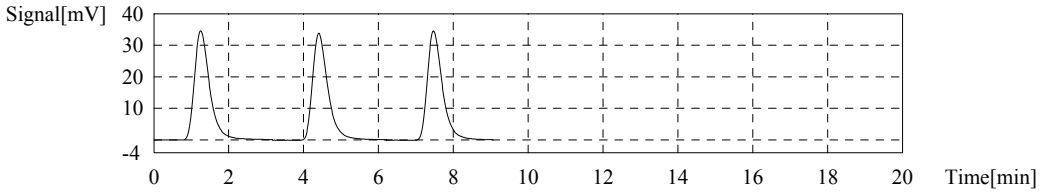
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.63mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	99.14	10.75mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 10:53:37 AM
2	97.27	10.55mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 10:57:40 AM
3	97.58	10.58mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 11:01:30 AM

Mean Area 98.00
Mean Conc. 10.63mg/L



Sample

Sample Name: BGG0170-DUP1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

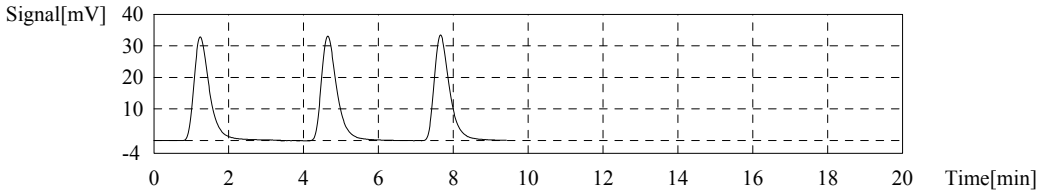
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.43mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	95.81	10.39mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 11:12:48 AM
2	96.48	10.46mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 11:16:48 AM
3	96.35	10.45mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 11:20:48 AM

Mean Area 96.21
Mean Conc. 10.43mg/L



Sample

Sample Name: BGG0170-MS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

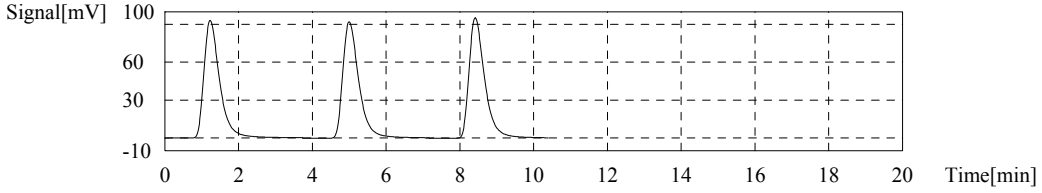
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:30.49mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	279.4	30.30mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 11:32:27 AM
2	280.7	30.44mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 11:36:51 AM
3	283.4	30.73mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 11:41:03 AM

Mean Area 281.2
Mean Conc. 30.49mg/L



Sample

Sample Name: 18F0330-04
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

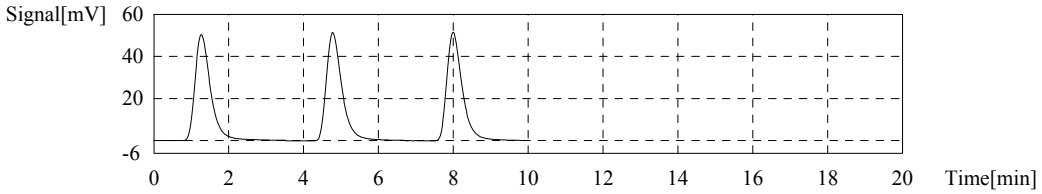
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:16.14mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	147.0	15.94mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 11:52:30 AM
2	150.4	16.31mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 11:56:42 AM
3	149.2	16.18mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 12:00:52 PM

Mean Area 148.9
Mean Conc. 16.14mg/L



Sample

Sample Name: 18F0330-05
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

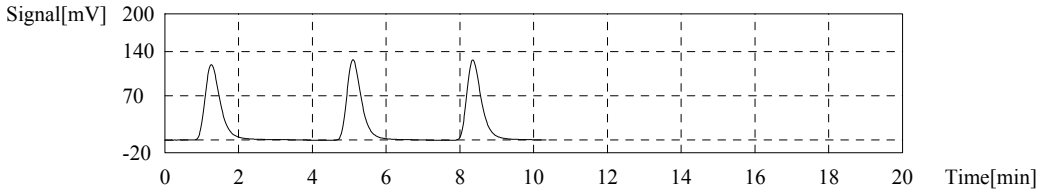
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:38.71mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	352.6	38.23mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 12:12:38 PM
2	358.3	38.85mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 12:16:53 PM
3	360.1	39.05mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 12:21:07 PM

Mean Area 357.0
Mean Conc. 38.71mg/L



Sample

Sample Name: 18F0330-06
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

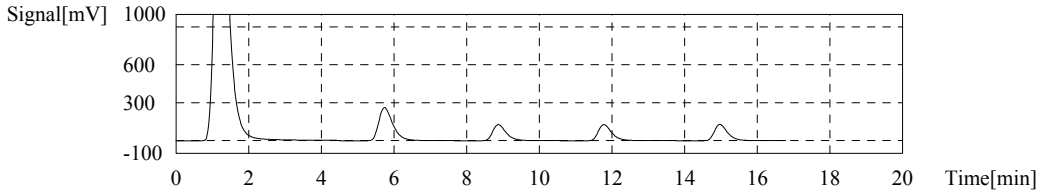
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:667.2mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4325	469.0mg/L	100uL	1.000	R	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 12:33:33 PM
2	715.2	727.4mg/L	100uL	9.379	R	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 12:43:07 PM
3	334.7	667.4mg/L	51uL	9.379		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 12:47:45 PM
4	334.7	667.4mg/L	51uL	9.379		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 12:52:56 PM
5	334.4	666.8mg/L	51uL	9.379		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 12:57:38 PM

Mean Area 334.6
Mean Conc. 667.2mg/L



Sample

Sample Name: 18F0330-07
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

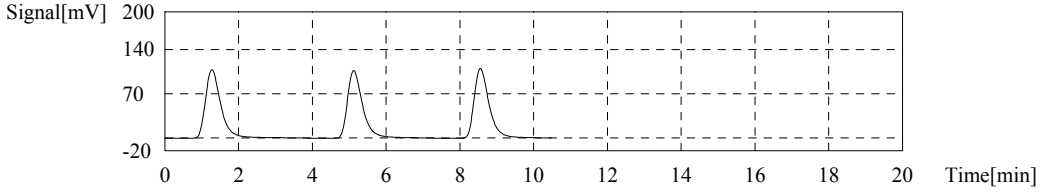
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:33.92mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	316.1	34.27mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 1:09:15 PM
2	308.3	33.43mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 1:13:41 PM
3	314.0	34.05mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 1:17:52 PM

Mean Area 312.8
Mean Conc. 33.92mg/L



Sample

Sample Name: 18F0330-08
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

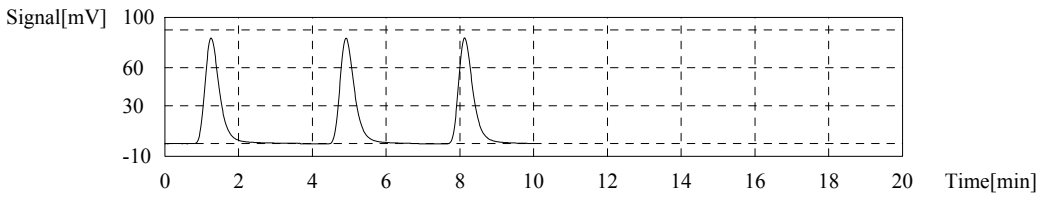
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.51mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	235.2	25.50mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 1:29:28 PM
2	236.4	25.63mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 1:33:41 PM
3	234.3	25.41mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 1:37:49 PM

Mean Area 235.3
Mean Conc. 25.51mg/L



Control Sample

Sample Name: SEQ-CCV4
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.89 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

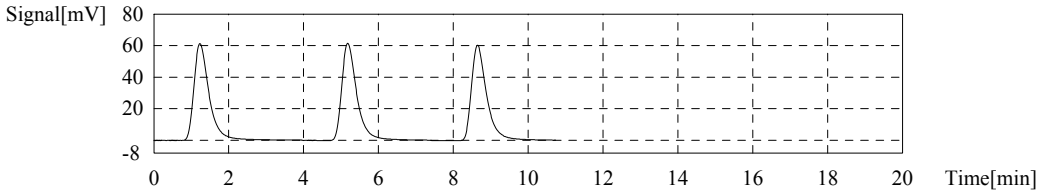
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.89ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	175.8	19.05ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 1:49:41 PM
2	174.4	18.90ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 1:54:09 PM
3	172.9	18.74ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 1:58:28 PM

Mean Area 174.4
Mean Conc. 18.89ppm



Control Sample

Sample Name: SEQ-CCB4
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.4038 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

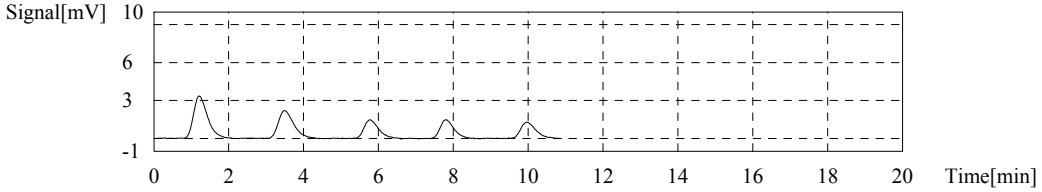
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.4038mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.859	0.9485mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 2:08:37 PM
2	6.346	0.6760mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 2:12:10 PM
3	3.914	0.4123mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 2:15:24 PM
4	4.014	0.4231mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 2:19:01 PM
5	3.579	0.3760mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 2:22:31 PM

Mean Area 3.836
Mean Conc. 0.4038mg/L



Sample

Sample Name: 18F0330-09
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

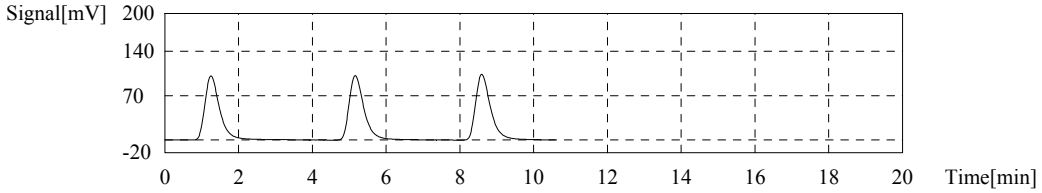
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:31.59mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	286.7	31.09mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 2:34:25 PM
2	289.8	31.42mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 2:38:51 PM
3	297.5	32.26mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 2:43:05 PM

Mean Area 291.3
Mean Conc. 31.59mg/L



Sample

Sample Name: 18F0330-10
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

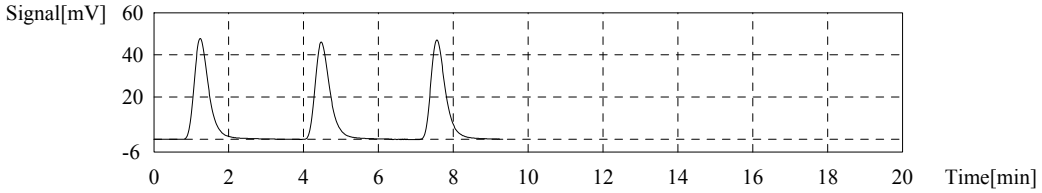
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:14.15mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	132.0	14.31mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 2:54:15 PM
2	129.3	14.02mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 2:58:21 PM
3	130.3	14.13mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 3:02:20 PM

Mean Area 130.5
Mean Conc. 14.15mg/L



Sample

Sample Name: 18F0330-11
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

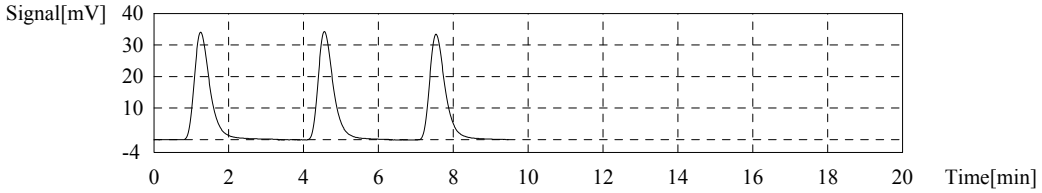
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.72mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	100.4	10.89mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 3:13:35 PM
2	98.09	10.64mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 3:17:33 PM
3	98.00	10.63mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 3:21:44 PM

Mean Area 98.83
Mean Conc. 10.72mg/L



Sample

Sample Name: 18F0330-12
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

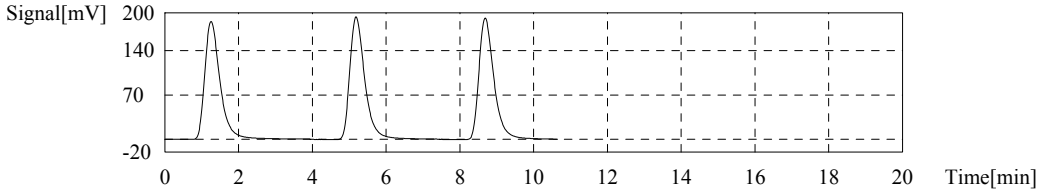
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:59.53mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	543.3	58.91mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 3:33:36 PM
2	554.5	60.12mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 3:38:06 PM
3	549.3	59.56mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 3:42:19 PM

Mean Area 549.0
Mean Conc. 59.53mg/L



Sample

Sample Name: 18F0330-13
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

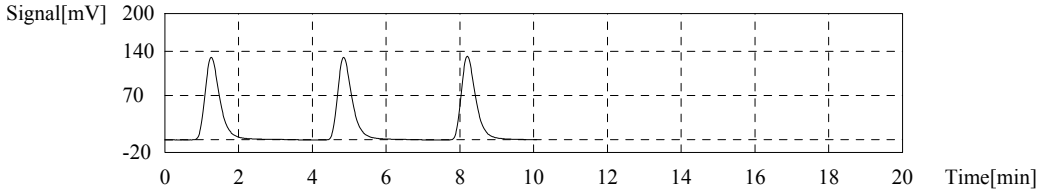
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:39.95mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	372.1	40.35mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 3:53:52 PM
2	364.8	39.56mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 3:58:13 PM
3	368.3	39.94mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 4:02:20 PM

Mean Area 368.4
Mean Conc. 39.95mg/L



Sample

Sample Name: 18F0330-14
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

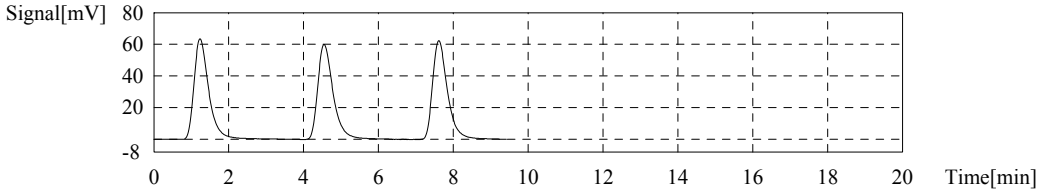
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.92mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	175.6	19.04mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 4:13:34 PM
2	173.3	18.79mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 4:17:38 PM
3	174.6	18.93mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 4:21:41 PM

Mean Area 174.5
Mean Conc. 18.92mg/L



Sample

Sample Name: 18F0330-15
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

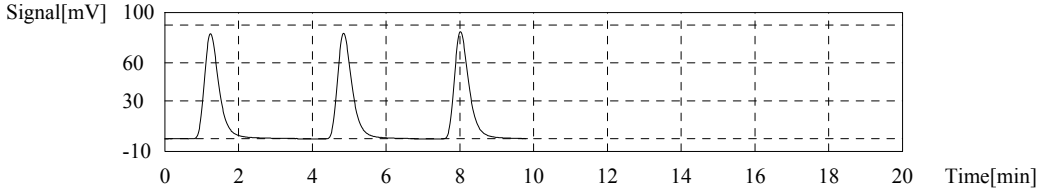
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.61mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	234.5	25.43mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 4:33:13 PM
2	235.3	25.51mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 4:37:23 PM
3	238.8	25.89mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 4:41:26 PM

Mean Area 236.2
Mean Conc. 25.61mg/L



Sample

Sample Name: 18F0330-16
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

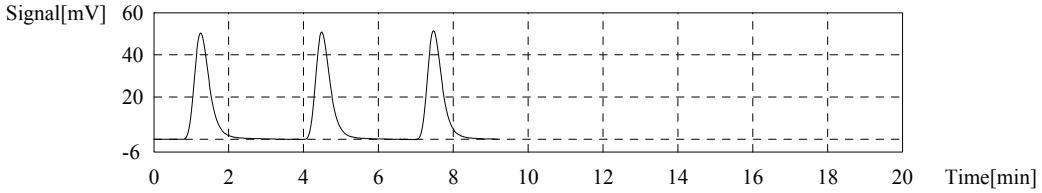
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:15.74mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	147.2	15.96mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 4:52:37 PM
2	142.8	15.48mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 4:56:36 PM
3	145.6	15.79mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 5:00:33 PM

Mean Area 145.2
Mean Conc. 15.74mg/L



Sample

Sample Name: 18F0226-01RE1DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

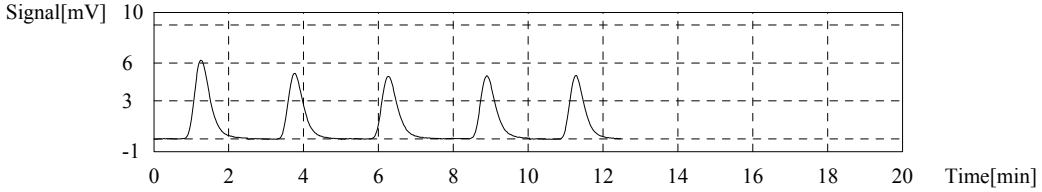
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.574mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.30	1.984mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 5:10:59 PM
2	15.28	1.657mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 5:14:46 PM
3	14.96	1.622mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 5:18:42 PM
4	14.39	1.560mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 5:22:13 PM
5	14.21	1.541mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 5:26:03 PM

Mean Area 14.52
Mean Conc. 1.574mg/L



Sample

Sample Name: 18F0226-02RE1DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

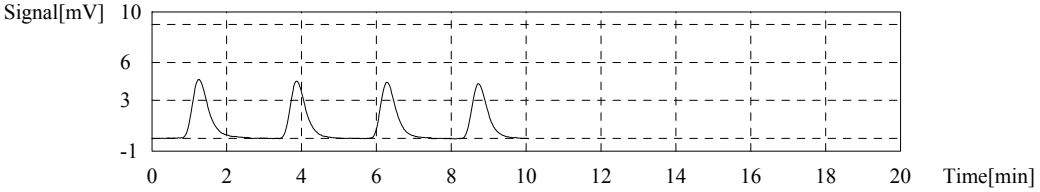
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.418mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.17	1.536mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 5:36:25 PM
2	13.24	1.436mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 5:40:00 PM
3	13.01	1.411mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 5:43:48 PM
4	12.99	1.409mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 5:47:45 PM

Mean Area 13.08
Mean Conc. 1.418mg/L



Control Sample

Sample Name: SEQ-CCV5
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.44 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

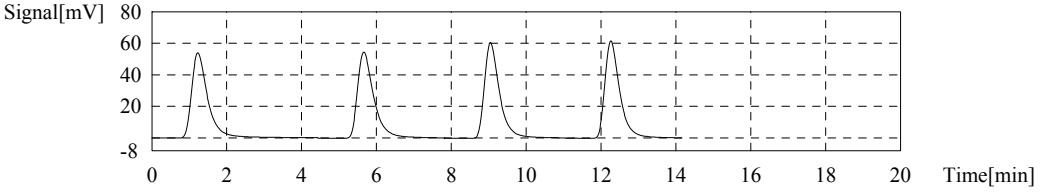
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.44ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	164.3	17.80ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 6:00:14 PM
2	166.8	18.07ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 6:04:37 PM
3	171.5	18.58ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 6:08:50 PM
4	172.3	18.67ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 6:12:56 PM

Mean Area 170.2
Mean Conc. 18.44ppm



Control Sample

Sample Name: SEQ-CCB5
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.2579 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

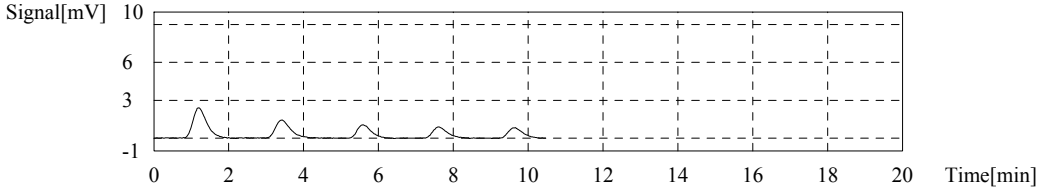
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.2579mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.364	0.6779mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 6:23:02 PM
2	3.906	0.4114mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 6:26:31 PM
3	2.811	0.2927mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 6:29:51 PM
4	2.378	0.2457mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 6:33:21 PM
5	2.281	0.2352mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 6:36:53 PM

Mean Area 2.490
Mean Conc. 0.2579mg/L



Sample

Sample Name: BGG0063-DUP2DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

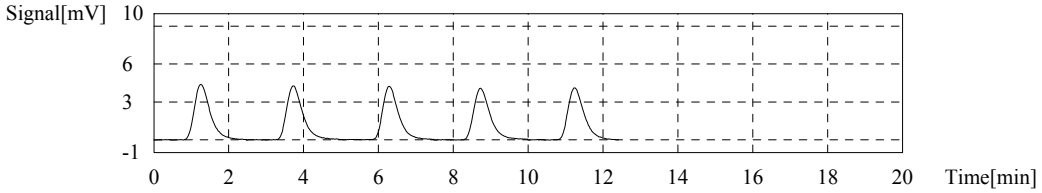
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.343mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.05	1.415mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 6:47:15 PM
2	12.80	1.388mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 6:51:08 PM
3	12.34	1.338mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 6:54:47 PM
4	12.34	1.338mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 6:58:39 PM
5	12.47	1.352mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 7:02:21 PM

Mean Area 12.38
Mean Conc. 1.343mg/L



Sample

Sample Name: BGG0063-MS2DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

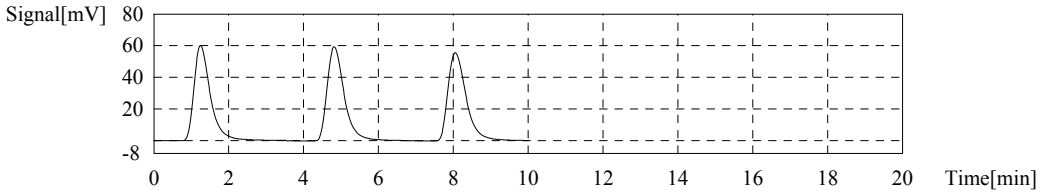
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:20.43mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	185.1	20.07mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 7:13:38 PM
2	190.4	20.65mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 7:17:51 PM
3	189.8	20.58mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 7:22:05 PM

Mean Area 188.4
Mean Conc. 20.43mg/L



Sample

Sample Name: 18F0226-03RE1DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

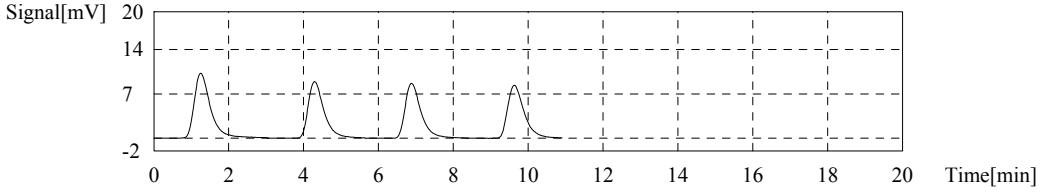
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.815mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	31.05	3.367mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 7:33:03 PM
2	26.38	2.860mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 7:36:38 PM
3	25.81	2.799mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 7:40:33 PM
4	25.69	2.786mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 7:44:08 PM

Mean Area 25.96
Mean Conc. 2.815mg/L



Sample

Sample Name: 18F0226-04RE1DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

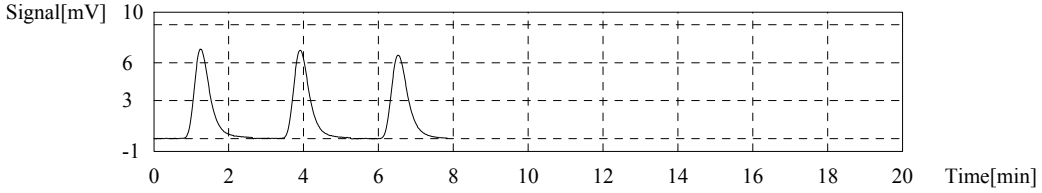
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.257mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.89	2.265mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 7:54:49 PM
2	20.90	2.266mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 7:58:35 PM
3	20.66	2.240mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 8:02:21 PM

Mean Area 20.82
Mean Conc. 2.257mg/L



Sample

Sample Name: 18F0226-05RE1DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

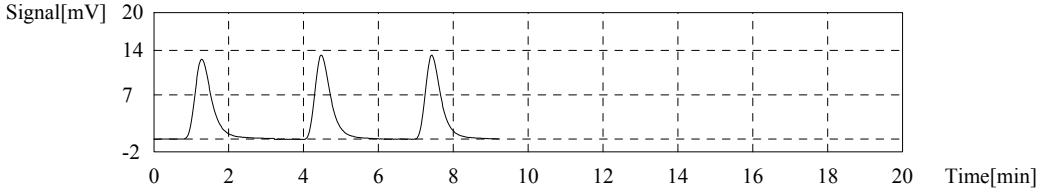
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.355mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	40.37	4.377mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 8:13:33 PM
2	40.38	4.378mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 8:17:30 PM
3	39.73	4.308mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 8:21:32 PM

Mean Area 40.16
Mean Conc. 4.355mg/L



Sample

Sample Name: 18F0226-06RE1DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

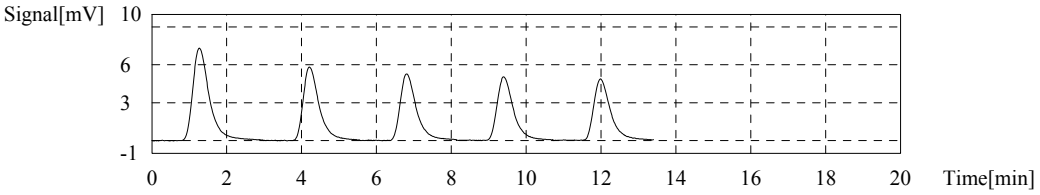
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.665mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	22.70	2.461mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 8:32:27 PM
2	17.35	1.881mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 8:36:02 PM
3	15.71	1.703mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 8:39:48 PM
4	15.28	1.657mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 8:43:35 PM
5	15.08	1.635mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 8:47:28 PM

Mean Area 15.36
Mean Conc. 1.665mg/L



Sample

Sample Name: 18F0226-07RE1DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

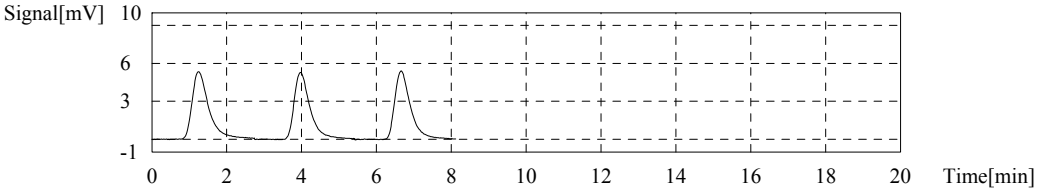
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.732mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	16.30	1.767mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 8:58:06 PM
2	15.68	1.700mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 9:01:50 PM
3	15.95	1.729mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 9:05:38 PM

Mean Area 15.98
Mean Conc. 1.732mg/L



Sample

Sample Name: 18F0226-08RE1DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

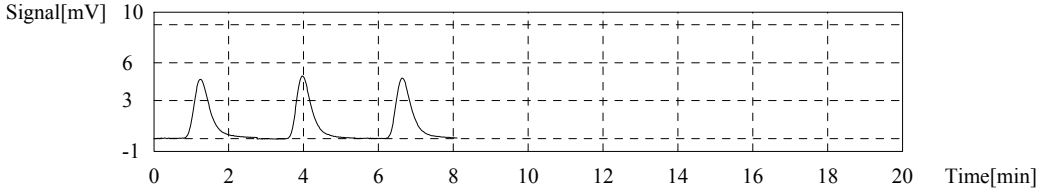
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.556mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.13	1.532mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 9:16:16 PM
2	14.55	1.578mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 9:19:57 PM
3	14.38	1.559mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 9:23:46 PM

Mean Area 14.35
Mean Conc. 1.556mg/L



Sample

Sample Name: 18F0226-09RE1DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

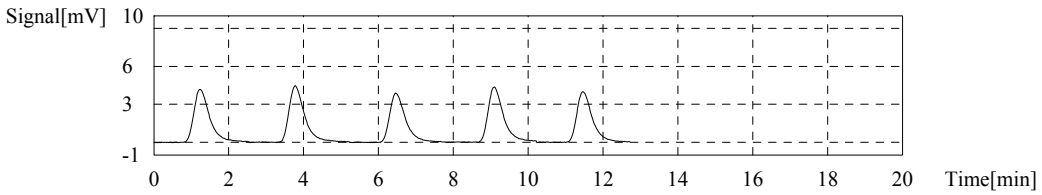
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.276mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.29	1.333mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 9:34:13 PM
2	13.13	1.424mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 9:38:07 PM
3	11.61	1.259mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 9:41:50 PM
4	12.14	1.316mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 9:45:21 PM
5	11.55	1.252mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 9:49:17 PM

Mean Area 11.77
Mean Conc. 1.276mg/L



Sample

Sample Name: 18F0248-01RE1DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

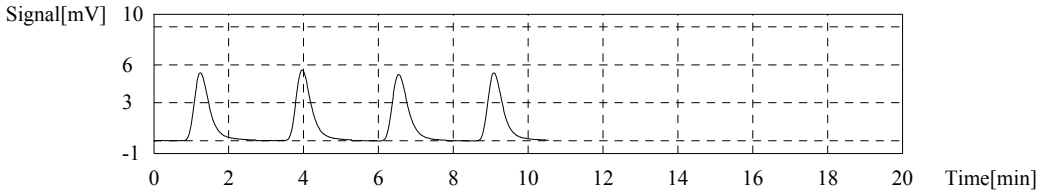
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.699mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.55	1.686mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 10:00:13 PM
2	16.27	1.764mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 10:03:50 PM
3	15.81	1.714mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 10:07:37 PM
4	15.66	1.698mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 10:11:31 PM

Mean Area 15.67
Mean Conc. 1.699mg/L



Control Sample

Sample Name: SEQ-CCV6
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 17.30 / Control exceeds range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

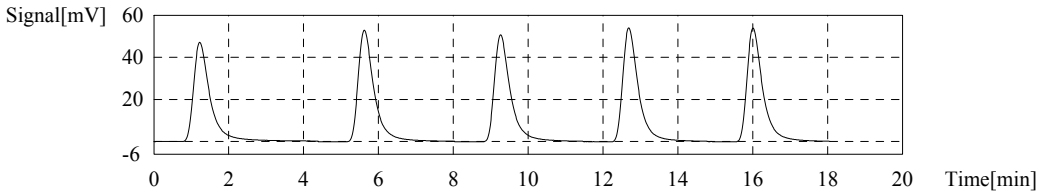
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:17.30ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	147.0	15.93ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 10:23:52 PM
2	159.4	17.27ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 10:28:31 PM
3	153.6	16.64ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 10:32:57 PM
4	159.3	17.26ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 10:37:16 PM
5	160.4	17.38ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 10:41:33 PM

Mean Area 159.7
Mean Conc. 17.30ppm



Control Sample

Sample Name: SEQ-CCB6
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.3022 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

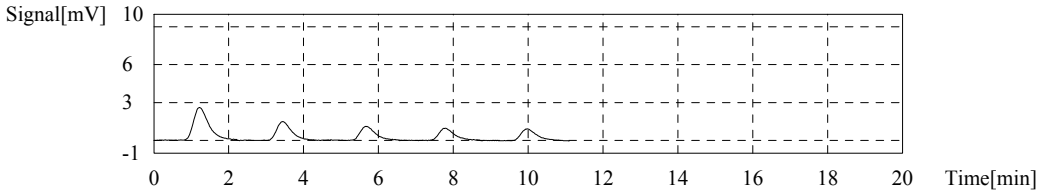
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.3022mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.152	0.7634mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 10:51:40 PM
2	4.118	0.4344mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 10:55:11 PM
3	3.032	0.3166mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 10:58:33 PM
4	2.759	0.2870mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 11:02:08 PM
5	2.906	0.3030mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 11:05:49 PM

Mean Area 2.899
Mean Conc. 0.3022mg/L



Sample

Sample Name: 18F0248-02RE1DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

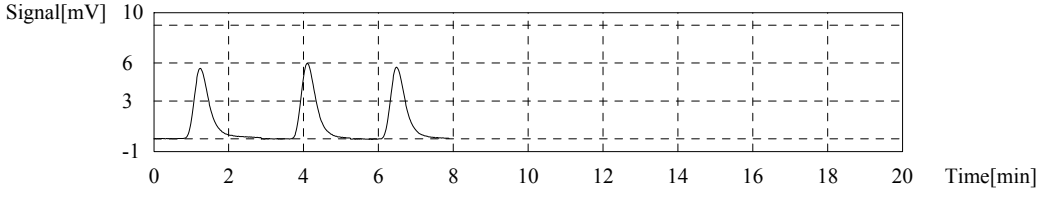
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.784mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	16.28	1.765mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 11:16:46 PM
2	16.80	1.822mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 11:20:09 PM
3	16.29	1.766mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 11:24:10 PM

Mean Area 16.46
Mean Conc. 1.784mg/L



Sample

Sample Name: 18F0248-03RE1DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

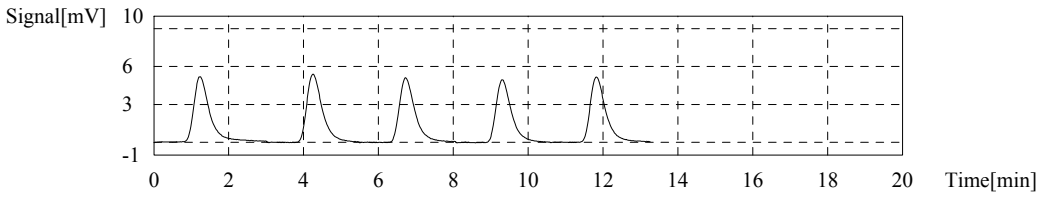
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.632mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.28	1.657mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 11:35:05 PM
2	15.75	1.708mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 11:38:33 PM
3	14.89	1.615mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 11:42:26 PM
4	14.29	1.549mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 11:46:09 PM
5	14.99	1.625mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/10/2018 11:50:05 PM

Mean Area 15.05
Mean Conc. 1.632mg/L



Sample

Sample Name: BGG0172-MRL2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

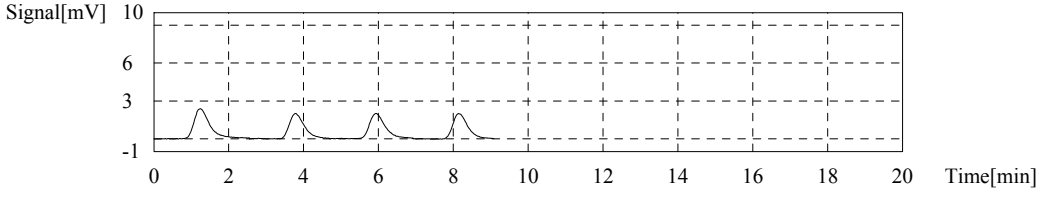
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6039mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.906	0.7488mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 12:00:34 AM
2	5.501	0.5965mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 12:03:56 AM
3	5.623	0.6097mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 12:07:49 AM
4	5.585	0.6056mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 12:11:32 AM

Mean Area 5.570
Mean Conc. 0.6039mg/L



Sample

Sample Name: BGG0172-BLK2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

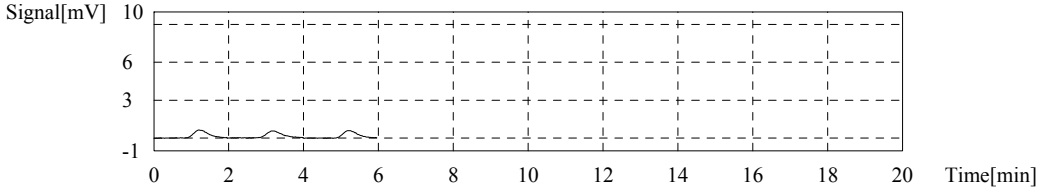
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1715mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.628	0.1765mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 12:21:12 AM
2	1.498	0.1624mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 12:25:04 AM
3	1.618	0.1754mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 12:28:47 AM

Mean Area 1.581
Mean Conc. 0.1715mg/L



Sample

Sample Name: BGG0172-BS2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

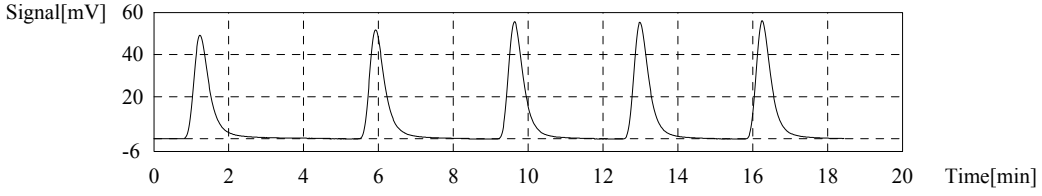
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:17.82mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	153.3	16.62mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 12:41:12 AM
2	157.8	17.11mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 12:45:55 AM
3	165.4	17.93mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 12:50:16 AM
4	163.2	17.70mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 12:54:32 AM
5	164.4	17.83mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 12:58:56 AM

Mean Area 164.3
Mean Conc. 17.82mg/L



Sample

Sample Name: 18F0226-01RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

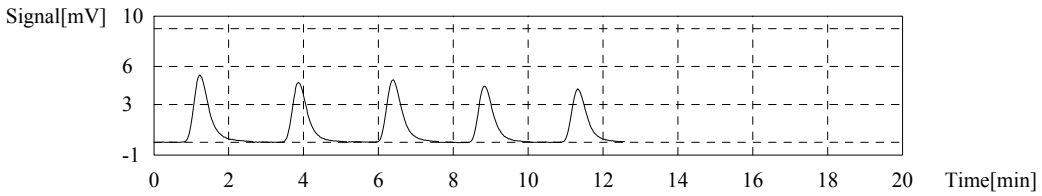
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.467mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.42	1.672mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 1:09:28 AM
2	13.52	1.466mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 1:13:08 AM
3	14.26	1.546mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 1:16:51 AM
4	12.80	1.388mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 1:20:41 AM
5	12.03	1.304mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 1:24:26 AM

Mean Area 13.53
Mean Conc. 1.467mg/L



Sample

Sample Name: 18F0226-02RE2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

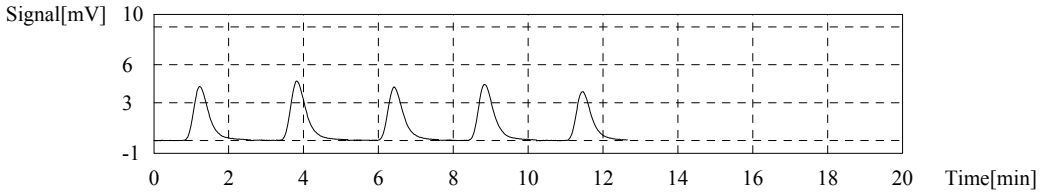
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.351mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.30	1.334mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 1:35:13 AM
2	13.73	1.489mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 1:39:01 AM
3	11.99	1.300mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 1:42:37 AM
4	13.08	1.418mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 1:46:36 AM
5	11.13	1.207mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 1:50:12 AM

Mean Area 12.46
Mean Conc. 1.351mg/L



Sample

Sample Name: BGG0172-DUP3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

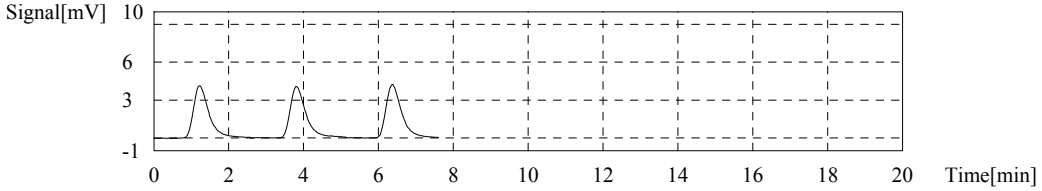
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.296mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.90	1.290mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 2:00:30 AM
2	11.78	1.277mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 2:04:15 AM
3	12.18	1.321mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 2:07:57 AM

Mean Area 11.95
Mean Conc. 1.296mg/L



Sample

Sample Name: BGG0172-MS3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

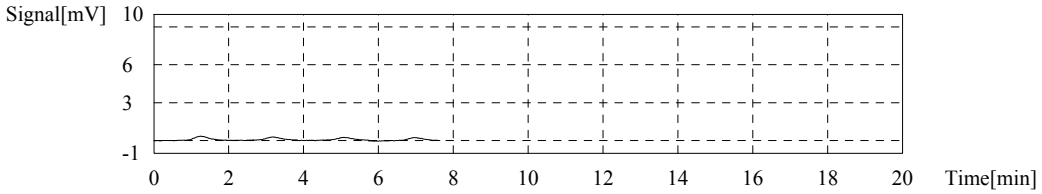
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06043mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.7689	0.08337mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 2:18:05 AM
2	0.5521	0.05986mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 2:21:50 AM
3	0.5729	0.06212mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 2:25:37 AM
4	0.5470	0.05931mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 2:29:24 AM

Mean Area 0.5573
Mean Conc. 0.06043mg/L



Sample

Sample Name: 18F0226-03RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

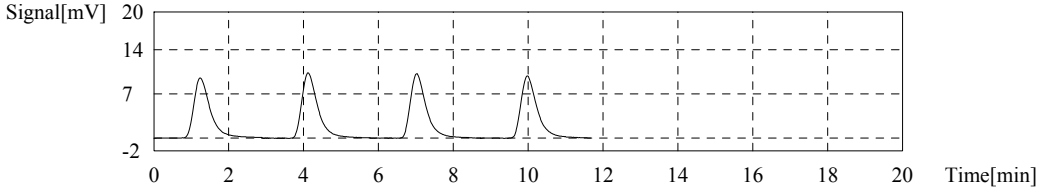
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.303mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	28.87	3.130mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 2:40:00 AM
2	30.98	3.359mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 2:43:54 AM
3	30.37	3.293mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 2:47:51 AM
4	30.03	3.256mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 2:51:47 AM

Mean Area 30.46
Mean Conc. 3.303mg/L



Control Sample

Sample Name: SEQ-CCV7
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 17.55 / Control exceeds range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

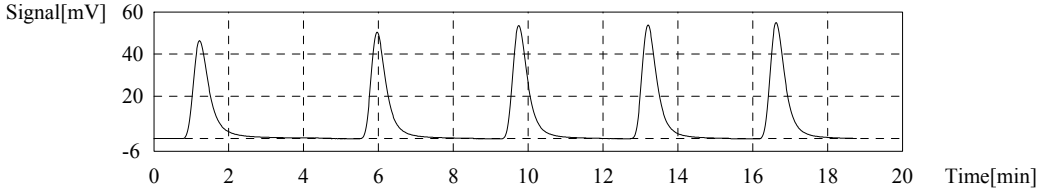
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:17.55ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	150.1	16.26ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 3:04:35 AM
2	153.5	16.63ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 3:09:22 AM
3	160.7	17.41ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 3:13:49 AM
4	161.4	17.49ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 3:18:14 AM
5	163.8	17.75ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 3:22:35 AM

Mean Area 162.0
Mean Conc. 17.55ppm



Control Sample

Sample Name: SEQ-CCB7
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.2699 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

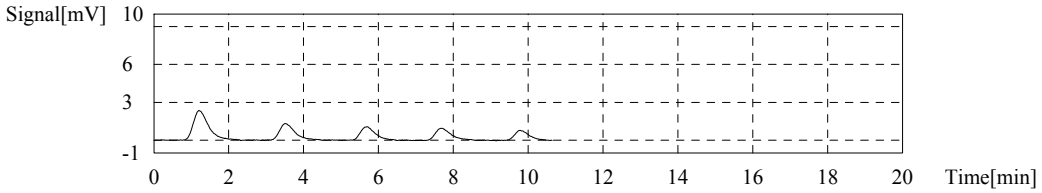
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.2699mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.643	0.7082mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 3:32:47 AM
2	3.612	0.3795mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 3:36:09 AM
3	2.881	0.3003mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 3:39:29 AM
4	2.790	0.2904mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 3:43:06 AM
5	2.131	0.2190mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 3:46:32 AM

Mean Area 2.601
Mean Conc. 0.2699mg/L



Sample

Sample Name: 18F0226-04RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

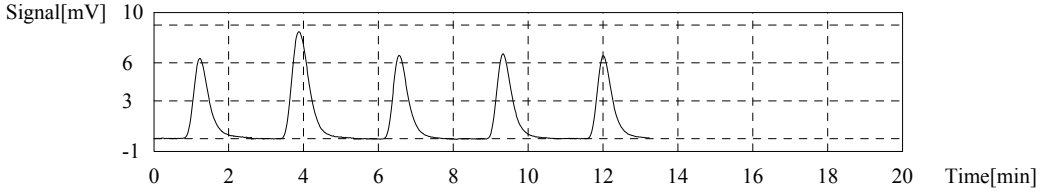
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.021mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.24	1.978mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 3:56:57 AM
2	27.59	2.992mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 4:00:52 AM
3	19.28	2.091mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 4:04:41 AM
4	19.55	2.120mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 4:08:23 AM
5	18.40	1.995mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 4:11:56 AM

Mean Area 18.64
Mean Conc. 2.021mg/L



Sample

Sample Name: 18F0226-05RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

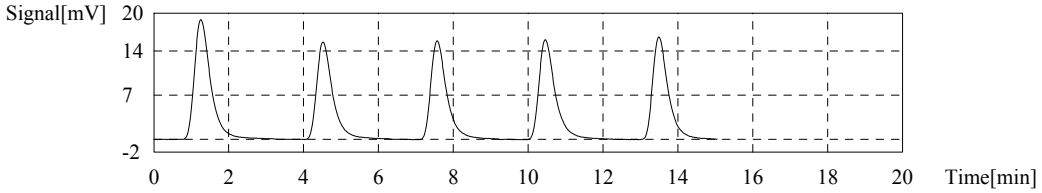
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.075mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	57.95	6.284mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 4:22:55 AM
2	46.26	5.016mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 4:26:57 AM
3	46.62	5.055mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 4:30:49 AM
4	48.30	5.237mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 4:34:51 AM
5	47.53	5.154mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 4:38:38 AM

Mean Area 46.80
Mean Conc. 5.075mg/L



Sample

Sample Name: 18F0226-06RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

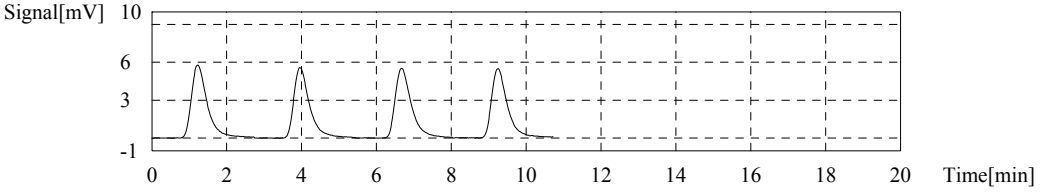
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.769mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.05	1.849mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 4:49:16 AM
2	16.41	1.779mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 4:53:01 AM
3	16.56	1.796mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 4:56:41 AM
4	15.98	1.733mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 5:00:35 AM

Mean Area 16.32
Mean Conc. 1.769mg/L



Sample

Sample Name: 18F0226-07RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

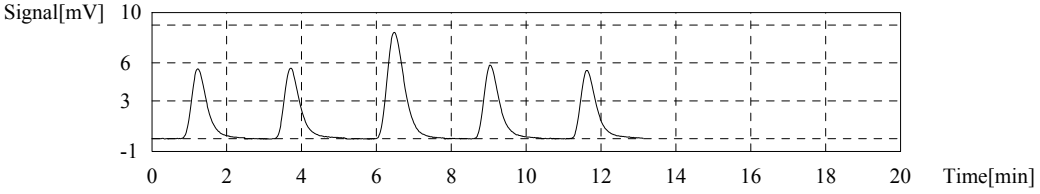
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.756mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.85	1.719mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 5:10:54 AM
2	16.67	1.808mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 5:14:54 AM
3	27.50	2.982mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 5:18:37 AM
4	17.04	1.848mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 5:22:21 AM
5	16.07	1.742mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 5:26:16 AM

Mean Area 16.20
Mean Conc. 1.756mg/L



Sample

Sample Name: 18F0226-08RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

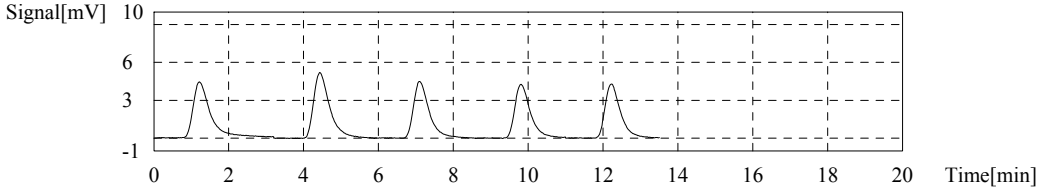
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.364mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.07	1.526mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 5:37:17 AM
2	15.67	1.699mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 5:40:57 AM
3	13.17	1.428mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 5:44:44 AM
4	12.26	1.329mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 5:48:15 AM
5	12.32	1.336mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 5:52:09 AM

Mean Area 12.58
Mean Conc. 1.364mg/L



Sample

Sample Name: 18F0226-09RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

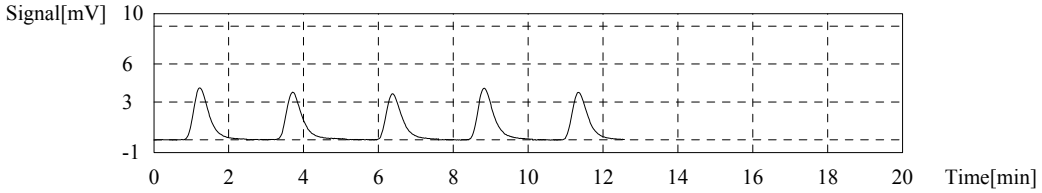
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.179mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.82	1.282mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 6:02:50 AM
2	11.11	1.205mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 6:06:47 AM
3	10.45	1.133mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 6:10:21 AM
4	12.08	1.310mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 6:14:12 AM
5	11.07	1.200mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 6:17:55 AM

Mean Area 10.88
Mean Conc. 1.179mg/L



Sample

Sample Name: 18F0298-01RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

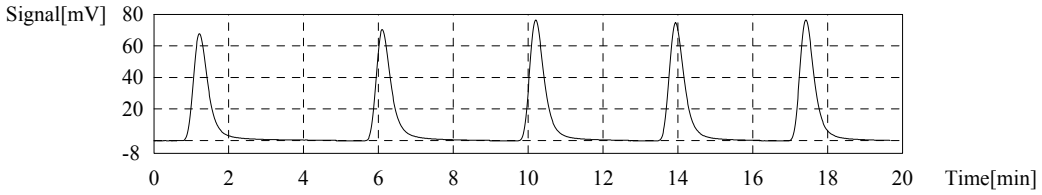
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:24.14mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	202.1	21.91mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 6:30:30 AM
2	210.7	22.85mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 6:35:35 AM
3	224.3	24.32mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 6:40:17 AM
4	221.9	24.06mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 6:44:46 AM
5	221.7	24.04mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 6:49:14 AM

Mean Area 222.6
Mean Conc. 24.14mg/L



Sample

Sample Name: 18F0298-02RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

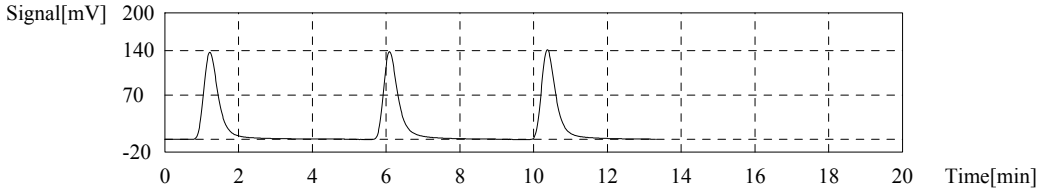
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:44.15mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	402.9	43.69mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 7:02:00 AM
2	408.1	44.25mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 7:07:16 AM
3	410.5	44.51mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 7:12:24 AM

Mean Area 407.2
Mean Conc. 44.15mg/L



Sample

Sample Name: 18F0298-03RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

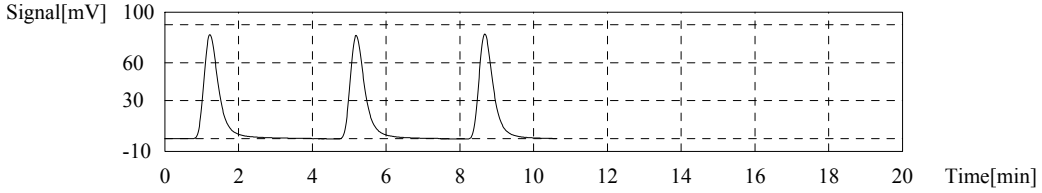
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.54mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	238.9	25.90mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 7:24:16 AM
2	234.7	25.45mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 7:28:46 AM
3	233.1	25.28mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 7:32:56 AM

Mean Area 235.6
Mean Conc. 25.54mg/L



Sample

Sample Name: 18F0298-04RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

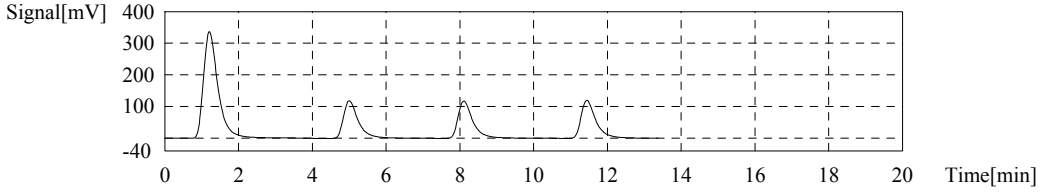
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:93.60mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	936.0	101.5mg/L	100uL	1.000	R	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 7:44:38 AM
2	336.1	93.45mg/L	39uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 7:48:44 AM
3	333.3	92.67mg/L	39uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 7:53:04 AM
4	340.6	94.70mg/L	39uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 7:57:12 AM

Mean Area 336.7
Mean Conc. 93.60mg/L



Control Sample

Sample Name: SEQ-CCV8
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.45 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

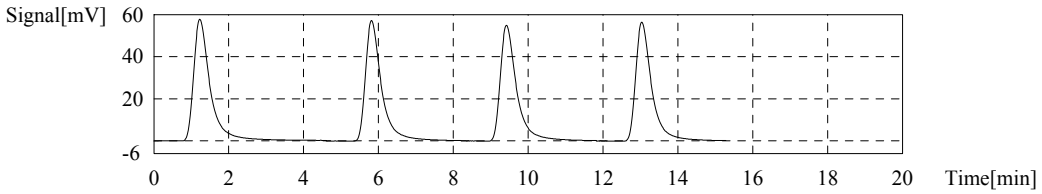
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.45ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	180.1	19.52ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 8:09:46 AM
2	172.6	18.70ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 8:14:22 AM
3	168.4	18.25ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 8:18:59 AM
4	169.9	18.41ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 8:23:27 AM

Mean Area 170.3
Mean Conc. 18.45ppm



Control Sample

Sample Name: SEQ-CCB8
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.6790 / Control exceeds range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

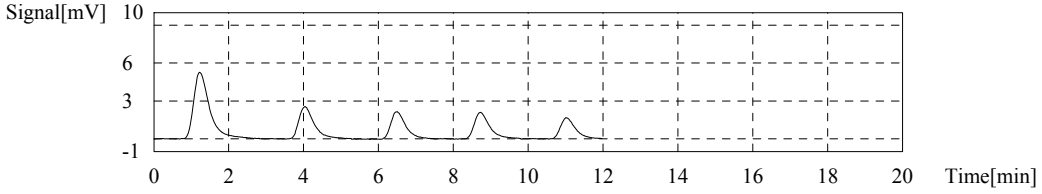
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.6790mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.65	1.685mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 8:34:10 AM
2	7.192	0.7677mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 8:37:37 AM
3	6.024	0.6411mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 8:40:53 AM
4	5.905	0.6282mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 8:44:26 AM
5	4.665	0.4937mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 8:47:48 AM

Mean Area 6.374
Mean Conc. 0.6790mg/L



Sample

Sample Name: 18F0298-05RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

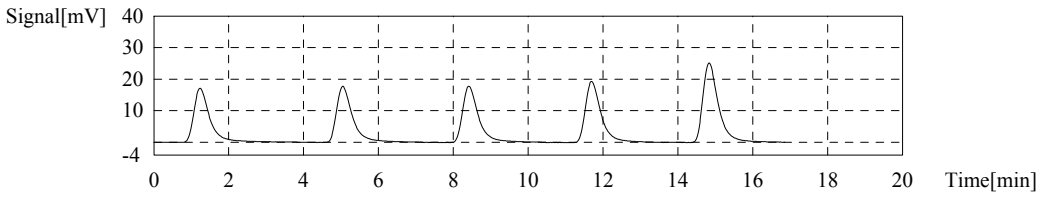
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.730mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	51.34	5.567mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 8:59:33 AM
2	53.90	5.844mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 9:03:56 AM
3	53.30	5.779mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 9:08:12 AM
4	57.20	6.202mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 9:12:21 AM
5	73.92	8.015mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 9:16:35 AM

Mean Area 52.85
Mean Conc. 5.730mg/L



Sample

Sample Name: 18F0298-06RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

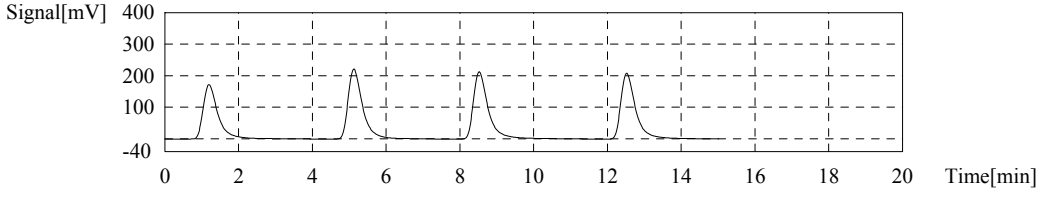
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6505mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	488.1	5293mg/L	50uL	50.00	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 9:28:52 AM
2	609.6	6610mg/L	50uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 9:33:09 AM
3	602.9	6537mg/L	50uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 9:38:36 AM
4	587.3	6368mg/L	50uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 9:43:11 AM

Mean Area 599.9
Mean Conc. 6505mg/L



Sample

Sample Name: BGG0172-DUP4
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

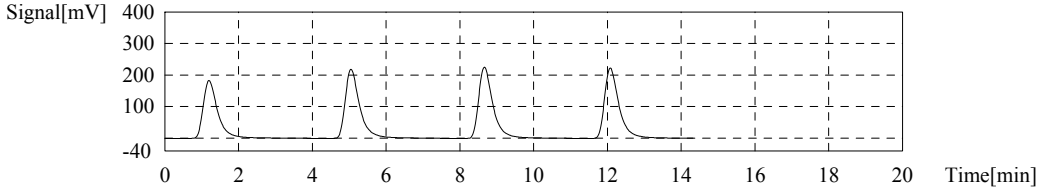
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6623mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	505.5	5481mg/L	50uL	50.00	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 9:55:35 AM
2	603.8	6547mg/L	50uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 10:00:11 AM
3	613.4	6651mg/L	50uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 10:04:49 AM
4	615.2	6671mg/L	50uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 10:09:40 AM

Mean Area 610.8
Mean Conc. 6623mg/L



Sample

Sample Name: 18F0298-06RE2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

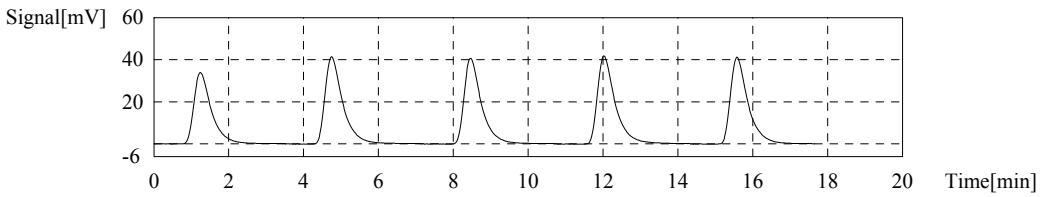
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5758mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	111.4	4646mg/L	13uL	50.00	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 10:21:36 AM
2	138.2	5764mg/L	13uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 10:26:39 AM
3	132.4	5522mg/L	13uL	50.00	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 10:31:20 AM
4	140.1	5843mg/L	13uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 10:36:09 AM
5	135.9	5668mg/L	13uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 10:40:45 AM

Mean Area 138.1
Mean Conc. 5758mg/L



Sample

Sample Name: BGG0172-DUP5
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

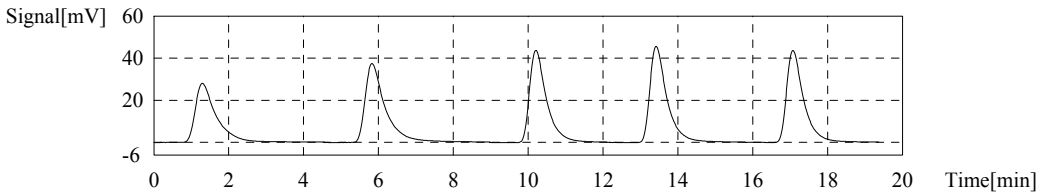
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5868mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	109.9	4583mg/L	13uL	50.00	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 10:53:29 AM
2	142.0	5922mg/L	13uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 10:58:47 AM
3	139.7	5826mg/L	13uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 11:02:52 AM
4	146.7	6118mg/L	13uL	50.00	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 11:08:08 AM
5	140.4	5855mg/L	13uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 11:12:52 AM

Mean Area 140.7
Mean Conc. 5868mg/L



Sample

Sample Name: BGG0172-MS4
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

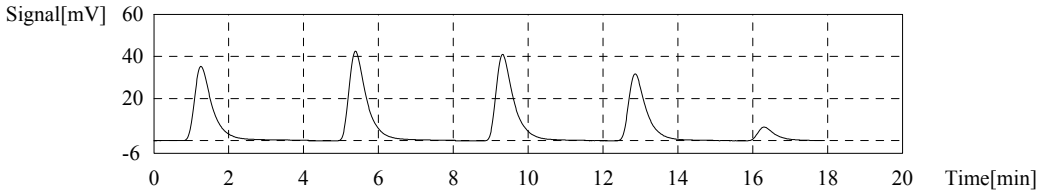
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5524mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	118.5	4942mg/L	13uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 11:25:10 AM
2	142.1	5926mg/L	13uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 11:29:58 AM
3	136.8	5705mg/L	13uL	50.00		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 11:34:25 AM
4	105.3	4391mg/L	13uL	50.00	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 11:39:09 AM
5	21.34	890.0mg/L	13uL	50.00	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 11:43:24 AM

Mean Area 132.5
Mean Conc. 5524mg/L



Sample

Sample Name: BGG0170-MRL2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

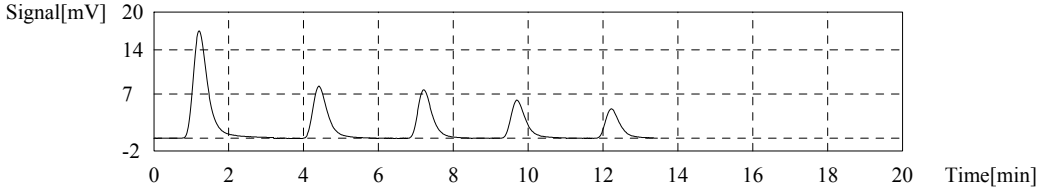
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.196mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	47.38	5.137mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 11:54:20 AM
2	23.28	2.524mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 11:58:07 AM
3	20.80	2.255mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 12:01:36 PM
4	16.67	1.808mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 12:05:25 PM
5	12.82	1.390mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 12:09:06 PM

Mean Area 20.25
Mean Conc. 2.196mg/L



Sample

Sample Name: BGG0170-BLK2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

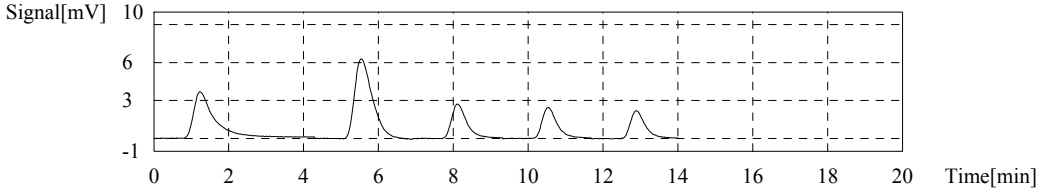
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.7401mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.28	1.548mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 12:21:07 PM
2	21.24	2.303mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 12:24:44 PM
3	7.634	0.8278mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 12:28:18 PM
4	6.767	0.7338mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 12:32:02 PM
5	6.075	0.6587mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 12:35:46 PM

Mean Area 6.825
Mean Conc. 0.7401mg/L



Sample

Sample Name: 18F0330-12RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

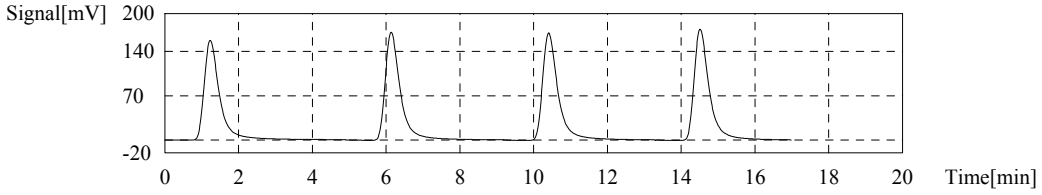
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:54.47mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	469.9	50.95mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 12:48:25 PM
2	497.7	53.97mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 12:53:41 PM
3	500.7	54.29mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 12:58:47 PM
4	508.6	55.15mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 1:03:28 PM

Mean Area 502.3
Mean Conc. 54.47mg/L



Control Sample

Sample Name: SEQ-CCV9
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.83 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.83ppm

TOC-Control L Report

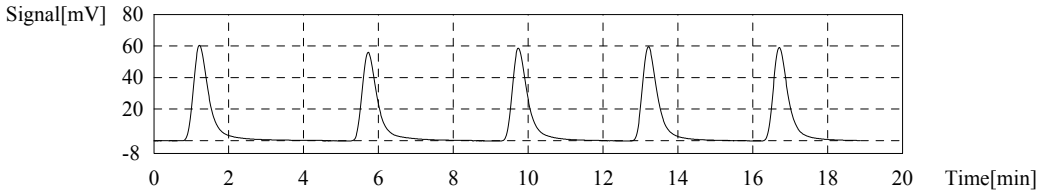
CDE
2018_07_09_001.tlx

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	182.7	19.80ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 1:16:04 PM
2	168.4	18.25ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 1:21:04 PM
3	174.3	18.89ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 1:25:31 PM
4	175.7	19.04ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 1:30:00 PM
5	171.4	18.57ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 1:34:22 PM

Mean Area 173.8
Mean Conc. 18.83ppm



Control Sample

Sample Name: SEQ-CCB9
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.7720 / Control exceeds range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

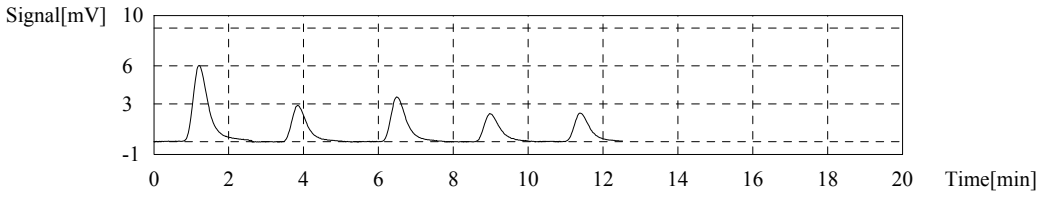
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.7720mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.34	1.868mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 1:44:53 PM
2	8.420	0.9009mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 1:48:31 PM
3	10.35	1.110mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 1:52:00 PM
4	6.697	0.7140mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 1:55:25 PM
5	6.578	0.7011mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal	7/11/2018 1:58:50 PM

Mean Area 7.232
Mean Conc. 0.7720mg/L



Analytical Resources, Incorporated
Analytical Chemists and Consultants

Corrective Actions
Inorganic Analyses

Criteria Flagged:		ARI Job No.:	SGG0144
Unacceptable Blank:	X	Date of Event:	~~6~~ CVA 7-9-18
Unacceptable Duplicate:		Client ID:	
Unacceptable Spike:		Method/Element:	TOC/DOC
Unacceptable Reference:	X	Prep Code:	

Details of Problem/Recommended Corrective Action:

CCV1, CCV6, CCV7 Low
CCB8, CCB9 High.

Samples Affected: All in affected brackets.

Corrective Action Taken: CV= No Data will be reported Not within passing CV Brackets.

CB= Client samples <10x the mrl will be re-analized. Samples with results >10x the Mrl one, likely will be reported due to the possible contamination being insignificant to results.

Analyst Initials: CMC **Supervisor:** W

Date: 7-11-18 **Date:** 7-11-18

5049F

Revision 007
6/11/10

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGG0155	Instrument:	DX2100
		Calibration:	BF00005

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
1	SGG0155-ICV1	adzuData_07112018@172(	NA	07/03/18 20:12
1	SGG0155-ICB1	adzuData_07112018@172(	NA	07/03/18 20:37
1	SGG0155-IFA1	adzuData_07112018@172(	NA	07/03/18 20:56
1	SGG0155-CCV1	adzuData_07112018@172(	NA	07/04/18 00:49
1	SGG0155-CCB1	adzuData_07112018@172(	NA	07/04/18 01:14
1	SGG0155-CCV2	adzuData_07112018@172(	NA	07/04/18 05:16
1	SGG0155-CCB2	adzuData_07112018@172(	NA	07/04/18 05:38
MRL Check	BGG0063-MRL1	adzuData_07112018@172(	Water	07/04/18 08:45
Blank	BGG0063-BLK1	adzuData_07112018@172(	Water	07/04/18 09:02
1	SGG0155-CCV3	adzuData_07112018@172(	NA	07/04/18 09:46
1	SGG0155-CCB3	adzuData_07112018@172(	NA	07/04/18 10:12

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes	Status	Date / Time	Vial
1	Unknown	NPOC	Rinse		NPOC 0.5 -	1.000	NPOC:0.1615mg/L		Completed	7/3/2018 8:01:31 PM	0
2	Control	NPOC	SEQ-ICV1	CVS 20	CVS 20 pp	1.000	NPOC:18.58ppm	Control valu	Completed	7/3/2018 8:21:04 PM	3
3	Control	NPOC	SEQ-ICB1		ICB CCB.tpl	1.000	NPOC:0.1321mg/L	Control valu	Completed	7/3/2018 8:44:52 PM	4
4	Unknown	NPOC	SEQ-IFA1		NPOC 0.5 -	1.000	NPOC:18.52mg/L		Completed	7/3/2018 9:04:36 PM	9
5	Unknown	NPOC	BGG0061-MRL1		NPOC 0.5 -	1.000	NPOC:0.3822mg/L		Completed	7/3/2018 9:29:51 PM	10
6	Unknown	NPOC	BGG0061-BLK1		NPOC 0.5 -	1.000	NPOC:0.1949mg/L		Completed	7/3/2018 9:54:44 PM	11
7	Unknown	NPOC	BGG0061-BS1		NPOC 0.5 -	1.000	NPOC:18.39mg/L		Completed	7/3/2018 10:14:16 P	12
8	Unknown	NPOC	18F0327-06		NPOC 0.5 -	1.000	NPOC:14.19mg/L		Completed	7/3/2018 10:39:57 P	13
9	Unknown	NPOC	BGG0061-DUP1		NPOC 0.5 -	1.000	NPOC:14.36mg/L		Completed	7/3/2018 11:05:23 P	14
10	Unknown	NPOC	BGG0061-MS1		NPOC 0.5 -	1.000	NPOC:33.25mg/L		Completed	7/3/2018 11:27:05 P	15
11	Unknown	NPOC	BGG0062-MRL1		NPOC 0.5 -	1.000	NPOC:0.6815mg/L		Completed	7/3/2018 11:52:28 P	16
12	Unknown	NPOC	BGG0062-BLK1		NPOC 0.5 -	1.000	NPOC:0.3573mg/L		Completed	7/4/2018 12:17:21 A	17
13	Unknown	NPOC	BGG0062-BS1		NPOC 0.5 -	1.000	NPOC:18.51mg/L		Completed	7/4/2018 12:37:19 A	18
14	Control	NPOC	SEQ-CCV1	CVS 20	CVS 20 pp	1.000	NPOC:18.55ppm	Control valu	Completed	7/4/2018 12:57:17 A	3
15	Control	NPOC	SEQ-CCB1		ICB CCB.tpl	1.000	NPOC:0.2056mg/L	Control valu	Completed	7/4/2018 1:21:17 AM	4
16	Unknown	NPOC	18F0218-06		NPOC 0.5 -	1.000	NPOC:4.236mg/L		Completed	7/4/2018 1:43:44 AM	19
17	Unknown	NPOC	BGG0062-DUP1		NPOC 0.5 -	1.000	NPOC:4.133mg/L		Completed	7/4/2018 2:02:13 AM	20
18	Unknown	NPOC	BGG0062-MS1		NPOC 0.5 -	1.000	NPOC:22.31mg/L		Completed	7/4/2018 2:26:42 AM	21
19	Unknown	NPOC	18F0272-05		NPOC 0.5 -	1.000	NPOC:6.064mg/L		Completed	7/4/2018 2:52:58 AM	22
20	Unknown	NPOC	18F0272-15		NPOC 0.5 -	1.000	NPOC:3.364mg/L		Completed	7/4/2018 3:11:07 AM	23
21	Unknown	NPOC	18F0274-02		NPOC 0.5 -	1.000	NPOC:0.8827mg/L		Completed	7/4/2018 3:32:33 AM	24
22	Unknown	NPOC	18F0274-04		NPOC 0.5 -	1.000	NPOC:0.6621mg/L		Completed	7/4/2018 3:57:40 AM	25
23	Unknown	NPOC	18F0274-06		NPOC 0.5 -	1.000	NPOC:9.994mg/L		Completed	7/4/2018 4:20:10 AM	26
24	Unknown	NPOC	18F0274-08		NPOC 0.5 -	1.000	NPOC:9.969mg/L		Completed	7/4/2018 4:46:45 AM	27
25	Unknown	NPOC	18F0274-10		NPOC 0.5 -	1.000	NPOC:10.11mg/L		Completed	7/4/2018 5:05:27 AM	28
26	Control	NPOC	SEQ-CCV2	CVS 20	CVS 20 pp	1.000	NPOC:18.77ppm	Control valu	Completed	7/4/2018 5:25:10 AM	3
27	Control	NPOC	SEQ-CCB2		ICB CCB.tpl	1.000	NPOC:0.2133mg/L	Control valu	Completed	7/4/2018 5:49:05 AM	4
28	Unknown	NPOC	18F0274-14		NPOC 0.5 -	1.000	NPOC:0.4914mg/L		Completed	7/4/2018 6:14:19 AM	29
29	Unknown	NPOC	18F0274-17		NPOC 0.5 -	1.000	NPOC:0.3505mg/L		Completed	7/4/2018 6:39:19 AM	30
30	Unknown	NPOC	18F0309-01		NPOC 0.5 -	1.000	NPOC:14.45mg/L		Completed	7/4/2018 7:00:23 AM	31
31	Unknown	NPOC	18F0310-03		NPOC 0.5 -	1.000	NPOC:5.249mg/L		Completed	7/4/2018 7:23:23 AM	32
32	Unknown	NPOC	18F0311-01		NPOC 0.5 -	1.000	NPOC:9.034mg/L		Completed	7/4/2018 7:43:31 AM	33
33	Unknown	NPOC	18F0312-02		NPOC 0.5 -	1.000	NPOC:13.61mg/L		Completed	7/4/2018 8:03:52 AM	34
34	Unknown	NPOC	18F0328-05		NPOC 0.5 -	1.000	NPOC:7.203mg/L		Completed	7/4/2018 8:27:42 AM	35
35	Unknown	NPOC	BGG0063-MRL1		NPOC 0.5 -	1.000	NPOC:0.3133mg/L		Completed	7/4/2018 8:52:54 AM	36
36	Unknown	NPOC	BGG0063-BLK1		NPOC 0.5 -	1.000	NPOC:0.2216mg/L		Completed	7/4/2018 9:13:59 AM	37
37	Unknown	NPOC	BGG0063-BS1		NPOC 0.5 -	1.000	NPOC:17.95mg/L		Completed	7/4/2018 9:34:29 AM	38
38	Control	NPOC	SEQ-CCV3	CVS 20	CVS 20 pp	1.000	NPOC:18.50ppm	Control valu	Completed	7/4/2018 9:55:06 AM	5
39	Control	NPOC	SEQ-CCB3		ICB CCB.tpl	1.000	NPOC:0.1962mg/L	Control valu	Completed	7/4/2018 10:18:55 A	6

TOC-Control L Report

CDE
2018_07_03_001.tlx

Instr.Information

Instrument Options: TOC/ASI/IC Unit/
Catalyst: Regular Sensitivity

Sample

Sample Name: Rinse
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status: Completed
Chk. Result:

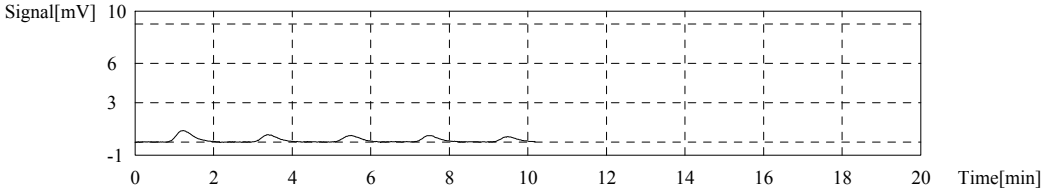
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1615mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.712	0.2934mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 7:47:45 PM
2	1.628	0.1761mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 7:51:09 PM
3	1.506	0.1629mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 7:54:37 PM
4	1.345	0.1455mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 7:58:05 PM
5	1.087	0.1176mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 8:01:31 PM

Mean Area 1.493
Mean Conc. 0.1615mg/L



Control Sample

Sample Name: SEQ-ICV1
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status: Completed
Chk. Result: Control value: 18.58 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

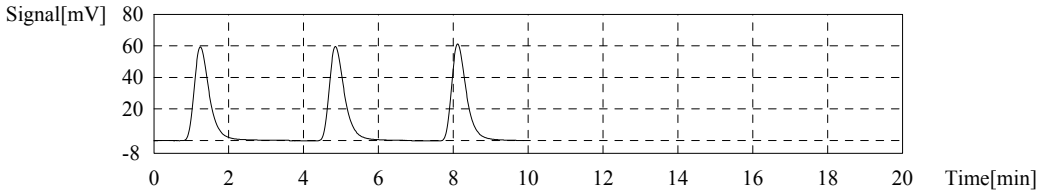
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.58ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	171.3	18.51ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 8:12:50 PM
2	172.7	18.66ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 8:17:05 PM
3	171.7	18.56ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 8:21:04 PM

Mean Area 171.9
Mean Conc. 18.58ppm



Control Sample

Sample Name: SEQ-ICB1
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1321 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

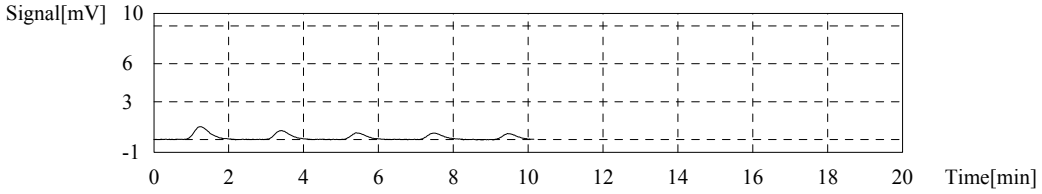
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1321mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.964	0.3040mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 8:31:07 PM
2	1.986	0.1982mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 8:34:29 PM
3	1.453	0.1405mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 8:37:59 PM
4	1.372	0.1318mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 8:41:27 PM
5	1.300	0.1240mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 8:44:52 PM

Mean Area 1.375
Mean Conc. 0.1321mg/L



Sample

Sample Name: SEQ-IFA1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

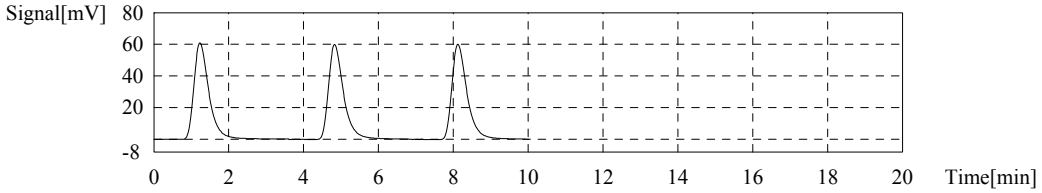
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.52mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	172.2	18.63mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 8:56:13 PM
2	170.0	18.39mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 9:00:30 PM
3	171.4	18.54mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 9:04:36 PM

Mean Area 171.2
Mean Conc. 18.52mg/L



Sample

Sample Name: BGG0061-MRL1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

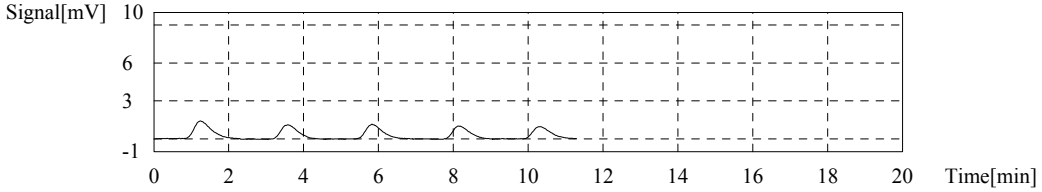
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3822mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.433	0.4795mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 9:14:47 PM
2	3.671	0.3971mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 9:18:33 PM
3	3.641	0.3938mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 9:22:23 PM
4	3.287	0.3556mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 9:25:58 PM
5	3.129	0.3385mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 9:29:51 PM

Mean Area 3.533
Mean Conc. 0.3822mg/L



Sample

Sample Name: BGG0061-BLK1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

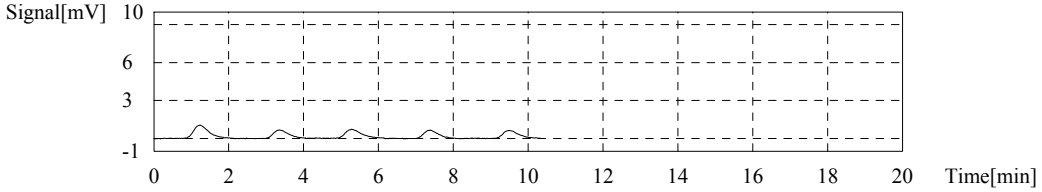
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1949mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.985	0.3229mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 9:39:41 PM
2	1.822	0.1971mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 9:43:15 PM
3	2.020	0.2185mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 9:47:13 PM
4	1.794	0.1941mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 9:51:01 PM
5	1.790	0.1936mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 9:54:44 PM

Mean Area 1.802
Mean Conc. 0.1949mg/L



Sample

Sample Name: BGG0061-BS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

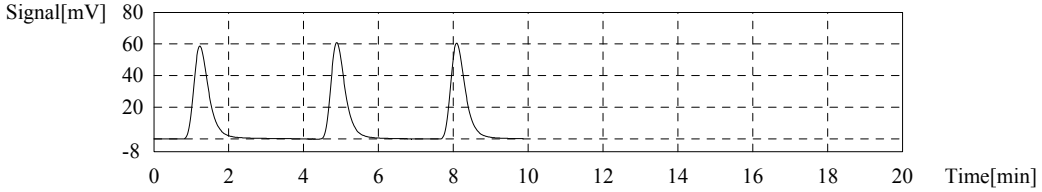
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.39mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	169.7	18.36mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 10:06:06 PM
2	169.6	18.35mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 10:10:17 PM
3	170.6	18.45mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 10:14:16 PM

Mean Area 170.0
Mean Conc. 18.39mg/L



Sample

Sample Name: 18F0327-06
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

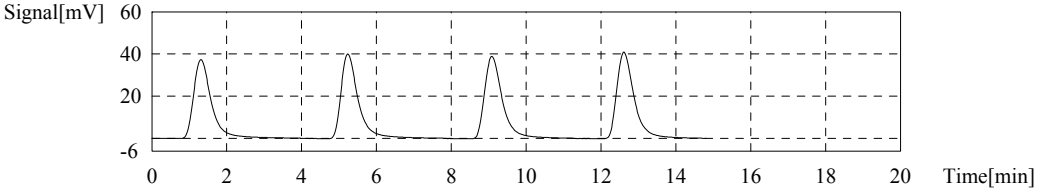
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:14.19mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	124.9	13.51mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 10:26:08 PM
2	129.6	14.02mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 10:30:56 PM
3	130.5	14.12mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 10:35:29 PM
4	133.5	14.44mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 10:39:57 PM

Mean Area 131.2
Mean Conc. 14.19mg/L



Sample

Sample Name: BGG0061-DUP1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

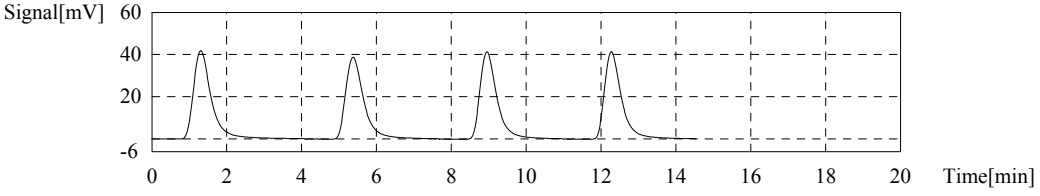
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:14.36mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	140.6	15.21mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 10:51:55 PM
2	132.4	14.32mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 10:56:31 PM
3	132.6	14.34mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 11:00:51 PM
4	133.3	14.42mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 11:05:23 PM

Mean Area 132.8
Mean Conc. 14.36mg/L



Sample

Sample Name: BGG0061-MS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

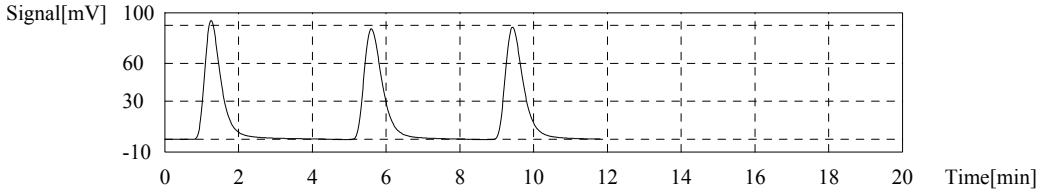
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:33.25mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	300.9	32.55mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 11:17:35 PM
2	311.7	33.72mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 11:22:25 PM
3	309.7	33.50mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 11:27:05 PM

Mean Area 307.4
Mean Conc. 33.25mg/L



Sample

Sample Name: BGG0062-MRL1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

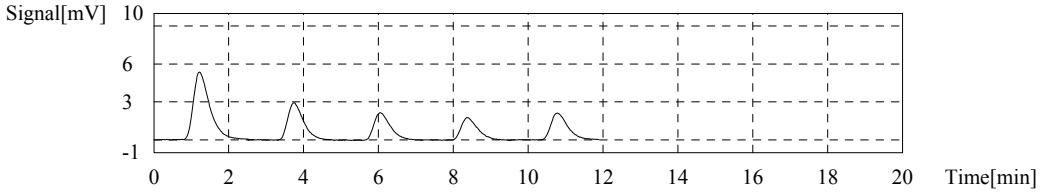
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6815mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	16.23	1.756mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 11:37:30 PM
2	8.648	0.9354mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 11:41:04 PM
3	6.755	0.7307mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 11:44:53 PM
4	5.608	0.6066mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 11:48:43 PM
5	6.537	0.7071mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/3/2018 11:52:28 PM

Mean Area 6.300
Mean Conc. 0.6815mg/L



Sample

Sample Name: BGG0062-BLK1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

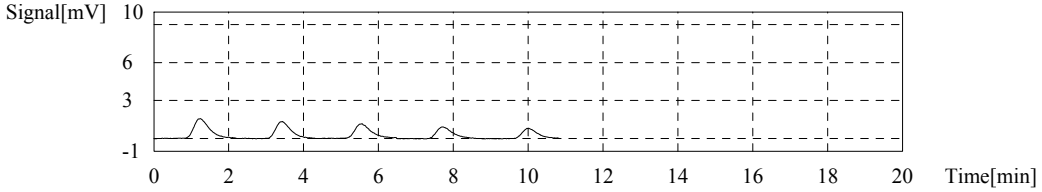
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3573mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.444	0.4807mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 12:02:23 AM
2	3.685	0.3986mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 12:06:04 AM
3	3.295	0.3564mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 12:09:56 AM
4	2.929	0.3168mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 12:13:50 AM
5	2.195	0.2374mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 12:17:21 AM

Mean Area 3.303
Mean Conc. 0.3573mg/L



Sample

Sample Name: BGG0062-BS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

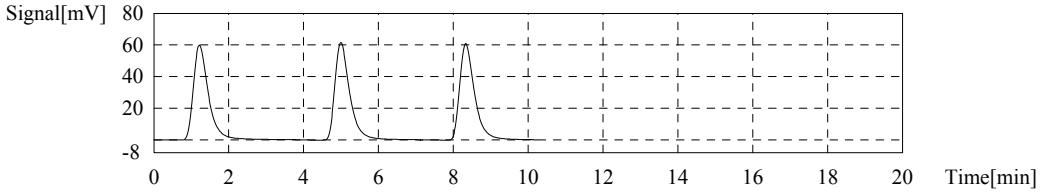
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.51mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	170.5	18.44mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 12:28:51 AM
2	172.4	18.65mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 12:33:11 AM
3	170.5	18.44mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 12:37:19 AM

Mean Area 171.1
Mean Conc. 18.51mg/L



Control Sample

Sample Name: SEQ-CCV1
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.55 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

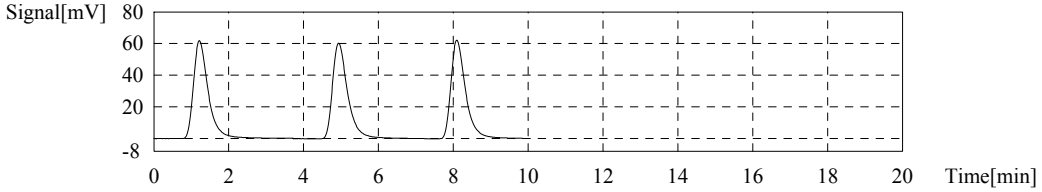
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.55ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	172.0	18.59ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 12:49:02 AM
2	171.4	18.52ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 12:53:12 AM
3	171.5	18.53ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 12:57:17 AM

Mean Area 171.6
Mean Conc. 18.55ppm



Control Sample

Sample Name: SEQ-CCB1
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.2056 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

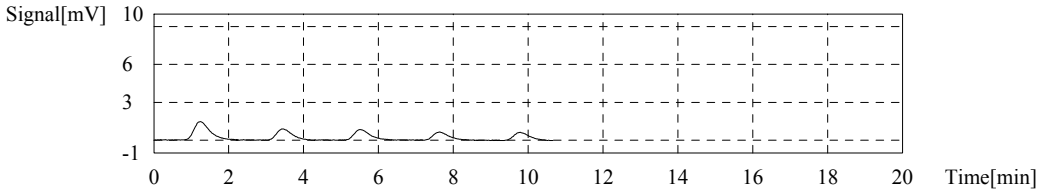
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.2056mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.235	0.4415mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 1:07:24 AM
2	2.595	0.2641mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 1:10:45 AM
3	2.403	0.2433mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 1:14:18 AM
4	1.850	0.1835mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 1:17:50 AM
5	1.912	0.1902mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 1:21:17 AM

Mean Area 2.055
Mean Conc. 0.2056mg/L



Sample

Sample Name: 18F0218-06
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

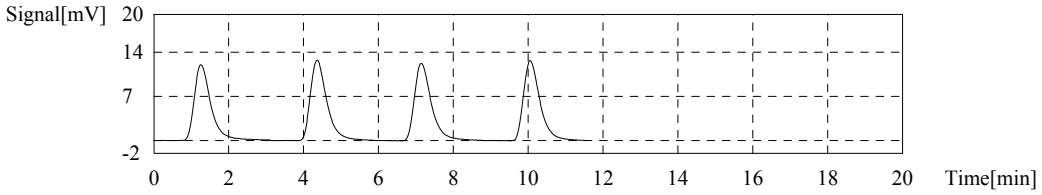
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.236mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	37.06	4.009mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 1:32:15 AM
2	39.42	4.264mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 1:36:02 AM
3	38.81	4.198mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 1:39:57 AM
4	39.26	4.247mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 1:43:44 AM

Mean Area 39.16
Mean Conc. 4.236mg/L



Sample

Sample Name: BGG0062-DUP1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

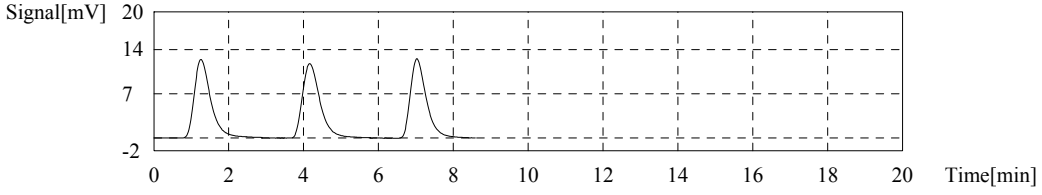
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.133mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	38.24	4.136mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 1:54:31 AM
2	38.67	4.183mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 1:58:25 AM
3	37.72	4.080mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 2:02:13 AM

Mean Area 38.21
Mean Conc. 4.133mg/L



Sample

Sample Name: BGG0062-MS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

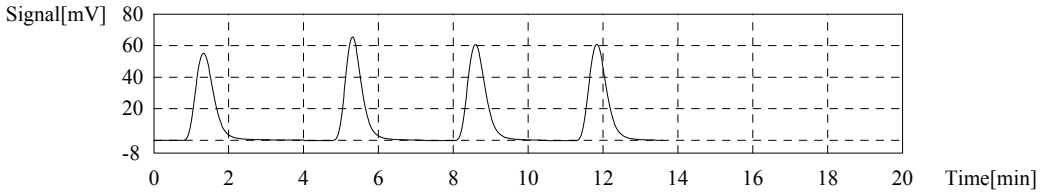
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:22.31mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	191.9	20.76mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 2:14:07 AM
2	205.5	22.23mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 2:18:23 AM
3	206.6	22.35mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 2:22:37 AM
4	206.6	22.35mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 2:26:42 AM

Mean Area 206.2
Mean Conc. 22.31mg/L



Sample

Sample Name: 18F0272-05
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

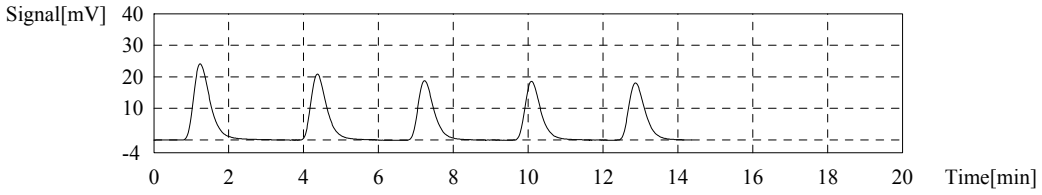
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.064mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	75.96	8.217mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 2:37:44 AM
2	62.75	6.788mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 2:41:36 AM
3	56.87	6.152mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 2:45:27 AM
4	55.36	5.988mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 2:49:13 AM
5	55.96	6.053mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 2:52:58 AM

Mean Area 56.06
Mean Conc. 6.064mg/L



Sample

Sample Name: 18F0272-15
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

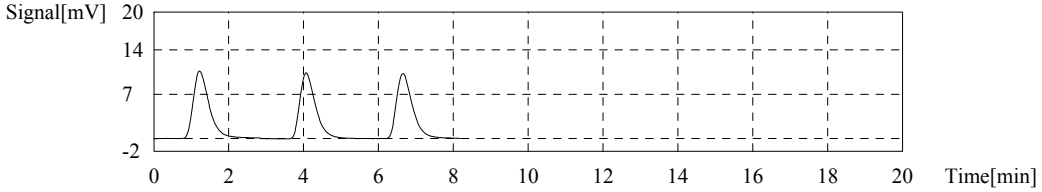
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.364mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	31.69	3.428mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 3:03:36 AM
2	30.65	3.315mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 3:07:11 AM
3	30.95	3.348mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 3:11:07 AM

Mean Area 31.10
Mean Conc. 3.364mg/L



Sample

Sample Name: 18F0274-02
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

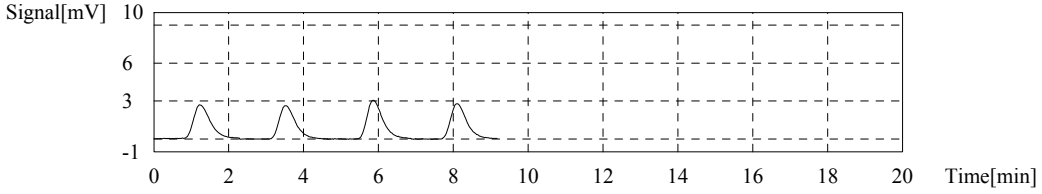
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8827mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.163	0.8830mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 3:21:11 AM
2	8.010	0.8664mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 3:25:02 AM
3	8.916	0.9644mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 3:28:42 AM
4	8.307	0.8986mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 3:32:33 AM

Mean Area 8.160
Mean Conc. 0.8827mg/L



Sample

Sample Name: 18F0274-04
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

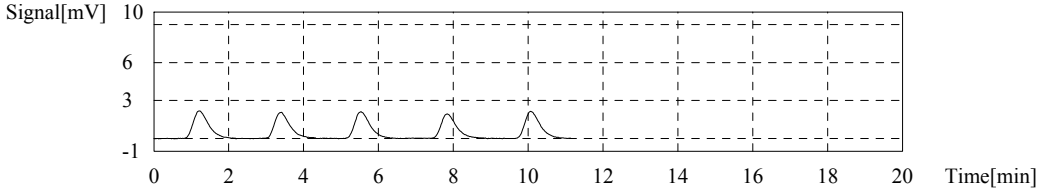
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6621mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.251	0.6762mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 3:42:27 AM
2	5.710	0.6176mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 3:46:11 AM
3	6.020	0.6512mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 3:50:09 AM
4	5.393	0.5834mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 3:53:51 AM
5	6.093	0.6591mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 3:57:40 AM

Mean Area 6.121
Mean Conc. 0.6621mg/L



Sample

Sample Name: 18F0274-06
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

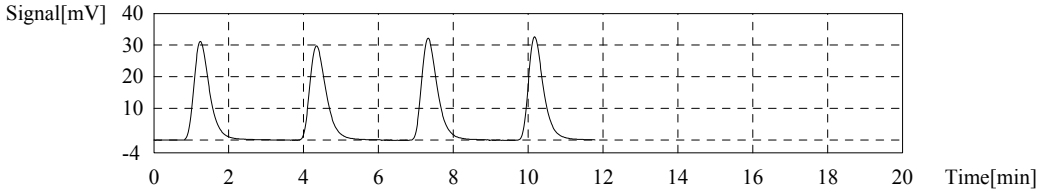
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.994mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	91.67	9.916mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 4:08:29 AM
2	92.13	9.966mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 4:12:28 AM
3	96.33	10.42mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 4:16:20 AM
4	93.37	10.10mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 4:20:10 AM

Mean Area 92.39
Mean Conc. 9.994mg/L



Sample

Sample Name: 18F0274-08
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

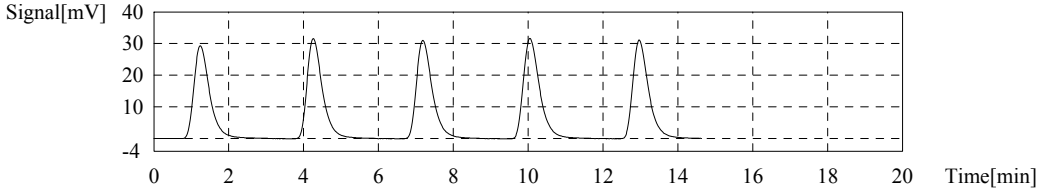
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.969mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	86.71	9.379mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 4:31:06 AM
2	91.31	9.877mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 4:35:02 AM
3	92.74	10.03mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 4:38:55 AM
4	97.19	10.51mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 4:42:50 AM
5	92.44	9.999mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 4:46:45 AM

Mean Area 92.16
Mean Conc. 9.969mg/L



Sample

Sample Name: 18F0274-10
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

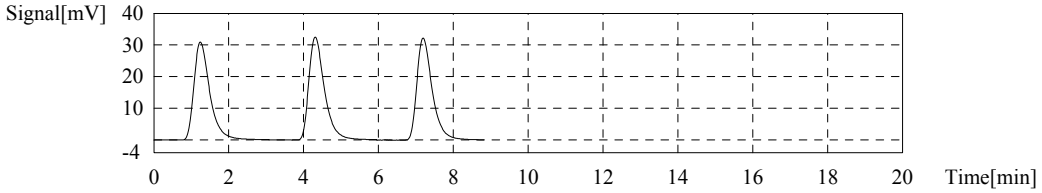
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:10.11mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	92.25	9.979mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 4:57:44 AM
2	95.24	10.30mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 5:01:36 AM
3	92.92	10.05mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 5:05:27 AM

Mean Area 93.47
Mean Conc. 10.11mg/L



Control Sample

Sample Name: SEQ-CCV2
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.77 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

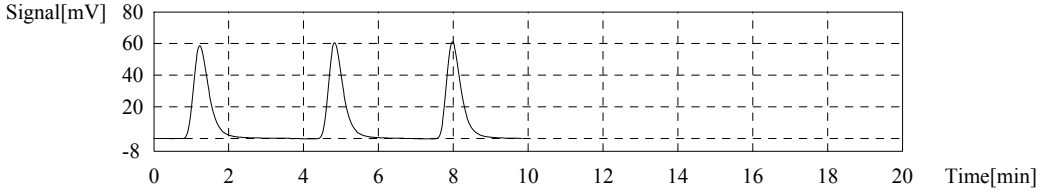
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.77ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	174.6	18.87ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 5:16:58 AM
2	172.5	18.64ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 5:21:07 AM
3	173.9	18.79ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 5:25:10 AM

Mean Area 173.7
Mean Conc. 18.77ppm



Control Sample

Sample Name: SEQ-CCB2
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.2133 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

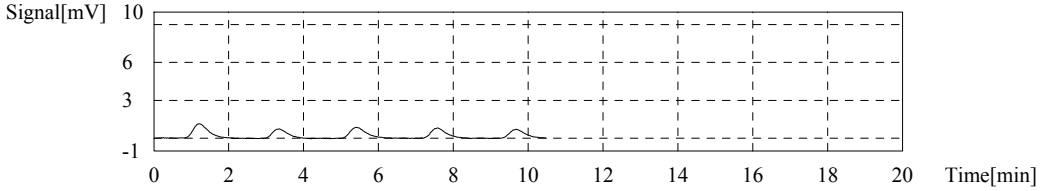
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.2133mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.133	0.3222mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 5:35:10 AM
2	2.074	0.2077mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 5:38:36 AM
3	2.621	0.2669mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 5:42:12 AM
4	2.303	0.2325mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 5:45:38 AM
5	2.001	0.1998mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 5:49:05 AM

Mean Area 2.126
Mean Conc. 0.2133mg/L



Sample

Sample Name: 18F0274-14
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

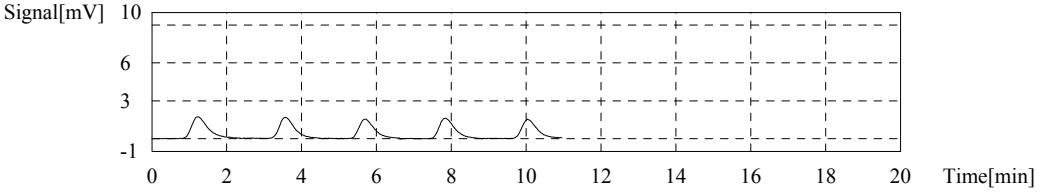
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4914mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.127	0.5546mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 5:59:25 AM
2	4.644	0.5023mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 6:02:59 AM
3	4.274	0.4623mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 6:06:46 AM
4	4.710	0.5095mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 6:10:38 AM
5	4.139	0.4477mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 6:14:19 AM

Mean Area 4.543
Mean Conc. 0.4914mg/L



Sample

Sample Name: 18F0274-17
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

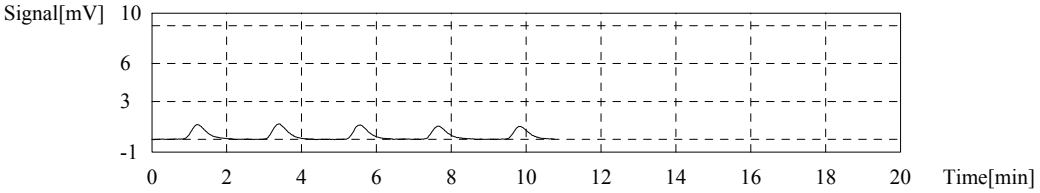
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3505mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.195	0.3456mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 6:24:13 AM
2	3.365	0.3640mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 6:28:00 AM
3	3.160	0.3418mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 6:31:43 AM
4	2.868	0.3102mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 6:35:35 AM
5	2.761	0.2987mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 6:39:19 AM

Mean Area 3.240
Mean Conc. 0.3505mg/L



Sample

Sample Name: 18F0309-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

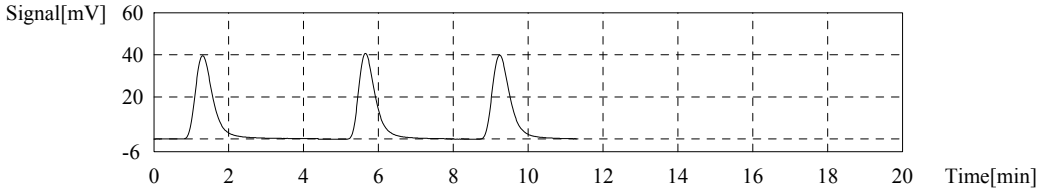
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:14.45mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	133.9	14.48mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 6:51:26 AM
2	131.1	14.18mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 6:55:59 AM
3	135.7	14.68mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 7:00:23 AM

Mean Area 133.6
Mean Conc. 14.45mg/L



Sample

Sample Name: 18F0310-03
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

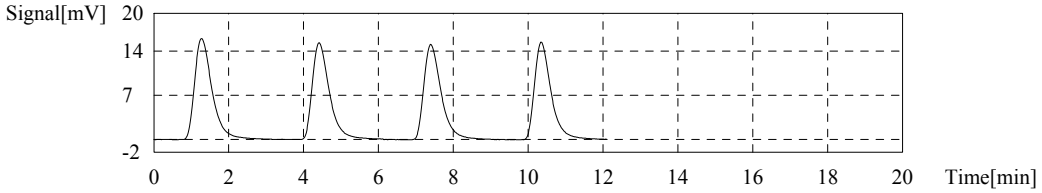
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.249mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	52.50	5.679mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 7:11:27 AM
2	48.80	5.279mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 7:15:26 AM
3	48.77	5.275mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 7:19:23 AM
4	48.00	5.192mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 7:23:23 AM

Mean Area 48.52
Mean Conc. 5.249mg/L



Sample

Sample Name: 18F0311-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

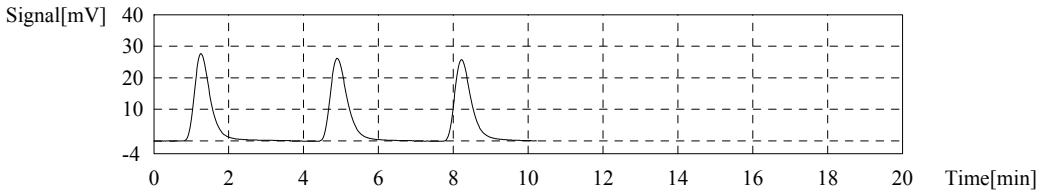
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.034mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	83.70	9.054mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 7:34:56 AM
2	85.08	9.203mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 7:39:15 AM
3	81.76	8.844mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 7:43:31 AM

Mean Area 83.51
Mean Conc. 9.034mg/L



Sample

Sample Name: 18F0312-02
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

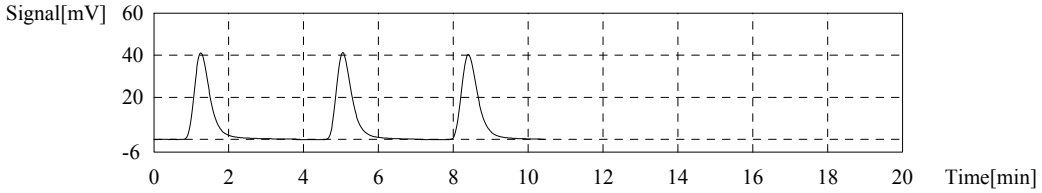
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:13.61mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	125.0	13.52mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 7:55:14 AM
2	124.2	13.43mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 7:59:34 AM
3	128.3	13.88mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 8:03:52 AM

Mean Area 125.8
Mean Conc. 13.61mg/L



Sample

Sample Name: 18F0328-05
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

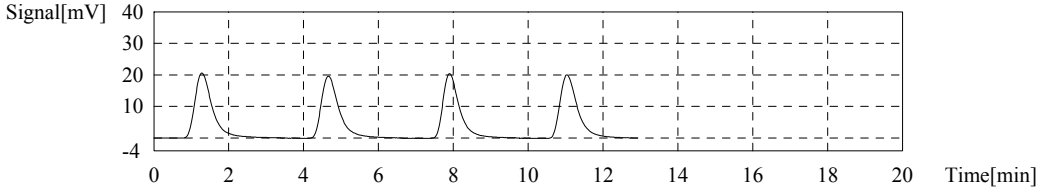
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7.203mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	67.81	7.335mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 8:15:10 AM
2	65.45	7.080mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 8:19:26 AM
3	63.64	6.884mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 8:23:33 AM
4	66.50	7.193mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 8:27:42 AM

Mean Area 66.59
Mean Conc. 7.203mg/L



Sample

Sample Name: BGG0063-MRL1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

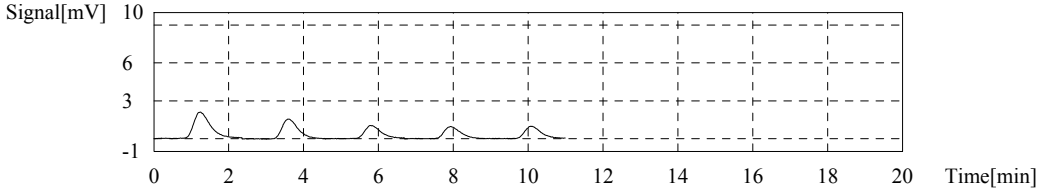
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3133mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.308	0.6823mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 8:37:58 AM
2	4.676	0.5058mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 8:41:37 AM
3	2.980	0.3223mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 8:45:18 AM
4	2.876	0.3111mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 8:49:07 AM
5	2.834	0.3066mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 8:52:54 AM

Mean Area 2.897
Mean Conc. 0.3133mg/L



Sample

Sample Name: BGG0063-BLK1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

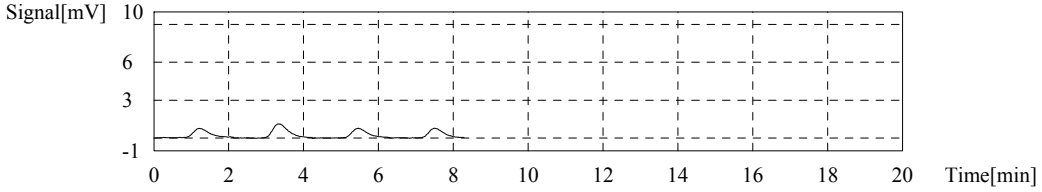
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2216mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.003	0.2167mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 9:02:45 AM
2	3.177	0.3437mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 9:06:32 AM
3	2.109	0.2281mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 9:10:15 AM
4	2.034	0.2200mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 9:13:59 AM

Mean Area 2.049
Mean Conc. 0.2216mg/L



Sample

Sample Name: BGG0063-BS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

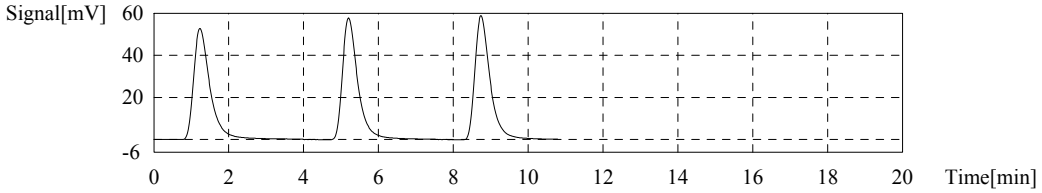
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:17.95mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	162.4	17.57mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 9:25:42 AM
2	166.7	18.03mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 9:30:14 AM
3	168.6	18.24mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 9:34:29 AM

Mean Area 165.9
Mean Conc. 17.95mg/L



Control Sample

Sample Name: SEQ-CCV3
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.50 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

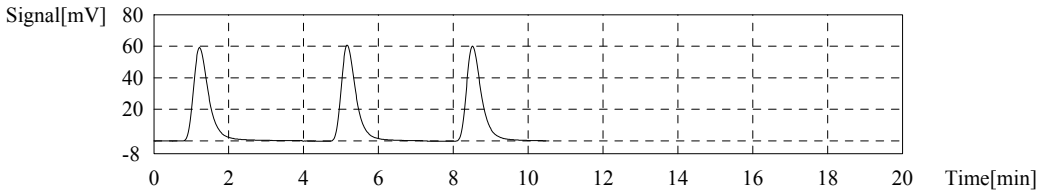
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.50ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	172.5	18.64ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 9:46:30 AM
2	169.9	18.36ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 9:50:52 AM
3	171.2	18.50ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 9:55:06 AM

Mean Area 171.2
Mean Conc. 18.50ppm



Control Sample

Sample Name: SEQ-CCB3
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1962 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

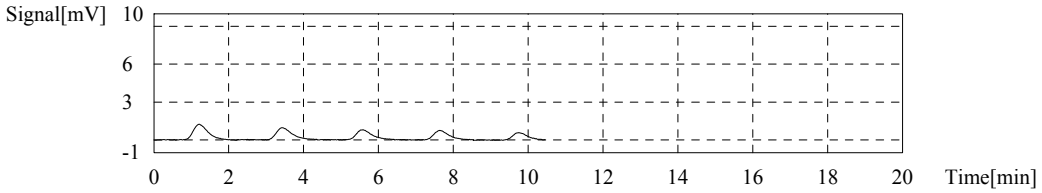
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1962mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.527	0.3649mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 10:05:13 AM
2	2.717	0.2773mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 10:08:38 AM
3	2.230	0.2246mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 10:12:05 AM
4	2.055	0.2056mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 10:15:37 AM
5	1.618	0.1584mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_06_28_16_32_04.cal	7/4/2018 10:18:55 AM

Mean Area 1.968
Mean Conc. 0.1962mg/L



ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGG0219	Instrument:	TOC-LCSH
		Calibration:	BG00049

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
1	SGG0219-CAL1	dzuData_07162018@121'	NA	07/12/18 13:13
10	SGG0219-CAL2	dzuData_07162018@121'	NA	07/12/18 13:39
5	SGG0219-CAL3	dzuData_07162018@121'	NA	07/12/18 14:09
2	SGG0219-CAL4	dzuData_07162018@121'	NA	07/12/18 14:25
1	SGG0219-CAL5	dzuData_07162018@121'	NA	07/12/18 14:41
5	SGG0219-CAL6	dzuData_07162018@121'	NA	07/12/18 15:00
2	SGG0219-CAL7	dzuData_07162018@121'	NA	07/12/18 15:18
1	SGG0219-CAL8	dzuData_07162018@121'	NA	07/12/18 15:42
1	SGG0219-ICV1	dzuData_07162018@121'	NA	07/12/18 16:18
1	SGG0219-ICB1	dzuData_07162018@121'	NA	07/12/18 16:41
LDW18-SP-01	18F0248-01RE2	dzuData_07162018@121'	Water	07/13/18 03:19
LDW18-SP-45	18F0248-02RE2	dzuData_07162018@121'	Water	07/13/18 03:38
LDW18-SP-47	18F0248-03RE2	dzuData_07162018@121'	Water	07/13/18 03:56
LDW18-SP-66	18F0248-04RE2	dzuData_07162018@121'	Water	07/13/18 04:14
LDW18-SP-70	18F0248-05RE2	dzuData_07162018@121'	Water	07/13/18 04:36
LDW18-SP-83	18F0248-06RE2	dzuData_07162018@121'	Water	07/13/18 04:58
LDW18-SP-86	18F0248-07RE2	dzuData_07162018@121'	Water	07/13/18 05:24
LDW18-SP-88	18F0248-08RE2	dzuData_07162018@121'	Water	07/13/18 05:45

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes	Status	Date / Time	Vial
1	Unknown	NPOC	Rinse		NPOC 0.5 -	1.000	NPOC:0.3433mg/L		Completed	7/12/2018 1:05:33 P	0
2	Standard	NPOC	SEQ-CAL	Curve	NPOC 0.5 -	1.000			Completed	7/12/2018 3:55:26 P	0, 1, 1, 1, 1,
3	Control	NPOC	SEQ-ICV1	CVS 20	CVS 20 pp	1.000	NPOC:19.83ppm	Control valu	Completed	7/12/2018 4:27:27 P	3
4	Control	NPOC	SEQ-ICB1		ICB CCB.tpl	1.000	NPOC:0.3873mg/L	Control valu	Completed	7/12/2018 4:51:26 P	4
5	Unknown	NPOC	SEQ-IFA1		NPOC 0.5 -	1.000	NPOC:19.67mg/L		Completed	7/12/2018 5:18:40 P	9
6	Unknown	NPOC	BGG0063-BS2DO		NPOC 0.5 -	1.000	NPOC:19.07mg/L		Completed	7/12/2018 5:40:46 P	10
7	Unknown	NPOC	BGG0063-DUP3D		NPOC 0.5 -	1.000	NPOC:1.373mg/L		Completed	7/12/2018 6:06:23 P	11
8	Unknown	NPOC	BGG0063-MS3DO		NPOC 0.5 -	1.000	NPOC:19.03mg/L		Completed	7/12/2018 6:33:46 P	12
9	Unknown	NPOC	18F0226-03RE2D		NPOC 0.5 -	1.000	NPOC:2.855mg/L		Completed	7/12/2018 7:00:20 P	13
10	Unknown	NPOC	18F0226-04RE2D		NPOC 0.5 -	1.000	NPOC:2.229mg/L		Completed	7/12/2018 7:26:38 P	14
11	Unknown	NPOC	18F0226-05RE2D		NPOC 0.5 -	1.000	NPOC:3.923mg/L		Completed	7/12/2018 7:46:31 P	15
12	Unknown	NPOC	18F0226-06RE2D		NPOC 0.5 -	1.000	NPOC:1.540mg/L		Completed	7/12/2018 8:12:16 P	16
13	Unknown	NPOC	18F0226-07RE2D		NPOC 0.5 -	1.000	NPOC:1.738mg/L		Completed	7/12/2018 8:38:22 P	17
14	Unknown	NPOC	18F0226-08RE2D		NPOC 0.5 -	1.000	NPOC:1.357mg/L		Completed	7/12/2018 9:04:12 P	18
15	Control	NPOC	SEQ-CCV1	CVS 20	CVS 20 pp	1.000	NPOC:17.75ppm	Control valu	Completed	7/12/2018 9:36:56 P	3
16	Control	NPOC	SEQ-CCB1		ICB CCB.tpl	1.000	NPOC:0.1702mg/L	Control valu	Completed	7/12/2018 10:00:58	4
17	Unknown	NPOC	18F0226-09RE2D		NPOC 0.5 -	1.000	NPOC:1.041mg/L		Completed	7/12/2018 10:26:26	19
18	Unknown	NPOC	18F0226-01RE2		NPOC 0.5 -	1.000	NPOC:1.309mg/L		Completed	7/12/2018 10:48:36	20
19	Unknown	NPOC	18F0226-02RE3		NPOC 0.5 -	1.000	NPOC:1.288mg/L		Completed	7/12/2018 11:06:59	21
20	Unknown	NPOC	18F0226-03RE2		NPOC 0.5 -	1.000	NPOC:2.986mg/L		Completed	7/12/2018 11:33:30	22
21	Unknown	NPOC	18F0226-04RE2		NPOC 0.5 -	1.000	NPOC:2.102mg/L		Completed	7/12/2018 11:58:52	23
22	Unknown	NPOC	18F0226-05RE2		NPOC 0.5 -	1.000	NPOC:5.141mg/L		Completed	7/13/2018 12:26:58	24
23	Unknown	NPOC	18F0226-06RE2		NPOC 0.5 -	1.000	NPOC:2.013mg/L		Completed	7/13/2018 12:52:23	25
24	Unknown	NPOC	18F0226-07RE2		NPOC 0.5 -	1.000	NPOC:0.06586mg/		Completed	7/13/2018 1:17:16 A	26
25	Unknown	NPOC	18F0226-08RE2		NPOC 0.5 -	1.000	NPOC:1.507mg/L		Completed	7/13/2018 1:42:47 A	27
26	Unknown	NPOC	18F0226-09RE2		NPOC 0.5 -	1.000	NPOC:1.223mg/L		Completed	7/13/2018 2:07:59 A	28
27	Control	NPOC	SEQ-CCV2	CVS 20	CVS 20 pp	1.000	NPOC:17.21ppm	Control valu	Completed	7/13/2018 2:40:28 A	3
28	Control	NPOC	SEQ-CCB2		ICB CCB.tpl	1.000	NPOC:-0.09477mg/	Control valu	Completed	7/13/2018 3:04:51 A	4
29	Unknown	NPOC	18F0248-01RE2		NPOC 0.5 -	1.000	NPOC:1.703mg/L		Completed	7/13/2018 3:27:21 A	29
30	Unknown	NPOC	18F0248-02RE2		NPOC 0.5 -	1.000	NPOC:1.692mg/L		Completed	7/13/2018 3:45:37 A	30
31	Unknown	NPOC	18F0248-03RE2		NPOC 0.5 -	1.000	NPOC:1.509mg/L		Completed	7/13/2018 4:03:53 A	31
32	Unknown	NPOC	18F0248-04RE2		NPOC 0.5 -	1.000	NPOC:1.369mg/L		Completed	7/13/2018 4:21:56 A	32
33	Unknown	NPOC	18F0248-05RE2		NPOC 0.5 -	1.000	NPOC:0.8963mg/L		Completed	7/13/2018 4:47:33 A	33
34	Unknown	NPOC	18F0248-06RE2		NPOC 0.5 -	1.000	NPOC:1.183mg/L		Completed	7/13/2018 5:09:29 A	34
35	Unknown	NPOC	18F0248-07RE2		NPOC 0.5 -	1.000	NPOC:1.447mg/L		Completed	7/13/2018 5:35:23 A	35
36	Unknown	NPOC	18F0248-08RE2		NPOC 0.5 -	1.000	NPOC:1.091mg/L		Completed	7/13/2018 6:01:29 A	36
37	Unknown	NPOC	18F0218-05RE1		NPOC 0.5 -	1.000	NPOC:4.125mg/L		Completed	7/13/2018 6:27:40 A	37
38	Unknown	NPOC	BGG0064-MRL2		NPOC 0.5 -	1.000	NPOC:0.8234mg/L		Completed	7/13/2018 6:53:26 A	38
39	Control	NPOC	SEQ-CCV3	CVS 20	CVS 20 pp	1.000	NPOC:14.00ppm	Control valu	Completed	7/13/2018 7:28:21 A	5
40	Control	NPOC	SEQ-CCB3		ICB CCB.tpl	1.000	NPOC:1.127mg/L	Control valu	Completed	7/13/2018 7:56:50 A	6

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes	Status	Date / Time	Vial
41	Unknown	NPOC	BGG0064-BLK2		NPOC 0.5 -	1.000	NPOC:0.8628mg/L		Completed	7/13/2018 8:22:56 A	39
42	Unknown	NPOC	BGG0064-BS2		NPOC 0.5 -	1.000	NPOC:14.42mg/L		Completed	7/13/2018 8:56:57 A	40
43	Unknown	NPOC	BGG0064-DUP2		NPOC 0.5 -	1.000	NPOC:5.271mg/L		Completed	7/13/2018 9:28:02 A	41
44	Unknown	NPOC	BGG0064-MS2		NPOC 0.5 -	1.000	NPOC:4.618mg/L		Completed	7/13/2018 9:58:55 A	42
45	Control	NPOC	SEQ-CCV4	CVS 20	CVS 20 pp	1.000	NPOC:20.94ppm	Control valu	Completed	7/13/2018 10:21:08	5
46	Control	NPOC	SEQ-CCB4		ICB CCB.tpl	1.000	NPOC:-0.09126mg/	Control valu	Completed	7/13/2018 10:45:26	6
47	Unknown	NPOC	18F0272-07RE1		NPOC 0.5 -	1.000	NPOC:8.059mg/L		Completed	7/13/2018 11:04:30	43
48	Unknown	NPOC	18F0272-14RE1		NPOC 0.5 -	1.000	NPOC:3.783mg/L		Completed	7/13/2018 11:26:32	44
49	Control	NPOC	SEQ-CCV5	CVS 20	CVS 20 pp	1.000	NPOC:22.70ppm	Control valu	Completed	7/13/2018 11:55:25	5
50	Control	NPOC	SEQ-CCB5		ICB CCB.tpl	1.000	NPOC:0.06409mg/	Control valu	Completed	7/13/2018 12:19:29	6
51	Control	NPOC	SEQ-CCV6	CVS 20	CVS 20 pp	1.000	NPOC:22.89ppm	Control valu	Completed	7/13/2018 12:43:26	7

TOC-Control L Report

CDE
2018_07_13_001.tlx

Instr.Information

Instrument Options: TOC/ASI/IC Unit/
Catalyst: Regular Sensitivity

Sample

Sample Name: Rinse
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status: Completed
Chk. Result

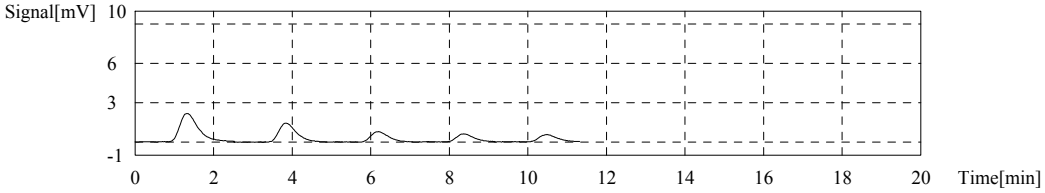
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2375mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.954	0.8329mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_12_13_05_33.cal	7/13/2018 1:41:09 PM
2	4.496	0.5385mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_12_13_05_33.cal	7/13/2018 1:44:30 PM
3	2.409	0.2885mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_12_13_05_33.cal	7/13/2018 1:47:50 PM
4	1.803	0.2160mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_12_13_05_33.cal	7/13/2018 1:51:13 PM
5	1.736	0.2079mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_12_13_05_33.cal	7/13/2018 1:54:48 PM

Mean Area 1.983
Mean Conc. 0.2375mg/L



Sample

Sample Name: Rinse
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status: Completed
Chk. Result

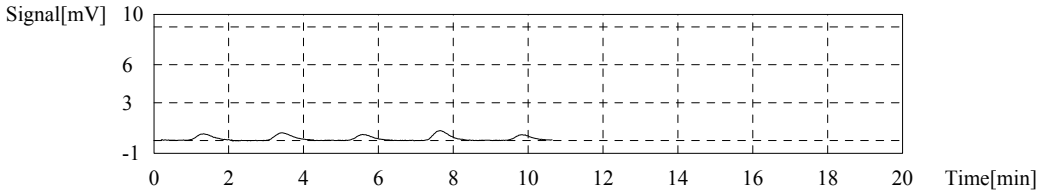
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1651mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.521	0.1822mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_12_13_05_33.cal	7/13/2018 2:02:29 PM
2	1.866	0.2235mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_12_13_05_33.cal	7/13/2018 2:06:05 PM
3	1.342	0.1607mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_12_13_05_33.cal	7/13/2018 2:09:30 PM
4	2.311	0.2768mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_12_13_05_33.cal	7/13/2018 2:13:04 PM
5	1.273	0.1525mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_12_13_05_33.cal	7/13/2018 2:16:30 PM

Mean Area 1.379
Mean Conc. 0.1651mg/L



Cal. Curve

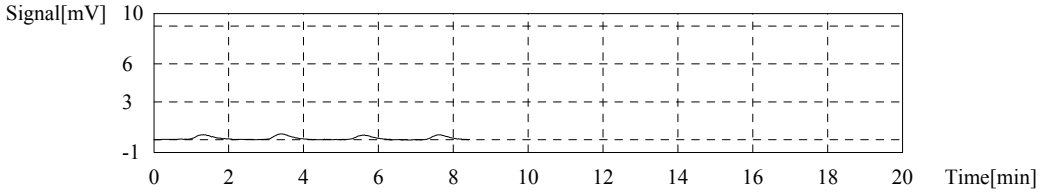
Sample Name: SEQ-CAL
Sample ID: Curve
Cal. Curve: NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal
Status Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1.051	100uL	1.000	*******		7/13/2018 2:24:11 PM
2	1.325	100uL	1.000	*******	E	7/13/2018 2:27:48 PM
3	1.021	100uL	1.000	*******		7/13/2018 2:31:07 PM
4	1.118	100uL	1.000	*******		7/13/2018 2:34:44 PM

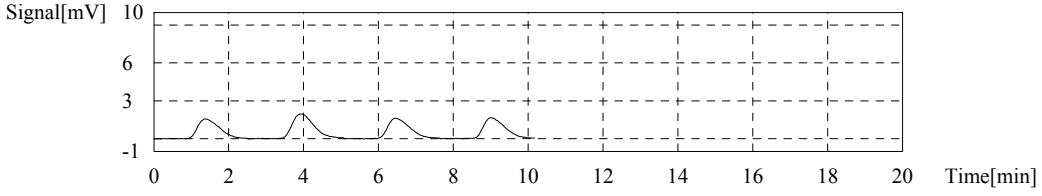
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 1.063



Conc: 0.5000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	6.219	100uL	10.00	*******		7/13/2018 2:45:27 PM
2	7.692	100uL	10.00	*******	E	7/13/2018 2:50:22 PM
3	6.343	100uL	10.00	*******		7/13/2018 2:55:13 PM
4	6.394	100uL	10.00	*******		7/13/2018 3:00:04 PM

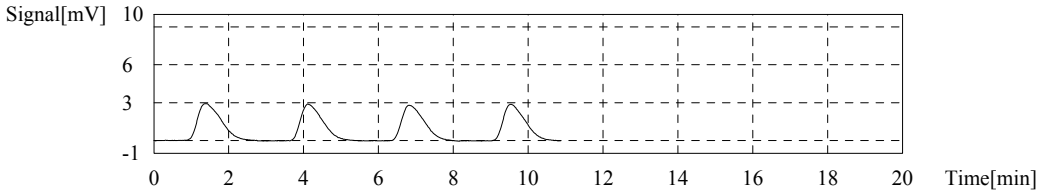
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 6.319



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	12.64	100uL	5.000	*******	E	7/13/2018 3:09:10 PM
2	11.89	100uL	5.000	*******		7/13/2018 3:12:51 PM
3	11.82	100uL	5.000	*******		7/13/2018 3:16:33 PM
4	11.88	100uL	5.000	*******		7/13/2018 3:20:14 PM

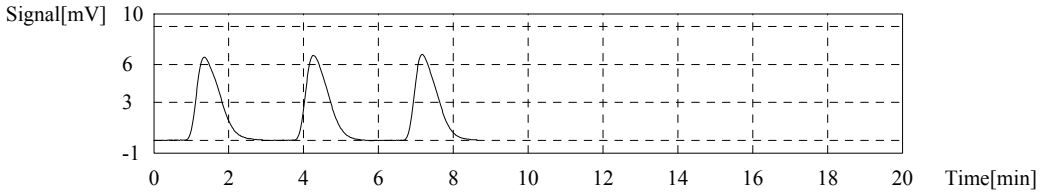
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 11.86



Conc: 2.500mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	28.04	100uL	2.000	*******		7/13/2018 3:29:39 PM
2	28.03	100uL	2.000	*******		7/13/2018 3:33:33 PM
3	27.98	100uL	2.000	*******		7/13/2018 3:37:21 PM

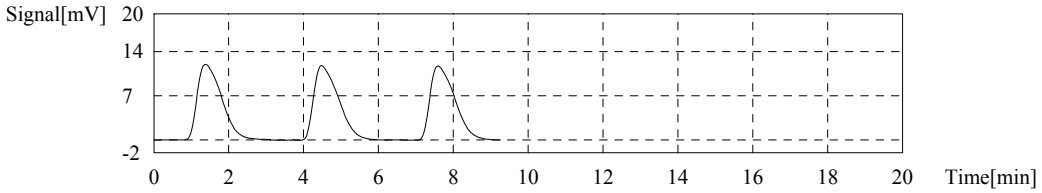
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 28.02



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	54.55	100uL	1.000	*******		7/13/2018 3:46:21 PM
2	54.68	100uL	1.000	*******		7/13/2018 3:50:27 PM
3	54.38	100uL	1.000	*******		7/13/2018 3:54:28 PM

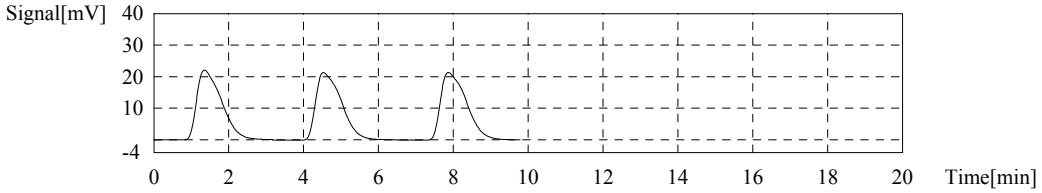
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 54.54



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	102.1	100uL	5.000	*******		7/13/2018 4:06:08 PM
2	102.0	100uL	5.000	*******		7/13/2018 4:10:27 PM
3	103.4	100uL	5.000	*******		7/13/2018 4:14:43 PM

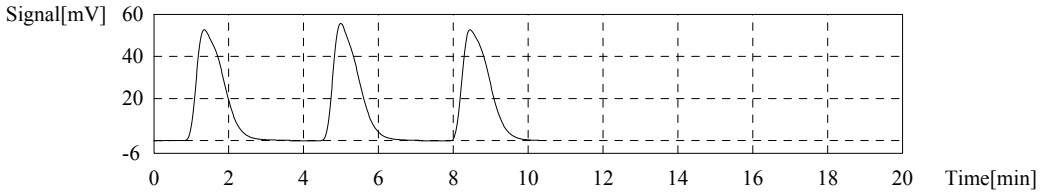
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 102.5



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	259.5	100uL	2.000	*******		7/13/2018 4:24:51 PM
2	259.5	100uL	2.000	*******		7/13/2018 4:29:18 PM
3	262.4	100uL	2.000	*******		7/13/2018 4:33:41 PM

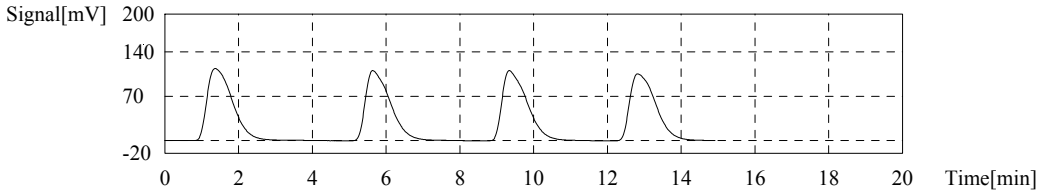
Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	260.5



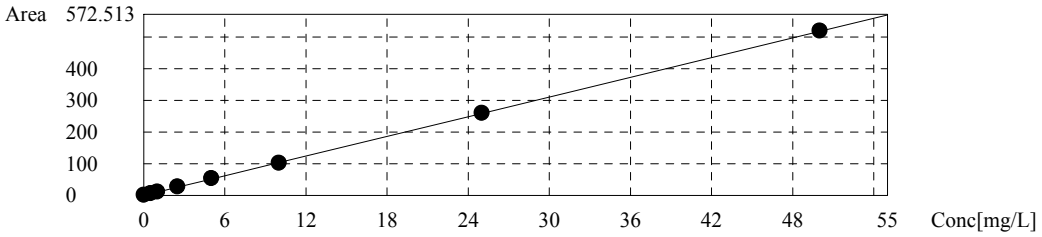
Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	549.8	100uL	1.000	*******	E	7/13/2018 4:43:52 PM
2	521.1	100uL	1.000	*******		7/13/2018 4:48:33 PM
3	522.5	100uL	1.000	*******		7/13/2018 4:52:58 PM
4	517.8	100uL	1.000	*******		7/13/2018 4:57:26 PM

Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	520.5



Slope:	10.38
Intercept	0.000
r^2	1.0000
r	1.0000
Zero Shift	Yes



Control Sample

Sample Name:	SEQ-ICV1
Sample ID:	CVS 20
Method:	CVS 20 ppm.tpl
Status	Completed
Chk. Result	Control value: 19.69 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

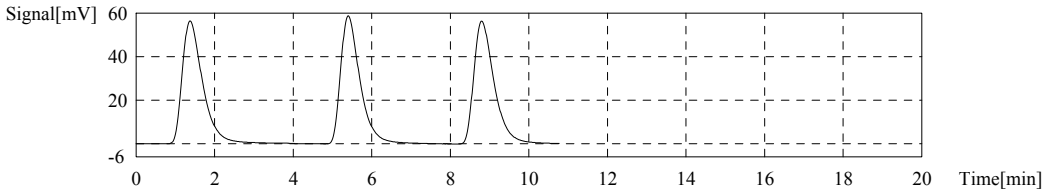
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:19.69ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	207.2	19.85ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 5:09:21 PM
2	204.4	19.58ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 5:13:43 PM
3	205.1	19.65ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 5:18:03 PM

Mean Area 205.6
Mean Conc. 19.69ppm



Control Sample

Sample Name: SEQ-ICB1
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1352 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

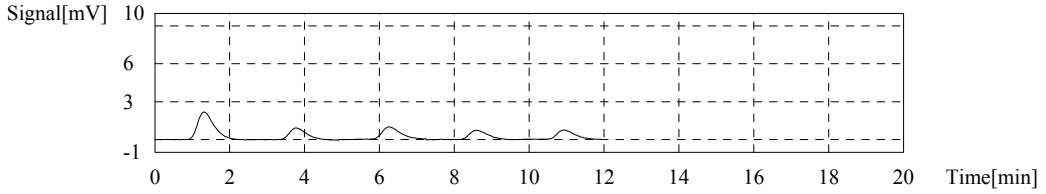
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1352mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.844	0.5414mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 5:28:23 PM
2	3.018	0.1726mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 5:31:54 PM
3	3.189	0.1891mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 5:35:16 PM
4	2.480	0.1208mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 5:38:47 PM
5	2.389	0.1120mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 5:42:15 PM

Mean Area 2.629
Mean Conc. 0.1352mg/L



Sample

Sample Name: SEQ-IFA1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

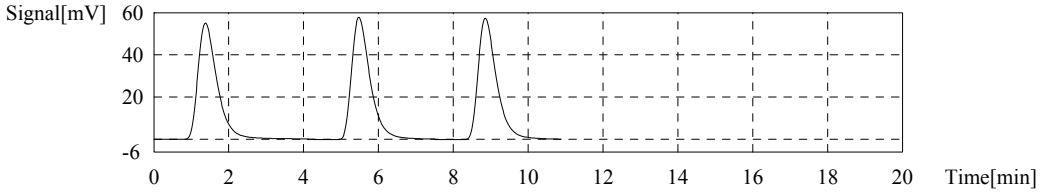
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:19.29mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	199.0	19.18mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 5:54:21 PM
2	201.7	19.44mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 5:58:44 PM
3	199.8	19.25mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 6:03:06 PM

Mean Area 200.2
Mean Conc. 19.29mg/L



Sample

Sample Name: BGG0063-BS3DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

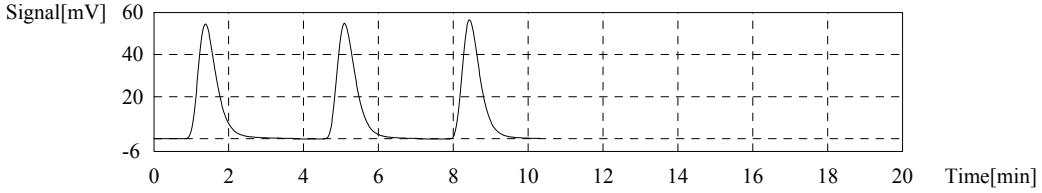
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.84mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	195.3	18.82mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 6:14:43 PM
2	196.4	18.93mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 6:19:03 PM
3	194.8	18.77mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 6:23:17 PM

Mean Area 195.5
Mean Conc. 18.84mg/L



Sample

Sample Name: BGG0063-DUP3DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

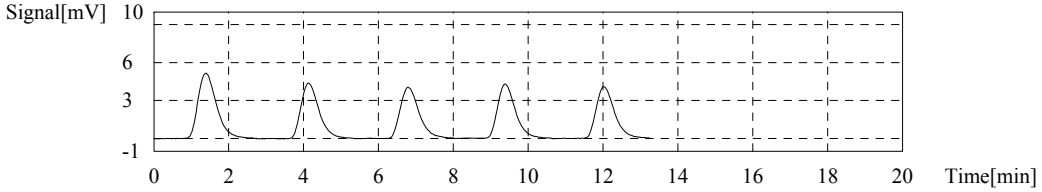
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.361mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.89	1.724mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 6:33:53 PM
2	14.79	1.425mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 6:37:35 PM
3	14.13	1.362mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 6:41:20 PM
4	14.32	1.380mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 6:45:08 PM
5	13.93	1.342mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 6:48:53 PM

Mean Area 14.13
Mean Conc. 1.361mg/L



Sample

Sample Name: BGG0063-MS3DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

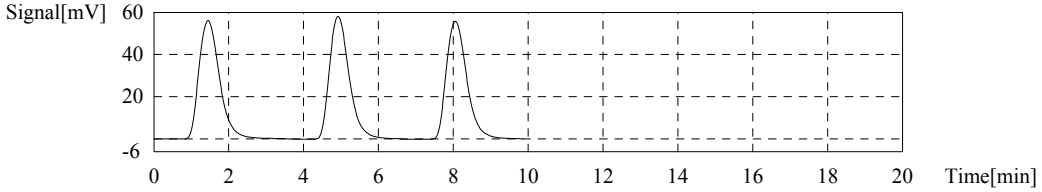
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:20.73mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	216.2	20.83mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 7:00:19 PM
2	215.0	20.72mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 7:04:25 PM
3	214.1	20.63mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 7:08:39 PM

Mean Area 215.1
Mean Conc. 20.73mg/L



Sample

Sample Name: 18F0226-03RE3DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

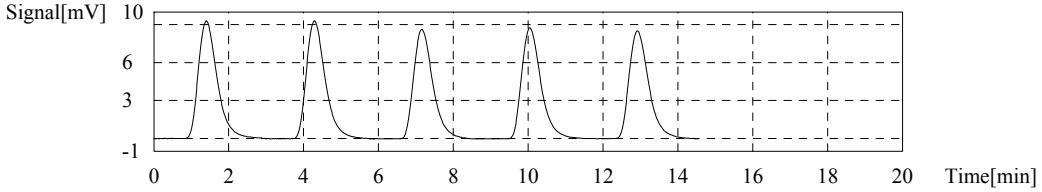
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.029mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	32.68	3.149mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 7:19:25 PM
2	32.82	3.163mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 7:23:16 PM
3	31.26	3.012mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 7:27:08 PM
4	31.60	3.045mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 7:31:00 PM
5	31.42	3.028mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 7:35:02 PM

Mean Area 31.43
Mean Conc. 3.029mg/L



Sample

Sample Name: 18F0226-04RE3DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

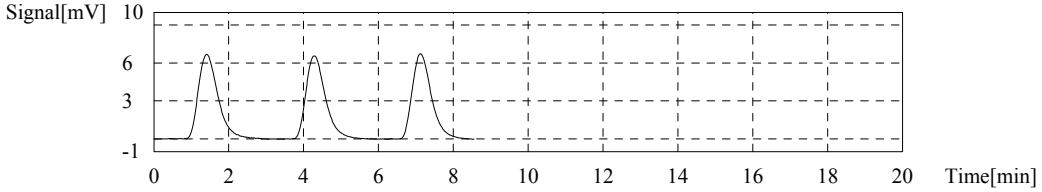
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.333mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	24.43	2.354mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 7:45:48 PM
2	23.85	2.298mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 7:49:38 PM
3	24.35	2.347mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 7:53:29 PM

Mean Area 24.21
Mean Conc. 2.333mg/L



Sample

Sample Name: 18F0226-05RE3DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

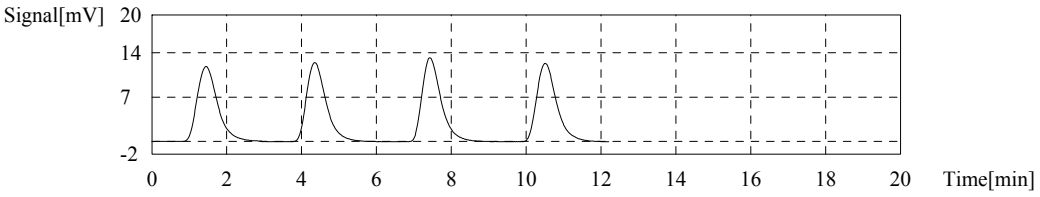
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.404mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	45.02	4.339mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 8:04:19 PM
2	45.82	4.416mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 8:08:25 PM
3	47.09	4.538mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 8:12:28 PM
4	46.25	4.457mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 8:16:35 PM

Mean Area 45.70
Mean Conc. 4.404mg/L



Sample

Sample Name: 18F0226-06RE3DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

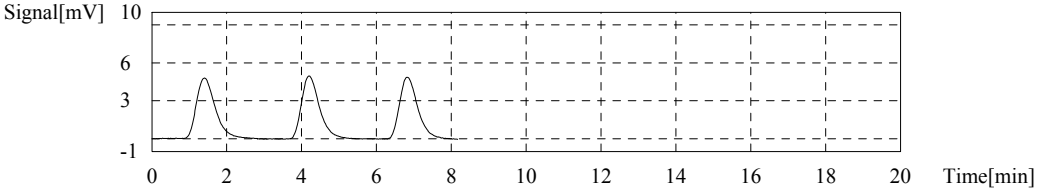
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.612mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	16.87	1.626mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 8:27:18 PM
2	16.60	1.600mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 8:30:55 PM
3	16.70	1.609mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 8:34:48 PM

Mean Area 16.72
Mean Conc. 1.612mg/L



Sample

Sample Name: 18F0226-07RE3DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

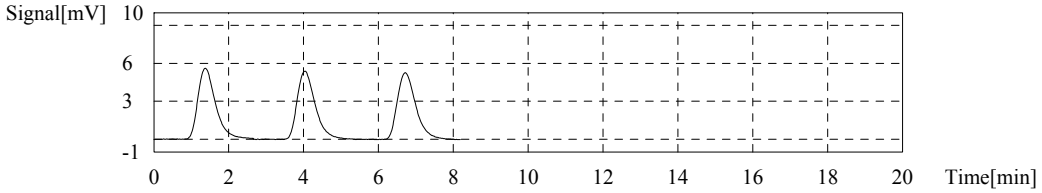
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.758mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.29	1.763mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 8:45:15 PM
2	18.10	1.744mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 8:49:03 PM
3	18.33	1.766mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 8:53:02 PM

Mean Area 18.24
Mean Conc. 1.758mg/L



Sample

Sample Name: 18F0226-08RE3DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

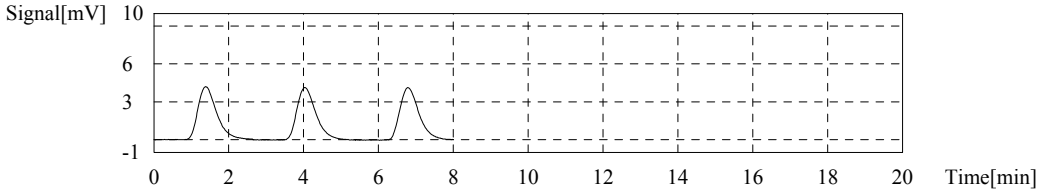
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.421mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.62	1.409mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 9:03:34 PM
2	14.84	1.430mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 9:07:28 PM
3	14.78	1.424mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 9:11:07 PM

Mean Area 14.75
Mean Conc. 1.421mg/L



Control Sample

Sample Name: SEQ-CCV1
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.63 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

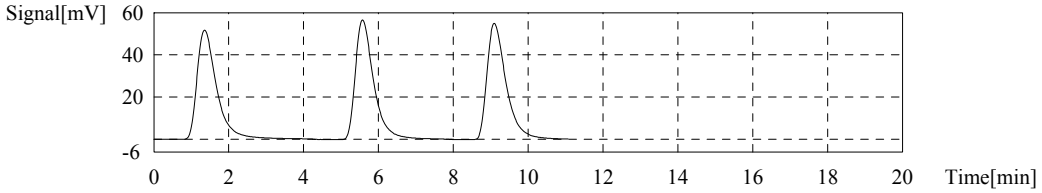
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.63ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	190.6	18.25ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 9:23:23 PM
2	195.5	18.72ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 9:27:54 PM
3	197.5	18.91ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 9:32:13 PM

Mean Area 194.5
Mean Conc. 18.63ppm



Control Sample

Sample Name: SEQ-CCB1
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.06940 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

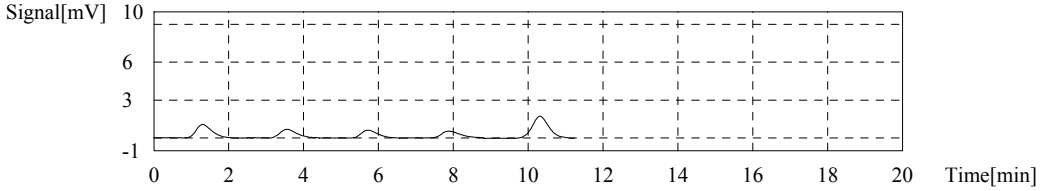
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.06940mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.108	0.1813mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 9:42:21 PM
2	2.103	0.08447mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 9:45:48 PM
3	1.881	0.06307mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 9:49:15 PM
4	1.856	0.06067mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 9:52:53 PM
5	5.511	0.4129mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 9:56:32 PM

Mean Area 1.947
Mean Conc. 0.06940mg/L



Sample

Sample Name: 18F0226-09RE3DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

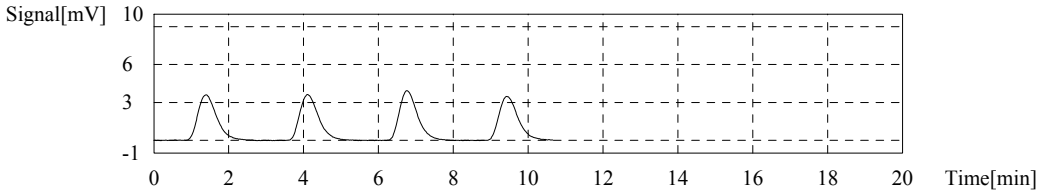
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.213mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.65	1.219mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 10:07:14 PM
2	12.76	1.230mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 10:10:58 PM
3	13.44	1.295mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 10:14:45 PM
4	12.34	1.189mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 10:18:28 PM

Mean Area 12.58
Mean Conc. 1.213mg/L



Sample

Sample Name: 18F0226-01RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

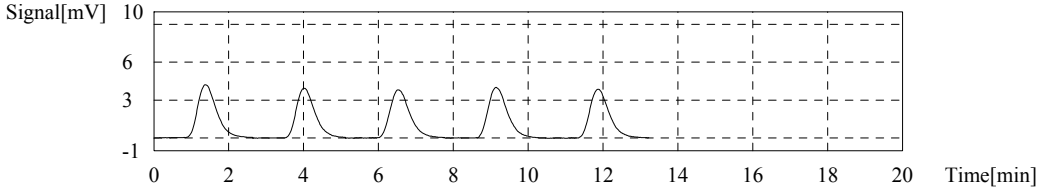
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.330mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.65	1.412mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 10:29:02 PM
2	13.53	1.304mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 10:32:40 PM
3	13.90	1.340mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 10:36:36 PM
4	14.45	1.393mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 10:40:28 PM
5	13.97	1.346mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 10:44:17 PM

Mean Area 13.80
Mean Conc. 1.330mg/L



Sample

Sample Name: 18F0226-02RE4
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

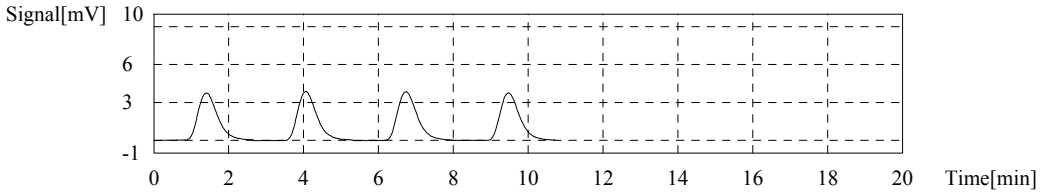
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.310mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.44	1.295mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 10:54:43 PM
2	13.87	1.337mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 10:58:31 PM
3	14.19	1.367mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 11:02:23 PM
4	13.46	1.297mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 11:06:04 PM

Mean Area 13.59
Mean Conc. 1.310mg/L



Sample

Sample Name: 18F0226-03RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

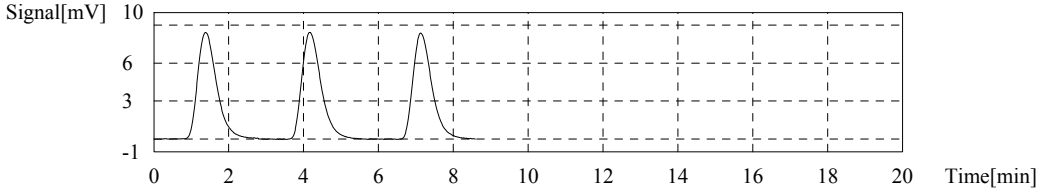
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.897mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	29.83	2.875mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 11:16:44 PM
2	30.65	2.954mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 11:20:42 PM
3	29.69	2.861mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 11:24:32 PM

Mean Area 30.06
Mean Conc. 2.897mg/L



Sample

Sample Name: 18F0226-04RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

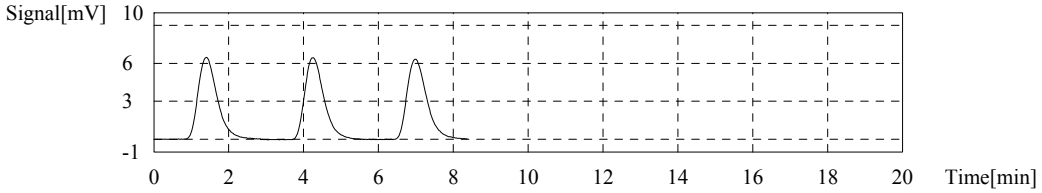
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.241mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	23.12	2.228mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 11:35:17 PM
2	23.30	2.245mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 11:39:01 PM
3	23.33	2.248mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 11:42:50 PM

Mean Area 23.25
Mean Conc. 2.241mg/L



Sample

Sample Name: 18F0226-05RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

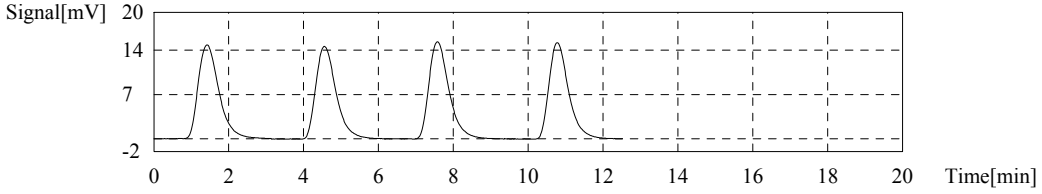
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.505mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	57.51	5.542mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 11:53:51 PM
2	55.49	5.348mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 11:57:53 PM
3	57.86	5.576mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:02:05 AM
4	55.99	5.396mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:06:14 AM

Mean Area 57.12
Mean Conc. 5.505mg/L



Sample

Sample Name: 18F0226-06RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

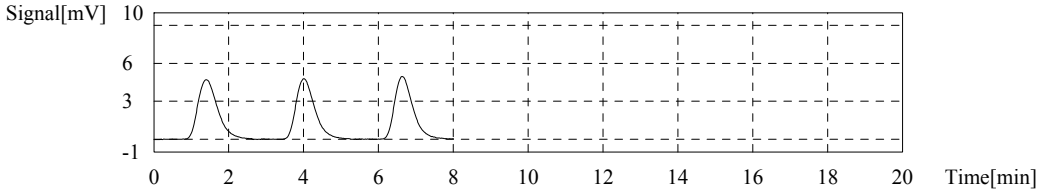
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.632mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.15	1.653mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:16:45 AM
2	16.73	1.612mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:20:33 AM
3	16.92	1.631mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:24:27 AM

Mean Area 16.93
Mean Conc. 1.632mg/L



Sample

Sample Name: 18F0226-07RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

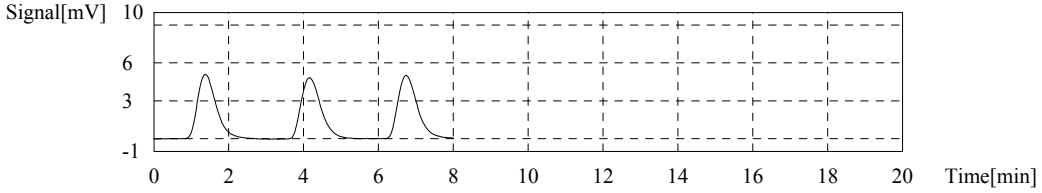
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.733mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.99	1.734mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:34:59 AM
2	17.89	1.724mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:38:37 AM
3	18.06	1.740mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:42:27 AM

Mean Area 17.98
Mean Conc. 1.733mg/L



Sample

Sample Name: 18F0226-08RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

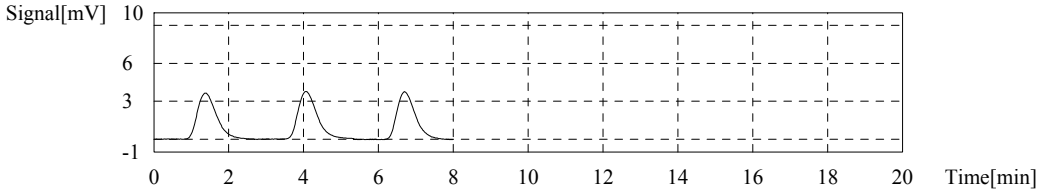
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.264mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.07	1.260mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:53:01 AM
2	13.18	1.270mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:56:46 AM
3	13.09	1.261mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 1:00:33 AM

Mean Area 13.11
Mean Conc. 1.264mg/L



Sample

Sample Name: 18F0226-09RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

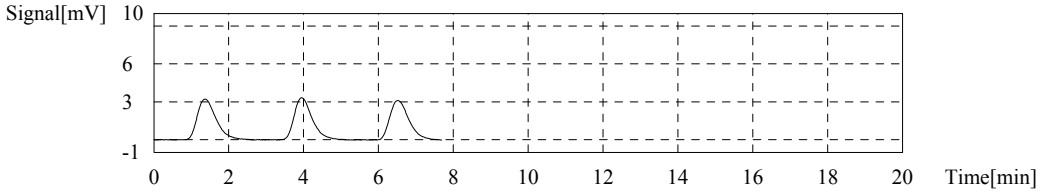
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.074mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.16	1.075mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 1:11:02 AM
2	11.17	1.076mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 1:14:47 AM
3	11.11	1.071mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 1:18:34 AM

Mean Area 11.15
Mean Conc. 1.074mg/L



Control Sample

Sample Name: SEQ-CCV2
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.77 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

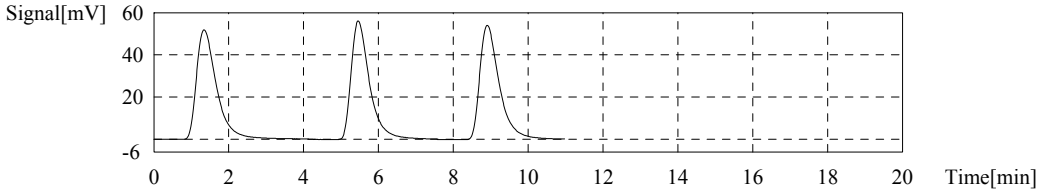
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.77ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	195.7	18.74ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 1:30:41 AM
2	194.5	18.63ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 1:35:07 AM
3	197.9	18.95ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 1:39:31 AM

Mean Area 196.0
Mean Conc. 18.77ppm



Control Sample

Sample Name: SEQ-CCB2
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.02822 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

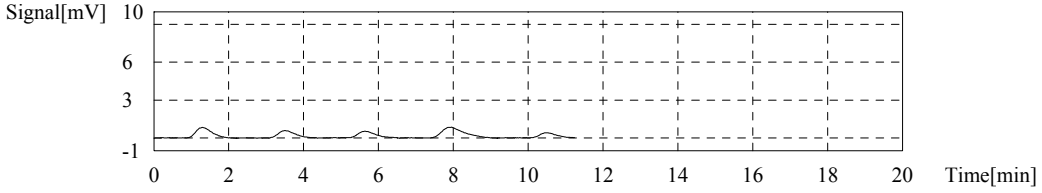
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.02822mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.533	0.1259mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 1:49:37 AM
2	1.787	0.05402mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 1:53:03 AM
3	1.571	0.03320mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 1:56:35 AM
4	3.619	0.2306mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 2:00:36 AM
5	1.200	-0.00255mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 2:03:39 AM

Mean Area 1.519
Mean Conc. 0.02822mg/L



Sample

Sample Name: 18F0248-01RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

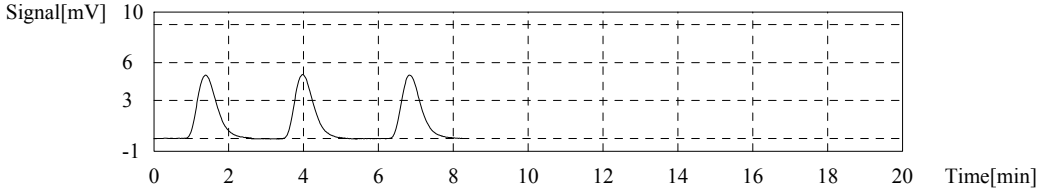
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.770mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.21	1.755mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 2:14:14 AM
2	18.54	1.787mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 2:18:15 AM
3	18.34	1.767mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 2:22:03 AM

Mean Area 18.36
Mean Conc. 1.770mg/L



Sample

Sample Name: 18F0248-02RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

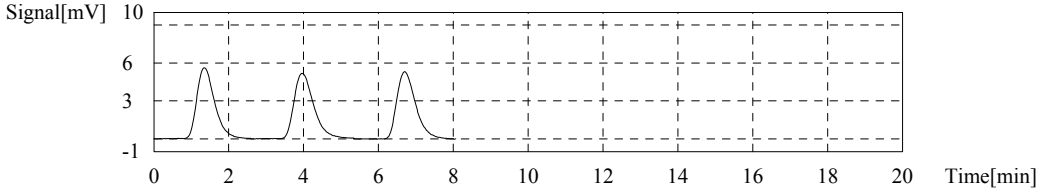
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.811mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.58	1.791mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 2:32:33 AM
2	18.90	1.821mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 2:36:29 AM
3	18.89	1.820mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 2:40:16 AM

Mean Area 18.79
Mean Conc. 1.811mg/L



Sample

Sample Name: 18F0248-03RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

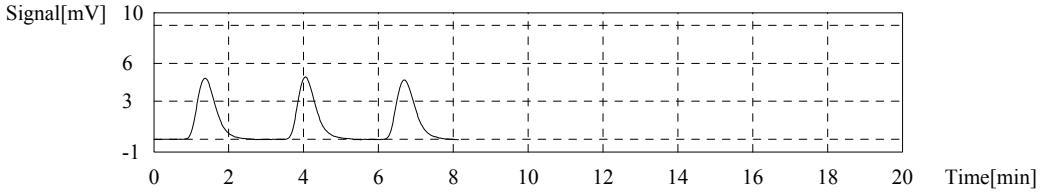
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.632mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.00	1.638mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 2:50:46 AM
2	16.80	1.619mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 2:54:30 AM
3	17.01	1.639mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 2:58:27 AM

Mean Area 16.94
Mean Conc. 1.632mg/L



Sample

Sample Name: 18F0248-04RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

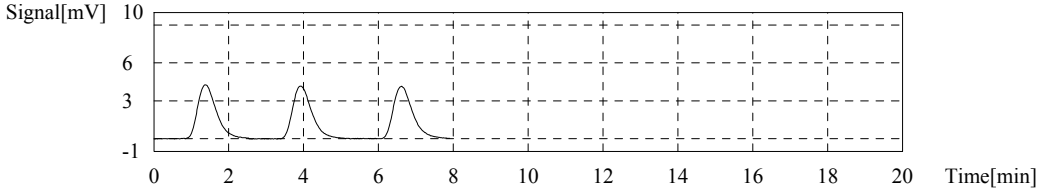
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.426mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.64	1.411mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 3:08:53 AM
2	14.80	1.426mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 3:12:49 AM
3	14.96	1.442mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 3:16:36 AM

Mean Area 14.80
Mean Conc. 1.426mg/L



Sample

Sample Name: 18F0248-05RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

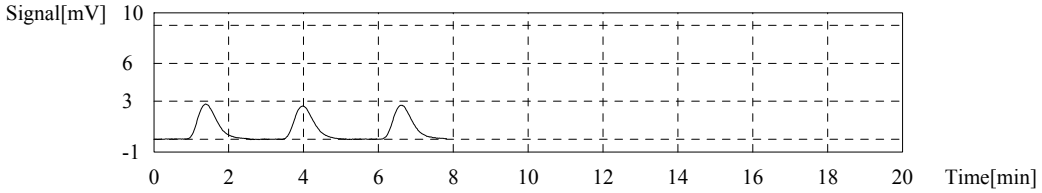
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.9359mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.844	0.9487mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 3:27:02 AM
2	9.682	0.9330mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 3:30:54 AM
3	9.608	0.9259mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 3:34:38 AM

Mean Area 9.711
Mean Conc. 0.9359mg/L



Sample

Sample Name: 18F0248-06RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

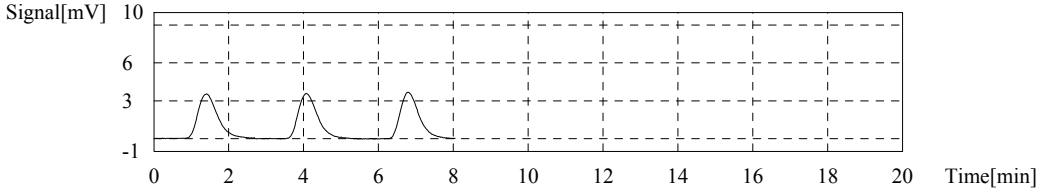
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.237mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.73	1.227mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 3:45:16 AM
2	12.85	1.238mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 3:49:05 AM
3	12.94	1.247mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 3:52:48 AM

Mean Area 12.84
Mean Conc. 1.237mg/L



Sample

Sample Name: 18F0248-07RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

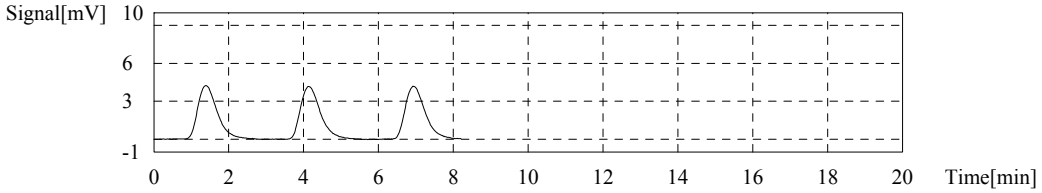
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.486mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.21	1.466mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:03:26 AM
2	15.57	1.500mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:07:17 AM
3	15.47	1.491mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:10:57 AM

Mean Area 15.42
Mean Conc. 1.486mg/L



Sample

Sample Name: 18F0248-08RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

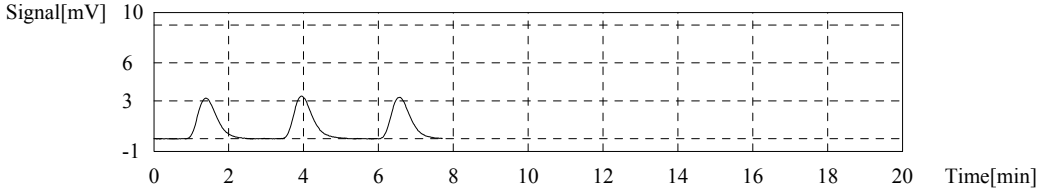
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.124mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.53	1.111mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:21:24 AM
2	11.75	1.132mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:25:13 AM
3	11.72	1.129mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:28:56 AM

Mean Area 11.67
Mean Conc. 1.124mg/L



Sample

Sample Name: 18F0218-05RE2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

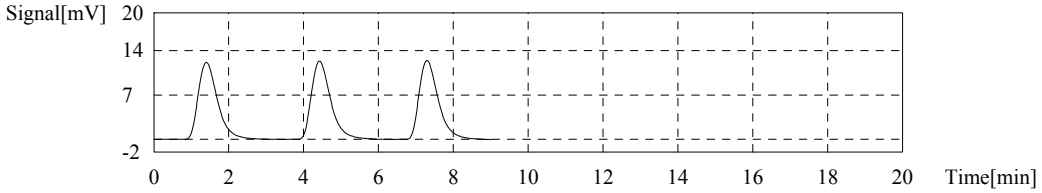
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.292mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	44.05	4.245mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:39:59 AM
2	44.38	4.277mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:43:52 AM
3	45.18	4.354mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:47:59 AM

Mean Area 44.54
Mean Conc. 4.292mg/L



Sample

Sample Name: BGG0064-MRL3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

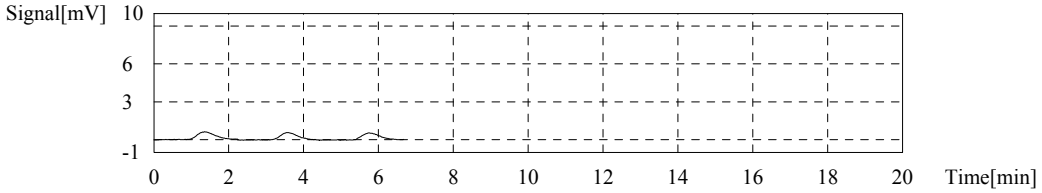
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1786mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.904	0.1835mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:58:08 AM
2	1.832	0.1765mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 5:01:51 AM
3	1.823	0.1757mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 5:05:44 AM

Mean Area 1.853
Mean Conc. 0.1786mg/L



Control Sample

Sample Name: SEQ-CCV3
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.70 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

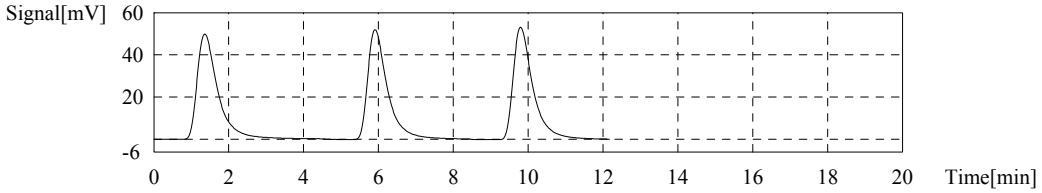
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.70ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	194.9	18.66ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 5:18:12 AM
2	193.3	18.51ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 5:23:05 AM
3	197.7	18.93ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 5:27:48 AM

Mean Area 195.3
Mean Conc. 18.70ppm



Control Sample

Sample Name: SEQ-CCB3
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.01226 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

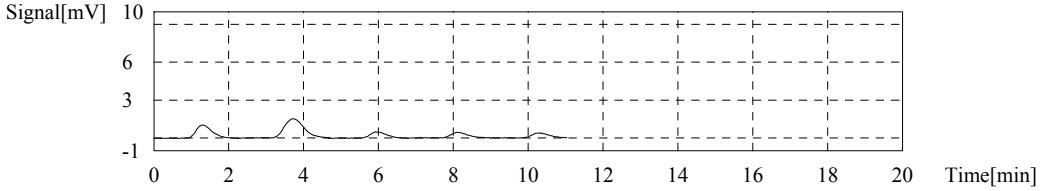
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.01226mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.118	0.1823mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 5:37:58 AM
2	5.429	0.4050mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 5:41:35 AM
3	1.547	0.03089mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 5:44:51 AM
4	1.293	0.00641mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 5:48:22 AM
5	1.221	-0.00053mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 5:51:46 AM

Mean Area 1.354
Mean Conc. 0.01226mg/L



Sample

Sample Name: BGG0064-BLK3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

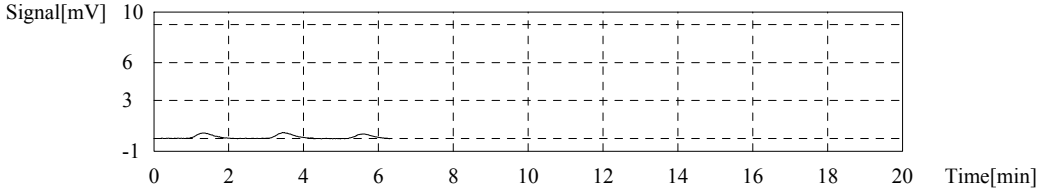
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1193mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.271	0.1225mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 6:01:44 AM
2	1.299	0.1252mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 6:05:29 AM
3	1.144	0.1102mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 6:09:13 AM

Mean Area 1.238
Mean Conc. 0.1193mg/L



Sample

Sample Name: BGG0064-BS3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

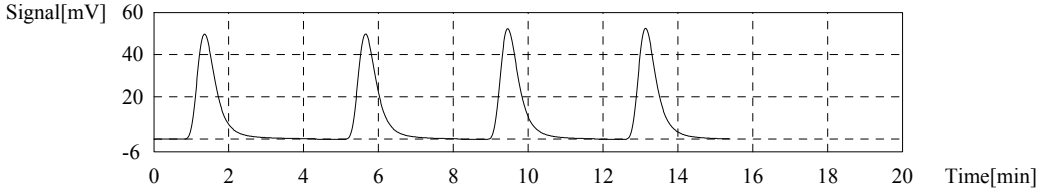
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.11mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	186.1	17.93mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 6:21:15 AM
2	185.8	17.91mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 6:26:03 AM
3	194.0	18.70mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 6:30:43 AM
4	192.0	18.50mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 6:35:19 AM

Mean Area 188.0
Mean Conc. 18.11mg/L



Sample

Sample Name: BGG0064-DUP3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

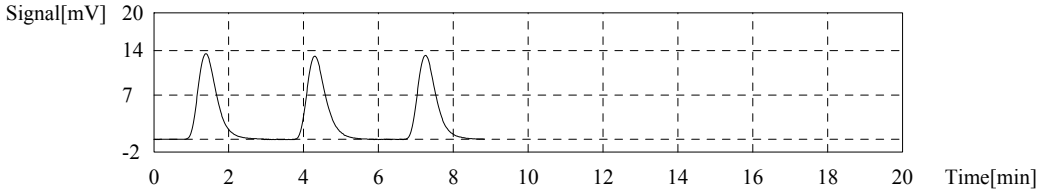
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.542mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	47.69	4.596mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 6:46:09 AM
2	47.10	4.539mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 6:50:06 AM
3	46.59	4.490mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 6:54:04 AM

Mean Area 47.13
Mean Conc. 4.542mg/L



Sample

Sample Name: BGG0064-MS3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

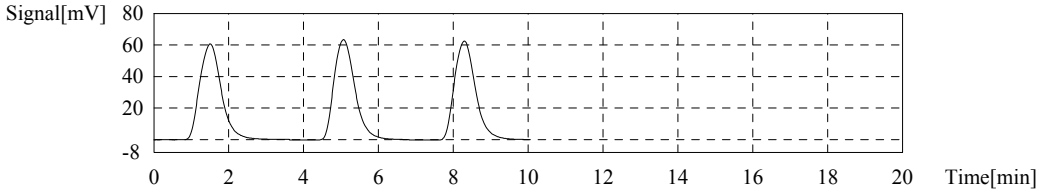
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:23.83mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	246.3	23.74mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 7:05:36 AM
2	248.9	23.99mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 7:09:48 AM
3	246.6	23.76mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 7:14:01 AM

Mean Area 247.3
Mean Conc. 23.83mg/L



Sample

Sample Name: 18F0272-07RE2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

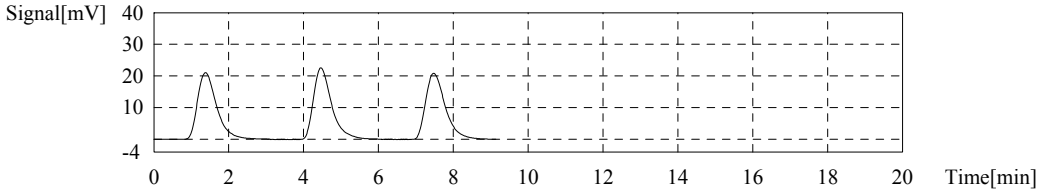
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7.377mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	75.29	7.256mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 7:25:02 AM
2	77.34	7.453mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 7:29:01 AM
3	77.03	7.423mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 7:33:04 AM

Mean Area 76.55
Mean Conc. 7.377mg/L



Sample

Sample Name: 18F0272-14RE2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

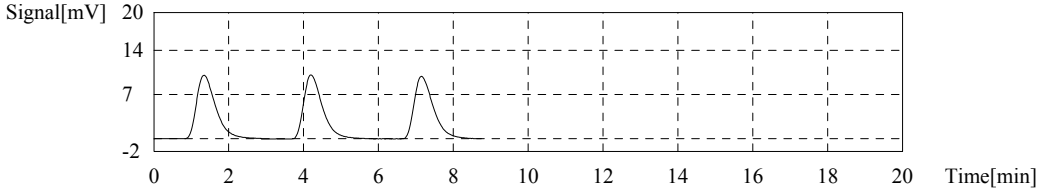
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.441mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	35.85	3.455mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 7:43:51 AM
2	35.56	3.427mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 7:47:48 AM
3	35.70	3.440mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 7:51:44 AM

Mean Area 35.70
Mean Conc. 3.441mg/L



Sample

Sample Name: BGG0172-BLK4
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

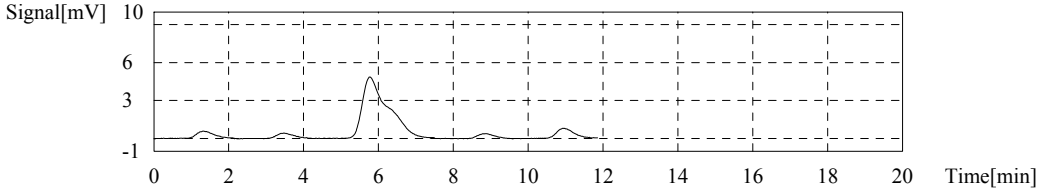
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1376mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.722	0.1659mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 8:01:48 AM
2	1.303	0.1256mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 8:05:32 AM
3	23.15	2.231mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 8:10:28 AM
4	1.260	0.1214mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 8:13:34 AM
5	2.510	0.2419mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 8:17:29 AM

Mean Area 1.428
Mean Conc. 0.1376mg/L



Sample

Sample Name: BGG0172-BS4
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

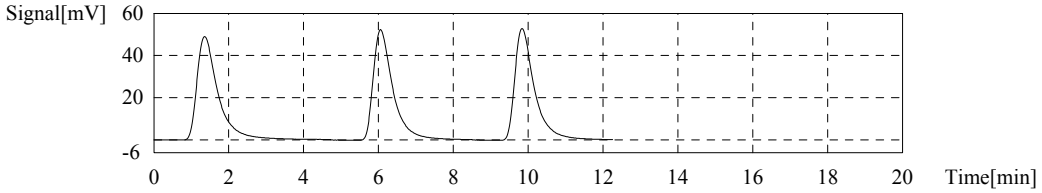
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.74mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	194.6	18.75mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 8:29:56 AM
2	193.2	18.62mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 8:34:43 AM
3	195.7	18.86mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 8:39:28 AM

Mean Area 194.5
Mean Conc. 18.74mg/L



Sample

Sample Name: 18F0298-01RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

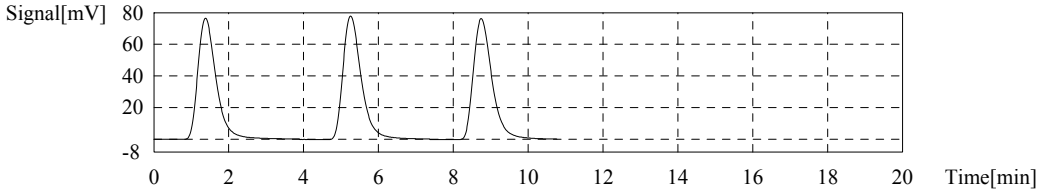
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.64mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	262.4	25.29mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 8:51:16 AM
2	268.2	25.85mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 8:55:45 AM
3	267.6	25.79mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 9:00:09 AM

Mean Area 266.1
Mean Conc. 25.64mg/L



Sample

Sample Name: 18F0298-02RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

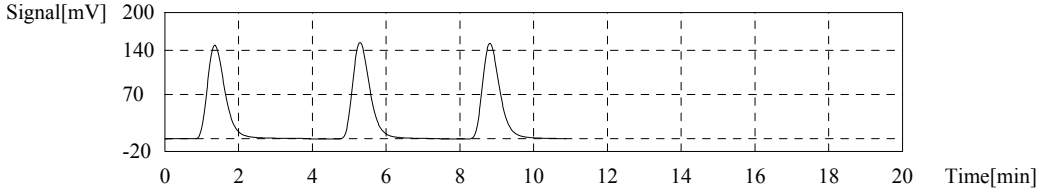
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:48.54mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	500.8	48.26mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 9:12:00 AM
2	507.2	48.88mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 9:16:31 AM
3	503.0	48.47mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 9:20:57 AM

Mean Area 503.7
Mean Conc. 48.54mg/L



Control Sample

Sample Name: SEQ-CCV4
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 19.00 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

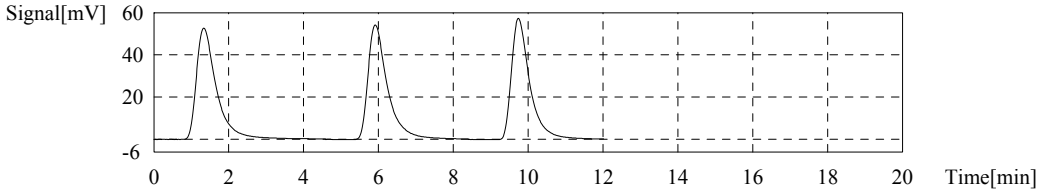
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:19.00ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	198.5	19.01ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 9:33:27 AM
2	198.7	19.03ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 9:38:16 AM
3	198.0	18.96ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 9:42:52 AM

Mean Area 198.4
Mean Conc. 19.00ppm



Control Sample

Sample Name: SEQ-CCB4
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1024 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

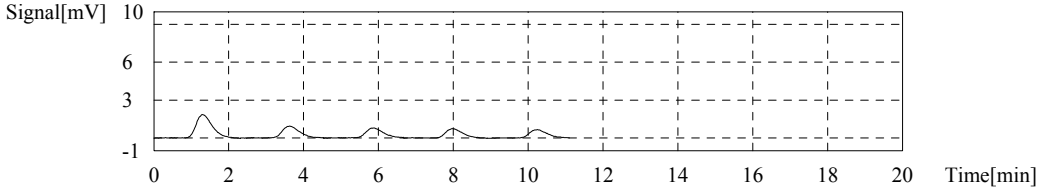
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1024mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.663	0.4275mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 9:53:04 AM
2	2.941	0.1652mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 9:56:30 AM
3	2.392	0.1123mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 9:59:54 AM
4	2.334	0.1067mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 10:03:30 AM
5	2.140	0.08803mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 10:06:58 AM

Mean Area 2.289
Mean Conc. 0.1024mg/L



Sample

Sample Name: 18F0298-03RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

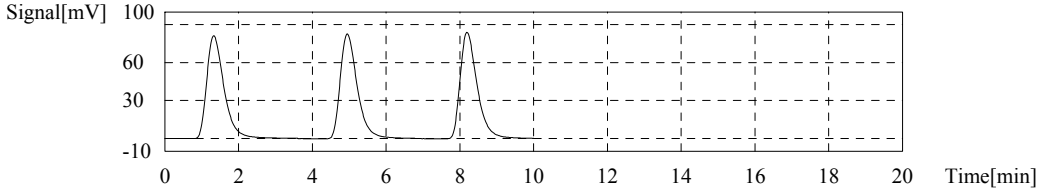
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.94mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	267.2	25.75mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 10:19:01 AM
2	268.2	25.85mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 10:23:16 AM
3	272.1	26.22mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 10:27:27 AM

Mean Area 269.2
Mean Conc. 25.94mg/L



Sample

Sample Name: 18F0298-04RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

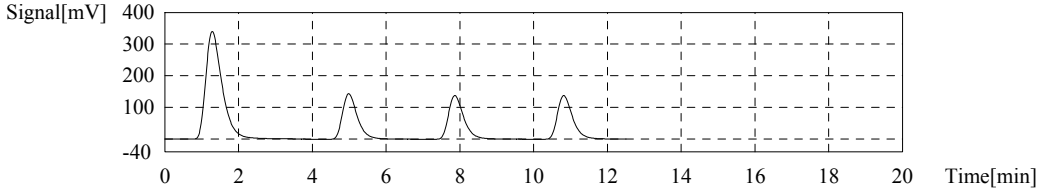
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:99.40mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1064	102.5mg/L	100uL	1.000	R	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 10:39:05 AM
2	407.1	100.6mg/L	39uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 10:42:57 AM
3	400.0	98.84mg/L	39uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 10:46:54 AM
4	399.7	98.77mg/L	39uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 10:50:52 AM

Mean Area 402.3
Mean Conc. 99.40mg/L



Sample

Sample Name: BGG0172-DUP7
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

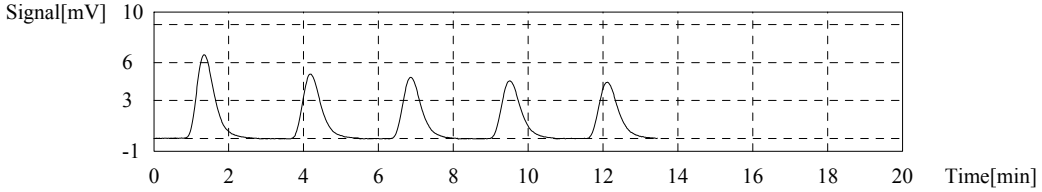
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.590mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	22.22	2.141mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 11:01:36 AM
2	17.62	1.698mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 11:05:16 AM
3	16.88	1.627mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 11:09:00 AM
4	16.38	1.579mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 11:12:45 AM
5	16.25	1.566mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 11:16:40 AM

Mean Area 16.50
Mean Conc. 1.590mg/L



Sample

Sample Name: BGG0172-MS6
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

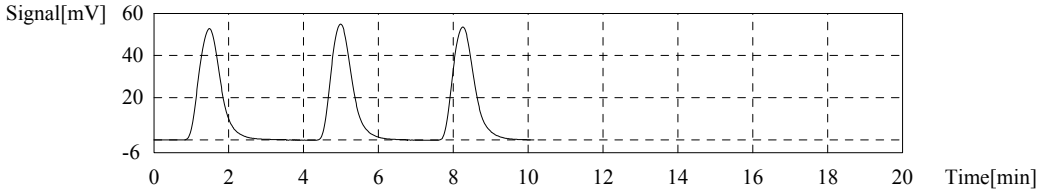
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:20.86mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	214.9	20.71mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 11:28:02 AM
2	216.9	20.90mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 11:32:16 AM
3	217.7	20.98mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 11:36:37 AM

Mean Area 216.5
Mean Conc. 20.86mg/L



Sample

Sample Name: BGG0170-BLK4
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

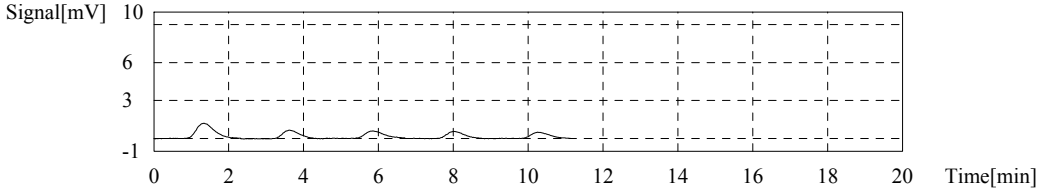
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1891mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.954	0.3810mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 11:46:52 AM
2	2.122	0.2045mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 11:50:32 AM
3	1.947	0.1876mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 11:54:18 AM
4	1.818	0.1752mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 11:58:08 AM
5	1.588	0.1530mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:01:51 PM

Mean Area 1.962
Mean Conc. 0.1891mg/L



Sample

Sample Name: 18F0330-12RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

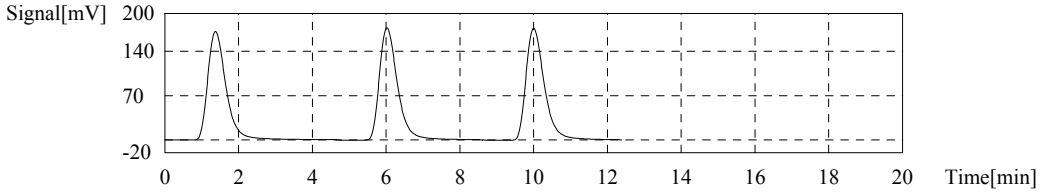
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:58.80mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	598.7	57.70mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:14:14 PM
2	613.1	59.08mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:19:12 PM
3	618.6	59.61mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:23:56 PM

Mean Area 610.1
Mean Conc. 58.80mg/L



Control Sample

Sample Name: SEQ-CCV5
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.85 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

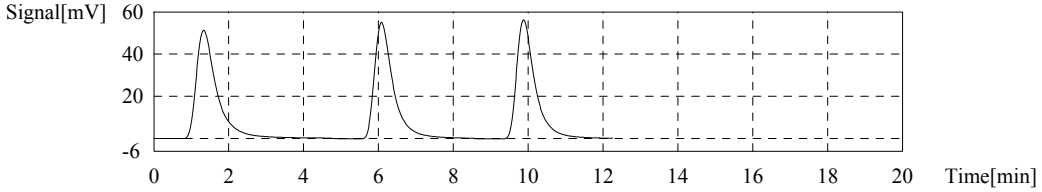
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.85ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	198.5	19.01ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:36:46 PM
2	195.2	18.69ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:41:33 PM
3	196.7	18.84ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:46:14 PM

Mean Area 196.8
Mean Conc. 18.85ppm



Control Sample

Sample Name: SEQ-CCB5
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1516 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

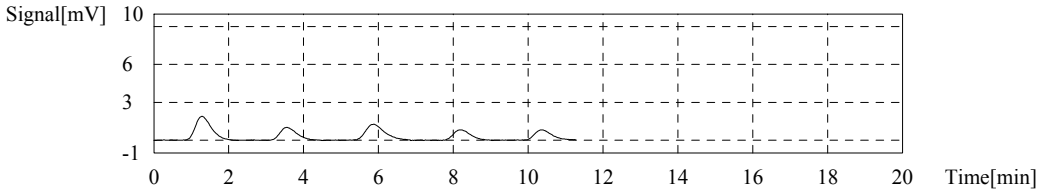
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1516mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.622	0.4236mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:56:23 PM
2	3.216	0.1917mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:59:53 PM
3	4.398	0.3056mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 1:03:30 PM
4	2.642	0.1364mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 1:06:49 PM
5	2.542	0.1268mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 1:10:22 PM

Mean Area 2.800
Mean Conc. 0.1516mg/L



Sample

Sample Name: 18F0330-12RE4
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

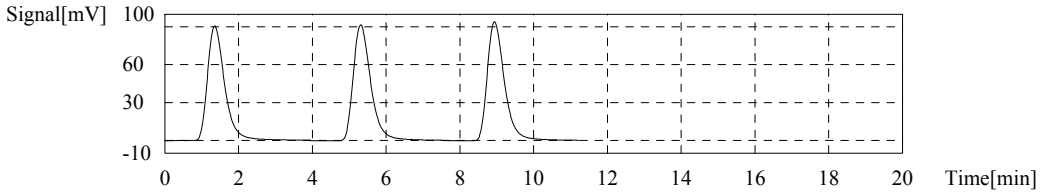
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:58.52mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	297.1	57.26mg/L	100uL	2.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 3:54:02 PM
2	305.9	58.96mg/L	100uL	2.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 3:58:42 PM
3	307.8	59.32mg/L	100uL	2.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:03:41 PM

Mean Area 303.6
Mean Conc. 58.52mg/L



Control Sample

Sample Name: SEQ-CCV5
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.71 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

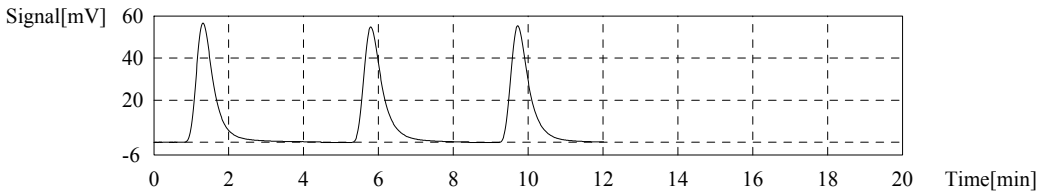
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.71ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	192.9	18.47ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:16:05 PM
2	197.7	18.93ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:21:01 PM
3	195.4	18.71ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:25:38 PM

Mean Area 195.3
Mean Conc. 18.71ppm



Control Sample

Sample Name: SEQ-CCB5
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1679 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

TOC-Control L Report

CDE
2018_07_13_001.tlx

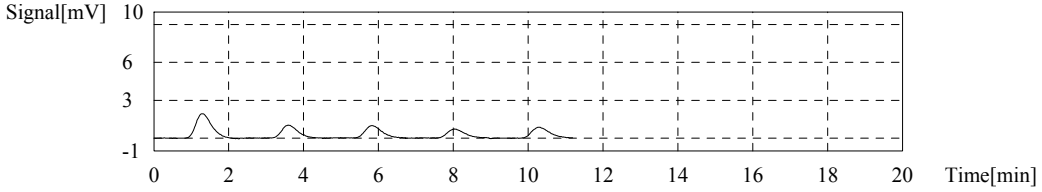
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1679mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.837	0.4443mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:35:49 PM
2	3.042	0.1750mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:39:15 PM
3	3.057	0.1764mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:42:45 PM
4	2.197	0.09353mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:46:16 PM
5	2.807	0.1523mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:49:46 PM

Mean Area 2.969
Mean Conc. 0.1679mg/L



Analytical Resources, Incorporated
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 5310 B-00

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Sequence: SGG0222

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Instrument: TOC-LCSH
Calibration: BG00050

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
1	SGG0222-CAL1	dzuData_07162018@123:	NA	07/13/18 14:24
10	SGG0222-CAL2	dzuData_07162018@123:	NA	07/13/18 14:45
5	SGG0222-CAL3	dzuData_07162018@123:	NA	07/13/18 15:12
2	SGG0222-CAL4	dzuData_07162018@123:	NA	07/13/18 15:29
1	SGG0222-CAL5	dzuData_07162018@123:	NA	07/13/18 15:46
5	SGG0222-CAL6	dzuData_07162018@123:	NA	07/13/18 16:06
2	SGG0222-CAL7	dzuData_07162018@123:	NA	07/13/18 16:24
1	SGG0222-CAL8	dzuData_07162018@123:	NA	07/13/18 16:48
1	SGG0222-ICV1	dzuData_07162018@123:	NA	07/13/18 17:09
1	SGG0222-ICB1	dzuData_07162018@123:	NA	07/13/18 17:31
1	SGG0222-IFA1	dzuData_07162018@123:	NA	07/13/18 17:54
LCS	BGG0063-BS3	dzuData_07162018@123:	Water	07/13/18 18:14
LDW18-SP-57	BGG0063-DUP5	dzuData_07162018@123:	Water	07/13/18 18:41
LDW18-SP-57	BGG0063-MS5	dzuData_07162018@123:	Water	07/13/18 19:00
LDW18-SP-73	18F0226-03RE3	dzuData_07162018@123:	Water	07/13/18 19:27
LDW18-SP-74	18F0226-04RE3	dzuData_07162018@123:	Water	07/13/18 19:45
LDW18-SP-77	18F0226-05RE3	dzuData_07162018@123:	Water	07/13/18 20:04
LDW18-SP-78	18F0226-06RE3	dzuData_07162018@123:	Water	07/13/18 20:27
LDW18-SP-79	18F0226-07RE3	dzuData_07162018@123:	Water	07/13/18 20:45
LDW18-SP-84	18F0226-08RE3	dzuData_07162018@123:	Water	07/13/18 21:03
1	SGG0222-CCV1	dzuData_07162018@123:	NA	07/13/18 21:23
1	SGG0222-CCB1	dzuData_07162018@123:	NA	07/13/18 21:45
LDW18-SP-87	18F0226-09RE3	dzuData_07162018@123:	Water	07/13/18 22:07
LDW18-SP-05	18F0226-01RE3	dzuData_07162018@123:	Water	07/13/18 22:32
LDW18-SP-57	18F0226-02RE4	dzuData_07162018@123:	Water	07/13/18 22:54
LDW18-SP-73	18F0226-03RE3	dzuData_07162018@123:	Water	07/13/18 23:16
LDW18-SP-74	18F0226-04RE3	dzuData_07162018@123:	Water	07/13/18 23:35
LDW18-SP-77	18F0226-05RE3	dzuData_07162018@123:	Water	07/13/18 23:53
LDW18-SP-78	18F0226-06RE3	dzuData_07162018@123:	Water	07/14/18 00:16
LDW18-SP-79	18F0226-07RE3	dzuData_07162018@123:	Water	07/14/18 00:34

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 5310 B-00

Laboratory: Analytical Resources, Inc.
Client: Windward Environmental, LLC
Sequence: SGG0222

SDG: 18F0185
Project: AOC3 Task 4 (Seeps)
Instrument: TOC-LCSH
Calibration: BG00050

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
LDW18-SP-84	18F0226-08RE3	dzuData_07162018@123:	Water	07/14/18 00:53
LDW18-SP-87	18F0226-09RE3	dzuData_07162018@123:	Water	07/14/18 01:11
1	SGG0222-CCV2	dzuData_07162018@123:	NA	07/14/18 01:30
1	SGG0222-CCB2	dzuData_07162018@123:	NA	07/14/18 01:53
LDW18-SP-01	18F0248-01RE3	dzuData_07162018@123:	Water	07/14/18 02:14
LDW18-SP-45	18F0248-02RE3	dzuData_07162018@123:	Water	07/14/18 02:32
LDW18-SP-47	18F0248-03RE3	dzuData_07162018@123:	Water	07/14/18 02:50
LDW18-SP-66	18F0248-04RE3	dzuData_07162018@123:	Water	07/14/18 03:08
LDW18-SP-70	18F0248-05RE3	dzuData_07162018@123:	Water	07/14/18 03:27
LDW18-SP-83	18F0248-06RE3	dzuData_07162018@123:	Water	07/14/18 03:45
LDW18-SP-86	18F0248-07RE3	dzuData_07162018@123:	Water	07/14/18 04:03
LDW18-SP-88	18F0248-08RE3	dzuData_07162018@123:	Water	07/14/18 04:21
1	SGG0222-CCV3	dzuData_07162018@123:	NA	07/14/18 05:18
1	SGG0222-CCB3	dzuData_07162018@123:	NA	07/14/18 05:44
Blank	BGG0172-BLK4	dzuData_07162018@123:	Water	07/14/18 08:01
LCS	BGG0172-BS4	dzuData_07162018@123:	Water	07/14/18 08:29
1	SGG0222-CCV4	dzuData_07162018@123:	NA	07/14/18 09:33
1	SGG0222-CCB4	dzuData_07162018@123:	NA	07/14/18 09:59
LDW18-SP-57	BGG0172-DUP7	dzuData_07162018@123:	Water	07/14/18 11:09
LDW18-SP-57	BGG0172-MS6	dzuData_07162018@123:	Water	07/14/18 11:28
Calibration Check	SGG0222-CCV5	dzuData_07162018@123:	NA	07/14/18 12:36
Calibration Blank	SGG0222-CCB5	dzuData_07162018@123:	NA	07/14/18 12:59
Calibration Check	SGG0222-CCV6	dzuData_07162018@123:	NA	07/14/18 16:16
Calibration Blank	SGG0222-CCB6	dzuData_07162018@123:	NA	07/14/18 16:39

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes	Status	Date / Time	Vial
1	Unknown	NPOC	Rinse		NPOC 0.5 -	1.000	NPOC:0.2375mg/L		Completed	7/13/2018 1:54:48 P	0
2	Unknown	NPOC	Rinse		NPOC 0.5 -	1.000	NPOC:0.1651mg/L		Completed	7/13/2018 2:16:30 P	0
3	Standard	NPOC	SEQ-CAL	Curve	NPOC 0.5 -	1.000			Completed	7/13/2018 4:57:26 P	0, 1, 1, 1, 1,
4	Control	NPOC	SEQ-ICV1	CVS 20	CVS 20 pp	1.000	NPOC:19.69ppm	Control valu	Completed	7/13/2018 5:18:03 P	3
5	Control	NPOC	SEQ-ICB1		ICB CCB.tpl	1.000	NPOC:0.1352mg/L	Control valu	Completed	7/13/2018 5:42:15 P	4
6	Unknown	NPOC	SEQ-IFA1		NPOC 0.5 -	1.000	NPOC:19.29mg/L		Completed	7/13/2018 6:03:06 P	9
7	Unknown	NPOC	BGG0063-BS3DOC		NPOC 0.5 -	1.000	NPOC:18.84mg/L		Completed	7/13/2018 6:23:17 P	10
8	Unknown	NPOC	BGG0063-DUP3DOC		NPOC 0.5 -	1.000	NPOC:1.361mg/L		Completed	7/13/2018 6:48:53 P	11
9	Unknown	NPOC	BGG0063-MS3DOC		NPOC 0.5 -	1.000	NPOC:20.73mg/L		Completed	7/13/2018 7:08:39 P	12
10	Unknown	NPOC	18F0226-03RE3DOC		NPOC 0.5 -	1.000	NPOC:3.029mg/L		Completed	7/13/2018 7:35:02 P	13
11	Unknown	NPOC	18F0226-04RE3DOC		NPOC 0.5 -	1.000	NPOC:2.333mg/L		Completed	7/13/2018 7:53:29 P	14
12	Unknown	NPOC	18F0226-05RE3DOC		NPOC 0.5 -	1.000	NPOC:4.404mg/L		Completed	7/13/2018 8:16:35 P	15
13	Unknown	NPOC	18F0226-06RE3DOC		NPOC 0.5 -	1.000	NPOC:1.612mg/L		Completed	7/13/2018 8:34:48 P	16
14	Unknown	NPOC	18F0226-07RE3DOC		NPOC 0.5 -	1.000	NPOC:1.758mg/L		Completed	7/13/2018 8:53:02 P	17
15	Unknown	NPOC	18F0226-08RE3DOC		NPOC 0.5 -	1.000	NPOC:1.421mg/L		Completed	7/13/2018 9:11:07 P	18
16	Control	NPOC	SEQ-CCV1	CVS 20	CVS 20 pp	1.000	NPOC:18.63ppm	Control valu	Completed	7/13/2018 9:32:13 P	3
17	Control	NPOC	SEQ-CCB1		ICB CCB.tpl	1.000	NPOC:0.06940mg/	Control valu	Completed	7/13/2018 9:56:32 P	4
18	Unknown	NPOC	18F0226-09RE3DOC		NPOC 0.5 -	1.000	NPOC:1.213mg/L		Completed	7/13/2018 10:18:28	19
19	Unknown	NPOC	18F0226-01RE3		NPOC 0.5 -	1.000	NPOC:1.330mg/L		Completed	7/13/2018 10:44:17	20
20	Unknown	NPOC	18F0226-02RE4		NPOC 0.5 -	1.000	NPOC:1.310mg/L		Completed	7/13/2018 11:06:04	21
21	Unknown	NPOC	18F0226-03RE3		NPOC 0.5 -	1.000	NPOC:2.897mg/L		Completed	7/13/2018 11:24:32	22
22	Unknown	NPOC	18F0226-04RE3		NPOC 0.5 -	1.000	NPOC:2.241mg/L		Completed	7/13/2018 11:42:50	23
23	Unknown	NPOC	18F0226-05RE3		NPOC 0.5 -	1.000	NPOC:5.505mg/L		Completed	7/14/2018 12:06:14	24
24	Unknown	NPOC	18F0226-06RE3		NPOC 0.5 -	1.000	NPOC:1.632mg/L		Completed	7/14/2018 12:24:27	25
25	Unknown	NPOC	18F0226-07RE3		NPOC 0.5 -	1.000	NPOC:1.733mg/L		Completed	7/14/2018 12:42:27	26
26	Unknown	NPOC	18F0226-08RE3		NPOC 0.5 -	1.000	NPOC:1.264mg/L		Completed	7/14/2018 1:00:33 A	27
27	Unknown	NPOC	18F0226-09RE3		NPOC 0.5 -	1.000	NPOC:1.074mg/L		Completed	7/14/2018 1:18:34 A	28
28	Control	NPOC	SEQ-CCV2	CVS 20	CVS 20 pp	1.000	NPOC:18.77ppm	Control valu	Completed	7/14/2018 1:39:31 A	3
29	Control	NPOC	SEQ-CCB2		ICB CCB.tpl	1.000	NPOC:0.02822mg/	Control valu	Completed	7/14/2018 2:03:39 A	4
30	Unknown	NPOC	18F0248-01RE3		NPOC 0.5 -	1.000	NPOC:1.770mg/L		Completed	7/14/2018 2:22:03 A	29
31	Unknown	NPOC	18F0248-02RE3		NPOC 0.5 -	1.000	NPOC:1.811mg/L		Completed	7/14/2018 2:40:16 A	30
32	Unknown	NPOC	18F0248-03RE3		NPOC 0.5 -	1.000	NPOC:1.632mg/L		Completed	7/14/2018 2:58:27 A	31
33	Unknown	NPOC	18F0248-04RE3		NPOC 0.5 -	1.000	NPOC:1.426mg/L		Completed	7/14/2018 3:16:36 A	32
34	Unknown	NPOC	18F0248-05RE3		NPOC 0.5 -	1.000	NPOC:0.9359mg/L		Completed	7/14/2018 3:34:38 A	33
35	Unknown	NPOC	18F0248-06RE3		NPOC 0.5 -	1.000	NPOC:1.237mg/L		Completed	7/14/2018 3:52:48 A	34
36	Unknown	NPOC	18F0248-07RE3		NPOC 0.5 -	1.000	NPOC:1.486mg/L		Completed	7/14/2018 4:10:57 A	35
37	Unknown	NPOC	18F0248-08RE3		NPOC 0.5 -	1.000	NPOC:1.124mg/L		Completed	7/14/2018 4:28:56 A	36
38	Unknown	NPOC	18F0218-05RE2		NPOC 0.5 -	1.000	NPOC:4.292mg/L		Completed	7/14/2018 4:47:59 A	37
39	Unknown	NPOC	BGG0064-MRL3		NPOC 0.5 -	1.000	NPOC:0.1786mg/L		Completed	7/14/2018 5:05:44 A	38
40	Control	NPOC	SEQ-CCV3	CVS 20	CVS 20 pp	1.000	NPOC:18.70ppm	Control valu	Completed	7/14/2018 5:27:48 A	5

	Type	Analysis	Sample Name	Sample ID	Origin	Manual Diluti	Result	Notes	Status	Date / Time	Vial
41	Control	NPOC	SEQ-CCB3		ICB CCB.tpl	1.000	NPOC:0.01226mg/	Control valu	Completed	7/14/2018 5:51:46 A	6
42	Unknown	NPOC	BGG0064-BLK3		NPOC 0.5 -	1.000	NPOC:0.1193mg/L		Completed	7/14/2018 6:09:13 A	39
43	Unknown	NPOC	BGG0064-BS3		NPOC 0.5 -	1.000	NPOC:18.11mg/L		Completed	7/14/2018 6:35:19 A	40
44	Unknown	NPOC	BGG0064-DUP3		NPOC 0.5 -	1.000	NPOC:4.542mg/L		Completed	7/14/2018 6:54:04 A	41
45	Unknown	NPOC	BGG0064-MS3		NPOC 0.5 -	1.000	NPOC:23.83mg/L		Completed	7/14/2018 7:14:01 A	42
46	Unknown	NPOC	18F0272-07RE2		NPOC 0.5 -	1.000	NPOC:7.377mg/L		Completed	7/14/2018 7:33:04 A	43
47	Unknown	NPOC	18F0272-14RE2		NPOC 0.5 -	1.000	NPOC:3.441mg/L		Completed	7/14/2018 7:51:44 A	44
48	Unknown	NPOC	BGG0172-BLK4		NPOC 0.5 -	1.000	NPOC:0.1376mg/L		Completed	7/14/2018 8:17:29 A	45
49	Unknown	NPOC	BGG0172-BS4		NPOC 0.5 -	1.000	NPOC:18.74mg/L		Completed	7/14/2018 8:39:28 A	46
50	Unknown	NPOC	18F0298-01RE3		NPOC 0.5 -	1.000	NPOC:25.64mg/L		Completed	7/14/2018 9:00:09 A	47
51	Unknown	NPOC	18F0298-02RE3		NPOC 0.5 -	1.000	NPOC:48.54mg/L		Completed	7/14/2018 9:20:57 A	48
52	Control	NPOC	SEQ-CCV4	CVS 20	CVS 20 pp	1.000	NPOC:19.00ppm	Control valu	Completed	7/14/2018 9:42:52 A	5
53	Control	NPOC	SEQ-CCB4		ICB CCB.tpl	1.000	NPOC:0.1024mg/L	Control valu	Completed	7/14/2018 10:06:58	6
54	Unknown	NPOC	18F0298-03RE3		NPOC 0.5 -	1.000	NPOC:25.94mg/L		Completed	7/14/2018 10:27:27	49
55	Unknown	NPOC	18F0298-04RE3		NPOC 0.5 -	1.000	NPOC:99.40mg/L		Completed	7/14/2018 10:50:52	50
56	Unknown	NPOC	BGG0172-DUP7		NPOC 0.5 -	1.000	NPOC:1.590mg/L		Completed	7/14/2018 11:16:40	51
57	Unknown	NPOC	BGG0172-MS6		NPOC 0.5 -	1.000	NPOC:20.86mg/L		Completed	7/14/2018 11:36:37	52
58	Unknown	NPOC	BGG0170-BLK4		NPOC 0.5 -	1.000	NPOC:0.1891mg/L		Completed	7/14/2018 12:01:51	53
59	Unknown	NPOC	18F0330-12RE3		NPOC 0.5 -	1.000	NPOC:58.80mg/L		Completed	7/14/2018 12:23:56	54
60	Control	NPOC	SEQ-CCV5	CVS 20	CVS 20 pp	1.000	NPOC:18.85ppm	Control valu	Completed	7/14/2018 12:46:14	5
61	Control	NPOC	SEQ-CCB5		ICB CCB.tpl	1.000	NPOC:0.1516mg/L	Control valu	Completed	7/14/2018 1:10:22 P	6
62	Unknown	NPOC	18F0330-12RE4		NPOC 0.5 -	1.000	NPOC:58.52mg/L		Completed	7/14/2018 4:03:41 P	54
63	Control	NPOC	SEQ-CCV5	CVS 20	CVS 20 pp	1.000	NPOC:18.71ppm	Control valu	Completed	7/14/2018 4:25:38 P	7
64	Control	NPOC	SEQ-CCB5		ICB CCB.tpl	1.000	NPOC:0.1679mg/L	Control valu	Completed	7/14/2018 4:49:46 P	8

TOC-Control L Report

CDE
2018_07_13_001.tlx

Instr.Information

Instrument Options: TOC/ASI/IC Unit/
Catalyst: Regular Sensitivity

Sample

Sample Name: Rinse
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status: Completed
Chk. Result

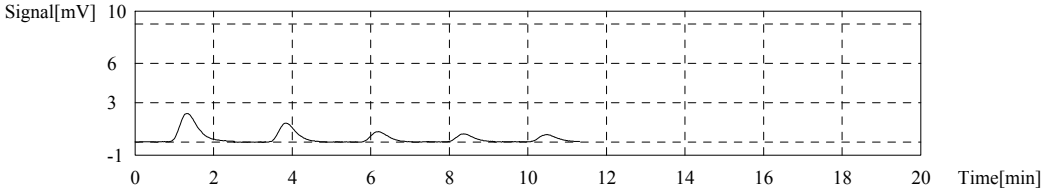
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2375mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.954	0.8329mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_12_13_05_33.cal	7/13/2018 1:41:09 PM
2	4.496	0.5385mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_12_13_05_33.cal	7/13/2018 1:44:30 PM
3	2.409	0.2885mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_12_13_05_33.cal	7/13/2018 1:47:50 PM
4	1.803	0.2160mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_12_13_05_33.cal	7/13/2018 1:51:13 PM
5	1.736	0.2079mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_12_13_05_33.cal	7/13/2018 1:54:48 PM

Mean Area 1.983
Mean Conc. 0.2375mg/L



Sample

Sample Name: Rinse
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status: Completed
Chk. Result

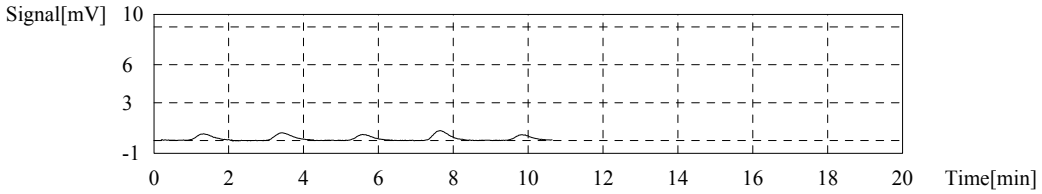
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1651mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.521	0.1822mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_12_13_05_33.cal	7/13/2018 2:02:29 PM
2	1.866	0.2235mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_12_13_05_33.cal	7/13/2018 2:06:05 PM
3	1.342	0.1607mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_12_13_05_33.cal	7/13/2018 2:09:30 PM
4	2.311	0.2768mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_12_13_05_33.cal	7/13/2018 2:13:04 PM
5	1.273	0.1525mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_12_13_05_33.cal	7/13/2018 2:16:30 PM

Mean Area 1.379
Mean Conc. 0.1651mg/L



Cal. Curve

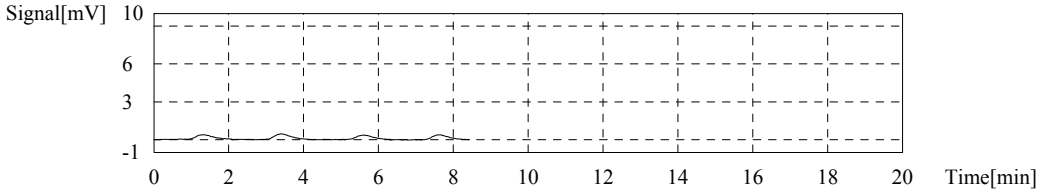
Sample Name: SEQ-CAL
Sample ID: Curve
Cal. Curve: NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal
Status Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1.051	100uL	1.000	*******		7/13/2018 2:24:11 PM
2	1.325	100uL	1.000	*******	E	7/13/2018 2:27:48 PM
3	1.021	100uL	1.000	*******		7/13/2018 2:31:07 PM
4	1.118	100uL	1.000	*******		7/13/2018 2:34:44 PM

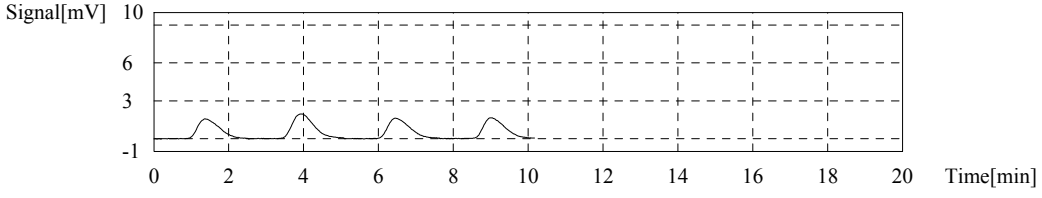
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 1.063



Conc: 0.5000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	6.219	100uL	10.00	*******		7/13/2018 2:45:27 PM
2	7.692	100uL	10.00	*******	E	7/13/2018 2:50:22 PM
3	6.343	100uL	10.00	*******		7/13/2018 2:55:13 PM
4	6.394	100uL	10.00	*******		7/13/2018 3:00:04 PM

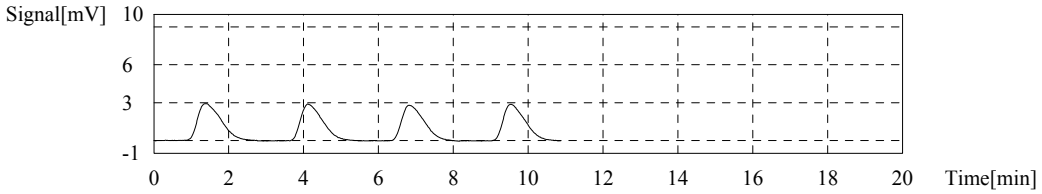
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 6.319



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	12.64	100uL	5.000	*******	E	7/13/2018 3:09:10 PM
2	11.89	100uL	5.000	*******		7/13/2018 3:12:51 PM
3	11.82	100uL	5.000	*******		7/13/2018 3:16:33 PM
4	11.88	100uL	5.000	*******		7/13/2018 3:20:14 PM

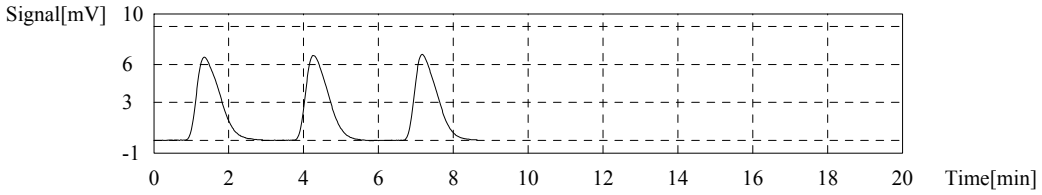
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 11.86



Conc: 2.500mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	28.04	100uL	2.000	*******		7/13/2018 3:29:39 PM
2	28.03	100uL	2.000	*******		7/13/2018 3:33:33 PM
3	27.98	100uL	2.000	*******		7/13/2018 3:37:21 PM

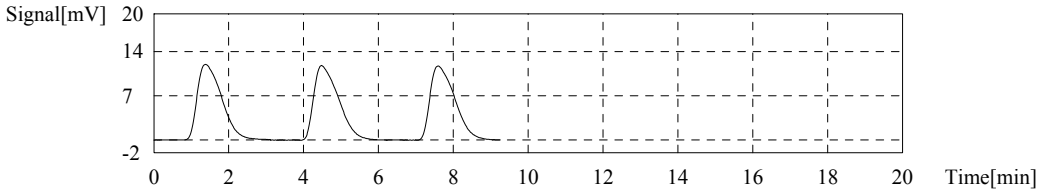
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 28.02



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	54.55	100uL	1.000	*******		7/13/2018 3:46:21 PM
2	54.68	100uL	1.000	*******		7/13/2018 3:50:27 PM
3	54.38	100uL	1.000	*******		7/13/2018 3:54:28 PM

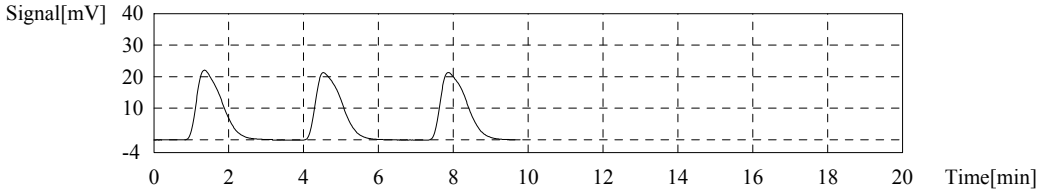
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 54.54



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	102.1	100uL	5.000	*******		7/13/2018 4:06:08 PM
2	102.0	100uL	5.000	*******		7/13/2018 4:10:27 PM
3	103.4	100uL	5.000	*******		7/13/2018 4:14:43 PM

Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 102.5



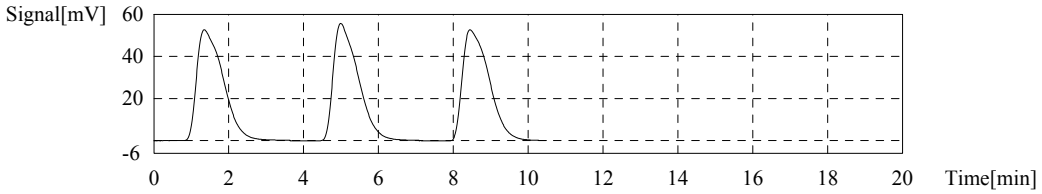
Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	259.5	100uL	2.000	*******		7/13/2018 4:24:51 PM
2	259.5	100uL	2.000	*******		7/13/2018 4:29:18 PM
3	262.4	100uL	2.000	*******		7/13/2018 4:33:41 PM

TOC-Control L Report

CDE
2018_07_13_001.tlx

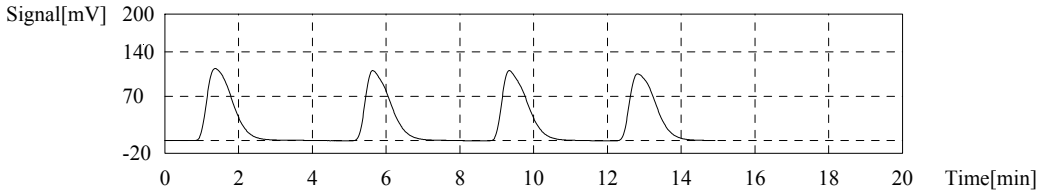
Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	260.5



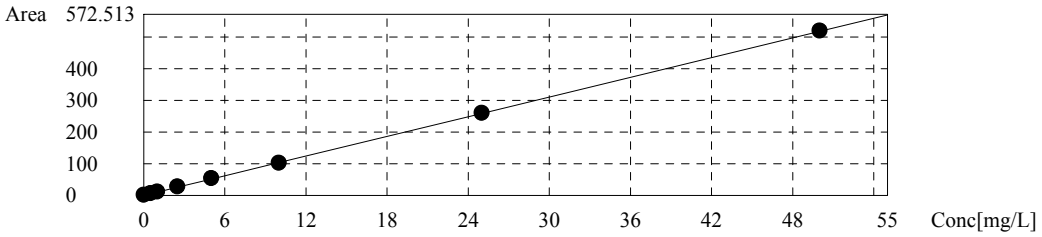
Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	549.8	100uL	1.000	*******	E	7/13/2018 4:43:52 PM
2	521.1	100uL	1.000	*******		7/13/2018 4:48:33 PM
3	522.5	100uL	1.000	*******		7/13/2018 4:52:58 PM
4	517.8	100uL	1.000	*******		7/13/2018 4:57:26 PM

Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	520.5



Slope:	10.38
Intercept	0.000
r^2	1.0000
r	1.0000
Zero Shift	Yes



Control Sample

Sample Name:	SEQ-ICV1
Sample ID:	CVS 20
Method:	CVS 20 ppm.tpl
Status	Completed
Chk. Result	Control value: 19.69 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

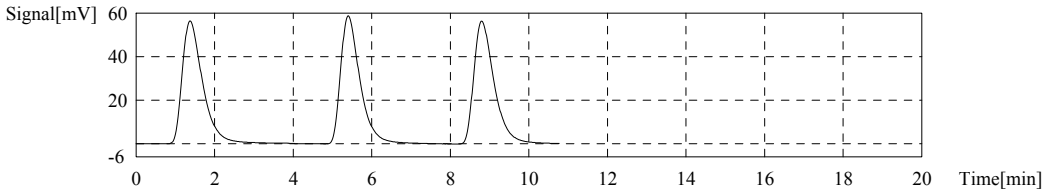
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:19.69ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	207.2	19.85ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 5:09:21 PM
2	204.4	19.58ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 5:13:43 PM
3	205.1	19.65ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 5:18:03 PM

Mean Area 205.6
Mean Conc. 19.69ppm



Control Sample

Sample Name: SEQ-ICB1
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1352 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

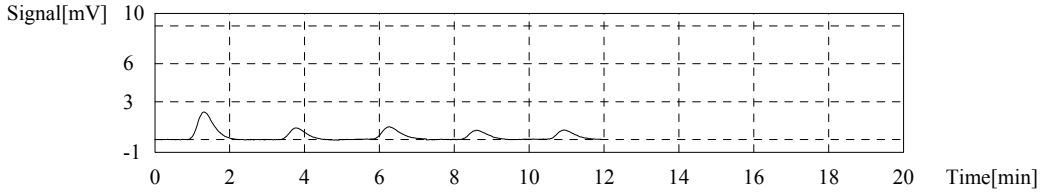
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1352mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.844	0.5414mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 5:28:23 PM
2	3.018	0.1726mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 5:31:54 PM
3	3.189	0.1891mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 5:35:16 PM
4	2.480	0.1208mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 5:38:47 PM
5	2.389	0.1120mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 5:42:15 PM

Mean Area 2.629
Mean Conc. 0.1352mg/L



Sample

Sample Name: SEQ-IFA1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

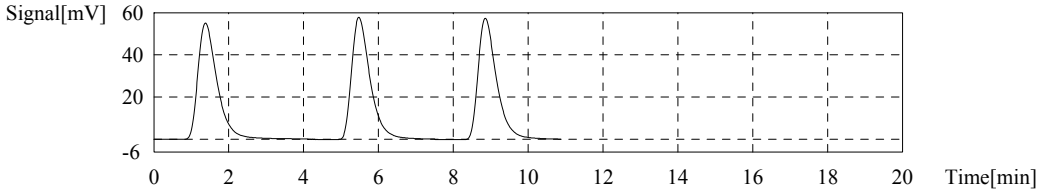
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:19.29mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	199.0	19.18mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 5:54:21 PM
2	201.7	19.44mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 5:58:44 PM
3	199.8	19.25mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 6:03:06 PM

Mean Area 200.2
Mean Conc. 19.29mg/L



Sample

Sample Name: BGG0063-BS3DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

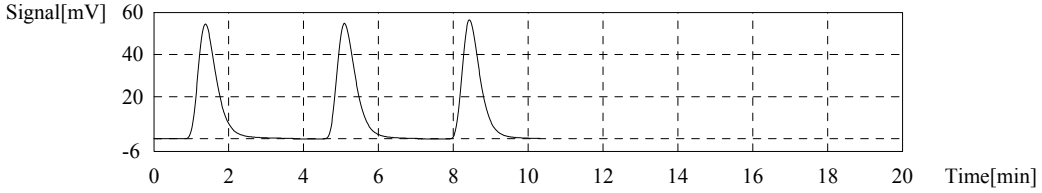
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.84mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	195.3	18.82mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 6:14:43 PM
2	196.4	18.93mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 6:19:03 PM
3	194.8	18.77mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 6:23:17 PM

Mean Area 195.5
Mean Conc. 18.84mg/L



Sample

Sample Name: BGG0063-DUP3DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

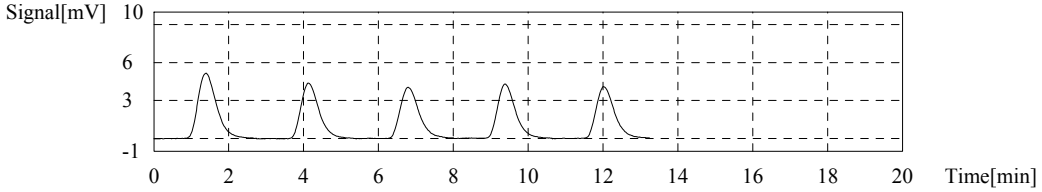
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.361mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.89	1.724mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 6:33:53 PM
2	14.79	1.425mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 6:37:35 PM
3	14.13	1.362mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 6:41:20 PM
4	14.32	1.380mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 6:45:08 PM
5	13.93	1.342mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 6:48:53 PM

Mean Area 14.13
Mean Conc. 1.361mg/L



Sample

Sample Name: BGG0063-MS3DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

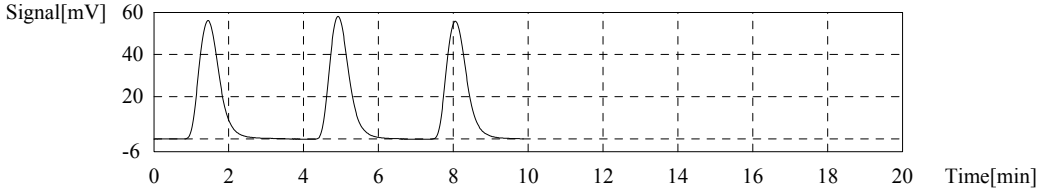
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:20.73mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	216.2	20.83mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 7:00:19 PM
2	215.0	20.72mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 7:04:25 PM
3	214.1	20.63mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 7:08:39 PM

Mean Area 215.1
Mean Conc. 20.73mg/L



Sample

Sample Name: 18F0226-03RE3DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

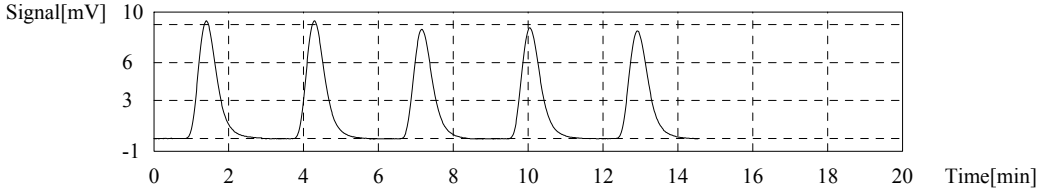
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.029mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	32.68	3.149mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 7:19:25 PM
2	32.82	3.163mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 7:23:16 PM
3	31.26	3.012mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 7:27:08 PM
4	31.60	3.045mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 7:31:00 PM
5	31.42	3.028mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 7:35:02 PM

Mean Area 31.43
Mean Conc. 3.029mg/L



Sample

Sample Name: 18F0226-04RE3DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

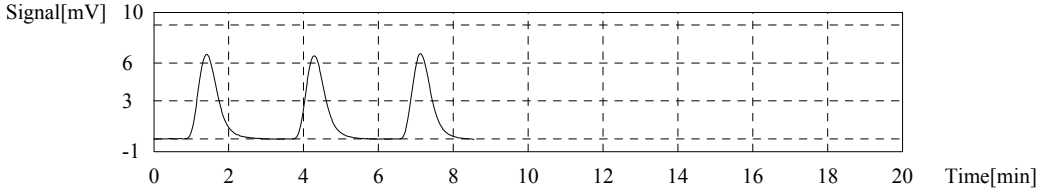
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.333mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	24.43	2.354mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 7:45:48 PM
2	23.85	2.298mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 7:49:38 PM
3	24.35	2.347mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 7:53:29 PM

Mean Area 24.21
Mean Conc. 2.333mg/L



Sample

Sample Name: 18F0226-05RE3DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

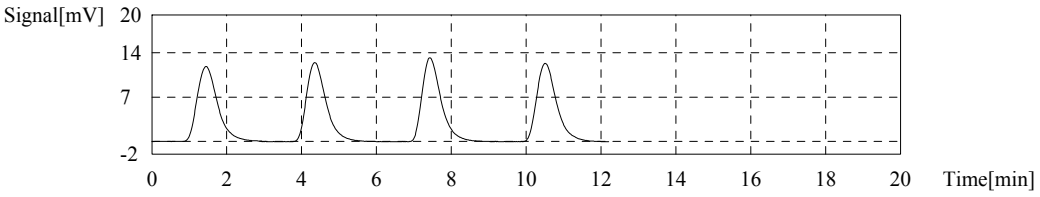
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.404mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	45.02	4.339mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 8:04:19 PM
2	45.82	4.416mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 8:08:25 PM
3	47.09	4.538mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 8:12:28 PM
4	46.25	4.457mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 8:16:35 PM

Mean Area 45.70
Mean Conc. 4.404mg/L



Sample

Sample Name: 18F0226-06RE3DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

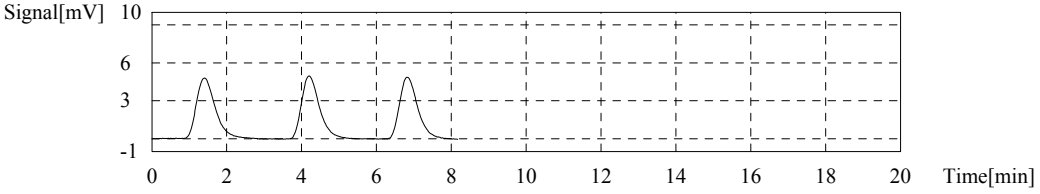
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.612mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	16.87	1.626mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 8:27:18 PM
2	16.60	1.600mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 8:30:55 PM
3	16.70	1.609mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 8:34:48 PM

Mean Area 16.72
Mean Conc. 1.612mg/L



Sample

Sample Name: 18F0226-07RE3DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

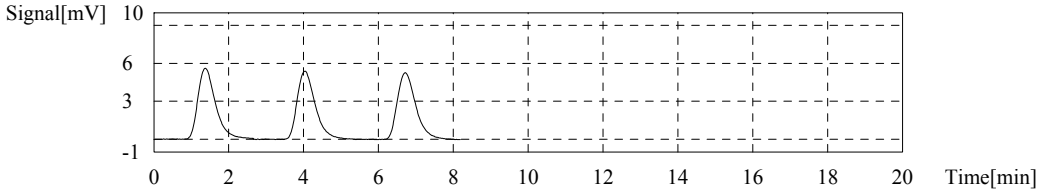
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.758mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.29	1.763mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 8:45:15 PM
2	18.10	1.744mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 8:49:03 PM
3	18.33	1.766mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 8:53:02 PM

Mean Area 18.24
Mean Conc. 1.758mg/L



Sample

Sample Name: 18F0226-08RE3DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

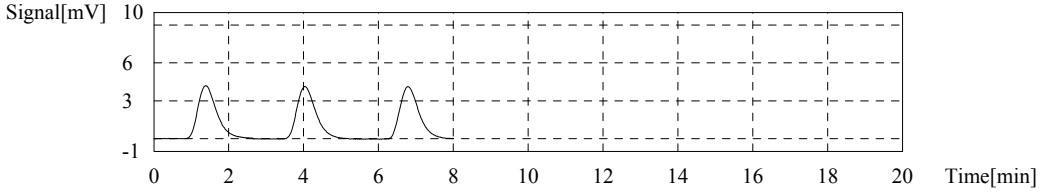
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.421mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.62	1.409mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 9:03:34 PM
2	14.84	1.430mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 9:07:28 PM
3	14.78	1.424mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 9:11:07 PM

Mean Area 14.75
Mean Conc. 1.421mg/L



Control Sample

Sample Name: SEQ-CCV1
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.63 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

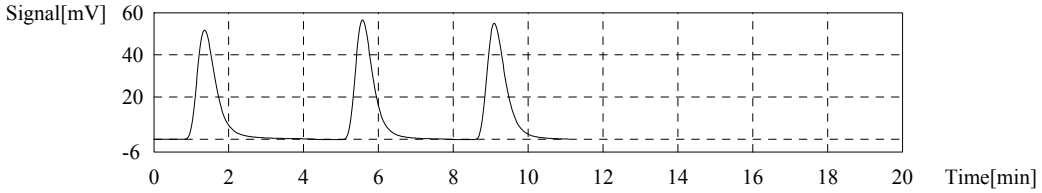
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.63ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	190.6	18.25ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 9:23:23 PM
2	195.5	18.72ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 9:27:54 PM
3	197.5	18.91ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 9:32:13 PM

Mean Area 194.5
Mean Conc. 18.63ppm



Control Sample

Sample Name: SEQ-CCB1
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.06940 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

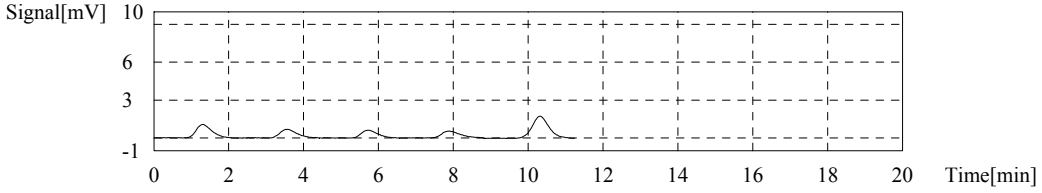
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.06940mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.108	0.1813mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 9:42:21 PM
2	2.103	0.08447mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 9:45:48 PM
3	1.881	0.06307mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 9:49:15 PM
4	1.856	0.06067mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 9:52:53 PM
5	5.511	0.4129mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 9:56:32 PM

Mean Area 1.947
Mean Conc. 0.06940mg/L



Sample

Sample Name: 18F0226-09RE3DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

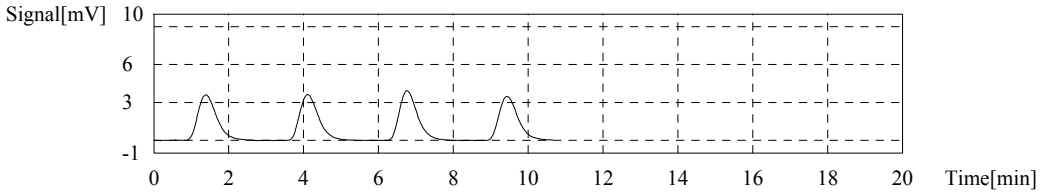
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.213mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.65	1.219mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 10:07:14 PM
2	12.76	1.230mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 10:10:58 PM
3	13.44	1.295mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 10:14:45 PM
4	12.34	1.189mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 10:18:28 PM

Mean Area 12.58
Mean Conc. 1.213mg/L



Sample

Sample Name: 18F0226-01RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

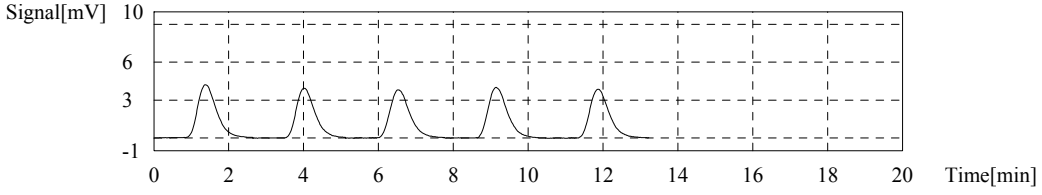
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.330mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.65	1.412mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 10:29:02 PM
2	13.53	1.304mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 10:32:40 PM
3	13.90	1.340mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 10:36:36 PM
4	14.45	1.393mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 10:40:28 PM
5	13.97	1.346mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 10:44:17 PM

Mean Area 13.80
Mean Conc. 1.330mg/L



Sample

Sample Name: 18F0226-02RE4
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

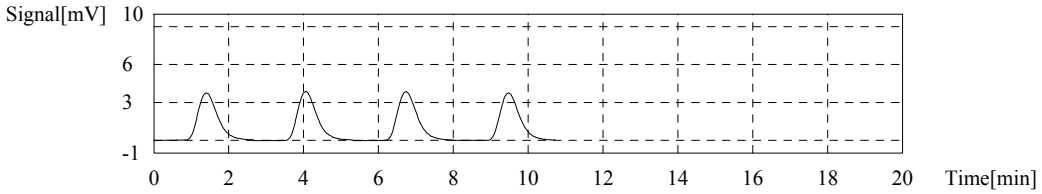
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.310mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.44	1.295mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 10:54:43 PM
2	13.87	1.337mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 10:58:31 PM
3	14.19	1.367mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 11:02:23 PM
4	13.46	1.297mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 11:06:04 PM

Mean Area 13.59
Mean Conc. 1.310mg/L



Sample

Sample Name: 18F0226-03RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

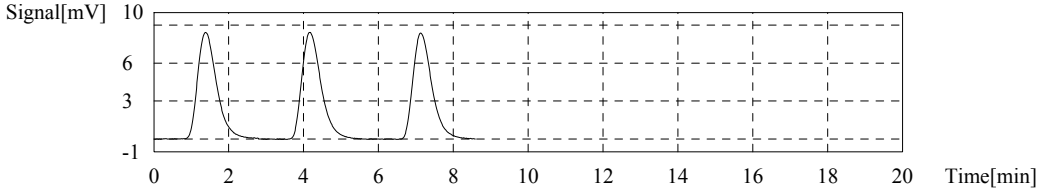
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.897mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	29.83	2.875mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 11:16:44 PM
2	30.65	2.954mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 11:20:42 PM
3	29.69	2.861mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 11:24:32 PM

Mean Area 30.06
Mean Conc. 2.897mg/L



Sample

Sample Name: 18F0226-04RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

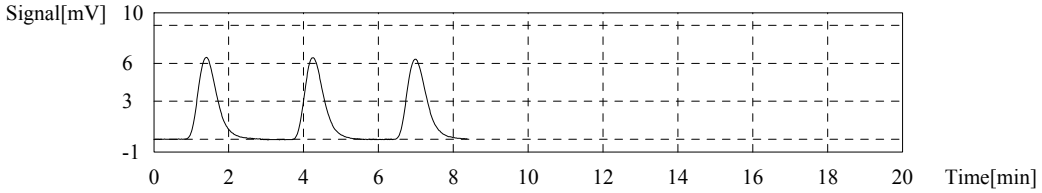
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.241mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	23.12	2.228mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 11:35:17 PM
2	23.30	2.245mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 11:39:01 PM
3	23.33	2.248mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 11:42:50 PM

Mean Area 23.25
Mean Conc. 2.241mg/L



Sample

Sample Name: 18F0226-05RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

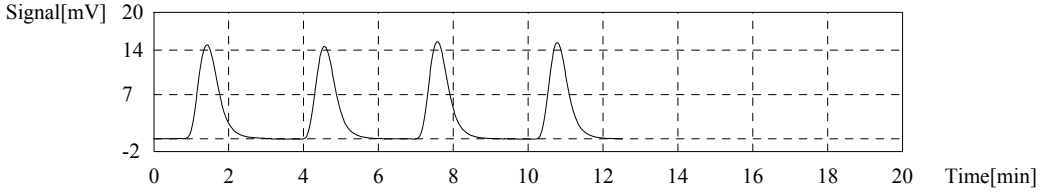
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.505mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	57.51	5.542mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 11:53:51 PM
2	55.49	5.348mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/13/2018 11:57:53 PM
3	57.86	5.576mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:02:05 AM
4	55.99	5.396mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:06:14 AM

Mean Area 57.12
Mean Conc. 5.505mg/L



Sample

Sample Name: 18F0226-06RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

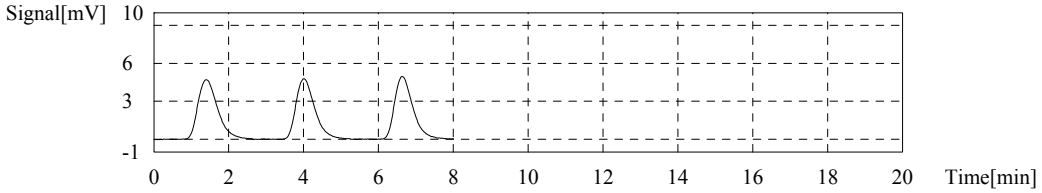
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.632mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.15	1.653mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:16:45 AM
2	16.73	1.612mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:20:33 AM
3	16.92	1.631mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:24:27 AM

Mean Area 16.93
Mean Conc. 1.632mg/L



Sample

Sample Name: 18F0226-07RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

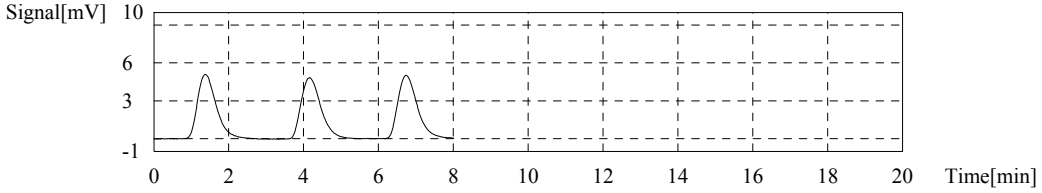
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.733mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.99	1.734mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:34:59 AM
2	17.89	1.724mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:38:37 AM
3	18.06	1.740mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:42:27 AM

Mean Area 17.98
Mean Conc. 1.733mg/L



Sample

Sample Name: 18F0226-08RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

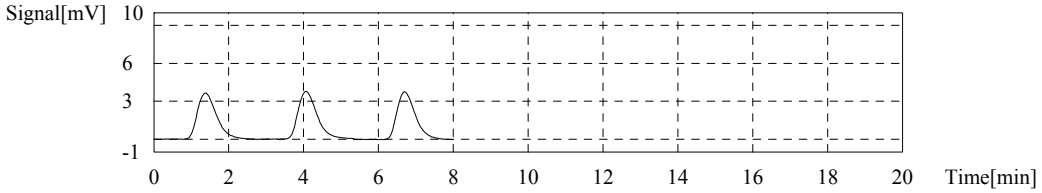
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.264mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.07	1.260mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:53:01 AM
2	13.18	1.270mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:56:46 AM
3	13.09	1.261mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 1:00:33 AM

Mean Area 13.11
Mean Conc. 1.264mg/L



Sample

Sample Name: 18F0226-09RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

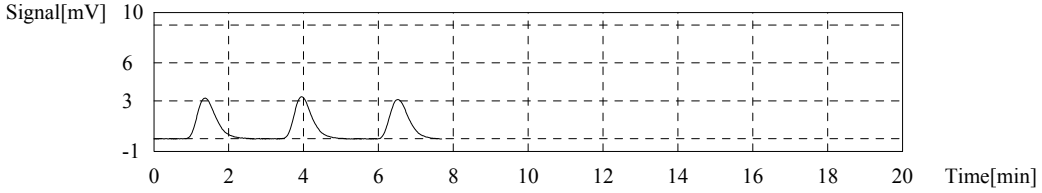
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.074mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.16	1.075mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 1:11:02 AM
2	11.17	1.076mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 1:14:47 AM
3	11.11	1.071mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 1:18:34 AM

Mean Area 11.15
Mean Conc. 1.074mg/L



Control Sample

Sample Name: SEQ-CCV2
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.77 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

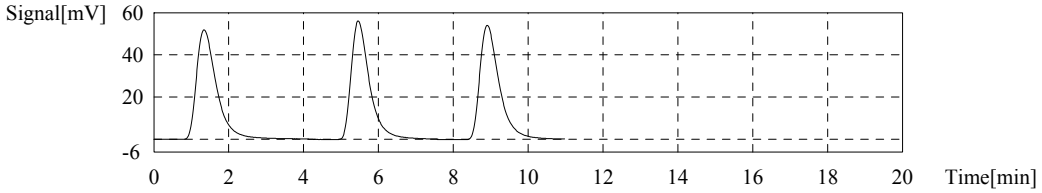
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.77ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	195.7	18.74ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 1:30:41 AM
2	194.5	18.63ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 1:35:07 AM
3	197.9	18.95ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 1:39:31 AM

Mean Area 196.0
Mean Conc. 18.77ppm



Control Sample

Sample Name: SEQ-CCB2
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.02822 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

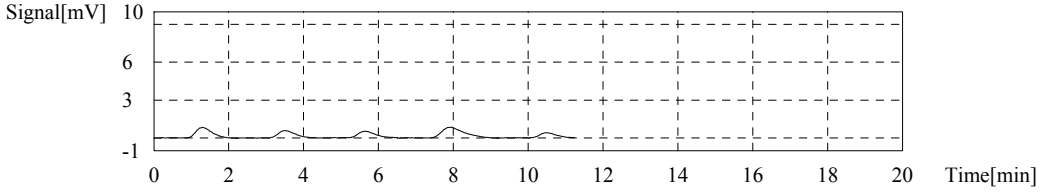
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.02822mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.533	0.1259mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 1:49:37 AM
2	1.787	0.05402mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 1:53:03 AM
3	1.571	0.03320mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 1:56:35 AM
4	3.619	0.2306mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 2:00:36 AM
5	1.200	-0.00255mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 2:03:39 AM

Mean Area 1.519
Mean Conc. 0.02822mg/L



Sample

Sample Name: 18F0248-01RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

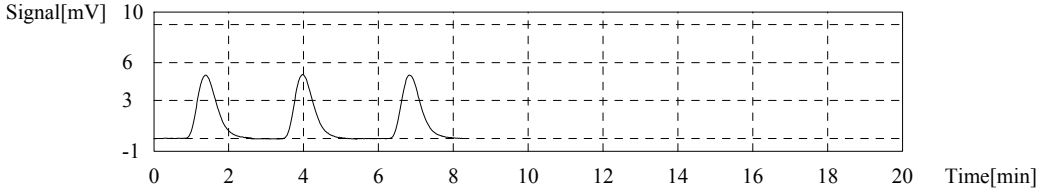
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.770mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.21	1.755mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 2:14:14 AM
2	18.54	1.787mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 2:18:15 AM
3	18.34	1.767mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 2:22:03 AM

Mean Area 18.36
Mean Conc. 1.770mg/L



Sample

Sample Name: 18F0248-02RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

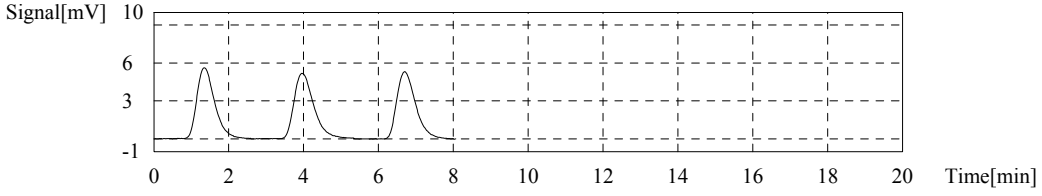
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.811mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.58	1.791mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 2:32:33 AM
2	18.90	1.821mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 2:36:29 AM
3	18.89	1.820mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 2:40:16 AM

Mean Area 18.79
Mean Conc. 1.811mg/L



Sample

Sample Name: 18F0248-03RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

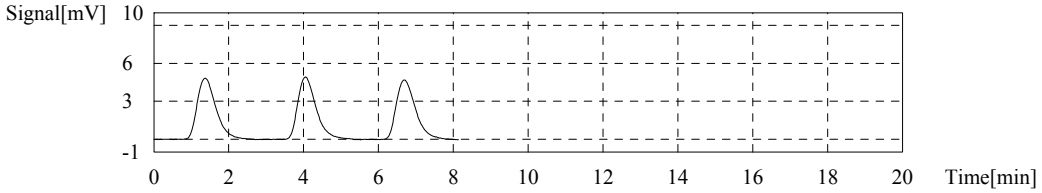
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.632mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.00	1.638mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 2:50:46 AM
2	16.80	1.619mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 2:54:30 AM
3	17.01	1.639mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 2:58:27 AM

Mean Area 16.94
Mean Conc. 1.632mg/L



Sample

Sample Name: 18F0248-04RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

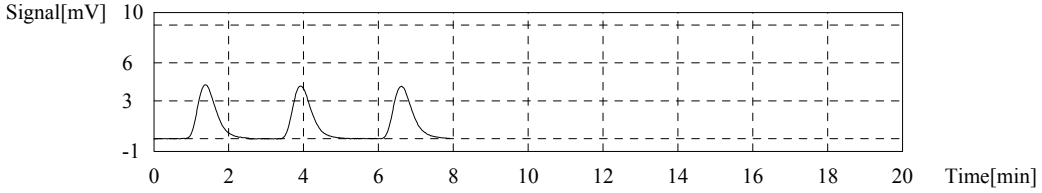
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.426mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.64	1.411mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 3:08:53 AM
2	14.80	1.426mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 3:12:49 AM
3	14.96	1.442mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 3:16:36 AM

Mean Area 14.80
Mean Conc. 1.426mg/L



Sample

Sample Name: 18F0248-05RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

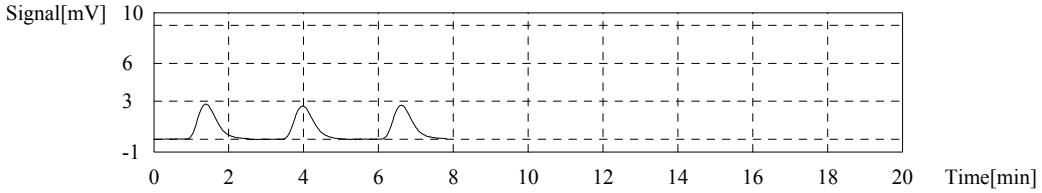
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.9359mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.844	0.9487mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 3:27:02 AM
2	9.682	0.9330mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 3:30:54 AM
3	9.608	0.9259mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 3:34:38 AM

Mean Area 9.711
Mean Conc. 0.9359mg/L



Sample

Sample Name: 18F0248-06RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

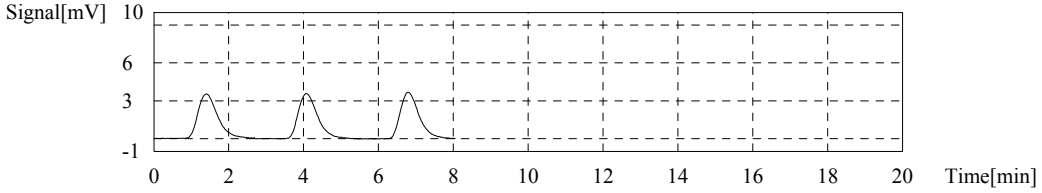
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.237mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.73	1.227mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 3:45:16 AM
2	12.85	1.238mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 3:49:05 AM
3	12.94	1.247mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 3:52:48 AM

Mean Area 12.84
Mean Conc. 1.237mg/L



Sample

Sample Name: 18F0248-07RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

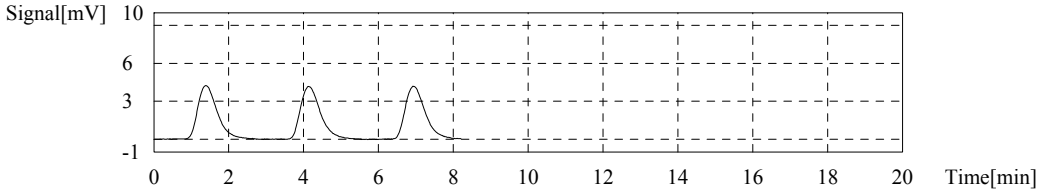
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.486mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	15.21	1.466mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:03:26 AM
2	15.57	1.500mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:07:17 AM
3	15.47	1.491mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:10:57 AM

Mean Area 15.42
Mean Conc. 1.486mg/L



Sample

Sample Name: 18F0248-08RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

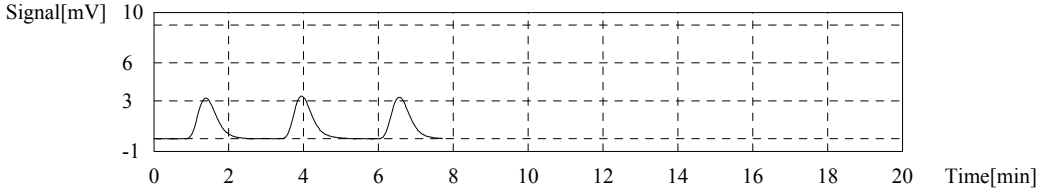
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.124mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.53	1.111mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:21:24 AM
2	11.75	1.132mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:25:13 AM
3	11.72	1.129mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:28:56 AM

Mean Area 11.67
Mean Conc. 1.124mg/L



Sample

Sample Name: 18F0218-05RE2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

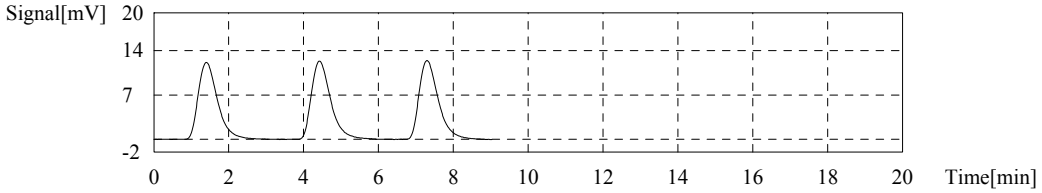
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.292mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	44.05	4.245mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:39:59 AM
2	44.38	4.277mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:43:52 AM
3	45.18	4.354mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:47:59 AM

Mean Area 44.54
Mean Conc. 4.292mg/L



Sample

Sample Name: BGG0064-MRL3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

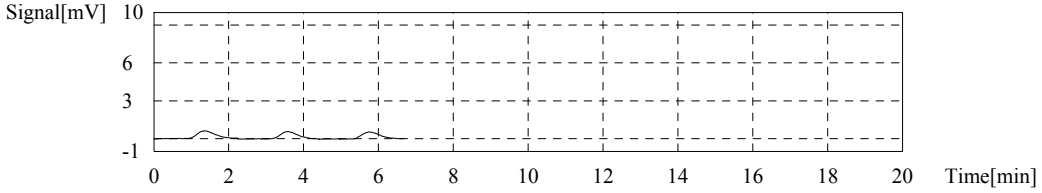
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1786mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.904	0.1835mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:58:08 AM
2	1.832	0.1765mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 5:01:51 AM
3	1.823	0.1757mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 5:05:44 AM

Mean Area 1.853
Mean Conc. 0.1786mg/L



Control Sample

Sample Name: SEQ-CCV3
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.70 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

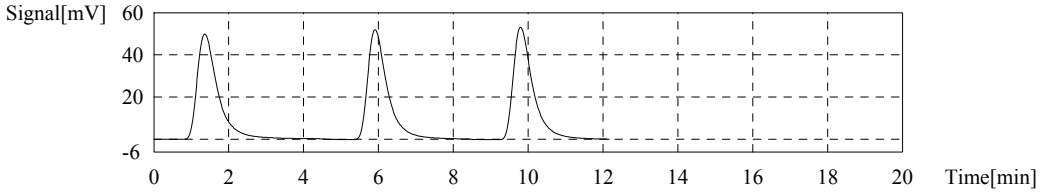
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.70ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	194.9	18.66ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 5:18:12 AM
2	193.3	18.51ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 5:23:05 AM
3	197.7	18.93ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 5:27:48 AM

Mean Area 195.3
Mean Conc. 18.70ppm



Control Sample

Sample Name: SEQ-CCB3
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.01226 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

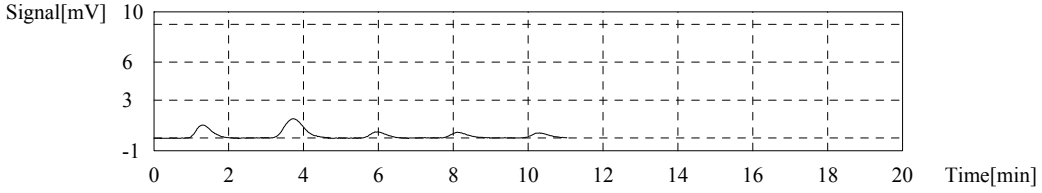
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.01226mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.118	0.1823mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 5:37:58 AM
2	5.429	0.4050mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 5:41:35 AM
3	1.547	0.03089mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 5:44:51 AM
4	1.293	0.00641mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 5:48:22 AM
5	1.221	-0.00053mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 5:51:46 AM

Mean Area 1.354
Mean Conc. 0.01226mg/L



Sample

Sample Name: BGG0064-BLK3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

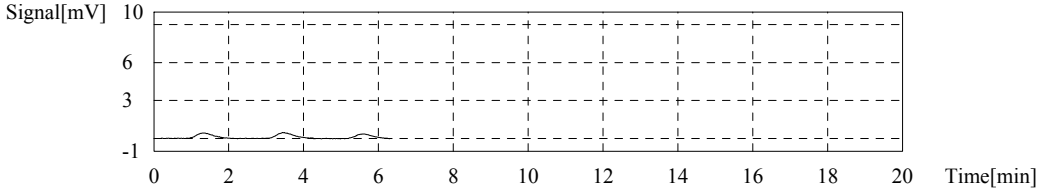
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1193mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.271	0.1225mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 6:01:44 AM
2	1.299	0.1252mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 6:05:29 AM
3	1.144	0.1102mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 6:09:13 AM

Mean Area 1.238
Mean Conc. 0.1193mg/L



Sample

Sample Name: BGG0064-BS3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

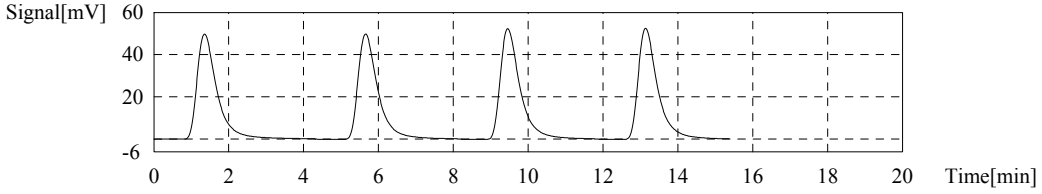
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.11mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	186.1	17.93mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 6:21:15 AM
2	185.8	17.91mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 6:26:03 AM
3	194.0	18.70mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 6:30:43 AM
4	192.0	18.50mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 6:35:19 AM

Mean Area 188.0
Mean Conc. 18.11mg/L



Sample

Sample Name: BGG0064-DUP3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

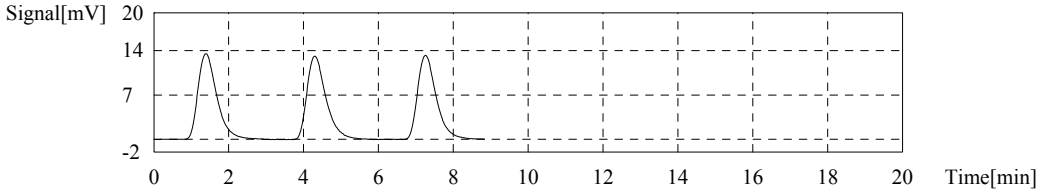
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.542mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	47.69	4.596mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 6:46:09 AM
2	47.10	4.539mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 6:50:06 AM
3	46.59	4.490mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 6:54:04 AM

Mean Area 47.13
Mean Conc. 4.542mg/L



Sample

Sample Name: BGG0064-MS3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

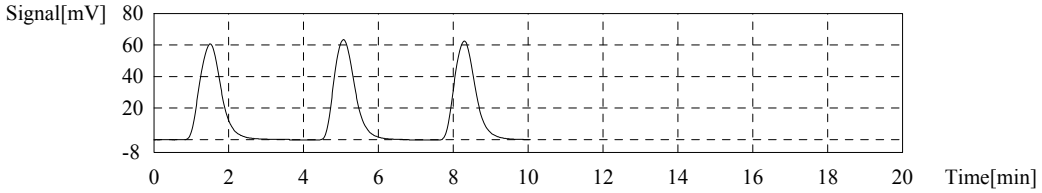
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:23.83mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	246.3	23.74mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 7:05:36 AM
2	248.9	23.99mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 7:09:48 AM
3	246.6	23.76mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 7:14:01 AM

Mean Area 247.3
Mean Conc. 23.83mg/L



Sample

Sample Name: 18F0272-07RE2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

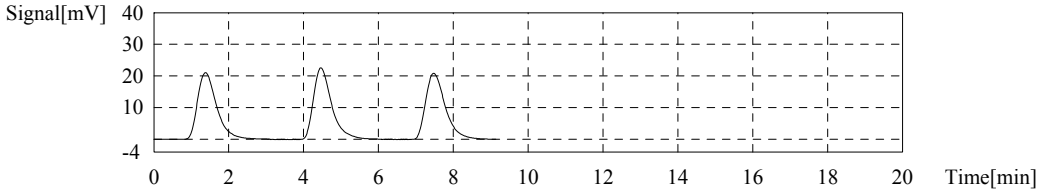
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7.377mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	75.29	7.256mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 7:25:02 AM
2	77.34	7.453mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 7:29:01 AM
3	77.03	7.423mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 7:33:04 AM

Mean Area 76.55
Mean Conc. 7.377mg/L



Sample

Sample Name: 18F0272-14RE2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

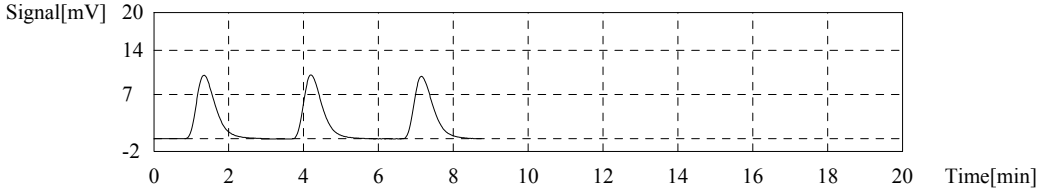
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.441mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	35.85	3.455mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 7:43:51 AM
2	35.56	3.427mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 7:47:48 AM
3	35.70	3.440mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 7:51:44 AM

Mean Area 35.70
Mean Conc. 3.441mg/L



Sample

Sample Name: BGG0172-BLK4
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

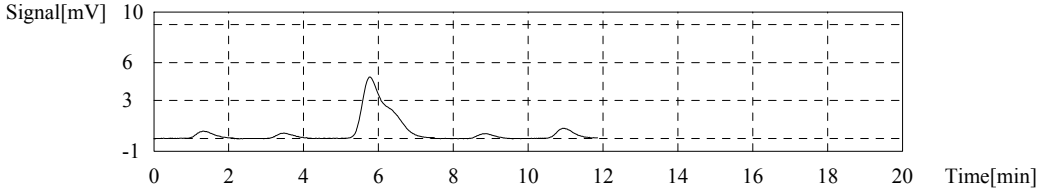
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1376mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.722	0.1659mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 8:01:48 AM
2	1.303	0.1256mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 8:05:32 AM
3	23.15	2.231mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 8:10:28 AM
4	1.260	0.1214mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 8:13:34 AM
5	2.510	0.2419mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 8:17:29 AM

Mean Area 1.428
Mean Conc. 0.1376mg/L



Sample

Sample Name: BGG0172-BS4
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

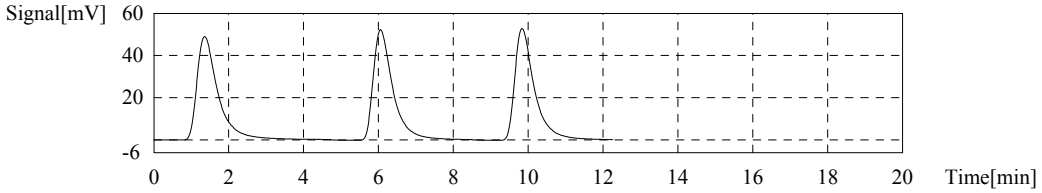
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.74mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	194.6	18.75mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 8:29:56 AM
2	193.2	18.62mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 8:34:43 AM
3	195.7	18.86mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 8:39:28 AM

Mean Area 194.5
Mean Conc. 18.74mg/L



Sample

Sample Name: 18F0298-01RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

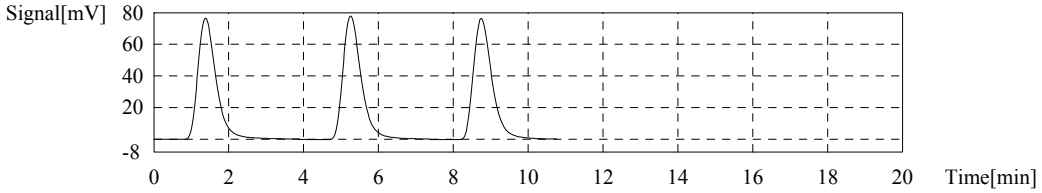
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.64mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	262.4	25.29mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 8:51:16 AM
2	268.2	25.85mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 8:55:45 AM
3	267.6	25.79mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 9:00:09 AM

Mean Area 266.1
Mean Conc. 25.64mg/L



Sample

Sample Name: 18F0298-02RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

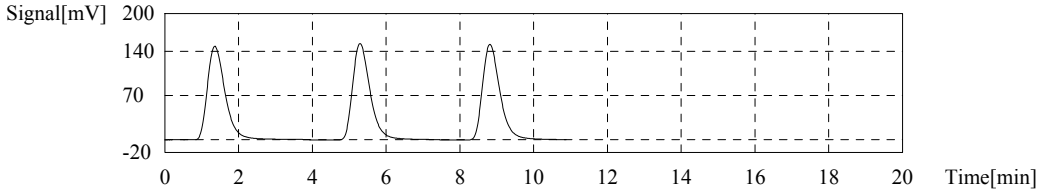
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:48.54mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	500.8	48.26mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 9:12:00 AM
2	507.2	48.88mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 9:16:31 AM
3	503.0	48.47mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 9:20:57 AM

Mean Area 503.7
Mean Conc. 48.54mg/L



Control Sample

Sample Name: SEQ-CCV4
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 19.00 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

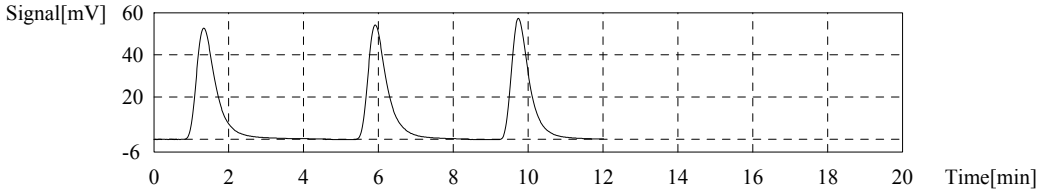
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:19.00ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	198.5	19.01ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 9:33:27 AM
2	198.7	19.03ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 9:38:16 AM
3	198.0	18.96ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 9:42:52 AM

Mean Area 198.4
Mean Conc. 19.00ppm



Control Sample

Sample Name: SEQ-CCB4
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1024 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

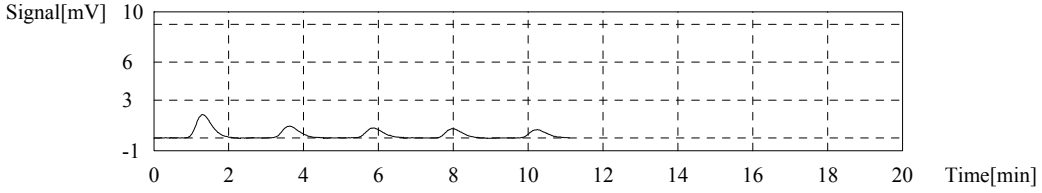
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1024mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.663	0.4275mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 9:53:04 AM
2	2.941	0.1652mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 9:56:30 AM
3	2.392	0.1123mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 9:59:54 AM
4	2.334	0.1067mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 10:03:30 AM
5	2.140	0.08803mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 10:06:58 AM

Mean Area 2.289
Mean Conc. 0.1024mg/L



Sample

Sample Name: 18F0298-03RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

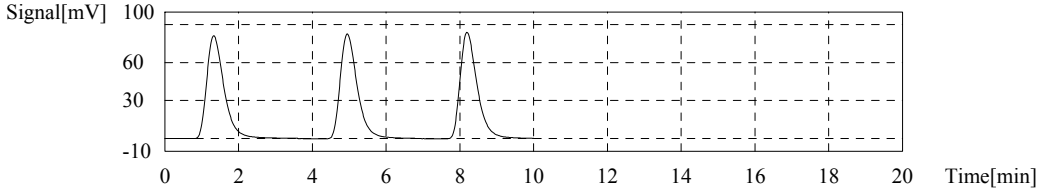
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:25.94mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	267.2	25.75mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 10:19:01 AM
2	268.2	25.85mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 10:23:16 AM
3	272.1	26.22mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 10:27:27 AM

Mean Area 269.2
Mean Conc. 25.94mg/L



Sample

Sample Name: 18F0298-04RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

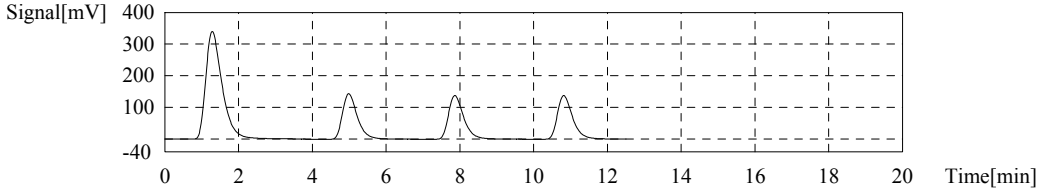
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:99.40mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1064	102.5mg/L	100uL	1.000	R	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 10:39:05 AM
2	407.1	100.6mg/L	39uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 10:42:57 AM
3	400.0	98.84mg/L	39uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 10:46:54 AM
4	399.7	98.77mg/L	39uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 10:50:52 AM

Mean Area 402.3
Mean Conc. 99.40mg/L



Sample

Sample Name: BGG0172-DUP7
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

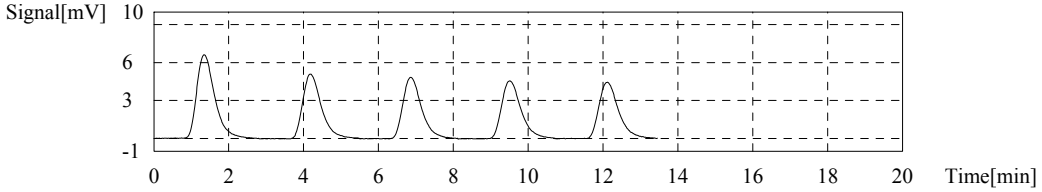
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.590mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	22.22	2.141mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 11:01:36 AM
2	17.62	1.698mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 11:05:16 AM
3	16.88	1.627mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 11:09:00 AM
4	16.38	1.579mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 11:12:45 AM
5	16.25	1.566mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 11:16:40 AM

Mean Area 16.50
Mean Conc. 1.590mg/L



Sample

Sample Name: BGG0172-MS6
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

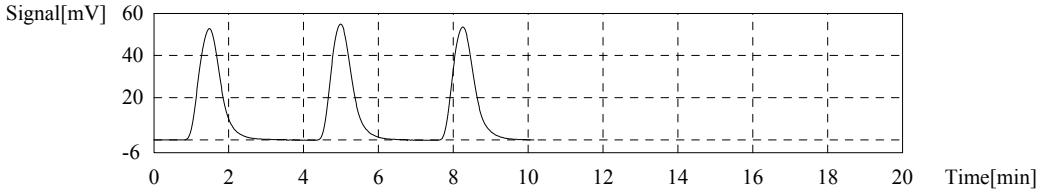
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:20.86mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	214.9	20.71mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 11:28:02 AM
2	216.9	20.90mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 11:32:16 AM
3	217.7	20.98mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 11:36:37 AM

Mean Area 216.5
Mean Conc. 20.86mg/L



Sample

Sample Name: BGG0170-BLK4
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

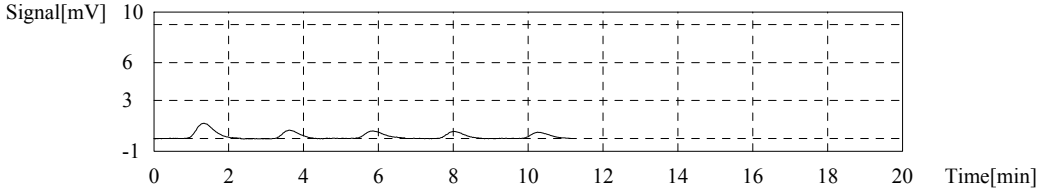
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1891mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.954	0.3810mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 11:46:52 AM
2	2.122	0.2045mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 11:50:32 AM
3	1.947	0.1876mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 11:54:18 AM
4	1.818	0.1752mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 11:58:08 AM
5	1.588	0.1530mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:01:51 PM

Mean Area 1.962
Mean Conc. 0.1891mg/L



Sample

Sample Name: 18F0330-12RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

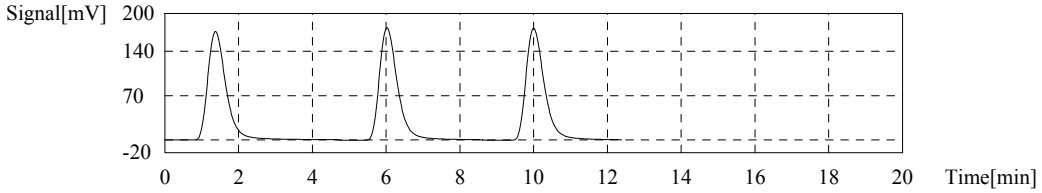
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:58.80mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	598.7	57.70mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:14:14 PM
2	613.1	59.08mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:19:12 PM
3	618.6	59.61mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:23:56 PM

Mean Area 610.1
Mean Conc. 58.80mg/L



Control Sample

Sample Name: SEQ-CCV5
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.85 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

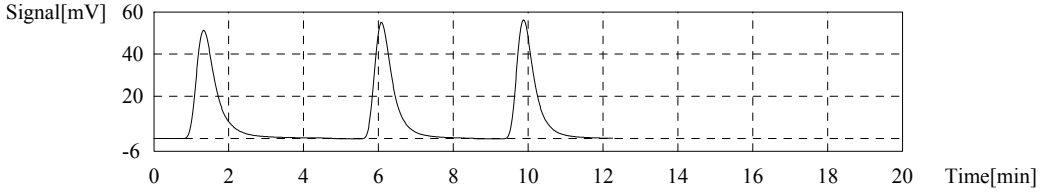
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.85ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	198.5	19.01ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:36:46 PM
2	195.2	18.69ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:41:33 PM
3	196.7	18.84ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:46:14 PM

Mean Area 196.8
Mean Conc. 18.85ppm



Control Sample

Sample Name: SEQ-CCB5
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1516 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

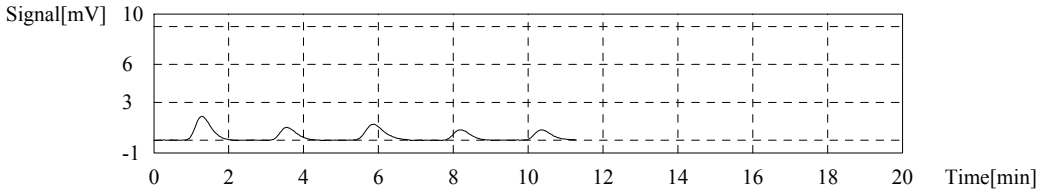
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1516mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.622	0.4236mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:56:23 PM
2	3.216	0.1917mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 12:59:53 PM
3	4.398	0.3056mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 1:03:30 PM
4	2.642	0.1364mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 1:06:49 PM
5	2.542	0.1268mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 1:10:22 PM

Mean Area 2.800
Mean Conc. 0.1516mg/L



Sample

Sample Name: 18F0330-12RE4
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

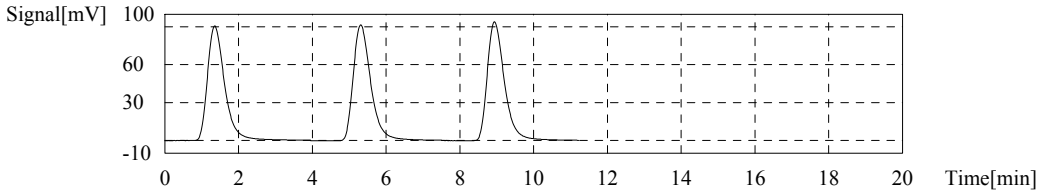
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:58.52mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	297.1	57.26mg/L	100uL	2.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 3:54:02 PM
2	305.9	58.96mg/L	100uL	2.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 3:58:42 PM
3	307.8	59.32mg/L	100uL	2.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:03:41 PM

Mean Area 303.6
Mean Conc. 58.52mg/L



Control Sample

Sample Name: SEQ-CCV5
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.71 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

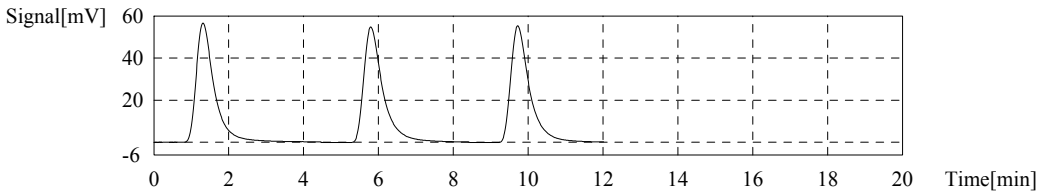
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.71ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	192.9	18.47ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:16:05 PM
2	197.7	18.93ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:21:01 PM
3	195.4	18.71ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:25:38 PM

Mean Area 195.3
Mean Conc. 18.71ppm



Control Sample

Sample Name: SEQ-CCB5
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1679 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

TOC-Control L Report

CDE
2018_07_13_001.tlx

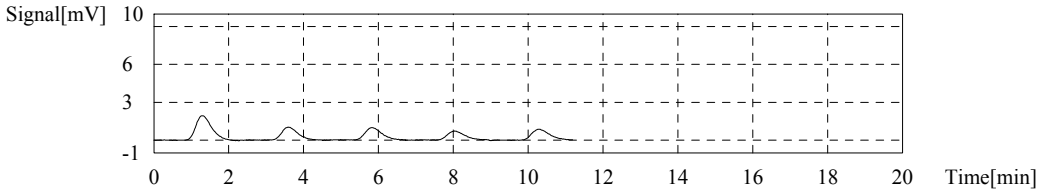
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1679mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.837	0.4443mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:35:49 PM
2	3.042	0.1750mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:39:15 PM
3	3.057	0.1764mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:42:45 PM
4	2.197	0.09353mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:46:16 PM
5	2.807	0.1523mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/14/2018 4:49:46 PM

Mean Area 2.969
Mean Conc. 0.1679mg/L



Analytical Resources, Incorporated
Analytical Chemists and Consultants

Conventionals Laboratory Analyst Notes

ARI Job No.: 18F0226 18F0248, 18F0272

Client ID:

Parameter: TOC, DOC

Client Project:

List problems, concerns, corrective actions and any other pertinent information
Initial analysis in hold but reportable analysis was performed out of hold due to instrument issues.

Analyst Initials:		Date:	7-16-18

6147F

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGG0270	Instrument:	Orion115
		Calibration:	UNASSIGNED

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
1	SGG0270-ICV1	adzuData_07192018@114	NA	07/17/18 15:09
1	SGG0270-ICV1	adzuData_07192018@105	NA	07/17/18 15:09
1	SGG0270-ICB1	adzuData_07192018@114	NA	07/17/18 15:35
1	SGG0270-ICB1	adzuData_07192018@105	NA	07/17/18 15:35
1	SGG0270-IFA1	adzuData_07192018@114	NA	07/17/18 15:54
1	SGG0270-IFA1	adzuData_07192018@105	NA	07/17/18 15:54
1	SGG0270-CCV1	adzuData_07192018@114	NA	07/17/18 19:47
1	SGG0270-CCV1	adzuData_07192018@105	NA	07/17/18 19:47
1	SGG0270-CCB1	adzuData_07192018@105	NA	07/17/18 20:13
1	SGG0270-CCB1	adzuData_07192018@114	NA	07/17/18 20:13
MRL Check	BGG0293-MRL1	adzuData_07192018@114	Water	07/17/18 23:36
Blank	BGG0293-BLK1	adzuData_07192018@114	Water	07/17/18 23:57
1	SGG0270-CCV2	adzuData_07192018@114	NA	07/18/18 00:21
1	SGG0270-CCV2	adzuData_07192018@105	NA	07/18/18 00:21
1	SGG0270-CCB2	adzuData_07192018@114	NA	07/18/18 00:44
1	SGG0270-CCB2	adzuData_07192018@105	NA	07/18/18 00:44
LCS	BGG0293-BS1	adzuData_07192018@114	Water	07/18/18 01:07
LDW18-SP-01	BGG0293-DUP1	adzuData_07192018@114	Water	07/18/18 01:31
LDW18-SP-01	BGG0293-MS1	adzuData_07192018@114	Water	07/18/18 01:50
1	SGG0270-CCV3	adzuData_07192018@105	NA	07/18/18 05:12
1	SGG0270-CCV3	adzuData_07192018@114	NA	07/18/18 05:12
1	SGG0270-CCB3	adzuData_07192018@114	NA	07/18/18 05:34
1	SGG0270-CCB3	adzuData_07192018@105	NA	07/18/18 05:34
Calibration Check	SGG0270-CCV5	adzuData_07192018@114	NA	07/18/18 12:09
Calibration Blank	SGG0270-CCB5	adzuData_07192018@114	NA	07/18/18 12:35
Calibration Check	SGG0270-CCV9	adzuData_07192018@114	NA	07/19/18 00:30
Calibration Blank	SGG0270-CCB9	adzuData_07192018@114	NA	07/19/18 00:57

	Type	Analysis	Sample Name	Sample I	Origin	Manual	Result	Notes	Status	Date / Time	Vial
1	Unknown	NPOC	Rinse		NPOC 0.5 -	1.000	NPOC:0.1237mg/L		Completed	7/17/2018 2:57:36 PM	0
2	Control	NPOC	SEQ-ICV1	CVS 20	CVS 20 pp	1.000	NPOC:18.16ppm	Control valu	Completed	7/17/2018 3:18:42 PM	3
3	Control	NPOC	SEQ-ICB1		ICB CCB.tpl	1.000	NPOC:0.07676mg/L	Control valu	Completed	7/17/2018 3:42:43 PM	4
4	Unknown	NPOC	SEQ-IFA1		NPOC 0.5 -	1.000	NPOC:18.19mg/L		Completed	7/17/2018 4:03:43 PM	9
5	Unknown	NPOC	18F0310-04RE1		NPOC 0.5 -	1.000	NPOC:5.572mg/L		Completed	7/17/2018 4:27:32 PM	10
6	Unknown	NPOC	18F0311-07RE1		NPOC 0.5 -	1.000	NPOC:9.601mg/L		Completed	7/17/2018 4:47:00 PM	11
7	Unknown	NPOC	BGG0375-MRL1		NPOC 0.5 -	1.000	NPOC:0.8982mg/L		Completed	7/17/2018 5:12:26 PM	12
8	Unknown	NPOC	BGG0375-BLK1		NPOC 0.5 -	1.000	NPOC:0.1254mg/L		Completed	7/17/2018 5:37:26 PM	13
9	Unknown	NPOC	BGG0375-BS1		NPOC 0.5 -	1.000	NPOC:18.03mg/L		Completed	7/17/2018 5:59:08 PM	14
10	Unknown	NPOC	18F0319-01		NPOC 0.5 -	1.000	NPOC:2.369mg/L		Completed	7/17/2018 6:21:09 PM	15
11	Unknown	NPOC	18F0319-03		NPOC 0.5 -	1.000	NPOC:6.089mg/L		Completed	7/17/2018 6:40:07 PM	16
12	Unknown	NPOC	18F0319-05		NPOC 0.5 -	1.000	NPOC:14.95mg/L		Completed	7/17/2018 7:00:47 PM	17
13	Unknown	NPOC	18F0319-07		NPOC 0.5 -	1.000	NPOC:2.000mg/L		Completed	7/17/2018 7:30:24 PM	18
14	Control	NPOC	SEQ-CCV1	CVS 20	CVS 20 pp	1.000	NPOC:18.13ppm	Control valu	Completed	7/17/2018 7:56:12 PM	3
15	Control	NPOC	SEQ-CCB1		ICB CCB.tpl	1.000	NPOC:0.09812mg/L	Control valu	Completed	7/17/2018 8:20:16 PM	4
16	Unknown	NPOC	18F0319-09		NPOC 0.5 -	1.000	NPOC:0.4859mg/L		Completed	7/17/2018 8:41:51 PM	19
17	Unknown	NPOC	BGG0375-DUP1		NPOC 0.5 -	1.000	NPOC:0.4493mg/L		Completed	7/17/2018 9:07:03 PM	20
18	Unknown	NPOC	BGG0375-MS1		NPOC 0.5 -	1.000	NPOC:19.25mg/L		Completed	7/17/2018 9:27:12 PM	21
19	Unknown	NPOC	18F0319-12		NPOC 0.5 -	1.000	NPOC:0.8166mg/L		Completed	7/17/2018 9:52:44 PM	22
20	Unknown	NPOC	18F0328-07RE1		NPOC 0.5 -	1.000	NPOC:7.168mg/L		Completed	7/17/2018 10:13:32 PM	23
21	Unknown	NPOC	18F0332-01		NPOC 0.5 -	1.000	NPOC:0.5830mg/L		Completed	7/17/2018 10:35:15 PM	24
22	Unknown	NPOC	BGG0109-BLK2		NPOC 0.5 -	1.000	NPOC:0.1033mg/L		Completed	7/17/2018 11:00:39 PM	25
23	Unknown	NPOC	BGG0109-BS2		NPOC 0.5 -	1.000	NPOC:16.94mg/L		Completed	7/17/2018 11:21:46 PM	26
24	Unknown	NPOC	BGG0293-MRL1		NPOC 0.5 -	1.000	NPOC:0.3063mg/L		Completed	7/17/2018 11:47:47 PM	27
25	Unknown	NPOC	BGG0293-BLK1		NPOC 0.5 -	1.000	NPOC:0.1208mg/L		Completed	7/18/2018 12:05:09 AM	28
26	Control	NPOC	SEQ-CCV2	CVS 20	CVS 20 pp	1.000	NPOC:18.47ppm	Control valu	Completed	7/18/2018 12:30:44 AM	3
27	Control	NPOC	SEQ-CCB2		ICB CCB.tpl	1.000	NPOC:0.1120mg/L	Control valu	Completed	7/18/2018 12:55:06 AM	4
28	Unknown	NPOC	BGG0293-BS1		NPOC 0.5 -	1.000	NPOC:18.61mg/L		Completed	7/18/2018 1:16:26 AM	29
29	Unknown	NPOC	BGG0293-DUP1		NPOC 0.5 -	1.000	NPOC:2.704mg/L		Completed	7/18/2018 1:38:52 AM	30
30	Unknown	NPOC	BGG0293-MS1		NPOC 0.5 -	1.000	NPOC:22.05mg/L		Completed	7/18/2018 1:58:50 AM	31
31	Unknown	NPOC	18F0313-01RE1		NPOC 0.5 -	1.000	NPOC:0.3069mg/L		Completed	7/18/2018 2:24:30 AM	32
32	Unknown	NPOC	18F0313-02RE1		NPOC 0.5 -	1.000	NPOC:0.3642mg/L		Completed	7/18/2018 2:50:21 AM	33
33	Unknown	NPOC	18F0313-03RE1		NPOC 0.5 -	1.000	NPOC:0.3115mg/L		Completed	7/18/2018 3:15:43 AM	34
34	Unknown	NPOC	18F0313-04RE1		NPOC 0.5 -	1.000	NPOC:0.2473mg/L		Completed	7/18/2018 3:37:02 AM	35
35	Unknown	NPOC	18F0346-01RE1		NPOC 0.5 -	1.000	NPOC:14.13mg/L		Completed	7/18/2018 4:05:21 AM	36
36	Unknown	NPOC	18F0346-05RE1		NPOC 0.5 -	1.000	NPOC:14.80mg/L		Completed	7/18/2018 4:29:30 AM	37
37	Unknown	NPOC	BGG0109-MRL2		NPOC 0.5 -	1.000	NPOC:0.1717mg/L		Completed	7/18/2018 4:54:46 AM	38
38	Control	NPOC	SEQ-CCV3	CVS 20	CVS 20 pp	1.000	NPOC:18.32ppm	Control valu	Completed	7/18/2018 5:21:20 AM	5
39	Control	NPOC	SEQ-CCB3		ICB CCB.tpl	1.000	NPOC:0.1451mg/L	Control valu	Completed	7/18/2018 5:45:49 AM	6
40	Unknown	NPOC	18F0248-01RE2DOC		NPOC 0.5 -	1.000	NPOC:2.458mg/L		Completed	7/18/2018 6:12:43 AM	39

	Type	Analysis	Sample Name	Sample I	Origin	Manual	Result	Notes	Status	Date / Time	Vial
41	Unknown	NPOC	18F0248-02RE2DOC		NPOC 0.5 -	1.000	NPOC:4.223mg/L		Completed	7/18/2018 6:36:25 AM	40
42	Unknown	NPOC	18F0248-03RE2DOC		NPOC 0.5 -	1.000	NPOC:2.942mg/L		Completed	7/18/2018 7:03:47 AM	41
43	Unknown	NPOC	18F0248-04RE2DOC		NPOC 0.5 -	1.000	NPOC:1.635mg/L		Completed	7/18/2018 7:30:07 AM	42
44	Unknown	NPOC	18F0248-05RE2DOC		NPOC 0.5 -	1.000	NPOC:0.9186mg/L		Completed	7/18/2018 7:52:02 AM	43
45	Unknown	NPOC	18F0248-06RE2DOC		NPOC 0.5 -	1.000	NPOC:1.334mg/L		Completed	7/18/2018 8:14:07 AM	44
46	Unknown	NPOC	18F0248-07RE2DOC		NPOC 0.5 -	1.000	NPOC:1.636mg/L		Completed	7/18/2018 8:40:20 AM	45
47	Unknown	NPOC	18F0248-08RE2DOC		NPOC 0.5 -	1.000	NPOC:1.112mg/L		Completed	7/18/2018 8:58:25 AM	46
48	Unknown	NPOC	18F0402-01		NPOC 0.5 -	1.000	NPOC:0.1862mg/L		Completed	7/18/2018 9:24:22 AM	47
49	Unknown	NPOC	BGG0375-DUP2		NPOC 0.5 -	1.000	NPOC:0.1849mg/L		Completed	7/18/2018 9:49:29 AM	48
50	Control	NPOC	SEQ-CCV4	CVS 20	CVS 20 pp	1.000	NPOC:17.99ppm	Control valu	Completed	7/18/2018 10:16:22 AM	5
51	Control	NPOC	SEQ-CCB4		ICB CCB.tpl	1.000	NPOC:0.04069mg/L	Control valu	Completed	7/18/2018 10:40:22 AM	6
52	Unknown	NPOC	BGG0375-MS2		NPOC 0.5 -	1.000	NPOC:19.01mg/L		Completed	7/18/2018 11:01:19 AM	49
53	Unknown	NPOC	18F0402-02		NPOC 0.5 -	1.000	NPOC:1.130mg/L		Completed	7/18/2018 11:27:00 AM	50
54	Unknown	NPOC	18F0402-03		NPOC 0.5 -	1.000	NPOC:0.2138mg/L		Completed	7/18/2018 11:52:17 AM	51
55	Control	NPOC	SEQ-CCV5	CVS 20	CVS 20 pp	1.000	NPOC:18.10ppm	Control valu	Completed	7/18/2018 12:18:30 PM	7
56	Control	NPOC	SEQ-CCB5		ICB CCB.tpl	1.000	NPOC:0.06998mg/L	Control valu	Completed	7/18/2018 12:42:28 PM	8
57	Unknown	NPOC	BGG0375-MS3		NPOC 0.5 -	1.000	NPOC:0.04969mg/L		Completed	7/18/2018 1:08:36 PM	49
58	Unknown	NPOC	18F0402-02RE1		NPOC 0.5 -	1.000	NPOC:1.124mg/L		Completed	7/18/2018 1:33:59 PM	50
59	Unknown	NPOC	18F0402-03RE1		NPOC 0.5 -	1.000	NPOC:0.2175mg/L		Completed	7/18/2018 1:59:20 PM	51
60	Unknown	NPOC	18F0403-01		NPOC 0.5 -	1.000	NPOC:0.1694mg/L		Completed	7/18/2018 2:24:19 PM	52
61	Unknown	NPOC	BGG0375-DUP3		NPOC 0.5 -	1.000	NPOC:0.1834mg/L		Completed	7/18/2018 2:49:23 PM	53
62	Unknown	NPOC	BGG0375-MS4		NPOC 0.5 -	1.000	NPOC:18.98mg/L		Completed	7/18/2018 3:09:43 PM	54
63	Unknown	NPOC	18F0403-03		NPOC 0.5 -	1.000	NPOC:0.3049mg/L		Completed	7/18/2018 3:35:04 PM	55
64	Unknown	NPOC	18F0403-05		NPOC 0.5 -	1.000	NPOC:0.3758mg/L		Completed	7/18/2018 4:00:15 PM	56
65	Unknown	NPOC	18F0403-07		NPOC 0.5 -	1.000	NPOC:1.115mg/L		Completed	7/18/2018 4:18:01 PM	57
66	Unknown	NPOC	18F0404-01		NPOC 0.5 -	1.000	NPOC:0.1786mg/L		Completed	7/18/2018 4:43:05 PM	58
67	Control	NPOC	SEQ-CCV6	CVS 20	CVS 20 pp	1.000	NPOC:17.77ppm	Control valu	Completed	7/18/2018 5:04:45 PM	7
68	Control	NPOC	SEQ-CCB6		ICB CCB.tpl	1.000	NPOC:0.06622mg/L	Control valu	Completed	7/18/2018 5:28:42 PM	8
69	Unknown	NPOC	BGG0375-DUP4		NPOC 0.5 -	1.000	NPOC:0.1736mg/L		Completed	7/18/2018 5:53:46 PM	59
70	Control	NPOC	SEQ-CCV7	CVS 20	CVS 20 pp	1.000	NPOC:18.32ppm	Control valu	Completed	7/18/2018 6:24:08 PM	3
71	Control	NPOC	SEQ-CCB7		ICB CCB.tpl	1.000	NPOC:0.1395mg/L	Control valu	Completed	7/18/2018 6:48:05 PM	4
72	Unknown	NPOC	BGG0375-DUP5		NPOC 0.5 -	1.000	NPOC:0.1811mg/L		Completed	7/18/2018 7:13:17 PM	59
73	Unknown	NPOC	BGG0375-MS5		NPOC 0.5 -	1.000	NPOC:18.92mg/L		Completed	7/18/2018 7:33:27 PM	60
74	Unknown	NPOC	18F0404-03		NPOC 0.5 -	1.000	NPOC:0.3767mg/L		Completed	7/18/2018 7:58:43 PM	61
75	Unknown	NPOC	18F0404-05		NPOC 0.5 -	1.000	NPOC:0.2294mg/L		Completed	7/18/2018 8:20:03 PM	62
76	Unknown	NPOC	18F0404-07		NPOC 0.5 -	1.000	NPOC:0.1624mg/L		Completed	7/18/2018 8:41:16 PM	63
77	Unknown	NPOC	BGG0376-MRL1		NPOC 0.5 -	1.000	NPOC:0.5954mg/L		Completed	7/18/2018 8:58:59 PM	64
78	Unknown	NPOC	BGG0376-BLK1		NPOC 0.5 -	1.000	NPOC:0.06689mg/L		Completed	7/18/2018 9:20:03 PM	65
79	Unknown	NPOC	BGG0376-BS1		NPOC 0.5 -	1.000	NPOC:17.95mg/L		Completed	7/18/2018 9:45:21 PM	66
80	Unknown	NPOC	18F0335-01		NPOC 0.5 -	1.000	NPOC:2.059mg/L		Completed	7/18/2018 10:11:04 PM	67

	Type	Analysis	Sample Name	Sample I	Origin	Manual	Result	Notes	Status	Date / Time	Vial
81	Unknown	NPOC	18F0335-03		NPOC 0.5 -	1.000	NPOC:0.8884mg/L		Completed	7/18/2018 10:36:38 PM	68
82	Control	NPOC	SEQ-CCV8	CVS 20	CVS 20 pp	1.000	NPOC:17.55ppm	Control valu	Completed	7/18/2018 10:58:23 PM	3
83	Control	NPOC	SEQ-CCB8		ICB CCB.tpl	1.000	NPOC:0.1450mg/L	Control valu	Completed	7/18/2018 11:22:35 PM	4
84	Unknown	NPOC	18F0334-02		NPOC 0.5 -	1.000	NPOC:0.3720mg/L		Completed	7/18/2018 11:48:28 PM	1
85	Unknown	NPOC	18F0334-01		NPOC 0.5 -	1.000	NPOC:1254mg/L		Completed	7/19/2018 12:19:09 AM	2
86	Control	NPOC	SEQ-CCV9	CVS 20	CVS 20 pp	1.000	NPOC:18.27ppm	Control valu	Completed	7/19/2018 12:39:41 AM	3
87	Control	NPOC	SEQ-CCB9		ICB CCB.tpl	1.000	NPOC:0.2759mg/L	Control valu	Completed	7/19/2018 1:04:19 AM	4

TOC-Control L Report

CDE
2018_07_17_001.tlx

Instr.Information

Instrument Options: TOC/ASI/IC Unit/
Catalyst: Regular Sensitivity

Sample

Sample Name: Rinse
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status: Completed
Chk. Result:

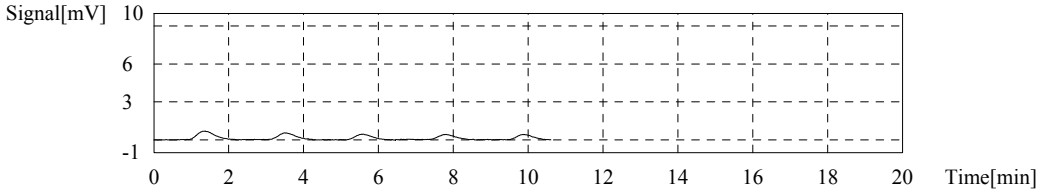
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1237mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.137	0.2059mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 2:43:44 PM
2	1.552	0.1496mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 2:47:06 PM
3	1.446	0.1393mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 2:50:46 PM
4	1.160	0.1118mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 2:54:09 PM
5	1.246	0.1201mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 2:57:36 PM

Mean Area 1.284
Mean Conc. 0.1237mg/L



Control Sample

Sample Name: SEQ-ICV1
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status: Completed
Chk. Result: Control value: 18.16 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

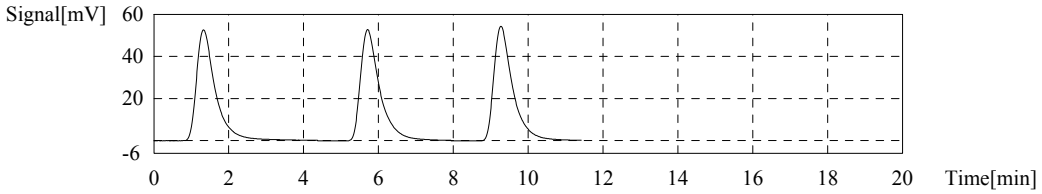
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.16ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	186.1	17.82ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 3:09:41 PM
2	190.7	18.26ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 3:14:14 PM
3	192.1	18.39ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 3:18:42 PM

Mean Area 189.6
Mean Conc. 18.16ppm



Control Sample

Sample Name: SEQ-ICB1
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.07676 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

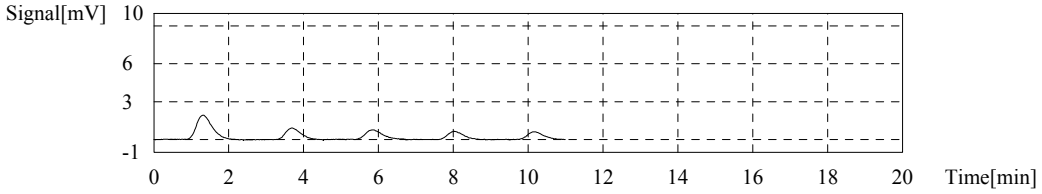
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.07676mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.685	0.4297mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 3:28:58 PM
2	2.671	0.1392mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 3:32:13 PM
3	2.357	0.1089mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 3:35:47 PM
4	1.859	0.06095mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 3:39:13 PM
5	1.853	0.06038mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 3:42:43 PM

Mean Area 2.023
Mean Conc. 0.07676mg/L



Sample

Sample Name: SEQ-IFA1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

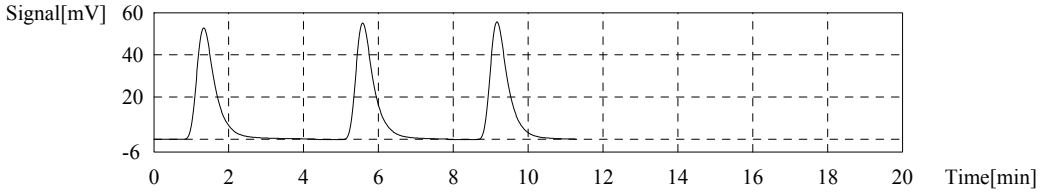
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.19mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	187.6	18.08mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 3:54:44 PM
2	188.9	18.20mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 3:59:18 PM
3	189.7	18.28mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 4:03:43 PM

Mean Area 188.7
Mean Conc. 18.19mg/L



Sample

Sample Name: 18F0310-04RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

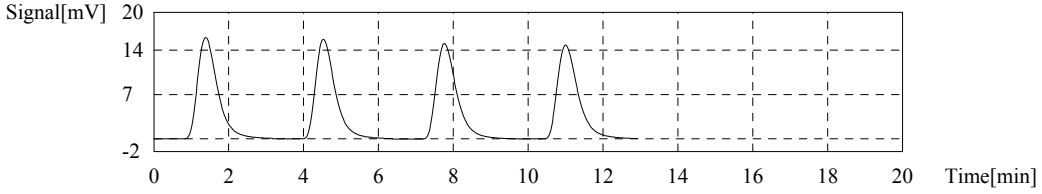
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.572mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	60.05	5.787mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 4:14:47 PM
2	57.68	5.559mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 4:18:59 PM
3	58.03	5.592mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 4:23:14 PM
4	57.75	5.565mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 4:27:32 PM

Mean Area 57.82
Mean Conc. 5.572mg/L



Sample

Sample Name: 18F0311-07RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

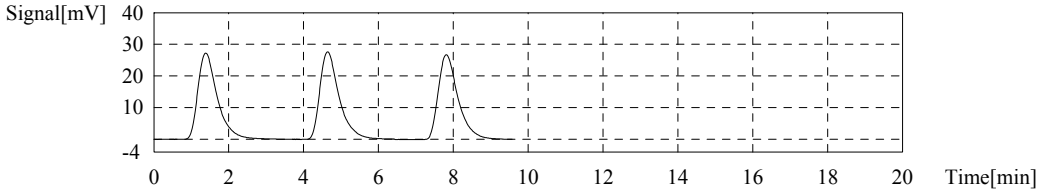
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:9.601mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	99.17	9.557mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 4:38:42 PM
2	100.2	9.656mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 4:42:51 PM
3	99.50	9.589mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 4:47:00 PM

Mean Area 99.62
Mean Conc. 9.601mg/L



Sample

Sample Name: BGG0375-MRL1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

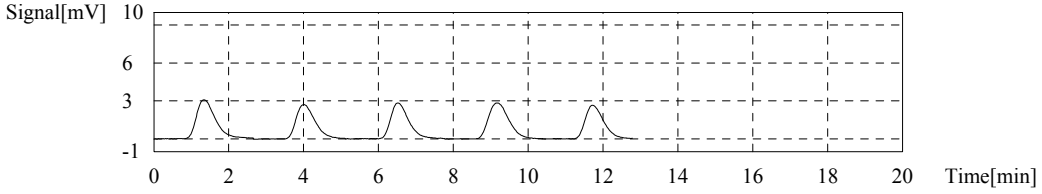
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8982mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.66	1.027mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 4:57:33 PM
2	9.597	0.9249mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 5:01:13 PM
3	9.378	0.9037mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 5:05:03 PM
4	10.85	1.046mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 5:08:52 PM
5	8.986	0.8660mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 5:12:26 PM

Mean Area 9.320
Mean Conc. 0.8982mg/L



Sample

Sample Name: BGG0375-BLK1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

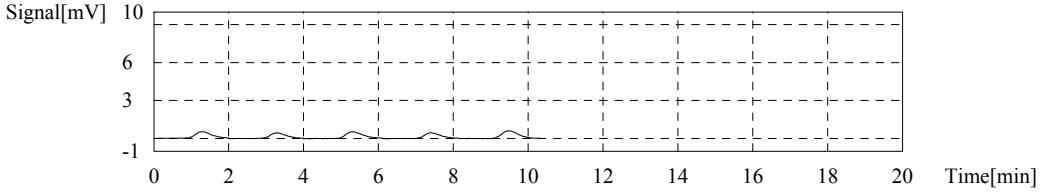
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1254mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.422	0.1370mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 5:22:09 PM
2	1.197	0.1154mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 5:25:56 PM
3	1.525	0.1470mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 5:29:50 PM
4	1.286	0.1239mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 5:33:32 PM
5	1.837	0.1770mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 5:37:26 PM

Mean Area 1.302
Mean Conc. 0.1254mg/L



Sample

Sample Name: BGG0375-BS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

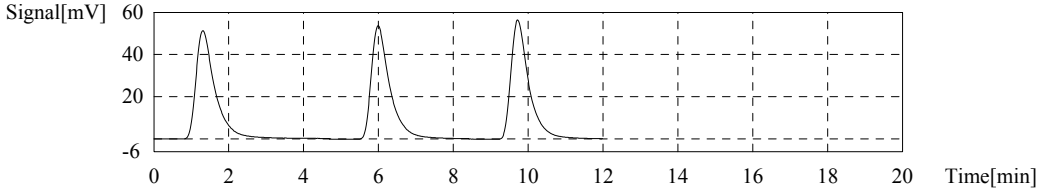
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.03mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	184.3	17.76mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 5:49:50 PM
2	187.0	18.02mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 5:54:34 PM
3	190.1	18.32mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 5:59:08 PM

Mean Area 187.1
Mean Conc. 18.03mg/L



Sample

Sample Name: 18F0319-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

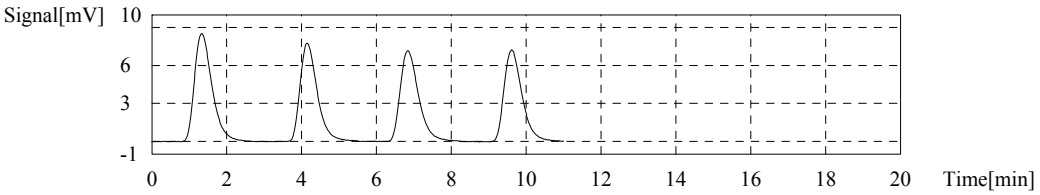
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.369mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	28.40	2.737mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 6:09:51 PM
2	24.77	2.387mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 6:13:31 PM
3	24.62	2.373mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 6:17:23 PM
4	24.36	2.348mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 6:21:09 PM

Mean Area 24.58
Mean Conc. 2.369mg/L



Sample

Sample Name: 18F0319-03
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

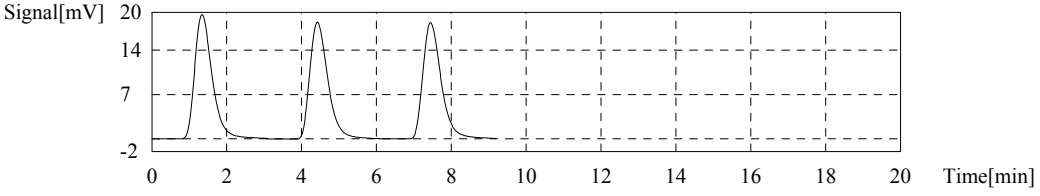
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:6.089mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	64.18	6.185mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 6:32:00 PM
2	62.49	6.022mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 6:36:01 PM
3	62.87	6.059mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 6:40:07 PM

Mean Area 63.18
Mean Conc. 6.089mg/L



Sample

Sample Name: 18F0319-05
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

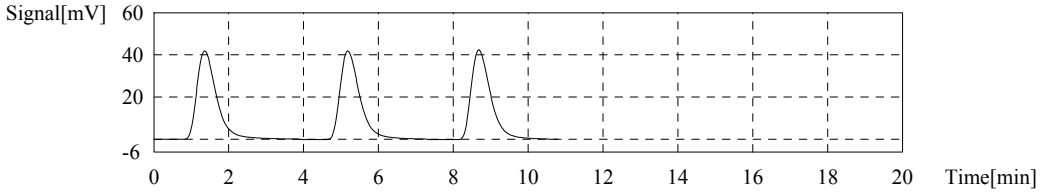
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:14.95mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	154.6	14.90mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 6:51:51 PM
2	154.9	14.93mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 6:56:20 PM
3	156.0	15.03mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 7:00:47 PM

Mean Area 155.2
Mean Conc. 14.95mg/L



Sample

Sample Name: 18F0319-07
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

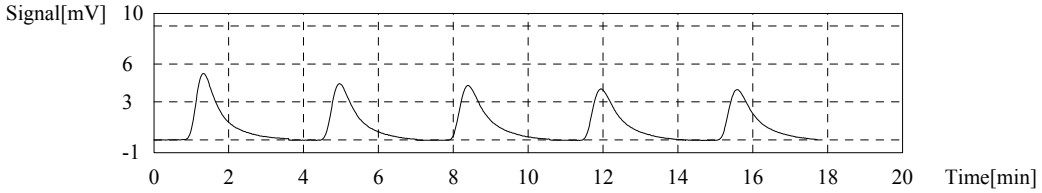
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.000mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	23.56	2.270mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 7:12:18 PM
2	21.06	2.030mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 7:16:43 PM
3	21.65	2.086mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 7:21:15 PM
4	20.70	1.995mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 7:25:54 PM
5	20.50	1.976mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 7:30:24 PM

Mean Area 20.75
Mean Conc. 2.000mg/L



Control Sample

Sample Name: SEQ-CCV1
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.13 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

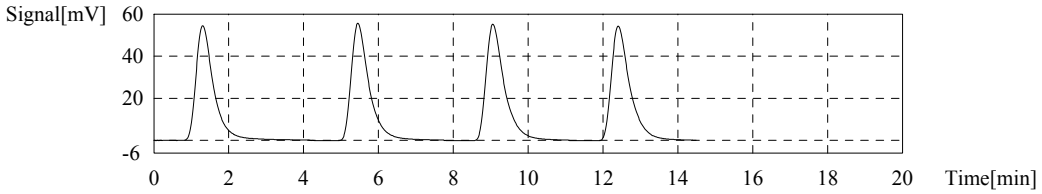
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.13ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	181.7	17.39ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 7:42:52 PM
2	187.4	17.94ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 7:47:28 PM
3	190.9	18.28ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 7:51:49 PM
4	189.7	18.16ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 7:56:12 PM

Mean Area 189.3
Mean Conc. 18.13ppm



Control Sample

Sample Name: SEQ-CCB1
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.09812 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

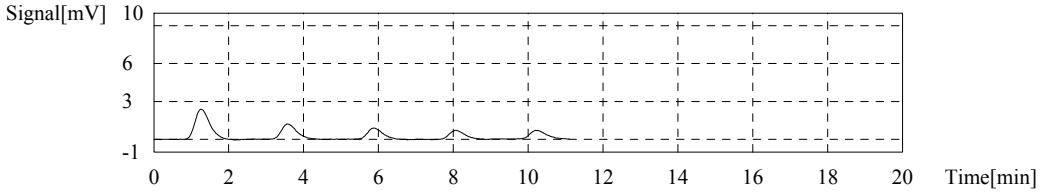
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.09812mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.808	0.5379mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 8:06:24 PM
2	3.464	0.2156mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 8:09:54 PM
3	2.618	0.1341mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 8:13:17 PM
4	2.095	0.08370mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 8:16:44 PM
5	2.021	0.07657mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 8:20:16 PM

Mean Area 2.245
Mean Conc. 0.09812mg/L



Sample

Sample Name: 18F0319-09
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

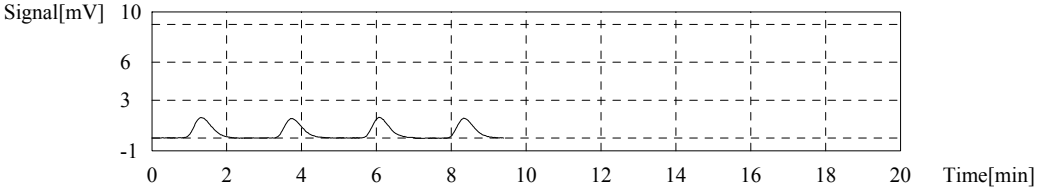
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4859mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.411	0.5215mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 8:30:31 PM
2	4.996	0.4815mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 8:34:15 PM
3	5.132	0.4946mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 8:37:57 PM
4	4.997	0.4816mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 8:41:51 PM

Mean Area 5.042
Mean Conc. 0.4859mg/L



Sample

Sample Name: BGG0375-DUP1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

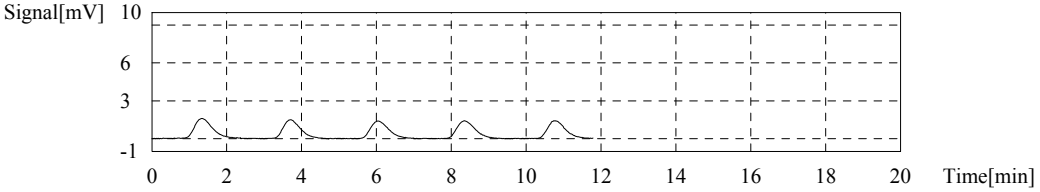
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4493mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.094	0.4909mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 8:51:56 PM
2	4.756	0.4583mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 8:55:41 PM
3	4.628	0.4460mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 8:59:26 PM
4	4.857	0.4681mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 9:03:21 PM
5	4.604	0.4437mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 9:07:03 PM

Mean Area 4.663
Mean Conc. 0.4493mg/L



Sample

Sample Name: BGG0375-MS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

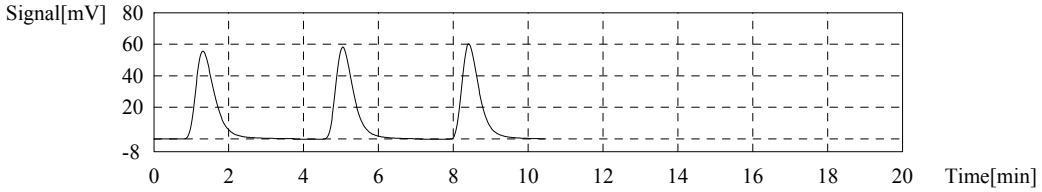
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:19.25mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	199.8	19.25mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 9:18:30 PM
2	198.8	19.16mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 9:22:53 PM
3	200.6	19.33mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 9:27:12 PM

Mean Area 199.7
Mean Conc. 19.25mg/L



Sample

Sample Name: 18F0319-12
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

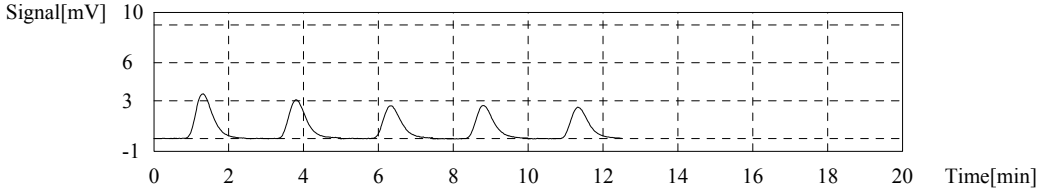
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8166mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.37	1.096mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 9:37:34 PM
2	9.888	0.9529mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 9:41:24 PM
3	8.528	0.8218mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 9:45:08 PM
4	8.609	0.8296mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 9:48:59 PM
5	8.284	0.7983mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 9:52:44 PM

Mean Area 8.474
Mean Conc. 0.8166mg/L



Sample

Sample Name: 18F0328-07RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

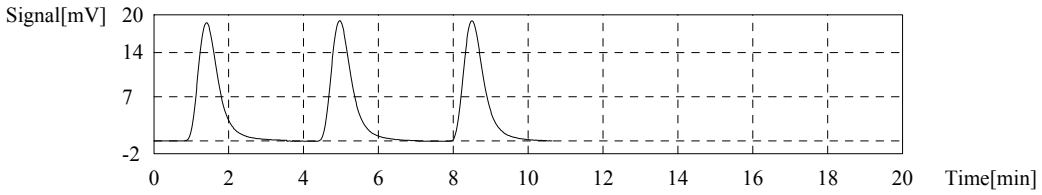
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:7.168mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	73.13	7.047mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 10:04:27 PM
2	74.95	7.223mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 10:08:59 PM
3	75.05	7.232mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 10:13:32 PM

Mean Area 74.38
Mean Conc. 7.168mg/L



Sample

Sample Name: 18F0332-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

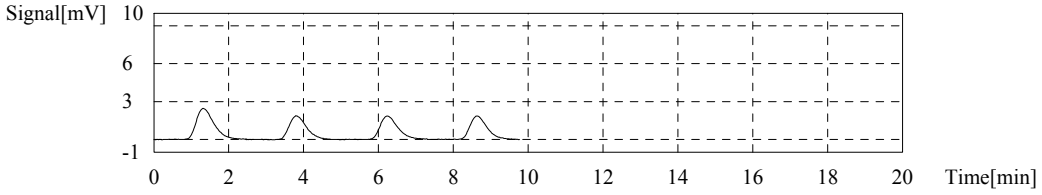
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5830mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.065	0.7772mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 10:23:54 PM
2	6.083	0.5862mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 10:27:39 PM
3	6.086	0.5865mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 10:31:24 PM
4	5.981	0.5764mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 10:35:15 PM

Mean Area 6.050
Mean Conc. 0.5830mg/L



Sample

Sample Name: BGG0109-BLK2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

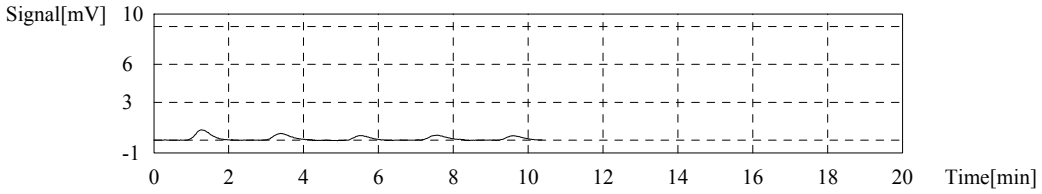
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1033mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.295	0.2212mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 10:45:32 PM
2	1.643	0.1583mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 10:49:23 PM
3	1.066	0.1027mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 10:53:00 PM
4	1.089	0.1049mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 10:56:51 PM
5	1.060	0.1022mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 11:00:39 PM

Mean Area 1.072
Mean Conc. 0.1033mg/L



Sample

Sample Name: BGG0109-BS2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

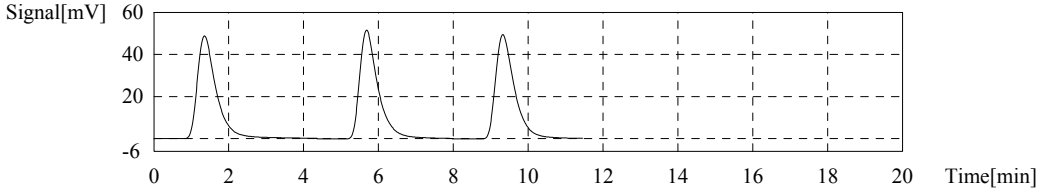
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:16.94mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	173.2	16.69mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 11:12:42 PM
2	178.5	17.20mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 11:17:18 PM
3	175.5	16.91mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 11:21:46 PM

Mean Area 175.7
Mean Conc. 16.94mg/L



Sample

Sample Name: BGG0293-MRL1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

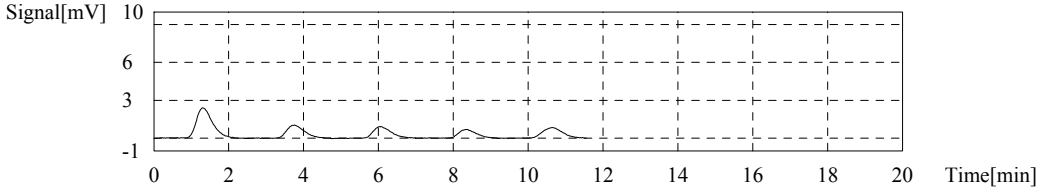
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3063mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.273	0.7009mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 11:32:40 PM
2	3.433	0.3308mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 11:36:22 PM
3	2.974	0.2866mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 11:40:06 PM
4	2.119	0.2042mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 11:43:48 PM
5	3.129	0.3015mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 11:47:47 PM

Mean Area 3.179
Mean Conc. 0.3063mg/L



Sample

Sample Name: BGG0293-BLK1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

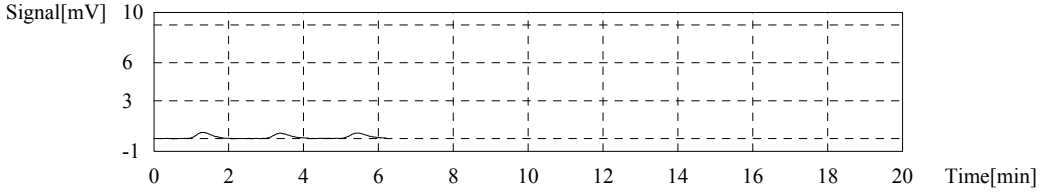
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1208mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.310	0.1262mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/17/2018 11:57:34 PM
2	1.198	0.1154mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 12:01:20 AM
3	1.254	0.1208mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 12:05:09 AM

Mean Area 1.254
Mean Conc. 0.1208mg/L



Control Sample

Sample Name: SEQ-CCV2
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.47 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

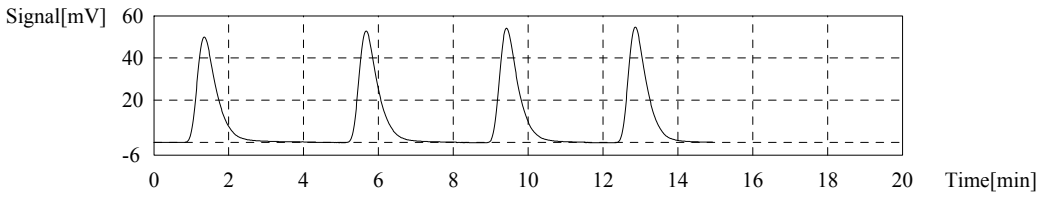
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.47ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	185.8	17.79ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 12:17:11 AM
2	192.8	18.46ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 12:21:56 AM
3	192.9	18.47ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 12:26:21 AM
4	193.1	18.49ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 12:30:44 AM

Mean Area 192.9
Mean Conc. 18.47ppm



Control Sample

Sample Name: SEQ-CCB2
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1120 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

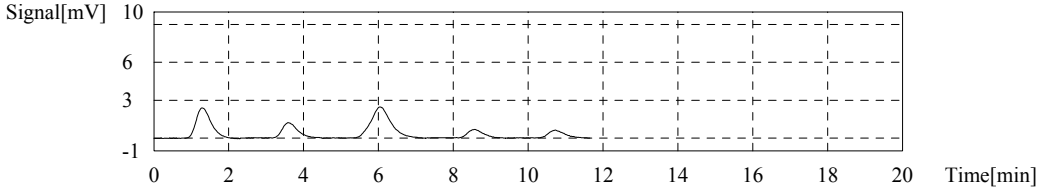
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1120mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.865	0.5434mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 12:40:55 AM
2	3.352	0.2048mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 12:44:18 AM
3	9.295	0.7776mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 12:48:23 AM
4	1.919	0.06674mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 12:51:31 AM
5	1.895	0.06442mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 12:55:06 AM

Mean Area 2.389
Mean Conc. 0.1120mg/L



Sample

Sample Name: BGG0293-BS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

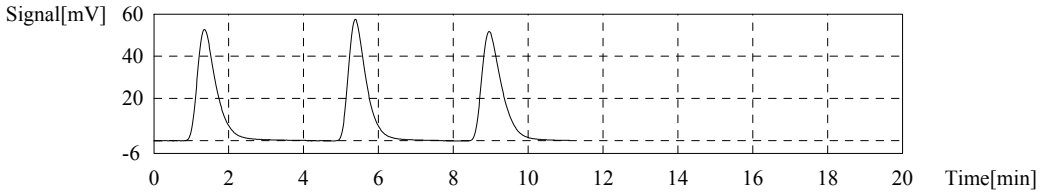
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.61mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	190.0	18.31mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 1:07:25 AM
2	194.4	18.73mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 1:11:57 AM
3	194.8	18.77mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 1:16:26 AM

Mean Area 193.1
Mean Conc. 18.61mg/L



Sample

Sample Name: BGG0293-DUP1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

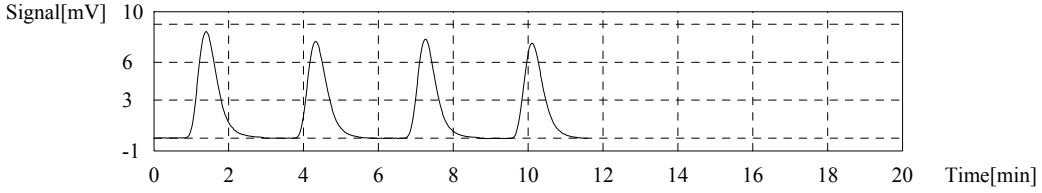
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.704mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	30.99	2.986mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 1:27:15 AM
2	28.37	2.734mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 1:31:10 AM
3	27.90	2.689mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 1:34:59 AM
4	27.92	2.691mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 1:38:52 AM

Mean Area 28.06
Mean Conc. 2.704mg/L



Sample

Sample Name: BGG0293-MS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

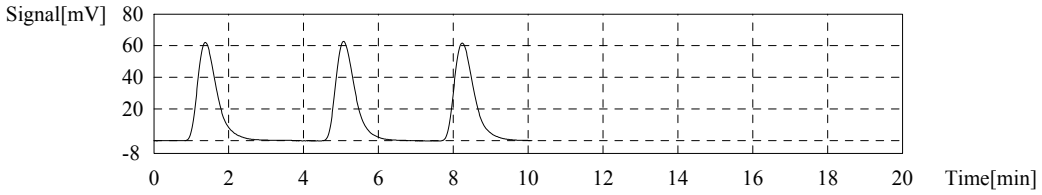
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:22.05mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	228.4	22.01mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 1:50:27 AM
2	227.8	21.95mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 1:54:36 AM
3	230.2	22.18mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 1:58:50 AM

Mean Area 228.8
Mean Conc. 22.05mg/L



Sample

Sample Name: 18F0313-01RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

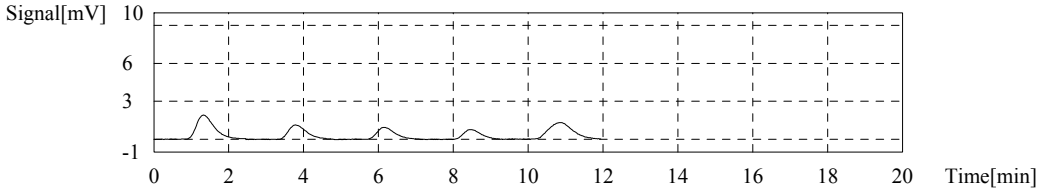
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3069mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.247	0.6020mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 2:09:11 AM
2	3.869	0.3729mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 2:12:53 AM
3	3.157	0.3042mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 2:16:37 AM
4	2.528	0.2436mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 2:20:15 AM
5	5.764	0.5555mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 2:24:30 AM

Mean Area 3.185
Mean Conc. 0.3069mg/L



Sample

Sample Name: 18F0313-02RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

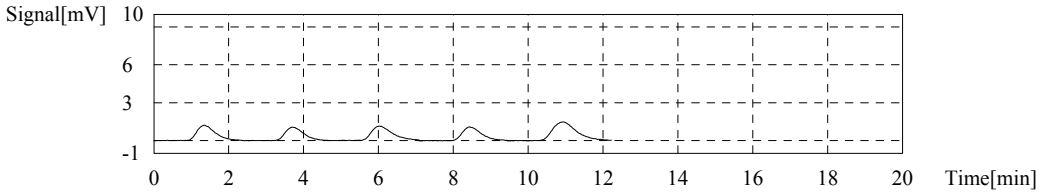
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3642mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.977	0.3833mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 2:34:47 AM
2	3.600	0.3469mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 2:38:31 AM
3	4.175	0.4023mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 2:42:26 AM
4	3.762	0.3625mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 2:46:08 AM
5	6.387	0.6155mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 2:50:21 AM

Mean Area 3.780
Mean Conc. 0.3642mg/L



Sample

Sample Name: 18F0313-03RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

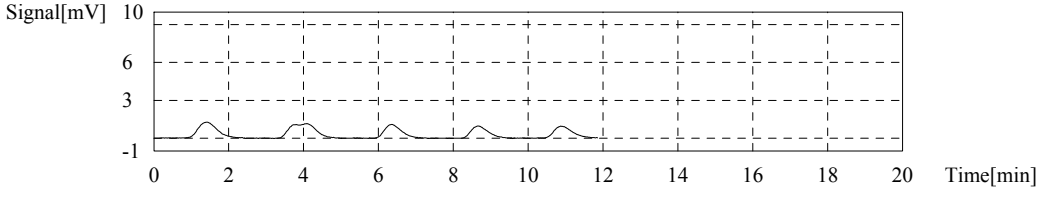
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3115mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.475	0.4313mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 3:00:41 AM
2	5.690	0.5483mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 3:04:38 AM
3	3.394	0.3271mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 3:08:09 AM
4	3.111	0.2998mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 3:11:50 AM
5	3.193	0.3077mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 3:15:43 AM

Mean Area 3.233
Mean Conc. 0.3115mg/L



Sample

Sample Name: 18F0313-04RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

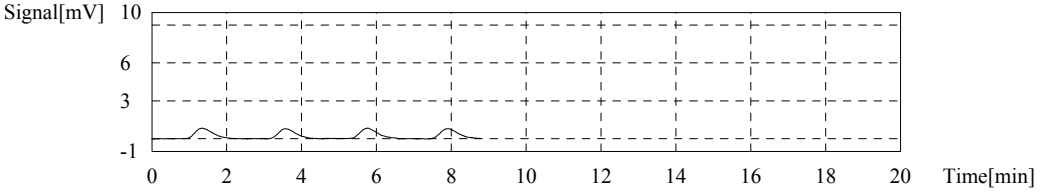
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2473mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.727	0.2628mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 3:25:41 AM
2	2.534	0.2442mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 3:29:24 AM
3	2.498	0.2407mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 3:33:10 AM
4	2.666	0.2569mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 3:37:02 AM

Mean Area 2.566
Mean Conc. 0.2473mg/L



Sample

Sample Name: 18F0346-01RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

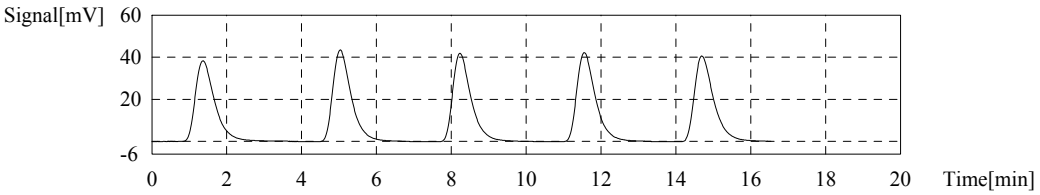
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:14.13mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	139.4	13.43mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 3:48:26 AM
2	150.8	14.53mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 3:52:39 AM
3	144.8	13.95mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 3:56:58 AM
4	148.2	14.28mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 4:01:08 AM
5	146.9	14.16mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 4:05:21 AM

Mean Area 146.6
Mean Conc. 14.13mg/L



Sample

Sample Name: 18F0346-05RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

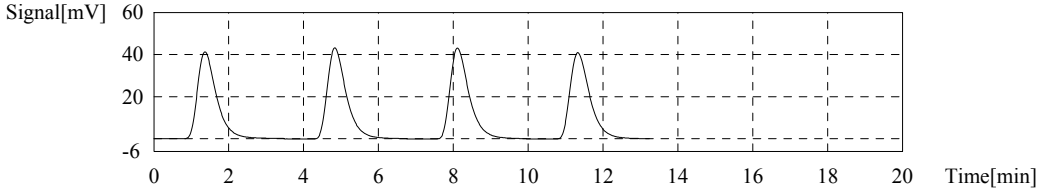
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:14.80mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	147.2	14.19mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 4:16:44 AM
2	154.1	14.85mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 4:21:01 AM
3	154.7	14.91mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 4:25:13 AM
4	151.9	14.64mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 4:29:30 AM

Mean Area 153.6
Mean Conc. 14.80mg/L



Sample

Sample Name: BGG0109-MRL2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

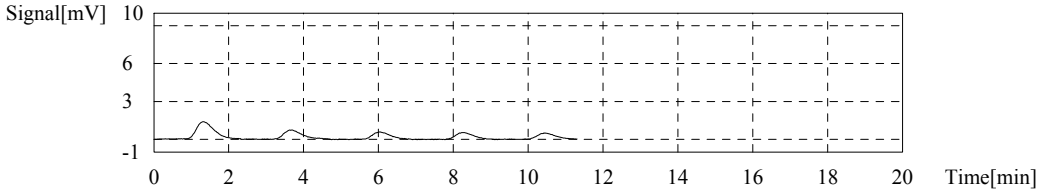
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1717mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.416	0.4256mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 4:39:44 AM
2	2.460	0.2371mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 4:43:34 AM
3	1.949	0.1878mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 4:47:12 AM
4	1.772	0.1708mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 4:50:57 AM
5	1.623	0.1564mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 4:54:46 AM

Mean Area 1.781
Mean Conc. 0.1717mg/L



Control Sample

Sample Name: SEQ-CCV3
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.32 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

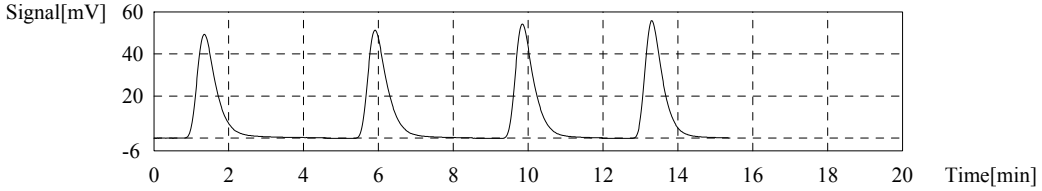
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.32ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	182.9	17.51ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 5:07:33 AM
2	191.0	18.29ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 5:12:29 AM
3	192.5	18.43ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 5:16:57 AM
4	190.5	18.24ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 5:21:20 AM

Mean Area 191.3
Mean Conc. 18.32ppm



Control Sample

Sample Name: SEQ-CCB3
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1451 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

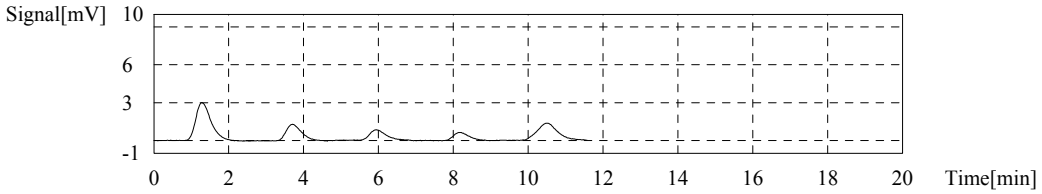
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1451mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.725	0.7226mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 5:31:37 AM
2	3.841	0.2520mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 5:34:57 AM
3	2.452	0.1181mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 5:38:28 AM
4	1.904	0.06529mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 5:41:49 AM
5	5.242	0.3870mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 5:45:49 AM

Mean Area 2.732
Mean Conc. 0.1451mg/L



Sample

Sample Name: 18F0248-01RE2DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

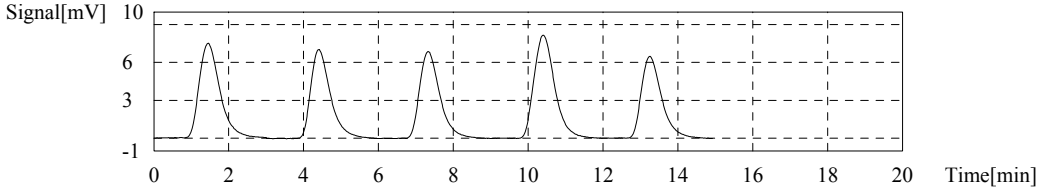
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.458mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	28.91	2.786mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 5:56:48 AM
2	25.88	2.494mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 6:00:41 AM
3	25.91	2.497mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 6:04:43 AM
4	31.71	3.056mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 6:08:38 AM
5	24.72	2.382mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 6:12:43 AM

Mean Area 25.50
Mean Conc. 2.458mg/L



Sample

Sample Name: 18F0248-02RE2DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

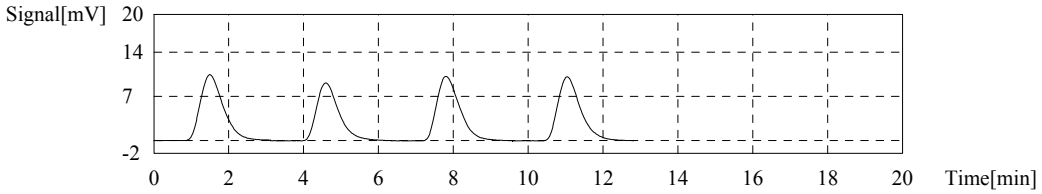
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.223mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	44.66	4.304mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 6:23:44 AM
2	38.11	3.673mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 6:27:56 AM
3	43.73	4.214mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 6:32:10 AM
4	43.08	4.152mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 6:36:25 AM

Mean Area 43.82
Mean Conc. 4.223mg/L



Sample

Sample Name: 18F0248-03RE2DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

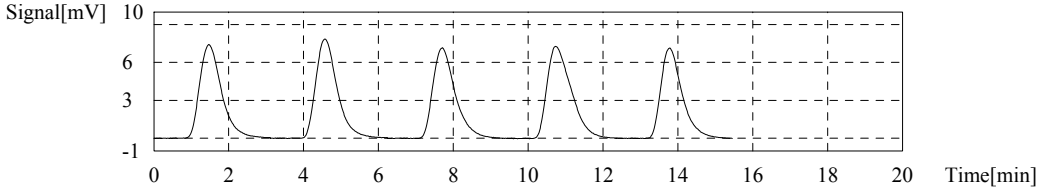
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.942mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	30.07	2.898mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 6:47:26 AM
2	31.44	3.030mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 6:51:34 AM
3	30.08	2.899mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 6:55:38 AM
4	32.85	3.166mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 6:59:41 AM
5	28.49	2.746mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 7:03:47 AM

Mean Area 30.53
Mean Conc. 2.942mg/L



Sample

Sample Name: 18F0248-04RE2DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

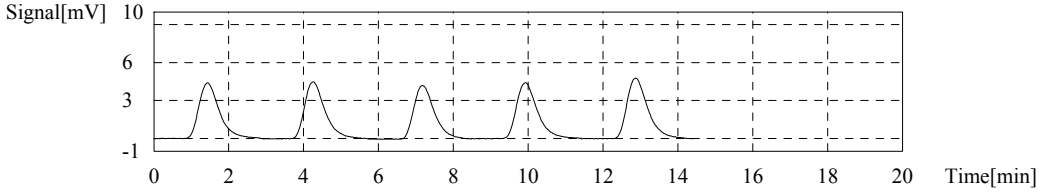
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.635mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	16.51	1.591mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 7:14:32 AM
2	17.21	1.659mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 7:18:27 AM
3	16.29	1.570mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 7:22:11 AM
4	17.18	1.656mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 7:26:09 AM
5	18.68	1.800mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 7:30:07 AM

Mean Area 16.97
Mean Conc. 1.635mg/L



Sample

Sample Name: 18F0248-05RE2DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

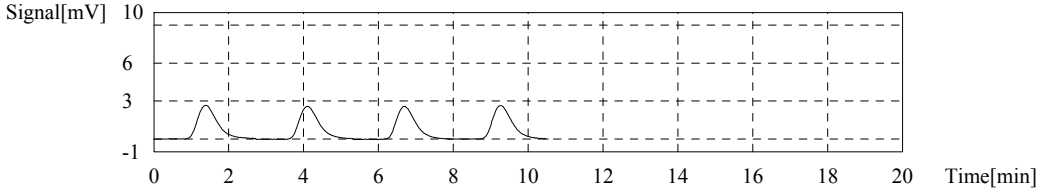
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.9186mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.512	0.9167mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 7:40:45 AM
2	9.422	0.9080mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 7:44:25 AM
3	9.064	0.8735mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 7:48:10 AM
4	9.661	0.9310mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 7:52:02 AM

Mean Area 9.532
Mean Conc. 0.9186mg/L



Sample

Sample Name: 18F0248-06RE2DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

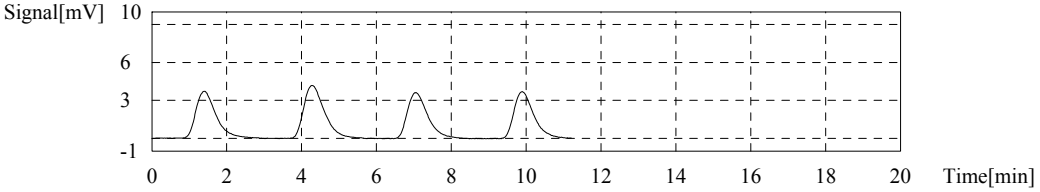
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.334mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.80	1.330mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 8:02:48 AM
2	16.10	1.552mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 8:06:35 AM
3	13.98	1.347mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 8:10:25 AM
4	13.76	1.326mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 8:14:07 AM

Mean Area 13.85
Mean Conc. 1.334mg/L



Sample

Sample Name: 18F0248-07RE2DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

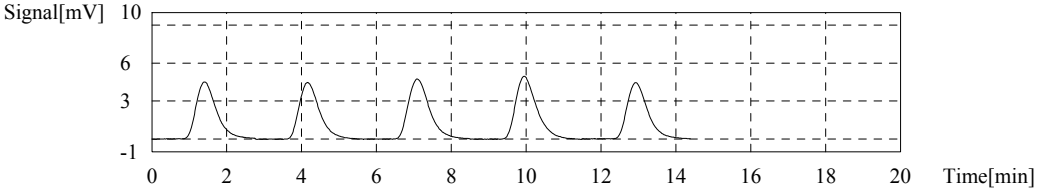
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.636mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	16.90	1.629mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 8:24:42 AM
2	17.05	1.643mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 8:28:38 AM
3	18.76	1.808mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 8:32:29 AM
4	19.66	1.895mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 8:36:27 AM
5	16.99	1.637mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 8:40:20 AM

Mean Area 16.98
Mean Conc. 1.636mg/L



Sample

Sample Name: 18F0248-08RE2DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

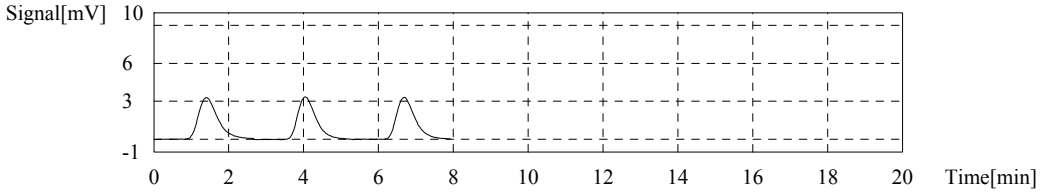
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.112mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.79	1.136mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 8:50:54 AM
2	11.47	1.105mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 8:54:39 AM
3	11.36	1.095mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 8:58:25 AM

Mean Area 11.54
Mean Conc. 1.112mg/L



Sample

Sample Name: 18F0402-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

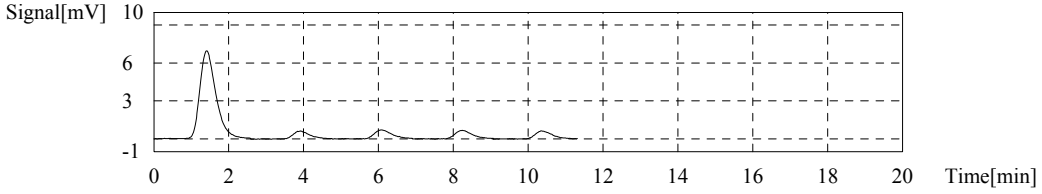
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1862mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.76	2.001mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 9:09:34 AM
2	1.863	0.1795mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 9:12:56 AM
3	2.155	0.2077mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 9:16:42 AM
4	1.986	0.1914mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 9:20:30 AM
5	1.949	0.1878mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 9:24:22 AM

Mean Area 1.933
Mean Conc. 0.1862mg/L



Sample

Sample Name: BGG0375-DUP2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

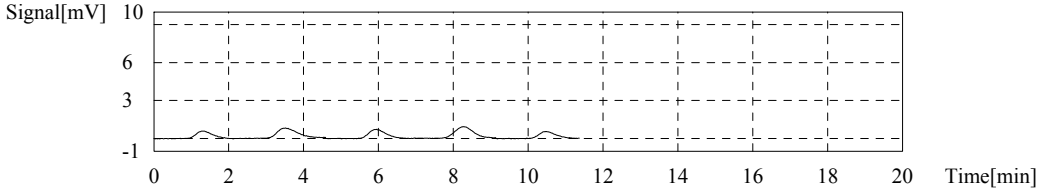
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1849mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.797	0.1732mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 9:34:16 AM
2	2.966	0.2858mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 9:38:20 AM
3	2.272	0.2189mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 9:41:55 AM
4	3.203	0.3087mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 9:45:47 AM
5	1.686	0.1625mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 9:49:29 AM

Mean Area 1.918
Mean Conc. 0.1849mg/L



Control Sample

Sample Name: SEQ-CCV4
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 17.99 / Control exceeds range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

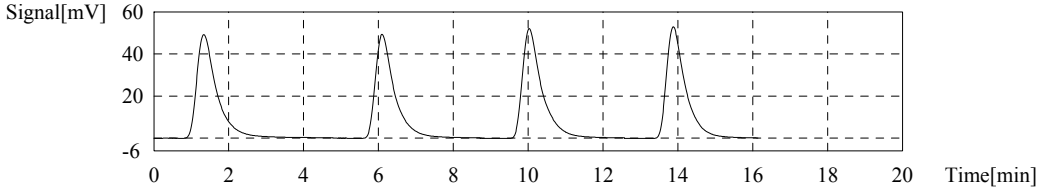
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:17.99ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	185.9	17.80ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 10:02:01 AM
2	177.0	16.94ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 10:06:57 AM
3	190.2	18.21ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 10:11:48 AM
4	187.6	17.96ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 10:16:22 AM

Mean Area 187.9
Mean Conc. 17.99ppm



Control Sample

Sample Name: SEQ-CCB4
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.04069 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

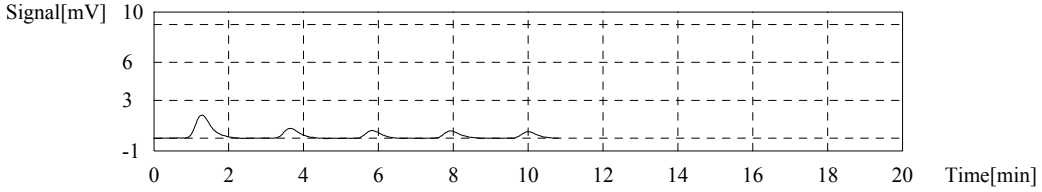
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.04069mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.506	0.4124mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 10:26:37 AM
2	2.301	0.1035mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 10:29:57 AM
3	1.834	0.05855mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 10:33:22 AM
4	1.688	0.04448mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 10:36:50 AM
5	1.424	0.01903mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 10:40:22 AM

Mean Area 1.649
Mean Conc. 0.04069mg/L



Sample

Sample Name: BGG0375-MS2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

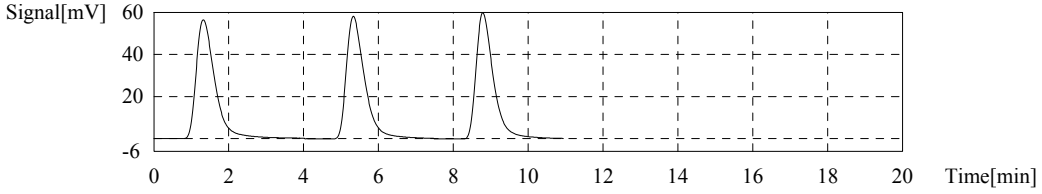
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:19.01mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	197.7	19.05mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 10:52:24 AM
2	198.8	19.16mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 10:56:52 AM
3	195.3	18.82mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 11:01:19 AM

Mean Area 197.3
Mean Conc. 19.01mg/L



Sample

Sample Name: 18F0402-02
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

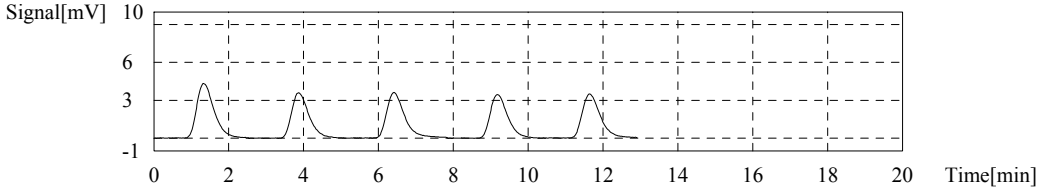
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.130mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.93	1.342mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 11:11:47 AM
2	11.63	1.121mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 11:15:34 AM
3	11.87	1.144mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 11:19:35 AM
4	11.20	1.079mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 11:23:03 AM
5	11.69	1.127mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 11:27:00 AM

Mean Area 11.73
Mean Conc. 1.130mg/L



Sample

Sample Name: 18F0402-03
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

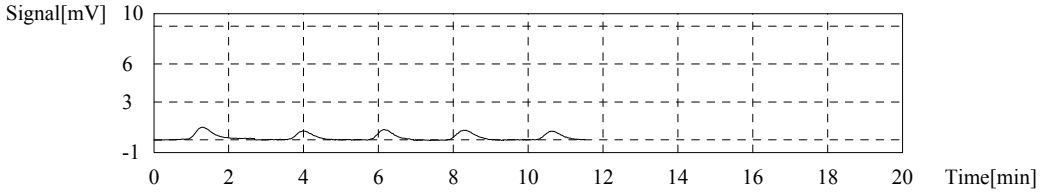
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2138mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.982	0.2874mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 11:37:38 AM
2	2.214	0.2134mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 11:40:53 AM
3	2.342	0.2257mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 11:44:37 AM
4	2.637	0.2541mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 11:48:41 AM
5	2.100	0.2024mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 11:52:17 AM

Mean Area 2.219
Mean Conc. 0.2138mg/L



Control Sample

Sample Name: SEQ-CCV5
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.10 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

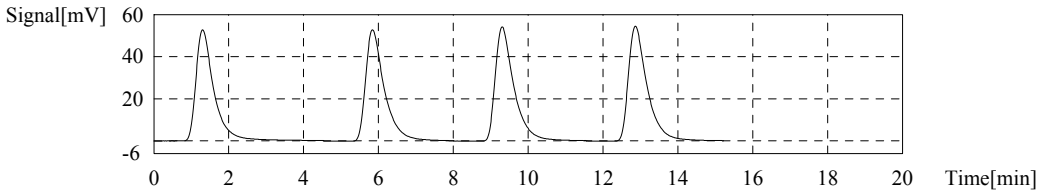
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.10ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	178.0	17.04ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 12:04:49 PM
2	185.4	17.75ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 12:09:17 PM
3	189.8	18.17ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 12:13:50 PM
4	191.9	18.37ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 12:18:30 PM

Mean Area 189.0
Mean Conc. 18.10ppm



Control Sample

Sample Name: SEQ-CCB5
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.06998 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

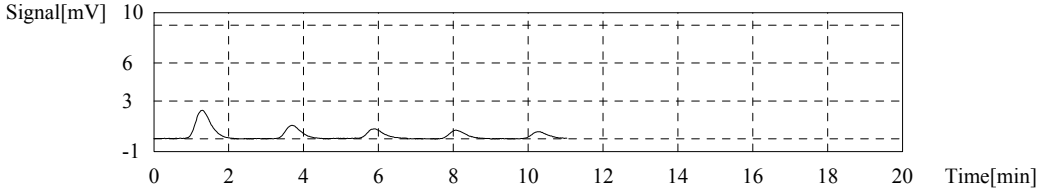
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.06998mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.565	0.5145mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 12:28:48 PM
2	3.160	0.1863mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 12:32:05 PM
3	2.254	0.09902mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 12:35:35 PM
4	2.028	0.07724mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 12:39:06 PM
5	1.576	0.03368mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 12:42:28 PM

Mean Area 1.953
Mean Conc. 0.06998mg/L



Sample

Sample Name: BGG0375-MS3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

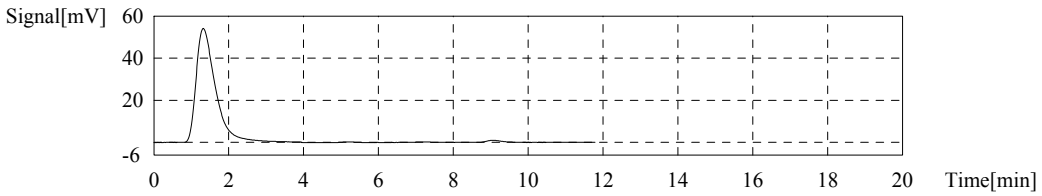
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04969mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	195.9	18.88mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 12:54:22 PM
2	0.9063	0.08734mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 12:57:20 PM
3	0.6405	0.06172mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 1:01:01 PM
4	2.701	0.2603mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 1:05:00 PM
5	0.000	0.000mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 1:08:36 PM

Mean Area 0.5156
Mean Conc. 0.04969mg/L



Sample

Sample Name: 18F0402-02RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

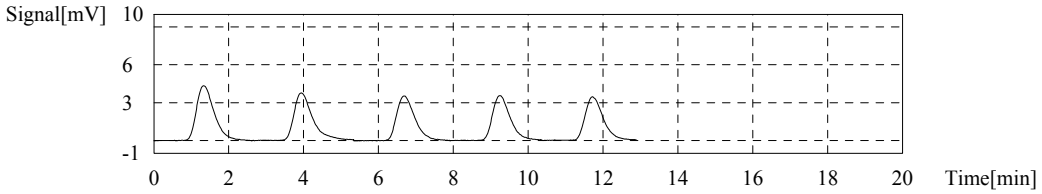
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.124mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.36	1.384mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 1:18:56 PM
2	12.80	1.234mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 1:22:51 PM
3	12.03	1.159mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 1:26:28 PM
4	11.54	1.112mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 1:30:09 PM
5	11.43	1.101mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 1:33:59 PM

Mean Area 11.67
Mean Conc. 1.124mg/L



Sample

Sample Name: 18F0402-03RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

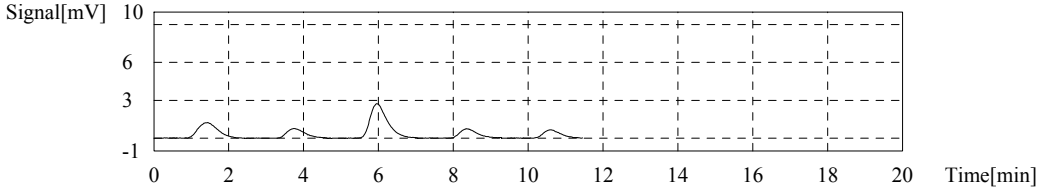
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2175mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.613	0.4445mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 1:44:27 PM
2	2.428	0.2340mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 1:48:01 PM
3	8.732	0.8415mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 1:52:02 PM
4	2.259	0.2177mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 1:55:37 PM
5	2.083	0.2007mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 1:59:20 PM

Mean Area 2.257
Mean Conc. 0.2175mg/L



Sample

Sample Name: 18F0403-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

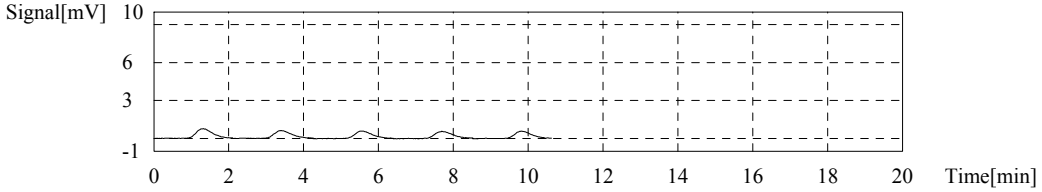
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1694mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.321	0.2237mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 2:09:11 PM
2	1.921	0.1851mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 2:13:01 PM
3	1.810	0.1744mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 2:16:47 PM
4	1.695	0.1633mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 2:20:34 PM
5	1.767	0.1703mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 2:24:19 PM

Mean Area 1.757
Mean Conc. 0.1694mg/L



Sample

Sample Name: BGG0375-DUP3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

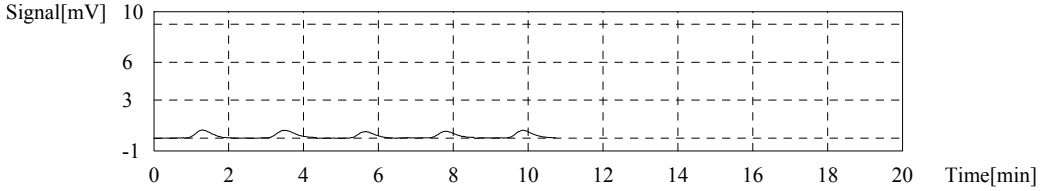
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1834mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.895	0.1826mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 2:34:13 PM
2	1.931	0.1861mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 2:38:02 PM
3	1.548	0.1492mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 2:41:47 PM
4	1.521	0.1466mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 2:45:29 PM
5	1.882	0.1814mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 2:49:23 PM

Mean Area 1.903
Mean Conc. 0.1834mg/L



Sample

Sample Name: BGG0375-MS4
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

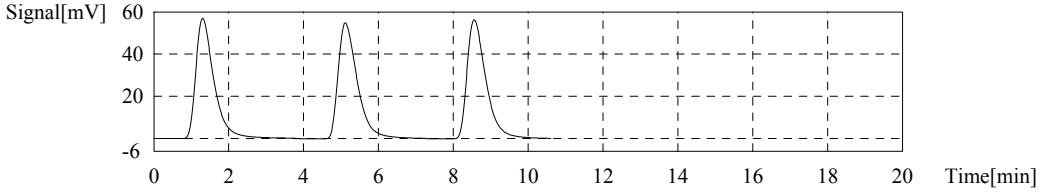
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.98mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	194.2	18.71mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 3:00:55 PM
2	197.2	19.00mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 3:05:22 PM
3	199.4	19.22mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 3:09:43 PM

Mean Area 196.9
Mean Conc. 18.98mg/L



Sample

Sample Name: 18F0403-03
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

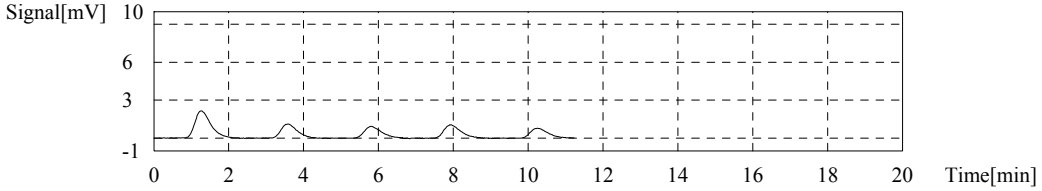
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3049mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.297	0.6068mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 3:19:56 PM
2	3.360	0.3238mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 3:23:39 PM
3	2.837	0.2734mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 3:27:21 PM
4	3.295	0.3175mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 3:31:18 PM
5	2.575	0.2481mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 3:35:04 PM

Mean Area 3.164
Mean Conc. 0.3049mg/L



Sample

Sample Name: 18F0403-05
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

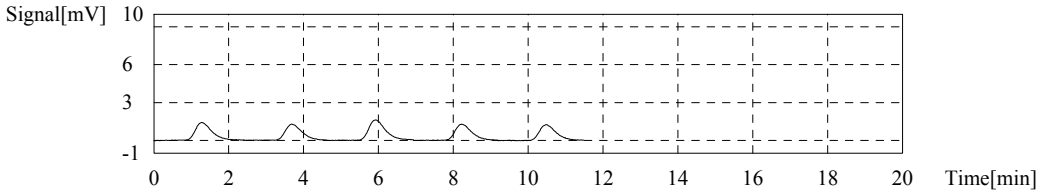
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3758mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.238	0.4084mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 3:45:13 PM
2	3.936	0.3793mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 3:48:49 PM
3	4.951	0.4771mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 3:52:42 PM
4	3.907	0.3765mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 3:56:25 PM
5	3.856	0.3716mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 4:00:15 PM

Mean Area 3.900
Mean Conc. 0.3758mg/L



Sample

Sample Name: 18F0403-07
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

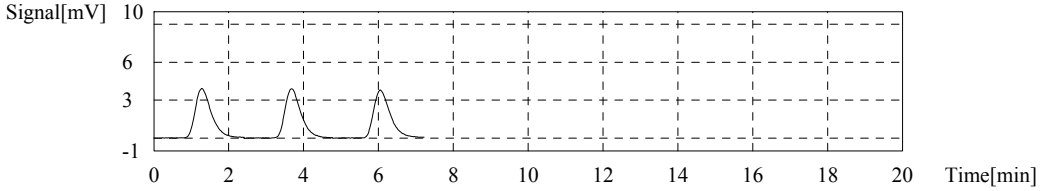
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.115mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.69	1.127mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 4:10:24 PM
2	11.54	1.112mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 4:14:09 PM
3	11.48	1.106mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 4:18:01 PM

Mean Area 11.57
Mean Conc. 1.115mg/L



Sample

Sample Name: 18F0404-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

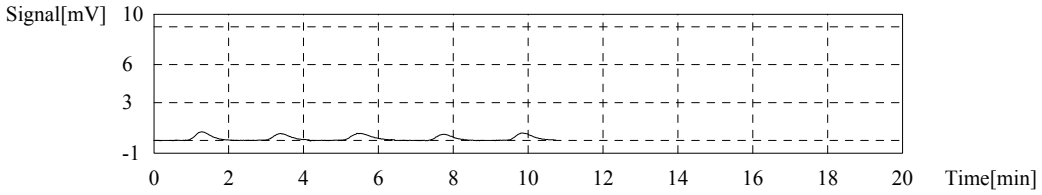
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1786mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.888	0.1819mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 4:27:51 PM
2	1.572	0.1515mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 4:31:37 PM
3	1.850	0.1783mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 4:35:37 PM
4	1.538	0.1482mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 4:39:14 PM
5	1.821	0.1755mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 4:43:05 PM

Mean Area 1.853
Mean Conc. 0.1786mg/L



Control Sample

Sample Name: SEQ-CCV6
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 17.77 / Control exceeds range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

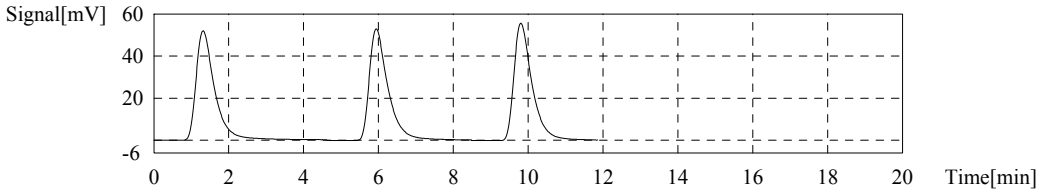
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:17.77ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	182.0	17.42ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 4:55:33 PM
2	185.8	17.79ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 5:00:24 PM
3	189.2	18.11ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 5:04:45 PM

Mean Area 185.7
Mean Conc. 17.77ppm



Control Sample

Sample Name: SEQ-CCB6
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.06622 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

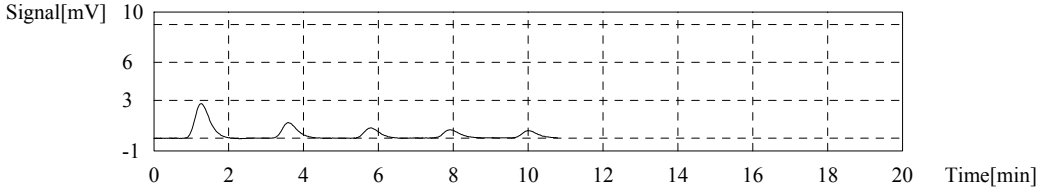
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.06622mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.787	0.6322mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 5:14:59 PM
2	3.515	0.2205mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 5:18:20 PM
3	2.296	0.1031mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 5:21:46 PM
4	1.789	0.05421mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 5:25:15 PM
5	1.656	0.04139mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 5:28:42 PM

Mean Area 1.914
Mean Conc. 0.06622mg/L



Sample

Sample Name: BGG0375-DUP4
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

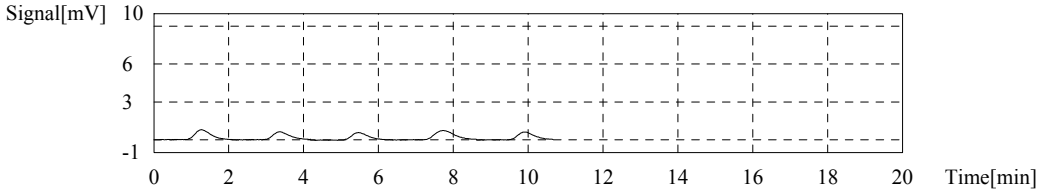
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1736mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.273	0.2190mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 5:38:40 PM
2	1.779	0.1714mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 5:42:28 PM
3	1.809	0.1743mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 5:46:20 PM
4	2.571	0.2478mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 5:50:11 PM
5	1.817	0.1751mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 5:53:46 PM

Mean Area 1.802
Mean Conc. 0.1736mg/L



Control Sample

Sample Name: SEQ-CCV7
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.32 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

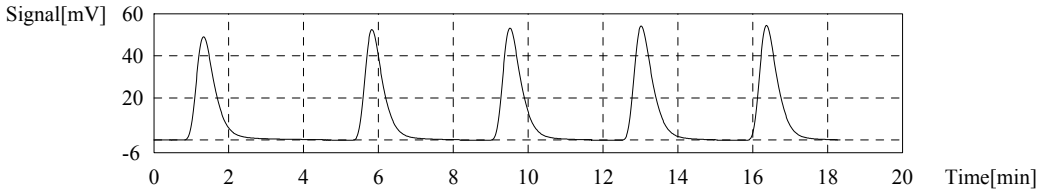
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.32ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	178.2	17.05ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 6:06:22 PM
2	183.4	17.56ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 6:11:02 PM
3	189.2	18.11ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 6:15:32 PM
4	194.3	18.61ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 6:19:52 PM
5	190.4	18.23ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 6:24:08 PM

Mean Area 191.3
Mean Conc. 18.32ppm



Control Sample

Sample Name: SEQ-CCB7
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1395 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

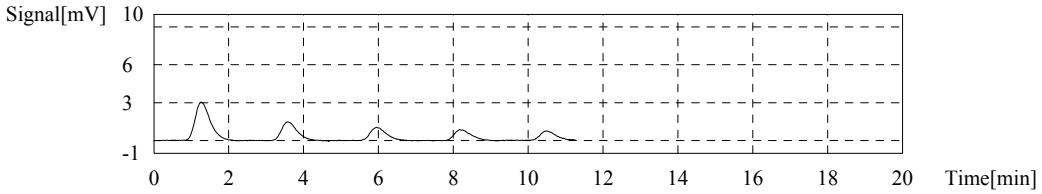
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1395mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.583	0.7089mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 6:34:20 PM
2	4.404	0.3062mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 6:37:54 PM
3	3.175	0.1878mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 6:41:16 PM
4	2.792	0.1509mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 6:44:50 PM
5	2.056	0.07994mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 6:48:05 PM

Mean Area 2.674
Mean Conc. 0.1395mg/L



Sample

Sample Name: BGG0375-DUP5
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

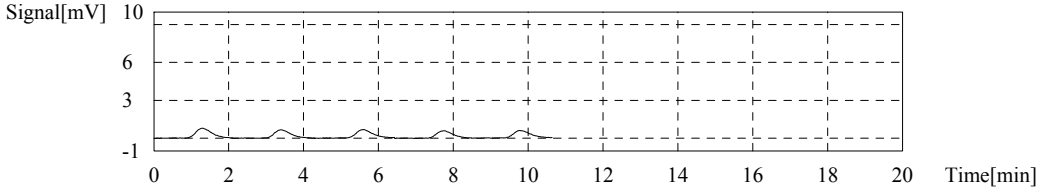
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1811mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.293	0.2210mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 6:58:06 PM
2	1.925	0.1855mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 7:01:58 PM
3	1.894	0.1825mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 7:05:43 PM
4	1.692	0.1631mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 7:09:24 PM
5	1.820	0.1754mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 7:13:17 PM

Mean Area 1.880
Mean Conc. 0.1811mg/L



Sample

Sample Name: BGG0375-MS5
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

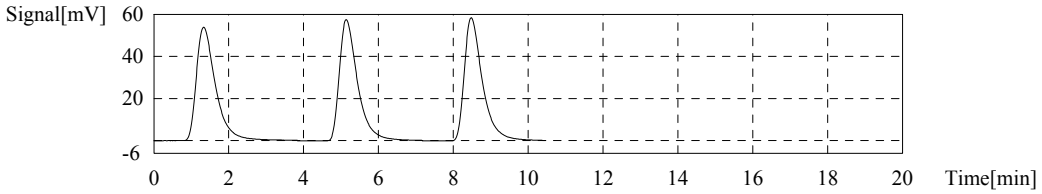
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.92mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	193.6	18.66mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 7:24:51 PM
2	196.7	18.96mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 7:29:10 PM
3	198.7	19.15mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 7:33:27 PM

Mean Area 196.3
Mean Conc. 18.92mg/L



Sample

Sample Name: 18F0404-03
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

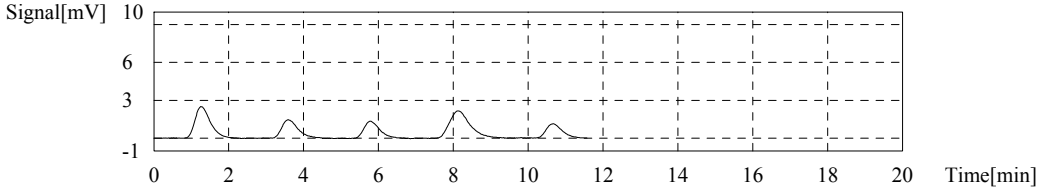
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3767mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.221	0.6959mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 7:43:40 PM
2	4.307	0.4151mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 7:47:21 PM
3	4.014	0.3868mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 7:51:08 PM
4	8.305	0.8003mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 7:55:23 PM
5	3.407	0.3283mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 7:58:43 PM

Mean Area 3.909
Mean Conc. 0.3767mg/L



Sample

Sample Name: 18F0404-05
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

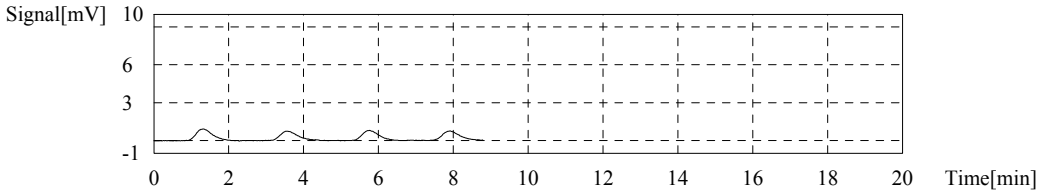
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2294mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.810	0.2708mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 8:08:44 PM
2	2.313	0.2229mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 8:12:27 PM
3	2.477	0.2387mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 8:16:11 PM
4	2.350	0.2265mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 8:20:03 PM

Mean Area 2.380
Mean Conc. 0.2294mg/L



Sample

Sample Name: 18F0404-07
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

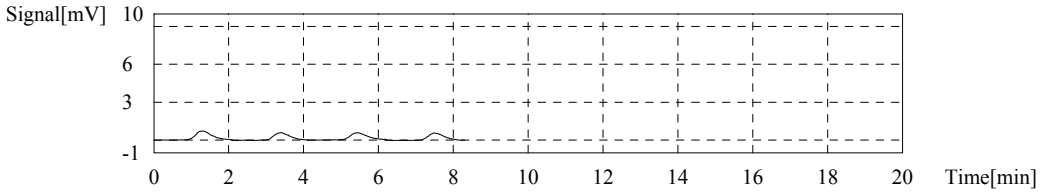
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1624mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.050	0.1976mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 8:29:54 PM
2	1.743	0.1680mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 8:33:39 PM
3	1.616	0.1557mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 8:37:27 PM
4	1.696	0.1634mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 8:41:16 PM

Mean Area 1.685
Mean Conc. 0.1624mg/L



Sample

Sample Name: BGG0376-MRL1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

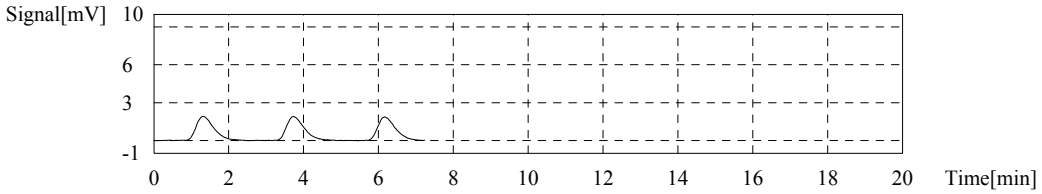
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5954mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.201	0.5976mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 8:51:27 PM
2	6.154	0.5931mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 8:55:15 PM
3	6.181	0.5957mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 8:58:59 PM

Mean Area 6.179
Mean Conc. 0.5954mg/L



Sample

Sample Name: BGG0376-BLK1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

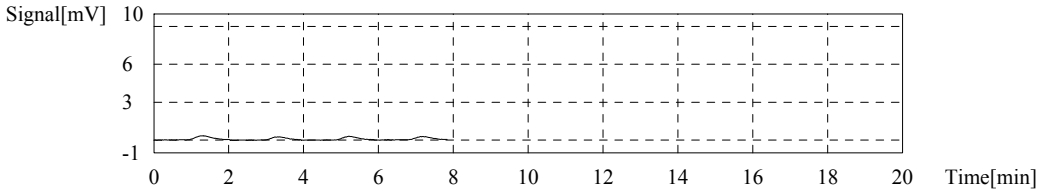
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06689mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.9201	0.08867mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 9:08:47 PM
2	0.6678	0.06436mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 9:12:26 PM
3	0.7746	0.07465mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 9:16:16 PM
4	0.6399	0.06167mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 9:20:03 PM

Mean Area 0.6941
Mean Conc. 0.06689mg/L



Sample

Sample Name: BGG0376-BS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

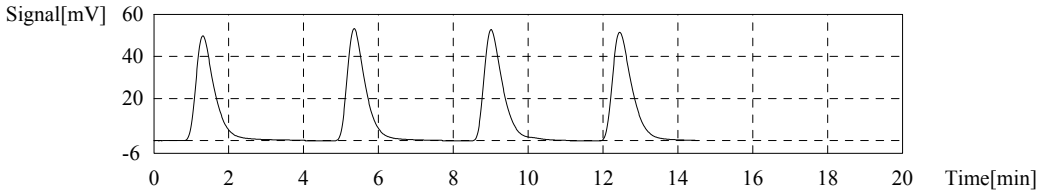
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:17.95mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	174.3	16.80mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 9:31:51 PM
2	183.2	17.65mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 9:36:31 PM
3	187.1	18.03mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 9:40:56 PM
4	188.5	18.17mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 9:45:21 PM

Mean Area 186.3
Mean Conc. 17.95mg/L



Sample

Sample Name: 18F0335-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

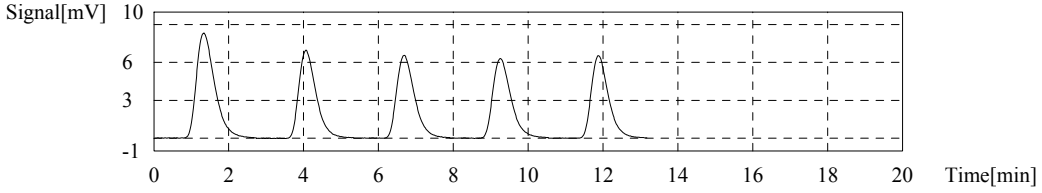
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.059mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	28.47	2.744mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 9:56:02 PM
2	22.42	2.161mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 9:59:41 PM
3	21.86	2.107mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 10:03:26 PM
4	21.32	2.055mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 10:07:17 PM
5	20.93	2.017mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 10:11:04 PM

Mean Area 21.37
Mean Conc. 2.059mg/L



Sample

Sample Name: 18F0335-03
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

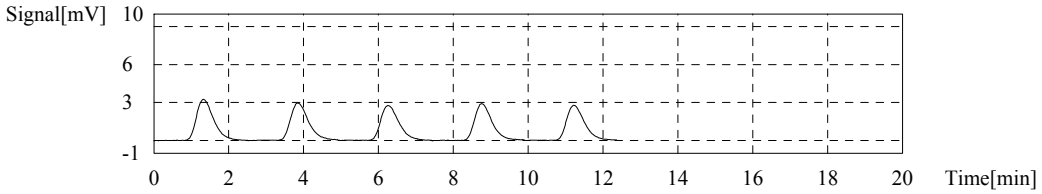
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.8884mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.44	1.006mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 10:21:31 PM
2	9.699	0.9347mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 10:25:13 PM
3	9.323	0.8984mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 10:29:05 PM
4	9.184	0.8851mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 10:32:50 PM
5	9.148	0.8816mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 10:36:38 PM

Mean Area 9.218
Mean Conc. 0.8884mg/L



Control Sample

Sample Name: SEQ-CCV8
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 17.55 / Control exceeds range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

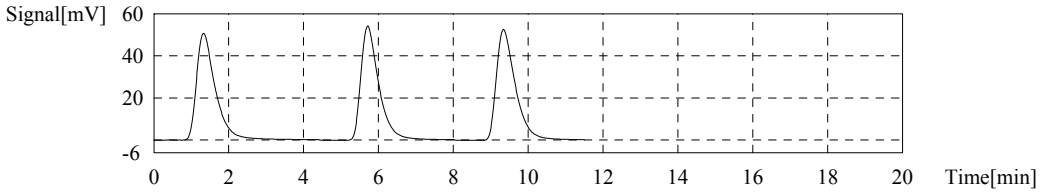
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:17.55ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	180.1	17.24ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 10:49:17 PM
2	182.8	17.50ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 10:53:54 PM
3	187.0	17.90ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 10:58:23 PM

Mean Area 183.3
Mean Conc. 17.55ppm



Control Sample

Sample Name: SEQ-CCB8
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1450 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

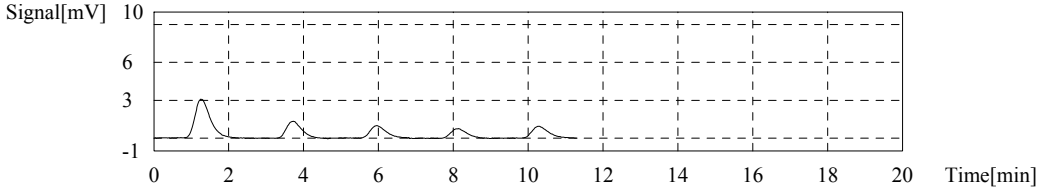
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1450mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.703	0.7205mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 11:08:42 PM
2	3.984	0.2657mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 11:12:01 PM
3	2.899	0.1612mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 11:15:25 PM
4	2.354	0.1087mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 11:18:56 PM
5	2.941	0.1652mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 11:22:35 PM

Mean Area 2.731
Mean Conc. 0.1450mg/L



Sample

Sample Name: 18F0334-02
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

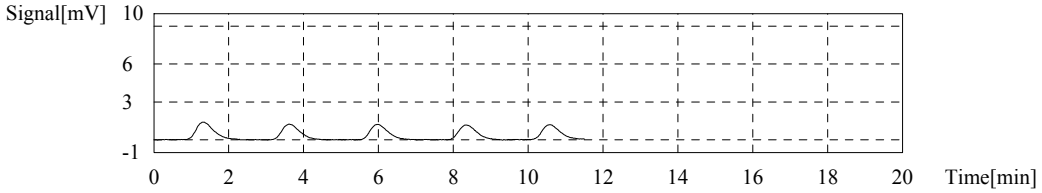
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.3720mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.501	0.4338mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 11:33:21 PM
2	4.161	0.4010mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 11:37:12 PM
3	4.008	0.3862mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 11:41:00 PM
4	3.806	0.3668mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 11:44:39 PM
5	3.767	0.3630mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 11:48:28 PM

Mean Area 3.860
Mean Conc. 0.3720mg/L



Sample

TOC-Control L Report

CDE
2018_07_17_001.tlx

Sample Name: 18F0334-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

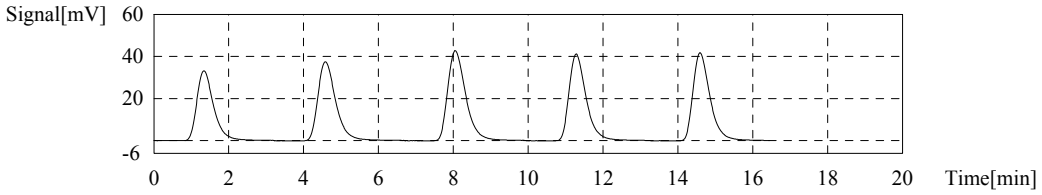
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1254mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	104.5	1007mg/L	50uL	50.00	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/18/2018 11:59:51 PM
2	125.4	1208mg/L	50uL	50.00		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/19/2018 12:04:57 AM
3	144.6	1393mg/L	50uL	50.00	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/19/2018 12:09:33 AM
4	131.9	1271mg/L	50uL	50.00		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/19/2018 12:14:27 AM
5	133.1	1283mg/L	50uL	50.00		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/19/2018 12:19:09 AM

Mean Area 130.1
Mean Conc. 1254mg/L



Control Sample

Sample Name: SEQ-CCV9
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.27 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

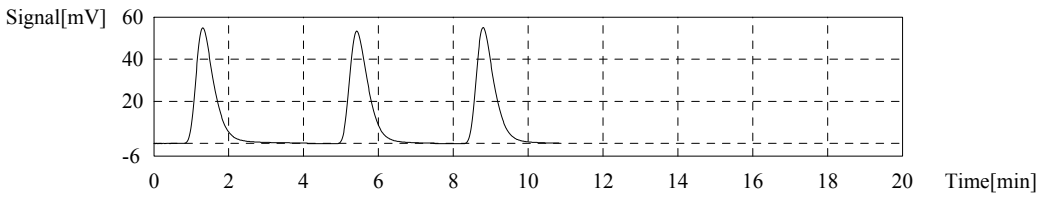
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.27ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	192.4	18.42ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/19/2018 12:30:58 AM
2	189.7	18.16ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/19/2018 12:35:21 AM
3	190.4	18.23ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/19/2018 12:39:41 AM

Mean Area 190.8
Mean Conc. 18.27ppm



TOC-Control L Report

CDE
2018_07_17_001.tlx

Control Sample

Sample Name: SEQ-CCB9
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.2759 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

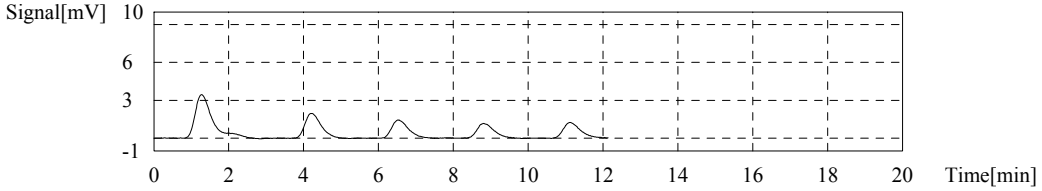
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.2759mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.40	0.9804mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/19/2018 12:50:30 AM
2	6.034	0.4633mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/19/2018 12:53:49 AM
3	4.578	0.3230mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/19/2018 12:57:15 AM
4	3.664	0.2349mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/19/2018 1:00:47 AM
5	4.026	0.2698mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/19/2018 1:04:19 AM

Mean Area 4.089
Mean Conc. 0.2759mg/L



ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGG0302	Instrument:	TOC-LCSH
		Calibration:	BG00066

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
1	SGG0302-CAL1	adzuData_07202018@115	NA	07/19/18 15:42
10	SGG0302-CAL2	adzuData_07202018@115	NA	07/19/18 16:04
5	SGG0302-CAL3	adzuData_07202018@115	NA	07/19/18 16:26
2	SGG0302-CAL4	adzuData_07202018@115	NA	07/19/18 16:43
1	SGG0302-CAL5	adzuData_07202018@115	NA	07/19/18 16:58
5	SGG0302-CAL6	adzuData_07202018@115	NA	07/19/18 17:17
2	SGG0302-CAL7	adzuData_07202018@115	NA	07/19/18 17:35
1	SGG0302-CAL8	adzuData_07202018@115	NA	07/19/18 17:53
1	SGG0302-ICV1	adzuData_07202018@115	NA	07/19/18 18:13
1	SGG0302-ICB1	adzuData_07202018@115	NA	07/19/18 18:43
1	SGG0302-IFA1	adzuData_07202018@115	NA	07/19/18 19:06
LDW18-SP-01	18F0248-01RE3	adzuData_07202018@115	Water	07/19/18 19:52
LDW18-SP-45	18F0248-02RE3	adzuData_07202018@115	Water	07/19/18 20:15
LDW18-SP-47	18F0248-03RE3	adzuData_07202018@115	Water	07/19/18 20:41
LDW18-SP-66	18F0248-04RE3	adzuData_07202018@115	Water	07/19/18 21:03
LDW18-SP-70	18F0248-05RE3	adzuData_07202018@115	Water	07/19/18 21:29
LDW18-SP-83	18F0248-06RE3	adzuData_07202018@115	Water	07/19/18 21:54
LDW18-SP-86	18F0248-07RE3	adzuData_07202018@115	Water	07/19/18 22:20
LDW18-SP-88	18F0248-08RE3	adzuData_07202018@115	Water	07/19/18 22:42
1	SGG0302-CCV1	adzuData_07202018@115	NA	07/19/18 23:05
1	SGG0302-CCB1	adzuData_07202018@115	NA	07/19/18 23:28
1	SGG0302-CCV2	adzuData_07202018@115	NA	07/20/18 03:56
1	SGG0302-CCB2	adzuData_07202018@115	NA	07/20/18 04:22

	Type	Analysis	Sample Name	Sample I	Origin	Manual	Result	Notes	Status	Date / Time	Vial
1	Unknown	NPOC	Rinse		NPOC 0.5 -	1.000	NPOC:0.1784mg/L		Completed	7/19/2018 3:34:42 PM	0
2	Standard	NPOC	SEQ-CAL	Curve	NPOC 0.5 -	1.000			Completed	7/19/2018 6:02:09 PM	0, 1, 1, 1, 1,
3	Control	NPOC	SEQ-ICV1	CVS 20	CVS 20 pp	1.000	NPOC:19.21ppm	Control valu	Completed	7/19/2018 6:26:21 PM	3
4	Control	NPOC	SEQ-ICB1		ICB CCB.tpl	1.000	NPOC:0.2710mg/L	Control valu	Completed	7/19/2018 6:50:16 PM	4
5	Unknown	NPOC	SEQ-IFA1		NPOC 0.5 -	1.000	NPOC:18.79mg/L		Completed	7/19/2018 7:14:23 PM	9
6	Unknown	NPOC	BGG0109-BS2		NPOC 0.5 -	1.000	NPOC:17.36mg/L		Completed	7/19/2018 7:34:11 PM	10
7	Unknown	NPOC	18F0248-01RE3DOC		NPOC 0.5 -	1.000	NPOC:2.522mg/L		Completed	7/19/2018 8:00:14 PM	11
8	Unknown	NPOC	18F0248-02RE3DOC		NPOC 0.5 -	1.000	NPOC:3.874mg/L		Completed	7/19/2018 8:27:10 PM	12
9	Unknown	NPOC	18F0248-03RE3DOC		NPOC 0.5 -	1.000	NPOC:2.864mg/L		Completed	7/19/2018 8:53:11 PM	13
10	Unknown	NPOC	18F0248-04RE3DOC		NPOC 0.5 -	1.000	NPOC:1.567mg/L		Completed	7/19/2018 9:11:08 PM	14
11	Unknown	NPOC	18F0248-05RE3DOC		NPOC 0.5 -	1.000	NPOC:1.231mg/L		Completed	7/19/2018 9:36:49 PM	15
12	Unknown	NPOC	18F0248-06RE3DOC		NPOC 0.5 -	1.000	NPOC:1.486mg/L		Completed	7/19/2018 10:02:13 PM	16
13	Unknown	NPOC	18F0248-07RE3DOC		NPOC 0.5 -	1.000	NPOC:1.843mg/L		Completed	7/19/2018 10:27:55 PM	17
14	Unknown	NPOC	18F0248-08RE3DOC		NPOC 0.5 -	1.000	NPOC:1.249mg/L		Completed	7/19/2018 10:53:35 PM	18
15	Control	NPOC	SEQ-CCV1	CVS 20	CVS 20 pp	1.000	NPOC:19.58ppm	Control valu	Completed	7/19/2018 11:14:42 PM	3
16	Control	NPOC	SEQ-CCB1		ICB CCB.tpl	1.000	NPOC:0.1738mg/L	Control valu	Completed	7/19/2018 11:39:18 PM	4
17	Unknown	NPOC	18F0402-01RE1		NPOC 0.5 -	1.000	NPOC:0.2072mg/L		Completed	7/19/2018 11:57:03 PM	19
18	Unknown	NPOC	BGG0375-DUP6		NPOC 0.5 -	1.000	NPOC:0.2325mg/L		Completed	7/20/2018 12:22:14 AM	20
19	Unknown	NPOC	BGG0375-MS6		NPOC 0.5 -	1.000	NPOC:20.53mg/L		Completed	7/20/2018 12:47:32 AM	21
20	Unknown	NPOC	18F0402-02RE2		NPOC 0.5 -	1.000	NPOC:1.229mg/L		Completed	7/20/2018 1:13:18 AM	22
21	Unknown	NPOC	18F0402-03RE2		NPOC 0.5 -	1.000	NPOC:0.2245mg/L		Completed	7/20/2018 1:38:36 AM	23
22	Unknown	NPOC	18F0403-01RE1		NPOC 0.5 -	1.000	NPOC:0.2152mg/L		Completed	7/20/2018 2:03:39 AM	24
23	Unknown	NPOC	BGG0375-DUP7		NPOC 0.5 -	1.000	NPOC:0.5175mg/L		Completed	7/20/2018 2:28:45 AM	25
24	Unknown	NPOC	BGG0375-MS7		NPOC 0.5 -	1.000	NPOC:21.91mg/L		Completed	7/20/2018 2:53:30 AM	26
25	Unknown	NPOC	18F0403-03RE1		NPOC 0.5 -	1.000	NPOC:0.4338mg/L		Completed	7/20/2018 3:18:55 AM	27
26	Unknown	NPOC	18F0403-05RE1		NPOC 0.5 -	1.000	NPOC:0.4580mg/L		Completed	7/20/2018 3:44:05 AM	28
27	Control	NPOC	SEQ-CCV2	CVS 20	CVS 20 pp	1.000	NPOC:21.39ppm	Control valu	Completed	7/20/2018 4:05:38 AM	5
28	Control	NPOC	SEQ-CCB2		ICB CCB.tpl	1.000	NPOC:0.07916mg/L	Control valu	Completed	7/20/2018 4:29:42 AM	6
29	Unknown	NPOC	18F0403-07RE1		NPOC 0.5 -	1.000	NPOC:1.330mg/L		Completed	7/20/2018 4:47:44 AM	29
30	Unknown	NPOC	18F0404-01RE1		NPOC 0.5 -	1.000	NPOC:0.1791mg/L		Completed	7/20/2018 5:09:30 AM	30
31	Unknown	NPOC	BGG0375-DUP8		NPOC 0.5 -	1.000	NPOC:0.1447mg/L		Completed	7/20/2018 5:30:47 AM	31
32	Unknown	NPOC	BGG0375-MS8		NPOC 0.5 -	1.000	NPOC:22.85mg/L		Completed	7/20/2018 5:51:25 AM	32
33	Unknown	NPOC	18F0404-03RE1		NPOC 0.5 -	1.000	NPOC:0.4250mg/L		Completed	7/20/2018 6:16:51 AM	33
34	Unknown	NPOC	18F0404-05RE1		NPOC 0.5 -	1.000	NPOC:0.2774mg/L		Completed	7/20/2018 6:34:25 AM	34
35	Unknown	NPOC	18F0404-07RE1		NPOC 0.5 -	1.000	NPOC:0.2317mg/L		Completed	7/20/2018 7:00:36 AM	35
36	Unknown	NPOC	BGG0376-MRL2		NPOC 0.5 -	1.000	NPOC:0.6766mg/L		Completed	7/20/2018 7:24:43 AM	36
37	Unknown	NPOC	BGG0376-BLK2		NPOC 0.5 -	1.000	NPOC:0.1592mg/L		Completed	7/20/2018 7:43:31 AM	37
38	Unknown	NPOC	BGG0376-BS2		NPOC 0.5 -	1.000	NPOC:31.33mg/L		Completed	7/20/2018 8:07:46 AM	38
39	Control	NPOC	SEQ-CCV3	CVS 20	CVS 20 pp	1.000	NPOC:32.31ppm	Control valu	Completed	7/20/2018 8:31:53 AM	5
40	Control	NPOC	SEQ-CCB3		ICB CCB.tpl	1.000	NPOC:0.1748mg/L	Control valu	Completed	7/20/2018 8:59:47 AM	6

	Type	Analysis	Sample Name	Sample I	Origin	Manual	Result	Notes	Status	Date / Time	Vial
41	Unknown	NPOC	18F0335-01RE1		NPOC 0.5 -	1.000	NPOC:3.429mg/L		Completed	7/20/2018 9:21:13 AM	39
42	Control	NPOC	SEQ-CCV4	CVS 20	CVS 20 pp	1.000	NPOC:32.24ppm	Control valu	Completed	7/20/2018 9:45:29 AM	7
43	Control	NPOC	SEQ-CCB4		ICB CCB.tpl	1.000	NPOC:0.000mg/L		Aborted		8
44*	Unknown	NPOC	18F0335-01RE2		NPOC 0.5 -	1.000			Defined		39
45*	Unknown	NPOC	18F0335-03RE1		NPOC 0.5 -	1.000			Defined		40
46*	Unknown	NPOC	18F0334-02RE1		NPOC 0.5 -	1.000			Defined		41
47*	Unknown	NPOC	18F0334-01RE1		NPOC 0.5 -	1.000			Defined		42
48*	Unknown	NPOC	18F0335-05		NPOC 0.5 -	1.000			Defined		43
49*	Unknown	NPOC	18F0335-07		NPOC 0.5 -	1.000			Defined		44
50*	Unknown	NPOC	BGG0376-DUP1		NPOC 0.5 -	1.000			Defined		45
51*	Unknown	NPOC	BGG0376-MS1		NPOC 0.5 -	1.000			Defined		46
52*	Unknown	NPOC	18F0335-09		NPOC 0.5 -	1.000			Defined		47
53*	Unknown	NPOC	18F0335-11		NPOC 0.5 -	1.000			Defined		48
54*	Control	NPOC	SEQ-CCV5	CVS 20	CVS 20 pp	1.000			Defined		7
55*	Control	NPOC	SEQ-CCB5		ICB CCB.tpl	1.000			Defined		8
56*	Unknown	NPOC	18G0115-01		NPOC 0.5 -	1.000			Defined		49
57*	Control	NPOC	SEQ-CCV6	CVS 20	CVS 20 pp	1.000			Defined		7
58*	Control	NPOC	SEQ-CCB6		ICB CCB.tpl	1.000			Defined		8

TOC-Control L Report

CDE
2018_07_19_001.tlx

Instr.Information

Instrument Options: TOC/ASI/IC Unit/
Catalyst: Regular Sensitivity

Sample

Sample Name: Rinse
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status: Completed
Chk. Result

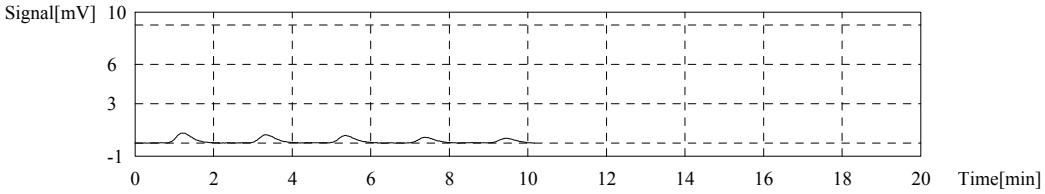
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1784mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.128	0.2051mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/19/2018 3:20:52 PM
2	1.821	0.1755mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/19/2018 3:24:16 PM
3	1.606	0.1548mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/19/2018 3:27:47 PM
4	1.253	0.1208mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/19/2018 3:31:18 PM
5	1.021	0.09839mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal	7/19/2018 3:34:42 PM

Mean Area 1.852
Mean Conc. 0.1784mg/L



Cal. Curve

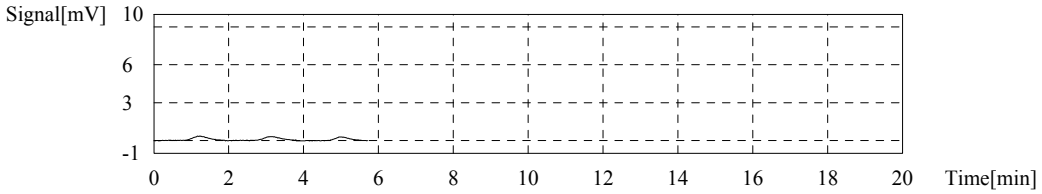
Sample Name: SEQ-CAL
Sample ID: Curve
Cal. Curve: NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal
Status: Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.9015	100uL	1.000	*******		7/19/2018 3:42:11 PM
2	0.7903	100uL	1.000	*******		7/19/2018 3:45:41 PM
3	0.7709	100uL	1.000	*******		7/19/2018 3:49:11 PM

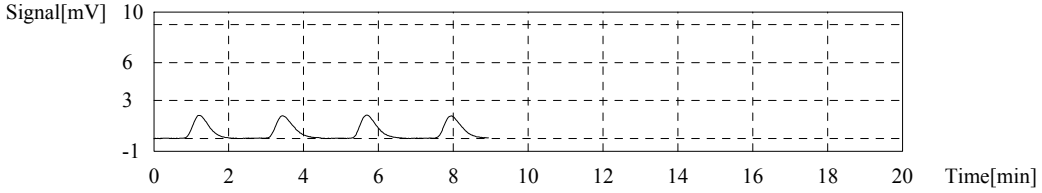
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 0.8209



Conc: 0.5000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	5.509	100uL	10.00	*******	E	7/19/2018 3:59:36 PM
2	5.733	100uL	10.00	*******		7/19/2018 4:04:30 PM
3	5.694	100uL	10.00	*******		7/19/2018 4:09:22 PM
4	5.613	100uL	10.00	*******		7/19/2018 4:14:12 PM

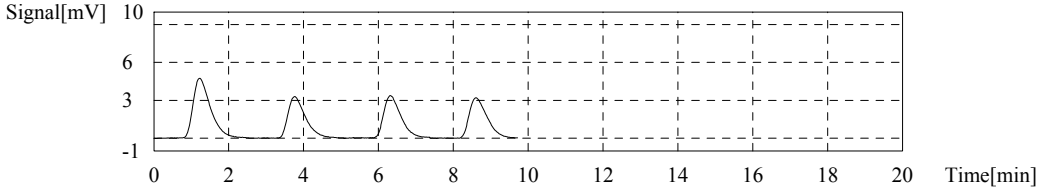
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 5.680



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	15.31	100uL	5.000	*******	E	7/19/2018 4:23:04 PM
2	10.85	100uL	5.000	*******		7/19/2018 4:26:44 PM
3	10.56	100uL	5.000	*******		7/19/2018 4:30:07 PM
4	10.68	100uL	5.000	*******		7/19/2018 4:33:50 PM

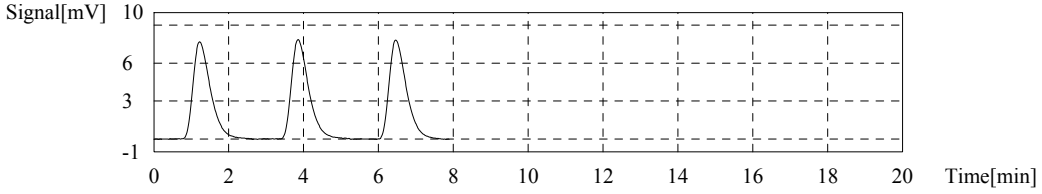
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 10.70



Conc: 2.500mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	25.03	100uL	2.000	*******		7/19/2018 4:43:16 PM
2	25.33	100uL	2.000	*******		7/19/2018 4:46:55 PM
3	25.49	100uL	2.000	*******		7/19/2018 4:50:36 PM

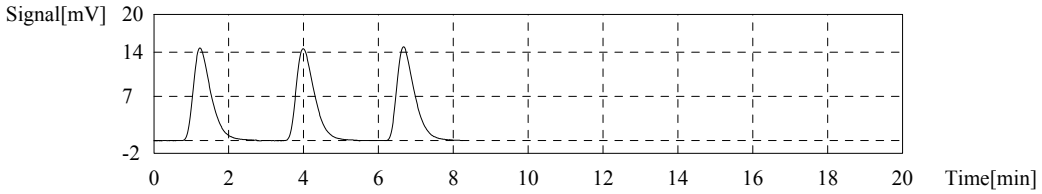
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 25.28



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	48.54	100uL	1.000	*******		7/19/2018 4:58:55 PM
2	49.43	100uL	1.000	*******		7/19/2018 5:02:35 PM
3	49.45	100uL	1.000	*******		7/19/2018 5:06:23 PM

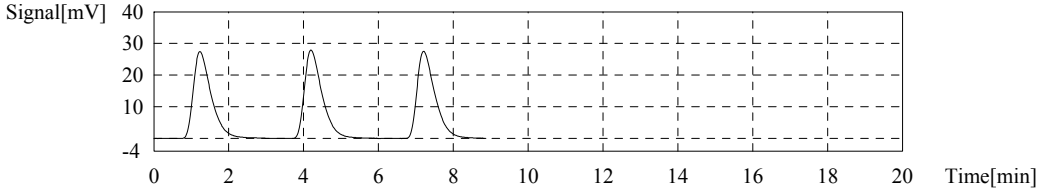
Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	49.14



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	91.81	100uL	5.000	*******		7/19/2018 5:17:50 PM
2	92.88	100uL	5.000	*******		7/19/2018 5:21:50 PM
3	92.58	100uL	5.000	*******		7/19/2018 5:25:42 PM

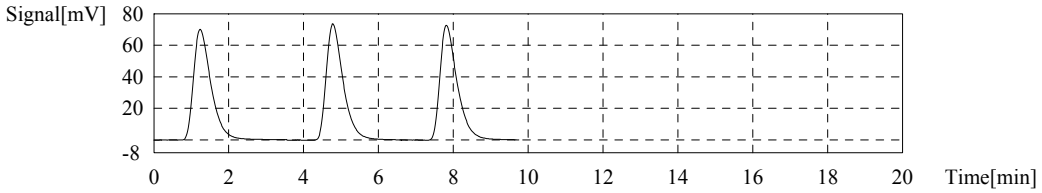
Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	92.42



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	230.7	100uL	2.000	*******		7/19/2018 5:35:45 PM
2	234.6	100uL	2.000	*******		7/19/2018 5:39:47 PM
3	235.7	100uL	2.000	*******		7/19/2018 5:43:55 PM

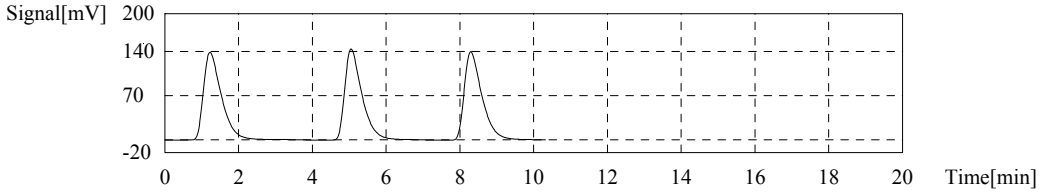
Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	233.7



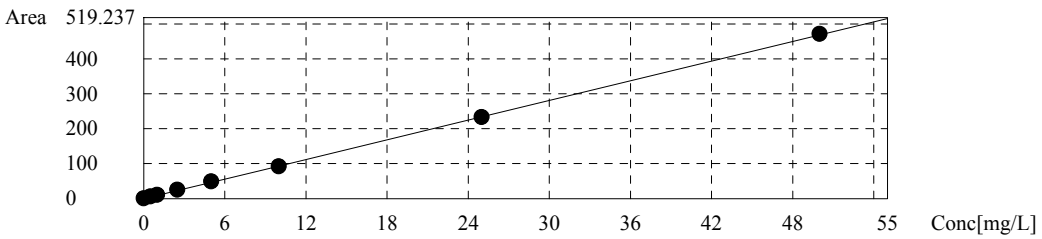
Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	473.8	100uL	1.000	*******		7/19/2018 5:53:40 PM
2	471.7	100uL	1.000	*******		7/19/2018 5:57:54 PM
3	470.6	100uL	1.000	*******		7/19/2018 6:02:09 PM

Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	472.0



Slope:	9.399
Intercept	0.000
r^2	0.9999
r	1.0000
Zero Shift	Yes



Control Sample

Sample Name: SEQ-ICV1
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 19.21 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

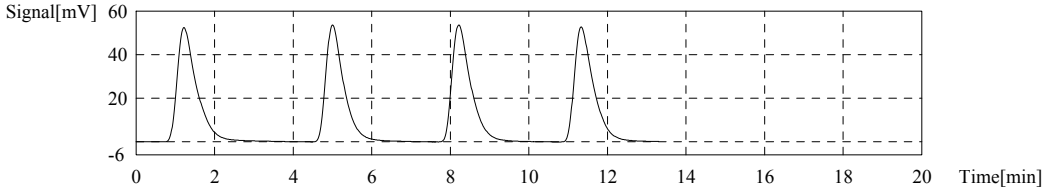
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:19.21ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	183.2	19.41ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 6:13:50 PM
2	174.0	18.43ppm	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 6:18:03 PM
3	180.4	19.11ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 6:22:10 PM
4	180.4	19.11ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 6:26:21 PM

Mean Area 181.3
Mean Conc. 19.21ppm



Control Sample

Sample Name: SEQ-ICB1
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.2710 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

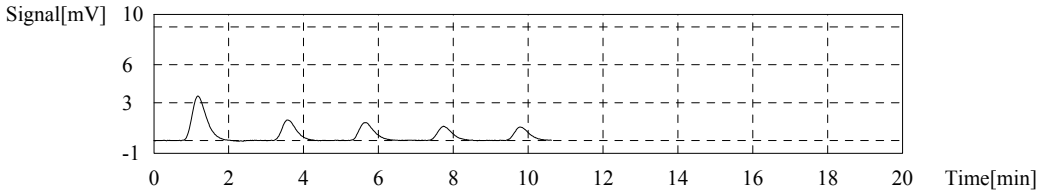
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.2710mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.648	0.9432mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 6:36:39 PM
2	4.514	0.3970mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 6:39:48 PM
3	3.989	0.3411mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 6:43:21 PM
4	3.058	0.2421mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 6:46:48 PM
5	2.941	0.2296mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 6:50:16 PM

Mean Area 3.329
Mean Conc. 0.2710mg/L



Sample

Sample Name: SEQ-IFA1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

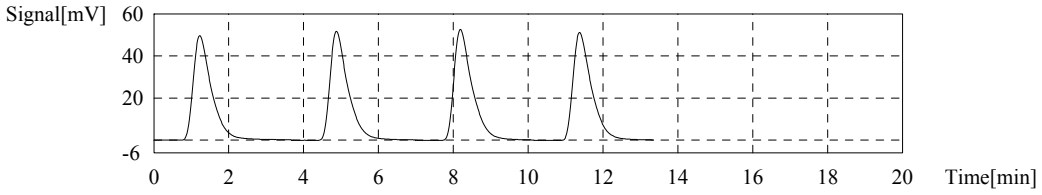
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.79mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	170.3	18.12mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 7:01:42 PM
2	174.0	18.51mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 7:06:01 PM
3	178.9	19.03mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 7:10:11 PM
4	176.9	18.82mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 7:14:23 PM

Mean Area 176.6
Mean Conc. 18.79mg/L



Sample

Sample Name: BGG0109-BS2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

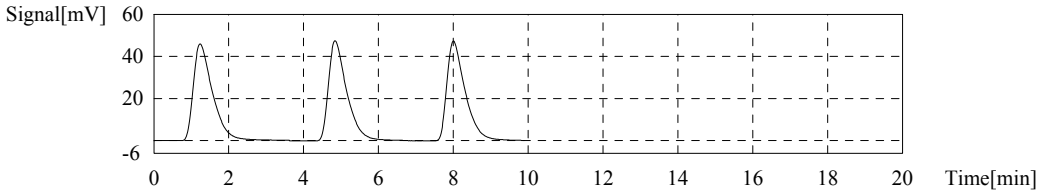
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:17.36mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	164.7	17.52mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 7:25:54 PM
2	162.5	17.29mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 7:30:04 PM
3	162.3	17.27mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 7:34:11 PM

Mean Area 163.2
Mean Conc. 17.36mg/L



Sample

Sample Name: 18F0248-01RE3DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

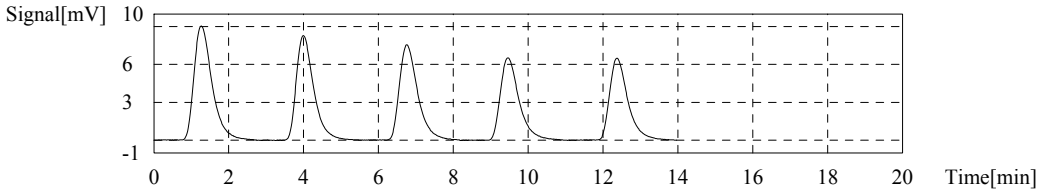
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.522mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	30.51	3.246mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 7:44:49 PM
2	27.00	2.873mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 7:48:36 PM
3	25.84	2.749mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 7:52:21 PM
4	23.02	2.449mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 7:56:22 PM
5	22.24	2.366mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 8:00:14 PM

Mean Area 23.70
Mean Conc. 2.522mg/L



Sample

Sample Name: 18F0248-02RE3DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

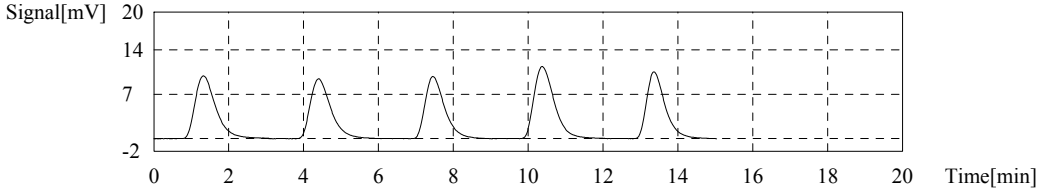
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.874mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	38.25	4.070mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 8:11:12 PM
2	36.60	3.894mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 8:15:17 PM
3	35.98	3.828mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 8:19:11 PM
4	43.24	4.601mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 8:23:13 PM
5	36.65	3.899mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 8:27:10 PM

Mean Area 36.41
Mean Conc. 3.874mg/L



Sample

Sample Name: 18F0248-03RE3DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

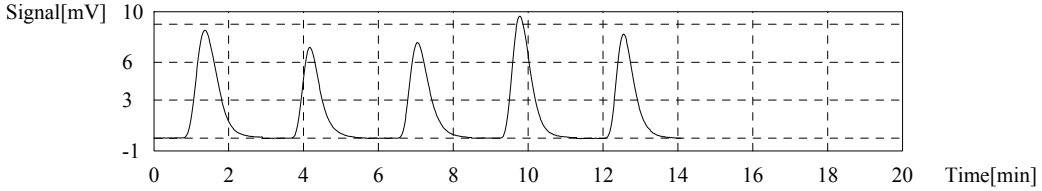
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.864mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	34.01	3.619mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 8:37:58 PM
2	24.71	2.629mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 8:41:49 PM
3	27.91	2.970mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 8:45:33 PM
4	33.88	3.605mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 8:49:23 PM
5	28.14	2.994mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 8:53:11 PM

Mean Area 26.92
Mean Conc. 2.864mg/L



Sample

Sample Name: 18F0248-04RE3DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

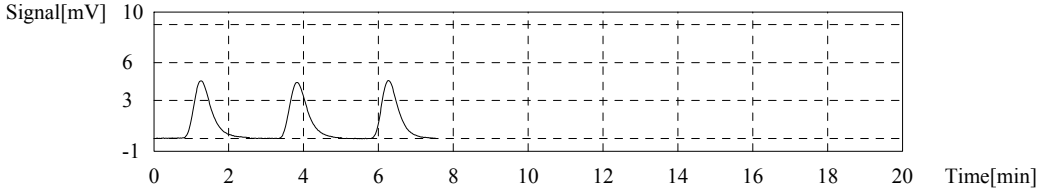
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.567mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.86	1.581mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 9:03:37 PM
2	14.83	1.578mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 9:07:20 PM
3	14.49	1.542mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 9:11:08 PM

Mean Area 14.73
Mean Conc. 1.567mg/L



Sample

Sample Name: 18F0248-05RE3DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

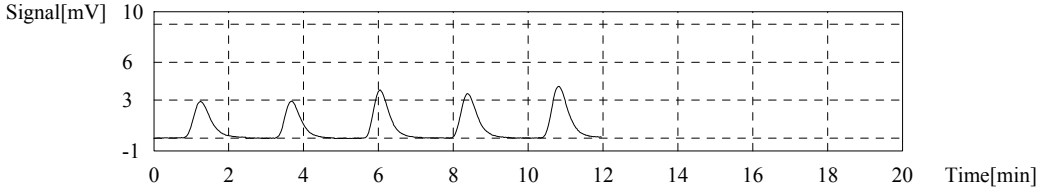
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.231mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.102	0.9684mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 9:21:45 PM
2	8.820	0.9384mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 9:25:27 PM
3	11.25	1.197mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 9:29:12 PM
4	10.74	1.143mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 9:33:04 PM
5	12.71	1.352mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 9:36:49 PM

Mean Area 11.57
Mean Conc. 1.231mg/L



Sample

Sample Name: 18F0248-06RE3DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

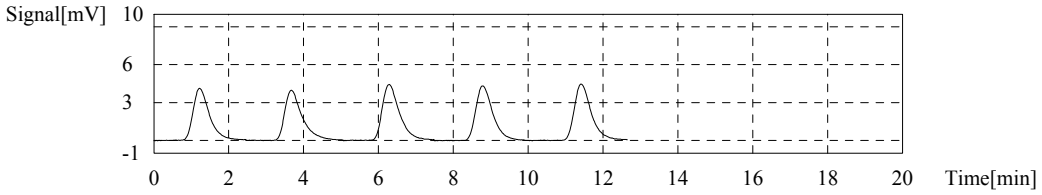
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.486mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.45	1.325mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 9:46:59 PM
2	12.86	1.368mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 9:50:55 PM
3	13.97	1.486mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 9:54:32 PM
4	13.90	1.479mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 9:58:30 PM
5	14.04	1.494mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 10:02:13 PM

Mean Area 13.97
Mean Conc. 1.486mg/L



Sample

Sample Name: 18F0248-07RE3DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

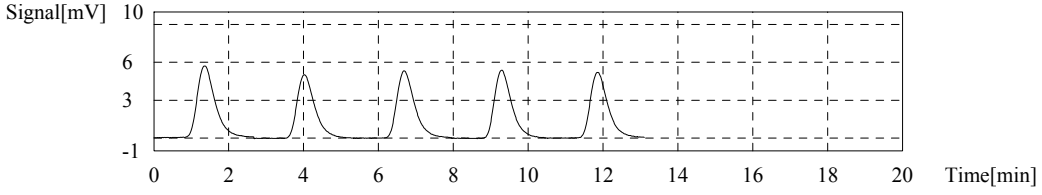
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.843mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	18.82	2.002mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 10:12:52 PM
2	16.74	1.781mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 10:16:39 PM
3	17.51	1.863mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 10:20:23 PM
4	17.45	1.857mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 10:24:07 PM
5	17.01	1.810mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 10:27:55 PM

Mean Area 17.32
Mean Conc. 1.843mg/L



Sample

Sample Name: 18F0248-08RE3DOC
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

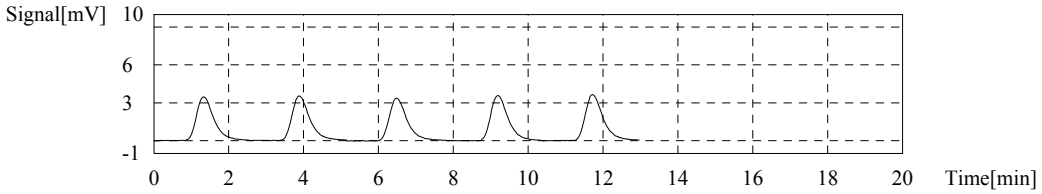
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.249mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.15	1.186mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 10:38:24 PM
2	11.69	1.244mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 10:42:16 PM
3	11.25	1.197mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 10:46:08 PM
4	11.63	1.237mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 10:49:45 PM
5	11.91	1.267mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 10:53:35 PM

Mean Area 11.74
Mean Conc. 1.249mg/L



Control Sample

Sample Name: SEQ-CCV1
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 19.58 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

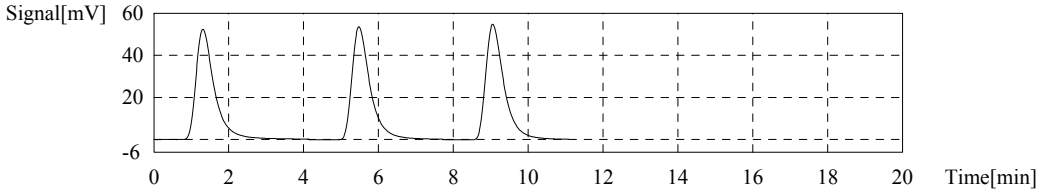
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:19.58ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	182.0	19.28ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 11:05:48 PM
2	184.1	19.50ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 11:10:21 PM
3	188.4	19.96ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 11:14:42 PM

Mean Area 184.8
Mean Conc. 19.58ppm



Control Sample

Sample Name: SEQ-CCB1
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1738 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

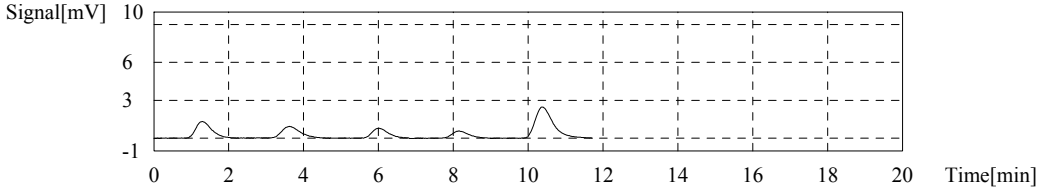
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1738mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.937	0.3356mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 11:24:50 PM
2	3.143	0.2511mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 11:28:31 PM
3	2.348	0.1665mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 11:31:43 PM
4	1.757	0.1037mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 11:35:16 PM
5	8.243	0.7938mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 11:39:18 PM

Mean Area 2.416
Mean Conc. 0.1738mg/L



Sample

Sample Name: 18F0402-01RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

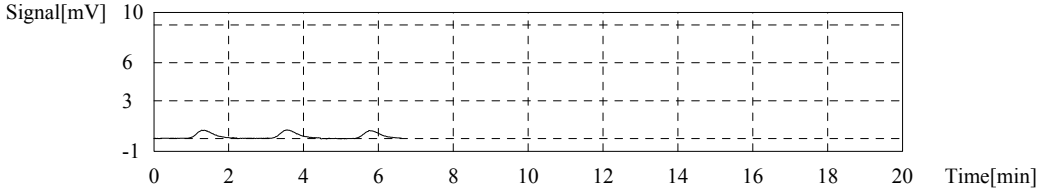
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2072mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.941	0.2065mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 11:49:33 PM
2	2.017	0.2146mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 11:53:21 PM
3	1.885	0.2006mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/19/2018 11:57:03 PM

Mean Area 1.948
Mean Conc. 0.2072mg/L



Sample

Sample Name: BGG0375-DUP6
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

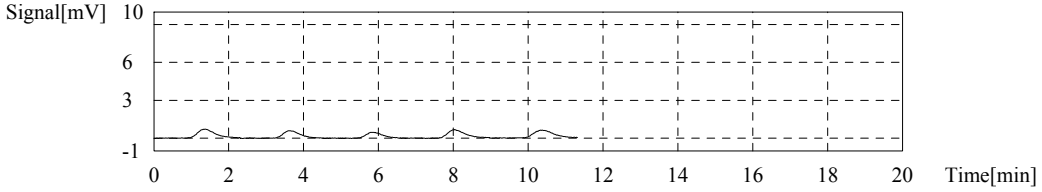
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2325mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.216	0.2358mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 12:07:03 AM
2	1.811	0.1927mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 12:10:45 AM
3	1.396	0.1485mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 12:14:30 AM
4	2.155	0.2293mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 12:18:22 AM
5	2.186	0.2326mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 12:22:14 AM

Mean Area 2.186
Mean Conc. 0.2325mg/L



Sample

Sample Name: BGG0375-MS6
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

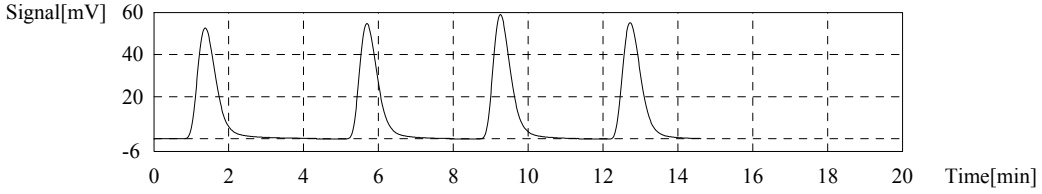
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:20.53mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	191.4	20.36mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 12:34:16 AM
2	192.2	20.45mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 12:38:49 AM
3	202.2	21.51mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 12:43:16 AM
4	195.2	20.77mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 12:47:32 AM

Mean Area 192.9
Mean Conc. 20.53mg/L



Sample

Sample Name: 18F0402-02RE2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

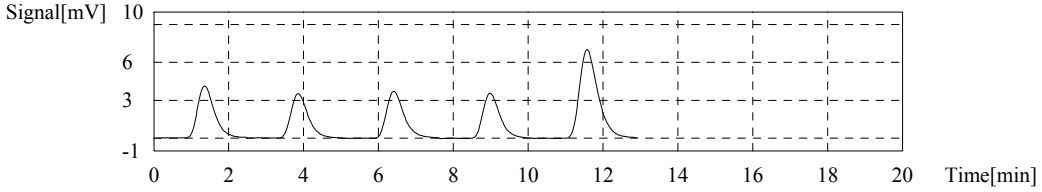
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.229mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.94	1.377mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 12:57:55 AM
2	11.15	1.186mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 1:01:46 AM
3	12.04	1.281mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 1:05:35 AM
4	11.46	1.219mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 1:09:19 AM
5	24.21	2.576mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 1:13:18 AM

Mean Area 11.55
Mean Conc. 1.229mg/L



Sample

Sample Name: 18F0402-03RE2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

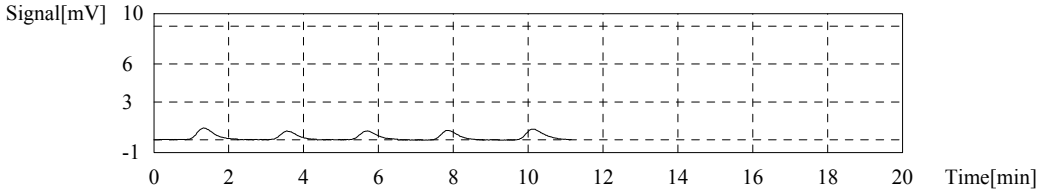
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2245mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.766	0.2943mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 1:23:20 AM
2	1.929	0.2052mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 1:27:00 AM
3	2.077	0.2210mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 1:30:50 AM
4	2.324	0.2473mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 1:34:43 AM
5	2.909	0.3095mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 1:38:36 AM

Mean Area 2.110
Mean Conc. 0.2245mg/L



Sample

Sample Name: 18F0403-01RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

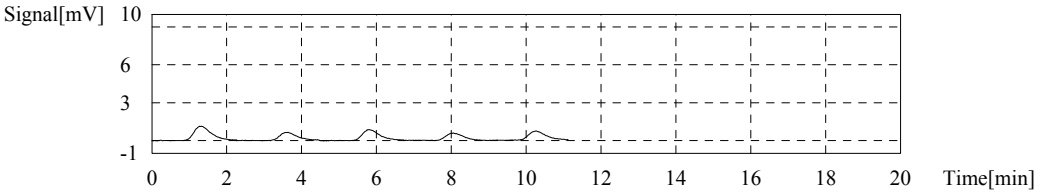
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2152mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.577	0.3806mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 1:48:35 AM
2	2.012	0.2141mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 1:52:19 AM
3	2.646	0.2815mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 1:56:08 AM
4	1.853	0.1972mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 1:59:51 AM
5	2.204	0.2345mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 2:03:39 AM

Mean Area 2.023
Mean Conc. 0.2152mg/L



Sample

Sample Name: BGG0375-DUP7
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

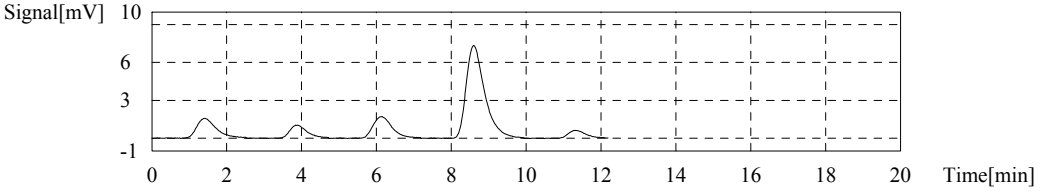
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5175mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.537	0.5891mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 2:13:53 AM
2	3.139	0.3340mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 2:17:21 AM
3	5.915	0.6293mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 2:21:24 AM
4	25.42	2.705mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 2:25:28 AM
5	1.945	0.2069mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 2:28:45 AM

Mean Area 4.864
Mean Conc. 0.5175mg/L



Sample

Sample Name: BGG0375-MS7
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

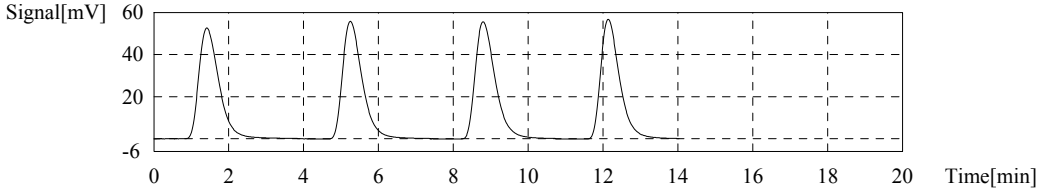
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:21.91mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	198.3	21.10mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 2:40:18 AM
2	206.1	21.93mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 2:44:50 AM
3	209.0	22.24mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 2:49:12 AM
4	202.8	21.58mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 2:53:30 AM

Mean Area 206.0
Mean Conc. 21.91mg/L



Sample

Sample Name: 18F0403-03RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

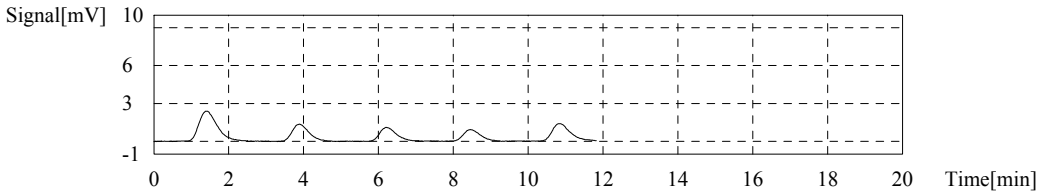
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4338mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.026	0.8539mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 3:03:54 AM
2	4.300	0.4575mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 3:07:31 AM
3	3.352	0.3566mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 3:11:12 AM
4	2.842	0.3024mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 3:15:07 AM
5	4.579	0.4872mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 3:18:55 AM

Mean Area 4.077
Mean Conc. 0.4338mg/L



Sample

Sample Name: 18F0403-05RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

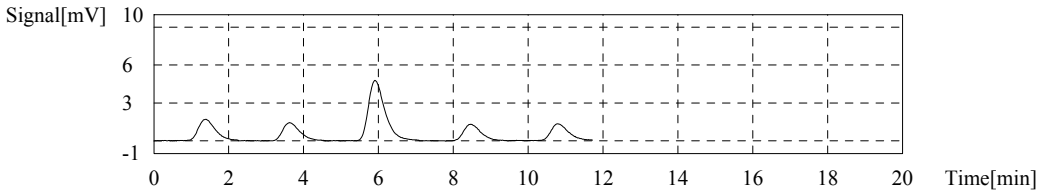
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4580mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.169	0.5500mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 3:28:54 AM
2	4.566	0.4858mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 3:32:45 AM
3	14.64	1.558mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 3:36:44 AM
4	4.161	0.4427mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 3:40:20 AM
5	4.187	0.4455mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 3:44:05 AM

Mean Area 4.305
Mean Conc. 0.4580mg/L



Control Sample

Sample Name: SEQ-CCV2
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 21.39 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

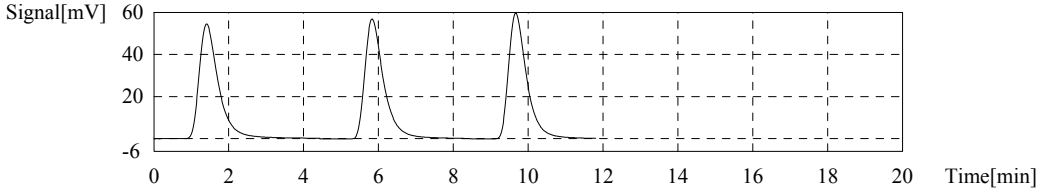
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:21.39ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	198.6	21.05ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 3:56:16 AM
2	202.5	21.46ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 4:01:06 AM
3	204.5	21.67ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 4:05:38 AM

Mean Area 201.9
Mean Conc. 21.39ppm



Control Sample

Sample Name: SEQ-CCB2
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.07916 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

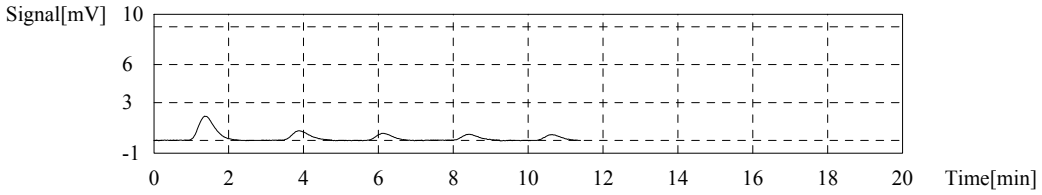
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.07916mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.941	0.5488mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 4:16:01 AM
2	2.432	0.1755mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 4:19:17 AM
3	1.784	0.1065mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 4:22:49 AM
4	1.388	0.06441mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 4:26:15 AM
5	1.408	0.06653mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 4:29:42 AM

Mean Area 1.527
Mean Conc. 0.07916mg/L



Sample

Sample Name: 18F0403-07RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

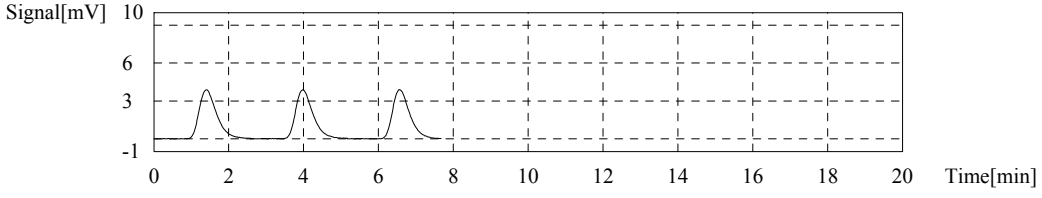
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.330mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.58	1.338mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 4:40:15 AM
2	12.46	1.326mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 4:44:02 AM
3	12.46	1.326mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 4:47:44 AM

Mean Area 12.50
Mean Conc. 1.330mg/L



Sample

Sample Name: 18F0404-01RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

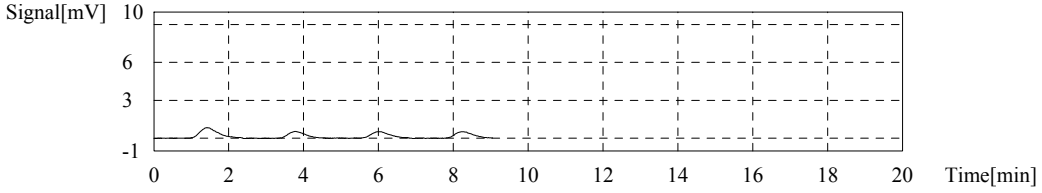
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1791mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.691	0.2863mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 4:58:16 AM
2	1.670	0.1777mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 5:01:55 AM
3	1.726	0.1836mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 5:05:43 AM
4	1.654	0.1760mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 5:09:30 AM

Mean Area 1.683
Mean Conc. 0.1791mg/L



Sample

Sample Name: BGG0375-DUP8
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

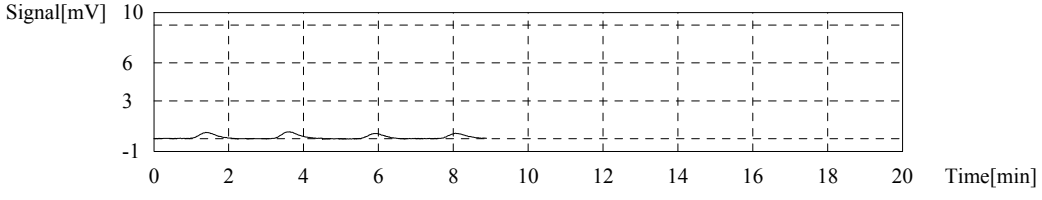
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1447mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.459	0.1552mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 5:19:24 AM
2	1.696	0.1804mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 5:23:19 AM
3	1.329	0.1414mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 5:26:57 AM
4	1.292	0.1375mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 5:30:47 AM

Mean Area 1.360
Mean Conc. 0.1447mg/L



Sample

Sample Name: BGG0375-MS8
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

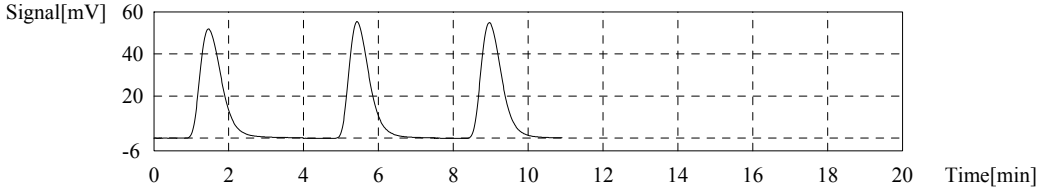
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:22.85mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	214.1	22.78mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 5:42:30 AM
2	213.8	22.75mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 5:47:01 AM
3	216.4	23.02mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 5:51:25 AM

Mean Area 214.8
Mean Conc. 22.85mg/L



Sample

Sample Name: 18F0404-03RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

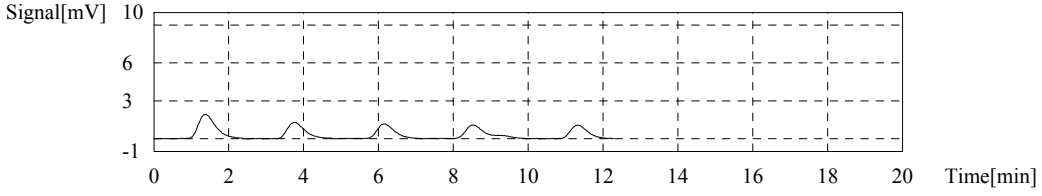
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4250mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.034	0.6420mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 6:01:42 AM
2	4.138	0.4403mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 6:05:30 AM
3	3.681	0.3916mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 6:09:16 AM
4	4.164	0.4430mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 6:13:30 AM
5	3.353	0.3567mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 6:16:51 AM

Mean Area 3.994
Mean Conc. 0.4250mg/L



Sample

Sample Name: 18F0404-05RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

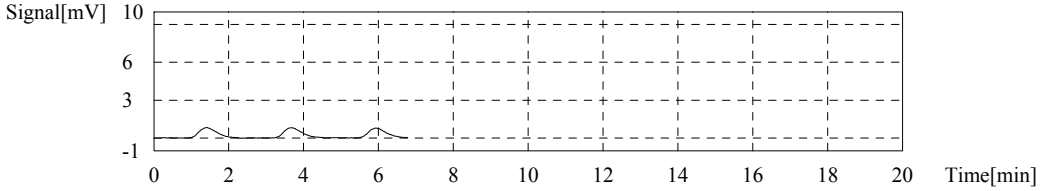
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2774mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.622	0.2790mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 6:26:50 AM
2	2.619	0.2787mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 6:30:38 AM
3	2.580	0.2745mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 6:34:25 AM

Mean Area 2.607
Mean Conc. 0.2774mg/L



Sample

Sample Name: 18F0404-07RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

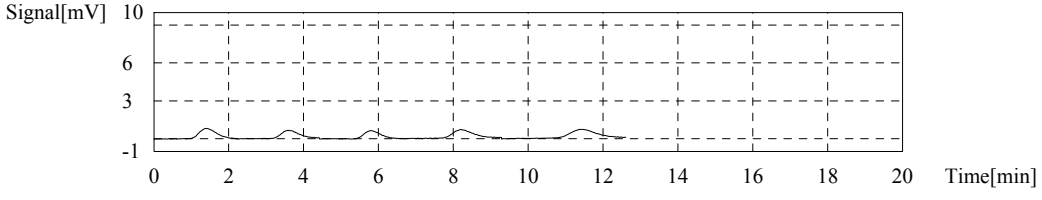
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2317mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.574	0.2739mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 6:44:21 AM
2	2.082	0.2215mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 6:48:09 AM
3	2.018	0.2147mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 6:51:56 AM
4	2.434	0.2590mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 6:56:09 AM
5	3.157	0.3359mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 7:00:36 AM

Mean Area 2.178
Mean Conc. 0.2317mg/L



Sample

Sample Name: BGG0376-MRL2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

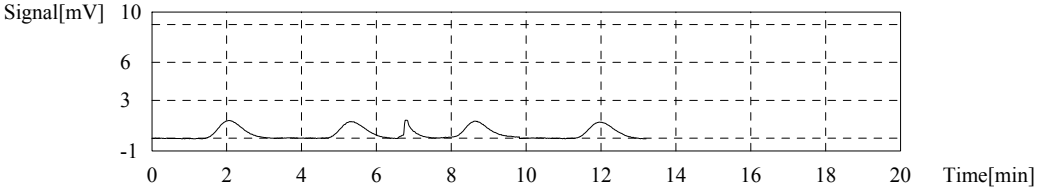
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6766mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.628	0.7052mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 7:11:47 AM
2	6.297	0.6700mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 7:16:05 AM
3	6.490	0.6905mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 7:20:20 AM
4	6.292	0.6695mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 7:24:43 AM

Mean Area 6.360
Mean Conc. 0.6766mg/L



Sample

Sample Name: BGG0376-BLK2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

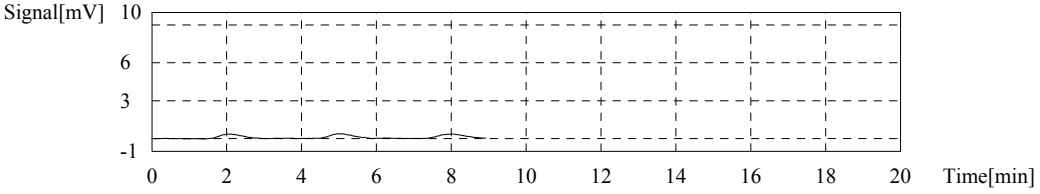
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1592mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.517	0.1614mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 7:35:36 AM
2	1.388	0.1477mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 7:39:25 AM
3	1.584	0.1685mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 7:43:31 AM

Mean Area 1.496
Mean Conc. 0.1592mg/L



Sample

Sample Name: BGG0376-BS2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

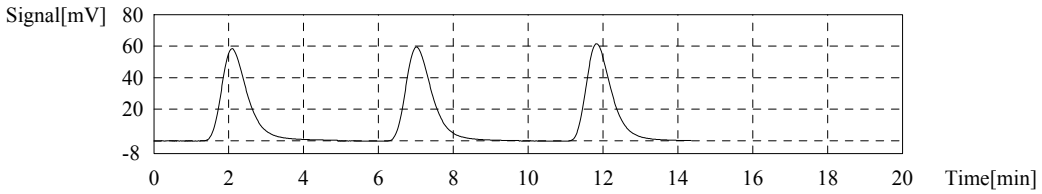
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:31.33mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	287.8	30.62mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 7:56:20 AM
2	297.8	31.69mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 8:02:10 AM
3	297.7	31.67mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 8:07:46 AM

Mean Area 294.4
Mean Conc. 31.33mg/L



Control Sample

Sample Name: SEQ-CCV3
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 32.31 / Control exceeds range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

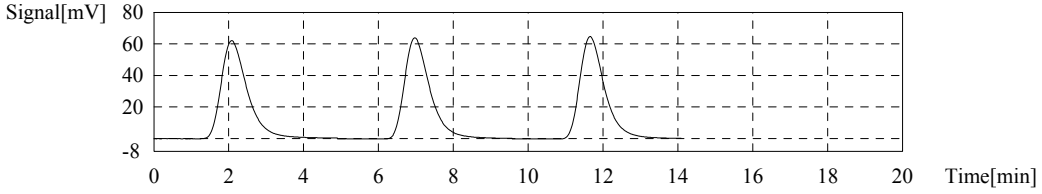
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:32.31ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	304.6	32.33ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 8:20:44 AM
2	305.5	32.42ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 8:26:23 AM
3	303.2	32.18ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 8:31:53 AM

Mean Area 304.4
Mean Conc. 32.31ppm



Control Sample

Sample Name: SEQ-CCB3
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.1748 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

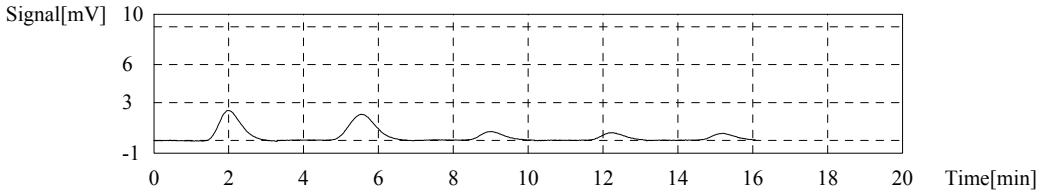
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.1748mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.41	1.024mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 8:43:05 AM
2	10.29	1.012mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 8:47:43 AM
3	2.794	0.2140mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 8:51:55 AM
4	2.366	0.1685mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 8:55:53 AM
5	2.116	0.1419mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 8:59:47 AM

Mean Area 2.425
Mean Conc. 0.1748mg/L



Sample

Sample Name: 18F0335-01RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

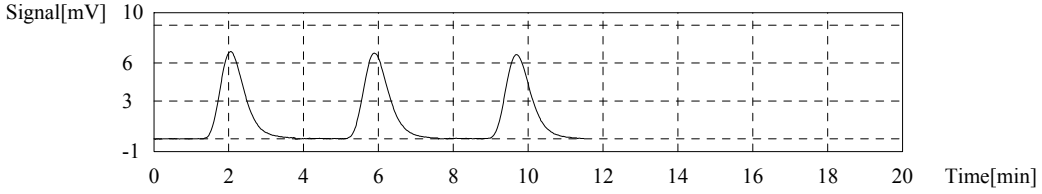
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:3.429mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	31.94	3.398mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 9:11:32 AM
2	32.53	3.461mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 9:16:21 AM
3	32.22	3.428mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 9:21:13 AM

Mean Area 32.23
Mean Conc. 3.429mg/L



Control Sample

Sample Name: SEQ-CCV4
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 32.24 / Control exceeds range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

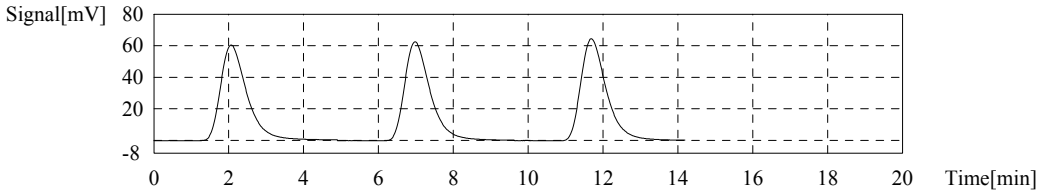
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:32.24ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	299.1	31.74ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 9:34:12 AM
2	302.2	32.07ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 9:39:55 AM
3	310.0	32.90ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/20/2018 9:45:29 AM

Mean Area 303.8
Mean Conc. 32.24ppm



Control Sample

Sample Name: SEQ-CCB4
Sample ID:
Method: ICB CCB.tpl
Status Aborted
Chk. Result

(Zero shift setting of cal. curve has been ignored in conc. calculation)

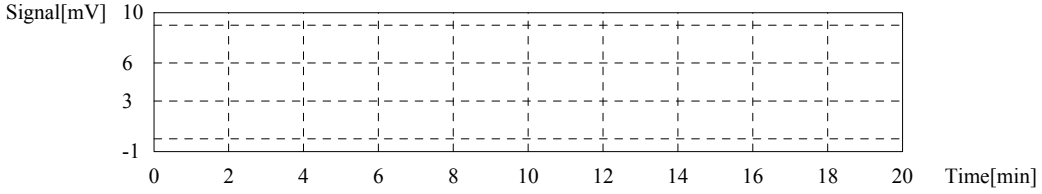
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.000mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time

Mean Area 0.000
Mean Conc. 0.000mg/L



ANALYSIS BATCH (SEQUENCE) SUMMARY

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Sequence:	SGG0381	Instrument:	TOC-LCSH
		Calibration:	BG00080

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
1	SGG0381-CAL1	dzuData_07262018@105:	NA	07/23/18 15:48
10	SGG0381-CAL2	dzuData_07262018@105:	NA	07/23/18 16:06
5	SGG0381-CAL3	dzuData_07262018@105:	NA	07/23/18 16:25
2	SGG0381-CAL4	dzuData_07262018@105:	NA	07/23/18 16:42
1	SGG0381-CAL5	dzuData_07262018@105:	NA	07/23/18 17:00
5	SGG0381-CAL6	dzuData_07262018@105:	NA	07/23/18 17:21
2	SGG0381-CAL7	dzuData_07262018@105:	NA	07/23/18 17:41
1	SGG0381-CAL8	dzuData_07262018@105:	NA	07/23/18 18:02
1	SGG0381-CCV1	dzuData_07262018@105:	NA	07/23/18 22:29
1	SGG0381-CCB1	dzuData_07262018@105:	NA	07/23/18 22:51
1	SGG0381-CCV2	dzuData_07262018@105:	NA	07/24/18 03:15
1	SGG0381-CCB2	dzuData_07262018@105:	NA	07/24/18 03:37
1	SGG0381-CCV3	dzuData_07262018@105:	NA	07/24/18 07:27
1	SGG0381-CCB3	dzuData_07262018@105:	NA	07/24/18 07:52
1	SGG0381-CCV4	dzuData_07262018@105:	NA	07/24/18 11:36
1	SGG0381-CCB4	dzuData_07262018@105:	NA	07/24/18 12:02
Calibration Check	SGG0381-CCV5	dzuData_07262018@105:	NA	07/24/18 12:39
Calibration Blank	SGG0381-CCB5	dzuData_07262018@105:	NA	07/24/18 13:01
Interference Check A	SGG0381-IFA2	dzuData_07262018@105:	NA	07/24/18 13:24
Calibration Check	SGG0381-CCV6	dzuData_07262018@105:	NA	07/24/18 16:38
Calibration Blank	SGG0381-CCB6	dzuData_07262018@105:	NA	07/24/18 17:03

	Type	Analysis	Sample Name	Sample I	Origin	Manual	Result	Notes	Status	Date / Time	Vial
1	Unknown	NPOC	Rinse		NPOC 0.5 -	1.000	NPOC:0.1282mg/L		Completed	7/23/2018 3:40:01 PM	0
2	Standard	NPOC	SEQ-CAL	Curve	NPOC 0.5 -	1.000			Completed	7/23/2018 6:12:27 PM	0, 1, 1, 1, 1,
3	Control	NPOC	SEQ-ICV1	CVS 20	CVS 20 pp	1.000	NPOC:17.94ppm	Control valu	Completed	7/23/2018 6:33:26 PM	3
4	Control	NPOC	SEQ-ICB1		ICB CCB.tpl	1.000	NPOC:-0.00201mg/L	Control valu	Completed	7/23/2018 6:57:19 PM	4
5	Unknown	NPOC	SEQ-IFA1		NPOC 0.5 -	1.000	NPOC:18.26mg/L		Completed	7/23/2018 7:18:06 PM	9
6	Unknown	NPOC	18F0403-07RE2		NPOC 0.5 -	1.000	NPOC:1.161mg/L		Completed	7/23/2018 7:43:34 PM	10
7	Unknown	NPOC	18F0404-01RE2		NPOC 0.5 -	1.000	NPOC:0.1587mg/L		Completed	7/23/2018 8:01:05 PM	11
8	Unknown	NPOC	BGG0375-DUP9		NPOC 0.5 -	1.000	NPOC:0.1268mg/L		Completed	7/23/2018 8:18:29 PM	12
9	Unknown	NPOC	BGG0375-MS9		NPOC 0.5 -	1.000	NPOC:19.48mg/L		Completed	7/23/2018 8:38:34 PM	13
10	Unknown	NPOC	18F0404-03RE2		NPOC 0.5 -	1.000	NPOC:0.2766mg/L		Completed	7/23/2018 9:04:21 PM	14
11	Unknown	NPOC	18F0404-05RE2		NPOC 0.5 -	1.000	NPOC:0.1900mg/L		Completed	7/23/2018 9:25:42 PM	15
12	Unknown	NPOC	18F0404-07RE2		NPOC 0.5 -	1.000	NPOC:0.1535mg/L		Completed	7/23/2018 9:43:11 PM	16
13	Unknown	NPOC	BGG0376-MRL3		NPOC 0.5 -	1.000	NPOC:0.1636mg/L		Completed	7/23/2018 10:00:50 PM	17
14	Unknown	NPOC	BGG0376-BLK3		NPOC 0.5 -	1.000	NPOC:0.09529mg/L		Completed	7/23/2018 10:18:06 PM	18
15	Control	NPOC	SEQ-CCV1	CVS 20	CVS 20 pp	1.000	NPOC:18.18ppm	Control valu	Completed	7/23/2018 10:38:27 PM	3
16	Control	NPOC	SEQ-CCB1		ICB CCB.tpl	1.000	NPOC:-0.03822mg/L	Control valu	Completed	7/23/2018 11:02:28 PM	4
17	Unknown	NPOC	BGG0376-BS3		NPOC 0.5 -	1.000	NPOC:17.95mg/L		Completed	7/23/2018 11:27:55 PM	19
18	Unknown	NPOC	18F0335-01RE2		NPOC 0.5 -	1.000	NPOC:2.052mg/L		Completed	7/23/2018 11:54:27 PM	20
19	Unknown	NPOC	18F0335-03RE1		NPOC 0.5 -	1.000	NPOC:0.9079mg/L		Completed	7/24/2018 12:12:37 AM	21
20	Unknown	NPOC	18F0334-01RE1		NPOC 0.5 -	1.000	NPOC:1284mg/L		Completed	7/24/2018 12:43:16 AM	22
21	Unknown	NPOC	18F0334-02RE1		NPOC 0.5 -	1.000	NPOC:0.6332mg/L		Completed	7/24/2018 1:08:32 AM	23
22	Unknown	NPOC	18F0335-05		NPOC 0.5 -	1.000	NPOC:1.023mg/L		Completed	7/24/2018 1:30:10 AM	24
23	Unknown	NPOC	18F0335-07		NPOC 0.5 -	1.000	NPOC:0.4457mg/L		Completed	7/24/2018 1:55:40 AM	25
24	Unknown	NPOC	BGG0376-DUP1		NPOC 0.5 -	1.000	NPOC:0.4403mg/L		Completed	7/24/2018 2:17:13 AM	26
25	Unknown	NPOC	BGG0376-MS1		NPOC 0.5 -	1.000	NPOC:19.62mg/L		Completed	7/24/2018 2:38:05 AM	27
26	Unknown	NPOC	18F0335-09		NPOC 0.5 -	1.000	NPOC:0.5721mg/L		Completed	7/24/2018 3:03:46 AM	28
27	Control	NPOC	SEQ-CCV2	CVS 20	CVS 20 pp	1.000	NPOC:18.17ppm	Control valu	Completed	7/24/2018 3:24:03 AM	3
28	Control	NPOC	SEQ-CCB2		ICB CCB.tpl	1.000	NPOC:-0.01802mg/L	Control valu	Completed	7/24/2018 3:44:55 AM	4
29	Unknown	NPOC	18F0335-11		NPOC 0.5 -	1.000	NPOC:0.4442mg/L		Completed	7/24/2018 4:10:56 AM	29
30	Unknown	NPOC	18G0115-01		NPOC 0.5 -	1.000	NPOC:15.14mg/L		Completed	7/24/2018 4:30:41 AM	30
31	Unknown	NPOC	BGG0293-DUP2		NPOC 0.5 -	1.000	NPOC:2.468mg/L		Completed	7/24/2018 4:56:44 AM	31
32	Unknown	NPOC	BGG0538-MRL1		NPOC 0.5 -	1.000	NPOC:0.4260mg/L		Completed	7/24/2018 5:14:42 AM	32
33	Unknown	NPOC	BGG0538-BLK1		NPOC 0.5 -	1.000	NPOC:0.1240mg/L		Completed	7/24/2018 5:32:31 AM	33
34	Unknown	NPOC	BGG0538-BS1		NPOC 0.5 -	1.000	NPOC:18.33mg/L		Completed	7/24/2018 5:53:16 AM	34
35	Unknown	NPOC	18F0297-01		NPOC 0.5 -	1.000	NPOC:2.109mg/L		Completed	7/24/2018 6:15:08 AM	35
36	Unknown	NPOC	BGG0538-DUP1		NPOC 0.5 -	1.000	NPOC:2.085mg/L		Completed	7/24/2018 6:37:12 AM	36
37	Unknown	NPOC	BGG0538-MS1		NPOC 0.5 -	1.000	NPOC:21.29mg/L		Completed	7/24/2018 6:57:19 AM	37
38	Unknown	NPOC	18F0297-03		NPOC 0.5 -	1.000	NPOC:1.704mg/L		Completed	7/24/2018 7:15:25 AM	38
39	Control	NPOC	SEQ-CCV3	CVS 20	CVS 20 pp	1.000	NPOC:18.31ppm	Control valu	Completed	7/24/2018 7:35:48 AM	5
40	Control	NPOC	SEQ-CCB3		ICB CCB.tpl	1.000	NPOC:0.03382mg/L	Control valu	Completed	7/24/2018 7:59:51 AM	6

	Type	Analysis	Sample Name	Sample I	Origin	Manual	Result	Notes	Status	Date / Time	Vial
41	Unknown	NPOC	18F0297-05		NPOC 0.5 -	1.000	NPOC:2.067mg/L		Completed	7/24/2018 8:17:56 AM	39
42	Unknown	NPOC	18F0297-07		NPOC 0.5 -	1.000	NPOC:2.215mg/L		Completed	7/24/2018 8:36:16 AM	40
43	Unknown	NPOC	18F0297-09		NPOC 0.5 -	1.000	NPOC:12.98mg/L		Completed	7/24/2018 8:55:45 AM	41
44	Unknown	NPOC	18F0297-11		NPOC 0.5 -	1.000	NPOC:0.4171mg/L		Completed	7/24/2018 9:21:09 AM	42
45	Unknown	NPOC	18F0297-13		NPOC 0.5 -	1.000	NPOC:13.19mg/L		Completed	7/24/2018 9:40:24 AM	43
46	Unknown	NPOC	18F0297-15		NPOC 0.5 -	1.000	NPOC:2.661mg/L		Completed	7/24/2018 9:58:38 AM	44
47	Unknown	NPOC	18F0297-17		NPOC 0.5 -	1.000	NPOC:5.461mg/L		Completed	7/24/2018 10:17:40 AM	45
48	Unknown	NPOC	18G0157-01		NPOC 0.5 -	1.000	NPOC:12.16mg/L		Completed	7/24/2018 10:40:56 AM	46
49	Unknown	NPOC	18G0157-05		NPOC 0.5 -	1.000	NPOC:12.76mg/L		Completed	7/24/2018 11:00:05 AM	47
50	Unknown	NPOC	18G0163-01		NPOC 0.5 -	1.000	NPOC:0.2370mg/L		Completed	7/24/2018 11:25:20 AM	48
51	Control	NPOC	SEQ-CCV4	CVS 20	CVS 20 pp	1.000	NPOC:18.33ppm	Control valu	Completed	7/24/2018 11:45:02 AM	5
52	Control	NPOC	SEQ-CCB4		ICB CCB.tpl	1.000	NPOC:0.03712mg/L	Control valu	Completed	7/24/2018 12:09:05 PM	6
53	Unknown	NPOC	18G0163-02		NPOC 0.5 -	1.000	NPOC:4.651mg/L		Completed	7/24/2018 12:28:27 PM	49
54	Control	NPOC	SEQ-CCV5	CVS 20	CVS 20 pp	1.000	NPOC:18.32ppm	Control valu	Completed	7/24/2018 12:48:13 PM	5
55	Control	NPOC	SEQ-CCB5		ICB CCB.tpl	1.000	NPOC:0.05469mg/L	Control valu	Completed	7/24/2018 1:12:19 PM	6
56	Unknown	NPOC	SEQ-IFA2		NPOC 0.5 -	1.000	NPOC:18.62mg/L		Completed	7/24/2018 1:32:27 PM	9
57	Unknown	NPOC	18F0403-07RE3		NPOC 0.5 -	1.000	NPOC:0.06811mg/L		Completed	7/24/2018 1:53:38 PM	10
58	Unknown	NPOC	18F0404-01RE3		NPOC 0.5 -	1.000	NPOC:0.05218mg/L		Completed	7/24/2018 2:10:49 PM	11
59	Unknown	NPOC	BGG0375-DUPA		NPOC 0.5 -	1.000	NPOC:0.05484mg/L		Completed	7/24/2018 2:31:47 PM	12
60	Unknown	NPOC	BGG0375-MSA		NPOC 0.5 -	1.000	NPOC:0.05241mg/L		Completed	7/24/2018 2:48:58 PM	13
61	Unknown	NPOC	18F0404-03RE3		NPOC 0.5 -	1.000	NPOC:0.2847mg/L		Completed	7/24/2018 3:13:56 PM	14
62	Unknown	NPOC	18F0404-05RE3		NPOC 0.5 -	1.000	NPOC:0.2163mg/L		Completed	7/24/2018 3:31:27 PM	15
63	Unknown	NPOC	18F0404-07RE3		NPOC 0.5 -	1.000	NPOC:0.1605mg/L		Completed	7/24/2018 3:48:45 PM	16
64	Unknown	NPOC	BGG0376-MRL4		NPOC 0.5 -	1.000	NPOC:0.04249mg/L		Completed	7/24/2018 4:09:43 PM	17
65	Unknown	NPOC	BGG0376-BLK4		NPOC 0.5 -	1.000	NPOC:0.04413mg/L		Completed	7/24/2018 4:26:54 PM	18
66	Control	NPOC	SEQ-CCV6	CVS 20	CVS 20 pp	1.000	NPOC:18.35ppm	Control valu	Completed	7/24/2018 4:46:30 PM	7
67	Control	NPOC	SEQ-CCB6		ICB CCB.tpl	1.000	NPOC:-0.00177mg/L	Control valu	Completed	7/24/2018 5:10:25 PM	8

TOC-Control L Report

CDE
2018_07_23_001.tlx

Instr.Information

Instrument Options: TOC/ASI/IC Unit/
Catalyst: Regular Sensitivity

Sample

Sample Name: Rinse
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status: Completed
Chk. Result

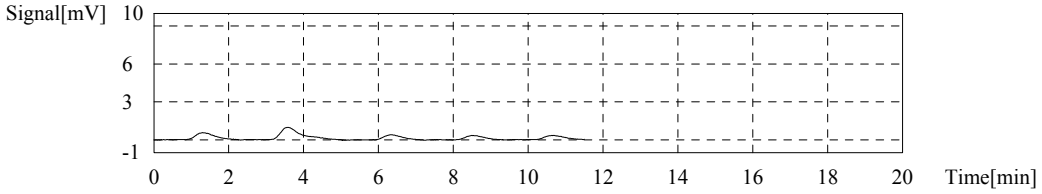
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1282mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.861	0.1980mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/23/2018 3:25:50 PM
2	3.861	0.4108mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/23/2018 3:29:51 PM
3	1.316	0.1400mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/23/2018 3:33:02 PM
4	1.109	0.1180mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/23/2018 3:36:27 PM
5	1.191	0.1267mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal	7/23/2018 3:40:01 PM

Mean Area 1.205
Mean Conc. 0.1282mg/L



Cal. Curve

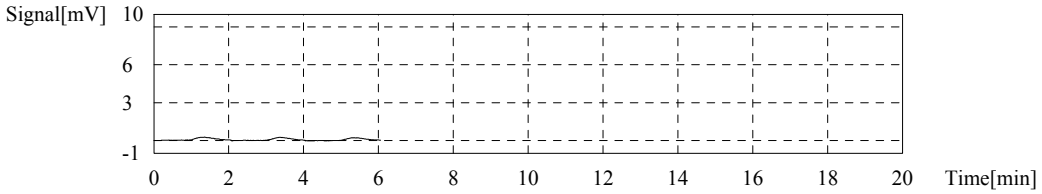
Sample Name: SEQ-CAL
Sample ID: Curve
Cal. Curve: NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal
Status: Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.7626	100uL	1.000	*******		7/23/2018 3:48:10 PM
2	0.7079	100uL	1.000	*******		7/23/2018 3:51:34 PM
3	0.6739	100uL	1.000	*******		7/23/2018 3:55:07 PM

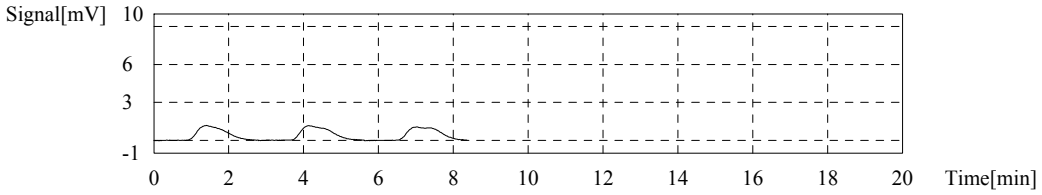
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 0.7148



Conc: 0.5000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	6.015	100uL	10.00	*******		7/23/2018 4:06:06 PM
2	6.104	100uL	10.00	*******		7/23/2018 4:11:01 PM
3	6.203	100uL	10.00	*******		7/23/2018 4:15:48 PM

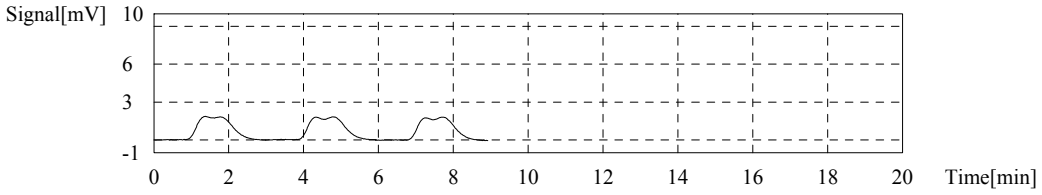
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 6.107



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	11.55	100uL	5.000	*******		7/23/2018 4:25:08 PM
2	11.51	100uL	5.000	*******		7/23/2018 4:29:04 PM
3	11.72	100uL	5.000	*******		7/23/2018 4:33:04 PM

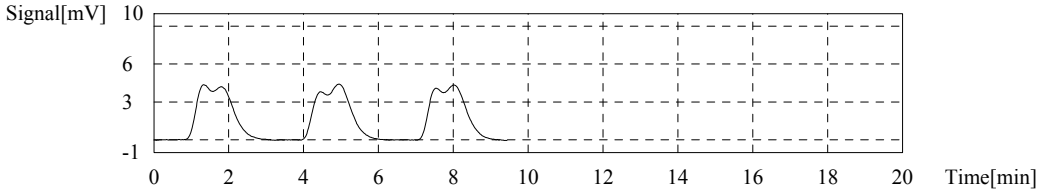
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 11.59



Conc: 2.500mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	27.85	100uL	2.000	*******		7/23/2018 4:42:41 PM
2	27.79	100uL	2.000	*******		7/23/2018 4:46:48 PM
3	28.11	100uL	2.000	*******		7/23/2018 4:51:01 PM

Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 27.92



Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	54.71	100uL	1.000	*******		7/23/2018 5:00:24 PM
2	54.52	100uL	1.000	*******		7/23/2018 5:04:49 PM
3	54.14	100uL	1.000	*******		7/23/2018 5:09:19 PM

TOC-Control L Report

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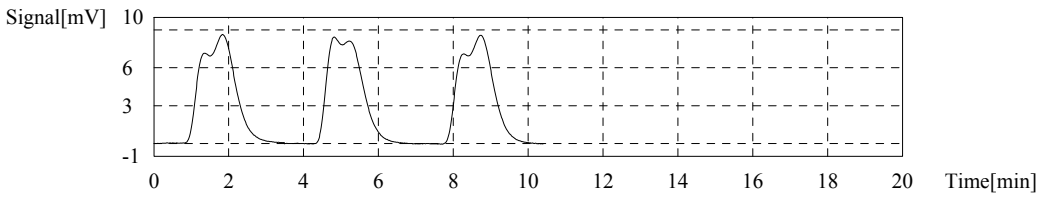
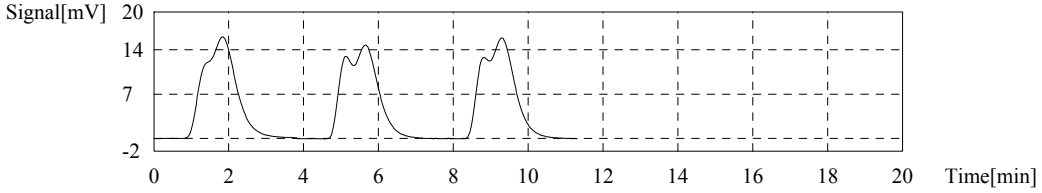
Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	54.46



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	98.15	100uL	5.000	*******		7/23/2018 5:21:38 PM
2	97.13	100uL	5.000	*******		7/23/2018 5:26:18 PM
3	99.18	100uL	5.000	*******		7/23/2018 5:31:07 PM

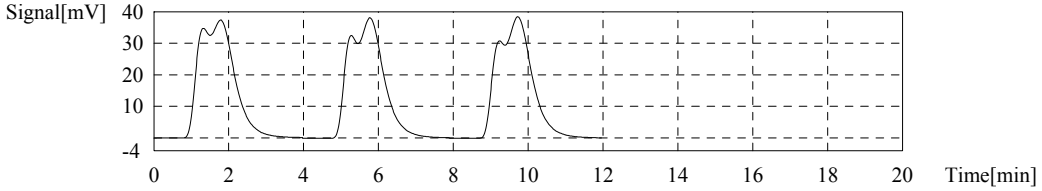
Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	98.15



Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	250.8	100uL	2.000	*******		7/23/2018 5:41:36 PM
2	249.4	100uL	2.000	*******		7/23/2018 5:46:32 PM
3	250.1	100uL	2.000	*******		7/23/2018 5:51:35 PM

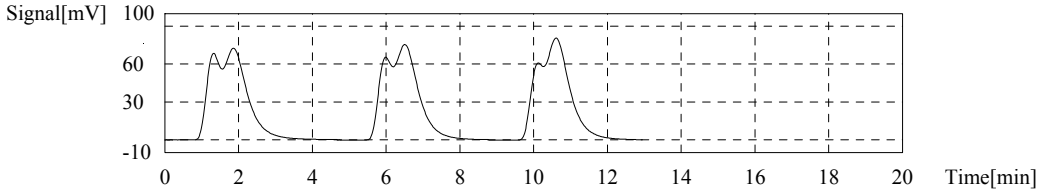
Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	250.1



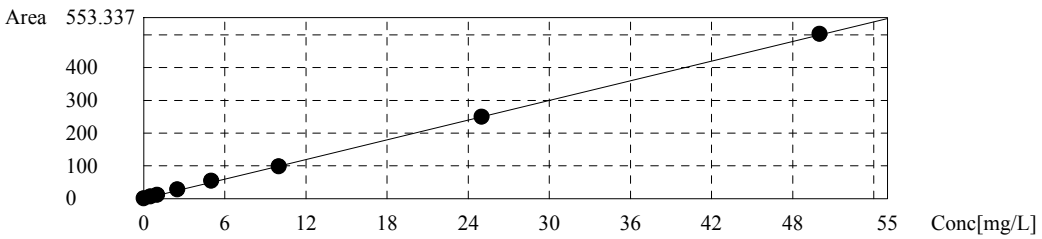
Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	503.8	100uL	1.000	*******		7/23/2018 6:02:10 PM
2	501.4	100uL	1.000	*******		7/23/2018 6:07:17 PM
3	503.9	100uL	1.000	*******		7/23/2018 6:12:27 PM

Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	503.0



Slope:	10.01
Intercept	0.000
r^2	0.9999
r	0.9999
Zero Shift	Yes



Control Sample

Sample Name: SEQ-ICV1
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 17.94 / Control exceeds range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

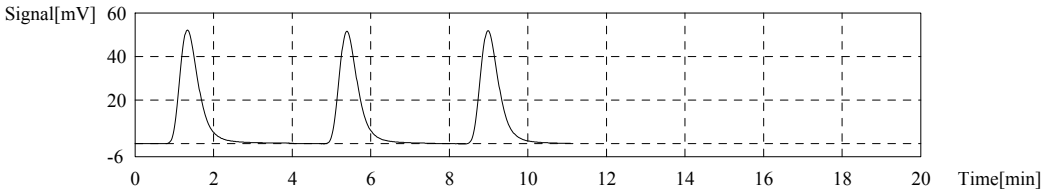
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:17.94ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	183.0	18.14ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 6:24:23 PM
2	179.6	17.80ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 6:28:59 PM
3	180.3	17.87ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 6:33:26 PM

Mean Area 181.0
Mean Conc. 17.94ppm



Control Sample

Sample Name: SEQ-ICB1
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: -0.00201 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

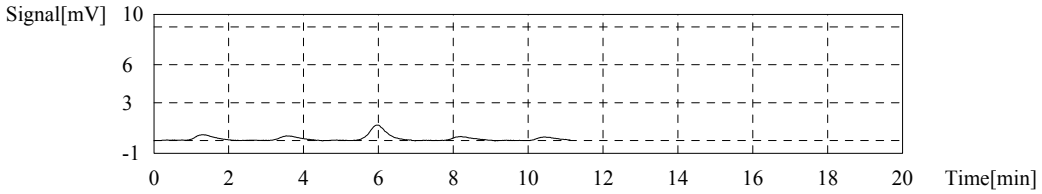
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:-0.00201mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.526	0.01557mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 6:43:35 PM
2	1.311	-0.00590mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 6:47:04 PM
3	3.935	0.2562mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 6:50:44 PM
4	1.213	-0.01569mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 6:54:05 PM
5	0.8113	-0.05581mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 6:57:19 PM

Mean Area 1.350
Mean Conc. -0.00201mg/L



Sample

Sample Name: SEQ-IFA1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

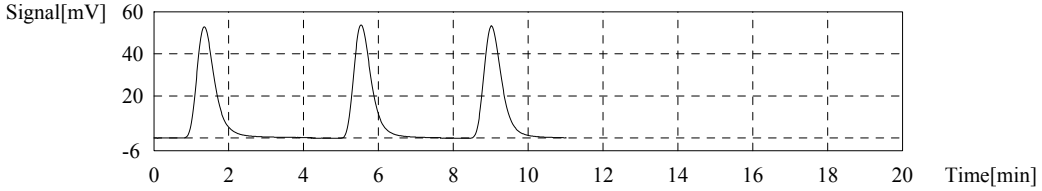
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.26mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	184.0	18.38mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 7:09:17 PM
2	182.1	18.19mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 7:13:44 PM
3	182.2	18.20mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 7:18:06 PM

Mean Area 182.8
Mean Conc. 18.26mg/L



Sample

Sample Name: 18F0403-07RE2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

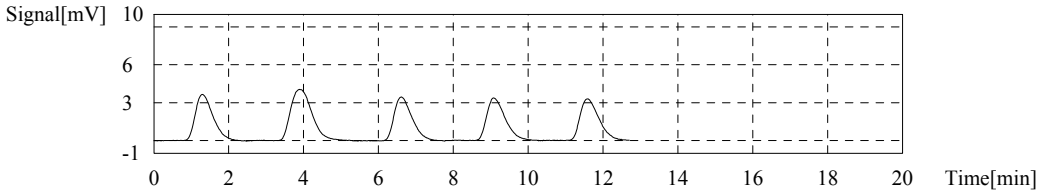
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.161mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.22	1.221mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 7:28:31 PM
2	16.12	1.610mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 7:32:34 PM
3	11.79	1.178mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 7:36:03 PM
4	11.58	1.157mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 7:39:50 PM
5	11.51	1.150mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 7:43:34 PM

Mean Area 11.63
Mean Conc. 1.161mg/L



Sample

Sample Name: 18F0404-01RE2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

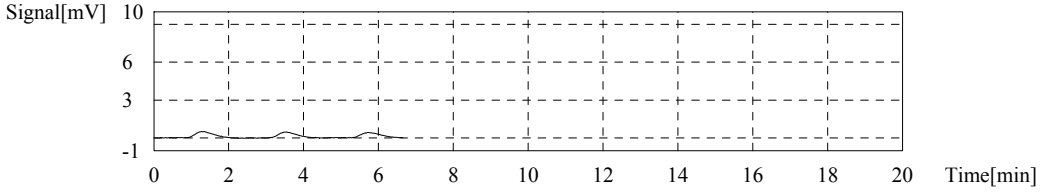
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1587mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.692	0.1690mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 7:53:31 PM
2	1.541	0.1539mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 7:57:15 PM
3	1.535	0.1533mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 8:01:05 PM

Mean Area 1.589
Mean Conc. 0.1587mg/L



Sample

Sample Name: BGG0375-DUP9
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

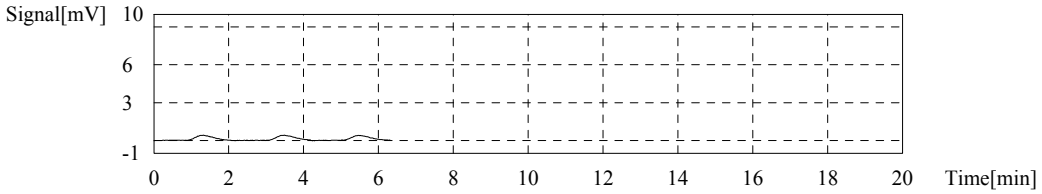
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1268mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.326	0.1324mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 8:10:58 PM
2	1.225	0.1224mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 8:14:36 PM
3	1.258	0.1257mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 8:18:29 PM

Mean Area 1.270
Mean Conc. 0.1268mg/L



Sample

Sample Name: BGG0375-MS9
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

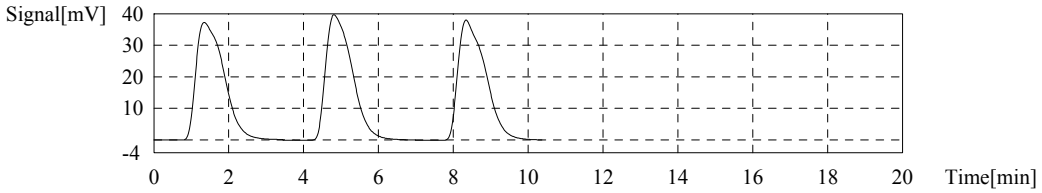
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:19.48mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	193.5	19.33mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 8:29:39 PM
2	196.6	19.64mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 8:34:11 PM
3	194.9	19.47mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 8:38:34 PM

Mean Area 195.0
Mean Conc. 19.48mg/L



Sample

Sample Name: 18F0404-03RE2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

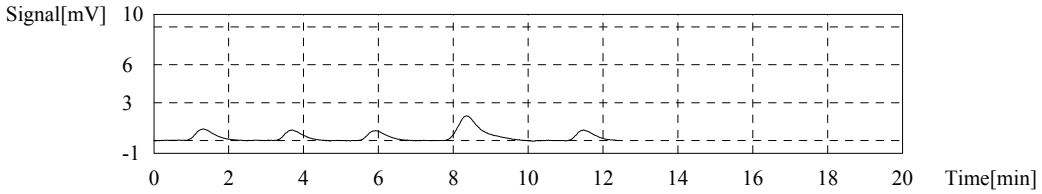
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2766mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.121	0.3117mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 8:48:51 PM
2	2.750	0.2747mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 8:52:28 PM
3	2.704	0.2701mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 8:56:20 PM
4	8.963	0.8952mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 9:01:06 PM
5	2.853	0.2850mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 9:04:21 PM

Mean Area 2.769
Mean Conc. 0.2766mg/L



Sample

Sample Name: 18F0404-05RE2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

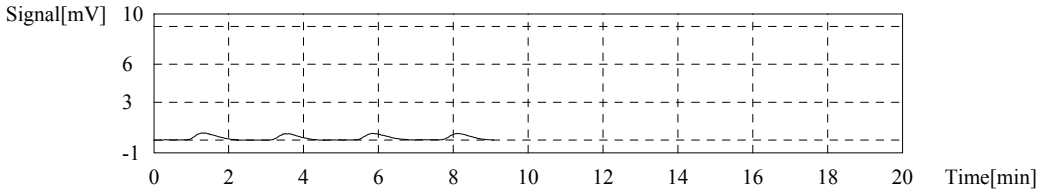
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1900mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.102	0.2100mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 9:14:18 PM
2	1.904	0.1902mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 9:18:09 PM
3	1.916	0.1914mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 9:21:54 PM
4	1.887	0.1885mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 9:25:42 PM

Mean Area 1.902
Mean Conc. 0.1900mg/L



Sample

Sample Name: 18F0404-07RE2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

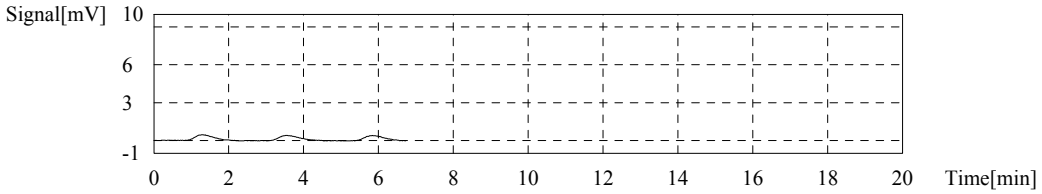
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1535mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.595	0.1593mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 9:35:39 PM
2	1.517	0.1515mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 9:39:29 PM
3	1.497	0.1495mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 9:43:11 PM

Mean Area 1.536
Mean Conc. 0.1535mg/L



Sample

Sample Name: BGG0376-MRL3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

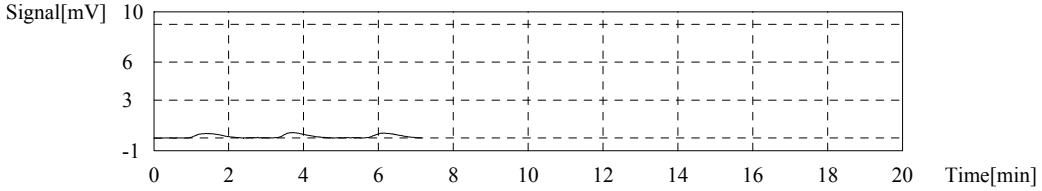
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1636mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.624	0.1622mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 9:53:17 PM
2	1.710	0.1708mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 9:57:05 PM
3	1.580	0.1578mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 10:00:50 PM

Mean Area 1.638
Mean Conc. 0.1636mg/L



Sample

Sample Name: BGG0376-BLK3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

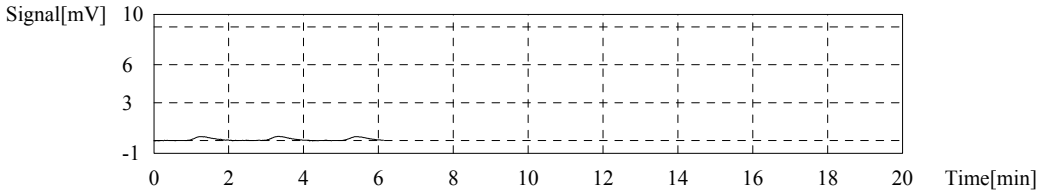
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.09529mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.9898	0.09886mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 10:10:37 PM
2	0.9495	0.09484mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 10:14:25 PM
3	0.9228	0.09217mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 10:18:06 PM

Mean Area 0.9540
Mean Conc. 0.09529mg/L



Control Sample

Sample Name: SEQ-CCV1
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.18 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

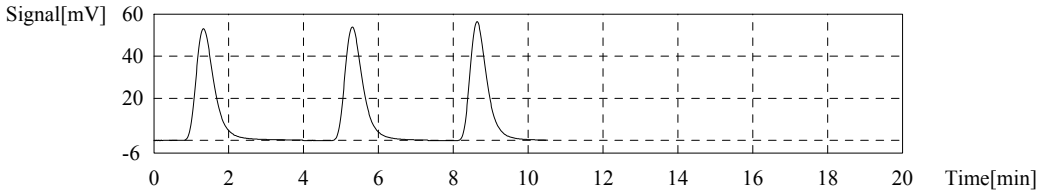
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.18ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	183.7	18.21ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 10:29:54 PM
2	183.9	18.23ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 10:34:15 PM
3	182.7	18.11ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 10:38:27 PM

Mean Area 183.4
Mean Conc. 18.18ppm



Control Sample

Sample Name: SEQ-CCB1
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: -0.03822 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

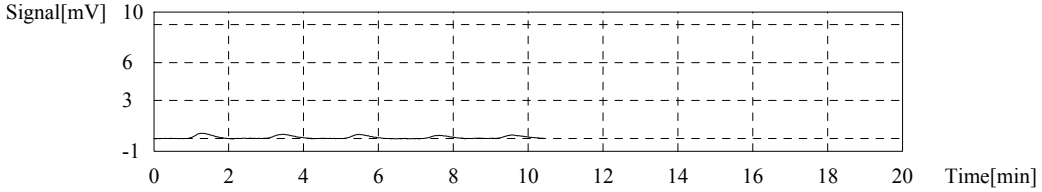
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:-0.03822mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.437	0.00668mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 10:48:28 PM
2	1.052	-0.03177mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 10:51:56 PM
3	1.066	-0.03037mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 10:55:28 PM
4	0.8209	-0.05485mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 10:58:49 PM
5	0.8443	-0.05252mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 11:02:28 PM

Mean Area 0.9874
Mean Conc. -0.03822mg/L



Sample

Sample Name: BGG0376-BS3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

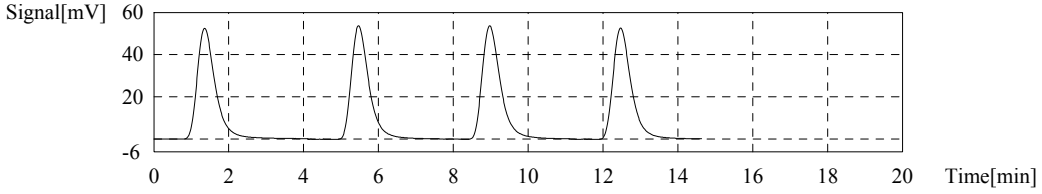
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:17.95mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	179.5	17.93mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 11:14:27 PM
2	179.1	17.89mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 11:18:56 PM
3	186.0	18.58mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 11:23:24 PM
4	180.4	18.02mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 11:27:55 PM

Mean Area 179.7
Mean Conc. 17.95mg/L



Sample

Sample Name: 18F0335-01RE2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

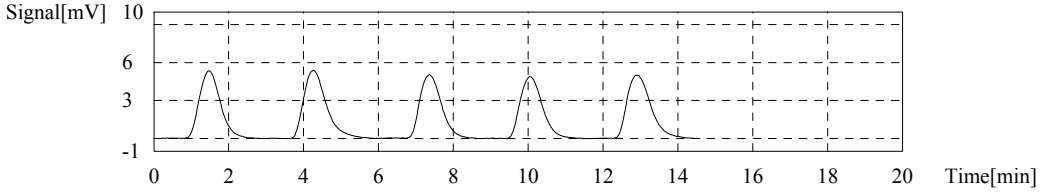
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.052mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	21.24	2.121mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 11:38:37 PM
2	22.98	2.295mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 11:42:43 PM
3	20.11	2.009mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 11:46:21 PM
4	20.29	2.027mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 11:50:20 PM
5	22.24	2.221mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/23/2018 11:54:27 PM

Mean Area 20.55
Mean Conc. 2.052mg/L



Sample

Sample Name: 18F0335-03RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

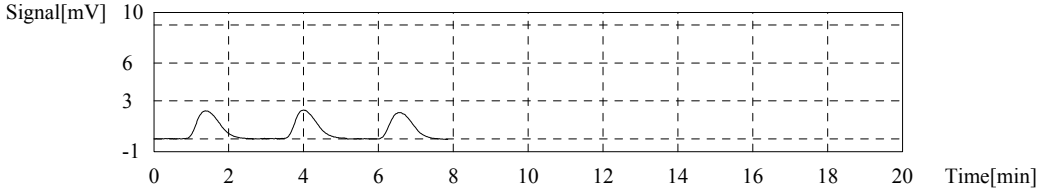
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.9079mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.251	0.9240mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 12:04:59 AM
2	9.039	0.9028mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 12:08:39 AM
3	8.978	0.8967mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 12:12:37 AM

Mean Area 9.089
Mean Conc. 0.9079mg/L



Sample

Sample Name: 18F0334-01RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

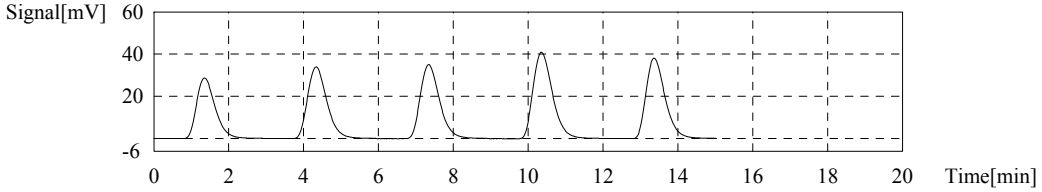
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1284mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	99.93	998.1mg/L	50uL	50.00	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 12:23:50 AM
2	123.3	1232mg/L	50uL	50.00		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 12:28:45 AM
3	126.4	1263mg/L	50uL	50.00		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 12:33:35 AM
4	149.4	1492mg/L	50uL	50.00	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 12:38:26 AM
5	136.0	1358mg/L	50uL	50.00		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 12:43:16 AM

Mean Area 128.6
Mean Conc. 1284mg/L



Sample

Sample Name: 18F0334-02RE1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

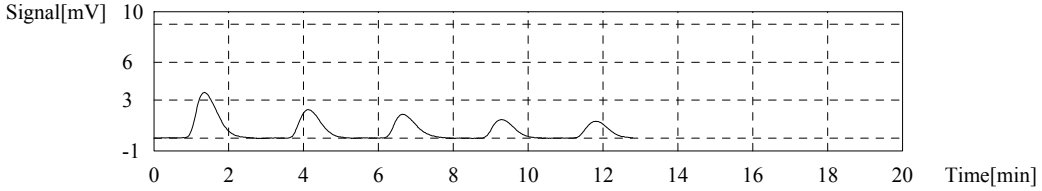
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.6332mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.20	1.418mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 12:53:43 AM
2	8.952	0.8941mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 12:57:19 AM
3	7.691	0.7682mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 1:01:10 AM
4	5.906	0.5899mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 1:04:48 AM
5	5.422	0.5416mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 1:08:32 AM

Mean Area 6.340
Mean Conc. 0.6332mg/L



Sample

Sample Name: 18F0335-05
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

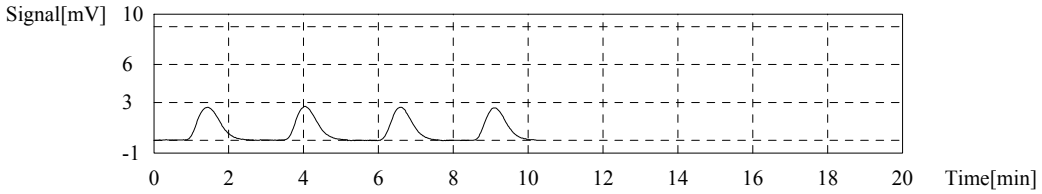
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.023mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.79	1.078mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 1:18:53 AM
2	10.32	1.031mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 1:22:34 AM
3	10.24	1.023mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 1:26:20 AM
4	10.16	1.015mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 1:30:10 AM

Mean Area 10.24
Mean Conc. 1.023mg/L



Sample

Sample Name: 18F0335-07
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

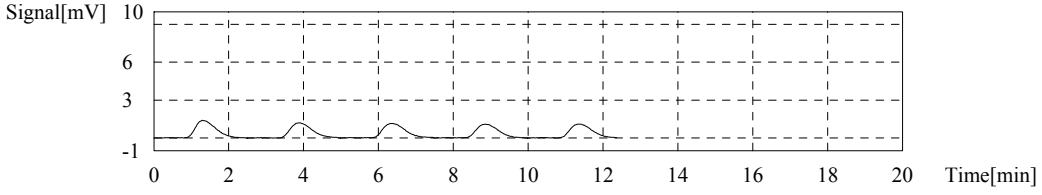
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4457mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.235	0.5229mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 1:40:38 AM
2	4.816	0.4810mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 1:44:24 AM
3	4.623	0.4618mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 1:48:11 AM
4	4.394	0.4389mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 1:51:59 AM
5	4.369	0.4364mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 1:55:40 AM

Mean Area 4.462
Mean Conc. 0.4457mg/L



Sample

Sample Name: BGG0376-DUP1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

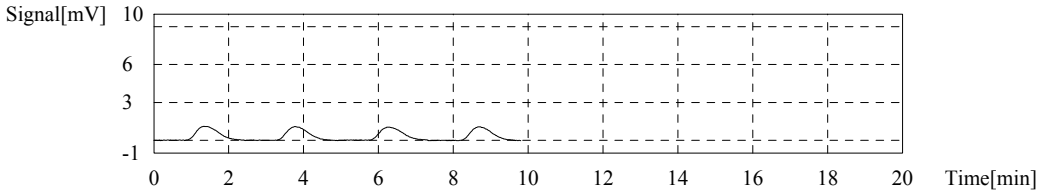
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4403mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.459	0.4454mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 2:05:47 AM
2	4.420	0.4415mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 2:09:39 AM
3	4.239	0.4234mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 2:13:23 AM
4	4.347	0.4342mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 2:17:13 AM

Mean Area 4.409
Mean Conc. 0.4403mg/L



Sample

Sample Name: BGG0376-MS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

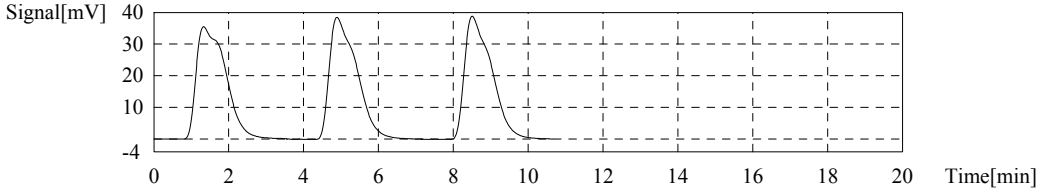
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:19.62mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	195.1	19.49mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 2:28:58 AM
2	197.6	19.74mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 2:33:34 AM
3	196.7	19.65mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 2:38:05 AM

Mean Area 196.5
Mean Conc. 19.62mg/L



Sample

Sample Name: 18F0335-09
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

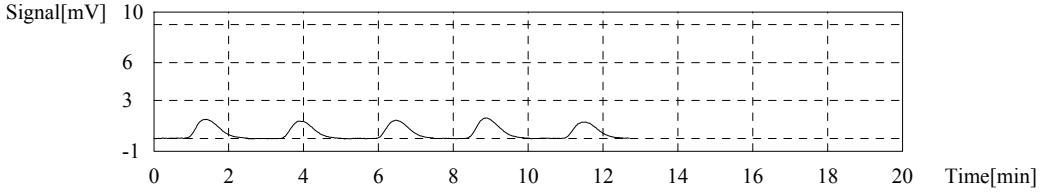
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.5721mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.350	0.6342mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 2:48:31 AM
2	5.855	0.5848mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 2:52:20 AM
3	5.716	0.5709mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 2:55:58 AM
4	6.704	0.6696mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 2:59:57 AM
5	5.612	0.5605mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 3:03:46 AM

Mean Area 5.728
Mean Conc. 0.5721mg/L



Control Sample

Sample Name: SEQ-CCV2
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.17 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

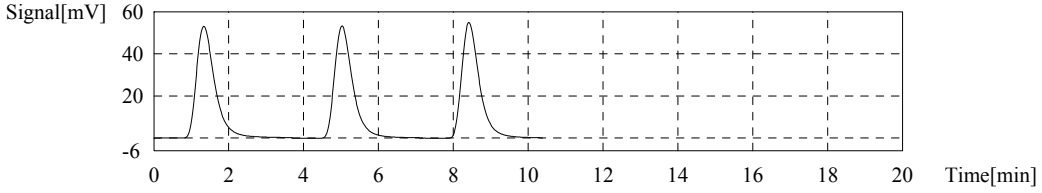
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.17ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	184.3	18.27ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 3:15:21 AM
2	182.2	18.06ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 3:19:45 AM
3	183.5	18.19ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 3:24:03 AM

Mean Area 183.3
Mean Conc. 18.17ppm



Control Sample

Sample Name: SEQ-CCB2
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: -0.01802 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

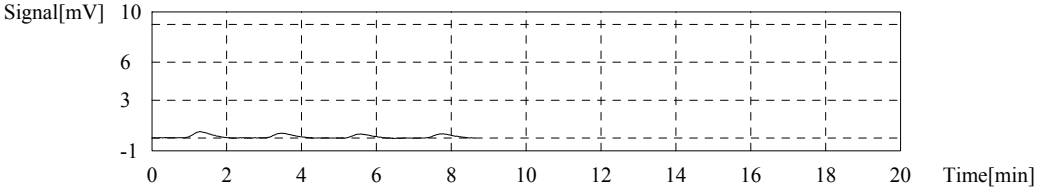
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:-0.01802mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.621	0.02506mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 3:34:10 AM
2	1.250	-0.01199mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 3:37:44 AM
3	1.156	-0.02138mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 3:41:22 AM
4	1.163	-0.02068mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 3:44:55 AM

Mean Area 1.190
Mean Conc. -0.01802mg/L



Sample

Sample Name: 18F0335-11
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

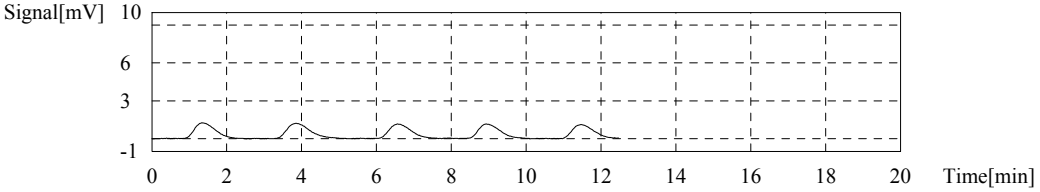
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4442mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.816	0.4810mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 3:55:51 AM
2	5.171	0.5165mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 3:59:55 AM
3	4.563	0.4558mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 4:03:23 AM
4	4.446	0.4441mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 4:07:14 AM
5	4.332	0.4327mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 4:10:56 AM

Mean Area 4.447
Mean Conc. 0.4442mg/L



Sample

Sample Name: 18G0115-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

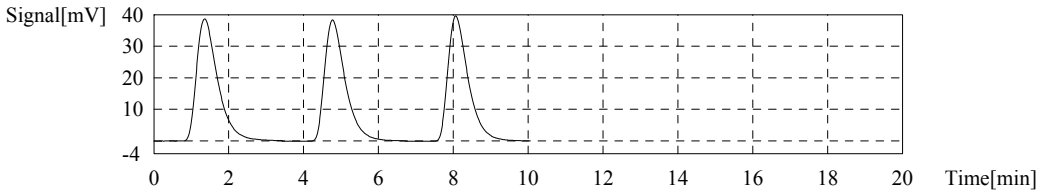
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:15.14mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	154.2	15.40mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 4:22:05 AM
2	148.9	14.87mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 4:26:23 AM
3	151.6	15.14mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 4:30:41 AM

Mean Area 151.6
Mean Conc. 15.14mg/L



Sample

Sample Name: BGG0293-DUP2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

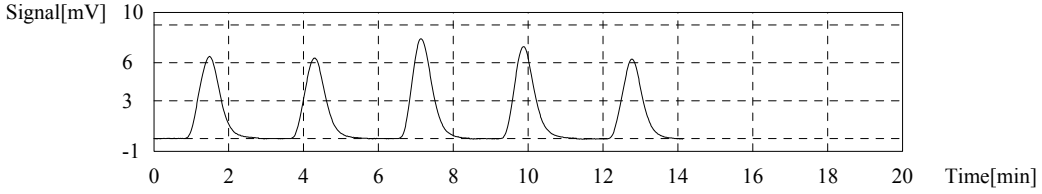
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.468mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	25.35	2.532mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 4:41:24 AM
2	24.82	2.479mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 4:45:17 AM
3	29.57	2.953mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 4:49:01 AM
4	27.33	2.730mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 4:52:54 AM
5	23.97	2.394mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 4:56:44 AM

Mean Area 24.71
Mean Conc. 2.468mg/L



Sample

Sample Name: BGG0538-MRL1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

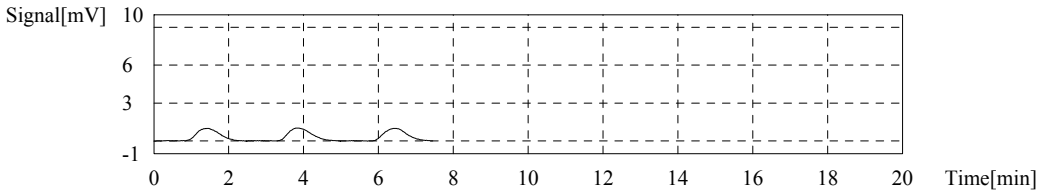
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4260mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.253	0.4248mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 5:07:06 AM
2	4.307	0.4302mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 5:10:57 AM
3	4.236	0.4231mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 5:14:42 AM

Mean Area 4.265
Mean Conc. 0.4260mg/L



Sample

Sample Name: BGG0538-BLK1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

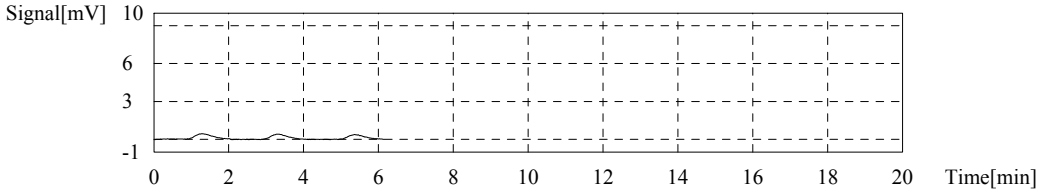
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1240mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.295	0.1293mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 5:24:56 AM
2	1.286	0.1284mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 5:28:45 AM
3	1.143	0.1142mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 5:32:31 AM

Mean Area 1.241
Mean Conc. 0.1240mg/L



Sample

Sample Name: BGG0538-BS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

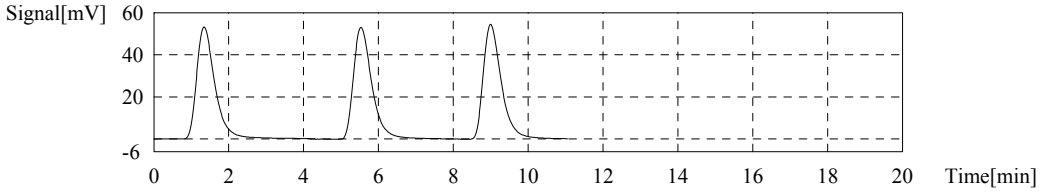
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.33mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	182.9	18.27mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 5:44:26 AM
2	183.0	18.28mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 5:48:53 AM
3	184.7	18.45mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 5:53:16 AM

Mean Area 183.5
Mean Conc. 18.33mg/L



Sample

Sample Name: 18F0297-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

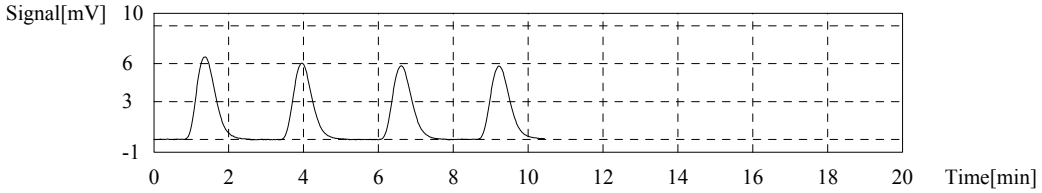
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.109mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	23.00	2.297mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 6:03:45 AM
2	21.40	2.137mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 6:07:37 AM
3	21.04	2.102mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 6:11:22 AM
4	20.92	2.090mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 6:15:08 AM

Mean Area 21.12
Mean Conc. 2.109mg/L



Sample

Sample Name: BGG0538-DUP1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

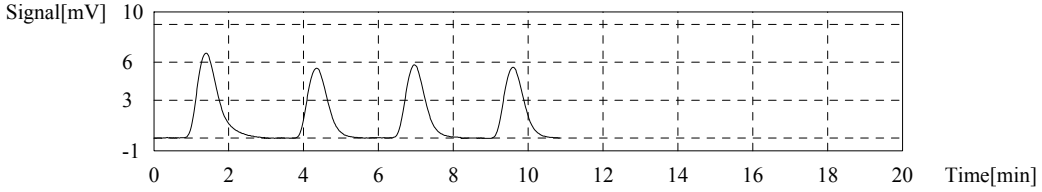
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.085mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	26.55	2.652mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 6:26:01 AM
2	20.83	2.081mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 6:29:39 AM
3	20.96	2.094mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 6:33:25 AM
4	20.83	2.081mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 6:37:12 AM

Mean Area 20.87
Mean Conc. 2.085mg/L



Sample

Sample Name: BGG0538-MS1
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

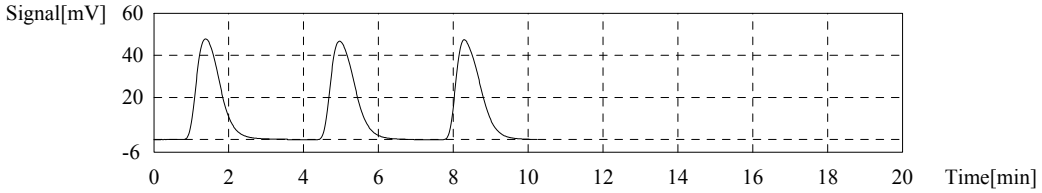
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:21.29mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	212.3	21.20mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 6:48:41 AM
2	212.6	21.23mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 6:53:02 AM
3	214.6	21.43mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 6:57:19 AM

Mean Area 213.2
Mean Conc. 21.29mg/L



Sample

Sample Name: 18F0297-03
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

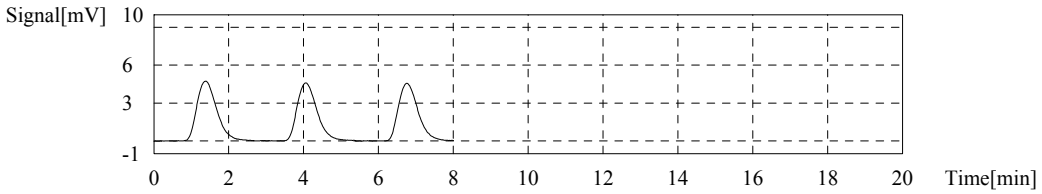
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:1.704mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	17.40	1.738mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 7:07:54 AM
2	17.07	1.705mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 7:11:44 AM
3	16.72	1.670mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 7:15:25 AM

Mean Area 17.06
Mean Conc. 1.704mg/L



Control Sample

Sample Name: SEQ-CCV3
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.31 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

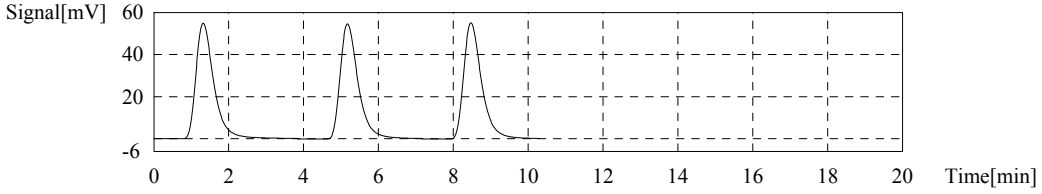
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.31ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	184.5	18.29ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 7:27:21 AM
2	184.1	18.25ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 7:31:39 AM
3	185.5	18.39ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 7:35:48 AM

Mean Area 184.7
Mean Conc. 18.31ppm



Control Sample

Sample Name: SEQ-CCB3
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.03382 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

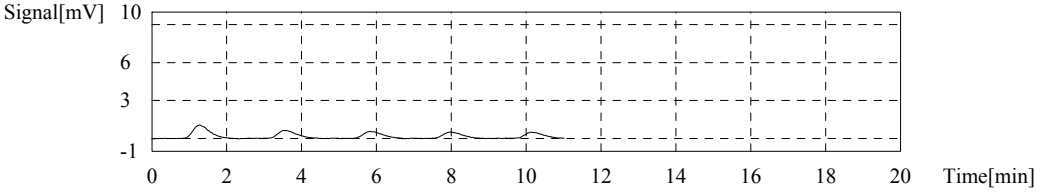
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.03382mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.251	0.1879mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 7:45:58 AM
2	2.159	0.07880mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 7:49:28 AM
3	1.907	0.05363mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 7:52:51 AM
4	1.699	0.03285mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 7:56:23 AM
5	1.520	0.01497mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 7:59:51 AM

Mean Area 1.709
Mean Conc. 0.03382mg/L



Sample

Sample Name: 18F0297-05
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

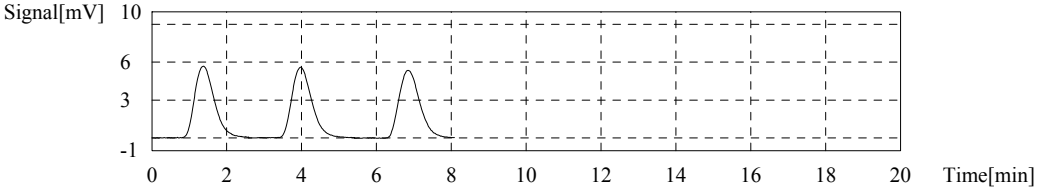
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.067mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.57	2.055mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 8:10:15 AM
2	20.77	2.075mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 8:14:17 AM
3	20.74	2.072mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 8:17:56 AM

Mean Area 20.69
Mean Conc. 2.067mg/L



Sample

Sample Name: 18F0297-07
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

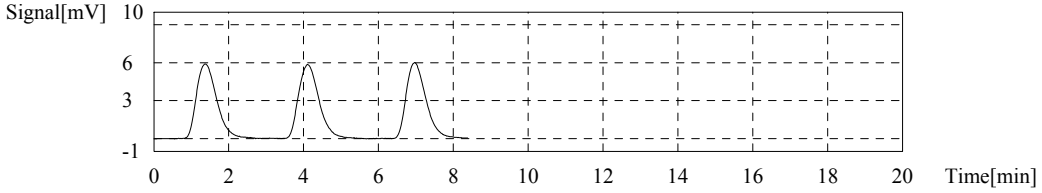
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.215mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	22.14	2.211mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 8:28:31 AM
2	22.34	2.231mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 8:32:29 AM
3	22.04	2.201mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 8:36:16 AM

Mean Area 22.17
Mean Conc. 2.215mg/L



Sample

Sample Name: 18F0297-09
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

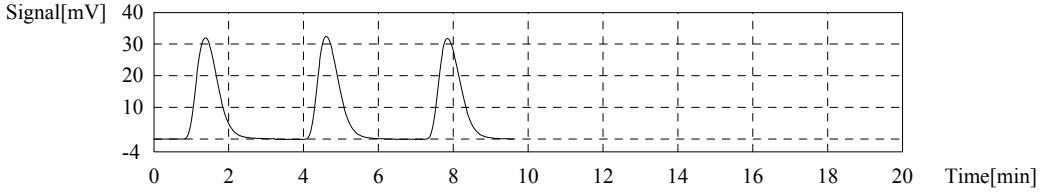
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:12.98mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	129.8	12.96mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 8:47:25 AM
2	129.8	12.96mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 8:51:37 AM
3	130.2	13.00mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 8:55:45 AM

Mean Area 129.9
Mean Conc. 12.98mg/L



Sample

Sample Name: 18F0297-11
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

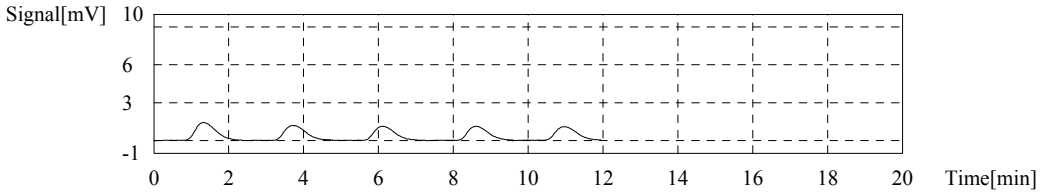
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.4171mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.283	0.5277mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 9:06:02 AM
2	4.608	0.4603mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 9:09:51 AM
3	4.298	0.4293mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 9:13:44 AM
4	4.122	0.4117mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 9:17:21 AM
5	4.107	0.4102mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 9:21:09 AM

Mean Area 4.176
Mean Conc. 0.4171mg/L



Sample

Sample Name: 18F0297-13
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

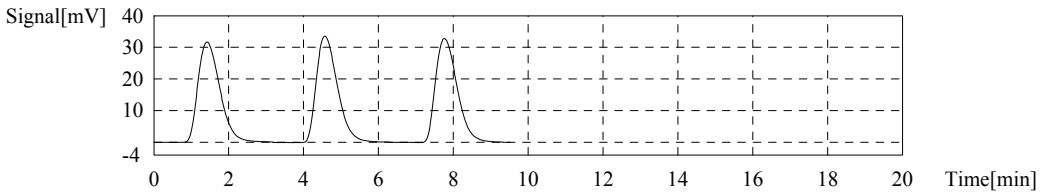
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:13.19mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	129.7	12.95mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 9:32:04 AM
2	133.3	13.31mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 9:36:15 AM
3	133.3	13.31mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 9:40:24 AM

Mean Area 132.1
Mean Conc. 13.19mg/L



Sample

Sample Name: 18F0297-15
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

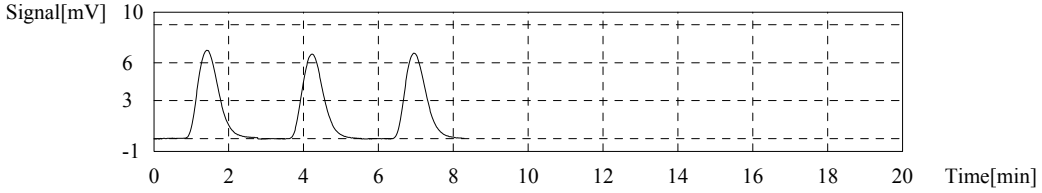
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:2.661mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	27.12	2.709mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 9:51:05 AM
2	26.30	2.627mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 9:54:52 AM
3	26.49	2.646mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 9:58:38 AM

Mean Area 26.64
Mean Conc. 2.661mg/L



Sample

Sample Name: 18F0297-17
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

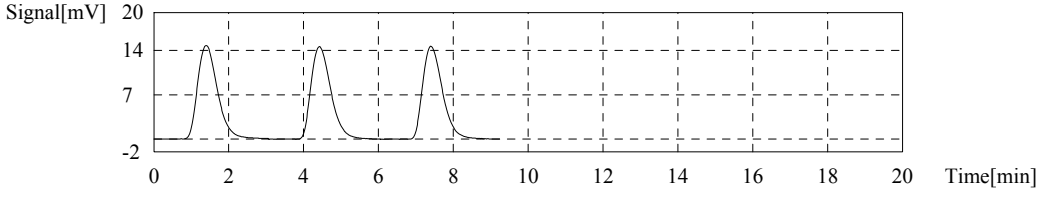
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:5.461mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	54.99	5.492mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 10:09:29 AM
2	54.46	5.440mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 10:13:28 AM
3	54.57	5.451mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 10:17:40 AM

Mean Area 54.67
Mean Conc. 5.461mg/L



Sample

Sample Name: 18G0157-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

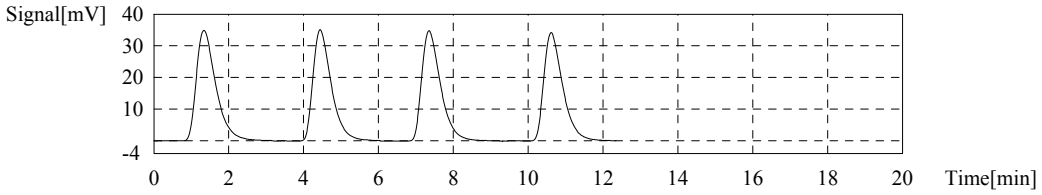
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:12.16mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	128.0	12.78mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 10:28:43 AM
2	120.5	12.04mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 10:32:37 AM
3	123.5	12.34mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 10:36:53 AM
4	121.2	12.11mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 10:40:56 AM

Mean Area 121.7
Mean Conc. 12.16mg/L



Sample

Sample Name: 18G0157-05
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

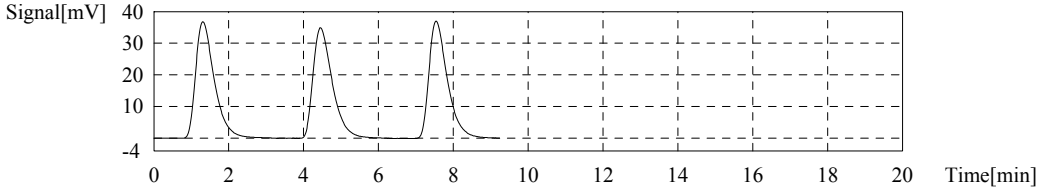
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:12.76mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	128.7	12.85mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 10:51:59 AM
2	126.3	12.62mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 10:56:05 AM
3	128.4	12.82mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 11:00:05 AM

Mean Area 127.8
Mean Conc. 12.76mg/L



Sample

Sample Name: 18G0163-01
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

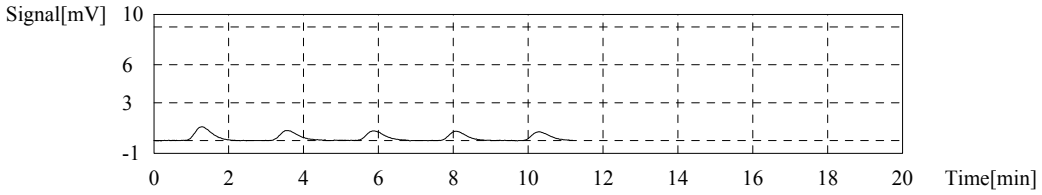
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2370mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.450	0.3446mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 11:10:18 AM
2	2.681	0.2678mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 11:14:06 AM
3	2.521	0.2518mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 11:17:48 AM
4	2.281	0.2278mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 11:21:34 AM
5	2.315	0.2312mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 11:25:20 AM

Mean Area 2.372
Mean Conc. 0.2370mg/L



Control Sample

Sample Name: SEQ-CCV4
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.33 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

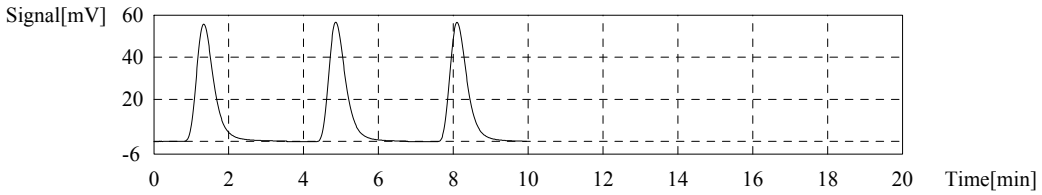
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.33ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	184.7	18.31ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 11:36:38 AM
2	184.0	18.24ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 11:40:52 AM
3	186.1	18.45ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 11:45:02 AM

Mean Area 184.9
Mean Conc. 18.33ppm



Control Sample

Sample Name: SEQ-CCB4
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.03712 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

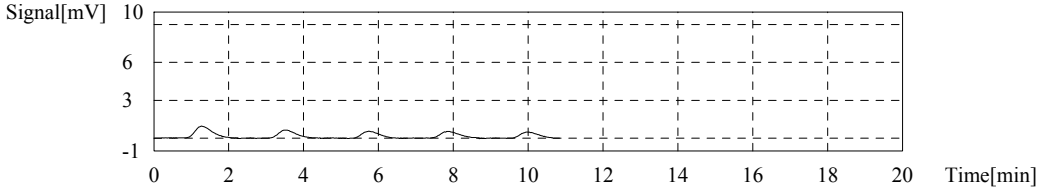
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.03712mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.920	0.1548mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 11:55:10 AM
2	2.022	0.06512mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 11:58:39 AM
3	1.812	0.04414mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 12:02:02 PM
4	1.726	0.03555mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 12:05:34 PM
5	1.687	0.03165mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 12:09:05 PM

Mean Area 1.742
Mean Conc. 0.03712mg/L



Sample

Sample Name: 18G0163-02
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

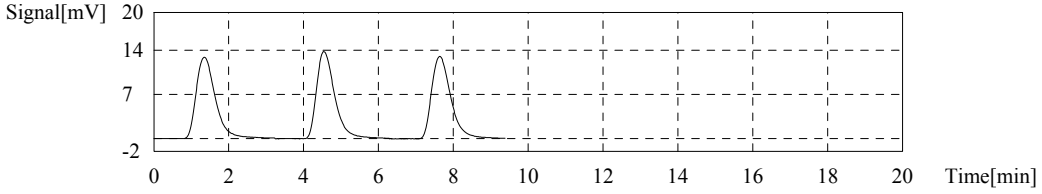
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:4.651mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	46.11	4.606mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 12:20:18 PM
2	46.80	4.674mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 12:24:21 PM
3	46.80	4.674mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 12:28:27 PM

Mean Area 46.57
Mean Conc. 4.651mg/L



Control Sample

Sample Name: SEQ-CCV5
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.32 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

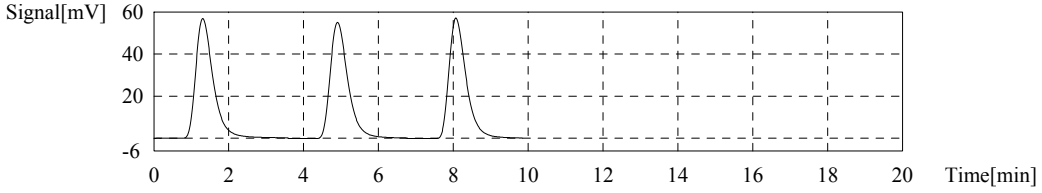
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.32ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	186.4	18.48ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 12:39:57 PM
2	183.2	18.16ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 12:44:08 PM
3	184.8	18.32ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 12:48:13 PM

Mean Area 184.8
Mean Conc. 18.32ppm



Control Sample

Sample Name: SEQ-CCB5
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: 0.05469 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

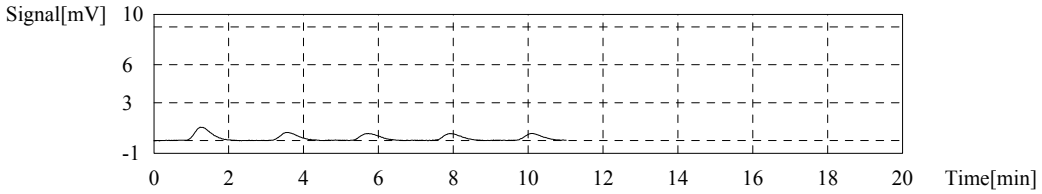
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:0.05469mg/L

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.304	0.1932mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 12:58:24 PM
2	2.028	0.06571mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 1:01:45 PM
3	1.948	0.05772mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 1:05:20 PM
4	1.777	0.04064mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 1:08:48 PM
5	1.692	0.03215mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 1:12:19 PM

Mean Area 1.918
Mean Conc. 0.05469mg/L



Sample

Sample Name: SEQ-IFA2
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

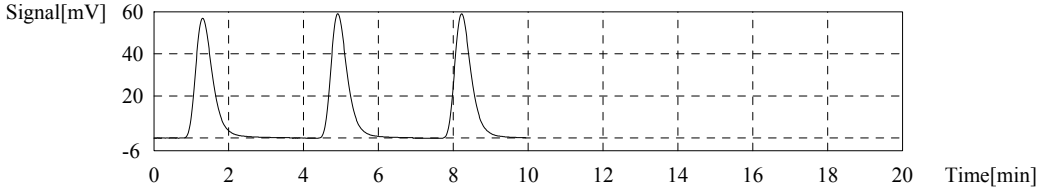
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:18.62mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	186.0	18.58mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 1:24:08 PM
2	186.0	18.58mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 1:28:26 PM
3	187.3	18.71mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 1:32:27 PM

Mean Area 186.4
Mean Conc. 18.62mg/L



Sample

Sample Name: 18F0403-07RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

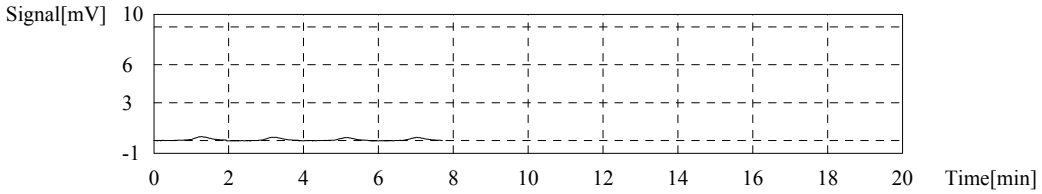
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.06811mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.7207	0.07198mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 1:42:17 PM
2	0.7019	0.07011mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 1:46:04 PM
3	0.5277	0.05271mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 1:49:49 PM
4	0.6231	0.06224mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 1:53:38 PM

Mean Area 0.6819
Mean Conc. 0.06811mg/L



Sample

Sample Name: 18F0404-01RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

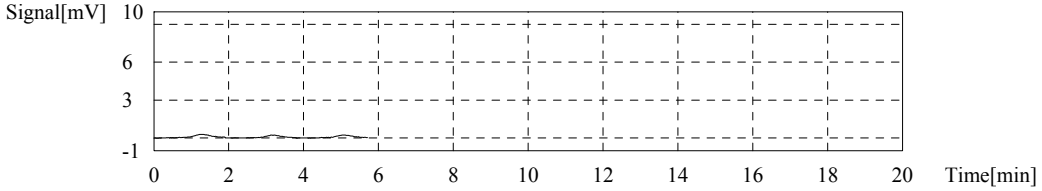
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.05218mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.6044	0.06037mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 2:03:15 PM
2	0.5517	0.05510mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 2:07:02 PM
3	0.4113	0.04108mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 2:10:49 PM

Mean Area 0.5225
Mean Conc. 0.05218mg/L



Sample

Sample Name: BGG0375-DUPA
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

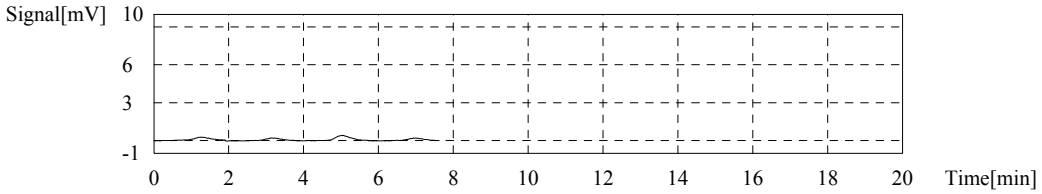
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.05484mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5823	0.05816mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 2:20:26 PM
2	0.5500	0.05493mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 2:24:13 PM
3	1.048	0.1047mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 2:28:01 PM
4	0.5148	0.05142mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 2:31:47 PM

Mean Area 0.5490
Mean Conc. 0.05484mg/L



Sample

Sample Name: BGG0375-MSA
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

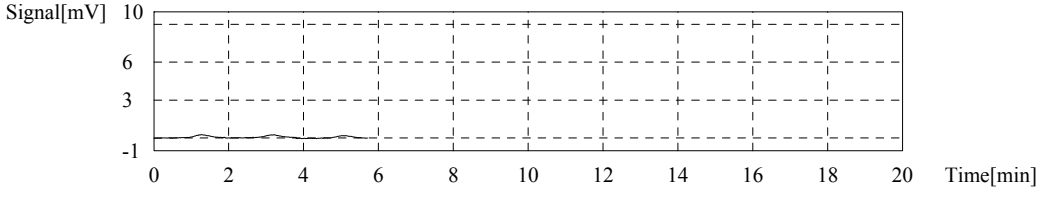
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.05241mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5574	0.05567mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 2:41:24 PM
2	0.5239	0.05233mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 2:45:11 PM
3	0.4929	0.04923mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 2:48:58 PM

Mean Area 0.5247
Mean Conc. 0.05241mg/L



Sample

Sample Name: 18F0404-03RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

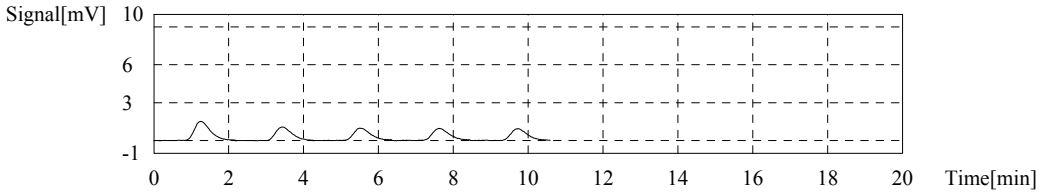
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2847mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.382	0.4377mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 2:58:51 PM
2	3.217	0.3213mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 3:02:32 PM
3	2.900	0.2897mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 3:06:21 PM
4	2.841	0.2838mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 3:10:08 PM
5	2.811	0.2808mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 3:13:56 PM

Mean Area 2.851
Mean Conc. 0.2847mg/L



Sample

Sample Name: 18F0404-05RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

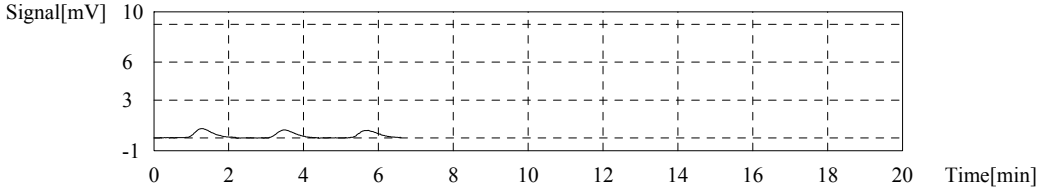
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.2163mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.247	0.2244mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 3:23:51 PM
2	2.126	0.2123mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 3:27:39 PM
3	2.124	0.2121mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 3:31:27 PM

Mean Area 2.166
Mean Conc. 0.2163mg/L



Sample

Sample Name: 18F0404-07RE3
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

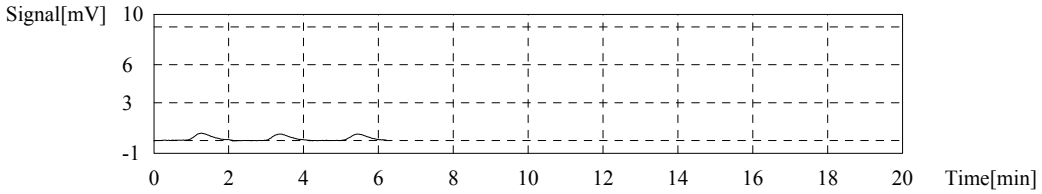
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.1605mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.712	0.1710mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 3:41:15 PM
2	1.564	0.1562mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 3:45:02 PM
3	1.545	0.1543mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 3:48:45 PM

Mean Area 1.607
Mean Conc. 0.1605mg/L



Sample

Sample Name: BGG0376-MRL4
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

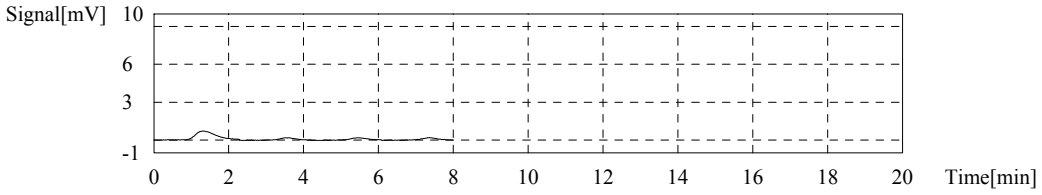
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04249mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.470	0.2467mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 3:58:45 PM
2	0.4415	0.04410mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 4:02:09 PM
3	0.3857	0.03852mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 4:05:56 PM
4	0.4489	0.04484mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 4:09:43 PM

Mean Area 0.4254
Mean Conc. 0.04249mg/L



Sample

Sample Name: BGG0376-BLK4
Sample ID:
Origin: NPOC 0.5 - 50 ppm.cal
Status Completed
Chk. Result

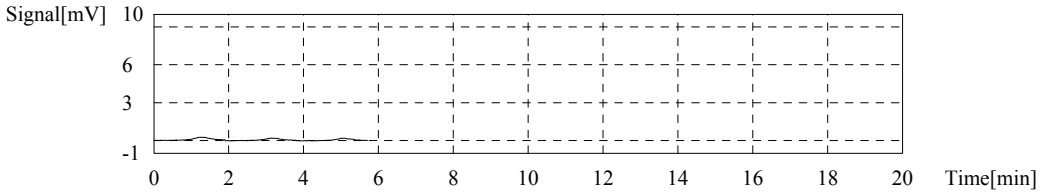
Type	Anal.	Manual Dilution	Result
Unknown	NPOC	1.000	NPOC:0.04413mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	0.5431	0.05425mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 4:19:20 PM
2	0.3950	0.03945mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 4:23:07 PM
3	0.3873	0.03868mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 4:26:54 PM

Mean Area 0.4418
Mean Conc. 0.04413mg/L



Control Sample

Sample Name: SEQ-CCV6
Sample ID: CVS 20
Method: CVS 20 ppm.tpl
Status Completed
Chk. Result Control value: 18.35 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

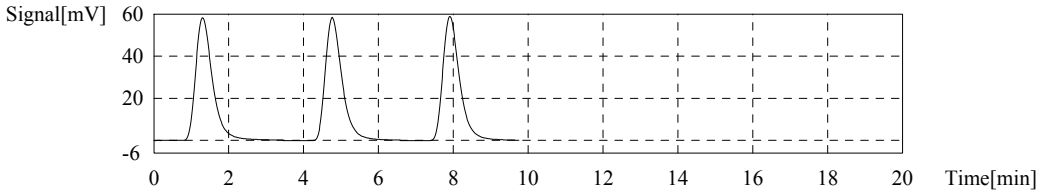
Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:18.35ppm

1. Det.

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	184.9	18.33ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 4:38:14 PM
2	184.2	18.26ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 4:42:21 PM
3	186.1	18.45ppm	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 4:46:30 PM

Mean Area 185.1
Mean Conc. 18.35ppm



Control Sample

Sample Name: SEQ-CCB6
Sample ID:
Method: ICB CCB.tpl
Status Completed
Chk. Result Control value: -0.00177 / Control within range!

(Zero shift setting of cal. curve has been ignored in conc. calculation)

Type	Anal.	Manual Dilution	Result
Control	NPOC	1.000	NPOC:-0.00177mg/L

1. Det.

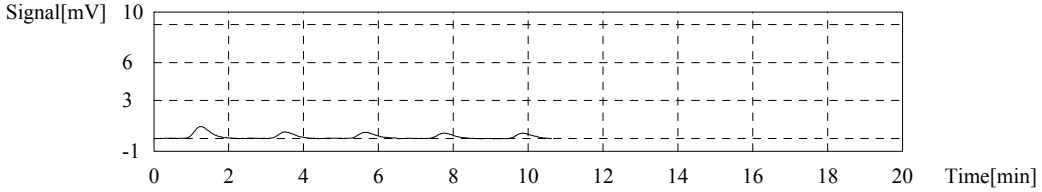
Anal.: NPOC

TOC-Control L Report

CDE
2018_07_23_001.tlx

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.796	0.1424mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 4:56:39 PM
2	1.526	0.01557mg/L	100uL	1.000	E	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 5:00:02 PM
3	1.420	0.00499mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 5:03:31 PM
4	1.305	-0.00650mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 5:07:00 PM
5	1.332	-0.00380mg/L	100uL	1.000		NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal	7/24/2018 5:10:25 PM

Mean Area 1.352
Mean Conc. -0.00177mg/L



INITIAL CALIBRATION DATA

SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BG00004
Instrument: TOC-LCSH
Calibration Date: 06/28/2018 11:17

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Dissolved Organic Carbon, Dissolved	0	0	0.5005	10.16384	1.001	9.941059	2.5025	9.518481	5.005	9.326674	10.01	9.036963

INITIAL CALIBRATION DATA

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BG00004	Instrument:	TOC-LCSH
Calibration Date:	06/28/2018 11:17		

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
		RF		RF		RF		RF		RF		RF
Dissolved Organic Carbon, Dissolved	25.025	9.186813	50.05	9.288712								

INITIAL CALIBRATION DATA

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BG00004	Instrument:	TOC-LCSH
Calibration Date:	06/28/2018 11:17		

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Dissolved Organic Carbon, Dissolved	8.307817	40.7	0.9999			

INITIAL CALIBRATION DATA

SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Calibration: BG00035
Instrument: TOC-LCSH
Calibration Date: 07/06/2018 9:29

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Dissolved Organic Carbon, Dissolved	0	0	0.5005	10.46553	1.001	9.82917	2.5025	9.554445	5.005	9.256743	10.01	9.024975
Total Organic Carbon	0	0	0.5005	10.46553	1.001	9.82917	2.5025	9.554445	5.005	9.256743	10.01	9.024975

INITIAL CALIBRATION DATA

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BG00035	Instrument:	TOC-LCSH
Calibration Date:	07/06/2018 9:29		

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
		RF		RF		RF		RF		RF		RF
Dissolved Organic Carbon, Dissolved	25.025	9.170829	50.05	9.242758								
Total Organic Carbon	25.025	9.170829	50.05	9.242758								

INITIAL CALIBRATION DATA

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BG00035	Instrument:	TOC-LCSH
Calibration Date:	07/06/2018 9:29		

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Dissolved Organic Carbon, Dissolved	8.318057	40.8	0.9999			
Total Organic Carbon	8.318057	40.8	0.9999			

TOC-L Cal Curve Information
C:\TOC-L\CalCurves\NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal

Date of Creation	7/6/2018 2:11:47 PM
User	CDE
System	TOC-L SUSPENDED SOLIDS

Cal. Curve

Sample Name:	SEQ-CAL
Sample ID:	Curve
Object ID	0L-10000101463-10101000-133EEE21B532-0000
Cal. Curve:	NPOC 0.5 - 50 ppm.2018_07_06_11_48_24.cal
Status	Completed
Comment:	

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1.285	100uL	1.000	*******	E	7/6/2018 11:55:57 AM
2	1.192	100uL	1.000	*******		7/6/2018 11:59:31 AM
3	1.074	100uL	1.000	*******		7/6/2018 12:02:55 PM
4	1.049	100uL	1.000	*******		7/6/2018 12:06:32 PM

Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	1.105
SD Area	0.07637
CV Area	6.91%
Vial	0

Conc: 0.5000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	5.238	100uL	10.00	*******		7/6/2018 12:16:53 PM
2	5.405	100uL	10.00	*******		7/6/2018 12:21:46 PM
3	5.344	100uL	10.00	*******		7/6/2018 12:26:37 PM

Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	5.329
SD Area	0.08450
CV Area	1.59%
Vial	1

Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	9.839	100uL	5.000	*******		7/6/2018 12:35:16 PM
2	9.943	100uL	5.000	*******		7/6/2018 12:39:00 PM
3	9.885	100uL	5.000	*******		7/6/2018 12:42:34 PM

Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	9.889
SD Area	0.05212
CV Area	0.53%
Vial	1

Conc: 2.500mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	23.91	100uL	2.000	*******		7/6/2018 12:51:30 PM
2	23.86	100uL	2.000	*******		7/6/2018 12:55:07 PM
3	23.66	100uL	2.000	*******		7/6/2018 12:58:40 PM

Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 23.81
SD Area 0.1323
CV Area 0.56%
Vial 1

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	46.33	100uL	1.000	*******		7/6/2018 1:07:11 PM
2	45.74	100uL	1.000	*******		7/6/2018 1:10:57 PM
3	46.69	100uL	1.000	*******		7/6/2018 1:14:41 PM

Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 46.25
SD Area 0.4796
CV Area 1.04%
Vial 1

Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	90.34	100uL	5.000	*******		7/6/2018 1:26:25 PM
2	89.06	100uL	5.000	*******		7/6/2018 1:30:22 PM
3	89.66	100uL	5.000	*******		7/6/2018 1:34:20 PM

Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 89.69
SD Area 0.6404
CV Area 0.71%
Vial 2

Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	229.5	100uL	2.000	*******		7/6/2018 1:44:36 PM
2	228.7	100uL	2.000	*******		7/6/2018 1:48:46 PM
3	229.9	100uL	2.000	*******		7/6/2018 1:52:56 PM

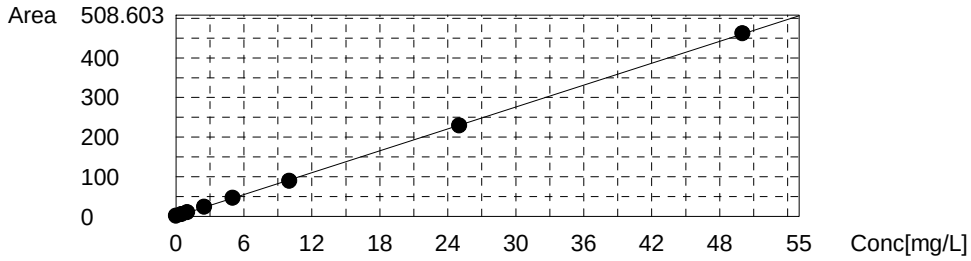
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 229.4
SD Area 0.6110
CV Area 0.27%
Vial 2

Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	462.6	100uL	1.000	*******		7/6/2018 2:02:59 PM
2	462.1	100uL	1.000	*******		7/6/2018 2:07:31 PM
3	462.4	100uL	1.000	*******		7/6/2018 2:11:47 PM

Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	462.4
SD Area	0.2517
CV Area	0.05%
Vial	2

Slope:	9.222
Intercept	0.000
r^2	0.9999
r	1.0000
Zero Shift	Yes



INITIAL CALIBRATION DATA

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BG00049	Instrument:	TOC-LCSH
Calibration Date:	07/16/2018 12:24		

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Dissolved Organic Carbon, Dissolved	0	0	0.5005	13.36863	1.001	10.85914	2.5025	9.638362	5.005	9.222777	10.01	8.450549
Total Organic Carbon	0	0	0.5005	13.36863	1.001	10.85914	2.5025	9.638362	5.005	9.222777	10.01	8.450549

INITIAL CALIBRATION DATA

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BG00049	Instrument:	TOC-LCSH
Calibration Date:	07/16/2018 12:24		

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
		RF		RF		RF		RF		RF		RF
Dissolved Organic Carbon, Dissolved	25.025	8.463536	50.05	8.465535								
Total Organic Carbon	25.025	8.463536	50.05	8.465535								

INITIAL CALIBRATION DATA

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BG00049	Instrument:	TOC-LCSH
Calibration Date:	07/16/2018 12:24		

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Dissolved Organic Carbon, Dissolved	8.558566	44.9	0.9999			
Total Organic Carbon	8.558566	44.9	0.9999			

TOC-L Cal Curve Information
C:\TOC-L\CalCurves\NPOC 0.5 - 50 ppm.2018_07_12_13_05_33.cal

Date of Creation	7/12/2018 3:55:26 PM
User	CDE
System	TOC-L SUSPENDED SOLIDS

Cal. Curve

Sample Name:	SEQ-CAL
Sample ID:	Curve
Object ID	0L-10000101463-10101000-133EEE818CF3-0001
Cal. Curve:	NPOC 0.5 - 50 ppm.2018_07_12_13_05_33.cal
Status	Completed
Comment:	

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	2.900	100uL	1.000	*******		7/12/2018 1:13:17 PM
2	3.504	100uL	1.000	*******	E	7/12/2018 1:16:50 PM
3	3.091	100uL	1.000	*******		7/12/2018 1:20:17 PM
4	3.009	100uL	1.000	*******		7/12/2018 1:23:46 PM

Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	3.000
SD Area	0.09582
CV Area	3.19%
Vial	0

Conc: 0.5000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	6.912	100uL	10.00	*******	E	7/12/2018 1:34:15 PM
2	6.691	100uL	10.00	*******		7/12/2018 1:39:12 PM
3	6.460	100uL	10.00	*******		7/12/2018 1:43:52 PM
4	7.336	100uL	10.00	*******	E	7/12/2018 1:48:58 PM
5	6.393	100uL	10.00	*******		7/12/2018 1:53:38 PM

Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	6.515
SD Area	0.1563
CV Area	2.40%
Vial	1

Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	10.51	100uL	5.000	*******	E	7/12/2018 2:02:16 PM
2	14.98	100uL	5.000	*******	E	7/12/2018 2:06:00 PM
3	10.87	100uL	5.000	*******		7/12/2018 2:09:38 PM
4	11.22	100uL	5.000	*******		7/12/2018 2:13:14 PM
5	11.09	100uL	5.000	*******		7/12/2018 2:16:58 PM

Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	11.06
SD Area	0.1769
CV Area	1.60%
Vial	1

Conc: 2.500mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	24.12	100uL	2.000	*******		7/12/2018 2:25:57 PM
2	23.99	100uL	2.000	*******		7/12/2018 2:29:32 PM
3	24.46	100uL	2.000	*******		7/12/2018 2:33:10 PM

Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 24.19
SD Area 0.2427
CV Area 1.00%
Vial 1

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	46.16	100uL	1.000	*******		7/12/2018 2:41:45 PM
2	46.27	100uL	1.000	*******		7/12/2018 2:45:22 PM
3	46.81	100uL	1.000	*******		7/12/2018 2:48:55 PM

Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 46.41
SD Area 0.3479
CV Area 0.75%
Vial 1

Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	84.59	100uL	5.000	*******		7/12/2018 3:00:30 PM
2	87.51	100uL	5.000	*******		7/12/2018 3:04:20 PM
3	87.01	100uL	5.000	*******		7/12/2018 3:08:09 PM

Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 86.37
SD Area 1.562
CV Area 1.81%
Vial 2

Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	211.8	100uL	2.000	*******		7/12/2018 3:18:31 PM
2	218.1	100uL	2.000	*******		7/12/2018 3:22:47 PM
3	215.0	100uL	2.000	*******		7/12/2018 3:26:48 PM

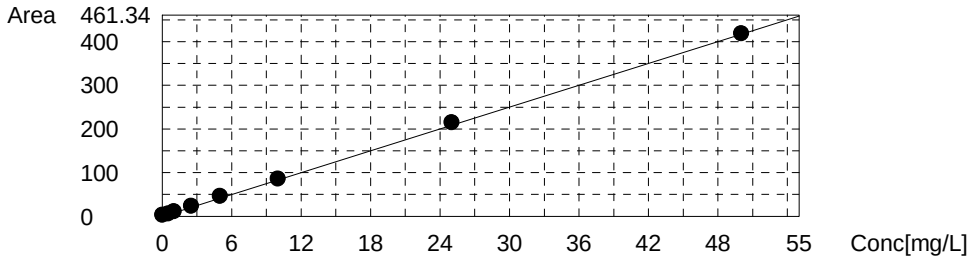
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 215.0
SD Area 3.150
CV Area 1.47%
Vial 2

Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	406.7	100uL	1.000	*******	E	7/12/2018 3:37:23 PM
2	423.7	100uL	1.000	*******		7/12/2018 3:42:30 PM
3	409.5	100uL	1.000	*******		7/12/2018 3:47:01 PM
4	443.2	100uL	1.000	*******	E	7/12/2018 3:51:14 PM
5	425.0	100uL	1.000	*******		7/12/2018 3:55:26 PM

Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	419.4
SD Area	8.598
CV Area	2.05%
Vial	2

Slope:	8.349
Intercept	0.000
r^2	0.9999
r	1.0000
Zero Shift	Yes



INITIAL CALIBRATION DATA

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BG00050	Instrument:	TOC-LCSH
Calibration Date:	07/13/2018 12:40		

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Dissolved Organic Carbon, Dissolved	0	0	0.5005	12.42557	1.001	11.87812	2.5025	11.2048	5.005	10.8991	10.01	10.1998
Total Organic Carbon	0	0	0.5005	12.42557	1.001	11.87812	2.5025	11.2048	5.005	10.8991	10.01	10.1998

INITIAL CALIBRATION DATA

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BG00050	Instrument:	TOC-LCSH
Calibration Date:	07/13/2018 12:40		

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
		RF		RF		RF		RF		RF		RF
Dissolved Organic Carbon, Dissolved	25.025	10.36963	50.05	10.41159								
Total Organic Carbon	25.025	10.36963	50.05	10.41159								

INITIAL CALIBRATION DATA

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BG00050	Instrument:	TOC-LCSH
Calibration Date:	07/13/2018 12:40		

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Dissolved Organic Carbon, Dissolved	9.673576	41.2	0.9999			
Total Organic Carbon	9.673576	41.2	0.9999			

TOC-L Cal Curve Information
C:\TOC-L\CalCurves\NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal

Date of Creation	7/13/2018 4:57:26 PM
User	CDE
System	TOC-L SUSPENDED SOLIDS

Cal. Curve

Sample Name:	SEQ-CAL
Sample ID:	Curve
Object ID	0L-10000101463-10101000-133EEE920661-0001
Cal. Curve:	NPOC 0.5 - 50 ppm.2018_07_13_14_16_30.cal
Status	Completed
Comment:	

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	1.051	100uL	1.000	*******		7/13/2018 2:24:11 PM
2	1.325	100uL	1.000	*******	E	7/13/2018 2:27:48 PM
3	1.021	100uL	1.000	*******		7/13/2018 2:31:07 PM
4	1.118	100uL	1.000	*******		7/13/2018 2:34:44 PM

Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	1.063
SD Area	0.04966
CV Area	4.67%
Vial	0

Conc: 0.5000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	6.219	100uL	10.00	*******		7/13/2018 2:45:27 PM
2	7.692	100uL	10.00	*******	E	7/13/2018 2:50:22 PM
3	6.343	100uL	10.00	*******		7/13/2018 2:55:13 PM
4	6.394	100uL	10.00	*******		7/13/2018 3:00:04 PM

Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	6.319
SD Area	0.09000
CV Area	1.42%
Vial	1

Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	12.64	100uL	5.000	*******	E	7/13/2018 3:09:10 PM
2	11.89	100uL	5.000	*******		7/13/2018 3:12:51 PM
3	11.82	100uL	5.000	*******		7/13/2018 3:16:33 PM
4	11.88	100uL	5.000	*******		7/13/2018 3:20:14 PM

Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	11.86
SD Area	0.03786
CV Area	0.32%
Vial	1

Conc: 2.500mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	28.04	100uL	2.000	*******		7/13/2018 3:29:39 PM
2	28.03	100uL	2.000	*******		7/13/2018 3:33:33 PM
3	27.98	100uL	2.000	*******		7/13/2018 3:37:21 PM

Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 28.02
SD Area 0.03215
CV Area 0.11%
Vial 1

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	54.55	100uL	1.000	*******		7/13/2018 3:46:21 PM
2	54.68	100uL	1.000	*******		7/13/2018 3:50:27 PM
3	54.38	100uL	1.000	*******		7/13/2018 3:54:28 PM

Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 54.54
SD Area 0.1504
CV Area 0.28%
Vial 1

Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	102.1	100uL	5.000	*******		7/13/2018 4:06:08 PM
2	102.0	100uL	5.000	*******		7/13/2018 4:10:27 PM
3	103.4	100uL	5.000	*******		7/13/2018 4:14:43 PM

Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 102.5
SD Area 0.7810
CV Area 0.76%
Vial 2

Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	259.5	100uL	2.000	*******		7/13/2018 4:24:51 PM
2	259.5	100uL	2.000	*******		7/13/2018 4:29:18 PM
3	262.4	100uL	2.000	*******		7/13/2018 4:33:41 PM

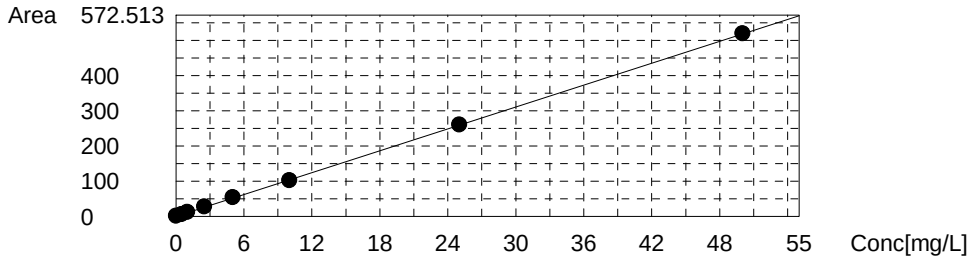
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 260.5
SD Area 1.674
CV Area 0.64%
Vial 2

Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	549.8	100uL	1.000	*******	E	7/13/2018 4:43:52 PM
2	521.1	100uL	1.000	*******		7/13/2018 4:48:33 PM
3	522.5	100uL	1.000	*******		7/13/2018 4:52:58 PM
4	517.8	100uL	1.000	*******		7/13/2018 4:57:26 PM

Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	520.5
SD Area	2.413
CV Area	0.46%
Vial	2

Slope:	10.38
Intercept	0.000
r^2	1.0000
r	1.0000
Zero Shift	Yes



INITIAL CALIBRATION DATA

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BG00066	Instrument:	TOC-LCSH
Calibration Date:	07/19/2018 12:12		

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Dissolved Organic Carbon, Dissolved	0	0	0.5005	11.45455	1.001	10.83916	2.5025	10.002	5.005	9.698302	10.01	9.171828

INITIAL CALIBRATION DATA

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BG00066	Instrument:	TOC-LCSH
Calibration Date:	07/19/2018 12:12		

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
		RF		RF		RF		RF		RF		RF
Dissolved Organic Carbon, Dissolved	25.025	9.218781	50.05	9.466534								

INITIAL CALIBRATION DATA

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BG00066	Instrument:	TOC-LCSH
Calibration Date:	07/19/2018 12:12		

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Dissolved Organic Carbon, Dissolved	8.731394	41.4	0.9998			

TOC-L Cal Curve Information
C:\TOC-L\CalCurves\NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal

Date of Creation	7/19/2018 6:02:09 PM
User	CDE
System	TOC-L SUSPENDED SOLIDS

Cal. Curve

Sample Name:	SEQ-CAL
Sample ID:	Curve
Object ID	0L-10000101463-10101000-133EEEF1D7AE-0001
Cal. Curve:	NPOC 0.5 - 50 ppm.2018_07_19_15_34_42.cal
Status	Completed
Comment:	

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.9015	100uL	1.000	*******		7/19/2018 3:42:11 PM
2	0.7903	100uL	1.000	*******		7/19/2018 3:45:41 PM
3	0.7709	100uL	1.000	*******		7/19/2018 3:49:11 PM

Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	0.8209
SD Area	0.07047
CV Area	8.58%
Vial	0

Conc: 0.5000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	5.509	100uL	10.00	*******	E	7/19/2018 3:59:36 PM
2	5.733	100uL	10.00	*******		7/19/2018 4:04:30 PM
3	5.694	100uL	10.00	*******		7/19/2018 4:09:22 PM
4	5.613	100uL	10.00	*******		7/19/2018 4:14:12 PM

Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	5.680
SD Area	0.06121
CV Area	1.08%
Vial	1

Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	15.31	100uL	5.000	*******	E	7/19/2018 4:23:04 PM
2	10.85	100uL	5.000	*******		7/19/2018 4:26:44 PM
3	10.56	100uL	5.000	*******		7/19/2018 4:30:07 PM
4	10.68	100uL	5.000	*******		7/19/2018 4:33:50 PM

Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	10.70
SD Area	0.1457
CV Area	1.36%
Vial	1

Conc: 2.500mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	25.03	100uL	2.000	*******		7/19/2018 4:43:16 PM
2	25.33	100uL	2.000	*******		7/19/2018 4:46:55 PM
3	25.49	100uL	2.000	*******		7/19/2018 4:50:36 PM

Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 25.28
SD Area 0.2335
CV Area 0.92%
Vial 1

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	48.54	100uL	1.000	*******		7/19/2018 4:58:55 PM
2	49.43	100uL	1.000	*******		7/19/2018 5:02:35 PM
3	49.45	100uL	1.000	*******		7/19/2018 5:06:23 PM

Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 49.14
SD Area 0.5197
CV Area 1.06%
Vial 1

Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	91.81	100uL	5.000	*******		7/19/2018 5:17:50 PM
2	92.88	100uL	5.000	*******		7/19/2018 5:21:50 PM
3	92.58	100uL	5.000	*******		7/19/2018 5:25:42 PM

Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 92.42
SD Area 0.5519
CV Area 0.60%
Vial 2

Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	230.7	100uL	2.000	*******		7/19/2018 5:35:45 PM
2	234.6	100uL	2.000	*******		7/19/2018 5:39:47 PM
3	235.7	100uL	2.000	*******		7/19/2018 5:43:55 PM

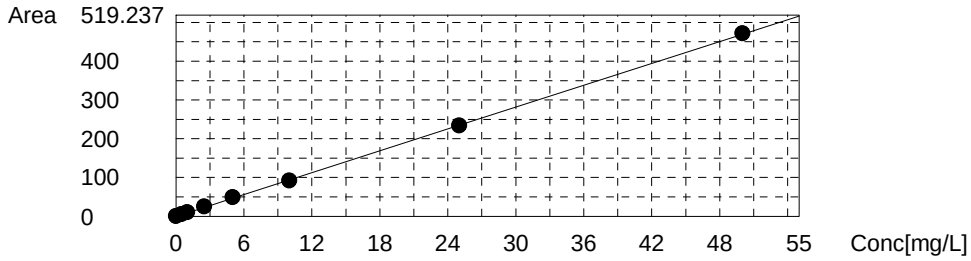
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 233.7
SD Area 2.627
CV Area 1.12%
Vial 2

Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	473.8	100uL	1.000	*******		7/19/2018 5:53:40 PM
2	471.7	100uL	1.000	*******		7/19/2018 5:57:54 PM
3	470.6	100uL	1.000	*******		7/19/2018 6:02:09 PM

Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	472.0
SD Area	1.626
CV Area	0.34%
Vial	2

Slope:	9.399
Intercept	0.000
r^2	0.9999
r	1.0000
Zero Shift	Yes



INITIAL CALIBRATION DATA

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BG00080	Instrument:	TOC-LCSH
Calibration Date:	07/26/2018 10:57		

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Total Organic Carbon	0	0	0.5005	12.01798	1.001	11.53846	2.5025	11.12887	5.005	10.93107	10.01	9.805195

INITIAL CALIBRATION DATA

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BG00080	Instrument:	TOC-LCSH
Calibration Date:	07/26/2018 10:57		

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
		RF		RF		RF		RF		RF		RF
Total Organic Carbon	25.025	10.02198	50.05	10.06593								

INITIAL CALIBRATION DATA

SM 5310 B-00

Laboratory:	Analytical Resources, Inc.	SDG:	18F0185
Client:	Windward Environmental, LLC	Project:	AOC3 Task 4 (Seeps)
Calibration:	BG00080	Instrument:	TOC-LCSH
Calibration Date:	07/26/2018 10:57		

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Total Organic Carbon	9.438686	41.2	0.9999			

TOC-L Cal Curve Information
C:\TOC-L\CalCurves\NPOC 0.5 - 50 ppm.2018 07 23 15 40 02.cal

Date of Creation	7/23/2018 6:12:27 PM
User	CDE
System	TOC-L SUSPENDED SOLIDS

Cal. Curve

Sample Name:	SEQ-CAL
Sample ID:	Curve
Object ID	0L-10000101463-10101000-133EEF324BF9-0001
Cal. Curve:	NPOC 0.5 - 50 ppm.2018_07_23_15_40_02.cal
Status	Completed
Comment:	

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	0.7626	100uL	1.000	*******		7/23/2018 3:48:10 PM
2	0.7079	100uL	1.000	*******		7/23/2018 3:51:34 PM
3	0.6739	100uL	1.000	*******		7/23/2018 3:55:07 PM

Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	0.7148
SD Area	0.04475
CV Area	6.26%
Vial	0

Conc: 0.5000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	6.015	100uL	10.00	*******		7/23/2018 4:06:06 PM
2	6.104	100uL	10.00	*******		7/23/2018 4:11:01 PM
3	6.203	100uL	10.00	*******		7/23/2018 4:15:48 PM

Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	6.107
SD Area	0.09404
CV Area	1.54%
Vial	1

Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	11.55	100uL	5.000	*******		7/23/2018 4:25:08 PM
2	11.51	100uL	5.000	*******		7/23/2018 4:29:04 PM
3	11.72	100uL	5.000	*******		7/23/2018 4:33:04 PM

Acid Add.	1.500%
Sparge Gas Flow	80ml
Sp. Time	90.00sec
Mean Area	11.59
SD Area	0.1115
CV Area	0.96%
Vial	1

Conc: 2.500mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	27.85	100uL	2.000	*******		7/23/2018 4:42:41 PM
2	27.79	100uL	2.000	*******		7/23/2018 4:46:48 PM
3	28.11	100uL	2.000	*******		7/23/2018 4:51:01 PM

Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 27.92
SD Area 0.1701
CV Area 0.61%
Vial 1

Conc: 5.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	54.71	100uL	1.000	*******		7/23/2018 5:00:24 PM
2	54.52	100uL	1.000	*******		7/23/2018 5:04:49 PM
3	54.14	100uL	1.000	*******		7/23/2018 5:09:19 PM

Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 54.46
SD Area 0.2902
CV Area 0.53%
Vial 1

Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	98.15	100uL	5.000	*******		7/23/2018 5:21:38 PM
2	97.13	100uL	5.000	*******		7/23/2018 5:26:18 PM
3	99.18	100uL	5.000	*******		7/23/2018 5:31:07 PM

Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 98.15
SD Area 1.025
CV Area 1.04%
Vial 2

Conc: 25.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	250.8	100uL	2.000	*******		7/23/2018 5:41:36 PM
2	249.4	100uL	2.000	*******		7/23/2018 5:46:32 PM
3	250.1	100uL	2.000	*******		7/23/2018 5:51:35 PM

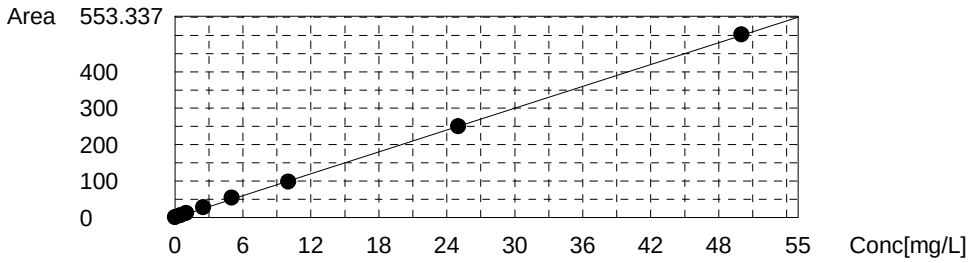
Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 250.1
SD Area 0.7000
CV Area 0.28%
Vial 2

Conc: 50.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	503.8	100uL	1.000	*******		7/23/2018 6:02:10 PM
2	501.4	100uL	1.000	*******		7/23/2018 6:07:17 PM
3	503.9	100uL	1.000	*******		7/23/2018 6:12:27 PM

Acid Add. 1.500%
Sparge Gas Flow 80ml
Sp. Time 90.00sec
Mean Area 503.0
SD Area 1.415
CV Area 0.28%
Vial 2

Slope:	10.01
Intercept	0.000
r^2	0.9999
r	0.9999
Zero Shift	Yes



INSTRUMENT BLANKS
SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: TOC-LCSH
Calibration: UNASSIGNED
Sequence: SGF0376
Date Analyzed: 06/15/18 18:54

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0376-ICB1	Total Organic Carbon	0.17	0.5	0.50	mg/L	
SGF0376-CCB1	Total Organic Carbon	0.03	0.5	0.50	mg/L	
SGF0376-CCB2	Total Organic Carbon	0.06	0.5	0.50	mg/L	
SGF0376-CCB3	Total Organic Carbon	0.44	0.5	0.50	mg/L	
SGF0376-CCB4	Total Organic Carbon	0.01	0.5	0.50	mg/L	
SGF0376-CCB5	Total Organic Carbon	0.11	0.5	0.50	mg/L	
SGF0376-CCB6	Total Organic Carbon	0.05	0.5	0.50	mg/L	
SGF0376-CCB7	Total Organic Carbon	0.19	0.5	0.50	mg/L	

INSTRUMENT BLANKS
SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: TOC-LCSH
Calibration: UNASSIGNED
Sequence: SGF0377
Date Analyzed: 06/18/18 16:19

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGF0377-ICB1	Dissolved Organic Carbon (dissolve	0.09	0.5	0.50	mg/L	
SGF0377-CCB1	Dissolved Organic Carbon (dissolve	0.12	0.5	0.50	mg/L	
SGF0377-CCB2	Dissolved Organic Carbon (dissolve	0.13	0.5	0.50	mg/L	

INSTRUMENT BLANKS
SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: TOC-LCSH
Calibration: BG00004
Sequence: SGG0007
Date Analyzed: 06/28/18 19:32

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGG0007-ICB1	Dissolved Organic Carbon (dissolve	0.27	0.5	0.50	mg/L	
SGG0007-CCB1	Dissolved Organic Carbon (dissolve	0.22	0.5	0.50	mg/L	
SGG0007-CCB2	Dissolved Organic Carbon (dissolve	0.23	0.5	0.50	mg/L	
SGG0007-CCB3	Dissolved Organic Carbon (dissolve	0.16	0.5	0.50	mg/L	
SGG0007-CCB4	Dissolved Organic Carbon (dissolve	0.12	0.5	0.50	mg/L	
SGG0007-CCB5	Dissolved Organic Carbon (dissolve	0.13	0.5	0.50	mg/L	
SGG0007-CCB6	Dissolved Organic Carbon (dissolve	0.15	0.5	0.50	mg/L	

INSTRUMENT BLANKS
SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: TOC-LCSH
Calibration: BG00004
Sequence: SGG0011
Date Analyzed: 06/30/18 15:03

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGG0011-ICB1	Dissolved Organic Carbon (dissolve	0.15	0.5	0.50	mg/L	
SGG0011-CCB1	Dissolved Organic Carbon (dissolve	0.11	0.5	0.50	mg/L	
SGG0011-CCB2	Dissolved Organic Carbon (dissolve	0.15	0.5	0.50	mg/L	
SGG0011-CCB3	Dissolved Organic Carbon (dissolve	0.14	0.5	0.50	mg/L	
SGG0011-CCB4	Dissolved Organic Carbon (dissolve	0.13	0.5	0.50	mg/L	
SGG0011-CCB5	Dissolved Organic Carbon (dissolve	0.16	0.5	0.50	mg/L	
SGG0011-CCB6	Dissolved Organic Carbon (dissolve	0.12	0.5	0.50	mg/L	

INSTRUMENT BLANKS
SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: TOC-LCSH
Calibration: BG00035
Sequence: SGG0134
Date Analyzed: 07/06/18 14:57

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGG0134-ICB1	Total Organic Carbon	0.28	0.5	0.50	mg/L	
SGG0134-ICB1	Dissolved Organic Carbon (dissolve	0.28	0.5	0.50	mg/L	

INSTRUMENT BLANKS
SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: TOC-LCSH
Calibration: BG00035
Sequence: SGG0144
Date Analyzed: 07/09/18 18:56

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGG0144-ICB1	Total Organic Carbon	0.20	0.5	0.50	mg/L	
SGG0144-ICB1	Dissolved Organic Carbon (dissolve	0.20	0.5	0.50	mg/L	
SGG0144-CCB2	Total Organic Carbon	0.25	0.5	0.50	mg/L	
SGG0144-CCB2	Dissolved Organic Carbon (dissolve	0.25	0.5	0.50	mg/L	
SGG0144-CCB3	Total Organic Carbon	0.41	0.5	0.50	mg/L	
SGG0144-CCB3	Dissolved Organic Carbon (dissolve	0.41	0.5	0.50	mg/L	
SGG0144-CCB4	Total Organic Carbon	0.40	0.5	0.50	mg/L	
SGG0144-CCB4	Dissolved Organic Carbon (dissolve	0.40	0.5	0.50	mg/L	
SGG0144-CCB5	Total Organic Carbon	0.26	0.5	0.50	mg/L	
SGG0144-CCB5	Dissolved Organic Carbon (dissolve	0.26	0.5	0.50	mg/L	
SGG0144-CCB8	Total Organic Carbon	0.68	0.5	0.50	mg/L	
SGG0144-CCB8	Dissolved Organic Carbon (dissolve	0.68	0.5	0.50	mg/L	
SGG0144-CCB9	Total Organic Carbon	0.77	0.5	0.50	mg/L	
SGG0144-CCB9	Dissolved Organic Carbon (dissolve	0.77	0.5	0.50	mg/L	

INSTRUMENT BLANKS
SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: DX2100
Calibration: BF00005
Sequence: SGG0155
Date Analyzed: 07/03/18 20:37

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGG0155-ICB1	Dissolved Organic Carbon (dissolve	0.13	0.5	0.50	mg/L	
SGG0155-CCB1	Dissolved Organic Carbon (dissolve	0.21	0.5	0.50	mg/L	
SGG0155-CCB2	Dissolved Organic Carbon (dissolve	0.21	0.5	0.50	mg/L	
SGG0155-CCB3	Dissolved Organic Carbon (dissolve	0.20	0.5	0.50	mg/L	

INSTRUMENT BLANKS
SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: TOC-LCSH
Calibration: BG00049
Sequence: SGG0219
Date Analyzed: 07/12/18 16:41

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGG0219-ICB1	Total Organic Carbon	0.39	0.5	0.50	mg/L	
SGG0219-ICB1	Dissolved Organic Carbon (dissolve	0.39	0.5	0.50	mg/L	

INSTRUMENT BLANKS
SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: TOC-LCSH
Calibration: BG00050
Sequence: SGG0222
Date Analyzed: 07/13/18 17:31

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGG0222-ICB1	Total Organic Carbon	0.14	0.5	0.50	mg/L	
SGG0222-ICB1	Dissolved Organic Carbon (dissolve	0.14	0.5	0.50	mg/L	
SGG0222-CCB1	Total Organic Carbon	0.07	0.5	0.50	mg/L	
SGG0222-CCB1	Dissolved Organic Carbon (dissolve	0.07	0.5	0.50	mg/L	
SGG0222-CCB2	Total Organic Carbon	0.03	0.5	0.50	mg/L	
SGG0222-CCB2	Dissolved Organic Carbon (dissolve	0.03	0.5	0.50	mg/L	
SGG0222-CCB3	Total Organic Carbon	0.01	0.5	0.50	mg/L	
SGG0222-CCB3	Dissolved Organic Carbon (dissolve	0.01	0.5	0.50	mg/L	
SGG0222-CCB4	Total Organic Carbon	0.10	0.5	0.50	mg/L	
SGG0222-CCB4	Dissolved Organic Carbon (dissolve	0.10	0.5	0.50	mg/L	
SGG0222-CCB5	Total Organic Carbon	0.15	0.5	0.50	mg/L	
SGG0222-CCB5	Dissolved Organic Carbon (dissolve	0.15	0.5	0.50	mg/L	
SGG0222-CCB6	Total Organic Carbon	0.17	0.5	0.50	mg/L	
SGG0222-CCB6	Dissolved Organic Carbon (dissolve	0.17	0.5	0.50	mg/L	

INSTRUMENT BLANKS
SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: Orion115
Calibration: UNASSIGNED
Sequence: SGG0270
Date Analyzed: 07/17/18 15:35

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGG0270-ICB1	Total Organic Carbon	0.08	0.5	0.50	mg/L	
SGG0270-ICB1	Dissolved Organic Carbon (dissolve	0.08	0.5	0.50	mg/L	
SGG0270-CCB1	Total Organic Carbon	0.10	0.5	0.50	mg/L	
SGG0270-CCB1	Dissolved Organic Carbon (dissolve	0.10	0.5	0.50	mg/L	
SGG0270-CCB2	Total Organic Carbon	0.11	0.5	0.50	mg/L	
SGG0270-CCB2	Dissolved Organic Carbon (dissolve	0.11	0.5	0.50	mg/L	
SGG0270-CCB3	Total Organic Carbon	0.15	0.5	0.50	mg/L	
SGG0270-CCB3	Dissolved Organic Carbon (dissolve	0.15	0.5	0.50	mg/L	
SGG0270-CCB5	Total Organic Carbon	0.07	0.5	0.50	mg/L	
SGG0270-CCB9	Total Organic Carbon	0.28	0.5	0.50	mg/L	

INSTRUMENT BLANKS
SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: TOC-LCSH
Calibration: BG00066
Sequence: SGG0302
Date Analyzed: 07/19/18 18:43

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGG0302-ICB1	Dissolved Organic Carbon (dissolve	0.27	0.5	0.50	mg/L	
SGG0302-CCB1	Dissolved Organic Carbon (dissolve	0.17	0.5	0.50	mg/L	
SGG0302-CCB2	Dissolved Organic Carbon (dissolve	0.08	0.5	0.50	mg/L	

INSTRUMENT BLANKS
SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: TOC-LCSH
Calibration: BG00080
Sequence: SGG0381
Date Analyzed: 07/23/18 22:51

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SGG0381-CCB1	Total Organic Carbon	-0.04	0.5	0.50	mg/L	
SGG0381-CCB2	Total Organic Carbon	-0.02	0.5	0.50	mg/L	
SGG0381-CCB3	Total Organic Carbon	0.03	0.5	0.50	mg/L	
SGG0381-CCB4	Total Organic Carbon	0.04	0.5	0.50	mg/L	
SGG0381-CCB5	Total Organic Carbon	0.05	0.5	0.50	mg/L	
SGG0381-CCB6	Total Organic Carbon	-0.002	0.5	0.50	mg/L	

INITIAL AND CONTINUING CALIBRATION CHECK

SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: TOC-LCSH
Calibration: UNASSIGNED
Control Limt: +/- 10.00%
Sequence: SGF0376

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0376-ICV1	Total Organic Carbon	20.000	19.00	95.0	mg/L	SM 5310 B-00
SGF0376-CCV1	Total Organic Carbon	20.000	19.21	96.1	mg/L	SM 5310 B-00
SGF0376-CCV2	Total Organic Carbon	20.000	19.56	97.8	mg/L	SM 5310 B-00
SGF0376-CCV3	Total Organic Carbon	20.000	19.17	95.9	mg/L	SM 5310 B-00
SGF0376-CCV4	Total Organic Carbon	20.000	19.00	95.0	mg/L	SM 5310 B-00
SGF0376-CCV5	Total Organic Carbon	20.000	18.63	93.2	mg/L	SM 5310 B-00
SGF0376-CCV6	Total Organic Carbon	20.000	20.75	104	mg/L	SM 5310 B-00
SGF0376-CCV7	Total Organic Carbon	20.000	21.91	110	mg/L	SM 5310 B-00

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: TOC-LCSH
Calibration: UNASSIGNED
Control Limt: +/- 10.00%
Sequence: SGF0377

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGF0377-ICV1	Dissolved Organic Carbon	20.000	21.34	107	mg/L	SM 5310 B-00
SGF0377-CCV1	Dissolved Organic Carbon	20.000	21.27	106	mg/L	SM 5310 B-00
SGF0377-CCV2	Dissolved Organic Carbon	20.000	21.94	110	mg/L	SM 5310 B-00

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: TOC-LCSH
Calibration: BG00004
Control Limt: +/- 10.00%
Sequence: SGG0007

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGG0007-ICV1	Dissolved Organic Carbon	20.000	19.50	97.5	mg/L	SM 5310 B-00
SGG0007-CCV1	Dissolved Organic Carbon	20.000	19.43	97.2	mg/L	SM 5310 B-00
SGG0007-CCV2	Dissolved Organic Carbon	20.000	18.98	94.9	mg/L	SM 5310 B-00
SGG0007-CCV3	Dissolved Organic Carbon	20.000	19.43	97.2	mg/L	SM 5310 B-00
SGG0007-CCV4	Dissolved Organic Carbon	20.000	19.53	97.7	mg/L	SM 5310 B-00
SGG0007-CCV5	Dissolved Organic Carbon	20.000	19.59	98.0	mg/L	SM 5310 B-00
SGG0007-CCV6	Dissolved Organic Carbon	20.000	19.79	99.0	mg/L	SM 5310 B-00

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: TOC-LCSH
Calibration: BG00004
Control Limt: +/- 10.00%
Sequence: SGG0011

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGG0011-ICV1	Dissolved Organic Carbon	20.000	19.44	97.2	mg/L	SM 5310 B-00
SGG0011-CCV1	Dissolved Organic Carbon	20.000	19.72	98.6	mg/L	SM 5310 B-00
SGG0011-CCV2	Dissolved Organic Carbon	20.000	19.79	99.0	mg/L	SM 5310 B-00
SGG0011-CCV3	Dissolved Organic Carbon	20.000	19.72	98.6	mg/L	SM 5310 B-00
SGG0011-CCV4	Dissolved Organic Carbon	20.000	19.67	98.4	mg/L	SM 5310 B-00
SGG0011-CCV5	Dissolved Organic Carbon	20.000	19.39	97.0	mg/L	SM 5310 B-00
SGG0011-CCV6	Dissolved Organic Carbon	20.000	19.61	98.1	mg/L	SM 5310 B-00

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: TOC-LCSH
Calibration: BG00035
Control Limt: +/- 10.00%
Sequence: SGG0134

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGG0134-ICV1	Dissolved Organic Carbon	20.000	18.52	92.6	mg/L	SM 5310 B-00
	Total Organic Carbon	20.000	18.52	92.6	mg/L	SM 5310 B-00

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: TOC-LCSH
Calibration: BG00035
Control Limt: +/- 10.00%
Sequence: SGG0144

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGG0144-ICV1	Dissolved Organic Carbon	20.000	18.14	90.7	mg/L	SM 5310 B-00
	Total Organic Carbon	20.000	18.14	90.7	mg/L	SM 5310 B-00
SGG0144-CCV2	Dissolved Organic Carbon	20.000	18.58	92.9	mg/L	SM 5310 B-00
	Total Organic Carbon	20.000	18.58	92.9	mg/L	SM 5310 B-00
SGG0144-CCV3	Dissolved Organic Carbon	20.000	19.01	95.1	mg/L	SM 5310 B-00
	Total Organic Carbon	20.000	19.01	95.1	mg/L	SM 5310 B-00
SGG0144-CCV4	Dissolved Organic Carbon	20.000	18.89	94.5	mg/L	SM 5310 B-00
	Total Organic Carbon	20.000	18.89	94.5	mg/L	SM 5310 B-00
SGG0144-CCV5	Dissolved Organic Carbon	20.000	18.44	92.2	mg/L	SM 5310 B-00
	Total Organic Carbon	20.000	18.44	92.2	mg/L	SM 5310 B-00
SGG0144-CCV8	Dissolved Organic Carbon	20.000	18.45	92.3	mg/L	SM 5310 B-00
	Total Organic Carbon	20.000	18.45	92.3	mg/L	SM 5310 B-00
SGG0144-CCV9	Dissolved Organic Carbon	20.000	18.83	94.2	mg/L	SM 5310 B-00
	Total Organic Carbon	20.000	18.83	94.2	mg/L	SM 5310 B-00

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: DX2100
Calibration: BF00005
Control Limt: +/- 10.00%
Sequence: SGG0155

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGG0155-ICV1	Dissolved Organic Carbon	20.000	18.58	92.9	mg/L	SM 5310 B-00
SGG0155-CCV1	Dissolved Organic Carbon	20.000	18.55	92.8	mg/L	SM 5310 B-00
SGG0155-CCV2	Dissolved Organic Carbon	20.000	18.77	93.9	mg/L	SM 5310 B-00
SGG0155-CCV3	Dissolved Organic Carbon	20.000	18.50	92.5	mg/L	SM 5310 B-00

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: TOC-LCSH
Calibration: BG00049
Control Limt: +/- 10.00%
Sequence: SGG0219

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGG0219-ICV1	Dissolved Organic Carbon	20.000	19.83	99.2	mg/L	SM 5310 B-00
	Total Organic Carbon	20.000	19.83	99.2	mg/L	SM 5310 B-00

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: TOC-LCSH
Calibration: BG00050
Control Limt: +/- 10.00%
Sequence: SGG0222

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGG0222-ICV1	Dissolved Organic Carbon	20.000	19.69	98.5	mg/L	SM 5310 B-00
	Total Organic Carbon	20.000	19.69	98.5	mg/L	SM 5310 B-00
SGG0222-CCV1	Dissolved Organic Carbon	20.000	18.63	93.2	mg/L	SM 5310 B-00
	Total Organic Carbon	20.000	18.63	93.2	mg/L	SM 5310 B-00
SGG0222-CCV2	Dissolved Organic Carbon	20.000	18.77	93.9	mg/L	SM 5310 B-00
	Total Organic Carbon	20.000	18.77	93.9	mg/L	SM 5310 B-00
SGG0222-CCV3	Dissolved Organic Carbon	20.000	18.70	93.5	mg/L	SM 5310 B-00
	Total Organic Carbon	20.000	18.70	93.5	mg/L	SM 5310 B-00
SGG0222-CCV4	Dissolved Organic Carbon	20.000	19.00	95.0	mg/L	SM 5310 B-00
	Total Organic Carbon	20.000	19.00	95.0	mg/L	SM 5310 B-00
SGG0222-CCV5	Dissolved Organic Carbon	20.000	18.85	94.3	mg/L	SM 5310 B-00
	Total Organic Carbon	20.000	18.85	94.3	mg/L	SM 5310 B-00
SGG0222-CCV6	Dissolved Organic Carbon	20.000	18.71	93.6	mg/L	SM 5310 B-00
	Total Organic Carbon	20.000	18.71	93.6	mg/L	SM 5310 B-00

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: Orion115
Calibration: UNASSIGNED
Control Limt: +/- 10.00%
Sequence: SGG0270

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGG0270-ICV1	Dissolved Organic Carbon	20.000	18.16	90.8	mg/L	SM 5310 B-00
	Total Organic Carbon	20.000	18.16	90.8	mg/L	SM 5310 B-00
SGG0270-CCV1	Dissolved Organic Carbon	20.000	18.13	90.7	mg/L	SM 5310 B-00
	Total Organic Carbon	20.000	18.13	90.7	mg/L	SM 5310 B-00
SGG0270-CCV2	Dissolved Organic Carbon	20.000	18.47	92.4	mg/L	SM 5310 B-00
	Total Organic Carbon	20.000	18.47	92.4	mg/L	SM 5310 B-00
SGG0270-CCV3	Dissolved Organic Carbon	20.000	18.32	91.6	mg/L	SM 5310 B-00
	Total Organic Carbon	20.000	18.32	91.6	mg/L	SM 5310 B-00
SGG0270-CCV5	Total Organic Carbon	20.000	18.10	90.5	mg/L	SM 5310 B-00
SGG0270-CCV9	Total Organic Carbon	20.000	18.27	91.4	mg/L	SM 5310 B-00

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: TOC-LCSH
Calibration: BG00066
Control Limt: +/- 10.00%
Sequence: SGG0302

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGG0302-ICV1	Dissolved Organic Carbon	20.000	19.21	96.1	mg/L	SM 5310 B-00
SGG0302-CCV1	Dissolved Organic Carbon	20.000	19.58	97.9	mg/L	SM 5310 B-00
SGG0302-CCV2	Dissolved Organic Carbon	20.000	21.39	107	mg/L	SM 5310 B-00

* Values outside of QC limits

INITIAL AND CONTINUING CALIBRATION CHECK

SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Instrument ID: TOC-LCSH
Calibration: BG00080
Control Limt: +/- 10.00%
Sequence: SGG0381

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SGG0381-CCV1	Total Organic Carbon	20.000	18.18	90.9	mg/L	SM 5310 B-00
SGG0381-CCV2	Total Organic Carbon	20.000	18.17	90.9	mg/L	SM 5310 B-00
SGG0381-CCV3	Total Organic Carbon	20.000	18.31	91.6	mg/L	SM 5310 B-00
SGG0381-CCV4	Total Organic Carbon	20.000	18.33	91.7	mg/L	SM 5310 B-00
SGG0381-CCV5	Total Organic Carbon	20.000	18.32	91.6	mg/L	SM 5310 B-00
SGG0381-CCV6	Total Organic Carbon	20.000	18.35	91.8	mg/L	SM 5310 B-00

* Values outside of QC limits

HOLDING TIME SUMMARY

Analysis: SM 5310 B-00

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW18-SP-RB1 18F0185-01	06/11/18 16:12	06/12/18 14:55	06/13/18 12:37	1	28	06/16/18 10:22	5	28	
LDW18-SP-RB1 18F0185-01RE1	06/11/18 16:12	06/12/18 14:55	06/13/18 12:38	1	28	06/29/18 01:02	17	28	
LDW18-SP-30 18F0185-03	06/12/18 12:06	06/12/18 14:55	06/13/18 12:37	1	28	06/16/18 10:40	4	28	
LDW18-SP-30 18F0185-03RE1	06/12/18 12:06	06/12/18 14:55	06/13/18 12:38	1	28	06/29/18 01:19	17	28	
LDW18-SP-32 18F0185-04	06/12/18 09:19	06/12/18 14:55	06/13/18 12:37	1	28	06/16/18 11:07	4	28	
LDW18-SP-32 18F0185-04RE1	06/12/18 09:19	06/12/18 14:55	06/13/18 12:38	1	28	06/29/18 01:41	17	28	
LDW18-SP-35 18F0185-05	06/12/18 10:56	06/12/18 14:55	06/13/18 12:37	1	28	06/16/18 11:30	4	28	
LDW18-SP-35 18F0185-05RE1	06/12/18 10:56	06/12/18 14:55	06/13/18 12:38	1	28	06/29/18 01:59	17	28	
LDW18-SP-38 18F0185-06	06/12/18 10:27	06/12/18 14:55	06/13/18 12:37	1	28	06/16/18 11:58	4	28	
LDW18-SP-38 18F0185-06RE1	06/12/18 10:27	06/12/18 14:55	06/13/18 12:38	1	28	06/29/18 02:21	17	28	
LDW18-SP-42 18F0185-07	06/12/18 12:05	06/12/18 14:55	06/13/18 12:37	1	28	06/16/18 12:16	4	28	
LDW18-SP-42 18F0185-07RE1	06/12/18 12:05	06/12/18 14:55	06/13/18 12:38	1	28	06/29/18 02:40	17	28	
LDW18-SP-43 18F0185-08	06/12/18 13:00	06/12/18 14:55	06/13/18 12:37	0	28	06/16/18 12:47	4	28	
LDW18-SP-43 18F0185-08RE1	06/12/18 13:00	06/12/18 14:55	06/13/18 12:38	0	28	06/29/18 02:58	17	28	
LDW18-SP-06 18F0208-01	06/13/18 09:53	06/13/18 16:26	06/14/18 14:35	1	28	07/01/18 09:05	18	28	
LDW18-SP-06 18F0208-01	06/13/18 09:53	06/13/18 16:26	06/14/18 10:36	1	28	06/16/18 04:58	3	28	
LDW18-SP-33 18F0208-02	06/13/18 12:17	06/13/18 16:26	06/14/18 10:36	0	28	06/16/18 05:25	3	28	
LDW18-SP-33 18F0208-02	06/13/18 12:17	06/13/18 16:26	06/14/18 14:35	1	28	07/01/18 10:11	18	28	
LDW18-SP-24 18F0208-03	06/13/18 12:35	06/13/18 16:26	06/14/18 14:35	1	28	07/01/18 10:33	18	28	
LDW18-SP-24 18F0208-03	06/13/18 12:35	06/13/18 16:26	06/14/18 10:36	0	28	06/16/18 05:50	3	28	
LDW18-SP-24-FD 18F0208-04	06/13/18 12:42	06/13/18 16:26	06/14/18 10:36	0	28	06/16/18 06:18	3	28	
LDW18-SP-24-FD 18F0208-04	06/13/18 12:42	06/13/18 16:26	06/14/18 14:35	1	28	07/01/18 10:59	18	28	

HOLDING TIME SUMMARY

Analysis: SM 5310 B-00

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW18-SP-05 18F0226-01RE1	06/14/18 14:08	06/14/18 15:45	07/03/18 18:27	19	28	07/10/18 17:18	26	28	
LDW18-SP-05 18F0226-01RE3	06/14/18 14:08	06/14/18 15:45	07/09/18 16:26	25	28	07/13/18 22:32	29	28	
LDW18-SP-57 18F0226-02RE1	06/14/18 10:41	06/14/18 15:45	07/03/18 18:27	19	28	07/10/18 17:40	26	28	
LDW18-SP-57 18F0226-02RE4	06/14/18 10:41	06/14/18 15:45	07/09/18 16:26	25	28	07/13/18 22:54	30	28	
LDW18-SP-73 18F0226-03RE3	06/14/18 13:08	06/14/18 15:45	07/03/18 18:27	19	28	07/13/18 19:27	29	28	
LDW18-SP-73 18F0226-03RE3	06/14/18 13:08	06/14/18 15:45	07/09/18 16:26	25	28	07/13/18 23:16	29	28	
LDW18-SP-74 18F0226-04RE3	06/14/18 13:14	06/14/18 15:45	07/03/18 18:27	19	28	07/13/18 19:45	29	28	
LDW18-SP-74 18F0226-04RE3	06/14/18 13:14	06/14/18 15:45	07/09/18 16:26	25	28	07/13/18 23:35	29	28	
LDW18-SP-77 18F0226-05RE3	06/14/18 12:10	06/14/18 15:45	07/03/18 18:27	19	28	07/13/18 20:04	29	28	
LDW18-SP-77 18F0226-05RE3	06/14/18 12:10	06/14/18 15:45	07/09/18 16:26	25	28	07/13/18 23:53	29	28	
LDW18-SP-78 18F0226-06RE3	06/14/18 12:04	06/14/18 15:45	07/09/18 16:26	25	28	07/14/18 00:16	30	28	
LDW18-SP-78 18F0226-06RE3	06/14/18 12:04	06/14/18 15:45	07/03/18 18:27	19	28	07/13/18 20:27	29	28	
LDW18-SP-79 18F0226-07RE3	06/14/18 09:50	06/14/18 15:45	07/03/18 18:27	19	28	07/13/18 20:45	29	28	
LDW18-SP-79 18F0226-07RE3	06/14/18 09:50	06/14/18 15:45	07/09/18 16:26	25	28	07/14/18 00:34	30	28	
LDW18-SP-84 18F0226-08RE3	06/14/18 09:53	06/14/18 15:45	07/03/18 18:27	19	28	07/13/18 21:03	29	28	
LDW18-SP-84 18F0226-08RE3	06/14/18 09:53	06/14/18 15:45	07/09/18 16:26	25	28	07/14/18 00:53	30	28	
LDW18-SP-87 18F0226-09RE3	06/14/18 11:11	06/14/18 15:45	07/09/18 16:26	25	28	07/14/18 01:11	30	28	
LDW18-SP-87 18F0226-09RE3	06/14/18 11:11	06/14/18 15:45	07/03/18 18:27	19	28	07/13/18 22:07	29	28	
LDW18-SP-01 18F0248-01	06/15/18 11:33	06/15/18 16:10	07/03/18 18:27	18	28	07/06/18 20:16	21	28	
LDW18-SP-01 18F0248-01RE2	06/15/18 11:33	06/15/18 16:10	07/06/18 20:56	21	28	07/13/18 03:19	28	28	
LDW18-SP-01 18F0248-01RE3	06/15/18 11:33	06/15/18 16:10	07/06/18 20:56	21	28	07/14/18 02:14	29	28	
LDW18-SP-01 18F0248-01RE3	06/15/18 11:33	06/15/18 16:10	07/03/18 18:27	18	28	07/19/18 19:52	34	28	

HOLDING TIME SUMMARY

Analysis: SM 5310 B-00

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW18-SP-45 18F0248-02	06/15/18 13:45	06/15/18 16:10	07/03/18 18:27	18	28	07/06/18 20:38	21	28	
LDW18-SP-45 18F0248-02RE2	06/15/18 13:45	06/15/18 16:10	07/06/18 20:56	21	28	07/13/18 03:38	28	28	
LDW18-SP-45 18F0248-02RE3	06/15/18 13:45	06/15/18 16:10	07/06/18 20:56	21	28	07/14/18 02:32	29	28	
LDW18-SP-45 18F0248-02RE3	06/15/18 13:45	06/15/18 16:10	07/03/18 18:27	18	28	07/19/18 20:15	34	28	
LDW18-SP-47 18F0248-03	06/15/18 13:16	06/15/18 16:10	07/03/18 18:27	18	28	07/06/18 20:56	21	28	
LDW18-SP-47 18F0248-03RE2	06/15/18 13:16	06/15/18 16:10	07/06/18 20:56	21	28	07/13/18 03:56	28	28	
LDW18-SP-47 18F0248-03RE3	06/15/18 13:16	06/15/18 16:10	07/06/18 20:56	21	28	07/14/18 02:50	29	28	
LDW18-SP-47 18F0248-03RE3	06/15/18 13:16	06/15/18 16:10	07/03/18 18:27	18	28	07/19/18 20:41	34	28	
LDW18-SP-66 18F0248-04	06/15/18 13:25	06/15/18 16:10	07/03/18 18:27	18	28	07/06/18 21:14	21	28	
LDW18-SP-66 18F0248-04RE2	06/15/18 13:25	06/15/18 16:10	07/06/18 20:56	21	28	07/13/18 04:14	28	28	
LDW18-SP-66 18F0248-04RE3	06/15/18 13:25	06/15/18 16:10	07/06/18 20:56	21	28	07/14/18 03:08	29	28	
LDW18-SP-66 18F0248-04RE3	06/15/18 13:25	06/15/18 16:10	07/03/18 18:27	18	28	07/19/18 21:03	34	28	
LDW18-SP-70 18F0248-05	06/15/18 11:13	06/15/18 16:10	07/03/18 18:27	18	28	07/06/18 21:32	21	28	
LDW18-SP-70 18F0248-05RE2	06/15/18 11:13	06/15/18 16:10	07/06/18 20:56	21	28	07/13/18 04:36	28	28	
LDW18-SP-70 18F0248-05RE3	06/15/18 11:13	06/15/18 16:10	07/03/18 18:27	18	28	07/19/18 21:29	34	28	
LDW18-SP-70 18F0248-05RE3	06/15/18 11:13	06/15/18 16:10	07/06/18 20:56	21	28	07/14/18 03:27	29	28	
LDW18-SP-83 18F0248-06	06/15/18 12:08	06/15/18 16:10	07/03/18 18:27	18	28	07/06/18 21:53	21	28	
LDW18-SP-83 18F0248-06RE2	06/15/18 12:08	06/15/18 16:10	07/06/18 20:56	21	28	07/13/18 04:58	28	28	
LDW18-SP-83 18F0248-06RE3	06/15/18 12:08	06/15/18 16:10	07/06/18 20:56	21	28	07/14/18 03:45	29	28	
LDW18-SP-83 18F0248-06RE3	06/15/18 12:08	06/15/18 16:10	07/03/18 18:27	18	28	07/19/18 21:54	34	28	
LDW18-SP-86 18F0248-07	06/15/18 12:19	06/15/18 16:10	07/03/18 18:27	18	28	07/06/18 22:23	21	28	
LDW18-SP-86 18F0248-07RE2	06/15/18 12:19	06/15/18 16:10	07/06/18 20:56	21	28	07/13/18 05:24	28	28	

HOLDING TIME SUMMARY

Analysis: SM 5310 B-00

Laboratory: Analytical Resources, Inc. SDG: 18F0185

Client: Windward Environmental, LLC Project: AOC3 Task 4 (Seeps)

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
LDW18-SP-86 18F0248-07RE3	06/15/18 12:19	06/15/18 16:10	07/06/18 20:56	21	28	07/14/18 04:03	29	28	
LDW18-SP-86 18F0248-07RE3	06/15/18 12:19	06/15/18 16:10	07/03/18 18:27	18	28	07/19/18 22:20	34	28	
LDW18-SP-88 18F0248-08	06/15/18 10:52	06/15/18 16:10	07/03/18 18:27	18	28	07/06/18 22:41	21	28	
LDW18-SP-88 18F0248-08RE2	06/15/18 10:52	06/15/18 16:10	07/06/18 20:56	21	28	07/13/18 05:45	28	28	
LDW18-SP-88 18F0248-08RE3	06/15/18 10:52	06/15/18 16:10	07/06/18 20:56	21	28	07/14/18 04:21	29	28	
LDW18-SP-88 18F0248-08RE3	06/15/18 10:52	06/15/18 16:10	07/03/18 18:27	18	28	07/19/18 22:42	34	28	
Duplicate BGF0300-DUP1	06/12/18 13:00	06/12/18 14:55	06/13/18 12:37	0	28	06/16/18 13:05	4	28	
Matrix Spike BGF0300-MS1	06/12/18 13:00	06/12/18 14:55	06/13/18 12:37	0	28	06/16/18 14:11	4	28	
Duplicate BGF0349-DUP1	06/13/18 09:53	06/13/18 16:26	06/14/18 14:35	1	28	07/01/18 09:23	18	28	
Matrix Spike BGF0349-MS1	06/13/18 09:53	06/13/18 16:26	06/14/18 14:35	1	28	07/01/18 09:53	18	28	
Duplicate BGG0063-DUP5	06/14/18 10:41	06/14/18 15:45	07/03/18 18:27	19	28	07/13/18 18:41	29	28	
Matrix Spike BGG0063-MS5	06/14/18 10:41	06/14/18 15:45	07/03/18 18:27	19	28	07/13/18 19:00	29	28	
Duplicate BGG0172-DUP7	06/14/18 10:41	06/14/18 15:45	07/09/18 16:26	25	28	07/14/18 11:09	30	28	
Matrix Spike BGG0172-MS6	06/14/18 10:41	06/14/18 15:45	07/09/18 16:26	25	28	07/14/18 11:28	30	28	

* Indicates hold time exceedance.

METHOD DETECTION AND REPORTING LIMITS

SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Matrix: Water
Instrument: DX2100

Analyte	MDL	RL	Units
Dissolved Organic Carbon (dissolved)	0.50	0.50	mg/L

METHOD DETECTION AND REPORTING LIMITS

SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Matrix: Water
Instrument: Orion115

Analyte	MDL	RL	Units
Dissolved Organic Carbon (dissolved)	0.50	0.50	mg/L
Total Organic Carbon	0.50	0.50	mg/L

METHOD DETECTION AND REPORTING LIMITS

SM 5310 B-00

Laboratory: Analytical Resources, Inc.
SDG: 18F0185
Client: Windward Environmental, LLC
Project: AOC3 Task 4 (Seeps)
Matrix: Water
Instrument: TOC-LCSH

Analyte	MDL	RL	Units
Dissolved Organic Carbon (dissolved)	0.50	0.50	mg/L
Total Organic Carbon	0.50	0.50	mg/L

G000135

ERA
A Waters Company

Reference Material

▪ Certificate of Analysis ▪

Product: Custom TOC Standard
Catalog Number: 092
Lot No: 11161701A
Certificate Issue Date: January 2, 2018
Expiration Date: January 2, 2019
Revision Number: Original

CERTIFICATION

Parameter	Certified Value [1]	Uncertainty [2]	QC Performance Acceptance Limits [3]			NIST Traceability [4]	
	mg/L	%	mg/L			SRM#	Recovery %
Total Organic Carbon	5,000	0.403	NA	-	NA	185h	101

Matrix: 18 megohm deionized water w/ 0.5% (v/v) H2SO4
Density: 1.0076 ± 0.0002 g/mL
Storage: 4 ± 2°C
Manufacturing Notes: The standard was manufactured using Glucose.

1. The Certified Value is equal to 100% of the "made to" values as determined by volumetric and/or gravimetric measurements made during the manufacture of this product.

2. The stated Uncertainty is the total propagated uncertainty at the 95% confidence interval. The uncertainty is based on the preparation and (as noted) internal analytical verification of the product by ERA, multiplied by a coverage factor. The uncertainty applies to the product as supplied and does not take into account any required or optional dilution and/or preparations the laboratory may perform while using this product.

3. The Performance Acceptance Limits (PALs™) are listed as guidelines for acceptable analytical results given the limitations of the USEPA methodologies commonly used to determine these parameters and closely approximate the 95% confidence interval. The PALs™ are based on analytical verification data generated by ERA, independent referee laboratory results and/or data from USEPA methods, WP, WS and CLP interlaboratory studies. Recovery and advisory range data for these studies are based on ERA's normal manufacturing ranges. If your result falls outside of the PALs™, ERA recommends that you investigate potential sources of error in your preparation and/or analytical procedures. For further technical assistance, call ERA at 1-800-372-0122.

4. Where NIST Standard Reference Materials (SRMs) are available, each analyte has been analytically traced to the NIST SRM listed. Traceability Recovery % = [(% recovery certified standard)/(% recovery NIST SRM)]*100. The traceability data shown were compiled by analyzing the ERA standards or their associated stock solutions against the applicable NIST SRMs.

If you have any questions or need technical assistance, please call ERA technical assistance at 1-800-372-0122 or send an email to info@eraqc.com.

Certifying Officer:
Brian Miller

Brian Miller

Quality Officer:
David Kilhefner

David D. Kilhefner

Axys Analytical Services, Ltd.

SGS AXYS

2045 Mills Road West
Sidney, BC, Canada V8L5X2

TEL: (250) 655-5800
TOLL-FREE: 1-888-373-0881

SGS AXYS Client No.: 4033

Client Address: 200 West Mercer Street
Suite 401
Seattle, WA, US, 98119

The SGS AXYS contact for these data is Georgina Brooks.

DIOXIN/FURAN ANALYSIS

AQUEOUS SAMPLES

PROJECT NAME: SEEP WATER

PO# 2018-0069

Contract: 4033
Data Package Identification: DPWG66424

Analysis WG66111

10 December 2018

www.axysanalytical.com

WINDWARD ENVIRONMENTAL
AQUEOUS SAMPLE

DIOXIN AND FURAN ANALYSIS
SGS AXYS METHOD: MLA-017
4033: L29628-27

PROJECT NAME: SEEP WATER PO# 2018-0069

10 December 2018

NARRATIVE

This narrative describes the analysis of one aqueous sample for polychlorinated dibenzodioxins and dibenzofurans using High Resolution Gas Chromatography / High Resolution Mass Spectrometry (HRGC/HRMS).

SAMPLE RECEIPT AND STORAGE

The sample was received on July 3rd, 2018. The temperature of the sample upon receipt was 4.4°C, slightly exceeding the method requirement of <4°C. Details of the sample's condition upon receipt are provided on the sample receiving records. The sample was pretreated as documented on the sample pretreatment record. The sample was stored at 4°C in the dark prior to extraction and analysis.

SAMPLE PREPARATION AND ANALYSIS

Extraction and analysis procedures were in general accordance with **USEPA Method 1613B,** as documented in **SGS AXYS Method MLA-017**: "***Analytical Method for the Determination of Polychlorinated Dibenzodioxins and Dibenzofurans by EPA Method 1613B, EPA Method 8290/8290A or EPA Method DLM02.2***". A method summary (MSU-017), which includes a list of modifications of USEPA Method 1613B, follows this narrative.

The sample and associated QC samples were analyzed in one batch, WG66111, the composition of which is shown on the correlation table and on the batch list heading the extraction workup sheets. The QC samples consisted of a procedural blank, a lab-generated reference sample known as the Ongoing Precision and Recovery (OPR) and an OPR duplicate. The blank and OPRs were prepared using Seastar ultra-pure water as the matrix.

An accurately weighed subsample of approximately 1 L was filtered to separate the aqueous and particulate phases. The particulate phase was discarded, and the aqueous phase was spiked with ^{13}C-labeled quantification standards and liquid-liquid extracted using dichloromethane. The resulting extract was spiked with ^{13}C-labeled cleanup standards and cleaned up using the standard chromatographic columns listed on the extraction workup sheets. The cleaned extract was concentrated, and spiked with labeled recovery (internal) standards, for a final volume of 20µL. 1µL was injected for the DB5 column analysis, 2µL for the DB225.

CALCULATIONS

Target analyte concentrations were determined by isotope dilution or internal standard quantification procedures using Waters MassLynx or Micromass OPUSQuan software. Formulae used in the conversion of the raw chromatograms to concentrations are provided in the method summary document.

Sample specific detection limits (SDLs) were determined from the analysis data following the same procedures used to convert target peak responses to concentrations. The SDLs were used as the detection qualifier. In cases when the software selected unrepresentative area for detection limit calculations, the

data validation chemists made corrections; these corrections were hand noted on the quantification report pages and/or documented on the audit change reports.

To account for instrument variability and laboratory background levels, it is the policy of SGS AXYS to report detection limits no lower than 0.5 pg absolute (0.5 pg/L on a 1 L sample). In cases where a detection limit is observed to be less than 0.5 pg absolute, the reporting limit is raised to 0.5 pg absolute. This is reflected on the analysis report forms.

Homologue totals were obtained by summing the concentration of all detected congeners at each level of chlorination. Toxic Equivalents (TEQs) were calculated using WHO 2005 TEFs. Congener peaks that did not meet the method ion abundance ratio criteria were included in the homologue totals and TEQ calculations.

REPORTING CONVENTIONS

The SGS AXYS contract number assigned for internal tracking was 4033. SGS AXYS logged the sample under a unique identifier of the form L29628-X, where X is a numeral. All data reports refer to both the client and SGS AXYS ID, which are cross-referenced on the correlation table. The report forms were generated using Laboratory Information Management System (LIMS).

The following data qualifier flags are used in this data package:

J	=	concentration less than lowest calibration equivalent
K	=	identifies a target that could not be confirmed by virtue of not satisfying all method required criteria, the reported value may be interpreted as an estimated maximum possible concentration.
U	=	target not detected

Results are reported to three significant figures, in units of picgrams per liter (pg/L).

QA/QC NOTES

The client and QC samples were prepared alongside each other and were subjected to the same analytical procedures. The client sample results were evaluated in comparison to the batch QC samples.

- The results are not blank corrected. Blank data should be taken into consideration when evaluating sample data and should be evaluated against specifications using the same blank sample size as the size of the client samples.
- The labeled surrogates ^{13}C-2,3,7,8-TCDF and ^{13}C-1,2,3,6,7,8-HxCDF produce interferences at the retention times of 1,4,7,8-TCDD and 1,2,3,4,6,8-HxCDD, respectively. The interferences were included in the homologue totals calculations and this should be considered when reviewing the sample data.
- By virtue of the isotope dilution/internal standard quantification procedures, data are recovery corrected for possible losses during extraction and cleanup.
- All linearity, calibration verification, procedural blank, OPR, and labeled compound recovery specifications were met.

ANALYTICAL DISCUSSION

The laboratory analyst noted on the workup sheets that the extract for the procedural blank, WG66111-101, went dry during a concentration step during sample clean-up. Given that the recovery values of the labeled standards in the sample were within method control limits and that the isotope dilution quantification procedure automatically corrects for such potential losses, sample data are not significantly affected.

DATA PACKAGE

This data package, assigned a unique identifier DPWG66424, includes the following:

- Method summary
- Correlation table
- Sample receiving documentation
- Sample pretreatment records
- Laboratory extraction workup sheets
- Sample data reports (in order of SGS AXYS sample ID)
- Laboratory QC data reports
- Instrumental QC data reports and mass resolution printouts (organized by analysis start date)
- Audit reports
- Sample raw data (in order of SGS AXYS sample ID)
- Laboratory QC raw data
- Instrumental QC raw data (organized by analysis start date)
- Accreditation Scope

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, except for the conditions detailed above. In addition, I certify, that to the best of my knowledge and belief, the data as reported are true and accurate. The following signature, on behalf of SGS AXYS Analytical Services Ltd, authorizes the release of the data contained in this data package.



Signed: Kristen Bowes, B.Sc.,
Data Validation Chemist



Date Signed

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SUMMARY OF SGS AXYS METHOD MLA-017 REV. 20 VER. 10:

ANALYTICAL METHOD FOR THE DETERMINATION OF POLYCHLORINATED DIBENZODIOXINS AND DIBENZOFURANS BY EPA METHOD 1613B, 8290/8290A OR DLM02.2

SGS AXYS Method MLA-017 describes the analysis of polychlorinated (tetra-octa) dibenzo-dioxins and dibenzofurans in solids (sediment, soil, biosolid, pulp), tissues (including blood, serum, plasma and milk), aqueous samples, XAD-2 columns, air samples, particulate filters and solvent extracts.

Target Analytes

Dioxins (PCDD)	Furans (PCDF)
2,3,7,8 Tetrachlorodibenzodioxin (TCDD)	2,3,7,8 Tetrachlorodibenzofuran (TCDF)
Total TCDD	Total TCDF
1,2,3,7,8 Pentachlorodibenzodioxin (PeCDD)	1,2,3,7,8 Pentachlorodibenzofuran (PeCDF)
Total PeCDD	2,3,4,7,8 PeCDF
	Total PeCDF
1,2,3,4,7,8 Hexachlorodibenzodioxin (HxCDD)	1,2,3,4,7,8 Hexachlorodibenzofuran (HxCDF)
1,2,3,6,7,8 HxCDD	1,2,3,6,7,8 HxCDF
1,2,3,7,8,9 HxCDD	1,2,3,7,8,9 HxCDF
Total HxCDD	2,3,4,6,7,8 HxCDF
	Total HxCDF
1,2,3,4,6,7,8 Heptachlorodibenzodioxin (HpCDD)	1,2,3,4,6,7,8 Heptachlorodibenzofuran (HpCDF)
Total HpCDD	1,2,3,4,7,8,9 HpCDF
	Total HpCDF
Octachlorodibenzodioxin (OCDD)	Octachlorodibenzofuran (OCDF)

1.0 EXTRACTION AND CLEANUP PROCEDURES

All samples are spiked with ^{13}C-labelled surrogate standards prior to extraction and extracted as per the table below. Optional extraction procedures are shown within parentheses.

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Sample Extraction

Matrix	Extraction
Aqueous samples	Liquid-liquid extraction with dichloromethane. (If visible particulates are present the sample is filtered prior to extraction and the particulate fraction separately extracted by Soxhlet extraction or Dean-Stark Soxhlet extraction. The two extracts are then combined.)
Solid (sediment, soil, sludge, particles on filter paper)	Soxhlet extraction with toluene:acetone 80:20. (optional: Dean-Stark Soxhlet extraction with toluene)
Solid (pulp, black liquor)	Soxhlet extraction with toluene:acetone 80:20.
Solid (ash, slag)	Sonication with hydrochloric acid and filtering. Liquid-liquid extraction of filtrate using dichloromethane, Soxhlet extraction of particulate using toluene:acetone 80:20. The two extracts are combined.
Tissue	Soxhlet extraction with dichloromethane:hexane 1:1 (optional: Base digestion and liquid-liquid extraction with hexane)
Whole blood/serum	Liquid-liquid extraction with ethanol:hexane:saturated ammonium sulfate.
Milk	Liquid-liquid extraction with acetone and hexane.
XAD-2 column and filter	XAD-2 adsorbent is dried and Soxhlet extracted (with toluene:acetone 80:20) or Dean-Stark Soxhlet extracted (with toluene). The filter is extracted by Dean-Stark Soxhlet extraction using toluene.
Ambient air (PUF and filter)	The PUF and filter(s) are Soxhlet extracted together using toluene:acetone 80:20.
Stationary Source Air Samples (Stack Gas sample trains)	The filter is sonicated with dilute hydrochloride acid and filtered. Equipment rinsates are collected, filtered, dried and/or extracted depending on sampling conditions.

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The extracts are then routinely cleaned up according to the following table:

Water Soil Sediment XAD-2 adsorbent Air samples Sludge High organic soil	(Base/acid wash →) DX $AgNO_3$ 30g 44% → (DX Florisil →) Copper → Alumina/carbon/Celite combination column
Tissue Blood/serum/ plasma Milk	(Biobead →) DX 20g 44% → DX Florisil → (Copper →) Alumina/carbon/Celite combination column

Note: Items in brackets are optional procedures that may be used if needed or if required by Project Managers.

An optional Biobead clean-up may be carried out for biosolid sample extracts.

2.0 INSTRUMENTATION

Instrumental analysis is performed on a DB-5 capillary chromatography column coupled to a high-resolution mass spectrometer (HRMS). The HRMS is operated at a static (10000) mass resolution in the voltage selected ion-recording mode (V-SIR) using selected PFK ions as a reference for mass lock. Two masses from the molecular ion cluster are used to monitor each of the target analytes and ^{13}C-labelled surrogate standards. Five chlorinated diphenylethers are monitored to check for interference using one specific ion for each compound.

A second column, DB-225, is used for confirmation/quantification of 2,3,7,8-TCDF and 1,2,3,7,8,9-HxCDD in all samples and matrices for which a peak was detected in the DB-5 run for these congeners.

Upon client request, the concentrations of PCDD/F may be determined using bracketing calibration procedures and a smaller suite of surrogate standards.

3.0 CALIBRATION

Initial calibration (default procedure) is performed using a five point calibration series of solutions that encompass the working concentration range. Initial calibration solutions contain the suite of labelled surrogate and recovery standards and authentic target PCDDs/PCDFs. Calibration is verified at least once every 12 hours by analysis of a mid-level calibration solution. Calibration procedures use the mean RRFs determined from the initial calibration to calculate analyte concentrations.

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Alternately clients may request initial calibration be performed using a six point calibration series of solutions if lower detection limits are required.

Concentration of PCDD/PCDF Calibration Solutions

	Concentration (ng/mL)						Authentic Standard Amount added to sample (pg)
	CS0.2	CS1	CS2	CS3	CS4	CS5	
Native Compound							
2,3,7,8-TCDD	0.1	0.5	2	10	40	200	200
2,3,7,8-TCDF	0.1	0.5	2	10	40	200	200
1,2,3,7,8-PeCDD	0.5	2.5	10	50	200	1000	1000
1,2,3,7,8-PeCDF	0.5	2.5	10	50	200	1000	1000
2,3,4,7,8-PeCDF	0.5	2.5	10	50	200	1000	1000
1,2,3,4,7,8-HxCDD	0.5	2.5	10	50	200	1000	1000
1,2,3,6,7,8-HxCDD	0.5	2.5	10	50	200	1000	1000
1,2,3,7,8,9-HXCDD	0.5	2.5	10	50	200	1000	1000
1,2,3,4,7,8-HxCDF	0.5	2.5	10	50	200	1000	1000
1,2,3,6,7,8-HxCDF	0.5	2.5	10	50	200	1000	1000
1,2,3,7,8,9-HxCDF	0.5	2.5	10	50	200	1000	1000
2,3,4,6,7,8-HxCDF	0.5	2.5	10	50	200	1000	1000
1,2,3,4,6,7,8-HpCDD	0.5	2.5	10	50	200	1000	1000
1,2,3,4,6,7,8-HpCDF	0.5	2.5	10	50	200	1000	1000
1,2,3,4,7,8,9-HpCDF	0.5	2.5	10	50	200	1000	1000
OCDD	1.0	5.0	20	100	400	2000	2000
OCDF	1.0	5.0	20	100	400	2000	2000
Surrogate Standards							**Surrogate Standard Amount added to sample (pg) [1]**
$^{13}C_{12}$-2,3,7,8-TCDD	100	100	100	100	100	100	2000
$^{13}C_{12}$-2,3,7,8-TCDF	100	100	100	100	100	100	2000
$^{13}C_{12}$-1,2,3,7,8-PeCDD	100	100	100	100	100	100	2000
$^{13}C_{12}$-1,2,3,7,8-PeCDF	100	100	100	100	100	100	2000
$^{13}C_{12}$-2,3,4,7,8-PeCDF	100	100	100	100	100	100	2000
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	100	100	100	100	100	100	2000
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	100	100	100	100	100	100	2000
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	100	100	100	100	100	100	2000
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	100	100	100	100	100	100	2000
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	100	100	100	100	100	100	2000
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	100	100	100	100	100	100	2000
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	100	100	100	100	100	100	2000
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	100	100	100	100	100	100	2000
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	100	100	100	100	100	100	2000

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$^{13}C_{12}$-OCDD	200	200	200	200	200	200	4000
Cleanup Standard							
$^{37}Cl_4$-2,3,7,8-TCDD	0.1	0.5	2	10	40	200	200
Recovery Standard							
$^{13}C_{12}$-1,2,3,4-TCDD	100	100	100	100	100	100	2000
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	100	100	100	100	100	100	2000

[1] Blood/plasma/serum and milk samples are spiked with ½ the amounts of surrogate and recovery standards shown in this table.

4.0 QUANTIFICATION PROCEDURES

The response for any component is taken as the sum of the integrated peak areas for the two characteristic masses for that compound. Quantification is by the isotope dilution method. Target concentrations are determined with respect to labelled surrogate standards. Mean relative response factors (RRF), determined from the multi-level initial calibration series are used to convert raw peak areas in sample chromatograms to final concentrations as follows:

$$\text{Concentration of Target} = \left(\frac{\text{area of Target}}{\text{area of Qt Std}}\right) \times \left(\frac{\text{weight of Qt Std}}{\text{RRF}}\right) \times \left(\frac{1}{\text{weight of sample}}\right)$$

$$\textit{where}\quad \text{RRF} = \left(\frac{\text{area of Target}}{\text{area of Qt Std}}\right) \times \left(\frac{\text{weight of Qt Std}}{\text{weight of Target}}\right)$$

and the Qt Std is either the surrogate or the internal standard

Those compounds quantified against a labelled standard added at the beginning of the analysis procedure are recovery corrected by the method of quantification. Surrogate recoveries are determined similarly against the recovery (internal) standard and are used as general indicators of overall analytical quality.

4.1 Reporting Limits

Concentrations and detection limits for the 2,3,7,8-polychlorinated dioxins and furans (tetra-octa) are reported. Typical reporting units for all data are pg/g, pg/L or pg/sample. Concentrations for solids are reported on a dry weight basis. Concentrations in tissues (including blood and milk) are reported on a wet weight basis and/or on a lipid weight basis when requested. Concentrations in aqueous samples are reported on a volume basis. Concentrations in XAD-2 resin, filters and stack gas samples are reported on a per sample basis or a per volume basis. Concentrations in particulate filters are reported on a per sample basis.

The following are commonly requested reporting limits:

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Sample Specific Detection Limit or Sample Detection Limit (SDL) – determined individually for every sample analysis run by converting the area equivalent of 3.0 times (2.5 times for EPA 1600 series methods) the estimated chromatographic noise height to a concentration in the same manner that target peak responses are converted to final concentrations. The SDL accounts for any effect of matrix on the detection system and for recovery achieved through the analytical work-up. Equivalent term(s): Estimated Detection Limit (EDL) from EPA method 8290.

Method Detection Limit (MDL) - determined as specified by EPA Fed. Reg. 40 CFR Part 136 Appendix B (no iteration option). The 99% confidence level MDL is determined based on analysis of a minimum of 7 replicate matrix spikes fortified at 1-10 times the estimated detection limit. MDL is determined as required based on accreditation, contract and workload requirements.

Lower Method Calibration Limit (LMCL) - determined by prorating the concentration of the lowest calibration limit for sample size and extract volume. The following equation is used. ((lowest level cal conc.) x (extract volume))/sample size. Typical extract volume for PCDDs/PCDFs is 20 µL.

For the analysis of PCDDs/PCDFs SGS AXYS standard is to report sample concentrations using the SDL with a minimum reporting limit of 0.5 pg absolute.

Analyte Ions Monitored, Surrogates Used and RRF Determination for Dioxins/Furans

Analytes	Quantification Ion (m/z)	Confirmation Ion (m/z)	Surrogate	RRF Determined From
2,3,7,8-TCDD	319.8965	321.8936	$^{13}C_{12}$-2,3,7,8-TCDD	2,3,7,8-TCDD
1,3,6,8-TCDD *	319.8965	321.8936	$^{13}C_{12}$-2,3,7,8-TCDD	2,3,7,8-TCDD
1,3,7,9-TCDD *	319.8965	321.8936	$^{13}C_{12}$-2,3,7,8-TCDD	2,3,7,8-TCDD
1,2,3,7,8-PeCDD	353.8576	355.8546	$^{13}C_{12}$-1,2,3,7,8-PeCDD	1,2,3,7,8-PeCDD
1,2,3,4,7,8-HxCDD	389.8156	391.8127	$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	1,2,3,4,7,8-HxCDD
1,2,3,6,7,8-HxCDD	389.8156	391.8127	$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1,2,3,6,7,8-HxCDD
1,2,3,7,8,9-HxCDD	389.8156	391.8127	Mean of $^{13}C_{12}$-1,2,3,6,7,8/1,2,3,4,7,8-HxCDD	1,2,3,7,8,9-HxCDD
1,2,3,4,6,7,8-HpCDD	423.7767	425.7737	$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDD
OCDD	457.7377	459.7348	$^{13}C_{12}$-OCDD	OCDD
2,3,7,8-TCDF	303.9016	305.8987	$^{13}C_{12}$-2,3,7,8 -TCDF	2,3,7,8-TCDF
1,2,7,8-TCDF *	303.9016	305.8987	$^{13}C_{12}$-2,3,7,8 -TCDF	2,3,7,8-TCDF
1,2,3,7,8-PeCDF	339.8597	341.8568	$^{13}C_{12}$-1,2,3,7,8-PeCDF	1,2,3,7,8-PeCDF
2,3,4,7,8-PeCDF	339.8597	341.8568	$^{13}C_{12}$-2,3,4,7,8-PeCDF	2,3,4,7,8-PeCDF
1,2,3,4,7,8-HxCDF	373.8207	375.8178	$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1,2,3,4,7,8-HxCDF
1,2,3,6,7,8-HxCDF	373.8207	375.8178	$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1,2,3,6,7,8-HxCDF
2,3,4,6,7,8-HxCDF	373.8207	375.8178	$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	2,3,4,6,7,8-HxCDF
1,2,3,7,8,9-HxCDF	373.8207	375.8178	$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1,2,3,7,8,9-HxCDF
1,2,3,4,6,7,8-HpCDF	407.7818	409.7788	$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1,2,3,4,6,7,8-HpCDF
1,2,3,4,7,8,9-HpCDF	407.7818	409.7788	$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1,2,3,4,7,8,9-HpCDF
OCDF	441.7428	443.7398	$^{13}C_{12}$-OCDD	OCDF

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Cleanup Standard				
$^{37}Cl_4$-2,3,7,8-TCDD	327.8847	-	$^{13}C_{12}$-1,2,3,4-TCDD	
Field Standard				
$^{13}C_6$-1,2,3,4-TCDD	325.9166	327.9137	$^{13}C_{12}$-1,2,3,4-TCDD	$^{13}C_{12}$-1,2,3,4-TCDD
Labelled Surrogates	**Quantification Ion (m/z)**	**Confirmation Ion (m/z)**	**Recovery Calculated Using**	
$^{13}C_{12}$-2,3,7,8-TCDD	331.9368	333.9339	$^{13}C_{12}$-1,2,3,4-TCDD	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	365.8978	367.8949	$^{13}C_{12}$-1,2,3,4-TCDD	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	401.8559	403.8530	$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	401.8559	403.8530	$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	435.8169	437.8140	$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	
$^{13}C_{12}$-OCDD	469.7780	471.7750	$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	
$^{13}C_{12}$-2,3,7,8 -TCDF	315.9419	317.9389	$^{13}C_{12}$-1,2,3,4-TCDD	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	351.9000	353.8970	$^{13}C_{12}$-1,2,3,4-TCDD	
$^{13}C_{12}$-2,3,4,7,8-PeCDF	351.9000	353.8970	$^{13}C_{12}$-1,2,3,4-TCDD	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	383.8639	385.8610	$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	383.8639	385.8610	$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	383.8639	385.8610	$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	383.8639	385.8610	$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	417.8250	419.8220	$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	417.8250	419.8220	$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	
Recovery Standards				
$^{13}C_{12}$-1,2,3,4-TCDD	331.9368	333.9339		
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	401.8559	403.8530		

*Optional isomers which may be reported upon client request.

CI-DPE Monitoring Ions			
Descriptor	**Exact M/Z**	**M/Z Type**	**Substance**
3	375.8364	M+2	HxCDPE
4	409.7974	M+2	HpCDPE
5	445.7555	M+4	OCDPE
6	479.7165	M+4	NCDPE
7	513.6775	M+4	DCDPE

5.0 QUALITY ACCEPTANCE CRITERIA

Samples are analyzed in batches consisting of a maximum of twenty samples, one procedural blank and one spiked matrix (OPR) sample. A duplicate is analyzed, provided there is sufficient sample, with batches containing 7-20 samples. Matrix spike/matrix spike duplicate (MS/MSD) pairs may be analyzed on an individual contract basis. The batch is carried through the complete analytical process as a unit. For sample data to be reportable, the batch QC data must meet the established acceptance criteria presented on the analysis reports.

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QC Specification Table: Authentic and Surrogate Standard Recoveries, CAL/VER, IPR, OPR and Samples

	Test Conc. (ng/mL)	IPR		OPR (%)	I-CAL (%)	CAL/VER (%)	Labelled Compound (% rec. in sample)	
		SD (%) *	$\bar{X}$ (%)				Warning Limits	Control Limits
Native Compound								
2,3,7,8-TCDD	10	28	83-129	70-130	20	78-125	-	-
2,3,7,8-TCDF	10	20	87-137	75-130	20	84-120	-	-
1,2,3,7,8-PeCDD	50	15	76-132	70-130	20	78-125	-	-
1,2,3,7,8-PeCDF	50	15	86-124	80-130	20	82-120	-	-
2,3,4,7,8-PeCDF	50	17.2	72-150	70-130	20	82-122	-	-
1,2,3,4,7,8-HxCDD	50	18.8	78-152	70-130	20	78-125	-	-
1,2,3,6,7,8-HxCDD	50	15.4	84-124	76-130	20	78-125	-	-
1,2,3,7,8,9-HXCDD	50	22.2	74-142	70-130	35	82-122	-	-
1,2,3,4,7,8-HxCDF	50	17.4	82-118	72-130	20	90-112	-	-
1,2,3,6,7,8-HxCDF	50	13.4	92-120	84-130	20	88-114	-	-
1,2,3,7,8,9-HxCDF	50	12.8	84-122	78-130	20	90-112	-	-
2,3,4,6,7,8-HxCDF	50	14.8	74-148	70-130	20	88-114	-	-
1,2,3,4,6,7,8-HpCDD	50	15.4	76-130	70-130	20	86-116	-	-
1,2,3,4,6,7,8-HpCDF	50	12.6	90-112	82-122	20	90-110	-	-
1,2,3,4,7,8,9-HpCDF	50	16.2	86-126	78-130	20	86-116	-	-
OCDD	100	19	89-127	78-130	20	79-125	-	-
OCDF	100	27	74-146	70-130	35	75-125	-	-
Surrogate Standards								
$^{13}C_{12}$-2,3,7,8-TCDD	100	37	28-134	25-130	35	82-121	40-120	25-130
$^{13}C_{12}$-2,3,7,8-TCDF	100	35	31-113	25-130	35	71-130	40-120	24-130
$^{13}C_{12}$-1,2,3,7,8-PeCDD	100	39	27-184	25-150	35	70-130	40-120	25-130
$^{13}C_{12}$-1,2,3,7,8-PeCDF	100	34	27-156	25-130	35	76-130	40-120	24-130
$^{13}C_{12}$-2,3,4,7,8-PeCDF	100	38	16-279	25-130	35	77-130	40-120	21-130
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	100	41	29-147	25-130	35	85-117	40-120	32-130
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	100	38	34-122	25-130	35	85-118	40-120	28-130
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	100	43	27-152	25-130	35	76-130	40-120	26-130
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	100	35	30-122	25-130	35	70-130	40-120	26-123
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	100	40	24-157	25-130	35	74-130	40-120	29-130
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	100	37	29-136	25-130	35	73-130	40-120	28-130
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	100	35	34-129	26-130	35	72-130	40-120	23-130
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	100	41	32-110	25-130	35	78-129	40-120	28-130
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	100	40	28-141	25-130	35	77-129	40-120	26-130
$^{13}C_{12}$-OCDD	200	47.5	20.5-138	25-130	35	70-130	25-120	17-130
Cleanup Standard								
$^{37}Cl_4$-2,3,7,8-TCDD	10	36	39-154	31-130	35	79-127	40-120	35-130

* For comparability with EPA 1613B the precision specification for IPR is stated as %SD (=standard deviation relative to the fortification level,)

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QC Specification Table: QC Samples, Instrumental Analysis, and Analyte Quantification

QC Parameter	Specification
Analysis Duplicate	Must agree to within ±20% of the mean (applicable to concentrations >10 times the DL)[1]
Procedural Blank	**Blood/serum/plasma and milk:** TCDD/F <0.2 pg/sample, PeCDD/F <0.5 pg/sample, HxCDD/F and HpCDD/F <1.0 pg/ sample, OCDD/F<5 pg/sample. **Other matrices:** TCDD/F <0.5 pg/sample, PeCDD/F, HxCDD/F, HpCDD/F <1.0 pg/sample, OCDD/F <5 pg/sample. Higher levels acceptable where all sample concentrations are > 10X the blank concentrations.
Detection Limit	SDL Requirements (where target concentrations are detectable or sample extracts display atypical interference, SDL values may be higher): **Blood/serum/plasma and milk:** Tetra-penta-CDD/F 0.2 pg/sample, Hexa-octa-CDD/F 0.5 pg/sample **Other matrices**: 0.5 pg/sample
Instrument Carry over and Background: **Toluene Blank** **Samples**	A. 1st toluene blank following Cal Ver must have <0.6 pg TCDD and <25 pg OCDD[2]. B. 2nd toluene blank following Cal Ver must have <0.2 pg TCDD/F, <0.8 pg Pe-HpCDD/F, and <5.0 pg OCDD[2]. Blood/serum/plasma and milk extract analysis: As many toluene blanks as necessary are run to achieve an instrument blank level of <0.1 pg TCDD/F, <0.3 pg PeCDD/F, <0.5 pg HxCDD/F, <0.5 pg HpCDD/F and <3.5 pg OCDD. <10% contribution from preceding sample (based on observed instrument carryover rate).
Analyte Peak Response	Response must be below the upper calibrated range of the instrument. Data may be taken from more than one chromatogram to get the responses in the calibrated range.
Ion Ratios	Must be within ±15% of theoretical. For 1613B applications only (as per section 16.3 of 1613B) an alternate acceptance criteria of within ±10% of the ratio in the midpoint calibration (CS3) or calibration verification (Cal Ver), whichever is most recent., may be applied. Exception for blood/serum/plasma samples: Ion ratios for sample responses below the lowest calibration level equivalent must be within ±35% of theoretical.
Sensitivity	S:N ≥10:1 for all compounds in CS-0.2 for 1.0 µL injected, plus for blood/serum/plasma and milk S:N ≥3:1 for 0.05 pg injected 2,3,7,8-TCDD.

[1] Duplicate criterion is a guideline; final assessment depends upon sample characteristics, overall batch QC and on-going lab performance.

[2] Instrument background specifications are calculated from spiking labelled standard into the toluene blank and expressed as pg in a 20 µL extract.

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Modifications to EPA Method 1613B

The following sections of EPA Method 1613B have been modified as described below.

Section 2.1.2

Aqueous liquid from multiphase samples is liquid/liquid extracted with DCM. The extract from the aqueous phase is then combined with the extract from the solid phase portion of the sample.

Section 7.2.1

Anhydrous sodium sulfate (Na_2SO_4) is baked overnight prior to use. There is no solvent rinse with dichloromethane.

Section 7.10

The concentration of the labelled compound solution is 100 ng/mL (except for labeled OCDD which is 200 ng/mL) and is prepared in toluene; 20 µL of the labelled compound solution is spiked to solids and tissue samples to yield the method specified concentrations in the final extracts.

Section 7.11

The concentration of the cleanup standard spiking solution is 10 ng/mL (2 ng/mL for tissue samples) in toluene, and the sample spiking volume is 20 µL. The resulting concentration in the final extracts is reduced (to ¼ of the concentration specified in EPA method 1613B for all matrices except tissue, and to $^1/_{20}$ of the EPA method 1613B specified level for tissue).

Sections 7.13, 14.0, 15.0

A modified EPA 1613B/8290 procedure is offered that includes an additional lower level calibration solution, 0.2 times the concentration of CS1 in the initial calibration series so that initial calibration is based on a six-point series. The calibration solutions are prepared in nonane. A modified EPA 1613B/8290 procedure using calibration solutions prepared in toluene is also available.

Section 7.14

The concentration of the PAR spiking solutions is 0.2/1.0/2.0 ng/mL for tetra/penta, hexa, hepta, hexa/octas respectively and the spiking volume is 1 mL. The resulting final concentration in the extracts are as specified in the method.

Section 9.3.3

Table 7 (EPA 1613B) specifications for the percent recovery of surrogate standards in samples that are higher than 130% have been lowered to 130%, as presented in table "QC Specification Table: Authentic and Surrogate Standard Recoveries, CAL/VER, IPR, OPR and Samples" of this document.

Section 11.5

Multiphase, predominately aqueous, samples containing >1% suspended solids may be prepared and extracted using the same procedure as samples containing ≤1% suspended solids with client approval. This involves separating the solids and aqueous phases by filtration, extracting the solids by Soxhlet extraction, extracting the filtrate by

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liquid/liquid extraction, and combining the extract from the two phases. Alternatively, with client approval, multiphase, predominately particulate, samples containing >1% suspended solids may be processed as solids samples using Soxhlet or Soxhlet Dean-Stark extraction.

Section 11.7

To avoid compromising sample integrity through contamination or loss of material to surfaces particles larger than 1 mm in solid samples are by default not subject to grinding prior to extraction. Instead solid samples are homogenized prior to sub-sampling by breaking up clumps with a disposable spoon and mixing/stirring. If required by the client rocks larger than 0.4 cm are removed. Surrogate standard is added after homogenization and sub-sampling.

Section 12.3

For solids samples with suitable moisture content, an option is offered for drying the sample with anhydrous sodium sulfate followed by Soxhlet extraction with 80:20 toluene:acetone. Alternatively Soxhlet Dean-Stark extraction using toluene is available

Section 12.3.1 – 12.3.5

Silica or quartz sand is not pre-extracted in the Dean Stark apparatus. Silica is baked the lab. Quartz sand is proofed prior to use. Sand is mixed with the sample in a beaker and then loaded into the soxhlet thimble.

Section 12.3.9.1.1

Sample extracts are reduced to approximately 1 mL after extraction, not 5 mL.

Section 12.4

The equilibration time for the sodium sulfate drying step is sufficient to produce a dry, free-flowing powder (minimum 30 minutes). This may be less than the 12-hour minimum specified in EPA 1613B.

Section 12.5.3

Ultra-pure water is used to rinse the extract between base and acid washes, not NaCl solution.

Section 12.6.1.1

Rotary evaporator baths are maintained at 35°C. Trends in QC blanks are monitored and diagnostic proofing is conducted if indicated instead of collecting proofs each day and archiving. Historical proofing tests have demonstrated that routine cleaning practices between samples are sufficient to ensure rotary evaporator cleanliness; as an additional safeguard the laboratory segregates processing of samples on the basis of predicted target concentration levels.

Section 12.7.3

Water baths are not used with the nitrogen blowdown apparatus.

Section 12.7.4

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Solvent exchange is dependent on the type of solvent present: if toluene is present the extract is reduced to 50 µL and topped up to 1 mL with hexane; if dichloromethane is present the extract is reduced to 300 µL and topped up to 1 mL with hexane.

Section 12.7.7

Sample extracts are concentrated in a microvial using nitrogen to near dryness before adding the recovery standard.

Section 13.7

Gravimetric lipid analysis is carried out on two subsamples of the extract, representing 2/15ths of the extract. A correction factor is applied to the surrogate recovery standards.

Sections 14.0, 15.0, 16.0, Table 8, Table 9

M/Z channels 354/356 and 366/368 are used to confirm and quantify the native and surrogate penta-substituted dioxins, respectively; this change from the method's specification is made in the instrument method in order to avoid a persistent interference in the 356/358 and 368/370 M/Z channels. The theoretical ratio for the P5CDD M/M+2 ions is 0.61; therefore, the acceptance range is 0.52 - 0.70.

Section 14.2

The EPA 1613B/8290 procedure uses nonane to dilute extracts. Alternatively a modified EPA 1613B/8290 procedure using toluene to dilute extracts may be performed.

Section 15.3.5

Table 6 (EPA 1613B) specifications for CAL-VER solution concentrations outside the 70-130% range have been revised to be 70-130%, as presented in table "QC Specification Table: Authentic and Surrogate Standard Recoveries, CAL/VER, IPR, OPR and Samples" on page 7 of this document.

Section 15.4.2.2

Figure 7 (EPA 1613B) is incorrectly titled as 'on DB-5 column', should be 'on DB-225 column'. The peak annotation in figure 7 is also incorrect; the centre peak is 2,3,7,8-TCDF, not 2,3,4,8-TCDF as indicated.

Section 15.5.3

Table 6 (EPA 1613B) specifications for OPR concentrations outside the 70-130% range have been revised to be 70-130%, as presented in table "QC Specification Table: Authentic and Surrogate Standard Recoveries, CAL/VER, IPR, OPR and Samples" on page 7 of this document.

Section 17.0

Conci - the concentrations of target analytes, and the labelled compound concentrations and recoveries, are calculated using the equations below. These procedures are equivalent to those described in the method but are more direct.

$$Conc = \frac{A_i}{A_{si}} \times \frac{M_{si}}{RRF_{i,si}} \times \frac{1}{M_x}$$

-

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where Ai = summed areas of the primary and secondary m/z's for the analyte peak of interest (compound i)

Asi = summed areas of the primary and secondary m/z's for the labelled surrogate peak used to quantify i)

Mx = mass of sample taken for analysis

Msi = mass of labelled surrogate (compound si) added to sample as calculated by the concentration of standard spiked (pg/mL) multiplied by the volume spiked (mL)

$RRFi,si$ = mean relative response factor of i to si from the five-point calibration range and defined individually as:

$$\frac{A_i}{A_{si}} \; x \; \frac{M_{si}}{M_i}$$

Calculation of Surrogate Standard Concentrations and Percent Recoveries:

Concentrations of surrogate standards are calculated using the following equation:

$$Conc_{si} = \frac{A_{si}}{A_{rs}} \; x \; \frac{M_{rs}}{RRF_{si,rs}}$$

and, the percent recoveries of the surrogate standards are calculated using the following equation:

$$\%Recovery = \frac{A_{si}}{A_{rs}} \; x \; \frac{M_{rs}}{RRF_{si,rs}} \; x \; \frac{1}{M_{si}} \; x \; 100$$

where A_{rs} and A_{si} are the summed peak areas (from the primary and secondary m/z channels) of recovery standard and labelled surrogate added to the sample;
M_{rs} and M_{si} are the masses of recovery standard and labelled surrogate added to the sample, and;
$RRF_{si,rs}$ is the mean relative response factor of the labelled surrogate to the recovery standard as determined by the five-point calibration range and defined individually as:

$$\frac{A_{si}}{A_{rs}} \; x \; \frac{M_{rs}}{M_{si}}$$

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Section 17.5

Where acceptable to the client, extracts may be diluted with solvent and re-analyzed by GC/MS to bring the instrumental response to within the linear range of the instrument. Typically, no additional recovery (internal) standard is added. For very high-level samples where a smaller sample aliquot may not be representative, extracts may be diluted and respiked with labelled quantification standards and re-analyzed by GC/MS to bring the instrumental response analytes within range. Final results are recovery corrected using the mean recovery of labelled quantification standards.

Modifications to EPA Method 8290

The SGS AXYS implementation of EPA Methods 8290 and 8290A includes the following:

1. A sample hold time of 30 days from time of sample collection is recommended.
2. Extract hold time, stored at <-10°C, is 45 days.
3. The same surrogate, recovery, authentic spike and calibration solutions that are used for EPA method 1613B are used to perform EPA Methods 8290 and 8290A.
4. A matrix spike/matrix spike duplicate (MS/MSD) sample may be analysed with every analysis batch, as negotiated with the client and provided sufficient sample is available. This requirement may be waived by contract.
5. The typical final extract volume is 20 µL but may vary between 10 µL and 50 µL.
6. HRGC/MS analysis is performed according to EPA 1613B protocols with the following requirements:
   - An instrumental blank is analyzed at the beginning of every 12-hour analysis sequence, injected following the CAL/VER solution.
   - Should the CAL/VER analysis fail at the end of a 12 hour period by no more than 25% RPD for the native analytes and 35% for the labelled standards, the mean RRF from the two CAL/VER analyses may be used to calculate the analyte concentrations.
7. Quantification of target analytes is performed using an expanded suite of surrogate standards and quantification references (listed in table "Analyte Ions Monitored, Surrogates Used and RRF Determination for Dioxins/Furans" on pages 5-6 of this document) as per method 8290A section 5.8 allowances (alternative quantification using the smaller suite of surrogate standards listed in method 8290A and in table "Analyte Ions Monitored, Surrogates Used and RRF Determination for Dioxins/Furans by EPA 8290/8290A" on page 14 of this document may be negotiated by individual customers).
8. The QC specifications in table "QC Criteria for PCDD/F Analysis by EPA 8290/8290A" below are used for evaluating data.

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The following modifications have been made to EPA Methods 8290 and 8290A:

1. Procedures described in section "Modifications to EPA Method 1613B" of this document are applicable.
2. The concentrations of the initial calibration solutions, surrogate standard solution and recovery standard solution are modified to be those described in table "Concentration of PCDD/PCDF Calibration Solutions" found on pages 3-4 of this document.
3. The amount of surrogate standard and recovery standard added to each sample are modified to be as described in table "Concentration of PCDD/PCDF Calibration Solutions" found on pages 3-4 of this document.
4. Sample Specific Estimated Detection Limits (EDL) are reported as Sample Specific Detection Limits (SDL), calculated as described in sections "4. Quantification Procedures" and "4.1 Reporting Limits" of this document.

QC Criteria for PCDD/F Analysis by EPA 8290/8290A

Initial Calibration	Native analytes: ±20% RSD for mean RRF Labelled Compounds: ±30% RSD for mean RRF
CAL-VER	Native Analytes: RRF must be ±20% of mean RRF from ICAL Labelled Compounds: RRF must be ±30% of mean RRF from ICAL
Sample Surrogate Recovery	40-135% (lower or higher recoveries for the procedural blank may be accepted based on analyst professional judgement.)
Spiked Reference Sample	In house specification: 70%-130% of the expected value for all targets except 1,2,3,7,8,9-HxCDF, which is 60%-140%. Professional judgement may be applied in consideration of overall QC data, including MS/MSD to determine acceptability.
Analysis Duplicate	Must agree to within 25% RPD
MS/MSD	Must agree to within 20% RPD

Analyte Ions Monitored, Surrogates Used and RRF Determination for Dioxins/Furans by EPA 8290/8290A

Analytes	Quantification Ion (m/z)	Confirmation Ion (m/z)	Surrogate	RRF Determined From
2,3,7,8-TCDD	319.8965	321.8936	$^{13}C_{12}$-2,3,7,8-TCDD	2,3,7,8-TCDD
1,2,3,7,8-PeCDD	353.8576	355.8546	$^{13}C_{12}$-1,2,3,7,8-PeCDD	1,2,3,7,8-PeCDD
1,2,3,4,7,8-HxCDD	389.8156	391.8127	$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1,2,3,4,7,8-HxCDD
1,2,3,6,7,8-HxCDD	389.8156	391.8127	$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1,2,3,6,7,8-HxCDD
1,2,3,7,8,9-HxCDD	389.8156	391.8127	$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1,2,3,7,8,9-HxCDD
1,2,3,4,6,7,8-HpCDD	423.7767	425.7737	$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDD
OCDD	457.7377	459.7348	$^{13}C_{12}$-OCDD	OCDD
2,3,7,8-TCDF	303.9016	305.8987	$^{13}C_{12}$-2,3,7,8-TCDF	2,3,7,8-TCDF

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1,2,3,7,8-PeCDF	339.8597	341.8568	$^{13}C_{12}$-1,2,3,7,8-PeCDF	1,2,3,7,8-PeCDF
2,3,4,7,8-PeCDF	339.8597	341.8568	$^{13}C_{12}$-1,2,3,7,8-PeCDF	2,3,4,7,8-PeCDF
1,2,3,4,7,8-HxCDF	373.8207	375.8178	$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1,2,3,4,7,8-HxCDF
1,2,3,6,7,8-HxCDF	373.8207	375.8178	$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1,2,3,6,7,8-HxCDF
2,3,4,6,7,8-HxCDF	373.8207	375.8178	$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	2,3,4,6,7,8-HxCDF
1,2,3,7,8,9-HxCDF	373.8207	375.8178	$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1,2,3,7,8,9-HxCDF
1,2,3,4,6,7,8-HpCDF	407.7818	409.7788	$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1,2,3,4,6,7,8-HpCDF
1,2,3,4,7,8,9-HpCDF	407.7818	409.7788	$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1,2,3,4,7,8,9-HpCDF
OCDF	441.7428	443.7398	$^{13}C_{12}$-OCDD	OCDF
Labelled Surrogate Stds	**Quantification Ion (m/z)**	**Confirmation Ion (m/z)**	**Recovery Calculated Using**	
$^{13}C_{12}$-2,3,7,8-TCDF	315.9419	317.9389	$^{13}C_{12}$-1,2,3,4-TCDD	
$^{13}C_{12}$-2,3,7,8-TCDD	331.9368	333.9339	$^{13}C_{12}$-1,2,3,4-TCDD	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	351.9000	353.8970	$^{13}C_{12}$-1,2,3,4-TCDD	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	365.8978	367.8949	$^{13}C_{12}$-1,2,3,4-TCDD	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	383.8639	385.8610	$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	401.8559	403.8530	$^{13}C_{12}$-1,2,3,7, 8,9-HxCDD	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	417.8250	419.8220	$^{13}C_{12}$-1,2,3,7,8,9 -HxCDD	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	435.8169	437.8140	$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	
$^{13}C_{12}$-OCDD	469.7780	471.7750	$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	
Labelled Recovery Stds				
$^{13}C_{12}$-1,2,3,4-TCDD	331.9368	333.9339		
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	401.8559	403.8530		

WINDWARD ENVIRONMENTAL

CORRELATION TABLE

DIOXIN/FURAN ANALYSIS

Lab Name: SGS AXYS Analytical Services Ltd.	**Project Manager: Georgina Brooks**
Project: N/A	**Contract No: 4033**
Project Name: Seep Water PO# 2018-0069	**SGS AXYS Method: MLA-017**
Data Package Identification: DPWG66424	**Program: Aqueous Samples**
Client Sample No.	**Lab Sample ID**
LAB BLANK	WG66111-101
OPR	WG66111-102
OPR DUPLICATE	WG66111-103
LDW18-SP-83	L29628-27

1 of 3

CHAIN-OF-CUSTODY/TEST REQUEST FORM

4033

Project/Client Name:	AOC3 Sediment Collection	Ship to:	SGS Axys Analytical	No.	AOC320180703
Project Number:	Task 4	Attn:	Georgina Brooks	Shipping Date:	5/15-5/18/18
Contact Name:	Amara Vandervort	Shipper:	Courier	Airbill Number:	N/A
Sampled By:	Windward	Form filled out by:	A. Vandervort	Turnaround requested:	Standard

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) Dioxin/Furan							Comments / Instructions [Composite/Bag ID]
6/19/18	1027	LDW18-IT45-B1-Comp1	1	Sediment	X							L29625-1
6/19/18	1038	LDW18-IT45-B1-Comp2	1	Sediment	X							-2
6/19/18	1050	LDW18-IT45-B1-Comp3	1	Sediment	X							-3
6/19/18	1025	LDW18-IT45-B1-Comp1-FD	1	Sediment	X							-4
6/19/18	1038	LDW18-IT45-B1-Comp2-FD	1	Sediment	X							-5
6/19/18	1050	LDW18-IT45-B1-Comp-3-FD	1	Sediment	X							-6
6/19/18	1155	LDW18-IT45-B2-Comp1	1	Sediment	X							-7
6/19/18	1203	LDW18-IT45-B2-Comp2	1	Sediment	X							-8
6/19/18	1152	LDW18-IT45-B2-Comp3	1	Sediment	X							-9
6/19/18	1124	LDW18-IT45-B4-Comp1	1	Sediment	X							-10
6/19/18	1140	LDW18-IT45-B4-Comp2	1	Sediment	X							-11
6/19/18	1140	LDW18-IT45-B4-Comp3	1	Sediment	X							-12
Total Number of Containers			12	Purchase Order / Statement of Work # PO 2018-0078								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Stephanie Fisher	Yared Lisanework	Yared Lisanework	
Signature: Stephanie Fisher			
Company: ARI	YL #736	YL #736	SGS-AXYS
Date/Time: 7/2/18 1705	7/2/18 17:05	07/03/18 8:53AM	03-Jul-2018 8:50

* Distribution: White copies accompany shipment; yellow retained by consignor.

Windward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

CHAIN-OF-CUSTODY/TEST REQUEST FORM

4033

Project/Client Name: **AOC3 Sediment Collection**
Project Number: Task 4
Contact Name: Amara Vandervort
Sampled By: Windward

Ship to: **SGS Axys Analytical** No.AOC320180703
Attn: Georgina Brooks Shipping Date: 5/15-5/18/18
Shipper: Courier Airbill Number: N/A
Form filled out by: A. Vandervort Turnaround requested: Standard

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) Dioxin/Furan							Comments / Instructions [Composite/Bag ID]
6/19/18	1122	LDW18-IT45-B5-Comp1	1	Sediment	X							L29625-13
6/19/18	1108	LDW18-IT45-B5-Comp2	1	Sediment	X							-14
6/19/18	1110	LDW18-IT45-B5-Comp3	1	Sediment	X							-15
6/20/18	1128	LDW18-IT45-B3-Comp1	1	Sediment	X							-16
6/20/18	1130	LDW18-IT45-B3-Comp2	1	Sediment	X							-17
6/20/18	1138	LDW18-IT45-B3-Comp-3	1	Sediment	X							-18
6/20/18	1010	LDW18-IT45-B6-Comp1	1	Sediment	X							-19
6/20/18	1019	LDW18-IT45-B6-Comp2	1	Sediment	X							-20
6/20/18	1059	LDW18-IT45-B6-Comp3	1	Sediment	X							-21
6/20/18	1032	LDW18-IT45-B6-Comp1-FD	1	Sediment	X							-22
6/20/18	1045	LDW18-IT45-B6-Comp2-FD	1	Sediment	X							-23
6/20/18	1114	LDW18-IT45-B6-Comp3-FD	1	Sediment	X							-24
Total Number of Containers			12	Purchase Order / Statement of Work # PO 2018-0078								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Stephanie Fishel	Yared Lisanework	Yared Lisanework	
Signature: Stephanie Fishel			
Company: AR1	Company: YL #736	Company: YL #736	Company: SGS-AXYS
Date/Time: 7/2/18 1705	Date/Time: 7/12/18 17:05	Date/Time: 07/03/18 8:53 AM	Date/Time: 03-Jul-2018

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Windward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

CHAIN-OF-CUSTODY/TEST REQUEST FORM

4033

Project/Client Name:	AOC3 Sediment Collection	Ship to:	SGS Axys Analytical	No.	AOC320180703
Project Number:	Task 4	Attn:	Georgina Brooks	Shipping Date:	5/15-5/18/18
Contact Name:	Amara Vandervort	Shipper:	Courier	Airbill Number:	N/A
Sampled By:	Windward	Form filled out by:	A. Vandervort	Turnaround requested:	Standard

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) Dioxin/Furan							Comments / Instructions [Composite/Bag ID]
6/20/18	1055	LDW18-IT45-B7-Comp1	1	Sediment	X							L29625-25
6/20/18	1105	LDW18-IT45-B7-Comp2	1	Sediment	X							-26
6/20/18	1120	LDW18-IT45-B7-Comp3	1	Sediment	X							-27
6/20/18	1012	LDW18-IT45-B8-Comp1	1	Sediment	X							-28
6/20/18	1025	LDW18-IT45-B8-Comp2	1	Sediment	X							-29
6/20/18	1039	LDW18-IT45-B8-Comp3	1	Sediment	X							-30
Total Number of Containers			6	Purchase Order / Statement of Work # PO 2018-0078								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Stephanie Fisher	Yared Lisanework	Yared Lisanework	
Signature: Stephanie Fisher			
Company: AXYS	Company: YL #736	Company: YL #736	Company: SGS-AXYS
Date/Time: 7/2/18 17:05	Date/Time: 7/2/18 17:05	Date/Time: 07/03/18 8:53AM	Date/Time: 03-Jul-2018 8:50

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Windward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

4033

1 of 1

CHAIN-OF-CUSTODY/TEST REQUEST FORM

Project/Client Name: **AOC3 Sediment Collection**
Project Number: Task 4
Contact Name: Amara Vandervort
Sampled By: Windward

Ship to: **SGS Axys Analytical** No.AOC320180703
Attn: Georgina Brooks Shipping Date: 5/15-5/18/18
Shipper: Courier Airbill Number: N/A
Form filled out by: A. Vandervort Turnaround requested: Standard

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) Dioxin/Furan							Comments / Instructions [Composite/Bag ID]
6/14/18	1215	LDW18-BNK2-1	1	Sediment	X							L29625-31
Total Number of Containers			1	Purchase Order / Statement of Work # PO 2018-0078								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Stephanie Fisher	Yared Lisanework	Yared Lisanework	
Signature: Stephanie Fisher	Company: YL #736	Signature:	Company: SGS-AXYS
Company: ARI	Date/Time: 07/02/18 1705	Company: YL #736	Date/Time: 03-Jul-2018 8:50
Date/Time: 7/2/18 1705		Date/Time: 07/03/18 8:53 AM	

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Windward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

1 of 1

CHAIN-OF-CUSTODY/TEST REQUEST FORM

4033

Project/Client Name: **AOC3 Sediment Collection**
Project Number: Task 4
Contact Name: Amara Vandervort
Sampled By: Windward

Ship to: **SGS Axys Analytical** No.AOC320180703
Attn: Georgina Brooks Shipping Date: 5/15-5/18/18
Shipper: Courier Airbill Number: N/A
Form filled out by: A. Vandervort Turnaround requested: Standard

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) Freeze and Hold							Comments / Instructions [Composite/Bag ID]
5/15/2018	1023	LDW18-SSOT-2510	1	Sediment	X							L29625-32
5/15/2018	1303	LDW18-SSOT-2114	1	Sediment	X							-33
Total Number of Containers			2	Purchase Order / Statement of Work # PO 2018-0053								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Stephanie Fisher	Yared Lisaneworke	Yared Lisaneworke	
Signature: Stephanie Fisher			
Company: ANJ	Company: YL # 736	Company: YL # 736	Company: SGS AXYS
Date/Time: 7/2/18 1705	Date/Time: 07/02/18 17:05	Date/Time: 07/03/18 8:53 AM	Date/Time: 03-Jul-2018 8:50

* Distribution: White copies accompany shipment; yellow retained by consignor.

Windward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

1 of 1

CHAIN-OF-CUSTODY/TEST REQUEST FORM

Project/Client Name:	AOC3 Clam Collection	Ship to:	SGS Axys Analytical	No.	AOC320180703
Project Number:	Task 4	Attn:	Georgina Brooks	Shipping Date:	5/15-5/18/18
Contact Name:	Amara Vandervort	Shipper:	Courier	Airbill Number:	N/A
Sampled By:	Windward	Form filled out by:	A. Vandervort	Turnaround requested:	Standard

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)							Comments / Instructions [Composite/Bag ID]
					Dioxin/Furan	PCB Congeners						
		LDW18-C01-CLWB-Comp2	1	Tissue	X							L29626-1
		LDW18-C02-CLWB-Comp2	1	Tissue	X							-2
		LDW18-C03-CLWB-Comp2	1	Tissue	X							-3
		LDW18-C04-CLWB-Comp2	1	Tissue	X							-4
		LDW18-C05-CLWB-Comp2	1	Tissue	X							-5
		LDW18-C06-CLWB-Comp2	1	Tissue	X							-6
		LDW18-C08-CLWB-Comp2	1	Tissue	X							-7
		LDW18-C10-CLWB-Comp2	1	Tissue	X							-8
		LDW18-C11-CLWB-Comp2	1	Tissue	X							-9
Total Number of Containers			9	Purchase Order / Statement of Work # PO 2018-0065								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Stephanie Fisher	Yared Lisanework	Yared Lisanework	
Signature: Stephanie Fisher			
Company: ARI	YL #736	YL #736	SGS-AXYS
Date/Time: 7/2/18 1705	07/02/18 1710	07/03/18 8:53 AM	03-Jul-2018 8:50

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Windward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

Chain of Custody Record & Laboratory Analysis Request

4033

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)
www.arilabs.com

ARI Assigned Number:	Turn-around Requested:
ARI Client Company: WINDWARD	Phone:
Client Contact: AMARA VANDERVORT	
Client Project Name: PUWAMISH	
Client Project #:	Samplers:

Page: 1 of 2

Date: | Ice Present?

No. of Coolers: | Cooler Temps:

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested	Notes/Comments
LOW18-PWPS-A01	06/22/18	2:45pm	Polyethylene	1		L29627-1
LOW18-PWPS-A02	"	"	"	"		-2
LOW18-PWPS-A03	"	"	"	"		-3
LOW18-PWPS-A04	"	"	"	"		-4
LOW18-PWPS-A05	"	"	"	"		-5
LOW18-PWPS-A06	"	"	"	"		-6
LOW18-PWPS-A07	"	"	"	"		-7
LOW18-PWPS-A08	"	"	"	"		-8
LOW18-PWPS-A09	"	"	"	"		-9
LOW18-PWPS-A10	"	"	"	"		-10

Comments/Special Instructions

Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
Printed Name: SOSE GOMEZ-EYLES	Printed Name: S DUNNIHO	Printed Name: Stephanie Fisher	Printed Name: YARED LISANEWORK
Company: INTEGRAL CONSULTING	Company: ARI	Company: ARI	Company: YL #736
Date & Time: 06/22/18 2:45pm	Date & Time: 06/22/18 14:45	Date & Time: 7/2/18 1705	Date & Time: 07/02/18 17:05

YARED LISANEWORK 8:53 AM → 07/03/18

Received by: SGS-AXYS 05-Jul-2018 8:50

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

4033

Chain of Custody Record & Laboratory Analysis Request

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)
www.arilabs.com

ARI Assigned Number:	Turn-around Requested:
ARI Client Company: WINDWARD	Phone:
Client Contact: AMARA VANPERVORT	
Client Project Name: DUWAMISH	
Client Project #:	Samplers:

Page: 2 of 2

Date: | Ice Present?

No. of Coolers: | Cooler Temps:

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested	Notes/Comments
LOW18-PWPS-A11	06/22/18	2:45pm	Polyethylene	1		L29627-11
LOW18-PWPS-A11_Dup	"	"	"	"		-12
LOW18-PWPS_A12	"	"	"	"		-13
LOW18-PWPS-A13	"	"	"	"		-14
LOW18-PWPS-A17	"	"	"	"		-15
LOW18-PWPS-A18	"	"	"	"		-16
LOW18-PWPS-A19	"	"	"	"		-17
LOW18-PWPS-ExBlk_PAH	"	"	"	"		-18

Comments/Special Instructions	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
	Printed Name: JOSE GOMEZ-EYLES	Printed Name: DUNNIHOO	Printed Name: Stephanie Fisher	Printed Name: YARED LISANEWORK
	Company: INTEGRAL CONSULTING	Company: ARI	Company: ARI	Company: YL #736
	Date & Time: 06/27/18 2:45pm	Date & Time: 06/27/18 14:45	Date & Time: 7/2/18 1705	Date & Time: 07/02/18 17:05

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

YARED LISANEWORK 8:53 AM 07/03/18

Received by: 03-Jul-2018 SGS-AXYS 8:50

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

CHAIN-OF-CUSTODY/TEST REQUEST FORM

4033

Project/Client Name:	AOC3 Seep Collection	Ship to:	SGS Axys Analytical	No.	AOC320180703
Project Number:	Task 4	Attn:	Georgina Brooks	Shipping Date:	5/15-5/18/18
Contact Name:	Amara Vandervort	Shipper:	Courier	Airbill Number:	N/A
Sampled By:	Windward	Form filled out by:	A. Vandervort	Turnaround requested:	Standard

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) Dioxin/Furans	PCB Congeners All on HOLD	Hold Refrigerated					Comments / Instructions [Composite/Bag ID]
6/11/18	1612	LDW18-SP-RB1	2	Water	X	X			L29628		-1	Please HOLD PCB Congener Sample
6/11/18	1637	LDW18-SP-RB2	2	Water			X				-2	Sample on Hold
6/12/18	1206	LDW18-SP-30	1	Water			X				-3	Sample on Hold
6/12/18	0919	LDW18-SP-32	1	Water			X				-4	Sample on Hold
6/12/18	1056	LDW18-SP-35	1	Water			X				-5	Sample on Hold
6/12/18	1027	LDW18-SP-38	1	Water			X				-6	Sample on Hold
6/12/18	1205	LDW18-SP-42	2	Water	X	X					-7	Please HOLD PCB Congener Sample
6/12/18	1300	LDW18-SP-43	1	Water			X				-8	Sample on Hold
6/13/18	0953	LDW18-SP-06	1	Water			X				-9	Sample on Hold
6/13/18	1217	LDW18-SP-33	1	Water			X				-10	Sample on Hold
6/13/18	1235	LDW18-SP-24	2	Water	X	X					-11	Please HOLD PCB Congener Sample
6/13/18	1242	LDW18-SP-24-FD	2	Water	X	X					-12	Please HOLD PCB Congener Sample
		Total Number of Containers	17	Purchase Order / Statement of Work # PO 2018-0069								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Stephanie Fisher	YARED LISANEWORK	Yared Lisanework	
Signature: Stephanie Fisher			
Company: ART	Company: YC#736	Company: YC#736	Company: SGS-AXYS
Date/Time: 7/2/18 1705	Date/Time: 07/2/18 17:05	Date/Time: 07/03/18 8:53AM	Date/Time: 03-Jul-2018 8:30

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Windward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

CHAIN-OF-CUSTODY/TEST REQUEST FORM

4033

Project/Client Name:	AOC3 Seep Collection	Ship to:	SGS Axys Analytical		No.AOC320180703
Project Number:	Task 4	Attn:	Georgina Brooks	Shipping Date:	5/15-5/18/18
Contact Name:	Amara Vandervort	Shipper:	Courier	Airbill Number:	N/A
Sampled By:	Windward	Form filled out by:	A. Vandervort	Turnaround requested:	Standard

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) Dioxin/Furans	PCB Congeners All on HOLD	Hold Refrigerated					Comments / Instructions [Composite/Bag ID]
6/14/18	1408	LDW18-SP-05	1	Water			X		L29628 -		13	Sample on Hold
6/14/18	1041	LDW18-SP-57	2	Water	X	X					-14	Please HOLD PCB Congener Sample
6/14/18	1308	LDW18-SP-73	1	Water			X				-15	Sample on Hold
6/14/18	1314	LDW18-SP-74	1	Water			X				-16	Sample on Hold
6/14/18	1210	LDW18-SP-77	2	Water	X	X					-17	Please HOLD PCB Congener Sample
6/14/18	1204	LDW18-SP-78	2	Water	X	X					-18	Please HOLD PCB Congener Sample
6/14/18	0950	LDW18-SP-79	2	Water	X	X					-19	Please HOLD PCB Congener Sample
6/14/18	0953	LDW18-SP-84	1	Water			X				-20	Sample on Hold
6/14/18	1111	LDW18-SP-87	2	Water	X	X					-21	Please HOLD PCB Congener Sample
6/15/18	1133	LDW18-SP-01	2	Water	X	X					-22	Please HOLD PCB Congener Sample
6/15/18	1345	LDW18-SP-45	1	Water			X				-23	Sample on Hold
6/15/18	1316	LDW18-SP-47	1	Water			X				-24	Sample on Hold
Total Number of Containers			18	Purchase Order / Statement of Work # PO 2018-0069								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Stephanie Fisher	YARED LISANEWORK	Yared Lisanework	
Signature: Stephanie Fisher			
Company: NDI	Company: YL #736	Company: YL #736	Company: SGS-AXYS
Date/Time: 7/2/18 1105	Date/Time: 07/02/18 17:05	Date/Time: 07/03/18 8:53AM	Date/Time: 03-Jul-2018 8:30

* Distribution: White copies accompany shipment; yellow retained by consignor.

Windward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

CHAIN-OF-CUSTODY/TEST REQUEST FORM

4033

Project/Client Name:	AOC3 Seep Collection	Ship to:	SGS Axys Analytical		No.AOC320180703
Project Number:	Task 4	Attn:	Georgina Brooks	Shipping Date:	5/15-5/18/18
Contact Name:	Amara Vandervort	Shipper:	Courier	Airbill Number:	N/A
Sampled By:	Windward	Form filled out by:	A. Vandervort	Turnaround requested:	Standard

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)							Comments / Instructions [Composite/Bag ID]
					Dioxin/Furans	PCB Congeners All on HOLD	Hold Refrigerated					
6/15/18	1325	LDW18-SP-66	2	Water	X	X			L29628-	25		Please HOLD PCB Congener Sample
6/15/18	1113	LDW18-SP-70	2	Water	X	X				-	26	Please HOLD PCB Congener Sample
6/15/18	1208	LDW18-SP-83	1	Water			X			-	27	Sample on Hold
6/15/18	1219	LDW18-SP-86	2	Water	X	X				-	28	Please HOLD PCB Congener Sample
6/15/18	1052	LDW18-SP-88	2	Water	X	X				-	29	Please HOLD PCB Congener Sample
Total Number of Containers			9	Purchase Order / Statement of Work # PO 2018-0069								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Stephanie Fisher	Yared Lisanework	Yared Lisanework	
Signature: Stephanie Fisher			
Company: ARI	Company: YL #736	Company: YL #736	Company: SGS-AXYS
Date/Time: 7/2/18 1705	Date/Time: 07/02/18 17:05	Date/Time: 07/03/18 8:53AM	Date/Time: 03-Jul-2018 8:50

* Distribution: White copies accompany shipment; yellow retained by consignor.

Windward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

SGS AXYS Analytical Services Ltd
SAMPLE RECEIVING RECORD

Waybill : Yes /(No)
Date Shipped: 03-JUL-18
Waybill #: HANDDELIVERY#3
Date /Time Received: 03-JUL-18 08:50

SGS AXYS Client & Contract # 4033-Windward Environmental

Project Number:
Receipt No: WB23997

Login Number:

Received By: ABODDY
Log in by: Ava Voskuilen Signature: AJV

Axys Sample ID's: L29625-1 to -21

Matrix Type: Solid

Condition of Shipping Container: Intact.

Temperature upon Receipt: 1.7 Celcius Ice bags thawing

Thermometer ID: 5613
Corrected Temperature: 2.2 Celcius

Custody Seals: Shipping Containers Yes /(No) Intact Yes /No Seal Numbers Yes /No
Samples Yes /(No) Intact Yes /No Seal Numbers Yes /No

Chain of Custody or Documents:	(Yes) /No	Tracking Report /Packing List:	Yes /(No)
Sample ID's	(Yes) /No	Sample Tag Numbers	Yes /(No)
Collection Location	Yes /(No)	Sample Type	(Yes) /No
Date & Time Collection	(Yes) /No	Preservative Added	Yes /(No)
Collector's Name	Yes /(No)	Preservation Requested	Yes /(No)

Sample Tags	Yes /(No)		
Sample Labels	(Yes) /No		
Sample Labels Cross Referenced to COC	(Yes) /No	Information Agrees	(Yes) /No
Sample Tags Cross Referenced to Sample Labels	Yes /No	Information Agrees	Yes /No
Sample Tags Cross Referenced to COC	Yes /No	Information Agrees	Yes /No

Comments:

Action Taken:

FSA-015 Rev09, 22-Jan-2013

SGS AXYS Analytical Services Ltd
SAMPLE RECEIVING RECORD

Waybill : Yes /No
Date Shipped: 03-JUL-18
Waybill #: HANDDELIVERY#5
Date /Time Received: 03-JUL-18 08:50

SGS AXYS Client & Contract # 4033-Windward Environmental

Project Number:
Receipt No: WB23999

Login Number:

Received By: ABODDY
Log in by: Ava Vosknudson Signature: AV

Axys Sample ID's: L29627-1 to-18, L29626-1 to-9, L29625-22 to-33

Matrix Type: S

Condition of Shipping Container: Intact.

Temperature upon Receipt: 1.2 Celcius Ice bags thawing
Thermometer ID: 5595
Corrected Temperature: 1.6 Celcius

Custody Seals: Shipping Containers Yes /No Intact Yes /No Seal Numbers Yes /No
Samples Yes /No Intact Yes /No Seal Numbers Yes /No

Chain of Custody or Documents:	Yes /No	Tracking Report /Packing List:	Yes /No
Sample ID's	Yes /No	Sample Tag Numbers	Yes /No
Collection Location	Yes /No	Sample Type	Yes /No
Date & Time Collection	Yes /No	Preservative Added	Yes /No
Collector's Name	Yes /No	Preservation Requested	Yes /No

Sample Tags	Yes /No		
Sample Labels	Yes /No		
Sample Labels Cross Referenced to COC	Yes /No	Information Agrees	Yes /No
Sample Tags Cross Referenced to Sample Labels	Yes /No	Information Agrees	Yes /No
Sample Tags Cross Referenced to COC	Yes /No	Information Agrees	Yes /No

Comments: L29626-1 to-9 did not have Sampling dates or times.
L29627-12 has a Label Discrepancy
Label on c.o.c = LDW18-PWPS-All.Dup
Label on Jar = LDW18-PWPS-All Dup

Action Taken: logged in as per C.o.c

FSA-015 Rev09, 22-Jan-2013

SGS AXYS Analytical Services Ltd
SAMPLE RECEIVING RECORD

Waybill : Yes /No
Date Shipped: 03-JUL-2018

Waybill #: HANDDELIVERY#1
Date /Time Received: 03-JUL-18 08:50

SGS AXYS Client & Contract # 4033-Windward Environmental

Project Number:

Receipt No: WB23995

Login Number:

Received By: ABODDY

Log in by: KDay

Signature:

Axys Sample ID's: L29628-1 to 11

Matrix Type: AQ

Condition of Shipping Container: Intact

Temperature upon Receipt: 5.3 Celcius Ice bags thawing

Thermometer ID: 5597
Corrected Temperature: 5.7 Celcius

Custody Seals: Shipping Containers Yes /No Intact Yes /No Seal Numbers Yes /No

Samples Yes /No Intact Yes /No Seal Numbers Yes /No

Chain of Custody or Documents:	Yes /No	Tracking Report /Packing List:	Yes /No
Sample ID's	Yes /No	Sample Tag Numbers	Yes /No
Collection Location	Yes /No	Sample Type	Yes /No
Date & Time Collection	Yes /No	Preservative Added	Yes /No
Collector's Name	Yes /No	Preservation Requested	Yes /No

Sample Tags	Yes /No		
Sample Labels	Yes /No		
Sample Labels Cross Referenced to COC	Yes /No	Information Agrees	Yes /No
Sample Tags Cross Referenced to Sample Labels	Yes /No	Information Agrees	Yes /No
Sample Tags Cross Referenced to COC	Yes /No	Information Agrees	Yes /No

Comments:

Action Taken:

SGS AXYS Analytical Services Ltd
SAMPLE RECEIVING RECORD

Waybill : Yes /(No)
Date Shipped: 03-JUL-18
Waybill #: HANDDELIVERY#2
Date /Time Received: 03-JUL-18 08:50

SGS AXYS Client & Contract # 4033-Windward Environmental

Project Number:
Receipt No: WB23996

Login Number:

Received By: ABODDY
Log in by: KDay
Signature:

Axys Sample ID's: L29628-12 to 21 (1/2)

Matrix Type: AQ

Condition of Shipping Container: Intact.

Temperature upon Receipt: 6 Celcius
Ice bags thawing

Thermometer ID: 5615
Corrected Temperature: 6.5 Celcius

Custody Seals: Shipping Containers Yes /(No) Intact Yes /No Seal Numbers Yes /No
Samples Yes /(No) Intact Yes /No Seal Numbers Yes /No

Chain of Custody or Documents:	Yes /No	Tracking Report /Packing List:	Yes /(No)
Sample ID's	Yes /No	Sample Tag Numbers	Yes /(No)
Collection Location	Yes /(No)	Sample Type	Yes /No
Date & Time Collection	Yes /No	Preservative Added	Yes /(No)
Collector's Name	Yes /(No)	Preservation Requested	Yes /(No)

Sample Tags	Yes /(No)		
Sample Labels	(Yes) /No		
Sample Labels Cross Referenced to COC	(Yes) /No	Information Agrees	(Yes) /No
Sample Tags Cross Referenced to Sample Labels	Yes /No	Information Agrees	Yes /No
Sample Tags Cross Referenced to COC	Yes /No	Information Agrees	Yes /No

Comments:

arrived above temperature

Action Taken:

SGS AXYS Analytical Services Ltd
SAMPLE RECEIVING RECORD

Waybill : Yes /(No)
Waybill #: HANDDELIVERY#4
Date Shipped: 03-JUL-18
Date /Time Received: 03-JUL-18 08:50

SGS AXYS Client & Contract # 4033-Windward Environmental

Project Number:
Receipt No: WB23998

Login Number:

Received By: ABODDY
Log in by: KDay
Signature:

Axys Sample ID's: L29628-21(2/2), 22 to 29

Matrix Type: AQ

Condition of Shipping Container: Intact

Temperature upon Receipt: 4.3 Celcius Ice bags thawing

Thermometer ID: 5610
Corrected Temperature: 4.4 Celcius

Custody Seals: Shipping Containers Yes /(No) Intact Yes /No Seal Numbers Yes /No
Samples Yes /(No) Intact Yes /No Seal Numbers Yes /No

Chain of Custody or Documents:	Yes /No	Tracking Report /Packing List:	Yes /(No)
Sample ID's	Yes /(No)	Sample Tag Numbers	Yes /(No)
Collection Location	Yes /(No)	Sample Type	(Yes) /No
Date & Time Collection	(Yes) /No	Preservative Added	Yes /(No)
Collector's Name	Yes /(No)	Preservation Requested	Yes /(No)

Sample Tags	Yes /(No)		
Sample Labels	(Yes) /No		
Sample Labels Cross Referenced to COC	(Yes) /No	Information Agrees	(Yes) /No
Sample Tags Cross Referenced to Sample Labels	Yes /No	Information Agrees	Yes /No
Sample Tags Cross Referenced to COC	Yes /No	Information Agrees	Yes /No

Comments:

Action Taken:

4033

#5

RECEIVED
JUL 0 3 2018

8:50am

Ice Bags thawing

1.2°C

5595

4033

#3



8:50 am

Ice Bags thawing

1.7 °C

5613

4033

#4



8:50 am

Ice Bags thawing

4.3

5610

4033



#1

8:50 am

Ice Bags thawing

5597

5.3 °C

4033

#2



8:50am

Ice Bags thawing

6.0 C

5615

4033
04-Jul-2018

WB23999

L29627-1 to -18
L29626-1 to -9
L29625-22 to -33

WB23997

L29625-1 to -21

processed by: AVK
04-Jul-2018

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~~4033~~

~~WB23995~~

L29628-1 to -11

~~WB23996~~

L29628-12 to -21 (1/2)

~~WB23998~~

L29628-21 2/2, -22 to -29

Processed by: BOD 04-Jul-2018

for scanning
JBrooks
05-July-2018

SGS AXYS Analytical Services Ltd.

Login Chain of Custody Report (In01)

Jul. 05, 2018
04:04 PM

Login Number: L29625
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29625-1		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B1-Comp1				
19-JUN-18 10:27	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-2		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B1-Comp2				
19-JUN-18 10:38	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-3		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B1-Comp3				
19-JUN-18 10:50	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD

SGS AXYS Analytical Services Ltd.

Login Chain of Custody Report (In01)

Jul. 05, 2018
04:04 PM

Login Number: L29625
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29625-4		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B1-Comp1-FD				
19-JUN-18 10:25	Project #: DUWAMISH 2017			
Solid	2:MOISTURE	:		USD
Solid	7:MOISTURE	:		USD
Solid	DX017.1613	:		USD
Solid	DX017.1613-2	:		USD
Solid	HOMOGENIZATION	:		USD
EDataDeliv	DX017 EDD	:		USD
Data Package	DX017 DPKG	:		USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-5		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B1-Comp2-FD				
19-JUN-18 10:38	Project #: DUWAMISH 2017			
Solid	2:MOISTURE	:		USD
Solid	7:MOISTURE	:		USD
Solid	DX017.1613	:		USD
Solid	DX017.1613-2	:		USD
Solid	HOMOGENIZATION	:		USD
EDataDeliv	DX017 EDD	:		USD
Data Package	DX017 DPKG	:		USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-6		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B1-Comp3-FD				
19-JUN-18 10:50	Project #: DUWAMISH 2017			
Solid	2:MOISTURE	:		USD
Solid	7:MOISTURE	:		USD
Solid	DX017.1613	:		USD
Solid	DX017.1613-2	:		USD
Solid	HOMOGENIZATION	:		USD
EDataDeliv	DX017 EDD	:		USD
Data Package	DX017 DPKG	:		USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD

SGS AXYS Analytical Services Ltd.

Login Chain of Custody Report (In01)

Jul. 05, 2018
04:04 PM

Login Number: L29625
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29625-7		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B2-Comp1				
19-JUN-18 11:55	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-8		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B2-Comp2				
19-JUN-18 12:03	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-9		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B2-Comp3				
19-JUN-18 11:52	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD

SGS AXYS Analytical Services Ltd.

Login Chain of Custody Report (ln01)

Jul. 05, 2018

04:04 PM

Login Number: L29625

Account: 4033 Windward Environmental

Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29625-10		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B4-Comp1				
19-JUN-18 11:24	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-11		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B4-Comp2				
19-JUN-18 11:40	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-12		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B4-Comp3				
19-JUN-18 11:40	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD

SGS AXYS Analytical Services Ltd.

Login Chain of Custody Report (ln01)

Jul. 05, 2018
04:04 PM

Login Number: L29625
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29625-13		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B5-Comp1				
19-JUN-18 11:22	Project #: DUWAMISH 2017			
Solid	2:MOISTURE	:		USD
Solid	7:MOISTURE	:		USD
Solid	DX017.1613	:		USD
Solid	DX017.1613-2	:		USD
Solid	HOMOGENIZATION	:		USD
EDataDeliv	DX017 EDD	:		USD
Data Package	DX017 DPKG	:		USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-14		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B5-Comp2				
19-JUN-18 11:08	Project #: DUWAMISH 2017			
Solid	2:MOISTURE	:		USD
Solid	7:MOISTURE	:		USD
Solid	DX017.1613	:		USD
Solid	DX017.1613-2	:		USD
Solid	HOMOGENIZATION	:		USD
EDataDeliv	DX017 EDD	:		USD
Data Package	DX017 DPKG	:		USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-15		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B5-Comp3				
19-JUN-18 11:10	Project #: DUWAMISH 2017			
Solid	2:MOISTURE	:		USD
Solid	7:MOISTURE	:		USD
Solid	DX017.1613	:		USD
Solid	DX017.1613-2	:		USD
Solid	HOMOGENIZATION	:		USD
EDataDeliv	DX017 EDD	:		USD
Data Package	DX017 DPKG	:		USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD

SGS AXYS Analytical Services Ltd.

Login Chain of Custody Report (In01)

Jul. 05, 2018
04:04 PM

Login Number: L29625
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29625-16		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B3-Comp1 20-JUN-18 11:28	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-17		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B3-Comp2 20-JUN-18 11:30	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-18		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B3-Comp3 20-JUN-18 11:38	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD

SGS AXYS Analytical Services Ltd.

Login Chain of Custody Report (In01)

Jul. 05, 2018

04:04 PM

Login Number: L29625
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29625-19		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B6-Comp1				
20-JUN-18 10:10	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-20		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B6-Comp2				
20-JUN-18 10:19	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-21		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B6-Comp3				
20-JUN-18 10:59	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD

SGS AXYS Analytical Services Ltd.

Login Chain of Custody Report (In01)

Jul. 05, 2018

04:04 PM

Login Number: L29625
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29625-22		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B6-Comp1-FD				
20-JUN-18 10:32	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-23		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B6-Comp2-FD				
20-JUN-18 10:45	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-24		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B6-Comp3-FD				
20-JUN-18 11:14	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD

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Login Chain of Custody Report (In01)

Jul. 05, 2018
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Login Number: L29625
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification					
L29625-25		Received: 03-JUL-18			
		Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B7-Comp1					
20-JUN-18 10:55	Project #: DUWAMISH 2017				
Solid	2:MOISTURE		:		USD
Solid	7:MOISTURE		:		USD
Solid	DX017.1613		:		USD
Solid	DX017.1613-2		:		USD
Solid	HOMOGENIZATION		:		USD
EDataDeliv	DX017 EDD		:		USD
Data Package	DX017 DPKG		:		USD
ANY	SAMPLE RECEIPT	1	:	250 mL glass CLR	USD
L29625-26		Received: 03-JUL-18			
		Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B7-Comp2					
20-JUN-18 11:05	Project #: DUWAMISH 2017				
Solid	2:MOISTURE		:		USD
Solid	7:MOISTURE		:		USD
Solid	DX017.1613		:		USD
Solid	DX017.1613-2		:		USD
Solid	HOMOGENIZATION		:		USD
EDataDeliv	DX017 EDD		:		USD
Data Package	DX017 DPKG		:		USD
ANY	SAMPLE RECEIPT	1	:	250 mL glass CLR	USD
L29625-27		Received: 03-JUL-18			
		Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B7-Comp3					
20-JUN-18 11:20	Project #: DUWAMISH 2017				
Solid	2:MOISTURE		:		USD
Solid	7:MOISTURE		:		USD
Solid	DX017.1613		:		USD
Solid	DX017.1613-2		:		USD
Solid	HOMOGENIZATION		:		USD
EDataDeliv	DX017 EDD		:		USD
Data Package	DX017 DPKG		:		USD
ANY	SAMPLE RECEIPT	1	:	250 mL glass CLR	USD

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Login Chain of Custody Report (In01)

Jul. 05, 2018
04:04 PM

Login Number: L29625
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29625-28		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B8-Comp1				
20-JUN-18 10:12	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-29		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B8-Comp2				
20-JUN-18 10:25	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-30		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B8-Comp3				
20-JUN-18 10:39	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD

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Login Chain of Custody Report (ln01)

Jul. 05, 2018

04:04 PM

Login Number: L29625

Account: 4033 Windward Environmental

Project: DUWAMISH 2017

Axys ID versus Client Sample Identification				Received	Due	PR
L29625-31				03-JUL-18		
		Storage: WIF-4 10 C	Permit #: P-2017-02875-US			
LDW18-BNK2-1						
14-JUN-18 12:15		Project #: DUWAMISH 2017				
Solid	2:MOISTURE			:		USD
Solid	7:MOISTURE			:		USD
Solid	DX017.1613			:		USD
Solid	DX017.1613-2			:		USD
Solid	HOMOGENIZATION			:		USD
EDataDeliv	DX017 EDD			:		USD
Data Package	DX017 DPKG			:		USD
ANY	SAMPLE RECEIPT			1	: 250 mL glass CLR	USD
L29625-32				03-JUL-18		
		Storage: WIF-4 10 C	Permit #: P-2017-02875-US			
LDW18-SSOT-2510						
15-MAY-18 10:23		Project #: DUWAMISH 2017				
Solid	2:MOISTURE			:		USD
Solid	7:MOISTURE			:		USD
Solid	DX017.1613			:		USD
Solid	DX017.1613-2			:		USD
Solid	HOLD			:		USD
Solid	HOMOGENIZATION			:		USD
EDataDeliv	DX017 EDD			:		USD
Data Package	DX017 DPKG			:		USD
ANY	SAMPLE RECEIPT			1	: 250 mL glass CLR	USD
L29625-33				03-JUL-18		
		Storage: WIF-4 10 C	Permit #: P-2017-02875-US			
LDW18-SSOT-2114						
15-MAY-18 13:03		Project #: DUWAMISH 2017				
Solid	2:MOISTURE			:		USD
Solid	7:MOISTURE			:		USD
Solid	DX017.1613			:		USD
Solid	DX017.1613-2			:		USD
Solid	HOLD			:		USD
Solid	HOMOGENIZATION			:		USD
EDataDeliv	DX017 EDD			:		USD
Data Package	DX017 DPKG			:		USD
ANY	SAMPLE RECEIPT			1	: 250 mL glass CLR	USD

Revised to add PCBs.

for scanning
JBrooks
12-July-2018

SGS AXYS Analytical Services Ltd.

Login Chain of Custody Report (In01)

Jul. 12, 2018
05:20 PM

Login Number: L29626
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29626-1		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-C01-CLWB-Comp2				
	Project #: DUWAMISH 2017			
Tissue	DX017.1613		:	USD
Tissue	DX017.1613-2		:	USD
Tissue	PB010.1668C		:	USD
Tissue	PB010.1668C-CC1		:	USD
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29626-2		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-C02-CLWB-Comp2				
	Project #: DUWAMISH 2017			
Tissue	DX017.1613		:	USD
Tissue	DX017.1613-2		:	USD
Tissue	PB010.1668C		:	USD
Tissue	PB010.1668C-CC1		:	USD
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29626-3		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-C03-CLWB-Comp2				
	Project #: DUWAMISH 2017			
Tissue	DX017.1613		:	USD
Tissue	DX017.1613-2		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD

SGS AXYS Analytical Services Ltd.

Login Chain of Custody Report (ln01)

Jul. 12, 2018

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Login Number: L29626

Account: 4033 Windward Environmental

Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29626-4		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-C04-CLWB-Comp2				
	Project #: DUWAMISH 2017			
Tissue	DX017.1613		:	USD
Tissue	DX017.1613-2		:	USD
Tissue	PB010.1668C		:	USD
Tissue	PB010.1668C-CC1		:	USD
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29626-5		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-C05-CLWB-Comp2				
	Project #: DUWAMISH 2017			
Tissue	DX017.1613		:	USD
Tissue	DX017.1613-2		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29626-6		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-C06-CLWB-Comp2				
	Project #: DUWAMISH 2017			
Tissue	DX017.1613		:	USD
Tissue	DX017.1613-2		:	USD
Tissue	PB010.1668C		:	USD
Tissue	PB010.1668C-CC1		:	USD
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD

SGS AXYS Analytical Services Ltd.

Login Chain of Custody Report (ln01)

Jul. 12, 2018

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Login Number: L29626

Account: 4033 Windward Environmental

Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29626-7		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-C08-CLWB-Comp2				
	Project #: DUWAMISH 2017			
Tissue	DX017.1613		:	USD
Tissue	DX017.1613-2		:	USD
Tissue	PB010.1668C		:	USD
Tissue	PB010.1668C-CC1		:	USD
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29626-8		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-C10-CLWB-Comp2				
	Project #: DUWAMISH 2017			
Tissue	DX017.1613		:	USD
Tissue	DX017.1613-2		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29626-9		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-C11-CLWB-Comp2				
	Project #: DUWAMISH 2017			
Tissue	DX017.1613		:	USD
Tissue	DX017.1613-2		:	USD
Tissue	PB010.1668C		:	USD
Tissue	PB010.1668C-CC1		:	USD
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD

for scanning
JBrooks
06-July-2018

SGS AXYS Analytical Services Ltd.

Login Chain of Custody Report (In01)

Jul. 06, 2018
03:52 PM

Login Number: L29627
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29627-1		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A01		Matclient: POLYETHYLENE		
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Plastic Passive	PH021.PAR+	:		USD
Plastic Passive	PH021.PRC	:		USD
EDataDeliv	PH021 EDD	:		USD
Data Package	PH021 DPKG	:		USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29627-2		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A02		Matclient: POLYETHYLENE		
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Plastic Passive	PH021.PAR+	:		USD
Plastic Passive	PH021.PRC	:		USD
EDataDeliv	PH021 EDD	:		USD
Data Package	PH021 DPKG	:		USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29627-3		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A03		Matclient: POLYETHYLENE		
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Comments: Spike surrogate, Extract, Ampoule and HOLD				
Plastic Passive	PAH SUR SPIKE	:		USD
Plastic Passive	PH021.PAR+	:		USD
Plastic Passive	PH021.PRC	:		USD
EDataDeliv	PH021 EDD	:		USD
Data Package	PH021 DPKG	:		USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29627-4		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A04		Matclient: POLYETHYLENE		
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Plastic Passive	PH021.PAR+	:		USD
Plastic Passive	PH021.PRC	:		USD
EDataDeliv	PH021 EDD	:		USD
Data Package	PH021 DPKG	:		USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD

SGS AXYS Analytical Services Ltd.

Login Chain of Custody Report (In01)

Jul. 06, 2018

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Login Number: L29627
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29627-5		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A05			Matclient: POLYETHYLENE	
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Comments: Spike surrogate, Extract, Ampoule and HOLD				
Plastic Passive	PAH SUR SPIKE		:	USD
Plastic Passive	PH021.PAR+		:	USD
Plastic Passive	PH021.PRC		:	USD
EDataDeliv	PH021 EDD		:	USD
Data Package	PH021 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29627-6		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A06			Matclient: POLYETHYLENE	
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Plastic Passive	PH021.PAR+		:	USD
Plastic Passive	PH021.PRC		:	USD
EDataDeliv	PH021 EDD		:	USD
Data Package	PH021 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29627-7		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A07			Matclient: POLYETHYLENE	
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Plastic Passive	PH021.PAR+		:	USD
Plastic Passive	PH021.PRC		:	USD
EDataDeliv	PH021 EDD		:	USD
Data Package	PH021 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29627-8		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A08			Matclient: POLYETHYLENE	
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Plastic Passive	PH021.PAR+		:	USD
Plastic Passive	PH021.PRC		:	USD
EDataDeliv	PH021 EDD		:	USD
Data Package	PH021 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD

SGS AXYS Analytical Services Ltd.

Login Chain of Custody Report (In01)

Jul. 06, 2018

03:52 PM

Login Number: L29627
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29627-9		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A09		Matclient: POLYETHYLENE		
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Comments: Spike surrogate, Extract, Ampoule and HOLD				
Plastic Passive	PAH SUR SPIKE	:		USD
Plastic Passive	PH021.PAR+	:		USD
Plastic Passive	PH021.PRC	:		USD
EDataDeliv	PH021 EDD	:		USD
Data Package	PH021 DPKG	:		USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29627-10		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A10		Matclient: POLYETHYLENE		
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Plastic Passive	PH021.PAR+	:		USD
Plastic Passive	PH021.PRC	:		USD
EDataDeliv	PH021 EDD	:		USD
Data Package	PH021 DPKG	:		USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29627-11		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A11		Matclient: POLYETHYLENE		
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Plastic Passive	PH021.PAR+	:		USD
Plastic Passive	PH021.PRC	:		USD
EDataDeliv	PH021 EDD	:		USD
Data Package	PH021 DPKG	:		USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29627-12		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A11.Dup		Matclient: POLYETHYLENE		
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Plastic Passive	PH021.PAR+	:		USD
Plastic Passive	PH021.PRC	:		USD
EDataDeliv	PH021 EDD	:		USD
Data Package	PH021 DPKG	:		USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD

SGS AXYS Analytical Services Ltd.

Login Chain of Custody Report (In01)

Jul. 06, 2018
03:52 PM

Login Number: L29627
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29627-13		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A12			Matclient: POLYETHYLENE	
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Comments: Spike surrogate, Extract, Ampoule and HOLD				
Plastic Passive	PAH SUR SPIKE		:	USD
Plastic Passive	PH021.PAR+		:	USD
Plastic Passive	PH021.PRC		:	USD
EDataDeliv	PH021 EDD		:	USD
Data Package	PH021 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29627-14		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A13			Matclient: POLYETHYLENE	
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Comments: Spike surrogate, Extract, Ampoule and HOLD				
Plastic Passive	PAH SUR SPIKE		:	USD
Plastic Passive	PH021.PAR+		:	USD
Plastic Passive	PH021.PRC		:	USD
EDataDeliv	PH021 EDD		:	USD
Data Package	PH021 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29627-15		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A17			Matclient: POLYETHYLENE	
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Plastic Passive	PH021.PAR+		:	USD
Plastic Passive	PH021.PRC		:	USD
EDataDeliv	PH021 EDD		:	USD
Data Package	PH021 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29627-16		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A18			Matclient: POLYETHYLENE	
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Plastic Passive	PH021.PAR+		:	USD
Plastic Passive	PH021.PRC		:	USD
EDataDeliv	PH021 EDD		:	USD
Data Package	PH021 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD

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Login Chain of Custody Report (In01)

Jul. 06, 2018
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Login Number: L29627
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29627-17		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A19			Matclient: POLYETHYLENE	
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Comments: Spike surrogate, Extract, Ampoule and HOLD				
Plastic Passive	PAH SUR SPIKE		:	USD
Plastic Passive	PH021.PAR+		:	USD
Plastic Passive	PH021.PRC		:	USD
EDataDeliv	PH021 EDD		:	USD
Data Package	PH021 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29627-18		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-PWPS-ExpBlk_PAH			Matclient: POLYETHYLENE	
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Plastic Passive	PH021.PAR+		:	USD
Plastic Passive	PH021.PRC		:	USD
EDataDeliv	PH021 EDD		:	USD
Data Package	PH021 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD

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Login Chain of Custody Report (In01)

Jul. 09, 2018
12:21 PM

Login Number: L29628
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29628-1		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-RB1				
11-JUN-18 16:12	Project #: DUWAMISH 2017			
EDataDeliv	DX017 EDD	:		USD
EDataDeliv	PB010 EDD	:		USD
Data Package	DX017 DPKG	:		USD
Data Package	PB010 DPKG	:		USD
Aqueous	4:SUSP SOLIDS	:		USD
Aqueous	DX017.1613	:		USD
Aqueous	DX017.1613-2	:		USD
Aqueous	PB010.1668C	:		USD
Aqueous	PRETREAT	:		USD
ANY	SAMPLE RECEIPT	2	: 1 L glass AMB	USD
L29628-2		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-RB2				
11-JUN-18 16:37	Project #: DUWAMISH 2017			
Comments: HOLD				
EDataDeliv	DX017 EDD	:		USD
EDataDeliv	PB010 EDD	:		USD
Data Package	DX017 DPKG	:		USD
Data Package	PB010 DPKG	:		USD
Aqueous	4:SUSP SOLIDS	:		USD
Aqueous	DX017.1613	:		USD
Aqueous	DX017.1613-2	:		USD
Aqueous	HOLD	:		USD
Aqueous	PB010.1668C	:		USD
Aqueous	PRETREAT	:		USD
ANY	SAMPLE RECEIPT	2	: 1 L glass AMB	USD

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Login Chain of Custody Report (In01)

Jul. 09, 2018
12:21 PM

Login Number: L29628
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29628-3		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-30				
12-JUN-18 12:06	Project #: DUWAMISH 2017			
Comments: HOLD				
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
Aqueous	4:SUSP SOLIDS		:	USD
Aqueous	DX017.1613		:	USD
Aqueous	DX017.1613-2		:	USD
Aqueous	HOLD		:	USD
Aqueous	PB010.1668C		:	USD
Aqueous	PRETREAT		:	USD
ANY	SAMPLE RECEIPT	1	: 1 L glass AMB	USD
L29628-4		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-32				
12-JUN-18 09:19	Project #: DUWAMISH 2017			
Comments: HOLD				
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
Aqueous	4:SUSP SOLIDS		:	USD
Aqueous	DX017.1613		:	USD
Aqueous	DX017.1613-2		:	USD
Aqueous	HOLD		:	USD
Aqueous	PB010.1668C		:	USD
Aqueous	PRETREAT		:	USD
ANY	SAMPLE RECEIPT	1	: 1 L glass AMB	USD

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Login Chain of Custody Report (ln01)

Jul. 09, 2018

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Login Number: L29628
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29628-5		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-35				
12-JUN-18 10:56	Project #: DUWAMISH 2017			
Comments: HOLD				
EDataDeliv	DX017 EDD	:		USD
EDataDeliv	PB010 EDD	:		USD
Data Package	DX017 DPKG	:		USD
Data Package	PB010 DPKG	:		USD
Aqueous	4:SUSP SOLIDS	:		USD
Aqueous	DX017.1613	:		USD
Aqueous	DX017.1613-2	:		USD
Aqueous	HOLD	:		USD
Aqueous	PB010.1668C	:		USD
Aqueous	PRETREAT	:		USD
ANY	SAMPLE RECEIPT	1	: 1 L glass AMB	USD
L29628-6		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-38				
12-JUN-18 10:27	Project #: DUWAMISH 2017			
Comments: HOLD				
EDataDeliv	DX017 EDD	:		USD
EDataDeliv	PB010 EDD	:		USD
Data Package	DX017 DPKG	:		USD
Data Package	PB010 DPKG	:		USD
Aqueous	4:SUSP SOLIDS	:		USD
Aqueous	DX017.1613	:		USD
Aqueous	DX017.1613-2	:		USD
Aqueous	HOLD	:		USD
Aqueous	PB010.1668C	:		USD
Aqueous	PRETREAT	:		USD
ANY	SAMPLE RECEIPT	1	: 1 L glass AMB	USD

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Login Chain of Custody Report (ln01)

Jul. 09, 2018

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Login Number: L29628
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29628-7		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-42				
12-JUN-18 12:05	Project #: DUWAMISH 2017			
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
Aqueous	4:SUSP SOLIDS		:	USD
Aqueous	DX017.1613		:	USD
Aqueous	DX017.1613-2		:	USD
Aqueous	PB010.1668C		:	USD
Aqueous	PRETREAT		:	USD
ANY	SAMPLE RECEIPT	2	: 1 L glass AMB	USD
L29628-8		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-43				
12-JUN-18 13:00	Project #: DUWAMISH 2017			
Comments: HOLD				
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
Aqueous	4:SUSP SOLIDS		:	USD
Aqueous	DX017.1613		:	USD
Aqueous	DX017.1613-2		:	USD
Aqueous	HOLD		:	USD
Aqueous	PB010.1668C		:	USD
Aqueous	PRETREAT		:	USD
ANY	SAMPLE RECEIPT	1	: 1 L glass AMB	USD

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Login Chain of Custody Report (In01)

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Login Number: L29628
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29628-9		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-06				
13-JUN-18 09:53	Project #: DUWAMISH 2017			
Comments: HOLD				
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
Aqueous	4:SUSP SOLIDS		:	USD
Aqueous	DX017.1613		:	USD
Aqueous	DX017.1613-2		:	USD
Aqueous	HOLD		:	USD
Aqueous	PB010.1668C		:	USD
Aqueous	PRETREAT		:	USD
ANY	SAMPLE RECEIPT	1	: 1 L glass AMB	USD
L29628-10		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-33				
13-JUN-18 12:17	Project #: DUWAMISH 2017			
Comments: HOLD				
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
Aqueous	4:SUSP SOLIDS		:	USD
Aqueous	DX017.1613		:	USD
Aqueous	DX017.1613-2		:	USD
Aqueous	HOLD		:	USD
Aqueous	PB010.1668C		:	USD
Aqueous	PRETREAT		:	USD
ANY	SAMPLE RECEIPT	1	: 1 L glass AMB	USD

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Login Chain of Custody Report (In01)

Jul. 09, 2018
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Login Number: L29628
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29628-11		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-24				
13-JUN-18 12:35	Project #: DUWAMISH 2017			
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
Aqueous	4:SUSP SOLIDS		:	USD
Aqueous	DX017.1613		:	USD
Aqueous	DX017.1613-2		:	USD
Aqueous	PB010.1668C		:	USD
Aqueous	PRETREAT		:	USD
ANY	SAMPLE RECEIPT	2	: 1 L glass AMB	USD
L29628-12		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-24-FD				
13-JUN-18 12:42	Project #: DUWAMISH 2017			
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
Aqueous	4:SUSP SOLIDS		:	USD
Aqueous	DX017.1613		:	USD
Aqueous	DX017.1613-2		:	USD
Aqueous	PB010.1668C		:	USD
Aqueous	PRETREAT		:	USD
ANY	SAMPLE RECEIPT	2	: 1 L glass AMB	USD

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Login Chain of Custody Report (In01)

Jul. 09, 2018
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Login Number: L29628
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification			Received	Due	PR
L29628-13			03-JUL-18		
		Storage: WIC-2, floor (coolers)			
LDW18-SP-05					
14-JUN-18 14:08		Project #: DUWAMISH 2017			
Comments: HOLD					
EDataDeliv	DX017 EDD		:		USD
EDataDeliv	PB010 EDD		:		USD
Data Package	DX017 DPKG		:		USD
Data Package	PB010 DPKG		:		USD
Aqueous	4:SUSP SOLIDS		:		USD
Aqueous	DX017.1613		:		USD
Aqueous	DX017.1613-2		:		USD
Aqueous	HOLD		:		USD
Aqueous	PB010.1668C		:		USD
Aqueous	PRETREAT		:		USD
ANY	SAMPLE RECEIPT		1	: 1 L glass AMB	USD
L29628-14			03-JUL-18		
		Storage: WIC-2, floor (coolers)			
LDW18-SP-57					
14-JUN-18 10:41		Project #: DUWAMISH 2017			
EDataDeliv	DX017 EDD		:		USD
EDataDeliv	PB010 EDD		:		USD
Data Package	DX017 DPKG		:		USD
Data Package	PB010 DPKG		:		USD
Aqueous	4:SUSP SOLIDS		:		USD
Aqueous	DX017.1613		:		USD
Aqueous	DX017.1613-2		:		USD
Aqueous	PB010.1668C		:		USD
Aqueous	PRETREAT		:		USD
ANY	SAMPLE RECEIPT		2	: 1 L glass AMB	USD

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Login Chain of Custody Report (In01)

Jul. 09, 2018
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Login Number: L29628
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29628-15		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-73				
14-JUN-18 13:08	Project #: DUWAMISH 2017			
Comments: HOLD				
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
Aqueous	4:SUSP SOLIDS		:	USD
Aqueous	DX017.1613		:	USD
Aqueous	DX017.1613-2		:	USD
Aqueous	HOLD		:	USD
Aqueous	PB010.1668C		:	USD
Aqueous	PRETREAT		:	USD
ANY	SAMPLE RECEIPT	1	: 1 L glass AMB	USD
L29628-16		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-74				
14-JUN-18 13:14	Project #: DUWAMISH 2017			
Comments: HOLD				
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
Aqueous	4:SUSP SOLIDS		:	USD
Aqueous	DX017.1613		:	USD
Aqueous	DX017.1613-2		:	USD
Aqueous	HOLD		:	USD
Aqueous	PB010.1668C		:	USD
Aqueous	PRETREAT		:	USD
ANY	SAMPLE RECEIPT	1	: 1 L glass AMB	USD

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Login Chain of Custody Report (In01)

Jul. 09, 2018
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Login Number: L29628
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification			Received	Due	PR
L29628-17			03-JUL-18		
		Storage: WIC-2, floor (coolers)			
LDW18-SP-77					
14-JUN-18 12:10		Project #: DUWAMISH 2017			
EDataDeliv	DX017 EDD		:		USD
EDataDeliv	PB010 EDD		:		USD
Data Package	DX017 DPKG		:		USD
Data Package	PB010 DPKG		:		USD
Aqueous	4:SUSP SOLIDS		:		USD
Aqueous	DX017.1613		:		USD
Aqueous	DX017.1613-2		:		USD
Aqueous	PB010.1668C		:		USD
Aqueous	PRETREAT		:		USD
ANY	SAMPLE RECEIPT		2	: 1 L glass AMB	USD
L29628-18			03-JUL-18		
		Storage: WIC-2, floor (coolers)			
LDW18-SP-78					
14-JUN-18 12:04		Project #: DUWAMISH 2017			
EDataDeliv	DX017 EDD		:		USD
EDataDeliv	PB010 EDD		:		USD
Data Package	DX017 DPKG		:		USD
Data Package	PB010 DPKG		:		USD
Aqueous	4:SUSP SOLIDS		:		USD
Aqueous	DX017.1613		:		USD
Aqueous	DX017.1613-2		:		USD
Aqueous	PB010.1668C		:		USD
Aqueous	PRETREAT		:		USD
ANY	SAMPLE RECEIPT		2	: 1 L glass AMB	USD

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Login Chain of Custody Report (In01)

Jul. 09, 2018
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Login Number: L29628
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29628-19		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-79				
14-JUN-18 09:50	Project #: DUWAMISH 2017			
EDataDeliv	DX017 EDD	:		USD
EDataDeliv	PB010 EDD	:		USD
Data Package	DX017 DPKG	:		USD
Data Package	PB010 DPKG	:		USD
Aqueous	4:SUSP SOLIDS	:		USD
Aqueous	DX017.1613	:		USD
Aqueous	DX017.1613-2	:		USD
Aqueous	PB010.1668C	:		USD
Aqueous	PRETREAT	:		USD
ANY	SAMPLE RECEIPT	2	: 1 L glass AMB	USD
L29628-20		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-84				
14-JUN-18 09:53	Project #: DUWAMISH 2017			
Comments: HOLD				
EDataDeliv	DX017 EDD	:		USD
EDataDeliv	PB010 EDD	:		USD
Data Package	DX017 DPKG	:		USD
Data Package	PB010 DPKG	:		USD
Aqueous	4:SUSP SOLIDS	:		USD
Aqueous	DX017.1613	:		USD
Aqueous	DX017.1613-2	:		USD
Aqueous	HOLD	:		USD
Aqueous	PB010.1668C	:		USD
Aqueous	PRETREAT	:		USD
ANY	SAMPLE RECEIPT	1	: 1 L glass AMB	USD

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Login Chain of Custody Report (ln01)

Jul. 09, 2018
12:21 PM

Login Number: L29628
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29628-21		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-87				
14-JUN-18 11:11	Project #: DUWAMISH 2017			
Comments: 2/2 rec'd in WB23998				
EDataDeliv	DX017 EDD	:		USD
EDataDeliv	PB010 EDD	:		USD
Data Package	DX017 DPKG	:		USD
Data Package	PB010 DPKG	:		USD
Aqueous	4:SUSP SOLIDS	:		USD
Aqueous	DX017.1613	:		USD
Aqueous	DX017.1613-2	:		USD
Aqueous	PB010.1668C	:		USD
Aqueous	PRETREAT	:		USD
ANY	SAMPLE RECEIPT	2	: 1 L glass AMB	USD
L29628-22		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-01				
15-JUN-18 11:33	Project #: DUWAMISH 2017			
EDataDeliv	DX017 EDD	:		USD
EDataDeliv	PB010 EDD	:		USD
Data Package	DX017 DPKG	:		USD
Data Package	PB010 DPKG	:		USD
Aqueous	4:SUSP SOLIDS	:		USD
Aqueous	DX017.1613	:		USD
Aqueous	DX017.1613-2	:		USD
Aqueous	PB010.1668C	:		USD
Aqueous	PRETREAT	:		USD
ANY	SAMPLE RECEIPT	2	: 1 L glass AMB	USD

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Login Chain of Custody Report (ln01)

Jul. 09, 2018
12:21 PM

Login Number: L29628
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29628-23		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-45				
15-JUN-18 13:45	Project #: DUWAMISH 2017			
Comments: HOLD				
EDataDeliv	DX017 EDD	:		USD
EDataDeliv	PB010 EDD	:		USD
Data Package	DX017 DPKG	:		USD
Data Package	PB010 DPKG	:		USD
Aqueous	4:SUSP SOLIDS	:		USD
Aqueous	DX017.1613	:		USD
Aqueous	DX017.1613-2	:		USD
Aqueous	HOLD	:		USD
Aqueous	PB010.1668C	:		USD
Aqueous	PRETREAT	:		USD
ANY	SAMPLE RECEIPT	1	: 1 L glass AMB	USD
L29628-24		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-47				
15-JUN-18 13:16	Project #: DUWAMISH 2017			
Comments: HOLD				
EDataDeliv	DX017 EDD	:		USD
EDataDeliv	PB010 EDD	:		USD
Data Package	DX017 DPKG	:		USD
Data Package	PB010 DPKG	:		USD
Aqueous	4:SUSP SOLIDS	:		USD
Aqueous	DX017.1613	:		USD
Aqueous	DX017.1613-2	:		USD
Aqueous	HOLD	:		USD
Aqueous	PB010.1668C	:		USD
Aqueous	PRETREAT	:		USD
ANY	SAMPLE RECEIPT	1	: 1 L glass AMB	USD

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Login Chain of Custody Report (ln01)

Jul. 09, 2018
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Login Number: L29628
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification			Received	Due	PR
L29628-25			03-JUL-18		
		Storage: WIC-2, floor (coolers)			
LDW18-SP-66					
15-JUN-18 13:25		Project #: DUWAMISH 2017			
EDataDeliv	DX017 EDD		:		USD
EDataDeliv	PB010 EDD		:		USD
Data Package	DX017 DPKG		:		USD
Data Package	PB010 DPKG		:		USD
Aqueous	4:SUSP SOLIDS		:		USD
Aqueous	DX017.1613		:		USD
Aqueous	DX017.1613-2		:		USD
Aqueous	PB010.1668C		:		USD
Aqueous	PRETREAT		:		USD
ANY	SAMPLE RECEIPT		2	: 1 L glass AMB	USD
L29628-26			03-JUL-18		
		Storage: WIC-2, floor (coolers)			
LDW18-SP-70					
15-JUN-18 11:13		Project #: DUWAMISH 2017			
EDataDeliv	DX017 EDD		:		USD
EDataDeliv	PB010 EDD		:		USD
Data Package	DX017 DPKG		:		USD
Data Package	PB010 DPKG		:		USD
Aqueous	4:SUSP SOLIDS		:		USD
Aqueous	DX017.1613		:		USD
Aqueous	DX017.1613-2		:		USD
Aqueous	PB010.1668C		:		USD
Aqueous	PRETREAT		:		USD
ANY	SAMPLE RECEIPT		2	: 1 L glass AMB	USD

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Login Chain of Custody Report (In01)

Jul. 09, 2018
12:21 PM

Login Number: L29628
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29628-27		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-83				
15-JUN-18 12:08	Project #: DUWAMISH 2017			
Comments: HOLD				
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
Aqueous	4:SUSP SOLIDS		:	USD
Aqueous	DX017.1613		:	USD
Aqueous	DX017.1613-2		:	USD
Aqueous	HOLD		:	USD
Aqueous	PB010.1668C		:	USD
Aqueous	PRETREAT		:	USD
ANY	SAMPLE RECEIPT	1	: 1 L glass AMB	USD
L29628-28		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-86				
15-JUN-18 12:19	Project #: DUWAMISH 2017			
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
Aqueous	4:SUSP SOLIDS		:	USD
Aqueous	DX017.1613		:	USD
Aqueous	DX017.1613-2		:	USD
Aqueous	PB010.1668C		:	USD
Aqueous	PRETREAT		:	USD
ANY	SAMPLE RECEIPT	2	: 1 L glass AMB	USD

SGS AXYS Analytical Services Ltd.

Login Chain of Custody Report (ln01)

Jul. 09, 2018

12:21 PM

Login Number: L29628

Account: 4033 Windward Environmental

Project: DUWAMISH 2017

Axys ID versus Client Sample Identification			Received	Due	PR
L29628-29			03-JUL-18		
		Storage: WIC-2, floor (coolers)			
LDW18-SP-88					
15-JUN-18 10:52		Project #: DUWAMISH 2017			
EDataDeliv	DX017 EDD			:	USD
EDataDeliv	PB010 EDD			:	USD
Data Package	DX017 DPKG			:	USD
Data Package	PB010 DPKG			:	USD
Aqueous	4:SUSP SOLIDS			:	USD
Aqueous	DX017.1613			:	USD
Aqueous	DX017.1613-2			:	USD
Aqueous	PB010.1668C			:	USD
Aqueous	PRETREAT			:	USD
ANY	SAMPLE RECEIPT		2	: 1 L glass AMB	USD

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4033

Brooks, Georgina (Sidney) L29626

From: Amara Vandervort <amarav@windwardenv.com>
Sent: Thursday, July 12, 2018 7:47 AM
To: Brooks, Georgina (Sidney)
Subject: Duwamish Clam Samples for PCB Congener Analysis

Good morning,
EPA has approved the proposed list for PCB Congener analysis in the clam homogenates. The table below list the 6 samples to be analyzed and the 3 to be held. EPA will review the Aroclor and congener data after analyses is complete and would like the remaining 3 samples to be held frozen until they decide if they would like them analyzed as well, please.

Composite ID	Analyze	Hold	L29626
LDW18-C01-CLWB-Comp2	X	---	-1
LDW18-C02-CLWB-Comp2	X	---	-2
LDW18-C03-CLWB-Comp2	---	X	-3
LDW18-C04-CLWB-Comp2	X	---	-4
LDW18-C05-CLWB-Comp2	---	X	-5
LDW18-C06-CLWB-Comp2	X	---	-6
LDW18-C08-CLWB-Comp2	X	---	-7
LDW18-C10-CLWB-Comp2	---	X	-8
LDW18-C11-CLWB-Comp2	X	---	-9

Please let me know if you have any questions. Thanks. -Amara

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DATA PKG. 4033

Brooks, Georgina (Sidney)

L30391-1->-5

From: Amara Vandervort <amarav@windwardenv.com>
Sent: Tuesday, November 06, 2018 11:59 AM
To: Brooks, Georgina (Sidney)
Subject: RE: Analysis of held seep extracts and sediments for D/F

Hello,
Samples were shipped today and should arrive tomorrow. The Tracking# is 773659999779.

I checked the POs and there is enough room to charge the seep analyses to PO 2018-0069 and the sediment analyses to PO 2018-0053, please.

Kind regards,
Amara

From: Amara Vandervort
Sent: Monday, November 05, 2018 4:50 PM
To: 'Brooks, Georgina (Sidney)' <Georgina.Brooks@sgs.com>
Subject: RE: Analysis of held seep extracts and sediments for D/F

Sounds like a good plan. I will keep you posted. -Amara

From: Brooks, Georgina (Sidney) [mailto:Georgina.Brooks@sgs.com]
Sent: Monday, November 05, 2018 4:47 PM
To: Amara Vandervort <amarav@windwardenv.com>
Subject: RE: Analysis of held seep extracts and sediments for D/F

Hi Amara: Thank you. The Puget Sound Reference material did arrive. If for any reason ARI cannot ship by Wed, then hold and ship next week. I will wait for the BNK samples to arrive to start everything in one batch.

Regards
Georgina

From: Amara Vandervort <amarav@windwardenv.com>
Sent: Monday, November 05, 2018 4:08 PM
To: Brooks, Georgina (Sidney) <Georgina.Brooks@sgs.com>
Subject: RE: Analysis of held seep extracts and sediments for D/F

HI Georgina,

We have a final list of samples to be analyzed for D/F.

L29625-33 L29051-28 -35 -33

Outfall sediment – LDW18-SSOT-2114, LDW18-SSOT-Dawn Foods, LDW18-SSOT-2109-1, LDW18-SSOT-2509, LDW18-SSOT-FedCtrS, LDW18-SSOT-2101, and LDW18-SSOT-Delta Marine

-25 -37 -40

Bank soils – LDW18-BNK1-1, LDW18-BNK4-1, LDW18-BNK4-2, LDW18-BNK4-3, and LDW18-BNK6-1 L30391-1->-5

Seeps –LDW18-SP-83 L29628-27

ARI will ship the BNK samples to you tomorrow or Wednesday at the latest.

I will check the sediment and seep POs to ensure there is room for the costs of these analyses and get back to you tomorrow to let you know if we need to start a new PO for this work.

As with the previous samples, the seep sample will need to have an LCS/LCSD analyzed and the sediments will need to have an SRM and lab duplicate analyzed, please. I placed and order for a new jar of Puget Sound SRM last week. Hopefully, it will arrive soon.

Kind regards,
Amara

From: Amara Vandervort
Sent: Tuesday, October 30, 2018 4:17 PM
To: 'Brooks, Georgina (Sidney)' <Georgina.Brooks@sgs.com>
Subject: RE: Analysis of held seep extracts and sediments for D/F

I think that my original intent was to send you all of the BNK samples but then we decided to just send the one that required analysis. I think the others are at ARI and will need to be shipped to you. I am checking with Sue to confirm. - Amara

From: Brooks, Georgina (Sidney) [mailto:Georgina.Brooks@sgs.com]
Sent: Tuesday, October 30, 2018 3:46 PM
To: Amara Vandervort <amarav@windwardenv.com>
Subject: RE: Analysis of held seep extracts and sediments for D/F

Hello: Understood that this list may change. That said, we have all of the "Outfall" sediments listed below. We have one sample called LDW18-BNK2-1, but that is the only one with "BNK" in the client ID. Could these have arrived under a different naming scheme? And we have the 3 Seeps listed below.

Regards
Georgina

From: Amara Vandervort <amarav@windwardenv.com>
Sent: Tuesday, October 30, 2018 3:34 PM
To: Brooks, Georgina (Sidney) <Georgina.Brooks@sgs.com>
Subject: RE: Analysis of held seep extracts and sediments for D/F

Thank you for checking on the samples.

Here are the samples that are under consideration. Please note that this is subject to change and counts may not match as this is not the final list.

Outfall sediment – LDW18-SSOT-2114, LDW18-SSOT-Dawn Foods, LDW18-SSOT-2109-1, LDW18-SSOT-2109-2, LDW18-SSOT-2509, LDW18-SSOT-FedCtrS, LDW18-SSOT-2101, and LDW18-SSOT-Delta Marine

Bank soils – LDW18-BNK1-1, LDW18- BNK4-1, LDW18-BNK4-2, LDW18-BNK4-3, LDW18- BNK3-3, LDW18-BNK6-2, and LDW18-BNK6-1

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Canadian Food Inspection Agency
Goverment of Canada

Agence canadienne d'inspection des aliments
Gouvernement du Canada

Permit No./N° de permis:
P-2017-02875
ORIGINAL
2017/11/16
year/mo/day
année/mois/jour

4033

IMPORT PERMIT PERMIS D'IMPORTATION

THIS PERMIT IS ISSUED PURSUANT TO:/CE PERMIS EST DÉLIVRÉ CONFORMÉMENT A:

THE PLANT PROTECTION ACT AND REGULATIONS/LOI ET RÈGLEMENT SUR LA PROTECTION DES VÉGÉTAUX

Importer/Importateur	Exporter/Exportateur
SGS AXYS ANALYTICAL SERVICES LTD. 2045 MILLS ROAD SIDNEY, BRITISH COLUMBIA V8L3S8 Applicant Name: PILLAY, KALAI Phone: 250-655-5832 Fax: 250-655-5811 Email: KALAI.PILLAY@SGS.COM	VARIOUS EXPORTERS ALL COUNTRIES
Quarantine/Destination/Quarantaine Same as importer's address stated above.	**Producer/Producteur**
Valid/Valide from/du 2017/11/16 year/month/day année/mois/jour **to/au** 2018/11/16 year/month/day année/mois/jour	**Country of Propagation or Production / Le pays de multiplication ou de production** ALL COUNTRIES

For the entry of/ Pour l'entrée de: ____ Single shipment/Chargement simple XX Multiple shipments/Chargements multiples

Place of entry into Canada/Lieu d'entrée au Canada:
ALL REGULATED PORTS

FOR THE IMPORTATION OF:/POUR L'IMPORTATION DE:
(Description of things(s)/Description de la ou des choses)
SOIL AND SOIL-RELATED MATTER FOR ANALYSIS

A PERSON WHO IMPORTS A THING UNDER THIS PERMIT SHALL COMPLY WITH ALL THE CONDITIONS SET OUT HEREIN/TOUTE PERSONNE QUI IMPORTE UNE CHOSE EN VERTU DE CE PERMIS DEVRA RESPECTER TOUTES LES CONDITIONS DÉCRITES CI-DESSOUS

Selected Conditions / Conditions Choisies

SOIL AND SOIL-RELATED MATTER FOR ANALYSIS

1. 1. Import documentation: Importation is authorized under Section 43 of the Plant Protection Regulations. Phytosanitary certification at origin is waived.

2. End use: The material must not be sold or distributed; for research or analysis only.

3. Containment: The material must be routed directly to the approved facility. The material must be packaged and transported in sturdy, leak-proof containers. The material must be contained until processed.

4. Disposal: Any residual material must be treated in a dry oven at 121°C for a minimum of 6 hours or be autoclaved at 15 lbs pressure at 121°C for a minimum of 30 minutes, or sterilized or disposed of by another CFIA-approved method.

5. Traceability: At all times (i.e. during importation, research or analysis, storage and until disposal), the material must be identified with labels or other effective identification means. The importer must keep a log book of all importations. This log book must show where the material is in the facility and its

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Canadian Food Inspection Agency
Government of Canada

Agence canadienne d'inspection des aliments
Gouvernement du Canada

Permit No./N° de permis:
P-2017-02875
ORIGINAL
2017/11/16
year/mo/day
année/mois/jour

4033

IMPORT PERMIT PERMIS D'IMPORTATION

THIS PERMIT IS ISSUED PURSUANT TO:/CE PERMIS EST DÉLIVRÉ CONFORMÉMENT A:

THE PLANT PROTECTION ACT AND REGULATIONS/LOI ET RÈGLEMENT SUR LA PROTECTION DES VÉGÉTAUX

Importer/Importateur	Exporter/Exportateur
SGS AXYS ANALYTICAL SERVICES LTD. 2045 MILLS ROAD SIDNEY, BRITISH COLUMBIA V8L3S8 Applicant Name: PILLAY, KALAI Phone: 250-655-5832 Fax: 250-655-5811 Email: KALAI.PILLAY@SGS.COM	VARIOUS EXPORTERS ALL COUNTRIES

Selected Conditions / Conditions Choisies (Continued/Suite)

status (e.g. treated, stored).

6. Movement: If the imported material is moved to another facility for further analysis, treatment or disposal, a CFIA inspector must verify that the receiving facility is approved by the CFIA before issuing a Movement Certificate.

Authorized By:/Approuvé par:

Angela Bronno

For the Minister of Agriculture and Agri-Food
Pour le ministre d'agriculture et agroalimentaire

The information is required by (for) the Canadian Food Inspection Agency for the purpose of verifying import products. Information may be accessible or protected as required under the provisions of the Access to Information Act.

CFIA / ACIA 5067 (98/04)

Canada

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Water Pretreatment Record

Contract: 4033 Date: 04-Jul-2018 H_2SO_4 Lot No.

Analyst: KO $Na_2S_2O_3$ Lot No.

LIMS I.D.	Bottle Number	Client ID	pH Adjustment		Residual Chlorine *		Other Preservative	
			Initial pH	Final pH	SLA-110 pos or neg	Amt of $Na_2S_2O_3$ Added (80 mg/L)		Amount Added
L29628-1	1/2	LDW18-SP-RB1	6.5	—	neg			
L29628-2	1/2	LDW18-SP-RB2	6.5	—	neg			
L29628-3	1/1	LDW18-SP-30	6.5	—	neg			
L29628-4	1/1	LDW18-SP-32	6.5	—	neg			
L29628-5	1/1	LDW18-SP-35	6.5	—	neg			
L29628-6	1/1	LDW18-SP-38	6.5	—	neg			
L29628-7	1/2	LDW18-SP-42	6.5	—	neg			
L29628-8	1/1	LDW18-SP-43	6.5	—	neg			
L29628-9	1/1	LDW18-SP-06	6.5	—	neg			

* Determined by HACH Test or Starch/KI Test (SLA-110).

For samples requiring pretreatment, were all available bottles for the sample pretreated? (Yes) No

Checked by: Ava Vosknudsen

Date: 04-Jul-2018

Comments

FWO-105 Rev 06, 21-Feb-2017

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AXYS Analytical Services Ltd.

Water Pretreatment Record

Contract: 4033 Date: 04-Jul-2018 H_2SO_4 Lot No.

Analyst: KD $Na_2S_2O_3$ Lot No.

LIMS I.D.	Bottle Number	Client ID	pH Adjustment		Residual Chlorine *		Other Preservative	
			Initial pH	Final pH	SLA-110 pos or neg	Amt of $Na_2S_2O_3$ Added (80 mg/L)		Amount Added
L29628-10	1/1	LDW18-SP-33	6.5		neg			
L29628-11	1/2	LDW18-SP-24	6.5		neg			
L29628-12	1/2	LDW18-SP-24-FD	6.5		neg			
L29628-13	1/1	LDW18-SP-05	6.5		neg			
L29628-14	1/2	LDW18-SP-57	6.5		neg			
L29628-15	1/1	LDW18-SP-73	6.5		neg			
L29628-16	1/1	LDW18-SP-74	6.5		neg			
L29628-17	1/2	LDW18-SP-77	6.5		neg			
L29628-18	1/2	LDW18-SP-78	6.5		neg			

* Determined by HACH Test or Starch/KI Test (SLA-110).

For samples requiring pretreatment, were all available bottles for the sample pretreated? (Yes) No

Checked by: Ava Vadnais

Date: 04-Jul-2018

Comments

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AXYS Analytical Services Ltd.

Water Pretreatment Record

Contract: 4033 Date: 04-Jul-2018 H_2SO_4 Lot No.

Analyst: KD $Na_2S_2O_3$ Lot No.

LIMS I.D.	Bottle Number	Client ID	pH Adjustment		Residual Chlorine *		Other Preservative	
			Initial pH	Final pH	SLA-110 pos or neg	Amt of $Na_2S_2O_3$ Added (80 mg/L)		Amount Added
L29628-19	1/2	LDW18-SP-79	6.5	—	neg			
L29628-20	1/1	LDW18-SP-84	7.0		neg			
L29628-21	1/2	LDW18-SP-87	6.5	—	neg			
L29628-22	1/2	LDW18-SP-01	7.0	—	neg			
L29628-23	1/1	LDW18-SP-45	7.0		neg			
L29628-24	1/1	LDW18-SP-47	6.5		neg			
L29628-25	1/2	LDW18-SP-66	6.5	—	neg			
L29628-26	1/2	LDW18-SP-70	7.0	—	neg			
L29628-27	1/1	LDW18-SP-83	6.5		neg			

* Determined by HACH Test or Starch/KI Test (SLA-110).

For samples requiring pretreatment, were all available bottles for the sample pretreated? (Yes) No

Checked by: Ava Voskuilson

Date: 04-Jul-2018

Comments

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AXYS Analytical Services Ltd.

Water Pretreatment Record

Contract: 4033 Date: 04-Jul-2018 H_2SO_4 Lot No.

Analyst: KD $Na_2S_2O_3$ Lot No.

LIMS I.D.	Bottle Number	Client ID	pH Adjustment		Residual Chlorine *		Other Preservative
			Initial pH	Final pH	SLA-110 pos or neg	Amt of $Na_2S_2O_3$ Added (80 mg/L)	Amount Added
L29628-28	1/2	LDW18-SP-86	6.5	✓	neg		
L29628-29	1/2	LDW18-SP-88	6.5	✓	neg		
L29628-29	1/2	Duplicate Test	6.5	✓	neg		

* Determined by HACH Test or Starch/KI Test (SLA-110).

For samples requiring pretreatment, were all available bottles for the sample pretreated? (Yes) No

Checked by: Ava Voskoudson

Date: 04-Jul-2018

Comments

BATCH ID: WG66111

Method ID: MLA-017 R20.10	
Method ID:	
Method ID:	
Analyst:	
Start Date:	**23-Nov-18**
Batch List Author:	MPERDOMO/CROWAN
Checked By:	EK
Project Manager:	Georgina B
Glassware Type:	**Regular**
Glassware Treatment:	**Regular**
Rotovap Type:	**Regular**
Matrix:	**Aqueous**
Sample size:	1 L
Moistures required?	NO
Lipids required?	NO
Extraction Solvent:	DCM
Biohazard Type:	None

Comments: Analysis of FILTERED water only

NON-ROUTINE extraction: these samples **must** be millipore filtered and the solids discarded BEFORE the surrogate is spiked into the aqueous portion.

MDL Q4 MLA017 Aq 2/2
| Filtration is not usually required for DX aq. MDL.

SPMs must have AUT and SUR combined in c-tube before spiking into the water.

Calibration: | DX041D-CAL/

previous WG's associated with samples:

; #Keep Discards: 0

Contract #	Sample	Wt	Contract #	Sample	Wt
4033	L29628-27	1 L			

Spiking:

Product	Samples required:	Before Extraction: Surrogate	After Extraction: Cleanup Surrogate	Recovery	F.V.	U-vial	Instructions and Comments:
DX017.1613	L29628-27. WG66111-101, 102, 103, 104	20uL DX049A-SUR/03 (7132) #134pT	20uL DX044A-SUR/07 (7130) #76.22pT	10uL DX021A-REC/01 (7148) #54pT	20 uL	GCMS	none

BATCH ID: WG66111

QC Samples	Type and Weight	Analysis QC required for:	Authentic spiking:	Comments:
WG66111-101 BLANK	1L SEASTAR ULTRA PURE WATER	DX017.1613		
WG66111-102 SPM	1L SEASTAR ULTRA PURE WATER	DX017.1613	1000uL DX036A-AUT/ 03 #100 PT	SPMs must have AUT and SUR **combined in c-tube before spiking** into the water.
WG66111-103 SPMDUP	1L SEASTAR ULTRA PURE WATER	DX017.1613	1000uL DX036A-AUT/ 03 #99 PT	SPMs must have AUT and SUR **combined in c-tube before spiking** into the water.
WG66111-104 MDL	1L SEASTAR ULTRA PURE WATER	DX017.1613	100uL DX041A-AUT/ 01 #101 PT (713)A)	SPMs must have AUT and SUR **combined in c-tube before spiking** into the water.

QC Samples	Type and Weight	Analysis QC required for:	Authentic spiking:	Comments:

AXYS Analytical Services Ltd

Sample Labeling Information: Batch ID: WG66111 Date: ~~22~~ 23 NOV 2018 Analyst: AK Contract #: 4033

Method: MLA-017 R20.10

AK 23 NOV 2018

Sample ID	Sample Type and Description	Original Labelling	LIMS label correct as per client
L29628-27	Clear faintly-yellow liquid with brown particulate	LDW18-SP-83	UMH 01OCT2018 ☒
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐

AXYS Analytical Services Ltd

Sample Labeling Information: Batch ID: WG66111 Date: 23 NOV 2018 Analyst: AK/EK Contract #: 4033

Method: MLA-017 R20.10

Sample ID	Sample Type and Description	Original Labelling	LIMS label correct as per client
WG66111-103 (SPMDUP)	~~Duplicate of L2916828-27~~ Spiked Matrix Replicate Clear colourless liquid	~~LDW18-SP-83~~ 23Nov2018 EK Seastar Ultra Pure Water bottled:20Nov2018	01DEC2018 ☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐

AXYS Analytical Services Ltd

Sample Labeling Information: Batch ID: WG66111 Date: 23 NOV 2018 Analyst: AK/EK Contract #: NONE

Method: MLA-017 R20.10

Sample ID	Sample Type and Description	Original Labelling	LIMS label correct as per client
WG66111-101 (BLANK)	Procedural Blank clear colourless liquid	Seastar Ultra Pure Water, bottled: 20Nov2018	UMM 01DEC2018 ☐
WG66111-102 (SPM)	Spiked Matrix clear colourless liquid	Seastar Ultra Pure Water, bottled: 20Nov2018	☐
WG66111-104 (MDL)	Method Detection Limit clear colourless liquid	Seastar Ultra Pure Water, bottled: 20Nov2018	☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐
			☐

SGS AXYS Analytical Services Ltd

Sample Wt #2 : Batch ID: WG66111 Chemist EK/AK Date: 23 NOV 2018 Balance #: 3547

Method: MLA-017 R20.10

Solids Stored (Y/N): N Chemist: EK

Date: 23Nov2018 (See Notes for IDs)

Sample ID	Sample wt (g) (Compositing SLA-084 ____)						Subsample required (SLA-084 (g) _____)				Sample Wt. (g)	Filtered Y/N Date 23Nov2018 Chemist EK	Sol & Aq extracts combined Y/N Date: ____ Chemist EK
	Container _____ + Sample	Container _____ + Sample	Container _____	Container _____	Sample wt ___	Sample wt ___	Container + sample	Container	Total sample	Remaining sample			
L29628-27	1581.11		509.44		1071.67						1071.67	Y	N
WG66111-101 (BLANK)											1011.82	N	NA
WG66111-102 (SPM)											1004.45		
WG66111-103 (SPMDUP)											1003.28		
WG66111-104 (MDL)											1001.08		

UMM 01DEC2018

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Aqueous Calculation Spreadsheet

Work Group: 'G66111
Analyst: EKLAASSEN

			colours indicate:						less than tare					
Sample ID	Extraction Date	Units g	Sample wt (g) (Compositing SLA-084 ____)						Subsample required (SLA-084 (g) _____)					
			Container _____ + Sample	Container _____ + Sample	Container _____	Container _____	Sample wt ___	Sample wt ___	Bottle + cap + sample	Empty bottle	Total sample	Remainder + bottle	Remaining sample	Sample Wt. (g)
L29628-27	23-NOV-18	g	1581.11	0	509.44	0	1071.67	0	0	0	0	0	0	1071.67
WG66111-101	23-NOV-18	g	1011.82	0	0	0	0	0	0	0	0	0	0	0
WG66111-102	23-NOV-18	g	1004.45	0	0	0	0	0	0	0	0	0	0	0
WG66111-103	23-NOV-18	g	1003.28	0	0	0	0	0	0	0	0	0	0	0
WG66111-104	23-NOV-18	g	1001.08	0	0	0	0	0	0	0	0	0	0	0

1011.82
1004.45
1003.28
1001.08

FWO-379 Rev 01, 02-Nov-2018 [printed: 23/11/2018 5:13 PM] entered by: EK date: 23Nov2018 checked by: MM date: 01DEC2018

SGS AXYS Analytical Services Ltd.

Extraction Information: Batch ID: WG66111 Date: 23Nov2018 Analyst: EK/CRT/AK

Method: MLA-017 R20.10

Aqueous Extraction Information:

Stirring: Solvent used: DCM Lot/batch #: 103472 Volume: 300 mL Chemist: EK/CRT/AK

Start Date: 23Nov2018 time: 1225 end Date: 23 Nov 2018 time: 1305

Shaking: Solvent used: DCM Lot/batch #: _____ # of shakes: _____ Volume: _____ mL Chemist: _____ UHM 01 DEC 2018

Date: _____ time: _____

☐ Aqueous Particulate

Solids/Tissue Extraction Information:

Soxhlet: ____ Dean Stark: ____ Steam Distillation: ____ Base Digest: ____

Drying: Drying Time: _____ mins Analyst: _____ Reagent: _____ Lot/batch #: _____

Extraction Solvent used: _____ Volume: _____ mL Lot/batch #: _____

Other reagent used: _____ Amount: _____ Lot/batch #: _____

Other reagent used: _____ 23Nov2018 EK Amount: _____ Lot/batch #: _____

Begin: Date:_____ Time: _____ Analyst: _____ **End:** Date: _____ Time: _____ Analyst: _____

Begin: Date:_____ Time: _____ Analyst: _____ **End:** Date: _____ Time: _____ Analyst: _____

AXYS Analytical Services Ltd

Spiking Sheet - Standards Spiked into C-tube: Batch ID: WG66111 Method: MLA-017 R20.10

SLA-017 Witness name/initials: Aaron Kyle ; AK

Sample ID	Before extraction Surr. ID: DX049A-SUR/03 Date: 22 NOV 2018 Vol.: 23 20 AK 23 NOV 2018 µL Syringe#: 7132 Ampoule: 134 Analyst: EK		Before extraction Surr. ID: Date: Vol.: µL Syringe#: Ampoule: Analyst:		Before extraction Surr. ID: Date: Vol.: µL Syringe#: Ampoule: Analyst:		Before extraction Surr. ID: Date: Vol.: µL Syringe#: Ampoule: Analyst:		Addition of diluted Surr. to sample. Analyst: EK	
	Time	Witness	Time	Witness	Time	Witness	Time	Witness	Time	Witness
L29628-27	11:52	AK							12:04	AK
WG66111-101 (BLANK)	11:53	AK							12:05	AK
WG66111-102 (SPM)	11:53	AK							12:06	AK
WG66111-103 (SPMDUP)	11:53	AK							12:06	AK
WG66111-104 (MDL)	11:54	AK							12:07	AK

Sample ID	Aut. Std: DX036A-AUT/03 Date: 22 NOV 2018 Vol.: 23 AK 23 NOV 2018 1000 µL Syringe#: exact Ampoule#: 100, 99* Analyst: EK		Aut. Std: DX041A-AUT/01 Date: 23 NOV 2018 Vol.: 100 µL Syringe#: 7131A Ampoule#: vol. Analyst: EK		Aut. Std: Date: Vol.: µL Syringe#: Ampoule#: Analyst:		Aut. Std: Date: Vol.: µL Syringe#: Ampoule#: Analyst:		Addition of diluted Std. to sample Analyst: EK AUTs combined with SUR before addn. to sample? Y/N: Y	
	Time	Witness	Time	Witness	Time	Witness	Time	Witness	Time	Witness
WG66111-102 SPM	11:44	AK							12:06	AK
WG66111-103 SPMDUP	11:45 *	AK							12:06	AK
WG66111-104 MDL			11:47	AK					12:07	AK

UMM 21 DEC 2018

FWO-309 Rev 08, 18-Jull-2012

Reviewed by UMM Date 21 DEC 2018

AXYS Analytical Services Ltd

Spiking Sheet: Batch ID: WG66111 Method: MLA-017 R20.10

Witness name/ initials: N/A

Sample ID	Before extraction Surr. ID: Date: Vol.: µL Syringe#: Ampoule: Analyst:		Before extraction Surr. ID: Date: Vol.: µL Syringe#: Ampoule: Analyst:		Cleanup Std. Surr.: DX044A-SUR/08 Date: 26NOV2018 Vol.: 20 µL Syringe#: 7130 Ampoule: 76477 Start time: 0810 Fin. time: 0816 Analyst: SO	Cleanup Std. Surr.: Date: Vol.: µL Syringe#: Ampoule: Start time: Fin. time: Analyst:	Recovery Surr.: DX021A-REC/01 Date: 29NOV2018 Vol.: 10 µL F.V.: 20 µL Syringe#: 7128 Ampoule: 54 Start time: 1350 Fin. time: 13:55 Analyst: N/A	Recovery Surr.: Date: Vol.: µL F.V.: µL Syringe#: Ampoule: Start time: Fin. time: Analyst:
	Time	Witness	Time	Witness				
L29628-27					☑	☐	☑	☐
WG66111-101 (BLANK)					☑	☐	☑	☐
WG66111-102 (SPM)					☑	☐	☑	☐
WG66111-103 (SPMDUP)					☑	☐	☑	☐
WG66111-104 (MDL)					☑	☐	☑	☐
					☐	☐	☐	☐
					☐	☐	☐	☐
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Sample ID	Authentic Std: Date: Vol.: µL Syringe#: Ampoule#: Analyst:		Authentic Std: Date: Vol.: µL Syringe#: Ampoule#: Analyst:		Authentic Std: Date: Vol.: µL Syringe#: Ampoule#: Analyst:	
	Time	Witness	Time	Witness	Time	Witness

AXYS Analytical Services Ltd

Extract Cleanup - Biobead/Cu **WorkGroup:** WG66111 **Method:** MLA-017 R20.10

UHM 01DEC2018

Sample ID	BB #	BB#	Cu Test 1:	Cu Test 2:	Cu Test 3:	Cu Test 4:	Cu Test 5:	Cu Test 6:
	Portion:	Portion:	Date: 27NOV2018	Date:	Date:	Date:	Date:	Date:
			Time: 1400	Time:	Time:	Time:	Time:	Time:
			Portion: DX	Portion:	Portion:	Portion:	Portion:	Portion:
			Chemist: SO	Chemist:	Chemist:	Chemist:	Chemist:	Chemist:
L29628-27			___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
WG66111-101 (BLANK)			___ +ve ✓ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
WG66111-102 (SPM)			___ +ve ✓ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
WG66111-103 (SPMDUP)			___ +ve ✓ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
WG66111-104 (MDL)			___ +ve ✓ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
			___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
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			___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve

Reviewed by: UHM Date: 01DEC2018

AXYS Analytical Services Ltd

Extract Cleanup - Columning, etc. **WorkGroup:** WG66111

Method: MLA-017 R20.10

Cleanup Type	Portion	Date	Time	Batch # / Type	Chemist	Pre-Elute	F1 (solvent, batch #, vol [mL])	F2 (solvent, batch #, vol [mL])	F3 (solvent, batch #, vol [mL])
A/B Si (DX)	DX	26 NOV 2018	1430	$AgNO_3$ 30g 44%	SO	YES	Hex 103200, 200ml		
FI (DX)					27Nov2018 NL/SO		~~5% DCM/Hex~~	~~DCM~~ UMM 01DEC2018	
Al (DX)	DX	27 NOV 2018	14:00	312 6.0g	NL/SO	No	Hex 103200, 40ml	2% DCM/Hex 197-05, 10ml	1:1 DCM:Hex 197-05, 35ml
CC (DX)	DX	27 NOV 2018	14:20	147 0.22g	NL/SO	Yes	1:1 CycHex:DCM 026-05 2ml	1:1 EtAc:Tol 1534-04, 2ml	Tol 103470, 20ml
~~BB~~							~~1:1 DCM:Hex~~	~~1:1 DCM:Hex~~ UMM 01DEC2018	

Solvent Exchange

Before	Portion	Date	Time	Vol	Chemist
Al	DX	27NOV2018	1130 ~~1800~~ SO 27 NOV 2018	50µL	SO

UMM 01DEC2018

Extract Wash

Date:	
Chemist:	
Start time:	
Acid/Base Wash	**MeCN:H20 Wash**
20% KOH:	pH 10:
# times:	# times:
Water:	pH 7:
H2SO4:	pH 2:
# times:	
Water:	

Acetylation (AP)

Date:
Time (1st) (2nd) UMM 01DEC2018
200µL Hex:
50µL x2 Pyridine: lot #_____
50µL x2 Acetic Anhydride: batch #_____
Chemist:

Ext'n After Acetylation

Date:
Start Time:
1.75 mL 0.2M K_2CO_3: batch #_____
500µL x3 Hex:
Chemist:

Reviewed by: UMM Date: 01DEC2018

AXYS Analytical Services Ltd

Notes: Batch ID: WG66111 Method: MLA-017 R20.10

Date:	Analyst	Fraction	Notes:
26NOV2018	SO	combined	WG66111-101 BLK dried up during whilst concentrating via Rotovap.... added hexane & vortexed, SO 26NOV2018
			UMM 01 DEC 2018

Reviewed by UMM date 01DEC2018

SGS AXYS METHOD MLA-017 Rev 20

Form 1A

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-83
Sample Collection:
15-Jun-2018 12:08

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-27
Matrix:	AQUEOUS	**Sample Size:**	1.07 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	24-Oct-2018
Extraction Date:	23-Nov-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	30-Nov-2018 **Time:** 23:21:03	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_145B S: 8**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_145B S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_145B S: 1
Concentration Units:	pg/L		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

COMPOUND	LAB FLAG [1]	CONCENTRATION FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO [3]	RRT [3]
2,3,7,8-TCDD	U		0.467 (Q)		
1,2,3,7,8-PECDD [4]	U		0.467 (Q)		
1,2,3,4,7,8-HXCDD	U		0.467 (Q)		
1,2,3,6,7,8-HXCDD	U		0.467 (Q)		
1,2,3,7,8,9-HXCDD	U		0.467 (Q)		
1,2,3,4,6,7,8-HPCDD	K J	0.954	0.467 (Q)	0.63	1.001
OCDD	J	4.62	0.467 (Q)	1.00	1.000
2,3,7,8-TCDF	U		0.467 (Q)		
1,2,3,7,8-PECDF	U		0.467 (Q)		
2,3,4,7,8-PECDF	U		0.467 (Q)		
1,2,3,4,7,8-HXCDF	U		0.467 (Q)		
1,2,3,6,7,8-HXCDF	U		0.467 (Q)		
1,2,3,7,8,9-HXCDF	U		0.467 (Q)		
2,3,4,6,7,8-HXCDF	U		0.467 (Q)		
1,2,3,4,6,7,8-HPCDF	U		0.467 (Q)		
1,2,3,4,7,8,9-HPCDF	U		0.467 (Q)		
OCDF	K J	0.601	0.467 (Q)	0.52	1.002
TOTAL TETRA-DIOXINS	K	0.485	0.467 (Q)		
TOTAL PENTA-DIOXINS	U		0.467 (Q)		
TOTAL HEXA-DIOXINS	K	0.968	0.467 (Q)		
TOTAL HEPTA-DIOXINS	K	1.76	0.467 (Q)		
TOTAL TETRA-FURANS	U		0.467 (Q)		
TOTAL PENTA-FURANS	U		0.467 (Q)		
TOTAL HEXA-FURANS	U		0.467 (Q)		
TOTAL HEPTA-FURANS	U		0.467 (Q)		

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; K = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; J = concentration less than lowest calibration equivalent.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613.
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form1A.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1;
Report Filename: 1613_DIOXINS_1613DB5_L29628-27_Form1A_DX8M_145BS8_SJ2477125.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

Form 2

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-83
Sample Collection:
15-Jun-2018 12:08

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-27
Matrix:	AQUEOUS	**Sample Size:**	1.07 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	24-Oct-2018
Extraction Date:	23-Nov-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	30-Nov-2018 **Time:** 23:21:03	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_145B S: 8**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_145B S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_145B S: 1
Concentration Units:	pg absolute		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO [3]	RRT [3]
13C-2,3,7,8-TCDD		2000	1720	85.9	0.78	1.013
13C-1,2,3,7,8-PECDD [4]		2000	1630	81.7	0.63	1.382
13C-1,2,3,4,7,8-HXCDD		2000	1680	84.1	1.26	0.987
13C-1,2,3,6,7,8-HXCDD		2000	1910	95.5	1.26	0.990
13C-1,2,3,4,6,7,8-HPCDD		2000	1610	80.7	1.01	1.095
13C-OCDD		4000	2620	65.5	0.93	1.180
13C-2,3,7,8-TCDF		2000	1690	84.4	0.79	0.966
13C-1,2,3,7,8-PECDF		2000	1660	83.2	1.58	1.283
13C-2,3,4,7,8-PECDF		2000	1500	75.1	1.58	1.350
13C-1,2,3,4,7,8-HXCDF		2000	1680	84.0	0.52	0.954
13C-1,2,3,6,7,8-HXCDF		2000	1860	92.9	0.53	0.958
13C-1,2,3,7,8,9-HXCDF		2000	1670	83.3	0.50	1.004
13C-2,3,4,6,7,8-HXCDF		2000	1670	83.4	0.51	0.980
13C-1,2,3,4,6,7,8-HPCDF		2000	1490	74.3	0.45	1.062
13C-1,2,3,4,7,8,9-HPCDF		2000	1500	75.0	0.43	1.105
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD		200	165	82.3		1.001

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for percent recovery (R) are specified in Section 9.3.3, Method 1613.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613. NOTE: There is no ion abundance ratio for 37Cl4-2,3,7,8-TCDD
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form2.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1;
Report Filename: 1613_DIOXINS_1613DB5_L29628-27_Form2_DX8M_145BS8_SJ2477125.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

CLIENT SAMPLE NO.
LDW18-SP-83

PCDD/PCDF ANALYSIS TEQ DATA REPORT

SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Sample Collection:	15-Jun-2018 12:08		
Contract No.:	4033	**Project No.**	SEEP WATER PO# 2018-0069
Matrix:	AQUEOUS	**Lab Sample I.D.:**	L29628-27
Sample Size:	1.07 L	**GC Column ID:**	DB5
Concentration Units:	pg/L	**Sample Data Filename:**	**DX8M_145B S: 8**

COMPOUND	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)	WHO 2005 MAMM TEF	TEQ ND=0	TEQ ND=1/2 RL	TEQ ND=RL
2,3,7,8-TCDD	U		0.467	1	0.00e+00	2.34e-01	4.67e-01
1,2,3,7,8-PECDD	U		0.467	1	0.00e+00	2.34e-01	4.67e-01
1,2,3,4,7,8-HXCDD	U		0.467	0.1	0.00e+00	2.34e-02	4.67e-02
1,2,3,6,7,8-HXCDD	U		0.467	0.1	0.00e+00	2.34e-02	4.67e-02
1,2,3,7,8,9-HXCDD	U		0.467	0.1	0.00e+00	2.34e-02	4.67e-02
1,2,3,4,6,7,8-HPCDD	K	0.954	0.467	0.01	9.54e-03	9.54e-03	9.54e-03
OCDD		4.62	0.467	0.0003	1.39e-03	1.39e-03	1.39e-03
2,3,7,8-TCDF	U		0.467	0.1	0.00e+00	2.34e-02	4.67e-02
1,2,3,7,8-PECDF	U		0.467	0.03	0.00e+00	7.01e-03	1.40e-02
2,3,4,7,8-PECDF	U		0.467	0.3	0.00e+00	7.01e-02	1.40e-01
1,2,3,4,7,8-HXCDF	U		0.467	0.1	0.00e+00	2.34e-02	4.67e-02
1,2,3,6,7,8-HXCDF	U		0.467	0.1	0.00e+00	2.34e-02	4.67e-02
1,2,3,7,8,9-HXCDF	U		0.467	0.1	0.00e+00	2.34e-02	4.67e-02
2,3,4,6,7,8-HXCDF	U		0.467	0.1	0.00e+00	2.34e-02	4.67e-02
1,2,3,4,6,7,8-HPCDF	U		0.467	0.01	0.00e+00	2.34e-03	4.67e-03
1,2,3,4,7,8,9-HPCDF	U		0.467	0.01	0.00e+00	2.34e-03	4.67e-03
OCDF	K	0.601	0.467	0.0003	1.80e-04	1.80e-04	1.80e-04
			TOTAL TEQ		0.0111	0.747	1.48

(1) Where applicable, custom lab flags may have been used on this report; U = not detected at RL.
(2) On this form, concentrations that do not meet quantification criteria are reported, flagged, and used in the TEQ calculations.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: TEQ.xsl; Created: 05-Dec-2018 09:48:03; Application: XMLTransformer-1.17.1;
Report Filename: 1613_DIOXINS_1613-TEQ_L29628-27_TEQ_SJ2477125.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

Form 1A

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
Lab Blank
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	N/A		
Contract No.:	4033	**Lab Sample I.D.:**	WG66111-101
Matrix:	AQUEOUS	**Sample Size:**	1.00 L
Sample Receipt Date:	N/A	**Initial Calibration Date:**	24-Oct-2018
Extraction Date:	23-Nov-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	30-Nov-2018 **Time:** 21:30:43	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_145B S: 6**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_145B S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_145B S: 1
Concentration Units:	pg/L		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

COMPOUND	LAB FLAG [1]	CONCENTRATION FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO [3]	RRT [3]
2,3,7,8-TCDD	U		0.500 (Q)		
1,2,3,7,8-PECDD [4]	U		0.598 (S)		
1,2,3,4,7,8-HXCDD	U		0.500 (Q)		
1,2,3,6,7,8-HXCDD	U		0.500 (Q)		
1,2,3,7,8,9-HXCDD	U		0.500 (Q)		
1,2,3,4,6,7,8-HPCDD	U		0.500 (Q)		
OCDD	K J	0.898	0.500 (Q)	1.40	1.001
2,3,7,8-TCDF	U		0.500 (Q)		
1,2,3,7,8-PECDF	U		0.500 (Q)		
2,3,4,7,8-PECDF	U		0.500 (Q)		
1,2,3,4,7,8-HXCDF	U		0.500 (Q)		
1,2,3,6,7,8-HXCDF	U		0.500 (Q)		
1,2,3,7,8,9-HXCDF	U		0.500 (Q)		
2,3,4,6,7,8-HXCDF	U		0.500 (Q)		
1,2,3,4,6,7,8-HPCDF	U		0.500 (Q)		
1,2,3,4,7,8,9-HPCDF	U		0.500 (Q)		
OCDF	U		0.500 (Q)		
TOTAL TETRA-DIOXINS	K	0.688	0.500 (Q)		
TOTAL PENTA-DIOXINS	U		0.598 (S)		
TOTAL HEXA-DIOXINS	K	0.899	0.500 (Q)		
TOTAL HEPTA-DIOXINS	U		0.500 (Q)		
TOTAL TETRA-FURANS	U		0.500 (Q)		
TOTAL PENTA-FURANS	U		0.500 (Q)		
TOTAL HEXA-FURANS	U		0.500 (Q)		
TOTAL HEPTA-FURANS	U		0.500 (Q)		

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; K = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; J = concentration less than lowest calibration equivalent.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613.
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form1A.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1;
Report Filename: 1613_DIOXINS_1613DB5_WG66111-101_Form1A_DX8M_145BS6_SJ2477122.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

Form 2

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
Lab Blank
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	N/A		
Contract No.:	4033	**Lab Sample I.D.:**	WG66111-101
Matrix:	AQUEOUS	**Sample Size:**	1.00 L
Sample Receipt Date:	N/A	**Initial Calibration Date:**	24-Oct-2018
Extraction Date:	23-Nov-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	30-Nov-2018 **Time:** 21:30:43	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_145B S: 6**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_145B S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_145B S: 1
Concentration Units:	pg absolute		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO [3]	RRT [3]
13C-2,3,7,8-TCDD		2000	1630	81.7	0.75	1.013
13C-1,2,3,7,8-PECDD [4]		2000	1580	78.8	0.64	1.382
13C-1,2,3,4,7,8-HXCDD		2000	1570	78.5	1.27	0.987
13C-1,2,3,6,7,8-HXCDD		2000	1820	91.0	1.24	0.990
13C-1,2,3,4,6,7,8-HPCDD		2000	1610	80.4	1.04	1.095
13C-OCDD		4000	2860	71.4	0.87	1.180
13C-2,3,7,8-TCDF		2000	1640	81.9	0.79	0.967
13C-1,2,3,7,8-PECDF		2000	1560	78.0	1.58	1.282
13C-2,3,4,7,8-PECDF		2000	1450	72.4	1.55	1.351
13C-1,2,3,4,7,8-HXCDF		2000	1550	77.6	0.51	0.954
13C-1,2,3,6,7,8-HXCDF		2000	1690	84.3	0.49	0.958
13C-1,2,3,7,8,9-HXCDF		2000	1570	78.5	0.52	1.005
13C-2,3,4,6,7,8-HXCDF		2000	1480	74.2	0.52	0.980
13C-1,2,3,4,6,7,8-HPCDF		2000	1490	74.5	0.45	1.063
13C-1,2,3,4,7,8,9-HPCDF		2000	1500	75.0	0.43	1.105
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD		200	147	73.5		1.001

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for percent recovery (R) are specified in Section 9.3.3, Method 1613.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613. NOTE: There is no ion abundance ratio for 37Cl4-2,3,7,8-TCDD
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form2.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1;
Report Filename: 1613_DIOXINS_1613DB5_WG66111-101_Form2_DX8M_145BS6_SJ2477122.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

CLIENT SAMPLE NO.
Lab Blank

PCDD/PCDF ANALYSIS TEQ DATA REPORT

SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Sample Collection:	N/A		
Contract No.:	4033	**Project No.**	N/A
Matrix:	AQUEOUS	**Lab Sample I.D.:**	WG66111-101
Sample Size:	1.00 L	**GC Column ID:**	DB5
Concentration Units:	pg/L	**Sample Data Filename:**	**DX8M_145B S: 6**

COMPOUND	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)	WHO 2005 MAMM TEF	TEQ ND=0	TEQ ND=1/2 RL	TEQ ND=RL
2,3,7,8-TCDD	U		0.500	1	0.00e+00	2.50e-01	5.00e-01
1,2,3,7,8-PECDD	U		0.598	1	0.00e+00	2.99e-01	5.98e-01
1,2,3,4,7,8-HXCDD	U		0.500	0.1	0.00e+00	2.50e-02	5.00e-02
1,2,3,6,7,8-HXCDD	U		0.500	0.1	0.00e+00	2.50e-02	5.00e-02
1,2,3,7,8,9-HXCDD	U		0.500	0.1	0.00e+00	2.50e-02	5.00e-02
1,2,3,4,6,7,8-HPCDD	U		0.500	0.01	0.00e+00	2.50e-03	5.00e-03
OCDD	K	0.898	0.500	0.0003	2.69e-04	2.69e-04	2.69e-04
2,3,7,8-TCDF	U		0.500	0.1	0.00e+00	2.50e-02	5.00e-02
1,2,3,7,8-PECDF	U		0.500	0.03	0.00e+00	7.50e-03	1.50e-02
2,3,4,7,8-PECDF	U		0.500	0.3	0.00e+00	7.50e-02	1.50e-01
1,2,3,4,7,8-HXCDF	U		0.500	0.1	0.00e+00	2.50e-02	5.00e-02
1,2,3,6,7,8-HXCDF	U		0.500	0.1	0.00e+00	2.50e-02	5.00e-02
1,2,3,7,8,9-HXCDF	U		0.500	0.1	0.00e+00	2.50e-02	5.00e-02
2,3,4,6,7,8-HXCDF	U		0.500	0.1	0.00e+00	2.50e-02	5.00e-02
1,2,3,4,6,7,8-HPCDF	U		0.500	0.01	0.00e+00	2.50e-03	5.00e-03
1,2,3,4,7,8,9-HPCDF	U		0.500	0.01	0.00e+00	2.50e-03	5.00e-03
OCDF	U		0.500	0.0003	0.00e+00	7.50e-05	1.50e-04
			TOTAL TEQ		0.000269	0.839	1.68

(1) Where applicable, custom lab flags may have been used on this report; U = not detected at RL.
(2) On this form, concentrations that do not meet quantification criteria are reported, flagged, and used in the TEQ calculations.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: TEQ.xsl; Created: 05-Dec-2018 09:48:03; Application: XMLTransformer-1.17.1;
Report Filename: 1613_DIOXINS_1613-TEQ_WG66111-101_TEQ_SJ2477122.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

Form 8A

PCDD/PCDF ONGOING PRECISION AND RECOVERY (OPR)

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4033 **OPR Data Filename:** **DX8M_145B S: 2**

Matrix: AQUEOUS **Lab Sample I.D.:** WG66111-102 (A)

Extraction Date: 23-Nov-2018 **Analysis Date:** 30-Nov-2018 **Time:** 17:52:18

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT, BASED ON A 20 uL EXTRACT VOLUME.

COMPOUND	LAB FLAG [1]	ION ABUND. RATIO [2]	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS [3] (ng/mL)	% RECOVERY
2,3,7,8-TCDD		0.78	10.0	9.79	6.70 - 15.8	97.9
1,2,3,7,8-PECDD [4]		0.61	50.0	48.2	35.0 - 71.0	96.4
1,2,3,4,7,8-HXCDD		1.23	50.0	47.7	35.0 - 82.0	95.4
1,2,3,6,7,8-HXCDD		1.23	50.0	46.8	38.0 - 67.0	93.6
1,2,3,7,8,9-HXCDD		1.21	50.0	47.4	32.0 - 81.0	94.8
1,2,3,4,6,7,8-HPCDD		1.06	50.0	49.5	35.0 - 70.0	99.1
OCDD		0.86	100	94.2	78.0 - 144	94.2
2,3,7,8-TCDF		0.76	10.0	9.64	7.50 - 15.8	96.4
1,2,3,7,8-PECDF		1.57	50.0	46.7	40.0 - 67.0	93.4
2,3,4,7,8-PECDF		1.55	50.0	48.4	34.0 - 80.0	96.7
1,2,3,4,7,8-HXCDF		1.26	50.0	48.6	36.0 - 67.0	97.1
1,2,3,6,7,8-HXCDF		1.21	50.0	47.8	42.0 - 65.0	95.6
1,2,3,7,8,9-HXCDF		1.24	50.0	48.8	39.0 - 65.0	97.6
2,3,4,6,7,8-HXCDF		1.24	50.0	49.1	35.0 - 78.0	98.3
1,2,3,4,6,7,8-HPCDF		1.02	50.0	53.1	41.0 - 61.0	106
1,2,3,4,7,8,9-HPCDF		1.11	50.0	49.9	39.0 - 69.0	99.8
OCDF		0.93	100	96.5	63.0 - 170	96.5

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required Ion Abundance Ratios are specified in Table 9, Method 1613.
(3) Contract-required concentration range as determined from the percent of the test concentration in Table 6, Method 1613, under OPR.
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

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Report Filename: 1613_DIOXINS_1613DB5_WG66111-102_Form8A_SJ2477116.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

Form 8B

PCDD/PCDF ONGOING PRECISION AND RECOVERY (OPR)

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4033	**OPR Data Filename:**	**DX8M_145B S: 2**
Matrix:	AQUEOUS	**Lab Sample I.D.:**	WG66111-102 (A)
Extraction Date:	23-Nov-2018	**Analysis Date:**	30-Nov-2018 **Time:** 17:52:18

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT, BASED ON A 20 uL EXTRACT VOLUME.

LABELED COMPOUND	LAB FLAG [1]	ION ABUND. RATIO [2]	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS [3] (ng/mL)	% RECOVERY
13C-2,3,7,8-TCDD		0.79	100	84.9	20.0-175	84.9
13C-1,2,3,7,8-PECDD [4]		0.62	100	80.0	21.0-227	80.0
13C-1,2,3,4,7,8-HXCDD		1.23	100	86.1	21.0-193	86.1
13C-1,2,3,6,7,8-HXCDD		1.27	100	93.1	25.0-163	93.1
13C-1,2,3,4,6,7,8-HPCDD		1.03	100	81.6	26.0-166	81.6
13C-OCDD		0.90	200	157	26.0-397	78.4
13C-2,3,7,8-TCDF		0.79	100	86.6	22.0-152	86.6
13C-1,2,3,7,8-PECDF		1.55	100	81.5	21.0-192	81.5
13C-2,3,4,7,8-PECDF		1.58	100	75.3	13.0-328	75.3
13C-1,2,3,4,7,8-HXCDF		0.52	100	82.2	19.0-202	82.2
13C-1,2,3,6,7,8-HXCDF		0.50	100	92.6	21.0-159	92.6
13C-1,2,3,7,8,9-HXCDF		0.53	100	81.4	17.0-205	81.4
13C-2,3,4,6,7,8-HXCDF		0.52	100	84.0	22.0-176	84.0
13C-1,2,3,4,6,7,8-HPCDF		0.44	100	77.4	21.0-158	77.4
13C-1,2,3,4,7,8,9-HPCDF		0.45	100	78.3	20.0-186	78.3
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD			10.0	8.27	3.10-19.1	82.7

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required Ion Abundance Ratios are specified in Table 9, Method 1613.
(3) Contract-required concentration limits for OPR as specified in Table 6, Method 1613. Labeled compound concentrations limits are based on required percent recovery (Section 15.5, Method 1613).
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: Form8B.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1;
Report Filename: 1613_DIOXINS_1613DB5_WG66111-102_Form8B_SJ2477116.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

Form 8A
PCDD/PCDF ONGOING PRECISION AND RECOVERY (OPR)

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4033	**OPR Data Filename:**	**DX8M_145B S: 3**
Matrix:	AQUEOUS	**Lab Sample I.D.:**	WG66111-103 (DUP WG66111-102)
Extraction Date:	23-Nov-2018	**Analysis Date:**	30-Nov-2018 **Time:** 18:45:04

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT, BASED ON A 20 uL EXTRACT VOLUME.

COMPOUND	LAB FLAG [1]	ION ABUND. RATIO [2]	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS [3] (ng/mL)	% RECOVERY
2,3,7,8-TCDD		0.76	10.0	9.72	6.70 - 15.8	97.2
1,2,3,7,8-PECDD [4]		0.61	50.0	47.6	35.0 - 71.0	95.1
1,2,3,4,7,8-HXCDD		1.24	50.0	47.5	35.0 - 82.0	95.1
1,2,3,6,7,8-HXCDD		1.22	50.0	47.4	38.0 - 67.0	94.8
1,2,3,7,8,9-HXCDD		1.26	50.0	47.5	32.0 - 81.0	95.0
1,2,3,4,6,7,8-HPCDD		1.03	50.0	48.7	35.0 - 70.0	97.4
OCDD		0.89	100	95.9	78.0 - 144	95.9
2,3,7,8-TCDF		0.75	10.0	9.71	7.50 - 15.8	97.1
1,2,3,7,8-PECDF		1.59	50.0	47.1	40.0 - 67.0	94.1
2,3,4,7,8-PECDF		1.55	50.0	48.9	34.0 - 80.0	97.8
1,2,3,4,7,8-HXCDF		1.24	50.0	47.7	36.0 - 67.0	95.4
1,2,3,6,7,8-HXCDF		1.22	50.0	48.5	42.0 - 65.0	96.9
1,2,3,7,8,9-HXCDF		1.24	50.0	48.8	39.0 - 65.0	97.6
2,3,4,6,7,8-HXCDF		1.21	50.0	48.9	35.0 - 78.0	97.9
1,2,3,4,6,7,8-HPCDF		1.00	50.0	54.8	41.0 - 61.0	110
1,2,3,4,7,8,9-HPCDF		1.04	50.0	50.8	39.0 - 69.0	102
OCDF		0.89	100	90.5	63.0 - 170	90.5

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required Ion Abundance Ratios are specified in Table 9, Method 1613.
(3) Contract-required concentration range as determined from the percent of the test concentration in Table 6, Method 1613, under OPR.
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: Form8A.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1;
Report Filename: 1613_DIOXINS_1613DB5_WG66111-103_Form8A_SJ2477118.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

Form 8B

PCDD/PCDF ONGOING PRECISION AND RECOVERY (OPR)

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4033	**OPR Data Filename:**	**DX8M_145B S: 3**
Matrix:	AQUEOUS	**Lab Sample I.D.:**	WG66111-103 (DUP WG66111-102)
Extraction Date:	23-Nov-2018	**Analysis Date:**	30-Nov-2018 **Time:** 18:45:04

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT, BASED ON A 20 uL EXTRACT VOLUME.

LABELED COMPOUND	LAB FLAG [1]	ION ABUND. RATIO [2]	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS [3] (ng/mL)	% RECOVERY
13C-2,3,7,8-TCDD		0.77	100	81.8	20.0-175	81.8
13C-1,2,3,7,8-PECDD [4]		0.63	100	81.9	21.0-227	81.9
13C-1,2,3,4,7,8-HXCDD		1.27	100	81.9	21.0-193	81.9
13C-1,2,3,6,7,8-HXCDD		1.26	100	89.2	25.0-163	89.2
13C-1,2,3,4,6,7,8-HPCDD		1.05	100	85.3	26.0-166	85.3
13C-OCDD		0.90	200	160	26.0-397	80.0
13C-2,3,7,8-TCDF		0.77	100	81.8	22.0-152	81.8
13C-1,2,3,7,8-PECDF		1.57	100	81.7	21.0-192	81.7
13C-2,3,4,7,8-PECDF		1.58	100	76.9	13.0-328	76.9
13C-1,2,3,4,7,8-HXCDF		0.51	100	78.3	19.0-202	78.3
13C-1,2,3,6,7,8-HXCDF		0.51	100	85.4	21.0-159	85.4
13C-1,2,3,7,8,9-HXCDF		0.51	100	81.1	17.0-205	81.1
13C-2,3,4,6,7,8-HXCDF		0.51	100	79.6	22.0-176	79.6
13C-1,2,3,4,6,7,8-HPCDF		0.44	100	75.1	21.0-158	75.1
13C-1,2,3,4,7,8,9-HPCDF		0.44	100	77.5	20.0-186	77.5
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD			10.0	8.14	3.10-19.1	81.4

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required Ion Abundance Ratios are specified in Table 9, Method 1613.
(3) Contract-required concentration limits for OPR as specified in Table 6, Method 1613. Labeled compound concentrations limits are based on required percent recovery (Section 15.5, Method 1613).
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: Form8B.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1;
Report Filename: 1613_DIOXINS_1613DB5_WG66111-103_Form8B_SJ2477118.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

PCDD/PCDF ANALYSIS REPORT
RELATIVE PERCENT DIFFERENCE

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4033
Client ID: Spiked Matrix **Concentration Units:** ng/mL

COMPOUND	WG66111-102 (A) LAB FLAG [1]	WG66111-102 (A) CONC. FOUND	WG66111-103 LAB FLAG [1]	WG66111-103 CONC. FOUND	MEAN	RELATIVE PERCENT DIFFERENCE
2,3,7,8-TCDD		9.79		9.72	9.75	0.720
1,2,3,7,8-PECDD		48.2		47.6	47.9	1.31
1,2,3,4,7,8-HXCDD		47.7		47.5	47.6	0.322
1,2,3,6,7,8-HXCDD		46.8		47.4	47.1	1.27
1,2,3,7,8,9-HXCDD		47.4		47.5	47.5	0.189
1,2,3,4,6,7,8-HPCDD		49.5		48.7	49.1	1.74
OCDD		94.2		95.9	95.0	1.80
2,3,7,8-TCDF		9.64		9.71	9.67	0.729
1,2,3,7,8-PECDF		46.7		47.1	46.9	0.725
2,3,4,7,8-PECDF		48.4		48.9	48.6	1.15
1,2,3,4,7,8-HXCDF		48.6		47.7	48.1	1.80
1,2,3,6,7,8-HXCDF		47.8		48.5	48.1	1.42
1,2,3,7,8,9-HXCDF		48.8		48.8	48.8	0.069
2,3,4,6,7,8-HXCDF		49.1		48.9	49.0	0.405
1,2,3,4,6,7,8-HPCDF		53.1		54.8	54.0	3.10
1,2,3,4,7,8,9-HPCDF		49.9		50.8	50.4	1.90
OCDF		96.5		90.5	93.5	6.42

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.
Signed: _____Kristen Bowes_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: RPD.xsl; Created: 05-Dec-2018 09:48:45; Application: XMLTransformer-1.17.1;
Report Filename: RPD_DIOXINS_1613-RPD_WG66111-103_WG66111-102_.html; Workgroup: WG66111; Design ID: 491]

SGS Axys Analytical Services, Ltd.

Method: G:\Masslynx\Inst_M\Master methods and layouts\Current Methods\DX_Log.mdb 30 Oct 2014 14:48:05
Calibration: G:\Masslynx\Inst_M\Projects\181023DX.pro\CurveDB\DX8M_126A-6A.cdb 26 Oct 2018 12:48:18

Compound name: -

#	Name	ID	Sample Text	Acq.Date	Acq.Time
1	DX8M_126AS1	DX041A-CAL,,/01-14	1,,1.0uL CS-0.2 Sens	24-Oct-18	08:14:17
2	DX8M_126AS2	DX041B-CAL,,/01-15	1,,1.0uL CS-1	24-Oct-18	09:16:40
3	DX8M_126AS3	DX041C-CAL,,/01	1,,1.0uL CS-2	24-Oct-18	10:09:08
4	DX8M_126AS4	DX041F-CAL,,/01-8	1,,1.0uL CS-5	24-Oct-18	11:04:22
5	DX8M_126AS5	DX041E-CAL,,/01	1,,1.0uL CS-4	24-Oct-18	11:59:36
6	DX8M_126AS6	DX041D-CAL,,/01-82	1,,1.0uL Cal Win/Res	24-Oct-18	12:54:49
7	DX8M_126AS7	DX003A-SSV,,/01	1,,1.0uL Cal	24-Oct-18	13:50:03
8	DX8M_126AS8	DX041D-CAL,,/01-82	1,,1.0uL Cal Win/Res	24-Oct-18	14:45:09

Experiment Calibration Report **MassLynx 4.1** DX B/N-12EAS:1 CAL1 Page 1 of 1

File: Experiment: DX_DB5_1_04.exp Reference: pfk.ref Function: 3 @ 200 (ppm)

Printed: Wednesday, October 24, 2018 08:12:25 Pacific Daylight Time Approval yx 24 Oct 2018

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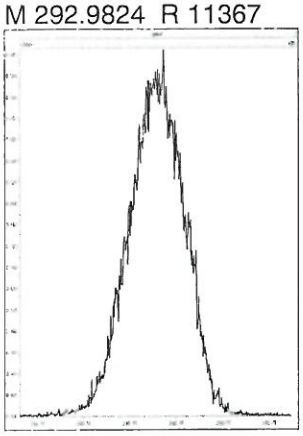
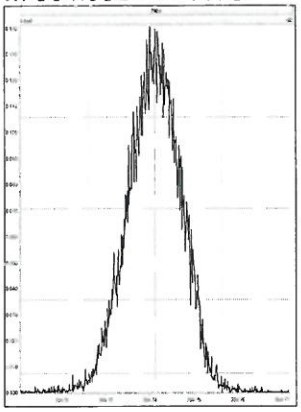
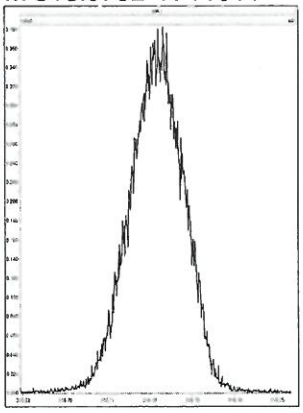


M 304.9824 R 11737



M 318.9792 R 11011



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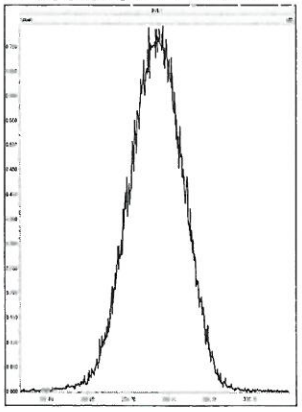

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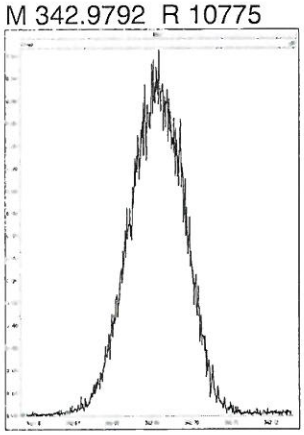

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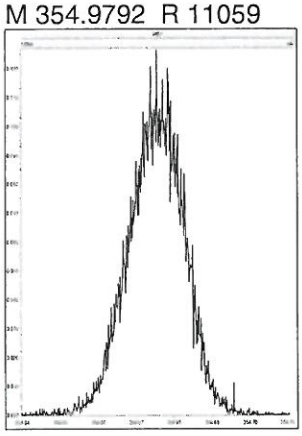

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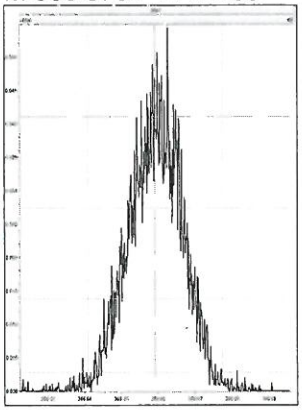
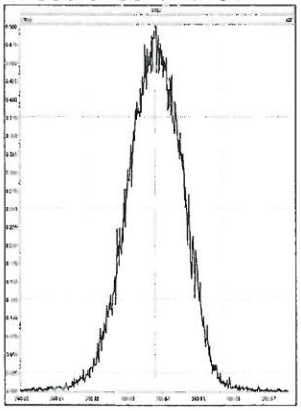


M 380.9760 R 11011



Experiment Calibration Report **MassLynx 4.1**

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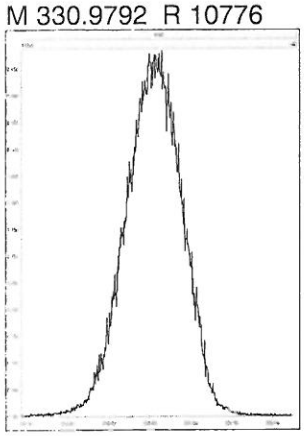

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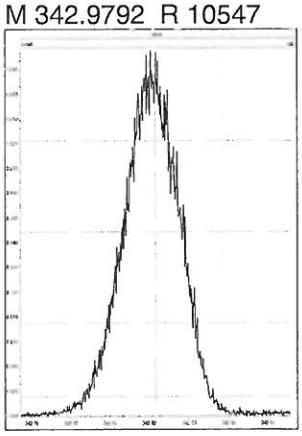
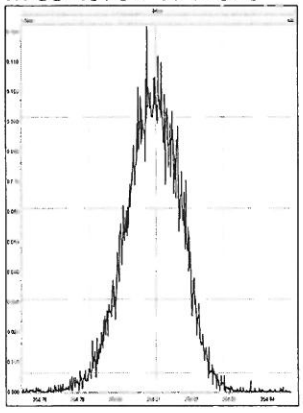
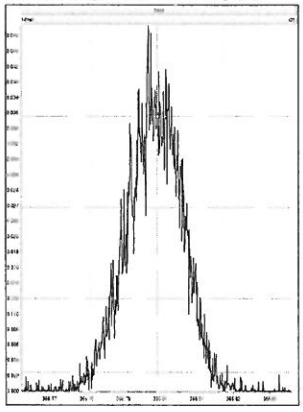


M 354.9792 R 12020



M 366.9792 R 11362



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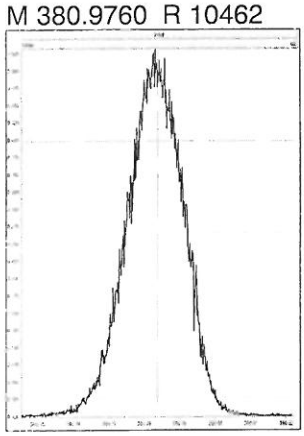
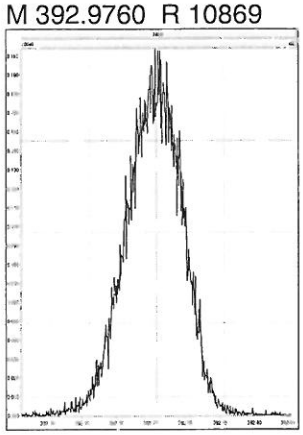
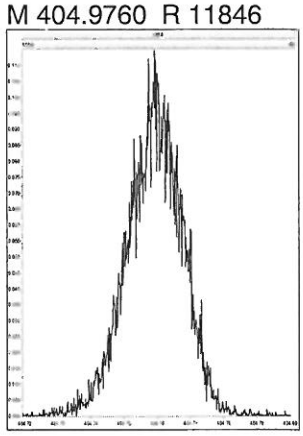


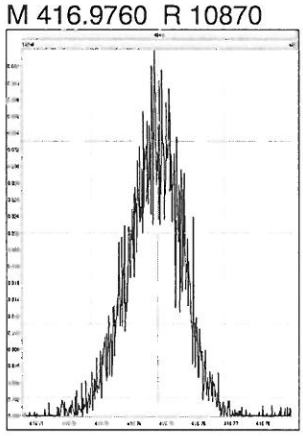
M 392.9760 R 10869



M 404.9760 R 11846



M 416.9760 R 10870



Experiment Calibration Report **MassLynx 4.1**

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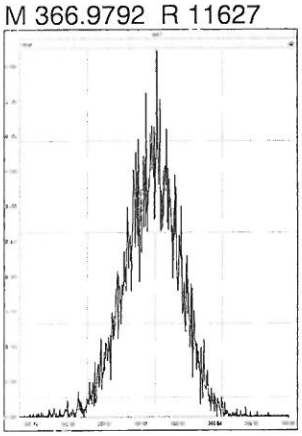
Printed: Wednesday, October 24, 2018 08:12:59 Pacific Daylight Time

M 366.9792 R 11627



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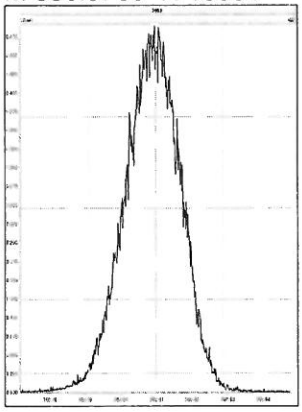
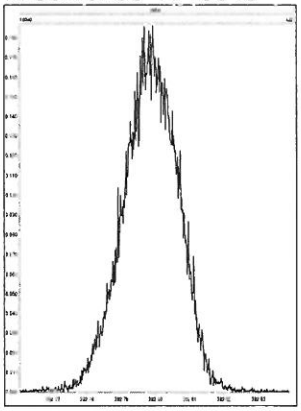


M 392.9760 R 10545



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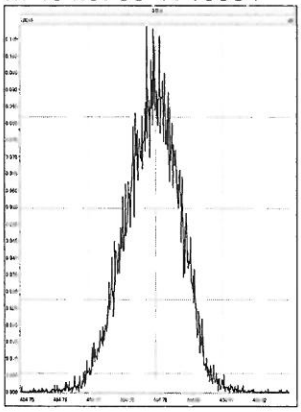
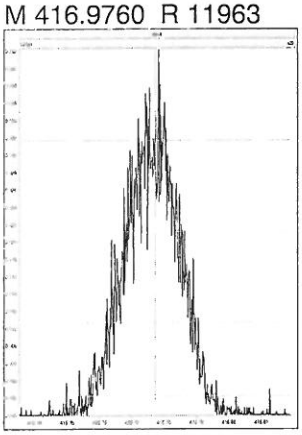
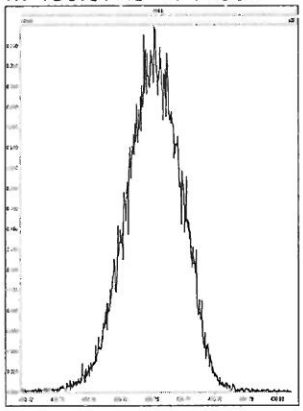


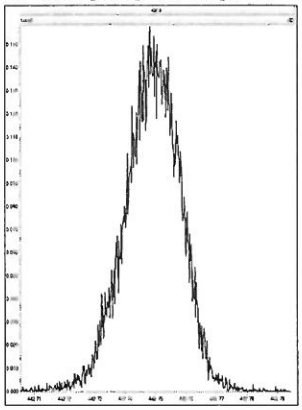
M 416.9760 R 11963



M 430.9728 R 11062



M 442.9728 R 11572



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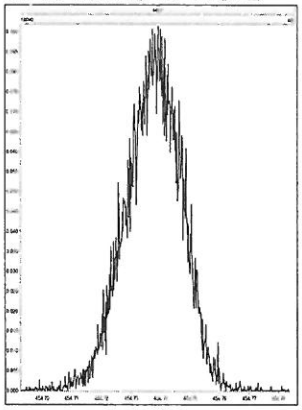

Experiment Calibration Report **MassLynx 4.1**

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Printed: Wednesday, October 24, 2018 08:13:15 Pacific Daylight Time

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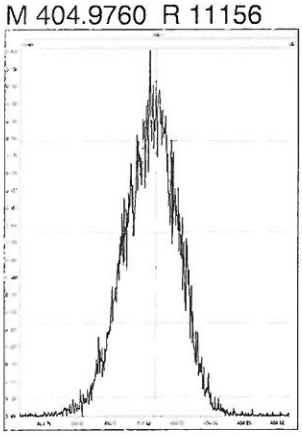

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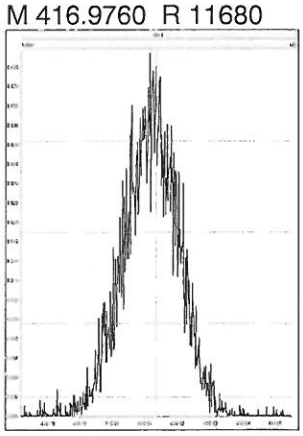

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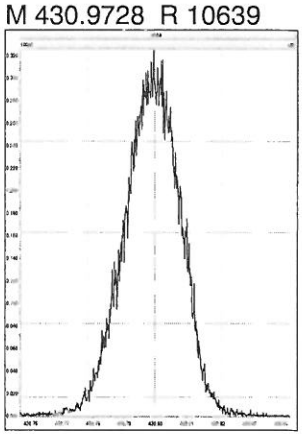

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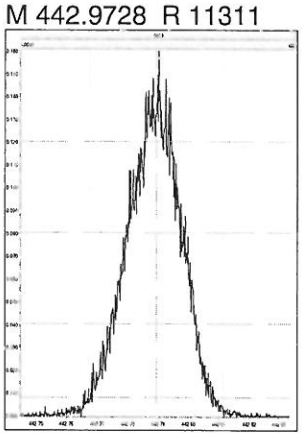
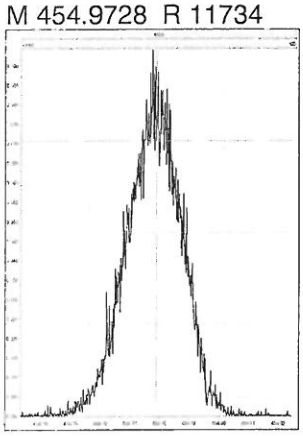


M 454.9728 R 11734



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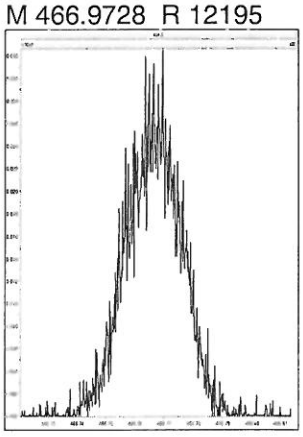

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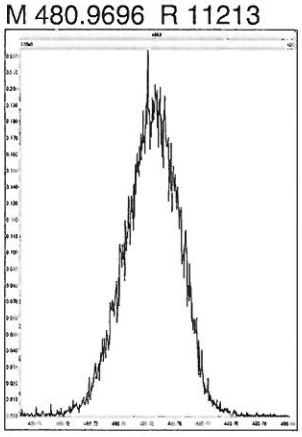

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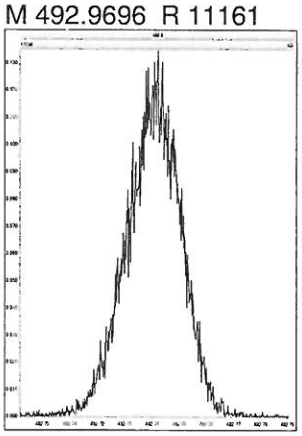

Experiment Calibration Report **MassLynx 4.1**

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Printed: Wednesday, October 24, 2018 08:13:32 Pacific Daylight Time

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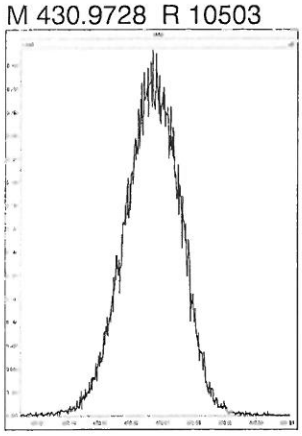

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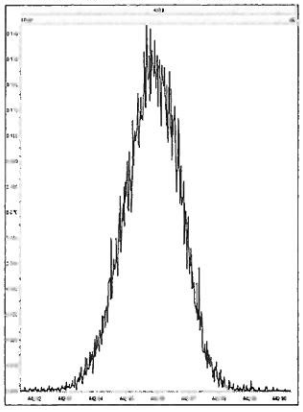

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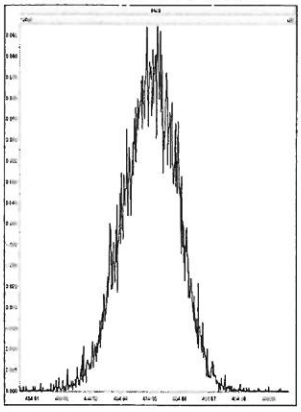

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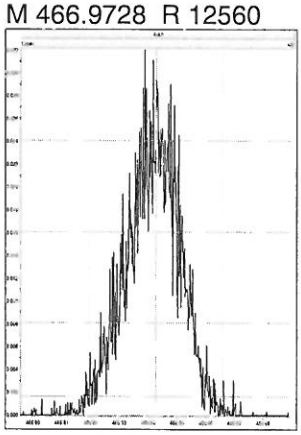

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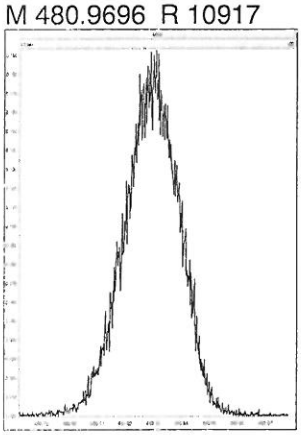

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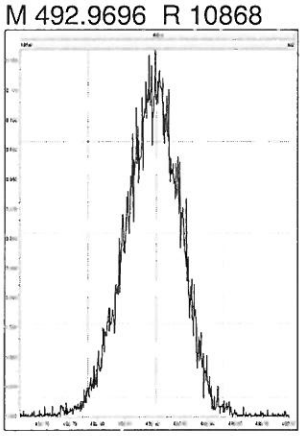

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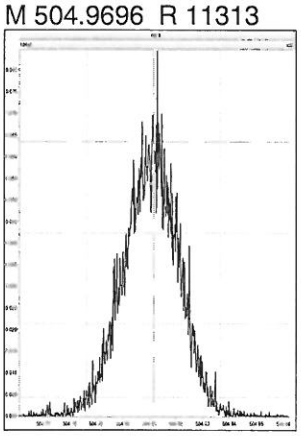

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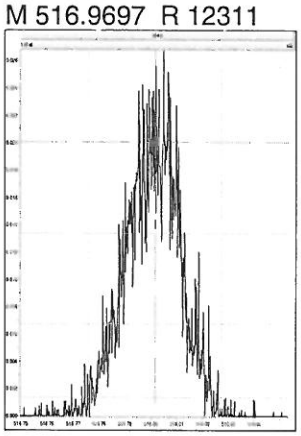


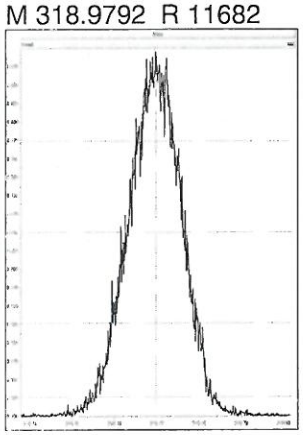
Resolution Check Report **MassLynx 4.1**

dx8m-126a
Col 2 5:8

Printed: Wednesday, October 24, 2018 15:49:29 Pacific Daylight Time

Approved by JT
24-OCT-18

M 318.9792 R 11682



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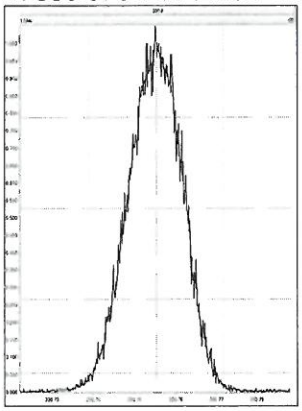

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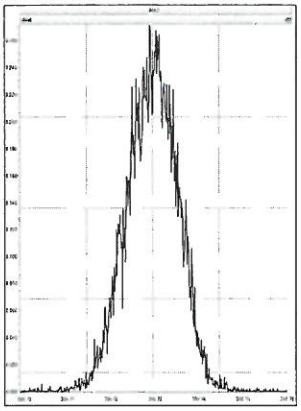

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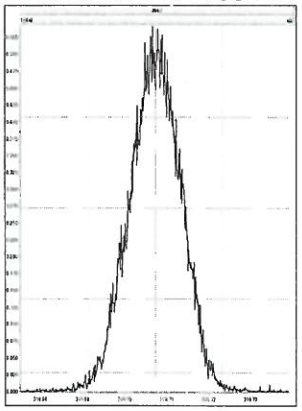

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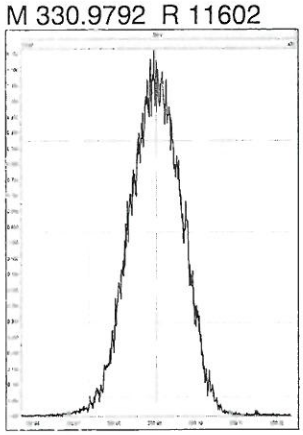

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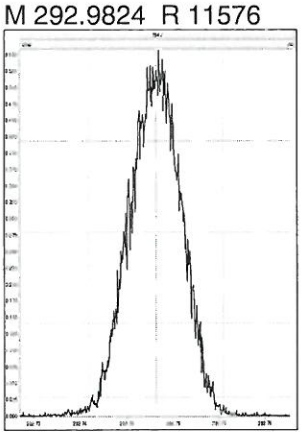

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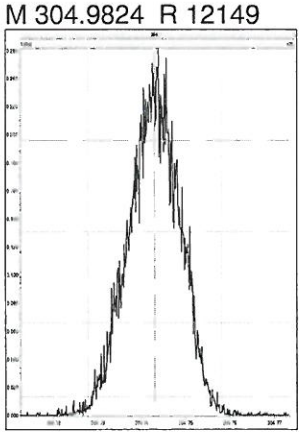

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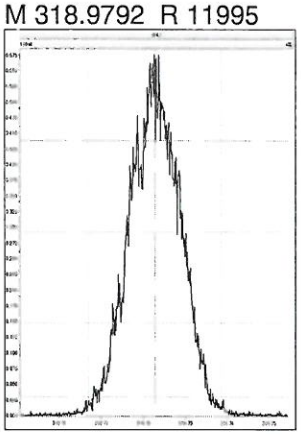

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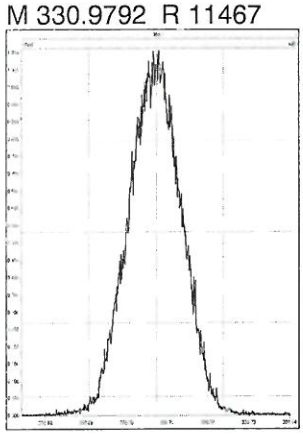

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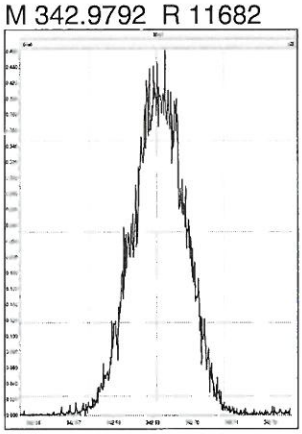

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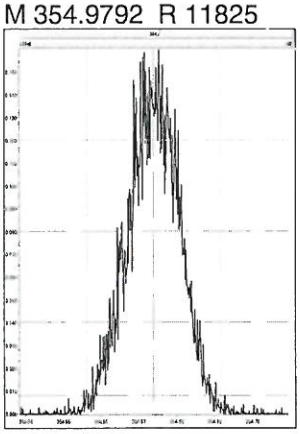

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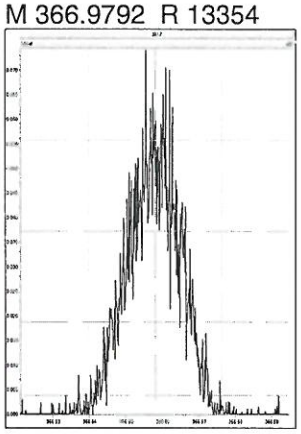

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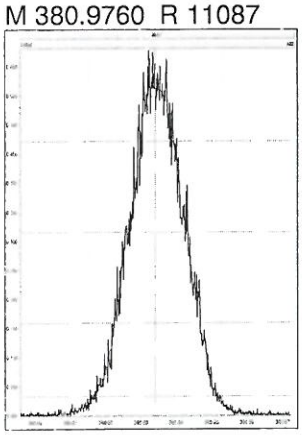

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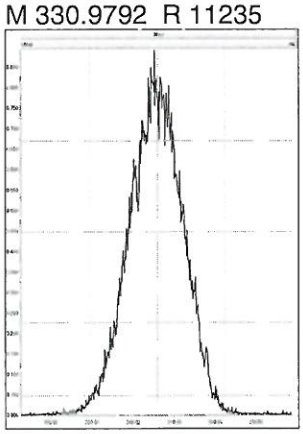

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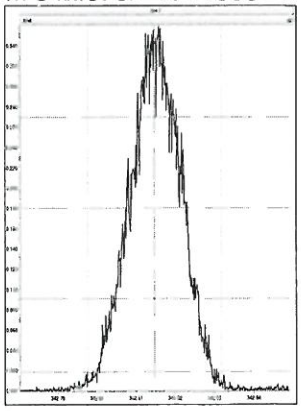

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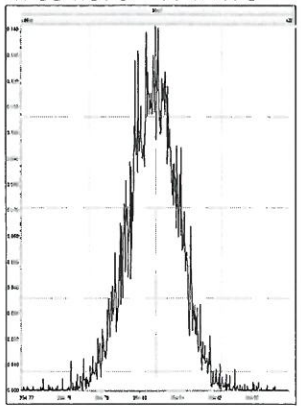

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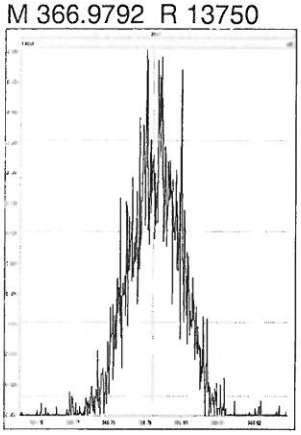

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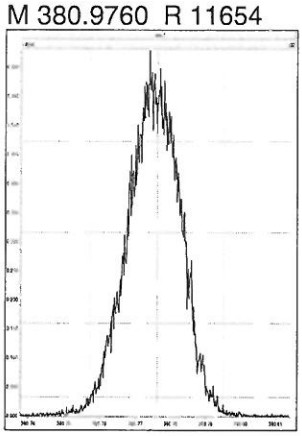

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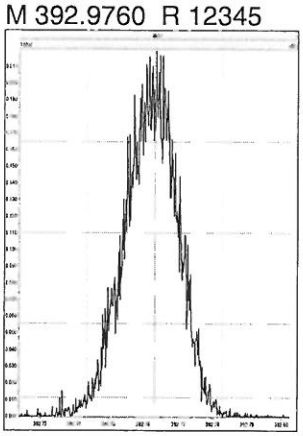

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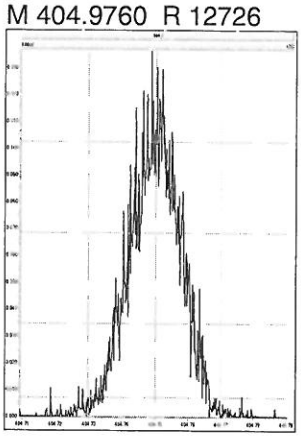

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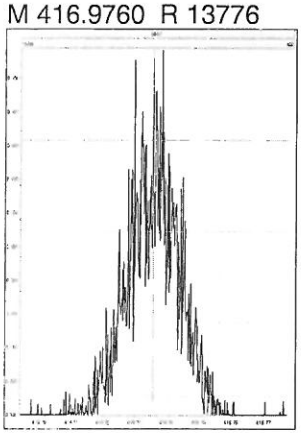

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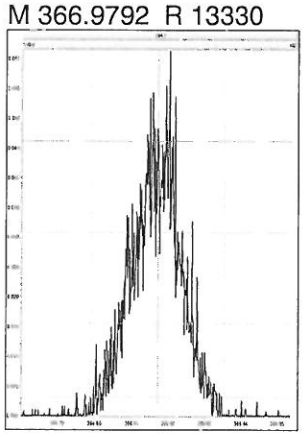

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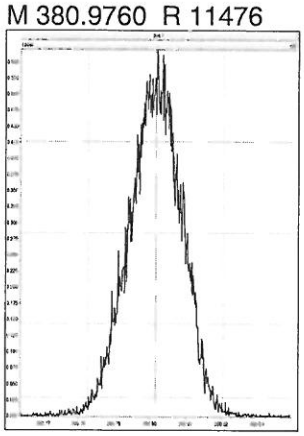

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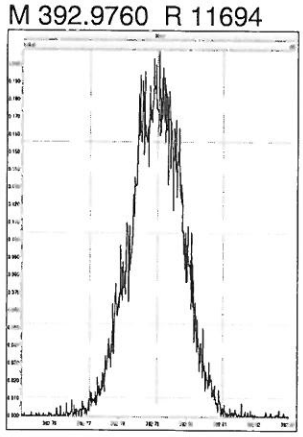

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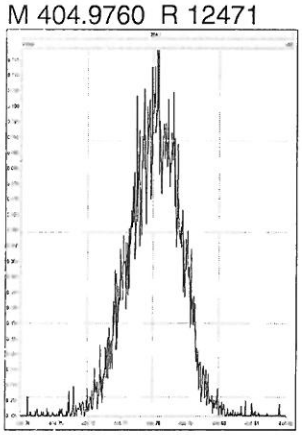

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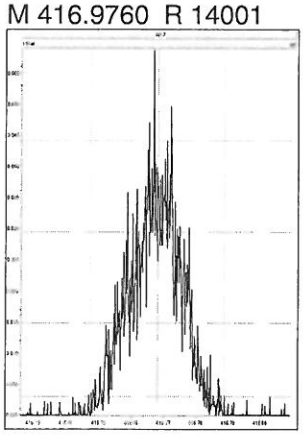

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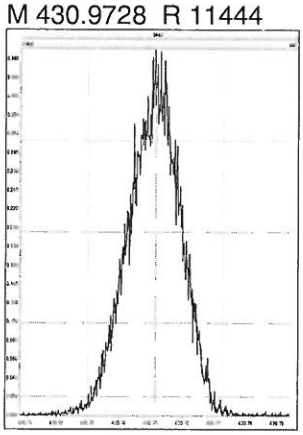

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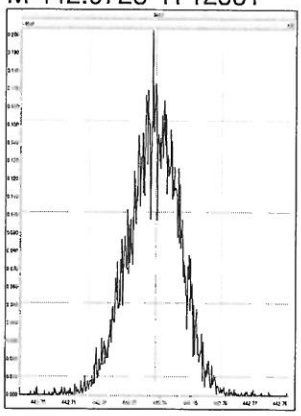

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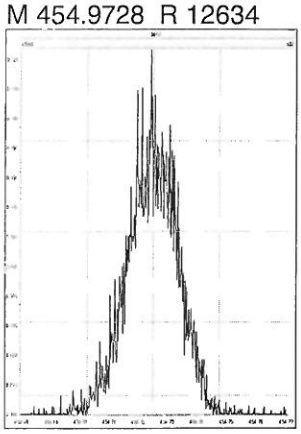

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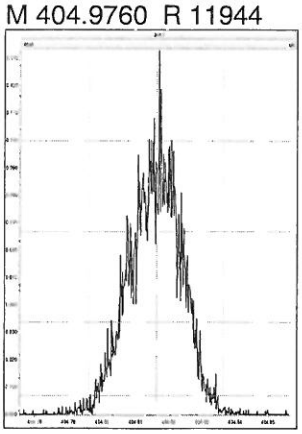

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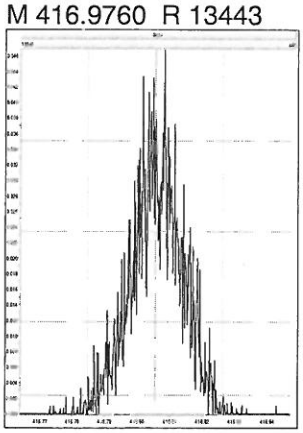

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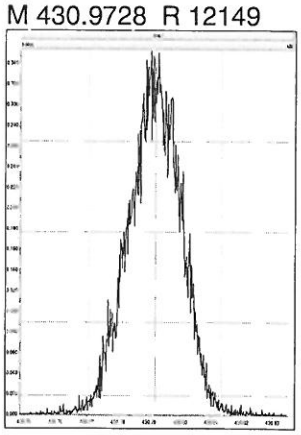

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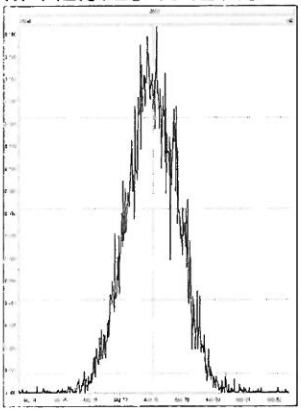

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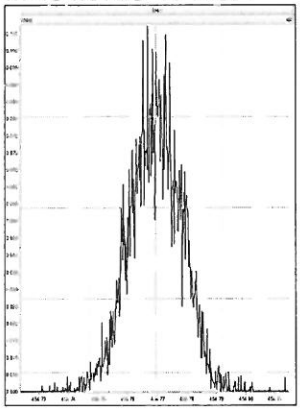

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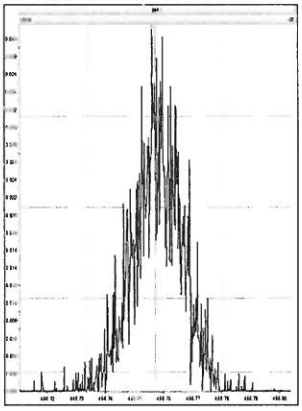

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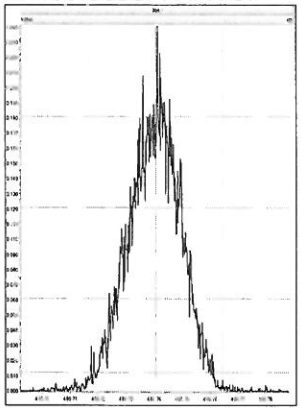

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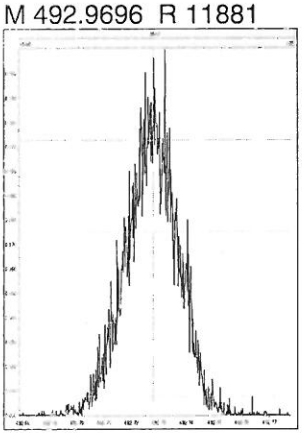

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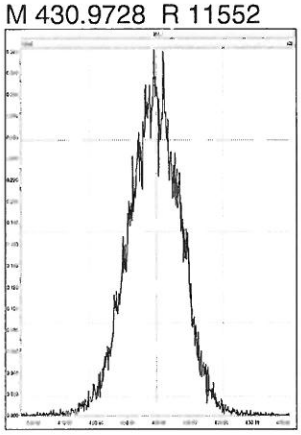

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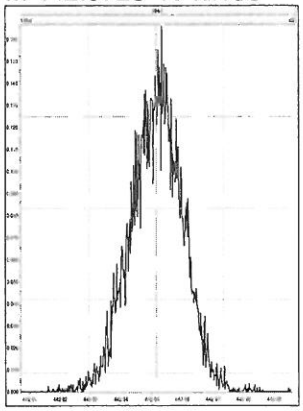

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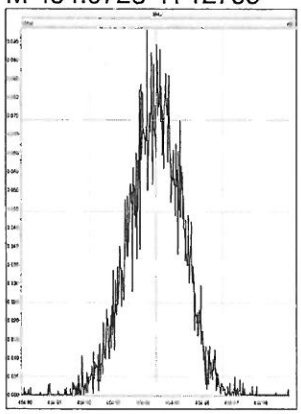

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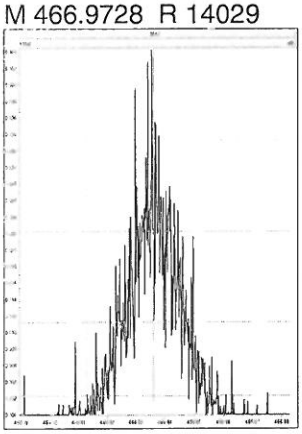

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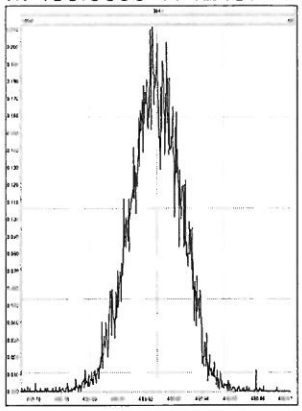

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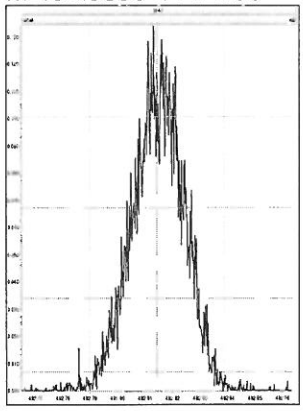

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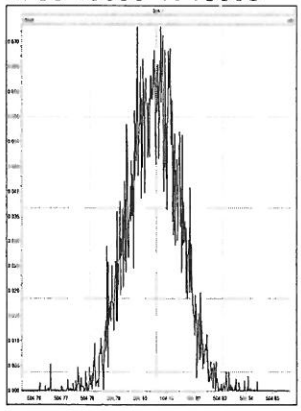

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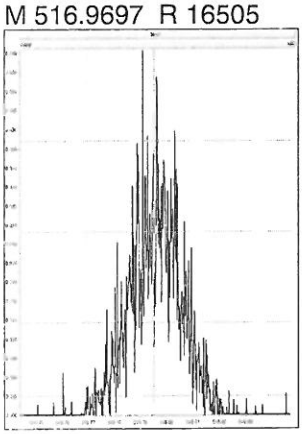

DX8M_126A-6A

Sample List Report **MassLynx 4.1 SCN627**

Sample List: G:\Masslynx\Inst_M\Projects\181023DX.PRO\SampleDB\DX8M_126A-6A.SPL Page 1 of 1
Last Modified: Friday, October 26, 2018 13:05:38 Pacific Daylight Time
Printed: Friday, October 26, 2018 13:05:41 Pacific Daylight Time Page Position (1, 1)

	File Name	Sample ID	File Text	Sample Type	TCDD	TCDF	Pe-Hp	Octa	13C-Te-Hp	13C-OCDD	Rec Std	C/Up
1	DX8M_126AS1	DX041A-CAL,,/01-14	1,,1.0uL CS-0.2 Sens	Standard	.1	.1	.5	1	100	200	100	.1
2	DX8M_126AS2	DX041B-CAL,,/01-15	1,,1.0uL CS-1	Standard	.5	.5	2.5	5	100	200	100	.5
3	DX8M_126AS3	DX041C-CAL,,/01	1,,1.0uL CS-2	Standard	2	2	10	20	100	200	100	2
4	DX8M_126AS4	DX041F-CAL,,/01-8	1,,1.0uL CS-5	Standard	200	200	1000	2000	100	200	100	200
5	DX8M_126AS5	DX041E-CAL,,/01	1,,1.0uL CS-4	Standard	40	40	200	400	100	200	100	40
6	DX8M_126AS6	DX041D-CAL,,/01-82	1,,1.0uL Cal Win/Res	Standard	10	10	50	100	100	200	100	10
7	DX8M_126AS7	DX003A-SSV,,/01	1,,1.0uL Cal	QC	10	10	50	100	100	200	100	10
8	DX8M_126AS8	DX041D-CAL,,/01-82	1,,1.0uL Cal Win/Res	QC	10	10	50	100	100	200	100	10

SGS AXYS METHOD MLA-017 Rev 20

Form 3A
PCDD/PCDF INITIAL CALIBRATION RELATIVE RESPONSES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 24-Oct-2018

Instrument ID: HR GC/MS

GC Column ID: DB5

CS0 Data Filename: DX8M_126A S: 1
CS1 Data Filename: DX8M_126A S: 2
CS2 Data Filename: DX8M_126A S: 3
CS3 Data Filename: DX8M_126A S: 6
CS4 Data Filename: DX8M_126A S: 5
CS5 Data Filename: DX8M_126A S: 4
CS6 Data Filename: N/A

		RELATIVE RESPONSE (RR)								
COMPOUND	**LAB FLAG [1]**	**CS0**	**CS1**	**CS2**	**CS3**	**CS4**	**CS5**	**CS6**	**MEAN RR**	**CV (%RSD)[2]**
2,3,7,8-TCDD		1.05	1.07	0.96	1.04	1.05	1.07		1.04	3.91
1,2,3,7,8-PECDD [3]		0.97	1.00	0.96	1.03	1.03	1.04		1.01	3.58
1,2,3,4,7,8-HXCDD		0.96	0.99	0.96	1.02	1.03	1.03		1.00	3.42
1,2,3,6,7,8-HXCDD		0.89	0.92	0.90	0.96	0.97	0.96		0.93	3.98
1,2,3,7,8,9-HXCDD [4]		0.91	0.96	0.90	0.97	0.98	0.96		0.95	3.48
1,2,3,4,6,7,8-HPCDD		0.85	0.94	0.95	1.01	1.01	1.01		0.96	6.30
OCDD		0.94	0.98	0.97	1.04	1.04	1.01		1.00	4.06
2,3,7,8-TCDF		0.97	0.91	0.88	0.96	0.96	0.95		0.94	3.63
1,2,3,7,8-PECDF		0.91	0.93	0.87	0.98	0.95	0.96		0.93	4.16
2,3,4,7,8-PECDF		0.89	0.92	0.90	0.96	0.98	0.98		0.94	4.30
1,2,3,4,7,8-HXCDF		1.09	1.11	1.09	1.19	1.18	1.16		1.14	4.13
1,2,3,6,7,8-HXCDF		1.04	1.06	1.05	1.10	1.14	1.12		1.09	3.79
1,2,3,7,8,9-HXCDF		1.01	1.05	0.98	1.04	1.06	1.05		1.03	2.98
2,3,4,6,7,8-HXCDF		1.11	1.15	1.11	1.19	1.22	1.20		1.16	4.23
1,2,3,4,6,7,8-HPCDF		1.12	1.21	1.16	1.29	1.30	1.28		1.23	6.06
1,2,3,4,7,8,9-HPCDF		1.18	1.20	1.19	1.24	1.30	1.29		1.23	4.08
OCDF [5]		1.06	1.14	1.14	1.26	1.30	1.28		1.20	7.95

(1) Where applicable, custom lab flags have been used on this report.
(2) For contract CV specifications, see Section 10.5.4, Method 1613.
(3) Alternate confirmation and quantitation ions used for native and labeled PECDD.
(4) Response ratios are calculated relative to the labeled analogs of the other two HXCDDs (Section 17.1.2, Method 1613).
(5) Response ratios are calculated relative to the labeled analog of OCDD (Section 17.1.1, Method 1613).

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Thong Do_____

For Axys Internal Use Only [XSL Template: Form3A.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1; Report Filename: 1613_DIOXINS_24-Oct-2018_DX8M__Form3A_GS79124.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

Form 3B
PCDD/PCDF INITIAL CALIBRATION RELATIVE RESPONSES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 24-Oct-2018

Instrument ID: HR GC/MS

GC Column ID: DB5

CS0 Data Filename: DX8M_126A S: 1
CS1 Data Filename: DX8M_126A S: 2
CS2 Data Filename: DX8M_126A S: 3
CS3 Data Filename: DX8M_126A S: 6
CS4 Data Filename: DX8M_126A S: 5
CS5 Data Filename: DX8M_126A S: 4
CS6 Data Filename: N/A

		RELATIVE RESPONSE (RR)								
LABELED COMPOUND	**LAB FLAG [1]**	**CS0**	**CS1**	**CS2**	**CS3**	**CS4**	**CS5**	**CS6**	**MEAN RR**	**CV (%RSD)[2]**
13C-2,3,7,8-TCDD		0.97	0.93	0.97	0.96	0.97	1.00		0.97	2.19
13C-1,2,3,7,8-PECDD [3]		0.71	0.68	0.71	0.70	0.74	0.79		0.72	5.52
13C-1,2,3,4,7,8-HXCDD		1.01	0.94	0.98	0.98	0.99	0.99		0.98	2.38
13C-1,2,3,6,7,8-HXCDD		1.09	1.01	1.04	1.05	1.05	1.07		1.05	2.73
13C-1,2,3,4,6,7,8-HPCDD		0.87	0.80	0.82	0.78	0.86	0.85		0.83	4.24
13C-OCDD		0.74	0.67	0.67	0.67	0.74	0.79		0.71	7.28
13C-2,3,7,8-TCDF		1.54	1.49	1.53	1.51	1.52	1.55		1.52	1.54
13C-1,2,3,7,8-PECDF		1.22	1.19	1.23	1.21	1.29	1.36		1.25	5.26
13C-2,3,4,7,8-PECDF		1.21	1.18	1.22	1.20	1.28	1.36		1.24	5.32
13C-1,2,3,4,7,8-HXCDF		1.32	1.24	1.28	1.28	1.26	1.27		1.27	2.10
13C-1,2,3,6,7,8-HXCDF		1.42	1.30	1.36	1.38	1.37	1.39		1.37	2.82
13C-1,2,3,7,8,9-HXCDF		1.15	1.08	1.13	1.14	1.16	1.17		1.14	2.82
13C-2,3,4,6,7,8-HXCDF		1.31	1.20	1.25	1.23	1.23	1.23		1.24	2.81
13C-1,2,3,4,6,7,8-HPCDF		1.09	1.01	1.05	1.02	1.07	1.06		1.05	2.79
13C-1,2,3,4,7,8,9-HPCDF		0.83	0.77	0.80	0.76	0.81	0.84		0.80	3.64
CLEANUP STANDARD										
37CL-2,3,7,8-TCDD		1.28	1.01	1.06	1.04	1.03	1.12		1.09	9.20

(1) Where applicable, custom lab flags have been used on this report.
(2) For contract CV specifications, see Section 10.5.4, Method 1613.
(3) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Thong Do_____

For Axys Internal Use Only [XSL Template: Form3B.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1; Report Filename: 1613_DIOXINS_24-Oct-2018_DX8M__Form3B_GS79124.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

Form 3C

PCDD/PCDF INITIAL CALIBRATION ION ABUNDANCE RATIOS

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 24-Oct-2018

Instrument ID: HR GC/MS

GC Column ID: DB5

CS0 Data Filename: DX8M_126A S: 1

CS1 Data Filename: DX8M_126A S: 2

CS2 Data Filename: DX8M_126A S: 3

CS3 Data Filename: DX8M_126A S: 6

CS4 Data Filename: DX8M_126A S: 5

CS5 Data Filename: DX8M_126A S: 4

CS6 Data Filename: N/A

COMPOUND	LAB FLAG [1]	M/Z's FORMING RATIO [2]	ION ABUNDANCE RATIO CS0	CS1	CS2	CS3	CS4	CS5	CS6	QC LIMITS[3]
2,3,7,8-TCDD		**M/M+2**	0.85	0.76	0.84	0.77	0.78	0.78		0.65-0.89
1,2,3,7,8-PECDD [4]		**M/M+2**	0.61	0.62	0.60	0.62	0.62	0.62		0.52-0.70
1,2,3,4,7,8-HXCDD		**M+2/M+4**	1.20	1.22	1.23	1.25	1.25	1.25		1.05-1.43
1,2,3,6,7,8-HXCDD		**M+2/M+4**	1.25	1.19	1.25	1.25	1.24	1.25		1.05-1.43
1,2,3,7,8,9-HXCDD		**M+2/M+4**	1.17	1.21	1.25	1.25	1.24	1.24		1.05-1.43
1,2,3,4,6,7,8-HPCDD		**M+2/M+4**	1.12	1.03	1.06	1.03	1.03	1.04		0.88-1.20
OCDD		**M+2/M+4**	0.91	0.90	0.88	0.90	0.88	0.88		0.76-1.02
2,3,7,8-TCDF		**M/M+2**	0.73	0.80	0.78	0.76	0.78	0.78		0.65-0.89
1,2,3,7,8-PECDF		**M+2/M+4**	1.71	1.56	1.55	1.57	1.58	1.56		1.32-1.78
2,3,4,7,8-PECDF		**M+2/M+4**	1.62	1.53	1.55	1.57	1.56	1.55		1.32-1.78
1,2,3,4,7,8-HXCDF		**M+2/M+4**	1.23	1.26	1.27	1.26	1.24	1.23		1.05-1.43
1,2,3,6,7,8-HXCDF		**M+2/M+4**	1.26	1.27	1.27	1.26	1.23	1.24		1.05-1.43
1,2,3,7,8,9-HXCDF		**M+2/M+4**	1.20	1.24	1.26	1.25	1.25	1.25		1.05-1.43
2,3,4,6,7,8-HXCDF		**M+2/M+4**	1.17	1.25	1.24	1.26	1.24	1.24		1.05-1.43
1,2,3,4,6,7,8-HPCDF		**M+2/M+4**	1.01	1.00	1.04	1.05	1.03	1.04		0.88-1.20
1,2,3,4,7,8,9-HPCDF		**M+2/M+4**	0.97	1.03	1.01	1.02	1.05	1.03		0.88-1.20
OCDF		**M+2/M+4**	0.90	0.93	0.91	0.90	0.90	0.90		0.76-1.02

(1) Where applicable, custom lab flags have been used on this report.
(2) See Table 8, Method 1613, for m/z specifications.
(3) Ion Abundance Ratio Control Limits from Table 9, Method 1613.
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Thong Do_____

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SGS AXYS METHOD MLA-017 Rev 20

Form 3D
PCDD/PCDF INITIAL CALIBRATION ION ABUNDANCE RATIOS

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 24-Oct-2018

Instrument ID: HR GC/MS

GC Column ID: DB5

CS0 Data Filename: DX8M_126A S: 1
CS1 Data Filename: DX8M_126A S: 2
CS2 Data Filename: DX8M_126A S: 3
CS3 Data Filename: DX8M_126A S: 6
CS4 Data Filename: DX8M_126A S: 5
CS5 Data Filename: DX8M_126A S: 4
CS6 Data Filename: N/A

LABELED COMPOUND	LAB FLAG[1]	M/Z's FORMING RATIO [2]	ION ABUNDANCE RATIO CS0	CS1	CS2	CS3	CS4	CS5	CS6	QC LIMITS[3]
13C-2,3,7,8-TCDD		**M/M+2**	0.77	0.78	0.76	0.76	0.78	0.77		0.65-0.89
13C-1,2,3,7,8-PECDD [4]		**M/M+2**	0.63	0.63	0.63	0.64	0.63	0.63		0.52-0.70
13C-1,2,3,4,7,8-HXCDD		**M+2/M+4**	1.30	1.28	1.29	1.27	1.27	1.29		1.05-1.43
13C-1,2,3,6,7,8-HXCDD		**M+2/M+4**	1.28	1.26	1.27	1.25	1.25	1.25		1.05-1.43
13C-1,2,3,4,6,7,8-HPCDD		**M+2/M+4**	1.04	1.05	1.06	1.04	1.03	1.06		0.88-1.20
13C-OCDD		**M+2/M+4**	0.89	0.89	0.91	0.90	0.89	0.90		0.76-1.02
13C-2,3,7,8-TCDF		**M/M+2**	0.79	0.78	0.77	0.79	0.79	0.78		0.65-0.89
13C-1,2,3,7,8-PECDF		**M+2/M+4**	1.60	1.60	1.57	1.60	1.60	1.59		1.32-1.78
13C-2,3,4,7,8-PECDF		**M+2/M+4**	1.57	1.58	1.60	1.58	1.59	1.57		1.32-1.78
13C-1,2,3,4,7,8-HXCDF		**M/M+2**	0.51	0.51	0.51	0.52	0.51	0.52		0.43-0.59
13C-1,2,3,6,7,8-HXCDF		**M/M+2**	0.51	0.52	0.52	0.52	0.52	0.52		0.43-0.59
13C-1,2,3,7,8,9-HXCDF		**M/M+2**	0.52	0.53	0.51	0.51	0.52	0.52		0.43-0.59
13C-2,3,4,6,7,8-HXCDF		**M/M+2**	0.51	0.52	0.52	0.51	0.52	0.52		0.43-0.59
13C-1,2,3,4,6,7,8-HPCDF		**M/M+2**	0.44	0.44	0.45	0.44	0.45	0.45		0.37-0.51
13C-1,2,3,4,7,8,9-HPCDF		**M/M+2**	0.45	0.45	0.44	0.44	0.45	0.43		0.37-0.51

(1) Where applicable, custom lab flags have been used on this report.
(2) See Table 8, Method 1613, for m/z specifications.
(3) Ion Abundance Ratio Control Limits from Table 9, Method 1613.
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Thong Do_____

For Axys Internal Use Only [XSL Template: Form3D.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1; Report Filename: 1613_DIOXINS_24-Oct-2018_DX8M__Form3D_GS79124.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

Form 5

PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Instrument ID:	HR GC/MS	**Initial Calibration Date:**		24-Oct-2018
RT Window Data Filename:	DX8M_126A S: 6	**Analysis Date:**	24-Oct-2018	**Time:** 12:54:49
DB-5 IS Data Filename:	DX8M_126A S: 6	**Analysis Date:**	24-Oct-2018	**Time:** 12:54:49
DB-225 IS Data Filename:		**Analysis Date:**		**Time:**

DB5 RT WINDOW DEFINING STANDARDS RESULT

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	23:00	**1,3,6,8-TCDF (F)**	21:27
1,2,8,9-TCDD (L)	28:21	**1,2,8,9-TCDF (L)**	28:12
1,2,4,7,9-PECDD (F)	32:07	**1,3,4,6,8-PECDF (F)**	28:56
1,2,3,8,9-PECDD (L)	37:06	**1,2,3,8,9-PECDF (L)**	37:09
1,2,4,6,7,9-HXCDD (F)	40:04	**1,2,3,4,6,8-HXCDF (F)**	39:01
1,2,3,4,6,7-HXCDD (L)	42:43	**1,2,3,4,8,9-HXCDF (L)**	43:03
1,2,3,4,6,7,9-HPCDD (F)	45:50	**1,2,3,4,6,7,8-HPCDF (F)**	45:22
1,2,3,4,6,7,8-HPCDD (L)	46:45	**1,2,3,4,7,8,9-HPCDF (L)**	47:10

(F) = First eluting isomer (DB-5); (L) = Last eluting isomer (DB-5)

ISOMER SPECIFICITY (IS) TEST STANDARDS RESULT

Isomers	% Valley Height Between Compared Peaks	Isomers	% Valley Height Between Compared Peaks
1,2,3,4-TCDD **1,2,7,8-TCDD**	0	**1,2,3,8-TCDD** **2,3,7,8-TCDD**	9
1,2,7,8-TCDD **1,4,7,8-TCDD**	0	**2,3,4,7-TCDF** **2,3,7,8-TCDF**	N/A
1,4,7,8-TCDD **1,2,3,7-TCDD**	0	**2,3,7,8-TCDF** **1,2,3,9-TCDF**	N/A
1,2,3,7-TCDD **1,2,3,8-TCDD**	DB-5 column; co-elute as per Figure 6 in Method		

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

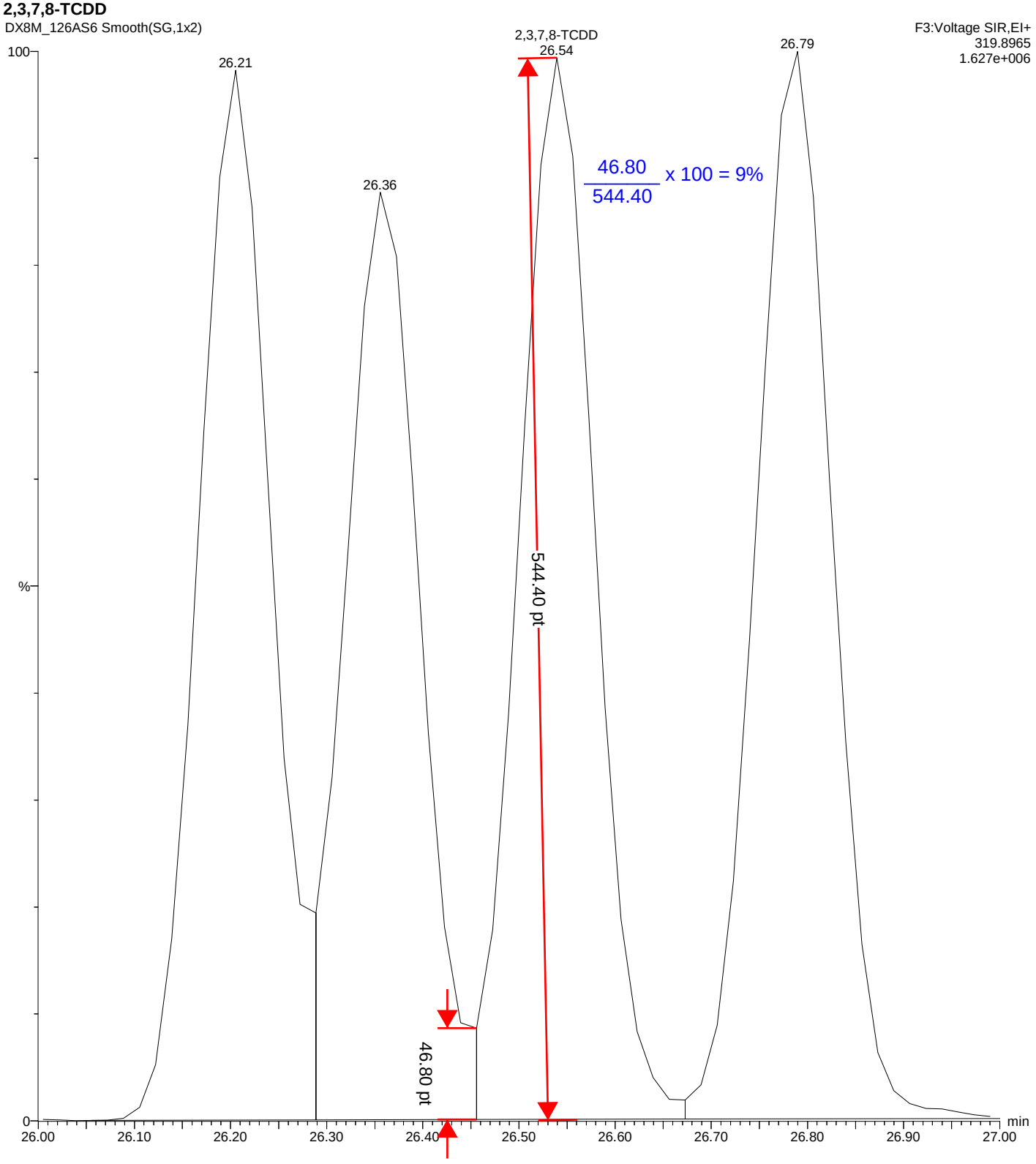
For Axys Internal Use Only [XSL Template: DXForm5.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1; Report Filename: 1613_DIOXINS__DX8M_126AS6_Form5_SJ2455032.html; Workgroup: WG66111; Design ID: 491]

SGS Axys Analytical Services, Ltd.
Quantify Sample Report **MassLynx 4.1 SCN627**

Method: G:\Masslynx\Inst_M\Master methods and layouts\Current Methods\DX_Win_ResC.mdb 13 Mar 2017 14:40:23
Calibration: G:\Masslynx\Inst_M\Projects\181023DX.PRO\CurveDB\DX8M_126A-6A.cdb 26 Oct 2018 12:48:18

Name: DX8M_126AS6, Date: 24-Oct-2018, Time: 12:54:49, ID: DX041D-CAL,,/01-82, Description: 1,,1.0uL Cal Win/Res

2,3,7,8-TCDD



SV by TD 26-Oct-2018

PV by LHE
26-OCT-2018

SGS Axys Analytical Services, Ltd.

Method: C:\MassLynx\181023DX.PRO\MethDB\DX_Log.mdb 21 Nov 2008 10:39:44
Calibration: G:\Masslynx\Inst_M\Projects\181023DX.PRO\CurveDB\DX8M_126A-6A.cdb 26 Oct 2018 11:48:18

Compound name: -

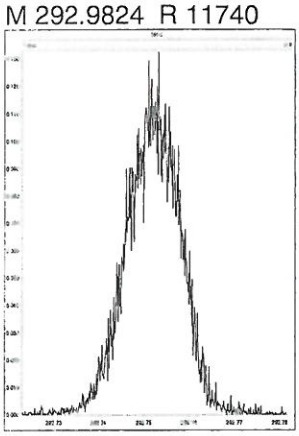
#	Name	ID	Sample Text	Acq Date	Acq Time
1	DX8M_145BS1	DX041D-CAL,,/01-79	1,,1.0uL Cal Win/Res	30-Nov-18	16:46:44
2	DX8M_145BS2	WG66111-102,,SPM	1,WG66111,1.0/20uL	30-Nov-18	17:52:18
3	DX8M_145BS3	WG66111-103,,SPMDUP	1,WG66111,1.0/20uL	30-Nov-18	18:45:04
4	DX8M_145BS4	DX051A-SUR,,/02	1,,1.0uL Inst Blank	30-Nov-18	19:40:16
5	DX8M_145BS5	DX051A-SUR,,/02	1,,1.0uL Inst Blank	30-Nov-18	20:36:36
6	DX8M_145BS6	WG66111-101,,BLK	1,WG66111,1.0/20uL	30-Nov-18	21:30:43
7	DX8M_145BS7	WG66111-104,,MDL	1,WG66111,1.0/20uL	30-Nov-18	22:25:55
8	DX8M_145BS8	L29628-27,,	1,WG66111,1.0/20uL	30-Nov-18	23:21:03
9	DX8M_145BS9	DX041D-CAL,,/01-79	1,,1.0uL Cal Win/Res	01-Dec-18	00:16:18
10	DX8M_145BS10	WG66046-102,,SPM	1,WG66046,1.0/20uL	01-Dec-18	01:20:43
11	DX8M_145BS11	DX051A-SUR,,/02	1,,1.0uL Inst Blank	01-Dec-18	02:13:10
12	DX8M_145BS12	DX051A-SUR,,/02	1,,1.0uL Inst Blank	01-Dec-18	03:08:23
13	DX8M_145BS13	WG66046-101,,BLK	1,WG66046,1.0/20uL	01-Dec-18	04:03:36
14	DX8M_145BS14	L30381-1,,	1,WG66046,1.0/20uL	01-Dec-18	04:58:50
15	DX8M_145BS15	L30381-2,,	1,WG66046,1.0/20uL	01-Dec-18	05:54:04
16	DX8M_145BS16	L30381-3,,	1,WG66046,1.0/20uL	01-Dec-18	06:49:16
17	DX8M_145BS17	L30322-23,,	1,WG66046,1.0/20uL	01-Dec-18	07:44:31
18	DX8M_145BS18	L30322-24,,	1,WG66046,1.0/20uL	01-Dec-18	08:39:45

Experiment Calibration Report **MassLynx 4.1** DX8M_145B ~~SB1~~ S:1, CAL 1, ~~SB1~~ Page 1 of 1

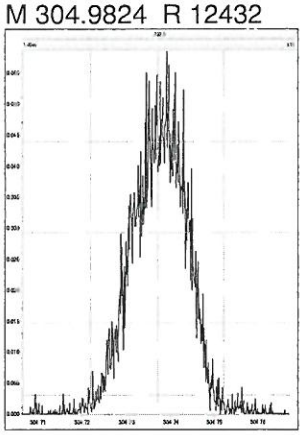
File: Experiment: DX_DB5_1_04.exp Reference: pfk.ref Function: 3 @ 200 (ppm) YX YX

Printed: Friday, November 30, 2018 16:44:55 Pacific Standard Time Approval YX 30 Nov 2018

M 292.9824 R 11740



M 304.9824 R 12432



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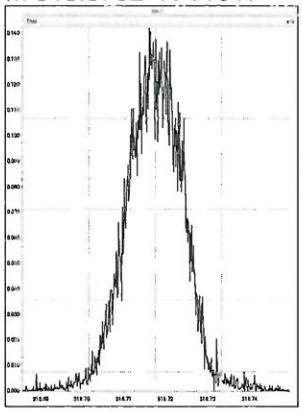

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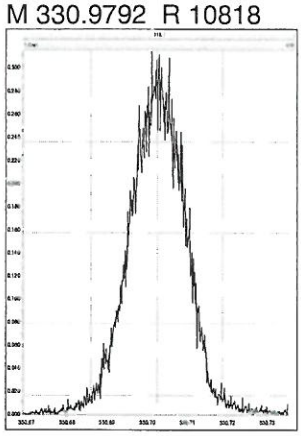
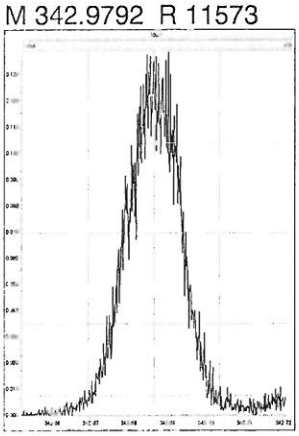
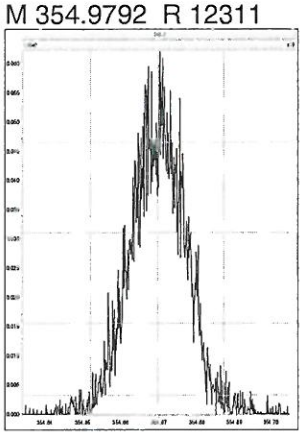


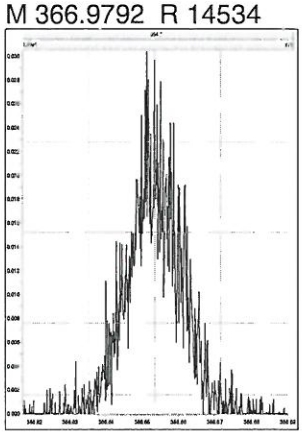
M 342.9792 R 11573



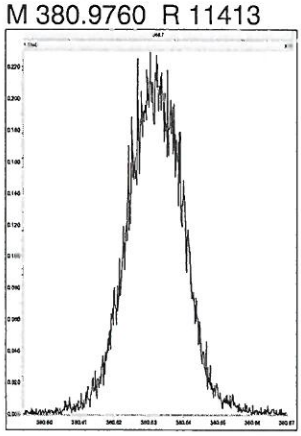
M 354.9792 R 12311



M 366.9792 R 14534



M 380.9760 R 11413

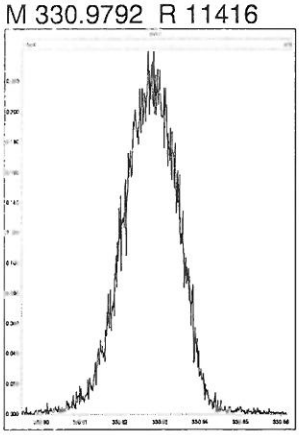


Experiment Calibration Report **MassLynx 4.1**

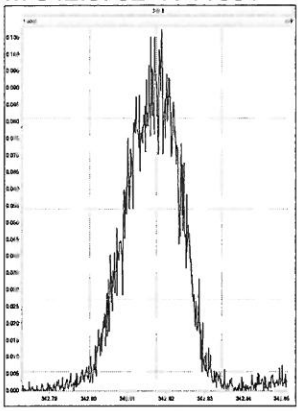
File: Experiment: DX_DB5_1_04.exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed: Friday, November 30, 2018 16:45:12 Pacific Standard Time

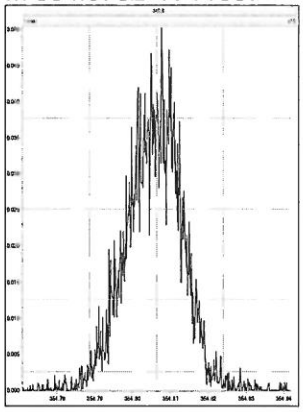
M 330.9792 R 11416



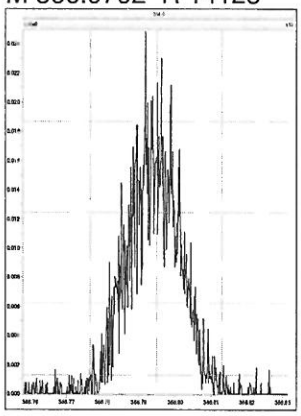
M 342.9792 R 11631



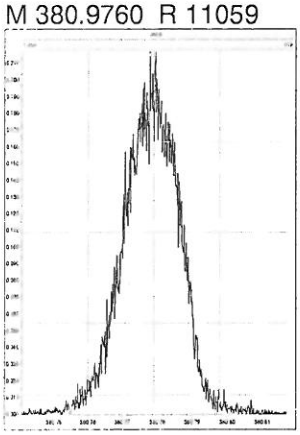
M 354.9792 R 11957



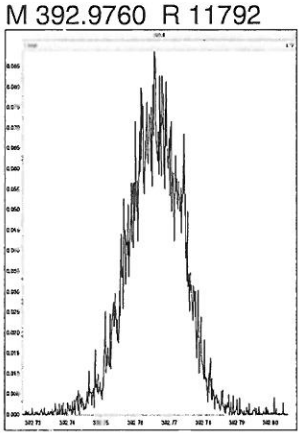
M 366.9792 R 14123



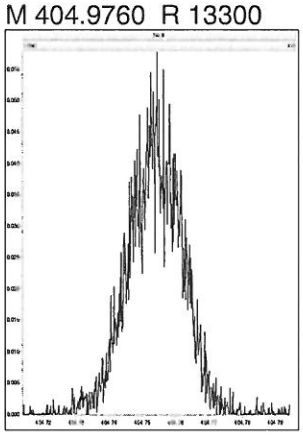
M 380.9760 R 11059



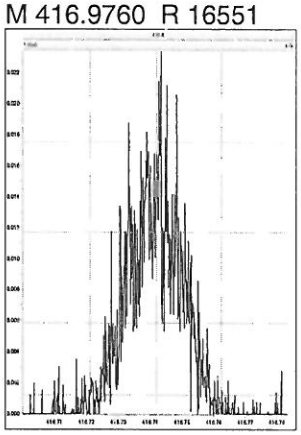
M 392.9760 R 11792



M 404.9760 R 13300



M 416.9760 R 16551

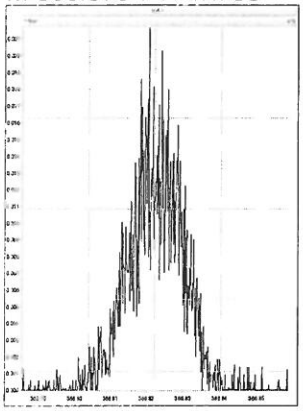


Experiment Calibration Report **MassLynx 4.1**

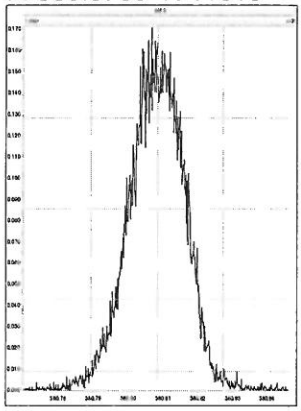
File: Experiment: DX_DB5_1_04.exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed: Friday, November 30, 2018 16:45:33 Pacific Standard Time

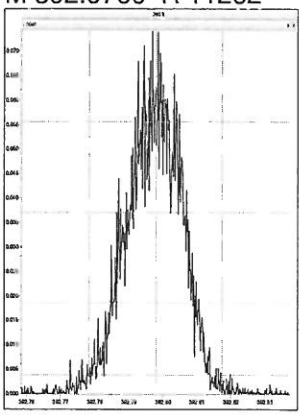
M 366.9792 R 12755



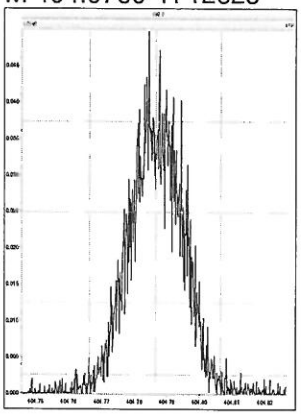
M 380.9760 R 11016



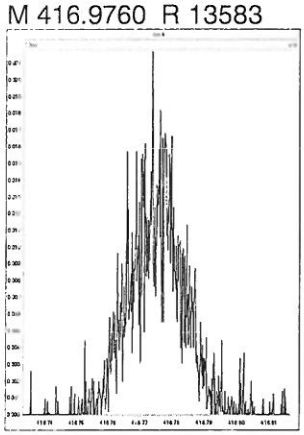
M 392.9760 R 11262



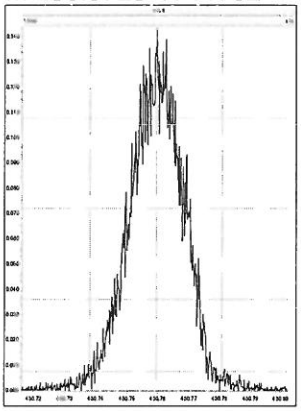
M 404.9760 R 12625



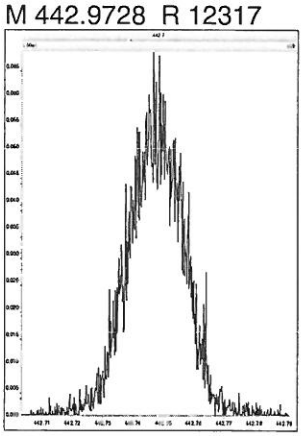
M 416.9760 R 13583



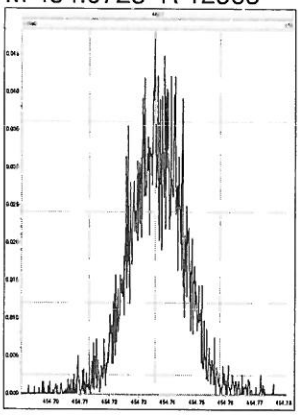
M 430.9728 R 11792



M 442.9728 R 12317



M 454.9728 R 12563

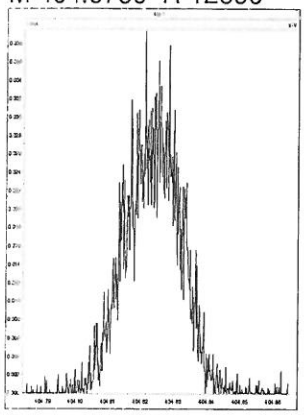


Experiment Calibration Report **MassLynx 4.1**

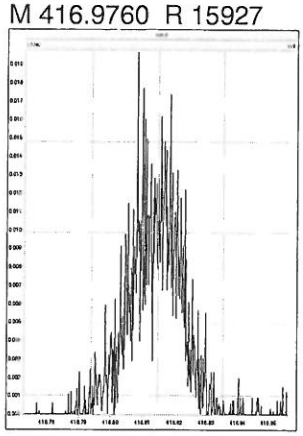
File: Experiment: DX_DB5_1_04.exp Reference: pfk.ref Function: 6 @ 200 (ppm)

Printed: Friday, November 30, 2018 16:45:50 Pacific Standard Time

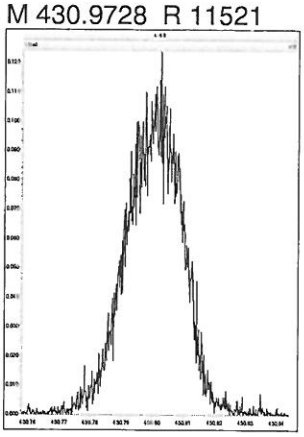
M 404.9760 R 12690



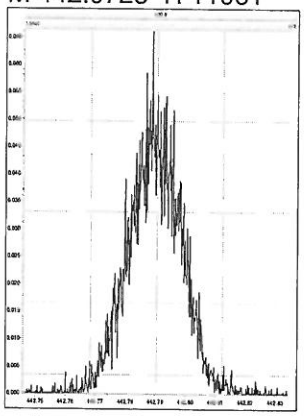
M 416.9760 R 15927



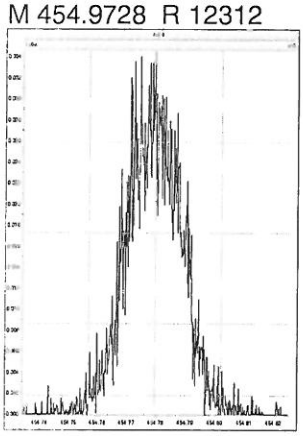
M 430.9728 R 11521



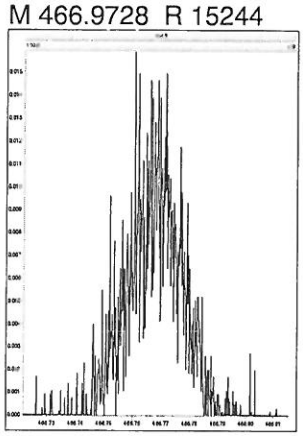
M 442.9728 R 11961



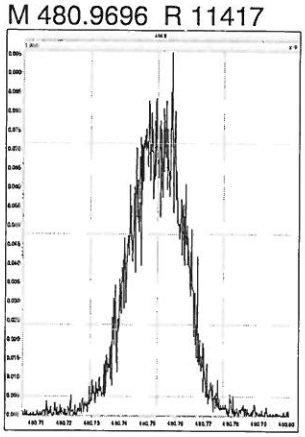
M 454.9728 R 12312



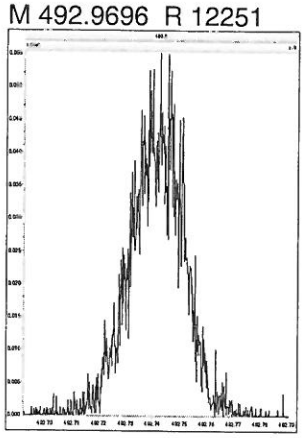
M 466.9728 R 15244



M 480.9696 R 11417



M 492.9696 R 12251

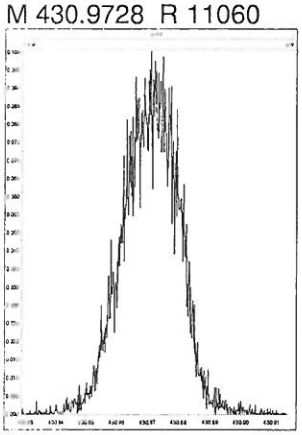


Experiment Calibration Report **MassLynx 4.1**

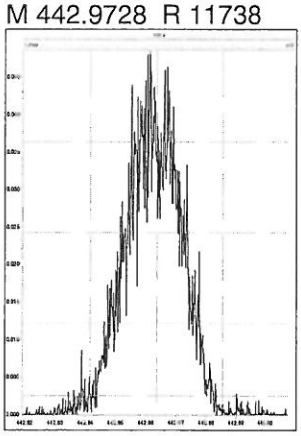
File: Experiment: DX_DB5_1_04.exp Reference: pfk.ref Function: 7 @ 200 (ppm)

Printed: Friday, November 30, 2018 16:46:07 Pacific Standard Time

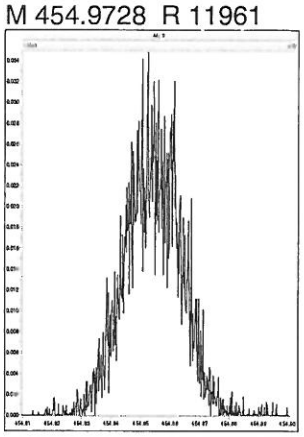
M 430.9728 R 11060



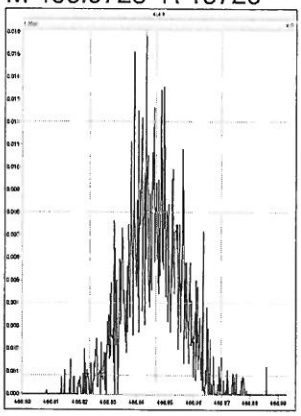
M 442.9728 R 11738



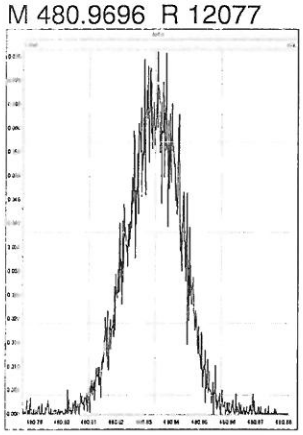
M 454.9728 R 11961



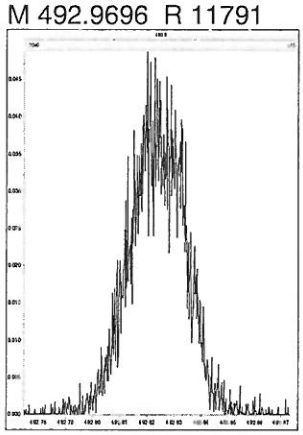
M 466.9728 R 15726



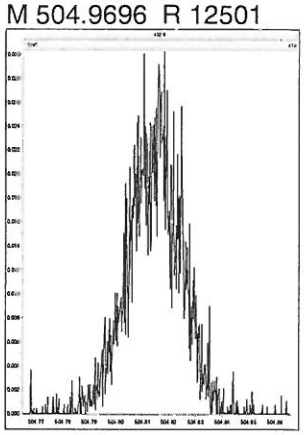
M 480.9696 R 12077



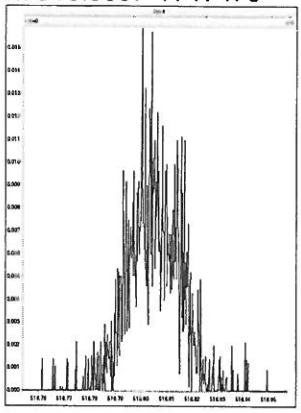
M 492.9696 R 11791



M 504.9696 R 12501



M 516.9697 R 17476

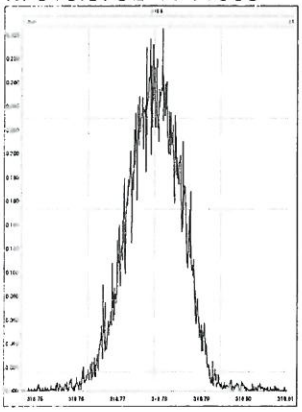


Approved by [illegible] 01 Dec 2018

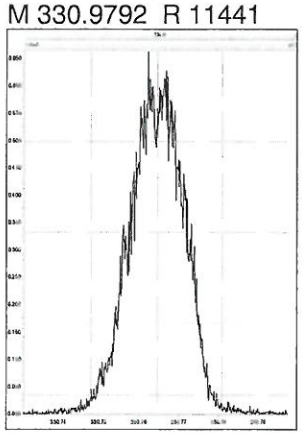
Resolution Check Report **MassLynx 4.1**

Printed: Saturday, December 01, 2018 01:20:41 Pacific Standard Time DX8M-145 CAL 2 S: 9

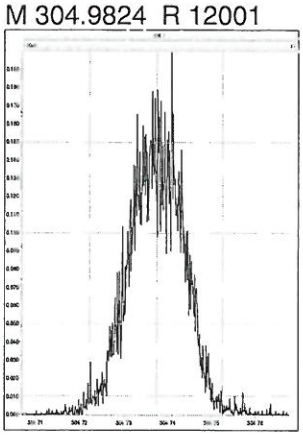
M 318.9792 R 11963



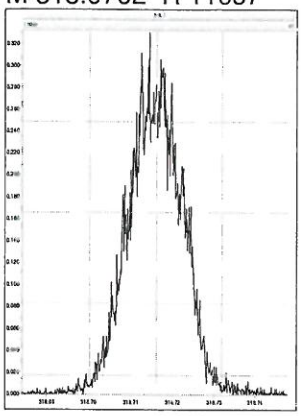
M 330.9792 R 11441



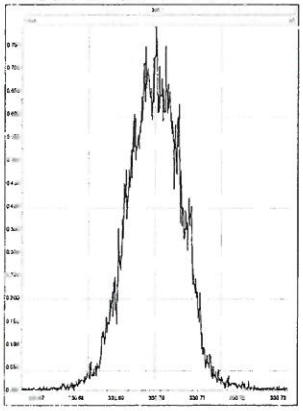
M 304.9824 R 12001



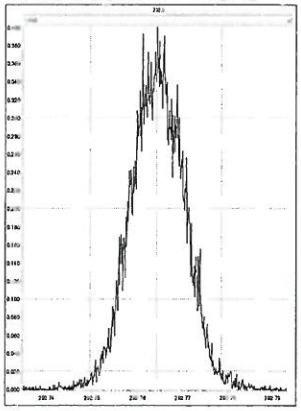
M 318.9792 R 11657



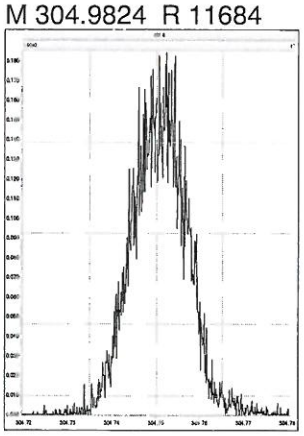
M 330.9792 R 11421



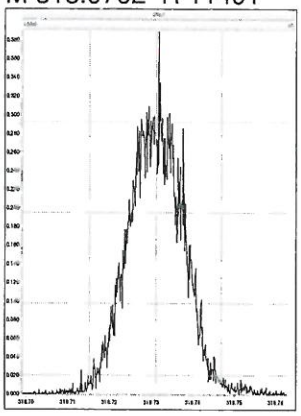
M 292.9824 R 11825



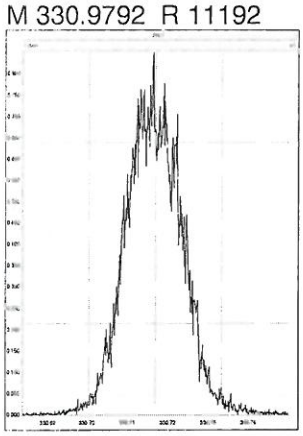
M 304.9824 R 11684



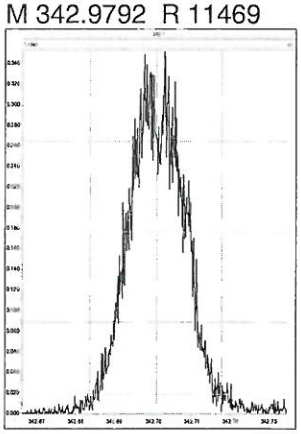
M 318.9792 R 11491



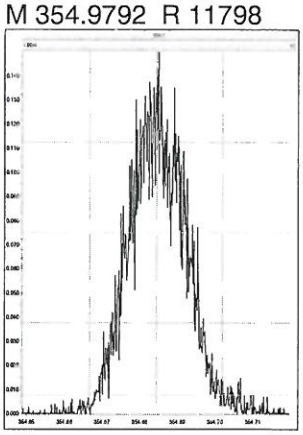
M 330.9792 R 11192



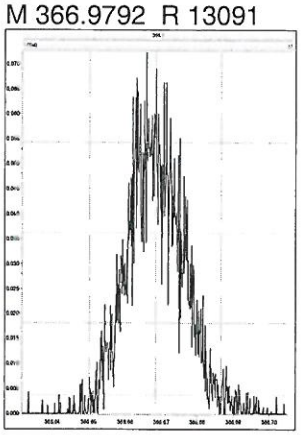
M 342.9792 R 11469



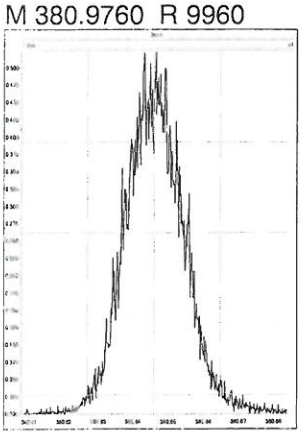
M 354.9792 R 11798



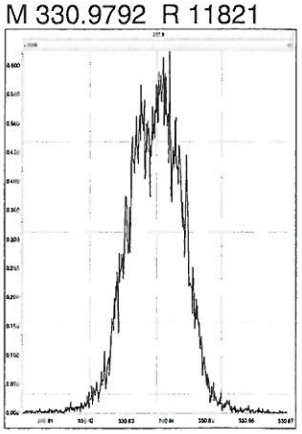
M 366.9792 R 13091



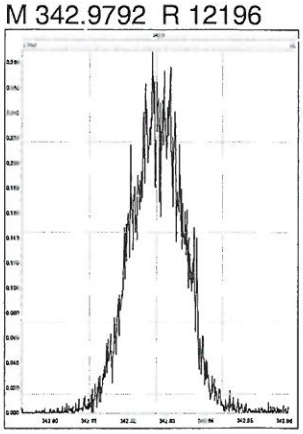
M 380.9760 R 9960



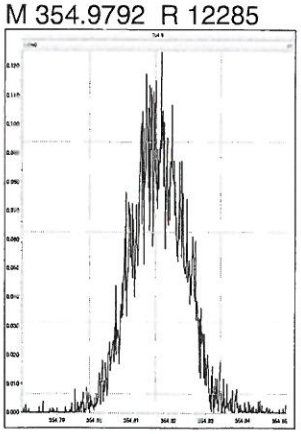
M 330.9792 R 11821



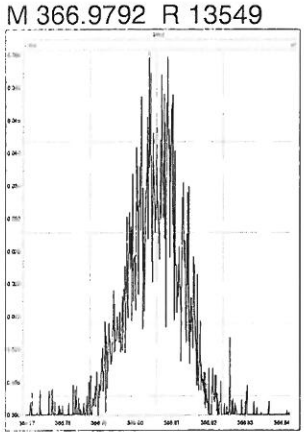
M 342.9792 R 12196



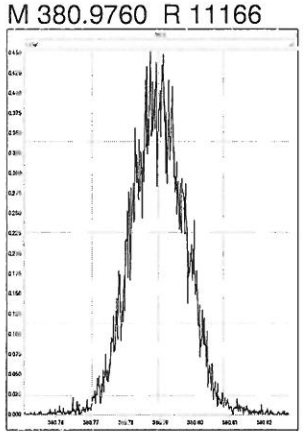
M 354.9792 R 12285



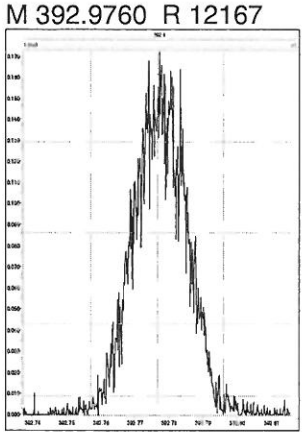
M 366.9792 R 13549



M 380.9760 R 11166



M 392.9760 R 12167



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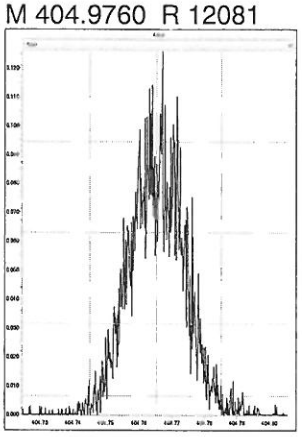

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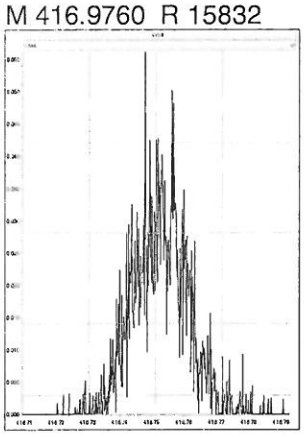

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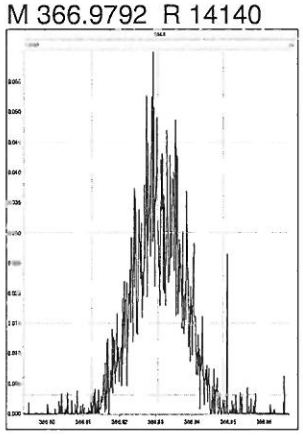

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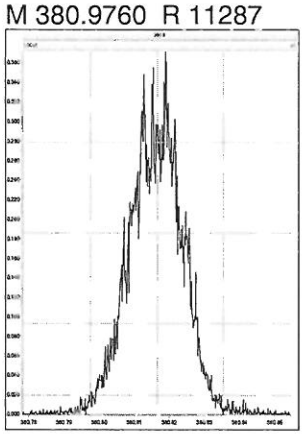

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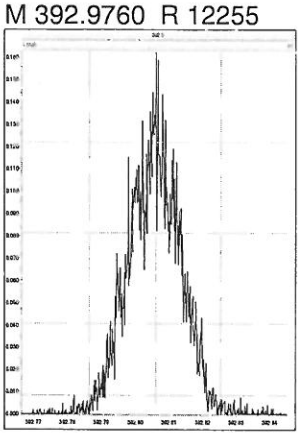

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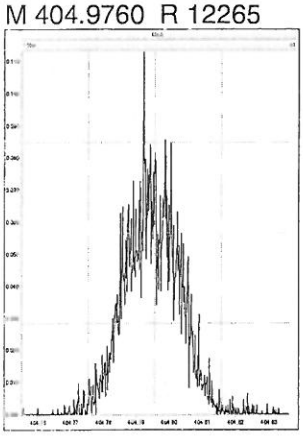

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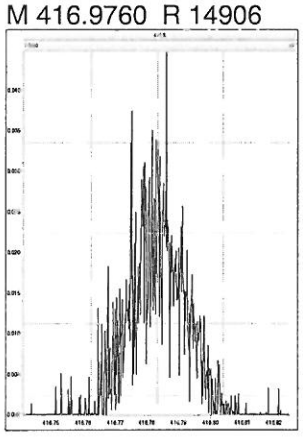

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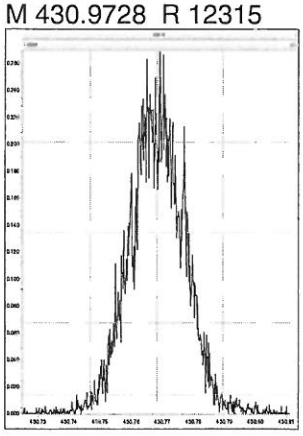

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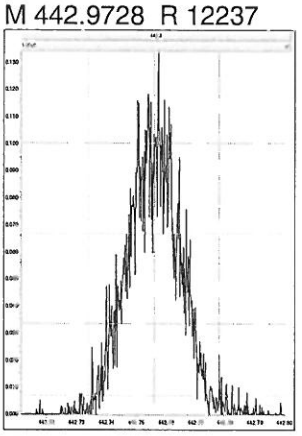

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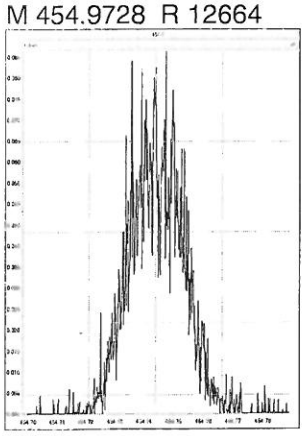

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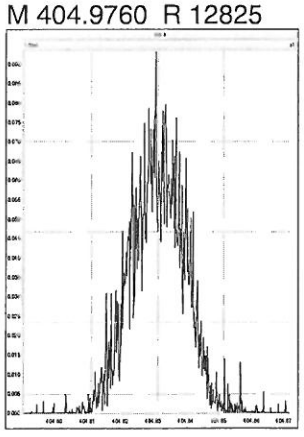

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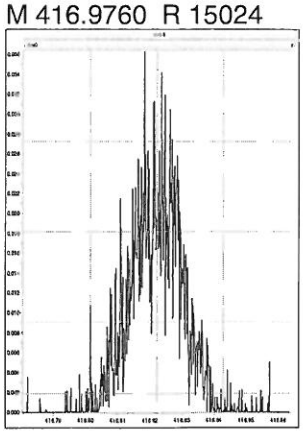

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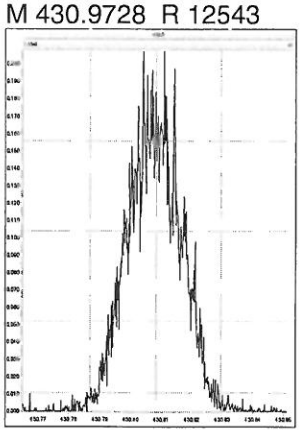

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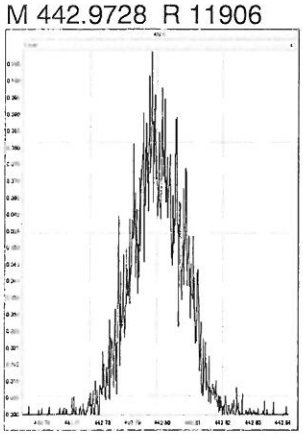

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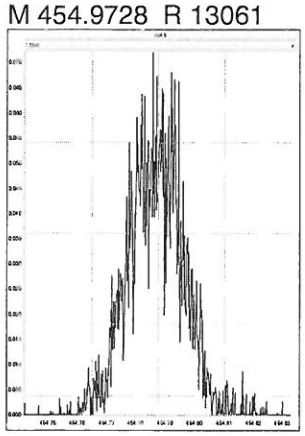

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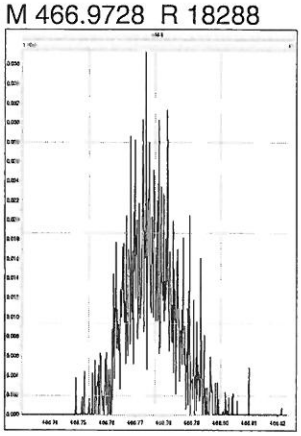

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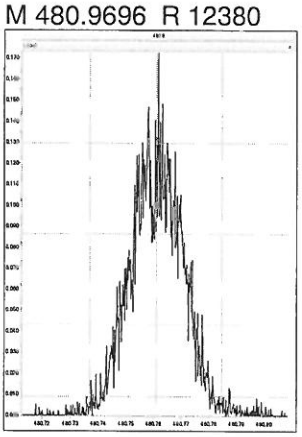

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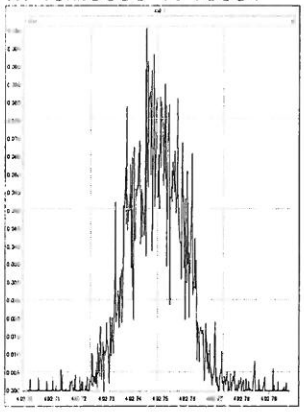

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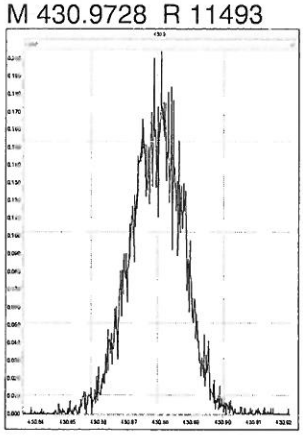

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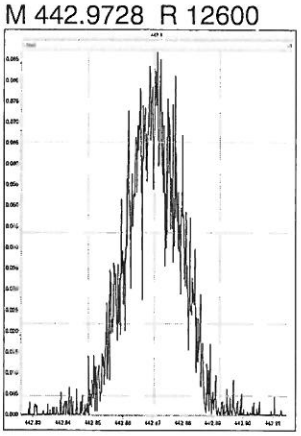

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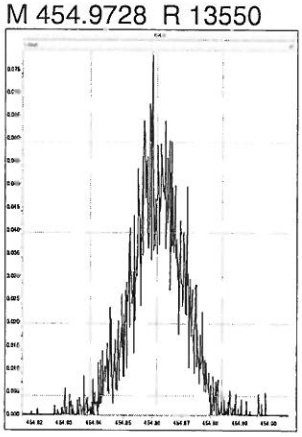

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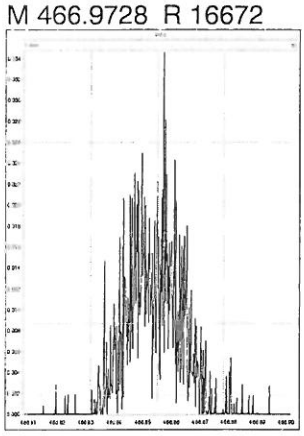

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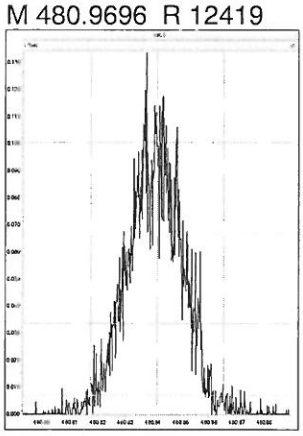

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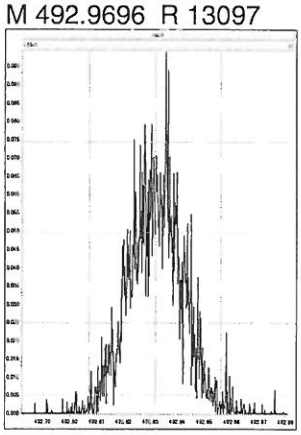

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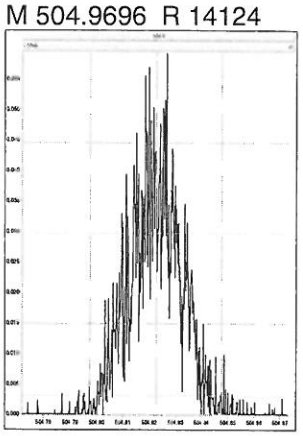

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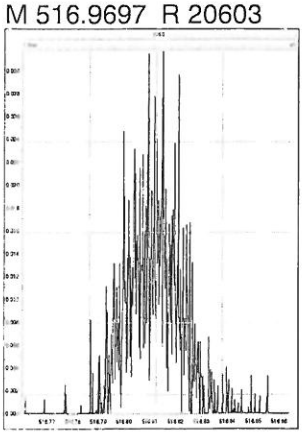

DX8M_145B-A

Sample List Report **MassLynx 4.1 SCN627**

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Last Modified: Monday, December 03, 2018 10:32:42 Pacific Standard Time
Printed: Monday, December 03, 2018 10:32:52 Pacific Standard Time

Page Position (1, 1)

	File Name	Sample ID	File Text	Sample Type	Subject Text	Samp Size	13C-Te-Hp	13C-OCDD	Rec Std	C/Up
1	DX8M_145BS1	DX041D-CAL,,/01-79	1,,1.0uL Cal Win/Res	QC	DB5,ng/mL	1.000	100	200	100	10
2	DX8M_145BS2	WG66111-102,,SPM	1,WG66111,1.0/20uL	Analyte	DB5,ng/mL	20.000	2000	4000	2000	200
3	DX8M_145BS3	WG66111-103,,SPMDUP	1,WG66111,1.0/20uL	Analyte	DB5,ng/mL	20.000	2000	4000	2000	200
4	DX8M_145BS4	DX051A-SUR,,/02	1,,1.0uL Inst Blank	Blank	DB5,pg/sam	1.000	200	400	200	---
5	DX8M_145BS5	DX051A-SUR,,/02	1,,1.0uL Inst Blank	Blank	DB5,pg/sam	1.000	200	400	200	---
6	DX8M_145BS6	WG66111-101,,BLK	1,WG66111,1.0/20uL	Analyte	DB5,pg/L	1.000	2000	4000	2000	200
7	DX8M_145BS7	WG66111-104,,MDL	1,WG66111,1.0/20uL	Analyte	DB5,pg/L	1.000	2000	4000	2000	200
8	DX8M_145BS8	L29628-27,,	1,WG66111,1.0/20uL	Analyte	DB5,pg/L	1.072	2000	4000	2000	200
9	DX8M_145BS9	DX041D-CAL,,/01-79	1,,1.0uL Cal Win/Res	QC	DB5,ng/mL	1.000	100	200	100	10

SGS AXYS METHOD MLA-017 Rev 20

Form 4A
PCDD/PCDF CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	24-Oct-2018	**VER Data Filename:**	DX8M_145B S: 1
Instrument ID:	HR GC/MS	**Analysis Date:**	30-Nov-2018
GC Column ID:	DB5	**Analysis Time:**	16:46:44

COMPOUND	LAB FLAG [1]	MZ's FORMING RATIO [2]	ION ABUND. RATIO	QC LIMITS [3]	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL) [4]
2,3,7,8-TCDD		**M/M+2**	0.79	0.65-0.89	10.3	7.8 - 12.9
1,2,3,7,8-PECDD [5]		**M/M+2**	0.61	0.52-0.70	47.2	39 - 65
1,2,3,4,7,8-HXCDD		**M+2/M+4**	1.22	1.05-1.43	49.1	39 - 64
1,2,3,6,7,8-HXCDD		**M+2/M+4**	1.27	1.05-1.43	48.9	39 - 64
1,2,3,7,8,9-HXCDD		**M+2/M+4**	1.29	1.05-1.43	48.9	41 - 61
1,2,3,4,6,7,8-HPCDD		**M+2/M+4**	1.06	0.88-1.20	51.1	43 - 58
OCDD		**M+2/M+4**	0.88	0.76-1.02	98.9	79 - 126
2,3,7,8-TCDF		**M/M+2**	0.77	0.65-0.89	9.73	8.4 - 12
1,2,3,7,8-PECDF		**M+2/M+4**	1.60	1.32-1.78	50.1	41 - 60
2,3,4,7,8-PECDF		**M+2/M+4**	1.55	1.32-1.78	50.1	41 - 61
1,2,3,4,7,8-HXCDF		**M+2/M+4**	1.24	1.05-1.43	50.8	45 - 56
1,2,3,6,7,8-HXCDF		**M+2/M+4**	1.25	1.05-1.43	48.9	44 - 57
1,2,3,7,8,9-HXCDF		**M+2/M+4**	1.24	1.05-1.43	46.4	45 - 56
2,3,4,6,7,8-HXCDF		**M+2/M+4**	1.24	1.05-1.43	51.0	44 - 57
1,2,3,4,6,7,8-HPCDF		**M+2/M+4**	1.04	0.88-1.20	49.6	45 - 55
1,2,3,4,7,8,9-HPCDF		**M+2/M+4**	1.04	0.88-1.20	52.8	43 - 58
OCDF		**M+2/M+4**	0.90	0.76-1.02	100	63 - 159

(1) Where applicable, custom lab flags have been used on this report.
(2) See Table 8, Method 1613, for m/z specifications.
(3) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
(4) Contract-required concentration range as determined from the percent of the test concentration in Table 6, Method 1613, under VER.
(5) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

For Axys Internal Use Only [XSL Template: Form4A.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1;
Report Filename: 1613_DIOXINS_DX8M_145BS1__Form4A_SJ2477115.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

Form 4B
PCDD/PCDF CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	24-Oct-2018	**VER Data Filename:**	DX8M_145B S: 1
Instrument ID:	HR GC/MS	**Analysis Date:**	30-Nov-2018
GC Column ID:	DB5	**Analysis Time:**	16:46:44

LABELED COMPOUND	LAB FLAG [1]	MZ's FORMING RATIO [2]	ION ABUND. RATIO	QC LIMITS [3]	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL) [4]
13C-2,3,7,8-TCDD		**M/M+2**	0.77	0.65-0.89	99.3	82 - 121
13C-1,2,3,7,8-PECDD [5]		**M/M+2**	0.63	0.52-0.70	82.2	62 - 160
13C-1,2,3,4,7,8-HXCDD		**M+2/M+4**	1.26	1.05-1.43	97.7	85 - 117
13C-1,2,3,6,7,8-HXCDD		**M+2/M+4**	1.26	1.05-1.43	108	85 - 118
13C-1,2,3,4,6,7,8-HPCDD		**M+2/M+4**	1.06	0.88-1.20	98.0	72 - 138
13C-OCDD		**M+2/M+4**	0.90	0.76-1.02	201	96 - 415
13C-2,3,7,8-TCDF		**M/M+2**	0.77	0.65-0.89	101	71 - 140
13C-1,2,3,7,8-PECDF		**M+2/M+4**	1.57	1.32-1.78	84.1	76 - 130
13C-2,3,4,7,8-PECDF		**M+2/M+4**	1.55	1.32-1.78	78.5	77 - 130
13C-1,2,3,4,7,8-HXCDF		**M/M+2**	0.51	0.43-0.59	100	76 - 131
13C-1,2,3,6,7,8-HXCDF		**M/M+2**	0.51	0.43-0.59	106	70 - 143
13C-1,2,3,7,8,9-HXCDF		**M/M+2**	0.50	0.43-0.59	100	74 - 135
13C-2,3,4,6,7,8-HXCDF		**M/M+2**	0.53	0.43-0.59	96.6	73 - 137
13C-1,2,3,4,6,7,8-HPCDF		**M/M+2**	0.43	0.37-0.51	99.5	78 - 129
13C-1,2,3,4,7,8,9-HPCDF		**M/M+2**	0.44	0.37-0.51	97.0	77 - 129
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD [6]					9.73	7.9 - 12.7

(1) Where applicable, custom lab flags have been used on this report.
(2) See Table 8, Method 1613, for m/z specifications.
(3) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
(4) Contract-required concentration range as determined from the percent of the test concentration in Table 6, Method 1613, under VER.
(5) Alternate confirmation and quantitation ions used for native and labeled PECDD.
(6) No ion abundance ratio for 37Cl4-2,3,7,8-TCDD; concentration reported.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

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SGS AXYS METHOD MLA-017 Rev 20

Form 6A
PCDD/PCDF RELATIVE RETENTION TIMES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	24-Oct-2018	**VER Data Filename:**	DX8M_145B S: 1
Instrument ID:	HR GC/MS	**Analysis Date:**	30-Nov-2018
GC Column ID:	DB5	**Analysis Time:**	16:46:44

COMPOUND	LAB FLAG [1]	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS [2]
2,3,7,8-TCDD		13C-2,3,7,8-TCDD	1.001	0.999-1.002
1,2,3,7,8-PECDD [3]		13C-1,2,3,7,8-PECDD	1.001	0.999-1.002
1,2,3,4,7,8-HXCDD		13C-1,2,3,4,7,8-HXCDD	1.000	0.999-1.001
1,2,3,6,7,8-HXCDD		13C-1,2,3,6,7,8-HXCDD	1.000	0.998-1.004
1,2,3,7,8,9-HXCDD		13C-1,2,3,6,7,8-HXCDD	1.011	1.000-1.019
1,2,3,4,6,7,8-HPCDD		13C-1,2,3,4,6,7,8-HPCDD	1.000	0.999-1.001
OCDD		13C-OCDD	1.000	0.999-1.001
2,3,7,8-TCDF		13C-2,3,7,8-TCDF	1.001	0.999-1.003
1,2,3,7,8-PECDF		13C-1,2,3,7,8-PECDF	1.001	0.999-1.002
2,3,4,7,8-PECDF		13C-2,3,4,7,8-PECDF	1.000	0.999-1.002
1,2,3,4,7,8-HXCDF		13C-1,2,3,4,7,8-HXCDF	1.000	0.999-1.001
1,2,3,6,7,8-HXCDF		13C-1,2,3,6,7,8-HXCDF	1.000	0.997-1.005
1,2,3,7,8,9-HXCDF		13C-1,2,3,7,8,9-HXCDF	1.000	0.999-1.001
2,3,4,6,7,8-HXCDF		13C-2,3,4,6,7,8-HXCDF	1.001	0.999-1.001
1,2,3,4,6,7,8-HPCDF		13C-1,2,3,4,6,7,8-HPCDF	1.000	0.999-1.001
1,2,3,4,7,8,9-HPCDF		13C-1,2,3,4,7,8,9-HPCDF	1.000	0.999-1.001
OCDF		13C-OCDD	1.002	0.999-1.008

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613.
(3) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

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SGS AXYS METHOD MLA-017 Rev 20

Form 6B
PCDD/PCDF RELATIVE RETENTION TIMES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	24-Oct-2018	**VER Data Filename:**	DX8M_145B S: 1
Instrument ID:	HR GC/MS	**Analysis Date:**	30-Nov-2018
GC Column ID:	DB5	**Analysis Time:**	16:46:44

	LAB FLAG [1]	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS [2]
LABELED COMPOUND				
13C-2,3,7,8-TCDD		13C-1,2,3,4-TCDD	1.013	0.976-1.043
13C-1,2,3,7,8-PECDD		13C-1,2,3,4-TCDD	1.383	1.000-1.567
13C-1,2,3,4,7,8-HXCDD		13C-1,2,3,7,8,9-HXCDD	0.987	0.977-1.000
13C-1,2,3,6,7,8-HXCDD		13C-1,2,3,7,8,9-HXCDD	0.990	0.981-1.003
13C-1,2,3,4,6,7,8-HPCDD		13C-1,2,3,7,8,9-HXCDD	1.095	1.086-1.110
13C-OCDD		13C-1,2,3,7,8,9-HXCDD	1.180	1.032-1.311
13C-2,3,7,8-TCDF		13C-1,2,3,4-TCDD	0.966	0.923-1.103
13C-1,2,3,7,8-PECDF		13C-1,2,3,4-TCDD	1.283	1.000-1.425
13C-2,3,4,7,8-PECDF		13C-1,2,3,4-TCDD	1.352	1.011-1.526
13C-1,2,3,4,7,8-HXCDF		13C-1,2,3,7,8,9-HXCDD	0.954	0.944-0.970
13C-1,2,3,6,7,8-HXCDF		13C-1,2,3,7,8,9-HXCDD	0.958	0.949-0.975
13C-1,2,3,7,8,9-HXCDF		13C-1,2,3,7,8,9-HXCDD	1.004	0.977-1.047
13C-2,3,4,6,7,8-HXCDF		13C-1,2,3,7,8,9-HXCDD	0.980	0.959-1.021
13C-1,2,3,4,6,7,8-HPCDF		13C-1,2,3,7,8,9-HXCDD	1.062	1.043-1.085
13C-1,2,3,4,7,8,9-HPCDF		13C-1,2,3,7,8,9-HXCDD	1.105	1.057-1.151
CLEANUP STANDARD				
37CL-2,3,7,8-TCDD		13C-1,2,3,4-TCDD	1.001	0.989-1.052

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

For Axys Internal Use Only [XSL Template: Form6B.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1; Report Filename: 1613_DIOXINS_DX8M_145BS1__Form6B_SJ2477115.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

Form 4A
PCDD/PCDF CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	24-Oct-2018	**VER Data Filename:**	DX8M_145B S: 9
Instrument ID:	HR GC/MS	**Analysis Date:**	01-Dec-2018
GC Column ID:	DB5	**Analysis Time:**	00:16:18

COMPOUND	LAB FLAG [1]	MZ's FORMING RATIO [2]	ION ABUND. RATIO	QC LIMITS [3]	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL) [4]
2,3,7,8-TCDD		**M/M+2**	0.76	0.65-0.89	10.3	7.8 - 12.9
1,2,3,7,8-PECDD [5]		**M/M+2**	0.62	0.52-0.70	48.4	39 - 65
1,2,3,4,7,8-HXCDD		**M+2/M+4**	1.26	1.05-1.43	48.9	39 - 64
1,2,3,6,7,8-HXCDD		**M+2/M+4**	1.26	1.05-1.43	49.0	39 - 64
1,2,3,7,8,9-HXCDD		**M+2/M+4**	1.22	1.05-1.43	48.7	41 - 61
1,2,3,4,6,7,8-HPCDD		**M+2/M+4**	1.03	0.88-1.20	51.5	43 - 58
OCDD		**M+2/M+4**	0.87	0.76-1.02	101	79 - 126
2,3,7,8-TCDF		**M/M+2**	0.78	0.65-0.89	9.98	8.4 - 12
1,2,3,7,8-PECDF		**M+2/M+4**	1.61	1.32-1.78	50.6	41 - 60
2,3,4,7,8-PECDF		**M+2/M+4**	1.55	1.32-1.78	50.8	41 - 61
1,2,3,4,7,8-HXCDF		**M+2/M+4**	1.27	1.05-1.43	52.4	45 - 56
1,2,3,6,7,8-HXCDF		**M+2/M+4**	1.27	1.05-1.43	49.5	44 - 57
1,2,3,7,8,9-HXCDF		**M+2/M+4**	1.26	1.05-1.43	47.0	45 - 56
2,3,4,6,7,8-HXCDF		**M+2/M+4**	1.23	1.05-1.43	50.9	44 - 57
1,2,3,4,6,7,8-HPCDF		**M+2/M+4**	1.03	0.88-1.20	53.3	45 - 55
1,2,3,4,7,8,9-HPCDF		**M+2/M+4**	1.04	0.88-1.20	51.4	43 - 58
OCDF		**M+2/M+4**	0.92	0.76-1.02	105	63 - 159

(1) Where applicable, custom lab flags have been used on this report.
(2) See Table 8, Method 1613, for m/z specifications.
(3) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
(4) Contract-required concentration range as determined from the percent of the test concentration in Table 6, Method 1613, under VER.
(5) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

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Report Filename: 1613_DIOXINS_DX8M_145BS9__Form4A_SJ2477126.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

Form 4B
PCDD/PCDF CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	24-Oct-2018	**VER Data Filename:**	DX8M_145B S: 9
Instrument ID:	HR GC/MS	**Analysis Date:**	01-Dec-2018
GC Column ID:	DB5	**Analysis Time:**	00:16:18

LABELED COMPOUND	LAB FLAG [1]	MZ's FORMING RATIO [2]	ION ABUND. RATIO	QC LIMITS [3]	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL) [4]
13C-2,3,7,8-TCDD		**M/M+2**	0.79	0.65-0.89	100	82 - 121
13C-1,2,3,7,8-PECDD [5]		**M/M+2**	0.64	0.52-0.70	89.0	62 - 160
13C-1,2,3,4,7,8-HXCDD		**M+2/M+4**	1.29	1.05-1.43	91.8	85 - 117
13C-1,2,3,6,7,8-HXCDD		**M+2/M+4**	1.22	1.05-1.43	104	85 - 118
13C-1,2,3,4,6,7,8-HPCDD		**M+2/M+4**	1.04	0.88-1.20	91.8	72 - 138
13C-OCDD		**M+2/M+4**	0.88	0.76-1.02	178	96 - 415
13C-2,3,7,8-TCDF		**M/M+2**	0.78	0.65-0.89	99.1	71 - 140
13C-1,2,3,7,8-PECDF		**M+2/M+4**	1.63	1.32-1.78	89.5	76 - 130
13C-2,3,4,7,8-PECDF		**M+2/M+4**	1.56	1.32-1.78	85.6	77 - 130
13C-1,2,3,4,7,8-HXCDF		**M/M+2**	0.52	0.43-0.59	91.9	76 - 131
13C-1,2,3,6,7,8-HXCDF		**M/M+2**	0.52	0.43-0.59	101	70 - 143
13C-1,2,3,7,8,9-HXCDF		**M/M+2**	0.52	0.43-0.59	97.7	74 - 135
13C-2,3,4,6,7,8-HXCDF		**M/M+2**	0.52	0.43-0.59	95.1	73 - 137
13C-1,2,3,4,6,7,8-HPCDF		**M/M+2**	0.45	0.37-0.51	89.0	78 - 129
13C-1,2,3,4,7,8,9-HPCDF		**M/M+2**	0.44	0.37-0.51	92.9	77 - 129
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD [6]					9.28	7.9 - 12.7

(1) Where applicable, custom lab flags have been used on this report.
(2) See Table 8, Method 1613, for m/z specifications.
(3) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
(4) Contract-required concentration range as determined from the percent of the test concentration in Table 6, Method 1613, under VER.
(5) Alternate confirmation and quantitation ions used for native and labeled PECDD.
(6) No ion abundance ratio for 37Cl4-2,3,7,8-TCDD; concentration reported.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

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SGS AXYS METHOD MLA-017 Rev 20

Form 6A
PCDD/PCDF RELATIVE RETENTION TIMES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	24-Oct-2018	**VER Data Filename:**	DX8M_145B S: 9
Instrument ID:	HR GC/MS	**Analysis Date:**	01-Dec-2018
GC Column ID:	DB5	**Analysis Time:**	00:16:18

COMPOUND	LAB FLAG [1]	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS [2]
2,3,7,8-TCDD		13C-2,3,7,8-TCDD	1.001	0.999-1.002
1,2,3,7,8-PECDD [3]		13C-1,2,3,7,8-PECDD	1.001	0.999-1.002
1,2,3,4,7,8-HXCDD		13C-1,2,3,4,7,8-HXCDD	1.000	0.999-1.001
1,2,3,6,7,8-HXCDD		13C-1,2,3,6,7,8-HXCDD	1.000	0.998-1.004
1,2,3,7,8,9-HXCDD		13C-1,2,3,6,7,8-HXCDD	1.010	1.000-1.019
1,2,3,4,6,7,8-HPCDD		13C-1,2,3,4,6,7,8-HPCDD	1.000	0.999-1.001
OCDD		13C-OCDD	1.000	0.999-1.001
2,3,7,8-TCDF		13C-2,3,7,8-TCDF	1.001	0.999-1.003
1,2,3,7,8-PECDF		13C-1,2,3,7,8-PECDF	1.000	0.999-1.002
2,3,4,7,8-PECDF		13C-2,3,4,7,8-PECDF	1.000	0.999-1.002
1,2,3,4,7,8-HXCDF		13C-1,2,3,4,7,8-HXCDF	1.001	0.999-1.001
1,2,3,6,7,8-HXCDF		13C-1,2,3,6,7,8-HXCDF	1.000	0.997-1.005
1,2,3,7,8,9-HXCDF		13C-1,2,3,7,8,9-HXCDF	1.000	0.999-1.001
2,3,4,6,7,8-HXCDF		13C-2,3,4,6,7,8-HXCDF	1.001	0.999-1.001
1,2,3,4,6,7,8-HPCDF		13C-1,2,3,4,6,7,8-HPCDF	1.000	0.999-1.001
1,2,3,4,7,8,9-HPCDF		13C-1,2,3,4,7,8,9-HPCDF	1.000	0.999-1.001
OCDF		13C-OCDD	1.002	0.999-1.008

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613.
(3) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

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SGS AXYS METHOD MLA-017 Rev 20

Form 6B
PCDD/PCDF RELATIVE RETENTION TIMES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	24-Oct-2018	**VER Data Filename:**	DX8M_145B S: 9
Instrument ID:	HR GC/MS	**Analysis Date:**	01-Dec-2018
GC Column ID:	DB5	**Analysis Time:**	00:16:18

	LAB FLAG [1]	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS [2]
LABELED COMPOUND				
13C-2,3,7,8-TCDD		13C-1,2,3,4-TCDD	1.013	0.976-1.043
13C-1,2,3,7,8-PECDD		13C-1,2,3,4-TCDD	1.381	1.000-1.567
13C-1,2,3,4,7,8-HXCDD		13C-1,2,3,7,8,9-HXCDD	0.987	0.977-1.000
13C-1,2,3,6,7,8-HXCDD		13C-1,2,3,7,8,9-HXCDD	0.990	0.981-1.003
13C-1,2,3,4,6,7,8-HPCDD		13C-1,2,3,7,8,9-HXCDD	1.095	1.086-1.110
13C-OCDD		13C-1,2,3,7,8,9-HXCDD	1.180	1.032-1.311
13C-2,3,7,8-TCDF		13C-1,2,3,4-TCDD	0.966	0.923-1.103
13C-1,2,3,7,8-PECDF		13C-1,2,3,4-TCDD	1.283	1.000-1.425
13C-2,3,4,7,8-PECDF		13C-1,2,3,4-TCDD	1.350	1.011-1.526
13C-1,2,3,4,7,8-HXCDF		13C-1,2,3,7,8,9-HXCDD	0.953	0.944-0.970
13C-1,2,3,6,7,8-HXCDF		13C-1,2,3,7,8,9-HXCDD	0.958	0.949-0.975
13C-1,2,3,7,8,9-HXCDF		13C-1,2,3,7,8,9-HXCDD	1.004	0.977-1.047
13C-2,3,4,6,7,8-HXCDF		13C-1,2,3,7,8,9-HXCDD	0.980	0.959-1.021
13C-1,2,3,4,6,7,8-HPCDF		13C-1,2,3,7,8,9-HXCDD	1.062	1.043-1.085
13C-1,2,3,4,7,8,9-HPCDF		13C-1,2,3,7,8,9-HXCDD	1.105	1.057-1.151
CLEANUP STANDARD				
37CL-2,3,7,8-TCDD		13C-1,2,3,4-TCDD	1.001	0.989-1.052

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

For Axys Internal Use Only [XSL Template: Form6B.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1; Report Filename: 1613_DIOXINS_DX8M_145BS9__Form6B_SJ2477126.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

Form 5

PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Instrument ID:	HR GC/MS	**Initial Calibration Date:**		24-Oct-2018
RT Window Data Filename:	DX8M_145B S: 1	**Analysis Date:**	30-Nov-2018	**Time:** 16:46:44
DB-5 IS Data Filename:	DX8M_145B S: 1	**Analysis Date:**	30-Nov-2018	**Time:** 16:46:44
DB-225 IS Data Filename:		**Analysis Date:**		**Time:**

DB5 RT WINDOW DEFINING STANDARDS RESULT

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	22:56	**1,3,6,8-TCDF (F)**	21:24
1,2,8,9-TCDD (L)	28:17	**1,2,8,9-TCDF (L)**	28:08
1,2,4,7,9-PECDD (F)	32:00	**1,3,4,6,8-PECDF (F)**	28:50
1,2,3,8,9-PECDD (L)	37:01	**1,2,3,8,9-PECDF (L)**	37:04
1,2,4,6,7,9-HXCDD (F)	40:00	**1,2,3,4,6,8-HXCDF (F)**	38:57
1,2,3,4,6,7-HXCDD (L)	42:41	**1,2,3,4,8,9-HXCDF (L)**	43:01
1,2,3,4,6,7,9-HPCDD (F)	45:49	**1,2,3,4,6,7,8-HPCDF (F)**	45:20
1,2,3,4,6,7,8-HPCDD (L)	46:44	**1,2,3,4,7,8,9-HPCDF (L)**	47:08

(F) = First eluting isomer (DB-5); (L) = Last eluting isomer (DB-5)

ISOMER SPECIFICITY (IS) TEST STANDARDS RESULT

Isomers	% Valley Height Between Compared Peaks	Isomers	% Valley Height Between Compared Peaks
1,2,3,4-TCDD **1,2,7,8-TCDD**	0	**1,2,3,8-TCDD** **2,3,7,8-TCDD**	19
1,2,7,8-TCDD **1,4,7,8-TCDD**	0	**2,3,4,7-TCDF** **2,3,7,8-TCDF**	N/A
1,4,7,8-TCDD **1,2,3,7-TCDD**	0	**2,3,7,8-TCDF** **1,2,3,9-TCDF**	N/A
1,2,3,7-TCDD **1,2,3,8-TCDD**	DB-5 column; co-elute as per Figure 6 in Method		

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

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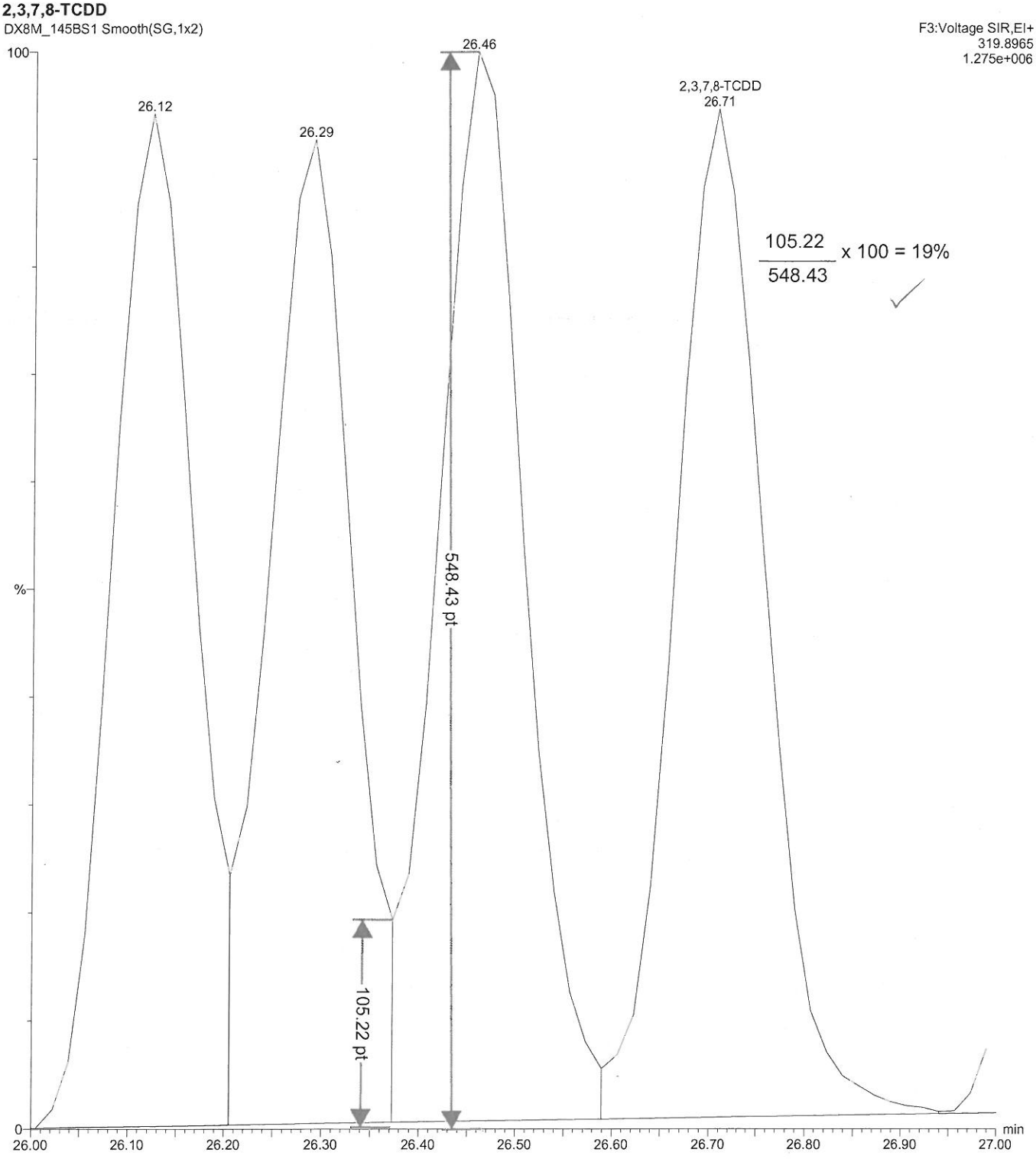
Method: G:\Masslynx\Inst_M\Projects\181023DX.PRO\MethDB\DX_Win_ResC.mdb 13 Nov 2018 11:18:59
Calibration: G:\Masslynx\Inst_M\Projects\181023DX.pro\CurveDB\DX8M_126A-6A.cdb 26 Oct 2018 11:48:18

Name: DX8M_145BS1, Date: 30-Nov-2018, Time: 16:46:44, ID: DX041D-CAL,,/01-79, Description: 1,,1.0uL Cal Win/Res

2,3,7,8-TCDD



PV by LHE
03-DEC-2018

SGS AXYS METHOD MLA-017 Rev 20

AUDIT 1A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-83
Sample Collection:
15-Jun-2018 12:08

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-27
Sample Data Filename:	**DX8M_145B S: 8**	**Instrument ID:**	HR GC/MS
Analysis Date:	30-Nov-2018 **Time:** 23:21:03	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. CONC.	FINAL CONC.	CHANGE CONC. (Final/Orig.)	ORIG. AREA	FINAL AREA	CHANGE AREA (Final/Orig.)	ORIG. RATIO	FINAL RATIO
1,2,3,7,8,9-HXCDD								
1,2,3,7,8-PECDF								
2,3,4,7,8-PECDF								
1,2,3,4,7,8-HXCDF								
1,2,3,6,7,8-HXCDF								
1,2,3,4,6,7,8-HPCDF								
1,2,3,4,7,8,9-HPCDF								

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1A.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-27_Audit1A_DX8M_145BS8_SJ2477125.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

AUDIT 1B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-83
Sample Collection:
15-Jun-2018 12:08

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No. SEEP WATER PO# 2018-0069

Contract No.:	4033	**Lab Sample I.D.:**	L29628-27
Sample Data Filename:	**DX8M_145B S: 8**	**Instrument ID:**	HR GC/MS
Analysis Date:	30-Nov-2018 **Time:** 23:21:03	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. SDL	FINAL SDL	CHANGE SDL (Final/Orig.)	ORIG. QUAL	FINAL QUAL	ORIG. RT	FINAL RT	REVIEWED BY	REVIEWED DATE
1,2,3,7,8,9-HXCDD				NDR	ND(R)			LHENLEY	03-DEC-2018
1,2,3,7,8-PECDF					ND			LHENLEY	03-DEC-2018
2,3,4,7,8-PECDF				NDR	ND(R)			LHENLEY	03-DEC-2018
1,2,3,4,7,8-HXCDF					ND			LHENLEY	03-DEC-2018
1,2,3,6,7,8-HXCDF				NDR	ND(R)			LHENLEY	03-DEC-2018
1,2,3,4,6,7,8-HPCDF				NDR	ND(R)			LHENLEY	03-DEC-2018
1,2,3,4,7,8,9-HPCDF				NDR	ND(R)			LHENLEY	03-DEC-2018

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1B.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-27_Audit1B_DX8M_145BS8_SJ2477125.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

AUDIT 2A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-83
Sample Collection:
15-Jun-2018 12:08

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-27
Sample Data Filename:	**DX8M_145B S: 8**	**Instrument ID:**	HR GC/MS
Analysis Date:	30-Nov-2018 **Time:** 23:21:03	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2A.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-27_Audit2A_DX8M_145BS8_SJ2477125.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

AUDIT 2B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-83
Sample Collection:
15-Jun-2018 12:08

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-27
Sample Data Filename:	**DX8M_145B S: 8**	**Instrument ID:**	HR GC/MS
Analysis Date:	30-Nov-2018 **Time:** 23:21:03	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2B.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-27_Audit2B_DX8M_145BS8_SJ2477125.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

AUDIT 1A CHANGE REPORT

CLIENT SAMPLE NO.
Lab Blank
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No. N/A

Contract No.:	4033	**Lab Sample I.D.:**	WG66111-101
Sample Data Filename:	**DX8M_145B S: 6**	**Instrument ID:**	HR GC/MS
Analysis Date:	30-Nov-2018 **Time:** 21:30:43	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. CONC.	FINAL CONC.	CHANGE CONC. (Final/Orig.)	ORIG. AREA	FINAL AREA	CHANGE AREA (Final/Orig.)	ORIG. RATIO	FINAL RATIO
1,2,3,4,6,7,8-HPCDD								

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1A.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1;
Report Filename: AUDIT_DIOXINS_1613DB5_WG66111-101_Audit1A_DX8M_145BS6_SJ2477122.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

AUDIT 1B CHANGE REPORT

CLIENT SAMPLE NO.
Lab Blank
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No. N/A

Contract No.:	4033	**Lab Sample I.D.:**	WG66111-101
Sample Data Filename:	**DX8M_145B S: 6**	**Instrument ID:**	HR GC/MS
Analysis Date:	30-Nov-2018 **Time:** 21:30:43	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. SDL	FINAL SDL	CHANGE SDL (Final/Orig.)	ORIG. QUAL	FINAL QUAL	ORIG. RT	FINAL RT	REVIEWED BY	REVIEWED DATE
1,2,3,4,6,7,8-HPCDD				NDR	ND(R)			LHENLEY	03-DEC-2018

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1B.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1;
Report Filename: AUDIT_DIOXINS_1613DB5_WG66111-101_Audit1B_DX8M_145BS6_SJ2477122.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

AUDIT 2A CHANGE REPORT

CLIENT SAMPLE NO.
Lab Blank
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	N/A		
Contract No.:	4033	**Lab Sample I.D.:**	WG66111-101
Sample Data Filename:	**DX8M_145B S: 6**	**Instrument ID:**	HR GC/MS
Analysis Date:	30-Nov-2018 **Time:** 21:30:43	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2A.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1;
Report Filename: AUDIT_DIOXINS_1613DB5_WG66111-101_Audit2A_DX8M_145BS6_SJ2477122.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

AUDIT 2B CHANGE REPORT

CLIENT SAMPLE NO.
Lab Blank
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

		Project No.	N/A
Contract No.:	4033	**Lab Sample I.D.:**	WG66111-101
Sample Data Filename:	**DX8M_145B S: 6**	**Instrument ID:**	HR GC/MS
Analysis Date:	30-Nov-2018 **Time:** 21:30:43	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

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Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2B.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1;
Report Filename: AUDIT_DIOXINS_1613DB5_WG66111-101_Audit2B_DX8M_145BS6_SJ2477122.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

AUDIT 1A CHANGE REPORT

CLIENT SAMPLE NO.
Spiked Matrix
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4033	**Lab Sample I.D.:**	WG66111-102 (A)
Sample Data Filename:	**DX8M_145B S: 2**	**Instrument ID:**	HR GC/MS
Analysis Date:	30-Nov-2018 **Time:** 17:52:18	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. CONC.	FINAL CONC.	CHANGE CONC. (Final/Orig.)	ORIG. AREA	FINAL AREA	CHANGE AREA (Final/Orig.)	ORIG. RATIO	FINAL RATIO
2,3,7,8-TCDD								
1,2,3,7,8-PECDD								
1,2,3,4,7,8-HXCDD								
1,2,3,6,7,8-HXCDD								
1,2,3,7,8,9-HXCDD								
OCDD								
2,3,7,8-TCDF								
1,2,3,4,7,8-HXCDF								
2,3,4,6,7,8-HXCDF								
OCDF								

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1A.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1;
Report Filename: AUDIT_DIOXINS_1613DB5_WG66111-102_Audit1A_DX8M_145BS2_SJ2477116.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

AUDIT 1B CHANGE REPORT

CLIENT SAMPLE NO.
Spiked Matrix
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4033	**Lab Sample I.D.:**	WG66111-102 (A)
Sample Data Filename:	**DX8M_145B S: 2**	**Instrument ID:**	HR GC/MS
Analysis Date:	30-Nov-2018 **Time:** 17:52:18	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. SDL	FINAL SDL	CHANGE SDL (Final/Orig.)	ORIG. QUAL	FINAL QUAL	ORIG. RT	FINAL RT	REVIEWED BY	REVIEWED DATE
2,3,7,8-TCDD								LHENLEY	03-DEC-2018
1,2,3,7,8-PECDD								LHENLEY	03-DEC-2018
1,2,3,4,7,8-HXCDD								LHENLEY	03-DEC-2018
1,2,3,6,7,8-HXCDD								LHENLEY	03-DEC-2018
1,2,3,7,8,9-HXCDD								LHENLEY	03-DEC-2018
OCDD								LHENLEY	03-DEC-2018
2,3,7,8-TCDF								LHENLEY	03-DEC-2018
1,2,3,4,7,8-HXCDF								LHENLEY	03-DEC-2018
2,3,4,6,7,8-HXCDF								LHENLEY	03-DEC-2018
OCDF								LHENLEY	03-DEC-2018

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1B.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1;
Report Filename: AUDIT_DIOXINS_1613DB5_WG66111-102_Audit1B_DX8M_145BS2_SJ2477116.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

AUDIT 2A CHANGE REPORT

CLIENT SAMPLE NO.
Spiked Matrix
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4033	**Lab Sample I.D.:**	WG66111-102 (A)
Sample Data Filename:	**DX8M_145B S: 2**	**Instrument ID:**	HR GC/MS
Analysis Date:	30-Nov-2018 **Time:** 17:52:18	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2A.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1;
Report Filename: AUDIT_DIOXINS_1613DB5_WG66111-102_Audit2A_DX8M_145BS2_SJ2477116.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

AUDIT 2B CHANGE REPORT

CLIENT SAMPLE NO.
Spiked Matrix
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4033	**Lab Sample I.D.:**	WG66111-102 (A)
Sample Data Filename:	**DX8M_145B S: 2**	**Instrument ID:**	HR GC/MS
Analysis Date:	30-Nov-2018 **Time:** 17:52:18	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

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Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2B.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1;
Report Filename: AUDIT_DIOXINS_1613DB5_WG66111-102_Audit2B_DX8M_145BS2_SJ2477116.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

AUDIT 1A CHANGE REPORT

CLIENT SAMPLE NO.
Spiked Matrix (Duplicate)
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4033	**Lab Sample I.D.:**	WG66111-103 (DUP WG66111-102)
Sample Data Filename:	**DX8M_145B S: 3**	**Instrument ID:**	HR GC/MS
Analysis Date:	30-Nov-2018 **Time:** 18:45:04	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. CONC.	FINAL CONC.	CHANGE CONC. (Final/Orig.)	ORIG. AREA	FINAL AREA	CHANGE AREA (Final/Orig.)	ORIG. RATIO	FINAL RATIO
2,3,7,8-TCDD								
1,2,3,7,8-PECDD								
1,2,3,4,7,8-HXCDD								
1,2,3,6,7,8-HXCDD								
1,2,3,7,8,9-HXCDD								
OCDD								
2,3,7,8-TCDF								
1,2,3,4,7,8-HXCDF								
2,3,4,6,7,8-HXCDF								
OCDF								

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1A.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1;
Report Filename: AUDIT_DIOXINS_1613DB5_WG66111-103_Audit1A_DX8M_145BS3_SJ2477118.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

AUDIT 1B CHANGE REPORT

CLIENT SAMPLE NO.
Spiked Matrix (Duplicate)
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4033	**Lab Sample I.D.:**	WG66111-103 (DUP WG66111-102)
Sample Data Filename:	**DX8M_145B S: 3**	**Instrument ID:**	HR GC/MS
Analysis Date:	30-Nov-2018 **Time:** 18:45:04	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. SDL	FINAL SDL	CHANGE SDL (Final/Orig.)	ORIG. QUAL	FINAL QUAL	ORIG. RT	FINAL RT	REVIEWED BY	REVIEWED DATE
2,3,7,8-TCDD								LHENLEY	03-DEC-2018
1,2,3,7,8-PECDD								LHENLEY	03-DEC-2018
1,2,3,4,7,8-HXCDD								LHENLEY	03-DEC-2018
1,2,3,6,7,8-HXCDD								LHENLEY	03-DEC-2018
1,2,3,7,8,9-HXCDD								LHENLEY	03-DEC-2018
OCDD								LHENLEY	03-DEC-2018
2,3,7,8-TCDF								LHENLEY	03-DEC-2018
1,2,3,4,7,8-HXCDF								LHENLEY	03-DEC-2018
2,3,4,6,7,8-HXCDF								LHENLEY	03-DEC-2018
OCDF								LHENLEY	03-DEC-2018

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1B.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1;
Report Filename: AUDIT_DIOXINS_1613DB5_WG66111-103_Audit1B_DX8M_145BS3_SJ2477118.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

AUDIT 2A CHANGE REPORT

CLIENT SAMPLE NO.
Spiked Matrix (Duplicate)
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4033	**Lab Sample I.D.:**	WG66111-103 (DUP WG66111-102)
Sample Data Filename:	**DX8M_145B S: 3**	**Instrument ID:**	HR GC/MS
Analysis Date:	30-Nov-2018 **Time:** 18:45:04	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2A.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1;
Report Filename: AUDIT_DIOXINS_1613DB5_WG66111-103_Audit2A_DX8M_145BS3_SJ2477118.html; Workgroup: WG66111; Design ID: 491]

SGS AXYS METHOD MLA-017 Rev 20

AUDIT 2B CHANGE REPORT

CLIENT SAMPLE NO.
Spiked Matrix (Duplicate)
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4033	**Lab Sample I.D.:**	WG66111-103 (DUP WG66111-102)
Sample Data Filename:	**DX8M_145B S: 3**	**Instrument ID:**	HR GC/MS
Analysis Date:	30-Nov-2018 **Time:** 18:45:04	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2B.xsl; Created: 05-Dec-2018 09:47:22; Application: XMLTransformer-1.17.1;
Report Filename: AUDIT_DIOXINS_1613DB5_WG66111-103_Audit2B_DX8M_145BS3_SJ2477118.html; Workgroup: WG66111; Design ID: 491]

Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS8, Date: 30-Nov-2018, Time: 23:21:03, ID: L29628-27,,, Description: 1,WG66111,1.0/20uL

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	1.072			NO			0.2080		8.00e2	9.09e2
2	1,2,3,7,8-PeCDF	1.072	4.17e2	1.32	NO	33.52	0.255	0.1483		4.29e2	3.72e2
3	2,3,4,7,8-PeCDF	1.072	2.28e2	1.83	YES	35.27	0.155	0.1449		4.29e2	3.72e2
4	1,2,3,4,7,8-HxCDF	1.072	1.61e2	1.38	NO	40.70	0.138	0.1052		5.95e1	5.52e2
5	1,2,3,6,7,8-HxCDF	1.072	1.93e2	1.89	YES	40.87	0.146	0.0993		5.95e1	5.52e2
6	2,3,4,6,7,8-HxCDF	1.072	4.50e1	0.99	YES	41.80	0.039	0.1061		5.95e1	5.52e2
7	1,2,3,7,8,9-HxCDF	1.072	1.09e2	1.25	NO	42.87	0.116	0.1410		5.95e1	5.52e2
8	1,2,3,4,6,7,8-HpCDF	1.072	2.80e2	2.55	YES	45.37	0.305	0.1611		3.96e2	4.17e2
9	1,2,3,4,7,8,9-HpCDF	1.072	2.24e2	3.24	YES	47.14	0.315	0.2160		3.96e2	4.17e2
10	OCDF	1.072	3.21e2	0.52	YES	50.46	0.601	0.1559		4.03e2	2.60e-1
11	2,3,7,8-TCDD	1.072			NO			0.2413		5.30e2	8.13e2
12	1,2,3,7,8-PeCDD	1.072	1.47e2	0.37	YES	36.10	0.147	0.2973		6.97e2	4.39e2
13	1,2,3,4,7,8-HxCDD	1.072	9.41e1	1.98	YES	42.10	0.120	0.3502		3.40e2	1.22e3
14	1,2,3,6,7,8-HxCDD	1.072	1.20e2	1.41	NO	42.26	0.133	0.3733		3.40e2	1.22e3
15	1,2,3,7,8,9-HxCDD	1.072	3.62e2	1.73	YES	42.61	0.437	0.3685		3.40e2	1.22e3
16	1,2,3,4,6,7,8-HpCDD	1.072	5.86e2	0.63	YES	46.76	0.954	0.1611		1.45e2	3.65e2
17	OCDD	1.072	2.05e3	1.00	NO	50.34	4.615	0.1810		1.89e2	2.01e2
18	13C-2,3,7,8-TCDF	1.072	4.03e6	0.79	NO	25.24	1574.755	1.4516	84.4	8.70e3	6.23e3
19	13C-1,2,3,7,8-PeCDF	1.072	3.26e6	1.58	NO	33.50	1552.499	2.1503	83.2	8.53e3	9.59e3
20	13C-2,3,4,7,8-PeCDF	1.072	2.92e6	1.58	NO	35.27	1400.711	2.1624	75.1	8.53e3	9.59e3
21	13C-1,2,3,4,7,8-HxCDF	1.072	1.91e6	0.52	NO	40.68	1567.476	3.1032	84.0	1.11e4	7.42e3
22	13C-1,2,3,6,7,8-HxCDF	1.072	2.28e6	0.53	NO	40.85	1733.936	2.8847	92.9	1.11e4	7.42e3
23	13C-2,3,4,6,7,8-HxCDF	1.072	1.85e6	0.51	NO	41.80	1556.197	3.1863	83.4	1.11e4	7.42e3
24	13C-1,2,3,7,8,9-HxCDF	1.072	1.70e6	0.50	NO	42.85	1554.453	3.4717	83.3	1.11e4	7.42e3
25	13C-1,2,3,4,6,7,8-HpCDF	1.072	1.40e6	0.45	NO	45.32	1387.499	2.1802	74.3	7.92e3	2.78e3
26	13C-1,2,3,4,7,8,9-HpCDF	1.072	1.08e6	0.43	NO	47.12	1400.066	2.8522	75.0	7.92e3	2.78e3
27	13C-2,3,7,8-TCDD	1.072	2.61e6	0.78	NO	26.46	1603.640	2.7757	85.9	9.67e3	8.45e3
28	13C-1,2,3,7,8-PeCDD	1.072	1.85e6	0.63	NO	36.10	1525.296	1.3225	81.7	4.53e3	1.90e3
29	13C-1,2,3,4,7,8-HxCDD	1.072	1.47e6	1.26	NO	42.09	1568.705	2.8990	84.1	5.72e3	7.55e3
30	13C-1,2,3,6,7,8-HxCDD	1.072	1.80e6	1.26	NO	42.22	1781.576	2.6981	95.5	5.72e3	7.55e3
31	13C-1,2,3,4,6,7,8-HpCDD	1.072	1.19e6	1.01	NO	46.72	1505.464	2.2817	80.7	3.65e3	5.17e3
32	13C-OCDD	1.072	1.67e6	0.93	NO	50.34	2443.081	1.2160	65.5	4.04e3	0.00e0
33	13C-1,2,3,4-TCDD	1.072	3.14e6	0.77	NO	26.12	76.209	0.1096	4.1	9.67e3	8.45e3
34	13C-1,2,3,7,8,9-HxCDD	1.072	1.79e6	1.27	NO	42.66	59.662	0.0908	3.2	5.72e3	7.55e3
35	37Cl-2,3,7,8-TCDD	1.072	2.82e5			26.49	153.578	0.3543	82.3		2.61e3
36	Total Tetra-Furans	1.072					0.786	0.2080			9.09e2
37	Total Tetra-Dioxins	1.072					0.485	0.2413			8.13e2
38	Total Penta-Furans	1.072					1.053	0.1471			3.72e2
39	Total Penta-Dioxins	1.072					0.147	0.2973			4.39e2
40	Total Hexa-Furans	1.072					1.216	0.1081			5.52e2
41	Total Hexa-Dioxins	1.072					1.863	0.3494			1.22e3
42	Total Hepta-Furans	1.072					0.949	0.1855			4.17e2
43	Total Hepta-Dioxins	1.072					1.764	0.1611			3.65e2
44	Hexa DPE	1.000	1.24e2			25.17					4.63e-1
45	Hepta DPE	1.000	1.25e2			33.72					1.53e-1
46	Octa DPE	1.000	1.03e2			39.95					6.18e-1
47	Nona DPE	1.000	8.62e1			47.28					1.65e-1
48	Deca DPE	1.000	9.58e1			49.06					1.84e-1
49	Tetra Lock	1.000	6.53e4			23.62					5.39e5
50	Penta Lock	1.000	2.04e6			29.01					9.16e5
51	Hexa Lock	1.000	5.14e6			38.90					1.84e6
52	Hepta Lock	1.000									6.17e5
53	Octa Lock	1.000									1.08e6
54	13C-Tetra-Furans	1.072					1574.755	1.4516			6.23e3
55	13C-Tetra-Dioxins	1.072					1679.849	2.8853			8.45e3

pv'd by LHE 03-DEC-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

SVbyHK3 05Dec2018

Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS8, Date: 30-Nov-2018, Time: 23:21:03, ID: L29628-27,,, Description: 1,WG66111,1.0/20uL

Tetrafurans

	RT	1° Ratio (A...	Fails?	pg
1	24.59	0.356	YES	0.140
2	23.94	0.470	YES	0.075
3	23.84	0.910	YES	0.085
4	23.47	0.566	YES	0.103
5	22.60	0.700	NO	0.078
6	26.11	1.275	YES	0.304

Tetradioxins

	RT	1° Ratio (A...	Fails?	pg
1	25.24	2.991	YES	0.485

Pentafurans

	RT	1° Ratio (A...	Fails?	pg
1	28.83	0.430	YES	0.155
2	32.60	0.314	YES	0.098
3	31.62	0.404	YES	0.060
4	31.52	1.459	NO	0.156
5	31.39	0.476	YES	0.088
6	35.27	1.827	YES	0.155
7	33.52	1.324	NO	0.255
8	35.80	0.617	YES	0.086

Pentadioxins

	RT	1° Ratio (A...	Fails?	pg
1	36.10	0.370	YES	0.147

Hexafurans

	RT	1° Ratio (A...	Fails?	pg
1	40.07	0.724	YES	0.283
2	39.34	0.368	YES	0.068
3	39.24	2.289	YES	0.138
4	39.00	0.504	YES	0.069
5	42.87	1.253	NO	0.116
6	42.07	1.529	YES	0.049
7	41.80	0.991	YES	0.039
8	41.36	0.655	YES	0.032
9	40.87	1.893	YES	0.146
10	40.70	1.377	NO	0.138
11	43.03	1.357	NO	0.093
12	40.65	0.683	YES	0.044

pv'd by LHE 03-DEC-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS8, Date: 30-Nov-2018, Time: 23:21:03, ID: L29628-27,,, Description: 1,WG66111,1.0/20uL

Hexadioxins

	RT	1° Ratio (A...	Fails?	pg
1	42.10	1.979	YES	0.120
2	41.21	1.061	NO	0.059
3	40.85	2.432	YES	0.968
4	39.97	1.350	NO	0.146
5	42.61	1.727	YES	0.437
6	42.26	1.406	NO	0.133

Heptafurans

	RT	1° Ratio (A...	Fails?	pg
1	45.88	0.753	YES	0.252
2	45.72	0.856	YES	0.077
3	45.37	2.554	YES	0.305
4	47.14	3.243	YES	0.315

Heptadioxins

	RT	1° Ratio (A...	Fails?	pg
1	46.76	0.632	YES	0.954
2	45.83	1.382	YES	0.810

13C-TF

	RT	1° Ratio (A...	Fails?	pg
1	25.24	0.787	NO	1574.7...

13C-TD

	RT	1° Ratio (A...	Fails?	pg
1	26.46	0.781	NO	1603.6...
2	26.12	0.770	NO	76.209

13C-PF

	RT	1° Ratio (A...	Fails?	pg
1	35.27	1.581	NO	1400.7...
2	33.50	1.576	NO	1552.4...

13C-PD

	RT	1° Ratio (A...	Fails?	pg
1	36.10	0.633	NO	1525.2...

13C-HxF

	RT	1° Ratio (A...	Fails?	pg
1	40.85	0.527	NO	1733.9...
2	40.68	0.519	NO	1567.4...
3	42.85	0.498	NO	1554.4...
4	41.80	0.514	NO	1556.1...

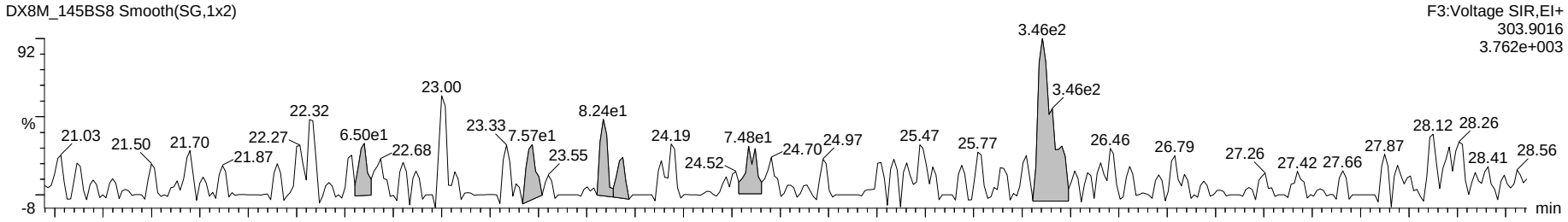
pv'd by LHE 03-DEC-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

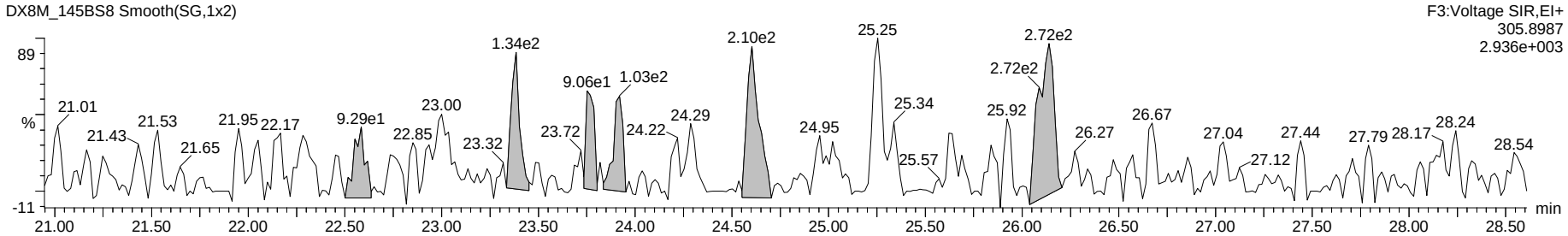
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Method: G:\Masslynx\Inst_M\Exported_methods\DX_1613B_16.mdb 05 Apr 2018 08:34:55
Calibration: G:\Masslynx\Inst_M\Projects\181023DX.PRO\CurveDB\DX8M_126A-6A.cdb 26 Oct 2018 11:48:18

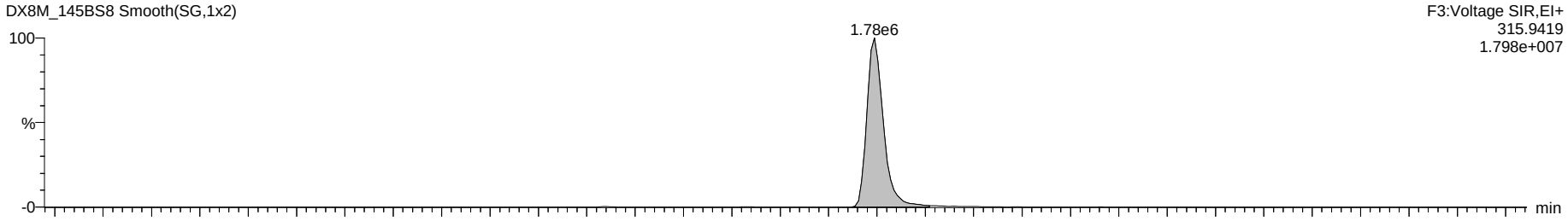
Name: DX8M_145BS8, Date: 30-Nov-2018, Time: 23:21:03, ID: L29628-27,,, Description: 1,WG66111,1.0/20uL

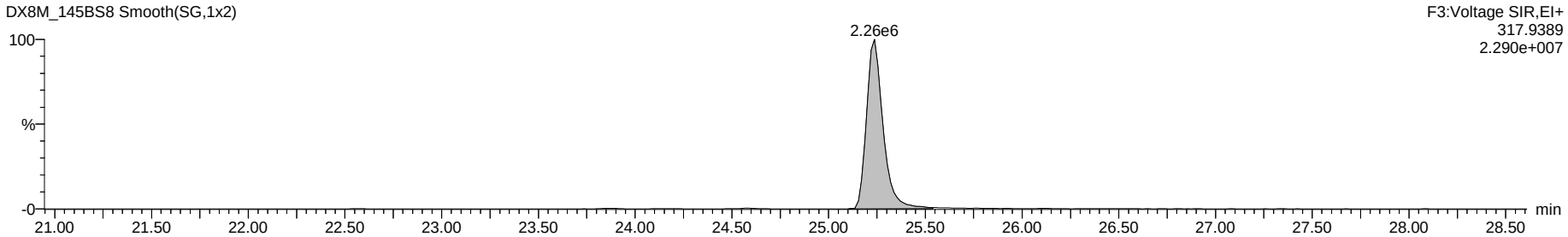
Total Tetra-Furans





13C-Tetra-Furans

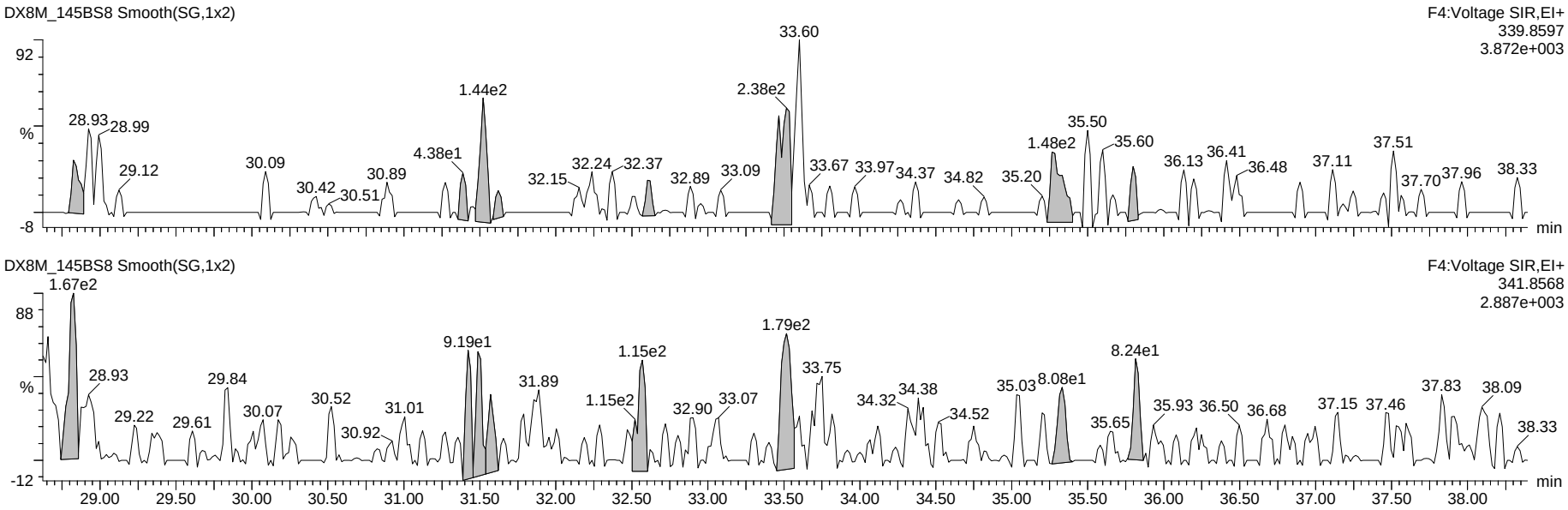




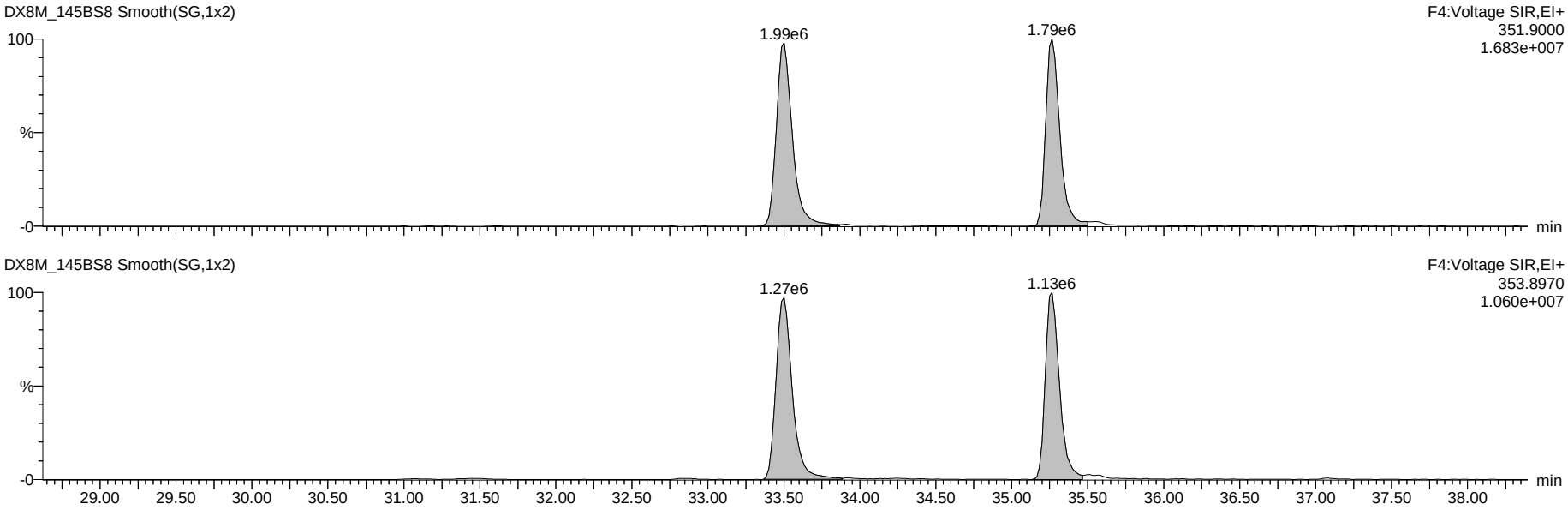
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS8, Date: 30-Nov-2018, Time: 23:21:03, ID: L29628-27,,, Description: 1,WG66111,1.0/20uL

Total Penta-Furans



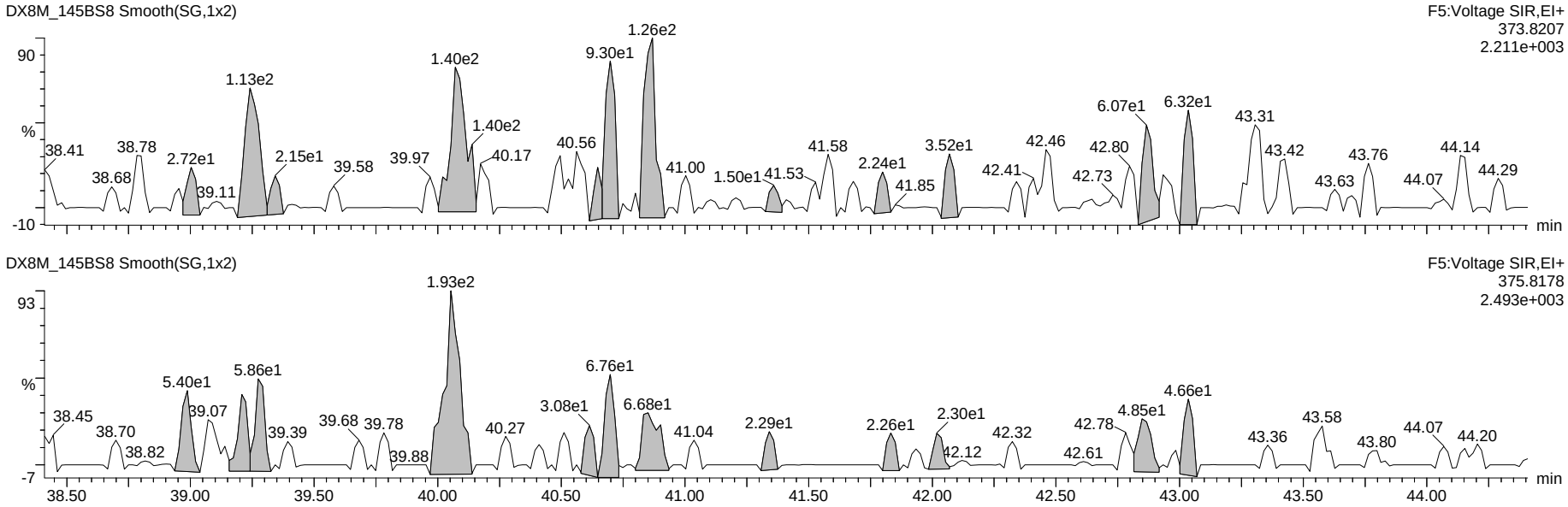
13C-Penta-Furans



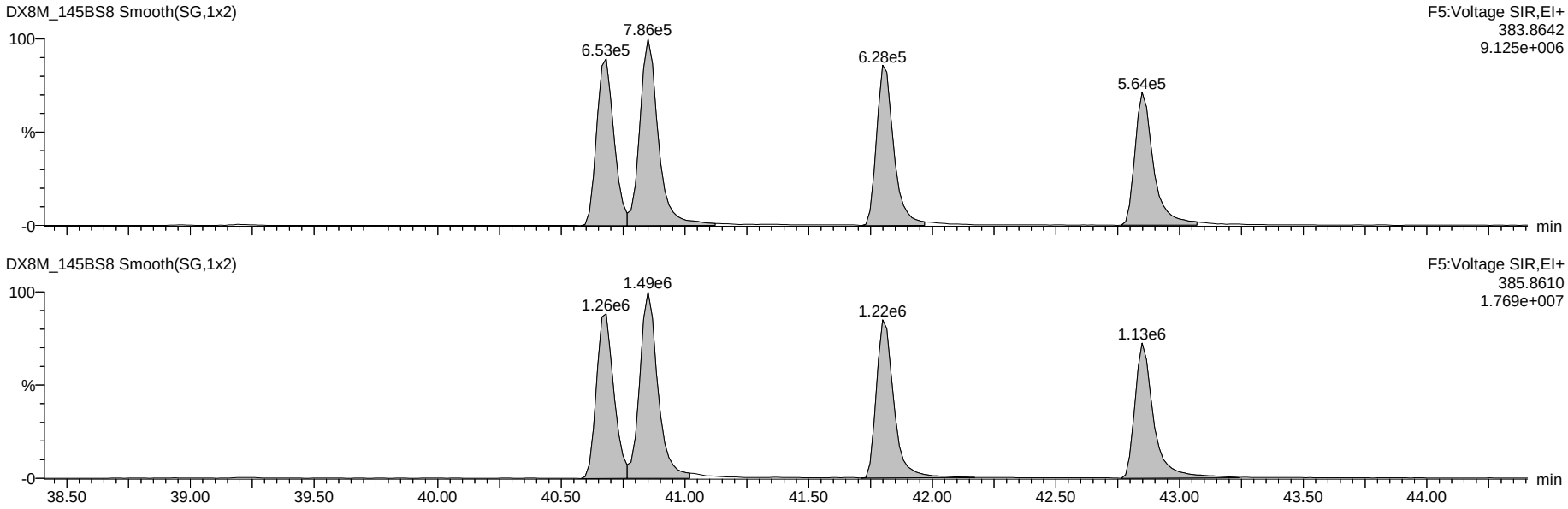
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS8, Date: 30-Nov-2018, Time: 23:21:03, ID: L29628-27,,, Description: 1,WG66111,1.0/20uL

Total Hexa-Furans



13C-Hexa-Furans



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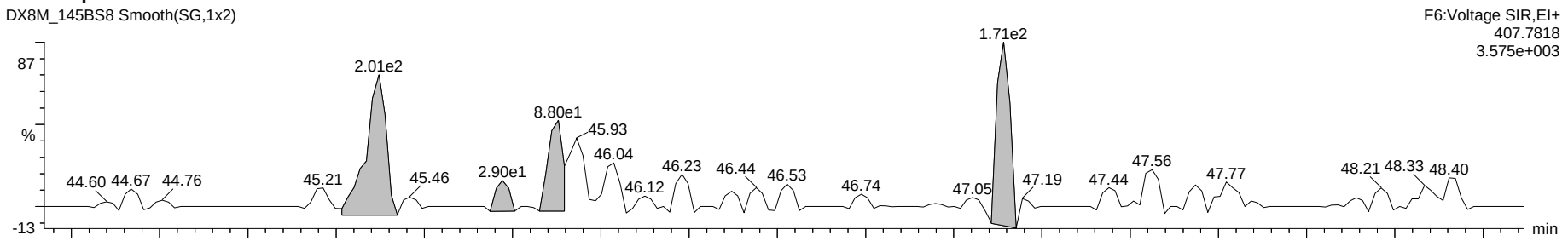
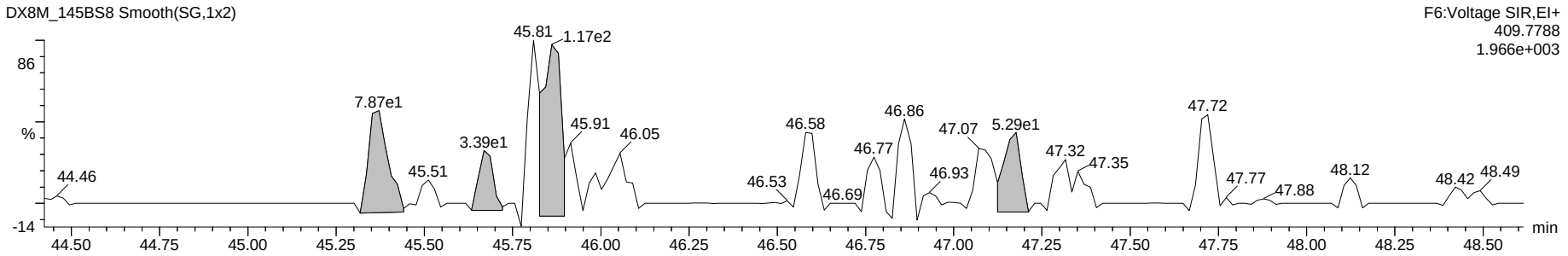
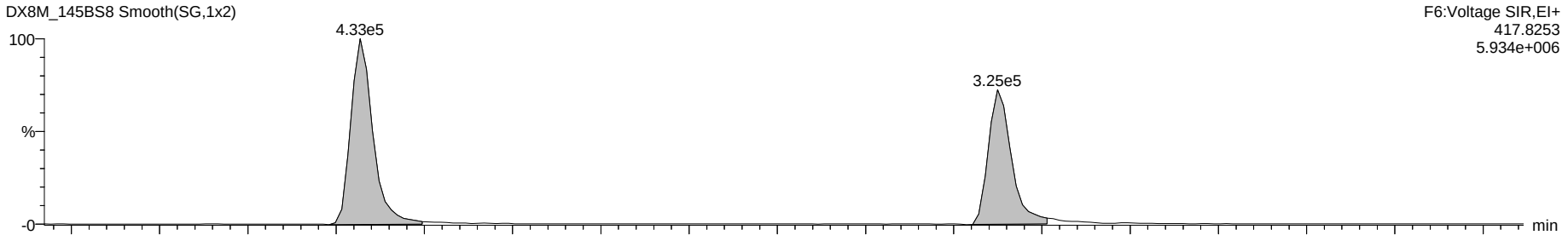
Name: DX8M_145BS8, Date: 30-Nov-2018, Time: 23:21:03, ID: L29628-27,,, Description: 1,WG66111,1.0/20uL

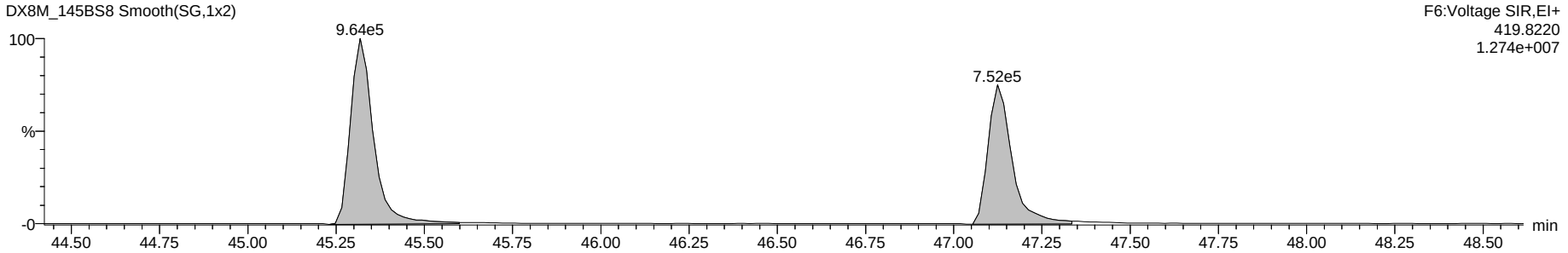
Total Hepta-Furans





13C-Hepta-Furans

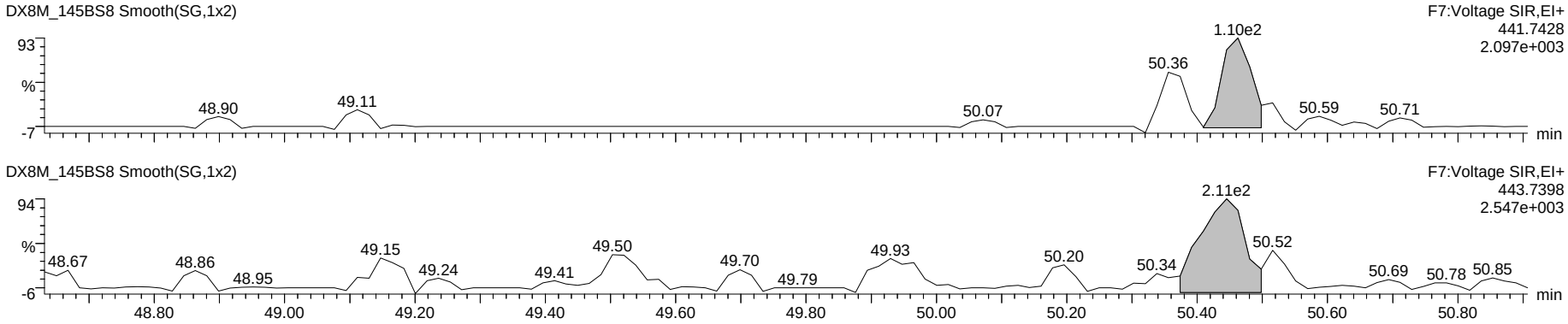




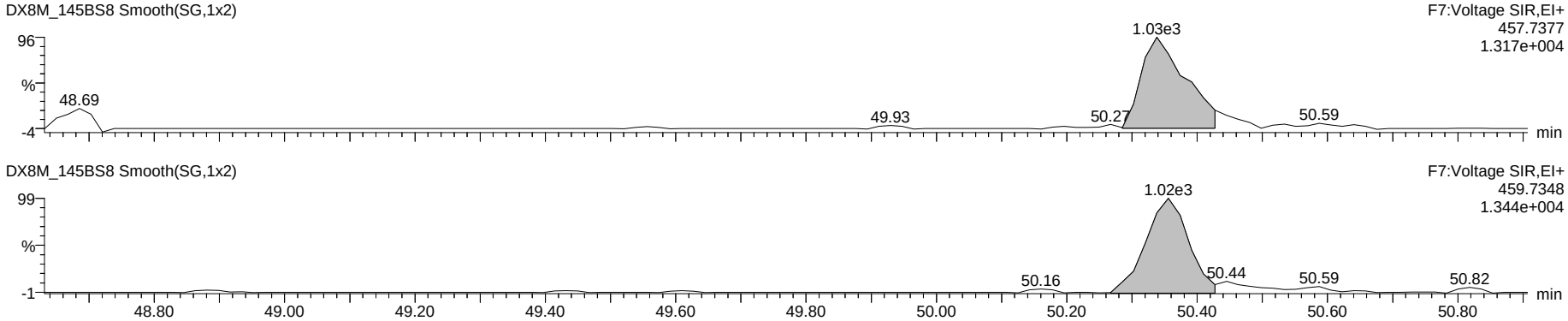
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS8, Date: 30-Nov-2018, Time: 23:21:03, ID: L29628-27,,, Description: 1,WG66111,1.0/20uL

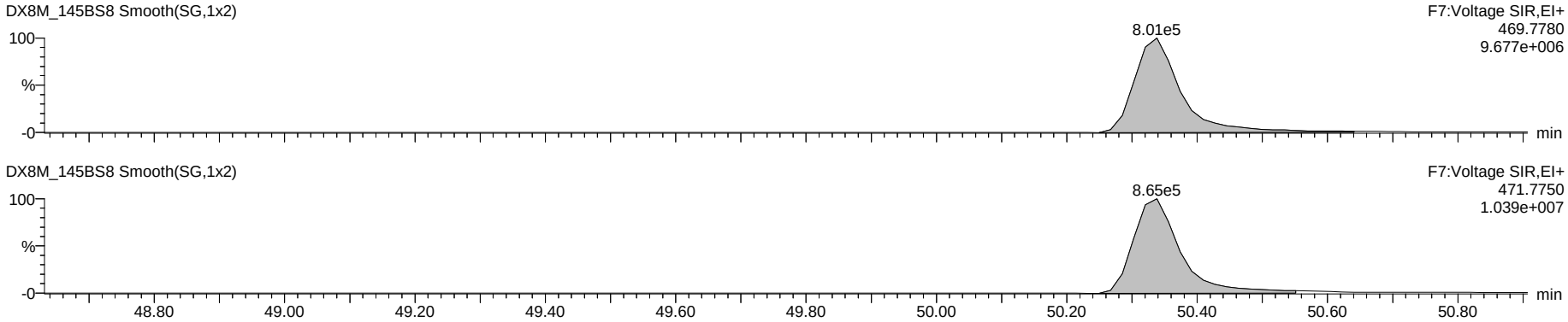
OCDF



OCDD



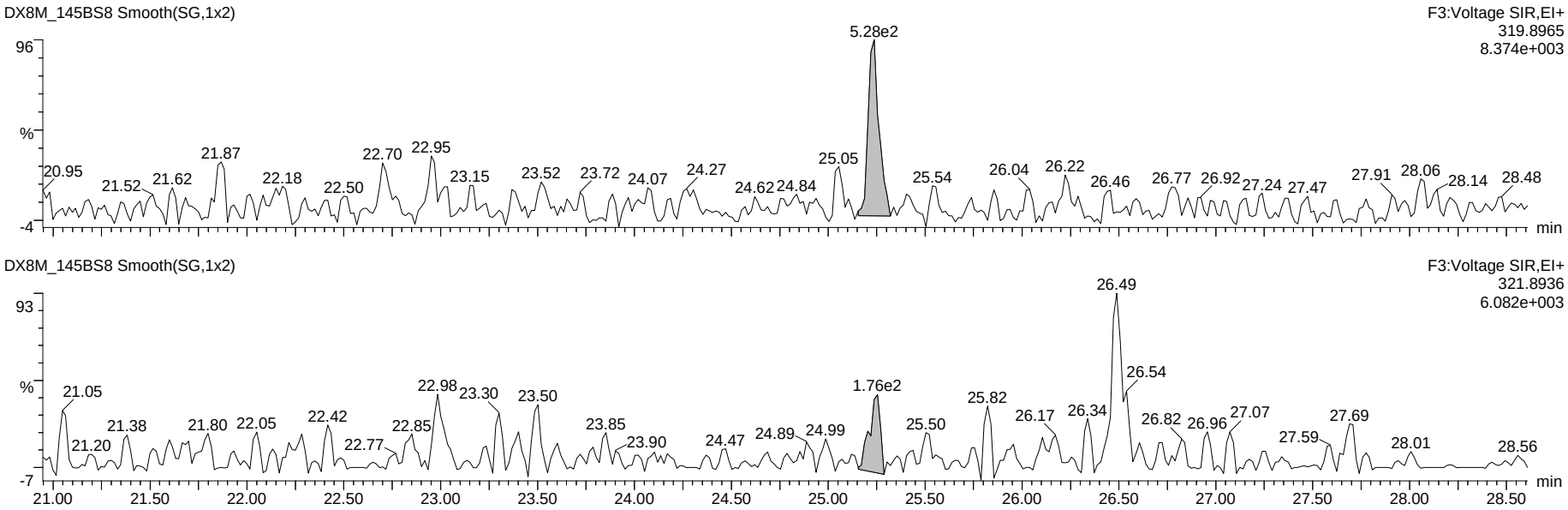
13C-OCDD



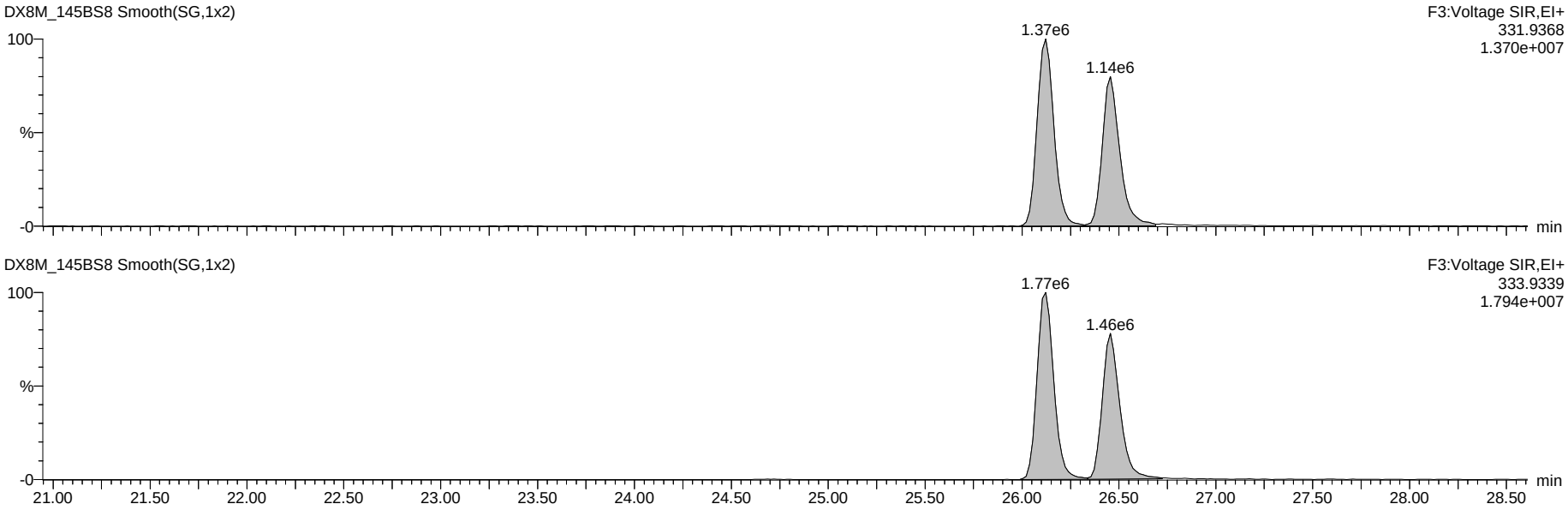
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS8, Date: 30-Nov-2018, Time: 23:21:03, ID: L29628-27,,, Description: 1,WG66111,1.0/20uL

Total Tetra-Dioxins



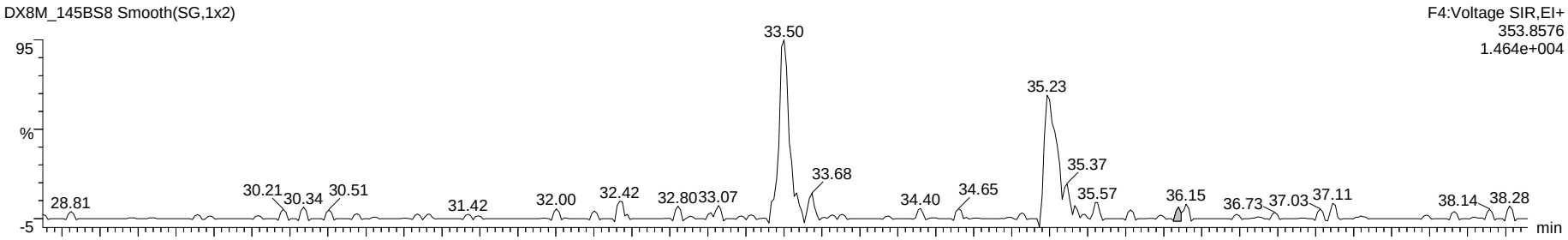
13C-Tetra-Dioxins

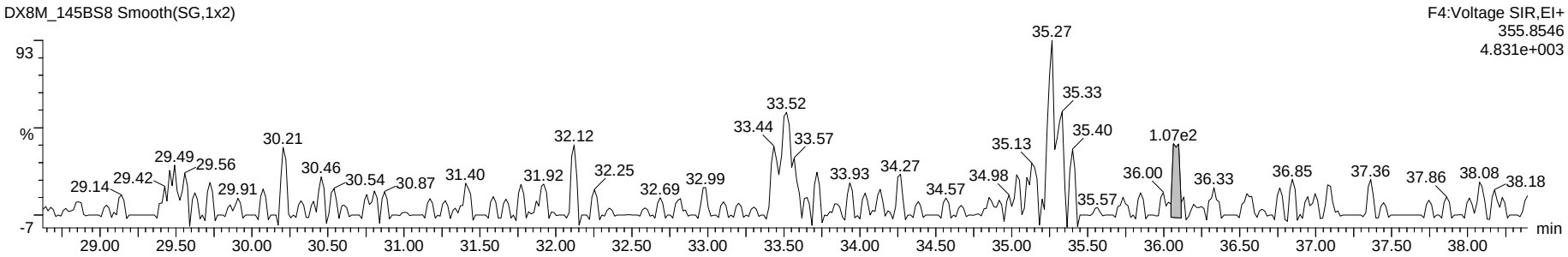


Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

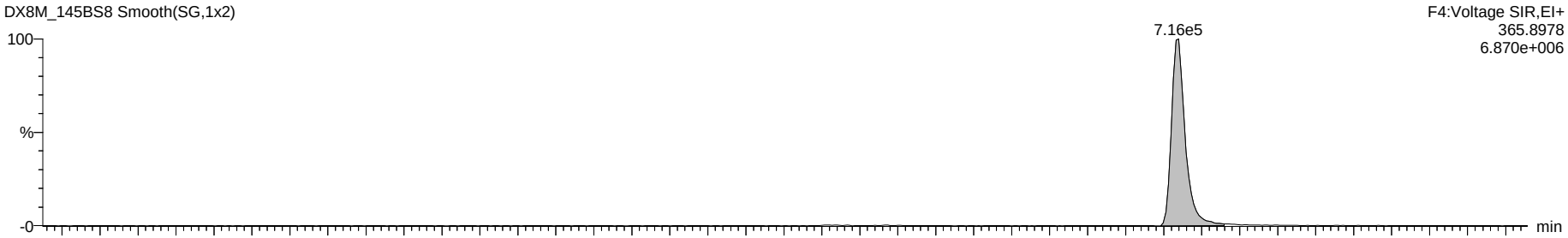
Name: DX8M_145BS8, Date: 30-Nov-2018, Time: 23:21:03, ID: L29628-27,,, Description: 1,WG66111,1.0/20uL

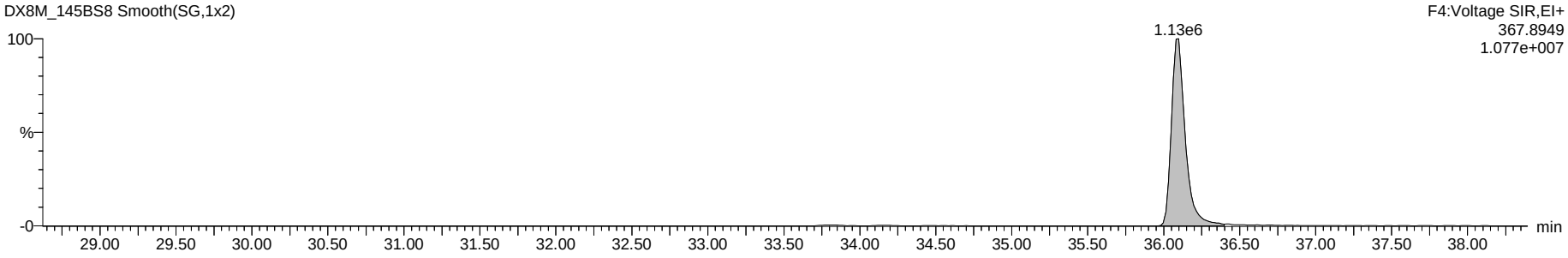
Total Penta-Dioxins





13C-Penta-Dioxins

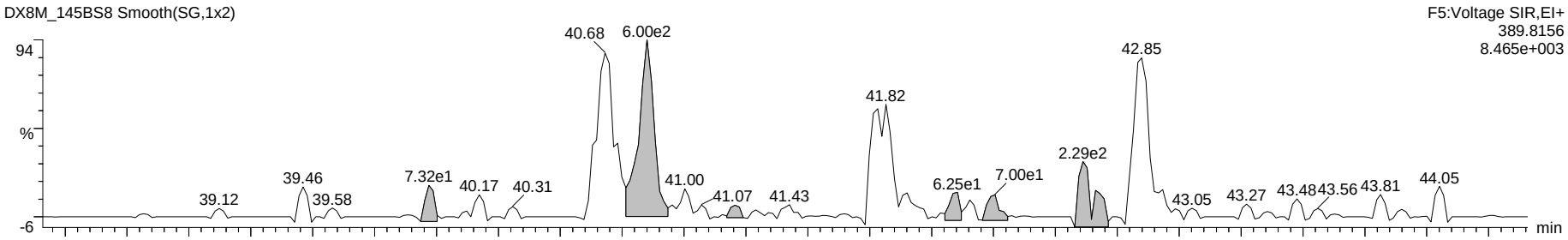


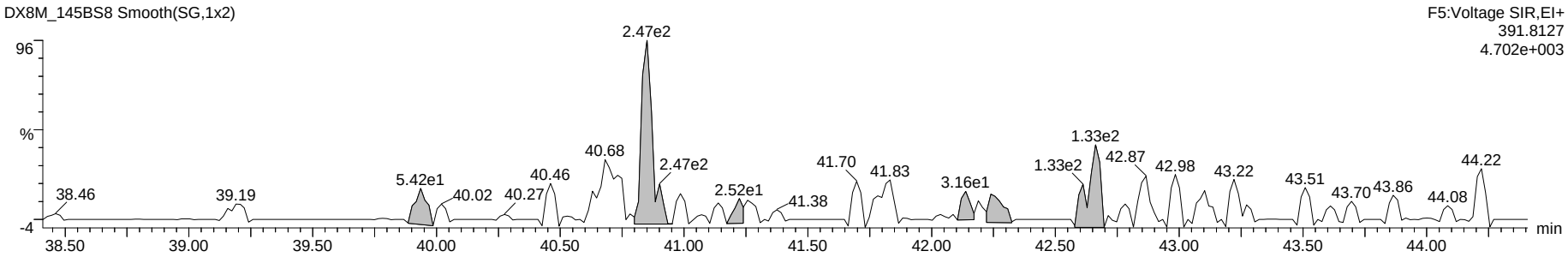


Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

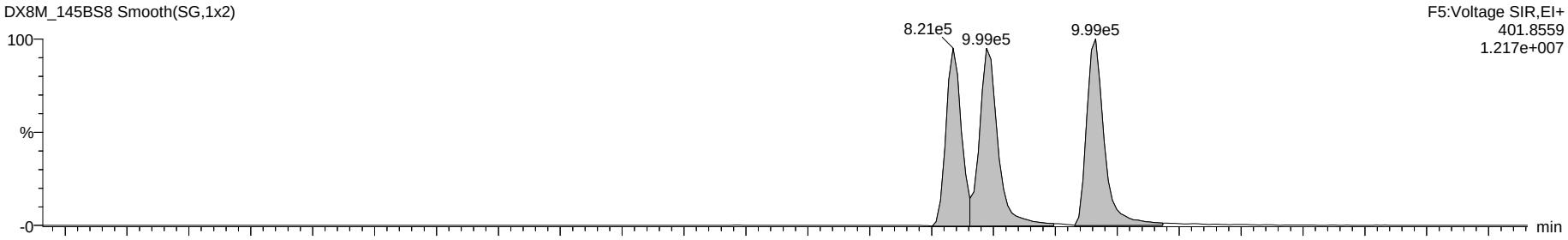
Name: DX8M_145BS8, Date: 30-Nov-2018, Time: 23:21:03, ID: L29628-27,,, Description: 1,WG66111,1.0/20uL

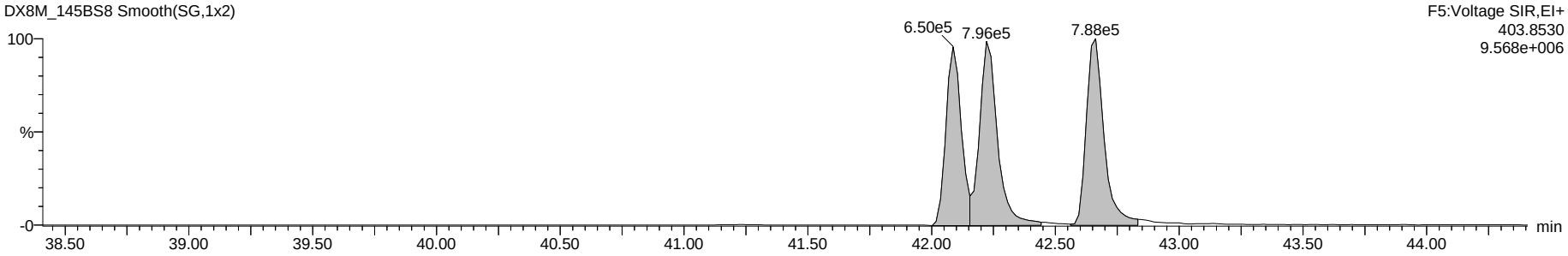
Total Hexa-Dioxins





13C-Hexa-Dioxins

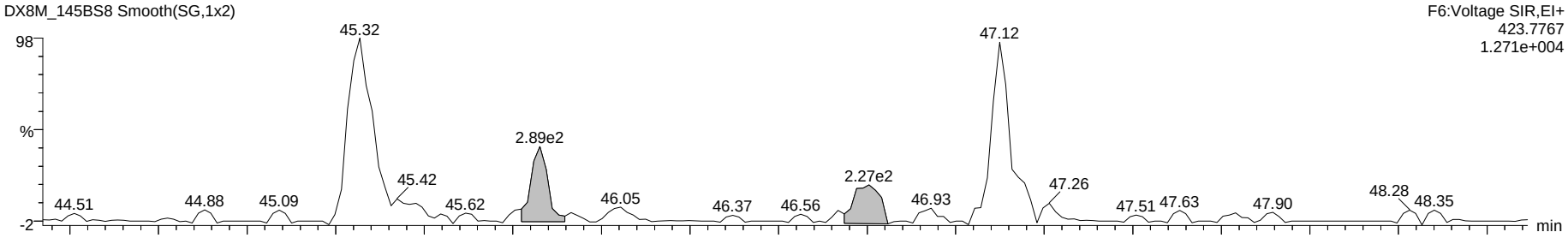


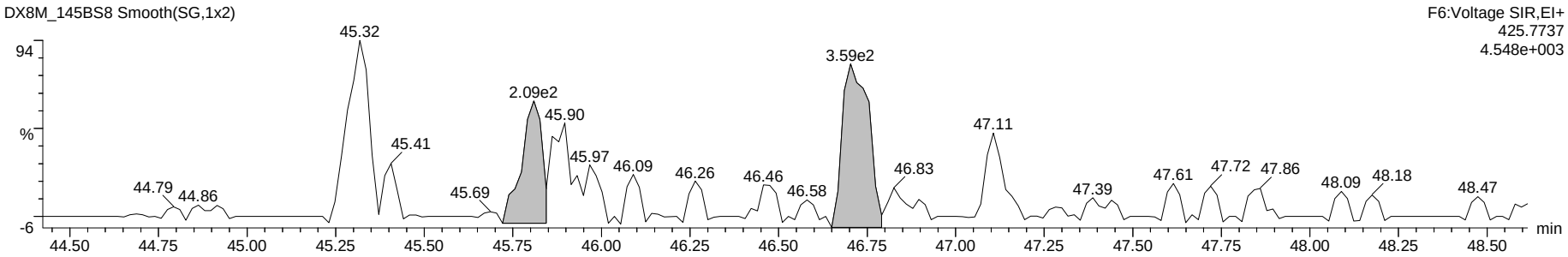


Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

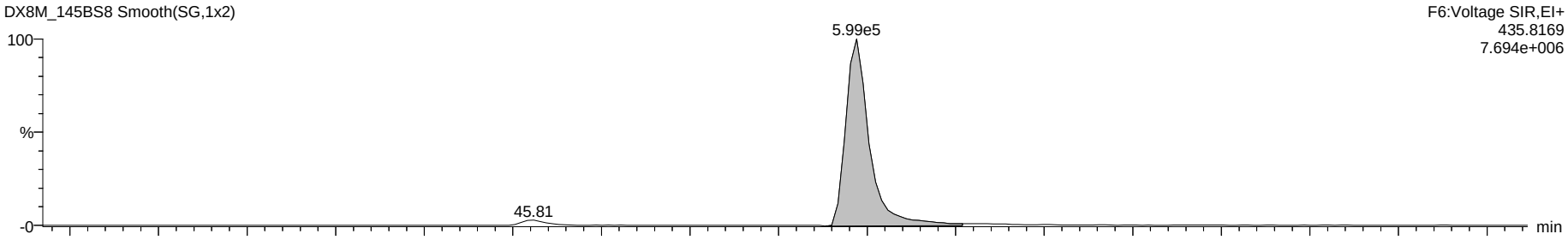
Name: DX8M_145BS8, Date: 30-Nov-2018, Time: 23:21:03, ID: L29628-27,,, Description: 1,WG66111,1.0/20uL

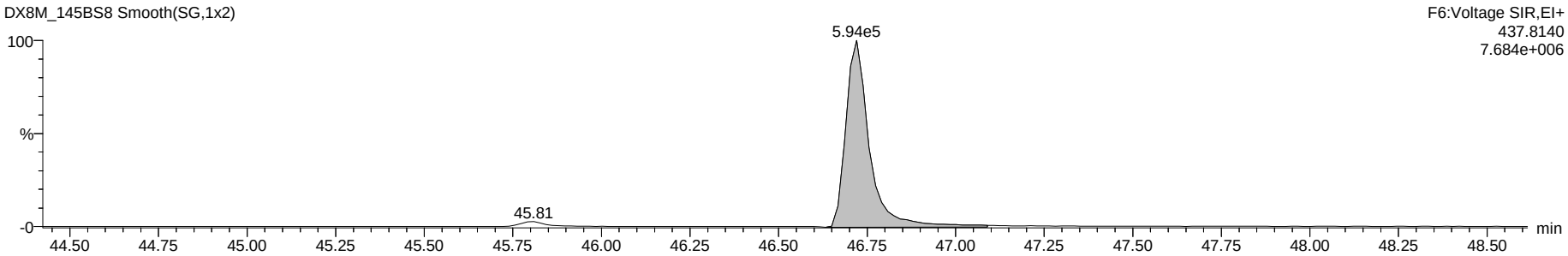
Total Hepta-Dioxins





13C-Hepta-Dioxins

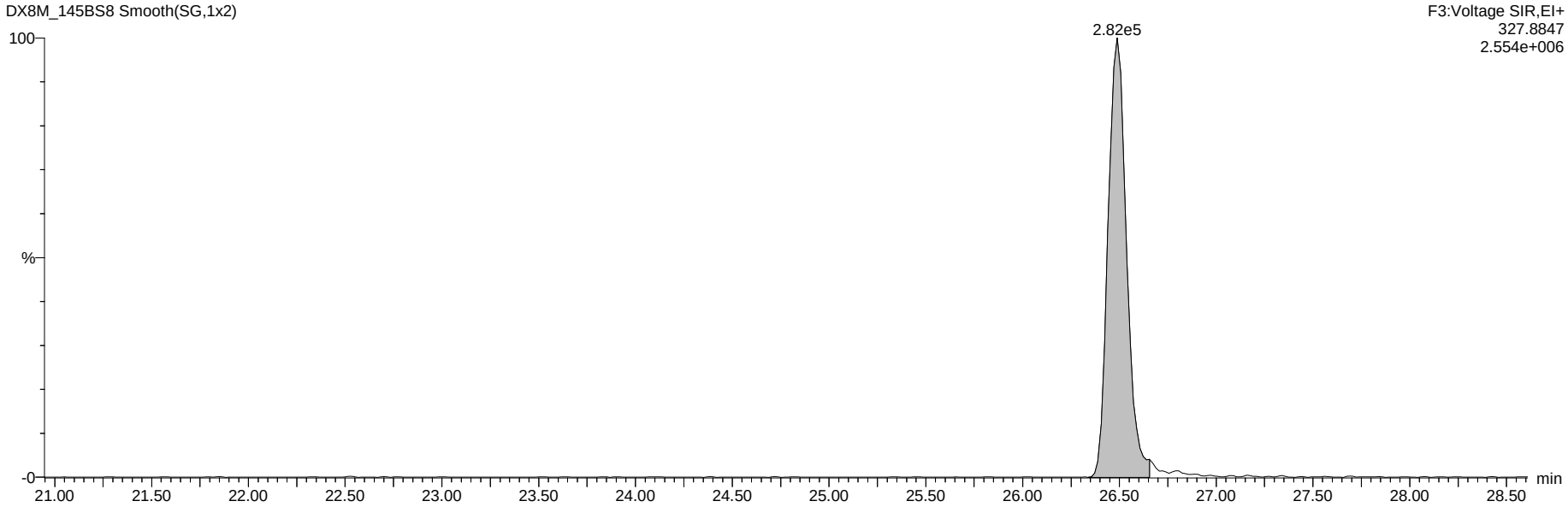




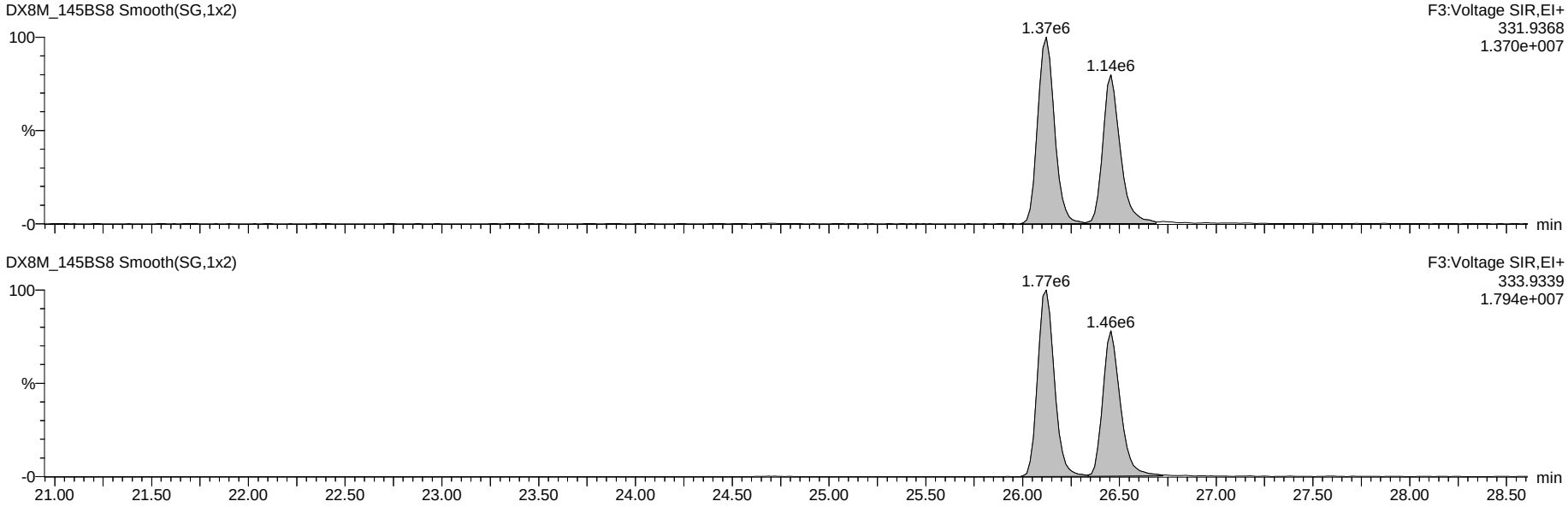
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS8, Date: 30-Nov-2018, Time: 23:21:03, ID: L29628-27,,, Description: 1,WG66111,1.0/20uL

37Cl-2,3,7,8-TCDD



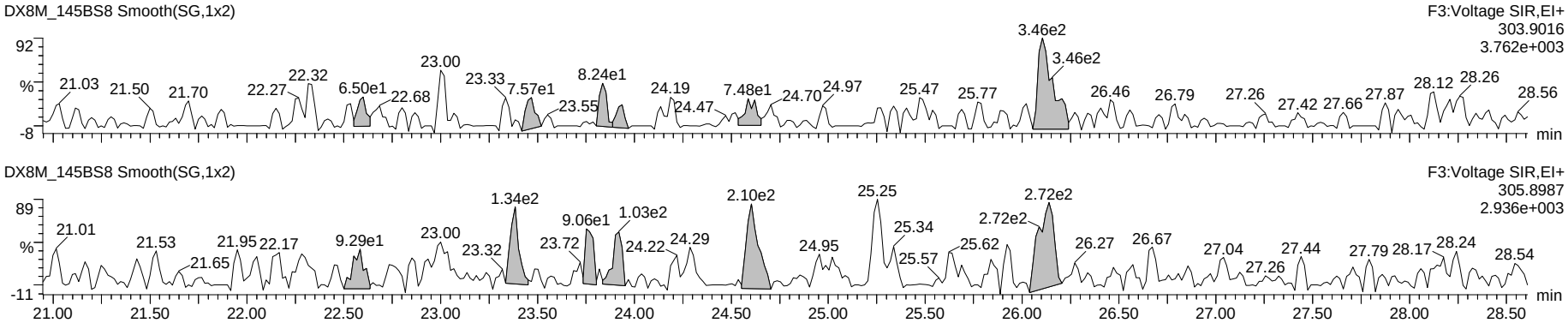
13C-Tetra-Dioxins



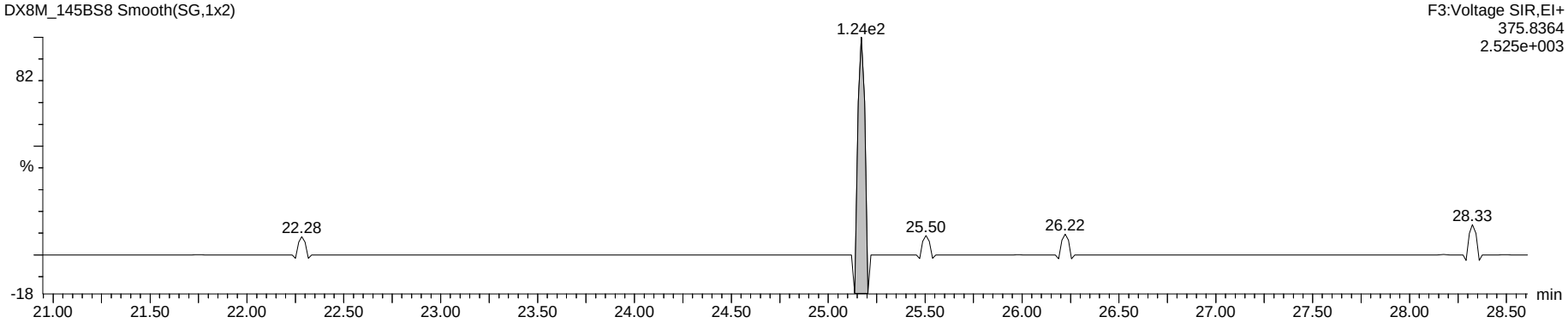
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS8, Date: 30-Nov-2018, Time: 23:21:03, ID: L29628-27,,, Description: 1,WG66111,1.0/20uL

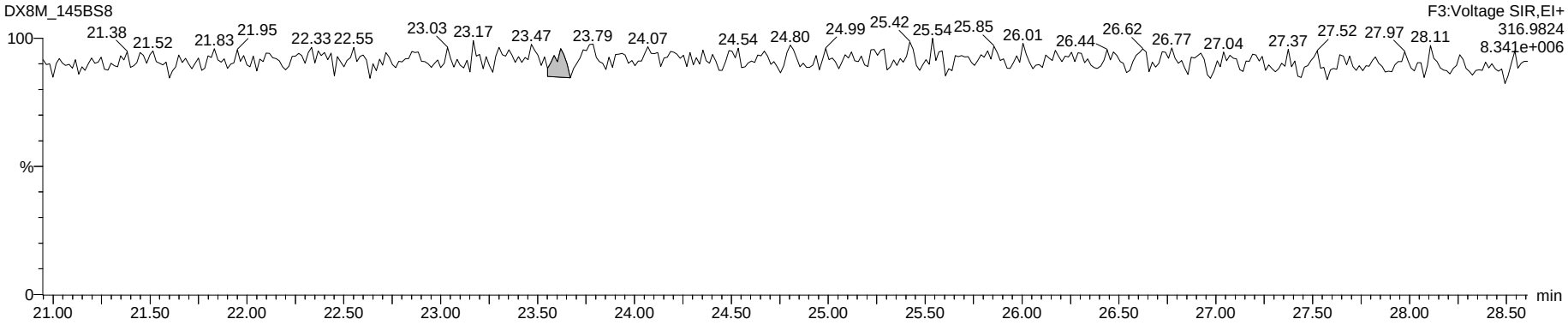
Total Tetra-Furans



Hexa DPE



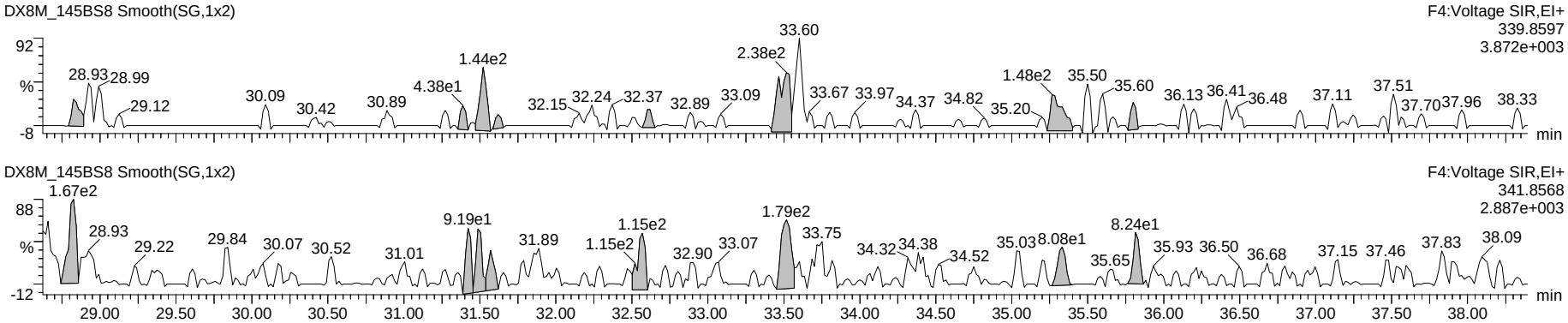
Tetra Lock



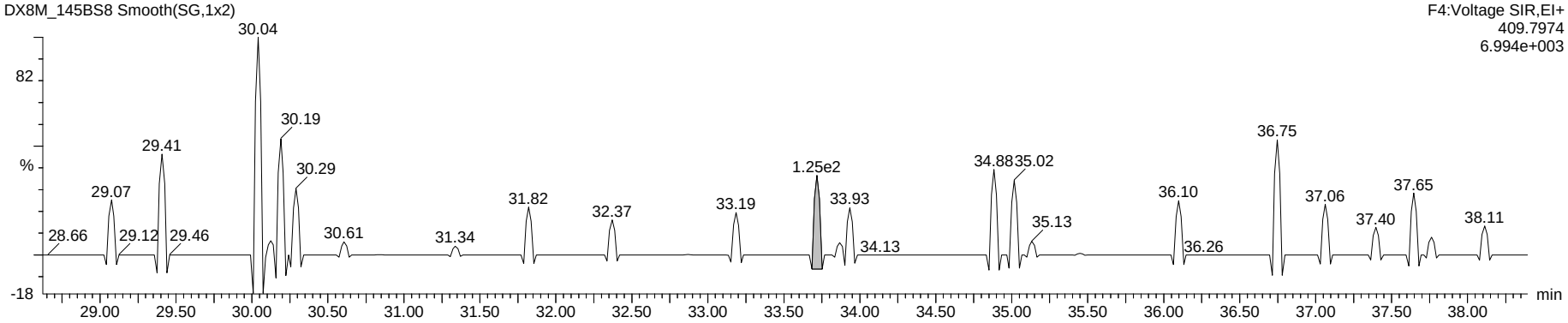
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS8, Date: 30-Nov-2018, Time: 23:21:03, ID: L29628-27,,, Description: 1,WG66111,1.0/20uL

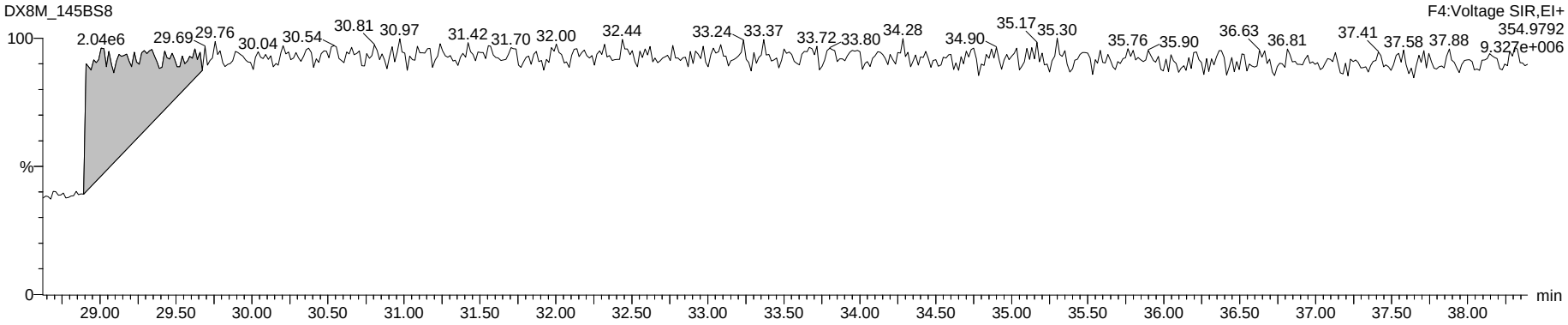
Total Penta-Furans



Hepta DPE



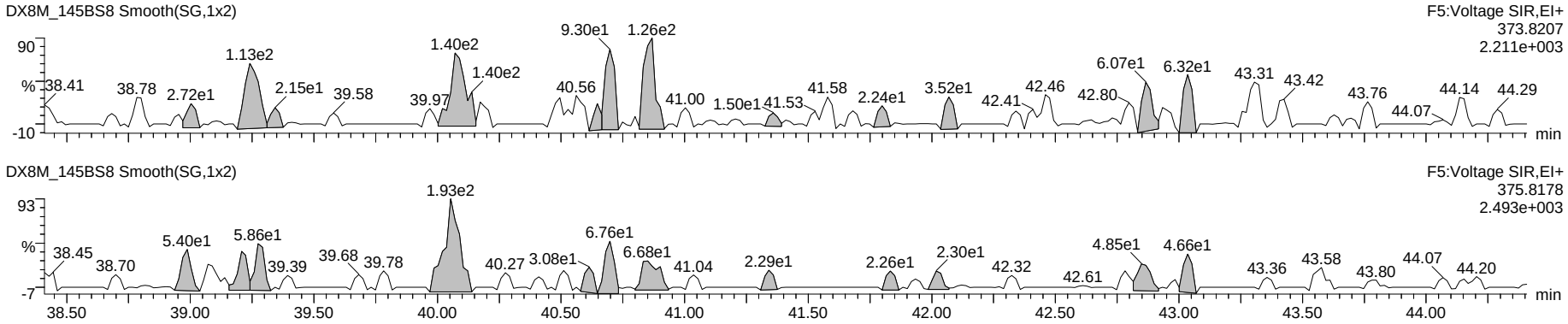
Penta Lock



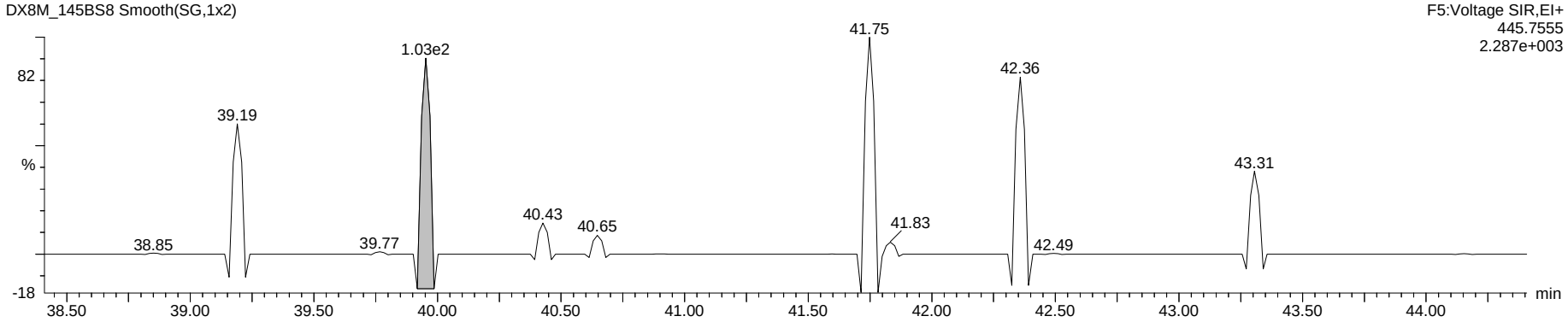
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS8, Date: 30-Nov-2018, Time: 23:21:03, ID: L29628-27,,, Description: 1,WG66111,1.0/20uL

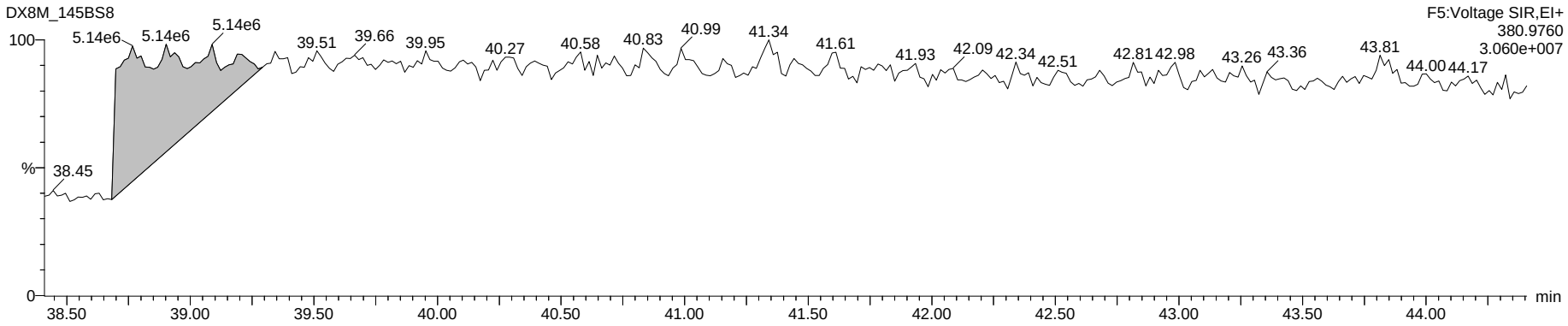
Total Hexa-Furans



Octa DPE



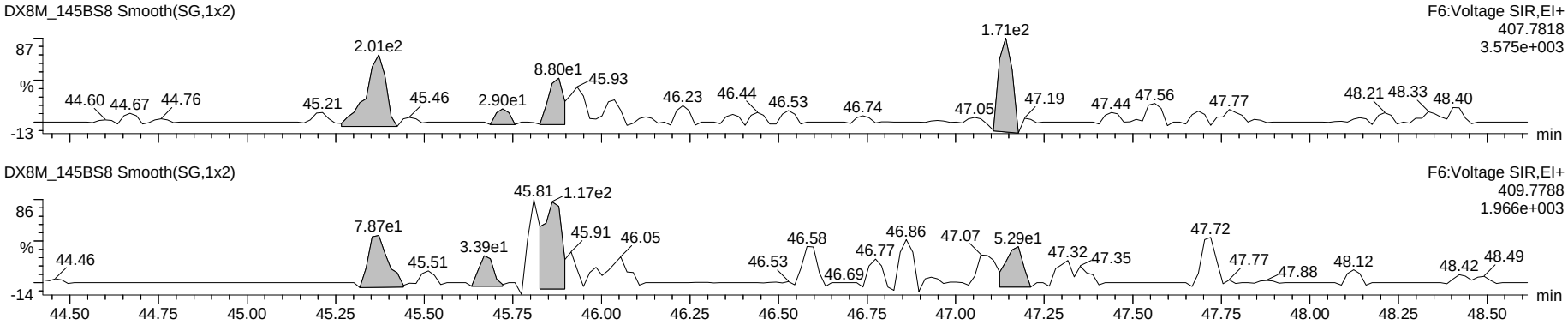
Hexa Lock



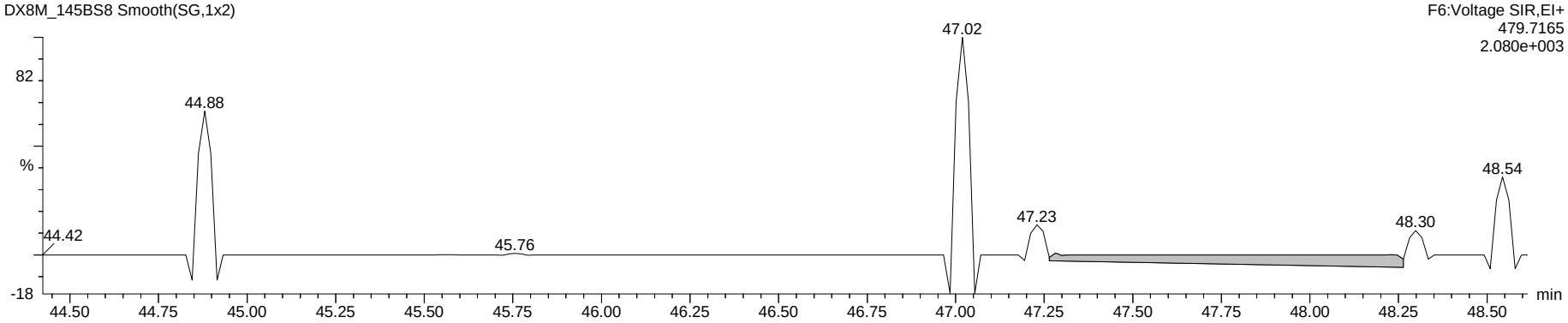
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS8, Date: 30-Nov-2018, Time: 23:21:03, ID: L29628-27,,, Description: 1,WG66111,1.0/20uL

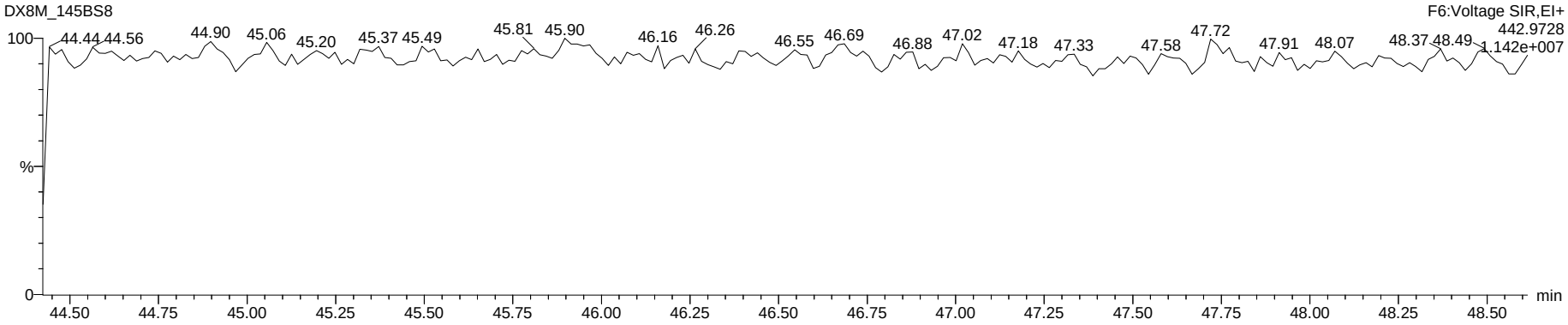
Total Hepta-Furans



Nona DPE



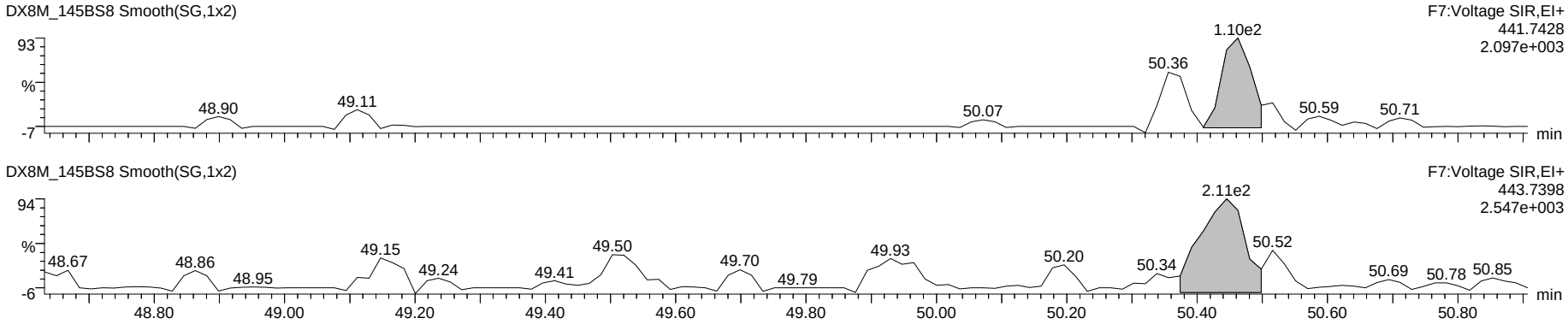
Hepta Lock



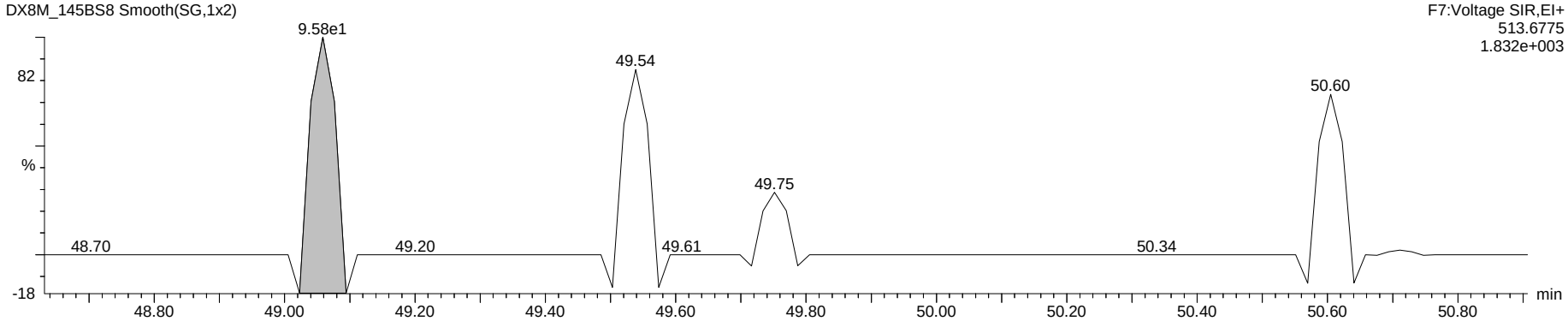
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS8, Date: 30-Nov-2018, Time: 23:21:03, ID: L29628-27,,, Description: 1,WG66111,1.0/20uL

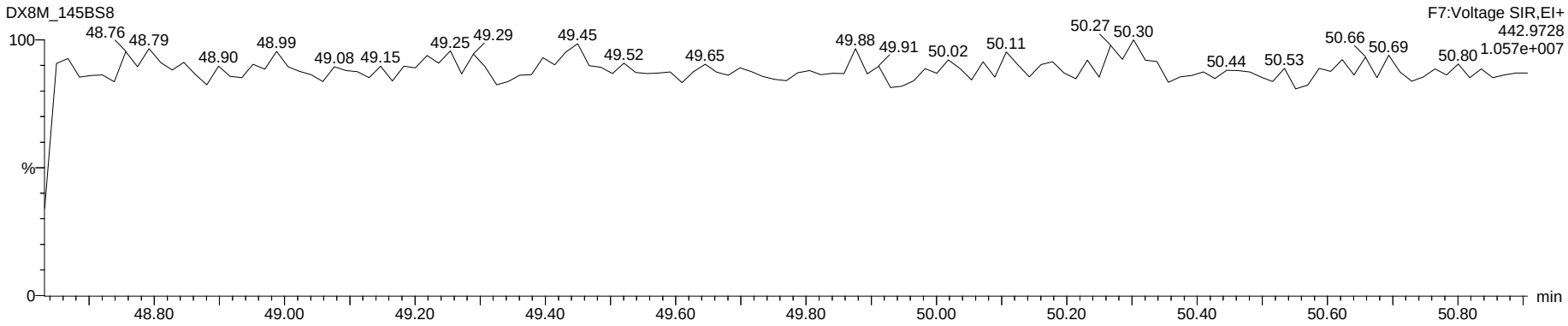
OCDF



Deca DPE



Octa Lock



Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS6, Date: 30-Nov-2018, Time: 21:30:43, ID: WG66111-101,,BLK, Description: 1,WG66111,1.0/20uL

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	1.000			NO			0.2367		7.12e2	4.68e2
2	1,2,3,7,8-PeCDF	1.000	1.71e2	1.06	YES	33.53	0.166	0.2251		5.47e2	1.84e2
3	2,3,4,7,8-PeCDF	1.000			NO			0.2091		5.47e2	1.84e2
4	1,2,3,4,7,8-HxCDF	1.000			NO			0.1374		1.98e2	3.28e2
5	1,2,3,6,7,8-HxCDF	1.000			NO			0.1311		1.98e2	3.28e2
6	2,3,4,6,7,8-HxCDF	1.000			NO			0.1419		1.98e2	3.28e2
7	1,2,3,7,8,9-HxCDF	1.000			NO			0.1843		1.98e2	3.28e2
8	1,2,3,4,6,7,8-HpCDF	1.000	7.01e1	0.23	YES	45.39	0.106	0.1626		2.23e2	3.13e2
9	1,2,3,4,7,8,9-HpCDF	1.000	9.08e1	0.71	YES	47.18	0.178	0.2095		2.23e2	3.13e2
10	OCDF	1.000	1.12e2	1.25	YES	50.46	0.269	0.3302		3.83e2	2.92e2
11	2,3,7,8-TCDD	1.000	2.42e2	0.58	NO	YES 26:51	0.261	0.4342		5.69e2	9.52e2
12	1,2,3,7,8-PeCDD	1.000	1.59e2	0.60	NO	36.15	0.247	0.5975		6.12e2	8.18e2
13	1,2,3,4,7,8-HxCDD	1.000	6.83e1	1.53	YES	42.12	0.130	0.2710		4.82e2	2.77e2
14	1,2,3,6,7,8-HxCDD	1.000			NO			0.2722		4.82e2	2.77e2
15	1,2,3,7,8,9-HxCDD	1.000	1.46e2	0.65	YES	42.65	0.261	0.2760		4.82e2	2.77e2
16	1,2,3,4,6,7,8-HpCDD	1.000	1.11e2	2.75	YES	46.76	0.254	0.2379		1.49e-1	5.00e2
17	OCDD	1.000	3.12e2	1.40	YES	50.37	0.898	0.0438		7.43e1	1.40e-1
18	13C-2,3,7,8-TCDF	1.000	2.82e6	0.79	NO	25.25	1638.100	1.8614	81.9	6.65e3	5.83e3
19	13C-1,2,3,7,8-PeCDF	1.000	2.20e6	1.58	NO	33.50	1559.484	2.8076	78.0	7.36e3	8.06e3
20	13C-2,3,4,7,8-PeCDF	1.000	2.03e6	1.55	NO	35.28	1447.315	2.8234	72.4	7.36e3	8.06e3
21	13C-1,2,3,4,7,8-HxCDF	1.000	1.36e6	0.51	NO	40.68	1552.043	4.0976	77.6	7.56e3	8.90e3
22	13C-1,2,3,6,7,8-HxCDF	1.000	1.58e6	0.49	NO	40.87	1685.780	3.8091	84.3	7.56e3	8.90e3
23	13C-2,3,4,6,7,8-HxCDF	1.000	1.26e6	0.52	NO	41.82	1484.942	4.2072	74.2	7.56e3	8.90e3
24	13C-1,2,3,7,8,9-HxCDF	1.000	1.23e6	0.52	NO	42.87	1569.010	4.5841	78.5	7.56e3	8.90e3
25	13C-1,2,3,4,6,7,8-HpCDF	1.000	1.07e6	0.45	NO	45.34	1489.928	4.5069	74.5	7.98e3	6.95e3
26	13C-1,2,3,4,7,8,9-HpCDF	1.000	8.26e5	0.43	NO	47.14	1499.808	5.8959	75.0	7.98e3	6.95e3
27	13C-2,3,7,8-TCDD	1.000	1.78e6	0.75	NO	26.47	1634.790	3.2334	81.7	6.00e3	7.76e3
28	13C-1,2,3,7,8-PeCDD	1.000	1.28e6	0.64	NO	36.10	1575.205	2.1405	78.8	4.27e3	2.51e3
29	13C-1,2,3,4,7,8-HxCDD	1.000	1.05e6	1.27	NO	42.10	1569.604	6.1932	78.5	1.31e4	5.99e3
30	13C-1,2,3,6,7,8-HxCDD	1.000	1.31e6	1.24	NO	42.24	1819.928	5.7640	91.0	1.31e4	5.99e3
31	13C-1,2,3,4,6,7,8-HpCDD	1.000	9.13e5	1.04	NO	46.72	1607.719	5.0850	80.4	7.33e3	5.95e3
32	13C-OCDD	1.000	1.40e6	0.87	NO	50.34	2857.958	5.8705	71.4	2.92e3	1.03e4
33	13C-1,2,3,4-TCDD	1.000	2.26e6	0.79	NO	26.12	58.740	0.0918	2.9	6.00e3	7.76e3
34	13C-1,2,3,7,8,9-HxCDD	1.000	1.37e6	1.26	NO	42.66	49.071	0.1489	2.5	1.31e4	5.99e3
35	37Cl-2,3,7,8-TCDD	1.000	1.81e5			26.51	147.056	0.4011	73.5		1.93e3
36	Total Tetra-Furans	1.000					0.348	0.2367			4.68e2
37	Total Tetra-Dioxins	1.000					0.688	0.4342			9.52e2
38	Total Penta-Furans	1.000					1.018	0.2179			1.84e2
39	Total Penta-Dioxins	1.000					0.482	0.5975			8.18e2
40	Total Hexa-Furans	1.000						0.0889			3.28e2
41	Total Hexa-Dioxins	1.000					1.689	0.2617			2.77e2
42	Total Hepta-Furans	1.000					0.454	0.1835			3.13e2
43	Total Hepta-Dioxins	1.000					0.411	0.2379			5.00e2
44	Hexa DPE	1.000	2.02e2			23.05					3.55e-1
45	Hepta DPE	1.000	1.38e2			36.43					1.01e-1
46	Octa DPE	1.000	4.75e1			39.43					5.58e-1
47	Nona DPE	1.000	1.60e2			46.72					6.68e-2
48	Deca DPE	1.000	5.85e1			49.57					3.65e-1
49	Tetra Lock	1.000	4.29e4			23.94					5.35e5
50	Penta Lock	1.000	1.43e6			29.06					6.03e5
51	Hexa Lock	1.000	1.79e6			38.85					2.02e6
52	Hepta Lock	1.000	4.15e4			47.35					6.78e5
53	Octa Lock	1.000	1.31e6			48.77					9.76e5
54	13C-Tetra-Furans	1.000					1638.100	1.8614			5.83e3
55	13C-Tetra-Dioxins	1.000					1693.530	3.3252			7.76e3

pv'd by LHE 03-DEC-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

SMyK3 05Dec2018

Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS6, Date: 30-Nov-2018, Time: 21:30:43, ID: WG66111-101,,BLK, Description: 1,WG66111,1.0/20uL

Tetrafurans

	RT	1° Ratio (A...	Fails?	pg
1	28.21	0.833	NO	0.151
2	26.21	0.598	YES	0.197

Tetradioxins

	RT	1° Ratio (A...	Fails?	pg
1	25.24	3.118	YES	0.688
	26:51	0.58	yes	0.261

Pentafurans

	RT	1° Ratio (A...	Fails?	pg
1	28.89	0.378	YES	0.160
2	31.72	0.525	YES	0.090
3	31.55	0.446	YES	0.081
4	31.50	0.479	YES	0.054
5	34.50	0.874	YES	0.094
6	34.23	0.611	YES	0.061
7	33.82	0.480	YES	0.063
8	33.53	1.060	YES	0.166
9	36.00	0.115	YES	0.085
10	34.83	1.041	YES	0.088
11	36.45	0.326	YES	0.075

Pentadioxins

	RT	1° Ratio (A...	Fails?	pg
1	32.30	0.086	YES	0.235
2	36.15	0.602	NO	0.247

Hexafurans

	RT	1° Ratio (A...	Fails?	pg
1				

Hexadioxins

	RT	1° Ratio (A...	Fails?	pg
1	41.34	2.830	YES	0.075
2	40.88	9.638	YES	0.899
3	40.05	3.252	YES	0.324
4	42.65	0.652	YES	0.261
5	42.12	1.534	YES	0.130

Heptafurans

	RT	1° Ratio (A...	Fails?	pg
1	45.67	1.620	YES	0.066
2	45.55	1.515	YES	0.103
3	45.39	0.226	YES	0.106
4	47.18	0.708	YES	0.178

pv'd by LHE 03-DEC-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS6, Date: 30-Nov-2018, Time: 21:30:43, ID: WG66111-101,,BLK, Description: 1,WG66111,1.0/20uL

Heptadioxins

	RT	1° Ratio (A...	Fails?	pg
1	46.76	2.753	YES	0.254
2	45.91	1.127	NO	0.158

13C-TF

	RT	1° Ratio (A...	Fails?	pg
1	25.25	0.794	NO	1638.1...

13C-TD

	RT	1° Ratio (A...	Fails?	pg
1	26.47	0.748	NO	1634.7...
2	26.12	0.786	NO	58.740

13C-PF

	RT	1° Ratio (A...	Fails?	pg
1	33.50	1.581	NO	1559.4...
2	35.28	1.552	NO	1447.3...

13C-PD

	RT	1° Ratio (A...	Fails?	pg
1	36.10	0.637	NO	1575.2...

13C-HxF

	RT	1° Ratio (A...	Fails?	pg
1	41.82	0.516	NO	1484.9...
2	40.87	0.494	NO	1685.7...
3	40.68	0.508	NO	1552.0...
4	42.87	0.523	NO	1569.0...

13C-HxD

	RT	1° Ratio (A...	Fails?	pg
1	42.66	1.265	NO	49.071
2	42.24	1.241	NO	1819.9...
3	42.10	1.267	NO	1569.6...

13C-HpF

	RT	1° Ratio (A...	Fails?	pg
1	45.34	0.454	NO	1489.9...
2	47.14	0.433	NO	1499.8...

13C-HpD

	RT	1° Ratio (A...	Fails?	pg
1	46.72	1.044	NO	1607.7...

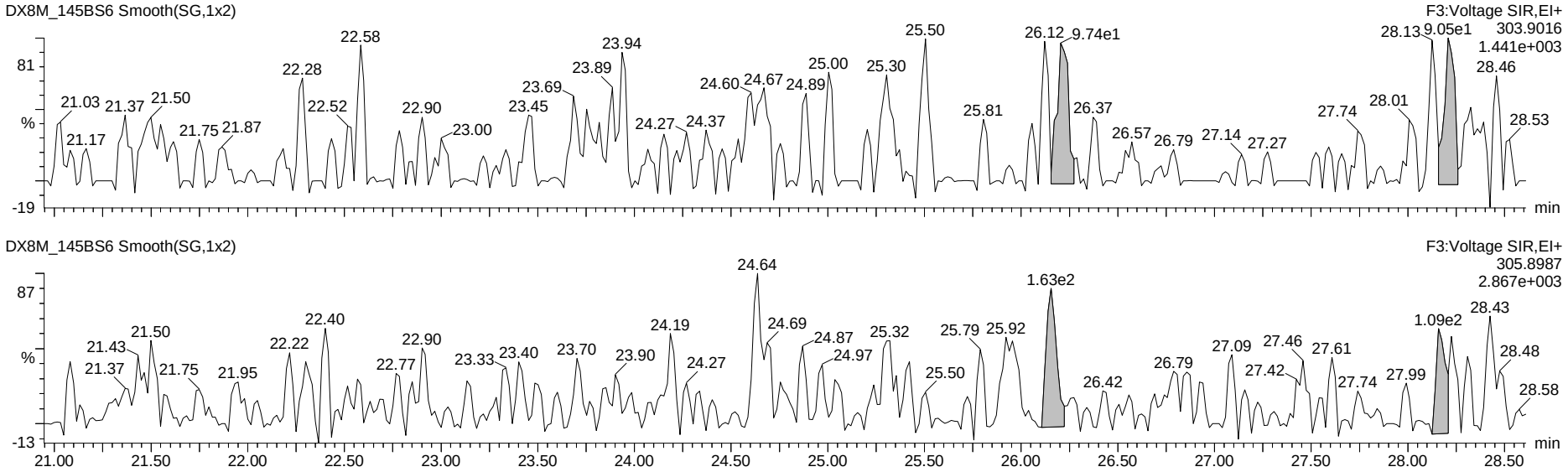
pv'd by LHE 03-DEC-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

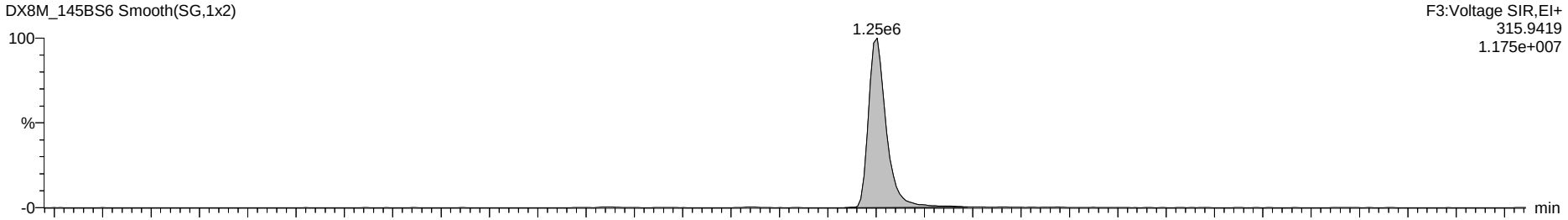
Method: G:\Masslynx\Inst_M\Exported_methods\DX_1613B_16.mdb 05 Apr 2018 08:34:55
Calibration: G:\Masslynx\Inst_M\Projects\181023DX.PRO\CurveDB\DX8M_126A-6A.cdb 26 Oct 2018 11:48:18

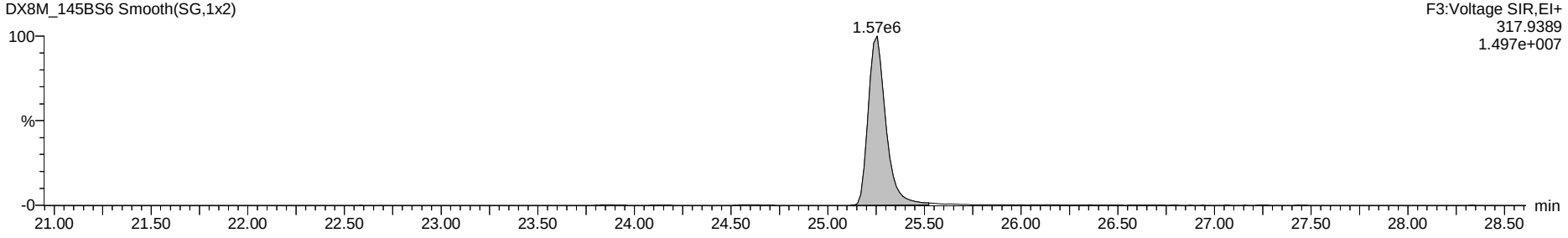
Name: DX8M_145BS6, Date: 30-Nov-2018, Time: 21:30:43, ID: WG66111-101,,BLK, Description: 1,WG66111,1.0/20uL

Total Tetra-Furans



13C-Tetra-Furans

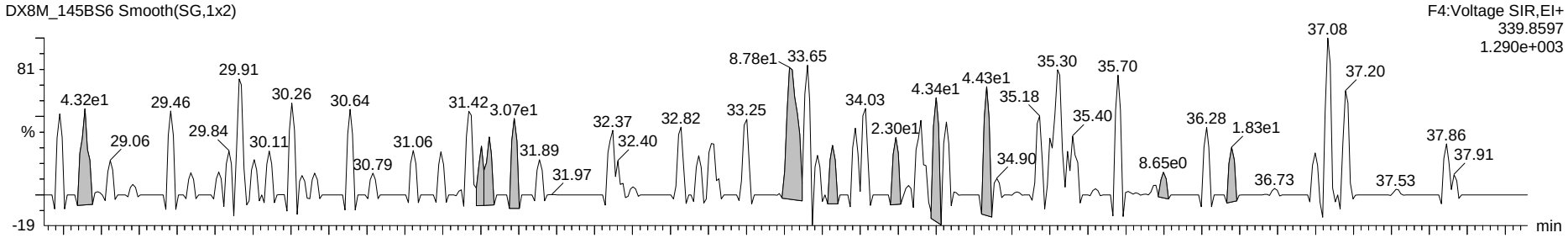


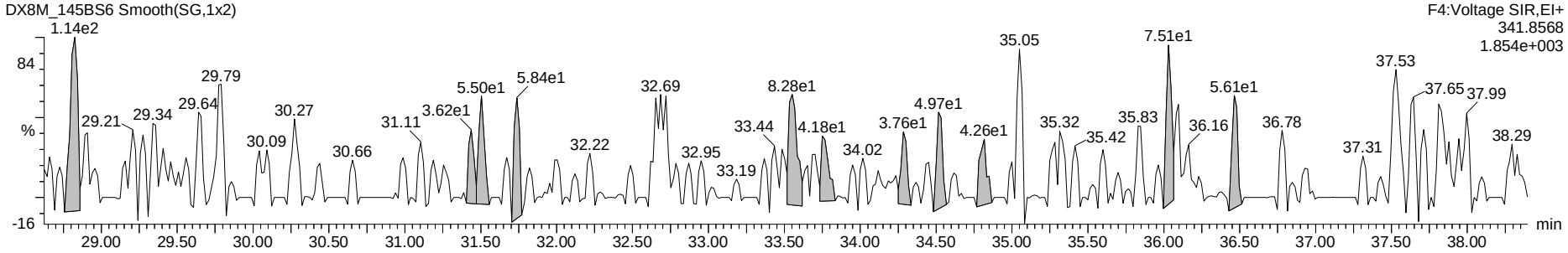


Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS6, Date: 30-Nov-2018, Time: 21:30:43, ID: WG66111-101,,BLK, Description: 1,WG66111,1.0/20uL

Total Penta-Furans





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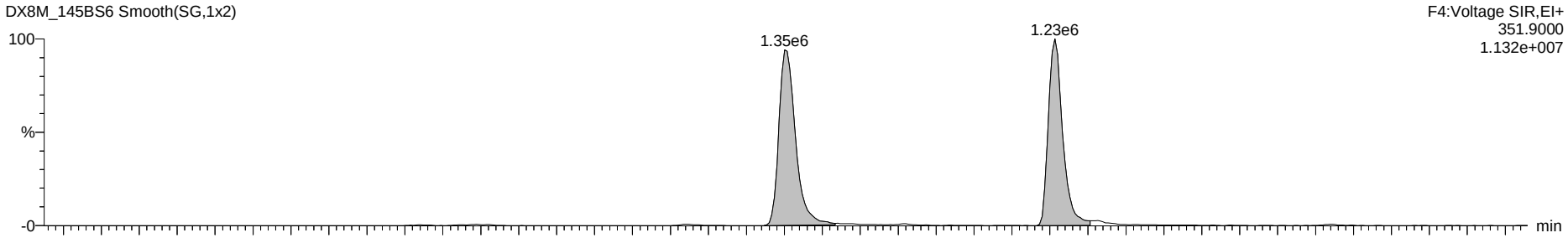
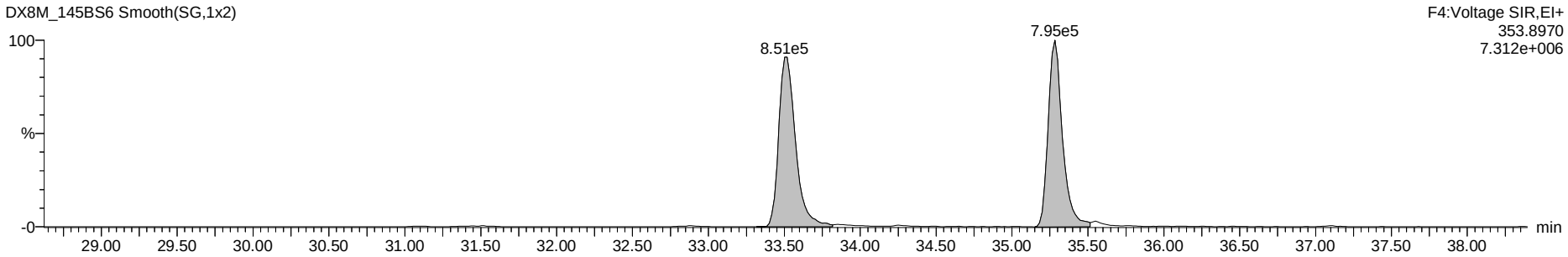
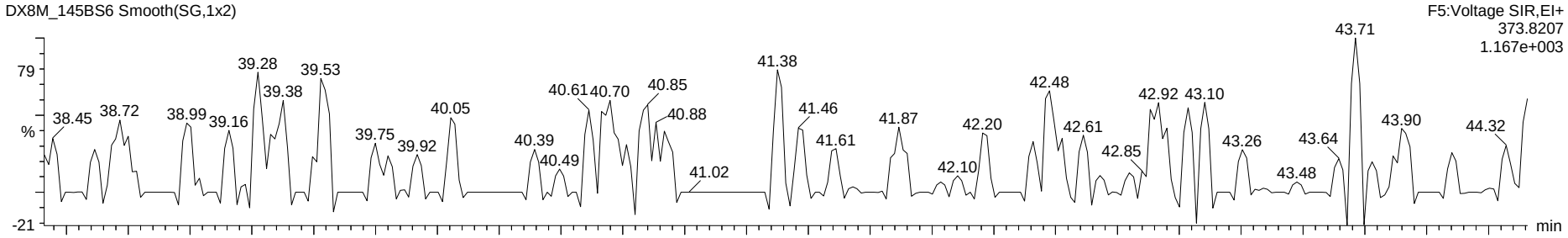


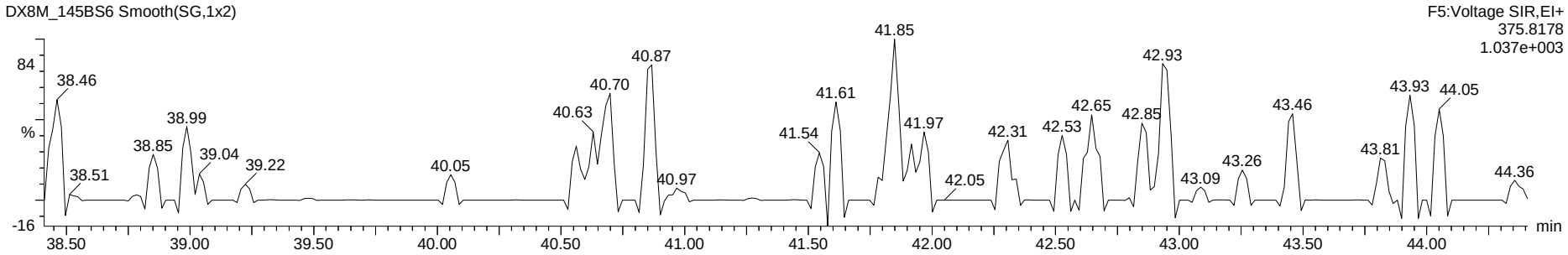


Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS6, Date: 30-Nov-2018, Time: 21:30:43, ID: WG66111-101,,BLK, Description: 1,WG66111,1.0/20uL

Total Hexa-Furans





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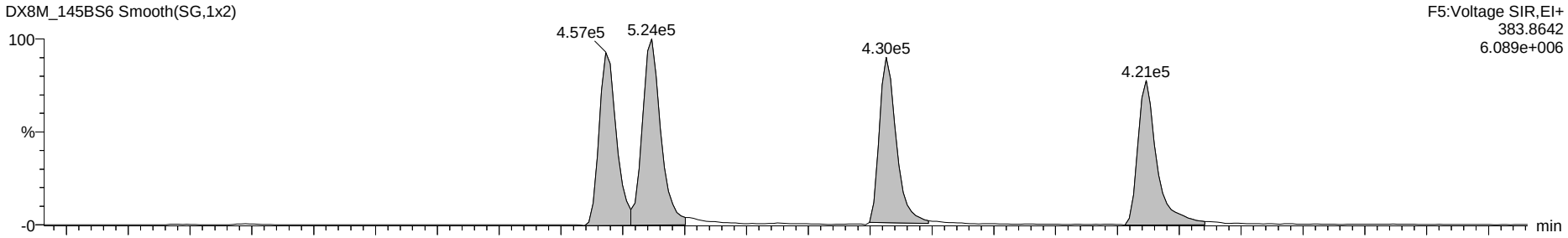

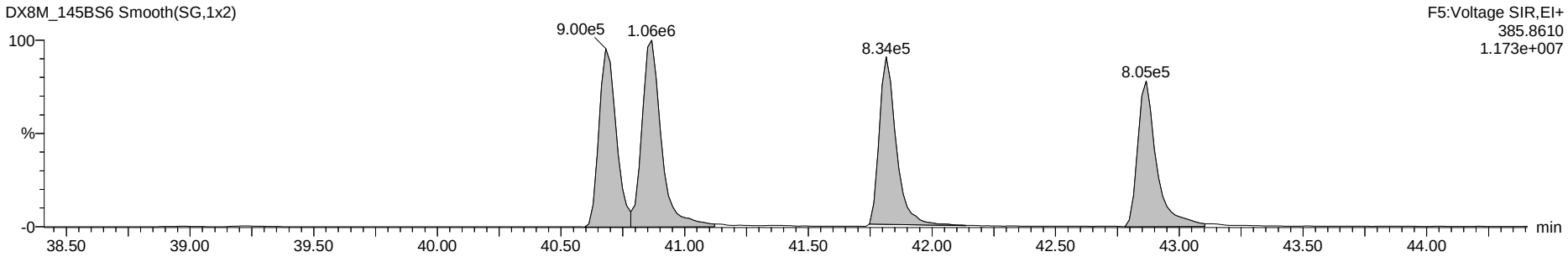

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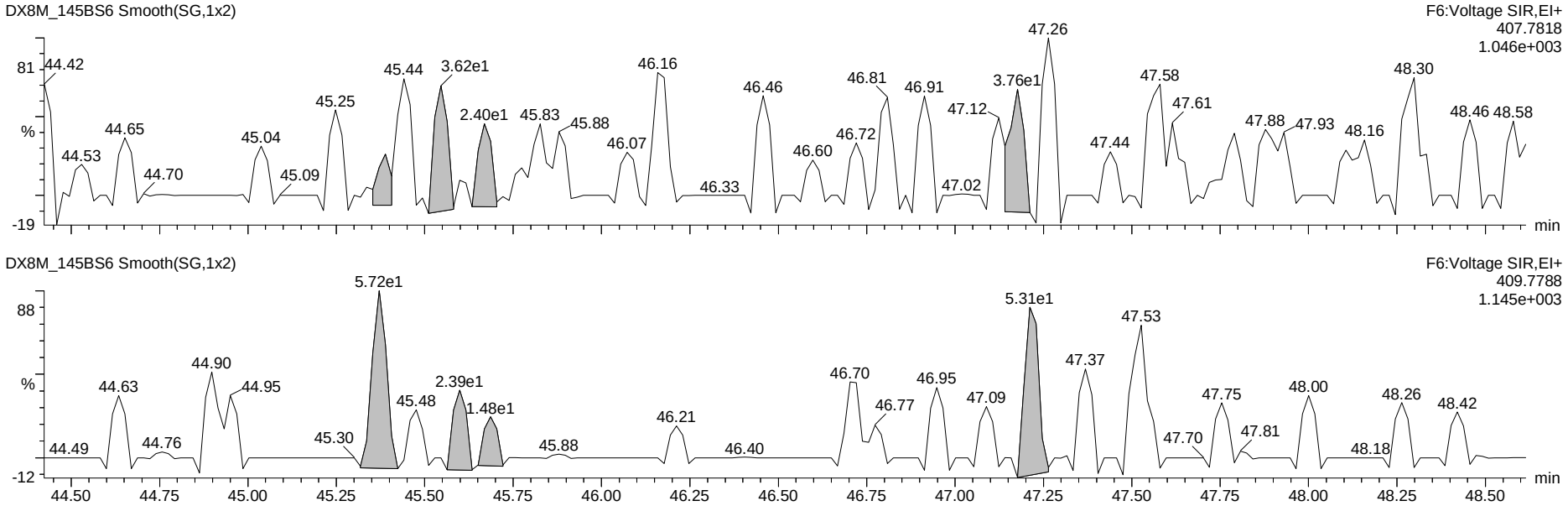
Name: DX8M_145BS6, Date: 30-Nov-2018, Time: 21:30:43, ID: WG66111-101,,BLK, Description: 1,WG66111,1.0/20uL

Total Hepta-Furans



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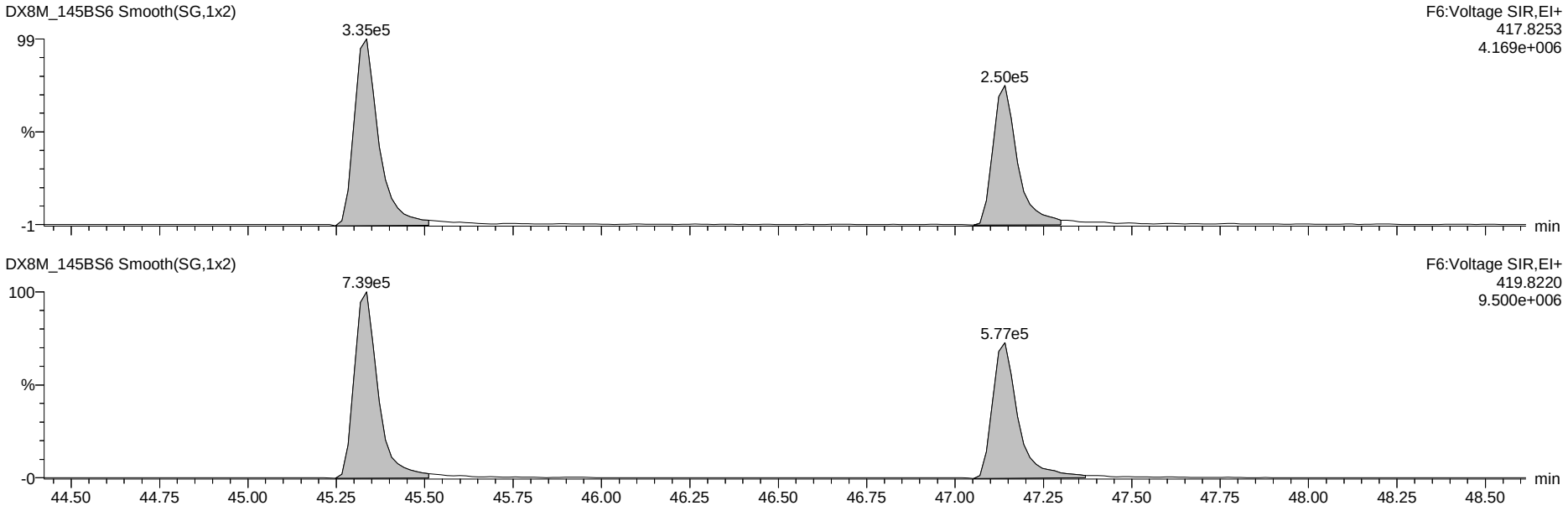
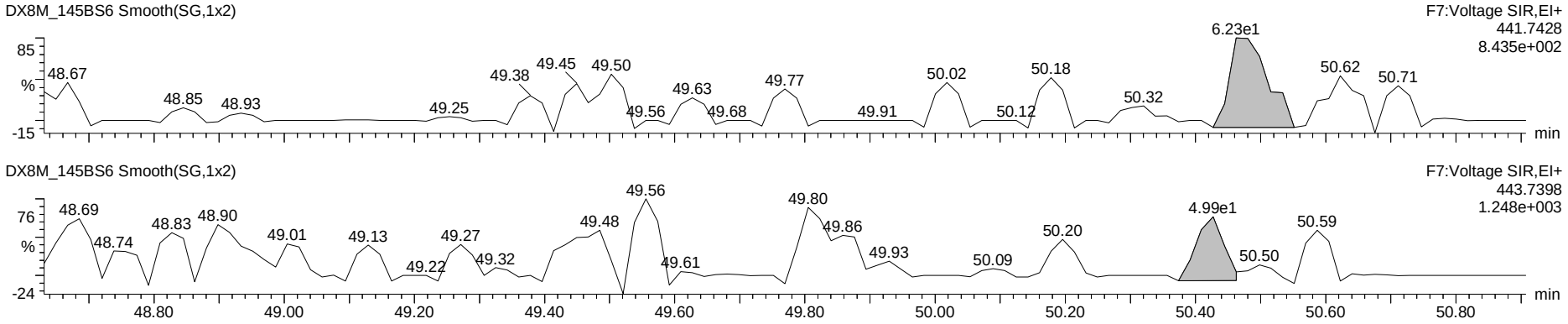


Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS6, Date: 30-Nov-2018, Time: 21:30:43, ID: WG66111-101,,BLK, Description: 1,WG66111,1.0/20uL

OCDF



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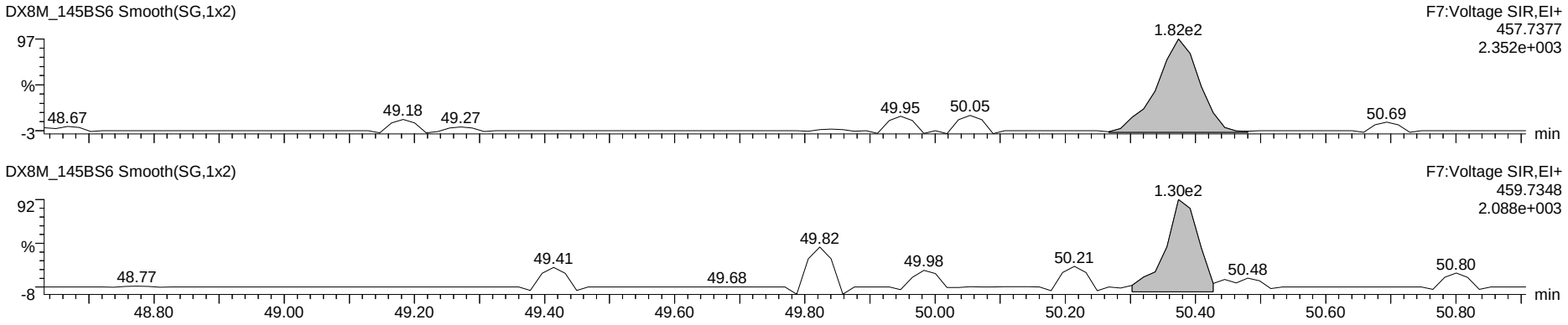

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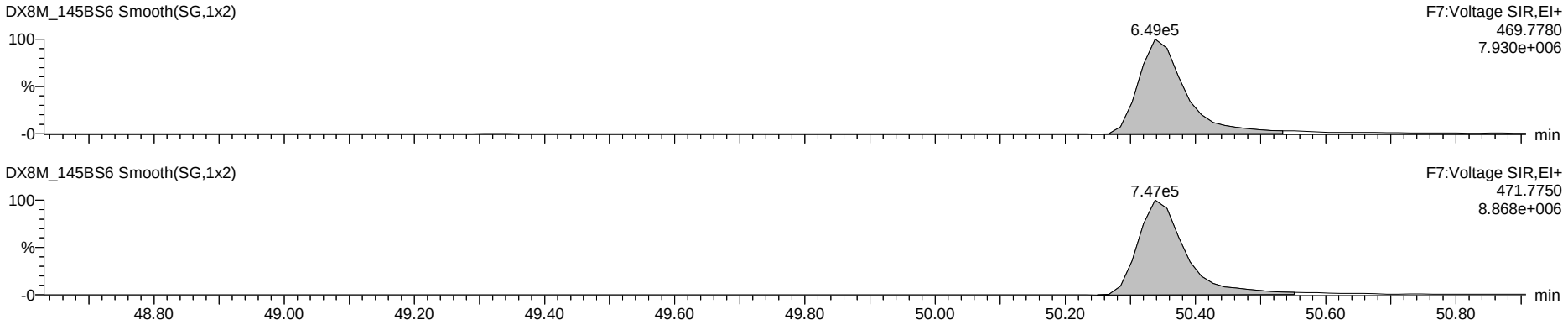
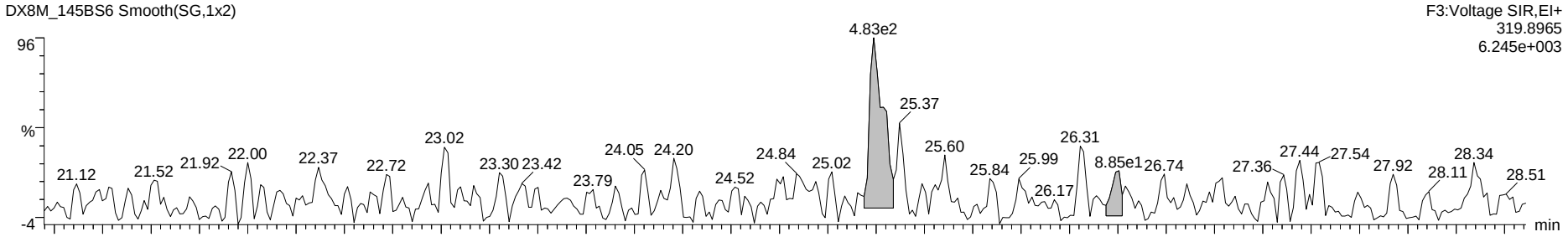
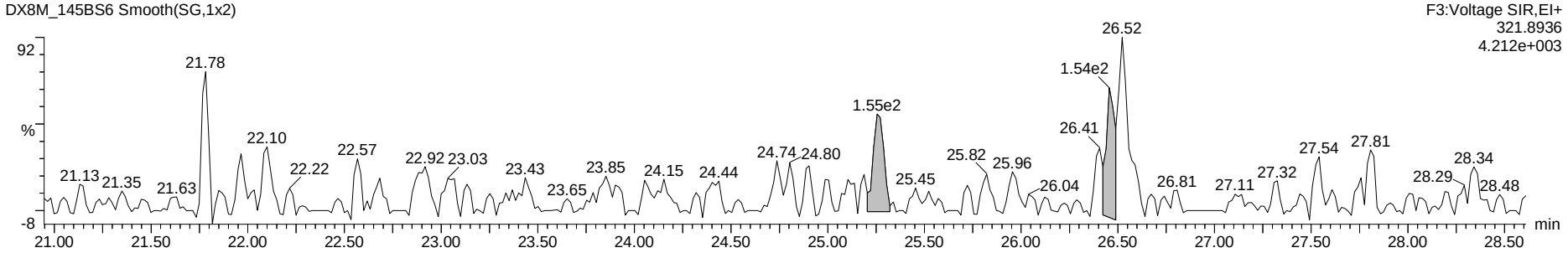


Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS6, Date: 30-Nov-2018, Time: 21:30:43, ID: WG66111-101,,BLK, Description: 1,WG66111,1.0/20uL

Total Tetra-Dioxins





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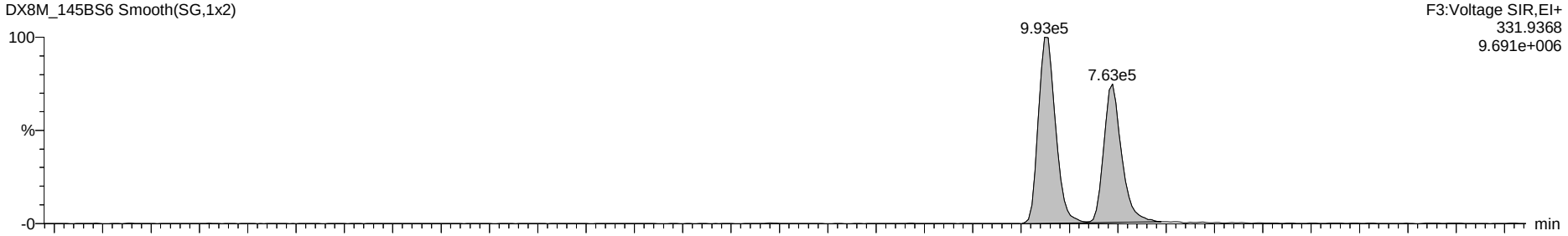
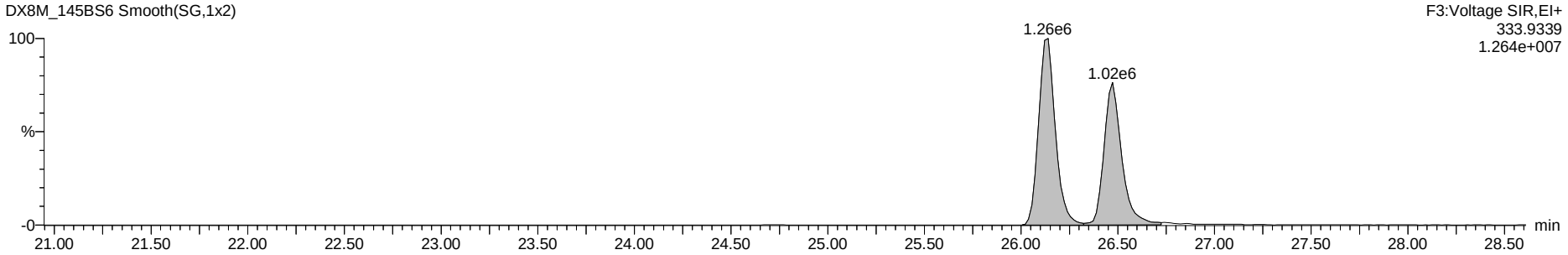
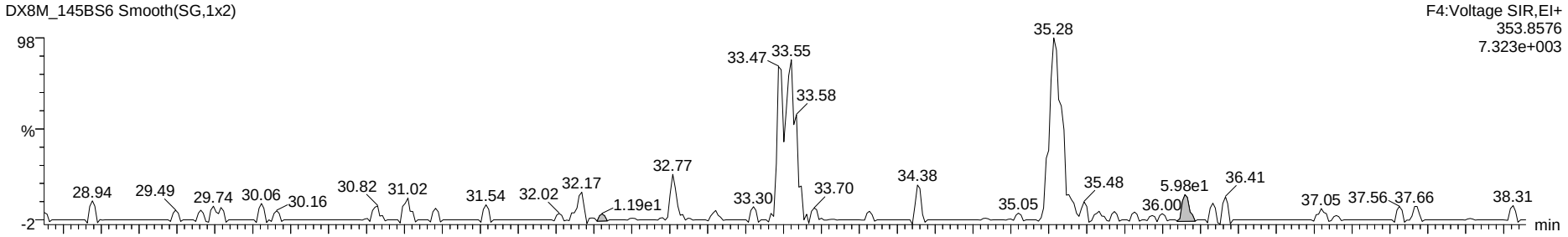


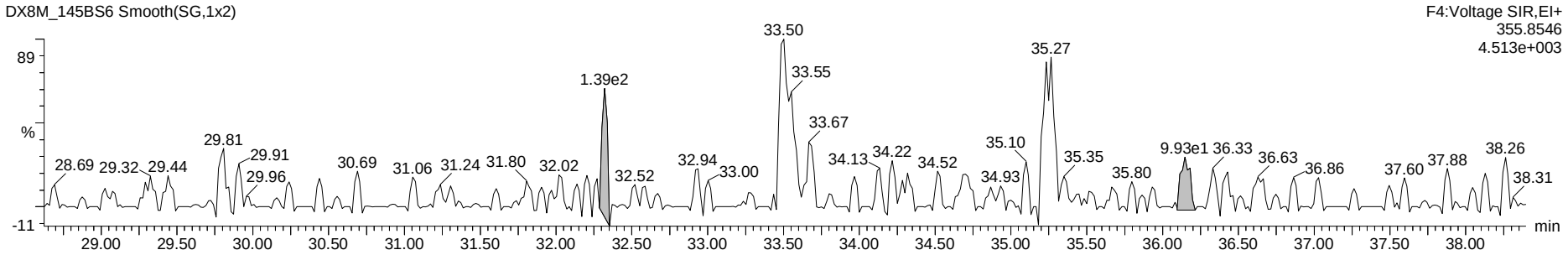


Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS6, Date: 30-Nov-2018, Time: 21:30:43, ID: WG66111-101,,BLK, Description: 1,WG66111,1.0/20uL

Total Penta-Dioxins





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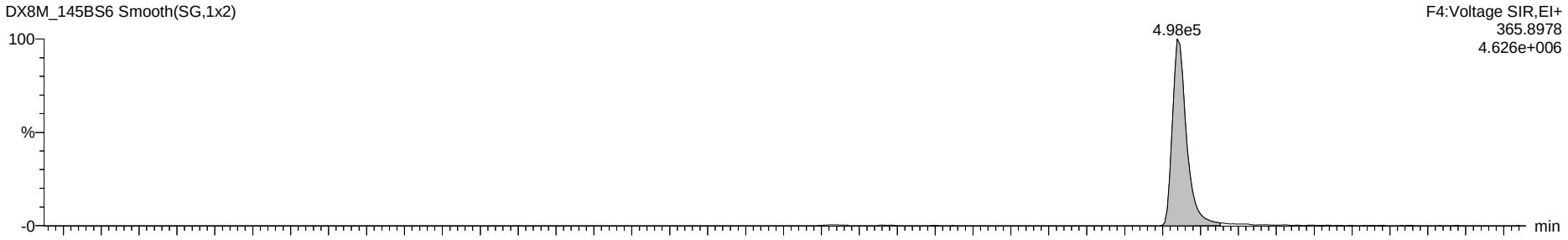
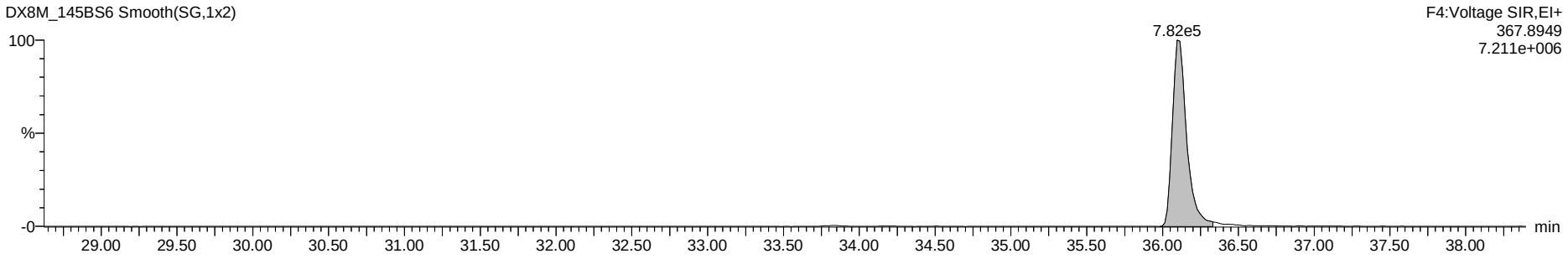
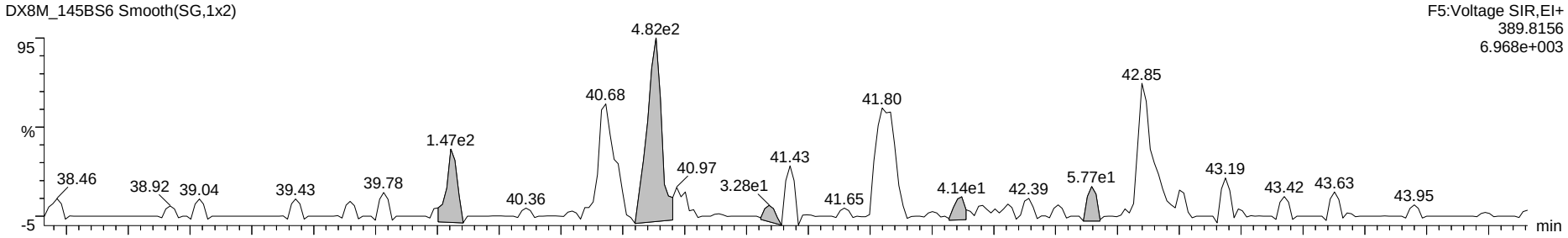


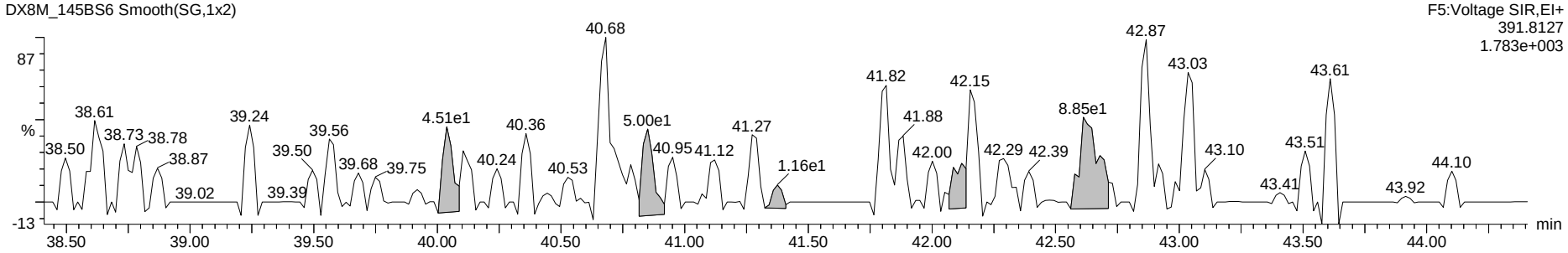


Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS6, Date: 30-Nov-2018, Time: 21:30:43, ID: WG66111-101,,BLK, Description: 1,WG66111,1.0/20uL

Total Hexa-Dioxins





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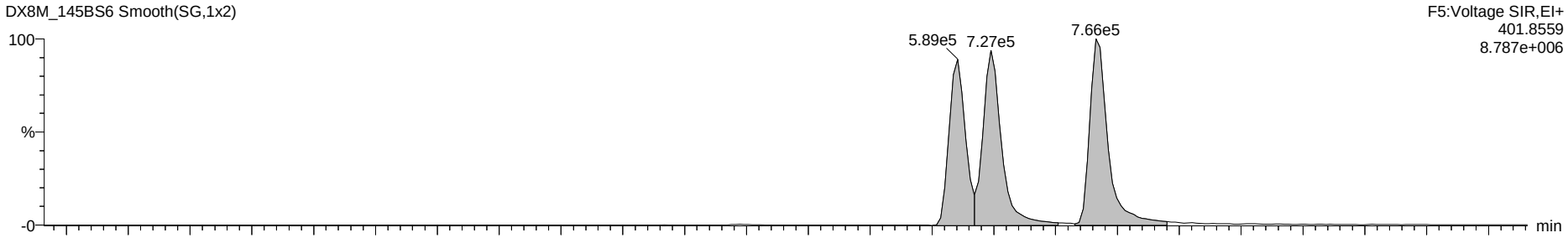
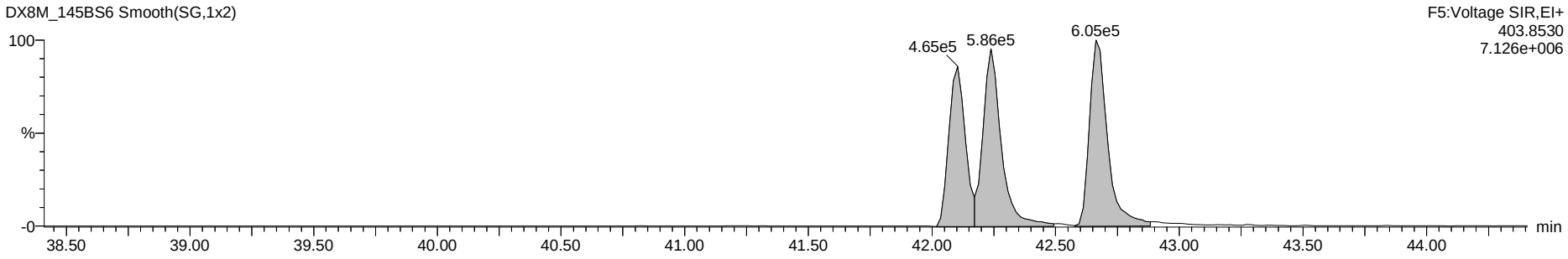
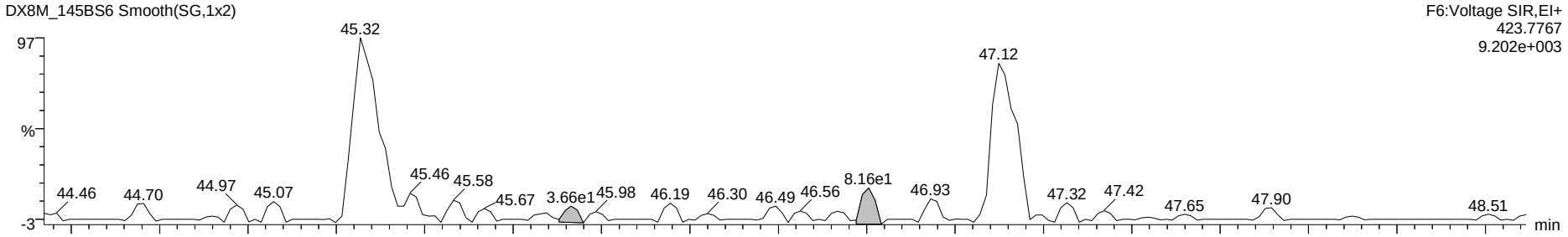


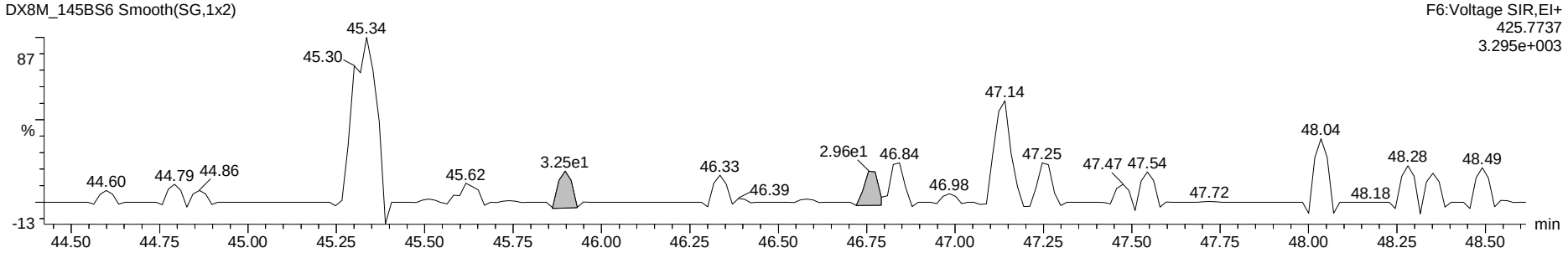


Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

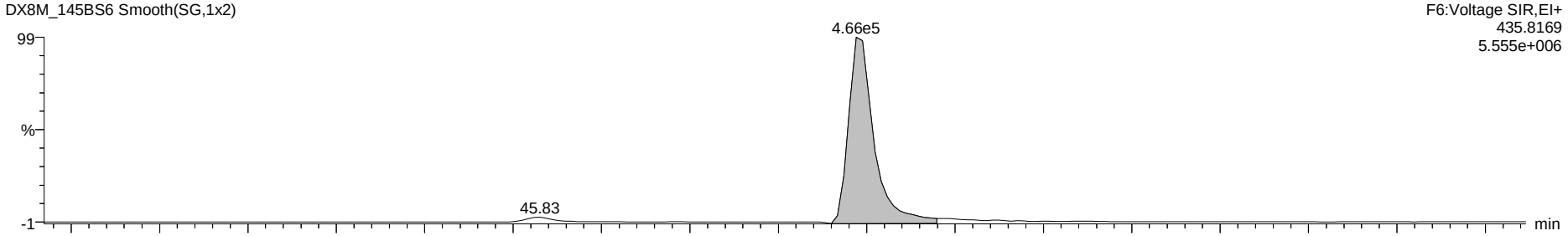
Name: DX8M_145BS6, Date: 30-Nov-2018, Time: 21:30:43, ID: WG66111-101,,BLK, Description: 1,WG66111,1.0/20uL

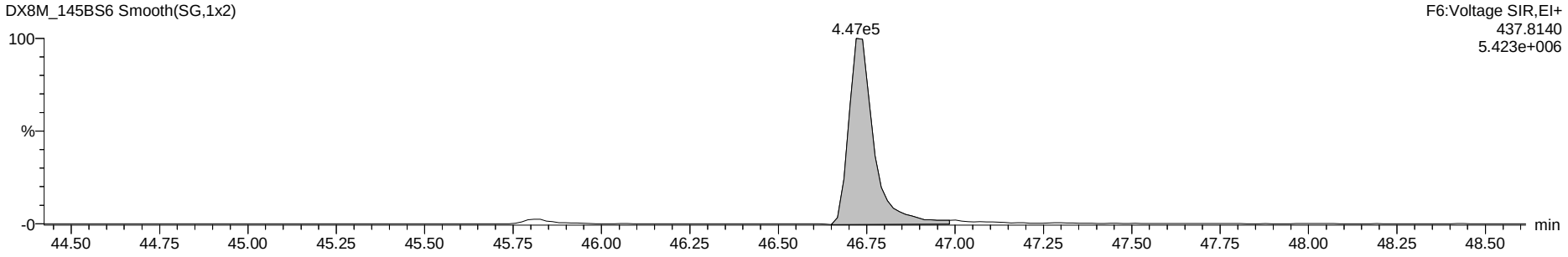
Total Hepta-Dioxins





13C-Hepta-Dioxins





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Name: DX8M_145BS6, Date: 30-Nov-2018, Time: 21:30:43, ID: WG66111-101,,BLK, Description: 1,WG66111,1.0/20uL

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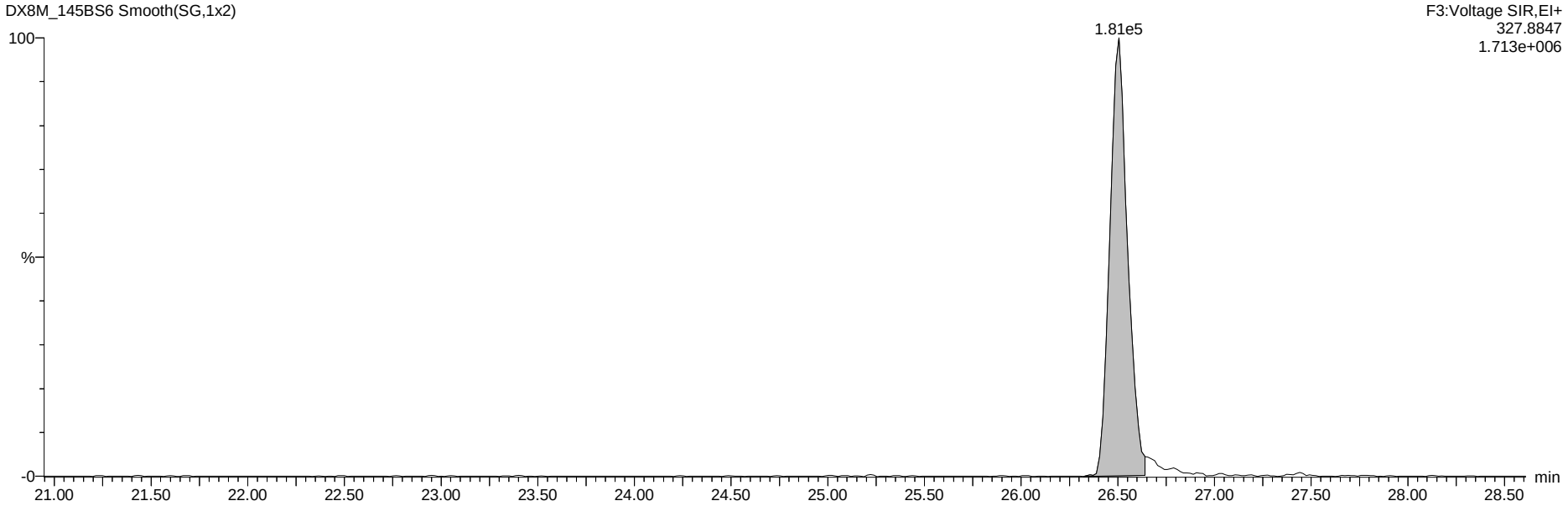

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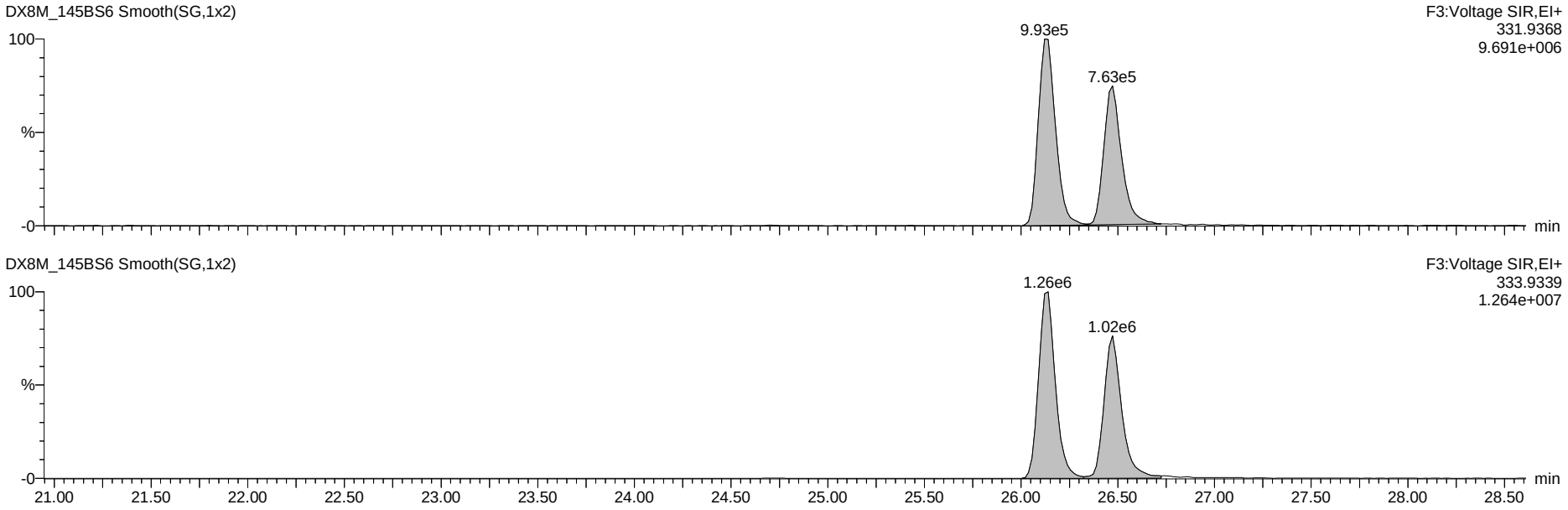

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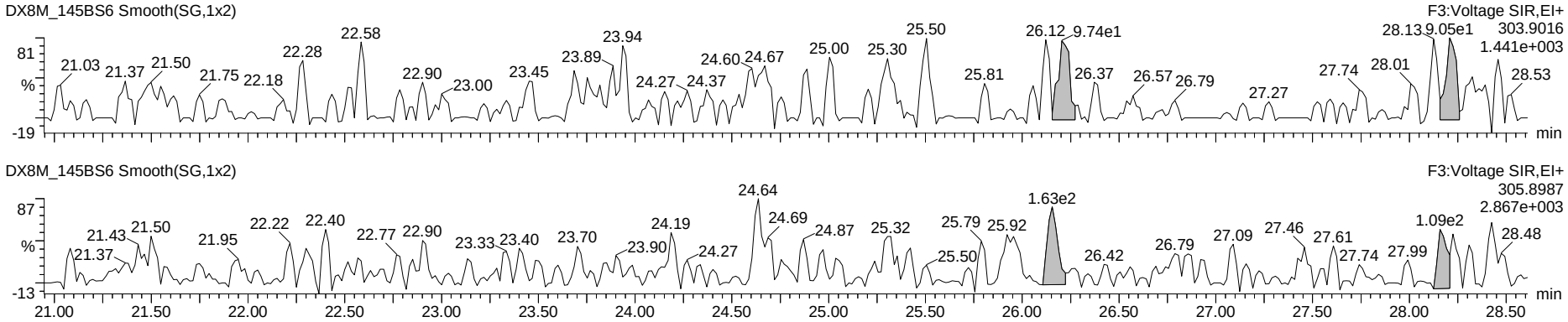
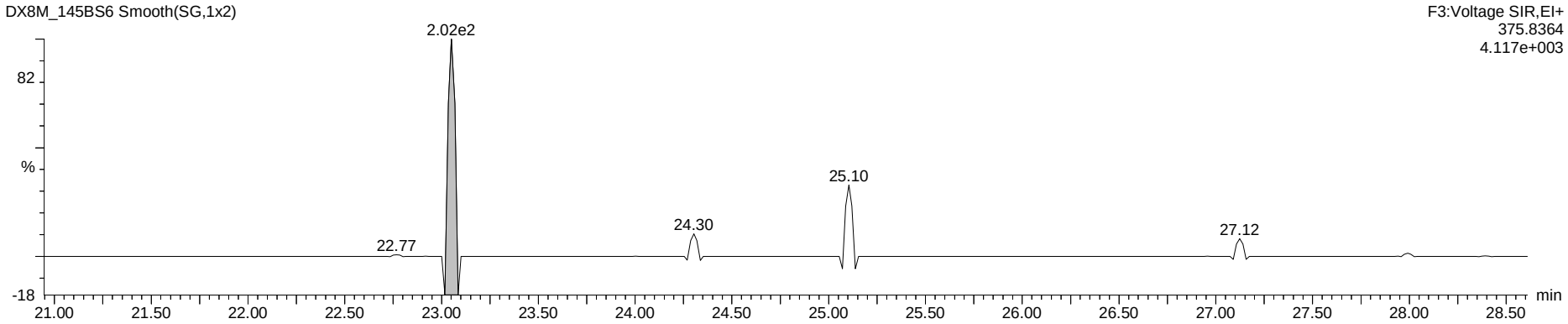
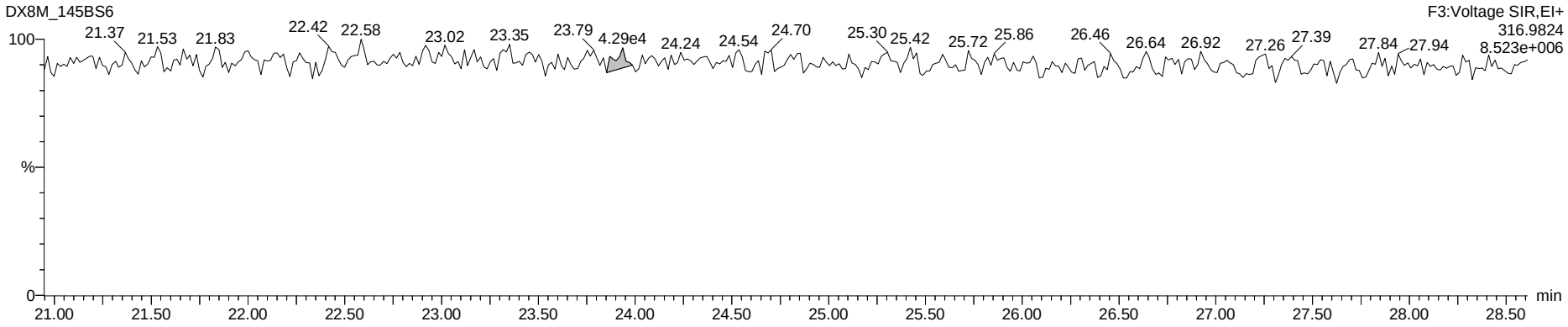
Total Tetra-Furans



Hexa DPE



Tetra Lock



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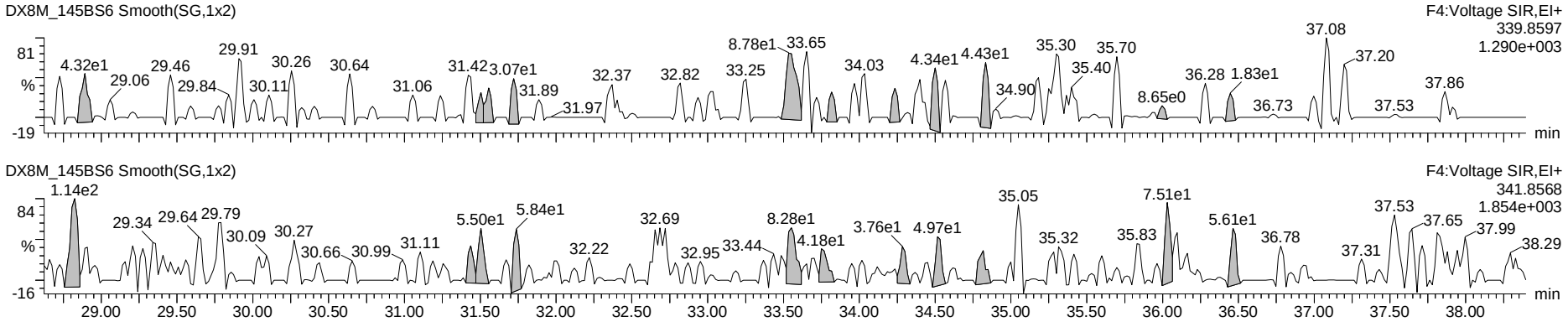
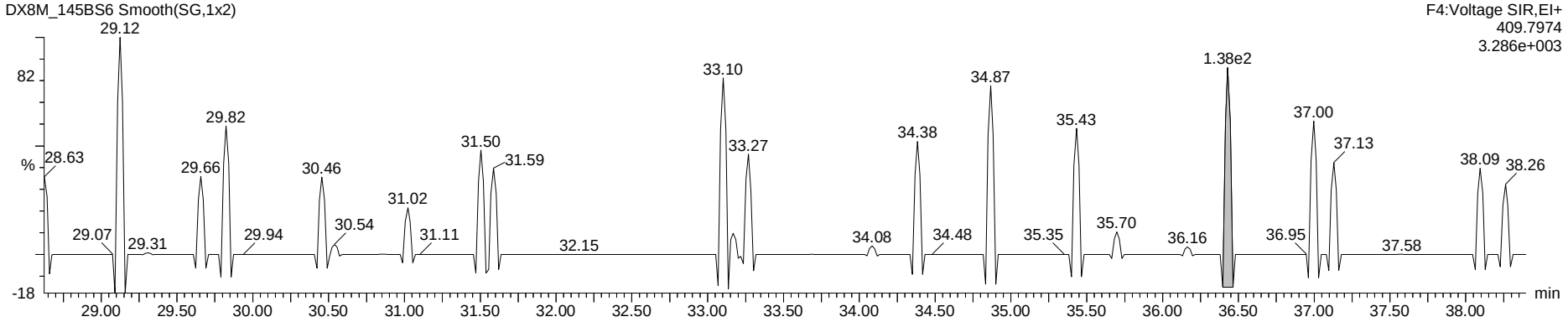
Name: DX8M_145BS6, Date: 30-Nov-2018, Time: 21:30:43, ID: WG66111-101,,BLK, Description: 1,WG66111,1.0/20uL

Total Penta-Furans



Hepta DPE



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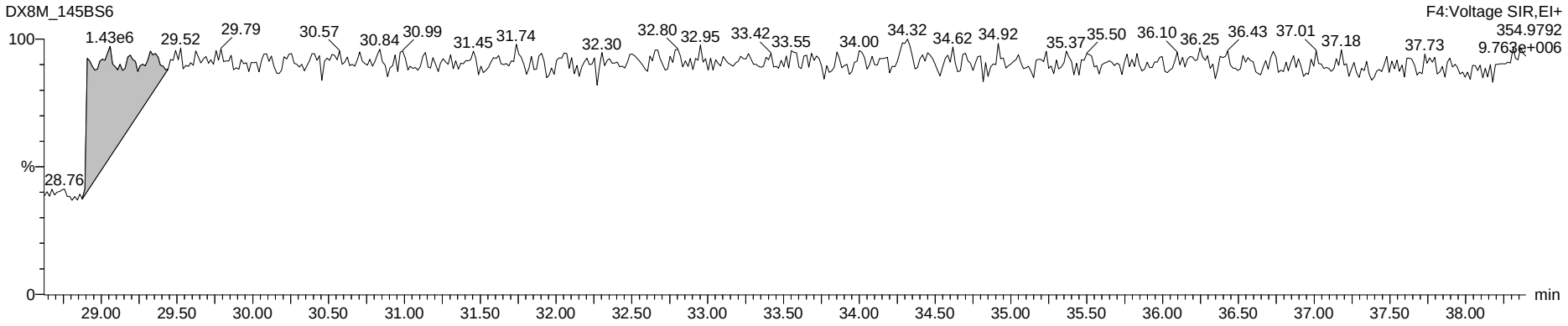

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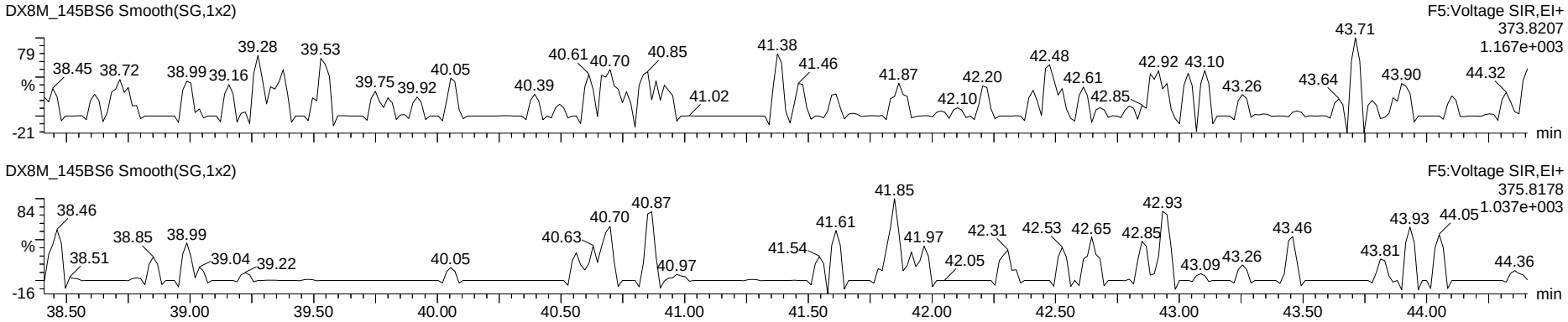
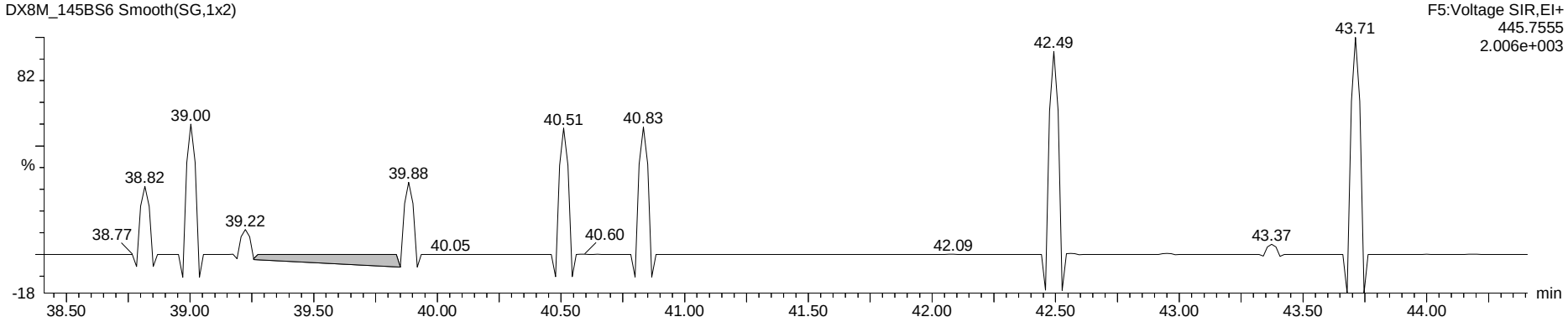
Name: DX8M_145BS6, Date: 30-Nov-2018, Time: 21:30:43, ID: WG66111-101,,BLK, Description: 1,WG66111,1.0/20uL

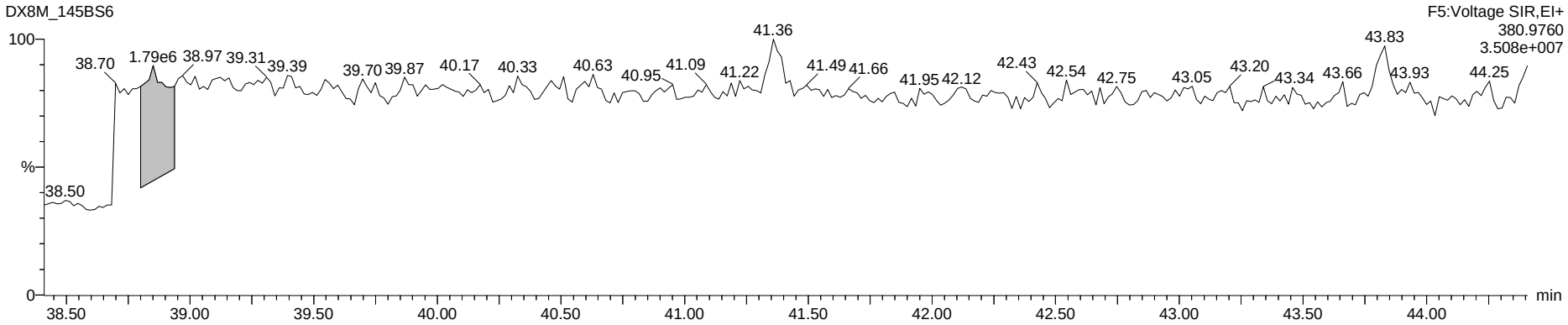
Total Hexa-Furans



Octa DPE



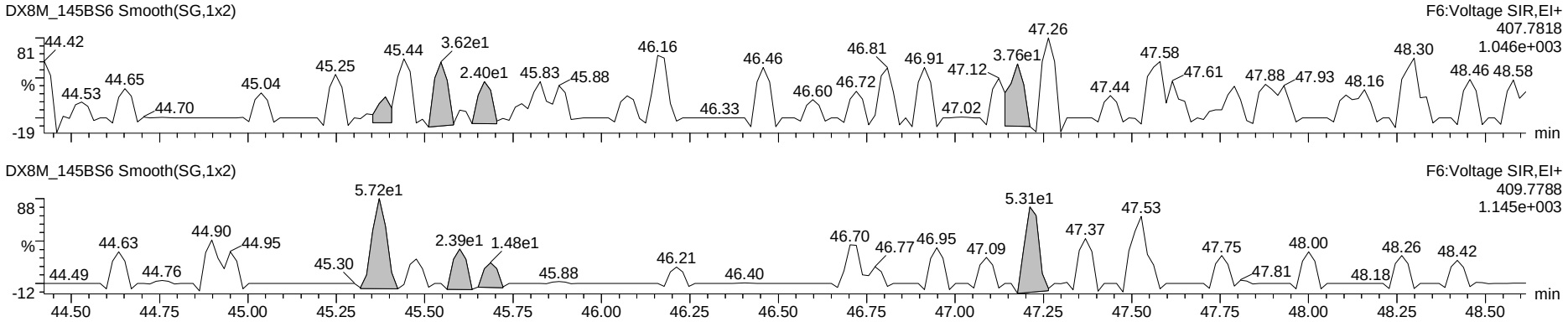
Hexa Lock



Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS6, Date: 30-Nov-2018, Time: 21:30:43, ID: WG66111-101,,BLK, Description: 1,WG66111,1.0/20uL

Total Hepta-Furans



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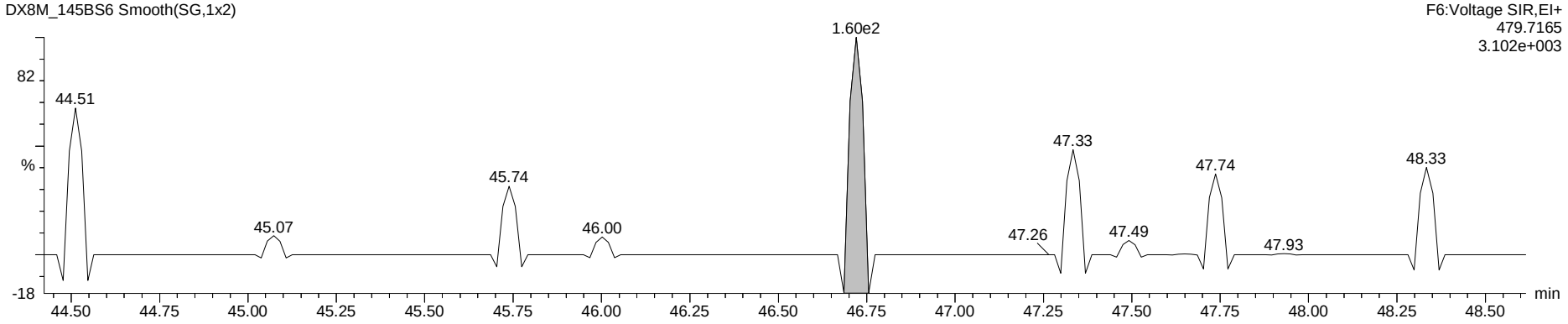
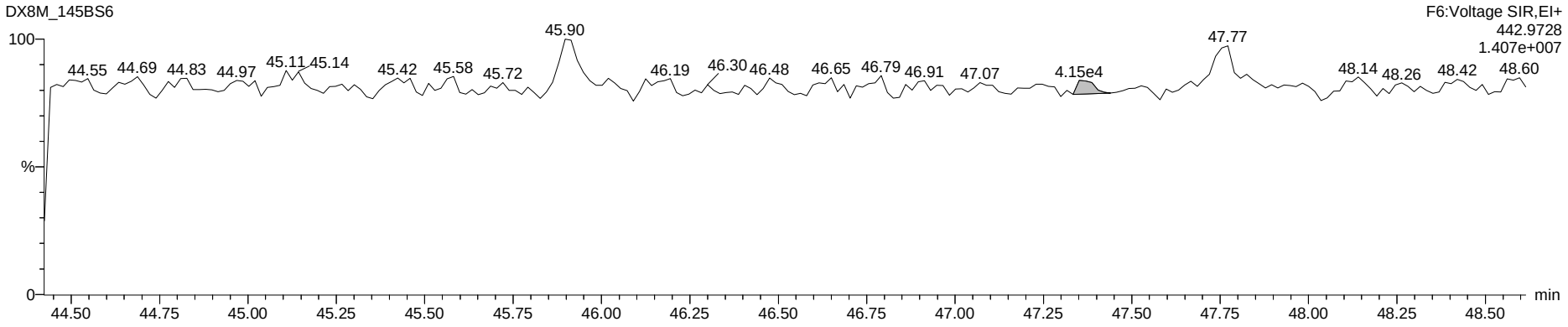


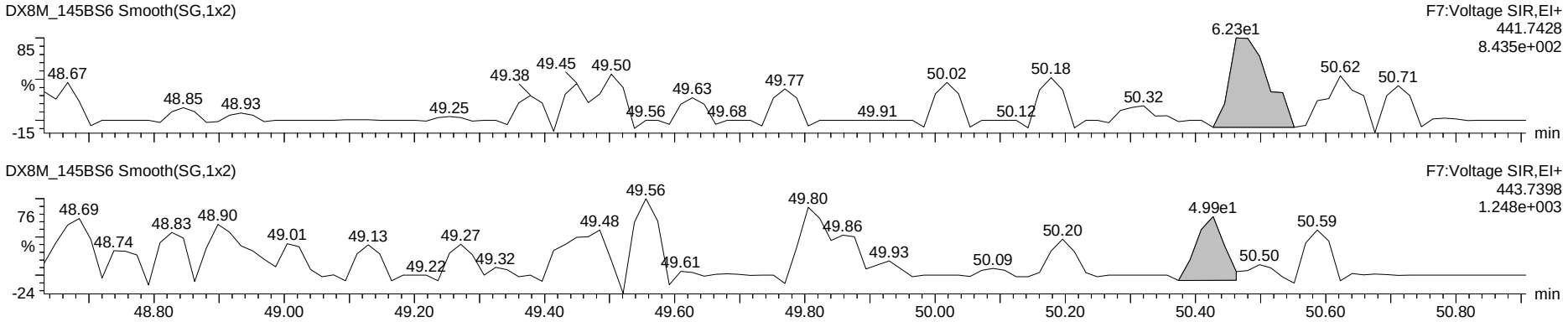
Hepta Lock



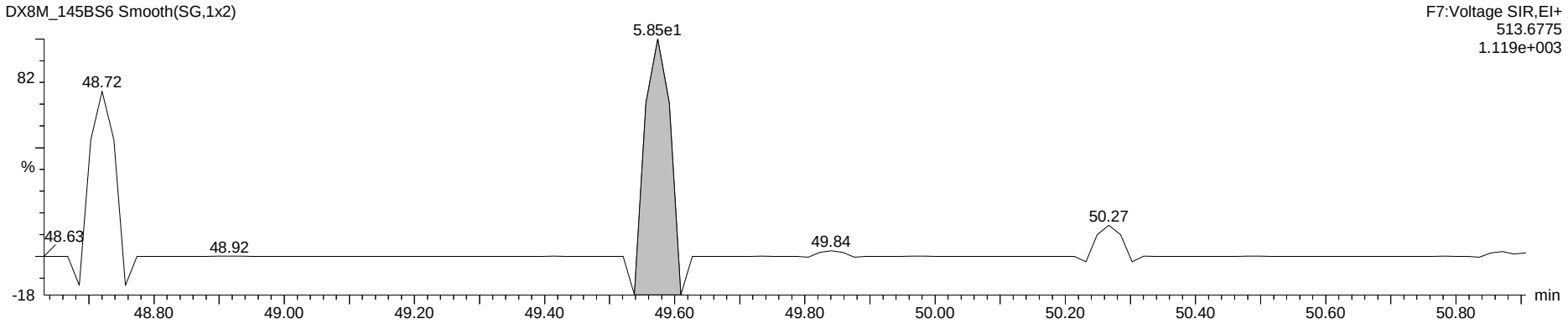
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS6, Date: 30-Nov-2018, Time: 21:30:43, ID: WG66111-101,,BLK, Description: 1,WG66111,1.0/20uL

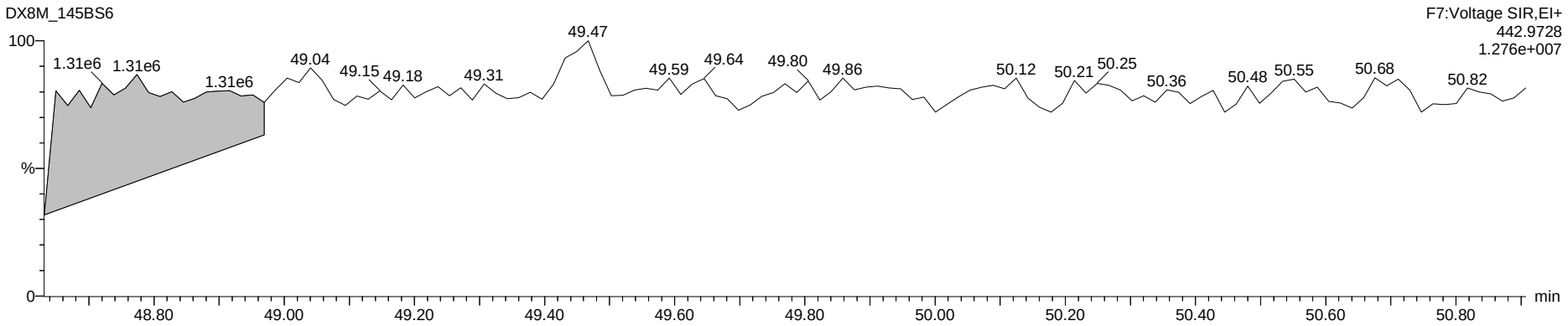
OCDF



Deca DPE



Octa Lock



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Name: DX8M_145BS2, Date: 30-Nov-2018, Time: 17:52:18, ID: WG66111-102,,SPM, Description: 1,WG66111,1.0/20uL

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	20.000	3.92e5	0.76	NO	25.27	9.637	0.0252		2.00e3	2.06e3
2	1,2,3,7,8-PeCDF	20.000	1.46e6	1.57	NO	33.53	46.716	0.0658		4.30e3	2.59e3
3	2,3,4,7,8-PeCDF	20.000	1.40e6	1.55	NO	35.30	48.351	0.0644		4.30e3	2.59e3
4	1,2,3,4,7,8-HxCDF	20.000	1.08e6	1.26	NO	40.70	48.574	0.0569		3.64e3	2.88e3
5	1,2,3,6,7,8-HxCDF	20.000	1.24e6	1.21	NO	40.88	47.788	0.0545		3.64e3	2.88e3
6	2,3,4,6,7,8-HxCDF	20.000	1.12e6	1.24	NO	41.83	49.131	0.0589		3.64e3	2.88e3
7	1,2,3,7,8,9-HxCDF	20.000	8.77e5	1.24	NO	42.87	48.814	0.0788		3.64e3	2.88e3
8	1,2,3,4,6,7,8-HpCDF	20.000	9.94e5	1.02	NO	45.34	53.147	0.0501		3.11e3	1.84e3
9	1,2,3,4,7,8,9-HpCDF	20.000	7.25e5	1.11	NO	47.14	49.882	0.0659		3.11e3	1.84e3
10	OCDF	20.000	1.21e6	0.93	NO	50.43	96.494	0.0082		4.31e2	7.80e1
11	2,3,7,8-TCDD	20.000	2.75e5	0.78	NO	26.49	9.789	0.0352		1.74e3	1.86e3
12	1,2,3,7,8-PeCDD	20.000	9.17e5	0.61	NO	36.13	48.185	0.0629		2.71e3	2.03e3
13	1,2,3,4,7,8-HxCDD	20.000	7.52e5	1.23	NO	42.10	47.689	0.0620		2.00e3	3.25e3
14	1,2,3,6,7,8-HxCDD	20.000	8.02e5	1.23	NO	42.26	46.819	0.0649		2.00e3	3.25e3
15	1,2,3,7,8,9-HxCDD	20.000	7.67e5	1.21	NO	42.68	47.420	0.0646		2.00e3	3.25e3
16	1,2,3,4,6,7,8-HpCDD	20.000	6.02e5	1.06	NO	46.74	49.528	0.0579		2.25e3	1.53e3
17	OCDD	20.000	9.80e5	0.86	NO	50.36	94.172	0.0185		5.53e-1	9.61e2
18	13C-2,3,7,8-TCDF	20.000	4.33e6	0.79	NO	25.24	86.554	0.0722	86.6	8.59e3	5.81e3
19	13C-1,2,3,7,8-PeCDF	20.000	3.34e6	1.55	NO	33.52	81.451	0.1191	81.5	1.00e4	9.42e3
20	13C-2,3,4,7,8-PeCDF	20.000	3.07e6	1.58	NO	35.28	75.293	0.1198	75.3	1.00e4	9.42e3
21	13C-1,2,3,4,7,8-HxCDF	20.000	1.96e6	0.52	NO	40.68	82.165	0.1323	82.2	7.72e3	8.00e3
22	13C-1,2,3,6,7,8-HxCDF	20.000	2.38e6	0.50	NO	40.85	92.624	0.1230	92.6	7.72e3	8.00e3
23	13C-2,3,4,6,7,8-HxCDF	20.000	1.95e6	0.52	NO	41.82	83.983	0.1358	84.0	7.72e3	8.00e3
24	13C-1,2,3,7,8,9-HxCDF	20.000	1.74e6	0.53	NO	42.85	81.440	0.1480	81.4	7.72e3	8.00e3
25	13C-1,2,3,4,6,7,8-HpCDF	20.000	1.52e6	0.44	NO	45.32	77.419	0.1542	77.4	6.53e3	8.58e3
26	13C-1,2,3,4,7,8,9-HpCDF	20.000	1.18e6	0.45	NO	47.12	78.276	0.2017	78.3	6.53e3	8.58e3
27	13C-2,3,7,8-TCDD	20.000	2.70e6	0.79	NO	26.47	84.919	0.1342	84.9	8.73e3	8.25e3
28	13C-1,2,3,7,8-PeCDD	20.000	1.89e6	0.62	NO	36.10	79.987	0.0774	80.0	3.49e3	3.80e3
29	13C-1,2,3,4,7,8-HxCDD	20.000	1.58e6	1.23	NO	42.09	86.061	0.1882	86.1	6.25e3	1.10e4
30	13C-1,2,3,6,7,8-HxCDD	20.000	1.84e6	1.27	NO	42.22	93.121	0.1752	93.1	6.25e3	1.10e4
31	13C-1,2,3,4,6,7,8-HpCDD	20.000	1.27e6	1.03	NO	46.72	81.586	0.1106	81.6	4.23e3	4.32e3
32	13C-OCDD	20.000	2.09e6	0.90	NO	50.34	156.832	0.0000	78.4	0.00e0	7.08e-2
33	13C-1,2,3,4-TCDD	20.000	3.29e6	0.78	NO	26.14	4.277	0.0056	4.3	8.73e3	8.25e3
34	13C-1,2,3,7,8,9-HxCDD	20.000	1.87e6	1.18	NO	42.66	3.351	0.0062	3.4	6.25e3	1.10e4
35	37Cl-2,3,7,8-TCDD	20.000	2.96e5			26.49	8.268	0.0262	82.7		3.74e3
36	Total Tetra-Furans	20.000					32.794	0.0252			2.06e3
37	Total Tetra-Dioxins	20.000					39.676	0.0352			1.86e3
38	Total Penta-Furans	20.000					151.434	0.0653			2.59e3
39	Total Penta-Dioxins	20.000					102.393	0.0629			2.03e3
40	Total Hexa-Furans	20.000					197.043	0.0595			2.88e3
41	Total Hexa-Dioxins	20.000					144.395	0.0613			3.25e3
42	Total Hepta-Furans	20.000					106.119	0.0571			1.84e3
43	Total Hepta-Dioxins	20.000					52.210	0.0579			1.53e3
44	Hexa DPE	1.000	3.60e2			25.05					1.00e-1
45	Hepta DPE	1.000	1.38e2			33.38					0.00e0
46	Octa DPE	1.000	4.05e0			39.00					1.16e0
47	Nona DPE	1.000	1.08e2			46.84					1.66e-1
48	Deca DPE	1.000	8.48e1			49.54					8.78e-2
49	Tetra Lock	1.000	7.44e4			23.79					6.04e5
50	Penta Lock	1.000	1.97e6			29.16					8.34e5
51	Hexa Lock	1.000	2.44e6			38.78					3.36e6
52	Hepta Lock	1.000	9.18e4			47.23					7.39e5
53	Octa Lock	1.000	9.01e5			48.90					9.41e5
54	13C-Tetra-Furans	20.000					86.554	0.0722			5.81e3
55	13C-Tetra-Dioxins	20.000					89.195	0.1398			8.25e3

pv'd by LHE 03-DEC-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

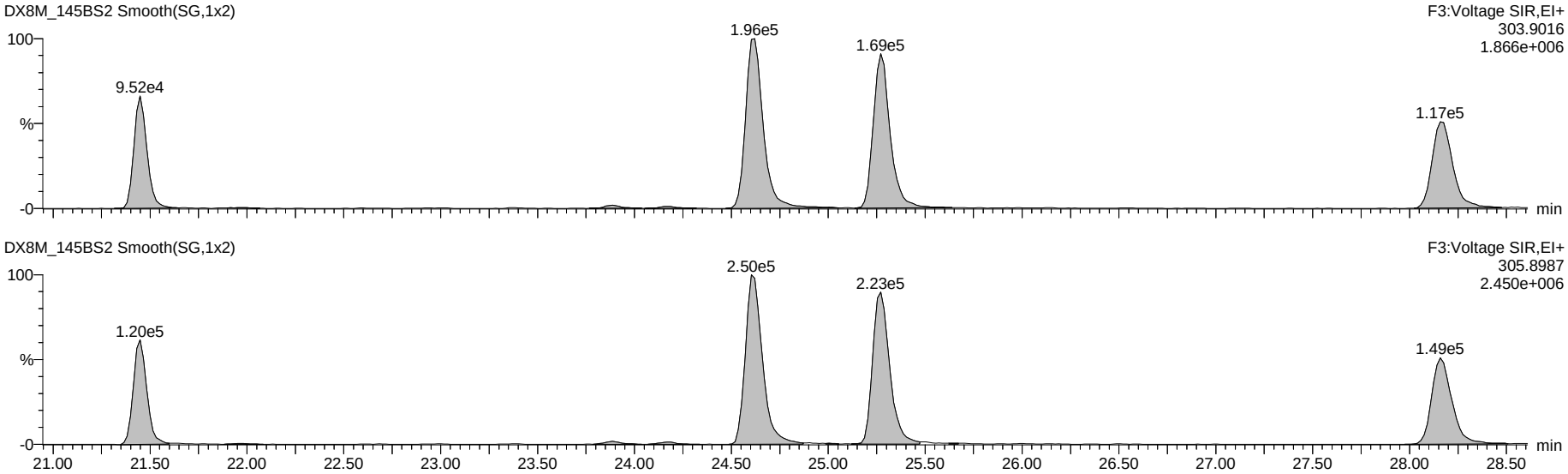
slkyfk 05Dec2018

Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

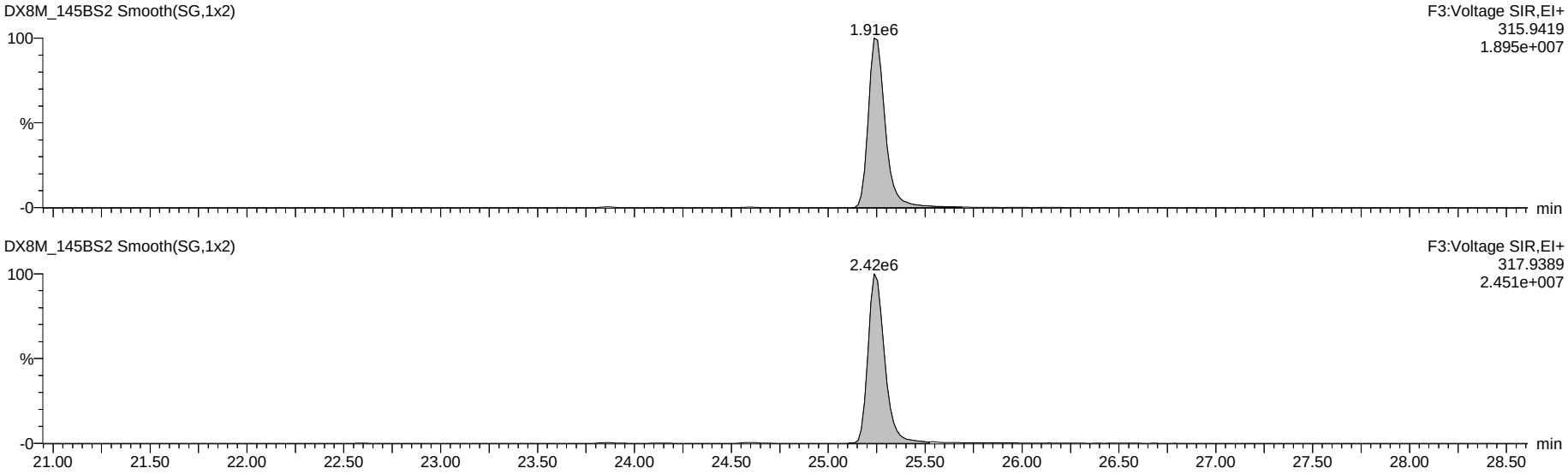
Method: G:\Masslynx\Inst_M\Exported_methods\DX_1613B_16.mdb 05 Apr 2018 08:34:55
Calibration: G:\Masslynx\Inst_M\Projects\181023DX.PRO\CurveDB\DX8M_126A-6A.cdb 26 Oct 2018 11:48:18

Name: DX8M_145BS2, Date: 30-Nov-2018, Time: 17:52:18, ID: WG66111-102,,SPM, Description: 1,WG66111,1.0/20uL

Total Tetra-Furans



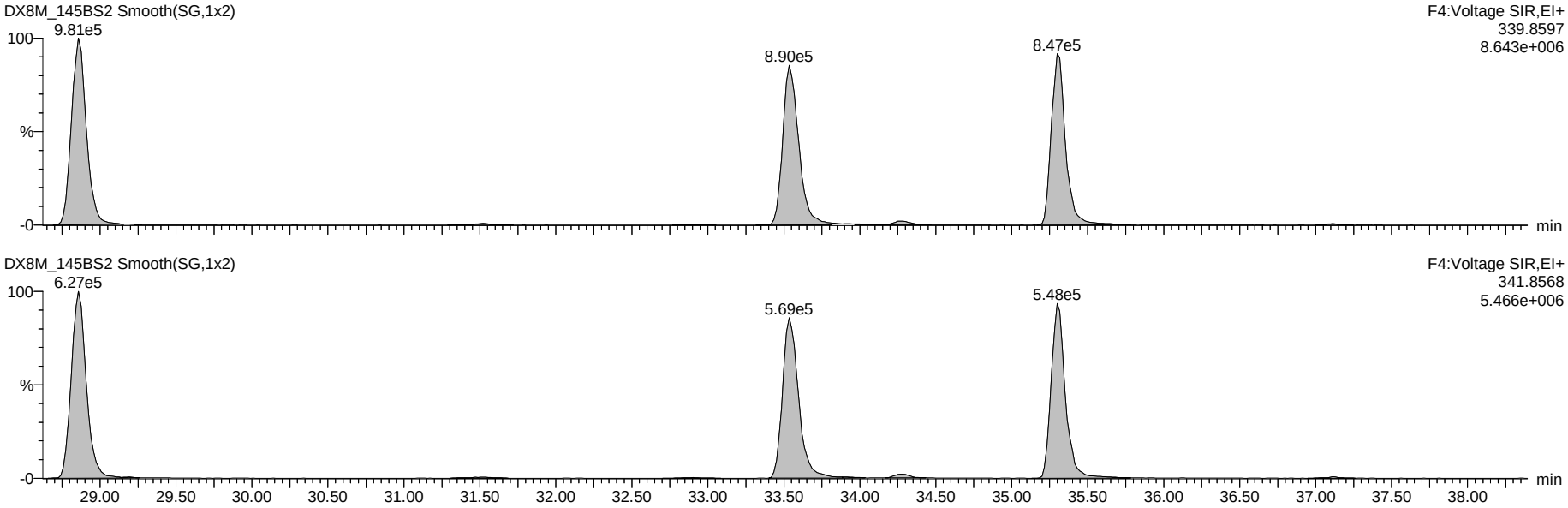
13C-Tetra-Furans



Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS2, Date: 30-Nov-2018, Time: 17:52:18, ID: WG66111-102,,SPM, Description: 1,WG66111,1.0/20uL

Total Penta-Furans



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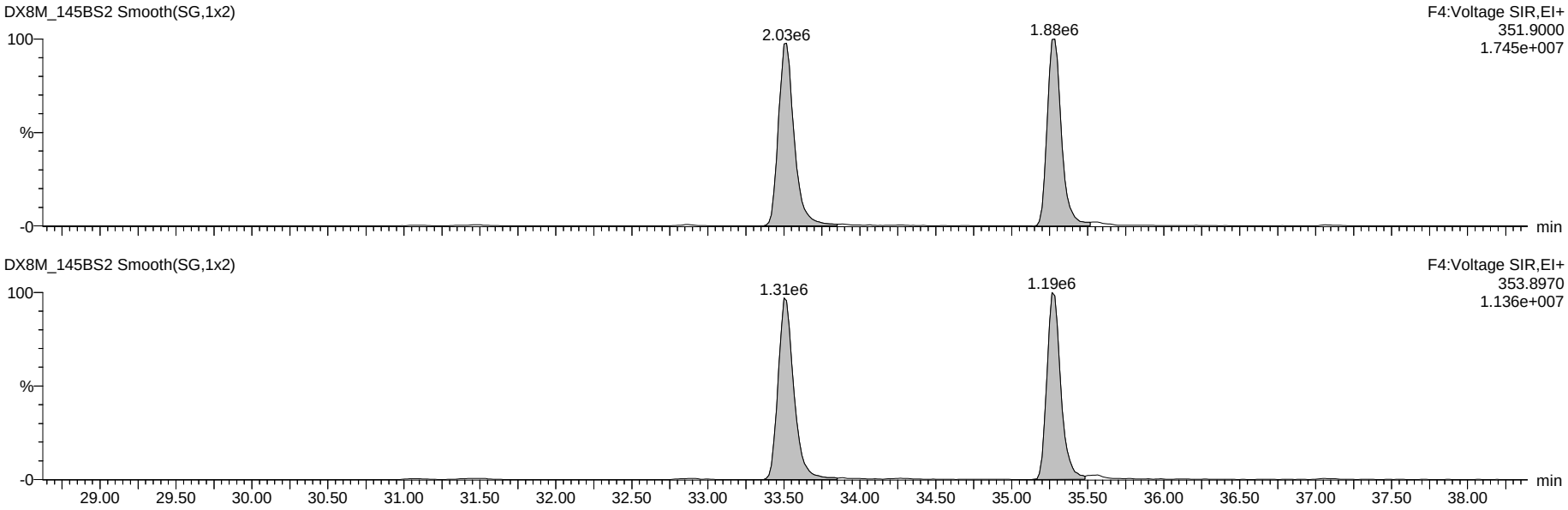

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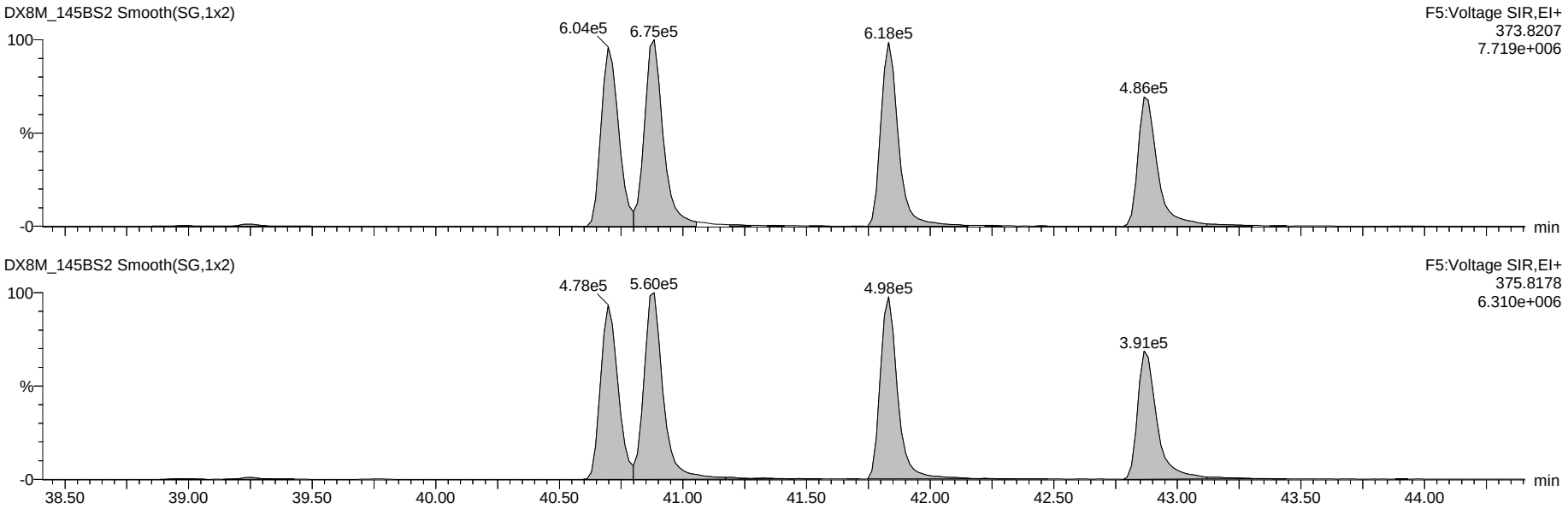
Name: DX8M_145BS2, Date: 30-Nov-2018, Time: 17:52:18, ID: WG66111-102,,SPM, Description: 1,WG66111,1.0/20uL

Total Hexa-Furans



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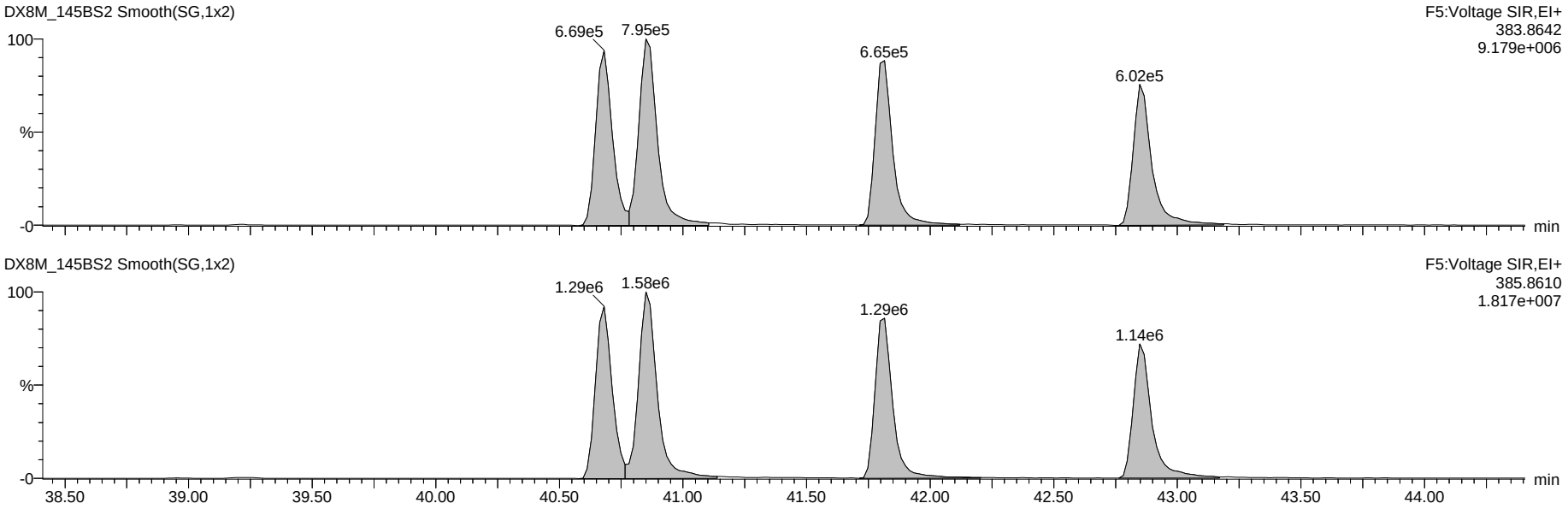

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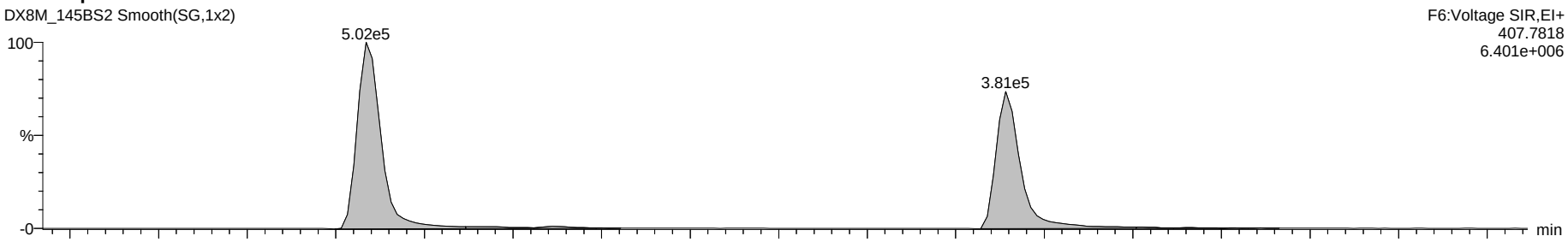
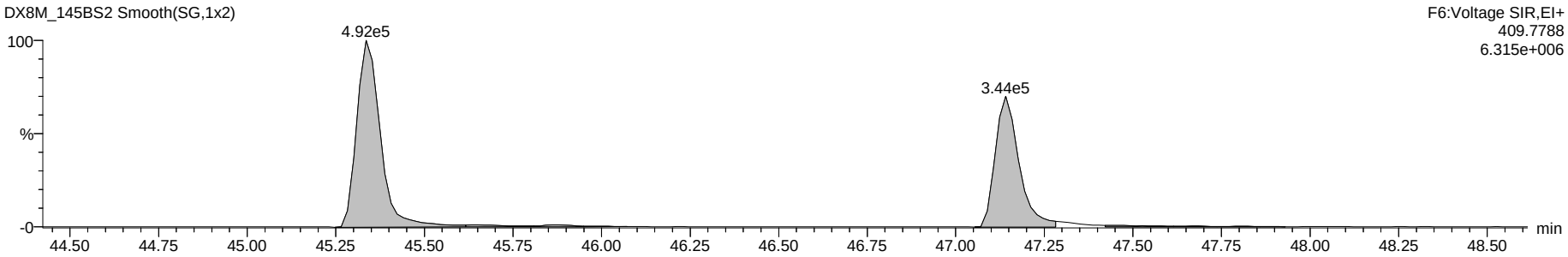
Name: DX8M_145BS2, Date: 30-Nov-2018, Time: 17:52:18, ID: WG66111-102,,SPM, Description: 1,WG66111,1.0/20uL

Total Hepta-Furans





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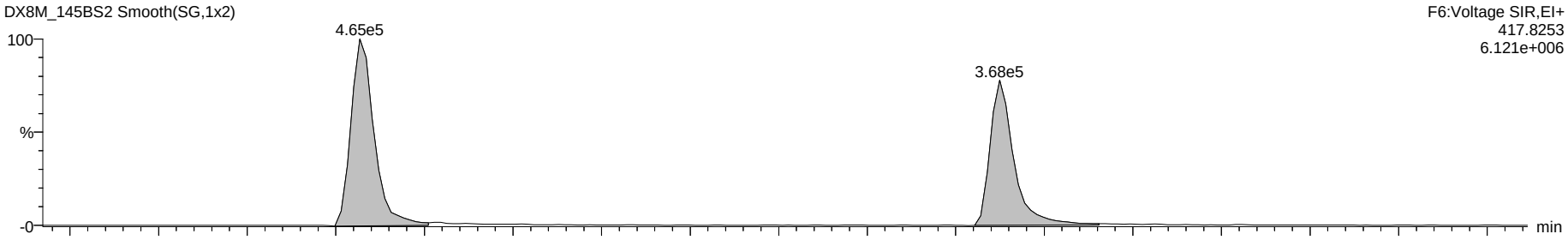

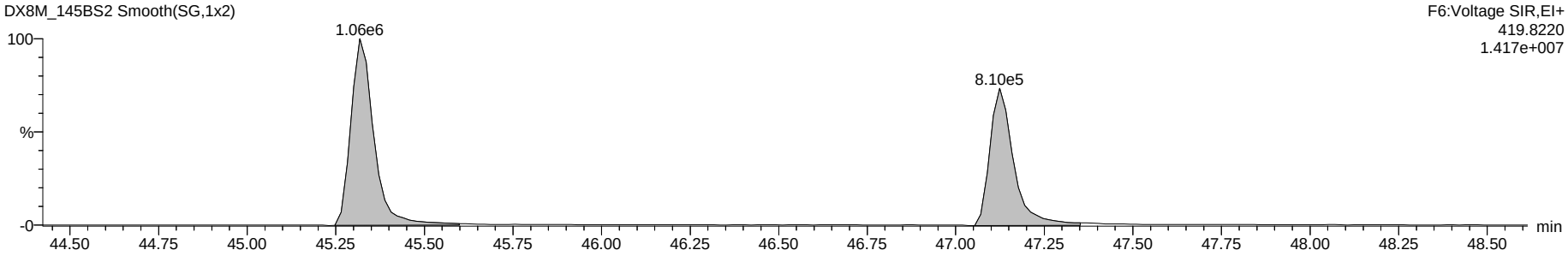

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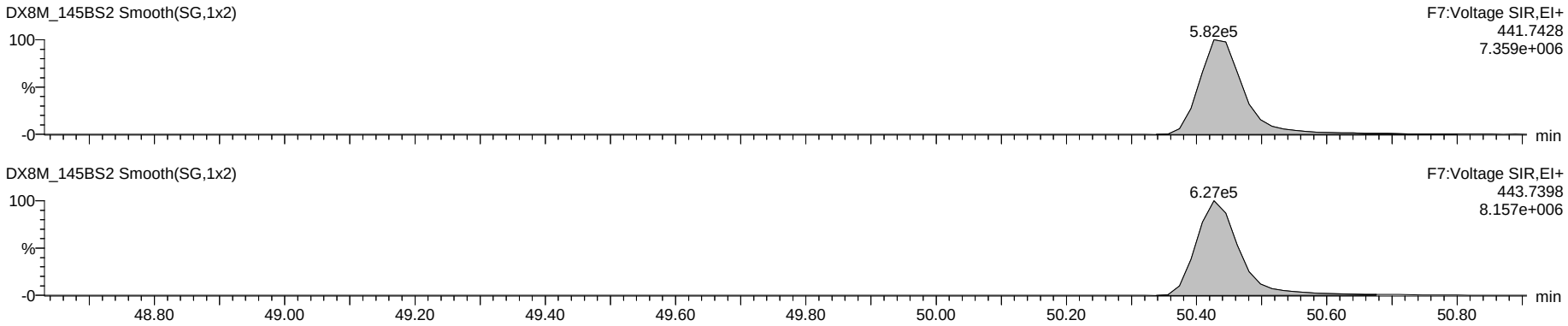
Name: DX8M_145BS2, Date: 30-Nov-2018, Time: 17:52:18, ID: WG66111-102,,SPM, Description: 1,WG66111,1.0/20uL

OCDF



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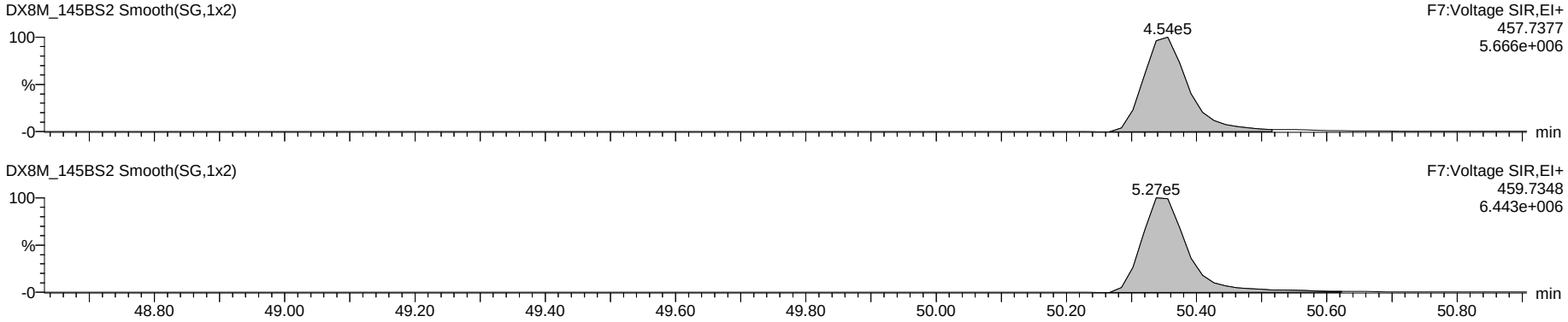

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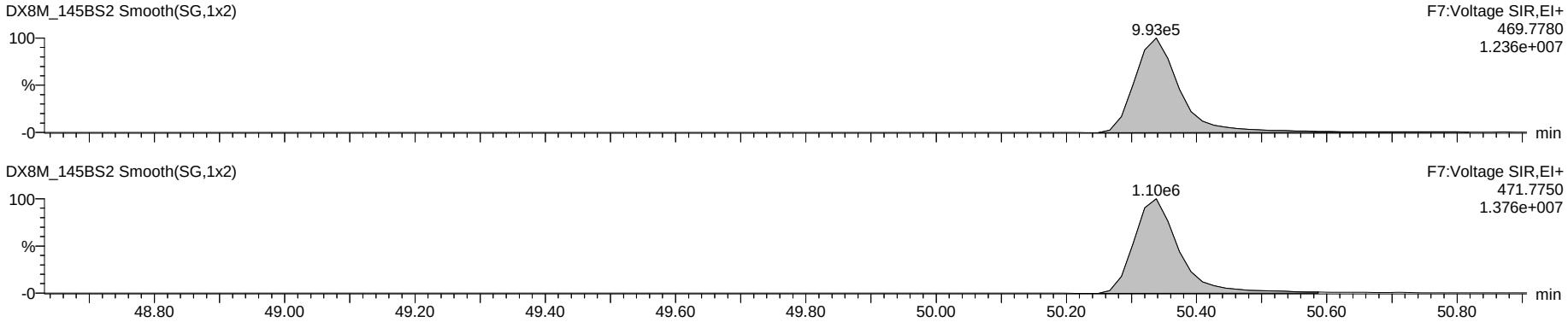

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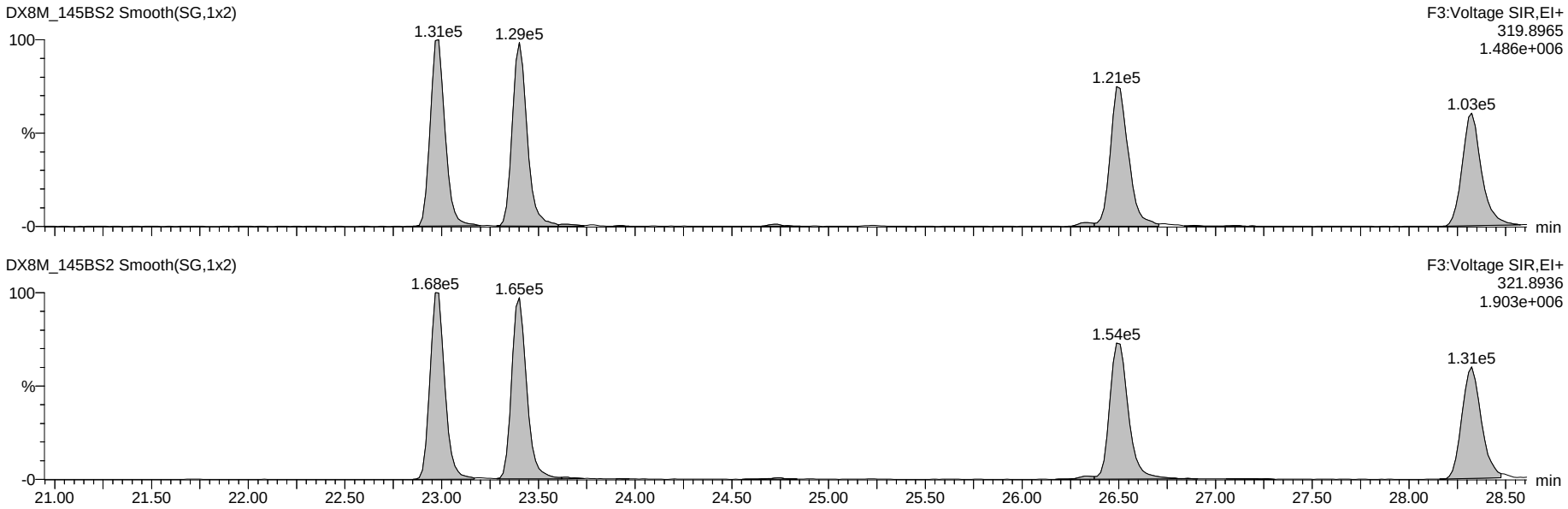
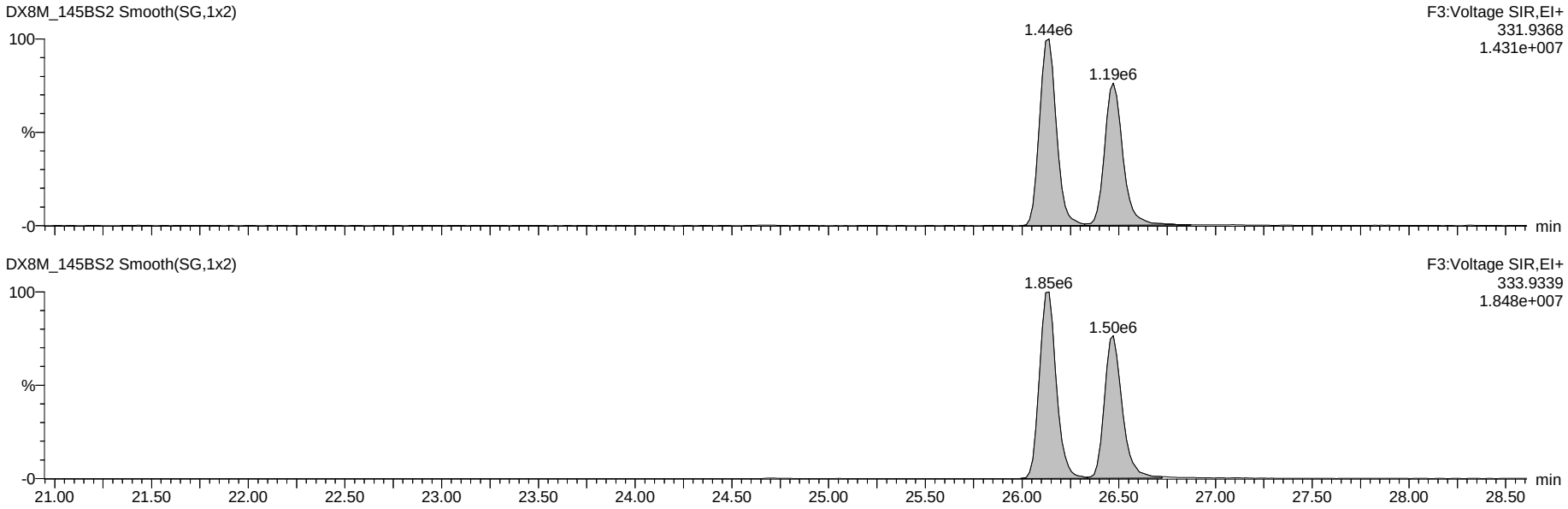
Name: DX8M_145BS2, Date: 30-Nov-2018, Time: 17:52:18, ID: WG66111-102,,SPM, Description: 1,WG66111,1.0/20uL

Total Tetra-Dioxins



13C-Tetra-Dioxins



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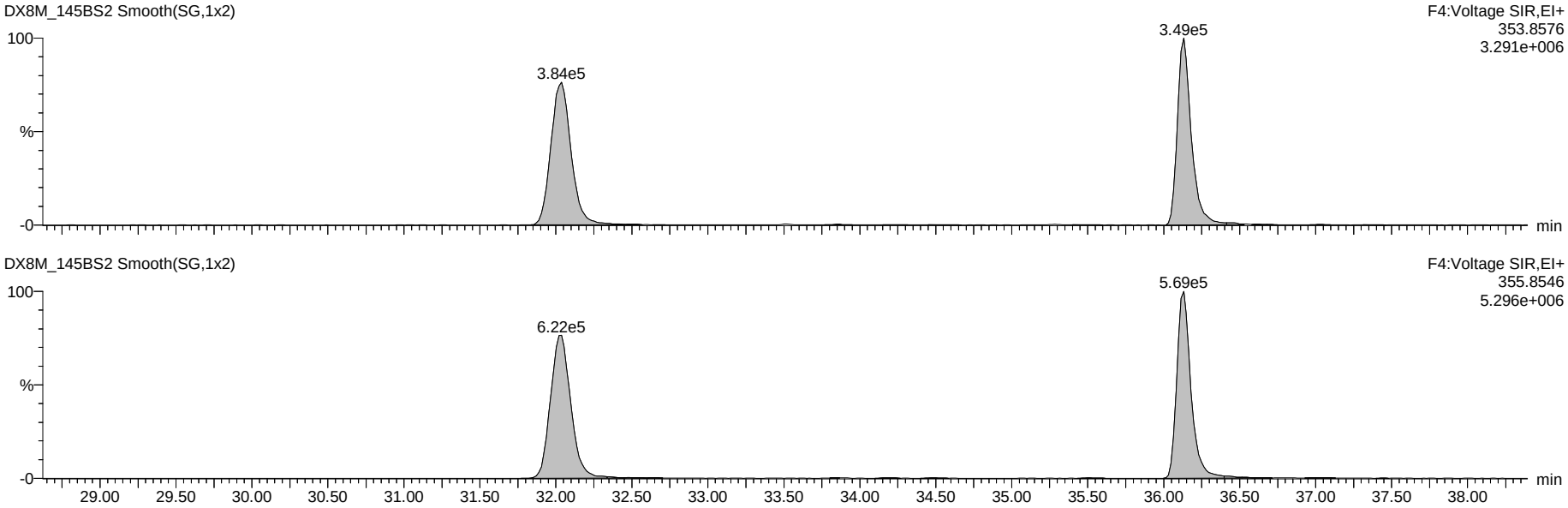
Name: DX8M_145BS2, Date: 30-Nov-2018, Time: 17:52:18, ID: WG66111-102,,SPM, Description: 1,WG66111,1.0/20uL

Total Penta-Dioxins



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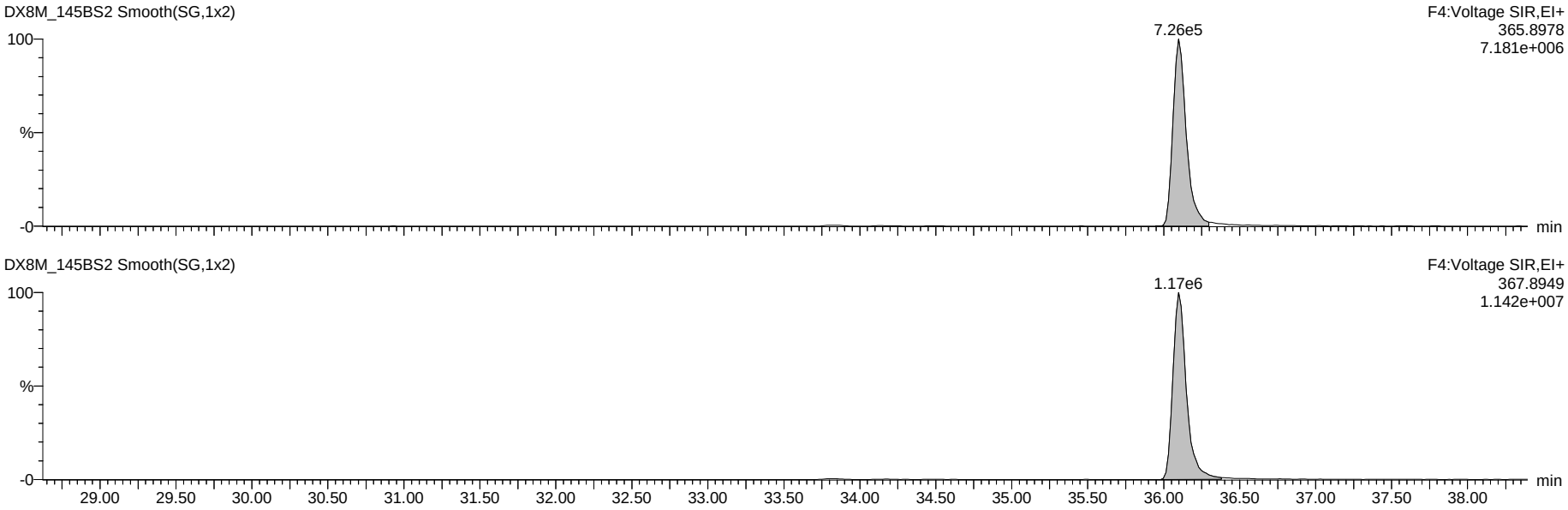
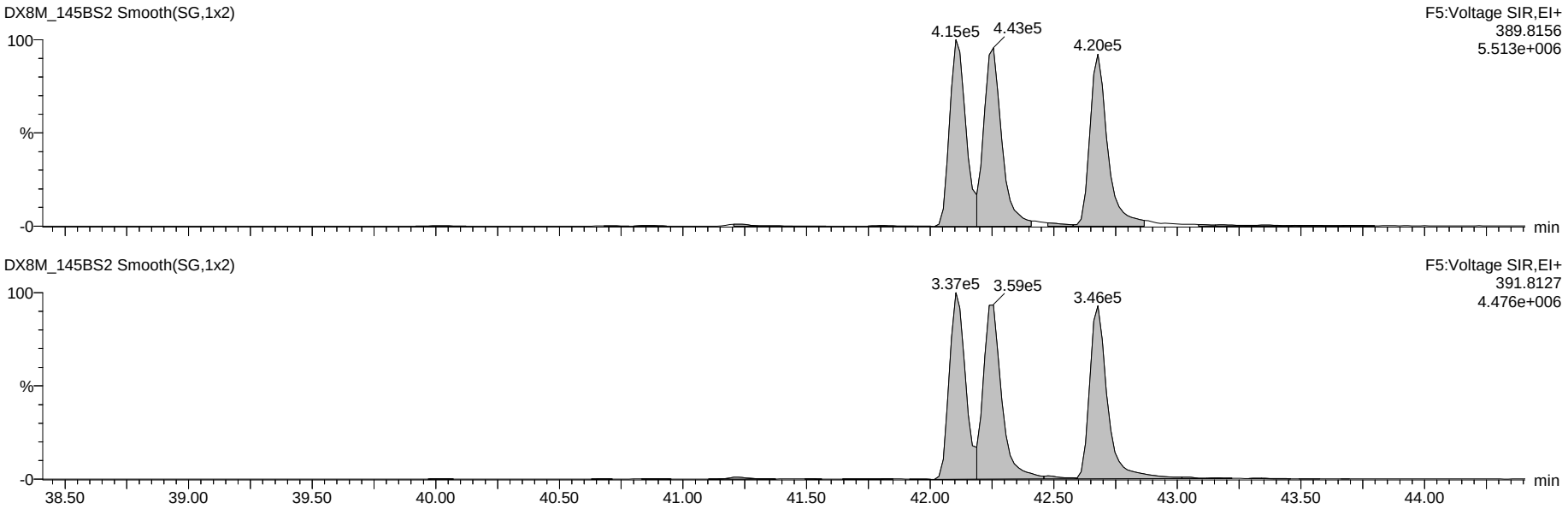


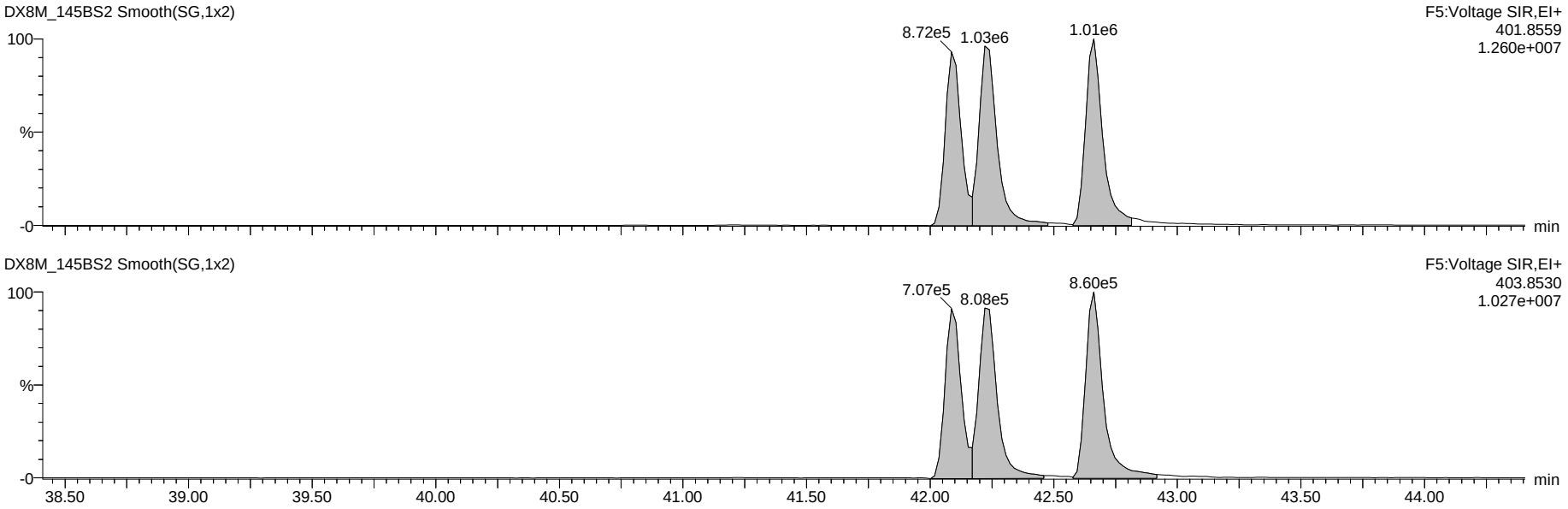
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS2, Date: 30-Nov-2018, Time: 17:52:18, ID: WG66111-102,,SPM, Description: 1,WG66111,1.0/20uL

Total Hexa-Dioxins



13C-Hexa-Dioxins



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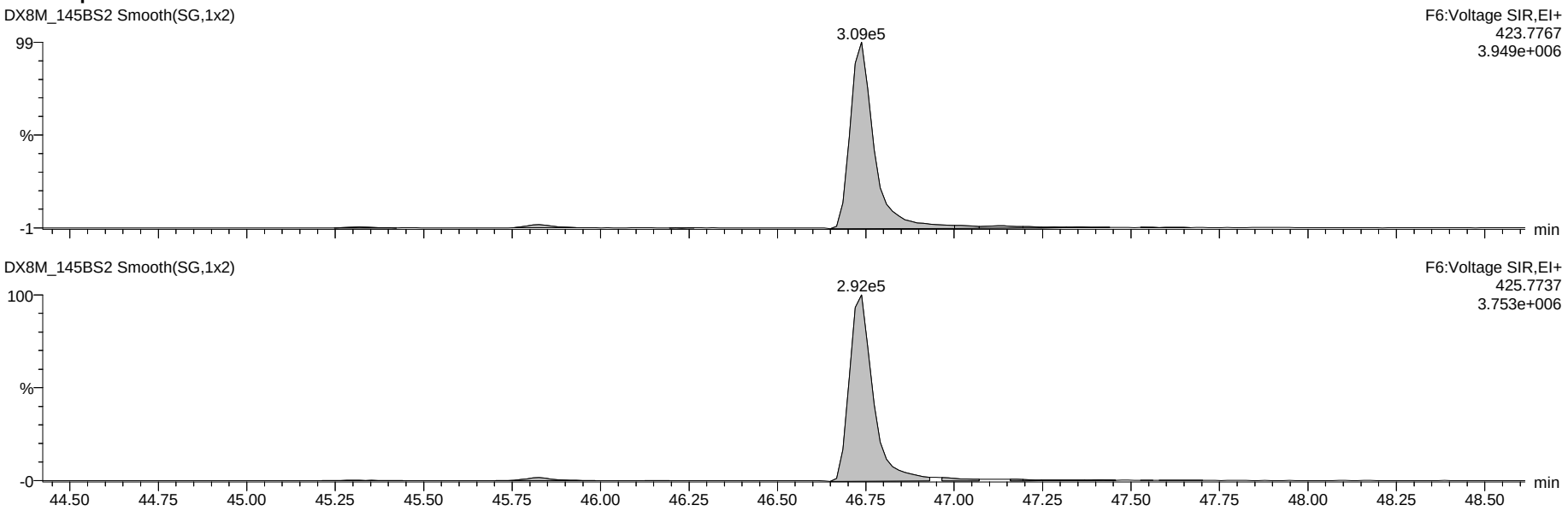
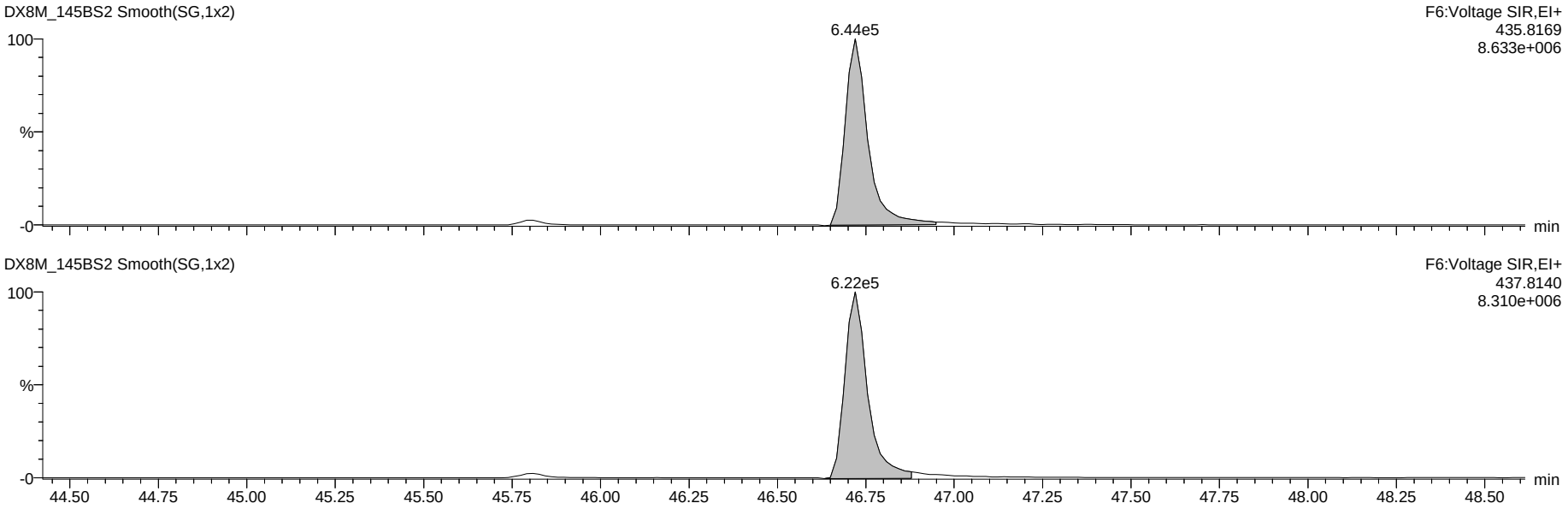
Name: DX8M_145BS2, Date: 30-Nov-2018, Time: 17:52:18, ID: WG66111-102,,SPM, Description: 1,WG66111,1.0/20uL

Total Hepta-Dioxins



13C-Hepta-Dioxins



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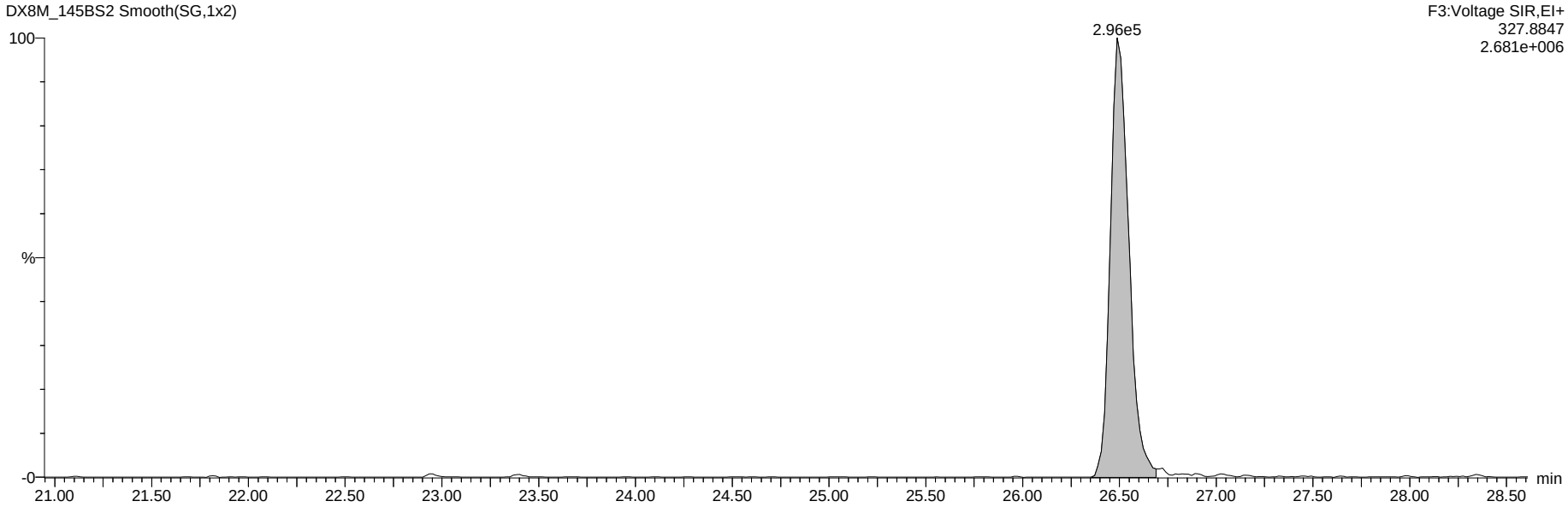
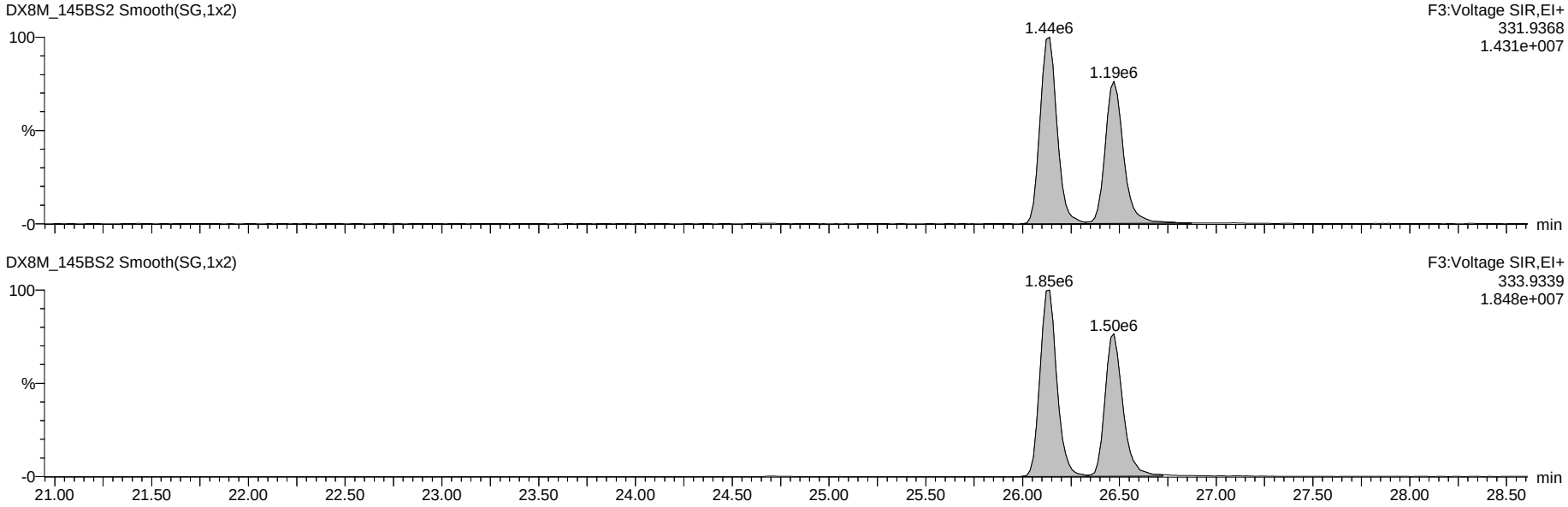
Name: DX8M_145BS2, Date: 30-Nov-2018, Time: 17:52:18, ID: WG66111-102,,SPM, Description: 1,WG66111,1.0/20uL

37Cl-2,3,7,8-TCDD



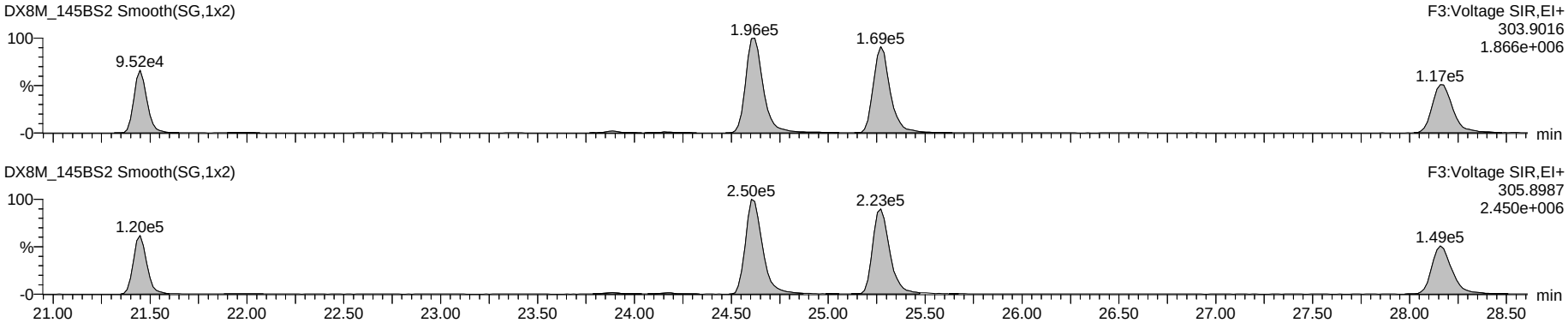
13C-Tetra-Dioxins



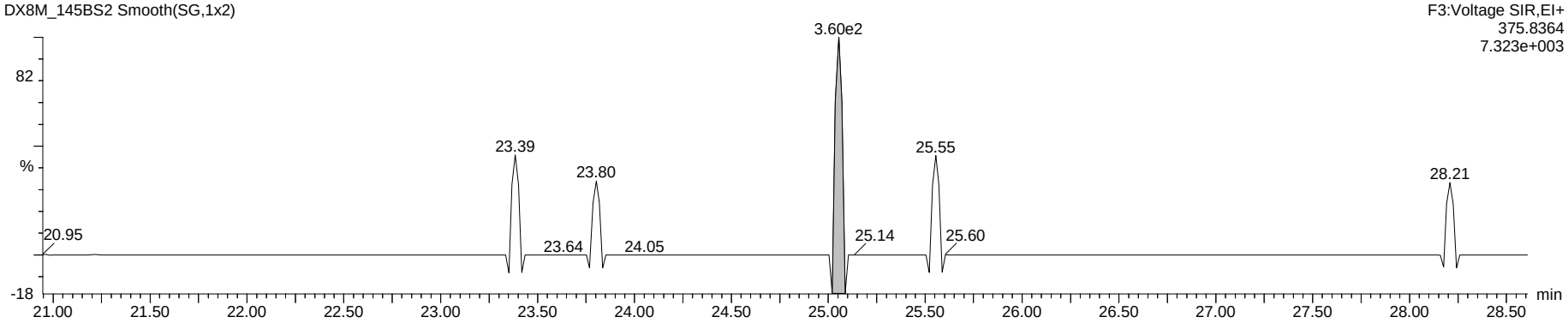
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS2, Date: 30-Nov-2018, Time: 17:52:18, ID: WG66111-102,,SPM, Description: 1,WG66111,1.0/20uL

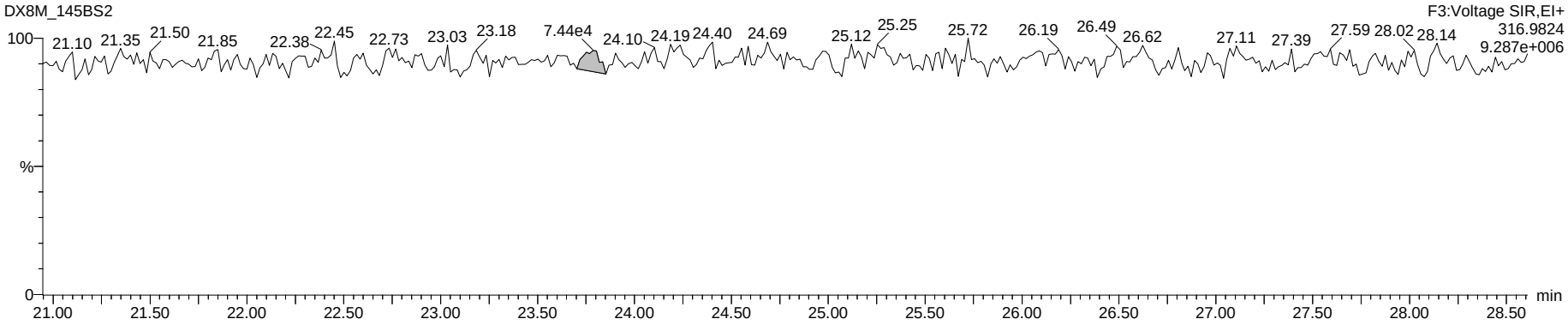
Total Tetra-Furans



Hexa DPE



Tetra Lock



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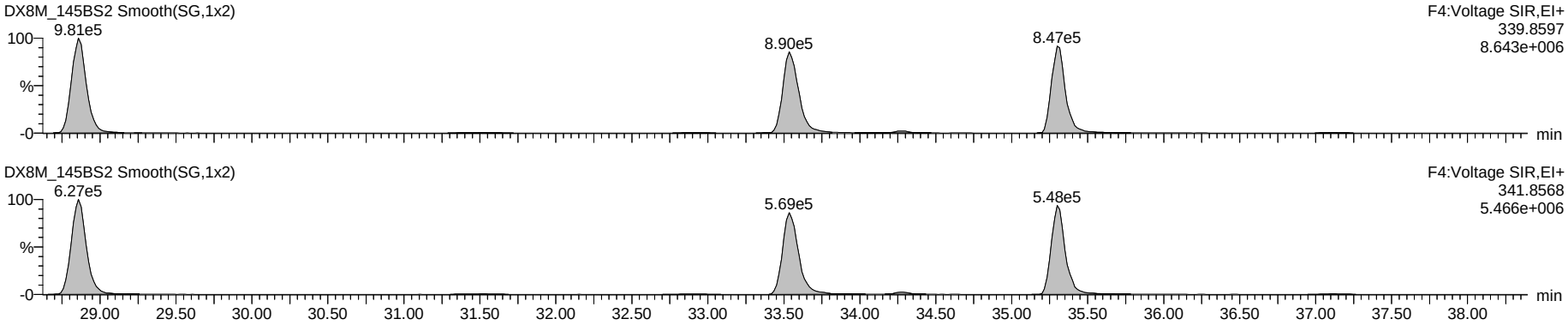
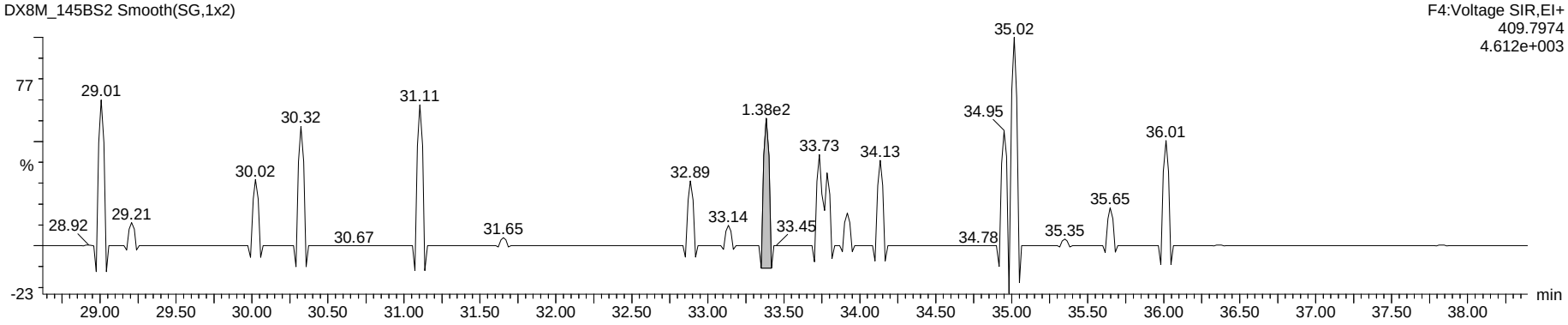
Name: DX8M_145BS2, Date: 30-Nov-2018, Time: 17:52:18, ID: WG66111-102,,SPM, Description: 1,WG66111,1.0/20uL

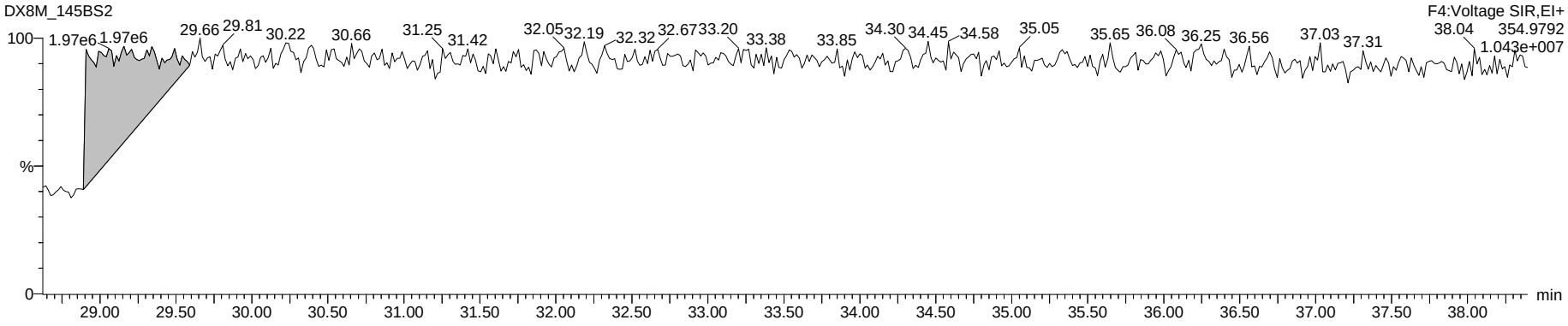
Total Penta-Furans



Hepta DPE



Penta Lock



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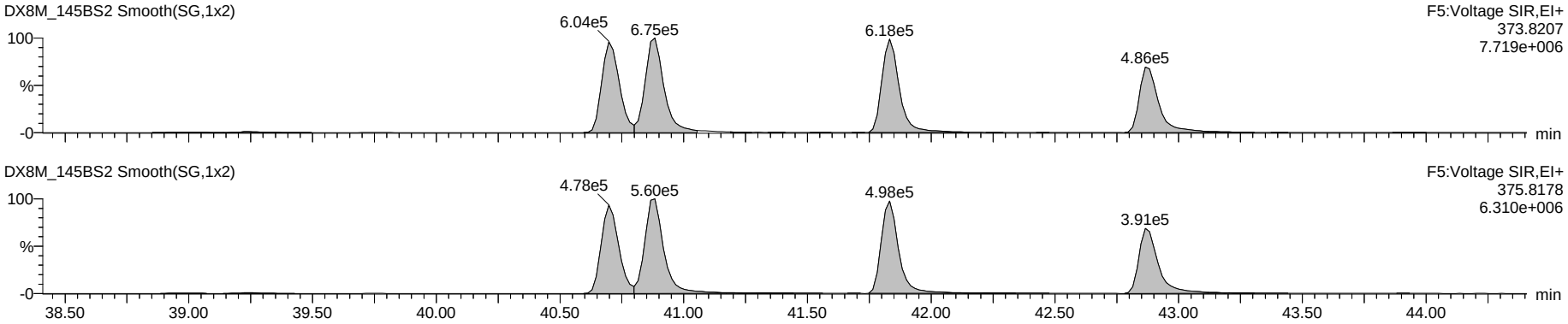
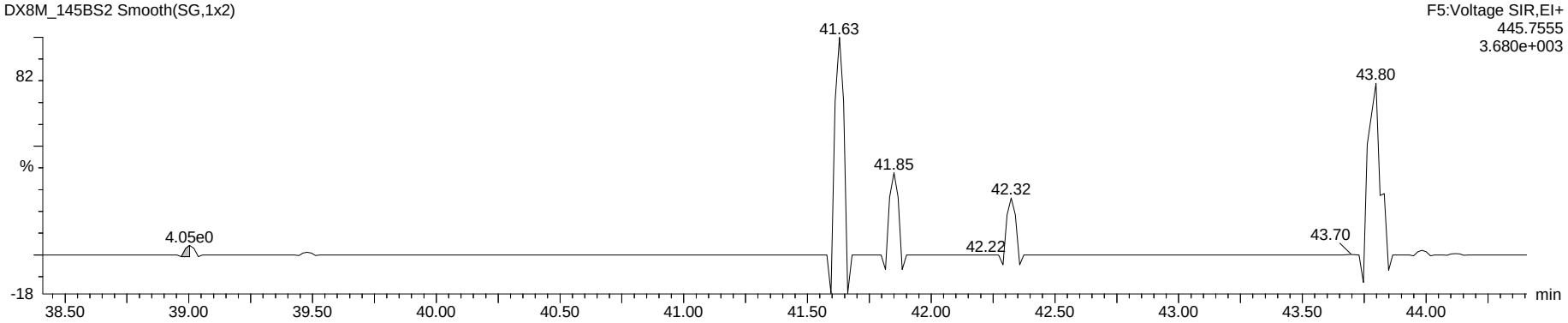
Name: DX8M_145BS2, Date: 30-Nov-2018, Time: 17:52:18, ID: WG66111-102,,SPM, Description: 1,WG66111,1.0/20uL

Total Hexa-Furans



Octa DPE



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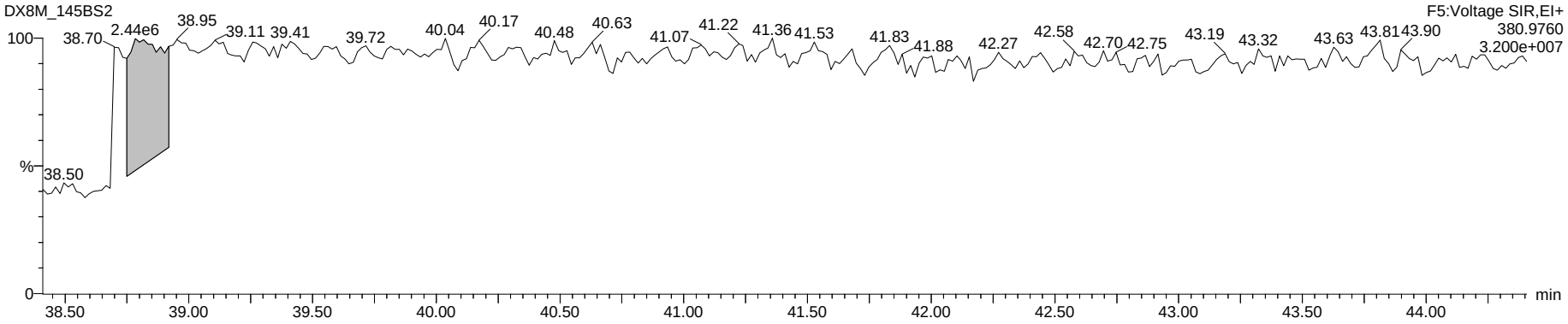
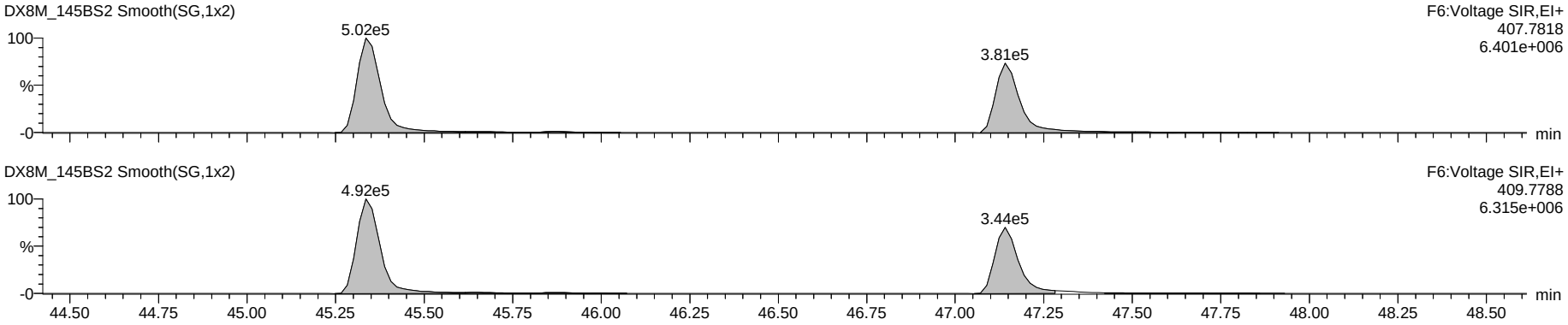


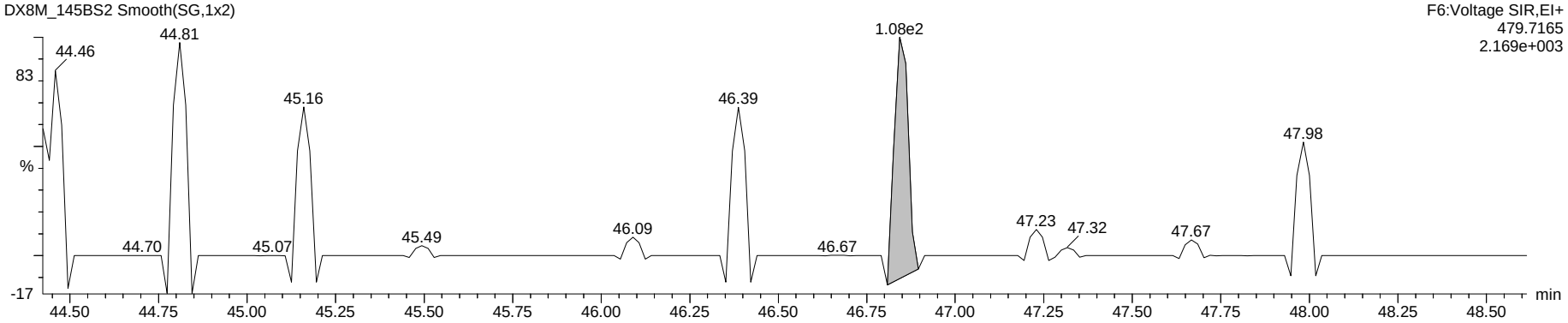
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS2, Date: 30-Nov-2018, Time: 17:52:18, ID: WG66111-102,,SPM, Description: 1,WG66111,1.0/20uL

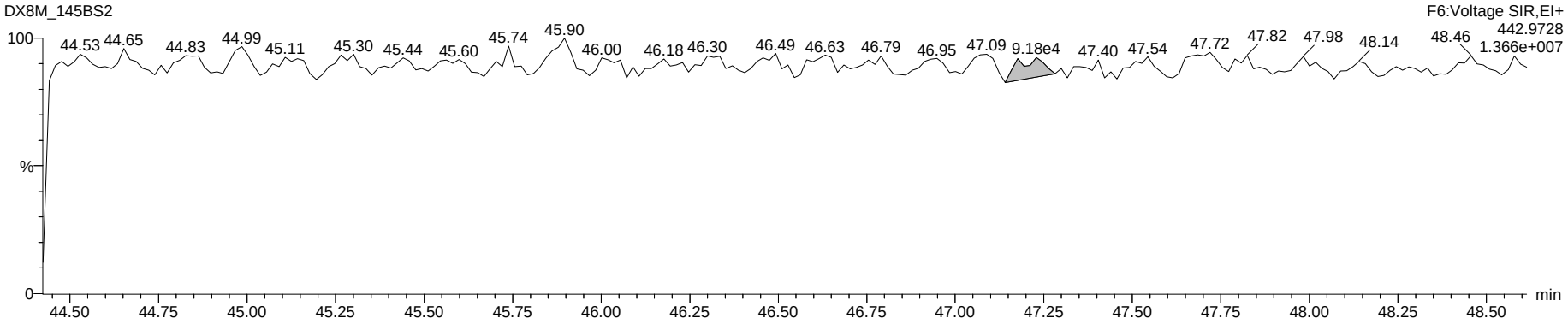
Total Hepta-Furans



Nona DPE



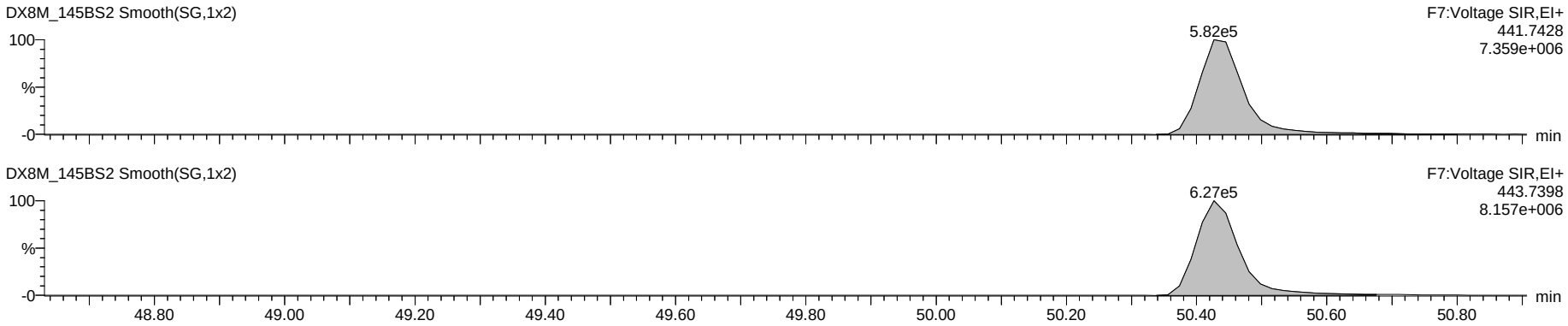
Hepta Lock



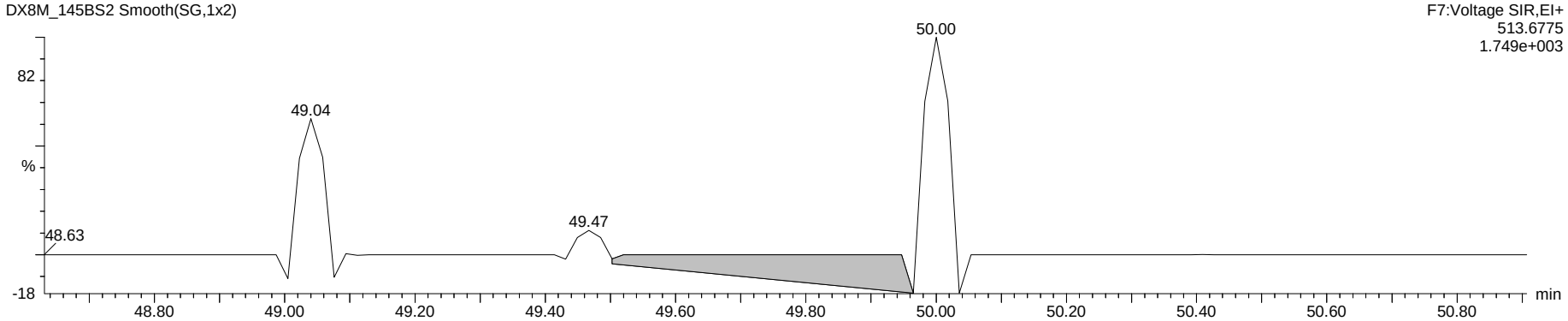
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS2, Date: 30-Nov-2018, Time: 17:52:18, ID: WG66111-102,,SPM, Description: 1,WG66111,1.0/20uL

OCDF



Deca DPE



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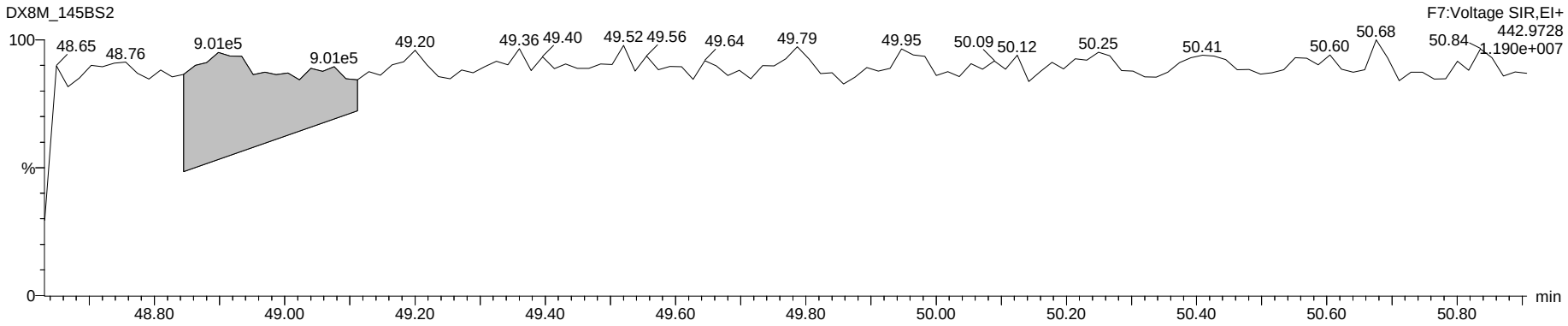


Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS3, Date: 30-Nov-2018, Time: 18:45:04, ID: WG66111-103,,SPMDUP, Description: 1,WG66111,1.0/20uL

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	20.000	4.08e5	0.75	NO	25.27	9.708	0.0238		2.12e3	1.90e3
2	1,2,3,7,8-PeCDF	20.000	1.61e6	1.59	NO	33.53	47.056	0.0460		2.52e3	2.78e3
3	2,3,4,7,8-PeCDF	20.000	1.58e6	1.55	NO	35.30	48.909	0.0441		2.52e3	2.78e3
4	1,2,3,4,7,8-HxCDF	20.000	1.24e6	1.24	NO	40.70	47.708	0.0569		3.52e3	4.30e3
5	1,2,3,6,7,8-HxCDF	20.000	1.42e6	1.22	NO	40.88	48.473	0.0574		3.52e3	4.30e3
6	2,3,4,6,7,8-HxCDF	20.000	1.29e6	1.21	NO	41.83	48.932	0.0577		3.52e3	4.30e3
7	1,2,3,7,8,9-HxCDF	20.000	1.07e6	1.24	NO	42.88	48.780	0.0763		3.52e3	4.30e3
8	1,2,3,4,6,7,8-HpCDF	20.000	1.22e6	1.00	NO	45.35	54.819	0.0450		2.01e3	3.19e3
9	1,2,3,4,7,8,9-HpCDF	20.000	8.97e5	1.04	NO	47.14	50.838	0.0593		2.01e3	3.19e3
10	OCDF	20.000	1.42e6	0.89	NO	50.44	90.492	0.0563		6.01e2	3.98e3
11	2,3,7,8-TCDD	20.000	2.87e5	0.76	NO	26.49	9.719	0.0354		2.10e3	1.76e3
12	1,2,3,7,8-PeCDD	20.000	1.01e6	0.61	NO	36.13	47.558	0.0539		2.65e3	1.77e3
13	1,2,3,4,7,8-HxCDD	20.000	8.74e5	1.24	NO	42.12	47.536	0.0735		4.81e3	2.46e3
14	1,2,3,6,7,8-HxCDD	20.000	9.54e5	1.22	NO	42.26	47.419	0.0747		4.81e3	2.46e3
15	1,2,3,7,8,9-HxCDD	20.000	8.99e5	1.26	NO	42.68	47.509	0.0755		4.81e3	2.46e3
16	1,2,3,4,6,7,8-HpCDD	20.000	7.58e5	1.03	NO	46.74	48.675	0.0668		2.84e3	2.75e3
17	OCDD	20.000	1.25e6	0.89	NO	50.36	95.883	0.0025		1.67e2	2.46e-1
18	13C-2,3,7,8-TCDF	20.000	4.48e6	0.77	NO	25.25	81.778	0.0669	81.8	7.67e3	6.91e3
19	13C-1,2,3,7,8-PeCDF	20.000	3.67e6	1.57	NO	33.50	81.750	0.0735	81.7	7.14e3	5.99e3
20	13C-2,3,4,7,8-PeCDF	20.000	3.43e6	1.58	NO	35.28	76.912	0.0740	76.9	7.14e3	5.99e3
21	13C-1,2,3,4,7,8-HxCDF	20.000	2.29e6	0.51	NO	40.68	78.326	0.1211	78.3	1.00e4	7.66e3
22	13C-1,2,3,6,7,8-HxCDF	20.000	2.69e6	0.51	NO	40.87	85.375	0.1126	85.4	1.00e4	7.66e3
23	13C-2,3,4,6,7,8-HxCDF	20.000	2.27e6	0.51	NO	41.82	79.643	0.1243	79.6	1.00e4	7.66e3
24	13C-1,2,3,7,8,9-HxCDF	20.000	2.12e6	0.51	NO	42.87	81.119	0.1355	81.1	1.00e4	7.66e3
25	13C-1,2,3,4,6,7,8-HpCDF	20.000	1.81e6	0.44	NO	45.34	75.088	0.1263	75.1	7.17e3	8.02e3
26	13C-1,2,3,4,7,8,9-HpCDF	20.000	1.43e6	0.44	NO	47.14	77.536	0.1652	77.5	7.17e3	8.02e3
27	13C-2,3,7,8-TCDD	20.000	2.84e6	0.77	NO	26.47	81.841	0.1284	81.8	8.20e3	9.56e3
28	13C-1,2,3,7,8-PeCDD	20.000	2.12e6	0.63	NO	36.10	81.910	0.1010	81.9	6.84e3	3.57e3
29	13C-1,2,3,4,7,8-HxCDD	20.000	1.84e6	1.27	NO	42.10	81.906	0.0893	81.9	5.57e3	4.44e3
30	13C-1,2,3,6,7,8-HxCDD	20.000	2.16e6	1.26	NO	42.24	89.201	0.0831	89.2	5.57e3	4.44e3
31	13C-1,2,3,4,6,7,8-HpCDD	20.000	1.62e6	1.05	NO	46.72	85.331	0.1234	85.3	5.18e3	6.51e3
32	13C-OCDD	20.000	2.62e6	0.90	NO	50.34	160.085	0.0677	80.0	0.00e0	5.52e3
33	13C-1,2,3,4-TCDD	20.000	3.59e6	0.78	NO	26.12	4.674	0.0058	4.7	8.20e3	9.56e3
34	13C-1,2,3,7,8,9-HxCDD	20.000	2.30e6	1.24	NO	42.66	4.107	0.0036	4.1	5.57e3	4.44e3
35	37Cl-2,3,7,8-TCDD	20.000	3.19e5			26.49	8.138	0.0349	81.4		5.44e3
36	Total Tetra-Furans	20.000					29.233	0.0238			1.90e3
37	Total Tetra-Dioxins	20.000					37.675	0.0354			1.76e3
38	Total Penta-Furans	20.000					126.631	0.0452			2.78e3
39	Total Penta-Dioxins	20.000					99.354	0.0539			1.77e3
40	Total Hexa-Furans	20.000					194.800	0.0597			4.30e3
41	Total Hexa-Dioxins	20.000					144.832	0.0715			2.46e3
42	Total Hepta-Furans	20.000					109.877	0.0514			3.19e3
43	Total Hepta-Dioxins	20.000					50.373	0.0668			2.75e3
44	Hexa DPE	1.000	1.22e2			25.44					3.29e-1
45	Hepta DPE	1.000	2.66e2			37.10					1.79e2
46	Octa DPE	1.000	7.20e1			39.14					3.42e-1
47	Nona DPE	1.000	1.63e2			48.25					1.52e-1
48	Deca DPE	1.000	6.41e1			50.02					0.00e0
49	Tetra Lock	1.000	4.56e4			24.32					5.33e5
50	Penta Lock	1.000	1.36e6			29.26					6.23e5
51	Hexa Lock	1.000	4.53e6			38.99					2.10e6
52	Hepta Lock	1.000	1.22e5			47.12					5.66e5
53	Octa Lock	1.000	9.14e4			48.81					1.11e6
54	13C-Tetra-Furans	20.000					81.778	0.0669			6.91e3
55	13C-Tetra-Dioxins	20.000					86.515	0.1342			9.56e3

pv'd by LHE 03-DEC-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

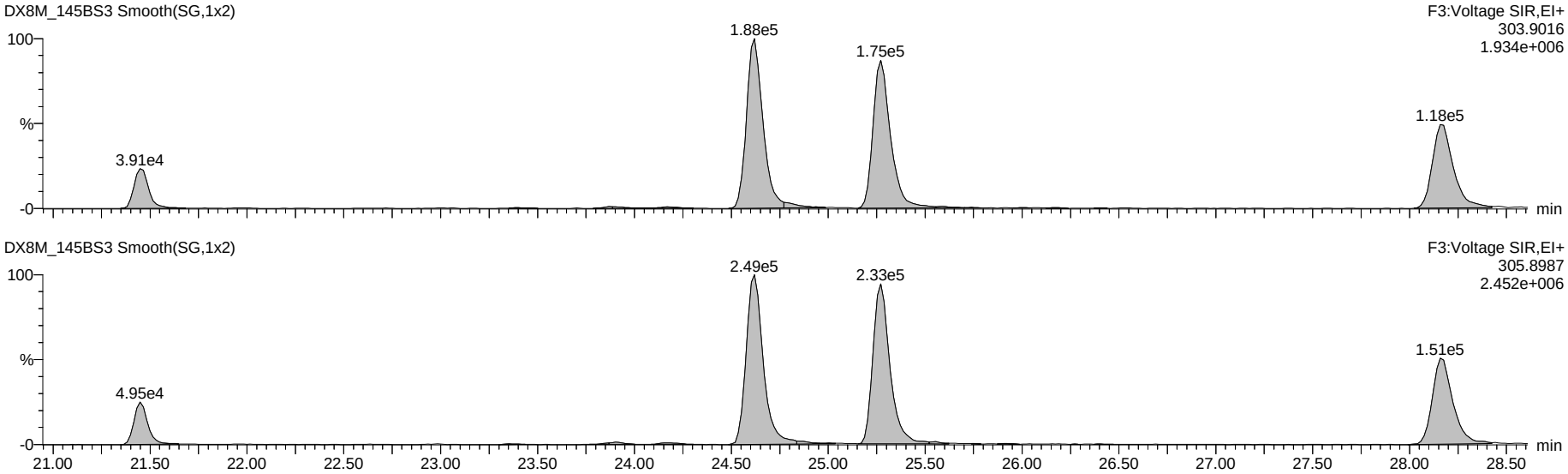
SVtyKB05Dec2018

Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

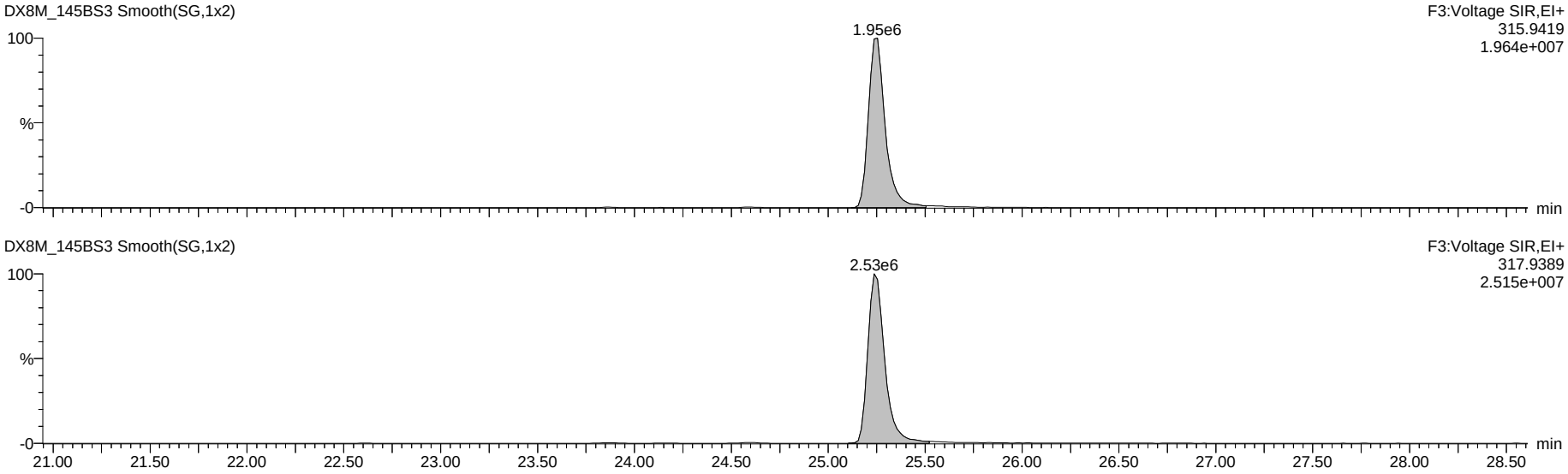
Method: G:\Masslynx\Inst_M\Exported_methods\DX_1613B_16.mdb 05 Apr 2018 08:34:55
Calibration: G:\Masslynx\Inst_M\Projects\181023DX.PRO\CurveDB\DX8M_126A-6A.cdb 26 Oct 2018 11:48:18

Name: DX8M_145BS3, Date: 30-Nov-2018, Time: 18:45:04, ID: WG66111-103,,SPMDUP, Description: 1,WG66111,1.0/20uL

Total Tetra-Furans



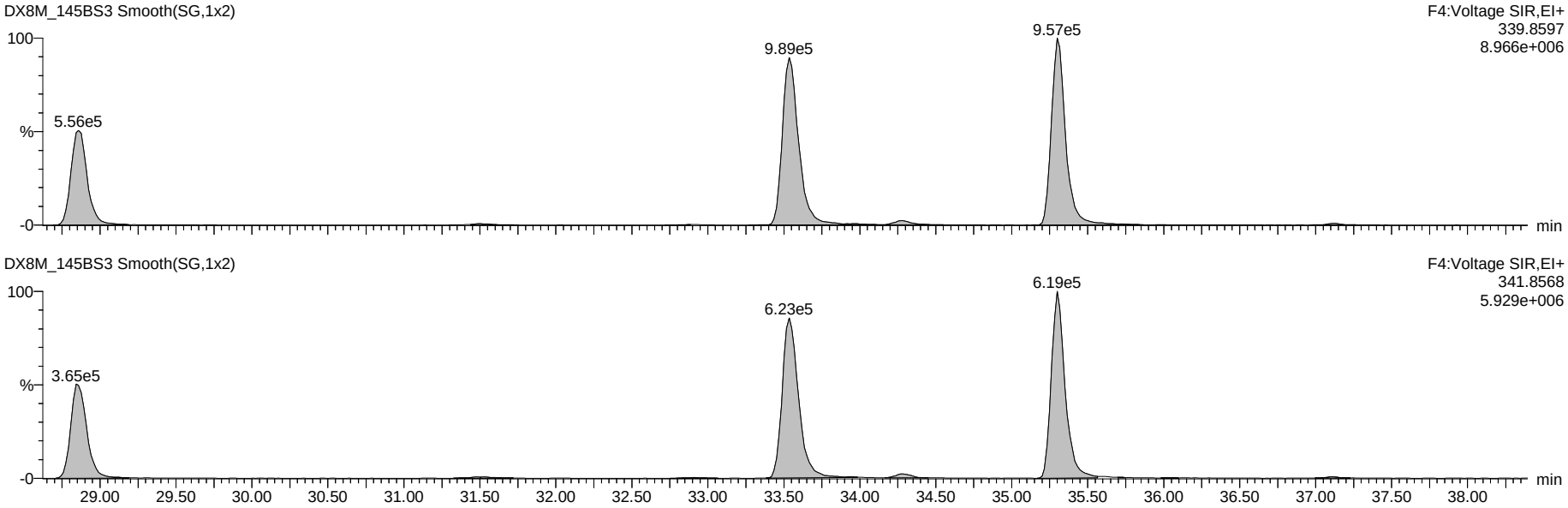
13C-Tetra-Furans



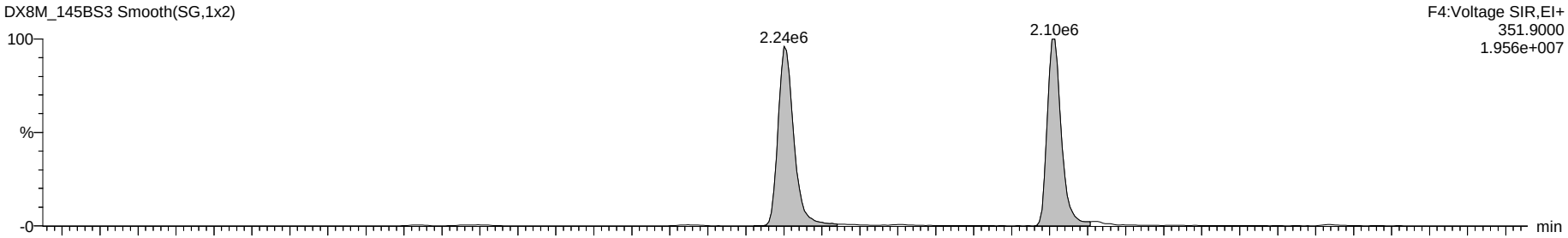
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

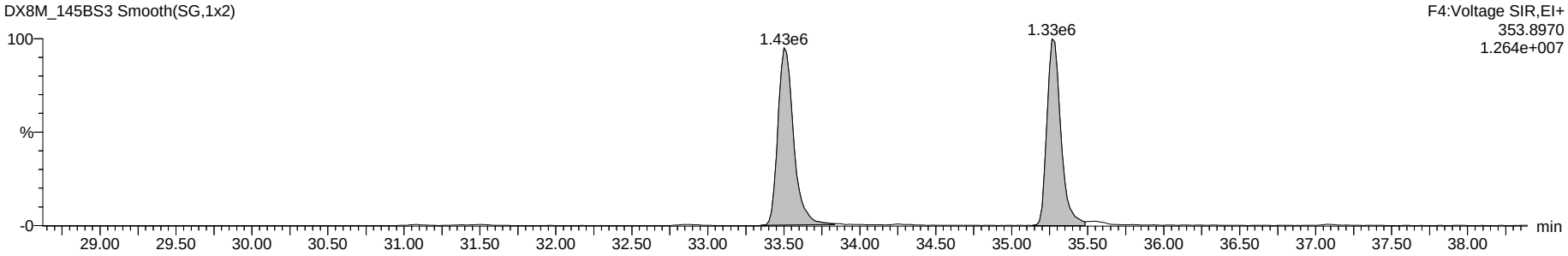
Name: DX8M_145BS3, Date: 30-Nov-2018, Time: 18:45:04, ID: WG66111-103,,SPMDUP, Description: 1,WG66111,1.0/20uL

Total Penta-Furans



13C-Penta-Furans

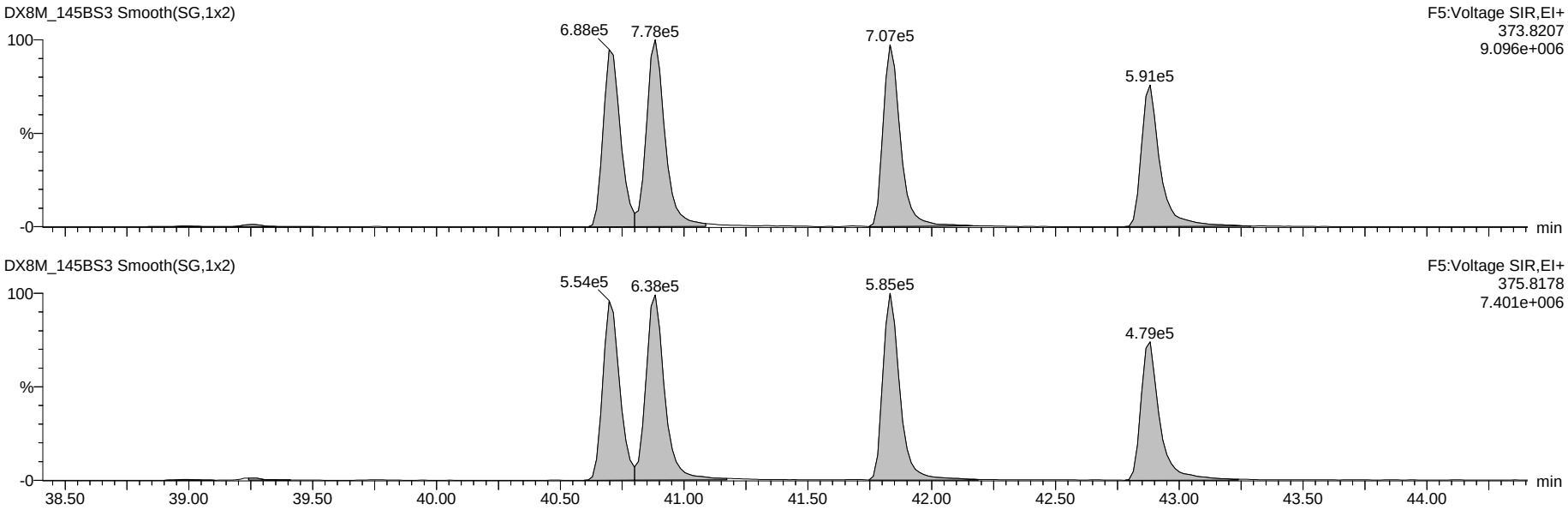




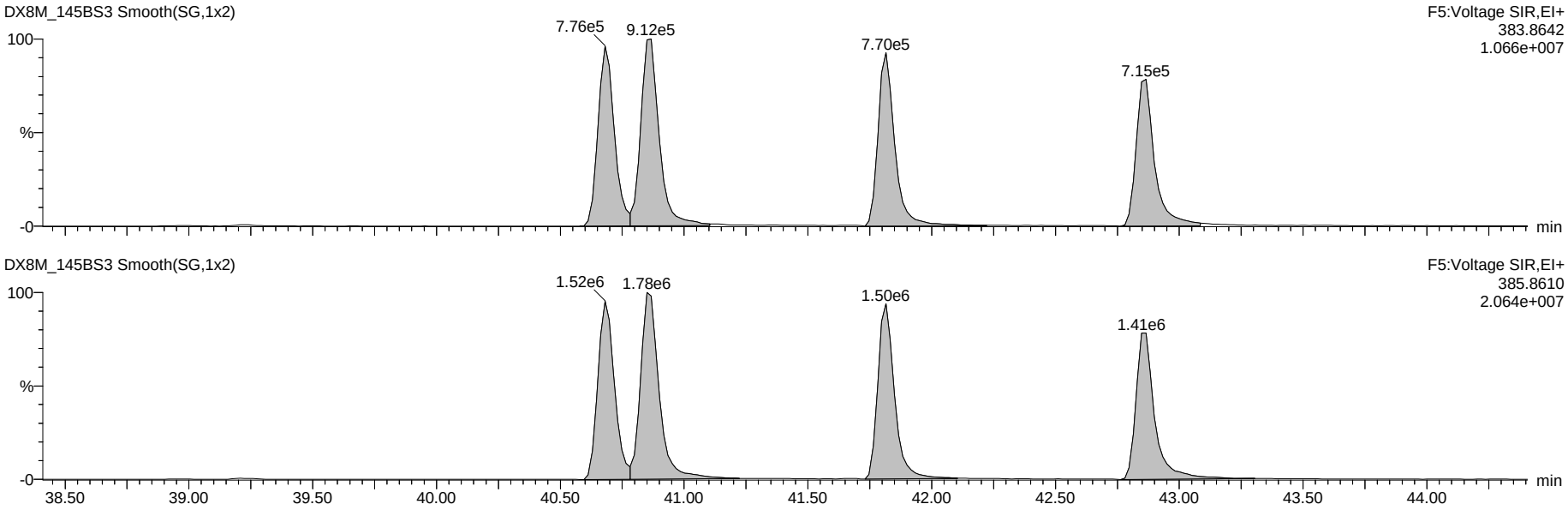
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS3, Date: 30-Nov-2018, Time: 18:45:04, ID: WG66111-103,,SPMDUP, Description: 1,WG66111,1.0/20uL

Total Hexa-Furans



13C-Hexa-Furans



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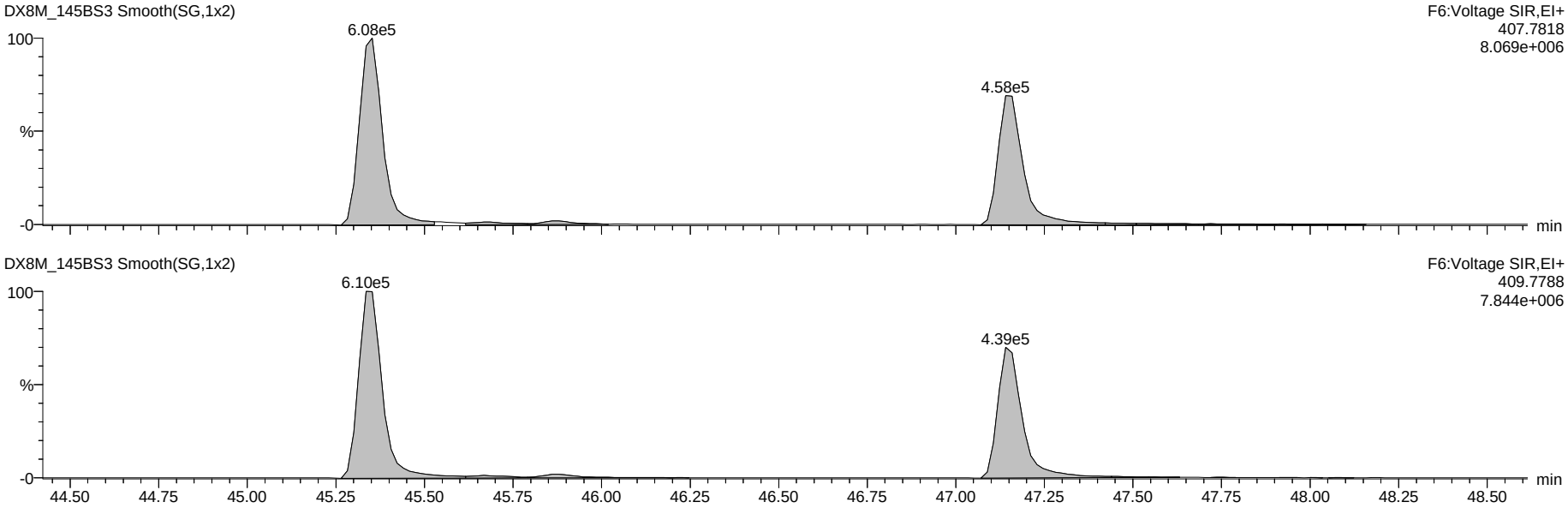
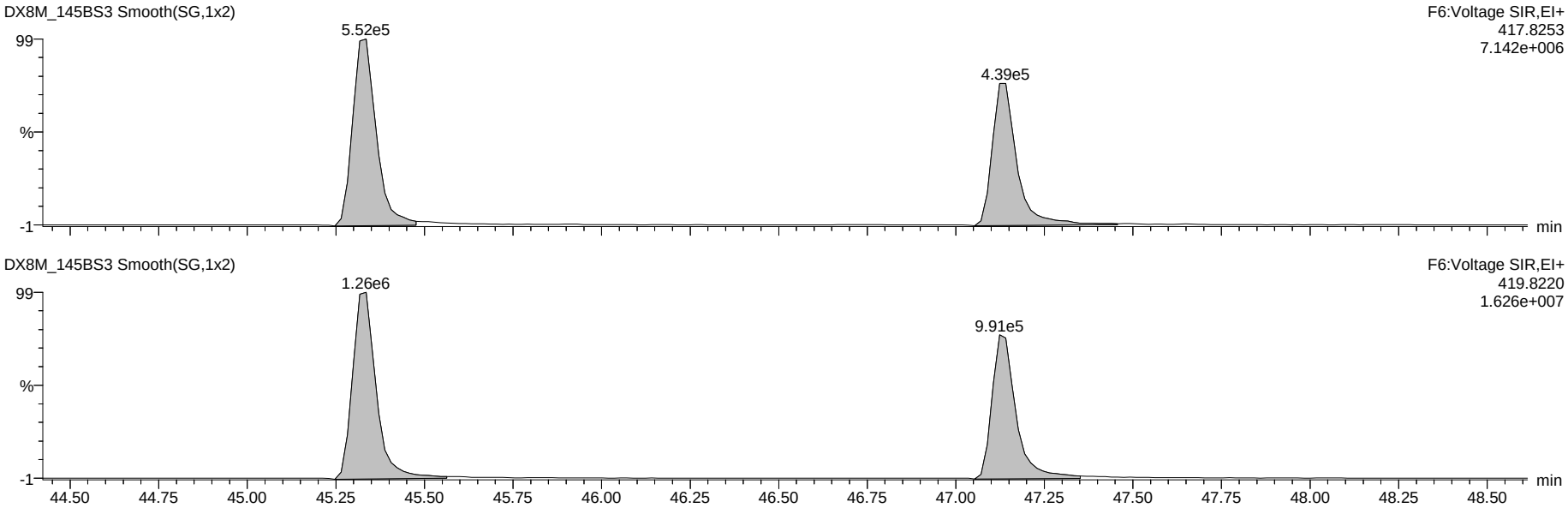
Name: DX8M_145BS3, Date: 30-Nov-2018, Time: 18:45:04, ID: WG66111-103,,SPMDUP, Description: 1,WG66111,1.0/20uL

Total Hepta-Furans



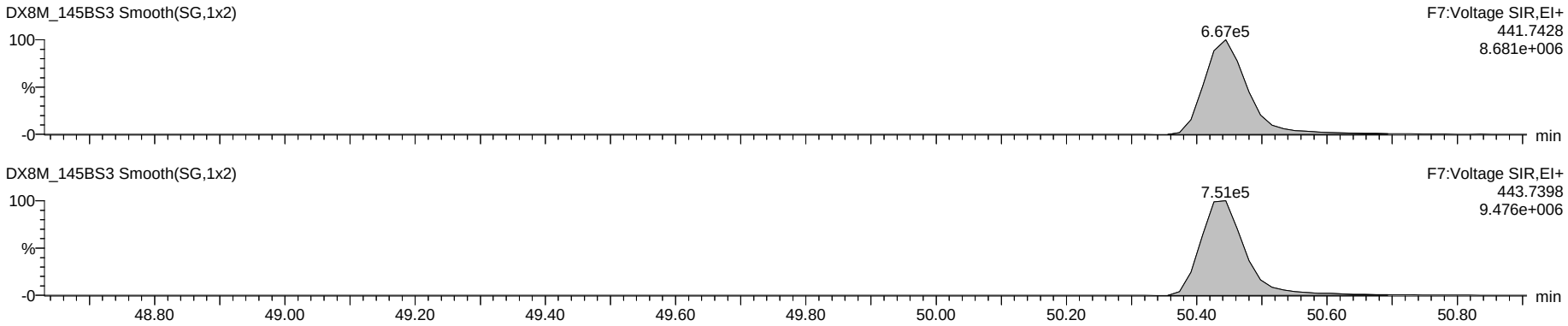
13C-Hepta-Furans



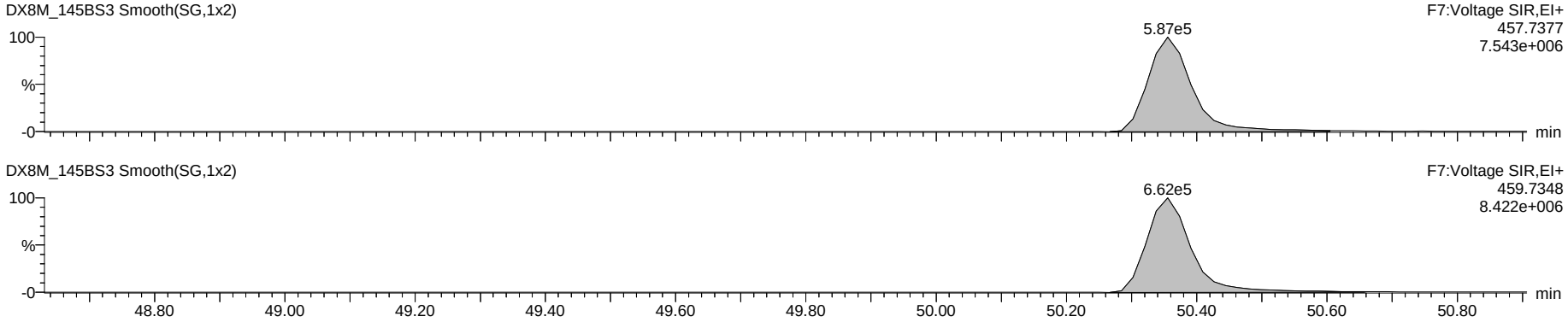
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS3, Date: 30-Nov-2018, Time: 18:45:04, ID: WG66111-103,,SPMDUP, Description: 1,WG66111,1.0/20uL

OCDF



OCDD



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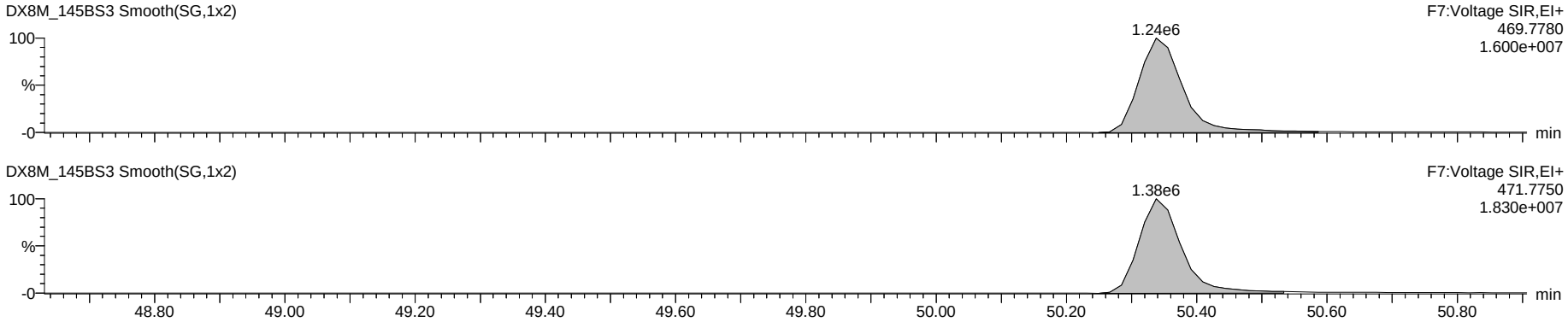
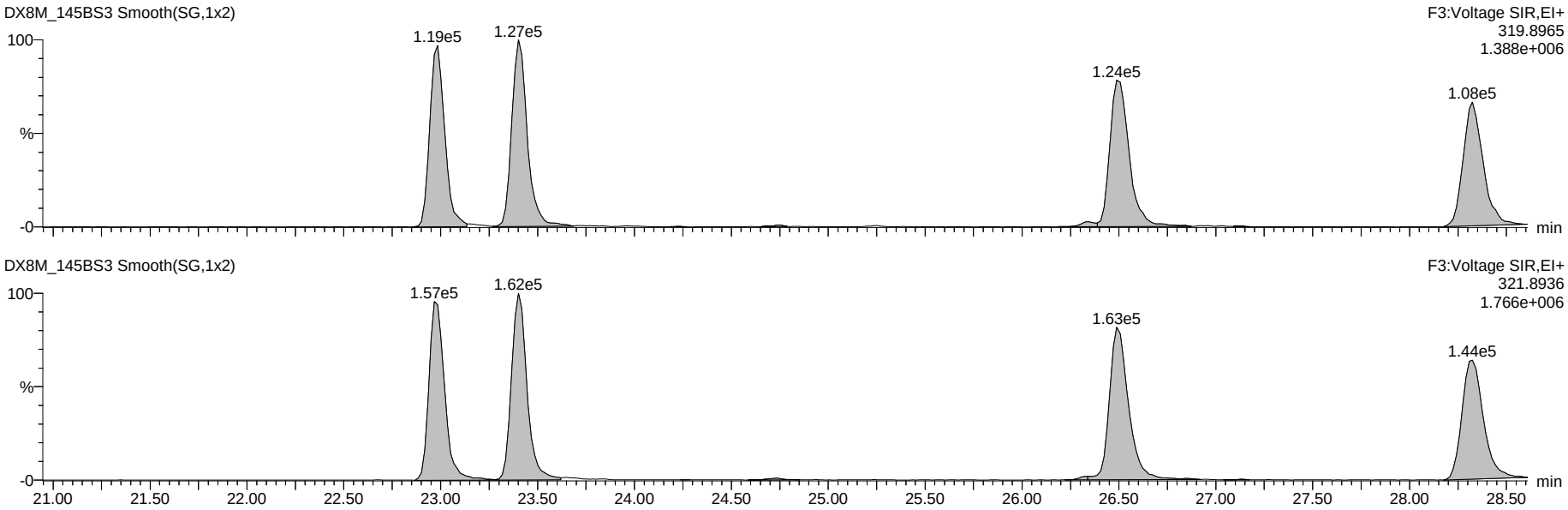


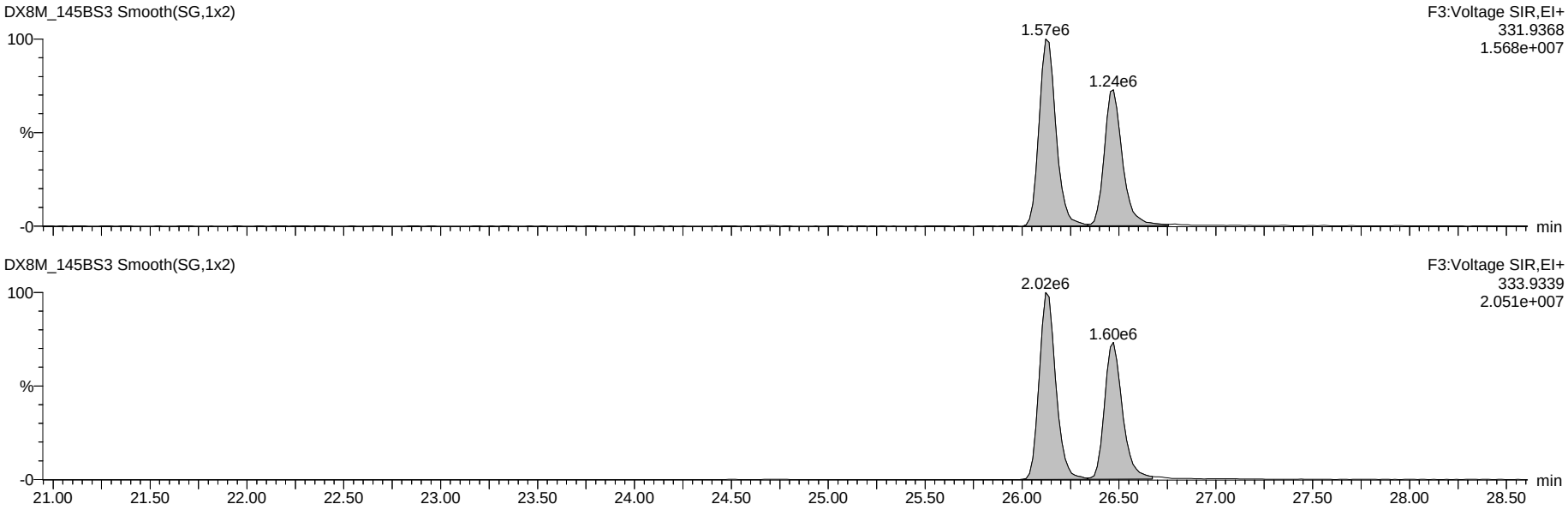
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS3, Date: 30-Nov-2018, Time: 18:45:04, ID: WG66111-103,,SPMDUP, Description: 1,WG66111,1.0/20uL

Total Tetra-Dioxins



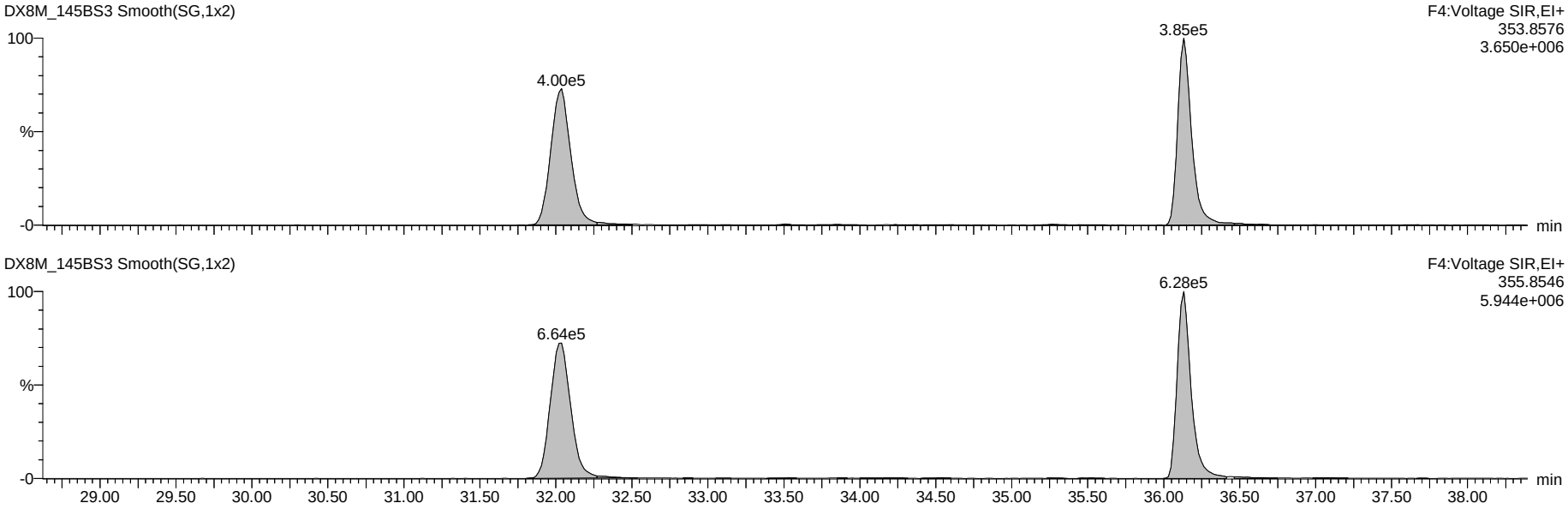
13C-Tetra-Dioxins



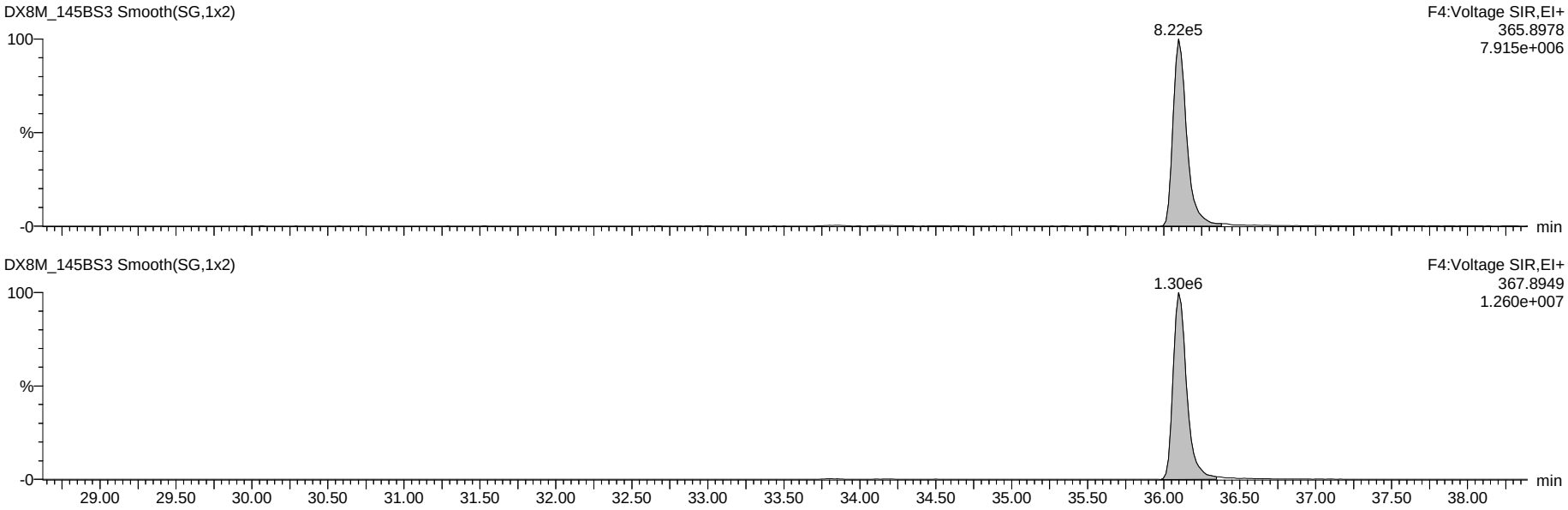
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS3, Date: 30-Nov-2018, Time: 18:45:04, ID: WG66111-103,,SPMDUP, Description: 1,WG66111,1.0/20uL

Total Penta-Dioxins



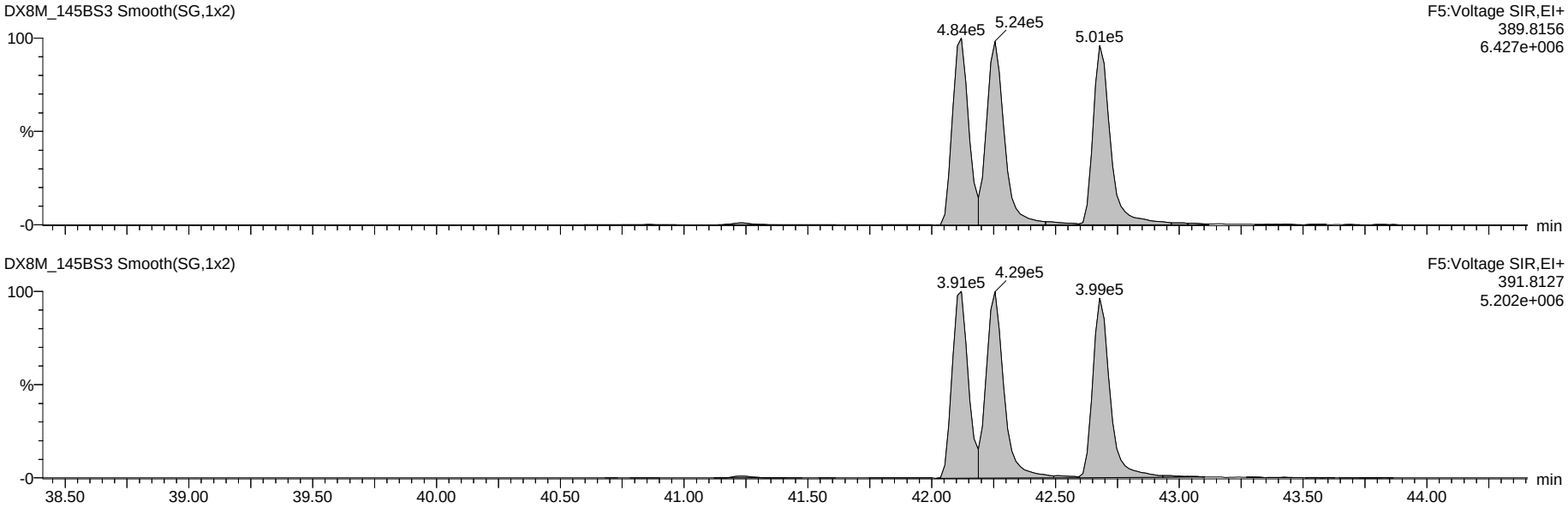
13C-Penta-Dioxins



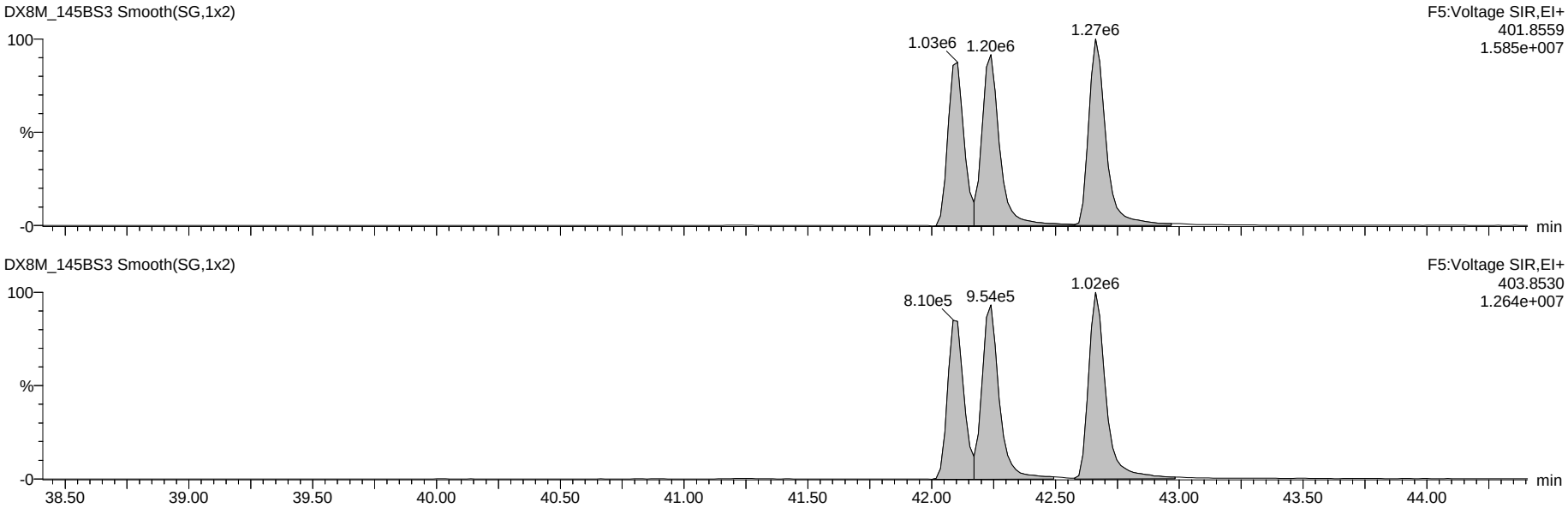
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS3, Date: 30-Nov-2018, Time: 18:45:04, ID: WG66111-103,,SPMDUP, Description: 1,WG66111,1.0/20uL

Total Hexa-Dioxins



13C-Hexa-Dioxins



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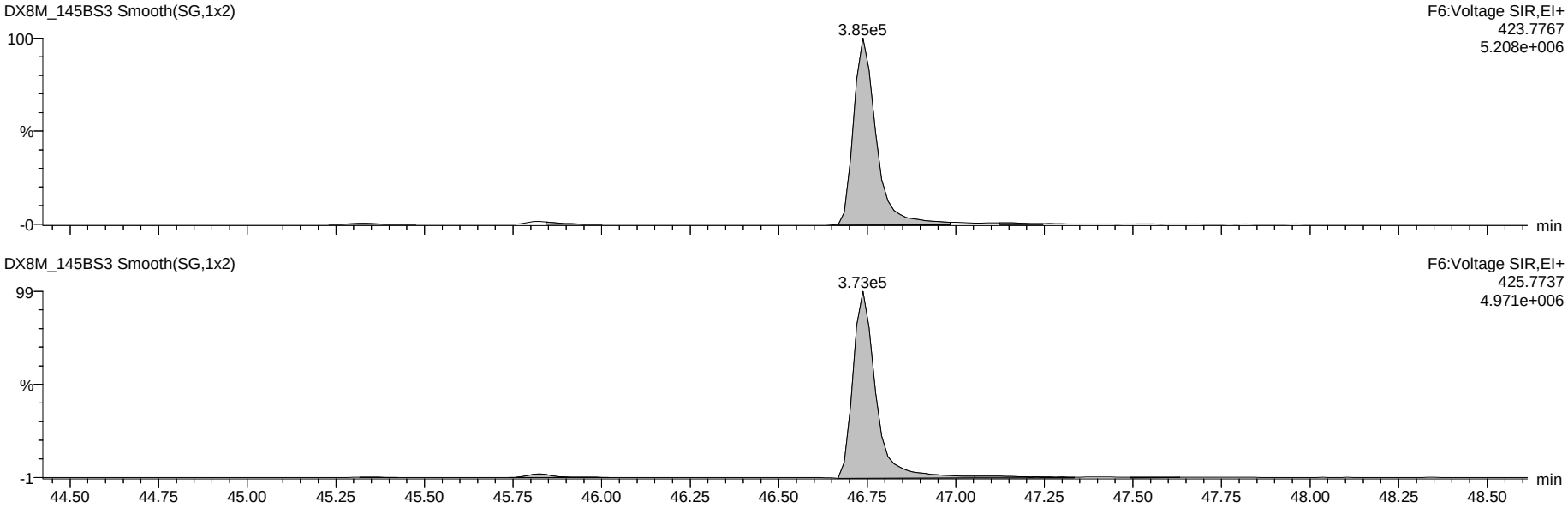
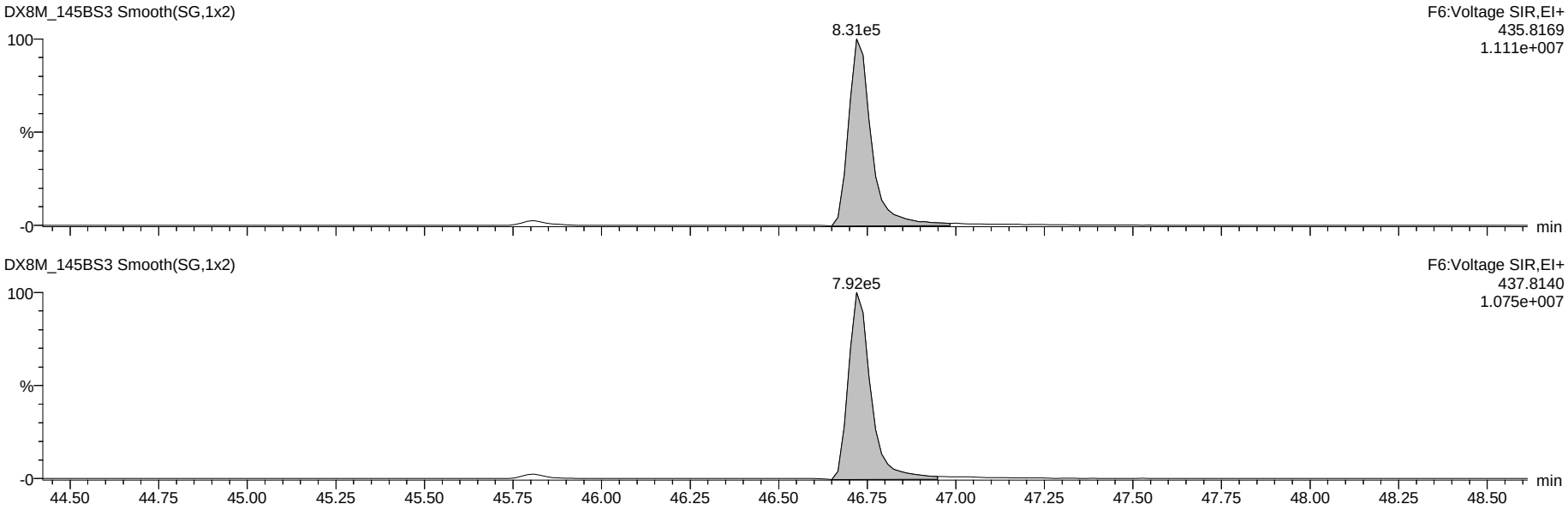
Name: DX8M_145BS3, Date: 30-Nov-2018, Time: 18:45:04, ID: WG66111-103,,SPMDUP, Description: 1,WG66111,1.0/20uL

Total Hepta-Dioxins



13C-Hepta-Dioxins



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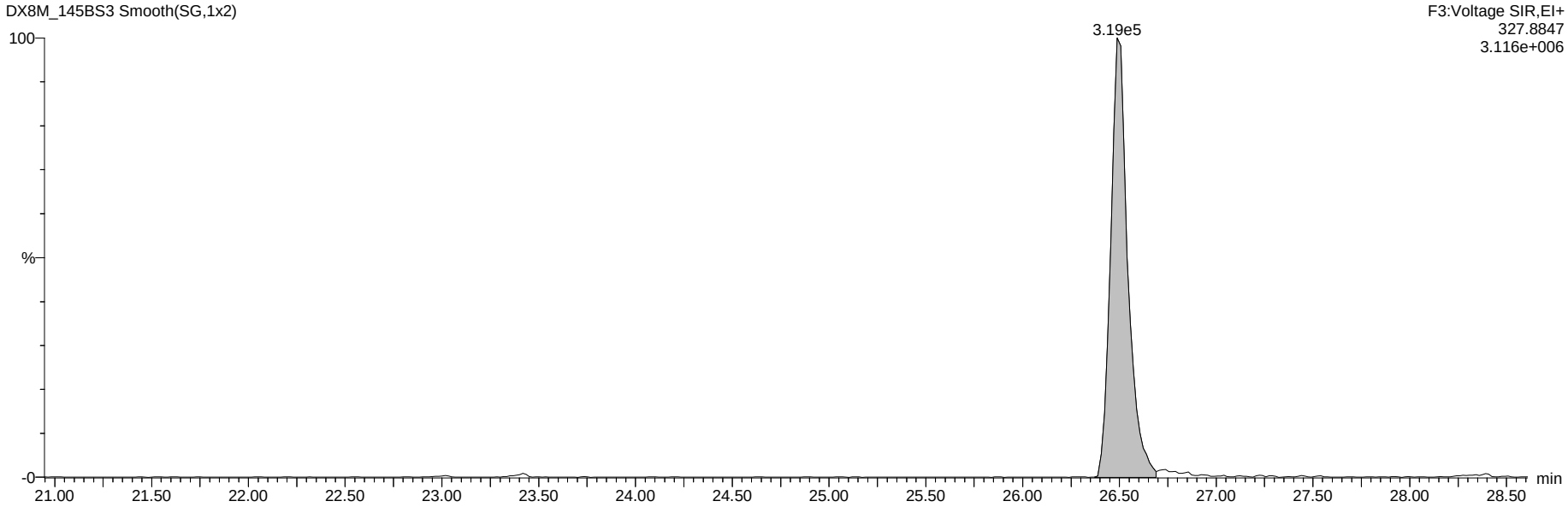
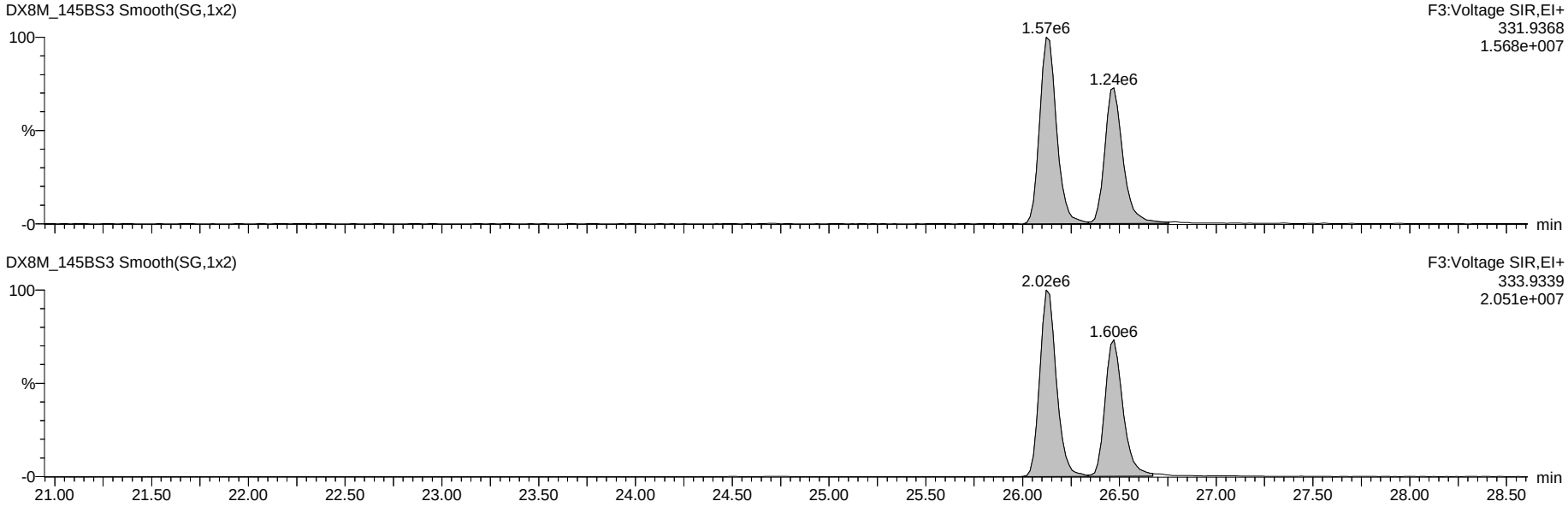
Name: DX8M_145BS3, Date: 30-Nov-2018, Time: 18:45:04, ID: WG66111-103,,SPMDUP, Description: 1,WG66111,1.0/20uL

37Cl-2,3,7,8-TCDD



13C-Tetra-Dioxins



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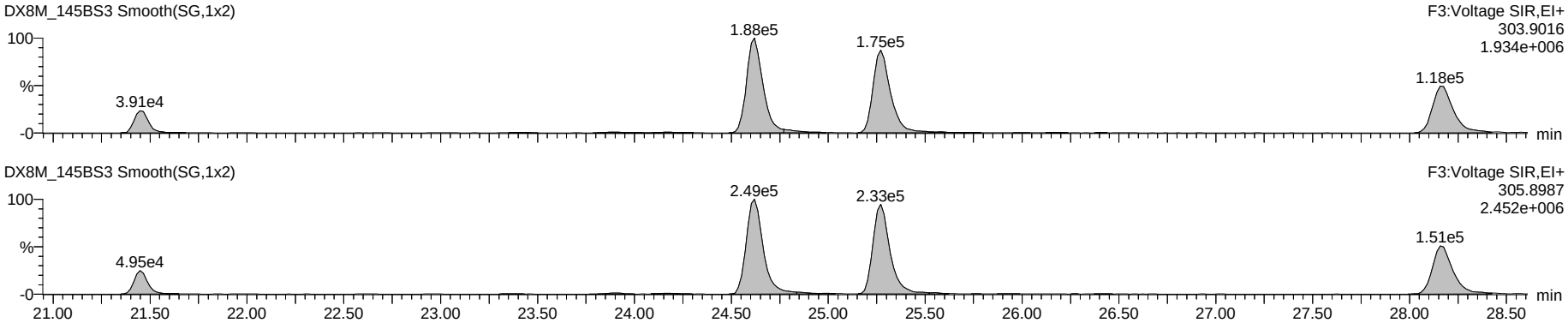
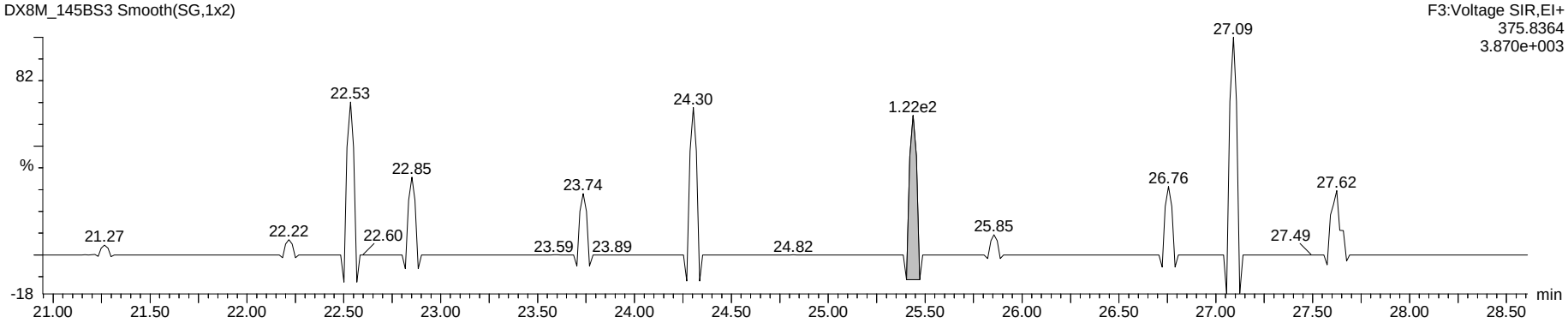
Name: DX8M_145BS3, Date: 30-Nov-2018, Time: 18:45:04, ID: WG66111-103,,SPMDUP, Description: 1,WG66111,1.0/20uL

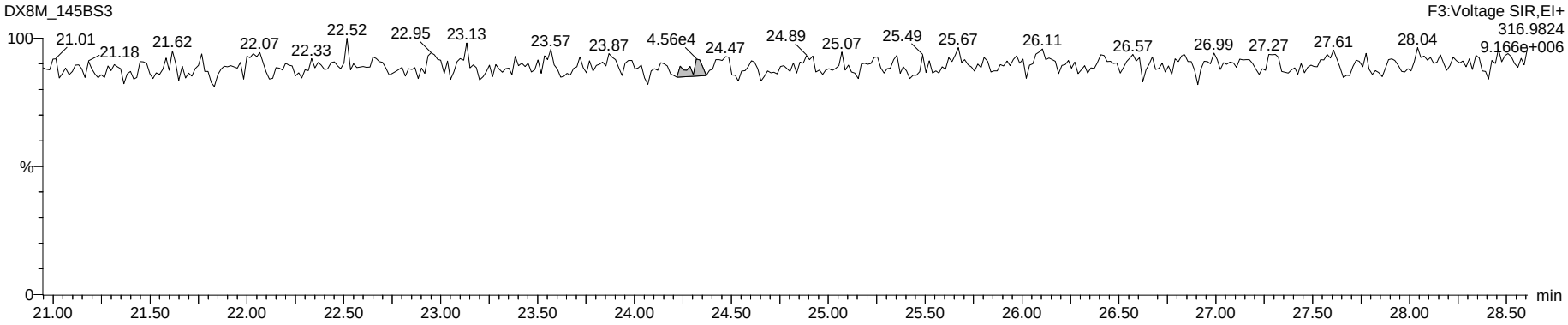
Total Tetra-Furans



Hexa DPE



Tetra Lock



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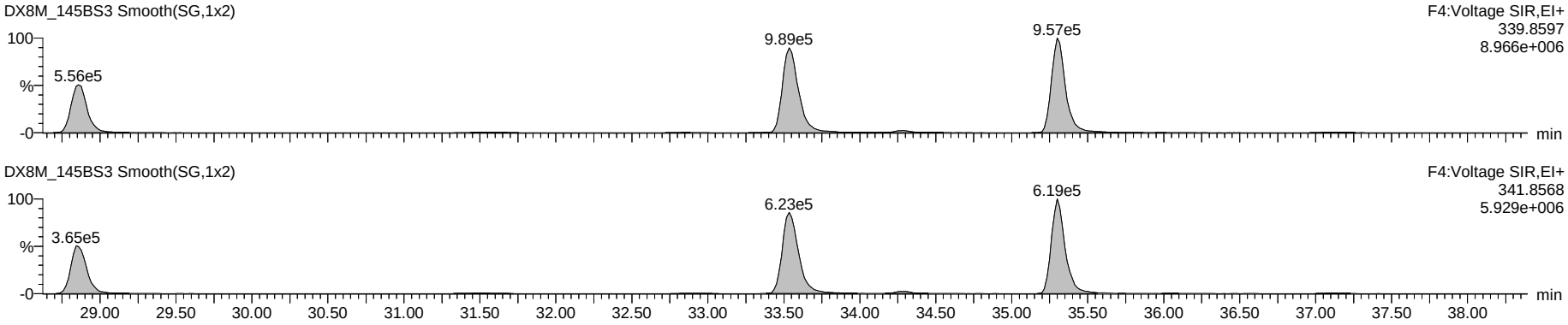
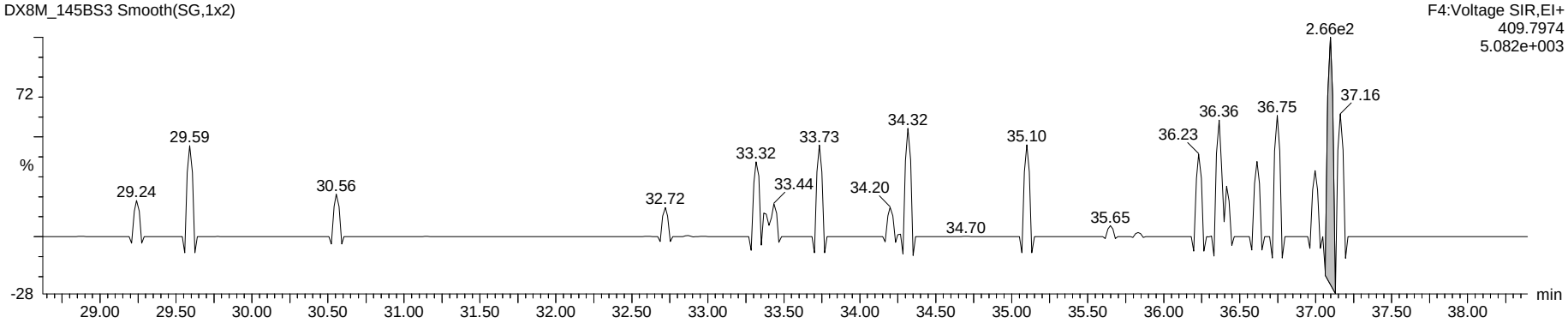
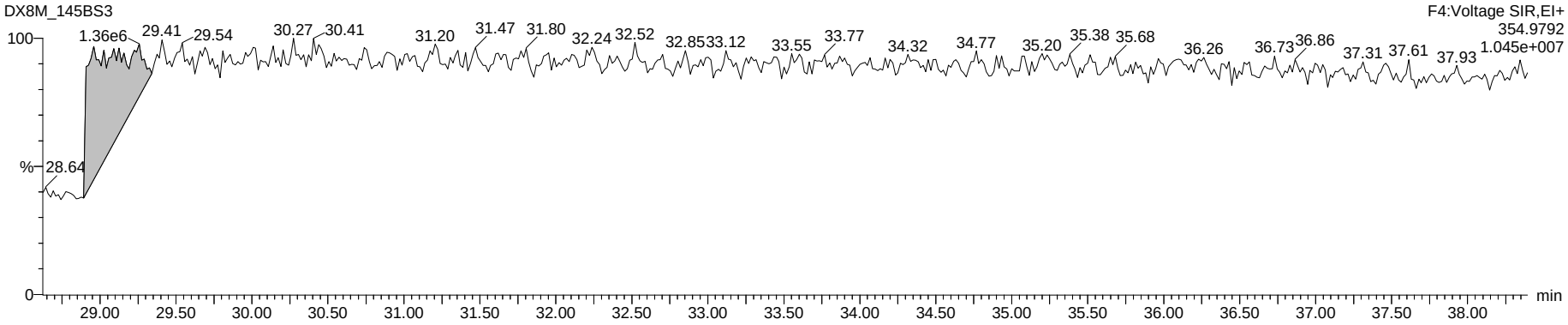
Total Penta-Furans



Hepta DPE



Penta Lock



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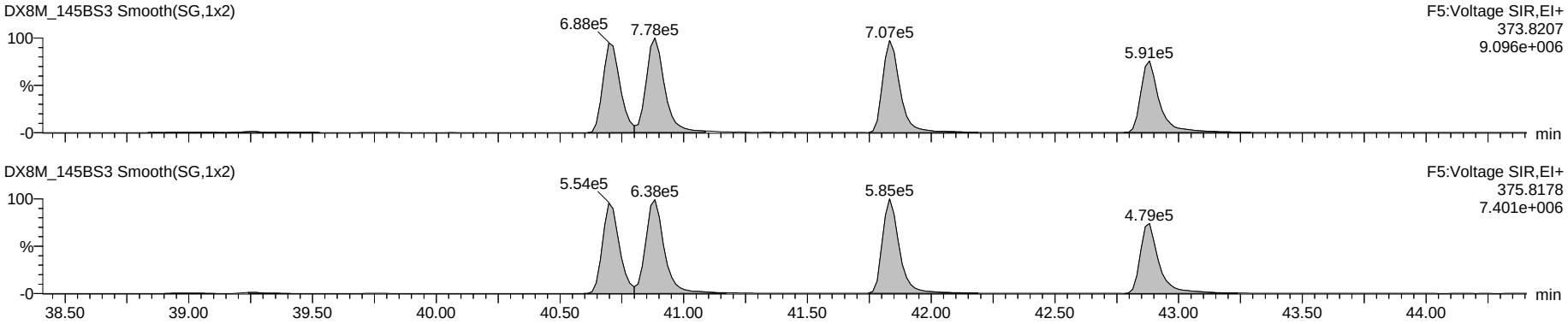
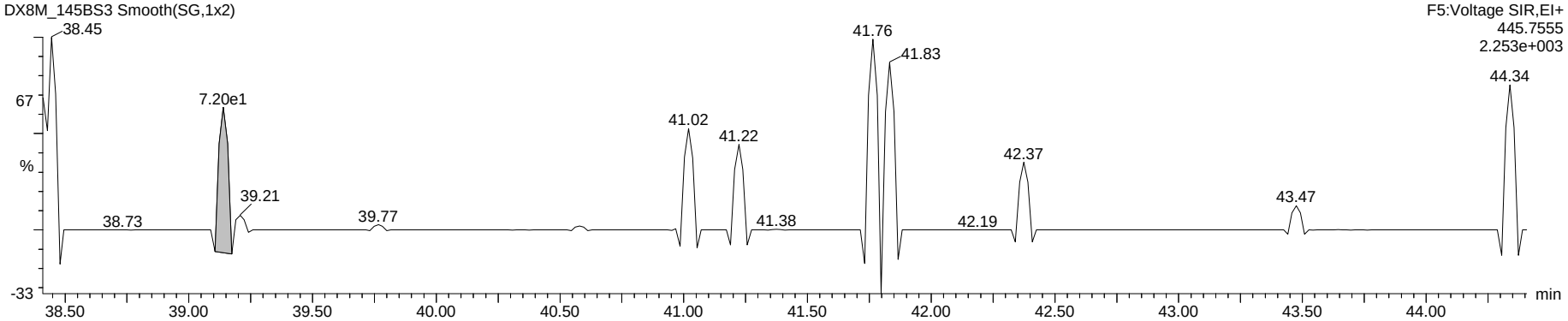
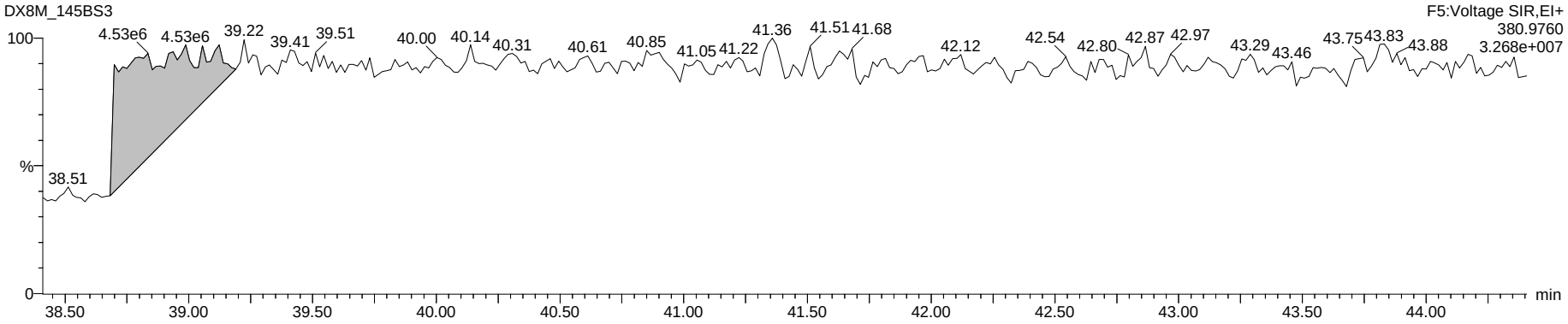
Total Hexa-Furans



Octa DPE



Hexa Lock



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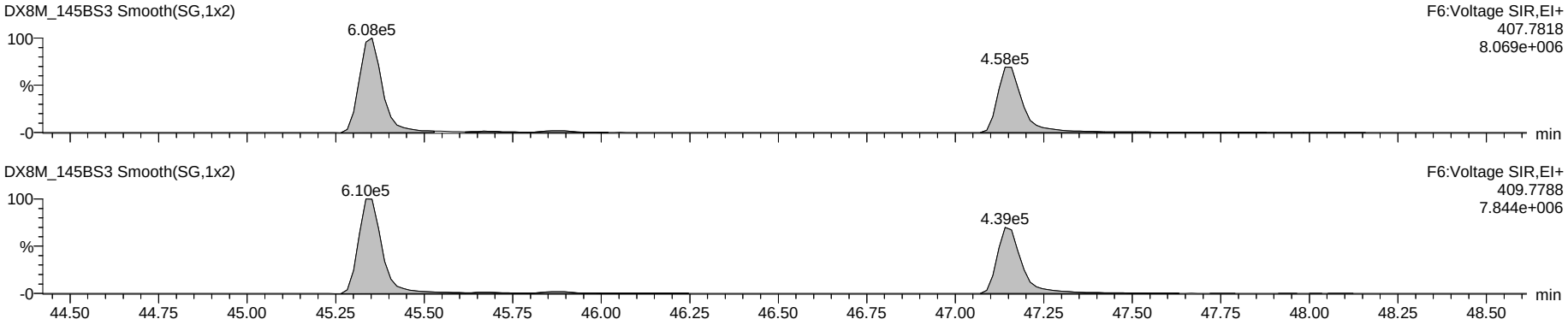
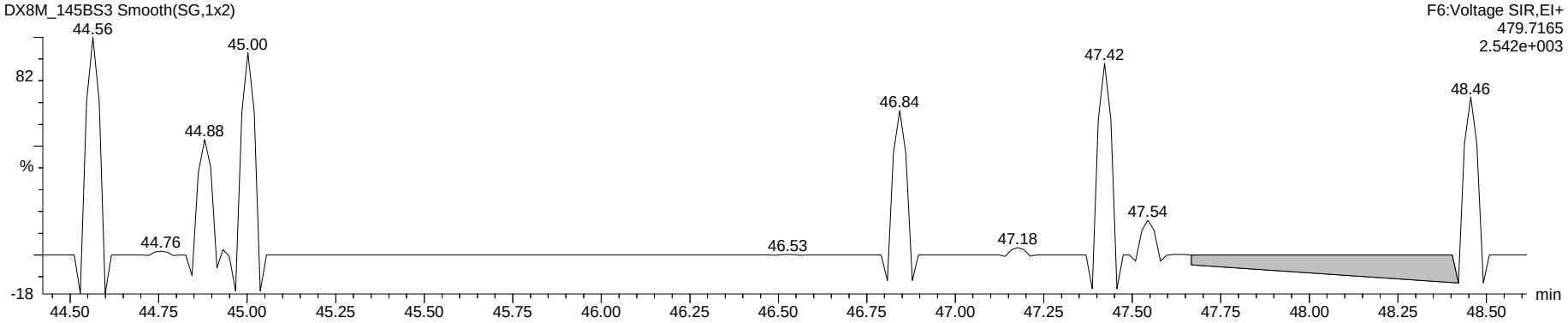
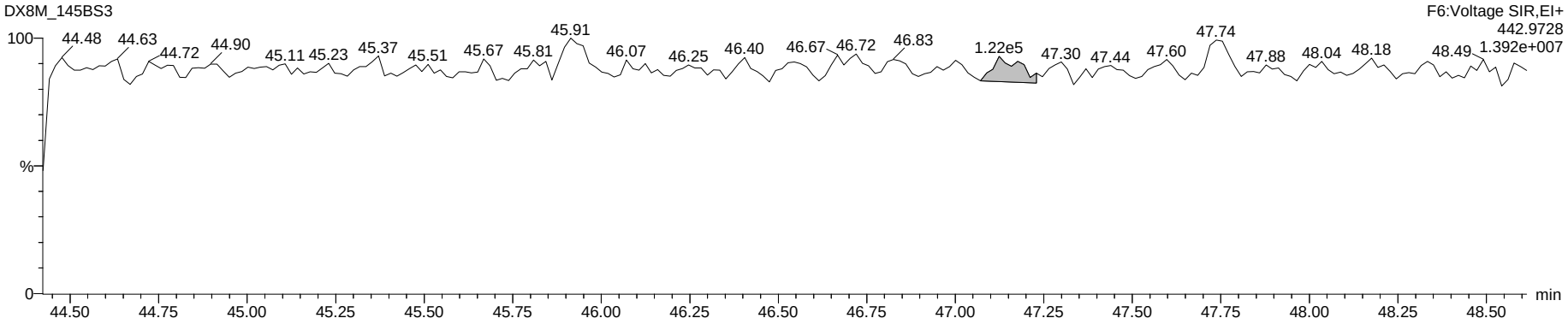
Total Hepta-Furans



Nona DPE



Hepta Lock



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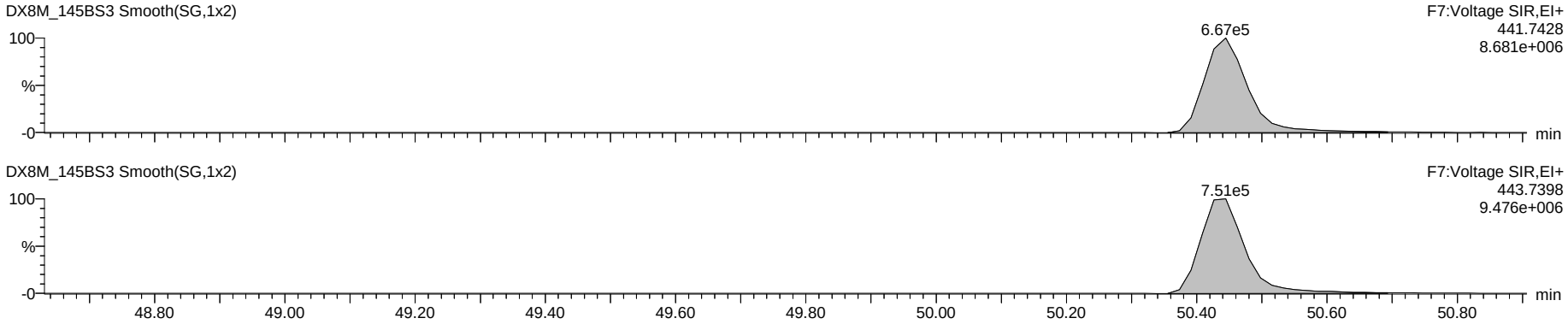
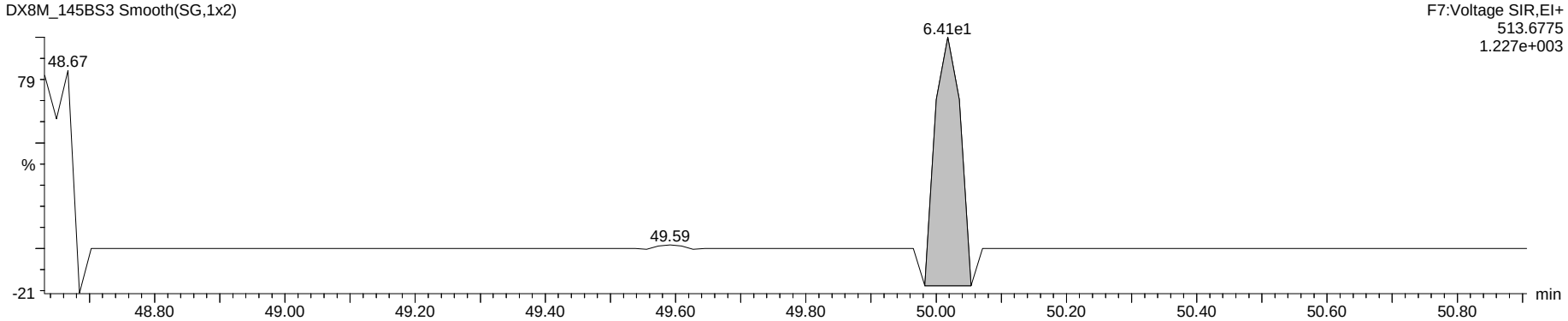
Name: DX8M_145BS3, Date: 30-Nov-2018, Time: 18:45:04, ID: WG66111-103,,SPMDUP, Description: 1,WG66111,1.0/20uL

OCDF



Deca DPE



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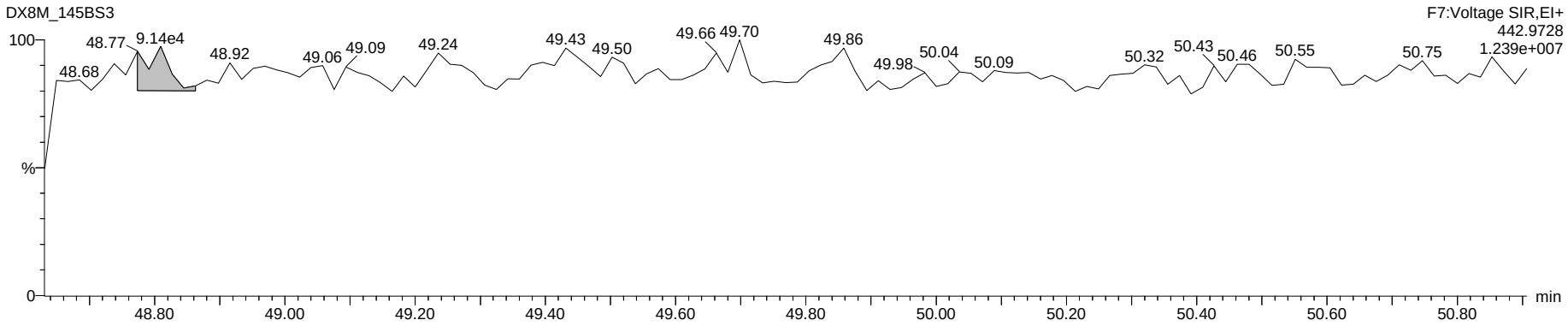


SGS Axys Analytical Services, Ltd.

Method: G:\Masslynx\Inst_M\Master methods and layouts\Current Methods\DX_Log.mdb 30 Oct 2014 14:48:05
Calibration: G:\Masslynx\Inst_M\Projects\181023DX.pro\CurveDB\DX8M_126A-6A.cdb 26 Oct 2018 12:48:18

Compound name: -

#	Name	ID	Sample Text	Acq.Date	Acq.Time
1	DX8M_126AS1	DX041A-CAL,,/01-14	1,,1.0uL CS-0.2 Sens	24-Oct-18	08:14:17
2	DX8M_126AS2	DX041B-CAL,,/01-15	1,,1.0uL CS-1	24-Oct-18	09:16:40
3	DX8M_126AS3	DX041C-CAL,,/01	1,,1.0uL CS-2	24-Oct-18	10:09:08
4	DX8M_126AS4	DX041F-CAL,,/01-8	1,,1.0uL CS-5	24-Oct-18	11:04:22
5	DX8M_126AS5	DX041E-CAL,,/01	1,,1.0uL CS-4	24-Oct-18	11:59:36
6	DX8M_126AS6	DX041D-CAL,,/01-82	1,,1.0uL Cal Win/Res	24-Oct-18	12:54:49
7	DX8M_126AS7	DX003A-SSV,,/01	1,,1.0uL Cal	24-Oct-18	13:50:03
8	DX8M_126AS8	DX041D-CAL,,/01-82	1,,1.0uL Cal Win/Res	24-Oct-18	14:45:09

Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

Method: G:\Masslynx\Inst_M\Exported_methods\DX_1613B_16.mdb 07 Sep 2017 16:45:23
Calibration: G:\Masslynx\Inst_M\Projects\181023DX.PRO\CurveDB\DX8M_126A-6A.cdb 26 Oct 2018 12:48:18

Name: DX8M_126AS1, Date: 24-Oct-2018, Time: 08:14:17, ID: DX041A-CAL,,/01-14, Description: 1,,1.0uL CS-0.2 Sens

	Name	Amount	Resp	Ratio	fails?	RT	RRF	RRF Mean	RRF SD	RRF %Rel SD	S/N	1º S/N
1	2,3,7,8-TCDF	0.100	5.26e3	0.73	NO	25.32	0.968	0.9390	0.034	3.63	70	52
2	1,2,3,7,8-PeCDF	0.500	1.96e4	1.71	NO	33.62	0.912	0.9345	0.039	4.16	219	88
3	2,3,4,7,8-PeCDF	0.500	1.90e4	1.62	NO	35.38	0.891	0.9393	0.040	4.30	263	110
4	1,2,3,4,7,8-HxCDF	0.500	1.72e4	1.23	NO	40.77	1.088	1.1360	0.047	4.13	266	214
5	1,2,3,6,7,8-HxCDF	0.500	1.77e4	1.26	NO	40.93	1.038	1.0868	0.041	3.79	293	214
6	2,3,4,6,7,8-HxCDF	0.500	1.74e4	1.17	NO	41.88	1.110	1.1636	0.049	4.23	272	224
7	1,2,3,7,8,9-HxCDF	0.500	1.39e4	1.20	NO	42.92	1.010	1.0339	0.031	2.98	233	186
8	1,2,3,4,6,7,8-HpCDF	0.500	1.46e4	1.01	NO	45.37	1.123	1.2267	0.074	6.06	306	289
9	1,2,3,4,7,8,9-HpCDF	0.500	1.17e4	0.97	NO	47.16	1.178	1.2333	0.050	4.08	234	259
10	OCDF	1.000	1.89e4	0.90	NO	50.43	1.065	1.1975	0.095	7.95	193	184
11	2,3,7,8-TCDD	0.100	3.58e3	0.85	NO	26.56	1.047	1.0401	0.041	3.91	20	37
12	1,2,3,7,8-PeCDD	0.500	1.21e4	0.61	NO	36.20	0.969	1.0058	0.036	3.58	66	156
13	1,2,3,4,7,8-HxCDD	0.500	1.16e4	1.20	NO	42.15	0.962	0.9986	0.034	3.42	163	162
14	1,2,3,6,7,8-HxCDD	0.500	1.16e4	1.25	NO	42.31	0.886	0.9331	0.037	3.98	167	146
15	1,2,3,7,8,9-HxCDD	0.500	1.14e4	1.17	NO	42.71	0.909	0.9468	0.033	3.48	161	149
16	1,2,3,4,6,7,8-HpCDD	0.500	8.88e3	1.12	NO	46.76	0.854	0.9602	0.061	6.30	242	63
17	OCDD	1.000	1.66e4	0.91	NO	50.34	0.936	0.9954	0.040	4.06	281	835
18	13C-2,3,7,8-TCDF	100.000	5.43e6	0.79	NO	25.29	1.539	1.5236	0.024	1.54	4078	6641
19	13C-1,2,3,7,8-PeCDF	100.000	4.30e6	1.60	NO	33.60	1.219	1.2485	0.066	5.26	6849	4429
20	13C-2,3,4,7,8-PeCDF	100.000	4.27e6	1.57	NO	35.35	1.212	1.2415	0.066	5.32	7657	5049
21	13C-1,2,3,4,7,8-HxCDF	100.000	3.16e6	0.51	NO	40.73	1.319	1.2745	0.027	2.10	4514	4091
22	13C-1,2,3,6,7,8-HxCDF	100.000	3.41e6	0.51	NO	40.92	1.420	1.3711	0.039	2.82	4992	4442
23	13C-2,3,4,6,7,8-HxCDF	100.000	3.13e6	0.51	NO	41.85	1.305	1.2413	0.035	2.81	4510	4127
24	13C-1,2,3,7,8,9-HxCDF	100.000	2.76e6	0.52	NO	42.90	1.150	1.1393	0.032	2.82	4099	3617
25	13C-1,2,3,4,6,7,8-HpCDF	100.000	2.61e6	0.44	NO	45.35	1.086	1.0510	0.029	2.79	5123	8517
26	13C-1,2,3,4,7,8,9-HpCDF	100.000	1.99e6	0.45	NO	47.14	0.830	0.8034	0.029	3.64	4027	6600
27	13C-2,3,7,8-TCDD	100.000	3.42e6	0.77	NO	26.52	0.969	0.9668	0.021	2.19	1904	5703
28	13C-1,2,3,7,8-PeCDD	100.000	2.50e6	0.63	NO	36.18	0.707	0.7201	0.040	5.52	5990	9032
29	13C-1,2,3,4,7,8-HxCDD	100.000	2.42e6	1.30	NO	42.14	1.007	0.9796	0.023	2.38	6178	6609
30	13C-1,2,3,6,7,8-HxCDD	100.000	2.62e6	1.28	NO	42.27	1.092	1.0526	0.029	2.73	6263	6768
31	13C-1,2,3,4,6,7,8-HpCDD	100.000	2.08e6	1.04	NO	46.74	0.866	0.8282	0.035	4.24	18612	8628
32	13C-OCDD	200.000	3.54e6	0.89	NO	50.34	0.738	0.7120	0.052	7.28	0	2230
33	13C-1,2,3,4-TCDD	100.000	3.53e6	0.78	NO	26.19	352...	38426.9254	4430.855	11.53	2018	6027
34	13C-1,2,3,7,8,9-HxCDD	100.000	2.40e6	1.27	NO	42.70	239...	27947.7837	3519.241	12.59	5715	6307
35	37Cl-2,3,7,8-TCDD	0.100	4.52e3			26.54	1.281	1.0910	0.100	9.20	165	
36	Total Tetra-Furans	0.100						0.9390	0.034	3.63		
37	Total Tetra-Dioxins	0.100						1.0401	0.041	3.91		
38	Total Penta-Furans	0.500						0.9345	0.039	4.16		
39	Total Penta-Dioxins	0.500						1.0058	0.036	3.58		
40	Total Hexa-Furans	0.500						1.1360	0.047	4.13		
41	Total Hexa-Dioxins	0.500						0.9986	0.034	3.42		
42	Total Hepta-Furans	0.500						1.2267	0.074	6.06		
43	Total Hepta-Dioxins	0.500						0.9602	0.061	6.30		
44	Hexa DPE	0.000	5.98e1			22.35	0.000				11158	
45	Hepta DPE	0.000	1.85e2			35.57	0.000				32	
46	Octa DPE	0.000	8.75e1			43.15	0.000				68637	
47	Nona DPE	0.000	4.00e1			47.28	0.000				3	
48	Deca DPE	0.000	6.12e1			48.68	0.000				0	
49	Tetra Lock	0.000	1.61e4			21.60	0.000				0	
50	Penta Lock	0.000	1.86e4			33.35	0.000				0	
51	Hexa Lock	0.000	1.59e7			39.43	0.000				1	

PV LHE 26-OCT-2018

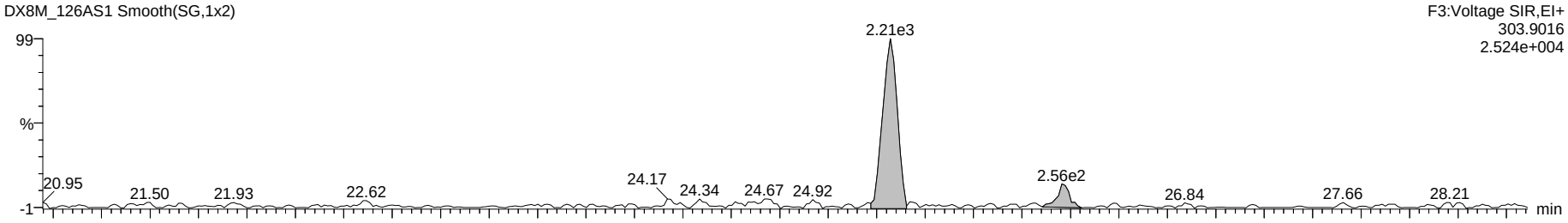
SV by TD 26-Oct-2018

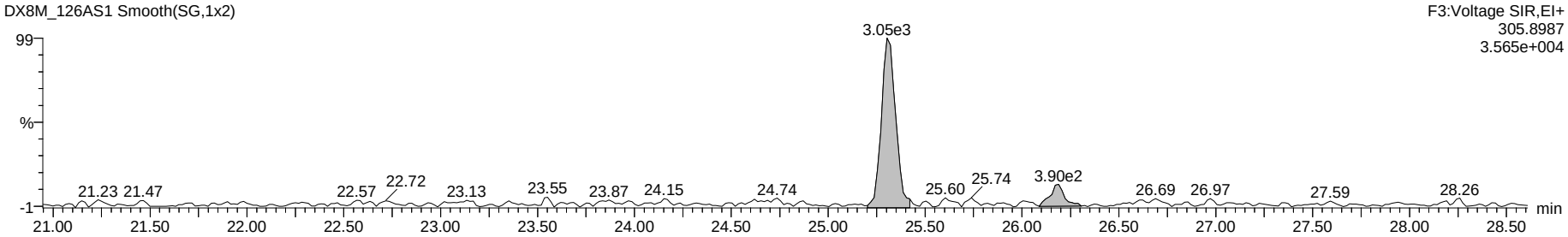
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

Method: G:\Masslynx\Inst_M\Exported_methods\DX_1613B_16.mdb 07 Sep 2017 16:45:23
Calibration: 26 Oct 2018 12:44:28

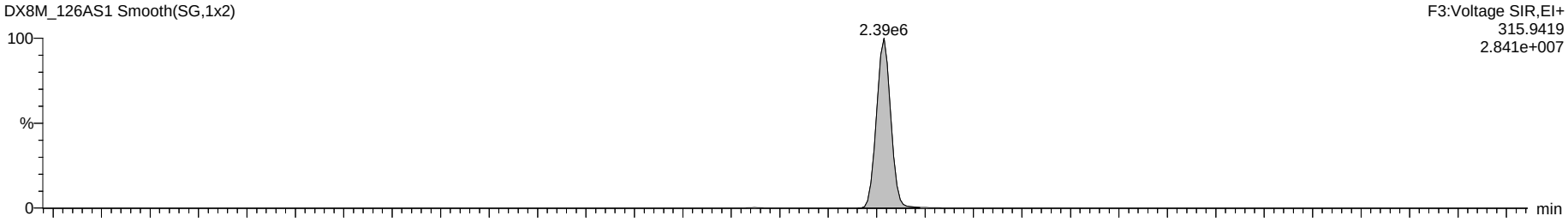
Name: DX8M_126AS1, Date: 24-Oct-2018, Time: 08:14:17, ID: DX041A-CAL,,/01-14, Description: 1,,1.0uL CS-0.2 Sens

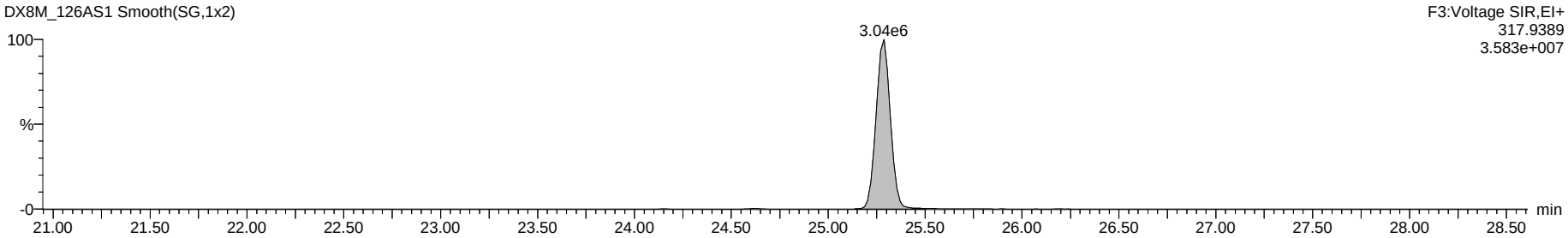
Total Tetra-Furans





13C-Tetra-Furans

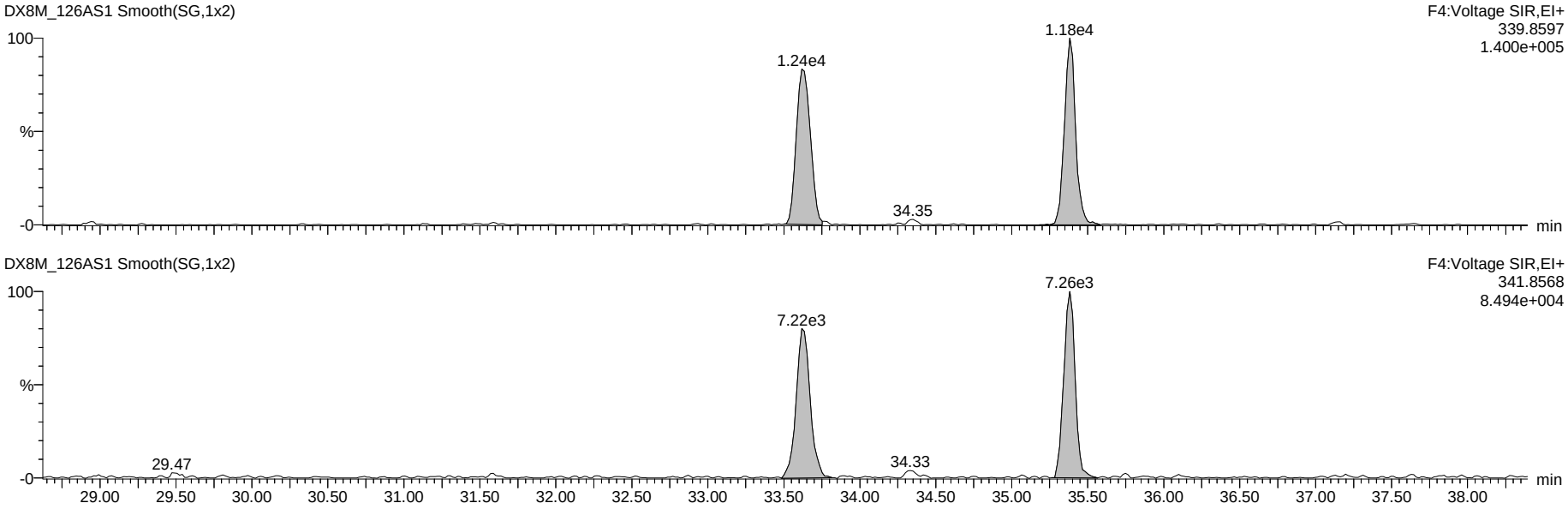




Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

Name: DX8M_126AS1, Date: 24-Oct-2018, Time: 08:14:17, ID: DX041A-CAL,,/01-14, Description: 1,,1.0uL CS-0.2 Sens

Total Penta-Furans



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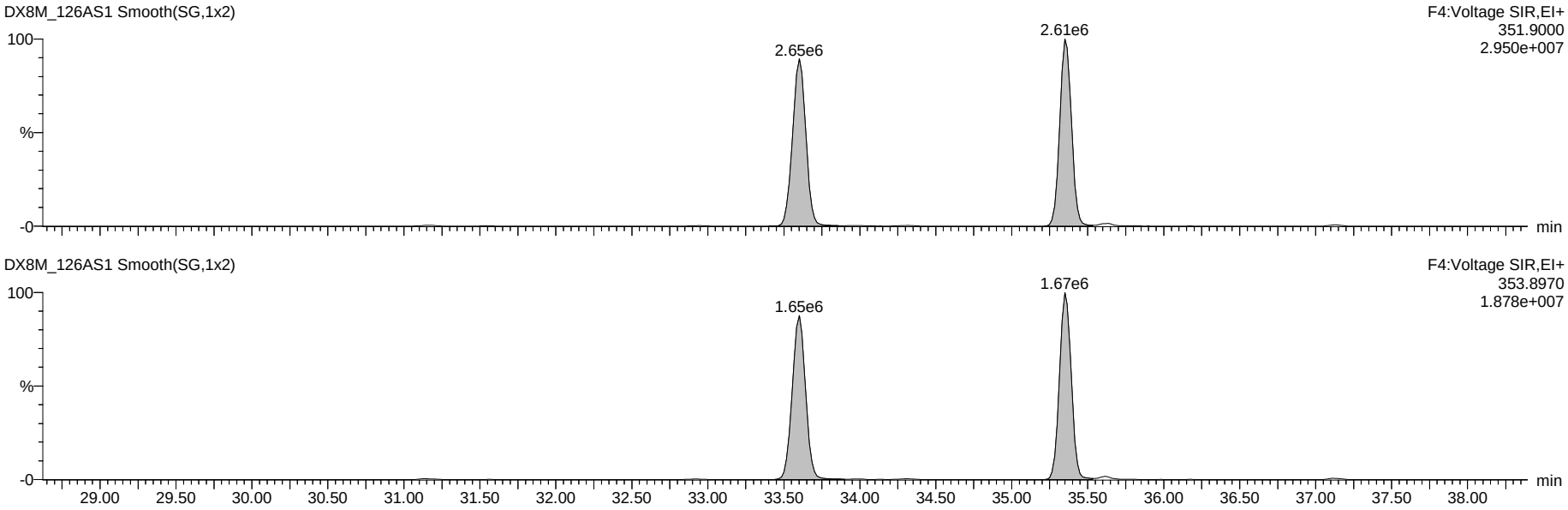

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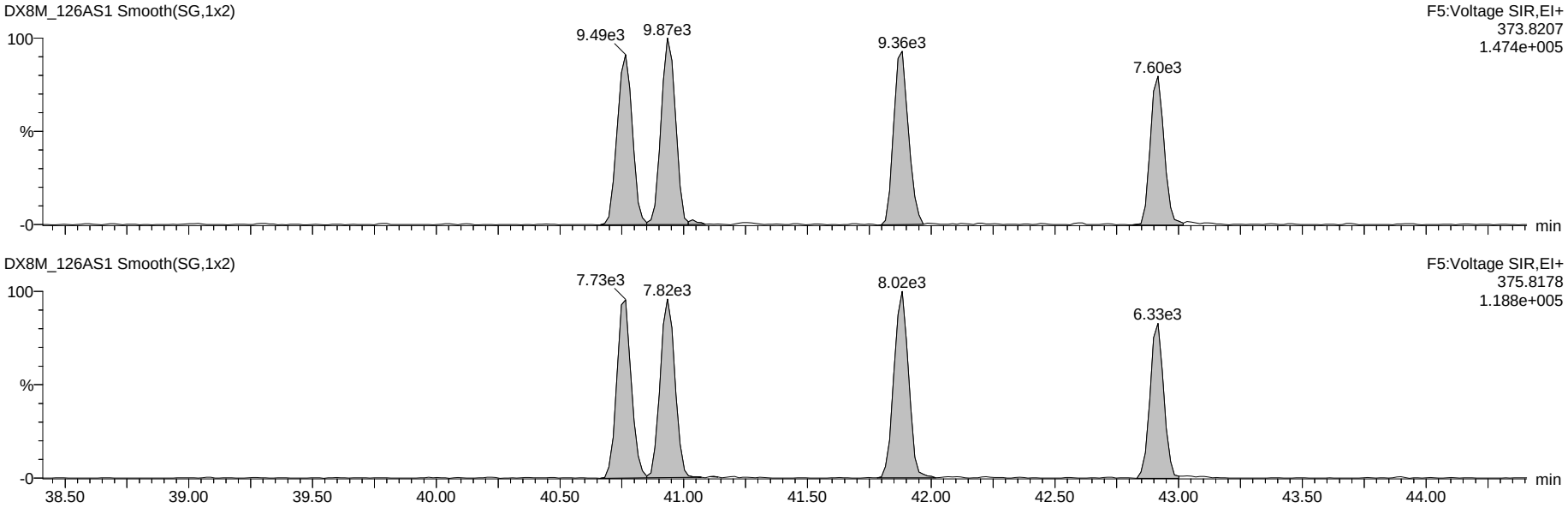
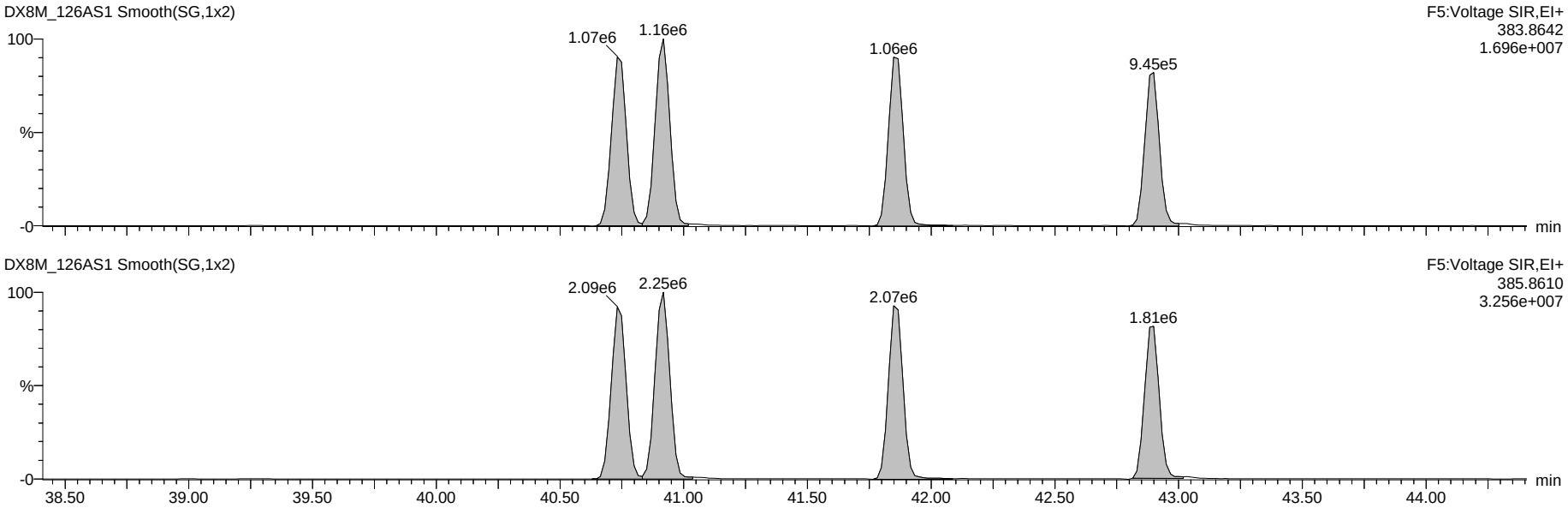
Name: DX8M_126AS1, Date: 24-Oct-2018, Time: 08:14:17, ID: DX041A-CAL,,/01-14, Description: 1,,1.0uL CS-0.2 Sens

Total Hexa-Furans



13C-Hexa-Furans



Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

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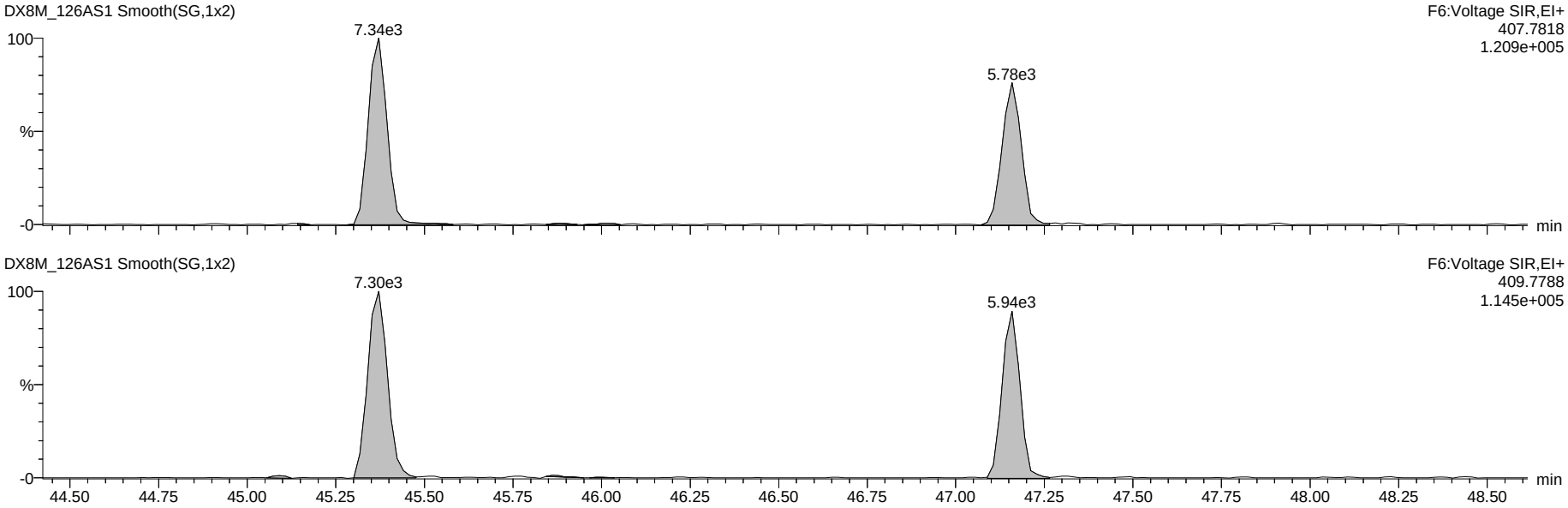
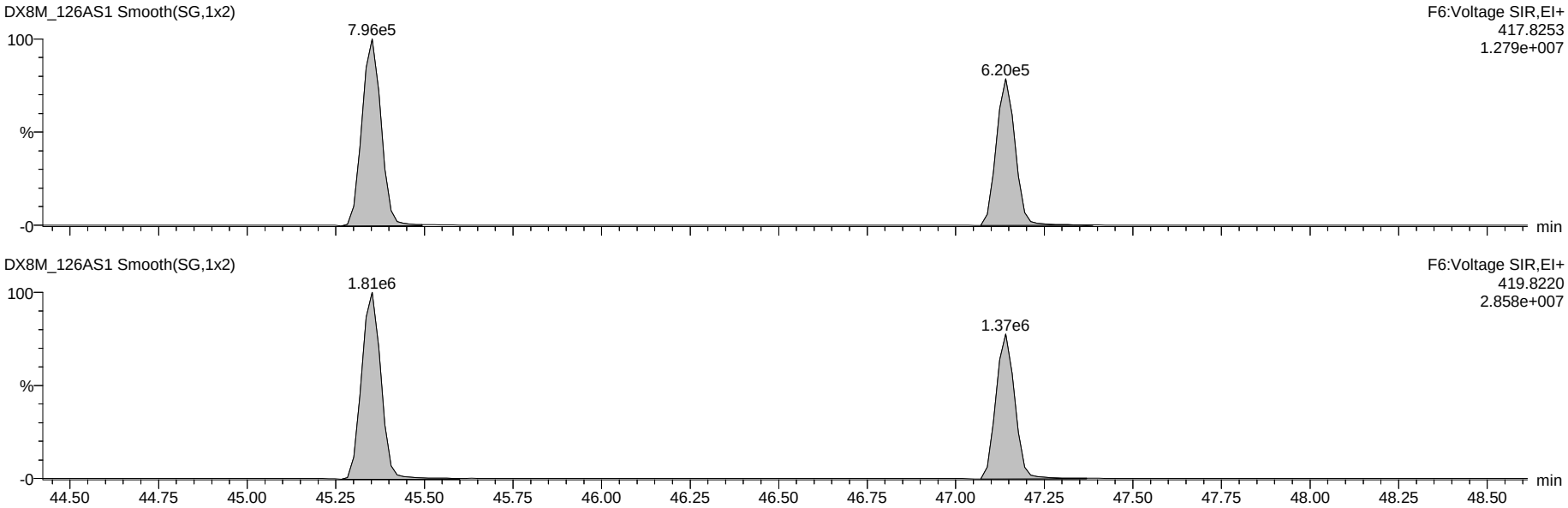
Total Hepta-Furans



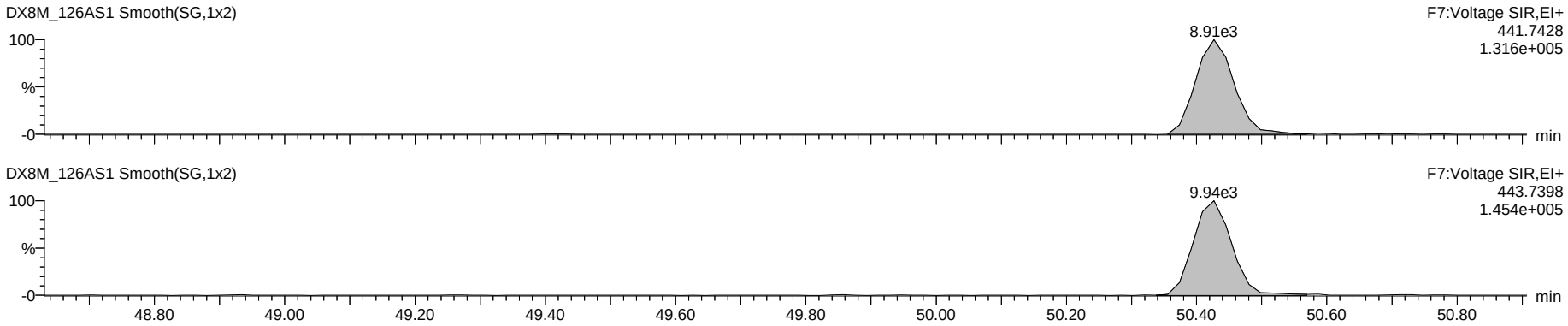
13C-Hepta-Furans



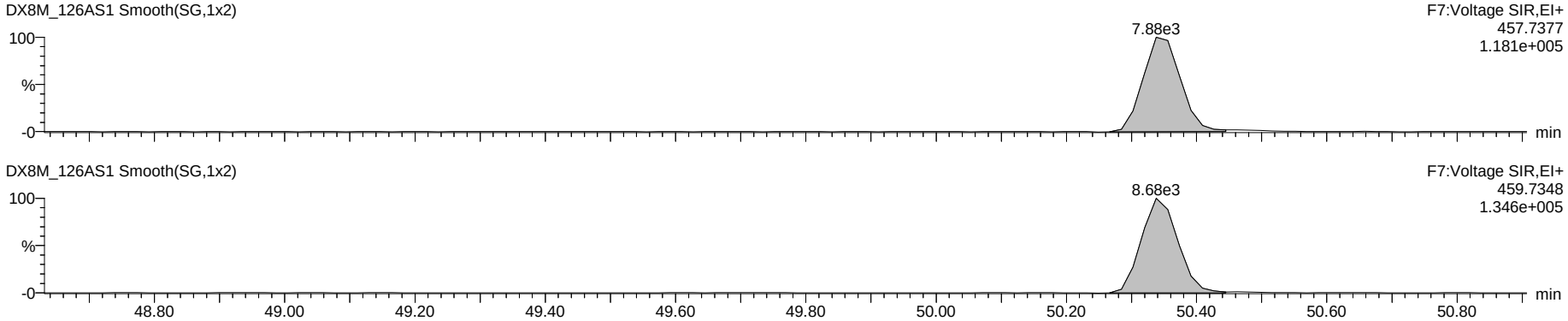
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

Name: DX8M_126AS1, Date: 24-Oct-2018, Time: 08:14:17, ID: DX041A-CAL,,/01-14, Description: 1,,1.0uL CS-0.2 Sens

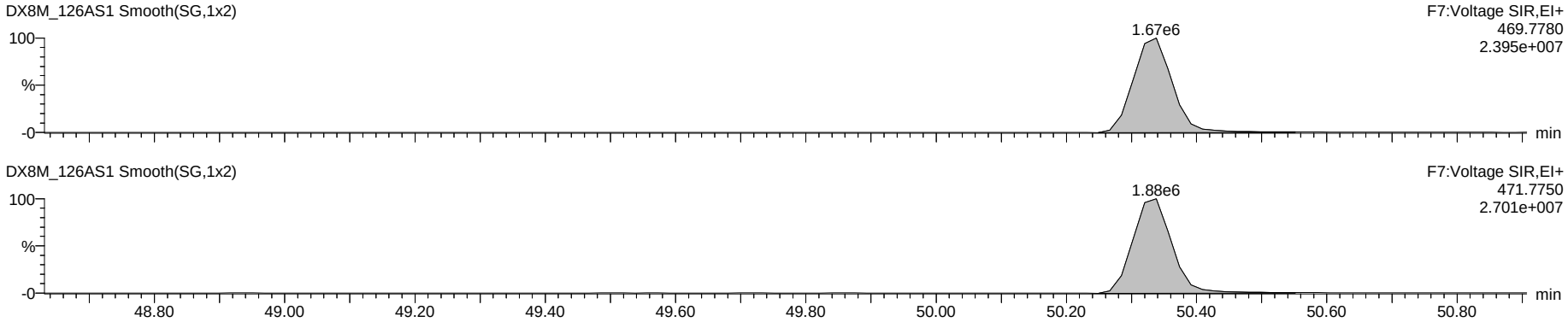
OCDF



OCDD



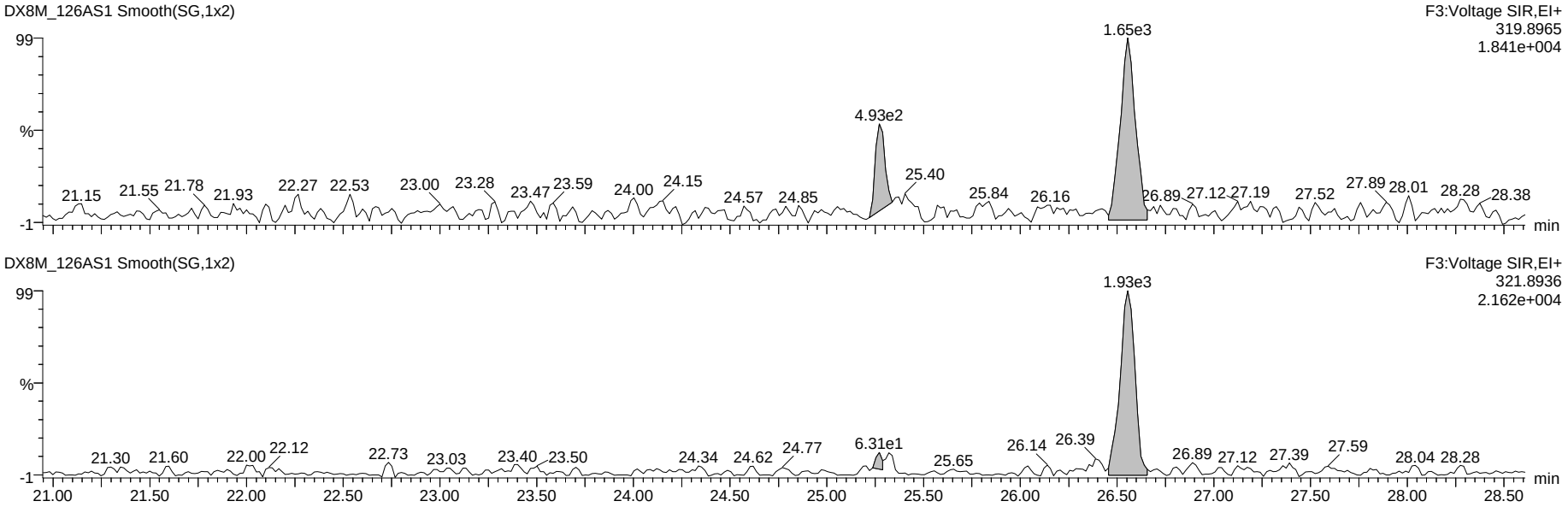
13C-OCDD



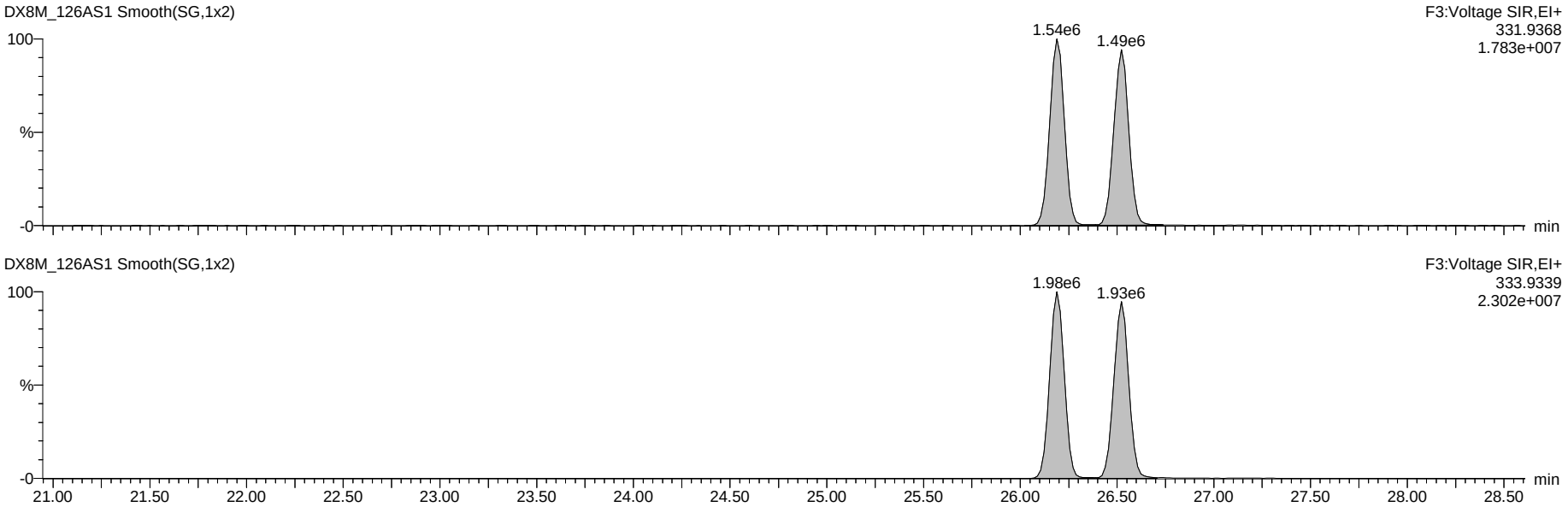
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

Name: DX8M_126AS1, Date: 24-Oct-2018, Time: 08:14:17, ID: DX041A-CAL,,/01-14, Description: 1,,1.0uL CS-0.2 Sens

Total Tetra-Dioxins



13C-Tetra-Dioxins



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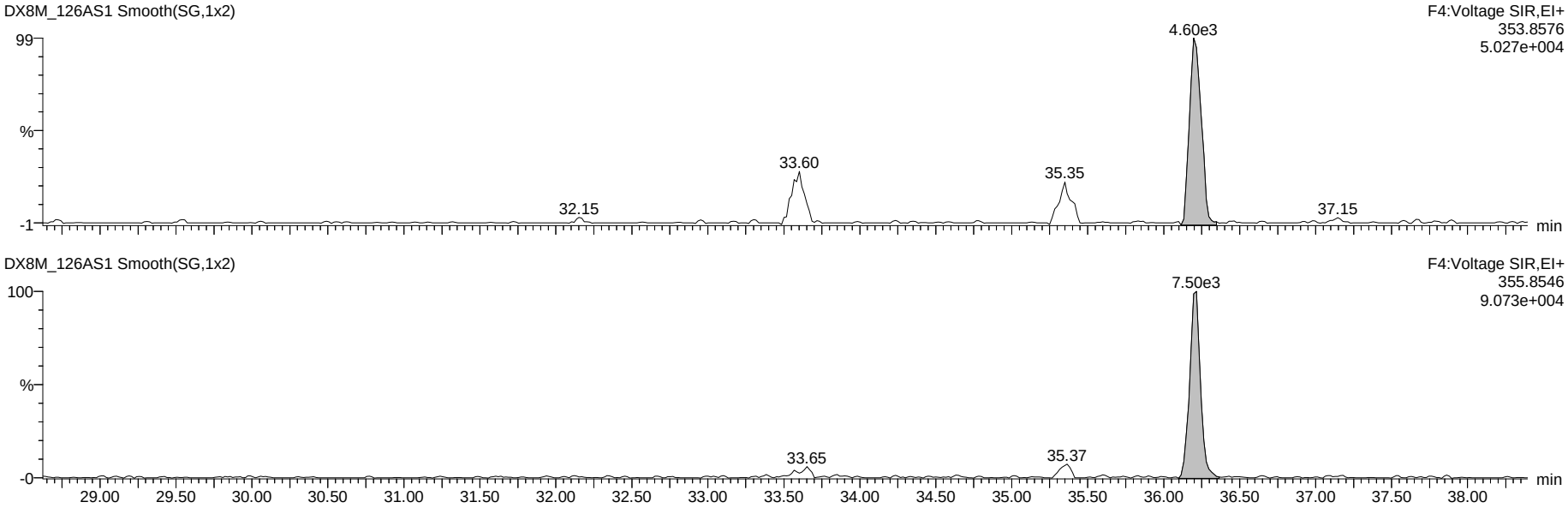
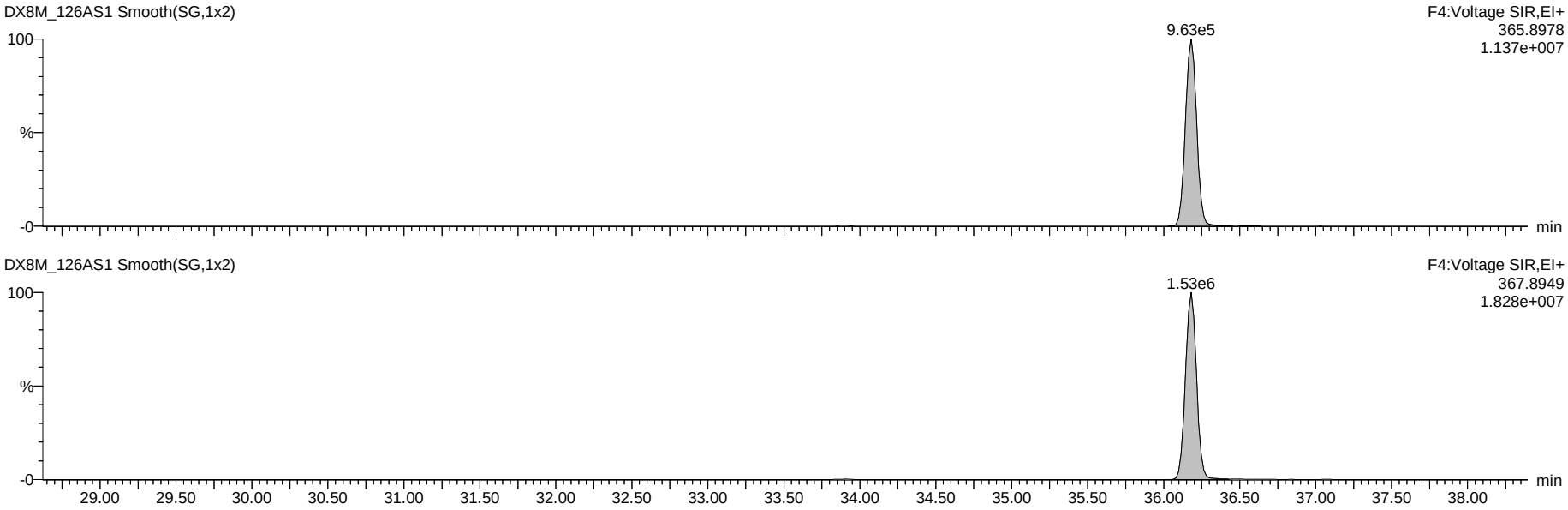
Name: DX8M_126AS1, Date: 24-Oct-2018, Time: 08:14:17, ID: DX041A-CAL,,/01-14, Description: 1,,1.0uL CS-0.2 Sens

Total Penta-Dioxins



13C-Penta-Dioxins



Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

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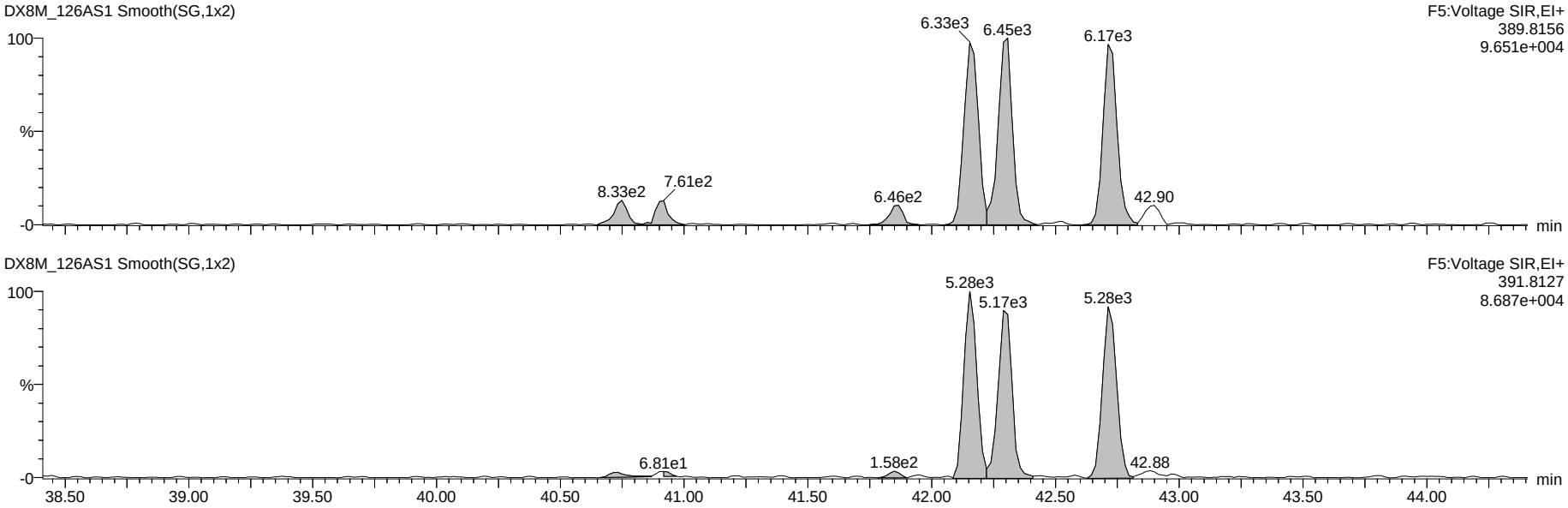
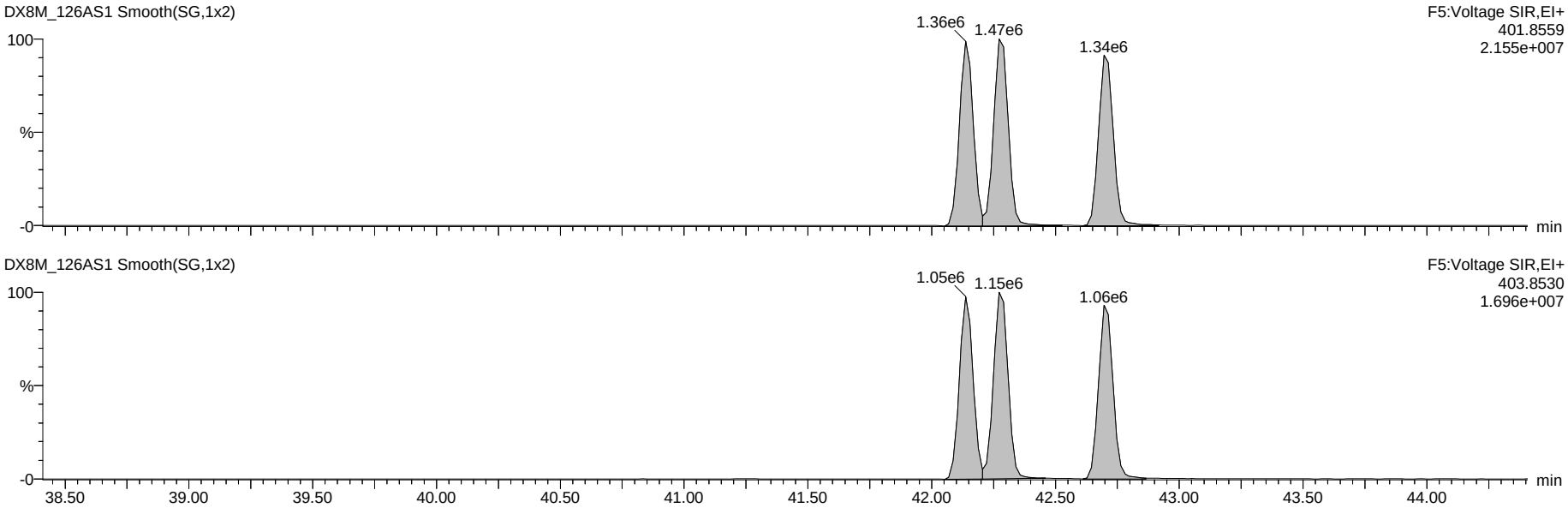
Total Hexa-Dioxins



13C-Hexa-Dioxins



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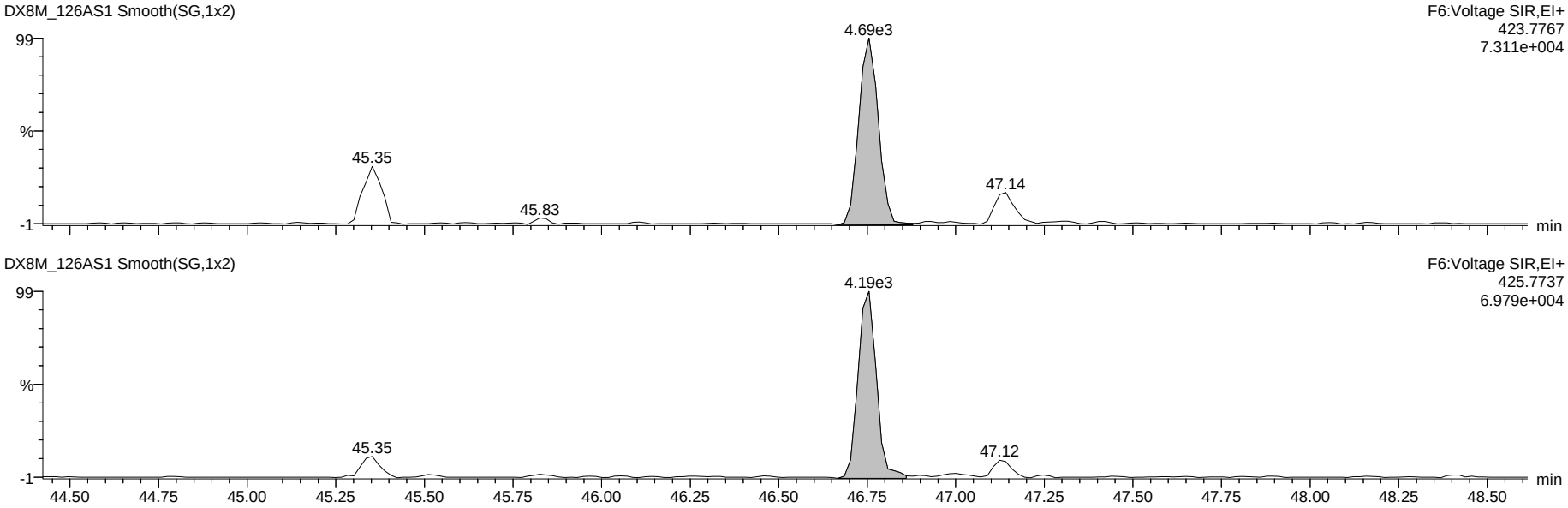
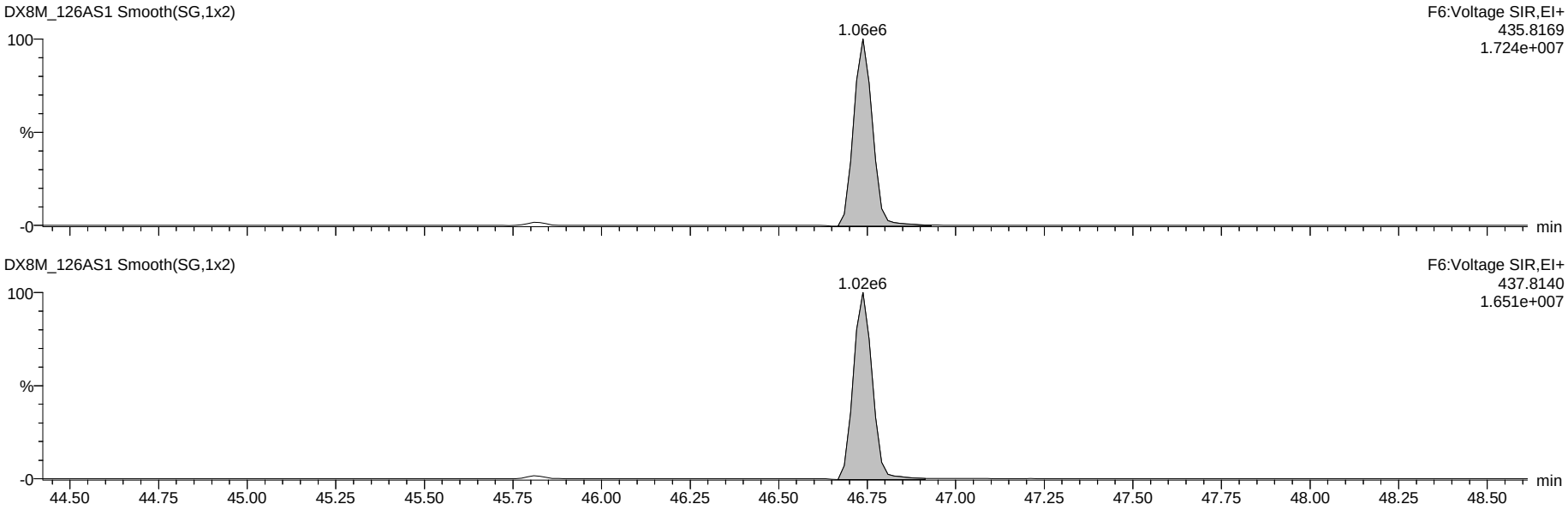
Total Hepta-Dioxins



13C-Hepta-Dioxins



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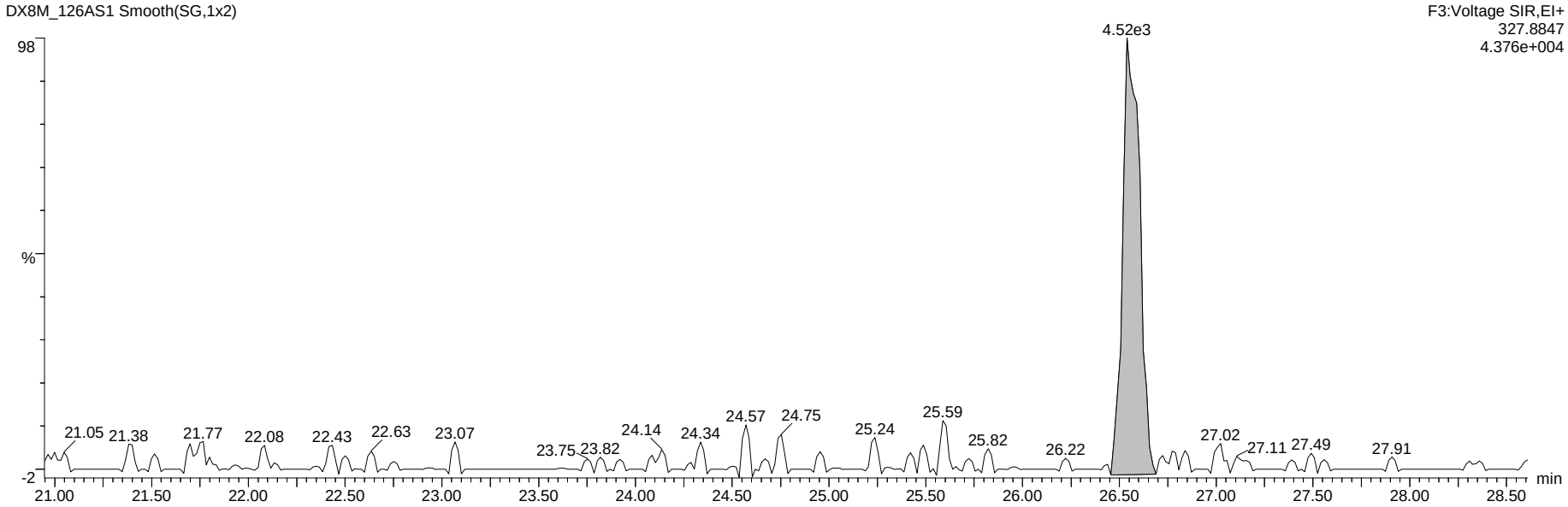
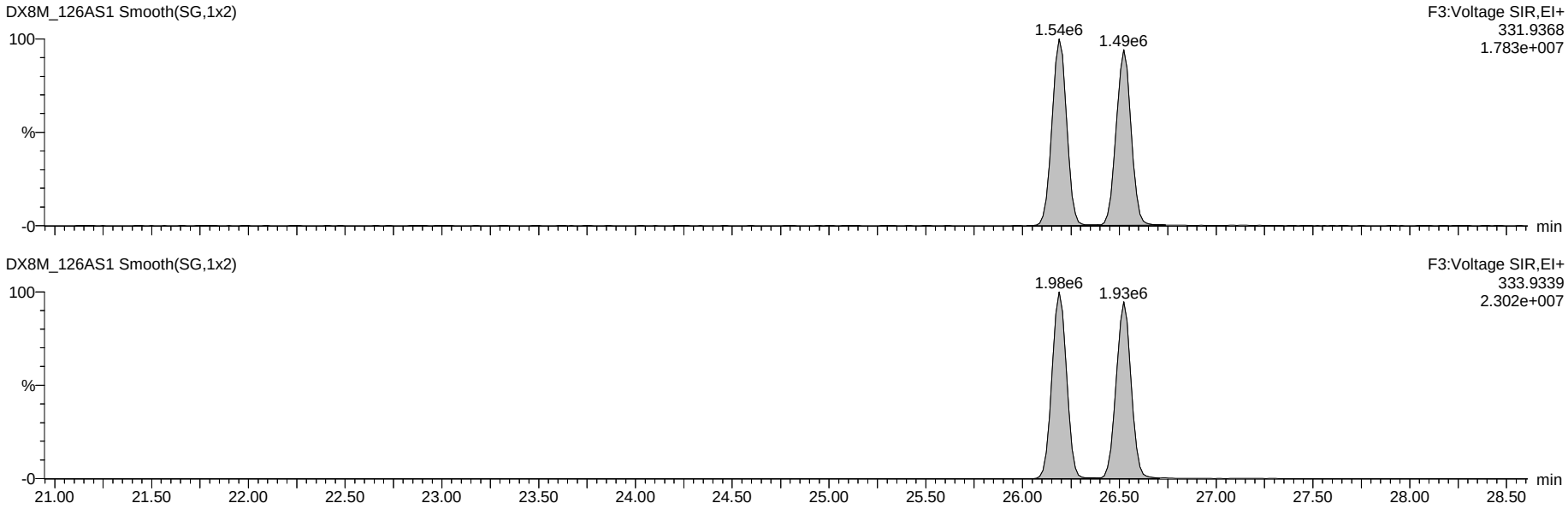
Name: DX8M_126AS1, Date: 24-Oct-2018, Time: 08:14:17, ID: DX041A-CAL,,/01-14, Description: 1,,1.0uL CS-0.2 Sens

37Cl-2,3,7,8-TCDD



13C-Tetra-Dioxins



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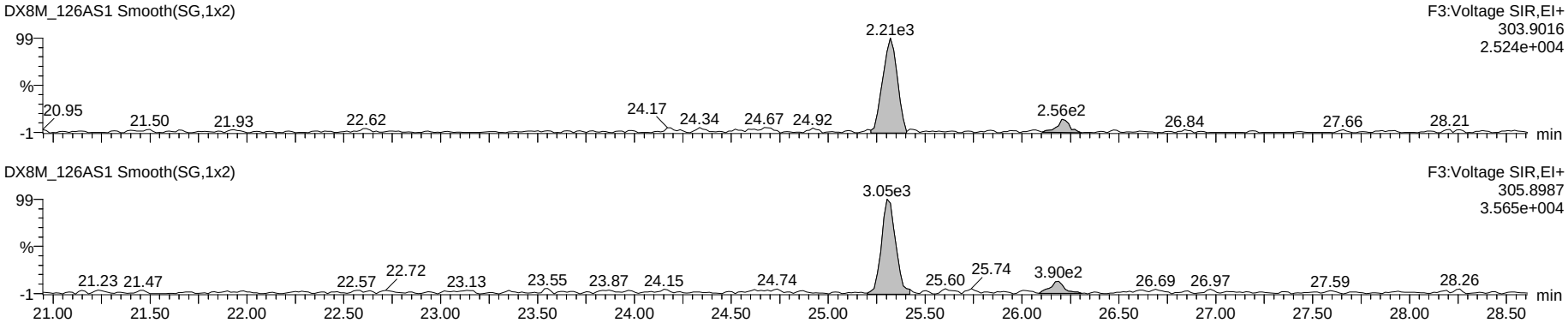
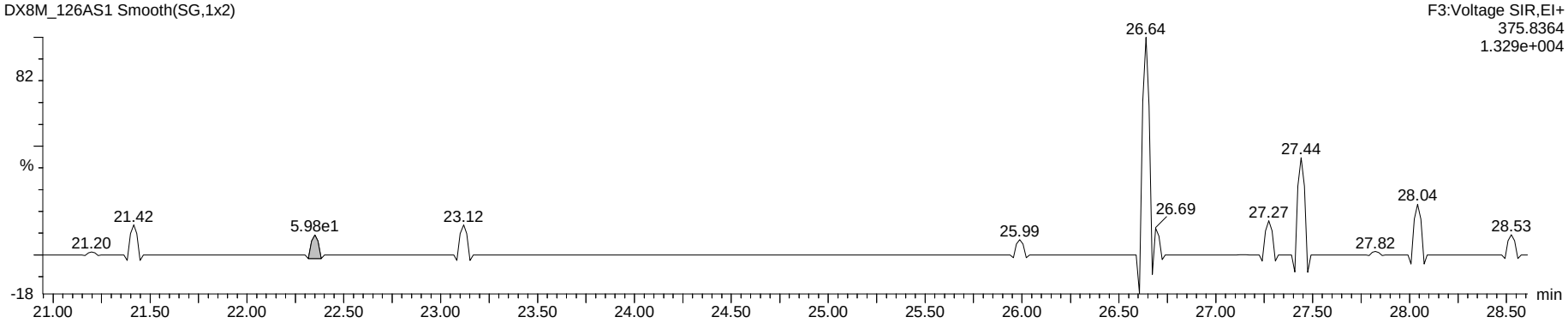
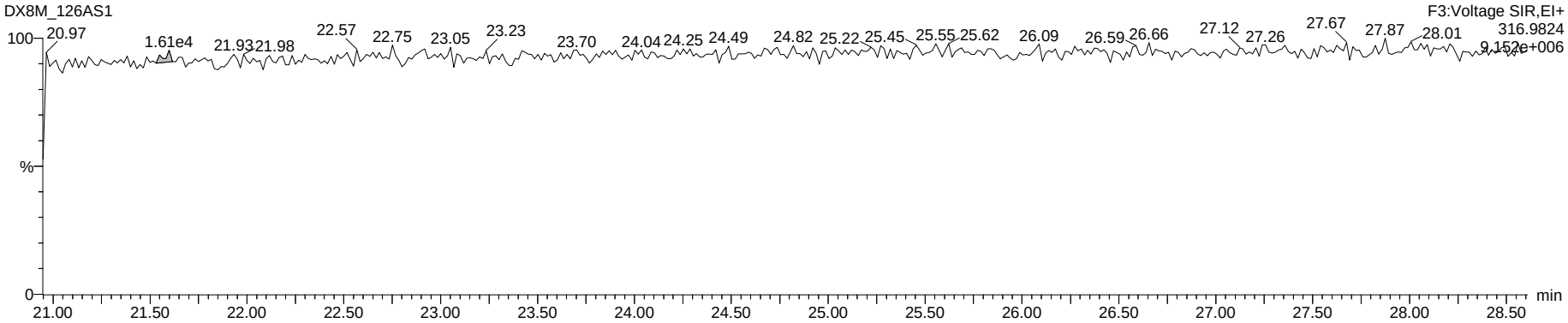
Total Tetra-Furans



Hexa DPE



Tetra Lock



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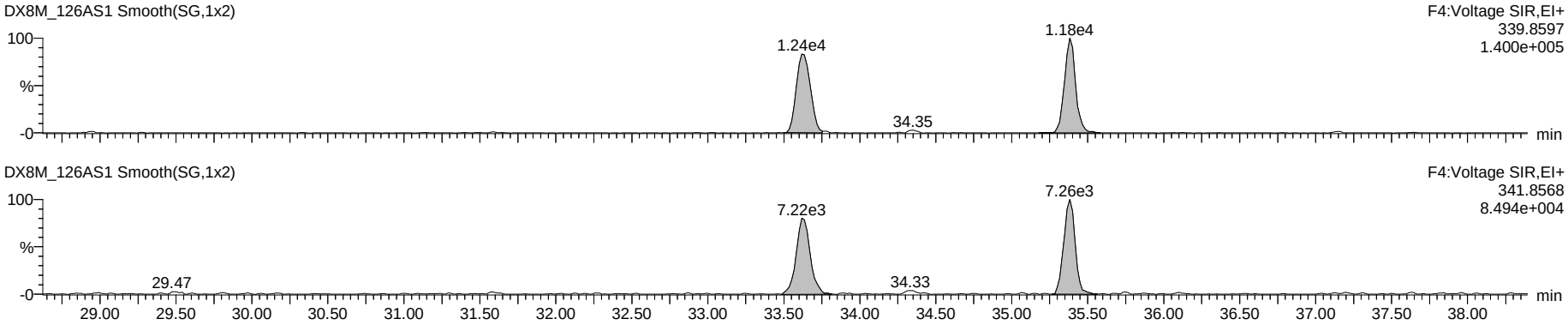
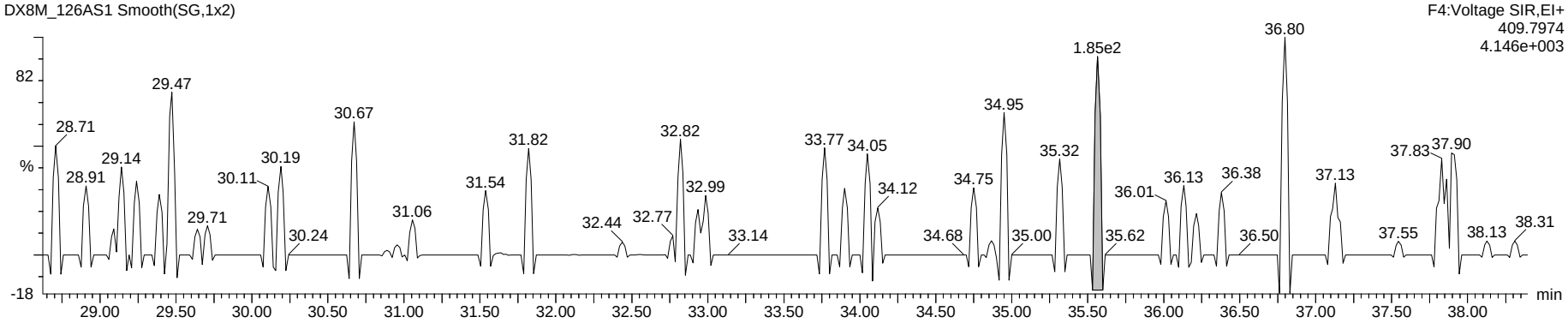
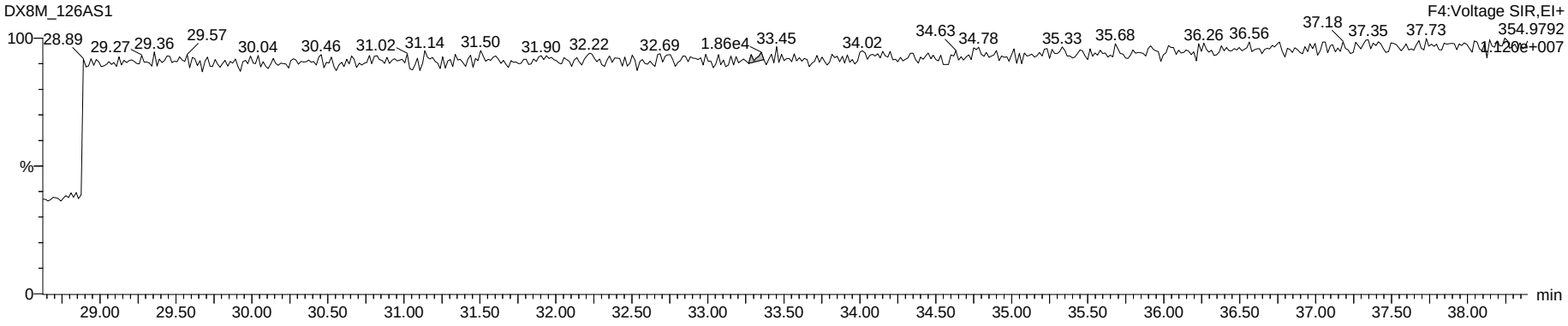
Total Penta-Furans



Hepta DPE



Penta Lock



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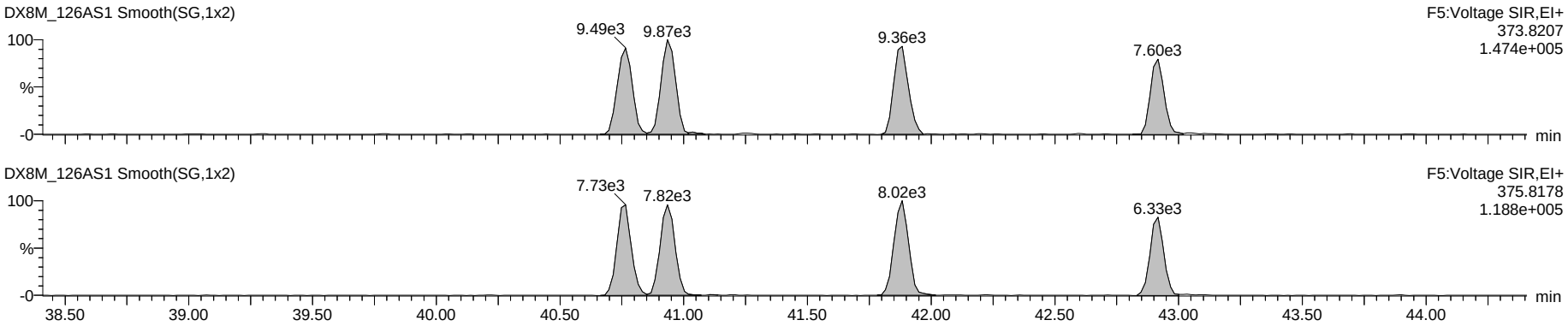
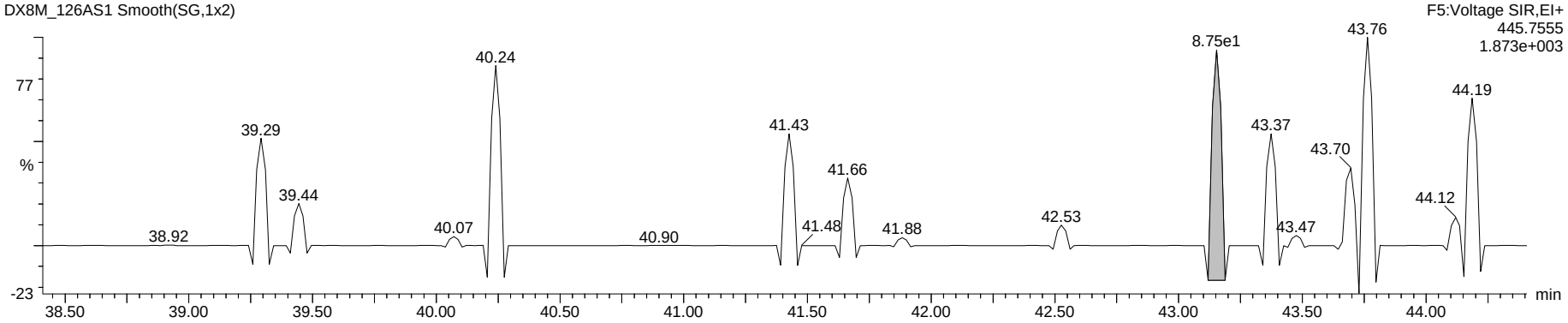
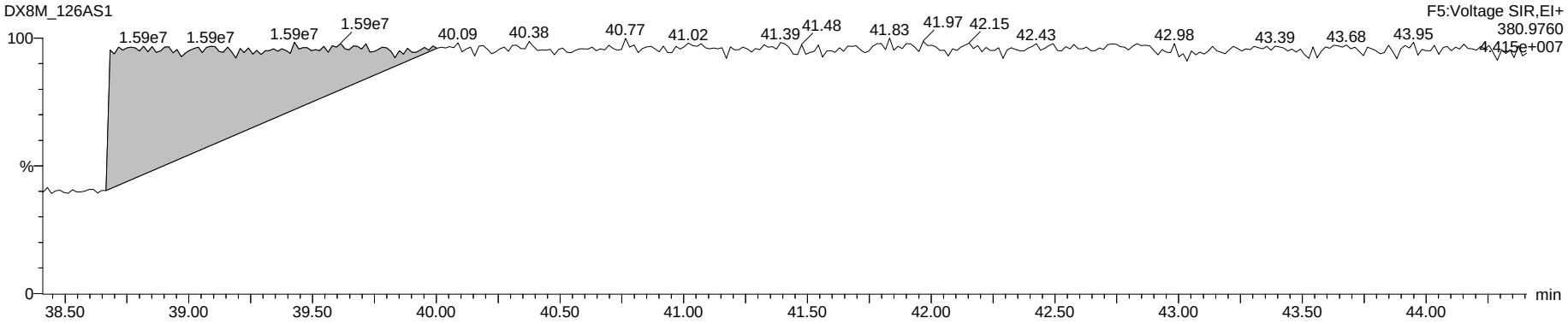
Total Hexa-Furans



Octa DPE



Hexa Lock



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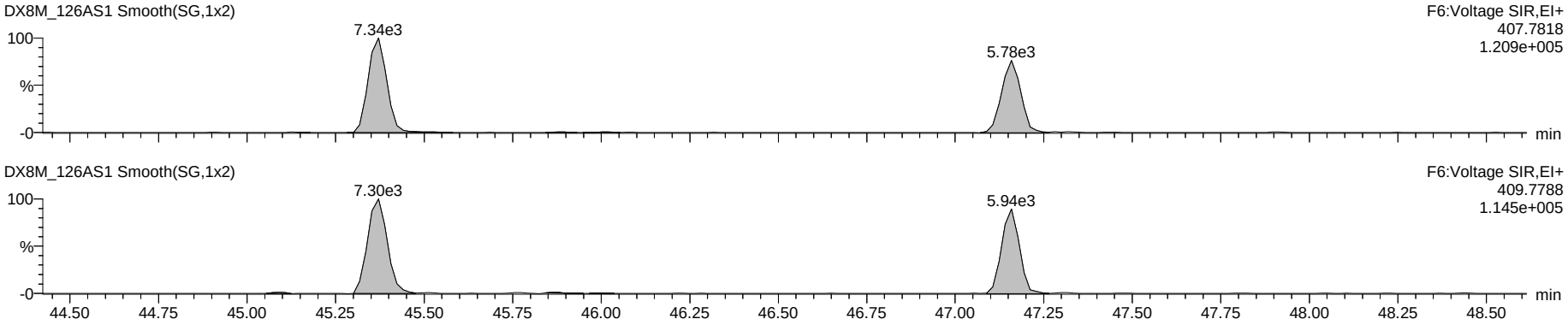
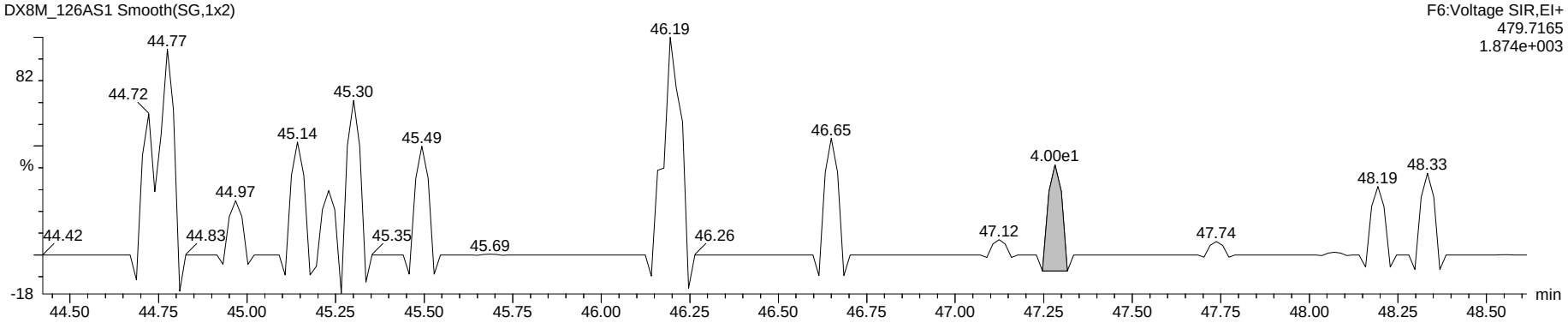
Name: DX8M_126AS1, Date: 24-Oct-2018, Time: 08:14:17, ID: DX041A-CAL,,/01-14, Description: 1,,1.0uL CS-0.2 Sens

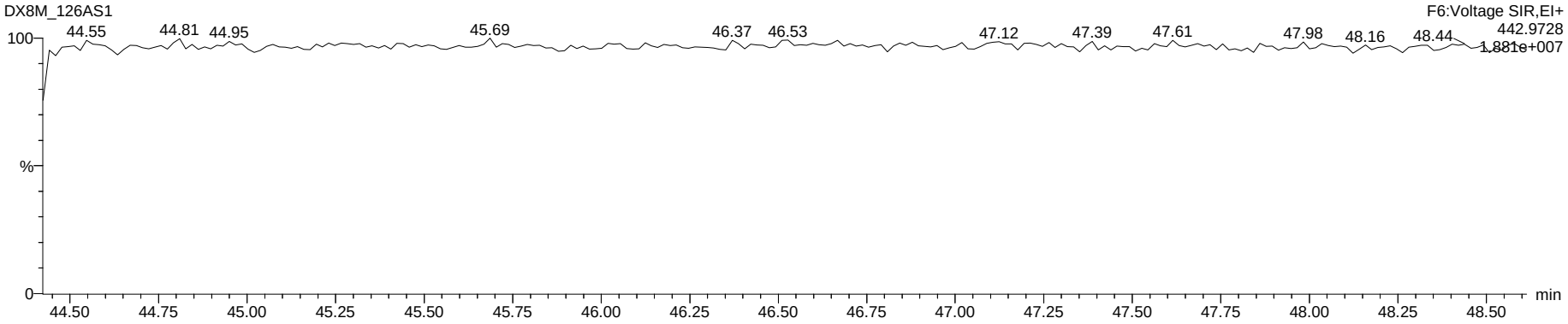
Total Hepta-Furans



Nona DPE



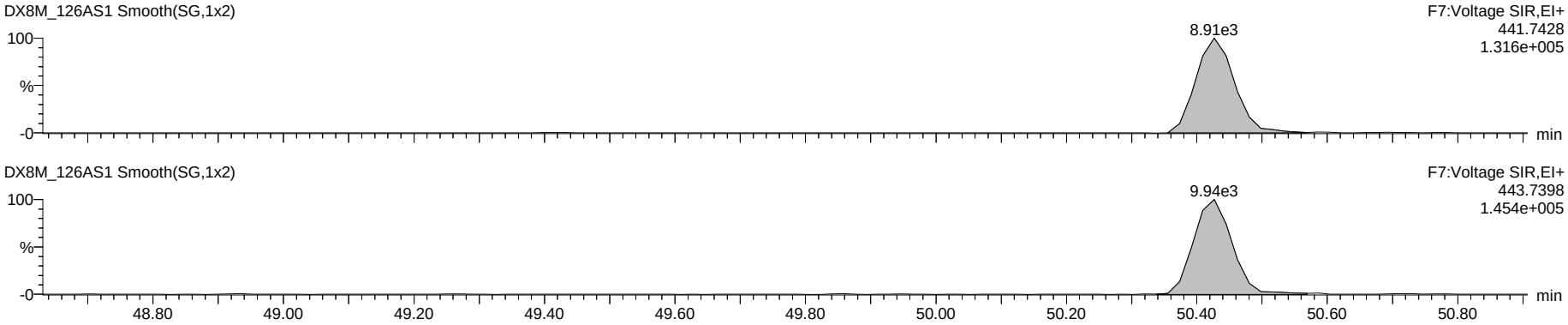
Hepta Lock



Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

Name: DX8M_126AS1, Date: 24-Oct-2018, Time: 08:14:17, ID: DX041A-CAL,,/01-14, Description: 1,,1.0uL CS-0.2 Sens

OCDF



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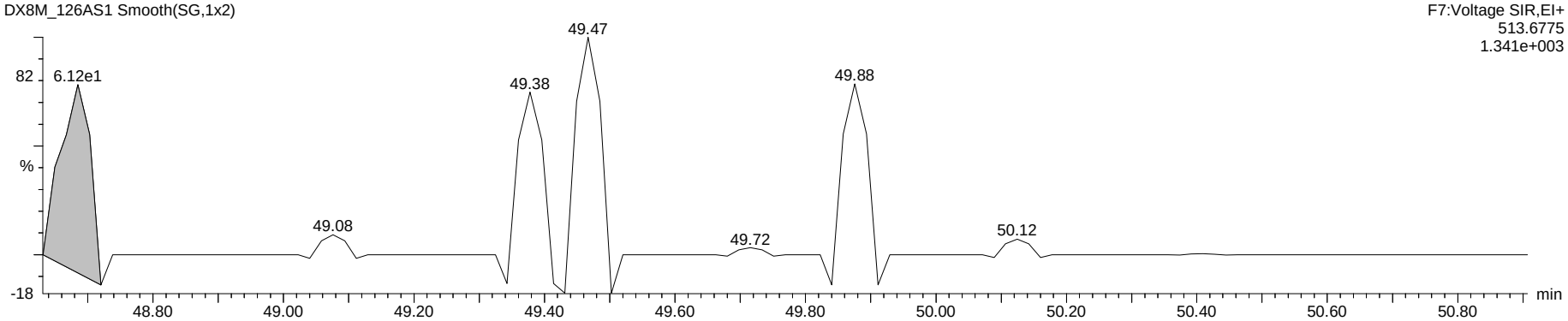
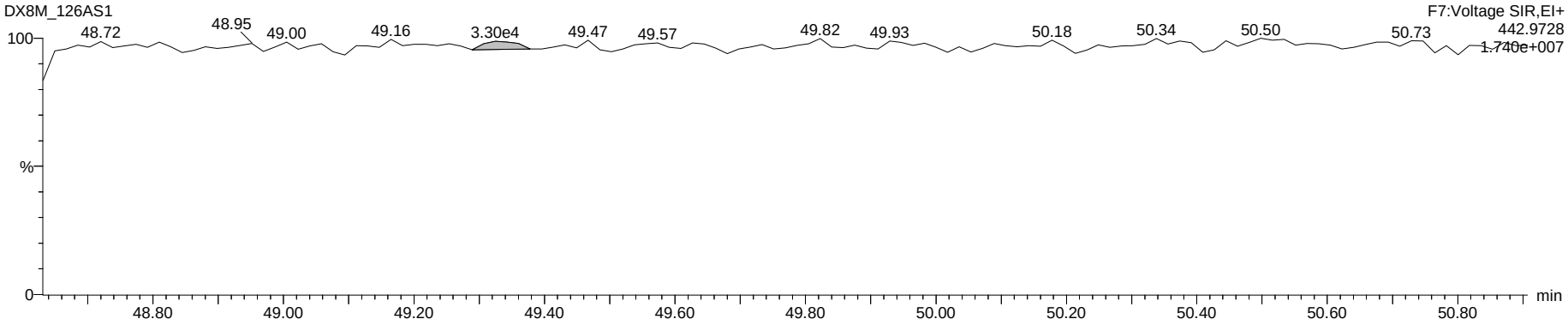


Octa Lock



Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

Name: DX8M_126AS2, Date: 24-Oct-2018, Time: 09:16:40, ID: DX041B-CAL,,/01-15, Description: 1,,1.0uL CS-1

	Name	Amount	Resp	Ratio	fails?	RT	RRF	RRF Mean	RRF SD	RRF %Rel SD	S/N	1º S/N
1	2,3,7,8-TCDF	0.500	2.82e4	0.80	NO	25.30	0.908	0.9390	0.034	3.63	299	226
2	1,2,3,7,8-PeCDF	2.500	1.15e5	1.56	NO	33.63	0.930	0.9345	0.039	4.16	870	581
3	2,3,4,7,8-PeCDF	2.500	1.13e5	1.53	NO	35.38	0.918	0.9393	0.040	4.30	984	639
4	1,2,3,4,7,8-HxCDF	2.500	1.02e5	1.26	NO	40.77	1.113	1.1360	0.047	4.13	1448	835
5	1,2,3,6,7,8-HxCDF	2.500	1.03e5	1.27	NO	40.93	1.062	1.0868	0.041	3.79	1467	872
6	2,3,4,6,7,8-HxCDF	2.500	1.03e5	1.25	NO	41.88	1.151	1.1636	0.049	4.23	1503	871
7	1,2,3,7,8,9-HxCDF	2.500	8.42e4	1.24	NO	42.92	1.050	1.0339	0.031	2.98	1234	718
8	1,2,3,4,6,7,8-HpCDF	2.500	9.08e4	1.00	NO	45.37	1.211	1.2267	0.074	6.06	961	1339
9	1,2,3,4,7,8,9-HpCDF	2.500	6.91e4	1.03	NO	47.16	1.204	1.2333	0.050	4.08	750	1001
10	OCDF	5.000	1.13e5	0.93	NO	50.43	1.141	1.1975	0.095	7.95	2712	1511
11	2,3,7,8-TCDD	0.500	2.08e4	0.76	NO	26.56	1.069	1.0401	0.041	3.91	105	252
12	1,2,3,7,8-PeCDD	2.500	7.07e4	0.62	NO	36.21	0.996	1.0058	0.036	3.58	915	696
13	1,2,3,4,7,8-HxCDD	2.500	6.90e4	1.22	NO	42.15	0.993	0.9986	0.034	3.42	816	693
14	1,2,3,6,7,8-HxCDD	2.500	6.86e4	1.19	NO	42.29	0.919	0.9331	0.037	3.98	801	645
15	1,2,3,7,8,9-HxCDD	2.500	6.94e4	1.21	NO	42.71	0.964	0.9468	0.033	3.48	794	648
16	1,2,3,4,6,7,8-HpCDD	2.500	5.52e4	1.03	NO	46.76	0.937	0.9602	0.061	6.30	1022	1401
17	OCDD	5.000	9.69e4	0.90	NO	50.34	0.981	0.9954	0.040	4.06	1719	1830
18	13C-2,3,7,8-TCDF	100.000	6.21e6	0.78	NO	25.29	1.486	1.5236	0.024	1.54	4328	8113
19	13C-1,2,3,7,8-PeCDF	100.000	4.96e6	1.60	NO	33.60	1.187	1.2485	0.066	5.26	6289	5581
20	13C-2,3,4,7,8-PeCDF	100.000	4.94e6	1.58	NO	35.35	1.181	1.2415	0.066	5.32	7189	6501
21	13C-1,2,3,4,7,8-HxCDF	100.000	3.66e6	0.51	NO	40.73	1.236	1.2745	0.027	2.10	3129	8711
22	13C-1,2,3,6,7,8-HxCDF	100.000	3.87e6	0.52	NO	40.92	1.305	1.3711	0.039	2.82	3348	9182
23	13C-2,3,4,6,7,8-HxCDF	100.000	3.57e6	0.52	NO	41.85	1.204	1.2413	0.035	2.81	3151	8548
24	13C-1,2,3,7,8,9-HxCDF	100.000	3.21e6	0.53	NO	42.90	1.081	1.1393	0.032	2.82	2844	7653
25	13C-1,2,3,4,6,7,8-HpCDF	100.000	3.00e6	0.44	NO	45.35	1.012	1.0510	0.029	2.79	4945	9882
26	13C-1,2,3,4,7,8,9-HpCDF	100.000	2.30e6	0.45	NO	47.14	0.775	0.8034	0.029	3.64	3753	7598
27	13C-2,3,7,8-TCDD	100.000	3.89e6	0.78	NO	26.52	0.932	0.9668	0.021	2.19	2133	4134
28	13C-1,2,3,7,8-PeCDD	100.000	2.84e6	0.63	NO	36.18	0.679	0.7201	0.040	5.52	9688	17601
29	13C-1,2,3,4,7,8-HxCDD	100.000	2.78e6	1.28	NO	42.14	0.938	0.9796	0.023	2.38	11552	3089
30	13C-1,2,3,6,7,8-HxCDD	100.000	2.98e6	1.26	NO	42.27	1.007	1.0526	0.029	2.73	11576	3232
31	13C-1,2,3,4,6,7,8-HpCDD	100.000	2.36e6	1.05	NO	46.74	0.796	0.8282	0.035	4.24	8455	7205
32	13C-OCDD	200.000	3.95e6	0.89	NO	50.34	0.667	0.7120	0.052	7.28	6340	101581
33	13C-1,2,3,4-TCDD	100.000	4.18e6	0.79	NO	26.19	417...	38426.9254	4430.855	11.53	2428	4584
34	13C-1,2,3,7,8,9-HxCDD	100.000	2.96e6	1.27	NO	42.70	296...	27947.7837	3519.241	12.59	11456	3137
35	37Cl-2,3,7,8-TCDD	0.500	2.11e4			26.56	1.009	1.0910	0.100	9.20	196	
36	Total Tetra-Furans	0.500						0.9390	0.034	3.63		
37	Total Tetra-Dioxins	0.500						1.0401	0.041	3.91		
38	Total Penta-Furans	2.500						0.9345	0.039	4.16		
39	Total Penta-Dioxins	2.500						1.0058	0.036	3.58		
40	Total Hexa-Furans	2.500						1.1360	0.047	4.13		
41	Total Hexa-Dioxins	2.500						0.9986	0.034	3.42		
42	Total Hepta-Furans	2.500						1.2267	0.074	6.06		
43	Total Hepta-Dioxins	2.500						0.9602	0.061	6.30		
44	Hexa DPE	0.000	1.02e2			22.48	0.000				8123	
45	Hepta DPE	0.000	1.50e2			36.58	0.000				62	
46	Octa DPE	0.000	5.00e1			43.29	0.000				4511	
47	Nona DPE	0.000	5.61e1			47.75	0.000				7793	
48	Deca DPE	0.000	2.76e1			49.84	0.000				0	
49	Tetra Lock	0.000	1.49e4			21.47	0.000				0	
50	Penta Lock	0.000										
51	Hexa Lock	0.000	1.76e7			39.28	0.000				2	
52	Hepta Lock	0.000										
53	Octa Lock	0.000	8.65e4			49.02	0.000				0	
54	13C-Tetra-Furans	100.000						1.5236	0.024	1.54		
55	13C-Tetra-Dioxins	100.000						0.9668	0.021	2.19		

PV LHE 26-OCT-2018

SV by TD 26-Oct-2018

Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

Method: G:\Masslynx\Inst_M\Exported_methods\DX_1613B_16.mdb 07 Sep 2017 16:45:23
Calibration: 26 Oct 2018 12:44:28

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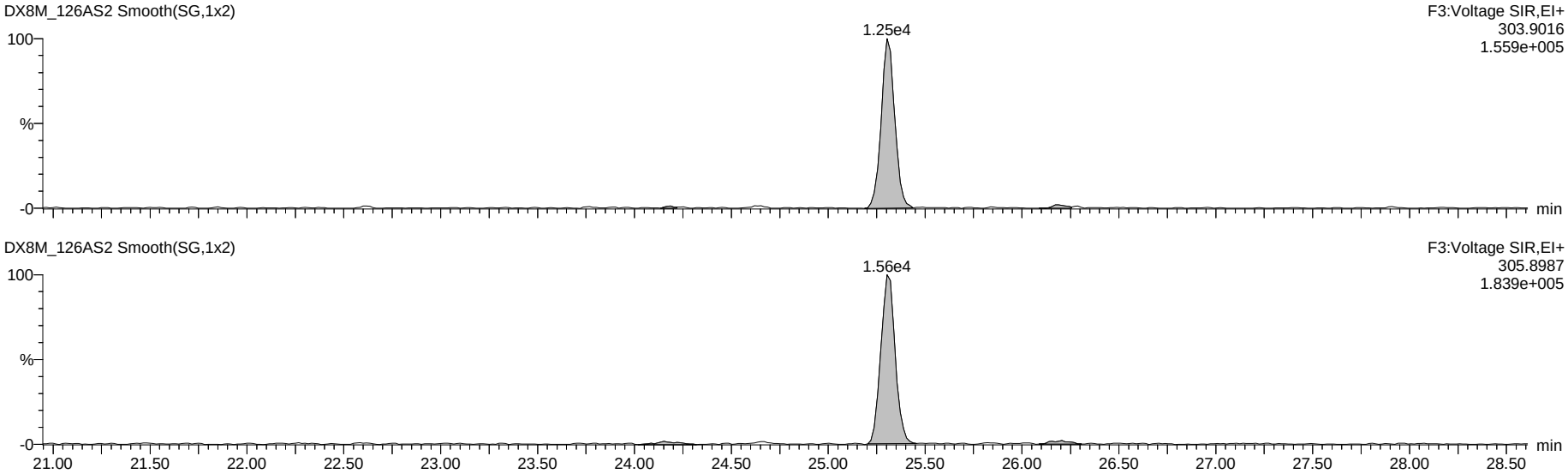
Total Tetra-Furans



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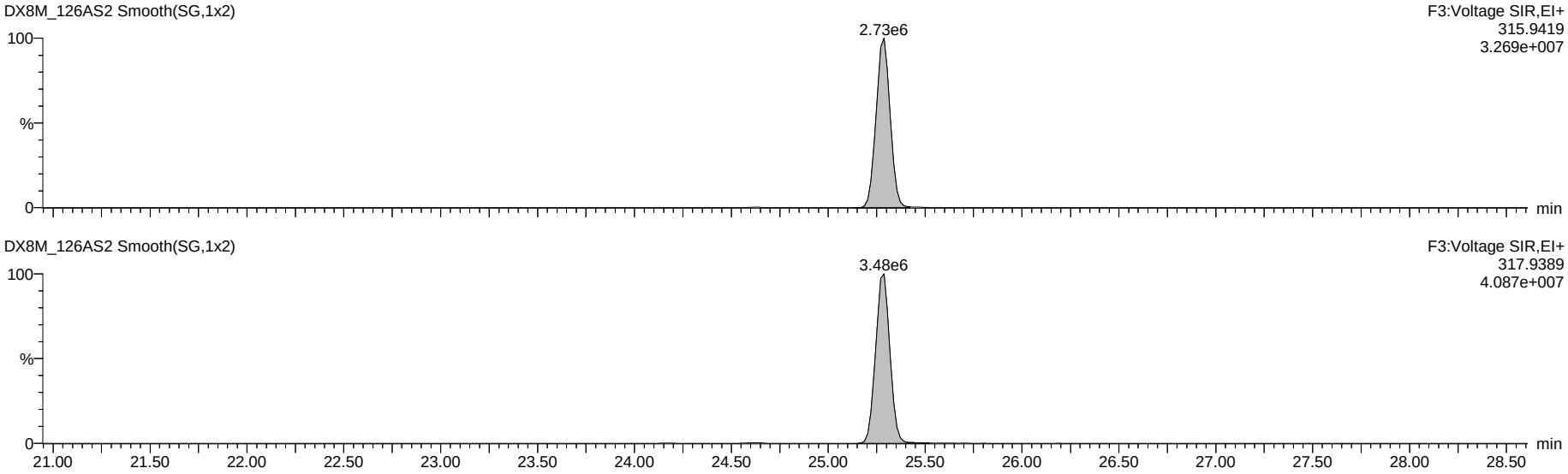

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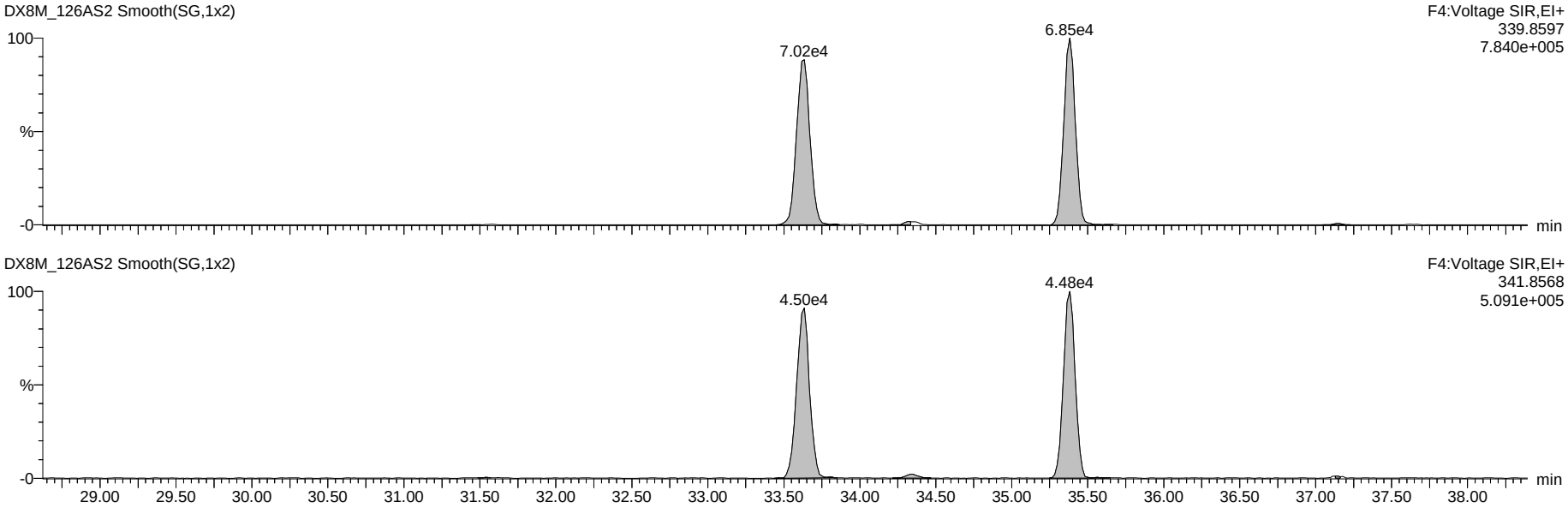
Total Penta-Furans



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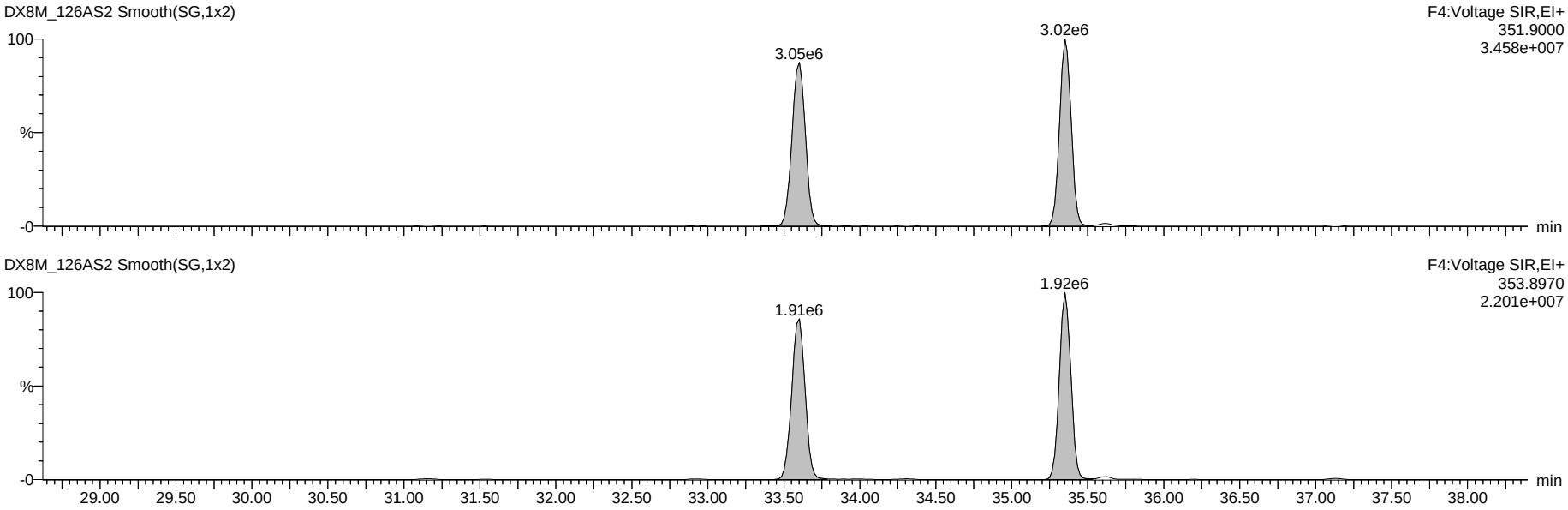

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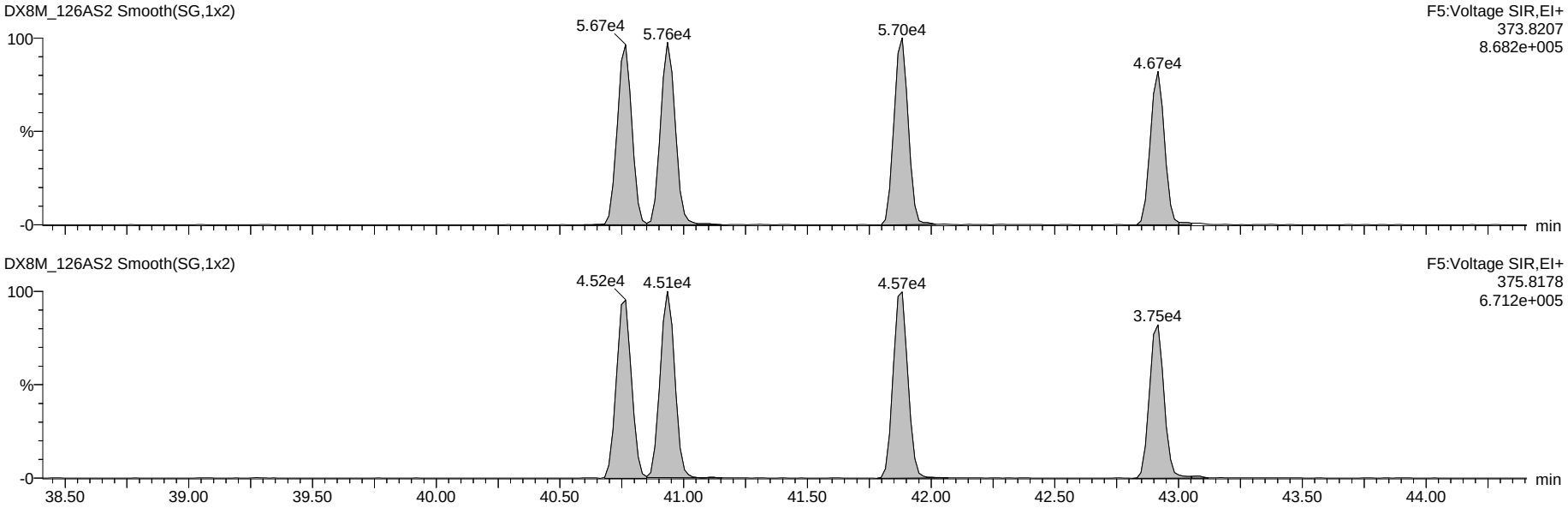
Total Hexa-Furans



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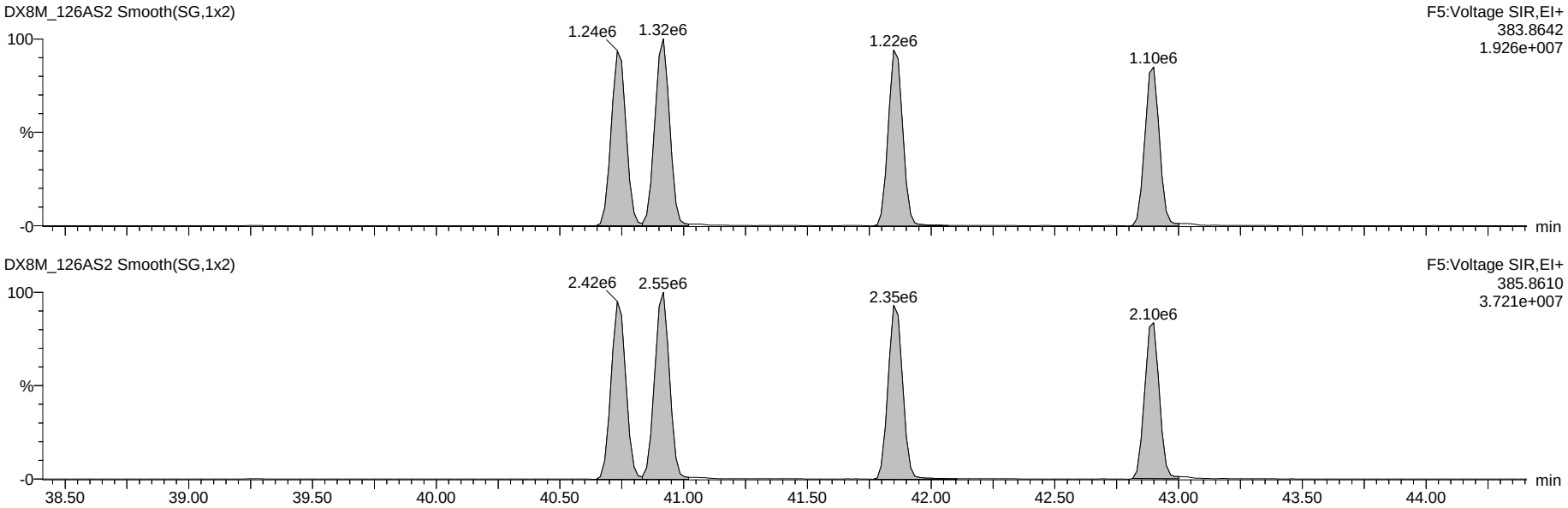

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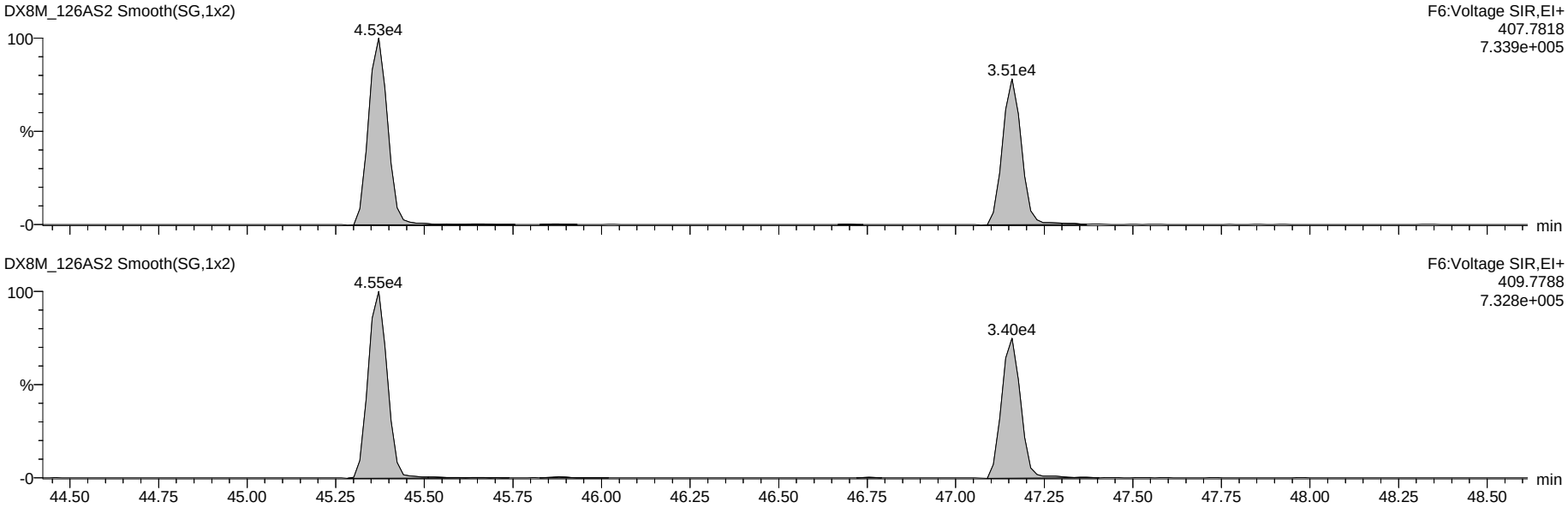
Total Hepta-Furans



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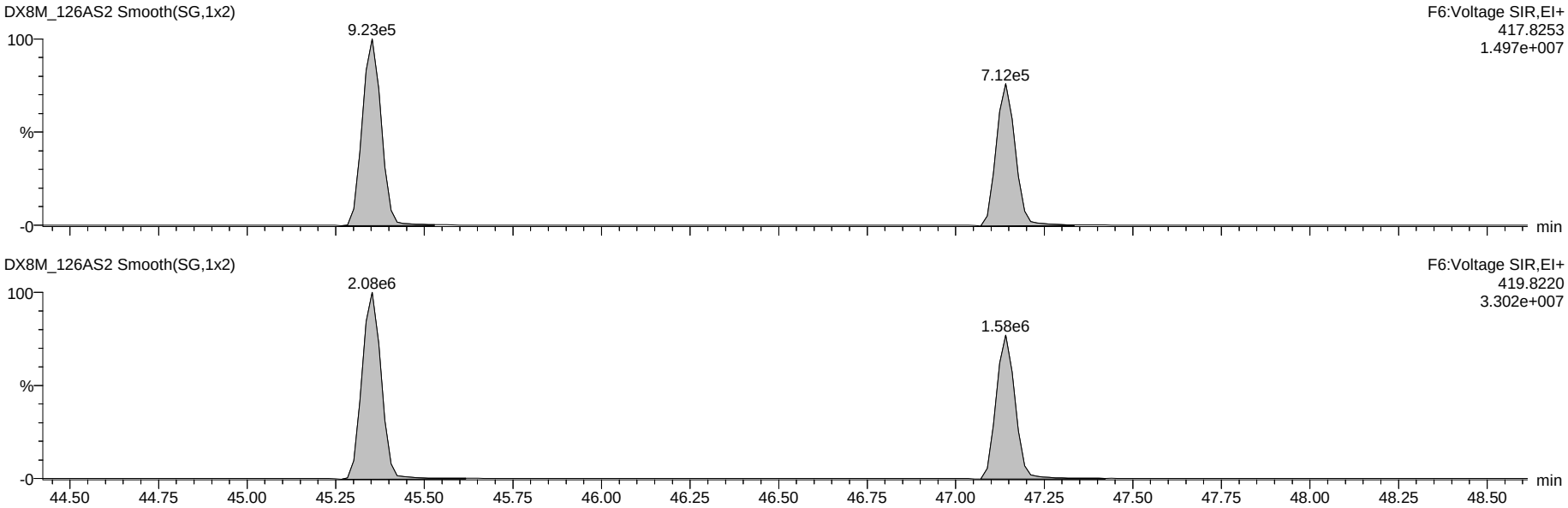

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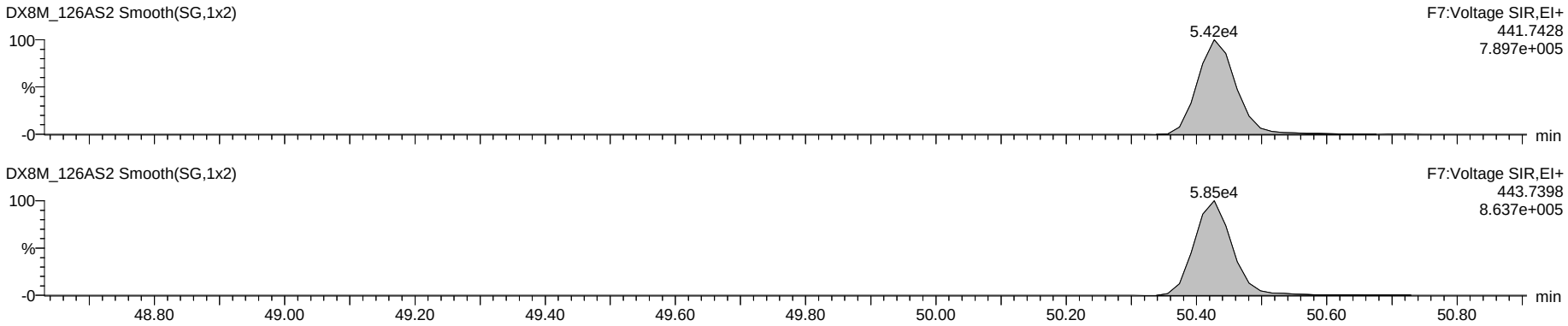
OCDF



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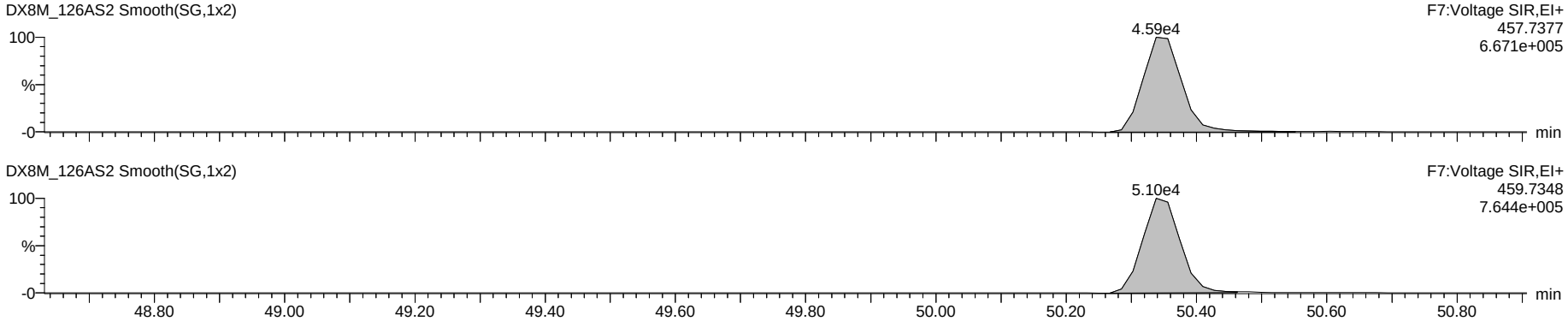

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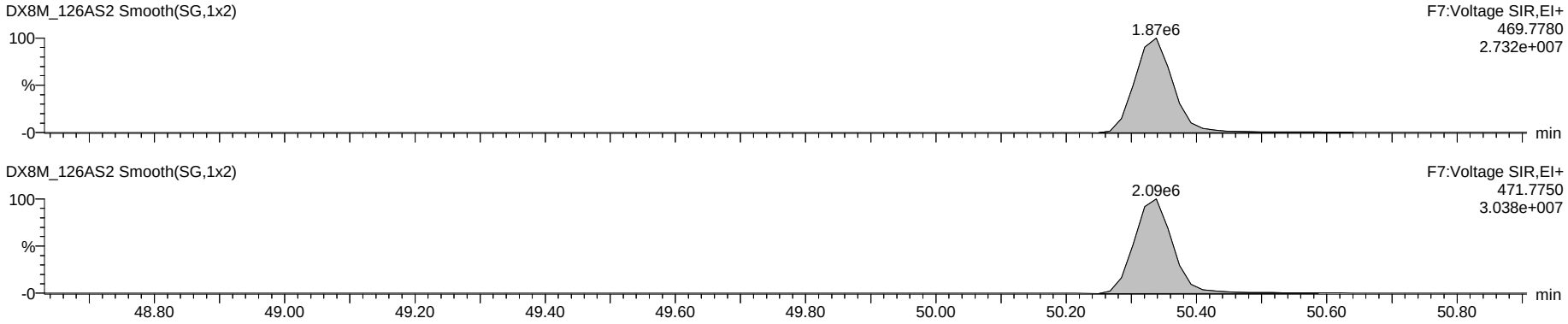

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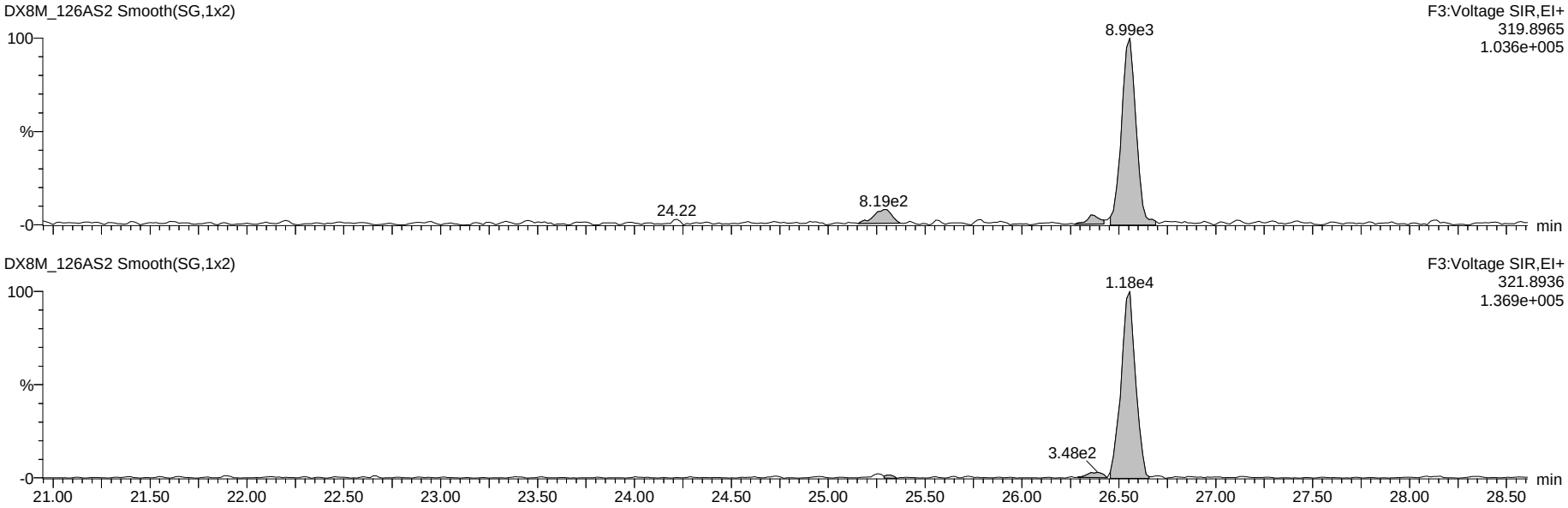
Total Tetra-Dioxins



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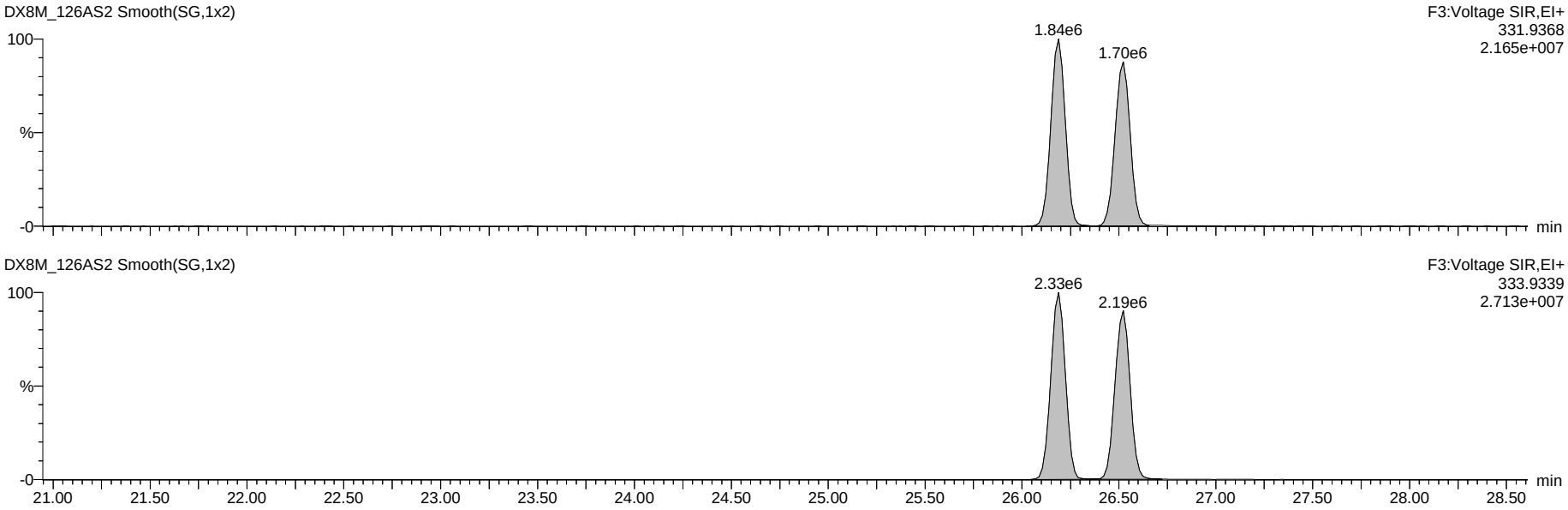

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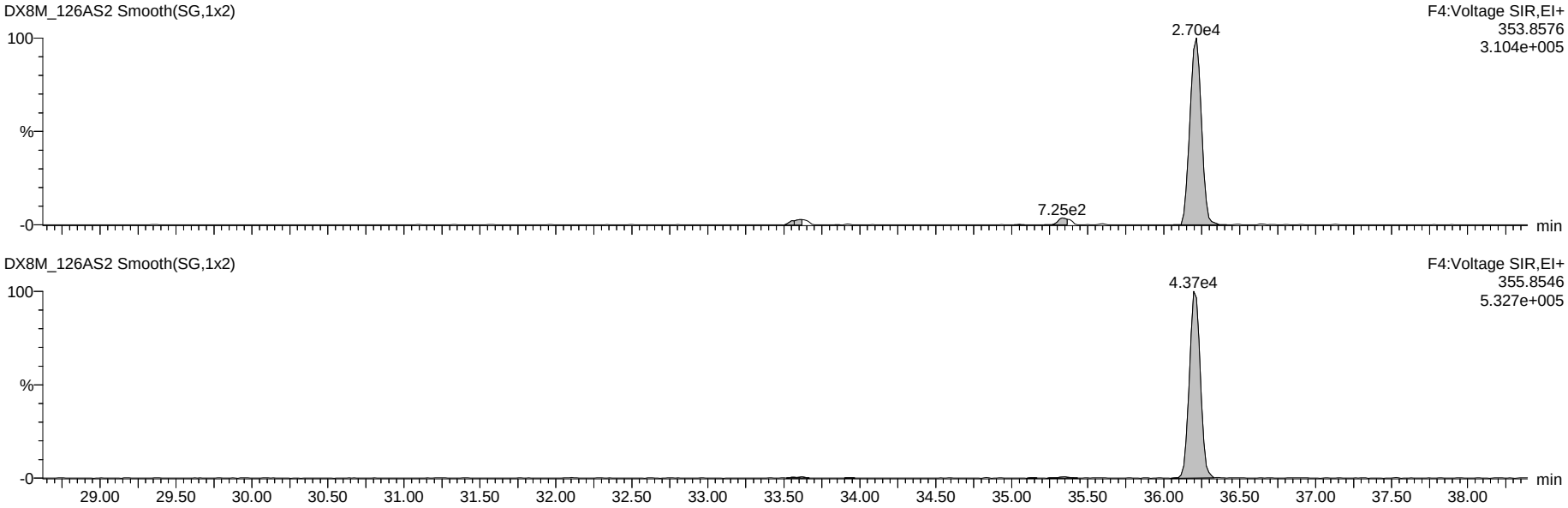
Total Penta-Dioxins



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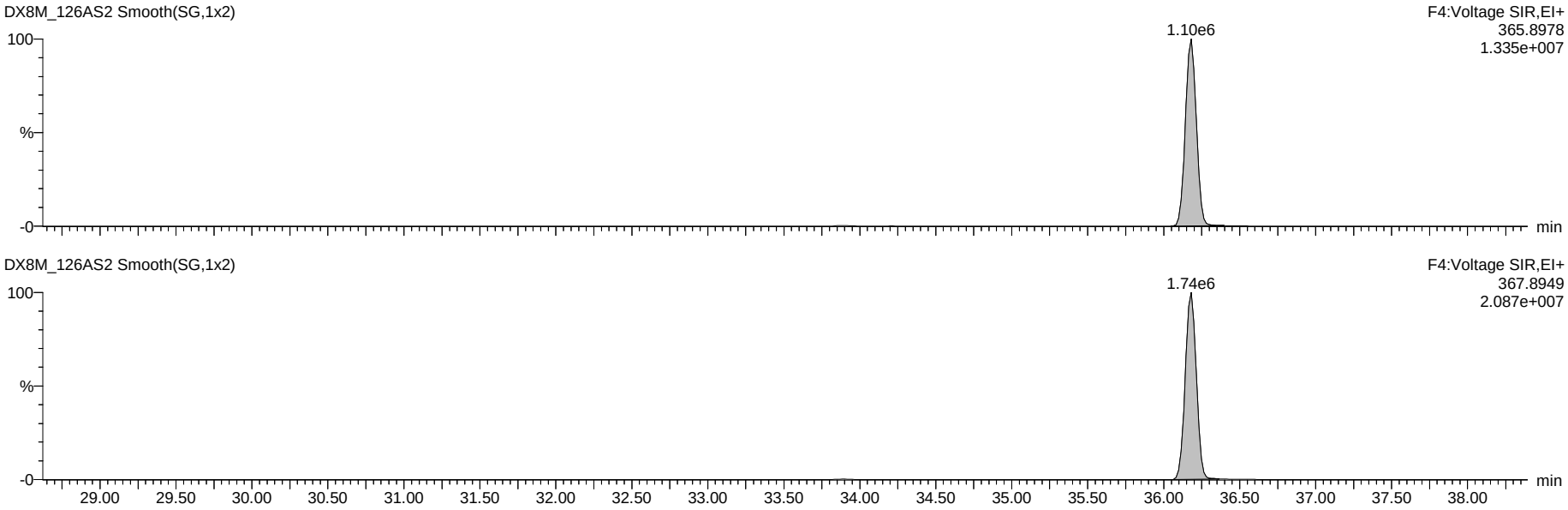

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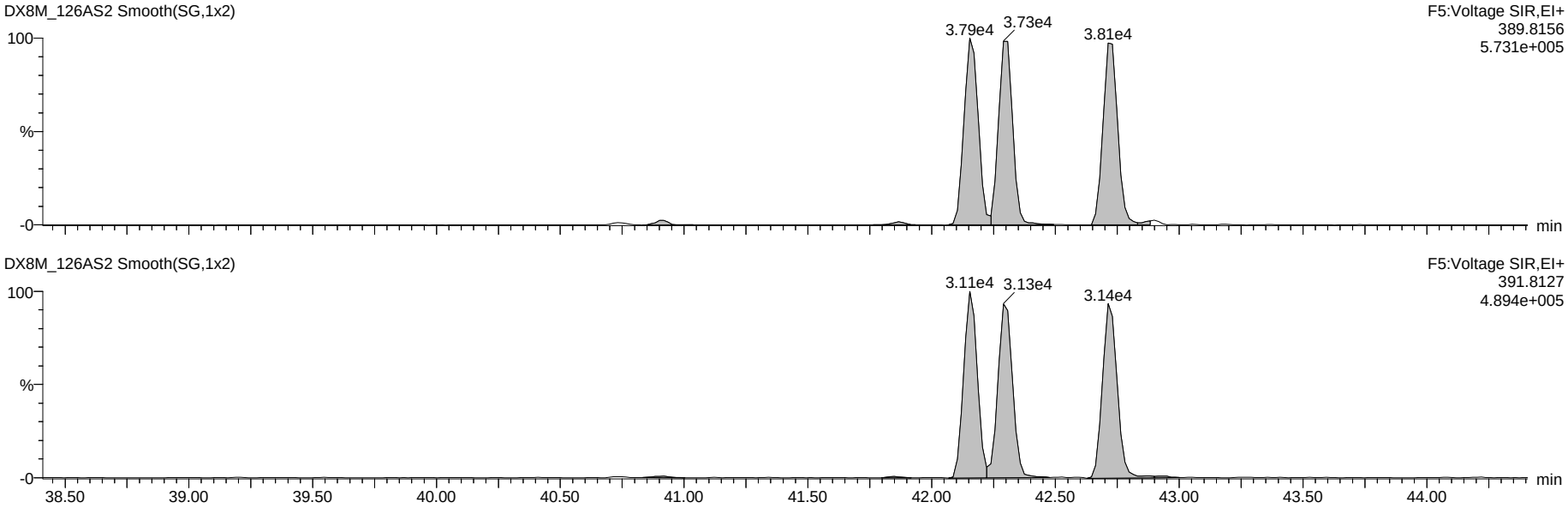

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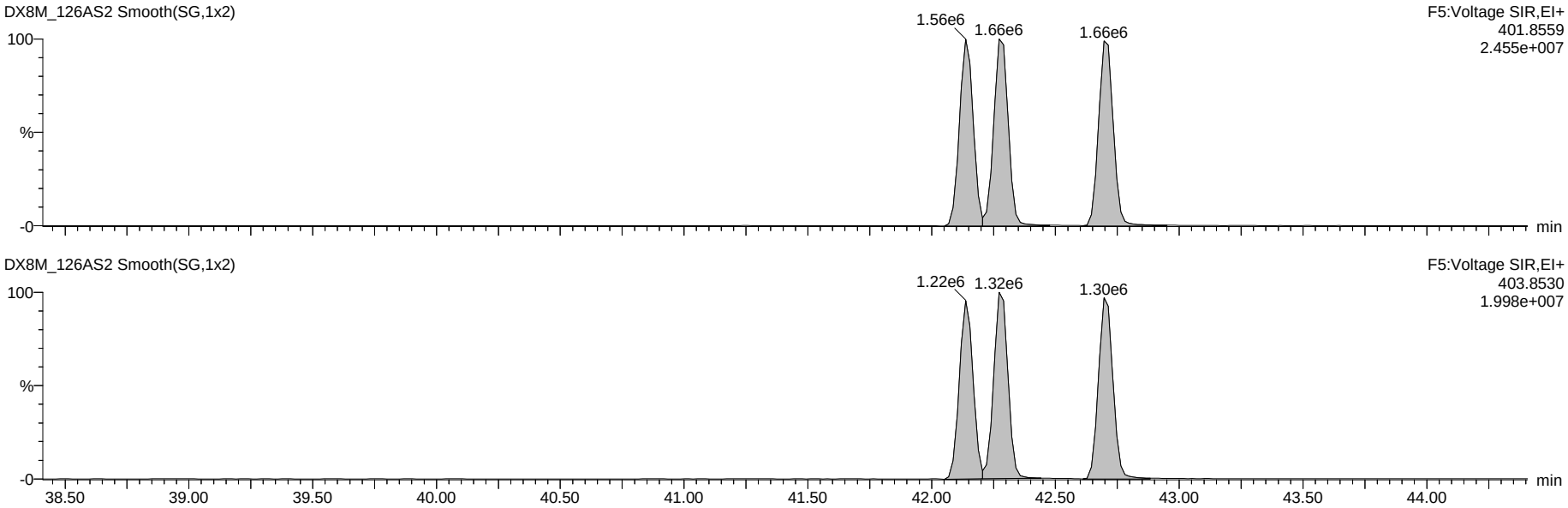

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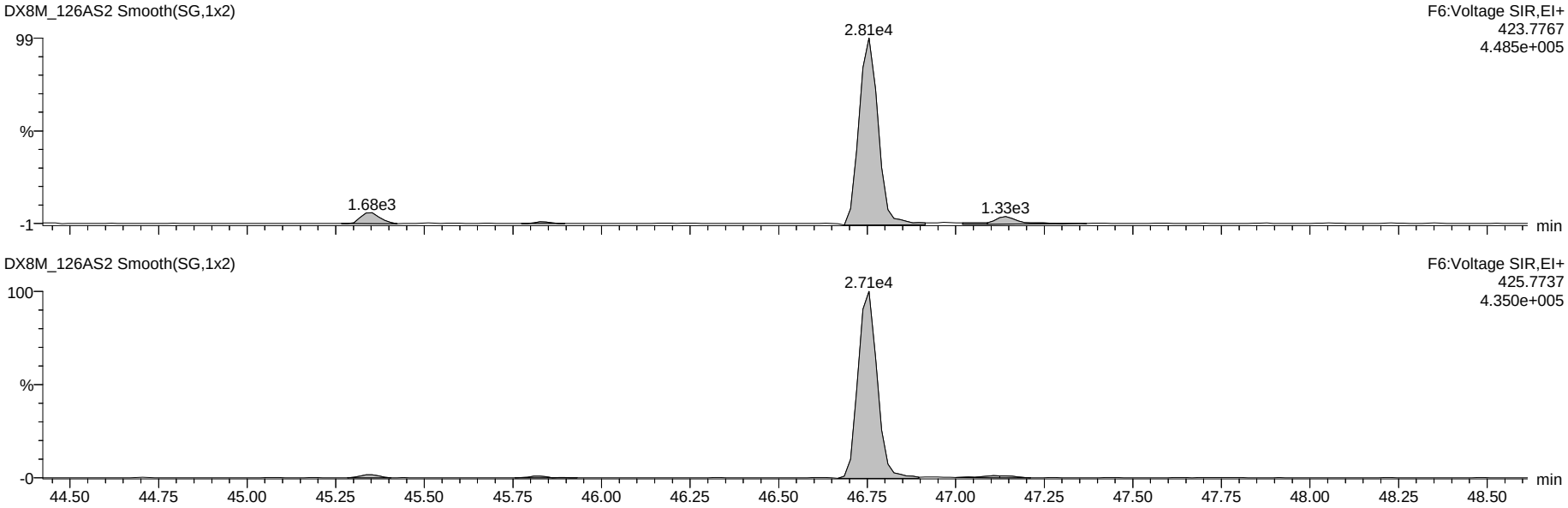
Total Hepta-Dioxins



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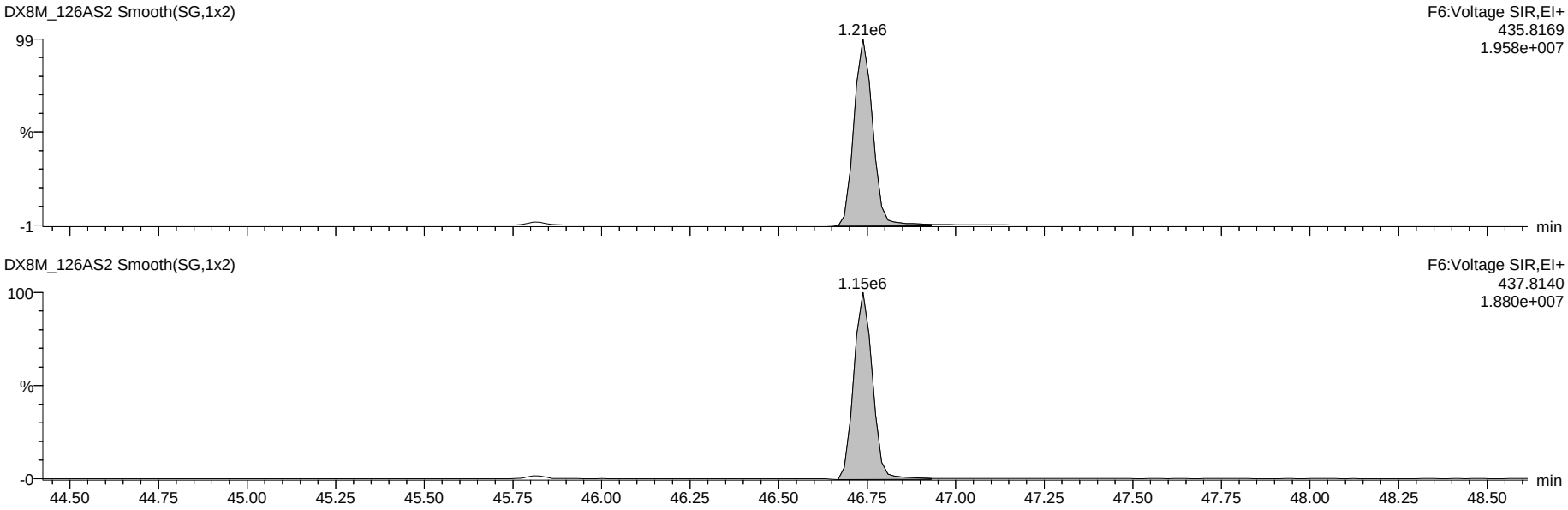

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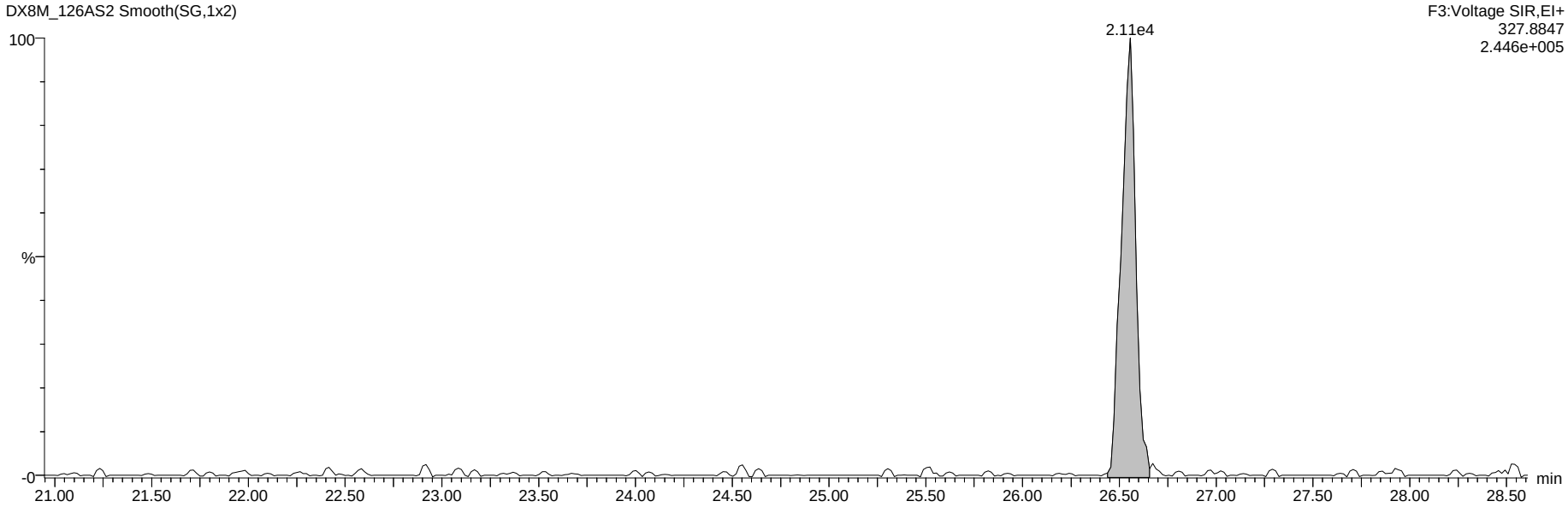
37Cl-2,3,7,8-TCDD



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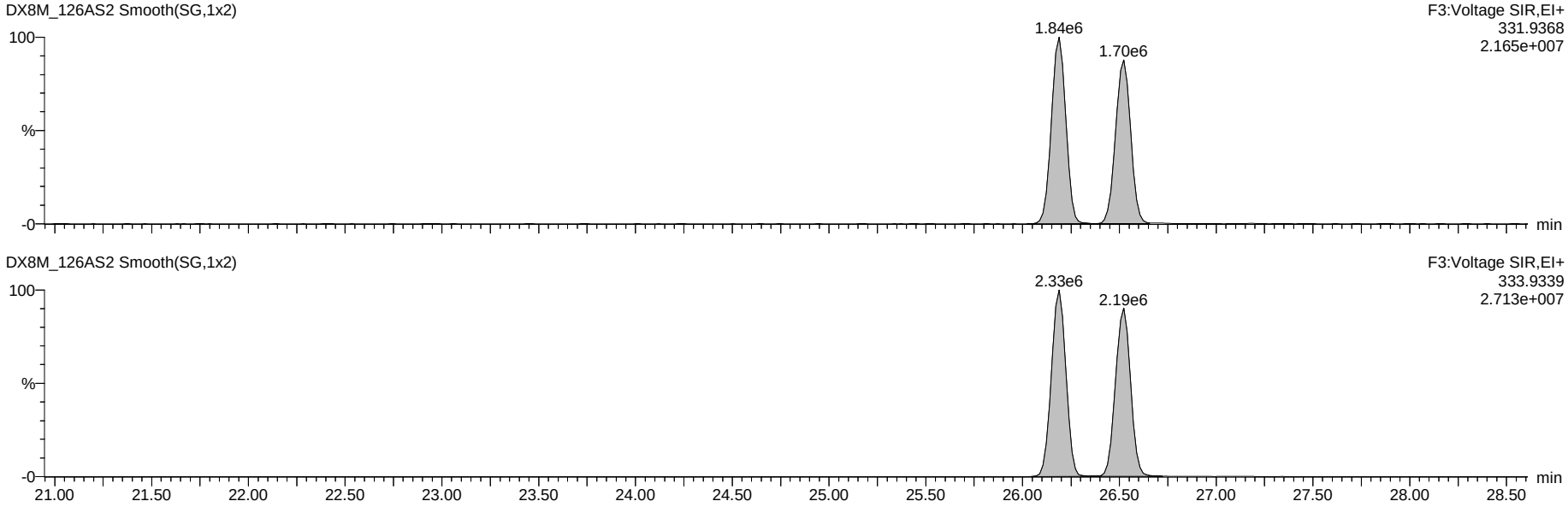

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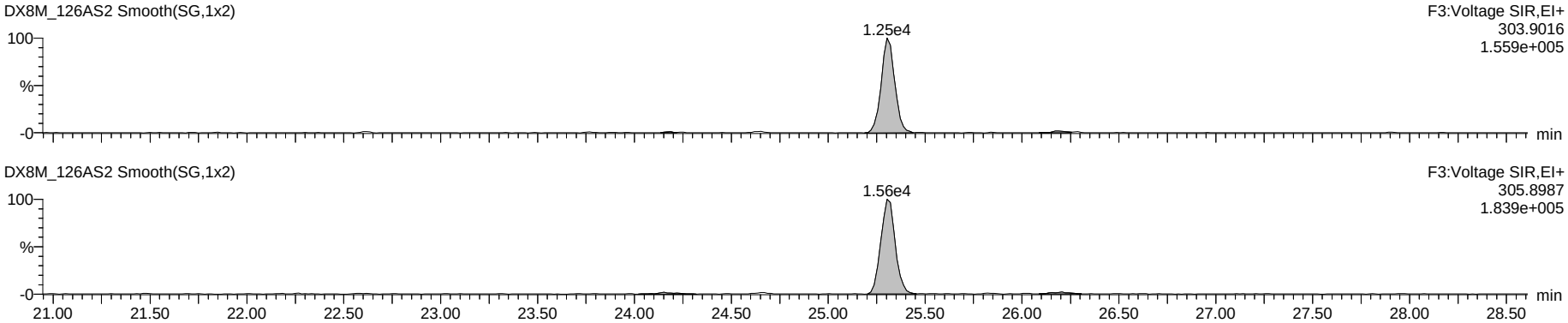
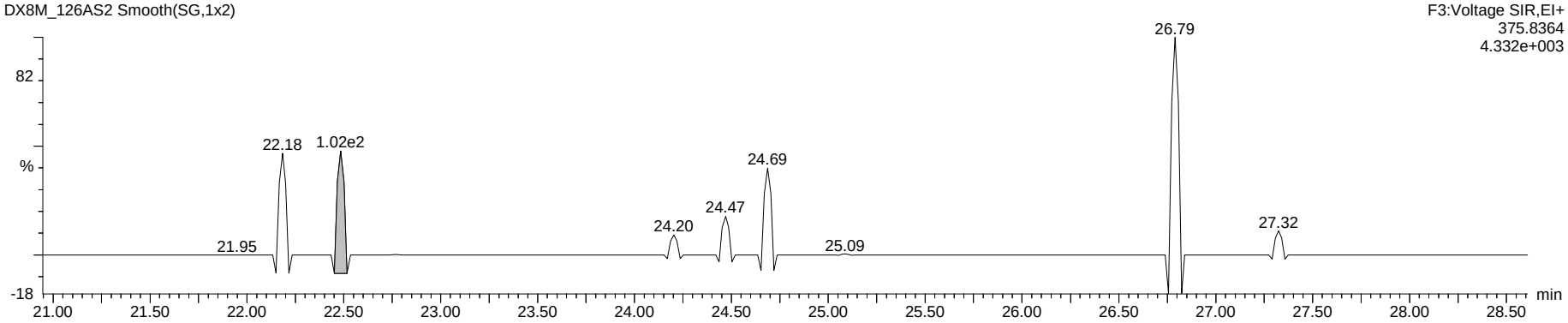
Total Tetra-Furans



Hexa DPE



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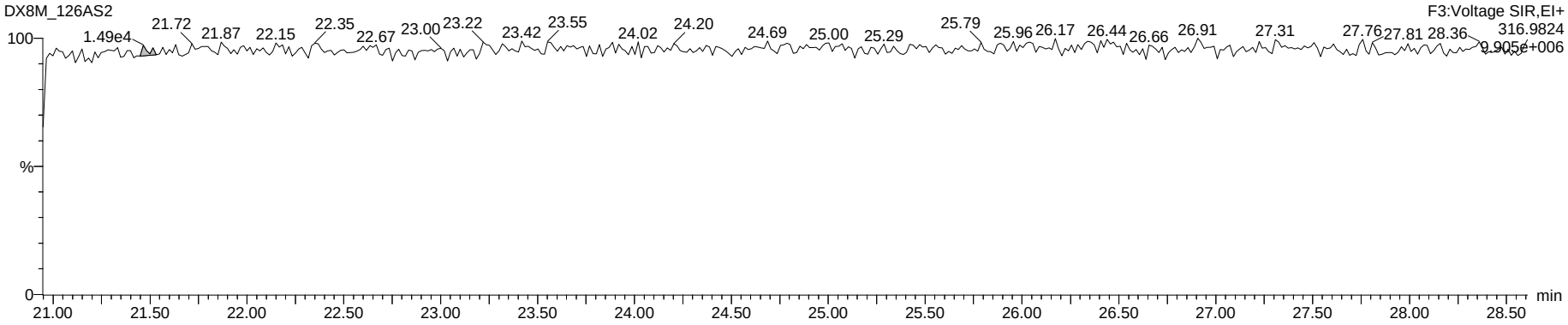

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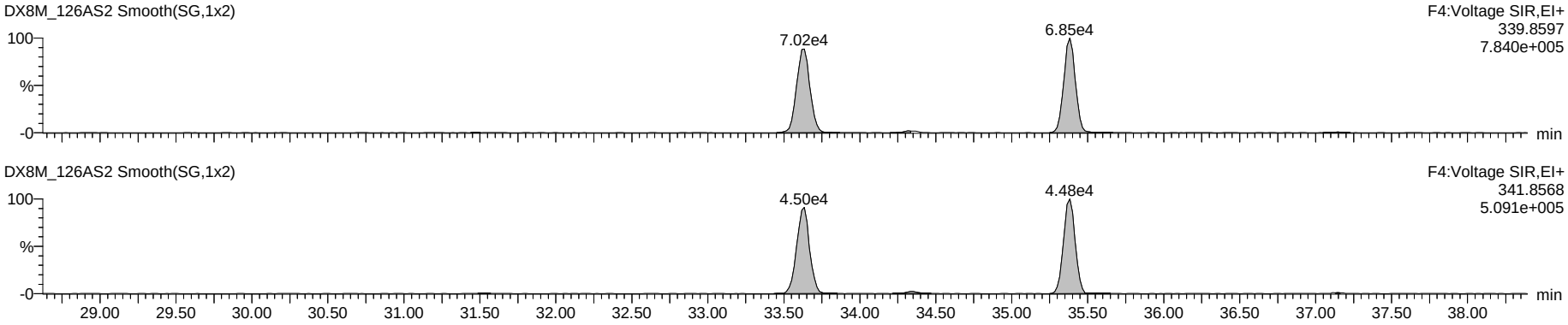
Total Penta-Furans



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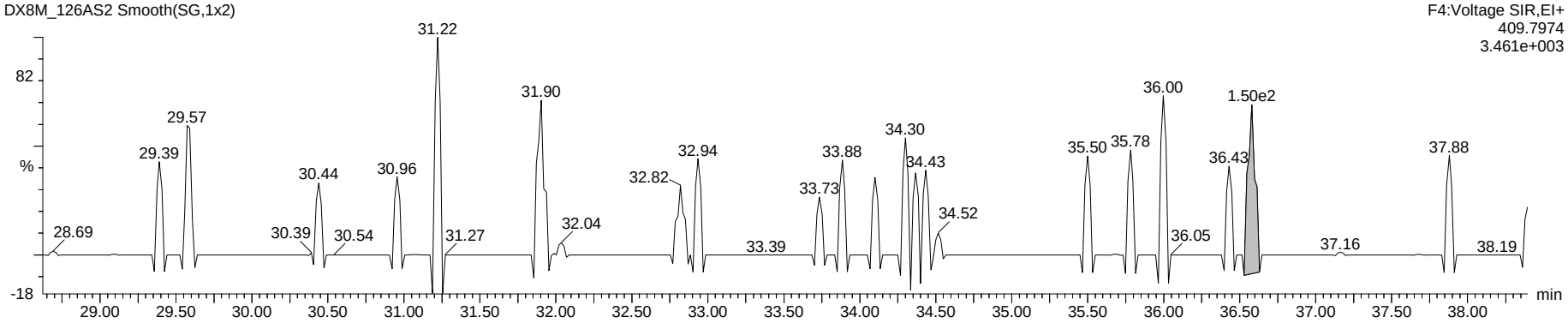
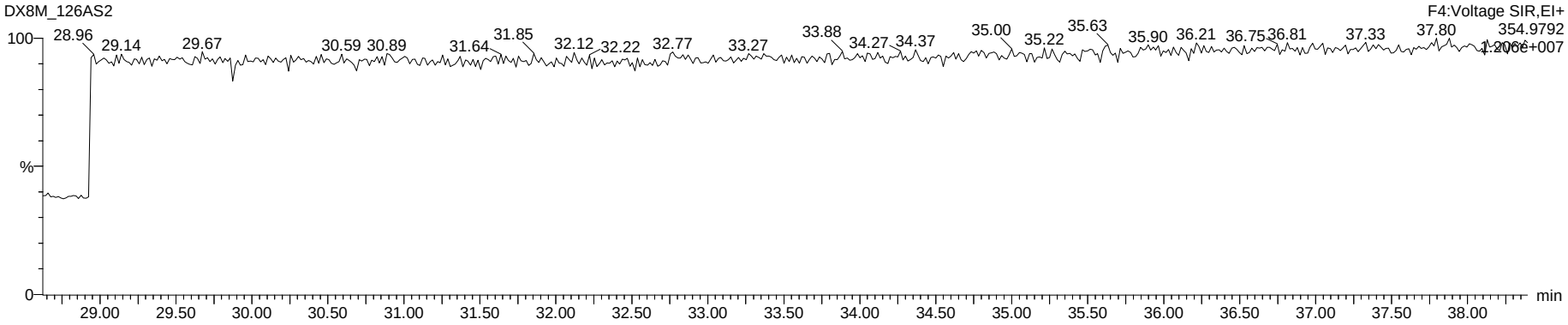


Penta Lock



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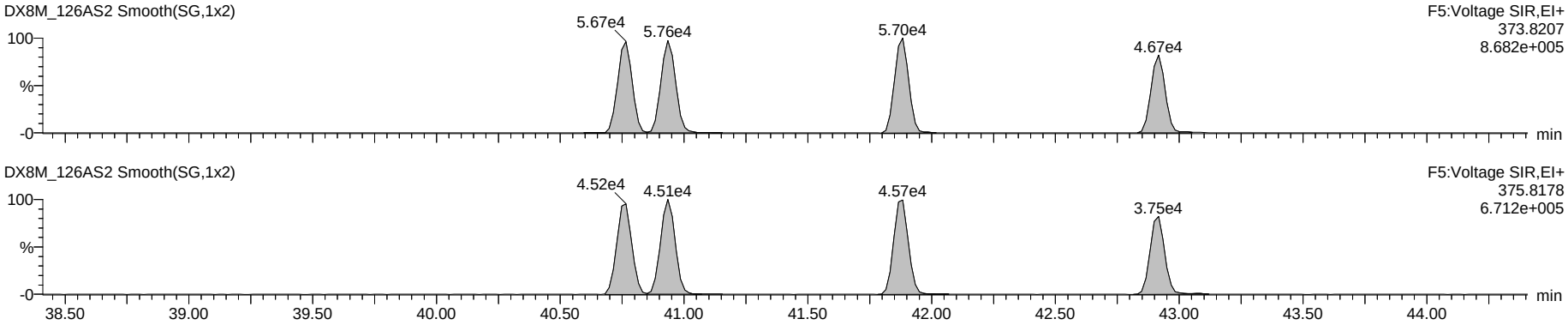
Total Hexa-Furans



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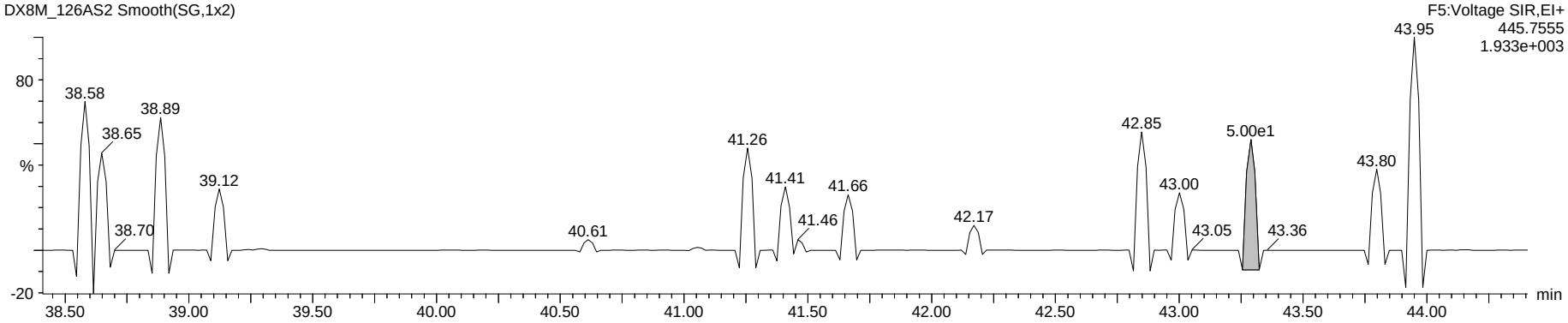

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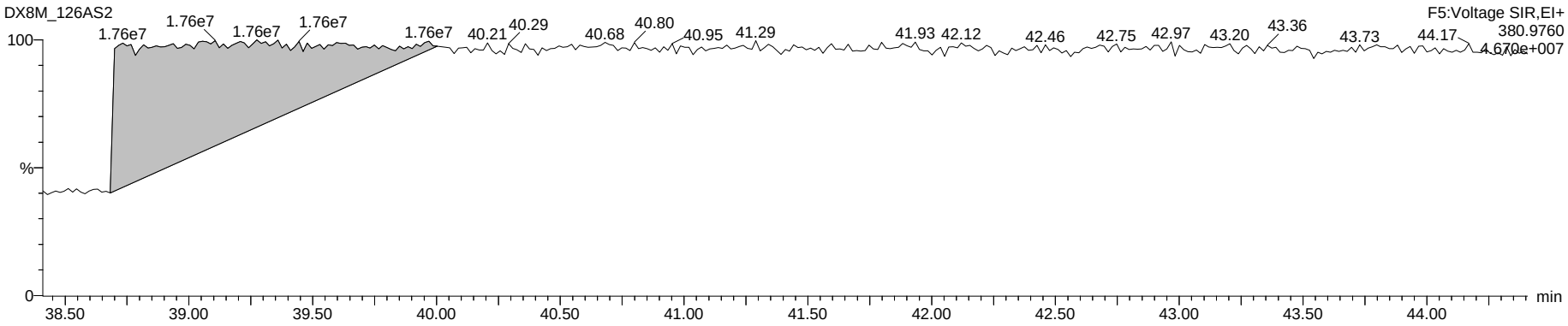

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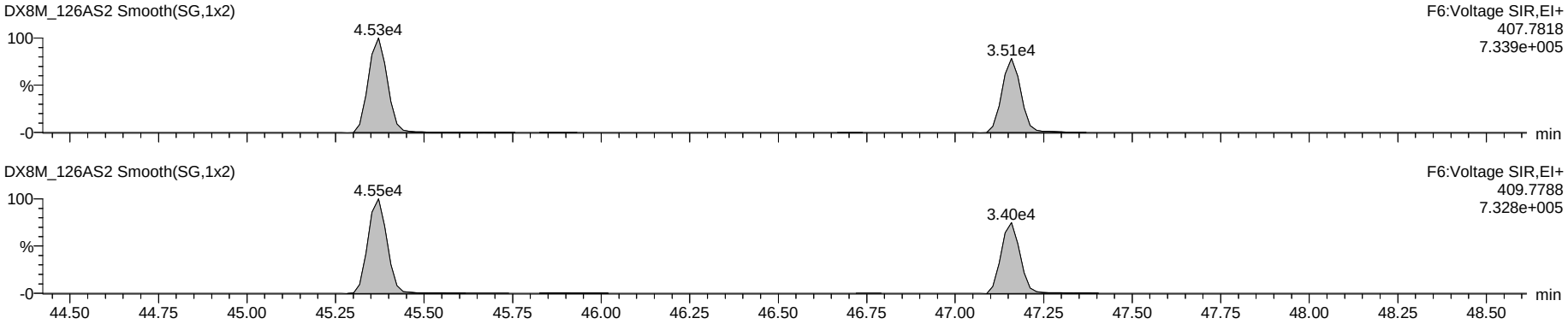

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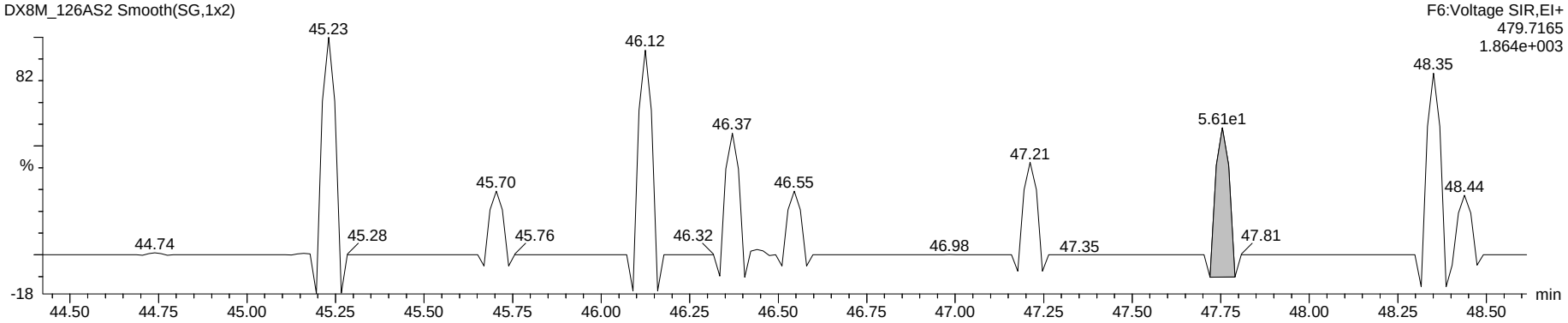

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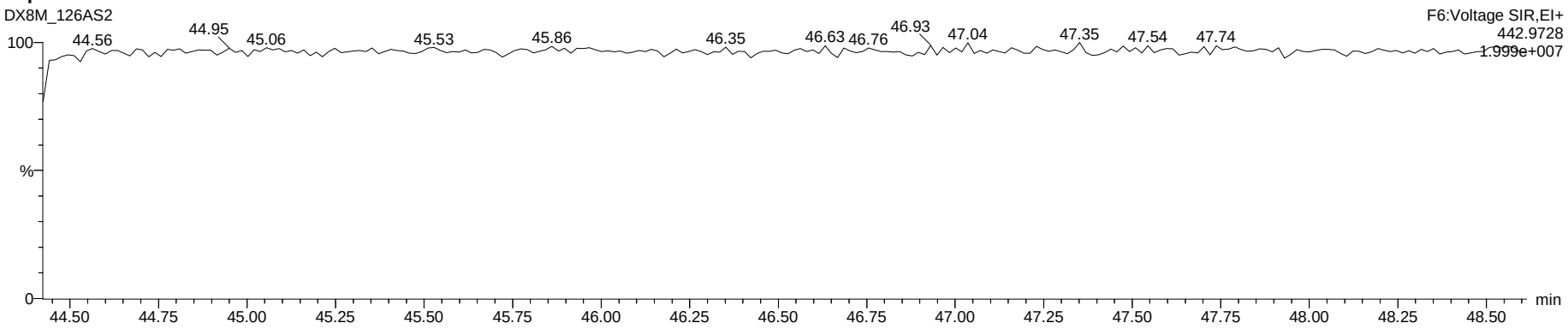

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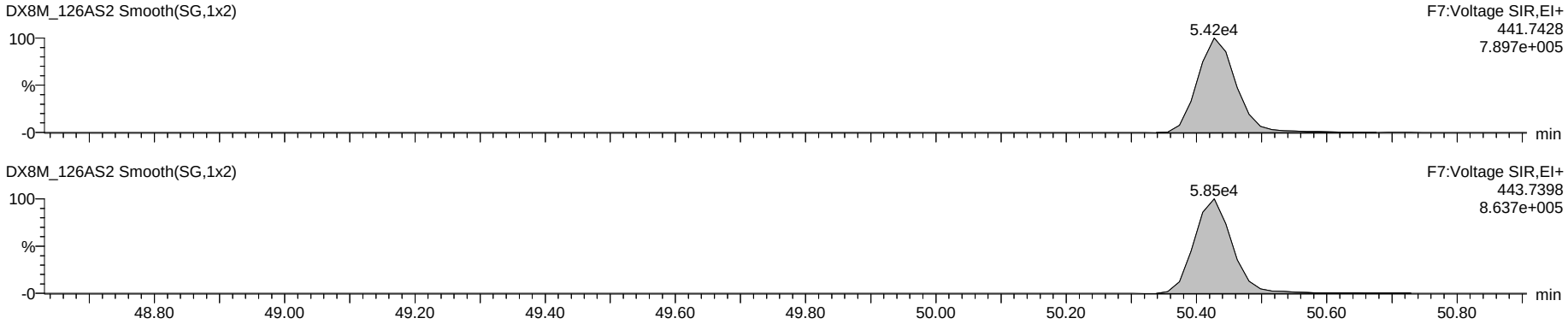
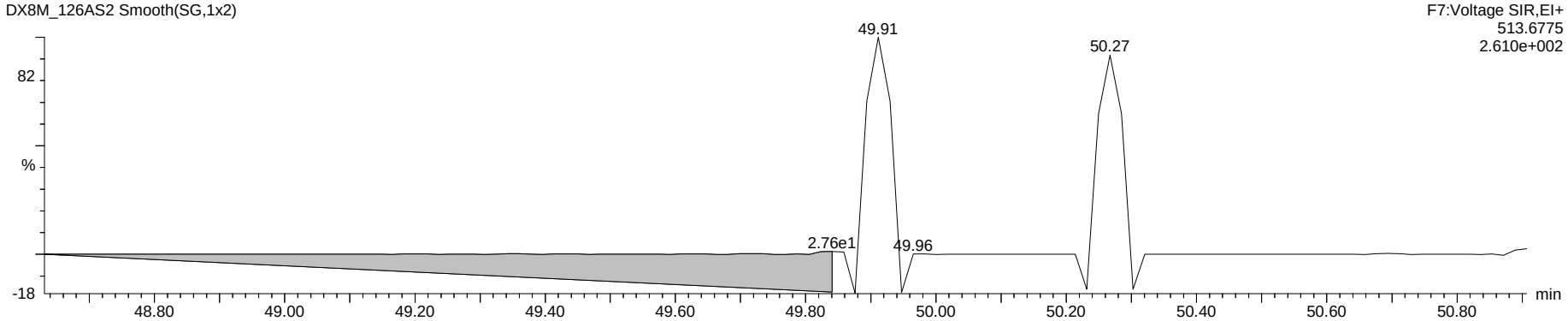
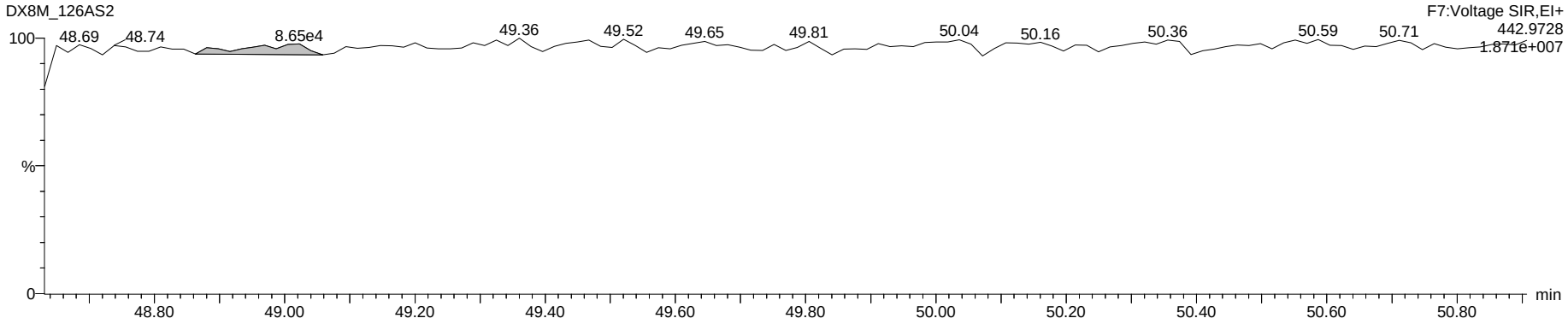
OCDF



Deca DPE



Octa Lock



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Name: DX8M_126AS3, Date: 24-Oct-2018, Time: 10:09:08, ID: DX041C-CAL,,/01, Description: 1,,1.0uL CS-2

	Name	Amount	Resp	Ratio	fails?	RT	RRF	RRF Mean	RRF SD	RRF %Rel SD	S/N	1º S/N
1	2,3,7,8-TCDF	2.000	1.17e5	0.78	NO	25.29	0.885	0.9390	0.034	3.63	904	1010
2	1,2,3,7,8-PeCDF	10.000	4.64e5	1.55	NO	33.62	0.871	0.9345	0.039	4.16	2996	2555
3	2,3,4,7,8-PeCDF	10.000	4.76e5	1.55	NO	35.37	0.903	0.9393	0.040	4.30	3538	3060
4	1,2,3,4,7,8-HxCDF	10.000	4.30e5	1.27	NO	40.75	1.086	1.1360	0.047	4.13	3206	3874
5	1,2,3,6,7,8-HxCDF	10.000	4.44e5	1.27	NO	40.92	1.055	1.0868	0.041	3.79	3167	3912
6	2,3,4,6,7,8-HxCDF	10.000	4.29e5	1.24	NO	41.87	1.105	1.1636	0.049	4.23	3319	4152
7	1,2,3,7,8,9-HxCDF	10.000	3.45e5	1.26	NO	42.90	0.983	1.0339	0.031	2.98	2636	3251
8	1,2,3,4,6,7,8-HpCDF	10.000	3.76e5	1.04	NO	45.35	1.158	1.2267	0.074	6.06	2846	3792
9	1,2,3,4,7,8,9-HpCDF	10.000	2.96e5	1.01	NO	47.14	1.194	1.2333	0.050	4.08	2204	2983
10	OCDF	20.000	4.71e5	0.91	NO	50.43	1.139	1.1975	0.095	7.95	10526	4377
11	2,3,7,8-TCDD	2.000	8.06e4	0.84	NO	26.54	0.961	1.0401	0.041	3.91	454	935
12	1,2,3,7,8-PeCDD	10.000	2.94e5	0.60	NO	36.20	0.960	1.0058	0.036	3.58	3105	2993
13	1,2,3,4,7,8-HxCDD	10.000	2.90e5	1.23	NO	42.15	0.955	0.9986	0.034	3.42	4081	3050
14	1,2,3,6,7,8-HxCDD	10.000	2.90e5	1.25	NO	42.29	0.897	0.9331	0.037	3.98	4087	3096
15	1,2,3,7,8,9-HxCDD	10.000	2.82e5	1.25	NO	42.71	0.901	0.9468	0.033	3.48	3900	3003
16	1,2,3,4,6,7,8-HpCDD	10.000	2.41e5	1.06	NO	46.74	0.950	0.9602	0.061	6.30	2153	3069
17	OCDD	20.000	4.01e5	0.88	NO	50.34	0.970	0.9954	0.040	4.06	18155	0
18	13C-2,3,7,8-TCDF	100.000	6.63e6	0.77	NO	25.27	1.529	1.5236	0.024	1.54	4347	8914
19	13C-1,2,3,7,8-PeCDF	100.000	5.32e6	1.57	NO	33.58	1.227	1.2485	0.066	5.26	8403	8424
20	13C-2,3,4,7,8-PeCDF	100.000	5.27e6	1.60	NO	35.33	1.216	1.2415	0.066	5.32	9504	9500
21	13C-1,2,3,4,7,8-HxCDF	100.000	3.96e6	0.51	NO	40.73	1.277	1.2745	0.027	2.10	3375	11769
22	13C-1,2,3,6,7,8-HxCDF	100.000	4.21e6	0.52	NO	40.90	1.357	1.3711	0.039	2.82	3697	12766
23	13C-2,3,4,6,7,8-HxCDF	100.000	3.88e6	0.52	NO	41.85	1.252	1.2413	0.035	2.81	3506	11986
24	13C-1,2,3,7,8,9-HxCDF	100.000	3.51e6	0.51	NO	42.88	1.132	1.1393	0.032	2.82	3154	10954
25	13C-1,2,3,4,6,7,8-HpCDF	100.000	3.24e6	0.45	NO	45.34	1.046	1.0510	0.029	2.79	8394	11289
26	13C-1,2,3,4,7,8,9-HpCDF	100.000	2.48e6	0.44	NO	47.12	0.800	0.8034	0.029	3.64	6190	8461
27	13C-2,3,7,8-TCDD	100.000	4.20e6	0.76	NO	26.51	0.968	0.9668	0.021	2.19	2582	6159
28	13C-1,2,3,7,8-PeCDD	100.000	3.07e6	0.63	NO	36.16	0.707	0.7201	0.040	5.52	11308	9908
29	13C-1,2,3,4,7,8-HxCDD	100.000	3.03e6	1.29	NO	42.14	0.978	0.9796	0.023	2.38	9159	9137
30	13C-1,2,3,6,7,8-HxCDD	100.000	3.23e6	1.27	NO	42.27	1.043	1.0526	0.029	2.73	9813	9973
31	13C-1,2,3,4,6,7,8-HpCDD	100.000	2.53e6	1.06	NO	46.74	0.817	0.8282	0.035	4.24	4261	8362
32	13C-OCDD	200.000	4.13e6	0.91	NO	50.32	0.667	0.7120	0.052	7.28	11253	90489
33	13C-1,2,3,4-TCDD	100.000	4.34e6	0.77	NO	26.17	433...	38426.9254	4430.855	11.53	2766	6395
34	13C-1,2,3,7,8,9-HxCDD	100.000	3.10e6	1.27	NO	42.70	310...	27947.7837	3519.241	12.59	9285	9534
35	37Cl-2,3,7,8-TCDD	2.000	9.22e4			26.54	1.063	1.0910	0.100	9.20	4945	
36	Total Tetra-Furans	2.000						0.9390	0.034	3.63		
37	Total Tetra-Dioxins	2.000						1.0401	0.041	3.91		
38	Total Penta-Furans	10.000						0.9345	0.039	4.16		
39	Total Penta-Dioxins	10.000						1.0058	0.036	3.58		
40	Total Hexa-Furans	10.000						1.1360	0.047	4.13		
41	Total Hexa-Dioxins	10.000						0.9986	0.034	3.42		
42	Total Hepta-Furans	10.000						1.2267	0.074	6.06		
43	Total Hepta-Dioxins	10.000						0.9602	0.061	6.30		
44	Hexa DPE	0.000	7.56e1			26.12	0.000				11182	
45	Hepta DPE	0.000	1.68e2			33.63	0.000				15	
46	Octa DPE	0.000	7.60e1			43.15	0.000				14379	
47	Nona DPE	0.000	1.34e2			46.91	0.000				24	
48	Deca DPE	0.000	4.61e1			50.53	0.000				15292	
49	Tetra Lock	0.000										
50	Penta Lock	0.000	5.35e4			32.62	0.000				1	
51	Hexa Lock	0.000	1.73e7			38.87	0.000				1	
52	Hepta Lock	0.000	3.52e4			44.65	0.000				1	
53	Octa Lock	0.000										
54	13C-Tetra-Furans	100.000						1.5236	0.024	1.54		
55	13C-Tetra-Dioxins	100.000						0.9668	0.021	2.19		

PV LHE 26-OCT-2018

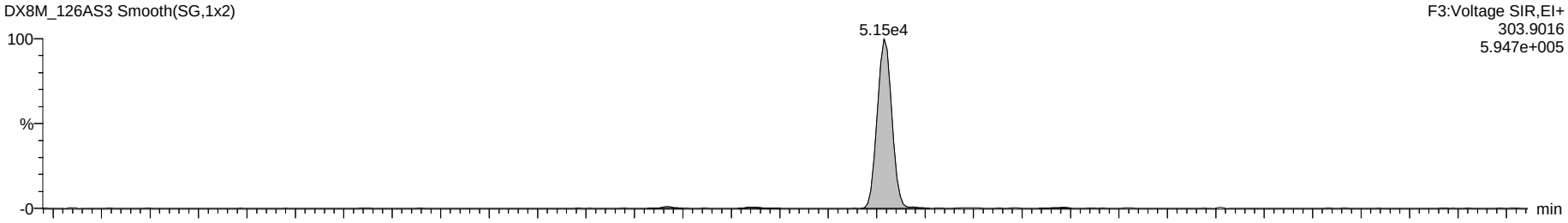
SV by TD 26-Oct-2018

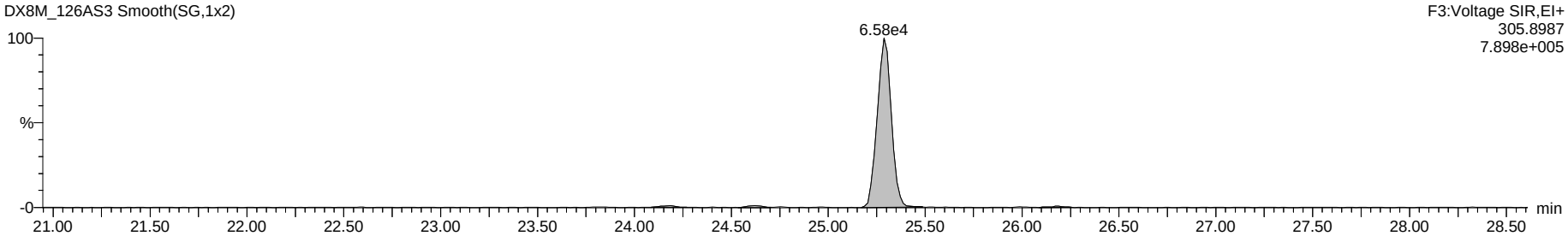
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

Method: G:\Masslynx\Inst_M\Exported_methods\DX_1613B_16.mdb 07 Sep 2017 16:45:23
Calibration: 26 Oct 2018 12:44:28

Name: DX8M_126AS3, Date: 24-Oct-2018, Time: 10:09:08, ID: DX041C-CAL,,/01, Description: 1,,1.0uL CS-2

Total Tetra-Furans





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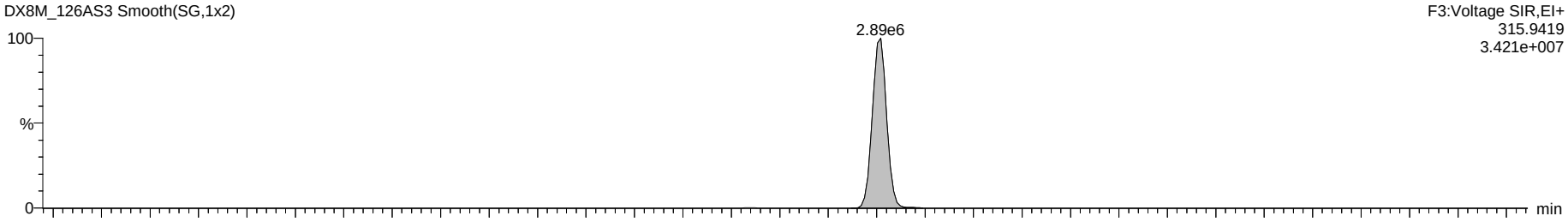

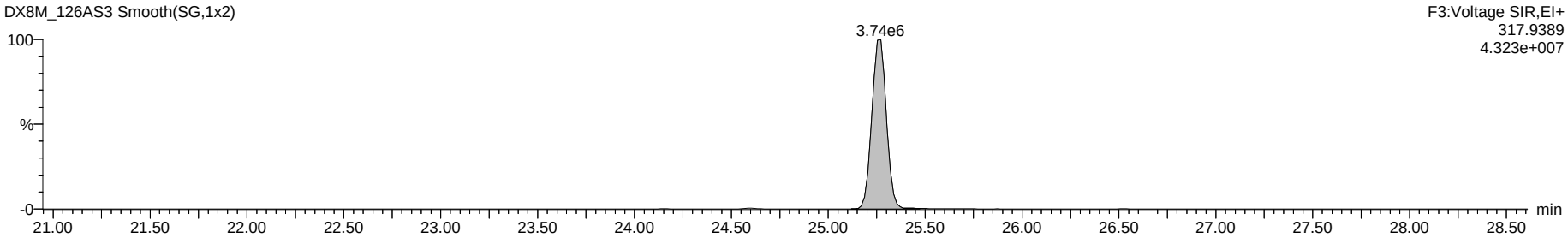

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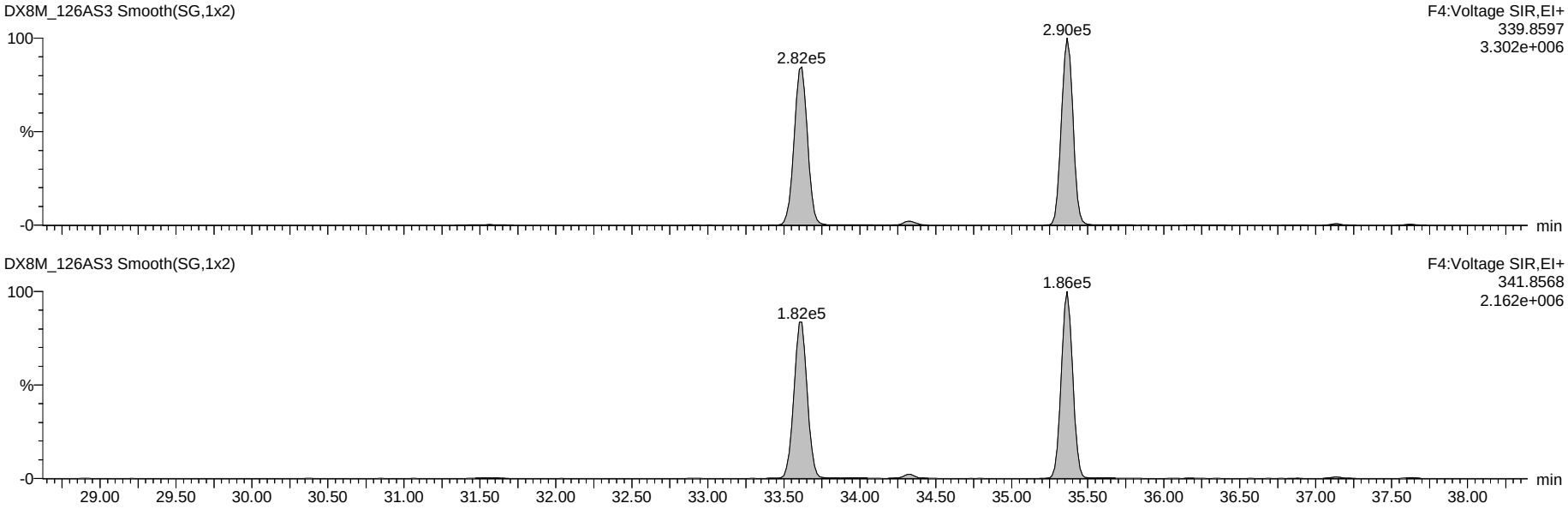
Total Penta-Furans



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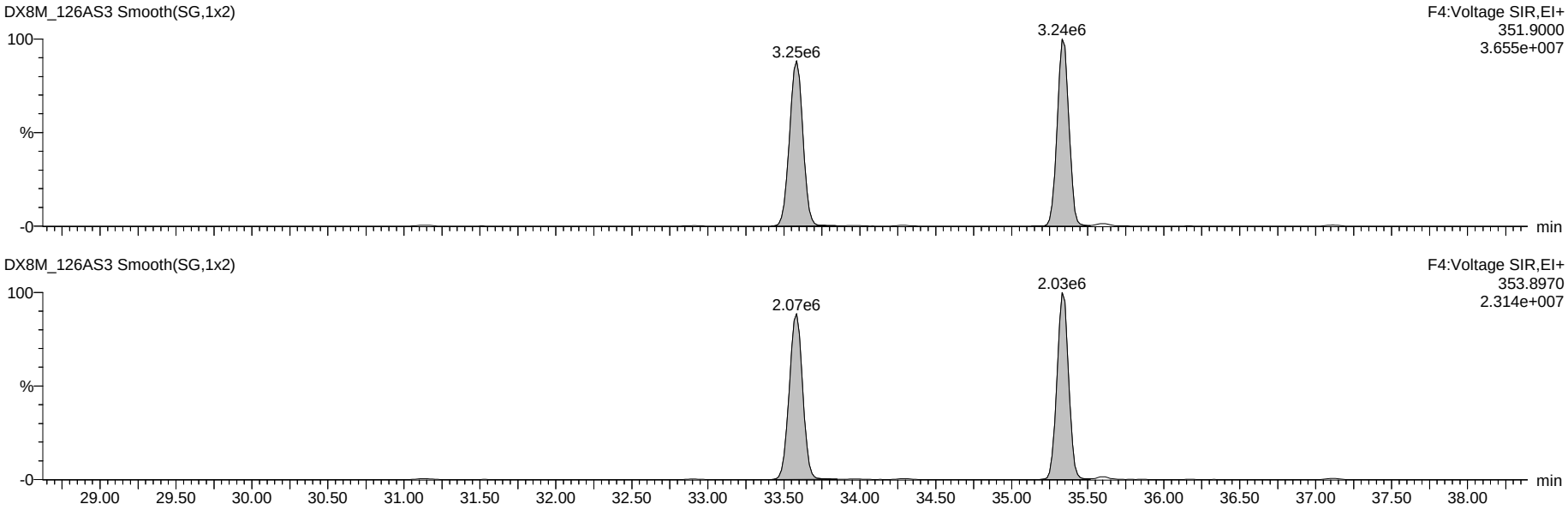

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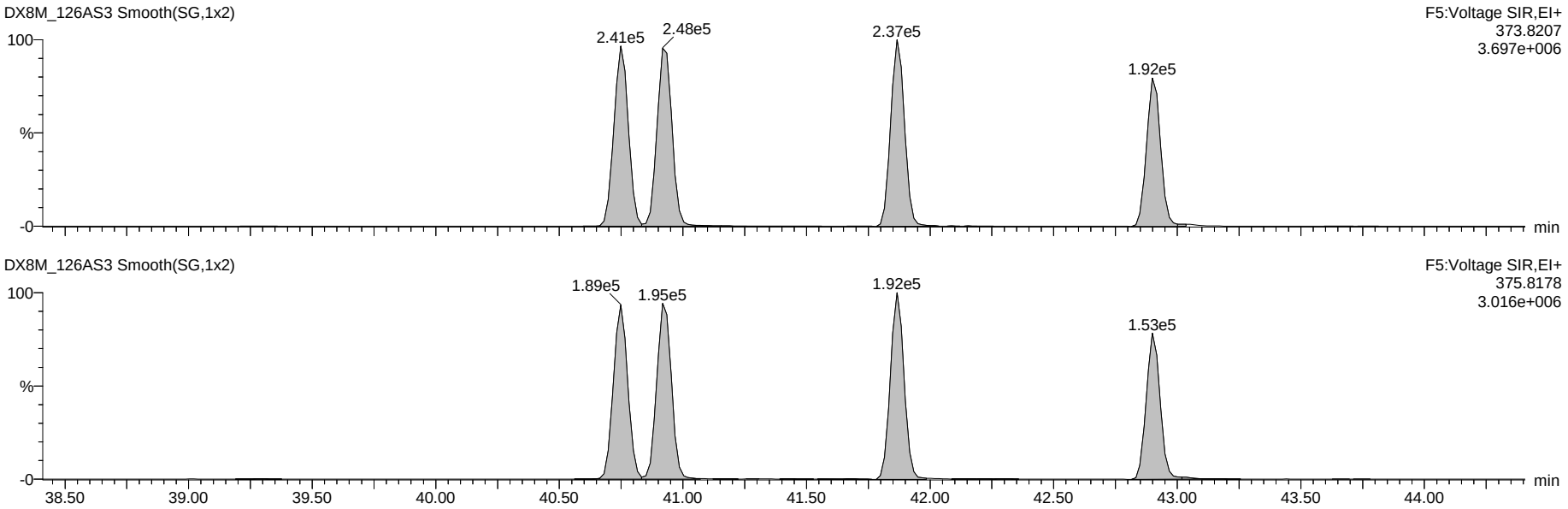
Total Hexa-Furans



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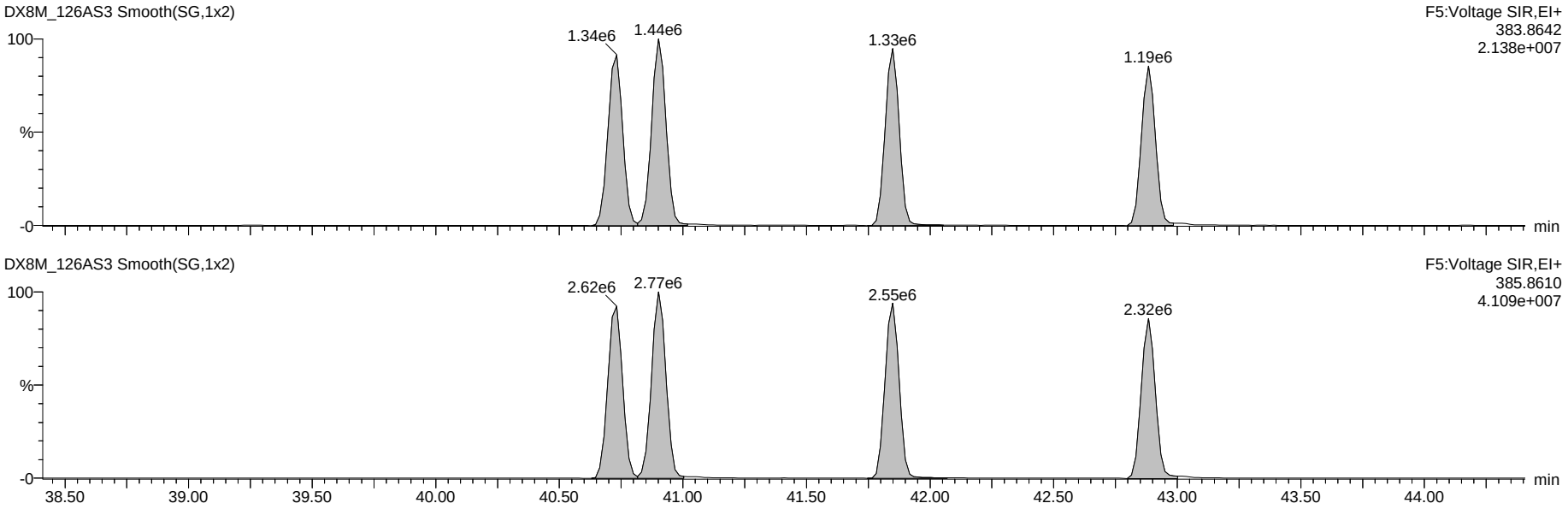

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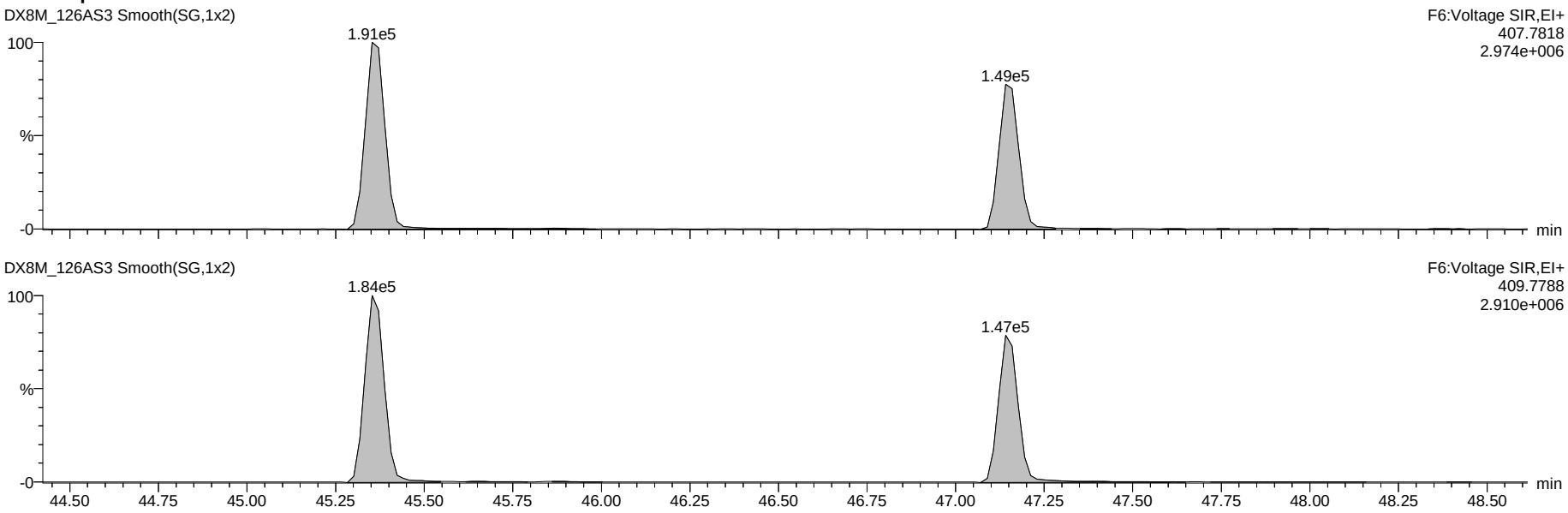
Total Hepta-Furans



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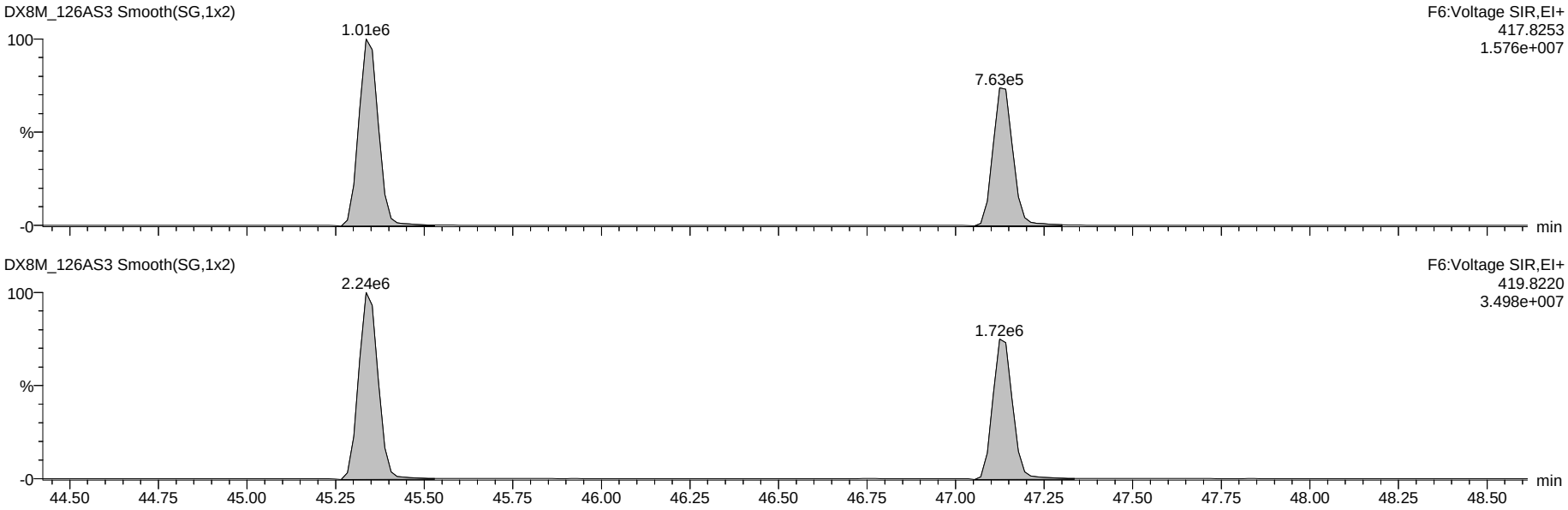

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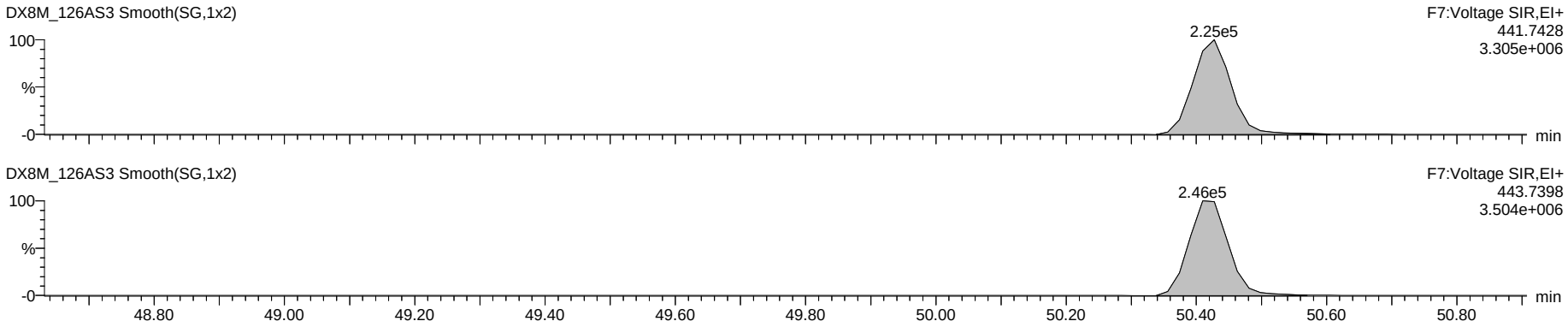
OCDF



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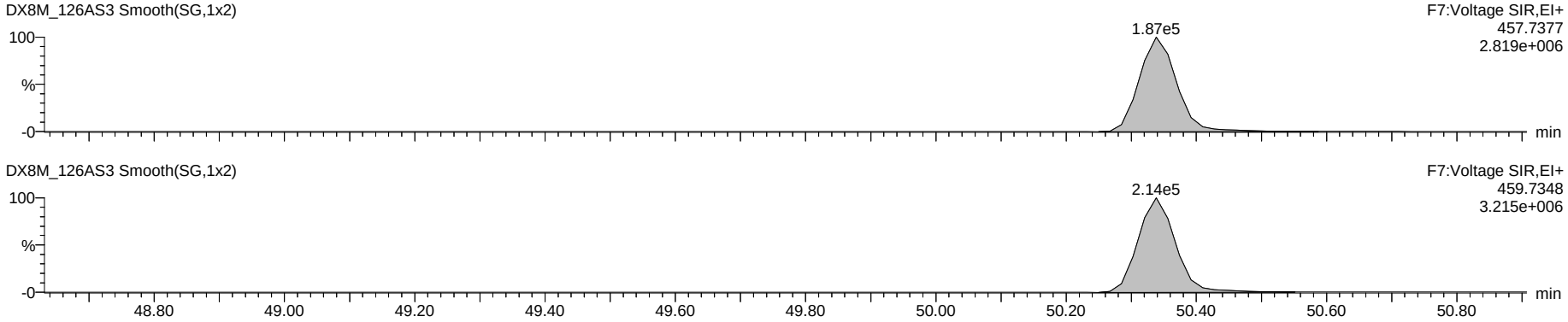

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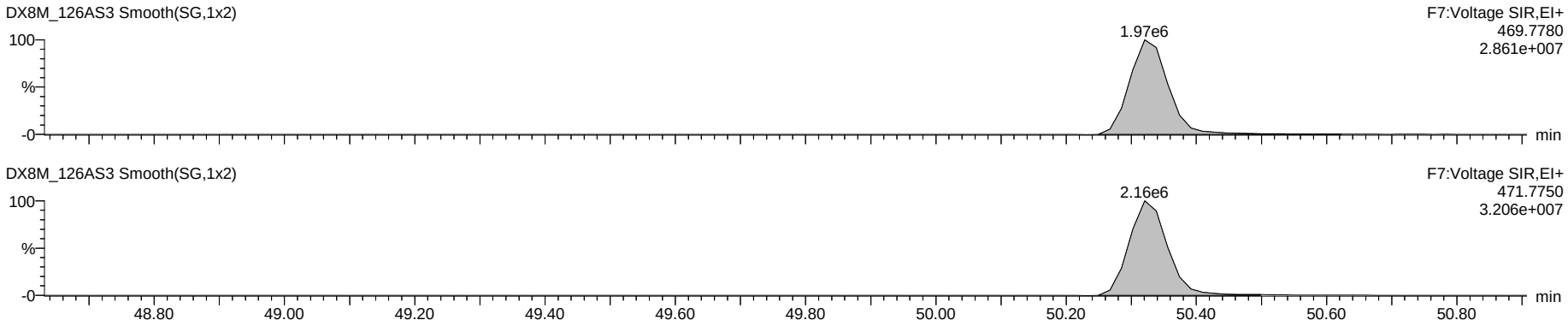

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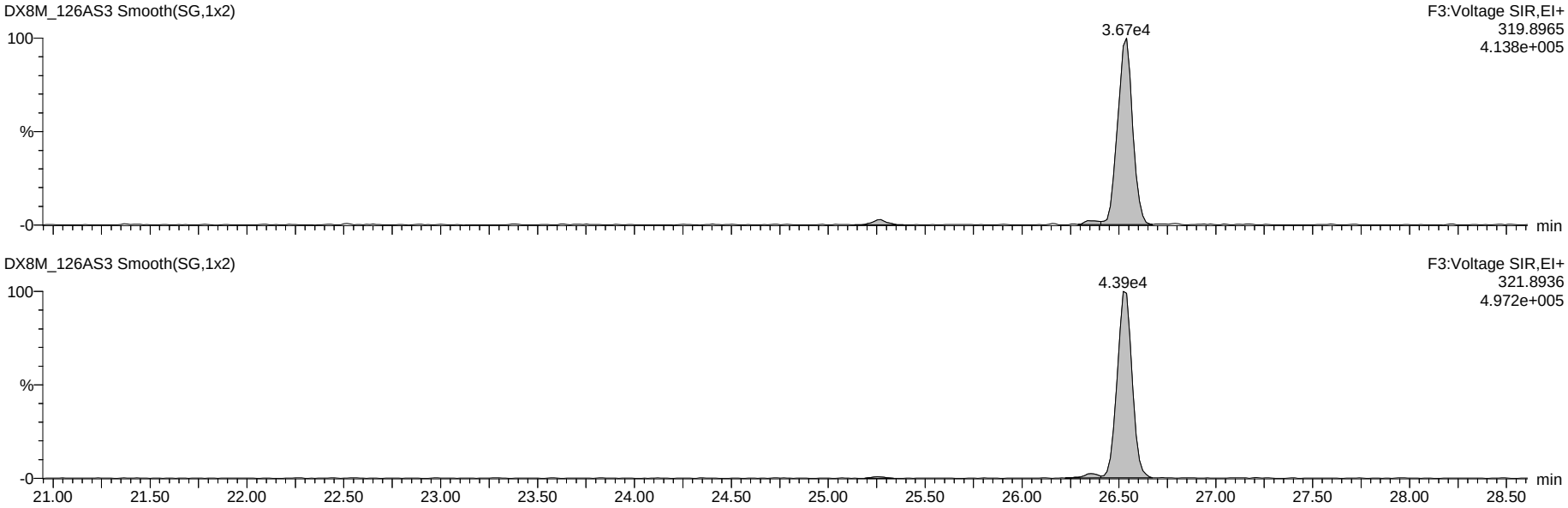
Total Tetra-Dioxins



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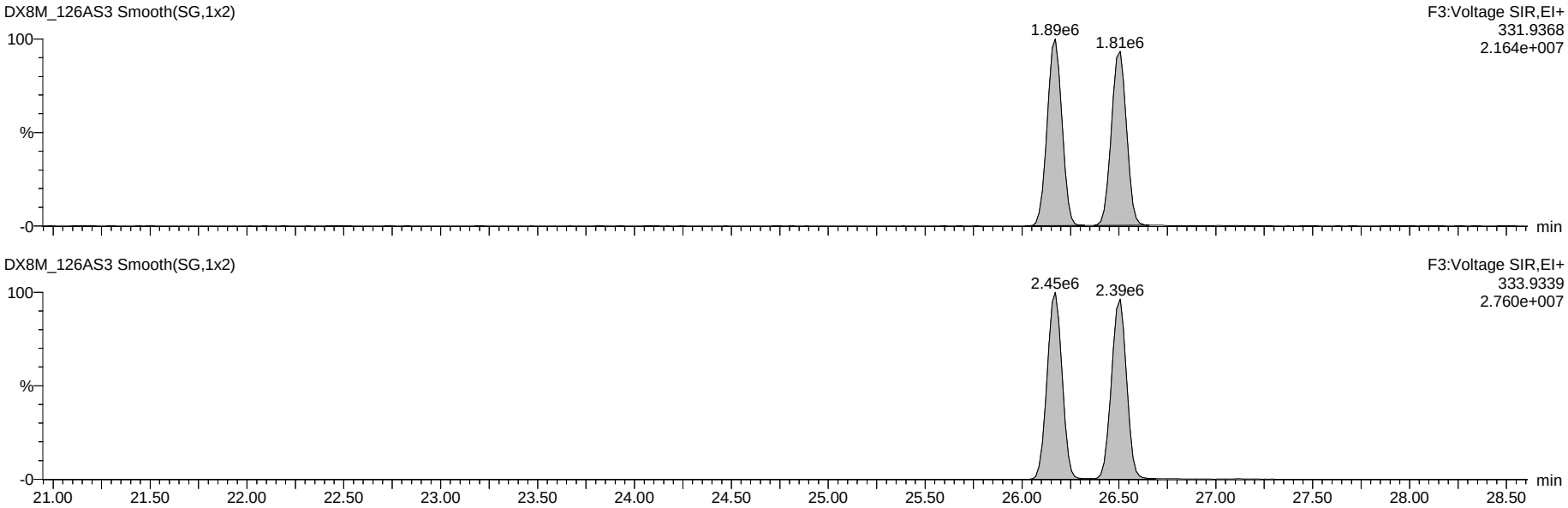

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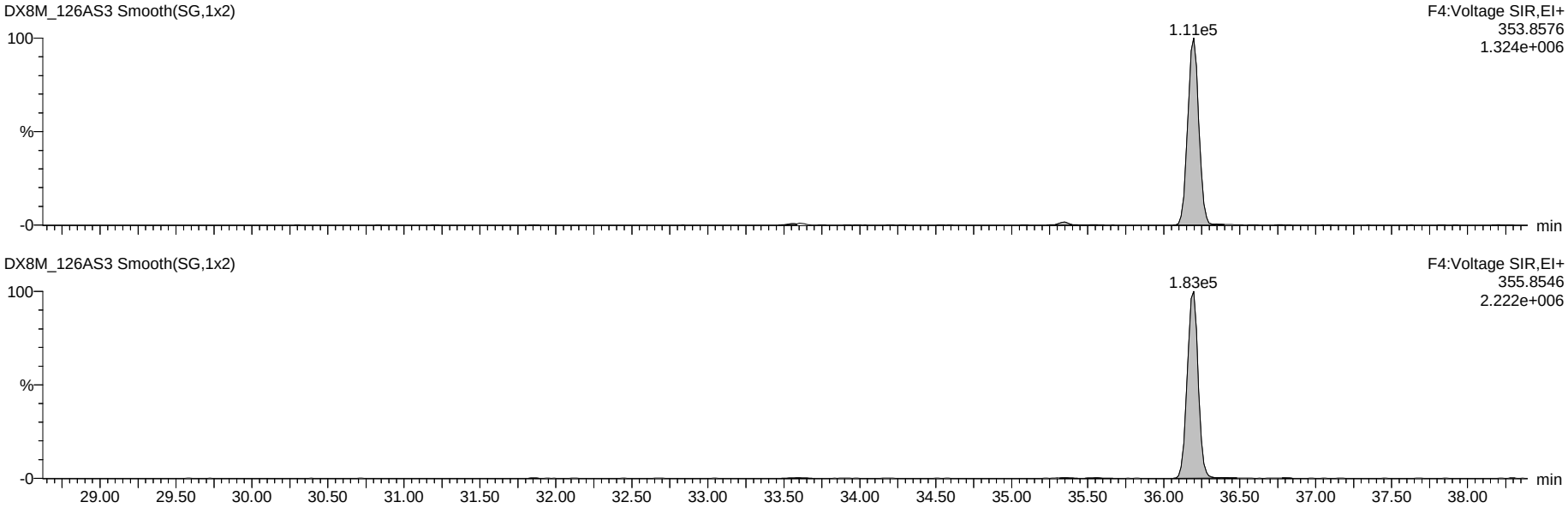
Total Penta-Dioxins



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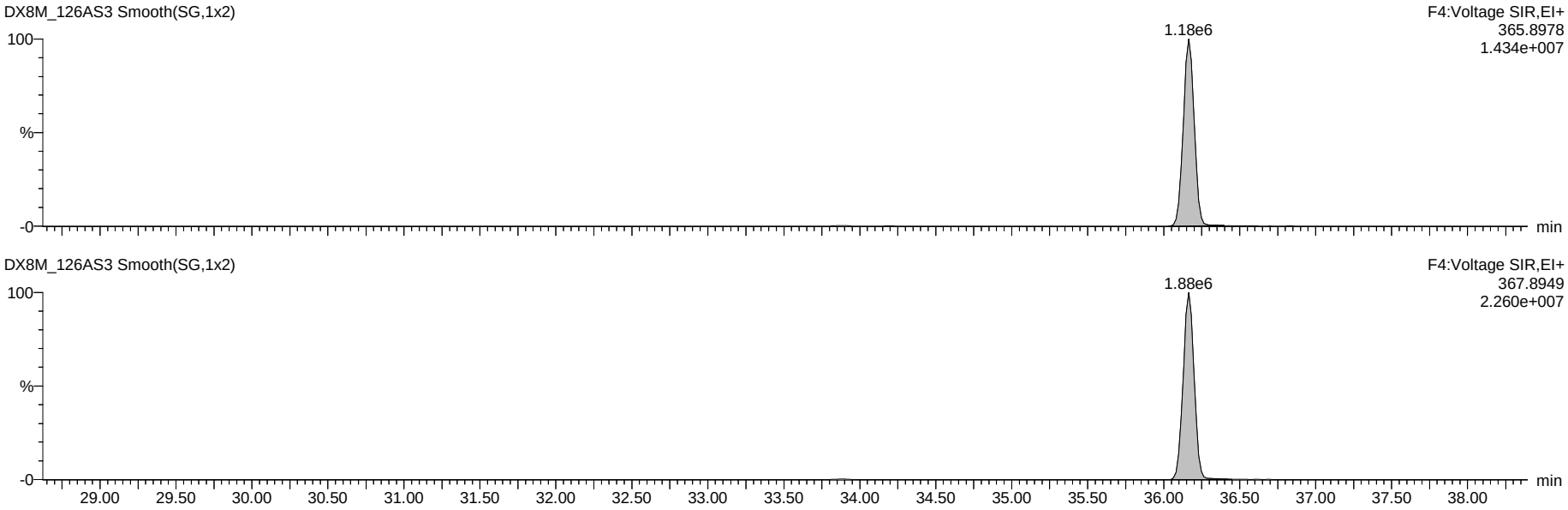

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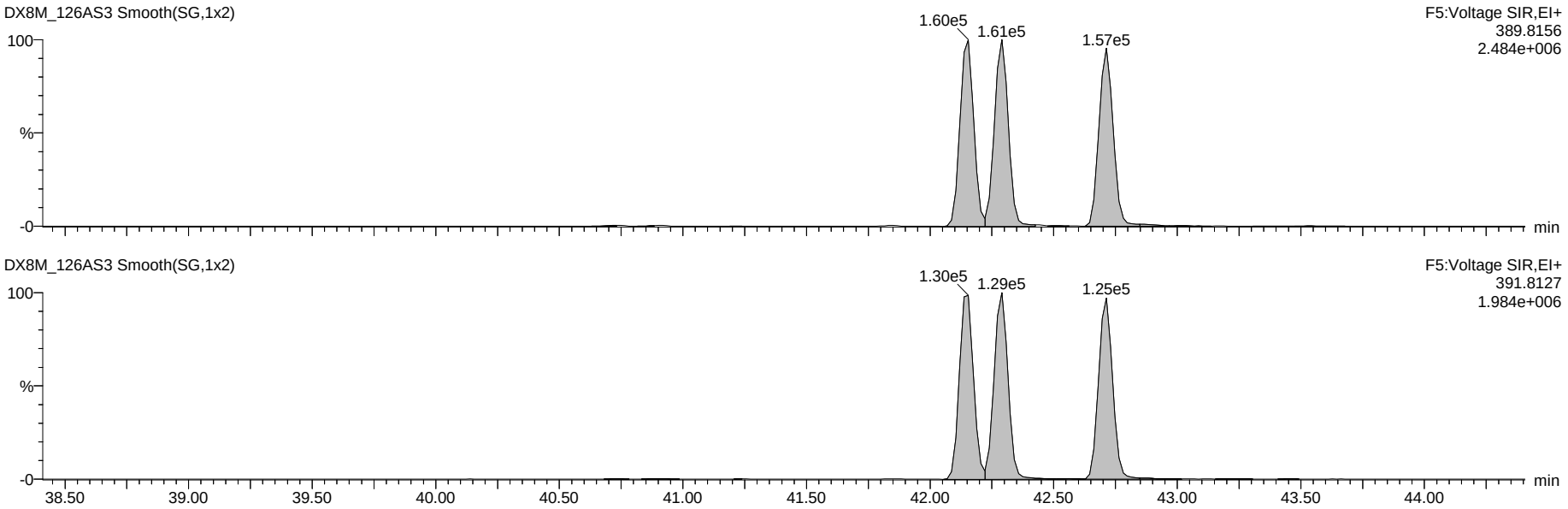
Total Hexa-Dioxins



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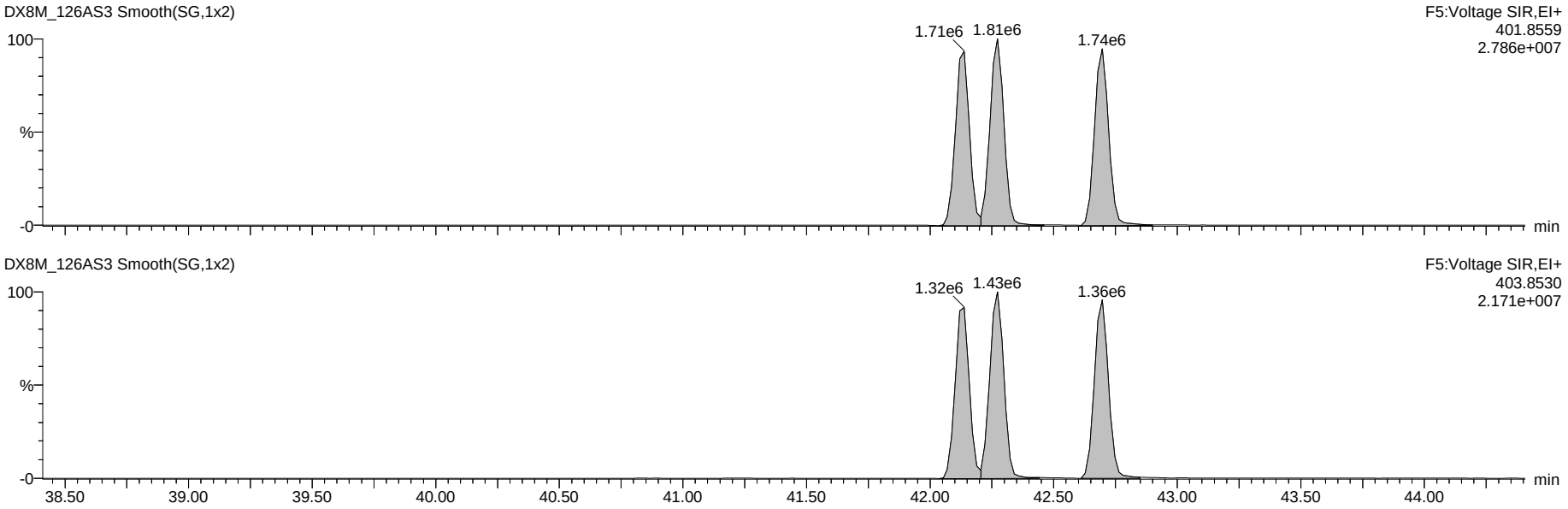

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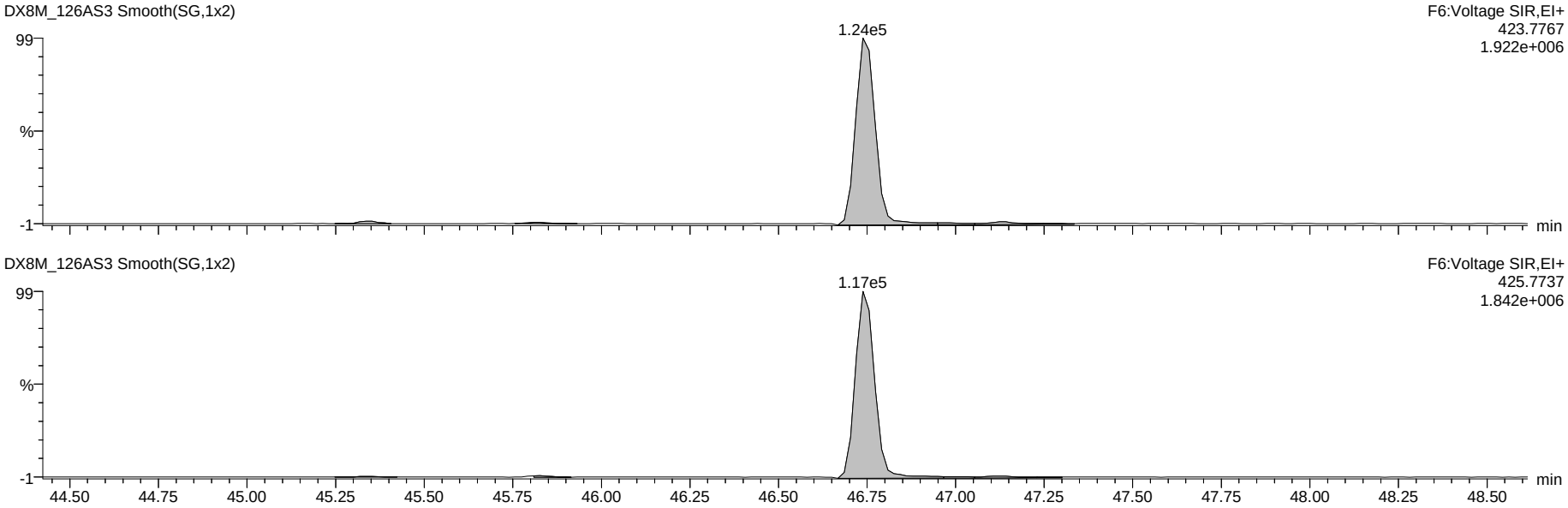
Total Hepta-Dioxins



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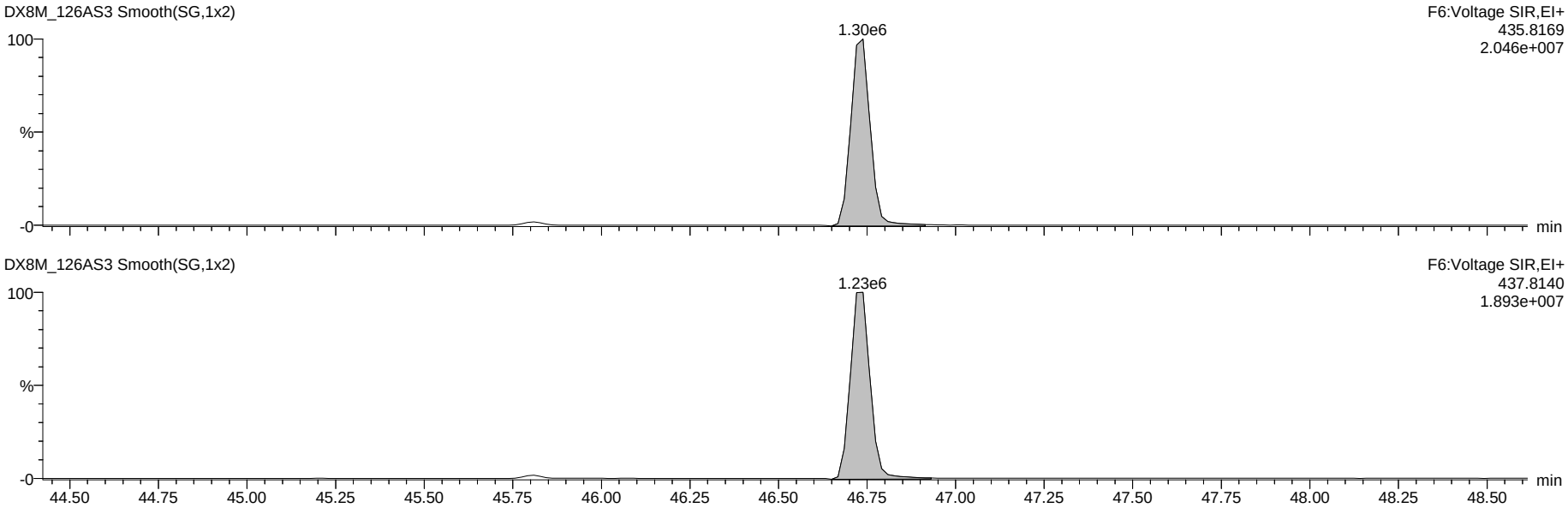

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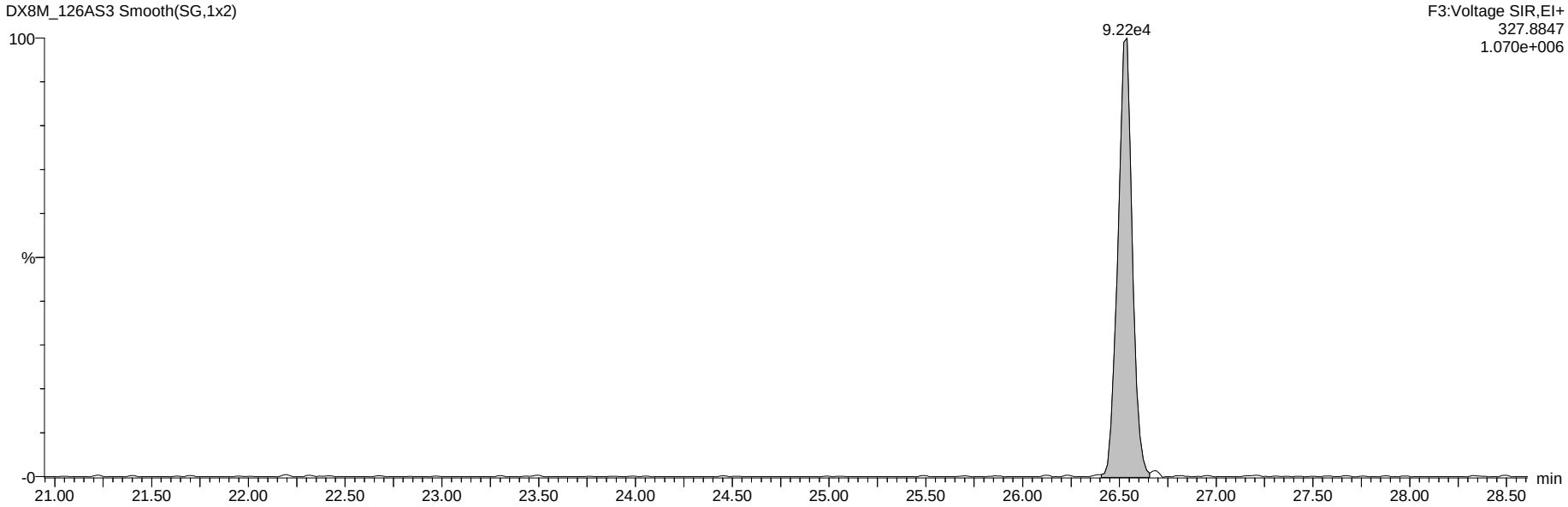
37Cl-2,3,7,8-TCDD



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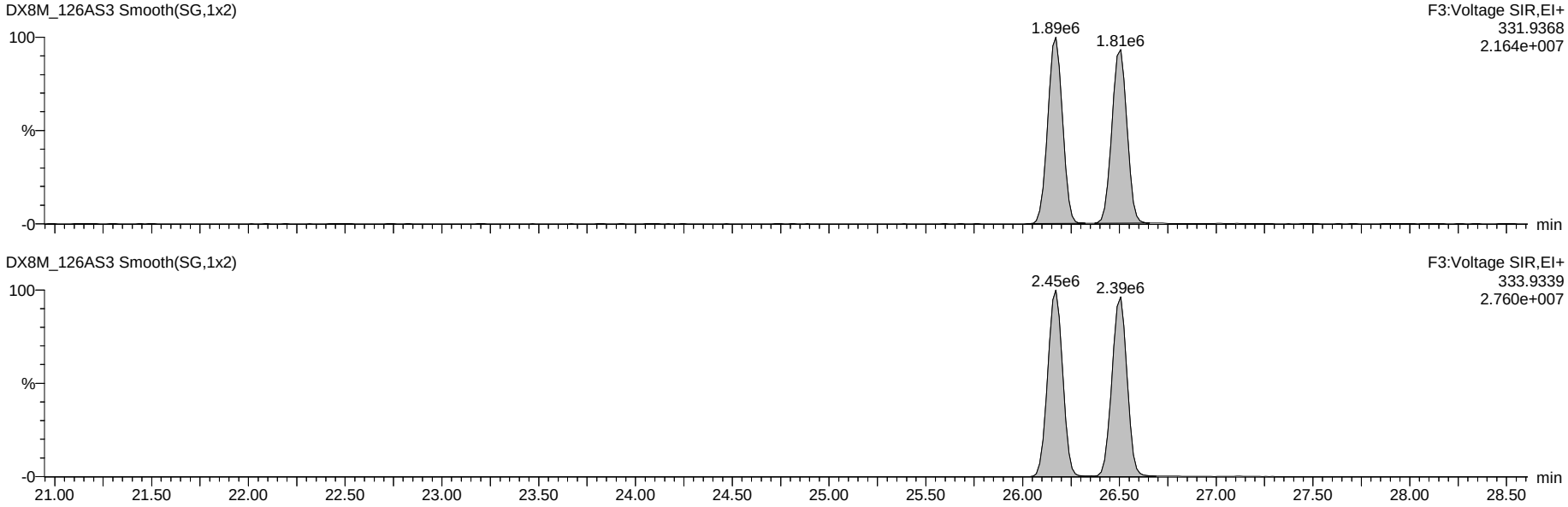

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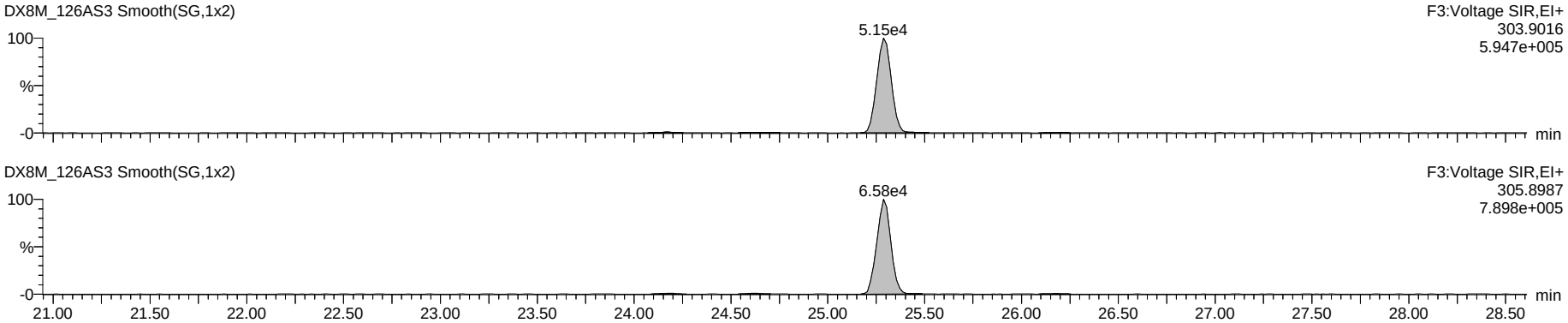
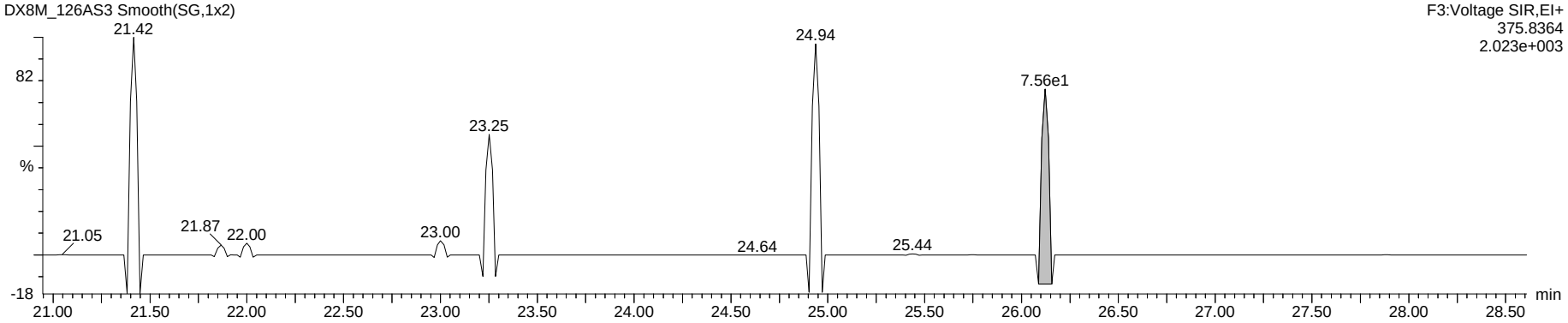
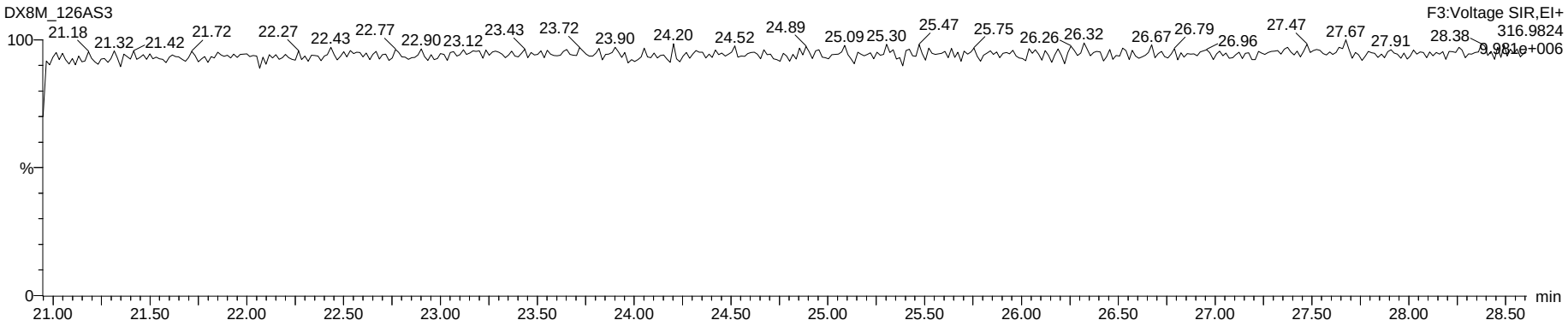
Total Tetra-Furans



Hexa DPE



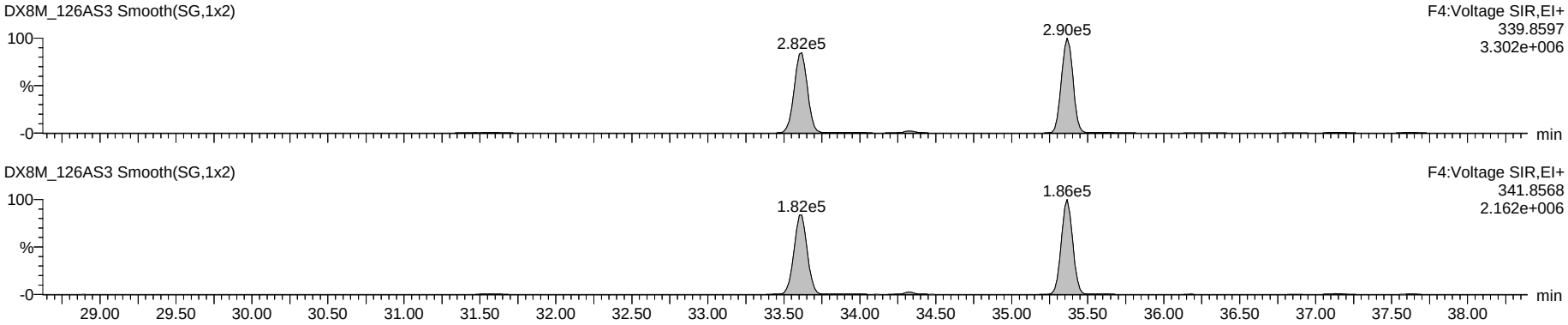
Tetra Lock



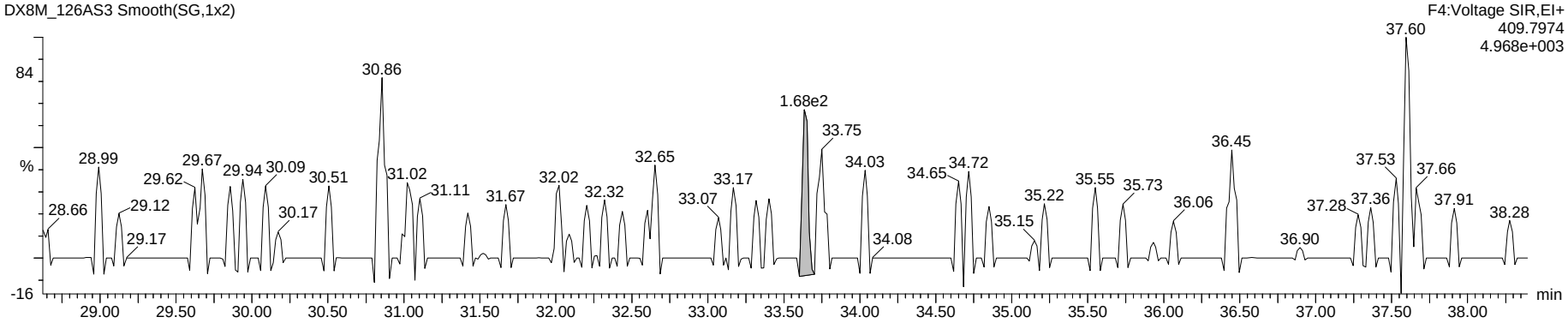
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

Name: DX8M_126AS3, Date: 24-Oct-2018, Time: 10:09:08, ID: DX041C-CAL,,/01, Description: 1,,1.0uL CS-2

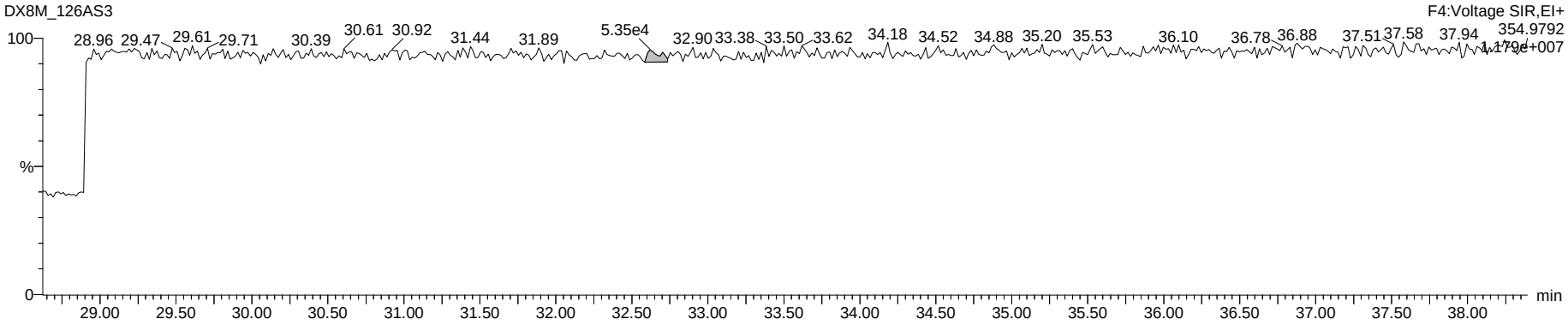
Total Penta-Furans



Hepta DPE



Penta Lock



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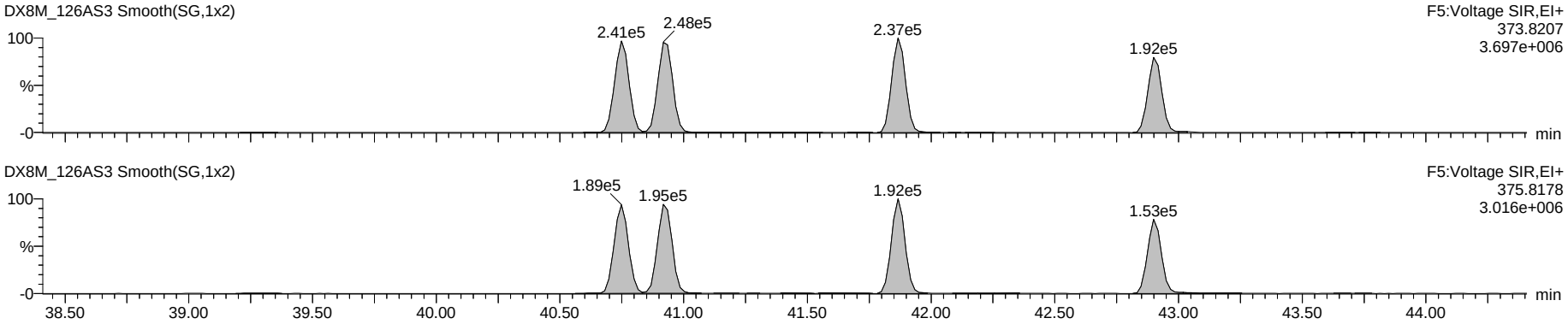
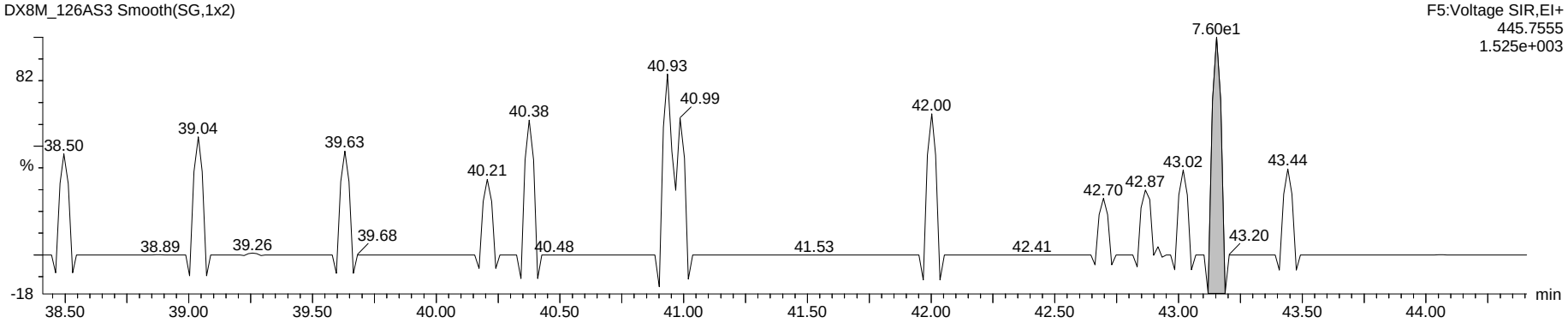
Name: DX8M_126AS3, Date: 24-Oct-2018, Time: 10:09:08, ID: DX041C-CAL,,/01, Description: 1,,1.0uL CS-2

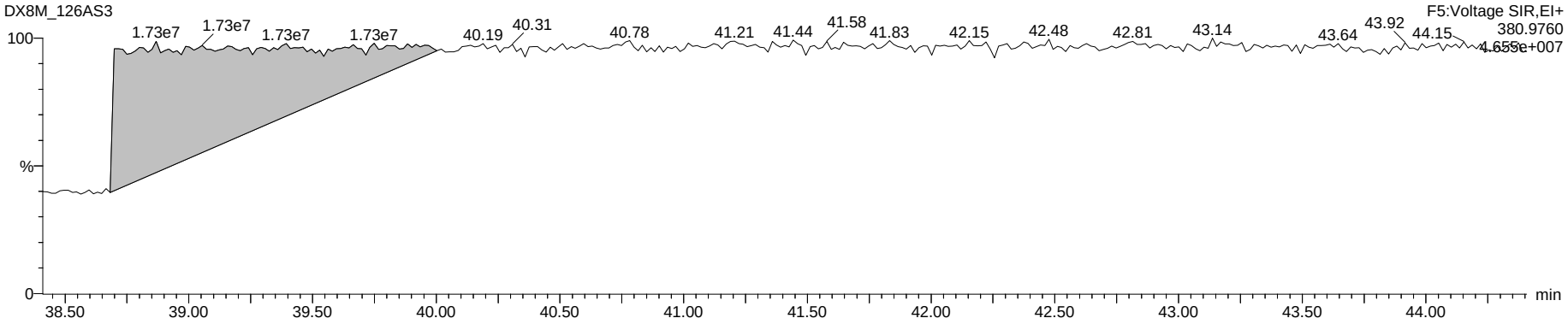
Total Hexa-Furans



Octa DPE



Hexa Lock



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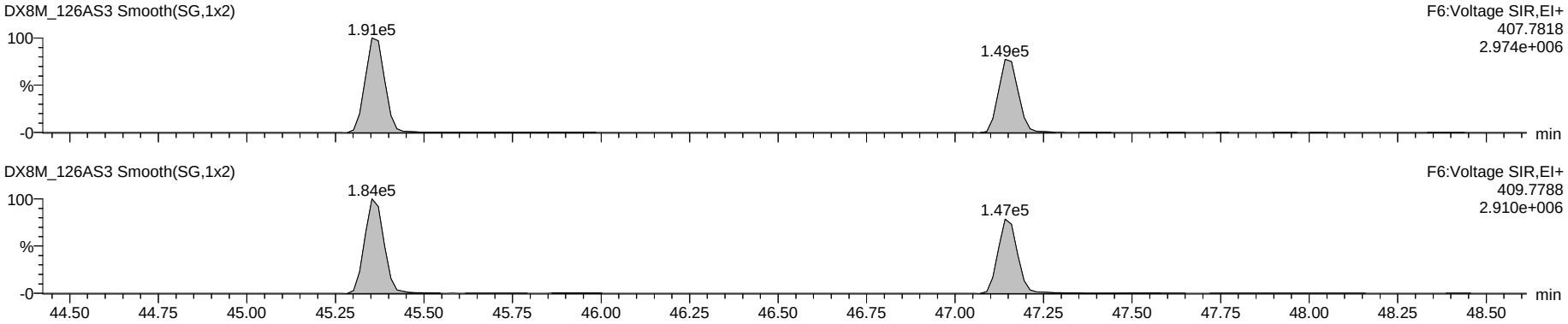
Total Hepta-Furans



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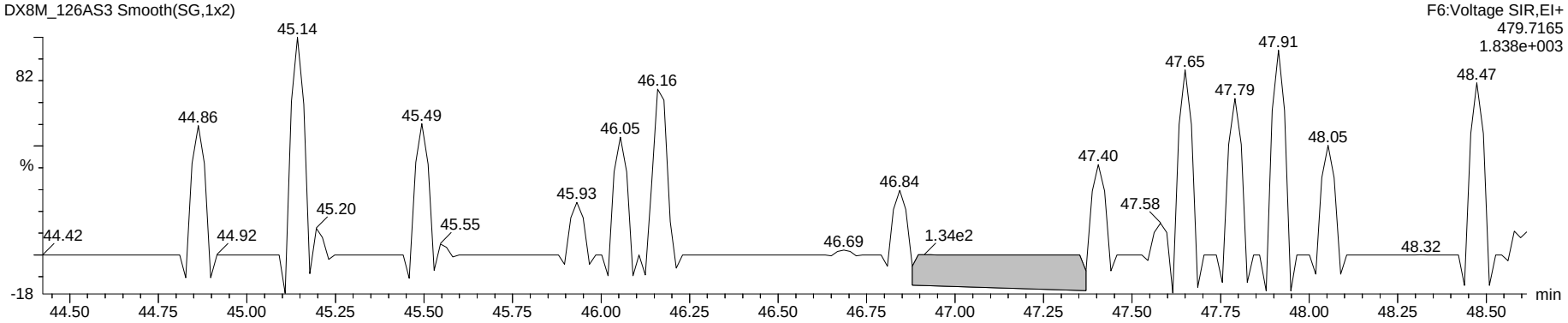
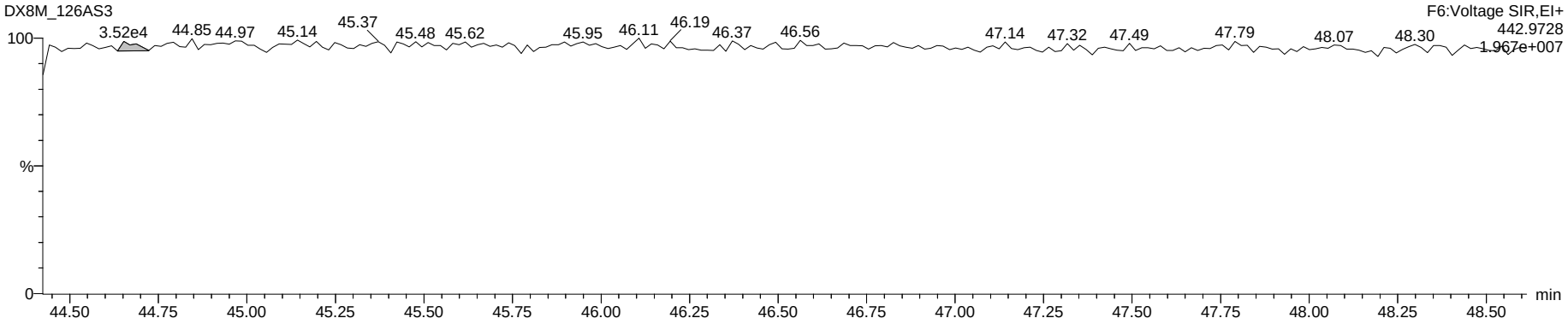


Hepta Lock



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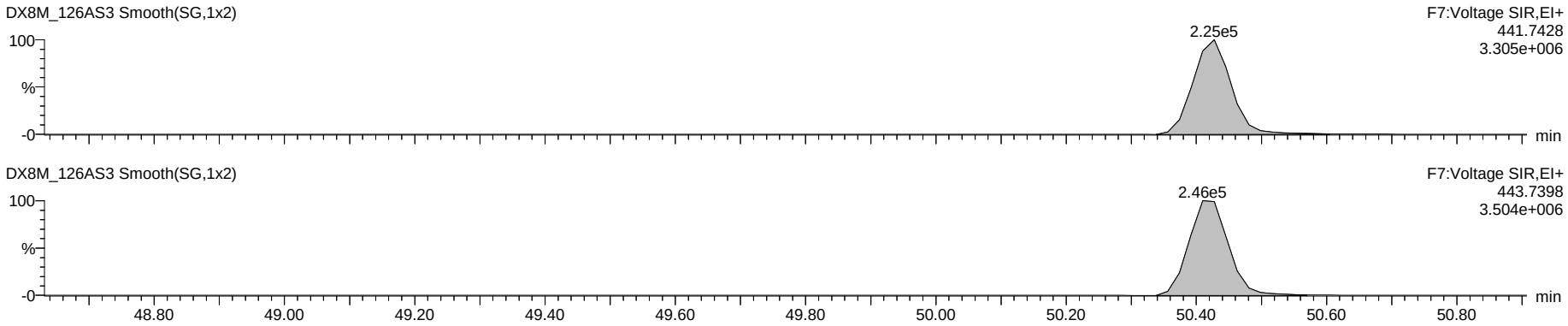
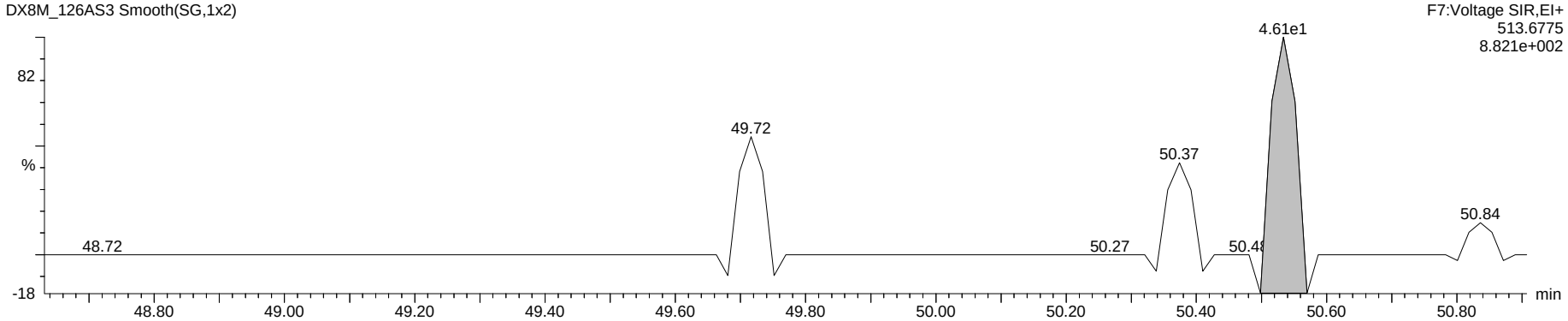
Name: DX8M_126AS3, Date: 24-Oct-2018, Time: 10:09:08, ID: DX041C-CAL,,/01, Description: 1,,1.0uL CS-2

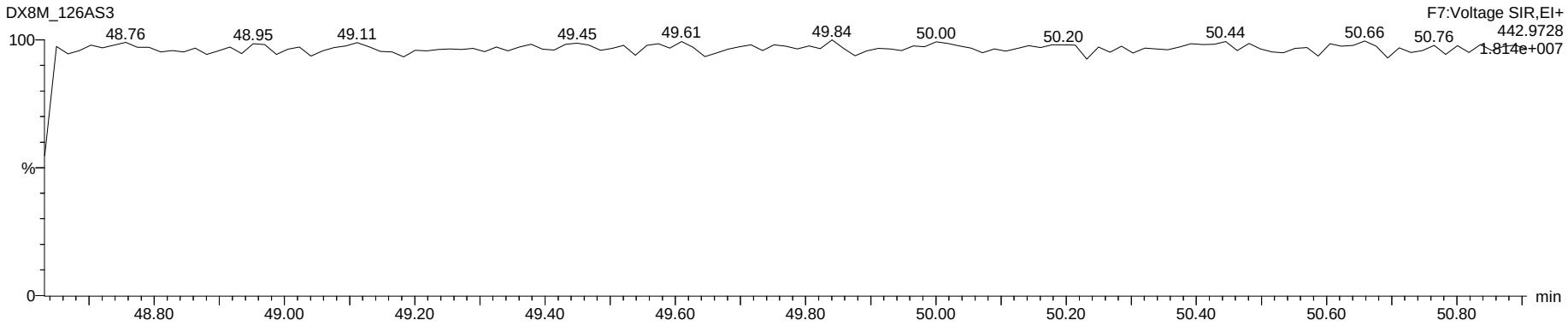
OCDF



Deca DPE



Octa Lock



Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

Name: DX8M_126AS6, Date: 24-Oct-2018, Time: 12:54:49, ID: DX041D-CAL,,/01-82, Description: 1,,1.0uL Cal Win/Res

	Name	Amount	Resp	Ratio	fails?	RT	RRF	RRF Mean	RRF SD	RRF %Rel SD	S/N	1º S/N
1	2,3,7,8-TCDF	10.000	4.87e5	0.76	NO	25.30	0.962	0.9390	0.034	3.63	2052	2153
2	1,2,3,7,8-PeCDF	50.000	1.98e6	1.57	NO	33.62	0.977	0.9345	0.039	4.16	4754	4365
3	2,3,4,7,8-PeCDF	50.000	1.93e6	1.57	NO	35.37	0.959	0.9393	0.040	4.30	5297	4760
4	1,2,3,4,7,8-HxCDF	50.000	1.78e6	1.26	NO	40.75	1.194	1.1360	0.047	4.13	5936	7484
5	1,2,3,6,7,8-HxCDF	50.000	1.78e6	1.26	NO	40.93	1.105	1.0868	0.041	3.79	6127	7409
6	2,3,4,6,7,8-HxCDF	50.000	1.72e6	1.26	NO	41.88	1.192	1.1636	0.049	4.23	5869	7265
7	1,2,3,7,8,9-HxCDF	50.000	1.39e6	1.25	NO	42.92	1.044	1.0339	0.031	2.98	4866	5962
8	1,2,3,4,6,7,8-HpCDF	50.000	1.54e6	1.05	NO	45.37	1.292	1.2267	0.074	6.06	8337	6828
9	1,2,3,4,7,8,9-HpCDF	50.000	1.11e6	1.02	NO	47.16	1.240	1.2333	0.050	4.08	5888	4911
10	OCDF	100.000	1.97e6	0.90	NO	50.43	1.257	1.1975	0.095	7.95	35759	43375
11	2,3,7,8-TCDD	10.000	3.37e5	0.77	NO	26.54	1.044	1.0401	0.041	3.91	1124	2054
12	1,2,3,7,8-PeCDD	50.000	1.21e6	0.62	NO	36.20	1.033	1.0058	0.036	3.58	3364	6265
13	1,2,3,4,7,8-HxCDD	50.000	1.16e6	1.25	NO	42.15	1.020	0.9986	0.034	3.42	6853	5147
14	1,2,3,6,7,8-HxCDD	50.000	1.18e6	1.25	NO	42.29	0.964	0.9331	0.037	3.98	6559	4971
15	1,2,3,7,8,9-HxCDD	50.000	1.14e6	1.25	NO	42.71	0.965	0.9468	0.033	3.48	6351	4770
16	1,2,3,4,6,7,8-HpCDD	50.000	9.19e5	1.03	NO	46.76	1.006	0.9602	0.061	6.30	5624	4518
17	OCDD	100.000	1.62e6	0.90	NO	50.36	1.037	0.9954	0.040	4.06	4808	39166
18	13C-2,3,7,8-TCDF	100.000	5.07e6	0.79	NO	25.27	1.511	1.5236	0.024	1.54	3697	6318
19	13C-1,2,3,7,8-PeCDF	100.000	4.05e6	1.60	NO	33.58	1.206	1.2485	0.066	5.26	7810	4511
20	13C-2,3,4,7,8-PeCDF	100.000	4.03e6	1.58	NO	35.35	1.203	1.2415	0.066	5.32	8844	5068
21	13C-1,2,3,4,7,8-HxCDF	100.000	2.98e6	0.52	NO	40.73	1.277	1.2745	0.027	2.10	3338	5485
22	13C-1,2,3,6,7,8-HxCDF	100.000	3.23e6	0.52	NO	40.90	1.381	1.3711	0.039	2.82	3443	5646
23	13C-2,3,4,6,7,8-HxCDF	100.000	2.88e6	0.51	NO	41.85	1.231	1.2413	0.035	2.81	3253	5436
24	13C-1,2,3,7,8,9-HxCDF	100.000	2.66e6	0.51	NO	42.88	1.138	1.1393	0.032	2.82	2923	4868
25	13C-1,2,3,4,6,7,8-HpCDF	100.000	2.39e6	0.44	NO	45.35	1.023	1.0510	0.029	2.79	6129	6657
26	13C-1,2,3,4,7,8,9-HpCDF	100.000	1.79e6	0.44	NO	47.14	0.765	0.8034	0.029	3.64	4542	4957
27	13C-2,3,7,8-TCDD	100.000	3.23e6	0.76	NO	26.51	0.963	0.9668	0.021	2.19	1975	4349
28	13C-1,2,3,7,8-PeCDD	100.000	2.34e6	0.64	NO	36.16	0.696	0.7201	0.040	5.52	7889	12975
29	13C-1,2,3,4,7,8-HxCDD	100.000	2.28e6	1.27	NO	42.14	0.976	0.9796	0.023	2.38	5213	9279
30	13C-1,2,3,6,7,8-HxCDD	100.000	2.45e6	1.25	NO	42.27	1.048	1.0526	0.029	2.73	5318	9748
31	13C-1,2,3,4,6,7,8-HpCDD	100.000	1.83e6	1.04	NO	46.74	0.782	0.8282	0.035	4.24	8304	6911
32	13C-OCDD	200.000	3.13e6	0.90	NO	50.34	0.669	0.7120	0.052	7.28	6040	0
33	13C-1,2,3,4-TCDD	100.000	3.35e6	0.78	NO	26.17	335...	38426.9254	4430.855	11.53	2124	4499
34	13C-1,2,3,7,8,9-HxCDD	100.000	2.34e6	1.26	NO	42.70	233...	27947.7837	3519.241	12.59	5117	9256
35	37Cl-2,3,7,8-TCDD	10.000	3.49e5			26.54	1.042	1.0910	0.100	9.20	876	
36	Total Tetra-Furans	10.000						0.9390	0.034	3.63		
37	Total Tetra-Dioxins	10.000						1.0401	0.041	3.91		
38	Total Penta-Furans	50.000						0.9345	0.039	4.16		
39	Total Penta-Dioxins	50.000						1.0058	0.036	3.58		
40	Total Hexa-Furans	50.000						1.1360	0.047	4.13		
41	Total Hexa-Dioxins	50.000						0.9986	0.034	3.42		
42	Total Hepta-Furans	50.000						1.2267	0.074	6.06		
43	Total Hepta-Dioxins	50.000						0.9602	0.061	6.30		
44	Hexa DPE	0.000	1.26e2			23.72	0.000				41885	
45	Hepta DPE	0.000	1.38e3			37.61	0.000				62	
46	Octa DPE	0.000	8.30e1			43.49	0.000				10817	
47	Nona DPE	0.000	6.37e1			46.60	0.000				16053	
48	Deca DPE	0.000	1.52e1			48.72	0.000				0	
49	Tetra Lock	0.000	2.12e4			21.52	0.000				0	
50	Penta Lock	0.000	3.57e4			32.50	0.000				1	
51	Hexa Lock	0.000	1.24e7			38.97	0.000				2	
52	Hepta Lock	0.000	4.32e6			44.55	0.000				1	
53	Octa Lock	0.000	4.79e4			49.02	0.000				1	
54	13C-Tetra-Furans	100.000						1.5236	0.024	1.54		
55	13C-Tetra-Dioxins	100.000						0.9668	0.021	2.19		

PV LHE 26-OCT-2018

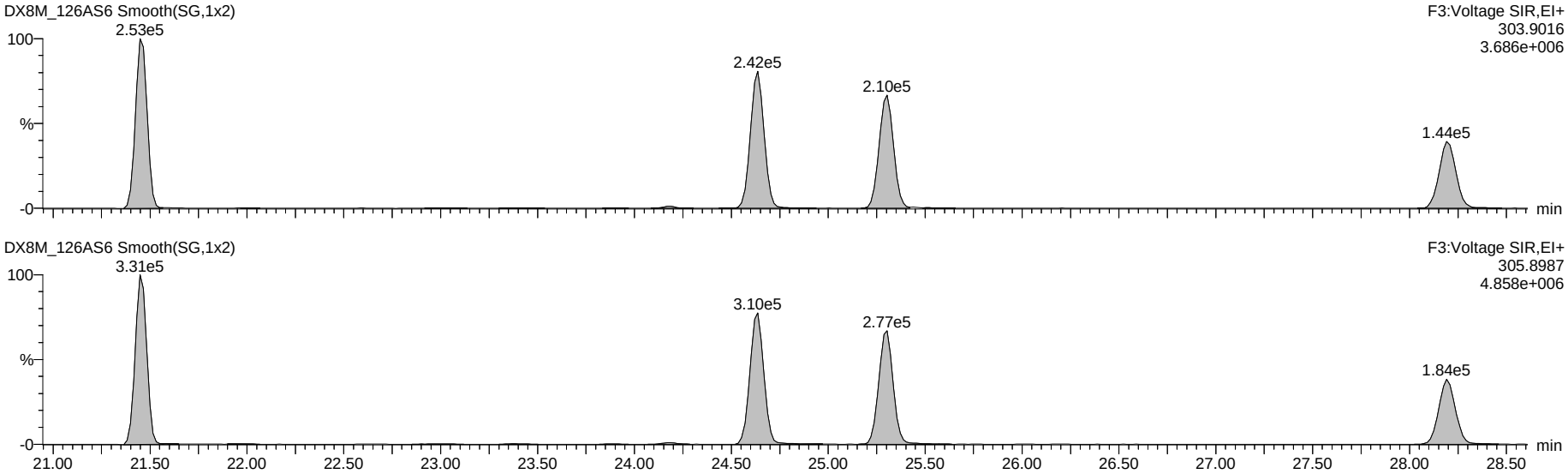
SV by TD 26-Oct-2018

Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

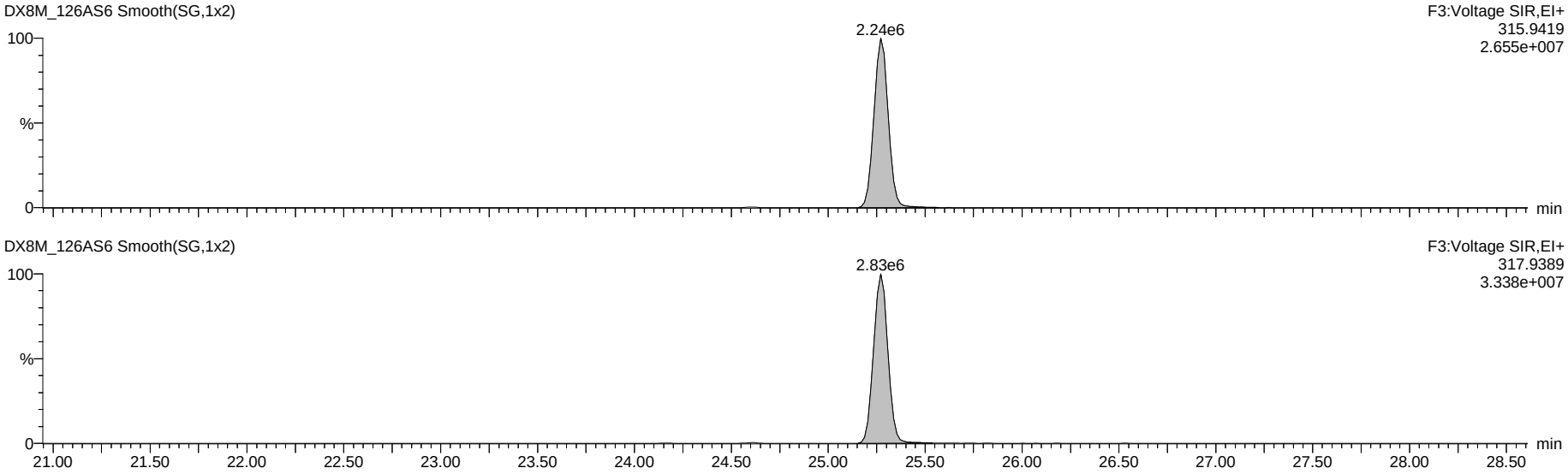
Method: G:\Masslynx\Inst_M\Exported_methods\DX_1613B_16.mdb 07 Sep 2017 16:45:23
Calibration: 26 Oct 2018 12:48:18

Name: DX8M_126AS6, Date: 24-Oct-2018, Time: 12:54:49, ID: DX041D-CAL,,/01-82, Description: 1,,1.0uL Cal Win/Res

Total Tetra-Furans



13C-Tetra-Furans



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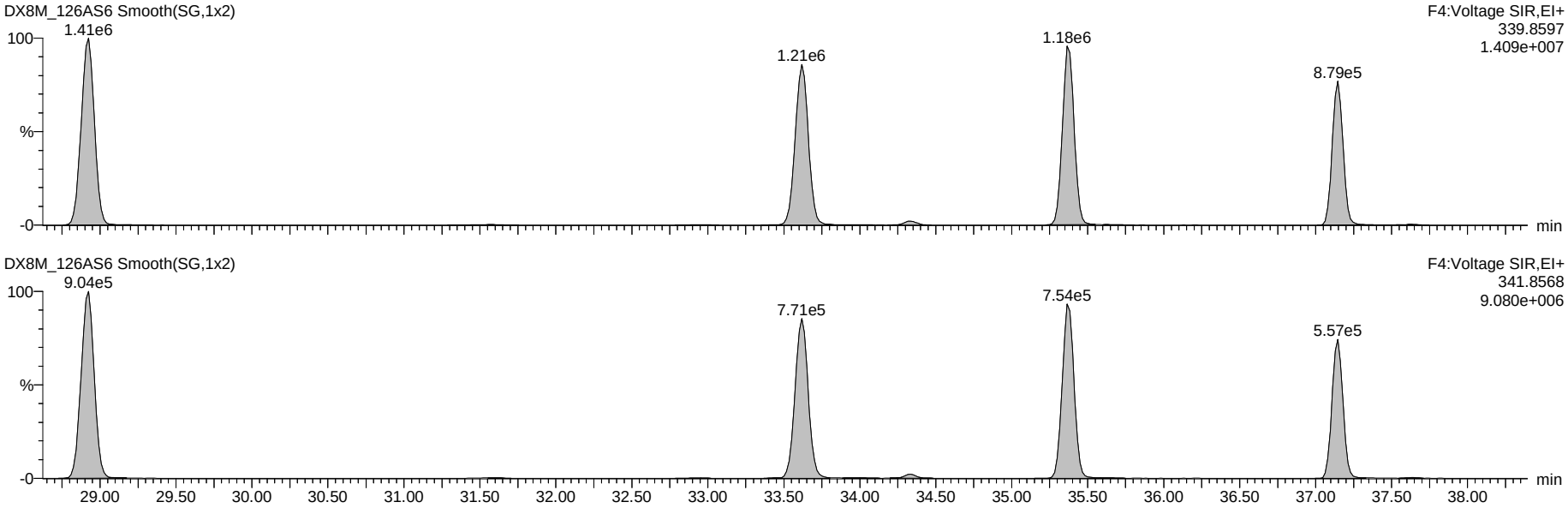
Name: DX8M_126AS6, Date: 24-Oct-2018, Time: 12:54:49, ID: DX041D-CAL,,/01-82, Description: 1,,1.0uL Cal Win/Res

Total Penta-Furans



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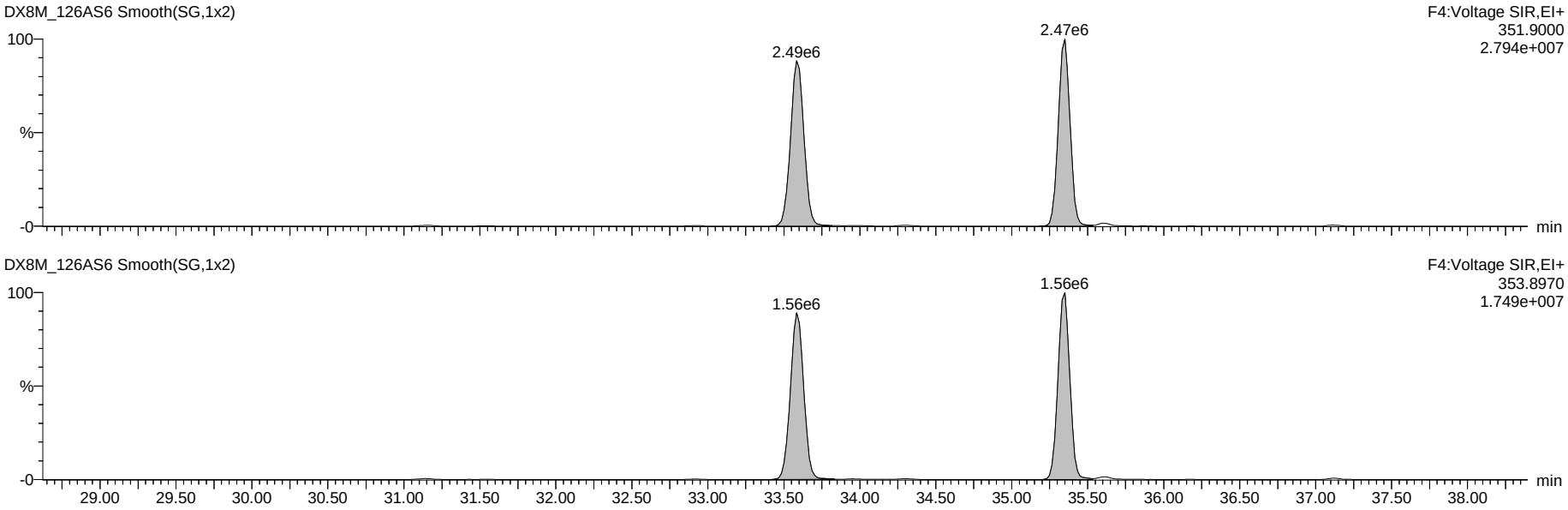

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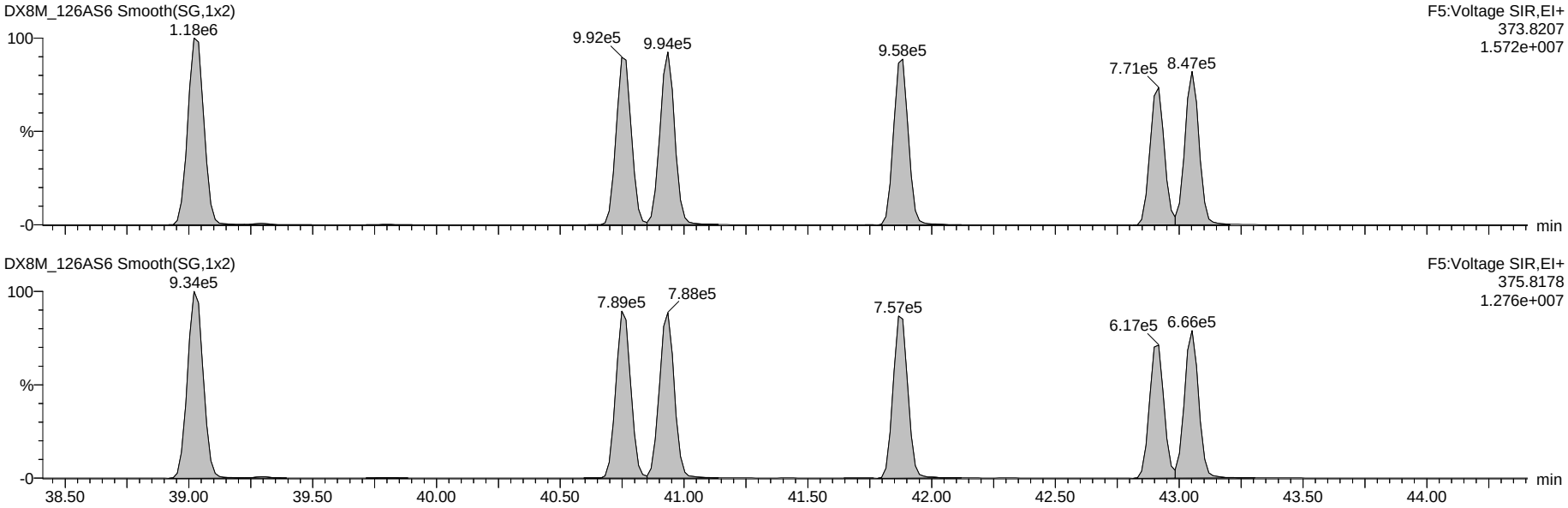
Name: DX8M_126AS6, Date: 24-Oct-2018, Time: 12:54:49, ID: DX041D-CAL,,/01-82, Description: 1,,1.0uL Cal Win/Res

Total Hexa-Furans



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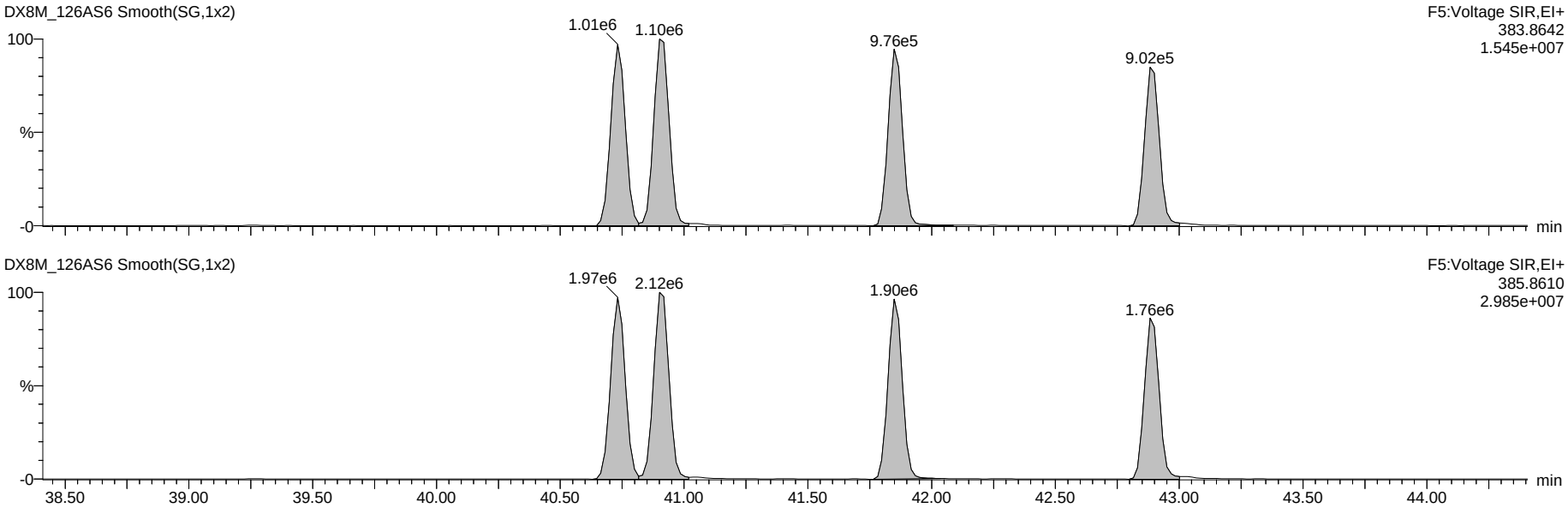

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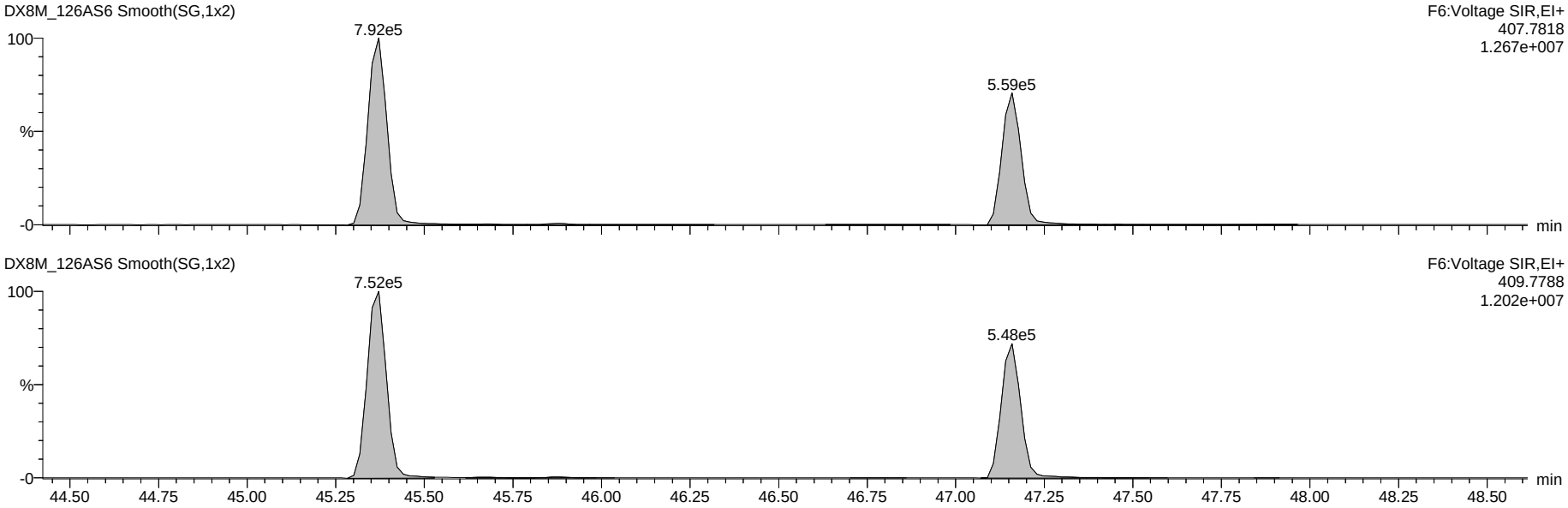
Name: DX8M_126AS6, Date: 24-Oct-2018, Time: 12:54:49, ID: DX041D-CAL,,/01-82, Description: 1,,1.0uL Cal Win/Res

Total Hepta-Furans



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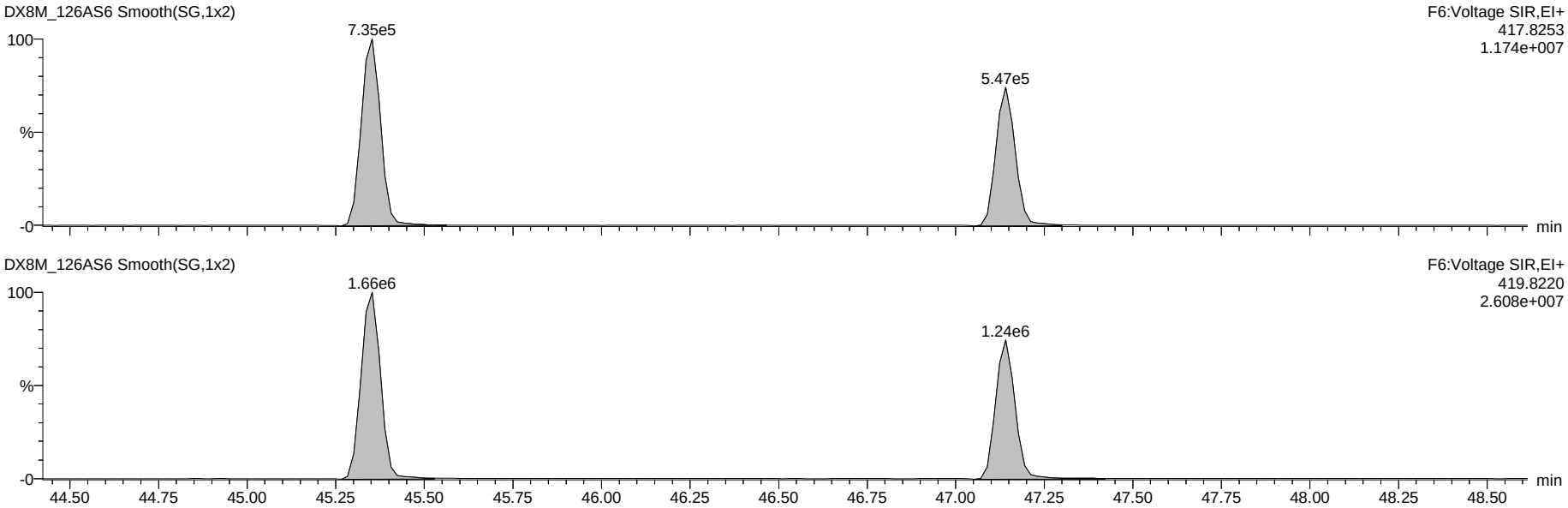
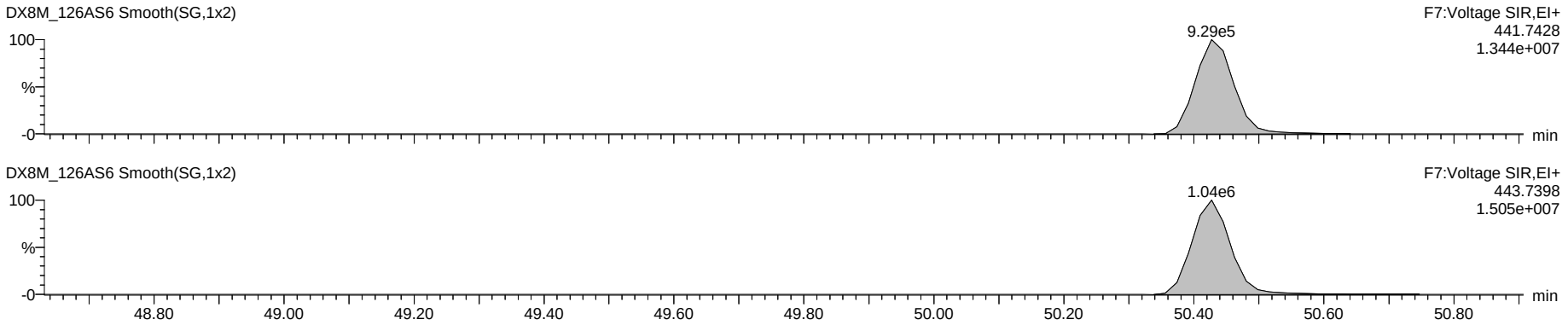


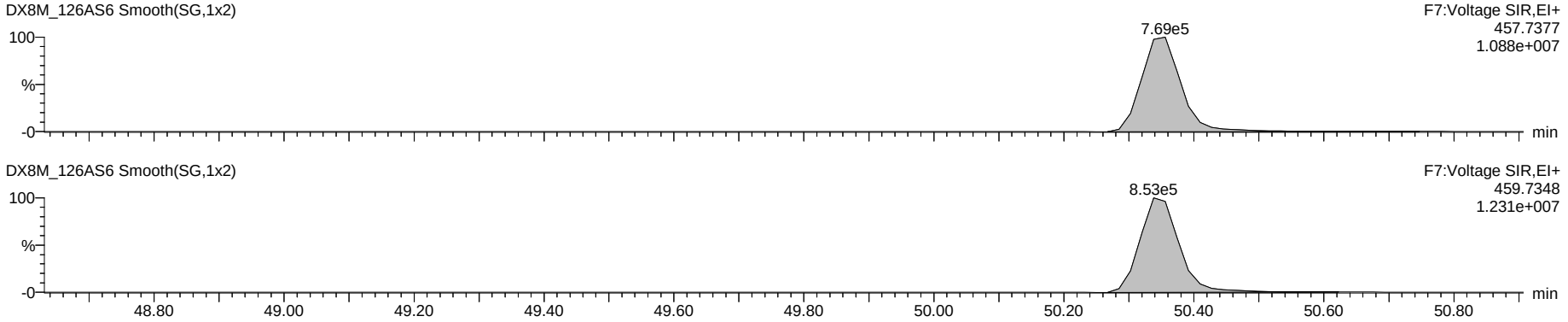
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

Name: DX8M_126AS6, Date: 24-Oct-2018, Time: 12:54:49, ID: DX041D-CAL,,/01-82, Description: 1,,1.0uL Cal Win/Res

OCDF



OCDD



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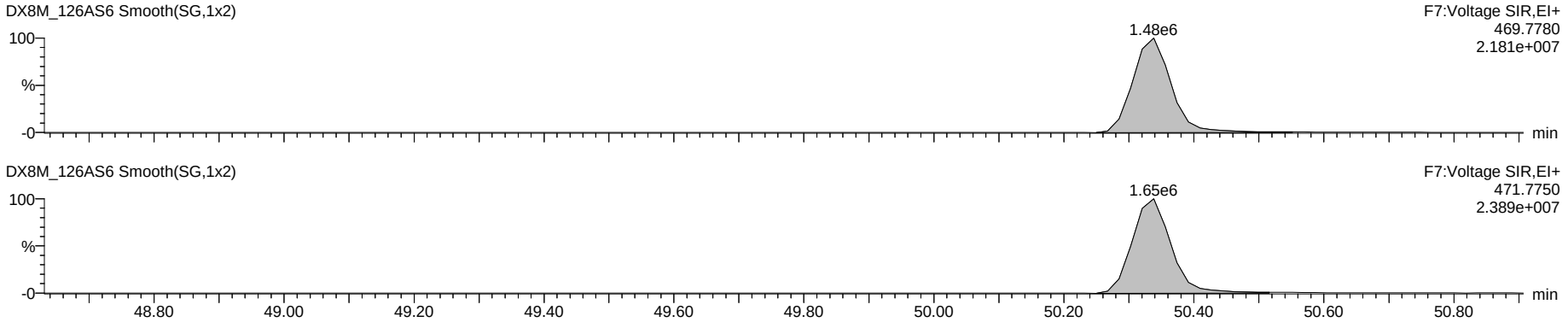

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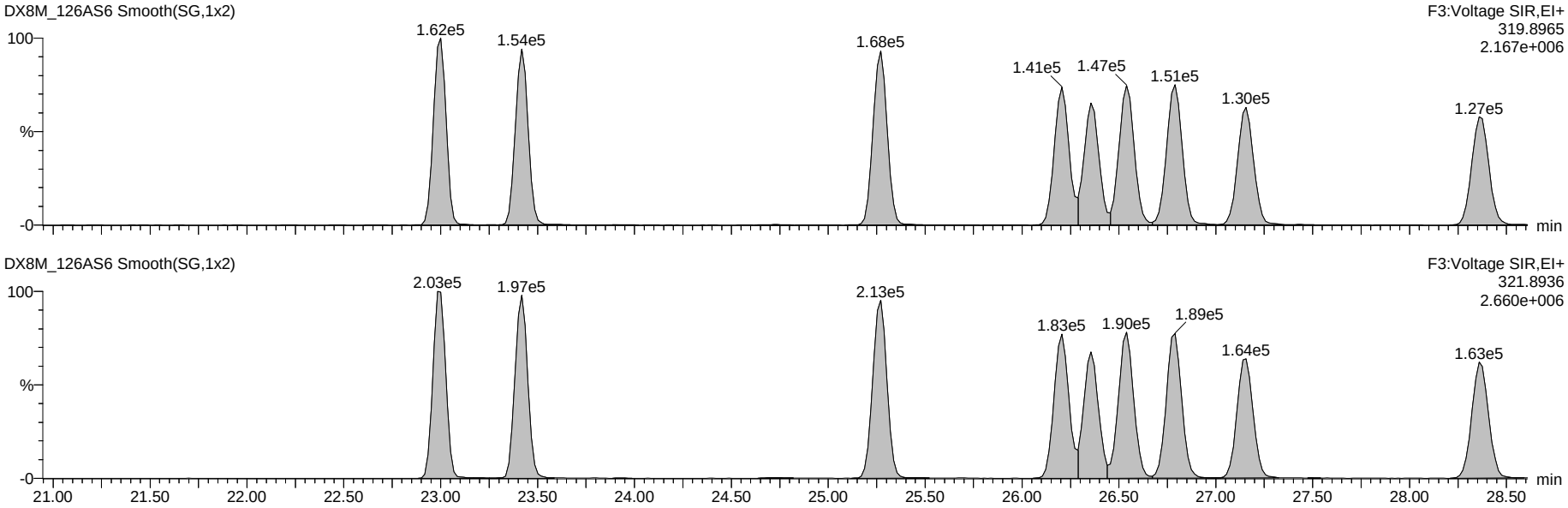
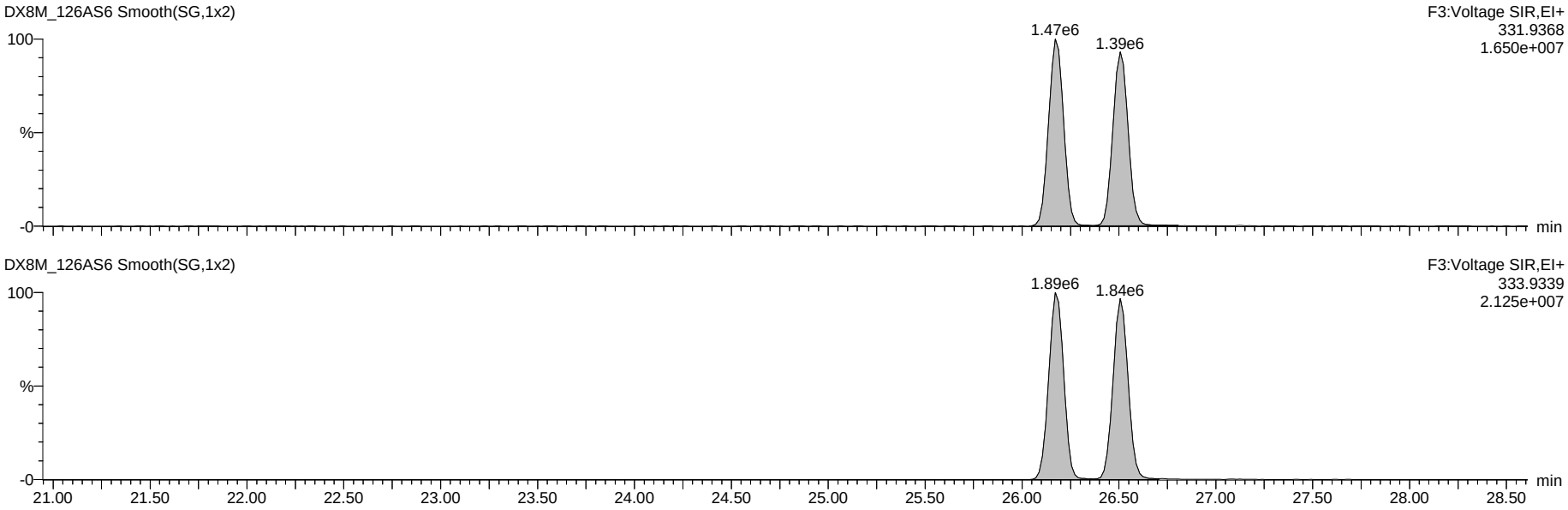
Name: DX8M_126AS6, Date: 24-Oct-2018, Time: 12:54:49, ID: DX041D-CAL,,/01-82, Description: 1,,1.0uL Cal Win/Res

Total Tetra-Dioxins



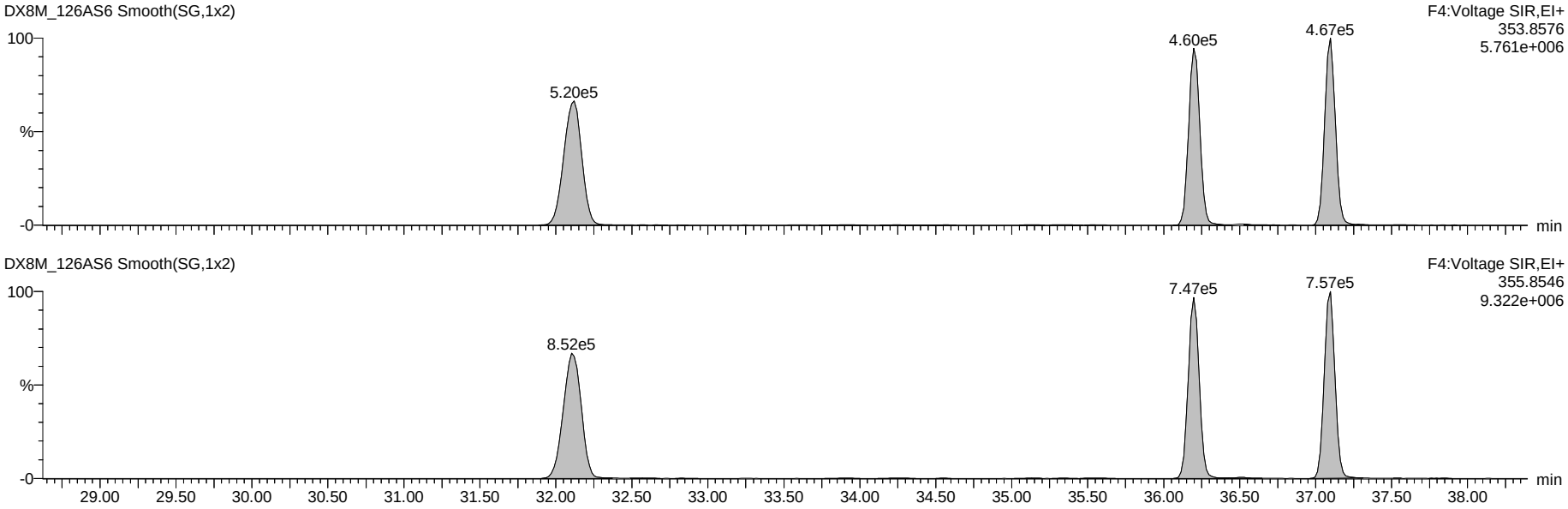
13C-Tetra-Dioxins



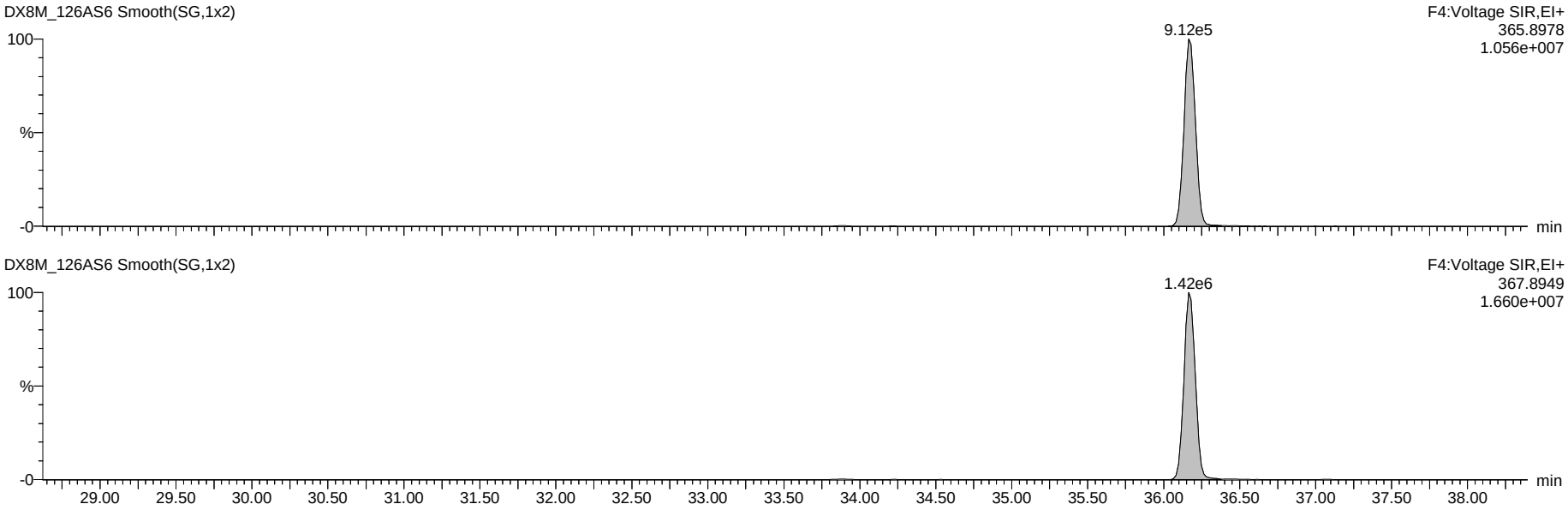
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

Name: DX8M_126AS6, Date: 24-Oct-2018, Time: 12:54:49, ID: DX041D-CAL,,/01-82, Description: 1,,1.0uL Cal Win/Res

Total Penta-Dioxins



13C-Penta-Dioxins



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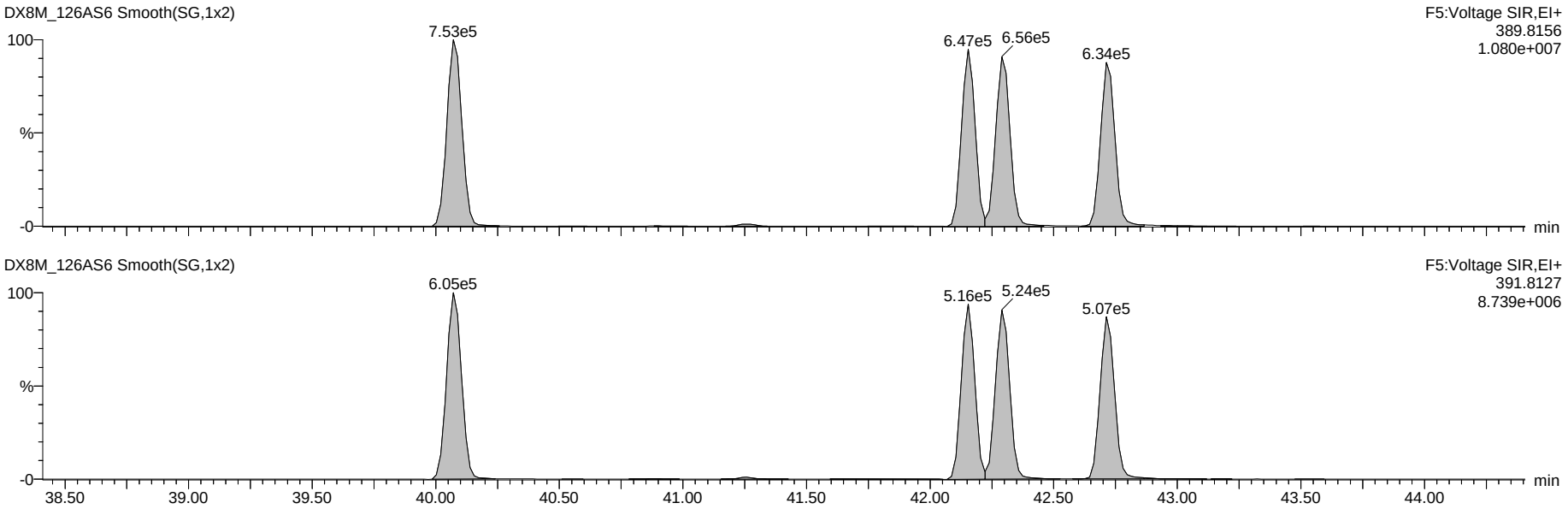
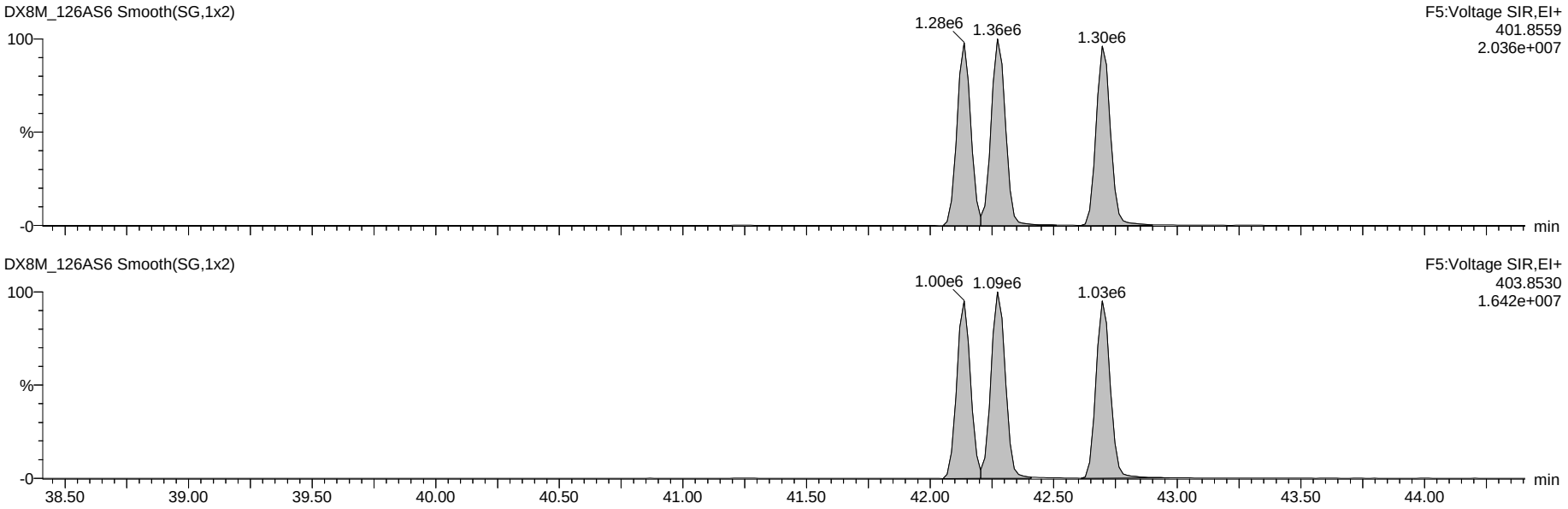
Name: DX8M_126AS6, Date: 24-Oct-2018, Time: 12:54:49, ID: DX041D-CAL,,/01-82, Description: 1,,1.0uL Cal Win/Res

Total Hexa-Dioxins



13C-Hexa-Dioxins



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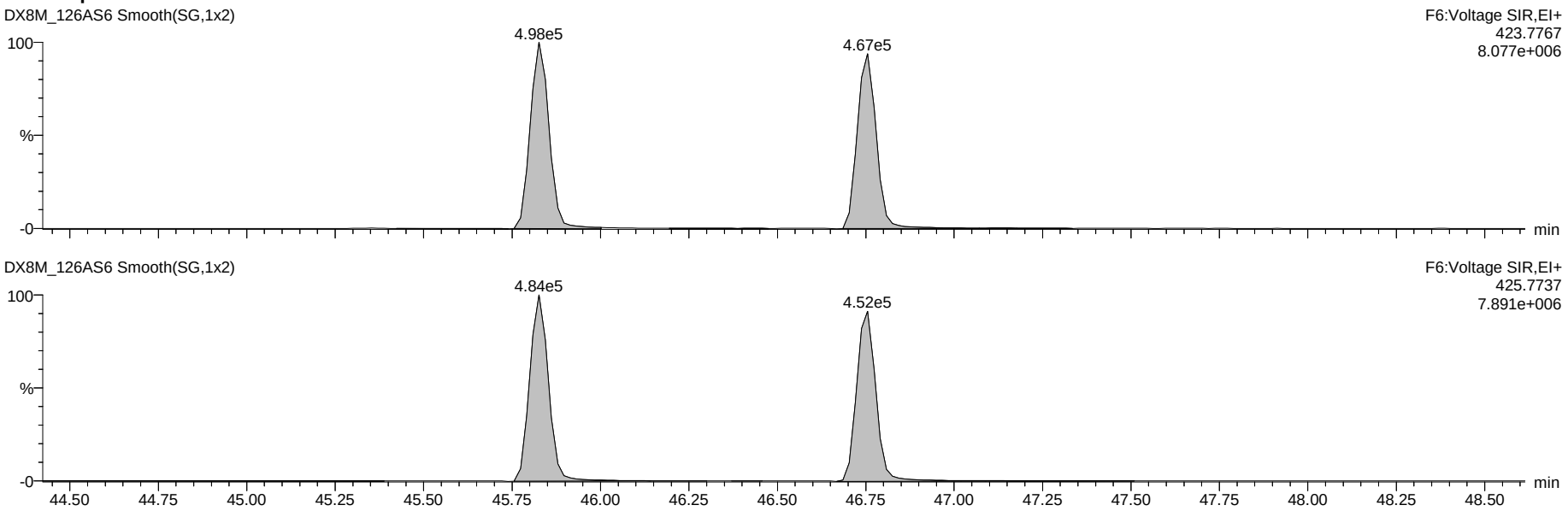
Total Hepta-Dioxins



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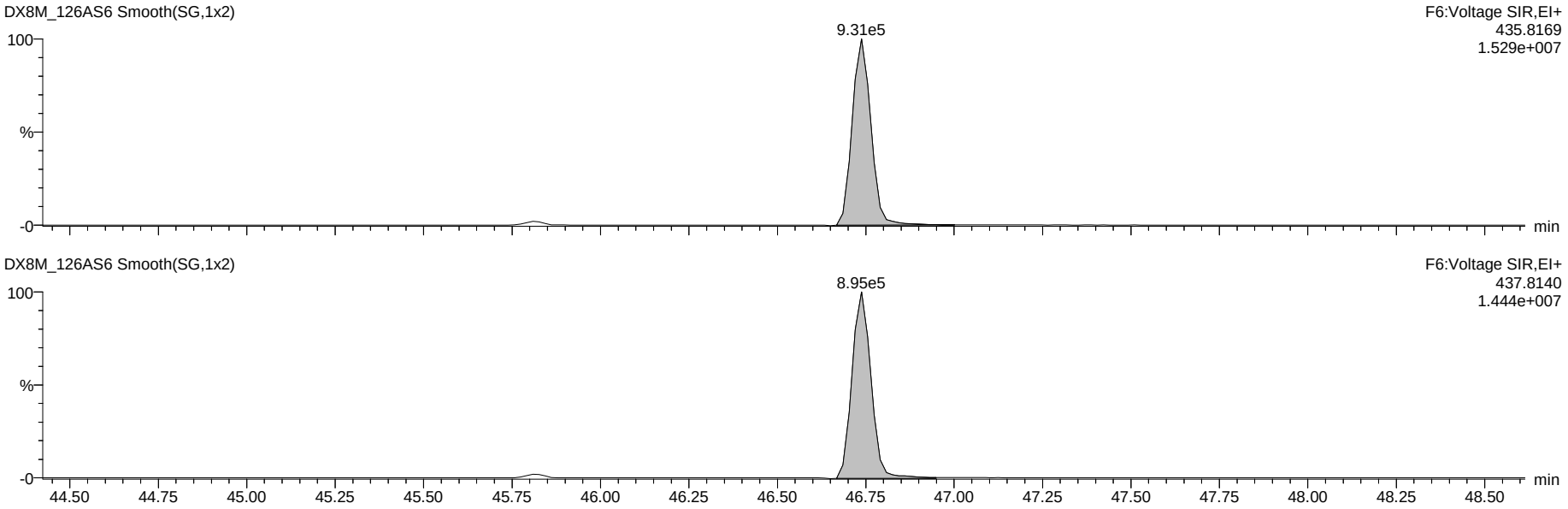

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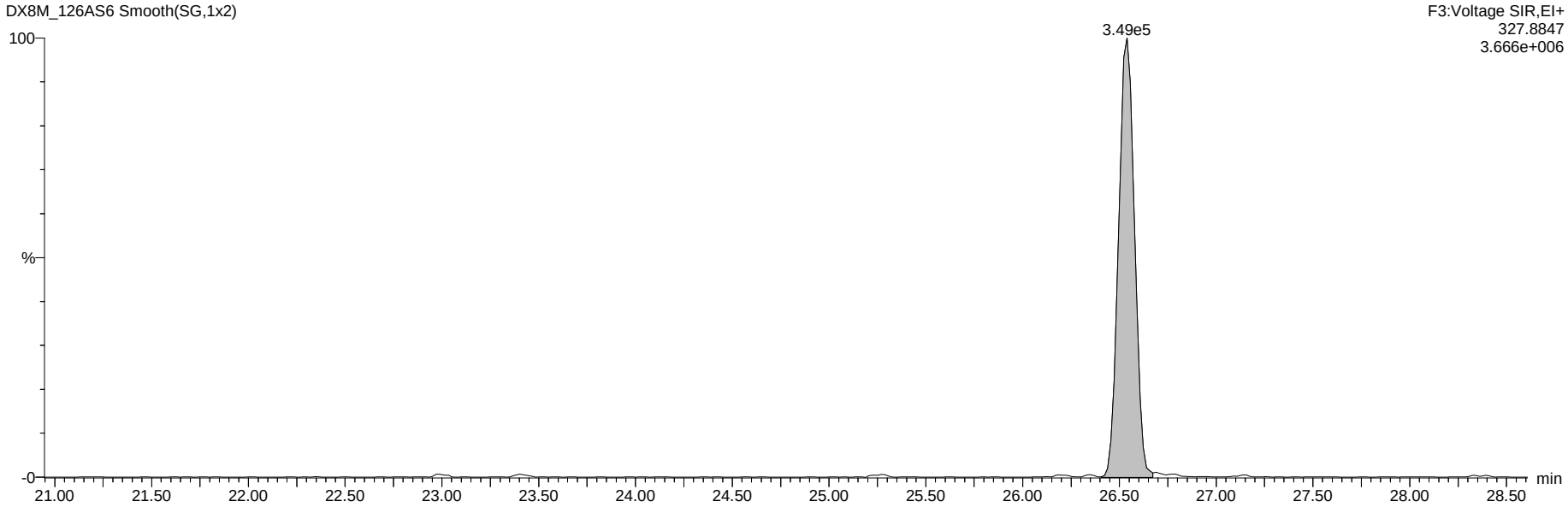
37Cl-2,3,7,8-TCDD



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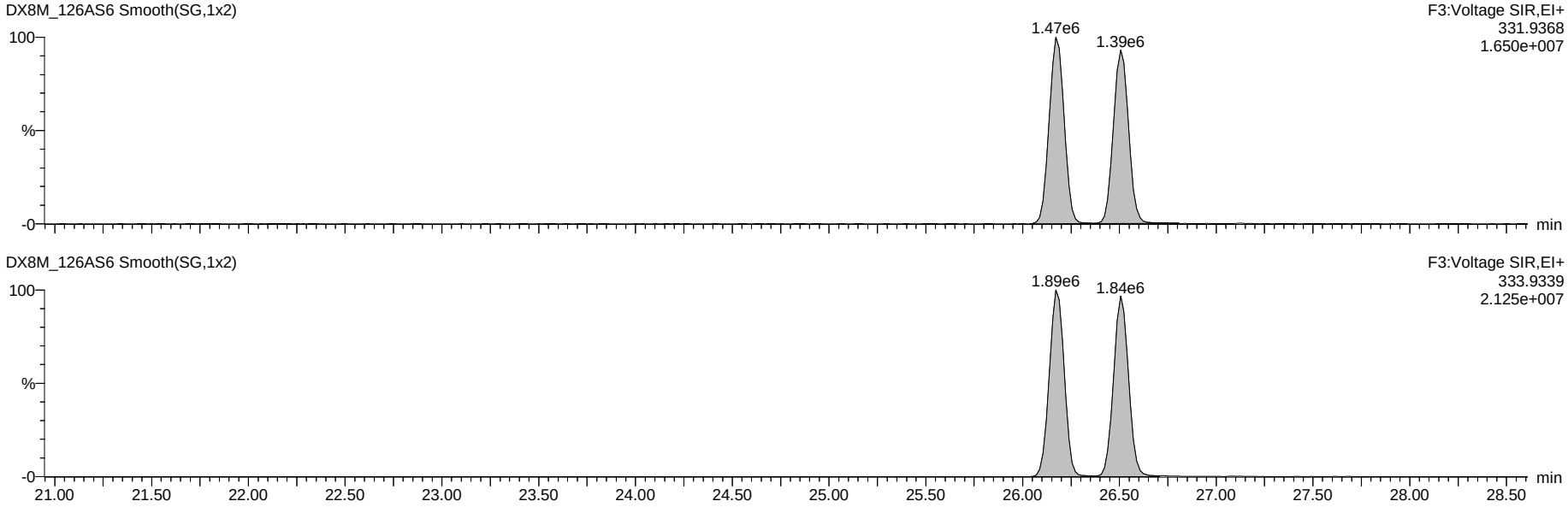

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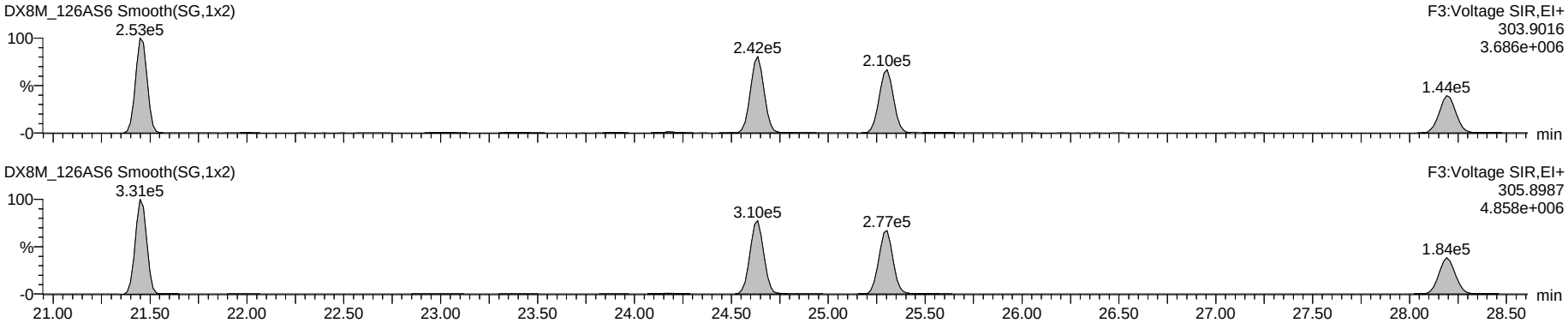
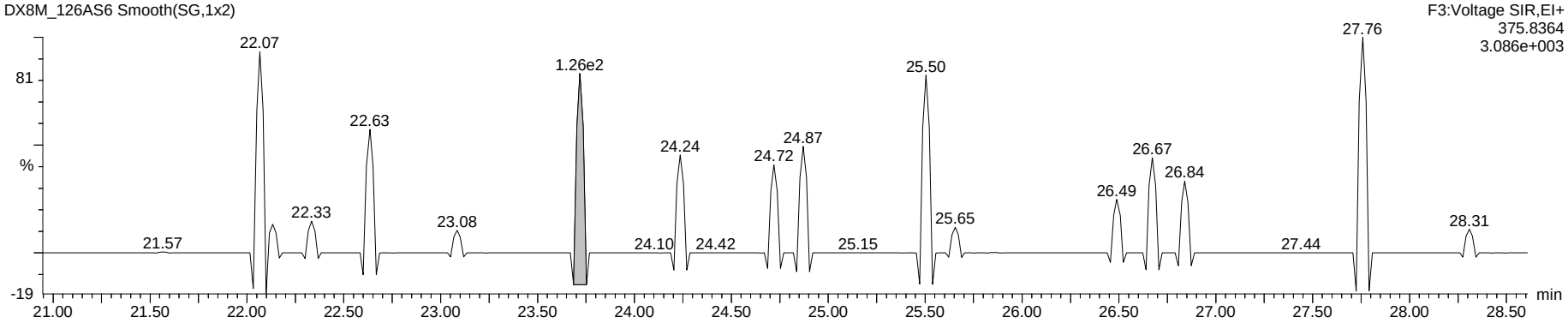
Name: DX8M_126AS6, Date: 24-Oct-2018, Time: 12:54:49, ID: DX041D-CAL,,/01-82, Description: 1,,1.0uL Cal Win/Res

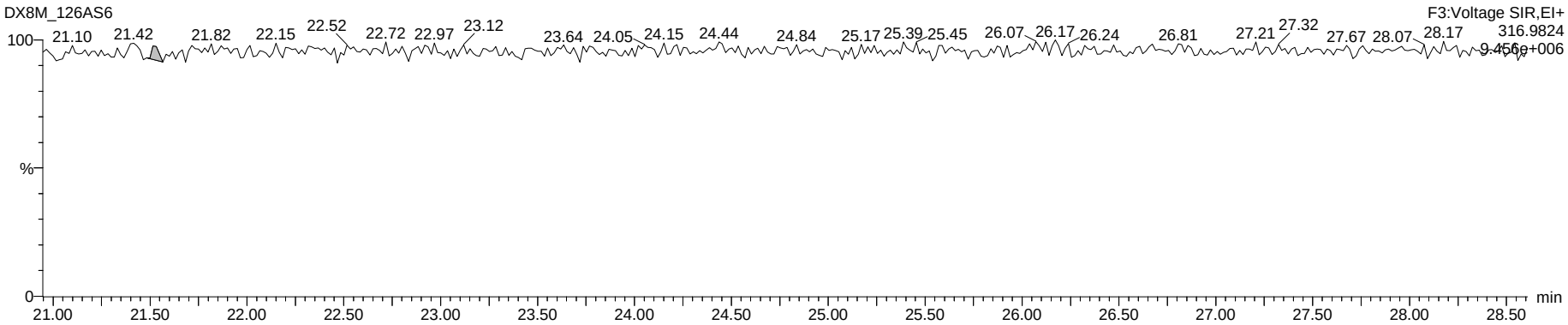
Total Tetra-Furans



Hexa DPE



Tetra Lock



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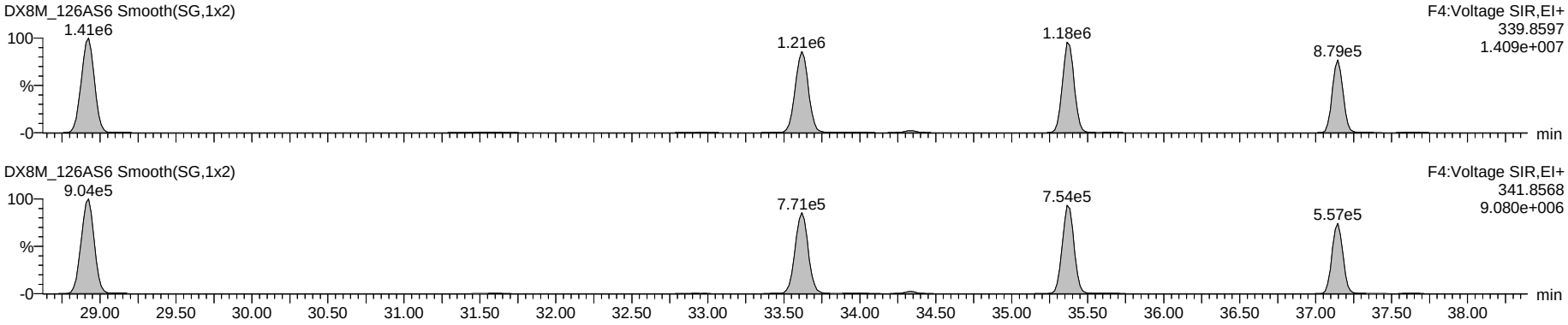
Name: DX8M_126AS6, Date: 24-Oct-2018, Time: 12:54:49, ID: DX041D-CAL,,/01-82, Description: 1,,1.0uL Cal Win/Res

Total Penta-Furans



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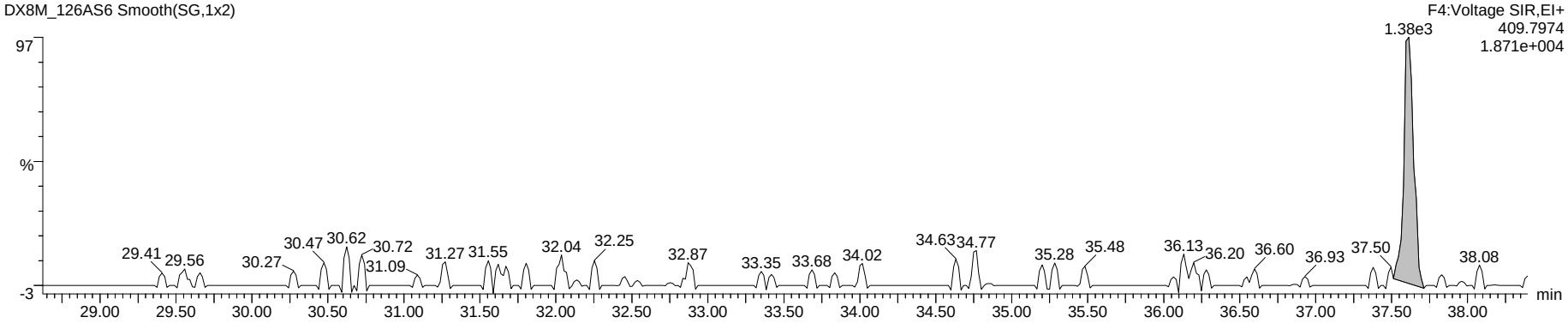
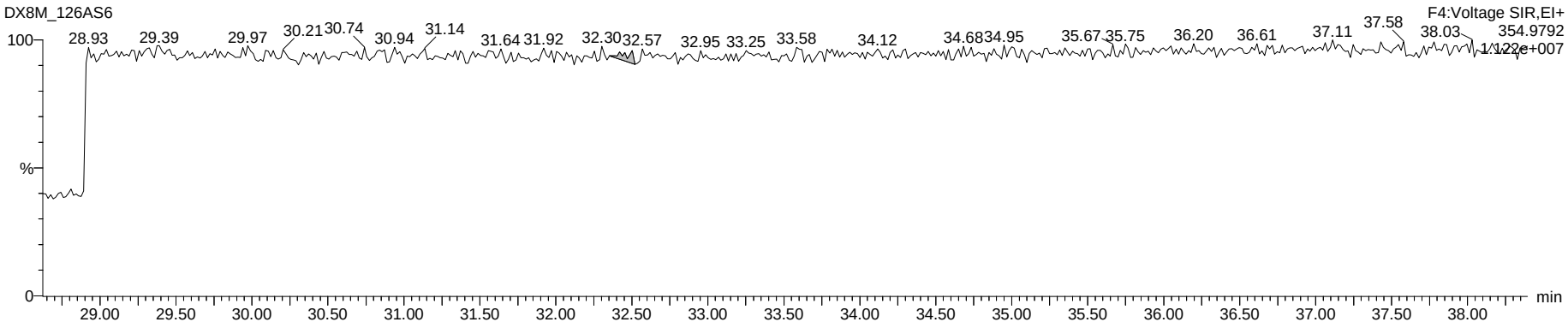


Penta Lock



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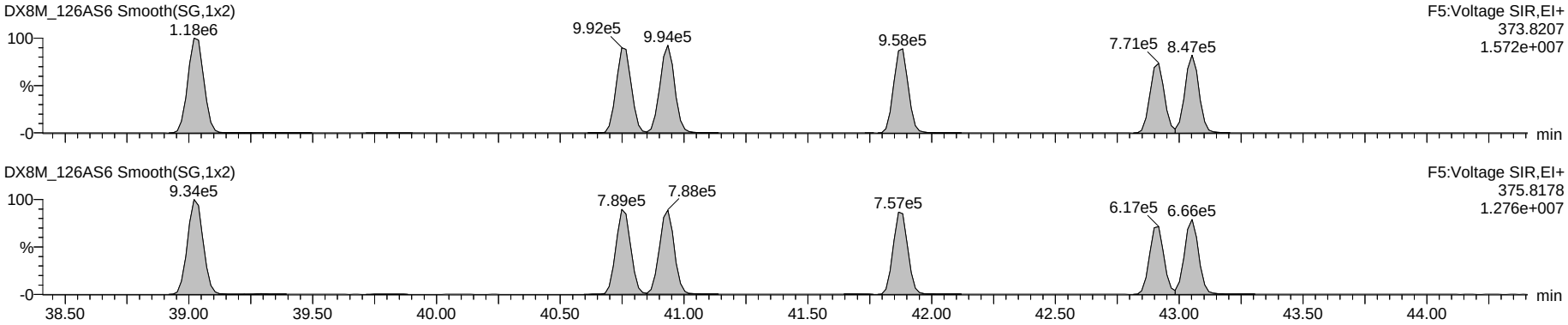
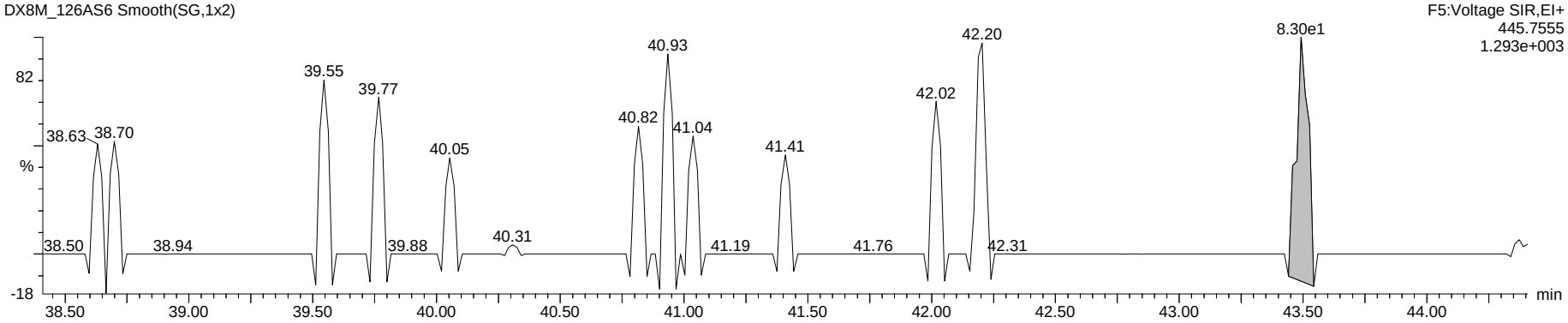
Name: DX8M_126AS6, Date: 24-Oct-2018, Time: 12:54:49, ID: DX041D-CAL,,/01-82, Description: 1,,1.0uL Cal Win/Res

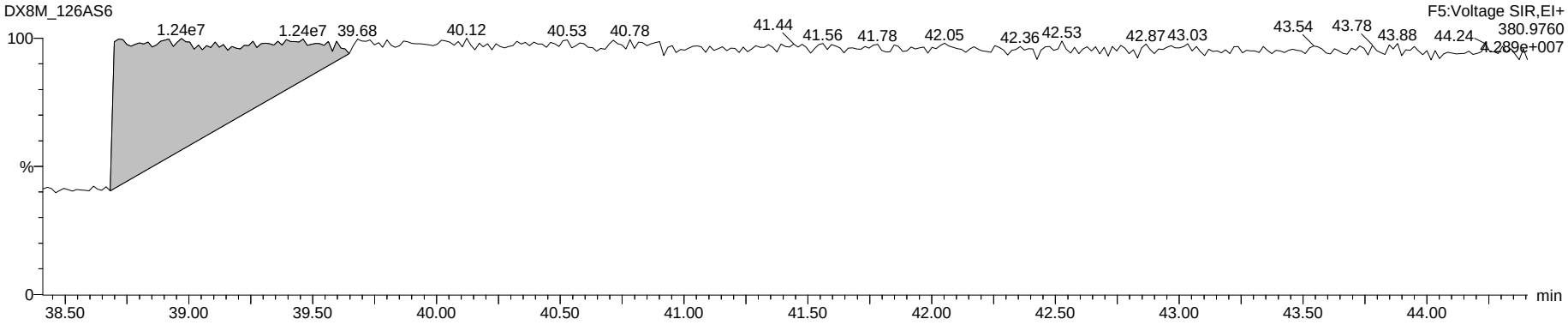
Total Hexa-Furans



Octa DPE



Hexa Lock



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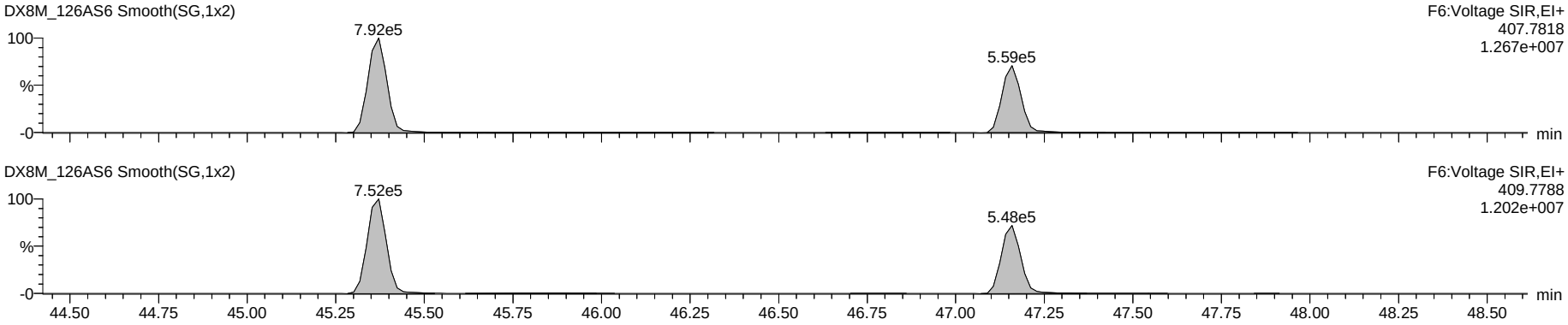
Name: DX8M_126AS6, Date: 24-Oct-2018, Time: 12:54:49, ID: DX041D-CAL,,/01-82, Description: 1,,1.0uL Cal Win/Res

Total Hepta-Furans



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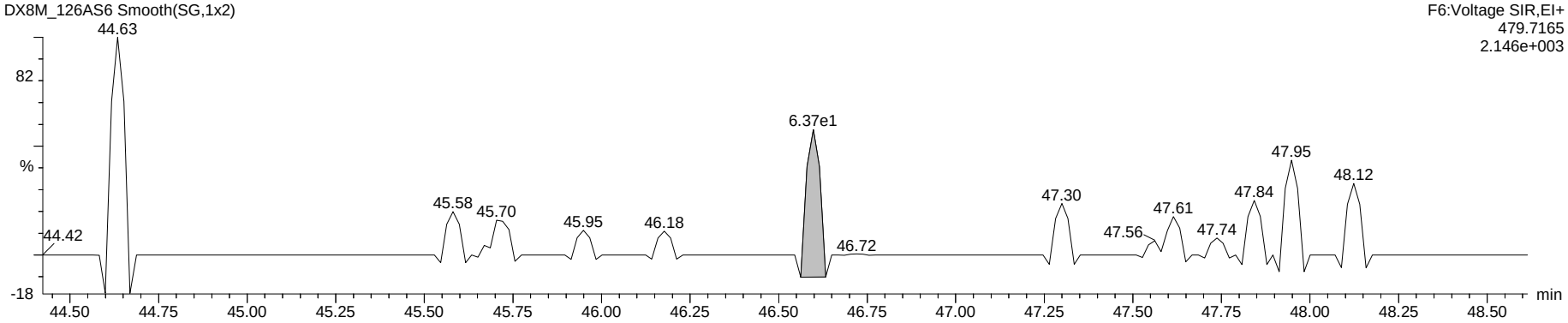

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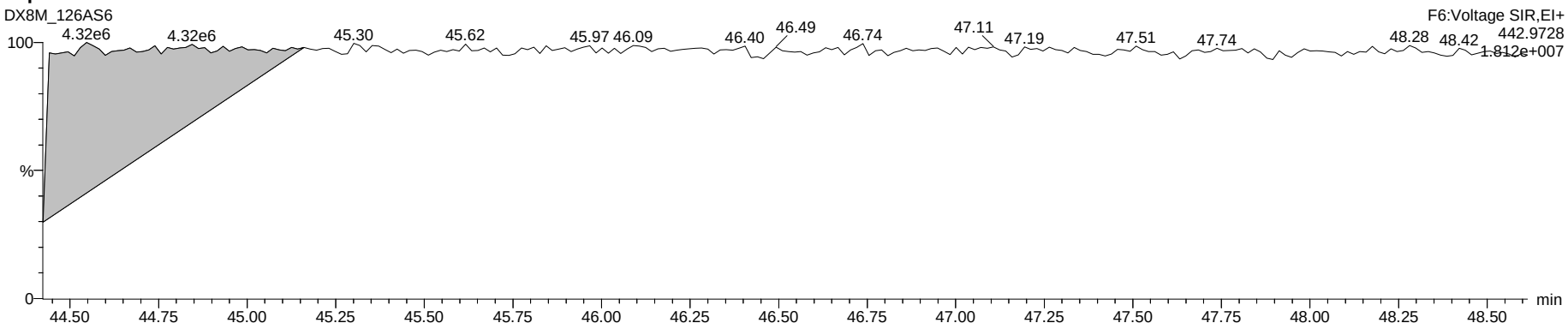

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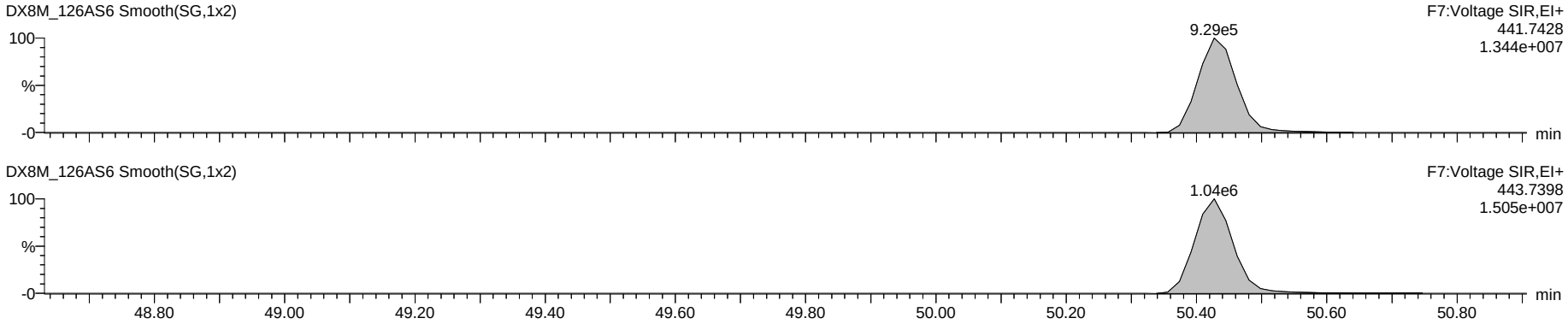
Name: DX8M_126AS6, Date: 24-Oct-2018, Time: 12:54:49, ID: DX041D-CAL,,/01-82, Description: 1,,1.0uL Cal Win/Res

OCDF



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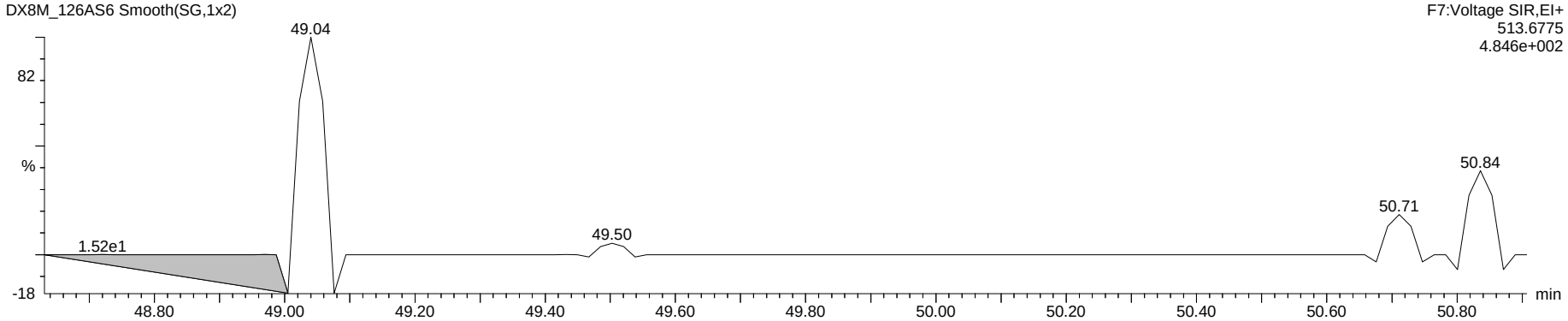

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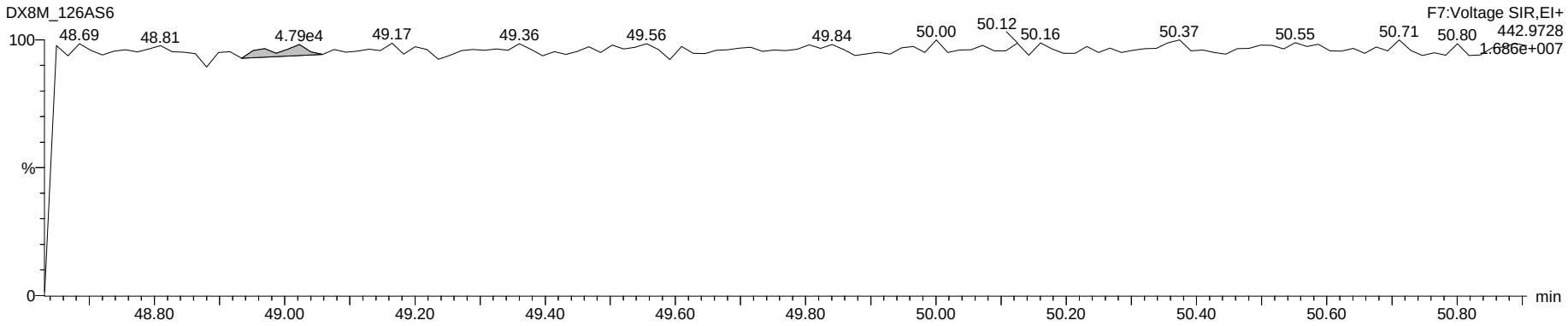

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Name: DX8M_126AS5, Date: 24-Oct-2018, Time: 11:59:36, ID: DX041E-CAL,,/01, Description: 1,,1.0uL CS-4

	Name	Amount	Resp	Ratio	fails?	RT	RRF	RRF Mean	RRF SD	RRF %Rel SD	S/N	1º S/N
1	2,3,7,8-TCDF	40.000	2.45e6	0.78	NO	25.30	0.957	0.9390	0.034	3.63	14805	10753
2	1,2,3,7,8-PeCDF	200.000	1.04e7	1.58	NO	33.62	0.955	0.9345	0.039	4.16	30109	21990
3	2,3,4,7,8-PeCDF	200.000	1.06e7	1.56	NO	35.37	0.980	0.9393	0.040	4.30	34236	25442
4	1,2,3,4,7,8-HxCDF	200.000	9.42e6	1.24	NO	40.77	1.180	1.1360	0.047	4.13	27926	23867
5	1,2,3,6,7,8-HxCDF	200.000	9.92e6	1.23	NO	40.93	1.144	1.0868	0.041	3.79	30701	26130
6	2,3,4,6,7,8-HxCDF	200.000	9.46e6	1.24	NO	41.88	1.220	1.1636	0.049	4.23	29593	24684
7	1,2,3,7,8,9-HxCDF	200.000	7.80e6	1.25	NO	42.92	1.064	1.0339	0.031	2.98	24782	20674
8	1,2,3,4,6,7,8-HpCDF	200.000	8.80e6	1.03	NO	45.37	1.298	1.2267	0.074	6.06	26605	24105
9	1,2,3,4,7,8,9-HpCDF	200.000	6.67e6	1.05	NO	47.16	1.299	1.2333	0.050	4.08	20539	18629
10	OCDF	400.000	1.22e7	0.90	NO	50.43	1.299	1.1975	0.095	7.95	136613	141448
11	2,3,7,8-TCDD	40.000	1.72e6	0.78	NO	26.54	1.049	1.0401	0.041	3.91	7874	9434
12	1,2,3,7,8-PeCDD	200.000	6.43e6	0.62	NO	36.20	1.032	1.0058	0.036	3.58	18417	31340
13	1,2,3,4,7,8-HxCDD	200.000	6.43e6	1.25	NO	42.15	1.034	0.9986	0.034	3.42	33656	34887
14	1,2,3,6,7,8-HxCDD	200.000	6.47e6	1.24	NO	42.29	0.973	0.9331	0.037	3.98	31848	33702
15	1,2,3,7,8,9-HxCDD	200.000	6.30e6	1.24	NO	42.71	0.979	0.9468	0.033	3.48	30797	32630
16	1,2,3,4,6,7,8-HpCDD	200.000	5.46e6	1.03	NO	46.76	1.008	0.9602	0.061	6.30	19106	21448
17	OCDD	400.000	9.71e6	0.88	NO	50.36	1.036	0.9954	0.040	4.06	329229	46978
18	13C-2,3,7,8-TCDF	100.000	6.41e6	0.79	NO	25.27	1.522	1.5236	0.024	1.54	4808	8051
19	13C-1,2,3,7,8-PeCDF	100.000	5.43e6	1.60	NO	33.58	1.289	1.2485	0.066	5.26	14201	9365
20	13C-2,3,4,7,8-PeCDF	100.000	5.39e6	1.59	NO	35.35	1.279	1.2415	0.066	5.32	16210	10661
21	13C-1,2,3,4,7,8-HxCDF	100.000	3.99e6	0.51	NO	40.73	1.265	1.2745	0.027	2.10	4021	8136
22	13C-1,2,3,6,7,8-HxCDF	100.000	4.33e6	0.52	NO	40.92	1.373	1.3711	0.039	2.82	4304	8450
23	13C-2,3,4,6,7,8-HxCDF	100.000	3.88e6	0.52	NO	41.85	1.229	1.2413	0.035	2.81	4071	8064
24	13C-1,2,3,7,8,9-HxCDF	100.000	3.66e6	0.52	NO	42.90	1.162	1.1393	0.032	2.82	3781	7289
25	13C-1,2,3,4,6,7,8-HpCDF	100.000	3.39e6	0.45	NO	45.35	1.075	1.0510	0.029	2.79	6920	7156
26	13C-1,2,3,4,7,8,9-HpCDF	100.000	2.57e6	0.45	NO	47.14	0.814	0.8034	0.029	3.64	5277	5571
27	13C-2,3,7,8-TCDD	100.000	4.09e6	0.78	NO	26.51	0.971	0.9668	0.021	2.19	2479	7626
28	13C-1,2,3,7,8-PeCDD	100.000	3.12e6	0.63	NO	36.16	0.740	0.7201	0.040	5.52	8854	11010
29	13C-1,2,3,4,7,8-HxCDD	100.000	3.11e6	1.27	NO	42.14	0.986	0.9796	0.023	2.38	9321	11065
30	13C-1,2,3,6,7,8-HxCDD	100.000	3.32e6	1.25	NO	42.27	1.053	1.0526	0.029	2.73	9471	11409
31	13C-1,2,3,4,6,7,8-HpCDD	100.000	2.71e6	1.03	NO	46.74	0.858	0.8282	0.035	4.24	9051	12224
32	13C-OCDD	200.000	4.69e6	0.89	NO	50.34	0.743	0.7120	0.052	7.28	9048	17636
33	13C-1,2,3,4-TCDD	100.000	4.21e6	0.79	NO	26.17	420...	38426.9254	4430.855	11.53	2603	8110
34	13C-1,2,3,7,8,9-HxCDD	100.000	3.16e6	1.26	NO	42.70	315...	27947.7837	3519.241	12.59	8885	10716
35	37Cl-2,3,7,8-TCDD	40.000	1.74e6			26.54	1.031	1.0910	0.100	9.20	5255	
36	Total Tetra-Furans	40.000						0.9390	0.034	3.63		
37	Total Tetra-Dioxins	40.000						1.0401	0.041	3.91		
38	Total Penta-Furans	200.000						0.9345	0.039	4.16		
39	Total Penta-Dioxins	200.000						1.0058	0.036	3.58		
40	Total Hexa-Furans	200.000						1.1360	0.047	4.13		
41	Total Hexa-Dioxins	200.000						0.9986	0.034	3.42		
42	Total Hepta-Furans	200.000						1.2267	0.074	6.06		
43	Total Hepta-Dioxins	200.000						0.9602	0.061	6.30		
44	Hexa DPE	0.000	9.65e1			26.42	0.000				0	
45	Hepta DPE	0.000	8.45e3			37.61	0.000				162	
46	Octa DPE	0.000	6.18e1			40.39	0.000				21	
47	Nona DPE	0.000	7.45e1			47.83	0.000				25207	
48	Deca DPE	0.000	1.86e1			49.25	0.000				0	
49	Tetra Lock	0.000										
50	Penta Lock	0.000										
51	Hexa Lock	0.000	1.70e7			39.26	0.000				2	
52	Hepta Lock	0.000										
53	Octa Lock	0.000										
54	13C-Tetra-Furans	100.000						1.5236	0.024	1.54		
55	13C-Tetra-Dioxins	100.000						0.9668	0.021	2.19		

PV LHE 26-OCT-2018

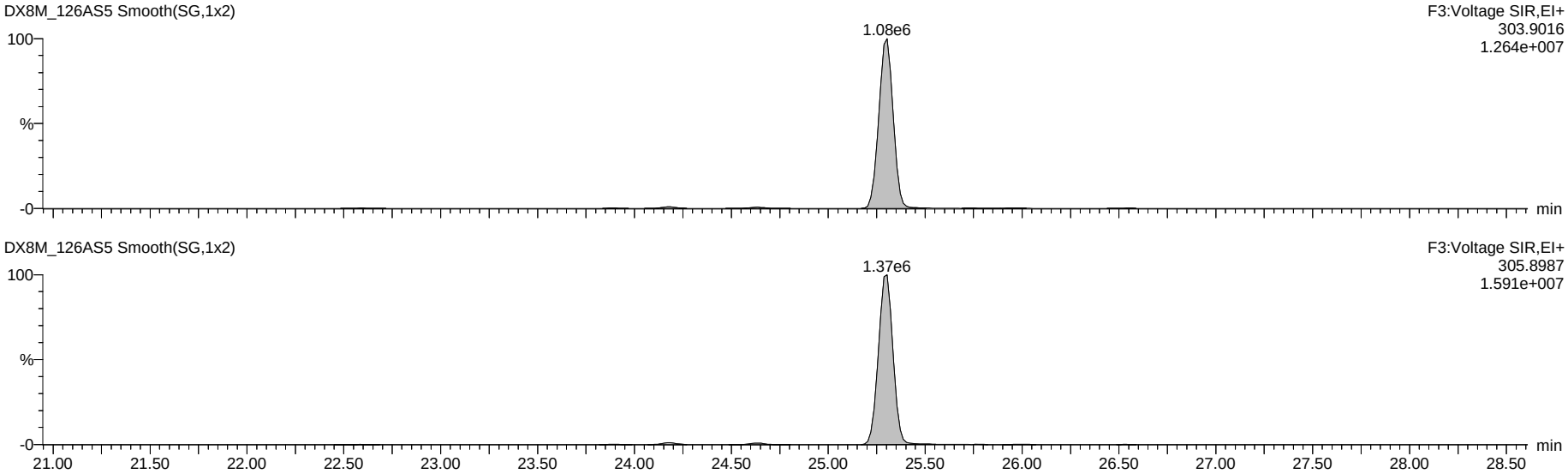
SV by TD 26-Oct-2018

Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

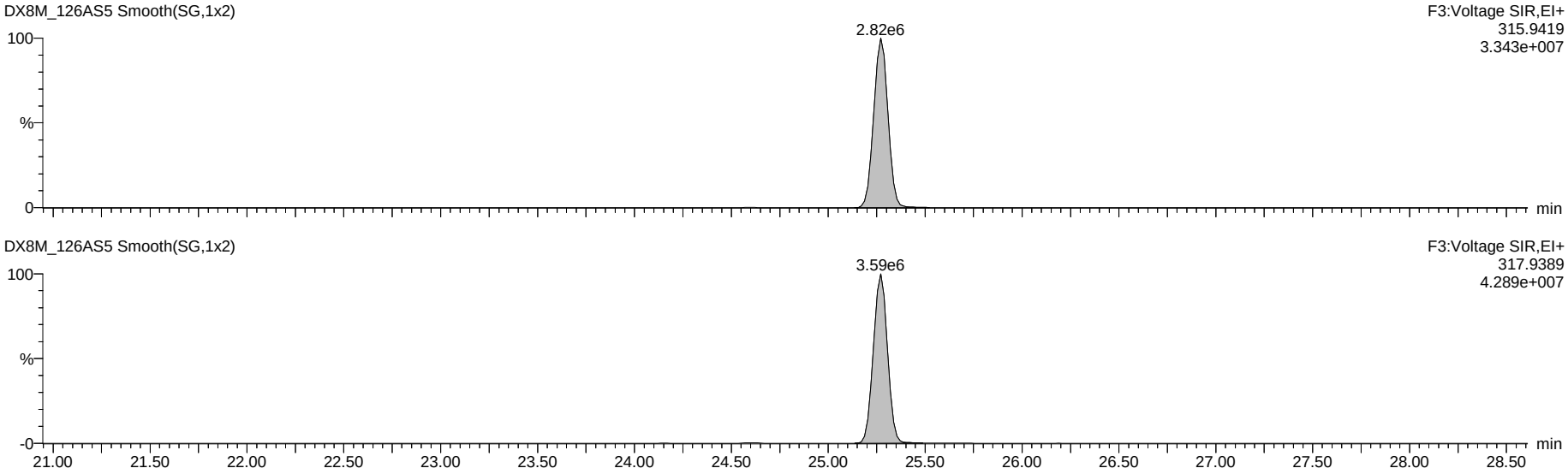
Method: G:\Masslynx\Inst_M\Exported_methods\DX_1613B_16.mdb 07 Sep 2017 16:45:23
Calibration: 26 Oct 2018 12:44:28

Name: DX8M_126AS5, Date: 24-Oct-2018, Time: 11:59:36, ID: DX041E-CAL,,/01, Description: 1,,1.0uL CS-4

Total Tetra-Furans



13C-Tetra-Furans



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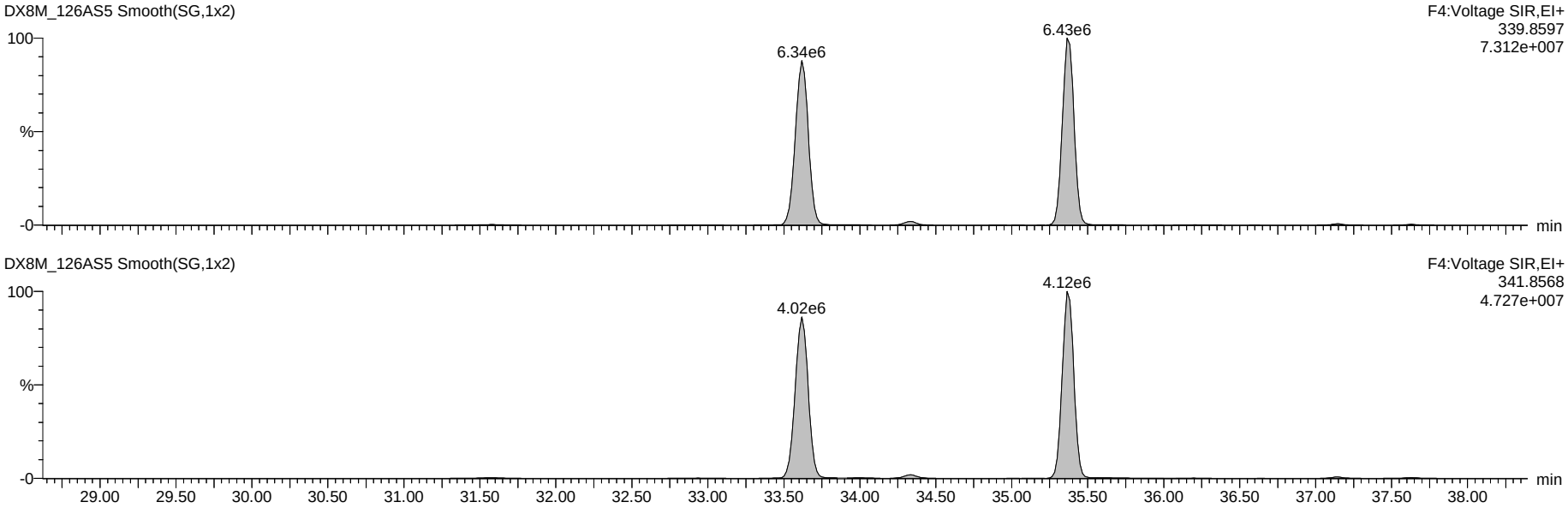
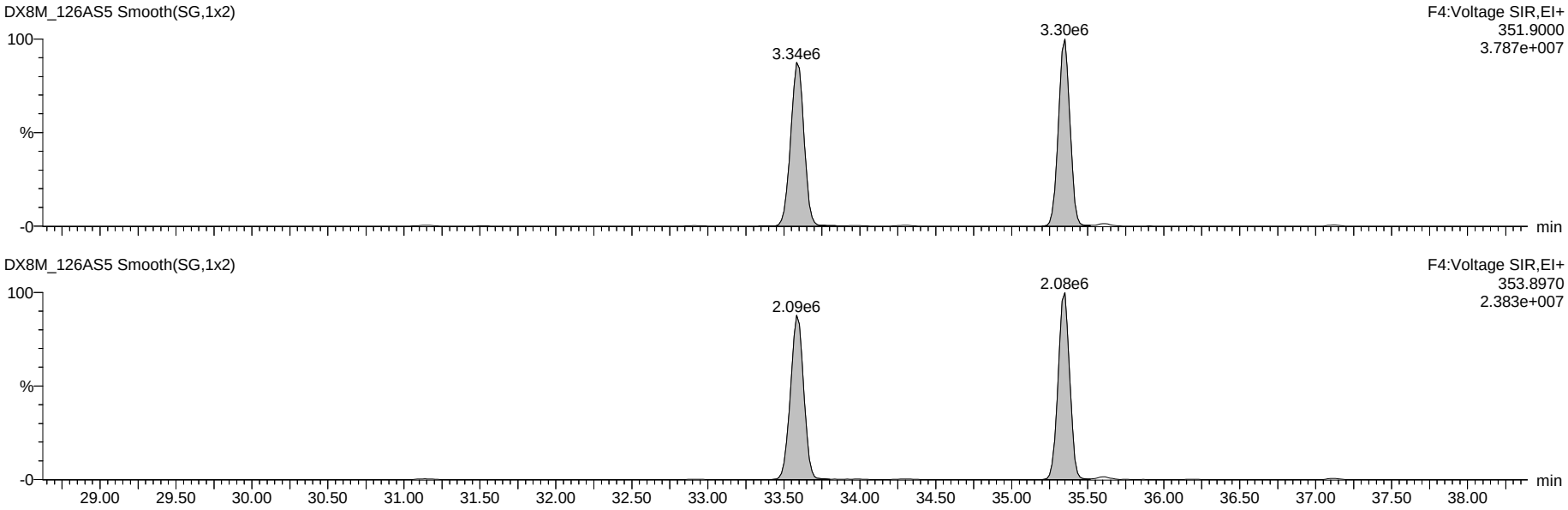
Name: DX8M_126AS5, Date: 24-Oct-2018, Time: 11:59:36, ID: DX041E-CAL,,/01, Description: 1,,1.0uL CS-4

Total Penta-Furans



13C-Penta-Furans



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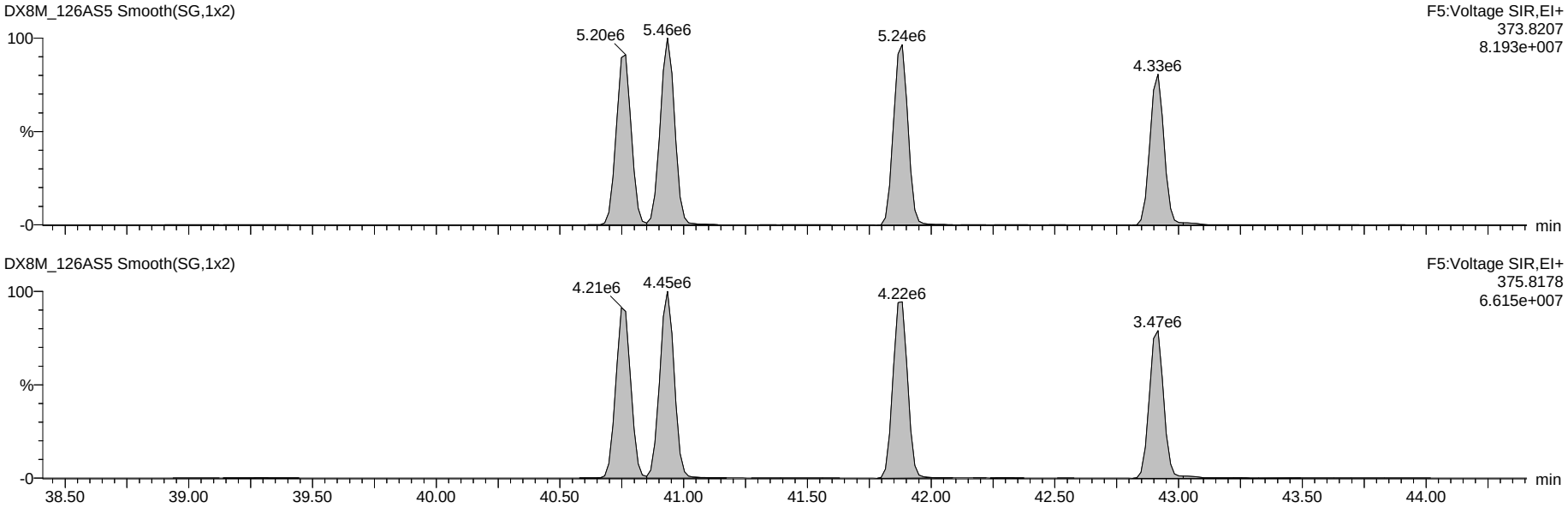
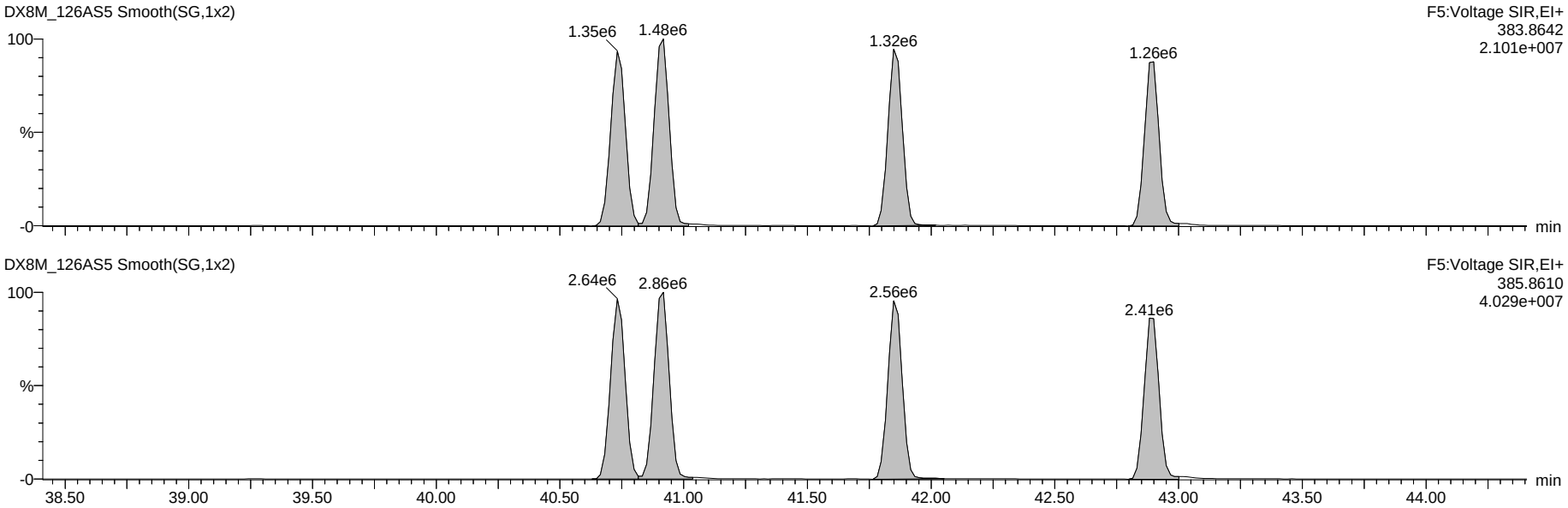
Total Hexa-Furans



13C-Hexa-Furans



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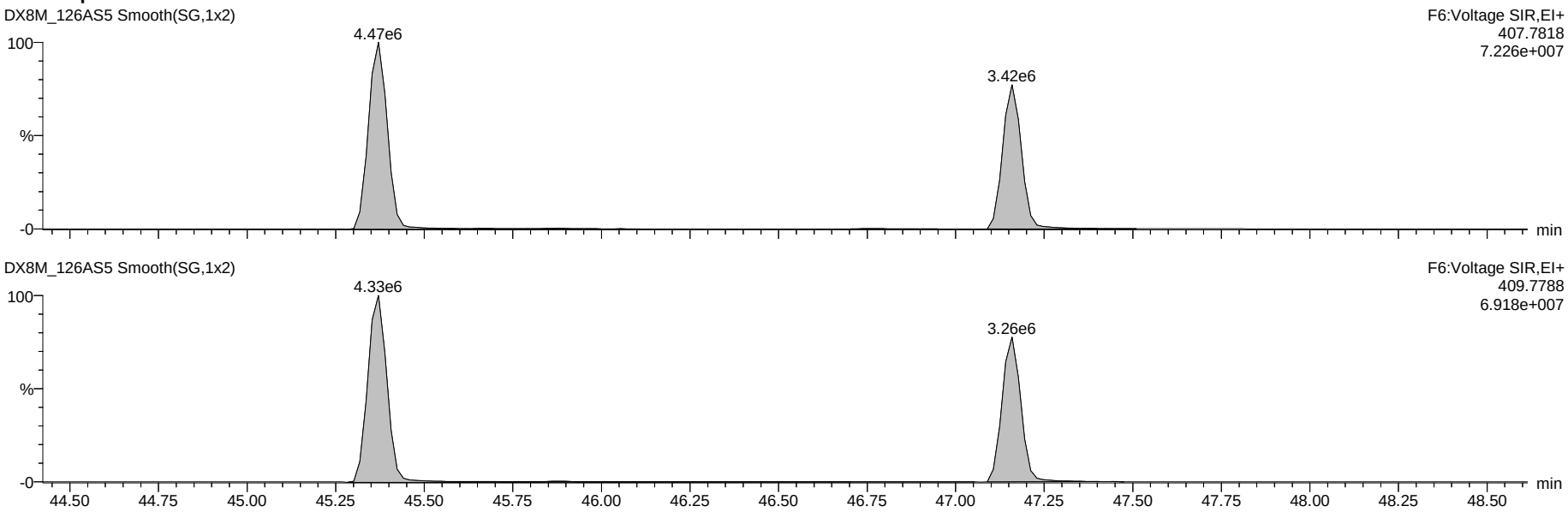
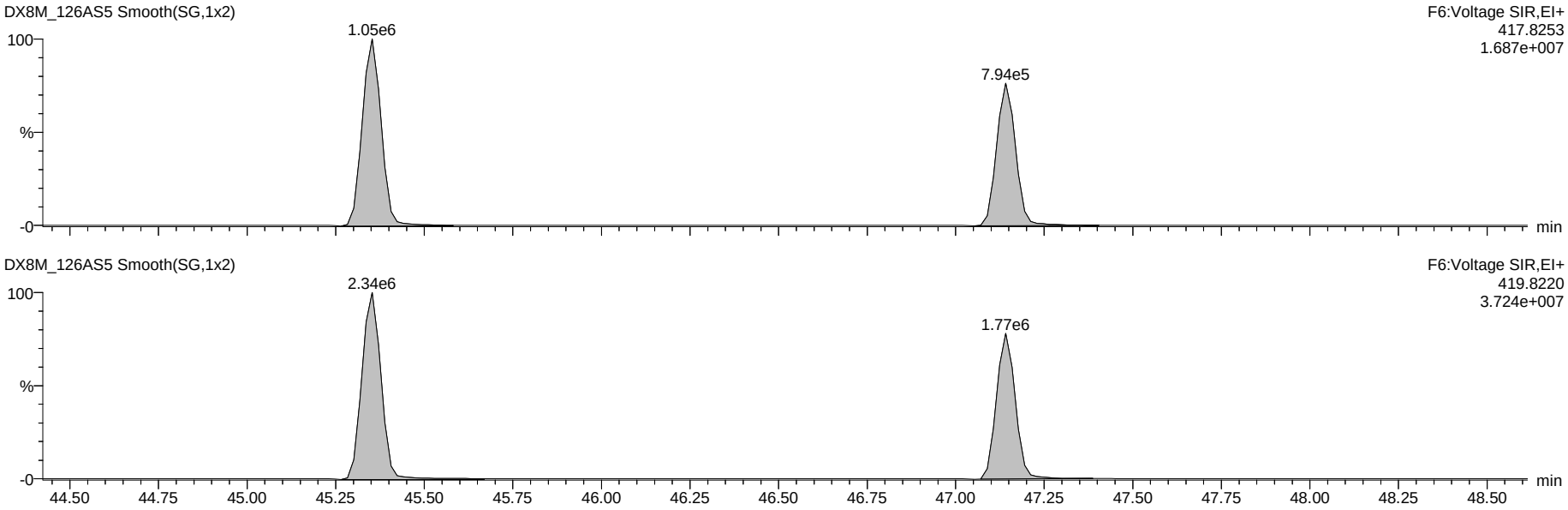
Total Hepta-Furans



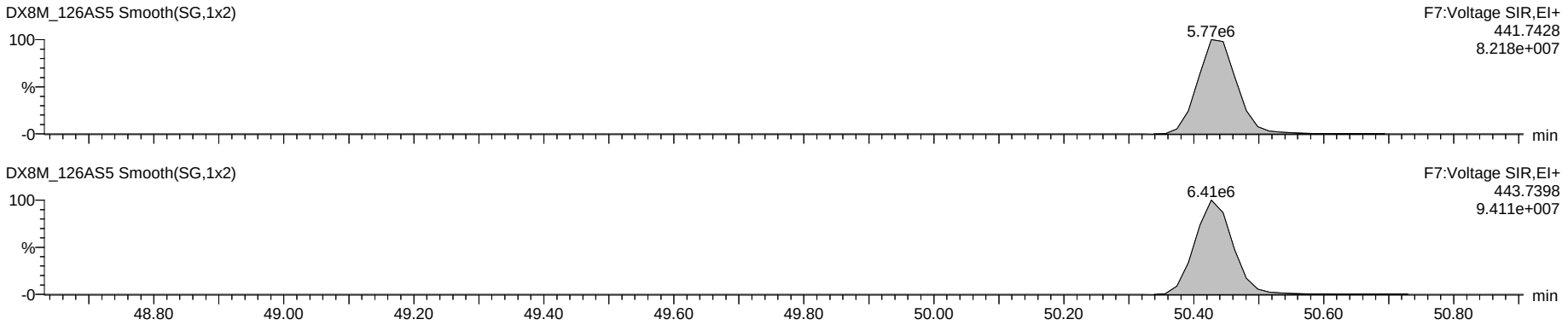
13C-Hepta-Furans



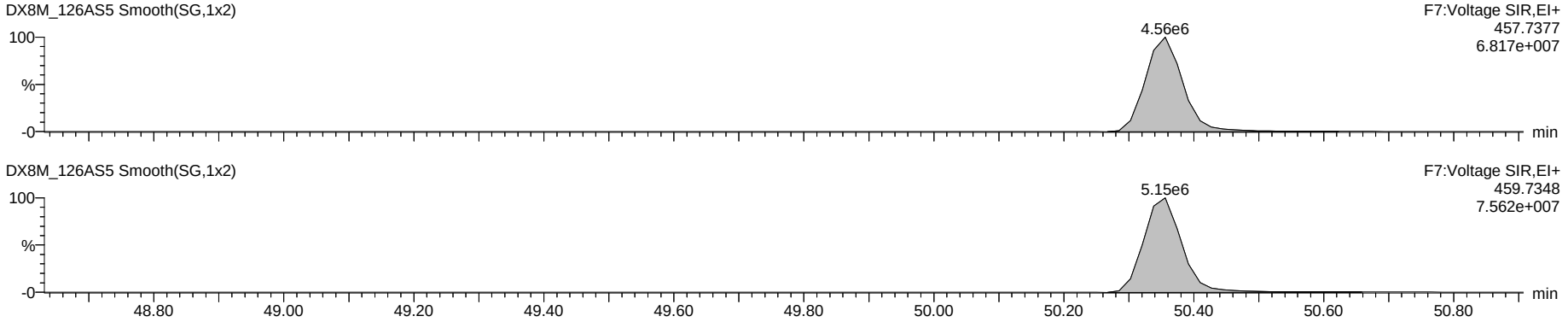
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

Name: DX8M_126AS5, Date: 24-Oct-2018, Time: 11:59:36, ID: DX041E-CAL,,/01, Description: 1,,1.0uL CS-4

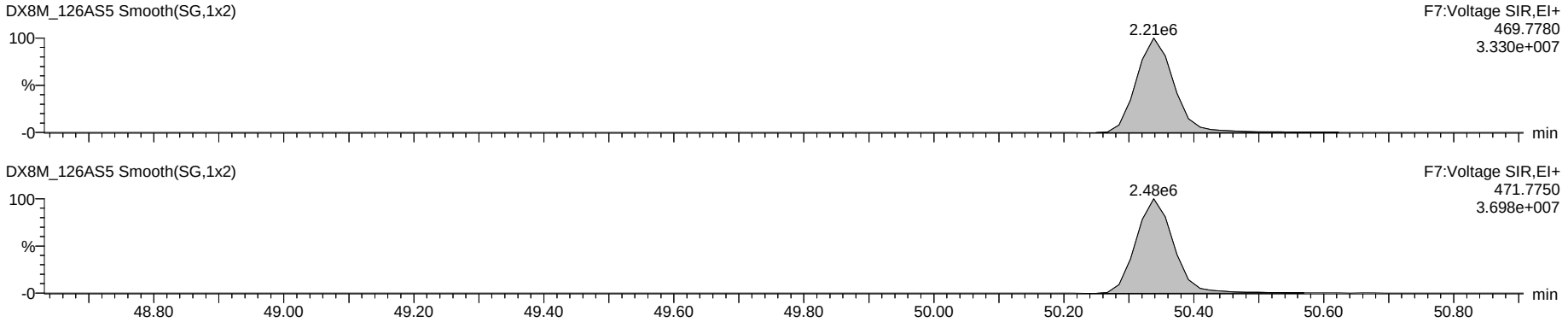
OCDF



OCDD



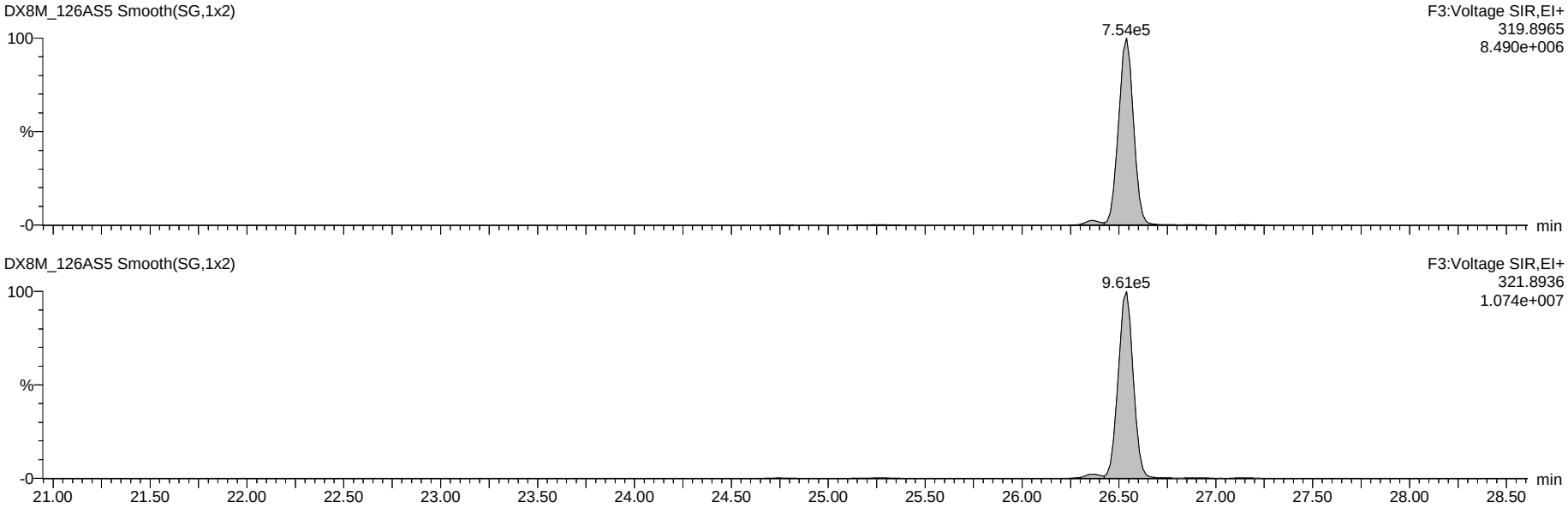
13C-OCDD



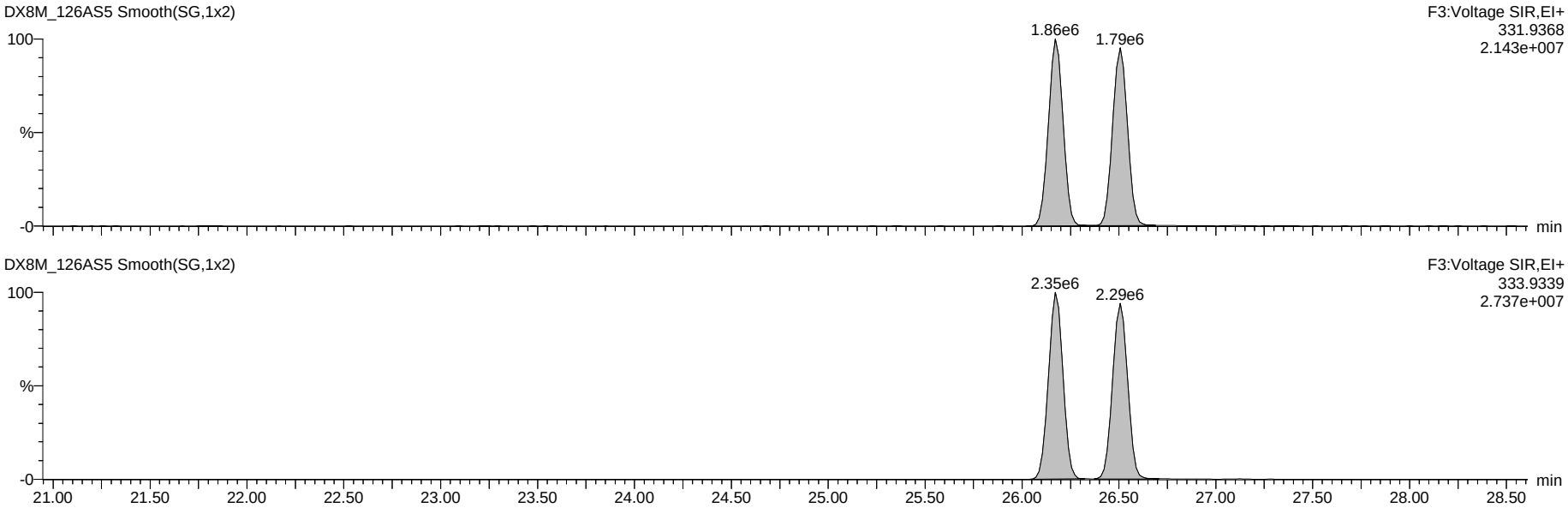
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

Name: DX8M_126AS5, Date: 24-Oct-2018, Time: 11:59:36, ID: DX041E-CAL,,/01, Description: 1,,1.0uL CS-4

Total Tetra-Dioxins



13C-Tetra-Dioxins



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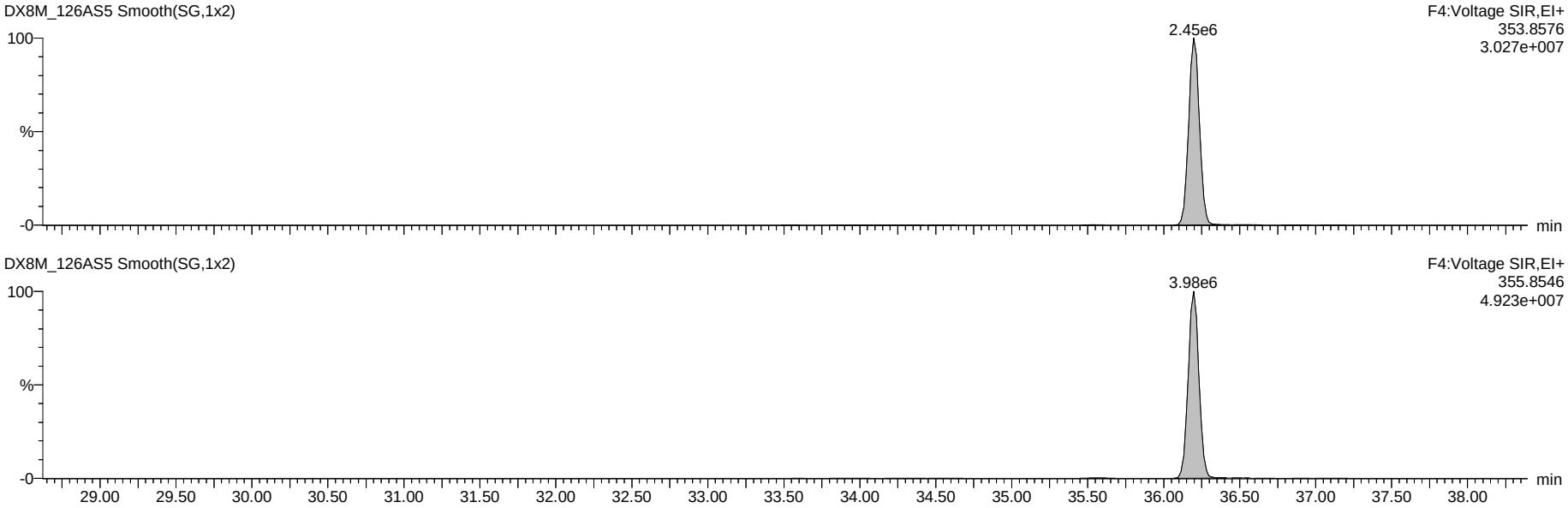
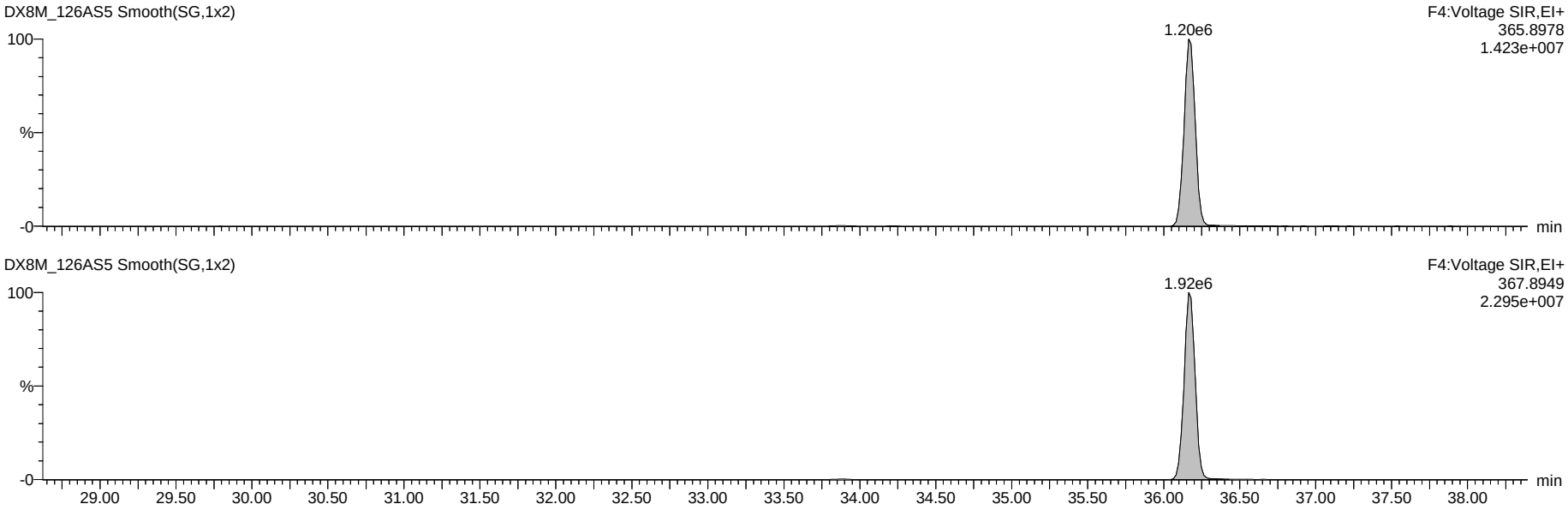
Name: DX8M_126AS5, Date: 24-Oct-2018, Time: 11:59:36, ID: DX041E-CAL,,/01, Description: 1,,1.0uL CS-4

Total Penta-Dioxins



13C-Penta-Dioxins



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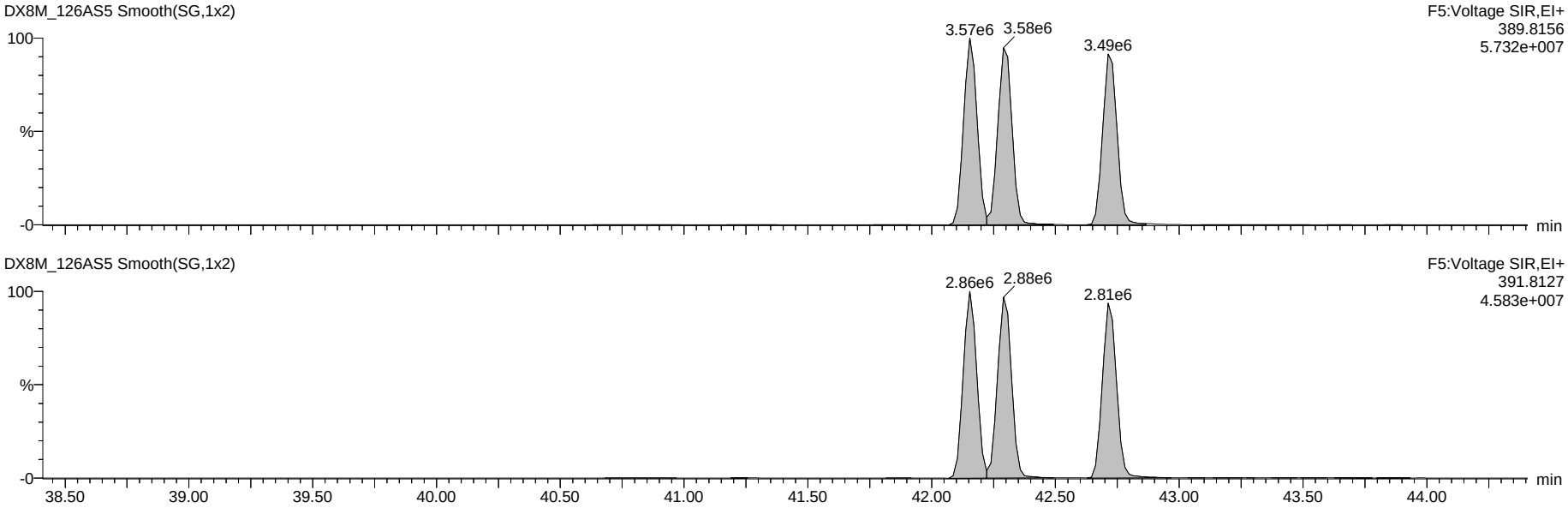
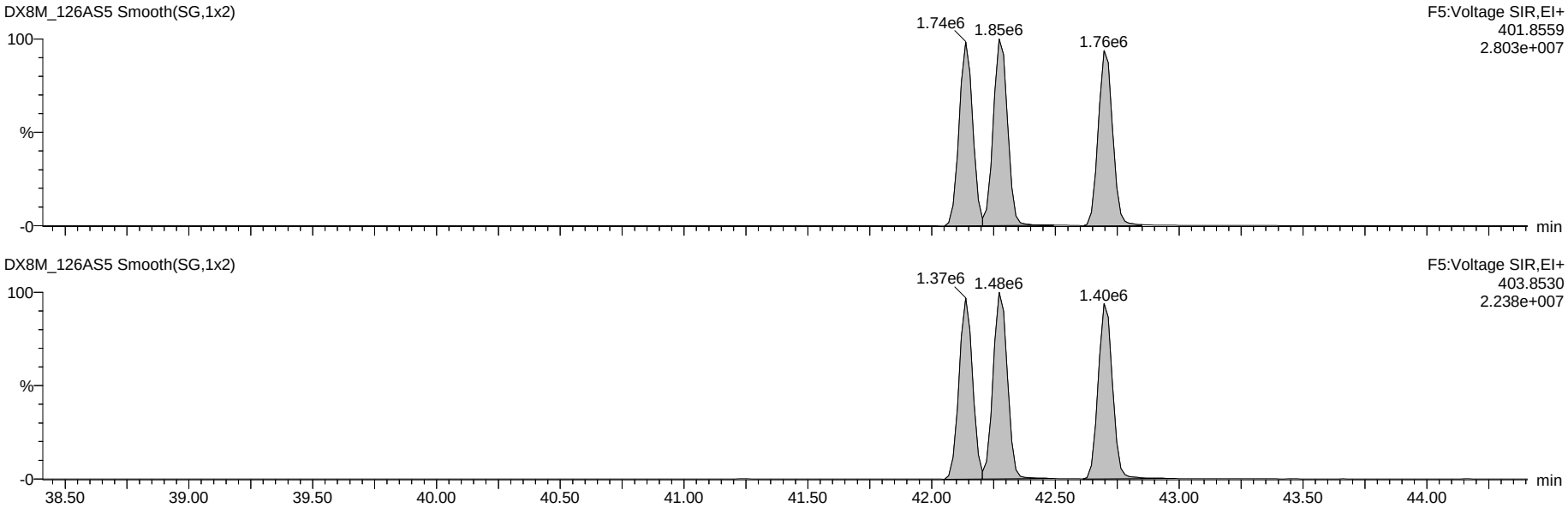
Name: DX8M_126AS5, Date: 24-Oct-2018, Time: 11:59:36, ID: DX041E-CAL,,/01, Description: 1,,1.0uL CS-4

Total Hexa-Dioxins



13C-Hexa-Dioxins



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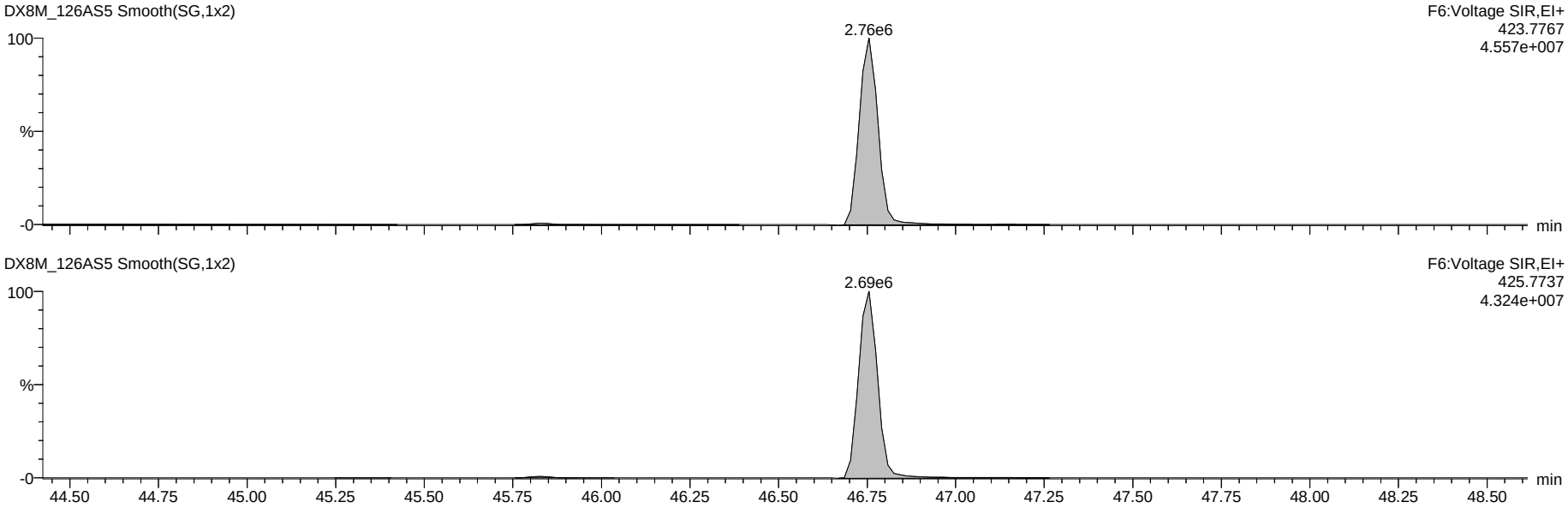
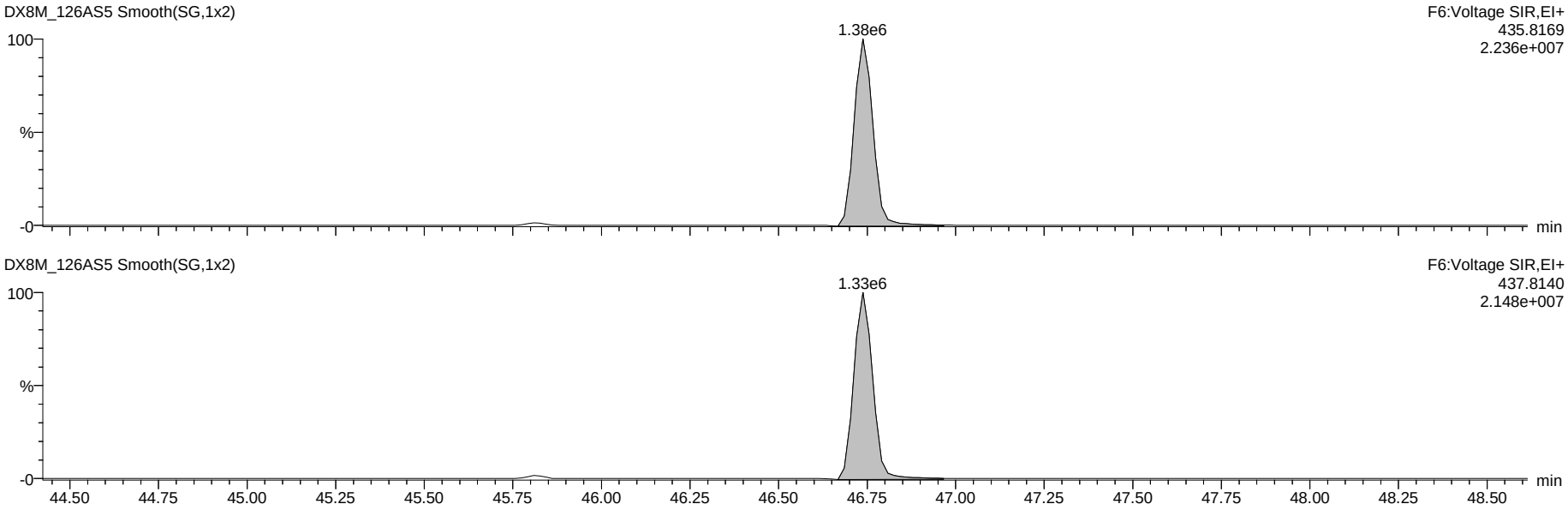
Total Hepta-Dioxins



13C-Hepta-Dioxins



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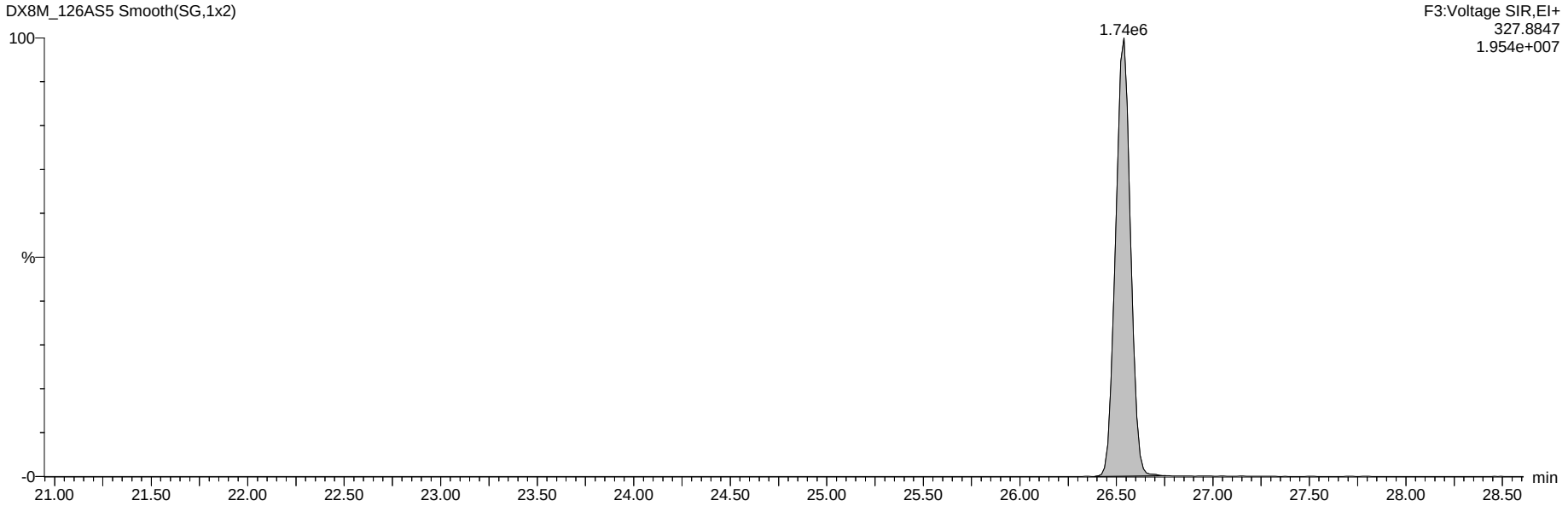
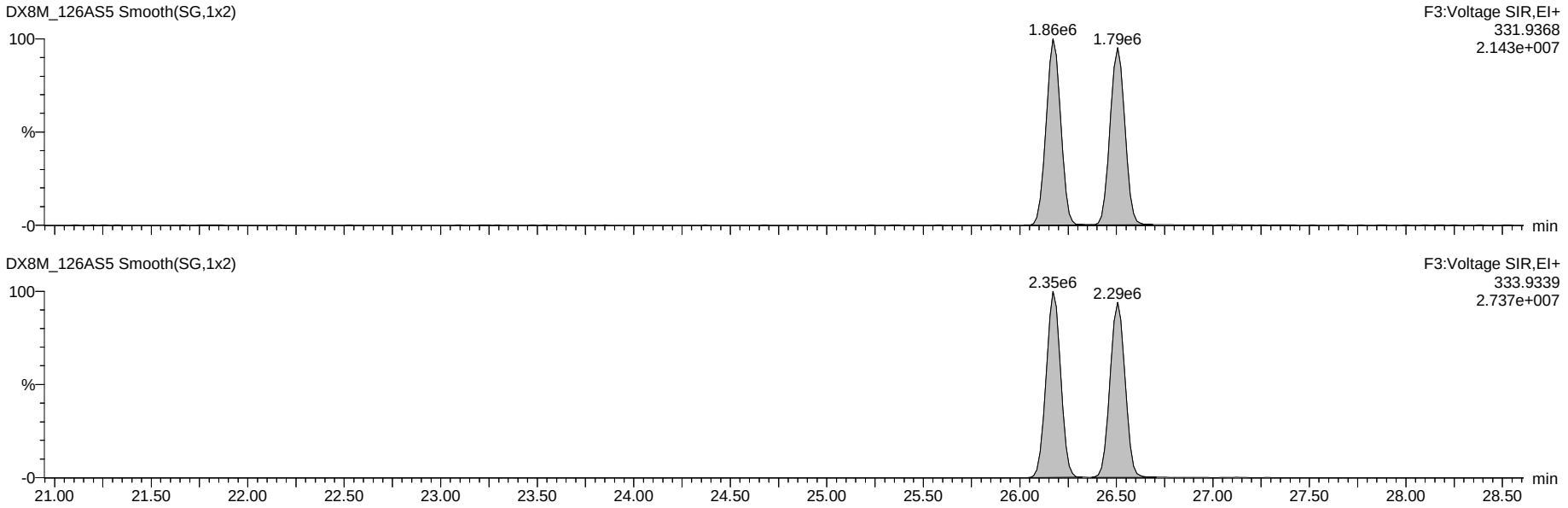
Name: DX8M_126AS5, Date: 24-Oct-2018, Time: 11:59:36, ID: DX041E-CAL,,/01, Description: 1,,1.0uL CS-4

37Cl-2,3,7,8-TCDD



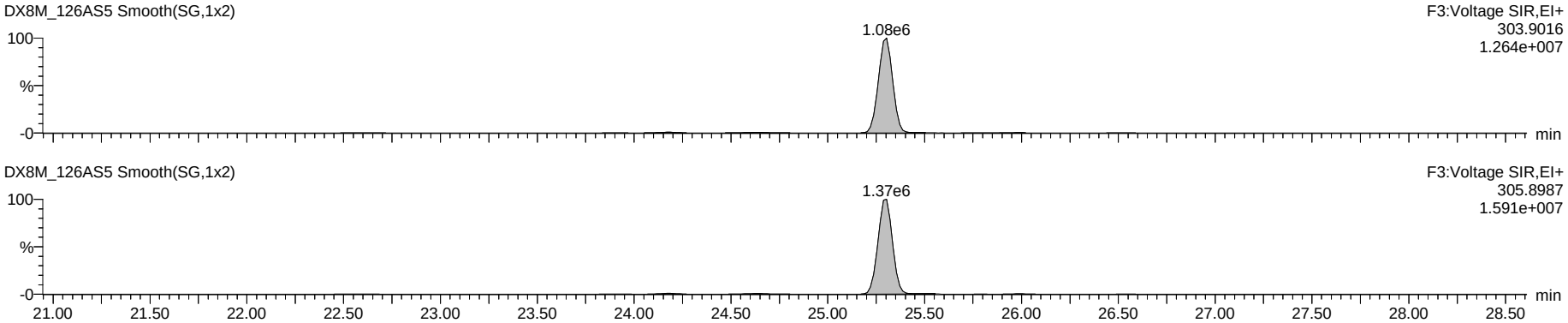
13C-Tetra-Dioxins



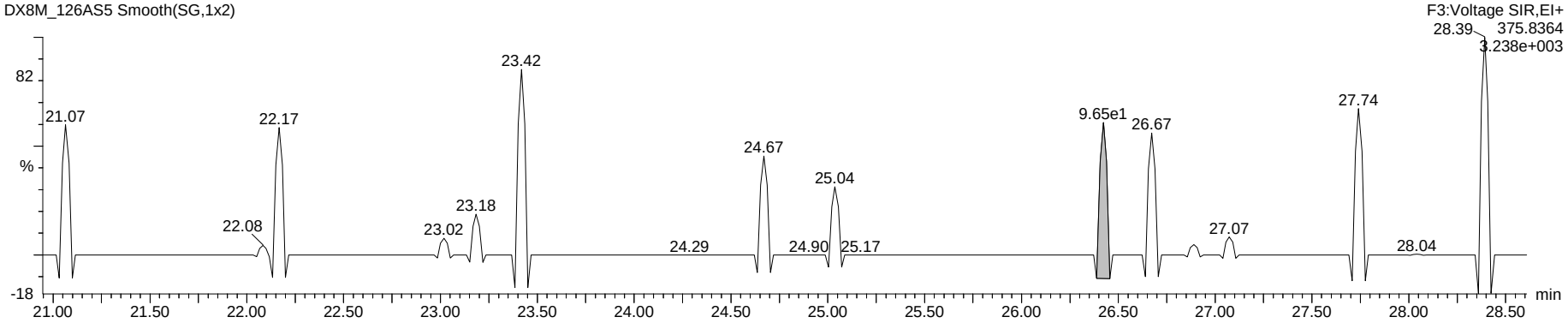
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

Name: DX8M_126AS5, Date: 24-Oct-2018, Time: 11:59:36, ID: DX041E-CAL,,/01, Description: 1,,1.0uL CS-4

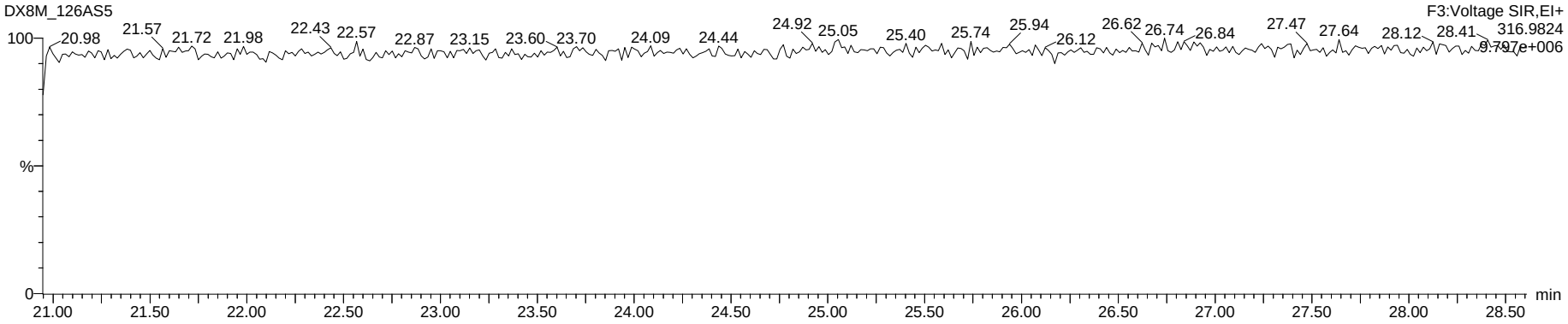
Total Tetra-Furans



Hexa DPE



Tetra Lock



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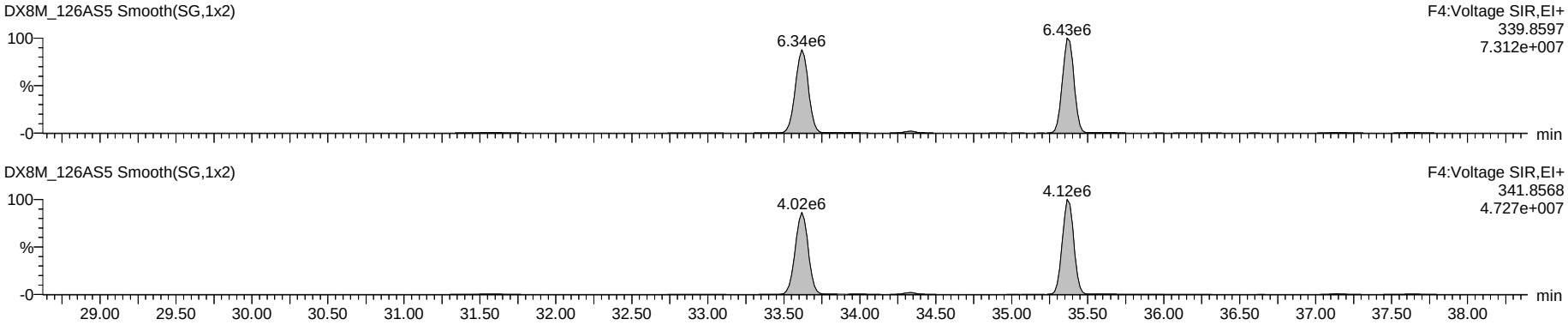
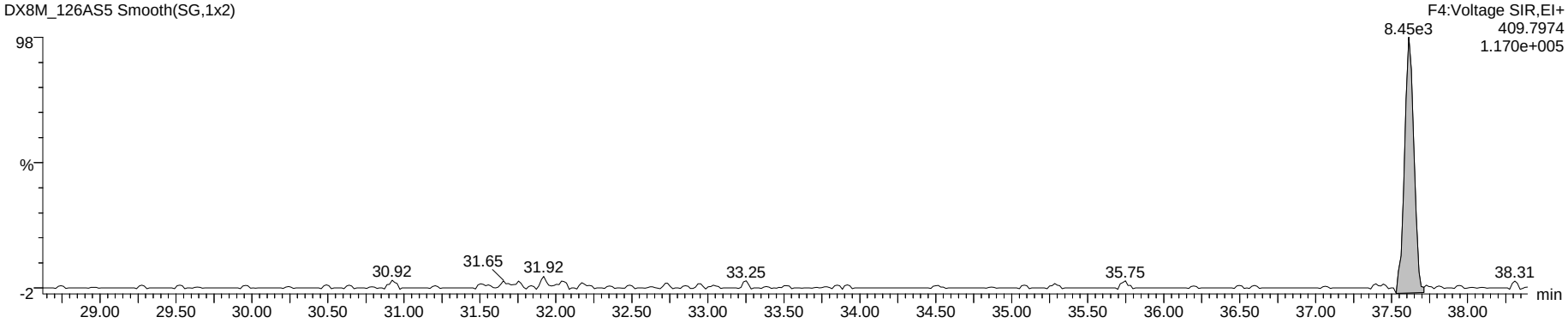
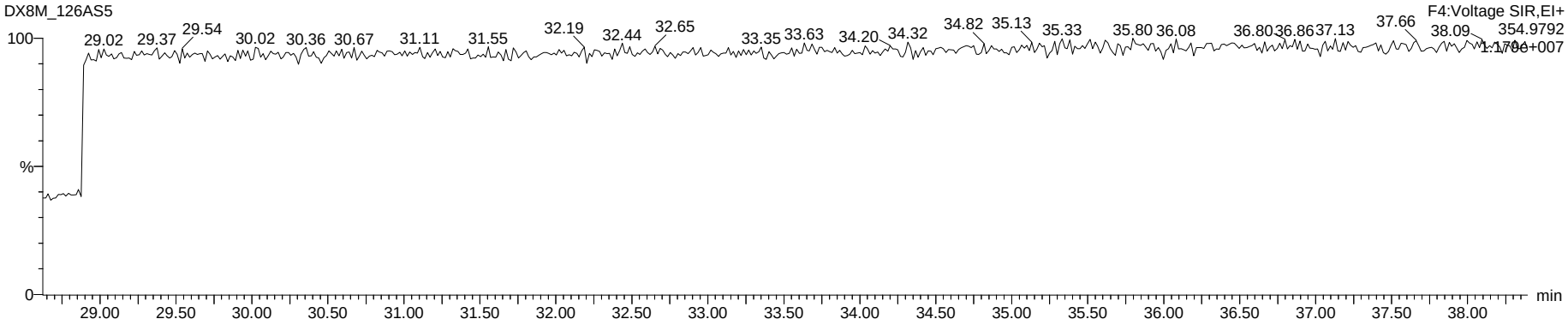
Total Penta-Furans



Hepta DPE



Penta Lock



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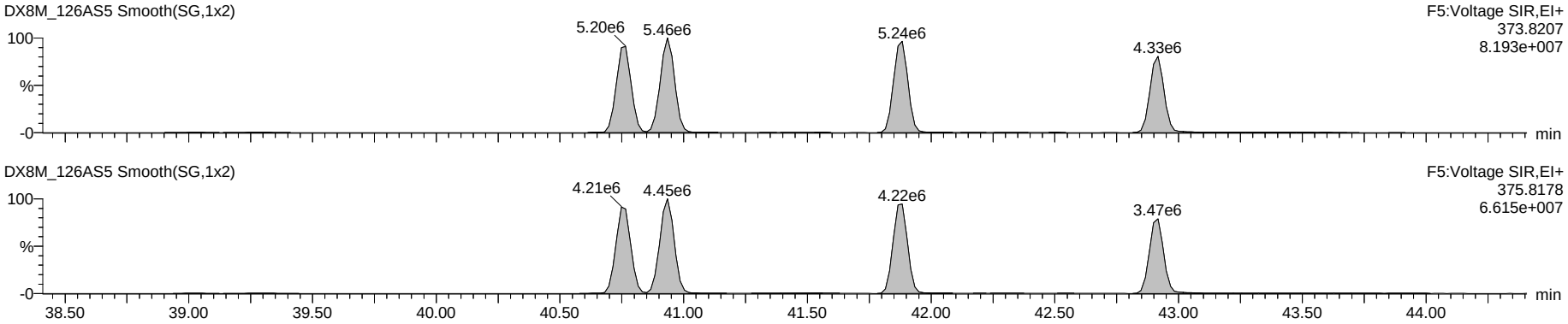
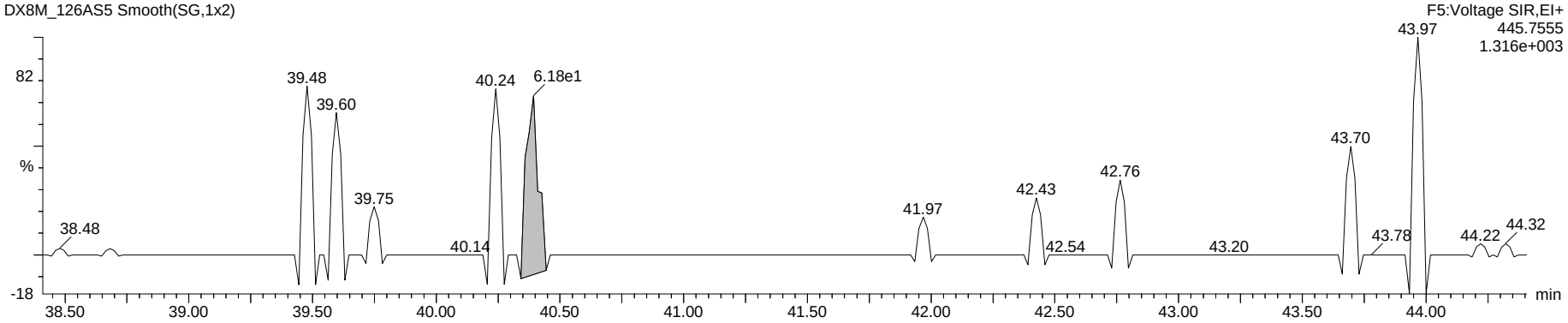
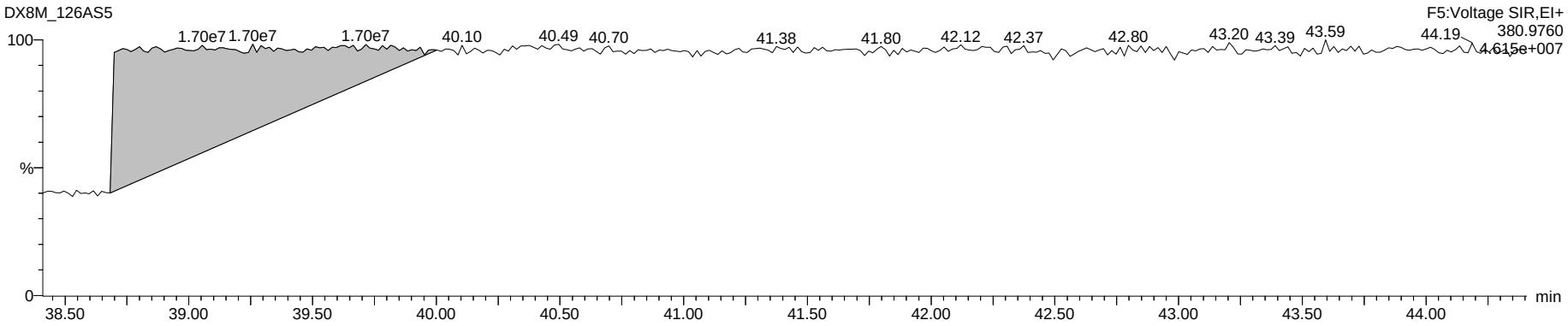
Total Hexa-Furans



Octa DPE



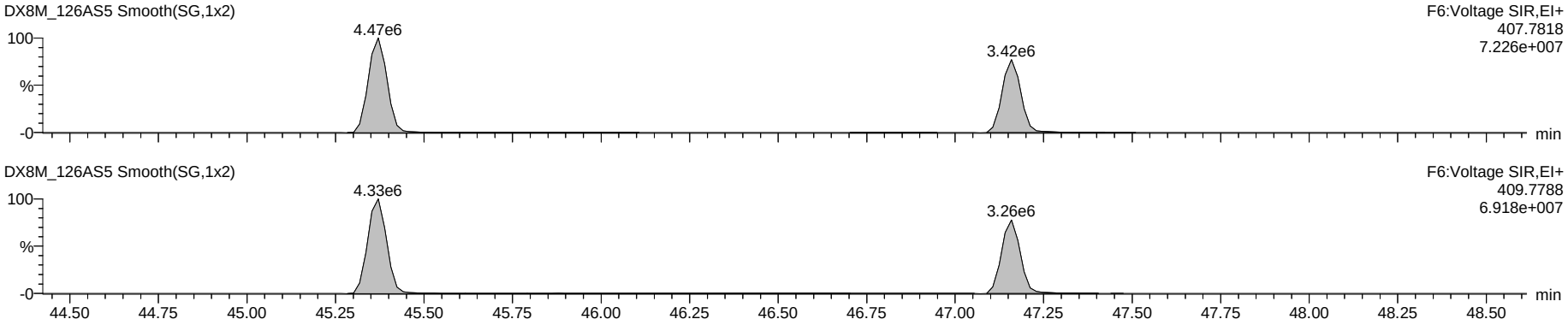
Hexa Lock



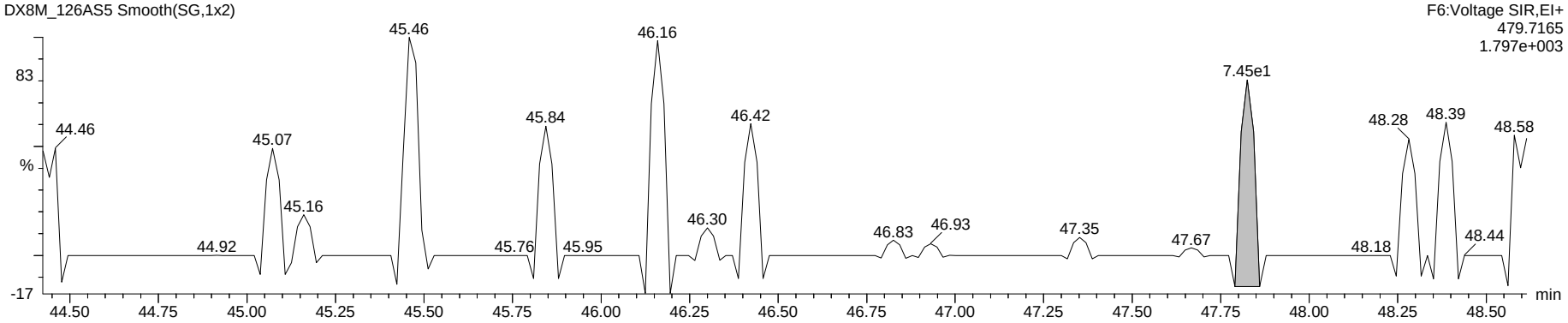
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

Name: DX8M_126AS5, Date: 24-Oct-2018, Time: 11:59:36, ID: DX041E-CAL,,/01, Description: 1,,1.0uL CS-4

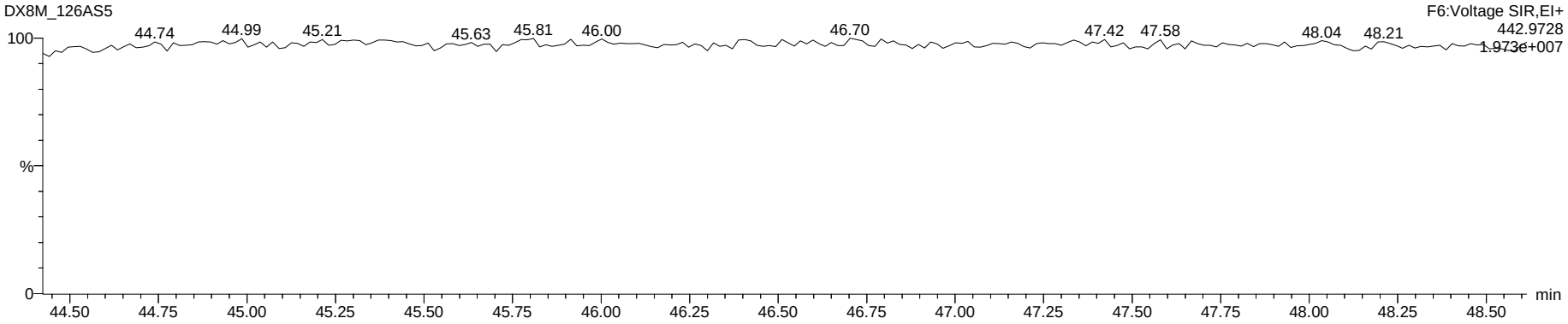
Total Hepta-Furans



Nona DPE



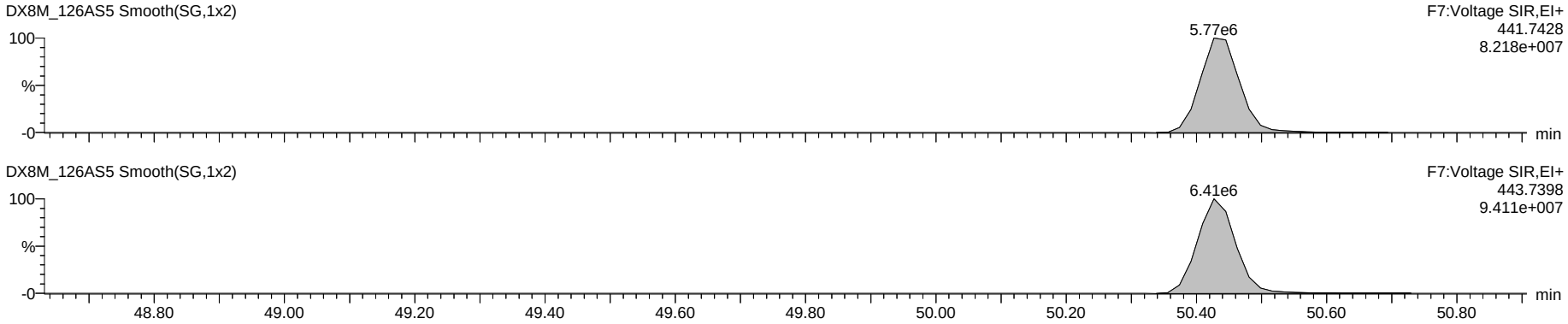
Hepta Lock



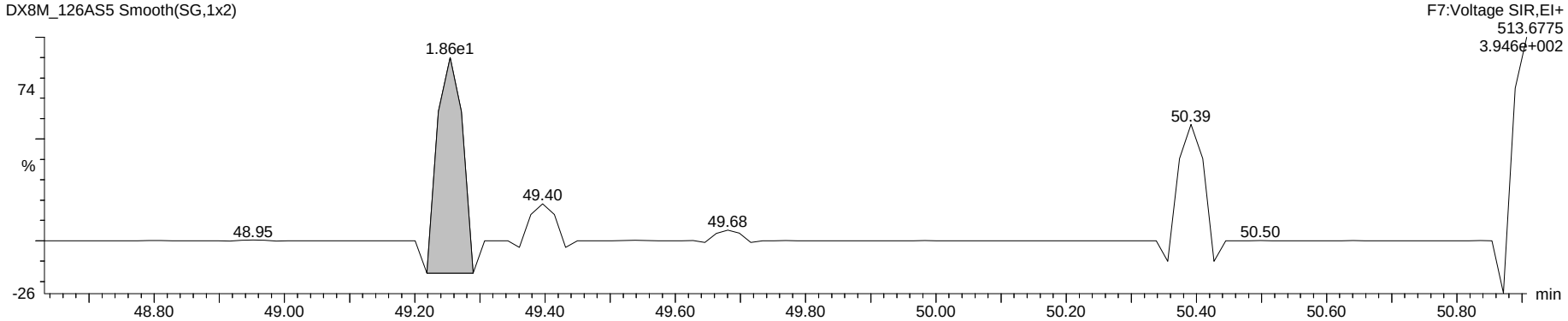
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

Name: DX8M_126AS5, Date: 24-Oct-2018, Time: 11:59:36, ID: DX041E-CAL,,/01, Description: 1,,1.0uL CS-4

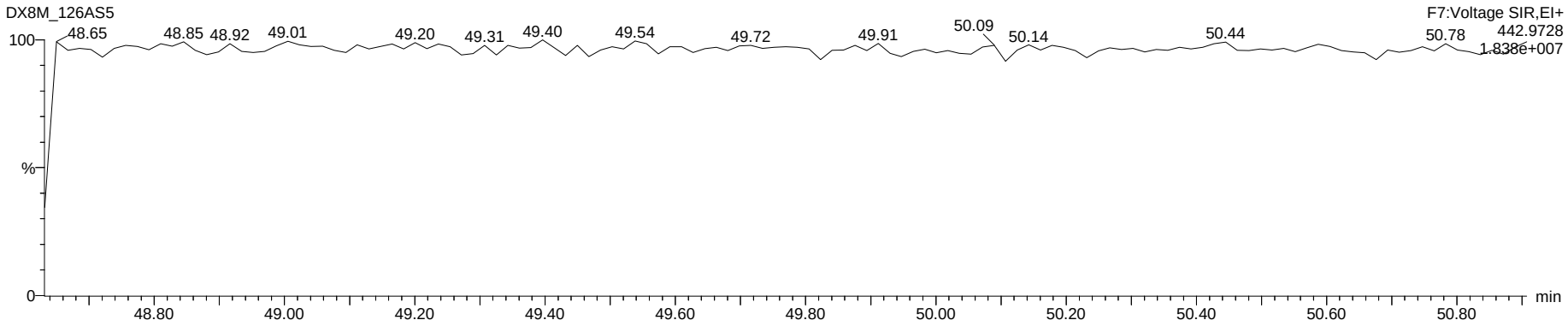
OCDF



Deca DPE



Octa Lock



Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

Name: DX8M_126AS4, Date: 24-Oct-2018, Time: 11:04:22, ID: DX041F-CAL,,/01-8, Description: 1,,1.0uL CS-5

	Name	Amount	Resp	Ratio	fails?	RT	RRF	RRF Mean	RRF SD	RRF %Rel SD	S/N	1º S/N
1	2,3,7,8-TCDF	200.000	1.02e7	0.78	NO	25.30	0.954	0.9390	0.034	3.63	38460	50397
2	1,2,3,7,8-PeCDF	1000.000	4.52e7	1.56	NO	33.62	0.962	0.9345	0.039	4.16	89496	67723
3	2,3,4,7,8-PeCDF	1000.000	4.62e7	1.55	NO	35.38	0.985	0.9393	0.040	4.30	102576	77447
4	1,2,3,4,7,8-HxCDF	1000.000	4.14e7	1.23	NO	40.77	1.155	1.1360	0.047	4.13	65117	47638
5	1,2,3,6,7,8-HxCDF	1000.000	4.37e7	1.24	NO	40.93	1.117	1.0868	0.041	3.79	69627	51504
6	2,3,4,6,7,8-HxCDF	1000.000	4.15e7	1.24	NO	41.88	1.204	1.1636	0.049	4.23	67799	49032
7	1,2,3,7,8,9-HxCDF	1000.000	3.47e7	1.25	NO	42.92	1.051	1.0339	0.031	2.98	57927	42211
8	1,2,3,4,6,7,8-HpCDF	1000.000	3.83e7	1.04	NO	45.37	1.278	1.2267	0.074	6.06	64224	57336
9	1,2,3,4,7,8,9-HpCDF	1000.000	3.03e7	1.03	NO	47.16	1.286	1.2333	0.050	4.08	51573	46223
10	OCDF	2000.000	5.69e7	0.90	NO	50.44	1.283	1.1975	0.095	7.95	2126251	1027382
11	2,3,7,8-TCDD	200.000	7.38e6	0.78	NO	26.54	1.071	1.0401	0.041	3.91	34476	35283
12	1,2,3,7,8-PeCDD	1000.000	2.85e7	0.62	NO	36.20	1.045	1.0058	0.036	3.58	49956	138429
13	1,2,3,4,7,8-HxCDD	1000.000	2.87e7	1.25	NO	42.15	1.029	0.9986	0.034	3.42	93874	121464
14	1,2,3,6,7,8-HxCDD	1000.000	2.89e7	1.25	NO	42.31	0.959	0.9331	0.037	3.98	92213	117138
15	1,2,3,7,8,9-HxCDD	1000.000	2.80e7	1.24	NO	42.73	0.963	0.9468	0.033	3.48	86973	110025
16	1,2,3,4,6,7,8-HpCDD	1000.000	2.41e7	1.04	NO	46.76	1.006	0.9602	0.061	6.30	65878	51660
17	OCDD	2000.000	4.49e7	0.88	NO	50.37	1.013	0.9954	0.040	4.06	845348	785092
18	13C-2,3,7,8-TCDF	100.000	5.36e6	0.78	NO	25.27	1.555	1.5236	0.024	1.54	4093	7480
19	13C-1,2,3,7,8-PeCDF	100.000	4.70e6	1.59	NO	33.60	1.362	1.2485	0.066	5.26	9980	3075
20	13C-2,3,4,7,8-PeCDF	100.000	4.69e6	1.57	NO	35.35	1.358	1.2415	0.066	5.32	11529	3577
21	13C-1,2,3,4,7,8-HxCDF	100.000	3.58e6	0.52	NO	40.73	1.274	1.2745	0.027	2.10	4181	5887
22	13C-1,2,3,6,7,8-HxCDF	100.000	3.91e6	0.52	NO	40.92	1.389	1.3711	0.039	2.82	4788	6681
23	13C-2,3,4,6,7,8-HxCDF	100.000	3.45e6	0.52	NO	41.85	1.227	1.2413	0.035	2.81	4219	5908
24	13C-1,2,3,7,8,9-HxCDF	100.000	3.30e6	0.52	NO	42.90	1.173	1.1393	0.032	2.82	4224	5864
25	13C-1,2,3,4,6,7,8-HpCDF	100.000	2.99e6	0.45	NO	45.35	1.064	1.0510	0.029	2.79	5971	11163
26	13C-1,2,3,4,7,8,9-HpCDF	100.000	2.36e6	0.43	NO	47.14	0.837	0.8034	0.029	3.64	4619	8933
27	13C-2,3,7,8-TCDD	100.000	3.44e6	0.77	NO	26.51	0.998	0.9668	0.021	2.19	2322	7620
28	13C-1,2,3,7,8-PeCDD	100.000	2.73e6	0.63	NO	36.18	0.790	0.7201	0.040	5.52	5348	10215
29	13C-1,2,3,4,7,8-HxCDD	100.000	2.79e6	1.29	NO	42.14	0.993	0.9796	0.023	2.38	9571	11971
30	13C-1,2,3,6,7,8-HxCDD	100.000	3.02e6	1.25	NO	42.29	1.072	1.0526	0.029	2.73	9867	12472
31	13C-1,2,3,4,6,7,8-HpCDD	100.000	2.39e6	1.06	NO	46.74	0.851	0.8282	0.035	4.24	8500	5676
32	13C-OCDD	200.000	4.44e6	0.90	NO	50.36	0.789	0.7120	0.052	7.28	154705	21475
33	13C-1,2,3,4-TCDD	100.000	3.45e6	0.79	NO	26.17	345...	38426.9254	4430.855	11.53	2420	7778
34	13C-1,2,3,7,8,9-HxCDD	100.000	2.81e6	1.26	NO	42.71	281...	27947.7837	3519.241	12.59	9058	11430
35	37Cl-2,3,7,8-TCDD	200.000	7.73e6			26.54	1.120	1.0910	0.100	9.20	16085	
36	Total Tetra-Furans	200.000						0.9390	0.034	3.63		
37	Total Tetra-Dioxins	200.000						1.0401	0.041	3.91		
38	Total Penta-Furans	1000.000						0.9345	0.039	4.16		
39	Total Penta-Dioxins	1000.000						1.0058	0.036	3.58		
40	Total Hexa-Furans	1000.000						1.1360	0.047	4.13		
41	Total Hexa-Dioxins	1000.000						0.9986	0.034	3.42		
42	Total Hepta-Furans	1000.000						1.2267	0.074	6.06		
43	Total Hepta-Dioxins	1000.000						0.9602	0.061	6.30		
44	Hexa DPE	0.000	5.72e1			24.19	0.000				13	
45	Hepta DPE	0.000	2.93e4			37.61	0.000				0	
46	Octa DPE	0.000	1.13e2			41.66	0.000				6143	
47	Nona DPE	0.000	1.24e2			48.30	0.000				51475	
48	Deca DPE	0.000	5.41e1			49.95	0.000				965	
49	Tetra Lock	0.000	6.98e4			21.01	0.000				0	
50	Penta Lock	0.000	2.47e4			32.50	0.000				1	
51	Hexa Lock	0.000										
52	Hepta Lock	0.000	2.05e4			44.62	0.000				1	
53	Octa Lock	0.000										
54	13C-Tetra-Furans	100.000						1.5236	0.024	1.54		
55	13C-Tetra-Dioxins	100.000						0.9668	0.021	2.19		

PV LHE 26-OCT-2018

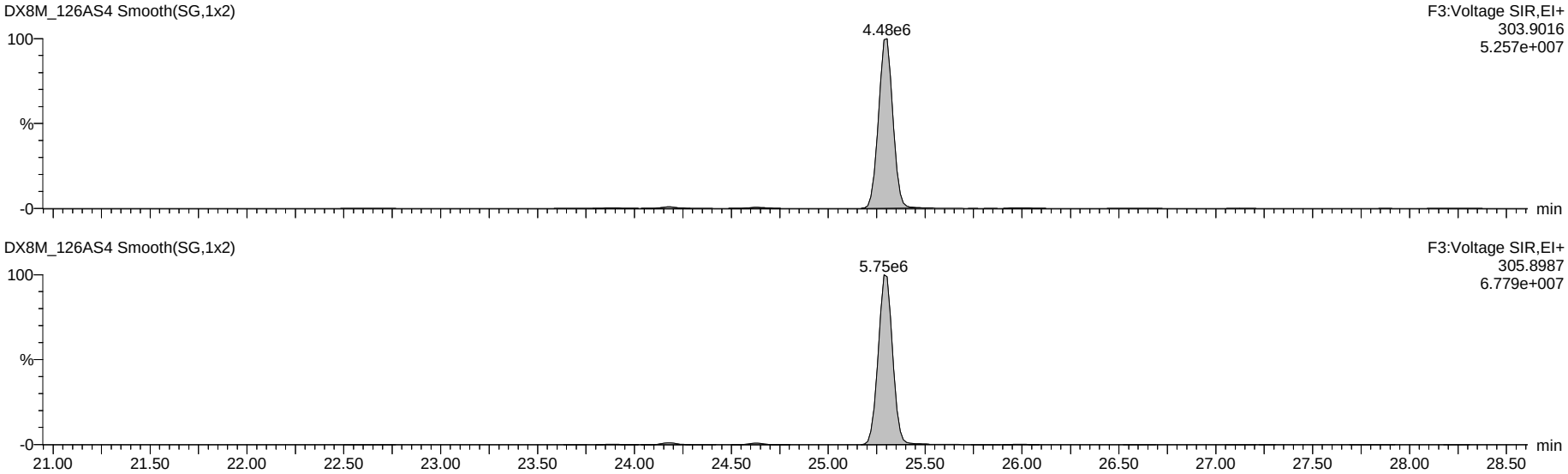
SV by TD 26-Oct-2018

Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

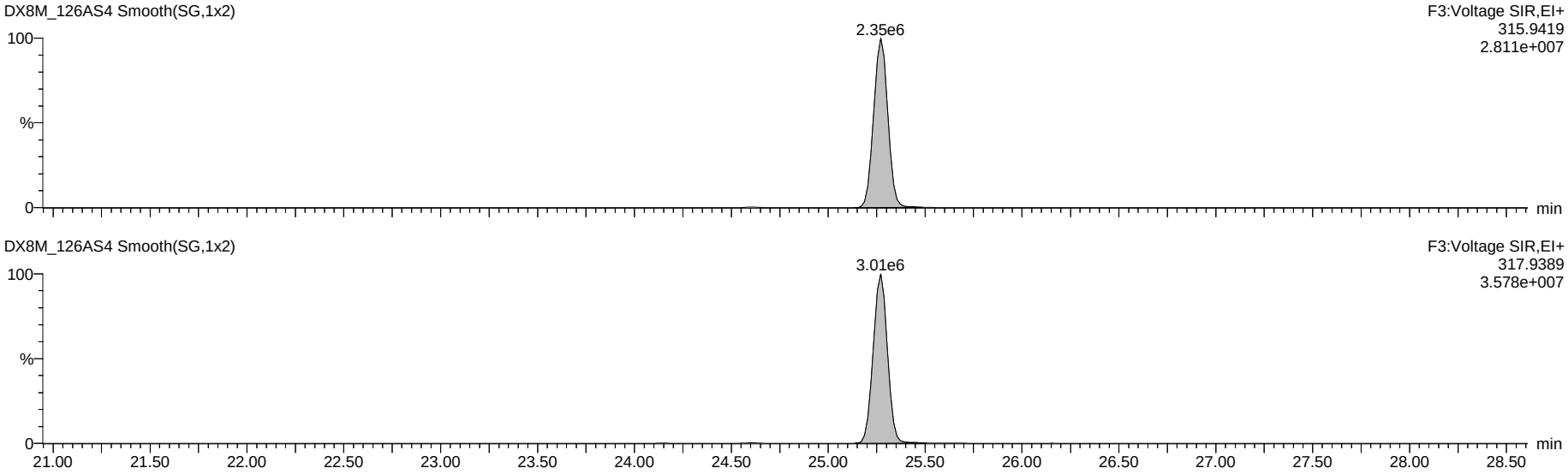
Method: G:\Masslynx\Inst_M\Exported_methods\DX_1613B_16.mdb 07 Sep 2017 16:45:23
Calibration: 26 Oct 2018 12:44:28

Name: DX8M_126AS4, Date: 24-Oct-2018, Time: 11:04:22, ID: DX041F-CAL,,/01-8, Description: 1,,1.0uL CS-5

Total Tetra-Furans



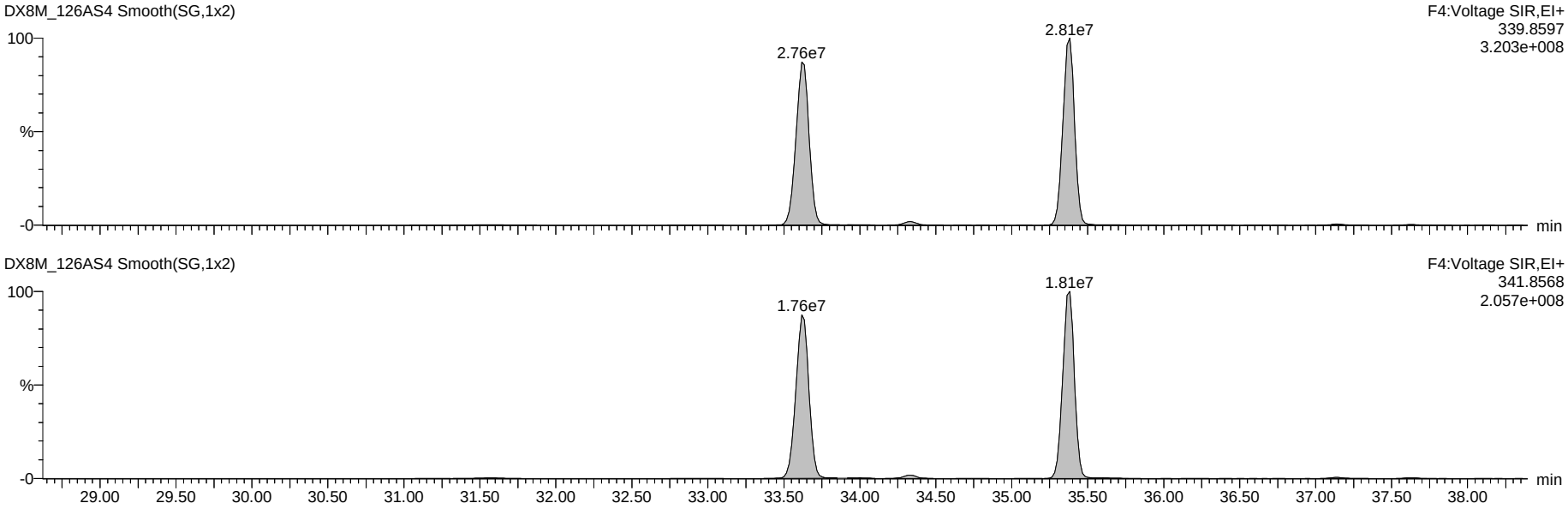
13C-Tetra-Furans



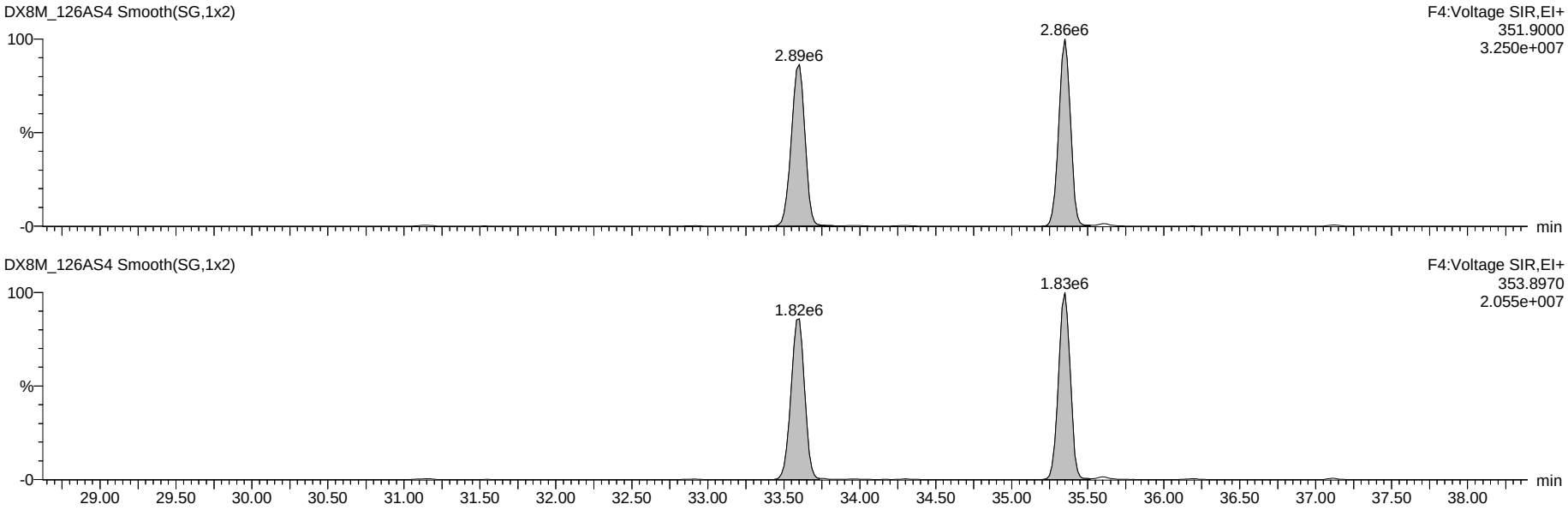
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

Name: DX8M_126AS4, Date: 24-Oct-2018, Time: 11:04:22, ID: DX041F-CAL,,/01-8, Description: 1,,1.0uL CS-5

Total Penta-Furans



13C-Penta-Furans



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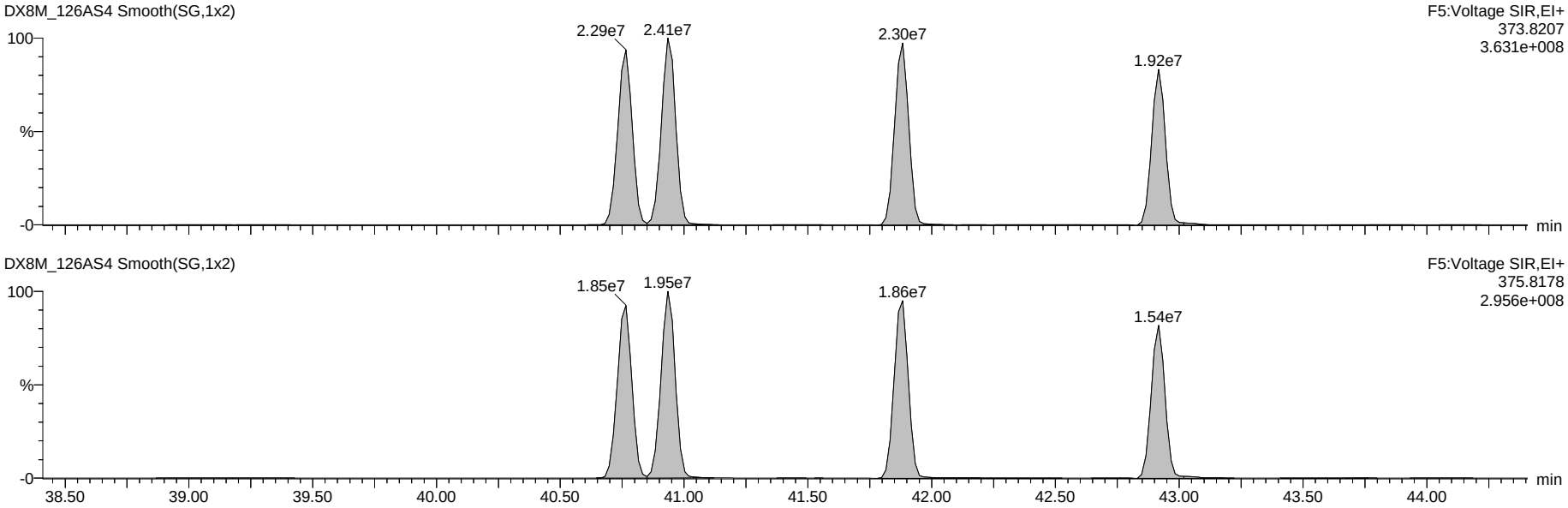
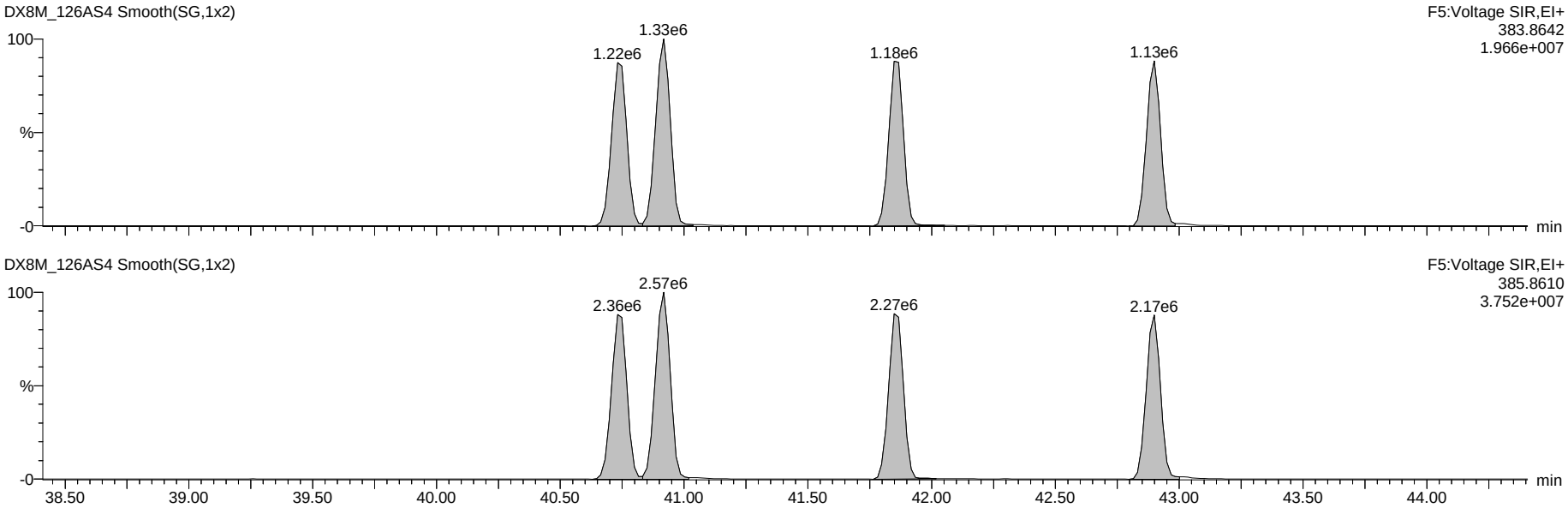
Total Hexa-Furans



13C-Hexa-Furans



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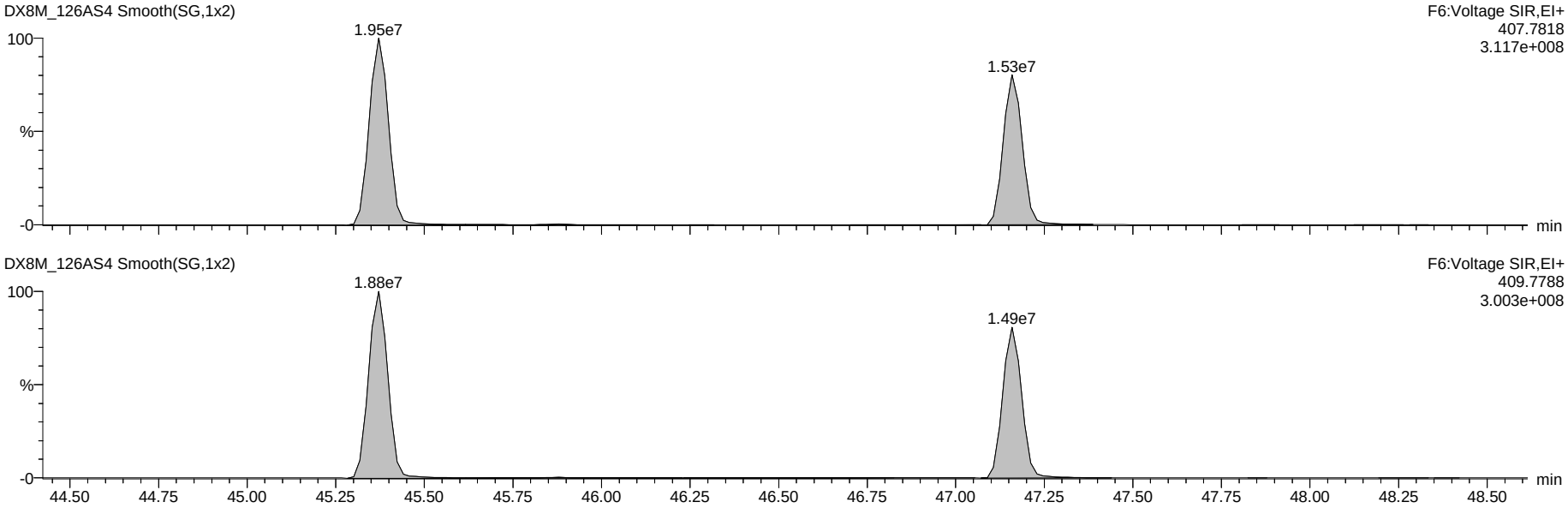
Total Hepta-Furans



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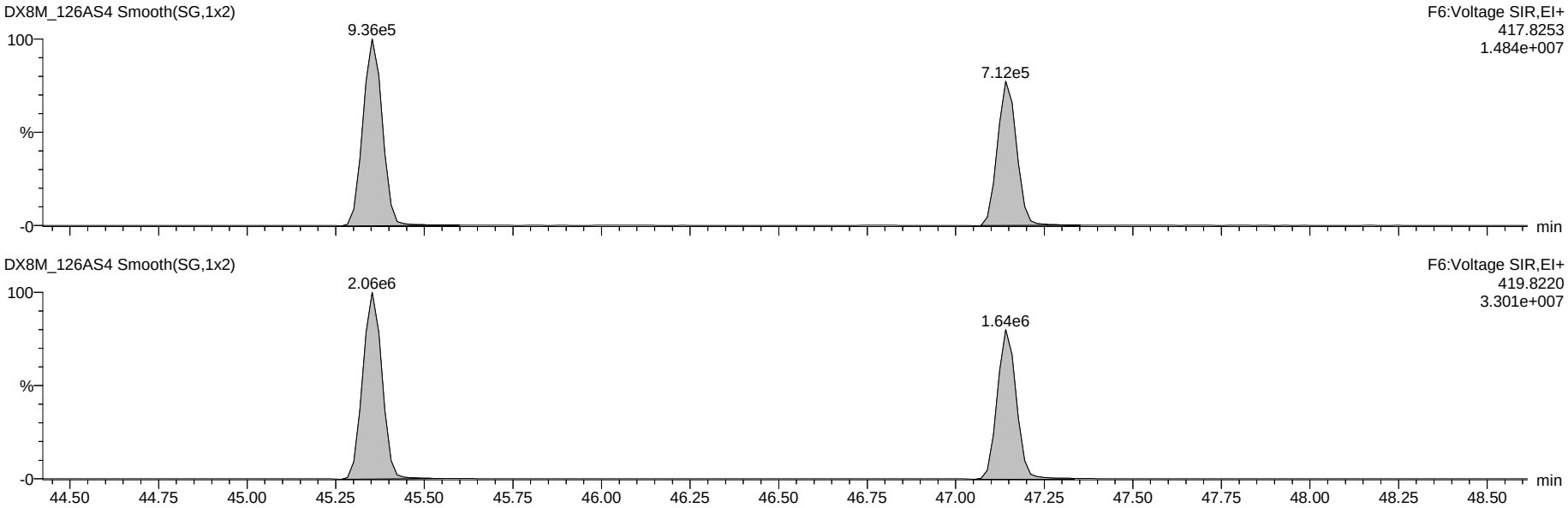
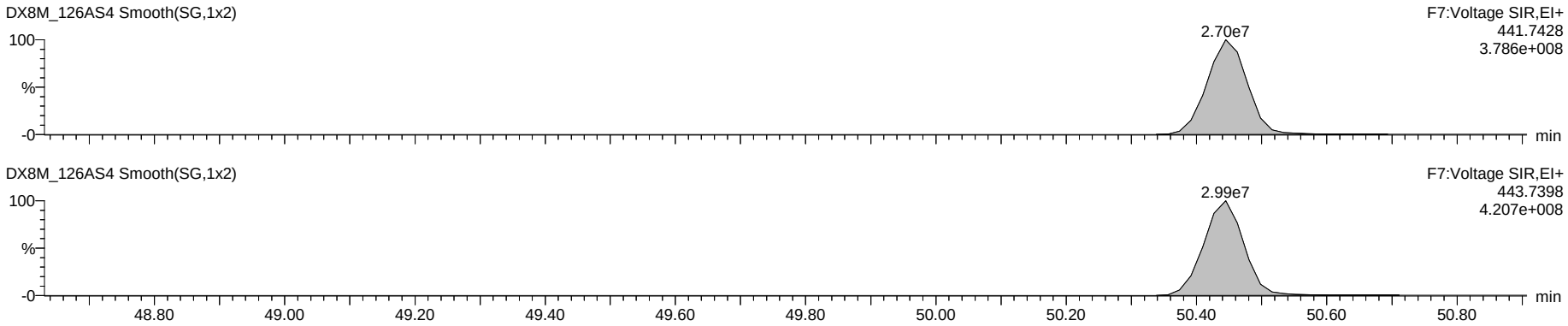


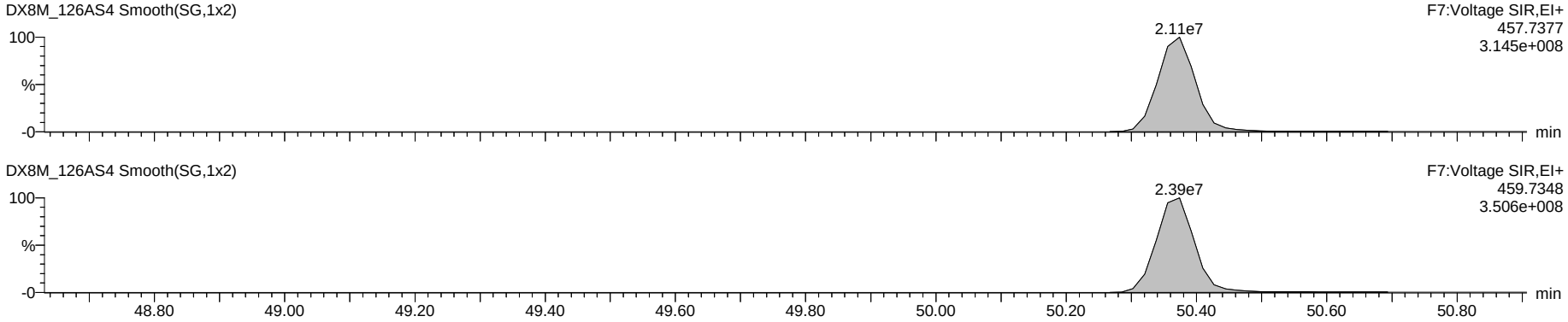
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

Name: DX8M_126AS4, Date: 24-Oct-2018, Time: 11:04:22, ID: DX041F-CAL,,/01-8, Description: 1,,1.0uL CS-5

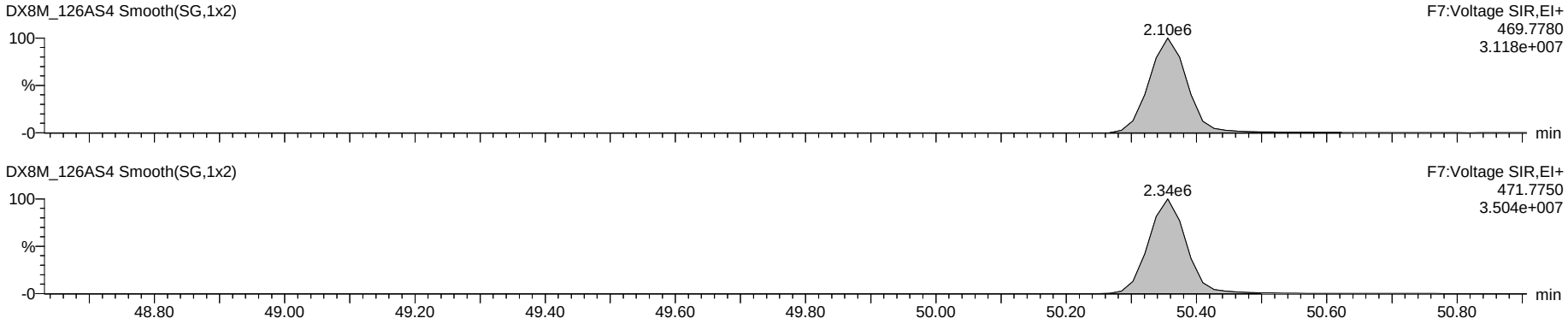
OCDF



OCDD



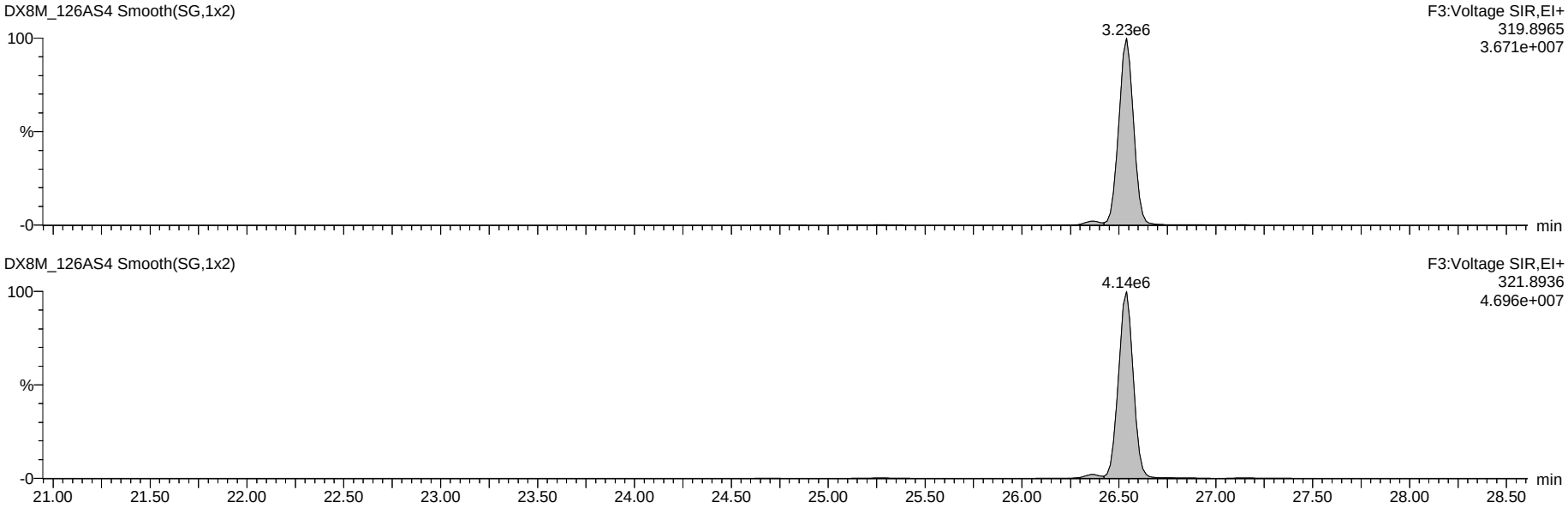
13C-OCDD



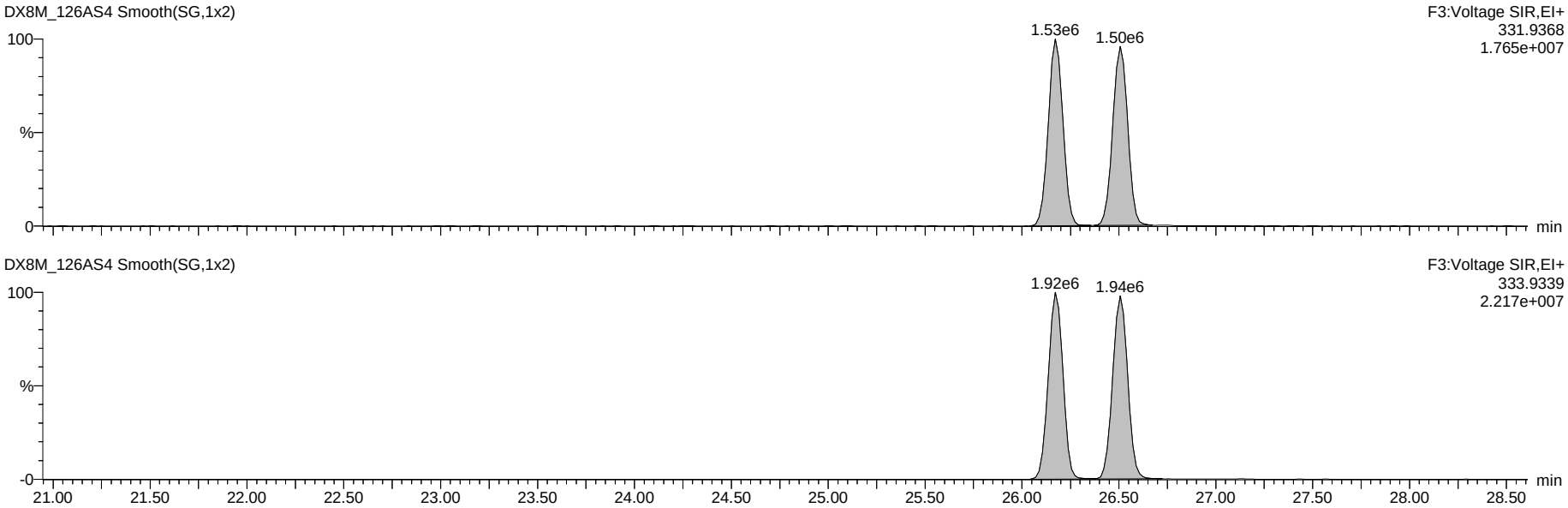
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

Name: DX8M_126AS4, Date: 24-Oct-2018, Time: 11:04:22, ID: DX041F-CAL,,/01-8, Description: 1,,1.0uL CS-5

Total Tetra-Dioxins



13C-Tetra-Dioxins



Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

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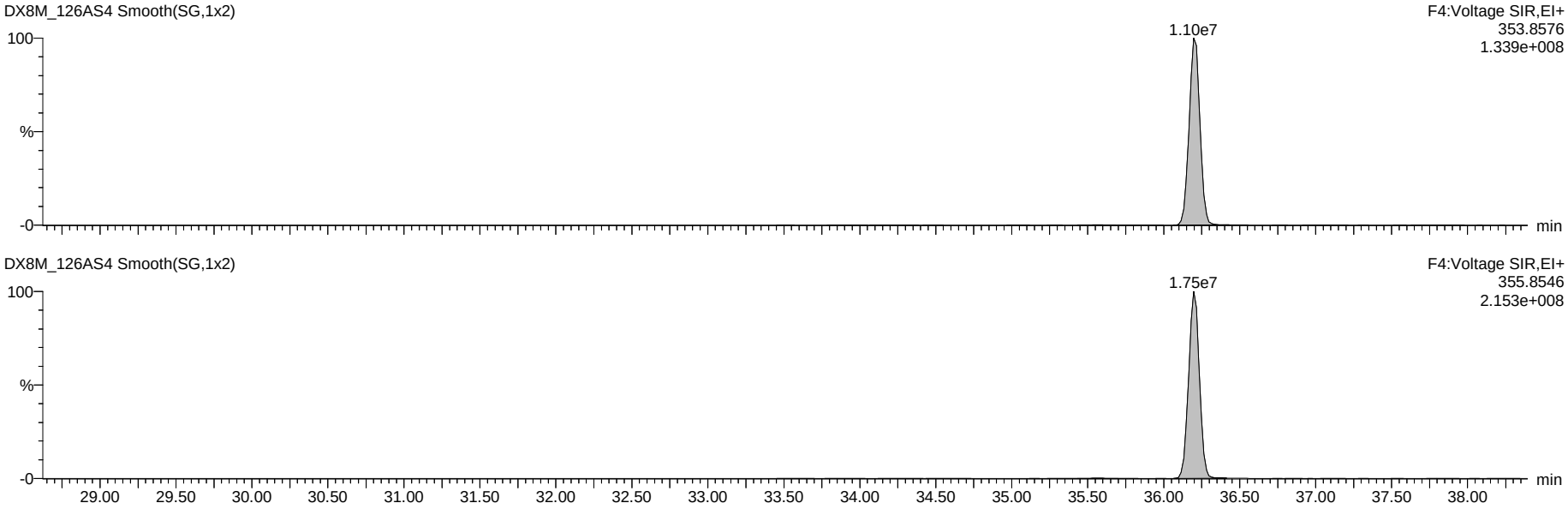
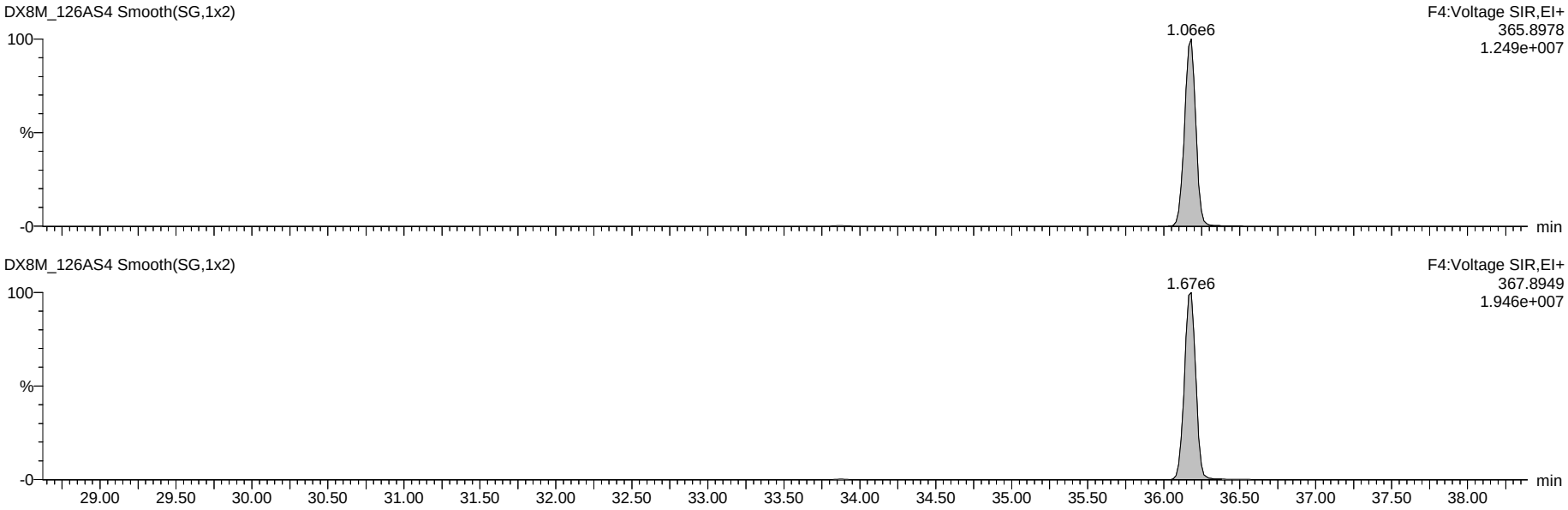
Total Penta-Dioxins



13C-Penta-Dioxins



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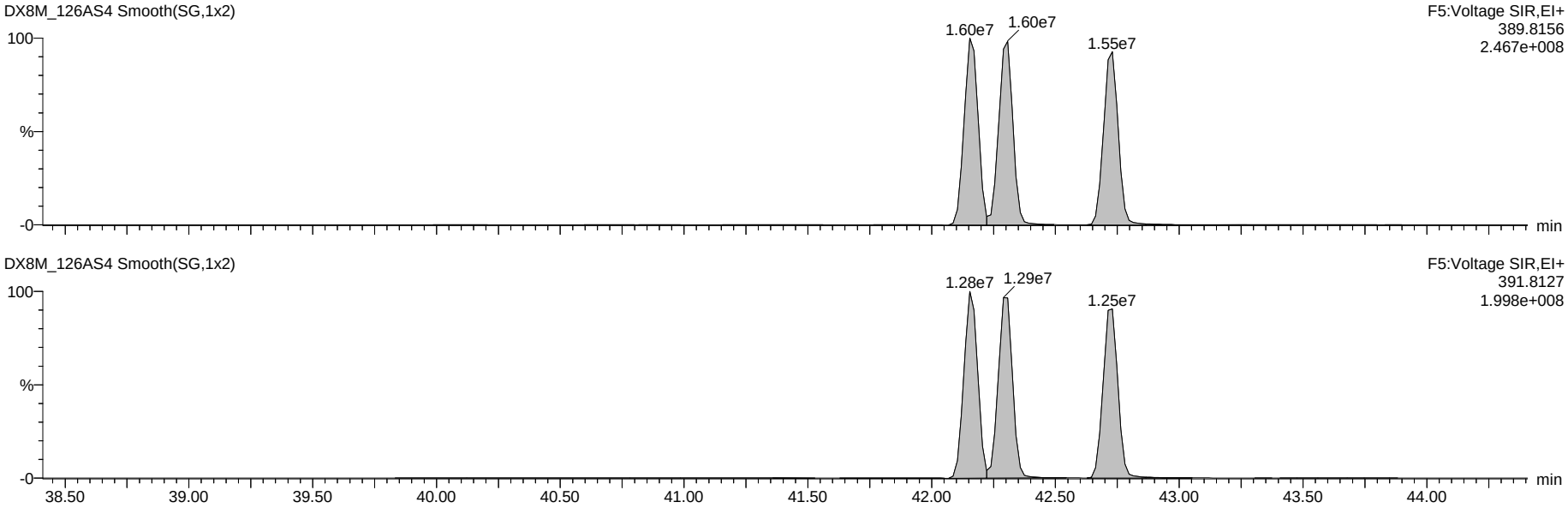
Total Hexa-Dioxins



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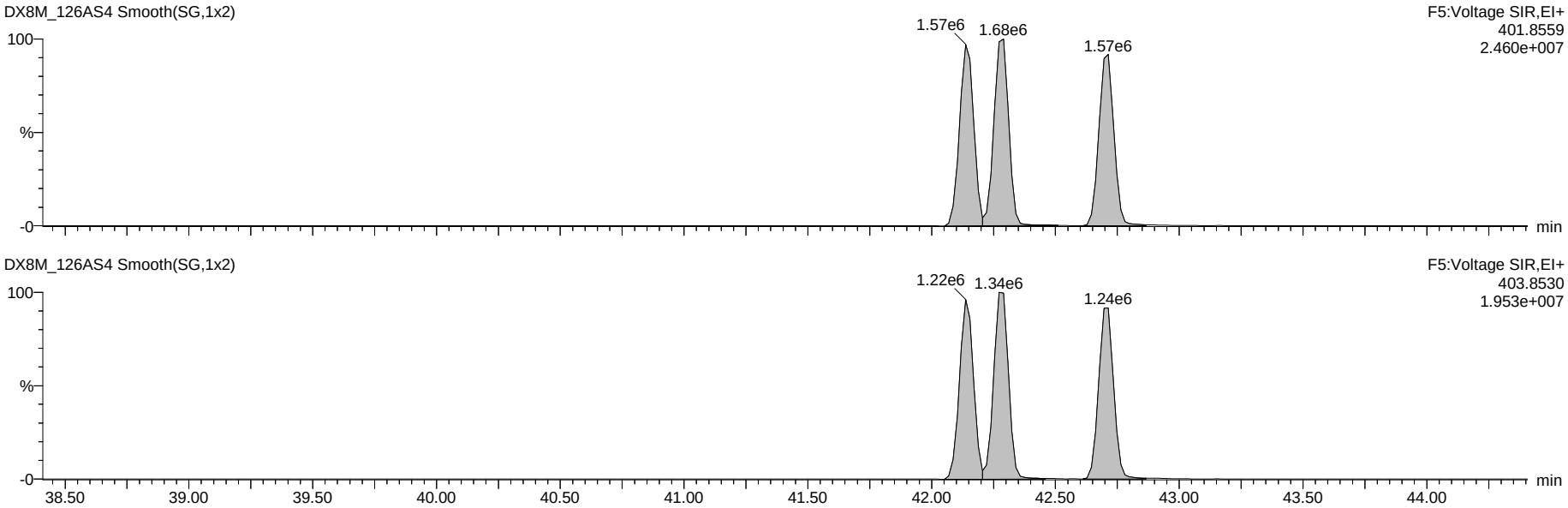

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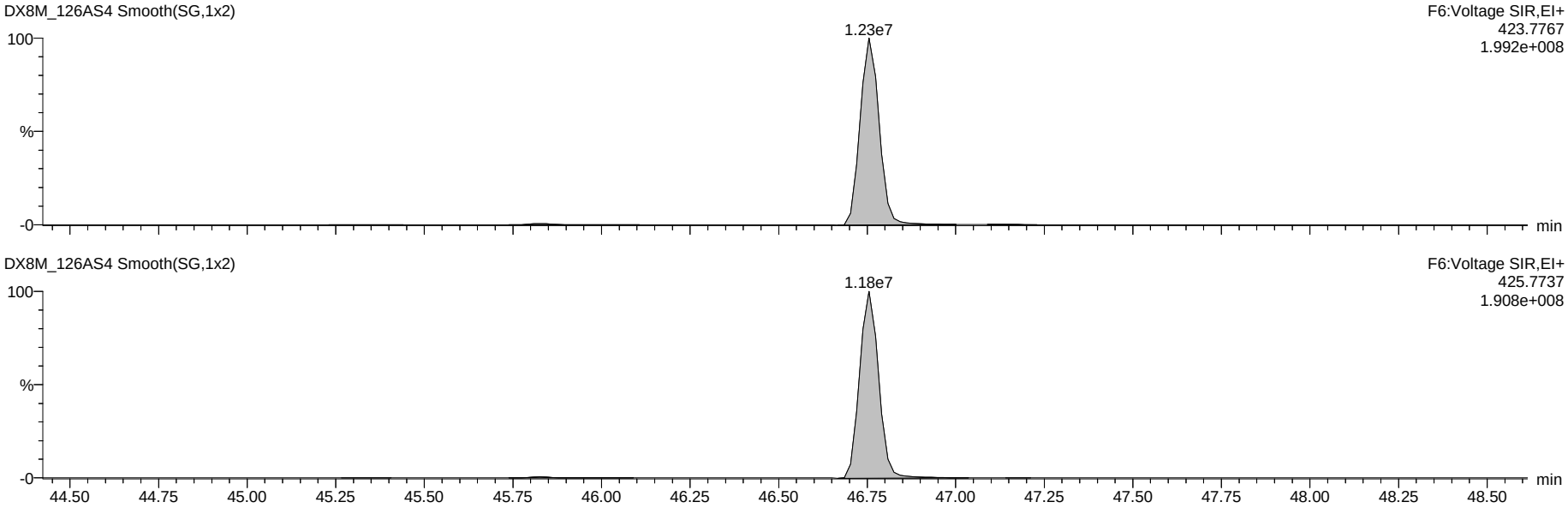
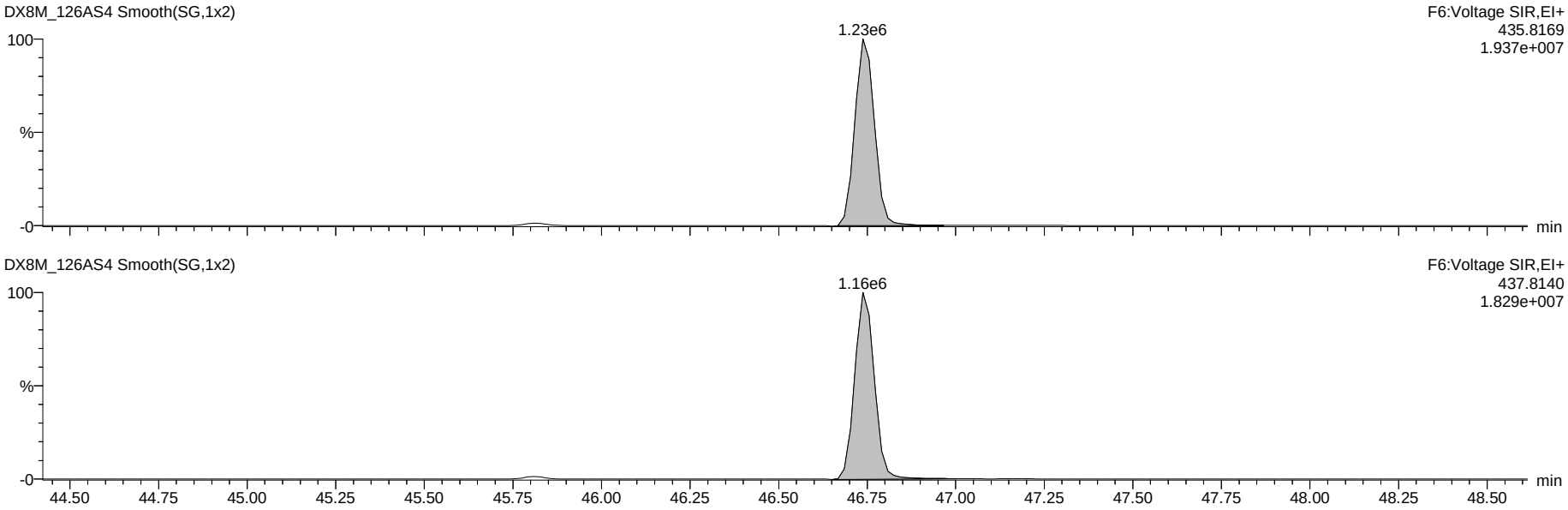
Total Hepta-Dioxins



13C-Hepta-Dioxins



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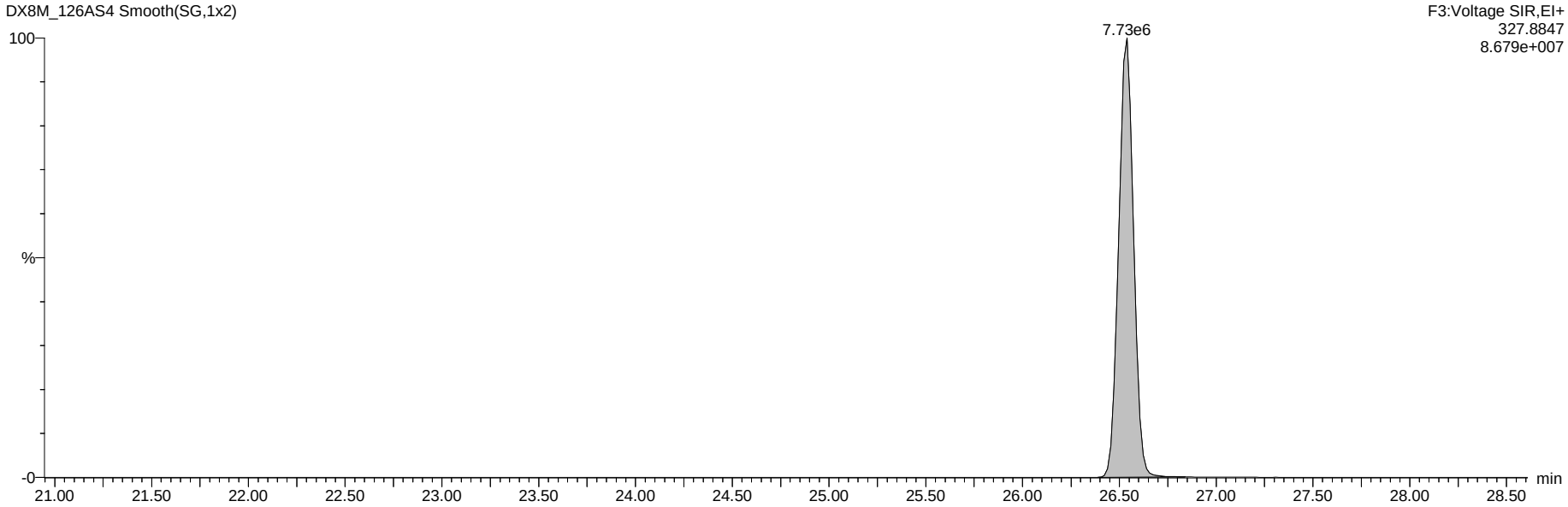
37Cl-2,3,7,8-TCDD



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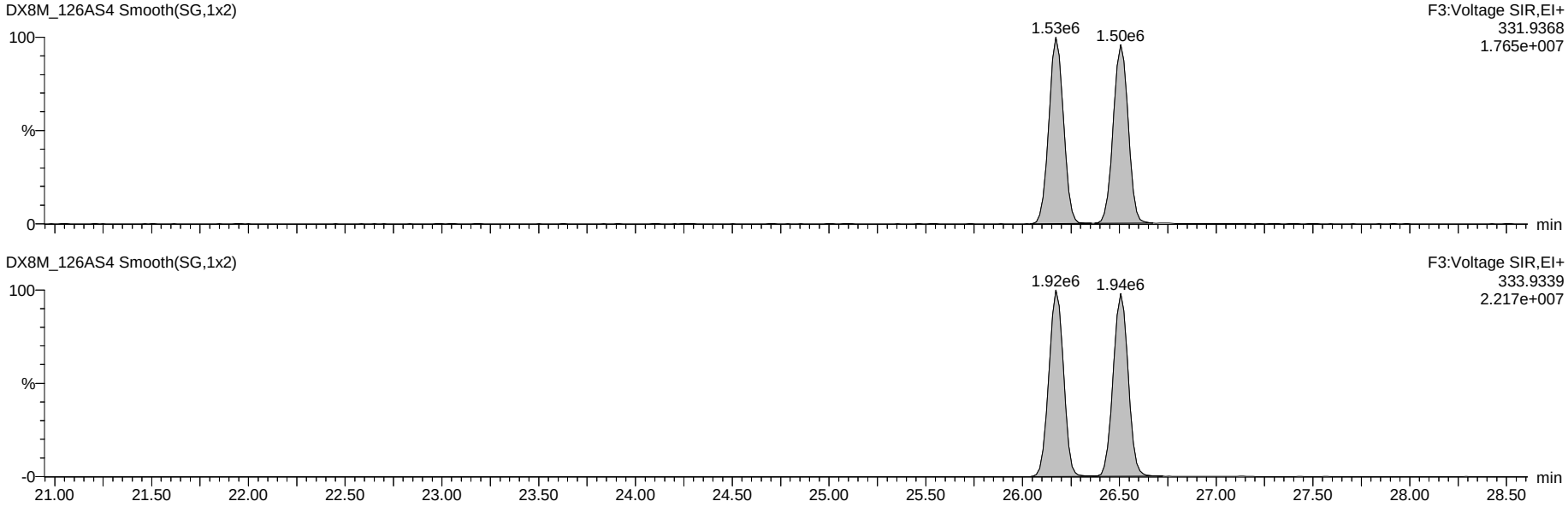

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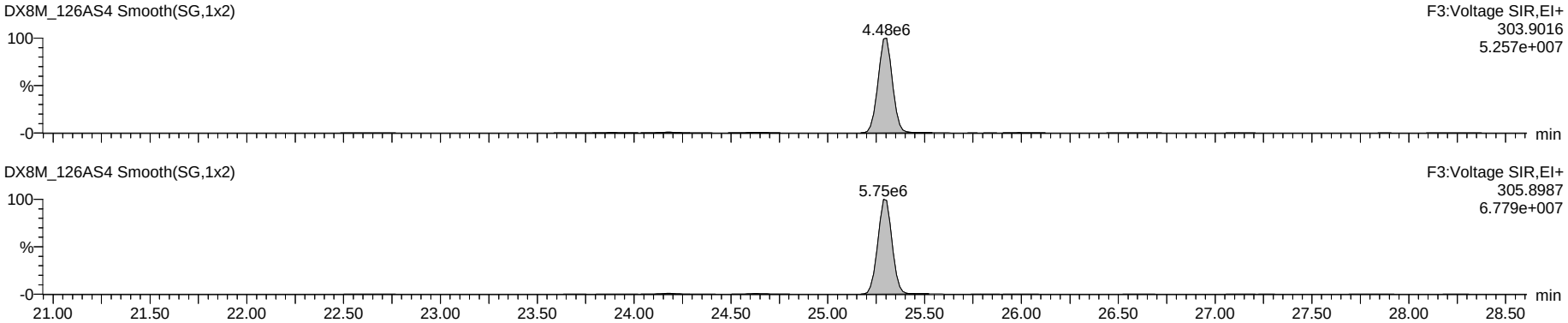
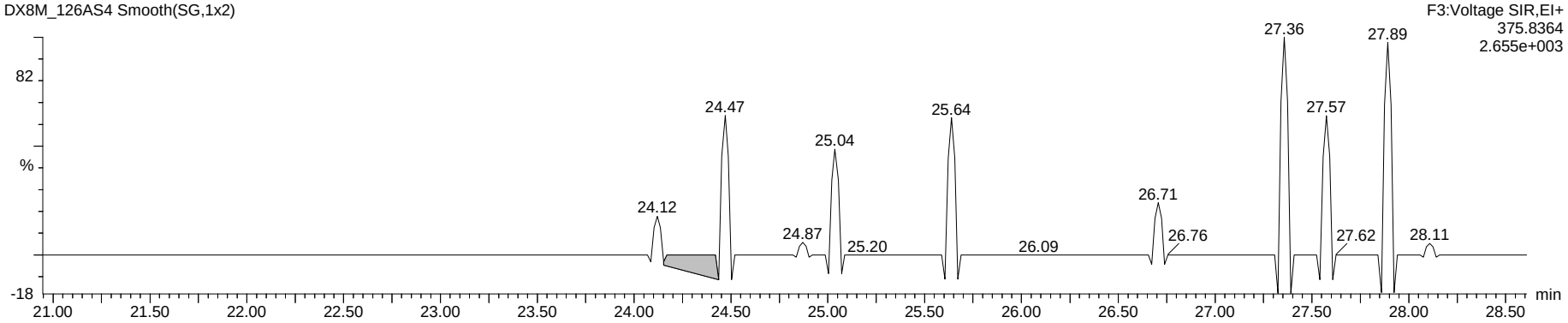
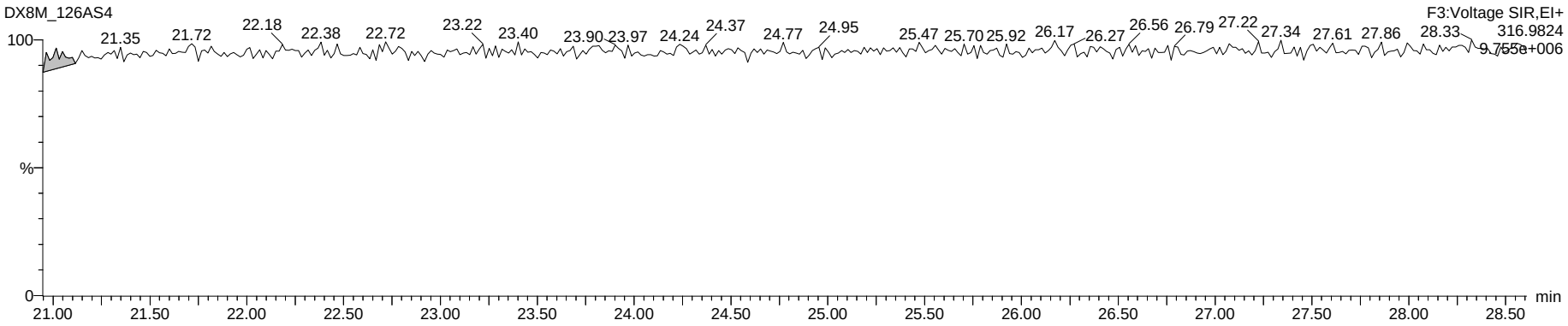
Total Tetra-Furans



Hexa DPE



Tetra Lock



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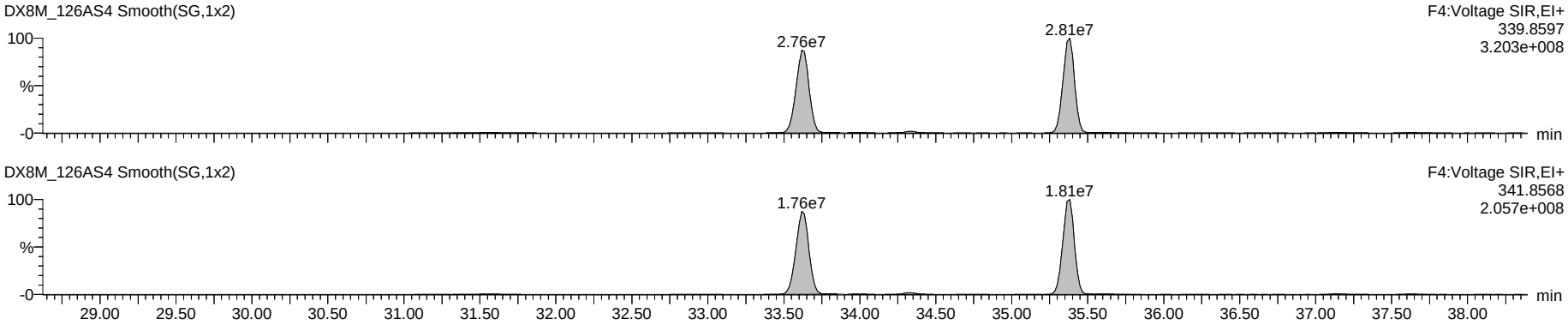
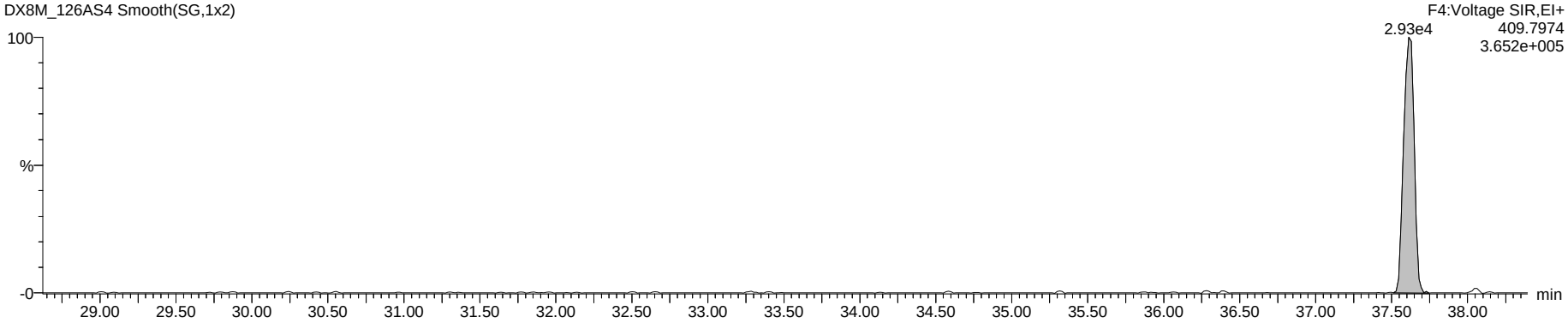
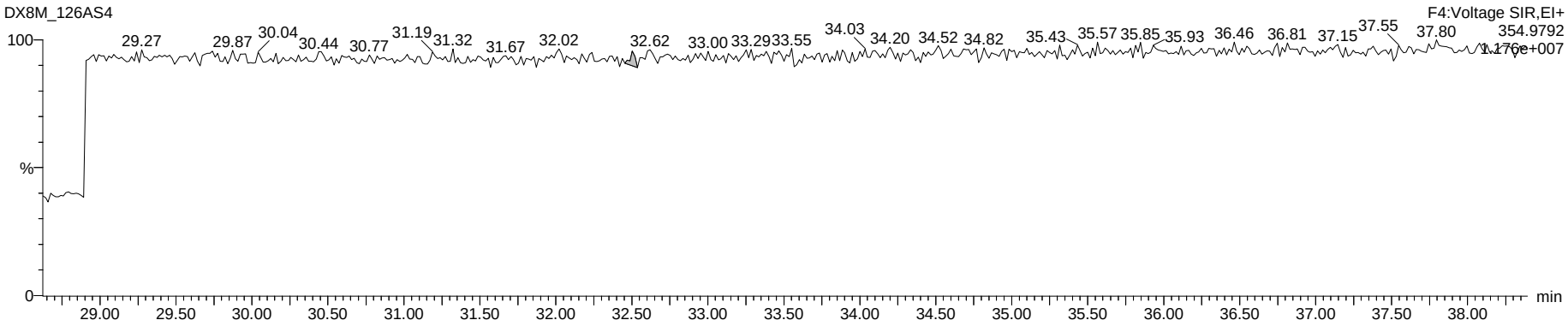
Total Penta-Furans



Hepta DPE



Penta Lock



Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

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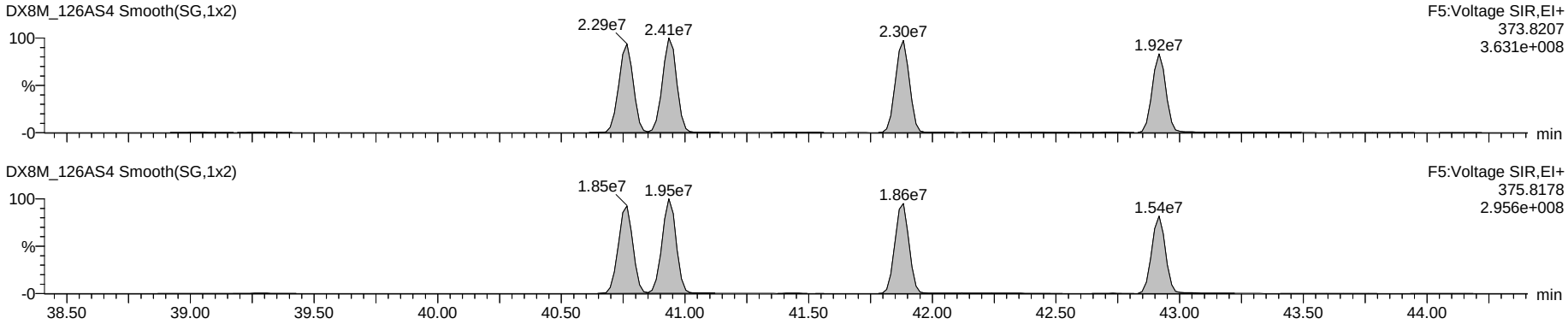
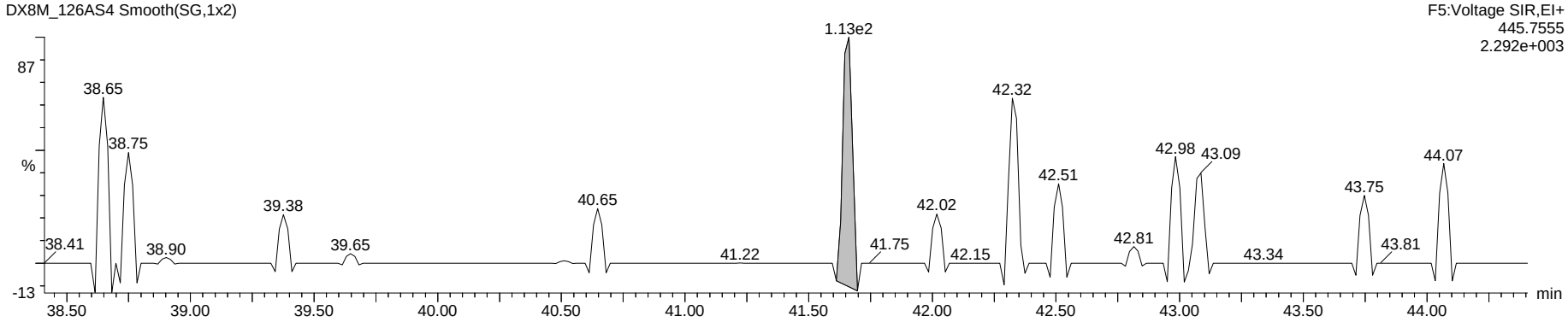
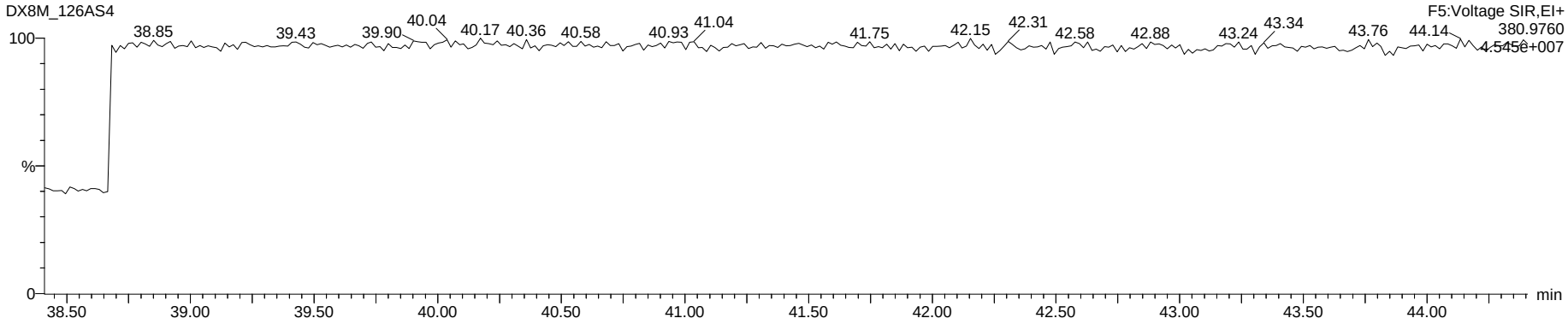
Total Hexa-Furans



Octa DPE



Hexa Lock



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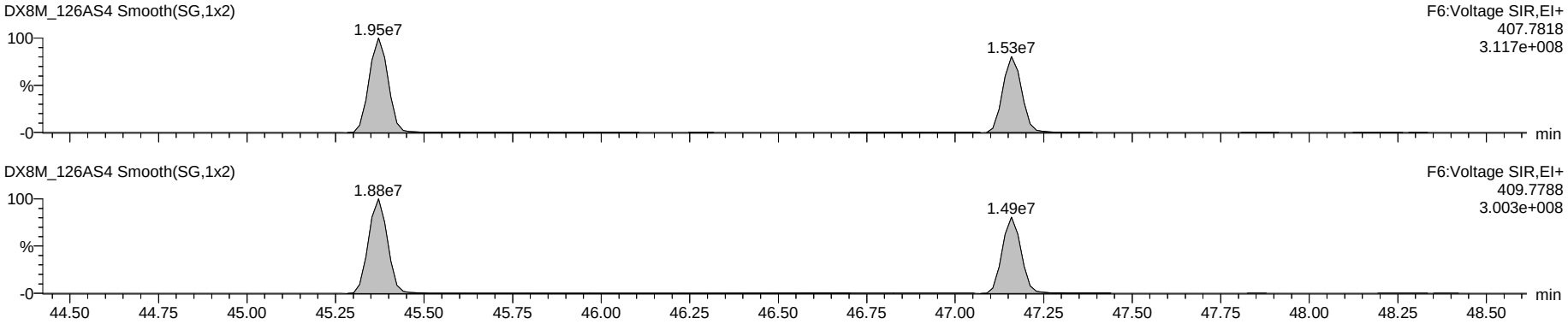
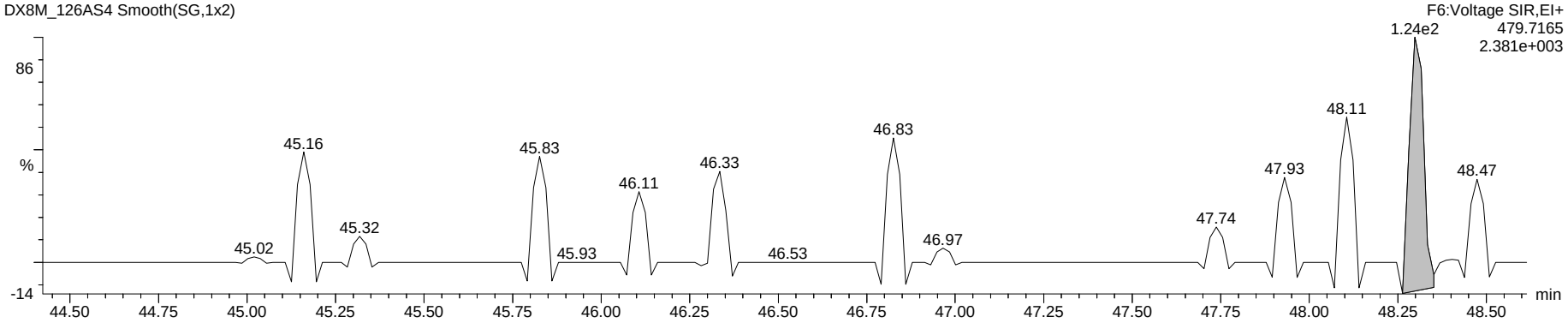
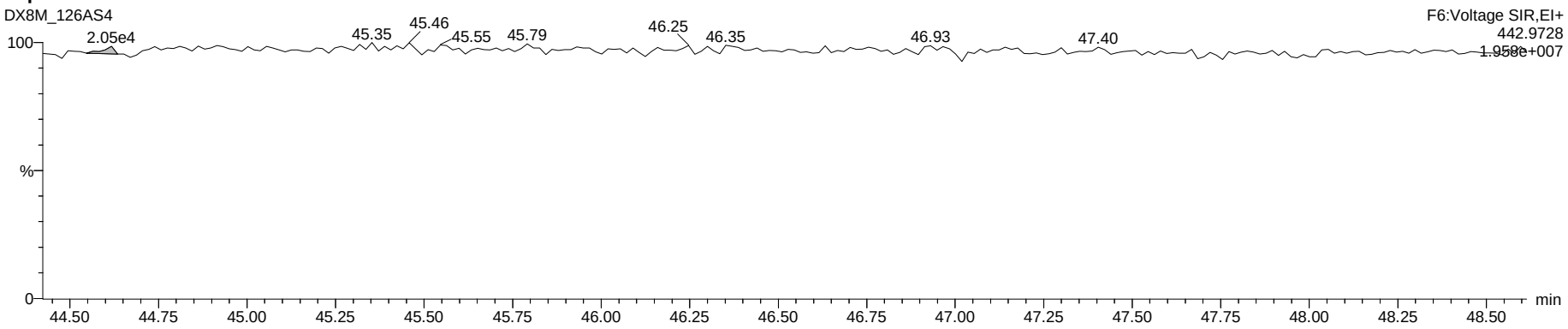
Total Hepta-Furans



Nona DPE



Hepta Lock



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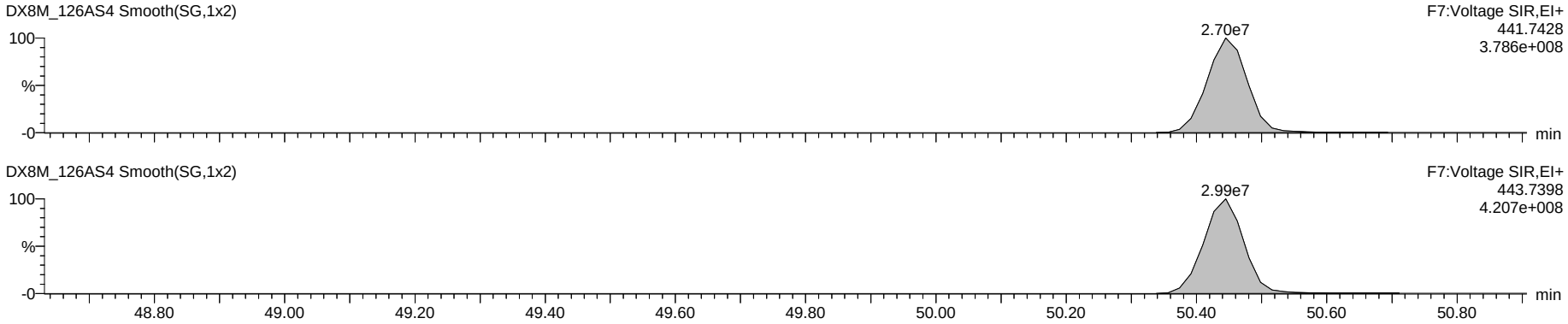
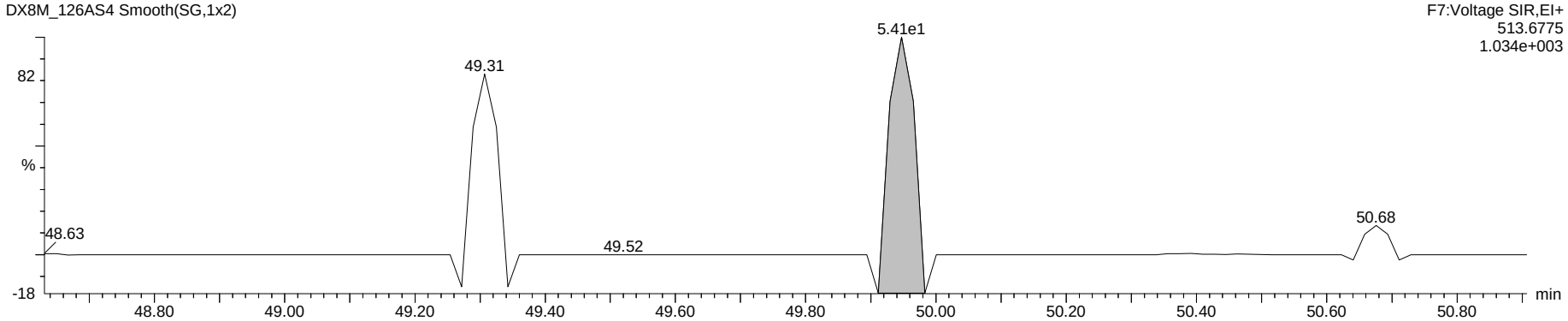
OCDF



Deca DPE



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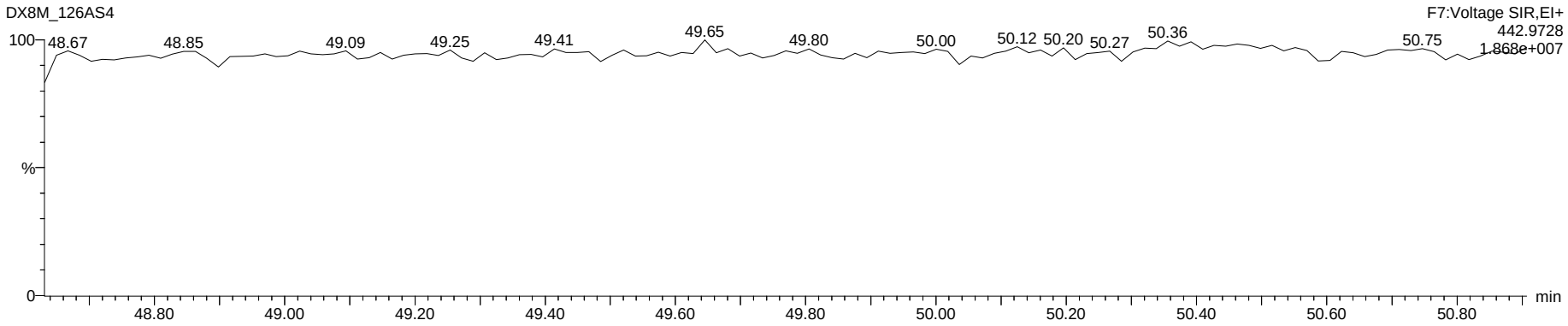

Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_126A-6A.qld

Name: DX8M_126AS7, Date: 24-Oct-2018, Time: 13:50:03, ID: DX003A-SSV,,/01, Description: 1,,1.0uL Cal

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	1.000	6.25e5	0.77	NO	25.30	9.861	0.0066	98.6	1.29e3	6.93e2
2	1,2,3,7,8-PeCDF	1.000	2.54e6	1.54	NO	33.63	48.690	0.0197	97.4	1.96e3	2.13e3
3	2,3,4,7,8-PeCDF	1.000	2.61e6	1.55	NO	35.38	50.262	0.0172	100.5	1.96e3	2.13e3
4	1,2,3,4,7,8-HxCDF	1.000	2.34e6	1.26	NO	40.77	51.415	0.0108	102.8	1.52e3	1.35e3
5	1,2,3,6,7,8-HxCDF	1.000	2.47e6	1.25	NO	40.93	52.144	0.0105	104.3	1.52e3	1.35e3
6	2,3,4,6,7,8-HxCDF	1.000	2.36e6	1.25	NO	41.88	51.721	0.0103	103.4	1.52e3	1.35e3
7	1,2,3,7,8,9-HxCDF	1.000	1.94e6	1.24	NO	42.92	50.829	0.0124	101.7	1.52e3	1.35e3
8	1,2,3,4,6,7,8-HpCDF	1.000	2.15e6	1.03	NO	45.37	53.536	0.0143	107.1	1.90e3	1.63e3
9	1,2,3,4,7,8,9-HpCDF	1.000	1.62e6	1.02	NO	47.16	52.552	0.0186	105.1	1.90e3	1.63e3
10	OCDF	1.000	2.91e6	0.91	NO	50.44	112.855	0.0030	112.9	2.70e2	1.77e2
11	2,3,7,8-TCDD	1.000	4.56e5	0.78	NO	26.56	10.081	0.0098	100.8	8.54e2	1.12e3
12	1,2,3,7,8-PeCDD	1.000	1.69e6	0.61	NO	36.21	53.093	0.0136	106.2	6.60e2	1.44e3
13	1,2,3,4,7,8-HxCDD	1.000	1.60e6	1.25	NO	42.17	51.563	0.0113	103.1	1.41e3	6.69e2
14	1,2,3,6,7,8-HxCDD	1.000	1.60e6	1.25	NO	42.31	52.085	0.0113	104.2	1.41e3	6.69e2
15	1,2,3,7,8,9-HxCDD	1.000	1.55e6	1.23	NO	42.73	51.316	0.0115	102.6	1.41e3	6.69e2
16	1,2,3,4,6,7,8-HpCDD	1.000	1.27e6	1.05	NO	46.76	50.617	0.0151	101.2	1.16e3	1.15e3
17	OCDD	1.000	2.27e6	0.88	NO	50.36	106.069	0.0250	106.1	1.62e3	1.43e3
18	13C-2,3,7,8-TCDF	1.000	6.75e6	0.78	NO	25.29	98.331	0.0381	98.3	5.80e3	6.29e3
19	13C-1,2,3,7,8-PeCDF	1.000	5.59e6	1.58	NO	33.60	99.293	0.0384	99.3	3.10e3	6.90e3
20	13C-2,3,4,7,8-PeCDF	1.000	5.52e6	1.57	NO	35.35	98.710	0.0386	98.7	3.10e3	6.90e3
21	13C-1,2,3,4,7,8-HxCDF	1.000	4.00e6	0.51	NO	40.75	99.981	0.0590	100.0	7.57e3	6.67e3
22	13C-1,2,3,6,7,8-HxCDF	1.000	4.36e6	0.52	NO	40.92	101.116	0.0549	101.1	7.57e3	6.67e3
23	13C-2,3,4,6,7,8-HxCDF	1.000	3.92e6	0.51	NO	41.87	100.438	0.0606	100.4	7.57e3	6.67e3
24	13C-1,2,3,7,8,9-HxCDF	1.000	3.68e6	0.52	NO	42.90	102.876	0.0661	102.9	7.57e3	6.67e3
25	13C-1,2,3,4,6,7,8-HpCDF	1.000	3.27e6	0.45	NO	45.35	99.084	0.0328	99.1	3.78e3	2.74e3
26	13C-1,2,3,4,7,8,9-HpCDF	1.000	2.50e6	0.44	NO	47.16	99.048	0.0429	99.0	3.78e3	2.74e3
27	13C-2,3,7,8-TCDD	1.000	4.35e6	0.76	NO	26.52	99.788	0.0656	99.8	5.11e3	8.11e3
28	13C-1,2,3,7,8-PeCDD	1.000	3.16e6	0.62	NO	36.18	97.360	0.0224	97.4	1.89e3	1.47e3
29	13C-1,2,3,4,7,8-HxCDD	1.000	3.10e6	1.29	NO	42.15	100.695	0.0373	100.7	3.92e3	2.99e3
30	13C-1,2,3,6,7,8-HxCDD	1.000	3.30e6	1.26	NO	42.29	99.687	0.0347	99.7	3.92e3	2.99e3
31	13C-1,2,3,4,6,7,8-HpCDD	1.000	2.61e6	1.06	NO	46.76	100.212	0.0419	100.2	4.01e3	2.56e3
32	13C-OCDD	1.000	4.30e6	0.90	NO	50.34	192.194	0.0034	96.1	0.00e0	4.56e2
33	13C-1,2,3,4-TCDD	1.000	4.51e6	0.79	NO	26.19	117.313	0.0744	117.3	5.11e3	8.11e3
34	13C-1,2,3,7,8,9-HxCDD	1.000	3.14e6	1.25	NO	42.71	112.427	0.0411	112.4	3.92e3	2.99e3
35	37Cl-2,3,7,8-TCDD	1.000	4.45e5			26.54	9.055	0.0049	90.6		1.11e3
36	Total Tetra-Furans	1.000					10.086	0.0066			6.93e2
37	Total Tetra-Dioxins	1.000					10.345	0.0098			1.12e3
38	Total Penta-Furans	1.000					101.138	0.0185			2.13e3
39	Total Penta-Dioxins	1.000					53.548	0.0136			1.44e3
40	Total Hexa-Furans	1.000					207.718	0.0106			1.35e3
41	Total Hexa-Dioxins	1.000					155.897	0.0109			6.69e2
42	Total Hepta-Furans	1.000					109.894	0.0162			1.63e3
43	Total Hepta-Dioxins	1.000					51.533	0.0151			1.15e3
44	Hexa DPE	1.000	3.11e2			23.20					0.00e0
45	Hepta DPE	1.000	2.06e3			37.61					0.00e0
46	Octa DPE	1.000	3.87e1			43.75					8.08e-2
47	Nona DPE	1.000	3.73e2			47.67					0.00e0
48	Deca DPE	1.000	3.19e1			49.97					0.00e0
49	Tetra Lock	1.000									4.25e5
50	Penta Lock	1.000	5.03e4			33.05					4.27e5
51	Hexa Lock	1.000	1.59e7			39.46					3.51e6
52	Hepta Lock	1.000									5.57e5
53	Octa Lock	1.000	6.96e4			48.86					6.48e5
54	13C-Tetra-Furans	1.000					98.331	0.0381			6.29e3
55	13C-Tetra-Dioxins	1.000					217.102	0.1400			8.11e3

pv'd by LHE 26-OCT-2018

SV by TD 26-Oct-2018

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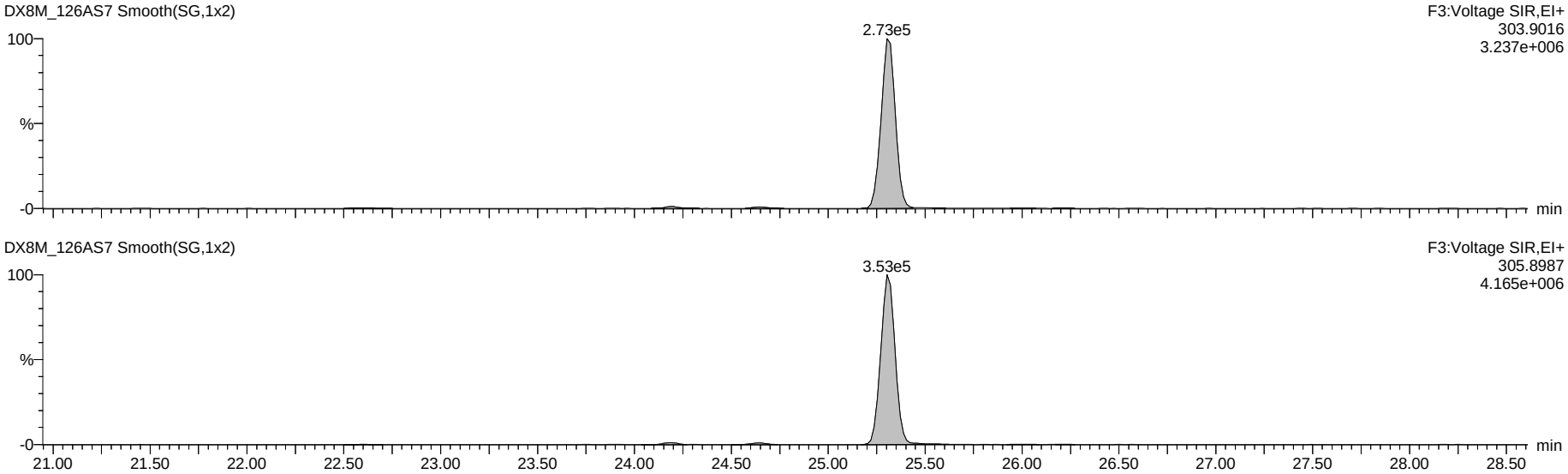

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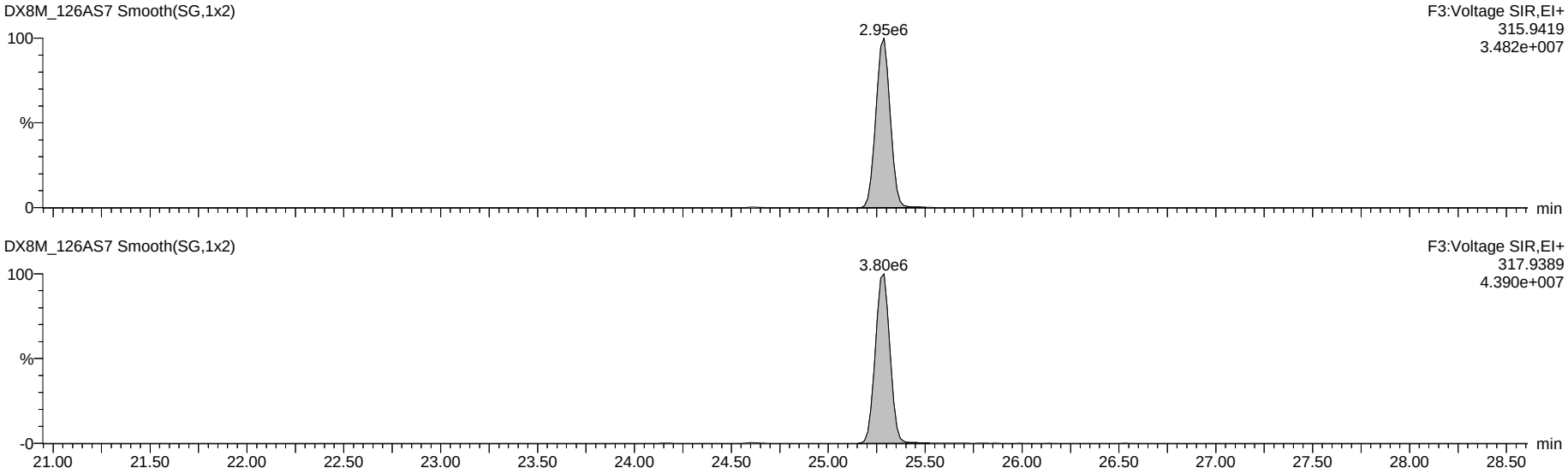

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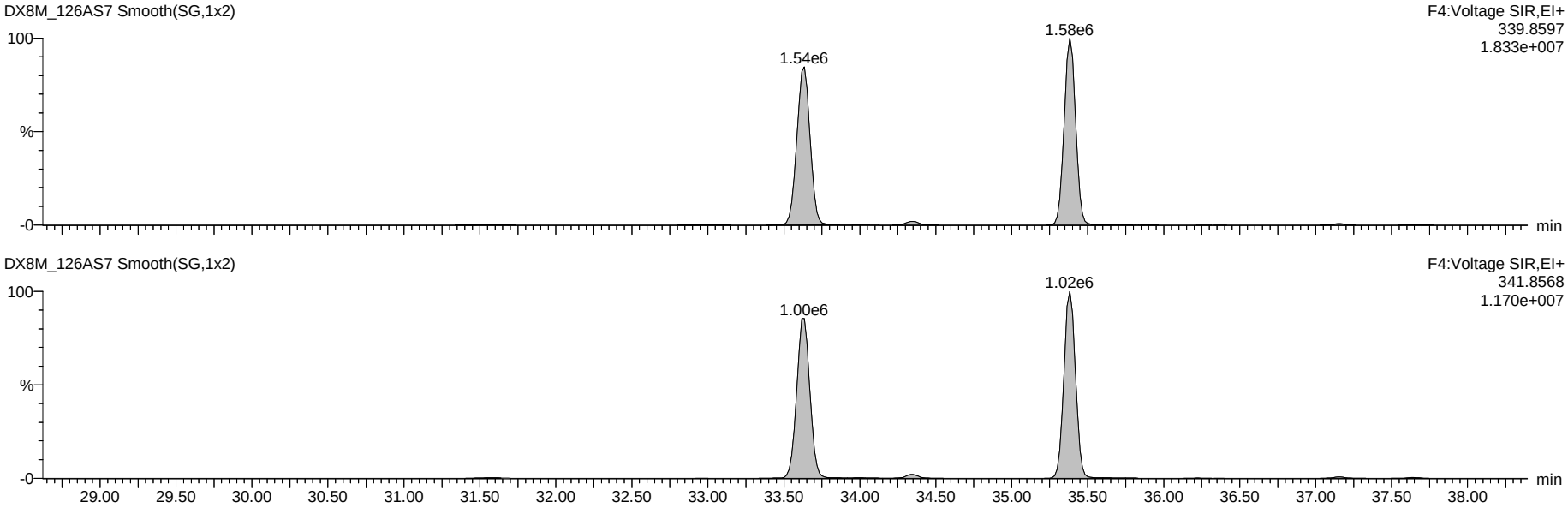
Total Penta-Furans



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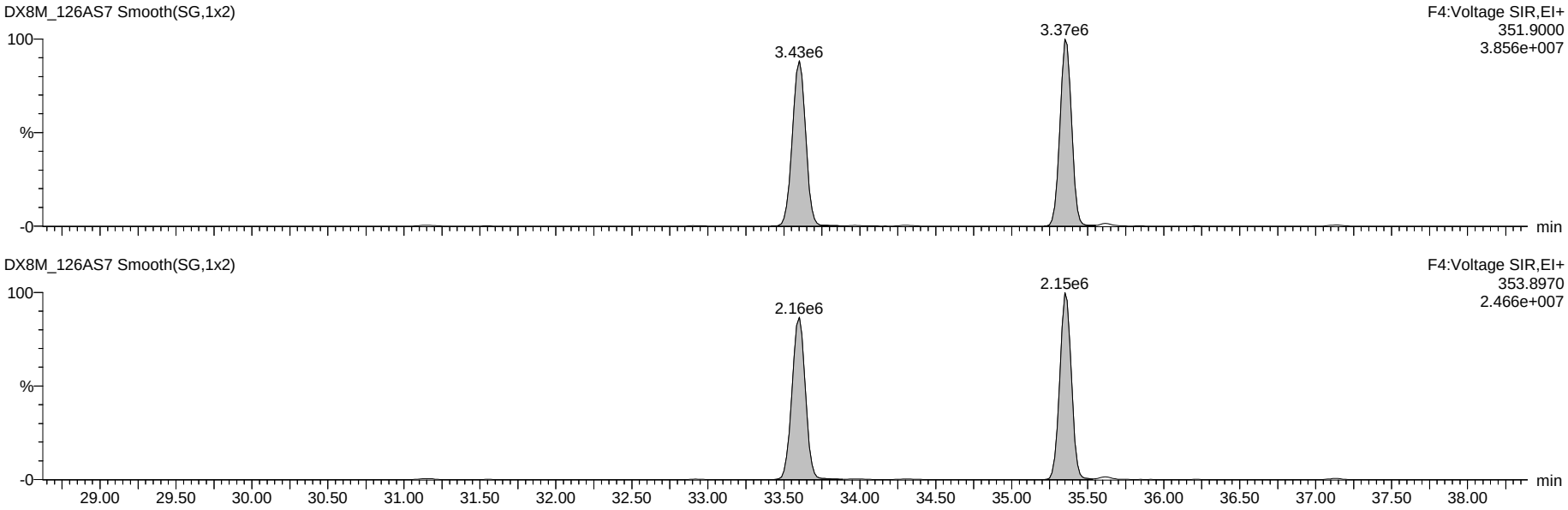

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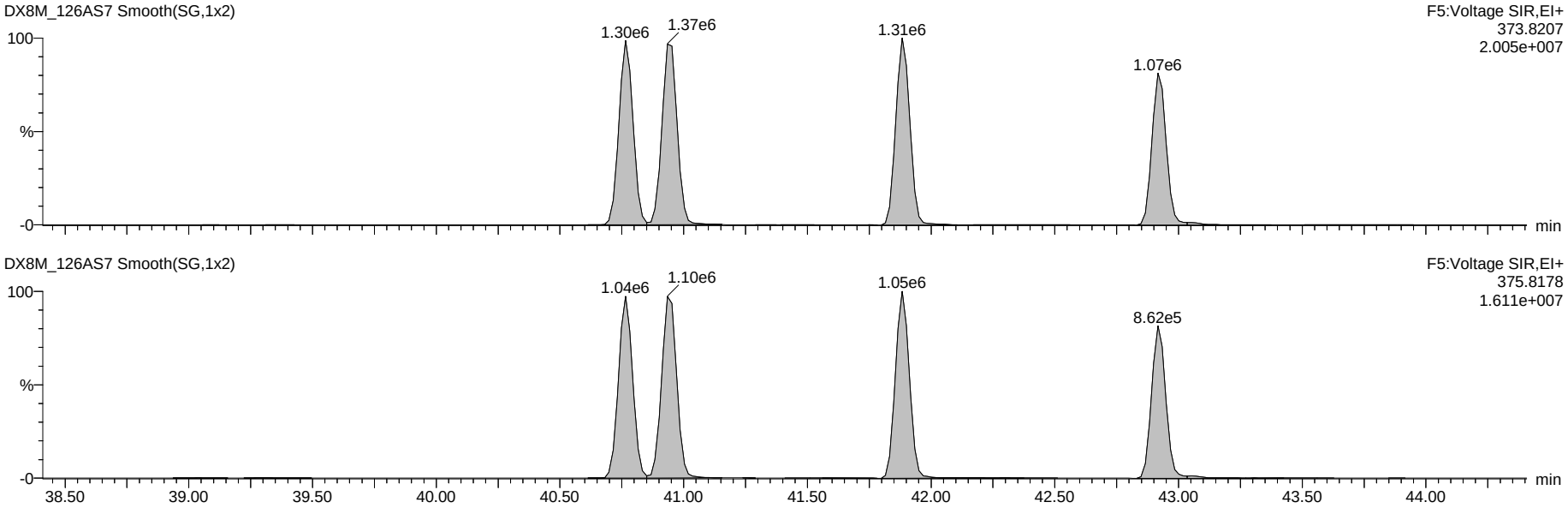

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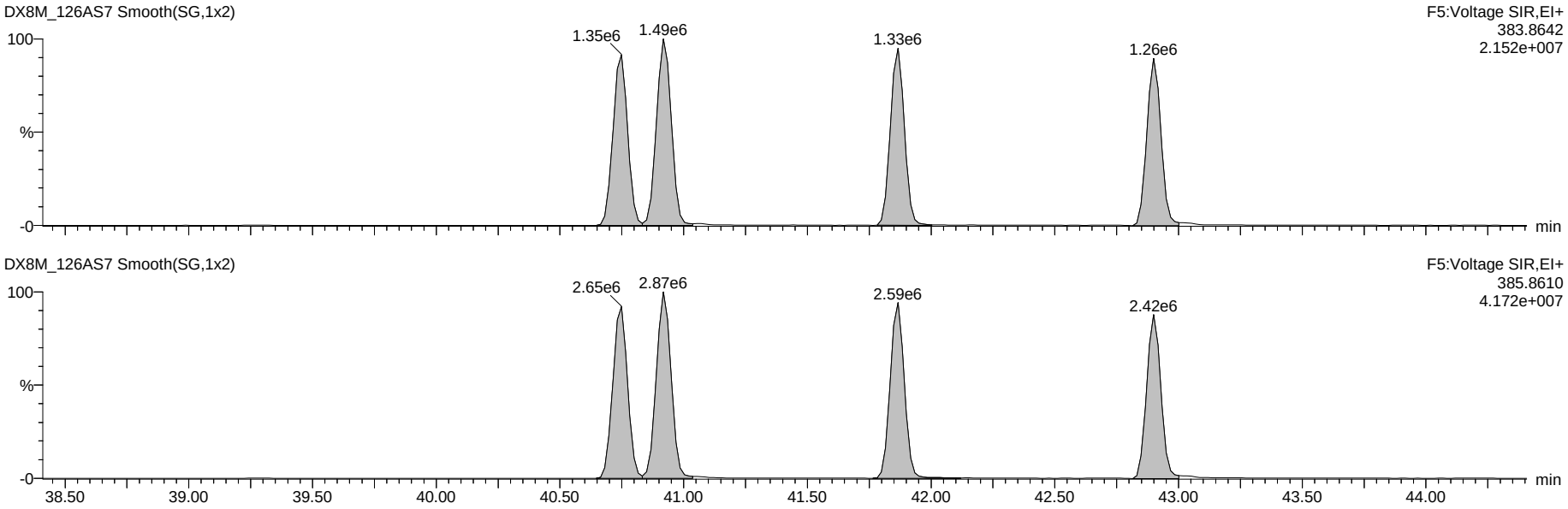

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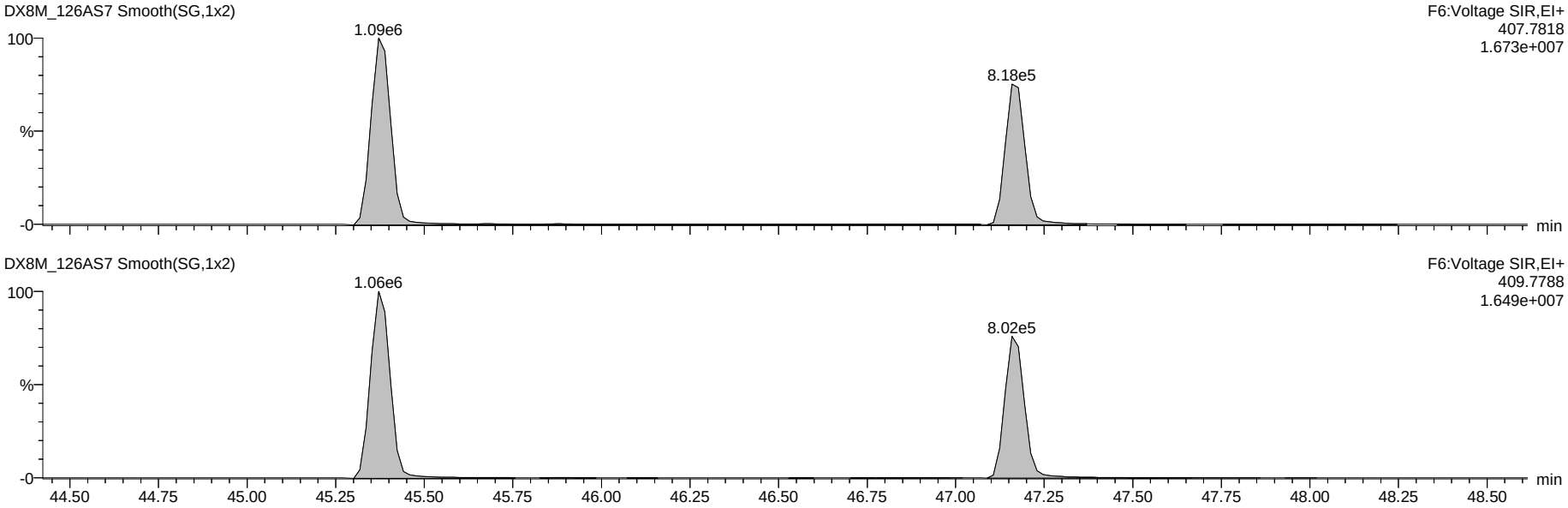

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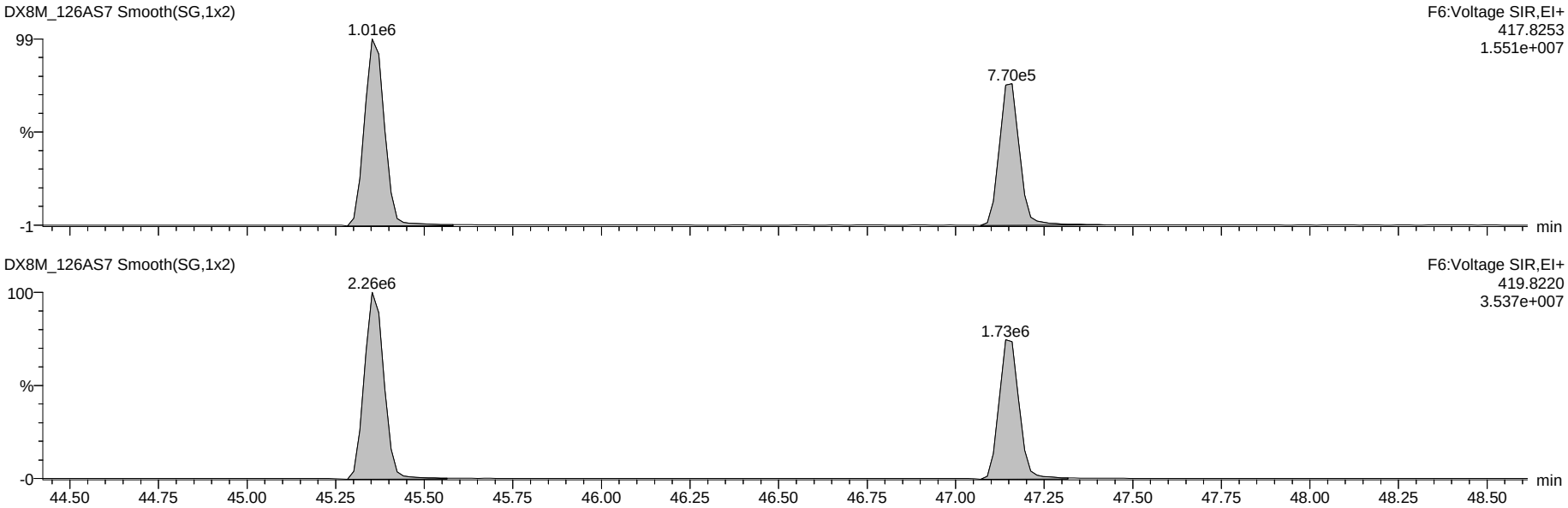

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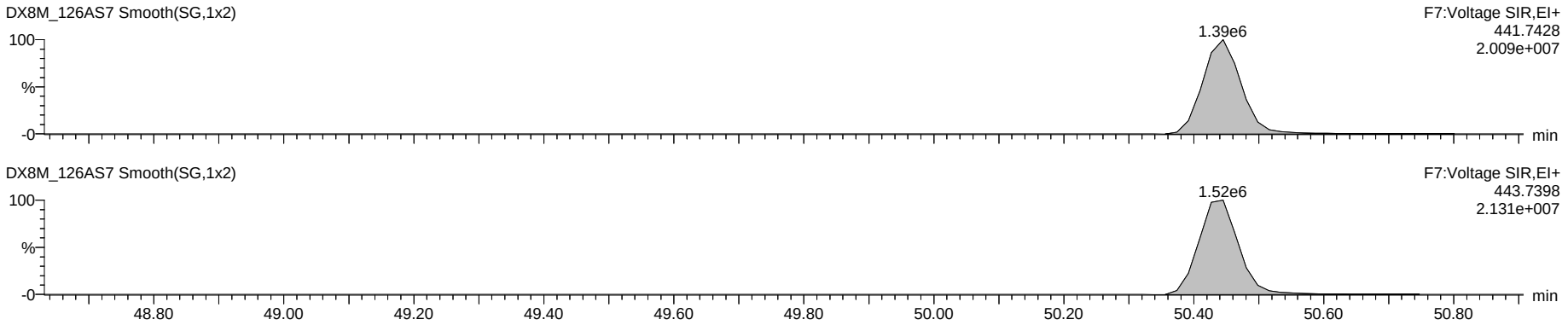

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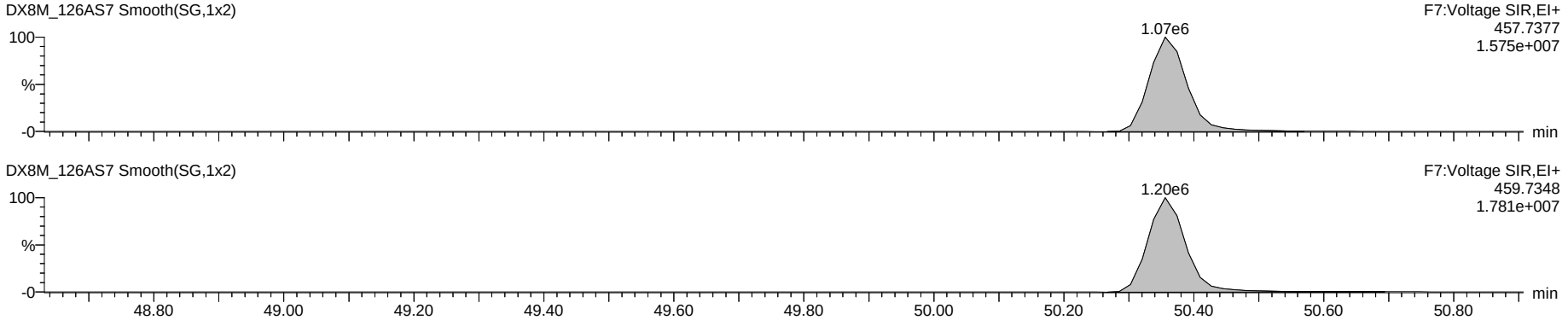

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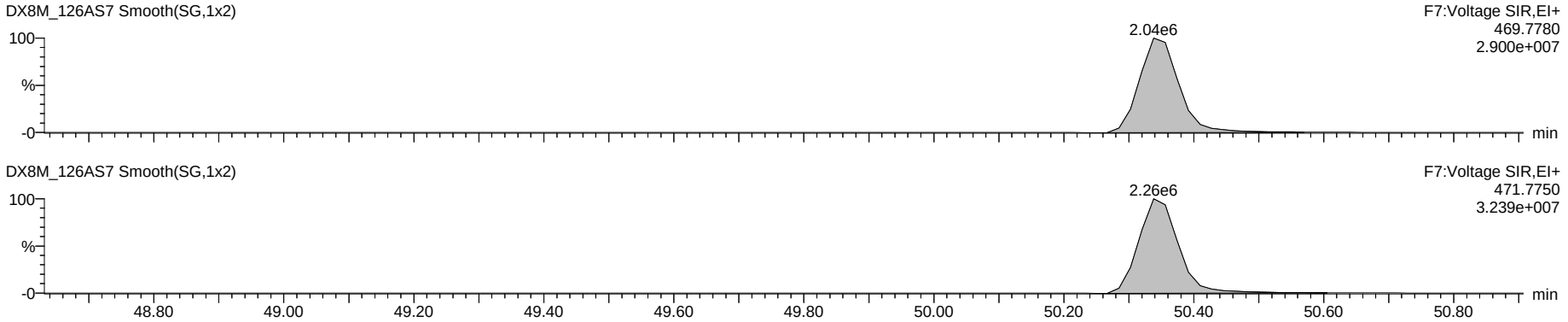

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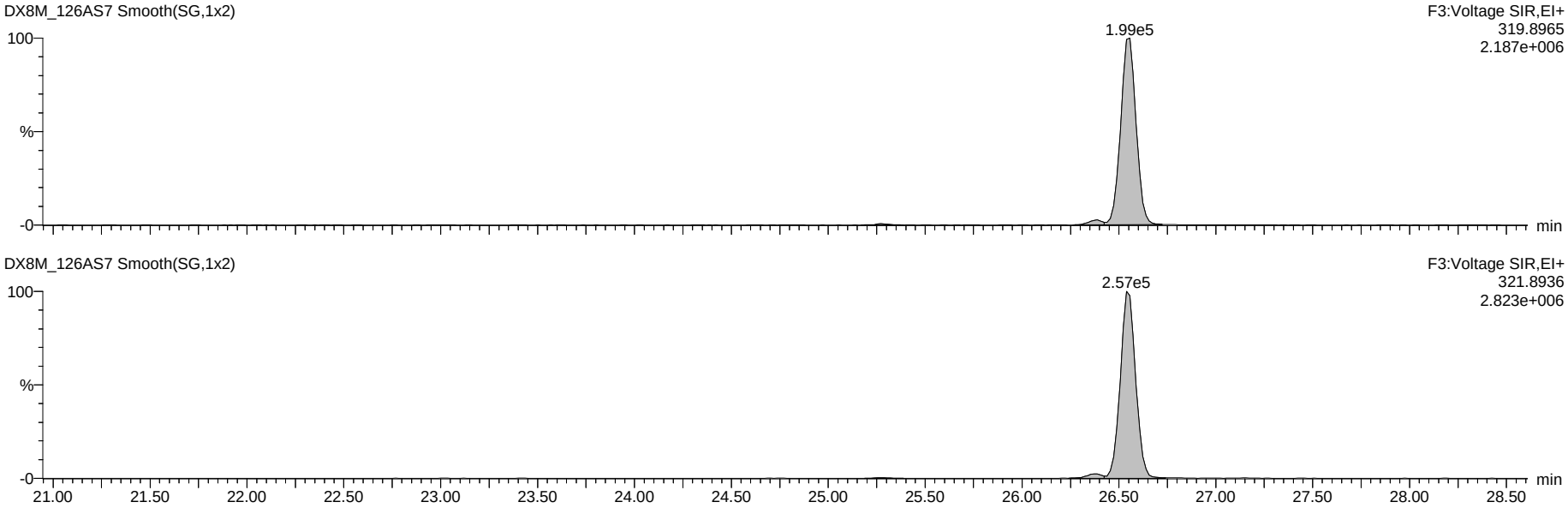
Total Tetra-Dioxins



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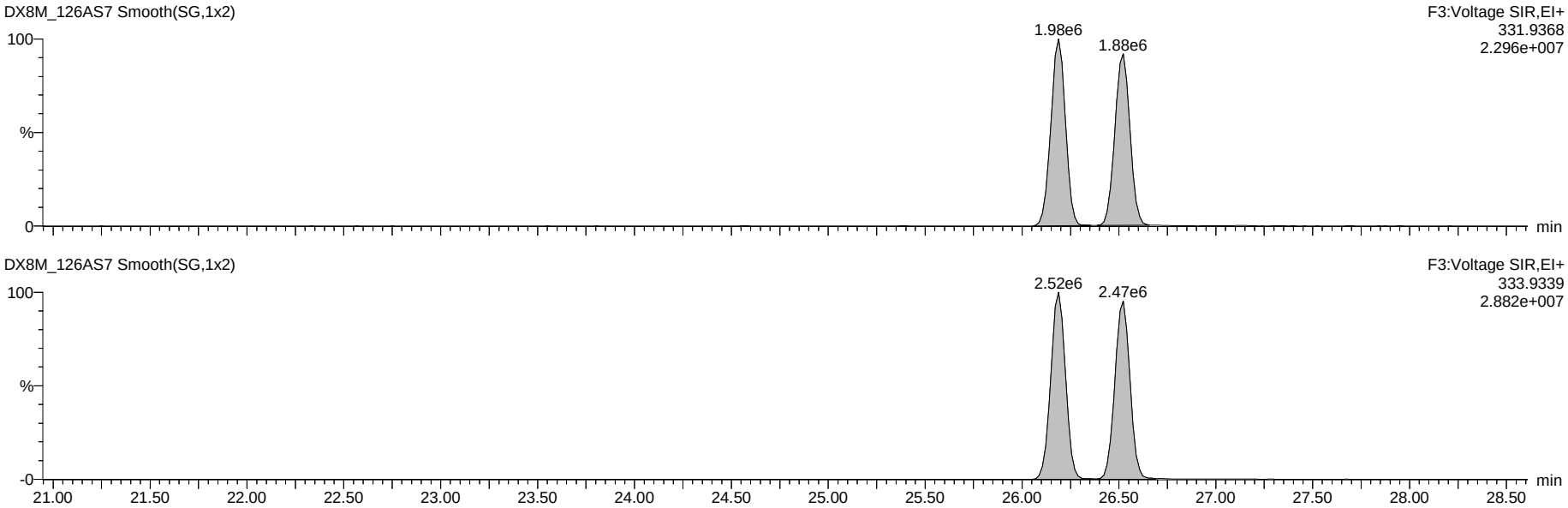

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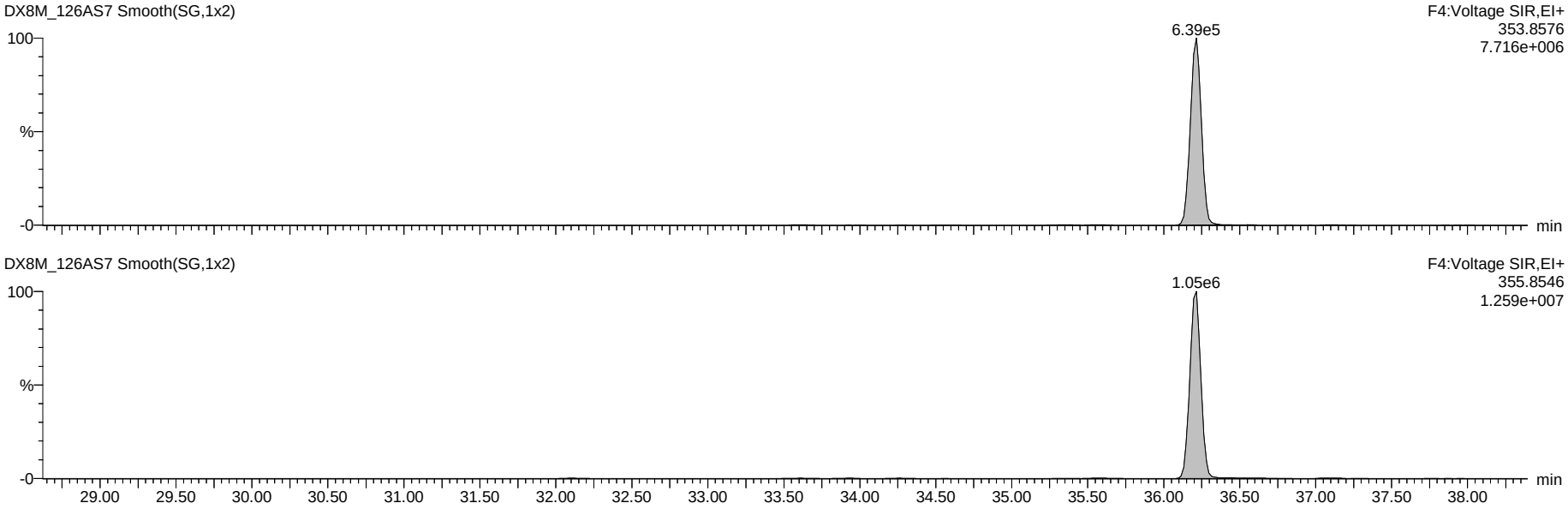

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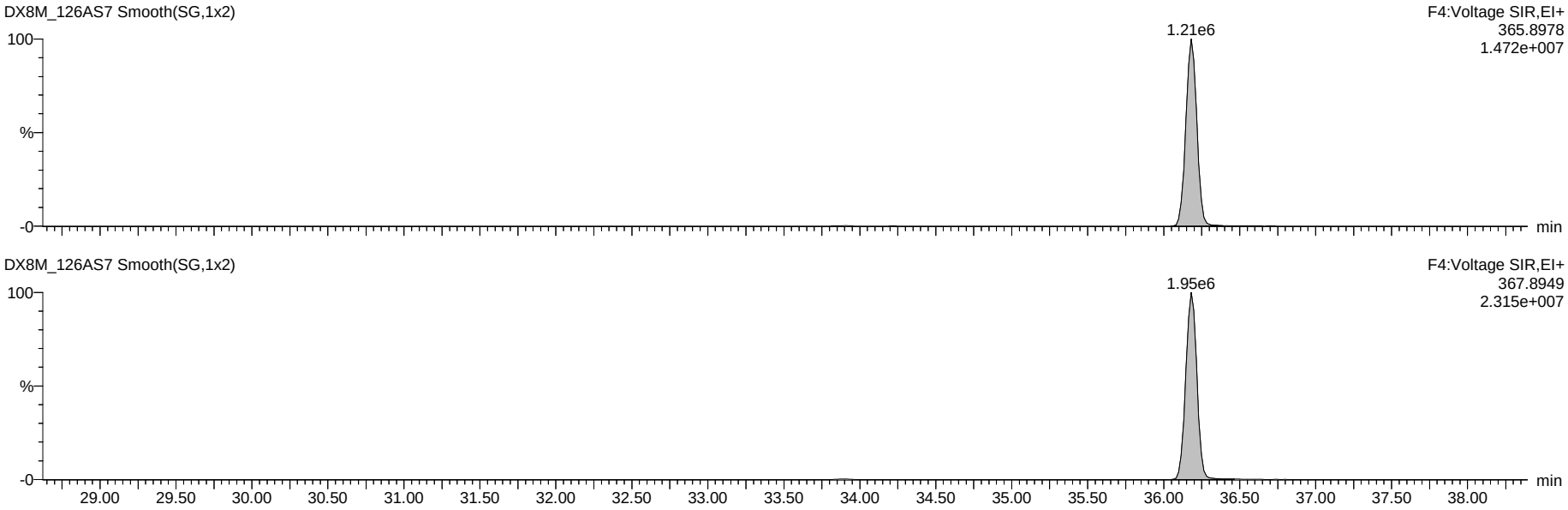

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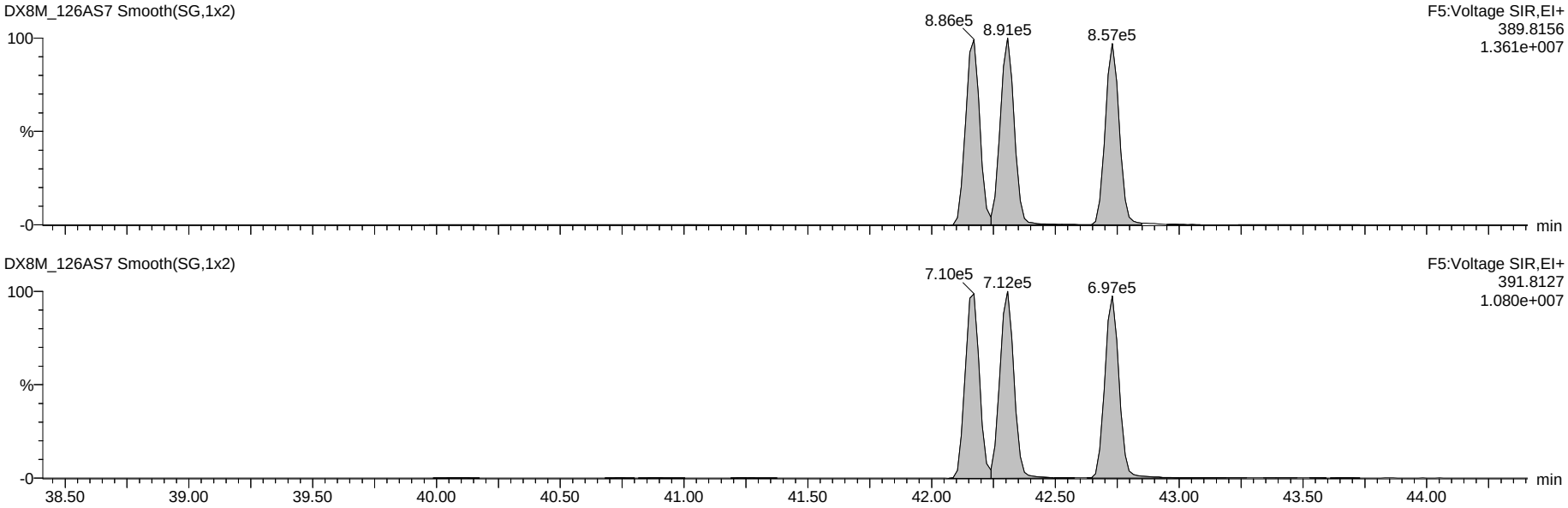

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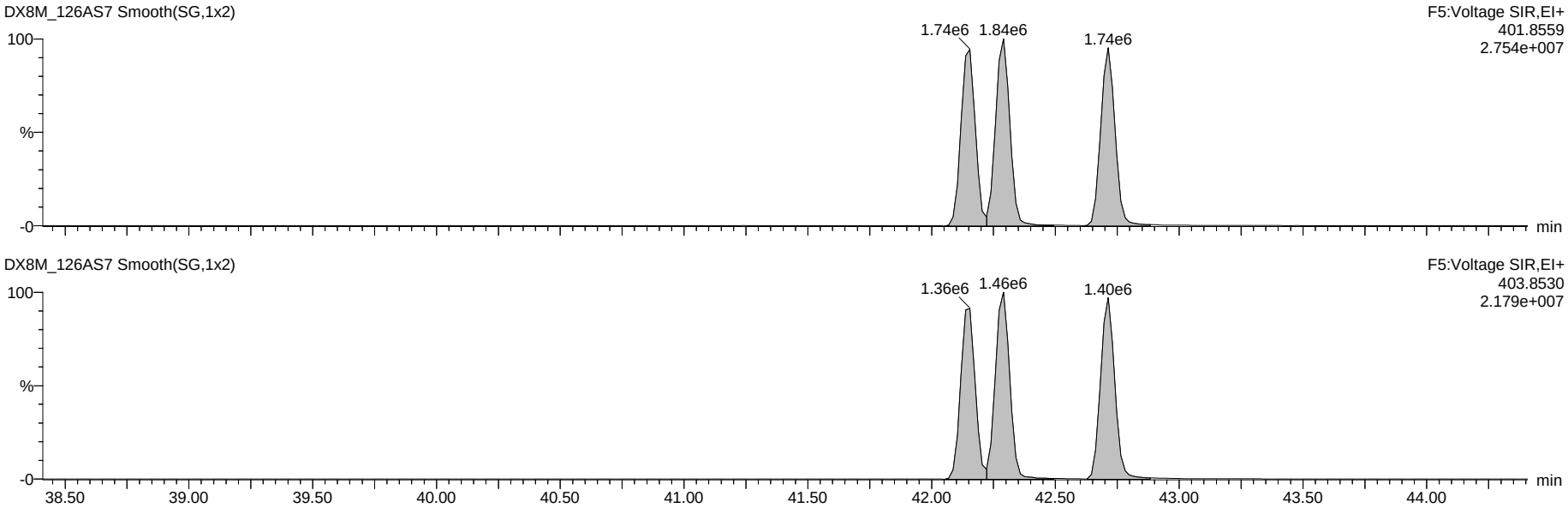

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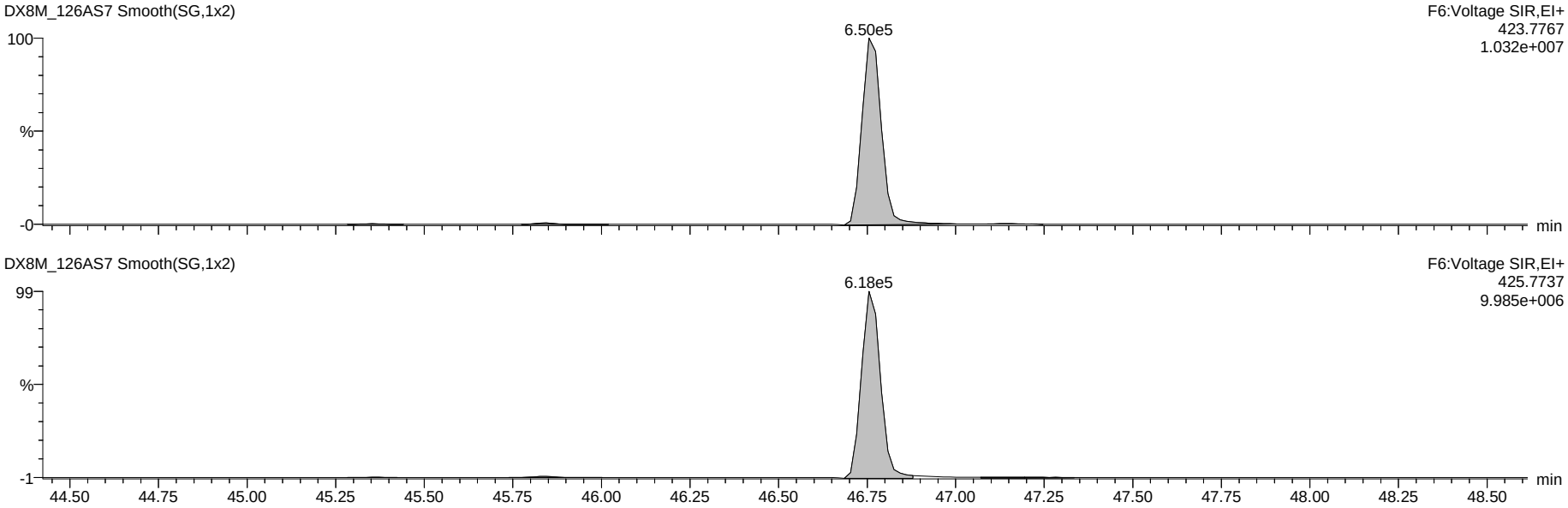

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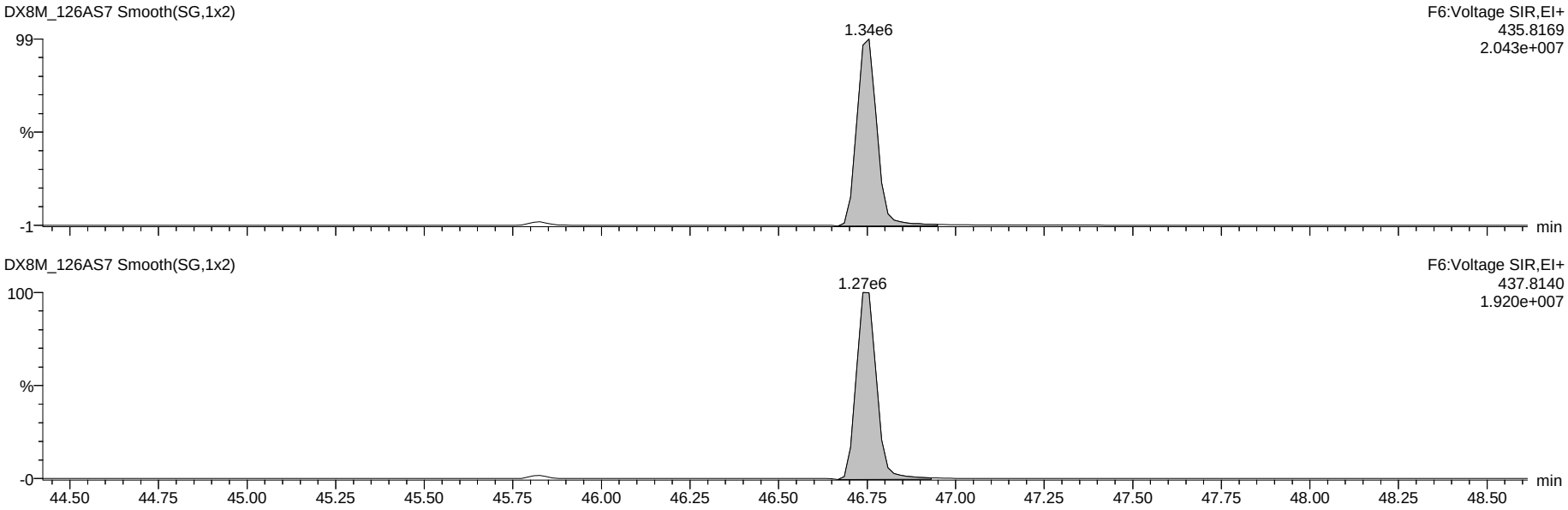

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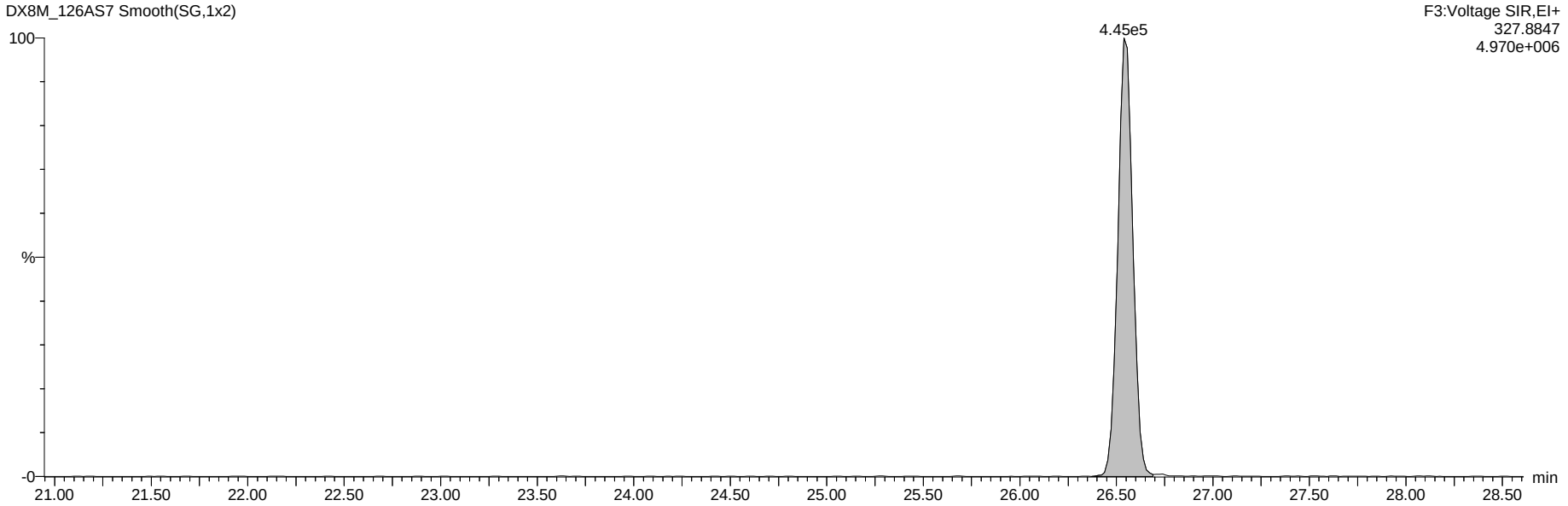
37Cl-2,3,7,8-TCDD



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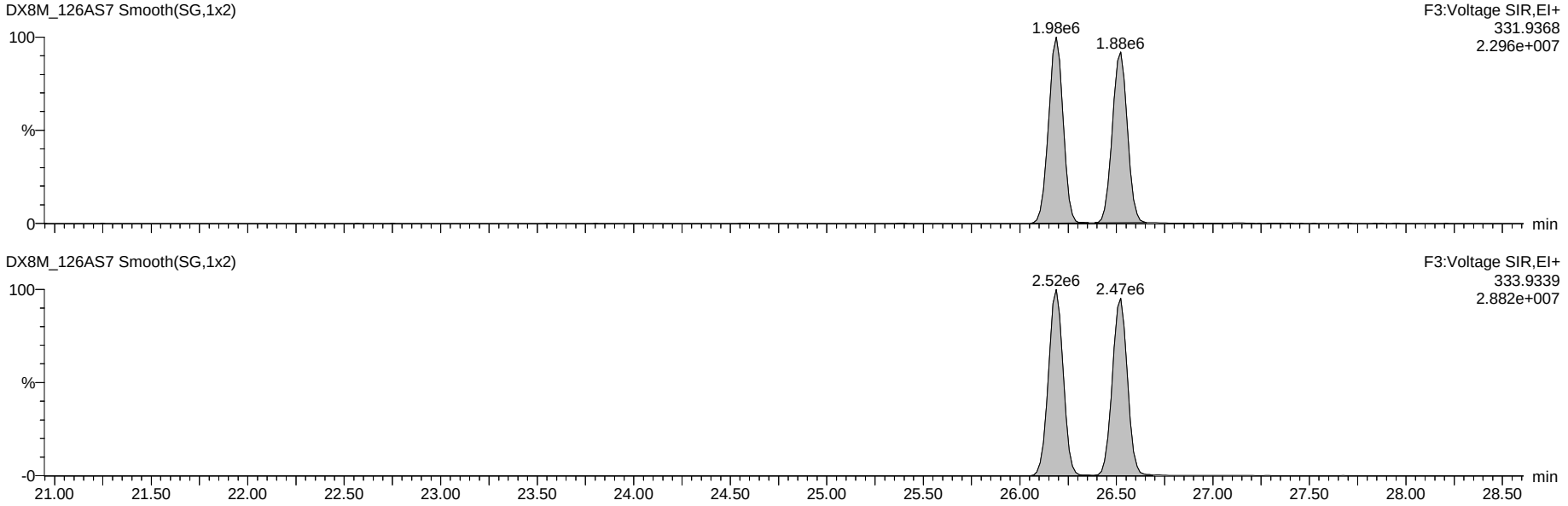

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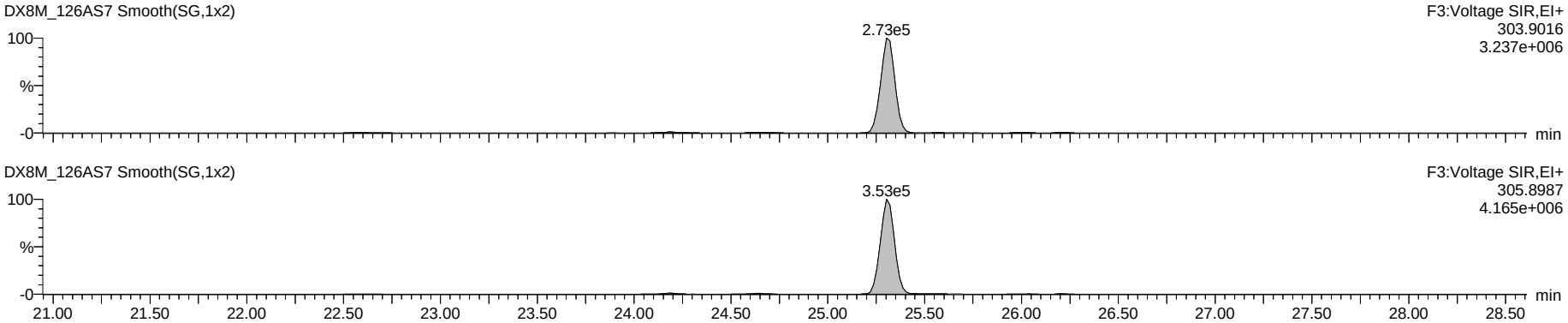
Total Tetra-Furans



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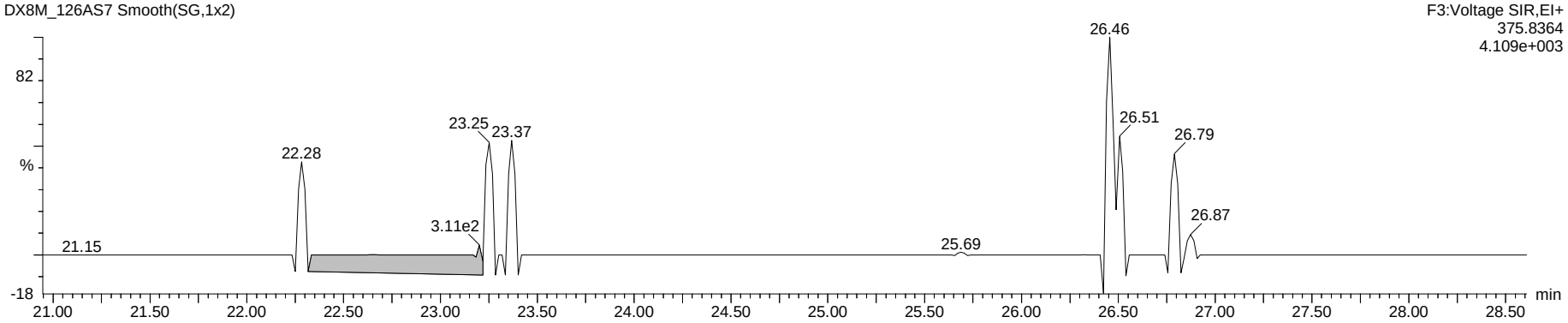

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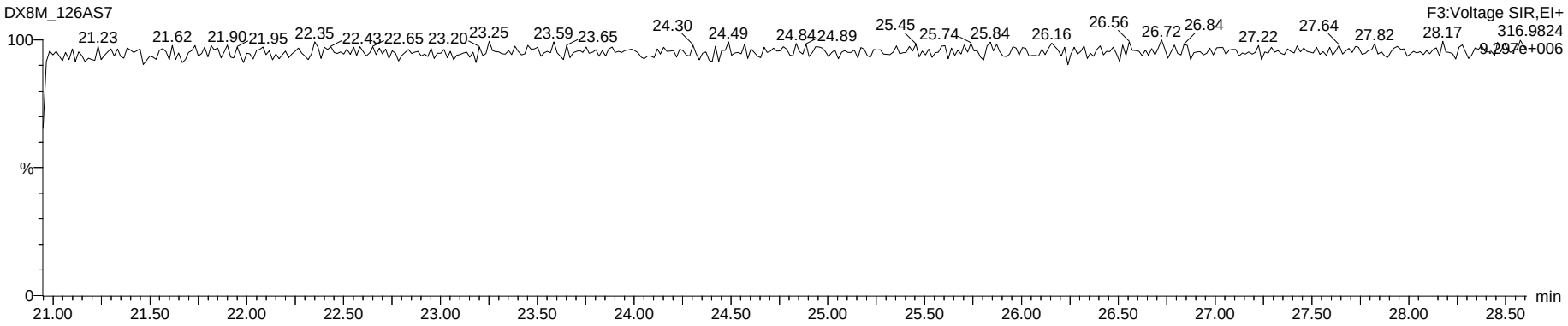

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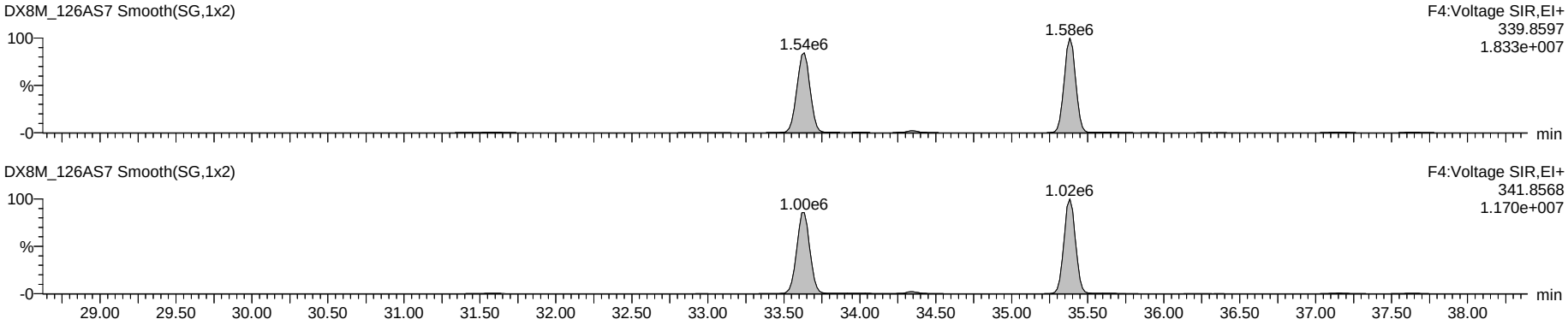

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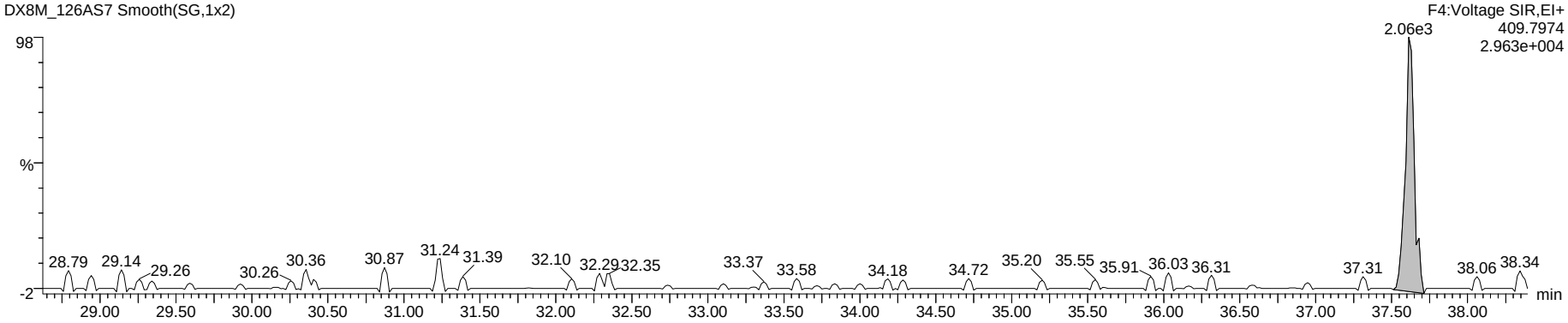

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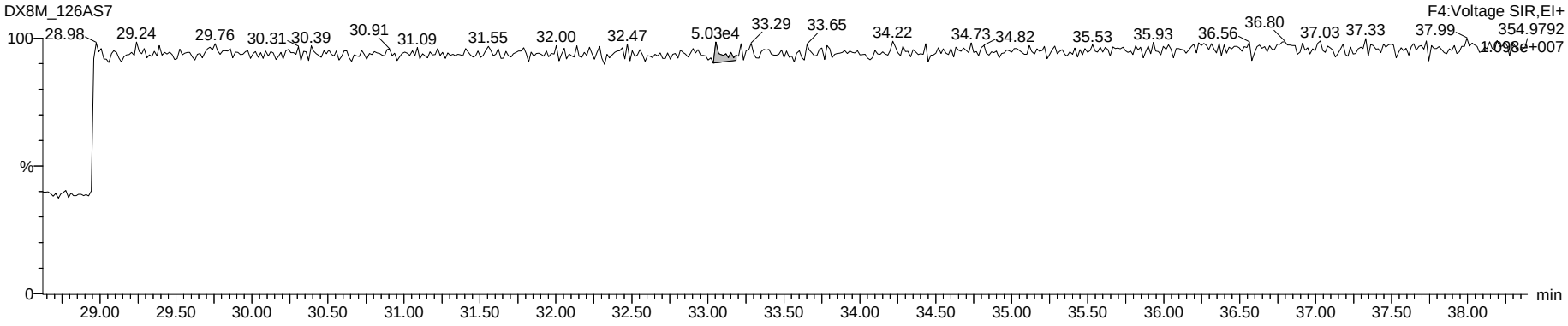

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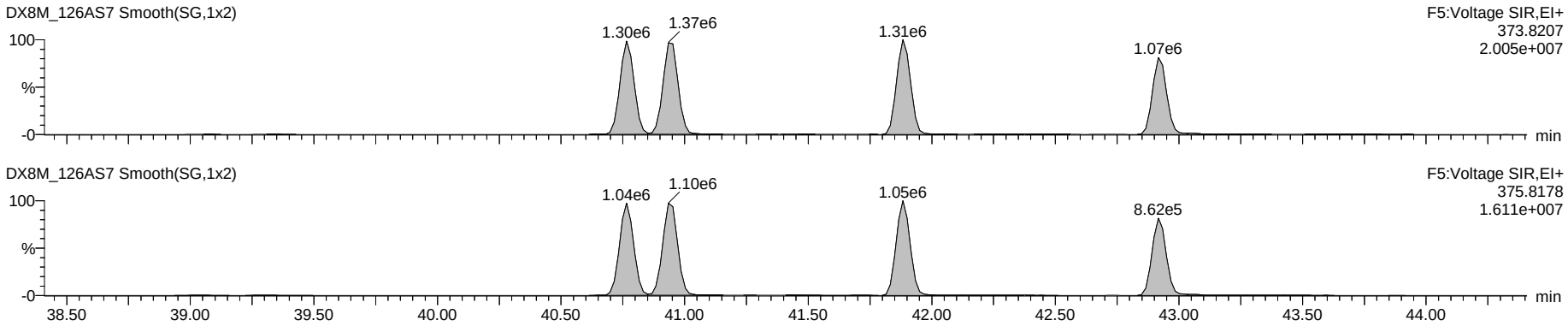

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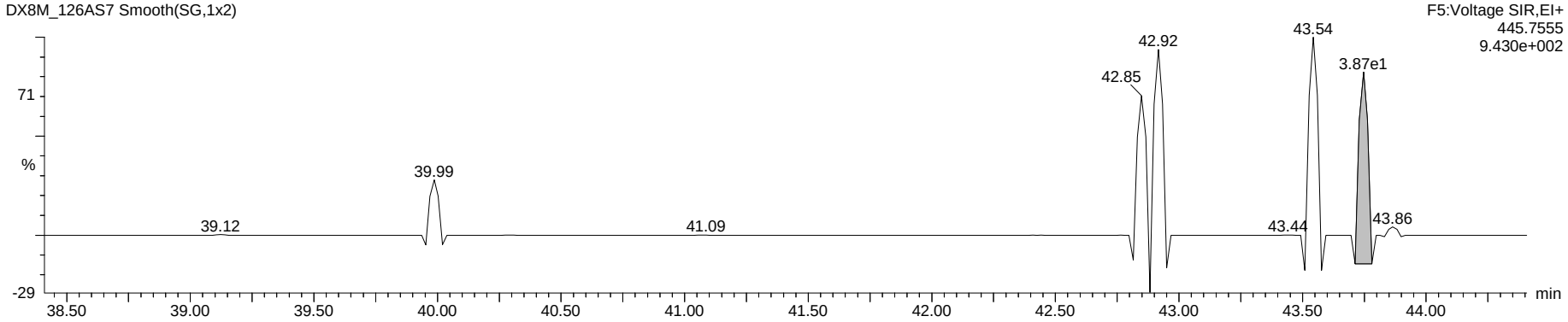

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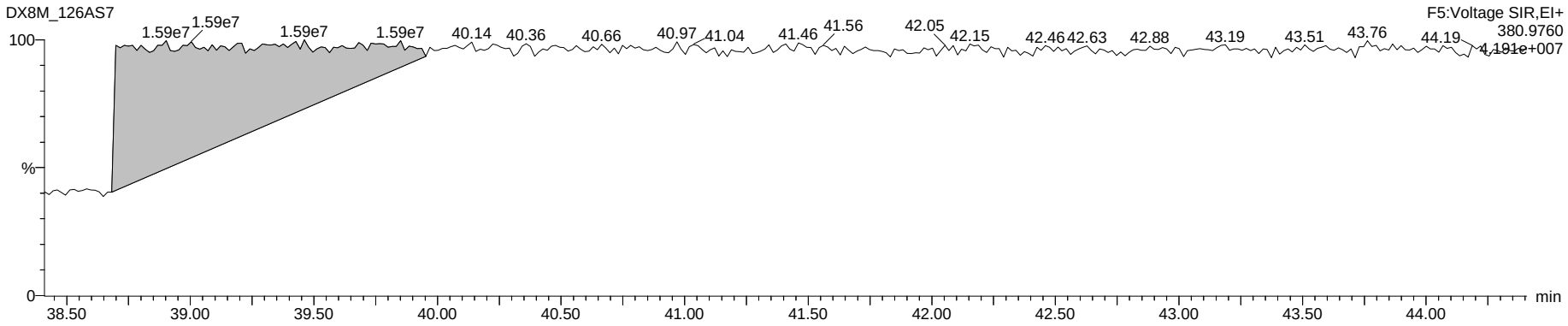

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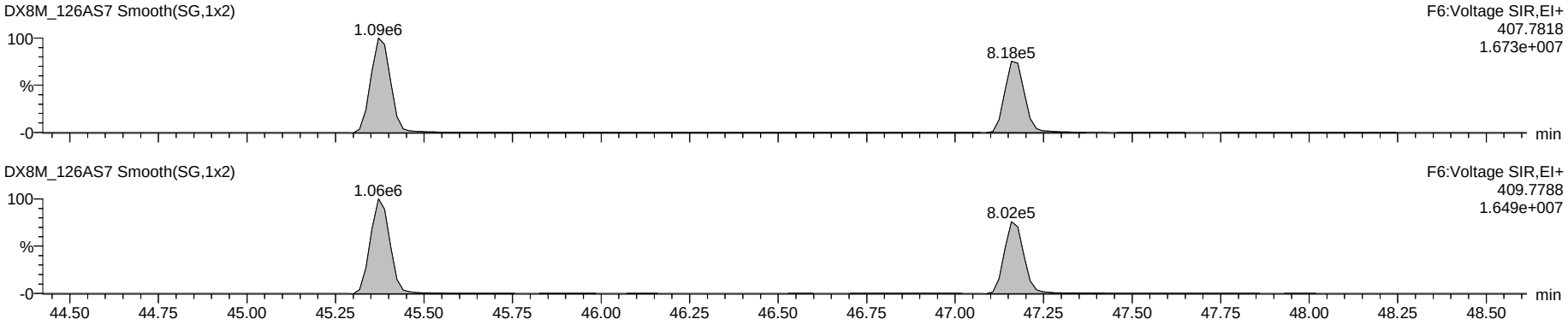

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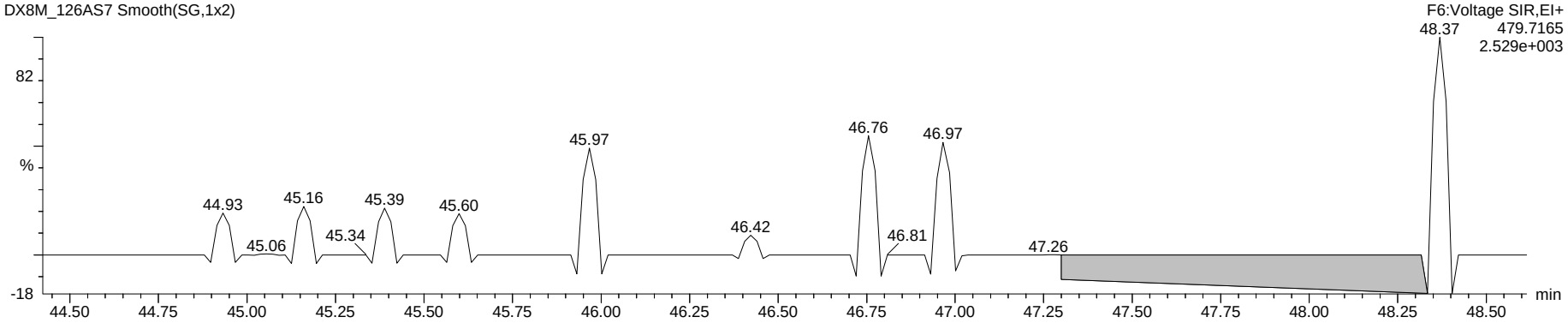

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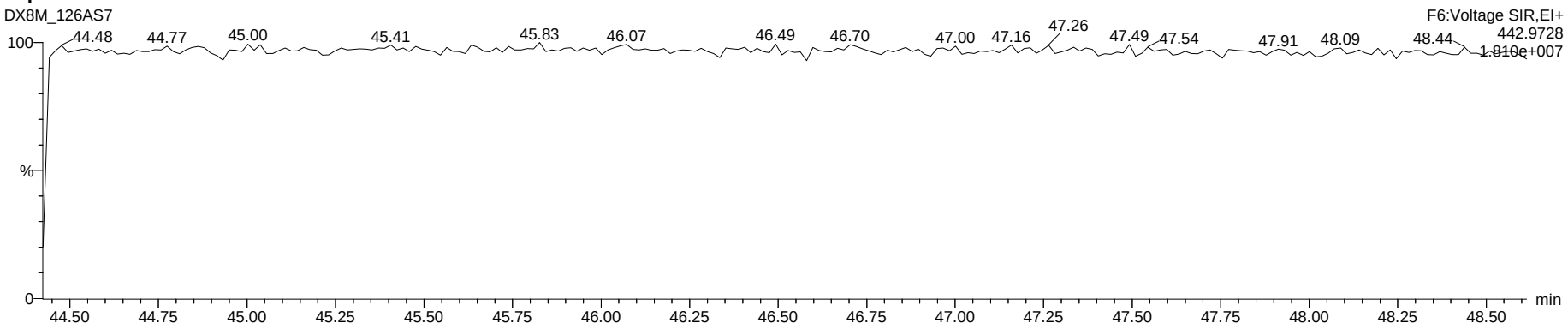

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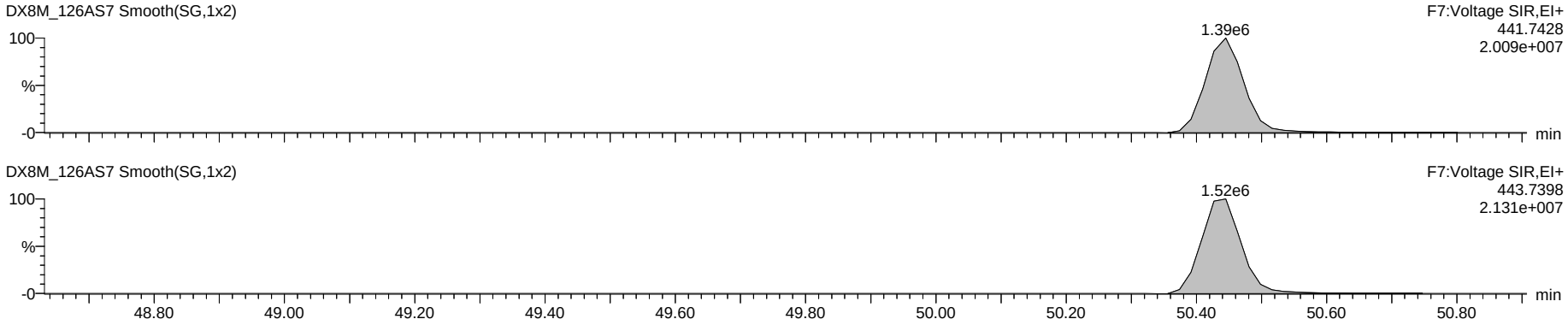
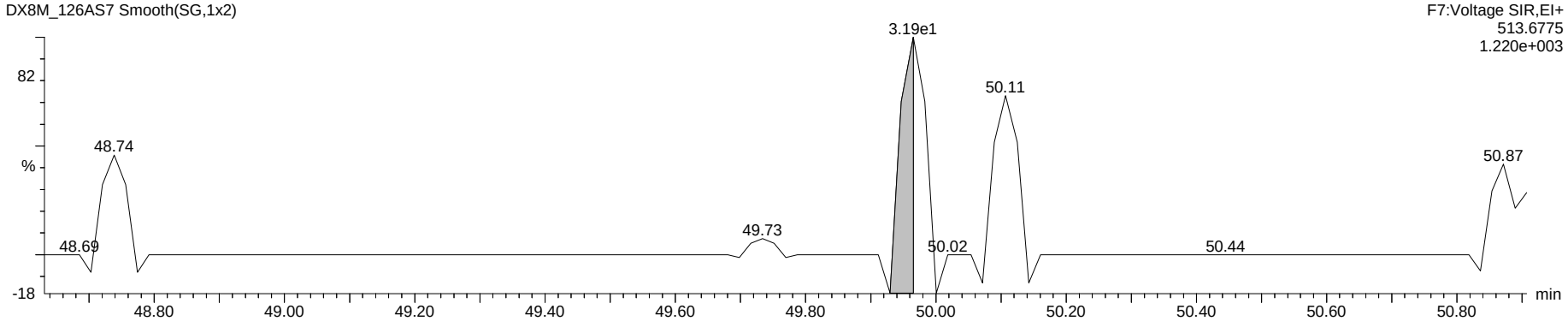
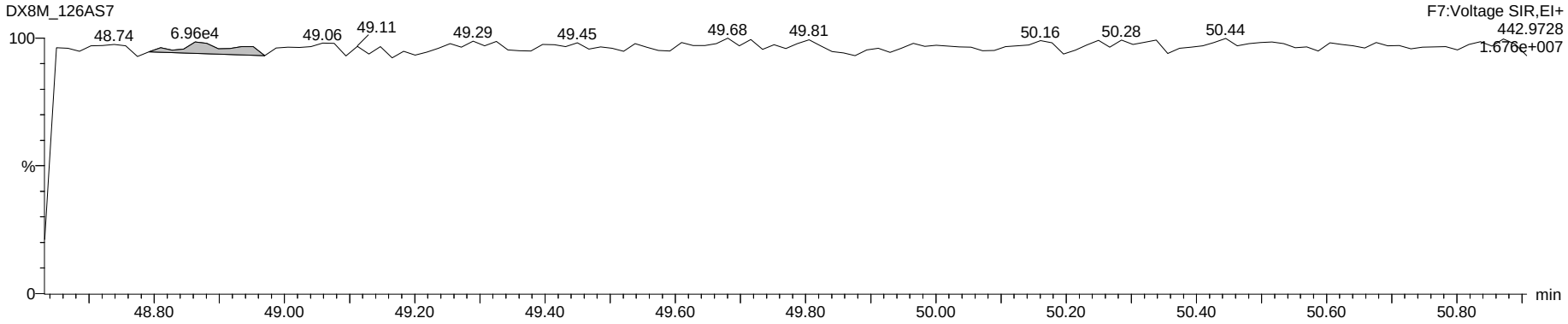
OCDF



Deca DPE



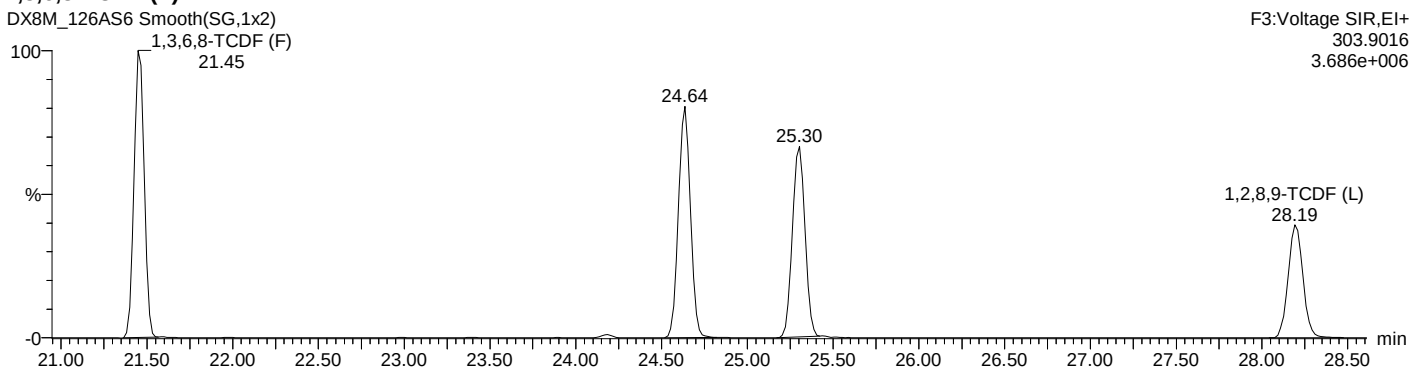
Octa Lock



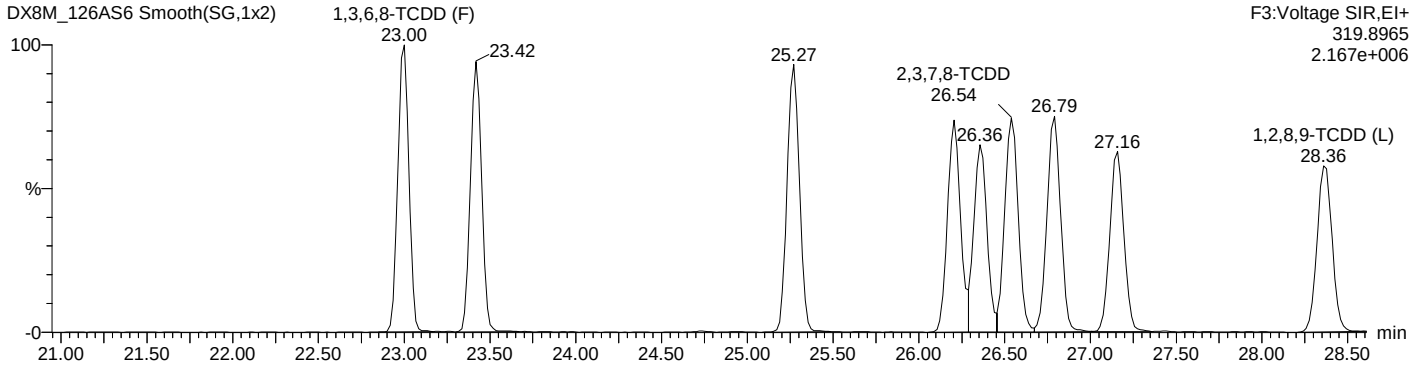
SGS Axys Analytical Services, Ltd.
Quantify Sample Report **MassLynx 4.1 SCN627**

Name: DX8M_126AS6, Date: 24-Oct-2018, Time: 12:54:49, ID: DX041D-CAL,,/01-82, Description: 1,,1.0uL Cal Win/Res

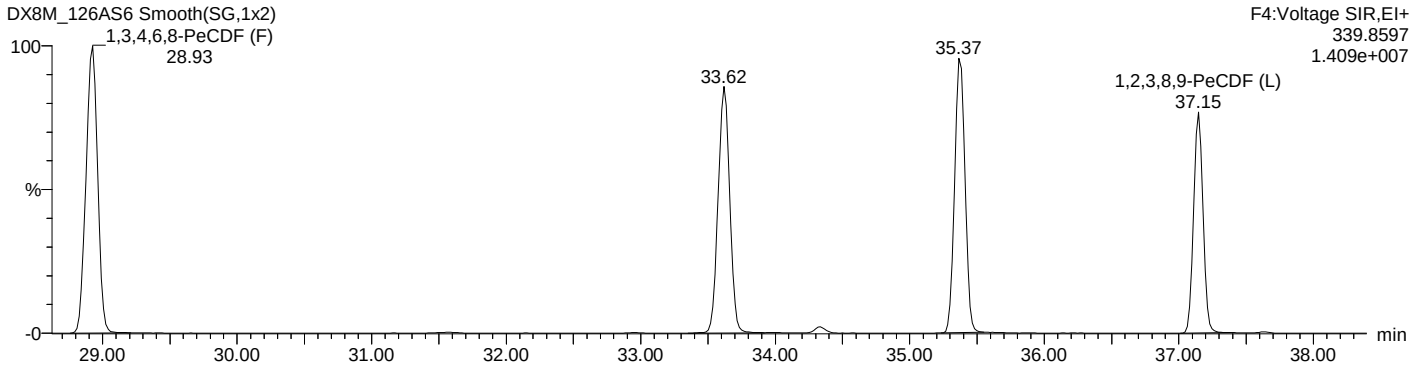
1,3,6,8-TCDF (F)



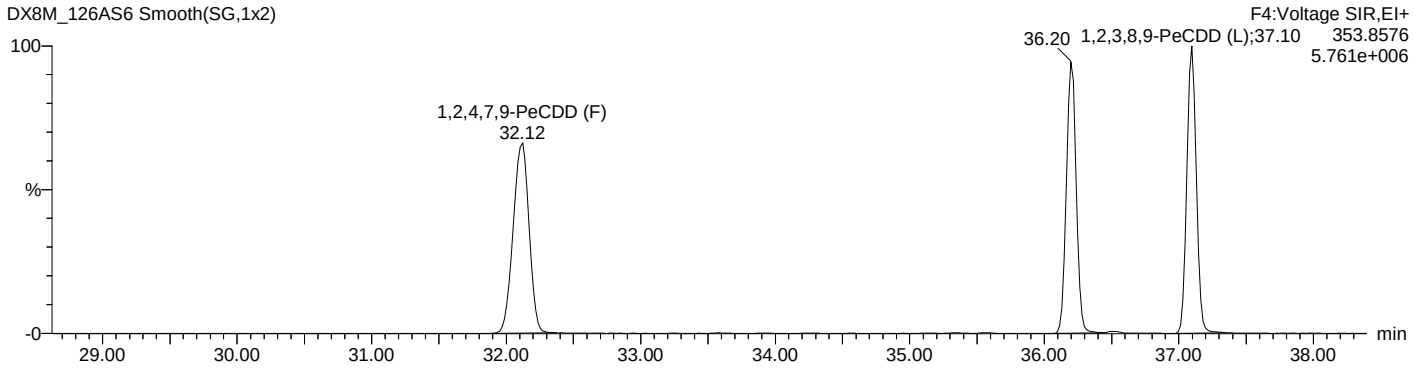
1,3,6,8-TCDD (F)



1,3,4,6,8-PeCDF (F)

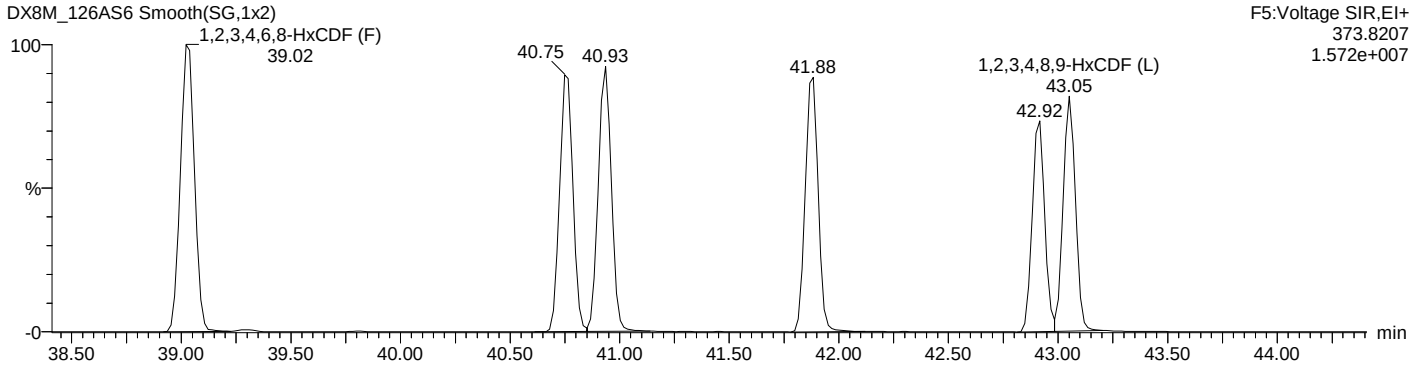


1,2,4,7,9-PeCDD (F)

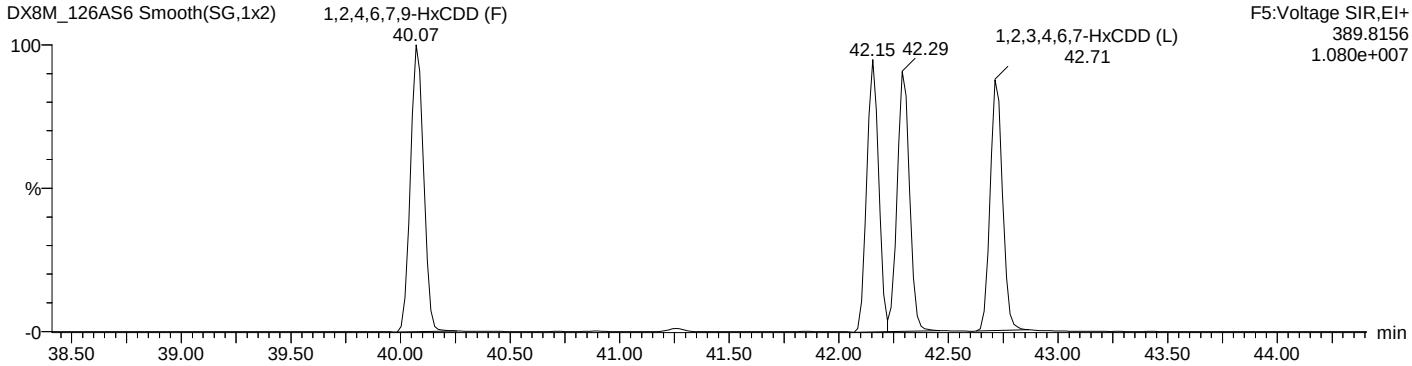


Name: DX8M_126AS6, Date: 24-Oct-2018, Time: 12:54:49, ID: DX041D-CAL,,/01-82, Description: 1,,1.0uL Cal Win/Res

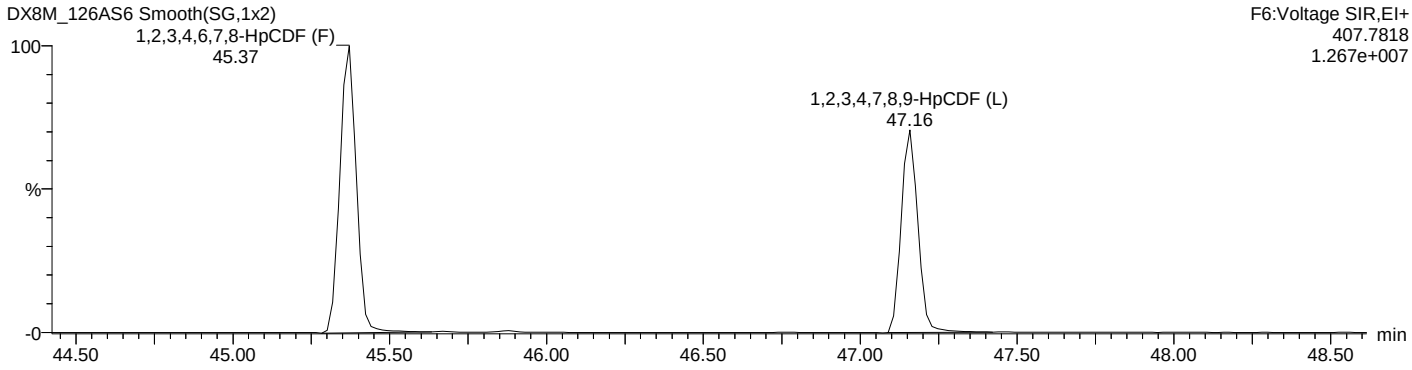
1,2,3,4,6,8-HxCDF (F)



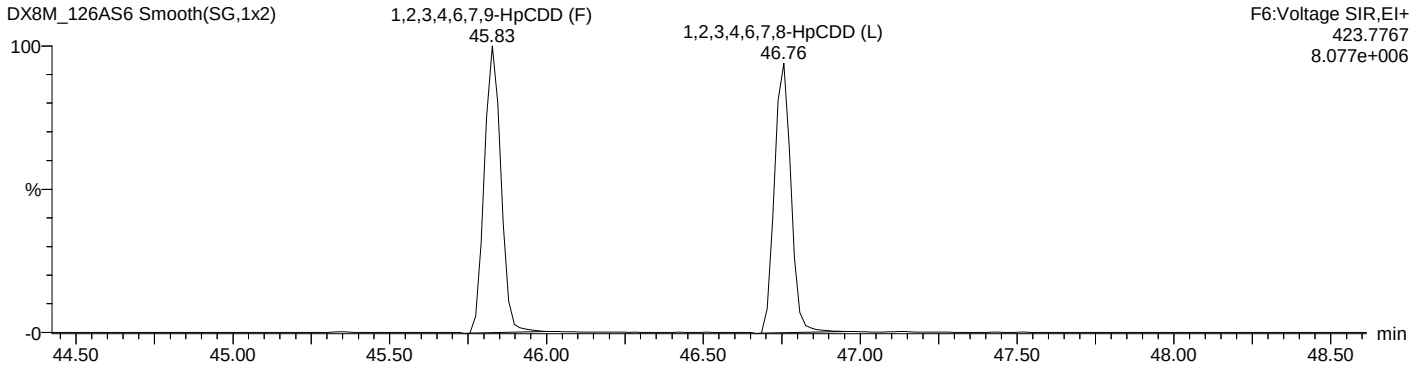
1,2,4,6,7,9-HxCDD (F)



1,2,3,4,6,7,8-HpCDF (F)



1,2,3,4,6,7,9-HpCDD (F)



SGS Axys Analytical Services, Ltd.

Method: C:\MassLynx\181023DX.PRO\MethDB\DX_Log.mdb 21 Nov 2008 10:39:44
Calibration: G:\Masslynx\Inst_M\Projects\181023DX.PRO\CurveDB\DX8M_126A-6A.cdb 26 Oct 2018 11:48:18

Compound name: -

#	Name	ID	Sample Text	Acq.Date	Acq.Time
1	DX8M_145BS1	DX041D-CAL,,/01-79	1,,1.0uL Cal Win/Res	30-Nov-18	16:46:44
2	DX8M_145BS2	WG66111-102,,SPM	1,WG66111,1.0/20uL	30-Nov-18	17:52:18
3	DX8M_145BS3	WG66111-103,,SPMDUP	1,WG66111,1.0/20uL	30-Nov-18	18:45:04
4	DX8M_145BS4	DX051A-SUR,,/02	1,,1.0uL Inst Blank	30-Nov-18	19:40:16
5	DX8M_145BS5	DX051A-SUR,,/02	1,,1.0uL Inst Blank	30-Nov-18	20:36:36
6	DX8M_145BS6	WG66111-101,,BLK	1,WG66111,1.0/20uL	30-Nov-18	21:30:43
7	DX8M_145BS7	WG66111-104,,MDL	1,WG66111,1.0/20uL	30-Nov-18	22:25:55
8	DX8M_145BS8	L29628-27,,	1,WG66111,1.0/20uL	30-Nov-18	23:21:03
9	DX8M_145BS9	DX041D-CAL,,/01-79	1,,1.0uL Cal Win/Res	01-Dec-18	00:16:18
10	DX8M_145BS10	WG66046-102,,SPM	1,WG66046,1.0/20uL	01-Dec-18	01:20:43
11	DX8M_145BS11	DX051A-SUR,,/02	1,,1.0uL Inst Blank	01-Dec-18	02:13:10
12	DX8M_145BS12	DX051A-SUR,,/02	1,,1.0uL Inst Blank	01-Dec-18	03:08:23
13	DX8M_145BS13	WG66046-101,,BLK	1,WG66046,1.0/20uL	01-Dec-18	04:03:36
14	DX8M_145BS14	L30381-1,,	1,WG66046,1.0/20uL	01-Dec-18	04:58:50
15	DX8M_145BS15	L30381-2,,	1,WG66046,1.0/20uL	01-Dec-18	05:54:04
16	DX8M_145BS16	L30381-3,,	1,WG66046,1.0/20uL	01-Dec-18	06:49:16
17	DX8M_145BS17	L30322-23,,	1,WG66046,1.0/20uL	01-Dec-18	07:44:31
18	DX8M_145BS18	L30322-24,,	1,WG66046,1.0/20uL	01-Dec-18	08:39:45

Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Method: G:\Masslynx\Inst_M\Exported_methods\DX_1613B_16.mdb 05 Apr 2018 08:34:55
Calibration: G:\Masslynx\Inst_M\Projects\181023DX.PRO\CurveDB\DX8M_126A-6A.cdb 26 Oct 2018 11:48:18

Name: DX8M_145BS1, Date: 30-Nov-2018, Time: 16:46:44, ID: DX041D-CAL,,/01-79, Description: 1,,1.0uL Cal Win/Res

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	1.000	4.13e5	0.77	NO	25.22	9.729	0.0206	97.3	2.06e3	1.56e3
2	1,2,3,7,8-PeCDF	1.000	1.44e6	1.60	NO	33.52	50.088	0.0571	100.2	2.32e3	3.48e3
3	2,3,4,7,8-PeCDF	1.000	1.34e6	1.55	NO	35.28	50.065	0.0550	100.1	2.32e3	3.48e3
4	1,2,3,4,7,8-HxCDF	1.000	1.08e6	1.24	NO	40.70	50.824	0.0754	101.6	4.59e3	3.60e3
5	1,2,3,6,7,8-HxCDF	1.000	1.12e6	1.25	NO	40.87	48.871	0.0741	97.7	4.59e3	3.60e3
6	2,3,4,6,7,8-HxCDF	1.000	1.04e6	1.24	NO	41.83	50.986	0.0794	102.0	4.59e3	3.60e3
7	1,2,3,7,8,9-HxCDF	1.000	7.98e5	1.24	NO	42.87	46.402	0.0965	92.8	4.59e3	3.60e3
8	1,2,3,4,6,7,8-HpCDF	1.000	9.28e5	1.04	NO	45.34	49.573	0.0495	99.1	2.63e3	2.53e3
9	1,2,3,4,7,8,9-HpCDF	1.000	7.41e5	1.04	NO	47.14	52.821	0.0676	105.6	2.63e3	2.53e3
10	OCDF	1.000	1.25e6	0.90	NO	50.44	100.430	0.0050	100.4	2.76e2	4.71e1
11	2,3,7,8-TCDD	1.000	3.01e5	0.79	NO	26.46	10.316	0.0364	103.2	2.37e3	1.79e3
12	1,2,3,7,8-PeCDD	1.000	8.22e5	0.61	NO	36.11	47.238	0.0652	94.5	2.77e3	1.86e3
13	1,2,3,4,7,8-HxCDD	1.000	6.84e5	1.22	NO	42.10	49.074	0.0751	98.1	2.78e3	3.10e3
14	1,2,3,6,7,8-HxCDD	1.000	7.60e5	1.27	NO	42.24	48.947	0.0782	97.9	2.78e3	3.10e3
15	1,2,3,7,8,9-HxCDD	1.000	7.08e5	1.29	NO	42.68	48.865	0.0780	97.7	2.78e3	3.10e3
16	1,2,3,4,6,7,8-HpCDD	1.000	5.81e5	1.06	NO	46.74	51.107	0.0858	102.2	2.41e3	3.02e3
17	OCDD	1.000	1.03e6	0.88	NO	50.36	98.926	0.0085	98.9	1.21e-1	4.55e2
18	13C-2,3,7,8-TCDF	1.000	4.52e6	0.77	NO	25.20	101.493	0.0557	101.5	5.48e3	4.87e3
19	13C-1,2,3,7,8-PeCDF	1.000	3.07e6	1.57	NO	33.48	84.083	0.1016	84.1	5.64e3	9.84e3
20	13C-2,3,4,7,8-PeCDF	1.000	2.85e6	1.55	NO	35.27	78.521	0.1022	78.5	5.64e3	9.84e3
21	13C-1,2,3,4,7,8-HxCDF	1.000	1.87e6	0.51	NO	40.68	100.433	0.2937	100.4	2.15e4	6.81e3
22	13C-1,2,3,6,7,8-HxCDF	1.000	2.11e6	0.51	NO	40.85	105.508	0.2730	105.5	2.15e4	6.81e3
23	13C-2,3,4,6,7,8-HxCDF	1.000	1.75e6	0.53	NO	41.80	96.604	0.3015	96.6	2.15e4	6.81e3
24	13C-1,2,3,7,8,9-HxCDF	1.000	1.66e6	0.50	NO	42.85	100.095	0.3285	100.1	2.15e4	6.81e3
25	13C-1,2,3,4,6,7,8-HpCDF	1.000	1.53e6	0.43	NO	45.32	99.461	0.1451	99.5	6.75e3	4.78e3
26	13C-1,2,3,4,7,8,9-HpCDF	1.000	1.14e6	0.44	NO	47.12	97.038	0.1898	97.0	6.75e3	4.78e3
27	13C-2,3,7,8-TCDD	1.000	2.81e6	0.77	NO	26.44	99.341	0.1265	99.3	5.57e3	9.35e3
28	13C-1,2,3,7,8-PeCDD	1.000	1.73e6	0.63	NO	36.08	82.220	0.0552	82.2	3.10e3	1.75e3
29	13C-1,2,3,4,7,8-HxCDD	1.000	1.40e6	1.26	NO	42.09	97.667	0.1548	97.7	5.53e3	5.93e3
30	13C-1,2,3,6,7,8-HxCDD	1.000	1.67e6	1.26	NO	42.22	108.413	0.1441	108.4	5.53e3	5.93e3
31	13C-1,2,3,4,6,7,8-HpCDD	1.000	1.18e6	1.06	NO	46.72	98.020	0.1915	98.0	4.99e3	7.00e3
32	13C-OCDD	1.000	2.09e6	0.90	NO	50.34	200.738	0.0000	100.4	0.00e0	0.00e0
33	13C-1,2,3,4-TCDD	1.000	2.92e6	0.79	NO	26.09	76.080	0.0931	76.1	5.57e3	9.35e3
34	13C-1,2,3,7,8,9-HxCDD	1.000	1.46e6	1.22	NO	42.66	52.211	0.0792	52.2	5.53e3	5.93e3
35	37Cl-2,3,7,8-TCDD	1.000	3.10e5			26.46	9.726	0.0266	97.3		3.54e3
36	Total Tetra-Furans	1.000					39.833	0.0206			1.56e3
37	Total Tetra-Dioxins	1.000					90.736	0.0364			1.79e3
38	Total Penta-Furans	1.000					199.892	0.0562			3.48e3
39	Total Penta-Dioxins	1.000					158.412	0.0652			1.86e3
40	Total Hexa-Furans	1.000					307.461	0.0783			3.60e3
41	Total Hexa-Dioxins	1.000					202.711	0.0740			3.10e3
42	Total Hepta-Furans	1.000					104.010	0.0574			2.53e3
43	Total Hepta-Dioxins	1.000					106.995	0.0858			3.02e3
44	Hexa DPE	1.000	1.88e2			25.10					4.89e-1
45	Hepta DPE	1.000	6.98e2			37.56					2.90e-1
46	Octa DPE	1.000	1.29e2			40.07					3.19e-1
47	Nona DPE	1.000	1.34e2			48.21					6.92e-2
48	Deca DPE	1.000	7.20e1			50.32					0.00e0
49	Tetra Lock	1.000									5.17e5
50	Penta Lock	1.000	2.22e6			29.19					6.81e5
51	Hexa Lock	1.000	2.18e6			38.70					1.63e6

pv'd by LHE 03-DEC-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

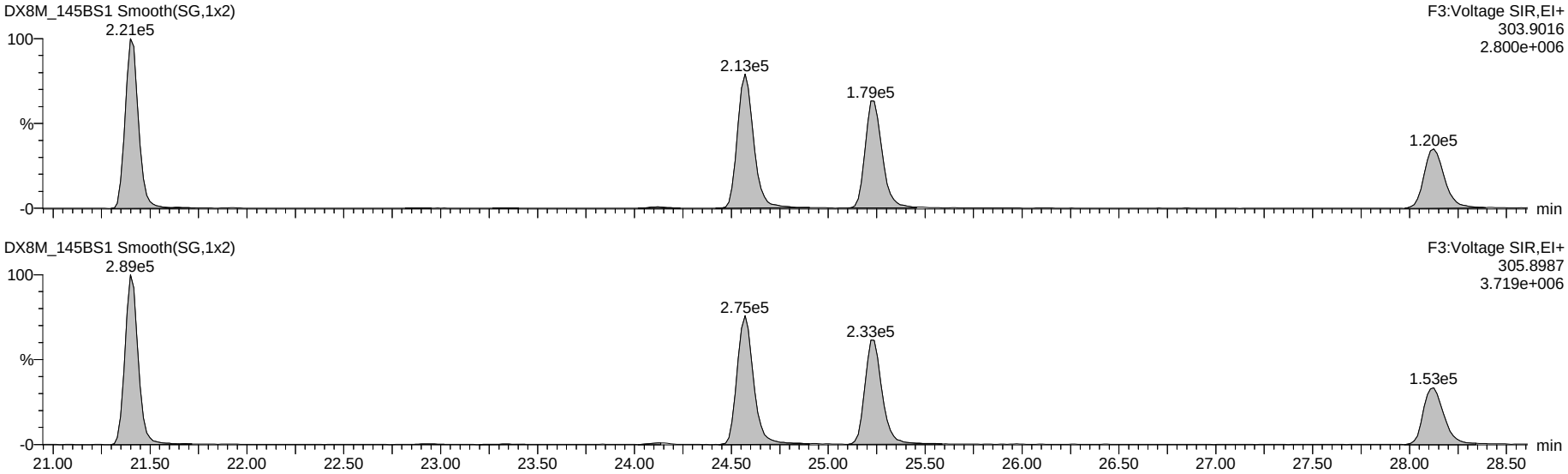
SVByKB 05Dec2018

Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

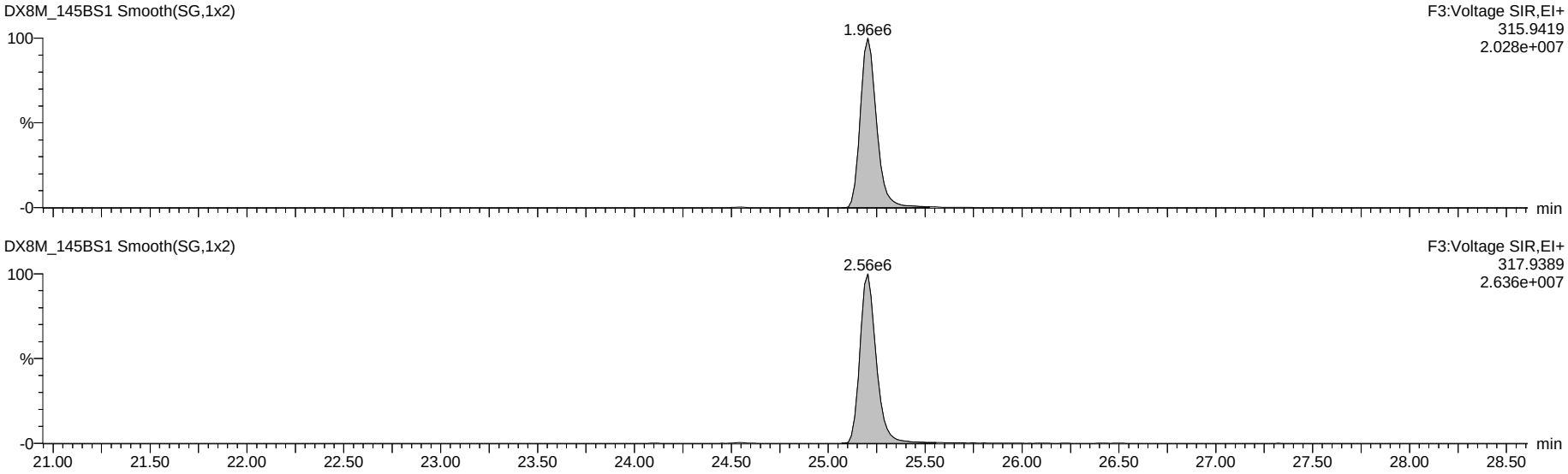
Method: G:\Masslynx\Inst_M\Exported_methods\DX_1613B_16.mdb 05 Apr 2018 08:34:55
Calibration: G:\Masslynx\Inst_M\Projects\181023DX.PRO\CurveDB\DX8M_126A-6A.cdb 26 Oct 2018 11:48:18

Name: DX8M_145BS1, Date: 30-Nov-2018, Time: 16:46:44, ID: DX041D-CAL,,/01-79, Description: 1,,1.0uL Cal Win/Res

Total Tetra-Furans



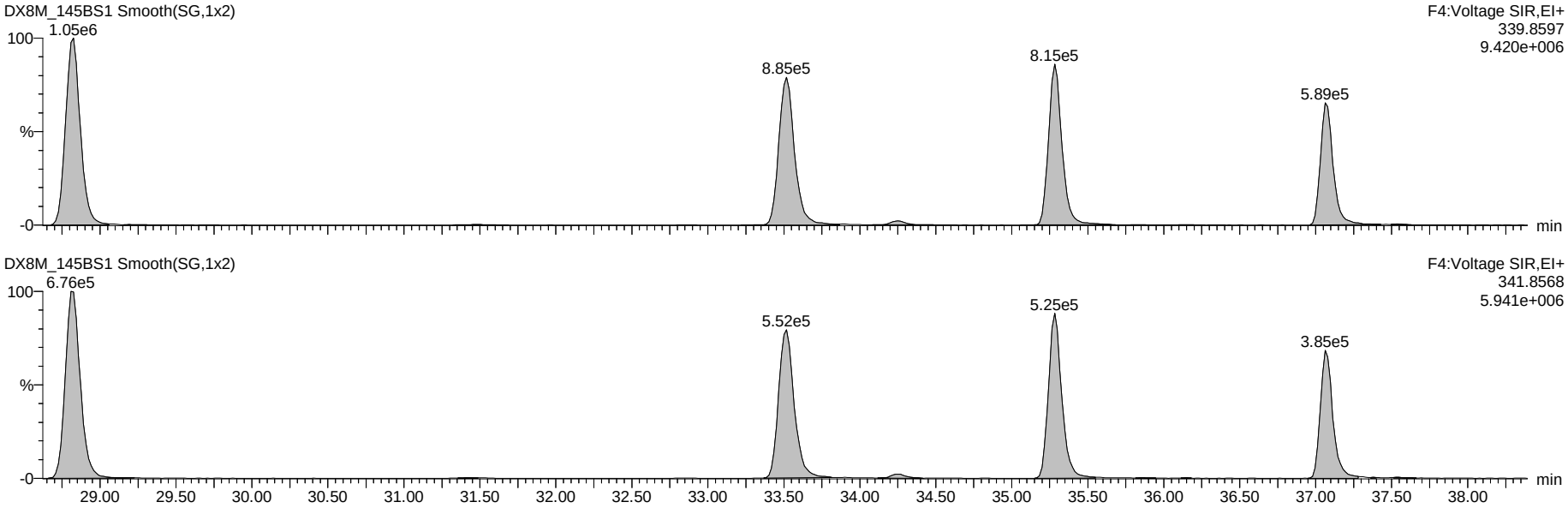
13C-Tetra-Furans



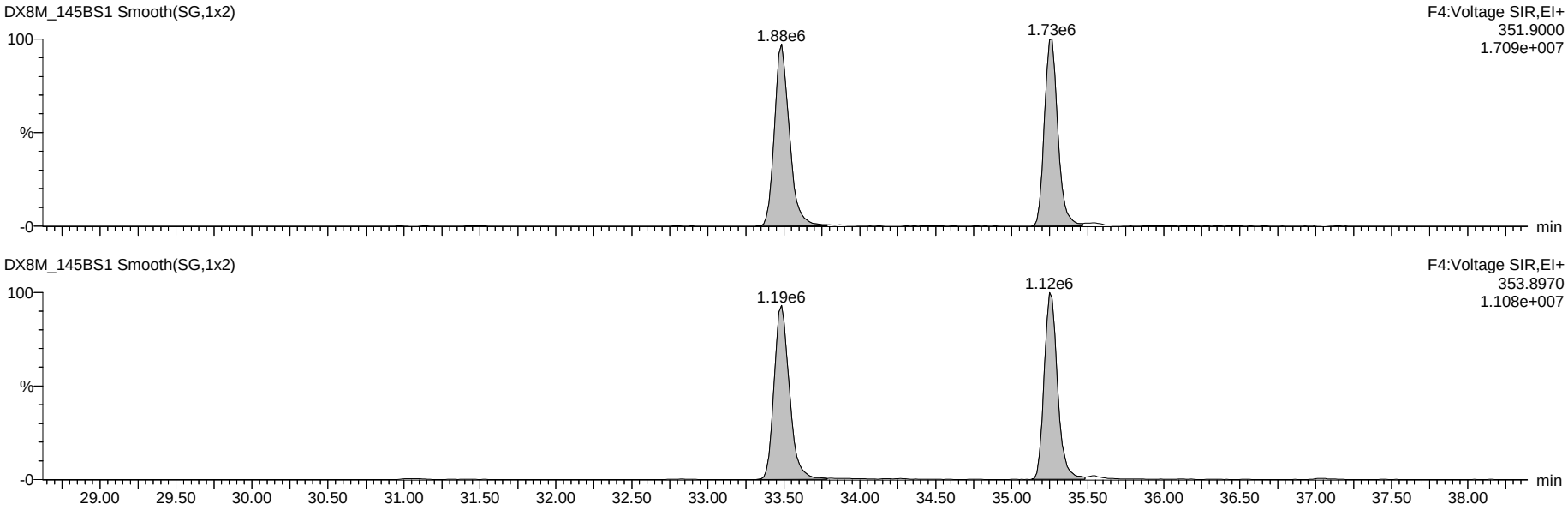
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS1, Date: 30-Nov-2018, Time: 16:46:44, ID: DX041D-CAL,,/01-79, Description: 1,,1.0uL Cal Win/Res

Total Penta-Furans



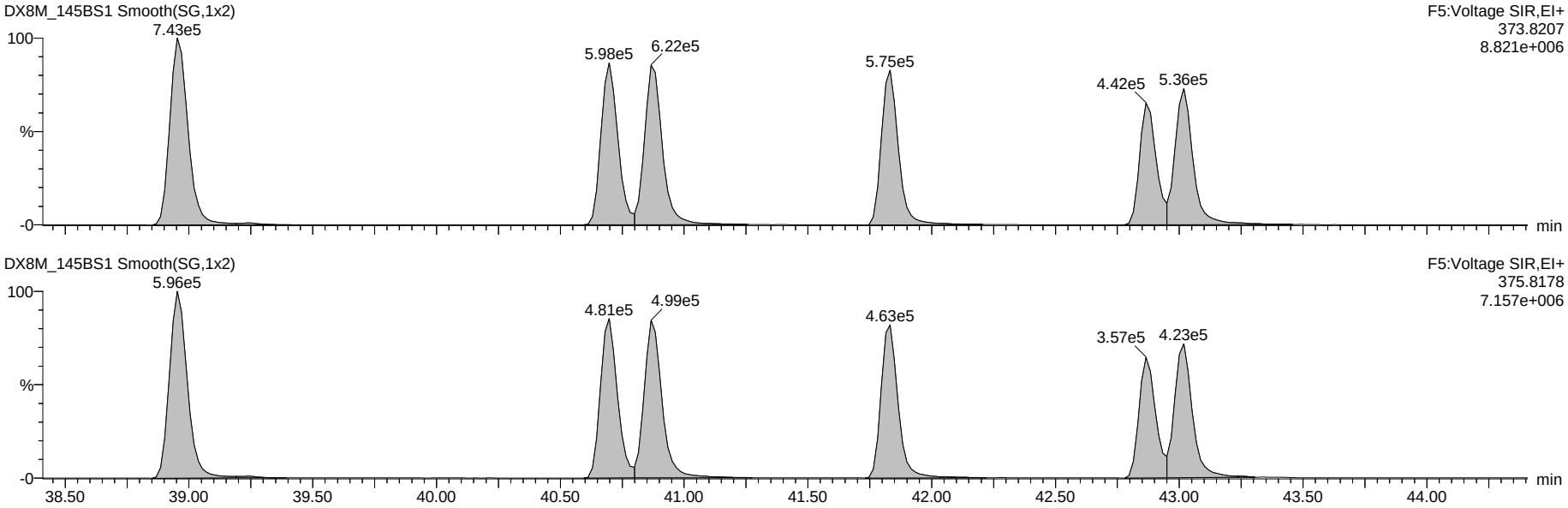
13C-Penta-Furans



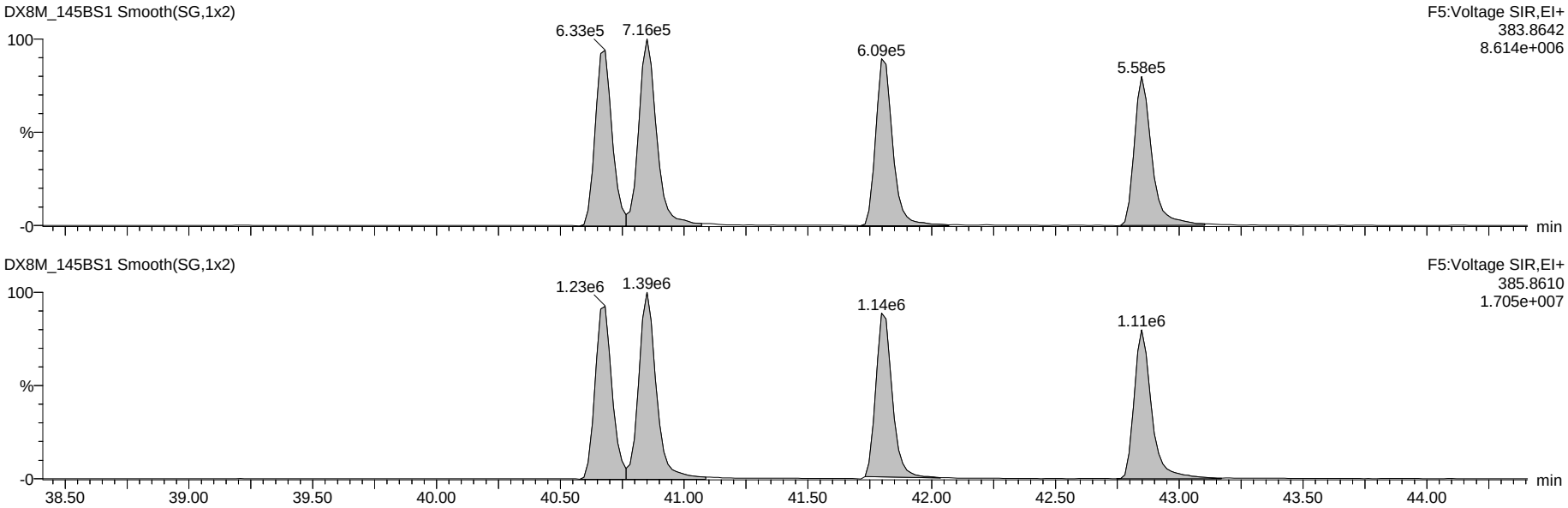
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS1, Date: 30-Nov-2018, Time: 16:46:44, ID: DX041D-CAL,,/01-79, Description: 1,,1.0uL Cal Win/Res

Total Hexa-Furans



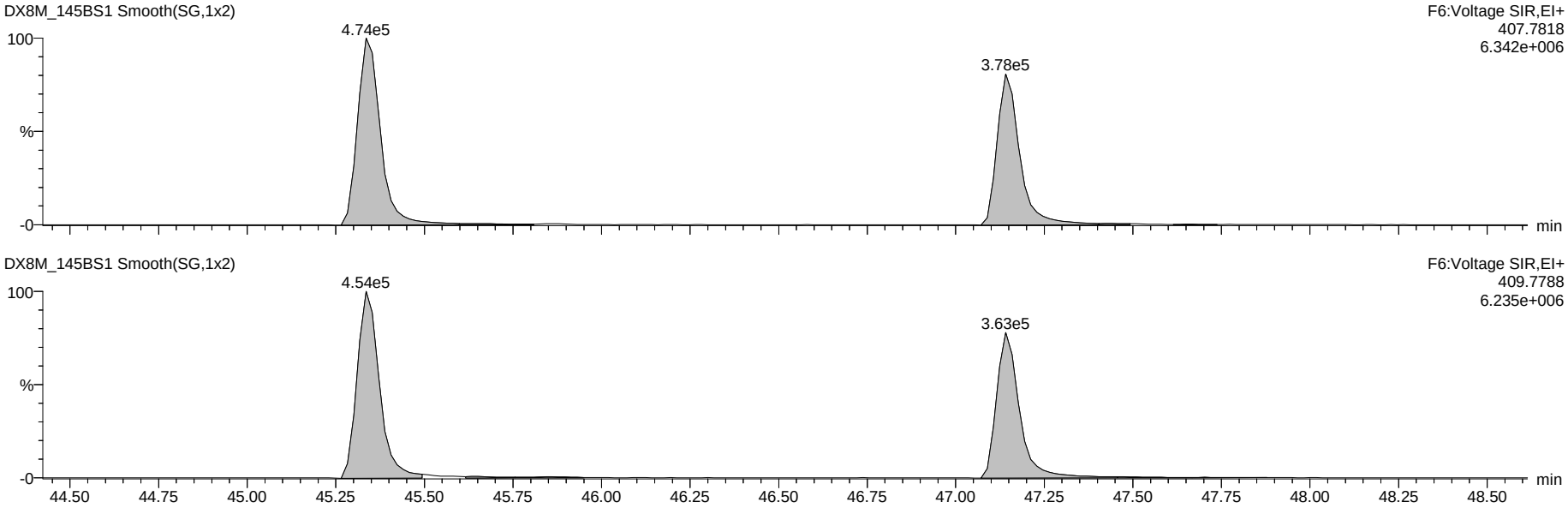
13C-Hexa-Furans



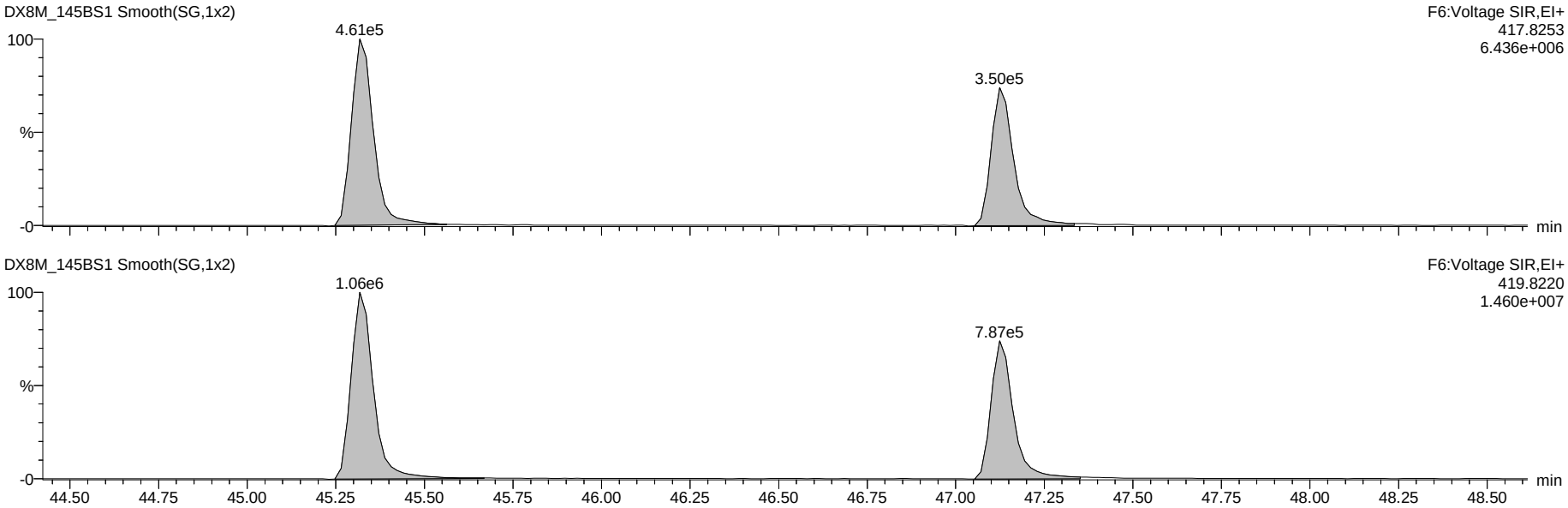
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS1, Date: 30-Nov-2018, Time: 16:46:44, ID: DX041D-CAL,,/01-79, Description: 1,,1.0uL Cal Win/Res

Total Hepta-Furans



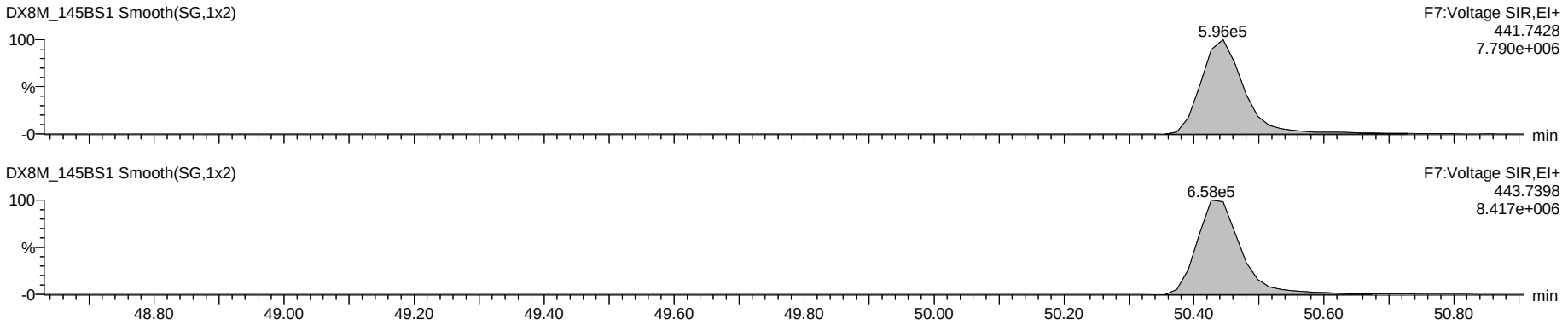
13C-Hepta-Furans



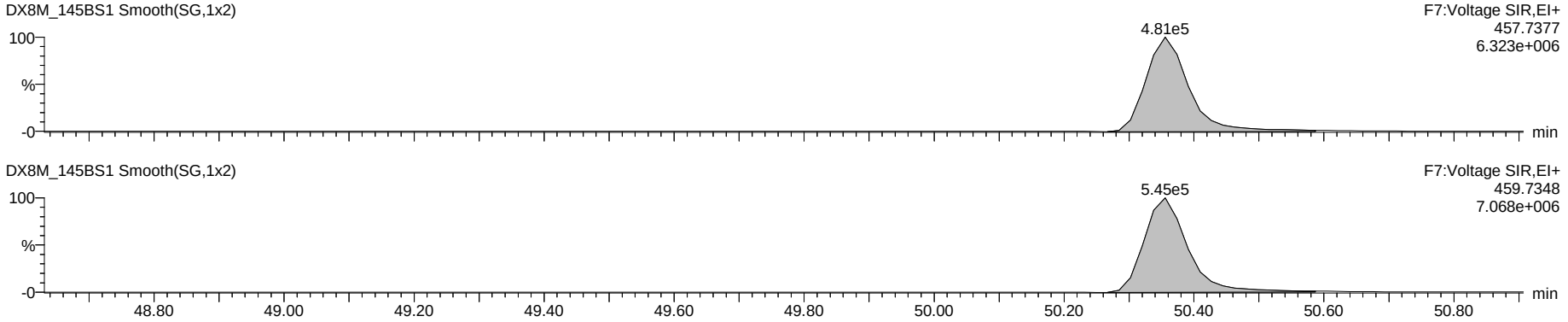
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS1, Date: 30-Nov-2018, Time: 16:46:44, ID: DX041D-CAL,,/01-79, Description: 1,,1.0uL Cal Win/Res

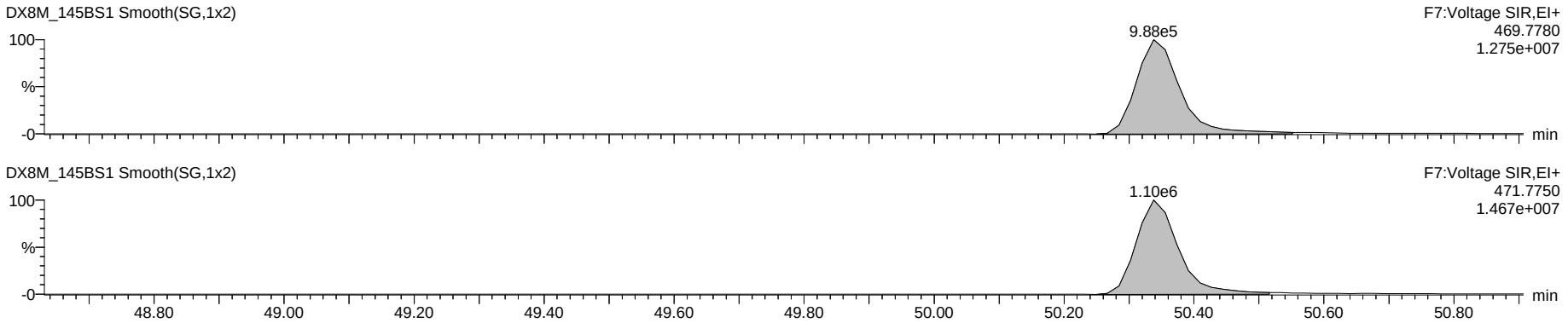
OCDF



OCDD



13C-OCDD



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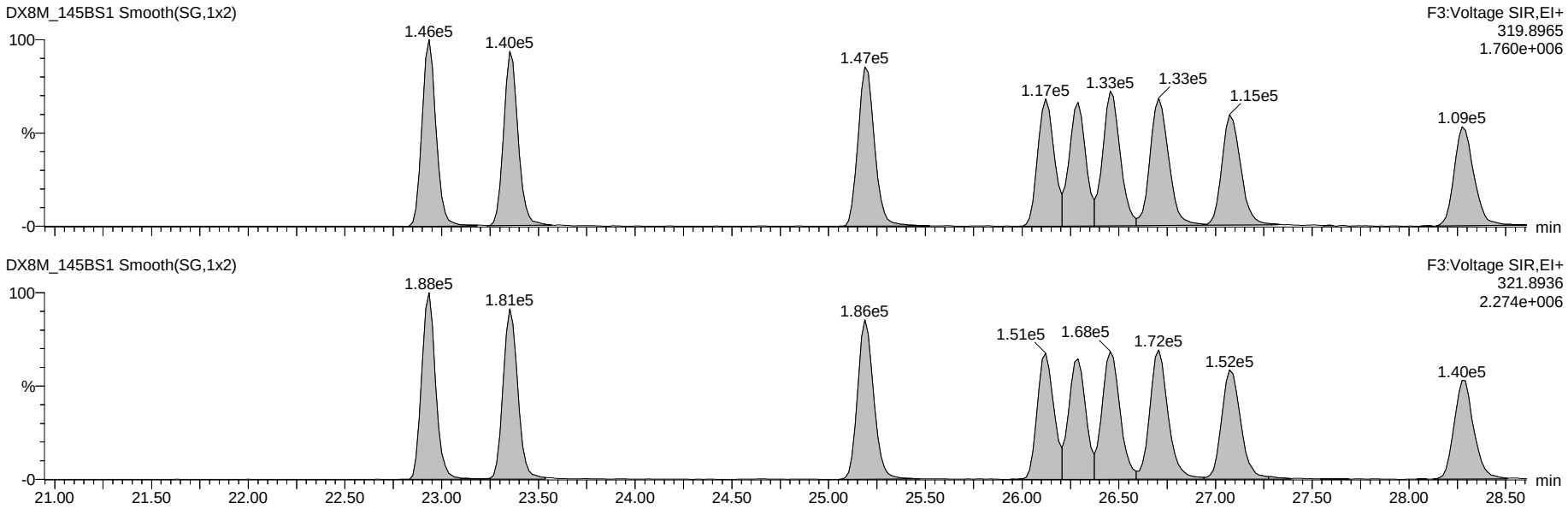
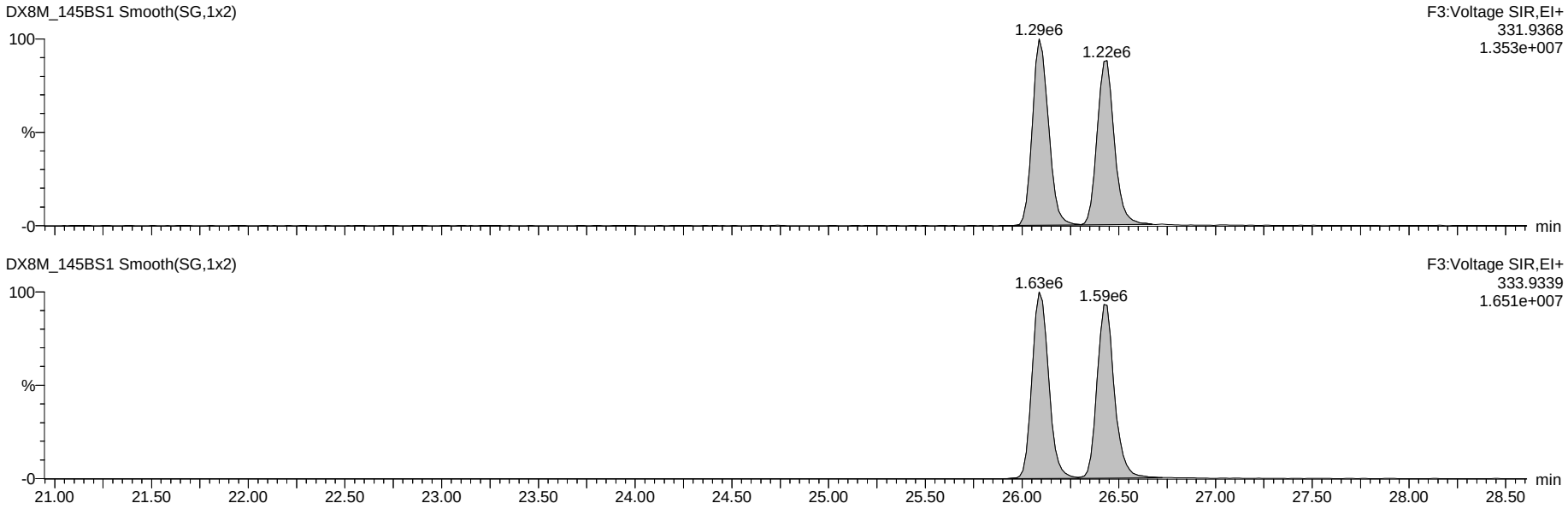
Name: DX8M_145BS1, Date: 30-Nov-2018, Time: 16:46:44, ID: DX041D-CAL,,/01-79, Description: 1,,1.0uL Cal Win/Res

Total Tetra-Dioxins



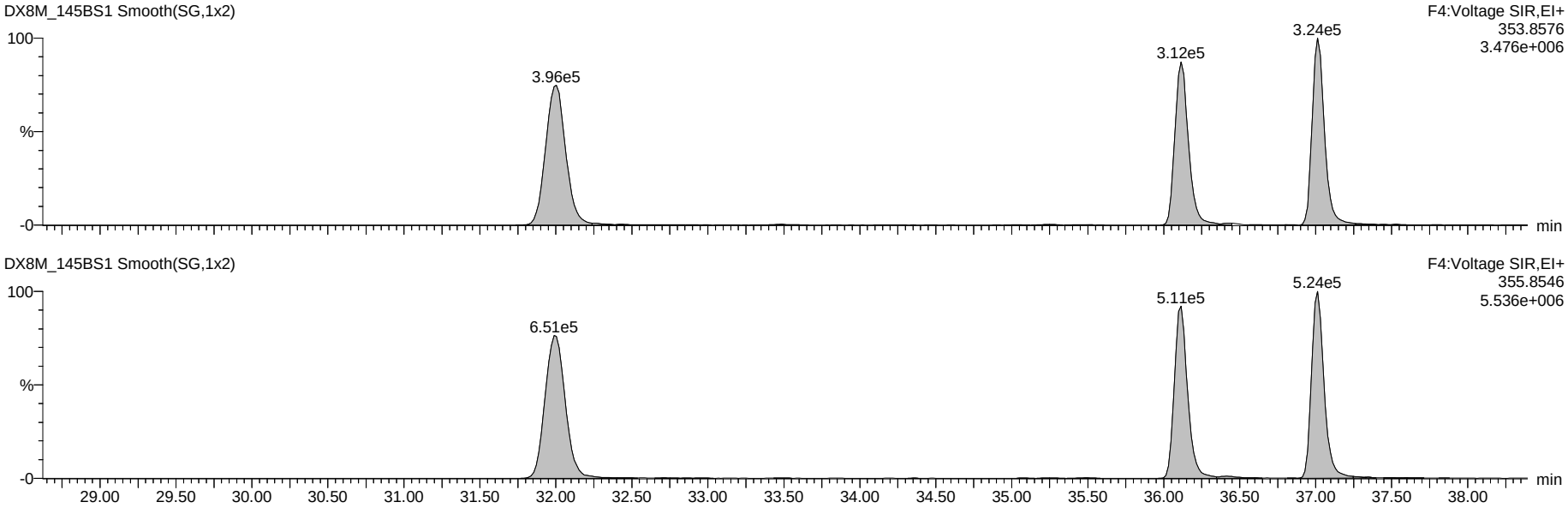
13C-Tetra-Dioxins



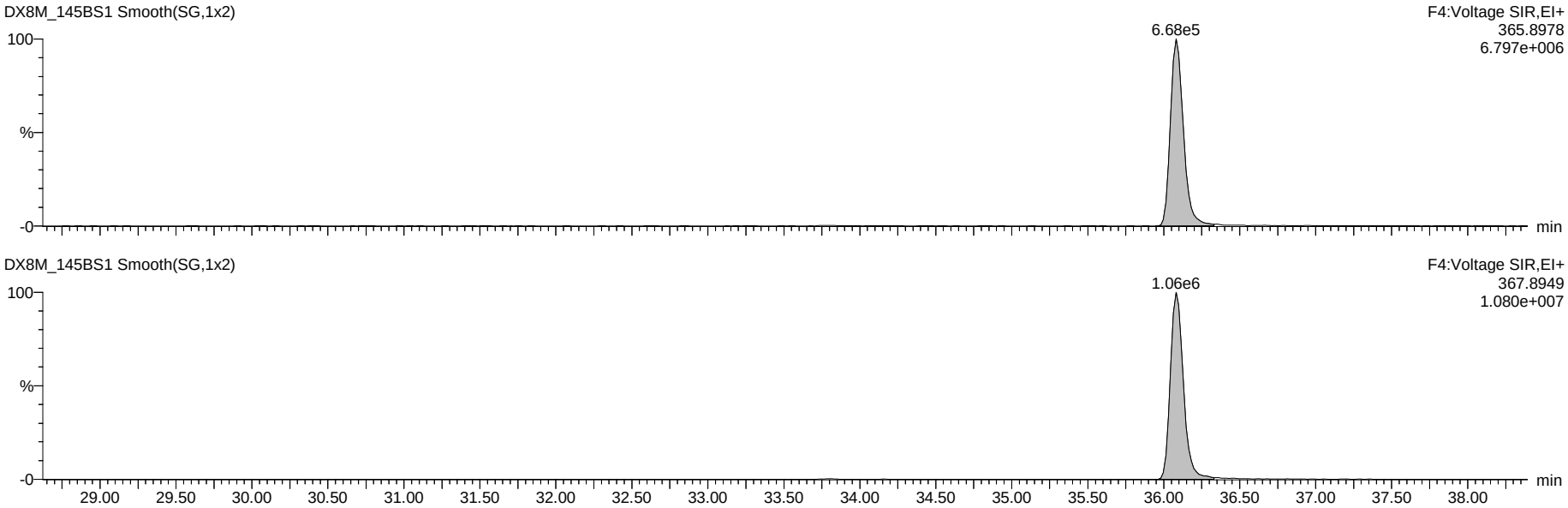
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS1, Date: 30-Nov-2018, Time: 16:46:44, ID: DX041D-CAL,,/01-79, Description: 1,,1.0uL Cal Win/Res

Total Penta-Dioxins



13C-Penta-Dioxins



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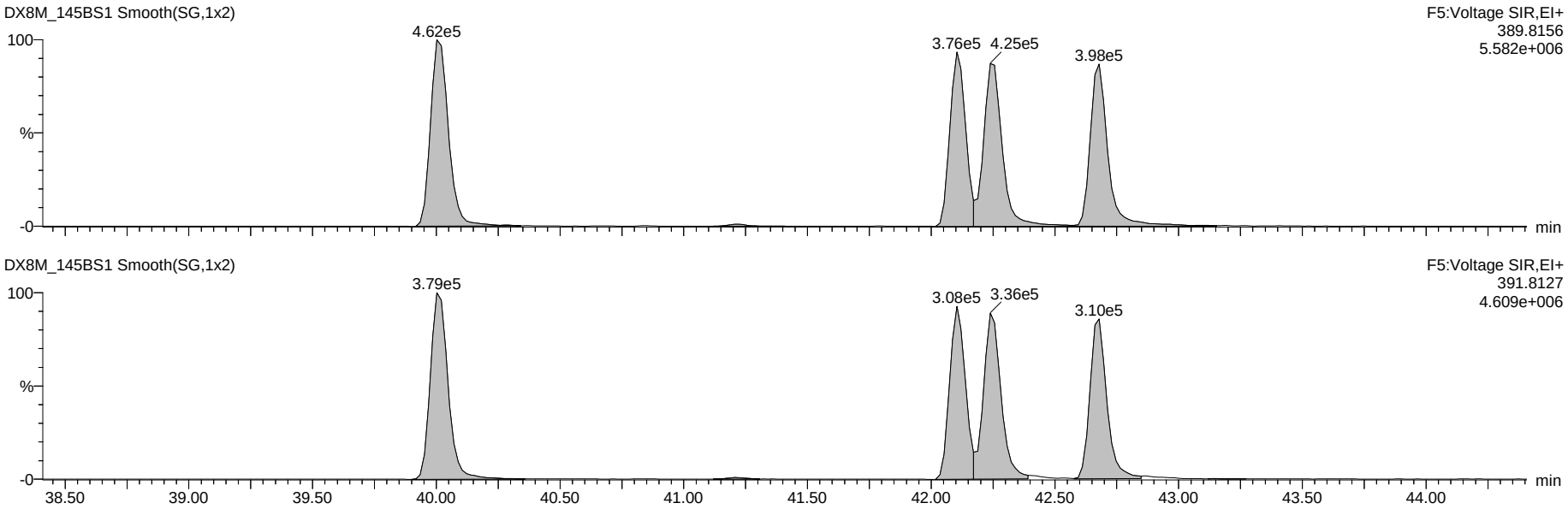
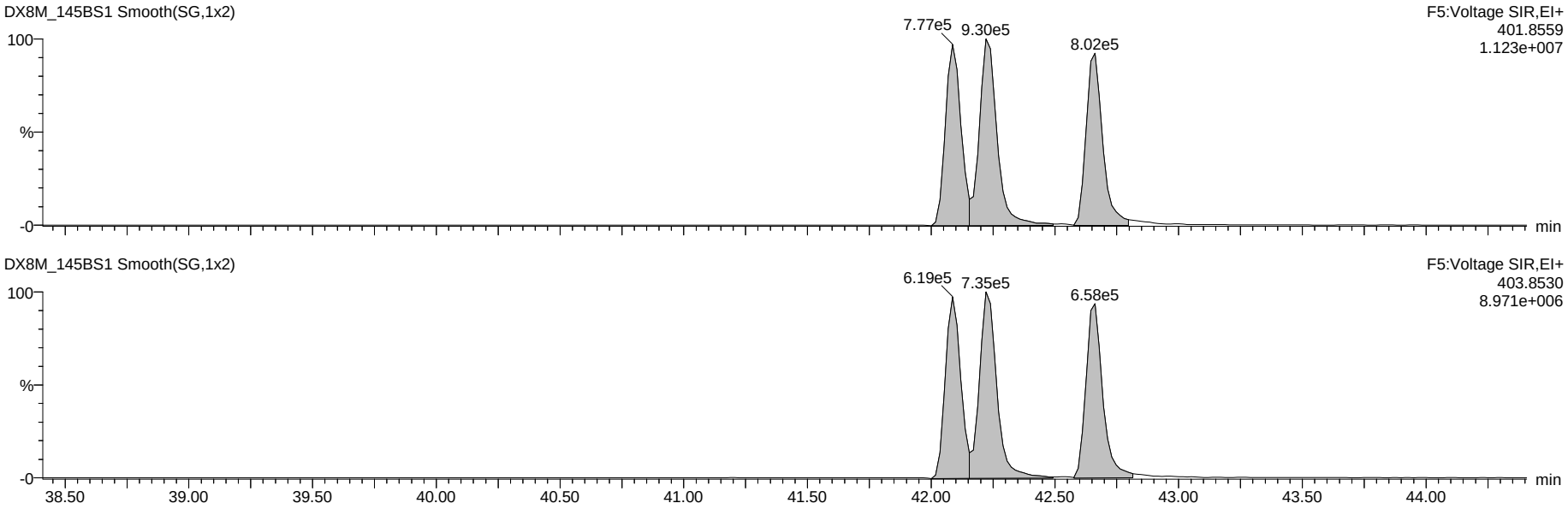
Total Hexa-Dioxins



13C-Hexa-Dioxins



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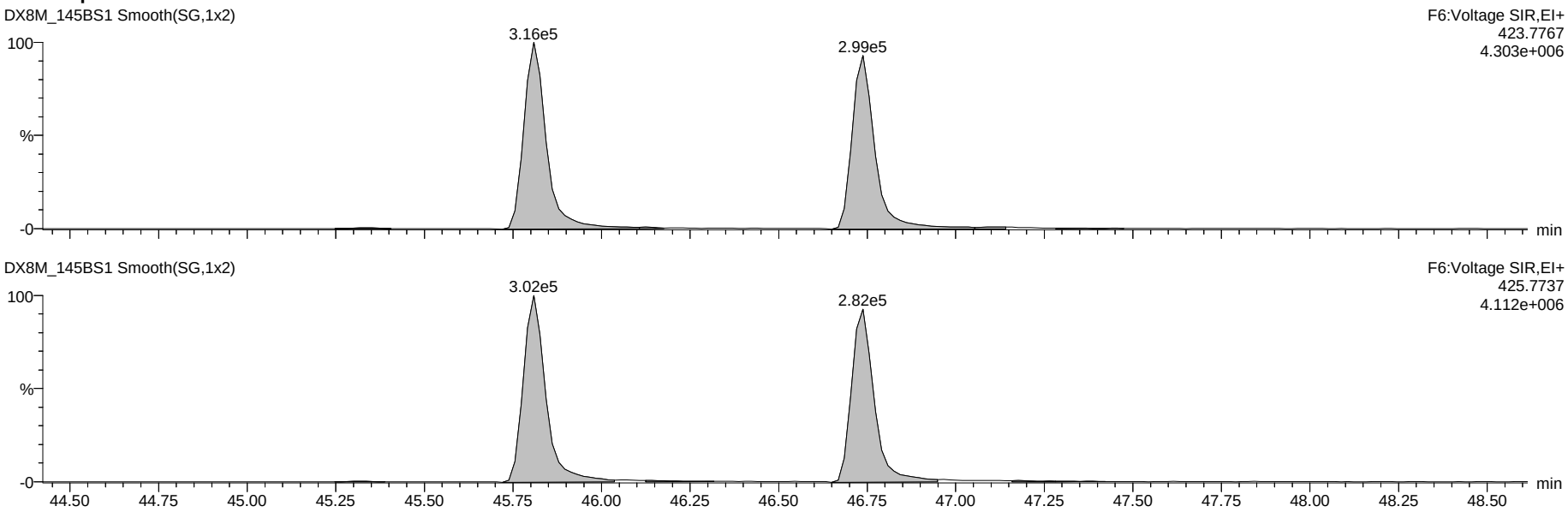
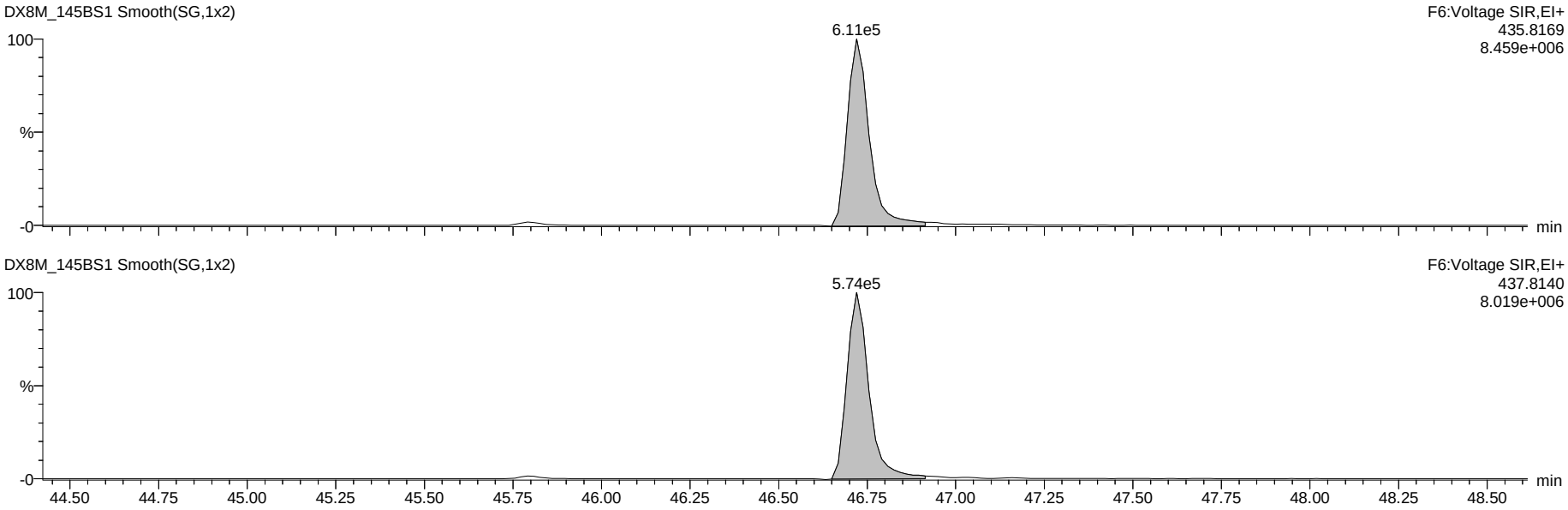
Name: DX8M_145BS1, Date: 30-Nov-2018, Time: 16:46:44, ID: DX041D-CAL,,/01-79, Description: 1,,1.0uL Cal Win/Res

Total Hepta-Dioxins



13C-Hepta-Dioxins



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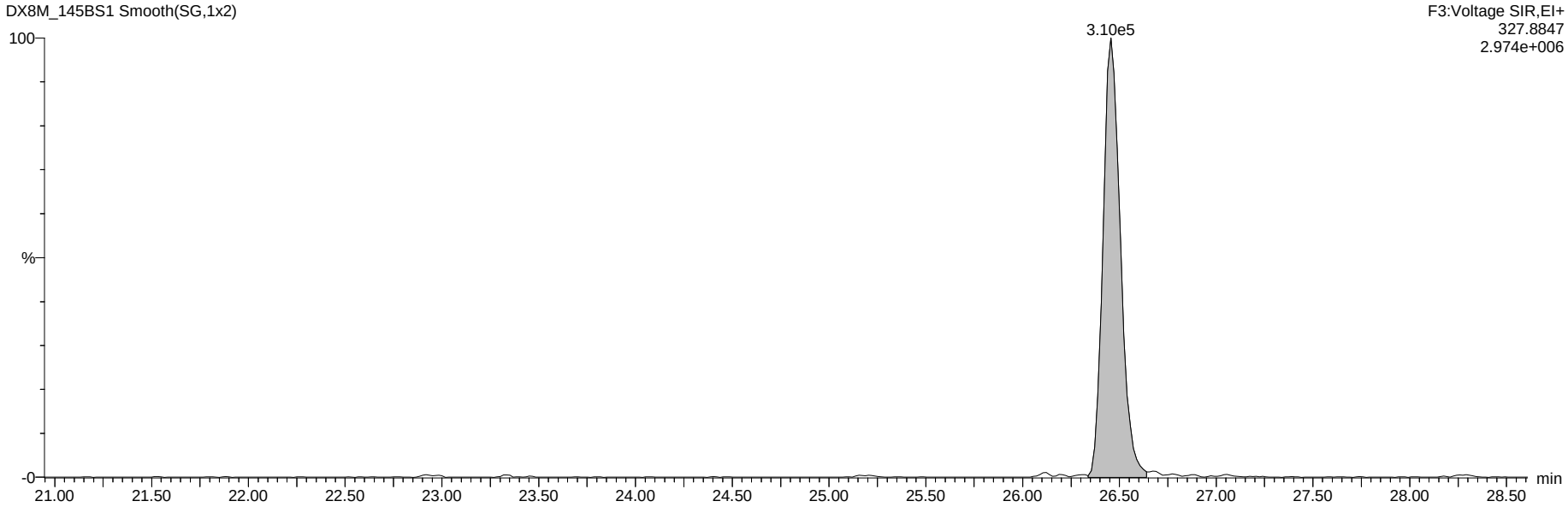
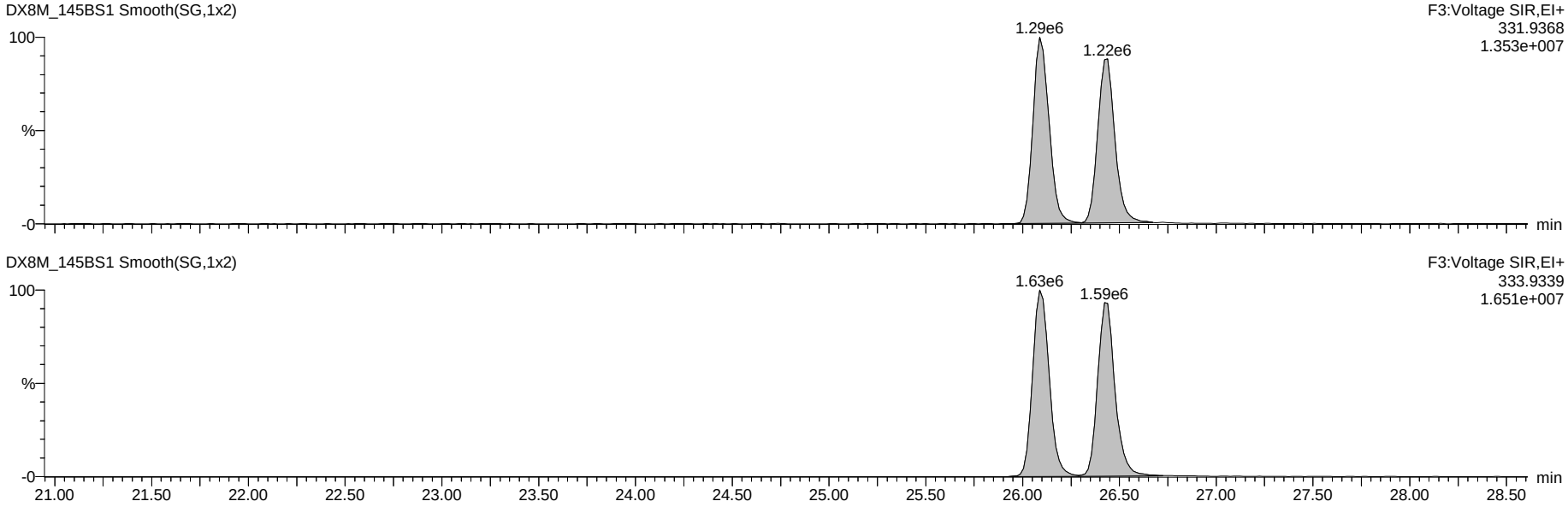
Name: DX8M_145BS1, Date: 30-Nov-2018, Time: 16:46:44, ID: DX041D-CAL,,/01-79, Description: 1,,1.0uL Cal Win/Res

37Cl-2,3,7,8-TCDD



13C-Tetra-Dioxins



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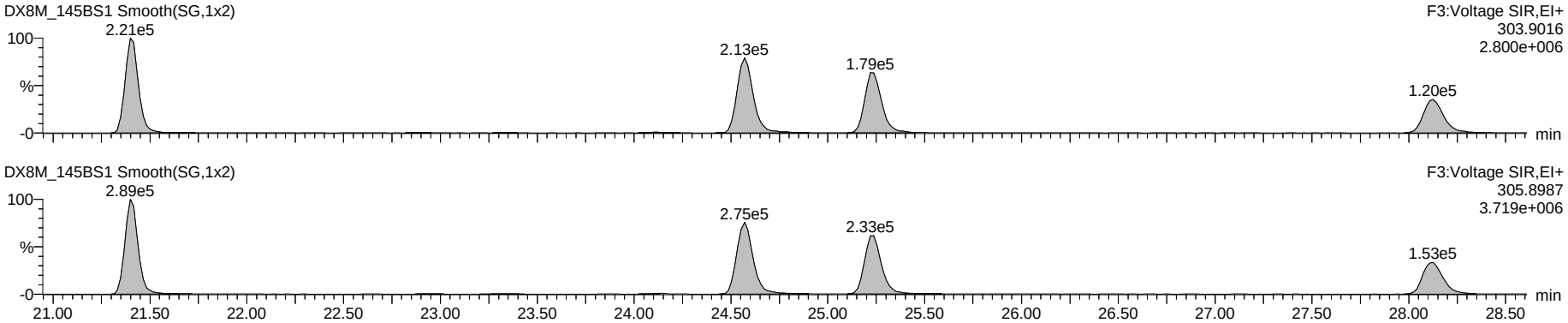
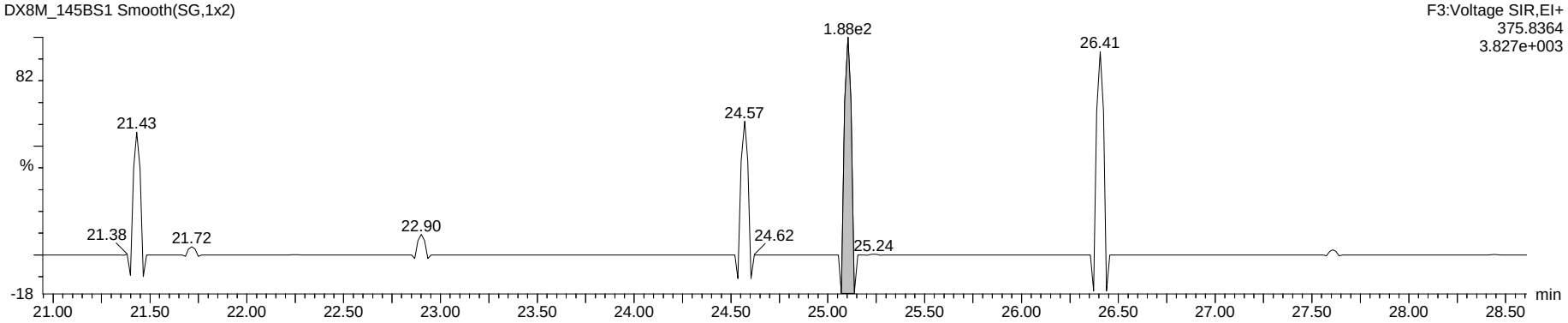
Name: DX8M_145BS1, Date: 30-Nov-2018, Time: 16:46:44, ID: DX041D-CAL,,/01-79, Description: 1,,1.0uL Cal Win/Res

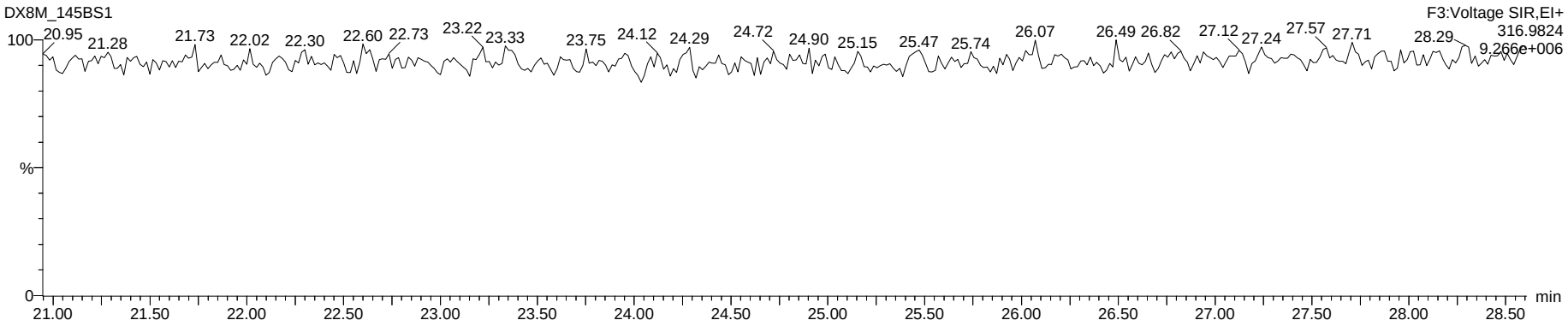
Total Tetra-Furans



Hexa DPE



Tetra Lock



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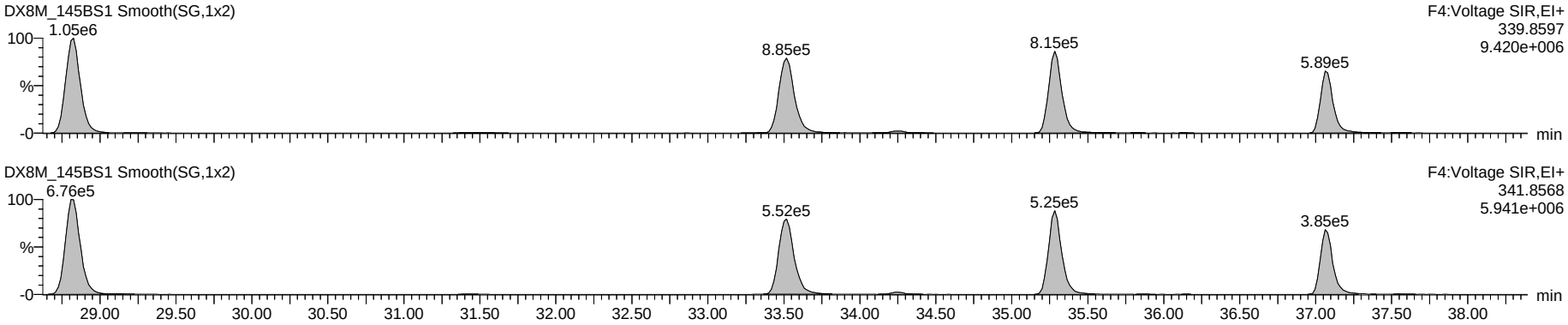
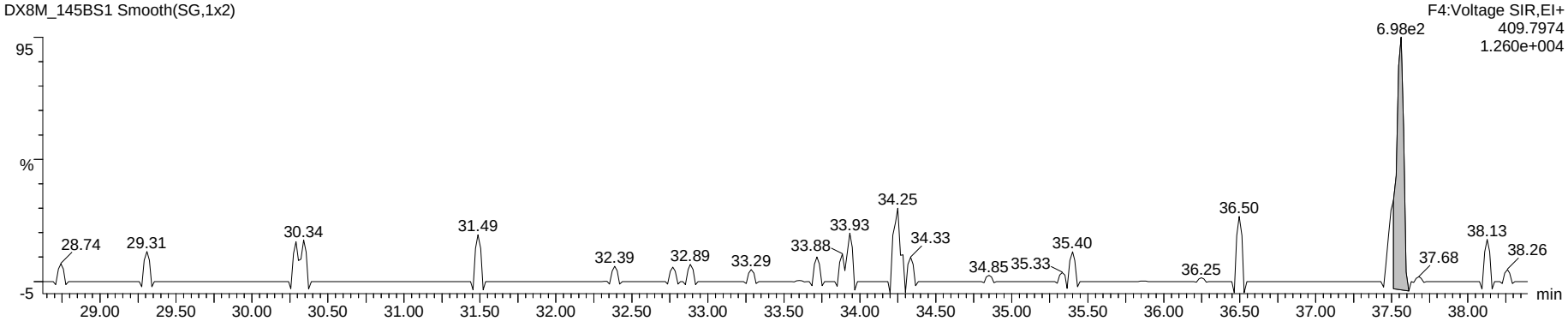
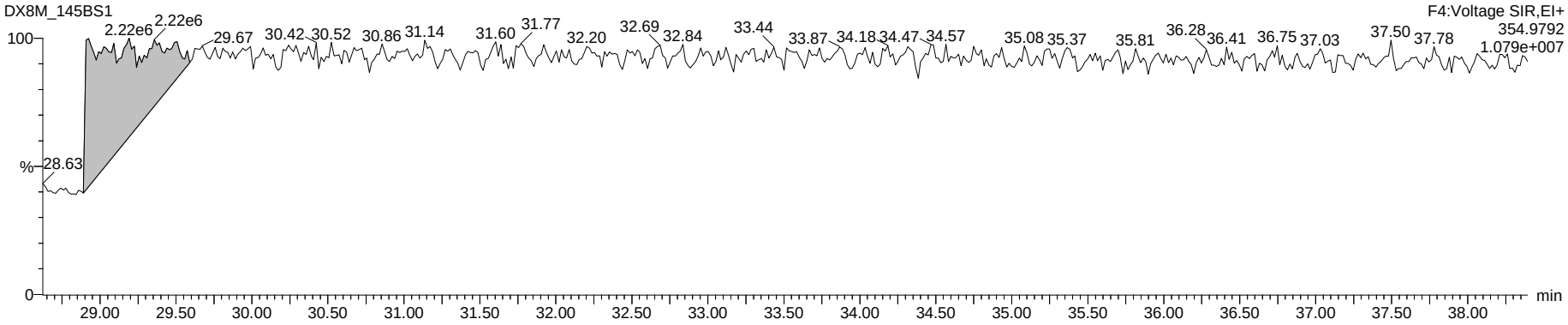
Total Penta-Furans



Hepta DPE



Penta Lock



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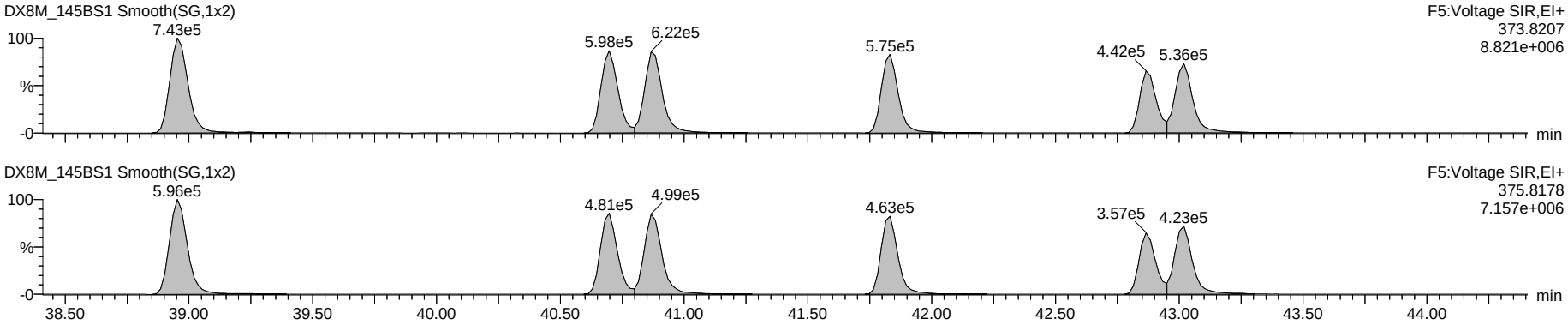
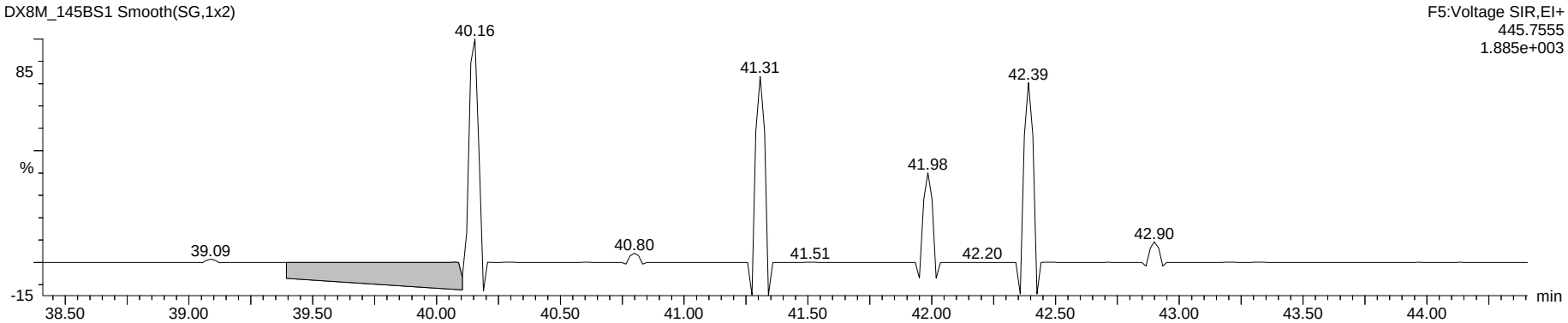
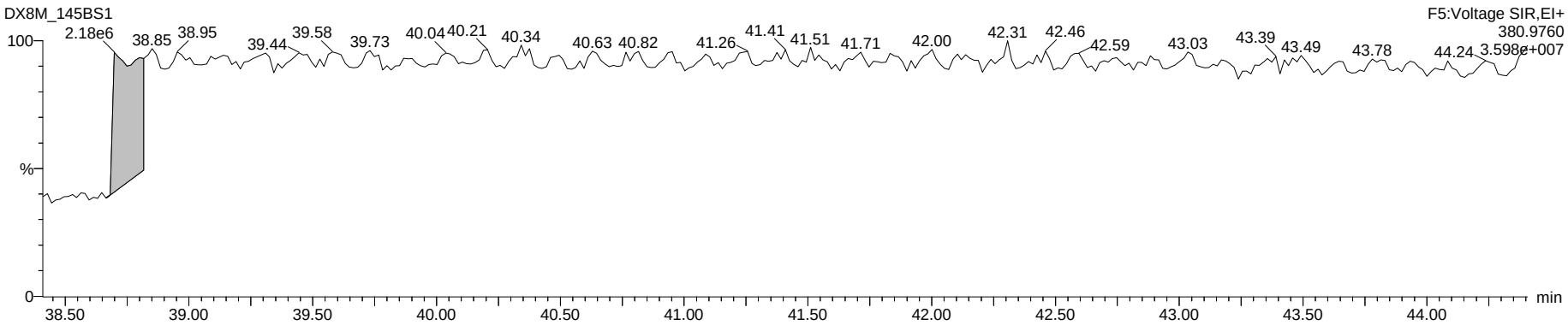
Total Hexa-Furans



Octa DPE



Hexa Lock



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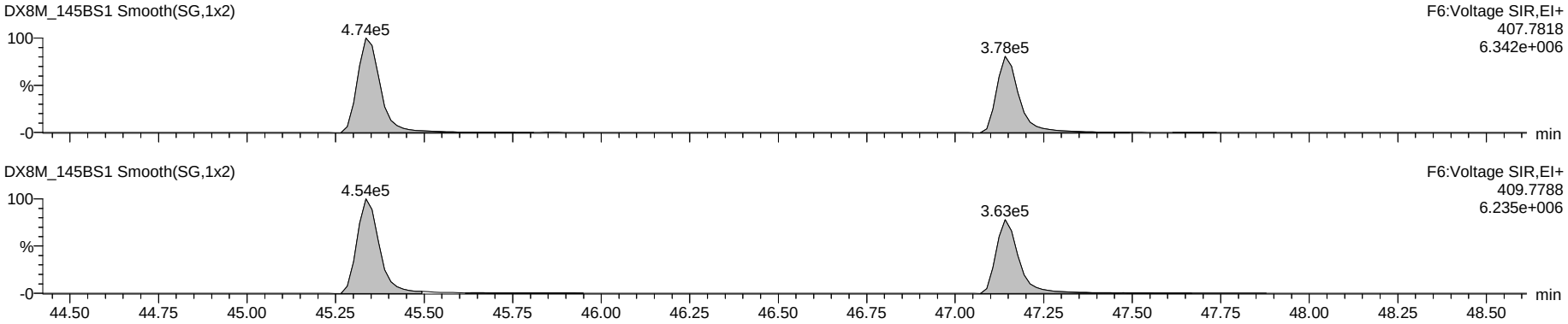
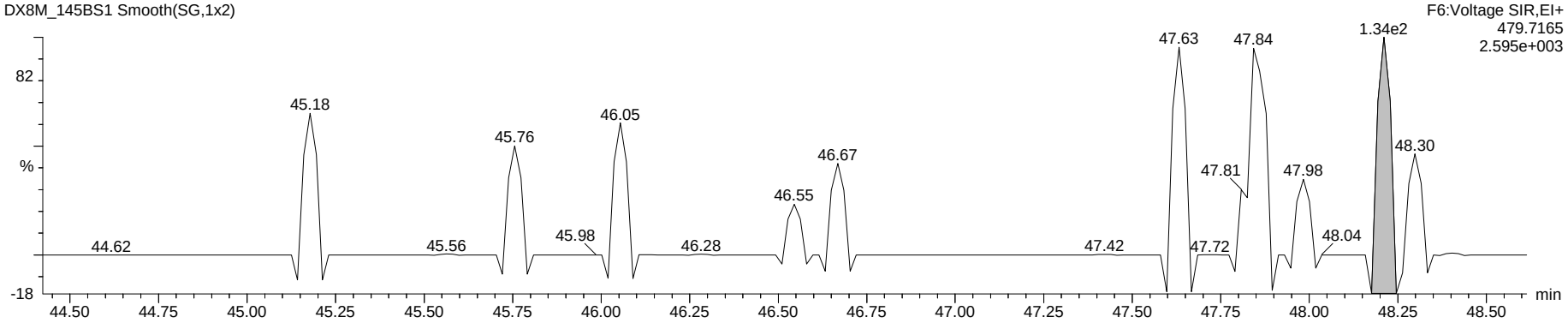
Name: DX8M_145BS1, Date: 30-Nov-2018, Time: 16:46:44, ID: DX041D-CAL,,/01-79, Description: 1,,1.0uL Cal Win/Res

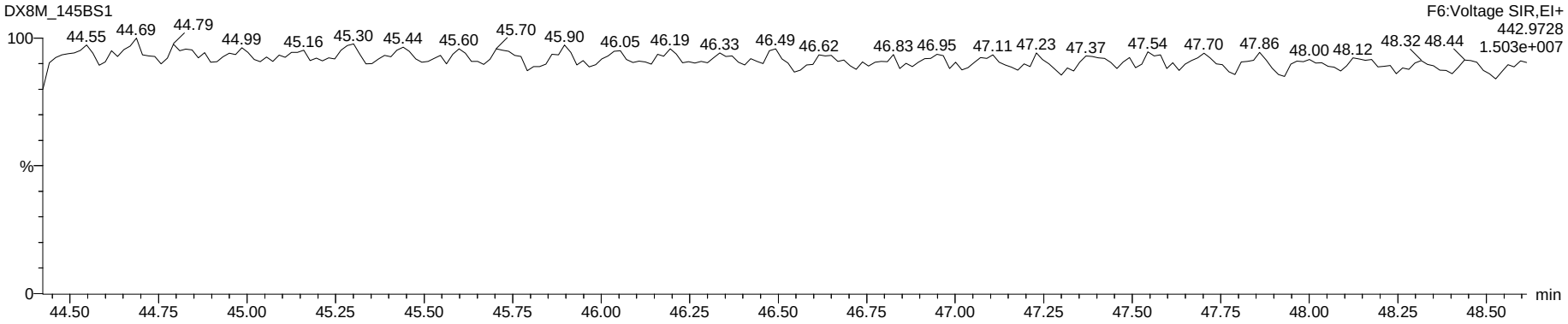
Total Hepta-Furans



Nona DPE



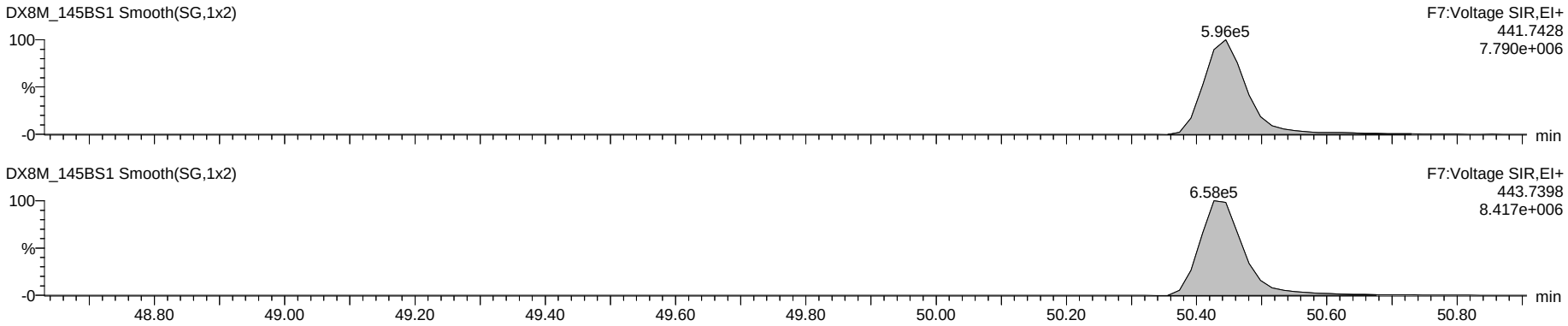
Hepta Lock



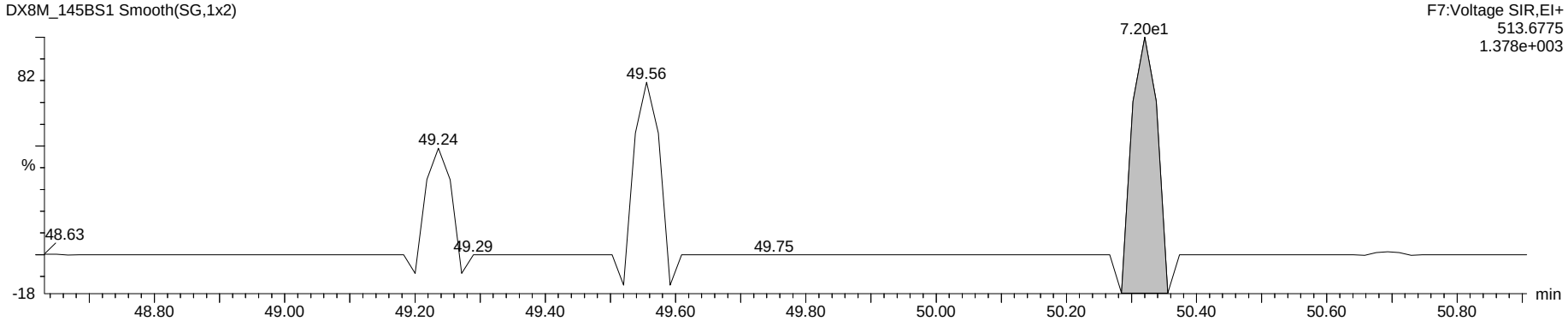
Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS1, Date: 30-Nov-2018, Time: 16:46:44, ID: DX041D-CAL,,/01-79, Description: 1,,1.0uL Cal Win/Res

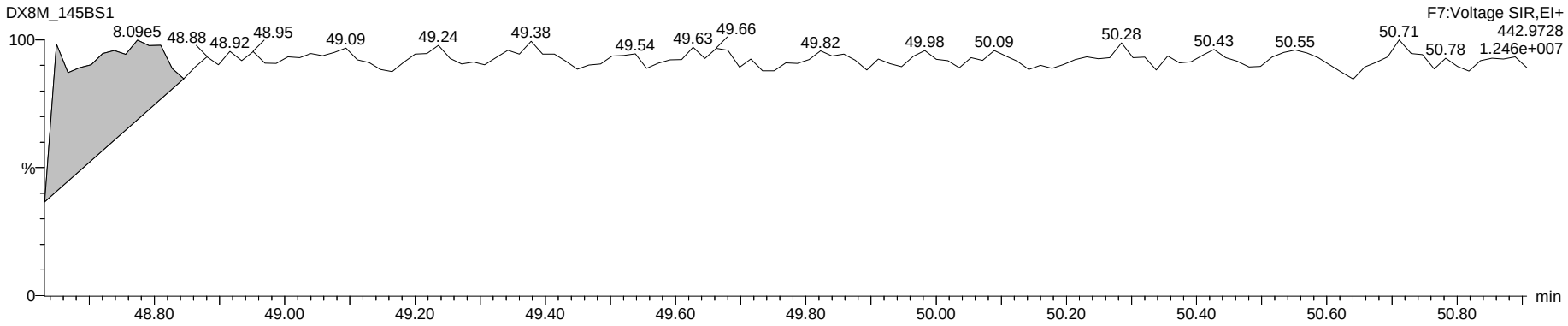
OCDF



Deca DPE



Octa Lock



Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS9, Date: 01-Dec-2018, Time: 00:16:18, ID: DX041D-CAL,,/01-79, Description: 1,,1.0uL Cal Win/Res

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	1.000	3.69e5	0.78	NO	25.25	9.983	0.0313	99.8	2.45e3	2.04e3
2	1,2,3,7,8-PeCDF	1.000	1.38e6	1.61	NO	33.52	50.637	0.0732	101.3	3.15e3	3.51e3
3	2,3,4,7,8-PeCDF	1.000	1.32e6	1.55	NO	35.28	50.838	0.0666	101.7	3.15e3	3.51e3
4	1,2,3,4,7,8-HxCDF	1.000	1.08e6	1.27	NO	40.70	52.351	0.0900	104.7	3.43e3	5.93e3
5	1,2,3,6,7,8-HxCDF	1.000	1.16e6	1.27	NO	40.87	49.548	0.0850	99.1	3.43e3	5.93e3
6	2,3,4,6,7,8-HxCDF	1.000	1.09e6	1.23	NO	41.83	50.899	0.0866	101.8	3.43e3	5.93e3
7	1,2,3,7,8,9-HxCDF	1.000	8.41e5	1.26	NO	42.87	47.034	0.1095	94.1	3.43e3	5.93e3
8	1,2,3,4,6,7,8-HpCDF	1.000	9.50e5	1.03	NO	45.34	53.276	0.0858	106.6	5.05e3	2.93e3
9	1,2,3,4,7,8,9-HpCDF	1.000	7.36e5	1.04	NO	47.14	51.424	0.1054	102.8	5.05e3	2.93e3
10	OCDF	1.000	1.23e6	0.92	NO	50.43	104.805	0.0501	104.8	3.33e2	2.45e3
11	2,3,7,8-TCDD	1.000	2.72e5	0.76	NO	26.47	10.341	0.0454	103.4	2.40e3	1.93e3
12	1,2,3,7,8-PeCDD	1.000	8.13e5	0.62	NO	36.11	48.413	0.1039	96.8	3.15e3	3.58e3
13	1,2,3,4,7,8-HxCDD	1.000	6.83e5	1.26	NO	42.10	48.935	0.0678	97.9	2.60e3	2.72e3
14	1,2,3,6,7,8-HxCDD	1.000	7.79e5	1.26	NO	42.24	49.044	0.0700	98.1	2.60e3	2.72e3
15	1,2,3,7,8,9-HxCDD	1.000	7.14e5	1.22	NO	42.66	48.684	0.0702	97.4	2.60e3	2.72e3
16	1,2,3,4,6,7,8-HpCDD	1.000	5.84e5	1.03	NO	46.74	51.464	0.0933	102.9	2.76e3	2.76e3
17	OCDD	1.000	9.85e5	0.87	NO	50.34	100.627	0.0031	100.6	1.43e2	1.42e-1
18	13C-2,3,7,8-TCDF	1.000	3.93e6	0.78	NO	25.24	99.133	0.0754	99.1	5.41e3	6.51e3
19	13C-1,2,3,7,8-PeCDF	1.000	2.91e6	1.63	NO	33.50	89.476	0.1066	89.5	4.41e3	9.40e3
20	13C-2,3,4,7,8-PeCDF	1.000	2.77e6	1.56	NO	35.27	85.566	0.1072	85.6	4.41e3	9.40e3
21	13C-1,2,3,4,7,8-HxCDF	1.000	1.82e6	0.52	NO	40.66	91.922	0.1918	91.9	8.46e3	1.03e4
22	13C-1,2,3,6,7,8-HxCDF	1.000	2.15e6	0.52	NO	40.85	100.801	0.1783	100.8	8.46e3	1.03e4
23	13C-2,3,4,6,7,8-HxCDF	1.000	1.84e6	0.52	NO	41.80	95.133	0.1969	95.1	8.46e3	1.03e4
24	13C-1,2,3,7,8,9-HxCDF	1.000	1.73e6	0.52	NO	42.85	97.670	0.2146	97.7	8.46e3	1.03e4
25	13C-1,2,3,4,6,7,8-HpCDF	1.000	1.45e6	0.45	NO	45.32	88.996	0.1721	89.0	8.08e3	5.76e3
26	13C-1,2,3,4,7,8,9-HpCDF	1.000	1.16e6	0.44	NO	47.12	92.878	0.2251	92.9	8.08e3	5.76e3
27	13C-2,3,7,8-TCDD	1.000	2.53e6	0.79	NO	26.46	100.365	0.1995	100.4	1.09e4	9.13e3
28	13C-1,2,3,7,8-PeCDD	1.000	1.67e6	0.64	NO	36.08	89.014	0.0997	89.0	3.62e3	3.84e3
29	13C-1,2,3,4,7,8-HxCDD	1.000	1.40e6	1.29	NO	42.09	91.769	0.1426	91.8	5.11e3	5.59e3
30	13C-1,2,3,6,7,8-HxCDD	1.000	1.70e6	1.22	NO	42.22	104.085	0.1327	104.1	5.11e3	5.59e3
31	13C-1,2,3,4,6,7,8-HpCDD	1.000	1.18e6	1.04	NO	46.72	91.787	0.1394	91.8	4.95e3	3.89e3
32	13C-OCDD	1.000	1.97e6	0.88	NO	50.34	177.793	0.0303	88.9	9.18e1	1.56e3
33	13C-1,2,3,4-TCDD	1.000	2.60e6	0.81	NO	26.12	67.780	0.1308	67.8	1.09e4	9.13e3
34	13C-1,2,3,7,8,9-HxCDD	1.000	1.55e6	1.20	NO	42.66	55.612	0.0777	55.6	5.11e3	5.59e3
35	37Cl-2,3,7,8-TCDD	1.000	2.64e5			26.47	9.284	0.0475	92.8		5.38e3
36	Total Tetra-Furans	1.000					39.892	0.0313			2.04e3
37	Total Tetra-Dioxins	1.000					88.830	0.0454			1.93e3
38	Total Penta-Furans	1.000					199.583	0.0702			3.51e3
39	Total Penta-Dioxins	1.000					158.724	0.1039			3.58e3
40	Total Hexa-Furans	1.000					311.091	0.0894			5.93e3
41	Total Hexa-Dioxins	1.000					203.721	0.0665			2.72e3
42	Total Hepta-Furans	1.000					106.533	0.0947			2.93e3
43	Total Hepta-Dioxins	1.000					106.034	0.0933			2.76e3
44	Hexa DPE	1.000	1.76e2			25.34					1.92e-1
45	Hepta DPE	1.000	4.65e2			37.55					3.18e2
46	Octa DPE	1.000	4.55e1			39.19					2.22e2
47	Nona DPE	1.000	1.23e2			47.00					3.02e-1
48	Deca DPE	1.000	1.17e2			50.78					2.44e0
49	Tetra Lock	1.000	4.49e4			23.69					5.17e5
50	Penta Lock	1.000	1.88e6			29.26					5.89e5
51	Hexa Lock	1.000	3.41e6			38.90					4.21e6
52	Hepta Lock	1.000	6.91e4			47.12					6.49e5
53	Octa Lock	1.000									8.79e5
54	13C-Tetra-Furans	1.000					99.133	0.0754			6.51e3
55	13C-Tetra-Dioxins	1.000					168.146	0.3303			9.13e3

pv'd by LHE 03-DEC-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

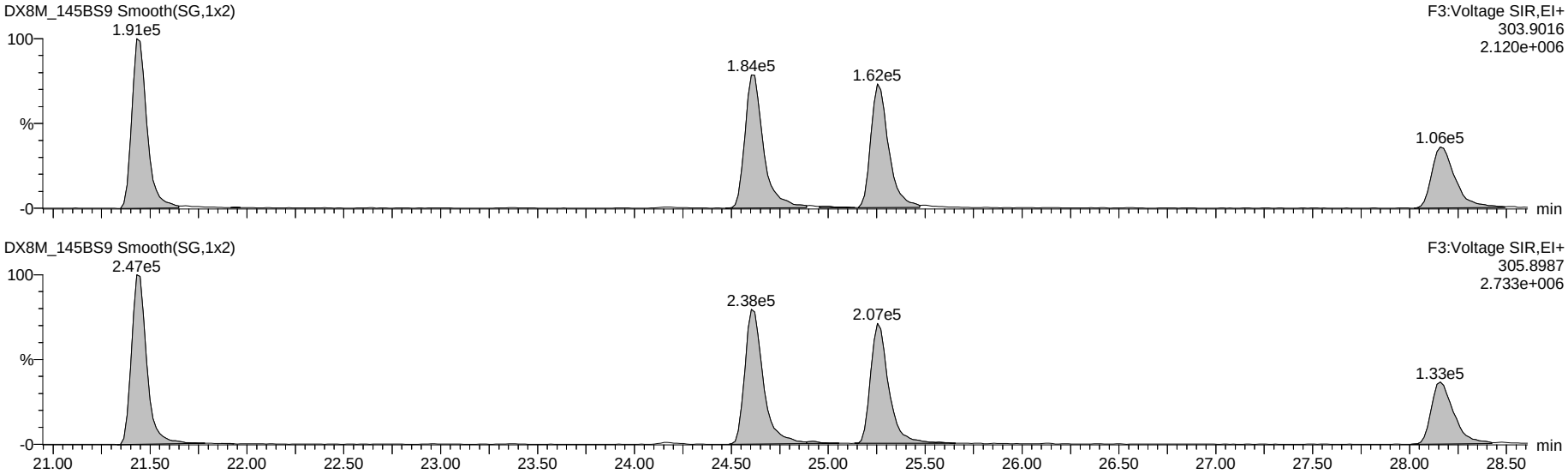
SVdjKB 05Dec2018

Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

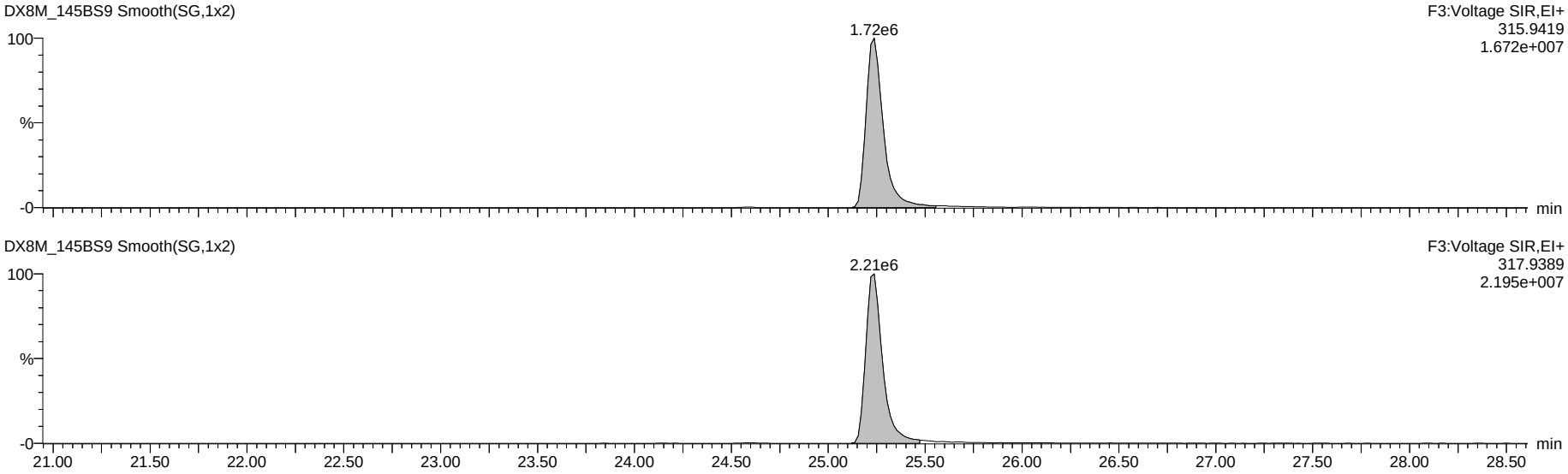
Method: G:\Masslynx\Inst_M\Exported_methods\DX_1613B_16.mdb 05 Apr 2018 08:34:55
Calibration: G:\Masslynx\Inst_M\Projects\181023DX.PRO\CurveDB\DX8M_126A-6A.cdb 26 Oct 2018 11:48:18

Name: DX8M_145BS9, Date: 01-Dec-2018, Time: 00:16:18, ID: DX041D-CAL,,/01-79, Description: 1,,1.0uL Cal Win/Res

Total Tetra-Furans



13C-Tetra-Furans



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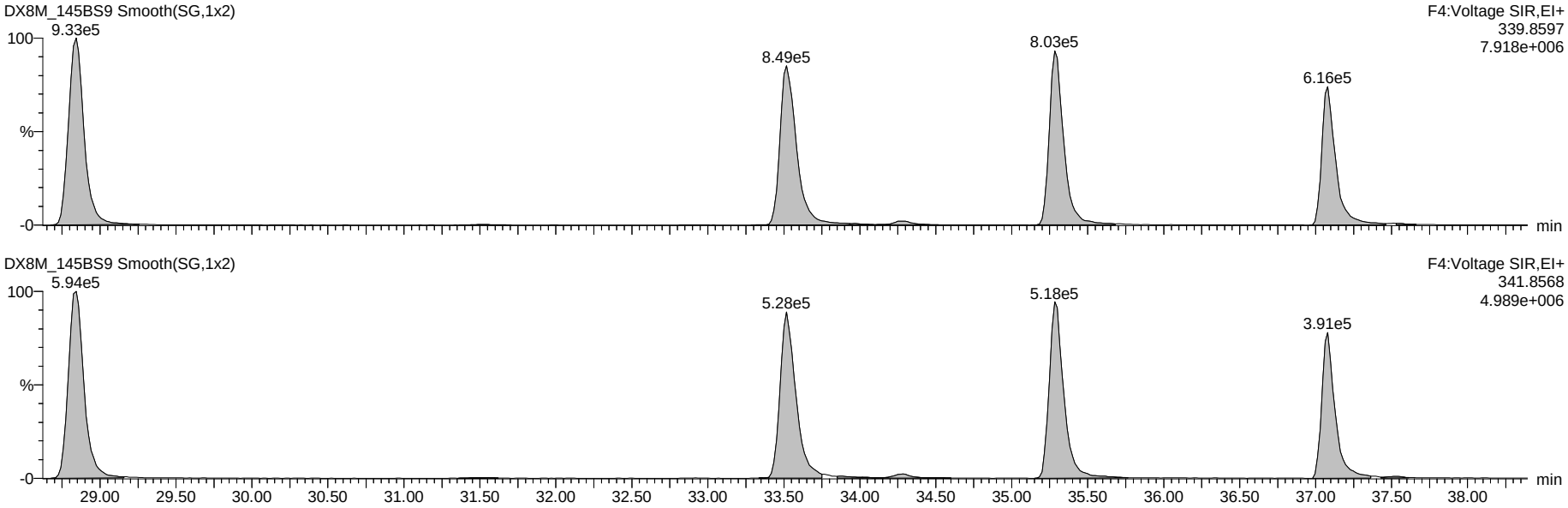
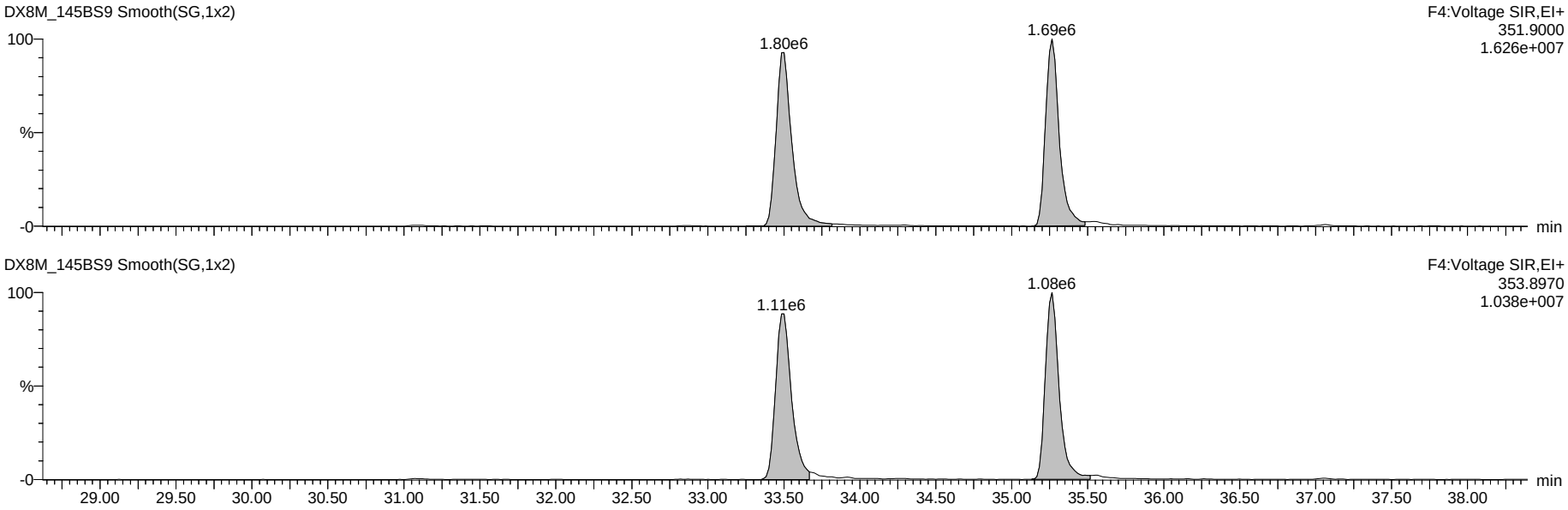
Name: DX8M_145BS9, Date: 01-Dec-2018, Time: 00:16:18, ID: DX041D-CAL,,/01-79, Description: 1,,1.0uL Cal Win/Res

Total Penta-Furans



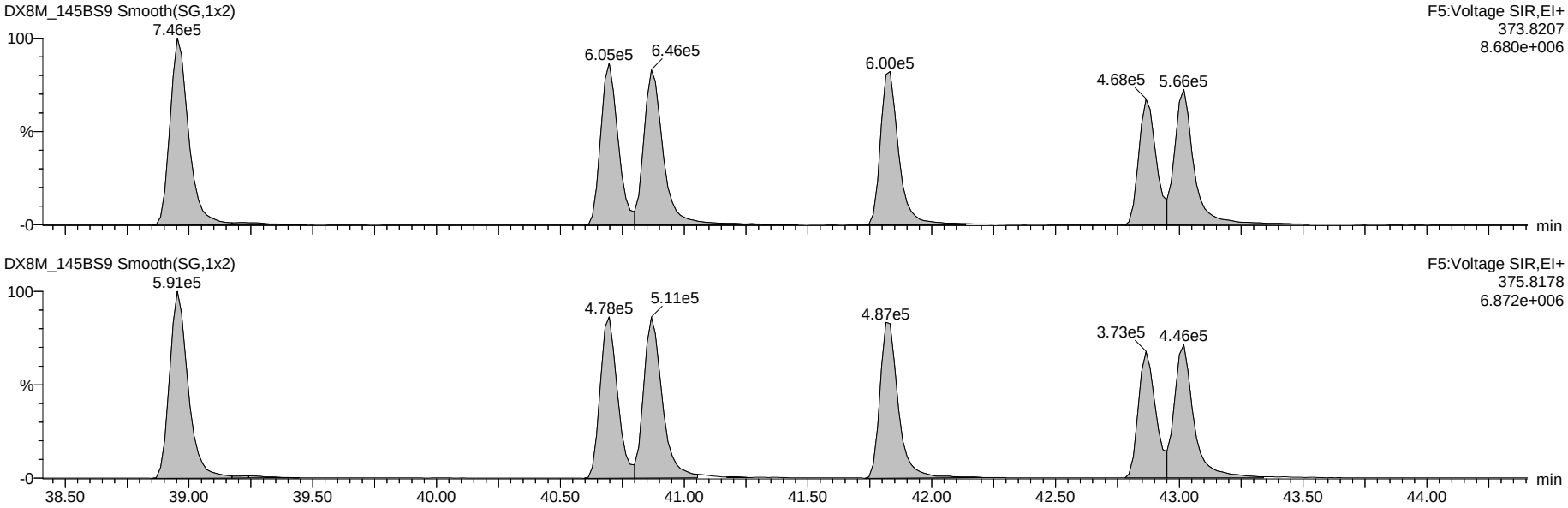
13C-Penta-Furans



Dataset: G:\Masslynx\Inst_M\Projects\181023DX.PRO\DX8M_145B-A.qld

Name: DX8M_145BS9, Date: 01-Dec-2018, Time: 00:16:18, ID: DX041D-CAL,,/01-79, Description: 1,,1.0uL Cal Win/Res

Total Hexa-Furans



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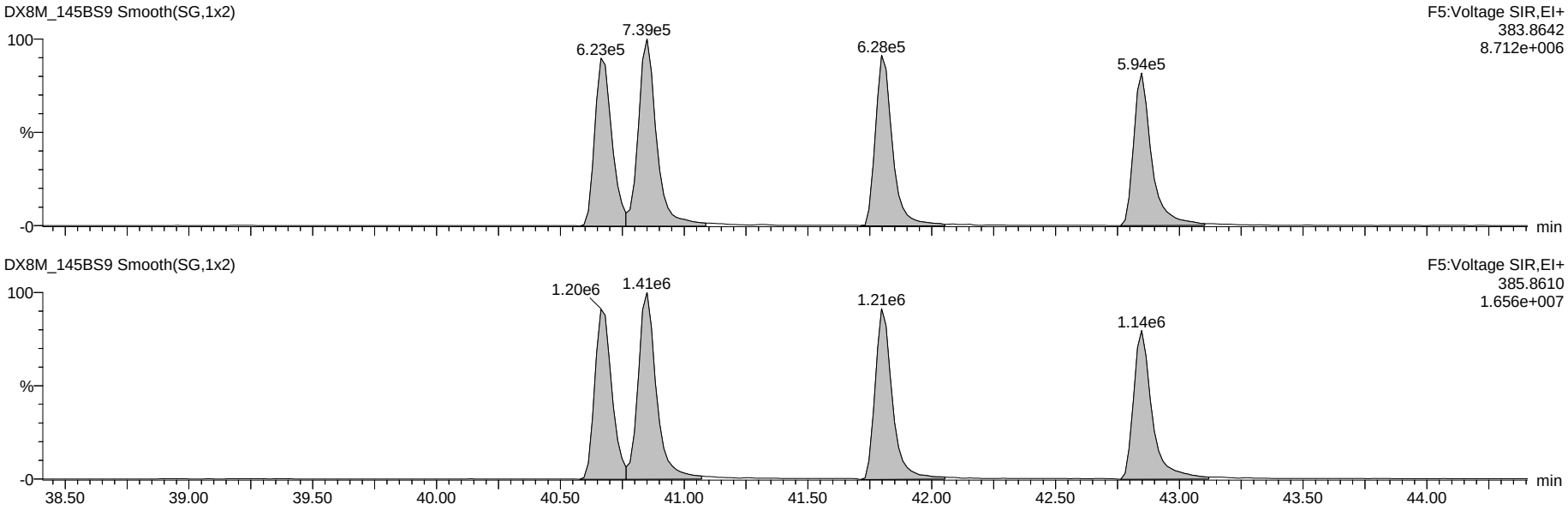

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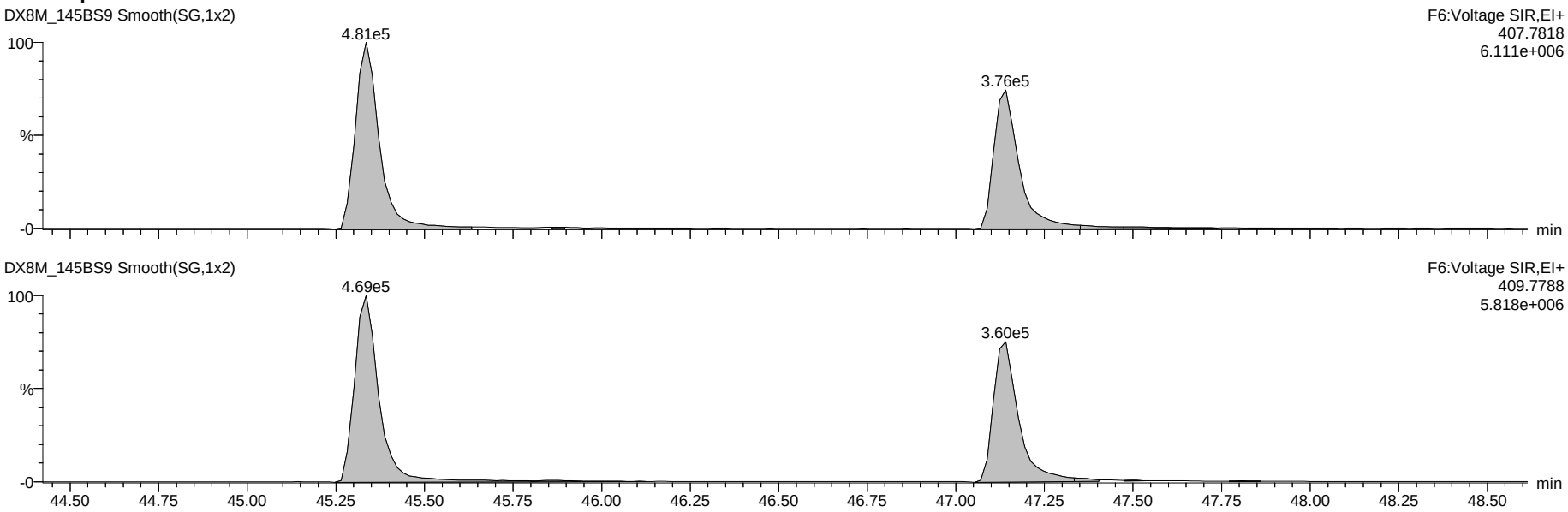
Total Hepta-Furans



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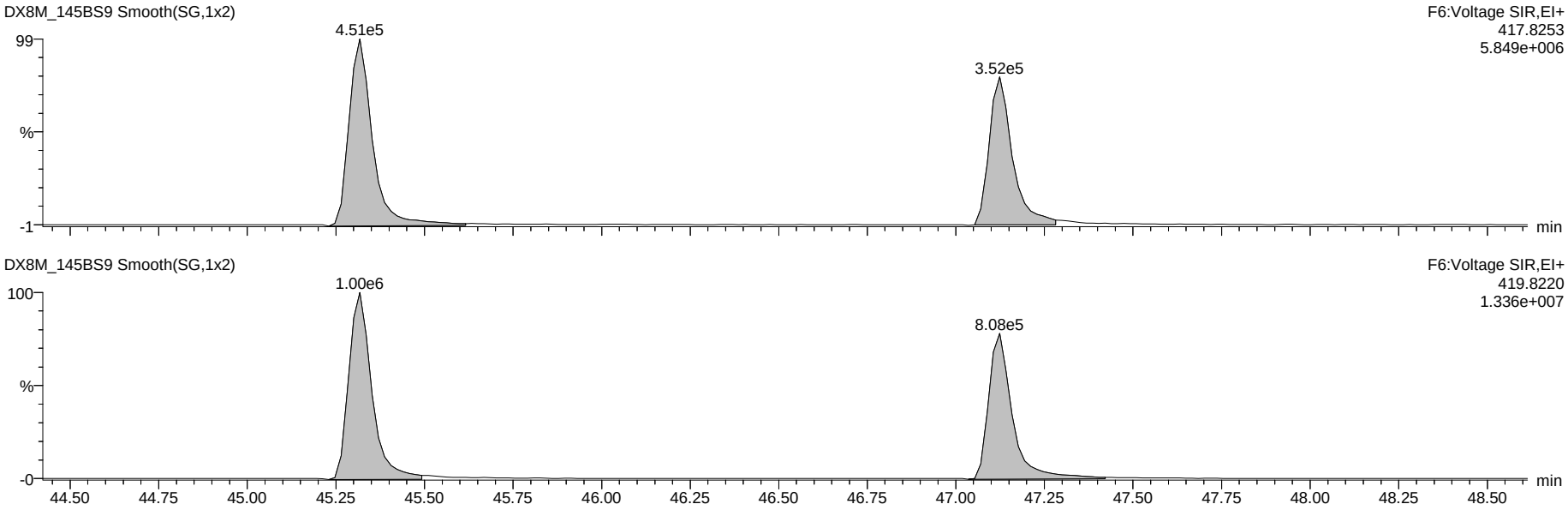

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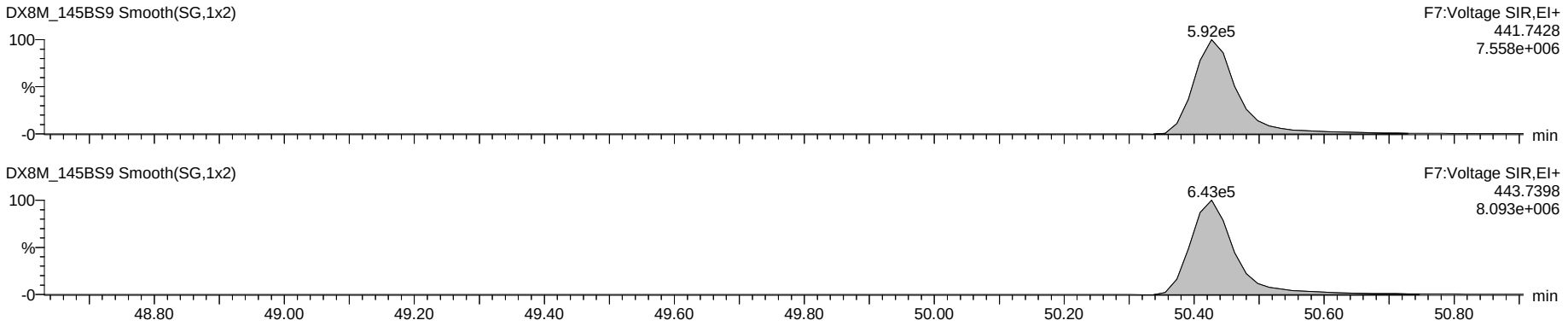
OCDF



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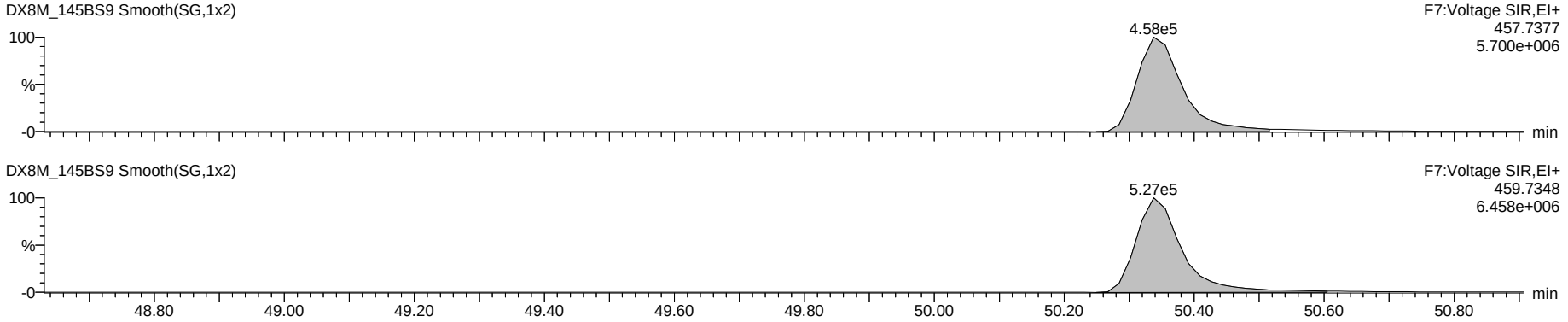

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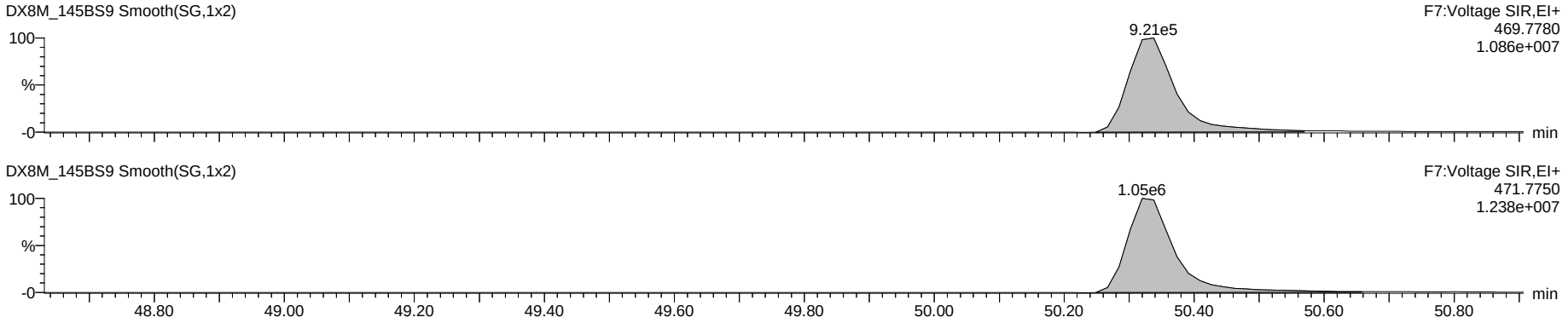

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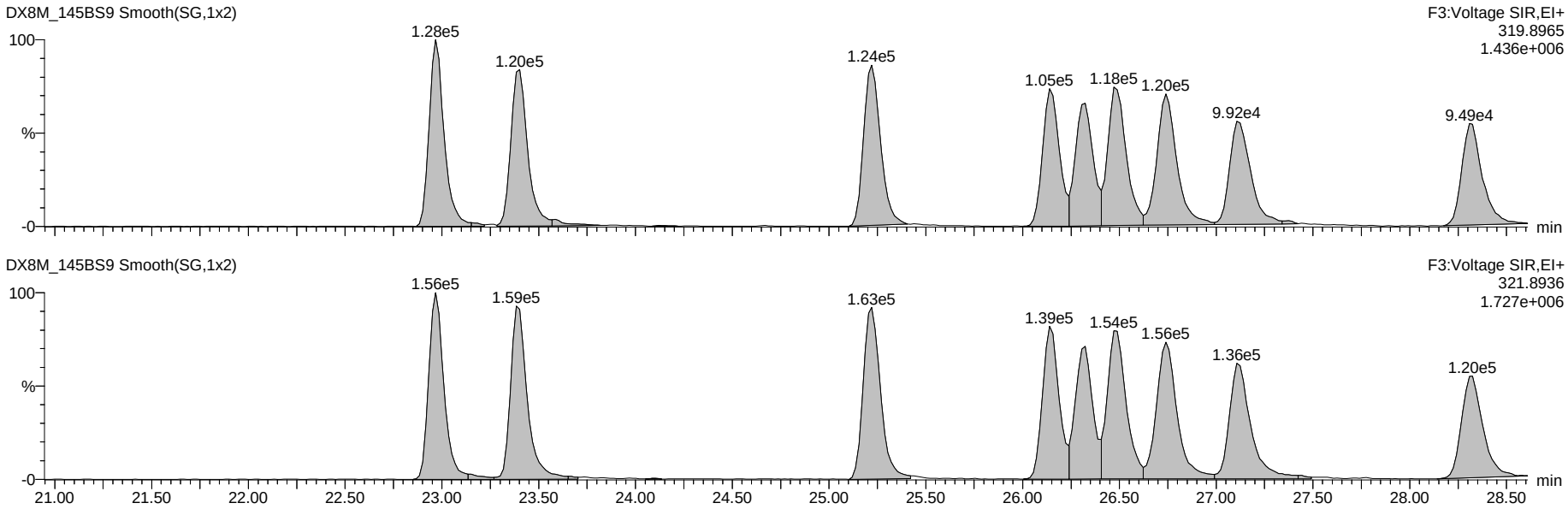
Total Tetra-Dioxins



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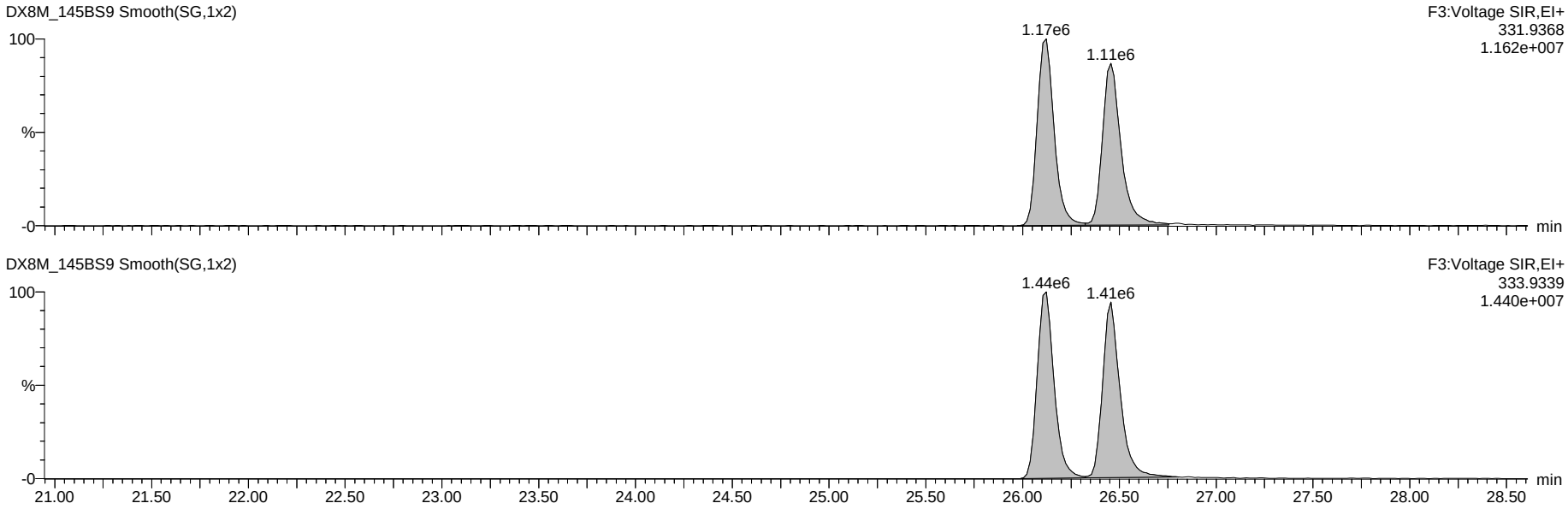

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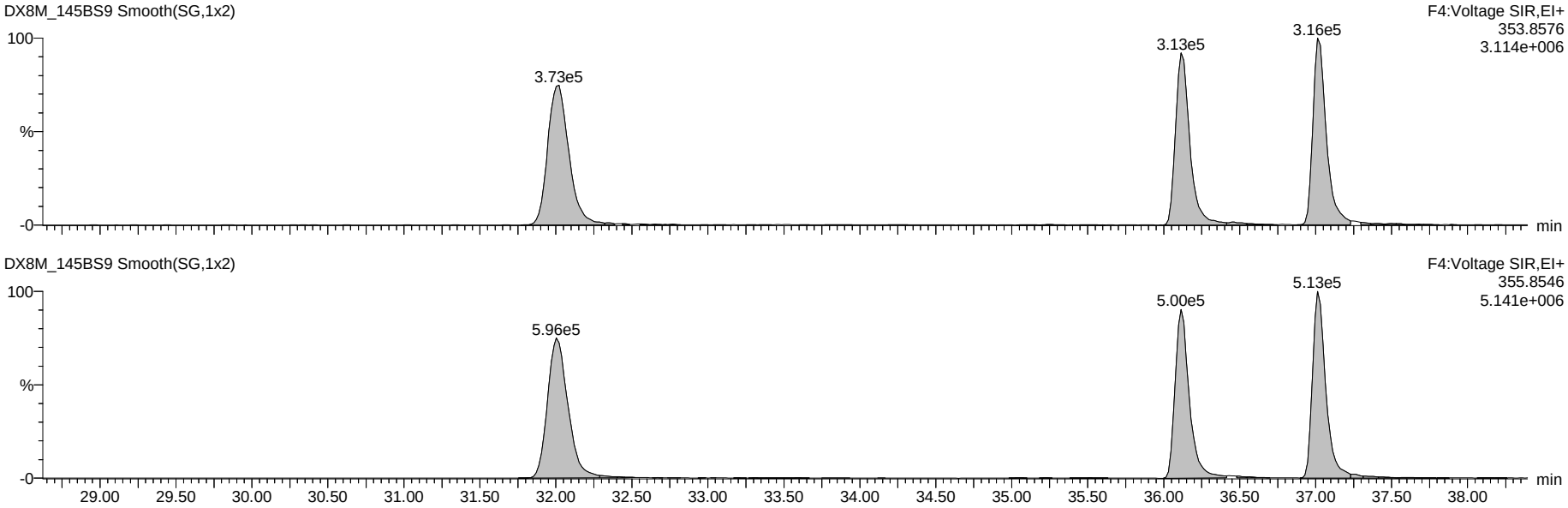
Total Penta-Dioxins



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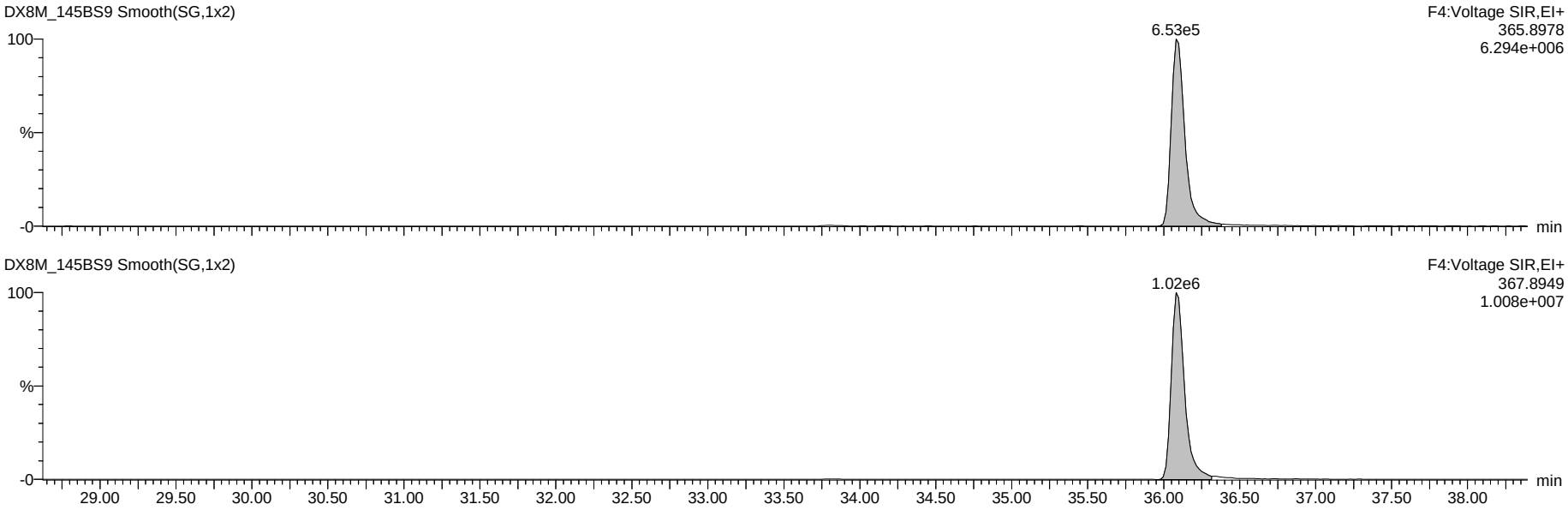

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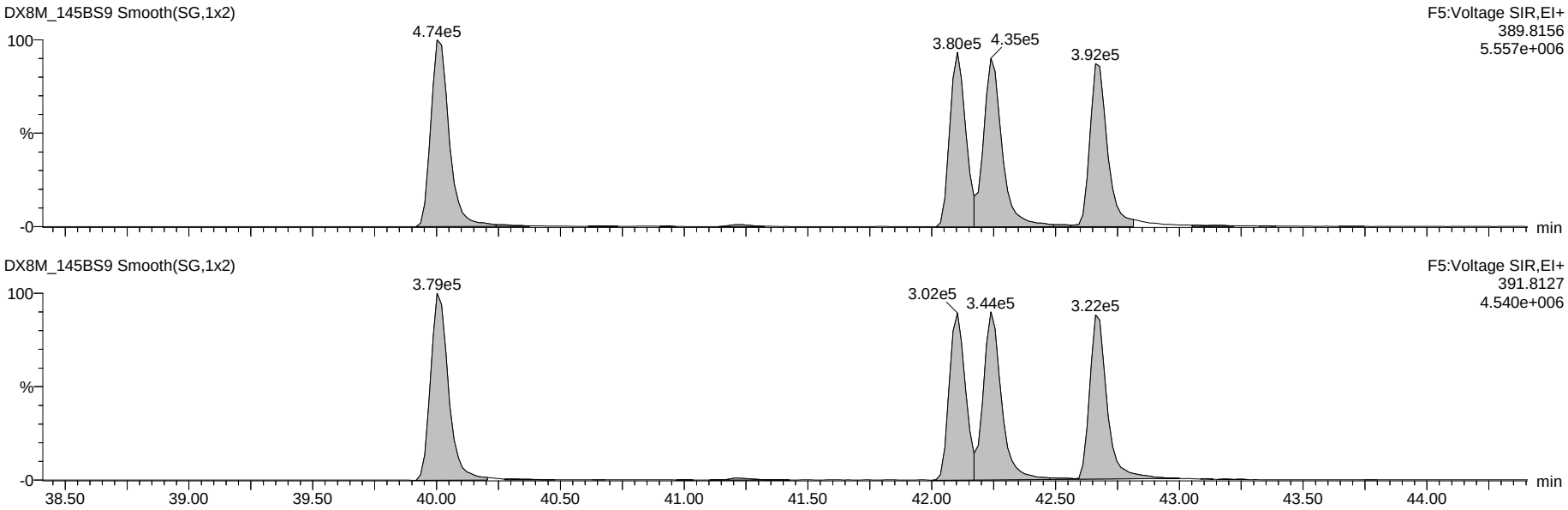
Total Hexa-Dioxins



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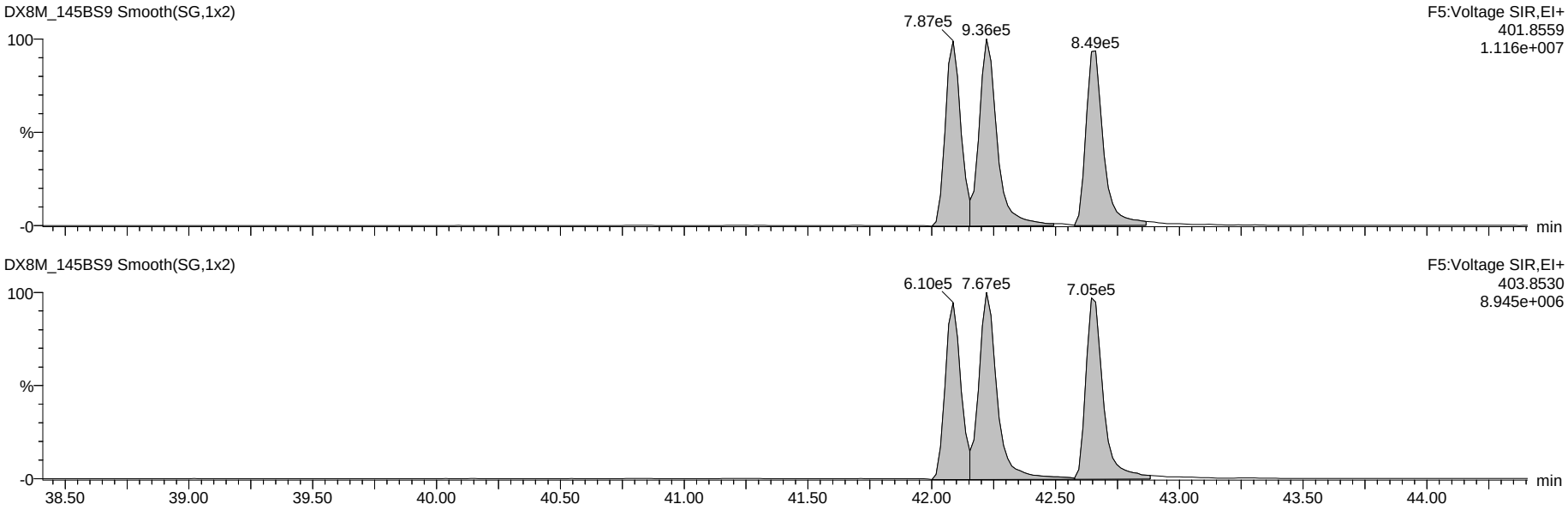

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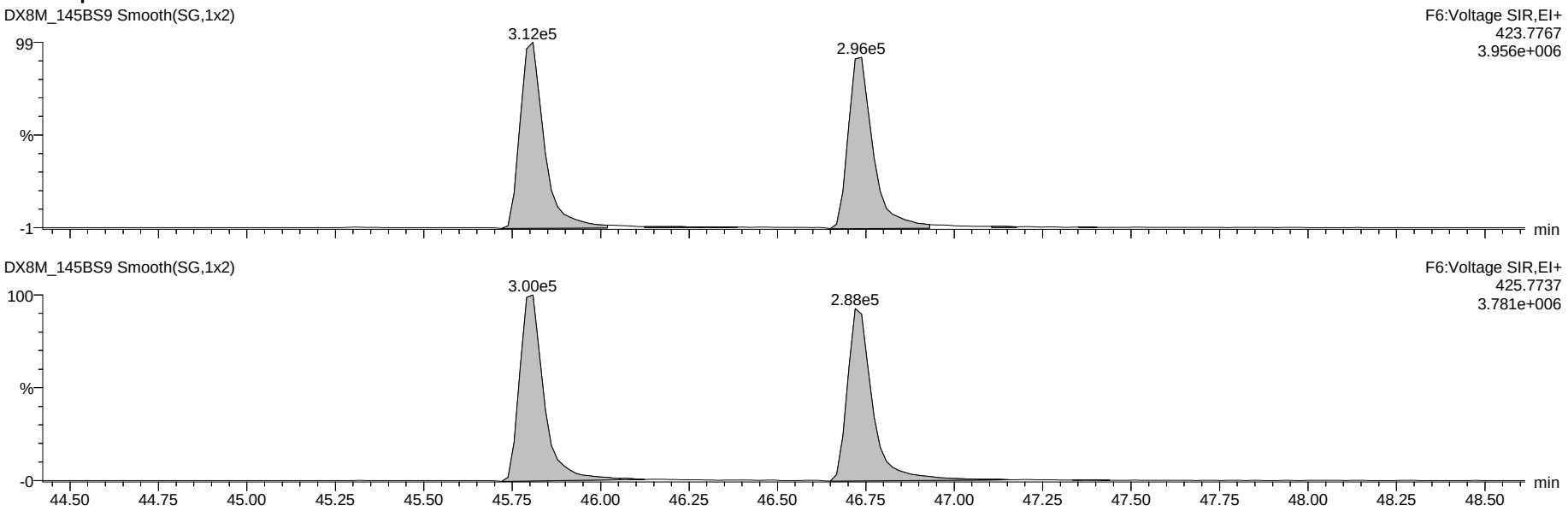
Total Hepta-Dioxins



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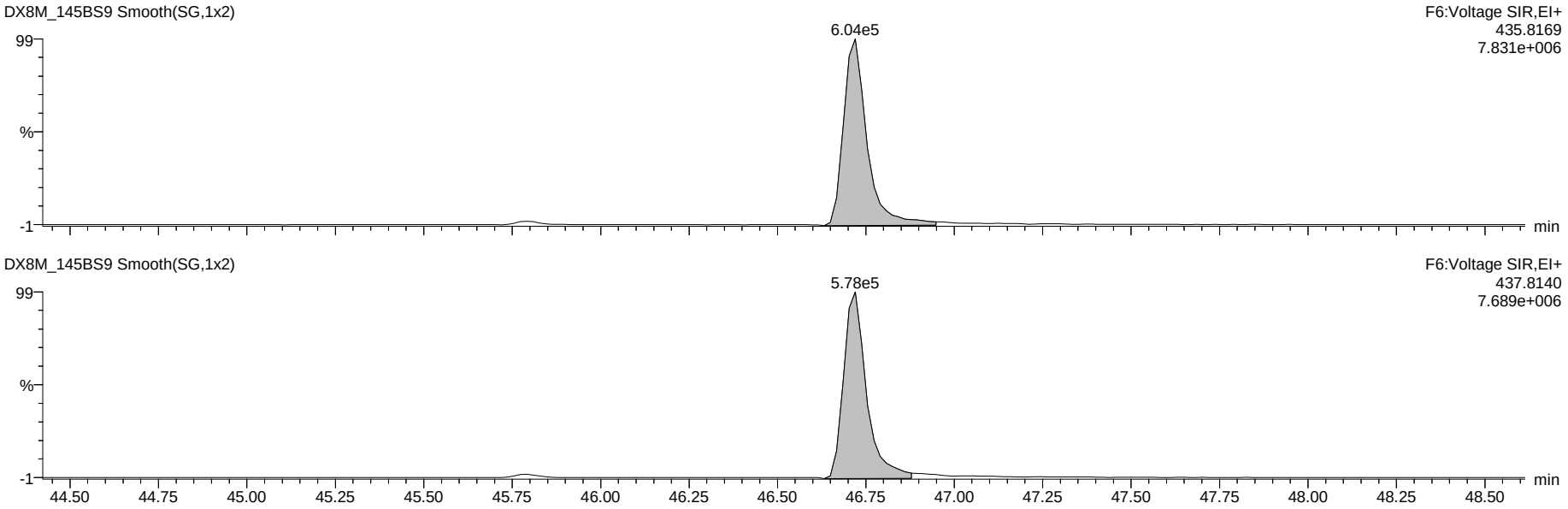

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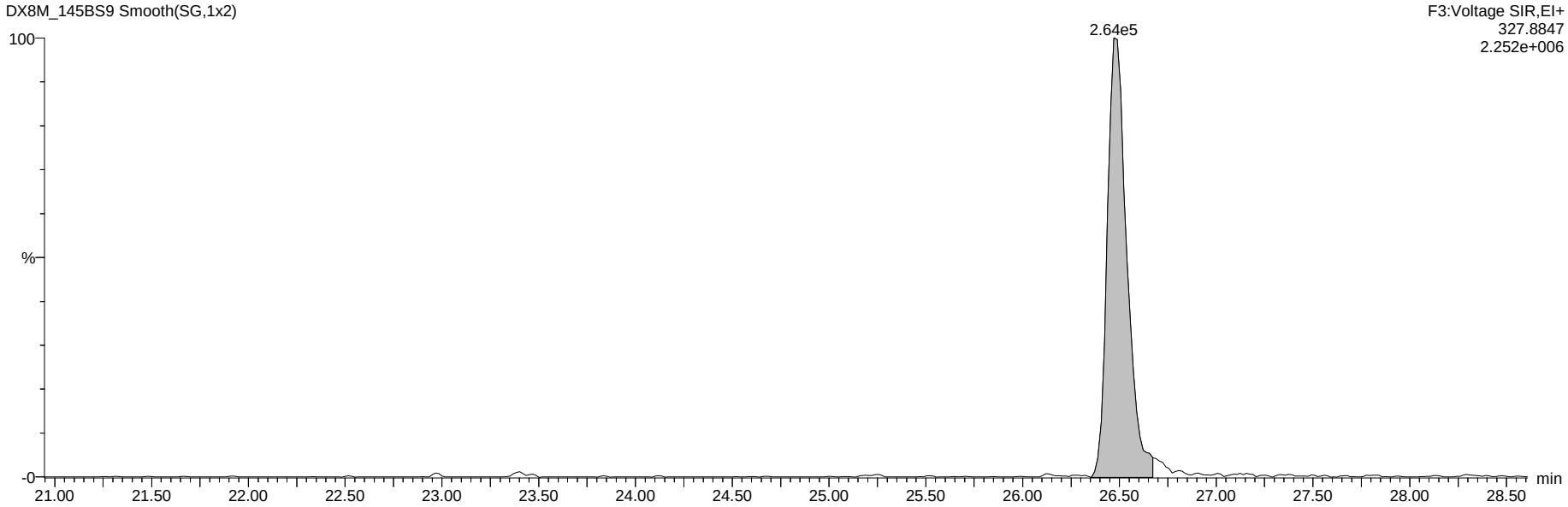
37Cl-2,3,7,8-TCDD



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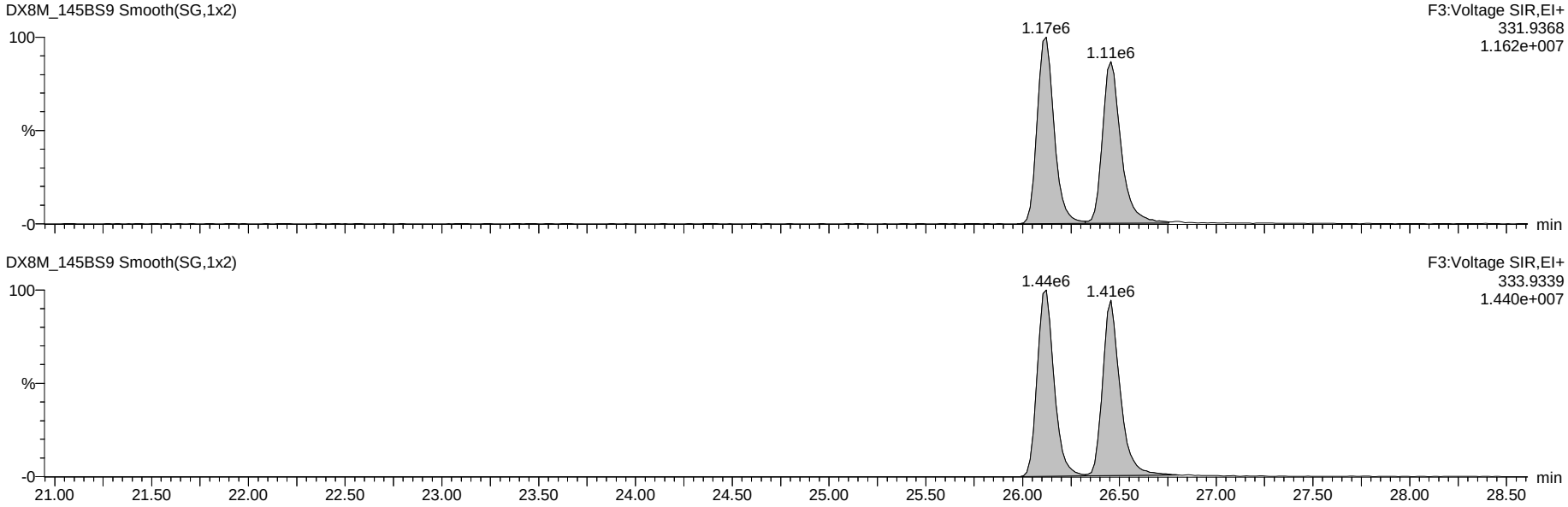

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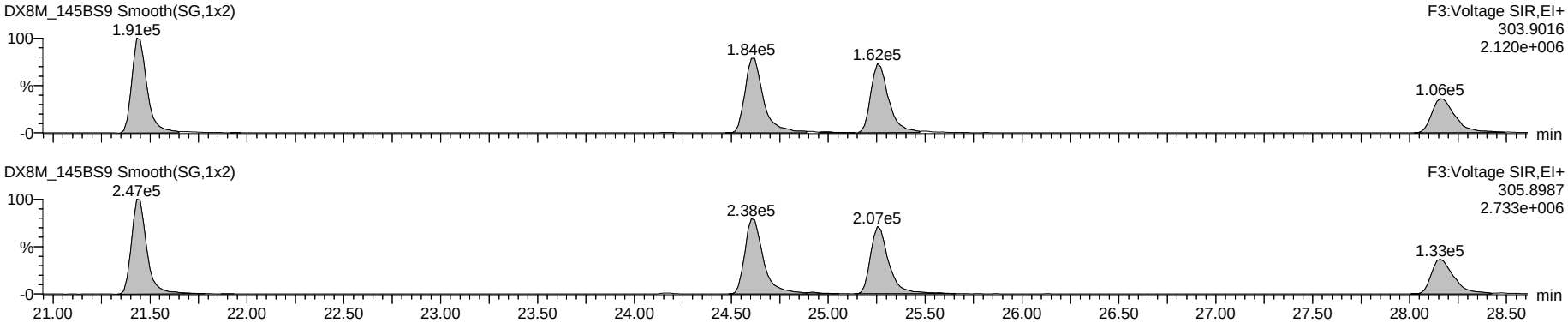
Total Tetra-Furans



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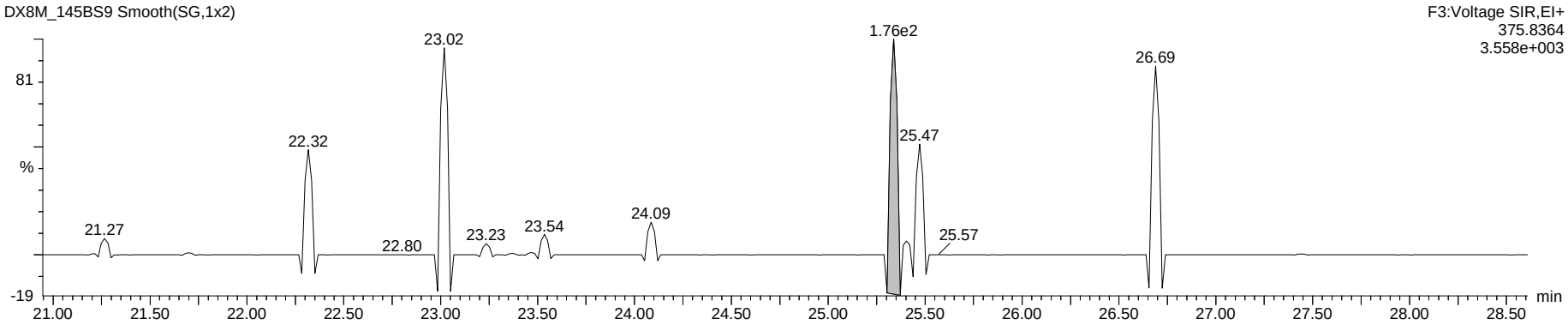
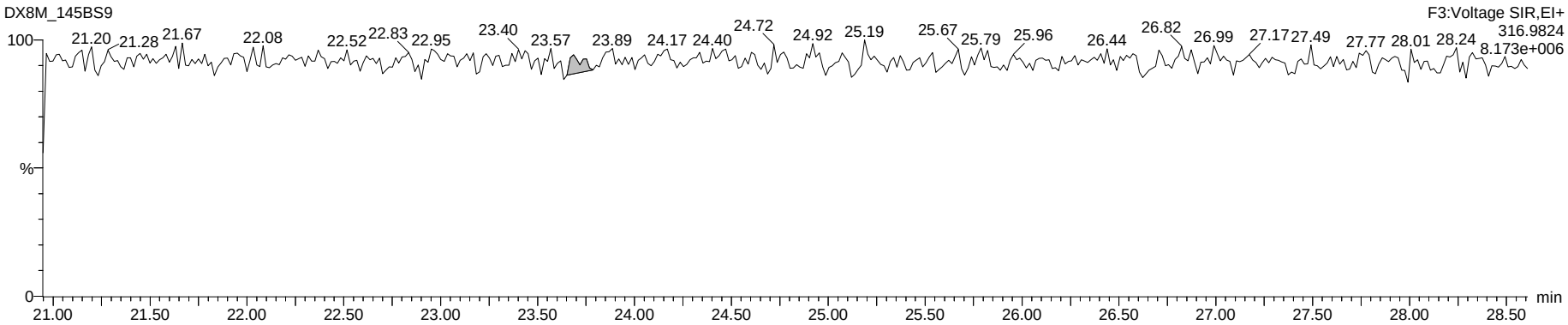


Tetra Lock



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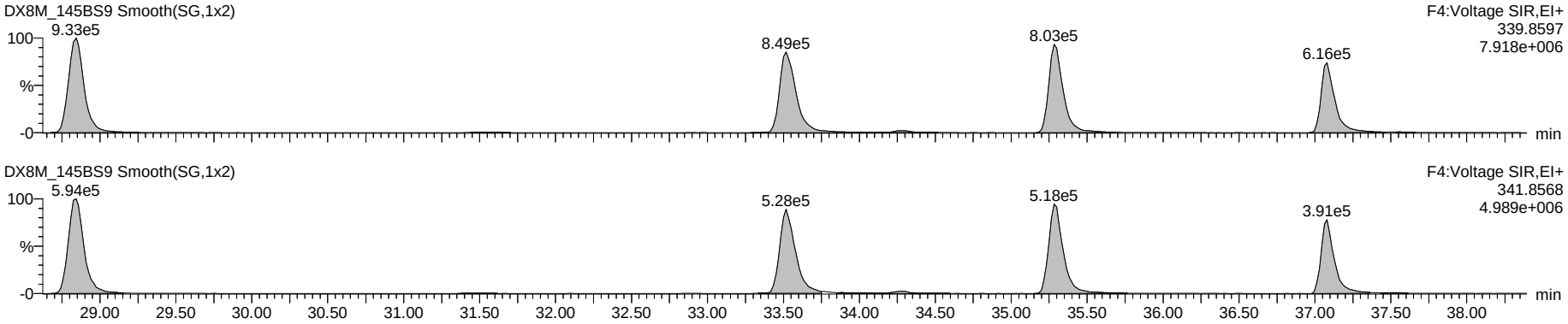
Total Penta-Furans



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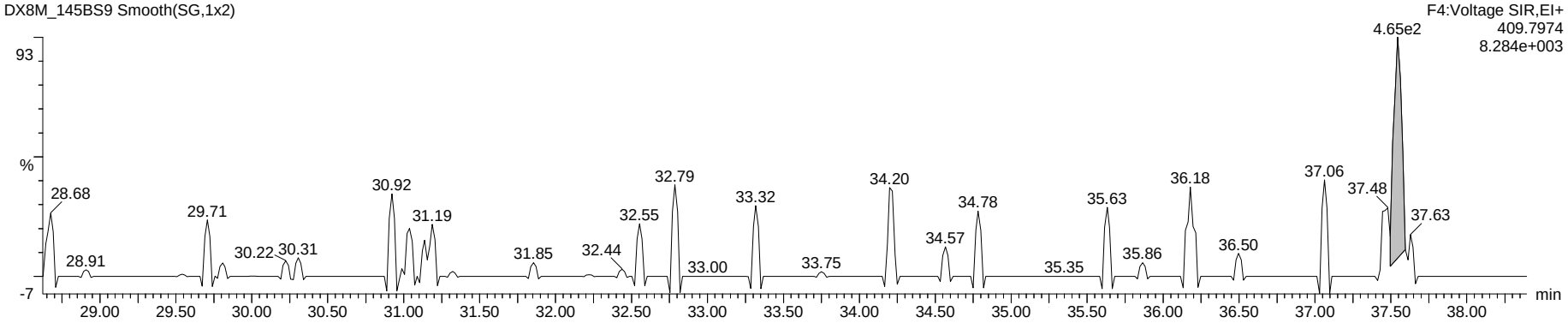

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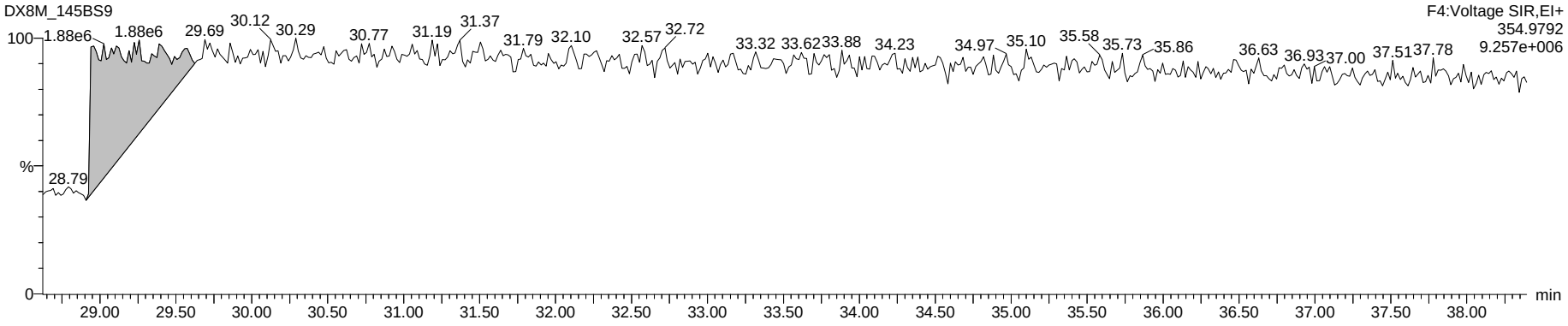

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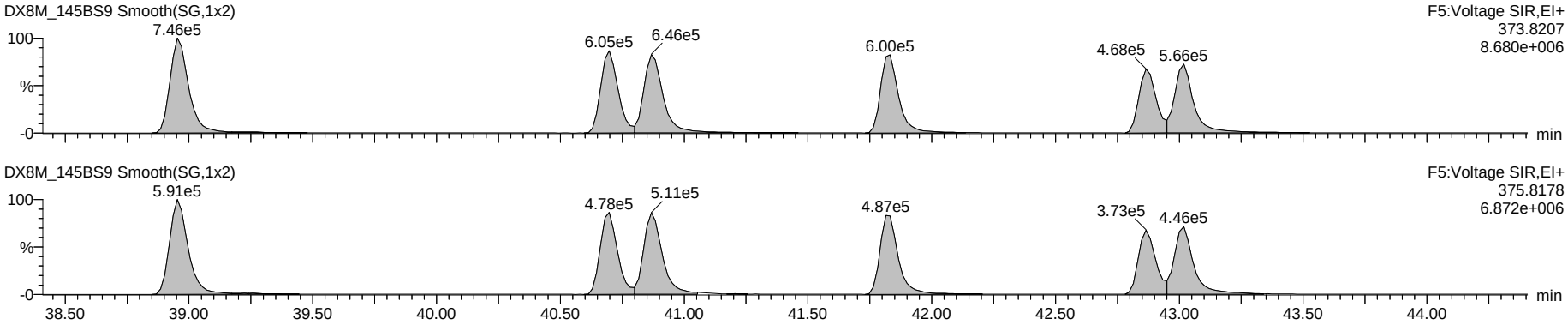
Total Hexa-Furans



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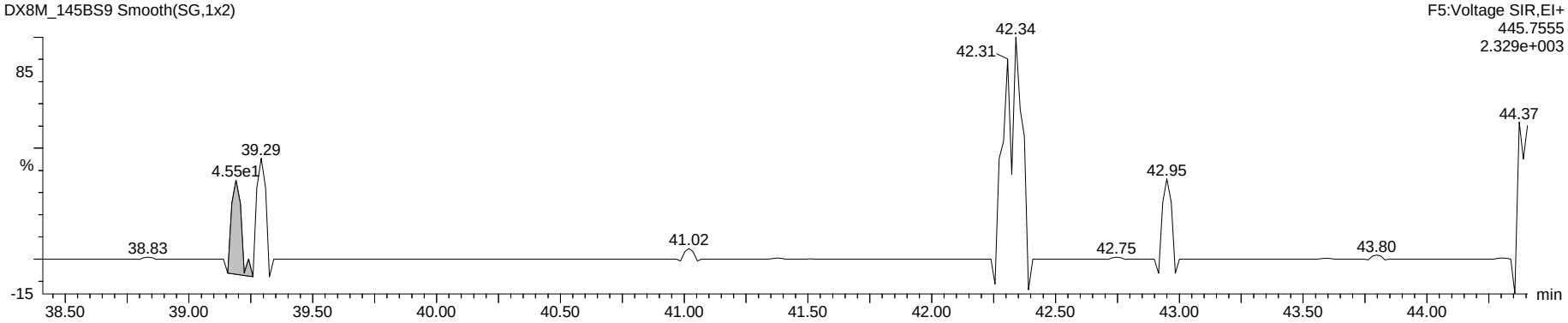

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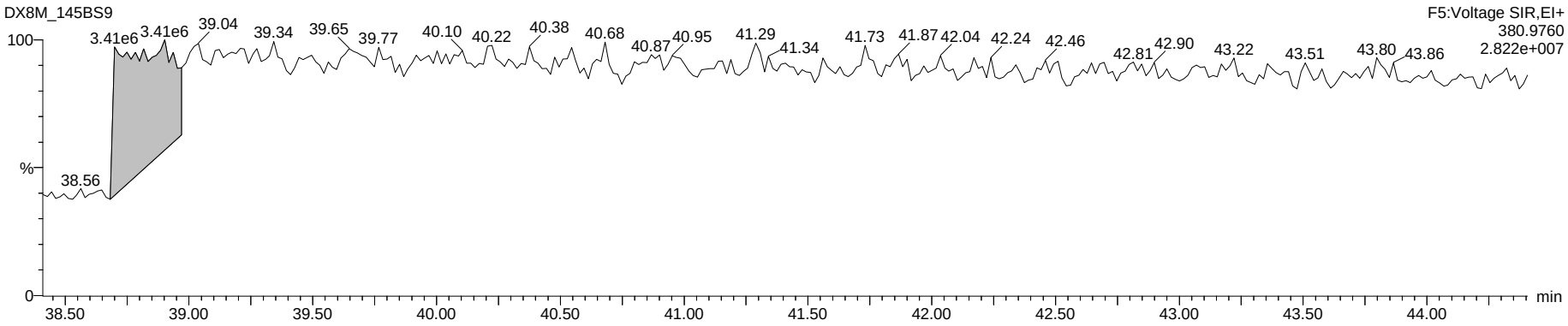

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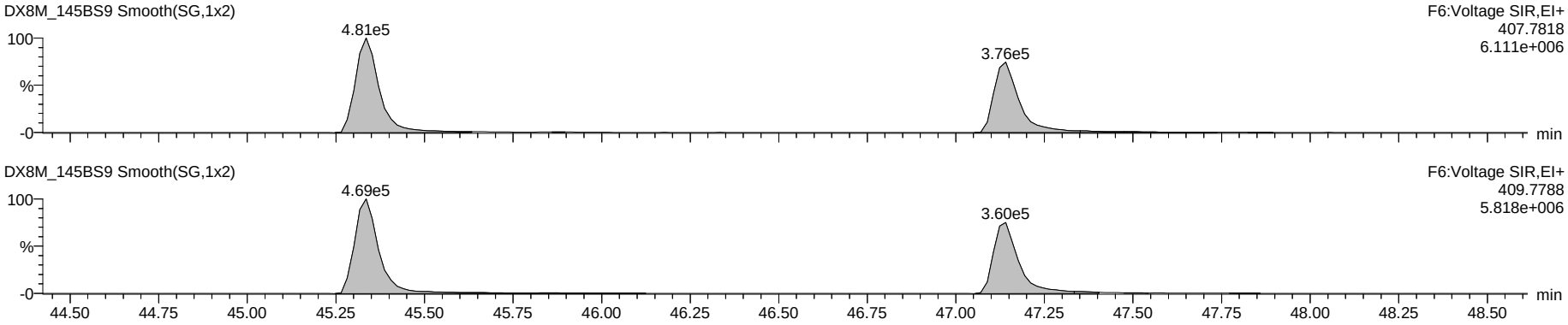
Total Hepta-Furans



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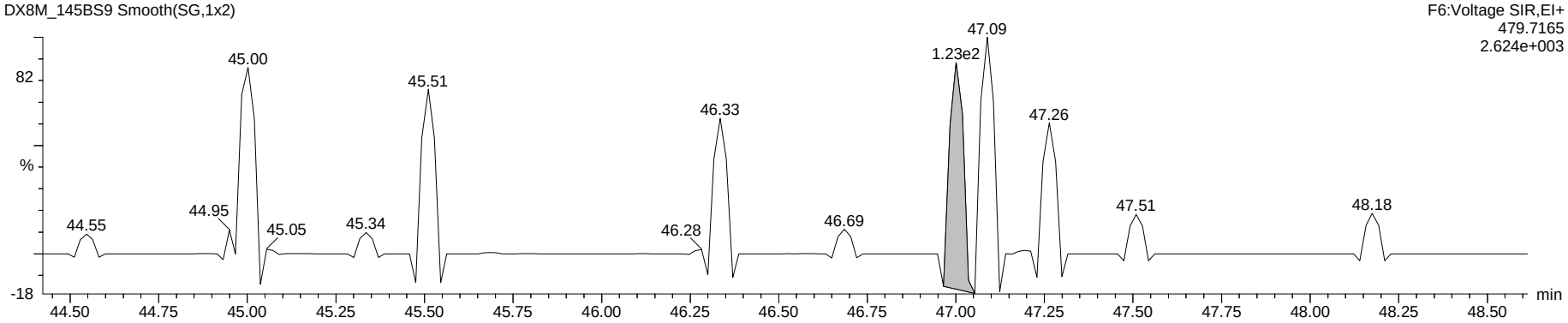

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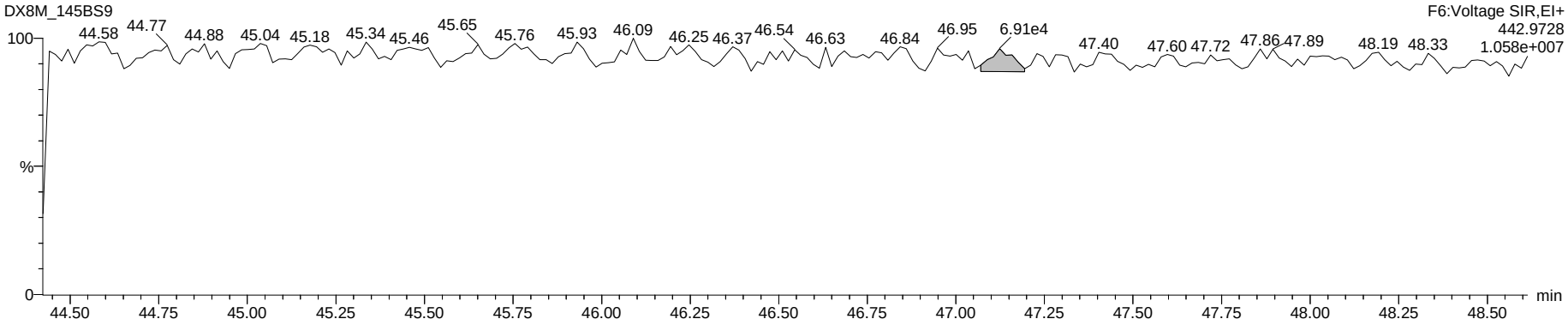

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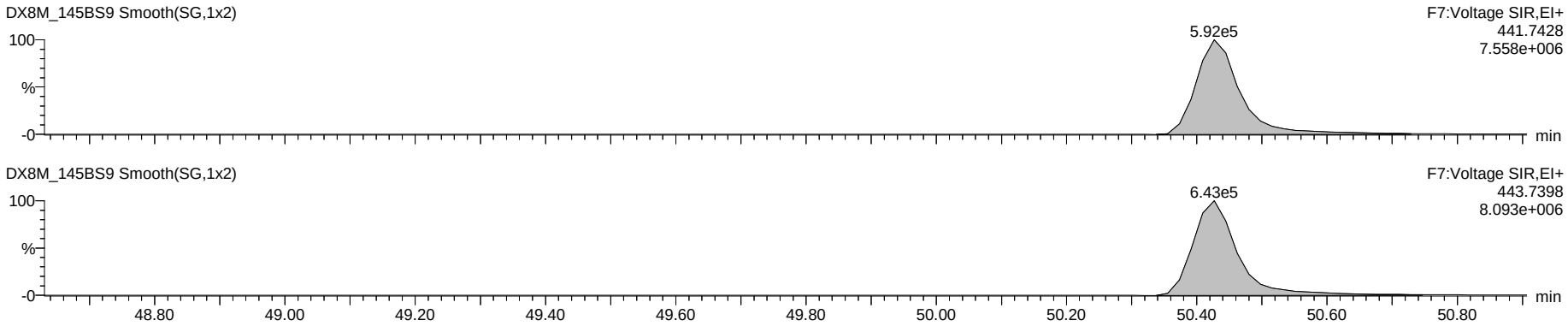
OCDF



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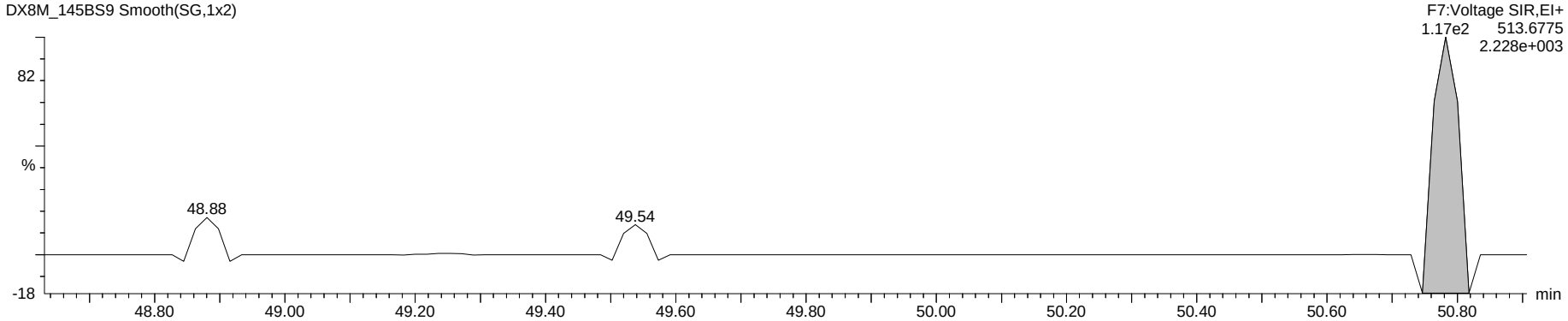

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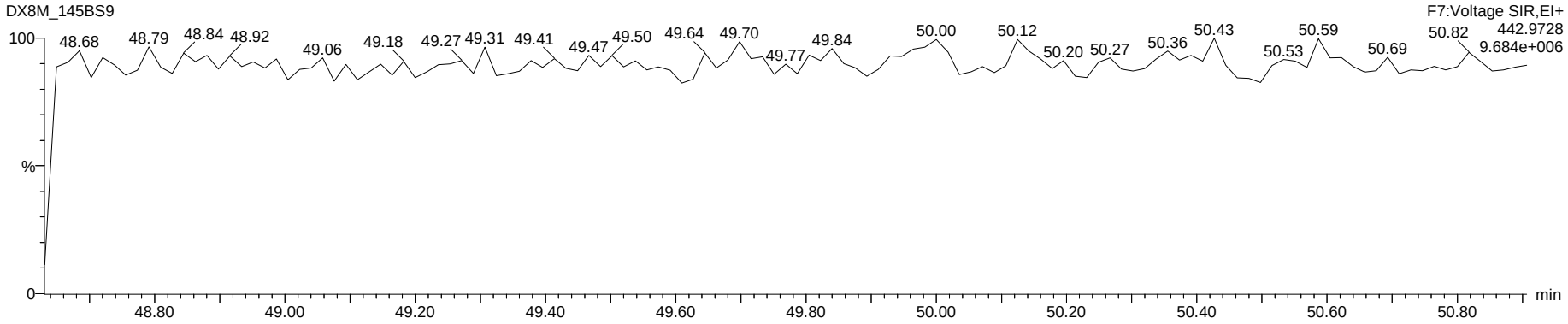

Name: DX8M_145BS1, Date: 30-Nov-2018, Time: 16:46:44, ID: DX041D-CAL,,/01-79, Description: 1,,1.0uL Cal Win/Res

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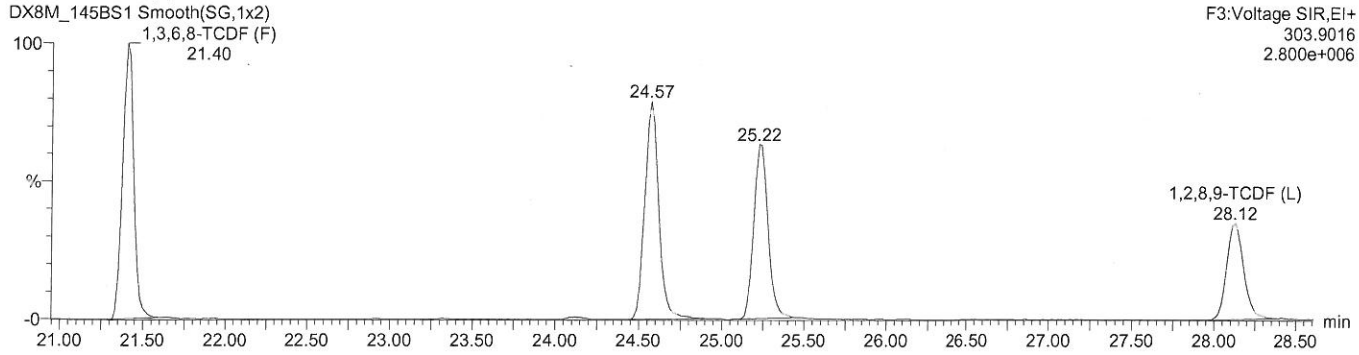

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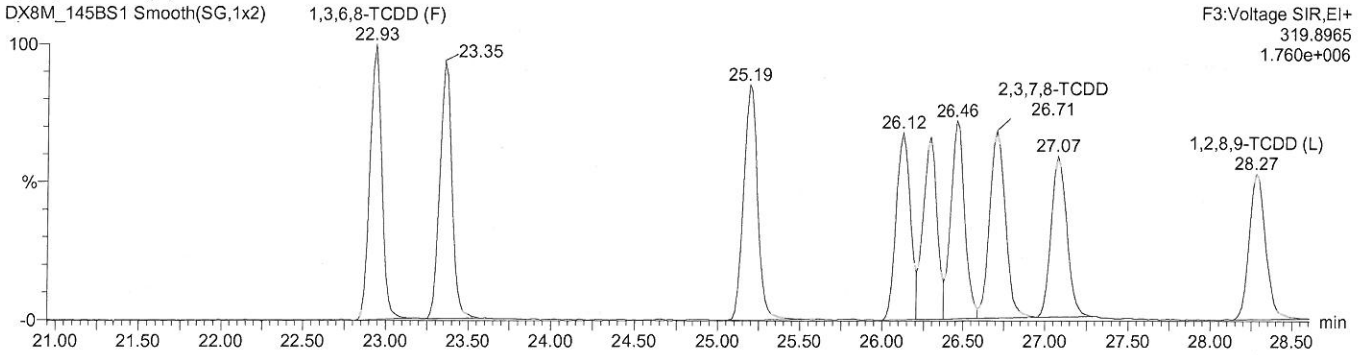

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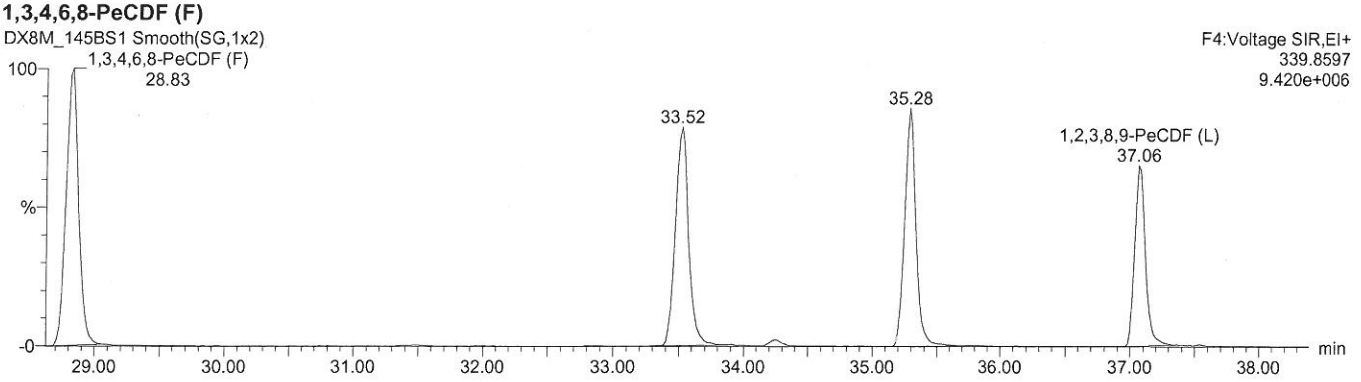

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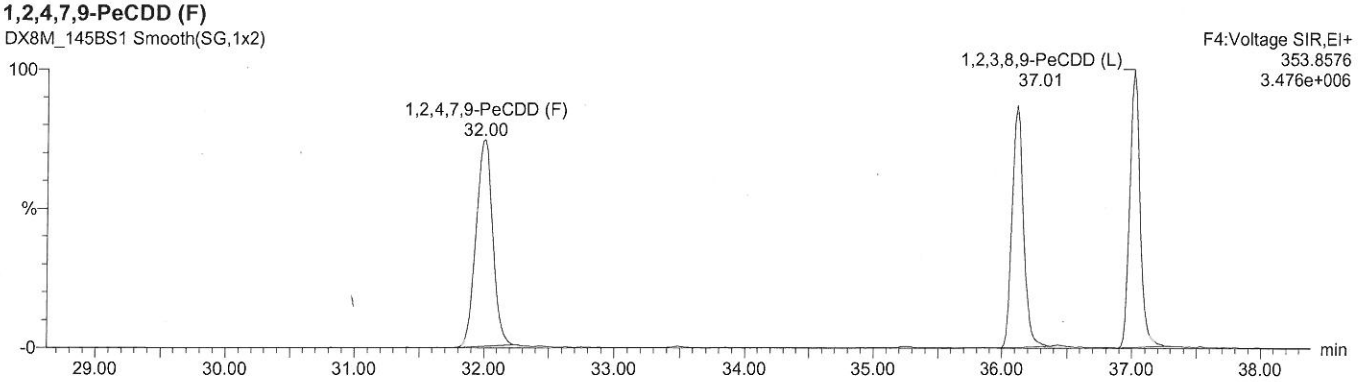

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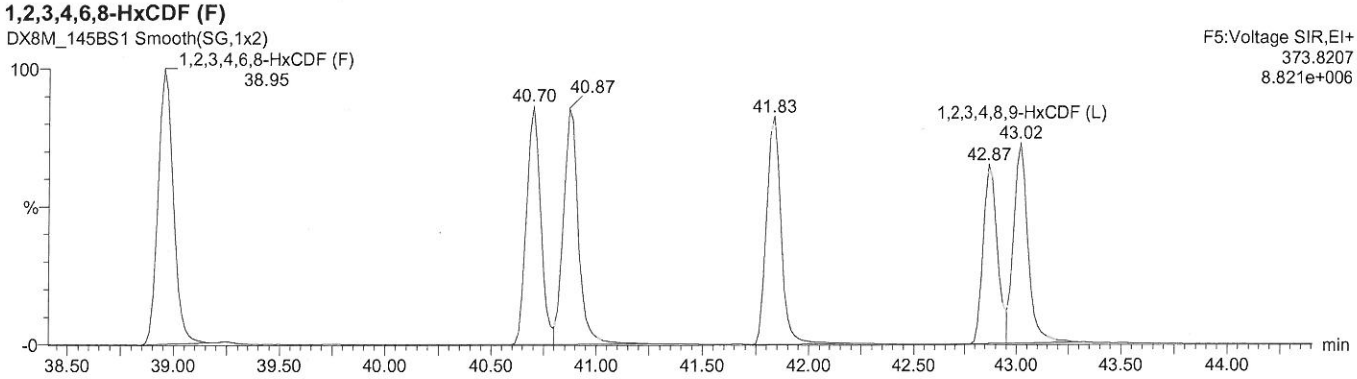
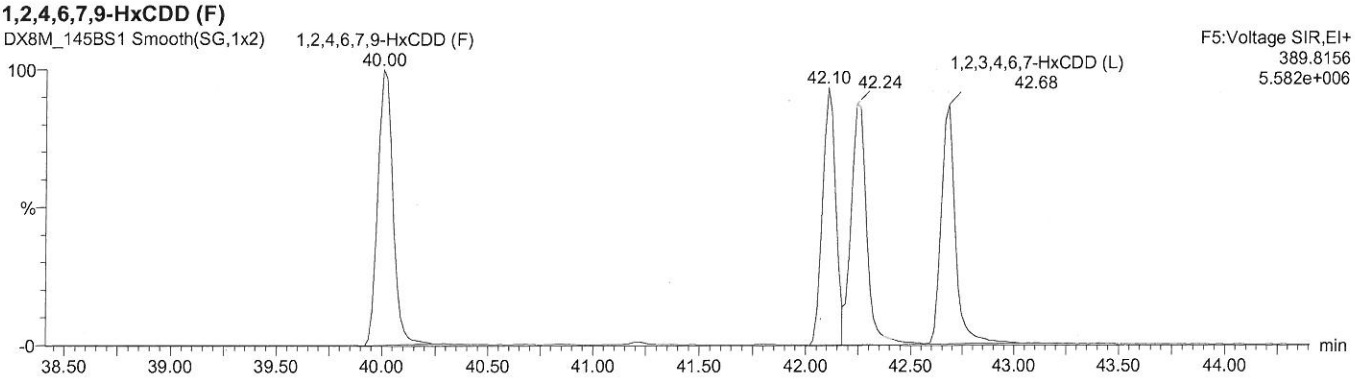
Name: DX8M_145BS1, Date: 30-Nov-2018, Time: 16:46:44, ID: DX041D-CAL,,/01-79, Description: 1,,1.0uL Cal Win/Res

1,2,3,4,6,8-HxCDF (F)



1,2,4,6,7,9-HxCDD (F)



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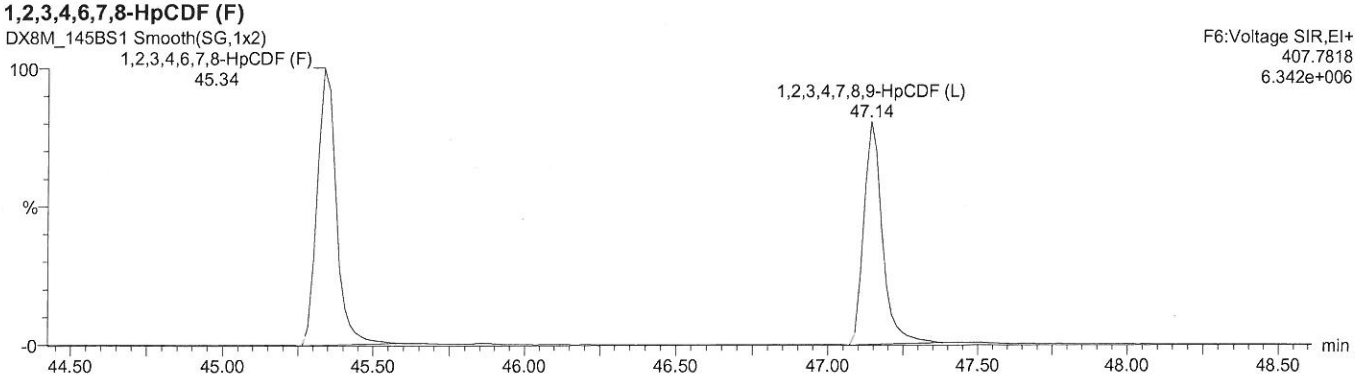

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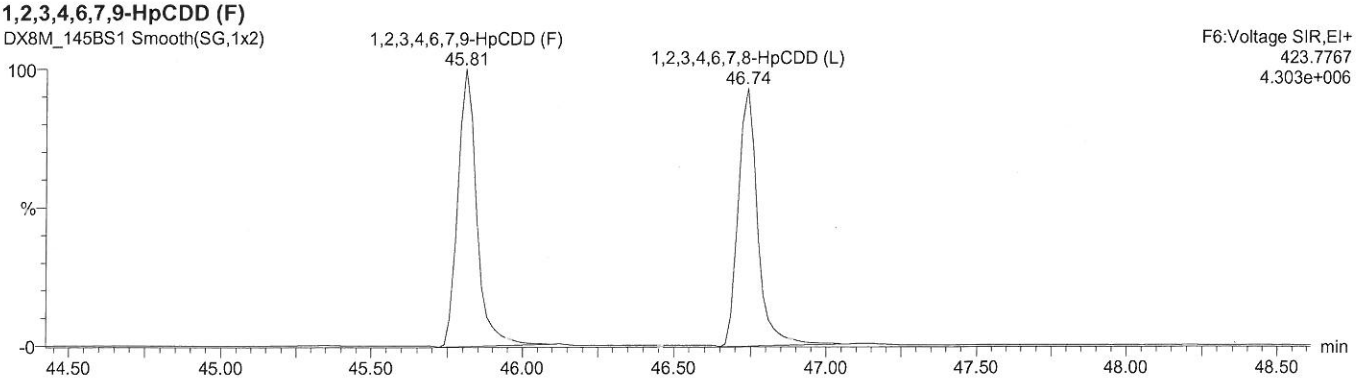

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

| | | |

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids											Tissue							Urine	Water	Water, Non-Potable									
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025		CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		EPA 1699	MLA-028				Y							Y											Y								Y	
		SGS AXYS MLA-028	MLA-028		Y		Y					Y		Y		Y								Y		Y					Y			Y	
		SGS AXYS MLA-007	MLA-007		Y		Y							Y		Y								Y		Y								Y	
	4,4'-DDT	EPA 625	MLA-007																							Y				Y	Y		Y	Y	
		EPA 8270	MLA-007				Y			Y	Y	Y	Y	Y																					
		EPA 1699	MLA-028				Y							Y												Y								Y	
		SGS AXYS MLA-028	MLA-028		Y		Y					Y		Y		Y								Y		Y					Y			Y	
		SGS AXYS MLA-007	MLA-007		Y		Y							Y		Y								Y		Y								Y	
	Aldrin	EPA 625	MLA-007																							Y				Y	Y		Y	Y	
		EPA 8270	MLA-007				Y			Y	Y	Y	Y	Y																					
		EPA 1699	MLA-028				Y							Y												Y								Y	
		SGS AXYS MLA-028	MLA-028		Y		Y					Y		Y		Y								Y		Y					Y			Y	
		SGS AXYS MLA-007	MLA-007		Y		Y							Y		Y								Y		Y								Y	
	Alpha-HCH	EPA 625	MLA-007																							Y				Y	Y		Y	Y	
		EPA 8270	MLA-007				Y			Y	Y	Y	Y	Y																					
		EPA 1699	MLA-028				Y							Y												Y								Y	
		SGS AXYS MLA-028	MLA-028		Y		Y					Y		Y		Y								Y		Y					Y			Y	
		SGS AXYS MLA-007	MLA-007		Y		Y							Y		Y								Y		Y								Y	
	Beta-HCH	EPA 625	MLA-007																							Y				Y	Y		Y	Y	
		EPA 8270	MLA-007				Y			Y	Y	Y	Y	Y																					
		EPA 1699	MLA-028				Y							Y												Y								Y	
		SGS AXYS MLA-028	MLA-028		Y		Y					Y		Y		Y								Y		Y					Y			Y	
		SGS AXYS MLA-007	MLA-007		Y		Y							Y		Y								Y		Y								Y	
	Chlordane, technical	EPA 625	MLA-007																														Y		
		EPA 8270	MLA-007				Y			Y	Y		Y	Y													Y				Y	Y		Y	Y	
		SGS AXYS MLA-007	MLA-007				Y							Y												Y								Y	
	cis-Chlordane (alpha-Chlordane)	EPA 8270	MLA-007				Y			Y		Y	Y	Y												Y				Y			Y	Y	
		EPA 1699	MLA-028				Y							Y												Y								Y	
		SGS AXYS MLA-028	MLA-028		Y		Y					Y		Y		Y								Y		Y					Y			Y	
		SGS AXYS MLA-007	MLA-007		Y		Y							Y		Y								Y		Y								Y	
	cis-Nonachlor	EPA 8270	MLA-007				Y					Y		Y												Y								Y	
		EPA 1699	MLA-028				Y							Y												Y								Y	
		SGS AXYS MLA-028	MLA-028		Y		Y					Y		Y		Y								Y		Y					Y			Y	
		SGS AXYS MLA-007	MLA-007		Y		Y							Y		Y								Y		Y								Y	
	Delta-HCH	EPA 608	MLA-007																							Y				Y	Y		Y	Y	
		EPA 8081	MLA-007				Y			Y	Y	Y	Y	Y																					
		EPA 1699	MLA-028				Y							Y												Y								Y	
		SGS AXYS MLA-028	MLA-028		Y		Y					Y		Y		Y								Y		Y					Y			Y	
		SGS AXYS MLA-007	MLA-007		Y		Y							Y		Y								Y		Y								Y	
	Dieldrin	EPA 608	MLA-007																							Y				Y	Y		Y	Y	
		EPA 8081	MLA-007				Y			Y	Y	Y	Y	Y																					
		EPA 1699	MLA-028				Y							Y												Y								Y	
		SGS AXYS MLA-028	MLA-028		Y		Y					Y		Y		Y								Y		Y					Y			Y	
		SGS AXYS MLA-007	MLA-007		Y		Y							Y		Y								Y		Y								Y	
	Endosulphan I	EPA 608	MLA-007																							Y				Y	Y		Y	Y	
		EPA 8081	MLA-007				Y			Y	Y	Y	Y	Y																					
		EPA 1699	MLA-028				Y							Y												Y								Y	
		SGS AXYS MLA-028	MLA-028		Y		Y					Y		Y		Y								Y		Y					Y			Y	
		SGS AXYS MLA-007	MLA-007		Y		Y							Y		Y								Y		Y								Y	
	Endosulphan II	EPA 608	MLA-007																							Y				Y	Y		Y	Y	

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

				Serum	Solids											Tissue							Urine	Water	Water, Non-Potable									
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		EPA 8081	MLA-007				Y			Y	Y	Y	Y	Y																			
		EPA 1699	MLA-028				Y							Y											Y									Y
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y					Y				Y
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y									Y
	Endosulphan sulphate	EPA 608	MLA-007																						Y				Y	Y		Y		Y
		EPA 8081	MLA-007				Y			Y	Y	Y	Y	Y																				
		EPA 1699	MLA-028				Y							Y											Y									Y
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y					Y				Y
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y									Y
	Endrin	EPA 608	MLA-007																						Y				Y	Y		Y		Y
		EPA 8081	MLA-007				Y			Y	Y	Y	Y	Y																				
		EPA 1699	MLA-028				Y							Y											Y									Y
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y					Y				Y
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y									Y
	Endrin aldehyde	EPA 608	MLA-007																						Y				Y	Y		Y		Y
		EPA 8081	MLA-007				Y			Y	Y	Y	Y	Y																				
		EPA 1699	MLA-028				Y							Y											Y									Y
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y					Y				Y
		SGS AXYS MLA-007	MLA-007		Y		Y							Y									Y		Y									Y
	Endrin ketone	EPA 8081	MLA-007				Y			Y		Y		Y																				
		EPA 1699	MLA-028				Y							Y											Y									Y
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y					Y				Y
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y									
	Gamma-HCH (Lindane)	EPA 625	MLA-007																						Y				Y	Y		Y		Y
		EPA 8270	MLA-007				Y			Y	Y	Y	Y	Y																				
		EPA 1699	MLA-028				Y							Y											Y									Y
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y					Y				Y
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y									Y
	Heptachlor	EPA 625	MLA-007																						Y				Y	Y		Y		Y
		EPA 8270	MLA-007				Y			Y	Y	Y	Y	Y																				
		EPA 1699	MLA-028				Y							Y											Y									Y
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y					Y				Y
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y									Y
	Heptachlor epoxide	EPA 608	MLA-007																						Y				Y	Y		Y		Y
		EPA 8081	MLA-007				Y			Y	Y	Y	Y	Y																				
		EPA 1699	MLA-028				Y							Y											Y									Y
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y					Y				Y
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y									Y
	Hexachlorobenzene	EPA 1625	MLA-007																						Y				Y					Y
		EPA 8270	MLA-007				Y			Y	Y	Y	Y	Y																				
		EPA 1699	MLA-028				Y							Y											Y									Y
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y					Y				Y
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y									Y
	Methoxychlor	EPA 608	MLA-007																						Y				Y	Y		Y		Y
		EPA 8081	MLA-007				Y			Y	Y	Y	Y	Y																				
		EPA 1699	MLA-028				Y							Y											Y									Y
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y					Y				Y
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y									Y
	Mirex	EPA 8270	MLA-007				Y			Y		Y		Y											Y				Y	Y		Y		Y
		EPA 1699	MLA-028				Y							Y											Y									Y

Accreditation Scope

SGS AXYS Analytical Services Ltd.
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				Serum	Solids											Tissue							Urine	Water	Water, Non-Potable									
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y					Y			Y	
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y								Y	
	Oxychlordane	EPA 8270	MLA-007				Y					Y													Y								Y	
		EPA 1699	MLA-028				Y							Y											Y								Y	
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y					Y			Y	
		SGS AXYS MLA-007	MLA-007	Y	Y		Y									Y							Y		Y								Y	
	Toxaphene	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	trans-Chlordane (gamma-Chlordane)	EPA 8270	MLA-007				Y			Y		Y	Y	Y											Y				Y			Y	Y	
		EPA 1699	MLA-028				Y							Y											Y								Y	
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y					Y			Y	
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y								Y	
	trans-Nonachlor	EPA 8270	MLA-007				Y					Y		Y											Y								Y	
		EPA 1699	MLA-028				Y							Y											Y								Y	
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y					Y			Y	
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y								Y	
PAH	1,2,6-Trimethylphenanthrene	SGS AXYS MLA-021	MLA-021		Y																		Y											
	1,2-Dimethylnaphthalene	SGS AXYS MLA-021	MLA-021		Y																		Y											
	1,4,6,7-Tetramethylnaphthalene	SGS AXYS MLA-021	MLA-021		Y																		Y											
	1,7-Dimethylfluorene	SGS AXYS MLA-021	MLA-021		Y																		Y											
	1,7-Dimethylphenanthrene	SGS AXYS MLA-021	MLA-021		Y																		Y											
	1,8-Dimethylphenanthrene	SGS AXYS MLA-021	MLA-021		Y																		Y											
	1-Methylchrysene	SGS AXYS MLA-021	MLA-021		Y																		Y											
	1-Methylnaphthalene	SGS AXYS MLA-021	MLA-021		Y																		Y											
	1-Methylphenanthrene	SGS AXYS MLA-021	MLA-021		Y																		Y											
	2,3,5-Trimethylnaphthalene	SGS AXYS MLA-021	MLA-021		Y																		Y											
	2,3,6-Trimethylnaphthalene	SGS AXYS MLA-021	MLA-021		Y																		Y											
	2,4-Dimethyldibenzothiophene	SGS AXYS MLA-021	MLA-021		Y																		Y											
	2,6-Dimethylnaphthalene	SGS AXYS MLA-021	MLA-021		Y																		Y											
	2,6-Dimethylphenanthrene	SGS AXYS MLA-021	MLA-021		Y																		Y											
	2-Methylanthracene	SGS AXYS MLA-021	MLA-021		Y																		Y											
	2-Methyldibenzothiophene	SGS AXYS MLA-021	MLA-021		Y																		Y											
	2-Methylfluorene	SGS AXYS MLA-021	MLA-021		Y																		Y											
	2-Methylnaphthalene	EPA 1625	MLA-021																															Y
		EPA 8270	MLA-021				Y			Y						Y									Y										
		SGS AXYS MLA-021	MLA-021		Y		Y									Y							Y											Y
	2-Methylphenanthrene	SGS AXYS MLA-021	MLA-021		Y																		Y											
	3,6-Dimethylphenanthrene	SGS AXYS MLA-021	MLA-021		Y																		Y											
	3-Methyldibenzothiophene	SGS AXYS MLA-021	MLA-021		Y																		Y											
	3-Methylfluoranthene/ Benzo(a)fluorene	SGS AXYS MLA-021	MLA-021		Y																		Y											
	3-Methylphenanthrene	SGS AXYS MLA-021	MLA-021		Y																		Y											
	5,9-Dimethylchrysene	SGS AXYS MLA-021	MLA-021		Y																		Y											
	5/6-Methylchrysenes	SGS AXYS MLA-021	MLA-021		Y																		Y											
	7-Methylbenzo(a)pyrene	SGS AXYS MLA-021	MLA-021		Y																		Y											
	9/4-Methylphenanthrenes	SGS AXYS MLA-021	MLA-021		Y																		Y											
	Acenaphthene	EPA 1625	MLA-021																						Y				Y	Y				Y
		EPA 8270	MLA-021				Y			Y	Y			Y	Y																				
		SGS AXYS MLA-021	MLA-021		Y		Y								Y	Y							Y		Y									Y
	Acenaphthylene	EPA 1625	MLA-021																						Y				Y	Y				Y
		EPA 8270	MLA-021				Y			Y	Y			Y	Y																				

Accreditation Scope

SGS AXYS Analytical Services Ltd.
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Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids										Tissue						Urine	Water	Water, Non-Potable									
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		SGS AXYS MLA-021	MLA-021		Y		Y							Y		Y						Y		Y								Y	
	Anthracene	EPA 1625	MLA-021																					Y				Y	Y				Y
		EPA 8270	MLA-021				Y			Y	Y		Y	Y																				
		SGS AXYS MLA-021	MLA-021		Y		Y							Y		Y						Y		Y								Y	
	Benz[a]anthracene	EPA 1625	MLA-021																					Y				Y	Y				Y
		EPA 8270	MLA-021				Y			Y	Y		Y	Y																				
		SGS AXYS MLA-021	MLA-021		Y		Y							Y		Y						Y		Y								Y	
	Benzo[a]pyrene	EPA 1625	MLA-021																					Y				Y	Y				Y
		EPA 8270	MLA-021				Y			Y	Y		Y	Y																				
		SGS AXYS MLA-021	MLA-021		Y		Y							Y		Y						Y		Y								Y	
	Benzo[b]fluoranthene	EPA 1625	MLA-021																					Y				Y	Y		Y		Y
		EPA 8270	MLA-021				Y			Y	Y		Y	Y																				
		SGS AXYS MLA-021	MLA-021		Y		Y							Y		Y						Y		Y								Y	
	Benzo[e]pyrene	SGS AXYS MLA-021	MLA-021		Y											Y						Y											
	Benzo[ghi]perylene	EPA 1625	MLA-021																					Y				Y	Y				Y
		EPA 8270	MLA-021				Y			Y	Y		Y	Y																				
		SGS AXYS MLA-021	MLA-021		Y		Y							Y		Y						Y		Y								Y	
	Benzo[j/k]fluoranthenes	SGS AXYS MLA-021	MLA-021		Y											Y						Y											
	Benzo[k]fluoranthene	EPA 1625	MLA-021																					Y				Y	Y		Y		Y
		EPA 8270	MLA-021				Y			Y			Y	Y																				
		SGS AXYS MLA-021	MLA-021				Y							Y										Y									Y	
	Biphenyl	SGS AXYS MLA-021	MLA-021		Y																	Y											
	C1-Acenaphthenes	SGS AXYS MLA-021	MLA-021		Y																	Y											
	C1-Benz(a)anthracenes/chrysenes	SGS AXYS MLA-021	MLA-021		Y																	Y											
	C1-Benzofluoranthenes/ Benzopyrenes	SGS AXYS MLA-021	MLA-021		Y																	Y											
	C1-Biphenyls	SGS AXYS MLA-021	MLA-021		Y																	Y											
	C1-Dibenzothiophene	SGS AXYS MLA-021	MLA-021		Y																	Y											
	C1-Fluoranthenes/Pyrenes	SGS AXYS MLA-021	MLA-021		Y																	Y											
	C1-Fluorenes	SGS AXYS MLA-021	MLA-021		Y																	Y											
	C1-Naphthalenes	SGS AXYS MLA-021	MLA-021		Y																	Y											
	C1-Phenanthrenes/Anthracenes	SGS AXYS MLA-021	MLA-021		Y																	Y											
	C2-Benz(a)anthracenes/Chrysenes	SGS AXYS MLA-021	MLA-021		Y																	Y											
	C2-Benzofluoranthenes/ Benzopyrenes	SGS AXYS MLA-021	MLA-021		Y																	Y											
	C2-Biphenyls	SGS AXYS MLA-021	MLA-021		Y																	Y											
	C2-Dibenzothiophene	SGS AXYS MLA-021	MLA-021		Y																	Y											
	C2-Fluoranthenes/Pyrenes	SGS AXYS MLA-021	MLA-021		Y																	Y											
	C2-Fluorenes	SGS AXYS MLA-021	MLA-021		Y																	Y											
	C2-Naphthalenes	SGS AXYS MLA-021	MLA-021		Y																	Y											
	C2-Phenanthrenes/Anthracenes	SGS AXYS MLA-021	MLA-021		Y																	Y											
	C3-Benz(a)anthracenes/Chrysenes	SGS AXYS MLA-021	MLA-021		Y																	Y											
	C3-Dibenzothiophene	SGS AXYS MLA-021	MLA-021		Y																	Y											
	C3-Fluoranthenes/Pyrenes	SGS AXYS MLA-021	MLA-021		Y																	Y											
	C3-Fluorenes	SGS AXYS MLA-021	MLA-021		Y																	Y											
	C3-Naphthalenes	SGS AXYS MLA-021	MLA-021		Y																	Y											
	C3-Phenanthrenes/Anthracenes	SGS AXYS MLA-021	MLA-021		Y																	Y											
	C4-Benz(a)anthracenes/Chrysenes	SGS AXYS MLA-021	MLA-021		Y																	Y											
	C4-Dibenzothiophene	SGS AXYS MLA-021	MLA-021		Y																	Y											
	C4-Fluoranthenes/Pyrenes	SGS AXYS MLA-021	MLA-021		Y																	Y											
	C4-Naphthalenes	SGS AXYS MLA-021	MLA-021		Y																	Y											
	C4-Phenanthrenes/Anthracenes	SGS AXYS MLA-021	MLA-021		Y																	Y											

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Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids											Tissue							Urine	Water	Water, Non-Potable									
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025		CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	Chrysene	EPA 1625	MLA-021																						Y				Y	Y				Y
		EPA 8270	MLA-021				Y			Y	Y		Y	Y																					
		SGS AXYS MLA-021	MLA-021		Y		Y							Y		Y								Y		Y								Y
	Dibenz[a,h]anthracene	EPA 1625	MLA-021																						Y				Y	Y				Y
		EPA 8270	MLA-021				Y			Y	Y		Y	Y																					
		SGS AXYS MLA-021	MLA-021		Y		Y							Y		Y								Y		Y								Y
	Dibenzothiophene	SGS AXYS MLA-021	MLA-021		Y																			Y										
	Fluoranthene	EPA 1625	MLA-021																						Y				Y	Y				Y
		EPA 8270	MLA-021				Y			Y	Y		Y	Y																					
		SGS AXYS MLA-021	MLA-021		Y		Y							Y		Y								Y		Y								Y
	Fluorene	EPA 1625	MLA-021																						Y				Y	Y				Y
		EPA 8270	MLA-021				Y			Y	Y		Y	Y																					
		SGS AXYS MLA-021	MLA-021		Y		Y							Y		Y								Y		Y								Y
	Indeno[1,2,3-cd]pyrene	EPA 1625	MLA-021																						Y				Y	Y				Y
		EPA 8270	MLA-021				Y			Y	Y		Y	Y																					
		SGS AXYS MLA-021	MLA-021		Y		Y							Y		Y								Y		Y								Y
	Naphthalene	EPA 1625	MLA-021																						Y				Y	Y				Y
		EPA 8270	MLA-021				Y			Y	Y		Y	Y																					
		SGS AXYS MLA-021	MLA-021		Y		Y							Y		Y								Y		Y								Y
	Perylene	SGS AXYS MLA-021	MLA-021		Y											Y								Y										
	Phenanthrene	EPA 1625	MLA-021																						Y				Y	Y				Y
		EPA 8270	MLA-021				Y			Y	Y		Y	Y																					
		SGS AXYS MLA-021	MLA-021		Y		Y							Y		Y								Y		Y								Y
	Pyrene	EPA 1625	MLA-021																						Y				Y	Y				Y
		EPA 8270	MLA-021				Y			Y	Y		Y	Y																					
		SGS AXYS MLA-021	MLA-021		Y		Y							Y		Y								Y		Y								Y
	Retene	SGS AXYS MLA-021	MLA-021		Y																			Y										
PBDPE	BDE 10 2,6-dibromodiphenylether	EPA 1614	MLA-033									Y																			Y			
		SGS AXYS MLA-033	MLA-033	Y	Y											Y								Y										
	BDE 100 2,2',4,4',6-pentabromodiphenylether	EPA 1614	MLA-033									Y																			Y			
		SGS AXYS MLA-033	MLA-033	Y	Y											Y								Y										
	BDE 105 2,3,3',4,4'-pentabromodiphenylether	EPA 1614	MLA-033									Y																			Y			
		SGS AXYS MLA-033	MLA-033	Y	Y											Y								Y										
	BDE 11 3,3'-dibromodiphenylether	EPA 1614	MLA-033									Y																			Y			
		SGS AXYS MLA-033	MLA-033	Y	Y											Y								Y										
	BDE 116 2,3,4,5,6-pentabromodiphenylether	EPA 1614	MLA-033									Y																			Y			
		SGS AXYS MLA-033	MLA-033	Y	Y											Y								Y										
	BDE 119 2,3',4,4',6-pentabromodiphenylether	EPA 1614	MLA-033									Y																			Y			
		SGS AXYS MLA-033	MLA-033	Y	Y											Y								Y										
	BDE 12 3,4-dibromodiphenylether	EPA 1614	MLA-033									Y																			Y			
		SGS AXYS MLA-033	MLA-033	Y	Y											Y								Y										
	BDE 126 3,3',4,4',5-pentabromodiphenylether	EPA 1614	MLA-033									Y																			Y			
		SGS AXYS MLA-033	MLA-033	Y	Y											Y								Y										
	BDE 13 3,4'-dibromodiphenylether	EPA 1614	MLA-033									Y																			Y			
		SGS AXYS MLA-033	MLA-033	Y	Y											Y								Y										
	BDE 140 2,2',3,4,4',6'-hexabromodiphenylether	EPA 1614	MLA-033									Y																			Y			
		SGS AXYS MLA-033	MLA-033	Y	Y											Y								Y										
	BDE 15 4,4'-dibromodiphenylether	EPA 1614	MLA-033									Y																			Y			
		SGS AXYS MLA-033	MLA-033	Y	Y											Y								Y										
	BDE 153 2,2',4,4',5,5'-hexabromodiphenylether	EPA 1614	MLA-033									Y																			Y			

Accreditation Scope

SGS AXYS Analytical Services Ltd.
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Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids										Tissue						Urine	Water	Water, Non-Potable								
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 154 2,2',4,4',5',6-hexabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 155 2,2',4,4',6,6'-hexabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 166 2,3,4,4',5,6-hexabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 17 2,2',4-tribromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 181 2,2',3,4,4',5,6-heptabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 190 2,3,3',4,4',5,6-heptabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 206 2,2',3,3',4,4',5,5',6-nonabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 207 2,2',3,3',4,4',5,6,6'-nonabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 208 2,2',3,3',4,5,5',6,6'-nonabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 209 Decabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 25 2,3',4-tribromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 28 2,4,4'-tribromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 30 2,4,6-tribromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 35 3,3',4-tribromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 37 3,4,4'-tribromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 47 2,2',4,4'-tetrabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 49 2,2',4,5'-tetrabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 66 2,3',4,4'-tetrabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 7 2,4-dibromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 75 2,4,4',6-tetrabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 77 3,3',4,4'-tetrabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 8 2,4'-dibromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 85 2,2',3,4,4'-pentabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 99 2,2',4,4',5-pentabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE-183 2,2',3,4,4',5',6-heptabromodiphenylether	EPA 1614	MLA-033									Y																		Y				

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Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids											Tissue						Urine	Water	Water, Non-Potable								
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y										
	BDE-33 2',3,4-tribromodiphenylether	EPA 1614	MLA-033									Y																		Y			
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y										
PCB Aroclors	"PCBs" category (CA only)	EPA 625	MLA-007																					Y									
		EPA 8270	MLA-007			Y																											
	PCB Aroclor 1016	EPA 1668	MLA-010				Y						Y	Y											Y						Y		Y	
		EPA 625	MLA-007																						Y			Y	Y		Y		Y	
		EPA 8270	MLA-007				Y			Y	Y			Y																				
		SGS AXYS MLA-010	MLA-010				Y							Y											Y								Y	
		SGS AXYS MLA-007	MLA-007		Y		Y							Y		Y							Y		Y								Y	
	PCB Aroclor 1016/1242	EPA 8270	MLA-007									Y																					
	PCB Aroclor 1221	EPA 1668	MLA-010				Y						Y	Y											Y						Y		Y	
		EPA 625	MLA-007																						Y			Y	Y		Y		Y	
		EPA 8270	MLA-007				Y			Y	Y	Y		Y																				
		SGS AXYS MLA-010	MLA-010				Y							Y											Y								Y	
		SGS AXYS MLA-007	MLA-007		Y		Y							Y		Y							Y		Y								Y	
	PCB Aroclor 1232	EPA 1668	MLA-010				Y						Y	Y											Y						Y		Y	
		EPA 625	MLA-007																						Y			Y	Y		Y		Y	
		EPA 8270	MLA-007				Y			Y	Y	Y		Y																				
		SGS AXYS MLA-010	MLA-010				Y							Y											Y								Y	
		SGS AXYS MLA-007	MLA-007		Y		Y							Y		Y							Y		Y								Y	
	PCB Aroclor 1242	EPA 1668	MLA-010				Y						Y	Y											Y						Y		Y	
		EPA 625	MLA-007																						Y			Y	Y		Y		Y	
		EPA 8270	MLA-007				Y			Y	Y			Y																				
		SGS AXYS MLA-010	MLA-010				Y							Y											Y								Y	
		SGS AXYS MLA-007	MLA-007		Y		Y							Y		Y							Y		Y								Y	
	PCB Aroclor 1248	EPA 1668	MLA-010				Y						Y	Y											Y						Y		Y	
		EPA 625	MLA-007																						Y			Y	Y		Y		Y	
		EPA 8270	MLA-007				Y			Y	Y	Y		Y																				
		SGS AXYS MLA-010	MLA-010				Y							Y											Y								Y	
		SGS AXYS MLA-007	MLA-007		Y		Y							Y		Y							Y		Y								Y	
	PCB Aroclor 1254	EPA 1668	MLA-010				Y						Y	Y											Y						Y		Y	
		EPA 625	MLA-007																						Y			Y	Y		Y		Y	
		EPA 8270	MLA-007				Y			Y	Y	Y		Y																				
		SGS AXYS MLA-010	MLA-010				Y							Y											Y								Y	
		SGS AXYS MLA-007	MLA-007		Y		Y							Y		Y							Y		Y								Y	
	PCB Aroclor 1260	EPA 1668	MLA-010				Y						Y	Y											Y						Y		Y	
		EPA 625	MLA-007																						Y			Y	Y		Y		Y	
		EPA 8270	MLA-007				Y			Y	Y	Y		Y																				
		SGS AXYS MLA-010	MLA-010				Y							Y											Y								Y	
		SGS AXYS MLA-007	MLA-007		Y		Y							Y		Y							Y		Y								Y	
	PCB Aroclor 1268	SGS AXYS MLA-007	MLA-007		Y											Y							Y										
PCB congeners	PCB 1 2-Chlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 10 2,6-Dichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y		Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 100 2,2',4,4',6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	

Accreditation Scope

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Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids											Tissue						Urine	Water	Water, Non-Potable									
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	PCB 101 2,2',4,5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y					Y		Y		Y								Y	
	PCB 101/90/89	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 102 2,2',4,5,6'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y					Y		Y		Y								Y	
	PCB 103 2,2',4,5',6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y					Y		Y		Y								Y	
	PCB 104 2,2',4,6,6'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y					Y		Y		Y								Y	
	PCB 105 2,3,3',4,4'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y					Y		Y		Y								Y	
	PCB 105/127	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 106 2,3,3',4,5-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y					Y		Y		Y								Y	
	PCB 107 2,3,3',4',5-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y					Y		Y		Y								Y	
	PCB 107/109	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 108 2,3,3',4,5'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y					Y		Y		Y								Y	
	PCB 109 2,3,3',4,6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y					Y		Y		Y								Y	
	PCB 11 3,3'-Dichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y					Y		Y		Y								Y	
	PCB 110 2,3,3',4',6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y					Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 111 2,3,3',5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y					Y		Y		Y								Y	
	PCB 111/117	EPA 8270	MLA-007									Y																						
	PCB 112 2,3,3',5,6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y					Y		Y		Y								Y	
	PCB 113 2,3,3',5',6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y					Y		Y		Y								Y	
	PCB 114 2,3,4,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y					Y		Y		Y								Y	
	PCB 115 2,3,4,4',6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y					Y		Y		Y								Y	
	PCB 116 2,3,4,5,6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y					Y		Y		Y								Y	
	PCB 117 2,3,4',5,6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	

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				Serum	Solids											Tissue						Urine	Water	Water, Non-Potable									
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 118 2,3',4,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
		SGS AXYS MLA-901	MLA-901	Y																														
	PCB 118/106	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 119 2,3',4,4',6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 12 3,4-Dichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 12/13	EPA 8270	MLA-007									Y																						
	PCB 120 2,3',4,5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 121 2,3',4,5',6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 122 2,3,3',4',5'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 123 2,3',4,4',5'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 124 2,3',4',5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 125 2,3',4',5',6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 126 3,3',4,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 127 3,3',4,5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 128 2,2',3,3',4,4'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 129 2,2',3,3',4,5-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 13 3,4'-Dichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 130 2,2',3,3',4,5'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y		Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 131 2,2',3,3',4,6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y

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SGS AXYS Analytical Services Ltd.
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				Serum	Solids											Tissue							Urine	Water	Water, Non-Potable								
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	PCB 131/142	EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 132 2,2',3,3',4,6'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 132/168	EPA 8270	MLA-007									Y																					
	PCB 133 2,2',3,3',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 134 2,2',3,3',5,6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 134/143	EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 135 2,2',3,3',5,6'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 136 2,2',3,3',6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 137 2,2',3,4,4',5-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 138 2,2',3,4,4',5'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
		SGS AXYS MLA-901	MLA-901	Y																													
	PCB 138/163/164	EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 139 2,2',3,4,4',6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 14 3,5-Dichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 140 2,2',3,4,4',6'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 141 2,2',3,4,5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 142 2,2',3,4,5,6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 143 2,2',3,4,5,6'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 144 2,2',3,4,5',6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 144/135	EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 145 2,2',3,4,6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 146 2,2',3,4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y

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SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids										Tissue						Urine	Water	Water, Non-Potable									
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y			Y										Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
		SGS AXYS MLA-901	MLA-901	Y																														
	PCB 147 2,2',3,4',5,6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y			Y	Y	Y			Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y			Y										Y	
	PCB 148 2,2',3,4',5,6'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y			Y	Y	Y			Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y			Y										Y	
	PCB 149 2,2',3,4',5',6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y			Y	Y	Y			Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y			Y										Y	
	PCB 149/139	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 15 4,4'-Dichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y			Y	Y	Y			Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y			Y										Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 150 2,2',3,4',6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y			Y	Y	Y			Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y			Y										Y	
	PCB 151 2,2',3,5,5',6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y			Y	Y	Y			Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y			Y										Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 152 2,2',3,5,6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y			Y	Y	Y			Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y			Y										Y	
	PCB 153 2,2',4,4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y			Y	Y	Y			Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y			Y										Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
		SGS AXYS MLA-901	MLA-901	Y																														
	PCB 154 2,2',4,4',5,6'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y			Y	Y	Y			Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y			Y										Y	
	PCB 155 2,2',4,4',6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y			Y	Y	Y			Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y			Y										Y	
	PCB 156 2,3,3',4,4',5-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y			Y	Y	Y			Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y			Y										Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
		SGS AXYS MLA-901	MLA-901	Y																														
	PCB 157 2,3,3',4,4',5'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y			Y	Y	Y			Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y			Y										Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 158 2,3,3',4,4',6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y			Y	Y	Y			Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y			Y										Y	

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SGS AXYS Analytical Services Ltd.
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Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids											Tissue						Urine	Water	Water, Non-Potable								
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	PCB 158/160	EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 159 2,3,3',4,5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 16 2,2',3-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 16/32	EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 160 2,3,3',4,5,6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 161 2,3,3',4,5',6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 162 2,3,3',4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 163 2,3,3',4',5,6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 164 2,3,3',4',5',6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 165 2,3,3',5,5',6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 166 2,3,4,4',5,6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 167 2,3',4,4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 168 2,3',4,4',5',6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 169 3,3',4,4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 17 2,2',4-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 170 2,2',3,3',4,4',5-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
		SGS AXYS MLA-901	MLA-901	Y																														
	PCB 170/190	EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 171 2,2',3,3',4,4',6-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																					

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids										Tissue						Urine	Water	Water, Non-Potable								
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y							
		SGS AXYS MLA-007	MLA-007		Y											Y						Y									
	PCB 172 2,2',3,3',4,5,5'-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y		Y						Y					Y		Y	Y	Y	Y		
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y							
	PCB 172/192	EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-007	MLA-007		Y											Y						Y									
	PCB 173 2,2',3,3',4,5,6-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y		Y						Y					Y		Y	Y	Y	Y		
		EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y							
	PCB 174 2,2',3,3',4,5,6'-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y							
	PCB 174/181	EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-007	MLA-007		Y											Y						Y									
	PCB 175 2,2',3,3',4,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		
		EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y							
		SGS AXYS MLA-007	MLA-007		Y											Y						Y									
	PCB 176 2,2',3,3',4,6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		
		EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y							
		SGS AXYS MLA-007	MLA-007		Y											Y						Y									
	PCB 177 2,2',3,3',4,5',6'-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		
		EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y							
		SGS AXYS MLA-007	MLA-007		Y											Y						Y									
	PCB 178 2,2',3,3',5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		
		EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y							
		SGS AXYS MLA-007	MLA-007		Y											Y						Y									
	PCB 179 2,2',3,3',5,6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		
		EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y							
		SGS AXYS MLA-007	MLA-007		Y											Y						Y									
	PCB 18 2,2',5-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		
		EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y							
		SGS AXYS MLA-007	MLA-007		Y											Y						Y									
	PCB 180 2,2',3,4,4',5,5'-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		
		EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y							
		SGS AXYS MLA-007	MLA-007		Y											Y						Y									
		SGS AXYS MLA-901	MLA-901	Y																											
	PCB 181 2,2',3,4,4',5,6-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y							
	PCB 182 2,2',3,4,4',5,6'-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y							
	PCB 183 2,2',3,4,4',5',6-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		
		EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y							
		SGS AXYS MLA-007	MLA-007		Y											Y						Y									

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids										Tissue						Urine	Water	Water, Non-Potable									
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	PCB 184 2,2',3,4,4',6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 185 2,2',3,4,5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	Y
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 186 2,2',3,4,5,6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	Y
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 187 2,2',3,4',5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
		SGS AXYS MLA-901	MLA-901	Y																														
	PCB 187/182	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 188 2,2',3,4',5,6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	Y
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 189 2,3,3',4,4',5,5'-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	Y
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 19 2,2',6-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	Y
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 190 2,3,3',4,4',5,6-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 191 2,3,3',4,4',5',6-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	Y
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 192 2,3,3',4,5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 193 2,3,3',4',5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	Y
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 194 2,2',3,3',4,4',5,5'-Octachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	Y
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
		SGS AXYS MLA-901	MLA-901	Y																														
	PCB 195 2,2',3,3',4,4',5,6-Octachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	Y
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 196 2,2',3,3',4,4',5,6'-Octachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 196/203	EPA 8270	MLA-007									Y																						

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Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids										Tissue						Urine	Water	Water, Non-Potable								
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH
		SGS AXYS MLA-007	MLA-007		Y										Y							Y									
	PCB 197 2,2',3,3',4,4',6,6'-Octachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y		Y					Y					Y			Y	Y	Y	Y	
		EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y						Y
		SGS AXYS MLA-007	MLA-007		Y											Y							Y									
	PCB 198 2,2',3,3',4,5,5',6-Octachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y					Y					Y			Y	Y	Y	Y	
		EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y						Y
		SGS AXYS MLA-007	MLA-007		Y											Y							Y									
	PCB 199 2,2',3,3',4,5,5',6'-Octachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y		Y					Y					Y			Y	Y	Y	Y	
		EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y						Y
		SGS AXYS MLA-007	MLA-007		Y											Y							Y									
	PCB 2 3-Chlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y					Y					Y			Y	Y	Y	Y	
		EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y						Y
	PCB 20 2,3,3'-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y					Y					Y			Y	Y	Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y						Y
	PCB 200 2,2',3,3',4,5,6,6'-Octachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y					Y					Y			Y	Y	Y	Y	
		EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y						Y
	PCB 201 2,2',3,3',4,5',6,6'-Octachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y		Y					Y					Y			Y	Y	Y	Y	
		EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y						Y
		SGS AXYS MLA-007	MLA-007		Y											Y							Y									
	PCB 202 2,2',3,3',5,5',6,6'-Octachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y					Y					Y			Y	Y	Y	Y	
		EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y						Y
	PCB 203 2,2',3,4,4',5,5',6-Octachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y					Y					Y			Y	Y	Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y						Y
	PCB 204 2,2',3,4,4',5,6,6'-Octachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y					Y					Y			Y	Y	Y	Y	
		EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y						Y
	PCB 205 2,3,3',4,4',5,5',6-Octachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y					Y					Y			Y	Y	Y	Y	
		EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y						Y
		SGS AXYS MLA-007	MLA-007		Y											Y							Y									
	PCB 206 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y					Y					Y			Y	Y	Y	Y	
		EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y						Y
		SGS AXYS MLA-007	MLA-007		Y											Y							Y									
	PCB 207 2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y		Y					Y					Y			Y	Y	Y	Y	
		EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y						Y
		SGS AXYS MLA-007	MLA-007		Y											Y							Y									
	PCB 208 2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y		Y					Y					Y			Y	Y	Y	Y	
		EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y						Y
		SGS AXYS MLA-007	MLA-007		Y											Y							Y									
	PCB 209 Decachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y					Y					Y			Y	Y	Y	Y	

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				Serum	Solids											Tissue							Urine	Water	Water, Non-Potable								
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 21 2,3,4-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 22 2,3,4'-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 23 2,3,5-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y		Y							Y				Y		Y	Y	Y	Y		Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 23/34	EPA 8270	MLA-007									Y																					
	PCB 24 2,3,6-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 24/27	EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 25 2,3',4-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 26 2,3',5-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 27 2,3',6-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 28 2,4,4'-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 29 2,4,5-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y		Y							Y				Y		Y	Y	Y	Y		Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 3 4-Chlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 30 2,4,6-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 31 2,4',5-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 32 2,4',6-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 33 2,3',4'-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 33/20/21	EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 34 2,3',5'-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										

Accreditation Scope

SGS AXYS Analytical Services Ltd.
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				Serum	Solids											Tissue							Urine	Water	Water, Non-Potable									
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	ANAB DoD **	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	PCB 35 3,3',4-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y					Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																							
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y			Y		Y								Y	
	PCB 36 3,3',5-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y					Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																							
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y			Y		Y								Y	
	PCB 37 3,4,4'-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y					Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																							
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y			Y		Y								Y	
	PCB 38 3,4,5-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y					Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																							
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y			Y		Y								Y	
	PCB 39 3,4',5-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y					Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																							
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y			Y		Y								Y	
	PCB 4 2,2'-Dichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y					Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y			Y		Y								Y	
	PCB 4/10	EPA 8270	MLA-007									Y																							
	PCB 40 2,2',3,3'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y					Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																							
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y			Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y								Y											
	PCB 41 2,2',3,4-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y					Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y			Y		Y								Y	
	PCB 41/71/64/68	EPA 8270	MLA-007									Y																							
		SGS AXYS MLA-007	MLA-007		Y											Y								Y											
	PCB 42 2,2',3,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y					Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y			Y		Y								Y	
	PCB 42/59	EPA 8270	MLA-007									Y																							
		SGS AXYS MLA-007	MLA-007		Y											Y								Y											
	PCB 43 2,2',3,5-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y					Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y			Y		Y								Y	
	PCB 44 2,2',3,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y					Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																							
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y			Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y								Y											
	PCB 45 2,2',3,6-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y					Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																							
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y			Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y								Y											
	PCB 46 2,2',3,6'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y					Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																							
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y			Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y								Y											
	PCB 47 2,2',4,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y					Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y			Y		Y								Y	
	PCB 47/48/75	EPA 8270	MLA-007									Y																							
		SGS AXYS MLA-007	MLA-007		Y											Y								Y											
	PCB 48 2,2',4,5-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y					Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y			Y		Y								Y	

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Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids											Tissue						Urine	Water	Water, Non-Potable									
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	PCB 49 2,2',4,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 49/43	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 5 2,3-Dichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 50 2,2',4,6-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 51 2,2',4,6'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 52 2,2',5,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 52/73	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 53 2,2',5,6'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 54 2,2',6,6'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 55 2,3,3',4-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 56 2,3,3',4'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 56/60	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 57 2,3,3',5-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 58 2,3,3',5'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 59 2,3,3',6-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 6 2,3'-Dichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 60 2,3,4,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 61 2,3,4,5-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 62 2,3,4,6-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 62/65	EPA 8270	MLA-007									Y																						
	PCB 63 2,3,4',5-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						

Accreditation Scope

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				Serum	Solids											Tissue							Urine	Water	Water, Non-Potable								
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y				Y								Y	
	PCB 64 2,3,4',6-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 65 2,3,5,6-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 66 2,3',4,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 66/80	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 67 2,3',4,5-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 68 2,3',4,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 69 2,3',4,6-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 7 2,4-Dichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 7/9	EPA 8270	MLA-007									Y																						
	PCB 70 2,3',4',5-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 70/76	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 71 2,3',4',6-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 72 2,3',5,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 73 2,3',5',6-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 74 2,4,4',5-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
		SGS AXYS MLA-901	MLA-901	Y																														
	PCB 74/61	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 75 2,4,4',6-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 76 2,3',4',5'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 77 3,3',4,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 78 3,3',4,5-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 79 3,3',4,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

				Serum	Solids											Tissue						Urine	Water	Water, Non-Potable									
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	PCB 8 2,4'-Dichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 8/5	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 80 3,3',5,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 81 3,4,4',5-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 82 2,2',3,3',4-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 83 2,2',3,3',5-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 83/108	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 84 2,2',3,3',6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y		Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 85 2,2',3,4,4'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 85/120	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 86 2,2',3,4,5-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 87 2,2',3,4,5'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 87/115/116	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 88 2,2',3,4,6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 88/121	EPA 8270	MLA-007									Y																						
	PCB 89 2,2',3,4,6'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 9 2,5-Dichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y		Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 90 2,2',3,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 91 2,2',3,4',6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 92 2,2',3,5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 93 2,2',3,5,6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 94 2,2',3,5,6'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids											Tissue						Urine	Water	Water, Non-Potable									
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y			Y									Y	
	PCB 95 2,2',3,5',6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y										Y	
	PCB 95/93	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 96 2,2',3,6,6'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y									Y	
	PCB 97 2,2',3,4',5'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y									Y	
	PCB 97/86	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 98 2,2',3,4',6'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y									Y	
	PCB 98/102	EPA 8270	MLA-007									Y																						
	PCB 99 2,2',4,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y									Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
		SGS AXYS MLA-901	MLA-901	Y																														
	PCB congeners, total	EPA 1668	MLA-010							Y																		Y						
	Sum - Dichlorobiphenyls (BZ-12-+ BZ-13)	EPA 1668	MLA-010											Y							Y												Y	
		SGS AXYS MLA-010	MLA-010											Y							Y												Y	
	Sum - Heptachlorobiphenyls (BZ-171 + BZ-173)	EPA 1668	MLA-010											Y							Y												Y	
		SGS AXYS MLA-010	MLA-010											Y							Y												Y	
	Sum - Heptachlorobiphenyls (BZ-180 + BZ-193)	EPA 1668	MLA-010											Y							Y												Y	
		SGS AXYS MLA-010	MLA-010											Y							Y												Y	
	Sum - Heptachlorobiphenyls (BZ-183 + BZ-185)	EPA 1668	MLA-010											Y							Y												Y	
		SGS AXYS MLA-010	MLA-010											Y							Y												Y	
	Sum - Hexachlorobiphenyls (BZ-128 + BZ-166)	EPA 1668	MLA-010											Y							Y												Y	
		SGS AXYS MLA-010	MLA-010											Y							Y												Y	
	Sum - Hexachlorobiphenyls (BZ-129 + BZ-138 + BZ-160 + BZ-163)	EPA 1668	MLA-010											Y							Y												Y	
		SGS AXYS MLA-010	MLA-010											Y							Y												Y	
	Sum - Hexachlorobiphenyls (BZ-134 + BZ-143)	EPA 1668	MLA-010											Y							Y												Y	
		SGS AXYS MLA-010	MLA-010											Y							Y												Y	
	Sum - Hexachlorobiphenyls (BZ-135 + BZ-151 + BZ-154)	EPA 1668	MLA-010											Y							Y												Y	
		SGS AXYS MLA-010	MLA-010											Y							Y												Y	
	Sum - Hexachlorobiphenyls (BZ-139 + BZ-140)	EPA 1668	MLA-010											Y							Y												Y	
		SGS AXYS MLA-010	MLA-010											Y							Y												Y	
	Sum - Hexachlorobiphenyls (BZ-147 + BZ-149)	EPA 1668	MLA-010											Y							Y												Y	
		SGS AXYS MLA-010	MLA-010											Y							Y												Y	
	Sum - Hexachlorobiphenyls (BZ-153 + BZ-168)	EPA 1668	MLA-010											Y							Y												Y	
		SGS AXYS MLA-010	MLA-010											Y							Y												Y	
	Sum - Hexachlorobiphenyls (BZ-156 + BZ-157)	EPA 1668	MLA-010											Y							Y												Y	
		SGS AXYS MLA-010	MLA-010											Y							Y												Y	
	Sum - Pentachlorobiphenyls (BZ-107 + BZ-124)	EPA 1668	MLA-010											Y							Y												Y	
		SGS AXYS MLA-010	MLA-010											Y							Y												Y	
	Sum - Pentachlorobiphenyls (BZ-108 + BZ-124)	EPA 1668	MLA-010											Y							Y												Y	
		SGS AXYS MLA-010	MLA-010											Y							Y												Y	
	Sum - Pentachlorobiphenyls (BZ-110 + BZ-115)	EPA 1668	MLA-010											Y							Y												Y	

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids											Tissue						Urine	Water	Water, Non-Potable								
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Pentachlorobiphenyls (BZ-83 + BZ-99)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Pentachlorobiphenyls (BZ-85 + BZ-116 + BZ-117)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Pentachlorobiphenyls (BZ-86 + BZ-87 + BZ 97 + BZ-109 + BZ-119 + BZ-125)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Pentachlorobiphenyls (BZ-86 + BZ-87 + BZ-97 + BZ-108 + BZ-119 +BZ-125)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Pentachlorobiphenyls (BZ-88 + BZ-91)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Pentachlorobiphenyls (BZ-90 + BZ-101 + BZ-113)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Pentachlorobiphenyls (BZ-93 + BZ-95 + BZ-98 + BZ-100 + BZ-102)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Tetrachlorobiphenyls (BZ-40 + BZ-41 + BZ-71)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Tetrachlorobiphenyls (BZ-44 + BZ-47 + BZ-65)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Tetrachlorobiphenyls (BZ-45 + BZ-51)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Tetrachlorobiphenyls (BZ-49 + BZ-69)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Tetrachlorobiphenyls (BZ-50 + BZ-53)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Tetrachlorobiphenyls (BZ-59 + BZ-62 + BZ-75)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Tetrachlorobiphenyls (BZ-61 + BZ-70 + BZ-74 + BZ-76)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Trichlorobiphenyls (BZ-18 + BZ-30)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Trichlorobiphenyls (BZ-20 + BZ-28)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Trichlorobiphenyls (BZ-21 + BZ-33)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Trichlorobiphenyls (BZ-26 + BZ-29)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Total Dichlorobiphenyls	EPA 1668	MLA-010											Y						Y													Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y									Y		Y				Y			Y											Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	Total Heptachlorobiphenyls	EPA 1668	MLA-010											Y						Y													Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y									Y		Y				Y			Y											Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	Total Hexachlorobiphenyls	EPA 1668	MLA-010											Y						Y													Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y									Y		Y				Y			Y											Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	Total Monochlorobiphenyls	EPA 1668	MLA-010											Y						Y													Y	

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids										Tissue						Urine	Water	Water, Non-Potable									
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		SGS AXYS MLA-010	MLA-010	Y	Y									Y		Y				Y		Y										Y	
	Total Nonachlorobiphenyls	EPA 1668	MLA-010											Y						Y													Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y									Y		Y				Y		Y										Y	
		SGS AXYS MLA-007	MLA-007		Y											Y						Y											
	Total Octachlorobiphenyls	EPA 1668	MLA-010											Y						Y													Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y									Y		Y				Y		Y										Y	
		SGS AXYS MLA-007	MLA-007		Y											Y						Y											
	Total PCBs	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Total Pentachlorobiphenyls	EPA 1668	MLA-010											Y						Y													Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y									Y		Y				Y		Y										Y	
		SGS AXYS MLA-007	MLA-007		Y											Y						Y											
	Total Polychlorinated biphenyls	SGS AXYS MLA-007	MLA-007		Y											Y						Y											
	Total Tetrachlorobiphenyls	EPA 1668	MLA-010											Y						Y													Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y									Y		Y				Y		Y										Y	
		SGS AXYS MLA-007	MLA-007		Y											Y						Y											
	Total Trichlorobiphenyls	EPA 1668	MLA-010											Y						Y													Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y									Y		Y				Y		Y										Y	
		SGS AXYS MLA-007	MLA-007		Y											Y						Y											
PCDDF	"Dioxins and Dibenzofurans" category (CA only)	EPA 1613	MLA-017																					Y										
		EPA 8290	MLA-017			Y																												
	1,2,3,4,6,7,8-HpCDD	EPA 1613	MLA-017									Y		Y							Y				Y		Y	Y	Y	Y	Y		Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y				Y			Y	Y				Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y		Y		Y								Y	
	1,2,3,4,6,7,8-HpCDF	EPA 1613	MLA-017									Y		Y							Y				Y		Y	Y	Y	Y	Y		Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y				Y			Y	Y				Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y		Y		Y								Y	
	1,2,3,4,7,8,9-HpCDF	EPA 1613	MLA-017									Y		Y							Y				Y		Y	Y	Y	Y	Y		Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y				Y			Y	Y				Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y		Y		Y								Y	
	1,2,3,4,7,8-HxCDD	EPA 1613	MLA-017									Y		Y							Y				Y		Y	Y	Y	Y	Y		Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y				Y			Y	Y				Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y		Y		Y								Y	
	1,2,3,4,7,8-HxCDF	EPA 1613	MLA-017									Y		Y							Y				Y		Y	Y	Y	Y	Y		Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y				Y			Y	Y				Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y		Y		Y								Y	
	1,2,3,6,7,8-HxCDD	EPA 1613	MLA-017									Y		Y							Y				Y		Y	Y	Y	Y	Y		Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y				Y			Y	Y				Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y		Y		Y								Y	
	1,2,3,6,7,8-HxCDF	EPA 1613	MLA-017									Y		Y							Y				Y		Y	Y	Y	Y	Y		Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y				Y			Y	Y				Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y		Y		Y								Y	
	1,2,3,7,8,9-HxCDD	EPA 1613	MLA-017									Y		Y							Y				Y		Y	Y	Y	Y	Y		Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y				Y			Y	Y				Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y		Y		Y								Y	

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

				Serum	Solids											Tissue							Urine	Water	Water, Non-Potable								
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	1,2,3,7,8,9-HxCDF	EPA 1613	MLA-017									Y		Y							Y				Y		Y	Y	Y	Y	Y		Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y				Y			Y	Y				Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y		Y		Y								Y	
	1,2,3,7,8-PeCDD	EPA 1613	MLA-017									Y		Y							Y				Y		Y	Y	Y	Y	Y		Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y				Y			Y	Y				Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y		Y		Y								Y	
	1,2,3,7,8-PeCDF	EPA 1613	MLA-017									Y		Y							Y				Y		Y	Y	Y	Y	Y		Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y				Y			Y	Y				Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y		Y		Y								Y	
	2,3,4,6,7,8-HxCDF	EPA 1613	MLA-017									Y		Y							Y				Y		Y	Y	Y	Y	Y		Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y				Y			Y	Y				Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y		Y		Y								Y	
	2,3,4,7,8-PeCDF	EPA 1613	MLA-017									Y		Y							Y				Y		Y	Y	Y	Y	Y		Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y				Y			Y	Y				Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y		Y		Y								Y	
	2,3,7,8-TCDD	EPA 1613	MLA-017									Y		Y							Y				Y		Y	Y	Y	Y	Y		Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y				Y			Y	Y				Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y		Y		Y								Y	
	2,3,7,8-TCDF	EPA 1613	MLA-017									Y		Y							Y				Y		Y	Y	Y	Y	Y		Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y				Y			Y	Y				Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y		Y		Y								Y	
	OCDD	EPA 1613	MLA-017									Y		Y							Y				Y		Y	Y	Y	Y	Y		Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y				Y			Y	Y				Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y		Y		Y								Y	
	OCDF	EPA 1613	MLA-017									Y		Y							Y				Y		Y	Y	Y	Y	Y		Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y				Y			Y	Y				Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y		Y		Y								Y	
	Total HpCDD	EPA 1613	MLA-017											Y							Y				Y							Y	Y	
		EPA 8290	MLA-017				Y		Y		Y			Y	Y			Y		Y	Y	Y				Y					Y			Y	
		SGS AXYS MLA-017	MLA-017				Y							Y			Y				Y				Y									Y	
	Total HpCDF	EPA 1613	MLA-017											Y							Y				Y							Y		
		EPA 8290	MLA-017				Y		Y		Y			Y	Y			Y		Y	Y	Y				Y					Y			Y	
		SGS AXYS MLA-017	MLA-017				Y							Y			Y				Y				Y									Y	
	Total HxCDD	EPA 1613	MLA-017											Y							Y				Y							Y		
		EPA 8290	MLA-017				Y		Y		Y			Y	Y			Y		Y	Y	Y				Y					Y			Y	
		SGS AXYS MLA-017	MLA-017				Y							Y			Y				Y				Y									Y	
	Total HxCDF	EPA 1613	MLA-017											Y							Y				Y							Y		
		EPA 8290	MLA-017				Y		Y		Y			Y	Y			Y		Y	Y	Y				Y					Y			Y	
		SGS AXYS MLA-017	MLA-017				Y							Y			Y				Y				Y									Y	
	Total PCDD	EPA 1613	MLA-017											Y							Y													Y	
		EPA 8290	MLA-017											Y							Y													Y	
		SGS AXYS MLA-017	MLA-017											Y							Y													Y	
	Total PCDD+PCDF	EPA 1613	MLA-017											Y							Y													Y	
		EPA 8290	MLA-017											Y							Y													Y	
		SGS AXYS MLA-017	MLA-017											Y							Y													Y	
	Total PCDF	EPA 1613	MLA-017											Y							Y													Y	
		EPA 8290	MLA-017											Y							Y													Y	
		SGS AXYS MLA-017	MLA-017											Y							Y													Y	
	Total PeCDD	EPA 1613	MLA-017											Y							Y				Y							Y		Y	
		EPA 8290	MLA-017				Y		Y		Y			Y	Y			Y		Y	Y	Y				Y					Y			Y	

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids										Tissue						Urine	Water	Water, Non-Potable								
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		SGS AXYS MLA-017	MLA-017				Y							Y			Y				Y				Y								Y	
	Total PeCDF	EPA 1613	MLA-017											Y							Y				Y							Y	Y	
		EPA 8290	MLA-017				Y		Y		Y		Y	Y			Y		Y	Y	Y				Y					Y			Y	
		SGS AXYS MLA-017	MLA-017				Y							Y			Y				Y				Y								Y	
	Total TCDD	EPA 1613	MLA-017											Y							Y				Y							Y	Y	
		EPA 8290	MLA-017				Y		Y		Y		Y	Y			Y		Y	Y	Y				Y					Y			Y	
		SGS AXYS MLA-017	MLA-017				Y							Y			Y				Y				Y								Y	
	Total TCDF	EPA 1613	MLA-017											Y							Y				Y							Y	Y	
		EPA 8290	MLA-017				Y		Y		Y		Y	Y			Y		Y	Y	Y				Y					Y			Y	
		SGS AXYS MLA-017	MLA-017				Y							Y			Y				Y				Y								Y	
PFAS	4:2 Fluorotelomersulfonate (4:2 FTS)	SGS AXYS MLA-081	MLA-081																														Y	
		SGS AXYS MLA-089	MLA-089											Y																					
		SGS AXYS MLA-110	MLA-110		Y		Y					Y		Y	Y								Y		Y						Y			Y	Y
	6:2 Fluorotelomersulfonate (6:2 FTS)	SGS AXYS MLA-081	MLA-081																														Y	
		SGS AXYS MLA-089	MLA-089											Y																					
		SGS AXYS MLA-110	MLA-110		Y		Y					Y		Y	Y								Y		Y						Y			Y	Y
	8:2 Fluorotelomersulfonate (8:2 FTS)	SGS AXYS MLA-081	MLA-081																														Y	
		SGS AXYS MLA-089	MLA-089											Y																					
		SGS AXYS MLA-110	MLA-110		Y		Y					Y		Y	Y								Y		Y						Y			Y	Y
	N-Ethylperfluorooctanesulfonamide (N-EtFOSA)	SGS AXYS MLA-110	MLA-110		Y							Y											Y								Y			
	N-Ethylperfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	SGS AXYS MLA-110	MLA-110		Y		Y					Y		Y	Y								Y		Y						Y			Y	Y
	N-Ethylperfluorooctanesulfonamidoethanol (N-EtFOSE)	SGS AXYS MLA-110	MLA-110		Y							Y											Y								Y			
	N-Methylperfluorooctanesulfonamide (N-MeFOSA)	SGS AXYS MLA-110	MLA-110		Y							Y											Y								Y			
	N-Methylperfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	SGS AXYS MLA-110	MLA-110		Y		Y					Y		Y	Y								Y		Y						Y			Y	Y
	N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	SGS AXYS MLA-110	MLA-110		Y							Y											Y								Y			
	Perfluorobutanesulfonate (PFBS)	SGS AXYS MLA-060	MLA-060																				Y		Y	Y	Y						Y	
		SGS AXYS MLA-041	MLA-041		Y		Y	Y	Y					Y																					
		SGS AXYS MLA-043	MLA-043													Y	Y	Y	Y		Y														
		SGS AXYS MLA-042	MLA-042	Y																															
		SGS AXYS MLA-110	MLA-110		Y		Y	Y				Y		Y	Y								Y		Y	Y					Y			Y	Y
	Perfluorobutanoate (PFBA)	SGS AXYS MLA-060	MLA-060																				Y		Y	Y	Y						Y	
		SGS AXYS MLA-041	MLA-041		Y		Y	Y	Y					Y																					
		SGS AXYS MLA-043	MLA-043													Y	Y	Y	Y		Y														
		SGS AXYS MLA-042	MLA-042	Y																															
		SGS AXYS MLA-110	MLA-110		Y		Y	Y				Y		Y	Y								Y		Y	Y					Y			Y	Y
	Perfluorodecanesulfonate (PFDS)	SGS AXYS MLA-110	MLA-110		Y		Y					Y		Y	Y								Y		Y						Y			Y	Y
	Perfluorodecanoate (PFDA)	SGS AXYS MLA-060	MLA-060																				Y		Y	Y	Y						Y	
		SGS AXYS MLA-041	MLA-041		Y		Y	Y	Y					Y																					
		SGS AXYS MLA-043	MLA-043													Y	Y	Y	Y		Y														
		SGS AXYS MLA-042	MLA-042	Y																															
		SGS AXYS MLA-110	MLA-110		Y		Y	Y				Y		Y	Y								Y		Y	Y					Y			Y	Y
	Perfluorododecanesulfonate (PFDoS)	SGS AXYS MLA-110	MLA-110		Y							Y											Y								Y			
	Perfluorododecanoate (PFDoA)	SGS AXYS MLA-060	MLA-060																				Y		Y	Y	Y						Y	
		SGS AXYS MLA-041	MLA-041		Y		Y	Y	Y					Y																					
		SGS AXYS MLA-043	MLA-043													Y	Y	Y	Y		Y														
		SGS AXYS MLA-042	MLA-042	Y																															
		SGS AXYS MLA-110	MLA-110		Y		Y	Y				Y		Y	Y								Y		Y	Y					Y			Y	Y
	Perfluoroheptanesulfonate (PFHpS)	SGS AXYS MLA-110	MLA-110		Y		Y					Y		Y	Y								Y		Y						Y			Y	Y
	Perfluoroheptanoate (PFHpA)	SGS AXYS MLA-060	MLA-060																				Y		Y	Y	Y						Y	
		SGS AXYS MLA-041	MLA-041		Y		Y	Y	Y					Y																					

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

				Serum	Solids											Tissue						Urine	Water	Water, Non-Potable								
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		SGS AXYS MLA-043	MLA-043													Y	Y	Y	Y	Y														
		SGS AXYS MLA-042	MLA-042	Y																														
		SGS AXYS MLA-110	MLA-110		Y		Y	Y				Y		Y	Y								Y		Y	Y				Y			Y	Y
	Perfluorohexanesulfonate (PFHxS)	SGS AXYS MLA-060	MLA-060																				Y		Y	Y	Y						Y	
		SGS AXYS MLA-041	MLA-041		Y		Y	Y	Y					Y																				
		SGS AXYS MLA-043	MLA-043													Y	Y	Y	Y	Y														
		SGS AXYS MLA-042	MLA-042	Y																														
		SGS AXYS MLA-110	MLA-110		Y		Y	Y				Y		Y	Y								Y		Y	Y				Y			Y	Y
	Perfluorohexanoate (PFHxA)	SGS AXYS MLA-060	MLA-060																				Y		Y	Y	Y						Y	
		SGS AXYS MLA-041	MLA-041		Y		Y	Y	Y					Y																				
		SGS AXYS MLA-043	MLA-043													Y	Y	Y	Y	Y														
		SGS AXYS MLA-042	MLA-042	Y																														
		SGS AXYS MLA-110	MLA-110		Y		Y	Y				Y		Y	Y								Y		Y	Y				Y			Y	Y
	Perfluorononanesulfonate (PFNS)	SGS AXYS MLA-110	MLA-110		Y		Y					Y		Y	Y								Y		Y					Y			Y	Y
	Perfluorononanoate (PFNA)	SGS AXYS MLA-060	MLA-060																				Y		Y	Y	Y						Y	
		SGS AXYS MLA-041	MLA-041		Y		Y	Y	Y					Y																				
		SGS AXYS MLA-043	MLA-043													Y	Y	Y	Y	Y														
		SGS AXYS MLA-042	MLA-042	Y																														
		SGS AXYS MLA-110	MLA-110		Y		Y	Y				Y		Y	Y								Y		Y	Y				Y			Y	Y
	Perfluorooctanesulfonamide (PFOSA), a.k.a. FOSA	SGS AXYS MLA-060	MLA-060																				Y		Y	Y	Y						Y	
		SGS AXYS MLA-041	MLA-041		Y		Y	Y	Y					Y																				
		SGS AXYS MLA-043	MLA-043													Y	Y	Y	Y	Y														
		SGS AXYS MLA-042	MLA-042	Y																														
		SGS AXYS MLA-110	MLA-110		Y		Y	Y				Y		Y	Y								Y		Y	Y				Y			Y	Y
	Perfluorooctanesulfonate (PFOS)	SGS AXYS MLA-060	MLA-060																				Y		Y	Y	Y						Y	
		SGS AXYS MLA-041	MLA-041		Y		Y	Y	Y					Y																				
		SGS AXYS MLA-043	MLA-043													Y	Y	Y	Y	Y														
		SGS AXYS MLA-042	MLA-042	Y																														
		SGS AXYS MLA-110	MLA-110		Y		Y	Y				Y		Y	Y								Y		Y	Y				Y			Y	Y
	Perfluorooctanoate (PFOA)	SGS AXYS MLA-060	MLA-060																				Y		Y	Y	Y						Y	
		SGS AXYS MLA-041	MLA-041		Y		Y	Y	Y					Y																				
		SGS AXYS MLA-043	MLA-043													Y	Y	Y	Y	Y														
		SGS AXYS MLA-042	MLA-042	Y																														
		SGS AXYS MLA-110	MLA-110		Y		Y	Y				Y		Y	Y								Y		Y	Y				Y			Y	Y
	Perfluoropentanesulfonate (PFPeS)	SGS AXYS MLA-110	MLA-110		Y		Y					Y		Y	Y								Y		Y					Y			Y	Y
	Perfluoropentanoate (PFPeA)	SGS AXYS MLA-060	MLA-060																				Y		Y	Y	Y						Y	
		SGS AXYS MLA-041	MLA-041		Y		Y	Y	Y					Y																				
		SGS AXYS MLA-043	MLA-043													Y	Y	Y	Y	Y														
		SGS AXYS MLA-042	MLA-042	Y																														
		SGS AXYS MLA-110	MLA-110		Y		Y	Y				Y		Y	Y								Y		Y	Y				Y			Y	Y
	Perfluorotetradecanoate (PFTeDA)	SGS AXYS MLA-110	MLA-110		Y		Y	Y				Y		Y									Y		Y	Y				Y			Y	Y
	Perfluorotridecanoate (PFTrDA)	SGS AXYS MLA-110	MLA-110		Y		Y					Y		Y									Y		Y					Y			Y	Y
	Perfluoroundecanoate (PFUnA)	SGS AXYS MLA-060	MLA-060																				Y		Y	Y	Y						Y	
		SGS AXYS MLA-041	MLA-041		Y		Y	Y	Y					Y																				
		SGS AXYS MLA-043	MLA-043													Y	Y	Y	Y	Y														
		SGS AXYS MLA-042	MLA-042	Y																														
		SGS AXYS MLA-110	MLA-110		Y		Y	Y				Y		Y	Y								Y		Y	Y				Y			Y	Y
PPCP	1,7-Dimethylxanthine	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
	10-hydroxy-amitriptyline	SGS AXYS MLA-075	MLA-075		Y																		Y											

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids										Tissue						Urine	Water	Water, Non-Potable								
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	2-hydroxy-ibuprofen	SGS AXYS MLA-075	MLA-075		Y																	Y											
	4-Epianhydrochlortetracycline (EACTC)	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	4-Epianhydrotetracycline (EATC)	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	4-Epichlortetracycline (ECTC)	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	4-Epioxytetracycline (EOTC)	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	4-Epitetracycline (ETC)	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Acetaminophen	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Albuterol	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Alprazolam	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Amitriptyline	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Amlodipine	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Amphetamine	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Anhydrochlortetracycline (ACTC)	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Anhydrotetracycline (ATC)	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Atenolol	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Atorvastatin	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Azithromycin	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Benzoylecgonine	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Benztropine	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Betamethasone	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Bisphenol A	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Caffeine	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Carbadox	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Carbamazepine	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Cefotaxime	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Chlortetracycline (CTC)	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Cimetidine	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Ciprofloxacin	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Clarithromycin	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Clinafloxacin	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids										Tissue						Urine	Water	Water, Non-Potable								
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	Clonidine	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Cloxacillin	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Cocaine	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Codeine	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Cotinine	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	DEET (N,N-diethyl-m-toluamide)	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Dehydronifedipine	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Demeclocycline	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Desmethyldiltiazem	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Diazepam	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Digoxigenin	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Digoxin	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Diltiazem	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Diphenhydramine	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Doxycycline	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Enalapril	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Enrofloxacin	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Erythromycin	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Erythromycin anydrate	EPA 1694	MLA-075										Y																			Y		
	Flumequine	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Fluocinonide	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Fluoxetine	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Fluticasone propionate	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Furosemide	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Gemfibrozil	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Glipizide	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Glyburide	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Hydrochlorothiazide	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Hydrocodone	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Hydrocortisone	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Ibuprofen	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Isochlortetracycline (ICTC)	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Lincomycin	EPA 1694	MLA-075										Y																			Y		

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids											Tissue							Urine	Water	Water, Non-Potable								
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025		CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		SGS AXYS MLA-075	MLA-075		Y																			Y										
	Lomefloxacin	EPA 1694	MLA-075										Y																			Y			
		SGS AXYS MLA-075	MLA-075		Y																			Y										
	Meprobamate	SGS AXYS MLA-075	MLA-075		Y																			Y										
	Metformin	EPA 1694	MLA-075										Y																			Y			
		SGS AXYS MLA-075	MLA-075		Y																			Y										
	Methylprednisolone	SGS AXYS MLA-075	MLA-075		Y																			Y										
	Metoprolol	SGS AXYS MLA-075	MLA-075		Y																			Y										
	Miconazole	EPA 1694	MLA-075										Y																			Y			
		SGS AXYS MLA-075	MLA-075		Y																			Y										
	Minocycline	EPA 1694	MLA-075										Y																			Y			
		SGS AXYS MLA-075	MLA-075		Y																			Y										
	Naproxen	EPA 1694	MLA-075										Y																			Y			
		SGS AXYS MLA-075	MLA-075		Y																			Y										
	Norfloxacin	EPA 1694	MLA-075										Y																			Y			
		SGS AXYS MLA-075	MLA-075		Y																			Y										
	Norfluoxetine	SGS AXYS MLA-075	MLA-075		Y																			Y										
	Norgestimate	EPA 1694	MLA-075										Y																			Y			
		SGS AXYS MLA-075	MLA-075		Y																			Y										
	Norverapamil	SGS AXYS MLA-075	MLA-075		Y																			Y										
	Ofloxacin	EPA 1694	MLA-075										Y																			Y			
		SGS AXYS MLA-075	MLA-075		Y																			Y										
	Ormetoprim	EPA 1694	MLA-075										Y																			Y			
		SGS AXYS MLA-075	MLA-075		Y																			Y										
	Oxacillin	EPA 1694	MLA-075										Y																			Y			
		SGS AXYS MLA-075	MLA-075		Y																			Y										
	Oxolinic acid	EPA 1694	MLA-075										Y																			Y			
		SGS AXYS MLA-075	MLA-075		Y																			Y										
	Oxycodone	EPA 1694	MLA-075										Y																			Y			
		SGS AXYS MLA-075	MLA-075		Y																			Y										
	Oxytetracycline (OTC)	EPA 1694	MLA-075										Y																			Y			
		SGS AXYS MLA-075	MLA-075		Y																			Y										
	Paroxetine	EPA 1694	MLA-075										Y																			Y			
		SGS AXYS MLA-075	MLA-075		Y																			Y										
	Penicillin G	EPA 1694	MLA-075										Y																			Y			
		SGS AXYS MLA-075	MLA-075		Y																			Y										
	Penicillin V	EPA 1694	MLA-075										Y																			Y			
		SGS AXYS MLA-075	MLA-075		Y																			Y										
	Prednisolone	SGS AXYS MLA-075	MLA-075		Y																			Y										
	Prednisone	SGS AXYS MLA-075	MLA-075		Y																			Y										
	Promethazine	SGS AXYS MLA-075	MLA-075		Y																			Y										
	Propoxyphene	SGS AXYS MLA-075	MLA-075		Y																			Y										
	Propranolol	SGS AXYS MLA-075	MLA-075		Y																			Y										
	Ranitidine	EPA 1694	MLA-075										Y																			Y			
		SGS AXYS MLA-075	MLA-075		Y																			Y										
	Roxithromycin	EPA 1694	MLA-075										Y																			Y			
		SGS AXYS MLA-075	MLA-075		Y																			Y										
	Sarafloxacin	EPA 1694	MLA-075										Y																			Y			
		SGS AXYS MLA-075	MLA-075		Y																			Y										
	Sertraline	SGS AXYS MLA-075	MLA-075		Y																			Y										
	Simvastatin	SGS AXYS MLA-075	MLA-075		Y																			Y										
	Sulfachloropyridazine	EPA 1694	MLA-075										Y																			Y			
		SGS AXYS MLA-075	MLA-075		Y																			Y										
	Sulfadiazine	EPA 1694	MLA-075										Y																			Y			
		SGS AXYS MLA-075	MLA-075		Y																			Y										
	Sulfadimethoxine	EPA 1694	MLA-075										Y																			Y			
		SGS AXYS MLA-075	MLA-075		Y																			Y										

Accreditation Scope

SGS AXYS Analytical Services Ltd.
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				Serum	Solids											Tissue							Urine	Water	Water, Non-Potable								
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	Sulfamerazine	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
	Sulfamethazine	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
	Sulfamethizole	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
	Sulfamethoxazole	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
	Sulfanilamide	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
	Sulfathiazole	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
	Tetracycline (TC)	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
	Theophylline	SGS AXYS MLA-075	MLA-075		Y																		Y											
	Thiabendazole	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
	Trenbolone	SGS AXYS MLA-075	MLA-075		Y																		Y											
	Trenbolone acetate	SGS AXYS MLA-075	MLA-075		Y																		Y											
	Triamterene	SGS AXYS MLA-075	MLA-075		Y																		Y											
	Triclocarban	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
	Triclosan	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
	Trimethoprim	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
	Tylosin	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
	Valsartan	SGS AXYS MLA-075	MLA-075		Y																		Y											
	Verapamil	SGS AXYS MLA-075	MLA-075		Y																		Y											
	Virginiamycin	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
	Warfarin	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
Targeted Metabolites	11, 14, 17-eicosatrienoic acid (eicosatrienoic acid)	SGS AXYS MLM-001	MLM-001													Y																		
	11, 14-eicosadienoic acid	SGS AXYS MLM-001	MLM-001													Y																		
	3-hydroxytyrosine	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	Acetylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	Acetylornithine	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	Alanine	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	alpha-Aminoadipic acid	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	Arginine	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	Asparagine	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	Aspartate	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	Asymmetric dimethylarginine	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	Butenylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	Butyrylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	C22:5 ISOMER 1 (tentatively all-cis-4, 8, 12, 15, 19-docosapentaenoic acid)	SGS AXYS MLM-001	MLM-001													Y																		
	C22:5 ISOMER 2 (all-cis-7,10,13,16,19-docosapentaenoic acid (DPA)	SGS AXYS MLM-001	MLM-001													Y																		
	C22:5 ISOMER 3 (tentatively all-cis-4, 7, 10, 13, 16-docosapentaenoic acid)	SGS AXYS MLM-001	MLM-001													Y																		
	Carnitine	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	Carnosine	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	chenodeoxycholic acid	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	cholic acid	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	Citrulline	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	Creatinine	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	Decadienylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	decanoic acid (capric acid)	SGS AXYS MLM-001	MLM-001													Y																		

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				Serum	Solids											Tissue						Urine	Water	Water, Non-Potable									
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	Decanoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Decenoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	deoxycholic acid	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	docosahexaenoic acid (DHA)	SGS AXYS MLM-001	MLM-001													Y																		
	docosatetraenoic acid (adrenic acid)	SGS AXYS MLM-001	MLM-001													Y																		
	Dodecanedioylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Dodecanoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Dodecenoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Dopamine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	eicosapentaenoic acid (EPA)	SGS AXYS MLM-001	MLM-001													Y																		
	Eicosatetraenoic acid (arachidonic acid)	SGS AXYS MLM-001	MLM-001													Y																		
	eicosatrienoic acid (dihomo-γ-linolenic acid)	SGS AXYS MLM-001	MLM-001													Y																		
	Glutaconylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Glutamate	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Glutamine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Glutarylcarnitine (Hydroxyhexanoylcarnitine)	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Glycine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	glycochenodeoxycholic acid	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	glycocholic acid	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	glycodeoxycholic acid	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hexadecadienylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	hexadecanoic acid (palmitic acid)	SGS AXYS MLM-001	MLM-001													Y																		
	Hexadecanoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	hexadecenoic acid (palmitoleic acid)	SGS AXYS MLM-001	MLM-001													Y																		
	Hexadecenoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hexanoylcarnitine (Fumarylcarnitine)	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hexenoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hexose (sum isomers)	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Histamine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Histidine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxyhexadecadienylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxyhexadecanoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxyhexadecenoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxylbutyrylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxyoctadecenoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxyproline	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxypropionylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxysphingomyeline C14:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxysphingomyeline C16:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxysphingomyeline C22:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxysphingomyeline C22:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxysphingomyeline C24:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxytetradecadienylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxytetradecenoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxyvalerylcarnitine (Methylmalonylcarnitine)	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Isoleucine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Kynurenine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Leucine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	lithocholic acid	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Lysine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	lysoPhosphatidylcholine acyl C14:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	lysoPhosphatidylcholine acyl C16:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	lysoPhosphatidylcholine acyl C16:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	lysoPhosphatidylcholine acyl C17:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	lysoPhosphatidylcholine acyl C18:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	lysoPhosphatidylcholine acyl C18:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	lysoPhosphatidylcholine acyl C18:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	lysoPhosphatidylcholine acyl C20:3	SGS AXYS MLM-001	MLM-001	Y												Y						Y												

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

				Serum	Solids											Tissue						Urine	Water	Water, Non-Potable									
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	lysoPhosphatidylcholine acyl C20:4	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	lysoPhosphatidylcholine acyl C24:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	lysoPhosphatidylcholine acyl C26:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	lysoPhosphatidylcholine acyl C28:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	lysoPhosphatidylcholine acyl C28:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Methionine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Methioninesulfoxide	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Methylglutarylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Nitrotyrosine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Nonaylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	octadecadienoic acid (linoleic acid)	SGS AXYS MLM-001	MLM-001													Y																	
	Octadecadienylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	octadecanoic acid (stearic acid)	SGS AXYS MLM-001	MLM-001													Y																	
	Octadecanoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	octadecatrienoic acid (γ-linolenic acid)	SGS AXYS MLM-001	MLM-001													Y																	
	Octadecenoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Octanoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Ornithine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phenylalanine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phenylethylamine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C30:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C30:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C30:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C32:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C32:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C34:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C34:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C34:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C34:3	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C36:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C36:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C36:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C36:3	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C36:4	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C36:5	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C38:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C38:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C38:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C38:3	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C38:5	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C38:6	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C40:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C40:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C40:3	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C40:4	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C40:5	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C40:6	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C42:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C42:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C42:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C42:3	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C42:4	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C42:5	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C44:3	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C44:4	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C44:5	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C44:6	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C24:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y											

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

				Serum	Solids											Tissue							Urine	Water	Water, Non-Potable									
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	Phosphatidylcholine diacyl C26:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C28:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C30:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C30:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C32:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C32:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C32:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C32:3	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C34:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C34:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C34:3	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C34:4	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C36:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C36:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C36:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C36:3	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C36:4	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C36:5	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C36:6	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C38:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C38:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C38:3	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C38:4	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C38:5	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C38:6	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C40:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C40:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C40:3	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C40:4	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C40:5	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C40:6	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C42:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C42:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C42:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C42:4	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C42:5	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Phosphatidylcholine diacyl C42:6	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Pimelylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Proline	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Propenoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Propionylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Putrescine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Sarcosine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Serine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Serotonin	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Spermidine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Spermine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Sphingomyeline C16:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Sphingomyeline C16:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Sphingomyeline C18:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Sphingomyeline C18:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Sphingomyeline C20:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Sphingomyeline C22:3	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Sphingomyeline C24:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Sphingomyeline C24:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Sphingomyeline C26:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Sphingomyeline C26:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Symmetric dimethylarginine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

				Serum	Solids											Tissue							Urine	Water	Water, Non-Potable								
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	Taurine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	taurochenodeoxycholic acid	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	taurocholic acid	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	taurodeoxycholic acid	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	taurolithocholic acid	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	tauroursodeoxycholic acid	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Tetradecadienylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	tetradecanoic acid (myristic acid)	SGS AXYS MLM-001	MLM-001													Y																		
	Tetradecanoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Tetradecenoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Threonine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Tiglylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Total dimethylarginine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Tryptophan	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Tyrosine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	ursodexoycholic acid	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Valerylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Valine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
TBBPA	Tetrabromobisphenol A	SGS AXYS MLA-079	MLA-079	Y																														
TOP	Perfluorobutanesulfonate (PFBS)	SGS AXYS MLA-111	MLA-111		Y																		Y											
	Perfluorobutanoate (PFBA)	SGS AXYS MLA-111	MLA-111		Y																		Y											
	Perfluorodecanesulfonate (PFDS)	SGS AXYS MLA-111	MLA-111		Y																		Y											
	Perfluorodecanoate (PFDA)	SGS AXYS MLA-111	MLA-111		Y																		Y											
	Perfluorododecanesulfonate (PFDoS)	SGS AXYS MLA-111	MLA-111		Y																		Y											
	Perfluorododecanoate (PFDoA)	SGS AXYS MLA-111	MLA-111		Y																		Y											
	Perfluoroheptanesulfonate (PFHpS)	SGS AXYS MLA-111	MLA-111		Y																		Y											
	Perfluoroheptanoate (PFHpA)	SGS AXYS MLA-111	MLA-111		Y																		Y											
	Perfluorohexanesulfonate (PFHxS)	SGS AXYS MLA-111	MLA-111		Y																		Y											
	Perfluorohexanoate (PFHxA)	SGS AXYS MLA-111	MLA-111		Y																		Y											
	Perfluorononanesulfonate (PFNS)	SGS AXYS MLA-111	MLA-111		Y																		Y											
	Perfluorononanoate (PFNA)	SGS AXYS MLA-111	MLA-111		Y																		Y											
	Perfluorooctanesulfonate (PFOS)	SGS AXYS MLA-111	MLA-111		Y																		Y											
	Perfluorooctanoate (PFOA)	SGS AXYS MLA-111	MLA-111		Y																		Y											
	Perfluoropentanesulfonate (PFPeS)	SGS AXYS MLA-111	MLA-111		Y																		Y											
	Perfluoropentanoate (PFPeA)	SGS AXYS MLA-111	MLA-111		Y																		Y											
	Perfluorotetradecanoate (PFTeDA)	SGS AXYS MLA-111	MLA-111		Y																		Y											
	Perfluorotridecanoate (PFTrDA)	SGS AXYS MLA-111	MLA-111		Y																		Y											
	Perfluoroundecanoate (PFUnA)	SGS AXYS MLA-111	MLA-111		Y																		Y											

Note * Analysis of pesticides and PCBs in non-potable water samples by AXYS method MLA-007, with the exception of NPDES or State permitted discharges and Stormwater applications, may fall within the scope of Washington State Department of Ecology solids matrix accreditation, subject to approval of the Ecology Project Manager.

Note ** PFAS by LC-MS/MS compliant with US DoD QSM 5.1 table B-15

Legend

Y	Accreditation scope
BFR	Brominated flame retardants (non-PBDPE)
BPA and mPE	Bisphenol A and mono-Phthalate Esters
HBCDD	Hexabromocyclododecane
OC Pesticides	Organochlorine Pesticides
PAH	Polycyclic Aromatic Hydrocarbons
PBDPE	Polybrominated diphenylethers
PCB	Polychlorinated Biphenyls
PCDDF	Polychlorinated dibenzodioxins/furans
PFAS	Per- and Polyfluoroalkyl Substances
PPCP	Pharmaceutical and Personal Care Products
TBBPA	Tetrabromobisphenol A
TOP	Total Oxidizable Precursors
California DPH	California Department of Public Health, Lab ID 2911
Florida DOH	Florida Department of Health, Lab ID E871007, (NELAC Standard)
Pennsylvania DEP	Pennsylvania Department of Environmental Protection
Minnesota DOH	Minnesota Department of Health, Lab ID 232-999-430, (NELAC Standard)
New Jersey DEP	New Jersey Department of Environmental Protection, Lab ID CANA005, (NELAC Standard)
New York DOH	New York Department of Health, Lab ID 11674, (NELAC Standard)
Washington DE	Washington Department of Ecology, Lab ID C404
Virginia DGS	Virginia Department of General Services, Division of Consolidated Laboratory Services, Lab ID 460224, (NELAC Standard)
Maine DOH	Maine Center for Disease Control and Prevention, Department of Health and Human Services, Lab ID CN00003

ANAB DoD	ANSI-ASQ National Accreditation Board, certificate ADE-1861, (US DoD QSM 5.1 Standard)
CALA	Canadian Association for Laboratory Accreditation Inc., Lab ID A2637, (ISO/IEC 17025:2005 Standard)
ANAB ISO 17025	ANSI-ASQ National Accreditation Board, certificate ADE-1861.01, (ISO/IEC 17025:2005 Standard)

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DIOXIN/FURAN ANALYSIS

AQUEOUS SAMPLES

PROJECT NAME: SEEP WATER PO# 2018-0069

Contract: 4033
Data Package Identification: DPWG64871

Analysis WG64578

8 August 2018

www.axysanalytical.com

PROJECT NAME: SEEP WATER PO# 2018-0069

08 August 2018

NARRATIVE

This narrative describes the analysis of fourteen aqueous samples for polychlorinated dibenzodioxins and dibenzofurans using High Resolution Gas Chromatography / High Resolution Mass Spectrometry (HRGC/HRMS).

SAMPLE RECEIPT AND STORAGE

The samples were received on July 3rd 2018. The temperature of the samples upon receipt was between 4.4°C and 6.5°C, exceeding the method requirement of <4°C. Details of sample conditions upon receipt are provided on the sample receiving records. The samples were pretreated as documented on the sample pretreatment record. The samples were stored at 4°C in the dark prior to extraction and analysis.

SAMPLE PREPARATION AND ANALYSIS

Extraction and analysis procedures were in general accordance with **USEPA Method 1613B,** as documented in **SGS AXYS Method MLA-017**: "***Analytical Method for the Determination of Polychlorinated Dibenzodioxins and Dibenzofurans by EPA Method 1613B, EPA Method 8290/8290A or EPA Method DLM02.2***". A method summary (MSU-017), which includes a list of modifications of USEPA Method 1613B, follows this narrative.

The samples and associated QC samples were analyzed in one batch, WG64578, the composition of which is shown on the correlation table and on the batch list heading the extraction workup sheets. The QC samples consisted of a procedural blank, a lab-generated reference sample known as the Ongoing Precision and Recovery (OPR) and an OPR duplicate. The blank and OPRs were prepared using Seastar ultra-pure water as the matrix.

For each sample, an accurately weighed subsample of approximately 1 L was filtered to separate the aqueous and particulate phases. The particulate phase was discarded and the aqueous phase was spiked with ^{13}C-labeled quantification standards and liquid-liquid extracted using dichloromethane. The resulting extract was spiked with ^{13}C-labeled cleanup standards, and cleaned up using the standard chromatographic columns listed on the extraction workup sheets. The cleaned extract was concentrated, and spiked with labeled recovery (internal) standards, for a final volume of 20µL. 1µL was injected for the DB5 column analysis, 2µL for the DB225.

CALCULATIONS

Target analyte concentrations were determined by isotope dilution or internal standard quantification procedures using Waters MassLynx or Micromass OPUSQuan software. Formulae used in the conversion of the raw chromatograms to concentrations are provided in the method summary document.

Sample specific detection limits (SDLs) were determined from the analysis data following the same procedures used to convert target peak responses to concentrations. The SDLs were used as the detection qualifier. In cases when the software selected unrepresentative area for detection limit calculations, the

data validation chemists made corrections; these corrections were hand noted on the quantification report pages and/or documented on the audit change reports.

To account for instrument variability and laboratory background levels, it is the policy of SGS AXYS to report detection limits no lower than 0.5 pg absolute (0.5 pg/L on a 1 L sample). In cases where a detection limit is observed to be less than 0.5 pg absolute, the reporting limit is raised to 0.5 pg absolute. This is reflected on the analysis report forms.

Homologue totals were obtained by summing the concentration of all detected congeners at each level of chlorination. Toxic Equivalents (TEQs) were calculated using WHO 2005 TEFs. Congener peaks that did not meet the method ion abundance ratio criteria were included in the homologue totals and TEQ calculations.

REPORTING CONVENTIONS

The SGS AXYS contract number assigned for internal tracking was 4033. SGS AXYS logged the samples under unique identifiers of the form L29628-X, where X is a numeral. All data reports refer to both the client and SGS AXYS IDs, which are cross-referenced on the correlation table. The report forms were generated using Laboratory Information Management System (LIMS).

Any extra work required and performed after the initial instrumental analysis of the sample's extract is given an extra "test suffix" code. The single letter code per extra work performed is added to the AXYS sample ID as a suffix and is combined with any other applicable test suffix codes. The extra work codes used to report data in this package include:

i	=	instrumental re-analysis of the sample extract.
L	=	extract was given further cleanup to remove interferences

The following data qualifier flags are used in this data package:

B	=	analyte found in the associated blank and concentration in sample is less than 10X the concentration in the associated blank
J	=	concentration less than lowest calibration equivalent
K	=	identifies a target that could not be confirmed by virtue of not satisfying all method required criteria, the reported value may be interpreted as an estimated maximum possible concentration.
U	=	target not detected

Results are reported to three significant figures, in units of picgrams per liter (pg/L).

QA/QC NOTES

The client and QC samples were prepared alongside each other and were subjected to the same analytical procedures. The client sample results were evaluated in comparison to the batch QC samples.

- The results are not blank corrected. Blank data should be taken into consideration when evaluating sample data and should be evaluated against specifications using the same blank sample size as the size of the client samples.
- The labeled surrogates ^{13}C-2,3,7,8-TCDF and ^{13}C-1,2,3,6,7,8-HxCDF produce interferences at the retention times of 1,4,7,8-TCDD and 1,2,3,4,6,8-HxCDD, respectively. The interferences were included in the homologue totals calculations and this should be considered when reviewing the sample data.
- By virtue of the isotope dilution/internal standard quantification procedures, data are recovery corrected for possible losses during extraction and cleanup.

- All linearity, calibration verification, procedural blank, OPR, and labeled compound recovery specifications were met.

ANALYTICAL DISCUSSION

All additional work, including the reason for extra work, is documented on the additional work summary included following the batch list heading the extraction workup sheets.

DB5 Column Analysis

Sample 'LDW18-SP-78' (AXYS ID: L29628-18) required further chromatographic clean-up and sulphur removal treatments as there were matrix interferences present. The re-columned extract data is reported, indicated by suffix 'L' on the AXYS ID.

Due to instrumental disruption, sample 'LDW18-SP-86' (AXYS ID: L29628-28) was instrumentally re-analyzed. The re-injection data is reported, indicated by suffix 'i' on the AXYS ID.

DB225 Column Analysis

Sample 'LDW18-SP-78' (AXYS ID: L29628-18) required further chromatographic clean-up and sulphur removal treatments as there were matrix interferences present. The re-columned extract data is reported, indicated by suffix 'L' on the AXYS ID.

DATA PACKAGE

This data package, assigned a unique identifier DPWG64871, includes the following:

- Method summary
- Correlation table
- Sample receiving documentation
- Sample pretreatment records
- Laboratory extraction workup sheets
- Sample data reports (in order of SGS AXYS sample ID)
- Laboratory QC data reports
- Instrumental QC data reports and mass resolution printouts (organized by analysis start date)
- Audit reports
- Sample raw data (in order of SGS AXYS sample ID)
- Laboratory QC raw data
- Instrumental QC raw data (organized by analysis start date)
- Accreditation Scope

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, except for the conditions detailed above. In addition, I certify, that to the best of my knowledge and belief, the data as reported are true and accurate. The following signature, on behalf of SGS AXYS Analytical Services Ltd, authorizes the release of the data contained in this data package.

Signed: Kristen Bowes, B.Sc.,
Data Validation Chemist

09 Aug 2018
Date Signed

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SGS AXYS Analytical Services Ltd.

SUMMARY OF SGS AXYS METHOD MLA-017 REV. 20 VER. 10:

ANALYTICAL METHOD FOR THE DETERMINATION OF POLYCHLORINATED DIBENZODIOXINS AND DIBENZOFURANS BY EPA METHOD 1613B, 8290/8290A OR DLM02.2

SGS AXYS Method MLA-017 describes the analysis of polychlorinated (tetra-octa) dibenzo-dioxins and dibenzofurans in solids (sediment, soil, biosolid, pulp), tissues (including blood, serum, plasma and milk), aqueous samples, XAD-2 columns, air samples, particulate filters and solvent extracts.

Target Analytes

Dioxins (PCDD)	Furans (PCDF)
2,3,7,8 Tetrachlorodibenzodioxin (TCDD)	2,3,7,8 Tetrachlorodibenzofuran (TCDF)
Total TCDD	Total TCDF
1,2,3,7,8 Pentachlorodibenzodioxin (PeCDD)	1,2,3,7,8 Pentachlorodibenzofuran (PeCDF)
Total PeCDD	2,3,4,7,8 PeCDF
	Total PeCDF
1,2,3,4,7,8 Hexachlorodibenzodioxin (HxCDD)	1,2,3,4,7,8 Hexachlorodibenzofuran (HxCDF)
1,2,3,6,7,8 HxCDD	1,2,3,6,7,8 HxCDF
1,2,3,7,8,9 HxCDD	1,2,3,7,8,9 HxCDF
Total HxCDD	2,3,4,6,7,8 HxCDF
	Total HxCDF
1,2,3,4,6,7,8 Heptachlorodibenzodioxin (HpCDD)	1,2,3,4,6,7,8 Heptachlorodibenzofuran (HpCDF)
Total HpCDD	1,2,3,4,7,8,9 HpCDF
	Total HpCDF
Octachlorodibenzodioxin (OCDD)	Octachlorodibenzofuran (OCDF)

1.0 EXTRACTION AND CLEANUP PROCEDURES

All samples are spiked with ^{13}C-labelled surrogate standards prior to extraction and extracted as per the table below. Optional extraction procedures are shown within parentheses.

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Sample Extraction

Matrix	Extraction
Aqueous samples	Liquid-liquid extraction with dichloromethane. (If visible particulates are present the sample is filtered prior to extraction and the particulate fraction separately extracted by Soxhlet extraction or Dean-Stark Soxhlet extraction. The two extracts are then combined.)
Solid (sediment, soil, sludge, particles on filter paper)	Soxhlet extraction with toluene:acetone 80:20. (optional: Dean-Stark Soxhlet extraction with toluene)
Solid (pulp, black liquor)	Soxhlet extraction with toluene:acetone 80:20.
Solid (ash, slag)	Sonication with hydrochloric acid and filtering. Liquid-liquid extraction of filtrate using dichloromethane, Soxhlet extraction of particulate using toluene:acetone 80:20. The two extracts are combined.
Tissue	Soxhlet extraction with dichloromethane:hexane 1:1 (optional: Base digestion and liquid-liquid extraction with hexane)
Whole blood/serum	Liquid-liquid extraction with ethanol:hexane:saturated ammonium sulfate.
Milk	Liquid-liquid extraction with acetone and hexane.
XAD-2 column and filter	XAD-2 adsorbent is dried and Soxhlet extracted (with toluene:acetone 80:20) or Dean-Stark Soxhlet extracted (with toluene). The filter is extracted by Dean-Stark Soxhlet extraction using toluene.
Ambient air (PUF and filter)	The PUF and filter(s) are Soxhlet extracted together using toluene:acetone 80:20.
Stationary Source Air Samples (Stack Gas sample trains)	The filter is sonicated with dilute hydrochloride acid and filtered. Equipment rinsates are collected, filtered, dried and/or extracted depending on sampling conditions.

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The extracts are then routinely cleaned up according to the following table:

Water Soil Sediment XAD-2 adsorbent Air samples Sludge High organic soil	(Base/acid wash →) DX $AgNO_3$ 30g 44% → (DX Florisil →) Copper → Alumina/carbon/Celite combination column
Tissue Blood/serum/ plasma Milk	(Biobead →) DX 20g 44% → DX Florisil → (Copper →) Alumina/carbon/Celite combination column

Note: Items in brackets are optional procedures that may be used if needed or if required by Project Managers.

An optional Biobead clean-up may be carried out for biosolid sample extracts.

2.0 INSTRUMENTATION

Instrumental analysis is performed on a DB-5 capillary chromatography column coupled to a high-resolution mass spectrometer (HRMS). The HRMS is operated at a static (10000) mass resolution in the voltage selected ion-recording mode (V-SIR) using selected PFK ions as a reference for mass lock. Two masses from the molecular ion cluster are used to monitor each of the target analytes and ^{13}C-labelled surrogate standards. Five chlorinated diphenylethers are monitored to check for interference using one specific ion for each compound.

A second column, DB-225, is used for confirmation/quantification of 2,3,7,8-TCDF and 1,2,3,7,8,9-HxCDD in all samples and matrices for which a peak was detected in the DB-5 run for these congeners.

Upon client request, the concentrations of PCDD/F may be determined using bracketing calibration procedures and a smaller suite of surrogate standards.

3.0 CALIBRATION

Initial calibration (default procedure) is performed using a five point calibration series of solutions that encompass the working concentration range. Initial calibration solutions contain the suite of labelled surrogate and recovery standards and authentic target PCDDs/PCDFs. Calibration is verified at least once every 12 hours by analysis of a mid-level calibration solution. Calibration procedures use the mean RRFs determined from the initial calibration to calculate analyte concentrations.

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Alternately clients may request initial calibration be performed using a six point calibration series of solutions if lower detection limits are required.

Concentration of PCDD/PCDF Calibration Solutions

	Concentration (ng/mL)						Authentic Standard Amount added to sample (pg)
	CS0.2	CS1	CS2	CS3	CS4	CS5	
Native Compound							
2,3,7,8-TCDD	0.1	0.5	2	10	40	200	200
2,3,7,8-TCDF	0.1	0.5	2	10	40	200	200
1,2,3,7,8-PeCDD	0.5	2.5	10	50	200	1000	1000
1,2,3,7,8-PeCDF	0.5	2.5	10	50	200	1000	1000
2,3,4,7,8-PeCDF	0.5	2.5	10	50	200	1000	1000
1,2,3,4,7,8-HxCDD	0.5	2.5	10	50	200	1000	1000
1,2,3,6,7,8-HxCDD	0.5	2.5	10	50	200	1000	1000
1,2,3,7,8,9-HXCDD	0.5	2.5	10	50	200	1000	1000
1,2,3,4,7,8-HxCDF	0.5	2.5	10	50	200	1000	1000
1,2,3,6,7,8-HxCDF	0.5	2.5	10	50	200	1000	1000
1,2,3,7,8,9-HxCDF	0.5	2.5	10	50	200	1000	1000
2,3,4,6,7,8-HxCDF	0.5	2.5	10	50	200	1000	1000
1,2,3,4,6,7,8-HpCDD	0.5	2.5	10	50	200	1000	1000
1,2,3,4,6,7,8-HpCDF	0.5	2.5	10	50	200	1000	1000
1,2,3,4,7,8,9-HpCDF	0.5	2.5	10	50	200	1000	1000
OCDD	1.0	5.0	20	100	400	2000	2000
OCDF	1.0	5.0	20	100	400	2000	2000
Surrogate Standards							**Surrogate Standard Amount added to sample (pg) [1]**
$^{13}C_{12}$-2,3,7,8-TCDD	100	100	100	100	100	100	2000
$^{13}C_{12}$-2,3,7,8-TCDF	100	100	100	100	100	100	2000
$^{13}C_{12}$-1,2,3,7,8-PeCDD	100	100	100	100	100	100	2000
$^{13}C_{12}$-1,2,3,7,8-PeCDF	100	100	100	100	100	100	2000
$^{13}C_{12}$-2,3,4,7,8-PeCDF	100	100	100	100	100	100	2000
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	100	100	100	100	100	100	2000
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	100	100	100	100	100	100	2000
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	100	100	100	100	100	100	2000
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	100	100	100	100	100	100	2000
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	100	100	100	100	100	100	2000
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	100	100	100	100	100	100	2000
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	100	100	100	100	100	100	2000
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	100	100	100	100	100	100	2000
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	100	100	100	100	100	100	2000

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$^{13}C_{12}$-OCDD	200	200	200	200	200	200	4000
Cleanup Standard							
$^{37}Cl_4$-2,3,7,8-TCDD	0.1	0.5	2	10	40	200	200
Recovery Standard							
$^{13}C_{12}$-1,2,3,4-TCDD	100	100	100	100	100	100	2000
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	100	100	100	100	100	100	2000

[1] Blood/plasma/serum and milk samples are spiked with ½ the amounts of surrogate and recovery standards shown in this table.

4.0 QUANTIFICATION PROCEDURES

The response for any component is taken as the sum of the integrated peak areas for the two characteristic masses for that compound. Quantification is by the isotope dilution method. Target concentrations are determined with respect to labelled surrogate standards. Mean relative response factors (RRF), determined from the multi-level initial calibration series are used to convert raw peak areas in sample chromatograms to final concentrations as follows:

$$\text{Concentration of Target} = \left(\frac{\text{area of Target}}{\text{area of Qt Std}}\right) \times \left(\frac{\text{weight of Qt Std}}{\text{RRF}}\right) \times \left(\frac{1}{\text{weight of sample}}\right)$$

$$\textit{where}\quad \text{RRF} = \left(\frac{\text{area of Target}}{\text{area of Qt Std}}\right) \times \left(\frac{\text{weight of Qt Std}}{\text{weight of Target}}\right)$$

and the Qt Std is either the surrogate or the internal standard

Those compounds quantified against a labelled standard added at the beginning of the analysis procedure are recovery corrected by the method of quantification. Surrogate recoveries are determined similarly against the recovery (internal) standard and are used as general indicators of overall analytical quality.

4.1 Reporting Limits

Concentrations and detection limits for the 2,3,7,8-polychlorinated dioxins and furans (tetra-octa) are reported. Typical reporting units for all data are pg/g, pg/L or pg/sample. Concentrations for solids are reported on a dry weight basis. Concentrations in tissues (including blood and milk) are reported on a wet weight basis and/or on a lipid weight basis when requested. Concentrations in aqueous samples are reported on a volume basis. Concentrations in XAD-2 resin, filters and stack gas samples are reported on a per sample basis or a per volume basis. Concentrations in particulate filters are reported on a per sample basis.

The following are commonly requested reporting limits:

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Sample Specific Detection Limit or Sample Detection Limit (SDL) – determined individually for every sample analysis run by converting the area equivalent of 3.0 times (2.5 times for EPA 1600 series methods) the estimated chromatographic noise height to a concentration in the same manner that target peak responses are converted to final concentrations. The SDL accounts for any effect of matrix on the detection system and for recovery achieved through the analytical work-up. Equivalent term(s): Estimated Detection Limit (EDL) from EPA method 8290.

Method Detection Limit (MDL) - determined as specified by EPA Fed. Reg. 40 CFR Part 136 Appendix B (no iteration option). The 99% confidence level MDL is determined based on analysis of a minimum of 7 replicate matrix spikes fortified at 1-10 times the estimated detection limit. MDL is determined as required based on accreditation, contract and workload requirements.

Lower Method Calibration Limit (LMCL) - determined by prorating the concentration of the lowest calibration limit for sample size and extract volume. The following equation is used. ((lowest level cal conc.) x (extract volume))/sample size. Typical extract volume for PCDDs/PCDFs is 20 µL.

For the analysis of PCDDs/PCDFs SGS AXYS standard is to report sample concentrations using the SDL with a minimum reporting limit of 0.5 pg absolute.

Analyte Ions Monitored, Surrogates Used and RRF Determination for Dioxins/Furans

Analytes	Quantification Ion (m/z)	Confirmation Ion (m/z)	Surrogate	RRF Determined From
2,3,7,8-TCDD	319.8965	321.8936	$^{13}C_{12}$-2,3,7,8-TCDD	2,3,7,8-TCDD
1,3,6,8-TCDD *	319.8965	321.8936	$^{13}C_{12}$-2,3,7,8-TCDD	2,3,7,8-TCDD
1,3,7,9-TCDD *	319.8965	321.8936	$^{13}C_{12}$-2,3,7,8-TCDD	2,3,7,8-TCDD
1,2,3,7,8-PeCDD	353.8576	355.8546	$^{13}C_{12}$-1,2,3,7,8-PeCDD	1,2,3,7,8-PeCDD
1,2,3,4,7,8-HxCDD	389.8156	391.8127	$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	1,2,3,4,7,8-HxCDD
1,2,3,6,7,8-HxCDD	389.8156	391.8127	$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1,2,3,6,7,8-HxCDD
1,2,3,7,8,9-HxCDD	389.8156	391.8127	Mean of $^{13}C_{12}$-1,2,3,6,7,8/1,2,3,4,7,8-HxCDD	1,2,3,7,8,9-HxCDD
1,2,3,4,6,7,8-HpCDD	423.7767	425.7737	$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDD
OCDD	457.7377	459.7348	$^{13}C_{12}$-OCDD	OCDD
2,3,7,8-TCDF	303.9016	305.8987	$^{13}C_{12}$-2,3,7,8 -TCDF	2,3,7,8-TCDF
1,2,7,8-TCDF *	303.9016	305.8987	$^{13}C_{12}$-2,3,7,8 -TCDF	2,3,7,8-TCDF
1,2,3,7,8-PeCDF	339.8597	341.8568	$^{13}C_{12}$-1,2,3,7,8-PeCDF	1,2,3,7,8-PeCDF
2,3,4,7,8-PeCDF	339.8597	341.8568	$^{13}C_{12}$-2,3,4,7,8-PeCDF	2,3,4,7,8-PeCDF
1,2,3,4,7,8-HxCDF	373.8207	375.8178	$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1,2,3,4,7,8-HxCDF
1,2,3,6,7,8-HxCDF	373.8207	375.8178	$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	1,2,3,6,7,8-HxCDF
2,3,4,6,7,8-HxCDF	373.8207	375.8178	$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	2,3,4,6,7,8-HxCDF
1,2,3,7,8,9-HxCDF	373.8207	375.8178	$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	1,2,3,7,8,9-HxCDF
1,2,3,4,6,7,8-HpCDF	407.7818	409.7788	$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1,2,3,4,6,7,8-HpCDF
1,2,3,4,7,8,9-HpCDF	407.7818	409.7788	$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	1,2,3,4,7,8,9-HpCDF
OCDF	441.7428	443.7398	$^{13}C_{12}$-OCDD	OCDF

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Cleanup Standard				
$^{37}Cl_4$-2,3,7,8-TCDD	327.8847	-	$^{13}C_{12}$-1,2,3,4-TCDD	
Field Standard				
$^{13}C_6$-1,2,3,4-TCDD	325.9166	327.9137	$^{13}C_{12}$-1,2,3,4-TCDD	$^{13}C_{12}$-1,2,3,4-TCDD
Labelled Surrogates	**Quantification Ion (m/z)**	**Confirmation Ion (m/z)**	**Recovery Calculated Using**	
$^{13}C_{12}$-2,3,7,8-TCDD	331.9368	333.9339	$^{13}C_{12}$-1,2,3,4-TCDD	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	365.8978	367.8949	$^{13}C_{12}$-1,2,3,4-TCDD	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	401.8559	403.8530	$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	401.8559	403.8530	$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	435.8169	437.8140	$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	
$^{13}C_{12}$-OCDD	469.7780	471.7750	$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	
$^{13}C_{12}$-2,3,7,8 -TCDF	315.9419	317.9389	$^{13}C_{12}$-1,2,3,4-TCDD	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	351.9000	353.8970	$^{13}C_{12}$-1,2,3,4-TCDD	
$^{13}C_{12}$-2,3,4,7,8-PeCDF	351.9000	353.8970	$^{13}C_{12}$-1,2,3,4-TCDD	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	383.8639	385.8610	$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	383.8639	385.8610	$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	383.8639	385.8610	$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	383.8639	385.8610	$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	417.8250	419.8220	$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	417.8250	419.8220	$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	
Recovery Standards				
$^{13}C_{12}$-1,2,3,4-TCDD	331.9368	333.9339		
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	401.8559	403.8530		

*Optional isomers which may be reported upon client request.

CI-DPE Monitoring Ions			
Descriptor	**Exact M/Z**	**M/Z Type**	**Substance**
3	375.8364	M+2	HxCDPE
4	409.7974	M+2	HpCDPE
5	445.7555	M+4	OCDPE
6	479.7165	M+4	NCDPE
7	513.6775	M+4	DCDPE

5.0 QUALITY ACCEPTANCE CRITERIA

Samples are analyzed in batches consisting of a maximum of twenty samples, one procedural blank and one spiked matrix (OPR) sample. A duplicate is analyzed, provided there is sufficient sample, with batches containing 7-20 samples. Matrix spike/matrix spike duplicate (MS/MSD) pairs may be analyzed on an individual contract basis. The batch is carried through the complete analytical process as a unit. For sample data to be reportable, the batch QC data must meet the established acceptance criteria presented on the analysis reports.

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QC Specification Table: Authentic and Surrogate Standard Recoveries, CAL/VER, IPR, OPR and Samples

	Test Conc. (ng/mL)	IPR		OPR (%)	I-CAL (%)	CAL/VER (%)	Labelled Compound (% rec. in sample)	
		SD (%) *	$\bar{X}$ (%)				Warning Limits	Control Limits
Native Compound								
2,3,7,8-TCDD	10	28	83-129	70-130	20	78-125	-	-
2,3,7,8-TCDF	10	20	87-137	75-130	20	84-120	-	-
1,2,3,7,8-PeCDD	50	15	76-132	70-130	20	78-125	-	-
1,2,3,7,8-PeCDF	50	15	86-124	80-130	20	82-120	-	-
2,3,4,7,8-PeCDF	50	17.2	72-150	70-130	20	82-122	-	-
1,2,3,4,7,8-HxCDD	50	18.8	78-152	70-130	20	78-125	-	-
1,2,3,6,7,8-HxCDD	50	15.4	84-124	76-130	20	78-125	-	-
1,2,3,7,8,9-HXCDD	50	22.2	74-142	70-130	35	82-122	-	-
1,2,3,4,7,8-HxCDF	50	17.4	82-118	72-130	20	90-112	-	-
1,2,3,6,7,8-HxCDF	50	13.4	92-120	84-130	20	88-114	-	-
1,2,3,7,8,9-HxCDF	50	12.8	84-122	78-130	20	90-112	-	-
2,3,4,6,7,8-HxCDF	50	14.8	74-148	70-130	20	88-114	-	-
1,2,3,4,6,7,8-HpCDD	50	15.4	76-130	70-130	20	86-116	-	-
1,2,3,4,6,7,8-HpCDF	50	12.6	90-112	82-122	20	90-110	-	-
1,2,3,4,7,8,9-HpCDF	50	16.2	86-126	78-130	20	86-116	-	-
OCDD	100	19	89-127	78-130	20	79-125	-	-
OCDF	100	27	74-146	70-130	35	75-125	-	-
Surrogate Standards								
$^{13}C_{12}$-2,3,7,8-TCDD	100	37	28-134	25-130	35	82-121	40-120	25-130
$^{13}C_{12}$-2,3,7,8-TCDF	100	35	31-113	25-130	35	71-130	40-120	24-130
$^{13}C_{12}$-1,2,3,7,8-PeCDD	100	39	27-184	25-150	35	70-130	40-120	25-130
$^{13}C_{12}$-1,2,3,7,8-PeCDF	100	34	27-156	25-130	35	76-130	40-120	24-130
$^{13}C_{12}$-2,3,4,7,8-PeCDF	100	38	16-279	25-130	35	77-130	40-120	21-130
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	100	41	29-147	25-130	35	85-117	40-120	32-130
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	100	38	34-122	25-130	35	85-118	40-120	28-130
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	100	43	27-152	25-130	35	76-130	40-120	26-130
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	100	35	30-122	25-130	35	70-130	40-120	26-123
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	100	40	24-157	25-130	35	74-130	40-120	29-130
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	100	37	29-136	25-130	35	73-130	40-120	28-130
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	100	35	34-129	26-130	35	72-130	40-120	23-130
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	100	41	32-110	25-130	35	78-129	40-120	28-130
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	100	40	28-141	25-130	35	77-129	40-120	26-130
$^{13}C_{12}$-OCDD	200	47.5	20.5-138	25-130	35	70-130	25-120	17-130
Cleanup Standard								
$^{37}Cl_4$-2,3,7,8-TCDD	10	36	39-154	31-130	35	79-127	40-120	35-130

* For comparability with EPA 1613B the precision specification for IPR is stated as %SD (=standard deviation relative to the fortification level,)

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QC Specification Table: QC Samples, Instrumental Analysis, and Analyte Quantification

QC Parameter	Specification
Analysis Duplicate	Must agree to within ±20% of the mean (applicable to concentrations >10 times the DL)[1]
Procedural Blank	**Blood/serum/plasma and milk:** TCDD/F <0.2 pg/sample, PeCDD/F <0.5 pg/sample, HxCDD/F and HpCDD/F <1.0 pg/ sample, OCDD/F<5 pg/sample. **Other matrices:** TCDD/F <0.5 pg/sample, PeCDD/F, HxCDD/F, HpCDD/F <1.0 pg/sample, OCDD/F <5 pg/sample. Higher levels acceptable where all sample concentrations are > 10X the blank concentrations.
Detection Limit	SDL Requirements (where target concentrations are detectable or sample extracts display atypical interference, SDL values may be higher): **Blood/serum/plasma and milk:** Tetra-penta-CDD/F 0.2 pg/sample, Hexa-octa-CDD/F 0.5 pg/sample **Other matrices**: 0.5 pg/sample
Instrument Carry over and Background: **Toluene Blank** **Samples**	A. 1st toluene blank following Cal Ver must have <0.6 pg TCDD and <25 pg OCDD[2]. B. 2nd toluene blank following Cal Ver must have <0.2 pg TCDD/F, <0.8 pg Pe-HpCDD/F, and <5.0 pg OCDD[2]. Blood/serum/plasma and milk extract analysis: As many toluene blanks as necessary are run to achieve an instrument blank level of <0.1 pg TCDD/F, <0.3 pg PeCDD/F, <0.5 pg HxCDD/F, <0.5 pg HpCDD/F and <3.5 pg OCDD. <10% contribution from preceding sample (based on observed instrument carryover rate).
Analyte Peak Response	Response must be below the upper calibrated range of the instrument. Data may be taken from more than one chromatogram to get the responses in the calibrated range.
Ion Ratios	Must be within ±15% of theoretical. For 1613B applications only (as per section 16.3 of 1613B) an alternate acceptance criteria of within ±10% of the ratio in the midpoint calibration (CS3) or calibration verification (Cal Ver), whichever is most recent., may be applied. Exception for blood/serum/plasma samples: Ion ratios for sample responses below the lowest calibration level equivalent must be within ±35% of theoretical.
Sensitivity	S:N ≥10:1 for all compounds in CS-0.2 for 1.0 µL injected, plus for blood/serum/plasma and milk S:N ≥3:1 for 0.05 pg injected 2,3,7,8-TCDD.

[1] Duplicate criterion is a guideline; final assessment depends upon sample characteristics, overall batch QC and on-going lab performance.

[2] Instrument background specifications are calculated from spiking labelled standard into the toluene blank and expressed as pg in a 20 µL extract.

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Modifications to EPA Method 1613B

The following sections of EPA Method 1613B have been modified as described below.

Section 2.1.2

Aqueous liquid from multiphase samples is liquid/liquid extracted with DCM. The extract from the aqueous phase is then combined with the extract from the solid phase portion of the sample.

Section 7.2.1

Anhydrous sodium sulfate (Na_2SO_4) is baked overnight prior to use. There is no solvent rinse with dichloromethane.

Section 7.10

The concentration of the labelled compound solution is 100 ng/mL (except for labeled OCDD which is 200 ng/mL) and is prepared in toluene; 20 µL of the labelled compound solution is spiked to solids and tissue samples to yield the method specified concentrations in the final extracts.

Section 7.11

The concentration of the cleanup standard spiking solution is 10 ng/mL (2 ng/mL for tissue samples) in toluene, and the sample spiking volume is 20 µL. The resulting concentration in the final extracts is reduced (to ¼ of the concentration specified in EPA method 1613B for all matrices except tissue, and to $^1/_{20}$ of the EPA method 1613B specified level for tissue).

Sections 7.13, 14.0, 15.0

A modified EPA 1613B/8290 procedure is offered that includes an additional lower level calibration solution, 0.2 times the concentration of CS1 in the initial calibration series so that initial calibration is based on a six-point series. The calibration solutions are prepared in nonane. A modified EPA 1613B/8290 procedure using calibration solutions prepared in toluene is also available.

Section 7.14

The concentration of the PAR spiking solutions is 0.2/1.0/2.0 ng/mL for tetra/penta, hexa, hepta, hexa/octas respectively and the spiking volume is 1 mL. The resulting final concentration in the extracts are as specified in the method.

Section 9.3.3

Table 7 (EPA 1613B) specifications for the percent recovery of surrogate standards in samples that are higher than 130% have been lowered to 130%, as presented in table "QC Specification Table: Authentic and Surrogate Standard Recoveries, CAL/VER, IPR, OPR and Samples" of this document.

Section 11.5

Multiphase, predominately aqueous, samples containing >1% suspended solids may be prepared and extracted using the same procedure as samples containing ≤1% suspended solids with client approval. This involves separating the solids and aqueous phases by filtration, extracting the solids by Soxhlet extraction, extracting the filtrate by

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liquid/liquid extraction, and combining the extract from the two phases. Alternatively, with client approval, multiphase, predominately particulate, samples containing >1% suspended solids may be processed as solids samples using Soxhlet or Soxhlet Dean-Stark extraction.

Section 11.7

To avoid compromising sample integrity through contamination or loss of material to surfaces particles larger than 1 mm in solid samples are by default not subject to grinding prior to extraction. Instead solid samples are homogenized prior to sub-sampling by breaking up clumps with a disposable spoon and mixing/stirring. If required by the client rocks larger than 0.4 cm are removed. Surrogate standard is added after homogenization and sub-sampling.

Section 12.3

For solids samples with suitable moisture content, an option is offered for drying the sample with anhydrous sodium sulfate followed by Soxhlet extraction with 80:20 toluene:acetone. Alternatively Soxhlet Dean-Stark extraction using toluene is available

Section 12.3.1 – 12.3.5

Silica or quartz sand is not pre-extracted in the Dean Stark apparatus. Silica is baked the lab. Quartz sand is proofed prior to use. Sand is mixed with the sample in a beaker and then loaded into the soxhlet thimble.

Section 12.3.9.1.1

Sample extracts are reduced to approximately 1 mL after extraction, not 5 mL.

Section 12.4

The equilibration time for the sodium sulfate drying step is sufficient to produce a dry, free-flowing powder (minimum 30 minutes). This may be less than the 12-hour minimum specified in EPA 1613B.

Section 12.5.3

Ultra-pure water is used to rinse the extract between base and acid washes, not NaCl solution.

Section 12.6.1.1

Rotary evaporator baths are maintained at 35°C. Trends in QC blanks are monitored and diagnostic proofing is conducted if indicated instead of collecting proofs each day and archiving. Historical proofing tests have demonstrated that routine cleaning practices between samples are sufficient to ensure rotary evaporator cleanliness; as an additional safeguard the laboratory segregates processing of samples on the basis of predicted target concentration levels.

Section 12.7.3

Water baths are not used with the nitrogen blowdown apparatus.

Section 12.7.4

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Solvent exchange is dependent on the type of solvent present: if toluene is present the extract is reduced to 50 µL and topped up to 1 mL with hexane; if dichloromethane is present the extract is reduced to 300 µL and topped up to 1 mL with hexane.

Section 12.7.7

Sample extracts are concentrated in a microvial using nitrogen to near dryness before adding the recovery standard.

Section 13.7

Gravimetric lipid analysis is carried out on two subsamples of the extract, representing 2/15ths of the extract. A correction factor is applied to the surrogate recovery standards.

Sections 14.0, 15.0, 16.0, Table 8, Table 9

M/Z channels 354/356 and 366/368 are used to confirm and quantify the native and surrogate penta-substituted dioxins, respectively; this change from the method's specification is made in the instrument method in order to avoid a persistent interference in the 356/358 and 368/370 M/Z channels. The theoretical ratio for the P5CDD M/M+2 ions is 0.61; therefore, the acceptance range is 0.52 - 0.70.

Section 14.2

The EPA 1613B/8290 procedure uses nonane to dilute extracts. Alternatively a modified EPA 1613B/8290 procedure using toluene to dilute extracts may be performed.

Section 15.3.5

Table 6 (EPA 1613B) specifications for CAL-VER solution concentrations outside the 70-130% range have been revised to be 70-130%, as presented in table "QC Specification Table: Authentic and Surrogate Standard Recoveries, CAL/VER, IPR, OPR and Samples" on page 7 of this document.

Section 15.4.2.2

Figure 7 (EPA 1613B) is incorrectly titled as 'on DB-5 column', should be 'on DB-225 column'. The peak annotation in figure 7 is also incorrect; the centre peak is 2,3,7,8-TCDF, not 2,3,4,8-TCDF as indicated.

Section 15.5.3

Table 6 (EPA 1613B) specifications for OPR concentrations outside the 70-130% range have been revised to be 70-130%, as presented in table "QC Specification Table: Authentic and Surrogate Standard Recoveries, CAL/VER, IPR, OPR and Samples" on page 7 of this document.

Section 17.0

Conci - the concentrations of target analytes, and the labelled compound concentrations and recoveries, are calculated using the equations below. These procedures are equivalent to those described in the method but are more direct.

$$Conc = \frac{A_i}{A_{si}} \times \frac{M_{si}}{RRF_{i,si}} \times \frac{1}{M_x}$$

-

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where Ai = summed areas of the primary and secondary m/z's for the analyte peak of interest (compound i)

Asi = summed areas of the primary and secondary m/z's for the labelled surrogate peak used to quantify i)

Mx = mass of sample taken for analysis

Msi = mass of labelled surrogate (compound si) added to sample as calculated by the concentration of standard spiked (pg/mL) multiplied by the volume spiked (mL)

$RRFi,si$ = mean relative response factor of i to si from the five-point calibration range and defined individually as:

$$\frac{A_i}{A_{si}} \; x \; \frac{M_{si}}{M_i}$$

Calculation of Surrogate Standard Concentrations and Percent Recoveries:

Concentrations of surrogate standards are calculated using the following equation:

$$Conc_{si} = \frac{A_{si}}{A_{rs}} \; x \; \frac{M_{rs}}{RRF_{si,rs}}$$

and, the percent recoveries of the surrogate standards are calculated using the following equation:

$$\%Recovery = \frac{A_{si}}{A_{rs}} \; x \; \frac{M_{rs}}{RRF_{si,rs}} \; x \; \frac{1}{M_{si}} \; x \; 100$$

where A_{rs} and A_{si} are the summed peak areas (from the primary and secondary m/z channels) of recovery standard and labelled surrogate added to the sample;
M_{rs} and M_{si} are the masses of recovery standard and labelled surrogate added to the sample, and;
$RRF_{si,rs}$ is the mean relative response factor of the labelled surrogate to the recovery standard as determined by the five-point calibration range and defined individually as:

$$\frac{A_{si}}{A_{rs}} \; x \; \frac{M_{rs}}{M_{si}}$$

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Section 17.5

Where acceptable to the client, extracts may be diluted with solvent and re-analyzed by GC/MS to bring the instrumental response to within the linear range of the instrument. Typically, no additional recovery (internal) standard is added. For very high-level samples where a smaller sample aliquot may not be representative, extracts may be diluted and respiked with labelled quantification standards and re-analyzed by GC/MS to bring the instrumental response analytes within range. Final results are recovery corrected using the mean recovery of labelled quantification standards.

Modifications to EPA Method 8290

The SGS AXYS implementation of EPA Methods 8290 and 8290A includes the following:

1. A sample hold time of 30 days from time of sample collection is recommended.
2. Extract hold time, stored at <-10°C, is 45 days.
3. The same surrogate, recovery, authentic spike and calibration solutions that are used for EPA method 1613B are used to perform EPA Methods 8290 and 8290A.
4. A matrix spike/matrix spike duplicate (MS/MSD) sample may be analysed with every analysis batch, as negotiated with the client and provided sufficient sample is available. This requirement may be waived by contract.
5. The typical final extract volume is 20 µL but may vary between 10 µL and 50 µL.
6. HRGC/MS analysis is performed according to EPA 1613B protocols with the following requirements:
   - An instrumental blank is analyzed at the beginning of every 12-hour analysis sequence, injected following the CAL/VER solution.
   - Should the CAL/VER analysis fail at the end of a 12 hour period by no more than 25% RPD for the native analytes and 35% for the labelled standards, the mean RRF from the two CAL/VER analyses may be used to calculate the analyte concentrations.
7. Quantification of target analytes is performed using an expanded suite of surrogate standards and quantification references (listed in table "Analyte Ions Monitored, Surrogates Used and RRF Determination for Dioxins/Furans" on pages 5-6 of this document) as per method 8290A section 5.8 allowances (alternative quantification using the smaller suite of surrogate standards listed in method 8290A and in table "Analyte Ions Monitored, Surrogates Used and RRF Determination for Dioxins/Furans by EPA 8290/8290A" on page 14 of this document may be negotiated by individual customers).
8. The QC specifications in table "QC Criteria for PCDD/F Analysis by EPA 8290/8290A" below are used for evaluating data.

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SGS AXYS Analytical Services Ltd.

The following modifications have been made to EPA Methods 8290 and 8290A:

1. Procedures described in section "Modifications to EPA Method 1613B" of this document are applicable.
2. The concentrations of the initial calibration solutions, surrogate standard solution and recovery standard solution are modified to be those described in table "Concentration of PCDD/PCDF Calibration Solutions" found on pages 3-4 of this document.
3. The amount of surrogate standard and recovery standard added to each sample are modified to be as described in table "Concentration of PCDD/PCDF Calibration Solutions" found on pages 3-4 of this document.
4. Sample Specific Estimated Detection Limits (EDL) are reported as Sample Specific Detection Limits (SDL), calculated as described in sections "4. Quantification Procedures" and "4.1 Reporting Limits" of this document.

QC Criteria for PCDD/F Analysis by EPA 8290/8290A

Initial Calibration	Native analytes: ±20% RSD for mean RRF Labelled Compounds: ±30% RSD for mean RRF
CAL-VER	Native Analytes: RRF must be ±20% of mean RRF from ICAL Labelled Compounds: RRF must be ±30% of mean RRF from ICAL
Sample Surrogate Recovery	40-135% (lower or higher recoveries for the procedural blank may be accepted based on analyst professional judgement.)
Spiked Reference Sample	In house specification: 70%-130% of the expected value for all targets except 1,2,3,7,8,9-HxCDF, which is 60%-140%. Professional judgement may be applied in consideration of overall QC data, including MS/MSD to determine acceptability.
Analysis Duplicate	Must agree to within 25% RPD
MS/MSD	Must agree to within 20% RPD

Analyte Ions Monitored, Surrogates Used and RRF Determination for Dioxins/Furans by EPA 8290/8290A

Analytes	Quantification Ion (m/z)	Confirmation Ion (m/z)	Surrogate	RRF Determined From
2,3,7,8-TCDD	319.8965	321.8936	$^{13}C_{12}$-2,3,7,8-TCDD	2,3,7,8-TCDD
1,2,3,7,8-PeCDD	353.8576	355.8546	$^{13}C_{12}$-1,2,3,7,8-PeCDD	1,2,3,7,8-PeCDD
1,2,3,4,7,8-HxCDD	389.8156	391.8127	$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1,2,3,4,7,8-HxCDD
1,2,3,6,7,8-HxCDD	389.8156	391.8127	$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1,2,3,6,7,8-HxCDD
1,2,3,7,8,9-HxCDD	389.8156	391.8127	$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	1,2,3,7,8,9-HxCDD
1,2,3,4,6,7,8-HpCDD	423.7767	425.7737	$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	1,2,3,4,6,7,8-HpCDD
OCDD	457.7377	459.7348	$^{13}C_{12}$-OCDD	OCDD
2,3,7,8-TCDF	303.9016	305.8987	$^{13}C_{12}$-2,3,7,8-TCDF	2,3,7,8-TCDF

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1,2,3,7,8-PeCDF	339.8597	341.8568	$^{13}C_{12}$-1,2,3,7,8-PeCDF	1,2,3,7,8-PeCDF
2,3,4,7,8-PeCDF	339.8597	341.8568	$^{13}C_{12}$-1,2,3,7,8-PeCDF	2,3,4,7,8-PeCDF
1,2,3,4,7,8-HxCDF	373.8207	375.8178	$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1,2,3,4,7,8-HxCDF
1,2,3,6,7,8-HxCDF	373.8207	375.8178	$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1,2,3,6,7,8-HxCDF
2,3,4,6,7,8-HxCDF	373.8207	375.8178	$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	2,3,4,6,7,8-HxCDF
1,2,3,7,8,9-HxCDF	373.8207	375.8178	$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	1,2,3,7,8,9-HxCDF
1,2,3,4,6,7,8-HpCDF	407.7818	409.7788	$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1,2,3,4,6,7,8-HpCDF
1,2,3,4,7,8,9-HpCDF	407.7818	409.7788	$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	1,2,3,4,7,8,9-HpCDF
OCDF	441.7428	443.7398	$^{13}C_{12}$-OCDD	OCDF
Labelled Surrogate Stds	**Quantification Ion (m/z)**	**Confirmation Ion (m/z)**	**Recovery Calculated Using**	
$^{13}C_{12}$-2,3,7,8-TCDF	315.9419	317.9389	$^{13}C_{12}$-1,2,3,4-TCDD	
$^{13}C_{12}$-2,3,7,8-TCDD	331.9368	333.9339	$^{13}C_{12}$-1,2,3,4-TCDD	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	351.9000	353.8970	$^{13}C_{12}$-1,2,3,4-TCDD	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	365.8978	367.8949	$^{13}C_{12}$-1,2,3,4-TCDD	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	383.8639	385.8610	$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	401.8559	403.8530	$^{13}C_{12}$-1,2,3,7, 8,9-HxCDD	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	417.8250	419.8220	$^{13}C_{12}$-1,2,3,7,8,9 -HxCDD	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	435.8169	437.8140	$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	
$^{13}C_{12}$-OCDD	469.7780	471.7750	$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	
Labelled Recovery Stds				
$^{13}C_{12}$-1,2,3,4-TCDD	331.9368	333.9339		
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	401.8559	403.8530		

WINDWARD ENVIRONMENTAL

CORRELATION TABLE

DIOXIN/FURAN ANALYSIS

Lab Name: SGS AXYS Analytical Services Ltd.	**Project Manager: Georgina Brooks**
Project: N/A	**Contract No: 4033**
Project Name: Seep Water PO# 2018-0069	**SGS AXYS Method: MLA-017**
Data Package Identification: DPWG64871	**Program: Aqueous Samples**
Client Sample No.	**Lab Sample ID**
LAB BLANK	WG64578-101
OPR	WG64578-102
OPR DUPLICATE	WG64578-103
LDW18-SP-RB1	L29628-1
LDW18-SP-42	L29628-7
LDW18-SP-24	L29628-11
LDW18-SP-24-FD	L29628-12
LDW18-SP-57	L29628-14
LDW18-SP-77	L29628-17
LDW18-SP-78	L29628-18
LDW18-SP-79	L29628-19
LDW18-SP-87	L29628-21
LDW18-SP-01	L29628-22
LDW18-SP-66	L29628-25
LDW18-SP-70	L29628-26
LDW18-SP-86	L29628-28
LDW18-SP-88	L29628-29

1 of 3

CHAIN-OF-CUSTODY/TEST REQUEST FORM

4033

Project/Client Name:	AOC3 Sediment Collection	Ship to:	SGS Axys Analytical	No.	AOC320180703
Project Number:	Task 4	Attn:	Georgina Brooks	Shipping Date:	5/15-5/18/18
Contact Name:	Amara Vandervort	Shipper:	Courier	Airbill Number:	N/A
Sampled By:	Windward	Form filled out by:	A. Vandervort	Turnaround requested:	Standard

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) Dioxin/Furan							Comments / Instructions [Composite/Bag ID]
6/19/18	1027	LDW18-IT45-B1-Comp1	1	Sediment	X							L29625-1
6/19/18	1038	LDW18-IT45-B1-Comp2	1	Sediment	X							-2
6/19/18	1050	LDW18-IT45-B1-Comp3	1	Sediment	X							-3
6/19/18	1025	LDW18-IT45-B1-Comp1-FD	1	Sediment	X							-4
6/19/18	1038	LDW18-IT45-B1-Comp2-FD	1	Sediment	X							-5
6/19/18	1050	LDW18-IT45-B1-Comp-3-FD	1	Sediment	X							-6
6/19/18	1155	LDW18-IT45-B2-Comp1	1	Sediment	X							-7
6/19/18	1203	LDW18-IT45-B2-Comp2	1	Sediment	X							-8
6/19/18	1152	LDW18-IT45-B2-Comp3	1	Sediment	X							-9
6/19/18	1124	LDW18-IT45-B4-Comp1	1	Sediment	X							-10
6/19/18	1140	LDW18-IT45-B4-Comp2	1	Sediment	X							-11
6/19/18	1140	LDW18-IT45-B4-Comp3	1	Sediment	X							-12
Total Number of Containers			12	Purchase Order / Statement of Work # PO 2018-0078								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Stephanie Fisher	Yared Lisanework	Yared Lisanework	
Signature: Stephanie Fisher			
Company: ARI	YL #736	YL #736	SGS-AXYS
Date/Time: 7/2/18 1705	7/2/18 17:05	07/03/18 8:53AM	03-Jul-2018 8:50

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Windward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

CHAIN-OF-CUSTODY/TEST REQUEST FORM

4033

Project/Client Name: **AOC3 Sediment Collection**
Project Number: Task 4
Contact Name: Amara Vandervort
Sampled By: Windward

Ship to: **SGS Axys Analytical** No.AOC320180703
Attn: Georgina Brooks Shipping Date: 5/15-5/18/18
Shipper: Courier Airbill Number: N/A
Form filled out by: A. Vandervort Turnaround requested: Standard

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) Dioxin/Furan							Comments / Instructions [Composite/Bag ID]
6/19/18	1122	LDW18-IT45-B5-Comp1	1	Sediment	X							L29625-13
6/19/18	1108	LDW18-IT45-B5-Comp2	1	Sediment	X							-14
6/19/18	1110	LDW18-IT45-B5-Comp3	1	Sediment	X							-15
6/20/18	1128	LDW18-IT45-B3-Comp1	1	Sediment	X							-16
6/20/18	1130	LDW18-IT45-B3-Comp2	1	Sediment	X							-17
6/20/18	1138	LDW18-IT45-B3-Comp-3	1	Sediment	X							-18
6/20/18	1010	LDW18-IT45-B6-Comp1	1	Sediment	X							-19
6/20/18	1019	LDW18-IT45-B6-Comp2	1	Sediment	X							-20
6/20/18	1059	LDW18-IT45-B6-Comp3	1	Sediment	X							-21
6/20/18	1032	LDW18-IT45-B6-Comp1-FD	1	Sediment	X							-22
6/20/18	1045	LDW18-IT45-B6-Comp2-FD	1	Sediment	X							-23
6/20/18	1114	LDW18-IT45-B6-Comp3-FD	1	Sediment	X							-24
Total Number of Containers			12	Purchase Order / Statement of Work # PO 2018-0078								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Stephanie Fishel	Yared Lisanework	Yared Lisanework	
Signature: Stephanie Fishel			
Company: AR1	Company: YL #736	Company: YL #736	Company: SGS-AXYS
Date/Time: 7/2/18 1705	Date/Time: 7/12/18 17:05	Date/Time: 07/03/18 8:53 AM	Date/Time: 03-Jul-2018

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Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

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CHAIN-OF-CUSTODY/TEST REQUEST FORM

4033

Project/Client Name:	AOC3 Sediment Collection	Ship to:	SGS Axys Analytical	No.	AOC320180703
Project Number:	Task 4	Attn:	Georgina Brooks	Shipping Date:	5/15-5/18/18
Contact Name:	Amara Vandervort	Shipper:	Courier	Airbill Number:	N/A
Sampled By:	Windward	Form filled out by:	A. Vandervort	Turnaround requested:	Standard

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) Dioxin/Furan							Comments / Instructions [Composite/Bag ID]
6/20/18	1055	LDW18-IT45-B7-Comp1	1	Sediment	X							L29625-25
6/20/18	1105	LDW18-IT45-B7-Comp2	1	Sediment	X							-26
6/20/18	1120	LDW18-IT45-B7-Comp3	1	Sediment	X							-27
6/20/18	1012	LDW18-IT45-B8-Comp1	1	Sediment	X							-28
6/20/18	1025	LDW18-IT45-B8-Comp2	1	Sediment	X							-29
6/20/18	1039	LDW18-IT45-B8-Comp3	1	Sediment	X							-30
Total Number of Containers			6	Purchase Order / Statement of Work # PO 2018-0078								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Stephanie Fisher	Yared Lisanework	Yared Lisanework	
Signature: Stephanie Fisher			
Company: AXYS	Company: YL #736	Company: YL #736	Company: SGS-AXYS
Date/Time: 7/2/18 17:05	Date/Time: 7/2/18 17:05	Date/Time: 07/03/18 8:53AM	Date/Time: 03-Jul-2018 8:50

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To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

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CHAIN-OF-CUSTODY/TEST REQUEST FORM

Project/Client Name: **AOC3 Sediment Collection**
Project Number: Task 4
Contact Name: Amara Vandervort
Sampled By: Windward

Ship to: **SGS Axys Analytical** No.AOC320180703
Attn: Georgina Brooks Shipping Date: 5/15-5/18/18
Shipper: Courier Airbill Number: N/A
Form filled out by: A. Vandervort Turnaround requested: Standard

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) Dioxin/Furan							Comments / Instructions [Composite/Bag ID]
6/14/18	1215	LDW18-BNK2-1	1	Sediment	X							L29625-31
Total Number of Containers			1	Purchase Order / Statement of Work # PO 2018-0078								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Stephanie Fisher	Yared Lisanework	Yared Lisanework	
Signature: Stephanie Fisher			
Company: ARI	YL #736	YL #736	SGS-Axys
Date/Time: 7/2/18 1705	07/02/18 1705	07/03/18 8:53 AM	03-Jul-2018 8:50

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Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

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CHAIN-OF-CUSTODY/TEST REQUEST FORM

4033

Project/Client Name:	AOC3 Sediment Collection	Ship to:	SGS Axys Analytical	No.	AOC320180703
Project Number:	Task 4	Attn:	Georgina Brooks	Shipping Date:	5/15-5/18/18
Contact Name:	Amara Vandervort	Shipper:	Courier	Airbill Number:	N/A
Sampled By:	Windward	Form filled out by:	A. Vandervort	Turnaround requested:	Standard

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) Freeze and Hold							Comments / Instructions [Composite/Bag ID]
5/15/2018	1023	LDW18-SSOT-2510	1	Sediment	X							L29625-32
5/15/2018	1303	LDW18-SSOT-2114	1	Sediment	X							-33
Total Number of Containers			2	Purchase Order / Statement of Work # PO 2018-0053								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Stephanie Fisher	Yared Lisaneworke	Yared Lisaneworke	
Signature: Stephanie Fisher			
Company: ANJ	Company: YL # 736	Company: YL # 736	Company: SGS AXYS
Date/Time: 7/2/18 1705	Date/Time: 07/02/18 17:05	Date/Time: 07/03/18 8:53 AM	Date/Time: 03-Jul-2018 8:50

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To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

1 of 1

CHAIN-OF-CUSTODY/TEST REQUEST FORM

Project/Client Name:	AOC3 Clam Collection	Ship to:	SGS Axys Analytical	No.	AOC320180703
Project Number:	Task 4	Attn:	Georgina Brooks	Shipping Date:	5/15-5/18/18
Contact Name:	Amara Vandervort	Shipper:	Courier	Airbill Number:	N/A
Sampled By:	Windward	Form filled out by:	A. Vandervort	Turnaround requested:	Standard

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) Dioxin/Furan	PCB Congeners						Comments / Instructions [Composite/Bag ID]
		LDW18-C01-CLWB-Comp2	1	Tissue	X							L29626-1
		LDW18-C02-CLWB-Comp2	1	Tissue	X							-2
		LDW18-C03-CLWB-Comp2	1	Tissue	X							-3
		LDW18-C04-CLWB-Comp2	1	Tissue	X							-4
		LDW18-C05-CLWB-Comp2	1	Tissue	X							-5
		LDW18-C06-CLWB-Comp2	1	Tissue	X							-6
		LDW18-C08-CLWB-Comp2	1	Tissue	X							-7
		LDW18-C10-CLWB-Comp2	1	Tissue	X							-8
		LDW18-C11-CLWB-Comp2	1	Tissue	X							-9
Total Number of Containers			9	Purchase Order / Statement of Work # PO 2018-0065								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Stephanie Fisher	Yared Lisanework	Yared Lisanework	
Signature: Stephanie Fisher			
Company: AR	Company: YL #736	Company: YL #736	Company: SGS-AXYS
Date/Time: 7/2/18 1705	Date/Time: 07/02/18 1710	Date/Time: 07/03/18 8:53 AM	Date/Time: 03-Jul-2018 8:50

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To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

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Chain of Custody Record & Laboratory Analysis Request

4033

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)
www.arilabs.com

ARI Assigned Number:	Turn-around Requested:
ARI Client Company: WINDWARD	Phone:
Client Contact: AMARA VANDERVORT	
Client Project Name: PUWAMISH	
Client Project #:	Samplers:

Page: 1 of 2

Date: | Ice Present?

No. of Coolers: | Cooler Temps:

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested	Notes/Comments
LOW18-PWPS-A01	06/22/18	2:45pm	Polyethylene	1		L29627-1
LOW18-PWPS-A02	"	"	"	"		-2
LOW18-PWPS-A03	"	"	"	"		-3
LOW18-PWPS-A04	"	"	"	"		-4
LOW18-PWPS-A05	"	"	"	"		-5
LOW18-PWPS-A06	"	"	"	"		-6
LOW18-PWPS-A07	"	"	"	"		-7
LOW18-PWPS-A08	"	"	"	"		-8
LOW18-PWPS-A09	"	"	"	"		-9
LOW18-PWPS-A10	"	"	"	"		-10

Comments/Special Instructions

Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
Printed Name: SOSE GOMEZ-EYLES	Printed Name: S DUNNIHO	Printed Name: Stephanie Fisher	Printed Name: YARED LISANEWORK
Company: INTEGRAL CONSULTING	Company: ARI	Company: ARI	Company: YC #736
Date & Time: 06/22/18 2:45pm	Date & Time: 06/22/18 14:45	Date & Time: 7/2/18 1705	Date & Time: 07/02/18 17:05

YARED LISANEWORK 8:53 AM → 07/03/18

Received by: [illegible] 05-Jul-2018 SGS-AXYS 8:50

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

4033

Chain of Custody Record & Laboratory Analysis Request

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)
www.arilabs.com

ARI Assigned Number:	Turn-around Requested:
ARI Client Company: WINDWARD	Phone:
Client Contact: AMARA VANPERVORT	
Client Project Name: DUWAMISH	
Client Project #:	Samplers:

Page: 2 of 2

Date: | Ice Present?

No. of Coolers: | Cooler Temps:

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested	Notes/Comments
LOW18-PWPS-A11	06/22/18	2:45pm	Polyethylene	1		L29627-11
LOW18-PWPS-A11_Dup	"	"	"	"		-12
LOW18-PWPS_A12	"	"	"	"		-13
LOW18-PWPS-A13	"	"	"	"		-14
LOW18-PWPS-A17	"	"	"	"		-15
LOW18-PWPS-A18	"	"	"	"		-16
LOW18-PWPS-A19	"	"	"	"		-17
LOW18-PWPS-EqBlk_PAH	"	"	"	"		-18

Comments/Special Instructions	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
	Printed Name: JOSE GOMEZ-EYLES	Printed Name: DUNNIHOO	Printed Name: Stephanie Fisher	Printed Name: YARED LISANEWORK
	Company: INTEGRAL CONSULTING	Company: ARI	Company: ARI	Company: YL #736
	Date & Time: 06/27/18 2:45pm	Date & Time: 06/27/18 14:45	Date & Time: 7/2/18 1705	Date & Time: 07/02/18 17:05

YARED LISANEWORK 8:53 AM 07/03/18

Received by: [illegible] 03-Jul-2018 SGS-AXYS 8:50

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention schedules have been established by work-order or contract.

CHAIN-OF-CUSTODY/TEST REQUEST FORM

4033

Project/Client Name:	AOC3 Seep Collection	Ship to:	SGS Axys Analytical	No.	AOC320180703
Project Number:	Task 4	Attn:	Georgina Brooks	Shipping Date:	5/15-5/18/18
Contact Name:	Amara Vandervort	Shipper:	Courier	Airbill Number:	N/A
Sampled By:	Windward	Form filled out by:	A. Vandervort	Turnaround requested:	Standard

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required)							Comments / Instructions [Composite/Bag ID]
					Dioxin/Furans	PCB Congeners All on HOLD	Hold Refrigerated					
6/11/18	1612	LDW18-SP-RB1	2	Water	X	X			L29628		-1	Please HOLD PCB Congener Sample
6/11/18	1637	LDW18-SP-RB2	2	Water			X				-2	Sample on Hold
6/12/18	1206	LDW18-SP-30	1	Water			X				-3	Sample on Hold
6/12/18	0919	LDW18-SP-32	1	Water			X				-4	Sample on Hold
6/12/18	1056	LDW18-SP-35	1	Water			X				-5	Sample on Hold
6/12/18	1027	LDW18-SP-38	1	Water			X				-6	Sample on Hold
6/12/18	1205	LDW18-SP-42	2	Water	X	X					-7	Please HOLD PCB Congener Sample
6/12/18	1300	LDW18-SP-43	1	Water			X				-8	Sample on Hold
6/13/18	0953	LDW18-SP-06	1	Water			X				-9	Sample on Hold
6/13/18	1217	LDW18-SP-33	1	Water			X				-10	Sample on Hold
6/13/18	1235	LDW18-SP-24	2	Water	X	X					-11	Please HOLD PCB Congener Sample
6/13/18	1242	LDW18-SP-24-FD	2	Water	X	X					-12	Please HOLD PCB Congener Sample
Total Number of Containers			17	Purchase Order / Statement of Work # PO 2018-0069								

1) Released by: Stephanie Fisher	1) Rec'd by: YARED LISANEWORK	2) Released by:	2) Rec'd by:
Print name: Stephanie Fisher	Company: YC#736	Print name: Yared Lisanework	Company: SGS-AXYS
Signature: Stephanie Fisher	Date/Time: 07/2/18 17:05	Signature:	Date/Time: 03-Jul-2018 8:30
Company: AR1		Company: YC#736	
Date/Time: 7/2/18 1705		Date/Time: 07/03/18 8:53AM	

* Distribution: White copies accompany shipment; yellow retained by consignor.

Windward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

www.axysanalytical.com

CHAIN-OF-CUSTODY/TEST REQUEST FORM

4033

Project/Client Name:	AOC3 Seep Collection	Ship to:	SGS Axys Analytical		No.AOC320180703
Project Number:	Task 4	Attn:	Georgina Brooks	Shipping Date:	5/15-5/18/18
Contact Name:	Amara Vandervort	Shipper:	Courier	Airbill Number:	N/A
Sampled By:	Windward	Form filled out by:	A. Vandervort	Turnaround requested:	Standard

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) Dioxin/Furans	PCB Congeners All on HOLD	Hold Refrigerated					Comments / Instructions [Composite/Bag ID]
6/14/18	1408	LDW18-SP-05	1	Water			X		L29628 -		13	Sample on Hold
6/14/18	1041	LDW18-SP-57	2	Water	X	X					-14	Please HOLD PCB Congener Sample
6/14/18	1308	LDW18-SP-73	1	Water			X				-15	Sample on Hold
6/14/18	1314	LDW18-SP-74	1	Water			X				-16	Sample on Hold
6/14/18	1210	LDW18-SP-77	2	Water	X	X					-17	Please HOLD PCB Congener Sample
6/14/18	1204	LDW18-SP-78	2	Water	X	X					-18	Please HOLD PCB Congener Sample
6/14/18	0950	LDW18-SP-79	2	Water	X	X					-19	Please HOLD PCB Congener Sample
6/14/18	0953	LDW18-SP-84	1	Water			X				-20	Sample on Hold
6/14/18	1111	LDW18-SP-87	2	Water	X	X					-21	Please HOLD PCB Congener Sample
6/15/18	1133	LDW18-SP-01	2	Water	X	X					-22	Please HOLD PCB Congener Sample
6/15/18	1345	LDW18-SP-45	1	Water			X				-23	Sample on Hold
6/15/18	1316	LDW18-SP-47	1	Water			X				-24	Sample on Hold
Total Number of Containers			18	Purchase Order / Statement of Work # PO 2018-0069								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Stephanie Fisher	YARED LISANEWORK	Yared Lisanework	
Signature: Stephanie Fisher			
Company: NDI	Company: YL #736	Company: YL #736	Company: SGS-AXYS
Date/Time: 7/2/18 1105	Date/Time: 07/02/18 17:05	Date/Time: 07/03/18 8:53AM	Date/Time: 03-Jul-2018 8:30

* Distribution: White copies accompany shipment; yellow retained by consignor.

Windward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

3 of 3

CHAIN-OF-CUSTODY/TEST REQUEST FORM

4033

Project/Client Name: **AOC3 Seep Collection**
Project Number: Task 4
Contact Name: Amara Vandervort
Sampled By: Windward

Ship to: **SGS Axys Analytical** No.AOC320180703
Attn: Georgina Brooks Shipping Date: 5/15-5/18/18
Shipper: Courier Airbill Number: N/A
Form filled out by: A. Vandervort Turnaround requested: Standard

Sample Collection Date (m/d/y)	Time	Sample Identification	Volume of Sample / # of Containers	Matrix	Test(s) Requested (check test(s) required) Dioxin/Furans	PCB Congeners All on HOLD	Hold Refrigerated					Comments / Instructions [Composite/Bag ID]
6/15/18	1325	LDW18-SP-66	2	Water	X	X			L291628-	25		Please HOLD PCB Congener Sample
6/15/18	1113	LDW18-SP-70	2	Water	X	X				-	26	Please HOLD PCB Congener Sample
6/15/18	1208	LDW18-SP-83	1	Water			X			-	27	Sample on Hold
6/15/18	1219	LDW18-SP-86	2	Water	X	X				-	28	Please HOLD PCB Congener Sample
6/15/18	1052	LDW18-SP-88	2	Water	X	X				-	29	Please HOLD PCB Congener Sample
Total Number of Containers			9	Purchase Order / Statement of Work # PO 2018-0069								

1) Released by:	1) Rec'd by:	2) Released by:	2) Rec'd by:
Print name: Stephanie Fisher	Yared Lisanework	Yared Lisanework	
Signature: Stephanie Fisher			
Company: ARI	YL #736	YL #736	SGS-AXYS
Date/Time: 7/2/18 1705	07/02/18 17:05	07/03/18 8:53AM	03-Jul-2018 8:50

* Distribution: White copies accompany shipment; yellow retained by consignor.

Windward environmental LLC
200 West Mercer Street
Suite 401
Seattle, WA 98119
Tel: (206) 378-1364
Fax: (206) 217-9343

To be completed by Laboratory upon sample receipt:

Date of receipt::	Laboratory W.O. #:
Condition upon receipt:	Time of receipt:
Cooler temperature:	Received by:

SGS AXYS Analytical Services Ltd
SAMPLE RECEIVING RECORD

Waybill : Yes /(No)
Waybill #: HANDDELIVERY#3
Date Shipped: 03-JUL-18
Date /Time Received: 03-JUL-18 08:50

SGS AXYS Client & Contract # 4033-Windward Environmental

Project Number:
Receipt No: WB23997

Login Number:

Received By: ABODDY
Log in by: Ava Voskuilen Signature: AJV

Axys Sample ID's: L29625-1 to -21

Matrix Type: Solid

Condition of Shipping Container: Intact.

Temperature upon Receipt: 1.7 Celcius Ice bags thawing
Thermometer ID: 5613
Corrected Temperature: 2.2 Celcius

Custody Seals: Shipping Containers Yes /(No) Intact Yes /No Seal Numbers Yes /No
Samples Yes /(No) Intact Yes /No Seal Numbers Yes /No

Chain of Custody or Documents:	(Yes) /No	Tracking Report /Packing List:	Yes /(No)
Sample ID's	(Yes) /No	Sample Tag Numbers	Yes /(No)
Collection Location	Yes /(No)	Sample Type	(Yes) /No
Date & Time Collection	(Yes) /No	Preservative Added	Yes /(No)
Collector's Name	Yes /(No)	Preservation Requested	Yes /(No)

Sample Tags	Yes /(No)		
Sample Labels	(Yes) /No		
Sample Labels Cross Referenced to COC	(Yes) /No	Information Agrees	(Yes) /No
Sample Tags Cross Referenced to Sample Labels	Yes /No	Information Agrees	Yes /No
Sample Tags Cross Referenced to COC	Yes /No	Information Agrees	Yes /No

Comments:

Action Taken:

SGS AXYS Analytical Services Ltd
SAMPLE RECEIVING RECORD

Waybill : Yes /No
Date Shipped: 03-JUL-18
Waybill #: HANDDELIVERY#5
Date /Time Received: 03-JUL-18 08:50

SGS AXYS Client & Contract # 4033-Windward Environmental

Project Number:
Receipt No: WB23999

Login Number:

Received By: ABODDY
Log in by: Ava Vosknudson Signature: AV

Axys Sample ID's: L29627-1 to-18, L29626-1 to-9, L29625-22 to-33

Matrix Type: S

Condition of Shipping Container: Intact.

Temperature upon Receipt: 1.2 Celcius Ice bags thawing
Thermometer ID: 5595
Corrected Temperature: 1.6 Celcius

Custody Seals: Shipping Containers Yes /No Intact Yes /No Seal Numbers Yes /No
Samples Yes /No Intact Yes /No Seal Numbers Yes /No

Chain of Custody or Documents:	Yes /No	Tracking Report /Packing List:	Yes /No
Sample ID's	Yes /No	Sample Tag Numbers	Yes /No
Collection Location	Yes /No	Sample Type	Yes /No
Date & Time Collection	Yes /No	Preservative Added	Yes /No
Collector's Name	Yes /No	Preservation Requested	Yes /No

Sample Tags	Yes /No		
Sample Labels	Yes /No		
Sample Labels Cross Referenced to COC	Yes /No	Information Agrees	Yes /No
Sample Tags Cross Referenced to Sample Labels	Yes /No	Information Agrees	Yes /No
Sample Tags Cross Referenced to COC	Yes /No	Information Agrees	Yes /No

Comments: L29626-1 to-9 did not have Sampling dates or times.
L29627-12 has a Label Discrepancy
Label on c.o.c = LDW18-PWPS-All.Dup
Label on Jar = LDW18-PWPS-All Dup

Action Taken: logged in as per C.o.c

FSA-015 Rev09, 22-Jan-2013

SGS AXYS Analytical Services Ltd
SAMPLE RECEIVING RECORD

Waybill : Yes /No
Date Shipped: 03-JUL-2018

Waybill #: HANDDELIVERY#1
Date /Time Received: 03-JUL-18 08:50

SGS AXYS Client & Contract # 4033-Windward Environmental

Project Number:

Receipt No: WB23995

Login Number:

Received By: ABODDY

Log in by: KDay

Signature:

Axys Sample ID's: L29628-1 to 11

Matrix Type: AQ

Condition of Shipping Container: Intact

Temperature upon Receipt: 5.3 Celcius Ice bags thawing

Thermometer ID: 5597
Corrected Temperature: 5.7 Celcius

Custody Seals: Shipping Containers Yes /No Intact Yes /No Seal Numbers Yes /No

Samples Yes /No Intact Yes /No Seal Numbers Yes /No

Chain of Custody or Documents:	Yes /No	Tracking Report /Packing List:	Yes /No
Sample ID's	Yes /No	Sample Tag Numbers	Yes /No
Collection Location	Yes /No	Sample Type	Yes /No
Date & Time Collection	Yes /No	Preservative Added	Yes /No
Collector's Name	Yes /No	Preservation Requested	Yes /No

Sample Tags	Yes /No		
Sample Labels	Yes /No		
Sample Labels Cross Referenced to COC	Yes /No	Information Agrees	Yes /No
Sample Tags Cross Referenced to Sample Labels	Yes /No	Information Agrees	Yes /No
Sample Tags Cross Referenced to COC	Yes /No	Information Agrees	Yes /No

Comments:

Action Taken:

FSA-015 Rev09, 22-Jan-2013

SGS AXYS Analytical Services Ltd
SAMPLE RECEIVING RECORD

Waybill : Yes /(No)
Date Shipped: 03-JUL-18
Waybill #: HANDDELIVERY#2
Date /Time Received: 03-JUL-18 08:50

SGS AXYS Client & Contract # 4033-Windward Environmental
Project Number:
Receipt No: WB23996
Login Number:

Received By: ABODDY
Log in by: KDay
Signature:
Axys Sample ID's: L29628-12 to 21 (1/2)
Matrix Type: AQ

Condition of Shipping Container: Intact.
Temperature upon Receipt: 6 Celcius Ice bags thawing
Thermometer ID: 5615
Corrected Temperature: 6.5 Celcius

Custody Seals: Shipping Containers Yes /(No) Intact Yes /No Seal Numbers Yes /No
Samples Yes /(No) Intact Yes /No Seal Numbers Yes /No

Chain of Custody or Documents:	Yes /No	Tracking Report /Packing List:	Yes /No
Sample ID's	Yes /No	Sample Tag Numbers	Yes /No
Collection Location	Yes /No	Sample Type	Yes /No
Date & Time Collection	Yes /No	Preservative Added	Yes /No
Collector's Name	Yes /No	Preservation Requested	Yes /No

Sample Tags	Yes /No		
Sample Labels	Yes /No		
Sample Labels Cross Referenced to COC	Yes /No	Information Agrees	Yes /No
Sample Tags Cross Referenced to Sample Labels	Yes /No	Information Agrees	Yes /No
Sample Tags Cross Referenced to COC	Yes /No	Information Agrees	Yes /No

Comments:

arrived above temperature

Action Taken:

FSA-015 Rev09, 22-Jan-2013

SGS AXYS Analytical Services Ltd
SAMPLE RECEIVING RECORD

Waybill : Yes /(No)
Waybill #: HANDDELIVERY#4
Date Shipped: 03-JUL-18
Date /Time Received: 03-JUL-18 08:50

SGS AXYS Client & Contract # 4033-Windward Environmental

Project Number:
Receipt No: WB23998

Login Number:

Received By: ABODDY
Log in by: KDay
Signature:

Axys Sample ID's: L29628-21(2/2), 22 to 29

Matrix Type: AQ

Condition of Shipping Container: Intact

Temperature upon Receipt: 4.3 Celcius Ice bags thawing

Thermometer ID: 5610
Corrected Temperature: 4.4 Celcius

Custody Seals: Shipping Containers Yes /(No) Intact Yes /No Seal Numbers Yes /No
Samples Yes /(No) Intact Yes /No Seal Numbers Yes /No

Chain of Custody or Documents:	Yes /No	Tracking Report /Packing List:	Yes /(No)
Sample ID's	Yes /(No)	Sample Tag Numbers	Yes /(No)
Collection Location	Yes /(No)	Sample Type	(Yes) /No
Date & Time Collection	(Yes) /No	Preservative Added	Yes /(No)
Collector's Name	Yes /(No)	Preservation Requested	Yes /(No)

Sample Tags	Yes /(No)		
Sample Labels	(Yes) /No		
Sample Labels Cross Referenced to COC	(Yes) /No	Information Agrees	(Yes) /No
Sample Tags Cross Referenced to Sample Labels	Yes /No	Information Agrees	Yes /No
Sample Tags Cross Referenced to COC	Yes /No	Information Agrees	Yes /No

Comments:

Action Taken:

4033

#5



8:50am

Ice Bags thawing

1.2°C

5595

www.axysanalytical.com

4033

#3



8:50 am

Ice Bags thawing

1.7 °C

5613

4033

#4

RECEIVED
JUL 03 2018

8:50 am

Ice Bags thawing

4.3

5610

4033



#1

8:50 am

Ice Bags thawing

5597

5.3°C

4033

#2



8:50am

Ice Bags thawing

6.0 °C

5615

4033
04-Jul-2018

WB23999

L29627-1 to -18
L29626-1 to -9
L29625-22 to -33

WB23997

L29625-1 to -21

processed by: AVK
04-Jul-2018

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~~4033~~

~~WB23995~~

L29628-1 to -11

~~WB23996~~

L29628-12 to -21 (1/2)

~~WB23998~~

L29628-21 2/2, -22 to -29

Processed by: BOD 04-Jul-2018

for scanning
JBrooks
05-July-2018

SGS AXYS Analytical Services Ltd.

Login Chain of Custody Report (In01)

Jul. 05, 2018
04:04 PM

Login Number: L29625
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29625-1		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B1-Comp1				
19-JUN-18 10:27	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-2		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B1-Comp2				
19-JUN-18 10:38	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-3		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B1-Comp3				
19-JUN-18 10:50	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD

SGS AXYS Analytical Services Ltd.

Login Chain of Custody Report (In01)

Jul. 05, 2018
04:04 PM

Login Number: L29625
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29625-4		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B1-Comp1-FD				
19-JUN-18 10:25	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-5		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B1-Comp2-FD				
19-JUN-18 10:38	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-6		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B1-Comp3-FD				
19-JUN-18 10:50	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD

SGS AXYS Analytical Services Ltd.

Login Chain of Custody Report (In01)

Jul. 05, 2018

04:04 PM

Login Number: L29625
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29625-7		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B2-Comp1				
19-JUN-18 11:55	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-8		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B2-Comp2				
19-JUN-18 12:03	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-9		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B2-Comp3				
19-JUN-18 11:52	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD

SGS AXYS Analytical Services Ltd.

Login Chain of Custody Report (In01)

Jul. 05, 2018
04:04 PM

Login Number: L29625
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29625-10		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B4-Comp1 19-JUN-18 11:24	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-11		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B4-Comp2 19-JUN-18 11:40	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-12		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B4-Comp3 19-JUN-18 11:40	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD

SGS AXYS Analytical Services Ltd.

Login Chain of Custody Report (ln01)

Jul. 05, 2018
04:04 PM

Login Number: L29625
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification			Received	Due	PR
L29625-13			03-JUL-18		
		Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B5-Comp1					
19-JUN-18 11:22		Project #: DUWAMISH 2017			
Solid	2:MOISTURE			:	USD
Solid	7:MOISTURE			:	USD
Solid	DX017.1613			:	USD
Solid	DX017.1613-2			:	USD
Solid	HOMOGENIZATION			:	USD
EDataDeliv	DX017 EDD			:	USD
Data Package	DX017 DPKG			:	USD
ANY	SAMPLE RECEIPT		1	: 250 mL glass CLR	USD
L29625-14			03-JUL-18		
		Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B5-Comp2					
19-JUN-18 11:08		Project #: DUWAMISH 2017			
Solid	2:MOISTURE			:	USD
Solid	7:MOISTURE			:	USD
Solid	DX017.1613			:	USD
Solid	DX017.1613-2			:	USD
Solid	HOMOGENIZATION			:	USD
EDataDeliv	DX017 EDD			:	USD
Data Package	DX017 DPKG			:	USD
ANY	SAMPLE RECEIPT		1	: 250 mL glass CLR	USD
L29625-15			03-JUL-18		
		Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B5-Comp3					
19-JUN-18 11:10		Project #: DUWAMISH 2017			
Solid	2:MOISTURE			:	USD
Solid	7:MOISTURE			:	USD
Solid	DX017.1613			:	USD
Solid	DX017.1613-2			:	USD
Solid	HOMOGENIZATION			:	USD
EDataDeliv	DX017 EDD			:	USD
Data Package	DX017 DPKG			:	USD
ANY	SAMPLE RECEIPT		1	: 250 mL glass CLR	USD

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Login Chain of Custody Report (In01)

Jul. 05, 2018
04:04 PM

Login Number: L29625
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29625-16		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B3-Comp1 20-JUN-18 11:28	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-17		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B3-Comp2 20-JUN-18 11:30	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-18		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B3-Comp3 20-JUN-18 11:38	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD

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Login Chain of Custody Report (In01)

Jul. 05, 2018

04:04 PM

Login Number: L29625
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29625-19		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B6-Comp1 20-JUN-18 10:10	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-20		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B6-Comp2 20-JUN-18 10:19	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-21		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B6-Comp3 20-JUN-18 10:59	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD

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Login Chain of Custody Report (In01)

Jul. 05, 2018

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Login Number: L29625
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29625-22		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B6-Comp1-FD				
20-JUN-18 10:32	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-23		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B6-Comp2-FD				
20-JUN-18 10:45	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-24		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B6-Comp3-FD				
20-JUN-18 11:14	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD

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Login Chain of Custody Report (In01)

Jul. 05, 2018
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Login Number: L29625
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification					
L29625-25		Received: 03-JUL-18			
		Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B7-Comp1 20-JUN-18 10:55		Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:		USD
Solid	7:MOISTURE		:		USD
Solid	DX017.1613		:		USD
Solid	DX017.1613-2		:		USD
Solid	HOMOGENIZATION		:		USD
EDataDeliv	DX017 EDD		:		USD
Data Package	DX017 DPKG		:		USD
ANY	SAMPLE RECEIPT	1	:	250 mL glass CLR	USD
L29625-26		Received: 03-JUL-18			
		Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B7-Comp2 20-JUN-18 11:05		Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:		USD
Solid	7:MOISTURE		:		USD
Solid	DX017.1613		:		USD
Solid	DX017.1613-2		:		USD
Solid	HOMOGENIZATION		:		USD
EDataDeliv	DX017 EDD		:		USD
Data Package	DX017 DPKG		:		USD
ANY	SAMPLE RECEIPT	1	:	250 mL glass CLR	USD
L29625-27		Received: 03-JUL-18			
		Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B7-Comp3 20-JUN-18 11:20		Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:		USD
Solid	7:MOISTURE		:		USD
Solid	DX017.1613		:		USD
Solid	DX017.1613-2		:		USD
Solid	HOMOGENIZATION		:		USD
EDataDeliv	DX017 EDD		:		USD
Data Package	DX017 DPKG		:		USD
ANY	SAMPLE RECEIPT	1	:	250 mL glass CLR	USD

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Login Chain of Custody Report (In01)

Jul. 05, 2018
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Login Number: L29625
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29625-28		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B8-Comp1				
20-JUN-18 10:12	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-29		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B8-Comp2				
20-JUN-18 10:25	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-30		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-IT45-B8-Comp3				
20-JUN-18 10:39	Project #: DUWAMISH 2017			
Solid	2:MOISTURE		:	USD
Solid	7:MOISTURE		:	USD
Solid	DX017.1613		:	USD
Solid	DX017.1613-2		:	USD
Solid	HOMOGENIZATION		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD

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Login Chain of Custody Report (ln01)

Jul. 05, 2018

04:04 PM

Login Number: L29625

Account: 4033 Windward Environmental

Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29625-31		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-BNK2-1				
14-JUN-18 12:15	Project #: DUWAMISH 2017			
Solid	2:MOISTURE	:		USD
Solid	7:MOISTURE	:		USD
Solid	DX017.1613	:		USD
Solid	DX017.1613-2	:		USD
Solid	HOMOGENIZATION	:		USD
EDataDeliv	DX017 EDD	:		USD
Data Package	DX017 DPKG	:		USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-32		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-SSOT-2510				
15-MAY-18 10:23	Project #: DUWAMISH 2017			
Solid	2:MOISTURE	:		USD
Solid	7:MOISTURE	:		USD
Solid	DX017.1613	:		USD
Solid	DX017.1613-2	:		USD
Solid	HOLD	:		USD
Solid	HOMOGENIZATION	:		USD
EDataDeliv	DX017 EDD	:		USD
Data Package	DX017 DPKG	:		USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD
L29625-33		03-JUL-18		
	Storage: WIF-4 10 C	Permit #: P-2017-02875-US		
LDW18-SSOT-2114				
15-MAY-18 13:03	Project #: DUWAMISH 2017			
Solid	2:MOISTURE	:		USD
Solid	7:MOISTURE	:		USD
Solid	DX017.1613	:		USD
Solid	DX017.1613-2	:		USD
Solid	HOLD	:		USD
Solid	HOMOGENIZATION	:		USD
EDataDeliv	DX017 EDD	:		USD
Data Package	DX017 DPKG	:		USD
ANY	SAMPLE RECEIPT	1	: 250 mL glass CLR	USD

Revised to add PCBs.

for scanning
JBrooks
12-July-2018

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Login Chain of Custody Report (In01)

Jul. 12, 2018
05:20 PM

Login Number: L29626
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29626-1		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-C01-CLWB-Comp2				
	Project #: DUWAMISH 2017			
Tissue	DX017.1613		:	USD
Tissue	DX017.1613-2		:	USD
Tissue	PB010.1668C		:	USD
Tissue	PB010.1668C-CC1		:	USD
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29626-2		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-C02-CLWB-Comp2				
	Project #: DUWAMISH 2017			
Tissue	DX017.1613		:	USD
Tissue	DX017.1613-2		:	USD
Tissue	PB010.1668C		:	USD
Tissue	PB010.1668C-CC1		:	USD
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29626-3		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-C03-CLWB-Comp2				
	Project #: DUWAMISH 2017			
Tissue	DX017.1613		:	USD
Tissue	DX017.1613-2		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD

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Login Chain of Custody Report (ln01)

Jul. 12, 2018
05:20 PM

Login Number: L29626
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29626-4		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-C04-CLWB-Comp2				
	Project #: DUWAMISH 2017			
Tissue	DX017.1613		:	USD
Tissue	DX017.1613-2		:	USD
Tissue	PB010.1668C		:	USD
Tissue	PB010.1668C-CC1		:	USD
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29626-5		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-C05-CLWB-Comp2				
	Project #: DUWAMISH 2017			
Tissue	DX017.1613		:	USD
Tissue	DX017.1613-2		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29626-6		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-C06-CLWB-Comp2				
	Project #: DUWAMISH 2017			
Tissue	DX017.1613		:	USD
Tissue	DX017.1613-2		:	USD
Tissue	PB010.1668C		:	USD
Tissue	PB010.1668C-CC1		:	USD
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD

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Login Chain of Custody Report (ln01)

Jul. 12, 2018

05:20 PM

Login Number: L29626

Account: 4033 Windward Environmental

Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29626-7		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-C08-CLWB-Comp2				
	Project #: DUWAMISH 2017			
Tissue	DX017.1613		:	USD
Tissue	DX017.1613-2		:	USD
Tissue	PB010.1668C		:	USD
Tissue	PB010.1668C-CC1		:	USD
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29626-8		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-C10-CLWB-Comp2				
	Project #: DUWAMISH 2017			
Tissue	DX017.1613		:	USD
Tissue	DX017.1613-2		:	USD
EDataDeliv	DX017 EDD		:	USD
Data Package	DX017 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29626-9		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-C11-CLWB-Comp2				
	Project #: DUWAMISH 2017			
Tissue	DX017.1613		:	USD
Tissue	DX017.1613-2		:	USD
Tissue	PB010.1668C		:	USD
Tissue	PB010.1668C-CC1		:	USD
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD

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for scanning
JBrooks
06-July-2018

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Login Chain of Custody Report (In01)

Jul. 06, 2018
03:52 PM

Login Number: L29627
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29627-1		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A01		Matclient: POLYETHYLENE		
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Plastic Passive	PH021.PAR+	:		USD
Plastic Passive	PH021.PRC	:		USD
EDataDeliv	PH021 EDD	:		USD
Data Package	PH021 DPKG	:		USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29627-2		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A02		Matclient: POLYETHYLENE		
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Plastic Passive	PH021.PAR+	:		USD
Plastic Passive	PH021.PRC	:		USD
EDataDeliv	PH021 EDD	:		USD
Data Package	PH021 DPKG	:		USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29627-3		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A03		Matclient: POLYETHYLENE		
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Comments: Spike surrogate, Extract, Ampoule and HOLD				
Plastic Passive	PAH SUR SPIKE	:		USD
Plastic Passive	PH021.PAR+	:		USD
Plastic Passive	PH021.PRC	:		USD
EDataDeliv	PH021 EDD	:		USD
Data Package	PH021 DPKG	:		USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29627-4		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A04		Matclient: POLYETHYLENE		
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Plastic Passive	PH021.PAR+	:		USD
Plastic Passive	PH021.PRC	:		USD
EDataDeliv	PH021 EDD	:		USD
Data Package	PH021 DPKG	:		USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD

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Login Chain of Custody Report (In01)

Jul. 06, 2018

03:52 PM

Login Number: L29627
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29627-5		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A05		Matclient: POLYETHYLENE		
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Comments: Spike surrogate, Extract, Ampoule and HOLD				
Plastic Passive	PAH SUR SPIKE	:		USD
Plastic Passive	PH021.PAR+	:		USD
Plastic Passive	PH021.PRC	:		USD
EDataDeliv	PH021 EDD	:		USD
Data Package	PH021 DPKG	:		USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29627-6		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A06		Matclient: POLYETHYLENE		
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Plastic Passive	PH021.PAR+	:		USD
Plastic Passive	PH021.PRC	:		USD
EDataDeliv	PH021 EDD	:		USD
Data Package	PH021 DPKG	:		USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29627-7		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A07		Matclient: POLYETHYLENE		
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Plastic Passive	PH021.PAR+	:		USD
Plastic Passive	PH021.PRC	:		USD
EDataDeliv	PH021 EDD	:		USD
Data Package	PH021 DPKG	:		USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29627-8		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A08		Matclient: POLYETHYLENE		
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Plastic Passive	PH021.PAR+	:		USD
Plastic Passive	PH021.PRC	:		USD
EDataDeliv	PH021 EDD	:		USD
Data Package	PH021 DPKG	:		USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD

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Login Chain of Custody Report (In01)

Jul. 06, 2018
03:52 PM

Login Number: L29627
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29627-9		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A09		Matclient: POLYETHYLENE		
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Comments: Spike surrogate, Extract, Ampoule and HOLD				
Plastic Passive	PAH SUR SPIKE	:		USD
Plastic Passive	PH021.PAR+	:		USD
Plastic Passive	PH021.PRC	:		USD
EDataDeliv	PH021 EDD	:		USD
Data Package	PH021 DPKG	:		USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29627-10		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A10		Matclient: POLYETHYLENE		
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Plastic Passive	PH021.PAR+	:		USD
Plastic Passive	PH021.PRC	:		USD
EDataDeliv	PH021 EDD	:		USD
Data Package	PH021 DPKG	:		USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29627-11		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A11		Matclient: POLYETHYLENE		
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Plastic Passive	PH021.PAR+	:		USD
Plastic Passive	PH021.PRC	:		USD
EDataDeliv	PH021 EDD	:		USD
Data Package	PH021 DPKG	:		USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29627-12		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A11.Dup		Matclient: POLYETHYLENE		
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Plastic Passive	PH021.PAR+	:		USD
Plastic Passive	PH021.PRC	:		USD
EDataDeliv	PH021 EDD	:		USD
Data Package	PH021 DPKG	:		USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD

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Login Chain of Custody Report (In01)

Jul. 06, 2018
03:52 PM

Login Number: L29627
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29627-13		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A12		Matclient: POLYETHYLENE		
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Comments: Spike surrogate, Extract, Ampoule and HOLD				
Plastic Passive	PAH SUR SPIKE		:	USD
Plastic Passive	PH021.PAR+		:	USD
Plastic Passive	PH021.PRC		:	USD
EDataDeliv	PH021 EDD		:	USD
Data Package	PH021 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29627-14		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A13		Matclient: POLYETHYLENE		
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Comments: Spike surrogate, Extract, Ampoule and HOLD				
Plastic Passive	PAH SUR SPIKE		:	USD
Plastic Passive	PH021.PAR+		:	USD
Plastic Passive	PH021.PRC		:	USD
EDataDeliv	PH021 EDD		:	USD
Data Package	PH021 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29627-15		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A17		Matclient: POLYETHYLENE		
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Plastic Passive	PH021.PAR+		:	USD
Plastic Passive	PH021.PRC		:	USD
EDataDeliv	PH021 EDD		:	USD
Data Package	PH021 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29627-16		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A18		Matclient: POLYETHYLENE		
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Plastic Passive	PH021.PAR+		:	USD
Plastic Passive	PH021.PRC		:	USD
EDataDeliv	PH021 EDD		:	USD
Data Package	PH021 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD

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Login Chain of Custody Report (In01)

Jul. 06, 2018
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Login Number: L29627
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29627-17		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-A19			Matclient: POLYETHYLENE	
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Comments: Spike surrogate, Extract, Ampoule and HOLD				
Plastic Passive	PAH SUR SPIKE		:	USD
Plastic Passive	PH021.PAR+		:	USD
Plastic Passive	PH021.PRC		:	USD
EDataDeliv	PH021 EDD		:	USD
Data Package	PH021 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD
L29627-18		03-JUL-18		
	Storage: WIF-4 8D			
LDW18-PWPS-PWPS-ExpBlk_PAH			Matclient: POLYETHYLENE	
22-JUN-18 14:45	Project #: DUWAMISH 2017			
Plastic Passive	PH021.PAR+		:	USD
Plastic Passive	PH021.PRC		:	USD
EDataDeliv	PH021 EDD		:	USD
Data Package	PH021 DPKG		:	USD
ANY	SAMPLE RECEIPT	1	: 125 mL glass AMB	USD

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Login Chain of Custody Report (ln01)

Jul. 09, 2018
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Login Number: L29628
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29628-1		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-RB1				
11-JUN-18 16:12	Project #: DUWAMISH 2017			
EDataDeliv	DX017 EDD	:		USD
EDataDeliv	PB010 EDD	:		USD
Data Package	DX017 DPKG	:		USD
Data Package	PB010 DPKG	:		USD
Aqueous	4:SUSP SOLIDS	:		USD
Aqueous	DX017.1613	:		USD
Aqueous	DX017.1613-2	:		USD
Aqueous	PB010.1668C	:		USD
Aqueous	PRETREAT	:		USD
ANY	SAMPLE RECEIPT	2	: 1 L glass AMB	USD
L29628-2		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-RB2				
11-JUN-18 16:37	Project #: DUWAMISH 2017			
Comments: HOLD				
EDataDeliv	DX017 EDD	:		USD
EDataDeliv	PB010 EDD	:		USD
Data Package	DX017 DPKG	:		USD
Data Package	PB010 DPKG	:		USD
Aqueous	4:SUSP SOLIDS	:		USD
Aqueous	DX017.1613	:		USD
Aqueous	DX017.1613-2	:		USD
Aqueous	HOLD	:		USD
Aqueous	PB010.1668C	:		USD
Aqueous	PRETREAT	:		USD
ANY	SAMPLE RECEIPT	2	: 1 L glass AMB	USD

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Login Chain of Custody Report (In01)

Jul. 09, 2018

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Login Number: L29628

Account: 4033 Windward Environmental

Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29628-3		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-30				
12-JUN-18 12:06	Project #: DUWAMISH 2017			
Comments: HOLD				
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
Aqueous	4:SUSP SOLIDS		:	USD
Aqueous	DX017.1613		:	USD
Aqueous	DX017.1613-2		:	USD
Aqueous	HOLD		:	USD
Aqueous	PB010.1668C		:	USD
Aqueous	PRETREAT		:	USD
ANY	SAMPLE RECEIPT	1	: 1 L glass AMB	USD
L29628-4		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-32				
12-JUN-18 09:19	Project #: DUWAMISH 2017			
Comments: HOLD				
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
Aqueous	4:SUSP SOLIDS		:	USD
Aqueous	DX017.1613		:	USD
Aqueous	DX017.1613-2		:	USD
Aqueous	HOLD		:	USD
Aqueous	PB010.1668C		:	USD
Aqueous	PRETREAT		:	USD
ANY	SAMPLE RECEIPT	1	: 1 L glass AMB	USD

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Login Chain of Custody Report (ln01)

Jul. 09, 2018

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Login Number: L29628
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29628-5		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-35				
12-JUN-18 10:56	Project #: DUWAMISH 2017			
Comments: HOLD				
EDataDeliv	DX017 EDD	:		USD
EDataDeliv	PB010 EDD	:		USD
Data Package	DX017 DPKG	:		USD
Data Package	PB010 DPKG	:		USD
Aqueous	4:SUSP SOLIDS	:		USD
Aqueous	DX017.1613	:		USD
Aqueous	DX017.1613-2	:		USD
Aqueous	HOLD	:		USD
Aqueous	PB010.1668C	:		USD
Aqueous	PRETREAT	:		USD
ANY	SAMPLE RECEIPT	1	: 1 L glass AMB	USD
L29628-6		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-38				
12-JUN-18 10:27	Project #: DUWAMISH 2017			
Comments: HOLD				
EDataDeliv	DX017 EDD	:		USD
EDataDeliv	PB010 EDD	:		USD
Data Package	DX017 DPKG	:		USD
Data Package	PB010 DPKG	:		USD
Aqueous	4:SUSP SOLIDS	:		USD
Aqueous	DX017.1613	:		USD
Aqueous	DX017.1613-2	:		USD
Aqueous	HOLD	:		USD
Aqueous	PB010.1668C	:		USD
Aqueous	PRETREAT	:		USD
ANY	SAMPLE RECEIPT	1	: 1 L glass AMB	USD

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Login Chain of Custody Report (ln01)

Jul. 09, 2018

12:21 PM

Login Number: L29628

Account: 4033 Windward Environmental

Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29628-7		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-42				
12-JUN-18 12:05	Project #: DUWAMISH 2017			
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
Aqueous	4:SUSP SOLIDS		:	USD
Aqueous	DX017.1613		:	USD
Aqueous	DX017.1613-2		:	USD
Aqueous	PB010.1668C		:	USD
Aqueous	PRETREAT		:	USD
ANY	SAMPLE RECEIPT	2	: 1 L glass AMB	USD
L29628-8		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-43				
12-JUN-18 13:00	Project #: DUWAMISH 2017			
Comments: HOLD				
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
Aqueous	4:SUSP SOLIDS		:	USD
Aqueous	DX017.1613		:	USD
Aqueous	DX017.1613-2		:	USD
Aqueous	HOLD		:	USD
Aqueous	PB010.1668C		:	USD
Aqueous	PRETREAT		:	USD
ANY	SAMPLE RECEIPT	1	: 1 L glass AMB	USD

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Login Chain of Custody Report (In01)

Jul. 09, 2018
12:21 PM

Login Number: L29628
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29628-9		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-06				
13-JUN-18 09:53	Project #: DUWAMISH 2017			
Comments: HOLD				
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
Aqueous	4:SUSP SOLIDS		:	USD
Aqueous	DX017.1613		:	USD
Aqueous	DX017.1613-2		:	USD
Aqueous	HOLD		:	USD
Aqueous	PB010.1668C		:	USD
Aqueous	PRETREAT		:	USD
ANY	SAMPLE RECEIPT	1	: 1 L glass AMB	USD
L29628-10		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-33				
13-JUN-18 12:17	Project #: DUWAMISH 2017			
Comments: HOLD				
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
Aqueous	4:SUSP SOLIDS		:	USD
Aqueous	DX017.1613		:	USD
Aqueous	DX017.1613-2		:	USD
Aqueous	HOLD		:	USD
Aqueous	PB010.1668C		:	USD
Aqueous	PRETREAT		:	USD
ANY	SAMPLE RECEIPT	1	: 1 L glass AMB	USD

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Login Chain of Custody Report (In01)

Jul. 09, 2018
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Login Number: L29628
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29628-11		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-24				
13-JUN-18 12:35	Project #: DUWAMISH 2017			
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
Aqueous	4:SUSP SOLIDS		:	USD
Aqueous	DX017.1613		:	USD
Aqueous	DX017.1613-2		:	USD
Aqueous	PB010.1668C		:	USD
Aqueous	PRETREAT		:	USD
ANY	SAMPLE RECEIPT	2	: 1 L glass AMB	USD
L29628-12		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-24-FD				
13-JUN-18 12:42	Project #: DUWAMISH 2017			
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
Aqueous	4:SUSP SOLIDS		:	USD
Aqueous	DX017.1613		:	USD
Aqueous	DX017.1613-2		:	USD
Aqueous	PB010.1668C		:	USD
Aqueous	PRETREAT		:	USD
ANY	SAMPLE RECEIPT	2	: 1 L glass AMB	USD

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Login Chain of Custody Report (In01)

Jul. 09, 2018
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Login Number: L29628
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification			Received	Due	PR
L29628-13			03-JUL-18		
		Storage: WIC-2, floor (coolers)			
LDW18-SP-05					
14-JUN-18 14:08		Project #: DUWAMISH 2017			
Comments: HOLD					
EDataDeliv	DX017 EDD		:		USD
EDataDeliv	PB010 EDD		:		USD
Data Package	DX017 DPKG		:		USD
Data Package	PB010 DPKG		:		USD
Aqueous	4:SUSP SOLIDS		:		USD
Aqueous	DX017.1613		:		USD
Aqueous	DX017.1613-2		:		USD
Aqueous	HOLD		:		USD
Aqueous	PB010.1668C		:		USD
Aqueous	PRETREAT		:		USD
ANY	SAMPLE RECEIPT		1	: 1 L glass AMB	USD
L29628-14			03-JUL-18		
		Storage: WIC-2, floor (coolers)			
LDW18-SP-57					
14-JUN-18 10:41		Project #: DUWAMISH 2017			
EDataDeliv	DX017 EDD		:		USD
EDataDeliv	PB010 EDD		:		USD
Data Package	DX017 DPKG		:		USD
Data Package	PB010 DPKG		:		USD
Aqueous	4:SUSP SOLIDS		:		USD
Aqueous	DX017.1613		:		USD
Aqueous	DX017.1613-2		:		USD
Aqueous	PB010.1668C		:		USD
Aqueous	PRETREAT		:		USD
ANY	SAMPLE RECEIPT		2	: 1 L glass AMB	USD

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Login Chain of Custody Report (ln01)

Jul. 09, 2018
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Login Number: L29628
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29628-15		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-73				
14-JUN-18 13:08	Project #: DUWAMISH 2017			
Comments: HOLD				
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
Aqueous	4:SUSP SOLIDS		:	USD
Aqueous	DX017.1613		:	USD
Aqueous	DX017.1613-2		:	USD
Aqueous	HOLD		:	USD
Aqueous	PB010.1668C		:	USD
Aqueous	PRETREAT		:	USD
ANY	SAMPLE RECEIPT	1	: 1 L glass AMB	USD
L29628-16		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-74				
14-JUN-18 13:14	Project #: DUWAMISH 2017			
Comments: HOLD				
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
Aqueous	4:SUSP SOLIDS		:	USD
Aqueous	DX017.1613		:	USD
Aqueous	DX017.1613-2		:	USD
Aqueous	HOLD		:	USD
Aqueous	PB010.1668C		:	USD
Aqueous	PRETREAT		:	USD
ANY	SAMPLE RECEIPT	1	: 1 L glass AMB	USD

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Login Chain of Custody Report (In01)

Jul. 09, 2018
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Login Number: L29628
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification			Received	Due	PR
L29628-17			03-JUL-18		
		Storage: WIC-2, floor (coolers)			
LDW18-SP-77					
14-JUN-18 12:10		Project #: DUWAMISH 2017			
EDataDeliv	DX017 EDD		:		USD
EDataDeliv	PB010 EDD		:		USD
Data Package	DX017 DPKG		:		USD
Data Package	PB010 DPKG		:		USD
Aqueous	4:SUSP SOLIDS		:		USD
Aqueous	DX017.1613		:		USD
Aqueous	DX017.1613-2		:		USD
Aqueous	PB010.1668C		:		USD
Aqueous	PRETREAT		:		USD
ANY	SAMPLE RECEIPT		2	: 1 L glass AMB	USD
L29628-18			03-JUL-18		
		Storage: WIC-2, floor (coolers)			
LDW18-SP-78					
14-JUN-18 12:04		Project #: DUWAMISH 2017			
EDataDeliv	DX017 EDD		:		USD
EDataDeliv	PB010 EDD		:		USD
Data Package	DX017 DPKG		:		USD
Data Package	PB010 DPKG		:		USD
Aqueous	4:SUSP SOLIDS		:		USD
Aqueous	DX017.1613		:		USD
Aqueous	DX017.1613-2		:		USD
Aqueous	PB010.1668C		:		USD
Aqueous	PRETREAT		:		USD
ANY	SAMPLE RECEIPT		2	: 1 L glass AMB	USD

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Login Chain of Custody Report (ln01)

Jul. 09, 2018

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Login Number: L29628

Account: 4033 Windward Environmental

Project: DUWAMISH 2017

Axys ID versus Client Sample Identification			Received	Due	PR
L29628-19			03-JUL-18		
		Storage: WIC-2, floor (coolers)			
LDW18-SP-79					
14-JUN-18 09:50		Project #: DUWAMISH 2017			
EDataDeliv	DX017 EDD		:		USD
EDataDeliv	PB010 EDD		:		USD
Data Package	DX017 DPKG		:		USD
Data Package	PB010 DPKG		:		USD
Aqueous	4:SUSP SOLIDS		:		USD
Aqueous	DX017.1613		:		USD
Aqueous	DX017.1613-2		:		USD
Aqueous	PB010.1668C		:		USD
Aqueous	PRETREAT		:		USD
ANY	SAMPLE RECEIPT		2	: 1 L glass AMB	USD
L29628-20			03-JUL-18		
		Storage: WIC-2, floor (coolers)			
LDW18-SP-84					
14-JUN-18 09:53		Project #: DUWAMISH 2017			
Comments: HOLD					
EDataDeliv	DX017 EDD		:		USD
EDataDeliv	PB010 EDD		:		USD
Data Package	DX017 DPKG		:		USD
Data Package	PB010 DPKG		:		USD
Aqueous	4:SUSP SOLIDS		:		USD
Aqueous	DX017.1613		:		USD
Aqueous	DX017.1613-2		:		USD
Aqueous	HOLD		:		USD
Aqueous	PB010.1668C		:		USD
Aqueous	PRETREAT		:		USD
ANY	SAMPLE RECEIPT		1	: 1 L glass AMB	USD

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Login Chain of Custody Report (In01)

Jul. 09, 2018
12:21 PM

Login Number: L29628
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29628-21		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-87				
14-JUN-18 11:11	Project #: DUWAMISH 2017			
Comments: 2/2 rec'd in WB23998				
EDataDeliv	DX017 EDD	:		USD
EDataDeliv	PB010 EDD	:		USD
Data Package	DX017 DPKG	:		USD
Data Package	PB010 DPKG	:		USD
Aqueous	4:SUSP SOLIDS	:		USD
Aqueous	DX017.1613	:		USD
Aqueous	DX017.1613-2	:		USD
Aqueous	PB010.1668C	:		USD
Aqueous	PRETREAT	:		USD
ANY	SAMPLE RECEIPT	2	: 1 L glass AMB	USD
L29628-22		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-01				
15-JUN-18 11:33	Project #: DUWAMISH 2017			
EDataDeliv	DX017 EDD	:		USD
EDataDeliv	PB010 EDD	:		USD
Data Package	DX017 DPKG	:		USD
Data Package	PB010 DPKG	:		USD
Aqueous	4:SUSP SOLIDS	:		USD
Aqueous	DX017.1613	:		USD
Aqueous	DX017.1613-2	:		USD
Aqueous	PB010.1668C	:		USD
Aqueous	PRETREAT	:		USD
ANY	SAMPLE RECEIPT	2	: 1 L glass AMB	USD

SGS AXYS Analytical Services Ltd.

Login Chain of Custody Report (ln01)

Jul. 09, 2018
12:21 PM

Login Number: L29628
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification		Received	Due	PR
L29628-23		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-45				
15-JUN-18 13:45	Project #: DUWAMISH 2017			
Comments: HOLD				
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
Aqueous	4:SUSP SOLIDS		:	USD
Aqueous	DX017.1613		:	USD
Aqueous	DX017.1613-2		:	USD
Aqueous	HOLD		:	USD
Aqueous	PB010.1668C		:	USD
Aqueous	PRETREAT		:	USD
ANY	SAMPLE RECEIPT	1	: 1 L glass AMB	USD
L29628-24		03-JUL-18		
	Storage: WIC-2, floor (coolers)			
LDW18-SP-47				
15-JUN-18 13:16	Project #: DUWAMISH 2017			
Comments: HOLD				
EDataDeliv	DX017 EDD		:	USD
EDataDeliv	PB010 EDD		:	USD
Data Package	DX017 DPKG		:	USD
Data Package	PB010 DPKG		:	USD
Aqueous	4:SUSP SOLIDS		:	USD
Aqueous	DX017.1613		:	USD
Aqueous	DX017.1613-2		:	USD
Aqueous	HOLD		:	USD
Aqueous	PB010.1668C		:	USD
Aqueous	PRETREAT		:	USD
ANY	SAMPLE RECEIPT	1	: 1 L glass AMB	USD

SGS AXYS Analytical Services Ltd.

Login Chain of Custody Report (ln01)

Jul. 09, 2018
12:21 PM

Login Number: L29628
Account: 4033 Windward Environmental
Project: DUWAMISH 2017

Axys ID versus Client Sample Identification			Received	Due	PR
L29628-25			03-JUL-18		
		Storage: WIC-2, floor (coolers)			
LDW18-SP-66					
15-JUN-18 13:25		Project #: DUWAMISH 2017			
EDataDeliv	DX017 EDD		:		USD
EDataDeliv	PB010 EDD		:		USD
Data Package	DX017 DPKG		:		USD
Data Package	PB010 DPKG		:		USD
Aqueous	4:SUSP SOLIDS		:		USD
Aqueous	DX017.1613		:		USD
Aqueous	DX017.1613-2		:		USD
Aqueous	PB010.1668C		:		USD
Aqueous	PRETREAT		:		USD
ANY	SAMPLE RECEIPT		2	: 1 L glass AMB	USD
L29628-26			03-JUL-18		
		Storage: WIC-2, floor (coolers)			
LDW18-SP-70					
15-JUN-18 11:13		Project #: DUWAMISH 2017			
EDataDeliv	DX017 EDD		:		USD
EDataDeliv	PB010 EDD		:		USD
Data Package	DX017 DPKG		:		USD
Data Package	PB010 DPKG		:		USD
Aqueous	4:SUSP SOLIDS		:		USD
Aqueous	DX017.1613		:		USD
Aqueous	DX017.1613-2		:		USD
Aqueous	PB010.1668C		:		USD
Aqueous	PRETREAT		:		USD
ANY	SAMPLE RECEIPT		2	: 1 L glass AMB	USD

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Login Chain of Custody Report (In01)

Jul. 09, 2018

12:21 PM

Login Number: L29628

Account: 4033 Windward Environmental

Project: DUWAMISH 2017

Axys ID versus Client Sample Identification			Received	Due	PR
L29628-27			03-JUL-18		
		Storage: WIC-2, floor (coolers)			
LDW18-SP-83					
15-JUN-18 12:08		Project #: DUWAMISH 2017			
Comments: HOLD					
EDataDeliv	DX017 EDD			:	USD
EDataDeliv	PB010 EDD			:	USD
Data Package	DX017 DPKG			:	USD
Data Package	PB010 DPKG			:	USD
Aqueous	4:SUSP SOLIDS			:	USD
Aqueous	DX017.1613			:	USD
Aqueous	DX017.1613-2			:	USD
Aqueous	HOLD			:	USD
Aqueous	PB010.1668C			:	USD
Aqueous	PRETREAT			:	USD
ANY	SAMPLE RECEIPT		1	: 1 L glass AMB	USD
L29628-28			03-JUL-18		
		Storage: WIC-2, floor (coolers)			
LDW18-SP-86					
15-JUN-18 12:19		Project #: DUWAMISH 2017			
EDataDeliv	DX017 EDD			:	USD
EDataDeliv	PB010 EDD			:	USD
Data Package	DX017 DPKG			:	USD
Data Package	PB010 DPKG			:	USD
Aqueous	4:SUSP SOLIDS			:	USD
Aqueous	DX017.1613			:	USD
Aqueous	DX017.1613-2			:	USD
Aqueous	PB010.1668C			:	USD
Aqueous	PRETREAT			:	USD
ANY	SAMPLE RECEIPT		2	: 1 L glass AMB	USD

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Login Chain of Custody Report (ln01)

Jul. 09, 2018

12:21 PM

Login Number: L29628

Account: 4033 Windward Environmental

Project: DUWAMISH 2017

Axys ID versus Client Sample Identification			Received	Due	PR
L29628-29			03-JUL-18		
		Storage: WIC-2, floor (coolers)			
LDW18-SP-88					
15-JUN-18 10:52		Project #: DUWAMISH 2017			
EDataDeliv	DX017 EDD		:		USD
EDataDeliv	PB010 EDD		:		USD
Data Package	DX017 DPKG		:		USD
Data Package	PB010 DPKG		:		USD
Aqueous	4:SUSP SOLIDS		:		USD
Aqueous	DX017.1613		:		USD
Aqueous	DX017.1613-2		:		USD
Aqueous	PB010.1668C		:		USD
Aqueous	PRETREAT		:		USD
ANY	SAMPLE RECEIPT		2	: 1 L glass AMB	USD

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4033

Brooks, Georgina (Sidney) L29626

From: Amara Vandervort <amarav@windwardenv.com>
Sent: Thursday, July 12, 2018 7:47 AM
To: Brooks, Georgina (Sidney)
Subject: Duwamish Clam Samples for PCB Congener Analysis

Good morning,
EPA has approved the proposed list for PCB Congener analysis in the clam homogenates. The table below list the 6 samples to be analyzed and the 3 to be held. EPA will review the Aroclor and congener data after analyses is complete and would like the remaining 3 samples to be held frozen until they decide if they would like them analyzed as well, please.

Composite ID	Analyze	Hold	L29626
LDW18-C01-CLWB-Comp2	X	---	-1
LDW18-C02-CLWB-Comp2	X	---	-2
LDW18-C03-CLWB-Comp2	---	X	-3
LDW18-C04-CLWB-Comp2	X	---	-4
LDW18-C05-CLWB-Comp2	---	X	-5
LDW18-C06-CLWB-Comp2	X	---	-6
LDW18-C08-CLWB-Comp2	X	---	-7
LDW18-C10-CLWB-Comp2	---	X	-8
LDW18-C11-CLWB-Comp2	X	---	-9

Please let me know if you have any questions. Thanks. -Amara

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Water Pretreatment Record

Contract: 4033 Date: 04-Jul-2018 H_2SO_4 Lot No.

Analyst: KO $Na_2S_2O_3$ Lot No.

LIMS I.D.	Bottle Number	Client ID	pH Adjustment		Residual Chlorine *		Other Preservative	
			Initial pH	Final pH	SLA-110 pos or neg	Amt of $Na_2S_2O_3$ Added (80 mg/L)		Amount Added
L29628-1	1/2	LDW18-SP-RB1	6.5	—	neg			
L29628-2	1/2	LDW18-SP-RB2	6.5	—	neg			
L29628-3	1/1	LDW18-SP-30	6.5	—	neg			
L29628-4	1/1	LDW18-SP-32	6.5	—	neg			
L29628-5	1/1	LDW18-SP-35	6.5	—	neg			
L29628-6	1/1	LDW18-SP-38	6.5	—	neg			
L29628-7	1/2	LDW18-SP-42	6.5	—	neg			
L29628-8	1/1	LDW18-SP-43	6.5	—	neg			
L29628-9	1/1	LDW18-SP-06	6.5	—	neg			

* Determined by HACH Test or Starch/KI Test (SLA-110).

For samples requiring pretreatment, were all available bottles for the sample pretreated? (Yes) No

Checked by: Ava Vosknudsen

Date: 04-Jul-2018

Comments

FWO-105 Rev 06, 21-Feb-2017

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Water Pretreatment Record

Contract: 4033 Date: 04-Jul-2018 H_2SO_4 Lot No.

Analyst: KD $Na_2S_2O_3$ Lot No.

LIMS I.D.	Bottle Number	Client ID	pH Adjustment Initial pH	pH Adjustment Final pH	Residual Chlorine * SLA-110 pos or neg	Residual Chlorine * Amt of $Na_2S_2O_3$ Added (80 mg/L)	Other Preservative / Amount Added
L29628-10	1/1	LDW18-SP-33	6.5	—	neg		
L29628-11	1/2	LDW18-SP-24	6.5	—	neg		
L29628-12	1/2	LDW18-SP-24-FD	6.5	—	neg		
L29628-13	1/1	LDW18-SP-05	6.5	—	neg		
L29628-14	1/2	LDW18-SP-57	6.5	—	neg		
L29628-15	1/1	LDW18-SP-73	6.5	—	neg		
L29628-16	1/1	LDW18-SP-74	6.5	—	neg		
L29628-17	1/2	LDW18-SP-77	6.5	—	neg		
L29628-18	1/2	LDW18-SP-78	6.5	—	neg		

* Determined by HACH Test or Starch/KI Test (SLA-110).

For samples requiring pretreatment, were all available bottles for the sample pretreated? Yes No

Checked by: Ava Vosknudson

Date: 04-Jul-2018

Comments

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Water Pretreatment Record

Contract: 4033 Date: 04-Jul-2018 H_2SO_4 Lot No.

Analyst: KD $Na_2S_2O_3$ Lot No.

LIMS I.D.	Bottle Number	Client ID	pH Adjustment		Residual Chlorine *		Other Preservative	
			Initial pH	Final pH	SLA-110 pos or neg	Amt of $Na_2S_2O_3$ Added (80 mg/L)		Amount Added
L29628-19	1/2	LDW18-SP-79	6.5	—	neg			
L29628-20	1/1	LDW18-SP-84	7.0		neg			
L29628-21	1/2	LDW18-SP-87	6.5	—	neg			
L29628-22	1/2	LDW18-SP-01	7.0	—	neg			
L29628-23	1/1	LDW18-SP-45	7.0		neg			
L29628-24	1/1	LDW18-SP-47	6.5		neg			
L29628-25	1/2	LDW18-SP-66	6.5	—	neg			
L29628-26	1/2	LDW18-SP-70	7.0	—	neg			
L29628-27	1/1	LDW18-SP-83	6.5		neg			

* Determined by HACH Test or Starch/KI Test (SLA-110).

For samples requiring pretreatment, were all available bottles for the sample pretreated? (Yes) No

Checked by: Ava Voskuilson

Date: 04-Jul-2018

Comments

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Water Pretreatment Record

Contract: 4033 Date: 04-Jul-2018 H_2SO_4 Lot No.

Analyst: KD $Na_2S_2O_3$ Lot No.

LIMS I.D.	Bottle Number	Client ID	pH Adjustment		Residual Chlorine *		Other Preservative
			Initial pH	Final pH	SLA-110 pos or neg	Amt of $Na_2S_2O_3$ Added (80 mg/L)	Amount Added
L29628-28	1/2	LDW18-SP-86	6.5	✓	neg		
L29628-29	1/2	LDW18-SP-88	6.5	✓	neg		
L29628-29	1/2	Duplicate Test	6.5	✓	neg		

* Determined by HACH Test or Starch/KI Test (SLA-110).

For samples requiring pretreatment, were all available bottles for the sample pretreated? (Yes) No

Checked by: Ava Voskoudson

Date: 04-Jul-2018

Comments

BATCH ID: WG64578

Method ID: MLA-017 R20.10	
Method ID:	
Method ID:	
Analyst:	
Start Date:	**13-Jul-18**
Batch List Author:	CROWAN
Checked By:	MM
Project Manager:	Georgina B
Glassware Type:	**Regular**
Glassware Treatment:	**Regular**
Rotovap Type:	**Regular**
Matrix:	**Aqueous**
Sample size:	1 L
Moistures required?	NO
Lipids required?	NO
Extraction Solvent:	DCM
Biohazard Type:	**None**

Comments:

Non-Routine Extraction: These samples must be millipore filtered and the solids discarded BEFORE the surrogate and authentic is spiked into the aqueous portion. After spiking, samples will be liquid-liquid extracted. The solid portion will not be soxhlet extracted.

Aq. SPMs must have AUT and SUR combined in c-tube before spiking into the water.

Calibration: | DX041D-CAL/

previous WG's associated with samples:

; #Keep Discards: 0

Contract #	Sample	Wt	Contract #	Sample	Wt
4033	L29628-1	1 L			
4033	L29628-7	1 L			
4033	L29628-11	1 L			
4033	L29628-12	1 L			
4033	L29628-14	1 L			
4033	L29628-17	1 L			
4033	L29628-18	1 L			
4033	L29628-19	1 L			
4033	L29628-21	1 L			
4033	L29628-22	1 L			
4033	L29628-25	1 L			
4033	L29628-26	1 L			
4033	L29628-28	1 L			
4033	L29628-29	1 L			

Spiking:

Product	Samples required:	Before Extraction: Surrogate	After Extraction: Cleanup Surrogate	Recovery	F.V.	U-vial	Instructions and Comments:
DX017.1613	L29628-1, 7, 11, 12, 14, 17, 18, 19, 21, 22, 25, 26, 28, 29, WG64578-101, 102, 103	(7123) SEF #216,217 20uL DX049A-SUR/03	KE(7099) #11 20uL DX044A-SUR/07	10uL DX021A-REC/01 (7122) #85	20 uL	GCMS	

BATCH ID: WG64578

QC Samples	Type and Weight	Analysis QC required for:	Authentic spiking:	Comments:
WG64578-101 BLANK	1L SEASTAR ULTRA PURE WATER	DX017.1613		
WG64578-102 SPM	1L SEASTAR ULTRA PURE WATER	DX017.1613	1000uL DX036A-AUT/03 #239 exact. SEF	
WG64578-103 SPMDUP	1L SEASTAR ULTRA PURE WATER	DX017.1613	1000uL DX036A-AUT/03 #240 exact. SEF	

QC Samples	Type and Weight	Analysis QC required for:	Authentic spiking:	Comments:

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WorkGroup: WG64578

Sample	Contract	Product	Matrix	Lab Code	Additional Work Action	Reason	Requested by/date		Lab Completed by/Date		Inst. Completed by/Date		Remedial Action
L29628-18	4033	DX017.1613	AQ	L	A/B SI + AGNO3 RECOLUMN and AL RECOLUMN	instrumental interferences	LHENLEY	23/Jul/2018	EKLAASSEN	24/Jul/2018	ARIGGS	25/Jul/2018	Alumina batchid 311 F1 40mL Hexane F2 10mL 2% DCM in Hexane F3 35mL 1:1 DCM:Hexane Analyst/Date JMCGUIRE 24-JUL-18 AB Silica batchid 30g AgNO3 F1 200mL Hexane F2 mL Analyst/Date RANDAYA 24-JUL-18INIT20uL
L29628-18	4033	DX017.1613-2	AQ	L	A/B SI + AGNO3 RECOLUMN and AL RECOLUMN	instrumental interferences	LHENLEY	23/Jul/2018	EKLAASSEN	24/Jul/2018	ARIGGS	25/Jul/2018	Alumina batchid 311 F1 40mL Hexane F2 10mL 2% DCM in Hexane F3 35mL 1:1 DCM:Hexane Analyst/Date JMCGUIRE 24-JUL-18 AB Silica batchid 30g AgNO3 F1 200mL Hexane F2 mL Analyst/Date RANDAYA 24-JUL-18INIT20uL
L29628-28	4033	DX017.1613	AQ	I	REINJECT	instrumental disruption	LHENLEY	23/Jul/2018			EWU	23/Jul/2018	

Reviewed by/Date KB 26JUL2018

Date created: 26-Jul-2018

ExWorkSummary

AXYS Analytical Services Ltd

Sample Labeling Information: Batch ID: WG64578 Date: 13JUL2018 Analyst: LMM Contract #: 4033

Method: MLA-017 R20.10

Sample ID	Sample Type and Description	Original Labelling	LIMS label correct as per client
L29628-1	clear colorless liquid	LDW18-SP-R31	LMM 13JUL2018 ☐
L29628-7	clear very pale yellow liquid	LDW18-SP-42	☐
L29628-11	clear very pale yellow liquid	LDW18-SP-24	☐
L29628-12	clear pale yellow liquid	LDW18-SP-24-FD	☐
L29628-14	clear colorless liquid	LDW18-SP-57	☐
L29628-17	slightly cloudy pale yellow liquid	LDW18-SP-77	☐
L29628-18	clear very pale yellow liquid	LDW18-SP-78	☐
L29628-19	clear very pale yellow liquid	LDW18-SP-79	☐
L29628-21	clear colorless liquid	LDW18-SP-87	☐
L29628-22	slightly cloudy yellow liquid with red particulate	LDW18-SP-01	☐
L29628-25	clear pale yellow liquid	LDW18-SP-66	☐
L29628-26	clear colorless liquid	LDW18-SP-70	☐
L29628-28	clear very pale yellow liquid	LDW18-SP-86	☐
L29628-29	clear colorless liquid	LDW18-SP-88	☐
			☐
			☐

AXYS Analytical Services Ltd

Sample Labeling Information: Batch ID: WG64578 Date: 13JUL2018 Analyst: LMM Contract #: NONE

Method: MLA-017 R20.10

Sample ID	Sample Type and Description	Original Labelling	LIMS label correct as per client
WG64578-101 (BLANK)	Procedural Blank: clear colorless liquid	Seastar ultra Pure water Bottled date: 12JUL2018	LMM 13JUL2018 ☐
WG64578-102 (SPM)	Spiked matrix: clear colorless liquid	Seastar ultra Pure water Bottled date: 12JUL2018	☐
			☐
			☐
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			☐
			☐
			☐

AXYS Analytical Services Ltd

Sample Labeling Information: Batch ID: WG64578 Date: 13JUL2018 Analyst: CMM Contract #: 4033

Method: MLA-017 R20.10

Sample ID	Sample Type and Description	Original Labelling	LIMS label correct as per client
WG64578-103 (SPMDUP)	Spiked matrix duplicate: clear colourless liquid	Seastar ultra Pure Water Bottled date: 12JUL2018	CMM 13JUL2018 ☐
			☐
			☐
			☐
			☐
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			☐
			☐
			☐
			☐
			☐

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Sample Wt #2 : Batch ID: WG64578 Chemist UMM Date: 13JUL2018 Balance #: 3547

Method: MLA-017 R20.10

Solids Stored (Y/N): N Chemist: UMM

Date: 13JUL2018 (See Notes for IDs)

Sample ID	Sample wt (g) (Compositing SLA-084 ____)						Subsample required (SLA-084 (g) _____)				Sample Wt. (g)	Filtered Y/N Date: 13JUL2018 Chemist: UMM	Sol & Aq extracts combined Y/N Date: 13JUL2018 Chemist: UMM
	Container _____ + Sample	Container _____ + Sample	Container _____	Container _____	Sample wt ___	Sample wt ___	Bottle + cap + sample	Empty bottle	Total sample	Remaining sample			
L29628-1	1522.37		506.16								1016.21	Y	N
L29628-7	1563.27		510.09								1053.18		
L29628-11	1577.16		506.66							1070.50	~~1037.90~~ UMM 13JUL2018 1031.90		
L29628-12	1537.71		505.81								1031.90		
L29628-14	1562.96		506.50								1056.96		
L29628-17	1574.65		509.25								1065.40		
L29628-18	1587.77		507.87								1079.90		
L29628-19	1573.44		510.34				JLH 23JUL 2018.				1063.10		
L29628-21	1570.24		505.04								1065.20		
L29628-22	1567.82		507.24								1060.58		
L29628-25	1582.06		508.74								1073.32		
L29628-26	1591.16		511.25								1079.91		
L29628-28	1571.35		510.86								1060.49		
L29628-29	1575.36		505.06								1070.30		
WG64578-101 (BLANK)	N/A		N/A								1027.87		
WG64578-102 (SPM)	↓		↓								965.02		
WG64578-103 (SPMDUP)											1013.95	↓	↓

AXYS Analytical Services Ltd

Spiking Sheet - Standards Spiked into C-tube: Batch ID: WG64578 Method: MLA-017 R20.10

SLA-017 Witness name/initials: Jessica Holley / JLH.

Sample ID	Before extraction Surr. ID: ~~DX036~~ DX049A-SUR/03 JLH Date: 13JUl2018 Vol.: 20 µL Syringe#: 7123 Ampoule: 216, 217* Analyst: LMM		Before extraction Surr. ID: Date: Vol.: µL Syringe#: Ampoule: Analyst:		Before extraction Surr. ID: Date: Vol.: µL Syringe#: Ampoule: Analyst:		Before extraction Surr. ID: Date: Vol.: µL Syringe#: Ampoule: Analyst:		**Addition of diluted Surr. to sample.** Analyst: LMM	
	Time	Witness	Time	Witness	Time	Witness	Time	Witness	Time	Witness
L29628-1	1042	JLH.							1047	JLH.
L29628-7	1043	JLH.							1048	JLH.
L29628-11	1043	JLH.							1049	JLH.
L29628-12	1043	JLH.							1050	JLH.
L29628-14	1043	JLH.							1051	JLH.
L29628-17	1043	JLH.							1052	JLH.
L29628-18	1043	JLH.							1052	JLH.
L29628-19	1043	JLH.			JLH 13JUl2018				1054	JLH.
L29628-21	1044 *	JLH.							1055	JLH.
L29628-22	1044 *	JLH.							1057	JLH.
L29628-25	1045 *	JLH.							1057	JLH.
L29628-26	1045 *	JLH.							1058	JLH.
L29628-28	1045 *	JLH.						13JUl2018	1059	JLH.
L29628-29	1045 *	JLH.						JLH	~~102~~ 1100	JLH
WG64578-101 (BLANK)	1045 *	JLH.							1100	JLH.
WG64578-102 (SPM)	1046 *	JLH.							1101	JLH.
WG64578-103 (SPMDUP)	1046 *	JLH.							1101	JLH

Sample ID	Aut. Std: DX036A-AUT/03 Date: 13JUl2018 Vol.: 1000 µL Syringe#: exact Ampoule#: 239, 240* Analyst: LMM		Aut. Std: Date: Vol.: µL Syringe#: Ampoule#: Analyst:		Aut. Std: Date: Vol.: µL Syringe#: Ampoule#: Analyst:		Aut. Std: Date: Vol.: µL Syringe#: Ampoule#: Analyst:		**Addition of diluted Std. to sample** Analyst: LMM AUTs combined with SUR before addn. to sample? Y/N: Y	
	Time	Witness	Time	Witness	Time	Witness	Time	Witness	Time	Witness
WG64578-102 (SPM)	1040	JLH.							1101	JLH
WG64578-103 (SPMDUP)	1041 *	JLH.							1101	JLH.

AXYS Analytical Services Ltd

Spiking Sheet: Batch ID: WG64578 Method: MLA-017 R20.10

Witness name/ initials: JLH 23JUL2018.

Sample ID	Before extraction Surr. ID: Date: Vol.: µL Syringe#: Ampoule: Analyst:		Before extraction Surr. ID: Date: Vol.: µL Syringe#: Ampoule: Analyst:		Cleanup Std. Surr.: DX044A-SURR Date: 17 JUL 2018 Vol.: 20 µL Syringe#: 7099 Ampoule: #11 Start time: 7:50 Fin. time: 7:55	Cleanup Std. Surr.: Date: Vol.: µL Syringe#: Ampoule: Start time: Fin. time:	Recovery Surr.: Date: Vol.: µL F.V.: µL Syringe#: Ampoule: Start time: Fin. time:	Recovery Surr.: DX021A-REC/01 Date: 20 Jul 2018 Vol.: 10 µL F.V.: 20 µL Syringe#: 7122 Ampoule: 85 Start time: 1100 Fin. time: 1120
	Time	Witness	Time	Witness	Analyst: RA	Analyst:	Analyst:	Analyst: JCM
L29628-1					☑	☐	☐	☑
L29628-7					☑	☐	☐	☑
L29628-11					☑	☐	☐	☑
L29628-12					☑	☐	JLH ☐	☑
L29628-14					☑	☐	23JUL2018. ☐	☑
L29628-17					☑	☐	☐	☑
L29628-18					☑	☐	☐	☑
L29628-19					☑	☐	☐	☑
L29628-21					☑	☐	☐	☑
L29628-22				RA	☑	☐	☐	☑
L29628-25				17 JUL 2018	☑	☐	☐	☑
L29628-26					☑	☐	☐	☑
L29628-28					☑	☐	☐	☑
L29628-29					☑	☐	☐	☑
WG64578-101 (BLANK)					☑	☐	☐	☑
WG64578-102 (SPM)					☑	☐	☐	☑
WG64578-103 (SPMDUP)					☑	☐	☐	☑
					☐	☐	☐	☐

Sample ID	Authentic Std: Date: Vol.: µL Syringe#: Ampoule#: Analyst:		Authentic Std: Date: Vol.: µL Syringe#: Ampoule#: Analyst:		Authentic Std: Date: Vol.: µL Syringe#: Ampoule#: Analyst:	
	Time	Witness	Time	Witness	Time	Witness
						RA
						17 JUL 2018

SGS AXYS Analytical Services Ltd.

Extraction Information: Batch ID: WG64578 Date: 13JUL2018 Analyst: CMM

Method: MLA-017 R20.10

Aqueous Extraction Information:

Stirring: Solvent used: DCM Lot/batch #: 103066, 103067 Volume: 300 mL Chemist: CMM Na_2SO_4 # 105

Start Date: 13JUL2018 time: 11:20 end Date: 13JUL2018 time: 11:55

Shaking: Solvent used: DCM Lot/batch #: _____ # of shakes: _____ Volume: _____ mL Chemist: _____

Date: _____ time: _____

☐ Aqueous Particulate

CMM
13JUL2018

Solids/Tissue Extraction Information:

Soxhlet: ____ Dean Stark: ____ Steam Distillation: ____ Base Digest: ____

Drying: Drying Time: _____ mins Analyst: _____ Reagent: _____ Lot/batch #: _____

Extraction Solvent used: _____ Volume: _____ mL Lot/batch #: _____

Other reagent used: _____ Amount: _____ Lot/batch #: _____

Other reagent used: _____ Amount: _____ Lot/batch #: _____

Begin: Date: _____ Time: _____ Analyst: _____ **End:** Date: _____ Time: _____ Analyst: _____

Begin: Date: _____ Time: _____ Analyst: _____ **End:** Date: _____ Time: _____ Analyst: _____

AXYS Analytical Services Ltd

Extract Cleanup - Biobead/Cu **WorkGroup:** WG64578 **Method:** MLA-017 R20.10

Sample ID	BB #	BB#	Cu Test 1:	Cu Test 2:	Cu Test 3:	Cu Test 4:	Cu Test 5:	Cu Test 6:
	Portion:	Portion:	Date: 18 JUL 2018	Date:	Date:	Date:	Date:	Date:
			Time: 8:15	Time:	Time:	Time:	Time:	Time:
			Portion: DX	Portion:	Portion:	Portion:	Portion:	Portion: JLH
			Chemist: KE	Chemist:	Chemist:	Chemist:	Chemist:	Chemist: 23JUL2018.
L29628-1			___ +ve ✓ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
L29628-7			___ +ve ✓ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
L29628-11			___ +ve ✓ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
L29628-12			___ +ve ✓ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
L29628-14			___ +ve ✓ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
L29628-17			___ +ve ✓ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
L29628-18			___ +ve ✓ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
L29628-19			___ +ve ✓ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
L29628-21			___ +ve ✓ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
L29628-22		JLH 23JUL2018	___ +ve ✓ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
L29628-25			___ +ve ✓ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
L29628-26			___ +ve ✓ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
L29628-28			___ +ve ✓ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
L29628-29			___ +ve ✓ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
WG64578-101 (BLANK)			___ +ve ✓ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
WG64578-102 (SPM)			___ +ve ✓ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
WG64578-103 (SPMDUP)			___ +ve ✓ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
			___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
			___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
			___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
			___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
			___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
			___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
			___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
			___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve
			___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve	___ +ve ___ -ve

Reviewed by: JLH Date: 23JUL2018.

AXYS Analytical Services Ltd

Extract Cleanup - Columning, etc. **WorkGroup:** WG64578

Method: MLA-017 R20.10

Cleanup Type	Portion	Date	Time	Batch # / Type	Chemist	Pre-Elute	F1 (solvent, batch #, vol [mL])	F2 (solvent, batch #, vol [mL])	F3 (solvent, batch #, vol [mL])
A/B Si (DX)	DX	17JUL2018	12:45	30g $AgNO_3$ 44% ABSi	RA	YES	Hex 200mL # 102918		
FI (DX)							5% DCM/Hex	DCM	
Al (DX)	DX	18Jul.2018	9:00	#311	KE	NU	Hex 40ml/# 102919	2% DCM/Hex 10ml/# 949-04	1:1 DCM:Hex 35ml/# 1242-04
CC (DX)	DX	18Jul.2018	10:30	#145	KE	Yes	1:1 CycHex:DCM 2ml/# 1204-04	1:1 EtAc:Tol 2ml/# 617-04	Tol 40ml/# 102517
BB							1:1 DCM:Hex	1:1 DCM:Hex	

Solvent Exchange

Before	Portion	Date	Time	Vol	Chemist
Al-CC	DX	18Jul.2018	8:30	50	KE
		23Jul2018			
			JLH		

Extract Wash

Date:	
Chemist:	
Start time:	
Acid/Base Wash	**MeCN:H20 Wash**
20% KOH:	pH 10:
# times:	# times:
Water:	pH 7:
H2SO4:	pH 2:
# times:	
Water:	

Acetylation (AP)

Date:
Time (1st) (2nd)
200µL Hex: 23Jul2018 JLH
50µL x2 Pyridine: lot #_____
50µL x2 Acetic Anhydride: batch #_____
Chemist:

Ext'n After Acetylation

Date:
Start Time:
1.75 mL 0.2M K_2CO_3: batch #_____
500µL x3 Hex:
Chemist:

Reviewed by: JLH Date: 23Jul2018

AXYS Analytical Services Ltd

Notes: Batch ID: WG64578 Method: MLA-017 R20.10

Date:	Analyst	Fraction	Notes:
			23 Jul 2018. JLH

Reviewed by JLH date 23 Jul 2018.

SGS AXYS METHOD MLA-010 Rev 12

Form 1A

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-RB1
Sample Collection:
11-Jun-2018 16:12

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-1
Matrix:	AQUEOUS	**Sample Size:**	1.02 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 21:35:20	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_086 S: 7**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_086 S: 1
Concentration Units:	pg/L		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

COMPOUND	LAB FLAG [1]	CONCENTRATION FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO [3]	RRT [3]
2,3,7,8-TCDD	U		0.492 (Q)		
1,2,3,7,8-PECDD [4]	U		0.492 (Q)		
1,2,3,4,7,8-HXCDD	U		0.492 (Q)		
1,2,3,6,7,8-HXCDD	U		0.492 (Q)		
1,2,3,7,8,9-HXCDD	U		0.492 (Q)		
1,2,3,4,6,7,8-HPCDD	K J	0.625	0.492 (Q)	0.82	1.001
OCDD	K B J	0.831	0.492 (Q)	2.29	1.000
2,3,7,8-TCDF	J	0.560	0.492 (Q)	0.78	1.001
1,2,3,7,8-PECDF	J	0.935	0.492 (Q)	1.45	1.002
2,3,4,7,8-PECDF	U		0.492 (Q)		
1,2,3,4,7,8-HXCDF	U		0.492 (Q)		
1,2,3,6,7,8-HXCDF	U		0.492 (Q)		
1,2,3,7,8,9-HXCDF	U		0.492 (Q)		
2,3,4,6,7,8-HXCDF	U		0.492 (Q)		
1,2,3,4,6,7,8-HPCDF	U		0.492 (Q)		
1,2,3,4,7,8,9-HPCDF	U		0.492 (Q)		
OCDF	U		0.492 (Q)		
TOTAL TETRA-DIOXINS	U		0.492 (Q)		
TOTAL PENTA-DIOXINS	U		0.492 (Q)		
TOTAL HEXA-DIOXINS	K	0.778	0.492 (Q)		
TOTAL HEPTA-DIOXINS	K	1.27	0.492 (Q)		
TOTAL TETRA-FURANS	K	1.22	0.492 (Q)		
TOTAL PENTA-FURANS		0.935	0.492 (Q)		
TOTAL HEXA-FURANS	U		0.492 (Q)		
TOTAL HEPTA-FURANS	U		0.492 (Q)		

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; K = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; B = analyte found in the associated blank and concentration in sample is less than 10X the concentration in the associated blank; J = concentration less than lowest calibration equivalent.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613.
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_L29628-1_Form1A_DX8M_086S7_SJ2407903.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 2

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-RB1
Sample Collection:
11-Jun-2018 16:12

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-1
Matrix:	AQUEOUS	**Sample Size:**	1.02 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 21:35:20	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_086 S: 7**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_086 S: 1
Concentration Units:	pg absolute		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO [3]	RRT [3]
13C-2,3,7,8-TCDD		2000	1100	54.8	0.77	1.012
13C-1,2,3,7,8-PECDD [4]		2000	1140	57.1	0.67	1.383
13C-1,2,3,4,7,8-HXCDD		2000	1120	56.1	1.26	0.987
13C-1,2,3,6,7,8-HXCDD		2000	1140	57.1	1.22	0.990
13C-1,2,3,4,6,7,8-HPCDD		2000	893	44.6	0.96	1.094
13C-OCDD		4000	1410	35.3	0.87	1.178
13C-2,3,7,8-TCDF		2000	983	49.2	0.72	0.966
13C-1,2,3,7,8-PECDF		2000	1110	55.7	1.43	1.284
13C-2,3,4,7,8-PECDF		2000	1090	54.7	1.43	1.351
13C-1,2,3,4,7,8-HXCDF		2000	1100	54.9	0.53	0.954
13C-1,2,3,6,7,8-HXCDF		2000	1190	59.7	0.51	0.958
13C-1,2,3,7,8,9-HXCDF		2000	1030	51.5	0.51	1.005
13C-2,3,4,6,7,8-HXCDF		2000	1170	58.6	0.53	0.981
13C-1,2,3,4,6,7,8-HPCDF		2000	916	45.8	0.43	1.062
13C-1,2,3,4,7,8,9-HPCDF		2000	834	41.7	0.45	1.104
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD		200	104	51.9		1.001

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for percent recovery (R) are specified in Section 9.3.3, Method 1613.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613. NOTE: There is no ion abundance ratio for 37Cl4-2,3,7,8-TCDD
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form2.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_L29628-1_Form2_DX8M_086S7_SJ2407903.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 1A

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-RB1
Sample Collection:
11-Jun-2018 16:12

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-1
Matrix:	AQUEOUS	**Sample Size:**	1.02 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	10-Jul-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	23-Jul-2018 **Time:** 14:34:15	**GC Column ID:**	DB225
Extract Volume (uL):	20	**Sample Data Filename:**	**DB83_127A S: 6**
Injection Volume (uL):	2.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DB83_127A S: 2
Concentration Units:	pg/L		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

COMPOUND	LAB FLAG [1]	CONCENTRATION FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO [3]	RRT [3]
2,3,7,8-TCDF	U		0.492 (Q)		

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form1A.xsl; Created: 26-Jul-2018 11:26:57; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB225_L29628-1_Form1A_DB83_127AS6_SJ2408547.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

CLIENT SAMPLE NO.
LDW18-SP-RB1

PCDD/PCDF ANALYSIS TEQ DATA REPORT

SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Sample Collection:	11-Jun-2018 16:12		
Contract No.:	4033	**Project No.**	SEEP WATER PO# 2018-0069
Matrix:	AQUEOUS	**Lab Sample I.D.:**	L29628-1
Sample Size:	1.02 L	**GC Column ID(s):**	DB225 DB5
Concentration Units:	pg/L	**Sample Data Filenames:**	**DB83_127A S: 6** **DX8M_086 S: 7**

COMPOUND	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)	WHO 2005 MAMM TEF	TEQ ND=0	TEQ ND=1/2 RL	TEQ ND=RL
2,3,7,8-TCDD	U		0.492	1	0.00e+00	2.46e-01	4.92e-01
1,2,3,7,8-PECDD	U		0.492	1	0.00e+00	2.46e-01	4.92e-01
1,2,3,4,7,8-HXCDD	U		0.492	0.1	0.00e+00	2.46e-02	4.92e-02
1,2,3,6,7,8-HXCDD	U		0.492	0.1	0.00e+00	2.46e-02	4.92e-02
1,2,3,7,8,9-HXCDD	U		0.492	0.1	0.00e+00	2.46e-02	4.92e-02
1,2,3,4,6,7,8-HPCDD	K	0.625	0.492	0.01	6.25e-03	6.25e-03	6.25e-03
OCDD	K	0.831	0.492	0.0003	2.49e-04	2.49e-04	2.49e-04
2,3,7,8-TCDF	U		0.492	0.1	0.00e+00	2.46e-02	4.92e-02
1,2,3,7,8-PECDF		0.935	0.492	0.03	2.81e-02	2.81e-02	2.81e-02
2,3,4,7,8-PECDF	U		0.492	0.3	0.00e+00	7.38e-02	1.48e-01
1,2,3,4,7,8-HXCDF	U		0.492	0.1	0.00e+00	2.46e-02	4.92e-02
1,2,3,6,7,8-HXCDF	U		0.492	0.1	0.00e+00	2.46e-02	4.92e-02
1,2,3,7,8,9-HXCDF	U		0.492	0.1	0.00e+00	2.46e-02	4.92e-02
2,3,4,6,7,8-HXCDF	U		0.492	0.1	0.00e+00	2.46e-02	4.92e-02
1,2,3,4,6,7,8-HPCDF	U		0.492	0.01	0.00e+00	2.46e-03	4.92e-03
1,2,3,4,7,8,9-HPCDF	U		0.492	0.01	0.00e+00	2.46e-03	4.92e-03
OCDF	U		0.492	0.0003	0.00e+00	7.38e-05	1.48e-04
			TOTAL TEQ		0.0345	0.802	1.57

(1) Where applicable, custom lab flags may have been used on this report; U = not detected at RL.
(2) On this form, concentrations that do not meet quantification criteria are reported, flagged, and used in the TEQ calculations.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: TEQ.xsl; Created: 26-Jul-2018 11:27:55; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613-TEQ_L29628-1_TEQ_SJ2407903.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 1A

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-42
Sample Collection:
12-Jun-2018 12:05

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-7
Matrix:	AQUEOUS	**Sample Size:**	1.05 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 22:30:36	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_086 S: 8**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_086 S: 1
Concentration Units:	pg/L		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

COMPOUND	LAB FLAG [1]	CONCENTRATION FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO [3]	RRT [3]
2,3,7,8-TCDD	U		0.475 (Q)		
1,2,3,7,8-PECDD [4]	U		0.475 (Q)		
1,2,3,4,7,8-HXCDD	U		0.475 (Q)		
1,2,3,6,7,8-HXCDD	U		0.475 (Q)		
1,2,3,7,8,9-HXCDD	U		0.475 (Q)		
1,2,3,4,6,7,8-HPCDD	K J	0.904	0.475 (Q)	2.76	1.000
OCDD	B J	2.98	0.475 (Q)	0.80	1.000
2,3,7,8-TCDF	U		0.475 (Q)		
1,2,3,7,8-PECDF	J	0.654	0.475 (Q)	1.52	1.002
2,3,4,7,8-PECDF	U		0.475 (Q)		
1,2,3,4,7,8-HXCDF	U		0.475 (Q)		
1,2,3,6,7,8-HXCDF	U		0.475 (Q)		
1,2,3,7,8,9-HXCDF	U		0.475 (Q)		
2,3,4,6,7,8-HXCDF	U		0.475 (Q)		
1,2,3,4,6,7,8-HPCDF	U		0.475 (Q)		
1,2,3,4,7,8,9-HPCDF	U		0.475 (Q)		
OCDF	K J	0.477	0.475 (Q)	0.11	1.002
TOTAL TETRA-DIOXINS	K	0.504	0.475 (Q)		
TOTAL PENTA-DIOXINS	U		0.475 (Q)		
TOTAL HEXA-DIOXINS	K	0.749	0.475 (Q)		
TOTAL HEPTA-DIOXINS	K	1.41	0.475 (Q)		
TOTAL TETRA-FURANS	K	0.619	0.475 (Q)		
TOTAL PENTA-FURANS		0.654	0.475 (Q)		
TOTAL HEXA-FURANS	U		0.475 (Q)		
TOTAL HEPTA-FURANS	U		0.475 (Q)		

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; K = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; B = analyte found in the associated blank and concentration in sample is less than 10X the concentration in the associated blank; J = concentration less than lowest calibration equivalent.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613.
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_L29628-7_Form1A_DX8M_086S8_SJ2407904.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 2

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-42
Sample Collection:
12-Jun-2018 12:05

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-7
Matrix:	AQUEOUS	**Sample Size:**	1.05 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 22:30:36	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_086 S: 8**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_086 S: 1
Concentration Units:	pg absolute		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO [3]	RRT [3]
13C-2,3,7,8-TCDD		2000	1370	68.5	0.78	1.013
13C-1,2,3,7,8-PECDD [4]		2000	1460	72.9	0.67	1.384
13C-1,2,3,4,7,8-HXCDD		2000	1590	79.5	1.28	0.987
13C-1,2,3,6,7,8-HXCDD		2000	1710	85.3	1.20	0.990
13C-1,2,3,4,6,7,8-HPCDD		2000	1190	59.3	1.00	1.094
13C-OCDD		4000	1830	45.8	0.83	1.178
13C-2,3,7,8-TCDF		2000	1290	64.7	0.69	0.966
13C-1,2,3,7,8-PECDF		2000	1360	68.0	1.40	1.284
13C-2,3,4,7,8-PECDF		2000	1370	68.6	1.40	1.352
13C-1,2,3,4,7,8-HXCDF		2000	1490	74.5	0.54	0.954
13C-1,2,3,6,7,8-HXCDF		2000	1650	82.5	0.51	0.958
13C-1,2,3,7,8,9-HXCDF		2000	1380	68.9	0.52	1.005
13C-2,3,4,6,7,8-HXCDF		2000	1700	84.9	0.52	0.980
13C-1,2,3,4,6,7,8-HPCDF		2000	1270	63.4	0.45	1.062
13C-1,2,3,4,7,8,9-HPCDF		2000	1110	55.5	0.46	1.104
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD		200	122	61.1		1.001

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for percent recovery (R) are specified in Section 9.3.3, Method 1613.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613. NOTE: There is no ion abundance ratio for 37Cl4-2,3,7,8-TCDD
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form2.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_L29628-7_Form2_DX8M_086S8_SJ2407904.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

CLIENT SAMPLE NO.
LDW18-SP-42

PCDD/PCDF ANALYSIS TEQ DATA REPORT

SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Sample Collection:	12-Jun-2018 12:05		
Contract No.:	4033	**Project No.**	SEEP WATER PO# 2018-0069
Matrix:	AQUEOUS	**Lab Sample I.D.:**	L29628-7
Sample Size:	1.05 L	**GC Column ID:**	DB5
Concentration Units:	pg/L	**Sample Data Filename:**	**DX8M_086 S: 8**

COMPOUND	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)	WHO 2005 MAMM TEF	TEQ ND=0	TEQ ND=1/2 RL	TEQ ND=RL
2,3,7,8-TCDD	U		0.475	1	0.00e+00	2.38e-01	4.75e-01
1,2,3,7,8-PECDD	U		0.475	1	0.00e+00	2.38e-01	4.75e-01
1,2,3,4,7,8-HXCDD	U		0.475	0.1	0.00e+00	2.38e-02	4.75e-02
1,2,3,6,7,8-HXCDD	U		0.475	0.1	0.00e+00	2.38e-02	4.75e-02
1,2,3,7,8,9-HXCDD	U		0.475	0.1	0.00e+00	2.38e-02	4.75e-02
1,2,3,4,6,7,8-HPCDD	K	0.904	0.475	0.01	9.04e-03	9.04e-03	9.04e-03
OCDD		2.98	0.475	0.0003	8.94e-04	8.94e-04	8.94e-04
2,3,7,8-TCDF	U		0.475	0.1	0.00e+00	2.38e-02	4.75e-02
1,2,3,7,8-PECDF		0.654	0.475	0.03	1.96e-02	1.96e-02	1.96e-02
2,3,4,7,8-PECDF	U		0.475	0.3	0.00e+00	7.13e-02	1.43e-01
1,2,3,4,7,8-HXCDF	U		0.475	0.1	0.00e+00	2.38e-02	4.75e-02
1,2,3,6,7,8-HXCDF	U		0.475	0.1	0.00e+00	2.38e-02	4.75e-02
1,2,3,7,8,9-HXCDF	U		0.475	0.1	0.00e+00	2.38e-02	4.75e-02
2,3,4,6,7,8-HXCDF	U		0.475	0.1	0.00e+00	2.38e-02	4.75e-02
1,2,3,4,6,7,8-HPCDF	U		0.475	0.01	0.00e+00	2.38e-03	4.75e-03
1,2,3,4,7,8,9-HPCDF	U		0.475	0.01	0.00e+00	2.38e-03	4.75e-03
OCDF	K	0.477	0.475	0.0003	1.43e-04	1.43e-04	1.43e-04
			TOTAL TEQ		0.0297	0.771	1.51

(1) Where applicable, custom lab flags may have been used on this report; U = not detected at RL.
(2) On this form, concentrations that do not meet quantification criteria are reported, flagged, and used in the TEQ calculations.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: TEQ.xsl; Created: 26-Jul-2018 11:27:55; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613-TEQ_L29628-7_TEQ_SJ2407904.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 1A

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-24
Sample Collection:
13-Jun-2018 12:35

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-11
Matrix:	AQUEOUS	**Sample Size:**	1.07 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 23:25:48	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_086 S: 9**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_086 S: 1
Concentration Units:	pg/L		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

COMPOUND	LAB FLAG [1]	CONCENTRATION FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO [3]	RRT [3]
2,3,7,8-TCDD	U		0.467 (Q)		
1,2,3,7,8-PECDD [4]	U		0.467 (Q)		
1,2,3,4,7,8-HXCDD	U		0.467 (Q)		
1,2,3,6,7,8-HXCDD	U		0.467 (Q)		
1,2,3,7,8,9-HXCDD	U		0.467 (Q)		
1,2,3,4,6,7,8-HPCDD	K J	0.704	0.467 (Q)	1.71	1.000
OCDD	K B J	5.35	0.467 (Q)	1.06	1.000
2,3,7,8-TCDF	U		0.467 (Q)		
1,2,3,7,8-PECDF	U		0.467 (Q)		
2,3,4,7,8-PECDF	U		0.467 (Q)		
1,2,3,4,7,8-HXCDF	U		0.467 (Q)		
1,2,3,6,7,8-HXCDF	U		0.467 (Q)		
1,2,3,7,8,9-HXCDF	U		0.467 (Q)		
2,3,4,6,7,8-HXCDF	U		0.467 (Q)		
1,2,3,4,6,7,8-HPCDF	U		0.467 (Q)		
1,2,3,4,7,8,9-HPCDF	U		0.467 (Q)		
OCDF	U		0.467 (Q)		
TOTAL TETRA-DIOXINS	U		0.467 (Q)		
TOTAL PENTA-DIOXINS	U		0.467 (Q)		
TOTAL HEXA-DIOXINS	K	0.897	0.467 (Q)		
TOTAL HEPTA-DIOXINS	K	3.15	0.467 (Q)		
TOTAL TETRA-FURANS	U		0.467 (Q)		
TOTAL PENTA-FURANS	U		0.467 (Q)		
TOTAL HEXA-FURANS	U		0.467 (Q)		
TOTAL HEPTA-FURANS	U		0.467 (Q)		

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; K = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; B = analyte found in the associated blank and concentration in sample is less than 10X the concentration in the associated blank; J = concentration less than lowest calibration equivalent.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613.
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_L29628-11_Form1A_DX8M_086S9_SJ2407905.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 2

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-24
Sample Collection:
13-Jun-2018 12:35

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-11
Matrix:	AQUEOUS	**Sample Size:**	1.07 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 23:25:48	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_086 S: 9**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_086 S: 1
Concentration Units:	pg absolute		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO [3]	RRT [3]
13C-2,3,7,8-TCDD		2000	1590	79.7	0.77	1.013
13C-1,2,3,7,8-PECDD [4]		2000	1610	80.7	0.69	1.383
13C-1,2,3,4,7,8-HXCDD		2000	1590	79.4	1.23	0.987
13C-1,2,3,6,7,8-HXCDD		2000	1770	88.7	1.20	0.990
13C-1,2,3,4,6,7,8-HPCDD		2000	1390	69.7	1.01	1.094
13C-OCDD		4000	2160	54.0	0.86	1.178
13C-2,3,7,8-TCDF		2000	1450	72.3	0.71	0.966
13C-1,2,3,7,8-PECDF		2000	1500	75.1	1.41	1.284
13C-2,3,4,7,8-PECDF		2000	1480	73.8	1.42	1.351
13C-1,2,3,4,7,8-HXCDF		2000	1600	80.0	0.53	0.954
13C-1,2,3,6,7,8-HXCDF		2000	1720	86.1	0.53	0.958
13C-1,2,3,7,8,9-HXCDF		2000	1500	74.8	0.52	1.004
13C-2,3,4,6,7,8-HXCDF		2000	1670	83.3	0.51	0.980
13C-1,2,3,4,6,7,8-HPCDF		2000	1420	70.9	0.44	1.062
13C-1,2,3,4,7,8,9-HPCDF		2000	1280	64.0	0.46	1.104
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD		200	148	74.1		1.001

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for percent recovery (R) are specified in Section 9.3.3, Method 1613.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613. NOTE: There is no ion abundance ratio for 37Cl4-2,3,7,8-TCDD
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form2.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_L29628-11_Form2_DX8M_086S9_SJ2407905.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

CLIENT SAMPLE NO.
LDW18-SP-24

PCDD/PCDF ANALYSIS TEQ DATA REPORT

SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Sample Collection:	13-Jun-2018 12:35		
Contract No.:	4033	**Project No.**	SEEP WATER PO# 2018-0069
Matrix:	AQUEOUS	**Lab Sample I.D.:**	L29628-11
Sample Size:	1.07 L	**GC Column ID:**	DB5
Concentration Units:	pg/L	**Sample Data Filename:**	**DX8M_086 S: 9**

COMPOUND	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)	WHO 2005 MAMM TEF	TEQ ND=0	TEQ ND=1/2 RL	TEQ ND=RL
2,3,7,8-TCDD	U		0.467	1	0.00e+00	2.34e-01	4.67e-01
1,2,3,7,8-PECDD	U		0.467	1	0.00e+00	2.34e-01	4.67e-01
1,2,3,4,7,8-HXCDD	U		0.467	0.1	0.00e+00	2.34e-02	4.67e-02
1,2,3,6,7,8-HXCDD	U		0.467	0.1	0.00e+00	2.34e-02	4.67e-02
1,2,3,7,8,9-HXCDD	U		0.467	0.1	0.00e+00	2.34e-02	4.67e-02
1,2,3,4,6,7,8-HPCDD	K	0.704	0.467	0.01	7.04e-03	7.04e-03	7.04e-03
OCDD	K	5.35	0.467	0.0003	1.61e-03	1.61e-03	1.61e-03
2,3,7,8-TCDF	U		0.467	0.1	0.00e+00	2.34e-02	4.67e-02
1,2,3,7,8-PECDF	U		0.467	0.03	0.00e+00	7.01e-03	1.40e-02
2,3,4,7,8-PECDF	U		0.467	0.3	0.00e+00	7.01e-02	1.40e-01
1,2,3,4,7,8-HXCDF	U		0.467	0.1	0.00e+00	2.34e-02	4.67e-02
1,2,3,6,7,8-HXCDF	U		0.467	0.1	0.00e+00	2.34e-02	4.67e-02
1,2,3,7,8,9-HXCDF	U		0.467	0.1	0.00e+00	2.34e-02	4.67e-02
2,3,4,6,7,8-HXCDF	U		0.467	0.1	0.00e+00	2.34e-02	4.67e-02
1,2,3,4,6,7,8-HPCDF	U		0.467	0.01	0.00e+00	2.34e-03	4.67e-03
1,2,3,4,7,8,9-HPCDF	U		0.467	0.01	0.00e+00	2.34e-03	4.67e-03
OCDF	U		0.467	0.0003	0.00e+00	7.01e-05	1.40e-04
			TOTAL TEQ		0.00865	0.744	1.48

(1) Where applicable, custom lab flags may have been used on this report; U = not detected at RL.
(2) On this form, concentrations that do not meet quantification criteria are reported, flagged, and used in the TEQ calculations.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: TEQ.xsl; Created: 26-Jul-2018 11:27:55; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613-TEQ_L29628-11_TEQ_SJ2407905.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 1A

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-24-FD
Sample Collection:
13-Jun-2018 12:42

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-12
Matrix:	AQUEOUS	**Sample Size:**	1.03 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 00:21:02	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_086 S: 10**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_086 S: 1
Concentration Units:	pg/L		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

COMPOUND	LAB FLAG [1]	CONCENTRATION FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO [3]	RRT [3]
2,3,7,8-TCDD	U		0.485 (Q)		
1,2,3,7,8-PECDD [4]	U		0.485 (Q)		
1,2,3,4,7,8-HXCDD	U		0.485 (Q)		
1,2,3,6,7,8-HXCDD	U		0.485 (Q)		
1,2,3,7,8,9-HXCDD	U		0.485 (Q)		
1,2,3,4,6,7,8-HPCDD	U		0.485 (Q)		
OCDD	K B J	2.41	0.485 (Q)	0.73	1.000
2,3,7,8-TCDF	U		0.485 (Q)		
1,2,3,7,8-PECDF	U		0.485 (Q)		
2,3,4,7,8-PECDF	U		0.485 (Q)		
1,2,3,4,7,8-HXCDF	U		0.485 (Q)		
1,2,3,6,7,8-HXCDF	U		0.485 (Q)		
1,2,3,7,8,9-HXCDF	U		0.485 (Q)		
2,3,4,6,7,8-HXCDF	U		0.485 (Q)		
1,2,3,4,6,7,8-HPCDF	U		0.485 (Q)		
1,2,3,4,7,8,9-HPCDF	U		0.485 (Q)		
OCDF	U		0.485 (Q)		
TOTAL TETRA-DIOXINS	K	0.601	0.485 (Q)		
TOTAL PENTA-DIOXINS	U		0.485 (Q)		
TOTAL HEXA-DIOXINS	K	0.642	0.485 (Q)		
TOTAL HEPTA-DIOXINS	K	0.920	0.485 (Q)		
TOTAL TETRA-FURANS	K	0.522	0.485 (Q)		
TOTAL PENTA-FURANS	U		0.485 (Q)		
TOTAL HEXA-FURANS	U		0.485 (Q)		
TOTAL HEPTA-FURANS	U		0.485 (Q)		

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; K = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; B = analyte found in the associated blank and concentration in sample is less than 10X the concentration in the associated blank; J = concentration less than lowest calibration equivalent.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613.
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_L29628-12_Form1A_DX8M_086S10_SJ2407891.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 2

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-24-FD
Sample Collection:
13-Jun-2018 12:42

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-12
Matrix:	AQUEOUS	**Sample Size:**	1.03 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 00:21:02	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_086 S: 10**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_086 S: 1
Concentration Units:	pg absolute		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO [3]	RRT [3]
13C-2,3,7,8-TCDD		2000	1690	84.4	0.75	1.013
13C-1,2,3,7,8-PECDD [4]		2000	1700	84.8	0.69	1.384
13C-1,2,3,4,7,8-HXCDD		2000	1720	85.8	1.20	0.987
13C-1,2,3,6,7,8-HXCDD		2000	1940	97.2	1.21	0.990
13C-1,2,3,4,6,7,8-HPCDD		2000	1650	82.3	1.00	1.094
13C-OCDD		4000	2560	64.0	0.85	1.178
13C-2,3,7,8-TCDF		2000	1510	75.3	0.70	0.966
13C-1,2,3,7,8-PECDF		2000	1600	79.8	1.41	1.285
13C-2,3,4,7,8-PECDF		2000	1580	78.9	1.39	1.352
13C-1,2,3,4,7,8-HXCDF		2000	1740	87.0	0.52	0.954
13C-1,2,3,6,7,8-HXCDF		2000	1850	92.4	0.52	0.958
13C-1,2,3,7,8,9-HXCDF		2000	1650	82.3	0.53	1.005
13C-2,3,4,6,7,8-HXCDF		2000	1880	93.8	0.54	0.980
13C-1,2,3,4,6,7,8-HPCDF		2000	1620	80.8	0.42	1.062
13C-1,2,3,4,7,8,9-HPCDF		2000	1530	76.7	0.44	1.104
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD		200	153	76.5		1.001

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for percent recovery (R) are specified in Section 9.3.3, Method 1613.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613. NOTE: There is no ion abundance ratio for 37Cl4-2,3,7,8-TCDD
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form2.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_L29628-12_Form2_DX8M_086S10_SJ2407891.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

CLIENT SAMPLE NO.
LDW18-SP-24-FD

PCDD/PCDF ANALYSIS TEQ DATA REPORT

SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Sample Collection:	13-Jun-2018 12:42		
Contract No.:	4033	**Project No.**	SEEP WATER PO# 2018-0069
Matrix:	AQUEOUS	**Lab Sample I.D.:**	L29628-12
Sample Size:	1.03 L	**GC Column ID:**	DB5
Concentration Units:	pg/L	**Sample Data Filename:**	**DX8M_086 S: 10**

COMPOUND	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)	WHO 2005 MAMM TEF	TEQ ND=0	TEQ ND=1/2 RL	TEQ ND=RL
2,3,7,8-TCDD	U		0.485	1	0.00e+00	2.43e-01	4.85e-01
1,2,3,7,8-PECDD	U		0.485	1	0.00e+00	2.43e-01	4.85e-01
1,2,3,4,7,8-HXCDD	U		0.485	0.1	0.00e+00	2.43e-02	4.85e-02
1,2,3,6,7,8-HXCDD	U		0.485	0.1	0.00e+00	2.43e-02	4.85e-02
1,2,3,7,8,9-HXCDD	U		0.485	0.1	0.00e+00	2.43e-02	4.85e-02
1,2,3,4,6,7,8-HPCDD	U		0.485	0.01	0.00e+00	2.43e-03	4.85e-03
OCDD	K	2.41	0.485	0.0003	7.23e-04	7.23e-04	7.23e-04
2,3,7,8-TCDF	U		0.485	0.1	0.00e+00	2.43e-02	4.85e-02
1,2,3,7,8-PECDF	U		0.485	0.03	0.00e+00	7.28e-03	1.46e-02
2,3,4,7,8-PECDF	U		0.485	0.3	0.00e+00	7.28e-02	1.46e-01
1,2,3,4,7,8-HXCDF	U		0.485	0.1	0.00e+00	2.43e-02	4.85e-02
1,2,3,6,7,8-HXCDF	U		0.485	0.1	0.00e+00	2.43e-02	4.85e-02
1,2,3,7,8,9-HXCDF	U		0.485	0.1	0.00e+00	2.43e-02	4.85e-02
2,3,4,6,7,8-HXCDF	U		0.485	0.1	0.00e+00	2.43e-02	4.85e-02
1,2,3,4,6,7,8-HPCDF	U		0.485	0.01	0.00e+00	2.43e-03	4.85e-03
1,2,3,4,7,8,9-HPCDF	U		0.485	0.01	0.00e+00	2.43e-03	4.85e-03
OCDF	U		0.485	0.0003	0.00e+00	7.28e-05	1.46e-04
			TOTAL TEQ		0.000723	0.767	1.53

(1) Where applicable, custom lab flags may have been used on this report; U = not detected at RL.
(2) On this form, concentrations that do not meet quantification criteria are reported, flagged, and used in the TEQ calculations.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: TEQ.xsl; Created: 26-Jul-2018 11:27:55; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613-TEQ_L29628-12_TEQ_SJ2407891.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 1A

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-57
Sample Collection:
14-Jun-2018 10:41

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-14
Matrix:	AQUEOUS	**Sample Size:**	1.06 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 01:16:16	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_086 S: 11**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_086 S: 1
Concentration Units:	pg/L		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

COMPOUND	LAB FLAG [1]	CONCENTRATION FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO [3]	RRT [3]
2,3,7,8-TCDD	U		0.473 (Q)		
1,2,3,7,8-PECDD [4]	U		0.473 (Q)		
1,2,3,4,7,8-HXCDD	U		0.473 (Q)		
1,2,3,6,7,8-HXCDD	U		0.473 (Q)		
1,2,3,7,8,9-HXCDD	U		0.473 (Q)		
1,2,3,4,6,7,8-HPCDD	K J	0.528	0.473 (Q)	1.26	1.000
OCDD	K B J	2.50	0.473 (Q)	0.57	1.000
2,3,7,8-TCDF	U		0.473 (Q)		
1,2,3,7,8-PECDF	U		0.473 (Q)		
2,3,4,7,8-PECDF	U		0.473 (Q)		
1,2,3,4,7,8-HXCDF	U		0.473 (Q)		
1,2,3,6,7,8-HXCDF	U		0.473 (Q)		
1,2,3,7,8,9-HXCDF	U		0.473 (Q)		
2,3,4,6,7,8-HXCDF	U		0.473 (Q)		
1,2,3,4,6,7,8-HPCDF	U		0.473 (Q)		
1,2,3,4,7,8,9-HPCDF	U		0.473 (Q)		
OCDF	U		0.473 (Q)		
TOTAL TETRA-DIOXINS	U		0.473 (Q)		
TOTAL PENTA-DIOXINS	U		0.473 (Q)		
TOTAL HEXA-DIOXINS	K	0.859	0.473 (Q)		
TOTAL HEPTA-DIOXINS	K	0.528	0.473 (Q)		
TOTAL TETRA-FURANS	U		0.473 (Q)		
TOTAL PENTA-FURANS	U		0.473 (Q)		
TOTAL HEXA-FURANS	U		0.473 (Q)		
TOTAL HEPTA-FURANS	U		0.473 (Q)		

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; K = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; B = analyte found in the associated blank and concentration in sample is less than 10X the concentration in the associated blank; J = concentration less than lowest calibration equivalent.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613.
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_L29628-14_Form1A_DX8M_086S11_SJ2407892.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 2

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-57
Sample Collection:
14-Jun-2018 10:41

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-14
Matrix:	AQUEOUS	**Sample Size:**	1.06 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 01:16:16	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_086 S: 11**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_086 S: 1
Concentration Units:	pg absolute		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO [3]	RRT [3]
13C-2,3,7,8-TCDD		2000	1690	84.4	0.77	1.013
13C-1,2,3,7,8-PECDD [4]		2000	1600	79.9	0.69	1.384
13C-1,2,3,4,7,8-HXCDD		2000	1650	82.7	1.24	0.987
13C-1,2,3,6,7,8-HXCDD		2000	1760	87.8	1.25	0.990
13C-1,2,3,4,6,7,8-HPCDD		2000	1390	69.7	0.99	1.094
13C-OCDD		4000	2170	54.2	0.89	1.178
13C-2,3,7,8-TCDF		2000	1430	71.4	0.69	0.966
13C-1,2,3,7,8-PECDF		2000	1510	75.7	1.38	1.285
13C-2,3,4,7,8-PECDF		2000	1470	73.5	1.36	1.352
13C-1,2,3,4,7,8-HXCDF		2000	1630	81.7	0.52	0.954
13C-1,2,3,6,7,8-HXCDF		2000	1770	88.3	0.52	0.958
13C-1,2,3,7,8,9-HXCDF		2000	1550	77.4	0.52	1.005
13C-2,3,4,6,7,8-HXCDF		2000	1680	84.1	0.53	0.980
13C-1,2,3,4,6,7,8-HPCDF		2000	1410	70.6	0.46	1.062
13C-1,2,3,4,7,8,9-HPCDF		2000	1240	61.9	0.44	1.104
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD		200	166	82.9		1.001

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for percent recovery (R) are specified in Section 9.3.3, Method 1613.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613. NOTE: There is no ion abundance ratio for 37Cl4-2,3,7,8-TCDD
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form2.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_L29628-14_Form2_DX8M_086S11_SJ2407892.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

CLIENT SAMPLE NO.
LDW18-SP-57

PCDD/PCDF ANALYSIS TEQ DATA REPORT

SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Sample Collection:	14-Jun-2018 10:41		
Contract No.:	4033	**Project No.**	SEEP WATER PO# 2018-0069
Matrix:	AQUEOUS	**Lab Sample I.D.:**	L29628-14
Sample Size:	1.06 L	**GC Column ID:**	DB5
Concentration Units:	pg/L	**Sample Data Filename:**	**DX8M_086 S: 11**

COMPOUND	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)	WHO 2005 MAMM TEF	TEQ ND=0	TEQ ND=1/2 RL	TEQ ND=RL
2,3,7,8-TCDD	U		0.473	1	0.00e+00	2.37e-01	4.73e-01
1,2,3,7,8-PECDD	U		0.473	1	0.00e+00	2.37e-01	4.73e-01
1,2,3,4,7,8-HXCDD	U		0.473	0.1	0.00e+00	2.37e-02	4.73e-02
1,2,3,6,7,8-HXCDD	U		0.473	0.1	0.00e+00	2.37e-02	4.73e-02
1,2,3,7,8,9-HXCDD	U		0.473	0.1	0.00e+00	2.37e-02	4.73e-02
1,2,3,4,6,7,8-HPCDD	K	0.528	0.473	0.01	5.28e-03	5.28e-03	5.28e-03
OCDD	K	2.50	0.473	0.0003	7.50e-04	7.50e-04	7.50e-04
2,3,7,8-TCDF	U		0.473	0.1	0.00e+00	2.37e-02	4.73e-02
1,2,3,7,8-PECDF	U		0.473	0.03	0.00e+00	7.10e-03	1.42e-02
2,3,4,7,8-PECDF	U		0.473	0.3	0.00e+00	7.10e-02	1.42e-01
1,2,3,4,7,8-HXCDF	U		0.473	0.1	0.00e+00	2.37e-02	4.73e-02
1,2,3,6,7,8-HXCDF	U		0.473	0.1	0.00e+00	2.37e-02	4.73e-02
1,2,3,7,8,9-HXCDF	U		0.473	0.1	0.00e+00	2.37e-02	4.73e-02
2,3,4,6,7,8-HXCDF	U		0.473	0.1	0.00e+00	2.37e-02	4.73e-02
1,2,3,4,6,7,8-HPCDF	U		0.473	0.01	0.00e+00	2.37e-03	4.73e-03
1,2,3,4,7,8,9-HPCDF	U		0.473	0.01	0.00e+00	2.37e-03	4.73e-03
OCDF	U		0.473	0.0003	0.00e+00	7.10e-05	1.42e-04
			TOTAL TEQ		0.00603	0.751	1.50

(1) Where applicable, custom lab flags may have been used on this report; U = not detected at RL.
(2) On this form, concentrations that do not meet quantification criteria are reported, flagged, and used in the TEQ calculations.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: TEQ.xsl; Created: 26-Jul-2018 11:27:55; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613-TEQ_L29628-14_TEQ_SJ2407892.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 1A

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-77
Sample Collection:
14-Jun-2018 12:10

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-17
Matrix:	AQUEOUS	**Sample Size:**	1.07 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 05:03:32	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_086 S: 15**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_086 S: 12
Concentration Units:	pg/L		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

COMPOUND	LAB FLAG [1]	CONCENTRATION FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO [3]	RRT [3]
2,3,7,8-TCDD	U		0.469 (Q)		
1,2,3,7,8-PECDD [4]	U		0.469 (Q)		
1,2,3,4,7,8-HXCDD	U		0.469 (Q)		
1,2,3,6,7,8-HXCDD	U		0.469 (Q)		
1,2,3,7,8,9-HXCDD	U		0.469 (Q)		
1,2,3,4,6,7,8-HPCDD	U		0.469 (Q)		
OCDD	K B J	0.665	0.469 (Q)	0.64	1.000
2,3,7,8-TCDF	U		0.469 (Q)		
1,2,3,7,8-PECDF	U		0.469 (Q)		
2,3,4,7,8-PECDF	U		0.469 (Q)		
1,2,3,4,7,8-HXCDF	U		0.469 (Q)		
1,2,3,6,7,8-HXCDF	U		0.469 (Q)		
1,2,3,7,8,9-HXCDF	U		0.469 (Q)		
2,3,4,6,7,8-HXCDF	U		0.469 (Q)		
1,2,3,4,6,7,8-HPCDF	U		0.469 (Q)		
1,2,3,4,7,8,9-HPCDF	U		0.469 (Q)		
OCDF	U		0.469 (Q)		
TOTAL TETRA-DIOXINS	K	0.532	0.469 (Q)		
TOTAL PENTA-DIOXINS	U		0.469 (Q)		
TOTAL HEXA-DIOXINS	K	0.746	0.469 (Q)		
TOTAL HEPTA-DIOXINS	U		0.469 (Q)		
TOTAL TETRA-FURANS	U		0.469 (Q)		
TOTAL PENTA-FURANS	U		0.469 (Q)		
TOTAL HEXA-FURANS	U		0.469 (Q)		
TOTAL HEPTA-FURANS	U		0.469 (Q)		

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; K = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; B = analyte found in the associated blank and concentration in sample is less than 10X the concentration in the associated blank; J = concentration less than lowest calibration equivalent.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613.
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_L29628-17_Form1A_DX8M_086S15_SJ2407924.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 2

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-77
Sample Collection:
14-Jun-2018 12:10

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-17
Matrix:	AQUEOUS	**Sample Size:**	1.07 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 05:03:32	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_086 S: 15**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_086 S: 12
Concentration Units:	pg absolute		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO [3]	RRT [3]
13C-2,3,7,8-TCDD		2000	1450	72.3	0.75	1.013
13C-1,2,3,7,8-PECDD [4]		2000	1470	73.5	0.68	1.383
13C-1,2,3,4,7,8-HXCDD		2000	1540	77.0	1.23	0.987
13C-1,2,3,6,7,8-HXCDD		2000	1810	90.4	1.28	0.990
13C-1,2,3,4,6,7,8-HPCDD		2000	1310	65.4	1.01	1.094
13C-OCDD		4000	1970	49.4	0.91	1.178
13C-2,3,7,8-TCDF		2000	1260	63.2	0.70	0.966
13C-1,2,3,7,8-PECDF		2000	1400	70.1	1.40	1.284
13C-2,3,4,7,8-PECDF		2000	1410	70.4	1.42	1.352
13C-1,2,3,4,7,8-HXCDF		2000	1560	78.0	0.52	0.954
13C-1,2,3,6,7,8-HXCDF		2000	1730	86.4	0.50	0.958
13C-1,2,3,7,8,9-HXCDF		2000	1500	75.0	0.51	1.004
13C-2,3,4,6,7,8-HXCDF		2000	1660	82.9	0.52	0.980
13C-1,2,3,4,6,7,8-HPCDF		2000	1380	69.1	0.46	1.062
13C-1,2,3,4,7,8,9-HPCDF		2000	1270	63.7	0.45	1.104
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD		200	125	62.6		1.001

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for percent recovery (R) are specified in Section 9.3.3, Method 1613.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613. NOTE: There is no ion abundance ratio for 37Cl4-2,3,7,8-TCDD
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form2.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_L29628-17_Form2_DX8M_086S15_SJ2407924.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

CLIENT SAMPLE NO.
LDW18-SP-77

PCDD/PCDF ANALYSIS TEQ DATA REPORT

SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Sample Collection:	14-Jun-2018 12:10		
Contract No.:	4033	**Project No.**	SEEP WATER PO# 2018-0069
Matrix:	AQUEOUS	**Lab Sample I.D.:**	L29628-17
Sample Size:	1.07 L	**GC Column ID:**	DB5
Concentration Units:	pg/L	**Sample Data Filename:**	**DX8M_086 S: 15**

COMPOUND	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)	WHO 2005 MAMM TEF	TEQ ND=0	TEQ ND=1/2 RL	TEQ ND=RL
2,3,7,8-TCDD	U		0.469	1	0.00e+00	2.35e-01	4.69e-01
1,2,3,7,8-PECDD	U		0.469	1	0.00e+00	2.35e-01	4.69e-01
1,2,3,4,7,8-HXCDD	U		0.469	0.1	0.00e+00	2.35e-02	4.69e-02
1,2,3,6,7,8-HXCDD	U		0.469	0.1	0.00e+00	2.35e-02	4.69e-02
1,2,3,7,8,9-HXCDD	U		0.469	0.1	0.00e+00	2.35e-02	4.69e-02
1,2,3,4,6,7,8-HPCDD	U		0.469	0.01	0.00e+00	2.35e-03	4.69e-03
OCDD	K	0.665	0.469	0.0003	2.00e-04	2.00e-04	2.00e-04
2,3,7,8-TCDF	U		0.469	0.1	0.00e+00	2.35e-02	4.69e-02
1,2,3,7,8-PECDF	U		0.469	0.03	0.00e+00	7.04e-03	1.41e-02
2,3,4,7,8-PECDF	U		0.469	0.3	0.00e+00	7.04e-02	1.41e-01
1,2,3,4,7,8-HXCDF	U		0.469	0.1	0.00e+00	2.35e-02	4.69e-02
1,2,3,6,7,8-HXCDF	U		0.469	0.1	0.00e+00	2.35e-02	4.69e-02
1,2,3,7,8,9-HXCDF	U		0.469	0.1	0.00e+00	2.35e-02	4.69e-02
2,3,4,6,7,8-HXCDF	U		0.469	0.1	0.00e+00	2.35e-02	4.69e-02
1,2,3,4,6,7,8-HPCDF	U		0.469	0.01	0.00e+00	2.35e-03	4.69e-03
1,2,3,4,7,8,9-HPCDF	U		0.469	0.01	0.00e+00	2.35e-03	4.69e-03
OCDF	U		0.469	0.0003	0.00e+00	7.04e-05	1.41e-04
			TOTAL TEQ		0.000200	0.741	1.48

(1) Where applicable, custom lab flags may have been used on this report; U = not detected at RL.
(2) On this form, concentrations that do not meet quantification criteria are reported, flagged, and used in the TEQ calculations.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: TEQ.xsl; Created: 26-Jul-2018 11:27:55; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613-TEQ_L29628-17_TEQ_SJ2407924.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 1A

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-78
Sample Collection:
14-Jun-2018 12:04

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-18 L
Matrix:	AQUEOUS	**Sample Size:**	1.08 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	24-Jul-2018 **Time:** 23:33:23	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_088 S: 8**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_088 S: 3
Concentration Units:	pg/L		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

COMPOUND	LAB FLAG [1]	CONCENTRATION FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO [3]	RRT [3]
2,3,7,8-TCDD	U		0.463 (Q)		
1,2,3,7,8-PECDD [4]	U		0.625 (S)		
1,2,3,4,7,8-HXCDD	U		0.463 (Q)		
1,2,3,6,7,8-HXCDD	U		0.463 (Q)		
1,2,3,7,8,9-HXCDD	U		0.463 (Q)		
1,2,3,4,6,7,8-HPCDD	K J	1.63	0.463 (Q)	0.77	1.000
OCDD	J	11.6	0.463 (Q)	0.93	1.000
2,3,7,8-TCDF	K J	0.736	0.463 (Q)	1.93	1.001
1,2,3,7,8-PECDF	K J	0.485	0.463 (Q)	0.79	1.001
2,3,4,7,8-PECDF	U		0.463 (Q)		
1,2,3,4,7,8-HXCDF	U		0.525 (S)		
1,2,3,6,7,8-HXCDF	U		0.525 (S)		
1,2,3,7,8,9-HXCDF	U		0.525 (S)		
2,3,4,6,7,8-HXCDF	U		0.525 (S)		
1,2,3,4,6,7,8-HPCDF	K J	1.22	0.463 (Q)	0.82	1.000
1,2,3,4,7,8,9-HPCDF	U		0.463 (Q)		
OCDF	K J	0.819	0.514 (S)	0.38	1.002
TOTAL TETRA-DIOXINS	U		0.463 (Q)		
TOTAL PENTA-DIOXINS	U		0.625 (S)		
TOTAL HEXA-DIOXINS	K	1.04	0.463 (Q)		
TOTAL HEPTA-DIOXINS	K	3.28	0.463 (Q)		
TOTAL TETRA-FURANS	K	0.736	0.463 (Q)		
TOTAL PENTA-FURANS	K	0.485	0.463 (Q)		
TOTAL HEXA-FURANS	K	1.37	0.525 (S)		
TOTAL HEPTA-FURANS	K	2.29	0.463 (Q)		

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; K = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; J = concentration less than lowest calibration equivalent.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613.
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_L29628-18_Form1A_DX8M_088S8_SJ2408905.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 2

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-78
Sample Collection:
14-Jun-2018 12:04

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-18 L
Matrix:	AQUEOUS	**Sample Size:**	1.08 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	24-Jul-2018 **Time:** 23:33:23	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_088 S: 8**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_088 S: 3
Concentration Units:	pg absolute		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO [3]	RRT [3]
13C-2,3,7,8-TCDD		2000	1720	86.2	0.73	1.013
13C-1,2,3,7,8-PECDD [4]		2000	2000	100	0.67	1.383
13C-1,2,3,4,7,8-HXCDD		2000	1680	84.0	1.25	0.987
13C-1,2,3,6,7,8-HXCDD		2000	1850	92.4	1.12	0.990
13C-1,2,3,4,6,7,8-HPCDD		2000	1520	75.8	0.92	1.094
13C-OCDD		4000	2650	66.3	0.84	1.178
13C-2,3,7,8-TCDF		2000	1600	79.8	0.68	0.966
13C-1,2,3,7,8-PECDF		2000	1930	96.5	1.41	1.284
13C-2,3,4,7,8-PECDF		2000	1900	95.0	1.37	1.351
13C-1,2,3,4,7,8-HXCDF		2000	1580	79.1	0.51	0.954
13C-1,2,3,6,7,8-HXCDF		2000	1740	86.8	0.51	0.958
13C-1,2,3,7,8,9-HXCDF		2000	1590	79.4	0.53	1.004
13C-2,3,4,6,7,8-HXCDF		2000	1590	79.4	0.53	0.980
13C-1,2,3,4,6,7,8-HPCDF		2000	1520	76.2	0.46	1.062
13C-1,2,3,4,7,8,9-HPCDF		2000	1490	74.5	0.42	1.104
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD		200	164	81.8		1.001

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for percent recovery (R) are specified in Section 9.3.3, Method 1613.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613. NOTE: There is no ion abundance ratio for 37Cl4-2,3,7,8-TCDD
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form2.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_L29628-18_Form2_DX8M_088S8_SJ2408905.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 1A

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-78
Sample Collection:
14-Jun-2018 12:04

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-18 L
Matrix:	AQUEOUS	**Sample Size:**	1.08 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	10-Jul-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	25-Jul-2018 **Time:** 10:47:02	**GC Column ID:**	DB225
Extract Volume (uL):	20	**Sample Data Filename:**	**DB83_128A S: 5**
Injection Volume (uL):	2.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DB83_128A S: 2
Concentration Units:	pg/L		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

COMPOUND	LAB FLAG [1]	CONCENTRATION FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO [3]	RRT [3]
2,3,7,8-TCDF	U		0.463 (Q)		

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form1A.xsl; Created: 26-Jul-2018 11:26:57; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB225_L29628-18_Form1A_DB83_128AS5_SJ2408979.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

CLIENT SAMPLE NO.
LDW18-SP-78

PCDD/PCDF ANALYSIS TEQ DATA REPORT

SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Sample Collection:	14-Jun-2018 12:04		
Contract No.:	4033	**Project No.**	SEEP WATER PO# 2018-0069
Matrix:	AQUEOUS	**Lab Sample I.D.:**	L29628-18 L
Sample Size:	1.08 L	**GC Column ID(s):**	DB225 DB5
Concentration Units:	pg/L	**Sample Data Filenames:**	**DB83_128A S: 5** **DX8M_088 S: 8**

COMPOUND	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)	WHO 2005 MAMM TEF	TEQ ND=0	TEQ ND=1/2 RL	TEQ ND=RL
2,3,7,8-TCDD	U		0.463	1	0.00e+00	2.32e-01	4.63e-01
1,2,3,7,8-PECDD	U		0.625	1	0.00e+00	3.13e-01	6.25e-01
1,2,3,4,7,8-HXCDD	U		0.463	0.1	0.00e+00	2.32e-02	4.63e-02
1,2,3,6,7,8-HXCDD	U		0.463	0.1	0.00e+00	2.32e-02	4.63e-02
1,2,3,7,8,9-HXCDD	U		0.463	0.1	0.00e+00	2.32e-02	4.63e-02
1,2,3,4,6,7,8-HPCDD	K	1.63	0.463	0.01	1.63e-02	1.63e-02	1.63e-02
OCDD		11.6	0.463	0.0003	3.48e-03	3.48e-03	3.48e-03
2,3,7,8-TCDF	U		0.463	0.1	0.00e+00	2.32e-02	4.63e-02
1,2,3,7,8-PECDF	K	0.485	0.463	0.03	1.46e-02	1.46e-02	1.46e-02
2,3,4,7,8-PECDF	U		0.463	0.3	0.00e+00	6.95e-02	1.39e-01
1,2,3,4,7,8-HXCDF	U		0.525	0.1	0.00e+00	2.63e-02	5.25e-02
1,2,3,6,7,8-HXCDF	U		0.525	0.1	0.00e+00	2.63e-02	5.25e-02
1,2,3,7,8,9-HXCDF	U		0.525	0.1	0.00e+00	2.63e-02	5.25e-02
2,3,4,6,7,8-HXCDF	U		0.525	0.1	0.00e+00	2.63e-02	5.25e-02
1,2,3,4,6,7,8-HPCDF	K	1.22	0.463	0.01	1.22e-02	1.22e-02	1.22e-02
1,2,3,4,7,8,9-HPCDF	U		0.463	0.01	0.00e+00	2.32e-03	4.63e-03
OCDF	K	0.819	0.514	0.0003	2.46e-04	2.46e-04	2.46e-04
			TOTAL TEQ		0.0468	0.860	1.67

(1) Where applicable, custom lab flags may have been used on this report; U = not detected at RL.
(2) On this form, concentrations that do not meet quantification criteria are reported, flagged, and used in the TEQ calculations.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: TEQ.xsl; Created: 26-Jul-2018 11:27:55; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613-TEQ_L29628-18_TEQ_SJ2408905.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 1A

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-79
Sample Collection:
14-Jun-2018 09:50

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-19
Matrix:	AQUEOUS	**Sample Size:**	1.06 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 06:53:48	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_086 S: 17**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_086 S: 12
Concentration Units:	pg/L		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

COMPOUND	LAB FLAG [1]	CONCENTRATION FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO [3]	RRT [3]
2,3,7,8-TCDD	U		0.470 (Q)		
1,2,3,7,8-PECDD [4]	U		0.470 (Q)		
1,2,3,4,7,8-HXCDD	U		0.470 (Q)		
1,2,3,6,7,8-HXCDD	U		0.470 (Q)		
1,2,3,7,8,9-HXCDD	U		0.470 (Q)		
1,2,3,4,6,7,8-HPCDD	K J	0.605	0.470 (Q)	0.65	1.000
OCDD	K B J	3.27	0.470 (Q)	0.71	1.000
2,3,7,8-TCDF	U		0.470 (Q)		
1,2,3,7,8-PECDF	U		0.470 (Q)		
2,3,4,7,8-PECDF	U		0.470 (Q)		
1,2,3,4,7,8-HXCDF	U		0.470 (Q)		
1,2,3,6,7,8-HXCDF	U		0.470 (Q)		
1,2,3,7,8,9-HXCDF	U		0.470 (Q)		
2,3,4,6,7,8-HXCDF	U		0.470 (Q)		
1,2,3,4,6,7,8-HPCDF	U		0.470 (Q)		
1,2,3,4,7,8,9-HPCDF	U		0.470 (Q)		
OCDF	U		0.470 (Q)		
TOTAL TETRA-DIOXINS	K	0.590	0.470 (Q)		
TOTAL PENTA-DIOXINS	U		0.470 (Q)		
TOTAL HEXA-DIOXINS	K	0.664	0.470 (Q)		
TOTAL HEPTA-DIOXINS	K	0.605	0.470 (Q)		
TOTAL TETRA-FURANS	U		0.470 (Q)		
TOTAL PENTA-FURANS	U		0.470 (Q)		
TOTAL HEXA-FURANS	U		0.470 (Q)		
TOTAL HEPTA-FURANS	U		0.470 (Q)		

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; K = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; B = analyte found in the associated blank and concentration in sample is less than 10X the concentration in the associated blank; J = concentration less than lowest calibration equivalent.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613.
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

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Report Filename: 1613_DIOXINS_1613DB5_L29628-19_Form1A_DX8M_086S17_SJ2407926.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 2

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-79
Sample Collection:
14-Jun-2018 09:50

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-19
Matrix:	AQUEOUS	**Sample Size:**	1.06 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 06:53:48	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_086 S: 17**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_086 S: 12
Concentration Units:	pg absolute		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO [3]	RRT [3]
13C-2,3,7,8-TCDD		2000	1610	80.3	0.77	1.012
13C-1,2,3,7,8-PECDD [4]		2000	1810	90.5	0.69	1.383
13C-1,2,3,4,7,8-HXCDD		2000	1640	81.8	1.25	0.986
13C-1,2,3,6,7,8-HXCDD		2000	1770	88.3	1.21	0.990
13C-1,2,3,4,6,7,8-HPCDD		2000	1600	80.0	0.99	1.094
13C-OCDD		4000	2670	66.8	0.84	1.178
13C-2,3,7,8-TCDF		2000	1470	73.3	0.71	0.966
13C-1,2,3,7,8-PECDF		2000	1680	83.9	1.41	1.284
13C-2,3,4,7,8-PECDF		2000	1710	85.4	1.40	1.351
13C-1,2,3,4,7,8-HXCDF		2000	1590	79.7	0.52	0.954
13C-1,2,3,6,7,8-HXCDF		2000	1750	87.3	0.52	0.958
13C-1,2,3,7,8,9-HXCDF		2000	1520	76.0	0.52	1.004
13C-2,3,4,6,7,8-HXCDF		2000	1670	83.7	0.52	0.980
13C-1,2,3,4,6,7,8-HPCDF		2000	1520	75.8	0.43	1.062
13C-1,2,3,4,7,8,9-HPCDF		2000	1510	75.5	0.45	1.103
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD		200	143	71.3		1.001

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for percent recovery (R) are specified in Section 9.3.3, Method 1613.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613. NOTE: There is no ion abundance ratio for 37Cl4-2,3,7,8-TCDD
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form2.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_L29628-19_Form2_DX8M_086S17_SJ2407926.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

CLIENT SAMPLE NO.
LDW18-SP-79

PCDD/PCDF ANALYSIS TEQ DATA REPORT

SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Sample Collection:	14-Jun-2018 09:50		
Contract No.:	4033	**Project No.**	SEEP WATER PO# 2018-0069
Matrix:	AQUEOUS	**Lab Sample I.D.:**	L29628-19
Sample Size:	1.06 L	**GC Column ID:**	DB5
Concentration Units:	pg/L	**Sample Data Filename:**	**DX8M_086 S: 17**

COMPOUND	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)	WHO 2005 MAMM TEF	TEQ ND=0	TEQ ND=1/2 RL	TEQ ND=RL
2,3,7,8-TCDD	U		0.470	1	0.00e+00	2.35e-01	4.70e-01
1,2,3,7,8-PECDD	U		0.470	1	0.00e+00	2.35e-01	4.70e-01
1,2,3,4,7,8-HXCDD	U		0.470	0.1	0.00e+00	2.35e-02	4.70e-02
1,2,3,6,7,8-HXCDD	U		0.470	0.1	0.00e+00	2.35e-02	4.70e-02
1,2,3,7,8,9-HXCDD	U		0.470	0.1	0.00e+00	2.35e-02	4.70e-02
1,2,3,4,6,7,8-HPCDD	K	0.605	0.470	0.01	6.05e-03	6.05e-03	6.05e-03
OCDD	K	3.27	0.470	0.0003	9.81e-04	9.81e-04	9.81e-04
2,3,7,8-TCDF	U		0.470	0.1	0.00e+00	2.35e-02	4.70e-02
1,2,3,7,8-PECDF	U		0.470	0.03	0.00e+00	7.05e-03	1.41e-02
2,3,4,7,8-PECDF	U		0.470	0.3	0.00e+00	7.05e-02	1.41e-01
1,2,3,4,7,8-HXCDF	U		0.470	0.1	0.00e+00	2.35e-02	4.70e-02
1,2,3,6,7,8-HXCDF	U		0.470	0.1	0.00e+00	2.35e-02	4.70e-02
1,2,3,7,8,9-HXCDF	U		0.470	0.1	0.00e+00	2.35e-02	4.70e-02
2,3,4,6,7,8-HXCDF	U		0.470	0.1	0.00e+00	2.35e-02	4.70e-02
1,2,3,4,6,7,8-HPCDF	U		0.470	0.01	0.00e+00	2.35e-03	4.70e-03
1,2,3,4,7,8,9-HPCDF	U		0.470	0.01	0.00e+00	2.35e-03	4.70e-03
OCDF	U		0.470	0.0003	0.00e+00	7.05e-05	1.41e-04
			TOTAL TEQ		0.00703	0.747	1.49

(1) Where applicable, custom lab flags may have been used on this report; U = not detected at RL.
(2) On this form, concentrations that do not meet quantification criteria are reported, flagged, and used in the TEQ calculations.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

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Report Filename: 1613_DIOXINS_1613-TEQ_L29628-19_TEQ_SJ2407926.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 1A

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-87
Sample Collection:
14-Jun-2018 11:11

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-21
Matrix:	AQUEOUS	**Sample Size:**	1.07 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 07:49:02	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_086 S: 18**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_086 S: 12
Concentration Units:	pg/L		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

COMPOUND	LAB FLAG [1]	CONCENTRATION FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO [3]	RRT [3]
2,3,7,8-TCDD	U		0.469 (Q)		
1,2,3,7,8-PECDD [4]	U		0.469 (Q)		
1,2,3,4,7,8-HXCDD	U		0.469 (Q)		
1,2,3,6,7,8-HXCDD	U		0.469 (Q)		
1,2,3,7,8,9-HXCDD	U		0.469 (Q)		
1,2,3,4,6,7,8-HPCDD	K J	1.17	0.469 (Q)	1.25	1.001
OCDD	J	8.77	0.856 (S)	0.82	1.000
2,3,7,8-TCDF	U		0.469 (Q)		
1,2,3,7,8-PECDF	U		0.469 (Q)		
2,3,4,7,8-PECDF	U		0.469 (Q)		
1,2,3,4,7,8-HXCDF	U		0.469 (Q)		
1,2,3,6,7,8-HXCDF	U		0.469 (Q)		
1,2,3,7,8,9-HXCDF	U		0.469 (Q)		
2,3,4,6,7,8-HXCDF	U		0.469 (Q)		
1,2,3,4,6,7,8-HPCDF	U		0.469 (Q)		
1,2,3,4,7,8,9-HPCDF	U		0.469 (Q)		
OCDF	J	0.974	0.522 (S)	0.95	1.002
TOTAL TETRA-DIOXINS	U		0.469 (Q)		
TOTAL PENTA-DIOXINS	U		0.469 (Q)		
TOTAL HEXA-DIOXINS	K	0.749	0.469 (Q)		
TOTAL HEPTA-DIOXINS	K	2.59	0.469 (Q)		
TOTAL TETRA-FURANS	U		0.469 (Q)		
TOTAL PENTA-FURANS	U		0.469 (Q)		
TOTAL HEXA-FURANS	U		0.469 (Q)		
TOTAL HEPTA-FURANS	K	0.522	0.469 (Q)		

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; K = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; J = concentration less than lowest calibration equivalent.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613.
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_L29628-21_Form1A_DX8M_086S18_SJ2407927.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 2

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-87
Sample Collection:
14-Jun-2018 11:11

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-21
Matrix:	AQUEOUS	**Sample Size:**	1.07 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 07:49:02	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_086 S: 18**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_086 S: 12
Concentration Units:	pg absolute		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO [3]	RRT [3]
13C-2,3,7,8-TCDD		2000	1720	85.9	0.78	1.012
13C-1,2,3,7,8-PECDD [4]		2000	1900	95.2	0.70	1.383
13C-1,2,3,4,7,8-HXCDD		2000	1990	99.7	1.31	0.987
13C-1,2,3,6,7,8-HXCDD		2000	2100	105	1.22	0.990
13C-1,2,3,4,6,7,8-HPCDD		2000	1640	82.1	0.95	1.094
13C-OCDD		4000	1840	46.0	0.85	1.178
13C-2,3,7,8-TCDF		2000	1620	81.1	0.71	0.966
13C-1,2,3,7,8-PECDF		2000	1900	95.2	1.42	1.284
13C-2,3,4,7,8-PECDF		2000	1740	86.8	1.40	1.351
13C-1,2,3,4,7,8-HXCDF		2000	2030	101	0.52	0.954
13C-1,2,3,6,7,8-HXCDF		2000	2170	109	0.54	0.958
13C-1,2,3,7,8,9-HXCDF		2000	1680	84.0	0.53	1.005
13C-2,3,4,6,7,8-HXCDF		2000	1940	96.9	0.53	0.981
13C-1,2,3,4,6,7,8-HPCDF		2000	1670	83.5	0.44	1.062
13C-1,2,3,4,7,8,9-HPCDF		2000	1420	70.9	0.45	1.104
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD		200	159	79.6		1.001

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for percent recovery (R) are specified in Section 9.3.3, Method 1613.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613. NOTE: There is no ion abundance ratio for 37Cl4-2,3,7,8-TCDD
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form2.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_L29628-21_Form2_DX8M_086S18_SJ2407927.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

CLIENT SAMPLE NO.
LDW18-SP-87

PCDD/PCDF ANALYSIS TEQ DATA REPORT

SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Sample Collection:	14-Jun-2018 11:11		
Contract No.:	4033	**Project No.**	SEEP WATER PO# 2018-0069
Matrix:	AQUEOUS	**Lab Sample I.D.:**	L29628-21
Sample Size:	1.07 L	**GC Column ID:**	DB5
Concentration Units:	pg/L	**Sample Data Filename:**	**DX8M_086 S: 18**

COMPOUND	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)	WHO 2005 MAMM TEF	TEQ ND=0	TEQ ND=1/2 RL	TEQ ND=RL
2,3,7,8-TCDD	U		0.469	1	0.00e+00	2.35e-01	4.69e-01
1,2,3,7,8-PECDD	U		0.469	1	0.00e+00	2.35e-01	4.69e-01
1,2,3,4,7,8-HXCDD	U		0.469	0.1	0.00e+00	2.35e-02	4.69e-02
1,2,3,6,7,8-HXCDD	U		0.469	0.1	0.00e+00	2.35e-02	4.69e-02
1,2,3,7,8,9-HXCDD	U		0.469	0.1	0.00e+00	2.35e-02	4.69e-02
1,2,3,4,6,7,8-HPCDD	K	1.17	0.469	0.01	1.17e-02	1.17e-02	1.17e-02
OCDD		8.77	0.856	0.0003	2.63e-03	2.63e-03	2.63e-03
2,3,7,8-TCDF	U		0.469	0.1	0.00e+00	2.35e-02	4.69e-02
1,2,3,7,8-PECDF	U		0.469	0.03	0.00e+00	7.04e-03	1.41e-02
2,3,4,7,8-PECDF	U		0.469	0.3	0.00e+00	7.04e-02	1.41e-01
1,2,3,4,7,8-HXCDF	U		0.469	0.1	0.00e+00	2.35e-02	4.69e-02
1,2,3,6,7,8-HXCDF	U		0.469	0.1	0.00e+00	2.35e-02	4.69e-02
1,2,3,7,8,9-HXCDF	U		0.469	0.1	0.00e+00	2.35e-02	4.69e-02
2,3,4,6,7,8-HXCDF	U		0.469	0.1	0.00e+00	2.35e-02	4.69e-02
1,2,3,4,6,7,8-HPCDF	U		0.469	0.01	0.00e+00	2.35e-03	4.69e-03
1,2,3,4,7,8,9-HPCDF	U		0.469	0.01	0.00e+00	2.35e-03	4.69e-03
OCDF		0.974	0.522	0.0003	2.92e-04	2.92e-04	2.92e-04
			TOTAL TEQ		0.0146	0.753	1.49

(1) Where applicable, custom lab flags may have been used on this report; U = not detected at RL.
(2) On this form, concentrations that do not meet quantification criteria are reported, flagged, and used in the TEQ calculations.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: TEQ.xsl; Created: 26-Jul-2018 11:27:55; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613-TEQ_L29628-21_TEQ_SJ2407927.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 1A

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-01
Sample Collection:
15-Jun-2018 11:33

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-22
Matrix:	AQUEOUS	**Sample Size:**	1.06 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 08:44:15	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_086 S: 19**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_086 S: 12
Concentration Units:	pg/L		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

COMPOUND	LAB FLAG [1]	CONCENTRATION FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO [3]	RRT [3]
2,3,7,8-TCDD	U		0.471 (Q)		
1,2,3,7,8-PECDD [4]	U		0.471 (Q)		
1,2,3,4,7,8-HXCDD	U		0.471 (Q)		
1,2,3,6,7,8-HXCDD	U		0.471 (Q)		
1,2,3,7,8,9-HXCDD	U		0.471 (Q)		
1,2,3,4,6,7,8-HPCDD	K J	0.666	0.471 (Q)	1.29	1.000
OCDD	B J	3.23	0.471 (Q)	0.96	1.000
2,3,7,8-TCDF	U		0.471 (Q)		
1,2,3,7,8-PECDF	U		0.471 (Q)		
2,3,4,7,8-PECDF	U		0.471 (Q)		
1,2,3,4,7,8-HXCDF	U		0.471 (Q)		
1,2,3,6,7,8-HXCDF	U		0.471 (Q)		
1,2,3,7,8,9-HXCDF	U		0.471 (Q)		
2,3,4,6,7,8-HXCDF	U		0.471 (Q)		
1,2,3,4,6,7,8-HPCDF	U		0.471 (Q)		
1,2,3,4,7,8,9-HPCDF	U		0.471 (Q)		
OCDF	U		0.479 (S)		
TOTAL TETRA-DIOXINS	K	0.686	0.471 (Q)		
TOTAL PENTA-DIOXINS	U		0.471 (Q)		
TOTAL HEXA-DIOXINS	K	1.13	0.471 (Q)		
TOTAL HEPTA-DIOXINS	K	1.89	0.471 (Q)		
TOTAL TETRA-FURANS	U		0.471 (Q)		
TOTAL PENTA-FURANS	U		0.471 (Q)		
TOTAL HEXA-FURANS	U		0.471 (Q)		
TOTAL HEPTA-FURANS	U		0.471 (Q)		

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; K = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; B = analyte found in the associated blank and concentration in sample is less than 10X the concentration in the associated blank; J = concentration less than lowest calibration equivalent.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613.
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

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Report Filename: 1613_DIOXINS_1613DB5_L29628-22_Form1A_DX8M_086S19_SJ2407928.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 2

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-01
Sample Collection:
15-Jun-2018 11:33

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-22
Matrix:	AQUEOUS	**Sample Size:**	1.06 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 08:44:15	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_086 S: 19**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_086 S: 12
Concentration Units:	pg absolute		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO [3]	RRT [3]
13C-2,3,7,8-TCDD		2000	1420	70.8	0.76	1.012
13C-1,2,3,7,8-PECDD [4]		2000	1670	83.4	0.69	1.383
13C-1,2,3,4,7,8-HXCDD		2000	1620	81.0	1.30	0.986
13C-1,2,3,6,7,8-HXCDD		2000	1710	85.6	1.15	0.990
13C-1,2,3,4,6,7,8-HPCDD		2000	1410	70.3	1.01	1.094
13C-OCDD		4000	2150	53.8	0.86	1.178
13C-2,3,7,8-TCDF		2000	1260	63.0	0.70	0.966
13C-1,2,3,7,8-PECDF		2000	1520	76.1	1.39	1.284
13C-2,3,4,7,8-PECDF		2000	1520	76.1	1.43	1.351
13C-1,2,3,4,7,8-HXCDF		2000	1580	78.9	0.51	0.954
13C-1,2,3,6,7,8-HXCDF		2000	1700	85.0	0.50	0.958
13C-1,2,3,7,8,9-HXCDF		2000	1460	73.1	0.53	1.004
13C-2,3,4,6,7,8-HXCDF		2000	1600	80.0	0.52	0.980
13C-1,2,3,4,6,7,8-HPCDF		2000	1430	71.7	0.42	1.062
13C-1,2,3,4,7,8,9-HPCDF		2000	1360	67.8	0.44	1.103
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD		200	133	66.5		1.001

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for percent recovery (R) are specified in Section 9.3.3, Method 1613.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613. NOTE: There is no ion abundance ratio for 37Cl4-2,3,7,8-TCDD
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form2.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_L29628-22_Form2_DX8M_086S19_SJ2407928.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

CLIENT SAMPLE NO.
LDW18-SP-01

PCDD/PCDF ANALYSIS TEQ DATA REPORT

SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Sample Collection:	15-Jun-2018 11:33		
Contract No.:	4033	**Project No.**	SEEP WATER PO# 2018-0069
Matrix:	AQUEOUS	**Lab Sample I.D.:**	L29628-22
Sample Size:	1.06 L	**GC Column ID:**	DB5
Concentration Units:	pg/L	**Sample Data Filename:**	**DX8M_086 S: 19**

COMPOUND	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)	WHO 2005 MAMM TEF	TEQ ND=0	TEQ ND=1/2 RL	TEQ ND=RL
2,3,7,8-TCDD	U		0.471	1	0.00e+00	2.36e-01	4.71e-01
1,2,3,7,8-PECDD	U		0.471	1	0.00e+00	2.36e-01	4.71e-01
1,2,3,4,7,8-HXCDD	U		0.471	0.1	0.00e+00	2.36e-02	4.71e-02
1,2,3,6,7,8-HXCDD	U		0.471	0.1	0.00e+00	2.36e-02	4.71e-02
1,2,3,7,8,9-HXCDD	U		0.471	0.1	0.00e+00	2.36e-02	4.71e-02
1,2,3,4,6,7,8-HPCDD	K	0.666	0.471	0.01	6.66e-03	6.66e-03	6.66e-03
OCDD		3.23	0.471	0.0003	9.69e-04	9.69e-04	9.69e-04
2,3,7,8-TCDF	U		0.471	0.1	0.00e+00	2.36e-02	4.71e-02
1,2,3,7,8-PECDF	U		0.471	0.03	0.00e+00	7.07e-03	1.41e-02
2,3,4,7,8-PECDF	U		0.471	0.3	0.00e+00	7.07e-02	1.41e-01
1,2,3,4,7,8-HXCDF	U		0.471	0.1	0.00e+00	2.36e-02	4.71e-02
1,2,3,6,7,8-HXCDF	U		0.471	0.1	0.00e+00	2.36e-02	4.71e-02
1,2,3,7,8,9-HXCDF	U		0.471	0.1	0.00e+00	2.36e-02	4.71e-02
2,3,4,6,7,8-HXCDF	U		0.471	0.1	0.00e+00	2.36e-02	4.71e-02
1,2,3,4,6,7,8-HPCDF	U		0.471	0.01	0.00e+00	2.36e-03	4.71e-03
1,2,3,4,7,8,9-HPCDF	U		0.471	0.01	0.00e+00	2.36e-03	4.71e-03
OCDF	U		0.479	0.0003	0.00e+00	7.19e-05	1.44e-04
			TOTAL TEQ		0.00763	0.750	1.49

(1) Where applicable, custom lab flags may have been used on this report; U = not detected at RL.
(2) On this form, concentrations that do not meet quantification criteria are reported, flagged, and used in the TEQ calculations.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: TEQ.xsl; Created: 26-Jul-2018 11:27:55; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613-TEQ_L29628-22_TEQ_SJ2407928.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 1A

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-66
Sample Collection:
15-Jun-2018 13:25

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-25
Matrix:	AQUEOUS	**Sample Size:**	1.07 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 09:39:28	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_086 S: 20**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_086 S: 12
Concentration Units:	pg/L		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

COMPOUND	LAB FLAG [1]	CONCENTRATION FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO [3]	RRT [3]
2,3,7,8-TCDD	U		0.466 (Q)		
1,2,3,7,8-PECDD [4]	U		0.466 (Q)		
1,2,3,4,7,8-HXCDD	U		0.466 (Q)		
1,2,3,6,7,8-HXCDD	U		0.466 (Q)		
1,2,3,7,8,9-HXCDD	U		0.466 (Q)		
1,2,3,4,6,7,8-HPCDD	K J	1.07	0.466 (Q)	0.50	1.001
OCDD	B J	6.67	0.466 (Q)	0.79	1.001
2,3,7,8-TCDF	U		0.466 (Q)		
1,2,3,7,8-PECDF	U		0.466 (Q)		
2,3,4,7,8-PECDF	U		0.466 (Q)		
1,2,3,4,7,8-HXCDF	U		0.466 (Q)		
1,2,3,6,7,8-HXCDF	U		0.466 (Q)		
1,2,3,7,8,9-HXCDF	U		0.466 (Q)		
2,3,4,6,7,8-HXCDF	U		0.466 (Q)		
1,2,3,4,6,7,8-HPCDF	U		0.466 (Q)		
1,2,3,4,7,8,9-HPCDF	U		0.466 (Q)		
OCDF	J	0.643	0.466 (Q)	0.82	1.002
TOTAL TETRA-DIOXINS	U		0.466 (Q)		
TOTAL PENTA-DIOXINS	U		0.466 (Q)		
TOTAL HEXA-DIOXINS	K	0.611	0.466 (Q)		
TOTAL HEPTA-DIOXINS	K	3.02	0.466 (Q)		
TOTAL TETRA-FURANS	U		0.466 (Q)		
TOTAL PENTA-FURANS	U		0.466 (Q)		
TOTAL HEXA-FURANS	U		0.466 (Q)		
TOTAL HEPTA-FURANS	K	0.667	0.466 (Q)		

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; K = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; B = analyte found in the associated blank and concentration in sample is less than 10X the concentration in the associated blank; J = concentration less than lowest calibration equivalent.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613.
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_L29628-25_Form1A_DX8M_086S20_SJ2407929.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 2

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-66
Sample Collection:
15-Jun-2018 13:25

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-25
Matrix:	AQUEOUS	**Sample Size:**	1.07 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 09:39:28	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_086 S: 20**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_086 S: 12
Concentration Units:	pg absolute		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO [3]	RRT [3]
13C-2,3,7,8-TCDD		2000	1570	78.4	0.77	1.013
13C-1,2,3,7,8-PECDD [4]		2000	1760	88.1	0.70	1.384
13C-1,2,3,4,7,8-HXCDD		2000	1650	82.6	1.24	0.987
13C-1,2,3,6,7,8-HXCDD		2000	1780	88.9	1.23	0.990
13C-1,2,3,4,6,7,8-HPCDD		2000	1460	73.2	1.00	1.094
13C-OCDD		4000	2300	57.6	0.89	1.178
13C-2,3,7,8-TCDF		2000	1470	73.6	0.71	0.966
13C-1,2,3,7,8-PECDF		2000	1580	78.9	1.39	1.284
13C-2,3,4,7,8-PECDF		2000	1590	79.6	1.41	1.352
13C-1,2,3,4,7,8-HXCDF		2000	1630	81.3	0.51	0.954
13C-1,2,3,6,7,8-HXCDF		2000	1690	84.6	0.51	0.958
13C-1,2,3,7,8,9-HXCDF		2000	1540	77.2	0.52	1.005
13C-2,3,4,6,7,8-HXCDF		2000	1700	85.0	0.51	0.980
13C-1,2,3,4,6,7,8-HPCDF		2000	1460	73.2	0.45	1.062
13C-1,2,3,4,7,8,9-HPCDF		2000	1430	71.4	0.44	1.104
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD		200	143	71.7		1.001

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for percent recovery (R) are specified in Section 9.3.3, Method 1613.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613. NOTE: There is no ion abundance ratio for 37Cl4-2,3,7,8-TCDD
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form2.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_L29628-25_Form2_DX8M_086S20_SJ2407929.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

CLIENT SAMPLE NO.
LDW18-SP-66

PCDD/PCDF ANALYSIS TEQ DATA REPORT

SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Sample Collection:	15-Jun-2018 13:25		
Contract No.:	4033	**Project No.**	SEEP WATER PO# 2018-0069
Matrix:	AQUEOUS	**Lab Sample I.D.:**	L29628-25
Sample Size:	1.07 L	**GC Column ID:**	DB5
Concentration Units:	pg/L	**Sample Data Filename:**	**DX8M_086 S: 20**

COMPOUND	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)	WHO 2005 MAMM TEF	TEQ ND=0	TEQ ND=1/2 RL	TEQ ND=RL
2,3,7,8-TCDD	U		0.466	1	0.00e+00	2.33e-01	4.66e-01
1,2,3,7,8-PECDD	U		0.466	1	0.00e+00	2.33e-01	4.66e-01
1,2,3,4,7,8-HXCDD	U		0.466	0.1	0.00e+00	2.33e-02	4.66e-02
1,2,3,6,7,8-HXCDD	U		0.466	0.1	0.00e+00	2.33e-02	4.66e-02
1,2,3,7,8,9-HXCDD	U		0.466	0.1	0.00e+00	2.33e-02	4.66e-02
1,2,3,4,6,7,8-HPCDD	K	1.07	0.466	0.01	1.07e-02	1.07e-02	1.07e-02
OCDD		6.67	0.466	0.0003	2.00e-03	2.00e-03	2.00e-03
2,3,7,8-TCDF	U		0.466	0.1	0.00e+00	2.33e-02	4.66e-02
1,2,3,7,8-PECDF	U		0.466	0.03	0.00e+00	6.99e-03	1.40e-02
2,3,4,7,8-PECDF	U		0.466	0.3	0.00e+00	6.99e-02	1.40e-01
1,2,3,4,7,8-HXCDF	U		0.466	0.1	0.00e+00	2.33e-02	4.66e-02
1,2,3,6,7,8-HXCDF	U		0.466	0.1	0.00e+00	2.33e-02	4.66e-02
1,2,3,7,8,9-HXCDF	U		0.466	0.1	0.00e+00	2.33e-02	4.66e-02
2,3,4,6,7,8-HXCDF	U		0.466	0.1	0.00e+00	2.33e-02	4.66e-02
1,2,3,4,6,7,8-HPCDF	U		0.466	0.01	0.00e+00	2.33e-03	4.66e-03
1,2,3,4,7,8,9-HPCDF	U		0.466	0.01	0.00e+00	2.33e-03	4.66e-03
OCDF		0.643	0.466	0.0003	1.93e-04	1.93e-04	1.93e-04
			TOTAL TEQ		0.0129	0.747	1.48

(1) Where applicable, custom lab flags may have been used on this report; U = not detected at RL.
(2) On this form, concentrations that do not meet quantification criteria are reported, flagged, and used in the TEQ calculations.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: TEQ.xsl; Created: 26-Jul-2018 11:27:55; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613-TEQ_L29628-25_TEQ_SJ2407929.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 1A

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-70
Sample Collection:
15-Jun-2018 11:13

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-26
Matrix:	AQUEOUS	**Sample Size:**	1.08 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 10:34:36	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_086 S: 21**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_086 S: 12
Concentration Units:	pg/L		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

COMPOUND	LAB FLAG [1]	CONCENTRATION FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO [3]	RRT [3]
2,3,7,8-TCDD	U		0.463 (Q)		
1,2,3,7,8-PECDD [4]	U		0.463 (Q)		
1,2,3,4,7,8-HXCDD	U		0.463 (Q)		
1,2,3,6,7,8-HXCDD	U		0.463 (Q)		
1,2,3,7,8,9-HXCDD	U		0.463 (Q)		
1,2,3,4,6,7,8-HPCDD	U		0.463 (Q)		
OCDD	B J	1.13	1.11 (S)	0.78	1.000
2,3,7,8-TCDF	U		0.463 (Q)		
1,2,3,7,8-PECDF	U		0.463 (Q)		
2,3,4,7,8-PECDF	U		0.463 (Q)		
1,2,3,4,7,8-HXCDF	U		0.463 (Q)		
1,2,3,6,7,8-HXCDF	U		0.463 (Q)		
1,2,3,7,8,9-HXCDF	U		0.463 (Q)		
2,3,4,6,7,8-HXCDF	U		0.463 (Q)		
1,2,3,4,6,7,8-HPCDF	U		0.463 (Q)		
1,2,3,4,7,8,9-HPCDF	U		0.463 (Q)		
OCDF	U		0.463 (Q)		
TOTAL TETRA-DIOXINS	K	0.501	0.463 (Q)		
TOTAL PENTA-DIOXINS	U		0.463 (Q)		
TOTAL HEXA-DIOXINS	K	0.531	0.463 (Q)		
TOTAL HEPTA-DIOXINS	U		0.463 (Q)		
TOTAL TETRA-FURANS	K	0.489	0.463 (Q)		
TOTAL PENTA-FURANS	U		0.463 (Q)		
TOTAL HEXA-FURANS	U		0.463 (Q)		
TOTAL HEPTA-FURANS	U		0.463 (Q)		

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; K = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; B = analyte found in the associated blank and concentration in sample is less than 10X the concentration in the associated blank; J = concentration less than lowest calibration equivalent.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613.
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_L29628-26_Form1A_DX8M_086S21_SJ2407930.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 2

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-70
Sample Collection:
15-Jun-2018 11:13

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-26
Matrix:	AQUEOUS	**Sample Size:**	1.08 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 10:34:36	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_086 S: 21**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_086 S: 12
Concentration Units:	pg absolute		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO [3]	RRT [3]
13C-2,3,7,8-TCDD		2000	1570	78.7	0.77	1.013
13C-1,2,3,7,8-PECDD [4]		2000	1720	85.9	0.69	1.383
13C-1,2,3,4,7,8-HXCDD		2000	1710	85.6	1.21	0.987
13C-1,2,3,6,7,8-HXCDD		2000	1860	93.0	1.22	0.990
13C-1,2,3,4,6,7,8-HPCDD		2000	1490	74.7	0.97	1.094
13C-OCDD		4000	2430	60.8	0.86	1.178
13C-2,3,7,8-TCDF		2000	1470	73.3	0.70	0.966
13C-1,2,3,7,8-PECDF		2000	1620	81.1	1.42	1.284
13C-2,3,4,7,8-PECDF		2000	1640	82.2	1.41	1.351
13C-1,2,3,4,7,8-HXCDF		2000	1650	82.7	0.52	0.954
13C-1,2,3,6,7,8-HXCDF		2000	1820	90.9	0.54	0.958
13C-1,2,3,7,8,9-HXCDF		2000	1460	73.0	0.53	1.004
13C-2,3,4,6,7,8-HXCDF		2000	1680	84.1	0.54	0.980
13C-1,2,3,4,6,7,8-HPCDF		2000	1460	72.9	0.45	1.062
13C-1,2,3,4,7,8,9-HPCDF		2000	1440	72.1	0.43	1.104
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD		200	138	69.1		1.001

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for percent recovery (R) are specified in Section 9.3.3, Method 1613.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613. NOTE: There is no ion abundance ratio for 37Cl4-2,3,7,8-TCDD
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form2.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_L29628-26_Form2_DX8M_086S21_SJ2407930.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

CLIENT SAMPLE NO.
LDW18-SP-70

PCDD/PCDF ANALYSIS TEQ DATA REPORT

SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Sample Collection:	15-Jun-2018 11:13		
Contract No.:	4033	**Project No.**	SEEP WATER PO# 2018-0069
Matrix:	AQUEOUS	**Lab Sample I.D.:**	L29628-26
Sample Size:	1.08 L	**GC Column ID:**	DB5
Concentration Units:	pg/L	**Sample Data Filename:**	**DX8M_086 S: 21**

COMPOUND	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)	WHO 2005 MAMM TEF	TEQ ND=0	TEQ ND=1/2 RL	TEQ ND=RL
2,3,7,8-TCDD	U		0.463	1	0.00e+00	2.32e-01	4.63e-01
1,2,3,7,8-PECDD	U		0.463	1	0.00e+00	2.32e-01	4.63e-01
1,2,3,4,7,8-HXCDD	U		0.463	0.1	0.00e+00	2.32e-02	4.63e-02
1,2,3,6,7,8-HXCDD	U		0.463	0.1	0.00e+00	2.32e-02	4.63e-02
1,2,3,7,8,9-HXCDD	U		0.463	0.1	0.00e+00	2.32e-02	4.63e-02
1,2,3,4,6,7,8-HPCDD	U		0.463	0.01	0.00e+00	2.32e-03	4.63e-03
OCDD		1.13	1.11	0.0003	3.39e-04	3.39e-04	3.39e-04
2,3,7,8-TCDF	U		0.463	0.1	0.00e+00	2.32e-02	4.63e-02
1,2,3,7,8-PECDF	U		0.463	0.03	0.00e+00	6.95e-03	1.39e-02
2,3,4,7,8-PECDF	U		0.463	0.3	0.00e+00	6.95e-02	1.39e-01
1,2,3,4,7,8-HXCDF	U		0.463	0.1	0.00e+00	2.32e-02	4.63e-02
1,2,3,6,7,8-HXCDF	U		0.463	0.1	0.00e+00	2.32e-02	4.63e-02
1,2,3,7,8,9-HXCDF	U		0.463	0.1	0.00e+00	2.32e-02	4.63e-02
2,3,4,6,7,8-HXCDF	U		0.463	0.1	0.00e+00	2.32e-02	4.63e-02
1,2,3,4,6,7,8-HPCDF	U		0.463	0.01	0.00e+00	2.32e-03	4.63e-03
1,2,3,4,7,8,9-HPCDF	U		0.463	0.01	0.00e+00	2.32e-03	4.63e-03
OCDF	U		0.463	0.0003	0.00e+00	6.95e-05	1.39e-04
			TOTAL TEQ		0.000339	0.732	1.46

(1) Where applicable, custom lab flags may have been used on this report; U = not detected at RL.
(2) On this form, concentrations that do not meet quantification criteria are reported, flagged, and used in the TEQ calculations.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: TEQ.xsl; Created: 26-Jul-2018 11:27:55; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613-TEQ_L29628-26_TEQ_SJ2407930.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 1A

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-86
Sample Collection:
15-Jun-2018 12:19

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-28 i
Matrix:	AQUEOUS	**Sample Size:**	1.06 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	23-Jul-2018 **Time:** 19:57:17	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_087 S: 5**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_087 S: 2
Concentration Units:	pg/L		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

COMPOUND	LAB FLAG [1]	CONCENTRATION FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO [3]	RRT [3]
2,3,7,8-TCDD	U		0.471 (Q)		
1,2,3,7,8-PECDD [4]	U		0.471 (Q)		
1,2,3,4,7,8-HXCDD	U		0.471 (Q)		
1,2,3,6,7,8-HXCDD	U		0.471 (Q)		
1,2,3,7,8,9-HXCDD	U		0.471 (Q)		
1,2,3,4,6,7,8-HPCDD	K J	0.706	0.471 (Q)	0.75	1.000
OCDD	B J	4.39	0.471 (Q)	0.91	1.000
2,3,7,8-TCDF	U		0.471 (Q)		
1,2,3,7,8-PECDF	U		0.471 (Q)		
2,3,4,7,8-PECDF	U		0.471 (Q)		
1,2,3,4,7,8-HXCDF	U		0.471 (Q)		
1,2,3,6,7,8-HXCDF	U		0.471 (Q)		
1,2,3,7,8,9-HXCDF	K J	0.475	0.471 (Q)	0.48	1.000
2,3,4,6,7,8-HXCDF	U		0.471 (Q)		
1,2,3,4,6,7,8-HPCDF	J	0.579	0.471 (Q)	1.14	1.000
1,2,3,4,7,8,9-HPCDF	U		0.471 (Q)		
OCDF	K J	0.544	0.471 (Q)	1.41	1.002
TOTAL TETRA-DIOXINS	K	0.524	0.471 (Q)		
TOTAL PENTA-DIOXINS	U		0.471 (Q)		
TOTAL HEXA-DIOXINS	K	1.06	0.471 (Q)		
TOTAL HEPTA-DIOXINS	K	1.76	0.471 (Q)		
TOTAL TETRA-FURANS		0.532	0.471 (Q)		
TOTAL PENTA-FURANS	U		0.471 (Q)		
TOTAL HEXA-FURANS	K	0.475	0.471 (Q)		
TOTAL HEPTA-FURANS		0.579	0.471 (Q)		

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; K = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; B = analyte found in the associated blank and concentration in sample is less than 10X the concentration in the associated blank; J = concentration less than lowest calibration equivalent.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613.
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_L29628-28_Form1A_DX8M_087S5_SJ2408584.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 2

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-86
Sample Collection:
15-Jun-2018 12:19

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-28 i
Matrix:	AQUEOUS	**Sample Size:**	1.06 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	23-Jul-2018 **Time:** 19:57:17	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_087 S: 5**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_087 S: 2
Concentration Units:	pg absolute		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO [3]	RRT [3]
13C-2,3,7,8-TCDD		2000	1580	78.9	0.76	1.013
13C-1,2,3,7,8-PECDD [4]		2000	1700	84.8	0.69	1.384
13C-1,2,3,4,7,8-HXCDD		2000	1610	80.5	1.30	0.987
13C-1,2,3,6,7,8-HXCDD		2000	1890	94.3	1.26	0.990
13C-1,2,3,4,6,7,8-HPCDD		2000	1400	70.2	0.94	1.094
13C-OCDD		4000	2390	59.8	0.91	1.178
13C-2,3,7,8-TCDF		2000	1460	73.2	0.72	0.966
13C-1,2,3,7,8-PECDF		2000	1520	75.8	1.42	1.285
13C-2,3,4,7,8-PECDF		2000	1530	76.6	1.40	1.352
13C-1,2,3,4,7,8-HXCDF		2000	1560	77.9	0.51	0.954
13C-1,2,3,6,7,8-HXCDF		2000	1710	85.3	0.52	0.958
13C-1,2,3,7,8,9-HXCDF		2000	1500	75.0	0.51	1.005
13C-2,3,4,6,7,8-HXCDF		2000	1610	80.3	0.55	0.980
13C-1,2,3,4,6,7,8-HPCDF		2000	1420	70.9	0.44	1.062
13C-1,2,3,4,7,8,9-HPCDF		2000	1350	67.5	0.45	1.104
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD		200	145	72.6		1.001

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for percent recovery (R) are specified in Section 9.3.3, Method 1613.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613. NOTE: There is no ion abundance ratio for 37Cl4-2,3,7,8-TCDD
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form2.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_L29628-28_Form2_DX8M_087S5_SJ2408584.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

CLIENT SAMPLE NO.
LDW18-SP-86

PCDD/PCDF ANALYSIS TEQ DATA REPORT

SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Sample Collection:	15-Jun-2018 12:19		
Contract No.:	4033	**Project No.**	SEEP WATER PO# 2018-0069
Matrix:	AQUEOUS	**Lab Sample I.D.:**	L29628-28 i
Sample Size:	1.06 L	**GC Column ID:**	DB5
Concentration Units:	pg/L	**Sample Data Filename:**	**DX8M_087 S: 5**

COMPOUND	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)	WHO 2005 MAMM TEF	TEQ ND=0	TEQ ND=1/2 RL	TEQ ND=RL
2,3,7,8-TCDD	U		0.471	1	0.00e+00	2.36e-01	4.71e-01
1,2,3,7,8-PECDD	U		0.471	1	0.00e+00	2.36e-01	4.71e-01
1,2,3,4,7,8-HXCDD	U		0.471	0.1	0.00e+00	2.36e-02	4.71e-02
1,2,3,6,7,8-HXCDD	U		0.471	0.1	0.00e+00	2.36e-02	4.71e-02
1,2,3,7,8,9-HXCDD	U		0.471	0.1	0.00e+00	2.36e-02	4.71e-02
1,2,3,4,6,7,8-HPCDD	K	0.706	0.471	0.01	7.06e-03	7.06e-03	7.06e-03
OCDD		4.39	0.471	0.0003	1.32e-03	1.32e-03	1.32e-03
2,3,7,8-TCDF	U		0.471	0.1	0.00e+00	2.36e-02	4.71e-02
1,2,3,7,8-PECDF	U		0.471	0.03	0.00e+00	7.07e-03	1.41e-02
2,3,4,7,8-PECDF	U		0.471	0.3	0.00e+00	7.07e-02	1.41e-01
1,2,3,4,7,8-HXCDF	U		0.471	0.1	0.00e+00	2.36e-02	4.71e-02
1,2,3,6,7,8-HXCDF	U		0.471	0.1	0.00e+00	2.36e-02	4.71e-02
1,2,3,7,8,9-HXCDF	K	0.475	0.471	0.1	4.75e-02	4.75e-02	4.75e-02
2,3,4,6,7,8-HXCDF	U		0.471	0.1	0.00e+00	2.36e-02	4.71e-02
1,2,3,4,6,7,8-HPCDF		0.579	0.471	0.01	5.79e-03	5.79e-03	5.79e-03
1,2,3,4,7,8,9-HPCDF	U		0.471	0.01	0.00e+00	2.36e-03	4.71e-03
OCDF	K	0.544	0.471	0.0003	1.63e-04	1.63e-04	1.63e-04
			TOTAL TEQ		0.0618	0.778	1.49

(1) Where applicable, custom lab flags may have been used on this report; U = not detected at RL.
(2) On this form, concentrations that do not meet quantification criteria are reported, flagged, and used in the TEQ calculations.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: TEQ.xsl; Created: 26-Jul-2018 11:27:55; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613-TEQ_L29628-28_TEQ_SJ2408584.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 1A

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-88
Sample Collection:
15-Jun-2018 10:52

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-29
Matrix:	AQUEOUS	**Sample Size:**	1.07 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 12:24:58	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_086 S: 23**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_086 S: 12
Concentration Units:	pg/L		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

COMPOUND	LAB FLAG [1]	CONCENTRATION FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO [3]	RRT [3]
2,3,7,8-TCDD	K J	0.554	0.467 (Q)	0.06	1.001
1,2,3,7,8-PECDD [4]	U		0.467 (Q)		
1,2,3,4,7,8-HXCDD	U		0.467 (Q)		
1,2,3,6,7,8-HXCDD	U		0.467 (Q)		
1,2,3,7,8,9-HXCDD	U		0.467 (Q)		
1,2,3,4,6,7,8-HPCDD	K J	0.538	0.467 (Q)	0.79	1.001
OCDD	B J	2.50	0.563 (S)	1.02	1.000
2,3,7,8-TCDF	U		0.467 (Q)		
1,2,3,7,8-PECDF	U		0.467 (Q)		
2,3,4,7,8-PECDF	U		0.467 (Q)		
1,2,3,4,7,8-HXCDF	U		0.467 (Q)		
1,2,3,6,7,8-HXCDF	U		0.467 (Q)		
1,2,3,7,8,9-HXCDF	U		0.467 (Q)		
2,3,4,6,7,8-HXCDF	U		0.467 (Q)		
1,2,3,4,6,7,8-HPCDF	U		0.467 (Q)		
1,2,3,4,7,8,9-HPCDF	U		0.467 (Q)		
OCDF	U		0.467 (Q)		
TOTAL TETRA-DIOXINS	K	1.08	0.467 (Q)		
TOTAL PENTA-DIOXINS	U		0.467 (Q)		
TOTAL HEXA-DIOXINS	K	0.698	0.467 (Q)		
TOTAL HEPTA-DIOXINS	K	1.34	0.467 (Q)		
TOTAL TETRA-FURANS	U		0.467 (Q)		
TOTAL PENTA-FURANS	U		0.467 (Q)		
TOTAL HEXA-FURANS	U		0.467 (Q)		
TOTAL HEPTA-FURANS	U		0.467 (Q)		

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; K = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; B = analyte found in the associated blank and concentration in sample is less than 10X the concentration in the associated blank; J = concentration less than lowest calibration equivalent.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613.
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_L29628-29_Form1A_DX8M_086S23_SJ2407932.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 2

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
LDW18-SP-88
Sample Collection:
15-Jun-2018 10:52

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-29
Matrix:	AQUEOUS	**Sample Size:**	1.07 L
Sample Receipt Date:	03-Jul-2018	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 12:24:58	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_086 S: 23**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_086 S: 12
Concentration Units:	pg absolute		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO [3]	RRT [3]
13C-2,3,7,8-TCDD		2000	1630	81.4	0.80	1.012
13C-1,2,3,7,8-PECDD [4]		2000	1750	87.5	0.70	1.383
13C-1,2,3,4,7,8-HXCDD		2000	1700	84.9	1.27	0.987
13C-1,2,3,6,7,8-HXCDD		2000	1840	92.1	1.20	0.990
13C-1,2,3,4,6,7,8-HPCDD		2000	1490	74.6	1.02	1.094
13C-OCDD		4000	2390	59.7	0.90	1.178
13C-2,3,7,8-TCDF		2000	1560	78.1	0.70	0.966
13C-1,2,3,7,8-PECDF		2000	1650	82.7	1.40	1.284
13C-2,3,4,7,8-PECDF		2000	1640	81.8	1.39	1.351
13C-1,2,3,4,7,8-HXCDF		2000	1710	85.7	0.53	0.954
13C-1,2,3,6,7,8-HXCDF		2000	1870	93.7	0.52	0.958
13C-1,2,3,7,8,9-HXCDF		2000	1620	81.2	0.52	1.005
13C-2,3,4,6,7,8-HXCDF		2000	1810	90.6	0.52	0.981
13C-1,2,3,4,6,7,8-HPCDF		2000	1500	75.1	0.45	1.062
13C-1,2,3,4,7,8,9-HPCDF		2000	1400	69.8	0.43	1.104
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD		200	154	76.9		1.001

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for percent recovery (R) are specified in Section 9.3.3, Method 1613.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613. NOTE: There is no ion abundance ratio for 37Cl4-2,3,7,8-TCDD
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form2.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_L29628-29_Form2_DX8M_086S23_SJ2407932.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

CLIENT SAMPLE NO.
LDW18-SP-88

PCDD/PCDF ANALYSIS TEQ DATA REPORT

SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Sample Collection:	15-Jun-2018 10:52		
Contract No.:	4033	**Project No.**	SEEP WATER PO# 2018-0069
Matrix:	AQUEOUS	**Lab Sample I.D.:**	L29628-29
Sample Size:	1.07 L	**GC Column ID:**	DB5
Concentration Units:	pg/L	**Sample Data Filename:**	**DX8M_086 S: 23**

COMPOUND	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)	WHO 2005 MAMM TEF	TEQ ND=0	TEQ ND=1/2 RL	TEQ ND=RL
2,3,7,8-TCDD	K	0.554	0.467	1	5.54e-01	5.54e-01	5.54e-01
1,2,3,7,8-PECDD	U		0.467	1	0.00e+00	2.34e-01	4.67e-01
1,2,3,4,7,8-HXCDD	U		0.467	0.1	0.00e+00	2.34e-02	4.67e-02
1,2,3,6,7,8-HXCDD	U		0.467	0.1	0.00e+00	2.34e-02	4.67e-02
1,2,3,7,8,9-HXCDD	U		0.467	0.1	0.00e+00	2.34e-02	4.67e-02
1,2,3,4,6,7,8-HPCDD	K	0.538	0.467	0.01	5.38e-03	5.38e-03	5.38e-03
OCDD		2.50	0.563	0.0003	7.50e-04	7.50e-04	7.50e-04
2,3,7,8-TCDF	U		0.467	0.1	0.00e+00	2.34e-02	4.67e-02
1,2,3,7,8-PECDF	U		0.467	0.03	0.00e+00	7.01e-03	1.40e-02
2,3,4,7,8-PECDF	U		0.467	0.3	0.00e+00	7.01e-02	1.40e-01
1,2,3,4,7,8-HXCDF	U		0.467	0.1	0.00e+00	2.34e-02	4.67e-02
1,2,3,6,7,8-HXCDF	U		0.467	0.1	0.00e+00	2.34e-02	4.67e-02
1,2,3,7,8,9-HXCDF	U		0.467	0.1	0.00e+00	2.34e-02	4.67e-02
2,3,4,6,7,8-HXCDF	U		0.467	0.1	0.00e+00	2.34e-02	4.67e-02
1,2,3,4,6,7,8-HPCDF	U		0.467	0.01	0.00e+00	2.34e-03	4.67e-03
1,2,3,4,7,8,9-HPCDF	U		0.467	0.01	0.00e+00	2.34e-03	4.67e-03
OCDF	U		0.467	0.0003	0.00e+00	7.01e-05	1.40e-04
			TOTAL TEQ		0.560	1.06	1.56

(1) Where applicable, custom lab flags may have been used on this report; U = not detected at RL.
(2) On this form, concentrations that do not meet quantification criteria are reported, flagged, and used in the TEQ calculations.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

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Report Filename: 1613_DIOXINS_1613-TEQ_L29628-29_TEQ_SJ2407932.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 1A

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
Lab Blank
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	N/A		
Contract No.:	4033	**Lab Sample I.D.:**	WG64578-101
Matrix:	AQUEOUS	**Sample Size:**	1.00 L
Sample Receipt Date:	N/A	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 20:40:09	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_086 S: 6**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_086 S: 1
Concentration Units:	pg/L		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

COMPOUND	LAB FLAG [1]	CONCENTRATION FOUND	REPORTING LIMIT (RL)[2]	ION ABUND. RATIO [3]	RRT [3]
2,3,7,8-TCDD	U		0.500 (Q)		
1,2,3,7,8-PECDD [4]	U		0.500 (Q)		
1,2,3,4,7,8-HXCDD	U		0.500 (Q)		
1,2,3,6,7,8-HXCDD	U		0.500 (Q)		
1,2,3,7,8,9-HXCDD	U		0.500 (Q)		
1,2,3,4,6,7,8-HPCDD	U		0.735 (S)		
OCDD	J	0.915	0.500 (Q)	0.87	1.000
2,3,7,8-TCDF	U		0.500 (Q)		
1,2,3,7,8-PECDF	U		0.500 (Q)		
2,3,4,7,8-PECDF	U		0.500 (Q)		
1,2,3,4,7,8-HXCDF	U		0.500 (Q)		
1,2,3,6,7,8-HXCDF	U		0.500 (Q)		
1,2,3,7,8,9-HXCDF	U		0.500 (Q)		
2,3,4,6,7,8-HXCDF	U		0.500 (Q)		
1,2,3,4,6,7,8-HPCDF	U		0.500 (Q)		
1,2,3,4,7,8,9-HPCDF	U		0.500 (Q)		
OCDF	K J	0.582	0.500 (Q)	0.12	1.002
TOTAL TETRA-DIOXINS	U		0.500 (Q)		
TOTAL PENTA-DIOXINS	U		0.500 (Q)		
TOTAL HEXA-DIOXINS	K	0.602	0.500 (Q)		
TOTAL HEPTA-DIOXINS	U		0.735 (S)		
TOTAL TETRA-FURANS	U		0.500 (Q)		
TOTAL PENTA-FURANS	U		0.500 (Q)		
TOTAL HEXA-FURANS	U		0.500 (Q)		
TOTAL HEPTA-FURANS	U		0.500 (Q)		

(1) Where applicable, custom lab flags have been used on this report; U = not detected at RL; K = peak detected but did not meet quantification criteria, result reported represents the estimated maximum possible concentration; J = concentration less than lowest calibration equivalent.
(2) Reporting Limit (Code): S = sample detection limit; M = method detection limit; L = lowest calibration level equivalent; Q = minimum reporting level.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613.
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_WG64578-101_Form1A_DX8M_086S6_SJ2407901.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 2

PCDD/PCDF ANALYSIS REPORT

CLIENT SAMPLE NO.
Lab Blank
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	N/A		
Contract No.:	4033	**Lab Sample I.D.:**	WG64578-101
Matrix:	AQUEOUS	**Sample Size:**	1.00 L
Sample Receipt Date:	N/A	**Initial Calibration Date:**	04-Jun-2018
Extraction Date:	13-Jul-2018	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 20:40:09	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Sample Data Filename:**	**DX8M_086 S: 6**
Injection Volume (uL):	1.0	**Blank Data Filename:**	DX8M_086 S: 6
Dilution Factor:	N/A	**Cal. Ver. Data Filename:**	DX8M_086 S: 1
Concentration Units:	pg absolute		

This page is part of a total report that contains information necessary for accreditation compliance.
Results are compliant with NELAP accreditation described in the total report. Sample results relate only to the sample tested.

LABELED COMPOUND	LAB FLAG [1]	SPIKE CONC.	CONC. FOUND	R(%) [2]	ION ABUND. RATIO [3]	RRT [3]
13C-2,3,7,8-TCDD		2000	1550	77.4	0.75	1.013
13C-1,2,3,7,8-PECDD [4]		2000	1550	77.6	0.66	1.383
13C-1,2,3,4,7,8-HXCDD		2000	1580	79.2	1.23	0.987
13C-1,2,3,6,7,8-HXCDD		2000	1770	88.7	1.24	0.990
13C-1,2,3,4,6,7,8-HPCDD		2000	1370	68.3	1.03	1.094
13C-OCDD		4000	2160	53.9	0.91	1.178
13C-2,3,7,8-TCDF		2000	1380	69.0	0.71	0.966
13C-1,2,3,7,8-PECDF		2000	1420	71.2	1.44	1.284
13C-2,3,4,7,8-PECDF		2000	1440	72.2	1.44	1.352
13C-1,2,3,4,7,8-HXCDF		2000	1580	79.2	0.51	0.954
13C-1,2,3,6,7,8-HXCDF		2000	1800	89.9	0.52	0.958
13C-1,2,3,7,8,9-HXCDF		2000	1540	77.2	0.51	1.005
13C-2,3,4,6,7,8-HXCDF		2000	1720	85.8	0.51	0.980
13C-1,2,3,4,6,7,8-HPCDF		2000	1430	71.3	0.44	1.062
13C-1,2,3,4,7,8,9-HPCDF		2000	1320	65.9	0.46	1.104
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD		200	142	70.9		1.001

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for percent recovery (R) are specified in Section 9.3.3, Method 1613.
(3) Contract-required limits for RRTs and ion abundance ratios are specified in Tables 2 and 9, respectively, Method 1613. NOTE: There is no ion abundance ratio for 37Cl4-2,3,7,8-TCDD
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form2.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_WG64578-101_Form2_DX8M_086S6_SJ2407901.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

CLIENT SAMPLE NO.
Lab Blank

PCDD/PCDF ANALYSIS TEQ DATA REPORT

SGS AXYS ANALYTICAL SERVICES

2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Sample Collection:	N/A		
Contract No.:	4033	**Project No.**	N/A
Matrix:	AQUEOUS	**Lab Sample I.D.:**	WG64578-101
Sample Size:	1.00 L	**GC Column ID:**	DB5
Concentration Units:	pg/L	**Sample Data Filename:**	**DX8M_086 S: 6**

COMPOUND	LAB FLAG [1]	CONC. FOUND	REPORTING LIMIT (RL)	WHO 2005 MAMM TEF	TEQ ND=0	TEQ ND=1/2 RL	TEQ ND=RL
2,3,7,8-TCDD	U		0.500	1	0.00e+00	2.50e-01	5.00e-01
1,2,3,7,8-PECDD	U		0.500	1	0.00e+00	2.50e-01	5.00e-01
1,2,3,4,7,8-HXCDD	U		0.500	0.1	0.00e+00	2.50e-02	5.00e-02
1,2,3,6,7,8-HXCDD	U		0.500	0.1	0.00e+00	2.50e-02	5.00e-02
1,2,3,7,8,9-HXCDD	U		0.500	0.1	0.00e+00	2.50e-02	5.00e-02
1,2,3,4,6,7,8-HPCDD	U		0.735	0.01	0.00e+00	3.68e-03	7.35e-03
OCDD		0.915	0.500	0.0003	2.75e-04	2.75e-04	2.75e-04
2,3,7,8-TCDF	U		0.500	0.1	0.00e+00	2.50e-02	5.00e-02
1,2,3,7,8-PECDF	U		0.500	0.03	0.00e+00	7.50e-03	1.50e-02
2,3,4,7,8-PECDF	U		0.500	0.3	0.00e+00	7.50e-02	1.50e-01
1,2,3,4,7,8-HXCDF	U		0.500	0.1	0.00e+00	2.50e-02	5.00e-02
1,2,3,6,7,8-HXCDF	U		0.500	0.1	0.00e+00	2.50e-02	5.00e-02
1,2,3,7,8,9-HXCDF	U		0.500	0.1	0.00e+00	2.50e-02	5.00e-02
2,3,4,6,7,8-HXCDF	U		0.500	0.1	0.00e+00	2.50e-02	5.00e-02
1,2,3,4,6,7,8-HPCDF	U		0.500	0.01	0.00e+00	2.50e-03	5.00e-03
1,2,3,4,7,8,9-HPCDF	U		0.500	0.01	0.00e+00	2.50e-03	5.00e-03
OCDF	K	0.582	0.500	0.0003	1.75e-04	1.75e-04	1.75e-04
			TOTAL TEQ		0.000449	0.792	1.58

(1) Where applicable, custom lab flags may have been used on this report; U = not detected at RL.
(2) On this form, concentrations that do not meet quantification criteria are reported, flagged, and used in the TEQ calculations.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: TEQ.xsl; Created: 26-Jul-2018 11:27:55; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613-TEQ_WG64578-101_TEQ_SJ2407901.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 8A

PCDD/PCDF ONGOING PRECISION AND RECOVERY (OPR)

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4033	**OPR Data Filename:**	**DX8M_086 S: 2**
Matrix:	AQUEOUS	**Lab Sample I.D.:**	WG64578-102 (A)
Extraction Date:	13-Jul-2018	**Analysis Date:**	20-Jul-2018 **Time:** 16:56:28

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT, BASED ON A 20 uL EXTRACT VOLUME.

COMPOUND	LAB FLAG [1]	ION ABUND. RATIO [2]	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS [3] (ng/mL)	% RECOVERY
2,3,7,8-TCDD		0.75	10.0	10.8	6.70 - 15.8	108
1,2,3,7,8-PECDD [4]		0.62	50.0	61.2	35.0 - 71.0	122
1,2,3,4,7,8-HXCDD		1.27	50.0	58.5	35.0 - 82.0	117
1,2,3,6,7,8-HXCDD		1.23	50.0	55.6	38.0 - 67.0	111
1,2,3,7,8,9-HXCDD		1.23	50.0	55.5	32.0 - 81.0	111
1,2,3,4,6,7,8-HPCDD		1.09	50.0	58.4	35.0 - 70.0	117
OCDD		0.86	100	114	78.0 - 144	114
2,3,7,8-TCDF		0.72	10.0	11.4	7.50 - 15.8	114
1,2,3,7,8-PECDF		1.50	50.0	55.1	40.0 - 67.0	110
2,3,4,7,8-PECDF		1.51	50.0	54.5	34.0 - 80.0	109
1,2,3,4,7,8-HXCDF		1.22	50.0	60.0	36.0 - 67.0	120
1,2,3,6,7,8-HXCDF		1.19	50.0	56.9	42.0 - 65.0	114
1,2,3,7,8,9-HXCDF		1.26	50.0	57.6	39.0 - 65.0	115
2,3,4,6,7,8-HXCDF		1.23	50.0	57.3	35.0 - 78.0	115
1,2,3,4,6,7,8-HPCDF		1.02	50.0	57.5	41.0 - 61.0	115
1,2,3,4,7,8,9-HPCDF		1.03	50.0	58.5	39.0 - 69.0	117
OCDF		0.85	100	120	63.0 - 170	120

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required Ion Abundance Ratios are specified in Table 9, Method 1613.
(3) Contract-required concentration range as determined from the percent of the test concentration in Table 6, Method 1613, under OPR.
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: Form8A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_WG64578-102_Form8A_SJ2407895.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 8B

PCDD/PCDF ONGOING PRECISION AND RECOVERY (OPR)

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4033	**OPR Data Filename:**	**DX8M_086 S: 2**
Matrix:	AQUEOUS	**Lab Sample I.D.:**	WG64578-102 (A)
Extraction Date:	13-Jul-2018	**Analysis Date:**	20-Jul-2018 **Time:** 16:56:28

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT, BASED ON A 20 uL EXTRACT VOLUME.

LABELED COMPOUND	LAB FLAG [1]	ION ABUND. RATIO [2]	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS [3] (ng/mL)	% RECOVERY
13C-2,3,7,8-TCDD		0.76	100	74.3	20.0-175	74.3
13C-1,2,3,7,8-PECDD [4]		0.70	100	75.6	21.0-227	75.6
13C-1,2,3,4,7,8-HXCDD		1.26	100	67.7	21.0-193	67.7
13C-1,2,3,6,7,8-HXCDD		1.24	100	83.3	25.0-163	83.3
13C-1,2,3,4,6,7,8-HPCDD		0.95	100	55.0	26.0-166	55.0
13C-OCDD		0.86	200	82.8	26.0-397	41.4
13C-2,3,7,8-TCDF		0.69	100	68.2	22.0-152	68.2
13C-1,2,3,7,8-PECDF		1.43	100	70.7	21.0-192	70.7
13C-2,3,4,7,8-PECDF		1.41	100	73.0	13.0-328	73.0
13C-1,2,3,4,7,8-HXCDF		0.52	100	68.0	19.0-202	68.0
13C-1,2,3,6,7,8-HXCDF		0.53	100	78.8	21.0-159	78.8
13C-1,2,3,7,8,9-HXCDF		0.52	100	66.3	17.0-205	66.3
13C-2,3,4,6,7,8-HXCDF		0.52	100	74.5	22.0-176	74.5
13C-1,2,3,4,6,7,8-HPCDF		0.46	100	60.5	21.0-158	60.5
13C-1,2,3,4,7,8,9-HPCDF		0.45	100	52.4	20.0-186	52.4
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD			10.0	7.83	3.10-19.1	78.3

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required Ion Abundance Ratios are specified in Table 9, Method 1613.
(3) Contract-required concentration limits for OPR as specified in Table 6, Method 1613. Labeled compound concentrations limits are based on required percent recovery (Section 15.5, Method 1613).
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: Form8B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_WG64578-102_Form8B_SJ2407895.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 8A

PCDD/PCDF ONGOING PRECISION AND RECOVERY (OPR)

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4033	**OPR Data Filename:**	**DX8M_086 S: 3**
Matrix:	AQUEOUS	**Lab Sample I.D.:**	WG64578-103 (DUP WG64578-102)
Extraction Date:	13-Jul-2018	**Analysis Date:**	20-Jul-2018 **Time:** 17:57:26

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT, BASED ON A 20 uL EXTRACT VOLUME.

COMPOUND	LAB FLAG [1]	ION ABUND. RATIO [2]	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS [3] (ng/mL)	% RECOVERY
2,3,7,8-TCDD		0.82	10.0	10.0	6.70 - 15.8	100
1,2,3,7,8-PECDD [4]		0.64	50.0	58.0	35.0 - 71.0	116
1,2,3,4,7,8-HXCDD		1.22	50.0	50.5	35.0 - 82.0	101
1,2,3,6,7,8-HXCDD		1.23	50.0	51.9	38.0 - 67.0	104
1,2,3,7,8,9-HXCDD		1.20	50.0	48.8	32.0 - 81.0	97.7
1,2,3,4,6,7,8-HPCDD		1.07	50.0	55.0	35.0 - 70.0	110
OCDD		0.88	100	106	78.0 - 144	106
2,3,7,8-TCDF		0.71	10.0	10.7	7.50 - 15.8	107
1,2,3,7,8-PECDF		1.48	50.0	48.5	40.0 - 67.0	96.9
2,3,4,7,8-PECDF		1.49	50.0	50.1	34.0 - 80.0	100
1,2,3,4,7,8-HXCDF		1.23	50.0	52.3	36.0 - 67.0	105
1,2,3,6,7,8-HXCDF		1.23	50.0	52.4	42.0 - 65.0	105
1,2,3,7,8,9-HXCDF		1.24	50.0	54.8	39.0 - 65.0	110
2,3,4,6,7,8-HXCDF		1.21	50.0	51.9	35.0 - 78.0	104
1,2,3,4,6,7,8-HPCDF		1.02	50.0	56.5	41.0 - 61.0	113
1,2,3,4,7,8,9-HPCDF		0.98	50.0	53.3	39.0 - 69.0	107
OCDF		0.84	100	110	63.0 - 170	110

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required Ion Abundance Ratios are specified in Table 9, Method 1613.
(3) Contract-required concentration range as determined from the percent of the test concentration in Table 6, Method 1613, under OPR.
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: Form8A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_WG64578-103_Form8A_SJ2407897.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 8B

PCDD/PCDF ONGOING PRECISION AND RECOVERY (OPR)

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4033 **OPR Data Filename:** **DX8M_086 S: 3**

Matrix: AQUEOUS **Lab Sample I.D.:** WG64578-103 (DUP WG64578-102)

Extraction Date: 13-Jul-2018 **Analysis Date:** 20-Jul-2018 **Time:** 17:57:26

ALL CONCENTRATIONS REPORTED ON THIS FORM ARE CONCENTRATIONS IN EXTRACT, BASED ON A 20 uL EXTRACT VOLUME.

LABELED COMPOUND	LAB FLAG [1]	ION ABUND. RATIO [2]	SPIKE CONC. (ng/mL)	CONC. FOUND (ng/mL)	OPR CONC. LIMITS [3] (ng/mL)	% RECOVERY
13C-2,3,7,8-TCDD		0.75	100	85.0	20.0-175	85.0
13C-1,2,3,7,8-PECDD [4]		0.69	100	87.2	21.0-227	87.2
13C-1,2,3,4,7,8-HXCDD		1.24	100	82.4	21.0-193	82.4
13C-1,2,3,6,7,8-HXCDD		1.27	100	94.9	25.0-163	94.9
13C-1,2,3,4,6,7,8-HPCDD		1.00	100	71.7	26.0-166	71.7
13C-OCDD		0.86	200	112	26.0-397	56.1
13C-2,3,7,8-TCDF		0.71	100	78.1	22.0-152	78.1
13C-1,2,3,7,8-PECDF		1.42	100	84.3	21.0-192	84.3
13C-2,3,4,7,8-PECDF		1.42	100	84.8	13.0-328	84.8
13C-1,2,3,4,7,8-HXCDF		0.52	100	82.2	19.0-202	82.2
13C-1,2,3,6,7,8-HXCDF		0.52	100	90.1	21.0-159	90.1
13C-1,2,3,7,8,9-HXCDF		0.49	100	78.9	17.0-205	78.9
13C-2,3,4,6,7,8-HXCDF		0.53	100	89.6	22.0-176	89.6
13C-1,2,3,4,6,7,8-HPCDF		0.43	100	72.0	21.0-158	72.0
13C-1,2,3,4,7,8,9-HPCDF		0.45	100	68.6	20.0-186	68.6
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD			10.0	7.70	3.10-19.1	77.0

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required Ion Abundance Ratios are specified in Table 9, Method 1613.
(3) Contract-required concentration limits for OPR as specified in Table 6, Method 1613. Labeled compound concentrations limits are based on required percent recovery (Section 15.5, Method 1613).
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: Form8B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_1613DB5_WG64578-103_Form8B_SJ2407897.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

PCDD/PCDF ANALYSIS REPORT
RELATIVE PERCENT DIFFERENCE

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.: 4033
Client ID: Spiked Matrix **Concentration Units:** ng/mL

COMPOUND	WG64578-102 (A) LAB FLAG [1]	WG64578-102 (A) CONC. FOUND	WG64578-103 LAB FLAG [1]	WG64578-103 CONC. FOUND	MEAN	RELATIVE PERCENT DIFFERENCE
2,3,7,8-TCDD		10.8		10.0	10.4	7.22
1,2,3,7,8-PECDD		61.2		58.0	59.6	5.32
1,2,3,4,7,8-HXCDD		58.5		50.5	54.5	14.7
1,2,3,6,7,8-HXCDD		55.6		51.9	53.8	6.87
1,2,3,7,8,9-HXCDD		55.5		48.8	52.1	12.7
1,2,3,4,6,7,8-HPCDD		58.4		55.0	56.7	6.09
OCDD		114		106	110	7.56
2,3,7,8-TCDF		11.4		10.7	11.1	6.87
1,2,3,7,8-PECDF		55.1		48.5	51.8	12.8
2,3,4,7,8-PECDF		54.5		50.1	52.3	8.54
1,2,3,4,7,8-HXCDF		60.0		52.3	56.1	13.8
1,2,3,6,7,8-HXCDF		56.9		52.4	54.6	8.13
1,2,3,7,8,9-HXCDF		57.6		54.8	56.2	4.99
2,3,4,6,7,8-HXCDF		57.3		51.9	54.6	9.83
1,2,3,4,6,7,8-HPCDF		57.5		56.5	57.0	1.78
1,2,3,4,7,8,9-HPCDF		58.5		53.3	55.9	9.26
OCDF		120		110	115	8.77

(1) Where applicable, custom lab flags have been used on this report.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.
Signed: _____Kristen Bowes_____

These pages are part of a larger report that may contain information necessary for full data evaluation. Results reported relate only to the sample tested.

For Axys Internal Use Only [XSL Template: RPD.xsl; Created: 26-Jul-2018 11:28:29; Application: XMLTransformer-1.16.47;
Report Filename: RPD_DIOXINS_1613-RPD_WG64578-103_WG64578-102_.html; Workgroup: WG64578; Design ID: 491]

SGS Axys Analytical Services, Ltd.

Method: G:\Masslynx\Inst_M\Projects\180604DX.PRO\MethDB\DX_Log.mdb 21 Nov 2008 11:39:44
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Compound name: -

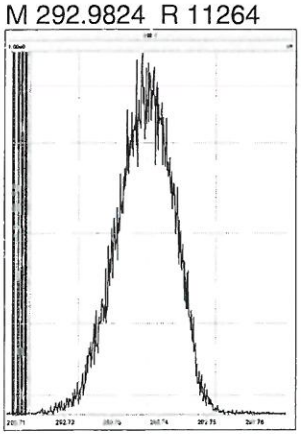
#	Name	ID	Sample Text	Acq Date	Acq Time
1	DX8M_065CS1	DX041A-CAL,,/01	1,,1.0uL CS-0.2 Sens	04-Jun-18	17:29:08
2	DX8M_065CS2	DX041B-CAL,,/01	1,,1.0uL CS-1	04-Jun-18	19:18:47
3	DX8M_065CS3	DX041B-CAL,,/01	1,,1.0uL CS-1	04-Jun-18	20:28:43
4	DX8M_065CS4	DX041C-CAL,,/01	1,,1.0uL CS-2	04-Jun-18	21:21:16
5	DX8M_065CS5	DX041F-CAL,,/01	1,,1.0uL CS-5	04-Jun-18	22:16:47
6	DX8M_065CS6	DX041E-CAL,,/01	1,,1.0uL CS-4	04-Jun-18	23:11:40
7	DX8M_065CS7	DX041D-CAL,,/01-91	1,,1.0uL Cal Win/Res	05-Jun-18	00:06:54
8	DX8M_065CS8	DX003A-SSV,,/01	1,,1.0uL Cal	05-Jun-18	01:11:21

Experiment Calibration Report **MassLynx 4.1** DX8M-065C 5:1 Cal1

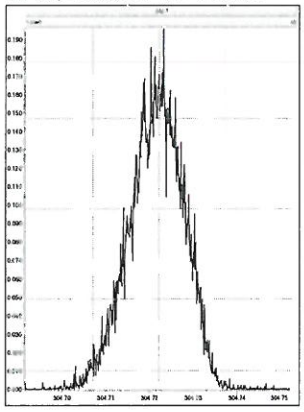
File: Experiment: DX_DB5_1_04.exp Reference: pfk.ref Function: 3 @ 200 (ppm)

Printed: Monday, June 04, 2018 17:23:40 Pacific Daylight Time Approved by NH 04- June- 2018.

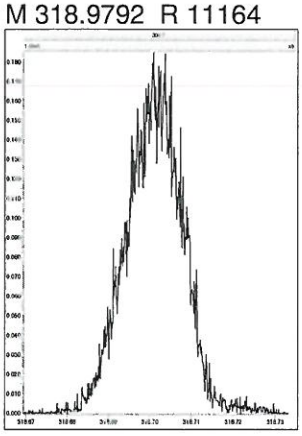
M 292.9824 R 11264



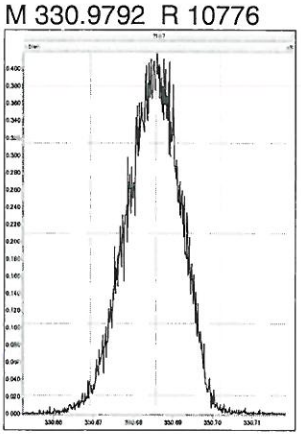
M 304.9824 R 11261



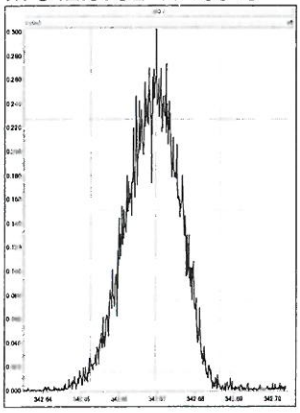
M 318.9792 R 11164



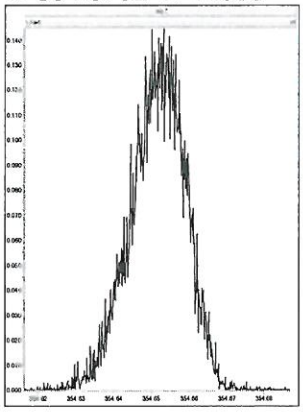
M 330.9792 R 10776



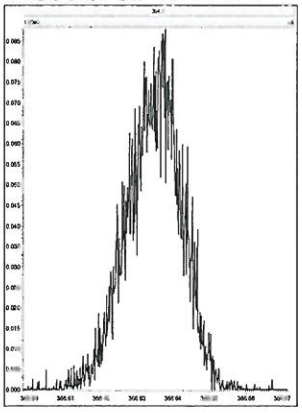
M 342.9792 R 10915



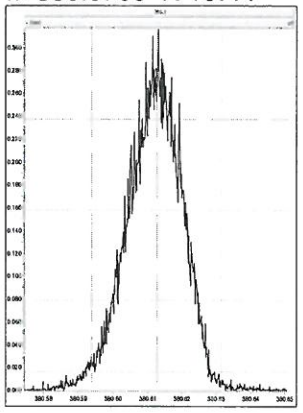
M 354.9792 R 11063



M 366.9792 R 11414



M 380.9760 R 10777

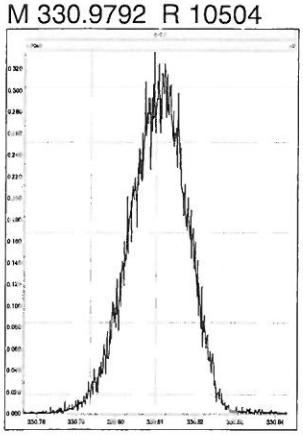


Experiment Calibration Report **MassLynx 4.1**

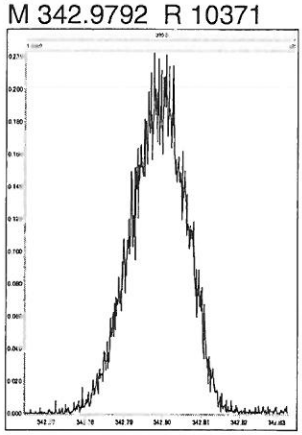
File: Experiment: DX_DB5_1_04.exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed: Monday, June 04, 2018 17:24:31 Pacific Daylight Time

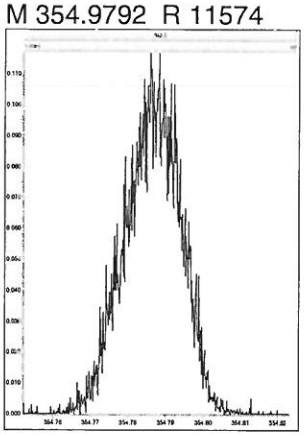
M 330.9792 R 10504



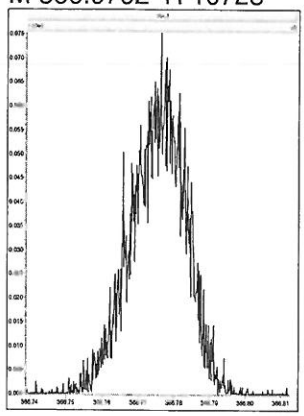
M 342.9792 R 10371



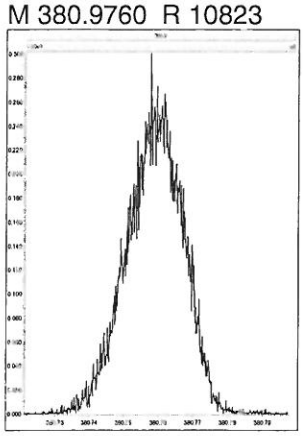
M 354.9792 R 11574



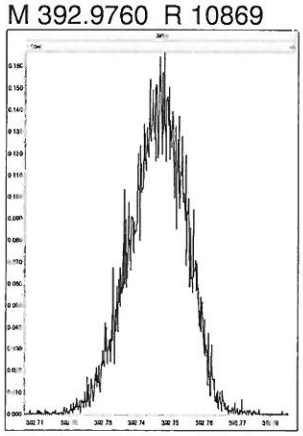
M 366.9792 R 10728



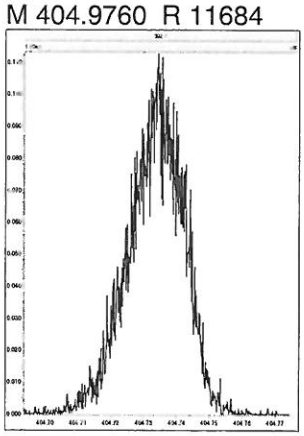
M 380.9760 R 10823



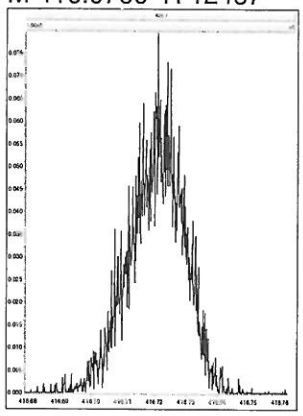
M 392.9760 R 10869



M 404.9760 R 11684



M 416.9760 R 12437

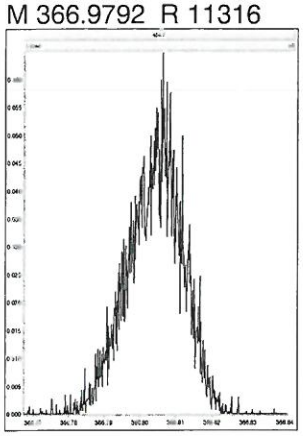


Experiment Calibration Report **MassLynx 4.1**

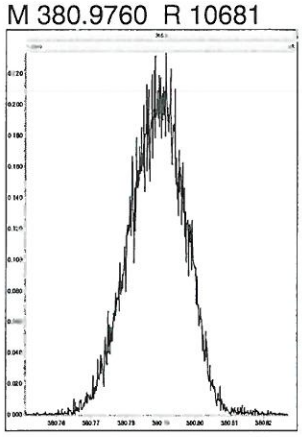
File: Experiment: DX_DB5_1_04.exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed: Monday, June 04, 2018 17:25:09 Pacific Daylight Time

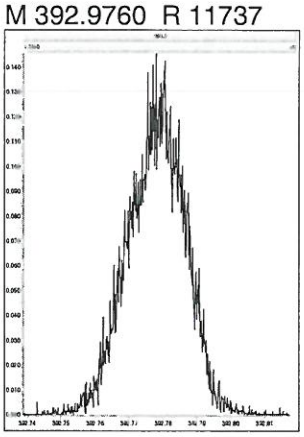
M 366.9792 R 11316



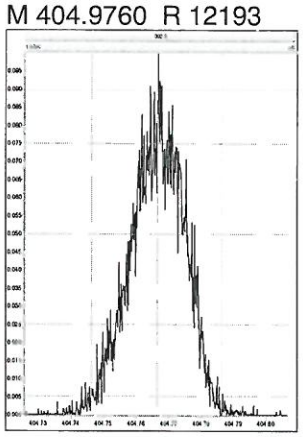
M 380.9760 R 10681



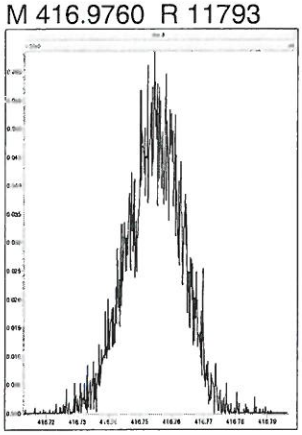
M 392.9760 R 11737



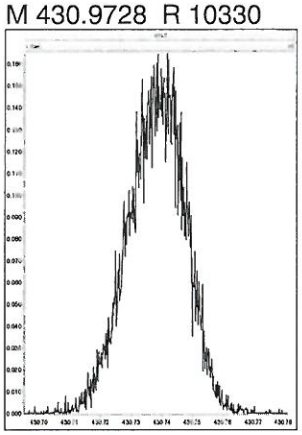
M 404.9760 R 12193



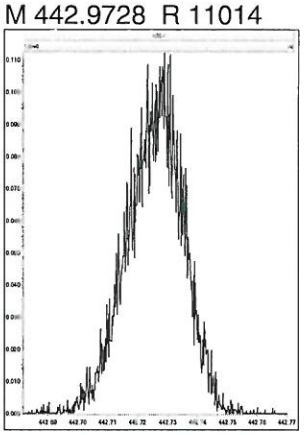
M 416.9760 R 11793



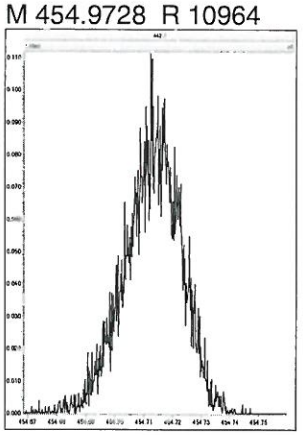
M 430.9728 R 10330



M 442.9728 R 11014



M 454.9728 R 10964

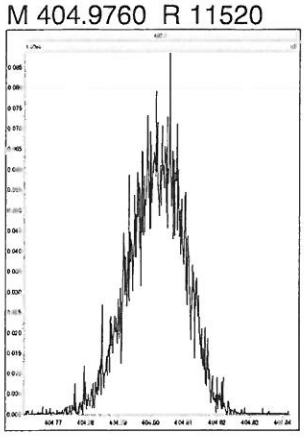


Experiment Calibration Report **MassLynx 4.1** Page 1 of 1

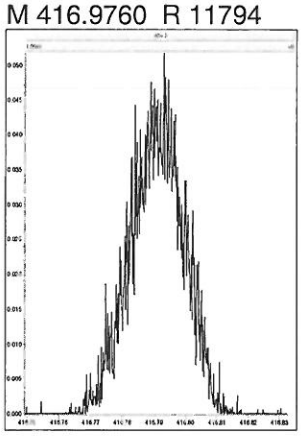
File: Experiment: DX_DB5_1_04.exp Reference: pfk.ref Function: 6 @ 200 (ppm)

Printed: Monday, June 04, 2018 17:25:55 Pacific Daylight Time

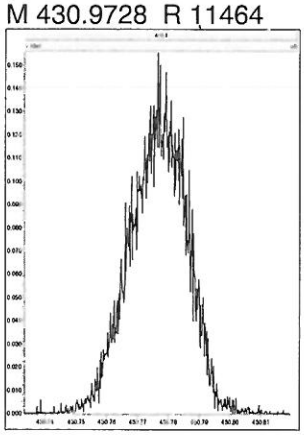
M 404.9760 R 11520



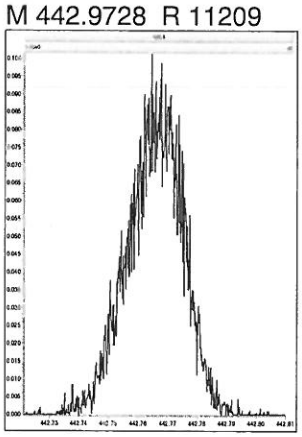
M 416.9760 R 11794



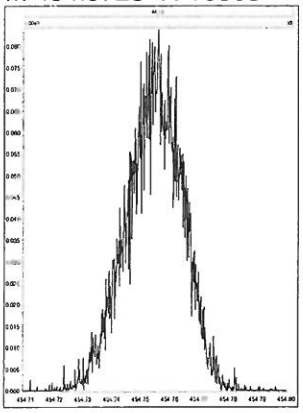
M 430.9728 R 11464



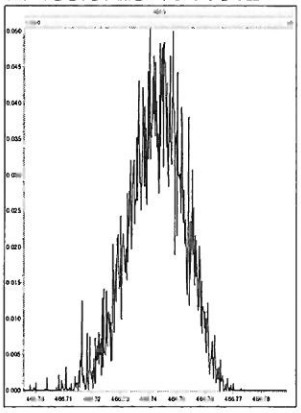
M 442.9728 R 11209



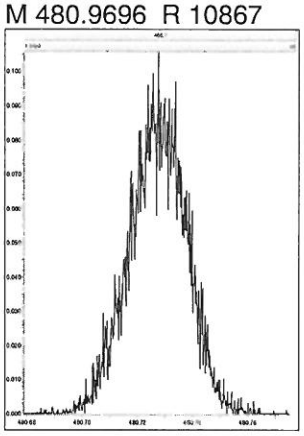
M 454.9728 R 10505



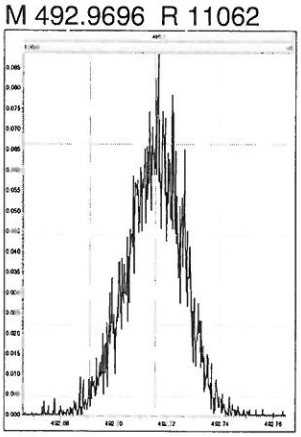
M 466.9728 R 11012



M 480.9696 R 10867



M 492.9696 R 11062

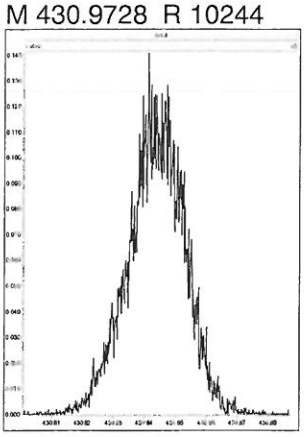


Experiment Calibration Report **MassLynx 4.1**

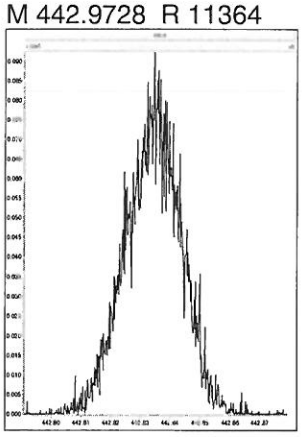
File: Experiment: DX_DB5_1_04.exp Reference: pfk.ref Function: 7 @ 200 (ppm)

Printed: Monday, June 04, 2018 17:27:11 Pacific Daylight Time

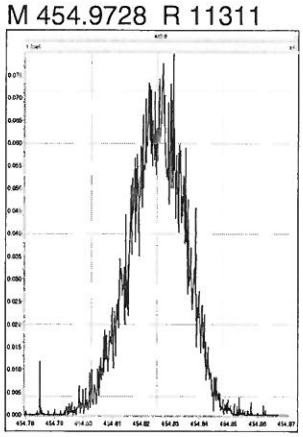
M 430.9728 R 10244



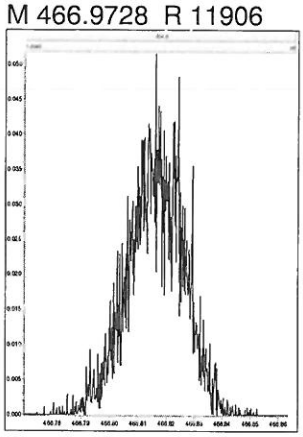
M 442.9728 R 11364



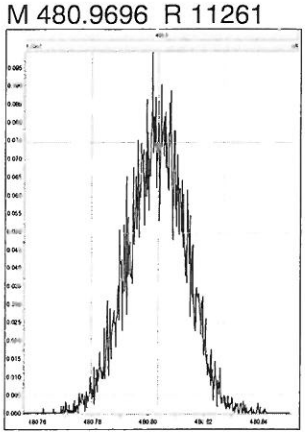
M 454.9728 R 11311



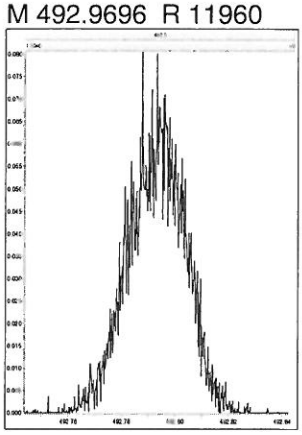
M 466.9728 R 11906



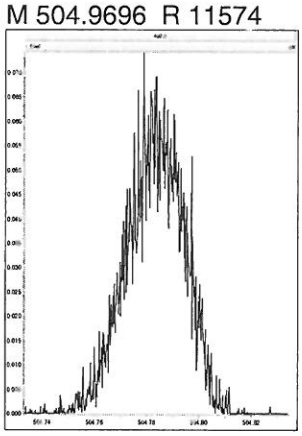
M 480.9696 R 11261



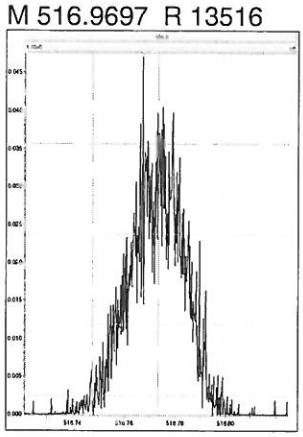
M 492.9696 R 11960



M 504.9696 R 11574



M 516.9697 R 13516

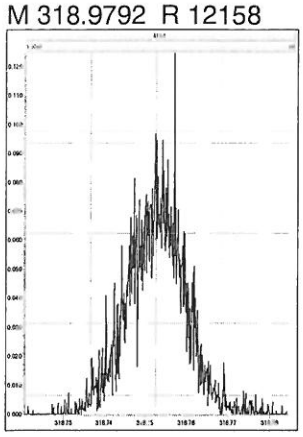


Resolution Check Report **MassLynx 4.1** dx8m-065C Cal:2 5:7

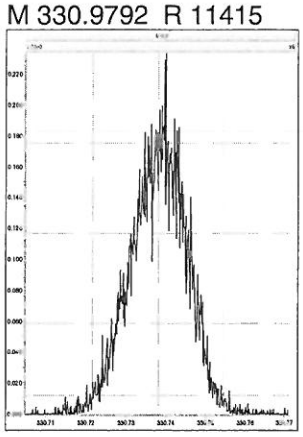
Printed: Tuesday, June 05, 2018 01:11:19 Pacific Daylight Time

Approved by JS 05-Jun-18

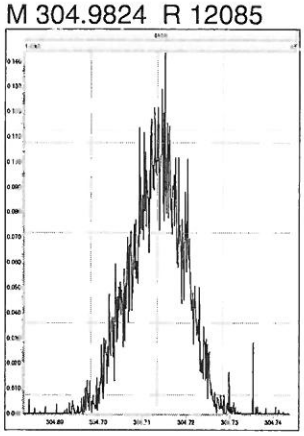
M 318.9792 R 12158



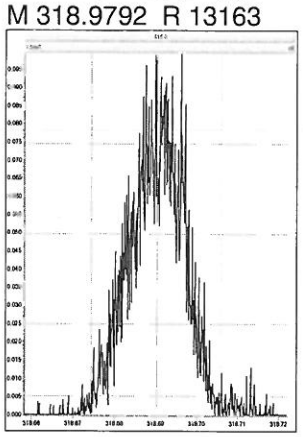
M 330.9792 R 11415



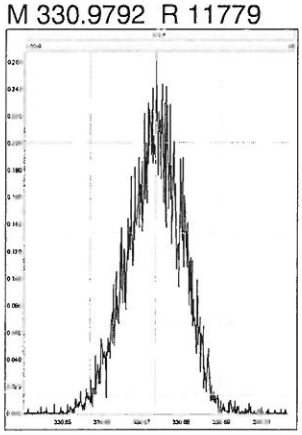
M 304.9824 R 12085



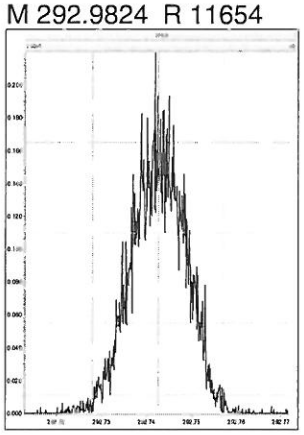
M 318.9792 R 13163



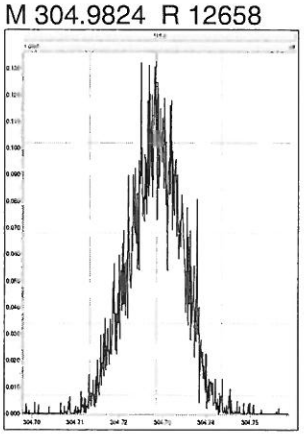
M 330.9792 R 11779



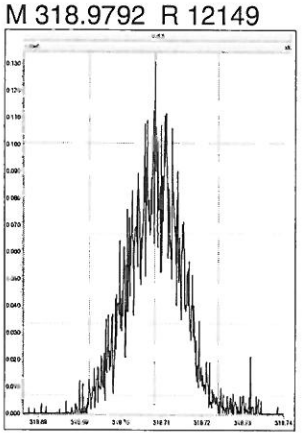
M 292.9824 R 11654



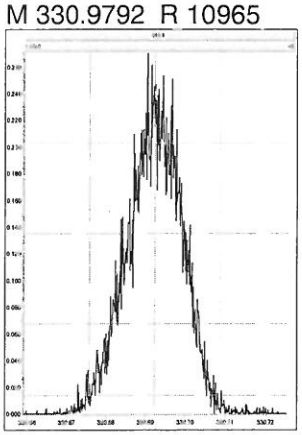
M 304.9824 R 12658



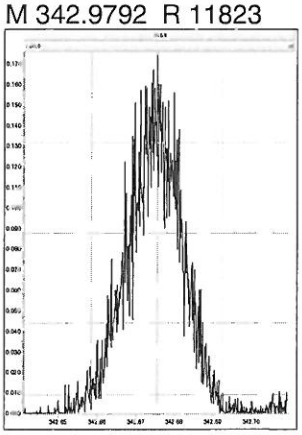
M 318.9792 R 12149



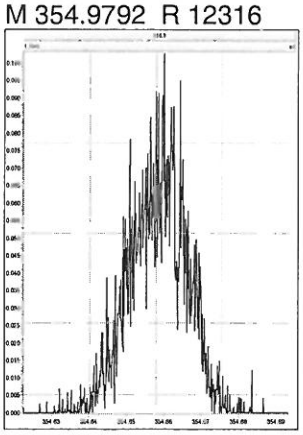
M 330.9792 R 10965



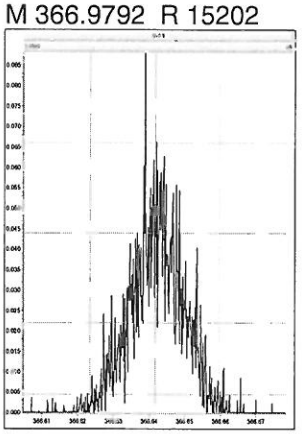
M 342.9792 R 11823



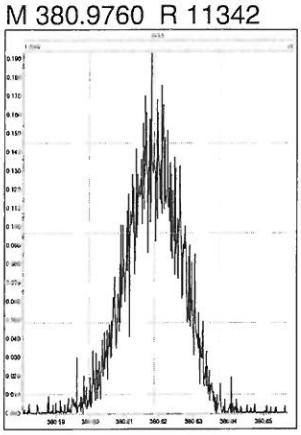
M 354.9792 R 12316



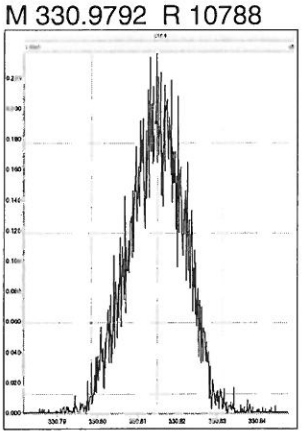
M 366.9792 R 15202



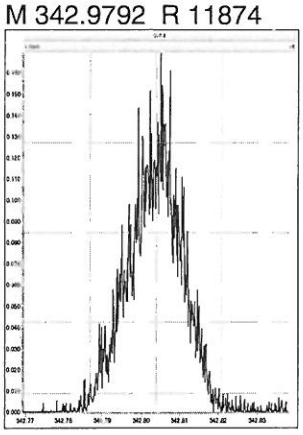
M 380.9760 R 11342



M 330.9792 R 10788



M 342.9792 R 11874



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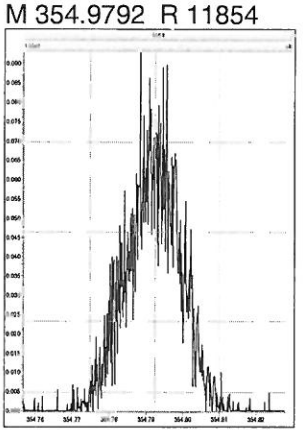

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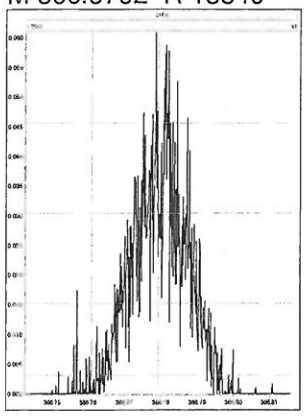

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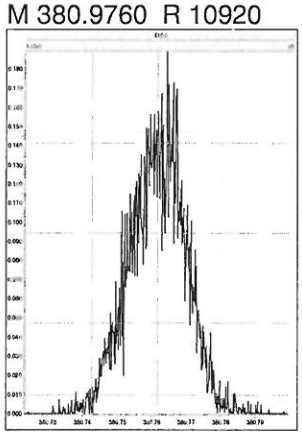

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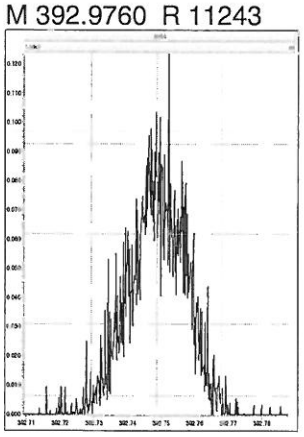

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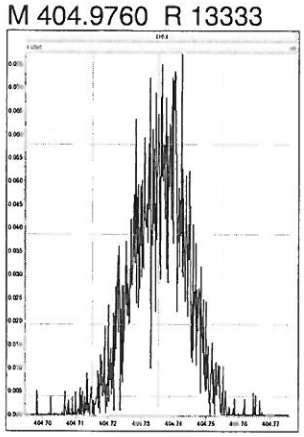

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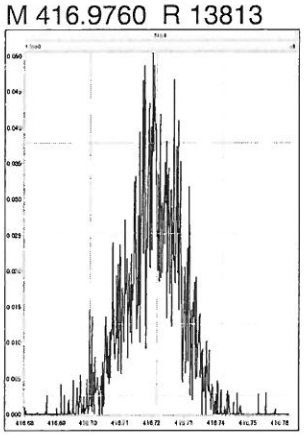

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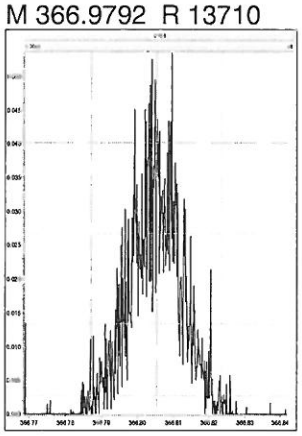

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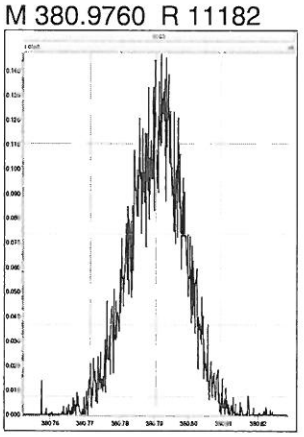

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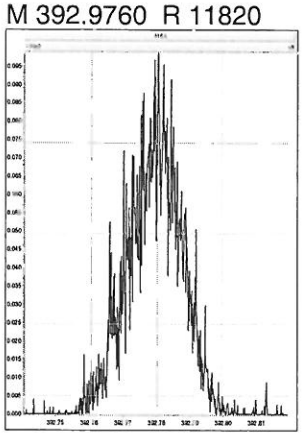

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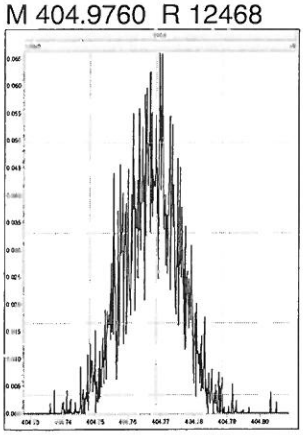

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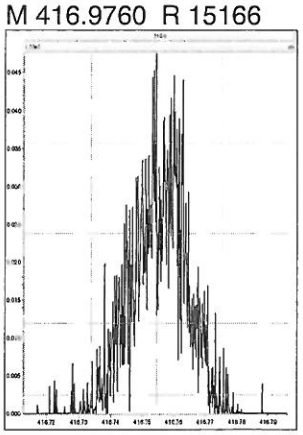

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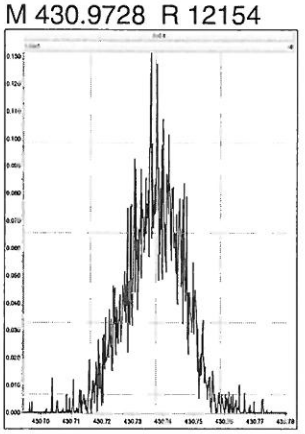

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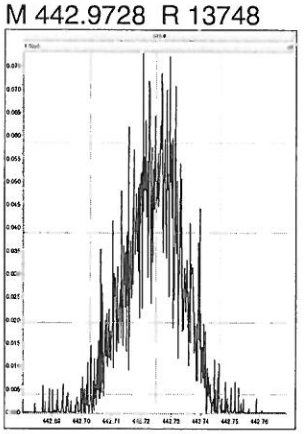

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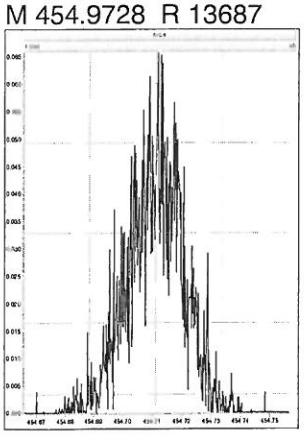
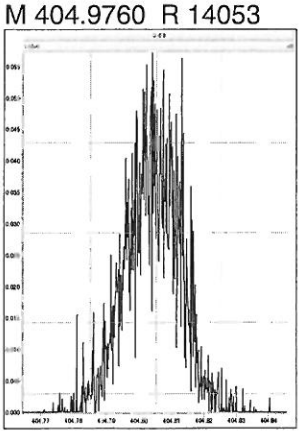


M 404.9760 R 14053



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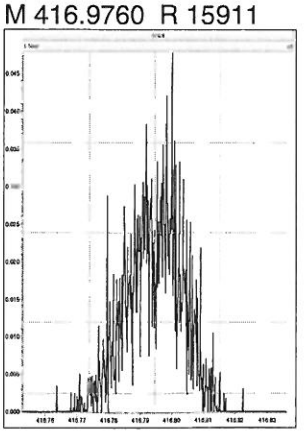

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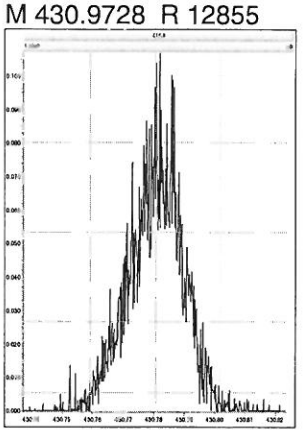

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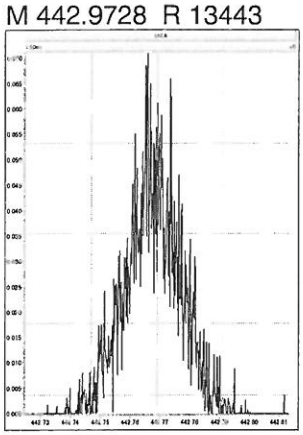

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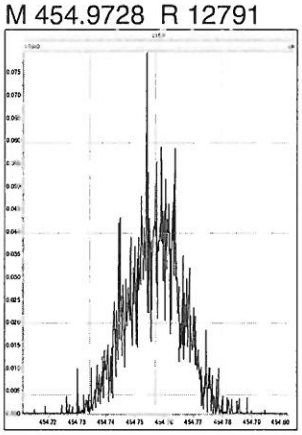

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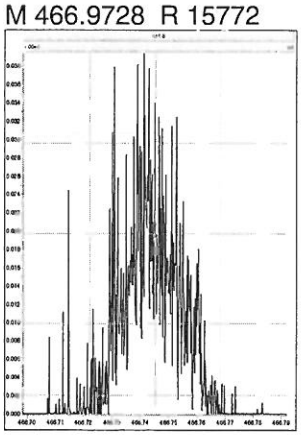
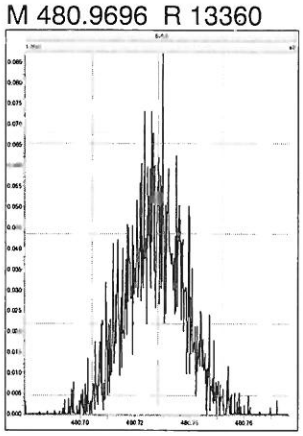


M 480.9696 R 13360



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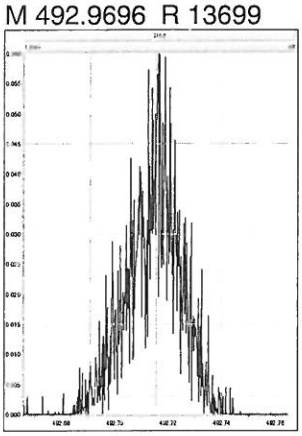
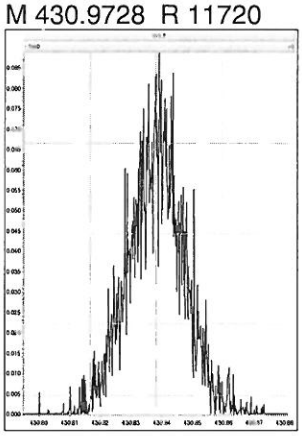


M 430.9728 R 11720



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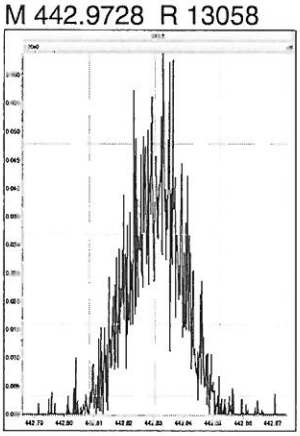

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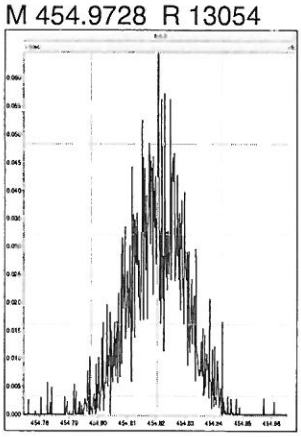

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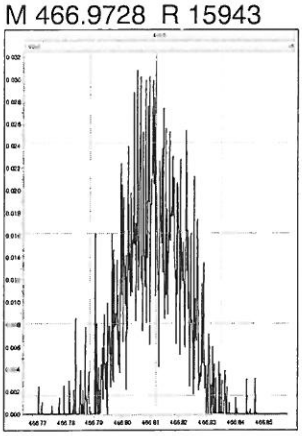

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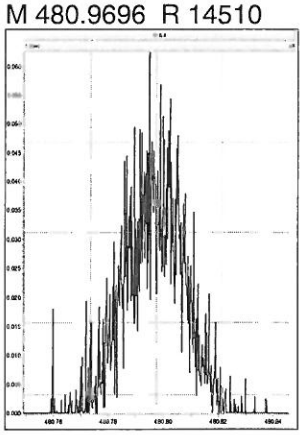

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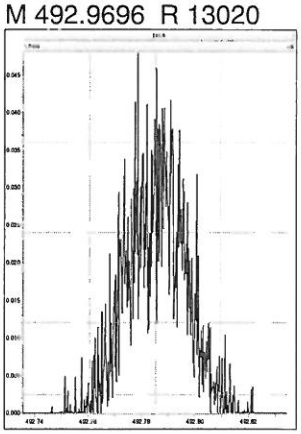

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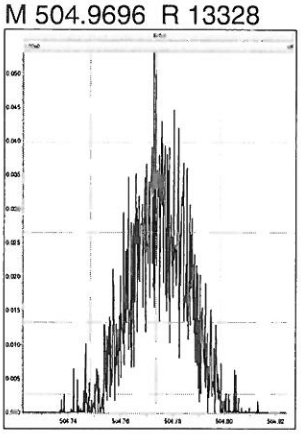

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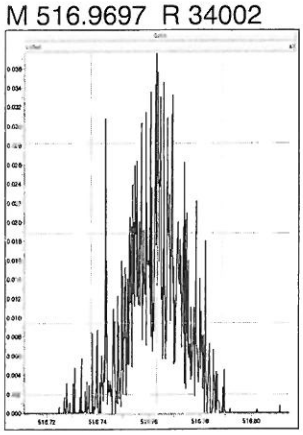

DX8M_065C-6A

Sample List Report **MassLynx 4.1 SCN627**

Sample List: G:\Masslynx\Inst_M\Projects\180604DX.PRO\SampleDB\DX8M_065C-6A.SPL Page 1 of 1
Last Modified: Wednesday, June 06, 2018 09:04:40 Pacific Daylight Time
Printed: Wednesday, June 06, 2018 09:30:31 Pacific Daylight Time Page Position (1, 1)

	File Name	Sample ID	File Text	Sample Type	TCDD	TCDF	Pe-Hp	Octa	13C-Te-Hp	13C-OCDD	Rec Std	C/Up
1	DX8M_065CS1	DX041A-CAL,,/01	1,,1.0uL CS-0.2 Sens	Standard	.1	.1	.5	1	100	200	100	.1
2	DX8M_065CS3	DX041B-CAL,,/01	1,,1.0uL CS-1	Standard	.5	.5	2.5	5	100	200	100	.5
3	DX8M_065CS4	DX041C-CAL,,/01	1,,1.0uL CS-2	Standard	2	2	10	20	100	200	100	2
4	DX8M_065CS5	DX041F-CAL,,/01	1,,1.0uL CS-5	Standard	200	200	1000	2000	100	200	100	200
5	DX8M_065CS6	DX041E-CAL,,/01	1,,1.0uL CS-4	Standard	40	40	200	400	100	200	100	40
6	DX8M_065CS7	DX041D-CAL,,/01-91	1,,1.0uL Cal Win/Res	Standard	10	10	50	100	100	200	100	10

SGS AXYS METHOD MLA-010 Rev 12

Form 3A
PCDD/PCDF INITIAL CALIBRATION RELATIVE RESPONSES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 04-Jun-2018

Instrument ID: HR GC/MS

GC Column ID: DB5

CS0 Data Filename: DX8M_065C S: 1
CS1 Data Filename: DX8M_065C S: 3
CS2 Data Filename: DX8M_065C S: 4
CS3 Data Filename: DX8M_065C S: 7
CS4 Data Filename: DX8M_065C S: 6
CS5 Data Filename: DX8M_065C S: 5
CS6 Data Filename: N/A

		RELATIVE RESPONSE (RR)								
COMPOUND	**LAB FLAG [1]**	**CS0**	**CS1**	**CS2**	**CS3**	**CS4**	**CS5**	**CS6**	**MEAN RR**	**CV (%RSD)[2]**
2,3,7,8-TCDD		1.26	1.15	1.05	1.09	1.07	1.07		1.11	7.15
1,2,3,7,8-PECDD [3]		0.92	1.09	1.04	1.04	1.04	1.03		1.03	5.33
1,2,3,4,7,8-HXCDD		0.94	1.02	0.98	1.04	1.02	1.02		1.00	3.60
1,2,3,6,7,8-HXCDD		0.89	0.95	0.91	0.97	0.94	0.94		0.93	3.09
1,2,3,7,8,9-HXCDD [4]		1.02	0.96	0.93	0.99	0.97	0.95		0.97	3.34
1,2,3,4,6,7,8-HPCDD		1.02	0.97	0.98	0.99	1.01	1.00		1.00	2.04
OCDD		1.02	1.04	0.97	1.04	1.04	1.00		1.02	2.76
2,3,7,8-TCDF		0.93	0.88	0.90	0.94	0.93	0.91		0.91	2.43
1,2,3,7,8-PECDF		0.93	0.90	0.86	0.97	0.93	0.95		0.92	4.19
2,3,4,7,8-PECDF		0.95	0.93	0.92	0.94	0.95	0.95		0.94	1.39
1,2,3,4,7,8-HXCDF		1.09	1.14	1.05	1.13	1.14	1.13		1.12	3.26
1,2,3,6,7,8-HXCDF		1.08	1.06	1.01	1.06	1.07	1.10		1.06	2.74
1,2,3,7,8,9-HXCDF		0.95	1.02	0.98	1.02	1.01	1.02		1.00	2.99
2,3,4,6,7,8-HXCDF		1.10	1.12	1.11	1.19	1.16	1.16		1.14	3.17
1,2,3,4,6,7,8-HPCDF		1.16	1.28	1.21	1.24	1.23	1.22		1.22	3.38
1,2,3,4,7,8,9-HPCDF		1.24	1.27	1.23	1.28	1.25	1.24		1.25	1.37
OCDF [5]		1.12	1.23	1.14	1.25	1.31	1.32		1.23	6.84

(1) Where applicable, custom lab flags have been used on this report.
(2) For contract CV specifications, see Section 10.5.4, Method 1613.
(3) Alternate confirmation and quantitation ions used for native and labeled PECDD.
(4) Response ratios are calculated relative to the labeled analogs of the other two HXCDDs (Section 17.1.2, Method 1613).
(5) Response ratios are calculated relative to the labeled analog of OCDD (Section 17.1.1, Method 1613).

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

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Report Filename: 1613_DIOXINS_04-Jun-2018_DX8M__Form3A_GS76777.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 3B
PCDD/PCDF INITIAL CALIBRATION RELATIVE RESPONSES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 04-Jun-2018

Instrument ID: HR GC/MS

GC Column ID: DB5

CS0 Data Filename: DX8M_065C S: 1
CS1 Data Filename: DX8M_065C S: 3
CS2 Data Filename: DX8M_065C S: 4
CS3 Data Filename: DX8M_065C S: 7
CS4 Data Filename: DX8M_065C S: 6
CS5 Data Filename: DX8M_065C S: 5
CS6 Data Filename: N/A

		RELATIVE RESPONSE (RR)								
LABELED COMPOUND	**LAB FLAG [1]**	**CS0**	**CS1**	**CS2**	**CS3**	**CS4**	**CS5**	**CS6**	**MEAN RR**	**CV (%RSD)[2]**
13C-2,3,7,8-TCDD		1.04	0.95	0.99	1.00	1.00	1.05		1.00	3.74
13C-1,2,3,7,8-PECDD [3]		0.68	0.61	0.64	0.62	0.64	0.75		0.66	8.04
13C-1,2,3,4,7,8-HXCDD		1.05	0.96	0.96	0.95	0.98	1.00		0.98	3.74
13C-1,2,3,6,7,8-HXCDD		1.07	1.02	1.01	1.03	1.04	1.07		1.04	2.53
13C-1,2,3,4,6,7,8-HPCDD		0.88	0.78	0.80	0.79	0.80	0.83		0.81	4.34
13C-OCDD		0.78	0.64	0.67	0.67	0.69	0.84		0.72	10.4
13C-2,3,7,8-TCDF		1.68	1.56	1.60	1.60	1.59	1.66		1.61	2.83
13C-1,2,3,7,8-PECDF		1.20	1.07	1.13	1.11	1.15	1.33		1.16	7.84
13C-2,3,4,7,8-PECDF		1.15	1.03	1.08	1.07	1.10	1.31		1.12	8.87
13C-1,2,3,4,7,8-HXCDF		1.35	1.25	1.26	1.25	1.27	1.29		1.28	2.93
13C-1,2,3,6,7,8-HXCDF		1.42	1.33	1.34	1.35	1.35	1.39		1.36	2.30
13C-1,2,3,7,8,9-HXCDF		1.28	1.17	1.19	1.16	1.19	1.23		1.20	3.61
13C-2,3,4,6,7,8-HXCDF		1.28	1.20	1.21	1.18	1.21	1.24		1.22	2.95
13C-1,2,3,4,6,7,8-HPCDF		1.09	0.99	0.98	0.99	1.01	1.05		1.02	3.89
13C-1,2,3,4,7,8,9-HPCDF		0.86	0.77	0.77	0.75	0.78	0.84		0.79	5.44
CLEANUP STANDARD										
37CL-2,3,7,8-TCDD		1.06	1.27	1.07	1.07	1.07	1.13		1.11	7.11

(1) Where applicable, custom lab flags have been used on this report.
(2) For contract CV specifications, see Section 10.5.4, Method 1613.
(3) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

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SGS AXYS METHOD MLA-010 Rev 12

Form 3C

PCDD/PCDF INITIAL CALIBRATION ION ABUNDANCE RATIOS

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 04-Jun-2018

Instrument ID: HR GC/MS

GC Column ID: DB5

CS0 Data Filename: DX8M_065C S: 1

CS1 Data Filename: DX8M_065C S: 3

CS2 Data Filename: DX8M_065C S: 4

CS3 Data Filename: DX8M_065C S: 7

CS4 Data Filename: DX8M_065C S: 6

CS5 Data Filename: DX8M_065C S: 5

CS6 Data Filename: N/A

COMPOUND	LAB FLAG [1]	M/Z's FORMING RATIO [2]	ION ABUNDANCE RATIO CS0	CS1	CS2	CS3	CS4	CS5	CS6	QC LIMITS[3]
2,3,7,8-TCDD		**M/M+2**	0.77	0.82	0.70	0.79	0.79	0.78		0.65-0.89
1,2,3,7,8-PECDD [4]		**M/M+2**	0.53	0.64	0.59	0.64	0.62	0.62		0.52-0.70
1,2,3,4,7,8-HXCDD		**M+2/M+4**	1.19	1.27	1.28	1.22	1.24	1.25		1.05-1.43
1,2,3,6,7,8-HXCDD		**M+2/M+4**	1.41	1.20	1.19	1.27	1.22	1.22		1.05-1.43
1,2,3,7,8,9-HXCDD		**M+2/M+4**	1.24	1.35	1.25	1.24	1.23	1.23		1.05-1.43
1,2,3,4,6,7,8-HPCDD		**M+2/M+4**	1.02	1.00	1.01	1.03	1.06	1.04		0.88-1.20
OCDD		**M+2/M+4**	0.84	0.95	0.89	0.87	0.87	0.87		0.76-1.02
2,3,7,8-TCDF		**M/M+2**	0.82	0.67	0.76	0.71	0.77	0.77		0.65-0.89
1,2,3,7,8-PECDF		**M+2/M+4**	1.49	1.49	1.42	1.44	1.48	1.47		1.32-1.78
2,3,4,7,8-PECDF		**M+2/M+4**	1.53	1.41	1.45	1.45	1.50	1.47		1.32-1.78
1,2,3,4,7,8-HXCDF		**M+2/M+4**	1.36	1.15	1.10	1.17	1.18	1.18		1.05-1.43
1,2,3,6,7,8-HXCDF		**M+2/M+4**	1.27	1.07	1.21	1.17	1.18	1.19		1.05-1.43
1,2,3,7,8,9-HXCDF		**M+2/M+4**	1.20	1.13	1.21	1.18	1.19	1.20		1.05-1.43
2,3,4,6,7,8-HXCDF		**M+2/M+4**	1.26	1.16	1.16	1.19	1.17	1.19		1.05-1.43
1,2,3,4,6,7,8-HPCDF		**M+2/M+4**	1.01	0.98	0.98	1.00	0.96	1.01		0.88-1.20
1,2,3,4,7,8,9-HPCDF		**M+2/M+4**	1.02	0.92	0.99	1.01	0.97	1.02		0.88-1.20
OCDF		**M+2/M+4**	0.91	0.79	0.84	0.86	0.89	0.89		0.76-1.02

(1) Where applicable, custom lab flags have been used on this report.
(2) See Table 8, Method 1613, for m/z specifications.
(3) Ion Abundance Ratio Control Limits from Table 9, Method 1613.
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form3C.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47; Report Filename: 1613_DIOXINS_04-Jun-2018_DX8M__Form3C_GS76777.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 3D

PCDD/PCDF INITIAL CALIBRATION ION ABUNDANCE RATIOS

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 04-Jun-2018

Instrument ID: HR GC/MS

GC Column ID: DB5

CS0 Data Filename: DX8M_065C S: 1

CS1 Data Filename: DX8M_065C S: 3

CS2 Data Filename: DX8M_065C S: 4

CS3 Data Filename: DX8M_065C S: 7

CS4 Data Filename: DX8M_065C S: 6

CS5 Data Filename: DX8M_065C S: 5

CS6 Data Filename: N/A

LABELED COMPOUND	LAB FLAG[1]	M/Z's FORMING RATIO [2]	ION ABUNDANCE RATIO CS0	CS1	CS2	CS3	CS4	CS5	CS6	QC LIMITS[3]
13C-2,3,7,8-TCDD		**M/M+2**	0.79	0.78	0.79	0.77	0.76	0.82		0.65-0.89
13C-1,2,3,7,8-PECDD [4]		**M/M+2**	0.66	0.66	0.67	0.65	0.66	0.67		0.52-0.70
13C-1,2,3,4,7,8-HXCDD		**M+2/M+4**	1.27	1.25	1.27	1.24	1.26	1.26		1.05-1.43
13C-1,2,3,6,7,8-HXCDD		**M+2/M+4**	1.23	1.22	1.22	1.22	1.21	1.26		1.05-1.43
13C-1,2,3,4,6,7,8-HPCDD		**M+2/M+4**	1.01	1.03	0.99	1.01	1.03	1.05		0.88-1.20
13C-OCDD		**M+2/M+4**	0.88	0.92	0.87	0.90	0.86	0.89		0.76-1.02
13C-2,3,7,8-TCDF		**M/M+2**	0.77	0.78	0.77	0.77	0.78	0.74		0.65-0.89
13C-1,2,3,7,8-PECDF		**M+2/M+4**	1.56	1.55	1.57	1.51	1.57	1.54		1.32-1.78
13C-2,3,4,7,8-PECDF		**M+2/M+4**	1.54	1.56	1.54	1.56	1.56	1.54		1.32-1.78
13C-1,2,3,4,7,8-HXCDF		**M/M+2**	0.50	0.53	0.52	0.52	0.52	0.52		0.43-0.59
13C-1,2,3,6,7,8-HXCDF		**M/M+2**	0.52	0.53	0.52	0.52	0.53	0.51		0.43-0.59
13C-1,2,3,7,8,9-HXCDF		**M/M+2**	0.52	0.52	0.52	0.53	0.53	0.52		0.43-0.59
13C-2,3,4,6,7,8-HXCDF		**M/M+2**	0.51	0.52	0.54	0.53	0.54	0.53		0.43-0.59
13C-1,2,3,4,6,7,8-HPCDF		**M/M+2**	0.46	0.46	0.45	0.45	0.45	0.45		0.37-0.51
13C-1,2,3,4,7,8,9-HPCDF		**M/M+2**	0.47	0.45	0.47	0.46	0.46	0.44		0.37-0.51

(1) Where applicable, custom lab flags have been used on this report.
(2) See Table 8, Method 1613, for m/z specifications.
(3) Ion Abundance Ratio Control Limits from Table 9, Method 1613.
(4) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Form3D.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47; Report Filename: 1613_DIOXINS_04-Jun-2018_DX8M__Form3D_GS76777.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 5

PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Instrument ID:	HR GC/MS	**Initial Calibration Date:**		04-Jun-2018
RT Window Data Filename:	DX8M_065C S: 7	**Analysis Date:**	05-Jun-2018	**Time:** 00:06:54
DB-5 IS Data Filename:	DX8M_065C S: 7	**Analysis Date:**	05-Jun-2018	**Time:** 00:06:54
DB-225 IS Data Filename:		**Analysis Date:**		**Time:**

DB5 RT WINDOW DEFINING STANDARDS RESULT

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	22:57	**1,3,6,8-TCDF (F)**	21:25
1,2,8,9-TCDD (L)	28:19	**1,2,8,9-TCDF (L)**	28:09
1,2,4,7,9-PECDD (F)	32:04	**1,3,4,6,8-PECDF (F)**	28:52
1,2,3,8,9-PECDD (L)	37:04	**1,2,3,8,9-PECDF (L)**	37:07
1,2,4,6,7,9-HXCDD (F)	40:03	**1,2,3,4,6,8-HXCDF (F)**	39:00
1,2,3,4,6,7-HXCDD (L)	42:40	**1,2,3,4,8,9-HXCDF (L)**	43:00
1,2,3,4,6,7,9-HPCDD (F)	45:47	**1,2,3,4,6,7,8-HPCDF (F)**	45:18
1,2,3,4,6,7,8-HPCDD (L)	46:42	**1,2,3,4,7,8,9-HPCDF (L)**	47:06

(F) = First eluting isomer (DB-5); (L) = Last eluting isomer (DB-5)

ISOMER SPECIFICITY (IS) TEST STANDARDS RESULT

Isomers	% Valley Height Between Compared Peaks	Isomers	% Valley Height Between Compared Peaks
1,2,3,4-TCDD **1,2,7,8-TCDD**	0	**1,2,3,8-TCDD** **2,3,7,8-TCDD**	6
1,2,7,8-TCDD **1,4,7,8-TCDD**	0	**2,3,4,7-TCDF** **2,3,7,8-TCDF**	N/A
1,4,7,8-TCDD **1,2,3,7-TCDD**	0	**2,3,7,8-TCDF** **1,2,3,9-TCDF**	N/A
1,2,3,7-TCDD **1,2,3,8-TCDD**	DB-5 column; co-elute as per Figure 6 in Method		

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

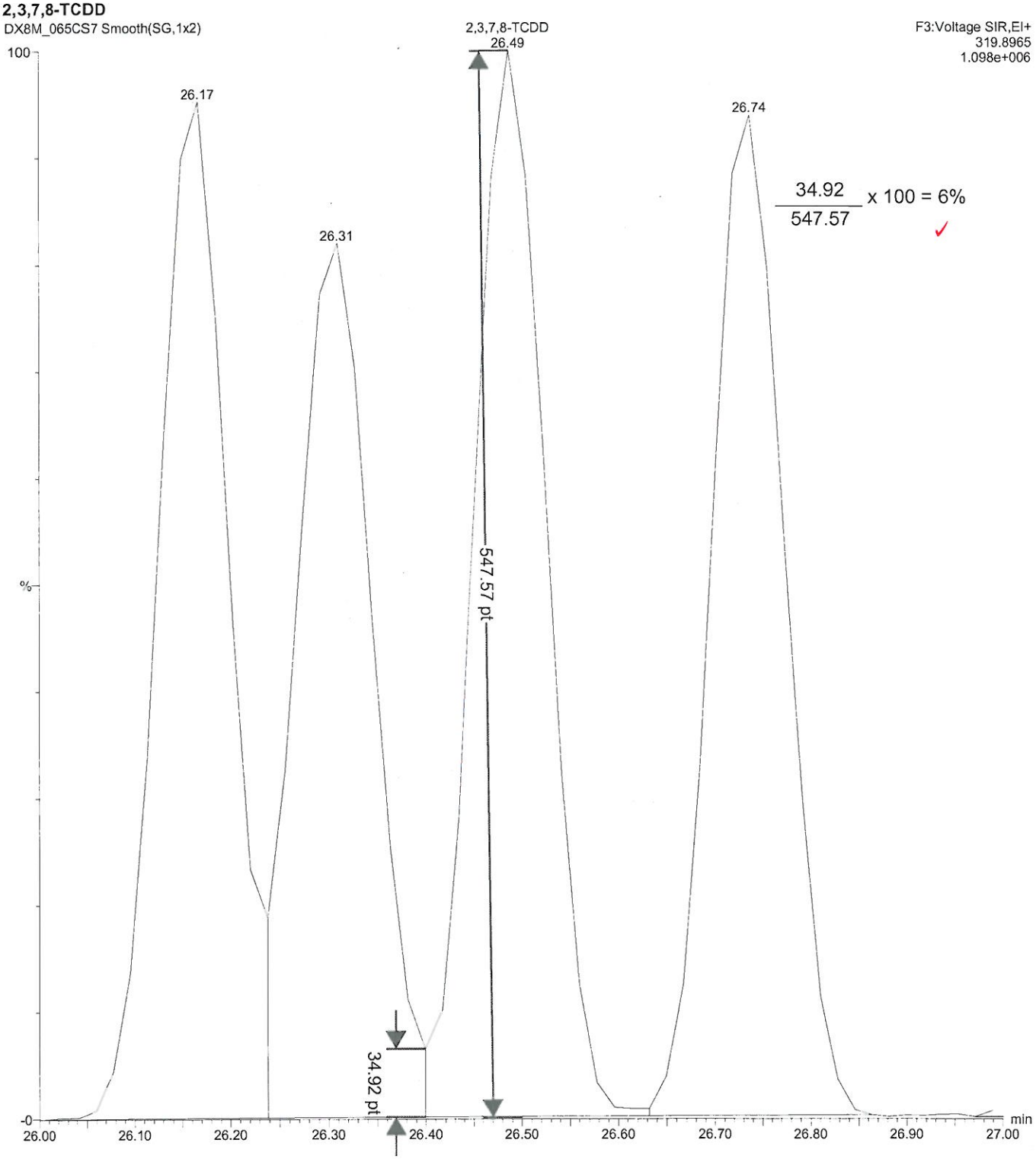
For Axys Internal Use Only [XSL Template: DXForm5.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47; Report Filename: 1613_DIOXINS__DX8M_065CS7_Form5_SJ2388667.html; Workgroup: WG64578; Design ID: 491]

SGS Axys Analytical Services, Ltd.
Quantify Sample Report **MassLynx 4.1 SCN627**

Method: G:\Masslynx\Inst_M\Projects\180604DX.pro\MethDB\DX_Win_ResC.mdb 07 Dec 2011 14:46:56
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_065CS7, Date: 05-Jun-2018, Time: 00:06:54, ID: DX041D-CAL,,/01-91, Description: 1,,1.0uL Cal Win/Res

2,3,7,8-TCDD



PV by LHE
06-JUNE-2018

www.axysanalytical.com

Experiment : DX-DB225-4_01
GC Program : DX-DB225-4_01
Column type : DB-225
Serial # : USA226732J/USA
kPa : 199
Vol injected: 2.0uL
PMT Voltage : 425

Temps -source: 250
-s resv: 160
-re_ent: 220
-cap_1 : 220
-cap_2 : 220

Tune : BA
List : EW/BA
Check :
LIMS :
Logfile:

Date -list : 10-JUL-2018
-liner : 13-JUN-2018
-septum: 13-JUN-2018
-guard : 60cm 13-JUN-2018
-column: 10CM 03-APR-2018
-t line: NEW 14-SEP-2017

#	Data file	S	V	Sample Text	Comments	Acquisition Date/Time
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3	DB83_121	3	3	DX041B-CAL,,/01	1,,2.0uL CS-1	10-JUL-18 17:03:24
4	DB83_121	4	4	DX041A-CAL,,/01-16	1,,2.0uL CS-0.2/SENS	10-JUL-18 17:44:40
5	DB83_121	5	5	DX041F-CAL,,/01	1,,2.0uL CS-5	10-JUL-18 18:25:52
6	DB83_121	6	6	DX041E-CAL,,/01	1,,2.0uL CS-4	10-JUL-18 19:07:08
7	DB83_121	7	7	DX041D-CAL,,/01-90	1,,2.0uL CAL	10-JUL-18 19:48:20
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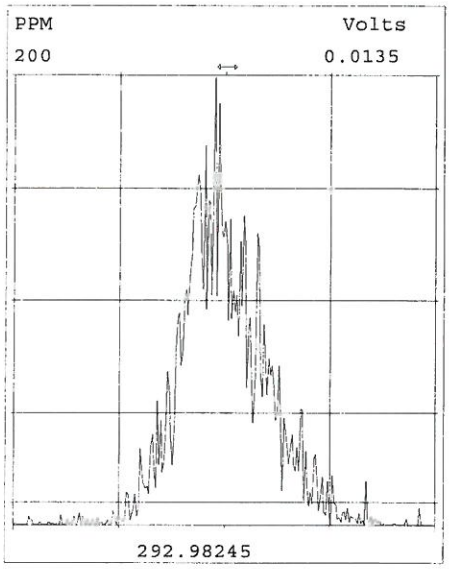
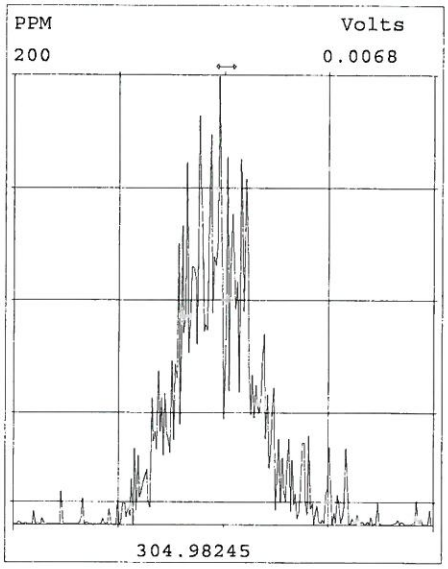
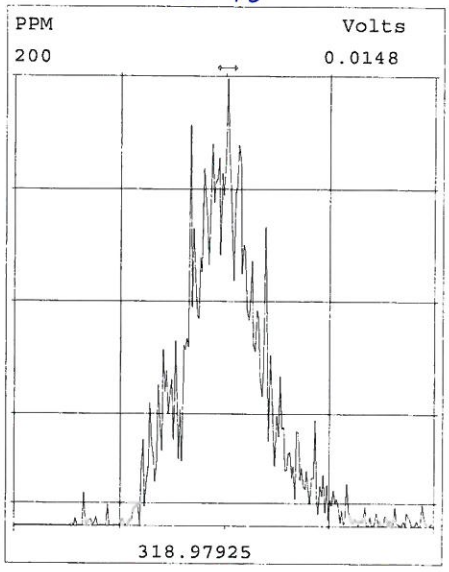
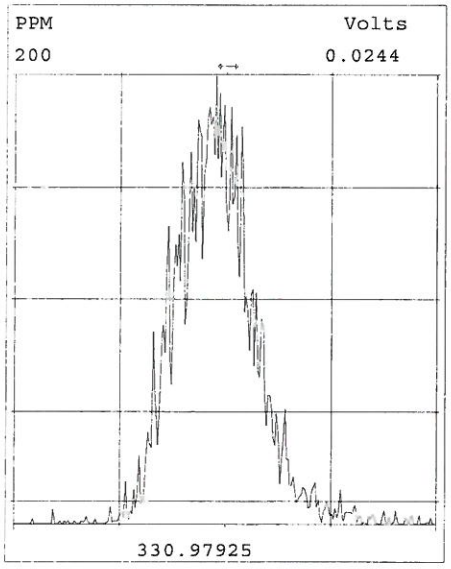
Peak Locate Examination:10-JUL-2018:15:39 File:DB83_121CAL
Experiment:DX-DB225-4_01 Function:1 Reference:PFK

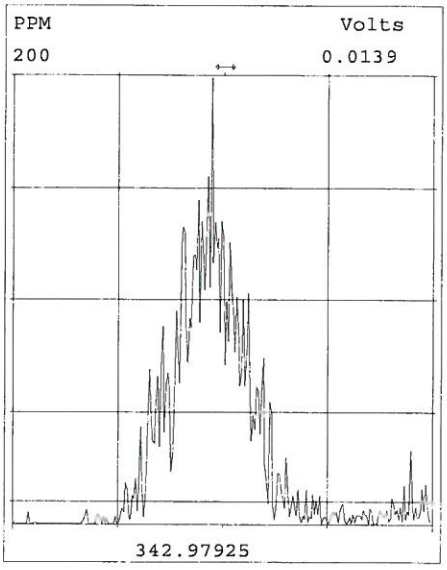
Approved by JT 10-JUL-18

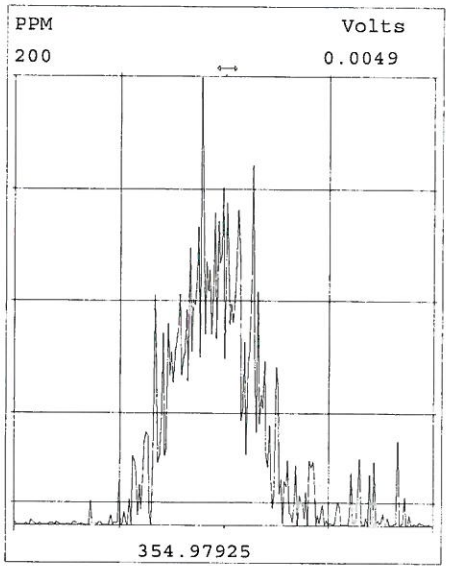


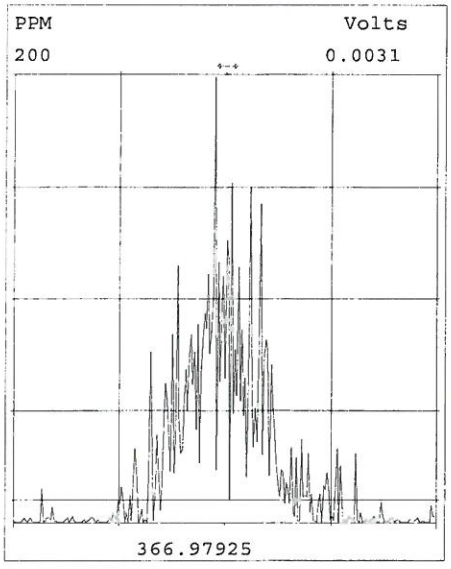


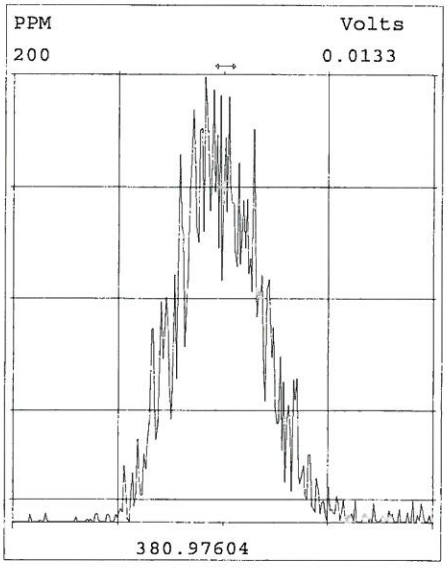




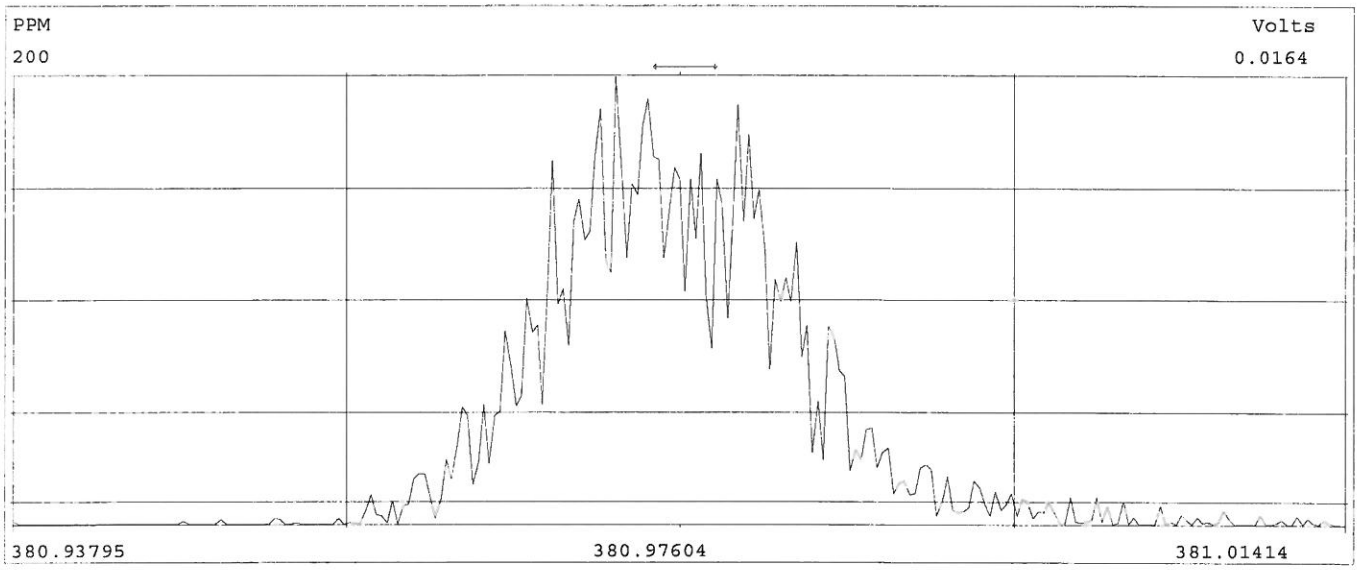


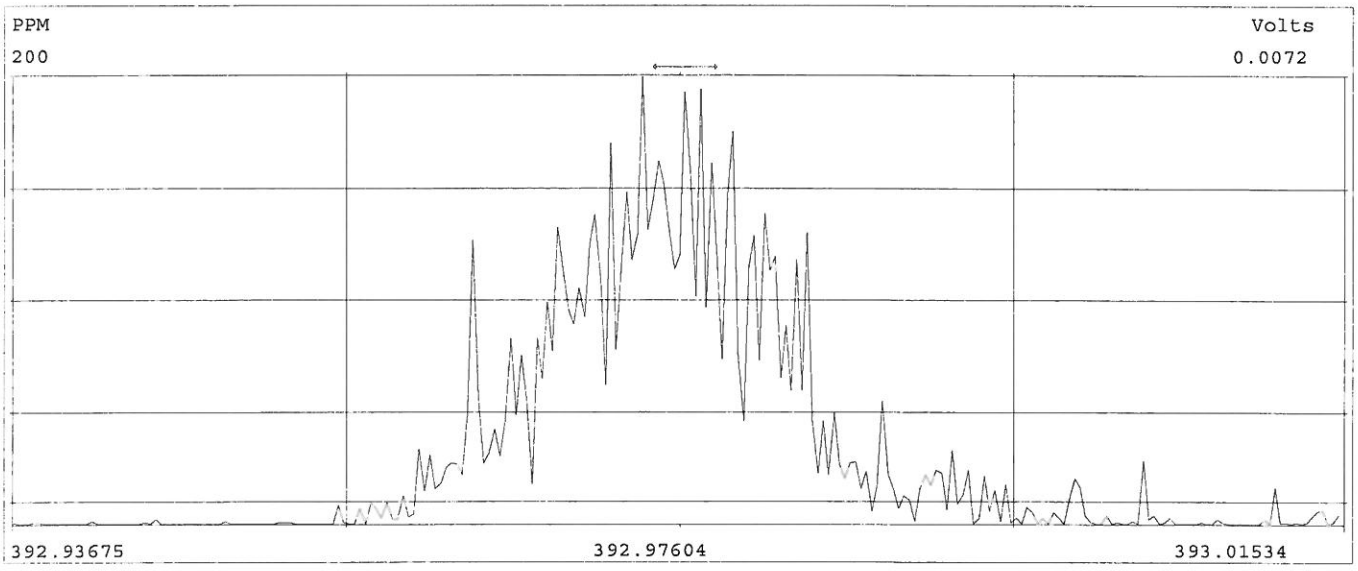


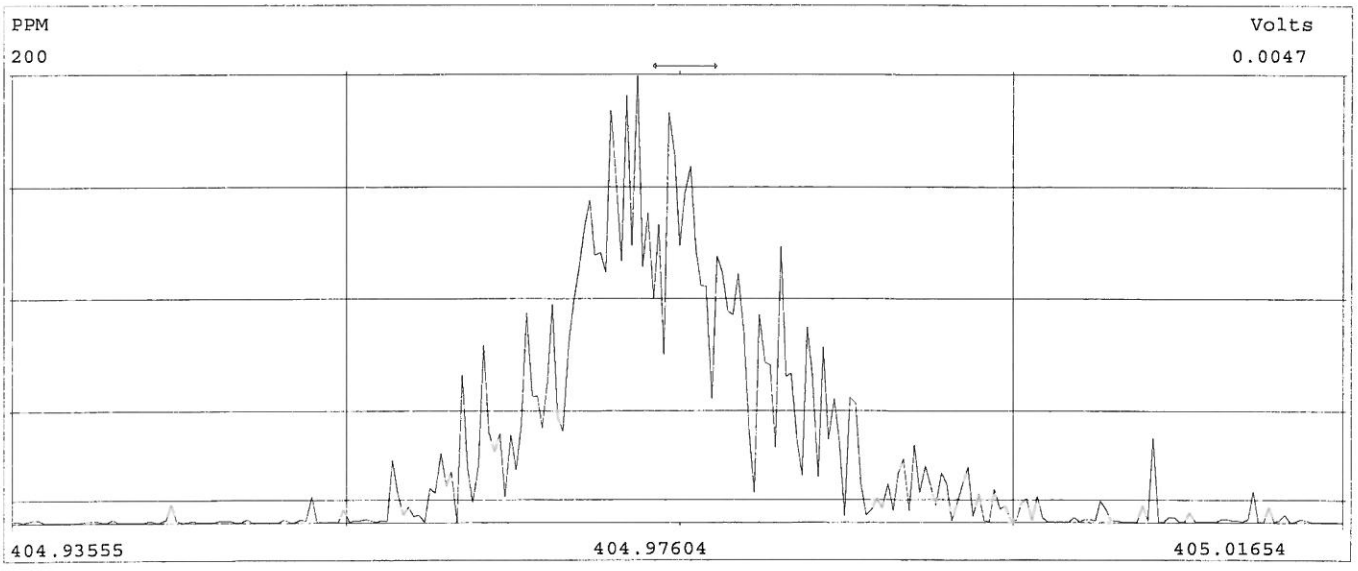




Peak Locate Examination:10-JUL-2018:15:40 File:DB83_121CAL
Experiment:DX-DB225-4_01 Function:2 Reference:PFK

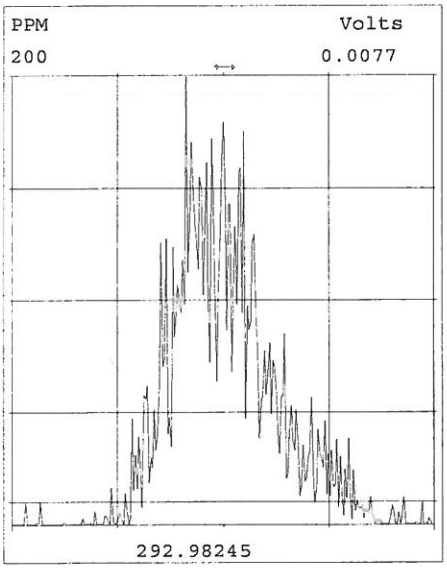


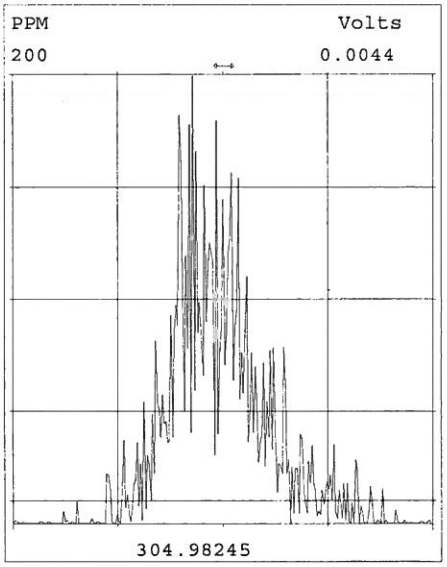


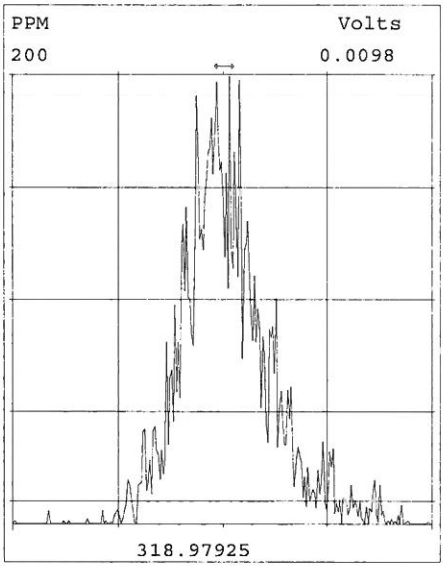


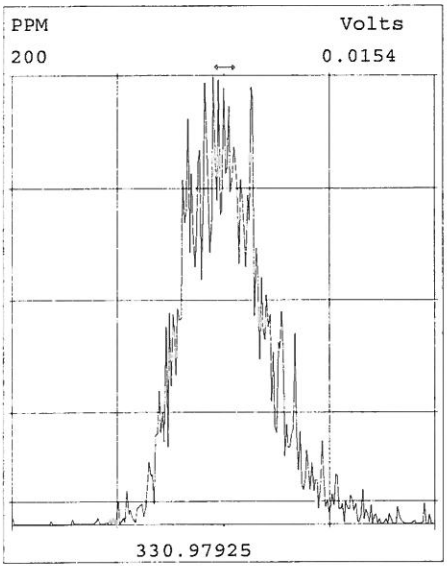
Peak Locate Examination:10-JUL-2018:21:12 File:DB83_121CAL2
Experiment:DX-DB225-4_01 Function:1 Reference:PFK

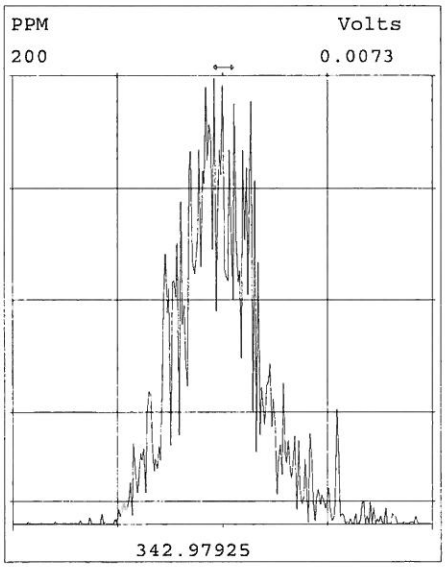
Approved by JA
10-Jul-18

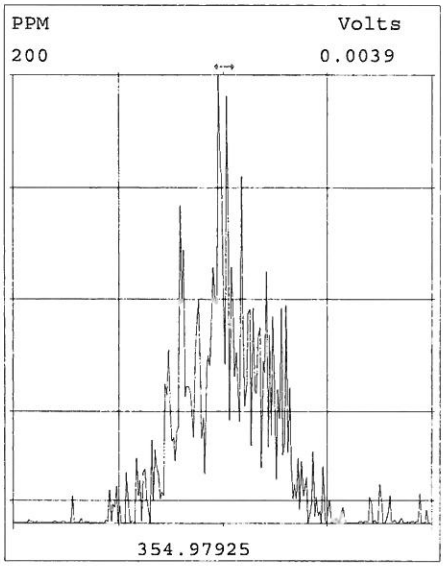


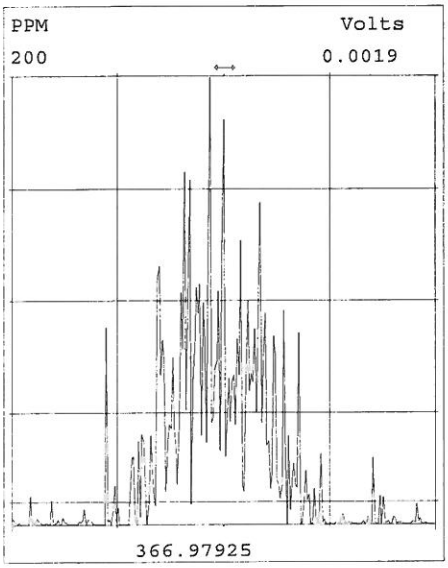


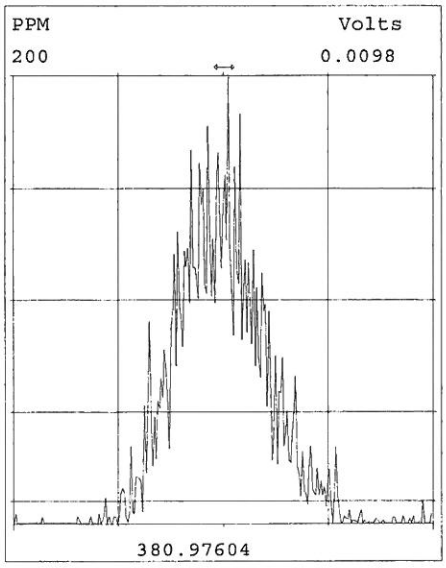




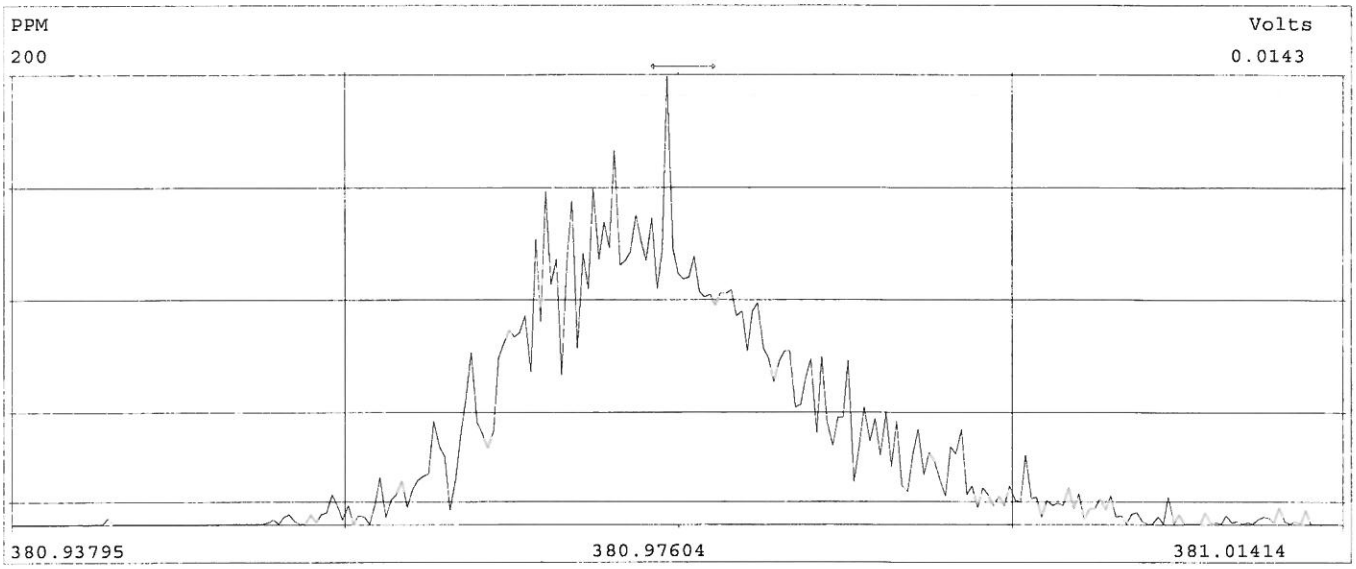


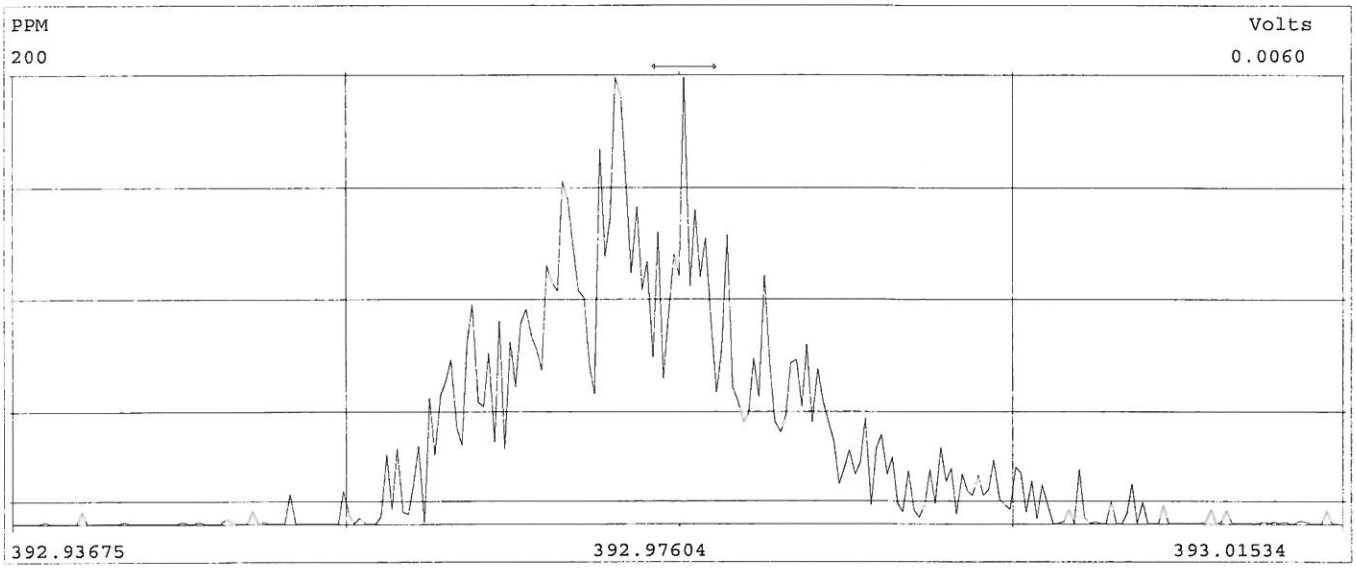


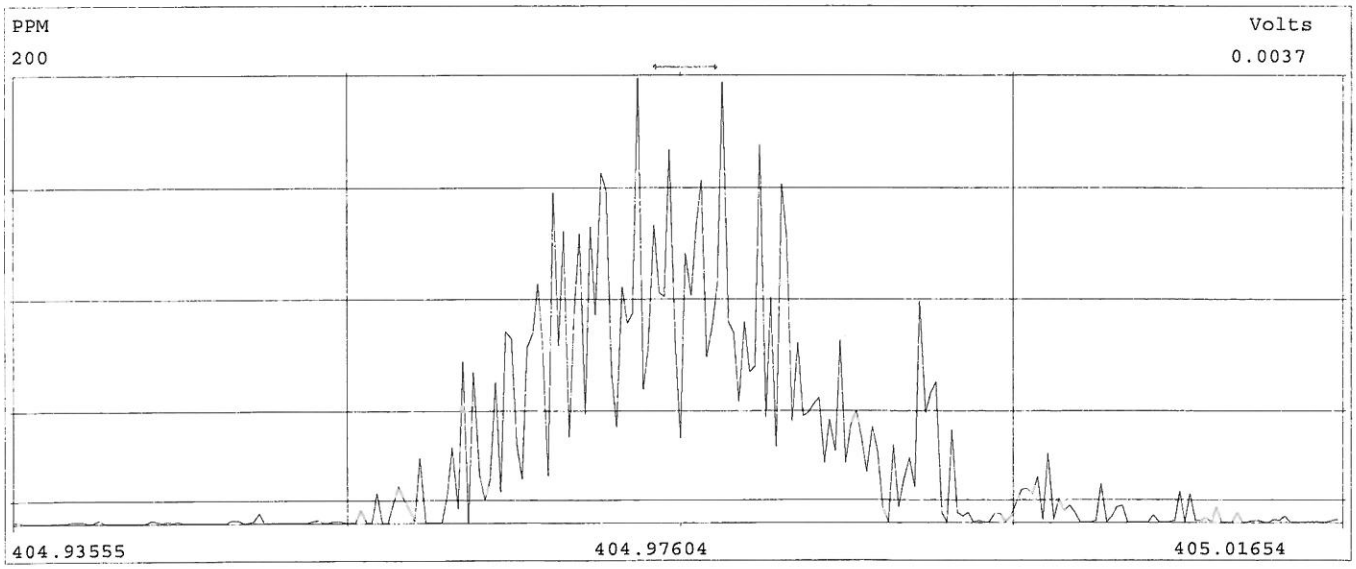




Peak Locate Examination:10-JUL-2018:21:12 File:DB83_121CAL2
Experiment:DX-DB225-4_01 Function:2 Reference:PFK







OPUSquan 12-JUL-2018 Page 1

c/q	Data Area	Data File	S	I	AnalyteTable	Factr #1	Factr #2	Size	HC	Sample Text	Comments	Done
1 c	ult3	DB83_121	4	1	DB-HXD-C2	0.2000	1.0000	1.000000	y	DX041A-CAL,,»	1,,2.0uL CS-0.2/»	y
2 c	ult3	DB83_121	3	1	DB-HXD-C2	1.0000	1.0000	1.000000	y	DX041B-CAL,,»	1,,2.0uL CS-1	y
3 c	ult3	DB83_121	2	1	DB-HXD-C2	4.0000	1.0000	1.000000	y	DX041C-CAL,,»	1,,2.0uL CS-2	y
4 c	ult3	DB83_121	7	1	DB-HXD-C2	20.0000	1.0000	1.000000	y	DX041D-CAL,,»	1,,2.0uL CAL	y
5 c	ult3	DB83_121	6	1	DB-HXD-C2	80.0000	1.0000	1.000000	y	DX041E-CAL,,»	1,,2.0uL CS-4	y
6 c	ult3	DB83_121	5	1	DB-HXD-C2	400.0000	1.0000	1.000000	y	DX041F-CAL,,»	1,,2.0uL CS-5	y
7 q	ult3	DB83_121	8	1	DB-HXD-C2	20.0000	1.0000	1.000000	y	DX003A-SSV,,»	1,,2.0uL CAL	y
8 q	ult3	DB83_121	7	1	DB-HXD-C2	20.0000	1.0000	1.000000	y	DX041D-CAL,,»	1,,2.0uL CAL	y
9 q	ult3	DB83_121	1	1	DB-HXD-C2	1.0000	1.0000	1.000000	y	DX003A-RSN,,»	1,,2.0uL Win/Res	y

SGS AXYS METHOD MLA-010 Rev 12

Form 3A
PCDD/PCDF INITIAL CALIBRATION RELATIVE RESPONSES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 10-Jul-2018

Instrument ID: HR GC/MS

GC Column ID: DB225

CS0 Data Filename: DB83_121 S: 4
CS1 Data Filename: DB83_121 S: 3
CS2 Data Filename: DB83_121 S: 2
CS3 Data Filename: DB83_121 S: 7
CS4 Data Filename: DB83_121 S: 6
CS5 Data Filename: DB83_121 S: 5
CS6 Data Filename: N/A

		RELATIVE RESPONSE (RR)								
COMPOUND	**LAB FLAG [1]**	**CS0**	**CS1**	**CS2**	**CS3**	**CS4**	**CS5**	**CS6**	**MEAN RR**	**CV (%RSD)[2]**
1,2,3,7,8,9-HXCDD		0.82	0.89	0.85	0.97	0.99	1.00		0.92	8.53
2,3,7,8-TCDF		0.93	0.91	0.89	1.04	1.03	1.01		0.97	7.11

(1) Where applicable, custom lab flags have been used on this report.
(2) For contract CV specifications, see Section 10.5.4, Method 1613.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Bjorn Arvi_____

For Axys Internal Use Only [XSL Template: Form3A.xsl; Created: 26-Jul-2018 11:26:57; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_10-Jul-2018_DB83__Form3A_GS76821.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 3C

PCDD/PCDF INITIAL CALIBRATION ION ABUNDANCE RATIOS

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date: 10-Jul-2018

Instrument ID: HR GC/MS

GC Column ID: DB225

CS0 Data Filename: DB83_121 S: 4

CS1 Data Filename: DB83_121 S: 3

CS2 Data Filename: DB83_121 S: 2

CS3 Data Filename: DB83_121 S: 7

CS4 Data Filename: DB83_121 S: 6

CS5 Data Filename: DB83_121 S: 5

CS6 Data Filename: N/A

			ION ABUNDANCE RATIO							
COMPOUND	**LAB FLAG [1]**	**M/Z's FORMING RATIO [2]**	**CS0**	**CS1**	**CS2**	**CS3**	**CS4**	**CS5**	**CS6**	**QC LIMITS[3]**
1,2,3,7,8,9-HXCDD		**M+2/M+4**	1.25	1.29	1.26	1.26	1.25	1.25		1.05-1.43
2,3,7,8-TCDF		**M/M+2**	0.88	0.81	0.78	0.78	0.78	0.78		0.65-0.89

(1) Where applicable, custom lab flags have been used on this report.
(2) See Table 8, Method 1613, for m/z specifications.
(3) Ion Abundance Ratio Control Limits from Table 9, Method 1613.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Bjorn Arvi_____

For Axys Internal Use Only [XSL Template: Form3C.xsl; Created: 26-Jul-2018 11:26:57; Application: XMLTransformer-1.16.47; Report Filename: 1613_DIOXINS_10-Jul-2018_DB83__Form3C_GS76821.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 5

PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Instrument ID:	HR GC/MS	**Initial Calibration Date:**		10-Jul-2018
RT Window Data Filename:		**Analysis Date:**		**Time:**
DB-5 IS Data Filename:		**Analysis Date:**		**Time:**
DB-225 IS Data Filename:	DB83_121 S: 1	**Analysis Date:**	10-Jul-2018	**Time:** 15:40:53

DB225 RT WINDOW DEFINING STANDARDS RESULT

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	N/A	**1,3,6,8-TCDF (F)**	N/A
1,2,8,9-TCDD (L)	N/A	**1,2,8,9-TCDF (L)**	N/A
1,2,4,7,9-PECDD (F)	N/A	**1,3,4,6,8-PECDF (F)**	N/A
1,2,3,8,9-PECDD (L)	N/A	**1,2,3,8,9-PECDF (L)**	N/A
1,2,4,6,7,9-HXCDD (F)	N/A	**1,2,3,4,6,8-HXCDF (F)**	N/A
1,2,3,4,6,7-HXCDD (L)	N/A	**1,2,3,4,8,9-HXCDF (L)**	N/A
1,2,3,4,6,7,9-HPCDD (F)	N/A	**1,2,3,4,6,7,8-HPCDF (F)**	N/A
1,2,3,4,6,7,8-HPCDD (L)	N/A	**1,2,3,4,7,8,9-HPCDF (L)**	N/A

(F) = First eluting isomer (DB-5); (L) = Last eluting isomer (DB-5)

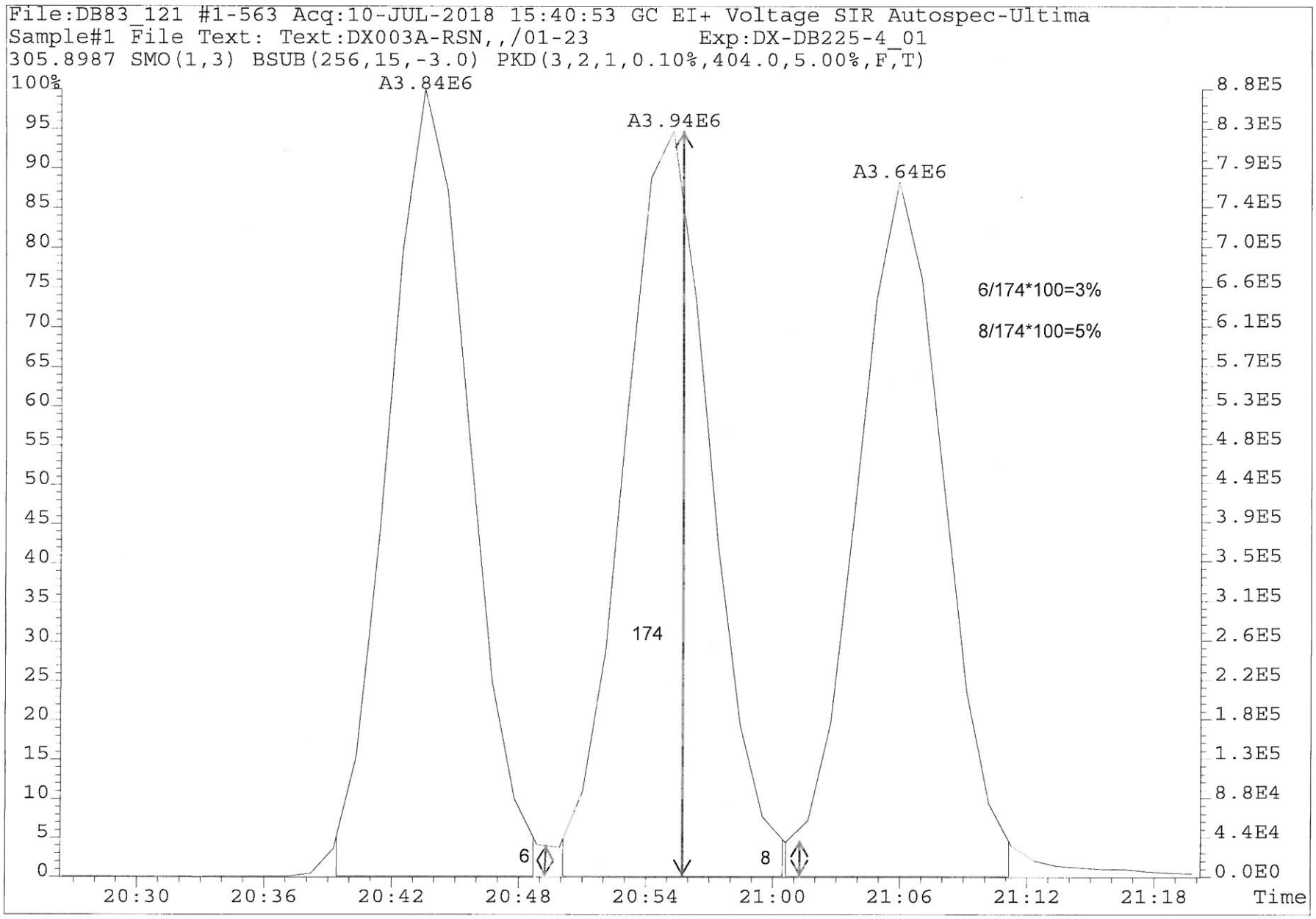
ISOMER SPECIFICITY (IS) TEST STANDARDS RESULT

Isomers	% Valley Height Between Compared Peaks	Isomers	% Valley Height Between Compared Peaks
1,2,3,4-TCDD **1,2,7,8-TCDD**	N/A	**1,2,3,8-TCDD** **2,3,7,8-TCDD**	N/A
1,2,7,8-TCDD **1,4,7,8-TCDD**	N/A	**2,3,4,7-TCDF** **2,3,7,8-TCDF**	3
1,4,7,8-TCDD **1,2,3,7-TCDD**	N/A	**2,3,7,8-TCDF** **1,2,3,9-TCDF**	5
1,2,3,7-TCDD **1,2,3,8-TCDD**	N/A		

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Brian Watson_____

For Axys Internal Use Only [XSL Template: DXForm5.xsl; Created: 26-Jul-2018 11:26:57; Application: XMLTransformer-1.16.47; Report Filename: 1613_DIOXINS__DB83_121S1_Form5_SJ2403414.html; Workgroup: WG64578; Design ID: 491]



PV by TD 12-Jul-2018

Sign 12-Jul-18

SGS Axys Analytical Services, Ltd.

Method: C:\MassLynx\180604DX.PRO\MethDB\DX_Log.mdb 21 Nov 2008 11:39:44
Calibration: C:\MassLynx\180604DX.PRO\CurveDB\DX8M_065C-CAL.cdb 05 Jun 2018 06:43:58

Compound name: -

#	Name	ID	Sample Text	Acq Date	Acq Time
1	DX8M_086S1	DX041D-CAL,,/01-89	1,,1.0uL Cal Win/Res	20-Jul-18	15:48:11
2	DX8M_086S2	WG64578-102,,SPM	1,WG64578,1.0/20uL	20-Jul-18	16:56:28
3	DX8M_086S3	WG64578-103,,SPMDUP	1,WG64578,1.0/20uL	20-Jul-18	17:57:26
4	DX8M_086S4	DX051A-SUR,,/01	1,,1.0uL Inst Blank	20-Jul-18	18:50:07
5	DX8M_086S5	DX051A-SUR,,/01	1,,1.0uL Inst Blank	20-Jul-18	19:44:54
6	DX8M_086S6	WG64578-101,,BLK	1,WG64578,1.0/20uL	20-Jul-18	20:40:09
7	DX8M_086S7	L29628-1,,	1,WG64578,1.0/20uL	20-Jul-18	21:35:20
8	DX8M_086S8	L29628-7,,	1,WG64578,1.0/20uL	20-Jul-18	22:30:36
9	DX8M_086S9	L29628-11,,	1,WG64578,1.0/20uL	20-Jul-18	23:25:48
10	DX8M_086S10	L29628-12,,	1,WG64578,1.0/20uL	21-Jul-18	00:21:02
11	DX8M_086S11	L29628-14,,	1,WG64578,1.0/20uL	21-Jul-18	01:16:16
12	DX8M_086S12	DX041D-CAL,,/01-89	1,,1.0uL Cal Win/Res	21-Jul-18	02:11:30
13	DX8M_086S13	DX051A-SUR,,/01	1,,1.0uL Inst Blank	21-Jul-18	03:15:53
14	DX8M_086S14	DX051A-SUR,,/01	1,,1.0uL Inst Blank	21-Jul-18	04:08:24
15	DX8M_086S15	L29628-17,,	1,WG64578,1.0/20uL	21-Jul-18	05:03:32
16	DX8M_086S16	L29628-18,,	1,WG64578,1.0/20uL	21-Jul-18	05:58:39
17	DX8M_086S17	L29628-19,,	1,WG64578,1.0/20uL	21-Jul-18	06:53:48
18	DX8M_086S18	L29628-21,,	1,WG64578,1.0/20uL	21-Jul-18	07:49:02
19	DX8M_086S19	L29628-22,,	1,WG64578,1.0/20uL	21-Jul-18	08:44:15
20	DX8M_086S20	L29628-25,,	1,WG64578,1.0/20uL	21-Jul-18	09:39:28
21	DX8M_086S21	L29628-26,,	1,WG64578,1.0/20uL	21-Jul-18	10:34:36
22	DX8M_086S22	L29628-28,,	1,WG64578,1.0/20uL	21-Jul-18	11:29:44
23	DX8M_086S23	L29628-29,,	1,WG64578,1.0/20uL	21-Jul-18	12:24:58
24	DX8M_086S24	DX041D-CAL,,/01-89	1,,1.0uL Cal Win/Res	21-Jul-18	13:20:07

Experiment Calibration Report **MassLynx 4.1** DX8M_086 S:1 CAL 1M Page 1 of 1

File: Experiment: DX_DB5_1_04.exp Reference: pfk.ref Function: 3 @ 200 (ppm)

Printed: Friday, July 20, 2018 15:44:05 Pacific Daylight Time Approved by NH 20-July-2018

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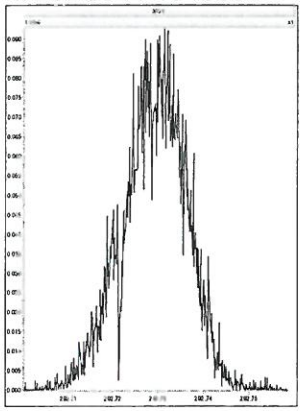

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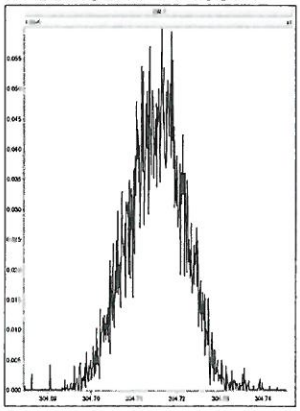
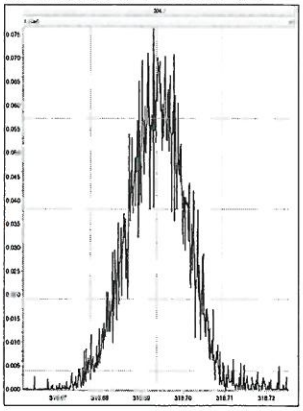
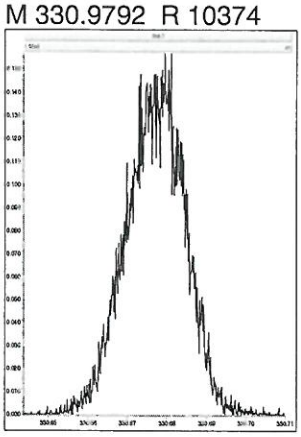


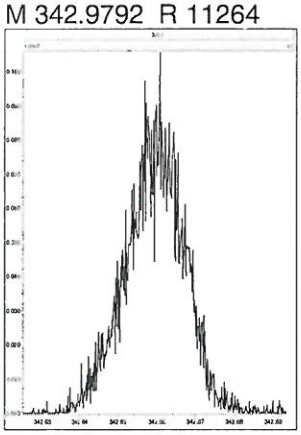
M 318.9792 R 10732



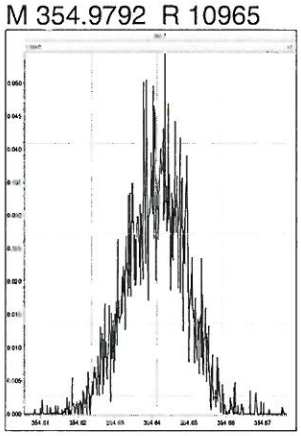
M 330.9792 R 10374



M 342.9792 R 11264



M 354.9792 R 10965



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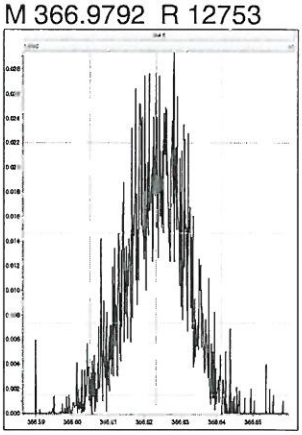
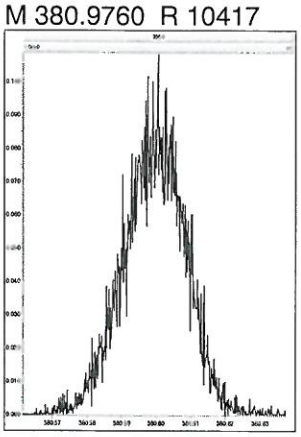


M 380.9760 R 10417



Experiment Calibration Report **MassLynx 4.1** Page 1 of 1

File: Experiment: DX_DB5_1_04.exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed: Friday, July 20, 2018 15:44:47 Pacific Daylight Time

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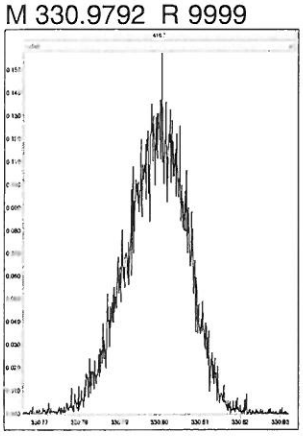

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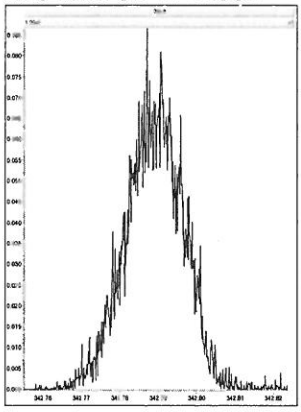

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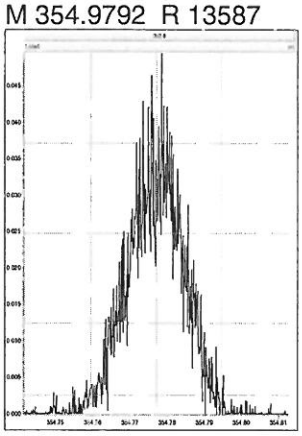

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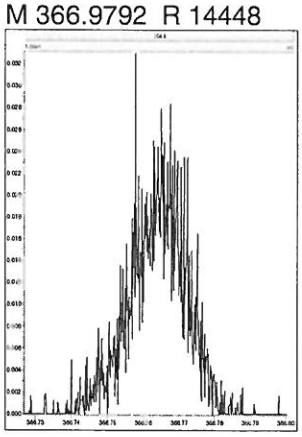

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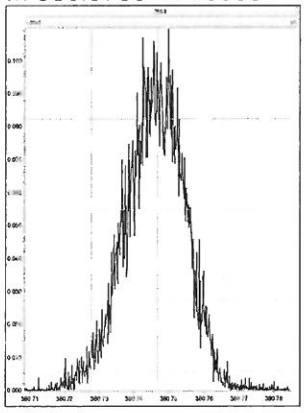

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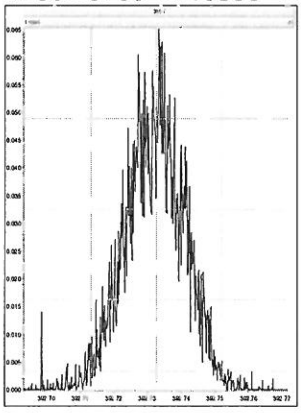

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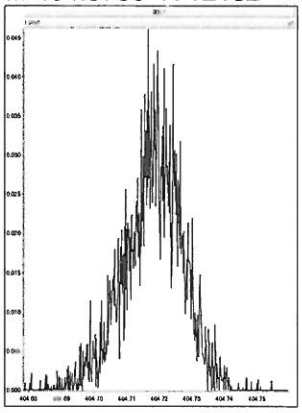

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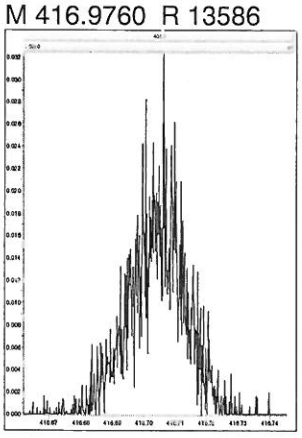

Experiment Calibration Report **MassLynx 4.1** Page 1 of 1

File: Experiment: DX_DB5_1_04.exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed: Friday, July 20, 2018 15:45:21 Pacific Daylight Time

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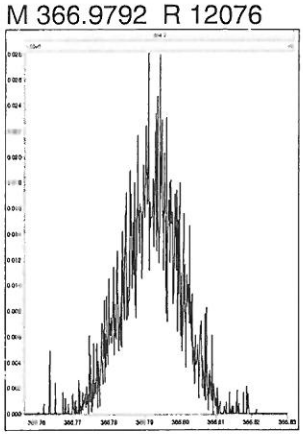

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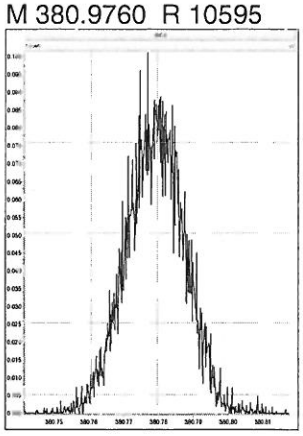

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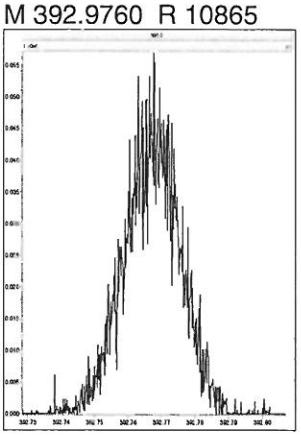

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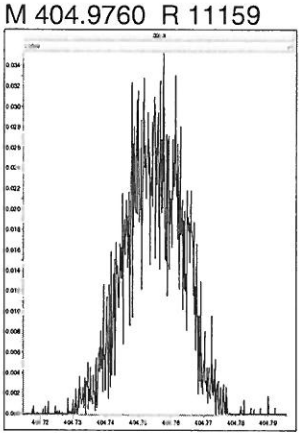

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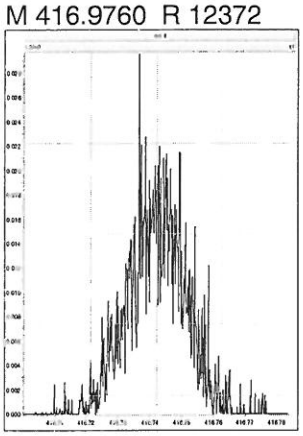

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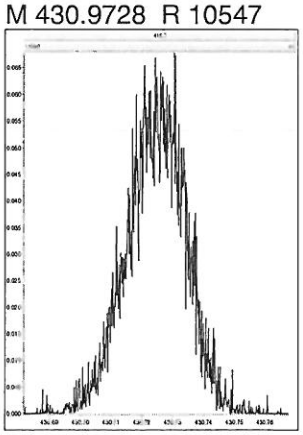

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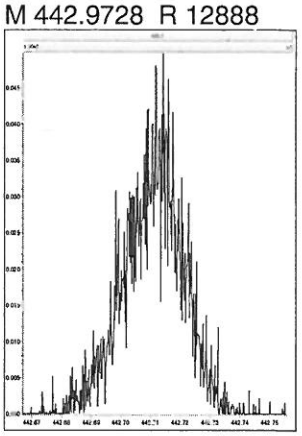

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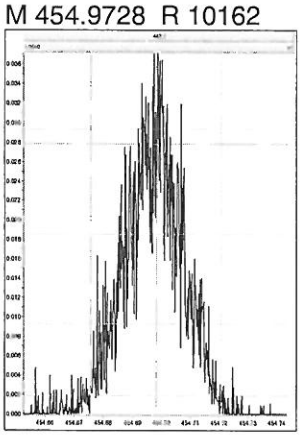

Experiment Calibration Report **MassLynx 4.1** Page 1 of 1

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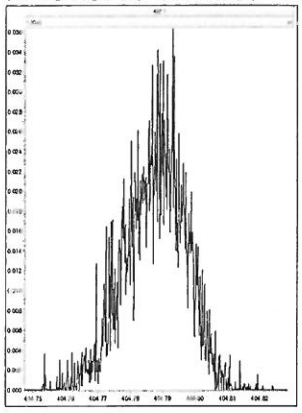
Printed: Friday, July 20, 2018 15:45:54 Pacific Daylight Time

M 404.9760 R 11260



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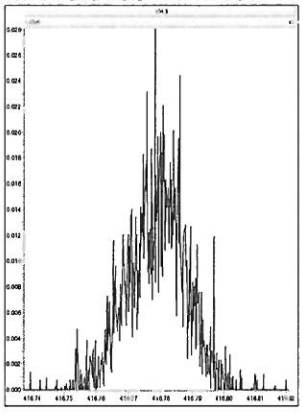

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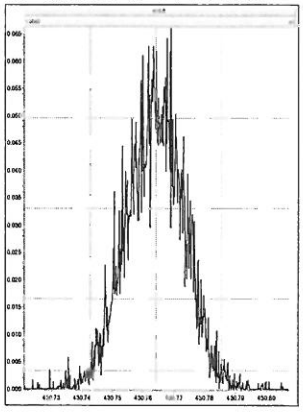

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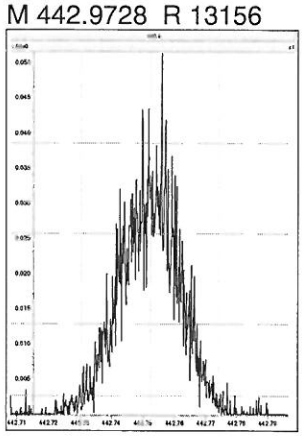

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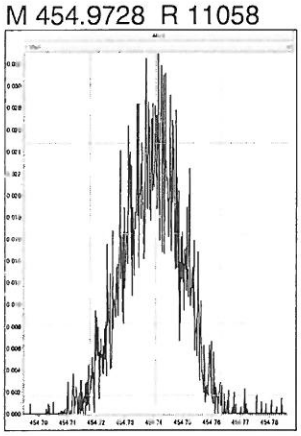

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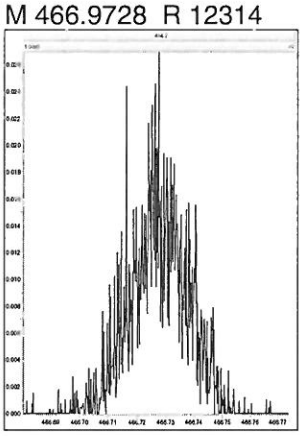

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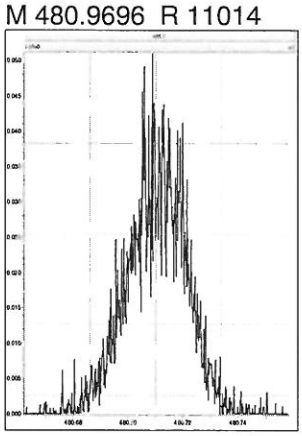

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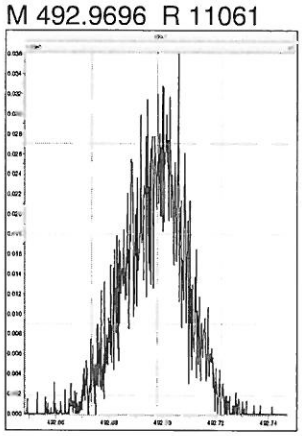

Experiment Calibration Report **MassLynx 4.1** Page 1 of 1

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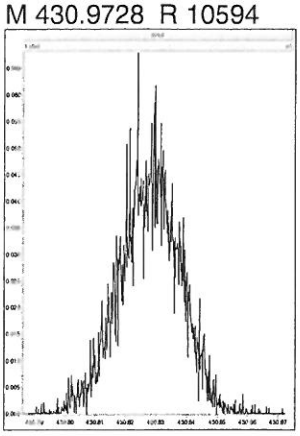

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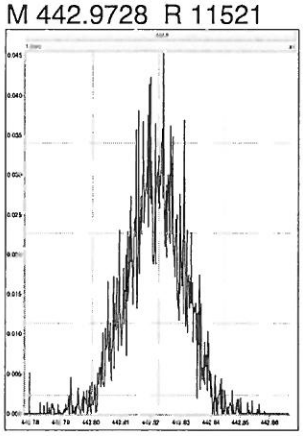

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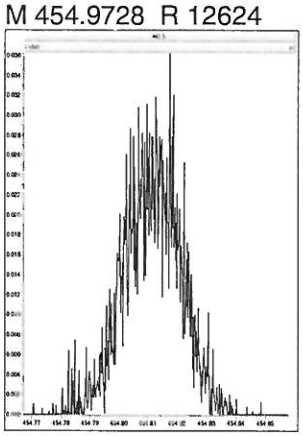

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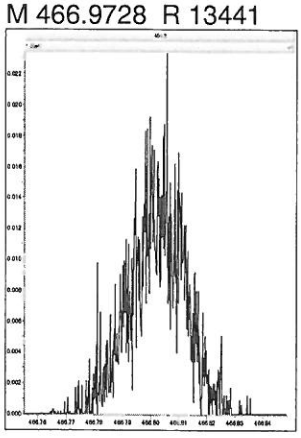

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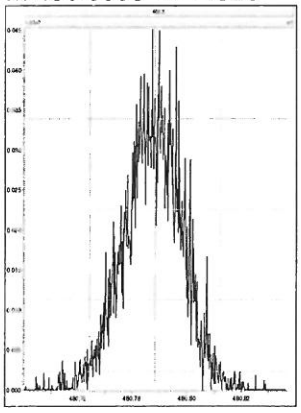

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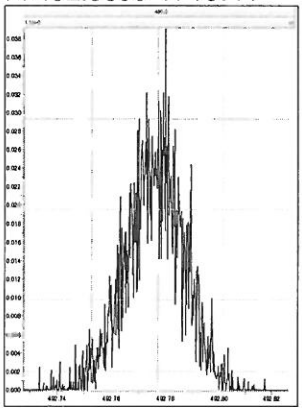

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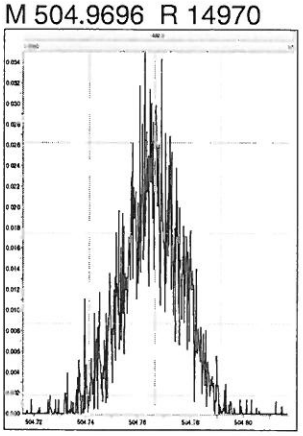

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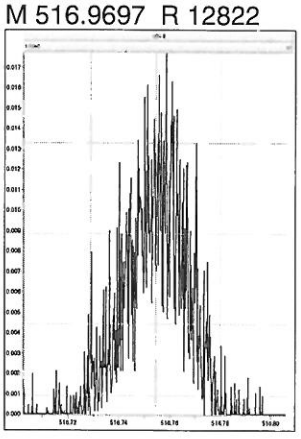

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Approved by JD 21 Jul 18

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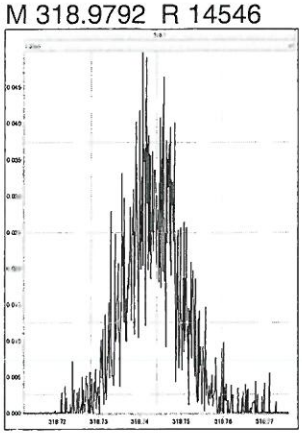

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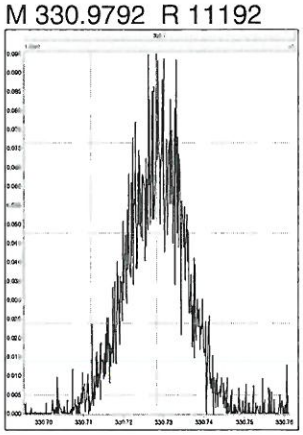

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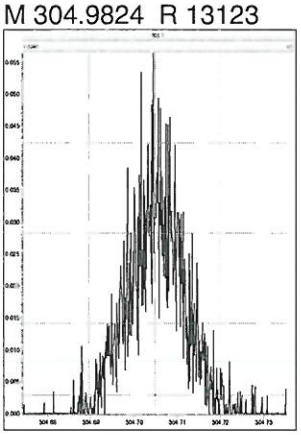

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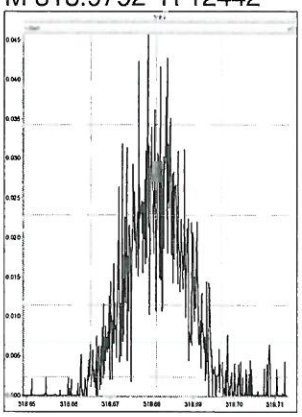

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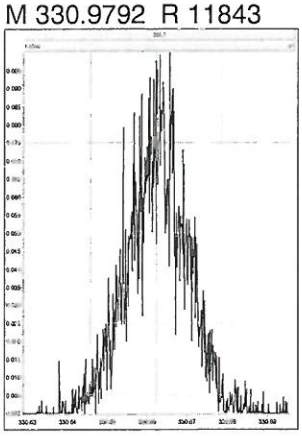

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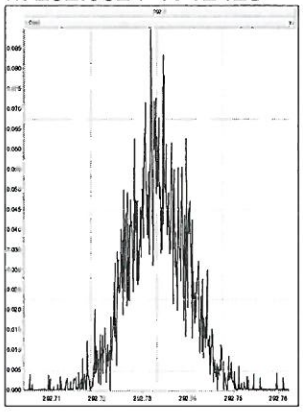

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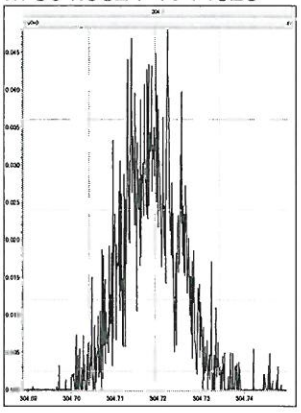

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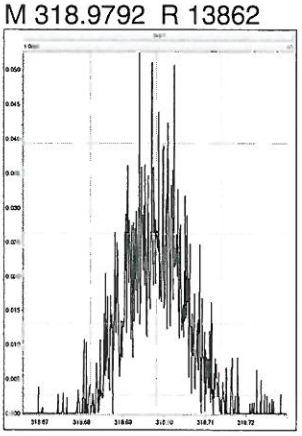

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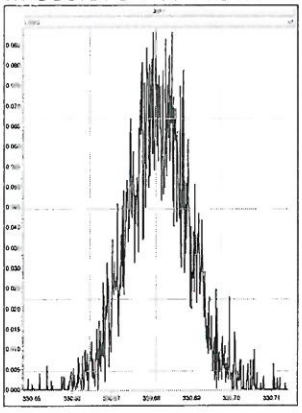

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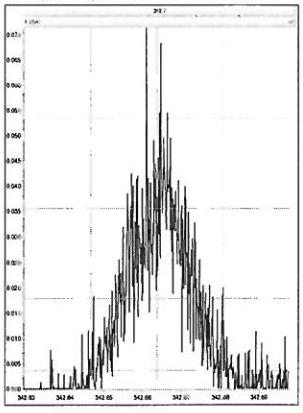

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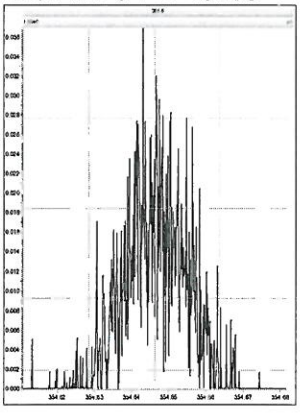

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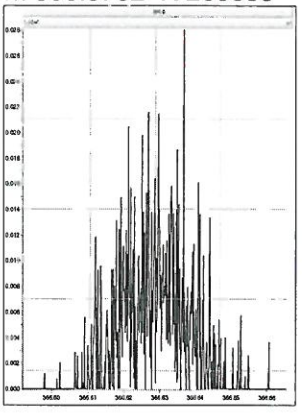

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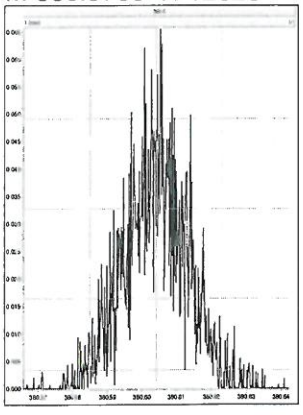

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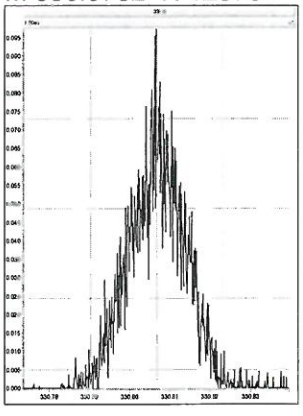

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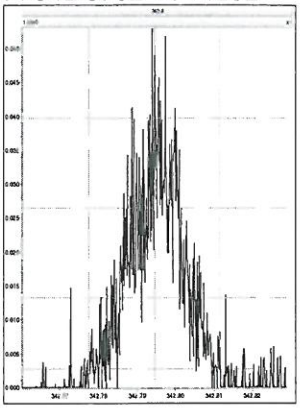

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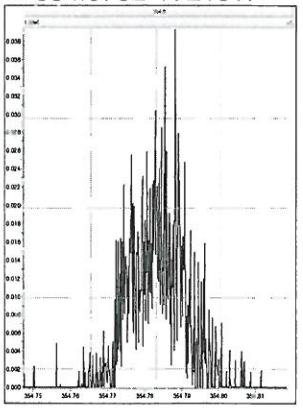

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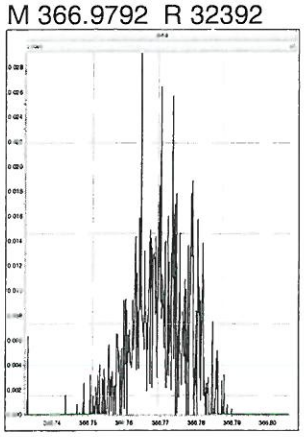

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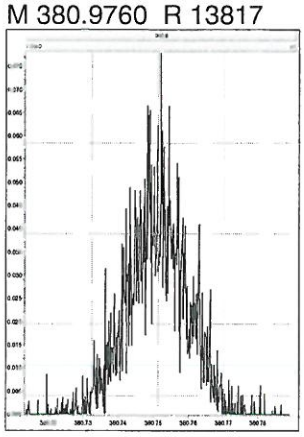

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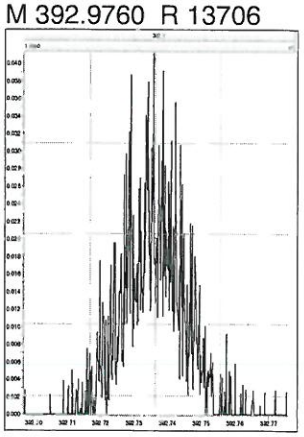

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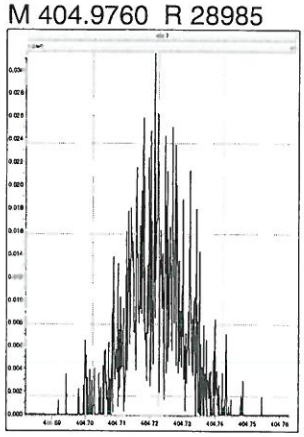

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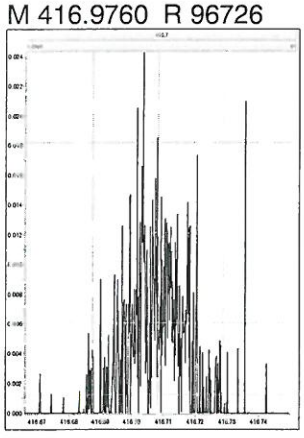

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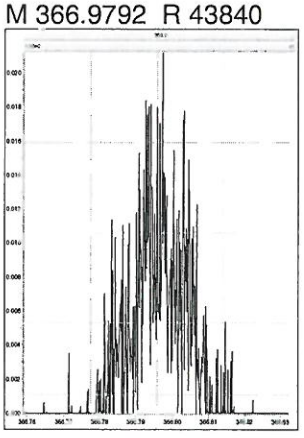

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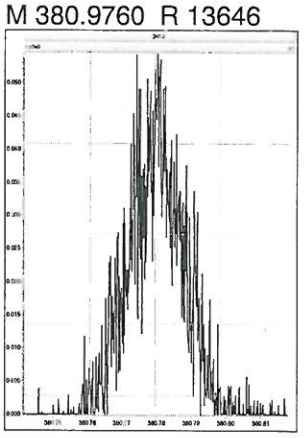

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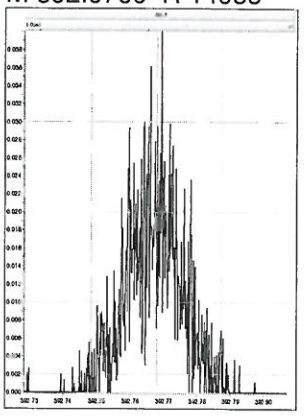

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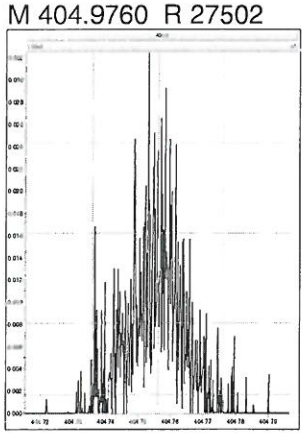

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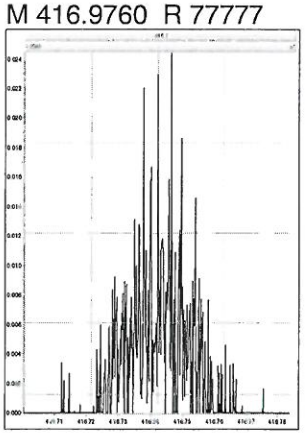

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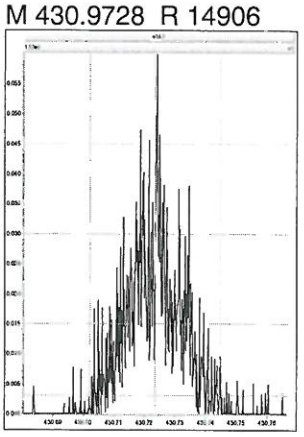

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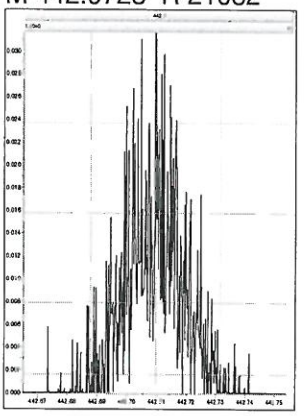

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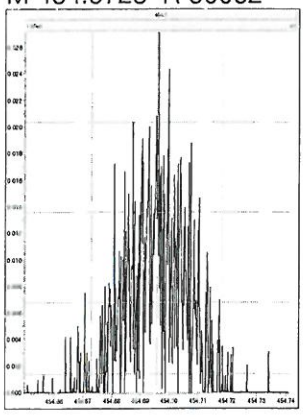

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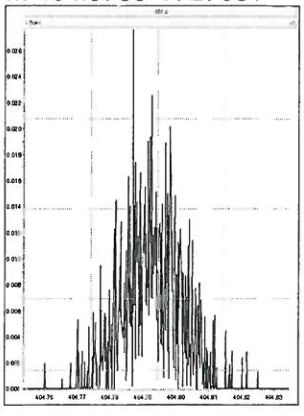

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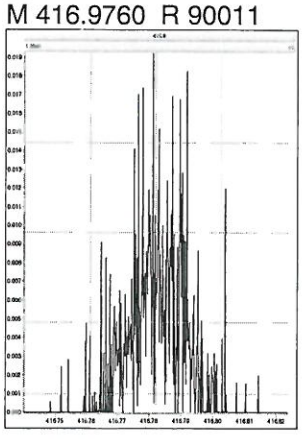

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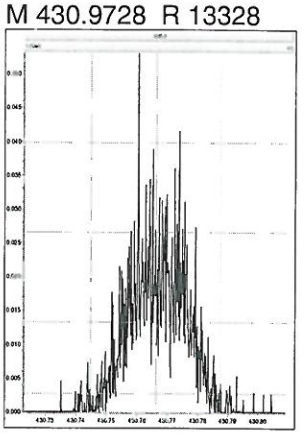

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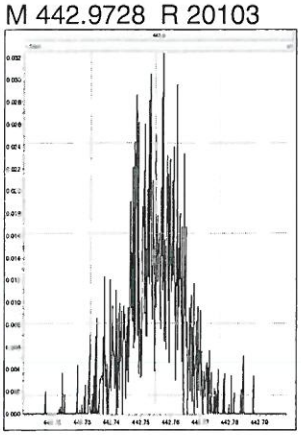

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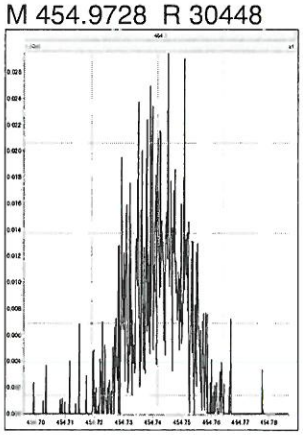

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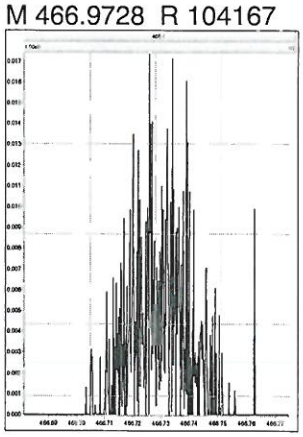

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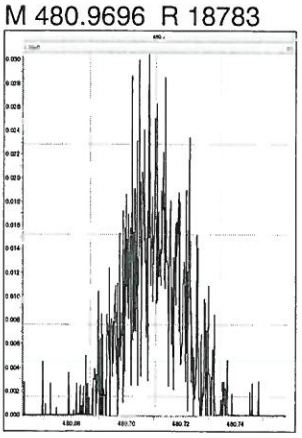

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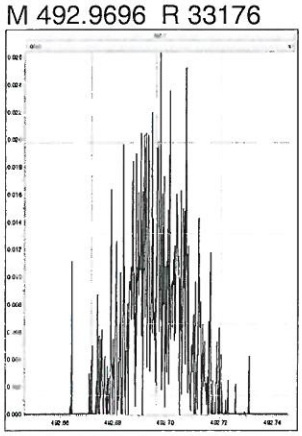

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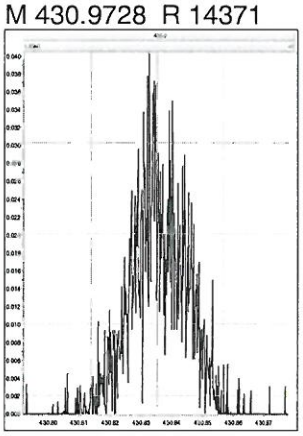

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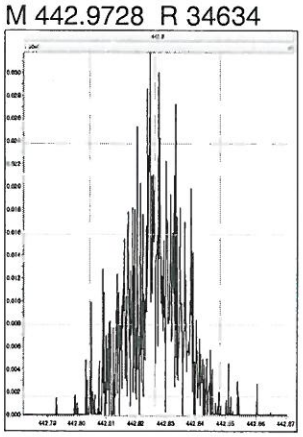

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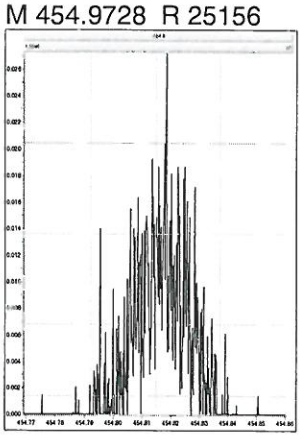

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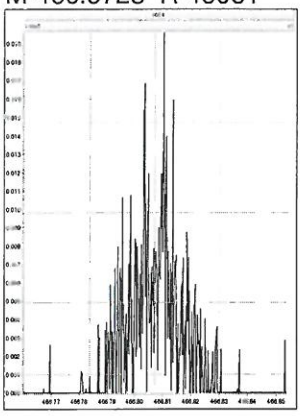

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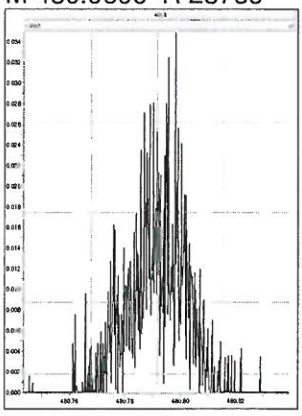

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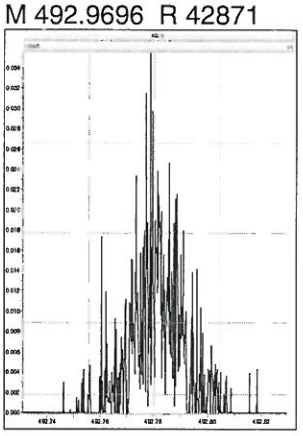

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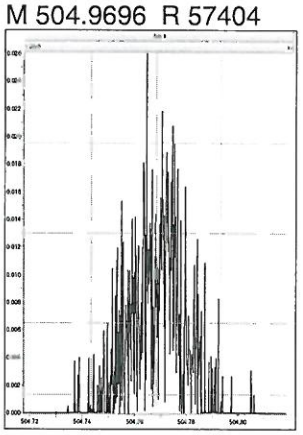

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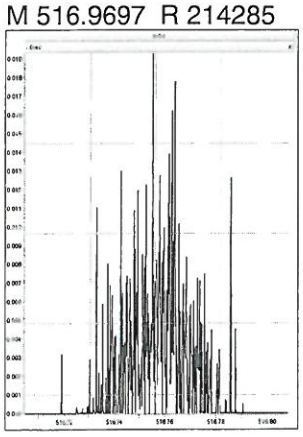

DXRM-086 CAL3 S:24

Resolution Check Report **MassLynx 4.1**

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Approved by D 21 Jul 18

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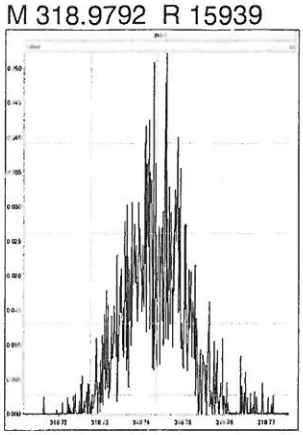

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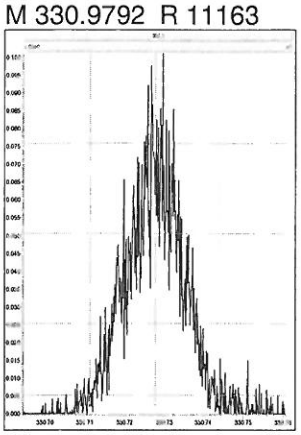

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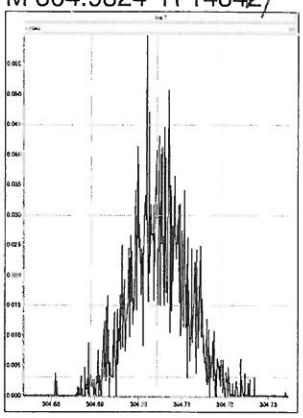

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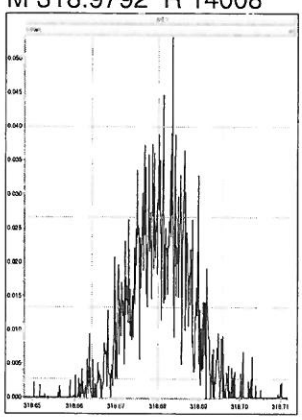

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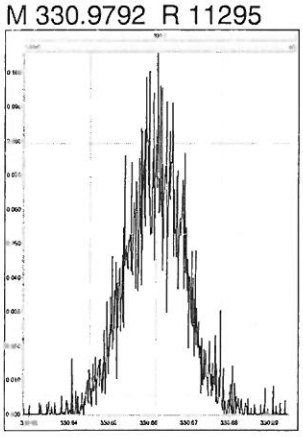

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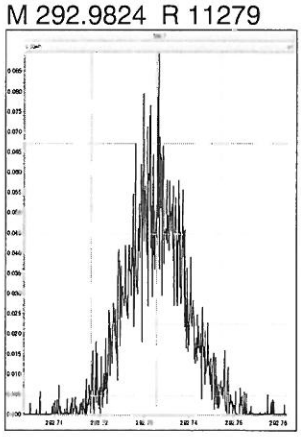

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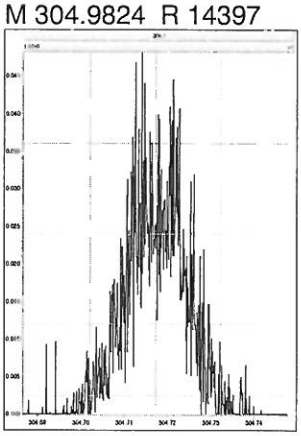

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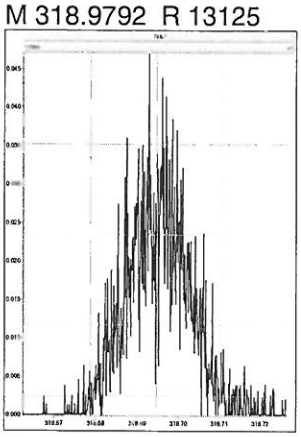

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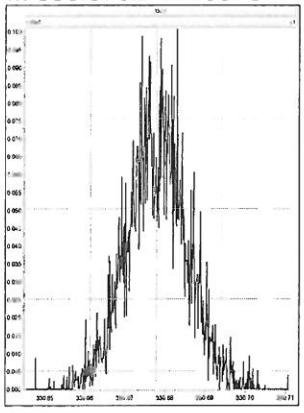

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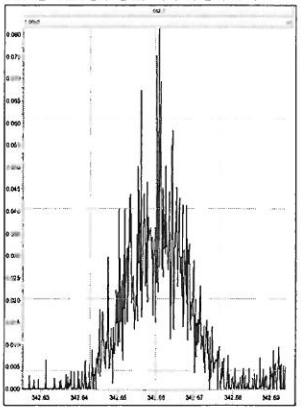

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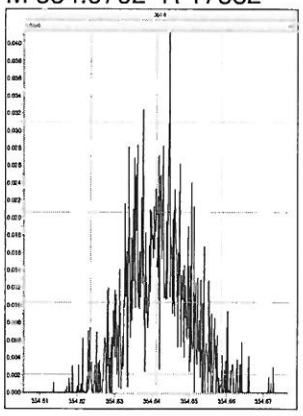

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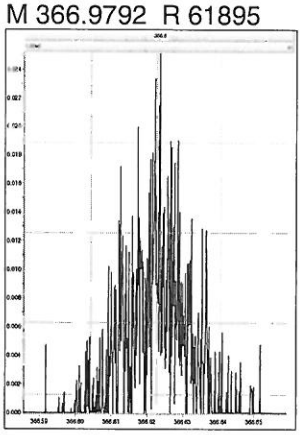

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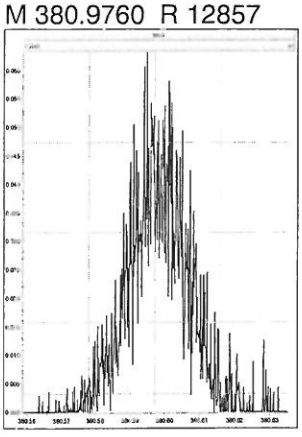

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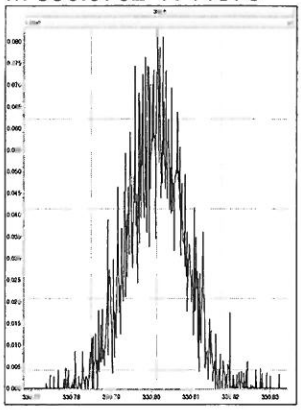

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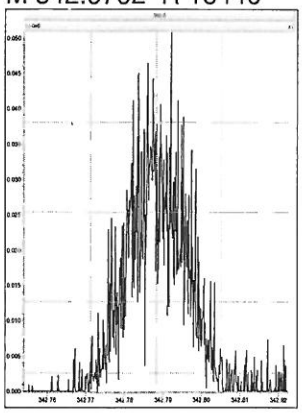

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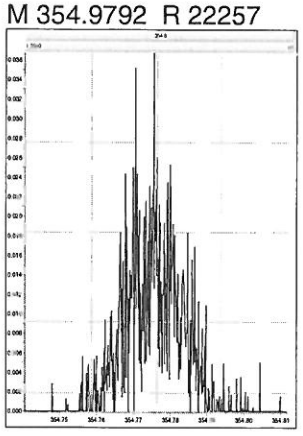

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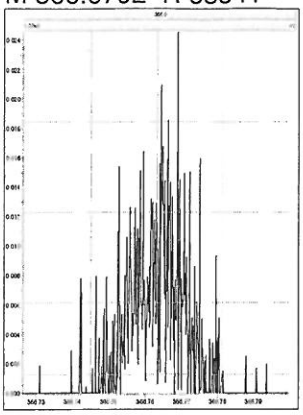

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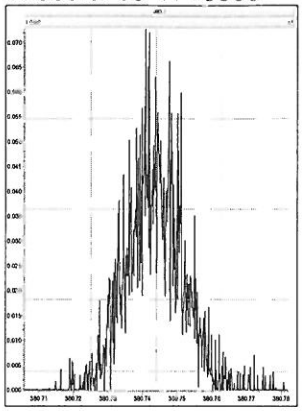

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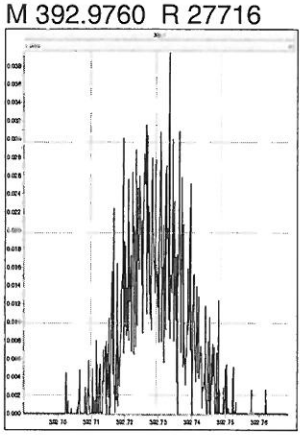

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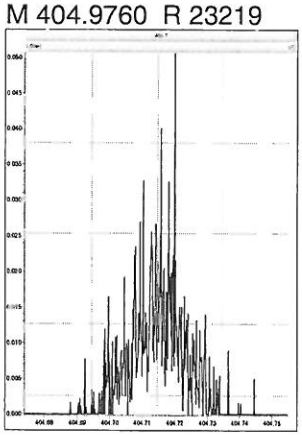

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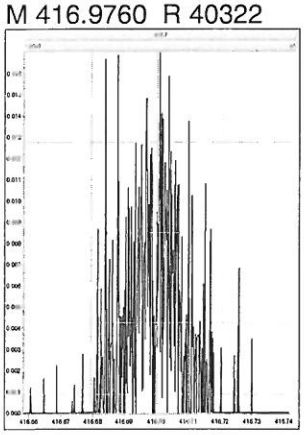

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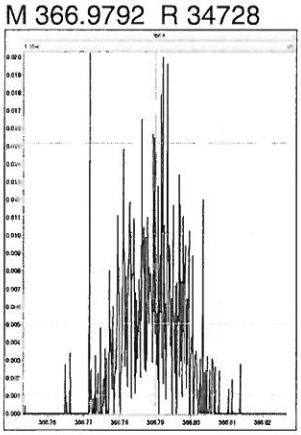

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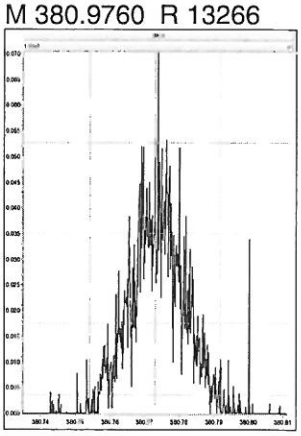

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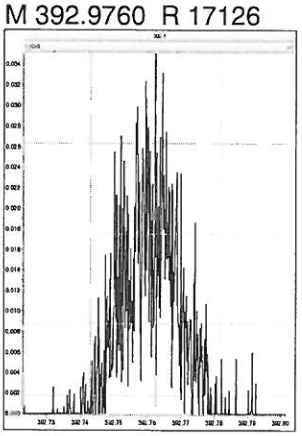

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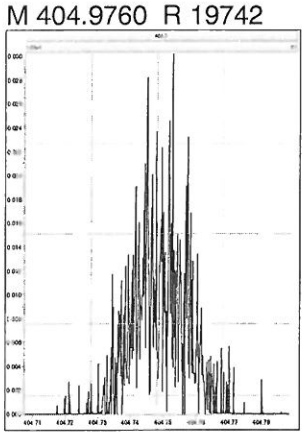

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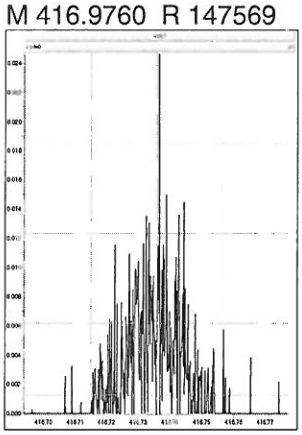

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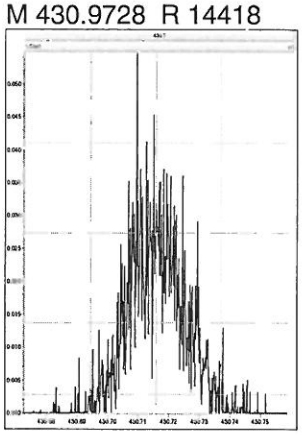

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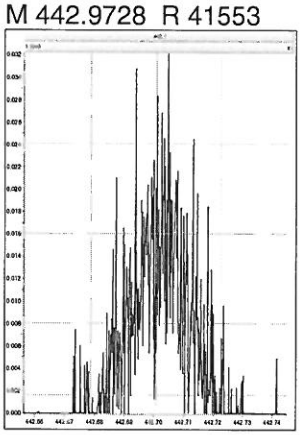

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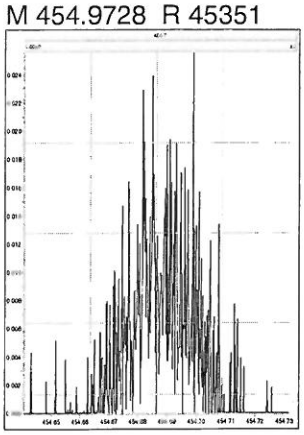

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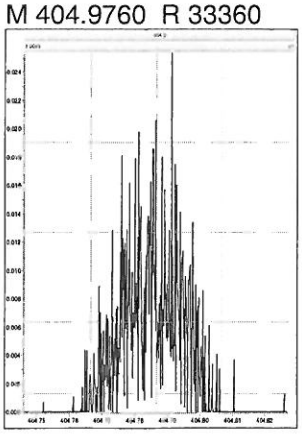

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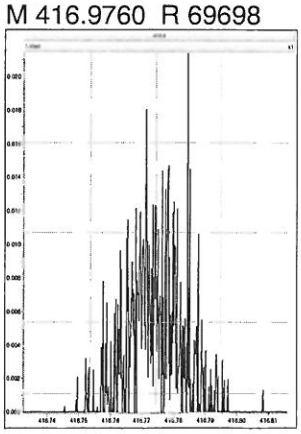

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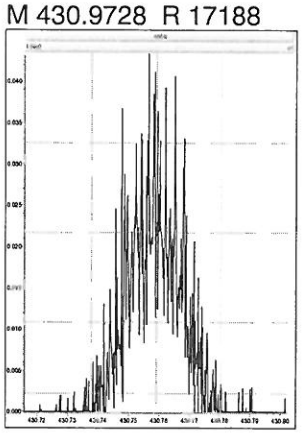

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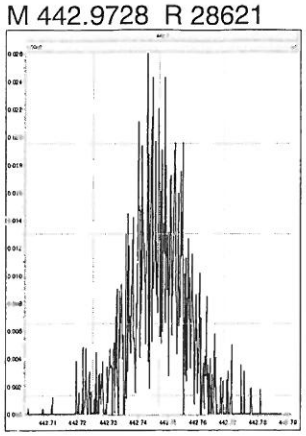

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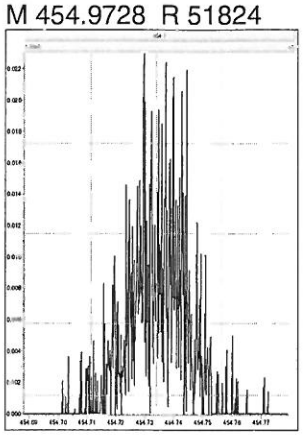

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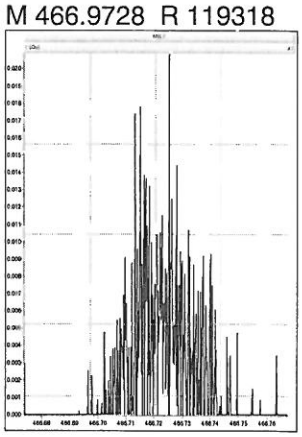

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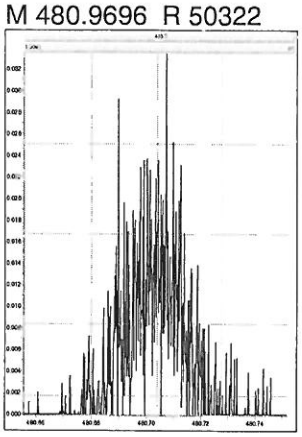

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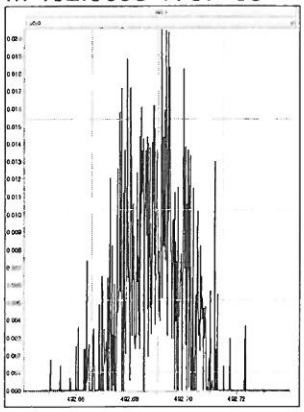

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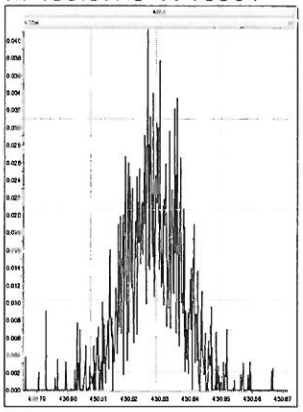

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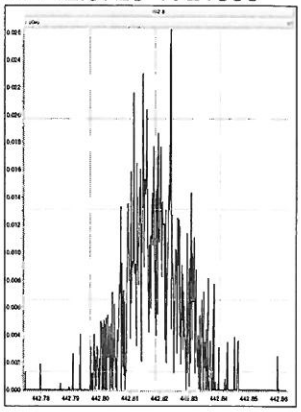

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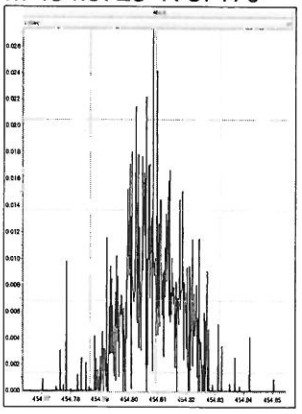

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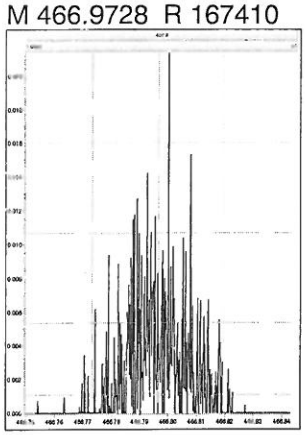

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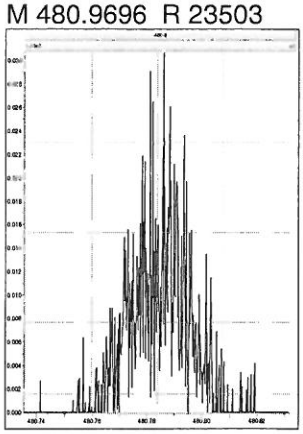

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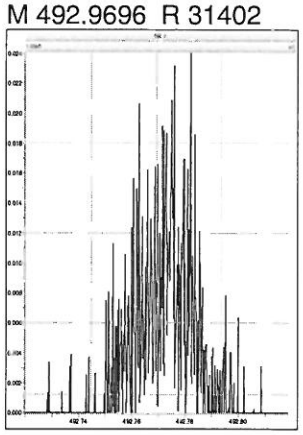

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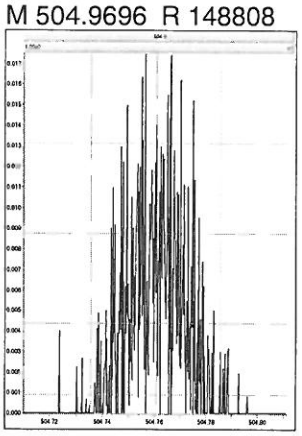

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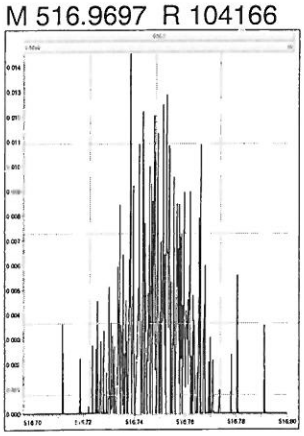

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Printed: Thursday, July 26, 2018 08:32:02 Pacific Daylight Time

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	File Name	Sample ID	File Text	Sample Type	Subject Text	Samp Size	13C-Te-Hp	13C-OCDD	Rec Std	C/Up
1	DX8M_086S1	DX041D-CAL,,/01-89	1,,1.0uL Cal Win/Res	QC	DB5,ng/mL	1.000	100	200	100	10
2	DX8M_086S2	WG64578-102,,SPM	1,WG64578,1.0/20uL	Analyte	DB5,ng/mL	20.000	2000	4000	2000	200
3	DX8M_086S3	WG64578-103,,SPMDUP	1,WG64578,1.0/20uL	Analyte	DB5,ng/mL	20.000	2000	4000	2000	200
4	DX8M_086S4	DX051A-SUR,,/01	1,,1.0uL Inst Blank	Blank	DB5,pg/sam	1.000	200	400	200	---
5	DX8M_086S5	DX051A-SUR,,/01	1,,1.0uL Inst Blank	Blank	DB5,pg/sam	1.000	200	400	200	---
6	DX8M_086S6	WG64578-101,,BLK	1,WG64578,1.0/20uL	Analyte	DB5,pg/L	1.000	2000	4000	2000	200
7	DX8M_086S7	L29628-1,,	1,WG64578,1.0/20uL	Analyte	DB5,pg/L	1.016	2000	4000	2000	200
8	DX8M_086S8	L29628-7,,	1,WG64578,1.0/20uL	Analyte	DB5,pg/L	1.053	2000	4000	2000	200
9	DX8M_086S9	L29628-11,,	1,WG64578,1.0/20uL	Analyte	DB5,pg/L	1.071	2000	4000	2000	200
10	DX8M_086S10	L29628-12,,	1,WG64578,1.0/20uL	Analyte	DB5,pg/L	1.032	2000	4000	2000	200
11	DX8M_086S11	L29628-14,,	1,WG64578,1.0/20uL	Analyte	DB5,pg/L	1.056	2000	4000	2000	200
12	DX8M_086S12	DX041D-CAL,,/01-89	1,,1.0uL Cal Win/Res	QC	DB5,ng/mL	1.000	100	200	100	10

Sample List Report **MassLynx 4.1 SCN627**

Sample List: G:\Masslynx\Inst_M\Projects\180604DX.PRO\SampleDB\DX8M_086-B.SPL
Last Modified: Thursday, July 26, 2018 08:31:40 Pacific Daylight Time
Printed: Thursday, July 26, 2018 08:31:48 Pacific Daylight Time

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	File Name	Sample ID	File Text	Sample Type	Subject Text	Samp Size	13C-Te-Hp	13C-OCDD	Rec Std	C/Up
1	DX8M_086S12	DX041D-CAL,,/01-89	1,,1.0uL Cal Win/Res	QC	DB5,ng/mL	1.000	100	200	100	10
2	DX8M_086S13	DX051A-SUR,,/01	1,,1.0uL Inst Blank	Blank	DB5,pg/sam	1.000	200	400	200	---
3	DX8M_086S14	DX051A-SUR,,/01	1,,1.0uL Inst Blank	Blank	DB5,pg/sam	1.000	200	400	200	---
4	DX8M_086S15	L29628-17,,	1,WG64578,1.0/20uL	Analyte	DB5,pg/L	1.065	2000	4000	2000	200
5	DX8M_086S16	L29628-18,,	1,WG64578,1.0/20uL	Analyte	DB5,pg/L	1.080	2000	4000	2000	200
6	DX8M_086S17	L29628-19,,	1,WG64578,1.0/20uL	Analyte	DB5,pg/L	1.063	2000	4000	2000	200
7	DX8M_086S18	L29628-21,,	1,WG64578,1.0/20uL	Analyte	DB5,pg/L	1.065	2000	4000	2000	200
8	DX8M_086S19	L29628-22,,	1,WG64578,1.0/20uL	Analyte	DB5,pg/L	1.061	2000	4000	2000	200
9	DX8M_086S20	L29628-25,,	1,WG64578,1.0/20uL	Analyte	DB5,pg/L	1.073	2000	4000	2000	200
10	DX8M_086S21	L29628-26,,	1,WG64578,1.0/20uL	Analyte	DB5,pg/L	1.080	2000	4000	2000	200
11	DX8M_086S22	L29628-28,,	1,WG64578,1.0/20uL	Analyte	DB5,pg/L	1.060	2000	4000	2000	200
12	DX8M_086S23	L29628-29,,	1,WG64578,1.0/20uL	Analyte	DB5,pg/L	1.070	2000	4000	2000	200
13	DX8M_086S24	DX041D-CAL,,/01-89	1,,1.0uL Cal Win/Res	QC	DB5,ng/mL	1.000	100	200	100	10

SGS AXYS METHOD MLA-010 Rev 12

Form 4A
PCDD/PCDF CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	04-Jun-2018	**VER Data Filename:**	DX8M_086 S: 1
Instrument ID:	HR GC/MS	**Analysis Date:**	20-Jul-2018
GC Column ID:	DB5	**Analysis Time:**	15:48:11

COMPOUND	LAB FLAG [1]	MZ's FORMING RATIO [2]	ION ABUND. RATIO	QC LIMITS [3]	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL) [4]
2,3,7,8-TCDD		**M/M+2**	0.77	0.65-0.89	10.7	7.8 - 12.9
1,2,3,7,8-PECDD [5]		**M/M+2**	0.61	0.52-0.70	54.3	39 - 65
1,2,3,4,7,8-HXCDD		**M+2/M+4**	1.27	1.05-1.43	54.7	39 - 64
1,2,3,6,7,8-HXCDD		**M+2/M+4**	1.18	1.05-1.43	55.2	39 - 64
1,2,3,7,8,9-HXCDD		**M+2/M+4**	1.16	1.05-1.43	50.3	41 - 61
1,2,3,4,6,7,8-HPCDD		**M+2/M+4**	1.09	0.88-1.20	56.4	43 - 58
OCDD		**M+2/M+4**	0.88	0.76-1.02	110	79 - 126
2,3,7,8-TCDF		**M/M+2**	0.76	0.65-0.89	10.5	8.4 - 12
1,2,3,7,8-PECDF		**M+2/M+4**	1.48	1.32-1.78	50.5	41 - 60
2,3,4,7,8-PECDF		**M+2/M+4**	1.50	1.32-1.78	51.2	41 - 61
1,2,3,4,7,8-HXCDF		**M+2/M+4**	1.22	1.05-1.43	52.8	45 - 56
1,2,3,6,7,8-HXCDF		**M+2/M+4**	1.23	1.05-1.43	52.0	44 - 57
1,2,3,7,8,9-HXCDF		**M+2/M+4**	1.22	1.05-1.43	46.6	45 - 56
2,3,4,6,7,8-HXCDF		**M+2/M+4**	1.27	1.05-1.43	54.3	44 - 57
1,2,3,4,6,7,8-HPCDF		**M+2/M+4**	1.03	0.88-1.20	52.6	45 - 55
1,2,3,4,7,8,9-HPCDF		**M+2/M+4**	1.05	0.88-1.20	53.3	43 - 58
OCDF		**M+2/M+4**	0.86	0.76-1.02	111	63 - 159

(1) Where applicable, custom lab flags have been used on this report.
(2) See Table 8, Method 1613, for m/z specifications.
(3) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
(4) Contract-required concentration range as determined from the percent of the test concentration in Table 6, Method 1613, under VER.
(5) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

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SGS AXYS METHOD MLA-010 Rev 12

Form 4B
PCDD/PCDF CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	04-Jun-2018	**VER Data Filename:**	DX8M_086 S: 1
Instrument ID:	HR GC/MS	**Analysis Date:**	20-Jul-2018
GC Column ID:	DB5	**Analysis Time:**	15:48:11

	LAB FLAG [1]	MZ's FORMING RATIO [2]	ION ABUND. RATIO	QC LIMITS [3]	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL) [4]
LABELED COMPOUND						
13C-2,3,7,8-TCDD		**M/M+2**	0.77	0.65-0.89	102	82 - 121
13C-1,2,3,7,8-PECDD [5]		**M/M+2**	0.66	0.52-0.70	87.2	62 - 160
13C-1,2,3,4,7,8-HXCDD		**M+2/M+4**	1.24	1.05-1.43	92.7	85 - 117
13C-1,2,3,6,7,8-HXCDD		**M+2/M+4**	1.21	1.05-1.43	112	85 - 118
13C-1,2,3,4,6,7,8-HPCDD		**M+2/M+4**	0.99	0.88-1.20	82.2	72 - 138
13C-OCDD		**M+2/M+4**	0.85	0.76-1.02	135	96 - 415
13C-2,3,7,8-TCDF		**M/M+2**	0.69	0.65-0.89	94.6	71 - 140
13C-1,2,3,7,8-PECDF		**M+2/M+4**	1.45	1.32-1.78	93.1	76 - 130
13C-2,3,4,7,8-PECDF		**M+2/M+4**	1.48	1.32-1.78	92.8	77 - 130
13C-1,2,3,4,7,8-HXCDF		**M/M+2**	0.51	0.43-0.59	100	76 - 131
13C-1,2,3,6,7,8-HXCDF		**M/M+2**	0.52	0.43-0.59	117	70 - 143
13C-1,2,3,7,8,9-HXCDF		**M/M+2**	0.53	0.43-0.59	93.9	74 - 135
13C-2,3,4,6,7,8-HXCDF		**M/M+2**	0.51	0.43-0.59	106	73 - 137
13C-1,2,3,4,6,7,8-HPCDF		**M/M+2**	0.44	0.37-0.51	89.5	78 - 129
13C-1,2,3,4,7,8,9-HPCDF		**M/M+2**	0.43	0.37-0.51	83.8	77 - 129
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD [6]					9.14	7.9 - 12.7

(1) Where applicable, custom lab flags have been used on this report.
(2) See Table 8, Method 1613, for m/z specifications.
(3) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
(4) Contract-required concentration range as determined from the percent of the test concentration in Table 6, Method 1613, under VER.
(5) Alternate confirmation and quantitation ions used for native and labeled PECDD.
(6) No ion abundance ratio for 37Cl4-2,3,7,8-TCDD; concentration reported.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

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SGS AXYS METHOD MLA-010 Rev 12

Form 6A
PCDD/PCDF RELATIVE RETENTION TIMES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	04-Jun-2018	**VER Data Filename:**	DX8M_086 S: 1
Instrument ID:	HR GC/MS	**Analysis Date:**	20-Jul-2018
GC Column ID:	DB5	**Analysis Time:**	15:48:11

COMPOUND	LAB FLAG [1]	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS [2]
2,3,7,8-TCDD		13C-2,3,7,8-TCDD	1.001	0.999-1.002
1,2,3,7,8-PECDD [3]		13C-1,2,3,7,8-PECDD	1.001	0.999-1.002
1,2,3,4,7,8-HXCDD		13C-1,2,3,4,7,8-HXCDD	1.000	0.999-1.001
1,2,3,6,7,8-HXCDD		13C-1,2,3,6,7,8-HXCDD	1.000	0.998-1.004
1,2,3,7,8,9-HXCDD		13C-1,2,3,6,7,8-HXCDD	1.010	1.000-1.019
1,2,3,4,6,7,8-HPCDD		13C-1,2,3,4,6,7,8-HPCDD	1.000	0.999-1.001
OCDD		13C-OCDD	1.000	0.999-1.001
2,3,7,8-TCDF		13C-2,3,7,8-TCDF	1.001	0.999-1.003
1,2,3,7,8-PECDF		13C-1,2,3,7,8-PECDF	1.001	0.999-1.002
2,3,4,7,8-PECDF		13C-2,3,4,7,8-PECDF	1.001	0.999-1.002
1,2,3,4,7,8-HXCDF		13C-1,2,3,4,7,8-HXCDF	1.000	0.999-1.001
1,2,3,6,7,8-HXCDF		13C-1,2,3,6,7,8-HXCDF	1.001	0.997-1.005
1,2,3,7,8,9-HXCDF		13C-1,2,3,7,8,9-HXCDF	1.000	0.999-1.001
2,3,4,6,7,8-HXCDF		13C-2,3,4,6,7,8-HXCDF	1.000	0.999-1.001
1,2,3,4,6,7,8-HPCDF		13C-1,2,3,4,6,7,8-HPCDF	1.000	0.999-1.001
1,2,3,4,7,8,9-HPCDF		13C-1,2,3,4,7,8,9-HPCDF	1.000	0.999-1.001
OCDF		13C-OCDD	1.002	0.999-1.008

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613.
(3) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

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SGS AXYS METHOD MLA-010 Rev 12

Form 6B
PCDD/PCDF RELATIVE RETENTION TIMES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	04-Jun-2018	**VER Data Filename:**	DX8M_086 S: 1
Instrument ID:	HR GC/MS	**Analysis Date:**	20-Jul-2018
GC Column ID:	DB5	**Analysis Time:**	15:48:11

	LAB FLAG [1]	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS [2]
LABELED COMPOUND				
13C-2,3,7,8-TCDD		13C-1,2,3,4-TCDD	1.012	0.976-1.043
13C-1,2,3,7,8-PECDD		13C-1,2,3,4-TCDD	1.383	1.000-1.567
13C-1,2,3,4,7,8-HXCDD		13C-1,2,3,7,8,9-HXCDD	0.987	0.977-1.000
13C-1,2,3,6,7,8-HXCDD		13C-1,2,3,7,8,9-HXCDD	0.990	0.981-1.003
13C-1,2,3,4,6,7,8-HPCDD		13C-1,2,3,7,8,9-HXCDD	1.094	1.086-1.110
13C-OCDD		13C-1,2,3,7,8,9-HXCDD	1.178	1.032-1.311
13C-2,3,7,8-TCDF		13C-1,2,3,4-TCDD	0.965	0.923-1.103
13C-1,2,3,7,8-PECDF		13C-1,2,3,4-TCDD	1.284	1.000-1.425
13C-2,3,4,7,8-PECDF		13C-1,2,3,4-TCDD	1.351	1.011-1.526
13C-1,2,3,4,7,8-HXCDF		13C-1,2,3,7,8,9-HXCDD	0.954	0.944-0.970
13C-1,2,3,6,7,8-HXCDF		13C-1,2,3,7,8,9-HXCDD	0.958	0.949-0.975
13C-1,2,3,7,8,9-HXCDF		13C-1,2,3,7,8,9-HXCDD	1.005	0.977-1.047
13C-2,3,4,6,7,8-HXCDF		13C-1,2,3,7,8,9-HXCDD	0.981	0.959-1.021
13C-1,2,3,4,6,7,8-HPCDF		13C-1,2,3,7,8,9-HXCDD	1.062	1.043-1.085
13C-1,2,3,4,7,8,9-HPCDF		13C-1,2,3,7,8,9-HXCDD	1.104	1.057-1.151
CLEANUP STANDARD				
37CL-2,3,7,8-TCDD		13C-1,2,3,4-TCDD	1.001	0.989-1.052

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

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SGS AXYS METHOD MLA-010 Rev 12

Form 4A
PCDD/PCDF CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	04-Jun-2018	**VER Data Filename:**	DX8M_086 S: 12
Instrument ID:	HR GC/MS	**Analysis Date:**	21-Jul-2018
GC Column ID:	DB5	**Analysis Time:**	02:11:30

COMPOUND	LAB FLAG [1]	MZ's FORMING RATIO [2]	ION ABUND. RATIO	QC LIMITS [3]	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL) [4]
2,3,7,8-TCDD		**M/M+2**	0.77	0.65-0.89	10.3	7.8 - 12.9
1,2,3,7,8-PECDD [5]		**M/M+2**	0.61	0.52-0.70	55.1	39 - 65
1,2,3,4,7,8-HXCDD		**M+2/M+4**	1.22	1.05-1.43	50.5	39 - 64
1,2,3,6,7,8-HXCDD		**M+2/M+4**	1.22	1.05-1.43	51.6	39 - 64
1,2,3,7,8,9-HXCDD		**M+2/M+4**	1.20	1.05-1.43	53.9	41 - 61
1,2,3,4,6,7,8-HPCDD		**M+2/M+4**	1.09	0.88-1.20	55.9	43 - 58
OCDD		**M+2/M+4**	0.88	0.76-1.02	104	79 - 126
2,3,7,8-TCDF		**M/M+2**	0.72	0.65-0.89	11.2	8.4 - 12
1,2,3,7,8-PECDF		**M+2/M+4**	1.49	1.32-1.78	49.8	41 - 60
2,3,4,7,8-PECDF		**M+2/M+4**	1.45	1.32-1.78	48.5	41 - 61
1,2,3,4,7,8-HXCDF		**M+2/M+4**	1.24	1.05-1.43	54.3	45 - 56
1,2,3,6,7,8-HXCDF		**M+2/M+4**	1.25	1.05-1.43	54.2	44 - 57
1,2,3,7,8,9-HXCDF		**M+2/M+4**	1.23	1.05-1.43	49.2	45 - 56
2,3,4,6,7,8-HXCDF		**M+2/M+4**	1.24	1.05-1.43	52.9	44 - 57
1,2,3,4,6,7,8-HPCDF		**M+2/M+4**	0.97	0.88-1.20	53.8	45 - 55
1,2,3,4,7,8,9-HPCDF		**M+2/M+4**	1.08	0.88-1.20	51.1	43 - 58
OCDF		**M+2/M+4**	0.85	0.76-1.02	106	63 - 159

(1) Where applicable, custom lab flags have been used on this report.
(2) See Table 8, Method 1613, for m/z specifications.
(3) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
(4) Contract-required concentration range as determined from the percent of the test concentration in Table 6, Method 1613, under VER.
(5) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

For Axys Internal Use Only [XSL Template: Form4A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47; Report Filename: 1613_DIOXINS_DX8M_086S12__Form4A_SJ2407921.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 4B
PCDD/PCDF CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	04-Jun-2018	**VER Data Filename:**	DX8M_086 S: 12
Instrument ID:	HR GC/MS	**Analysis Date:**	21-Jul-2018
GC Column ID:	DB5	**Analysis Time:**	02:11:30

LABELED COMPOUND	LAB FLAG [1]	MZ's FORMING RATIO [2]	ION ABUND. RATIO	QC LIMITS [3]	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL) [4]
13C-2,3,7,8-TCDD		**M/M+2**	0.78	0.65-0.89	95.6	82 - 121
13C-1,2,3,7,8-PECDD [5]		**M/M+2**	0.68	0.52-0.70	86.0	62 - 160
13C-1,2,3,4,7,8-HXCDD		**M+2/M+4**	1.23	1.05-1.43	91.0	85 - 117
13C-1,2,3,6,7,8-HXCDD		**M+2/M+4**	1.23	1.05-1.43	100	85 - 118
13C-1,2,3,4,6,7,8-HPCDD		**M+2/M+4**	1.00	0.88-1.20	81.6	72 - 138
13C-OCDD		**M+2/M+4**	0.87	0.76-1.02	146	96 - 415
13C-2,3,7,8-TCDF		**M/M+2**	0.72	0.65-0.89	79.9	71 - 140
13C-1,2,3,7,8-PECDF		**M+2/M+4**	1.44	1.32-1.78	88.0	76 - 130
13C-2,3,4,7,8-PECDF		**M+2/M+4**	1.42	1.32-1.78	85.2	77 - 130
13C-1,2,3,4,7,8-HXCDF		**M/M+2**	0.52	0.43-0.59	91.8	76 - 131
13C-1,2,3,6,7,8-HXCDF		**M/M+2**	0.50	0.43-0.59	98.0	70 - 143
13C-1,2,3,7,8,9-HXCDF		**M/M+2**	0.52	0.43-0.59	95.0	74 - 135
13C-2,3,4,6,7,8-HXCDF		**M/M+2**	0.52	0.43-0.59	95.2	73 - 137
13C-1,2,3,4,6,7,8-HPCDF		**M/M+2**	0.45	0.37-0.51	82.2	78 - 129
13C-1,2,3,4,7,8,9-HPCDF		**M/M+2**	0.44	0.37-0.51	82.0	77 - 129
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD [6]					8.44	7.9 - 12.7

(1) Where applicable, custom lab flags have been used on this report.
(2) See Table 8, Method 1613, for m/z specifications.
(3) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
(4) Contract-required concentration range as determined from the percent of the test concentration in Table 6, Method 1613, under VER.
(5) Alternate confirmation and quantitation ions used for native and labeled PECDD.
(6) No ion abundance ratio for 37Cl4-2,3,7,8-TCDD; concentration reported.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

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Report Filename: 1613_DIOXINS_DX8M_086S12__Form4B_SJ2407921.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 6A
PCDD/PCDF RELATIVE RETENTION TIMES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	04-Jun-2018	**VER Data Filename:**	DX8M_086 S: 12
Instrument ID:	HR GC/MS	**Analysis Date:**	21-Jul-2018
GC Column ID:	DB5	**Analysis Time:**	02:11:30

COMPOUND	LAB FLAG [1]	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS [2]
2,3,7,8-TCDD		13C-2,3,7,8-TCDD	1.001	0.999-1.002
1,2,3,7,8-PECDD [3]		13C-1,2,3,7,8-PECDD	1.001	0.999-1.002
1,2,3,4,7,8-HXCDD		13C-1,2,3,4,7,8-HXCDD	1.000	0.999-1.001
1,2,3,6,7,8-HXCDD		13C-1,2,3,6,7,8-HXCDD	1.000	0.998-1.004
1,2,3,7,8,9-HXCDD		13C-1,2,3,6,7,8-HXCDD	1.010	1.000-1.019
1,2,3,4,6,7,8-HPCDD		13C-1,2,3,4,6,7,8-HPCDD	1.000	0.999-1.001
OCDD		13C-OCDD	1.000	0.999-1.001
2,3,7,8-TCDF		13C-2,3,7,8-TCDF	1.001	0.999-1.003
1,2,3,7,8-PECDF		13C-1,2,3,7,8-PECDF	1.001	0.999-1.002
2,3,4,7,8-PECDF		13C-2,3,4,7,8-PECDF	1.001	0.999-1.002
1,2,3,4,7,8-HXCDF		13C-1,2,3,4,7,8-HXCDF	1.001	0.999-1.001
1,2,3,6,7,8-HXCDF		13C-1,2,3,6,7,8-HXCDF	1.000	0.997-1.005
1,2,3,7,8,9-HXCDF		13C-1,2,3,7,8,9-HXCDF	1.001	0.999-1.001
2,3,4,6,7,8-HXCDF		13C-2,3,4,6,7,8-HXCDF	1.000	0.999-1.001
1,2,3,4,6,7,8-HPCDF		13C-1,2,3,4,6,7,8-HPCDF	1.000	0.999-1.001
1,2,3,4,7,8,9-HPCDF		13C-1,2,3,4,7,8,9-HPCDF	1.000	0.999-1.001
OCDF		13C-OCDD	1.002	0.999-1.008

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613.
(3) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

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SGS AXYS METHOD MLA-010 Rev 12

Form 6B
PCDD/PCDF RELATIVE RETENTION TIMES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	04-Jun-2018	**VER Data Filename:**	DX8M_086 S: 12
Instrument ID:	HR GC/MS	**Analysis Date:**	21-Jul-2018
GC Column ID:	DB5	**Analysis Time:**	02:11:30

	LAB FLAG [1]	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS [2]
LABELED COMPOUND				
13C-2,3,7,8-TCDD		13C-1,2,3,4-TCDD	1.013	0.976-1.043
13C-1,2,3,7,8-PECDD		13C-1,2,3,4-TCDD	1.383	1.000-1.567
13C-1,2,3,4,7,8-HXCDD		13C-1,2,3,7,8,9-HXCDD	0.987	0.977-1.000
13C-1,2,3,6,7,8-HXCDD		13C-1,2,3,7,8,9-HXCDD	0.990	0.981-1.003
13C-1,2,3,4,6,7,8-HPCDD		13C-1,2,3,7,8,9-HXCDD	1.094	1.086-1.110
13C-OCDD		13C-1,2,3,7,8,9-HXCDD	1.178	1.032-1.311
13C-2,3,7,8-TCDF		13C-1,2,3,4-TCDD	0.966	0.923-1.103
13C-1,2,3,7,8-PECDF		13C-1,2,3,4-TCDD	1.284	1.000-1.425
13C-2,3,4,7,8-PECDF		13C-1,2,3,4-TCDD	1.351	1.011-1.526
13C-1,2,3,4,7,8-HXCDF		13C-1,2,3,7,8,9-HXCDD	0.954	0.944-0.970
13C-1,2,3,6,7,8-HXCDF		13C-1,2,3,7,8,9-HXCDD	0.958	0.949-0.975
13C-1,2,3,7,8,9-HXCDF		13C-1,2,3,7,8,9-HXCDD	1.004	0.977-1.047
13C-2,3,4,6,7,8-HXCDF		13C-1,2,3,7,8,9-HXCDD	0.980	0.959-1.021
13C-1,2,3,4,6,7,8-HPCDF		13C-1,2,3,7,8,9-HXCDD	1.062	1.043-1.085
13C-1,2,3,4,7,8,9-HPCDF		13C-1,2,3,7,8,9-HXCDD	1.104	1.057-1.151
CLEANUP STANDARD				
37CL-2,3,7,8-TCDD		13C-1,2,3,4-TCDD	1.001	0.989-1.052

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

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SGS AXYS METHOD MLA-010 Rev 12

Form 4A
PCDD/PCDF CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	04-Jun-2018	**VER Data Filename:**	DX8M_086 S: 24
Instrument ID:	HR GC/MS	**Analysis Date:**	21-Jul-2018
GC Column ID:	DB5	**Analysis Time:**	13:20:07

COMPOUND	LAB FLAG [1]	MZ's FORMING RATIO [2]	ION ABUND. RATIO	QC LIMITS [3]	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL) [4]
2,3,7,8-TCDD		**M/M+2**	0.78	0.65-0.89	10.7	7.8 - 12.9
1,2,3,7,8-PECDD [5]		**M/M+2**	0.61	0.52-0.70	54.7	39 - 65
1,2,3,4,7,8-HXCDD		**M+2/M+4**	1.18	1.05-1.43	51.8	39 - 64
1,2,3,6,7,8-HXCDD		**M+2/M+4**	1.24	1.05-1.43	52.9	39 - 64
1,2,3,7,8,9-HXCDD		**M+2/M+4**	1.26	1.05-1.43	52.1	41 - 61
1,2,3,4,6,7,8-HPCDD		**M+2/M+4**	1.06	0.88-1.20	53.8	43 - 58
OCDD		**M+2/M+4**	0.87	0.76-1.02	107	79 - 126
2,3,7,8-TCDF		**M/M+2**	0.71	0.65-0.89	10.3	8.4 - 12
1,2,3,7,8-PECDF		**M+2/M+4**	1.43	1.32-1.78	49.9	41 - 60
2,3,4,7,8-PECDF		**M+2/M+4**	1.49	1.32-1.78	47.4	41 - 61
1,2,3,4,7,8-HXCDF		**M+2/M+4**	1.24	1.05-1.43	54.9	45 - 56
1,2,3,6,7,8-HXCDF		**M+2/M+4**	1.25	1.05-1.43	51.9	44 - 57
1,2,3,7,8,9-HXCDF		**M+2/M+4**	1.23	1.05-1.43	46.8	45 - 56
2,3,4,6,7,8-HXCDF		**M+2/M+4**	1.22	1.05-1.43	53.3	44 - 57
1,2,3,4,6,7,8-HPCDF		**M+2/M+4**	1.01	0.88-1.20	54.2	45 - 55
1,2,3,4,7,8,9-HPCDF		**M+2/M+4**	0.98	0.88-1.20	53.8	43 - 58
OCDF		**M+2/M+4**	0.86	0.76-1.02	112	63 - 159

(1) Where applicable, custom lab flags have been used on this report.
(2) See Table 8, Method 1613, for m/z specifications.
(3) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
(4) Contract-required concentration range as determined from the percent of the test concentration in Table 6, Method 1613, under VER.
(5) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

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SGS AXYS METHOD MLA-010 Rev 12

Form 4B
PCDD/PCDF CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	04-Jun-2018	**VER Data Filename:**	DX8M_086 S: 24
Instrument ID:	HR GC/MS	**Analysis Date:**	21-Jul-2018
GC Column ID:	DB5	**Analysis Time:**	13:20:07

LABELED COMPOUND	LAB FLAG [1]	MZ's FORMING RATIO [2]	ION ABUND. RATIO	QC LIMITS [3]	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL) [4]
13C-2,3,7,8-TCDD		**M/M+2**	0.80	0.65-0.89	98.6	82 - 121
13C-1,2,3,7,8-PECDD [5]		**M/M+2**	0.69	0.52-0.70	96.8	62 - 160
13C-1,2,3,4,7,8-HXCDD		**M+2/M+4**	1.24	1.05-1.43	95.4	85 - 117
13C-1,2,3,6,7,8-HXCDD		**M+2/M+4**	1.22	1.05-1.43	105	85 - 118
13C-1,2,3,4,6,7,8-HPCDD		**M+2/M+4**	0.98	0.88-1.20	89.7	72 - 138
13C-OCDD		**M+2/M+4**	0.90	0.76-1.02	160	96 - 415
13C-2,3,7,8-TCDF		**M/M+2**	0.71	0.65-0.89	101	71 - 140
13C-1,2,3,7,8-PECDF		**M+2/M+4**	1.40	1.32-1.78	97.4	76 - 130
13C-2,3,4,7,8-PECDF		**M+2/M+4**	1.42	1.32-1.78	103	77 - 130
13C-1,2,3,4,7,8-HXCDF		**M/M+2**	0.53	0.43-0.59	96.1	76 - 131
13C-1,2,3,6,7,8-HXCDF		**M/M+2**	0.50	0.43-0.59	106	70 - 143
13C-1,2,3,7,8,9-HXCDF		**M/M+2**	0.52	0.43-0.59	95.9	74 - 135
13C-2,3,4,6,7,8-HXCDF		**M/M+2**	0.52	0.43-0.59	100	73 - 137
13C-1,2,3,4,6,7,8-HPCDF		**M/M+2**	0.44	0.37-0.51	88.5	78 - 129
13C-1,2,3,4,7,8,9-HPCDF		**M/M+2**	0.45	0.37-0.51	87.0	77 - 129
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD [6]					9.18	7.9 - 12.7

(1) Where applicable, custom lab flags have been used on this report.
(2) See Table 8, Method 1613, for m/z specifications.
(3) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
(4) Contract-required concentration range as determined from the percent of the test concentration in Table 6, Method 1613, under VER.
(5) Alternate confirmation and quantitation ions used for native and labeled PECDD.
(6) No ion abundance ratio for 37Cl4-2,3,7,8-TCDD; concentration reported.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

For Axys Internal Use Only [XSL Template: Form4B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_DX8M_086S24__Form4B_SJ2407933.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 6A
PCDD/PCDF RELATIVE RETENTION TIMES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	04-Jun-2018	**VER Data Filename:**	DX8M_086 S: 24
Instrument ID:	HR GC/MS	**Analysis Date:**	21-Jul-2018
GC Column ID:	DB5	**Analysis Time:**	13:20:07

COMPOUND	LAB FLAG [1]	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS [2]
2,3,7,8-TCDD		13C-2,3,7,8-TCDD	1.001	0.999-1.002
1,2,3,7,8-PECDD [3]		13C-1,2,3,7,8-PECDD	1.001	0.999-1.002
1,2,3,4,7,8-HXCDD		13C-1,2,3,4,7,8-HXCDD	1.000	0.999-1.001
1,2,3,6,7,8-HXCDD		13C-1,2,3,6,7,8-HXCDD	1.000	0.998-1.004
1,2,3,7,8,9-HXCDD		13C-1,2,3,6,7,8-HXCDD	1.010	1.000-1.019
1,2,3,4,6,7,8-HPCDD		13C-1,2,3,4,6,7,8-HPCDD	1.000	0.999-1.001
OCDD		13C-OCDD	1.000	0.999-1.001
2,3,7,8-TCDF		13C-2,3,7,8-TCDF	1.001	0.999-1.003
1,2,3,7,8-PECDF		13C-1,2,3,7,8-PECDF	1.001	0.999-1.002
2,3,4,7,8-PECDF		13C-2,3,4,7,8-PECDF	1.001	0.999-1.002
1,2,3,4,7,8-HXCDF		13C-1,2,3,4,7,8-HXCDF	1.000	0.999-1.001
1,2,3,6,7,8-HXCDF		13C-1,2,3,6,7,8-HXCDF	1.001	0.997-1.005
1,2,3,7,8,9-HXCDF		13C-1,2,3,7,8,9-HXCDF	1.000	0.999-1.001
2,3,4,6,7,8-HXCDF		13C-2,3,4,6,7,8-HXCDF	1.000	0.999-1.001
1,2,3,4,6,7,8-HPCDF		13C-1,2,3,4,6,7,8-HPCDF	1.000	0.999-1.001
1,2,3,4,7,8,9-HPCDF		13C-1,2,3,4,7,8,9-HPCDF	1.000	0.999-1.001
OCDF		13C-OCDD	1.002	0.999-1.008

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613.
(3) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

For Axys Internal Use Only [XSL Template: Form6A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47; Report Filename: 1613_DIOXINS_DX8M_086S24__Form6A_SJ2407933.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 6B
PCDD/PCDF RELATIVE RETENTION TIMES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	04-Jun-2018	**VER Data Filename:**	DX8M_086 S: 24
Instrument ID:	HR GC/MS	**Analysis Date:**	21-Jul-2018
GC Column ID:	DB5	**Analysis Time:**	13:20:07

	LAB FLAG [1]	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS [2]
LABELED COMPOUND				
13C-2,3,7,8-TCDD		13C-1,2,3,4-TCDD	1.012	0.976-1.043
13C-1,2,3,7,8-PECDD		13C-1,2,3,4-TCDD	1.383	1.000-1.567
13C-1,2,3,4,7,8-HXCDD		13C-1,2,3,7,8,9-HXCDD	0.987	0.977-1.000
13C-1,2,3,6,7,8-HXCDD		13C-1,2,3,7,8,9-HXCDD	0.990	0.981-1.003
13C-1,2,3,4,6,7,8-HPCDD		13C-1,2,3,7,8,9-HXCDD	1.094	1.086-1.110
13C-OCDD		13C-1,2,3,7,8,9-HXCDD	1.178	1.032-1.311
13C-2,3,7,8-TCDF		13C-1,2,3,4-TCDD	0.966	0.923-1.103
13C-1,2,3,7,8-PECDF		13C-1,2,3,4-TCDD	1.284	1.000-1.425
13C-2,3,4,7,8-PECDF		13C-1,2,3,4-TCDD	1.351	1.011-1.526
13C-1,2,3,4,7,8-HXCDF		13C-1,2,3,7,8,9-HXCDD	0.954	0.944-0.970
13C-1,2,3,6,7,8-HXCDF		13C-1,2,3,7,8,9-HXCDD	0.958	0.949-0.975
13C-1,2,3,7,8,9-HXCDF		13C-1,2,3,7,8,9-HXCDD	1.005	0.977-1.047
13C-2,3,4,6,7,8-HXCDF		13C-1,2,3,7,8,9-HXCDD	0.981	0.959-1.021
13C-1,2,3,4,6,7,8-HPCDF		13C-1,2,3,7,8,9-HXCDD	1.062	1.043-1.085
13C-1,2,3,4,7,8,9-HPCDF		13C-1,2,3,7,8,9-HXCDD	1.104	1.057-1.151
CLEANUP STANDARD				
37CL-2,3,7,8-TCDD		13C-1,2,3,4-TCDD	1.001	0.989-1.052

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

For Axys Internal Use Only [XSL Template: Form6B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47; Report Filename: 1613_DIOXINS_DX8M_086S24__Form6B_SJ2407933.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 5

PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Instrument ID:	HR GC/MS	**Initial Calibration Date:**		04-Jun-2018
RT Window Data Filename:	DX8M_086 S: 1	**Analysis Date:**	20-Jul-2018	**Time:** 15:48:11
DB-5 IS Data Filename:	DX8M_086 S: 1	**Analysis Date:**	20-Jul-2018	**Time:** 15:48:11
DB-225 IS Data Filename:		**Analysis Date:**		**Time:**

DB5 RT WINDOW DEFINING STANDARDS RESULT

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	22:56	**1,3,6,8-TCDF (F)**	21:24
1,2,8,9-TCDD (L)	28:17	**1,2,8,9-TCDF (L)**	28:08
1,2,4,7,9-PECDD (F)	32:01	**1,3,4,6,8-PECDF (F)**	28:50
1,2,3,8,9-PECDD (L)	37:02	**1,2,3,8,9-PECDF (L)**	37:05
1,2,4,6,7,9-HXCDD (F)	40:01	**1,2,3,4,6,8-HXCDF (F)**	38:58
1,2,3,4,6,7-HXCDD (L)	42:38	**1,2,3,4,8,9-HXCDF (L)**	42:58
1,2,3,4,6,7,9-HPCDD (F)	45:44	**1,2,3,4,6,7,8-HPCDF (F)**	45:16
1,2,3,4,6,7,8-HPCDD (L)	46:39	**1,2,3,4,7,8,9-HPCDF (L)**	47:04

(F) = First eluting isomer (DB-5); (L) = Last eluting isomer (DB-5)

ISOMER SPECIFICITY (IS) TEST STANDARDS RESULT

Isomers	% Valley Height Between Compared Peaks	Isomers	% Valley Height Between Compared Peaks
1,2,3,4-TCDD **1,2,7,8-TCDD**	0	**1,2,3,8-TCDD** **2,3,7,8-TCDD**	14
1,2,7,8-TCDD **1,4,7,8-TCDD**	0	**2,3,4,7-TCDF** **2,3,7,8-TCDF**	N/A
1,4,7,8-TCDD **1,2,3,7-TCDD**	0	**2,3,7,8-TCDF** **1,2,3,9-TCDF**	N/A
1,2,3,7-TCDD **1,2,3,8-TCDD**	DB-5 column; co-elute as per Figure 6 in Method		

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

For Axys Internal Use Only [XSL Template: DXForm5.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47; Report Filename: 1613_DIOXINS__DX8M_086S1_Form5_SJ2407806.html; Workgroup: WG64578; Design ID: 491]

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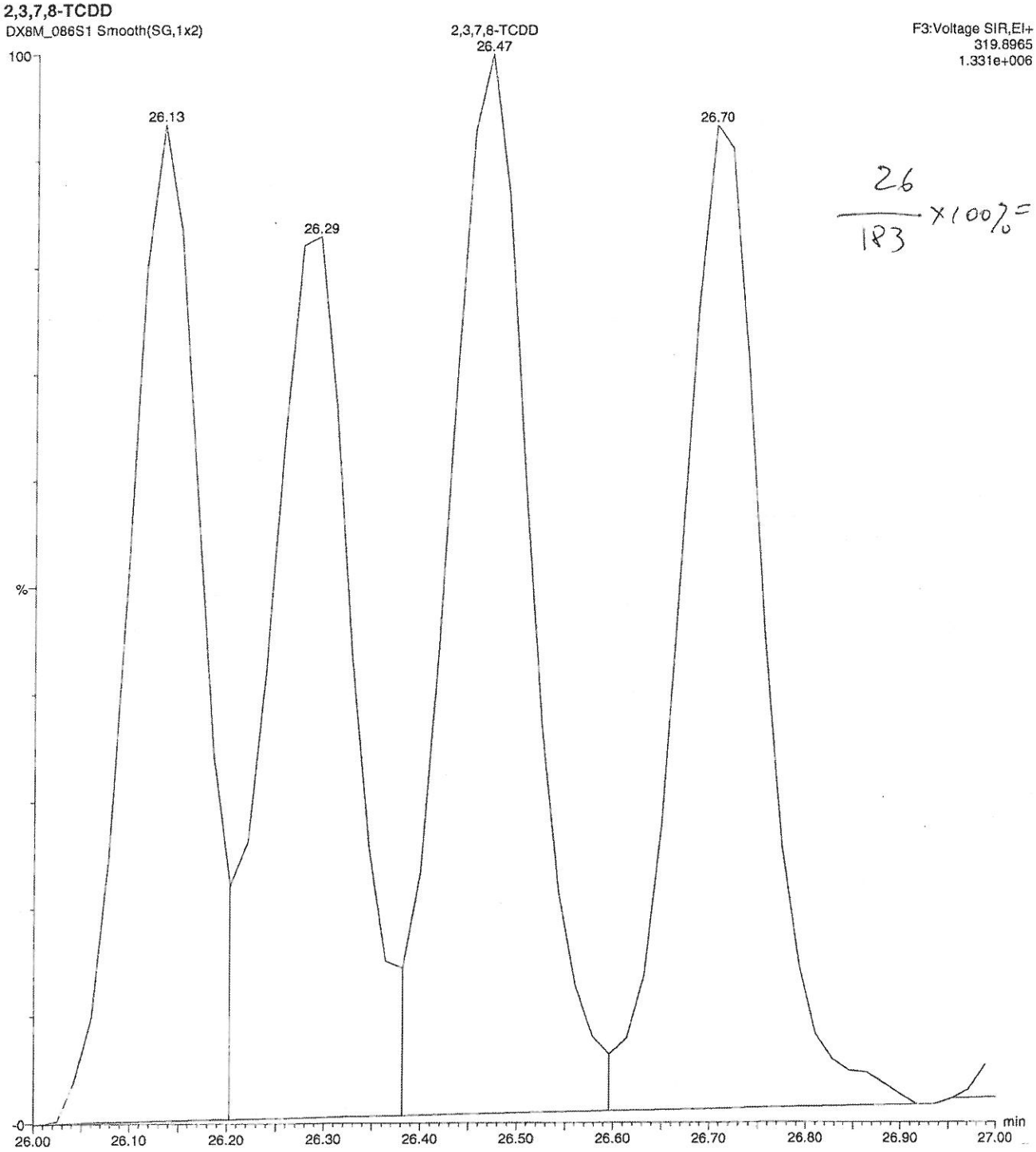
Method: C:\MassLynx\180604DX.PRO\MethDB\DX_Win_ResC.mdb 07 Dec 2011 14:46:56
Calibration: C:\MassLynx\180604DX.PRO\CurveDB\DX8M_065C-CAL.cdb 05 Jun 2018 06:43:58

Name: DX8M_086S1, Date: 20-Jul-2018, Time: 15:48:11, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

2,3,7,8-TCDD



$\frac{26}{183} \times 100\% = 14\%$

PV by LHE
23-JULY-2018

SGS AXYS METHOD MLA-010 Rev 12

Form 5

PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Instrument ID:	HR GC/MS	**Initial Calibration Date:**		04-Jun-2018
RT Window Data Filename:	DX8M_086 S: 12	**Analysis Date:**	21-Jul-2018	**Time:** 02:11:30
DB-5 IS Data Filename:	DX8M_086 S: 12	**Analysis Date:**	21-Jul-2018	**Time:** 02:11:30
DB-225 IS Data Filename:		**Analysis Date:**		**Time:**

DB5 RT WINDOW DEFINING STANDARDS RESULT

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	22:56	**1,3,6,8-TCDF (F)**	21:25
1,2,8,9-TCDD (L)	28:18	**1,2,8,9-TCDF (L)**	28:08
1,2,4,7,9-PECDD (F)	32:03	**1,3,4,6,8-PECDF (F)**	28:51
1,2,3,8,9-PECDD (L)	37:03	**1,2,3,8,9-PECDF (L)**	37:06
1,2,4,6,7,9-HXCDD (F)	40:01	**1,2,3,4,6,8-HXCDF (F)**	38:59
1,2,3,4,6,7-HXCDD (L)	42:39	**1,2,3,4,8,9-HXCDF (L)**	42:59
1,2,3,4,6,7,9-HPCDD (F)	45:45	**1,2,3,4,6,7,8-HPCDF (F)**	45:17
1,2,3,4,6,7,8-HPCDD (L)	46:39	**1,2,3,4,7,8,9-HPCDF (L)**	47:05

(F) = First eluting isomer (DB-5); (L) = Last eluting isomer (DB-5)

ISOMER SPECIFICITY (IS) TEST STANDARDS RESULT

Isomers	% Valley Height Between Compared Peaks	Isomers	% Valley Height Between Compared Peaks
1,2,3,4-TCDD **1,2,7,8-TCDD**	0	**1,2,3,8-TCDD** **2,3,7,8-TCDD**	15
1,2,7,8-TCDD **1,4,7,8-TCDD**	0	**2,3,4,7-TCDF** **2,3,7,8-TCDF**	N/A
1,4,7,8-TCDD **1,2,3,7-TCDD**	0	**2,3,7,8-TCDF** **1,2,3,9-TCDF**	N/A
1,2,3,7-TCDD **1,2,3,8-TCDD**	DB-5 column; co-elute as per Figure 6 in Method		

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

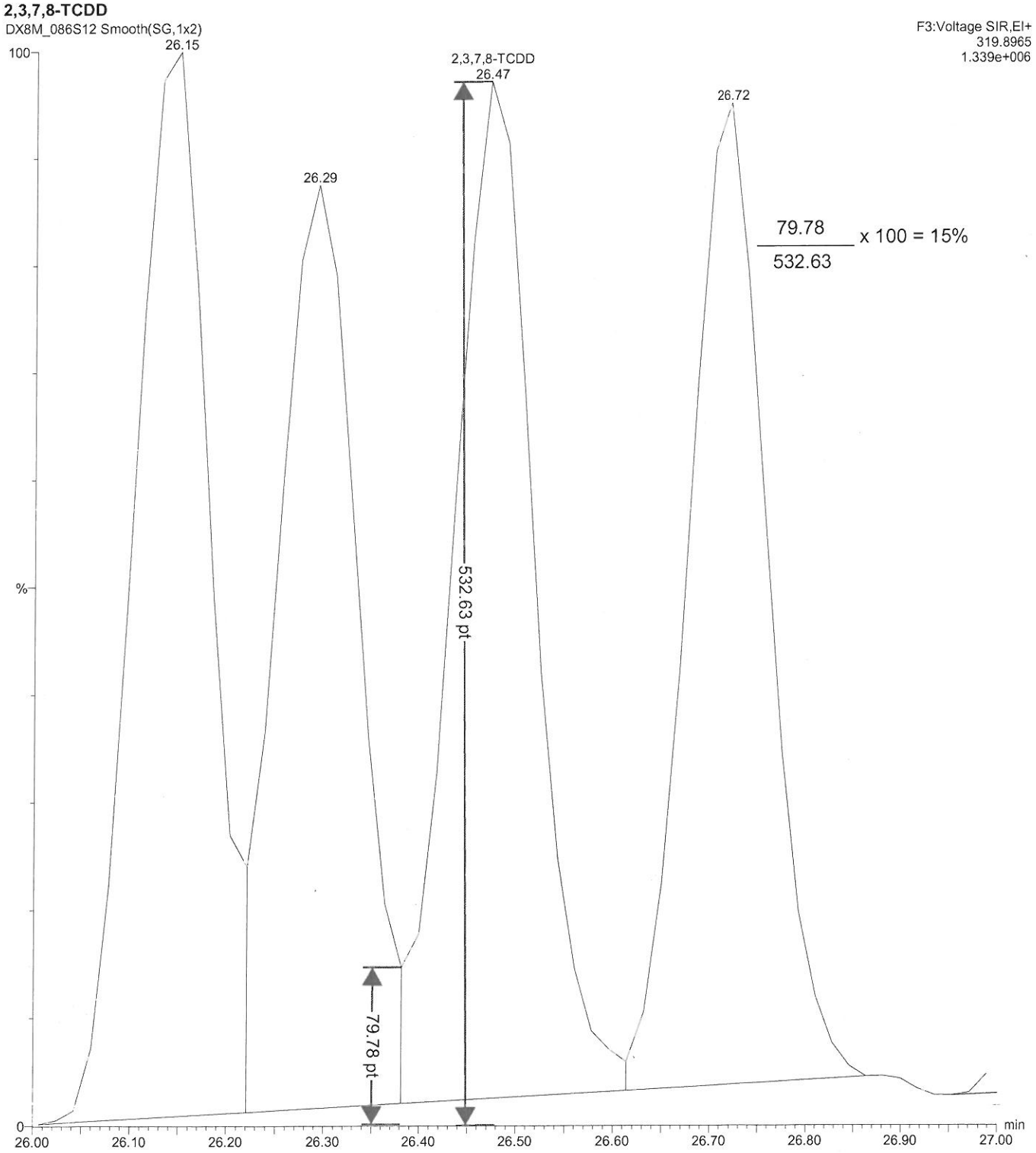
For Axys Internal Use Only [XSL Template: DXForm5.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47; Report Filename: 1613_DIOXINS__DX8M_086S12_Form5_SJ2407807.html; Workgroup: WG64578; Design ID: 491]

SGS Axys Analytical Services, Ltd.
Quantify Sample Report **MassLynx 4.1 SCN627**

Method: G:\Masslynx\Inst_M\Projects\180604DX.pro\MethDB\DX_Win_ResC.mdb 07 Dec 2011 14:46:56
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_086S12, Date: 21-Jul-2018, Time: 02:11:30, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

2,3,7,8-TCDD



PV by LHE
23-JULY-2018

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Experiment : DX-DB225-4_01
GC Program : DX-DB225-4_01
Column type : DB-225
Serial # : USA226732J/USA
kPa : 199
Vol injected: 2.0uL
PMT Voltage : 400

Temps -source: 250
-s resv: 160
-re_ent: 220
-cap_1 : 220
-cap_2 : 220

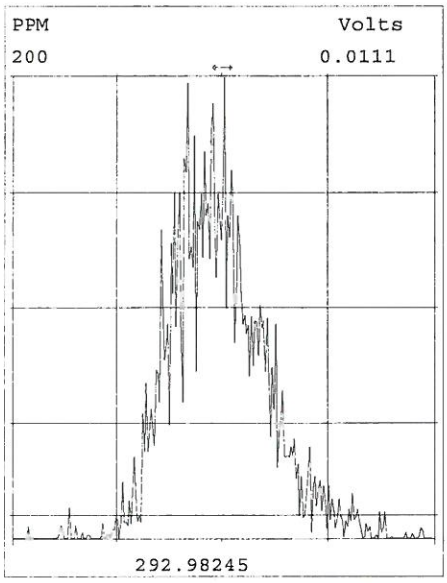
Tune : DN
List : DN
Check :
LIMS :
Logfile:

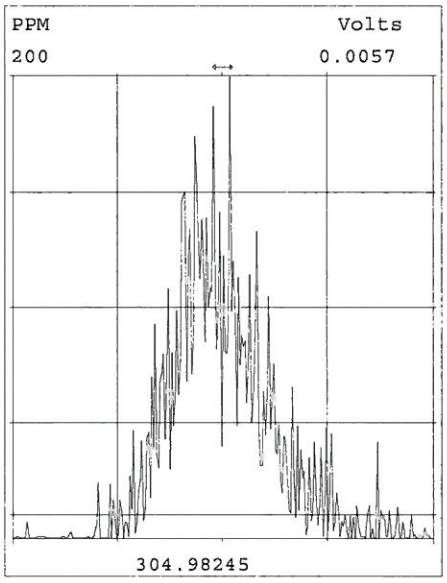
Date -list : 23-JUL-2018
-liner : 13-JUN-2018
-septum: 13-JUN-2018
-guard : 60cm 13-JUN-2018
-column: 10CM 03-APR-2018
-t line: NEW 14-SEP-2017

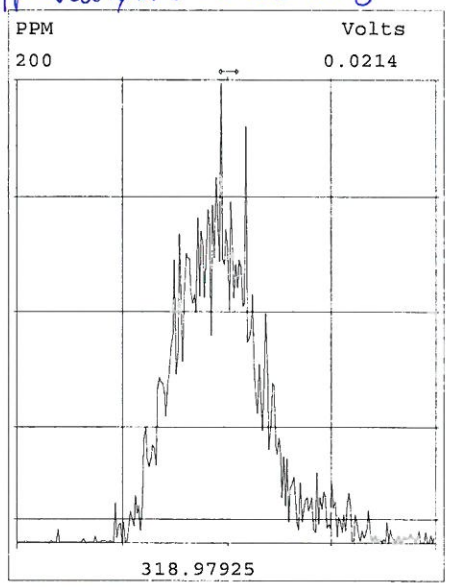
#	Data file	S	V	Sample Text	Comments	Acquisition Date/Time
1	DB83_127A	1	1	DX003A-RSN,,/01-23	1,,2.0uL Win/Res	23-JUL-18 10:33:00
2	DB83_127A	2	2	DX041D-CAL,,/01-88	1,,2.0uL Cal	23-JUL-18 11:49:10
3	DB83_127A	3	3	Toluene,,	1,,2.0uL	23-JUL-18 12:30:26
4	DB83_127A	4	4	Toluene,,	1,,2.0uL	23-JUL-18 13:11:42
5	DB83_127A	5	5	WG64578-101,,BLK	1,WG64578,2.0/20uL	23-JUL-18 13:52:59
6	DB83_127A	6	6	L29628-1,,	1,WG64578,2.0/20uL	23-JUL-18 14:34:15
7	DB83_127A	7	7	L29628-7,,	1,WG64578,2.0/20uL	23-JUL-18 15:15:31
8	DB83_127A	8	8	L29628-11,,	1,WG64578,2.0/20uL	23-JUL-18 15:56:47
9	DB83_127A	9	9	L29628-12,,	1,WG64578,2.0/20uL	23-JUL-18 16:37:59
10	DB83_127A	10	10	L29628-14,,	1,WG64578,2.0/20uL	23-JUL-18 17:19:15
11	DB83_127A	11	11	L29628-17,,	1,WG64578,2.0/20uL	23-JUL-18 18:00:27
12	DB83_127A	12	12	DX041D-CAL,,/01-88	1,,2.0uL Cal	23-JUL-18 18:41:43

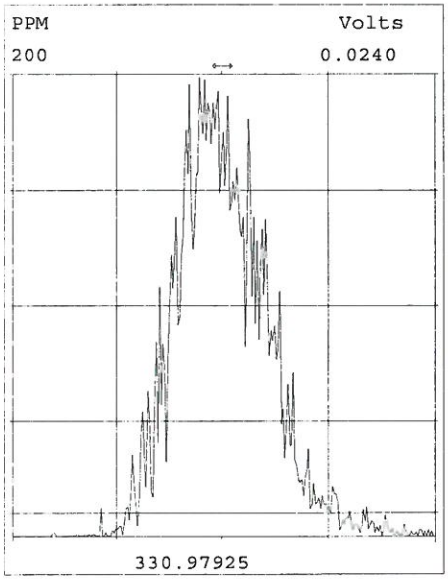
Peak Locate Examination:23-JUL-2018:10:31 File:DB83_127ACAL
Experiment:DX-DB225-4_01 Function:1 Reference:PFK

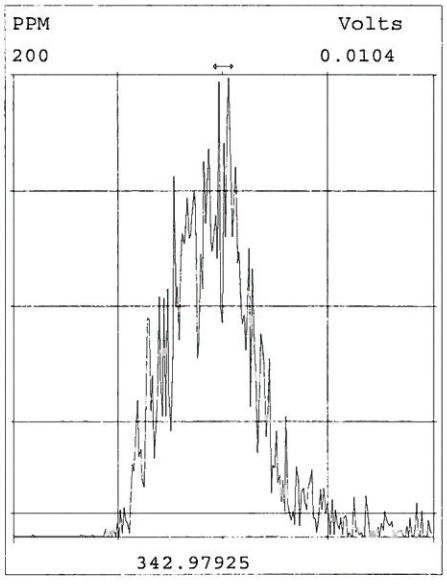
Approved by BN 23-JUL-2018

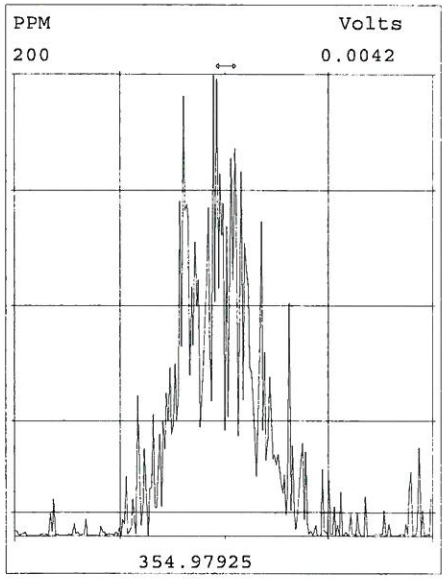


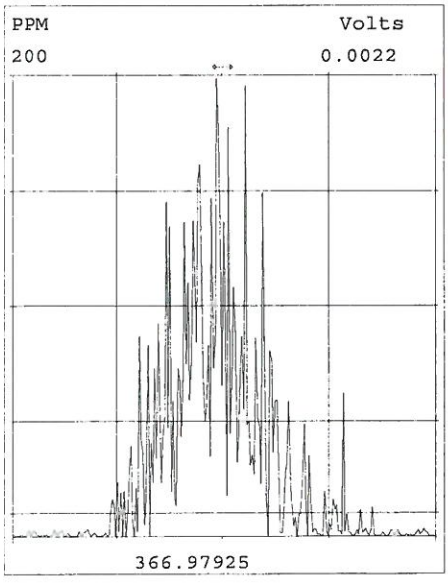


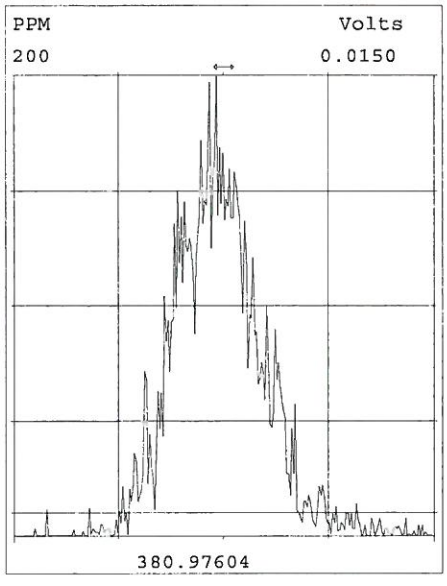




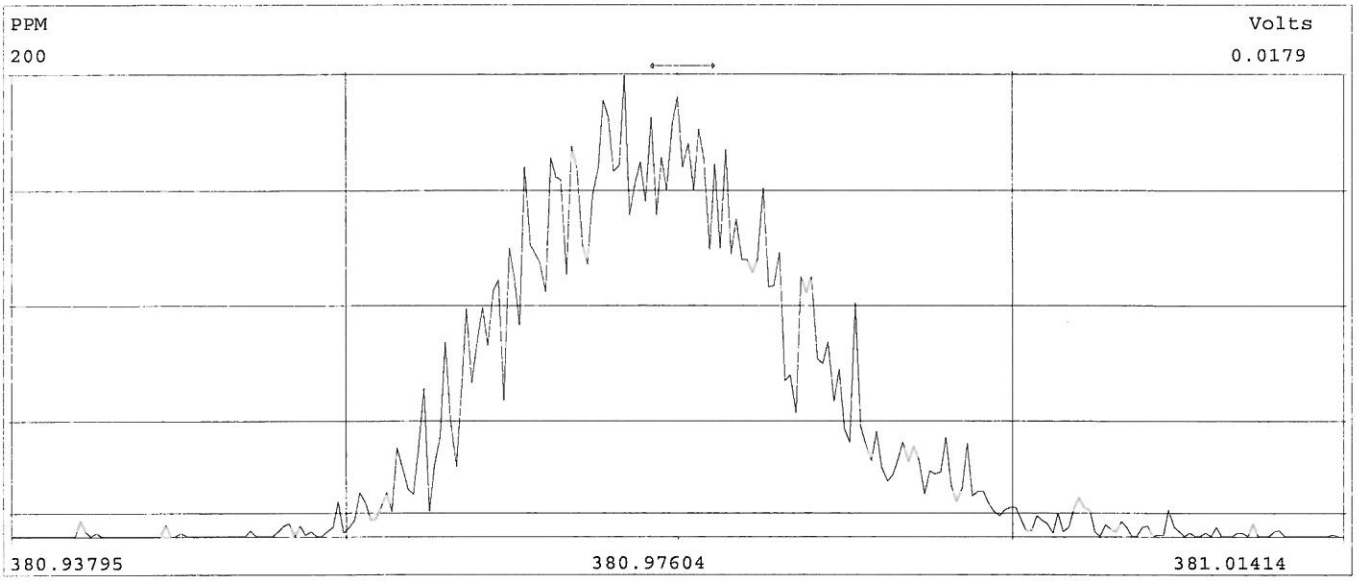


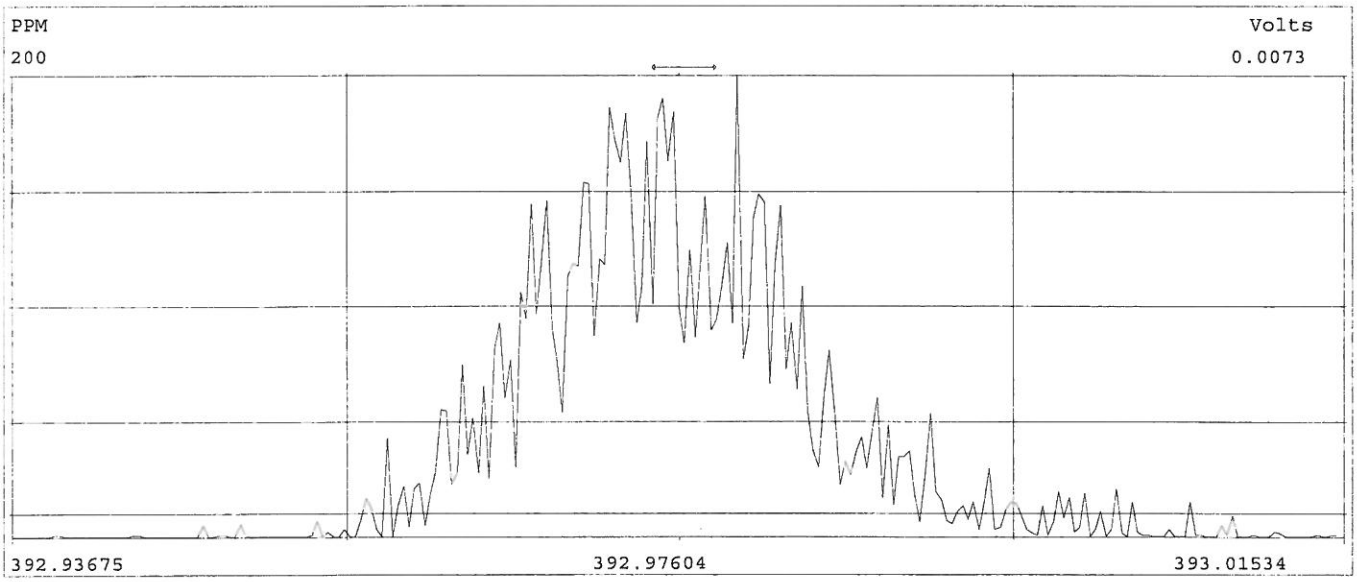


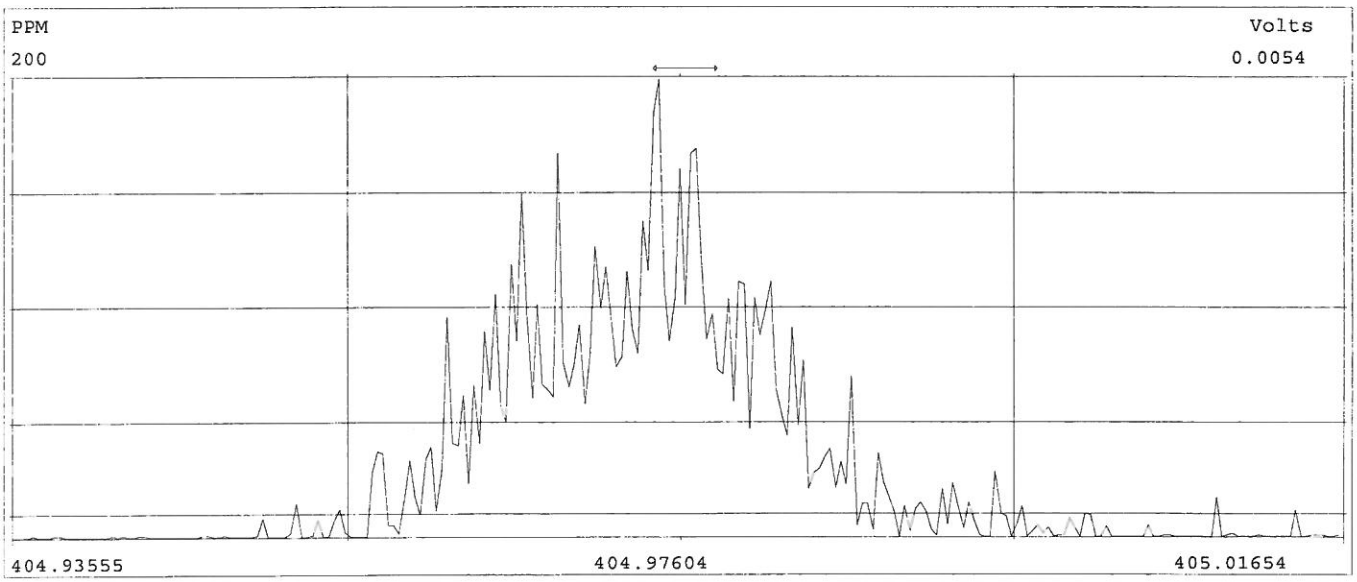




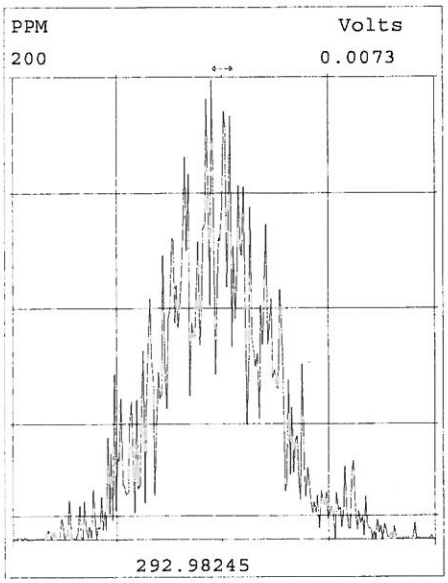
Peak Locate Examination:23-JUL-2018:10:32 File:DB83_127ACAL
Experiment:DX-DB225-4_01 Function:2 Reference:PFK

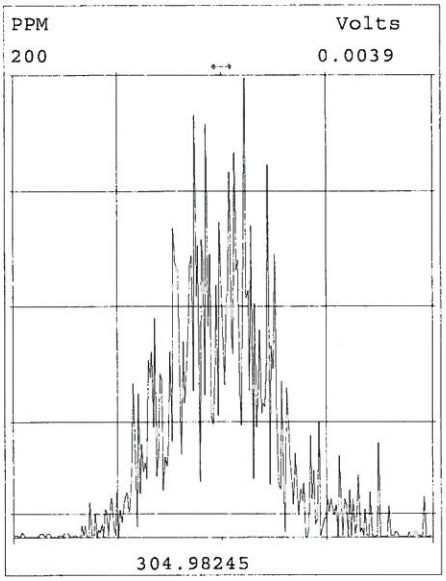


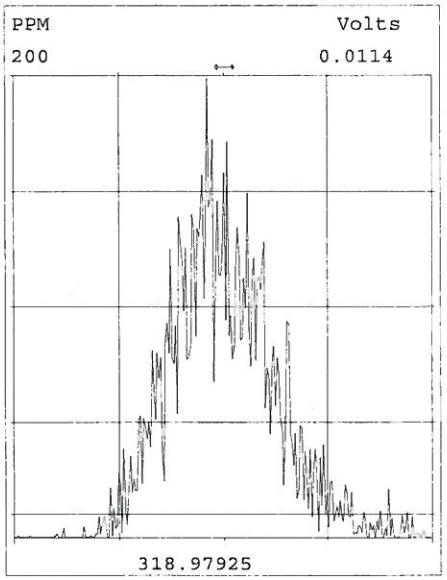


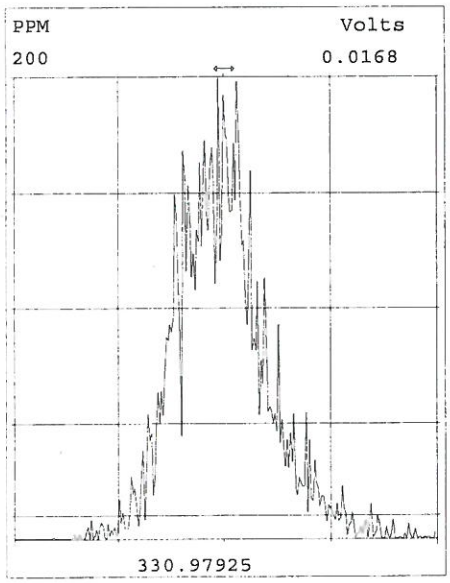


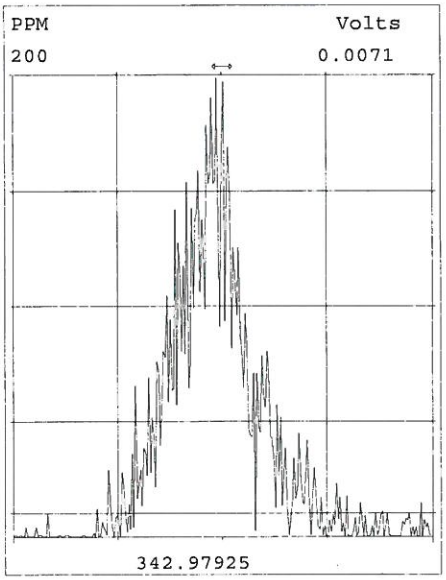
Peak Locate Examination:23-JUL-2018:19:44 File:DB83_127ACAL2 Approved by EW 23-Jul-2018
Experiment:DX-DB225-4_01 Function:1 Reference:PFK

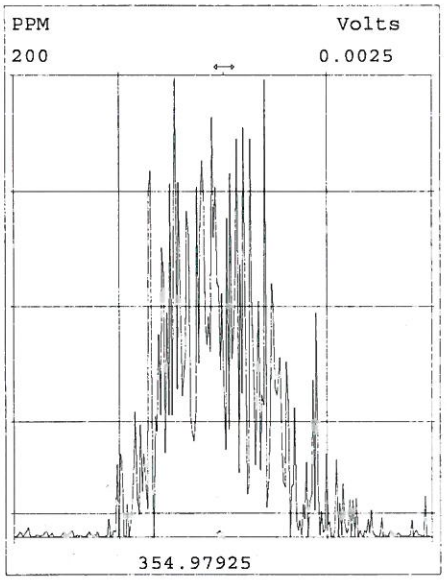


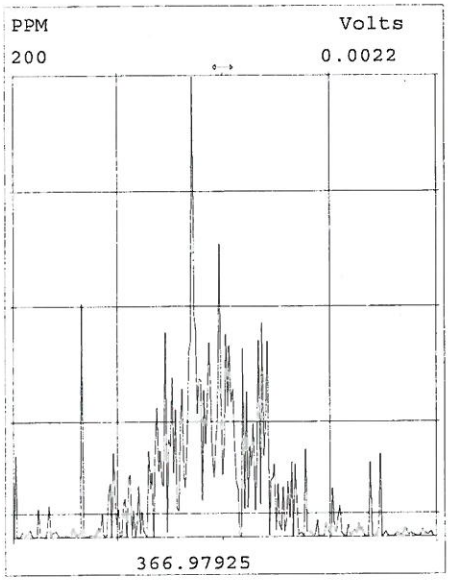


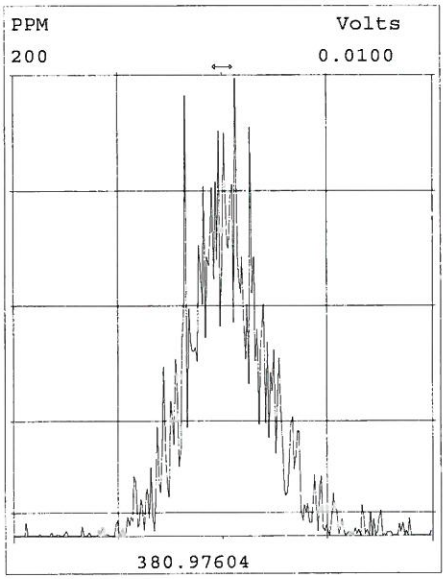




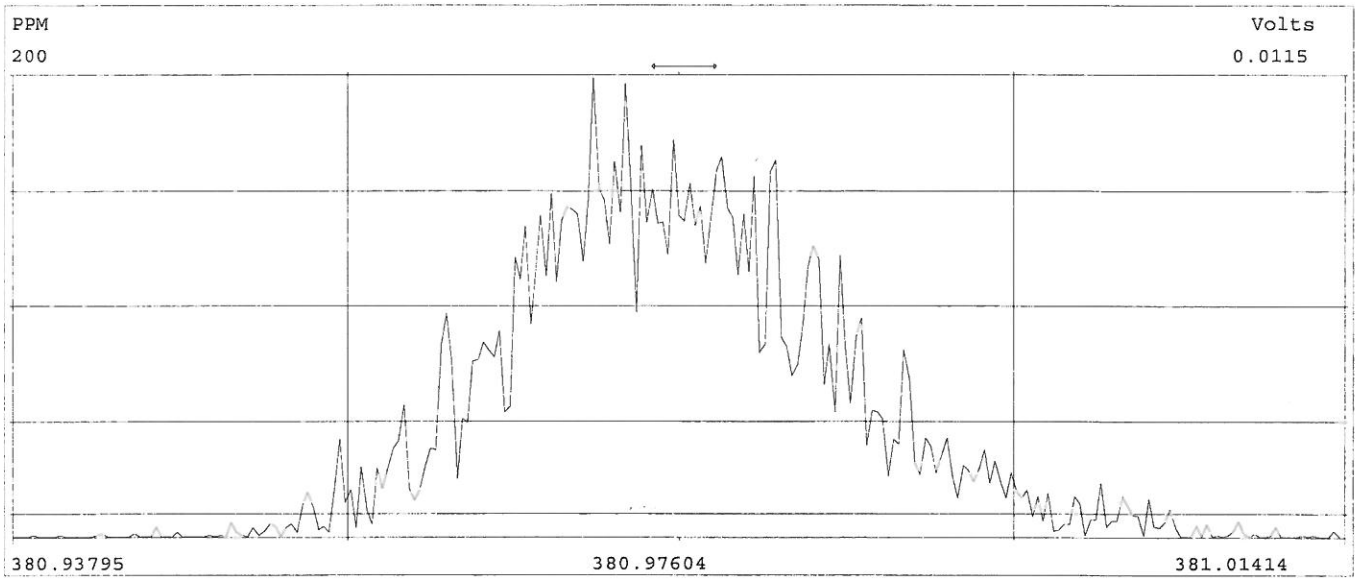


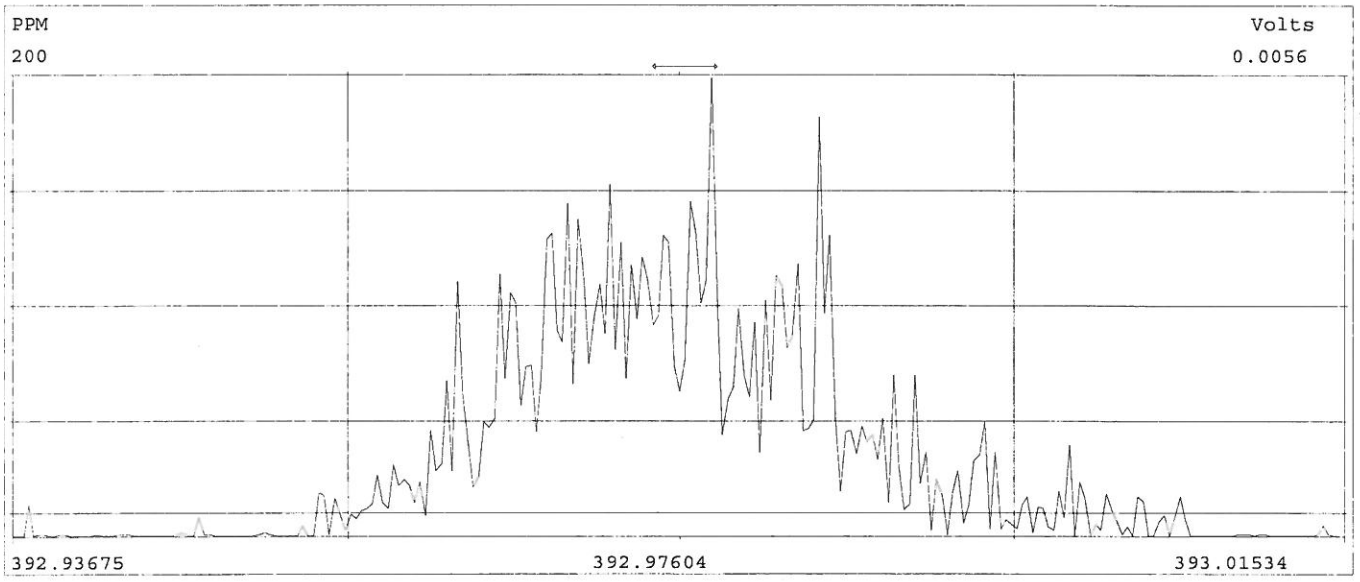


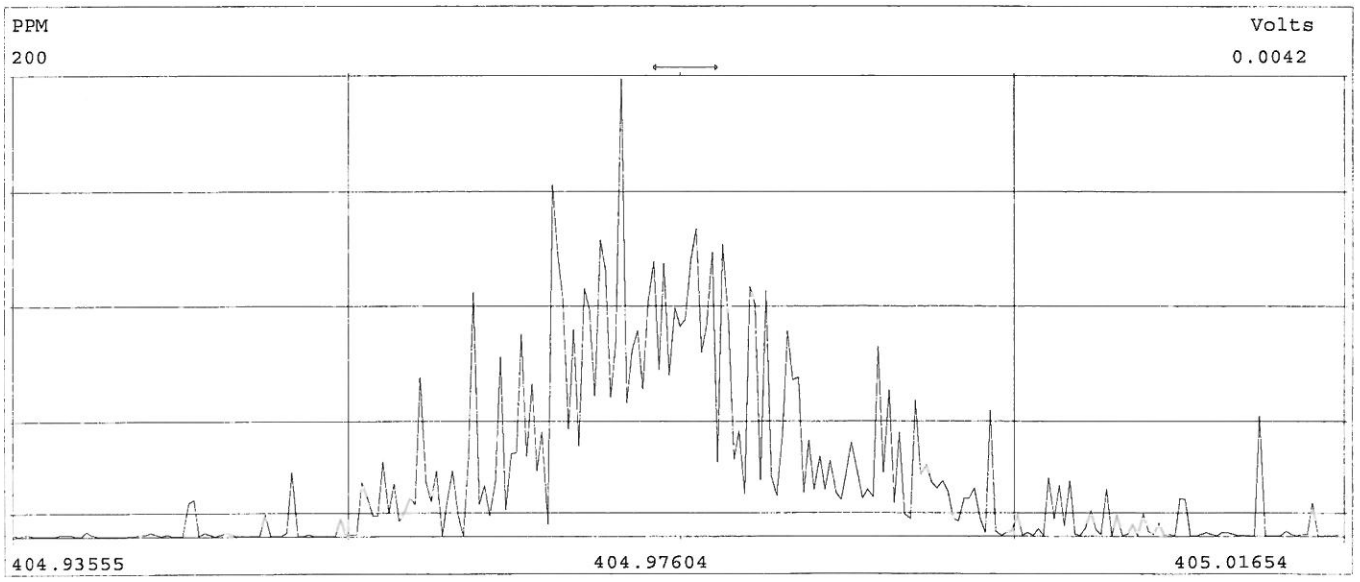




Peak Locate Examination:23-JUL-2018:19:45 File:DB83_127ACAL2
Experiment:DX-DB225-4_01 Function:2 Reference:PFK







DB83_127A-A

OPUSquan 24-JUL-2018 Page 1

	c/q	Data Area	Data File	S	I	AnalyteTable	Factr #1	Factr #2	Size	HC	Sample Text	Comments	Done
1	c	ult3	DB83_121	4	1	DB-HXD-C2	0.2000	1.0000	1.000000	y	DX041A-CAL,,»	1,,2.0uL CS-0.2/»	y
2	c	ult3	DB83_121	3	1	DB-HXD-C2	1.0000	1.0000	1.000000	y	DX041B-CAL,,»	1,,2.0uL CS-1	y
3	c	ult3	DB83_121	2	1	DB-HXD-C2	4.0000	1.0000	1.000000	y	DX041C-CAL,,»	1,,2.0uL CS-2	y
4	c	ult3	DB83_121	7	1	DB-HXD-C2	20.0000	1.0000	1.000000	y	DX041D-CAL,,»	1,,2.0uL CAL	y
5	c	ult3	DB83_121	6	1	DB-HXD-C2	80.0000	1.0000	1.000000	y	DX041E-CAL,,»	1,,2.0uL CS-4	y
6	c	ult3	DB83_121	5	1	DB-HXD-C2	400.0000	1.0000	1.000000	y	DX041F-CAL,,»	1,,2.0uL CS-5	y
7	q	ult3	DB83_127A	1	1	DB-HXD-C2	1.0000	1.0000	1.000000	y	DX003A-RSN,,»	1,,2.0uL Win/Res	y
8	q	ult3	DB83_127A	2	1	DB-HXD-C2	20.0000	1.0000	1.000000	y	DX041D-CAL,,»	1,,2.0uL Cal	y
9	q	ult3	DB83_127A	3	1	DB-HXD-S2	1.0000	1.0000	1.000000	y	Toluene,,	1,,2.0uL	y
10	q	ult3	DB83_127A	4	1	DB-HXD-S2	1.0000	1.0000	1.000000	y	Toluene,,	1,,2.0uL	y
11	q	ult3	DB83_127A	5	1	DB-HXD-S2	1.0000	1.0000	1.000000	y	WG64578-101,»	1,WG64578,2.0/20»	y
12	q	ult3	DB83_127A	6	1	DB-HXD-S2	1.0000	1.0000	1.016210	y	L29628-1,,	1,WG64578,2.0/20»	y
13	q	ult3	DB83_127A	7	1	DB-HXD-S2	1.0000	1.0000	1.053180	y	L29628-7,,	1,WG64578,2.0/20»	y
14	q	ult3	DB83_127A	8	1	DB-HXD-S2	1.0000	1.0000	1.070500	y	L29628-11,,	1,WG64578,2.0/20»	y
15	q	ult3	DB83_127A	9	1	DB-HXD-S2	1.0000	1.0000	1.031900	y	L29628-12,,	1,WG64578,2.0/20»	y
16	q	ult3	DB83_127A	10	1	DB-HXD-S2	1.0000	1.0000	1.056460	y	L29628-14,,	1,WG64578,2.0/20»	y
17	q	ult3	DB83_127A	11	1	DB-HXD-S2	1.0000	1.0000	1.065400	y	L29628-17,,	1,WG64578,2.0/20»	y
18	q	ult3	DB83_127A	12	1	DB-HXD-C2	20.0000	1.0000	1.000000	y	DX041D-CAL,,»	1,,2.0uL Cal	y

SGS AXYS METHOD MLA-010 Rev 12

Form 4A
PCDD/PCDF CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	10-Jul-2018	**VER Data Filename:**	DB83_127A S: 2
Instrument ID:	HR GC/MS	**Analysis Date:**	23-Jul-2018
GC Column ID:	DB225	**Analysis Time:**	11:49:10

COMPOUND	LAB FLAG [1]	MZ's FORMING RATIO [2]	ION ABUND. RATIO	QC LIMITS [3]	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL) [4]
1,2,3,7,8,9-HXCDD		**M+2/M+4**	1.21	1.05-1.43	43.8	41 - 61
2,3,7,8-TCDF		**M/M+2**	0.76	0.65-0.89	9.02	8.4 - 12

(1) Where applicable, custom lab flags have been used on this report.
(2) See Table 8, Method 1613, for m/z specifications.
(3) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
(4) Contract-required concentration range as determined from the percent of the test concentration in Table 6, Method 1613, under VER.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

For Axys Internal Use Only [XSL Template: Form4A.xsl; Created: 26-Jul-2018 11:26:57; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_DB83_127AS2__Form4A_SJ2408542.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 6A
PCDD/PCDF RELATIVE RETENTION TIMES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	10-Jul-2018	**VER Data Filename:**	DB83_127A S: 2
Instrument ID:	HR GC/MS	**Analysis Date:**	23-Jul-2018
GC Column ID:	DB225	**Analysis Time:**	11:49:10

COMPOUND	LAB FLAG [1]	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS [2]
1,2,3,7,8,9-HXCDD		13C-1,2,3,6,7,8-HXCDD	1.063	1.052-1.075
2,3,7,8-TCDF		13C-2,3,7,8-TCDF	1.002	0.999-1.003

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

For Axys Internal Use Only [XSL Template: Form6A.xsl; Created: 26-Jul-2018 11:26:57; Application: XMLTransformer-1.16.47; Report Filename: 1613_DIOXINS_DB83_127AS2__Form6A_SJ2408542.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 4A
PCDD/PCDF CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	10-Jul-2018	**VER Data Filename:**	DB83_127A S: 12
Instrument ID:	HR GC/MS	**Analysis Date:**	23-Jul-2018
GC Column ID:	DB225	**Analysis Time:**	18:41:43

COMPOUND	LAB FLAG [1]	MZ's FORMING RATIO [2]	ION ABUND. RATIO	QC LIMITS [3]	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL) [4]
1,2,3,7,8,9-HXCDD		**M+2/M+4**	1.25	1.05-1.43	49.6	41 - 61
2,3,7,8-TCDF		**M/M+2**	0.78	0.65-0.89	10.2	8.4 - 12

(1) Where applicable, custom lab flags have been used on this report.
(2) See Table 8, Method 1613, for m/z specifications.
(3) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
(4) Contract-required concentration range as determined from the percent of the test concentration in Table 6, Method 1613, under VER.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

For Axys Internal Use Only [XSL Template: Form4A.xsl; Created: 26-Jul-2018 11:26:57; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_DB83_127AS12__Form4A_SJ2408553.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 6A
PCDD/PCDF RELATIVE RETENTION TIMES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	10-Jul-2018	**VER Data Filename:**	DB83_127A S: 12
Instrument ID:	HR GC/MS	**Analysis Date:**	23-Jul-2018
GC Column ID:	DB225	**Analysis Time:**	18:41:43

COMPOUND	LAB FLAG [1]	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS [2]
1,2,3,7,8,9-HXCDD		13C-1,2,3,6,7,8-HXCDD	1.063	1.052-1.075
2,3,7,8-TCDF		13C-2,3,7,8-TCDF	1.001	0.999-1.003

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

For Axys Internal Use Only [XSL Template: Form6A.xsl; Created: 26-Jul-2018 11:26:57; Application: XMLTransformer-1.16.47; Report Filename: 1613_DIOXINS_DB83_127AS12__Form6A_SJ2408553.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 5

PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Instrument ID:	HR GC/MS	**Initial Calibration Date:**		10-Jul-2018
RT Window Data Filename:		**Analysis Date:**		**Time:**
DB-5 IS Data Filename:		**Analysis Date:**		**Time:**
DB-225 IS Data Filename:	DB83_127A S: 1	**Analysis Date:**	23-Jul-2018	**Time:** 10:33:00

DB225 RT WINDOW DEFINING STANDARDS RESULT

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	N/A	**1,3,6,8-TCDF (F)**	N/A
1,2,8,9-TCDD (L)	N/A	**1,2,8,9-TCDF (L)**	N/A
1,2,4,7,9-PECDD (F)	N/A	**1,3,4,6,8-PECDF (F)**	N/A
1,2,3,8,9-PECDD (L)	N/A	**1,2,3,8,9-PECDF (L)**	N/A
1,2,4,6,7,9-HXCDD (F)	N/A	**1,2,3,4,6,8-HXCDF (F)**	N/A
1,2,3,4,6,7-HXCDD (L)	N/A	**1,2,3,4,8,9-HXCDF (L)**	N/A
1,2,3,4,6,7,9-HPCDD (F)	N/A	**1,2,3,4,6,7,8-HPCDF (F)**	N/A
1,2,3,4,6,7,8-HPCDD (L)	N/A	**1,2,3,4,7,8,9-HPCDF (L)**	N/A

(F) = First eluting isomer (DB-5); (L) = Last eluting isomer (DB-5)

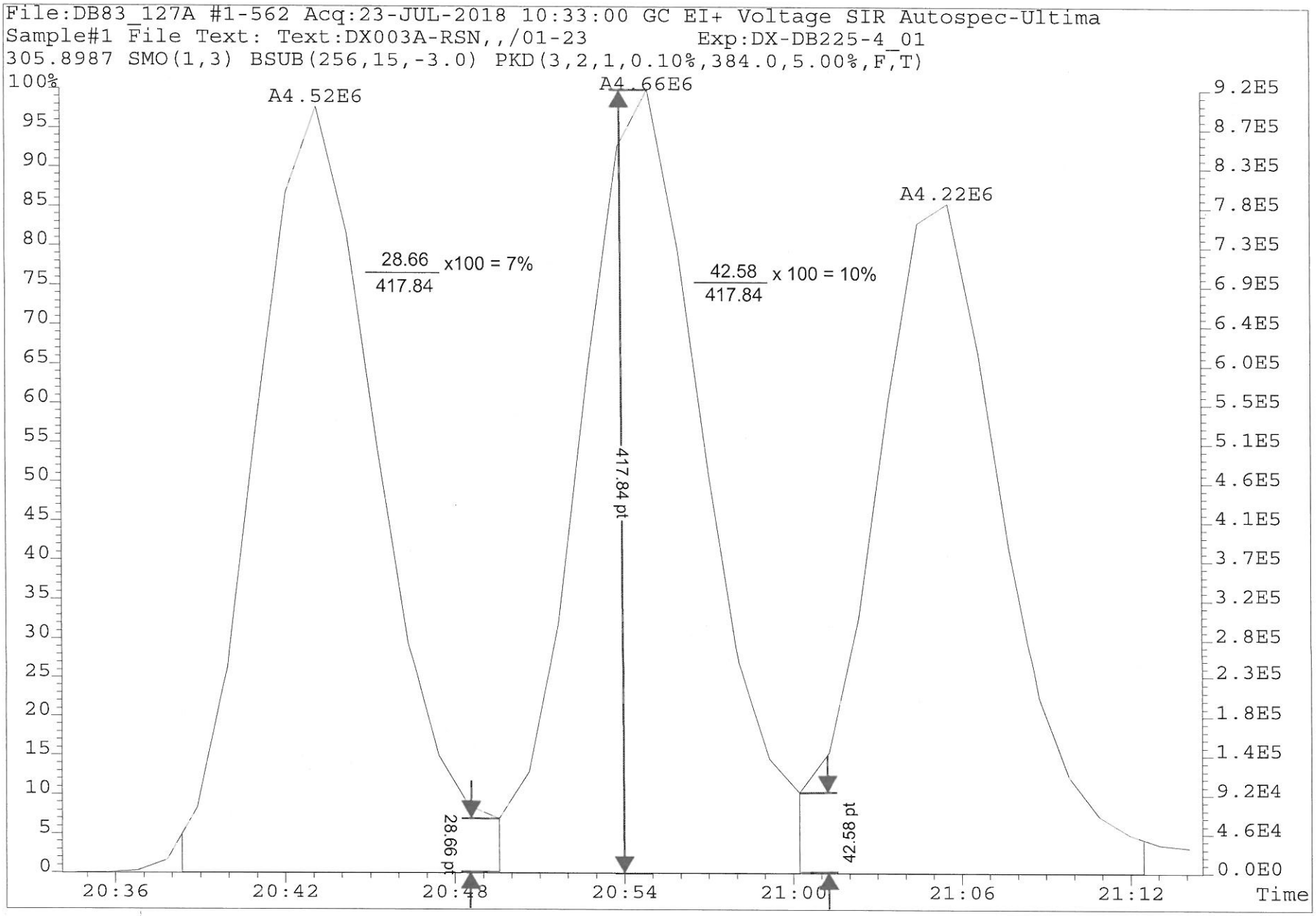
ISOMER SPECIFICITY (IS) TEST STANDARDS RESULT

Isomers	% Valley Height Between Compared Peaks	Isomers	% Valley Height Between Compared Peaks
1,2,3,4-TCDD **1,2,7,8-TCDD**	N/A	**1,2,3,8-TCDD** **2,3,7,8-TCDD**	N/A
1,2,7,8-TCDD **1,4,7,8-TCDD**	N/A	**2,3,4,7-TCDF** **2,3,7,8-TCDF**	7
1,4,7,8-TCDD **1,2,3,7-TCDD**	N/A	**2,3,7,8-TCDF** **1,2,3,9-TCDF**	10
1,2,3,7-TCDD **1,2,3,8-TCDD**	N/A		

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

For Axys Internal Use Only [XSL Template: DXForm5.xsl; Created: 26-Jul-2018 11:26:57; Application: XMLTransformer-1.16.47; Report Filename: 1613_DIOXINS__DB83_127AS1_Form5_SJ2408945.html; Workgroup: WG64578; Design ID: 491]



PV by LHE
24-JULY-2018

SGS Axys Analytical Services, Ltd.

Method: C:\MassLynx\180604DX.PRO\MethDB\DX_Log.mdb 21 Nov 2008 11:39:44
Calibration: C:\MassLynx\180604DX.PRO\CurveDB\DX8M_065C-CAL.cdb 05 Jun 2018 06:43:58

Compound name: -

#	Name	ID	Sample Text	Acq Date	Acq Time
1	DX8M_087S1	DX041D-CAL,,/01-89	1,,1.0uL Cal Win/Res	23-Jul-18	16:00:43
2	DX8M_087S2	DX041D-CAL,,/01-89	1,,1.0uL Cal Win/Res	23-Jul-18	17:07:08
3	DX8M_087S3	DX051A-SUR,,/01	1,,1.0uL Inst Blank	23-Jul-18	18:09:35
4	DX8M_087S4	DX051A-SUR,,/01	1,,1.0uL Inst Blank	23-Jul-18	19:01:59
5	DX8M_087S5	L29628-28,I,	1,WG64578,1.0/20uL	23-Jul-18	19:57:17
6	DX8M_087S6	DX041D-CAL,,/01-89	1,,1.0uL Cal Win/Res	23-Jul-18	20:52:27

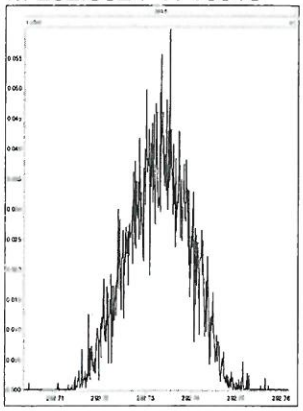
Experiment Calibration Report **MassLynx 4.1** Page 1 of 1

File: Experiment: DX_DB5_1_04.exp Reference: pfk.ref Function: 3 @ 200 (ppm)

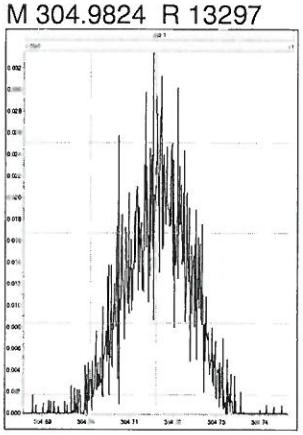
Printed: Monday, July 23, 2018 17:03:40 Pacific Daylight Time DX8H-08752CAL2

Approved by EW 23-JUL-2018

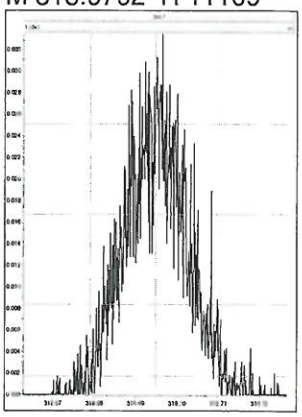
M 292.9824 R 10919



M 304.9824 R 13297



M 318.9792 R 11109



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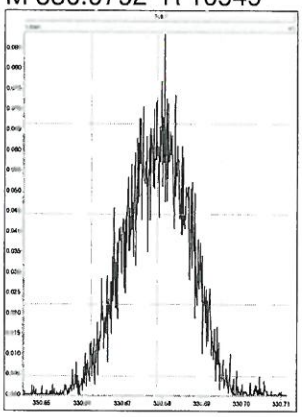

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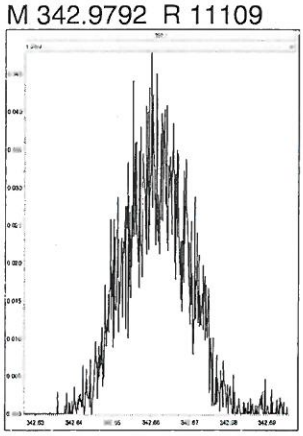

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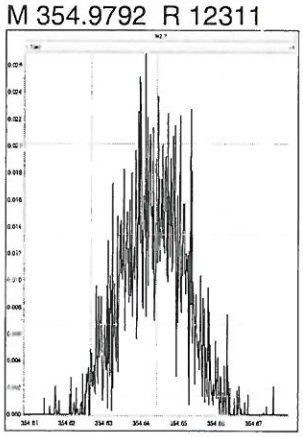

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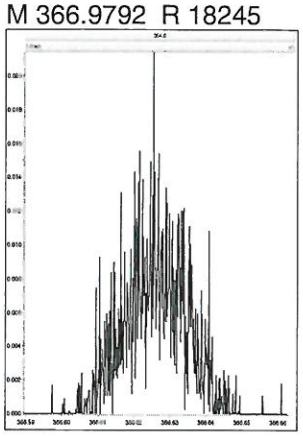
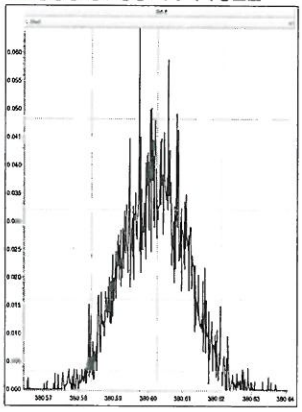


M 380.9760 R 11522

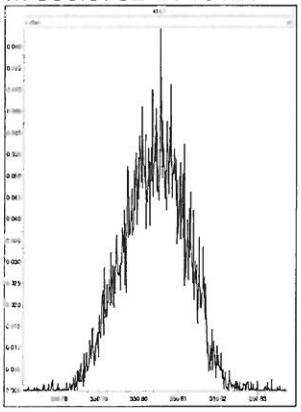


Experiment Calibration Report **MassLynx 4.1**

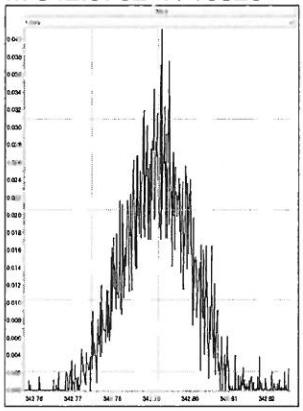
File: Experiment: DX_DB5_1_04.exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed: Monday, July 23, 2018 17:04:26 Pacific Daylight Time

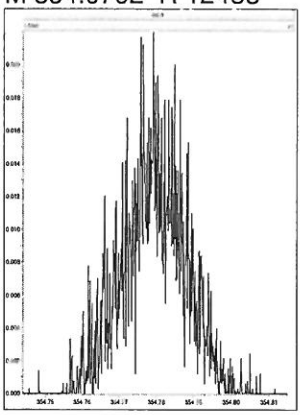
M 330.9792 R 10121



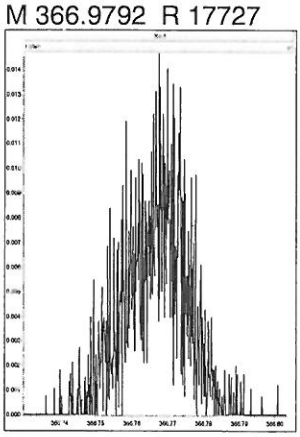
M 342.9792 R 10820



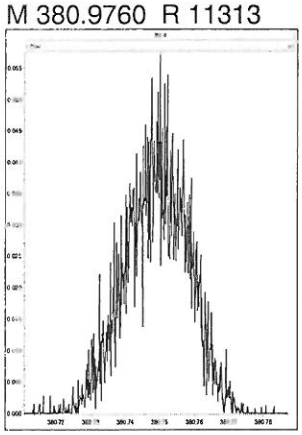
M 354.9792 R 12438



M 366.9792 R 17727



M 380.9760 R 11313



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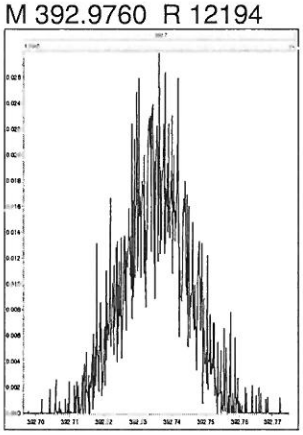

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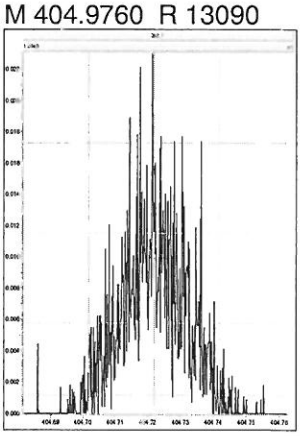

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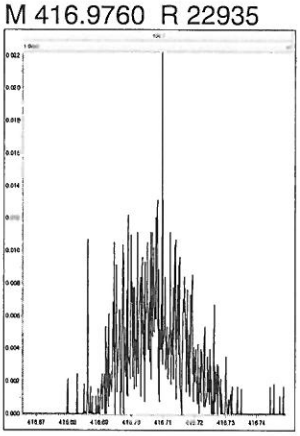
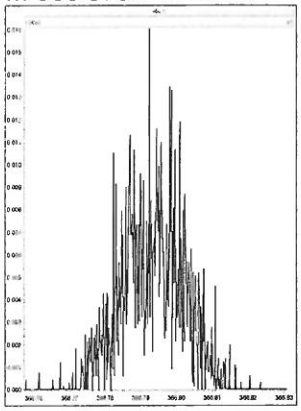


Experiment Calibration Report **MassLynx 4.1**

File: Experiment: DX_DB5_1_04.exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed: Monday, July 23, 2018 17:04:59 Pacific Daylight Time

M 366.9792 R 15821



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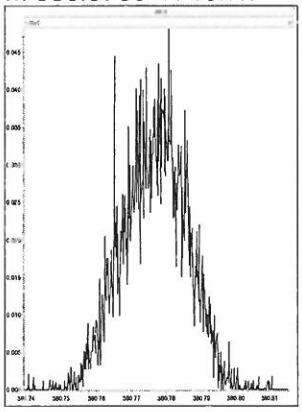

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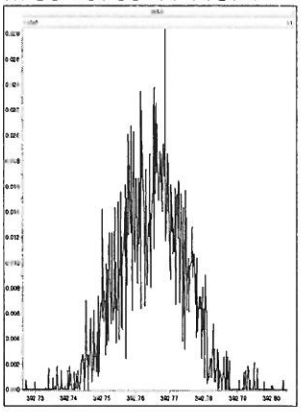

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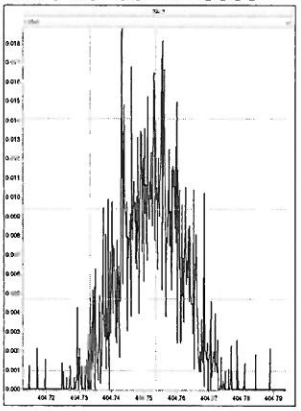

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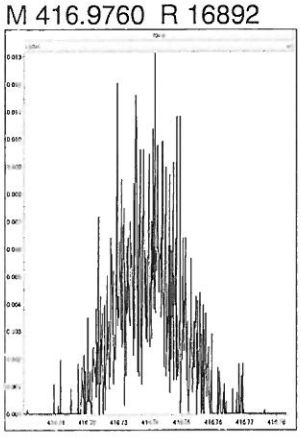
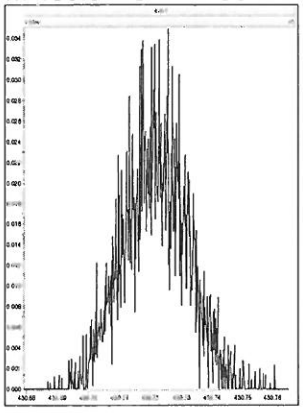


M 430.9728 R 12561



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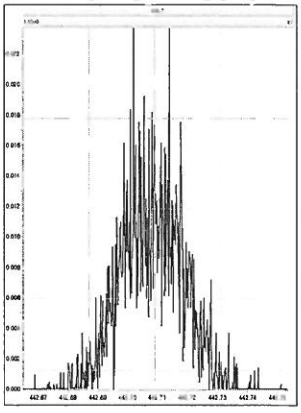

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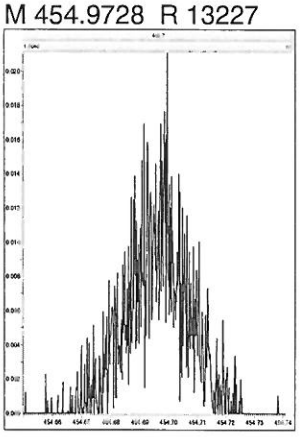

Experiment Calibration Report **MassLynx 4.1** Page 1 of 1

File: Experiment: DX_DB5_1_04.exp Reference: pfk.ref Function: 6 @ 200 (ppm)

Printed: Monday, July 23, 2018 17:05:33 Pacific Daylight Time

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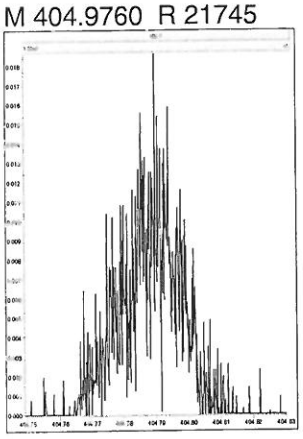

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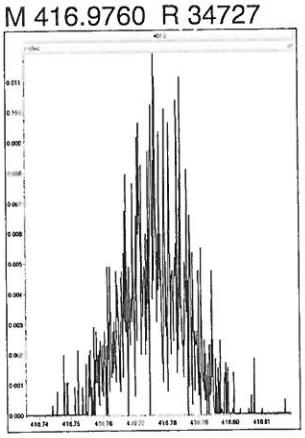

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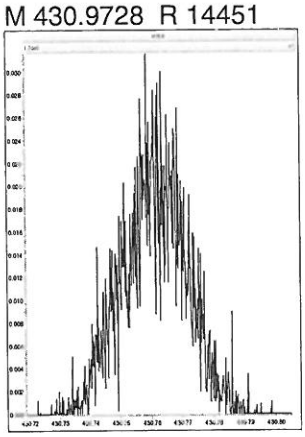

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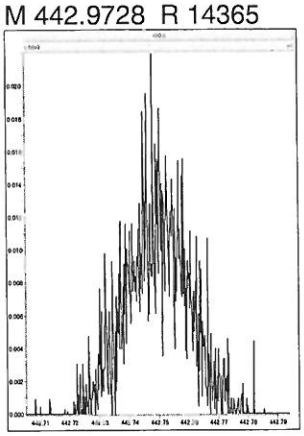

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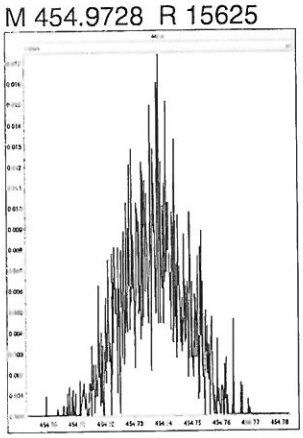
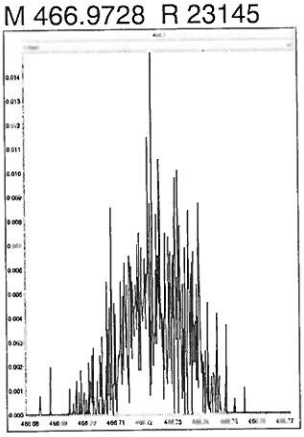


M 466.9728 R 23145



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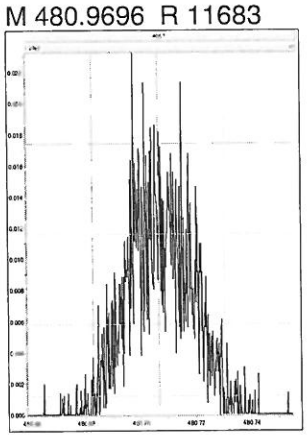

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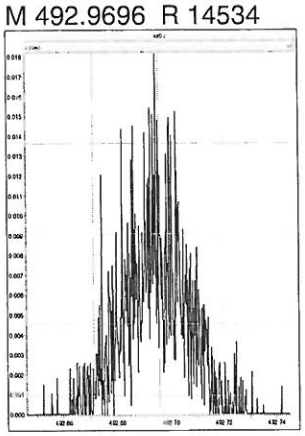

Experiment Calibration Report **MassLynx 4.1**

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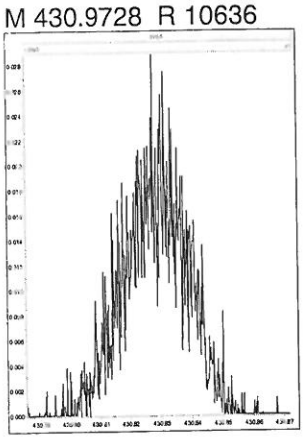

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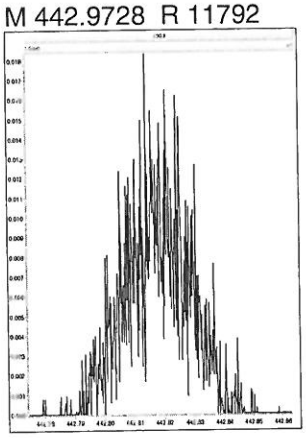

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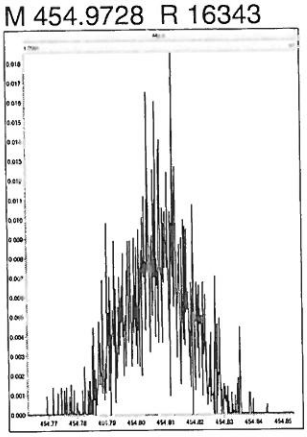

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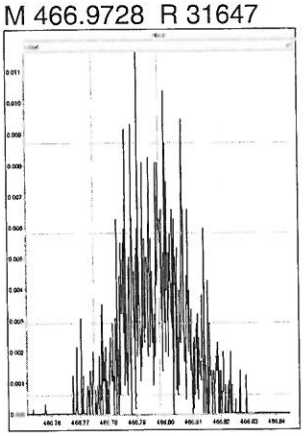

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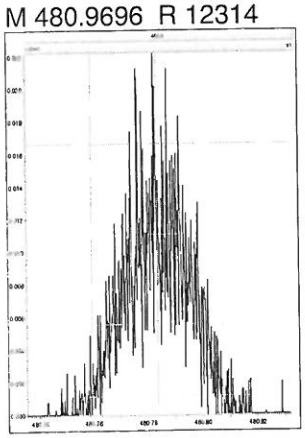

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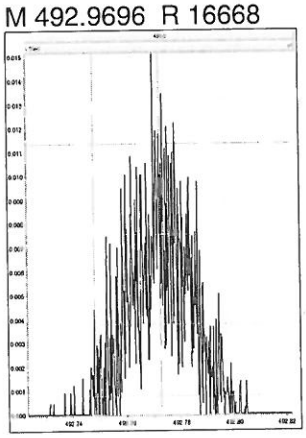

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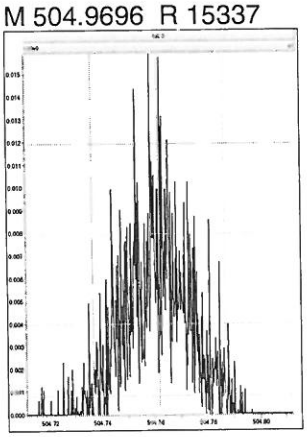

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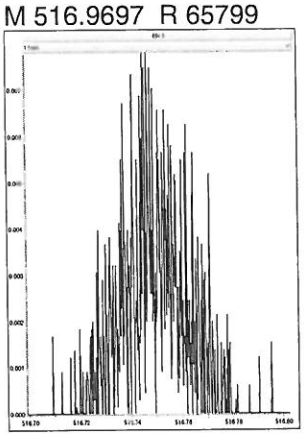

Resolution Check Report **MassLynx 4.1**

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Approved by EW 23-JL-2018

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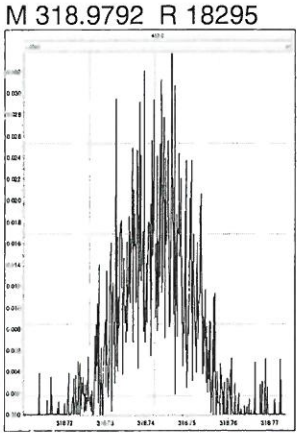

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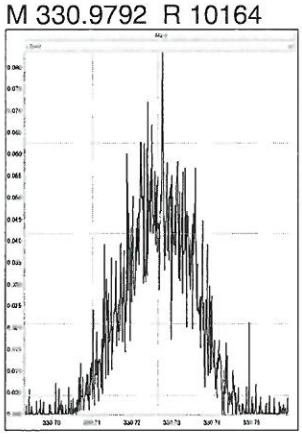

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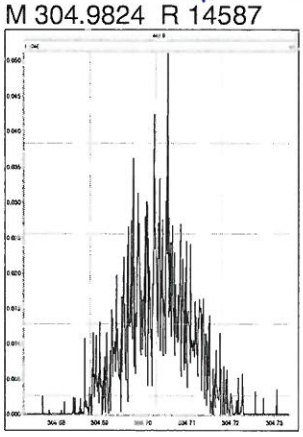

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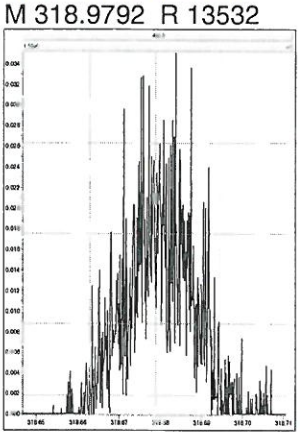

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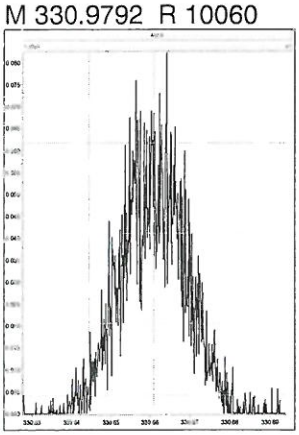

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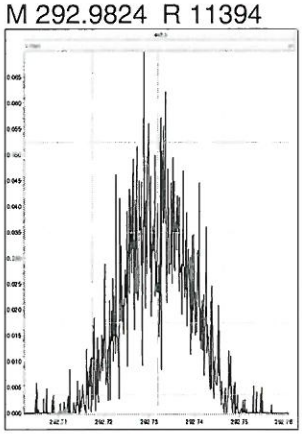

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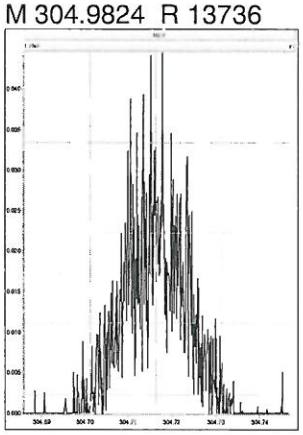

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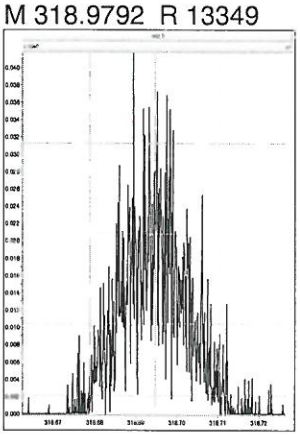

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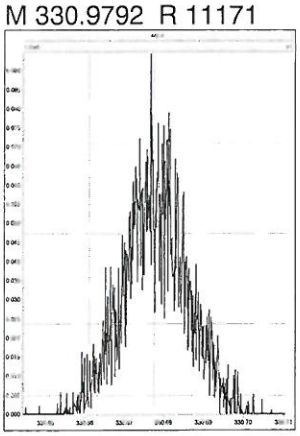

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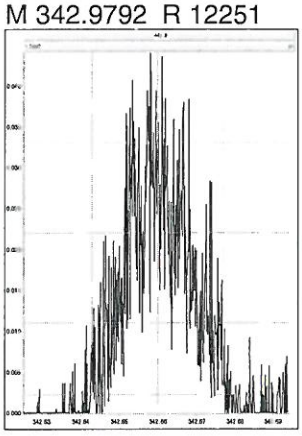

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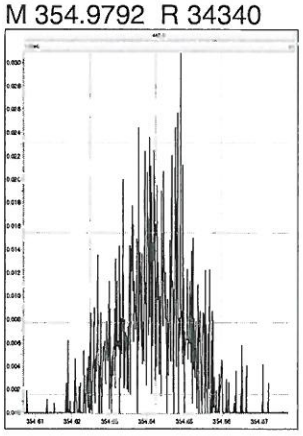

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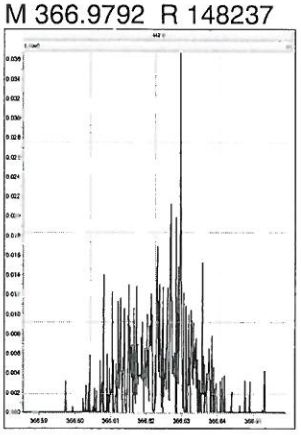

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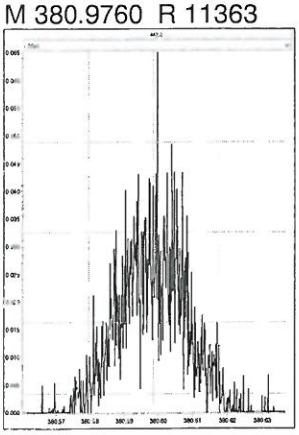

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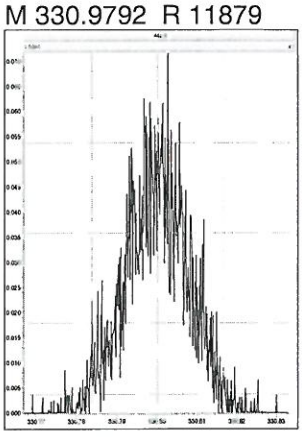

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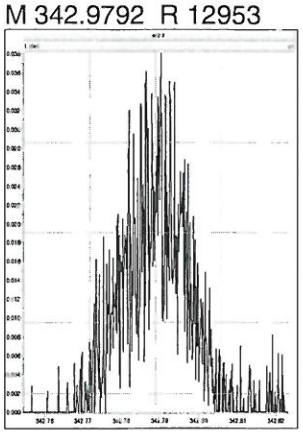

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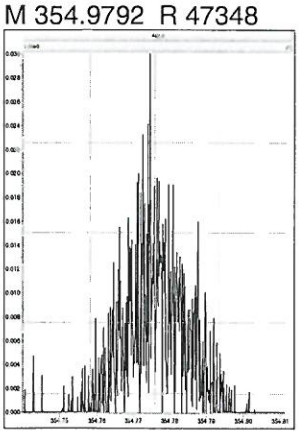

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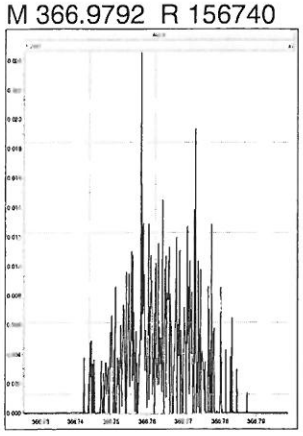
M 366.9792 R 156740



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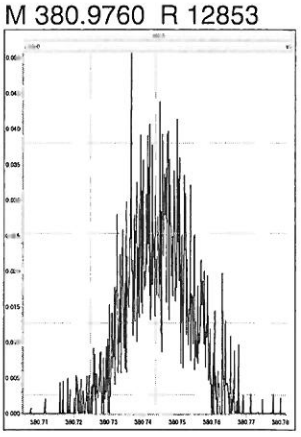

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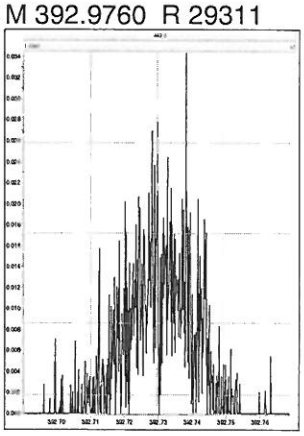

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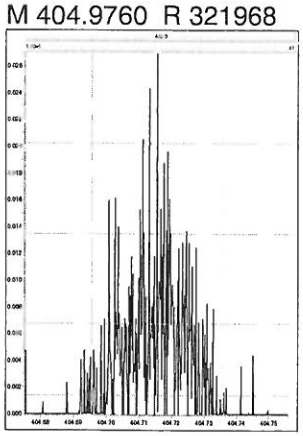

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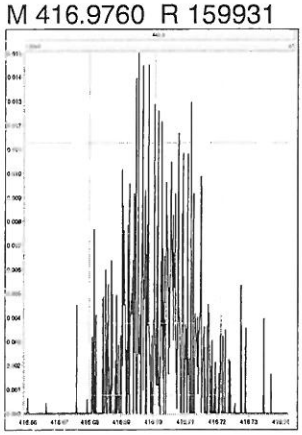

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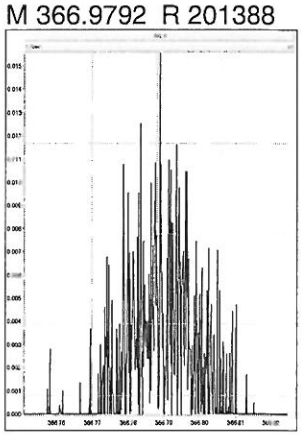

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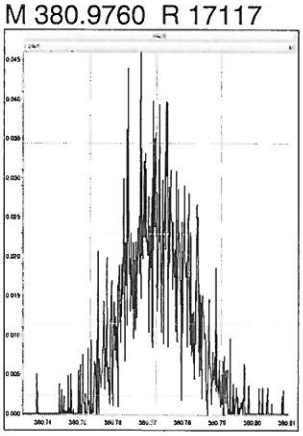

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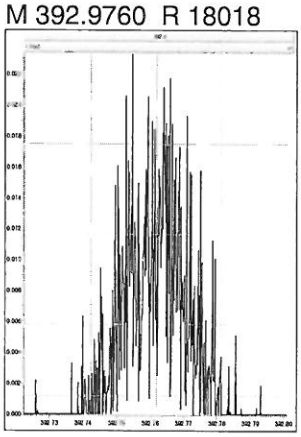

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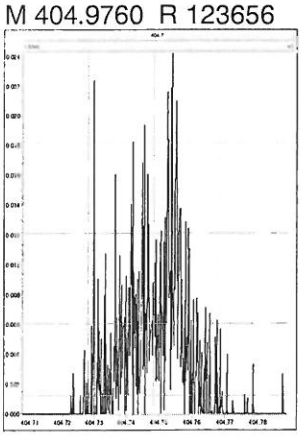

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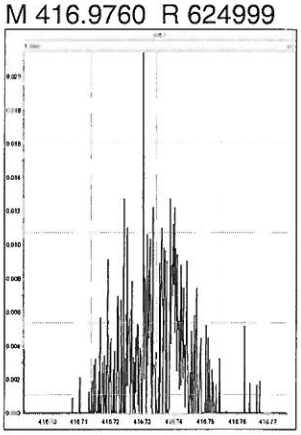

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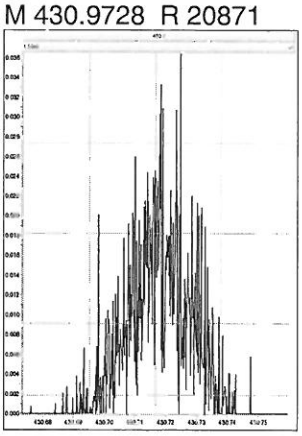

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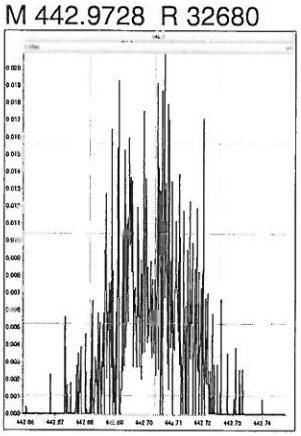

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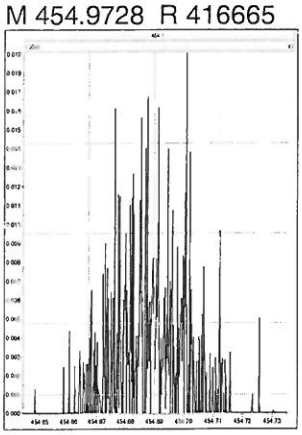

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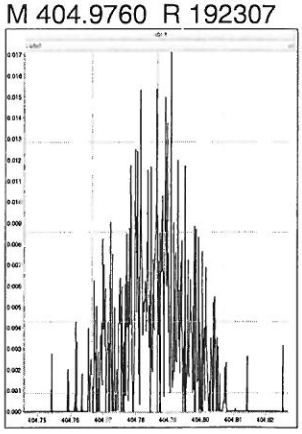

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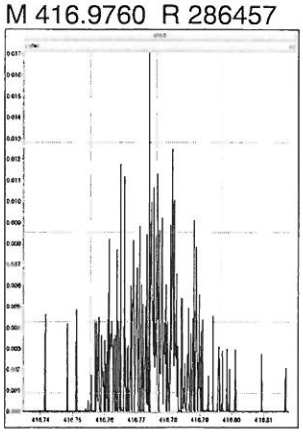

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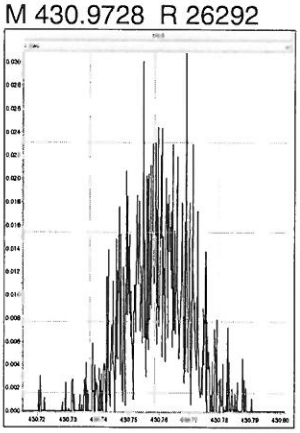

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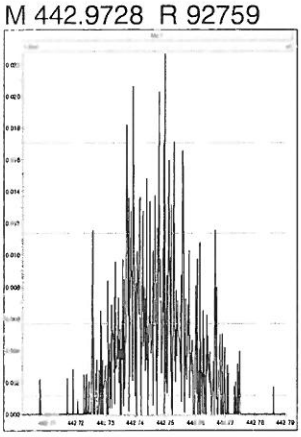

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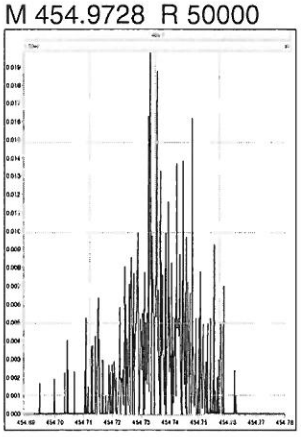

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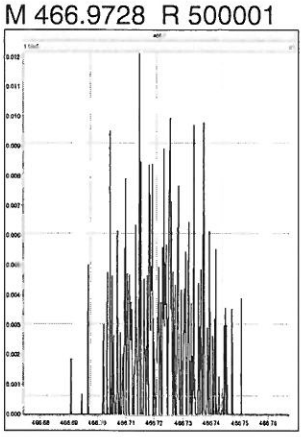

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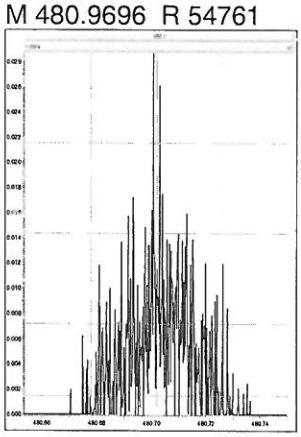

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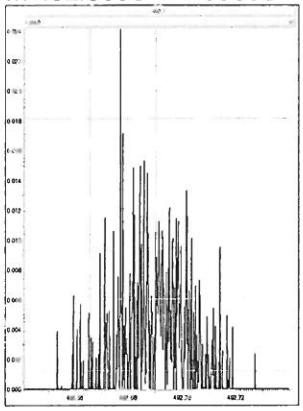

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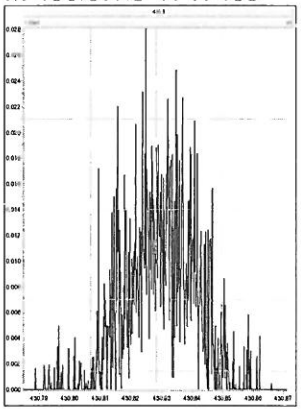

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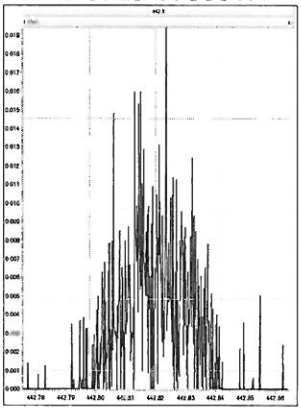

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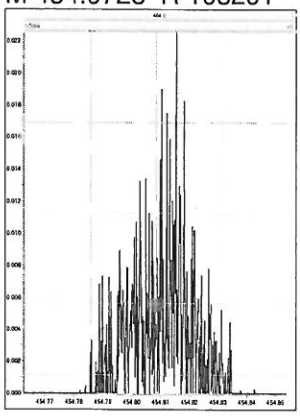

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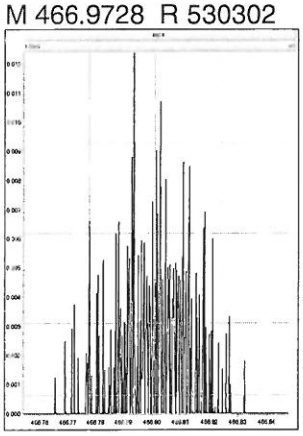

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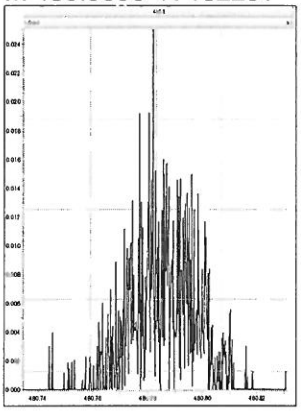

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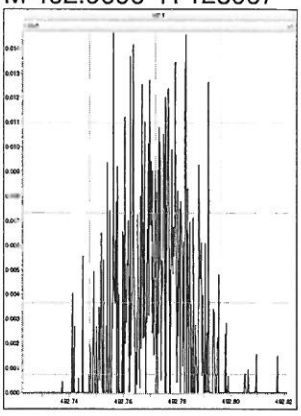

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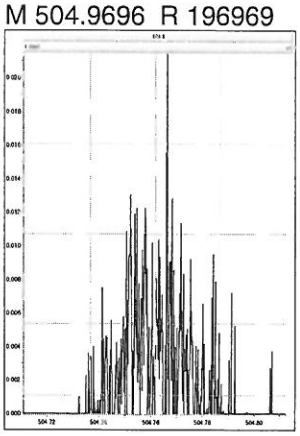

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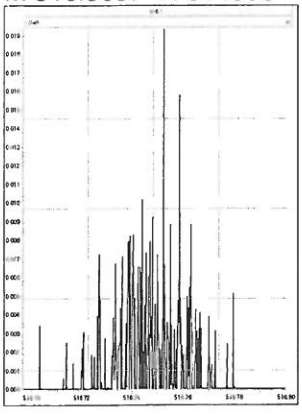

DX8M_087-A

Sample List Report **MassLynx 4.1 SCN627**

Sample List: G:\Masslynx\Inst_M\Projects\180604DX.PRO\SampleDB\DX8M_087-A.SPL
Last Modified: Tuesday, July 24, 2018 13:32:44 Pacific Daylight Time
Printed: Tuesday, July 24, 2018 13:48:54 Pacific Daylight Time

Page Position (1, 1)

	File Name	Sample ID	File Text	Sample Type	Subject Text	Samp Size	13C-Te-Hp	13C-OCDD	Rec Std	C/Up
1	DX8M_087S2	DX041D-CAL,,/01-89	1,,1.0uL Cal Win/Res	QC	DB5,ng/mL	1.000	100	200	100	10
2	DX8M_087S3	DX051A-SUR,,/01	1,,1.0uL Inst Blank	Blank	DB5,pg/sam	1.000	200	400	200	---
3	DX8M_087S4	DX051A-SUR,,/01	1,,1.0uL Inst Blank	Blank	DB5,pg/sam	1.000	200	400	200	---
4	DX8M_087S5	L29628-28,I,	1,WG64578,1.0/20uL	Analyte	DB5,pg/L	1.060	2000	4000	2000	200
5	DX8M_087S6	DX041D-CAL,,/01-89	1,,1.0uL Cal Win/Res	QC	DB5,ng/mL	1.000	100	200	100	10

SGS AXYS METHOD MLA-010 Rev 12

Form 4A
PCDD/PCDF CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	04-Jun-2018	**VER Data Filename:**	DX8M_087 S: 2
Instrument ID:	HR GC/MS	**Analysis Date:**	23-Jul-2018
GC Column ID:	DB5	**Analysis Time:**	17:07:08

COMPOUND	LAB FLAG [1]	MZ's FORMING RATIO [2]	ION ABUND. RATIO	QC LIMITS [3]	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL) [4]
2,3,7,8-TCDD		**M/M+2**	0.78	0.65-0.89	10.6	7.8 - 12.9
1,2,3,7,8-PECDD [5]		**M/M+2**	0.61	0.52-0.70	55.6	39 - 65
1,2,3,4,7,8-HXCDD		**M+2/M+4**	1.20	1.05-1.43	50.2	39 - 64
1,2,3,6,7,8-HXCDD		**M+2/M+4**	1.15	1.05-1.43	50.0	39 - 64
1,2,3,7,8,9-HXCDD		**M+2/M+4**	1.18	1.05-1.43	48.3	41 - 61
1,2,3,4,6,7,8-HPCDD		**M+2/M+4**	1.00	0.88-1.20	57.1	43 - 58
OCDD		**M+2/M+4**	0.94	0.76-1.02	101	79 - 126
2,3,7,8-TCDF		**M/M+2**	0.78	0.65-0.89	11.2	8.4 - 12
1,2,3,7,8-PECDF		**M+2/M+4**	1.57	1.32-1.78	54.5	41 - 60
2,3,4,7,8-PECDF		**M+2/M+4**	1.54	1.32-1.78	52.6	41 - 61
1,2,3,4,7,8-HXCDF		**M+2/M+4**	1.23	1.05-1.43	54.2	45 - 56
1,2,3,6,7,8-HXCDF		**M+2/M+4**	1.24	1.05-1.43	52.7	44 - 57
1,2,3,7,8,9-HXCDF		**M+2/M+4**	1.21	1.05-1.43	45.7	45 - 56
2,3,4,6,7,8-HXCDF		**M+2/M+4**	1.22	1.05-1.43	51.4	44 - 57
1,2,3,4,6,7,8-HPCDF		**M+2/M+4**	1.03	0.88-1.20	52.4	45 - 55
1,2,3,4,7,8,9-HPCDF		**M+2/M+4**	1.03	0.88-1.20	54.3	43 - 58
OCDF		**M+2/M+4**	0.86	0.76-1.02	101	63 - 159

(1) Where applicable, custom lab flags have been used on this report.
(2) See Table 8, Method 1613, for m/z specifications.
(3) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
(4) Contract-required concentration range as determined from the percent of the test concentration in Table 6, Method 1613, under VER.
(5) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

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SGS AXYS METHOD MLA-010 Rev 12

Form 4B
PCDD/PCDF CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	04-Jun-2018	**VER Data Filename:**	DX8M_087 S: 2
Instrument ID:	HR GC/MS	**Analysis Date:**	23-Jul-2018
GC Column ID:	DB5	**Analysis Time:**	17:07:08

LABELED COMPOUND	LAB FLAG [1]	MZ's FORMING RATIO [2]	ION ABUND. RATIO	QC LIMITS [3]	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL) [4]
13C-2,3,7,8-TCDD		**M/M+2**	0.75	0.65-0.89	95.1	82 - 121
13C-1,2,3,7,8-PECDD [5]		**M/M+2**	0.66	0.52-0.70	80.8	62 - 160
13C-1,2,3,4,7,8-HXCDD		**M+2/M+4**	1.33	1.05-1.43	96.2	85 - 117
13C-1,2,3,6,7,8-HXCDD		**M+2/M+4**	1.19	1.05-1.43	113	85 - 118
13C-1,2,3,4,6,7,8-HPCDD		**M+2/M+4**	1.01	0.88-1.20	85.5	72 - 138
13C-OCDD		**M+2/M+4**	0.87	0.76-1.02	191	96 - 415
13C-2,3,7,8-TCDF		**M/M+2**	0.72	0.65-0.89	92.5	71 - 140
13C-1,2,3,7,8-PECDF		**M+2/M+4**	1.43	1.32-1.78	86.7	76 - 130
13C-2,3,4,7,8-PECDF		**M+2/M+4**	1.42	1.32-1.78	90.2	77 - 130
13C-1,2,3,4,7,8-HXCDF		**M/M+2**	0.53	0.43-0.59	93.5	76 - 131
13C-1,2,3,6,7,8-HXCDF		**M/M+2**	0.52	0.43-0.59	107	70 - 143
13C-1,2,3,7,8,9-HXCDF		**M/M+2**	0.49	0.43-0.59	94.8	74 - 135
13C-2,3,4,6,7,8-HXCDF		**M/M+2**	0.51	0.43-0.59	102	73 - 137
13C-1,2,3,4,6,7,8-HPCDF		**M/M+2**	0.45	0.37-0.51	92.3	78 - 129
13C-1,2,3,4,7,8,9-HPCDF		**M/M+2**	0.46	0.37-0.51	91.2	77 - 129
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD [6]					8.95	7.9 - 12.7

(1) Where applicable, custom lab flags have been used on this report.
(2) See Table 8, Method 1613, for m/z specifications.
(3) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
(4) Contract-required concentration range as determined from the percent of the test concentration in Table 6, Method 1613, under VER.
(5) Alternate confirmation and quantitation ions used for native and labeled PECDD.
(6) No ion abundance ratio for 37Cl4-2,3,7,8-TCDD; concentration reported.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

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Report Filename: 1613_DIOXINS_DX8M_087S2__Form4B_SJ2408581.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 6A
PCDD/PCDF RELATIVE RETENTION TIMES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	04-Jun-2018	**VER Data Filename:**	DX8M_087 S: 2
Instrument ID:	HR GC/MS	**Analysis Date:**	23-Jul-2018
GC Column ID:	DB5	**Analysis Time:**	17:07:08

COMPOUND	LAB FLAG [1]	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS [2]
2,3,7,8-TCDD		13C-2,3,7,8-TCDD	1.001	0.999-1.002
1,2,3,7,8-PECDD [3]		13C-1,2,3,7,8-PECDD	1.001	0.999-1.002
1,2,3,4,7,8-HXCDD		13C-1,2,3,4,7,8-HXCDD	1.000	0.999-1.001
1,2,3,6,7,8-HXCDD		13C-1,2,3,6,7,8-HXCDD	1.001	0.998-1.004
1,2,3,7,8,9-HXCDD		13C-1,2,3,6,7,8-HXCDD	1.011	1.000-1.019
1,2,3,4,6,7,8-HPCDD		13C-1,2,3,4,6,7,8-HPCDD	1.000	0.999-1.001
OCDD		13C-OCDD	1.000	0.999-1.001
2,3,7,8-TCDF		13C-2,3,7,8-TCDF	1.001	0.999-1.003
1,2,3,7,8-PECDF		13C-1,2,3,7,8-PECDF	1.001	0.999-1.002
2,3,4,7,8-PECDF		13C-2,3,4,7,8-PECDF	1.001	0.999-1.002
1,2,3,4,7,8-HXCDF		13C-1,2,3,4,7,8-HXCDF	1.000	0.999-1.001
1,2,3,6,7,8-HXCDF		13C-1,2,3,6,7,8-HXCDF	1.001	0.997-1.005
1,2,3,7,8,9-HXCDF		13C-1,2,3,7,8,9-HXCDF	1.000	0.999-1.001
2,3,4,6,7,8-HXCDF		13C-2,3,4,6,7,8-HXCDF	1.000	0.999-1.001
1,2,3,4,6,7,8-HPCDF		13C-1,2,3,4,6,7,8-HPCDF	1.000	0.999-1.001
1,2,3,4,7,8,9-HPCDF		13C-1,2,3,4,7,8,9-HPCDF	1.000	0.999-1.001
OCDF		13C-OCDD	1.002	0.999-1.008

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613.
(3) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

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SGS AXYS METHOD MLA-010 Rev 12

Form 6B
PCDD/PCDF RELATIVE RETENTION TIMES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	04-Jun-2018	**VER Data Filename:**	DX8M_087 S: 2
Instrument ID:	HR GC/MS	**Analysis Date:**	23-Jul-2018
GC Column ID:	DB5	**Analysis Time:**	17:07:08

	LAB FLAG [1]	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS [2]
LABELED COMPOUND				
13C-2,3,7,8-TCDD		13C-1,2,3,4-TCDD	1.013	0.976-1.043
13C-1,2,3,7,8-PECDD		13C-1,2,3,4-TCDD	1.383	1.000-1.567
13C-1,2,3,4,7,8-HXCDD		13C-1,2,3,7,8,9-HXCDD	0.987	0.977-1.000
13C-1,2,3,6,7,8-HXCDD		13C-1,2,3,7,8,9-HXCDD	0.990	0.981-1.003
13C-1,2,3,4,6,7,8-HPCDD		13C-1,2,3,7,8,9-HXCDD	1.094	1.086-1.110
13C-OCDD		13C-1,2,3,7,8,9-HXCDD	1.178	1.032-1.311
13C-2,3,7,8-TCDF		13C-1,2,3,4-TCDD	0.966	0.923-1.103
13C-1,2,3,7,8-PECDF		13C-1,2,3,4-TCDD	1.284	1.000-1.425
13C-2,3,4,7,8-PECDF		13C-1,2,3,4-TCDD	1.351	1.011-1.526
13C-1,2,3,4,7,8-HXCDF		13C-1,2,3,7,8,9-HXCDD	0.954	0.944-0.970
13C-1,2,3,6,7,8-HXCDF		13C-1,2,3,7,8,9-HXCDD	0.958	0.949-0.975
13C-1,2,3,7,8,9-HXCDF		13C-1,2,3,7,8,9-HXCDD	1.005	0.977-1.047
13C-2,3,4,6,7,8-HXCDF		13C-1,2,3,7,8,9-HXCDD	0.981	0.959-1.021
13C-1,2,3,4,6,7,8-HPCDF		13C-1,2,3,7,8,9-HXCDD	1.062	1.043-1.085
13C-1,2,3,4,7,8,9-HPCDF		13C-1,2,3,7,8,9-HXCDD	1.104	1.057-1.151
CLEANUP STANDARD				
37CL-2,3,7,8-TCDD		13C-1,2,3,4-TCDD	1.001	0.989-1.052

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

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SGS AXYS METHOD MLA-010 Rev 12

Form 4A
PCDD/PCDF CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	04-Jun-2018	**VER Data Filename:**	DX8M_087 S: 6
Instrument ID:	HR GC/MS	**Analysis Date:**	23-Jul-2018
GC Column ID:	DB5	**Analysis Time:**	20:52:27

COMPOUND	LAB FLAG [1]	MZ's FORMING RATIO [2]	ION ABUND. RATIO	QC LIMITS [3]	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL) [4]
2,3,7,8-TCDD		**M/M+2**	0.73	0.65-0.89	10.9	7.8 - 12.9
1,2,3,7,8-PECDD [5]		**M/M+2**	0.63	0.52-0.70	53.8	39 - 65
1,2,3,4,7,8-HXCDD		**M+2/M+4**	1.19	1.05-1.43	48.8	39 - 64
1,2,3,6,7,8-HXCDD		**M+2/M+4**	1.22	1.05-1.43	52.3	39 - 64
1,2,3,7,8,9-HXCDD		**M+2/M+4**	1.20	1.05-1.43	48.4	41 - 61
1,2,3,4,6,7,8-HPCDD		**M+2/M+4**	1.03	0.88-1.20	52.3	43 - 58
OCDD		**M+2/M+4**	0.83	0.76-1.02	99.0	79 - 126
2,3,7,8-TCDF		**M/M+2**	0.71	0.65-0.89	10.8	8.4 - 12
1,2,3,7,8-PECDF		**M+2/M+4**	1.51	1.32-1.78	51.5	41 - 60
2,3,4,7,8-PECDF		**M+2/M+4**	1.53	1.32-1.78	51.2	41 - 61
1,2,3,4,7,8-HXCDF		**M+2/M+4**	1.23	1.05-1.43	52.4	45 - 56
1,2,3,6,7,8-HXCDF		**M+2/M+4**	1.19	1.05-1.43	52.2	44 - 57
1,2,3,7,8,9-HXCDF		**M+2/M+4**	1.24	1.05-1.43	46.2	45 - 56
2,3,4,6,7,8-HXCDF		**M+2/M+4**	1.25	1.05-1.43	52.6	44 - 57
1,2,3,4,6,7,8-HPCDF		**M+2/M+4**	1.04	0.88-1.20	52.5	45 - 55
1,2,3,4,7,8,9-HPCDF		**M+2/M+4**	1.00	0.88-1.20	56.8	43 - 58
OCDF		**M+2/M+4**	0.80	0.76-1.02	103	63 - 159

(1) Where applicable, custom lab flags have been used on this report.
(2) See Table 8, Method 1613, for m/z specifications.
(3) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
(4) Contract-required concentration range as determined from the percent of the test concentration in Table 6, Method 1613, under VER.
(5) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

For Axys Internal Use Only [XSL Template: Form4A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47; Report Filename: 1613_DIOXINS_DX8M_087S6__Form4A_SJ2408585.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 4B
PCDD/PCDF CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	04-Jun-2018	**VER Data Filename:**	DX8M_087 S: 6
Instrument ID:	HR GC/MS	**Analysis Date:**	23-Jul-2018
GC Column ID:	DB5	**Analysis Time:**	20:52:27

LABELED COMPOUND	LAB FLAG [1]	MZ's FORMING RATIO [2]	ION ABUND. RATIO	QC LIMITS [3]	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL) [4]
13C-2,3,7,8-TCDD		**M/M+2**	0.79	0.65-0.89	99.4	82 - 121
13C-1,2,3,7,8-PECDD [5]		**M/M+2**	0.66	0.52-0.70	91.8	62 - 160
13C-1,2,3,4,7,8-HXCDD		**M+2/M+4**	1.22	1.05-1.43	96.1	85 - 117
13C-1,2,3,6,7,8-HXCDD		**M+2/M+4**	1.32	1.05-1.43	116	85 - 118
13C-1,2,3,4,6,7,8-HPCDD		**M+2/M+4**	1.01	0.88-1.20	95.8	72 - 138
13C-OCDD		**M+2/M+4**	0.94	0.76-1.02	183	96 - 415
13C-2,3,7,8-TCDF		**M/M+2**	0.70	0.65-0.89	93.6	71 - 140
13C-1,2,3,7,8-PECDF		**M+2/M+4**	1.44	1.32-1.78	99.5	76 - 130
13C-2,3,4,7,8-PECDF		**M+2/M+4**	1.44	1.32-1.78	104	77 - 130
13C-1,2,3,4,7,8-HXCDF		**M/M+2**	0.51	0.43-0.59	94.0	76 - 131
13C-1,2,3,6,7,8-HXCDF		**M/M+2**	0.50	0.43-0.59	105	70 - 143
13C-1,2,3,7,8,9-HXCDF		**M/M+2**	0.52	0.43-0.59	90.9	74 - 135
13C-2,3,4,6,7,8-HXCDF		**M/M+2**	0.52	0.43-0.59	107	73 - 137
13C-1,2,3,4,6,7,8-HPCDF		**M/M+2**	0.46	0.37-0.51	95.4	78 - 129
13C-1,2,3,4,7,8,9-HPCDF		**M/M+2**	0.44	0.37-0.51	83.8	77 - 129
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD [6]					8.52	7.9 - 12.7

(1) Where applicable, custom lab flags have been used on this report.
(2) See Table 8, Method 1613, for m/z specifications.
(3) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
(4) Contract-required concentration range as determined from the percent of the test concentration in Table 6, Method 1613, under VER.
(5) Alternate confirmation and quantitation ions used for native and labeled PECDD.
(6) No ion abundance ratio for 37Cl4-2,3,7,8-TCDD; concentration reported.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

For Axys Internal Use Only [XSL Template: Form4B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_DX8M_087S6__Form4B_SJ2408585.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 6A
PCDD/PCDF RELATIVE RETENTION TIMES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	04-Jun-2018	**VER Data Filename:**	DX8M_087 S: 6
Instrument ID:	HR GC/MS	**Analysis Date:**	23-Jul-2018
GC Column ID:	DB5	**Analysis Time:**	20:52:27

COMPOUND	LAB FLAG [1]	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS [2]
2,3,7,8-TCDD		13C-2,3,7,8-TCDD	1.001	0.999-1.002
1,2,3,7,8-PECDD [3]		13C-1,2,3,7,8-PECDD	1.001	0.999-1.002
1,2,3,4,7,8-HXCDD		13C-1,2,3,4,7,8-HXCDD	1.000	0.999-1.001
1,2,3,6,7,8-HXCDD		13C-1,2,3,6,7,8-HXCDD	1.000	0.998-1.004
1,2,3,7,8,9-HXCDD		13C-1,2,3,6,7,8-HXCDD	1.010	1.000-1.019
1,2,3,4,6,7,8-HPCDD		13C-1,2,3,4,6,7,8-HPCDD	1.000	0.999-1.001
OCDD		13C-OCDD	1.000	0.999-1.001
2,3,7,8-TCDF		13C-2,3,7,8-TCDF	1.001	0.999-1.003
1,2,3,7,8-PECDF		13C-1,2,3,7,8-PECDF	1.001	0.999-1.002
2,3,4,7,8-PECDF		13C-2,3,4,7,8-PECDF	1.001	0.999-1.002
1,2,3,4,7,8-HXCDF		13C-1,2,3,4,7,8-HXCDF	1.000	0.999-1.001
1,2,3,6,7,8-HXCDF		13C-1,2,3,6,7,8-HXCDF	1.001	0.997-1.005
1,2,3,7,8,9-HXCDF		13C-1,2,3,7,8,9-HXCDF	1.000	0.999-1.001
2,3,4,6,7,8-HXCDF		13C-2,3,4,6,7,8-HXCDF	1.000	0.999-1.001
1,2,3,4,6,7,8-HPCDF		13C-1,2,3,4,6,7,8-HPCDF	1.000	0.999-1.001
1,2,3,4,7,8,9-HPCDF		13C-1,2,3,4,7,8,9-HPCDF	1.000	0.999-1.001
OCDF		13C-OCDD	1.002	0.999-1.008

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613.
(3) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

For Axys Internal Use Only [XSL Template: Form6A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47; Report Filename: 1613_DIOXINS_DX8M_087S6__Form6A_SJ2408585.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 6B
PCDD/PCDF RELATIVE RETENTION TIMES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	04-Jun-2018	**VER Data Filename:**	DX8M_087 S: 6
Instrument ID:	HR GC/MS	**Analysis Date:**	23-Jul-2018
GC Column ID:	DB5	**Analysis Time:**	20:52:27

	LAB FLAG [1]	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS [2]
LABELED COMPOUND				
13C-2,3,7,8-TCDD		13C-1,2,3,4-TCDD	1.012	0.976-1.043
13C-1,2,3,7,8-PECDD		13C-1,2,3,4-TCDD	1.381	1.000-1.567
13C-1,2,3,4,7,8-HXCDD		13C-1,2,3,7,8,9-HXCDD	0.987	0.977-1.000
13C-1,2,3,6,7,8-HXCDD		13C-1,2,3,7,8,9-HXCDD	0.990	0.981-1.003
13C-1,2,3,4,6,7,8-HPCDD		13C-1,2,3,7,8,9-HXCDD	1.094	1.086-1.110
13C-OCDD		13C-1,2,3,7,8,9-HXCDD	1.178	1.032-1.311
13C-2,3,7,8-TCDF		13C-1,2,3,4-TCDD	0.966	0.923-1.103
13C-1,2,3,7,8-PECDF		13C-1,2,3,4-TCDD	1.283	1.000-1.425
13C-2,3,4,7,8-PECDF		13C-1,2,3,4-TCDD	1.350	1.011-1.526
13C-1,2,3,4,7,8-HXCDF		13C-1,2,3,7,8,9-HXCDD	0.954	0.944-0.970
13C-1,2,3,6,7,8-HXCDF		13C-1,2,3,7,8,9-HXCDD	0.958	0.949-0.975
13C-1,2,3,7,8,9-HXCDF		13C-1,2,3,7,8,9-HXCDD	1.005	0.977-1.047
13C-2,3,4,6,7,8-HXCDF		13C-1,2,3,7,8,9-HXCDD	0.981	0.959-1.021
13C-1,2,3,4,6,7,8-HPCDF		13C-1,2,3,7,8,9-HXCDD	1.062	1.043-1.085
13C-1,2,3,4,7,8,9-HPCDF		13C-1,2,3,7,8,9-HXCDD	1.104	1.057-1.151
CLEANUP STANDARD				
37CL-2,3,7,8-TCDD		13C-1,2,3,4-TCDD	1.001	0.989-1.052

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

For Axys Internal Use Only [XSL Template: Form6B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47; Report Filename: 1613_DIOXINS_DX8M_087S6__Form6B_SJ2408585.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 5

PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Instrument ID:	HR GC/MS	**Initial Calibration Date:**		04-Jun-2018
RT Window Data Filename:	DX8M_087 S: 2	**Analysis Date:**	23-Jul-2018	**Time:** 17:07:08
DB-5 IS Data Filename:	DX8M_087 S: 2	**Analysis Date:**	23-Jul-2018	**Time:** 17:07:08
DB-225 IS Data Filename:		**Analysis Date:**		**Time:**

DB5 RT WINDOW DEFINING STANDARDS RESULT

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	22:57	**1,3,6,8-TCDF (F)**	21:26
1,2,8,9-TCDD (L)	28:19	**1,2,8,9-TCDF (L)**	28:09
1,2,4,7,9-PECDD (F)	32:04	**1,3,4,6,8-PECDF (F)**	28:52
1,2,3,8,9-PECDD (L)	37:03	**1,2,3,8,9-PECDF (L)**	37:07
1,2,4,6,7,9-HXCDD (F)	40:02	**1,2,3,4,6,8-HXCDF (F)**	39:00
1,2,3,4,6,7-HXCDD (L)	42:40	**1,2,3,4,8,9-HXCDF (L)**	42:59
1,2,3,4,6,7,9-HPCDD (F)	45:46	**1,2,3,4,6,7,8-HPCDF (F)**	45:17
1,2,3,4,6,7,8-HPCDD (L)	46:41	**1,2,3,4,7,8,9-HPCDF (L)**	47:05

(F) = First eluting isomer (DB-5); (L) = Last eluting isomer (DB-5)

ISOMER SPECIFICITY (IS) TEST STANDARDS RESULT

Isomers	% Valley Height Between Compared Peaks	Isomers	% Valley Height Between Compared Peaks
1,2,3,4-TCDD **1,2,7,8-TCDD**	0	**1,2,3,8-TCDD** **2,3,7,8-TCDD**	16
1,2,7,8-TCDD **1,4,7,8-TCDD**	0	**2,3,4,7-TCDF** **2,3,7,8-TCDF**	N/A
1,4,7,8-TCDD **1,2,3,7-TCDD**	0	**2,3,7,8-TCDF** **1,2,3,9-TCDF**	N/A
1,2,3,7-TCDD **1,2,3,8-TCDD**	DB-5 column; co-elute as per Figure 6 in Method		

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

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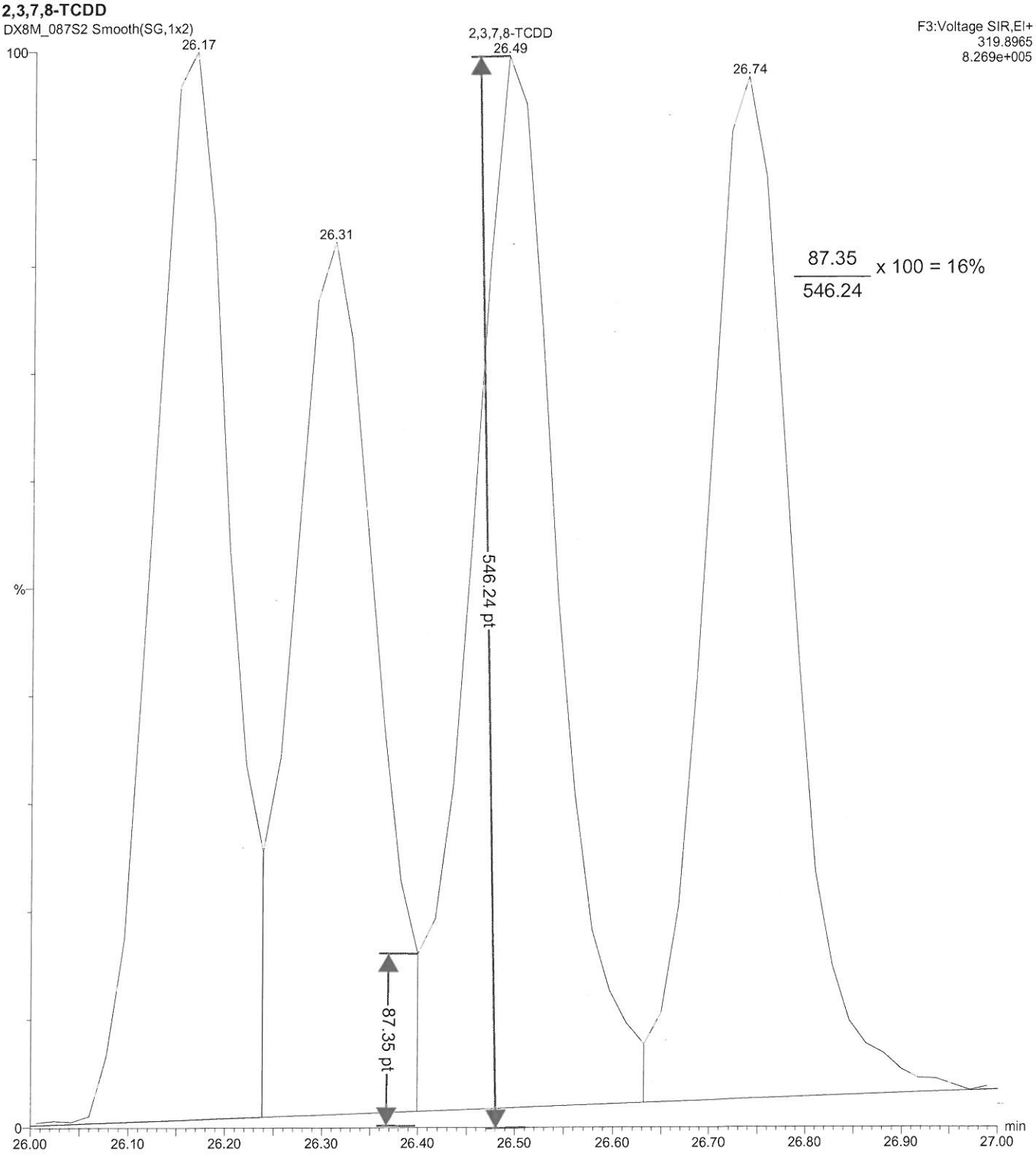
Method: G:\Masslynx\Inst_M\Projects\180604DX.PRO\MethDB\DX_Win_ResC.mdb 07 Dec 2011 14:46:56
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_087S2, Date: 23-Jul-2018, Time: 17:07:08, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

2,3,7,8-TCDD



PV by LHE
24-JULY-2018

Method: G:\Masslynx\Inst_M\Projects\180604DX.PRO\MethDB\DX_Log.mdb 21 Nov 2008 11:39:44
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Compound name: -

# Name	ID	Sample Text	Acq.Date	Acq.Time
1 DX8M_088S1	DX041D-CAL,,/01-89	1,,1.0uL Cal Win/Res	24-Jul-18	14:46:59
2 DX8M_088S2	DX041D-CAL,,/01-89	1,,1.0uL Cal Win/Res	24-Jul-18	15:55:08
3 DX8M_088S3	DX041D-CAL,,/01-89	1,,1.0uL Cal Win/Res	24-Jul-18	18:53:17
4 DX8M_088S4	WG64576-102,,SPM	1,WG64576,1.0/20uL	24-Jul-18	19:55:14
5 DX8M_088S5	DX051A-SUR,,/01	1,,1.0uL Inst Blank	24-Jul-18	20:47:42
6 DX8M_088S6	DX051A-SUR,,/01	1,,1.0uL Inst Blank	24-Jul-18	21:42:57
7 DX8M_088S7	WG64576-101,,BLK	1,WG64576,1.0/20uL	24-Jul-18	22:38:09
8 DX8M_088S8	L29628-18,L,	1,WG64578,1.0/20uL	24-Jul-18	23:33:23
9 DX8M_088S9	L29625-1,,	1,WG64576,1.0/20uL	25-Jul-18	00:28:35
10 DX8M_088S10	WG64576-103,,DUP	1,WG64576,1.0/20uL	25-Jul-18	01:23:43
11 DX8M_088S11	L29625-2,,	1,WG64576,1.0/20uL	25-Jul-18	02:18:51
12 DX8M_088S12	L29625-3,,	1,WG64576,1.0/20uL	25-Jul-18	03:14:06
13 DX8M_088S13	L29625-4,,	1,WG64576,1.0/20uL	25-Jul-18	04:09:19
14 DX8M_088S14	DX041D-CAL,,/01-89	1,,1.0uL Cal Win/Res	25-Jul-18	05:04:31

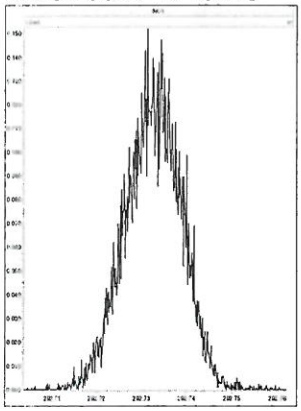
Experiment Calibration Report **MassLynx 4.1** Page 1 of 1

File: Experiment: DX_DB5_1_04.exp Reference: pfk.ref Function: 3 @ 200 (ppm)

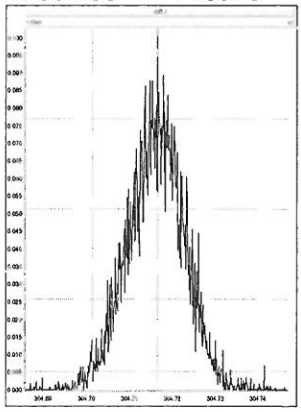
Printed: Tuesday, July 24, 2018 18:47:06 Pacific Daylight Time

DX8M-08853 CAL2
Approved 24-Jul-18 AFW

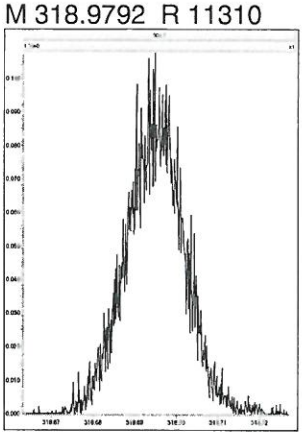
M 292.9824 R 10545



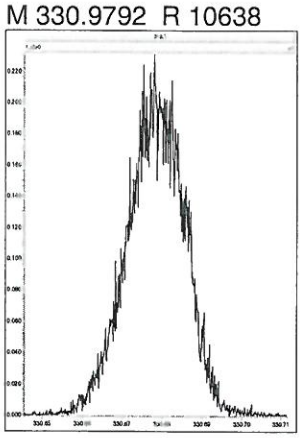
M 304.9824 R 10548



M 318.9792 R 11310



M 330.9792 R 10638



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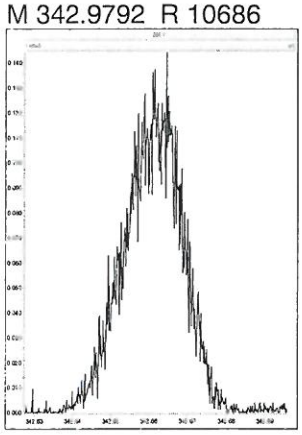
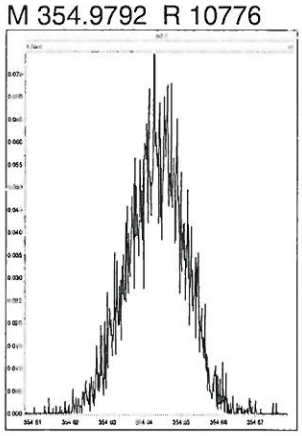


M 354.9792 R 10776



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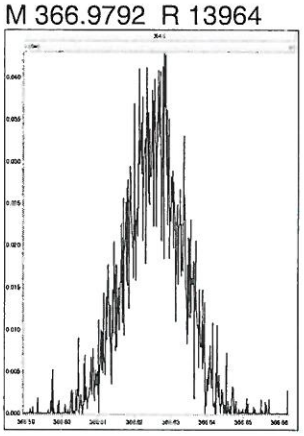
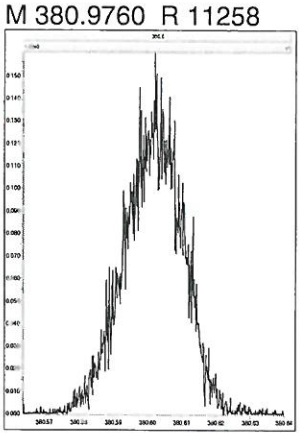


M 380.9760 R 11258



Experiment Calibration Report **MassLynx 4.1** Page 1 of 1

File: Experiment: DX_DB5_1_04.exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed: Tuesday, July 24, 2018 18:47:57 Pacific Daylight Time

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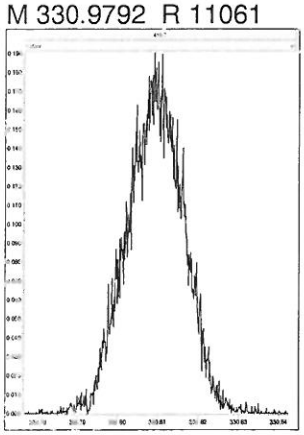
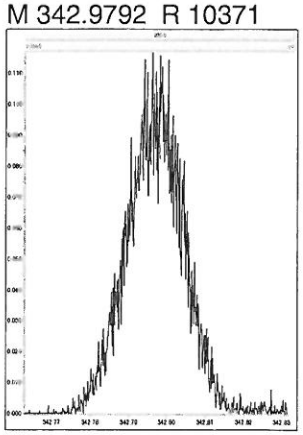
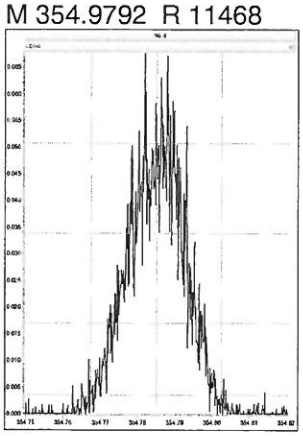


M 342.9792 R 10371



M 354.9792 R 11468



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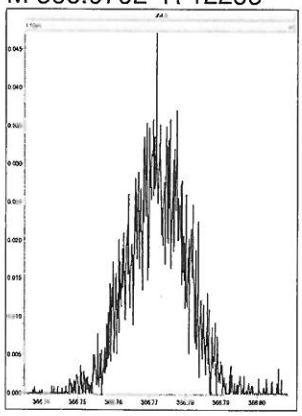

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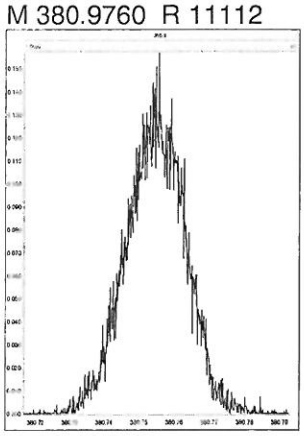

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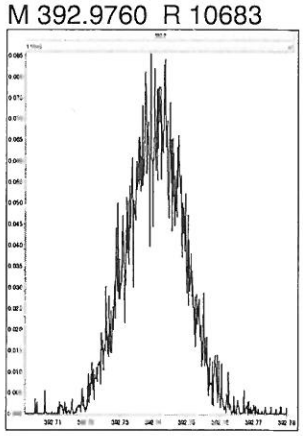
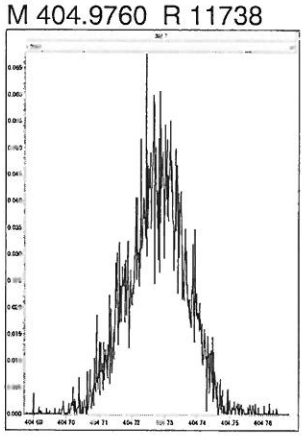
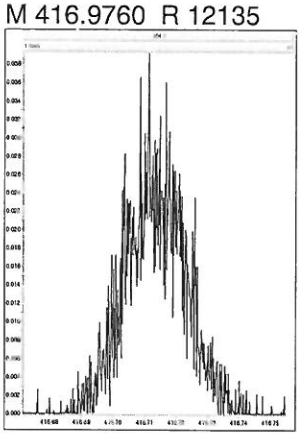


M 404.9760 R 11738



M 416.9760 R 12135



Experiment Calibration Report **MassLynx 4.1**

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Printed: Tuesday, July 24, 2018 18:48:47 Pacific Daylight Time

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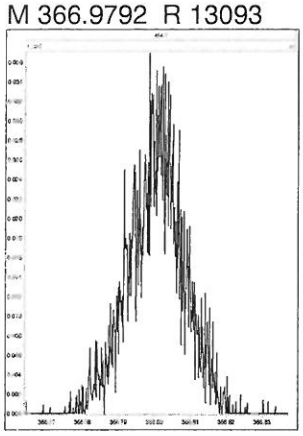

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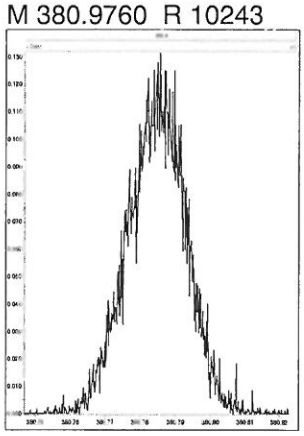
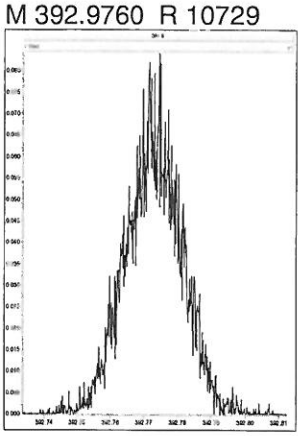
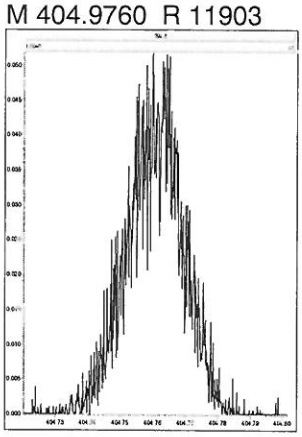


M 392.9760 R 10729



M 404.9760 R 11903



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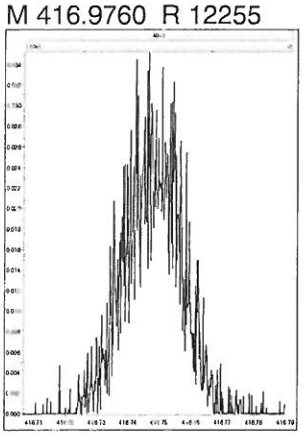
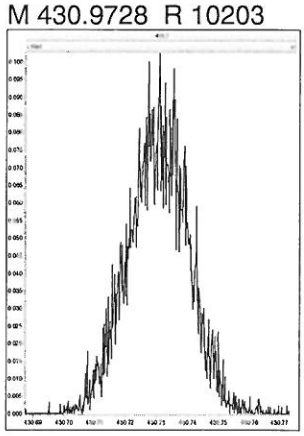
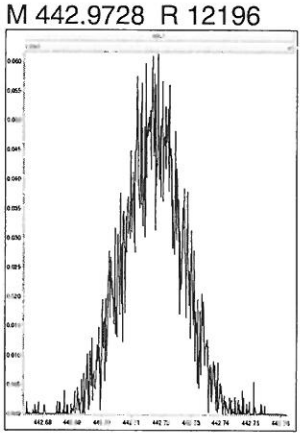


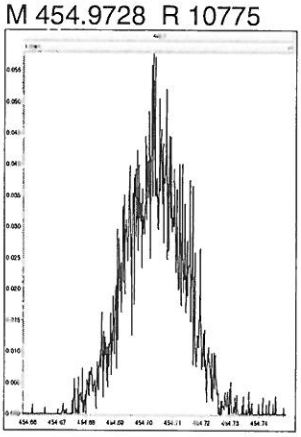
M 430.9728 R 10203



M 442.9728 R 12196



M 454.9728 R 10775

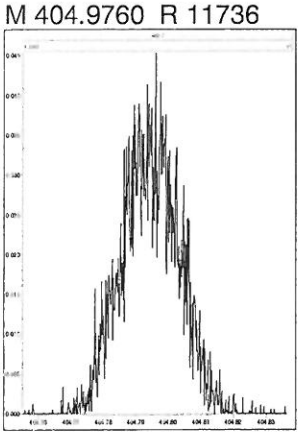


Experiment Calibration Report **MassLynx 4.1**

File: Experiment: DX_DB5_1_04.exp Reference: pfk.ref Function: 6 @ 200 (ppm)

Printed: Tuesday, July 24, 2018 18:49:17 Pacific Daylight Time

M 404.9760 R 11736



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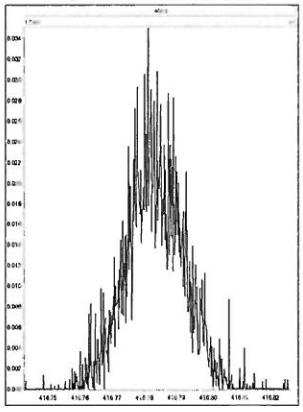

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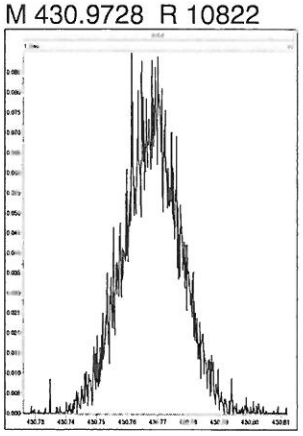

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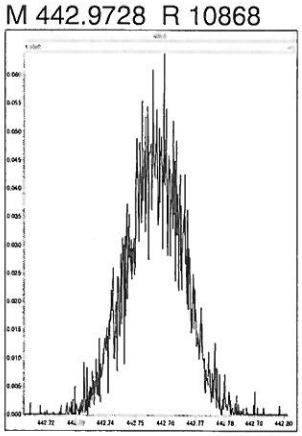

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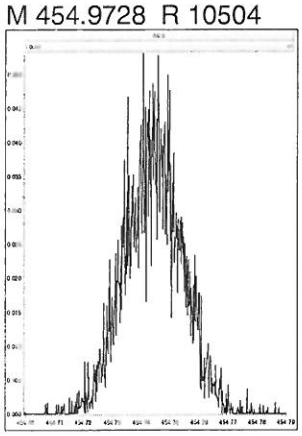

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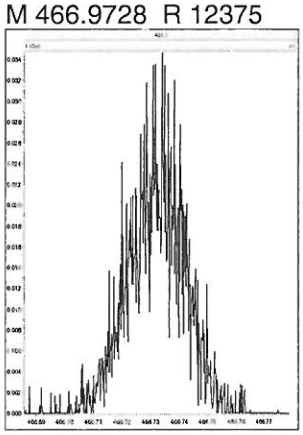
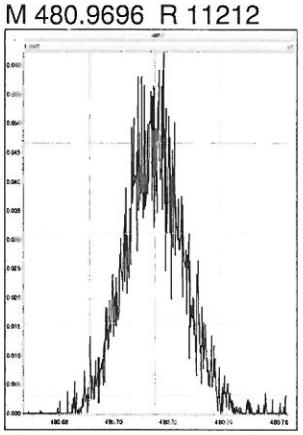
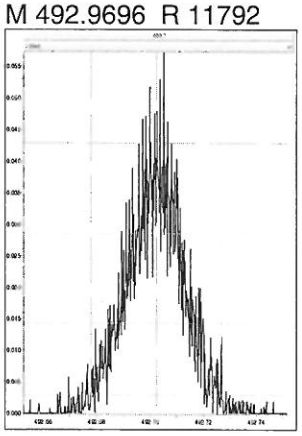


M 480.9696 R 11212



M 492.9696 R 11792



Experiment Calibration Report **MassLynx 4.1**

File: Experiment: DX_DB5_1_04.exp Reference: pfk.ref Function: 7 @ 200 (ppm)

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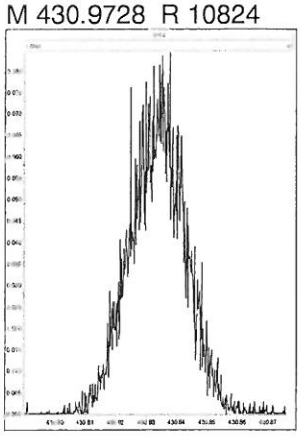

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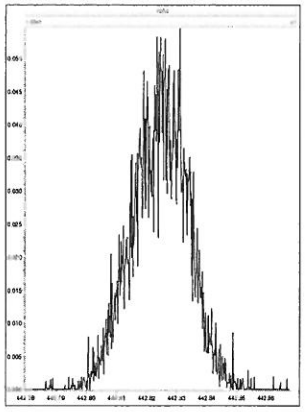

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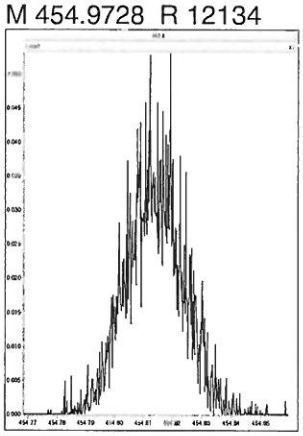

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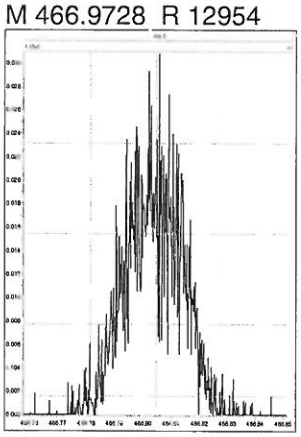
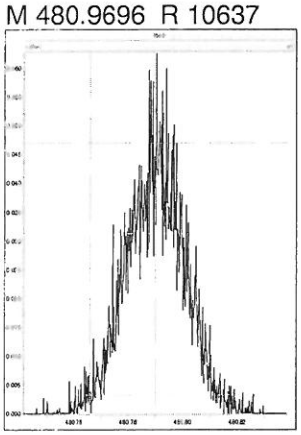


M 480.9696 R 10637



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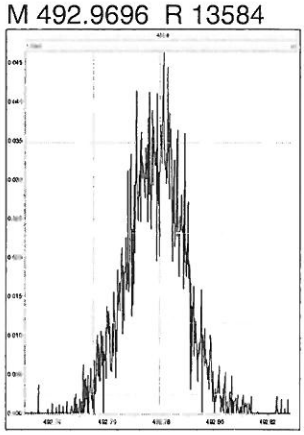

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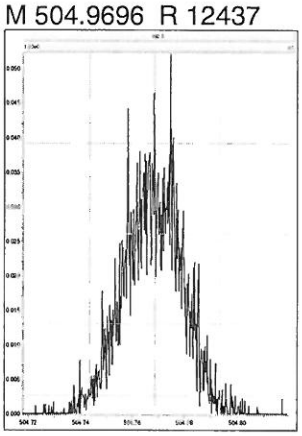

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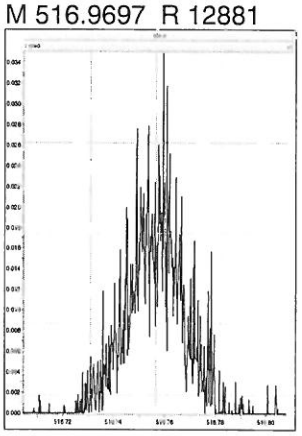
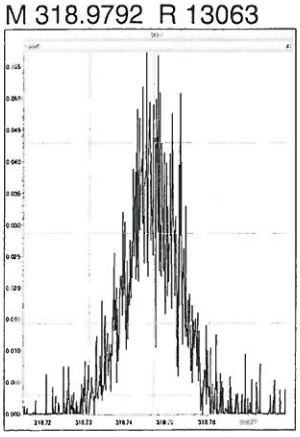


Resolution Check Report **MassLynx 4.1** DX8M_088S:14 Cal 3A Page 1 of 3

Printed: Wednesday, July 25, 2018 06:08:56 Pacific Daylight Time Approved SY 25Jul18

M 318.9792 R 13063



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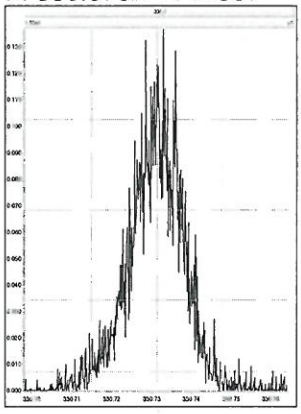

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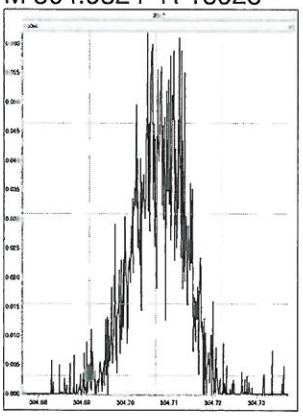

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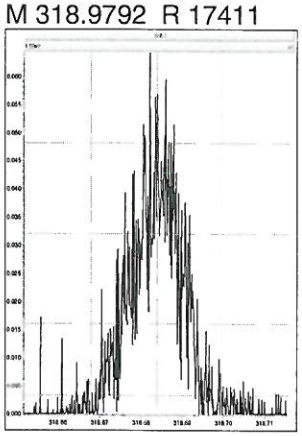

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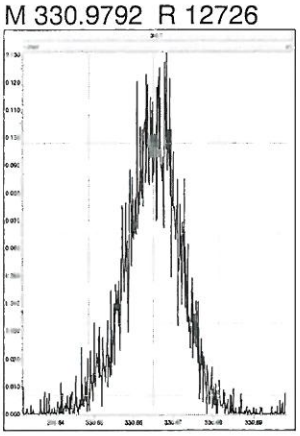

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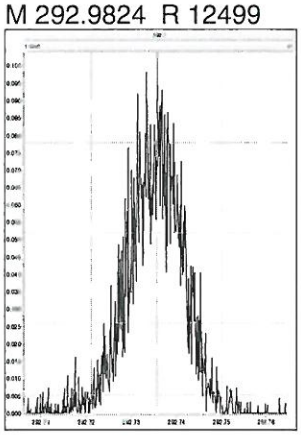

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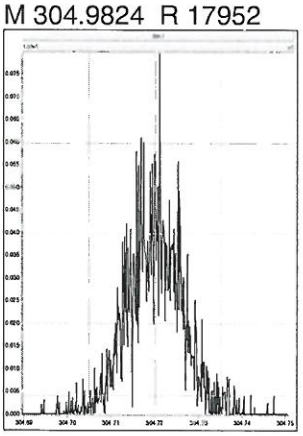

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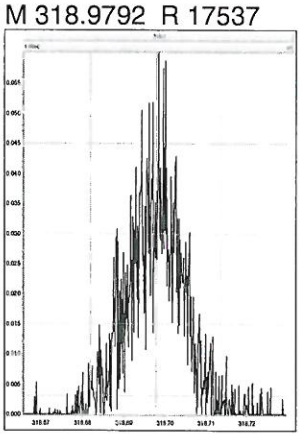

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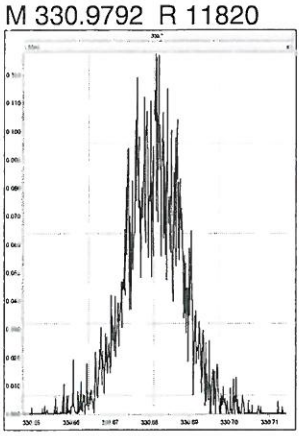

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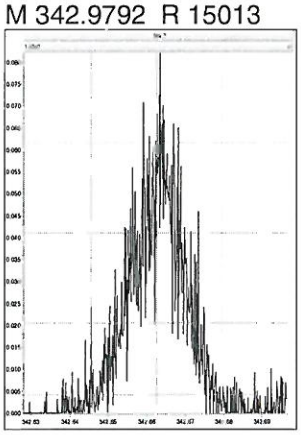

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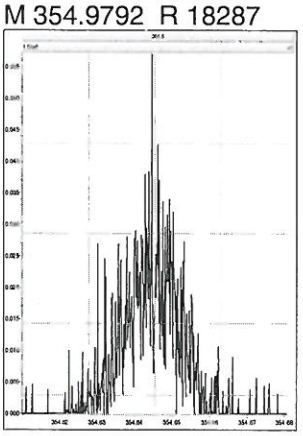

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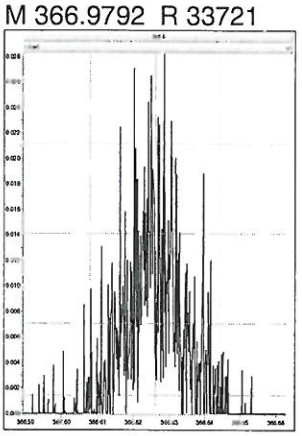

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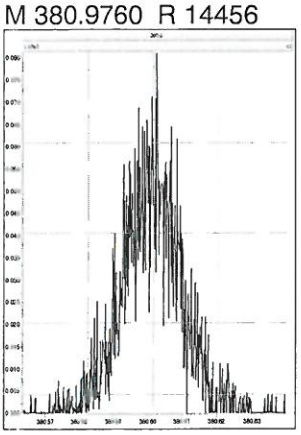

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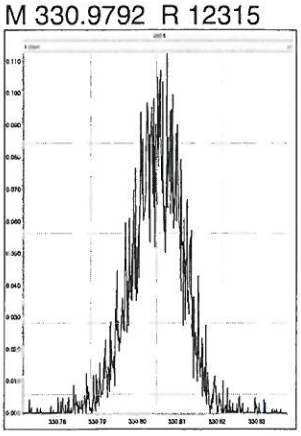

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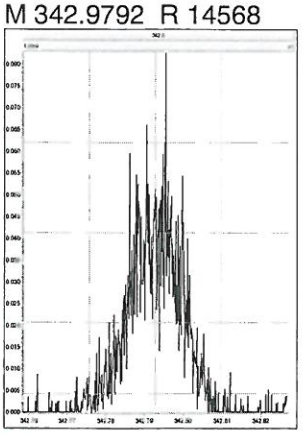

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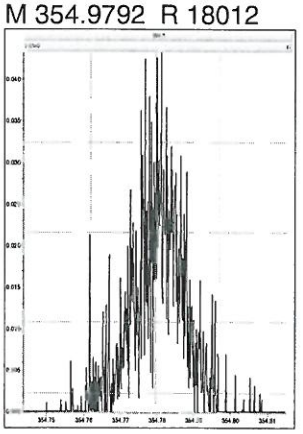

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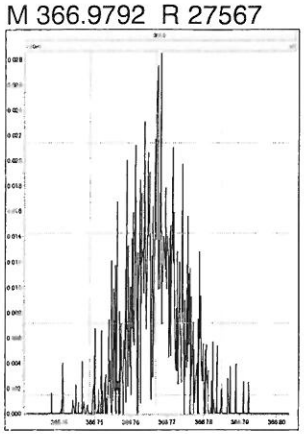

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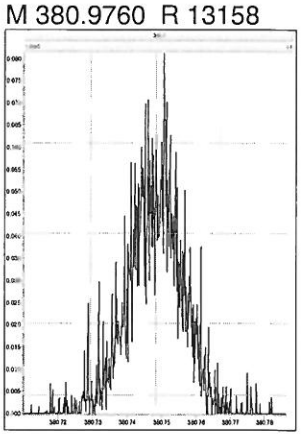

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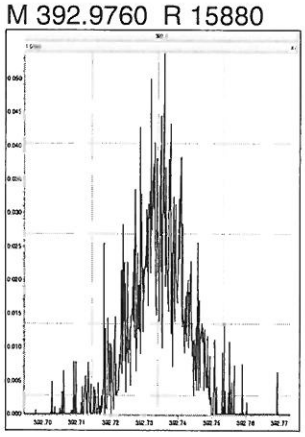

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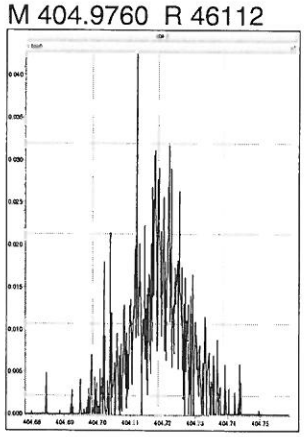

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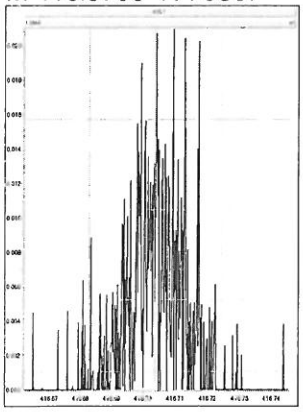

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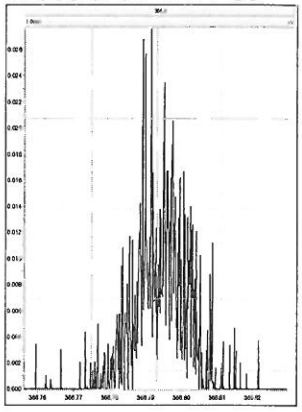

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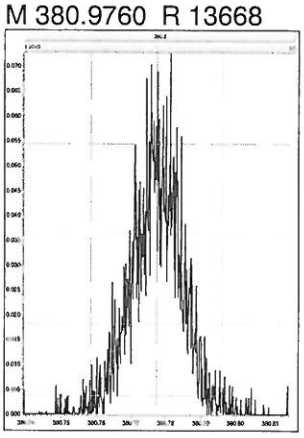

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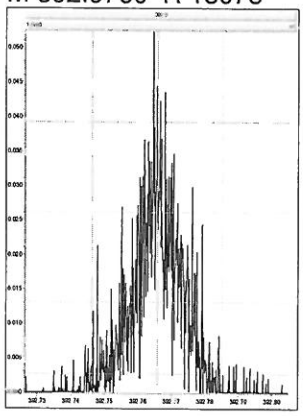

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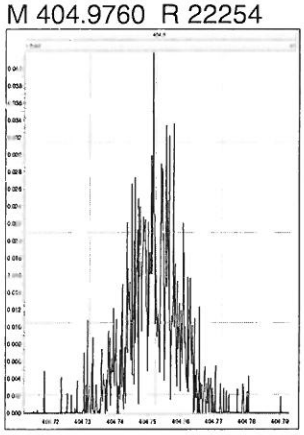

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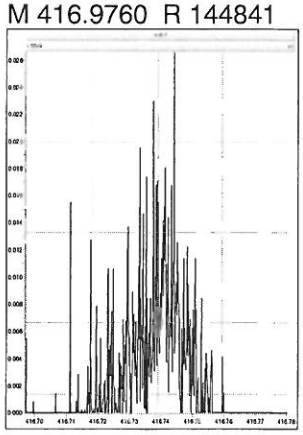

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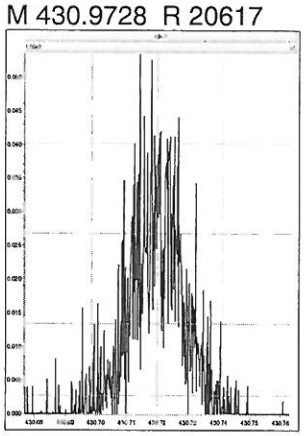

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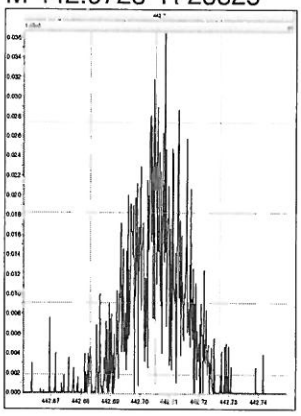

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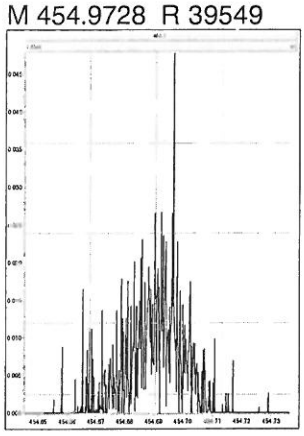

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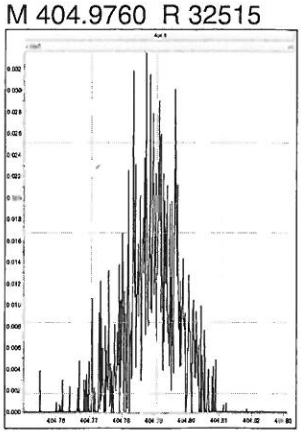

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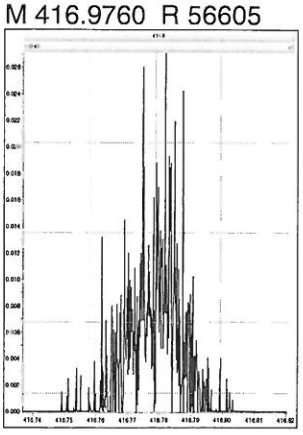

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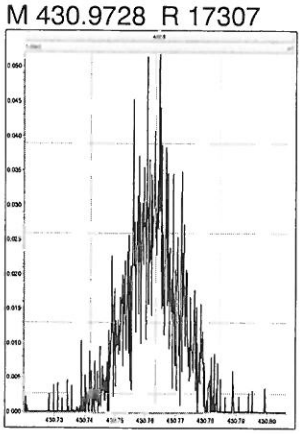

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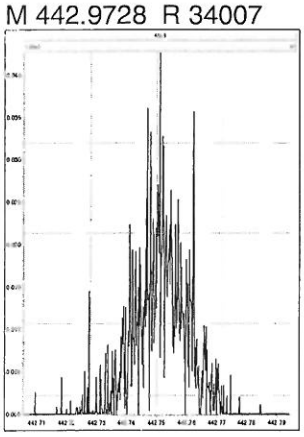

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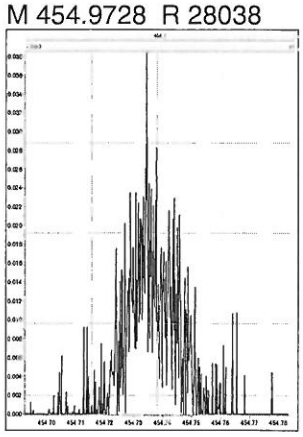

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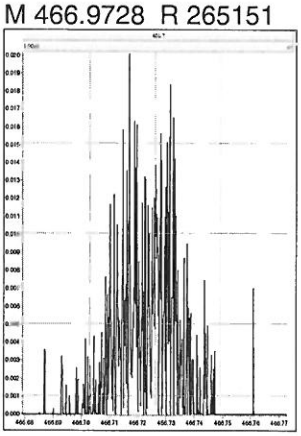

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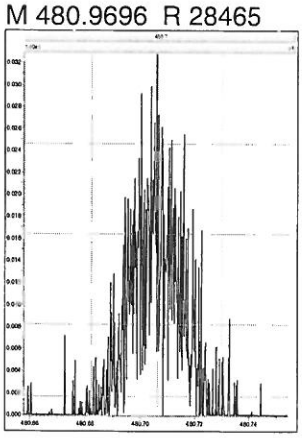

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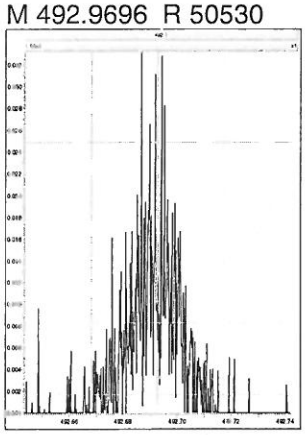

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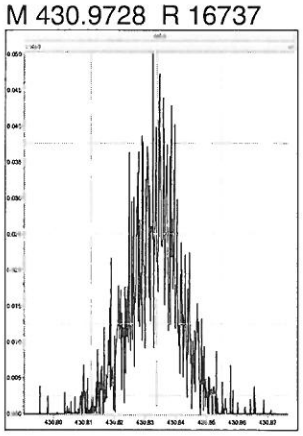

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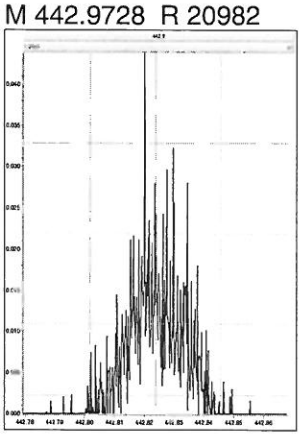

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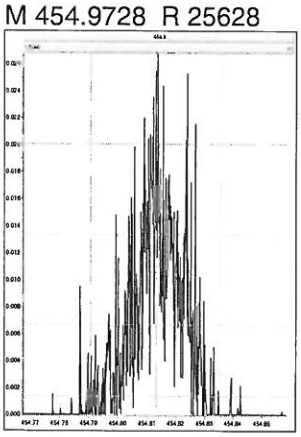

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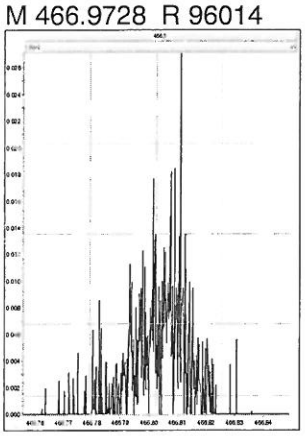

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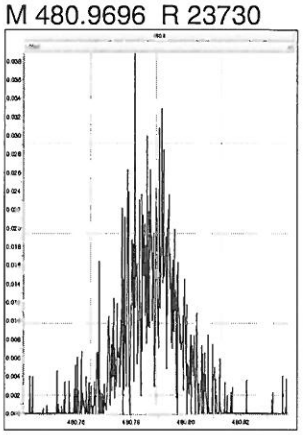

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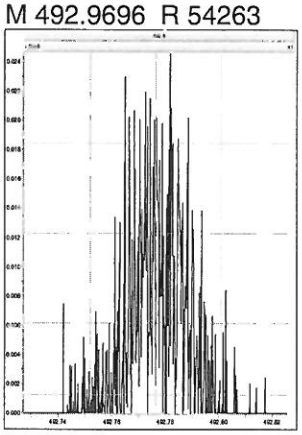

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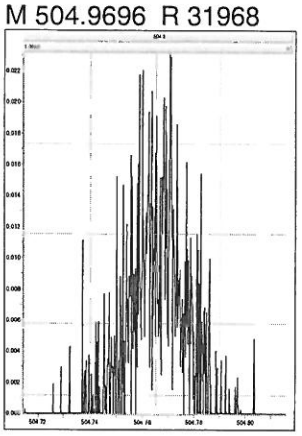

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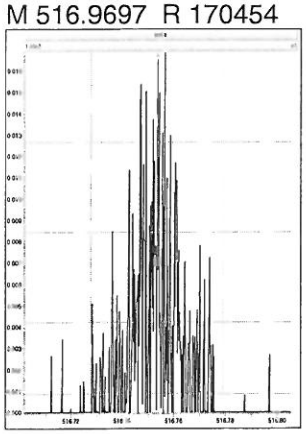

DX8M_088-B

Sample List Report **MassLynx 4.1 SCN627**

Sample List: G:\Masslynx\Inst_M\Projects\180604DX.PRO\SampleDB\DX8M_088-B.SPL
Last Modified: Wednesday, July 25, 2018 09:25:54 Pacific Daylight Time
Printed: Wednesday, July 25, 2018 10:38:27 Pacific Daylight Time

Page Position (1, 1)

	File Name	Sample ID	File Text	Sample Type	Subject Text	Samp Size	13C-Te-Hp	13C-OCDD	Rec Std	C/Up
1	DX8M_088S3	DX041D-CAL,,/01-89	1,,1.0uL Cal Win/Res	QC	DB5,ng/mL	1.000	100	200	100	10
2	DX8M_088S5	DX051A-SUR,,/01	1,,1.0uL Inst Blank	Blank	DB5,pg/sam	1.000	200	400	200	---
3	DX8M_088S6	DX051A-SUR,,/01	1,,1.0uL Inst Blank	Blank	DB5,pg/sam	1.000	200	400	200	---
4	DX8M_088S8	L29628-18,L,	1,WG64578,1.0/20uL	Analyte	DB5,pg/L	1.080	2000	4000	2000	200
5	DX8M_088S14	DX041D-CAL,,/01-89	1,,1.0uL Cal Win/Res	QC	DB5,ng/mL	1.000	100	200	100	10

SGS AXYS METHOD MLA-010 Rev 12

Form 4A
PCDD/PCDF CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	04-Jun-2018	**VER Data Filename:**	DX8M_088 S: 3
Instrument ID:	HR GC/MS	**Analysis Date:**	24-Jul-2018
GC Column ID:	DB5	**Analysis Time:**	18:53:17

COMPOUND	LAB FLAG [1]	MZ's FORMING RATIO [2]	ION ABUND. RATIO	QC LIMITS [3]	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL) [4]
2,3,7,8-TCDD		**M/M+2**	0.77	0.65-0.89	10.6	7.8 - 12.9
1,2,3,7,8-PECDD [5]		**M/M+2**	0.63	0.52-0.70	53.8	39 - 65
1,2,3,4,7,8-HXCDD		**M+2/M+4**	1.23	1.05-1.43	49.3	39 - 64
1,2,3,6,7,8-HXCDD		**M+2/M+4**	1.25	1.05-1.43	50.2	39 - 64
1,2,3,7,8,9-HXCDD		**M+2/M+4**	1.22	1.05-1.43	48.6	41 - 61
1,2,3,4,6,7,8-HPCDD		**M+2/M+4**	1.08	0.88-1.20	54.6	43 - 58
OCDD		**M+2/M+4**	0.89	0.76-1.02	105	79 - 126
2,3,7,8-TCDF		**M/M+2**	0.76	0.65-0.89	10.9	8.4 - 12
1,2,3,7,8-PECDF		**M+2/M+4**	1.47	1.32-1.78	49.8	41 - 60
2,3,4,7,8-PECDF		**M+2/M+4**	1.51	1.32-1.78	50.7	41 - 61
1,2,3,4,7,8-HXCDF		**M+2/M+4**	1.19	1.05-1.43	53.1	45 - 56
1,2,3,6,7,8-HXCDF		**M+2/M+4**	1.18	1.05-1.43	50.6	44 - 57
1,2,3,7,8,9-HXCDF		**M+2/M+4**	1.19	1.05-1.43	47.0	45 - 56
2,3,4,6,7,8-HXCDF		**M+2/M+4**	1.22	1.05-1.43	49.3	44 - 57
1,2,3,4,6,7,8-HPCDF		**M+2/M+4**	1.06	0.88-1.20	53.0	45 - 55
1,2,3,4,7,8,9-HPCDF		**M+2/M+4**	1.06	0.88-1.20	52.6	43 - 58
OCDF		**M+2/M+4**	0.86	0.76-1.02	106	63 - 159

(1) Where applicable, custom lab flags have been used on this report.
(2) See Table 8, Method 1613, for m/z specifications.
(3) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
(4) Contract-required concentration range as determined from the percent of the test concentration in Table 6, Method 1613, under VER.
(5) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

For Axys Internal Use Only [XSL Template: Form4A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47; Report Filename: 1613_DIOXINS_DX8M_088S3__Form4A_SJ2408902.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 4B
PCDD/PCDF CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	04-Jun-2018	**VER Data Filename:**	DX8M_088 S: 3
Instrument ID:	HR GC/MS	**Analysis Date:**	24-Jul-2018
GC Column ID:	DB5	**Analysis Time:**	18:53:17

LABELED COMPOUND	LAB FLAG [1]	MZ's FORMING RATIO [2]	ION ABUND. RATIO	QC LIMITS [3]	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL) [4]
13C-2,3,7,8-TCDD		**M/M+2**	0.76	0.65-0.89	94.4	82 - 121
13C-1,2,3,7,8-PECDD [5]		**M/M+2**	0.69	0.52-0.70	98.8	62 - 160
13C-1,2,3,4,7,8-HXCDD		**M+2/M+4**	1.29	1.05-1.43	97.2	85 - 117
13C-1,2,3,6,7,8-HXCDD		**M+2/M+4**	1.24	1.05-1.43	111	85 - 118
13C-1,2,3,4,6,7,8-HPCDD		**M+2/M+4**	0.93	0.88-1.20	86.6	72 - 138
13C-OCDD		**M+2/M+4**	0.86	0.76-1.02	148	96 - 415
13C-2,3,7,8-TCDF		**M/M+2**	0.73	0.65-0.89	89.3	71 - 140
13C-1,2,3,7,8-PECDF		**M+2/M+4**	1.43	1.32-1.78	103	76 - 130
13C-2,3,4,7,8-PECDF		**M+2/M+4**	1.38	1.32-1.78	101	77 - 130
13C-1,2,3,4,7,8-HXCDF		**M/M+2**	0.52	0.43-0.59	94.8	76 - 131
13C-1,2,3,6,7,8-HXCDF		**M/M+2**	0.51	0.43-0.59	105	70 - 143
13C-1,2,3,7,8,9-HXCDF		**M/M+2**	0.54	0.43-0.59	91.1	74 - 135
13C-2,3,4,6,7,8-HXCDF		**M/M+2**	0.52	0.43-0.59	100	73 - 137
13C-1,2,3,4,6,7,8-HPCDF		**M/M+2**	0.44	0.37-0.51	85.6	78 - 129
13C-1,2,3,4,7,8,9-HPCDF		**M/M+2**	0.42	0.37-0.51	81.7	77 - 129
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD [6]					8.65	7.9 - 12.7

(1) Where applicable, custom lab flags have been used on this report.
(2) See Table 8, Method 1613, for m/z specifications.
(3) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
(4) Contract-required concentration range as determined from the percent of the test concentration in Table 6, Method 1613, under VER.
(5) Alternate confirmation and quantitation ions used for native and labeled PECDD.
(6) No ion abundance ratio for 37Cl4-2,3,7,8-TCDD; concentration reported.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

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Report Filename: 1613_DIOXINS_DX8M_088S3__Form4B_SJ2408902.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 6A
PCDD/PCDF RELATIVE RETENTION TIMES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	04-Jun-2018	**VER Data Filename:**	DX8M_088 S: 3
Instrument ID:	HR GC/MS	**Analysis Date:**	24-Jul-2018
GC Column ID:	DB5	**Analysis Time:**	18:53:17

COMPOUND	LAB FLAG [1]	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS [2]
2,3,7,8-TCDD		13C-2,3,7,8-TCDD	1.001	0.999-1.002
1,2,3,7,8-PECDD [3]		13C-1,2,3,7,8-PECDD	1.001	0.999-1.002
1,2,3,4,7,8-HXCDD		13C-1,2,3,4,7,8-HXCDD	1.000	0.999-1.001
1,2,3,6,7,8-HXCDD		13C-1,2,3,6,7,8-HXCDD	1.000	0.998-1.004
1,2,3,7,8,9-HXCDD		13C-1,2,3,6,7,8-HXCDD	1.010	1.000-1.019
1,2,3,4,6,7,8-HPCDD		13C-1,2,3,4,6,7,8-HPCDD	1.000	0.999-1.001
OCDD		13C-OCDD	1.000	0.999-1.001
2,3,7,8-TCDF		13C-2,3,7,8-TCDF	1.001	0.999-1.003
1,2,3,7,8-PECDF		13C-1,2,3,7,8-PECDF	1.001	0.999-1.002
2,3,4,7,8-PECDF		13C-2,3,4,7,8-PECDF	1.001	0.999-1.002
1,2,3,4,7,8-HXCDF		13C-1,2,3,4,7,8-HXCDF	1.000	0.999-1.001
1,2,3,6,7,8-HXCDF		13C-1,2,3,6,7,8-HXCDF	1.000	0.997-1.005
1,2,3,7,8,9-HXCDF		13C-1,2,3,7,8,9-HXCDF	1.000	0.999-1.001
2,3,4,6,7,8-HXCDF		13C-2,3,4,6,7,8-HXCDF	1.001	0.999-1.001
1,2,3,4,6,7,8-HPCDF		13C-1,2,3,4,6,7,8-HPCDF	1.000	0.999-1.001
1,2,3,4,7,8,9-HPCDF		13C-1,2,3,4,7,8,9-HPCDF	1.000	0.999-1.001
OCDF		13C-OCDD	1.002	0.999-1.008

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613.
(3) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

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SGS AXYS METHOD MLA-010 Rev 12

Form 6B
PCDD/PCDF RELATIVE RETENTION TIMES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	04-Jun-2018	**VER Data Filename:**	DX8M_088 S: 3
Instrument ID:	HR GC/MS	**Analysis Date:**	24-Jul-2018
GC Column ID:	DB5	**Analysis Time:**	18:53:17

	LAB FLAG [1]	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS [2]
LABELED COMPOUND				
13C-2,3,7,8-TCDD		13C-1,2,3,4-TCDD	1.012	0.976-1.043
13C-1,2,3,7,8-PECDD		13C-1,2,3,4-TCDD	1.381	1.000-1.567
13C-1,2,3,4,7,8-HXCDD		13C-1,2,3,7,8,9-HXCDD	0.987	0.977-1.000
13C-1,2,3,6,7,8-HXCDD		13C-1,2,3,7,8,9-HXCDD	0.990	0.981-1.003
13C-1,2,3,4,6,7,8-HPCDD		13C-1,2,3,7,8,9-HXCDD	1.094	1.086-1.110
13C-OCDD		13C-1,2,3,7,8,9-HXCDD	1.178	1.032-1.311
13C-2,3,7,8-TCDF		13C-1,2,3,4-TCDD	0.965	0.923-1.103
13C-1,2,3,7,8-PECDF		13C-1,2,3,4-TCDD	1.283	1.000-1.425
13C-2,3,4,7,8-PECDF		13C-1,2,3,4-TCDD	1.350	1.011-1.526
13C-1,2,3,4,7,8-HXCDF		13C-1,2,3,7,8,9-HXCDD	0.954	0.944-0.970
13C-1,2,3,6,7,8-HXCDF		13C-1,2,3,7,8,9-HXCDD	0.958	0.949-0.975
13C-1,2,3,7,8,9-HXCDF		13C-1,2,3,7,8,9-HXCDD	1.005	0.977-1.047
13C-2,3,4,6,7,8-HXCDF		13C-1,2,3,7,8,9-HXCDD	0.980	0.959-1.021
13C-1,2,3,4,6,7,8-HPCDF		13C-1,2,3,7,8,9-HXCDD	1.062	1.043-1.085
13C-1,2,3,4,7,8,9-HPCDF		13C-1,2,3,7,8,9-HXCDD	1.104	1.057-1.151
CLEANUP STANDARD				
37CL-2,3,7,8-TCDD		13C-1,2,3,4-TCDD	1.001	0.989-1.052

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

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SGS AXYS METHOD MLA-010 Rev 12

Form 4A
PCDD/PCDF CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	04-Jun-2018	**VER Data Filename:**	DX8M_088 S: 14
Instrument ID:	HR GC/MS	**Analysis Date:**	25-Jul-2018
GC Column ID:	DB5	**Analysis Time:**	05:04:31

COMPOUND	LAB FLAG [1]	MZ's FORMING RATIO [2]	ION ABUND. RATIO	QC LIMITS [3]	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL) [4]
2,3,7,8-TCDD		**M/M+2**	0.76	0.65-0.89	10.3	7.8 - 12.9
1,2,3,7,8-PECDD [5]		**M/M+2**	0.61	0.52-0.70	54.7	39 - 65
1,2,3,4,7,8-HXCDD		**M+2/M+4**	1.18	1.05-1.43	51.1	39 - 64
1,2,3,6,7,8-HXCDD		**M+2/M+4**	1.21	1.05-1.43	54.4	39 - 64
1,2,3,7,8,9-HXCDD		**M+2/M+4**	1.21	1.05-1.43	51.7	41 - 61
1,2,3,4,6,7,8-HPCDD		**M+2/M+4**	1.09	0.88-1.20	54.5	43 - 58
OCDD		**M+2/M+4**	0.90	0.76-1.02	104	79 - 126
2,3,7,8-TCDF		**M/M+2**	0.66	0.65-0.89	9.81	8.4 - 12
1,2,3,7,8-PECDF		**M+2/M+4**	1.32	1.32-1.78	48.0	41 - 60
2,3,4,7,8-PECDF		**M+2/M+4**	1.32	1.32-1.78	45.1	41 - 61
1,2,3,4,7,8-HXCDF		**M+2/M+4**	1.09	1.05-1.43	48.8	45 - 56
1,2,3,6,7,8-HXCDF		**M+2/M+4**	1.10	1.05-1.43	49.5	44 - 57
1,2,3,7,8,9-HXCDF		**M+2/M+4**	1.12	1.05-1.43	45.4	45 - 56
2,3,4,6,7,8-HXCDF		**M+2/M+4**	1.07	1.05-1.43	48.3	44 - 57
1,2,3,4,6,7,8-HPCDF		**M+2/M+4**	0.95	0.88-1.20	54.1	45 - 55
1,2,3,4,7,8,9-HPCDF		**M+2/M+4**	0.91	0.88-1.20	52.8	43 - 58
OCDF		**M+2/M+4**	0.79	0.76-1.02	101	63 - 159

(1) Where applicable, custom lab flags have been used on this report.
(2) See Table 8, Method 1613, for m/z specifications.
(3) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
(4) Contract-required concentration range as determined from the percent of the test concentration in Table 6, Method 1613, under VER.
(5) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

For Axys Internal Use Only [XSL Template: Form4A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47; Report Filename: 1613_DIOXINS_DX8M_088S14__Form4A_SJ2408901.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 4B
PCDD/PCDF CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	04-Jun-2018	**VER Data Filename:**	DX8M_088 S: 14
Instrument ID:	HR GC/MS	**Analysis Date:**	25-Jul-2018
GC Column ID:	DB5	**Analysis Time:**	05:04:31

LABELED COMPOUND	LAB FLAG [1]	MZ's FORMING RATIO [2]	ION ABUND. RATIO	QC LIMITS [3]	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL) [4]
13C-2,3,7,8-TCDD		**M/M+2**	0.74	0.65-0.89	100	82 - 121
13C-1,2,3,7,8-PECDD [5]		**M/M+2**	0.70	0.52-0.70	108	62 - 160
13C-1,2,3,4,7,8-HXCDD		**M+2/M+4**	1.28	1.05-1.43	94.6	85 - 117
13C-1,2,3,6,7,8-HXCDD		**M+2/M+4**	1.15	1.05-1.43	95.9	85 - 118
13C-1,2,3,4,6,7,8-HPCDD		**M+2/M+4**	0.98	0.88-1.20	91.3	72 - 138
13C-OCDD		**M+2/M+4**	0.89	0.76-1.02	161	96 - 415
13C-2,3,7,8-TCDF		**M/M+2**	0.69	0.65-0.89	95.4	71 - 140
13C-1,2,3,7,8-PECDF		**M+2/M+4**	1.42	1.32-1.78	107	76 - 130
13C-2,3,4,7,8-PECDF		**M+2/M+4**	1.37	1.32-1.78	109	77 - 130
13C-1,2,3,4,7,8-HXCDF		**M/M+2**	0.51	0.43-0.59	89.8	76 - 131
13C-1,2,3,6,7,8-HXCDF		**M/M+2**	0.51	0.43-0.59	93.7	70 - 143
13C-1,2,3,7,8,9-HXCDF		**M/M+2**	0.52	0.43-0.59	86.0	74 - 135
13C-2,3,4,6,7,8-HXCDF		**M/M+2**	0.51	0.43-0.59	95.9	73 - 137
13C-1,2,3,4,6,7,8-HPCDF		**M/M+2**	0.45	0.37-0.51	80.8	78 - 129
13C-1,2,3,4,7,8,9-HPCDF		**M/M+2**	0.45	0.37-0.51	84.1	77 - 129
CLEANUP STANDARD						
37CL-2,3,7,8-TCDD [6]					8.87	7.9 - 12.7

(1) Where applicable, custom lab flags have been used on this report.
(2) See Table 8, Method 1613, for m/z specifications.
(3) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
(4) Contract-required concentration range as determined from the percent of the test concentration in Table 6, Method 1613, under VER.
(5) Alternate confirmation and quantitation ions used for native and labeled PECDD.
(6) No ion abundance ratio for 37Cl4-2,3,7,8-TCDD; concentration reported.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

For Axys Internal Use Only [XSL Template: Form4B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_DX8M_088S14__Form4B_SJ2408901.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 6A
PCDD/PCDF RELATIVE RETENTION TIMES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	04-Jun-2018	**VER Data Filename:**	DX8M_088 S: 14
Instrument ID:	HR GC/MS	**Analysis Date:**	25-Jul-2018
GC Column ID:	DB5	**Analysis Time:**	05:04:31

COMPOUND	LAB FLAG [1]	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS [2]
2,3,7,8-TCDD		13C-2,3,7,8-TCDD	1.001	0.999-1.002
1,2,3,7,8-PECDD [3]		13C-1,2,3,7,8-PECDD	1.001	0.999-1.002
1,2,3,4,7,8-HXCDD		13C-1,2,3,4,7,8-HXCDD	1.000	0.999-1.001
1,2,3,6,7,8-HXCDD		13C-1,2,3,6,7,8-HXCDD	1.000	0.998-1.004
1,2,3,7,8,9-HXCDD		13C-1,2,3,6,7,8-HXCDD	1.010	1.000-1.019
1,2,3,4,6,7,8-HPCDD		13C-1,2,3,4,6,7,8-HPCDD	1.000	0.999-1.001
OCDD		13C-OCDD	1.000	0.999-1.001
2,3,7,8-TCDF		13C-2,3,7,8-TCDF	1.001	0.999-1.003
1,2,3,7,8-PECDF		13C-1,2,3,7,8-PECDF	1.001	0.999-1.002
2,3,4,7,8-PECDF		13C-2,3,4,7,8-PECDF	1.001	0.999-1.002
1,2,3,4,7,8-HXCDF		13C-1,2,3,4,7,8-HXCDF	1.000	0.999-1.001
1,2,3,6,7,8-HXCDF		13C-1,2,3,6,7,8-HXCDF	1.000	0.997-1.005
1,2,3,7,8,9-HXCDF		13C-1,2,3,7,8,9-HXCDF	1.000	0.999-1.001
2,3,4,6,7,8-HXCDF		13C-2,3,4,6,7,8-HXCDF	1.001	0.999-1.001
1,2,3,4,6,7,8-HPCDF		13C-1,2,3,4,6,7,8-HPCDF	1.000	0.999-1.001
1,2,3,4,7,8,9-HPCDF		13C-1,2,3,4,7,8,9-HPCDF	1.000	0.999-1.001
OCDF		13C-OCDD	1.002	0.999-1.008

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613.
(3) Alternate confirmation and quantitation ions used for native and labeled PECDD.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

For Axys Internal Use Only [XSL Template: Form6A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47; Report Filename: 1613_DIOXINS_DX8M_088S14__Form6A_SJ2408901.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 6B
PCDD/PCDF RELATIVE RETENTION TIMES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	04-Jun-2018	**VER Data Filename:**	DX8M_088 S: 14
Instrument ID:	HR GC/MS	**Analysis Date:**	25-Jul-2018
GC Column ID:	DB5	**Analysis Time:**	05:04:31

	LAB FLAG [1]	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS [2]
LABELED COMPOUND				
13C-2,3,7,8-TCDD		13C-1,2,3,4-TCDD	1.012	0.976-1.043
13C-1,2,3,7,8-PECDD		13C-1,2,3,4-TCDD	1.382	1.000-1.567
13C-1,2,3,4,7,8-HXCDD		13C-1,2,3,7,8,9-HXCDD	0.987	0.977-1.000
13C-1,2,3,6,7,8-HXCDD		13C-1,2,3,7,8,9-HXCDD	0.990	0.981-1.003
13C-1,2,3,4,6,7,8-HPCDD		13C-1,2,3,7,8,9-HXCDD	1.094	1.086-1.110
13C-OCDD		13C-1,2,3,7,8,9-HXCDD	1.178	1.032-1.311
13C-2,3,7,8-TCDF		13C-1,2,3,4-TCDD	0.966	0.923-1.103
13C-1,2,3,7,8-PECDF		13C-1,2,3,4-TCDD	1.284	1.000-1.425
13C-2,3,4,7,8-PECDF		13C-1,2,3,4-TCDD	1.351	1.011-1.526
13C-1,2,3,4,7,8-HXCDF		13C-1,2,3,7,8,9-HXCDD	0.954	0.944-0.970
13C-1,2,3,6,7,8-HXCDF		13C-1,2,3,7,8,9-HXCDD	0.958	0.949-0.975
13C-1,2,3,7,8,9-HXCDF		13C-1,2,3,7,8,9-HXCDD	1.005	0.977-1.047
13C-2,3,4,6,7,8-HXCDF		13C-1,2,3,7,8,9-HXCDD	0.980	0.959-1.021
13C-1,2,3,4,6,7,8-HPCDF		13C-1,2,3,7,8,9-HXCDD	1.062	1.043-1.085
13C-1,2,3,4,7,8,9-HPCDF		13C-1,2,3,7,8,9-HXCDD	1.104	1.057-1.151
CLEANUP STANDARD				
37CL-2,3,7,8-TCDD		13C-1,2,3,4-TCDD	1.001	0.989-1.052

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

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SGS AXYS METHOD MLA-010 Rev 12

Form 5

PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Instrument ID:	HR GC/MS	**Initial Calibration Date:**		04-Jun-2018
RT Window Data Filename:	DX8M_088 S: 3	**Analysis Date:**	24-Jul-2018	**Time:** 18:53:17
DB-5 IS Data Filename:	DX8M_088 S: 3	**Analysis Date:**	24-Jul-2018	**Time:** 18:53:17
DB-225 IS Data Filename:		**Analysis Date:**		**Time:**

DB5 RT WINDOW DEFINING STANDARDS RESULT

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	23:01	**1,3,6,8-TCDF (F)**	21:29
1,2,8,9-TCDD (L)	28:24	**1,2,8,9-TCDF (L)**	28:14
1,2,4,7,9-PECDD (F)	32:09	**1,3,4,6,8-PECDF (F)**	28:58
1,2,3,8,9-PECDD (L)	37:08	**1,2,3,8,9-PECDF (L)**	37:11
1,2,4,6,7,9-HXCDD (F)	40:07	**1,2,3,4,6,8-HXCDF (F)**	39:04
1,2,3,4,6,7-HXCDD (L)	42:44	**1,2,3,4,8,9-HXCDF (L)**	43:05
1,2,3,4,6,7,9-HPCDD (F)	45:50	**1,2,3,4,6,7,8-HPCDF (F)**	45:23
1,2,3,4,6,7,8-HPCDD (L)	46:46	**1,2,3,4,7,8,9-HPCDF (L)**	47:10

(F) = First eluting isomer (DB-5); (L) = Last eluting isomer (DB-5)

ISOMER SPECIFICITY (IS) TEST STANDARDS RESULT

Isomers	% Valley Height Between Compared Peaks	Isomers	% Valley Height Between Compared Peaks
1,2,3,4-TCDD **1,2,7,8-TCDD**	0	**1,2,3,8-TCDD** **2,3,7,8-TCDD**	11
1,2,7,8-TCDD **1,4,7,8-TCDD**	0	**2,3,4,7-TCDF** **2,3,7,8-TCDF**	N/A
1,4,7,8-TCDD **1,2,3,7-TCDD**	0	**2,3,7,8-TCDF** **1,2,3,9-TCDF**	N/A
1,2,3,7-TCDD **1,2,3,8-TCDD**	DB-5 column; co-elute as per Figure 6 in Method		

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

For Axys Internal Use Only [XSL Template: DXForm5.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47; Report Filename: 1613_DIOXINS__DX8M_088S3_Form5_SJ2408906.html; Workgroup: WG64578; Design ID: 491]

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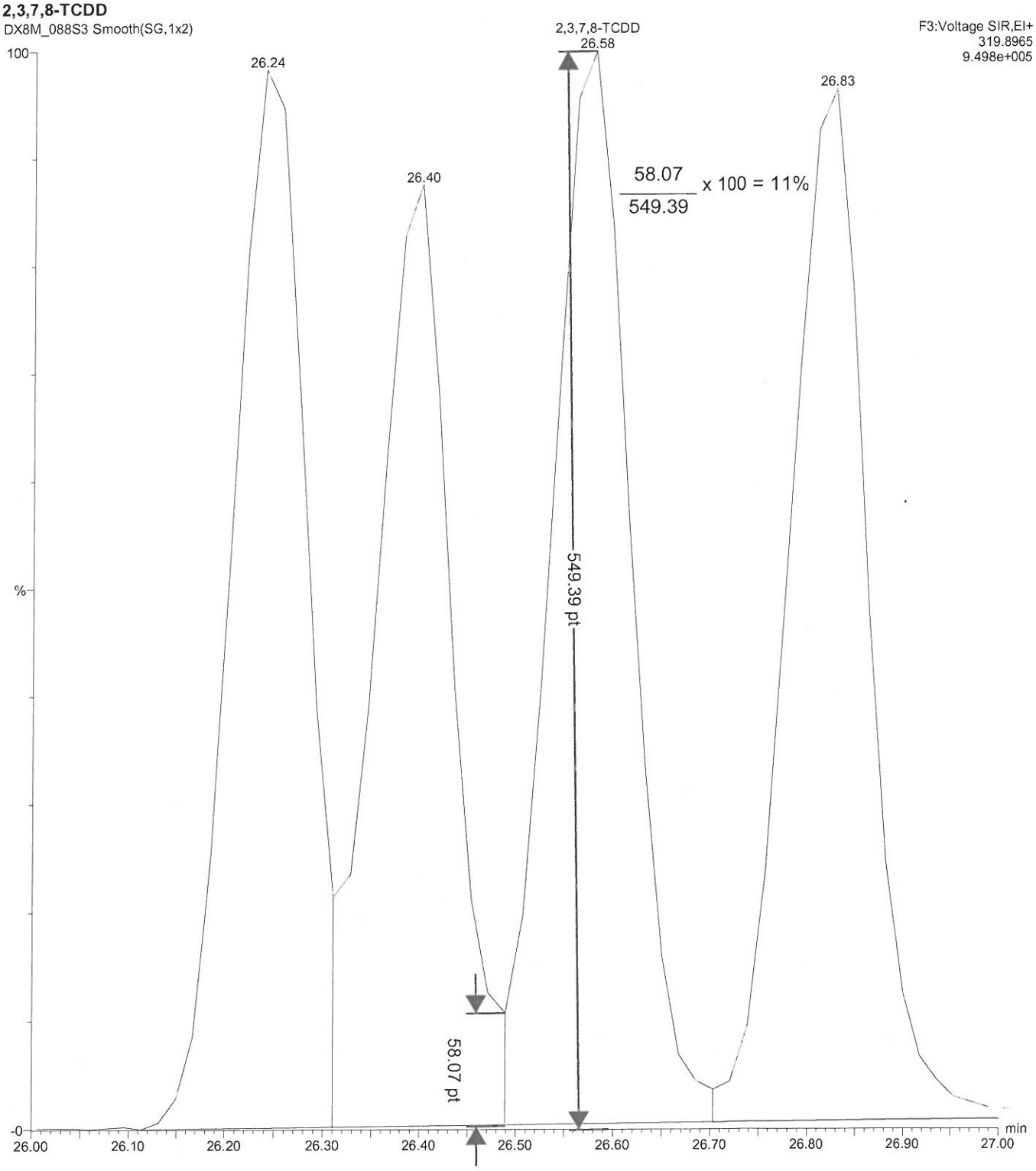
Method: G:\Masslynx\Inst_M\Projects\180604DX.PRO\MethDB\DX_Win_ResC.mdb 07 Dec 2011 14:46:56
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_088S3, Date: 24-Jul-2018, Time: 18:53:17, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

2,3,7,8-TCDD



PV by LHE
25-JULY-2018

www.axysanalytical.com

Experiment : DX-DB225-4_01
GC Program : DX-DB225-4_01
Column type : DB-225
Serial # : USA226732J/USA
kPa : 199
Vol injected: 2.0uL
PMT Voltage : 400

Temps -source: 250
-s resv: 160
-re_ent: 220
-cap_1 : 220
-cap_2 : 220

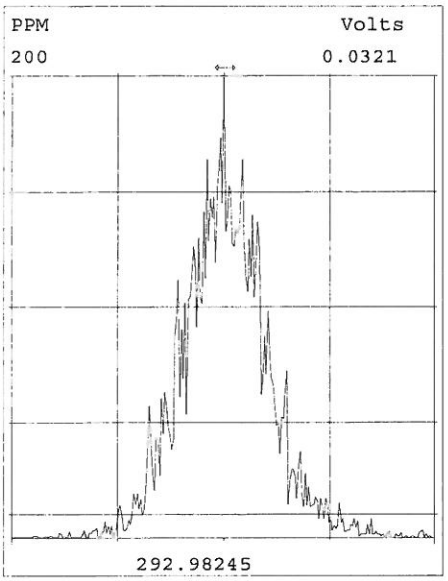
Tune : XX
List : EW
Check :
LIMS :
Logfile:

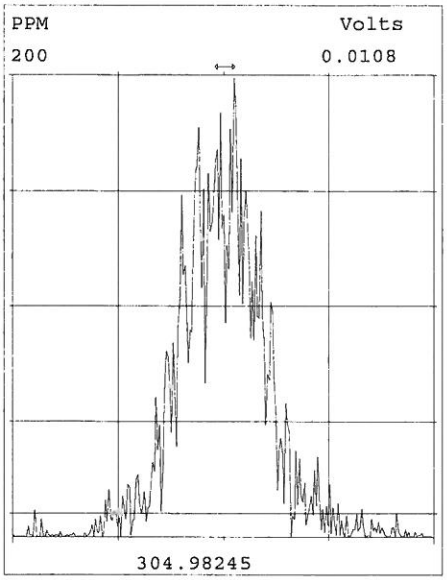
Date -list : 25-JUL-2018
-liner : 13-JUN-2018
-septum: 13-JUN-2018
-guard : 60cm 13-JUN-2018
-column: 10CM 03-APR-2018
-t line: NEW 14-SEP-2017

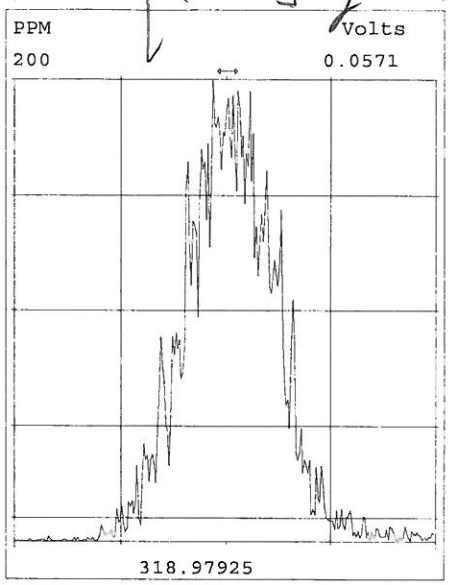
#	Data file	S	V	Sample Text	Comments	Acquisition Date/Time
1	DB83_128A	1	1	DX003A-RSN,,/01-23	1,,2.0uL Win/Res	25-JUL-18 08:01:57
2	DB83_128A	2	2	DX041D-CAL,,/01-88	1,,2.0uL Cal	25-JUL-18 08:43:13
3	DB83_128A	3	3	Toluene,,	1,,2.0uL	25-JUL-18 09:24:29
4	DB83_128A	4	4	Toluene,,	1,,2.0uL	25-JUL-18 10:05:45
5	DB83_128A	5	5	L29628-18,L,	1,WG64578,2.0/20uL	25-JUL-18 10:47:02
6	DB83_128A	6	6	DX041D-CAL,,/01-88	1,,2.0uL Cal	25-JUL-18 11:28:17

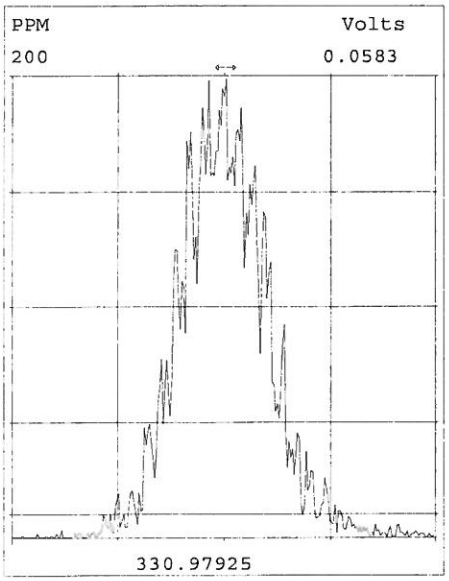
Peak Locate Examination:25-JUL-2018:08:00 File:DB83_128ACAL
Experiment:DX-DB225-4_01 Function:1 Reference:PFK

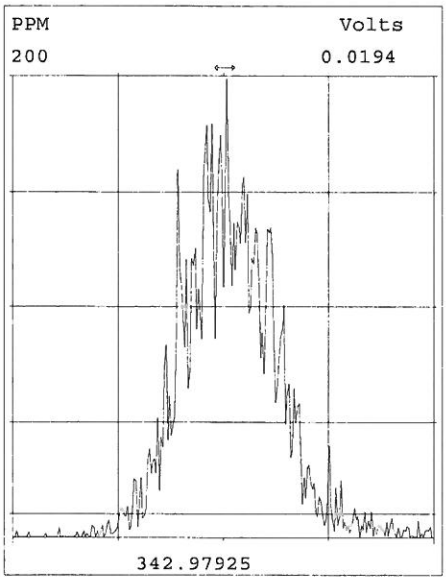
Approved yx 25 July 2018

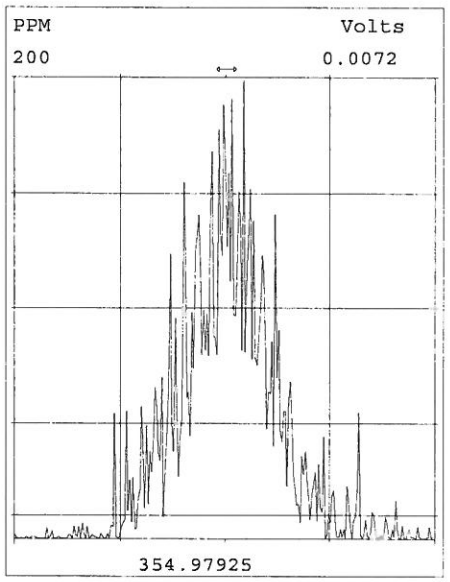


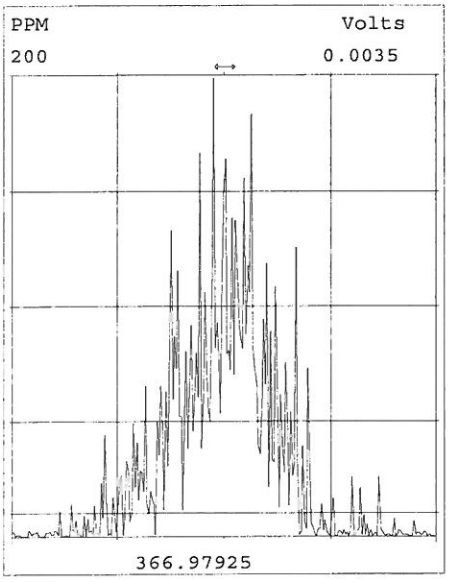


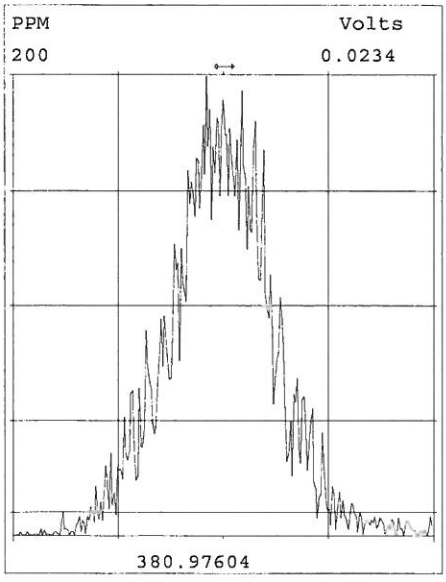




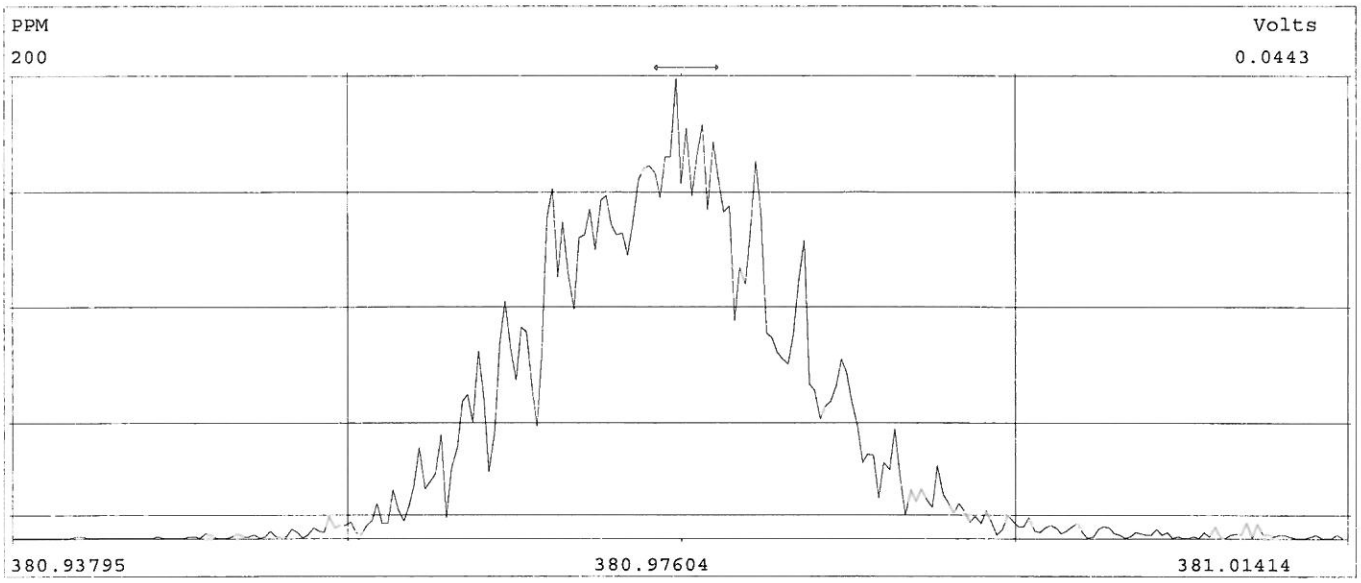


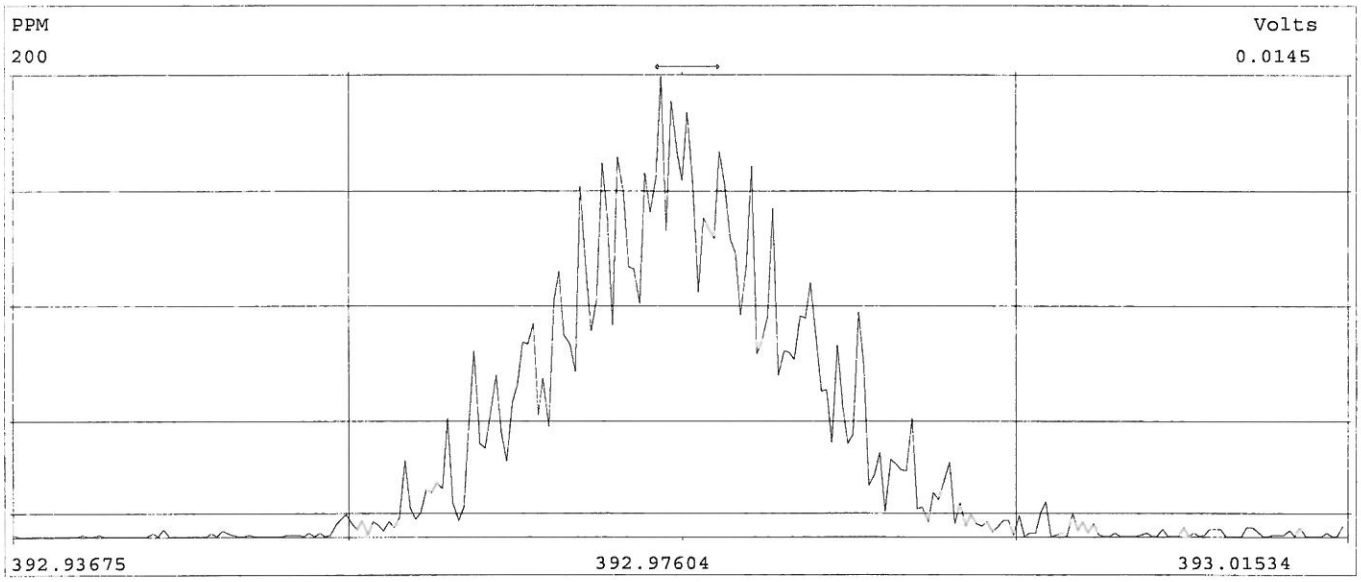


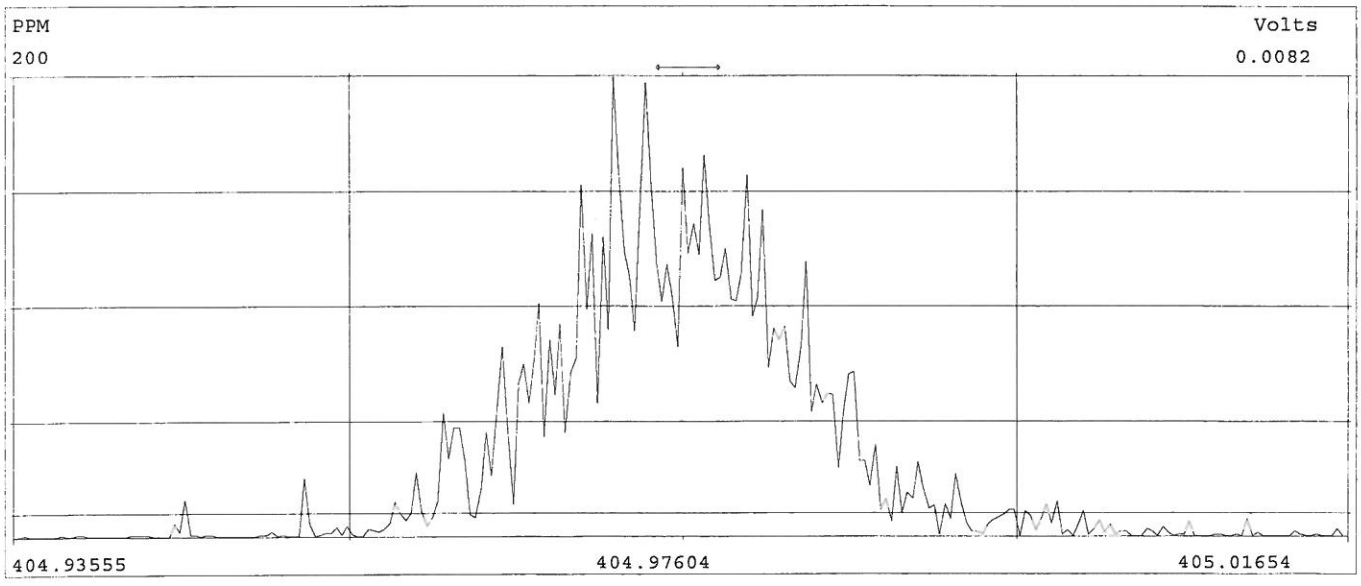




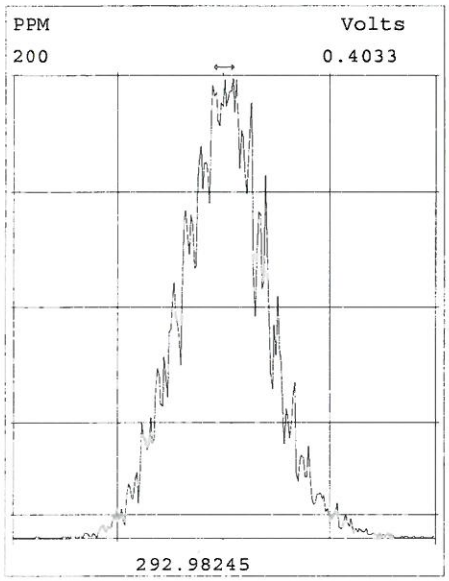
Peak Locate Examination:25-JUL-2018:08:01 File:DB83_128ACAL
Experiment:DX-DB225-4_01 Function:2 Reference:PFK

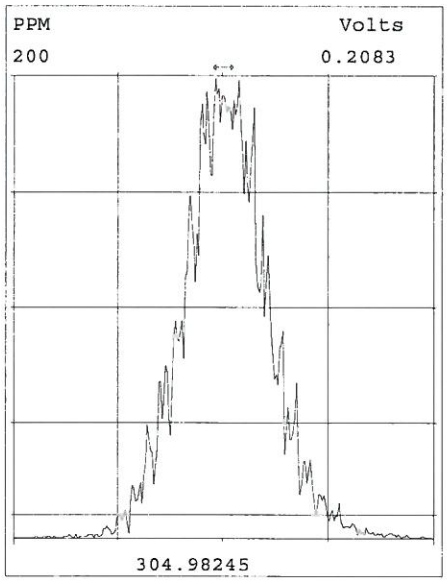


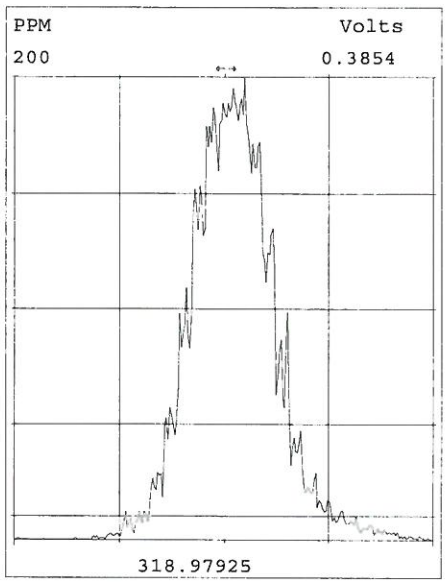


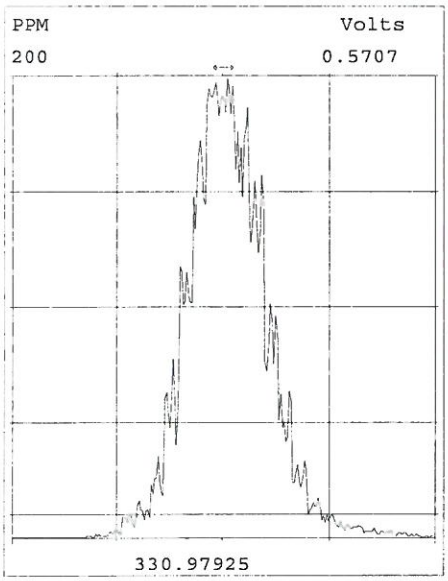


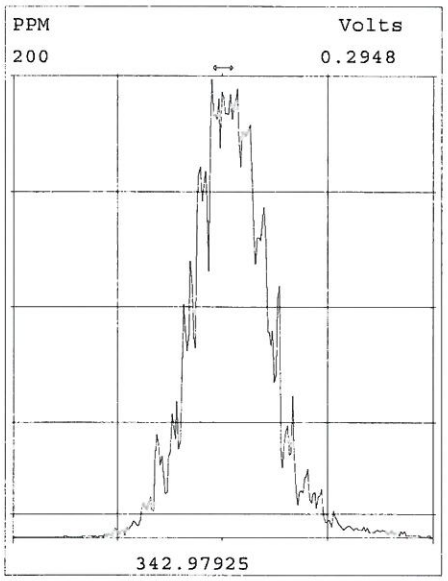
Peak Locate Examination:25-JUL-2018:19:49 File:DB83_128ACAL2/129CAL Approved by EW 25-Jul-2018
Experiment:DX-DB225-4_01 Function:1 Reference:PFK

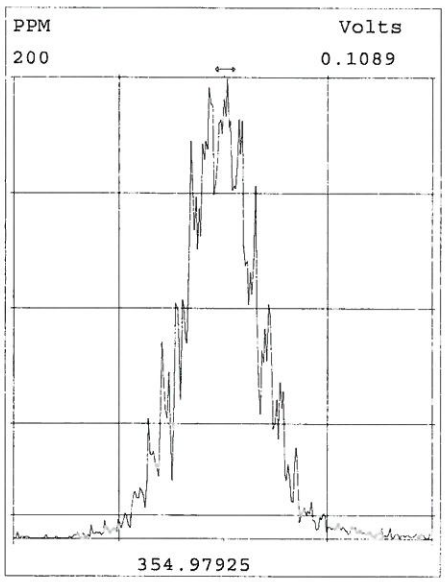


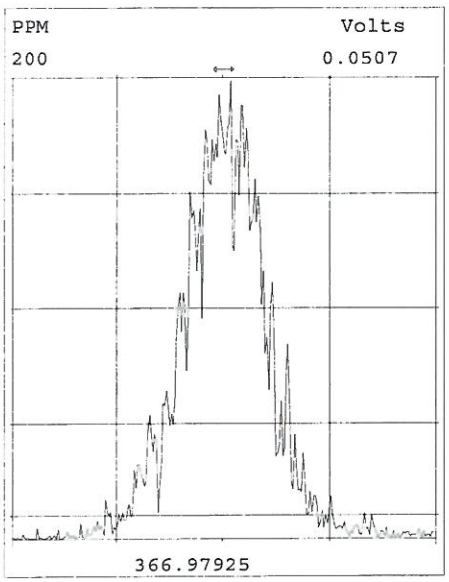


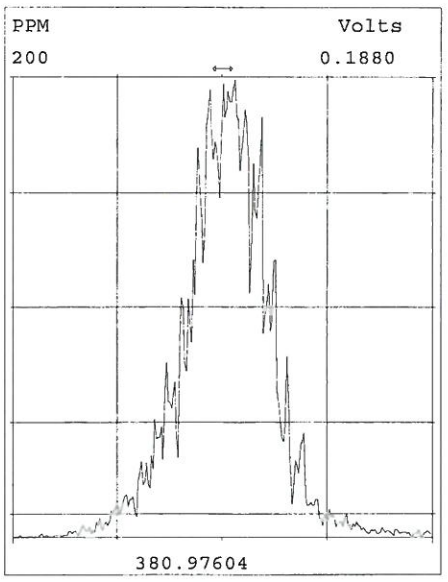




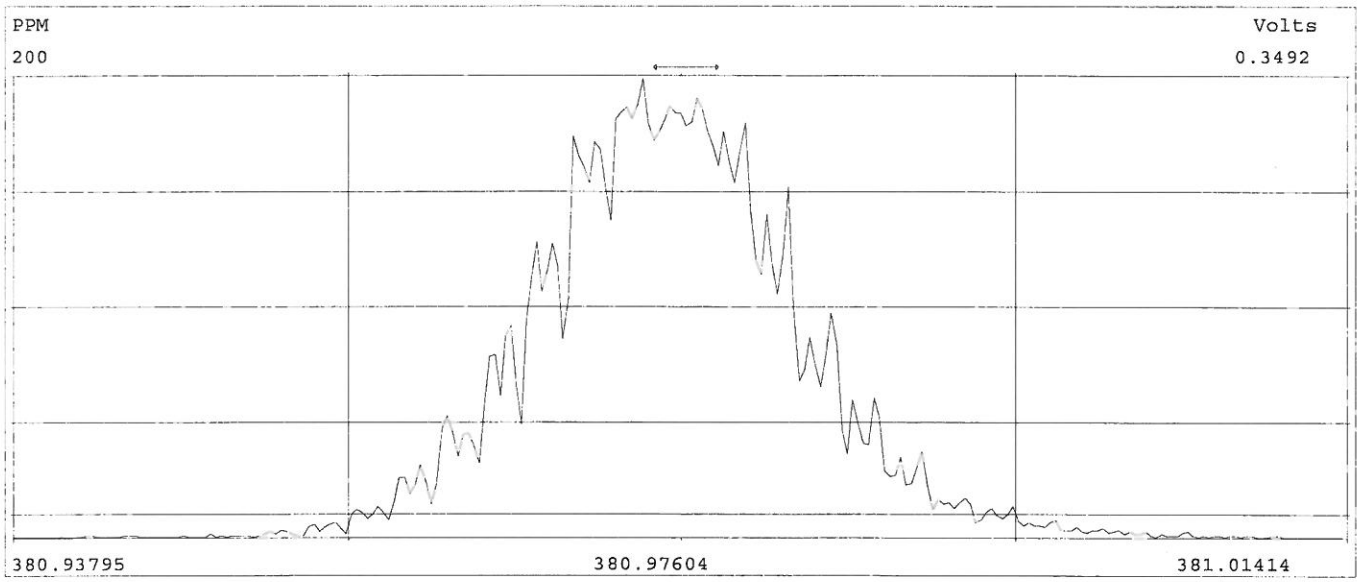


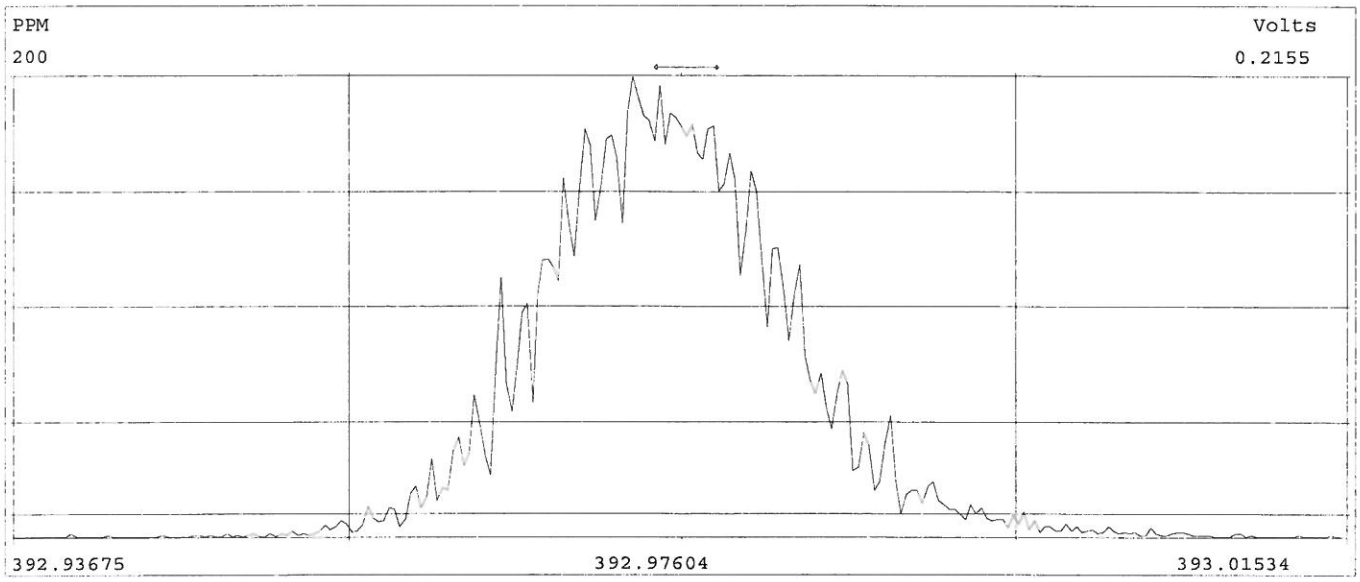


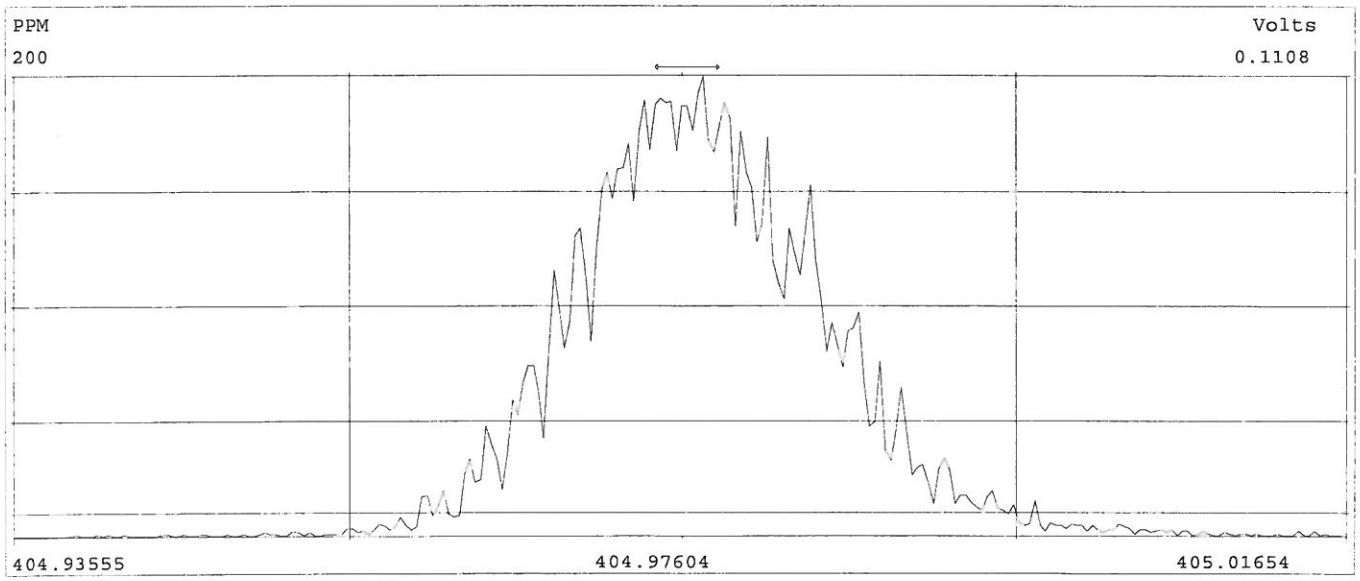




Peak Locate Examination:25-JUL-2018:19:50 File:DB83_128ACAL2/129CAL
Experiment:DX-DB225-4_01 Function:2 Reference:PFK







DB83_128A-A

OPUSquan 25-JUL-2018 Page 1

	c/q	Data Area	Data File	S	I	AnalyteTable	Factr #1	Factr #2	Size	HC	Sample Text	Comments	Done
1	c	ult3	DB83_121	4	1	DB-HXD-C2	0.2000	1.0000	1.000000	y	DX041A-CAL,,»	1,,2.0uL CS-0.2/»	y
2	c	ult3	DB83_121	3	1	DB-HXD-C2	1.0000	1.0000	1.000000	y	DX041B-CAL,,»	1,,2.0uL CS-1	y
3	c	ult3	DB83_121	2	1	DB-HXD-C2	4.0000	1.0000	1.000000	y	DX041C-CAL,,»	1,,2.0uL CS-2	y
4	c	ult3	DB83_121	7	1	DB-HXD-C2	20.0000	1.0000	1.000000	y	DX041D-CAL,,»	1,,2.0uL CAL	y
5	c	ult3	DB83_121	6	1	DB-HXD-C2	80.0000	1.0000	1.000000	y	DX041E-CAL,,»	1,,2.0uL CS-4	y
6	c	ult3	DB83_121	5	1	DB-HXD-C2	400.0000	1.0000	1.000000	y	DX041F-CAL,,»	1,,2.0uL CS-5	y
7	q	ult3	DB83_128A	1	1	DB-HXD-S2	1.0000	1.0000	1.000000	y	DX003A-RSN,,»	1,,2.0uL Win/Res	y
8	q	ult3	DB83_128A	2	1	DB-HXD-C2	20.0000	1.0000	1.000000	y	DX041D-CAL,,»	1,,2.0uL Cal	y
9	q	ult3	DB83_128A	3	1	DB-HXD-S2	1.0000	1.0000	1.000000	y	Toluene,,	1,,2.0uL	y
10	q	ult3	DB83_128A	4	1	DB-HXD-S2	1.0000	1.0000	1.000000	y	Toluene,,	1,,2.0uL	y
11	q	ult3	DB83_128A	5	1	DB-HXD-S2	1.0000	1.0000	1.079900	y	L29628-18,L,	1,WG64578,2.0/20»	y
12	q	ult3	DB83_128A	6	1	DB-HXD-C2	20.0000	1.0000	1.000000	y	DX041D-CAL,,»	1,,2.0uL Cal	y

SGS AXYS METHOD MLA-010 Rev 12

Form 4A
PCDD/PCDF CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	10-Jul-2018	**VER Data Filename:**	DB83_128A S: 2
Instrument ID:	HR GC/MS	**Analysis Date:**	25-Jul-2018
GC Column ID:	DB225	**Analysis Time:**	08:43:13

COMPOUND	LAB FLAG [1]	MZ's FORMING RATIO [2]	ION ABUND. RATIO	QC LIMITS [3]	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL) [4]
1,2,3,7,8,9-HXCDD		**M+2/M+4**	1.24	1.05-1.43	45.0	41 - 61
2,3,7,8-TCDF		**M/M+2**	0.75	0.65-0.89	9.01	8.4 - 12

(1) Where applicable, custom lab flags have been used on this report.
(2) See Table 8, Method 1613, for m/z specifications.
(3) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
(4) Contract-required concentration range as determined from the percent of the test concentration in Table 6, Method 1613, under VER.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

For Axys Internal Use Only [XSL Template: Form4A.xsl; Created: 26-Jul-2018 11:26:57; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_DB83_128AS2__Form4A_SJ2408976.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 6A
PCDD/PCDF RELATIVE RETENTION TIMES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	10-Jul-2018	**VER Data Filename:**	DB83_128A S: 2
Instrument ID:	HR GC/MS	**Analysis Date:**	25-Jul-2018
GC Column ID:	DB225	**Analysis Time:**	08:43:13

COMPOUND	LAB FLAG [1]	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS [2]
1,2,3,7,8,9-HXCDD		13C-1,2,3,6,7,8-HXCDD	1.063	1.052-1.075
2,3,7,8-TCDF		13C-2,3,7,8-TCDF	1.002	0.999-1.003

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

For Axys Internal Use Only [XSL Template: Form6A.xsl; Created: 26-Jul-2018 11:26:57; Application: XMLTransformer-1.16.47; Report Filename: 1613_DIOXINS_DB83_128AS2__Form6A_SJ2408976.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 4A
PCDD/PCDF CALIBRATION VERIFICATION

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	10-Jul-2018	**VER Data Filename:**	DB83_128A S: 6
Instrument ID:	HR GC/MS	**Analysis Date:**	25-Jul-2018
GC Column ID:	DB225	**Analysis Time:**	11:28:17

COMPOUND	LAB FLAG [1]	MZ's FORMING RATIO [2]	ION ABUND. RATIO	QC LIMITS [3]	CONC. FOUND (ng/mL)	CONC. RANGE (ng/mL) [4]
1,2,3,7,8,9-HXCDD		**M+2/M+4**	1.25	1.05-1.43	53.3	41 - 61
2,3,7,8-TCDF		**M/M+2**	0.79	0.65-0.89	10.5	8.4 - 12

(1) Where applicable, custom lab flags have been used on this report.
(2) See Table 8, Method 1613, for m/z specifications.
(3) Ion Abundance Ratio Control Limits as specified in Table 9, Method 1613.
(4) Contract-required concentration range as determined from the percent of the test concentration in Table 6, Method 1613, under VER.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

For Axys Internal Use Only [XSL Template: Form4A.xsl; Created: 26-Jul-2018 11:26:57; Application: XMLTransformer-1.16.47;
Report Filename: 1613_DIOXINS_DB83_128AS6__Form4A_SJ2408980.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 6A
PCDD/PCDF RELATIVE RETENTION TIMES

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Initial Calibration Date:	10-Jul-2018	**VER Data Filename:**	DB83_128A S: 6
Instrument ID:	HR GC/MS	**Analysis Date:**	25-Jul-2018
GC Column ID:	DB225	**Analysis Time:**	11:28:17

COMPOUND	LAB FLAG [1]	RETENTION TIME REFERENCE	RRT	RRT QC LIMITS [2]
1,2,3,7,8,9-HXCDD		13C-1,2,3,6,7,8-HXCDD	1.063	1.052-1.075
2,3,7,8-TCDF		13C-2,3,7,8-TCDF	1.001	0.999-1.003

(1) Where applicable, custom lab flags have been used on this report.
(2) Contract-required limits for Relative Retention Times (RRT) as specified in Table 2, Method 1613.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

For Axys Internal Use Only [XSL Template: Form6A.xsl; Created: 26-Jul-2018 11:26:57; Application: XMLTransformer-1.16.47; Report Filename: 1613_DIOXINS_DB83_128AS6__Form6A_SJ2408980.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

Form 5

PCDD/PCDF RT WINDOW AND ISOMER SPECIFICITY STANDARDS

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Instrument ID:	HR GC/MS	**Initial Calibration Date:**		10-Jul-2018
RT Window Data Filename:		**Analysis Date:**		**Time:**
DB-5 IS Data Filename:		**Analysis Date:**		**Time:**
DB-225 IS Data Filename:	DB83_128A S: 1	**Analysis Date:**	25-Jul-2018	**Time:** 08:01:57

DB225 RT WINDOW DEFINING STANDARDS RESULT

ISOMERS	ABSOLUTE RT	ISOMERS	ABSOLUTE RT
1,3,6,8-TCDD (F)	N/A	**1,3,6,8-TCDF (F)**	N/A
1,2,8,9-TCDD (L)	N/A	**1,2,8,9-TCDF (L)**	N/A
1,2,4,7,9-PECDD (F)	N/A	**1,3,4,6,8-PECDF (F)**	N/A
1,2,3,8,9-PECDD (L)	N/A	**1,2,3,8,9-PECDF (L)**	N/A
1,2,4,6,7,9-HXCDD (F)	N/A	**1,2,3,4,6,8-HXCDF (F)**	N/A
1,2,3,4,6,7-HXCDD (L)	N/A	**1,2,3,4,8,9-HXCDF (L)**	N/A
1,2,3,4,6,7,9-HPCDD (F)	N/A	**1,2,3,4,6,7,8-HPCDF (F)**	N/A
1,2,3,4,6,7,8-HPCDD (L)	N/A	**1,2,3,4,7,8,9-HPCDF (L)**	N/A

(F) = First eluting isomer (DB-5); (L) = Last eluting isomer (DB-5)

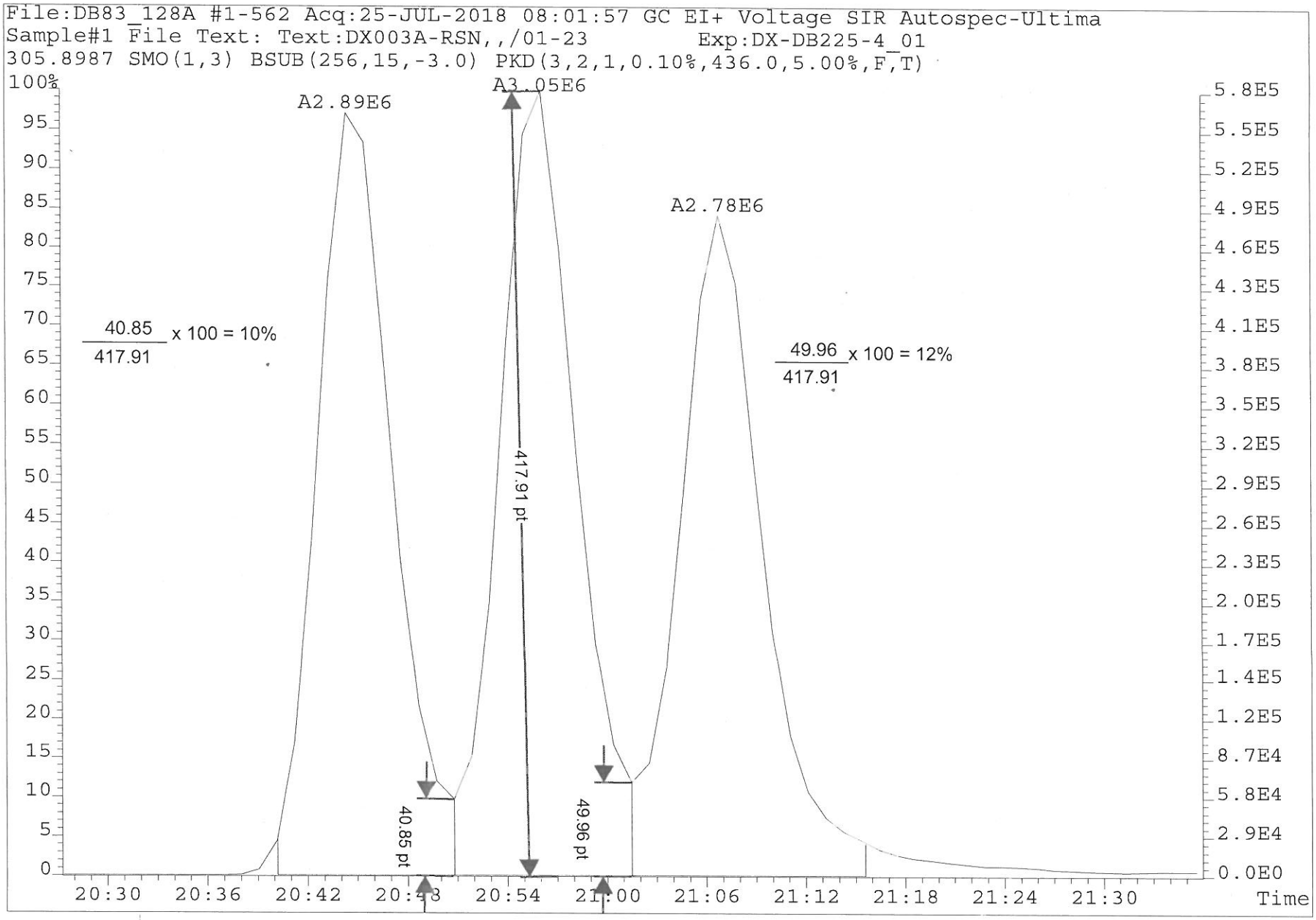
ISOMER SPECIFICITY (IS) TEST STANDARDS RESULT

Isomers	% Valley Height Between Compared Peaks	Isomers	% Valley Height Between Compared Peaks
1,2,3,4-TCDD **1,2,7,8-TCDD**	N/A	**1,2,3,8-TCDD** **2,3,7,8-TCDD**	N/A
1,2,7,8-TCDD **1,4,7,8-TCDD**	N/A	**2,3,4,7-TCDF** **2,3,7,8-TCDF**	10
1,4,7,8-TCDD **1,2,3,7-TCDD**	N/A	**2,3,7,8-TCDF** **1,2,3,9-TCDF**	12
1,2,3,7-TCDD **1,2,3,8-TCDD**	N/A		

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Leanne Henley_____

For Axys Internal Use Only [XSL Template: DXForm5.xsl; Created: 26-Jul-2018 11:26:57; Application: XMLTransformer-1.16.47; Report Filename: 1613_DIOXINS__DB83_128AS1_Form5_SJ2409035.html; Workgroup: WG64578; Design ID: 491]



PV by LHE
25-JULY-2018

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-RB1
Sample Collection:
11-Jun-2018 16:12

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-1
Sample Data Filename:	**DX8M_086 S: 7**	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 21:35:20	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. CONC.	FINAL CONC.	CHANGE CONC. (Final/Orig.)	ORIG. AREA	FINAL AREA	CHANGE AREA (Final/Orig.)	ORIG. RATIO	FINAL RATIO
2,3,7,8-TCDD								
1,2,3,7,8-PECDD								
1,2,3,4,7,8-HXCDD								
1,2,3,6,7,8-HXCDD								
2,3,4,7,8-PECDF								
1,2,3,4,7,8-HXCDF								
1,2,3,6,7,8-HXCDF								
1,2,3,7,8,9-HXCDF								
2,3,4,6,7,8-HXCDF								
1,2,3,4,7,8,9-HPCDF								
OCDF								

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-1_Audit1A_DX8M_086S7_SJ2407903.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-RB1
Sample Collection:
11-Jun-2018 16:12

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No. SEEP WATER PO# 2018-0069

Contract No.:	4033	**Lab Sample I.D.:**	L29628-1
Sample Data Filename:	**DX8M_086 S: 7**	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 21:35:20	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. SDL	FINAL SDL	CHANGE SDL (Final/Orig.)	ORIG. QUAL	FINAL QUAL	ORIG. RT	FINAL RT	REVIEWED BY	REVIEWED DATE
2,3,7,8-TCDD				NDR	ND(R)			LHENLEY	23-JUL-2018
1,2,3,7,8-PECDD					ND			LHENLEY	23-JUL-2018
1,2,3,4,7,8-HXCDD					ND			LHENLEY	23-JUL-2018
1,2,3,6,7,8-HXCDD				NDR	ND(R)			LHENLEY	23-JUL-2018
2,3,4,7,8-PECDF				NDR	ND(R)			LHENLEY	23-JUL-2018
1,2,3,4,7,8-HXCDF					ND			LHENLEY	23-JUL-2018
1,2,3,6,7,8-HXCDF				NDR	ND(R)			LHENLEY	23-JUL-2018
1,2,3,7,8,9-HXCDF				NDR	ND(R)			LHENLEY	23-JUL-2018
2,3,4,6,7,8-HXCDF				NDR	ND(R)			LHENLEY	23-JUL-2018
1,2,3,4,7,8,9-HPCDF				NDR	ND(R)			LHENLEY	23-JUL-2018
OCDF				NDR	ND(R)			LHENLEY	23-JUL-2018

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-1_Audit1B_DX8M_086S7_SJ2407903.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-RB1
Sample Collection:
11-Jun-2018 16:12

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-1
Sample Data Filename:	**DX8M_086 S: 7**	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 21:35:20	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-1_Audit2A_DX8M_086S7_SJ2407903.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-RB1
Sample Collection:
11-Jun-2018 16:12

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-1
Sample Data Filename:	**DX8M_086 S: 7**	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 21:35:20	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-1_Audit2B_DX8M_086S7_SJ2407903.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-RB1
Sample Collection:
11-Jun-2018 16:12

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-1
Sample Data Filename:	**DB83_127A S: 6**	**Instrument ID:**	HR GC/MS
Analysis Date:	23-Jul-2018 **Time:** 14:34:15	**GC Column ID:**	DB225
Extract Volume (uL):	20	**Injection Volume (uL):**	2.0

COMPOUND	ORIG. CONC.	FINAL CONC.	CHANGE CONC. (Final/Orig.)	ORIG. AREA	FINAL AREA	CHANGE AREA (Final/Orig.)	ORIG. RATIO	FINAL RATIO
2,3,7,8-TCDF								

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1A.xsl; Created: 26-Jul-2018 11:26:57; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB225_L29628-1_Audit1A_DB83_127AS6_SJ2408547.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-RB1
Sample Collection:
11-Jun-2018 16:12

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-1
Sample Data Filename:	**DB83_127A S: 6**	**Instrument ID:**	HR GC/MS
Analysis Date:	23-Jul-2018 **Time:** 14:34:15	**GC Column ID:**	DB225
Extract Volume (uL):	20	**Injection Volume (uL):**	2.0

COMPOUND	ORIG. SDL	FINAL SDL	CHANGE SDL (Final/Orig.)	ORIG. QUAL	FINAL QUAL	ORIG. RT	FINAL RT	REVIEWED BY	REVIEWED DATE
2,3,7,8-TCDF					ND			LHENLEY	25-JUL-2018

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1B.xsl; Created: 26-Jul-2018 11:26:57; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB225_L29628-1_Audit1B_DB83_127AS6_SJ2408547.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-RB1
Sample Collection:
11-Jun-2018 16:12

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-1
Sample Data Filename:	**DB83_127A S: 6**	**Instrument ID:**	HR GC/MS
Analysis Date:	23-Jul-2018 **Time:** 14:34:15	**GC Column ID:**	DB225
Extract Volume (uL):	20	**Injection Volume (uL):**	2.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2A.xsl; Created: 26-Jul-2018 11:26:57; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB225_L29628-1_Audit2A_DB83_127AS6_SJ2408547.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-RB1
Sample Collection:
11-Jun-2018 16:12

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-1
Sample Data Filename:	**DB83_127A S: 6**	**Instrument ID:**	HR GC/MS
Analysis Date:	23-Jul-2018 **Time:** 14:34:15	**GC Column ID:**	DB225
Extract Volume (uL):	20	**Injection Volume (uL):**	2.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2B.xsl; Created: 26-Jul-2018 11:26:57; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB225_L29628-1_Audit2B_DB83_127AS6_SJ2408547.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-42
Sample Collection:
12-Jun-2018 12:05

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-7
Sample Data Filename:	**DX8M_086 S: 8**	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 22:30:36	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. CONC.	FINAL CONC.	CHANGE CONC. (Final/Orig.)	ORIG. AREA	FINAL AREA	CHANGE AREA (Final/Orig.)	ORIG. RATIO	FINAL RATIO
2,3,7,8-TCDD								
1,2,3,7,8-PECDD								
1,2,3,6,7,8-HXCDD								
2,3,7,8-TCDF								
2,3,4,7,8-PECDF								
1,2,3,4,7,8-HXCDF								
1,2,3,6,7,8-HXCDF								
1,2,3,7,8,9-HXCDF								
2,3,4,6,7,8-HXCDF								
1,2,3,4,6,7,8-HPCDF								

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-7_Audit1A_DX8M_086S8_SJ2407904.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-42
Sample Collection:
12-Jun-2018 12:05

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No. SEEP WATER PO# 2018-0069

Contract No.:	4033	**Lab Sample I.D.:**	L29628-7
Sample Data Filename:	**DX8M_086 S: 8**	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 22:30:36	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. SDL	FINAL SDL	CHANGE SDL (Final/Orig.)	ORIG. QUAL	FINAL QUAL	ORIG. RT	FINAL RT	REVIEWED BY	REVIEWED DATE
2,3,7,8-TCDD				NDR	ND(R)			LHENLEY	23-JUL-2018
1,2,3,7,8-PECDD				NDR	ND(R)			LHENLEY	23-JUL-2018
1,2,3,6,7,8-HXCDD				NDR	ND(R)			LHENLEY	23-JUL-2018
2,3,7,8-TCDF					ND			LHENLEY	23-JUL-2018
2,3,4,7,8-PECDF				NDR	ND(R)			LHENLEY	23-JUL-2018
1,2,3,4,7,8-HXCDF				NDR	ND(R)			LHENLEY	23-JUL-2018
1,2,3,6,7,8-HXCDF				NDR	ND(R)			LHENLEY	23-JUL-2018
1,2,3,7,8,9-HXCDF				NDR	ND(R)			LHENLEY	23-JUL-2018
2,3,4,6,7,8-HXCDF				NDR	ND(R)			LHENLEY	23-JUL-2018
1,2,3,4,6,7,8-HPCDF				NDR	ND(R)			LHENLEY	23-JUL-2018

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-7_Audit1B_DX8M_086S8_SJ2407904.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-42
Sample Collection:
12-Jun-2018 12:05

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-7
Sample Data Filename:	**DX8M_086 S: 8**	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 22:30:36	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-7_Audit2A_DX8M_086S8_SJ2407904.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-42
Sample Collection:
12-Jun-2018 12:05

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-7
Sample Data Filename:	**DX8M_086 S: 8**	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 22:30:36	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-7_Audit2B_DX8M_086S8_SJ2407904.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-24
Sample Collection:
13-Jun-2018 12:35

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-11
Sample Data Filename:	**DX8M_086 S: 9**	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 23:25:48	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. CONC.	FINAL CONC.	CHANGE CONC. (Final/Orig.)	ORIG. AREA	FINAL AREA	CHANGE AREA (Final/Orig.)	ORIG. RATIO	FINAL RATIO
2,3,7,8-TCDD								
1,2,3,7,8-PECDD								
2,3,7,8-TCDF								
1,2,3,7,8-PECDF								
2,3,4,7,8-PECDF								
1,2,3,4,7,8-HXCDF								
1,2,3,6,7,8-HXCDF								
1,2,3,4,6,7,8-HPCDF								
OCDF								

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-11_Audit1A_DX8M_086S9_SJ2407905.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-24
Sample Collection:
13-Jun-2018 12:35

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No. SEEP WATER PO# 2018-0069

Contract No.:	4033	**Lab Sample I.D.:**	L29628-11
Sample Data Filename:	**DX8M_086 S: 9**	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 23:25:48	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. SDL	FINAL SDL	CHANGE SDL (Final/Orig.)	ORIG. QUAL	FINAL QUAL	ORIG. RT	FINAL RT	REVIEWED BY	REVIEWED DATE
2,3,7,8-TCDD				NDR	ND(R)			LHENLEY	23-JUL-2018
1,2,3,7,8-PECDD					ND			LHENLEY	23-JUL-2018
2,3,7,8-TCDF				NDR	ND(R)			LHENLEY	23-JUL-2018
1,2,3,7,8-PECDF				NDR	ND(R)			LHENLEY	23-JUL-2018
2,3,4,7,8-PECDF				NDR	ND(R)			LHENLEY	23-JUL-2018
1,2,3,4,7,8-HXCDF				NDR	ND(R)			LHENLEY	23-JUL-2018
1,2,3,6,7,8-HXCDF				NDR	ND(R)			LHENLEY	23-JUL-2018
1,2,3,4,6,7,8-HPCDF				NDR	ND(R)			LHENLEY	23-JUL-2018
OCDF					ND			LHENLEY	23-JUL-2018

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-11_Audit1B_DX8M_086S9_SJ2407905.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-24
Sample Collection:
13-Jun-2018 12:35

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-11
Sample Data Filename:	**DX8M_086 S: 9**	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 23:25:48	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-11_Audit2A_DX8M_086S9_SJ2407905.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-24
Sample Collection:
13-Jun-2018 12:35

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-11
Sample Data Filename:	**DX8M_086 S: 9**	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 23:25:48	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

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Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-11_Audit2B_DX8M_086S9_SJ2407905.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-24-FD
Sample Collection:
13-Jun-2018 12:42

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-12
Sample Data Filename:	**DX8M_086 S: 10**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 00:21:02	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. CONC.	FINAL CONC.	CHANGE CONC. (Final/Orig.)	ORIG. AREA	FINAL AREA	CHANGE AREA (Final/Orig.)	ORIG. RATIO	FINAL RATIO
2,3,7,8-TCDD								
1,2,3,7,8-PECDD								
1,2,3,6,7,8-HXCDD								
1,2,3,4,6,7,8-HPCDD								
1,2,3,7,8-PECDF								
1,2,3,4,7,8-HXCDF								
OCDF								

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-12_Audit1A_DX8M_086S10_SJ2407891.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-24-FD
Sample Collection:
13-Jun-2018 12:42

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No. SEEP WATER PO# 2018-0069

Contract No.:	4033	**Lab Sample I.D.:**	L29628-12
Sample Data Filename:	**DX8M_086 S: 10**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 00:21:02	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. SDL	FINAL SDL	CHANGE SDL (Final/Orig.)	ORIG. QUAL	FINAL QUAL	ORIG. RT	FINAL RT	REVIEWED BY	REVIEWED DATE
2,3,7,8-TCDD				NDR	ND(R)			LHENLEY	23-JUL-2018
1,2,3,7,8-PECDD				NDR	ND(R)			LHENLEY	23-JUL-2018
1,2,3,6,7,8-HXCDD				NDR	ND(R)			LHENLEY	23-JUL-2018
1,2,3,4,6,7,8-HPCDD				NDR	ND(R)			LHENLEY	23-JUL-2018
1,2,3,7,8-PECDF				NDR	ND(R)			LHENLEY	23-JUL-2018
1,2,3,4,7,8-HXCDF				NDR	ND(R)			LHENLEY	23-JUL-2018
OCDF				NDR	ND(R)			LHENLEY	23-JUL-2018

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-12_Audit1B_DX8M_086S10_SJ2407891.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-24-FD
Sample Collection:
13-Jun-2018 12:42

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

		Project No.	SEEP WATER PO# 2018-0069
Contract No.:	4033	**Lab Sample I.D.:**	L29628-12
Sample Data Filename:	**DX8M_086 S: 10**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 00:21:02	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-12_Audit2A_DX8M_086S10_SJ2407891.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-24-FD
Sample Collection:
13-Jun-2018 12:42

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-12
Sample Data Filename:	**DX8M_086 S: 10**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 00:21:02	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-12_Audit2B_DX8M_086S10_SJ2407891.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-57
Sample Collection:
14-Jun-2018 10:41

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-14
Sample Data Filename:	**DX8M_086 S: 11**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 01:16:16	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. CONC.	FINAL CONC.	CHANGE CONC. (Final/Orig.)	ORIG. AREA	FINAL AREA	CHANGE AREA (Final/Orig.)	ORIG. RATIO	FINAL RATIO
2,3,7,8-TCDD								
1,2,3,7,8-PECDF								
2,3,4,7,8-PECDF								
1,2,3,4,6,7,8-HPCDF								
OCDF								

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-14_Audit1A_DX8M_086S11_SJ2407892.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-57
Sample Collection:
14-Jun-2018 10:41

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No. SEEP WATER PO# 2018-0069

Contract No.:	4033	**Lab Sample I.D.:**	L29628-14
Sample Data Filename:	**DX8M_086 S: 11**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 01:16:16	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. SDL	FINAL SDL	CHANGE SDL (Final/Orig.)	ORIG. QUAL	FINAL QUAL	ORIG. RT	FINAL RT	REVIEWED BY	REVIEWED DATE
2,3,7,8-TCDD				NDR	ND(R)			LHENLEY	23-JUL-2018
1,2,3,7,8-PECDF					ND			LHENLEY	23-JUL-2018
2,3,4,7,8-PECDF				NDR	ND(R)			LHENLEY	23-JUL-2018
1,2,3,4,6,7,8-HPCDF					ND			LHENLEY	23-JUL-2018
OCDF				NDR	ND(R)			LHENLEY	23-JUL-2018

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-14_Audit1B_DX8M_086S11_SJ2407892.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-57
Sample Collection:
14-Jun-2018 10:41

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-14
Sample Data Filename:	**DX8M_086 S: 11**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 01:16:16	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-14_Audit2A_DX8M_086S11_SJ2407892.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-57
Sample Collection:
14-Jun-2018 10:41

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-14
Sample Data Filename:	**DX8M_086 S: 11**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 01:16:16	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-14_Audit2B_DX8M_086S11_SJ2407892.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-77
Sample Collection:
14-Jun-2018 12:10

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-17
Sample Data Filename:	**DX8M_086 S: 15**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 05:03:32	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. CONC.	FINAL CONC.	CHANGE CONC. (Final/Orig.)	ORIG. AREA	FINAL AREA	CHANGE AREA (Final/Orig.)	ORIG. RATIO	FINAL RATIO
1,2,3,7,8,9-HXCDD								
1,2,3,4,6,7,8-HPCDD								
1,2,3,7,8-PECDF								
2,3,4,7,8-PECDF								
1,2,3,4,7,8-HXCDF								
2,3,4,6,7,8-HXCDF								
1,2,3,4,6,7,8-HPCDF								
1,2,3,4,7,8,9-HPCDF								
OCDF								

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-17_Audit1A_DX8M_086S15_SJ2407924.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-77
Sample Collection:
14-Jun-2018 12:10

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No. SEEP WATER PO# 2018-0069

Contract No.:	4033	**Lab Sample I.D.:**	L29628-17
Sample Data Filename:	**DX8M_086 S: 15**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 05:03:32	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. SDL	FINAL SDL	CHANGE SDL (Final/Orig.)	ORIG. QUAL	FINAL QUAL	ORIG. RT	FINAL RT	REVIEWED BY	REVIEWED DATE
1,2,3,7,8,9-HXCDD				NDR	ND(R)			LHENLEY	25-JUL-2018
1,2,3,4,6,7,8-HPCDD				NDR	ND(R)			LHENLEY	25-JUL-2018
1,2,3,7,8-PECDF					ND			LHENLEY	25-JUL-2018
2,3,4,7,8-PECDF				NDR	ND(R)			LHENLEY	25-JUL-2018
1,2,3,4,7,8-HXCDF				NDR	ND(R)			LHENLEY	25-JUL-2018
2,3,4,6,7,8-HXCDF				NDR	ND(R)			LHENLEY	25-JUL-2018
1,2,3,4,6,7,8-HPCDF				NDR	ND(R)			LHENLEY	25-JUL-2018
1,2,3,4,7,8,9-HPCDF				NDR	ND(R)			LHENLEY	25-JUL-2018
OCDF				NDR	ND(R)			LHENLEY	25-JUL-2018

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-17_Audit1B_DX8M_086S15_SJ2407924.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-77
Sample Collection:
14-Jun-2018 12:10

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-17
Sample Data Filename:	**DX8M_086 S: 15**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 05:03:32	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-17_Audit2A_DX8M_086S15_SJ2407924.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-77
Sample Collection:
14-Jun-2018 12:10

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-17
Sample Data Filename:	**DX8M_086 S: 15**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 05:03:32	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

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Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-17_Audit2B_DX8M_086S15_SJ2407924.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-78
Sample Collection:
14-Jun-2018 12:04

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-18 L
Sample Data Filename:	**DX8M_088 S: 8**	**Instrument ID:**	HR GC/MS
Analysis Date:	24-Jul-2018 **Time:** 23:33:23	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-18_Audit1A_DX8M_088S8_SJ2408905.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-78
Sample Collection:
14-Jun-2018 12:04

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

		Project No.	SEEP WATER PO# 2018-0069
Contract No.:	4033	**Lab Sample I.D.:**	L29628-18 L
Sample Data Filename:	**DX8M_088 S: 8**	**Instrument ID:**	HR GC/MS
Analysis Date:	24-Jul-2018 **Time:** 23:33:23	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

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Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-18_Audit1B_DX8M_088S8_SJ2408905.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-78
Sample Collection:
14-Jun-2018 12:04

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-18 L
Sample Data Filename:	**DX8M_088 S: 8**	**Instrument ID:**	HR GC/MS
Analysis Date:	24-Jul-2018 **Time:** 23:33:23	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

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For Axys Internal Use Only [XSL Template: Audit2A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-18_Audit2A_DX8M_088S8_SJ2408905.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-78
Sample Collection:
14-Jun-2018 12:04

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-18 L
Sample Data Filename:	**DX8M_088 S: 8**	**Instrument ID:**	HR GC/MS
Analysis Date:	24-Jul-2018 **Time:** 23:33:23	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

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For Axys Internal Use Only [XSL Template: Audit2B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-18_Audit2B_DX8M_088S8_SJ2408905.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-78
Sample Collection:
14-Jun-2018 12:04

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-18 L
Sample Data Filename:	**DB83_128A S: 5**	**Instrument ID:**	HR GC/MS
Analysis Date:	25-Jul-2018 **Time:** 10:47:02	**GC Column ID:**	DB225
Extract Volume (uL):	20	**Injection Volume (uL):**	2.0

COMPOUND	ORIG. CONC.	FINAL CONC.	CHANGE CONC. (Final/Orig.)	ORIG. AREA	FINAL AREA	CHANGE AREA (Final/Orig.)	ORIG. RATIO	FINAL RATIO
2,3,7,8-TCDF								

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1A.xsl; Created: 26-Jul-2018 11:26:57; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB225_L29628-18_Audit1A_DB83_128AS5_SJ2408979.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-78
Sample Collection:
14-Jun-2018 12:04

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No. SEEP WATER PO# 2018-0069

Contract No.:	4033	**Lab Sample I.D.:**	L29628-18 L
Sample Data Filename:	**DB83_128A S: 5**	**Instrument ID:**	HR GC/MS
Analysis Date:	25-Jul-2018 **Time:** 10:47:02	**GC Column ID:**	DB225
Extract Volume (uL):	20	**Injection Volume (uL):**	2.0

COMPOUND	ORIG. SDL	FINAL SDL	CHANGE SDL (Final/Orig.)	ORIG. QUAL	FINAL QUAL	ORIG. RT	FINAL RT	REVIEWED BY	REVIEWED DATE
2,3,7,8-TCDF				NDR	ND(R)			LHENLEY	25-JUL-2018

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1B.xsl; Created: 26-Jul-2018 11:26:57; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB225_L29628-18_Audit1B_DB83_128AS5_SJ2408979.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-78
Sample Collection:
14-Jun-2018 12:04

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-18 L
Sample Data Filename:	**DB83_128A S: 5**	**Instrument ID:**	HR GC/MS
Analysis Date:	25-Jul-2018 **Time:** 10:47:02	**GC Column ID:**	DB225
Extract Volume (uL):	20	**Injection Volume (uL):**	2.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2A.xsl; Created: 26-Jul-2018 11:26:57; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB225_L29628-18_Audit2A_DB83_128AS5_SJ2408979.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-78
Sample Collection:
14-Jun-2018 12:04

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-18 L
Sample Data Filename:	**DB83_128A S: 5**	**Instrument ID:**	HR GC/MS
Analysis Date:	25-Jul-2018 **Time:** 10:47:02	**GC Column ID:**	DB225
Extract Volume (uL):	20	**Injection Volume (uL):**	2.0

There were no differences found between the parsed and reported data.

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Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2B.xsl; Created: 26-Jul-2018 11:26:57; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB225_L29628-18_Audit2B_DB83_128AS5_SJ2408979.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-79
Sample Collection:
14-Jun-2018 09:50

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-19
Sample Data Filename:	**DX8M_086 S: 17**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 06:53:48	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. CONC.	FINAL CONC.	CHANGE CONC. (Final/Orig.)	ORIG. AREA	FINAL AREA	CHANGE AREA (Final/Orig.)	ORIG. RATIO	FINAL RATIO
1,2,3,7,8-PECDF								
1,2,3,4,6,7,8-HPCDF								
1,2,3,4,7,8,9-HPCDF								
OCDF								

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-19_Audit1A_DX8M_086S17_SJ2407926.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-79
Sample Collection:
14-Jun-2018 09:50

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No. SEEP WATER PO# 2018-0069

Contract No.:	4033	**Lab Sample I.D.:**	L29628-19
Sample Data Filename:	**DX8M_086 S: 17**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 06:53:48	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. SDL	FINAL SDL	CHANGE SDL (Final/Orig.)	ORIG. QUAL	FINAL QUAL	ORIG. RT	FINAL RT	REVIEWED BY	REVIEWED DATE
1,2,3,7,8-PECDF				NDR	ND(R)			LHENLEY	25-JUL-2018
1,2,3,4,6,7,8-HPCDF				NDR	ND(R)			LHENLEY	25-JUL-2018
1,2,3,4,7,8,9-HPCDF				NDR	ND(R)			LHENLEY	25-JUL-2018
OCDF				NDR	ND(R)			LHENLEY	25-JUL-2018

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-19_Audit1B_DX8M_086S17_SJ2407926.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-79
Sample Collection:
14-Jun-2018 09:50

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-19
Sample Data Filename:	**DX8M_086 S: 17**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 06:53:48	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-19_Audit2A_DX8M_086S17_SJ2407926.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-79
Sample Collection:
14-Jun-2018 09:50

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-19
Sample Data Filename:	**DX8M_086 S: 17**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 06:53:48	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-19_Audit2B_DX8M_086S17_SJ2407926.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-87
Sample Collection:
14-Jun-2018 11:11

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-21
Sample Data Filename:	**DX8M_086 S: 18**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 07:49:02	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. CONC.	FINAL CONC.	CHANGE CONC. (Final/Orig.)	ORIG. AREA	FINAL AREA	CHANGE AREA (Final/Orig.)	ORIG. RATIO	FINAL RATIO
1,2,3,7,8,9-HXCDD								
1,2,3,7,8-PECDF								
2,3,4,6,7,8-HXCDF								
1,2,3,4,6,7,8-HPCDF								

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-21_Audit1A_DX8M_086S18_SJ2407927.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-87
Sample Collection:
14-Jun-2018 11:11

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No. SEEP WATER PO# 2018-0069

Contract No.:	4033	**Lab Sample I.D.:**	L29628-21
Sample Data Filename:	**DX8M_086 S: 18**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 07:49:02	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. SDL	FINAL SDL	CHANGE SDL (Final/Orig.)	ORIG. QUAL	FINAL QUAL	ORIG. RT	FINAL RT	REVIEWED BY	REVIEWED DATE
1,2,3,7,8,9-HXCDD				NDR	ND(R)			LHENLEY	25-JUL-2018
1,2,3,7,8-PECDF				NDR	ND(R)			LHENLEY	25-JUL-2018
2,3,4,6,7,8-HXCDF				NDR	ND(R)			LHENLEY	25-JUL-2018
1,2,3,4,6,7,8-HPCDF					ND			LHENLEY	25-JUL-2018

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-21_Audit1B_DX8M_086S18_SJ2407927.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-87
Sample Collection:
14-Jun-2018 11:11

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-21
Sample Data Filename:	**DX8M_086 S: 18**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 07:49:02	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-21_Audit2A_DX8M_086S18_SJ2407927.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-87
Sample Collection:
14-Jun-2018 11:11

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-21
Sample Data Filename:	**DX8M_086 S: 18**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 07:49:02	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-21_Audit2B_DX8M_086S18_SJ2407927.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-01
Sample Collection:
15-Jun-2018 11:33

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-22
Sample Data Filename:	**DX8M_086 S: 19**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 08:44:15	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. CONC.	FINAL CONC.	CHANGE CONC. (Final/Orig.)	ORIG. AREA	FINAL AREA	CHANGE AREA (Final/Orig.)	ORIG. RATIO	FINAL RATIO
2,3,7,8-TCDD								
2,3,7,8-TCDF								
1,2,3,7,8-PECDF								
1,2,3,4,6,7,8-HPCDF								

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-22_Audit1A_DX8M_086S19_SJ2407928.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-01
Sample Collection:
15-Jun-2018 11:33

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No. SEEP WATER PO# 2018-0069

Contract No.:	4033	**Lab Sample I.D.:**	L29628-22
Sample Data Filename:	**DX8M_086 S: 19**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 08:44:15	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. SDL	FINAL SDL	CHANGE SDL (Final/Orig.)	ORIG. QUAL	FINAL QUAL	ORIG. RT	FINAL RT	REVIEWED BY	REVIEWED DATE
2,3,7,8-TCDD				NDR	ND(R)			LHENLEY	25-JUL-2018
2,3,7,8-TCDF					ND			LHENLEY	25-JUL-2018
1,2,3,7,8-PECDF				NDR	ND(R)			LHENLEY	25-JUL-2018
1,2,3,4,6,7,8-HPCDF				NDR	ND(R)			LHENLEY	25-JUL-2018

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-22_Audit1B_DX8M_086S19_SJ2407928.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-01
Sample Collection:
15-Jun-2018 11:33

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-22
Sample Data Filename:	**DX8M_086 S: 19**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 08:44:15	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

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Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-22_Audit2A_DX8M_086S19_SJ2407928.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-01
Sample Collection:
15-Jun-2018 11:33

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-22
Sample Data Filename:	**DX8M_086 S: 19**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 08:44:15	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

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Report Filename: AUDIT_DIOXINS_1613DB5_L29628-22_Audit2B_DX8M_086S19_SJ2407928.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-66
Sample Collection:
15-Jun-2018 13:25

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-25
Sample Data Filename:	**DX8M_086 S: 20**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 09:39:28	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. CONC.	FINAL CONC.	CHANGE CONC. (Final/Orig.)	ORIG. AREA	FINAL AREA	CHANGE AREA (Final/Orig.)	ORIG. RATIO	FINAL RATIO
1,2,3,7,8-PECDF								
2,3,4,7,8-PECDF								
1,2,3,4,7,8-HXCDF								
1,2,3,6,7,8-HXCDF								
1,2,3,7,8,9-HXCDF								
1,2,3,4,6,7,8-HPCDF								

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Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-25_Audit1A_DX8M_086S20_SJ2407929.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-66
Sample Collection:
15-Jun-2018 13:25

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No. SEEP WATER PO# 2018-0069

Contract No.:	4033	**Lab Sample I.D.:**	L29628-25
Sample Data Filename:	**DX8M_086 S: 20**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 09:39:28	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. SDL	FINAL SDL	CHANGE SDL (Final/Orig.)	ORIG. QUAL	FINAL QUAL	ORIG. RT	FINAL RT	REVIEWED BY	REVIEWED DATE
1,2,3,7,8-PECDF					ND			LHENLEY	25-JUL-2018
2,3,4,7,8-PECDF				NDR	ND(R)			LHENLEY	25-JUL-2018
1,2,3,4,7,8-HXCDF				NDR	ND(R)			LHENLEY	25-JUL-2018
1,2,3,6,7,8-HXCDF				NDR	ND(R)			LHENLEY	25-JUL-2018
1,2,3,7,8,9-HXCDF				NDR	ND(R)			LHENLEY	25-JUL-2018
1,2,3,4,6,7,8-HPCDF				NDR	ND(R)			LHENLEY	25-JUL-2018

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-25_Audit1B_DX8M_086S20_SJ2407929.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-66
Sample Collection:
15-Jun-2018 13:25

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-25
Sample Data Filename:	**DX8M_086 S: 20**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 09:39:28	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-25_Audit2A_DX8M_086S20_SJ2407929.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-66
Sample Collection:
15-Jun-2018 13:25

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-25
Sample Data Filename:	**DX8M_086 S: 20**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 09:39:28	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-25_Audit2B_DX8M_086S20_SJ2407929.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-70
Sample Collection:
15-Jun-2018 11:13

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-26
Sample Data Filename:	**DX8M_086 S: 21**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 10:34:36	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. CONC.	FINAL CONC.	CHANGE CONC. (Final/Orig.)	ORIG. AREA	FINAL AREA	CHANGE AREA (Final/Orig.)	ORIG. RATIO	FINAL RATIO
1,2,3,4,6,7,8-HPCDD								
1,2,3,7,8-PECDF								
2,3,4,7,8-PECDF								
OCDF								

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-26_Audit1A_DX8M_086S21_SJ2407930.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-70
Sample Collection:
15-Jun-2018 11:13

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No. SEEP WATER PO# 2018-0069

Contract No.:	4033	**Lab Sample I.D.:**	L29628-26
Sample Data Filename:	**DX8M_086 S: 21**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 10:34:36	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. SDL	FINAL SDL	CHANGE SDL (Final/Orig.)	ORIG. QUAL	FINAL QUAL	ORIG. RT	FINAL RT	REVIEWED BY	REVIEWED DATE
1,2,3,4,6,7,8-HPCDD					ND			LHENLEY	25-JUL-2018
1,2,3,7,8-PECDF				NDR	ND(R)			LHENLEY	25-JUL-2018
2,3,4,7,8-PECDF				NDR	ND(R)			LHENLEY	25-JUL-2018
OCDF				NDR	ND(R)			LHENLEY	25-JUL-2018

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-26_Audit1B_DX8M_086S21_SJ2407930.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-70
Sample Collection:
15-Jun-2018 11:13

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-26
Sample Data Filename:	**DX8M_086 S: 21**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 10:34:36	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-26_Audit2A_DX8M_086S21_SJ2407930.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-70
Sample Collection:
15-Jun-2018 11:13

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-26
Sample Data Filename:	**DX8M_086 S: 21**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 10:34:36	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-26_Audit2B_DX8M_086S21_SJ2407930.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-86
Sample Collection:
15-Jun-2018 12:19

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No. SEEP WATER PO# 2018-0069

Contract No.:	4033	**Lab Sample I.D.:**	L29628-28 i
Sample Data Filename:	**DX8M_087 S: 5**	**Instrument ID:**	HR GC/MS
Analysis Date:	23-Jul-2018 **Time:** 19:57:17	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. CONC.	FINAL CONC.	CHANGE CONC. (Final/Orig.)	ORIG. AREA	FINAL AREA	CHANGE AREA (Final/Orig.)	ORIG. RATIO	FINAL RATIO
2,3,7,8-TCDD								
1,2,3,4,7,8-HXCDD								
1,2,3,6,7,8-HXCDD								
1,2,3,7,8,9-HXCDD								
2,3,7,8-TCDF								
1,2,3,7,8-PECDF								
2,3,4,7,8-PECDF								
1,2,3,4,7,8-HXCDF								
1,2,3,6,7,8-HXCDF								
1,2,3,4,7,8,9-HPCDF								

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-28_Audit1A_DX8M_087S5_SJ2408584.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-86
Sample Collection:
15-Jun-2018 12:19

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No. SEEP WATER PO# 2018-0069

Contract No.:	4033	**Lab Sample I.D.:**	L29628-28 i
Sample Data Filename:	**DX8M_087 S: 5**	**Instrument ID:**	HR GC/MS
Analysis Date:	23-Jul-2018 **Time:** 19:57:17	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. SDL	FINAL SDL	CHANGE SDL (Final/Orig.)	ORIG. QUAL	FINAL QUAL	ORIG. RT	FINAL RT	REVIEWED BY	REVIEWED DATE
2,3,7,8-TCDD				NDR	ND(R)			LHENLEY	25-JUL-2018
1,2,3,4,7,8-HXCDD					ND			LHENLEY	25-JUL-2018
1,2,3,6,7,8-HXCDD					ND			LHENLEY	25-JUL-2018
1,2,3,7,8,9-HXCDD				NDR	ND(R)			LHENLEY	25-JUL-2018
2,3,7,8-TCDF					ND			LHENLEY	25-JUL-2018
1,2,3,7,8-PECDF				NDR	ND(R)			LHENLEY	25-JUL-2018
2,3,4,7,8-PECDF				NDR	ND(R)			LHENLEY	25-JUL-2018
1,2,3,4,7,8-HXCDF				NDR	ND(R)			LHENLEY	25-JUL-2018
1,2,3,6,7,8-HXCDF				NDR	ND(R)			LHENLEY	25-JUL-2018
1,2,3,4,7,8,9-HPCDF				NDR	ND(R)			LHENLEY	25-JUL-2018

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-28_Audit1B_DX8M_087S5_SJ2408584.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-86
Sample Collection:
15-Jun-2018 12:19

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-28 i
Sample Data Filename:	**DX8M_087 S: 5**	**Instrument ID:**	HR GC/MS
Analysis Date:	23-Jul-2018 **Time:** 19:57:17	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-28_Audit2A_DX8M_087S5_SJ2408584.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-86
Sample Collection:
15-Jun-2018 12:19

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-28 i
Sample Data Filename:	**DX8M_087 S: 5**	**Instrument ID:**	HR GC/MS
Analysis Date:	23-Jul-2018 **Time:** 19:57:17	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-28_Audit2B_DX8M_087S5_SJ2408584.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-88
Sample Collection:
15-Jun-2018 10:52

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-29
Sample Data Filename:	**DX8M_086 S: 23**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 12:24:58	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. CONC.	FINAL CONC.	CHANGE CONC. (Final/Orig.)	ORIG. AREA	FINAL AREA	CHANGE AREA (Final/Orig.)	ORIG. RATIO	FINAL RATIO
2,3,7,8-TCDF								
1,2,3,7,8-PECDF								
1,2,3,4,7,8-HXCDF								
1,2,3,6,7,8-HXCDF								
2,3,4,6,7,8-HXCDF								
OCDF								

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-29_Audit1A_DX8M_086S23_SJ2407932.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-88
Sample Collection:
15-Jun-2018 10:52

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No. SEEP WATER PO# 2018-0069

Contract No.: 4033 **Lab Sample I.D.:** L29628-29

Sample Data Filename: **DX8M_086 S: 23** **Instrument ID:** HR GC/MS

Analysis Date: 21-Jul-2018 **Time:** 12:24:58 **GC Column ID:** DB5

Extract Volume (uL): 20 **Injection Volume (uL):** 1.0

COMPOUND	ORIG. SDL	FINAL SDL	CHANGE SDL (Final/Orig.)	ORIG. QUAL	FINAL QUAL	ORIG. RT	FINAL RT	REVIEWED BY	REVIEWED DATE
2,3,7,8-TCDF					ND			LHENLEY	25-JUL-2018
1,2,3,7,8-PECDF					ND			LHENLEY	25-JUL-2018
1,2,3,4,7,8-HXCDF				NDR	ND(R)			LHENLEY	25-JUL-2018
1,2,3,6,7,8-HXCDF				NDR	ND(R)			LHENLEY	25-JUL-2018
2,3,4,6,7,8-HXCDF					ND			LHENLEY	25-JUL-2018
OCDF				NDR	ND(R)			LHENLEY	25-JUL-2018

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-29_Audit1B_DX8M_086S23_SJ2407932.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2A CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-88
Sample Collection:
15-Jun-2018 10:52

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-29
Sample Data Filename:	**DX8M_086 S: 23**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 12:24:58	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-29_Audit2A_DX8M_086S23_SJ2407932.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2B CHANGE REPORT

CLIENT SAMPLE NO.
LDW18-SP-88
Sample Collection:
15-Jun-2018 10:52

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	SEEP WATER PO# 2018-0069		
Contract No.:	4033	**Lab Sample I.D.:**	L29628-29
Sample Data Filename:	**DX8M_086 S: 23**	**Instrument ID:**	HR GC/MS
Analysis Date:	21-Jul-2018 **Time:** 12:24:58	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

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Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_L29628-29_Audit2B_DX8M_086S23_SJ2407932.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1A CHANGE REPORT

CLIENT SAMPLE NO.
Lab Blank
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No. N/A

Contract No.:	4033	**Lab Sample I.D.:**	WG64578-101
Sample Data Filename:	**DX8M_086 S: 6**	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 20:40:09	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. CONC.	FINAL CONC.	CHANGE CONC. (Final/Orig.)	ORIG. AREA	FINAL AREA	CHANGE AREA (Final/Orig.)	ORIG. RATIO	FINAL RATIO
2,3,7,8-TCDD								
1,2,3,7,8-PECDD								
2,3,7,8-TCDF								
1,2,3,7,8-PECDF								
1,2,3,4,7,8-HXCDF								
1,2,3,4,6,7,8-HPCDF								
1,2,3,4,7,8,9-HPCDF								

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_WG64578-101_Audit1A_DX8M_086S6_SJ2407901.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1B CHANGE REPORT

CLIENT SAMPLE NO.
Lab Blank
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No. N/A

Contract No.:	4033	**Lab Sample I.D.:**	WG64578-101
Sample Data Filename:	**DX8M_086 S: 6**	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 20:40:09	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. SDL	FINAL SDL	CHANGE SDL (Final/Orig.)	ORIG. QUAL	FINAL QUAL	ORIG. RT	FINAL RT	REVIEWED BY	REVIEWED DATE
2,3,7,8-TCDD				NDR	ND(R)			LHENLEY	23-JUL-2018
1,2,3,7,8-PECDD					ND			LHENLEY	23-JUL-2018
2,3,7,8-TCDF					ND			LHENLEY	23-JUL-2018
1,2,3,7,8-PECDF				NDR	ND(R)			LHENLEY	23-JUL-2018
1,2,3,4,7,8-HXCDF				NDR	ND(R)			LHENLEY	23-JUL-2018
1,2,3,4,6,7,8-HPCDF				NDR	ND(R)			LHENLEY	23-JUL-2018
1,2,3,4,7,8,9-HPCDF				NDR	ND(R)			LHENLEY	23-JUL-2018

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_WG64578-101_Audit1B_DX8M_086S6_SJ2407901.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2A CHANGE REPORT

CLIENT SAMPLE NO.
Lab Blank
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	N/A		
Contract No.:	4033	**Lab Sample I.D.:**	WG64578-101
Sample Data Filename:	**DX8M_086 S: 6**	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 20:40:09	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_WG64578-101_Audit2A_DX8M_086S6_SJ2407901.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2B CHANGE REPORT

CLIENT SAMPLE NO.
Lab Blank
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Project No.	N/A		
Contract No.:	4033	**Lab Sample I.D.:**	WG64578-101
Sample Data Filename:	**DX8M_086 S: 6**	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 20:40:09	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_WG64578-101_Audit2B_DX8M_086S6_SJ2407901.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1A CHANGE REPORT

CLIENT SAMPLE NO.
Spiked Matrix
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4033	**Lab Sample I.D.:**	WG64578-102 (A)
Sample Data Filename:	**DX8M_086 S: 2**	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 16:56:28	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. CONC.	FINAL CONC.	CHANGE CONC. (Final/Orig.)	ORIG. AREA	FINAL AREA	CHANGE AREA (Final/Orig.)	ORIG. RATIO	FINAL RATIO
2,3,7,8-TCDD								
1,2,3,7,8-PECDD								
1,2,3,4,7,8-HXCDD								
1,2,3,6,7,8-HXCDD								
1,2,3,7,8,9-HXCDD								
OCDD								
2,3,7,8-TCDF								
1,2,3,4,7,8-HXCDF								
2,3,4,6,7,8-HXCDF								
OCDF								

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_WG64578-102_Audit1A_DX8M_086S2_SJ2407895.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1B CHANGE REPORT

CLIENT SAMPLE NO.
Spiked Matrix
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4033	**Lab Sample I.D.:**	WG64578-102 (A)
Sample Data Filename:	**DX8M_086 S: 2**	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 16:56:28	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. SDL	FINAL SDL	CHANGE SDL (Final/Orig.)	ORIG. QUAL	FINAL QUAL	ORIG. RT	FINAL RT	REVIEWED BY	REVIEWED DATE
2,3,7,8-TCDD								LHENLEY	23-JUL-2018
1,2,3,7,8-PECDD								LHENLEY	23-JUL-2018
1,2,3,4,7,8-HXCDD								LHENLEY	23-JUL-2018
1,2,3,6,7,8-HXCDD								LHENLEY	23-JUL-2018
1,2,3,7,8,9-HXCDD								LHENLEY	23-JUL-2018
OCDD								LHENLEY	23-JUL-2018
2,3,7,8-TCDF								LHENLEY	23-JUL-2018
1,2,3,4,7,8-HXCDF								LHENLEY	23-JUL-2018
2,3,4,6,7,8-HXCDF								LHENLEY	23-JUL-2018
OCDF								LHENLEY	23-JUL-2018

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_WG64578-102_Audit1B_DX8M_086S2_SJ2407895.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2A CHANGE REPORT

CLIENT SAMPLE NO.
Spiked Matrix
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4033	**Lab Sample I.D.:**	WG64578-102 (A)
Sample Data Filename:	**DX8M_086 S: 2**	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 16:56:28	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_WG64578-102_Audit2A_DX8M_086S2_SJ2407895.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2B CHANGE REPORT

CLIENT SAMPLE NO.
Spiked Matrix
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4033	**Lab Sample I.D.:**	WG64578-102 (A)
Sample Data Filename:	**DX8M_086 S: 2**	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 16:56:28	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_WG64578-102_Audit2B_DX8M_086S2_SJ2407895.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1A CHANGE REPORT

CLIENT SAMPLE NO.
Spiked Matrix (Duplicate)
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4033	**Lab Sample I.D.:**	WG64578-103 (DUP WG64578-102)
Sample Data Filename:	**DX8M_086 S: 3**	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 17:57:26	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. CONC.	FINAL CONC.	CHANGE CONC. (Final/Orig.)	ORIG. AREA	FINAL AREA	CHANGE AREA (Final/Orig.)	ORIG. RATIO	FINAL RATIO
2,3,7,8-TCDD								
1,2,3,7,8-PECDD								
1,2,3,4,7,8-HXCDD								
1,2,3,6,7,8-HXCDD								
1,2,3,7,8,9-HXCDD								
OCDD								
2,3,7,8-TCDF								
1,2,3,4,7,8-HXCDF								
2,3,4,6,7,8-HXCDF								
OCDF								

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_WG64578-103_Audit1A_DX8M_086S3_SJ2407897.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 1B CHANGE REPORT

CLIENT SAMPLE NO.
Spiked Matrix (Duplicate)
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4033	**Lab Sample I.D.:**	WG64578-103 (DUP WG64578-102)
Sample Data Filename:	**DX8M_086 S: 3**	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 17:57:26	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

COMPOUND	ORIG. SDL	FINAL SDL	CHANGE SDL (Final/Orig.)	ORIG. QUAL	FINAL QUAL	ORIG. RT	FINAL RT	REVIEWED BY	REVIEWED DATE
2,3,7,8-TCDD								LHENLEY	23-JUL-2018
1,2,3,7,8-PECDD								LHENLEY	23-JUL-2018
1,2,3,4,7,8-HXCDD								LHENLEY	23-JUL-2018
1,2,3,6,7,8-HXCDD								LHENLEY	23-JUL-2018
1,2,3,7,8,9-HXCDD								LHENLEY	23-JUL-2018
OCDD								LHENLEY	23-JUL-2018
2,3,7,8-TCDF								LHENLEY	23-JUL-2018
1,2,3,4,7,8-HXCDF								LHENLEY	23-JUL-2018
2,3,4,6,7,8-HXCDF								LHENLEY	23-JUL-2018
OCDF								LHENLEY	23-JUL-2018

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit1B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_WG64578-103_Audit1B_DX8M_086S3_SJ2407897.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2A CHANGE REPORT

CLIENT SAMPLE NO.
Spiked Matrix (Duplicate)
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4033	**Lab Sample I.D.:**	WG64578-103 (DUP WG64578-102)
Sample Data Filename:	**DX8M_086 S: 3**	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 17:57:26	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2A.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_WG64578-103_Audit2A_DX8M_086S3_SJ2407897.html; Workgroup: WG64578; Design ID: 491]

SGS AXYS METHOD MLA-010 Rev 12

AUDIT 2B CHANGE REPORT

CLIENT SAMPLE NO.
Spiked Matrix (Duplicate)
Sample Collection:
N/A

SGS AXYS ANALYTICAL SERVICES
2045 MILLS RD., SIDNEY, B.C., CANADA
V8L 5X2 TEL (250) 655-5800 FAX (250) 655-5811

Contract No.:	4033	**Lab Sample I.D.:**	WG64578-103 (DUP WG64578-102)
Sample Data Filename:	**DX8M_086 S: 3**	**Instrument ID:**	HR GC/MS
Analysis Date:	20-Jul-2018 **Time:** 17:57:26	**GC Column ID:**	DB5
Extract Volume (uL):	20	**Injection Volume (uL):**	1.0

There were no differences found between the parsed and reported data.

These data are validated and reported as accurate and in accord with SGS AXYS Analytical Services Ltd. ISO17025 compliant quality assurance processes.

Signed: _____Kristen Bowes_____

For Axys Internal Use Only [XSL Template: Audit2B.xsl; Created: 26-Jul-2018 11:25:33; Application: XMLTransformer-1.16.47;
Report Filename: AUDIT_DIOXINS_1613DB5_WG64578-103_Audit2B_DX8M_086S3_SJ2407897.html; Workgroup: WG64578; Design ID: 491]

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S7, Date: 20-Jul-2018, Time: 21:35:20, ID: L29628-1,,, Description: 1,WG64578,1.0/20uL

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	1.016	7.88e2	0.78	NO	25.24	0.560	0.2343		9.11e2	4.83e2
2	1,2,3,7,8-PeCDF	1.016	1.09e3	1.45	NO	33.58	0.935	0.0924		1.28e2	2.71e2
3	2,3,4,7,8-PeCDF	1.016	5.11e2	1.88	YES	35.29	0.457	0.0844		1.28e2	2.71e2
4	1,2,3,4,7,8-HxCDF	1.016	1.47e2	1.10	NO	40.69	0.183	0.1405		5.16e2	1.12e2
5	1,2,3,6,7,8-HxCDF	1.016	2.22e2	2.81	YES	40.89	0.251	0.1357		5.16e2	1.12e2
6	2,3,4,6,7,8-HxCDF	1.016	1.50e2	2.65	YES	41.82	0.180	0.1385		5.16e2	1.12e2
7	1,2,3,7,8,9-HxCDF	1.016	1.32e2	2.89	YES	42.82	0.208	0.1932		5.16e2	1.12e2
8	1,2,3,4,6,7,8-HpCDF	1.016	5.01e1	1.88	YES	45.27	0.086	0.1341		1.37e2	3.14e2
9	1,2,3,4,7,8,9-HpCDF	1.016	1.12e2	0.37	YES	47.10	0.264	0.2045		1.37e2	3.14e2
10	OCDF	1.016	1.42e2	2.63	YES	50.33	0.446	0.0003		0.00e0	4.90e-1
11	2,3,7,8-TCDD	1.016	4.31e2	0.46	YES	26.47	0.363	0.2591		7.30e2	5.41e2
12	1,2,3,7,8-PeCDD	1.016	1.99e2	0.55	NO	36.13	0.266	0.2240		3.88e2	3.05e2
13	1,2,3,4,7,8-HxCDD	1.016	1.48e2	1.07	NO	42.11	0.260	0.2466		2.65e2	5.29e2
14	1,2,3,6,7,8-HxCDD	1.016	2.17e2	2.39	YES	42.23	0.381	0.2666		2.65e2	5.29e2
15	1,2,3,7,8,9-HxCDD	1.016			NO			0.2557		2.65e2	5.29e2
16	1,2,3,4,6,7,8-HpCDD	1.016	2.32e2	0.82	YES	46.67	0.625	0.2158		3.31e2	1.17e2
17	OCDD	1.016	2.19e2	2.29	YES	50.22	0.831	0.4392		5.56e2	3.89e-1
18	13C-2,3,7,8-TCDF	1.016	3.03e6	0.72	NO	25.22	967.368	1.5008	49.2	1.41e4	6.05e3
19	13C-1,2,3,7,8-PeCDF	1.016	2.47e6	1.43	NO	33.53	1096.297	1.2432	55.7	6.13e3	5.89e3
20	13C-2,3,4,7,8-PeCDF	1.016	2.34e6	1.43	NO	35.29	1075.565	1.2889	54.7	6.13e3	5.89e3
21	13C-1,2,3,4,7,8-HxCDF	1.016	1.41e6	0.53	NO	40.67	1081.430	2.5622	54.9	7.22e3	9.50e3
22	13C-1,2,3,6,7,8-HxCDF	1.016	1.64e6	0.51	NO	40.84	1174.137	2.3989	59.7	7.22e3	9.50e3
23	13C-2,3,4,6,7,8-HxCDF	1.016	1.44e6	0.53	NO	41.79	1152.853	2.6845	58.6	7.22e3	9.50e3
24	13C-1,2,3,7,8,9-HxCDF	1.016	1.25e6	0.51	NO	42.82	1012.927	2.7218	51.5	7.22e3	9.50e3
25	13C-1,2,3,4,6,7,8-HpCDF	1.016	9.41e5	0.43	NO	45.27	901.112	4.2952	45.8	7.03e3	1.53e4
26	13C-1,2,3,4,7,8,9-HpCDF	1.016	6.68e5	0.45	NO	47.04	820.303	5.5068	41.7	7.03e3	1.53e4
27	13C-2,3,7,8-TCDD	1.016	2.10e6	0.77	NO	26.43	1079.062	1.8419	54.8	9.50e3	5.87e3
28	13C-1,2,3,7,8-PeCDD	1.016	1.43e6	0.67	NO	36.11	1124.233	2.4066	57.1	1.12e4	1.98e3
29	13C-1,2,3,4,7,8-HxCDD	1.016	1.11e6	1.26	NO	42.06	1104.733	2.5669	56.1	4.38e3	8.53e3
30	13C-1,2,3,6,7,8-HxCDD	1.016	1.20e6	1.22	NO	42.21	1123.047	2.4274	57.1	4.38e3	8.53e3
31	13C-1,2,3,4,6,7,8-HpCDD	1.016	7.33e5	0.96	NO	46.64	878.614	1.9121	44.6	3.70e3	4.25e3
32	13C-OCDD	1.016	1.02e6	0.87	NO	50.20	1390.678	3.1181	35.3	4.31e3	7.09e3
33	13C-1,2,3,4-TCDD	1.016	3.82e6	0.79	NO	26.11	166.142	0.1561	8.4	9.50e3	5.87e3
34	13C-1,2,3,7,8,9-HxCDD	1.016	2.02e6	1.25	NO	42.62	139.007	0.1784	7.1	4.38e3	8.53e3
35	37Cl-2,3,7,8-TCDD	1.016	2.21e5			26.47	102.224	0.1056	51.9		9.77e2
36	Total Tetra-Furans	1.016					2.396	0.2343			4.83e2
37	Total Tetra-Dioxins	1.016					2.177	0.2591			5.41e2
38	Total Penta-Furans	1.016					2.033	0.0892			2.71e2
39	Total Penta-Dioxins	1.016					1.061	0.2240			3.05e2
40	Total Hexa-Furans	1.016					1.088	0.1445			1.12e2
41	Total Hexa-Dioxins	1.016					1.733	0.2475			5.29e2
42	Total Hepta-Furans	1.016					0.602	0.1653			3.14e2
43	Total Hepta-Dioxins	1.016					1.267	0.2158			1.17e2
44	Hexa DPE	1.000	1.50e2			24.83					0.00e0
45	Hepta DPE	1.000	2.31e2			34.28					7.19e-2
46	Octa DPE	1.000	7.75e1			39.23					2.43e0
47	Nona DPE	1.000	3.28e0			47.17					0.00e0
48	Deca DPE	1.000	5.12e1			50.77					7.34e-2
49	Tetra Lock	1.000	1.32e4			23.65					1.67e5
50	Penta Lock	1.000									1.83e5
51	Hexa Lock	1.000	6.36e5			39.04					3.17e5
52	Hepta Lock	1.000	2.35e4			47.60					1.99e5
53	Octa Lock	1.000									2.11e5
54	13C-Tetra-Furans	1.016					967.368	1.5008			6.05e3
55	13C-Tetra-Dioxins	1.016					1245.204	1.9981			5.87e3

pv'd by LHE 23-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

SVbyHK 26 JUL 2018

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S7, Date: 20-Jul-2018, Time: 21:35:20, ID: L29628-1,,, Description: 1,WG64578,1.0/20uL

Tetrafurans

	RT	1° Ratio (A...	Fails?	pg
1	21.43	0.769	NO	0.149
2	22.18	0.768	NO	0.060
3	22.40	1.115	YES	0.050
4	22.77	0.992	YES	0.083
5	23.38	0.684	NO	0.083
6	23.72	1.373	YES	0.065
7	24.08	2.010	YES	0.052
8	24.52	0.725	NO	0.386
9	25.24	0.780	NO	0.560
10	25.90	0.467	YES	0.070
11	26.13	1.556	YES	0.660
12	26.27	0.480	YES	0.049
13	28.15	0.908	YES	0.129

Tetradioxins

	RT	1° Ratio (A...	Fails?	pg
1	22.91	1.549	YES	0.374
2	23.36	1.240	YES	0.297
3	25.17	3.896	YES	0.133
4	25.24	1.562	YES	0.373
5	25.61	0.547	YES	0.103
6	26.40	0.382	YES	0.198
7	26.47	0.460	YES	0.363
8	27.33	0.894	YES	0.117
9	27.74	1.046	YES	0.088
10	26.63	0.245	YES	0.129

Pentafurans

	RT	1° Ratio (A...	Fails?	pg
1	28.83	0.560	YES	0.482
2	31.46	0.648	YES	0.104
3	33.58	1.450	NO	0.935
4	35.29	1.884	YES	0.457
5	37.12	5.225	YES	0.054

Pentadioxins

	RT	1° Ratio (A...	Fails?	pg
1	32.02	0.629	NO	0.443
2	34.06	1.134	YES	0.078
3	36.13	0.554	NO	0.266
4	36.26	0.270	YES	0.142
5	37.01	0.994	YES	0.131

pv'd by LHE 23-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S7, Date: 20-Jul-2018, Time: 21:35:20, ID: L29628-1,,, Description: 1,WG64578,1.0/20uL

Hexafurans

	RT	1° Ratio (A...	Fails?	pg
1	39.01	0.703	YES	0.012
2	39.72	1.387	NO	0.035
3	40.06	0.436	YES	0.040
4	40.15	0.648	YES	0.034
5	40.69	1.097	NO	0.183
6	40.89	2.808	YES	0.251
7	41.28	1.573	YES	0.036
8	41.70	0.830	YES	0.063
9	41.82	2.654	YES	0.180
10	42.82	2.892	YES	0.208
11	42.99	14.171	YES	0.045

Hexadioxins

	RT	1° Ratio (A...	Fails?	pg
1	40.82	10.964	YES	0.778
2	42.11	1.066	NO	0.260
3	42.23	2.392	YES	0.381
4	42.82	3.048	YES	0.313

Heptafurans

	RT	1° Ratio (A...	Fails?	pg
1	45.27	1.885	YES	0.086
2	45.62	0.850	YES	0.121
3	45.78	2.366	YES	0.133
4	47.10	0.374	YES	0.264

Heptadioxins

	RT	1° Ratio (A...	Fails?	pg
1	45.76	6.775	YES	0.642
2	46.67	0.819	YES	0.625

13C-TF

	RT	1° Ratio (A...	Fails?	pg
1	25.22	0.716	NO	967.368

13C-TD

	RT	1° Ratio (A...	Fails?	pg
1	26.11	0.790	NO	166.142
2	26.43	0.767	NO	1079.0...

13C-PF

	RT	1° Ratio (A...	Fails?	pg
1	33.53	1.434	NO	1096.2...
2	35.29	1.433	NO	1075.5...

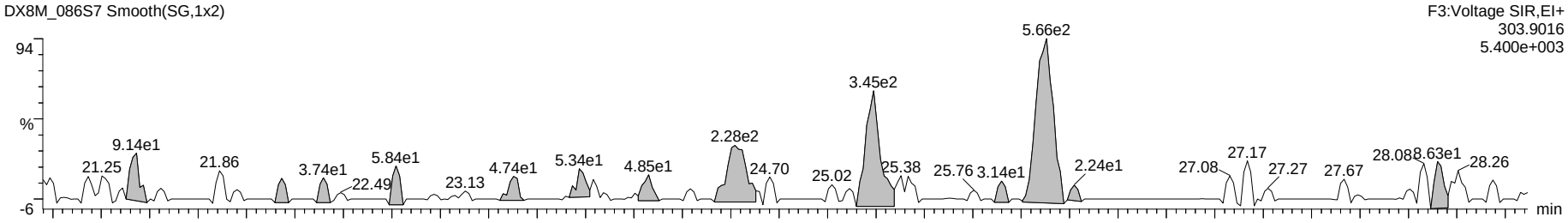
pv'd by LHE 23-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

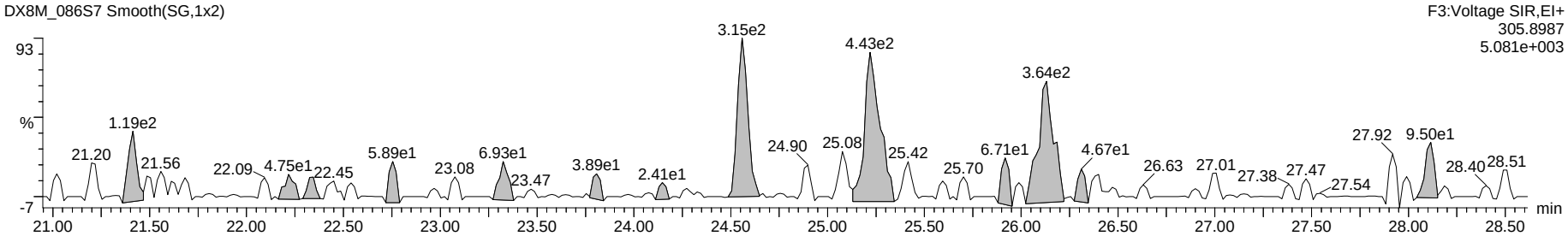
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Method: G:\Masslynx\Inst_M\Exported_methods\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

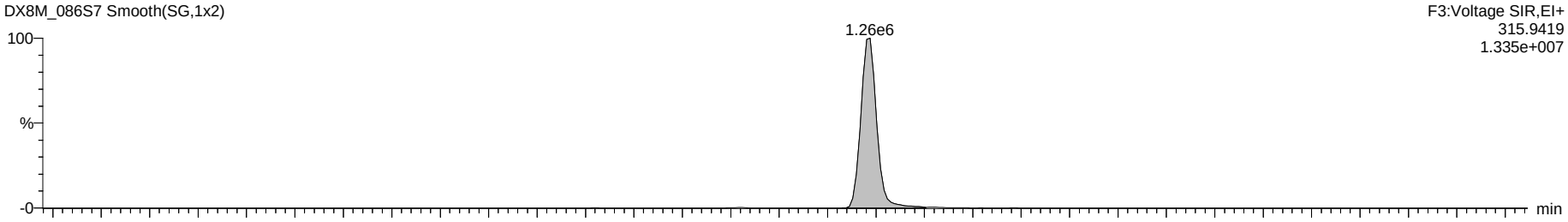
Name: DX8M_086S7, Date: 20-Jul-2018, Time: 21:35:20, ID: L29628-1,,, Description: 1,WG64578,1.0/20uL

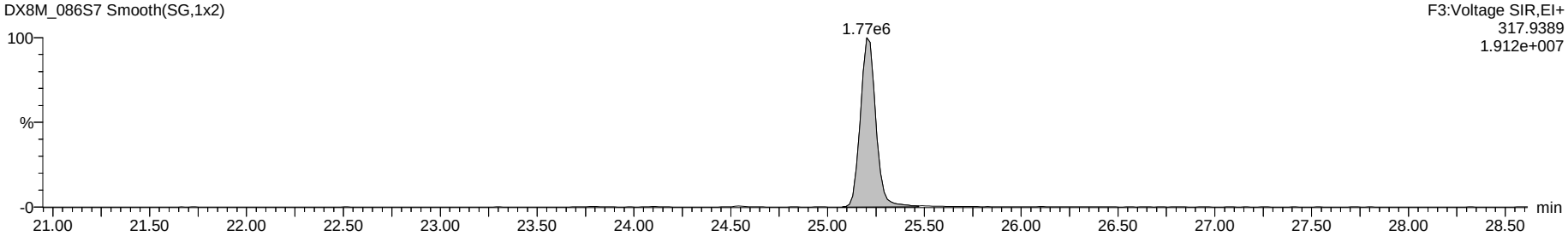
Total Tetra-Furans





13C-Tetra-Furans

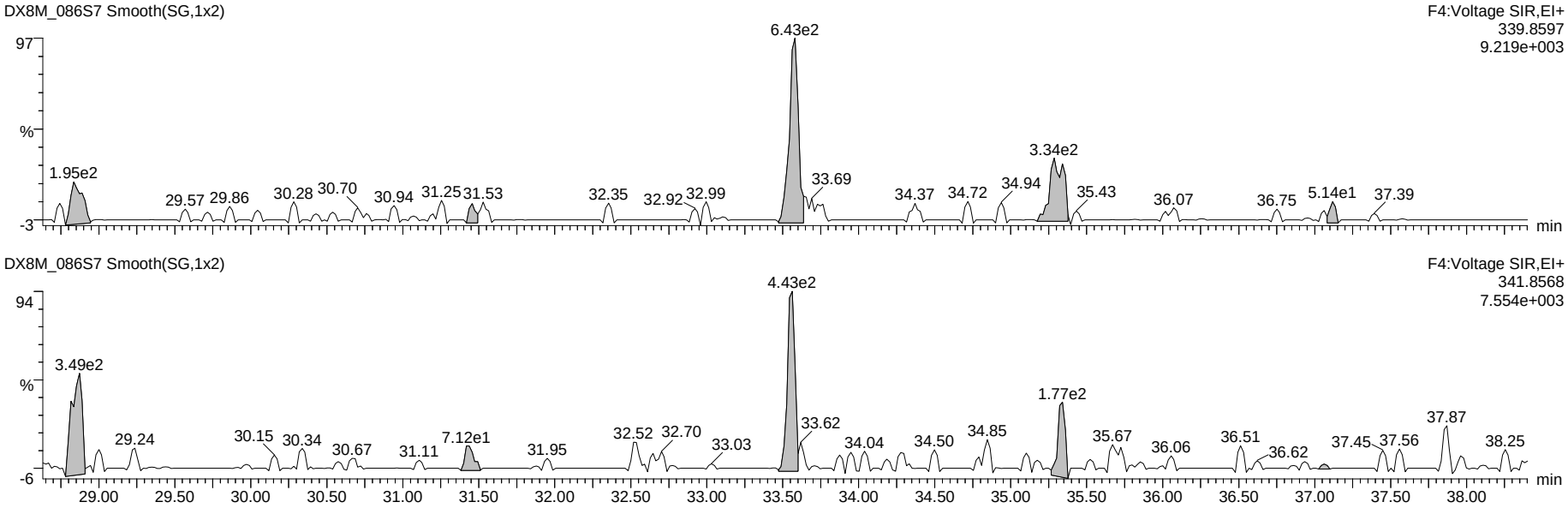




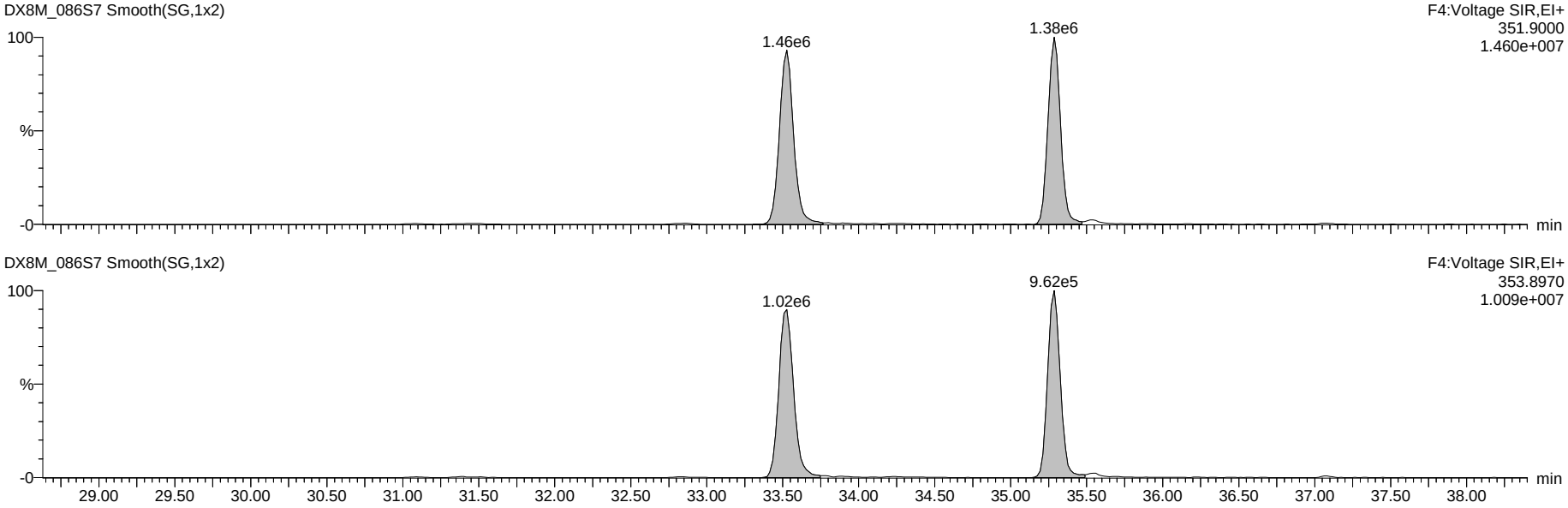
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S7, Date: 20-Jul-2018, Time: 21:35:20, ID: L29628-1,,, Description: 1,WG64578,1.0/20uL

Total Penta-Furans



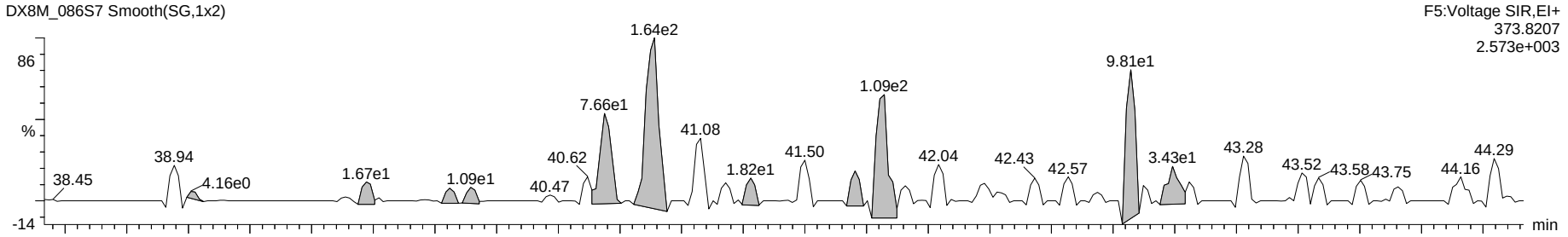
13C-Penta-Furans

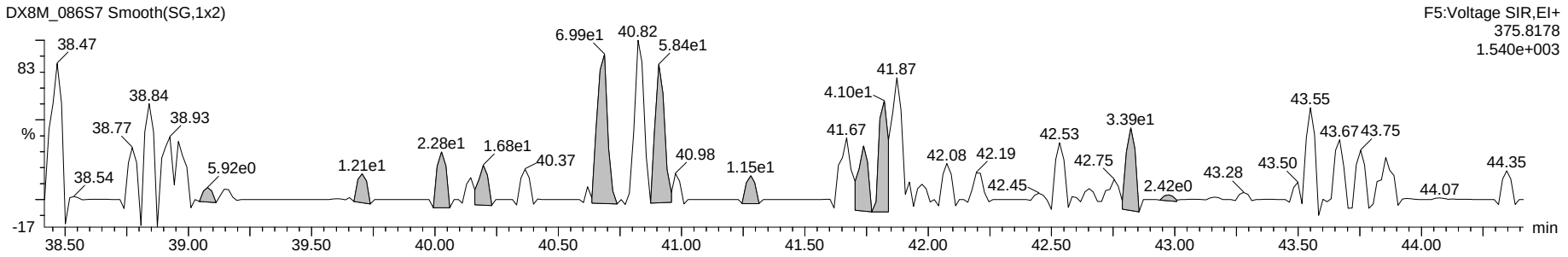


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

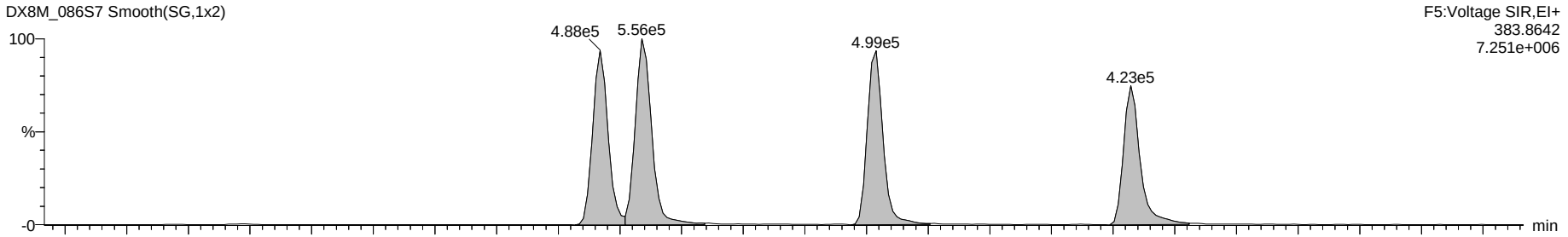
Name: DX8M_086S7, Date: 20-Jul-2018, Time: 21:35:20, ID: L29628-1,,, Description: 1,WG64578,1.0/20uL

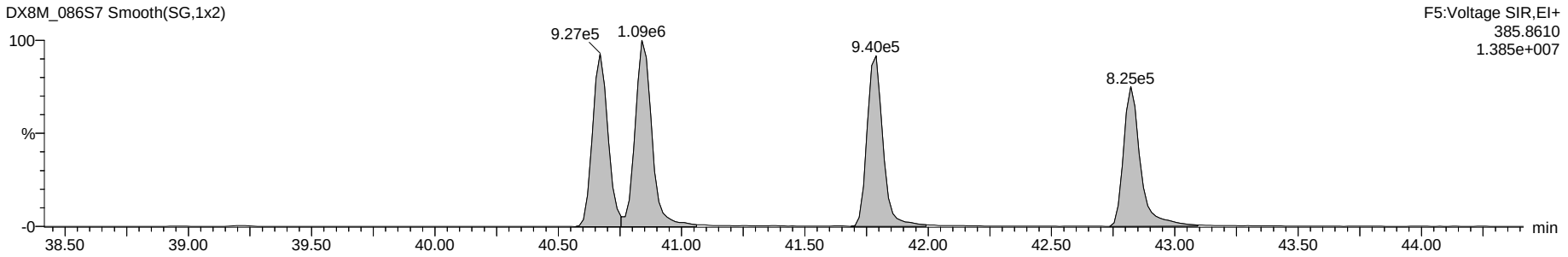
Total Hexa-Furans





13C-Hexa-Furans

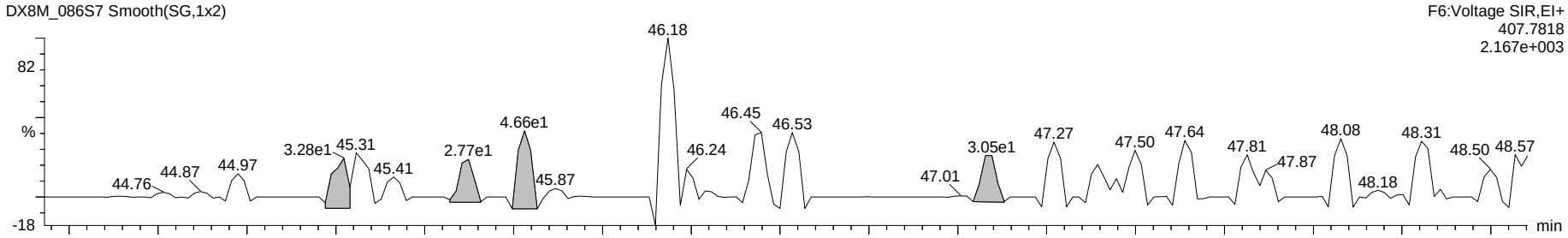


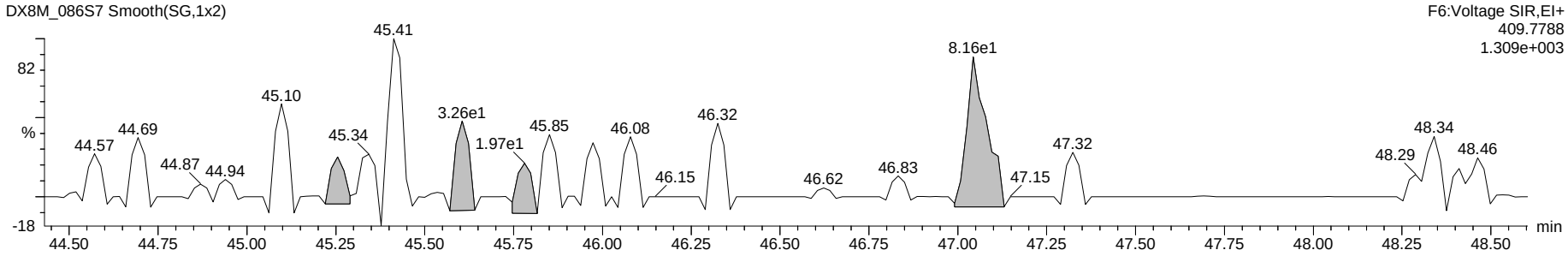


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S7, Date: 20-Jul-2018, Time: 21:35:20, ID: L29628-1,,, Description: 1,WG64578,1.0/20uL

Total Hepta-Furans





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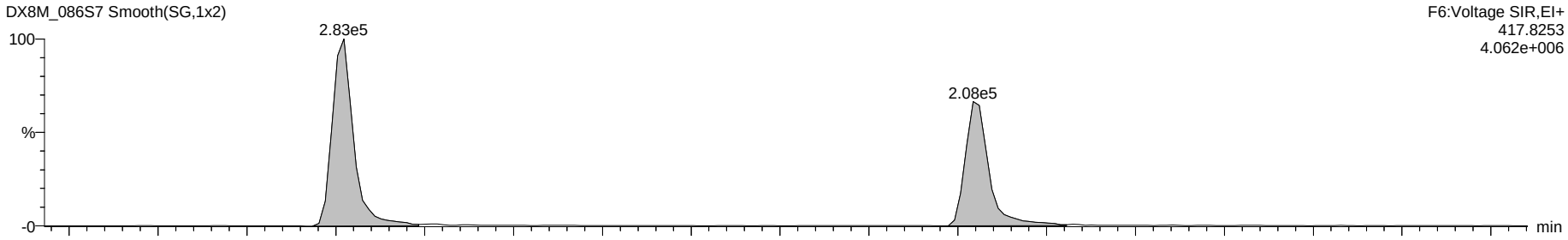

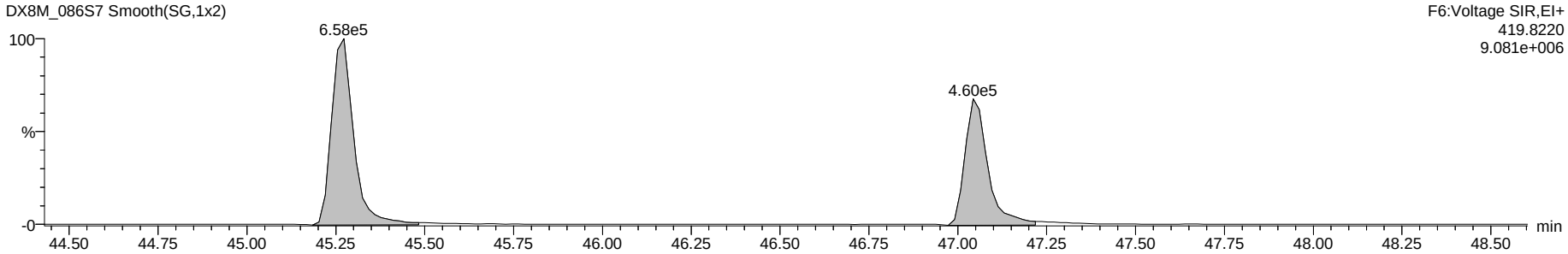

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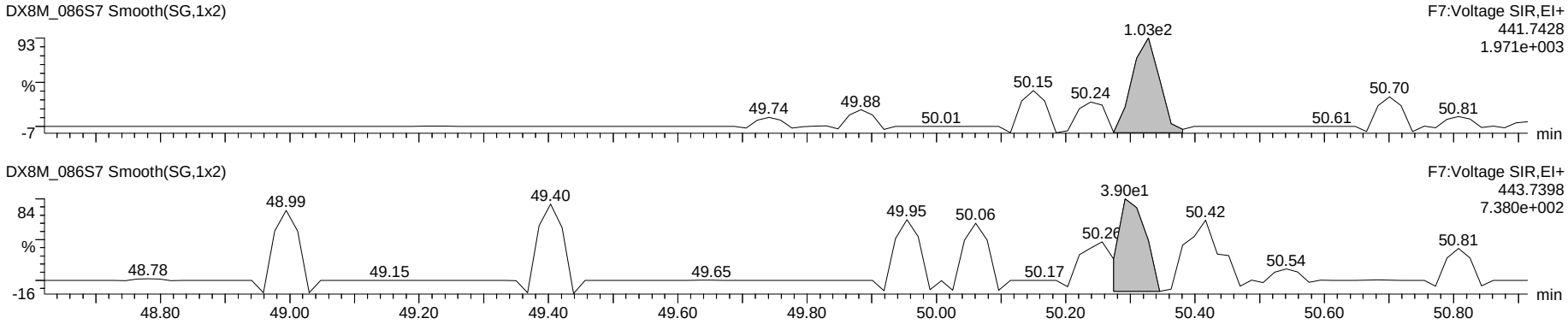
Name: DX8M_086S7, Date: 20-Jul-2018, Time: 21:35:20, ID: L29628-1,,, Description: 1,WG64578,1.0/20uL

OCDF



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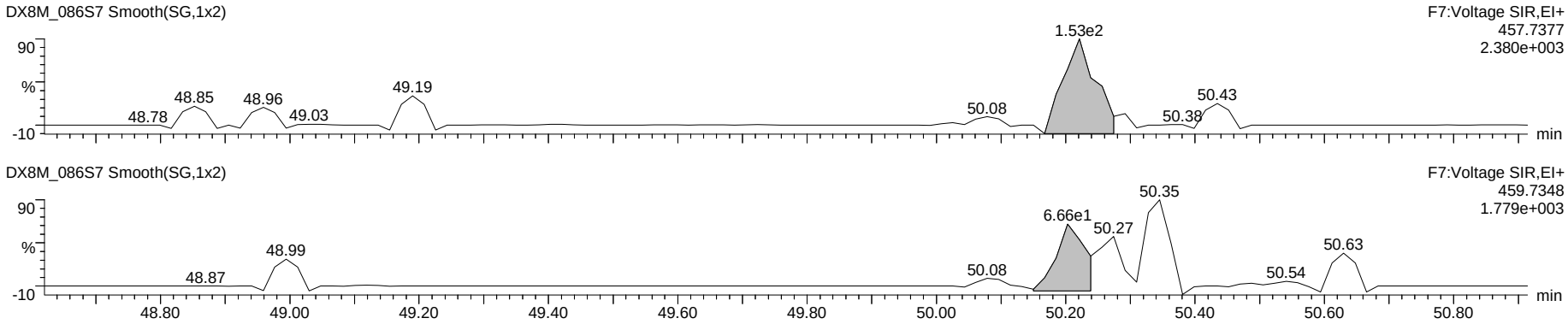

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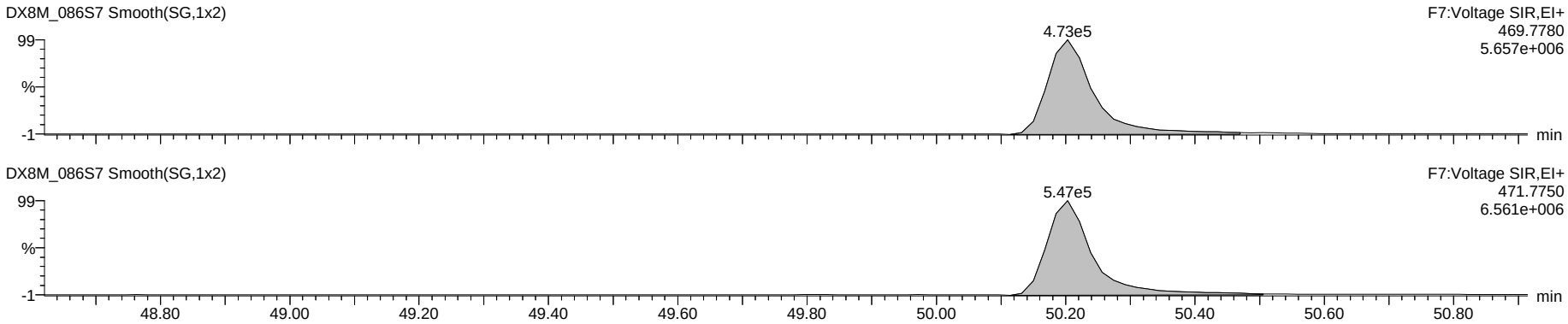

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

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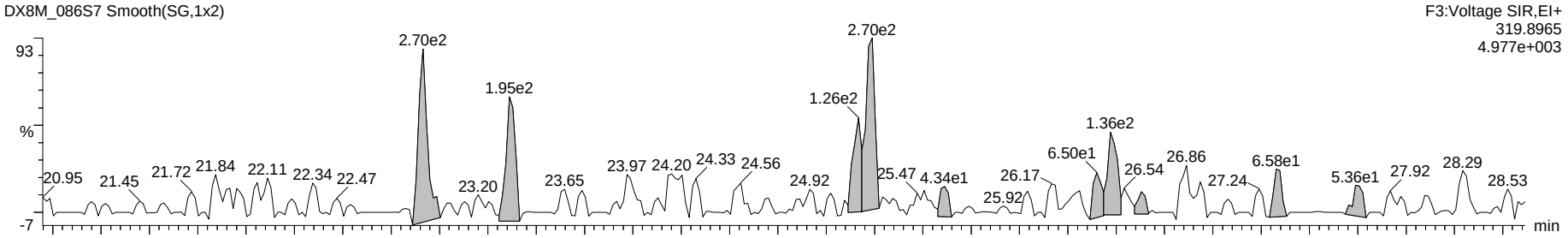
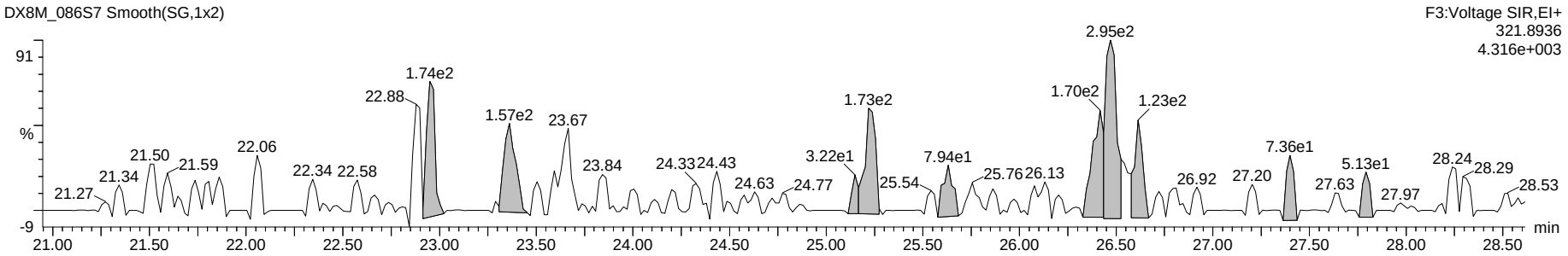
Total Tetra-Dioxins





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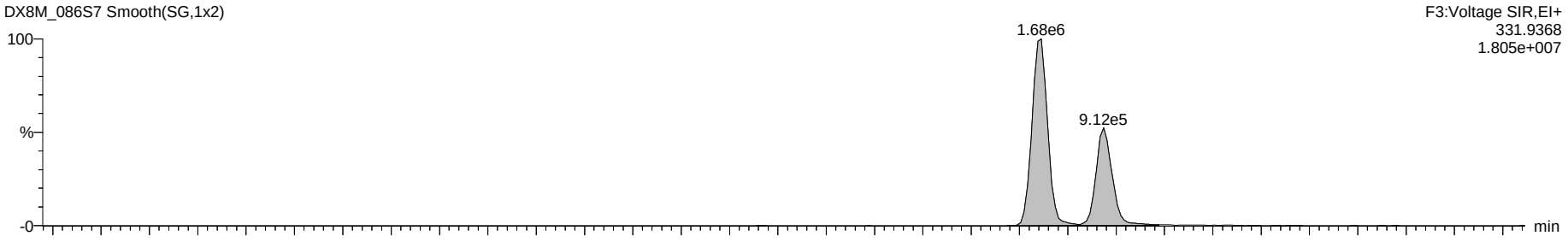

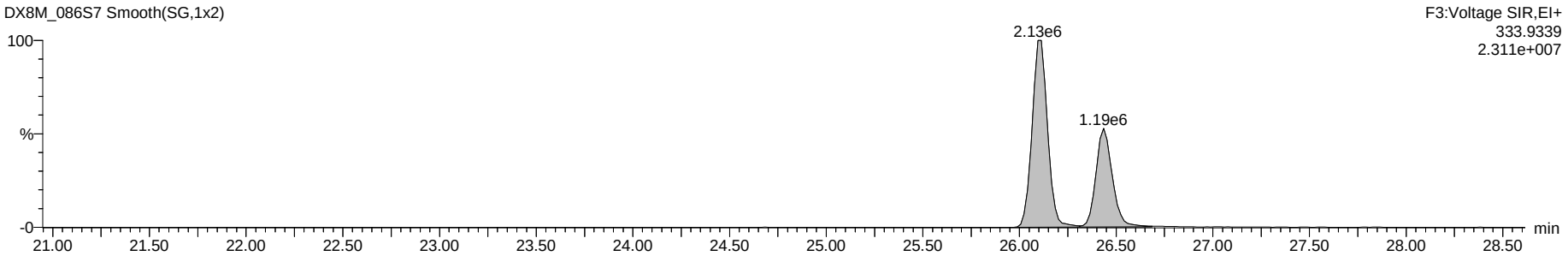

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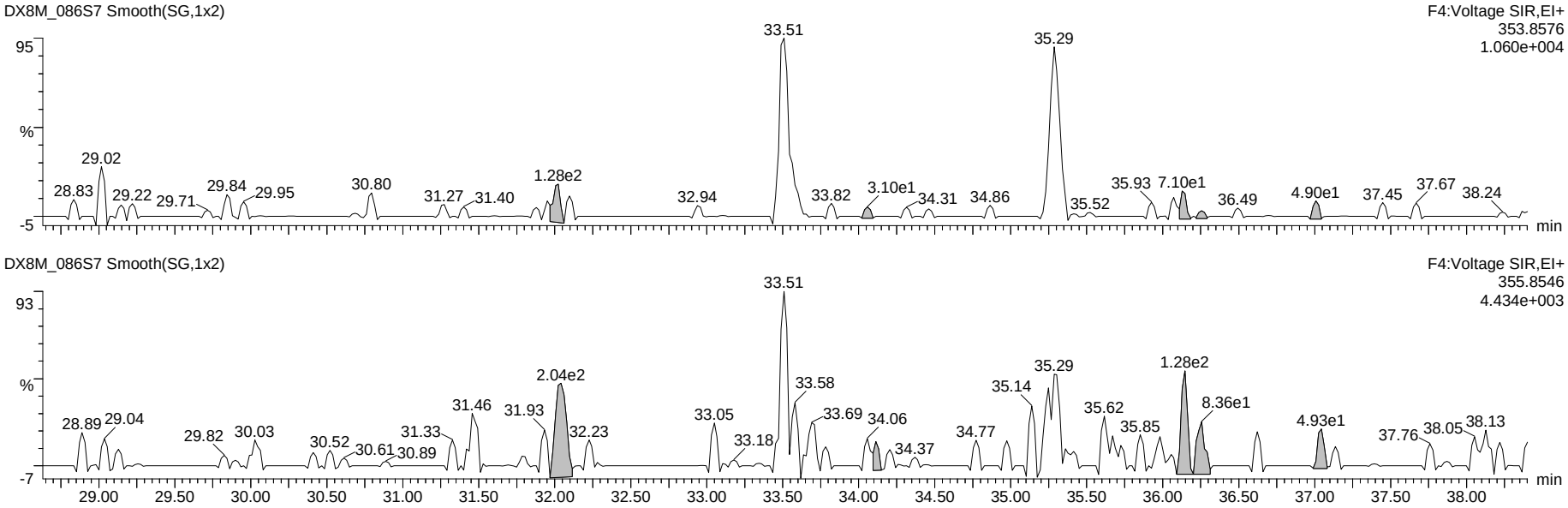
Total Penta-Dioxins



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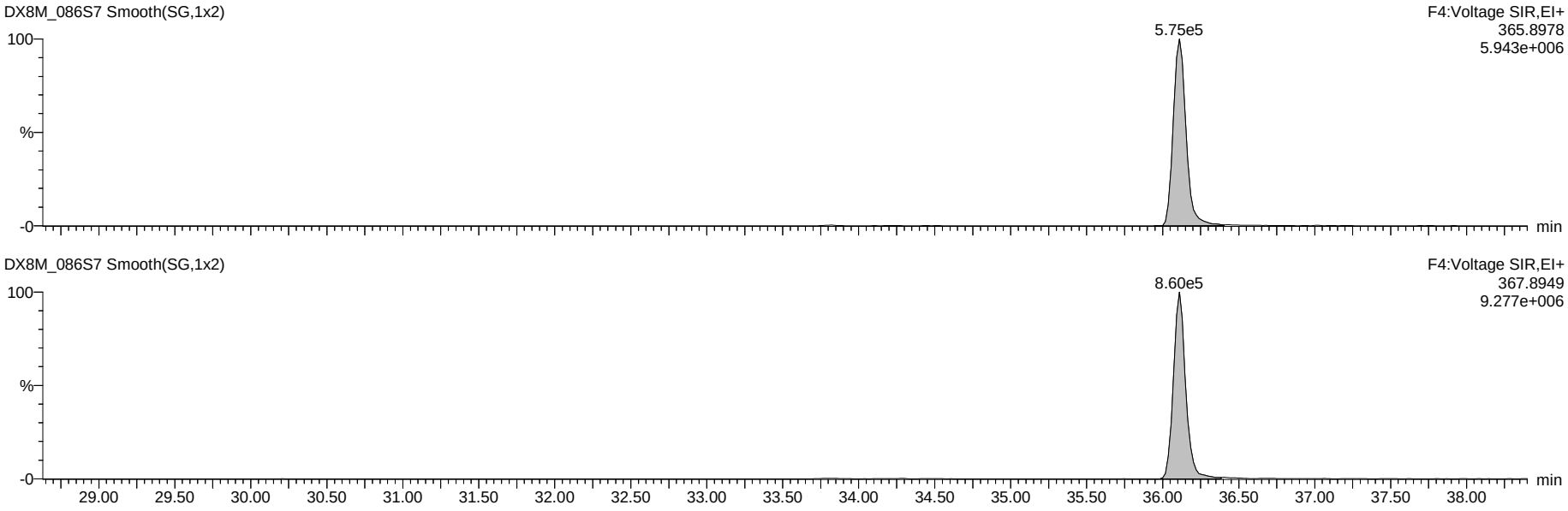

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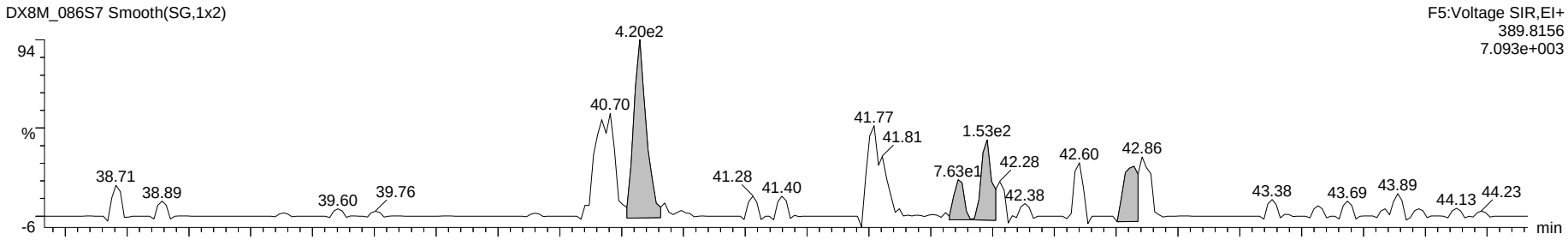
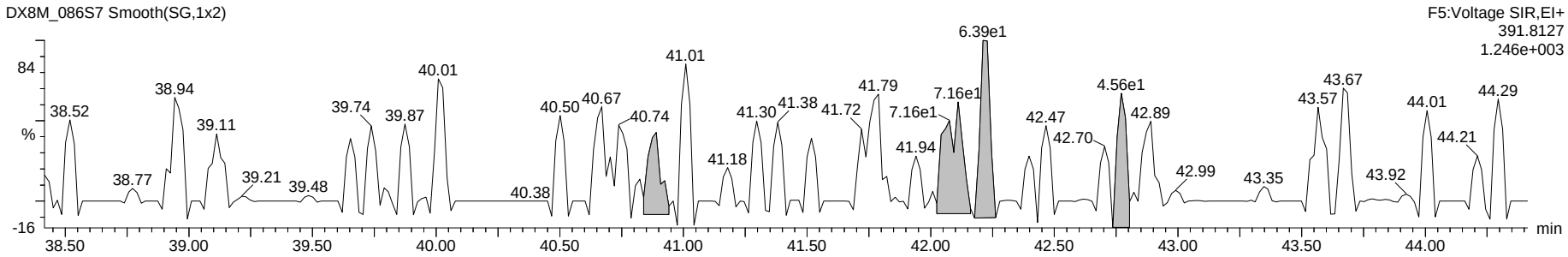
Name: DX8M_086S7, Date: 20-Jul-2018, Time: 21:35:20, ID: L29628-1,,, Description: 1,WG64578,1.0/20uL

Total Hexa-Dioxins





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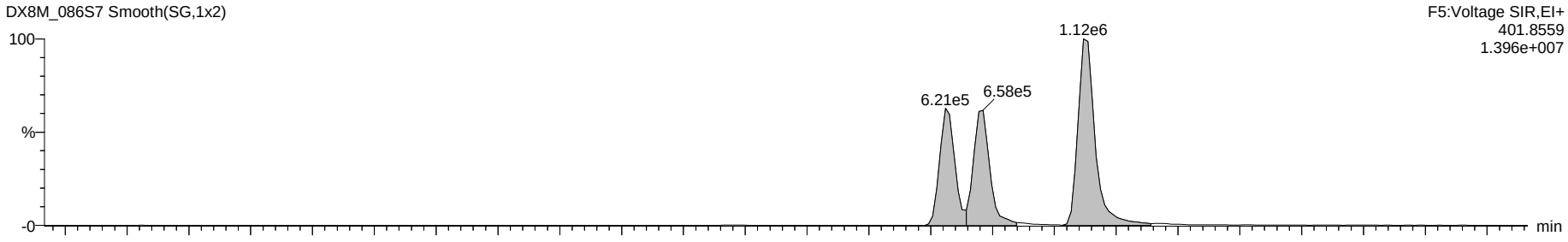

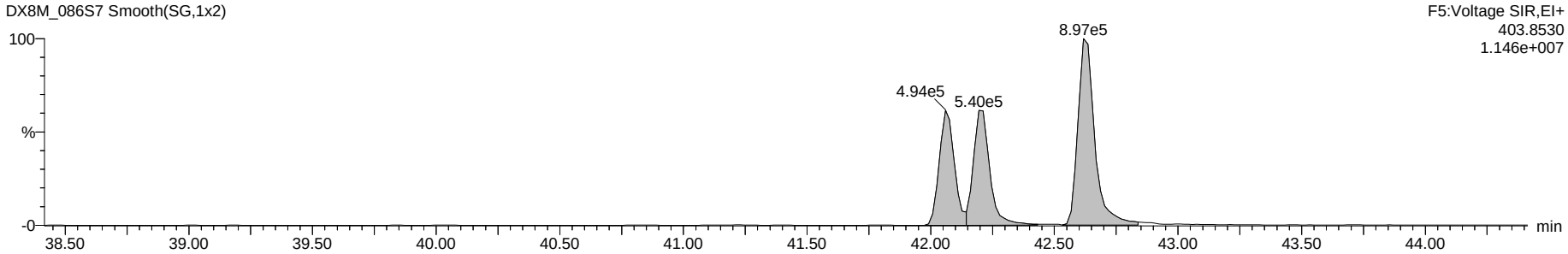

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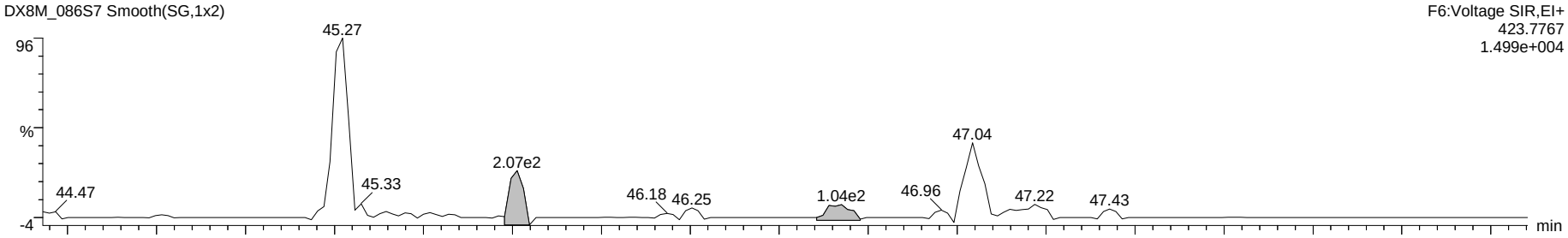
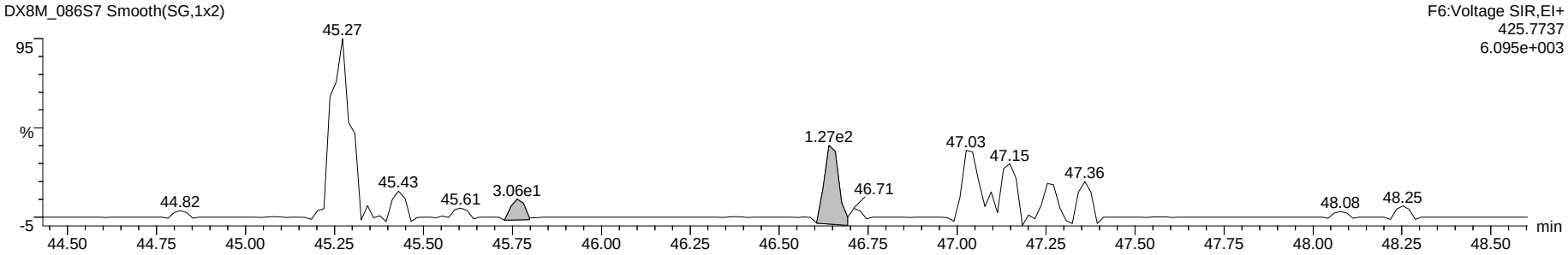
Total Hepta-Dioxins





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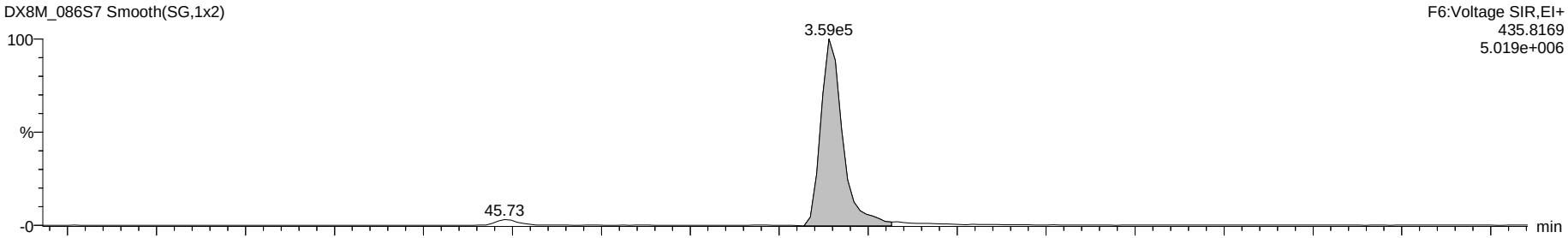

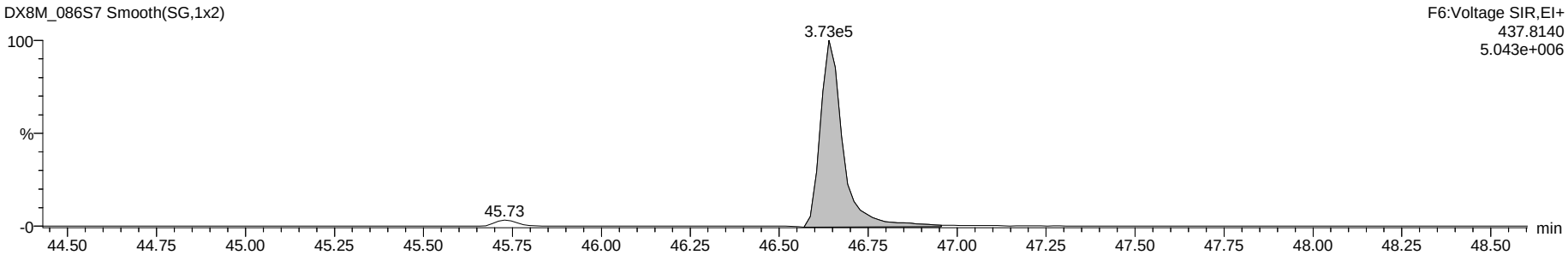

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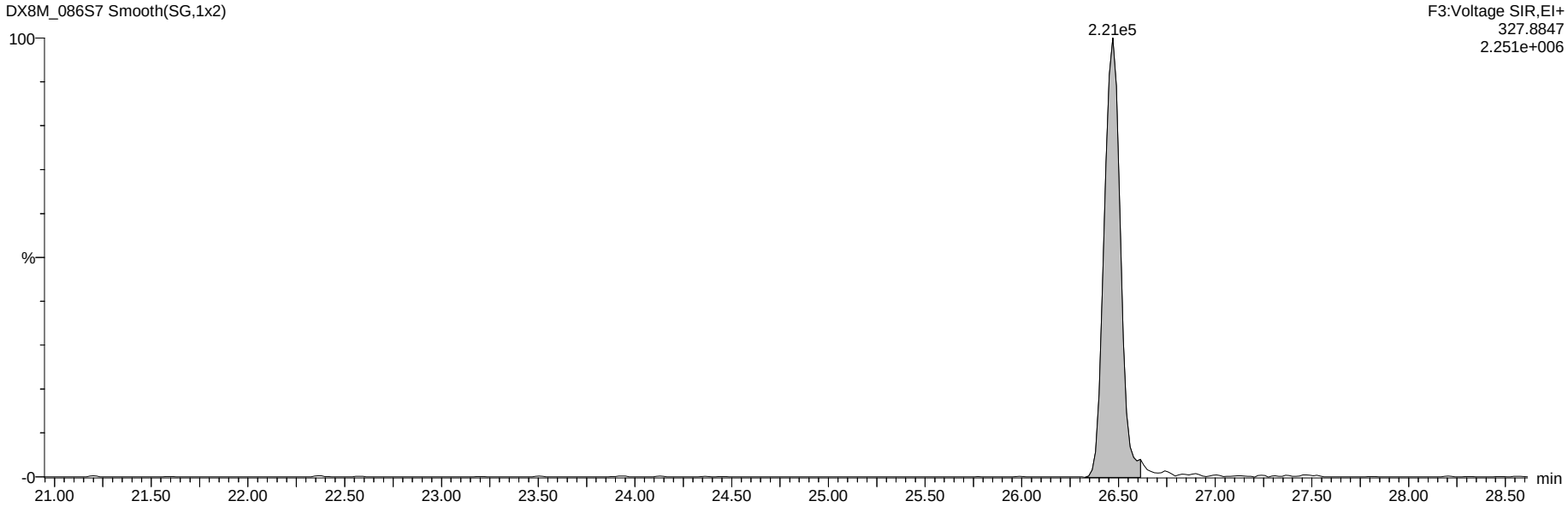
37Cl-2,3,7,8-TCDD



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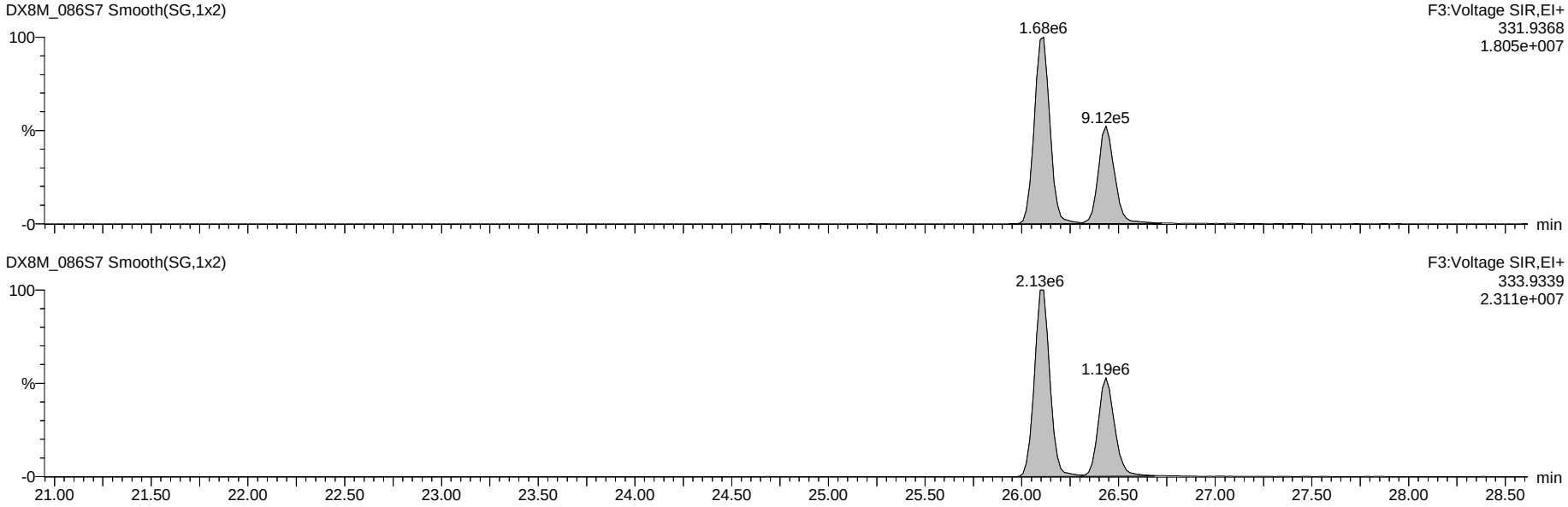

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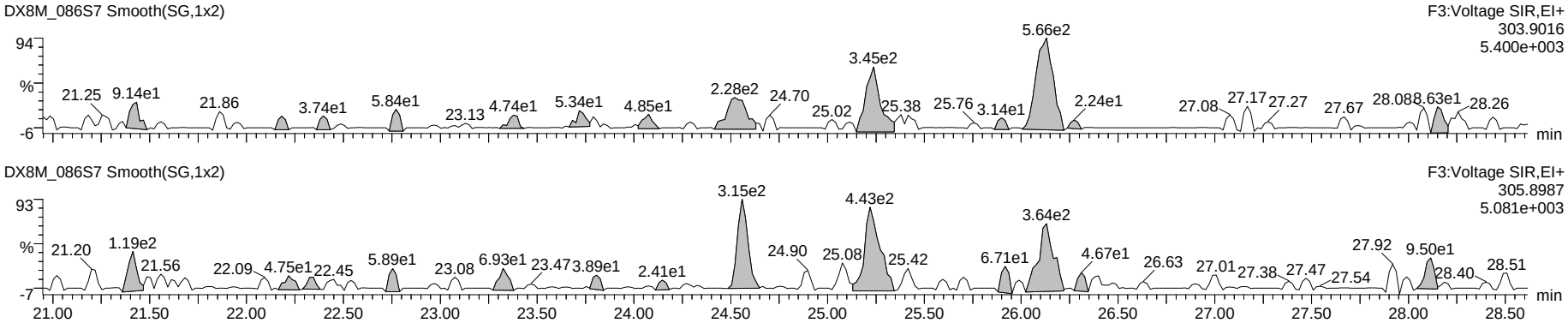
Total Tetra-Furans



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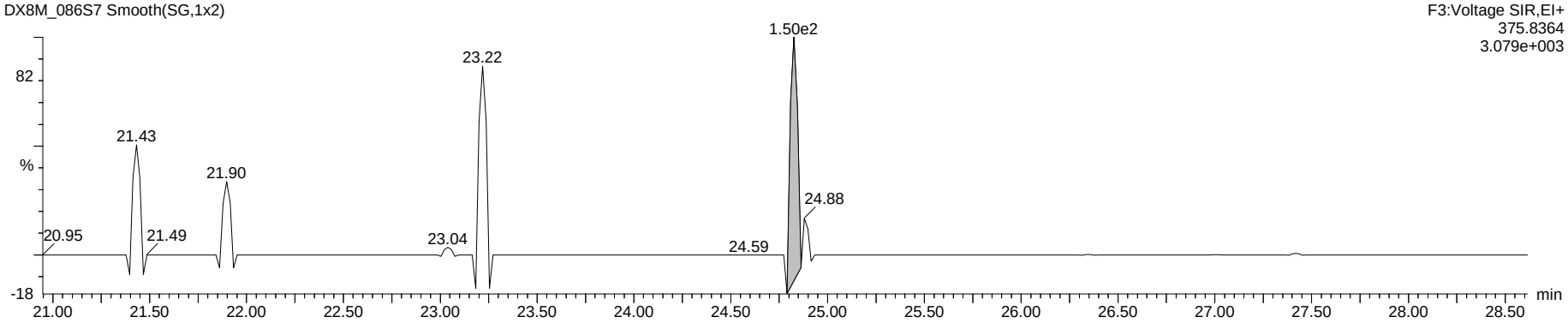

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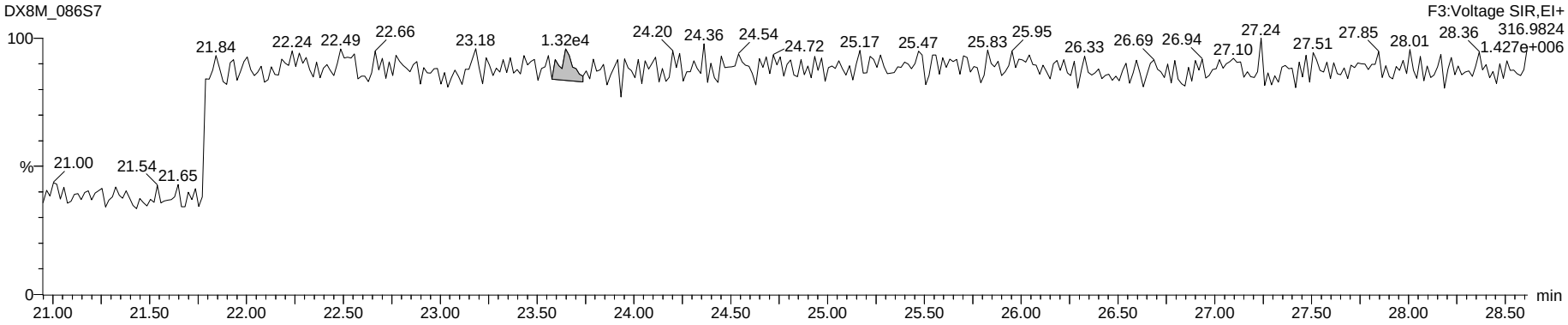

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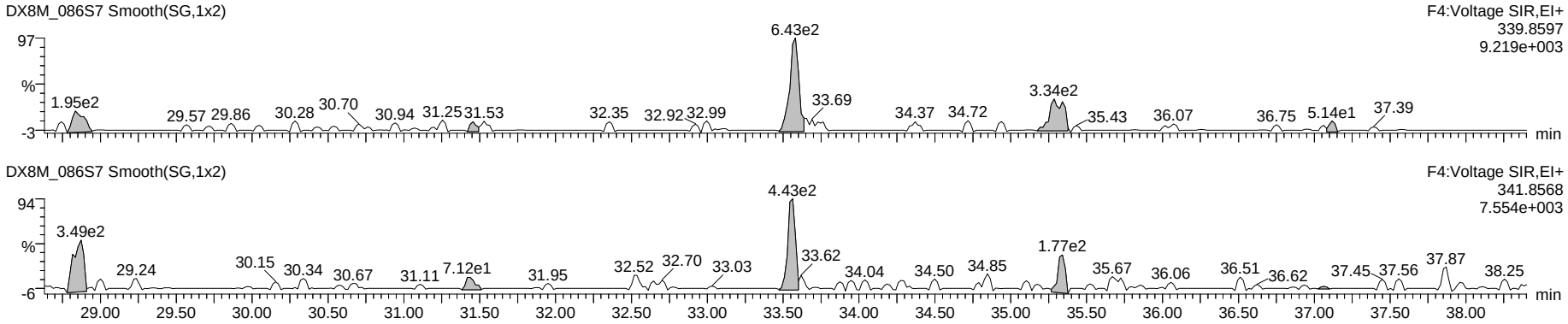
Total Penta-Furans



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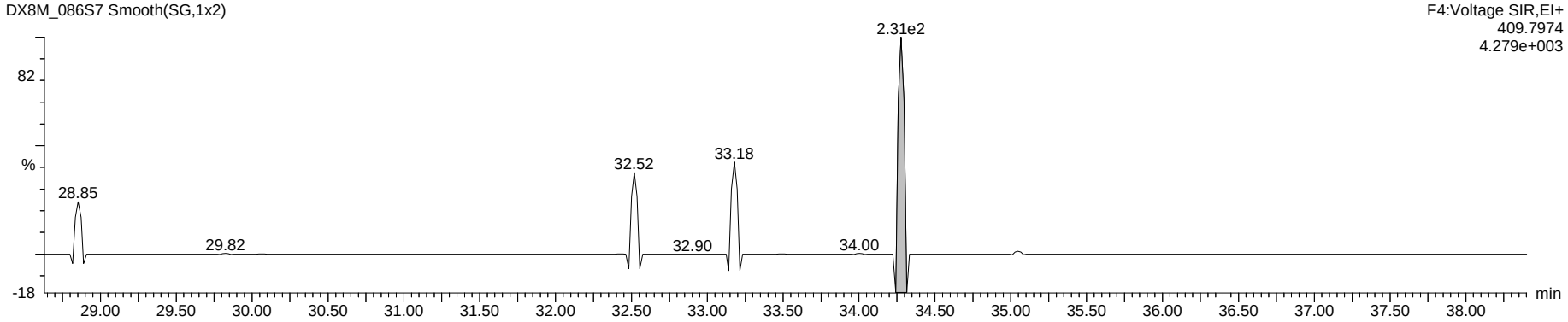

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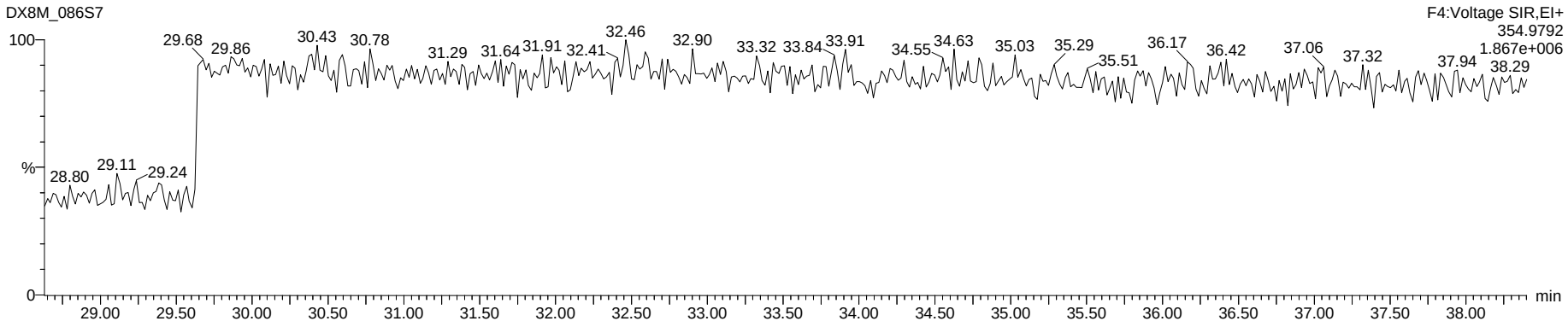

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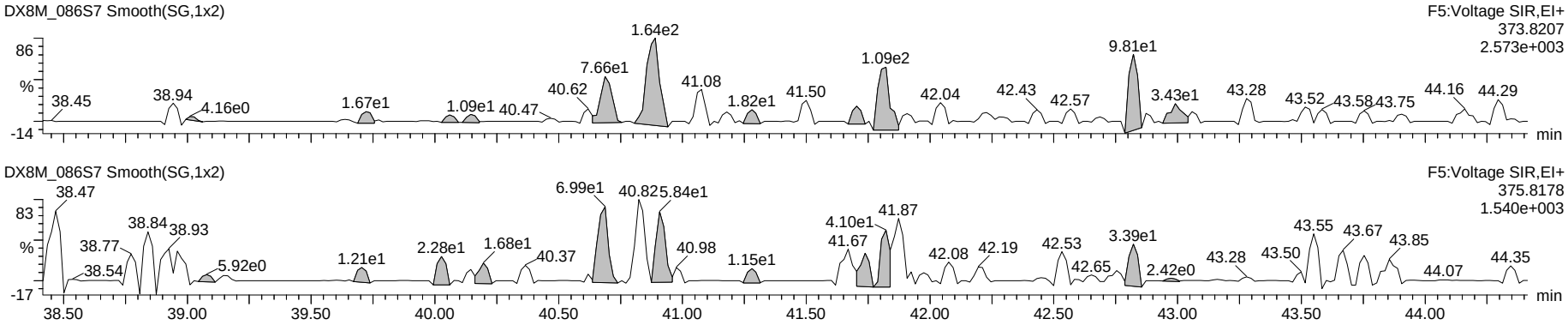
Total Hexa-Furans



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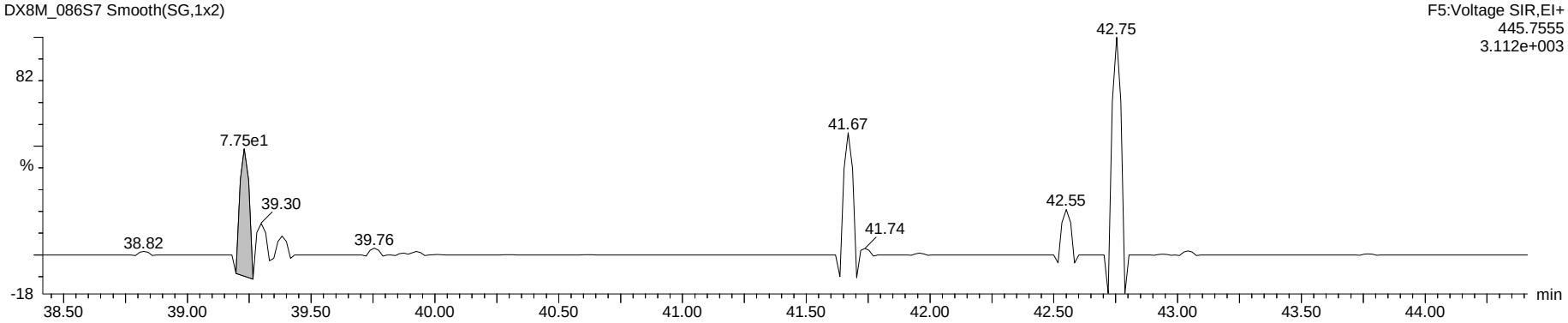

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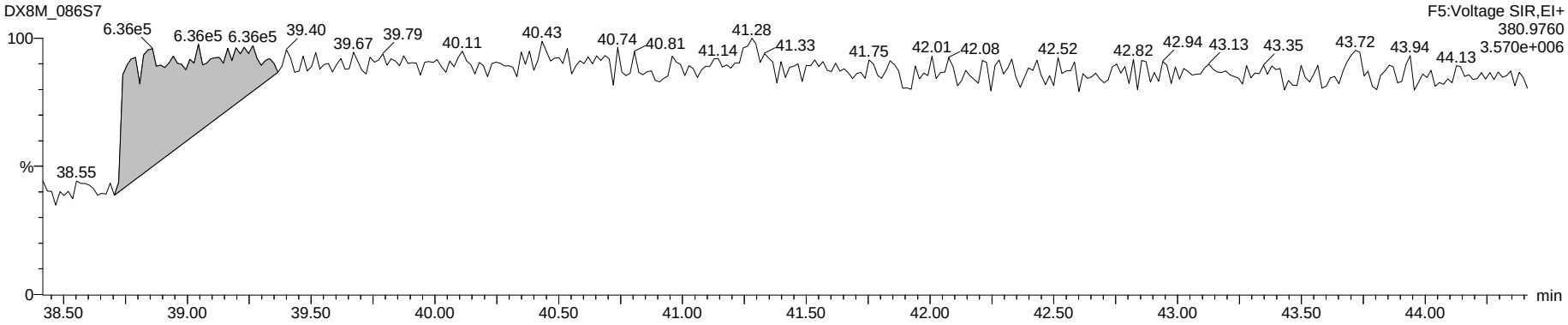

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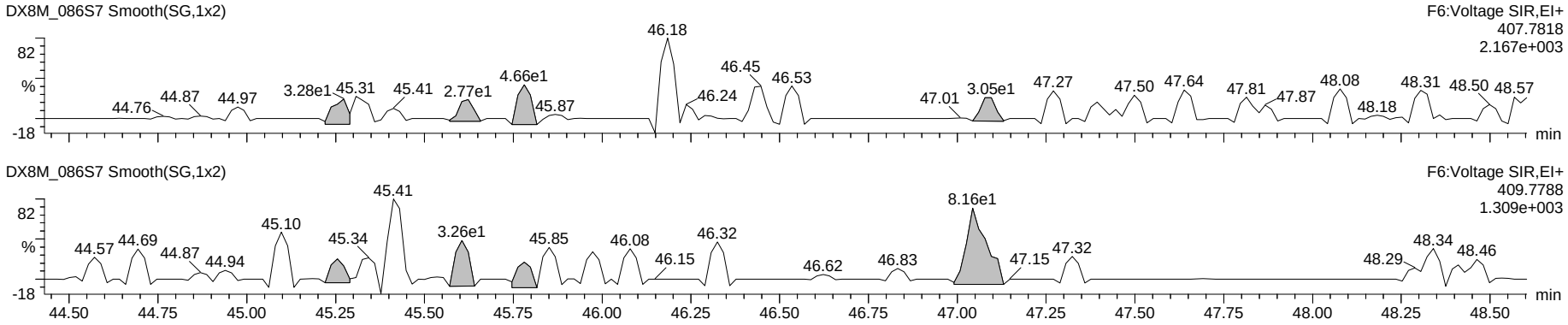
Total Hepta-Furans



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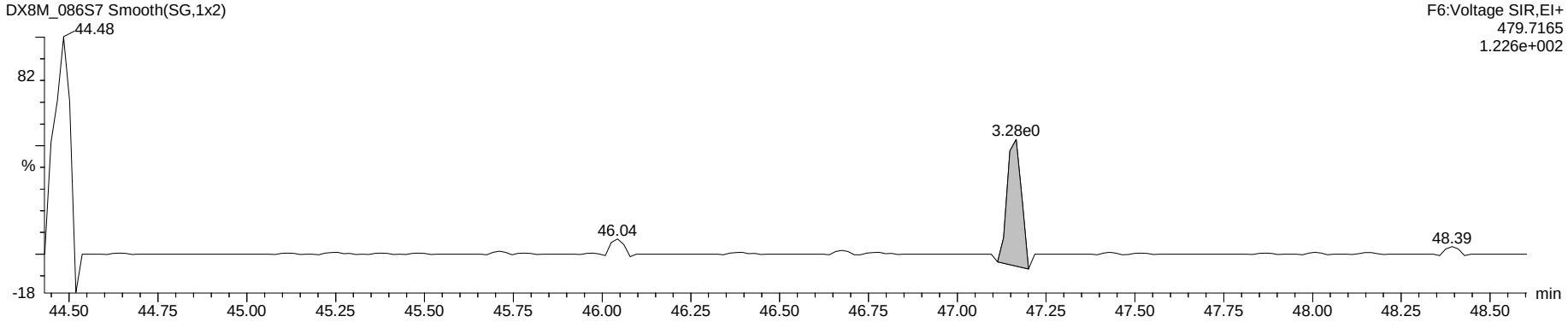

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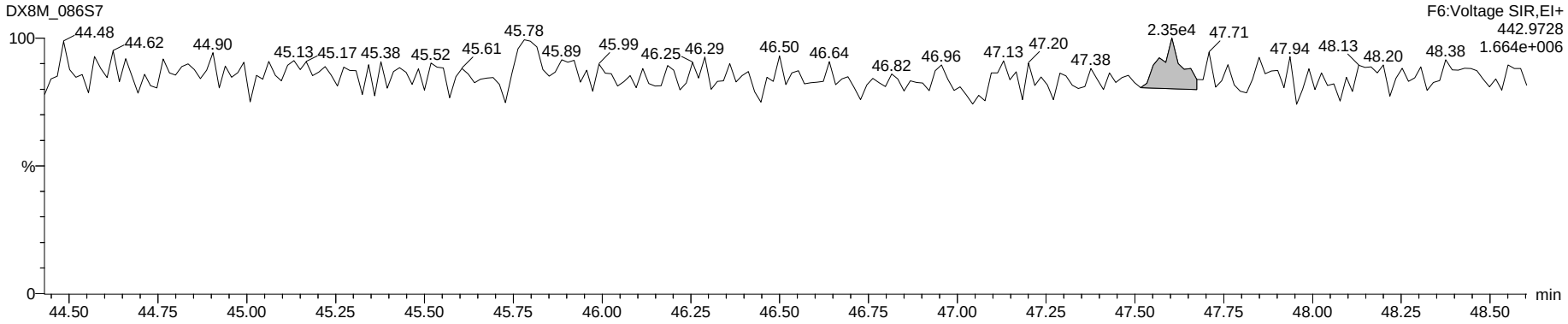

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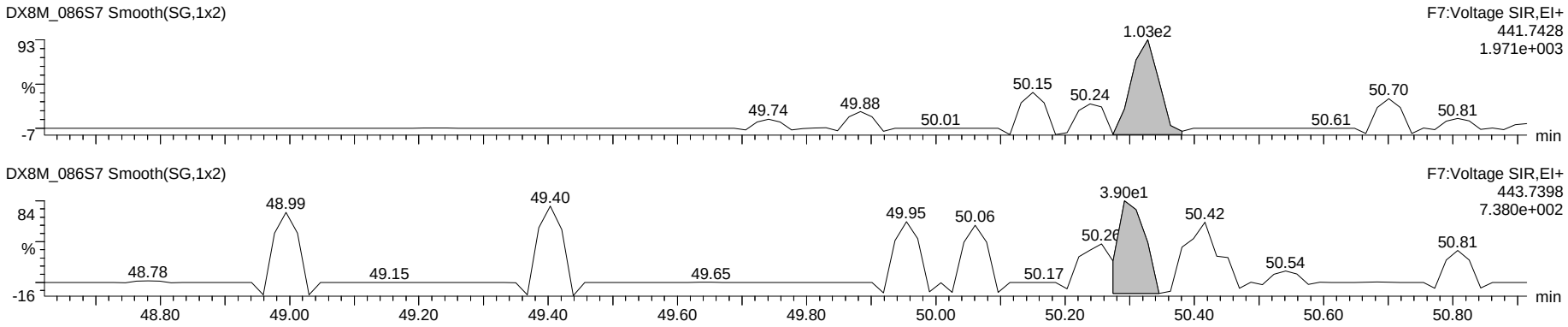
OCDF



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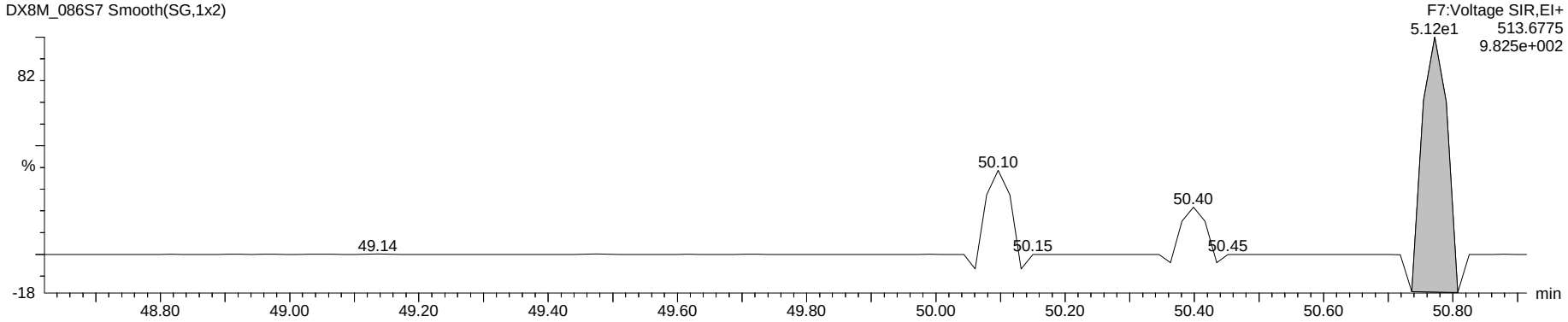

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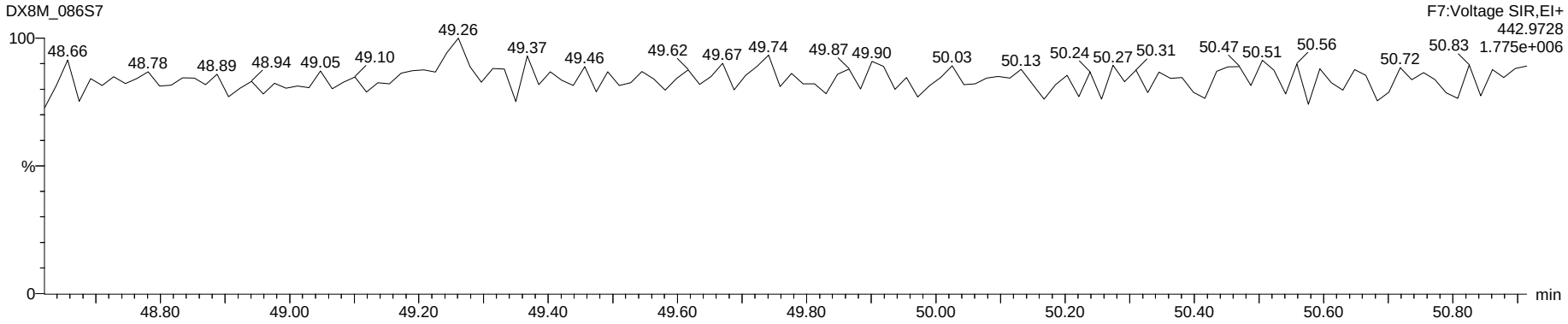

Run #12 Filename DB83_127A S: 6 I: 1 Acquired: 23-JUL-18 14:34:15 Processed: 24-JUL-18 11:55:27
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Sample text: L29628-1,, Comments: 1,WG64578,2.0/20uL
sample size: 1.016210 conc units: pg/L total toxicity: 0.04 F1: 1.0000 F2: 1.0000

	Typ	Name	#Hom	Resp	RA		RT	Conc	Tox #1	DL	Rec	M?
1	Unk	2,3,7,8-TCDF	1	3.96e+04	0.80	y	20:49	0.361	0	0.0893	-	y
2	Unk	1,2,3,7,8,9-HxCDD	0	*	*	n	NotFnd	*	*	0.3562	-	n
3	IS/RT	13C-2,3,7,8-TCDF	1	2.23e+08	0.79	y	20:47	984.050	-	0.0919	50.0	y
4	IS/RT	13C-1,2,3,4,7,8-HxCDD	1	6.44e+07	1.26	y	34:12	1129.373	-	0.7123	57.4	n
5	IS/RT	13C-1,2,3,6,7,8-HxCDD	1	6.59e+07	1.26	y	34:38	1120.648	-	0.6903	56.9	n
6	RS	13C-1,2,3,4-TCDD	1	2.49e+08	0.81	y	19:26	221.376	-	-	-	n
7	RS	13C-1,2,3,7,8,9-HxCDD	1	1.06e+08	1.25	y	36:46	190.370	-	-	-	n
8	Tot	Hexa DPE	0	*			NotFnd	*	-	-	-	n
9	Tot	Tetra Lock	-	-			-	-	-	-	-	n
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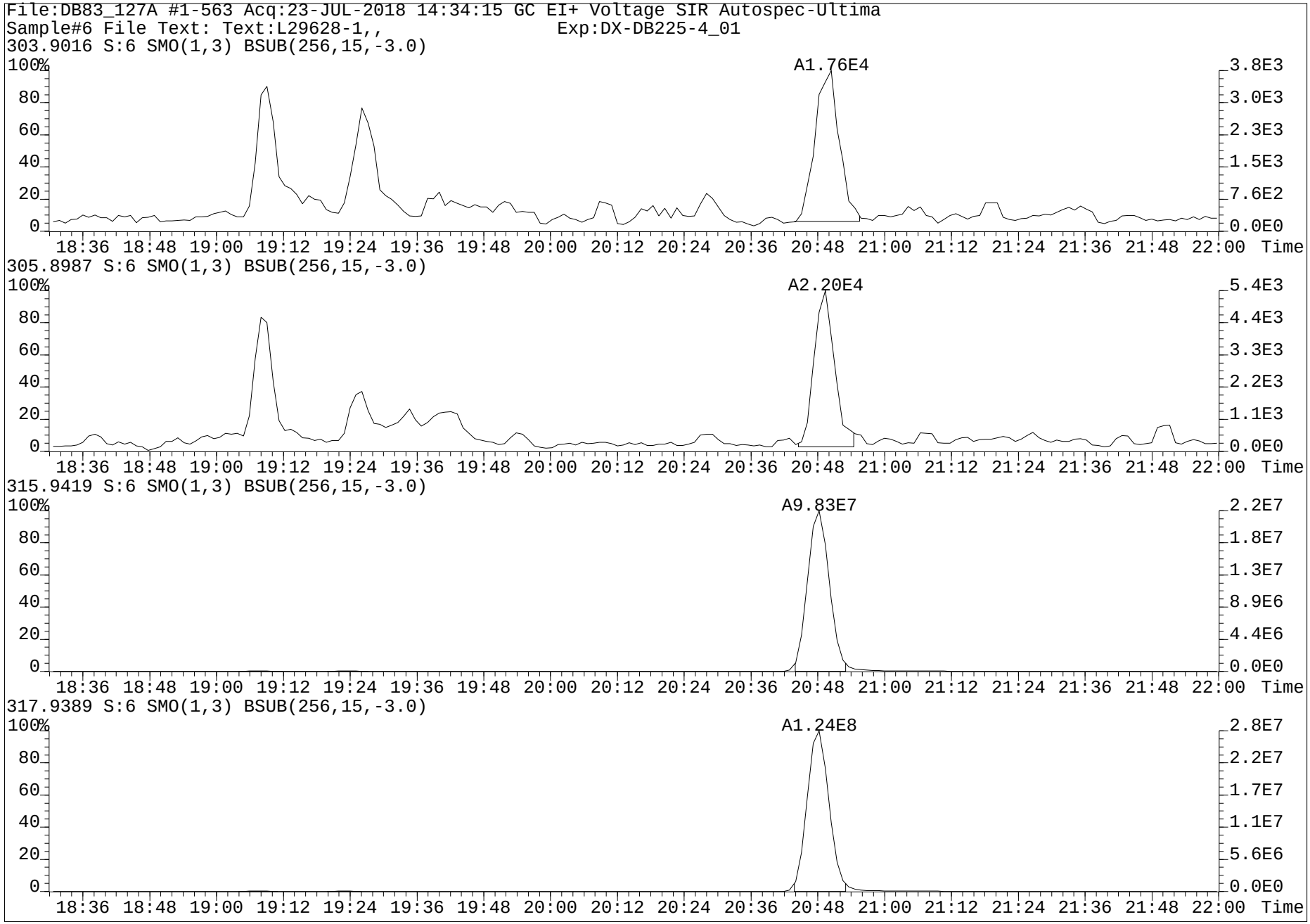
PV by LHE
24-JULY-2018

SVby KB 26/JUL/2018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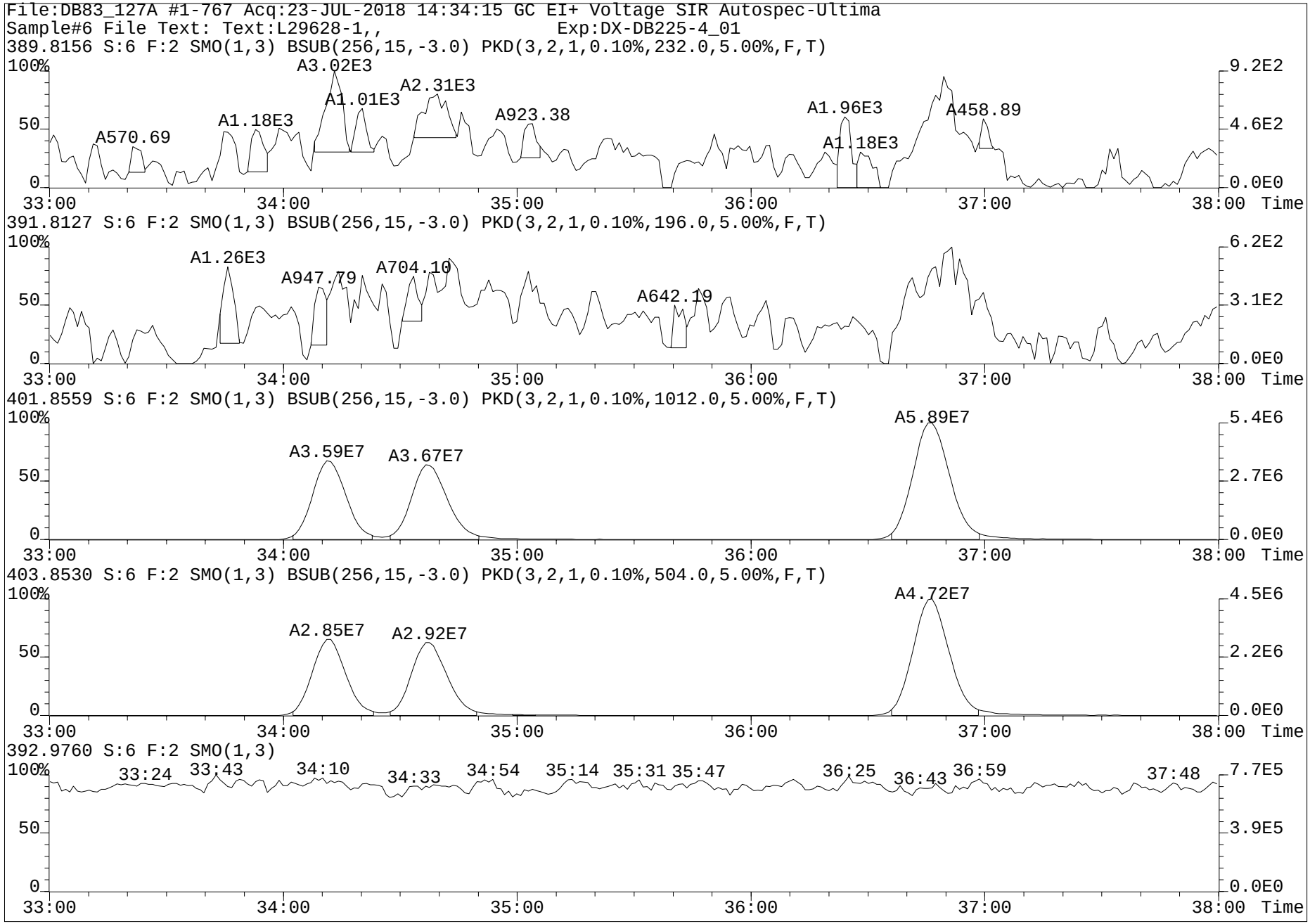
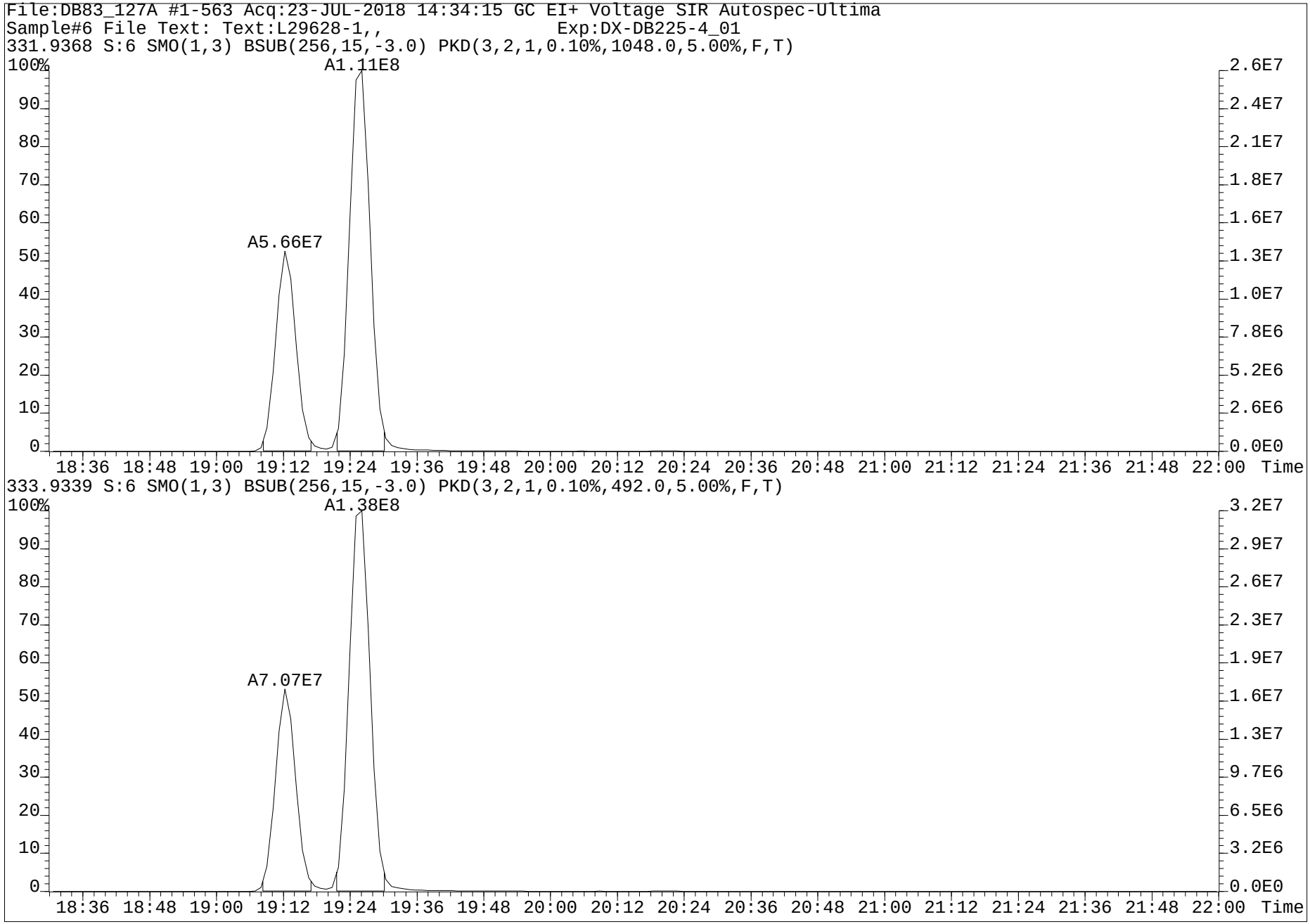
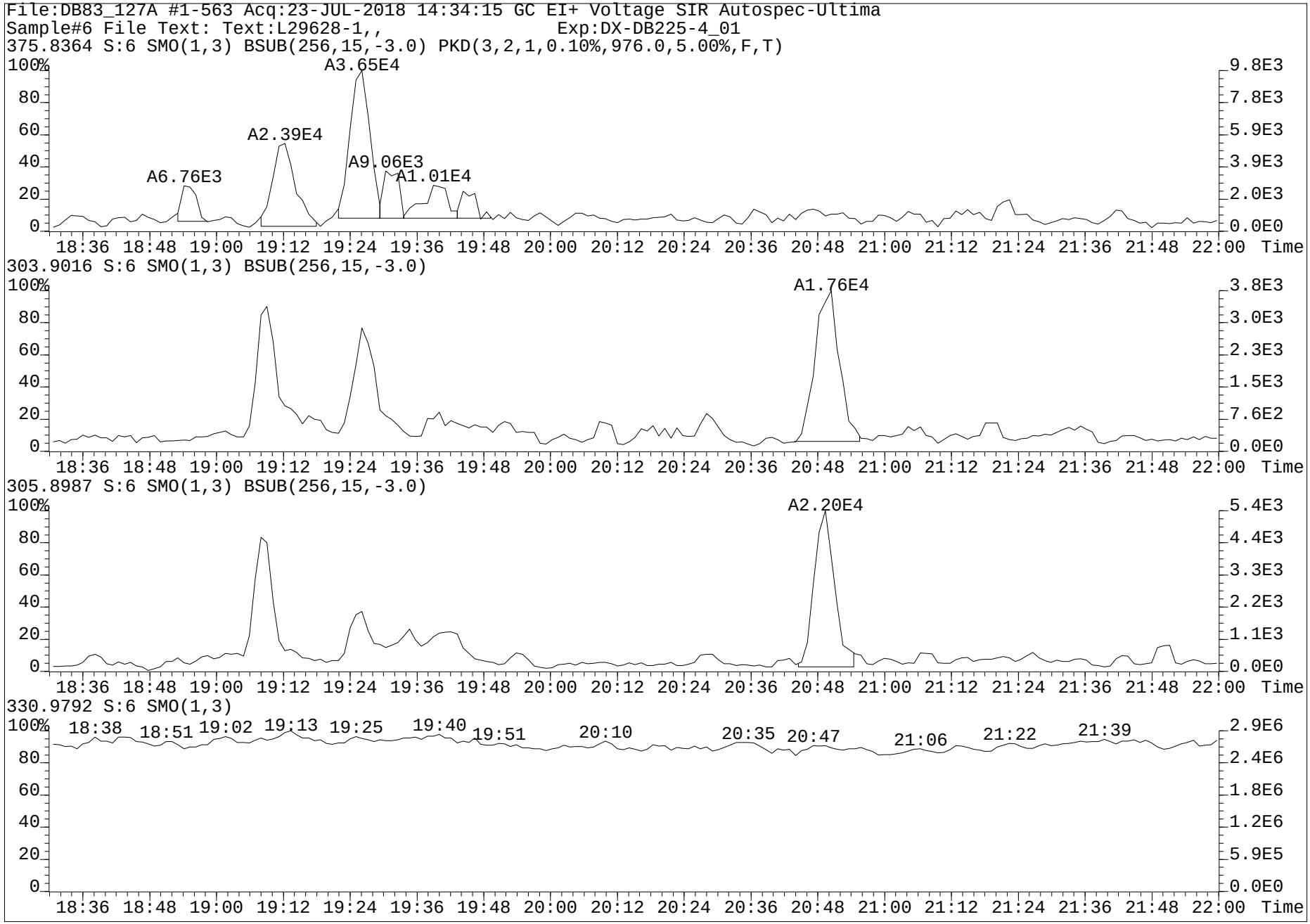
305.8987 S:6 SMO(1,3) BSUB(256,15,-3.0)
A2.20E4
315.9419 S:6 SMO(1,3) BSUB(256,15,-3.0)
A9.83E7
317.9389 S:6 SMO(1,3) BSUB(256,15,-3.0)
A1.24E8
100%
80
60
40
20
0
3.8E3
3.0E3
2.3E3
1.5E3
7.6E2
0.0E0
5.4E3
4.4E3
3.3E3
2.2E3
1.1E3
2.2E7
1.8E7
1.3E7
8.9E6
4.4E6
2.8E7
2.2E7
1.7E7
1.1E7
5.6E6
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time


File:DB83_127A #1-767 Acq:23-JUL-2018 14:34:15 GC EI+ Voltage SIR Autospec-Ultima
Sample#6 File Text: Text:L29628-1,, Exp:DX-DB225-4_01
389.8156 S:6 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,232.0,5.00%,F,T)
A3.02E3
A2.31E3
A1.01E3
A1.18E3
A570.69
A923.38
A1.96E3
A1.18E3
A458.89
391.8127 S:6 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,196.0,5.00%,F,T)
A1.26E3
A947.79
A704.10
A642.19
401.8559 S:6 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,1012.0,5.00%,F,T)
A5.89E7
A3.59E7
A3.67E7
403.8530 S:6 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,504.0,5.00%,F,T)
A4.72E7
A2.85E7
A2.92E7
392.9760 S:6 F:2 SMO(1,3)
33:24
33:43
34:10
34:33
34:54
35:14
35:31
35:47
36:25
36:43
36:59
37:48
Time


File:DB83_127A #1-563 Acq:23-JUL-2018 14:34:15 GC EI+ Voltage SIR Autospec-Ultima
Sample#6 File Text: Text:L29628-1,, Exp:DX-DB225-4_01
331.9368 S:6 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,1048.0,5.00%,F,T)
A1.11E8
A5.66E7
333.9339 S:6 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,492.0,5.00%,F,T)
A1.38E8
A7.07E7
Time


File:DB83_127A #1-563 Acq:23-JUL-2018 14:34:15 GC EI+ Voltage SIR Autospec-Ultima
Sample#6 File Text: Text:L29628-1,, Exp:DX-DB225-4_01
375.8364 S:6 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,976.0,5.00%,F,T)
A6.76E3
A2.39E4
A3.65E4
A9.06E3
A1.01E4
303.9016 S:6 SMO(1,3) BSUB(256,15,-3.0)
A1.76E4
305.8987 S:6 SMO(1,3) BSUB(256,15,-3.0)
A2.20E4
330.9792 S:6 SMO(1,3)
18:38
18:51
19:02
19:13
19:25
19:40
19:51
20:10
20:35
20:47
21:06
21:22
21:39
Time

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S8, Date: 20-Jul-2018, Time: 22:30:36, ID: L29628-7,,, Description: 1,WG64578,1.0/20uL

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	1.053	4.52e2	0.66	NO	25.24	0.273	0.1690		6.50e2	5.95e2
2	1,2,3,7,8-PeCDF	1.053	8.31e2	1.52	NO	33.58	0.654	0.2232		4.18e2	5.85e2
3	2,3,4,7,8-PeCDF	1.053	4.15e2	0.42	YES	35.34	0.330	0.1925		4.18e2	5.85e2
4	1,2,3,4,7,8-HxCDF	1.053	1.01e2	0.14	YES	40.74	0.110	0.1043		1.69e2	3.32e2
5	1,2,3,6,7,8-HxCDF	1.053	1.68e2	5.89	YES	40.87	0.161	0.0903		1.69e2	3.32e2
6	2,3,4,6,7,8-HxCDF	1.053	1.39e2	0.80	YES	41.79	0.135	0.0890		1.69e2	3.32e2
7	1,2,3,7,8,9-HxCDF	1.053	1.37e2	0.67	YES	42.86	0.190	0.1411		1.69e2	3.32e2
8	1,2,3,4,6,7,8-HpCDF	1.053	1.33e2	1.96	YES	45.31	0.194	0.0785		3.64e-1	3.09e2
9	1,2,3,4,7,8,9-HpCDF	1.053	2.46e1	1.04	NO	47.06	0.051	0.1150		3.64e-1	3.09e2
10	OCDF	1.053	1.67e2	0.11	YES	50.33	0.477	0.0525		3.73e-1	9.37e1
11	2,3,7,8-TCDD	1.053	6.23e2	0.34	YES	26.51	0.469	0.2337		5.98e2	6.98e2
12	1,2,3,7,8-PeCDD	1.053	1.62e2	0.44	YES	36.13	0.190	0.0764		2.55e2	1.82e1
13	1,2,3,4,7,8-HxCDD	1.053	1.21e2	2.47	YES	42.11	0.176	0.2056		3.81e2	4.19e2
14	1,2,3,6,7,8-HxCDD	1.053	1.64e2	0.23	YES	42.19	0.228	0.2100		3.81e2	4.19e2
15	1,2,3,7,8,9-HxCDD	1.053	9.86e1	0.95	YES	42.62	0.140	0.2069		3.81e2	4.19e2
16	1,2,3,4,6,7,8-HpCDD	1.053	3.77e2	2.76	YES	46.66	0.904	0.4717		3.63e2	6.96e2
17	OCDD	1.053	8.63e2	0.80	NO	50.20	2.977	0.4472		6.65e2	4.84e-1
18	13C-2,3,7,8-TCDF	1.053	3.45e6	0.69	NO	25.22	1228.400	1.2541	64.7	1.03e4	4.91e3
19	13C-1,2,3,7,8-PeCDF	1.053	2.61e6	1.40	NO	33.53	1291.724	1.3028	68.0	5.25e3	6.14e3
20	13C-2,3,4,7,8-PeCDF	1.053	2.54e6	1.40	NO	35.30	1303.219	1.3506	68.6	5.25e3	6.14e3
21	13C-1,2,3,4,7,8-HxCDF	1.053	1.57e6	0.54	NO	40.67	1415.098	2.7849	74.5	7.40e3	9.38e3
22	13C-1,2,3,6,7,8-HxCDF	1.053	1.86e6	0.51	NO	40.86	1567.301	2.6074	82.5	7.40e3	9.38e3
23	13C-2,3,4,6,7,8-HxCDF	1.053	1.71e6	0.52	NO	41.79	1612.384	2.9179	84.9	7.40e3	9.38e3
24	13C-1,2,3,7,8,9-HxCDF	1.053	1.37e6	0.52	NO	42.84	1308.166	2.9584	68.9	7.40e3	9.38e3
25	13C-1,2,3,4,6,7,8-HpCDF	1.053	1.07e6	0.45	NO	45.27	1203.559	2.4466	63.4	6.18e3	5.58e3
26	13C-1,2,3,4,7,8,9-HpCDF	1.053	7.28e5	0.46	NO	47.06	1053.828	3.1368	55.5	6.18e3	5.58e3
27	13C-2,3,7,8-TCDD	1.053	2.27e6	0.78	NO	26.45	1300.838	2.1265	68.5	8.30e3	7.73e3
28	13C-1,2,3,7,8-PeCDD	1.053	1.58e6	0.67	NO	36.13	1384.636	0.7879	72.9	3.01e3	8.83e2
29	13C-1,2,3,4,7,8-HxCDD	1.053	1.29e6	1.28	NO	42.08	1510.423	2.4398	79.5	4.10e3	7.24e3
30	13C-1,2,3,6,7,8-HxCDD	1.053	1.47e6	1.20	NO	42.21	1620.016	2.3071	85.3	4.10e3	7.24e3
31	13C-1,2,3,4,6,7,8-HpCDD	1.053	7.96e5	1.00	NO	46.66	1125.193	2.2658	59.3	2.64e3	6.06e3
32	13C-OCDD	1.053	1.08e6	0.83	NO	50.20	1738.418	2.9816	45.8	1.01e4	0.00e0
33	13C-1,2,3,4-TCDD	1.053	3.30e6	0.79	NO	26.11	138.569	0.1558	7.3	8.30e3	7.73e3
34	13C-1,2,3,7,8,9-HxCDD	1.053	1.65e6	1.17	NO	42.64	109.777	0.1388	5.8	4.10e3	7.24e3
35	37Cl-2,3,7,8-TCDD	1.053	2.24e5			26.49	116.048	0.3354	61.1		2.80e3
36	Total Tetra-Furans	1.053					1.263	0.1690			5.95e2
37	Total Tetra-Dioxins	1.053					2.114	0.2337			6.98e2
38	Total Penta-Furans	1.053					1.584	0.2097			5.85e2
39	Total Penta-Dioxins	1.053					0.299	0.0764			1.82e1
40	Total Hexa-Furans	1.053					1.189	0.1002			3.32e2
41	Total Hexa-Dioxins	1.053					1.293	0.2002			4.19e2
42	Total Hepta-Furans	1.053					0.404	0.0944			3.09e2
43	Total Hepta-Dioxins	1.053					1.414	0.4717			6.96e2
44	Hexa DPE	1.000	2.01e2			22.43					5.17e-2
45	Hepta DPE	1.000	1.38e0			33.18					1.47e-1
46	Octa DPE	1.000	1.27e2			40.30					1.55e-1
47	Nona DPE	1.000	3.26e1			47.53					0.00e0
48	Deca DPE	1.000	1.15e2			49.74					1.67e-1
49	Tetra Lock	1.000	1.06e4			24.52					1.32e5
50	Penta Lock	1.000	2.00e5			29.22					2.08e5
51	Hexa Lock	1.000									5.05e5
52	Hepta Lock	1.000	1.36e4			47.25					1.98e5
53	Octa Lock	1.000	1.84e4			48.91					1.62e5
54	13C-Tetra-Furans	1.053					1228.400	1.2541			4.91e3
55	13C-Tetra-Dioxins	1.053					1439.406	2.2824			7.73e3

pv'd by LHE 23-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

SWyk 26JUL2018

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S8, Date: 20-Jul-2018, Time: 22:30:36, ID: L29628-7,,, Description: 1,WG64578,1.0/20uL

Tetrafurans

	RT	1° Ratio (A...	Fails?	pg
1	24.58	2.823	YES	0.250
2	25.24	0.662	NO	0.273
3	26.15	1.264	YES	0.619
4	26.58	0.403	YES	0.044
5	28.22	0.584	YES	0.078

Tetradioxins

	RT	1° Ratio (A...	Fails?	pg
1	22.95	1.960	YES	0.305
2	23.34	0.771	NO	0.244
3	23.70	2.006	YES	0.091
4	24.67	0.544	YES	0.101
5	25.22	3.045	YES	0.504
6	25.43	0.950	YES	0.067
7	25.97	1.039	YES	0.082
8	26.51	0.345	YES	0.469
9	26.83	0.626	YES	0.084
10	27.35	1.071	YES	0.085
11	28.31	1.056	YES	0.081

Pentafurans

	RT	1° Ratio (A...	Fails?	pg
1	28.91	2.325	YES	0.266
2	31.14	0.805	YES	0.155
3	31.47	0.816	YES	0.091
4	33.58	1.519	NO	0.654
5	35.34	0.419	YES	0.330
6	37.06	0.979	YES	0.086

Pentadioxins

	RT	1° Ratio (A...	Fails?	pg
1	32.08	2.369	YES	0.109
2	36.13	0.445	YES	0.190

Hexafurans

	RT	1° Ratio (A...	Fails?	pg
1	39.26	0.615	YES	0.079
2	39.37	1.005	YES	0.074
3	39.72	0.970	YES	0.054
4	40.74	0.144	YES	0.110
5	40.87	5.888	YES	0.161
6	41.09	0.825	YES	0.069
7	41.21	3.136	YES	0.122
8	41.42	0.398	YES	0.052
9	41.58	1.123	NO	0.064
10	41.79	0.797	YES	0.135
11	43.08	3.325	YES	0.078
12	42.86	0.674	YES	0.190

pv'd by LHE 23-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S8, Date: 20-Jul-2018, Time: 22:30:36, ID: L29628-7,,, Description: 1,WG64578,1.0/20uL

Hexadioxins

	RT	1° Ratio (A...	Fails?	pg
1	40.86	3.081	YES	0.749
2	42.11	2.467	YES	0.176
3	42.19	0.225	YES	0.228
4	42.62	0.945	YES	0.140

Heptafurans

	RT	1° Ratio (A...	Fails?	pg
1	45.31	1.957	YES	0.194
2	45.85	1.562	YES	0.160
3	47.06	1.040	NO	0.051

Heptadioxins

	RT	1° Ratio (A...	Fails?	pg
1	45.76	2.963	YES	0.509
2	46.66	2.763	YES	0.904

13C-TF

	RT	1° Ratio (A...	Fails?	pg
1	25.22	0.693	NO	1228.4...

13C-TD

	RT	1° Ratio (A...	Fails?	pg
1	26.11	0.790	NO	138.569
2	26.45	0.780	NO	1300.8...

13C-PF

	RT	1° Ratio (A...	Fails?	pg
1	33.53	1.400	NO	1291.7...
2	35.30	1.404	NO	1303.2...

13C-PD

	RT	1° Ratio (A...	Fails?	pg
1	36.13	0.672	NO	1384.6...

13C-HxF

	RT	1° Ratio (A...	Fails?	pg
1	40.67	0.536	NO	1415.0...
2	40.86	0.510	NO	1567.3...
3	41.79	0.519	NO	1612.3...
4	42.84	0.521	NO	1308.1...

13C-HxD

	RT	1° Ratio (A...	Fails?	pg
1	42.08	1.281	NO	1510.4...
2	42.21	1.197	NO	1620.0...
3	42.64	1.168	NO	109.777

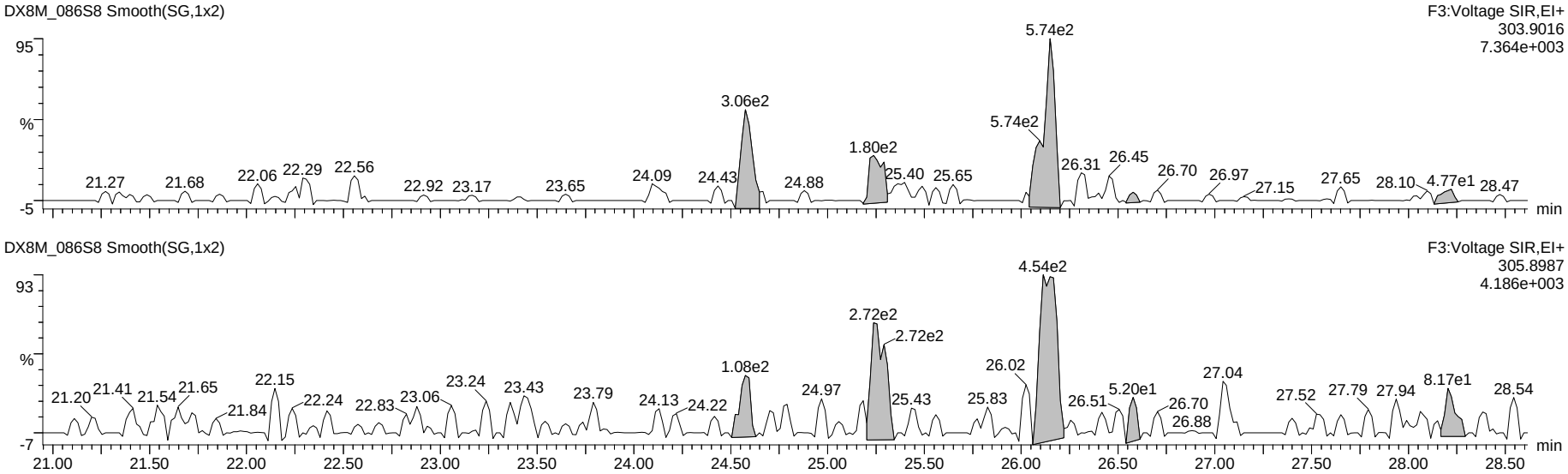
pv'd by LHE 23-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

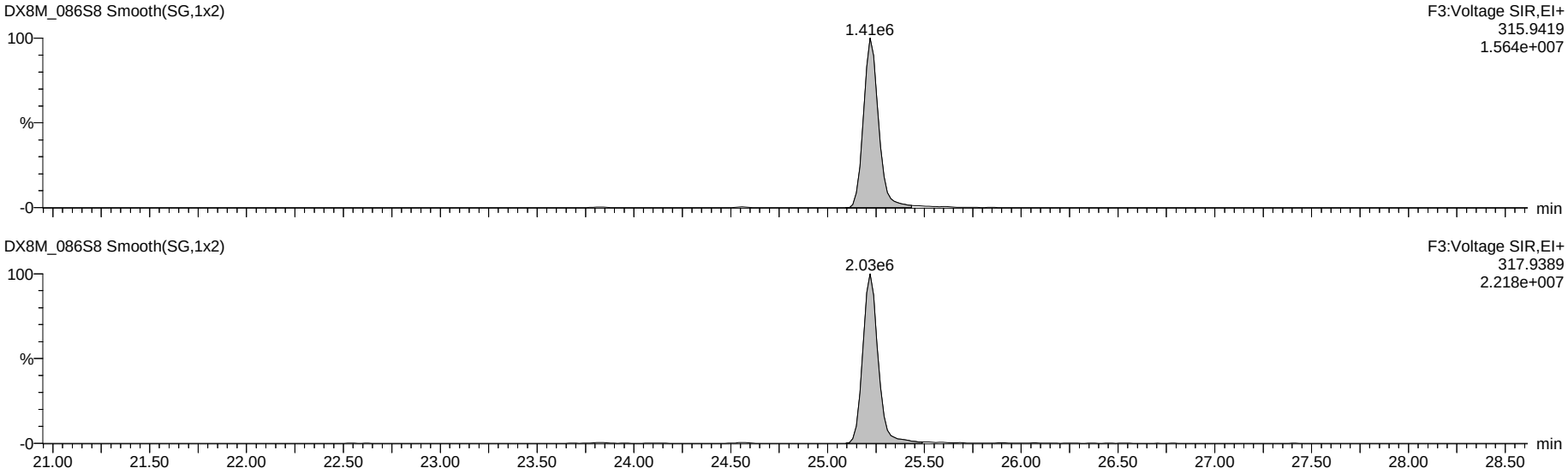
Method: G:\Masslynx\Inst_M\Exported_methods\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_086S8, Date: 20-Jul-2018, Time: 22:30:36, ID: L29628-7,,, Description: 1,WG64578,1.0/20uL

Total Tetra-Furans



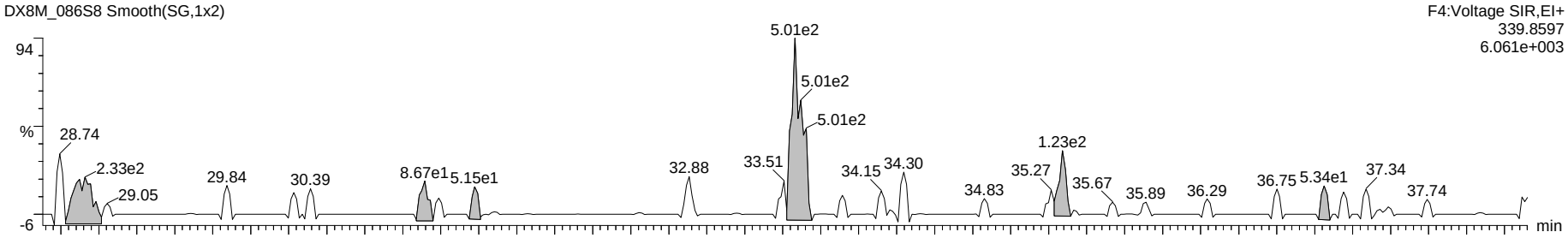
13C-Tetra-Furans

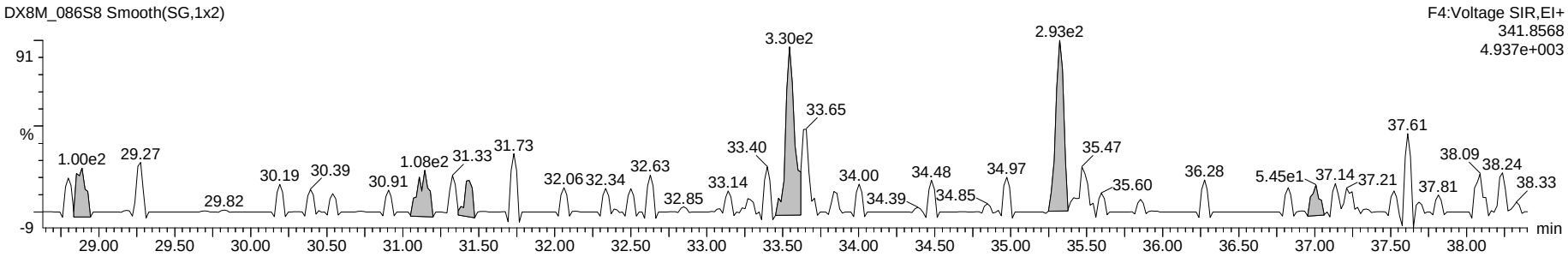


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

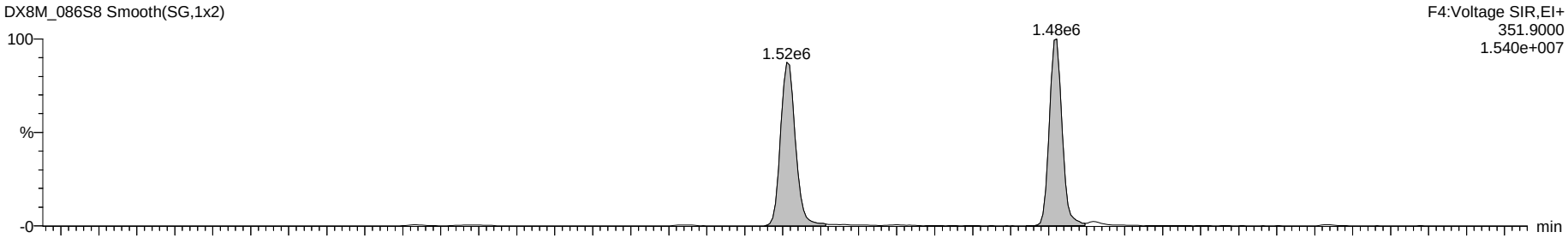
Name: DX8M_086S8, Date: 20-Jul-2018, Time: 22:30:36, ID: L29628-7,,, Description: 1,WG64578,1.0/20uL

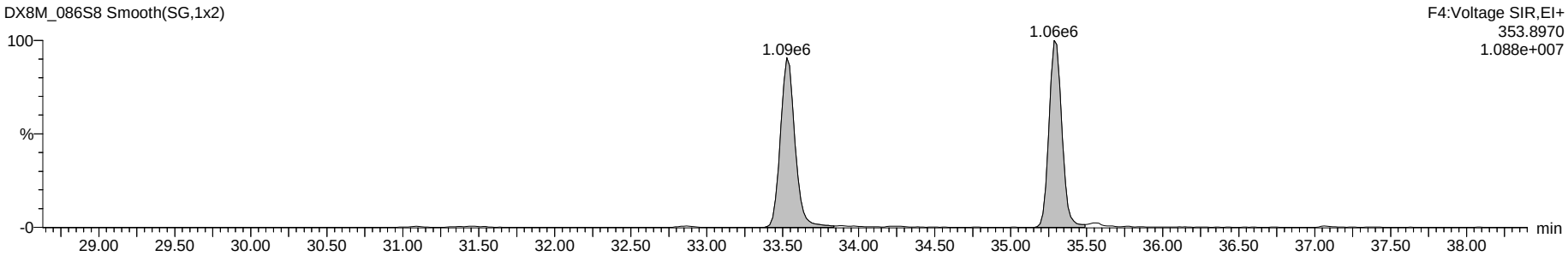
Total Penta-Furans





13C-Penta-Furans

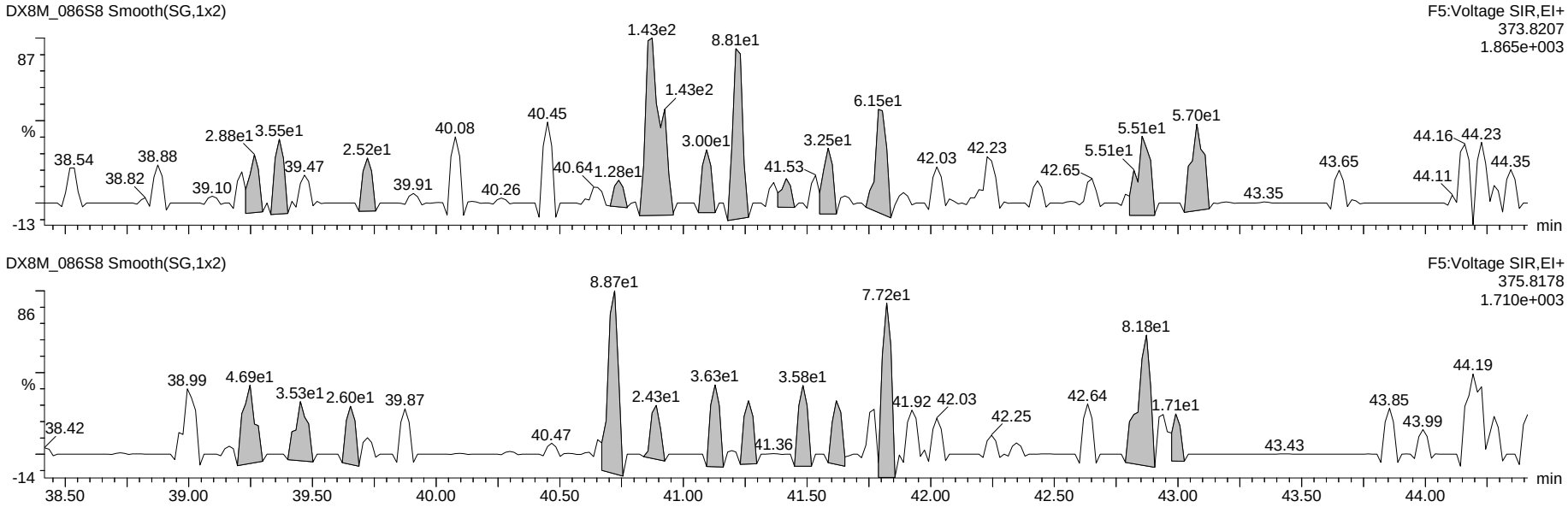




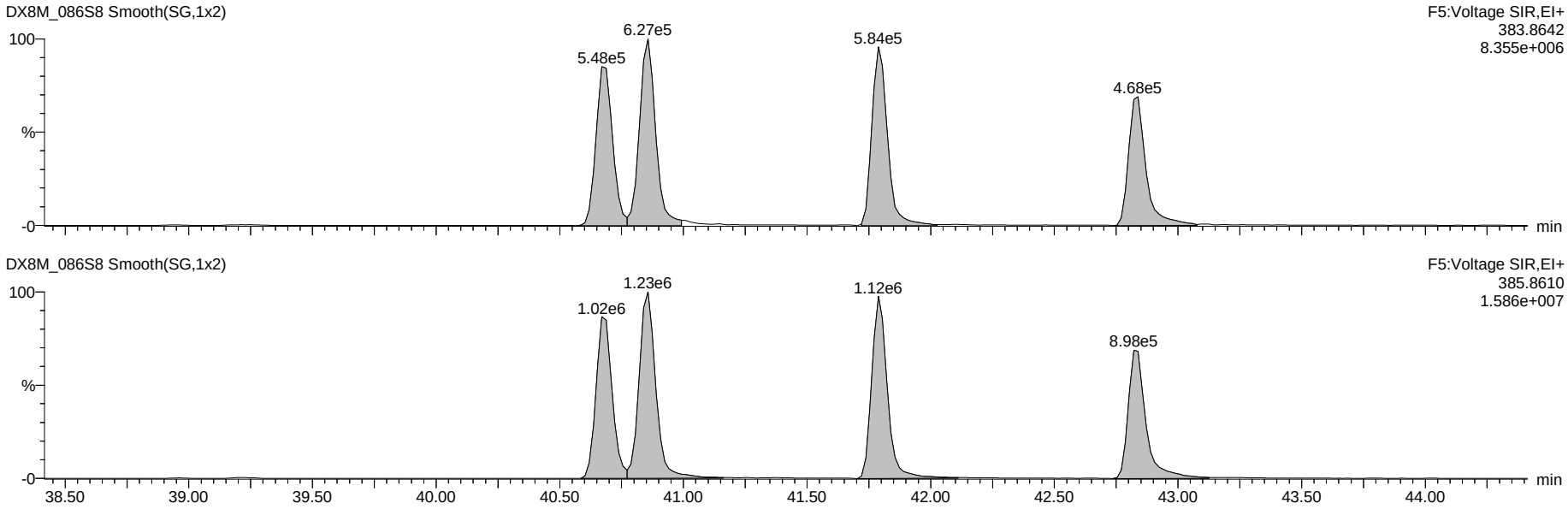
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S8, Date: 20-Jul-2018, Time: 22:30:36, ID: L29628-7,,, Description: 1,WG64578,1.0/20uL

Total Hexa-Furans



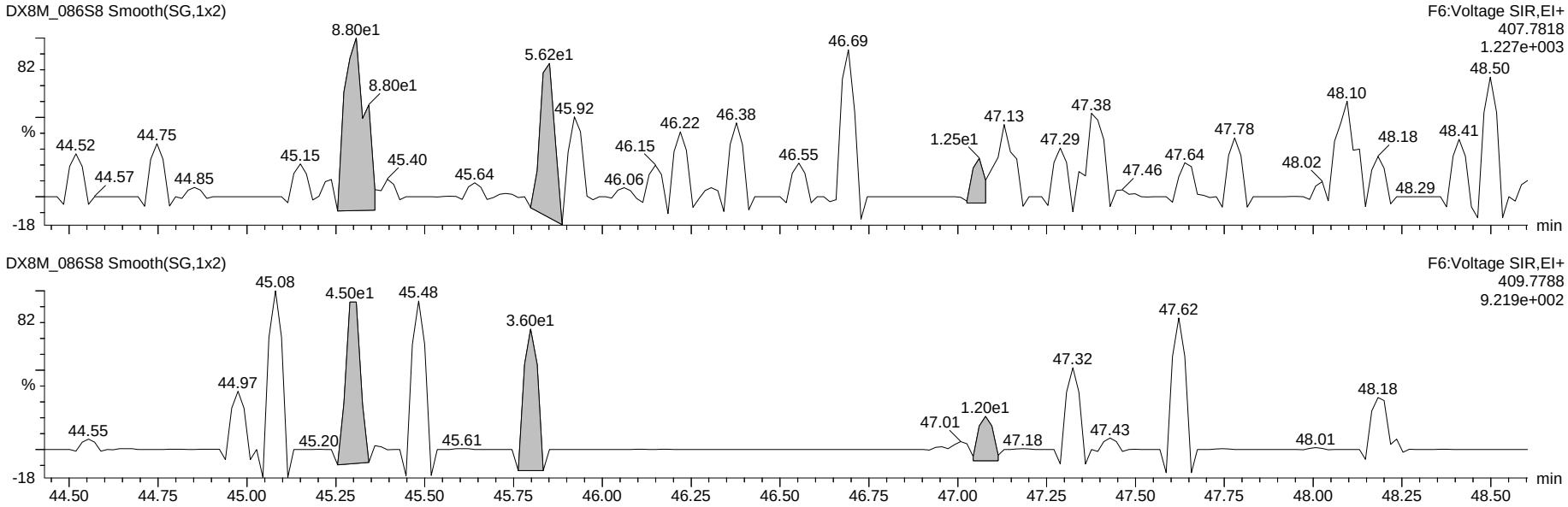
13C-Hexa-Furans



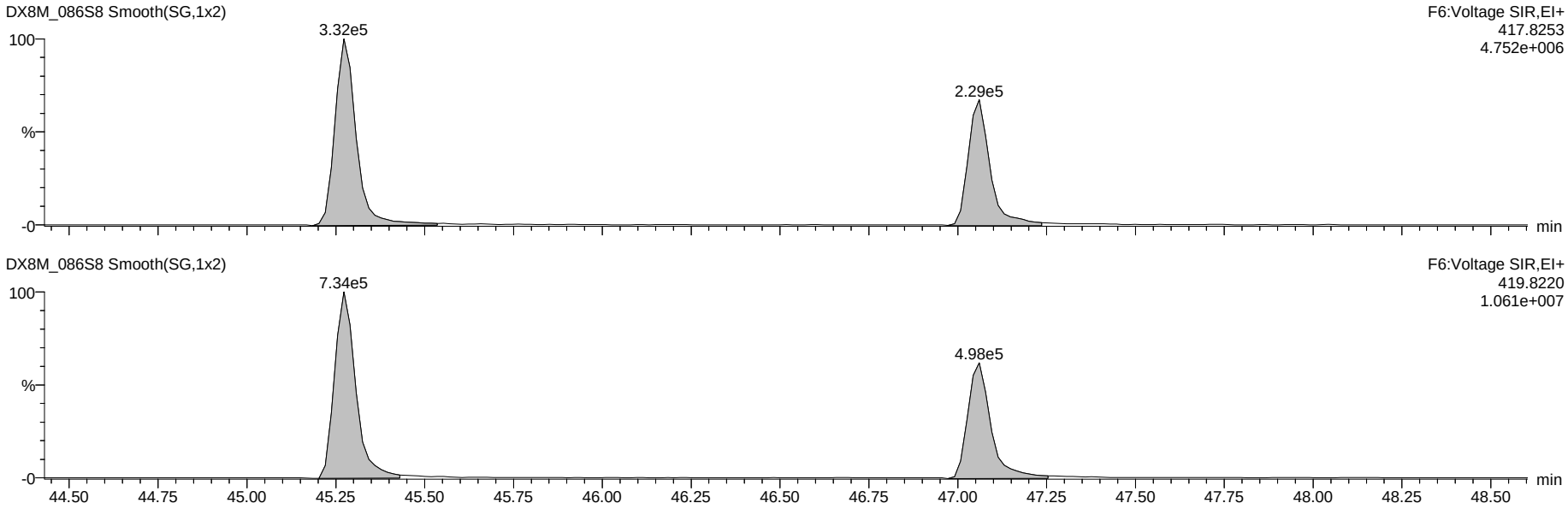
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S8, Date: 20-Jul-2018, Time: 22:30:36, ID: L29628-7,,, Description: 1,WG64578,1.0/20uL

Total Hepta-Furans



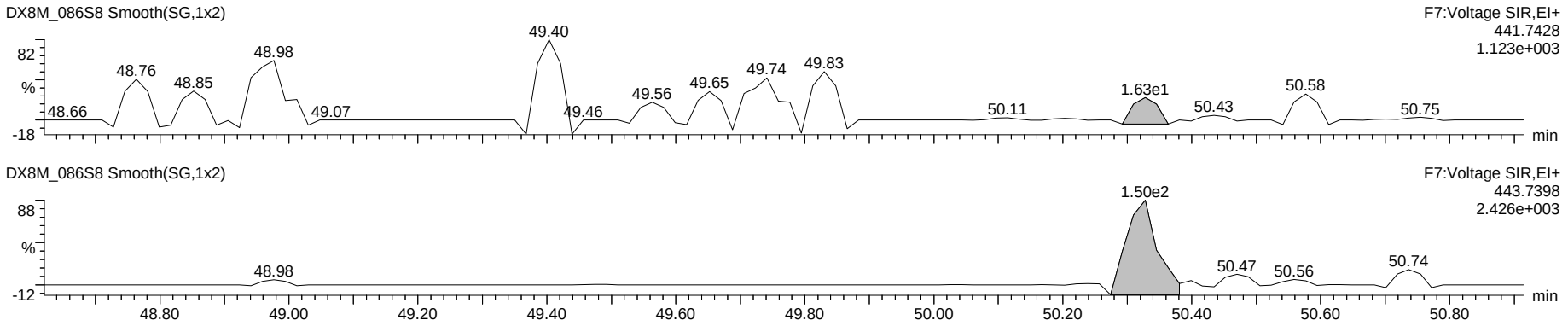
13C-Hepta-Furans



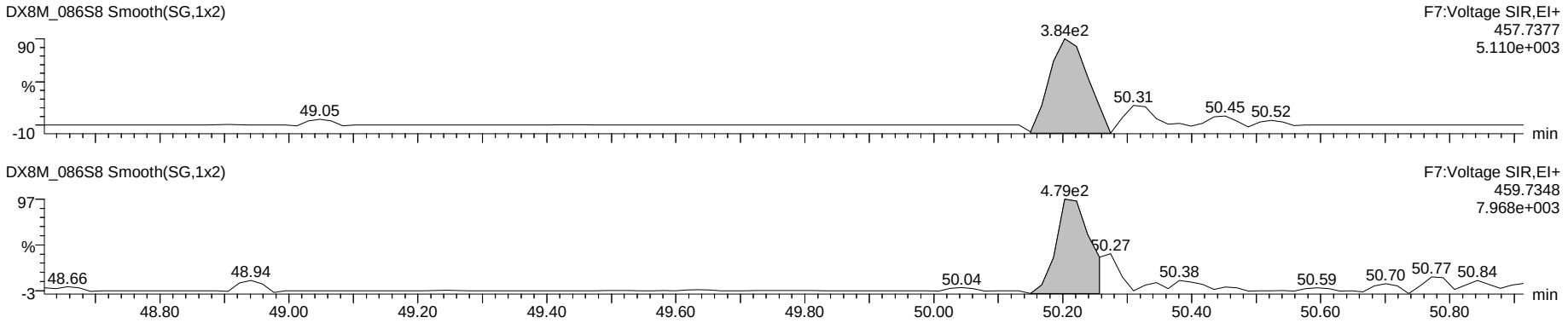
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S8, Date: 20-Jul-2018, Time: 22:30:36, ID: L29628-7,,, Description: 1,WG64578,1.0/20uL

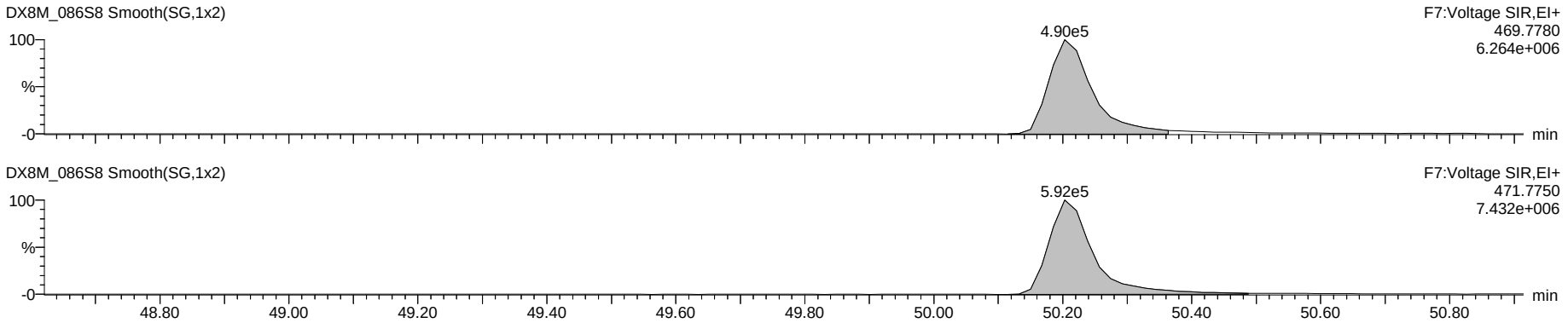
OCDF



OCDD



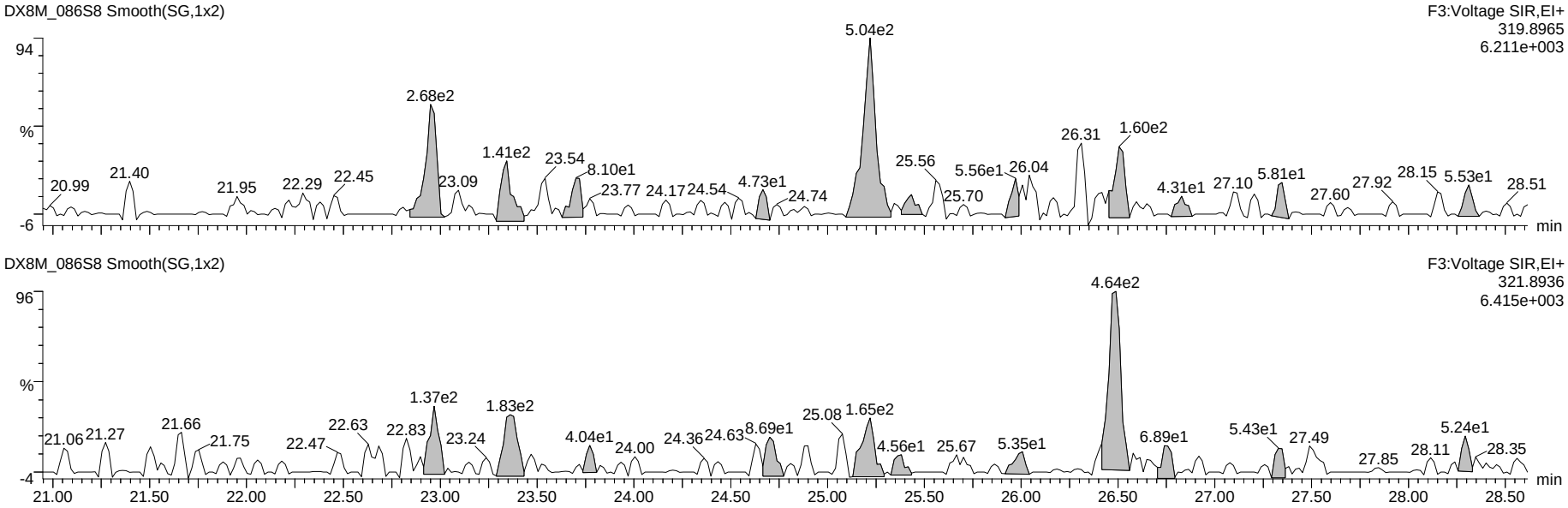
13C-OCDD



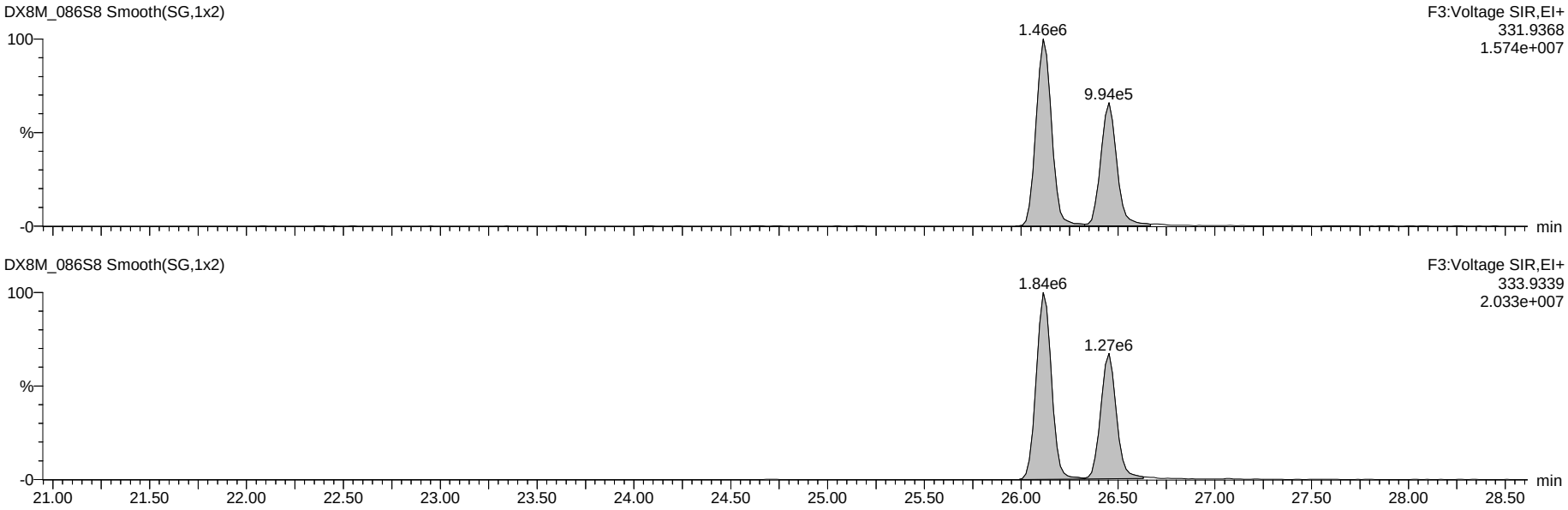
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S8, Date: 20-Jul-2018, Time: 22:30:36, ID: L29628-7,,, Description: 1,WG64578,1.0/20uL

Total Tetra-Dioxins



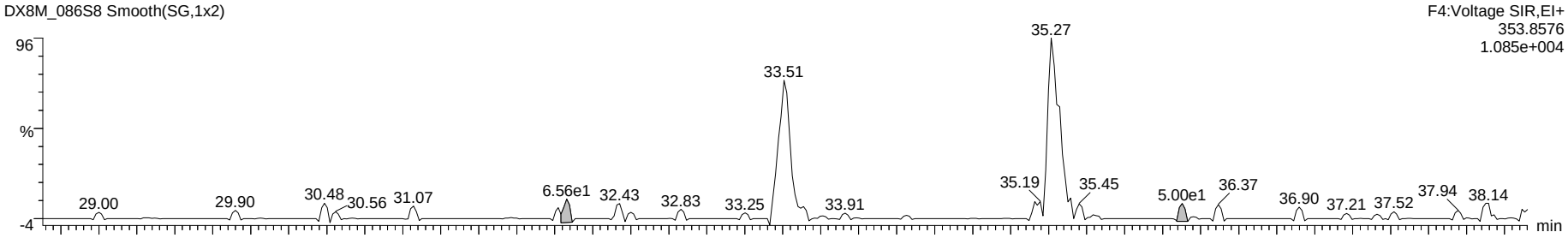
13C-Tetra-Dioxins

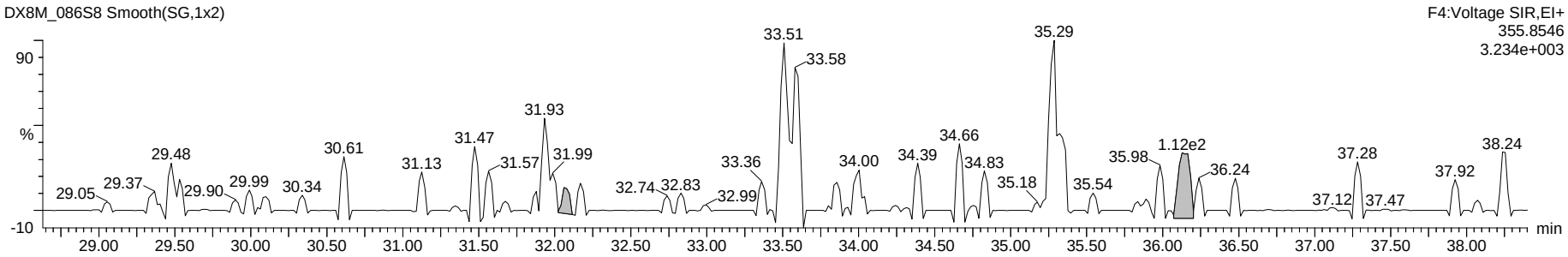


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

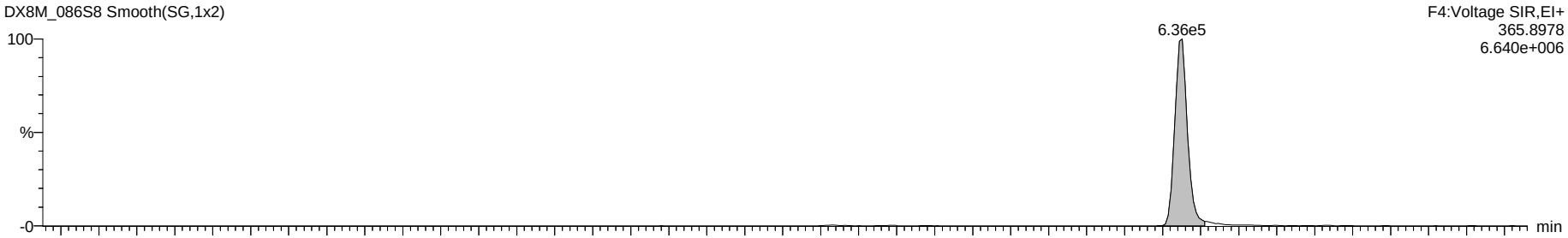
Name: DX8M_086S8, Date: 20-Jul-2018, Time: 22:30:36, ID: L29628-7,,, Description: 1,WG64578,1.0/20uL

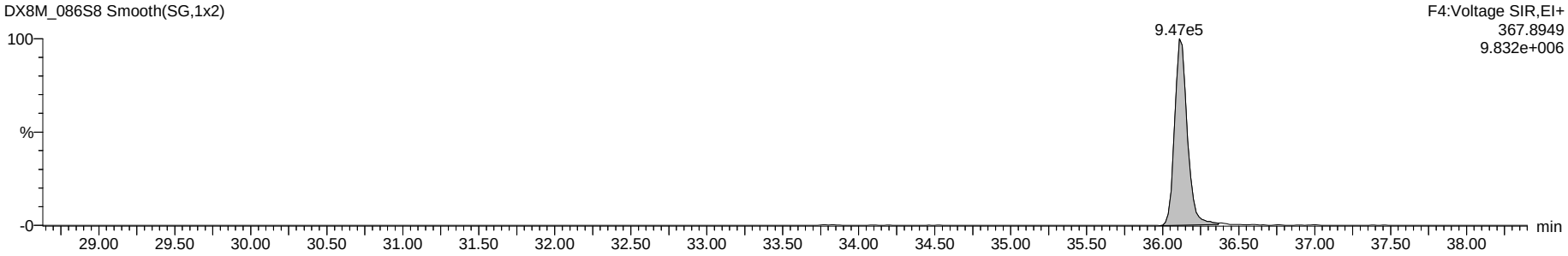
Total Penta-Dioxins





13C-Penta-Dioxins

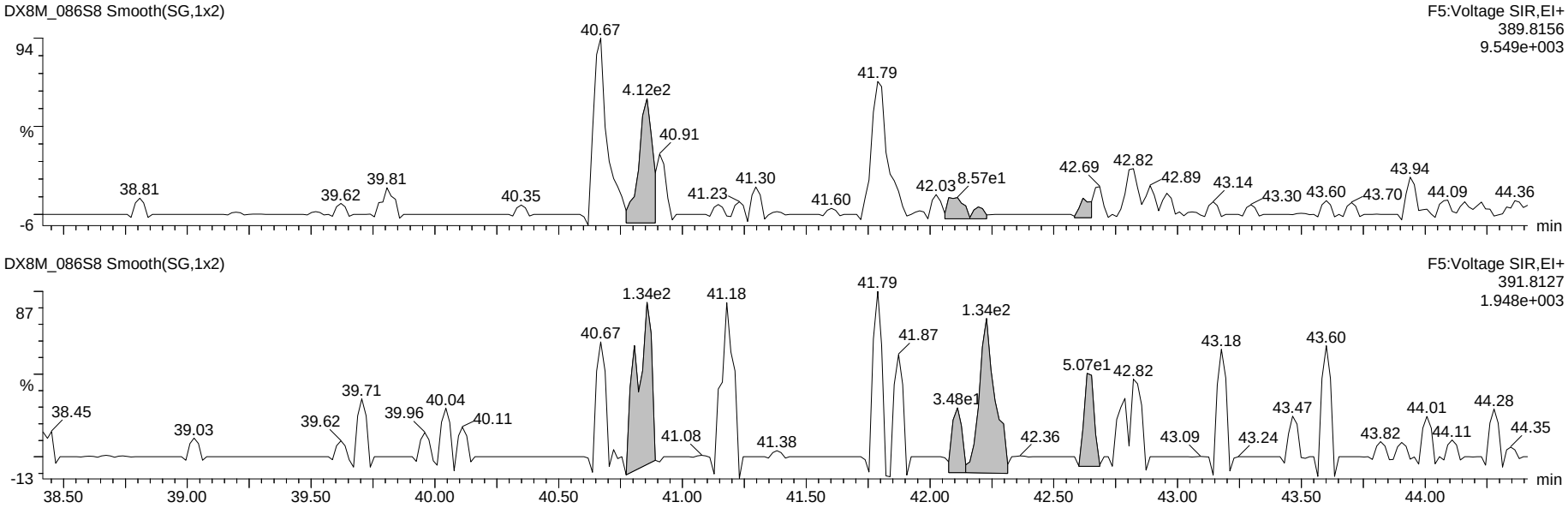




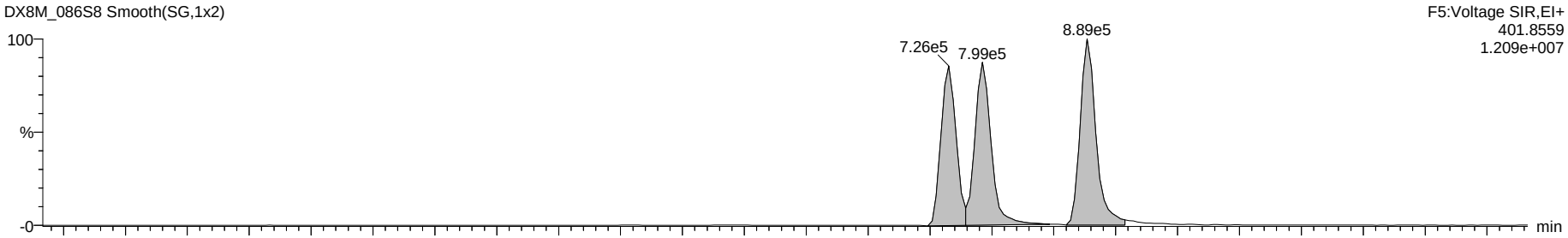
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

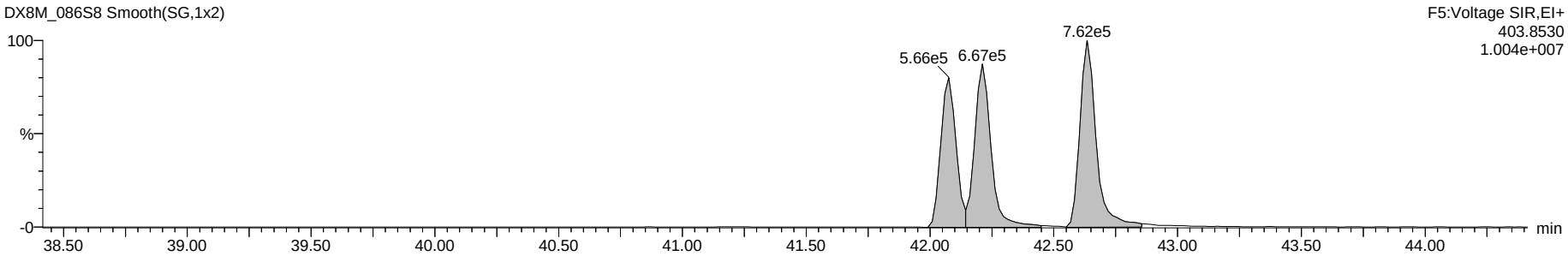
Name: DX8M_086S8, Date: 20-Jul-2018, Time: 22:30:36, ID: L29628-7,,, Description: 1,WG64578,1.0/20uL

Total Hexa-Dioxins



13C-Hexa-Dioxins

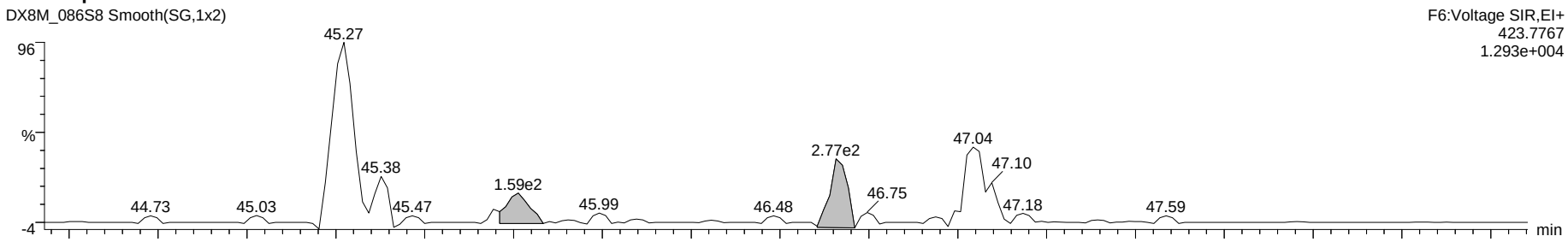


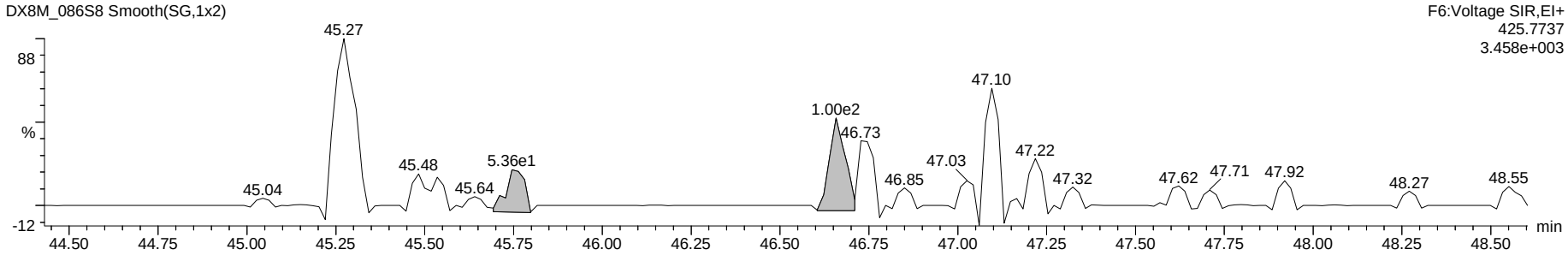


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

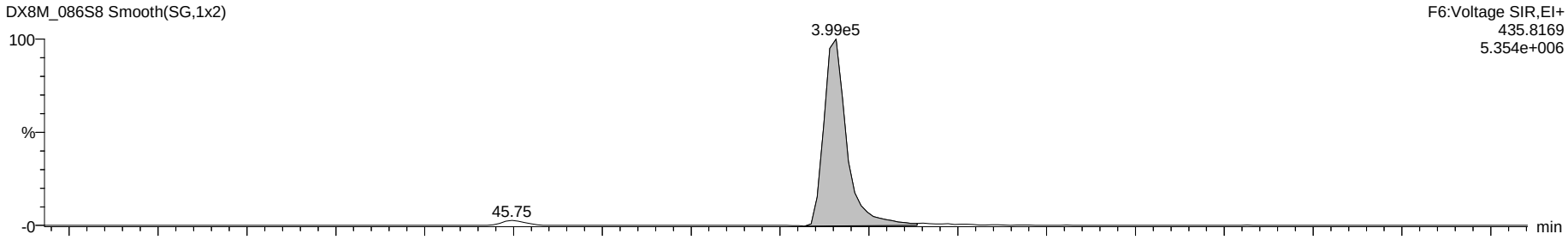
Name: DX8M_086S8, Date: 20-Jul-2018, Time: 22:30:36, ID: L29628-7,,, Description: 1,WG64578,1.0/20uL

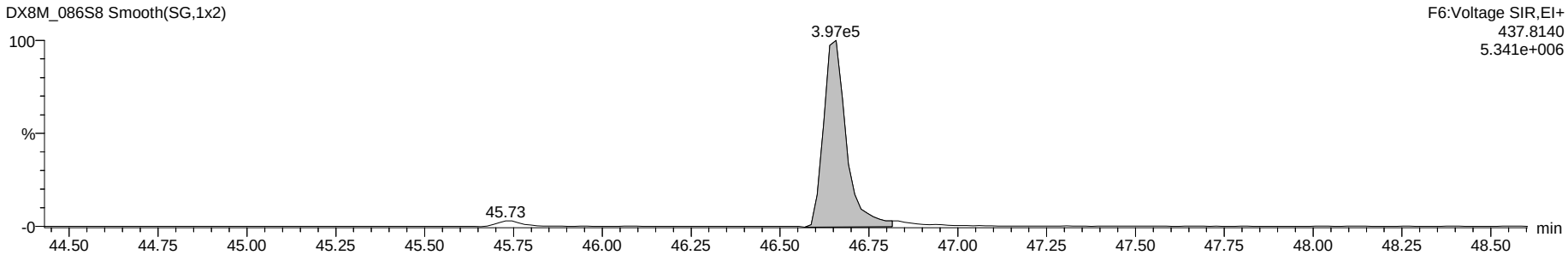
Total Hepta-Dioxins





13C-Hepta-Dioxins

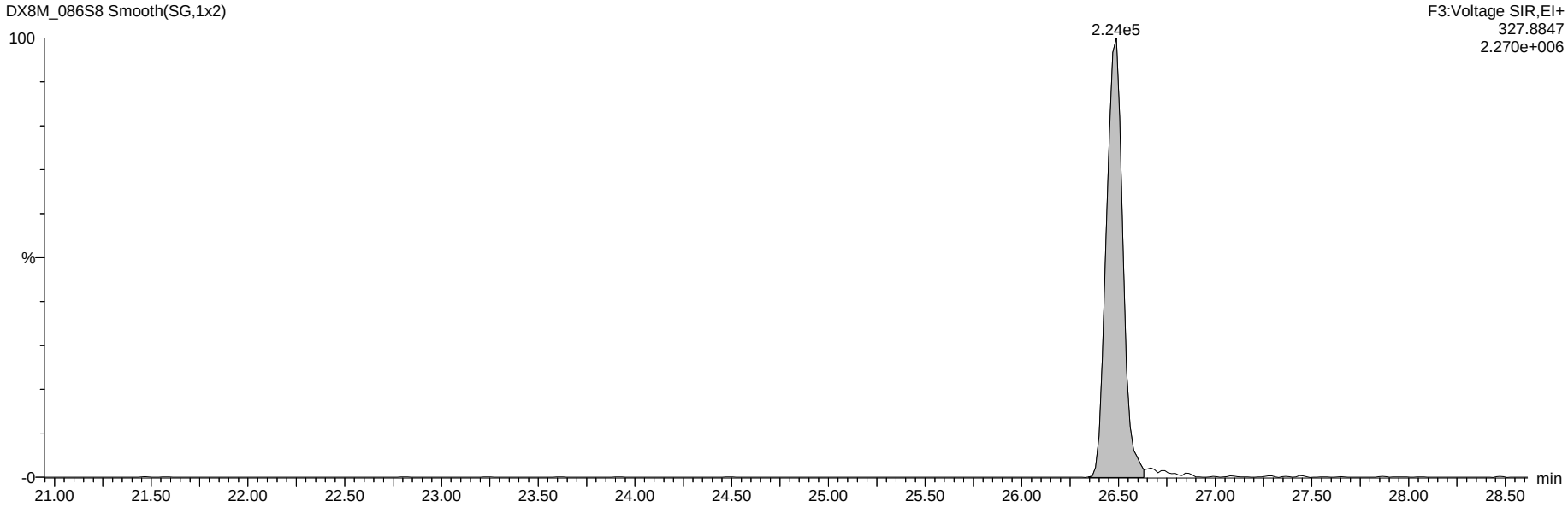




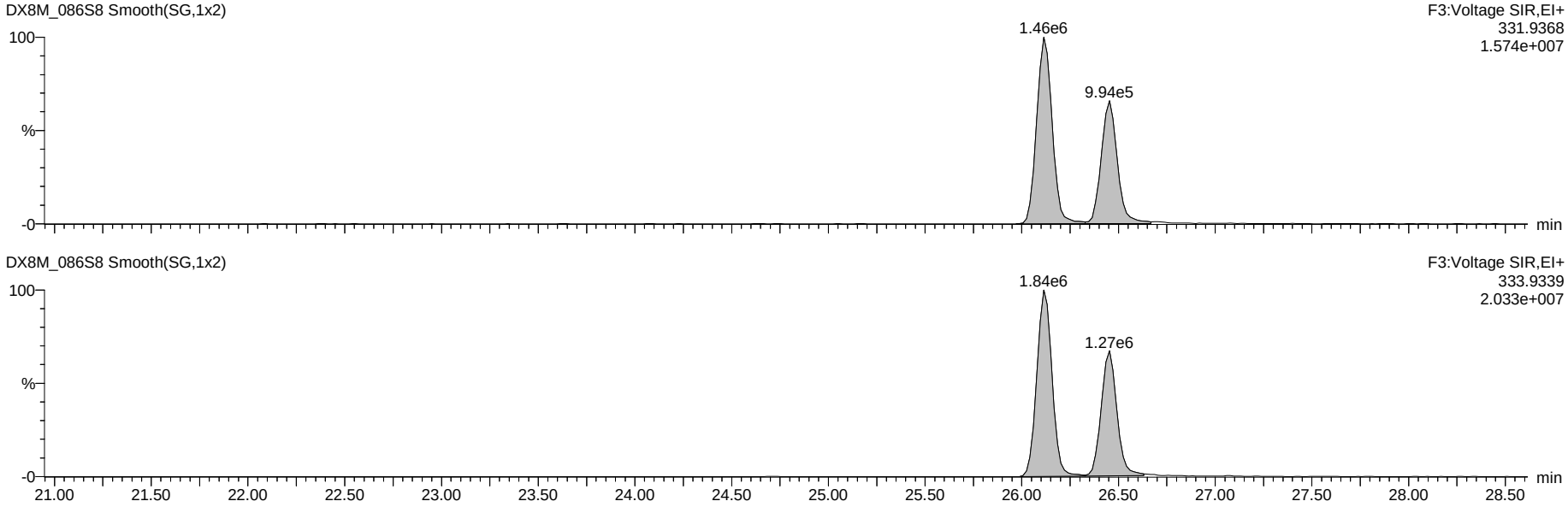
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S8, Date: 20-Jul-2018, Time: 22:30:36, ID: L29628-7,,, Description: 1,WG64578,1.0/20uL

37Cl-2,3,7,8-TCDD



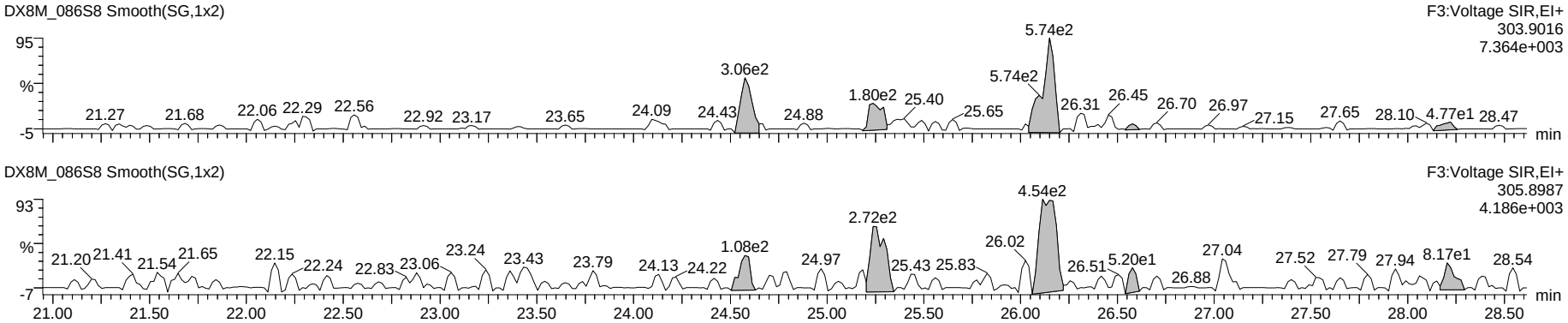
13C-Tetra-Dioxins



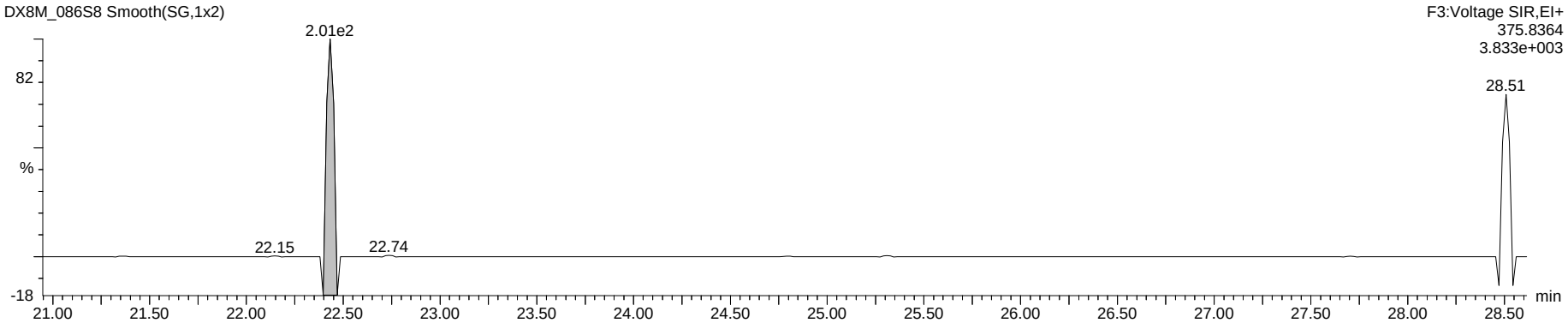
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S8, Date: 20-Jul-2018, Time: 22:30:36, ID: L29628-7,,, Description: 1,WG64578,1.0/20uL

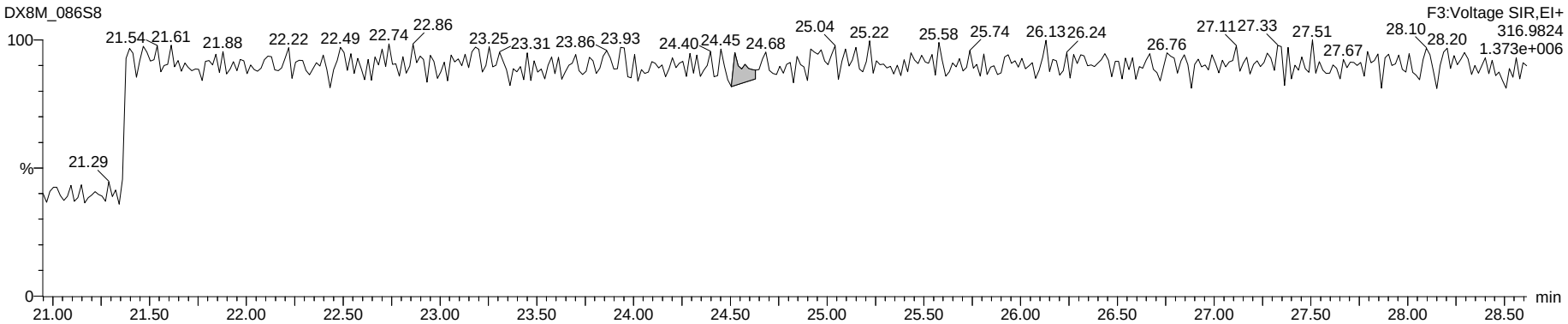
Total Tetra-Furans



Hexa DPE



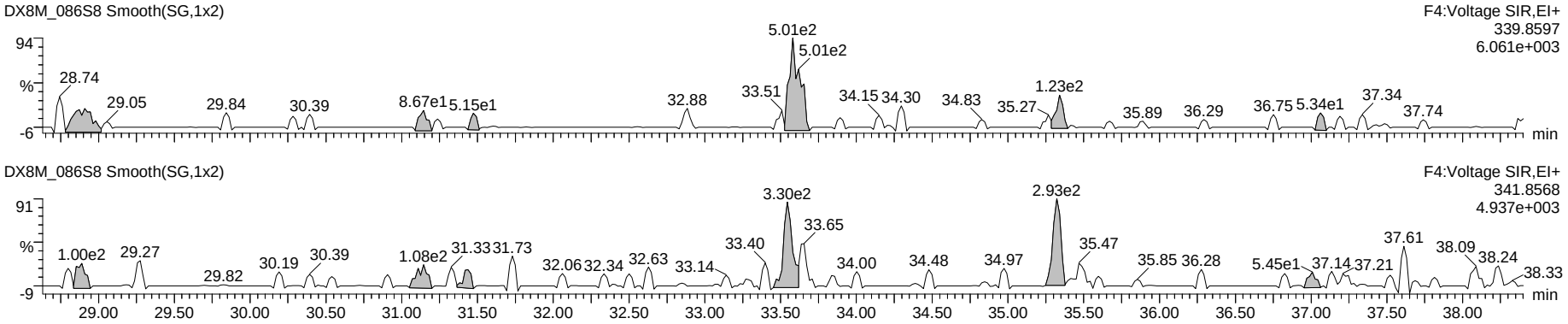
Tetra Lock



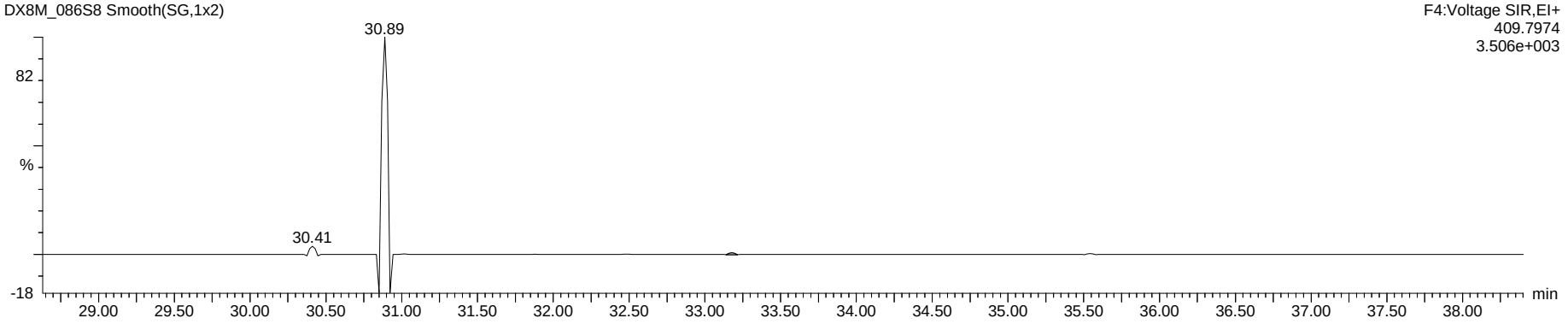
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S8, Date: 20-Jul-2018, Time: 22:30:36, ID: L29628-7,,, Description: 1,WG64578,1.0/20uL

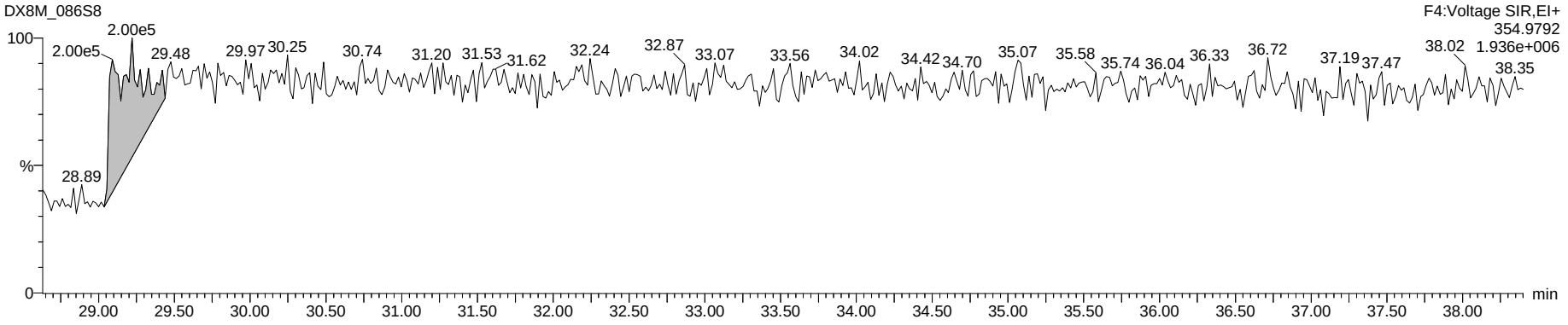
Total Penta-Furans



Hepta DPE



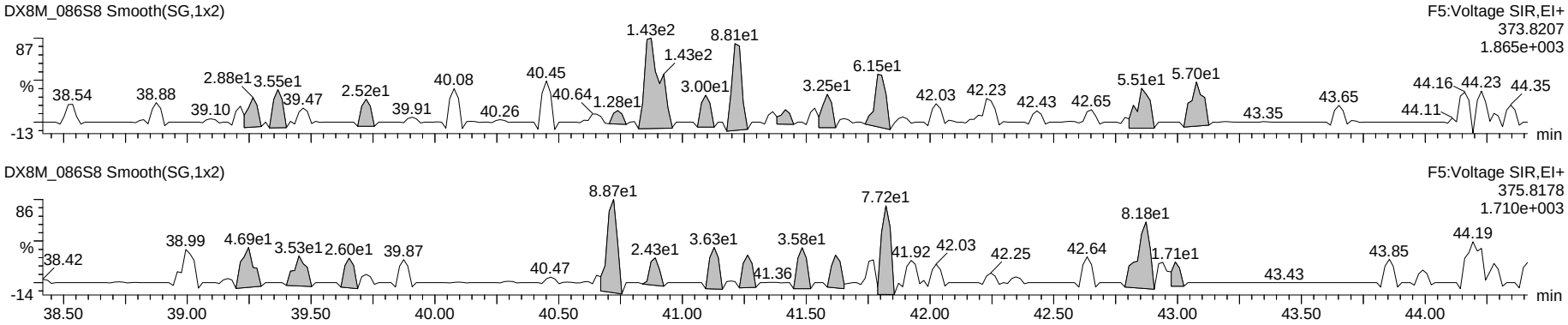
Penta Lock



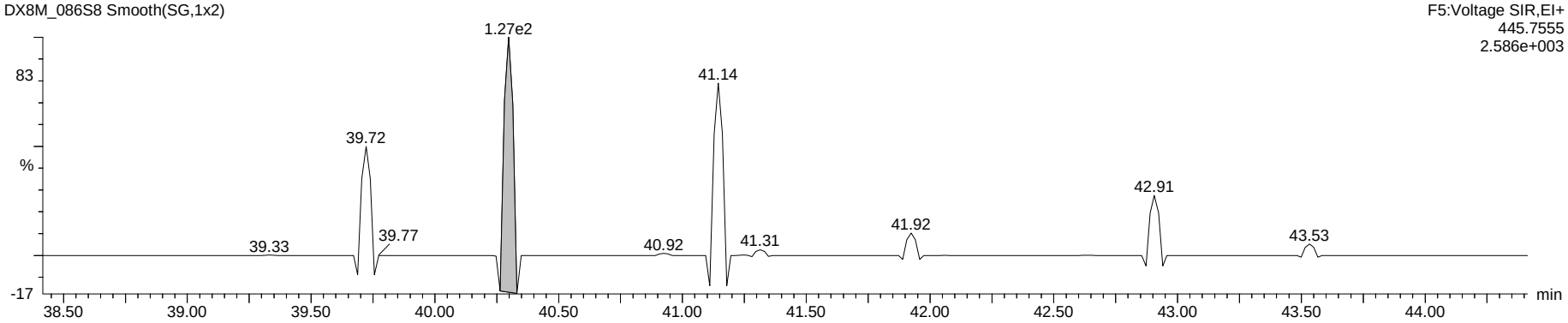
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S8, Date: 20-Jul-2018, Time: 22:30:36, ID: L29628-7,,, Description: 1,WG64578,1.0/20uL

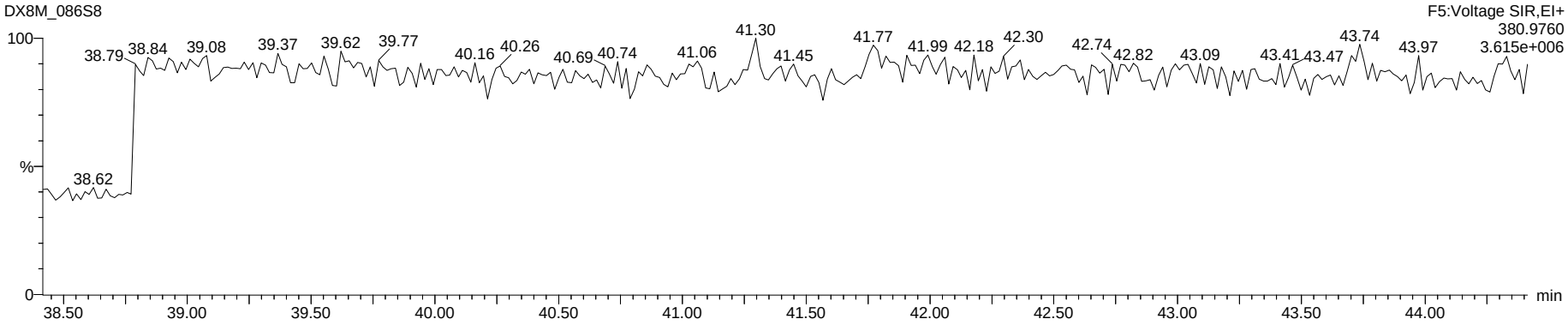
Total Hexa-Furans



Octa DPE



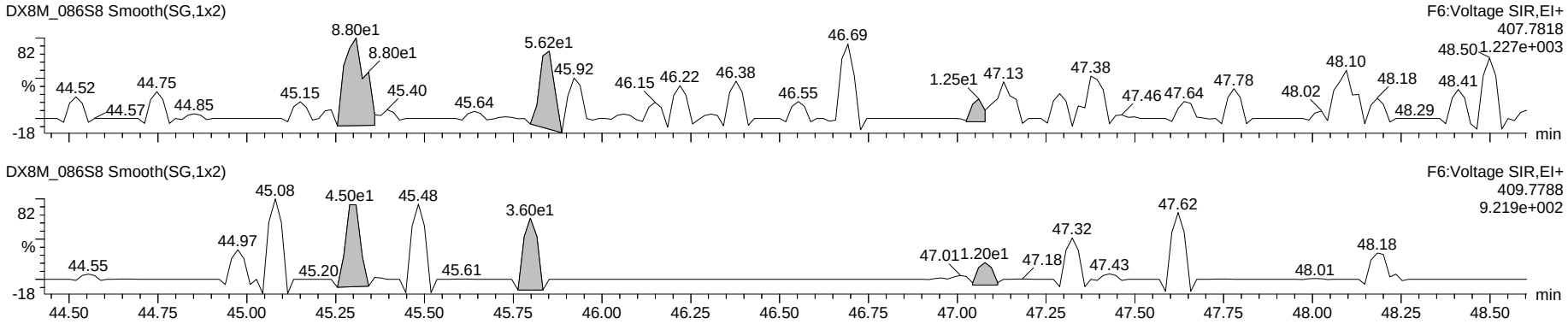
Hexa Lock



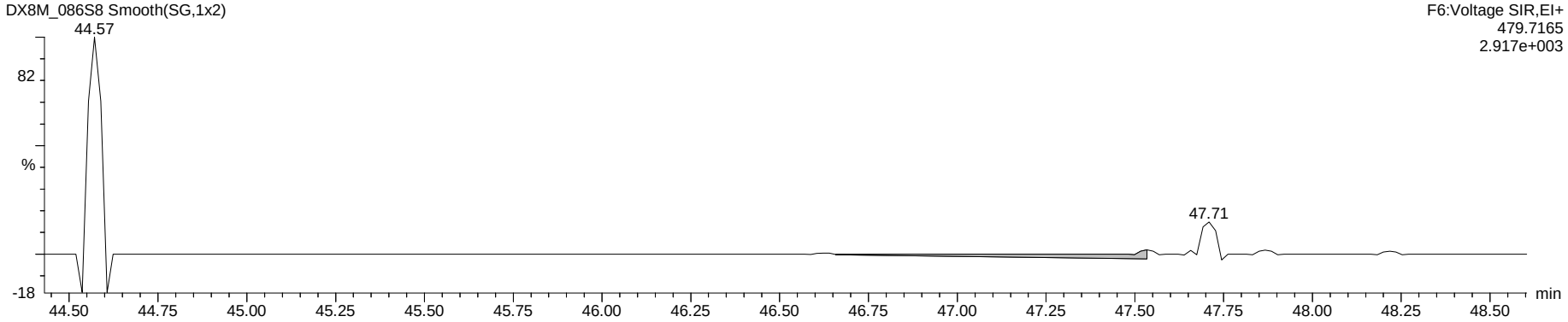
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S8, Date: 20-Jul-2018, Time: 22:30:36, ID: L29628-7,,, Description: 1,WG64578,1.0/20uL

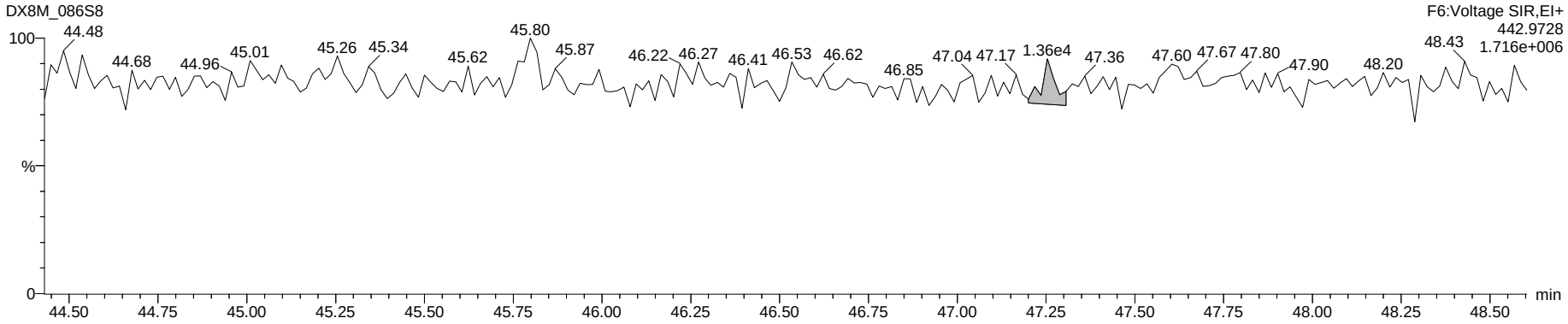
Total Hepta-Furans



Nona DPE



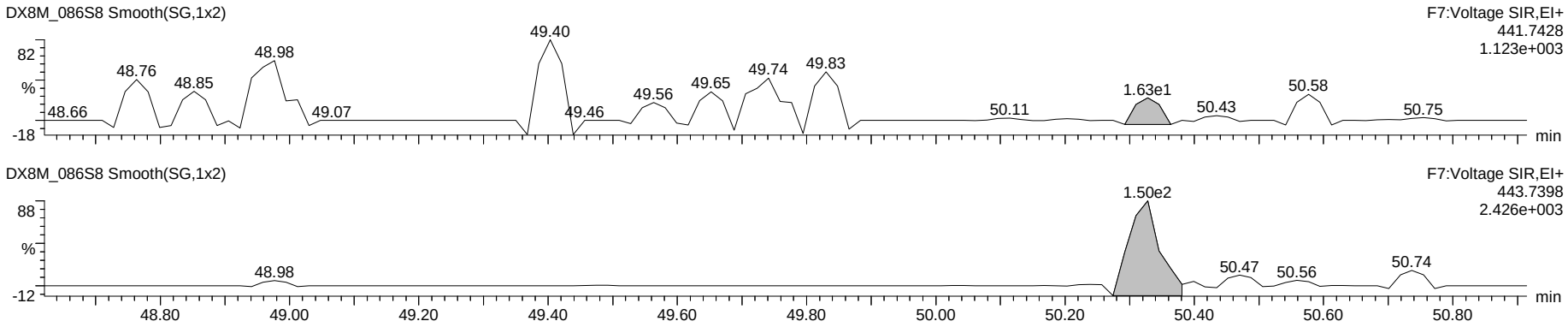
Hepta Lock



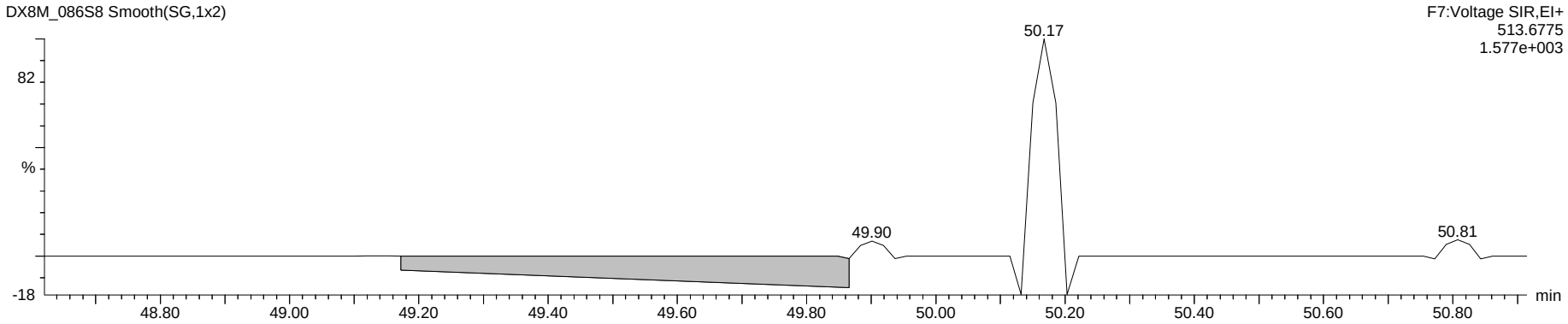
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S8, Date: 20-Jul-2018, Time: 22:30:36, ID: L29628-7,,, Description: 1,WG64578,1.0/20uL

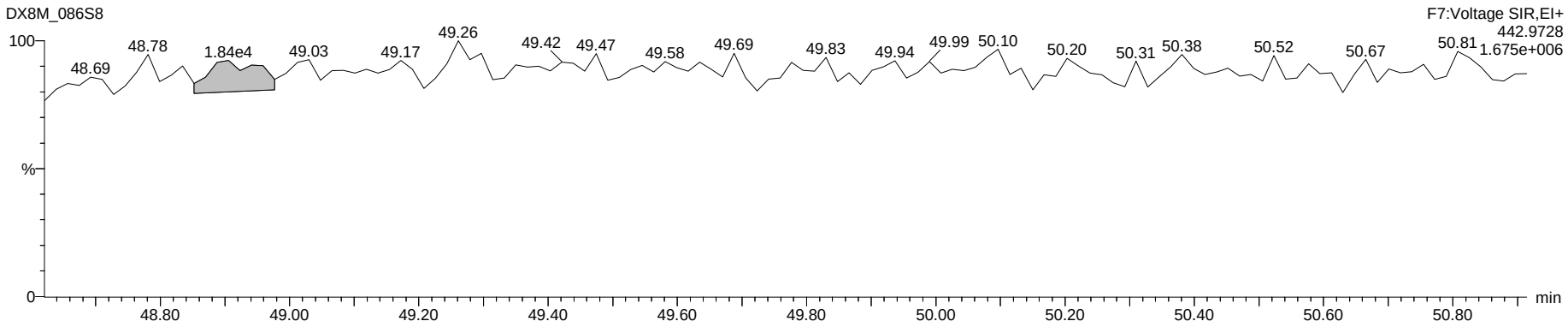
OCDF



Deca DPE



Octa Lock



Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S9, Date: 20-Jul-2018, Time: 23:25:48, ID: L29628-11,,, Description: 1,WG64578,1.0/20uL

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	1.071	1.70e2	3.81	YES	25.27	0.078	0.0558		2.59e2	2.70e2
2	1,2,3,7,8-PeCDF	1.071	7.56e2	2.52	YES	33.54	0.459	0.0901		4.30e2	1.15e2
3	2,3,4,7,8-PeCDF	1.071	2.89e2	2.00	YES	35.30	0.182	0.0803		4.30e2	1.15e2
4	1,2,3,4,7,8-HxCDF	1.071	1.36e2	0.92	YES	40.69	0.117	0.0897		2.62e2	2.98e2
5	1,2,3,6,7,8-HxCDF	1.071	1.11e2	6.46	YES	40.89	0.087	0.0821		2.62e2	2.98e2
6	2,3,4,6,7,8-HxCDF	1.071	7.17e1	0.81	YES	41.82	0.061	0.0828		2.62e2	2.98e2
7	1,2,3,7,8,9-HxCDF	1.071			NO			0.1261		2.62e2	2.98e2
8	1,2,3,4,6,7,8-HpCDF	1.071	1.56e2	1.71	YES	45.29	0.174	0.1663		3.05e2	5.81e2
9	1,2,3,4,7,8,9-HpCDF	1.071	1.28e2	3.91	YES	47.10	0.198	0.2516		3.05e2	5.81e2
10	OCDF	1.071	1.23e2	0.79	NO	50.31	0.255	0.0333		8.13e1	2.43e-1
11	2,3,7,8-TCDD	1.071	6.23e2	0.11	YES	26.49	0.343	0.1246		4.87e2	4.68e2
12	1,2,3,7,8-PeCDD	1.071	1.67e2	0.56	NO	36.11	0.150	0.0773		2.13e2	1.25e2
13	1,2,3,4,7,8-HxCDD	1.071	4.93e1	2.01	YES	42.04	0.062	0.3881		2.74e2	1.52e3
14	1,2,3,6,7,8-HxCDD	1.071	8.33e1	4.29	YES	42.21	0.095	0.3735		2.74e2	1.52e3
15	1,2,3,7,8,9-HxCDD	1.071	9.26e1	2.33	YES	42.67	0.110	0.3784		2.74e2	1.52e3
16	1,2,3,4,6,7,8-HpCDD	1.071	4.05e2	1.71	YES	46.67	0.704	0.1338		1.42e2	2.63e2
17	OCDD	1.071	2.14e3	1.06	YES	50.22	5.351	0.2832		1.73e2	4.02e2
18	13C-2,3,7,8-TCDF	1.071	4.46e6	0.71	NO	25.22	1351.641	1.3749	72.3	1.41e4	5.77e3
19	13C-1,2,3,7,8-PeCDF	1.071	3.33e6	1.41	NO	33.53	1403.206	1.2381	75.1	6.88e3	5.99e3
20	13C-2,3,4,7,8-PeCDF	1.071	3.16e6	1.42	NO	35.29	1378.239	1.2835	73.8	6.88e3	5.99e3
21	13C-1,2,3,4,7,8-HxCDF	1.071	1.94e6	0.53	NO	40.69	1495.336	3.0036	80.0	1.36e4	7.46e3
22	13C-1,2,3,6,7,8-HxCDF	1.071	2.23e6	0.53	NO	40.86	1608.027	2.8121	86.1	1.36e4	7.46e3
23	13C-2,3,4,6,7,8-HxCDF	1.071	1.93e6	0.51	NO	41.79	1556.147	3.1470	83.3	1.36e4	7.46e3
24	13C-1,2,3,7,8,9-HxCDF	1.071	1.71e6	0.52	NO	42.82	1397.524	3.1907	74.8	1.36e4	7.46e3
25	13C-1,2,3,4,6,7,8-HpCDF	1.071	1.37e6	0.44	NO	45.27	1324.977	2.7250	70.9	8.36e3	6.87e3
26	13C-1,2,3,4,7,8,9-HpCDF	1.071	9.66e5	0.46	NO	47.06	1195.151	3.4936	64.0	8.36e3	6.87e3
27	13C-2,3,7,8-TCDD	1.071	3.05e6	0.77	NO	26.45	1489.555	1.2534	79.7	4.89e3	6.35e3
28	13C-1,2,3,7,8-PeCDD	1.071	2.03e6	0.69	NO	36.11	1507.466	0.7657	80.7	2.84e3	1.66e3
29	13C-1,2,3,4,7,8-HxCDD	1.071	1.49e6	1.23	NO	42.08	1483.746	2.2005	79.4	4.45e3	7.43e3
30	13C-1,2,3,6,7,8-HxCDD	1.071	1.76e6	1.20	NO	42.21	1657.571	2.0809	88.7	4.45e3	7.43e3
31	13C-1,2,3,4,6,7,8-HpCDD	1.071	1.08e6	1.01	NO	46.66	1302.616	2.0285	69.7	4.43e3	4.62e3
32	13C-OCDD	1.071	1.47e6	0.86	NO	50.20	2016.739	3.5824	54.0	5.00e3	9.06e3
33	13C-1,2,3,4-TCDD	1.071	3.81e6	0.79	NO	26.11	157.655	0.1062	8.4	4.89e3	6.35e3
34	13C-1,2,3,7,8,9-HxCDD	1.071	1.90e6	1.26	NO	42.63	124.366	0.1442	6.7	4.45e3	7.43e3
35	37Cl-2,3,7,8-TCDD	1.071	3.15e5			26.47	138.350	0.2252	74.1		2.24e3
36	Total Tetra-Furans	1.071					1.022	0.0558			2.70e2
37	Total Tetra-Dioxins	1.071					0.790	0.1246			4.68e2
38	Total Penta-Furans	1.071					0.868	0.0860			1.15e2
39	Total Penta-Dioxins	1.071					0.605	0.0773			1.25e2
40	Total Hexa-Furans	1.071					0.423	0.0902			2.98e2
41	Total Hexa-Dioxins	1.071					1.364	0.3662			1.52e3
42	Total Hepta-Furans	1.071					0.517	0.2040			5.81e2
43	Total Hepta-Dioxins	1.071					3.148	0.1338			2.63e2
44	Hexa DPE	1.000	2.46e2			21.41					3.43e-1
45	Hepta DPE	1.000	7.83e1			34.75					0.00e0
46	Octa DPE	1.000	1.11e2			41.40					1.71e-1
47	Nona DPE	1.000	1.18e2			47.01					4.93e-2
48	Deca DPE	1.000	9.26e1			49.26					3.03e-1
49	Tetra Lock	1.000	9.42e3			23.63					1.17e5
50	Penta Lock	1.000	1.84e5			29.35					1.99e5
51	Hexa Lock	1.000	6.14e5			38.94					2.87e5
52	Hepta Lock	1.000									1.82e5
53	Octa Lock	1.000									1.76e5
54	13C-Tetra-Furans	1.071					1351.641	1.3749			5.77e3
55	13C-Tetra-Dioxins	1.071					1647.209	1.3596			6.35e3

pv'd by LHE 23-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

SVD 26JUL2018

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S9, Date: 20-Jul-2018, Time: 23:25:48, ID: L29628-11,,, Description: 1,WG64578,1.0/20uL

Tetrafurans

	RT	1° Ratio (A...	Fails?	pg
1	22.77	0.654	YES	0.037
2	23.45	0.782	NO	0.142
3	24.20	0.946	YES	0.019
4	24.45	1.458	YES	0.041
5	24.61	0.763	NO	0.062
6	24.92	1.047	YES	0.022
7	25.27	3.812	YES	0.078
8	25.58	0.569	YES	0.036
9	26.15	1.081	YES	0.407
10	26.33	0.718	NO	0.048
11	28.19	2.265	YES	0.069
12	26.22	0.560	YES	0.062

Tetradioxins

	RT	1° Ratio (A...	Fails?	pg
1	23.17	1.557	YES	0.089
2	25.22	4.700	YES	0.358
3	26.49	0.112	YES	0.343

Pentafurans

	RT	1° Ratio (A...	Fails?	pg
1	31.47	1.411	NO	0.041
2	32.70	0.656	YES	0.057
3	33.54	2.524	YES	0.459
4	34.35	0.528	YES	0.035
5	35.30	2.003	YES	0.182
6	36.06	1.645	NO	0.033
7	36.31	0.159	YES	0.018
8	37.15	64.081	YES	0.042

Pentadioxins

	RT	1° Ratio (A...	Fails?	pg
1	32.04	1.103	YES	0.106
2	33.16	3.719	YES	0.055
3	33.69	0.876	YES	0.194
4	34.99	2.516	YES	0.099
5	36.11	0.561	NO	0.150

Hexafurans

	RT	1° Ratio (A...	Fails?	pg
1	39.20	1.900	YES	0.052
2	39.23	1.258	NO	0.064
3	40.69	0.925	YES	0.117
4	40.89	6.460	YES	0.087
5	40.98	2.886	YES	0.042
6	41.82	0.813	YES	0.061

pv'd by LHE 23-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S9, Date: 20-Jul-2018, Time: 23:25:48, ID: L29628-11,,, Description: 1,WG64578,1.0/20uL

Hexadioxins

	RT	1° Ratio (A...	Fails?	pg
1	40.01	0.715	YES	0.105
2	40.86	2.455	YES	0.897
3	41.25	2.683	YES	0.095
4	42.04	2.015	YES	0.062
5	42.21	4.287	YES	0.095
6	42.67	2.328	YES	0.110

Heptafurans

	RT	1° Ratio (A...	Fails?	pg
1	45.29	1.710	YES	0.174
2	45.82	0.441	YES	0.146
3	47.10	3.907	YES	0.198

Heptadioxins

	RT	1° Ratio (A...	Fails?	pg
1	45.75	1.150	NO	2.444
2	46.67	1.706	YES	0.704

13C-TF

	RT	1° Ratio (A...	Fails?	pg
1	25.22	0.707	NO	1351.6...

13C-TD

	RT	1° Ratio (A...	Fails?	pg
1	26.11	0.794	NO	157.655
2	26.45	0.767	NO	1489.5...

13C-PF

	RT	1° Ratio (A...	Fails?	pg
1	33.53	1.414	NO	1403.2...
2	35.29	1.425	NO	1378.2...

13C-PD

	RT	1° Ratio (A...	Fails?	pg
1	36.11	0.689	NO	1507.4...

13C-HxF

	RT	1° Ratio (A...	Fails?	pg
1	40.69	0.531	NO	1495.3...
2	40.86	0.528	NO	1608.0...
3	41.79	0.510	NO	1556.1...
4	42.82	0.520	NO	1397.5...

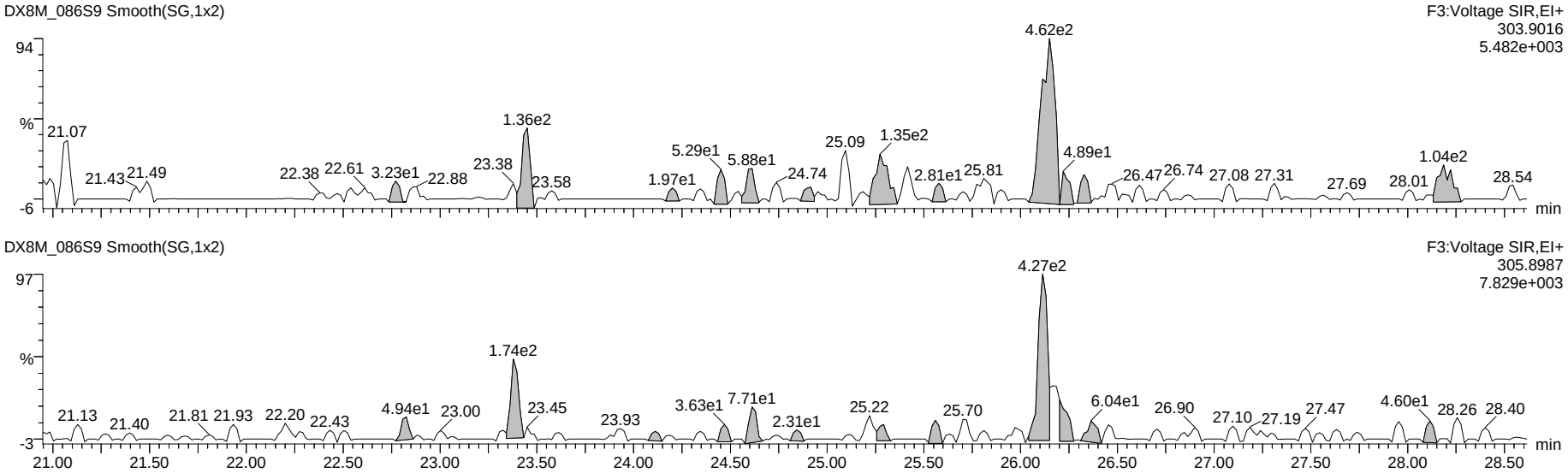
pv'd by LHE 23-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

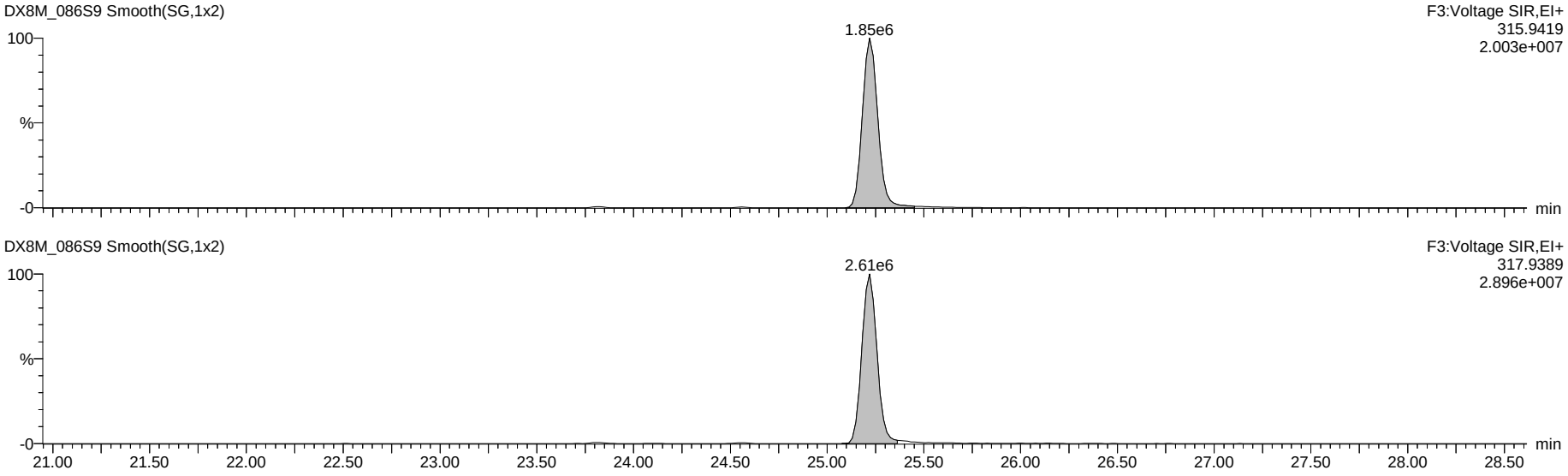
Method: G:\Masslynx\Inst_M\Exported_methods\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_086S9, Date: 20-Jul-2018, Time: 23:25:48, ID: L29628-11,,, Description: 1,WG64578,1.0/20uL

Total Tetra-Furans



13C-Tetra-Furans



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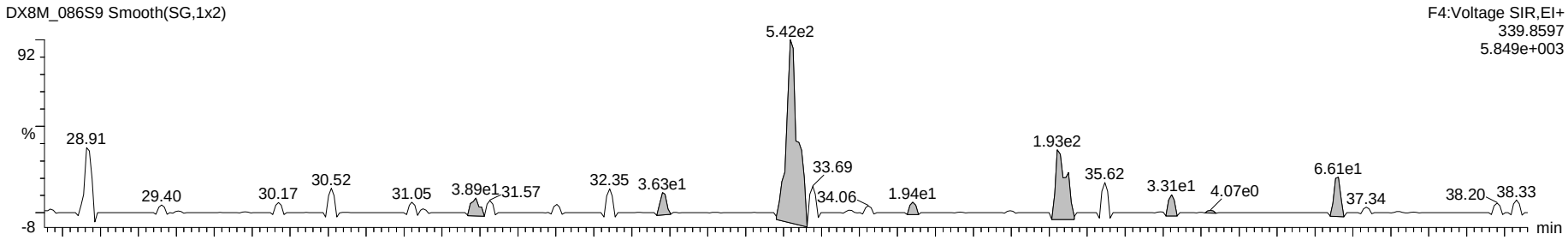
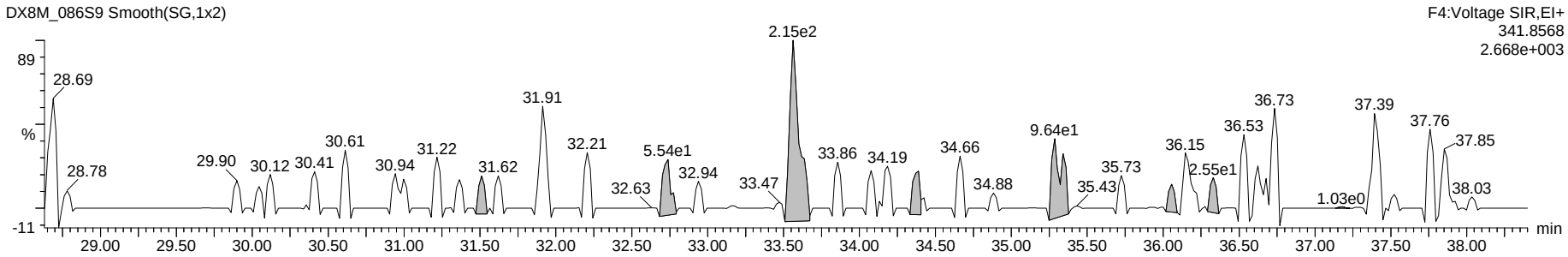
Name: DX8M_086S9, Date: 20-Jul-2018, Time: 23:25:48, ID: L29628-11,,, Description: 1,WG64578,1.0/20uL

Total Penta-Furans





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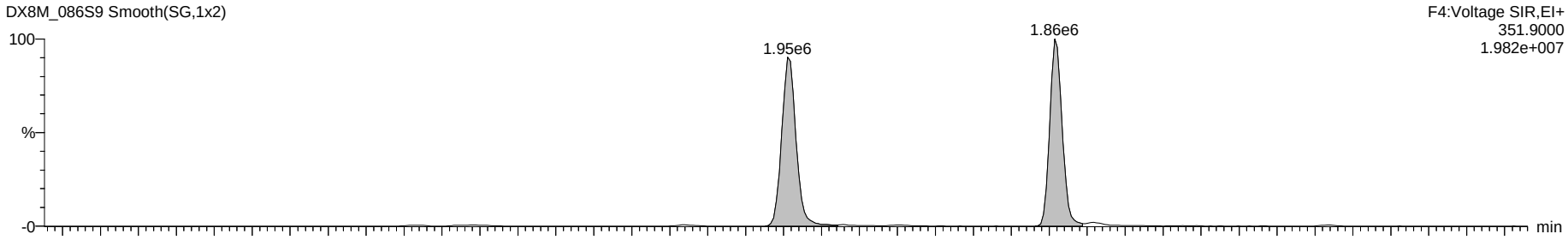
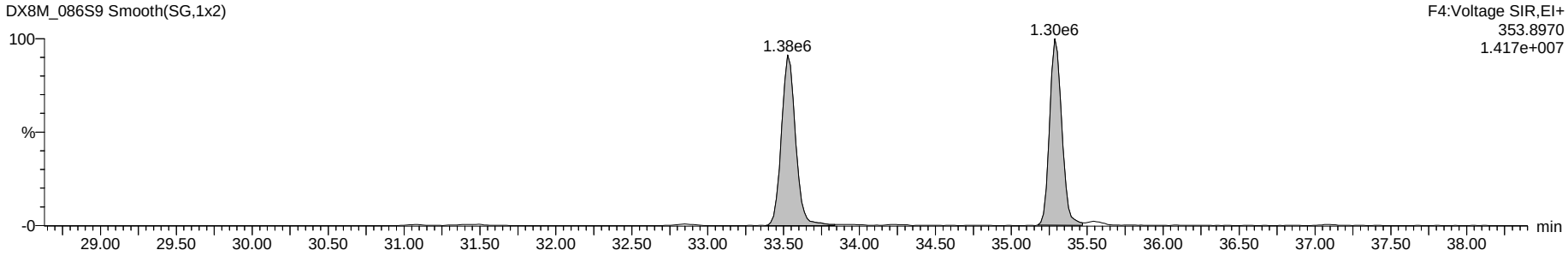
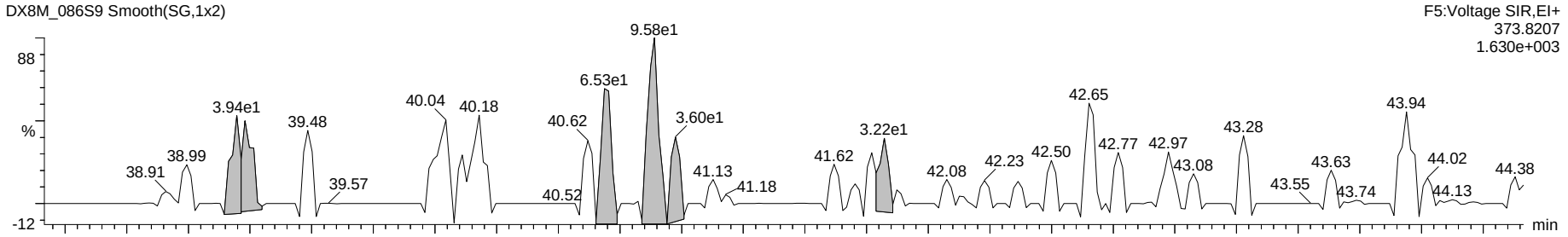


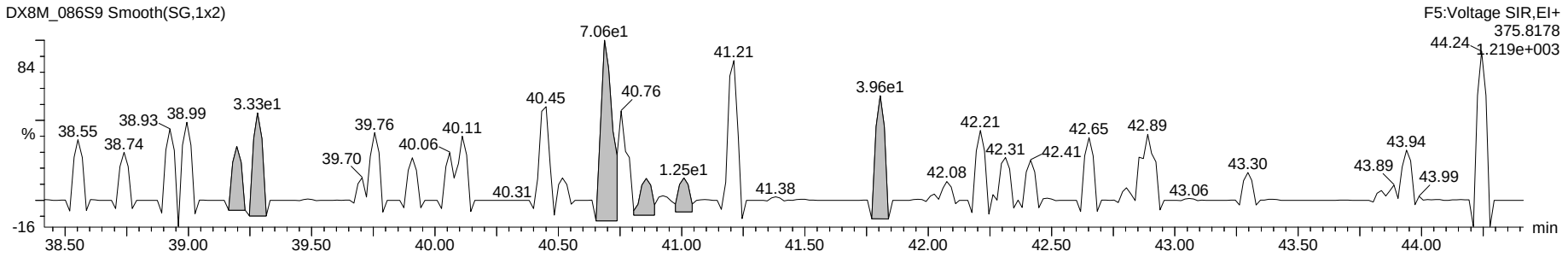


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S9, Date: 20-Jul-2018, Time: 23:25:48, ID: L29628-11,,, Description: 1,WG64578,1.0/20uL

Total Hexa-Furans





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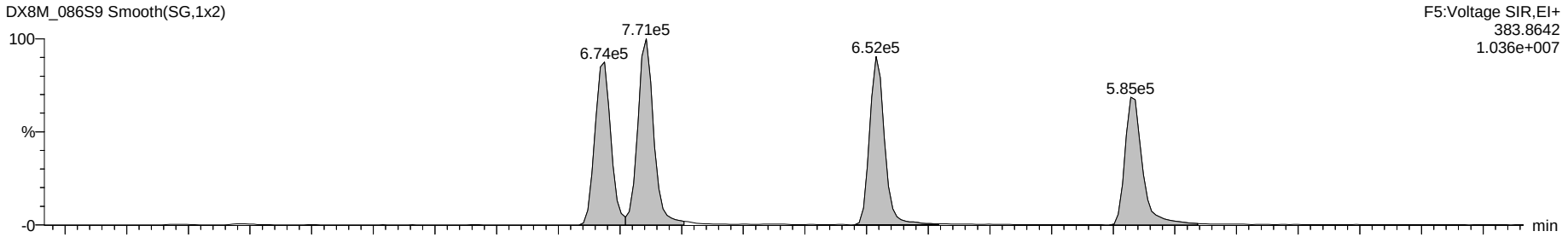

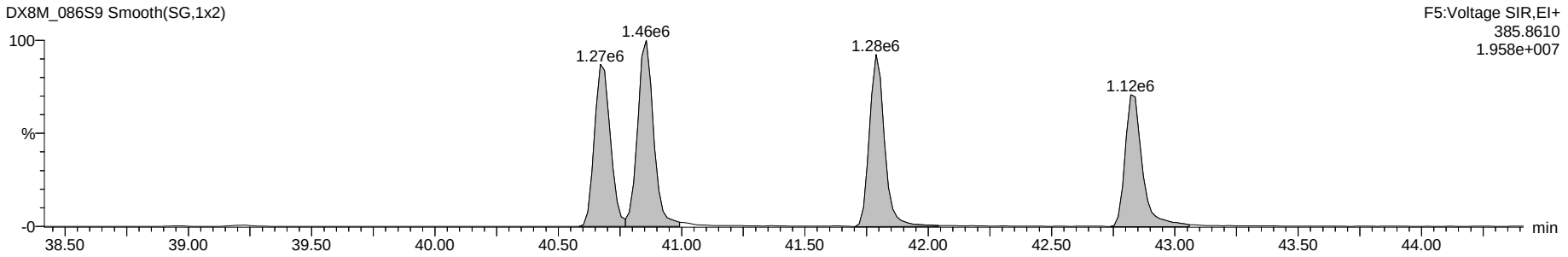

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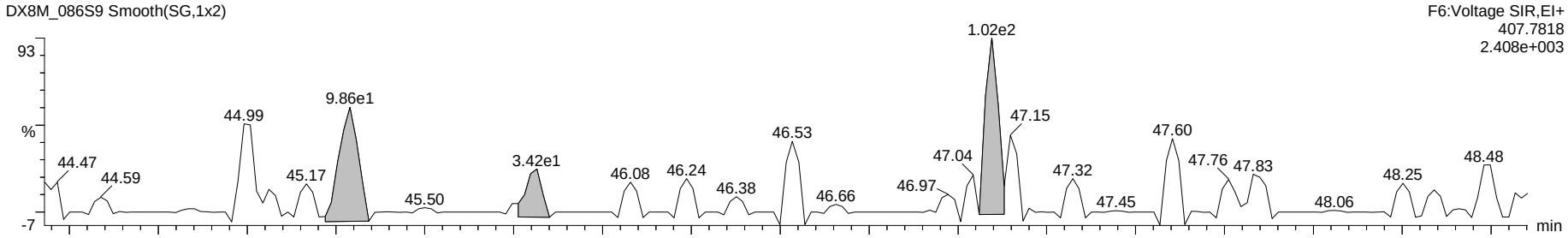
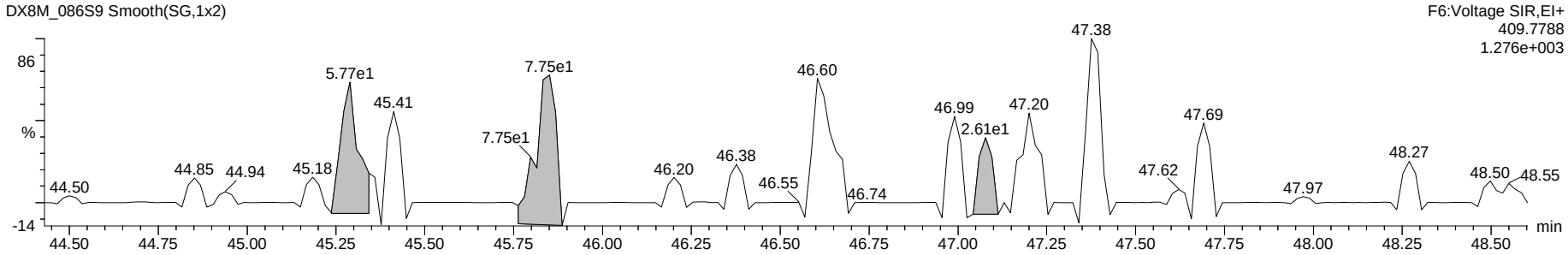
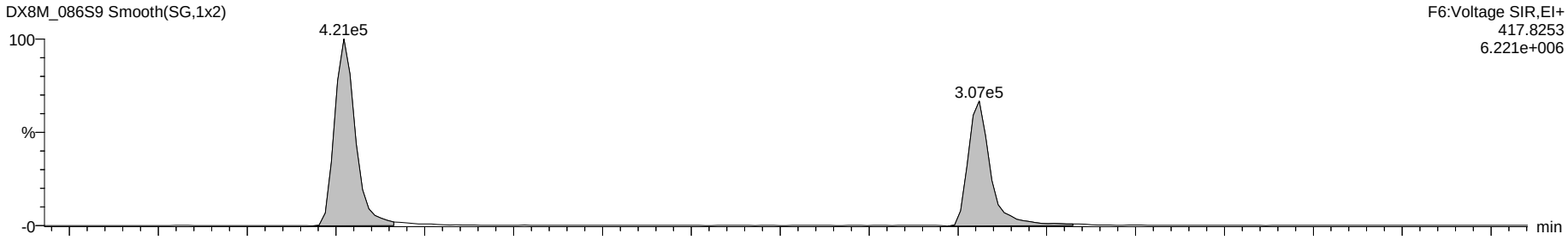
Name: DX8M_086S9, Date: 20-Jul-2018, Time: 23:25:48, ID: L29628-11,,, Description: 1,WG64578,1.0/20uL

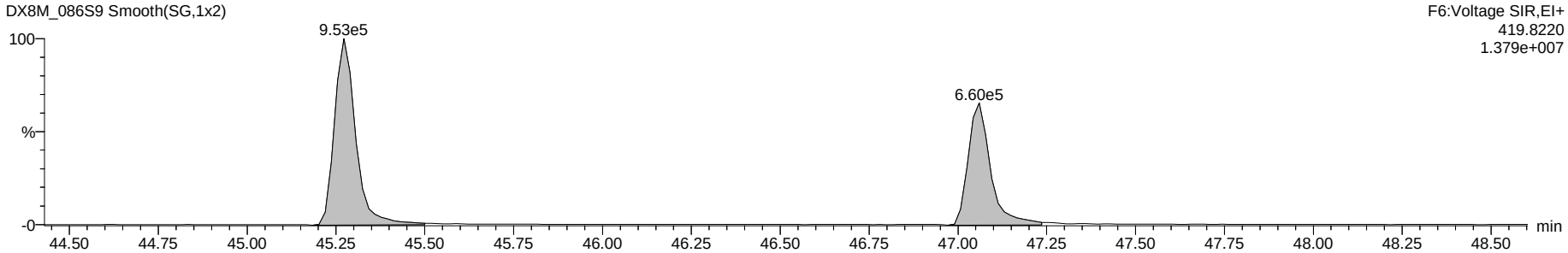
Total Hepta-Furans





13C-Hepta-Furans





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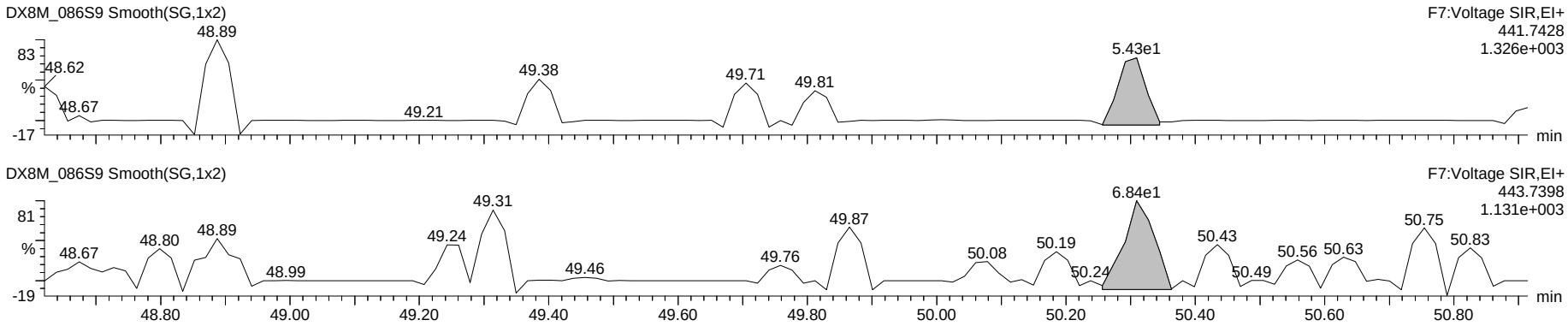
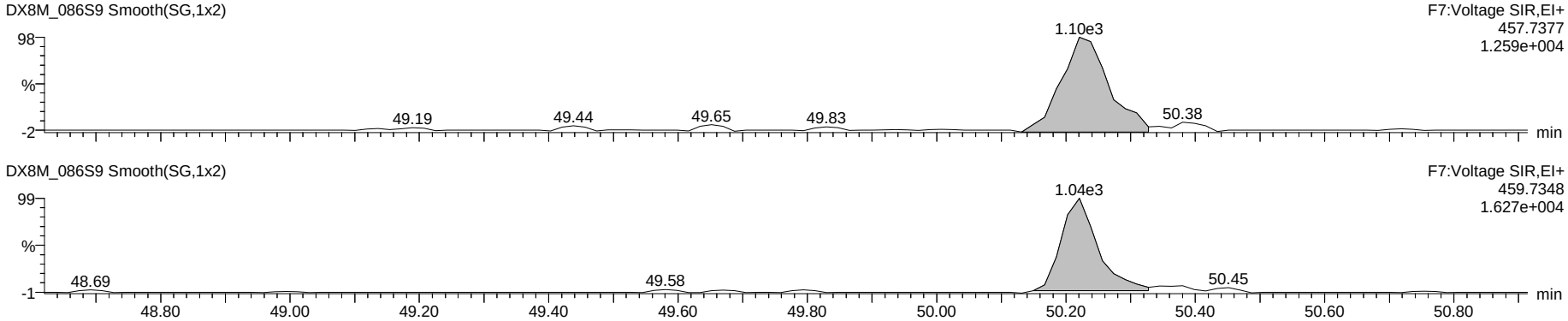


OCDD



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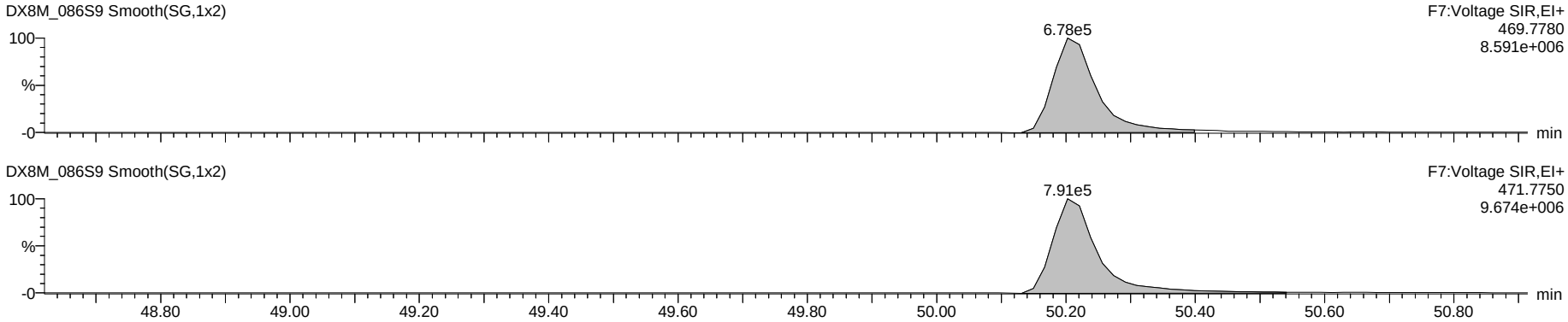

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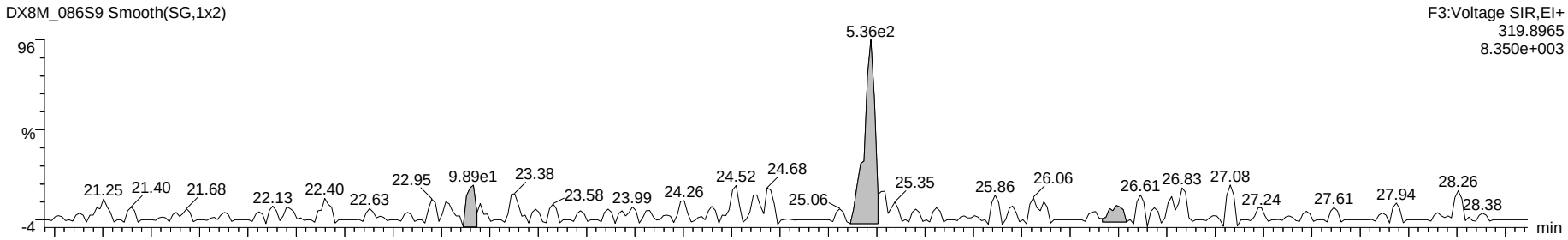
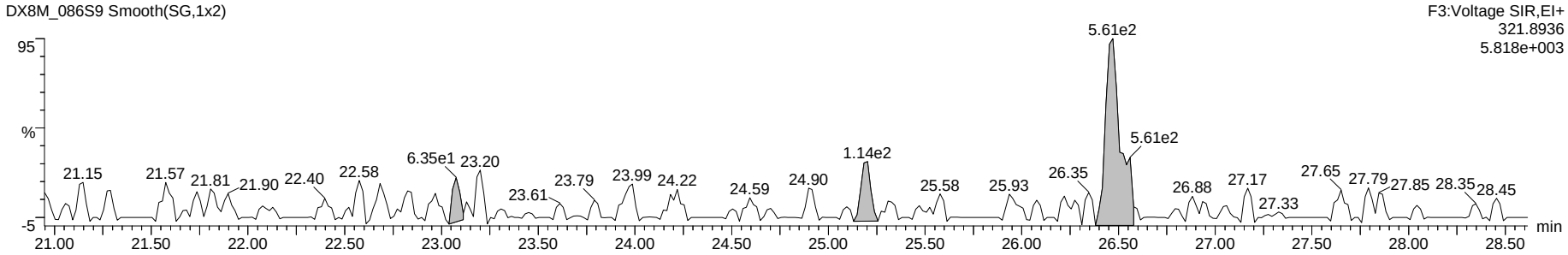
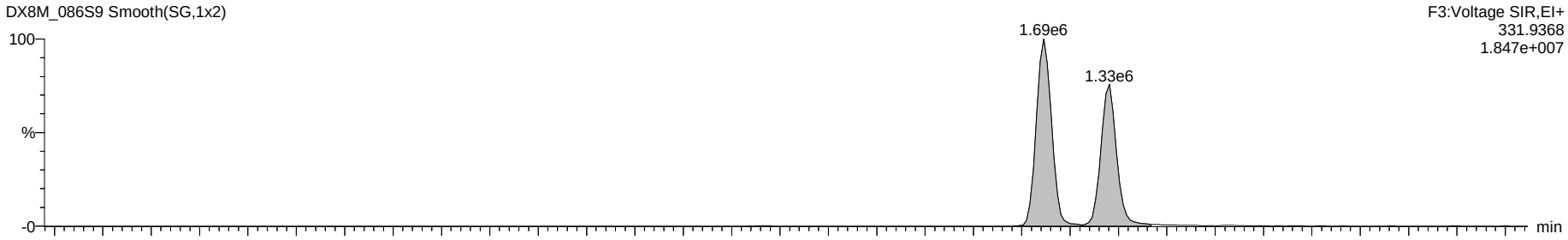
Name: DX8M_086S9, Date: 20-Jul-2018, Time: 23:25:48, ID: L29628-11,,, Description: 1,WG64578,1.0/20uL

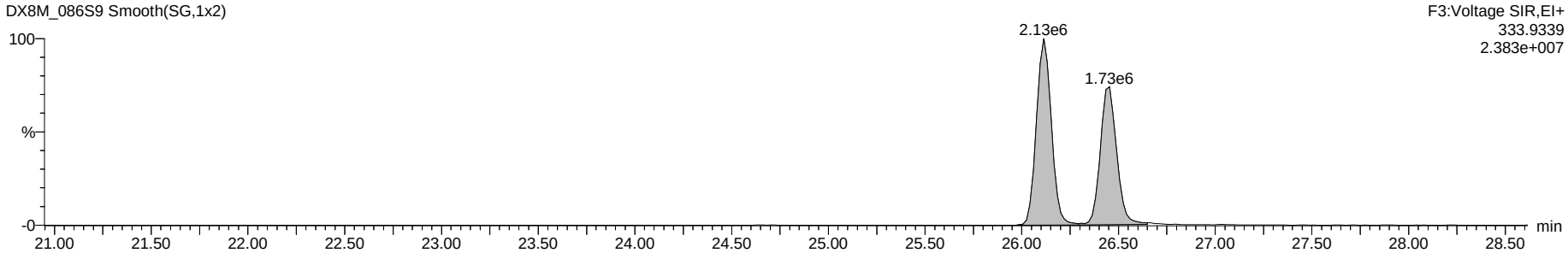
Total Tetra-Dioxins





13C-Tetra-Dioxins





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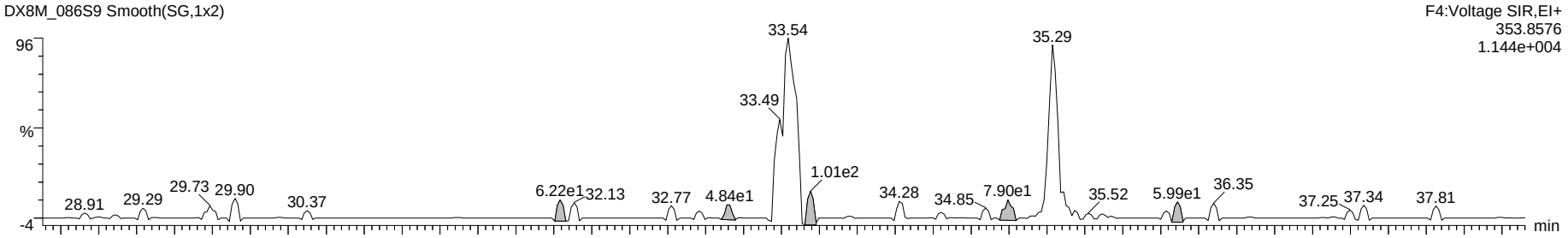
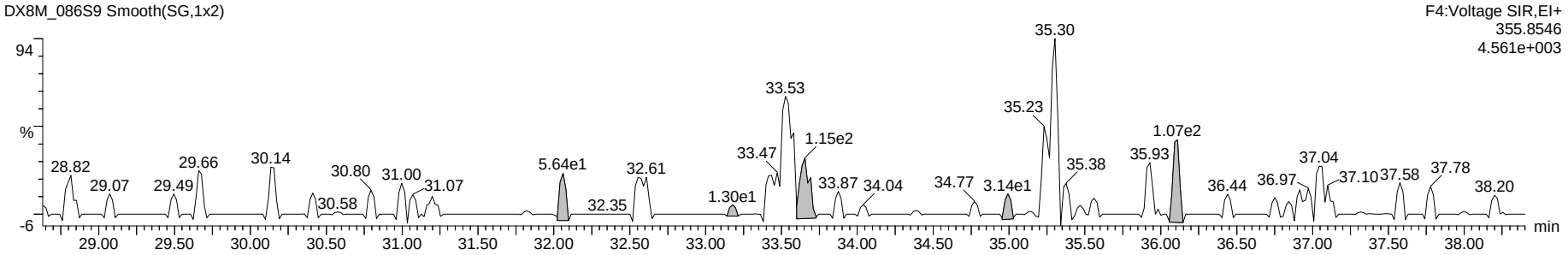
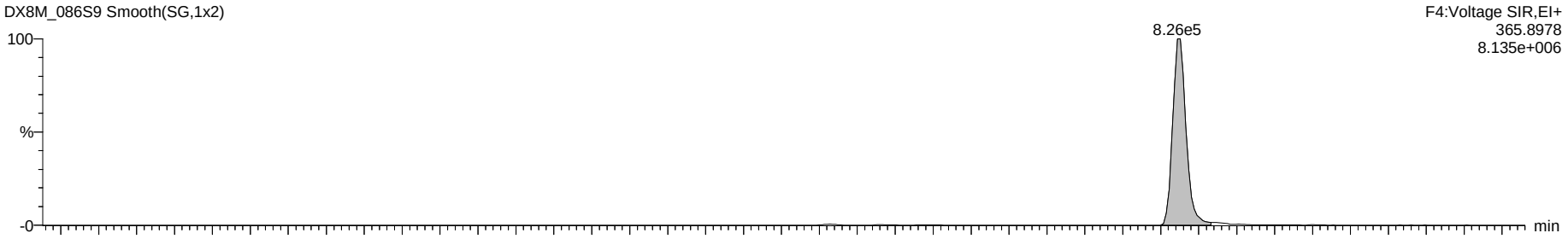
Name: DX8M_086S9, Date: 20-Jul-2018, Time: 23:25:48, ID: L29628-11,,, Description: 1,WG64578,1.0/20uL

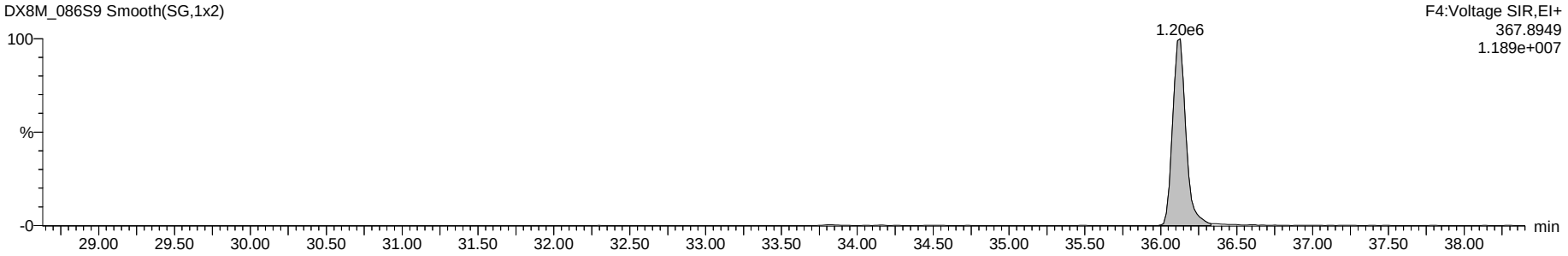
Total Penta-Dioxins





13C-Penta-Dioxins





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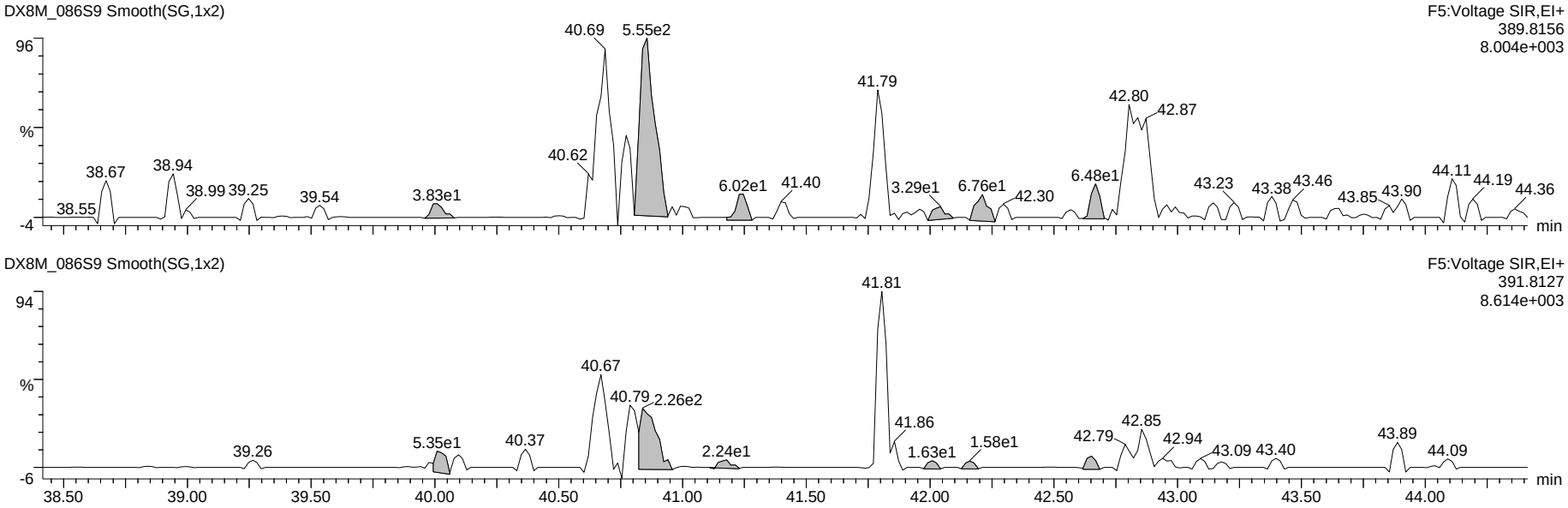
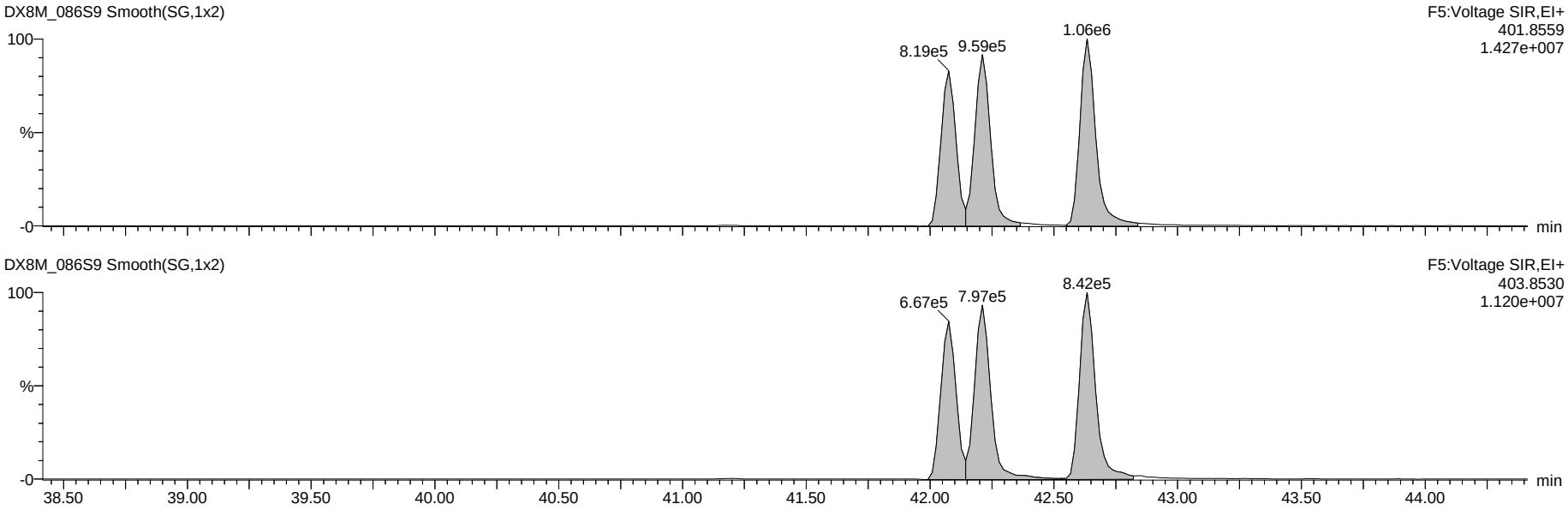
Name: DX8M_086S9, Date: 20-Jul-2018, Time: 23:25:48, ID: L29628-11,,, Description: 1,WG64578,1.0/20uL

Total Hexa-Dioxins



13C-Hexa-Dioxins



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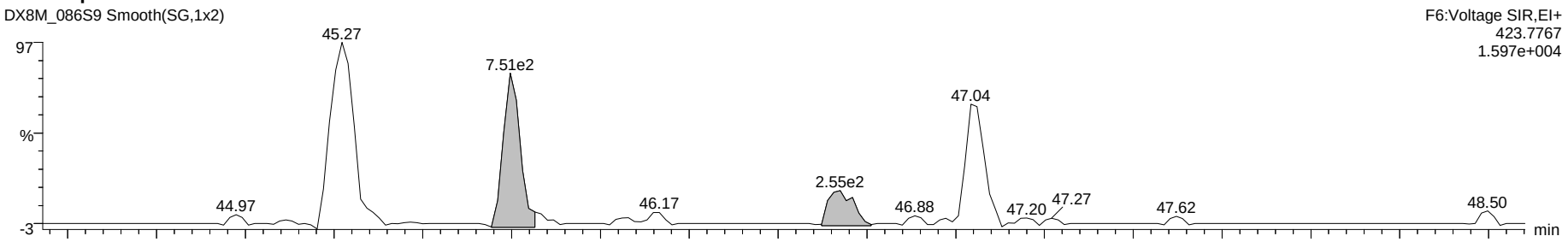
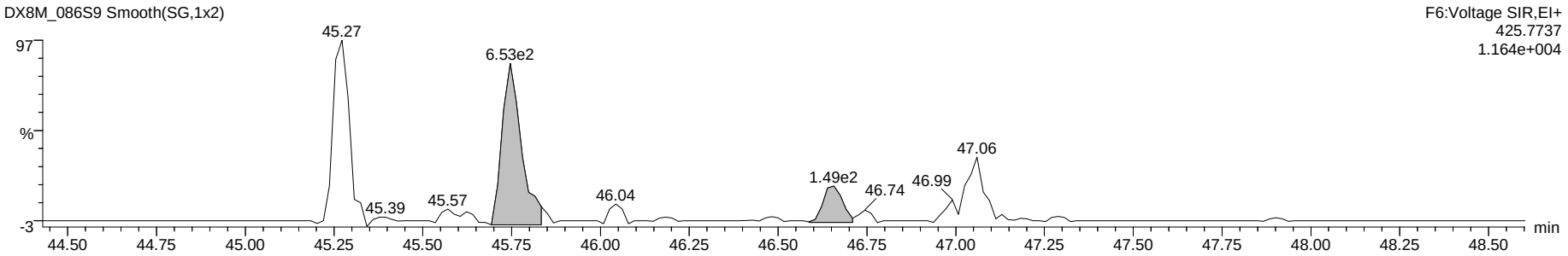
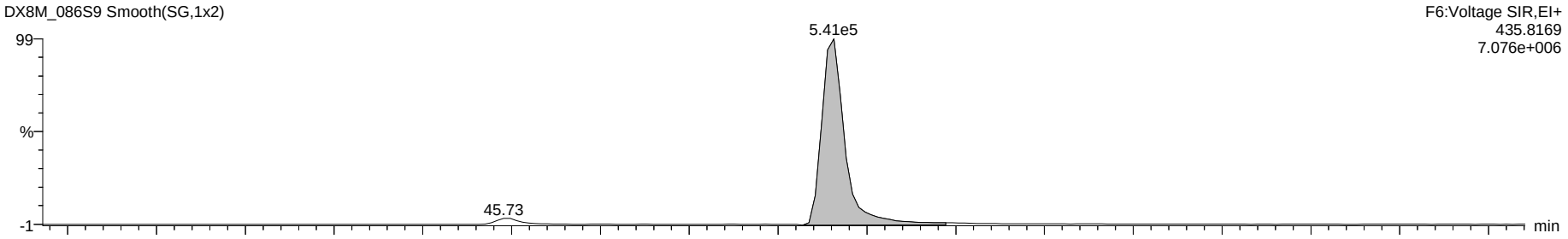
Name: DX8M_086S9, Date: 20-Jul-2018, Time: 23:25:48, ID: L29628-11,,, Description: 1,WG64578,1.0/20uL

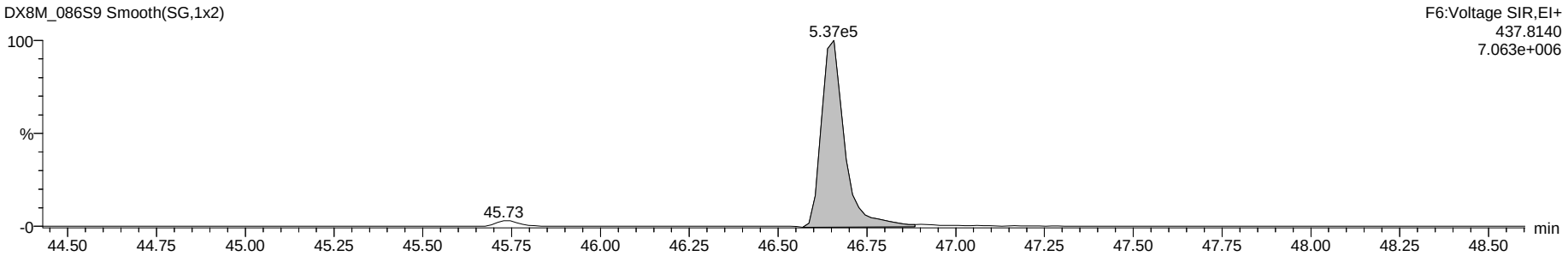
Total Hepta-Dioxins





13C-Hepta-Dioxins





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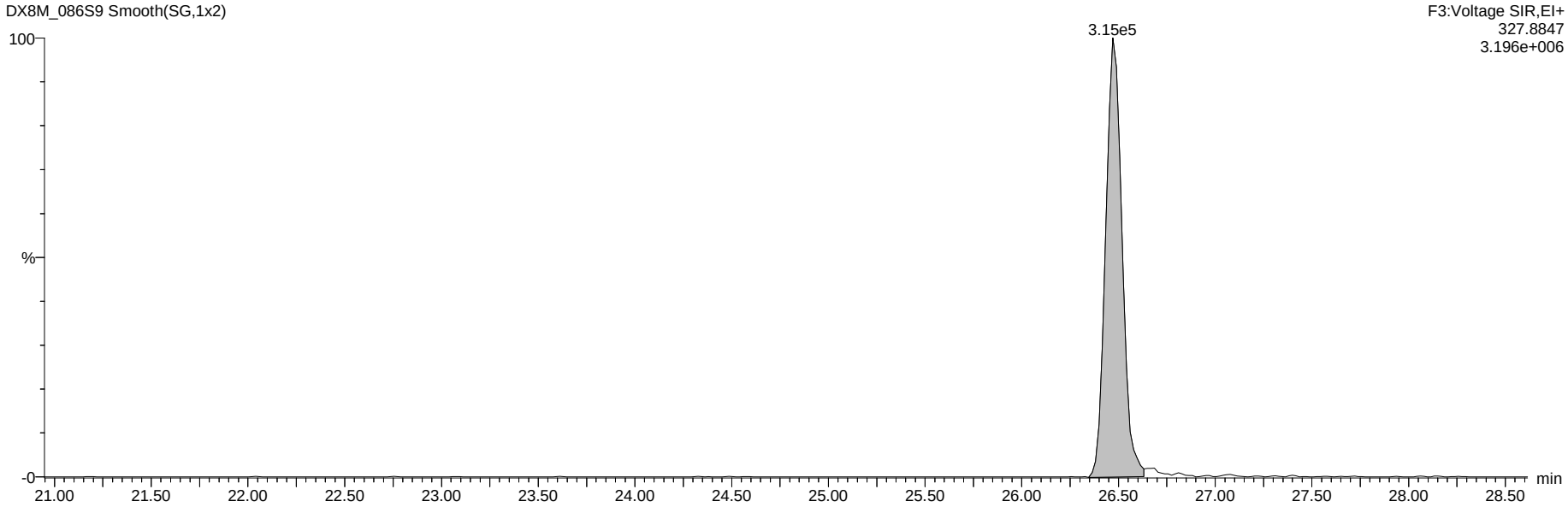
Name: DX8M_086S9, Date: 20-Jul-2018, Time: 23:25:48, ID: L29628-11,,, Description: 1,WG64578,1.0/20uL

37Cl-2,3,7,8-TCDD



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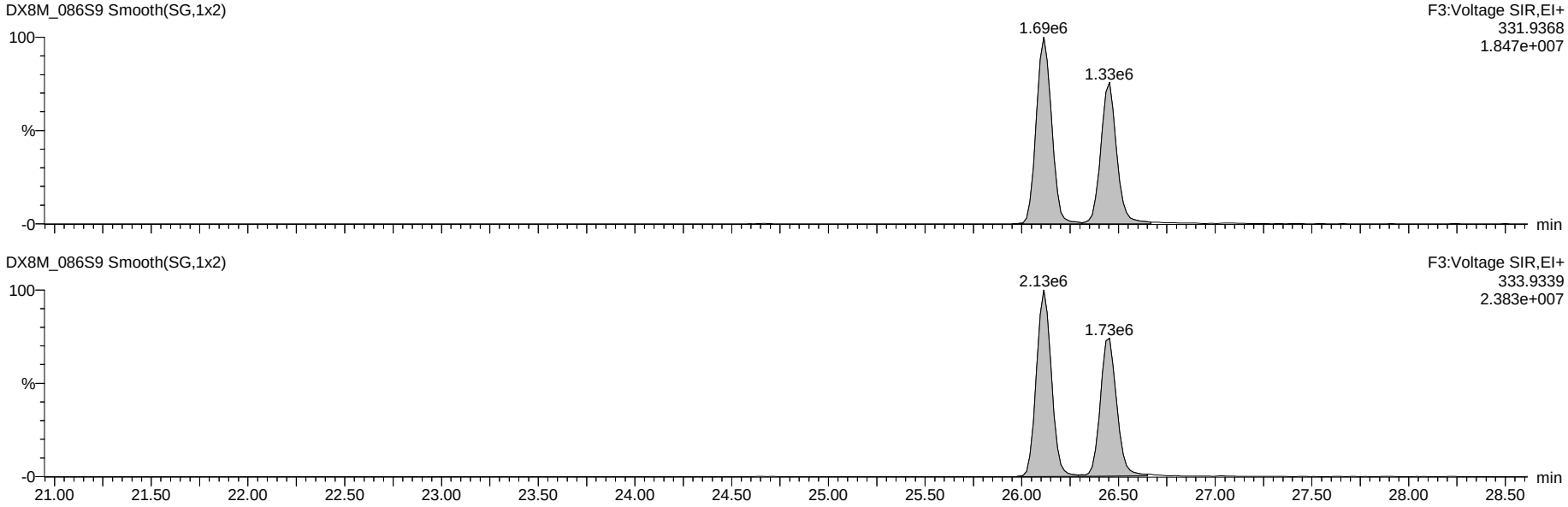

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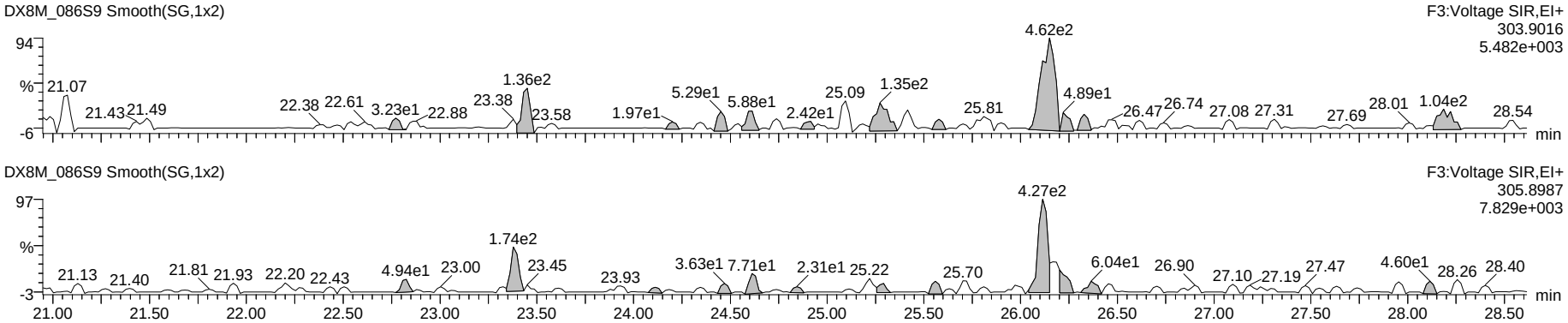
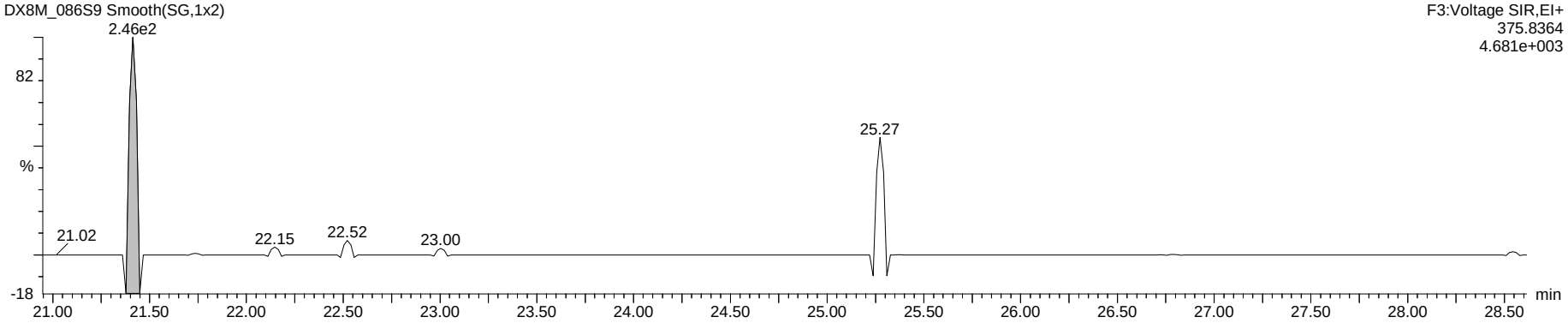
Name: DX8M_086S9, Date: 20-Jul-2018, Time: 23:25:48, ID: L29628-11,,, Description: 1,WG64578,1.0/20uL

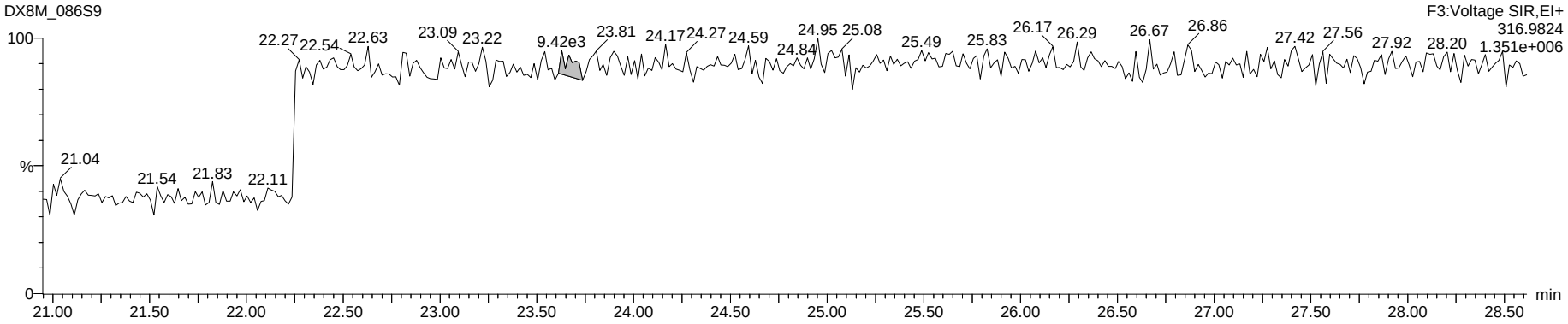
Total Tetra-Furans



Hexa DPE



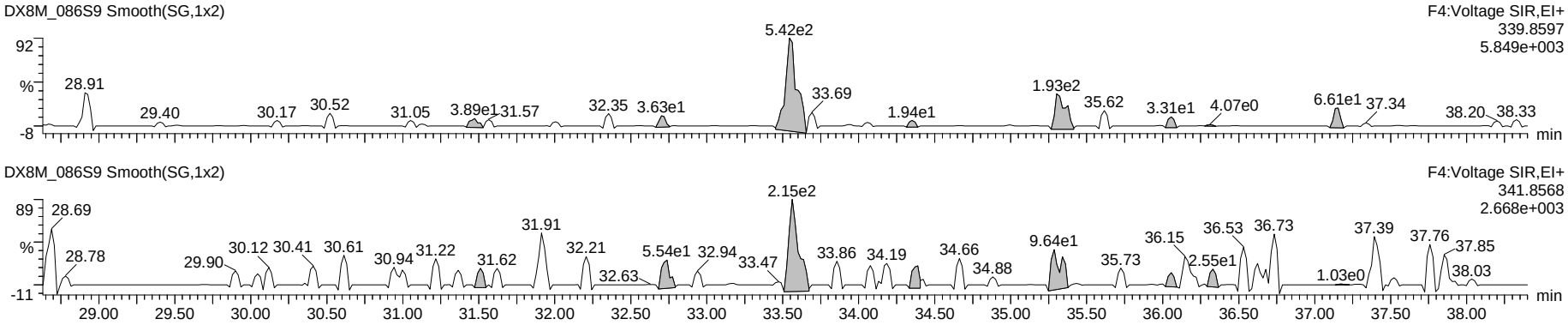
Tetra Lock



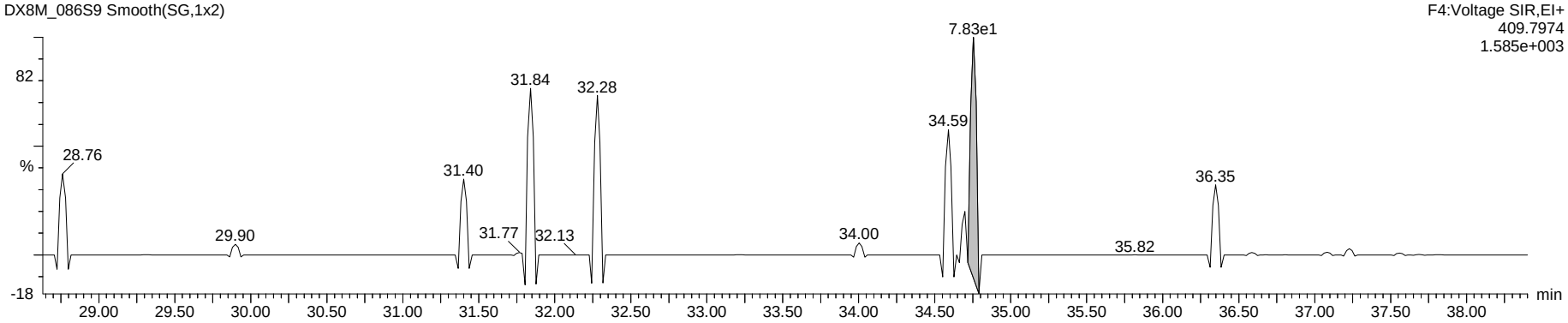
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S9, Date: 20-Jul-2018, Time: 23:25:48, ID: L29628-11,,, Description: 1,WG64578,1.0/20uL

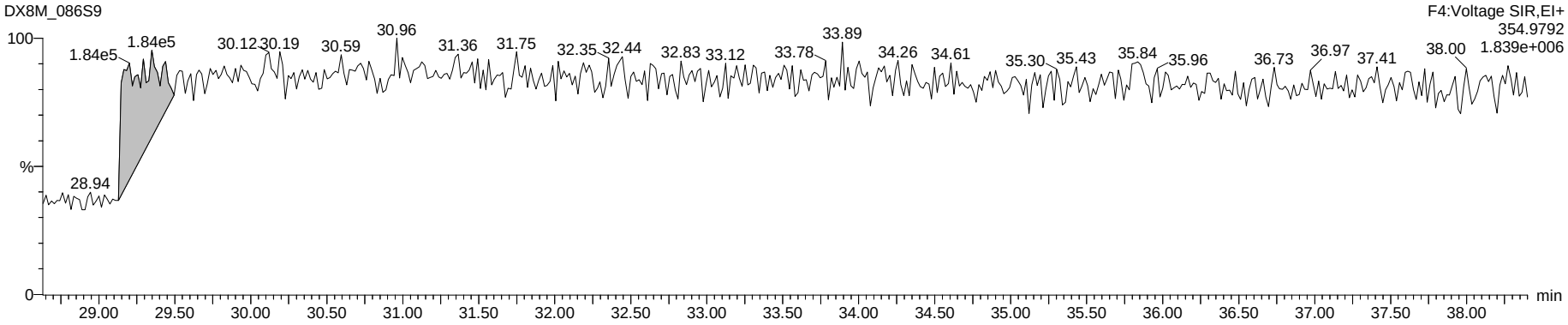
Total Penta-Furans



Hepta DPE



Penta Lock



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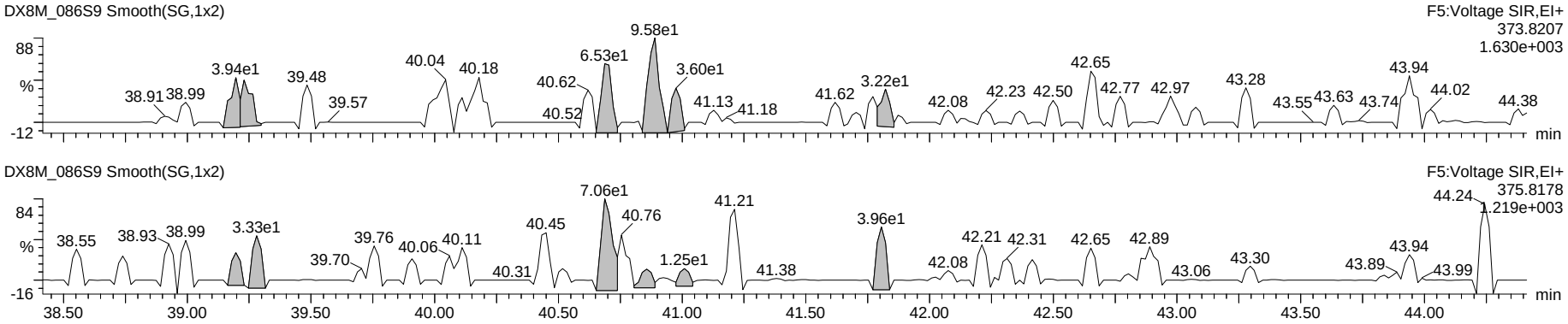
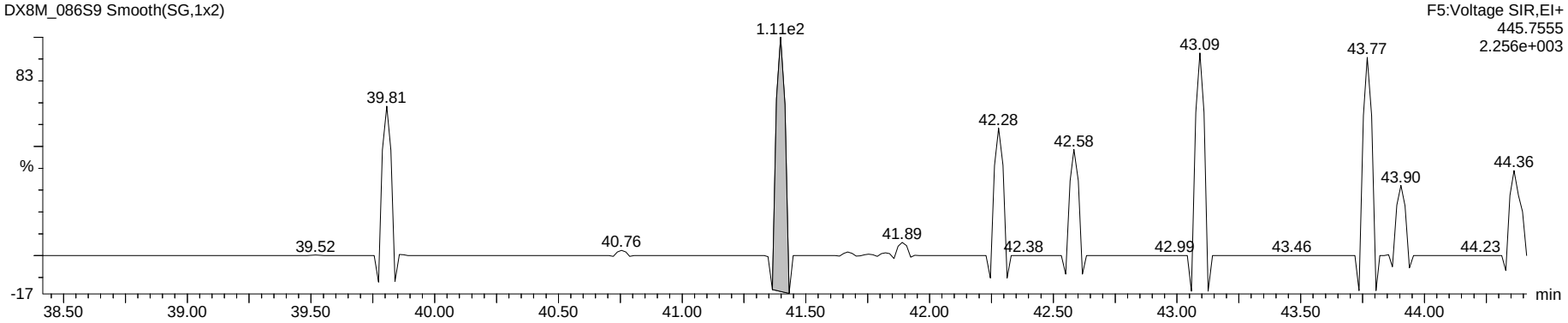
Name: DX8M_086S9, Date: 20-Jul-2018, Time: 23:25:48, ID: L29628-11,,, Description: 1,WG64578,1.0/20uL

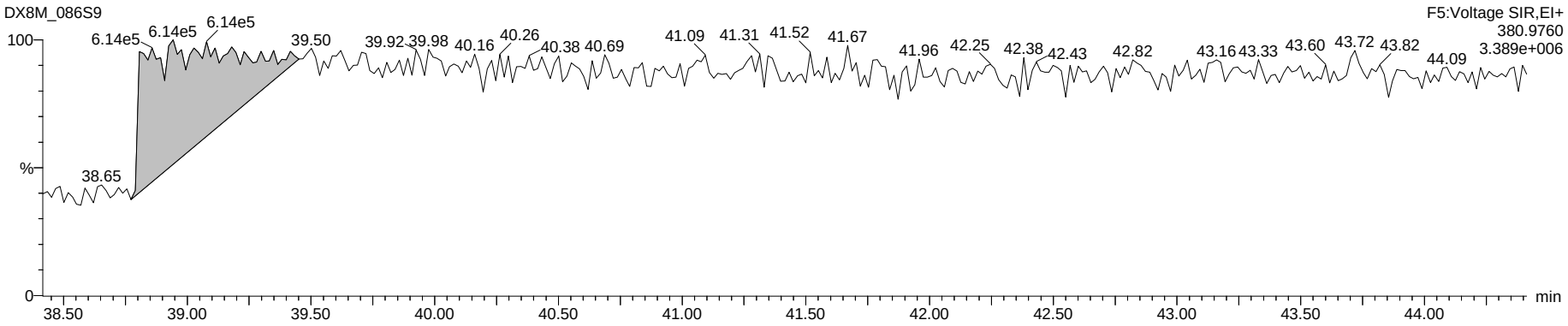
Total Hexa-Furans



Octa DPE



Hexa Lock



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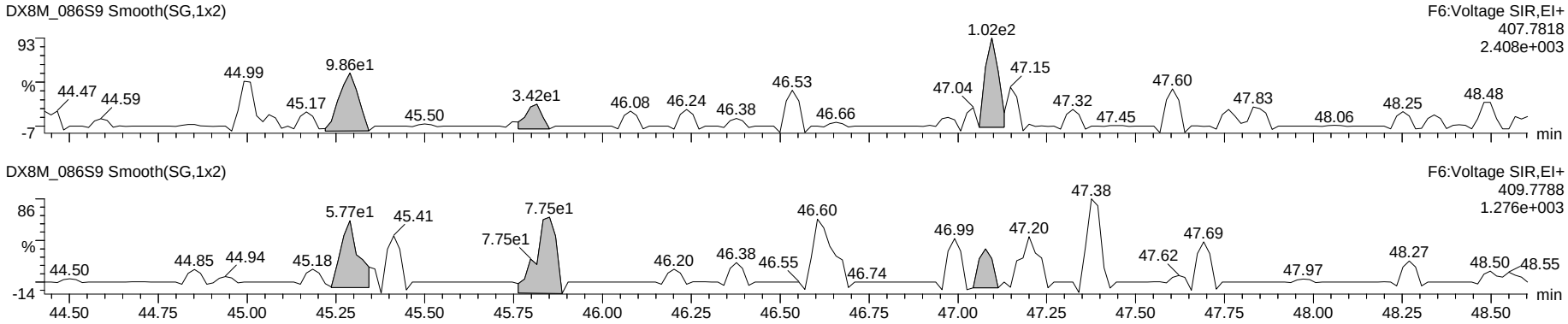
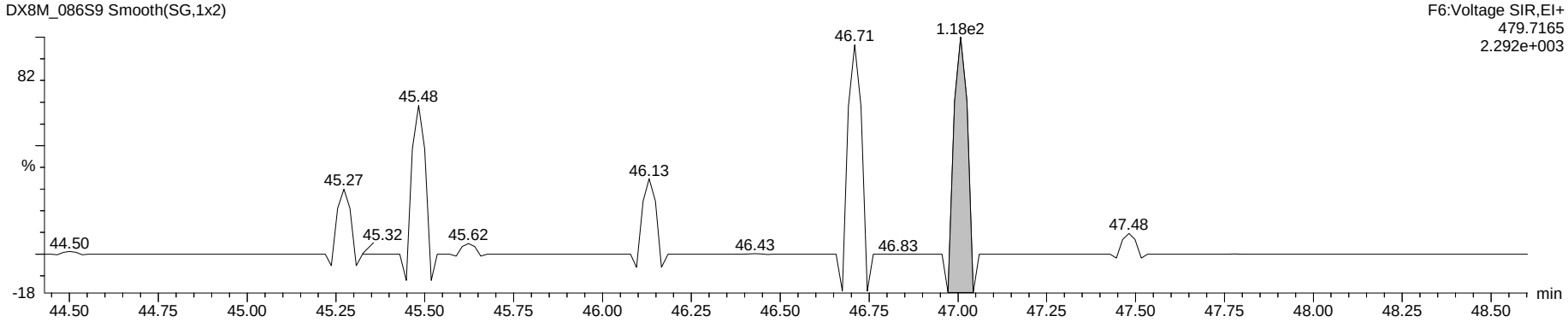
Name: DX8M_086S9, Date: 20-Jul-2018, Time: 23:25:48, ID: L29628-11,,, Description: 1,WG64578,1.0/20uL

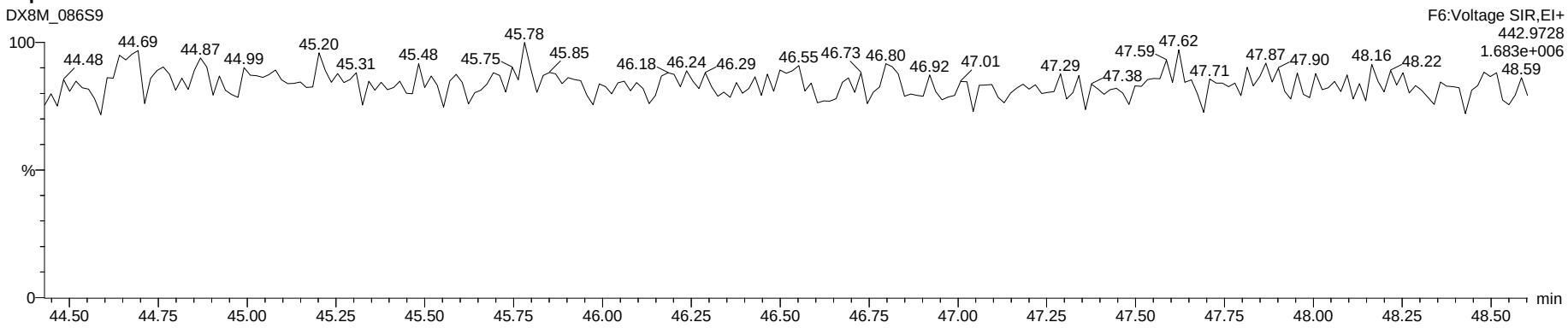
Total Hepta-Furans



Nona DPE



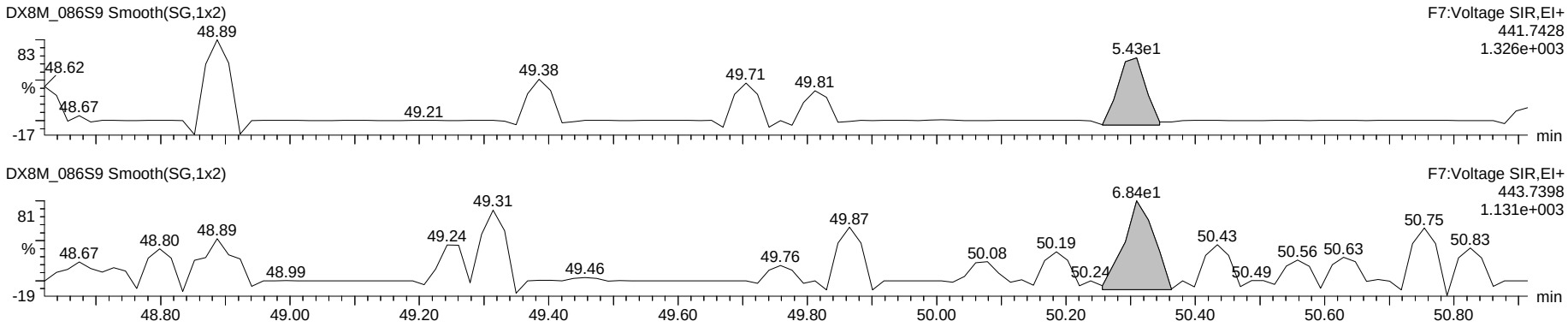
Hepta Lock



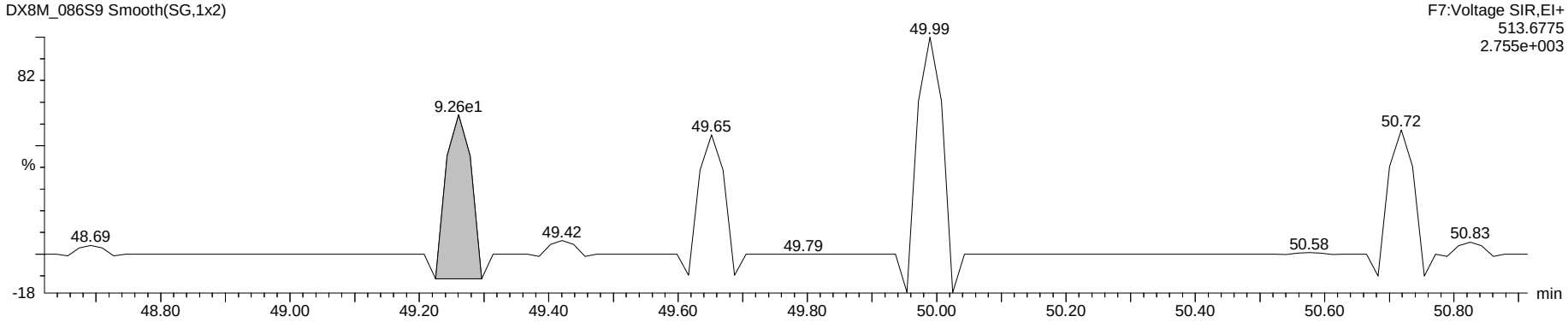
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S9, Date: 20-Jul-2018, Time: 23:25:48, ID: L29628-11,,, Description: 1,WG64578,1.0/20uL

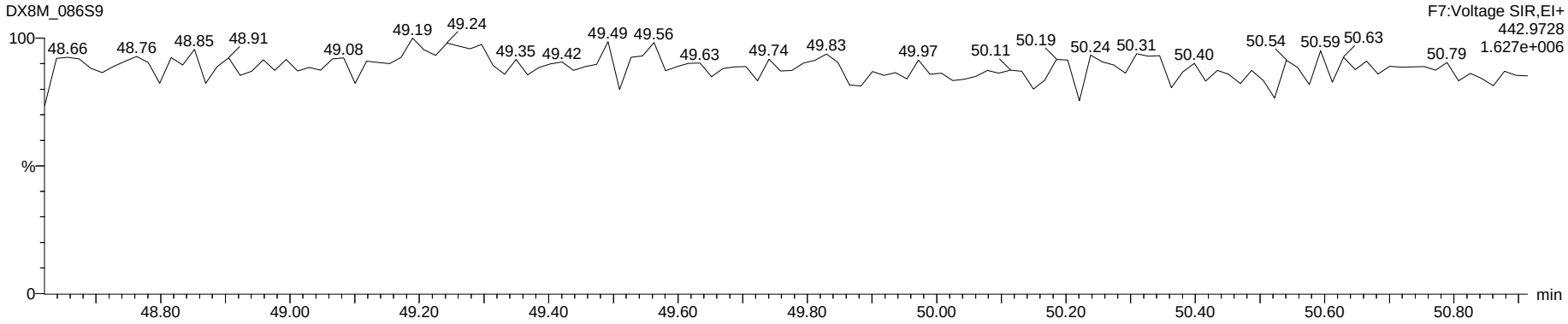
OCDF



Deca DPE



Octa Lock



Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S10, Date: 21-Jul-2018, Time: 00:21:02, ID: L29628-12,,, Description: 1,WG64578,1.0/20uL

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	1.032	9.24e1	1.71	YES	25.20	0.042	0.0508		4.84e2	8.45e0
2	1,2,3,7,8-PeCDF	1.032	3.81e2	1.27	YES	33.56	0.225	0.0886		3.55e2	1.87e2
3	2,3,4,7,8-PeCDF	1.032	1.00e2	0.45	YES	35.30	0.061	0.0775		3.55e2	1.87e2
4	1,2,3,4,7,8-HxCDF	1.032	1.45e2	0.78	YES	40.69	0.117	0.0855		2.57e2	3.25e2
5	1,2,3,6,7,8-HxCDF	1.032	6.85e1	4.03	YES	40.86	0.051	0.0797		2.57e2	3.25e2
6	2,3,4,6,7,8-HxCDF	1.032	5.32e1	0.81	YES	41.77	0.041	0.0817		2.57e2	3.25e2
7	1,2,3,7,8,9-HxCDF	1.032	6.19e1	10.33	YES	42.82	0.063	0.1150		2.57e2	3.25e2
8	1,2,3,4,6,7,8-HpCDF	1.032			NO			0.0596		1.38e2	2.06e2
9	1,2,3,4,7,8,9-HpCDF	1.032	4.97e1	0.54	YES	47.04	0.065	0.0846		1.38e2	2.06e2
10	OCDF	1.032	1.53e2	0.37	YES	50.33	0.273	0.0031		1.10e-1	8.45e0
11	2,3,7,8-TCDD	1.032	7.21e2	0.07	YES	26.45	0.388	0.2054		5.56e2	9.96e2
12	1,2,3,7,8-PeCDD	1.032	1.77e2	0.00	YES	36.11	0.156	0.1280		1.33e2	4.68e2
13	1,2,3,4,7,8-HxCDD	1.032	7.79e1	3.01	YES	42.06	0.092	0.1361		3.84e2	2.88e2
14	1,2,3,6,7,8-HxCDD	1.032	1.38e2	1.65	YES	42.16	0.147	0.1319		3.84e2	2.88e2
15	1,2,3,7,8,9-HxCDD	1.032			NO			0.1332		3.84e2	2.88e2
16	1,2,3,4,6,7,8-HpCDD	1.032	3.21e2	2.34	YES	46.64	0.482	0.2084		3.62e-1	7.59e2
17	OCDD	1.032	1.12e3	0.73	YES	50.22	2.407	0.1555		3.61e2	1.91e-1
18	13C-2,3,7,8-TCDF	1.032	4.65e6	0.70	NO	25.20	1459.187	1.1615	75.3	1.07e4	5.17e3
19	13C-1,2,3,7,8-PeCDF	1.032	3.55e6	1.41	NO	33.53	1546.687	1.5783	79.8	9.06e3	6.47e3
20	13C-2,3,4,7,8-PeCDF	1.032	3.38e6	1.39	NO	35.29	1528.456	1.6362	78.9	9.06e3	6.47e3
21	13C-1,2,3,4,7,8-HxCDF	1.032	2.15e6	0.52	NO	40.67	1686.683	3.0311	87.0	1.01e4	1.07e4
22	13C-1,2,3,6,7,8-HxCDF	1.032	2.44e6	0.52	NO	40.84	1789.974	2.8379	92.4	1.01e4	1.07e4
23	13C-2,3,4,6,7,8-HxCDF	1.032	2.21e6	0.54	NO	41.77	1818.800	3.1758	93.8	1.01e4	1.07e4
24	13C-1,2,3,7,8,9-HxCDF	1.032	1.92e6	0.53	NO	42.82	1596.005	3.2199	82.3	1.01e4	1.07e4
25	13C-1,2,3,4,6,7,8-HpCDF	1.032	1.59e6	0.42	NO	45.26	1566.867	1.8553	80.8	7.33e3	2.84e3
26	13C-1,2,3,4,7,8,9-HpCDF	1.032	1.18e6	0.44	NO	47.04	1486.698	2.3786	76.7	7.33e3	2.84e3
27	13C-2,3,7,8-TCDD	1.032	3.24e6	0.75	NO	26.43	1636.176	1.3160	84.4	8.08e3	3.09e3
28	13C-1,2,3,7,8-PeCDD	1.032	2.13e6	0.69	NO	36.11	1643.345	1.6704	84.8	5.19e3	4.10e3
29	13C-1,2,3,4,7,8-HxCDD	1.032	1.63e6	1.20	NO	42.06	1662.699	1.6900	85.8	4.78e3	4.17e3
30	13C-1,2,3,6,7,8-HxCDD	1.032	1.96e6	1.21	NO	42.19	1883.545	1.5982	97.2	4.78e3	4.17e3
31	13C-1,2,3,4,6,7,8-HpCDD	1.032	1.30e6	1.00	NO	46.64	1595.206	2.4706	82.3	5.44e3	5.37e3
32	13C-OCDD	1.032	1.77e6	0.85	NO	50.20	2482.390	3.5083	64.0	1.10e4	2.50e3
33	13C-1,2,3,4-TCDD	1.032	3.82e6	0.76	NO	26.10	163.909	0.1118	8.5	8.08e3	3.09e3
34	13C-1,2,3,7,8,9-HxCDD	1.032	1.94e6	1.20	NO	42.62	131.385	0.1127	6.8	4.78e3	4.17e3
35	37Cl-2,3,7,8-TCDD	1.032	3.26e5			26.47	148.266	0.1653	76.5		1.56e3
36	Total Tetra-Furans	1.032					0.831	0.0508			8.45e0
37	Total Tetra-Dioxins	1.032					1.125	0.2054			9.96e2
38	Total Penta-Furans	1.032					0.784	0.0838			1.87e2
39	Total Penta-Dioxins	1.032					0.402	0.1280			4.68e2
40	Total Hexa-Furans	1.032					0.459	0.0861			3.25e2
41	Total Hexa-Dioxins	1.032					1.173	0.1289			2.88e2
42	Total Hepta-Furans	1.032					0.267	0.0711			2.06e2
43	Total Hepta-Dioxins	1.032					1.402	0.2084			7.59e2
44	Hexa DPE	1.000	1.10e2			24.40					0.00e0
45	Hepta DPE	1.000	8.42e1			38.31					4.00e-2
46	Octa DPE	1.000	1.28e2			38.49					3.14e-1
47	Nona DPE	1.000	1.74e2			48.27					0.00e0
48	Deca DPE	1.000	1.75e2			49.62					1.42e-1
49	Tetra Lock	1.000	3.50e3			23.61					1.32e5
50	Penta Lock	1.000	3.45e5			29.13					1.86e5
51	Hexa Lock	1.000	3.52e5			38.96					2.78e5
52	Hepta Lock	1.000									1.87e5
53	Octa Lock	1.000	1.57e4			48.87					2.06e5
54	13C-Tetra-Furans	1.032					1459.187	1.1615			5.17e3
55	13C-Tetra-Dioxins	1.032					1800.085	1.4277			3.09e3

pv'd by LHE 23-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

SVB/KB 26JUL2018

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S10, Date: 21-Jul-2018, Time: 00:21:02, ID: L29628-12,,, Description: 1,WG64578,1.0/20uL

Tetrafurans

	RT	1° Ratio (A...	Fails?	pg
1	22.00	0.604	YES	0.034
2	23.45	1.274	YES	0.062
3	24.56	1.179	YES	0.046
4	25.20	1.705	YES	0.042
5	25.61	0.347	YES	0.030
6	26.10	0.551	YES	0.522
7	26.43	1.720	YES	0.073
8	26.81	0.327	YES	0.021

Tetradioxins

	RT	1° Ratio (A...	Fails?	pg
1	23.00	1.101	YES	0.063
2	25.18	3.644	YES	0.601
3	27.47	0.928	YES	0.073
4	26.45	0.074	YES	0.388

Pentafurans

	RT	1° Ratio (A...	Fails?	pg
1	28.87	0.151	YES	0.145
2	30.98	0.480	YES	0.053
3	31.51	3.017	YES	0.055
4	32.77	3.264	YES	0.048
5	33.56	1.271	YES	0.225
6	33.89	1.044	YES	0.039
7	34.46	0.119	YES	0.020
8	34.86	0.382	YES	0.024
9	35.05	0.843	YES	0.039
10	35.30	0.445	YES	0.061
11	37.08	0.756	YES	0.076

Pentadioxins

	RT	1° Ratio (A...	Fails?	pg
1	33.34	0.999	YES	0.058
2	33.82	2.301	YES	0.110
3	36.11	0.005	YES	0.156
4	37.01	2.571	YES	0.078

Hexafurans

	RT	1° Ratio (A...	Fails?	pg
1	39.20	0.114	YES	0.014
2	39.84	0.387	YES	0.070
3	40.69	0.777	YES	0.117
4	40.86	4.025	YES	0.051
5	41.42	0.475	YES	0.038
6	41.77	0.807	YES	0.041
7	41.82	0.466	YES	0.064
8	42.82	10.332	YES	0.063

pv'd by LHE 23-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S10, Date: 21-Jul-2018, Time: 00:21:02, ID: L29628-12,,, Description: 1,WG64578,1.0/20uL

Hexadioxins

	RT	1° Ratio (A...	Fails?	pg
1	39.99	1.187	NO	0.184
2	40.82	2.895	YES	0.642
3	42.06	3.006	YES	0.092
4	42.16	1.654	YES	0.147
5	41.18	0.483	YES	0.109

Heptafurans

	RT	1° Ratio (A...	Fails?	pg
1	45.48	4.148	YES	0.122
2	45.80	1.921	YES	0.079
3	47.04	0.544	YES	0.065

Heptadioxins

	RT	1° Ratio (A...	Fails?	pg
1	45.73	1.274	YES	0.920
2	46.64	2.341	YES	0.482

13C-TF

	RT	1° Ratio (A...	Fails?	pg
1	25.20	0.696	NO	1459.1...

13C-TD

	RT	1° Ratio (A...	Fails?	pg
1	26.10	0.756	NO	163.909
2	26.43	0.755	NO	1636.1...

13C-PF

	RT	1° Ratio (A...	Fails?	pg
1	33.53	1.406	NO	1546.6...
2	35.29	1.392	NO	1528.4...

13C-PD

	RT	1° Ratio (A...	Fails?	pg
1	36.11	0.689	NO	1643.3...

13C-HxF

	RT	1° Ratio (A...	Fails?	pg
1	40.67	0.518	NO	1686.6...
2	40.84	0.516	NO	1789.9...
3	41.77	0.539	NO	1818.8...
4	42.82	0.533	NO	1596.0...

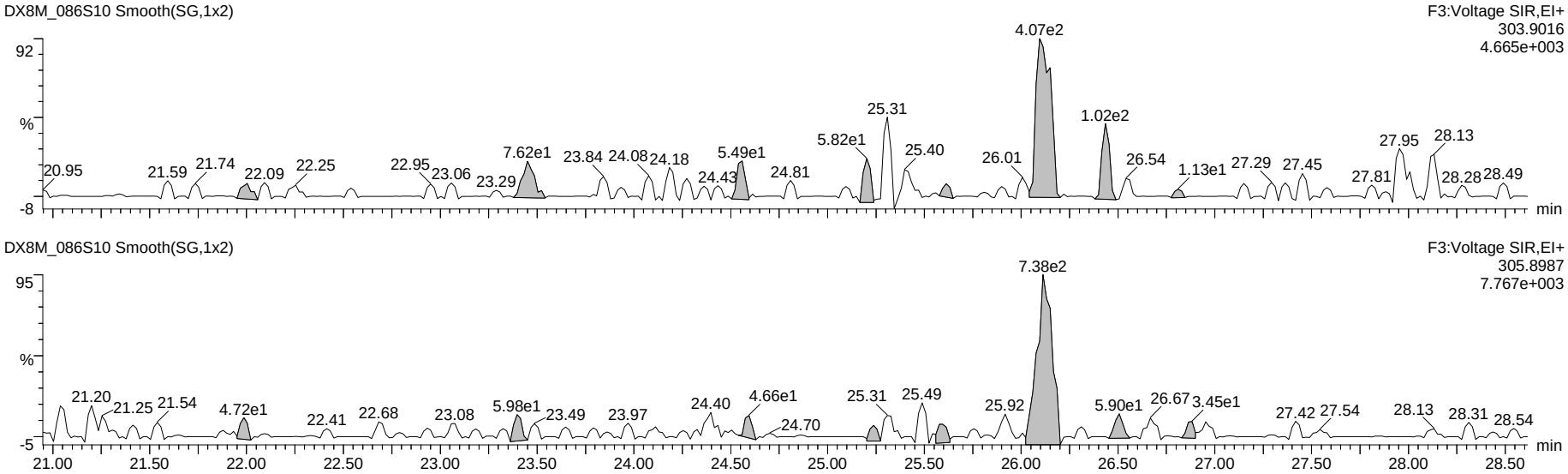
pv'd by LHE 23-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

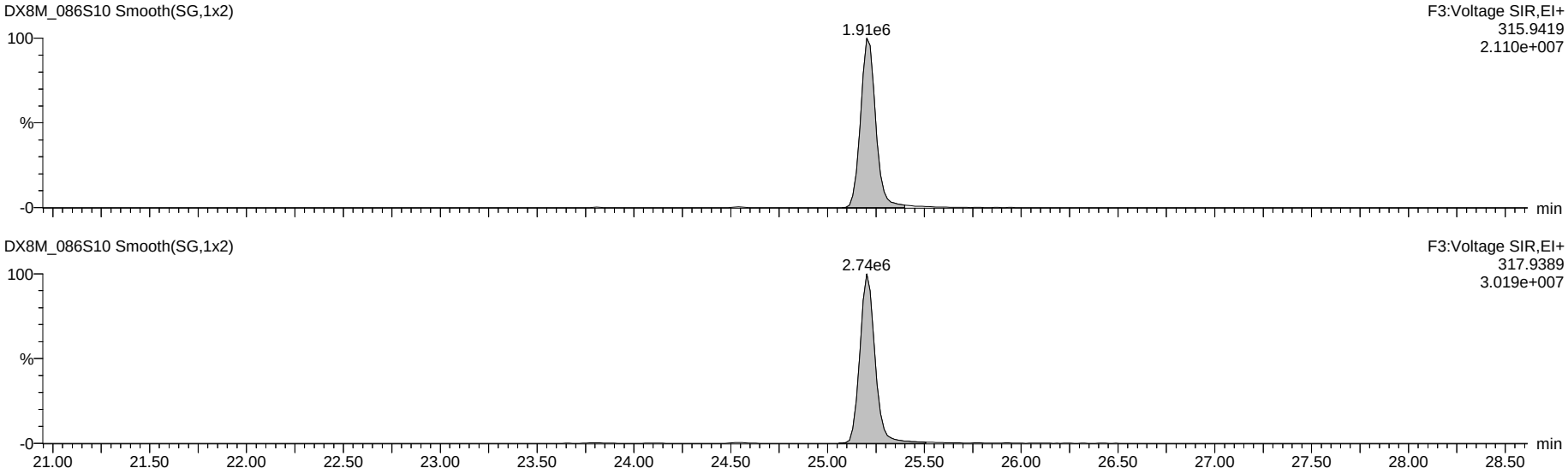
Method: G:\Masslynx\Inst_M\Exported_methods\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_086S10, Date: 21-Jul-2018, Time: 00:21:02, ID: L29628-12,,, Description: 1,WG64578,1.0/20uL

Total Tetra-Furans



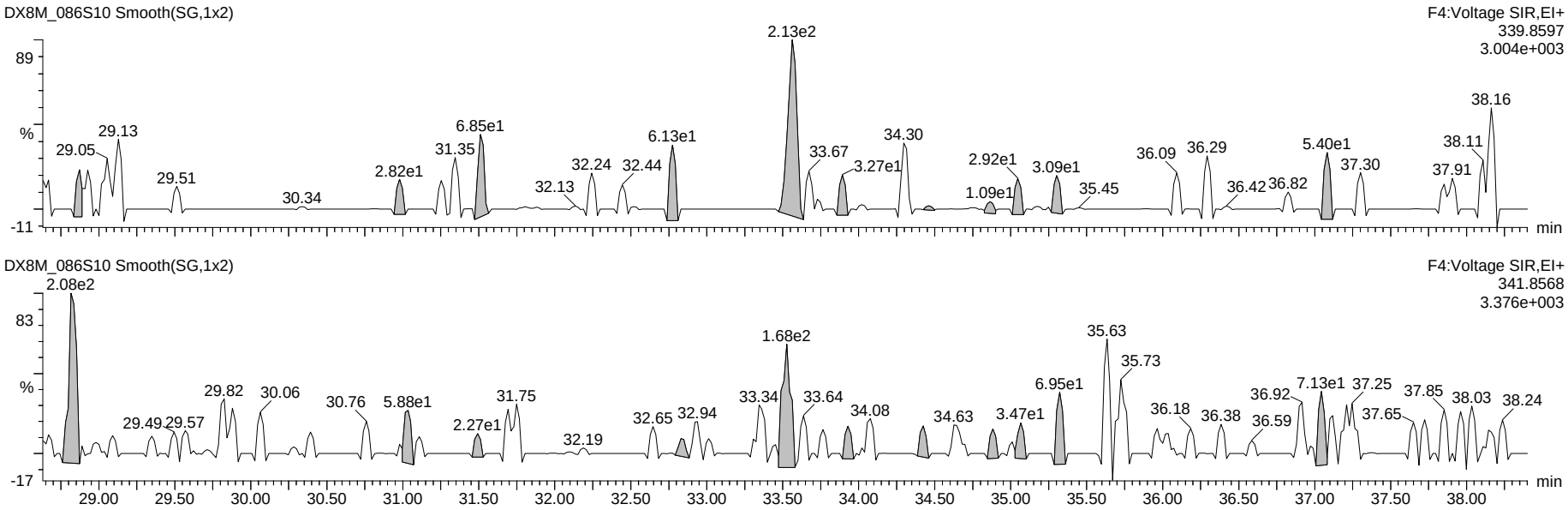
13C-Tetra-Furans



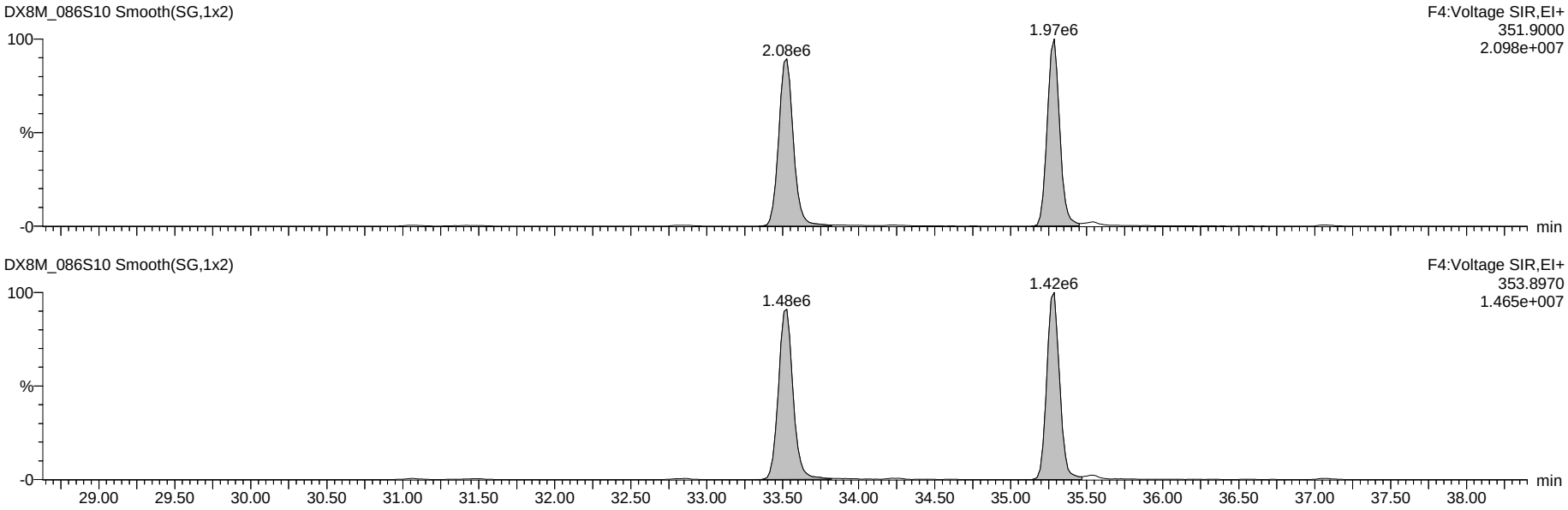
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S10, Date: 21-Jul-2018, Time: 00:21:02, ID: L29628-12,,, Description: 1,WG64578,1.0/20uL

Total Penta-Furans



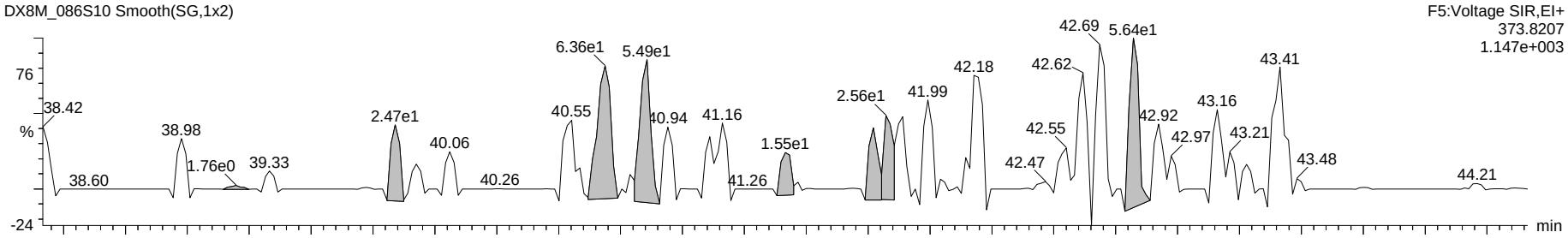
13C-Penta-Furans

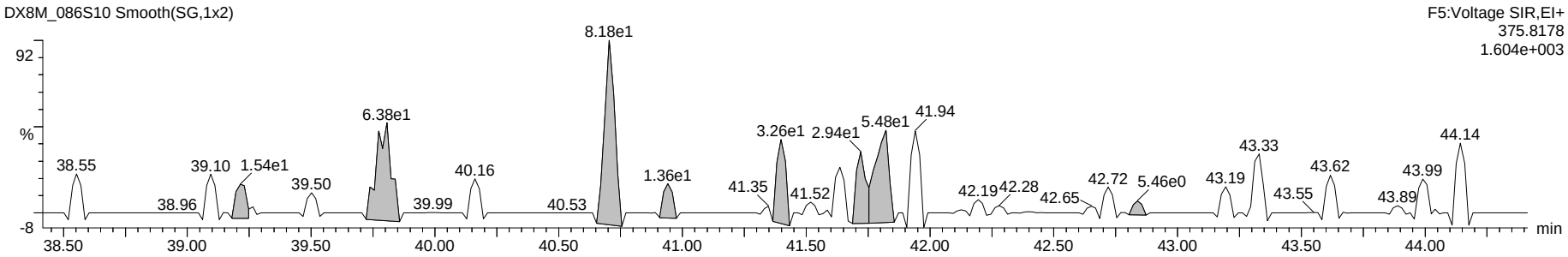


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

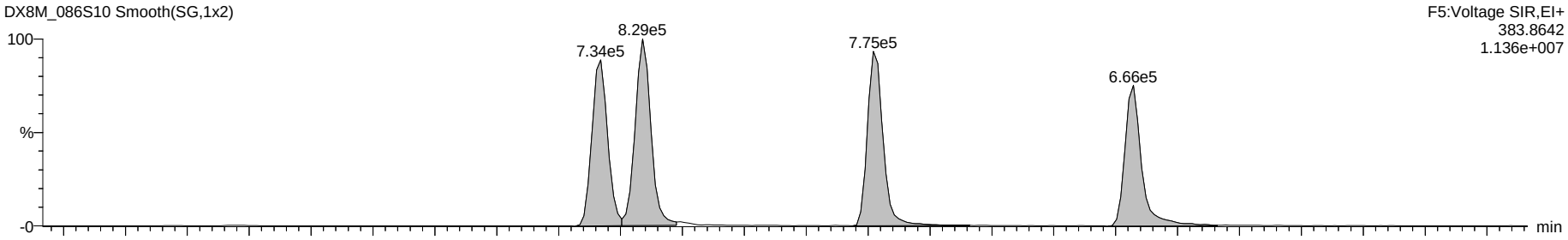
Name: DX8M_086S10, Date: 21-Jul-2018, Time: 00:21:02, ID: L29628-12,,, Description: 1,WG64578,1.0/20uL

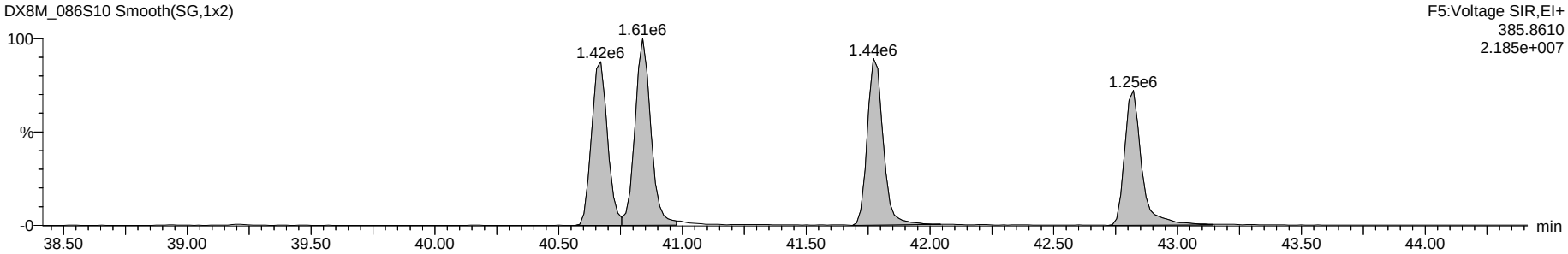
Total Hexa-Furans





13C-Hexa-Furans

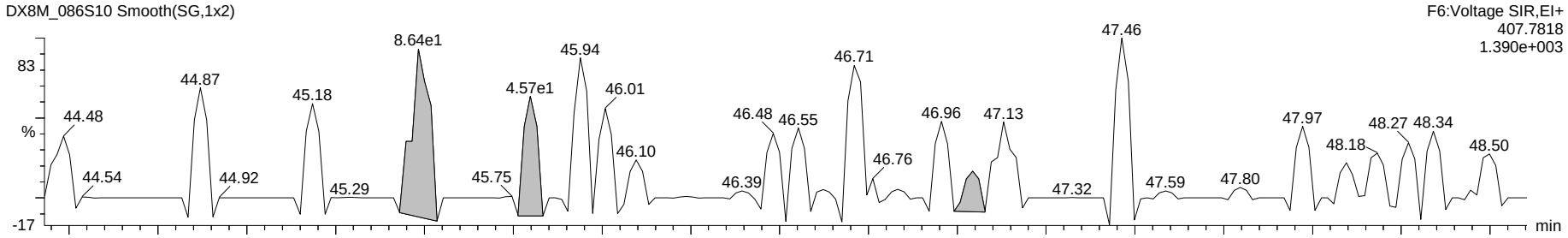


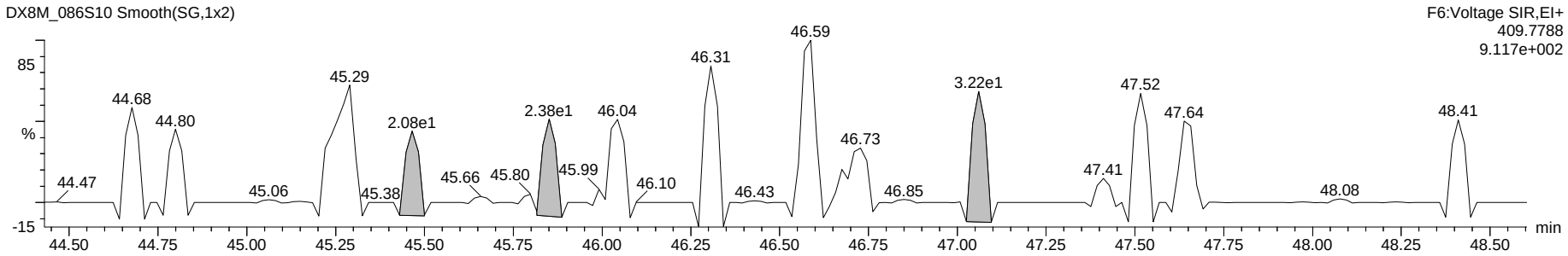


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

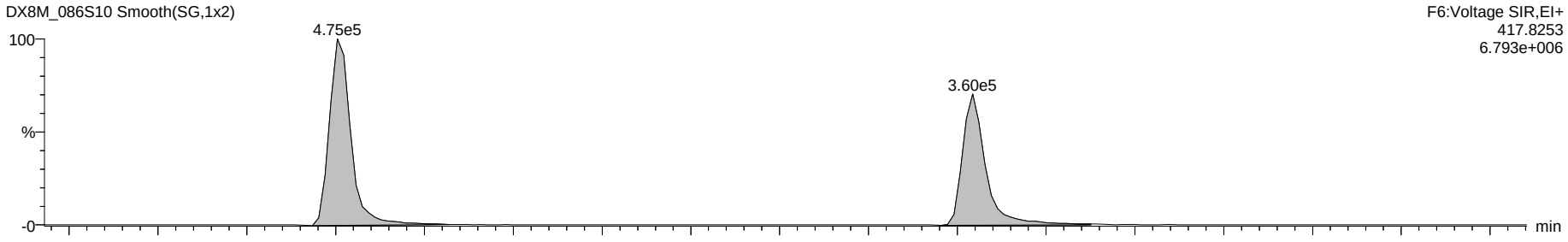
Name: DX8M_086S10, Date: 21-Jul-2018, Time: 00:21:02, ID: L29628-12,,, Description: 1,WG64578,1.0/20uL

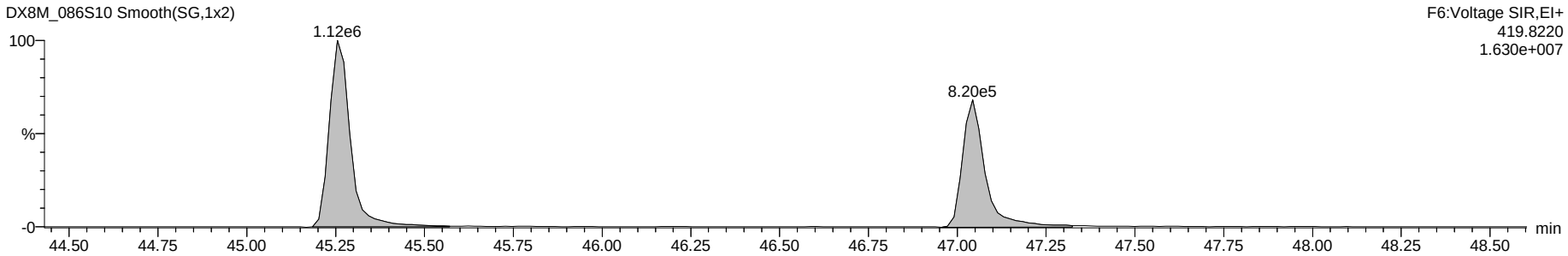
Total Hepta-Furans





13C-Hepta-Furans

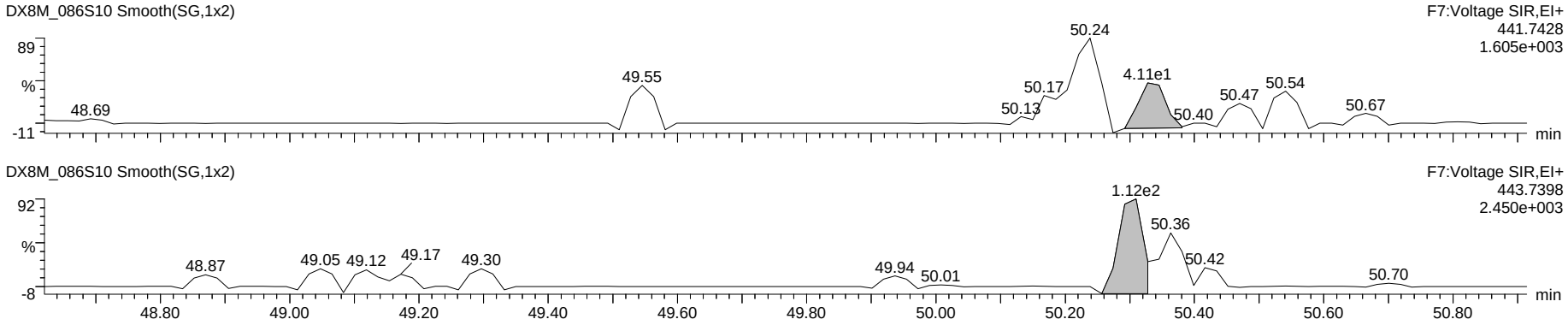




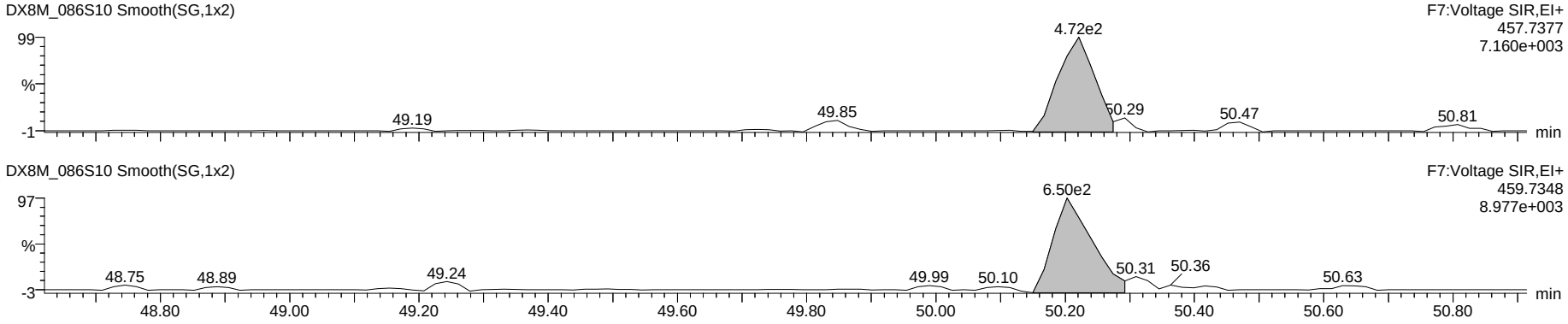
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S10, Date: 21-Jul-2018, Time: 00:21:02, ID: L29628-12,,, Description: 1,WG64578,1.0/20uL

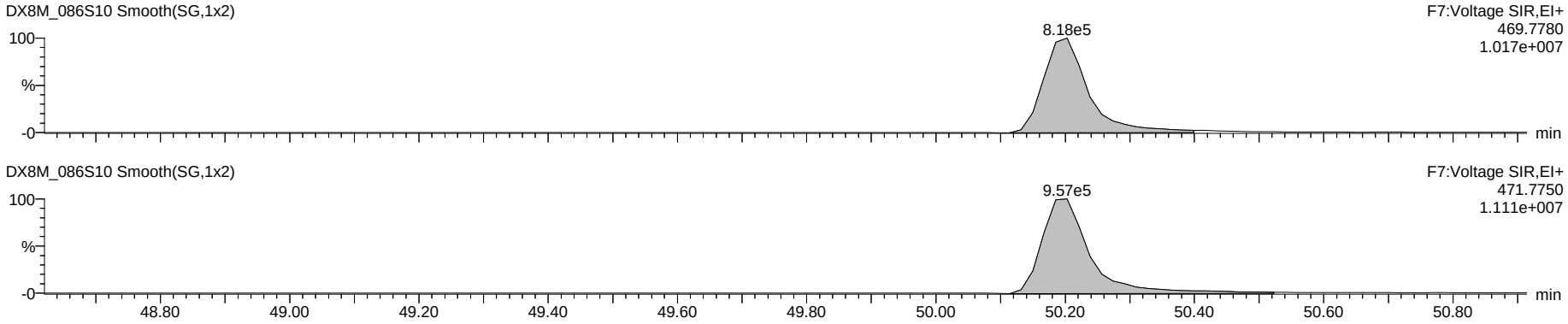
OCDF



OCDD



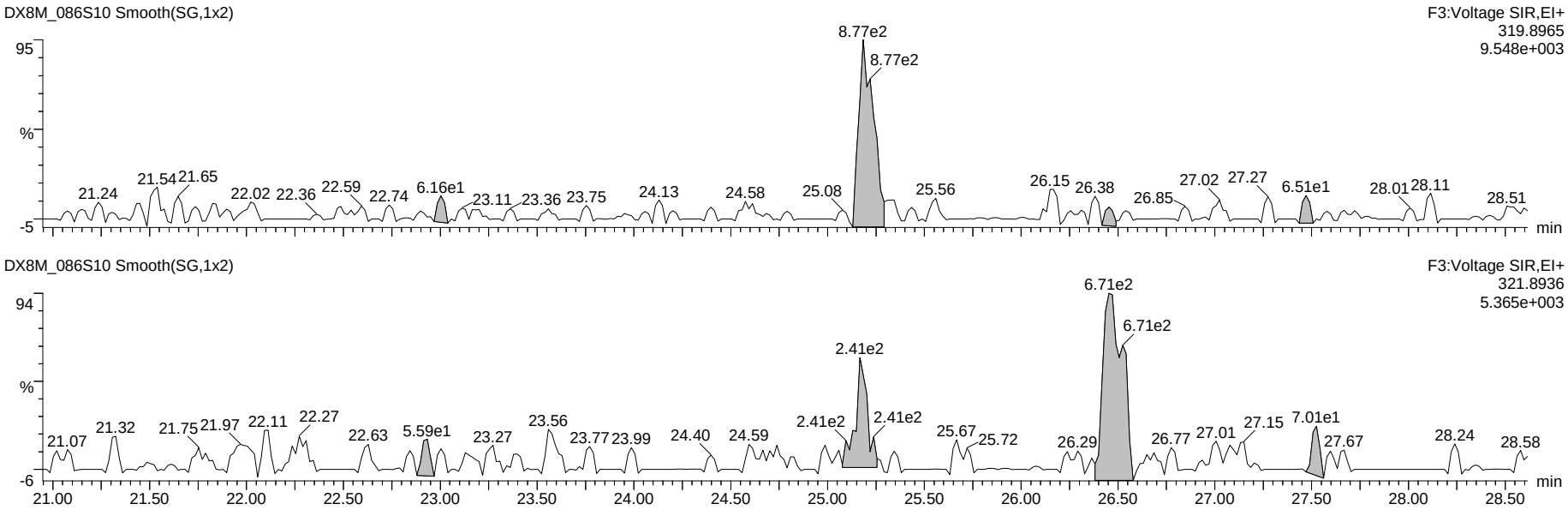
13C-OCDD



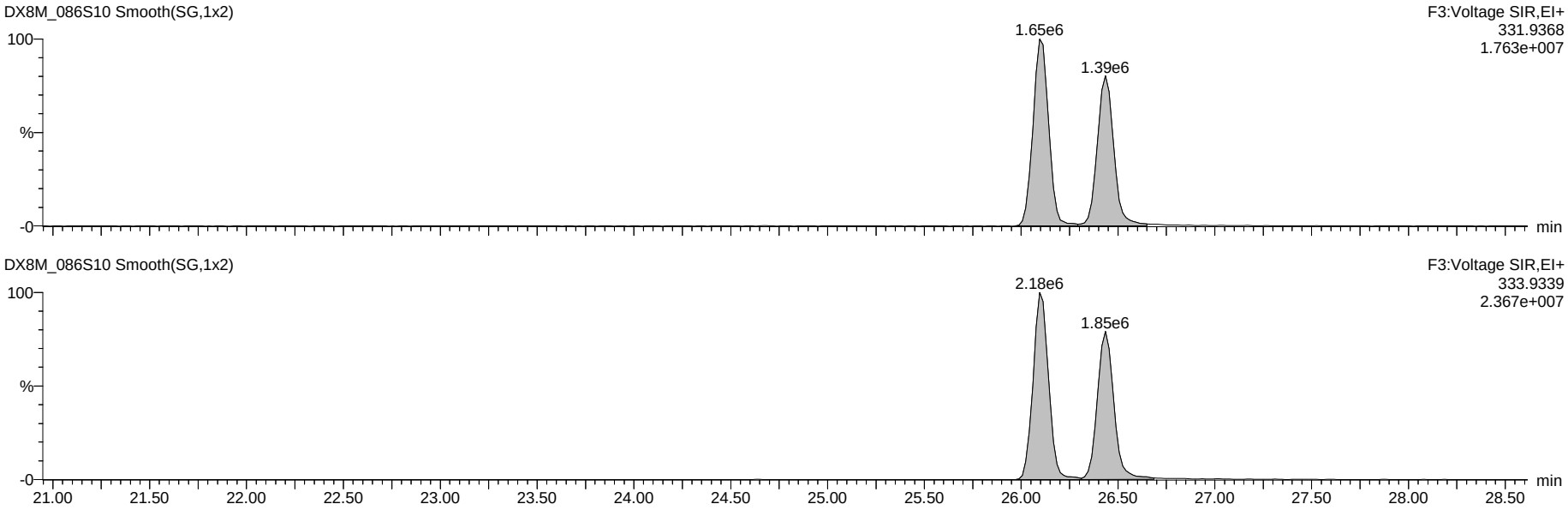
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S10, Date: 21-Jul-2018, Time: 00:21:02, ID: L29628-12,,, Description: 1,WG64578,1.0/20uL

Total Tetra-Dioxins



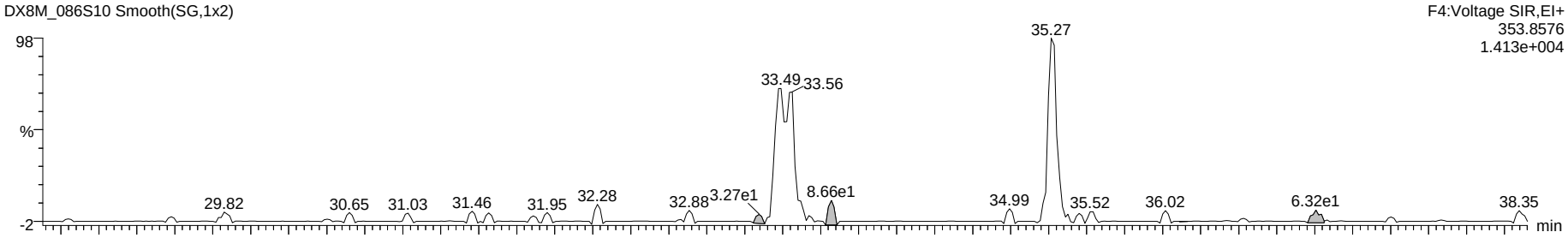
13C-Tetra-Dioxins

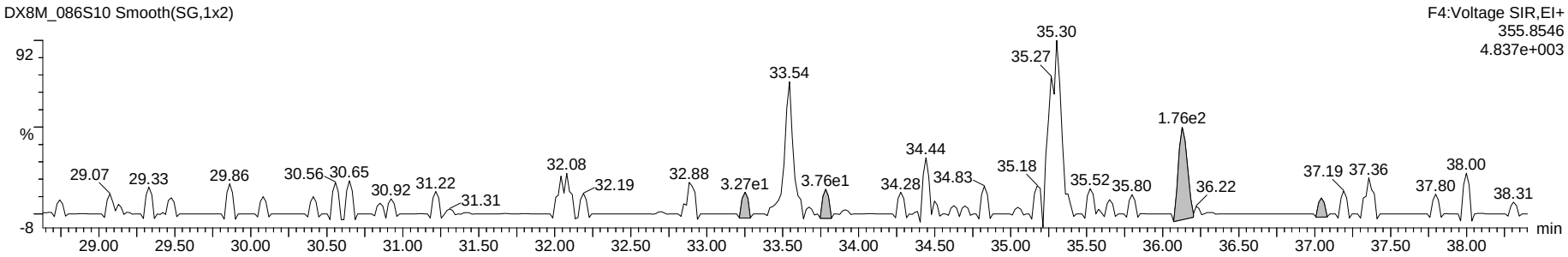


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

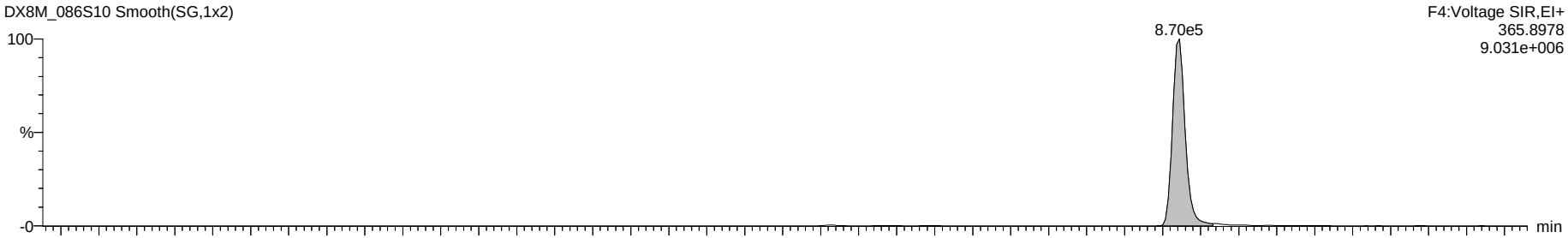
Name: DX8M_086S10, Date: 21-Jul-2018, Time: 00:21:02, ID: L29628-12,,, Description: 1,WG64578,1.0/20uL

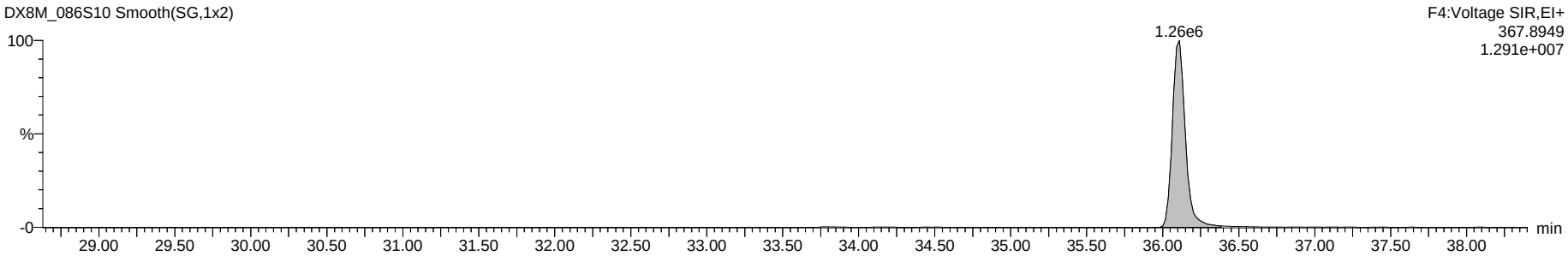
Total Penta-Dioxins





13C-Penta-Dioxins

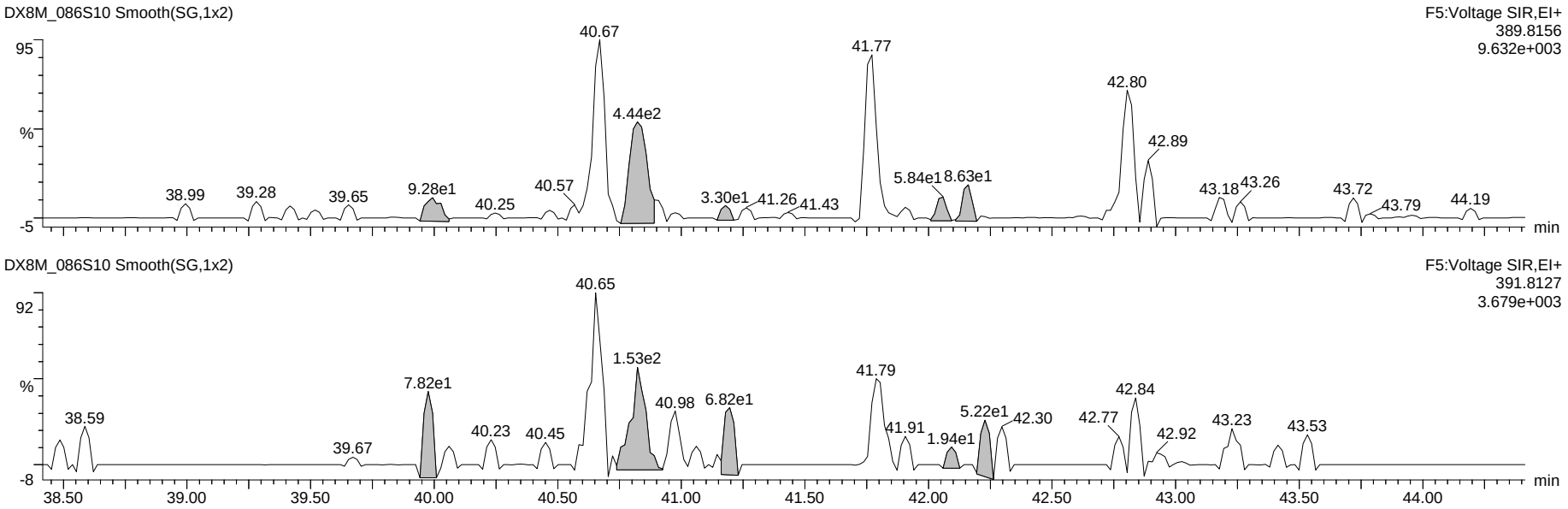




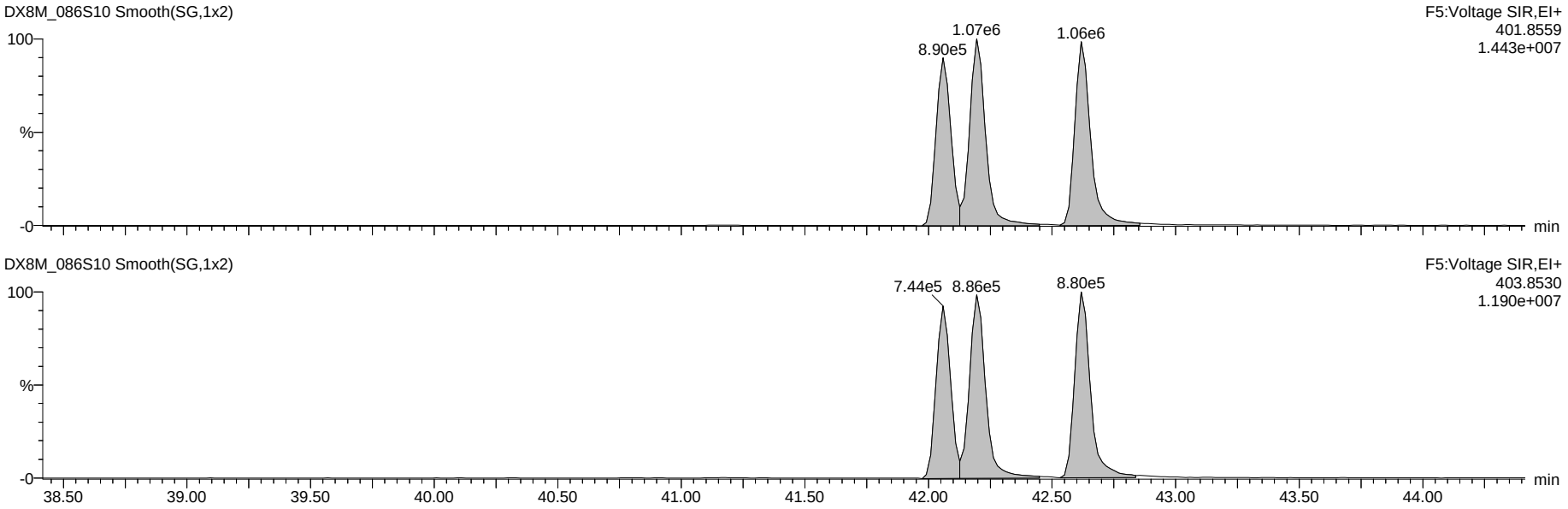
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S10, Date: 21-Jul-2018, Time: 00:21:02, ID: L29628-12,,, Description: 1,WG64578,1.0/20uL

Total Hexa-Dioxins



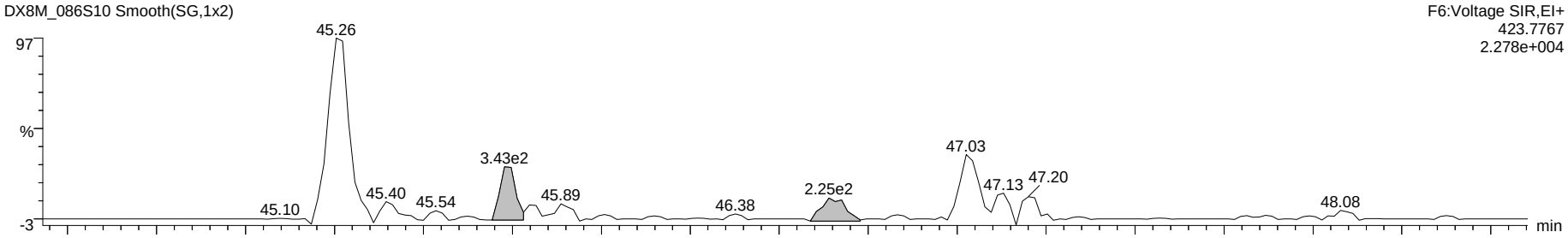
13C-Hexa-Dioxins

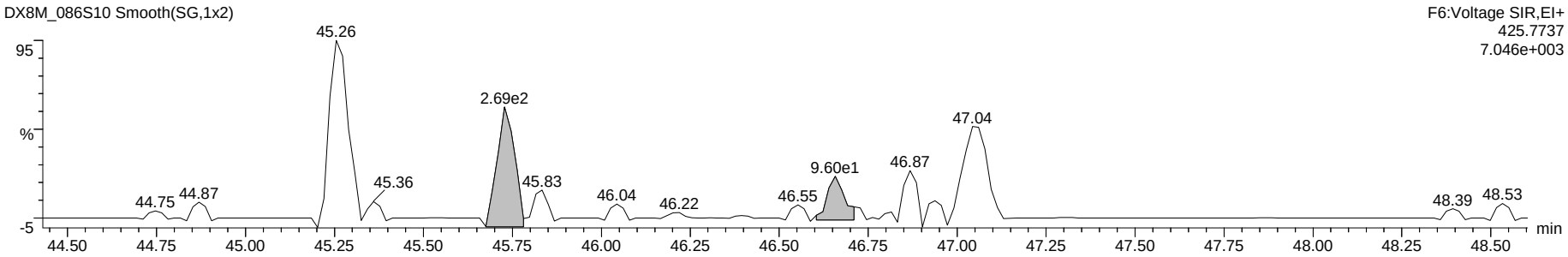


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

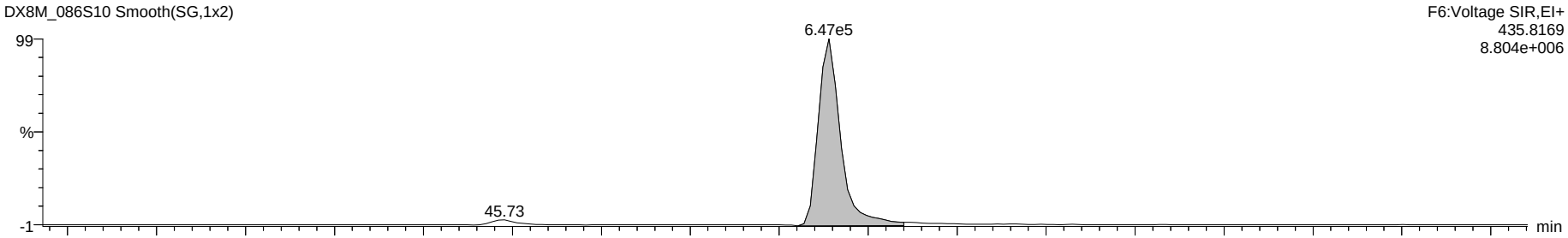
Name: DX8M_086S10, Date: 21-Jul-2018, Time: 00:21:02, ID: L29628-12,,, Description: 1,WG64578,1.0/20uL

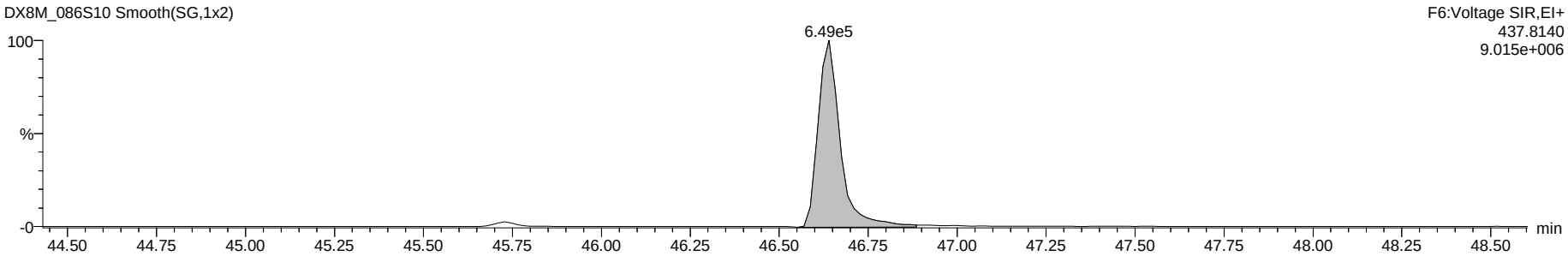
Total Hepta-Dioxins





13C-Hepta-Dioxins

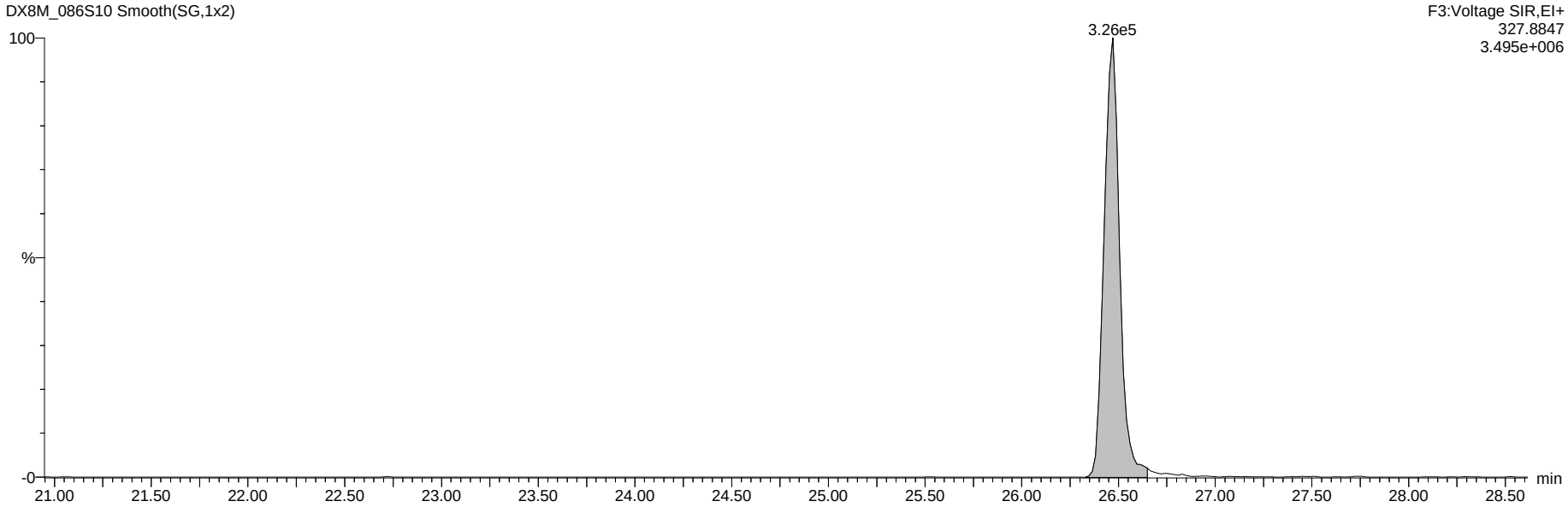




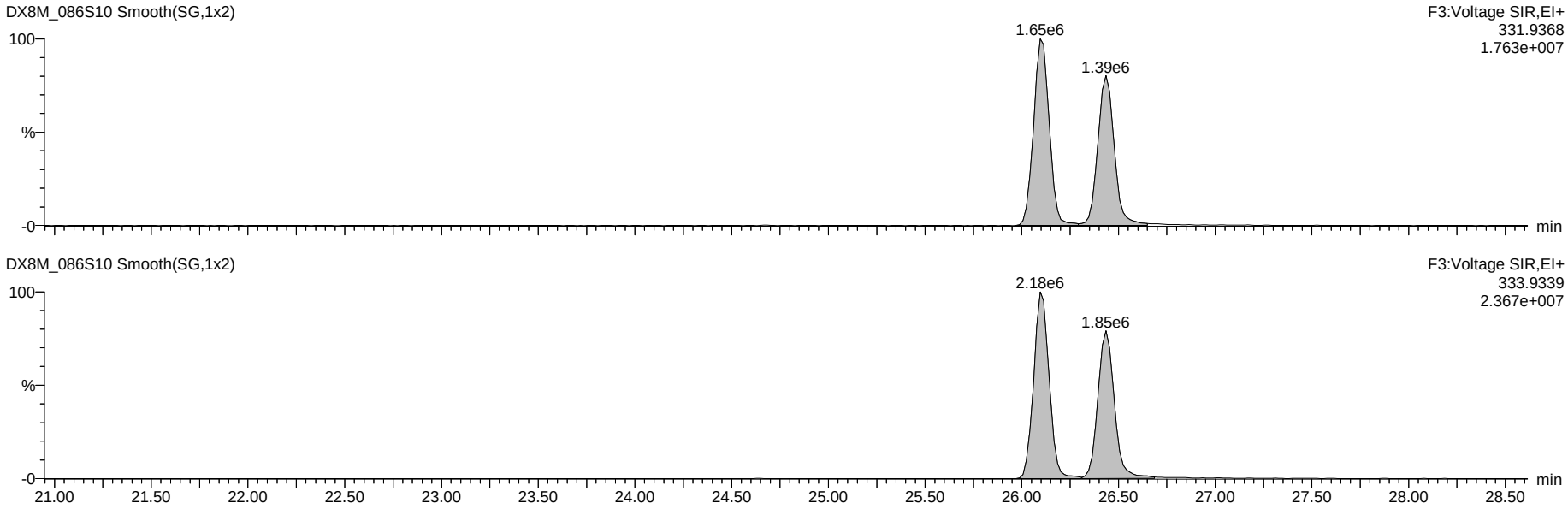
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S10, Date: 21-Jul-2018, Time: 00:21:02, ID: L29628-12,,, Description: 1,WG64578,1.0/20uL

37Cl-2,3,7,8-TCDD



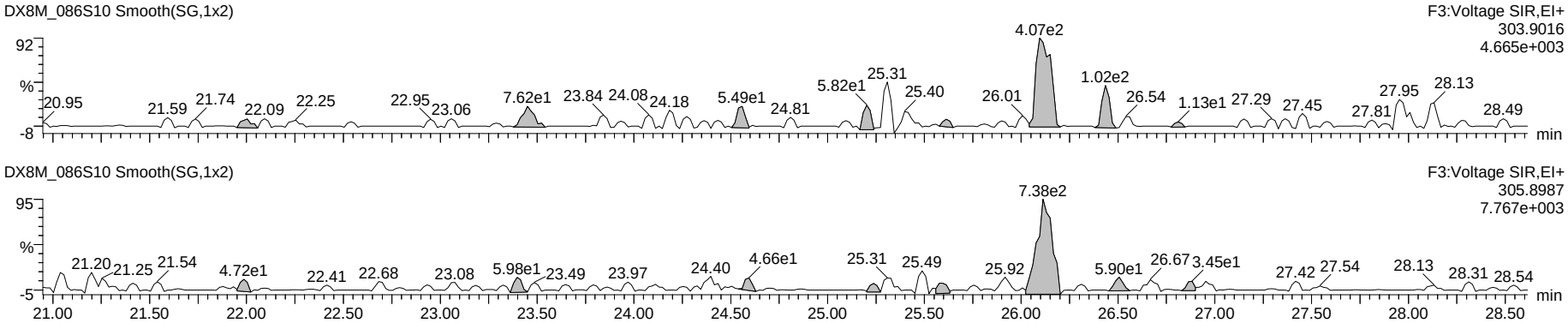
13C-Tetra-Dioxins



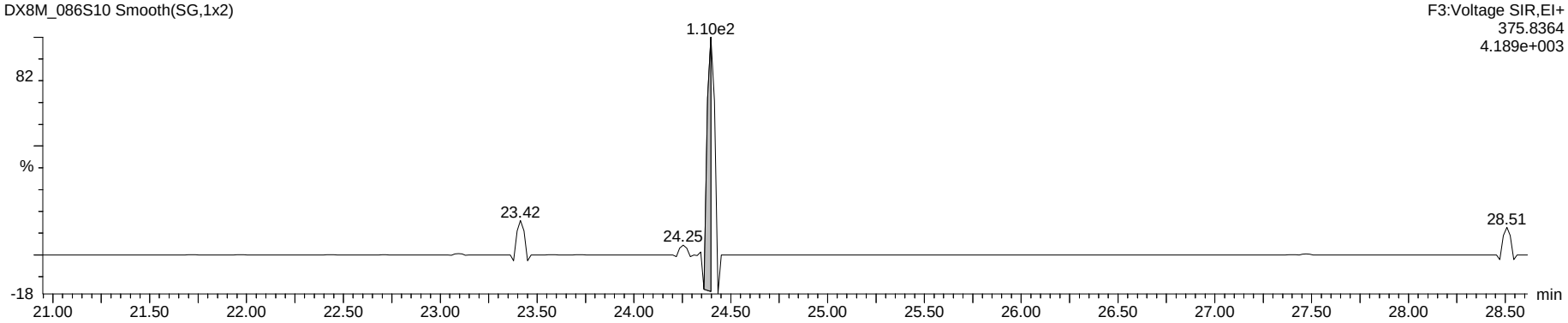
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S10, Date: 21-Jul-2018, Time: 00:21:02, ID: L29628-12,,, Description: 1,WG64578,1.0/20uL

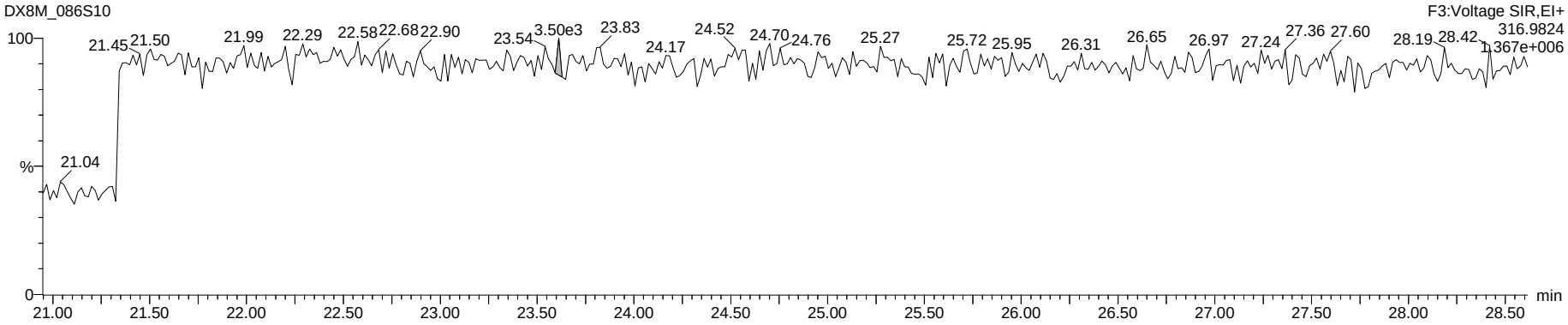
Total Tetra-Furans



Hexa DPE



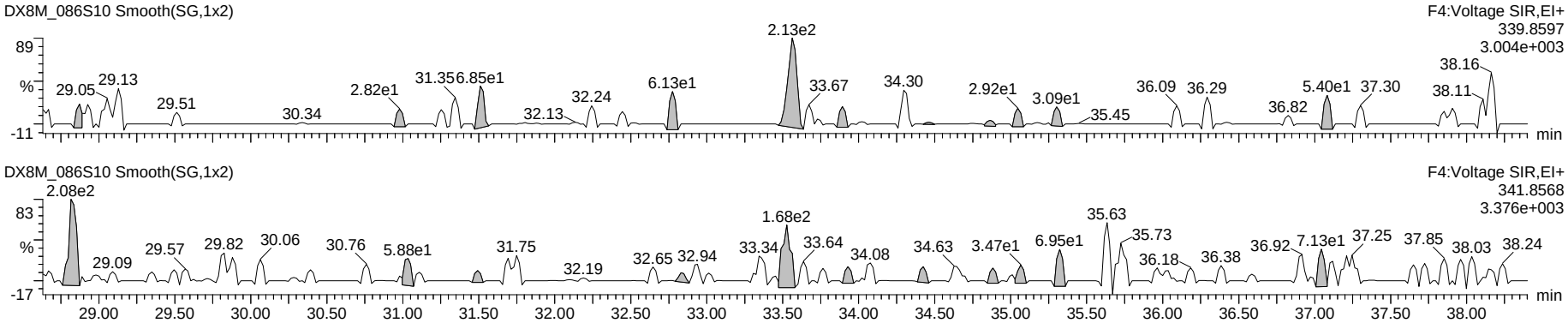
Tetra Lock



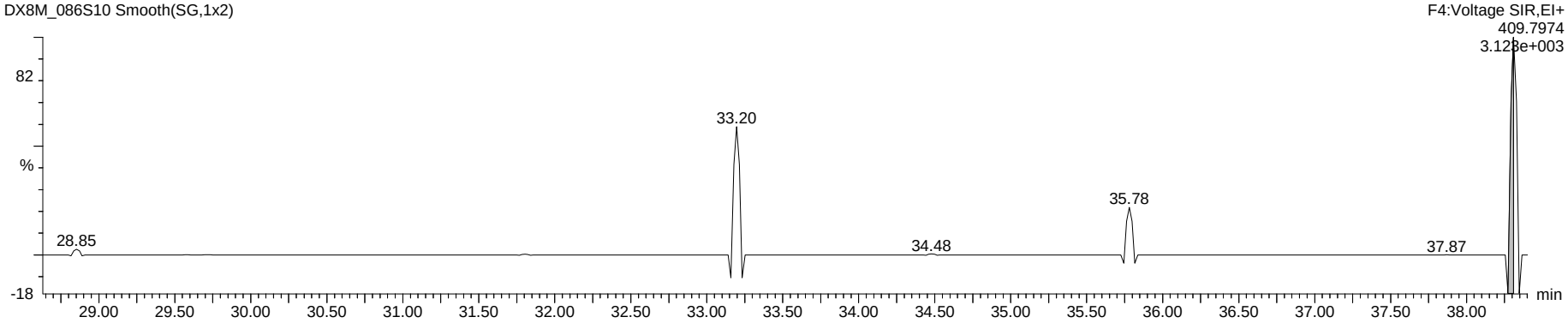
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S10, Date: 21-Jul-2018, Time: 00:21:02, ID: L29628-12,,, Description: 1,WG64578,1.0/20uL

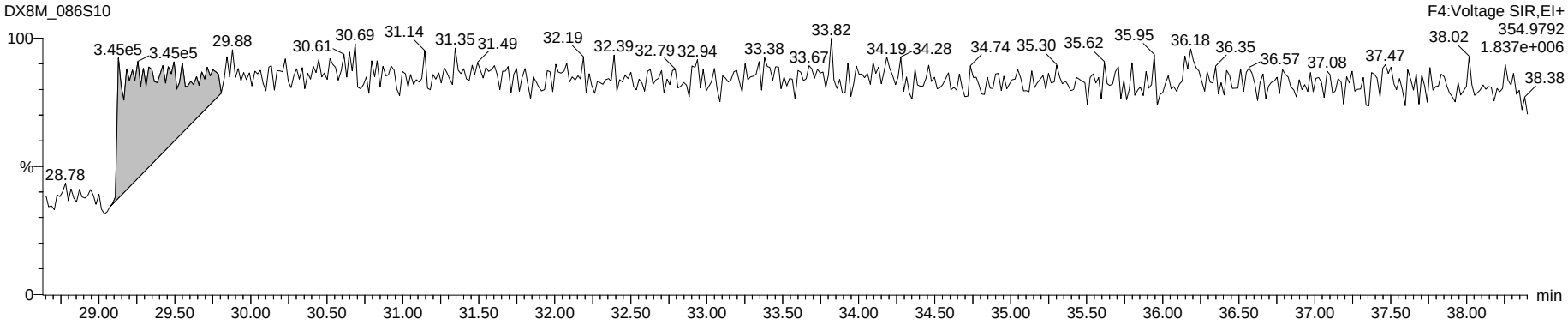
Total Penta-Furans



Hepta DPE



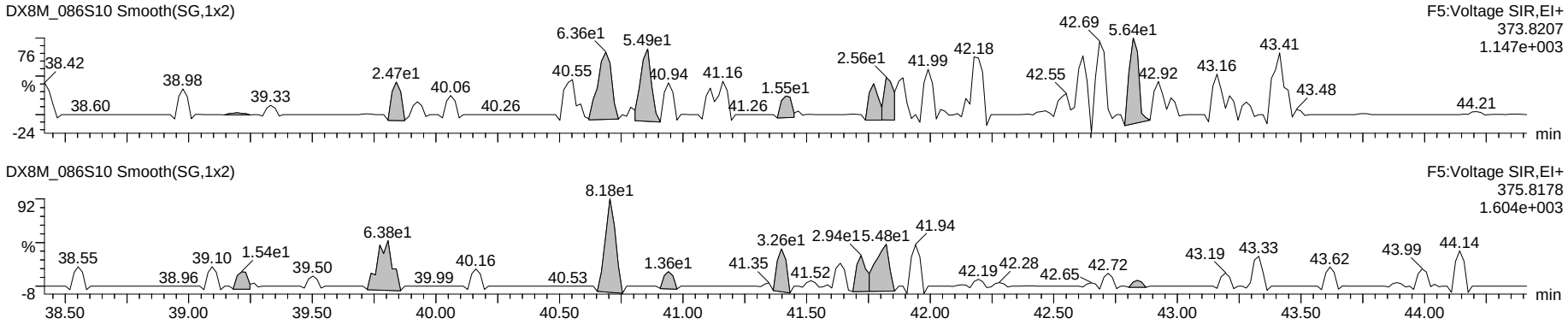
Penta Lock



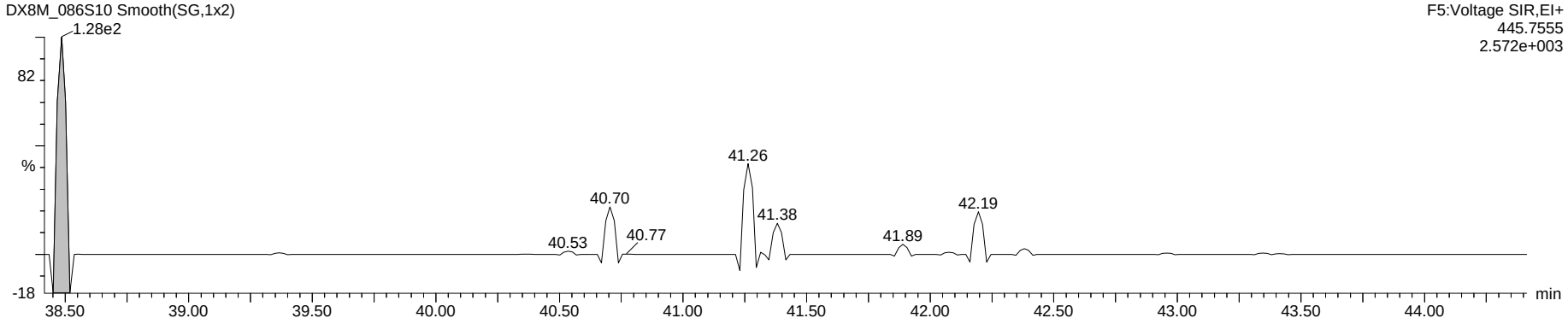
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S10, Date: 21-Jul-2018, Time: 00:21:02, ID: L29628-12,,, Description: 1,WG64578,1.0/20uL

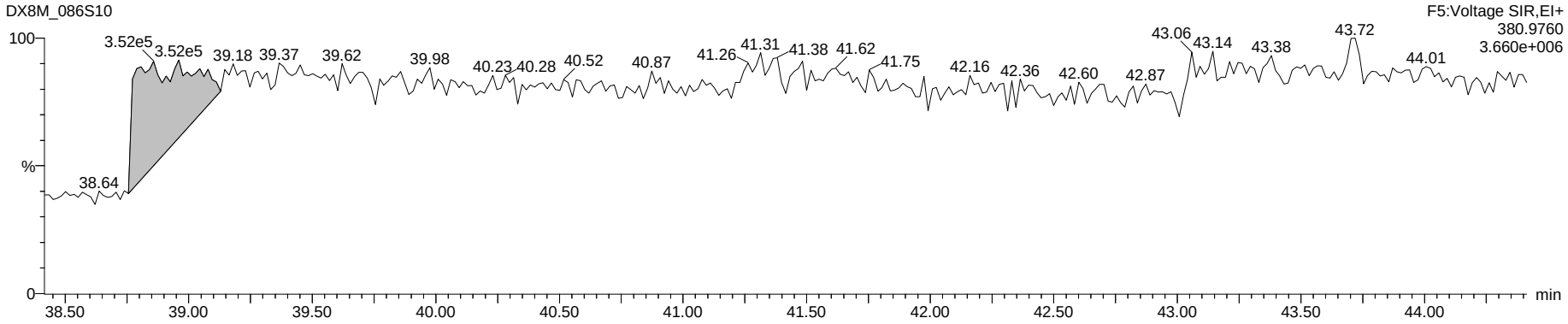
Total Hexa-Furans



Octa DPE



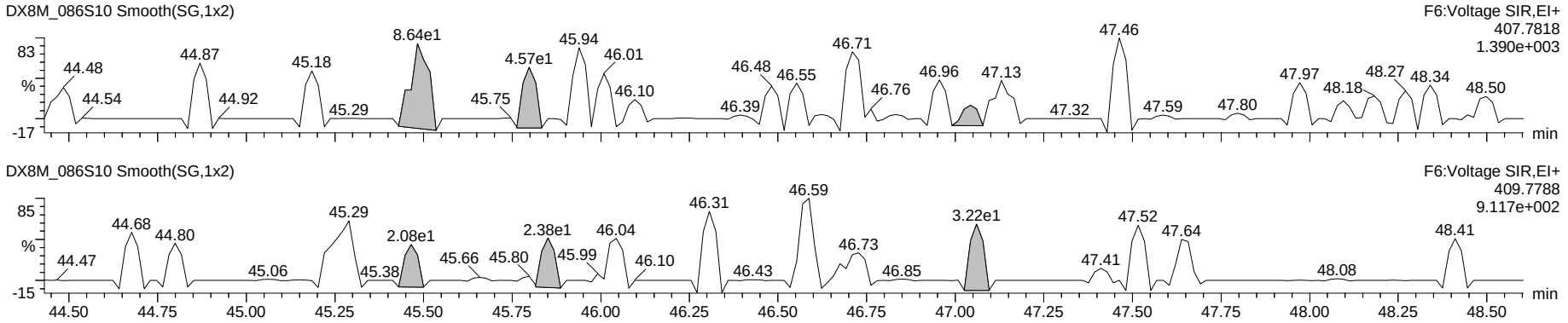
Hexa Lock



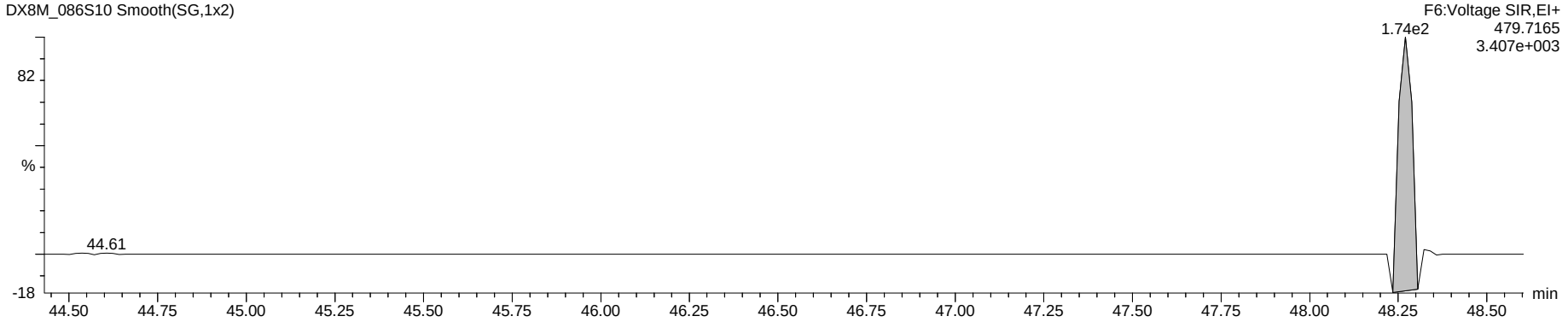
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S10, Date: 21-Jul-2018, Time: 00:21:02, ID: L29628-12,,, Description: 1,WG64578,1.0/20uL

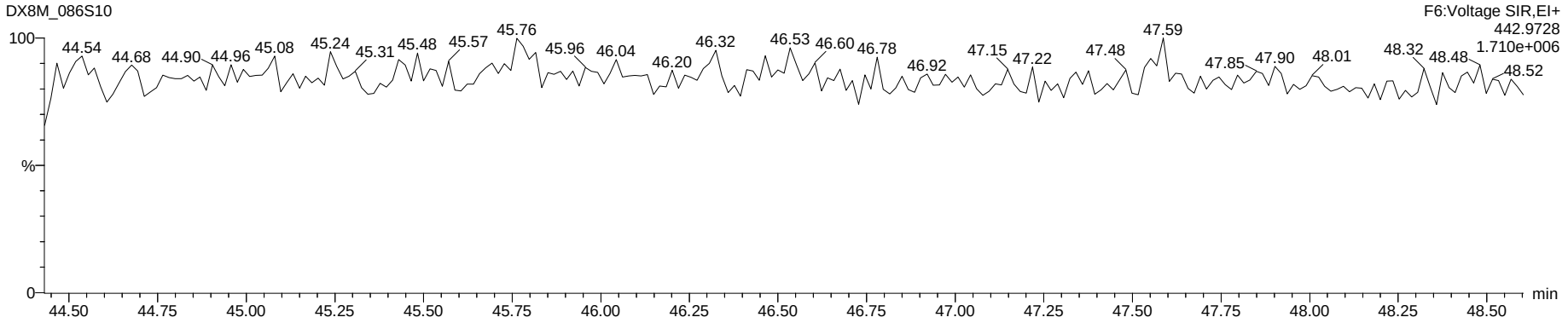
Total Hepta-Furans



Nona DPE



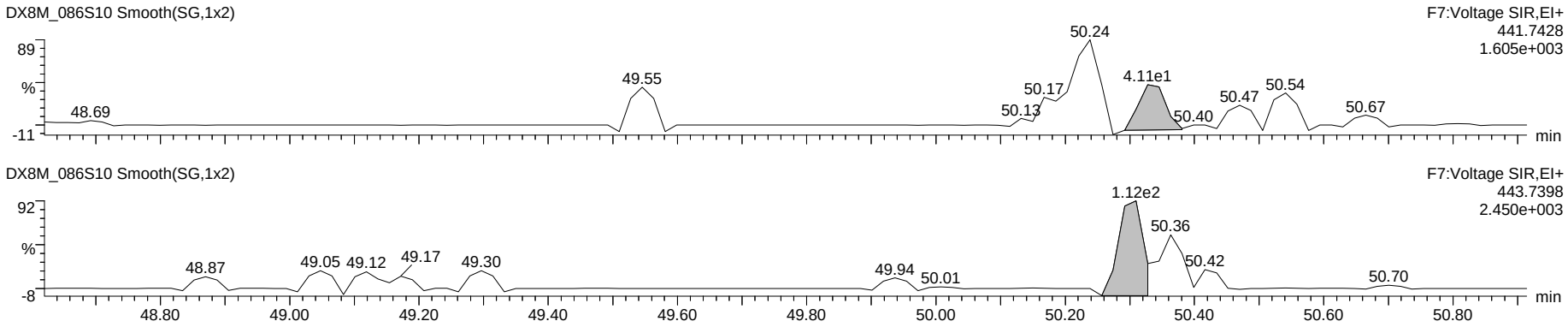
Hepta Lock



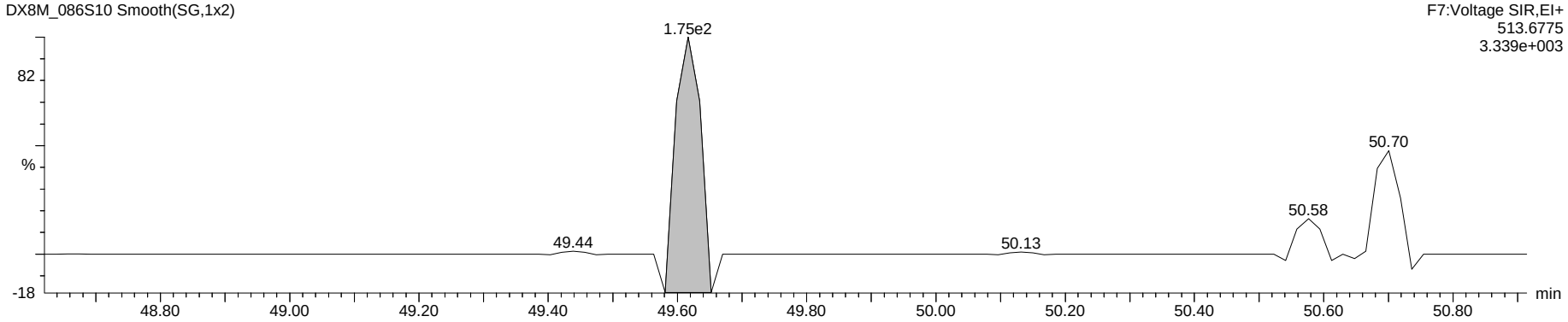
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S10, Date: 21-Jul-2018, Time: 00:21:02, ID: L29628-12,,, Description: 1,WG64578,1.0/20uL

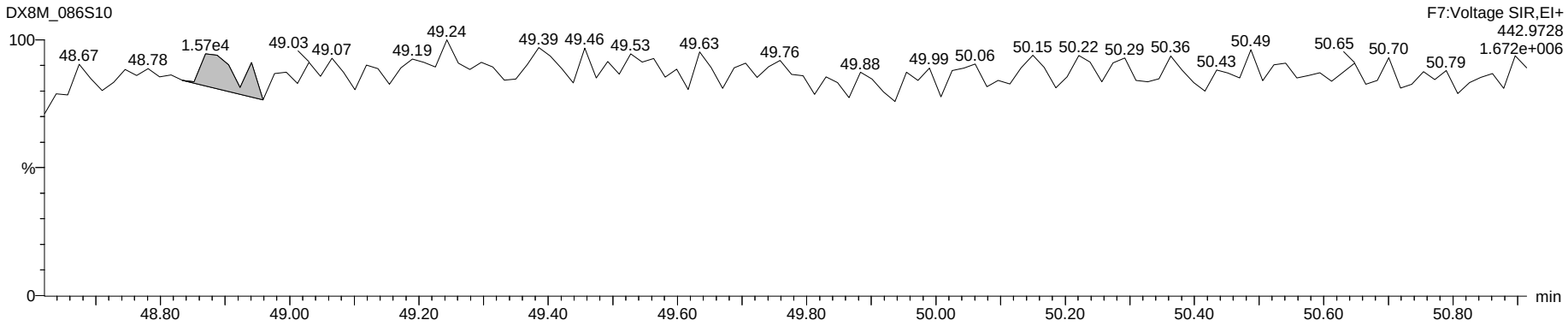
OCDF



Deca DPE



Octa Lock



Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S11, Date: 21-Jul-2018, Time: 01:16:16, ID: L29628-14,,, Description: 1,WG64578,1.0/20uL

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	1.056	1.12e2	1.45	YES	25.20	0.063	0.1054		5.30e2	2.73e2
2	1,2,3,7,8-PeCDF	1.056	3.38e2	1.58	NO	33.62	0.245	0.0629		3.17e2	5.02e-1
3	2,3,4,7,8-PeCDF	1.056	1.11e2	2.56	YES	35.30	0.084	0.0581		3.17e2	5.02e-1
4	1,2,3,4,7,8-HxCDF	1.056	8.98e1	1.34	NO	40.69	0.094	0.1360		3.42e0	7.05e2
5	1,2,3,6,7,8-HxCDF	1.056			NO			0.1248		3.42e0	7.05e2
6	2,3,4,6,7,8-HxCDF	1.056	5.28e1	1.22	NO	41.77	0.055	0.1350		3.42e0	7.05e2
7	1,2,3,7,8,9-HxCDF	1.056	7.32e1	24.90	YES	42.84	0.096	0.1858		3.42e0	7.05e2
8	1,2,3,4,6,7,8-HpCDF	1.056	9.61e1	1.16	NO	45.33	0.133	0.0801		2.01e-1	3.29e2
9	1,2,3,4,7,8,9-HpCDF	1.056			NO			0.1223		2.01e-1	3.29e2
10	OCDF	1.056	1.41e2	0.68	YES	50.29	0.362	0.1959		3.69e2	1.94e0
11	2,3,7,8-TCDD	1.056	4.32e2	0.47	YES	26.47	0.270	0.1548		5.85e2	4.16e2
12	1,2,3,7,8-PeCDD	1.056	4.95e1	0.87	YES	36.09	0.054	0.1507		5.61e2	7.38e0
13	1,2,3,4,7,8-HxCDD	1.056	2.90e1	0.12	YES	42.11	0.043	0.1588		4.01e2	2.21e2
14	1,2,3,6,7,8-HxCDD	1.056	4.67e1	0.43	YES	42.18	0.067	0.1636		4.01e2	2.21e2
15	1,2,3,7,8,9-HxCDD	1.056			NO			0.1606		4.01e2	2.21e2
16	1,2,3,4,6,7,8-HpCDD	1.056	2.44e2	1.26	YES	46.66	0.528	0.1731		1.92e2	2.50e2
17	OCDD	1.056	8.08e2	0.57	YES	50.20	2.501	0.0002		2.18e-1	5.59e-2
18	13C-2,3,7,8-TCDF	1.056	3.71e6	0.69	NO	25.20	1352.235	1.3080	71.4	1.03e4	5.38e3
19	13C-1,2,3,7,8-PeCDF	1.056	2.83e6	1.38	NO	33.53	1432.561	1.4319	75.7	5.79e3	6.55e3
20	13C-2,3,4,7,8-PeCDF	1.056	2.65e6	1.36	NO	35.29	1392.112	1.4845	73.5	5.79e3	6.55e3
21	13C-1,2,3,4,7,8-HxCDF	1.056	1.61e6	0.52	NO	40.67	1546.500	2.5060	81.7	6.68e3	6.95e3
22	13C-1,2,3,6,7,8-HxCDF	1.056	1.86e6	0.52	NO	40.84	1671.661	2.3462	88.3	6.68e3	6.95e3
23	13C-2,3,4,6,7,8-HxCDF	1.056	1.59e6	0.53	NO	41.77	1591.585	2.6256	84.1	6.68e3	6.95e3
24	13C-1,2,3,7,8,9-HxCDF	1.056	1.44e6	0.52	NO	42.82	1465.305	2.6621	77.4	6.68e3	6.95e3
25	13C-1,2,3,4,6,7,8-HpCDF	1.056	1.11e6	0.46	NO	45.26	1336.793	2.5346	70.6	7.24e3	3.76e3
26	13C-1,2,3,4,7,8,9-HpCDF	1.056	7.62e5	0.44	NO	47.04	1172.040	3.2496	61.9	7.24e3	3.76e3
27	13C-2,3,7,8-TCDD	1.056	2.72e6	0.77	NO	26.44	1598.610	1.8722	84.4	5.10e3	8.81e3
28	13C-1,2,3,7,8-PeCDD	1.056	1.69e6	0.69	NO	36.11	1512.390	0.8735	79.9	1.92e3	2.33e3
29	13C-1,2,3,4,7,8-HxCDD	1.056	1.26e6	1.24	NO	42.06	1565.168	1.7887	82.7	4.39e3	3.11e3
30	13C-1,2,3,6,7,8-HxCDD	1.056	1.41e6	1.25	NO	42.19	1661.872	1.6915	87.8	4.39e3	3.11e3
31	13C-1,2,3,4,6,7,8-HpCDD	1.056	8.78e5	0.99	NO	46.64	1319.664	1.6045	69.7	2.96e3	2.60e3
32	13C-OCDD	1.056	1.20e6	0.89	NO	50.20	2052.081	2.9938	54.2	5.90e-1	9.12e3
33	13C-1,2,3,4-TCDD	1.056	3.21e6	0.77	NO	26.10	134.551	0.1336	7.1	5.10e3	8.81e3
34	13C-1,2,3,7,8,9-HxCDD	1.056	1.55e6	1.27	NO	42.62	102.654	0.0955	5.4	4.39e3	3.11e3
35	37Cl-2,3,7,8-TCDD	1.056	2.97e5			26.47	156.953	0.2944	82.9		2.43e3
36	Total Tetra-Furans	1.056					0.833	0.1054			2.73e2
37	Total Tetra-Dioxins	1.056					1.414	0.1548			4.16e2
38	Total Penta-Furans	1.056					0.478	0.0611			5.02e-1
39	Total Penta-Dioxins	1.056					0.193	0.1507			7.38e0
40	Total Hexa-Furans	1.056					0.594	0.1382			7.05e2
41	Total Hexa-Dioxins	1.056					1.502	0.1554			2.21e2
42	Total Hepta-Furans	1.056					0.333	0.0984			3.29e2
43	Total Hepta-Dioxins	1.056					0.838	0.1731			2.50e2
44	Hexa DPE	1.000	2.17e2			23.74					0.00e0
45	Hepta DPE	1.000	1.12e1			32.83					2.46e-1
46	Octa DPE	1.000	4.55e1			40.57					9.13e-2
47	Nona DPE	1.000	1.21e2			46.94					0.00e0
48	Deca DPE	1.000	1.88e1			50.15					0.00e0
49	Tetra Lock	1.000	4.10e3			24.08					1.20e5
50	Penta Lock	1.000	2.61e5			29.48					2.05e5
51	Hexa Lock	1.000	6.87e3			38.76					3.00e5
52	Hepta Lock	1.000	6.15e3			47.34					1.96e5
53	Octa Lock	1.000									1.78e5
54	13C-Tetra-Furans	1.056					1352.235	1.3080			5.38e3
55	13C-Tetra-Dioxins	1.056					1733.161	2.0059			8.81e3

pv'd by LHE 23-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

SVbyKB 26Jul2018

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S11, Date: 21-Jul-2018, Time: 01:16:16, ID: L29628-14,,, Description: 1,WG64578,1.0/20uL

Tetrafurans

	RT	1° Ratio (A...	Fails?	pg
1	23.42	0.755	NO	0.068
2	24.58	1.211	YES	0.084
3	25.20	1.454	YES	0.063
4	25.36	2.017	YES	0.147
5	26.13	1.047	YES	0.421
6	26.49	0.416	YES	0.051

Tetradioxins

	RT	1° Ratio (A...	Fails?	pg
1	22.54	0.279	YES	0.042
2	22.93	1.817	YES	0.083
3	23.18	1.090	YES	0.052
4	23.45	0.617	YES	0.031
5	23.58	0.452	YES	0.039
6	24.04	0.614	YES	0.091
7	24.67	1.732	YES	0.064
8	24.81	0.529	YES	0.037
9	25.18	3.982	YES	0.351
10	25.24	1.734	YES	0.111
11	26.11	0.435	YES	0.096
12	26.47	0.466	YES	0.270
13	27.31	0.739	NO	0.029
14	28.44	0.996	YES	0.045
15	28.28	1.286	YES	0.072

Pentafurans

	RT	1° Ratio (A...	Fails?	pg
1	31.24	0.230	YES	0.099
2	31.68	1.170	YES	0.050
3	33.62	1.579	NO	0.245
4	35.30	2.565	YES	0.084

Pentadioxins

	RT	1° Ratio (A...	Fails?	pg
1	34.33	0.348	YES	0.139
2	36.09	0.867	YES	0.054

pv'd by LHE 23-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S11, Date: 21-Jul-2018, Time: 01:16:16, ID: L29628-14,,, Description: 1,WG64578,1.0/20uL

Hexafurans

	RT	1° Ratio (A...	Fails?	pg
1	38.77	0.955	YES	0.048
2	39.04	0.205	YES	0.051
3	39.26	9.287	YES	0.029
4	39.76	1.324	NO	0.029
5	40.04	0.228	YES	0.038
6	40.60	0.526	YES	0.037
7	40.69	1.338	NO	0.094
8	41.38	1.472	YES	0.020
9	41.77	1.218	NO	0.055
10	41.81	0.827	YES	0.070
11	42.84	24.896	YES	0.096
12	42.96	2.315	YES	0.027

Hexadioxins

	RT	1° Ratio (A...	Fails?	pg
1	39.93	1.792	YES	0.359
2	40.84	2.211	YES	0.859
3	41.20	1.572	YES	0.108
4	41.31	0.605	YES	0.066
5	42.11	0.123	YES	0.043
6	42.18	0.434	YES	0.067

Heptafurans

	RT	1° Ratio (A...	Fails?	pg
1	45.33	1.164	NO	0.133
2	45.78	0.673	YES	0.200

Heptadioxins

	RT	1° Ratio (A...	Fails?	pg
1	45.73	1.747	YES	0.310
2	46.66	1.256	YES	0.528

13C-TF

	RT	1° Ratio (A...	Fails?	pg
1	25.20	0.694	NO	1352.2...

13C-TD

	RT	1° Ratio (A...	Fails?	pg
1	26.10	0.772	NO	134.551
2	26.44	0.766	NO	1598.6...

13C-PF

	RT	1° Ratio (A...	Fails?	pg
1	33.53	1.385	NO	1432.5...
2	35.29	1.358	NO	1392.1...

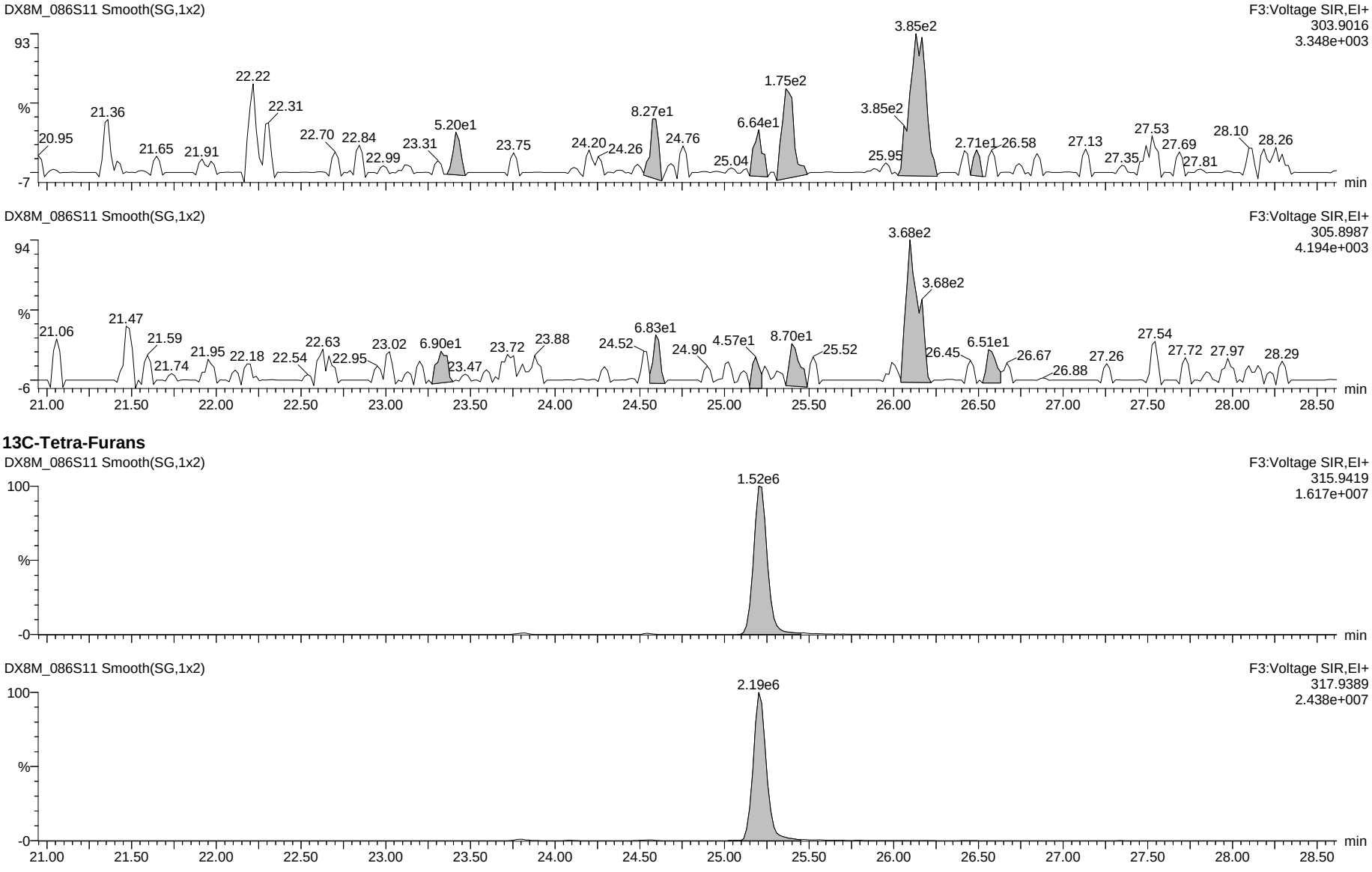
pv'd by LHE 23-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Method: G:\Masslynx\Inst_M\Exported_methods\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_086S11, Date: 21-Jul-2018, Time: 01:16:16, ID: L29628-14,,, Description: 1,WG64578,1.0/20uL

Total Tetra-Furans



13C-Tetra-Furans

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

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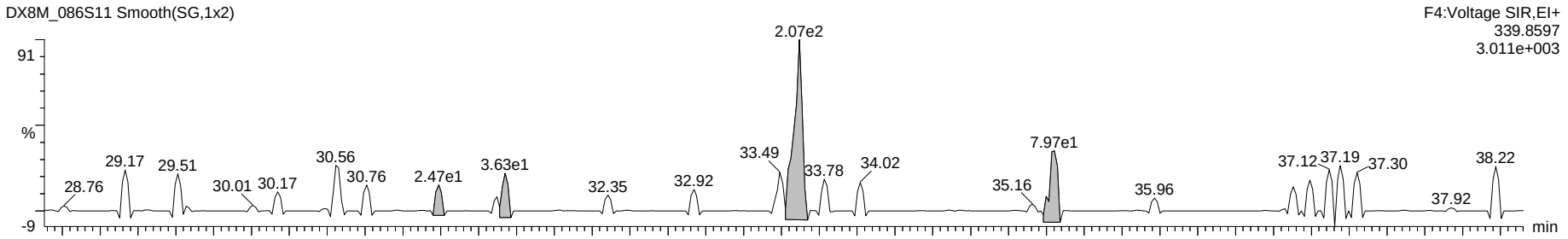
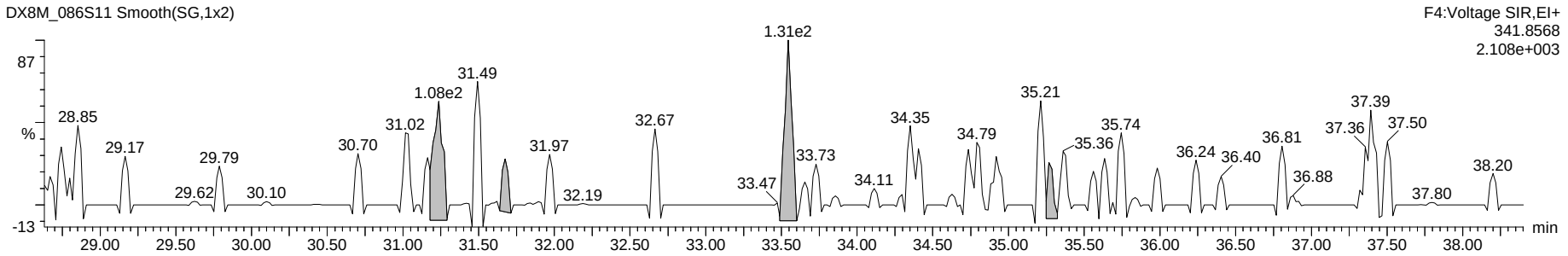
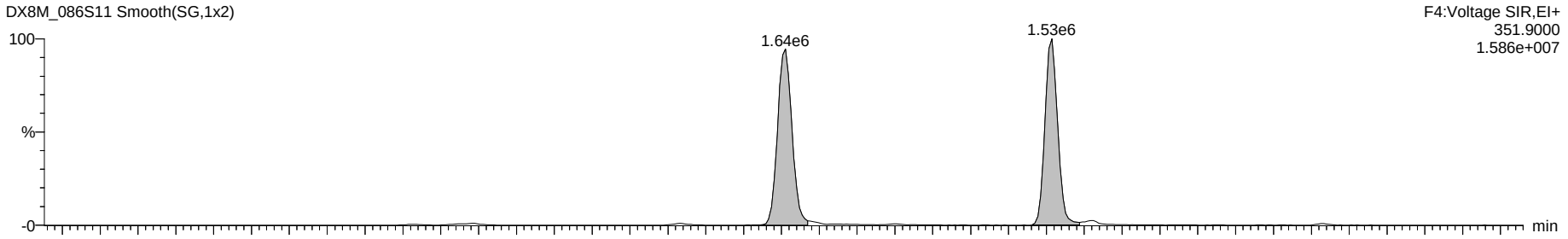
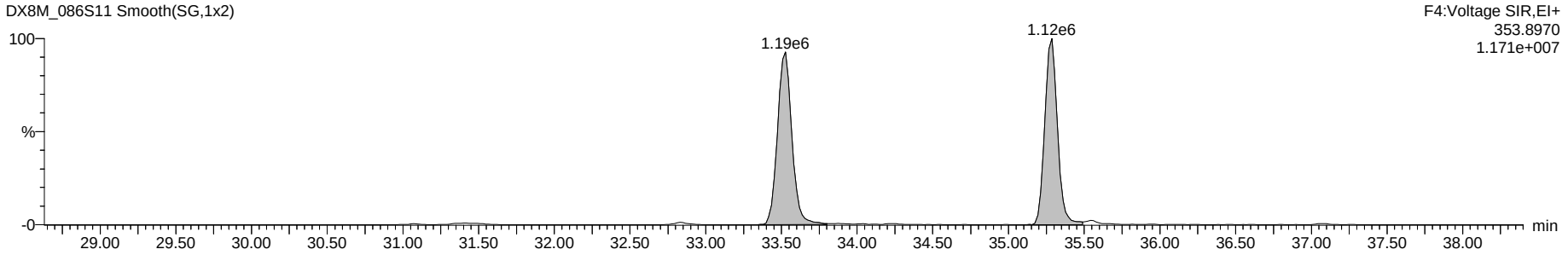
Total Penta-Furans





13C-Penta-Furans





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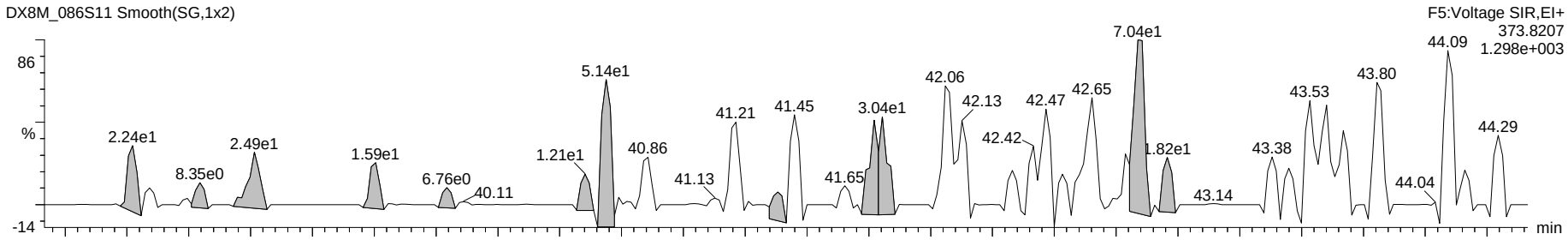
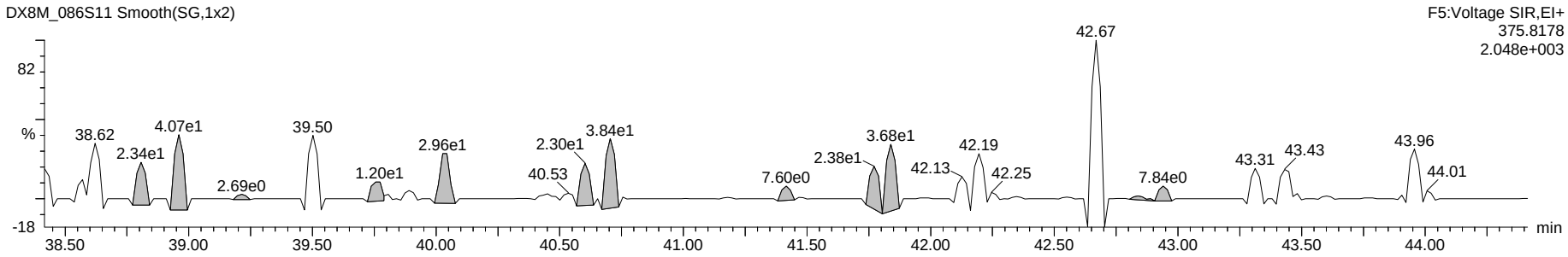
Name: DX8M_086S11, Date: 21-Jul-2018, Time: 01:16:16, ID: L29628-14,,, Description: 1,WG64578,1.0/20uL

Total Hexa-Furans





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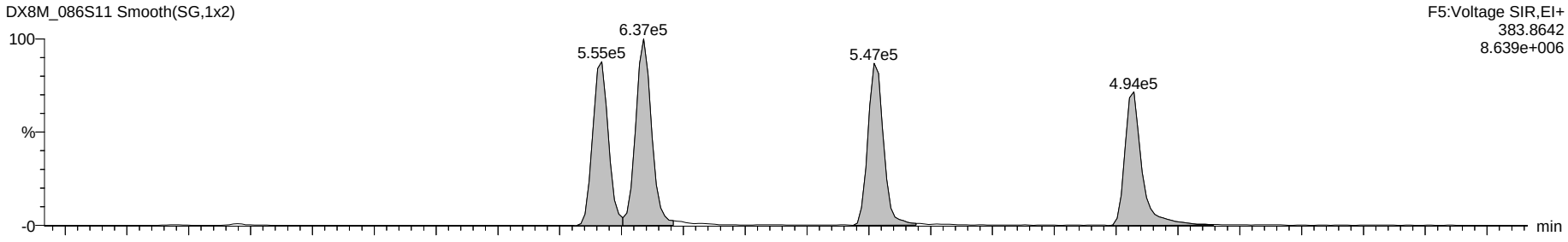

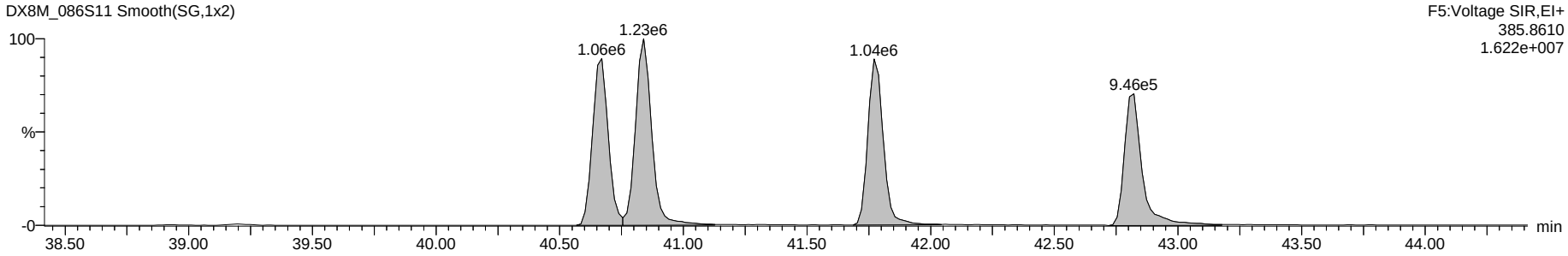

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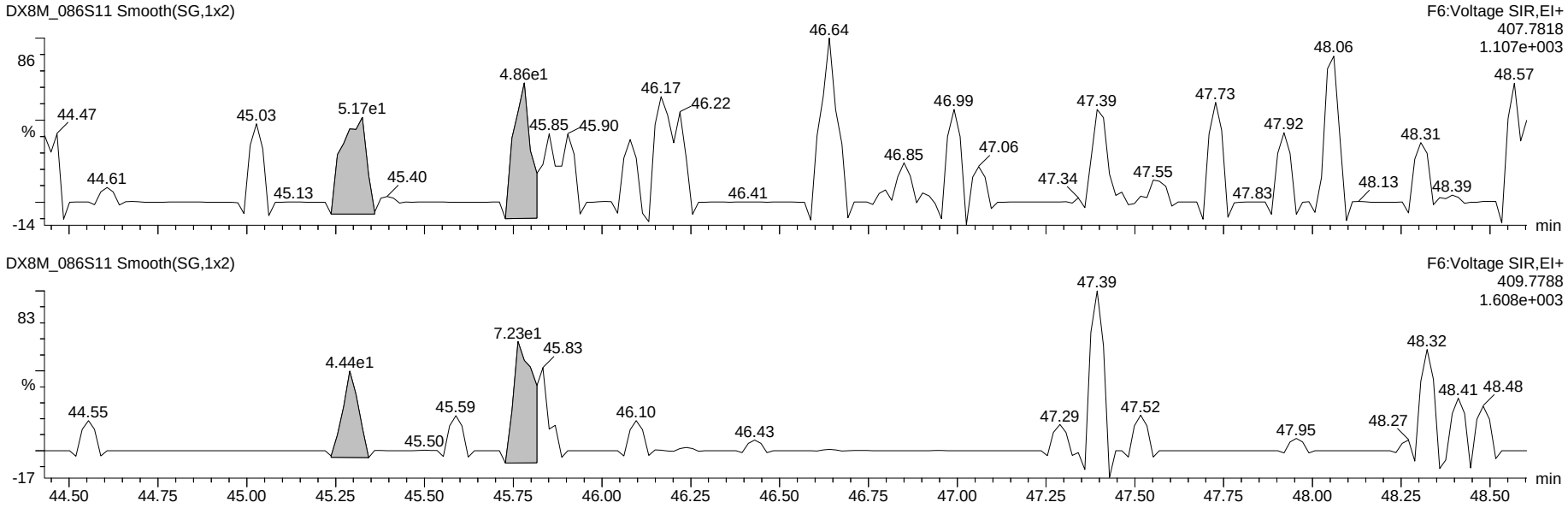
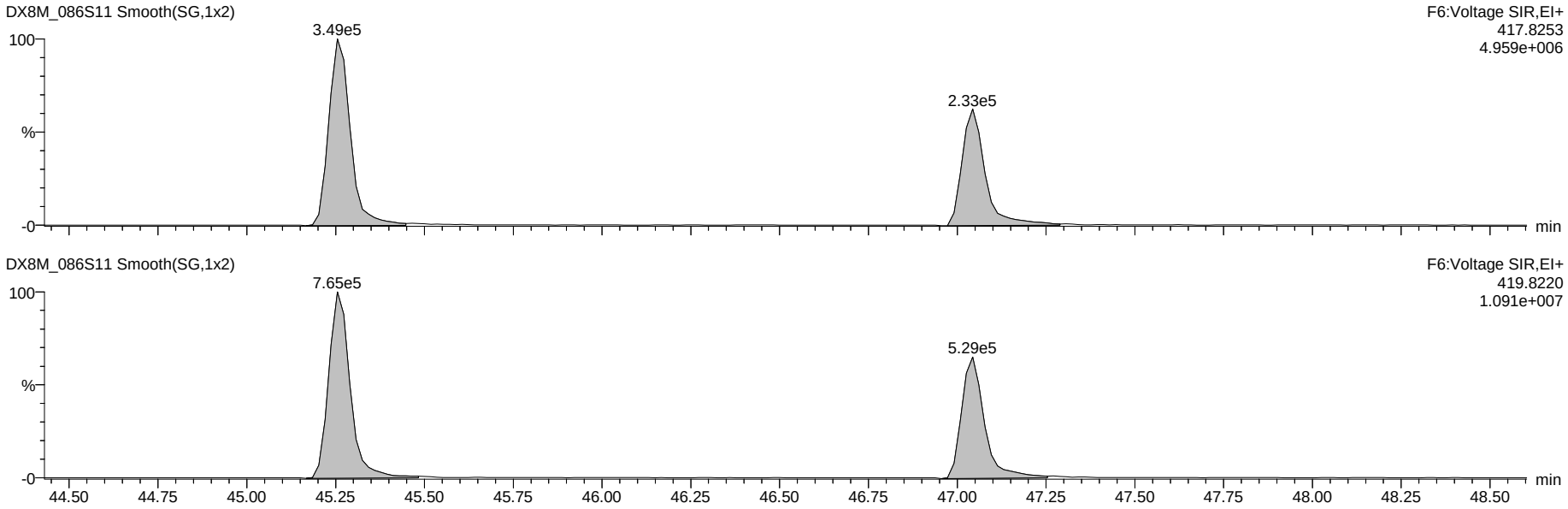
Name: DX8M_086S11, Date: 21-Jul-2018, Time: 01:16:16, ID: L29628-14,,, Description: 1,WG64578,1.0/20uL

Total Hepta-Furans



13C-Hepta-Furans



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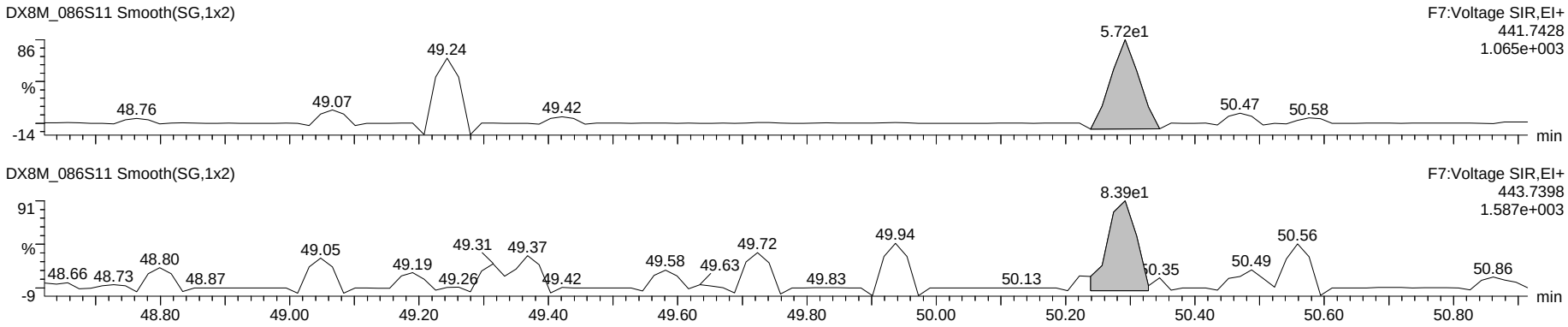
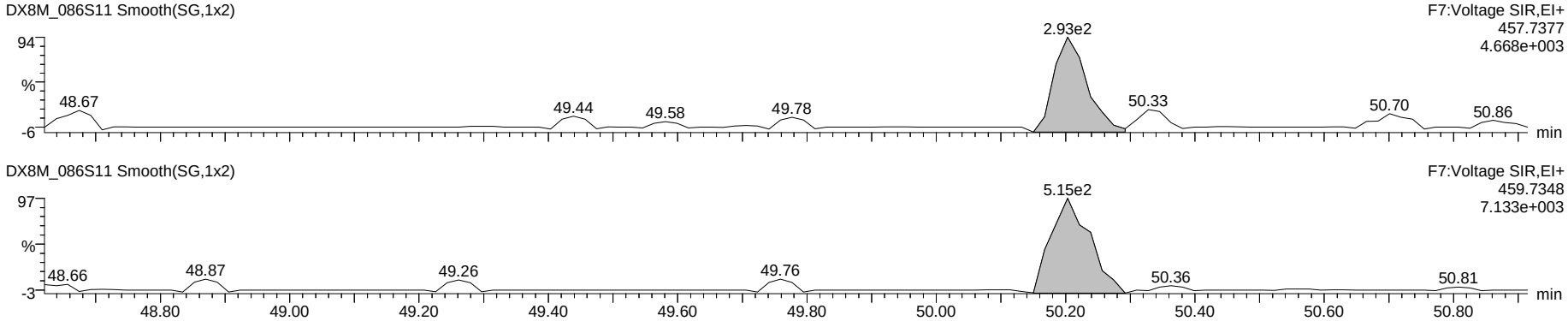
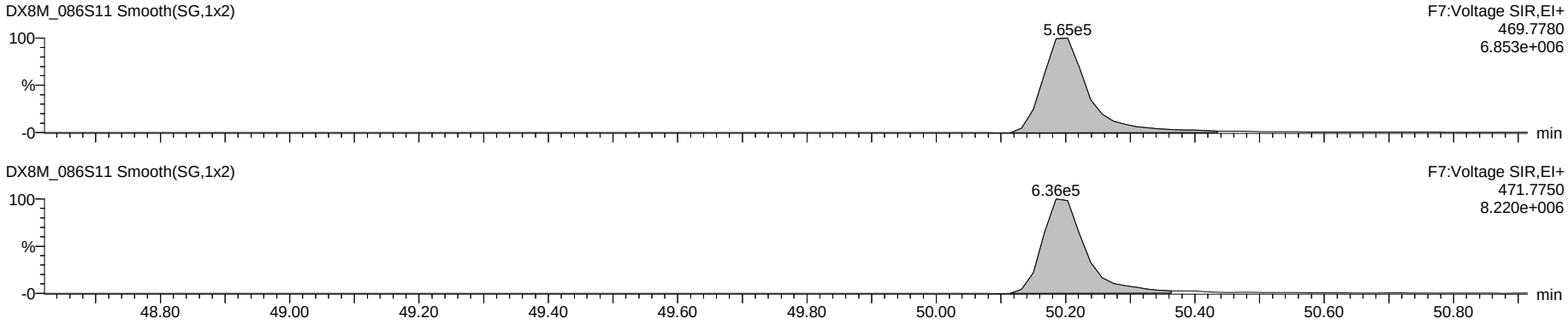
OCDF



OCDD



13C-OCDD



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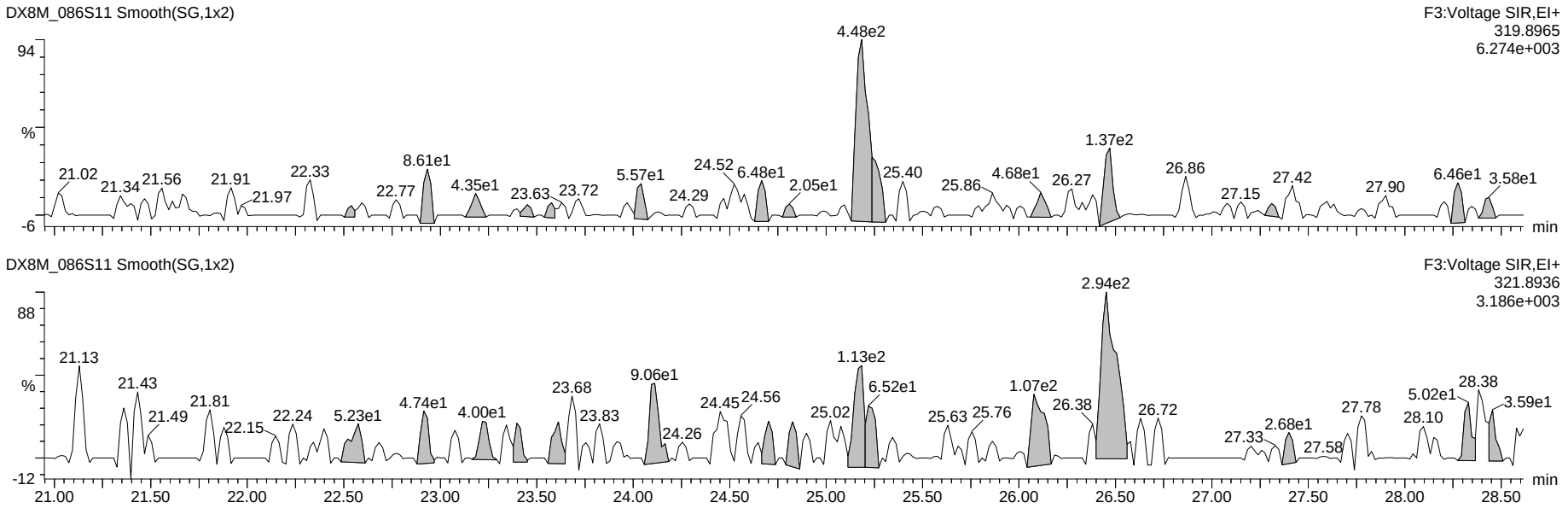
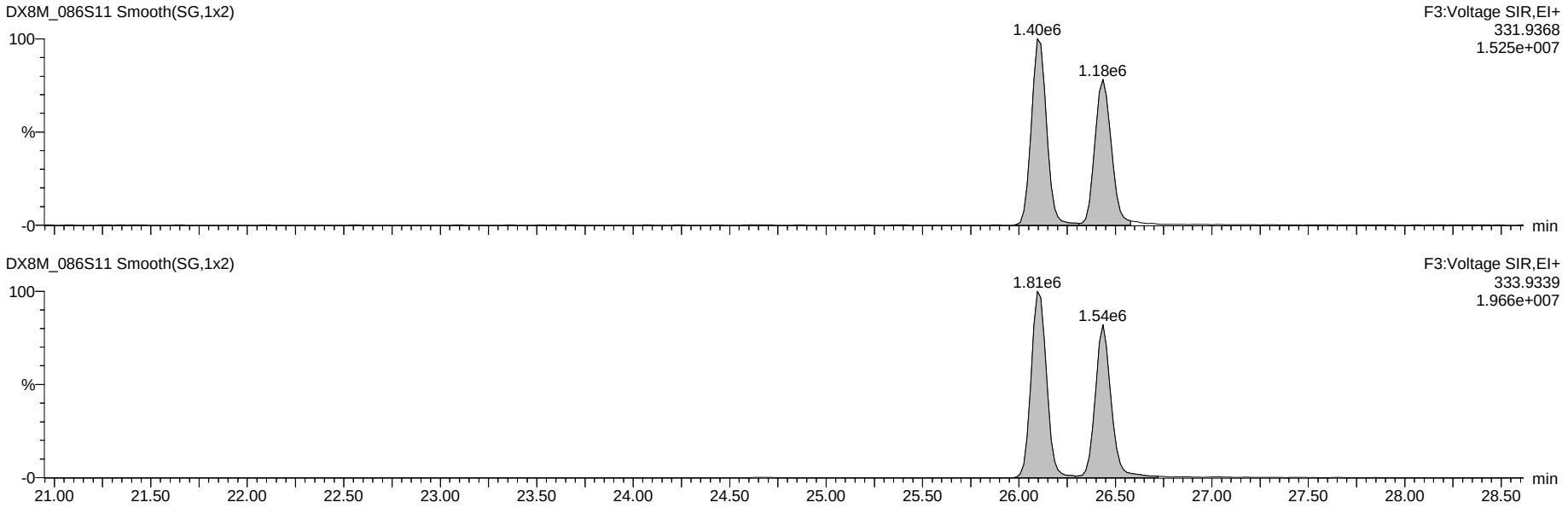
Name: DX8M_086S11, Date: 21-Jul-2018, Time: 01:16:16, ID: L29628-14,,, Description: 1,WG64578,1.0/20uL

Total Tetra-Dioxins



13C-Tetra-Dioxins



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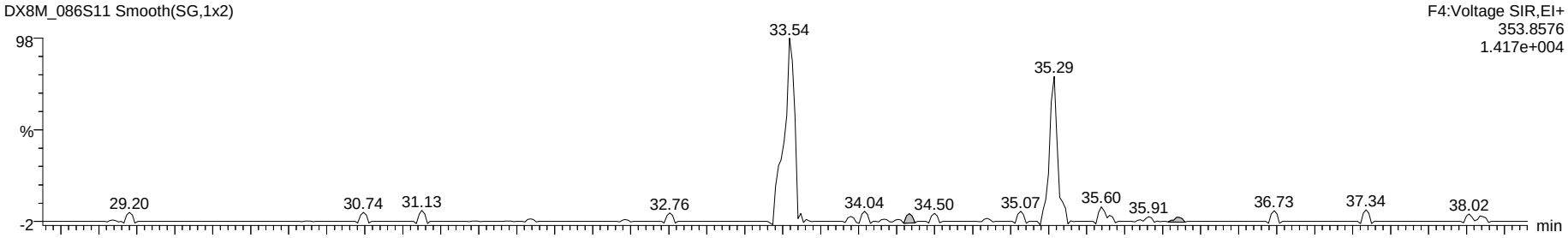
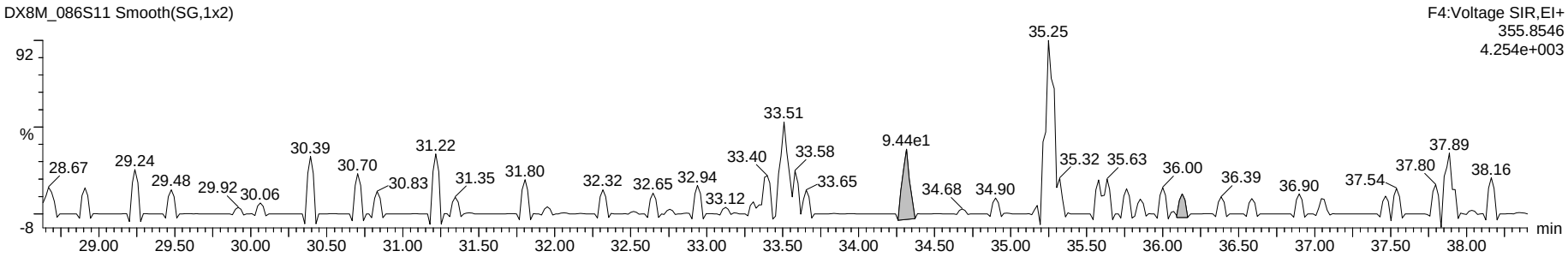
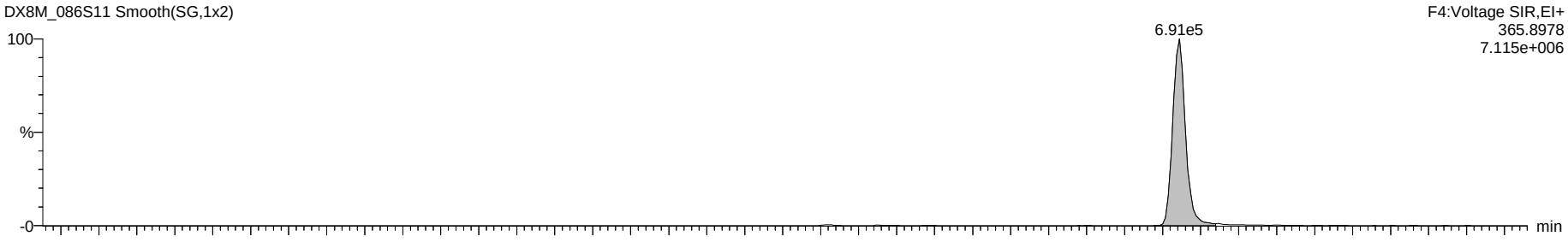
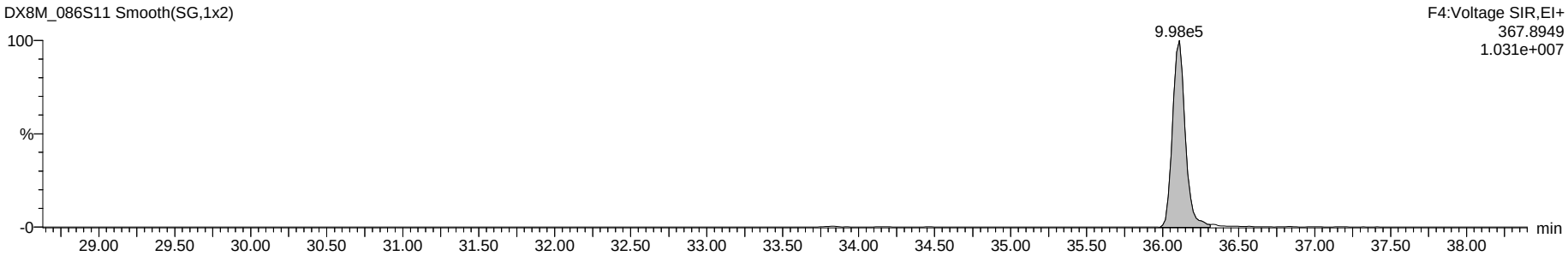
Total Penta-Dioxins





13C-Penta-Dioxins

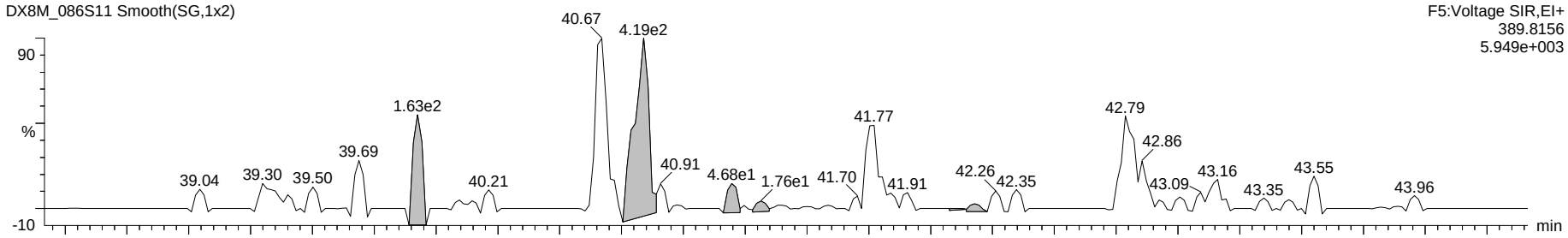


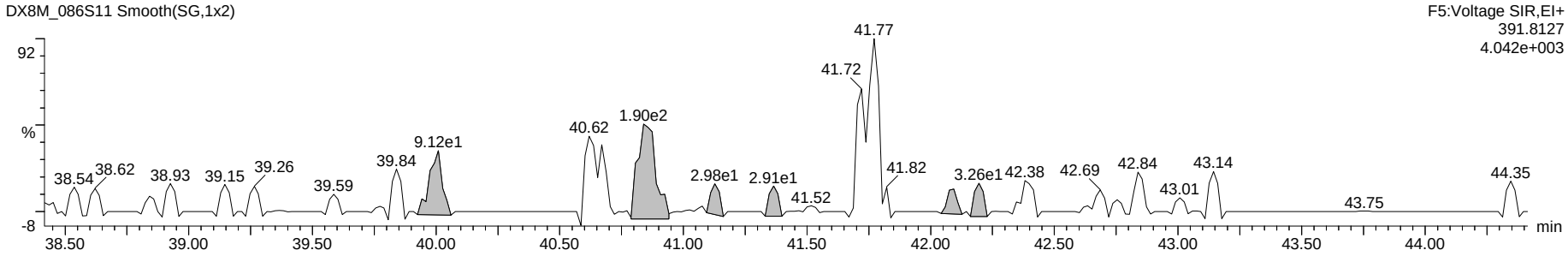


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

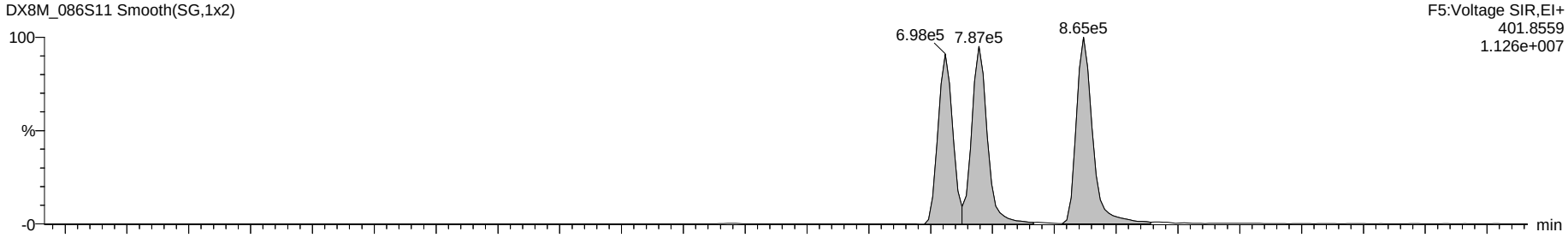
Name: DX8M_086S11, Date: 21-Jul-2018, Time: 01:16:16, ID: L29628-14,,, Description: 1,WG64578,1.0/20uL

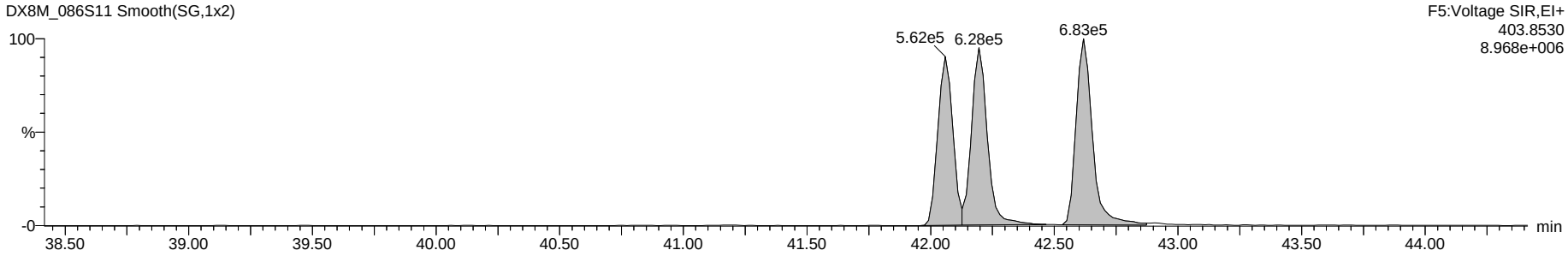
Total Hexa-Dioxins





13C-Hexa-Dioxins

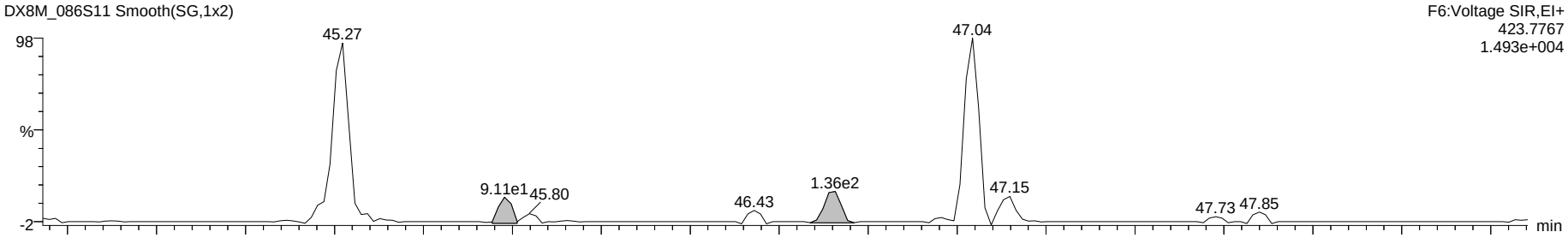


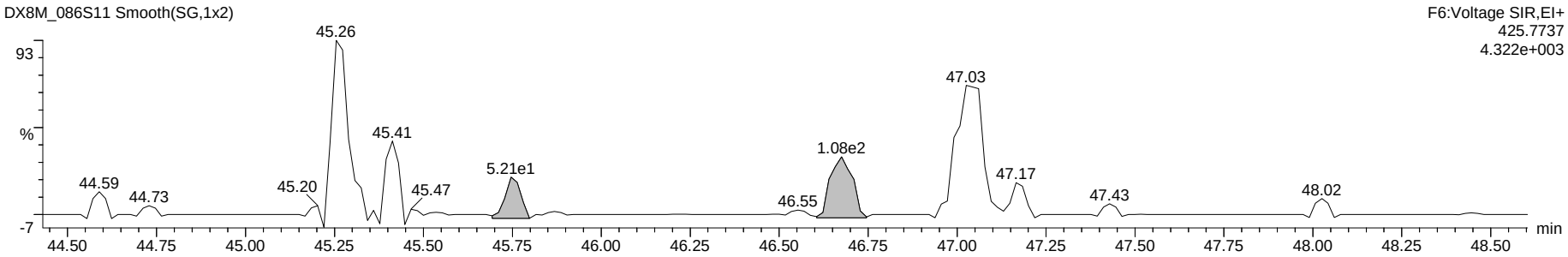


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

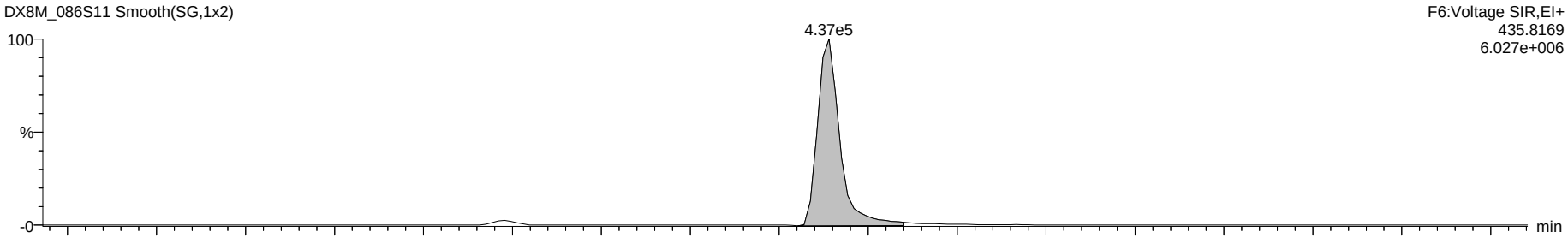
Name: DX8M_086S11, Date: 21-Jul-2018, Time: 01:16:16, ID: L29628-14,,, Description: 1,WG64578,1.0/20uL

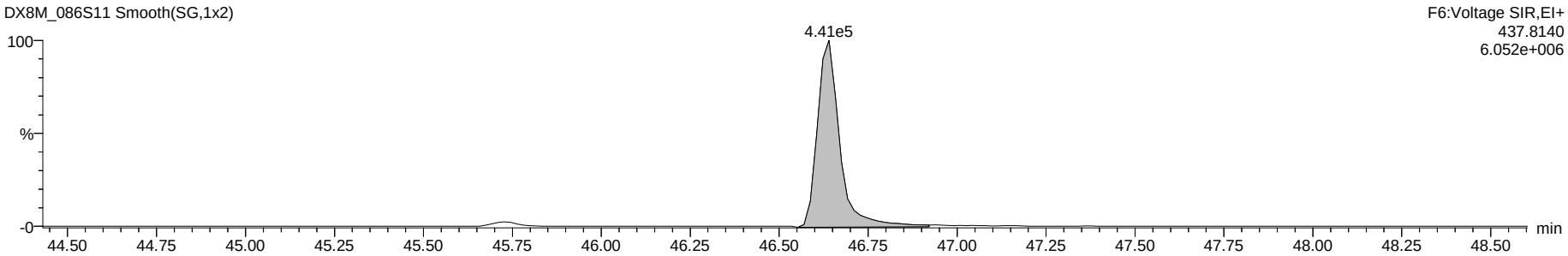
Total Hepta-Dioxins





13C-Hepta-Dioxins





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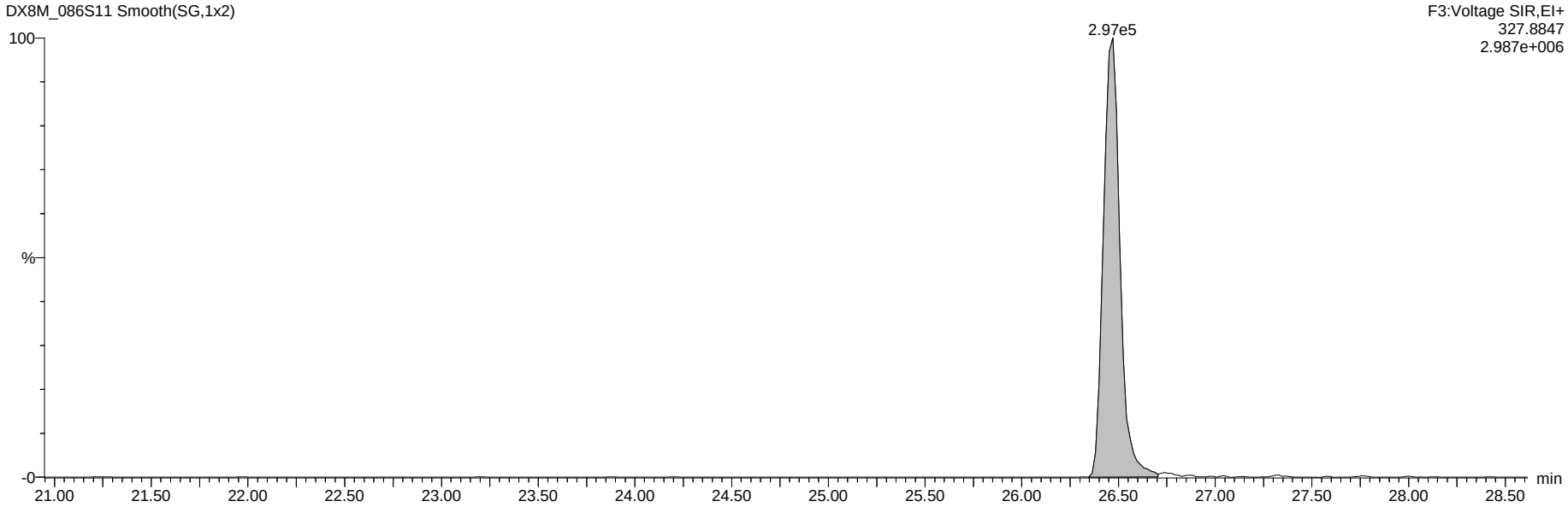
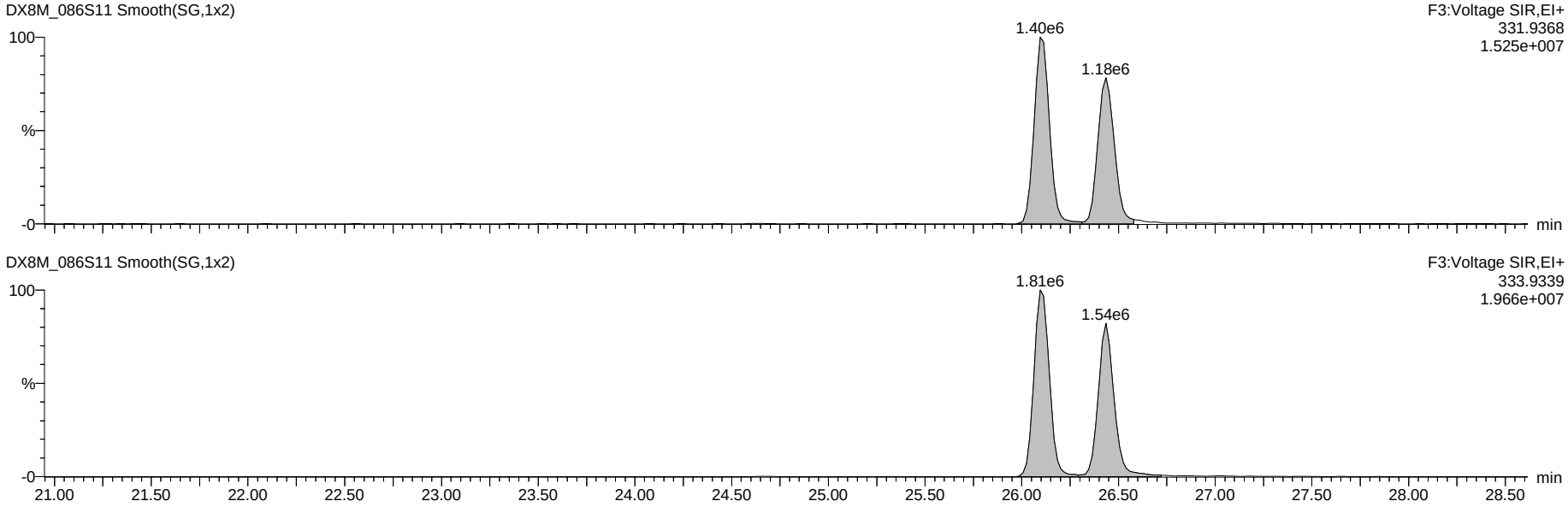
Name: DX8M_086S11, Date: 21-Jul-2018, Time: 01:16:16, ID: L29628-14,,, Description: 1,WG64578,1.0/20uL

37Cl-2,3,7,8-TCDD



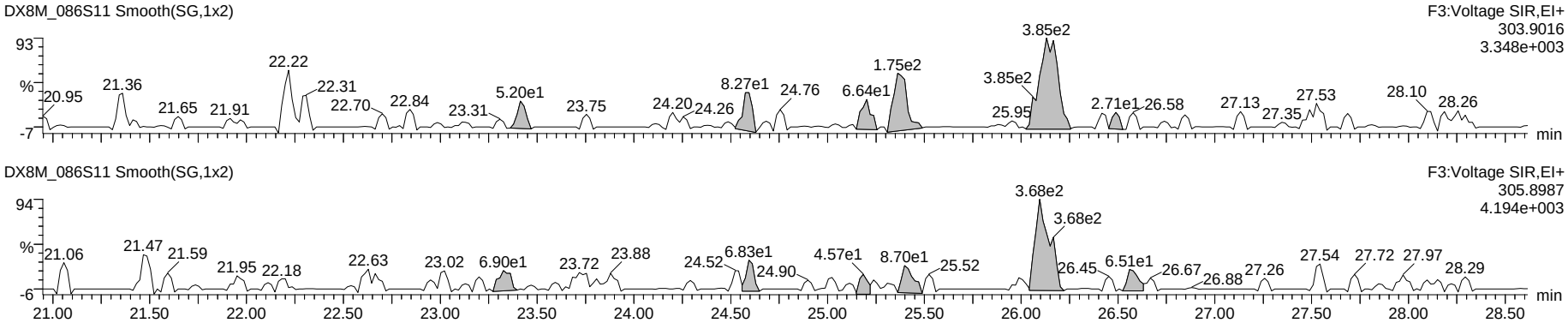
13C-Tetra-Dioxins



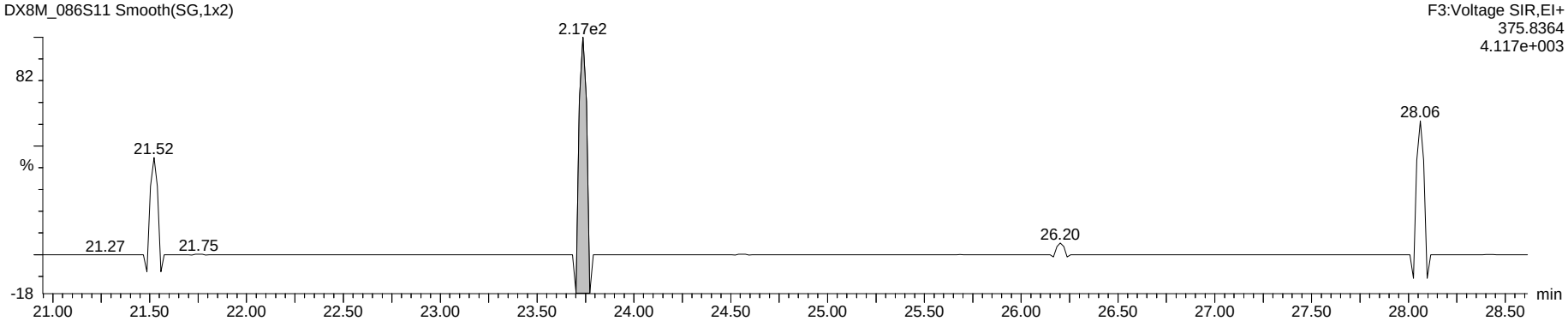
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S11, Date: 21-Jul-2018, Time: 01:16:16, ID: L29628-14,,, Description: 1,WG64578,1.0/20uL

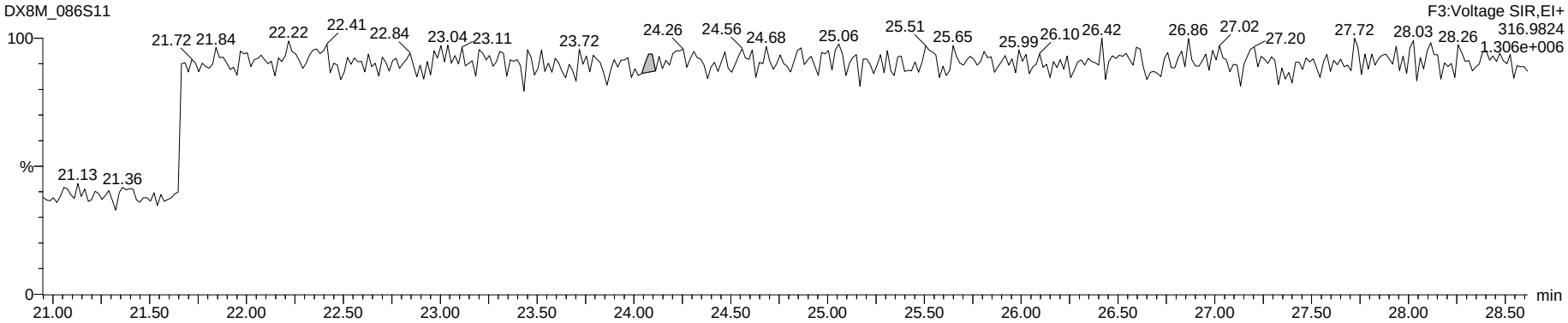
Total Tetra-Furans



Hexa DPE



Tetra Lock



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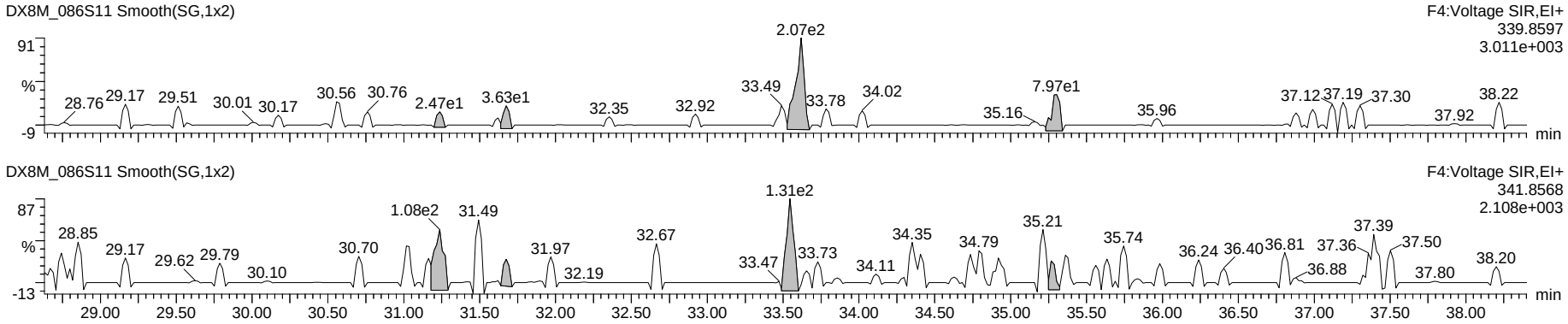
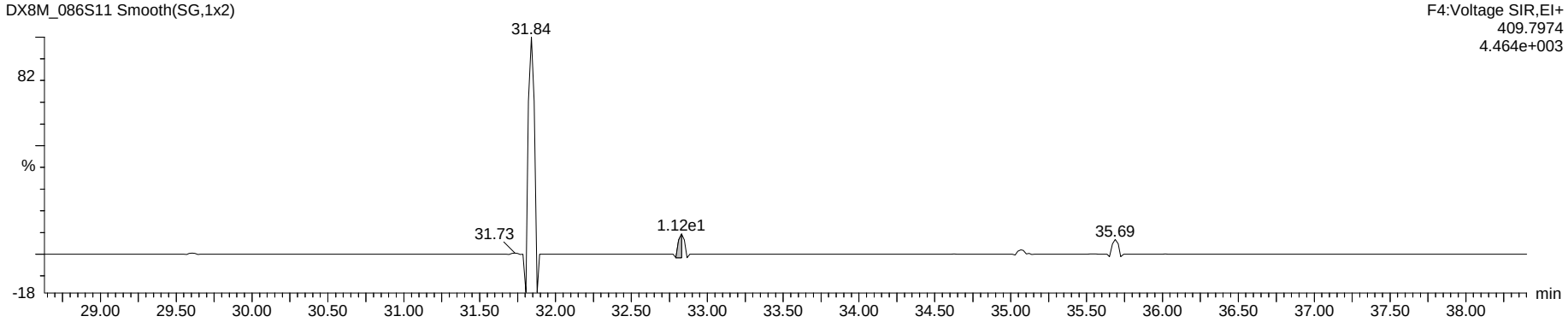
Name: DX8M_086S11, Date: 21-Jul-2018, Time: 01:16:16, ID: L29628-14,,, Description: 1,WG64578,1.0/20uL

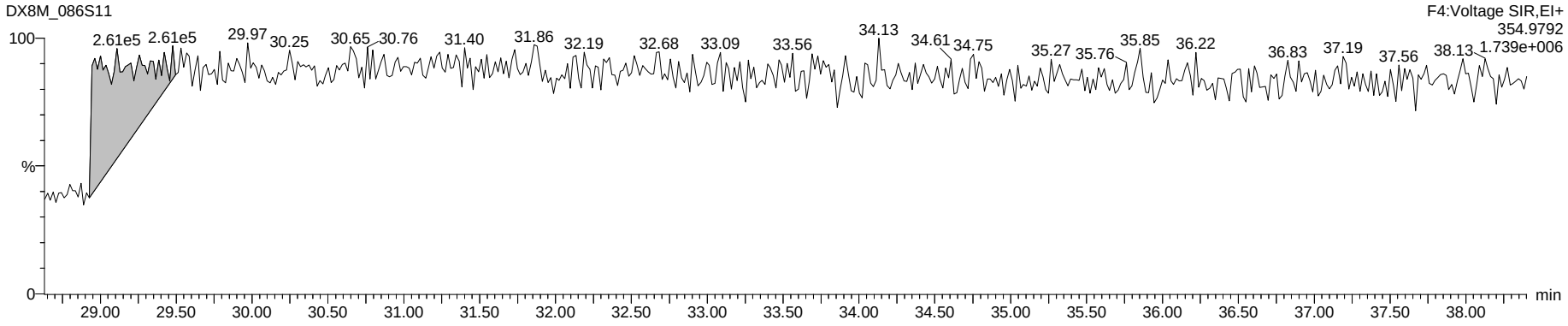
Total Penta-Furans



Hepta DPE



Penta Lock



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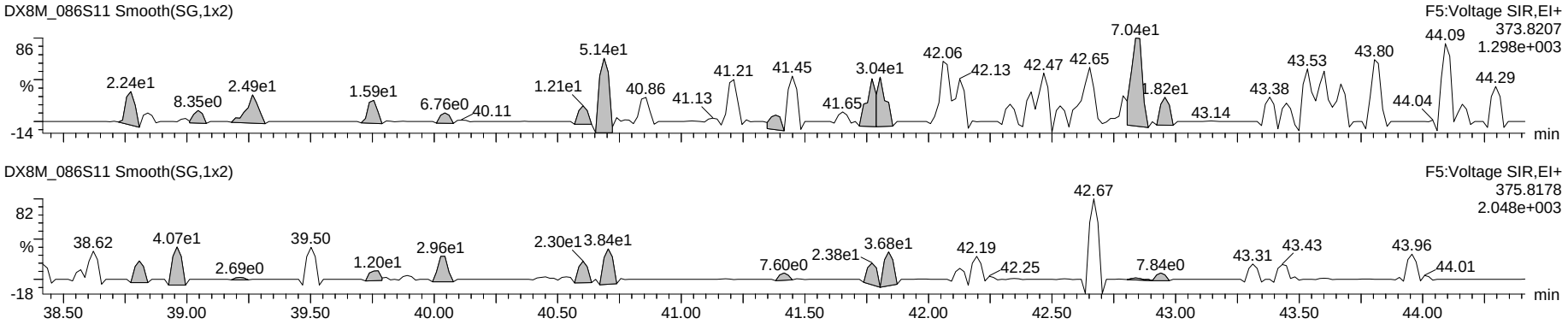
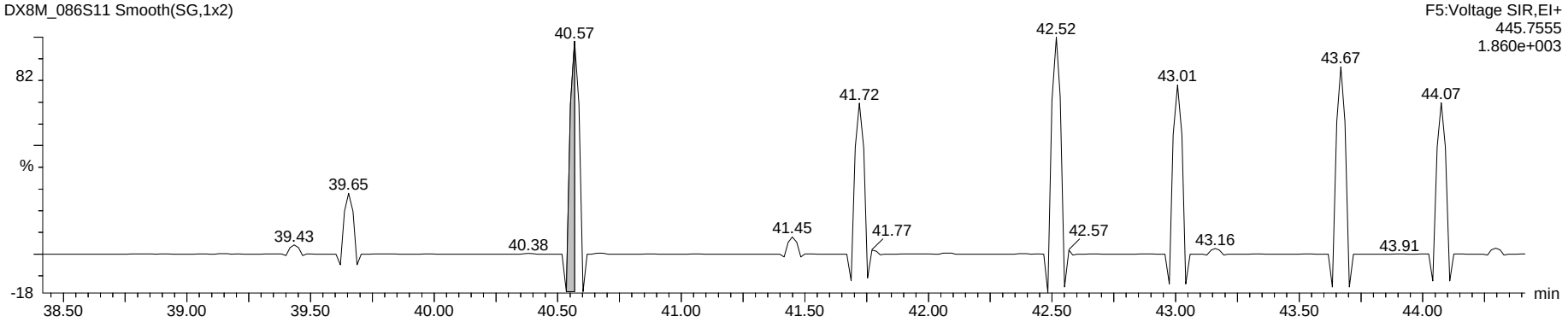
Name: DX8M_086S11, Date: 21-Jul-2018, Time: 01:16:16, ID: L29628-14,,, Description: 1,WG64578,1.0/20uL

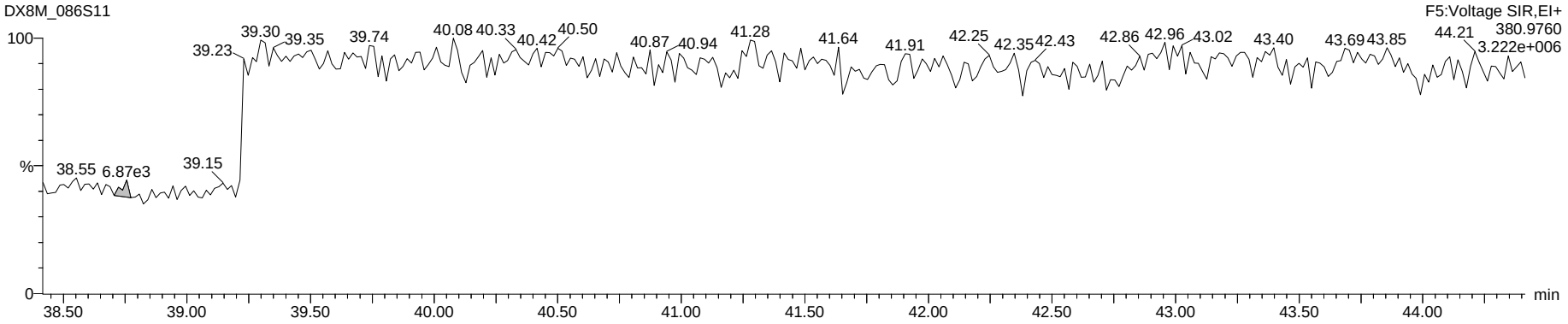
Total Hexa-Furans



Octa DPE



Hexa Lock



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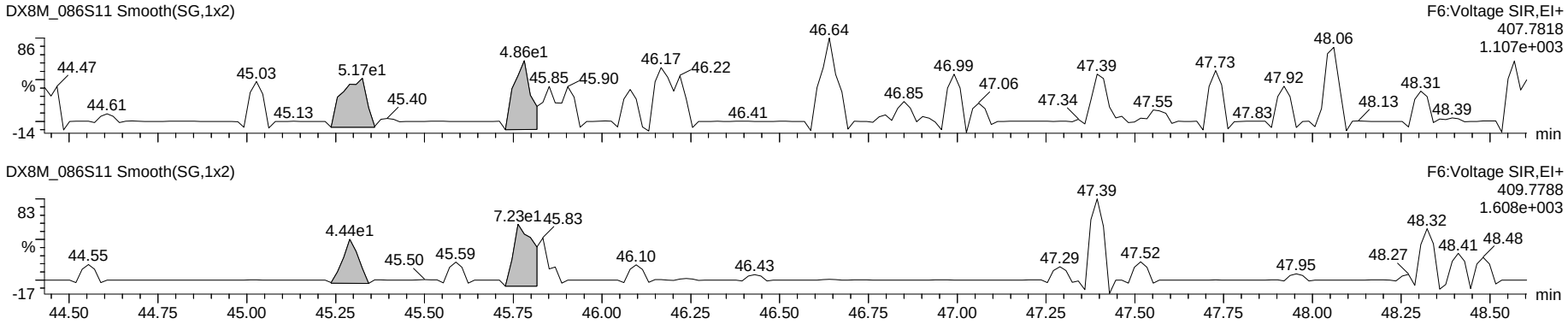
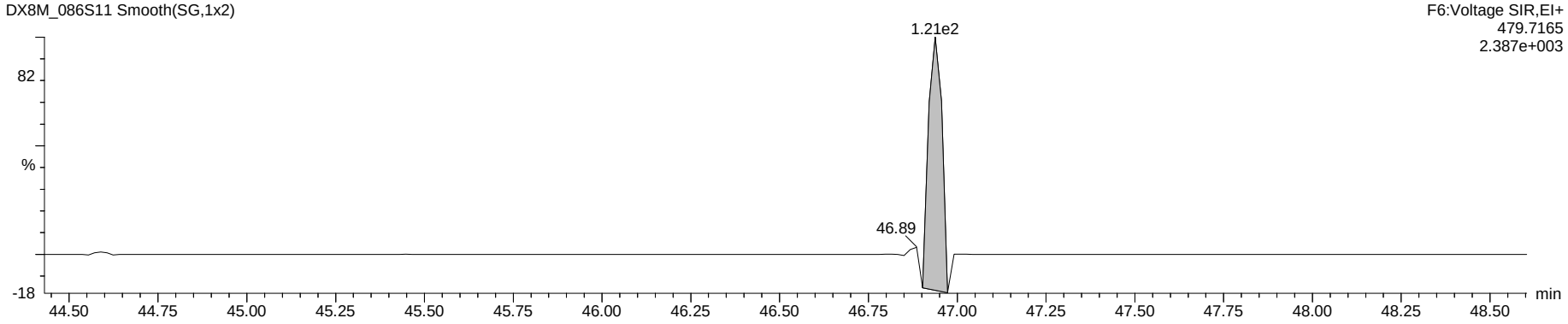
Name: DX8M_086S11, Date: 21-Jul-2018, Time: 01:16:16, ID: L29628-14,,, Description: 1,WG64578,1.0/20uL

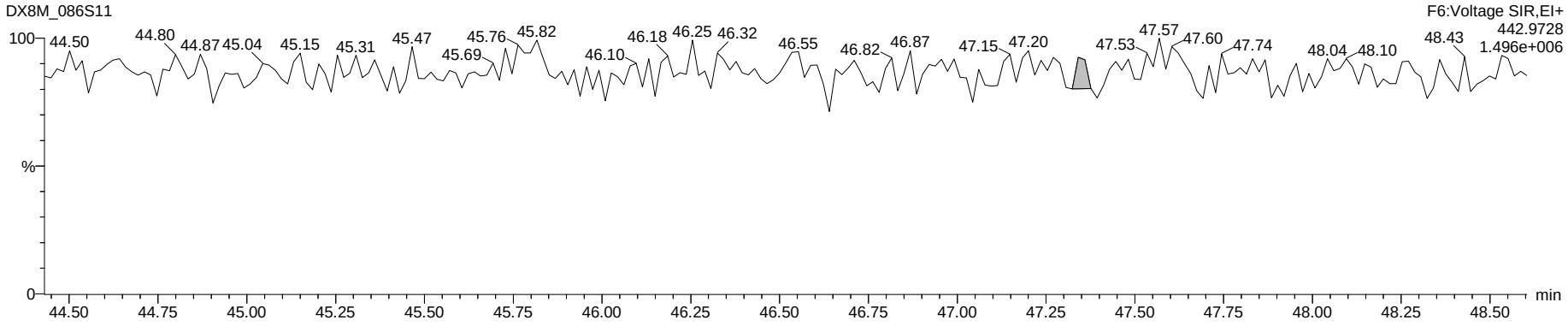
Total Hepta-Furans



Nona DPE



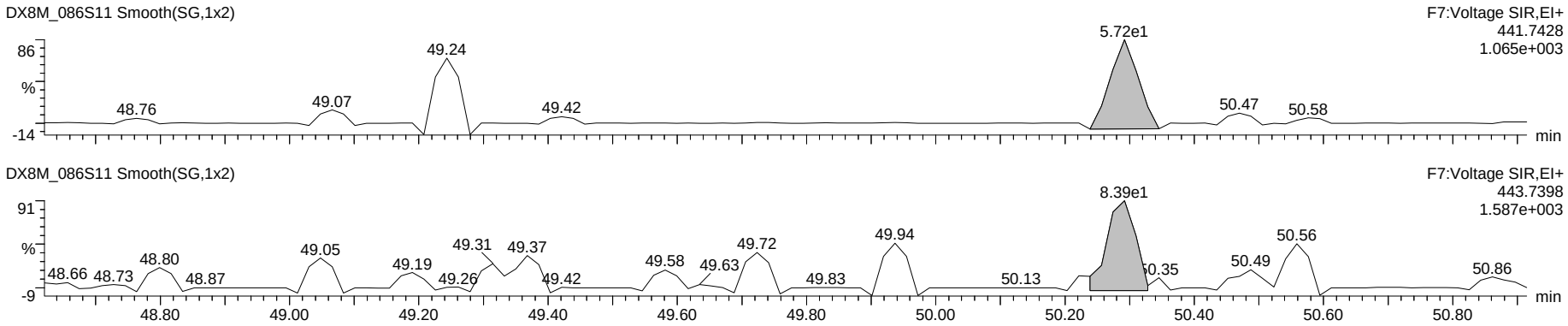
Hepta Lock



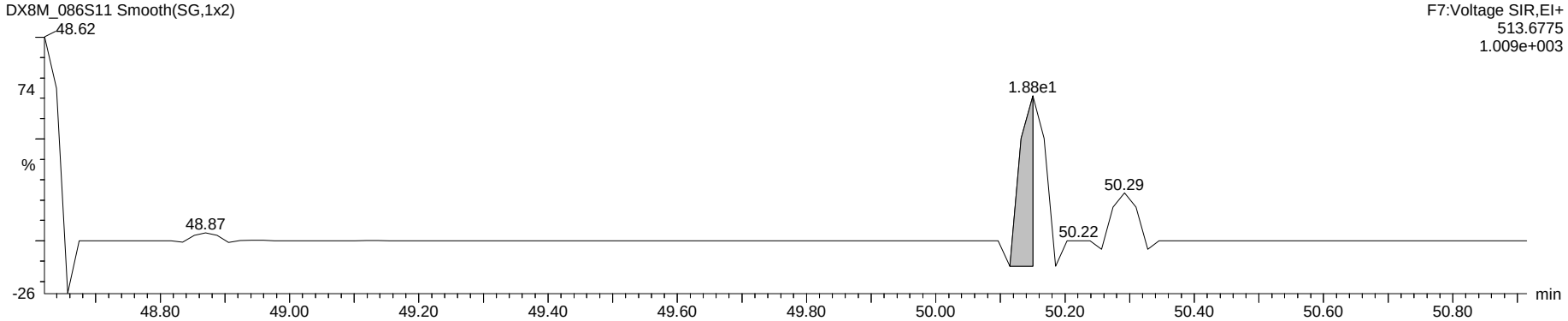
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S11, Date: 21-Jul-2018, Time: 01:16:16, ID: L29628-14,,, Description: 1,WG64578,1.0/20uL

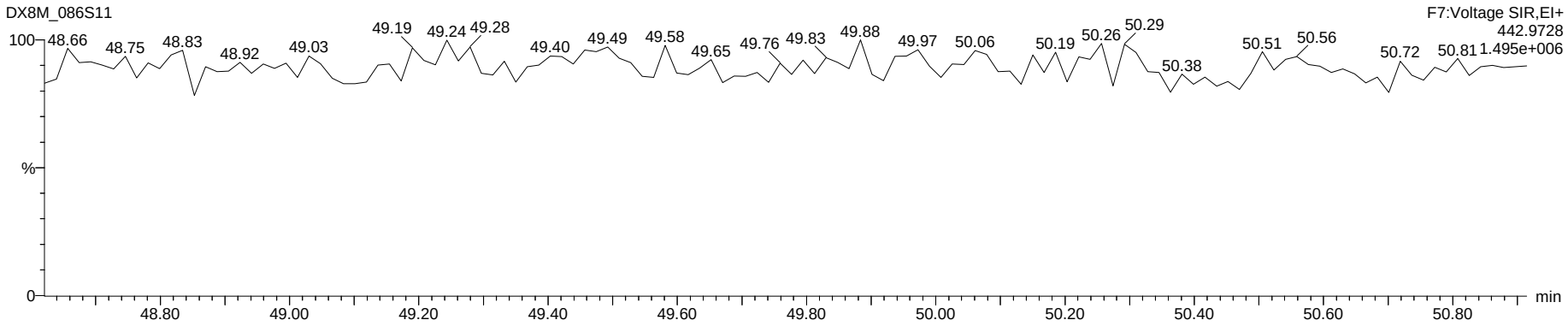
OCDF



Deca DPE



Octa Lock



Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S15, Date: 21-Jul-2018, Time: 05:03:32, ID: L29628-17,,, Description: 1,WG64578,1.0/20uL

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	1.065	3.45e2	0.64	YES	25.27	0.164	0.2496		9.97e2	1.21e3
2	1,2,3,7,8-PeCDF	1.065	5.48e2	1.40	NO	33.58	0.324	0.0543		2.56e2	7.01e1
3	2,3,4,7,8-PeCDF	1.065	2.04e2	11.37	YES	35.36	0.122	0.0478		2.56e2	7.01e1
4	1,2,3,4,7,8-HxCDF	1.065	1.07e2	0.94	YES	40.72	0.086	0.0645		2.90e2	1.27e2
5	1,2,3,6,7,8-HxCDF	1.065	7.64e1	0.42	YES	40.86	0.055	0.0589		2.90e2	1.27e2
6	2,3,4,6,7,8-HxCDF	1.065	1.09e2	0.41	YES	41.82	0.085	0.0600		2.90e2	1.27e2
7	1,2,3,7,8,9-HxCDF	1.065	1.79e1	1.02	YES	42.80	0.018	0.0868		2.90e2	1.27e2
8	1,2,3,4,6,7,8-HpCDF	1.065	8.82e1	0.75	YES	45.31	0.092	0.0333		3.76e1	1.39e2
9	1,2,3,4,7,8,9-HpCDF	1.065	6.70e1	3.27	YES	47.08	0.095	0.0504		3.76e1	1.39e2
10	OCDF	1.065	2.22e2	2.04	YES	50.31	0.459	0.1309		3.11e2	0.00e0
11	2,3,7,8-TCDD	1.065	2.79e2	0.41	NO	yes 26.47	0.154	0.2134		8.55e2	6.56e2
12	1,2,3,7,8-PeCDD	1.065			NO			0.1739		5.26e2	2.45e2
13	1,2,3,4,7,8-HxCDD	1.065	2.02e1	0.41	YES	42.11	0.024	0.1861		5.03e2	3.81e2
14	1,2,3,6,7,8-HxCDD	1.065	8.53e1	3.23	YES	42.25	0.087	0.1803		5.03e2	3.81e2
15	1,2,3,7,8,9-HxCDD	1.065	1.69e2	0.55	YES	42.62	0.183	0.1819		5.03e2	3.81e2
16	1,2,3,4,6,7,8-HpCDD	1.065	1.28e2	0.18	YES	46.64	0.216	0.0001		9.55e-2	2.36e-1
17	OCDD	1.065	2.67e2	0.64	YES	50.22	0.665	0.0467		9.19e1	1.74e-1
18	13C-2,3,7,8-TCDF	1.065	4.30e6	0.70	NO	25.22	1186.855	0.9663	63.2	9.86e3	5.14e3
19	13C-1,2,3,7,8-PeCDF	1.065	3.44e6	1.40	NO	33.53	1316.030	1.6587	70.1	1.22e4	6.34e3
20	13C-2,3,4,7,8-PeCDF	1.065	3.33e6	1.42	NO	35.30	1322.376	1.7196	70.4	1.22e4	6.34e3
21	13C-1,2,3,4,7,8-HxCDF	1.065	2.09e6	0.52	NO	40.67	1464.576	2.7647	78.0	1.23e4	6.81e3
22	13C-1,2,3,6,7,8-HxCDF	1.065	2.47e6	0.50	NO	40.86	1621.456	2.5884	86.4	1.23e4	6.81e3
23	13C-2,3,4,6,7,8-HxCDF	1.065	2.12e6	0.52	NO	41.79	1556.042	2.8966	82.9	1.23e4	6.81e3
24	13C-1,2,3,7,8,9-HxCDF	1.065	1.89e6	0.51	NO	42.82	1408.698	2.9369	75.0	1.23e4	6.81e3
25	13C-1,2,3,4,6,7,8-HpCDF	1.065	1.48e6	0.46	NO	45.27	1296.920	3.2126	69.1	1.09e4	6.80e3
26	13C-1,2,3,4,7,8,9-HpCDF	1.065	1.06e6	0.45	NO	47.06	1196.153	4.1188	63.7	1.09e4	6.80e3
27	13C-2,3,7,8-TCDD	1.065	3.06e6	0.75	NO	26.45	1357.713	2.3811	72.3	9.54e3	1.35e4
28	13C-1,2,3,7,8-PeCDD	1.065	2.04e6	0.68	NO	36.11	1380.455	0.9720	73.5	3.37e3	2.78e3
29	13C-1,2,3,4,7,8-HxCDD	1.065	1.59e6	1.23	NO	42.08	1445.465	2.5268	77.0	6.44e3	7.04e3
30	13C-1,2,3,6,7,8-HxCDD	1.065	1.97e6	1.28	NO	42.21	1696.679	2.3894	90.4	6.44e3	7.04e3
31	13C-1,2,3,4,6,7,8-HpCDD	1.065	1.12e6	1.01	NO	46.66	1227.932	2.3708	65.4	4.91e3	5.54e3
32	13C-OCDD	1.065	1.48e6	0.91	NO	50.20	1853.088	5.5309	49.4	0.00e0	2.14e4
33	13C-1,2,3,4-TCDD	1.065	4.21e6	0.78	NO	26.11	174.956	0.2228	9.3	9.54e3	1.35e4
34	13C-1,2,3,7,8,9-HxCDD	1.065	2.10e6	1.24	NO	42.63	137.885	0.1826	7.3	6.44e3	7.04e3
35	37Cl-2,3,7,8-TCDD	1.065	2.94e5			26.47	117.600	0.4005	62.6		4.29e3
36	Total Tetra-Furans	1.065					0.698	0.2496			1.21e3
37	Total Tetra-Dioxins	1.065					0.660	0.2134			6.56e2
38	Total Penta-Furans	1.065					1.105	0.0515			7.01e1
39	Total Penta-Dioxins	1.065					0.456	0.1739			2.45e2
40	Total Hexa-Furans	1.065					0.447	0.0642			1.27e2
41	Total Hexa-Dioxins	1.065					1.100	0.1760			3.81e2
42	Total Hepta-Furans	1.065					0.225	0.0409			1.39e2
43	Total Hepta-Dioxins	1.065					0.641	0.0001			2.36e-1
44	Hexa DPE	1.000	4.65e1			25.86					0.00e0
45	Hepta DPE	1.000	8.34e1			36.09					0.00e0
46	Octa DPE	1.000	4.46e1			40.15					2.26e-1
47	Nona DPE	1.000	7.95e0			47.59					0.00e0
48	Deca DPE	1.000	2.08e1			49.01					0.00e0
49	Tetra Lock	1.000	2.40e4			24.22					1.27e5
50	Penta Lock	1.000	1.38e5			29.35					2.13e5
51	Hexa Lock	1.000									3.22e5
52	Hepta Lock	1.000	1.48e4			47.60					2.05e5
53	Octa Lock	1.000	6.84e3			48.96					1.92e5
54	13C-Tetra-Furans	1.065					1186.855	0.9663			5.14e3
55	13C-Tetra-Dioxins	1.065					1532.668	2.6039			1.35e4

pv'd by LHE 24-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

SVkyKB 26JUL2018

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S15, Date: 21-Jul-2018, Time: 05:03:32, ID: L29628-17,,, Description: 1,WG64578,1.0/20uL

Tetrafurans

	RT	1° Ratio (A...	Fails?	pg
1	22.86	0.231	YES	0.025
2	21.38	1.097	YES	0.050
3	25.47	2.560	YES	0.085
4	25.27	0.636	YES	0.164
5	26.17	1.612	YES	0.374

Tetradioxins

	RT	1° Ratio (A...	Fails?	pg
1	27.10	1.164	YES	0.068
2	25.81	1.623	YES	0.060
3	25.24	4.546	YES	0.532

Pentafurans

	RT	1° Ratio (A...	Fails?	pg
1	28.85	0.566	YES	0.076
2	31.22	0.508	YES	0.061
3	34.63	0.778	YES	0.071
4	33.93	1.734	NO	0.051
5	33.58	1.399	NO	0.324
6	32.85	1.348	NO	0.066
7	32.68	2.612	YES	0.042
8	37.12	10.760	YES	0.019
9	36.84	1.309	YES	0.057
10	36.42	1.632	NO	0.042
11	36.07	0.996	YES	0.095
12	35.84	0.418	YES	0.078
13	35.36	11.366	YES	0.122

Pentadioxins

	RT	1° Ratio (A...	Fails?	pg
1	34.46	3.851	YES	0.031
2	34.35	1.571	YES	0.021
3	33.82	0.183	YES	0.059
4	32.04	1.263	YES	0.100
5	37.25	1.075	YES	0.048
6	36.99	0.556	NO	0.141
7	35.47	2.185	YES	0.056

Hexafurans

	RT	1° Ratio (A...	Fails?	pg
1	40.86	0.417	YES	0.055
2	40.72	0.942	YES	0.086
3	42.99	0.804	YES	0.119
4	42.80	1.018	YES	0.018
5	41.82	0.410	YES	0.085
6	38.96	0.479	YES	0.085

pv'd by LHE 24-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S15, Date: 21-Jul-2018, Time: 05:03:32, ID: L29628-17,,, Description: 1,WG64578,1.0/20uL

Hexadioxins

	RT	1° Ratio (A...	Fails?	pg
1	40.84	4.212	YES	0.746
2	39.98	0.534	YES	0.060
3	42.62	0.552	YES	0.183
4	42.25	3.234	YES	0.087
5	42.11	0.414	YES	0.024

Heptafurans

	RT	1° Ratio (A...	Fails?	pg
1	45.31	0.755	YES	0.092
2	47.08	3.267	YES	0.095
3	45.50	2.087	YES	0.038

Heptadioxins

	RT	1° Ratio (A...	Fails?	pg
1	45.75	0.264	YES	0.424
2	46.64	0.184	YES	0.216

13C-TF

	RT	1° Ratio (A...	Fails?	pg
1	25.22	0.697	NO	1186.8...

13C-TD

	RT	1° Ratio (A...	Fails?	pg
1	26.45	0.753	NO	1357.7...
2	26.11	0.777	NO	174.956

13C-PF

	RT	1° Ratio (A...	Fails?	pg
1	33.53	1.396	NO	1316.0...
2	35.30	1.415	NO	1322.3...

13C-PD

	RT	1° Ratio (A...	Fails?	pg
1	36.11	0.683	NO	1380.4...

13C-HxF

	RT	1° Ratio (A...	Fails?	pg
1	41.79	0.517	NO	1556.0...
2	40.86	0.505	NO	1621.4...
3	40.67	0.521	NO	1464.5...
4	42.82	0.510	NO	1408.6...

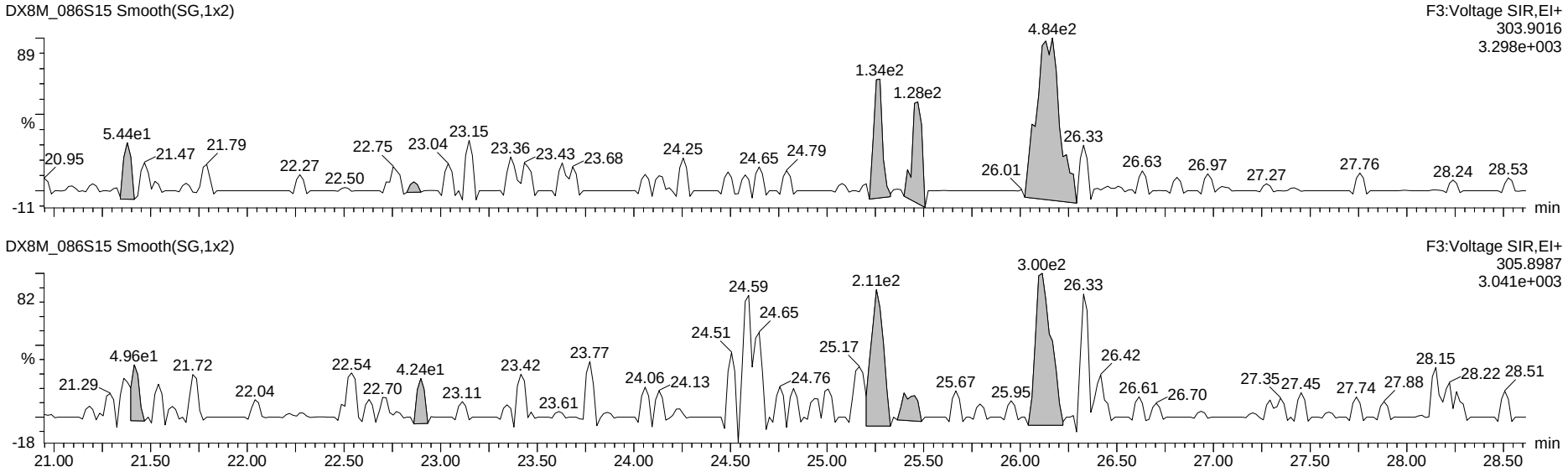
pv'd by LHE 24-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

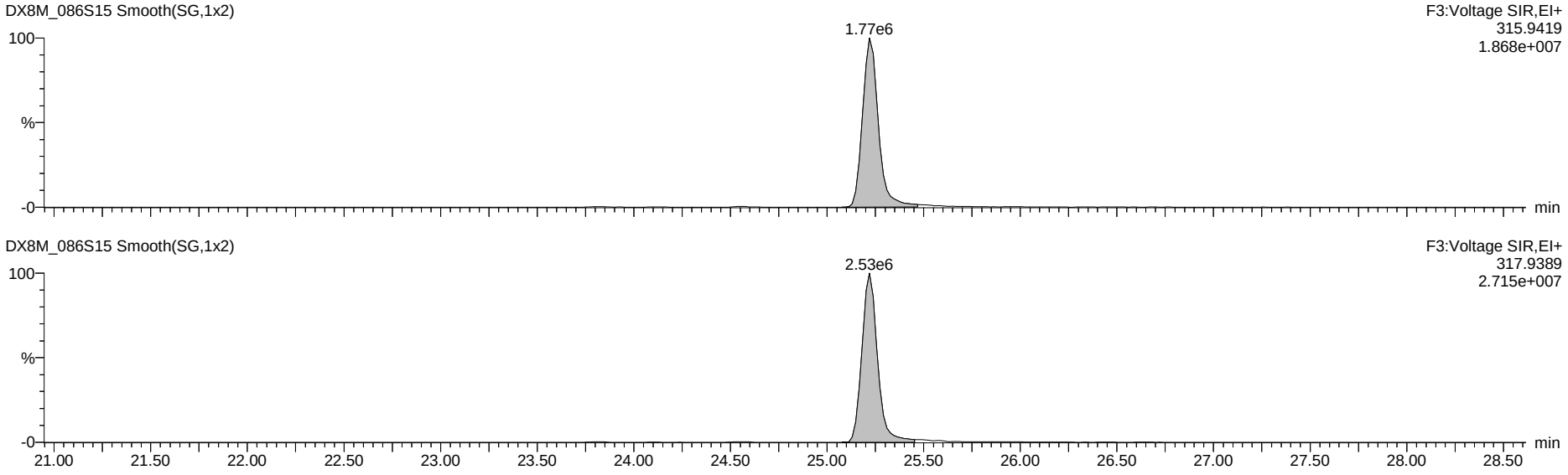
Method: G:\Masslynx\Inst_M\Projects\180604DX.pro\MethDB\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_086S15, Date: 21-Jul-2018, Time: 05:03:32, ID: L29628-17,,, Description: 1,WG64578,1.0/20uL

Total Tetra-Furans



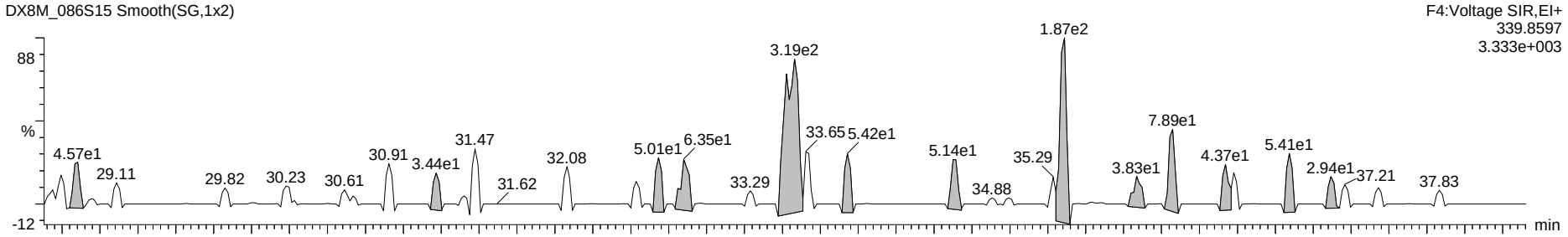
13C-Tetra-Furans

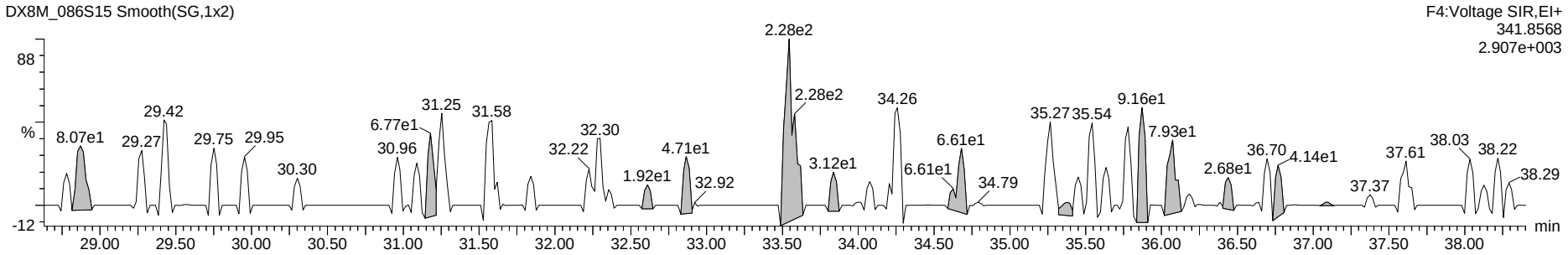


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

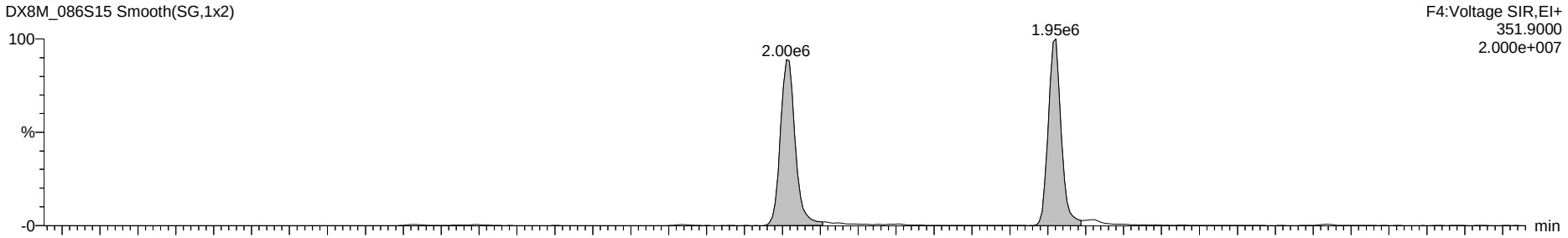
Name: DX8M_086S15, Date: 21-Jul-2018, Time: 05:03:32, ID: L29628-17,,, Description: 1,WG64578,1.0/20uL

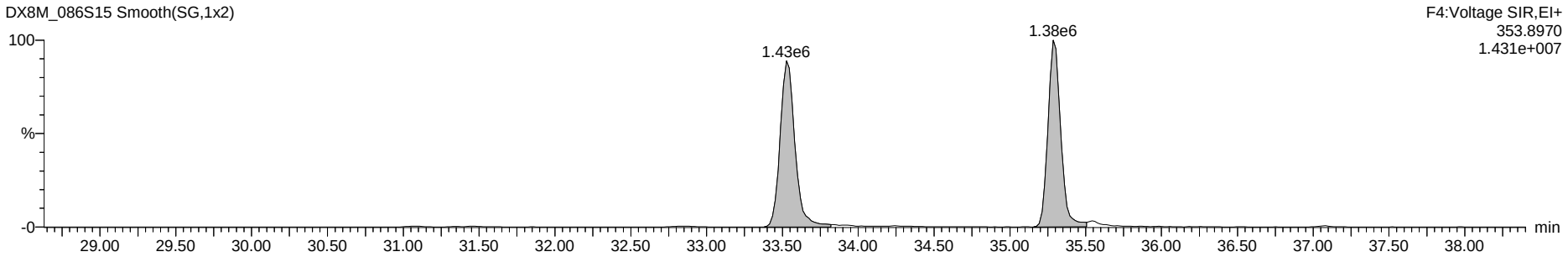
Total Penta-Furans





13C-Penta-Furans

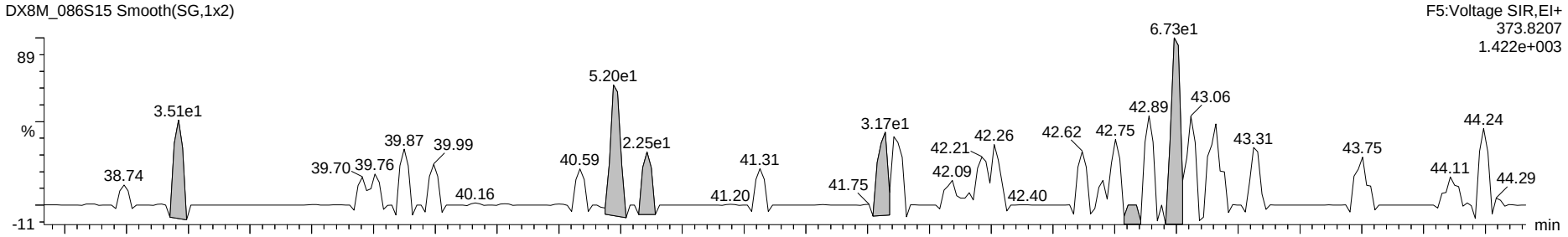


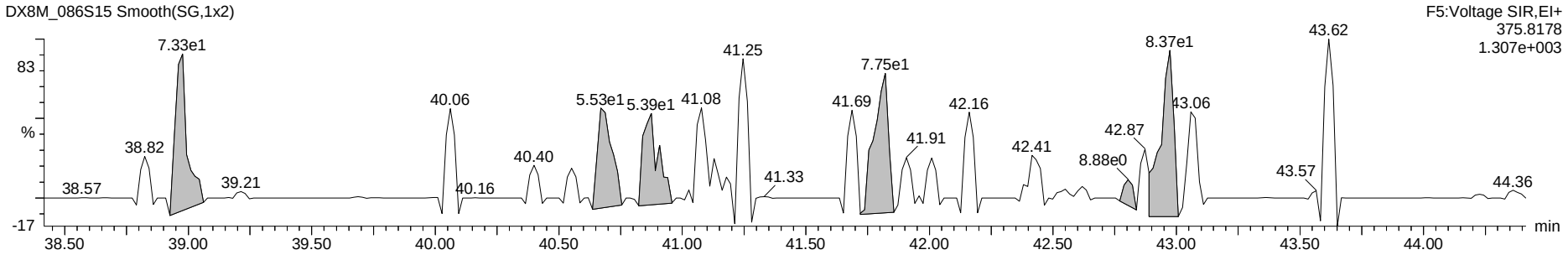


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

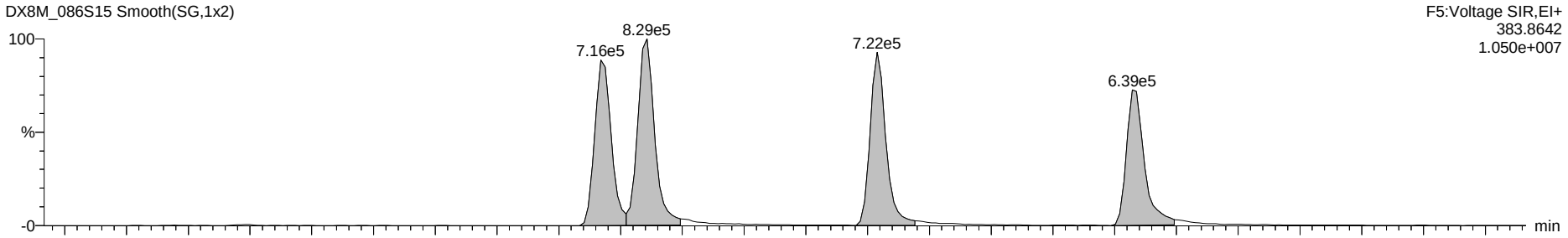
Name: DX8M_086S15, Date: 21-Jul-2018, Time: 05:03:32, ID: L29628-17,,, Description: 1,WG64578,1.0/20uL

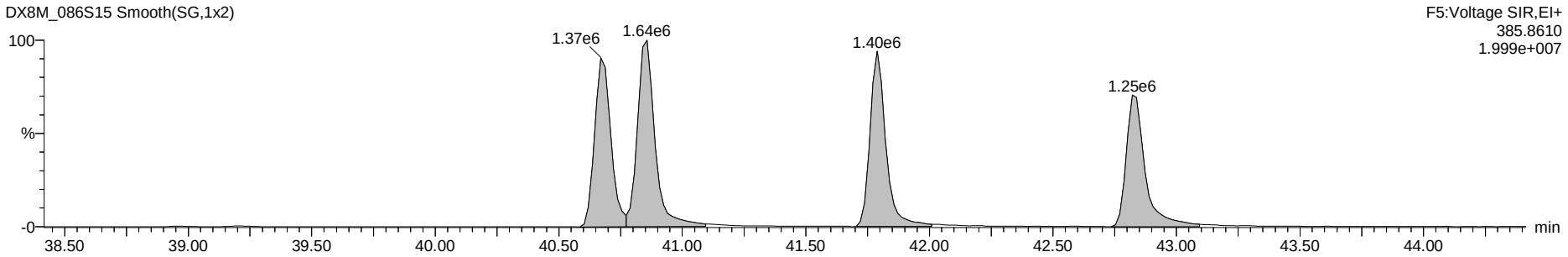
Total Hexa-Furans





13C-Hexa-Furans





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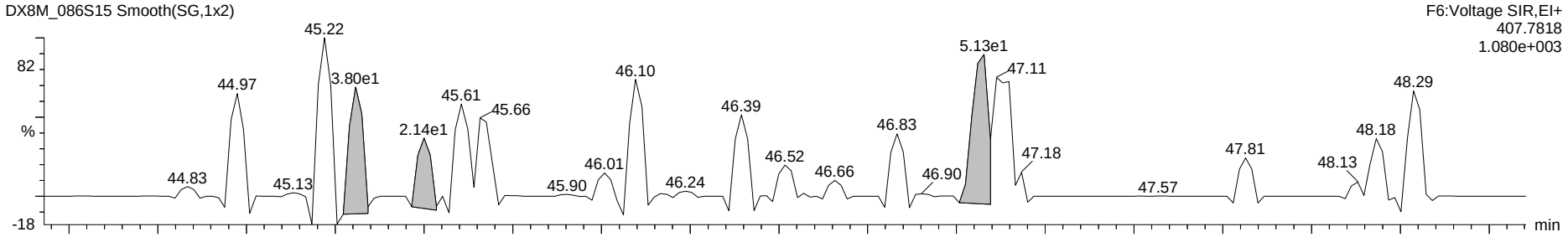
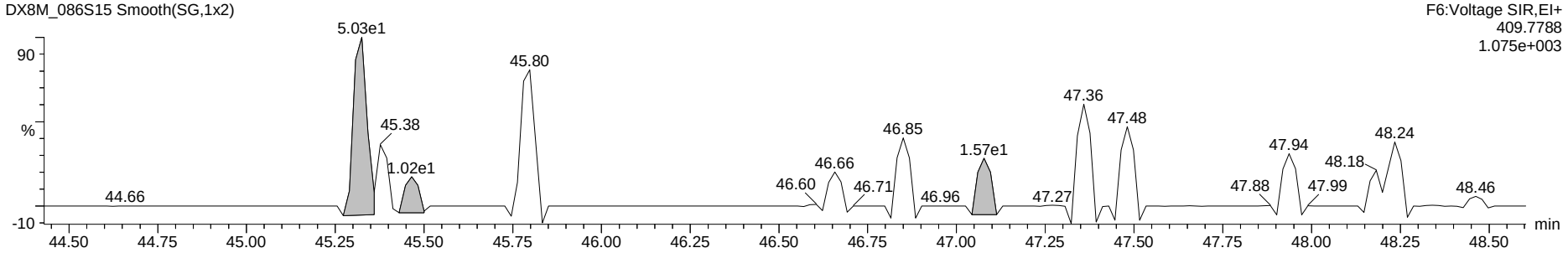
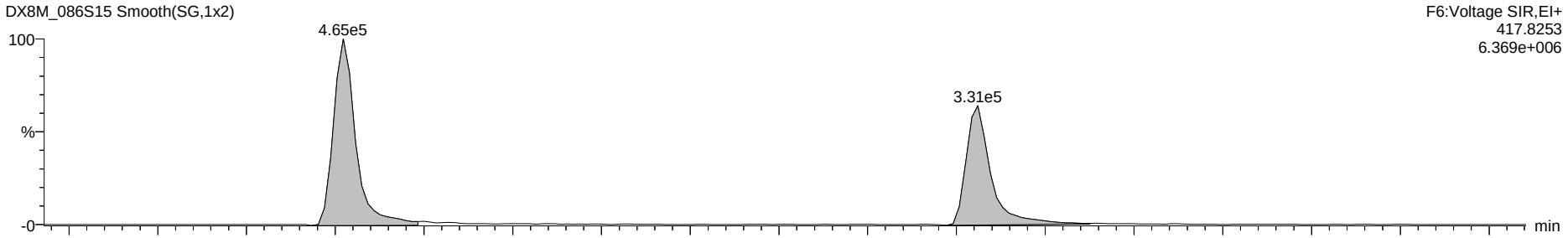
Name: DX8M_086S15, Date: 21-Jul-2018, Time: 05:03:32, ID: L29628-17,,, Description: 1,WG64578,1.0/20uL

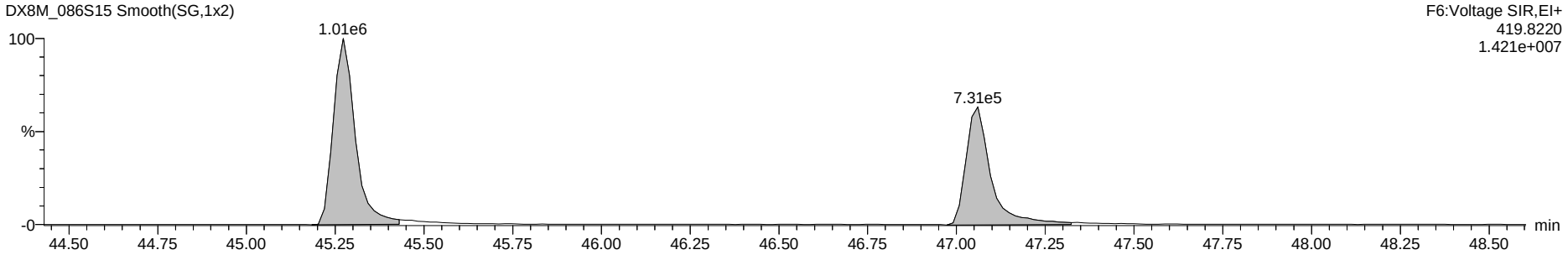
Total Hepta-Furans





13C-Hepta-Furans





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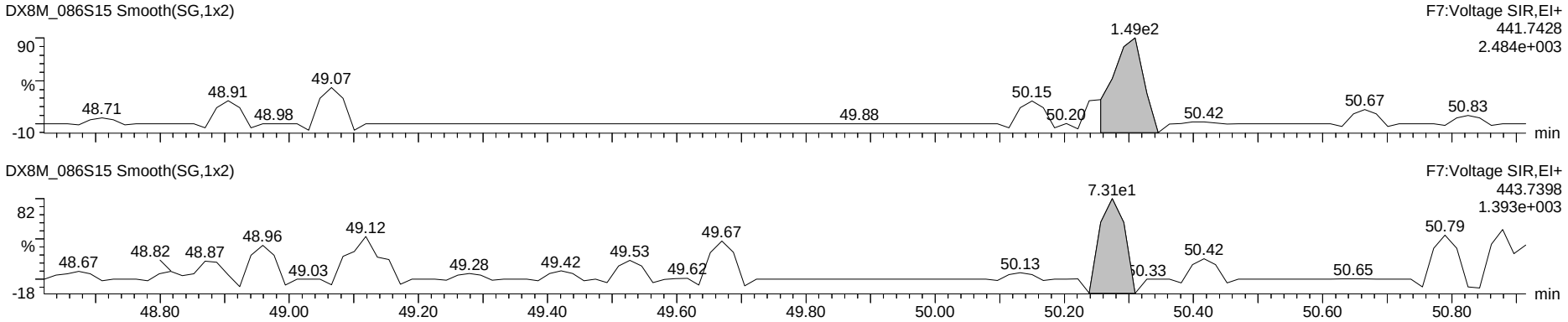
Name: DX8M_086S15, Date: 21-Jul-2018, Time: 05:03:32, ID: L29628-17,,, Description: 1,WG64578,1.0/20uL

OCDF



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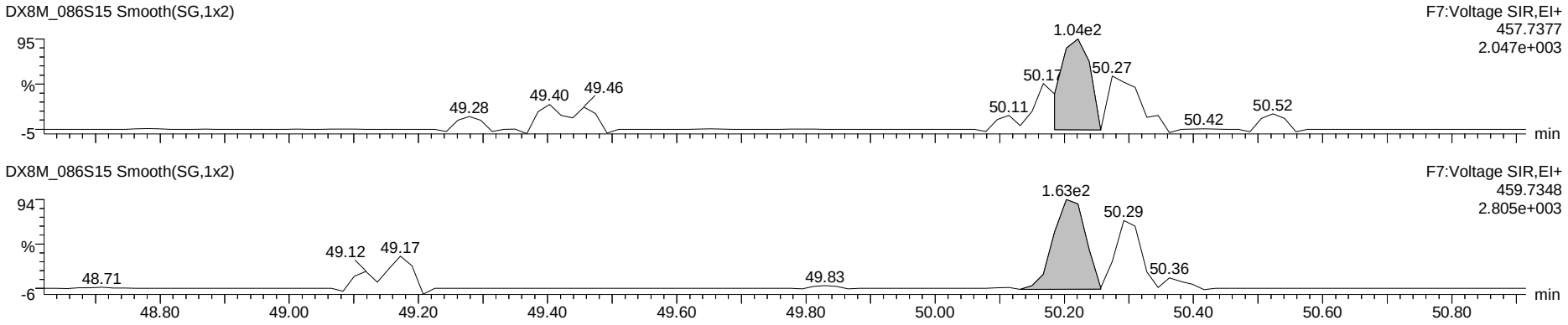
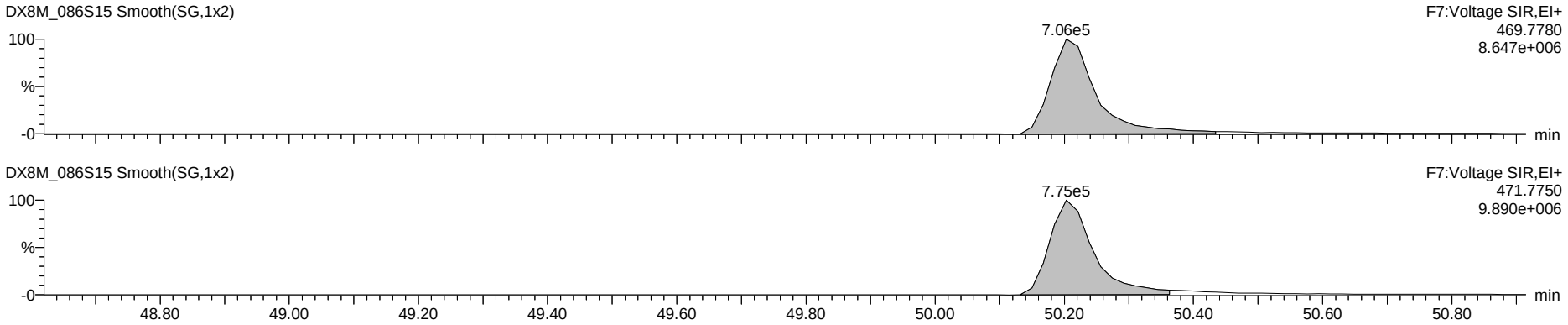


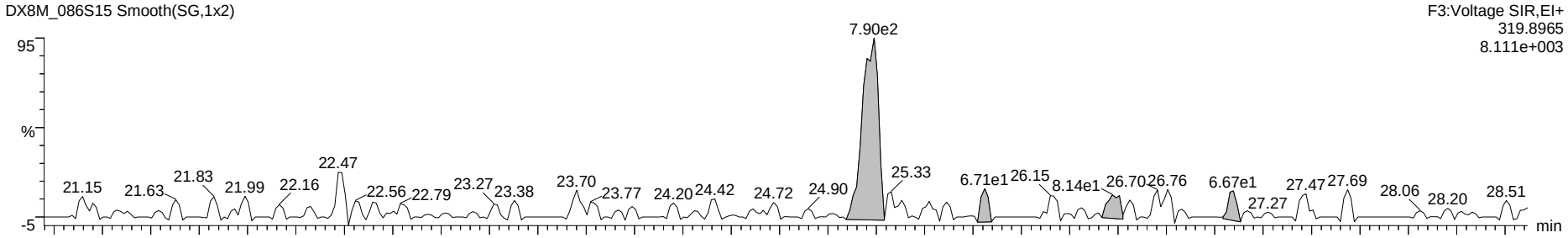
13C-OCDD

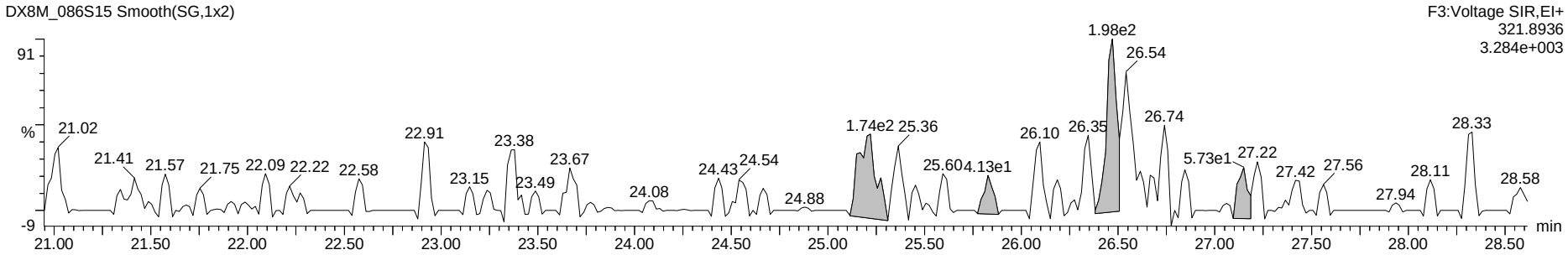


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

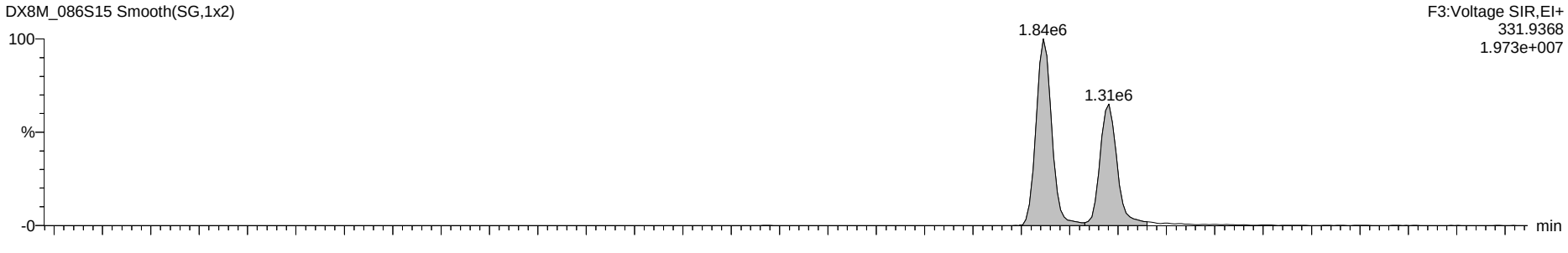
Name: DX8M_086S15, Date: 21-Jul-2018, Time: 05:03:32, ID: L29628-17,,, Description: 1,WG64578,1.0/20uL

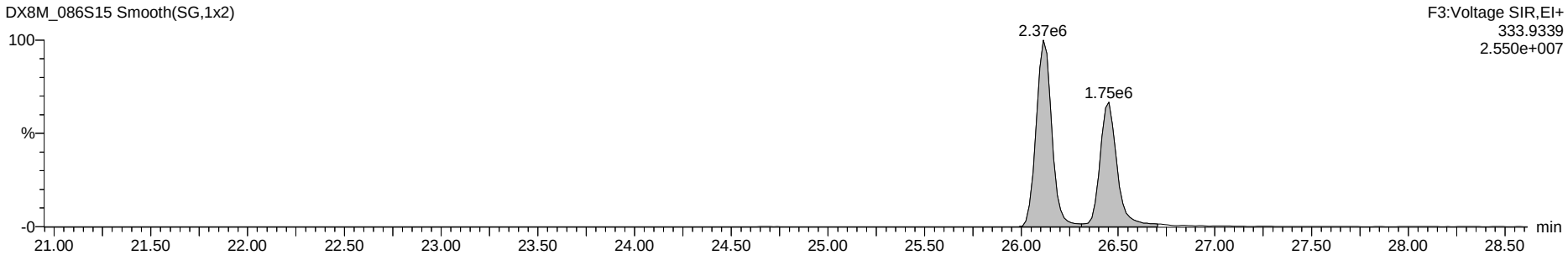
Total Tetra-Dioxins





13C-Tetra-Dioxins

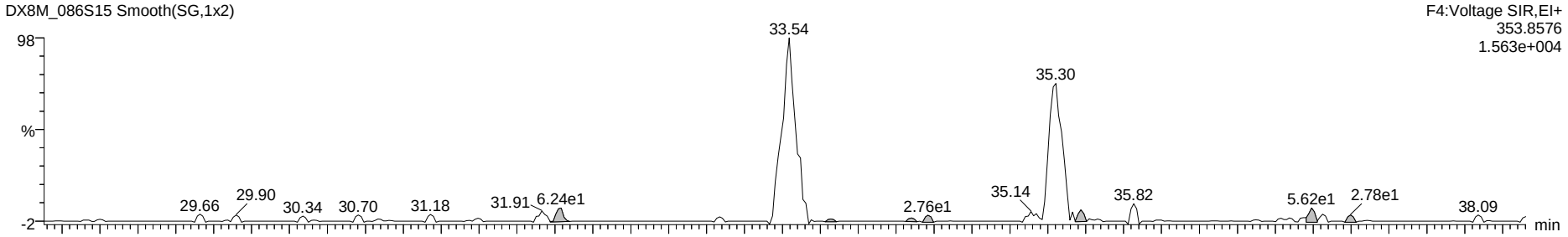


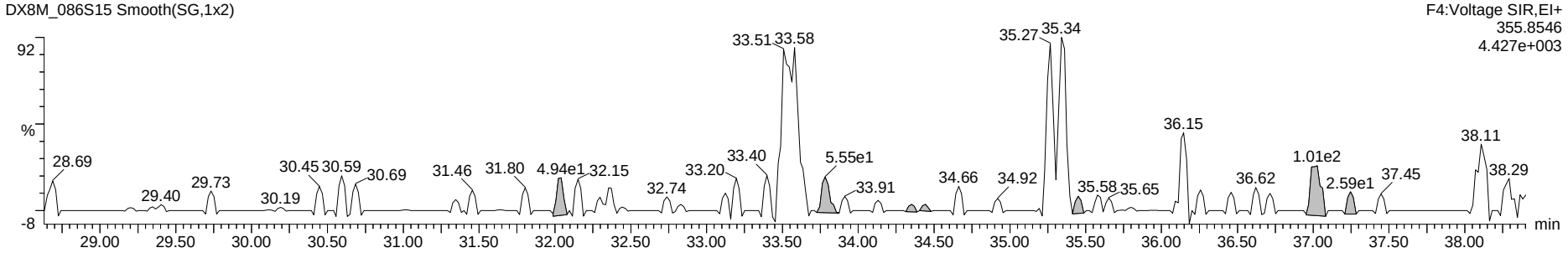


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S15, Date: 21-Jul-2018, Time: 05:03:32, ID: L29628-17,,, Description: 1,WG64578,1.0/20uL

Total Penta-Dioxins





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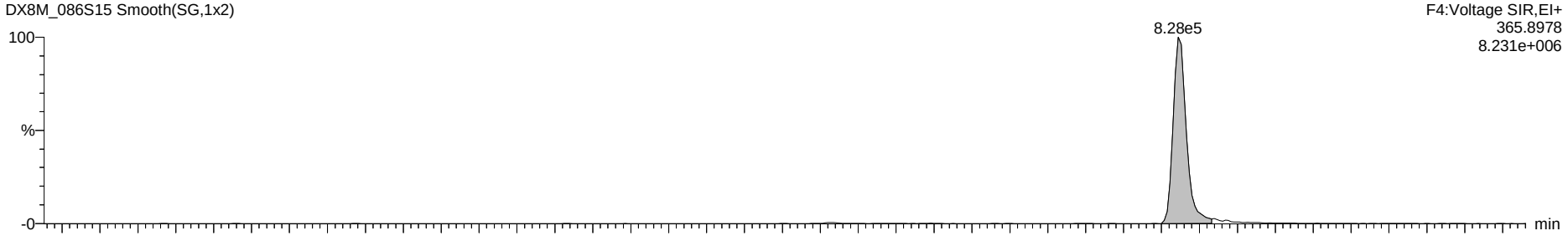
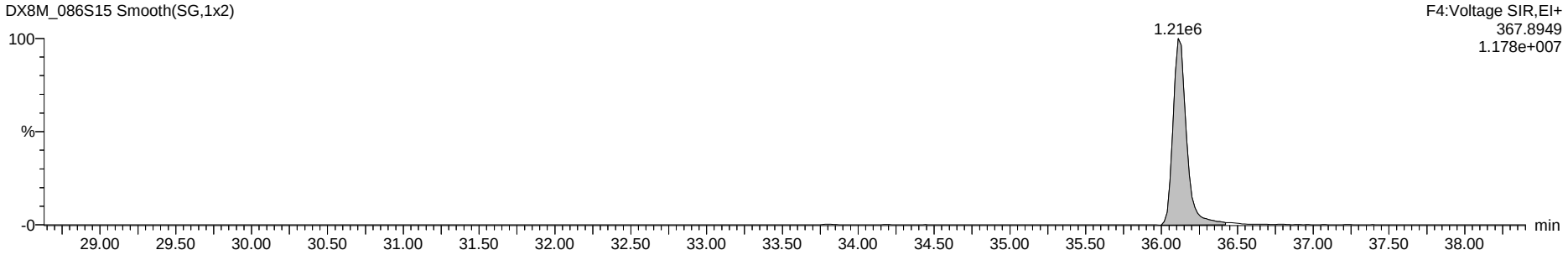
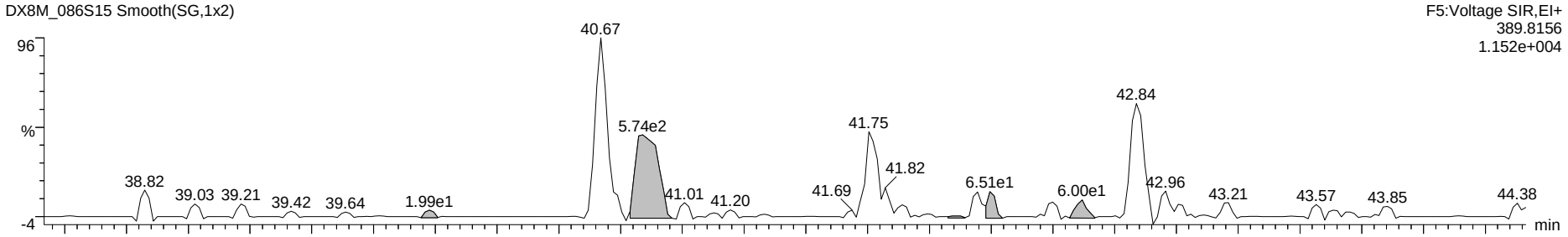


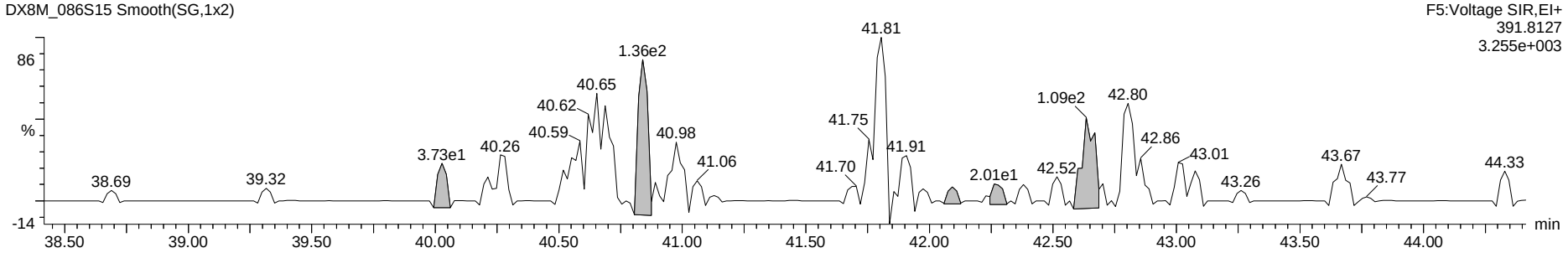


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

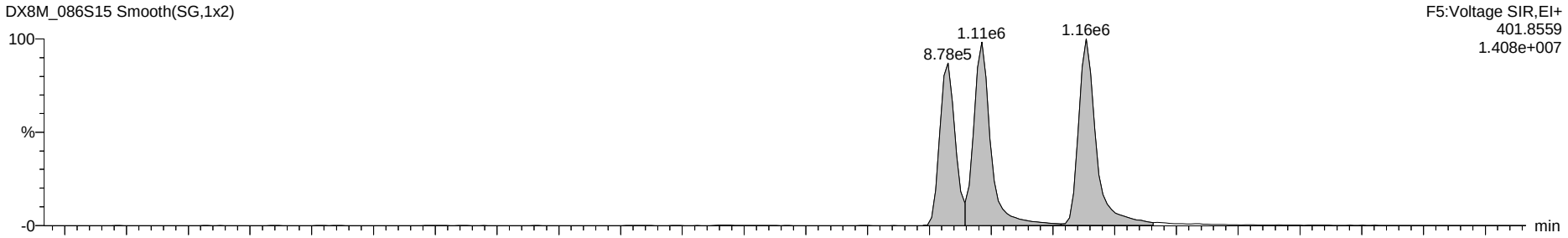
Name: DX8M_086S15, Date: 21-Jul-2018, Time: 05:03:32, ID: L29628-17,,, Description: 1,WG64578,1.0/20uL

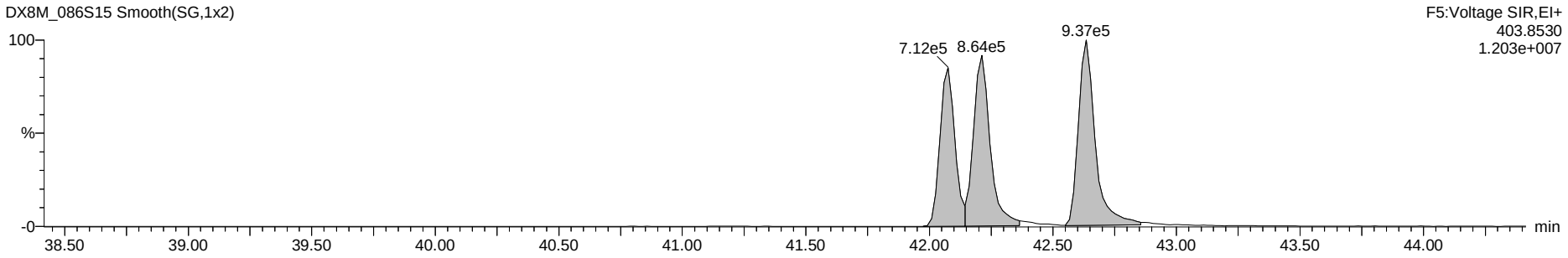
Total Hexa-Dioxins





13C-Hexa-Dioxins

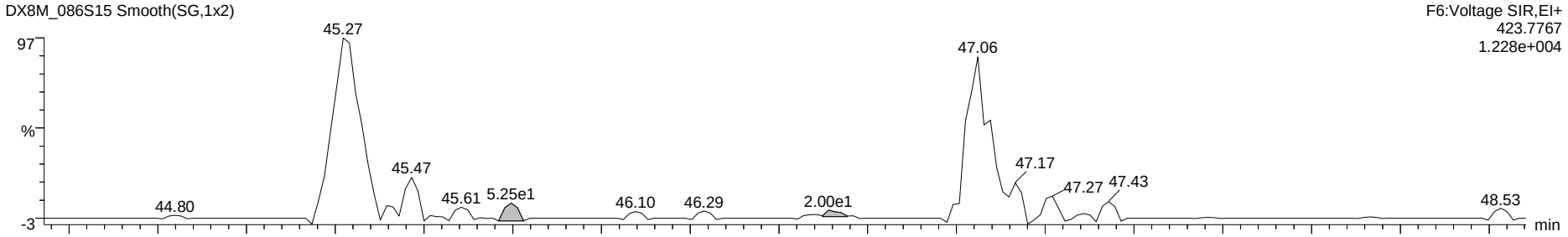


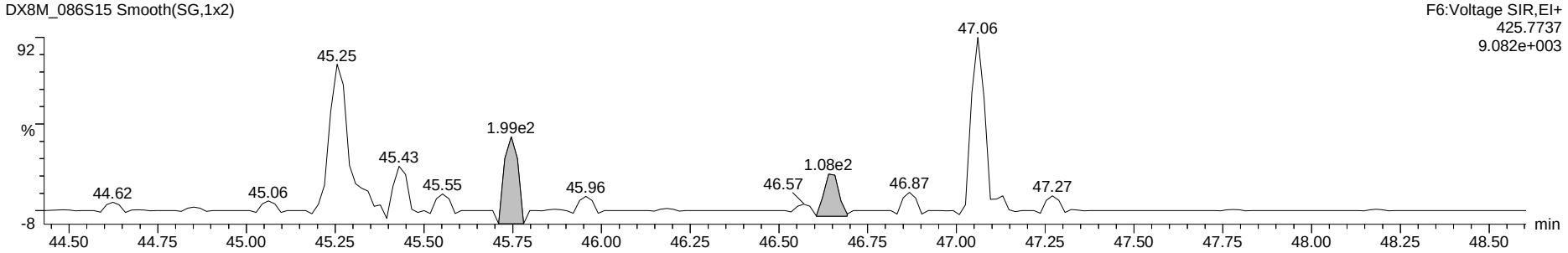


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S15, Date: 21-Jul-2018, Time: 05:03:32, ID: L29628-17,,, Description: 1,WG64578,1.0/20uL

Total Hepta-Dioxins





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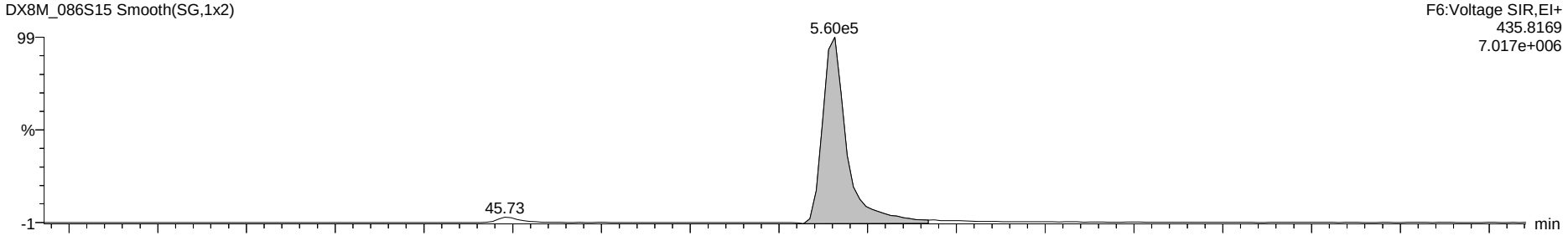
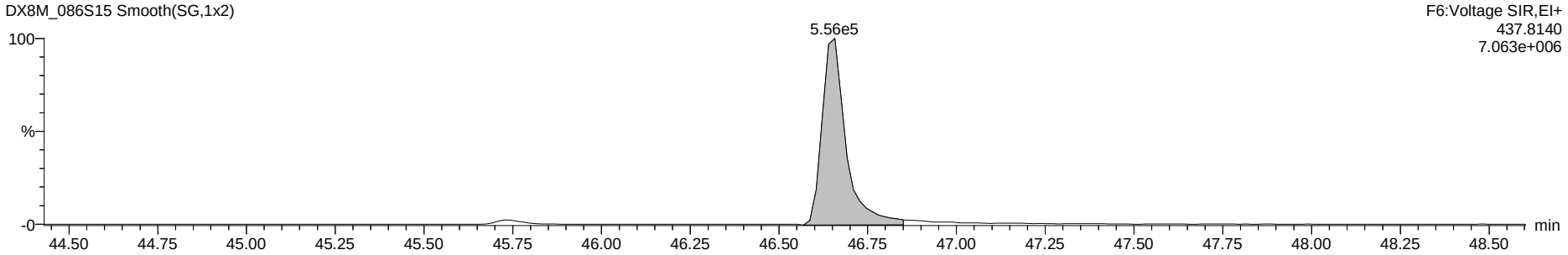
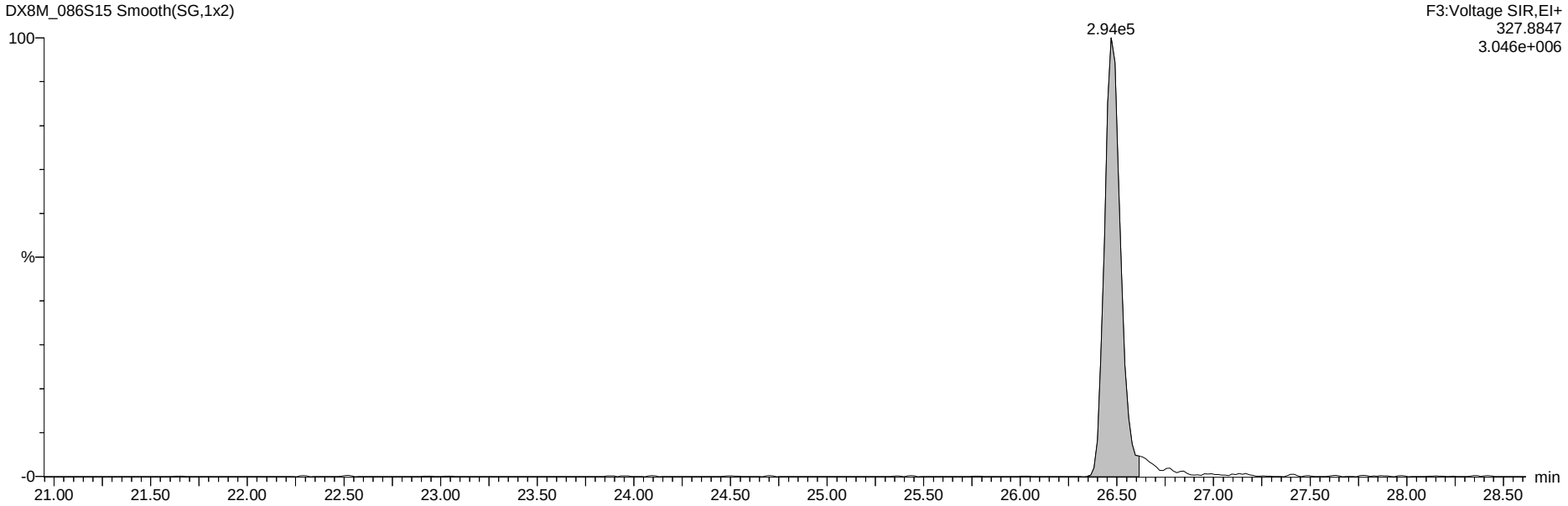




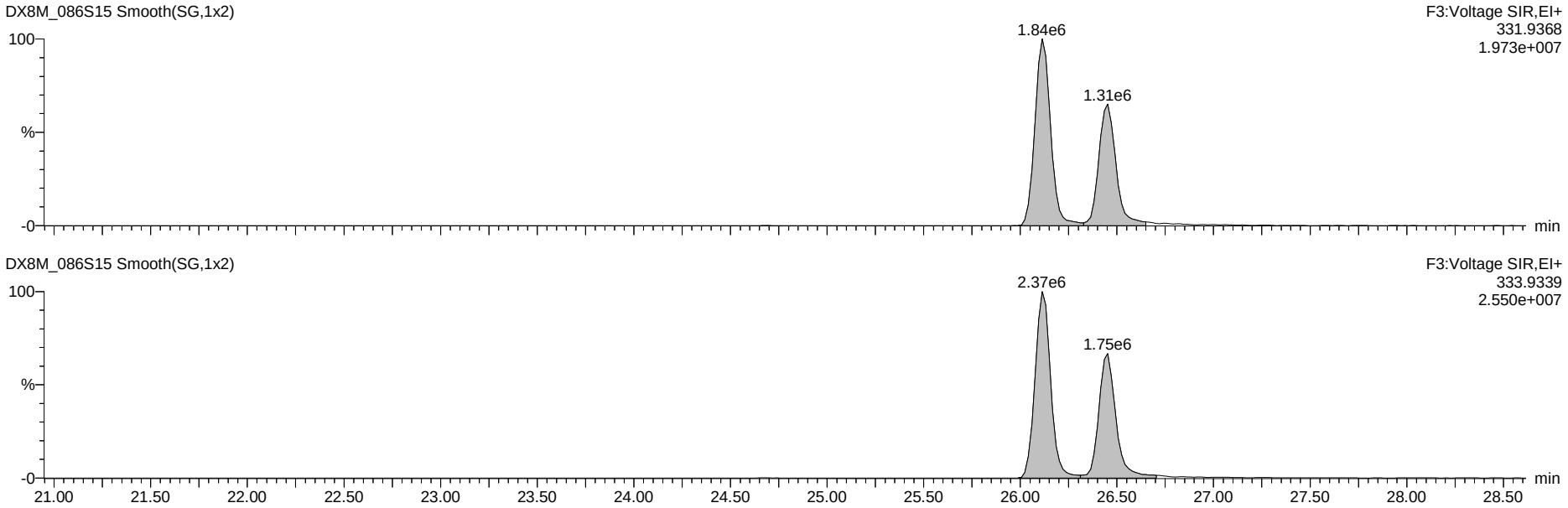
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S15, Date: 21-Jul-2018, Time: 05:03:32, ID: L29628-17,,, Description: 1,WG64578,1.0/20uL

37Cl-2,3,7,8-TCDD



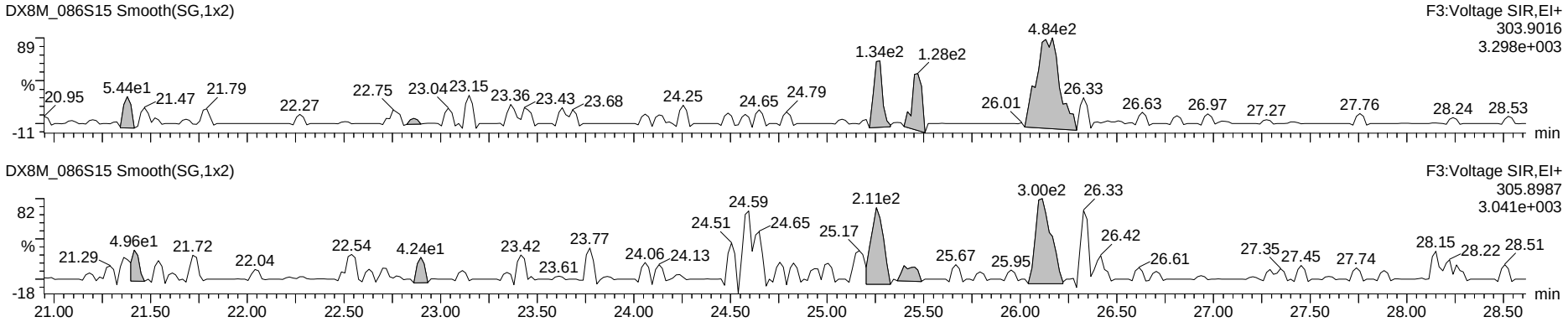
13C-Tetra-Dioxins



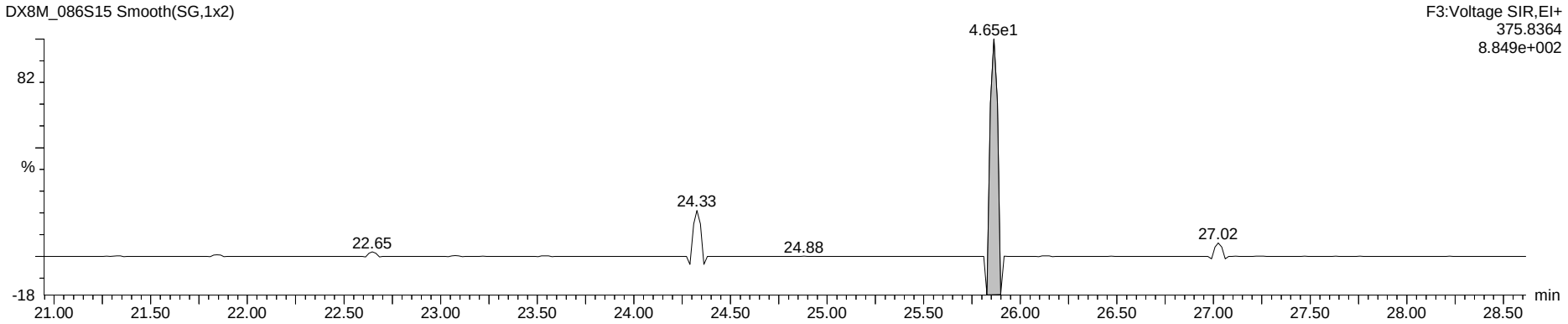
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S15, Date: 21-Jul-2018, Time: 05:03:32, ID: L29628-17,,, Description: 1,WG64578,1.0/20uL

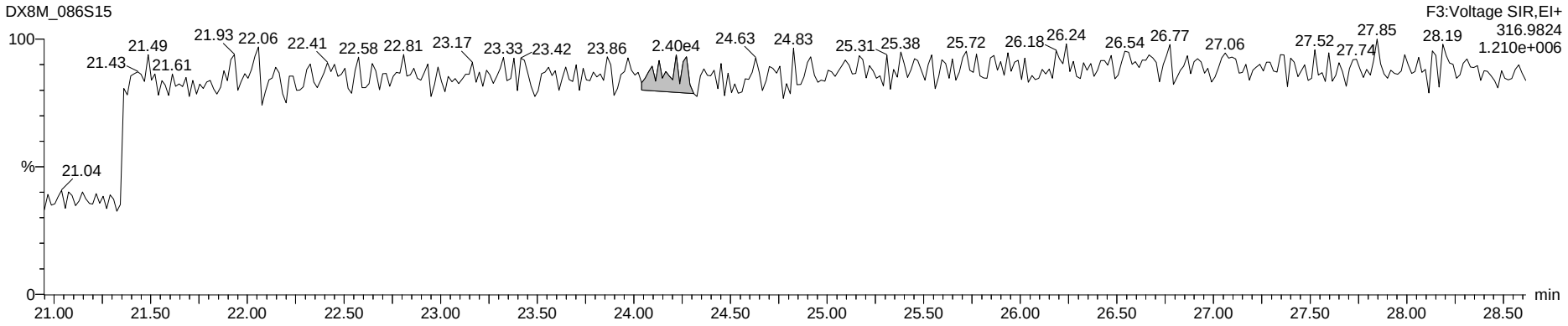
Total Tetra-Furans



Hexa DPE



Tetra Lock



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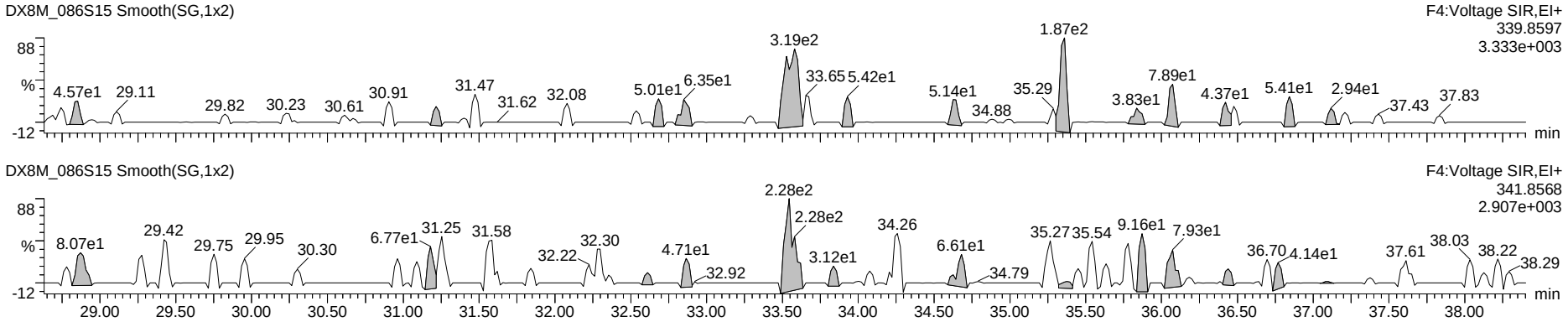
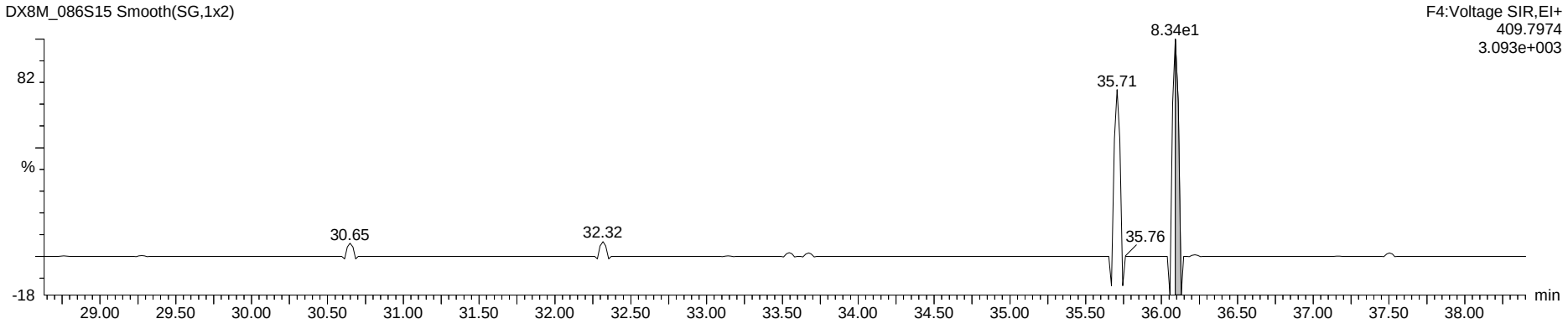
Name: DX8M_086S15, Date: 21-Jul-2018, Time: 05:03:32, ID: L29628-17,,, Description: 1,WG64578,1.0/20uL

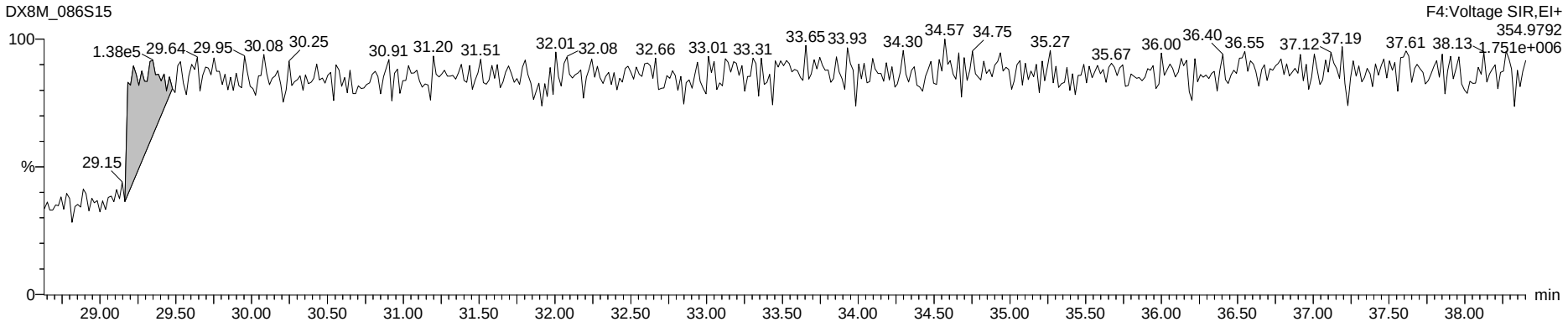
Total Penta-Furans



Hepta DPE



Penta Lock



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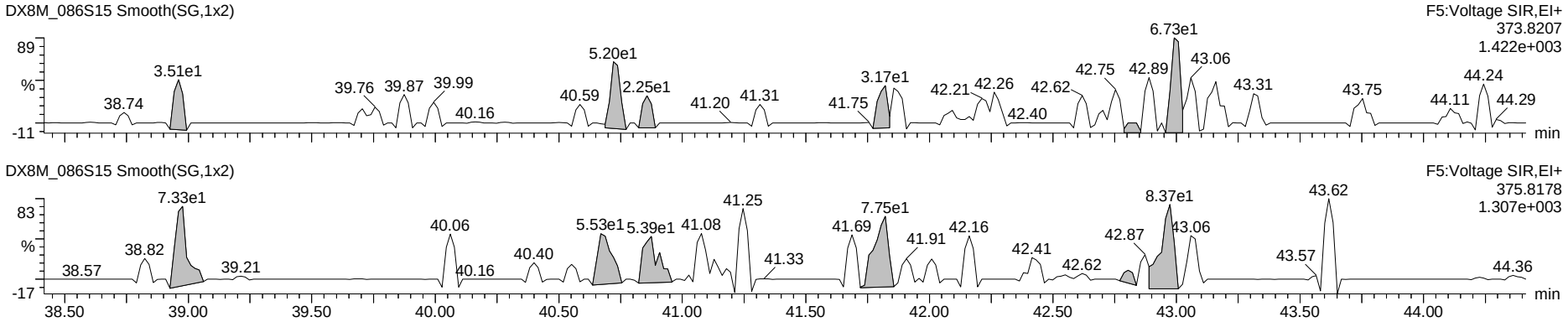
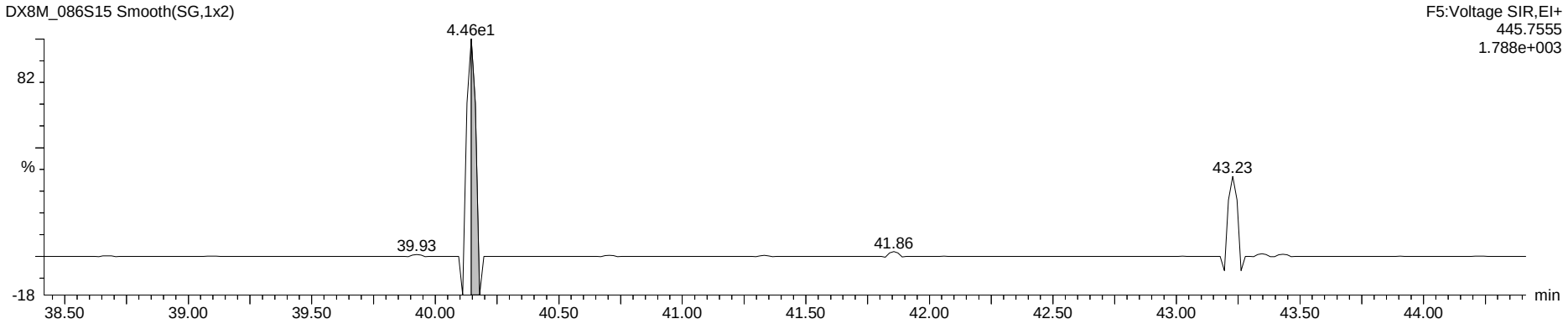
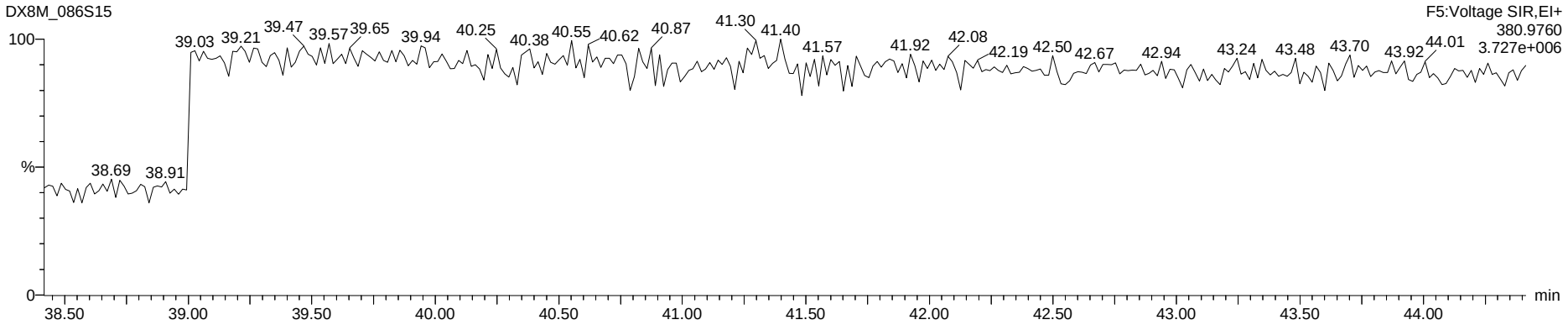
Total Hexa-Furans



Octa DPE



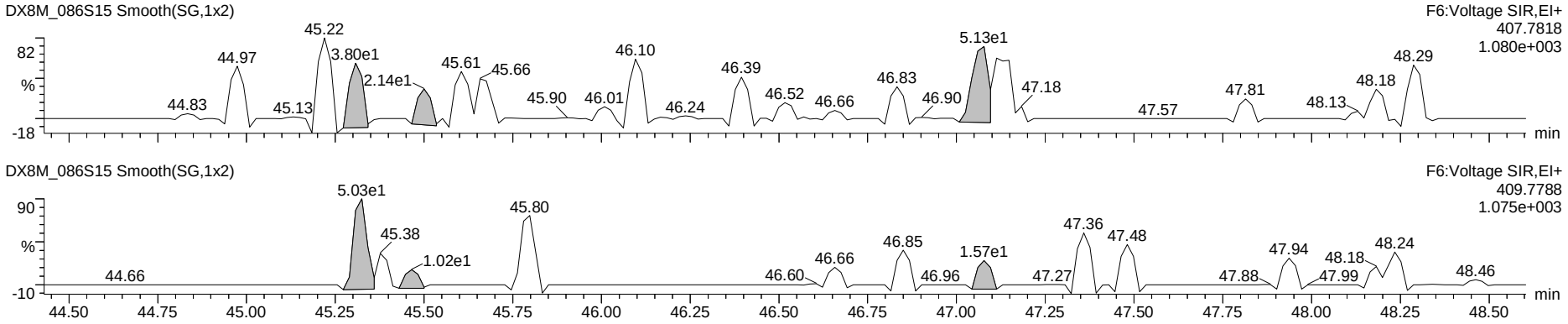
Hexa Lock



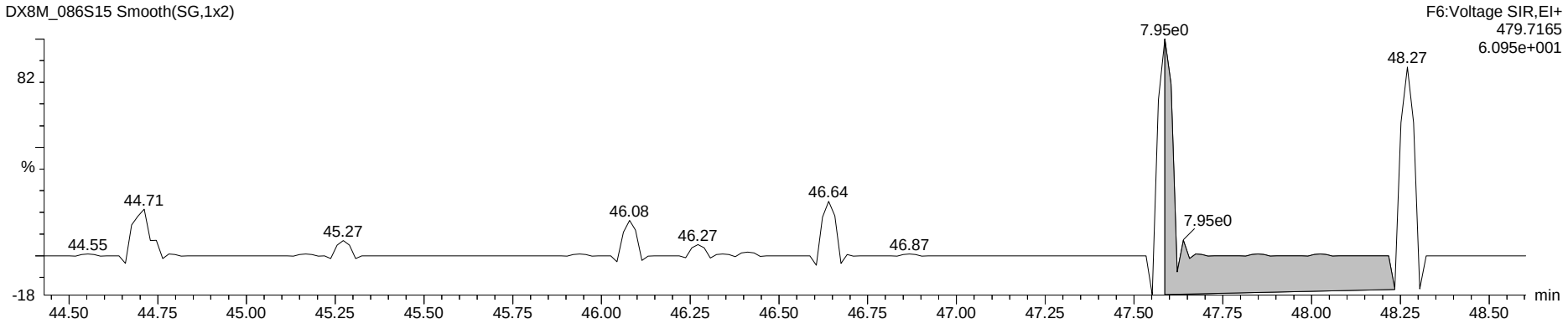
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S15, Date: 21-Jul-2018, Time: 05:03:32, ID: L29628-17,,, Description: 1,WG64578,1.0/20uL

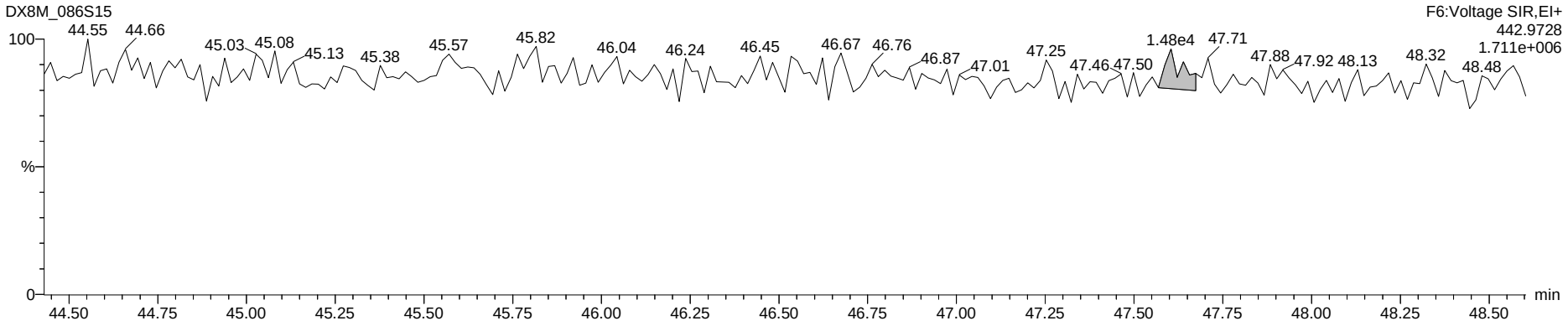
Total Hepta-Furans



Nona DPE



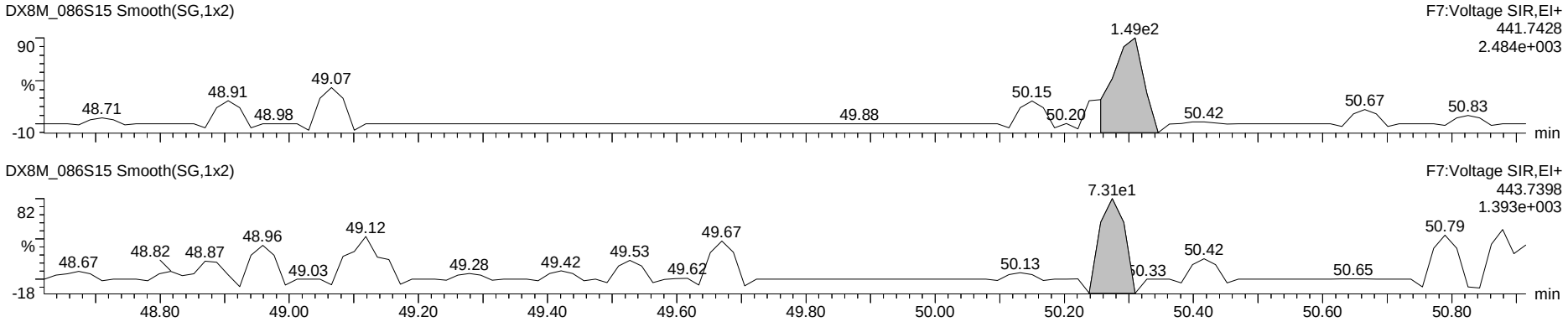
Hepta Lock



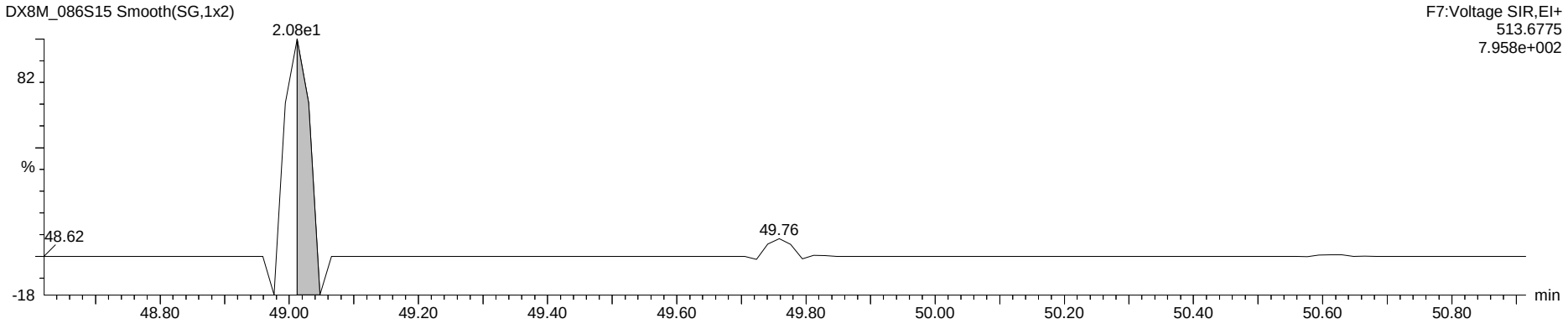
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S15, Date: 21-Jul-2018, Time: 05:03:32, ID: L29628-17,,, Description: 1,WG64578,1.0/20uL

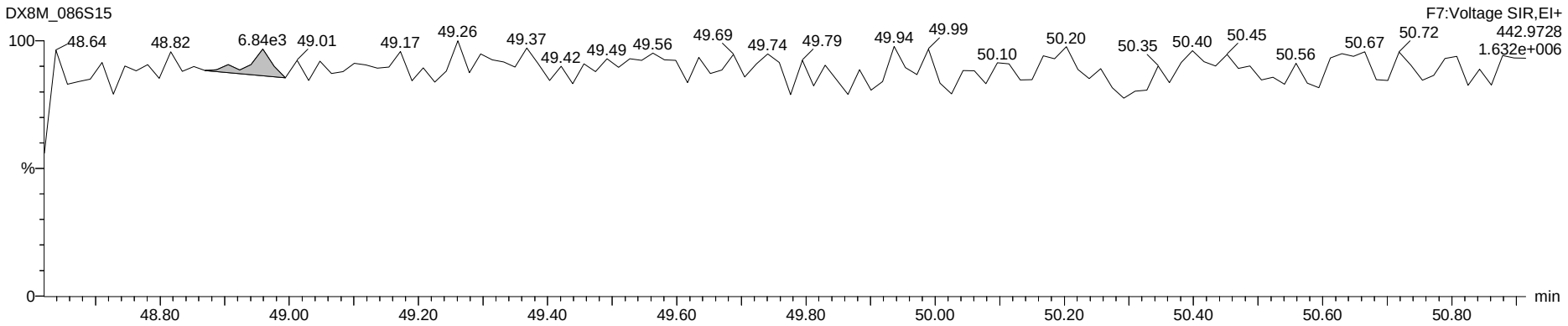
OCDF



Deca DPE



Octa Lock



Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

Name: DX8M_088S8, Date: 24-Jul-2018, Time: 23:33:23, ID: L29628-18,L,, Description: 1,WG64578,1.0/20uL

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	1.080	6.21e2	1.93	YES	25.31	0.736	0.4040		7.53e2	7.45e2
2	1,2,3,7,8-PeCDF	1.080	3.60e2	0.79	YES	33.65	0.485	0.2486		6.32e2	4.21e1
3	2,3,4,7,8-PeCDF	1.080	1.30e2	0.44	YES	35.38	0.181	0.2193		6.32e2	4.21e1
4	1,2,3,4,7,8-HxCDF	1.080	1.33e2	0.45	YES	40.77	0.212	0.4077		4.43e2	9.30e2
5	1,2,3,6,7,8-HxCDF	1.080	2.40e2	3.27	YES	40.92	0.345	0.3768		4.43e2	9.30e2
6	2,3,4,6,7,8-HxCDF	1.080	1.22e2	0.46	YES	41.89	0.199	0.4197		4.43e2	9.30e2
7	1,2,3,7,8,9-HxCDF	1.080	2.56e2	5.15	YES	42.94	0.485	0.5248		4.43e2	9.30e2
8	1,2,3,4,6,7,8-HpCDF	1.080	6.42e2	0.82	YES	45.38	1.220	0.1629		1.63e2	2.97e2
9	1,2,3,4,7,8,9-HpCDF	1.080	7.07e1	4.08	YES	47.17	0.172	0.2042		1.63e2	2.97e2
10	OCDF	1.080	2.64e2	0.38	YES	50.42	0.819	0.5139		4.32e2	3.83e2
11	2,3,7,8-TCDD	1.080	7.32e1	0.11	YES	26.51	0.106	0.3132		4.46e2	5.00e2
12	1,2,3,7,8-PeCDD	1.080	1.04e2	0.93	YES	36.26	0.214	0.6250		1.72e2	1.11e3
13	1,2,3,4,7,8-HxCDD	1.080	1.55e2	3.54	YES	42.18	0.336	0.3735		5.41e2	4.31e2
14	1,2,3,6,7,8-HxCDD	1.080	1.05e2	4.70	YES	42.30	0.212	0.3675		5.41e2	4.31e2
15	1,2,3,7,8,9-HxCDD	1.080	1.65e2	0.95	YES	42.69	0.343	0.3685		5.41e2	4.31e2
16	1,2,3,4,6,7,8-HpCDD	1.080	5.54e2	0.77	YES	46.75	1.628	0.2654		1.78e2	3.00e2
17	OCDD	1.080	3.12e3	0.93	NO	50.33	11.641	0.1433		1.88e2	3.38e-1
18	13C-2,3,7,8-TCDF	1.080	1.71e6	0.68	NO	25.29	1477.091	2.5396	79.8	7.53e3	5.50e3
19	13C-1,2,3,7,8-PeCDF	1.080	1.49e6	1.41	NO	33.62	1787.578	4.1179	96.5	8.54e3	6.69e3
20	13C-2,3,4,7,8-PeCDF	1.080	1.41e6	1.37	NO	35.38	1759.777	4.2690	95.0	8.54e3	6.69e3
21	13C-1,2,3,4,7,8-HxCDF	1.080	1.04e6	0.51	NO	40.76	1465.345	4.0488	79.1	8.13e3	5.86e3
22	13C-1,2,3,6,7,8-HxCDF	1.080	1.21e6	0.51	NO	40.92	1606.650	3.7907	86.8	8.13e3	5.86e3
23	13C-2,3,4,6,7,8-HxCDF	1.080	9.93e5	0.53	NO	41.87	1471.073	4.2421	79.4	8.13e3	5.86e3
24	13C-1,2,3,7,8,9-HxCDF	1.080	9.79e5	0.53	NO	42.91	1470.011	4.3010	79.4	8.13e3	5.86e3
25	13C-1,2,3,4,6,7,8-HpCDF	1.080	7.96e5	0.46	NO	45.36	1410.836	3.8868	76.2	5.04e3	5.68e3
26	13C-1,2,3,4,7,8,9-HpCDF	1.080	6.07e5	0.42	NO	47.15	1379.253	4.9831	74.5	5.04e3	5.68e3
27	13C-2,3,7,8-TCDD	1.080	1.15e6	0.73	NO	26.52	1596.311	3.6833	86.2	7.94e3	3.82e3
28	13C-1,2,3,7,8-PeCDD	1.080	8.74e5	0.67	NO	36.20	1854.451	2.3410	100.1	4.04e3	8.54e2
29	13C-1,2,3,4,7,8-HxCDD	1.080	8.48e5	1.25	NO	42.14	1555.636	5.0953	84.0	5.21e3	8.36e3
30	13C-1,2,3,6,7,8-HxCDD	1.080	9.87e5	1.12	NO	42.28	1711.223	4.8183	92.4	5.21e3	8.36e3
31	13C-1,2,3,4,6,7,8-HpCDD	1.080	6.33e5	0.92	NO	46.73	1404.554	2.5278	75.8	3.34e3	2.22e3
32	13C-OCDD	1.080	9.74e5	0.84	NO	50.31	2455.440	8.3551	66.3	7.46e3	8.72e3
33	13C-1,2,3,4-TCDD	1.080	1.33e6	0.75	NO	26.18	54.324	0.1085	2.9	7.94e3	3.82e3
34	13C-1,2,3,7,8,9-HxCDD	1.080	1.03e6	1.22	NO	42.72	66.557	0.1802	3.6	5.21e3	8.36e3
35	37Cl-2,3,7,8-TCDD	1.080	1.21e5			26.54	151.506	0.3403	81.8		1.20e3
36	Total Tetra-Furans	1.080					4.343	0.4040			7.45e2
37	Total Tetra-Dioxins	1.080					2.019	0.3132			5.00e2
38	Total Penta-Furans	1.080					3.460	0.2361			4.21e1
39	Total Penta-Dioxins	1.080					1.329	0.6250			1.11e3
40	Total Hexa-Furans	1.080					3.641	0.4130			9.30e2
41	Total Hexa-Dioxins	1.080					2.891	0.3567			4.31e2
42	Total Hepta-Furans	1.080					2.462	0.1828			2.97e2
43	Total Hepta-Dioxins	1.080					3.279	0.2654			3.00e2
44	Hexa DPE	1.000	2.50e2			25.90					3.84e0
45	Hepta DPE	1.000	3.46e2			36.38					3.05e-1
46	Octa DPE	1.000	1.58e2			40.30					5.52e-1
47	Nona DPE	1.000	1.98e2			48.50					4.11e-1
48	Deca DPE	1.000	3.35e1			50.59					4.10e-1
49	Tetra Lock	1.000	1.13e4			24.04					1.65e5
50	Penta Lock	1.000	3.02e5			29.18					2.79e5
51	Hexa Lock	1.000	2.09e5			38.93					4.78e5
52	Hepta Lock	1.000									2.59e5
53	Octa Lock	1.000	2.72e4			48.67					4.72e5
54	13C-Tetra-Furans	1.080					1477.091	2.5396			5.50e3
55	13C-Tetra-Dioxins	1.080					1650.635	3.7918			3.82e3

pv'd by LHE 25-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

SVbyKB 26JUL2018

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

Name: DX8M_088S8, Date: 24-Jul-2018, Time: 23:33:23, ID: L29628-18,L,, Description: 1,WG64578,1.0/20uL

Tetrafurans

	RT	1° Ratio (A...	Fails?	pg
1	23.04	1.257	YES	0.253
2	22.65	1.127	YES	0.215
3	22.31	0.938	YES	0.273
4	21.38	0.785	NO	0.107
5	25.31	1.927	YES	0.736
6	25.17	1.010	YES	0.363
7	25.04	1.077	YES	0.196
8	24.70	0.452	YES	0.179
9	24.31	0.468	YES	0.090
10	24.20	1.580	YES	0.239
11	23.86	0.308	YES	0.447
12	23.45	0.483	YES	0.129
13	23.38	0.635	YES	0.166
14	28.22	0.223	YES	0.132
15	26.54	1.330	YES	0.148
16	26.47	0.312	YES	0.102
17	26.18	1.353	YES	0.295
18	25.99	0.733	NO	0.145
19	26.29	1.168	YES	0.128

Tetradioxins

	RT	1° Ratio (A...	Fails?	pg
1	25.33	4.948	YES	0.287
2	24.36	0.693	NO	0.107
3	24.24	1.365	YES	0.090
4	24.11	2.588	YES	0.173
5	23.99	2.593	YES	0.201
6	23.68	1.660	YES	0.104
7	23.08	1.719	YES	0.095
8	28.01	1.087	YES	0.111
9	26.90	1.458	YES	0.137
10	26.83	0.348	YES	0.219
11	26.51	0.110	YES	0.106
12	25.27	0.936	YES	0.242
13	26.61	0.353	YES	0.145

pv'd by LHE 25-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

Name: DX8M_088S8, Date: 24-Jul-2018, Time: 23:33:23, ID: L29628-18,L,, Description: 1,WG64578,1.0/20uL

Pentafurans

	RT	1° Ratio (A...	Fails?	pg
1	29.00	0.892	YES	0.428
2	31.99	0.235	YES	0.109
3	31.62	2.281	YES	0.436
4	31.49	3.556	YES	0.250
5	31.11	0.910	YES	0.112
6	34.74	0.367	YES	0.255
7	34.35	0.031	YES	0.180
8	34.02	0.532	YES	0.094
9	33.65	0.788	YES	0.485
10	33.40	1.336	NO	0.157
11	32.81	0.454	YES	0.073
12	37.17	2.263	YES	0.182
13	36.37	0.919	YES	0.227
14	35.73	4.277	YES	0.291
15	35.38	0.439	YES	0.181

Pentadioxins

	RT	1° Ratio (A...	Fails?	pg
1	32.04	0.971	YES	0.292
2	31.71	0.472	YES	0.161
3	31.51	0.671	NO	0.197
4	33.95	0.188	YES	0.260
5	37.23	0.992	YES	0.205
6	36.26	0.926	YES	0.214

Hexafurans

	RT	1° Ratio (A...	Fails?	pg
1	39.32	0.845	YES	0.692
2	39.08	1.806	YES	0.223
3	39.03	1.982	YES	0.130
4	41.23	1.497	YES	0.092
5	41.18	1.158	NO	0.137
6	40.77	0.446	YES	0.212
7	40.13	0.751	YES	0.678
8	39.64	1.864	YES	0.132
9	39.54	1.549	YES	0.082
10	42.94	5.150	YES	0.485
11	41.89	0.463	YES	0.199
12	41.75	0.865	YES	0.234
13	40.92	3.269	YES	0.345

Hexadioxins

	RT	1° Ratio (A...	Fails?	pg
1	41.47	0.798	YES	0.103
2	41.26	1.085	NO	0.460
3	40.89	7.636	YES	1.042
4	40.13	0.528	YES	0.395
5	42.69	0.951	YES	0.343
6	42.30	4.698	YES	0.212
7	42.18	3.537	YES	0.336

pv'd by LHE 25-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

Name: DX8M_088S8, Date: 24-Jul-2018, Time: 23:33:23, ID: L29628-18,L,, Description: 1,WG64578,1.0/20uL

Heptafurans

	RT	1° Ratio (A...	Fails?	pg
1	45.89	2.495	YES	1.069
2	45.38	0.818	YES	1.220
3	47.17	4.084	YES	0.172

Heptadioxins

	RT	1° Ratio (A...	Fails?	pg
1	45.85	1.153	NO	1.652
2	46.75	0.769	YES	1.628

13C-TF

	RT	1° Ratio (A...	Fails?	pg
1	25.29	0.684	NO	1477.0...

13C-TD

	RT	1° Ratio (A...	Fails?	pg
1	26.52	0.730	NO	1596.3...
2	26.18	0.754	NO	54.324

13C-PF

	RT	1° Ratio (A...	Fails?	pg
1	35.38	1.372	NO	1759.7...
2	33.62	1.410	NO	1787.5...

13C-PD

	RT	1° Ratio (A...	Fails?	pg
1	36.20	0.670	NO	1854.4...

13C-HxF

	RT	1° Ratio (A...	Fails?	pg
1	40.92	0.507	NO	1606.6...
2	40.76	0.510	NO	1465.3...
3	42.91	0.532	NO	1470.0...
4	41.87	0.528	NO	1471.0...

13C-HxD

	RT	1° Ratio (A...	Fails?	pg
1	42.72	1.216	NO	66.557
2	42.28	1.125	NO	1711.2...
3	42.14	1.247	NO	1555.6...

13C-HpF

	RT	1° Ratio (A...	Fails?	pg
1	47.15	0.423	NO	1379.2...
2	45.36	0.460	NO	1410.8...

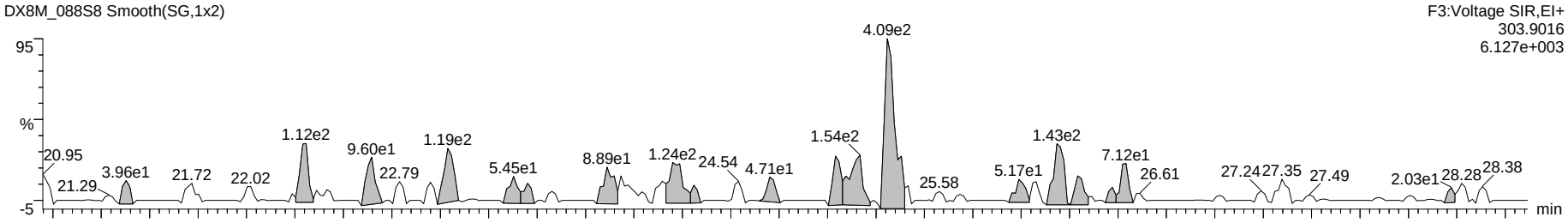
pv'd by LHE 25-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

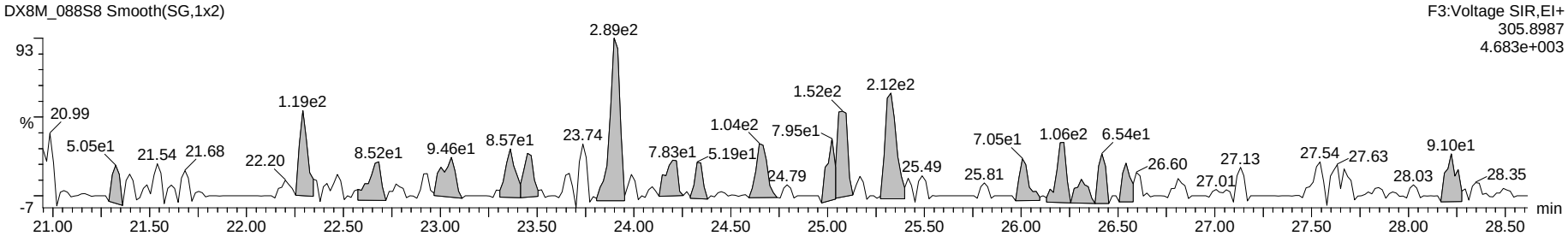
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

Method: G:\Masslynx\Inst_M\Projects\180604DX.pro\MethDB\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

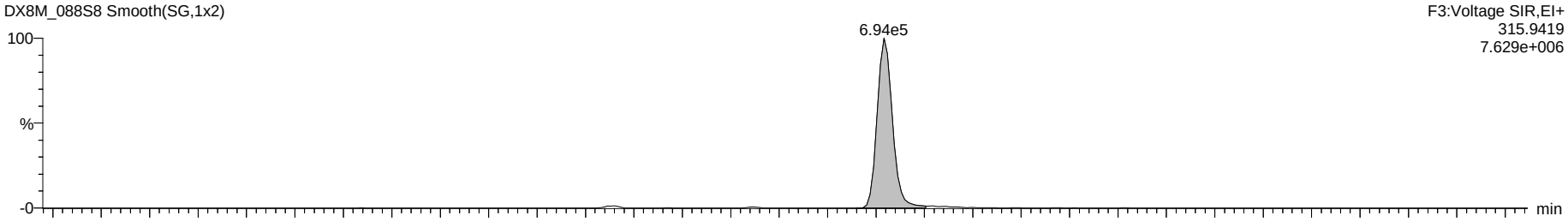
Name: DX8M_088S8, Date: 24-Jul-2018, Time: 23:33:23, ID: L29628-18,L,, Description: 1,WG64578,1.0/20uL

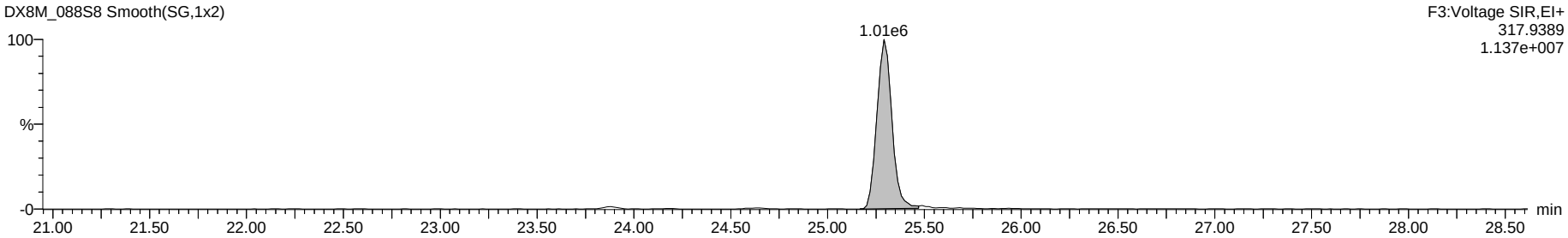
Total Tetra-Furans





13C-Tetra-Furans

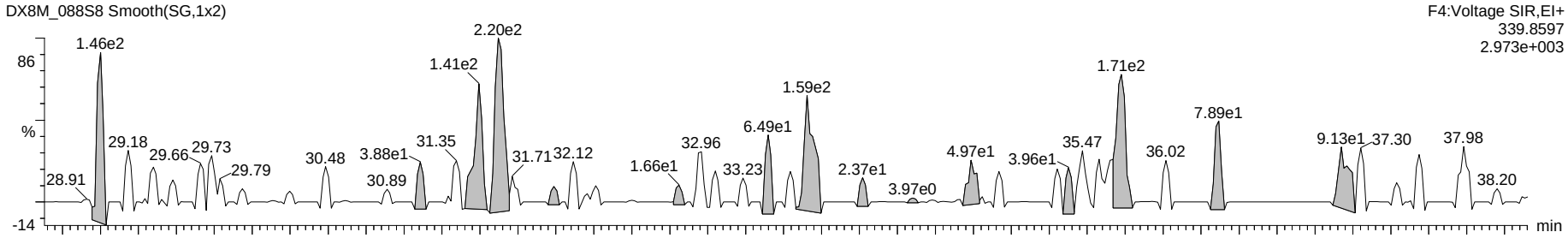


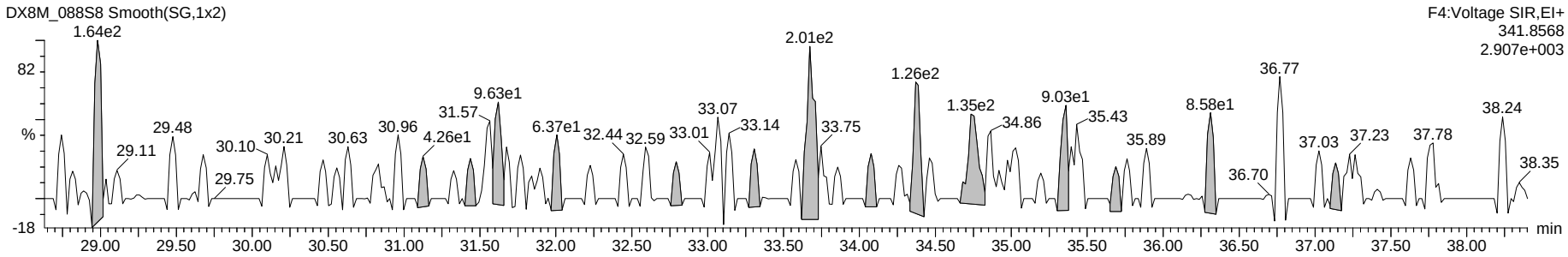


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

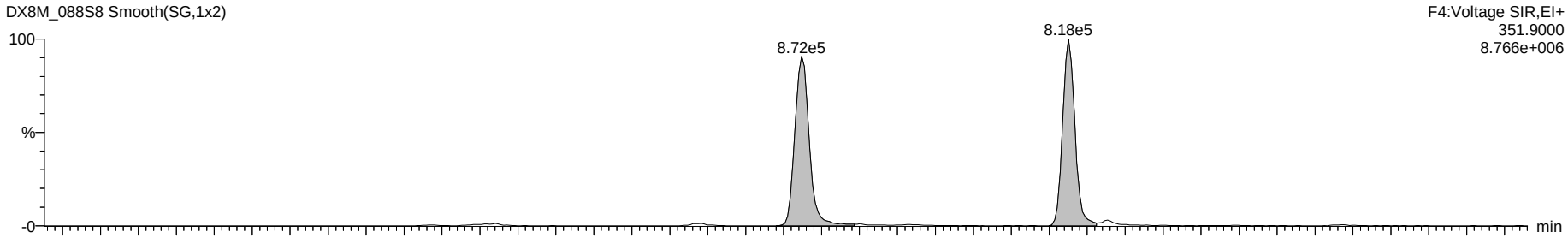
Name: DX8M_088S8, Date: 24-Jul-2018, Time: 23:33:23, ID: L29628-18,L,, Description: 1,WG64578,1.0/20uL

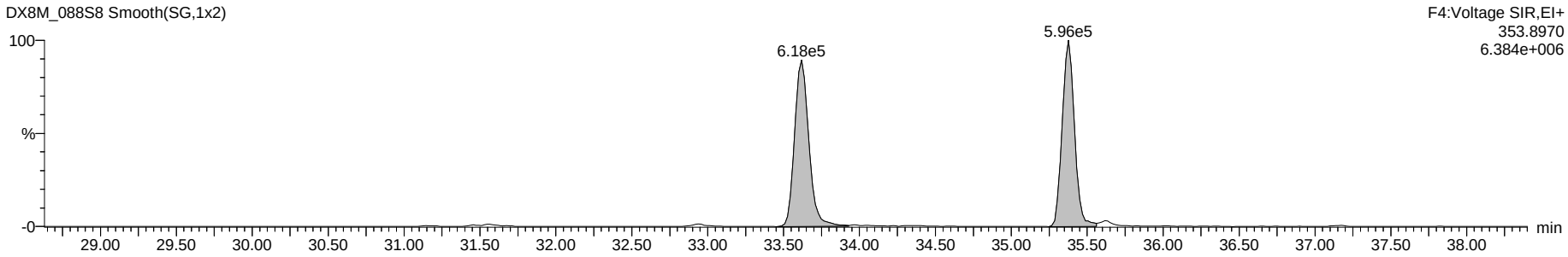
Total Penta-Furans





13C-Penta-Furans

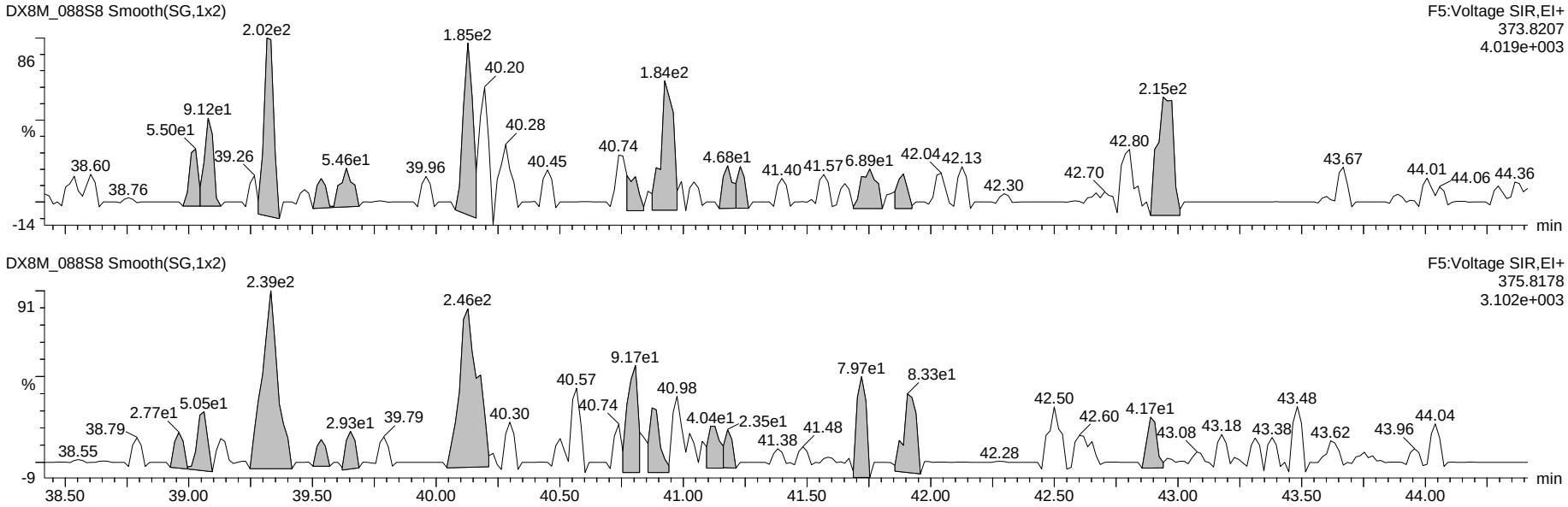




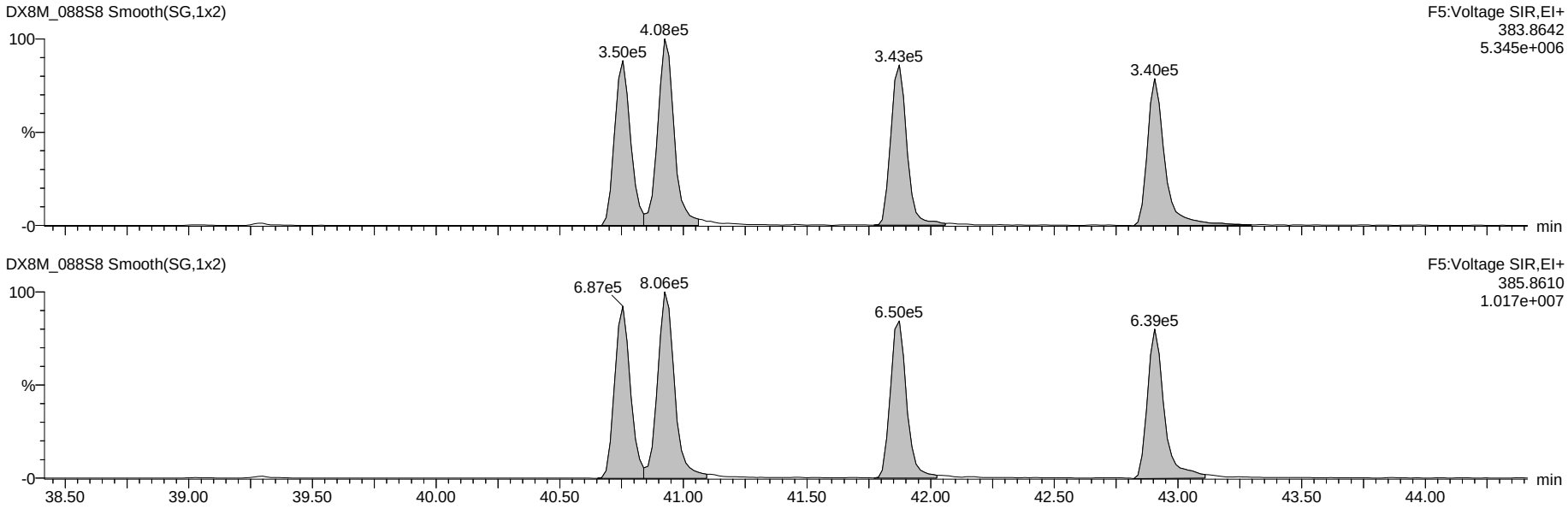
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

Name: DX8M_088S8, Date: 24-Jul-2018, Time: 23:33:23, ID: L29628-18,L,, Description: 1,WG64578,1.0/20uL

Total Hexa-Furans



13C-Hexa-Furans



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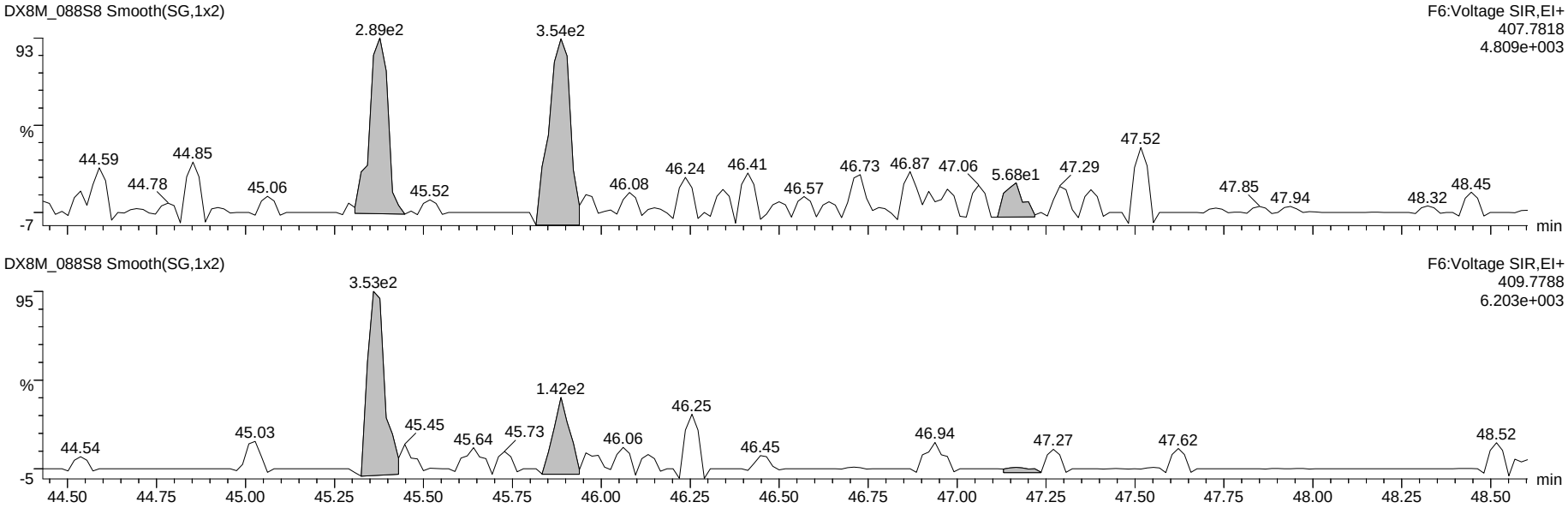
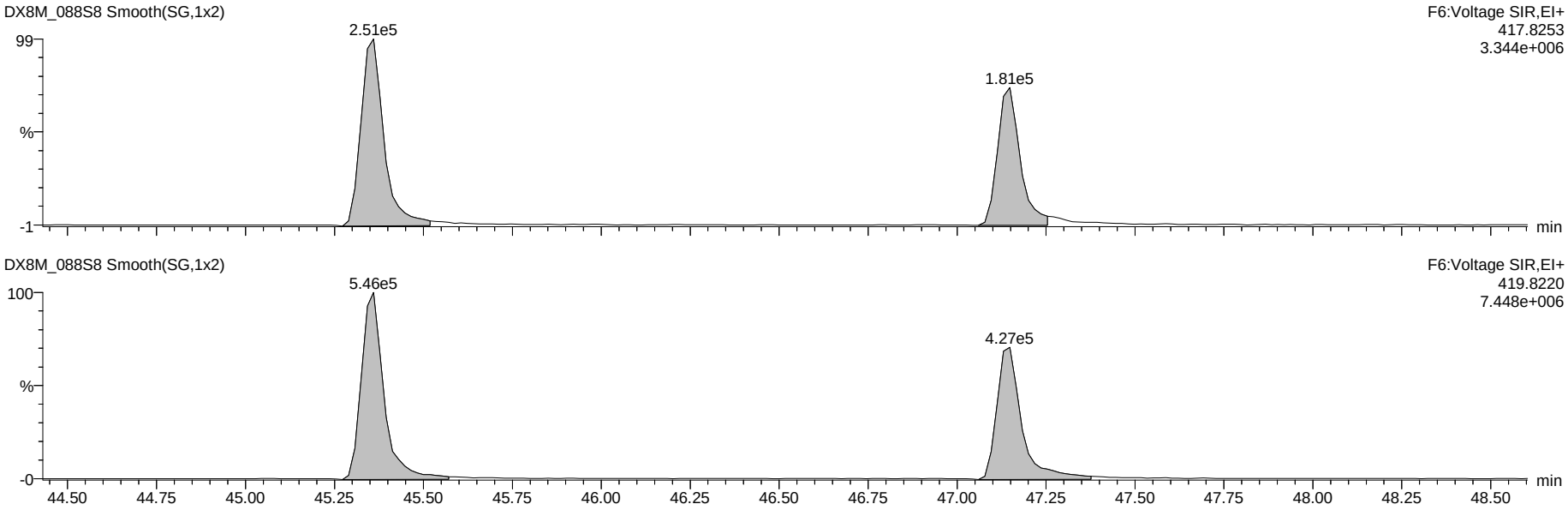
Name: DX8M_088S8, Date: 24-Jul-2018, Time: 23:33:23, ID: L29628-18,L,, Description: 1,WG64578,1.0/20uL

Total Hepta-Furans



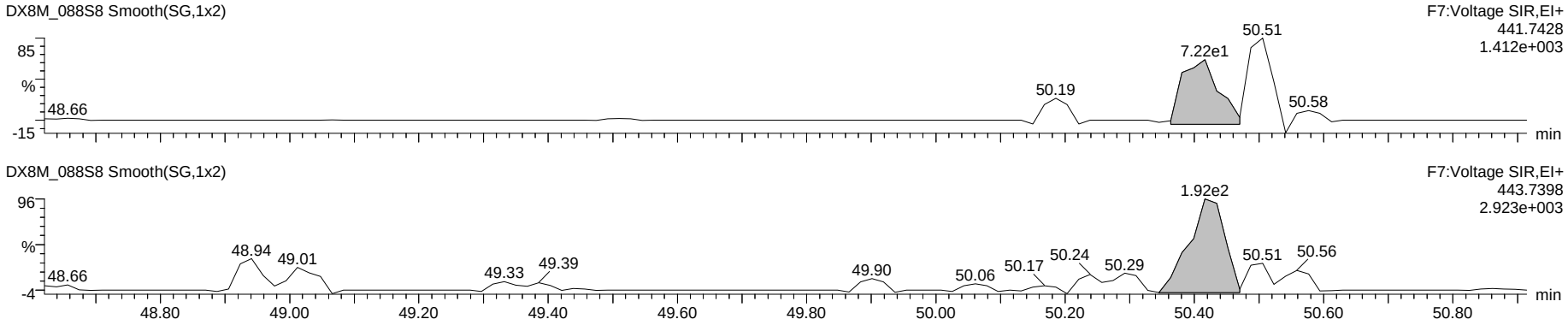
13C-Hepta-Furans



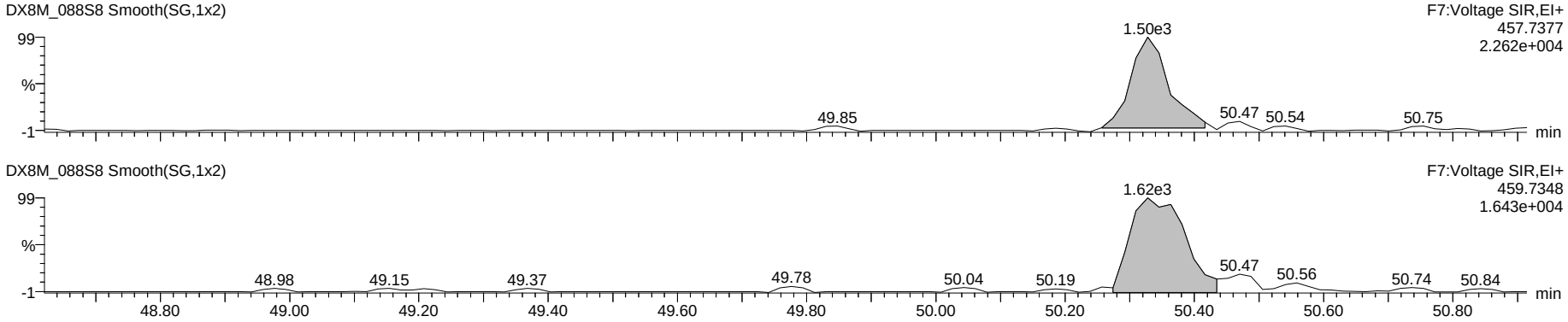
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

Name: DX8M_088S8, Date: 24-Jul-2018, Time: 23:33:23, ID: L29628-18,L,, Description: 1,WG64578,1.0/20uL

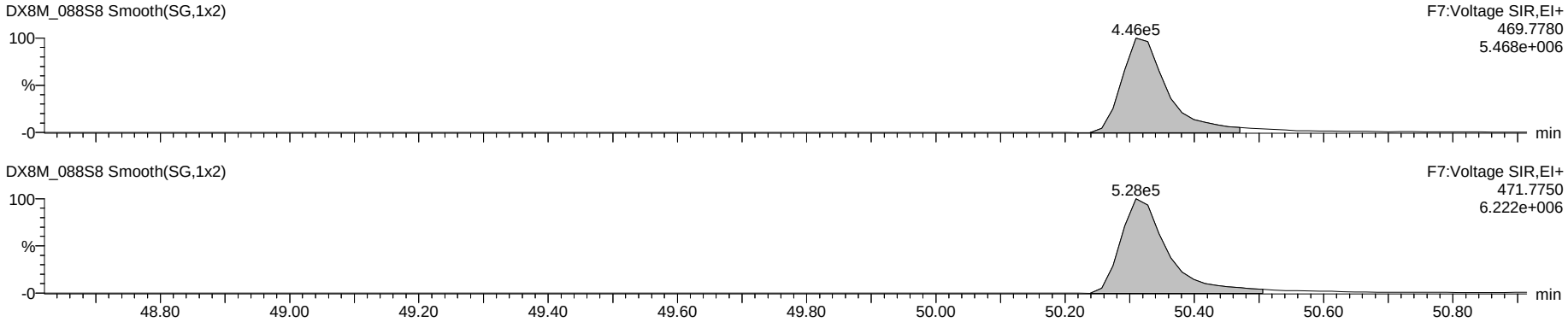
OCDF



OCDD



13C-OCDD



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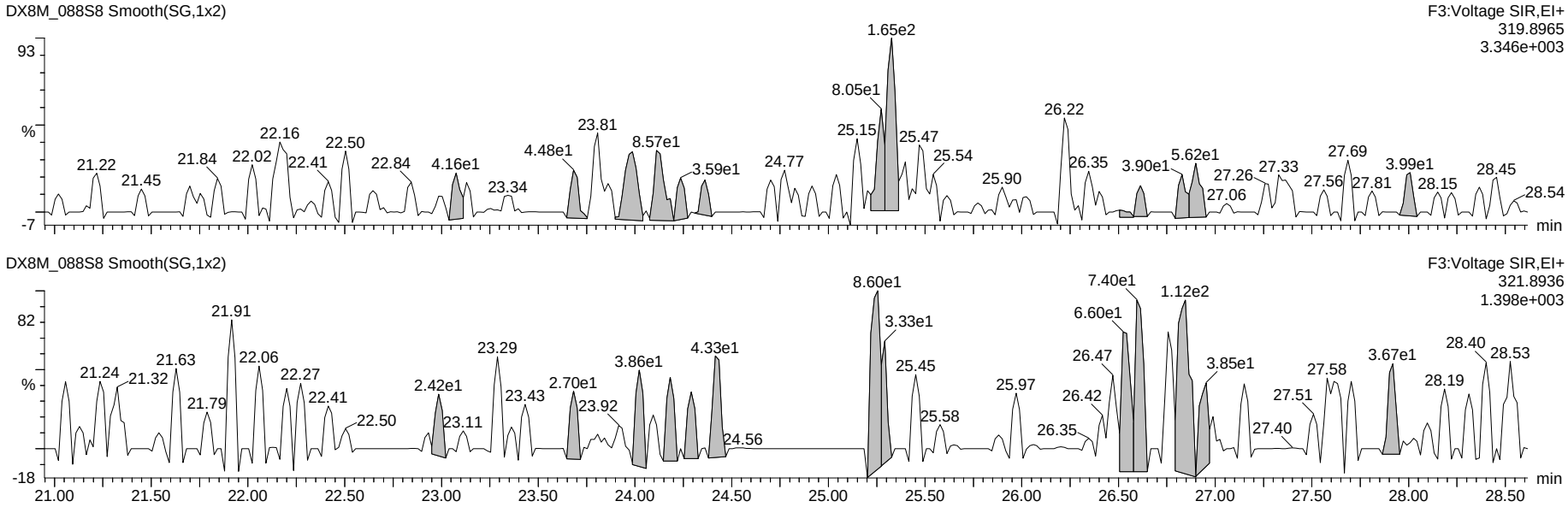
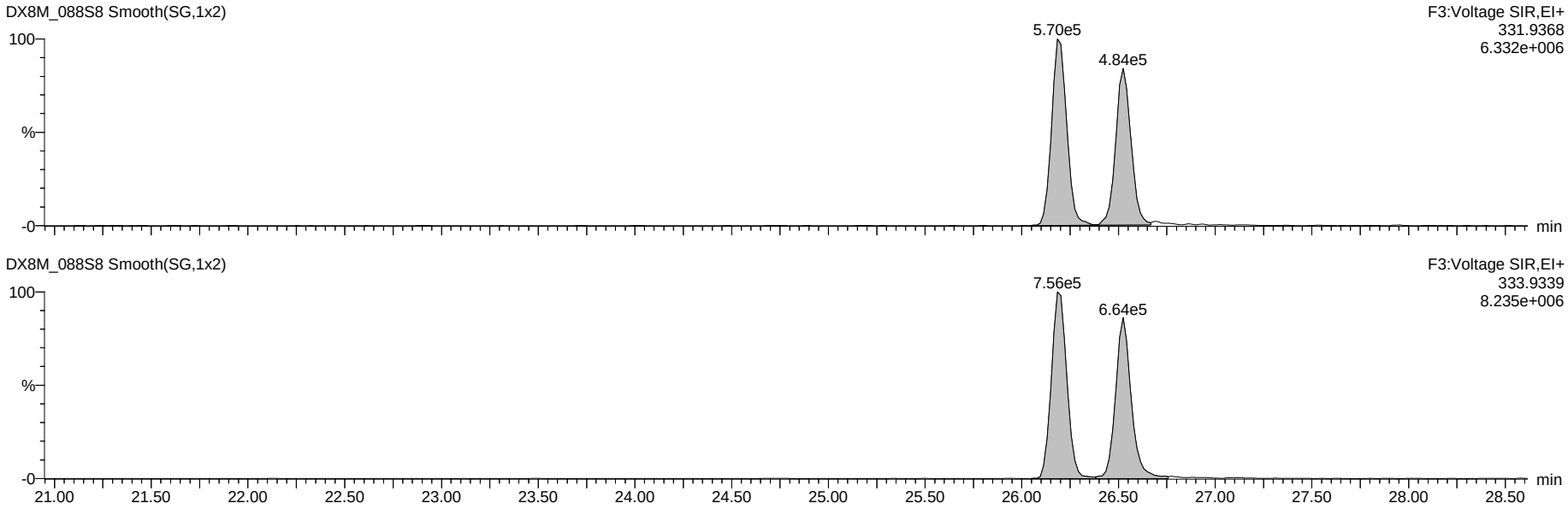
Name: DX8M_088S8, Date: 24-Jul-2018, Time: 23:33:23, ID: L29628-18,L,, Description: 1,WG64578,1.0/20uL

Total Tetra-Dioxins



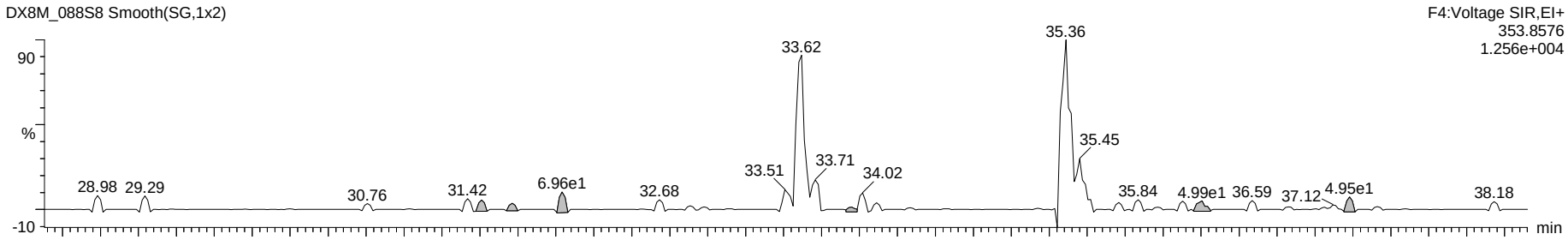
13C-Tetra-Dioxins

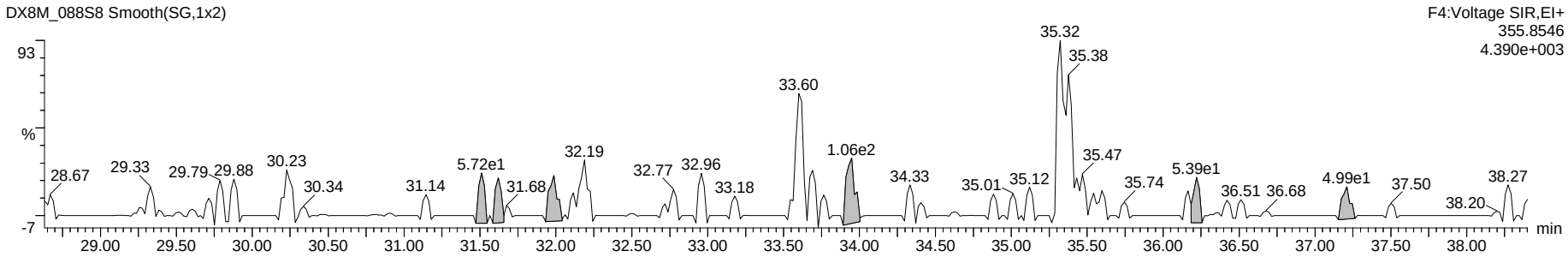


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

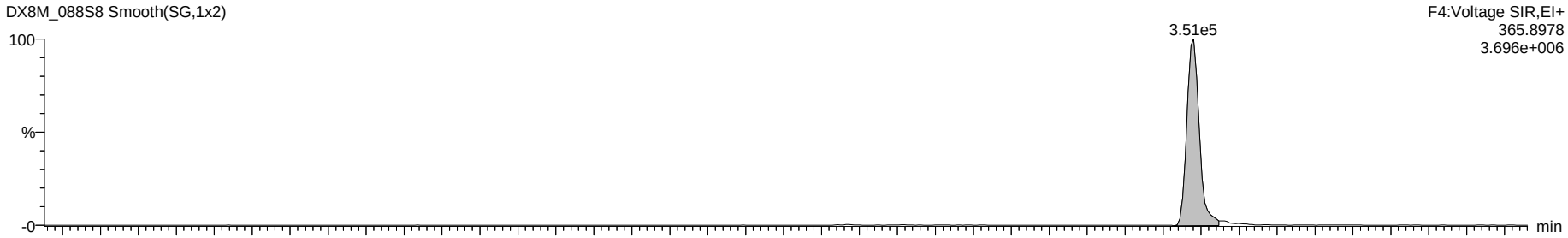
Name: DX8M_088S8, Date: 24-Jul-2018, Time: 23:33:23, ID: L29628-18,L,, Description: 1,WG64578,1.0/20uL

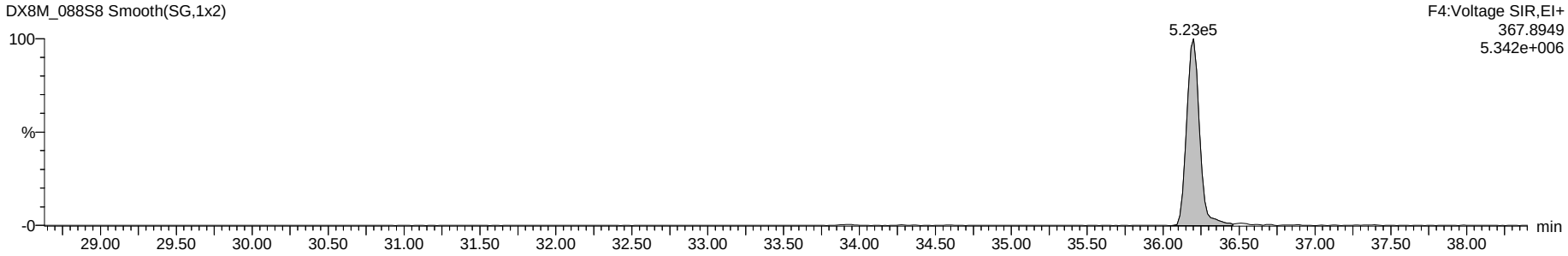
Total Penta-Dioxins





13C-Penta-Dioxins

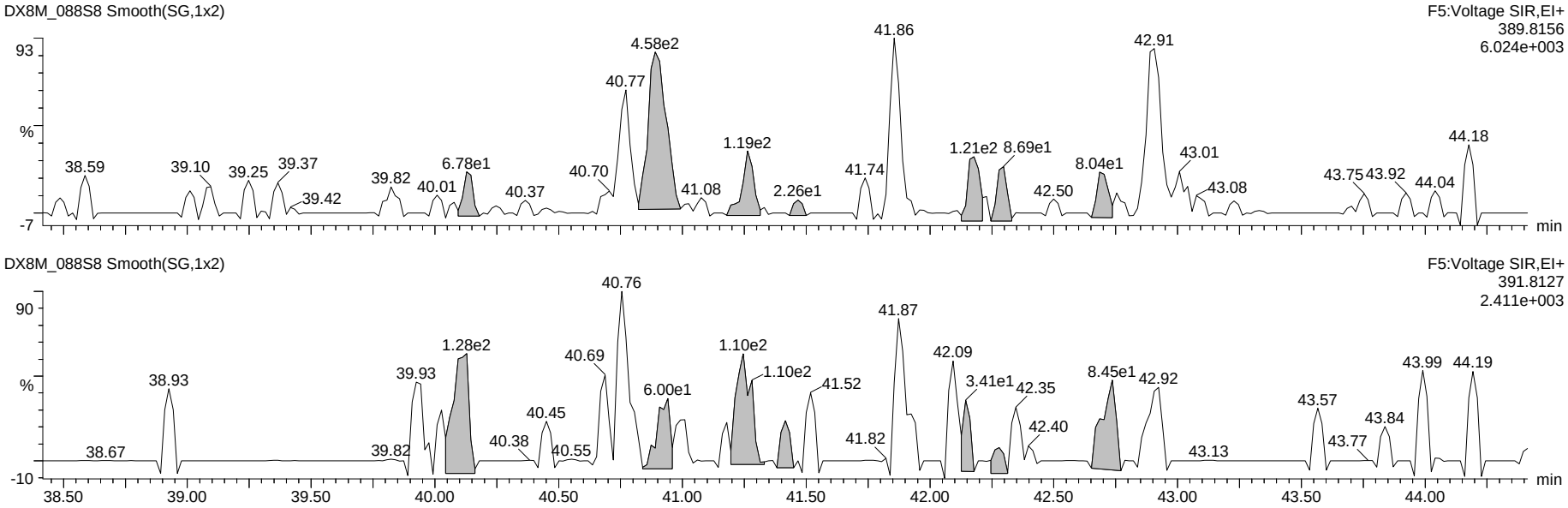




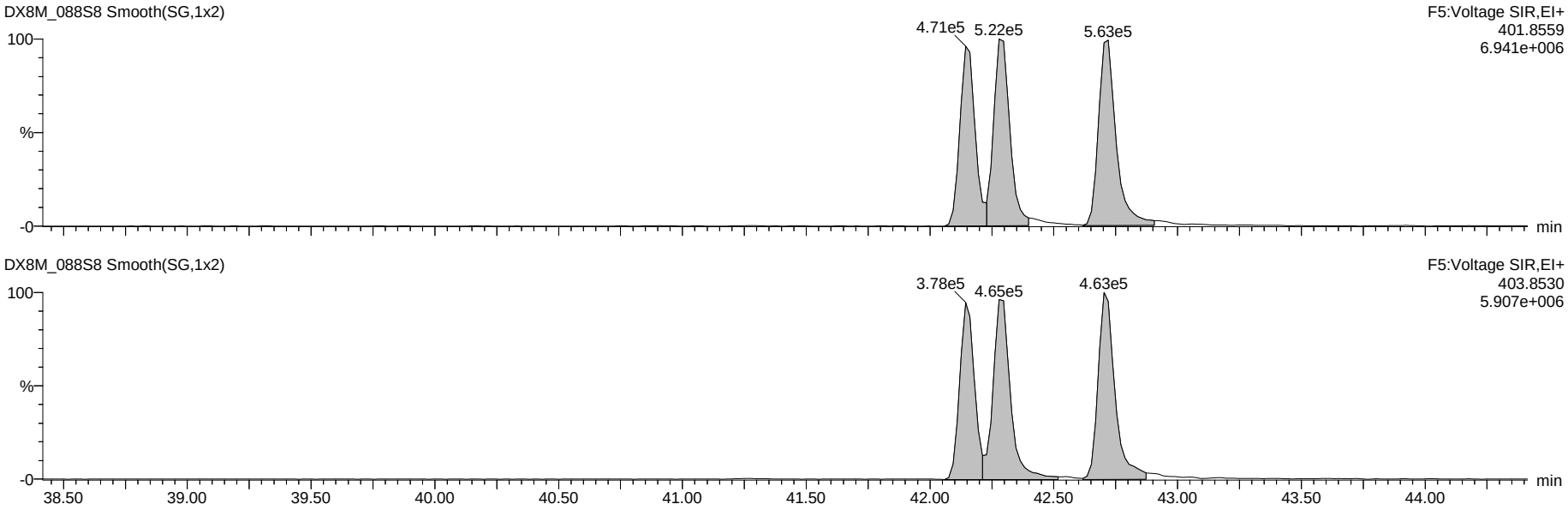
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

Name: DX8M_088S8, Date: 24-Jul-2018, Time: 23:33:23, ID: L29628-18,L,, Description: 1,WG64578,1.0/20uL

Total Hexa-Dioxins



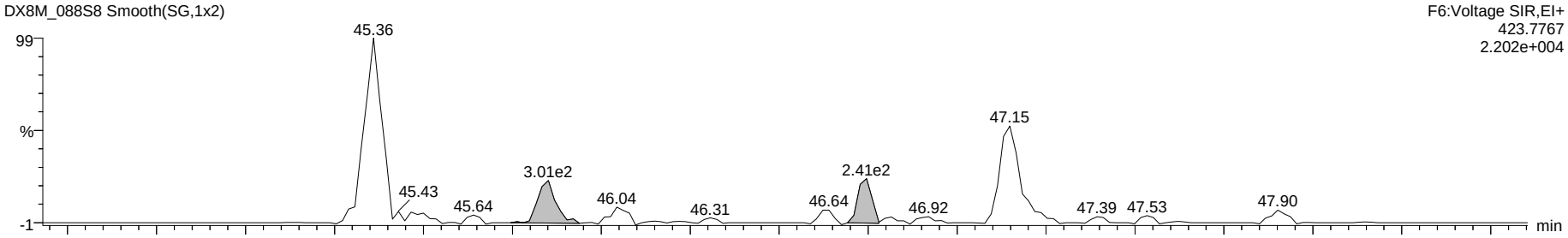
13C-Hexa-Dioxins

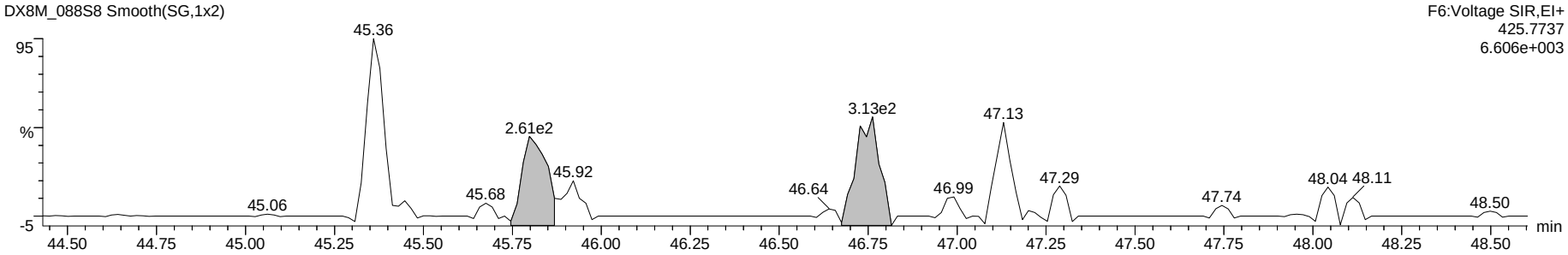


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

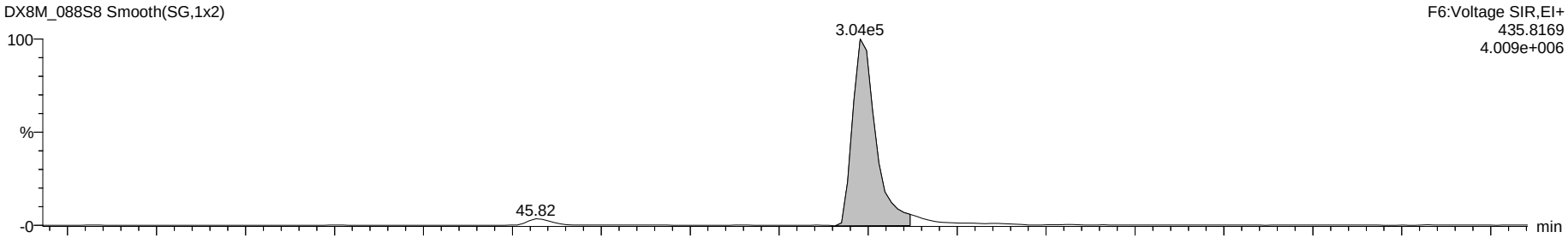
Name: DX8M_088S8, Date: 24-Jul-2018, Time: 23:33:23, ID: L29628-18,L,, Description: 1,WG64578,1.0/20uL

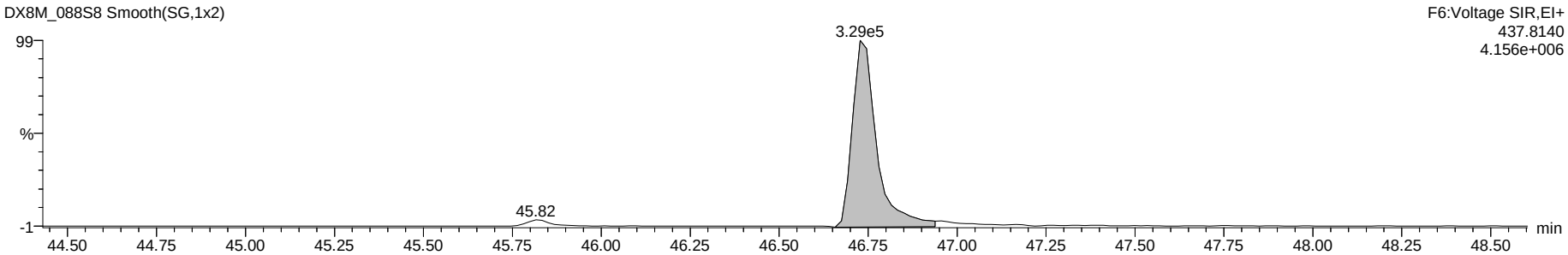
Total Hepta-Dioxins





13C-Hepta-Dioxins

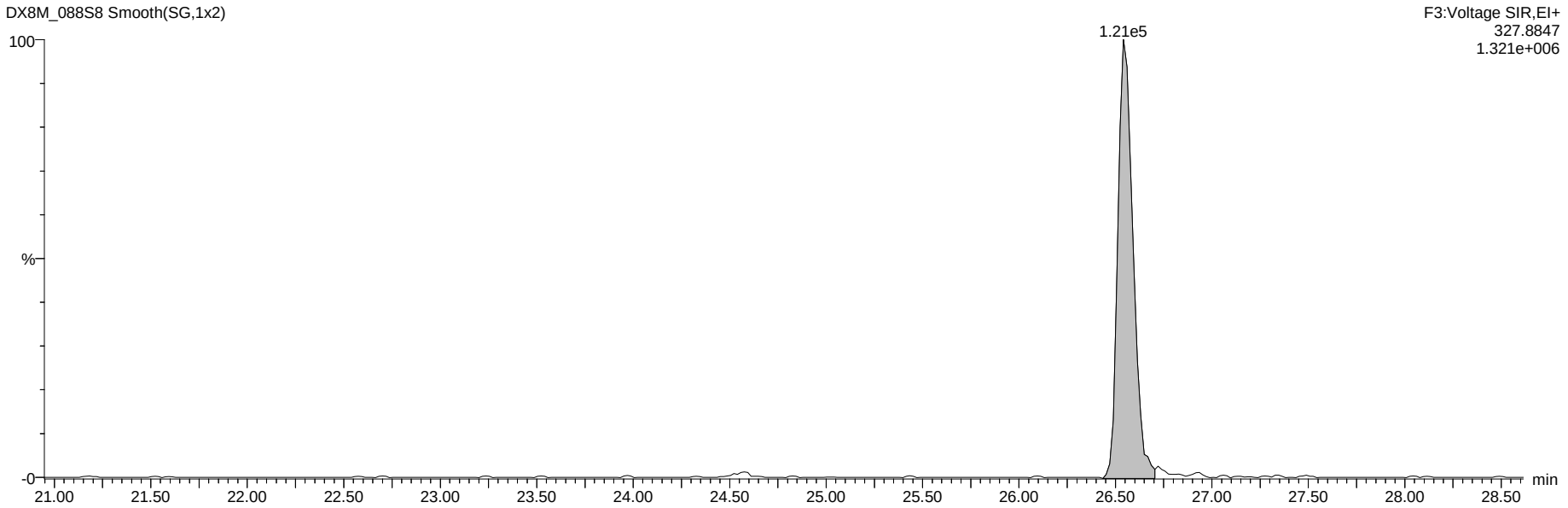




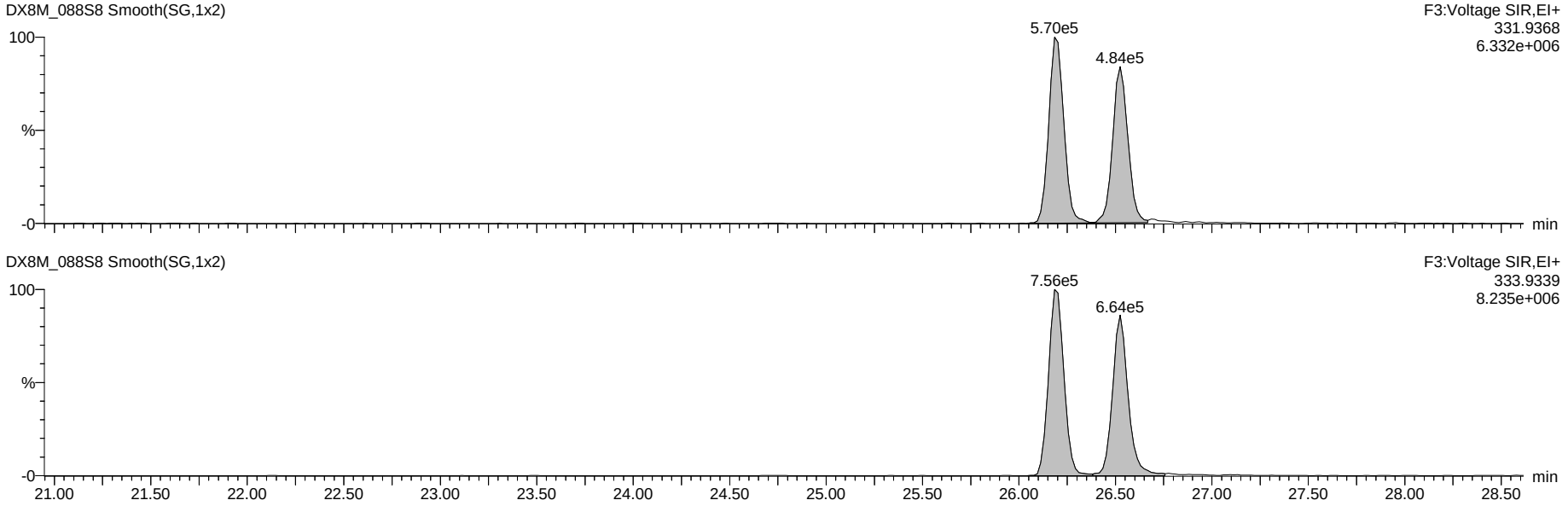
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

Name: DX8M_088S8, Date: 24-Jul-2018, Time: 23:33:23, ID: L29628-18,L,, Description: 1,WG64578,1.0/20uL

37Cl-2,3,7,8-TCDD



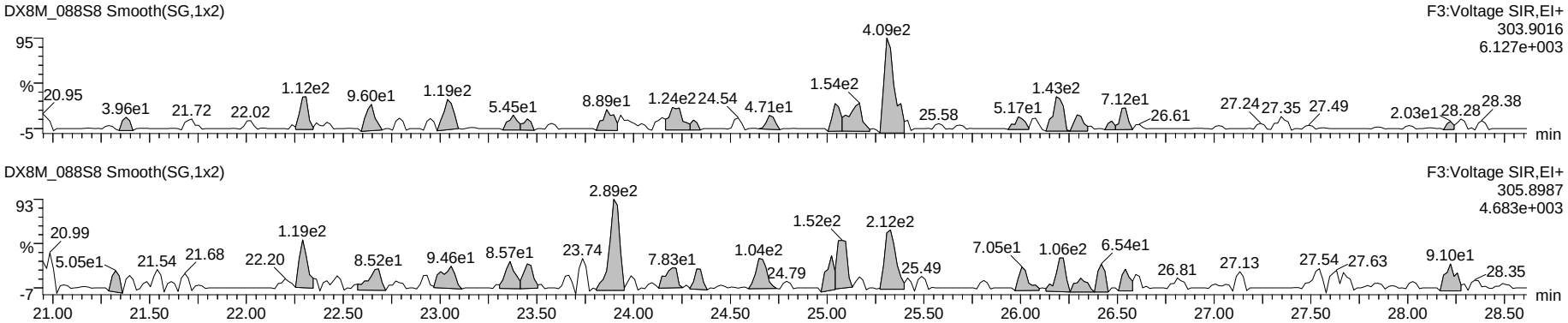
13C-Tetra-Dioxins



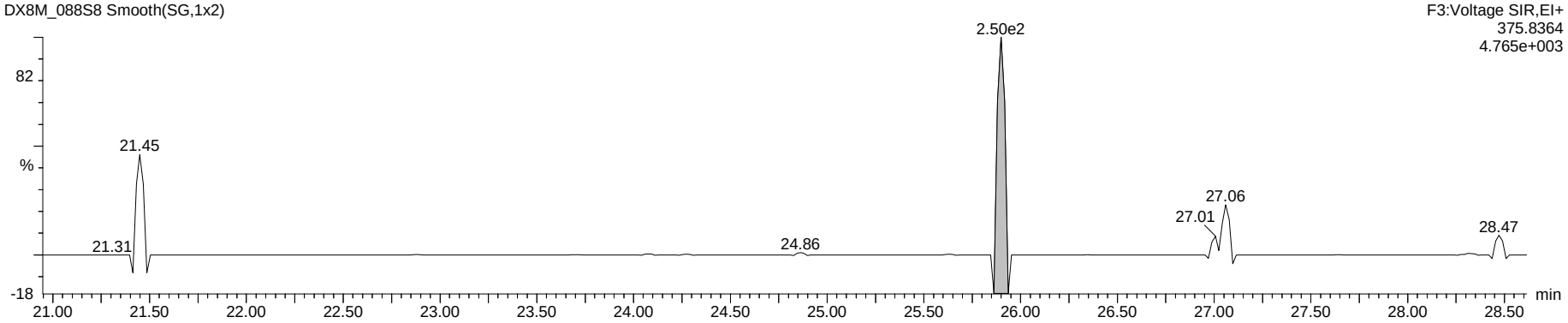
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

Name: DX8M_088S8, Date: 24-Jul-2018, Time: 23:33:23, ID: L29628-18,L,, Description: 1,WG64578,1.0/20uL

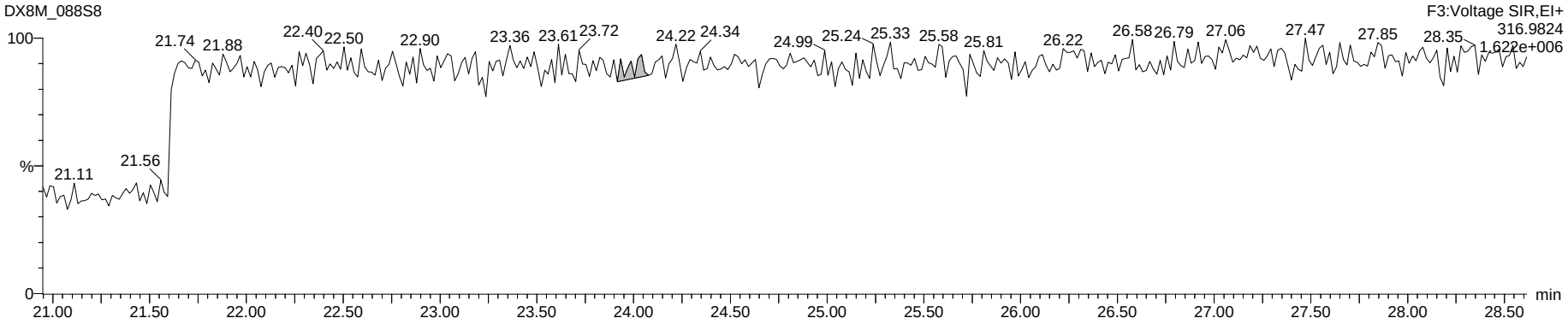
Total Tetra-Furans



Hexa DPE



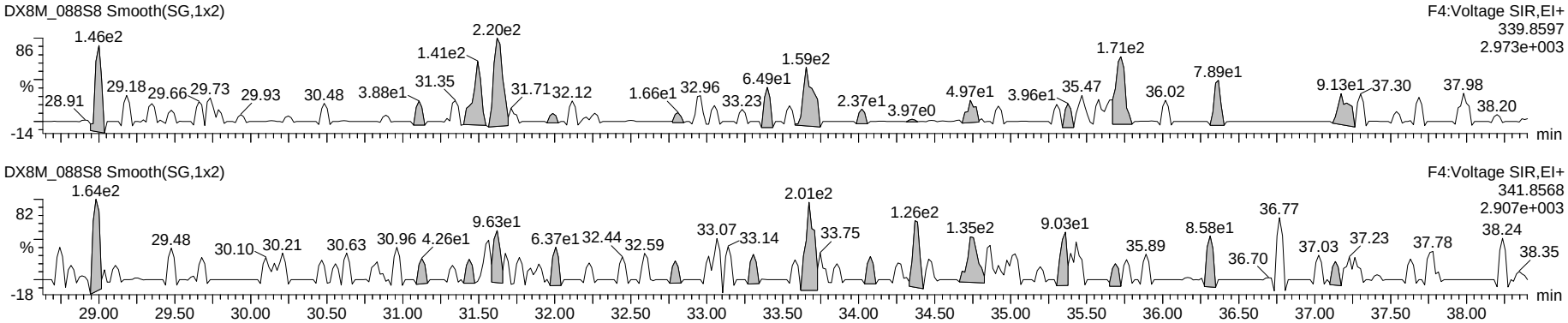
Tetra Lock



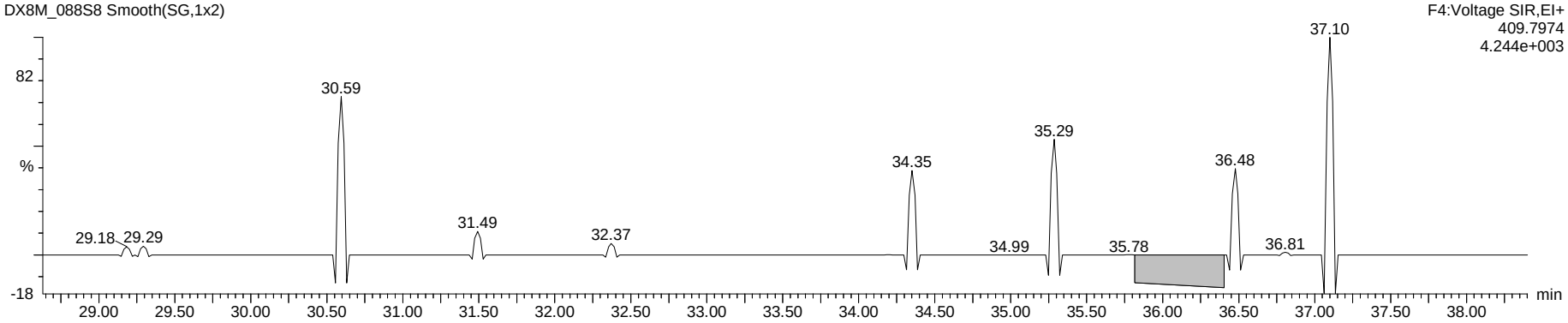
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

Name: DX8M_088S8, Date: 24-Jul-2018, Time: 23:33:23, ID: L29628-18,L,, Description: 1,WG64578,1.0/20uL

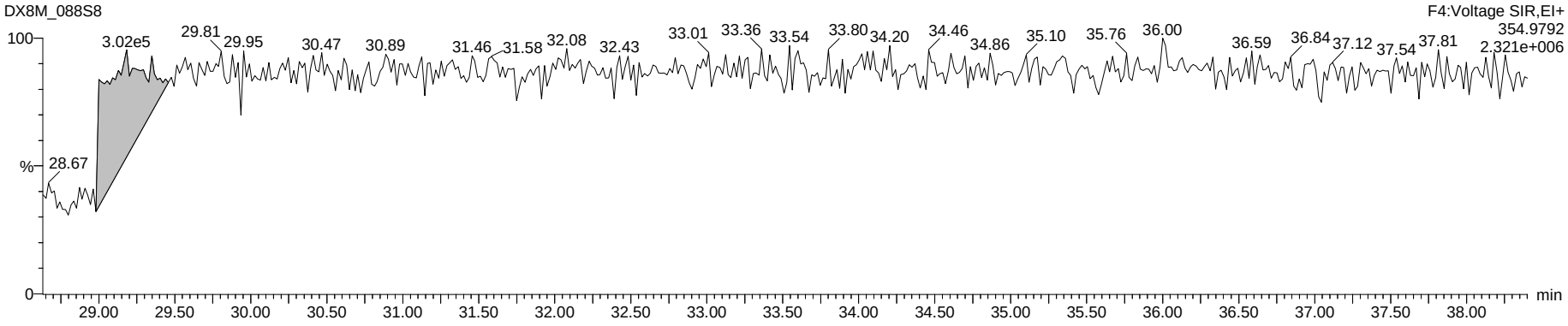
Total Penta-Furans



Hepta DPE



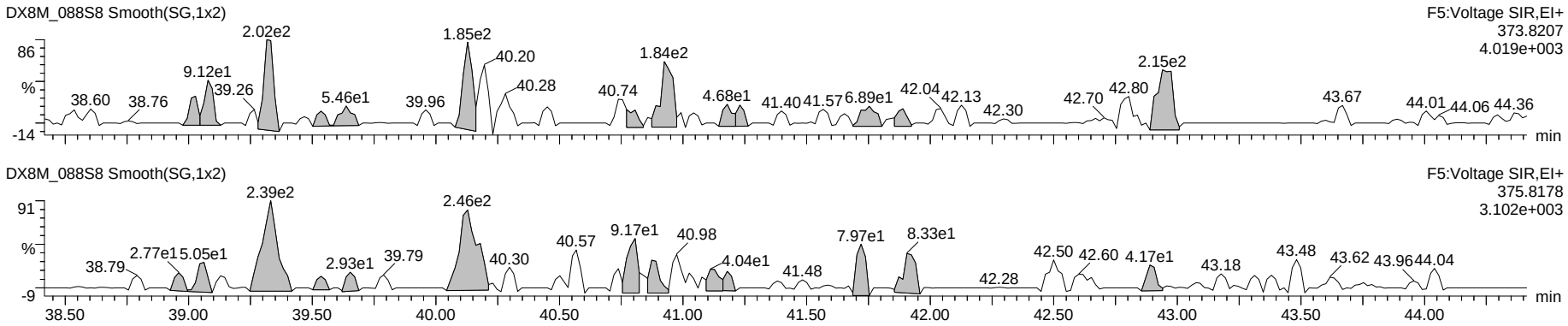
Penta Lock



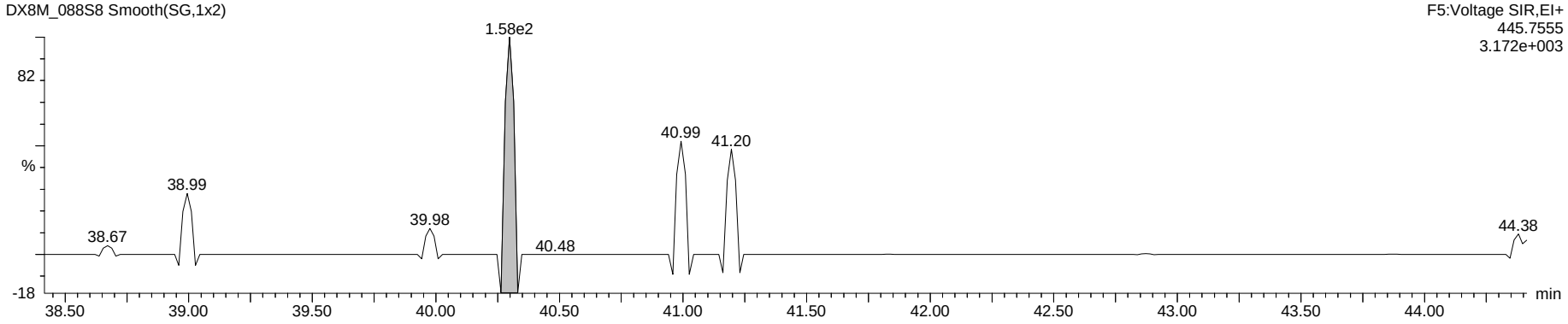
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

Name: DX8M_088S8, Date: 24-Jul-2018, Time: 23:33:23, ID: L29628-18,L,, Description: 1,WG64578,1.0/20uL

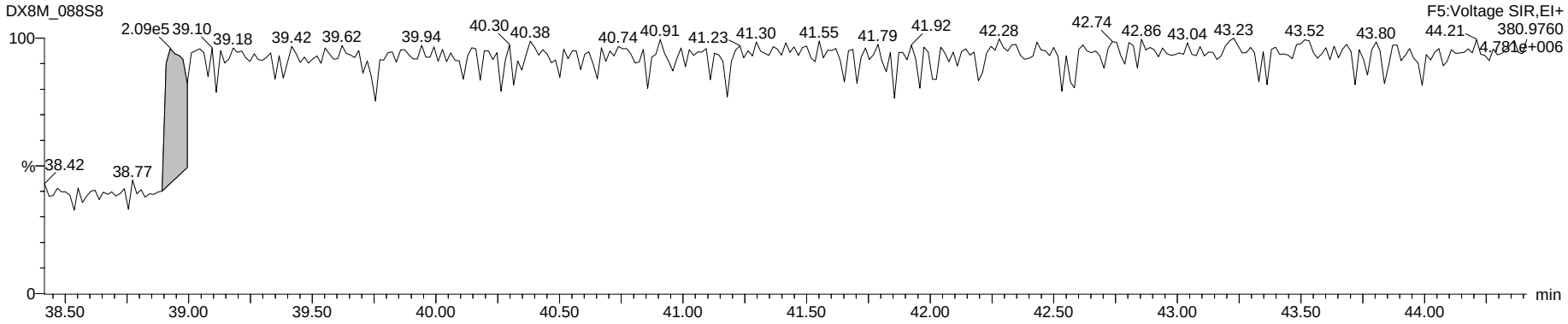
Total Hexa-Furans



Octa DPE



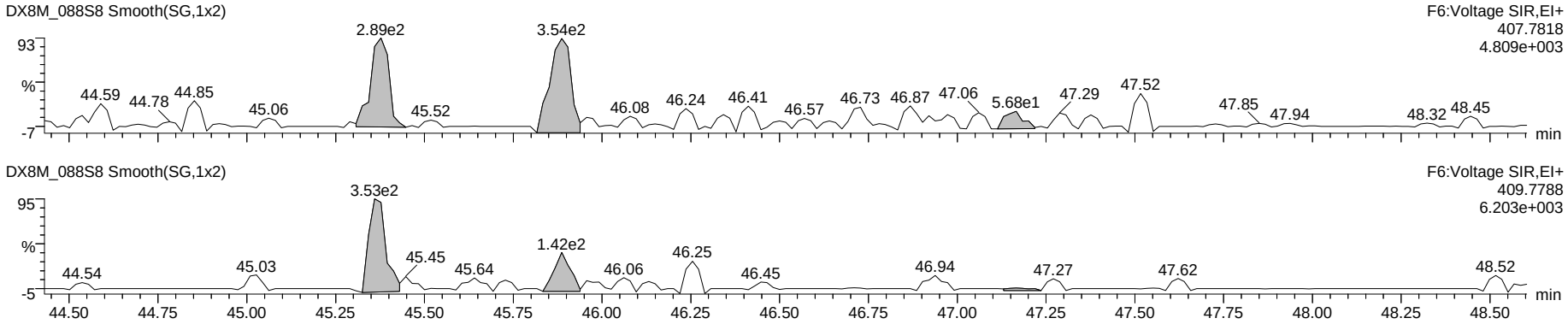
Hexa Lock



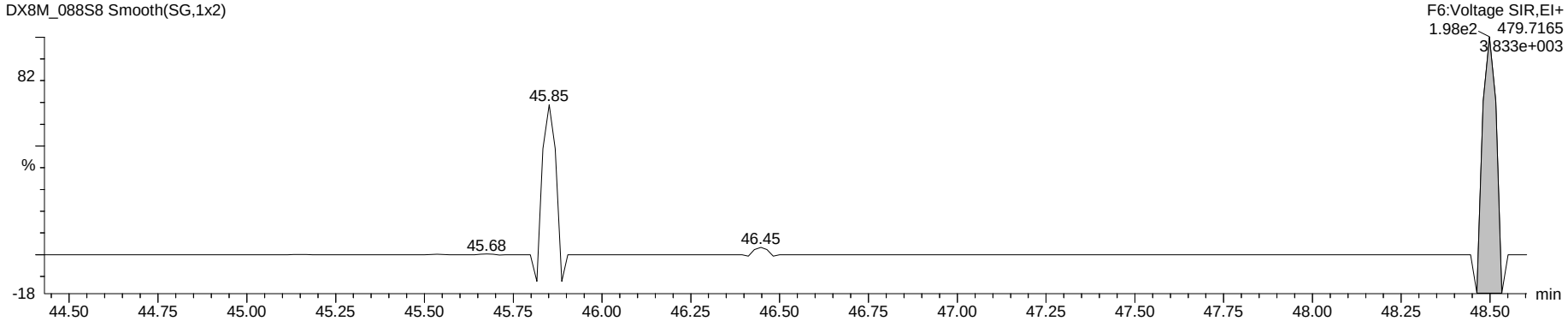
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

Name: DX8M_088S8, Date: 24-Jul-2018, Time: 23:33:23, ID: L29628-18,L,, Description: 1,WG64578,1.0/20uL

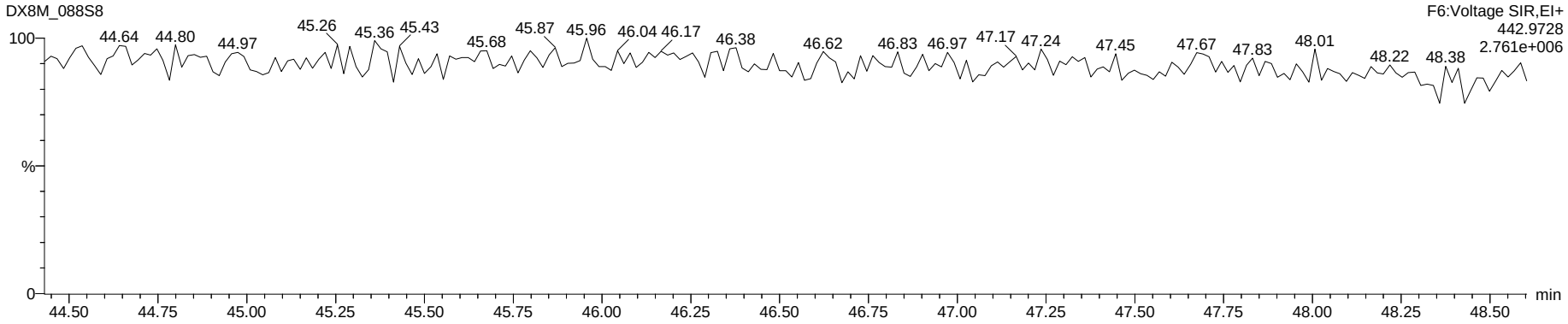
Total Hepta-Furans



Nona DPE



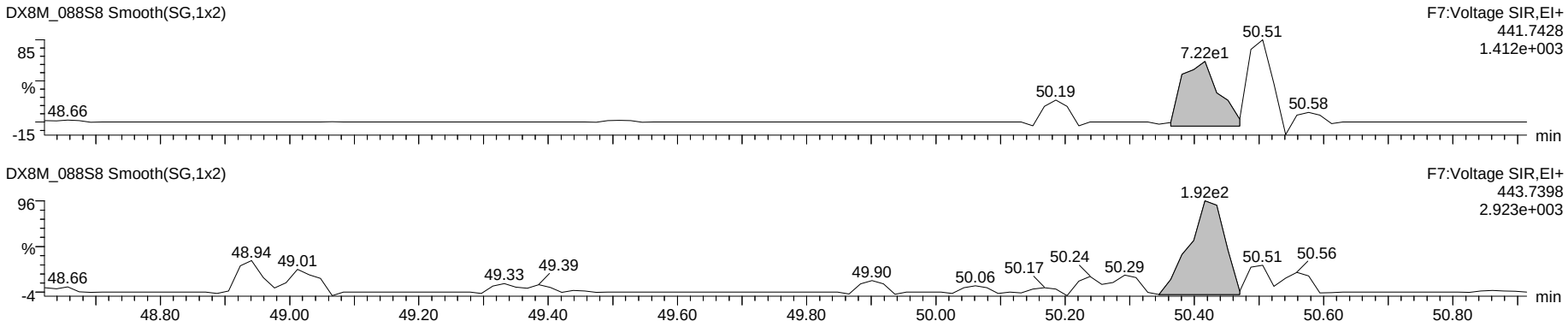
Hepta Lock



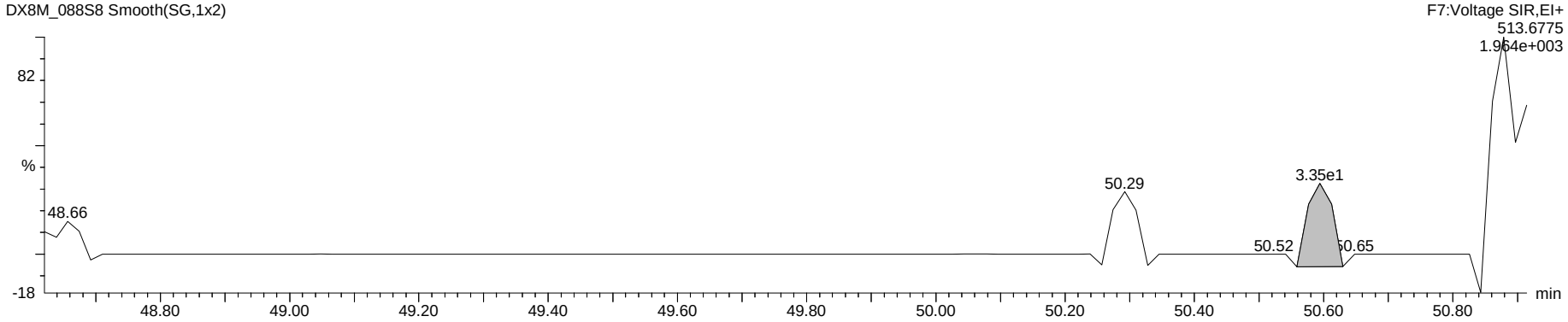
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

Name: DX8M_088S8, Date: 24-Jul-2018, Time: 23:33:23, ID: L29628-18,L,, Description: 1,WG64578,1.0/20uL

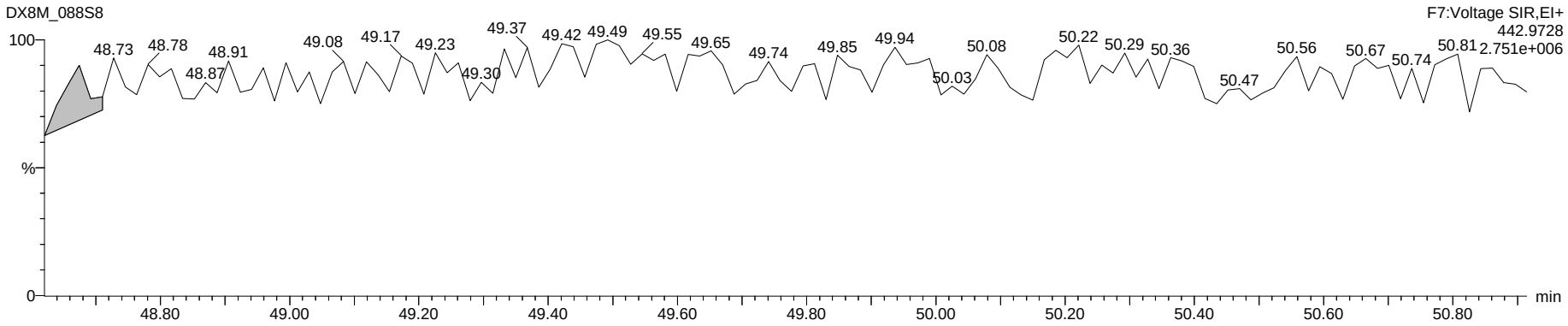
OCDF



Deca DPE



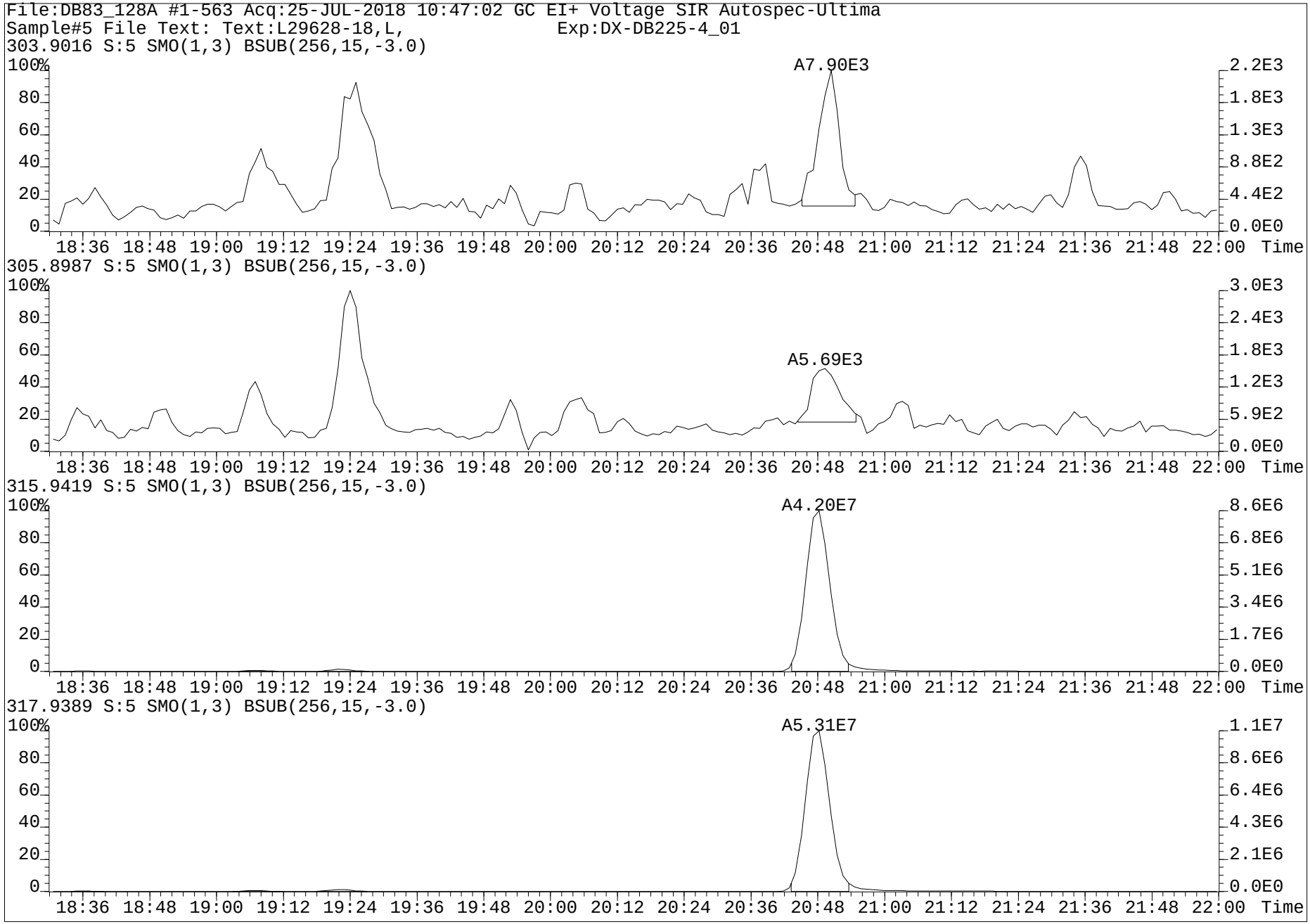
Octa Lock

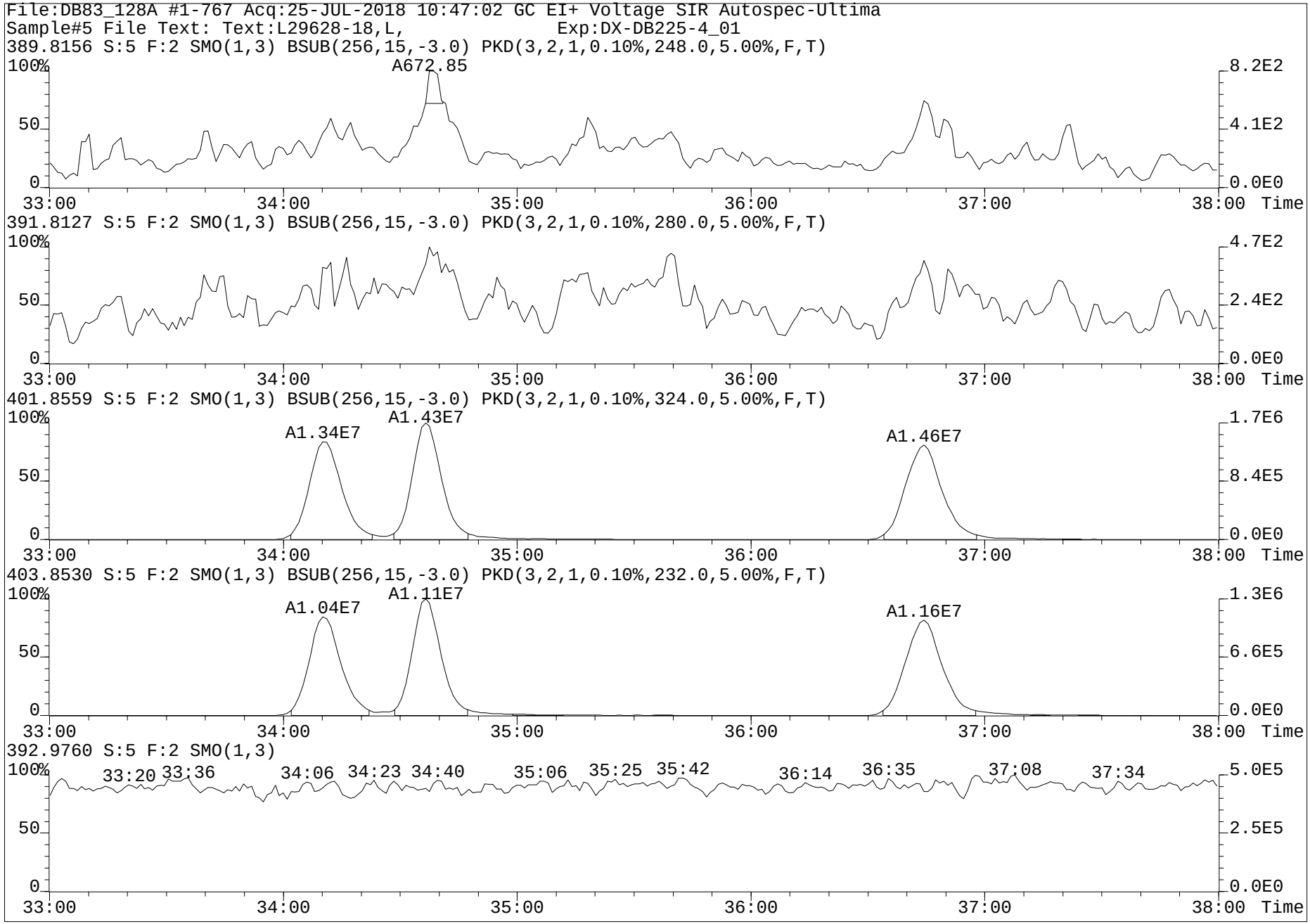


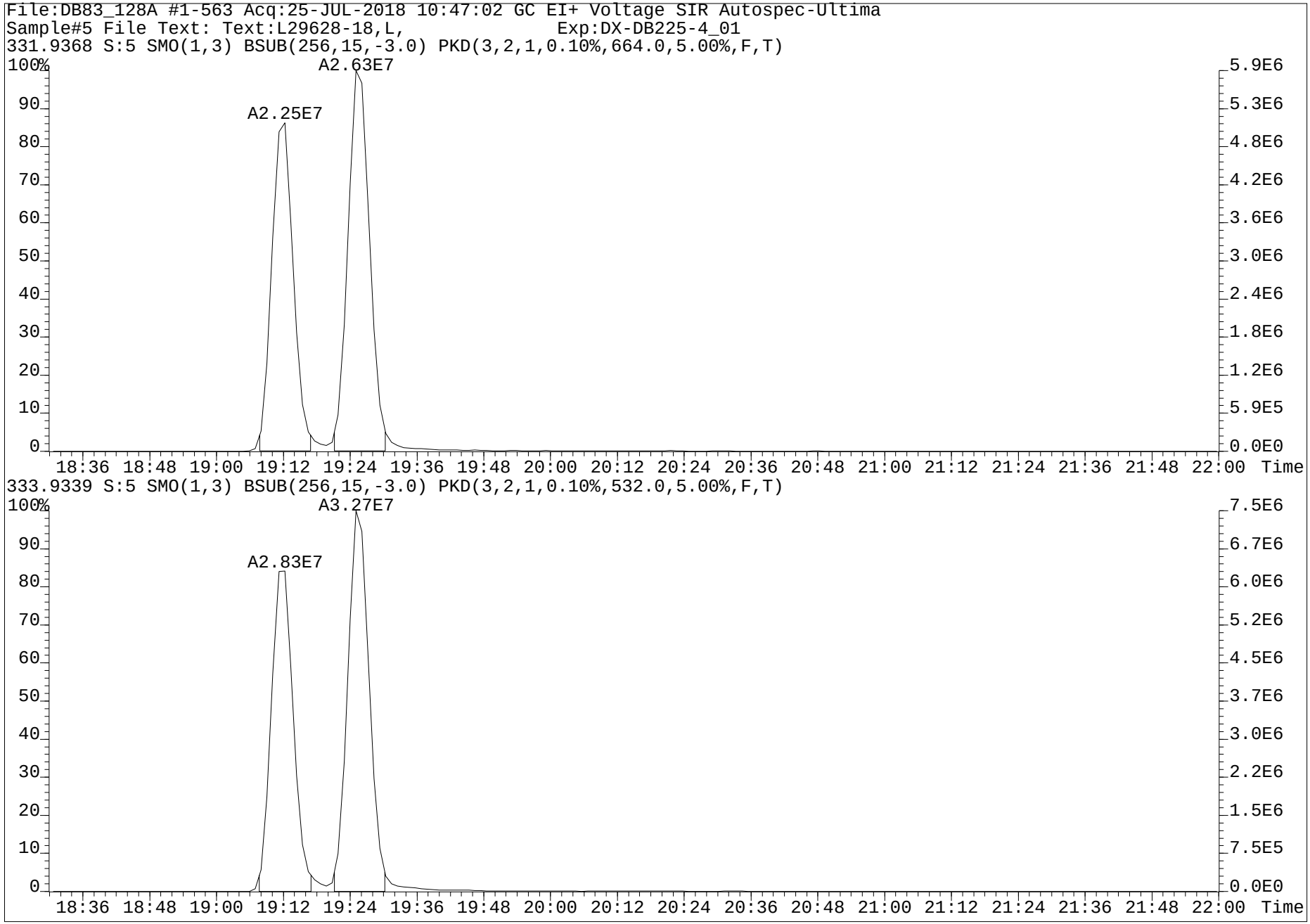
Run #11 Filename DB83_128A S: 5 I: 1 Acquired: 25-JUL-18 10:47:02 Processed: 25-JUL-18 12:52:34
Run: db83_128a-A Analyte: DB-HXD-S2 Cal: db83_121-6a Results: db83_128a-A Version: V3.6 6-JAN-2000 17:51:42
Sample text: L29628-18,L, Comments: 1,WG64578,2.0/20uL
sample size: 1.079900 conc units: pg/L total toxicity: 0.03 F1: 1.0000 F2: 1.0000

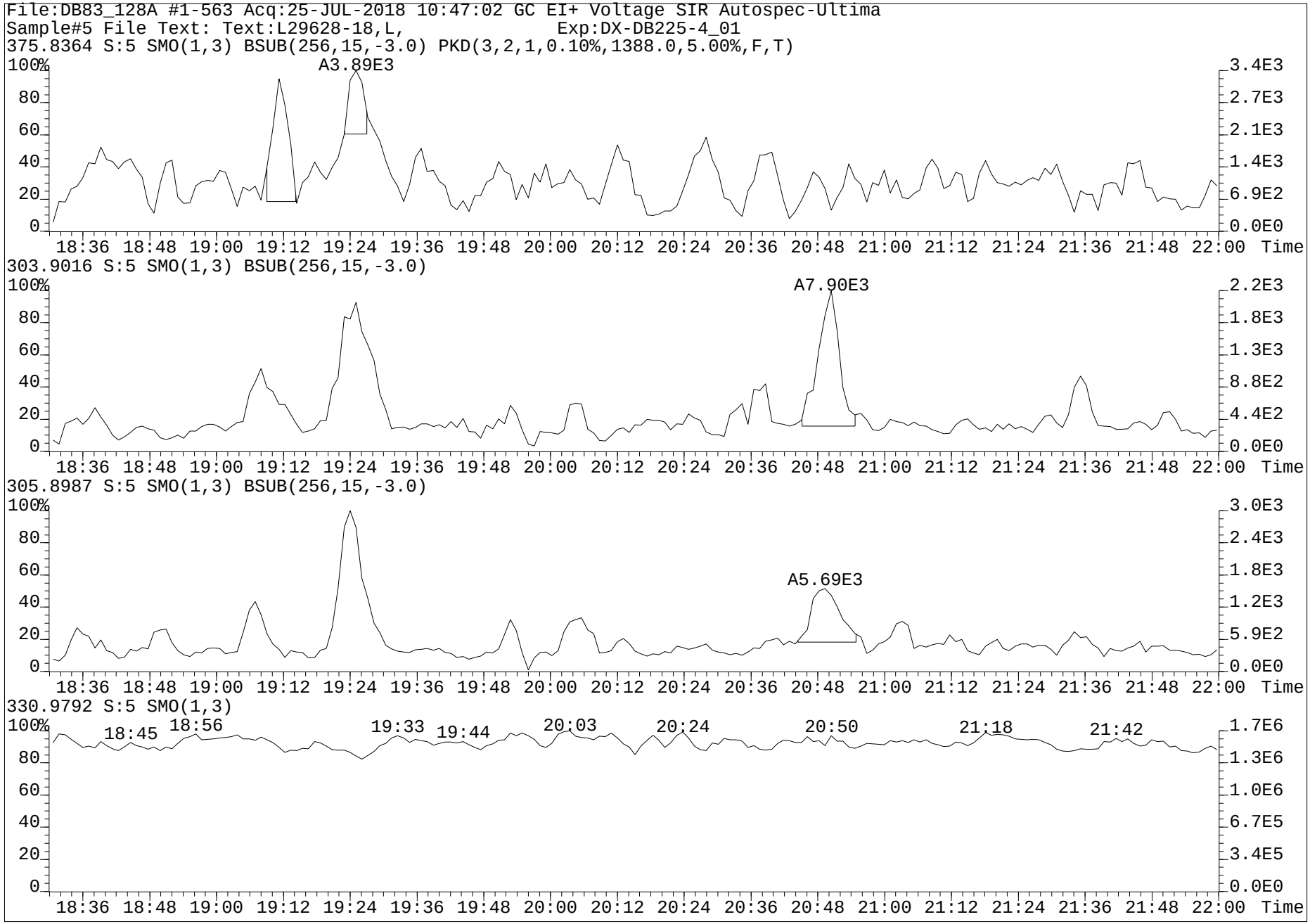
	Typ	Name	#Hom	Resp	RA		RT	Conc	Tox #1	DL	Rec	M?
1	Unk	2,3,7,8-TCDF	1	1.36e+04	1.39	n	20:49	0.273	0	0.2201	-	y
2	Unk	1,2,3,7,8,9-HxCDD	0	*	*	n	NotFnd	*	*	0.9663	-	n
3	IS/RT	13C-2,3,7,8-TCDF	1	9.50e+07	0.79	y	20:47	1668.593	-	0.2727	90.1	y
4	IS/RT	13C-1,2,3,4,7,8-HxCDD	1	2.39e+07	1.29	y	34:11	1596.778	-	0.9980	86.2	n
5	IS/RT	13C-1,2,3,6,7,8-HxCDD	1	2.54e+07	1.29	y	34:37	1645.825	-	0.9672	88.9	n
6	RS	13C-1,2,3,4-TCDD	1	5.89e+07	0.81	y	19:26	49.327	-	-	-	n
7	RS	13C-1,2,3,7,8,9-HxCDD	1	2.62e+07	1.26	y	36:44	44.209	-	-	-	n
8	Tot	Hexa DPE	0	*			NotFnd	*	-	-	-	n
9	Tot	Tetra Lock	-	-			-	-	-	-	-	n
10	Tot	Hexa Lock	-	-			-	-	-	-	-	n

PV by LHE
25-JULY-2018


File:DB83_128A #1-563 Acq:25-JUL-2018 10:47:02 GC EI+ Voltage SIR Autospec-Ultima
Sample#5 File Text: Text:L29628-18,L, Exp:DX-DB225-4_01
303.9016 S:5 SMO(1,3) BSUB(256,15,-3.0)
A7.90E3
305.8987 S:5 SMO(1,3) BSUB(256,15,-3.0)
A5.69E3
315.9419 S:5 SMO(1,3) BSUB(256,15,-3.0)
A4.20E7
317.9389 S:5 SMO(1,3) BSUB(256,15,-3.0)
A5.31E7
100%
80
60
40
20
0
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time
2.2E3
1.8E3
1.3E3
8.8E2
4.4E2
0.0E0
3.0E3
2.4E3
1.8E3
1.2E3
5.9E2
0.0E0
8.6E6
6.8E6
5.1E6
3.4E6
1.7E6
0.0E0
1.1E7
8.6E6
6.4E6
4.3E6
2.1E6
0.0E0


File:DB83_128A #1-767 Acq:25-JUL-2018 10:47:02 GC EI+ Voltage SIR Autospec-Ultima
Sample#5 File Text: Text:L29628-18,L, Exp:DX-DB225-4_01
389.8156 S:5 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,248.0,5.00%,F,T)
A672.85
391.8127 S:5 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,280.0,5.00%,F,T)
401.8559 S:5 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,324.0,5.00%,F,T)
A1.34E7
A1.43E7
A1.46E7
403.8530 S:5 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,232.0,5.00%,F,T)
A1.04E7
A1.11E7
A1.16E7
392.9760 S:5 F:2 SMO(1,3)
33:20 33:36 34:06 34:23 34:40 35:06 35:25 35:42 36:14 36:35 37:08 37:34
100%
50
0
33:00
34:00
35:00
36:00
37:00
38:00
Time
8.2E2
4.1E2
0.0E0
4.7E2
2.4E2
1.7E6
8.4E5
1.3E6
6.6E5
5.0E5
2.5E5


File:DB83_128A #1-563 Acq:25-JUL-2018 10:47:02 GC EI+ Voltage SIR Autospec-Ultima
Sample#5 File Text: Text:L29628-18,L, Exp:DX-DB225-4_01
331.9368 S:5 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,664.0,5.00%,F,T)
A2.63E7
A2.25E7
100%
90
80
70
60
50
40
30
20
10
0
5.9E6
5.3E6
4.8E6
4.2E6
3.6E6
3.0E6
2.4E6
1.8E6
1.2E6
5.9E5
0.0E0
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time
333.9339 S:5 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,532.0,5.00%,F,T)
A3.27E7
A2.83E7
100%
90
80
70
60
50
40
30
20
10
0
7.5E6
6.7E6
6.0E6
5.2E6
4.5E6
3.7E6
3.0E6
2.2E6
1.5E6
7.5E5
0.0E0
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time


File:DB83_128A #1-563 Acq:25-JUL-2018 10:47:02 GC EI+ Voltage SIR Autospec-Ultima
Sample#5 File Text: Text:L29628-18,L, Exp:DX-DB225-4_01
375.8364 S:5 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,1388.0,5.00%,F,T)
A3.89E3
303.9016 S:5 SMO(1,3) BSUB(256,15,-3.0)
A7.90E3
305.8987 S:5 SMO(1,3) BSUB(256,15,-3.0)
A5.69E3
330.9792 S:5 SMO(1,3)
18:45
18:56
19:33
19:44
20:03
20:24
20:50
21:18
21:42
Time

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S17, Date: 21-Jul-2018, Time: 06:53:48, ID: L29628-19,,, Description: 1,WG64578,1.0/20uL

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	1.063			NO			0.1415		8.39e2	8.19e2
2	1,2,3,7,8-PeCDF	1.063	4.44e2	0.83	YES	33.53	0.201	0.1098		5.43e2	3.58e2
3	2,3,4,7,8-PeCDF	1.063	1.01e2	0.43	YES	35.30	0.046	0.0971		5.43e2	3.58e2
4	1,2,3,4,7,8-HxCDF	1.063			NO			0.1477		7.73e2	7.48e2
5	1,2,3,6,7,8-HxCDF	1.063			NO			0.1419		7.73e2	7.48e2
6	2,3,4,6,7,8-HxCDF	1.063			NO			0.1370		7.73e2	7.48e2
7	1,2,3,7,8,9-HxCDF	1.063			NO			0.1914		7.73e2	7.48e2
8	1,2,3,4,6,7,8-HpCDF	1.063	4.71e2	0.87	YES	45.29	0.304	0.1363		4.30e2	7.95e2
9	1,2,3,4,7,8,9-HpCDF	1.063	2.43e2	2.01	YES	47.06	0.197	0.1771		4.30e2	7.95e2
10	OCDF	1.063	4.17e2	2.18	YES	50.31	0.433	0.3850		7.80e2	1.19e3
11	2,3,7,8-TCDD	1.063			NO			0.2003		9.34e2	9.10e2
12	1,2,3,7,8-PeCDD	1.063			NO			0.1498		6.50e2	3.25e2
13	1,2,3,4,7,8-HxCDD	1.063			NO			0.2530		9.40e2	9.66e2
14	1,2,3,6,7,8-HxCDD	1.063			NO			0.2462		9.40e2	9.66e2
15	1,2,3,7,8,9-HxCDD	1.063			NO			0.2483		9.40e2	9.66e2
16	1,2,3,4,6,7,8-HpCDD	1.063	6.43e2	0.65	YES	46.66	0.605	0.3101		8.90e2	9.84e2
17	OCDD	1.063	2.61e3	0.71	YES	50.22	3.269	0.4481		1.11e3	7.95e2
18	13C-2,3,7,8-TCDF	1.063	5.46e6	0.71	NO	25.22	1379.539	1.2297	73.3	1.40e4	7.82e3
19	13C-1,2,3,7,8-PeCDF	1.063	4.50e6	1.41	NO	33.53	1578.322	1.7807	83.9	9.24e3	1.35e4
20	13C-2,3,4,7,8-PeCDF	1.063	4.42e6	1.40	NO	35.29	1606.558	1.8461	85.4	9.24e3	1.35e4
21	13C-1,2,3,4,7,8-HxCDF	1.063	3.14e6	0.52	NO	40.67	1499.158	1.8722	79.7	1.15e4	9.19e3
22	13C-1,2,3,6,7,8-HxCDF	1.063	3.67e6	0.52	NO	40.84	1642.392	1.7528	87.3	1.15e4	9.19e3
23	13C-2,3,4,6,7,8-HxCDF	1.063	3.15e6	0.52	NO	41.79	1574.828	1.9616	83.7	1.15e4	9.19e3
24	13C-1,2,3,7,8,9-HxCDF	1.063	2.82e6	0.52	NO	42.82	1429.861	1.9888	76.0	1.15e4	9.19e3
25	13C-1,2,3,4,6,7,8-HpCDF	1.063	2.38e6	0.43	NO	45.27	1426.407	2.2741	75.8	1.19e4	8.17e3
26	13C-1,2,3,4,7,8,9-HpCDF	1.063	1.85e6	0.45	NO	47.04	1420.314	2.9156	75.5	1.19e4	8.17e3
27	13C-2,3,7,8-TCDD	1.063	3.72e6	0.77	NO	26.44	1511.516	1.3372	80.3	8.18e3	6.55e3
28	13C-1,2,3,7,8-PeCDD	1.063	2.75e6	0.69	NO	36.11	1703.180	1.4580	90.5	5.03e3	5.50e3
29	13C-1,2,3,4,7,8-HxCDD	1.063	2.48e6	1.25	NO	42.06	1538.286	2.3027	81.8	6.84e3	1.28e4
30	13C-1,2,3,6,7,8-HxCDD	1.063	2.84e6	1.21	NO	42.21	1660.941	2.1775	88.3	6.84e3	1.28e4
31	13C-1,2,3,4,6,7,8-HpCDD	1.063	2.01e6	0.99	NO	46.64	1504.998	1.7465	80.0	4.83e3	7.47e3
32	13C-OCDD	1.063	2.95e6	0.84	NO	50.20	2514.149	3.9284	66.8	2.43e4	0.00e0
33	13C-1,2,3,4-TCDD	1.063	4.61e6	0.77	NO	26.11	191.810	0.1369	10.2	8.18e3	6.55e3
34	13C-1,2,3,7,8,9-HxCDD	1.063	3.09e6	1.22	NO	42.64	203.348	0.2449	10.8	6.84e3	1.28e4
35	37Cl-2,3,7,8-TCDD	1.063	3.66e5			26.47	134.088	0.2480	71.3		3.03e3
36	Total Tetra-Furans	1.063					0.451	0.1415			8.19e2
37	Total Tetra-Dioxins	1.063					0.714	0.2003			9.10e2
38	Total Penta-Furans	1.063					0.869	0.1043			3.58e2
39	Total Penta-Dioxins	1.063					0.376	0.1498			3.25e2
40	Total Hexa-Furans	1.063					0.120	0.1474			7.48e2
41	Total Hexa-Dioxins	1.063					0.664	0.2403			9.66e2
42	Total Hepta-Furans	1.063					0.501	0.1559			7.95e2
43	Total Hepta-Dioxins	1.063					0.979	0.3101			9.84e2
44	Hexa DPE	1.000	3.48e2			23.49					2.80e2
45	Hepta DPE	1.000	2.49e2			35.10					0.00e0
46	Octa DPE	1.000	2.32e2			39.54					5.58e-2
47	Nona DPE	1.000	1.19e2			46.24					1.47e-2
48	Deca DPE	1.000	1.35e2			49.72					2.66e3
49	Tetra Lock	1.000	8.20e3			23.86					1.26e5
50	Penta Lock	1.000	1.95e4			29.00					1.75e5
51	Hexa Lock	1.000	5.67e5			39.03					3.11e5
52	Hepta Lock	1.000	1.62e4			47.50					2.04e5
53	Octa Lock	1.000	4.93e3			48.69					2.21e5
54	13C-Tetra-Furans	1.063					1379.539	1.2297			7.82e3
55	13C-Tetra-Dioxins	1.063					1703.326	1.4741			6.55e3

pv'd by LHE 24-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

SWayk3 26 Jul 2018

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S17, Date: 21-Jul-2018, Time: 06:53:48, ID: L29628-19,,, Description: 1,WG64578,1.0/20uL

Tetrafurans

	RT	1° Ratio (A...	Fails?	pg
1	26.44	0.659	NO	0.080
2	26.11	1.010	YES	0.371

Tetradioxins

	RT	1° Ratio (A...	Fails?	pg
1	25.20	4.804	YES	0.590
2	23.09	0.819	NO	0.124

Pentafurans

	RT	1° Ratio (A...	Fails?	pg
1	31.44	0.972	YES	0.090
2	31.11	0.269	YES	0.070
3	28.91	2.174	YES	0.063
4	34.35	0.367	YES	0.049
5	33.65	0.841	YES	0.134
6	33.53	0.830	YES	0.201
7	37.06	1.100	YES	0.075
8	36.06	0.390	YES	0.090
9	35.67	0.866	YES	0.052
10	35.30	0.431	YES	0.046

Pentadioxins

	RT	1° Ratio (A...	Fails?	pg
1	31.86	0.802	YES	0.068
2	33.82	0.325	YES	0.057
3	37.12	1.058	YES	0.063
4	36.66	1.093	YES	0.059
5	35.74	0.335	YES	0.130

Hexafurans

	RT	1° Ratio (A...	Fails?	pg
1	39.25	0.951	YES	0.120

Hexadioxins

	RT	1° Ratio (A...	Fails?	pg
1	40.86	2.171	YES	0.664

Heptafurans

	RT	1° Ratio (A...	Fails?	pg
1	47.06	2.014	YES	0.197
2	45.29	0.866	YES	0.304

Heptadioxins

	RT	1° Ratio (A...	Fails?	pg
1	46.66	0.649	YES	0.605
2	45.75	2.077	YES	0.374

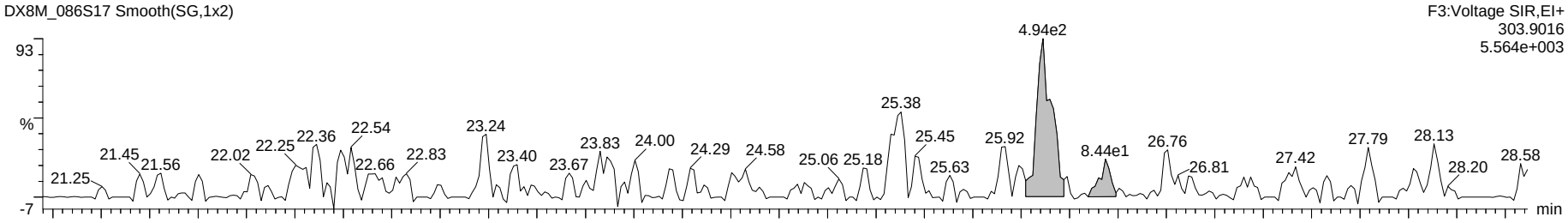
pv'd by LHE 24-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

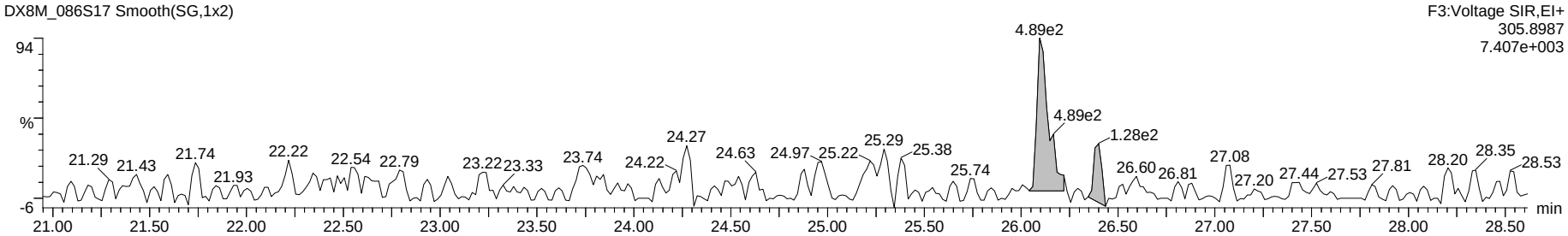
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Method: G:\Masslynx\Inst_M\Projects\180604DX.pro\MethDB\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

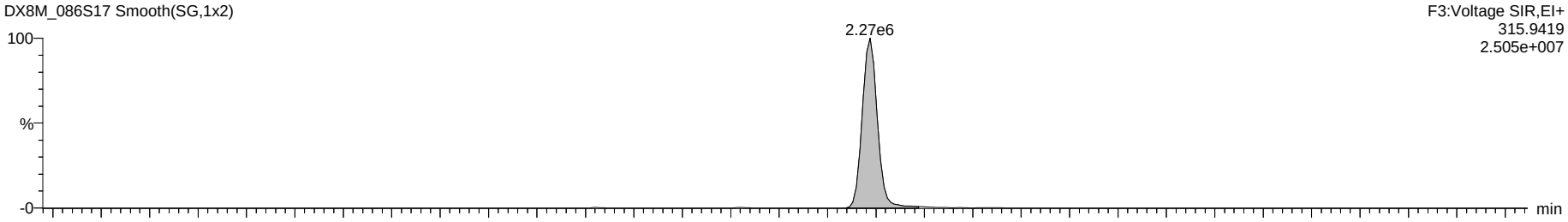
Name: DX8M_086S17, Date: 21-Jul-2018, Time: 06:53:48, ID: L29628-19,,, Description: 1,WG64578,1.0/20uL

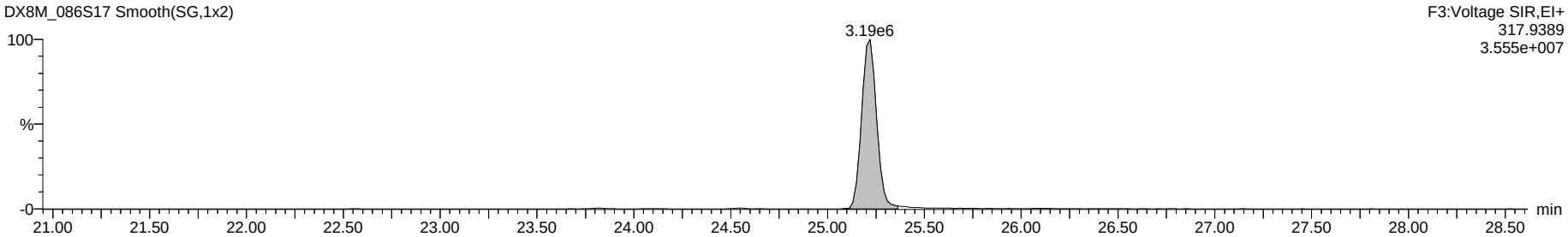
Total Tetra-Furans





13C-Tetra-Furans

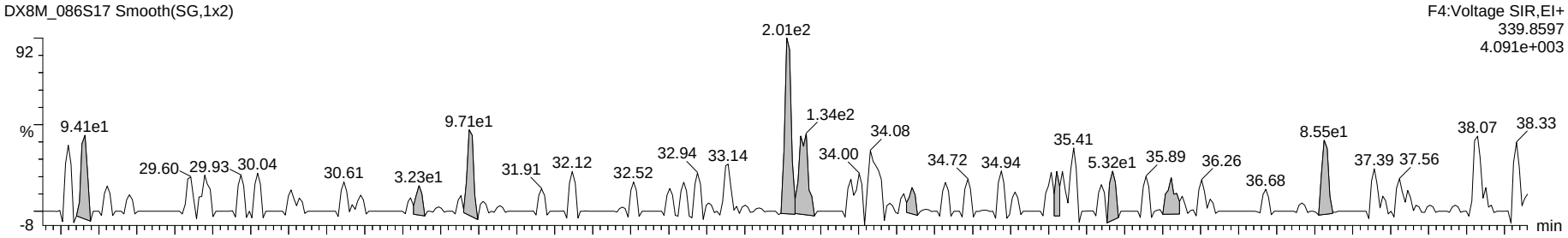


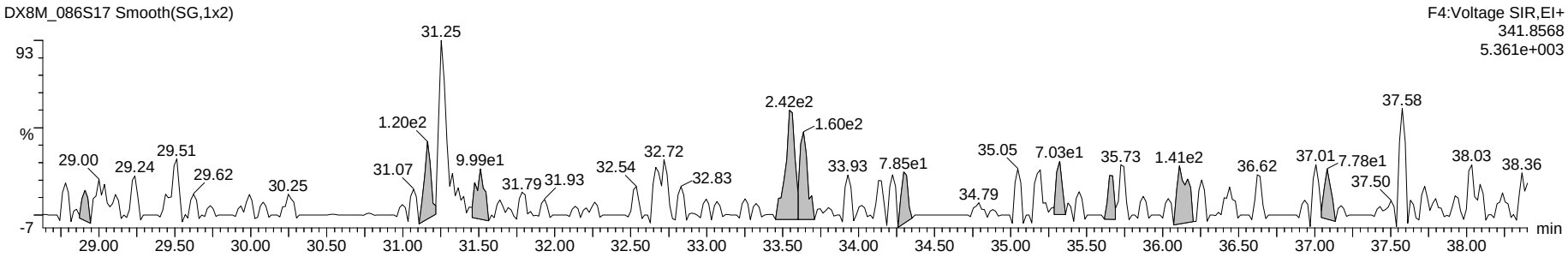


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

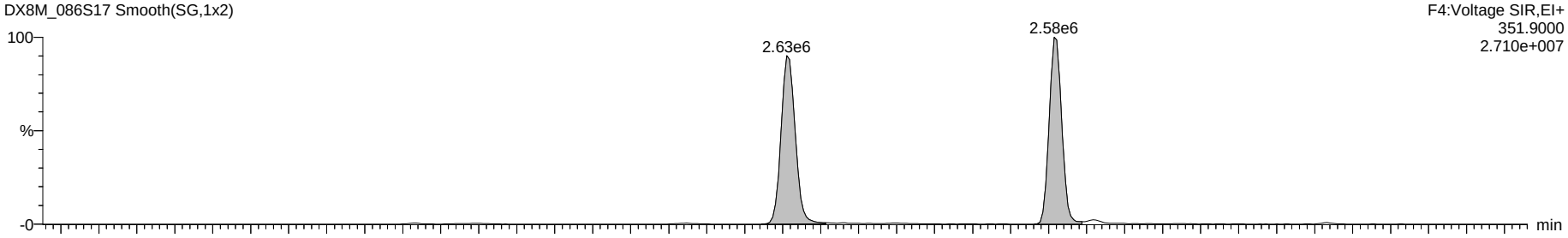
Name: DX8M_086S17, Date: 21-Jul-2018, Time: 06:53:48, ID: L29628-19,,, Description: 1,WG64578,1.0/20uL

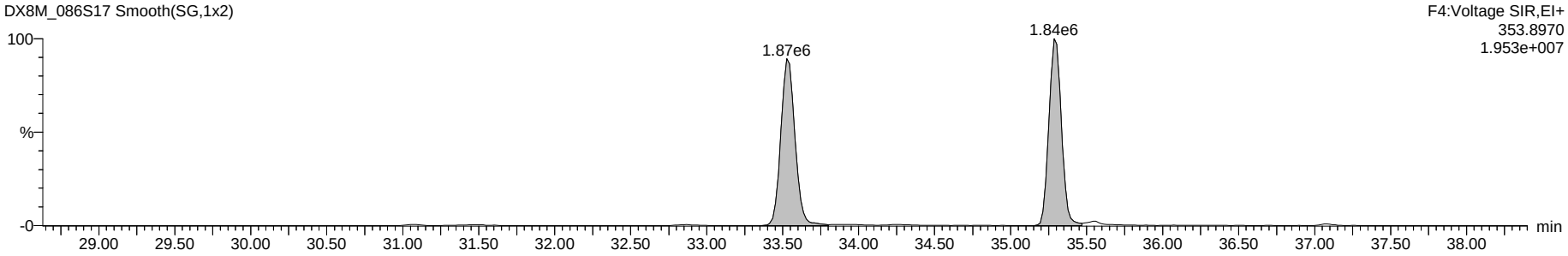
Total Penta-Furans





13C-Penta-Furans





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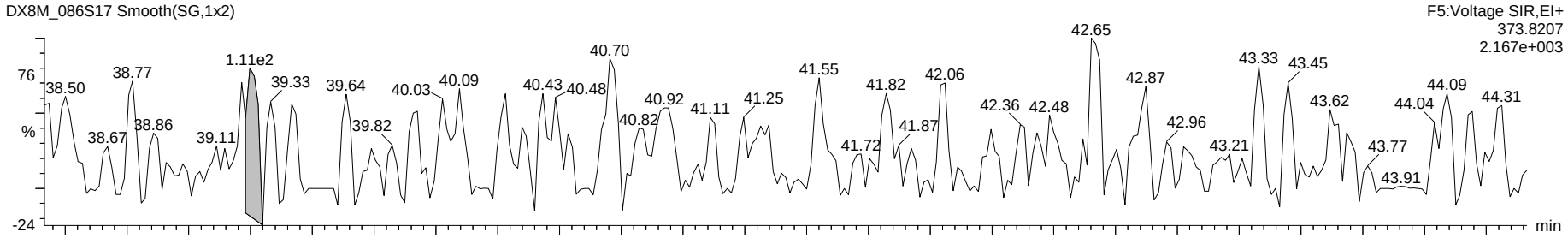
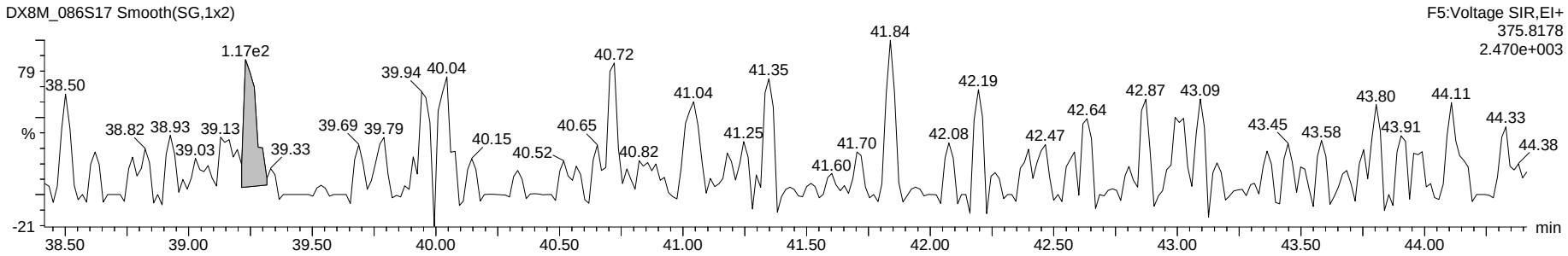
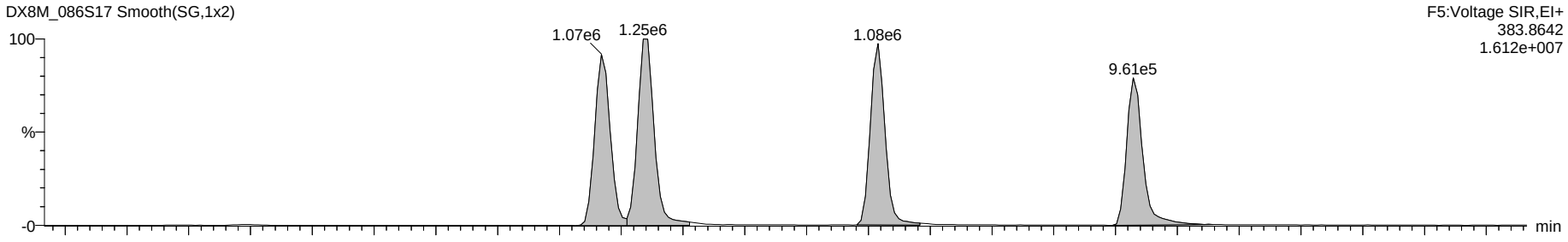
Name: DX8M_086S17, Date: 21-Jul-2018, Time: 06:53:48, ID: L29628-19,,, Description: 1,WG64578,1.0/20uL

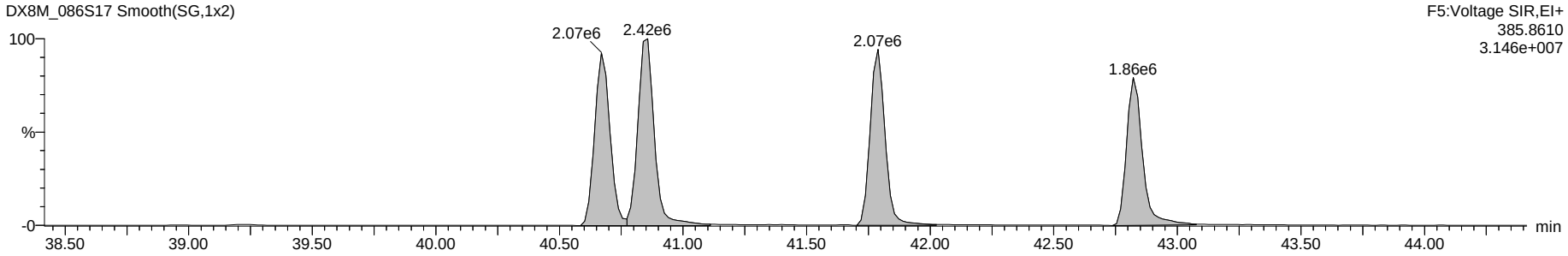
Total Hexa-Furans





13C-Hexa-Furans





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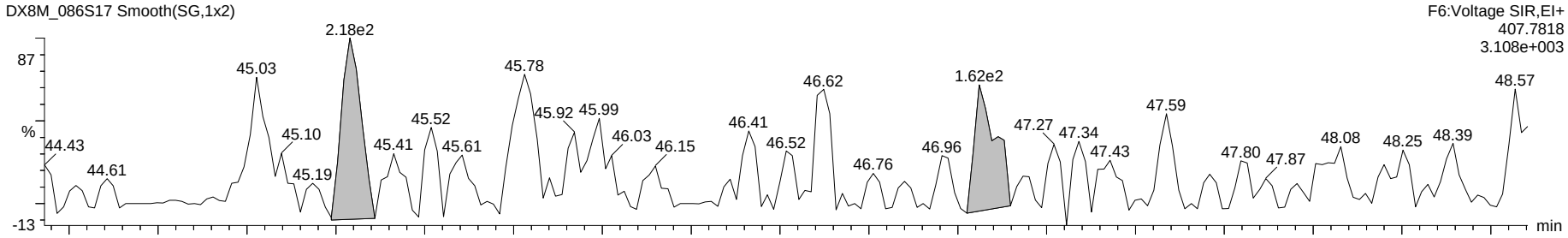
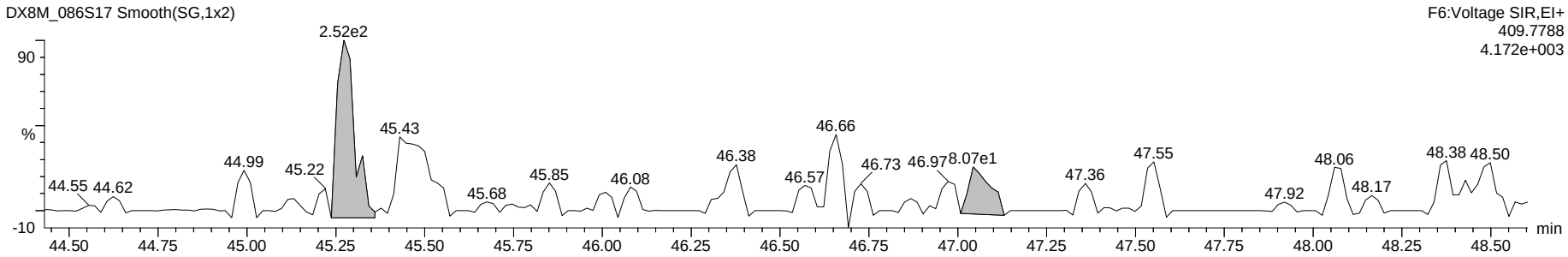
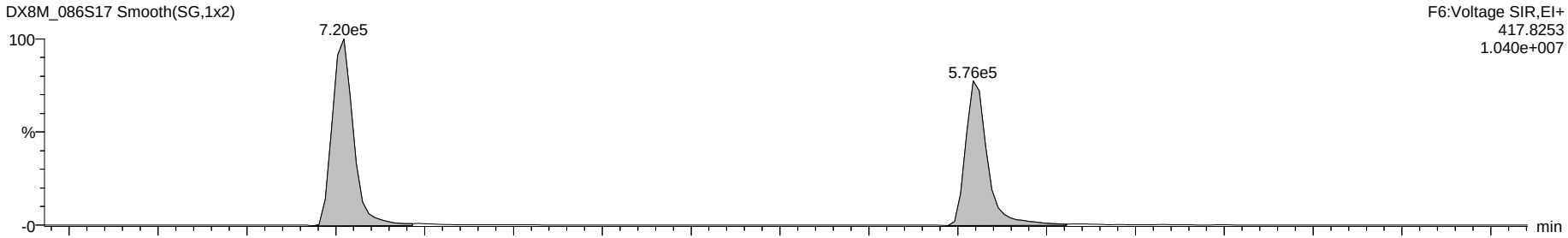
Name: DX8M_086S17, Date: 21-Jul-2018, Time: 06:53:48, ID: L29628-19,,, Description: 1,WG64578,1.0/20uL

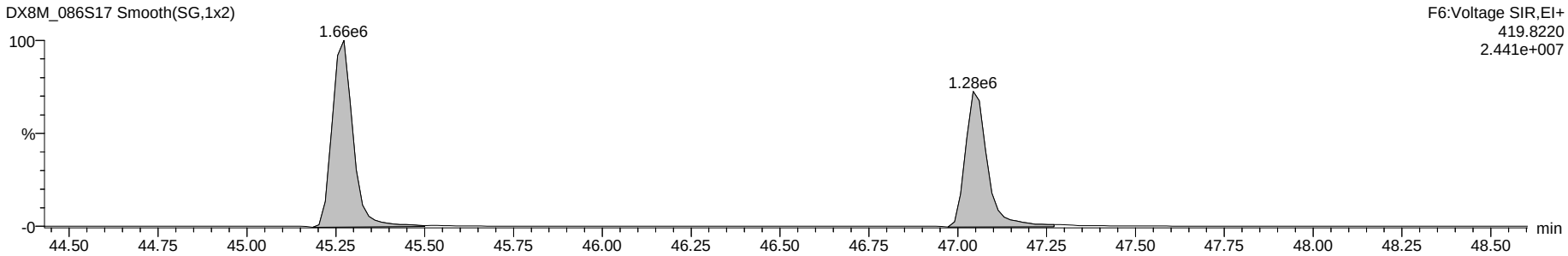
Total Hepta-Furans





13C-Hepta-Furans

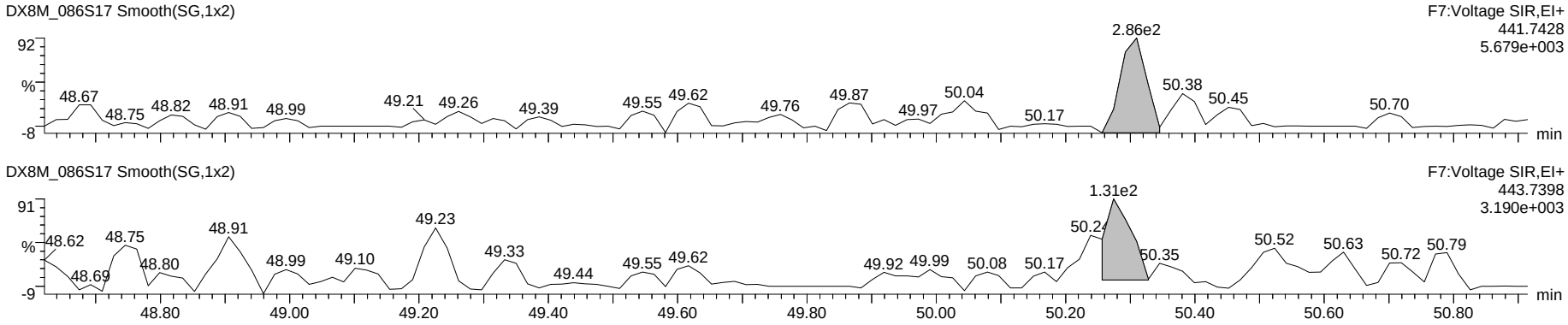




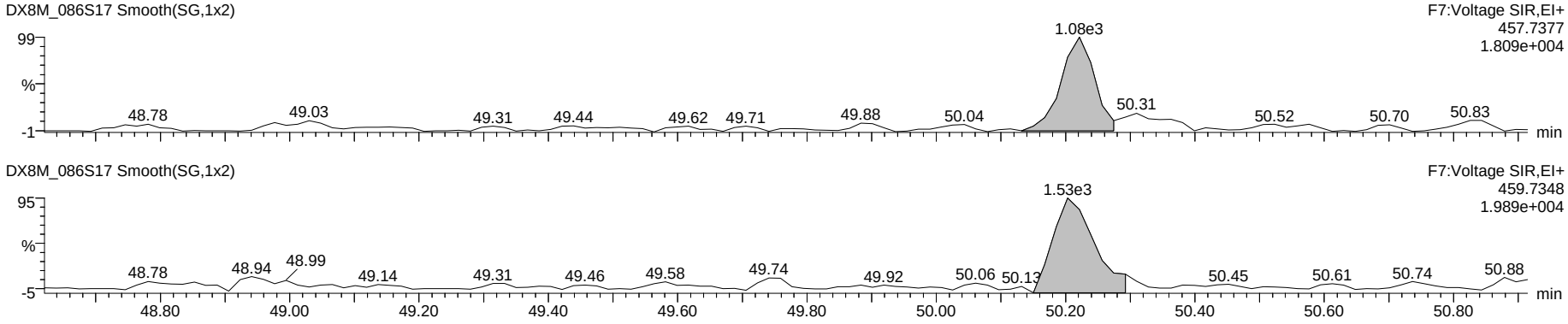
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S17, Date: 21-Jul-2018, Time: 06:53:48, ID: L29628-19,,, Description: 1,WG64578,1.0/20uL

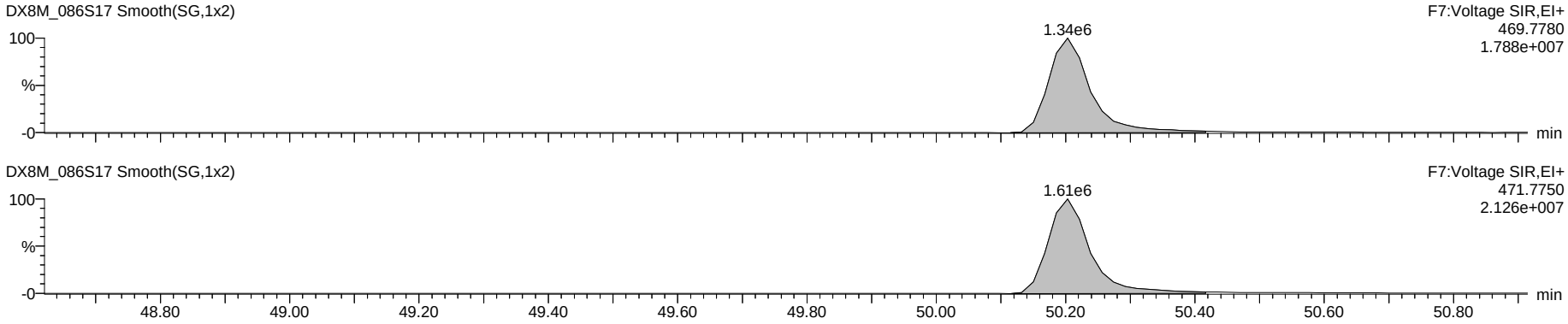
OCDF



OCDD



13C-OCDD



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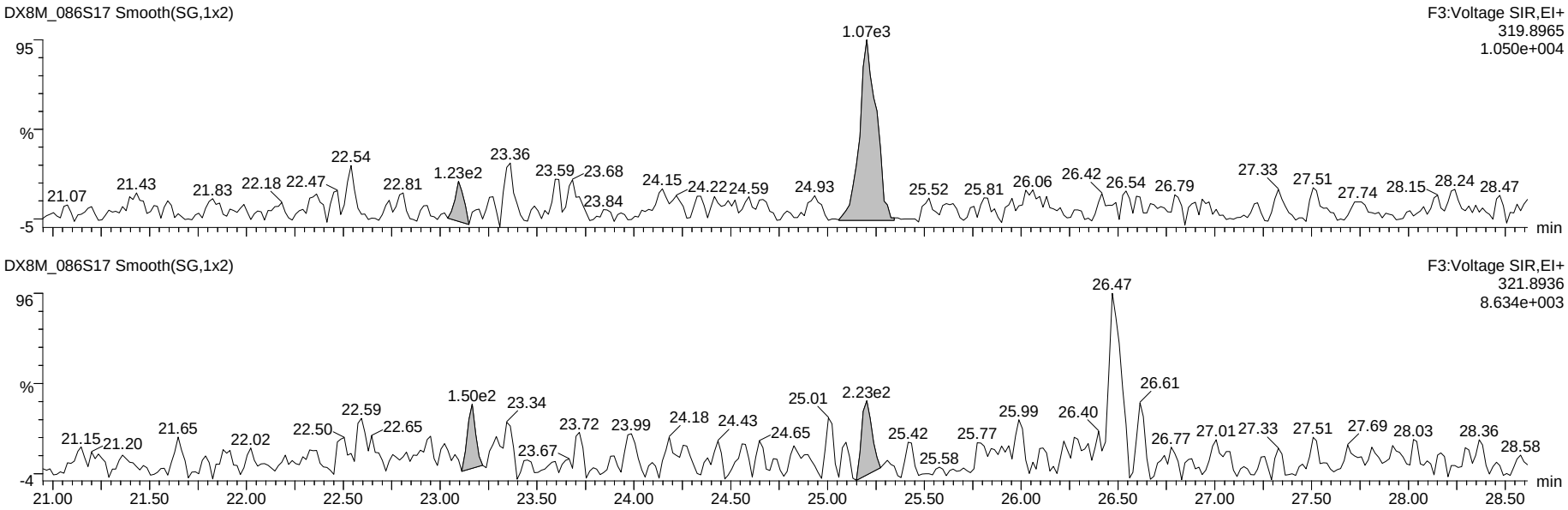
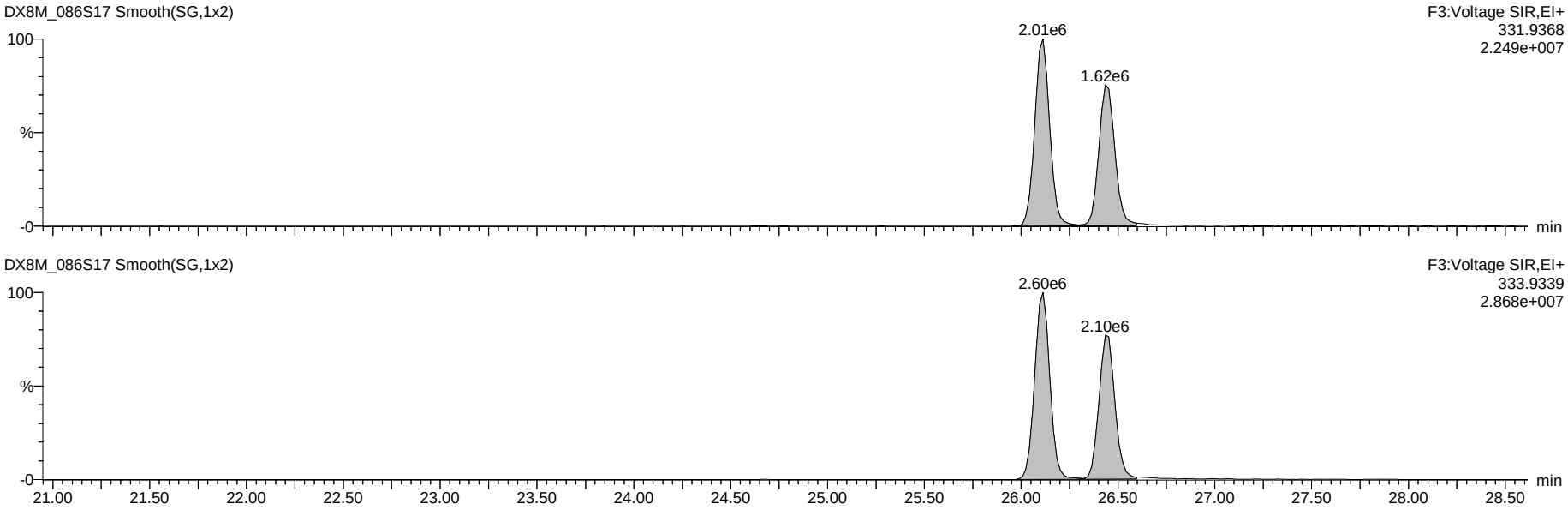
Name: DX8M_086S17, Date: 21-Jul-2018, Time: 06:53:48, ID: L29628-19,,, Description: 1,WG64578,1.0/20uL

Total Tetra-Dioxins



13C-Tetra-Dioxins



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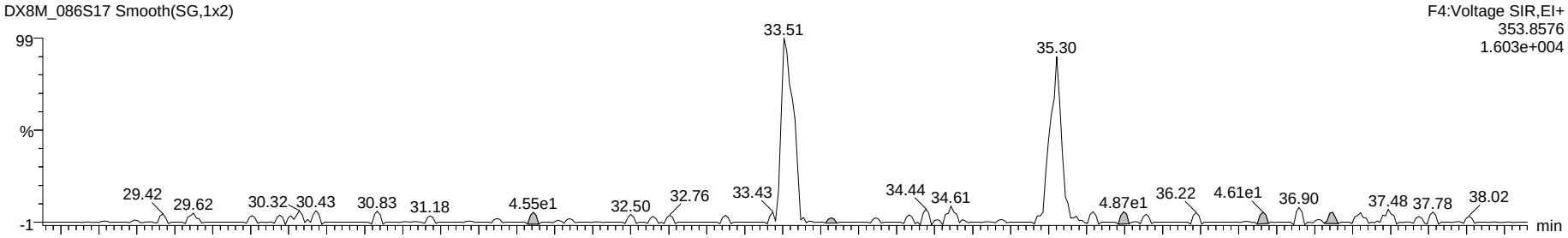
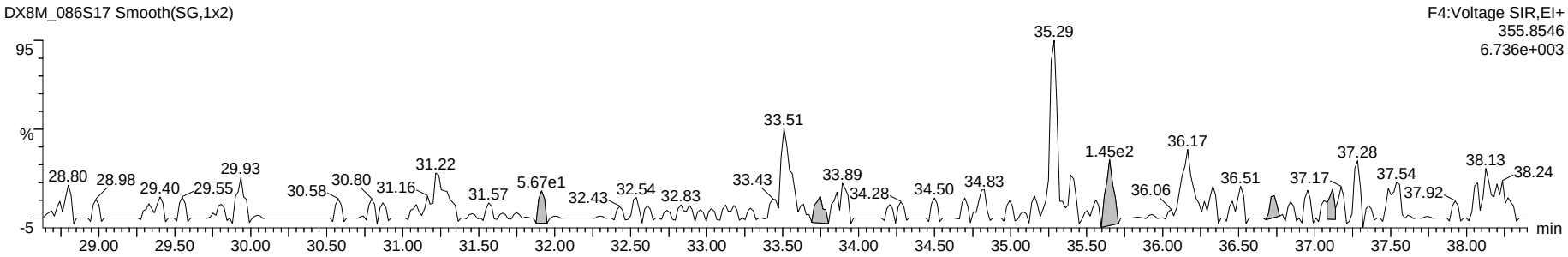
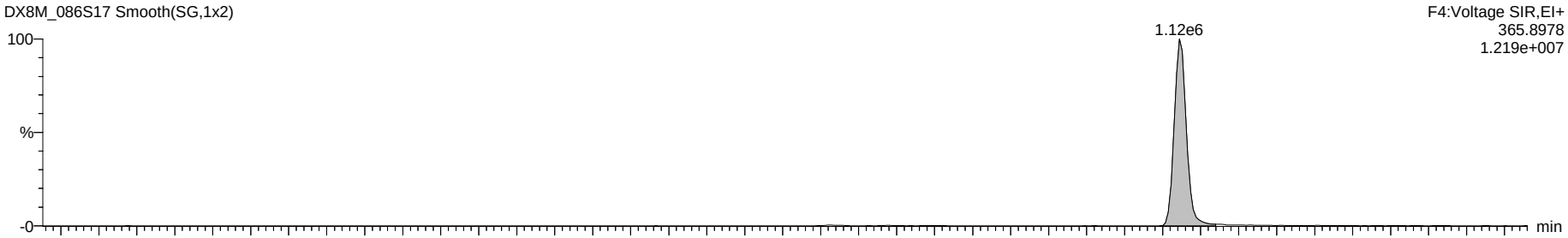
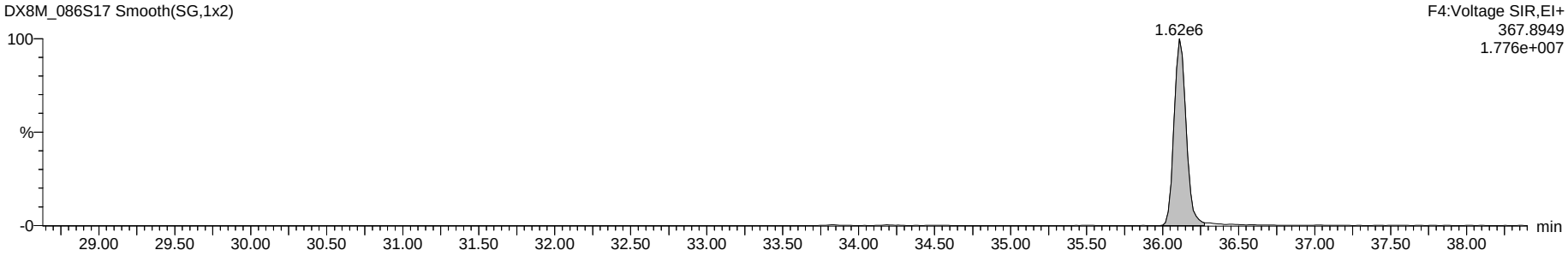
Total Penta-Dioxins





13C-Penta-Dioxins





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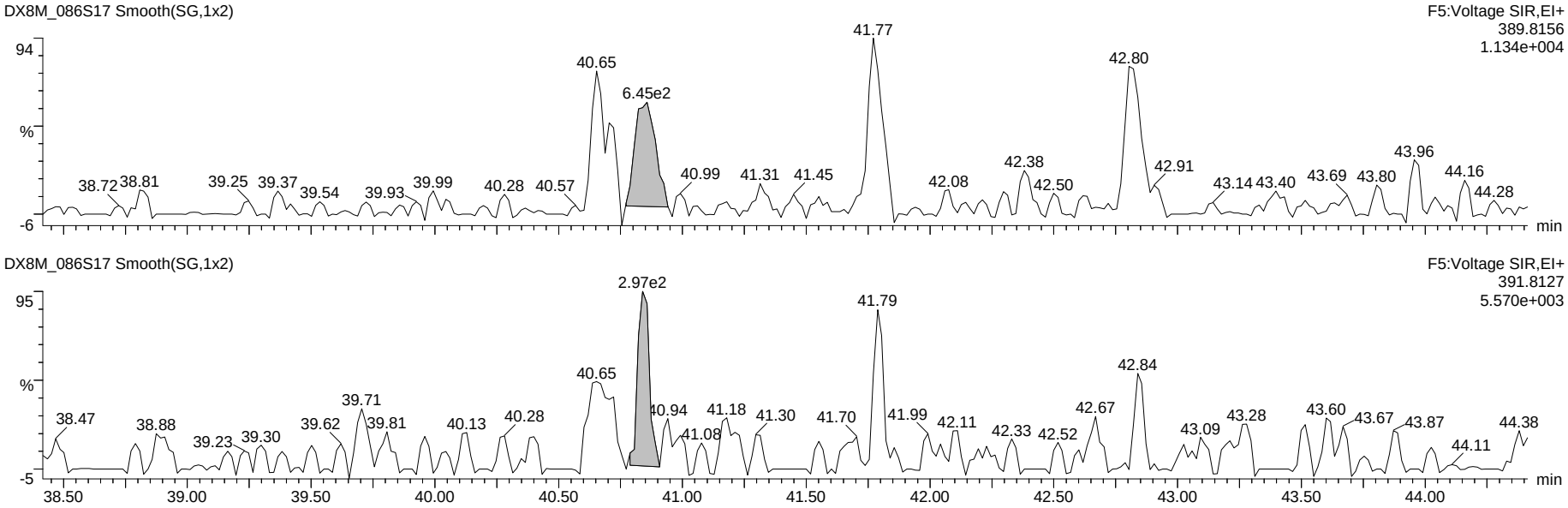
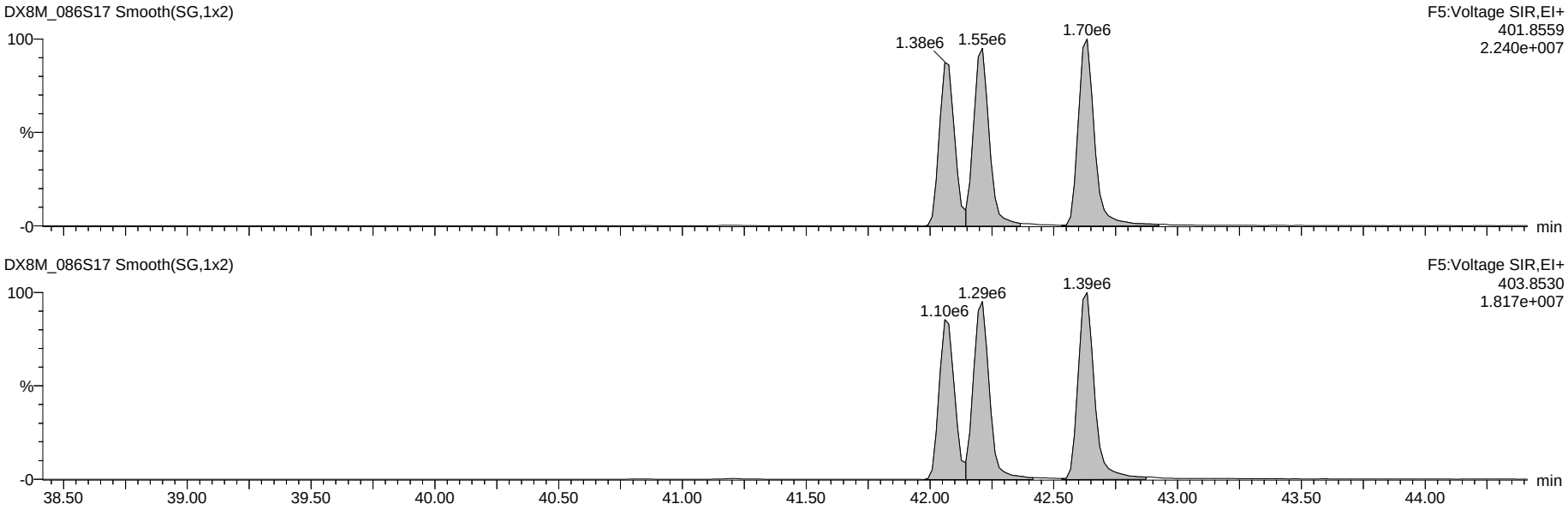
Name: DX8M_086S17, Date: 21-Jul-2018, Time: 06:53:48, ID: L29628-19,,, Description: 1,WG64578,1.0/20uL

Total Hexa-Dioxins



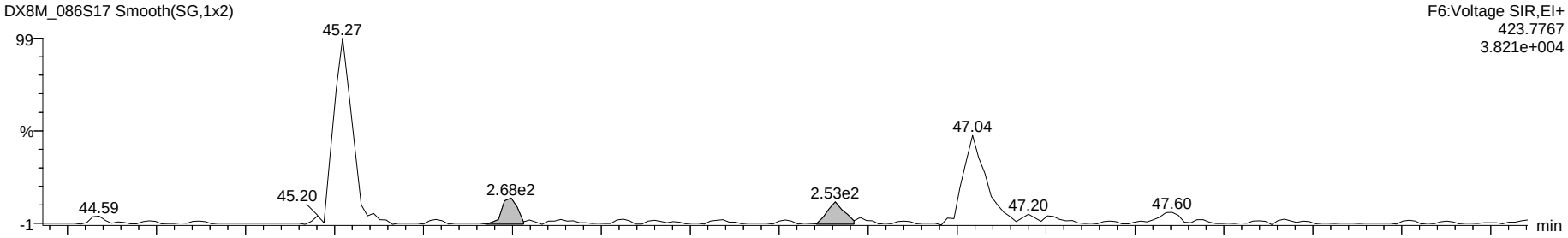
13C-Hexa-Dioxins

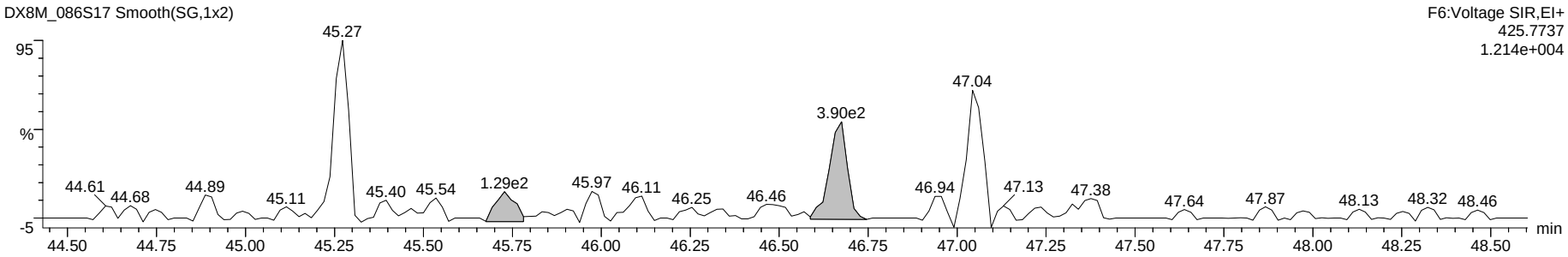


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

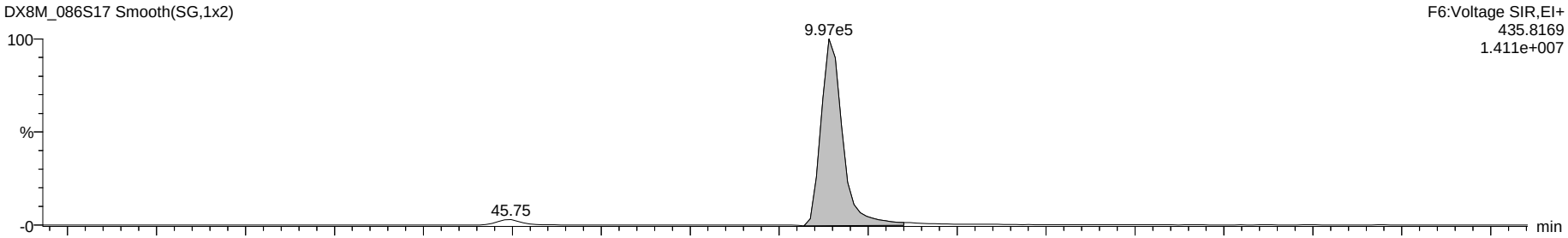
Name: DX8M_086S17, Date: 21-Jul-2018, Time: 06:53:48, ID: L29628-19,,, Description: 1,WG64578,1.0/20uL

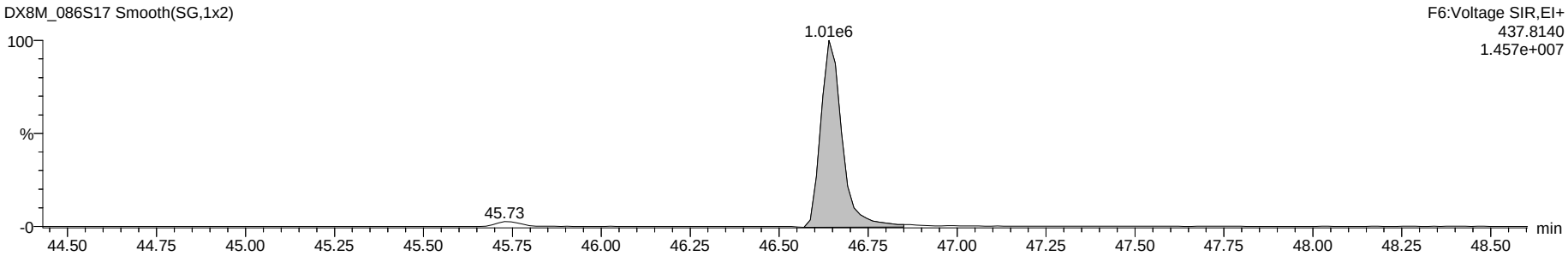
Total Hepta-Dioxins





13C-Hepta-Dioxins

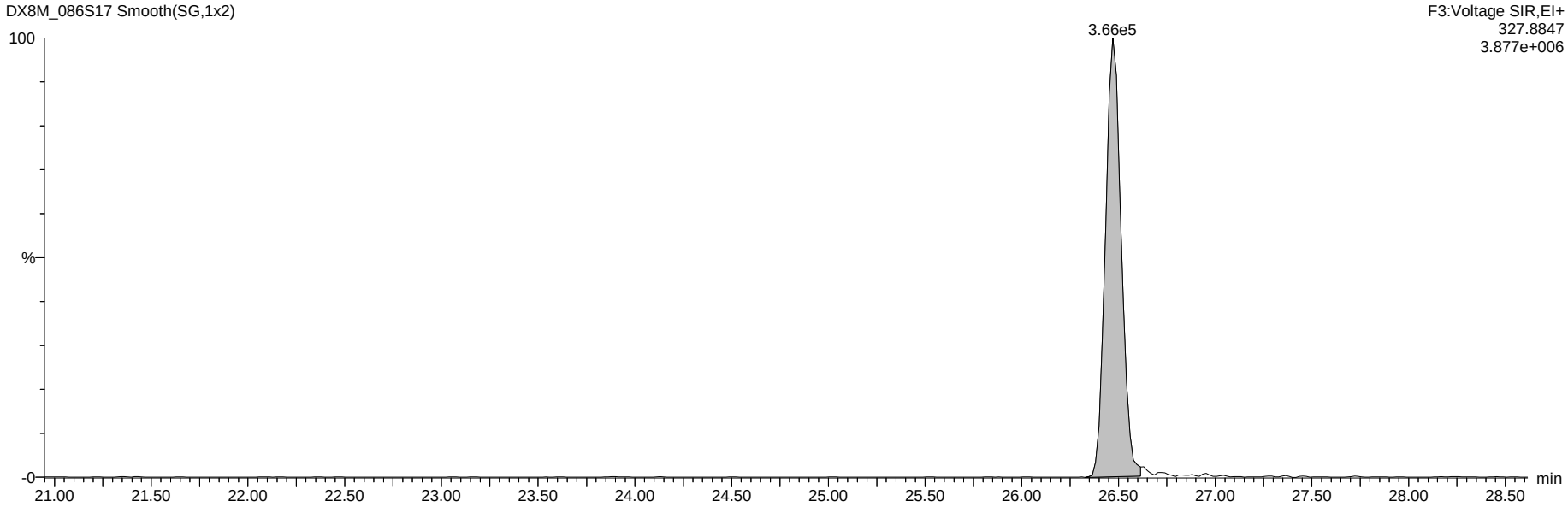




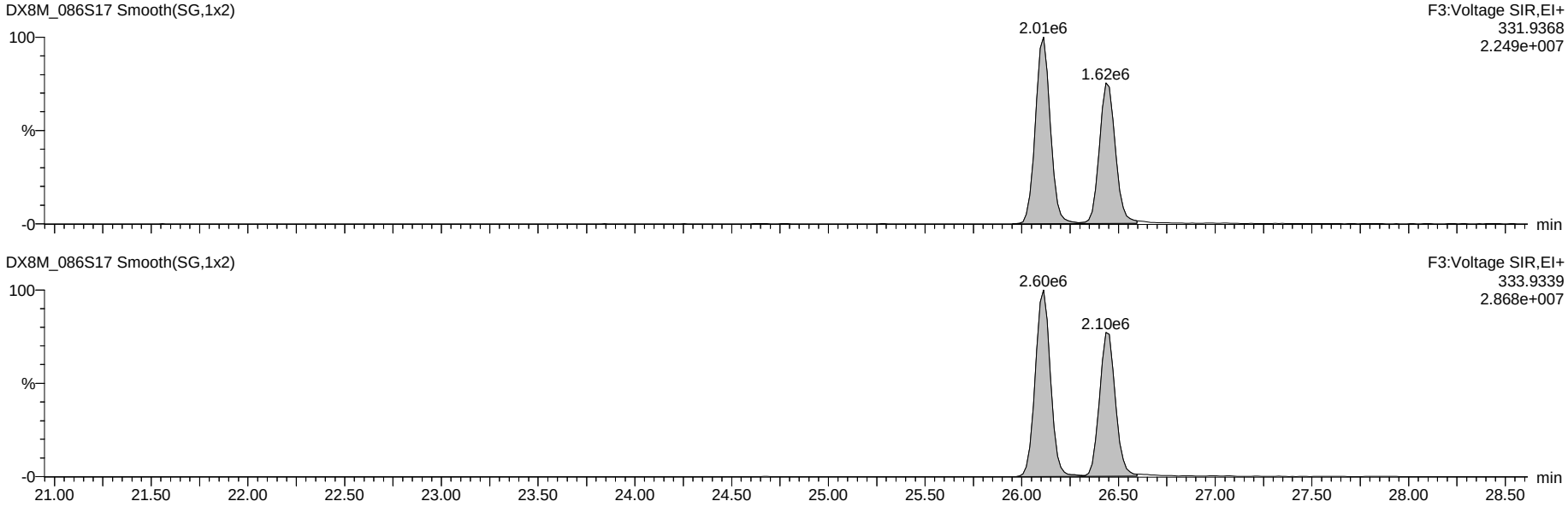
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S17, Date: 21-Jul-2018, Time: 06:53:48, ID: L29628-19,,, Description: 1,WG64578,1.0/20uL

37Cl-2,3,7,8-TCDD



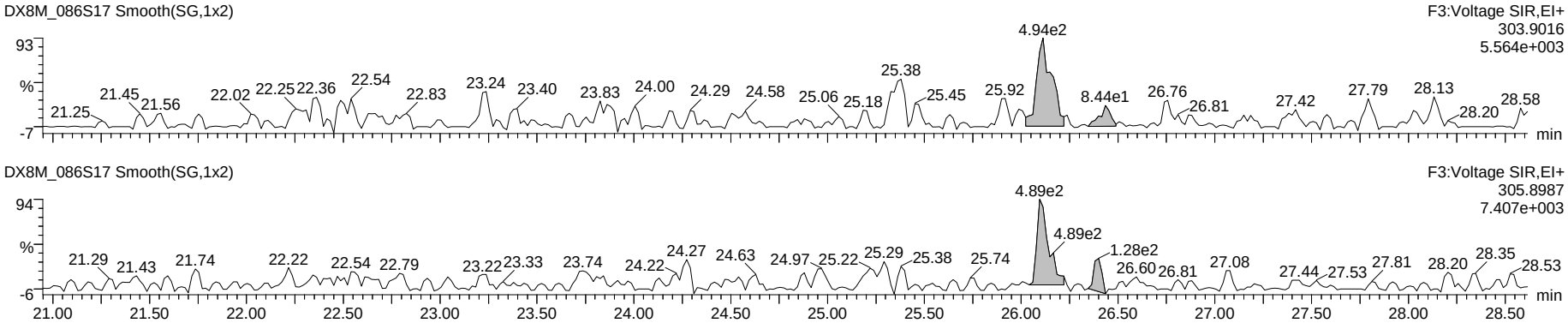
13C-Tetra-Dioxins



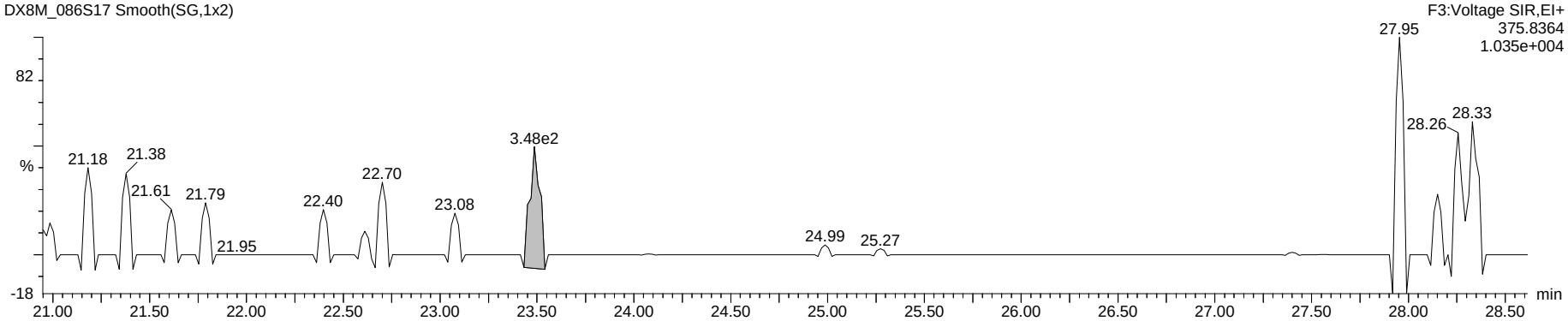
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S17, Date: 21-Jul-2018, Time: 06:53:48, ID: L29628-19,,, Description: 1,WG64578,1.0/20uL

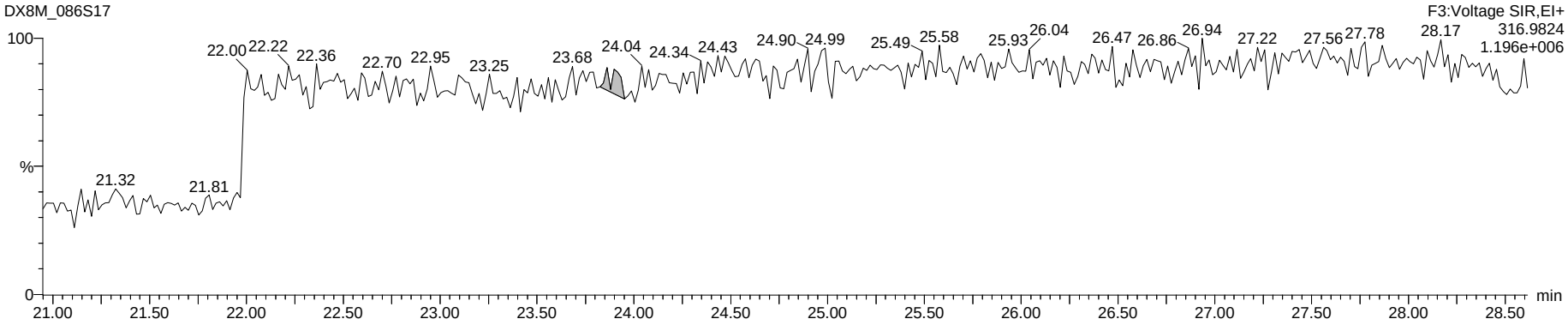
Total Tetra-Furans



Hexa DPE



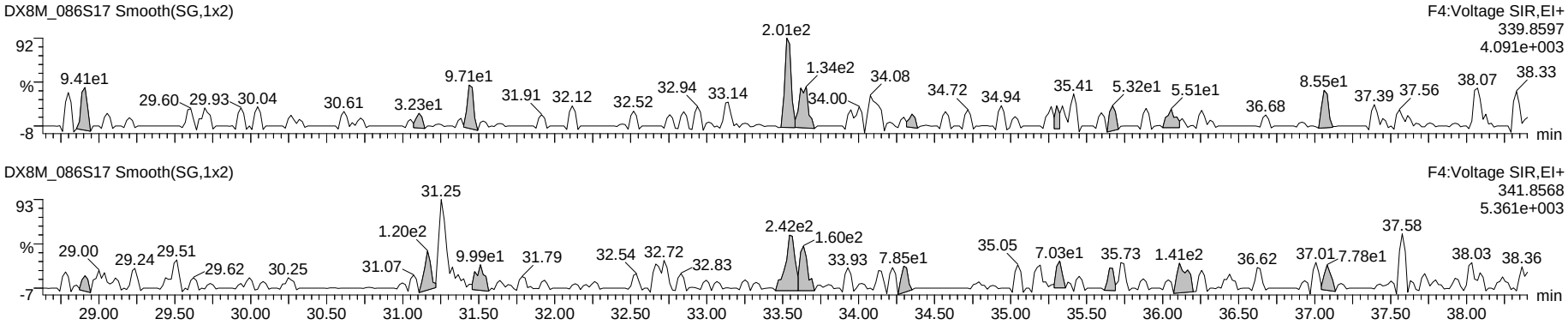
Tetra Lock



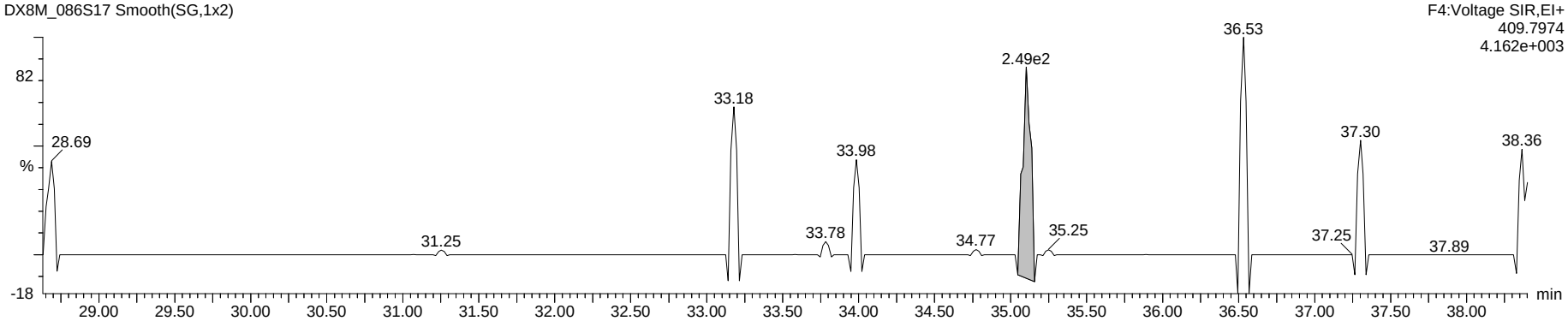
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S17, Date: 21-Jul-2018, Time: 06:53:48, ID: L29628-19,,, Description: 1,WG64578,1.0/20uL

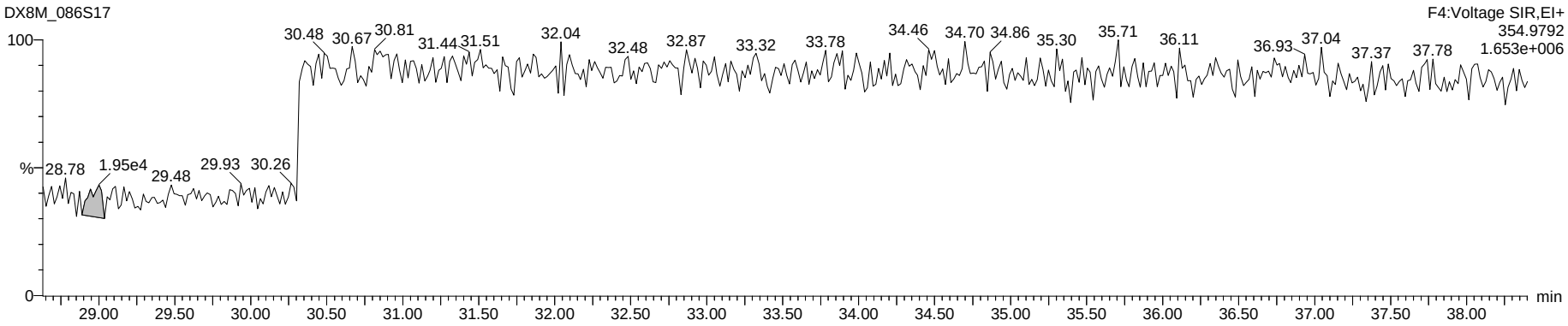
Total Penta-Furans



Hepta DPE



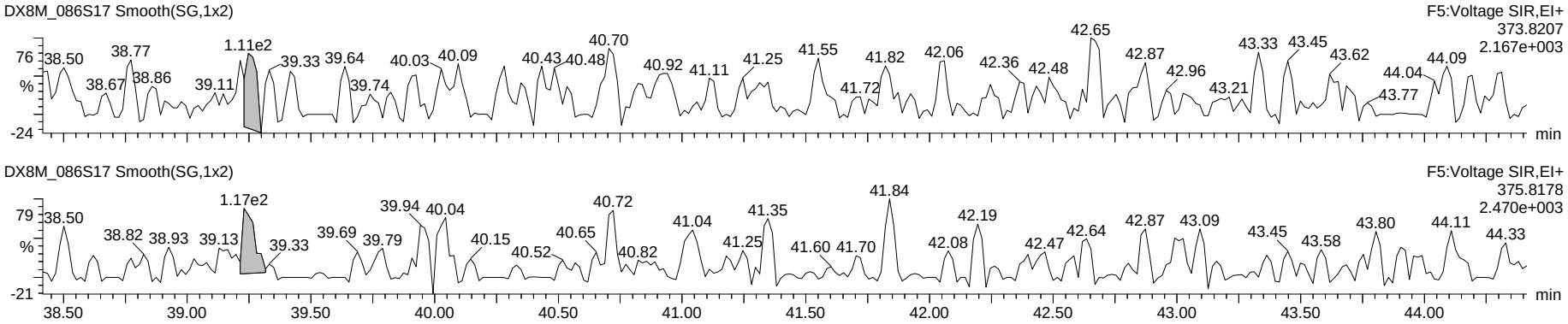
Penta Lock



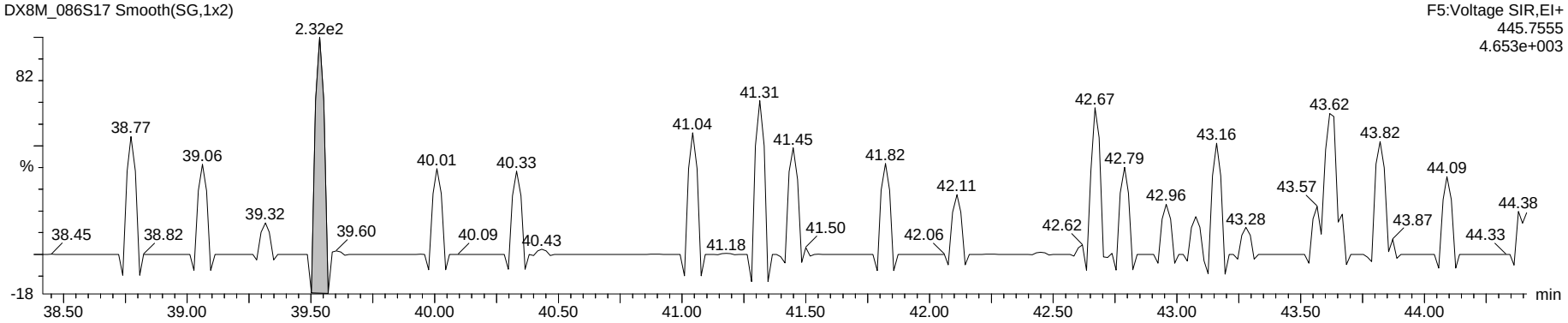
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S17, Date: 21-Jul-2018, Time: 06:53:48, ID: L29628-19,,, Description: 1,WG64578,1.0/20uL

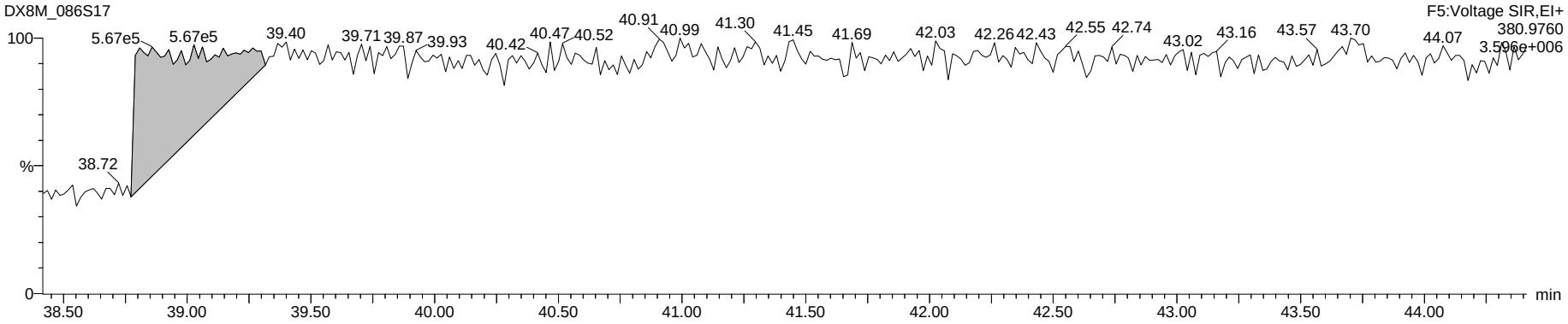
Total Hexa-Furans



Octa DPE



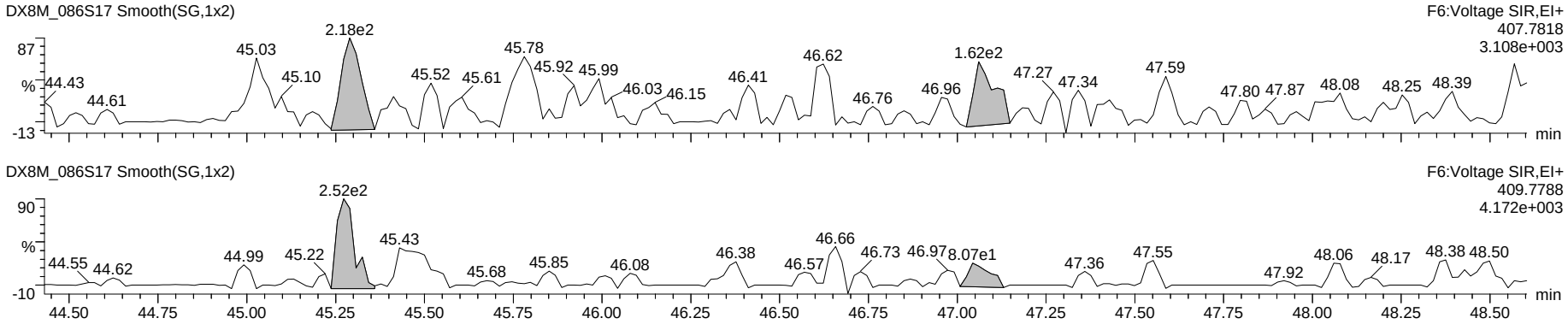
Hexa Lock



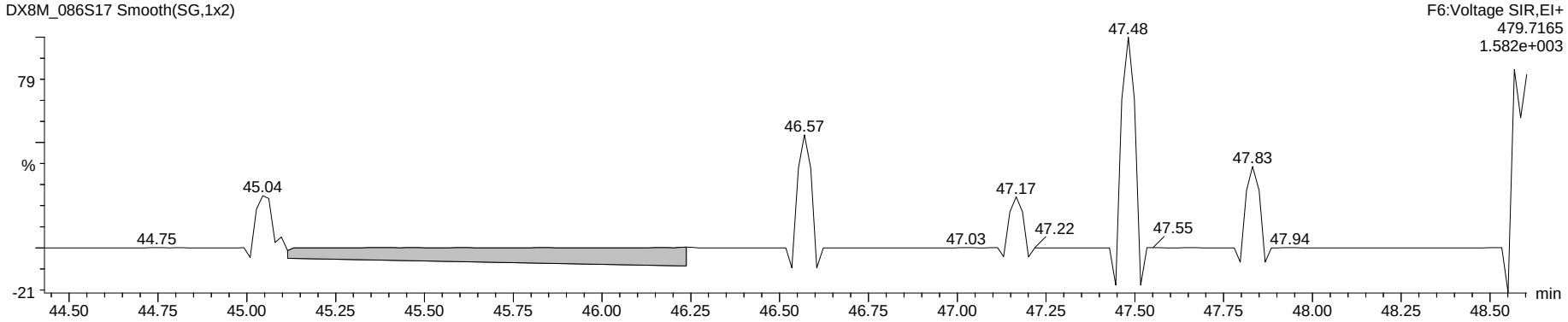
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S17, Date: 21-Jul-2018, Time: 06:53:48, ID: L29628-19,,, Description: 1,WG64578,1.0/20uL

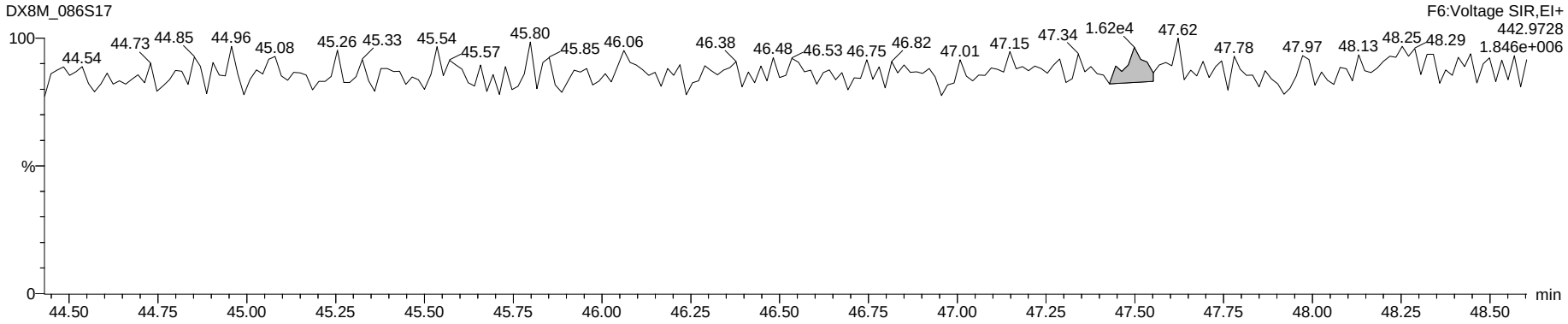
Total Hepta-Furans



Nona DPE



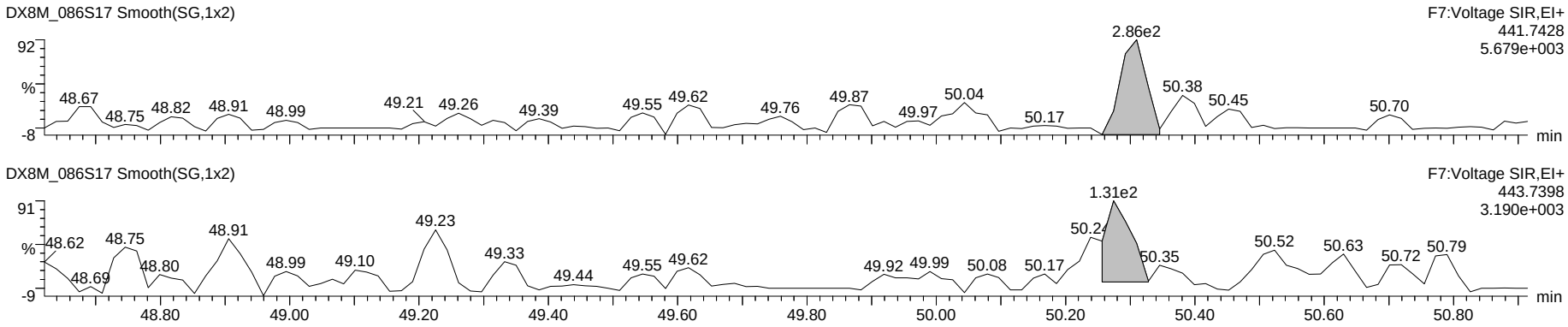
Hepta Lock



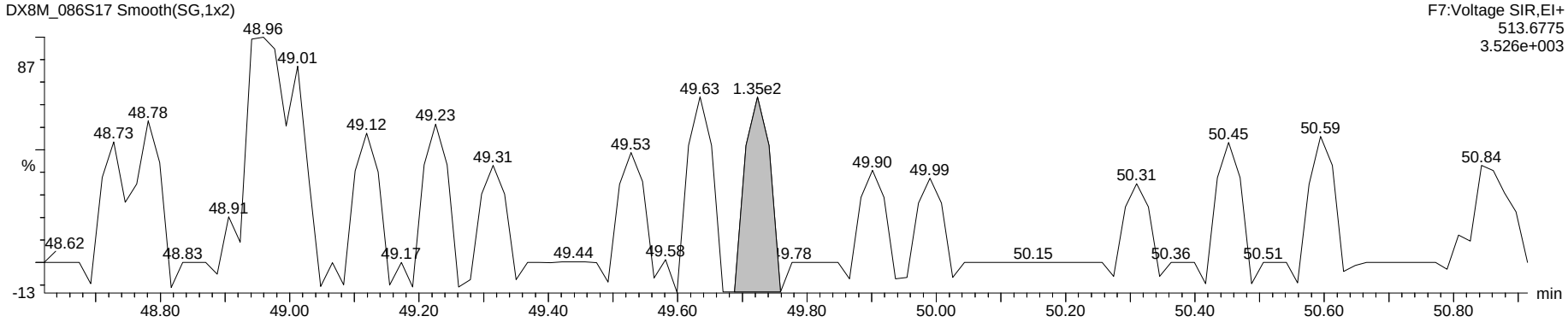
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S17, Date: 21-Jul-2018, Time: 06:53:48, ID: L29628-19,,, Description: 1,WG64578,1.0/20uL

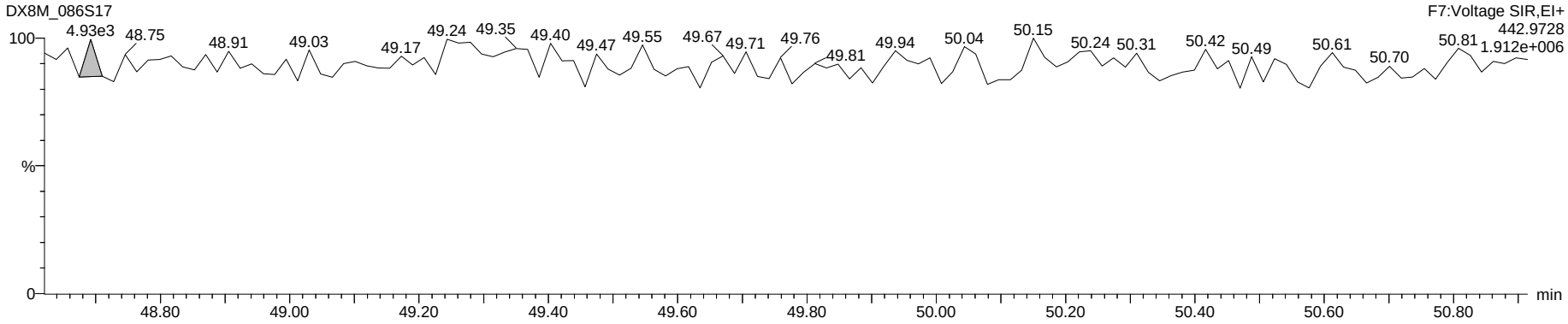
OCDF



Deca DPE



Octa Lock



Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S18, Date: 21-Jul-2018, Time: 07:49:02, ID: L29628-21,,, Description: 1,WG64578,1.0/20uL

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	1.065	2.67e2	0.49	YES	25.22	0.106	0.1313		5.56e2	9.00e2
2	1,2,3,7,8-PeCDF	1.065	6.52e2	0.68	YES	33.53	0.302	0.1220		6.73e2	2.91e2
3	2,3,4,7,8-PeCDF	1.065	1.25e2	3.29	YES	35.32	0.064	0.1168		6.73e2	2.91e2
4	1,2,3,4,7,8-HxCDF	1.065	6.26e1	0.70	YES	40.72	0.042	0.1099		3.12e2	5.96e2
5	1,2,3,6,7,8-HxCDF	1.065	7.66e1	0.19	YES	40.87	0.047	0.1078		3.12e2	5.96e2
6	2,3,4,6,7,8-HxCDF	1.065	2.39e2	0.39	YES	41.81	0.172	0.1190		3.12e2	5.96e2
7	1,2,3,7,8,9-HxCDF	1.065	9.77e1	3.22	YES	42.86	0.094	0.1685		3.12e2	5.96e2
8	1,2,3,4,6,7,8-HpCDF	1.065	2.75e2	1.02	NO	45.27	0.256	0.1359		2.13e2	5.81e2
9	1,2,3,4,7,8,9-HpCDF	1.065			NO			0.1957		2.13e2	5.81e2
10	OCDF	1.065	4.06e2	0.95	NO	50.29	0.974	0.5224		5.55e2	5.29e2
11	2,3,7,8-TCDD	1.065			NO			0.1456		5.84e2	6.56e2
12	1,2,3,7,8-PeCDD	1.065			NO			0.1567		2.58e2	6.30e2
13	1,2,3,4,7,8-HxCDD	1.065	7.85e1	1.01	YES	42.11	0.077	0.1981		6.64e2	4.87e2
14	1,2,3,6,7,8-HxCDD	1.065	1.53e2	1.24	NO	42.21	0.145	0.2025		6.64e2	4.87e2
15	1,2,3,7,8,9-HxCDD	1.065	2.35e2	1.82	YES	42.62	0.226	0.1995		6.64e2	4.87e2
16	1,2,3,4,6,7,8-HpCDD	1.065	8.05e2	1.25	YES	46.67	1.174	0.3887		1.12e3	3.81e2
17	OCDD	1.065	3.03e3	0.82	NO	50.22	8.768	0.8558		8.51e2	6.23e2
18	13C-2,3,7,8-TCDF	1.065	5.19e6	0.71	NO	25.22	1522.632	0.8003	81.1	7.05e3	4.68e3
19	13C-1,2,3,7,8-PeCDF	1.065	4.39e6	1.42	NO	33.53	1787.030	1.7696	95.2	9.29e3	9.40e3
20	13C-2,3,4,7,8-PeCDF	1.065	3.86e6	1.40	NO	35.29	1629.238	1.8346	86.8	9.29e3	9.40e3
21	13C-1,2,3,4,7,8-HxCDF	1.065	2.51e6	0.52	NO	40.67	1904.404	2.7567	101.4	1.02e4	8.94e3
22	13C-1,2,3,6,7,8-HxCDF	1.065	2.87e6	0.54	NO	40.84	2041.073	2.5809	108.7	1.02e4	8.94e3
23	13C-2,3,4,6,7,8-HxCDF	1.065	2.29e6	0.53	NO	41.79	1819.532	2.8883	96.9	1.02e4	8.94e3
24	13C-1,2,3,7,8,9-HxCDF	1.065	1.95e6	0.53	NO	42.82	1576.294	2.9284	84.0	1.02e4	8.94e3
25	13C-1,2,3,4,6,7,8-HpCDF	1.065	1.65e6	0.44	NO	45.27	1567.332	2.3513	83.5	7.34e3	5.70e3
26	13C-1,2,3,4,7,8,9-HpCDF	1.065	1.09e6	0.45	NO	47.04	1332.072	3.0146	70.9	7.34e3	5.70e3
27	13C-2,3,7,8-TCDD	1.065	3.42e6	0.78	NO	26.43	1613.508	2.2858	85.9	8.07e3	1.28e4
28	13C-1,2,3,7,8-PeCDD	1.065	2.49e6	0.70	NO	36.11	1787.621	1.1067	95.2	2.94e3	3.67e3
29	13C-1,2,3,4,7,8-HxCDD	1.065	1.90e6	1.31	NO	42.06	1872.026	3.2566	99.7	9.25e3	8.20e3
30	13C-1,2,3,6,7,8-HxCDD	1.065	2.12e6	1.22	NO	42.19	1975.250	3.0796	105.2	9.25e3	8.20e3
31	13C-1,2,3,4,6,7,8-HpCDD	1.065	1.29e6	0.95	NO	46.64	1541.805	2.5199	82.1	5.08e3	6.08e3
32	13C-OCDD	1.065	1.28e6	0.85	NO	50.20	1728.414	7.1523	46.0	1.42e4	1.36e4
33	13C-1,2,3,4-TCDD	1.065	3.97e6	0.77	NO	26.11	164.763	0.2014	8.8	8.07e3	1.28e4
34	13C-1,2,3,7,8,9-HxCDD	1.065	1.94e6	1.25	NO	42.62	127.292	0.2173	6.8	9.25e3	8.20e3
35	37Cl-2,3,7,8-TCDD	1.065	3.51e5			26.47	149.407	0.8621	79.6		8.71e3
36	Total Tetra-Furans	1.065					0.752	0.1313			9.00e2
37	Total Tetra-Dioxins	1.065					0.436	0.1456			6.56e2
38	Total Penta-Furans	1.065					0.861	0.1205			2.91e2
39	Total Penta-Dioxins	1.065					0.506	0.1567			6.30e2
40	Total Hexa-Furans	1.065					0.989	0.1188			5.96e2
41	Total Hexa-Dioxins	1.065					1.484	0.1930			4.87e2
42	Total Hepta-Furans	1.065					0.779	0.1616			5.81e2
43	Total Hepta-Dioxins	1.065					2.594	0.3887			3.81e2
44	Hexa DPE	1.000	4.50e2			26.24					0.00e0
45	Hepta DPE	1.000	2.69e1			35.62					8.13e-2
46	Octa DPE	1.000	1.23e2			38.81					1.01e-2
47	Nona DPE	1.000	4.75e2			46.96					0.00e0
48	Deca DPE	1.000	1.16e2			48.89					0.00e0
49	Tetra Lock	1.000	5.88e3			23.86					1.16e5
50	Penta Lock	1.000									2.21e5
51	Hexa Lock	1.000									2.75e5
52	Hepta Lock	1.000	1.56e4			47.57					1.73e5
53	Octa Lock	1.000									1.90e5
54	13C-Tetra-Furans	1.065					1522.632	0.8003			4.68e3
55	13C-Tetra-Dioxins	1.065					1778.271	2.4873			1.28e4

pv'd by LHE 24-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

SMayKg 26JUL2018

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S18, Date: 21-Jul-2018, Time: 07:49:02, ID: L29628-21,,, Description: 1,WG64578,1.0/20uL

Tetrafurans

	RT	1° Ratio (A...	Fails?	pg
1	26.10	1.395	YES	0.458
2	25.36	1.007	YES	0.074
3	25.22	0.494	YES	0.106
4	24.72	1.264	YES	0.046
5	22.63	1.660	YES	0.069

Tetradioxins

	RT	1° Ratio (A...	Fails?	pg
1	25.22	3.718	YES	0.436

Pentafurans

	RT	1° Ratio (A...	Fails?	pg
1	28.83	0.372	YES	0.083
2	34.24	0.491	YES	0.058
3	33.53	0.680	YES	0.302
4	32.94	0.980	YES	0.038
5	32.02	0.607	YES	0.049
6	31.57	1.548	NO	0.100
7	37.04	0.389	YES	0.045
8	36.44	0.323	YES	0.051
9	36.22	0.488	YES	0.026
10	35.32	3.293	YES	0.064
11	34.48	1.544	NO	0.046

Pentadioxins

	RT	1° Ratio (A...	Fails?	pg
1	32.28	1.954	YES	0.066
2	31.75	0.902	YES	0.061
3	35.56	0.519	NO	0.031
4	34.37	3.075	YES	0.068
5	33.95	0.397	YES	0.091
6	33.76	0.778	YES	0.062
7	37.06	3.213	YES	0.083
8	36.48	0.425	YES	0.045

Hexafurans

	RT	1° Ratio (A...	Fails?	pg
1	39.99	0.921	YES	0.256
2	39.55	1.002	YES	0.048
3	39.30	1.355	NO	0.131
4	38.99	2.081	YES	0.086
5	42.86	3.219	YES	0.094
6	41.81	0.388	YES	0.172
7	41.18	1.744	YES	0.113
8	40.87	0.194	YES	0.047
9	40.72	0.702	YES	0.042

pv'd by LHE 24-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S18, Date: 21-Jul-2018, Time: 07:49:02, ID: L29628-21,,, Description: 1,WG64578,1.0/20uL

Hexadioxins

	RT	1° Ratio (A...	Fails?	pg
1	40.82	1.738	YES	0.749
2	40.01	1.546	YES	0.167
3	42.62	1.817	YES	0.226
4	42.21	1.242	NO	0.145
5	42.11	1.014	YES	0.077
6	41.18	1.208	NO	0.121

Heptafurans

	RT	1° Ratio (A...	Fails?	pg
1	45.78	0.517	YES	0.522
2	45.27	1.016	NO	0.256

Heptadioxins

	RT	1° Ratio (A...	Fails?	pg
1	46.67	1.251	YES	1.174
2	45.73	1.799	YES	1.420

13C-TF

	RT	1° Ratio (A...	Fails?	pg
1	25.22	0.708	NO	1522.6...

13C-TD

	RT	1° Ratio (A...	Fails?	pg
1	26.43	0.775	NO	1613.5...
2	26.11	0.771	NO	164.763

13C-PF

	RT	1° Ratio (A...	Fails?	pg
1	35.29	1.400	NO	1629.2...
2	33.53	1.424	NO	1787.0...

13C-PD

	RT	1° Ratio (A...	Fails?	pg
1	36.11	0.697	NO	1787.6...

13C-HxF

	RT	1° Ratio (A...	Fails?	pg
1	42.82	0.527	NO	1576.2...
2	41.79	0.527	NO	1819.5...
3	40.84	0.539	NO	2041.0...
4	40.67	0.516	NO	1904.4...

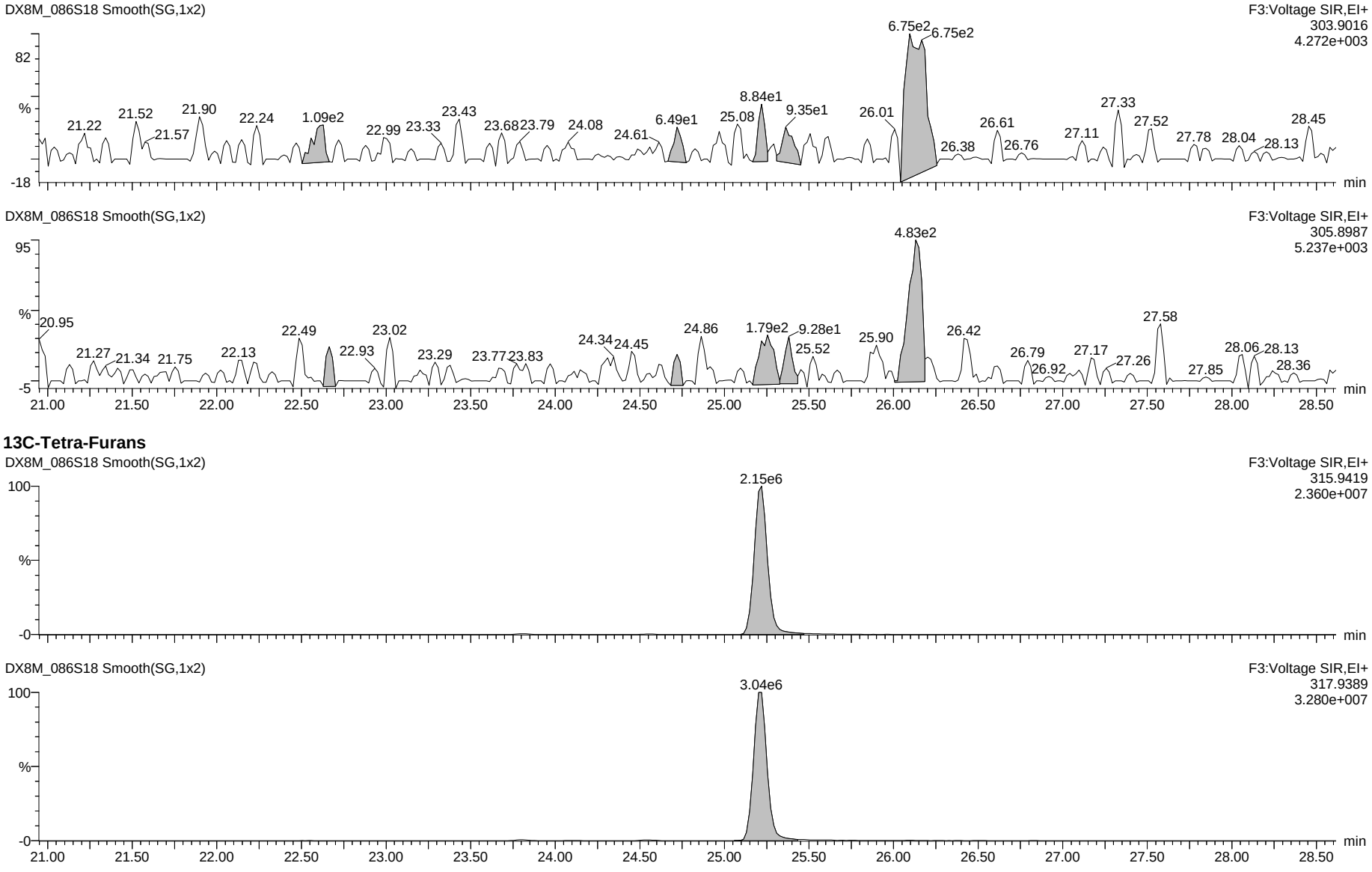
pv'd by LHE 24-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Method: G:\Masslynx\Inst_M\Projects\180604DX.pro\MethDB\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_086S18, Date: 21-Jul-2018, Time: 07:49:02, ID: L29628-21,,, Description: 1,WG64578,1.0/20uL

Total Tetra-Furans

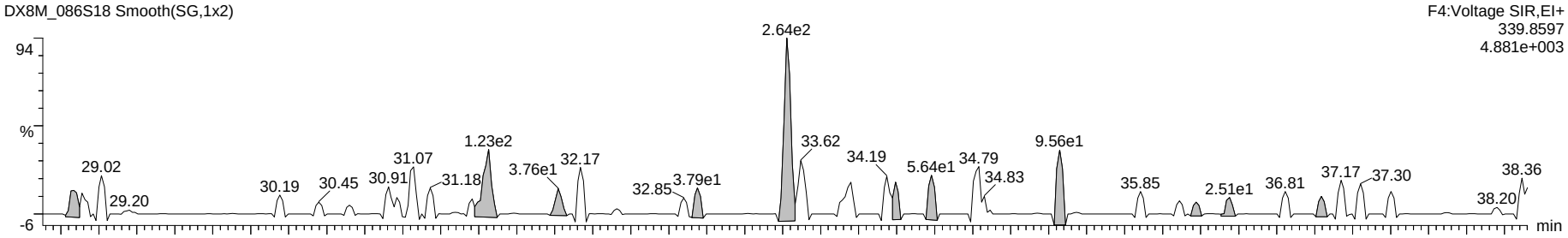


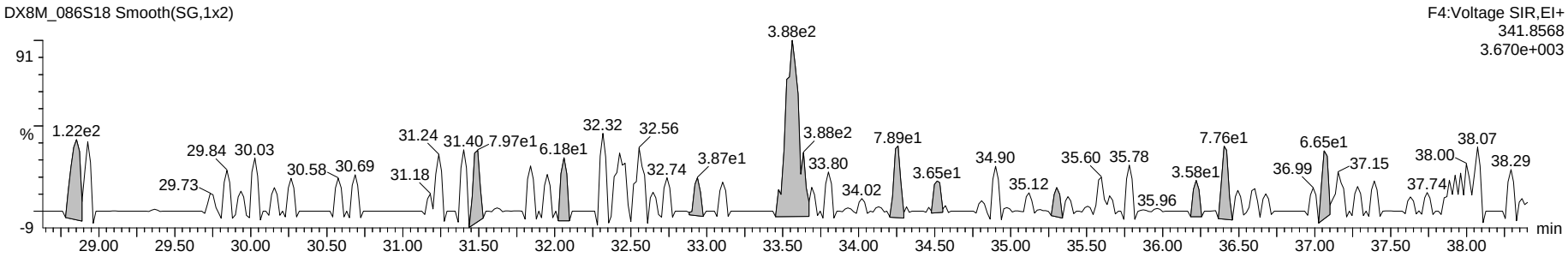
13C-Tetra-Furans

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

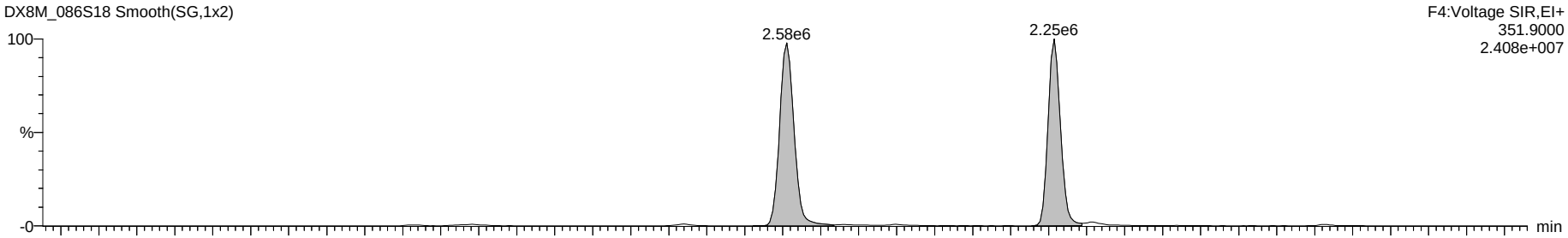
Name: DX8M_086S18, Date: 21-Jul-2018, Time: 07:49:02, ID: L29628-21,,, Description: 1,WG64578,1.0/20uL

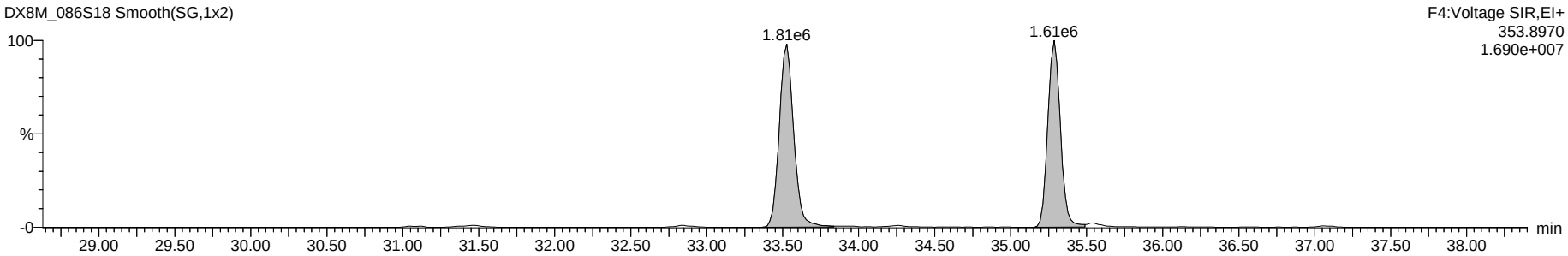
Total Penta-Furans





13C-Penta-Furans

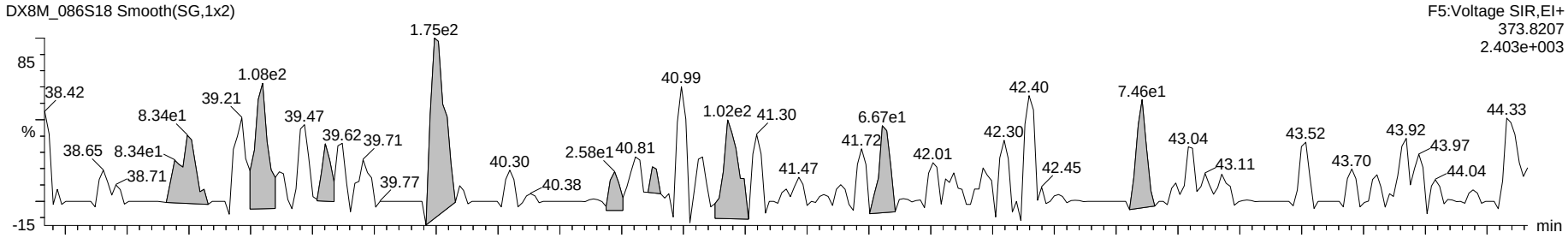


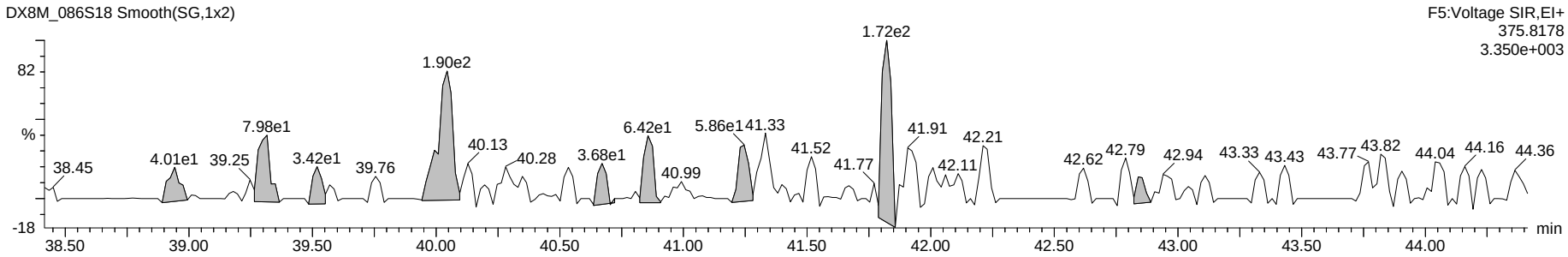


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

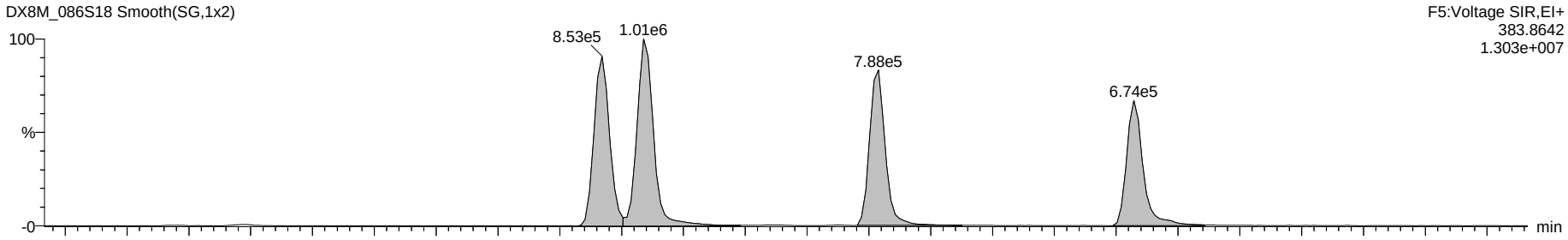
Name: DX8M_086S18, Date: 21-Jul-2018, Time: 07:49:02, ID: L29628-21,,, Description: 1,WG64578,1.0/20uL

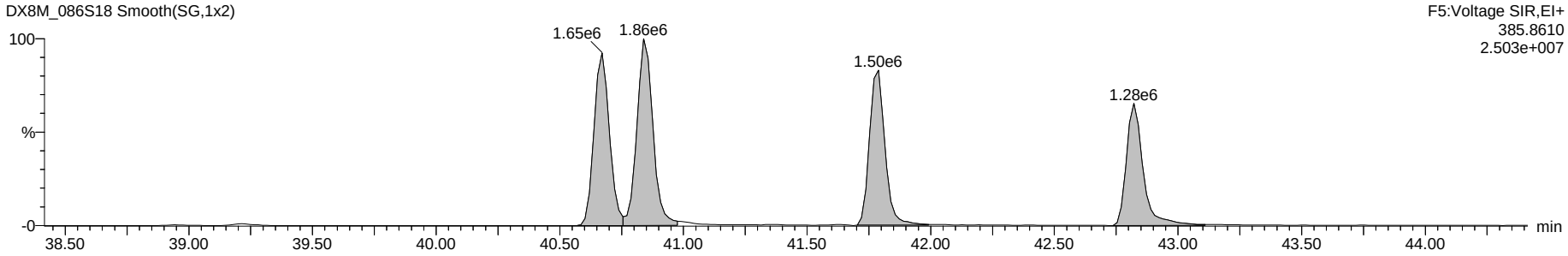
Total Hexa-Furans





13C-Hexa-Furans

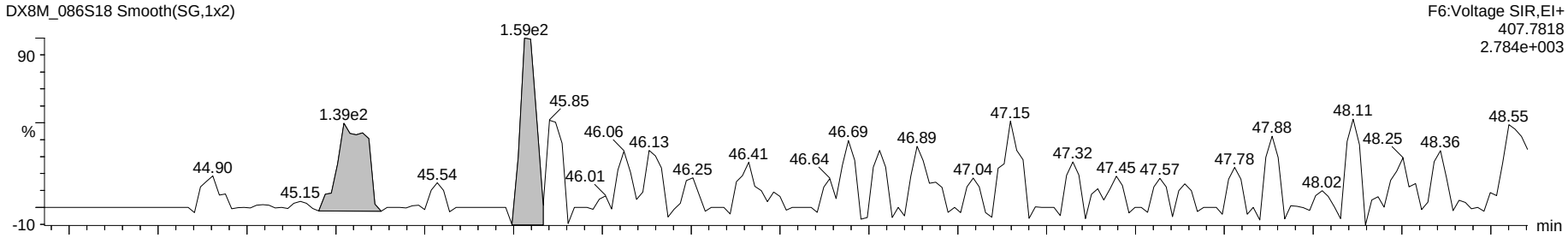


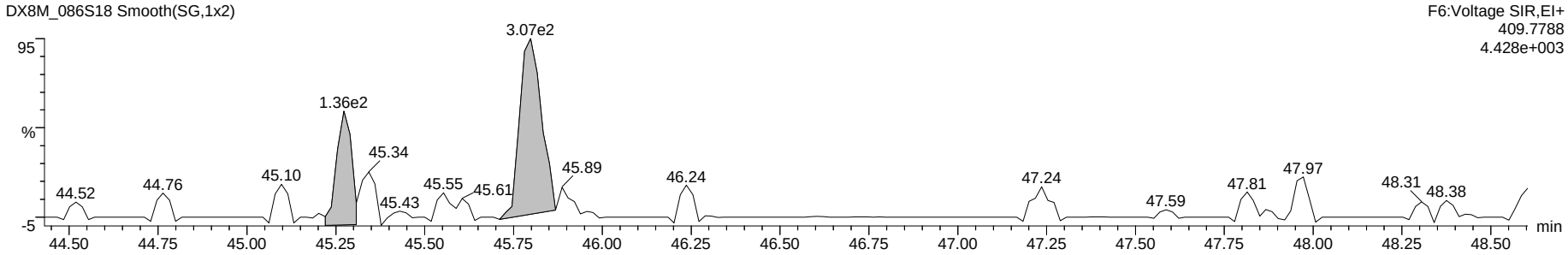


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

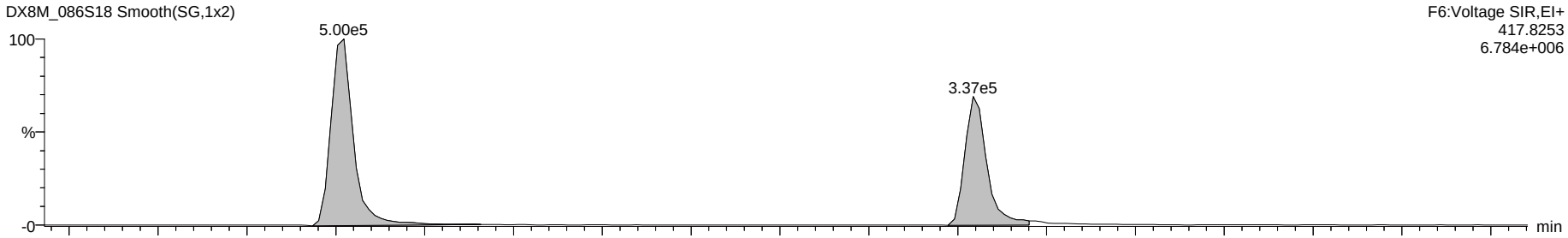
Name: DX8M_086S18, Date: 21-Jul-2018, Time: 07:49:02, ID: L29628-21,,, Description: 1,WG64578,1.0/20uL

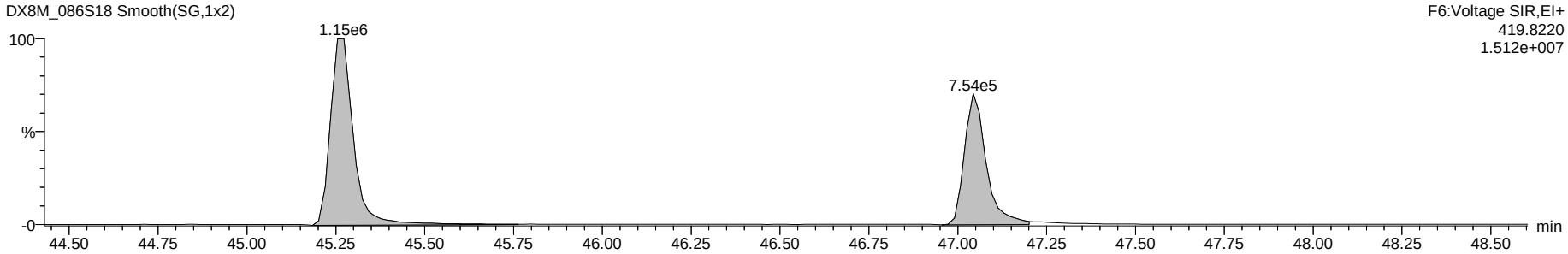
Total Hepta-Furans





13C-Hepta-Furans

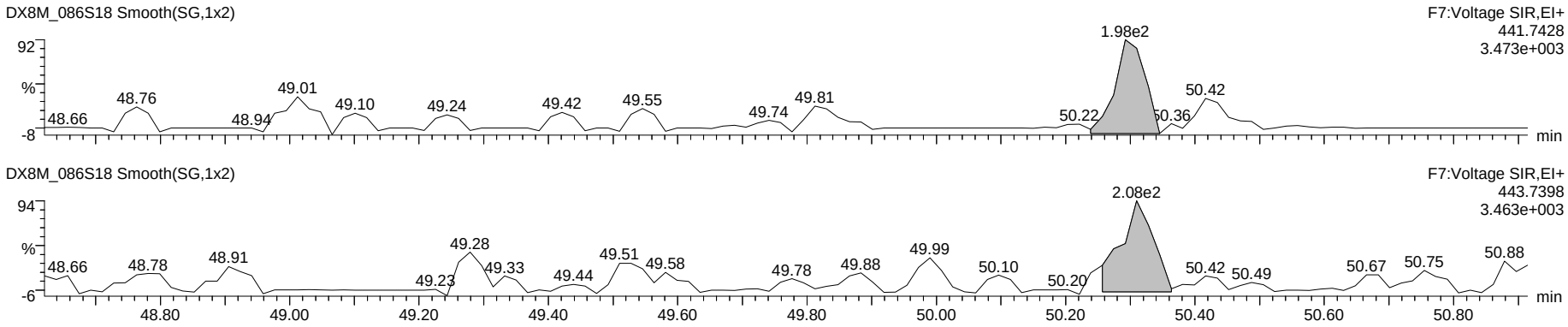




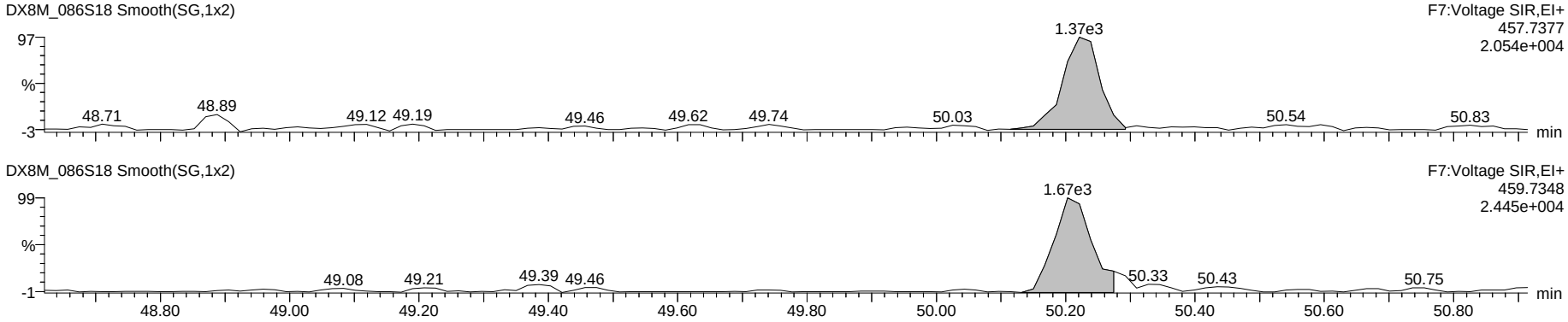
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S18, Date: 21-Jul-2018, Time: 07:49:02, ID: L29628-21,,, Description: 1,WG64578,1.0/20uL

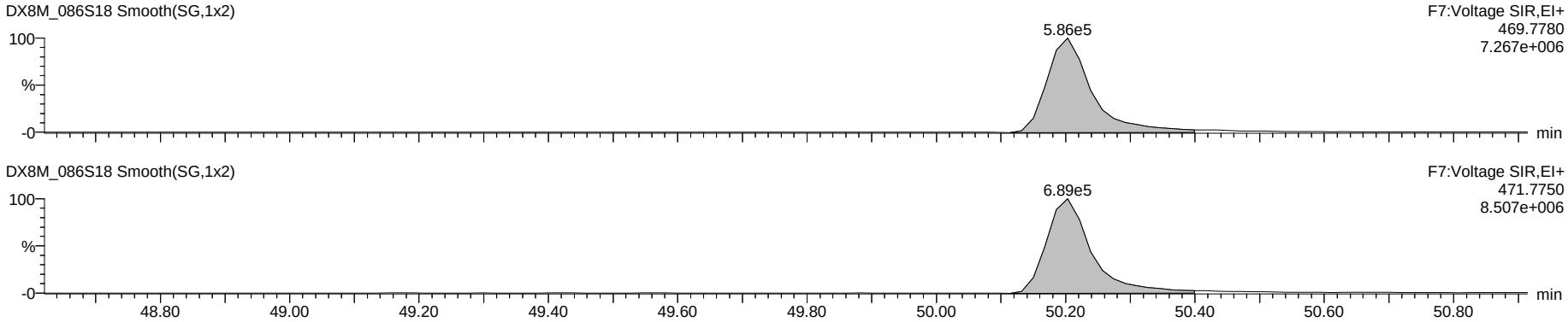
OCDF



OCDD



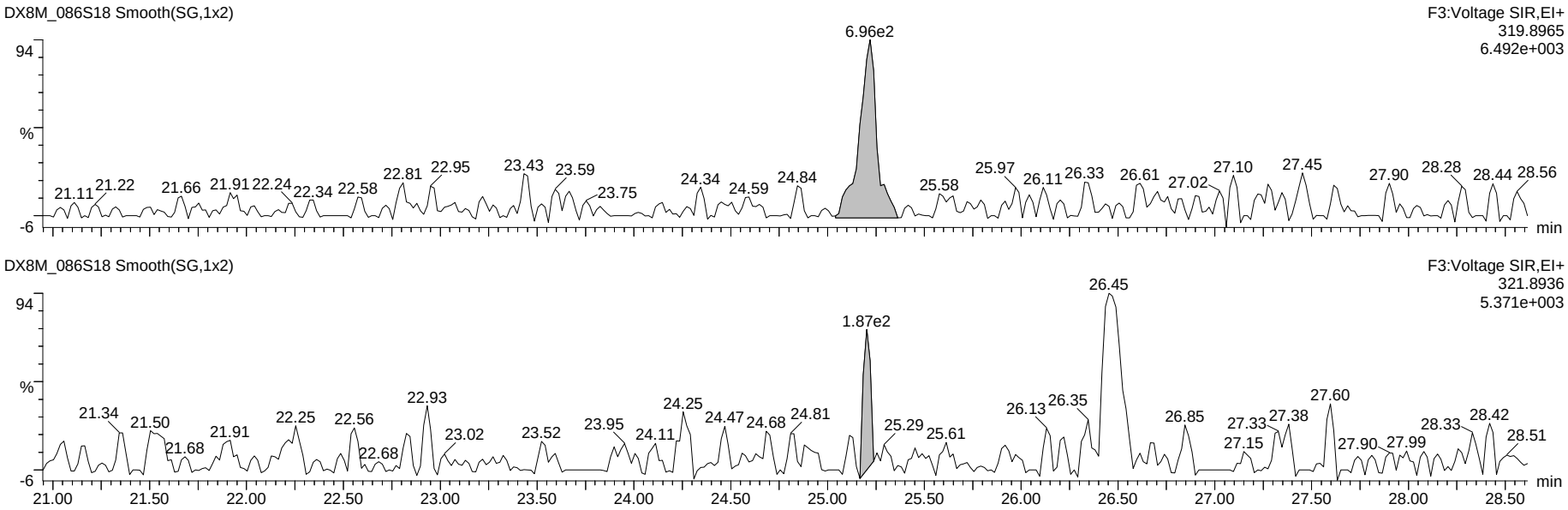
13C-OCDD



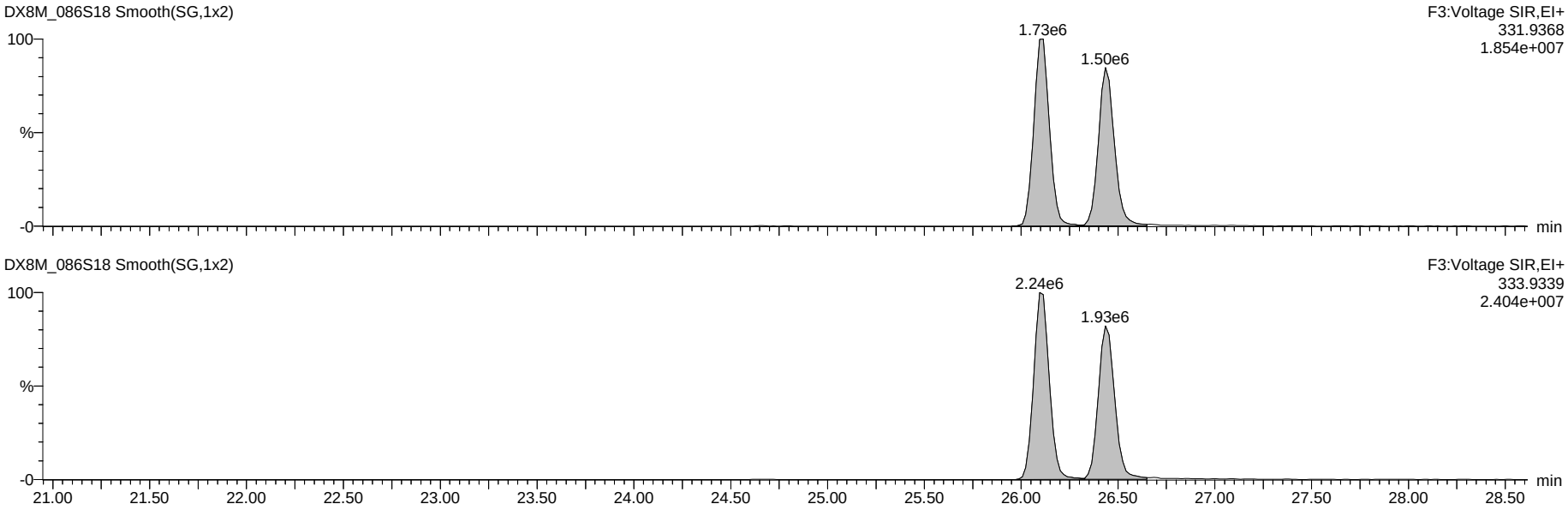
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S18, Date: 21-Jul-2018, Time: 07:49:02, ID: L29628-21,,, Description: 1,WG64578,1.0/20uL

Total Tetra-Dioxins



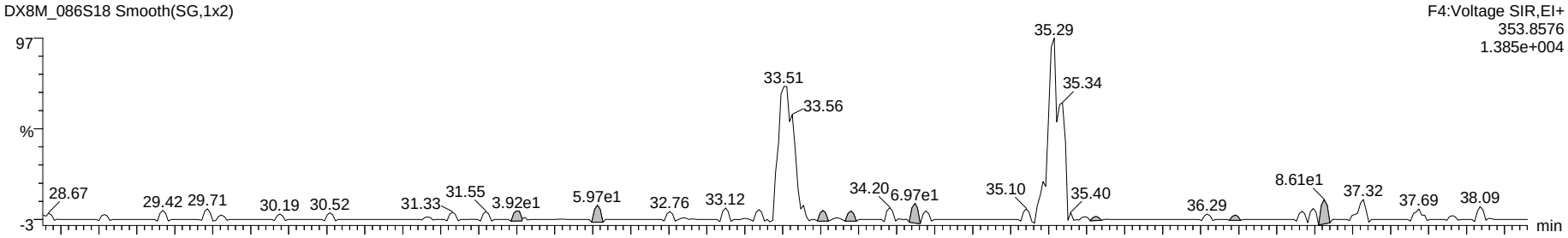
13C-Tetra-Dioxins

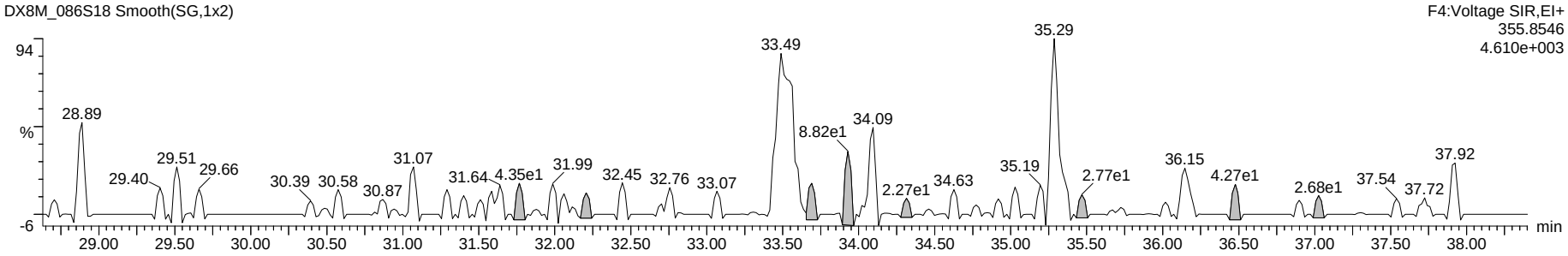


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

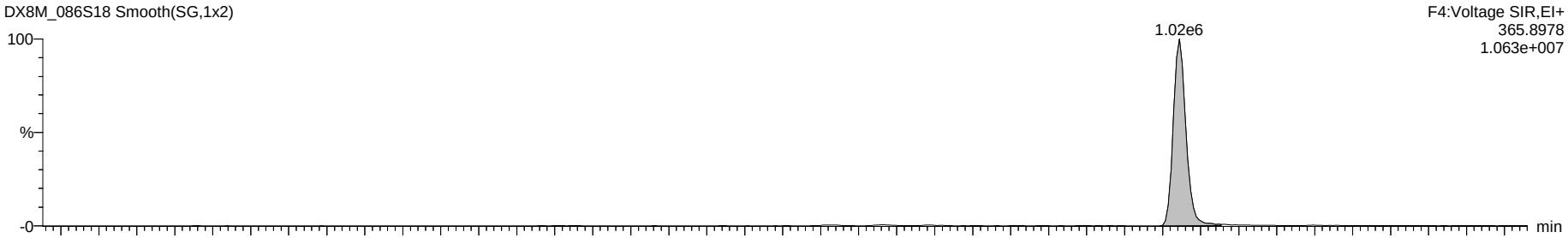
Name: DX8M_086S18, Date: 21-Jul-2018, Time: 07:49:02, ID: L29628-21,,, Description: 1,WG64578,1.0/20uL

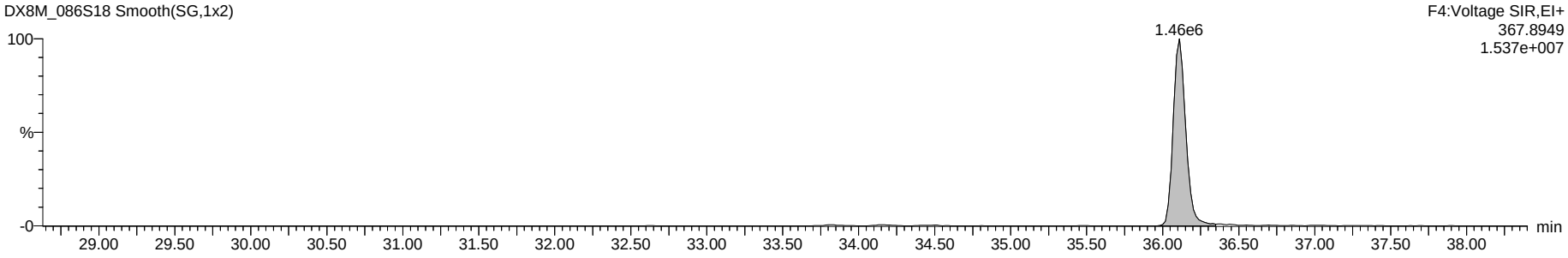
Total Penta-Dioxins





13C-Penta-Dioxins

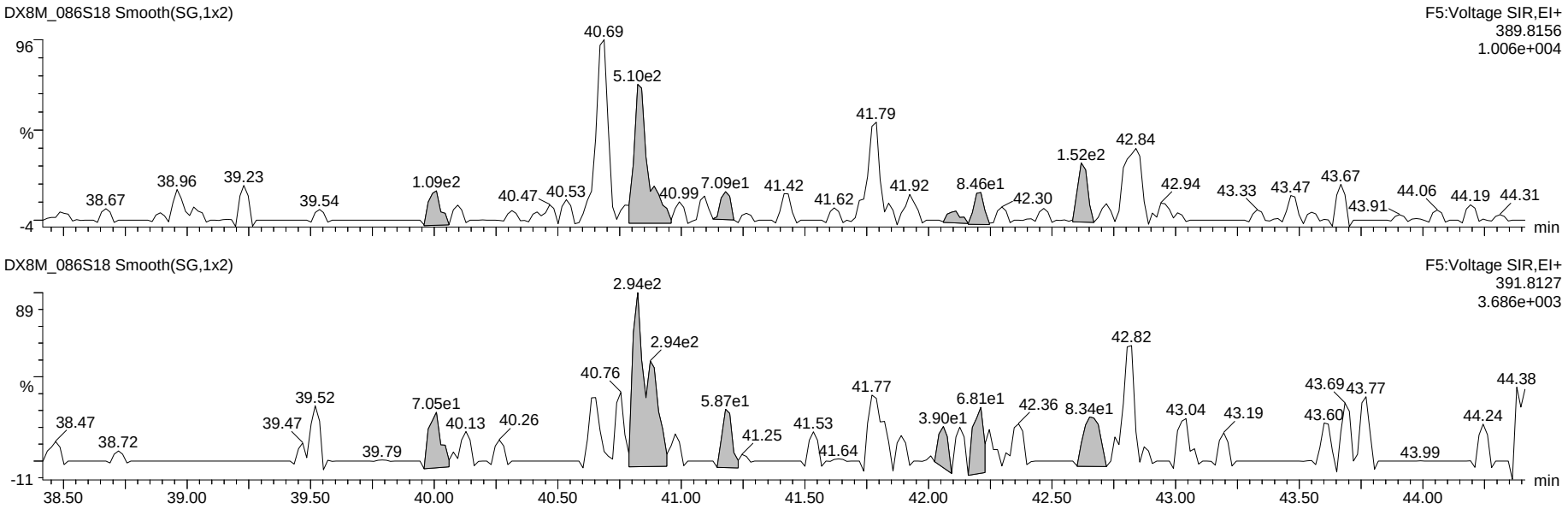




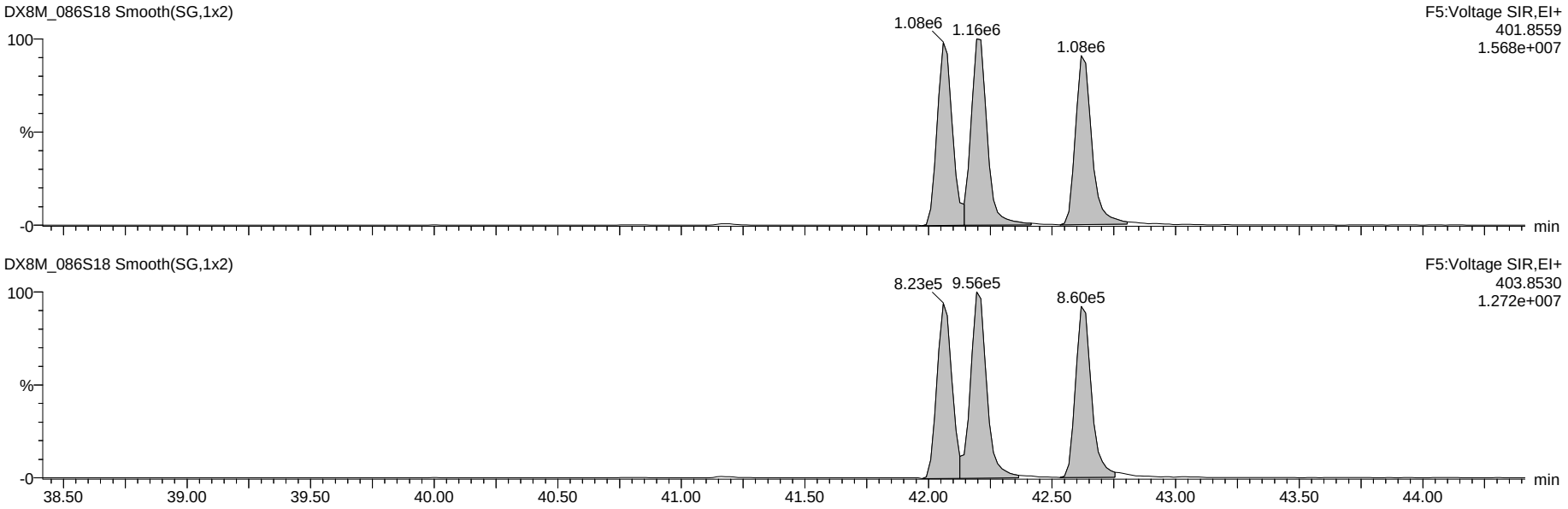
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S18, Date: 21-Jul-2018, Time: 07:49:02, ID: L29628-21,,, Description: 1,WG64578,1.0/20uL

Total Hexa-Dioxins



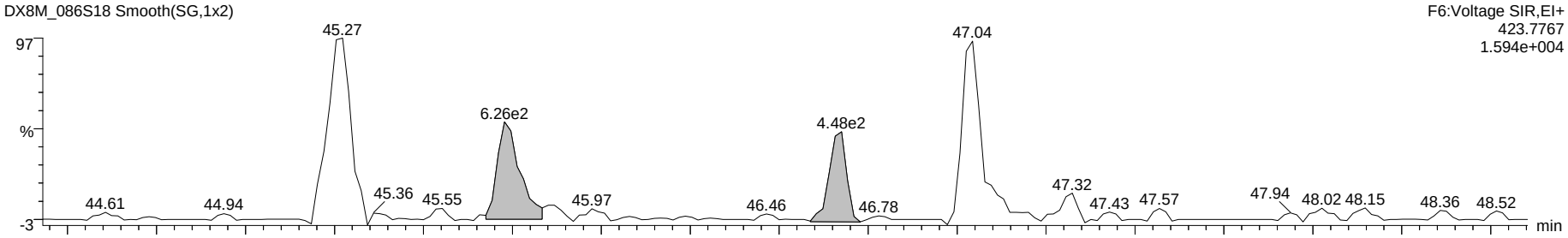
13C-Hexa-Dioxins

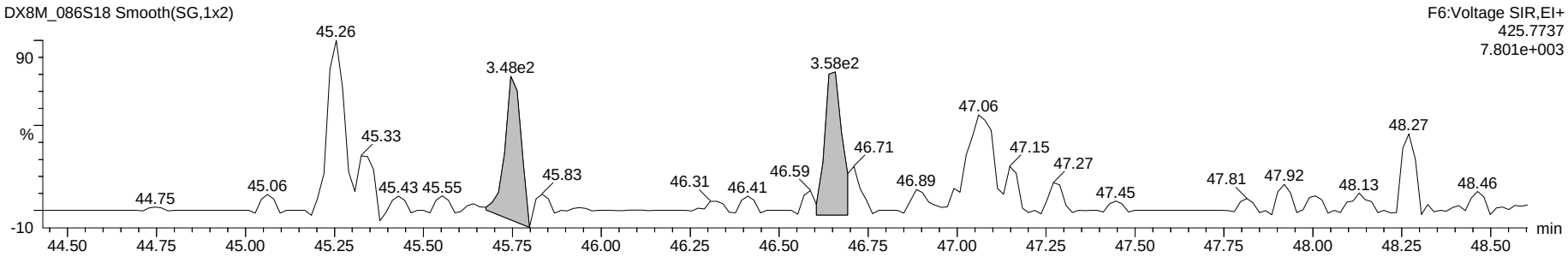


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S18, Date: 21-Jul-2018, Time: 07:49:02, ID: L29628-21,,, Description: 1,WG64578,1.0/20uL

Total Hepta-Dioxins





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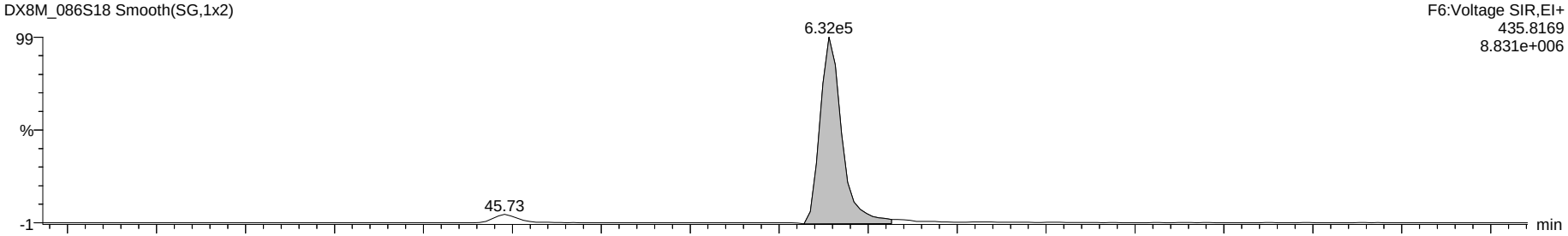
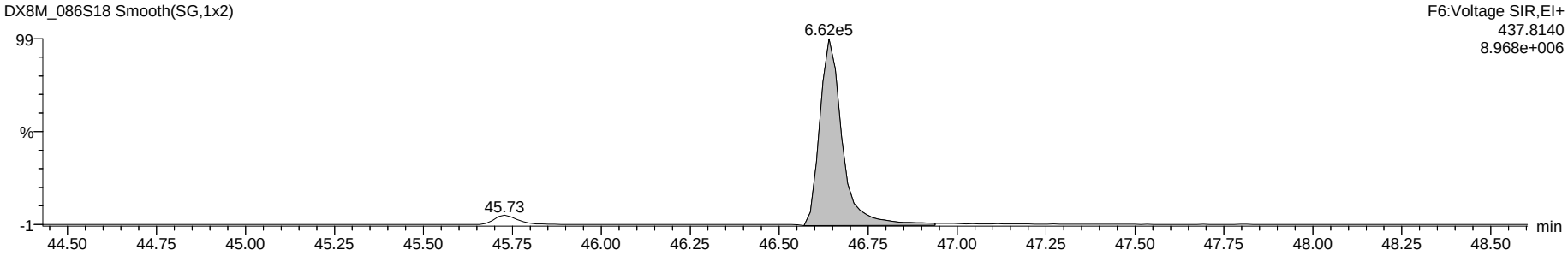
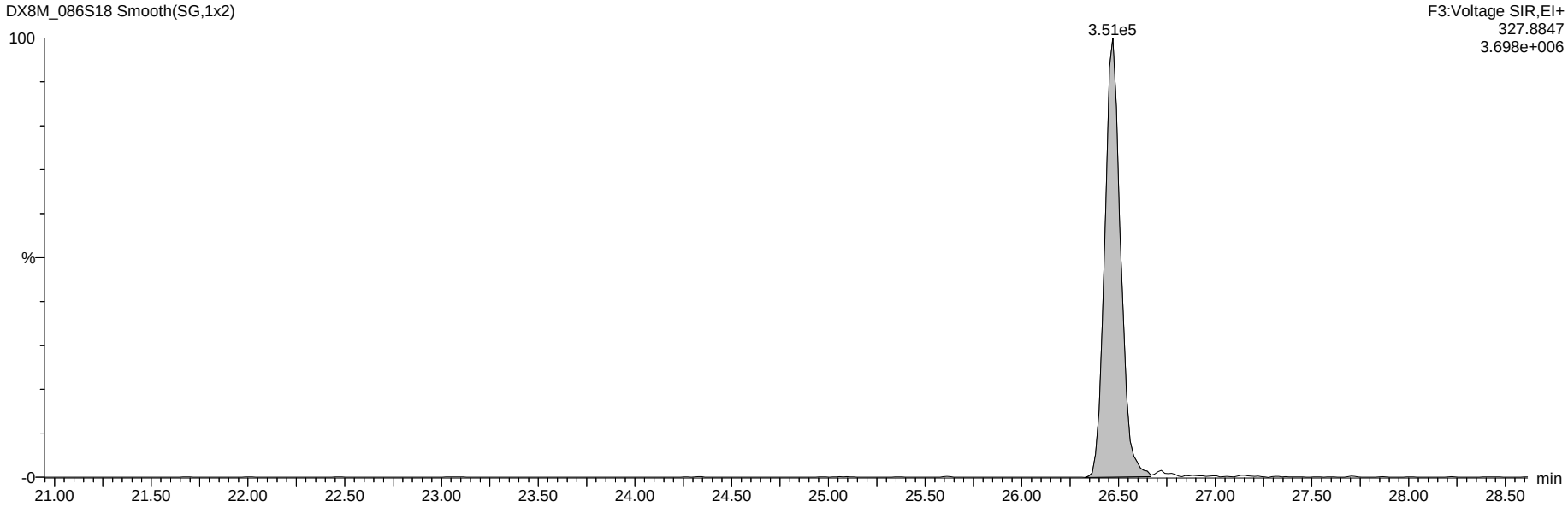




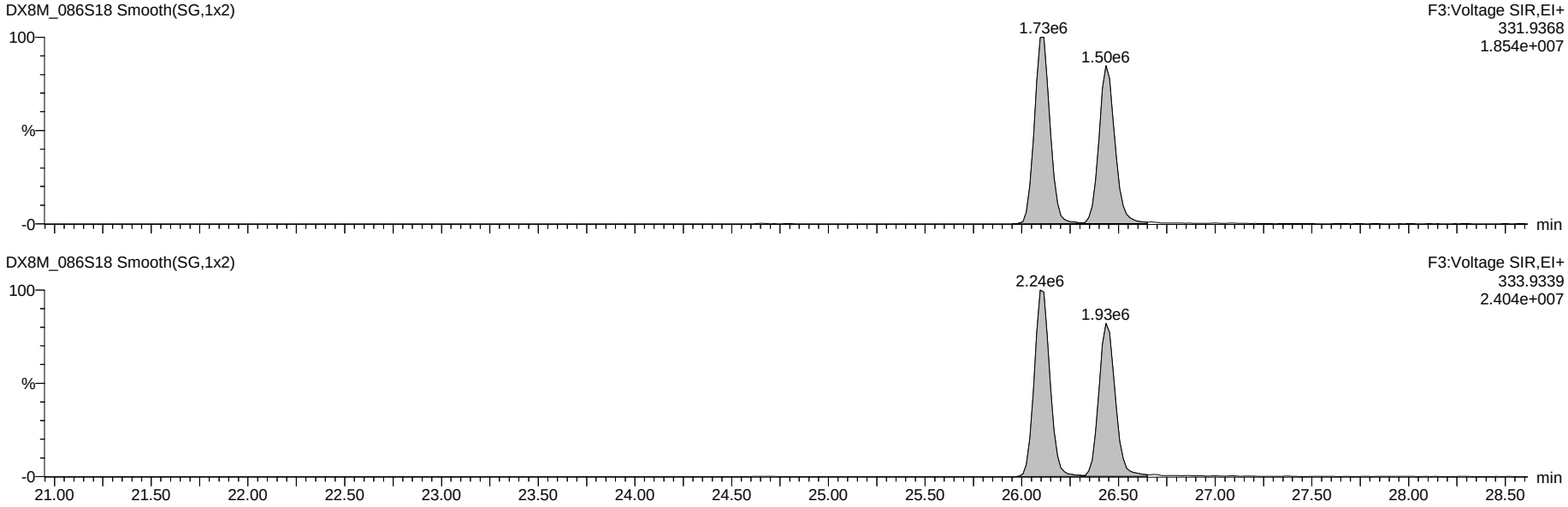
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S18, Date: 21-Jul-2018, Time: 07:49:02, ID: L29628-21,,, Description: 1,WG64578,1.0/20uL

37Cl-2,3,7,8-TCDD



13C-Tetra-Dioxins



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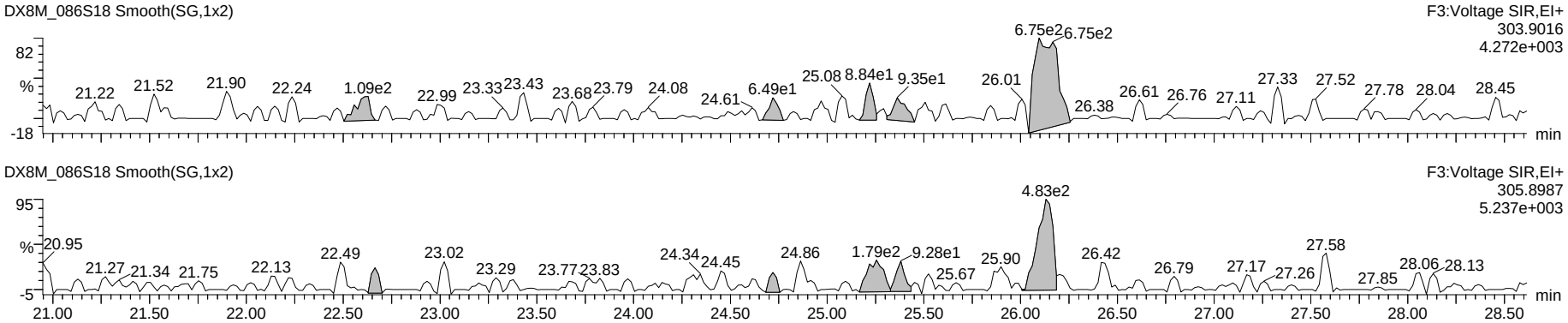
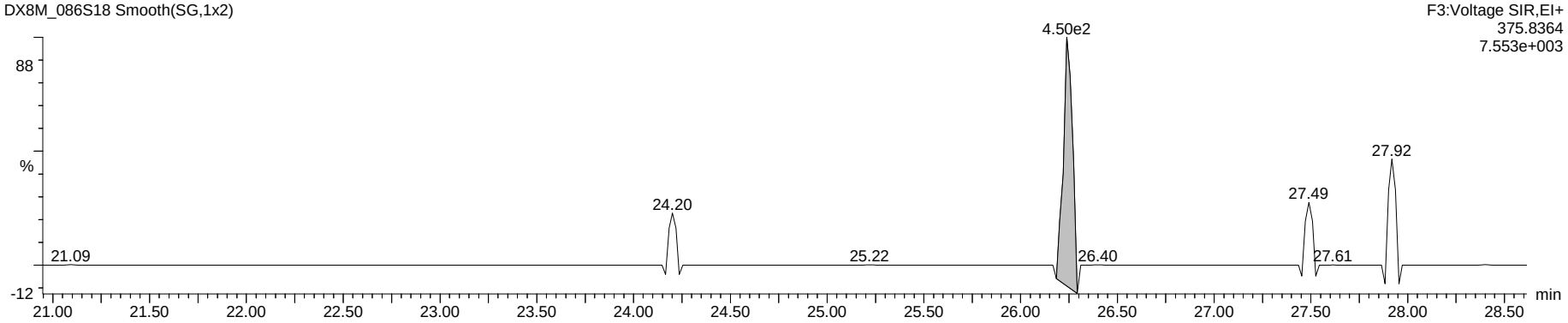
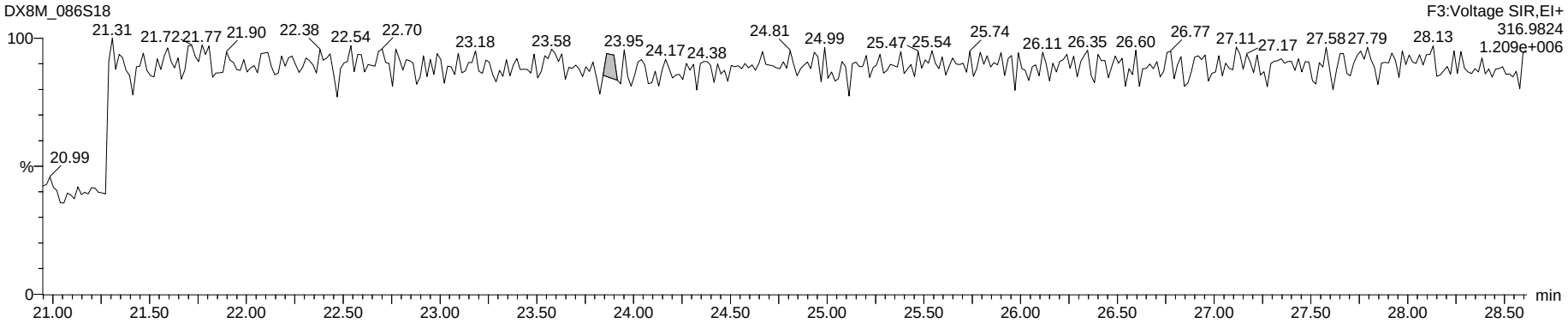
Total Tetra-Furans



Hexa DPE



Tetra Lock



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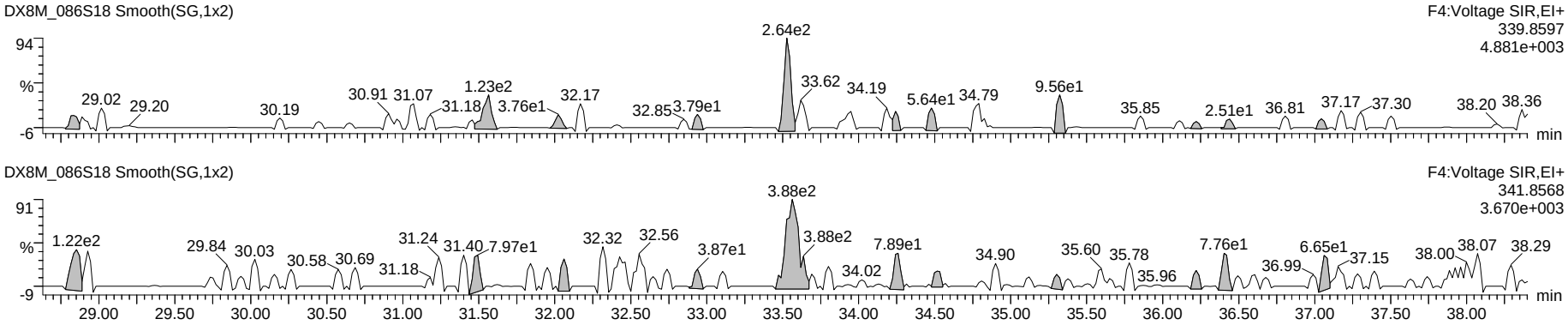
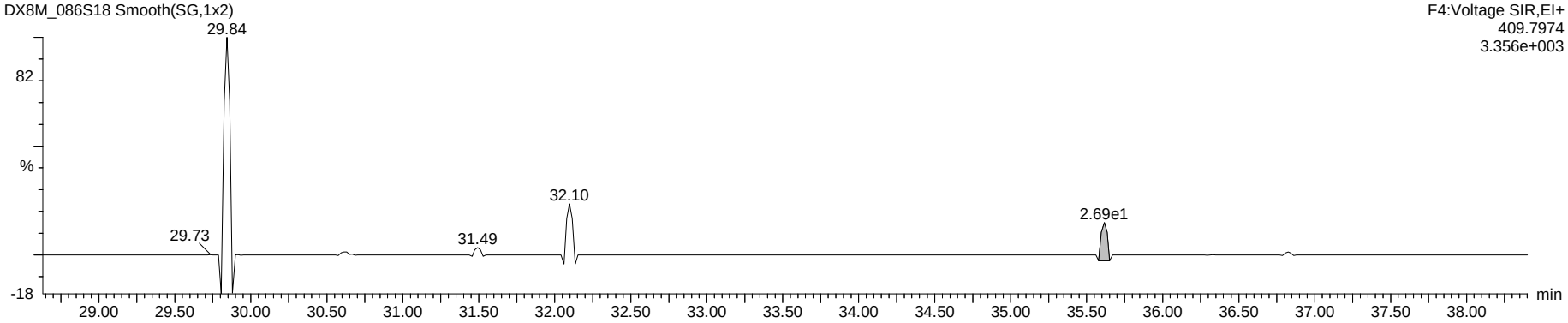
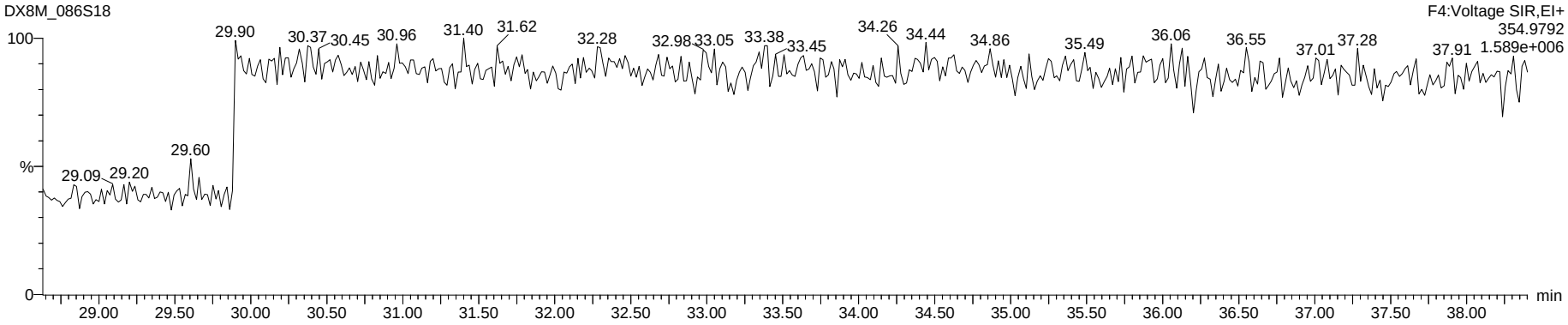
Total Penta-Furans



Hepta DPE



Penta Lock



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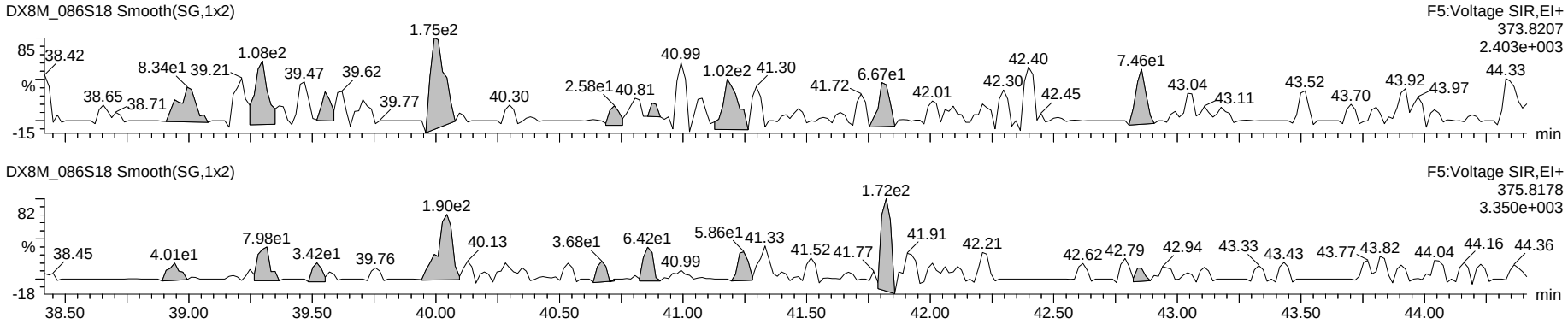
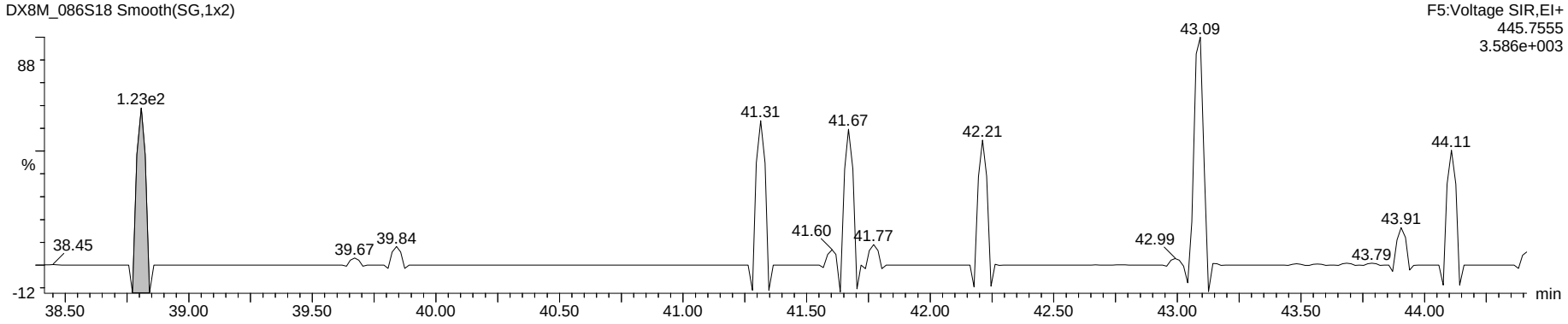
Name: DX8M_086S18, Date: 21-Jul-2018, Time: 07:49:02, ID: L29628-21,,, Description: 1,WG64578,1.0/20uL

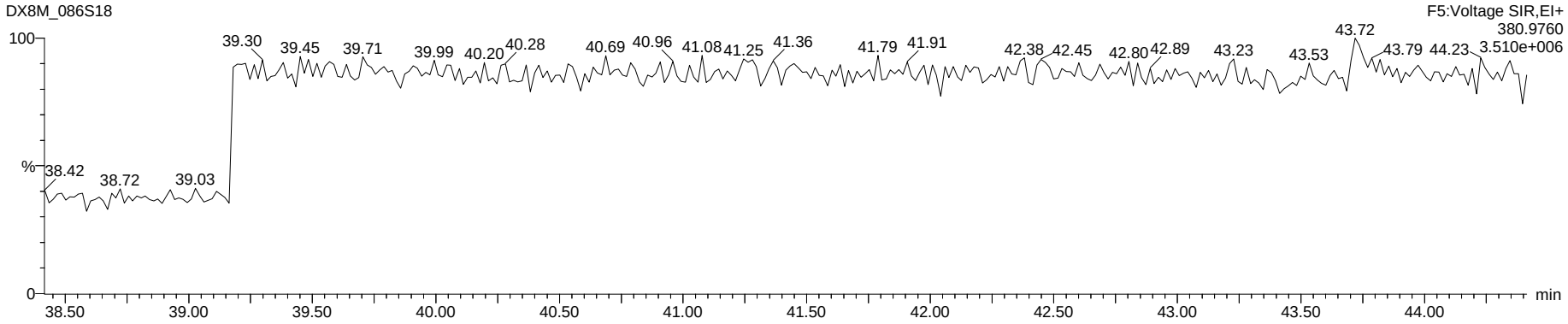
Total Hexa-Furans



Octa DPE



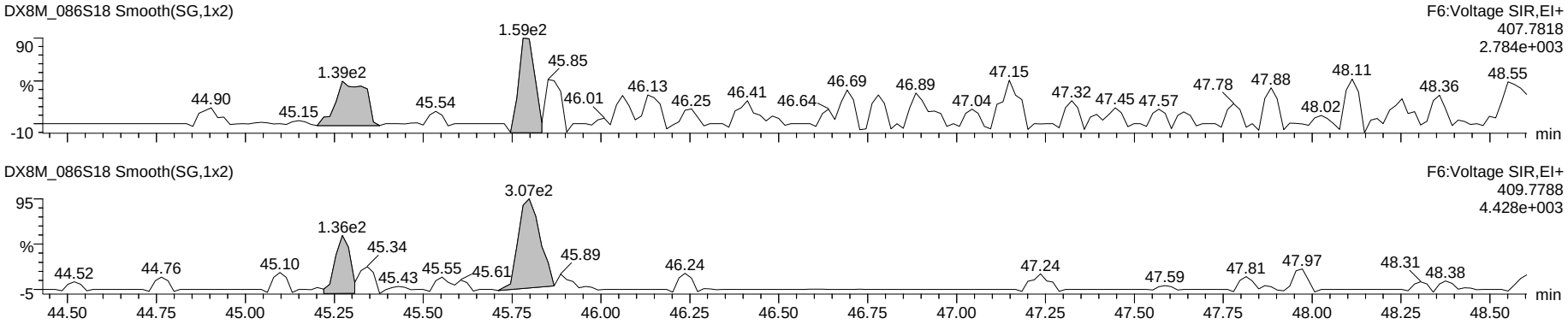
Hexa Lock



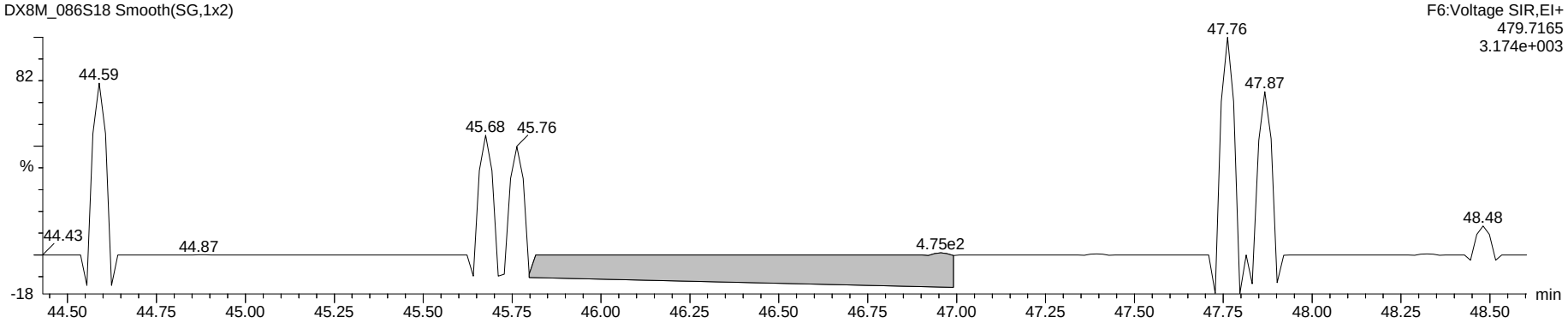
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S18, Date: 21-Jul-2018, Time: 07:49:02, ID: L29628-21,,, Description: 1,WG64578,1.0/20uL

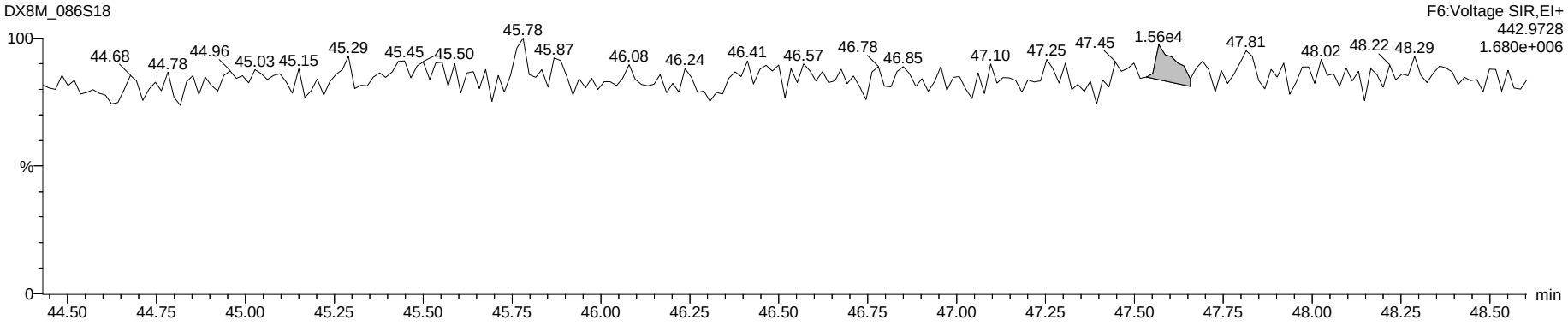
Total Hepta-Furans



Nona DPE



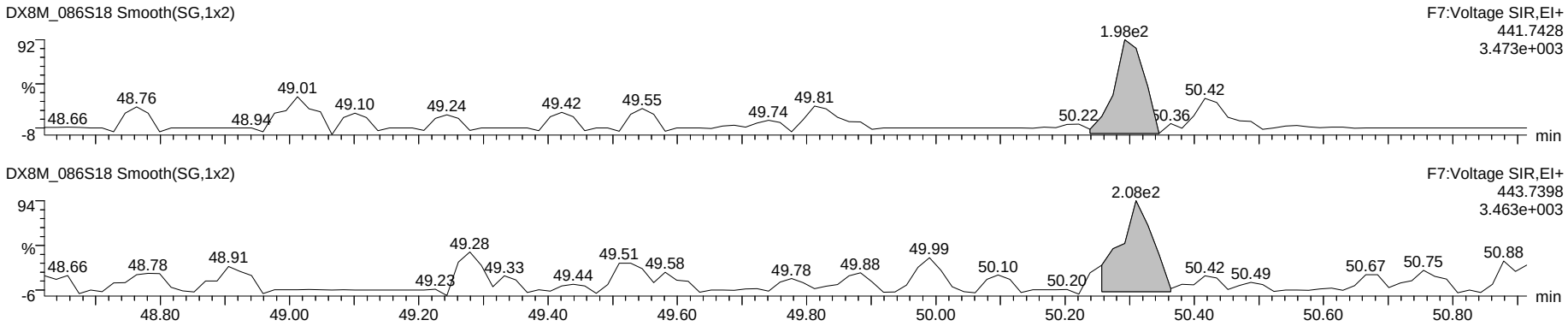
Hepta Lock



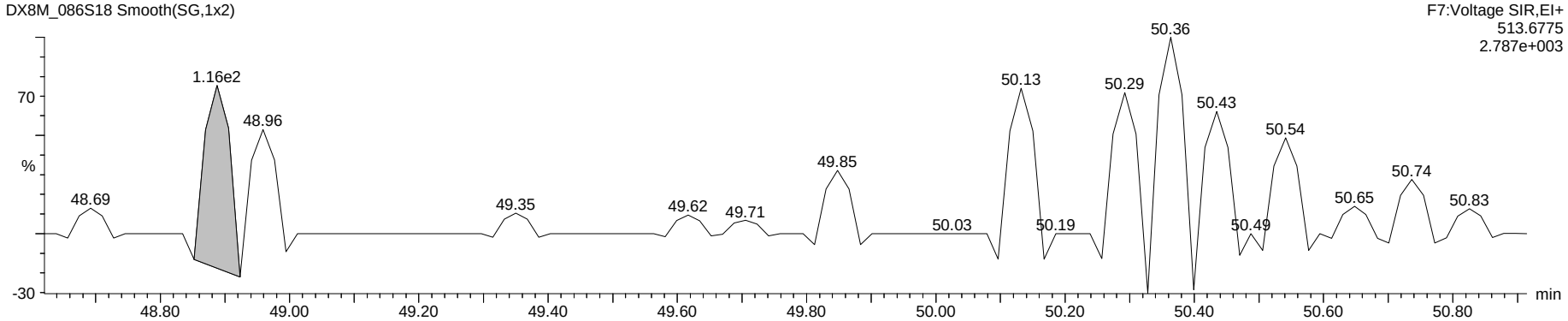
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S18, Date: 21-Jul-2018, Time: 07:49:02, ID: L29628-21,,, Description: 1,WG64578,1.0/20uL

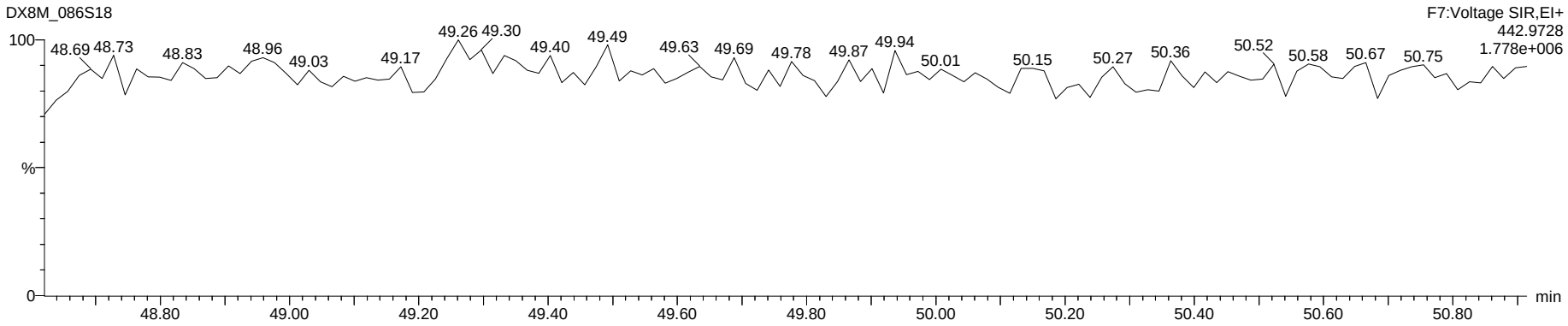
OCDF



Deca DPE



Octa Lock



Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S19, Date: 21-Jul-2018, Time: 08:44:15, ID: L29628-22,,, Description: 1,WG64578,1.0/20uL

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	1.061	2.76e2	0.75	NO	25.20	0.146	0.1230		6.60e2	3.58e2
2	1,2,3,7,8-PeCDF	1.061	5.13e2	0.78	YES	33.54	0.308	0.1121		4.18e2	2.97e2
3	2,3,4,7,8-PeCDF	1.061	8.97e1	2.51	YES	35.29	0.055	0.1032		4.18e2	2.97e2
4	1,2,3,4,7,8-HxCDF	1.061	6.47e1	0.92	YES	40.72	0.050	0.1572		5.39e2	6.20e2
5	1,2,3,6,7,8-HxCDF	1.061			NO			0.1522		5.39e2	6.20e2
6	2,3,4,6,7,8-HxCDF	1.061			NO			0.1601		5.39e2	6.20e2
7	1,2,3,7,8,9-HxCDF	1.061	8.65e1	0.29	YES	42.82	0.086	0.2088		5.39e2	6.20e2
8	1,2,3,4,6,7,8-HpCDF	1.061	1.86e2	2.45	YES	45.29	0.181	0.1327		4.50e2	3.54e2
9	1,2,3,4,7,8,9-HpCDF	1.061			NO			0.1831		4.50e2	3.54e2
10	OCDF	1.061	1.42e2	0.24	YES	50.33	0.261	0.4788		1.40e3	4.53e0
11	2,3,7,8-TCDD	1.061	6.37e2	0.08	YES	26.47	0.396	0.1664		4.19e2	7.24e2
12	1,2,3,7,8-PeCDD	1.061	8.46e1	0.37	YES	36.11	0.074	0.2334		1.13e3	3.96e-1
13	1,2,3,4,7,8-HxCDD	1.061	5.76e1	0.74	YES	42.04	0.063	0.2384		1.67e-1	1.23e3
14	1,2,3,6,7,8-HxCDD	1.061	5.14e1	2.15	YES	42.21	0.054	0.2379		1.67e-1	1.23e3
15	1,2,3,7,8,9-HxCDD	1.061	5.08e1	1.29	NO	42.62	0.054	0.2371		1.67e-1	1.23e3
16	1,2,3,4,6,7,8-HpCDD	1.061	4.35e2	1.29	YES	46.66	0.666	0.1005		7.99e1	3.06e2
17	OCDD	1.061	1.45e3	0.96	NO	50.22	3.230	0.2960		7.22e2	7.09e-2
18	13C-2,3,7,8-TCDF	1.061	3.90e6	0.70	NO	25.22	1188.585	1.0525	63.0	9.13e3	5.63e3
19	13C-1,2,3,7,8-PeCDF	1.061	3.39e6	1.39	NO	33.53	1434.295	2.0153	76.1	9.87e3	1.05e4
20	13C-2,3,4,7,8-PeCDF	1.061	3.28e6	1.43	NO	35.29	1435.427	2.0893	76.1	9.87e3	1.05e4
21	13C-1,2,3,4,7,8-HxCDF	1.061	2.18e6	0.51	NO	40.67	1487.638	2.2048	78.9	8.61e3	8.97e3
22	13C-1,2,3,6,7,8-HxCDF	1.061	2.51e6	0.50	NO	40.84	1603.145	2.0642	85.0	8.61e3	8.97e3
23	13C-2,3,4,6,7,8-HxCDF	1.061	2.11e6	0.52	NO	41.79	1507.741	2.3101	80.0	8.61e3	8.97e3
24	13C-1,2,3,7,8,9-HxCDF	1.061	1.90e6	0.53	NO	42.82	1378.505	2.3422	73.1	8.61e3	8.97e3
25	13C-1,2,3,4,6,7,8-HpCDF	1.061	1.58e6	0.42	NO	45.27	1351.915	2.0276	71.7	8.34e3	4.56e3
26	13C-1,2,3,4,7,8,9-HpCDF	1.061	1.16e6	0.44	NO	47.04	1277.984	2.5995	67.8	8.34e3	4.56e3
27	13C-2,3,7,8-TCDD	1.061	2.73e6	0.76	NO	26.43	1335.510	2.2707	70.8	1.10e4	8.78e3
28	13C-1,2,3,7,8-PeCDD	1.061	2.10e6	0.69	NO	36.11	1571.972	1.5058	83.4	5.72e3	2.88e3
29	13C-1,2,3,4,7,8-HxCDD	1.061	1.72e6	1.30	NO	42.06	1527.295	2.8548	81.0	1.12e4	6.39e3
30	13C-1,2,3,6,7,8-HxCDD	1.061	1.93e6	1.15	NO	42.21	1613.548	2.6996	85.6	1.12e4	6.39e3
31	13C-1,2,3,4,6,7,8-HpCDD	1.061	1.24e6	1.01	NO	46.64	1325.729	1.6148	70.3	4.77e3	3.43e3
32	13C-OCDD	1.061	1.67e6	0.86	NO	50.20	2029.768	2.2281	53.8	6.10e3	3.86e3
33	13C-1,2,3,4-TCDD	1.061	3.83e6	0.78	NO	26.11	159.920	0.1934	8.5	1.10e4	8.78e3
34	13C-1,2,3,7,8,9-HxCDD	1.061	2.16e6	1.23	NO	42.64	142.806	0.2128	7.6	1.12e4	6.39e3
35	37Cl-2,3,7,8-TCDD	1.061	2.84e5			26.47	125.332	0.0579	66.5		5.59e2
36	Total Tetra-Furans	1.061					1.325	0.1230			3.58e2
37	Total Tetra-Dioxins	1.061					1.533	0.1664			7.24e2
38	Total Penta-Furans	1.061					0.793	0.1086			2.97e2
39	Total Penta-Dioxins	1.061					0.515	0.2334			3.96e-1
40	Total Hexa-Furans	1.061					0.518	0.1617			6.20e2
41	Total Hexa-Dioxins	1.061					1.548	0.2295			1.23e3
42	Total Hepta-Furans	1.061					0.550	0.1559			3.54e2
43	Total Hepta-Dioxins	1.061					1.886	0.1005			3.06e2
44	Hexa DPE	1.000	9.59e1			24.27					0.00e0
45	Hepta DPE	1.000	4.38e2			37.15					8.07e-2
46	Octa DPE	1.000	1.39e2			39.60					1.80e-1
47	Nona DPE	1.000	1.12e2			46.15					0.00e0
48	Deca DPE	1.000	1.30e2			48.96					0.00e0
49	Tetra Lock	1.000	4.02e3			23.97					1.22e5
50	Penta Lock	1.000	1.65e5			29.18					1.88e5
51	Hexa Lock	1.000	3.83e5			39.04					4.44e5
52	Hepta Lock	1.000	4.31e4			47.59					1.96e5
53	Octa Lock	1.000	1.33e4			48.91					1.89e5
54	13C-Tetra-Furans	1.061					1188.585	1.0525			5.63e3
55	13C-Tetra-Dioxins	1.061					1495.430	2.4641			8.78e3

pv'd by LHE 24-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

SVbyKB 26Jul2018

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S19, Date: 21-Jul-2018, Time: 08:44:15, ID: L29628-22,,, Description: 1,WG64578,1.0/20uL

Tetrafurans

	RT	1° Ratio (A...	Fails?	pg
1	25.20	0.750	NO	0.146
2	24.79	1.051	YES	0.044
3	24.59	0.486	YES	0.100
4	24.22	1.518	YES	0.056
5	24.09	0.632	YES	0.055
6	23.45	1.257	YES	0.135
7	22.97	1.763	YES	0.034
8	22.86	2.350	YES	0.032
9	28.31	0.887	YES	0.054
10	28.20	1.373	YES	0.063
11	28.06	1.071	YES	0.062
12	27.69	1.300	YES	0.033
13	26.97	3.312	YES	0.046
14	26.10	0.901	YES	0.348
15	25.43	1.939	YES	0.118

Tetradioxins

	RT	1° Ratio (A...	Fails?	pg
1	25.04	1.042	YES	0.055
2	23.93	1.316	YES	0.066
3	22.99	1.850	YES	0.074
4	28.28	0.998	YES	0.065
5	26.83	0.605	YES	0.050
6	26.47	0.085	YES	0.396
7	26.18	0.894	YES	0.070
8	25.77	1.774	YES	0.071
9	25.22	3.683	YES	0.686

Pentafurans

	RT	1° Ratio (A...	Fails?	pg
1	31.25	0.891	YES	0.046
2	34.11	1.526	NO	0.039
3	33.54	0.777	YES	0.308
4	32.98	1.024	YES	0.050
5	32.87	1.344	NO	0.046
6	32.43	1.460	NO	0.039
7	37.15	8.669	YES	0.024
8	36.17	0.893	YES	0.077
9	34.61	0.301	YES	0.109
10	35.29	2.508	YES	0.055

Pentadioxins

	RT	1° Ratio (A...	Fails?	pg
1	31.49	0.983	YES	0.098
2	36.11	0.374	YES	0.074
3	34.66	0.871	YES	0.035
4	34.28	1.526	YES	0.069
5	33.98	0.611	NO	0.118
6	37.04	0.276	YES	0.121

pv'd by LHE 24-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S19, Date: 21-Jul-2018, Time: 08:44:15, ID: L29628-22,,, Description: 1,WG64578,1.0/20uL

Hexafurans

	RT	1° Ratio (A...	Fails?	pg
1	41.40	7.434	YES	0.079
2	40.72	0.925	YES	0.050
3	40.67	1.492	YES	0.079
4	39.48	1.246	NO	0.057
5	38.96	0.605	YES	0.088
6	42.82	0.288	YES	0.086
7	43.06	0.439	YES	0.079

Hexadioxins

	RT	1° Ratio (A...	Fails?	pg
1	39.99	1.708	YES	0.106
2	42.62	1.293	NO	0.054
3	42.21	2.151	YES	0.054
4	42.04	0.736	YES	0.063
5	41.18	1.305	NO	0.141
6	40.84	6.308	YES	1.131

Heptafurans

	RT	1° Ratio (A...	Fails?	pg
1	45.82	0.619	YES	0.156
2	45.52	0.246	YES	0.213
3	45.29	2.452	YES	0.181

Heptadioxins

	RT	1° Ratio (A...	Fails?	pg
1	46.66	1.292	YES	0.666
2	45.76	0.811	YES	1.220

13C-TF

	RT	1° Ratio (A...	Fails?	pg
1	25.22	0.703	NO	1188.5...

13C-TD

	RT	1° Ratio (A...	Fails?	pg
1	26.43	0.763	NO	1335.5...
2	26.11	0.782	NO	159.920

13C-PF

	RT	1° Ratio (A...	Fails?	pg
1	35.29	1.434	NO	1435.4...
2	33.53	1.390	NO	1434.2...

13C-PD

	RT	1° Ratio (A...	Fails?	pg
1	36.11	0.694	NO	1571.9...

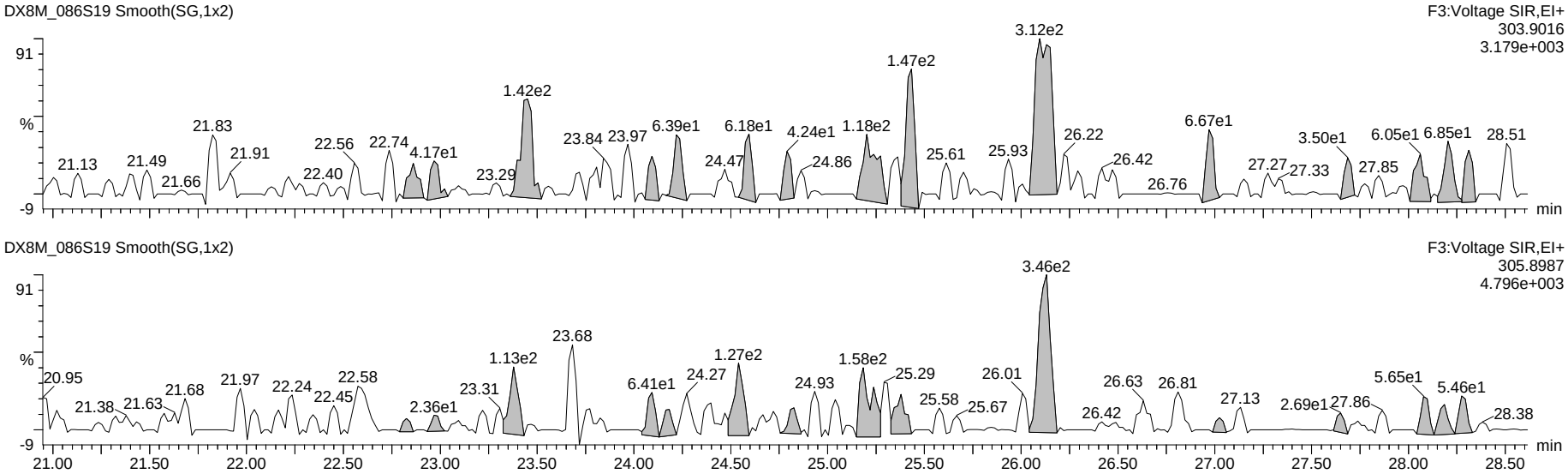
pv'd by LHE 24-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

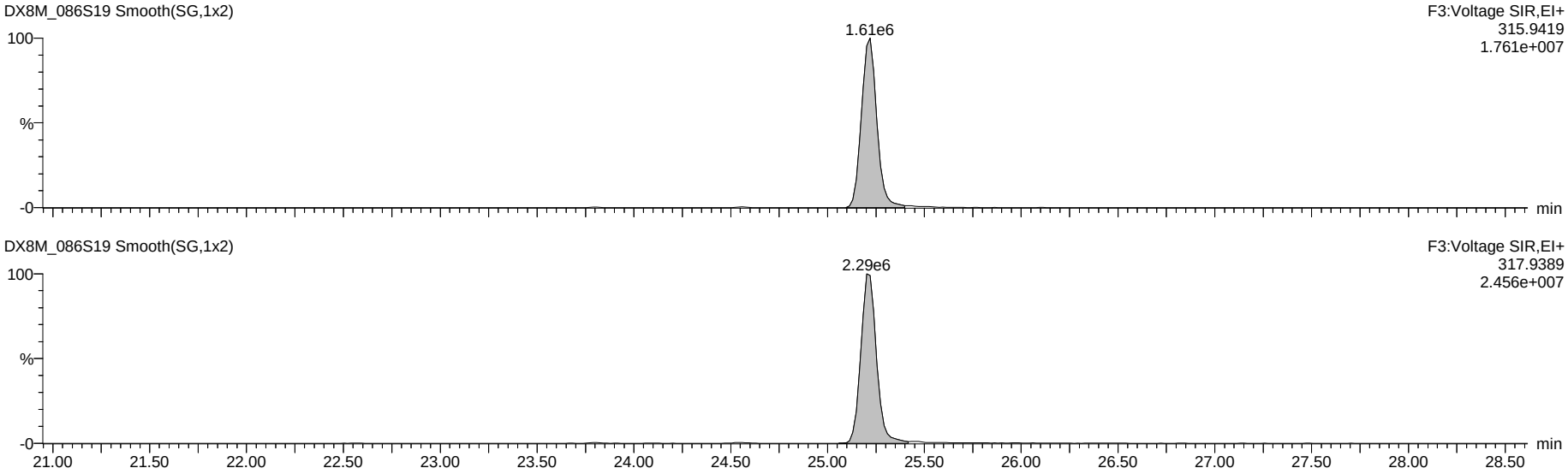
Method: G:\Masslynx\Inst_M\Projects\180604DX.pro\MethDB\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_086S19, Date: 21-Jul-2018, Time: 08:44:15, ID: L29628-22,,, Description: 1,WG64578,1.0/20uL

Total Tetra-Furans



13C-Tetra-Furans



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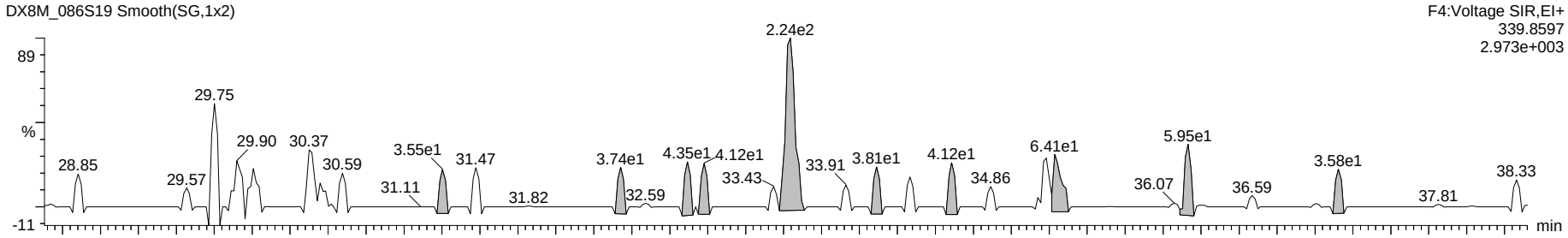
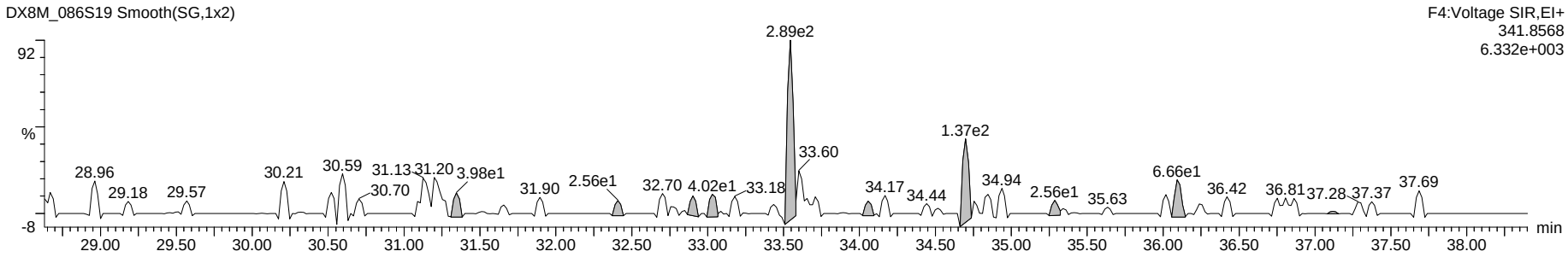
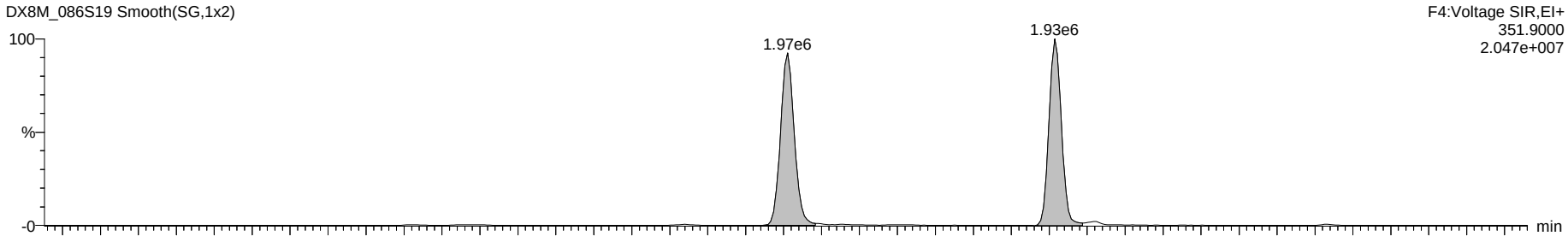
Name: DX8M_086S19, Date: 21-Jul-2018, Time: 08:44:15, ID: L29628-22,,, Description: 1,WG64578,1.0/20uL

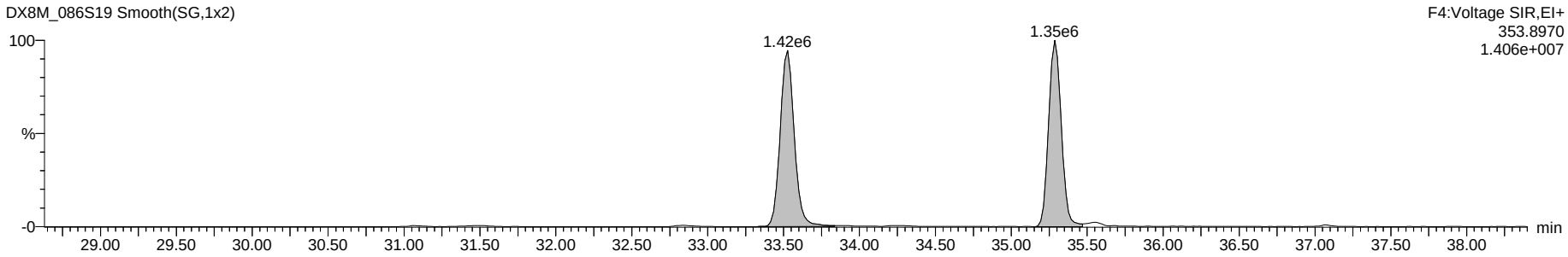
Total Penta-Furans





13C-Penta-Furans





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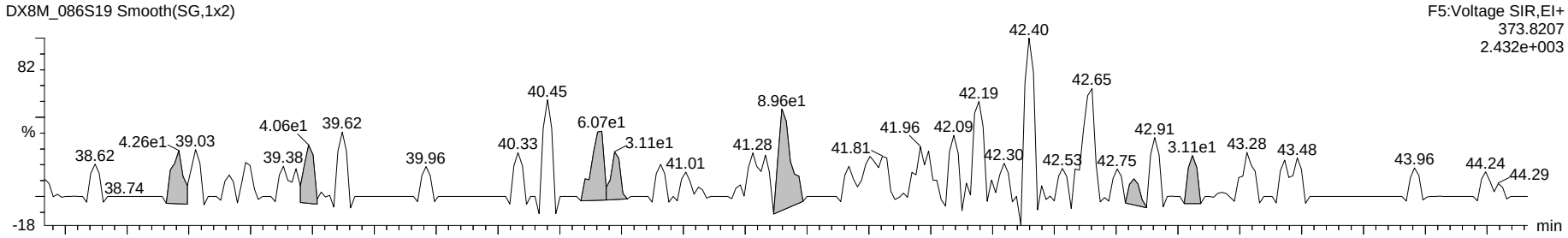
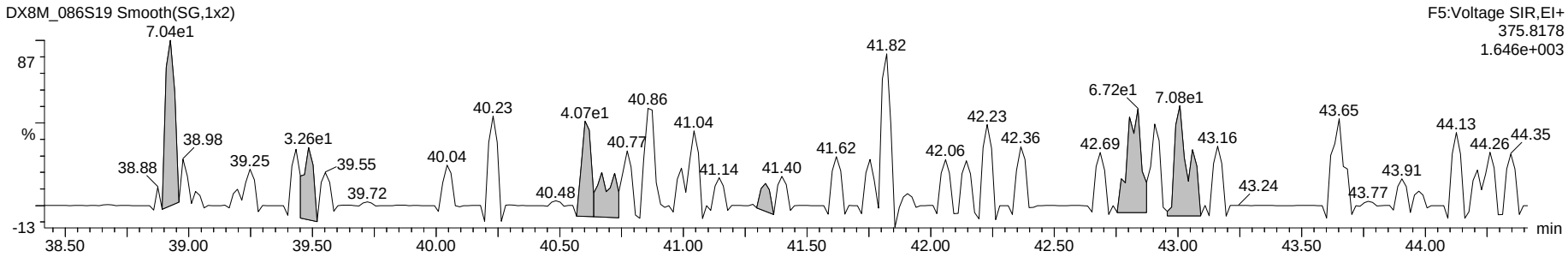
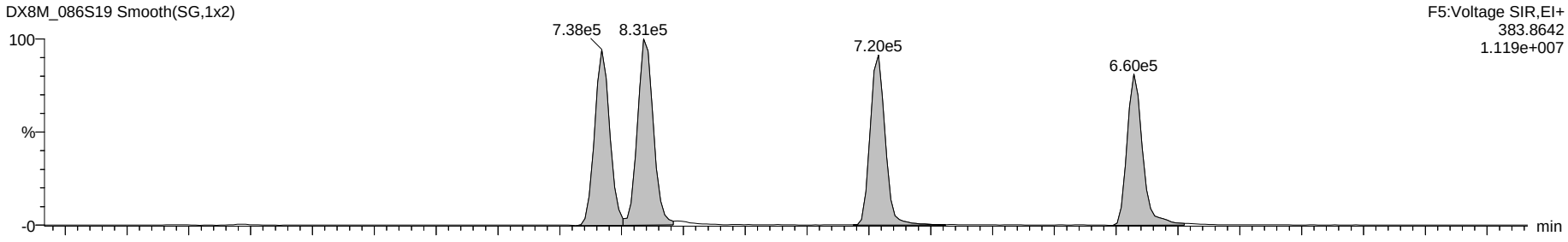
Name: DX8M_086S19, Date: 21-Jul-2018, Time: 08:44:15, ID: L29628-22,,, Description: 1,WG64578,1.0/20uL

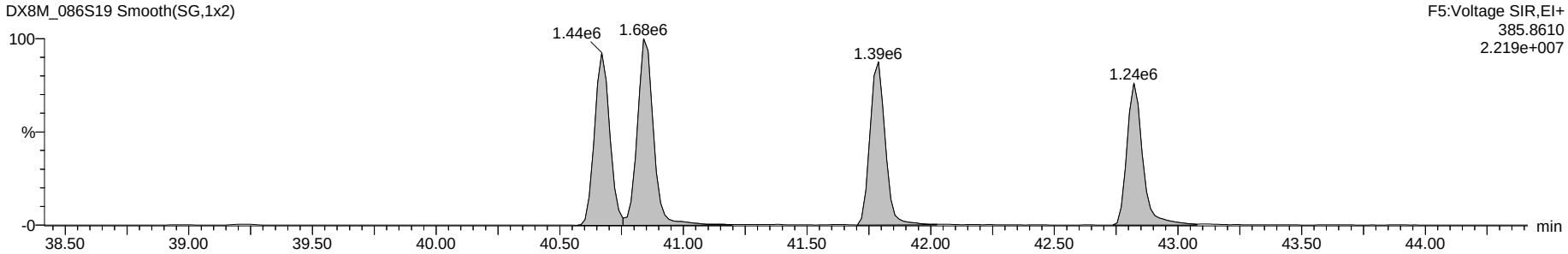
Total Hexa-Furans





13C-Hexa-Furans

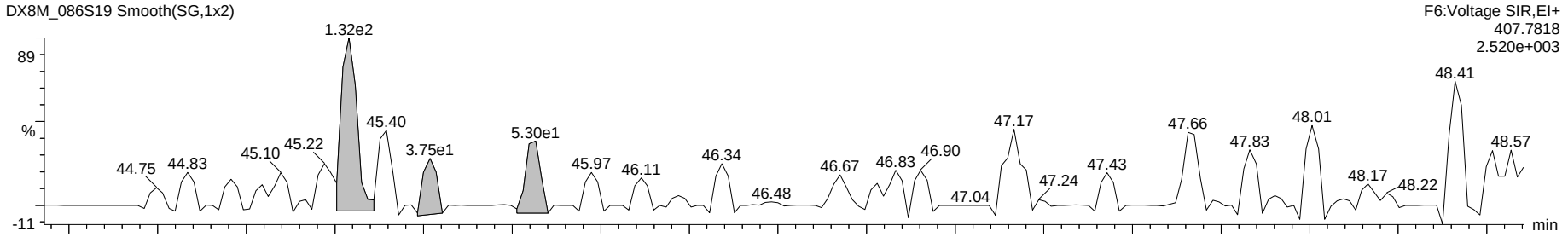


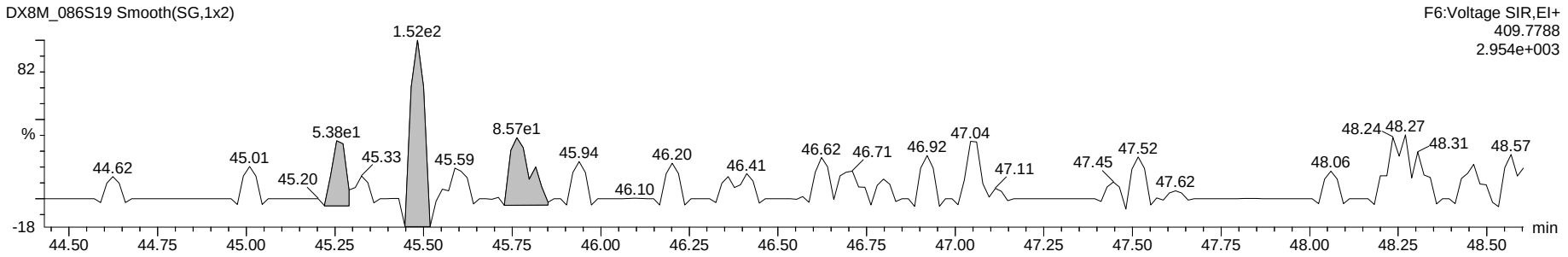


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

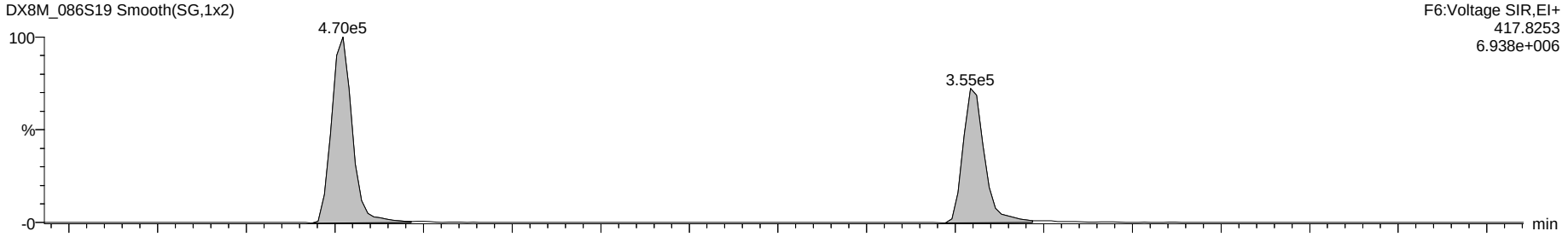
Name: DX8M_086S19, Date: 21-Jul-2018, Time: 08:44:15, ID: L29628-22,,, Description: 1,WG64578,1.0/20uL

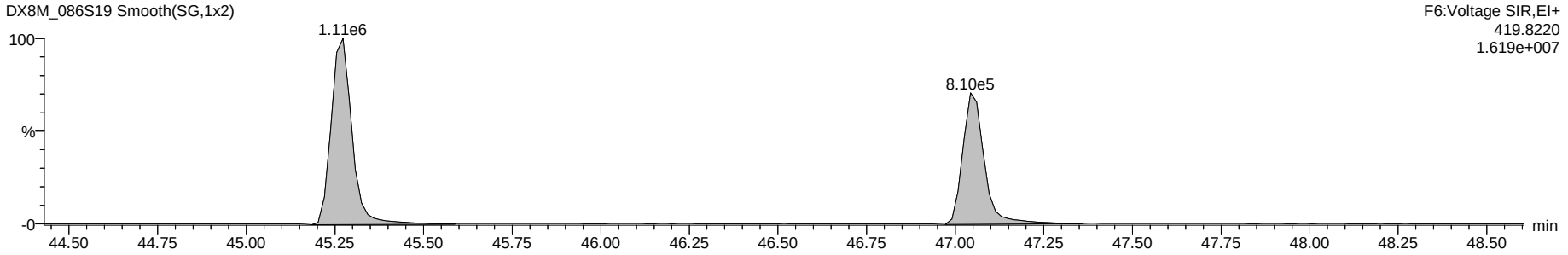
Total Hepta-Furans





13C-Hepta-Furans

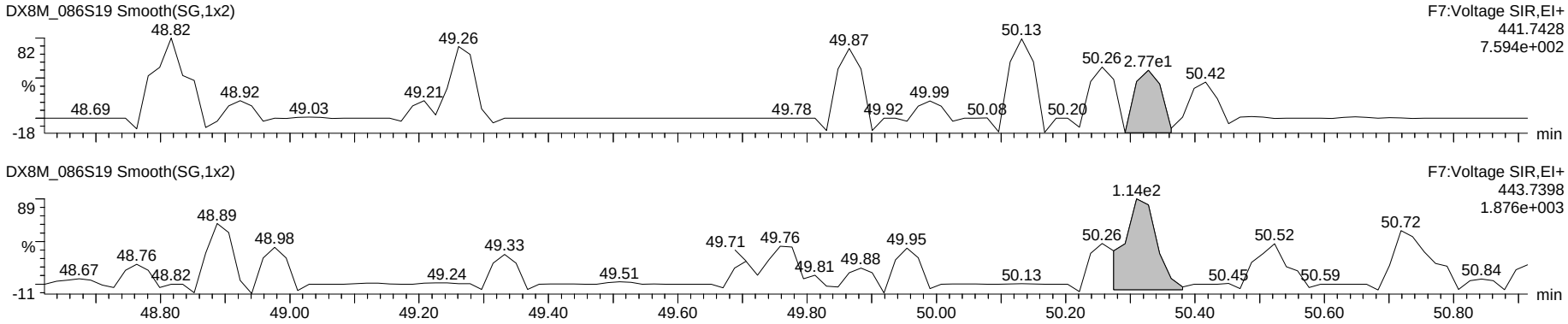




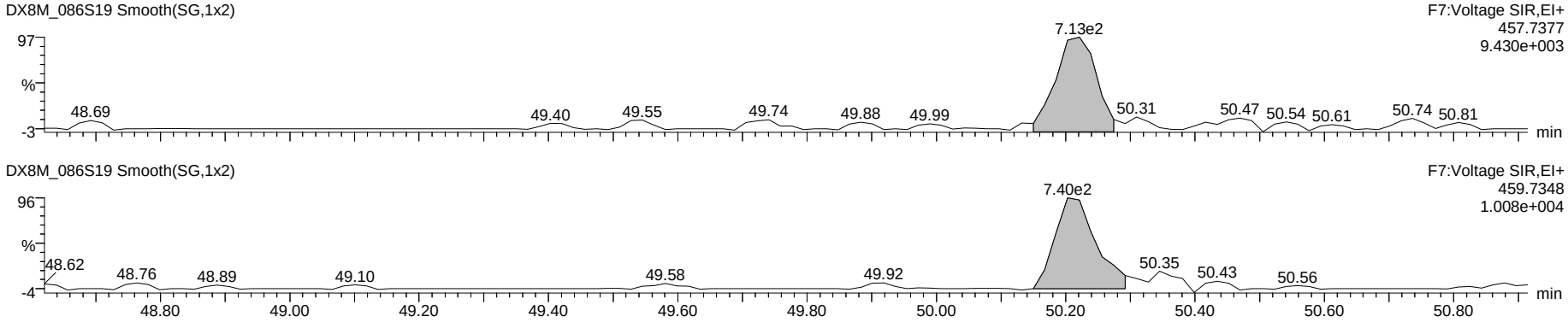
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S19, Date: 21-Jul-2018, Time: 08:44:15, ID: L29628-22,,, Description: 1,WG64578,1.0/20uL

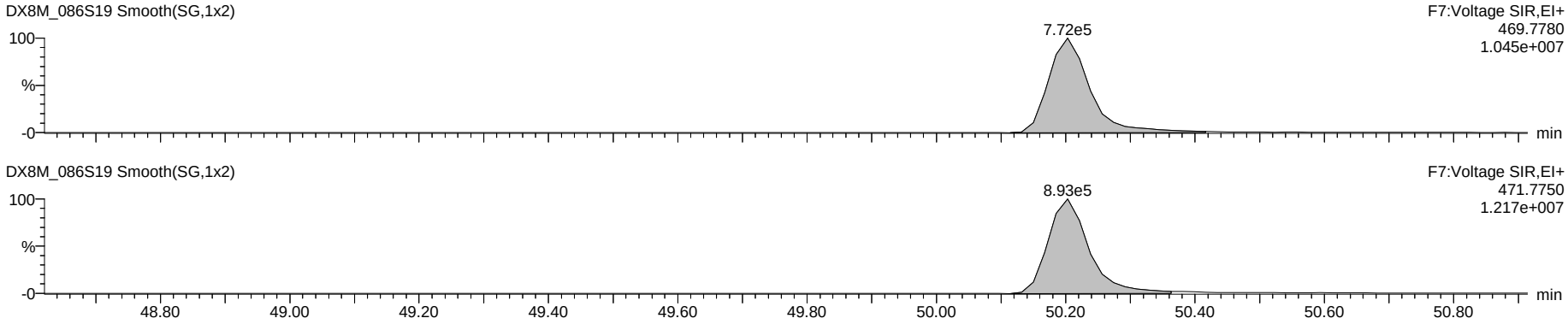
OCDF



OCDD



13C-OCDD



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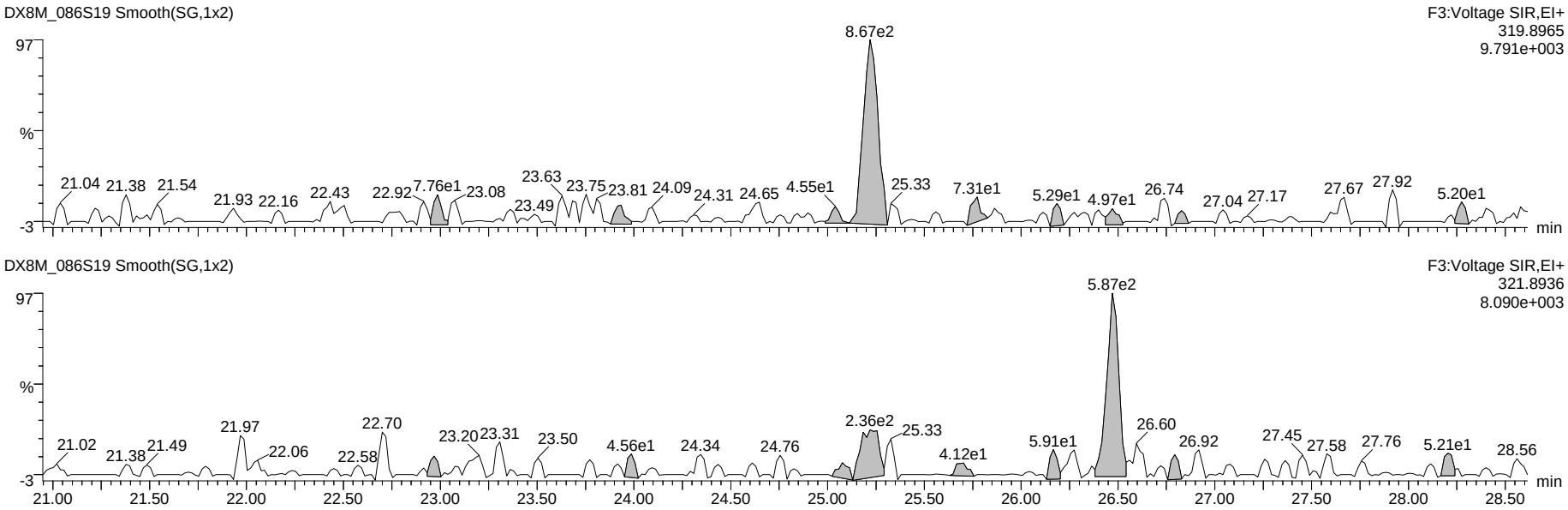
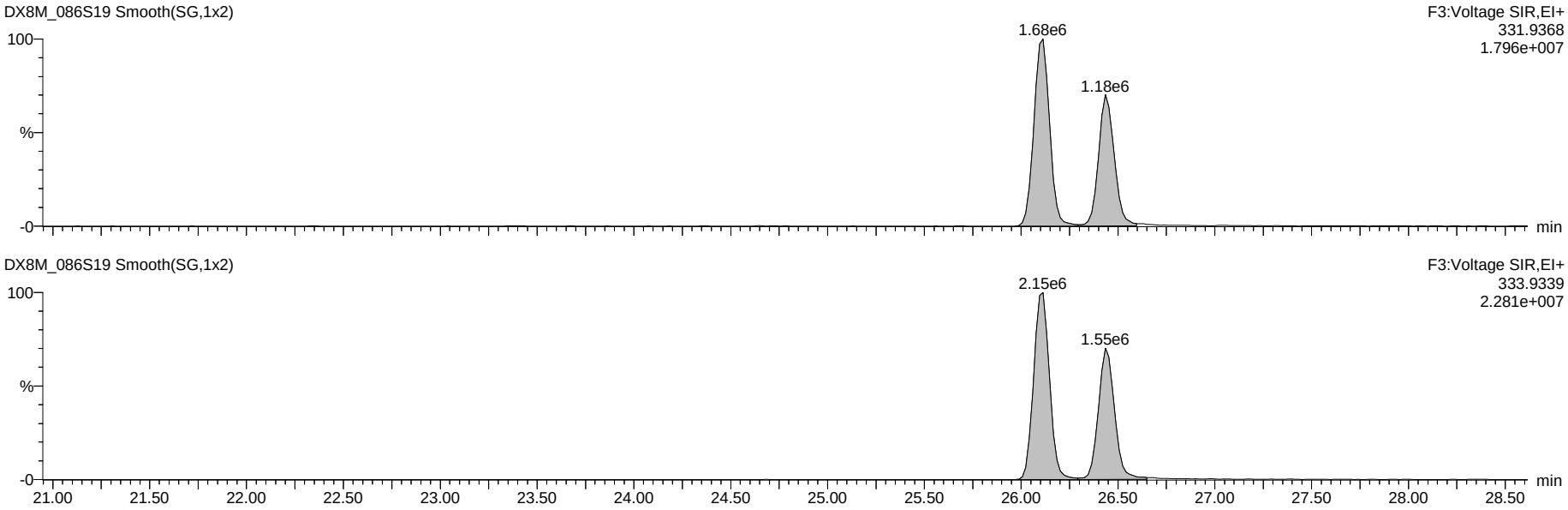
Name: DX8M_086S19, Date: 21-Jul-2018, Time: 08:44:15, ID: L29628-22,,, Description: 1,WG64578,1.0/20uL

Total Tetra-Dioxins



13C-Tetra-Dioxins



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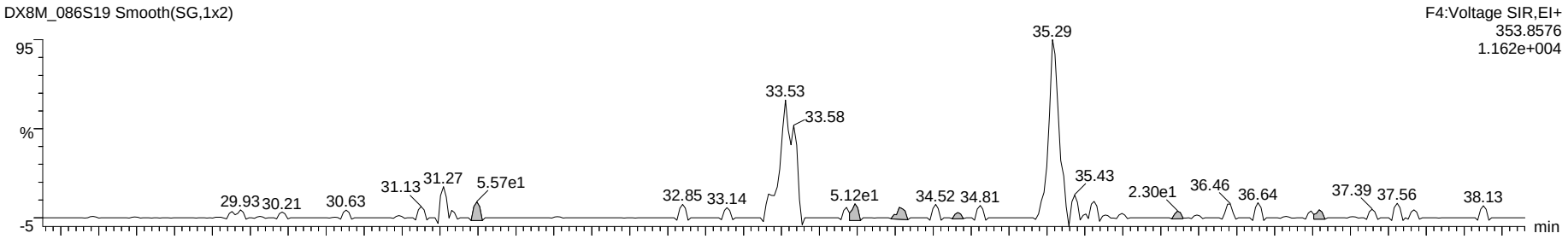
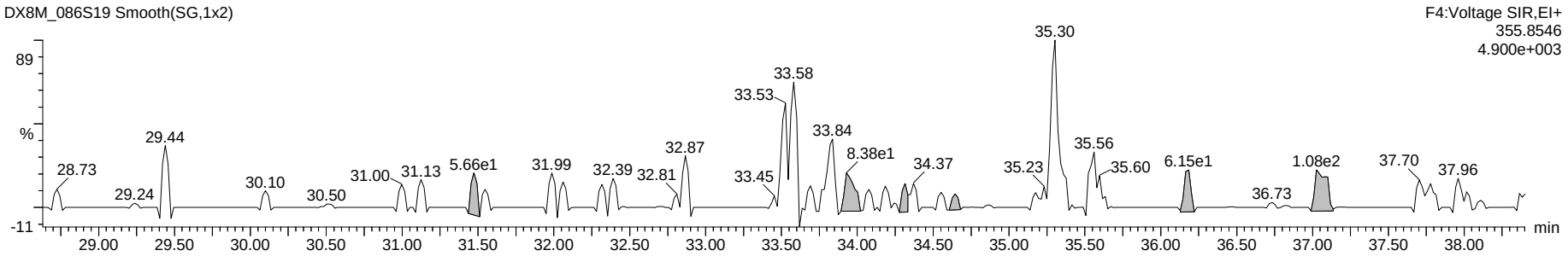
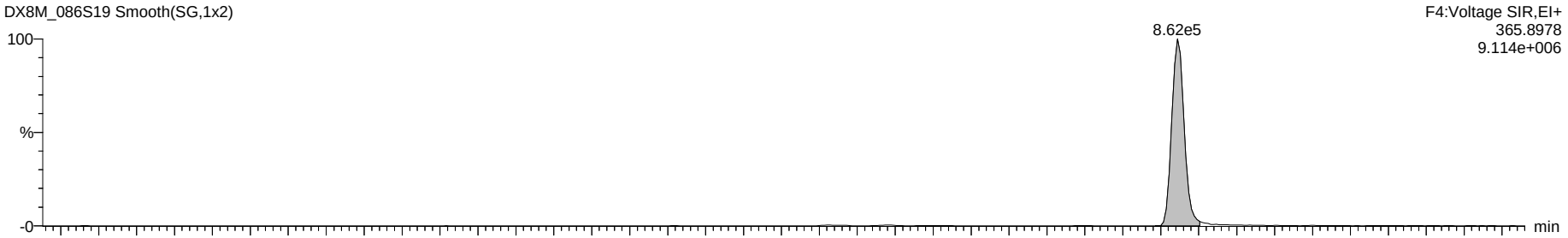
Name: DX8M_086S19, Date: 21-Jul-2018, Time: 08:44:15, ID: L29628-22,,, Description: 1,WG64578,1.0/20uL

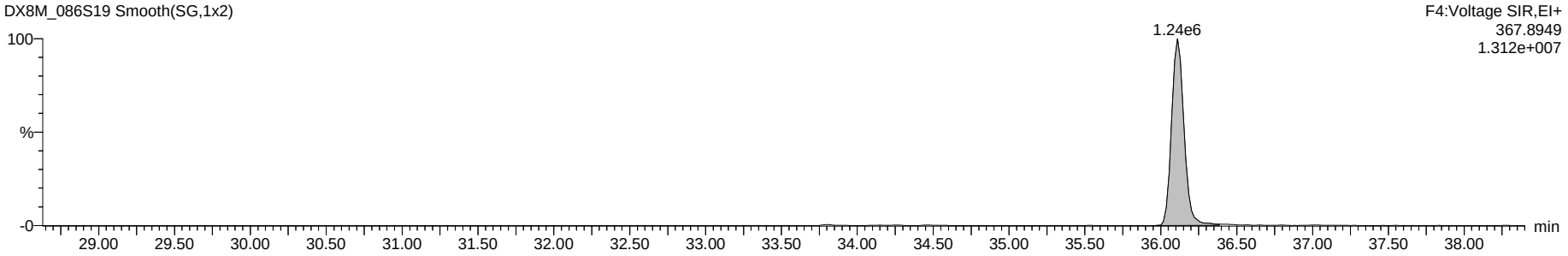
Total Penta-Dioxins





13C-Penta-Dioxins

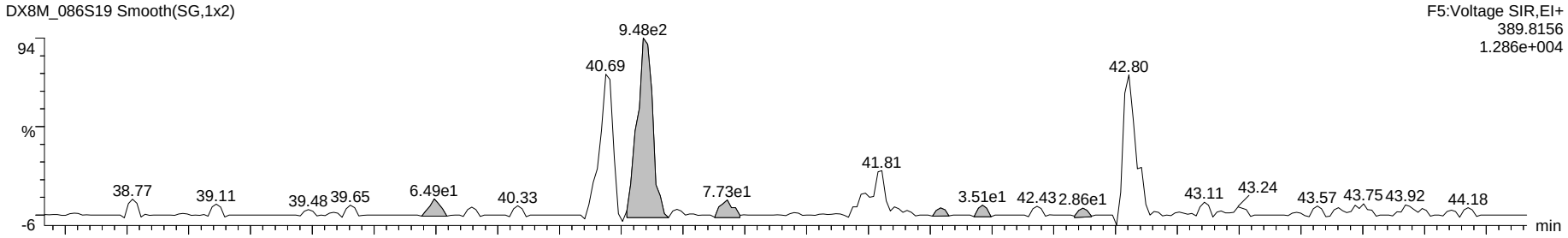


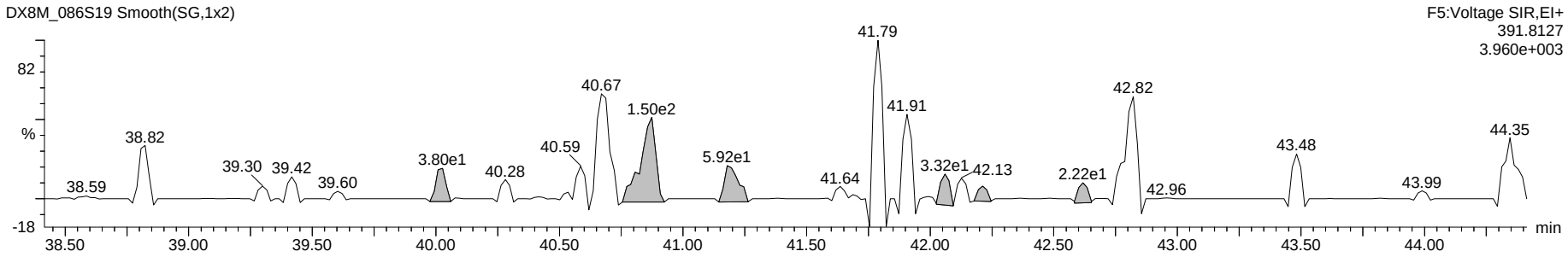


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

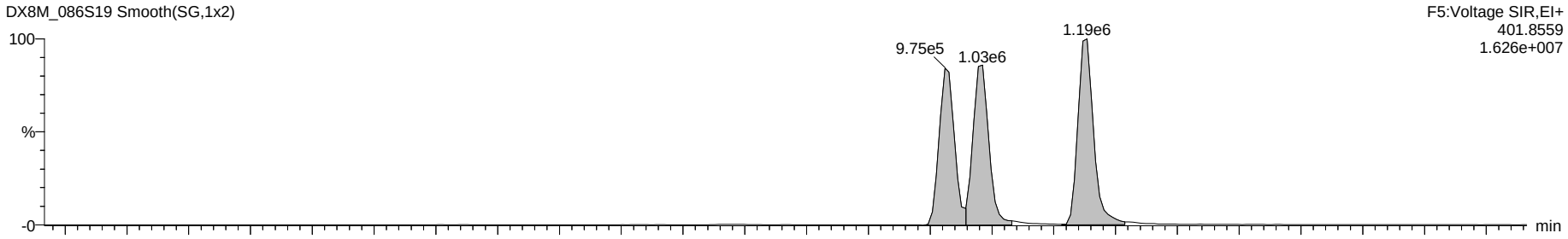
Name: DX8M_086S19, Date: 21-Jul-2018, Time: 08:44:15, ID: L29628-22,,, Description: 1,WG64578,1.0/20uL

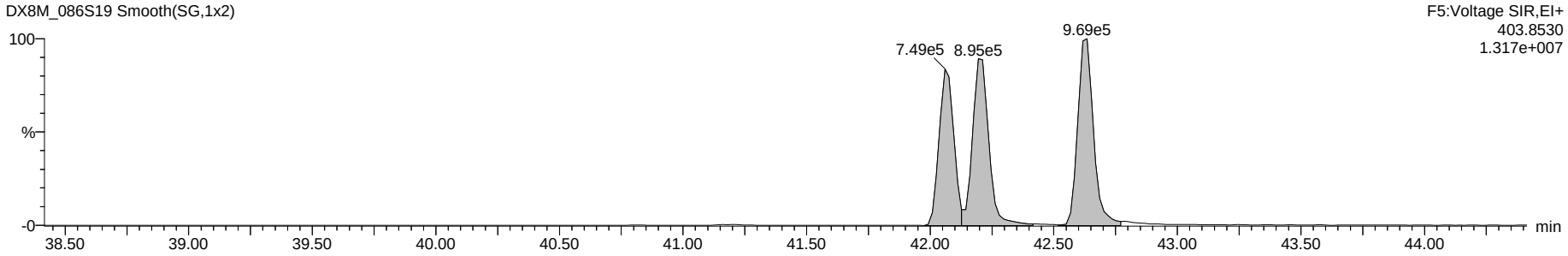
Total Hexa-Dioxins





13C-Hexa-Dioxins

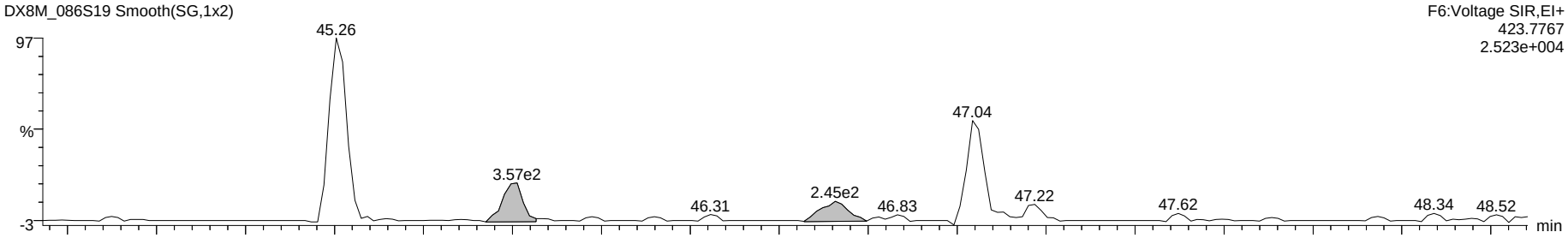


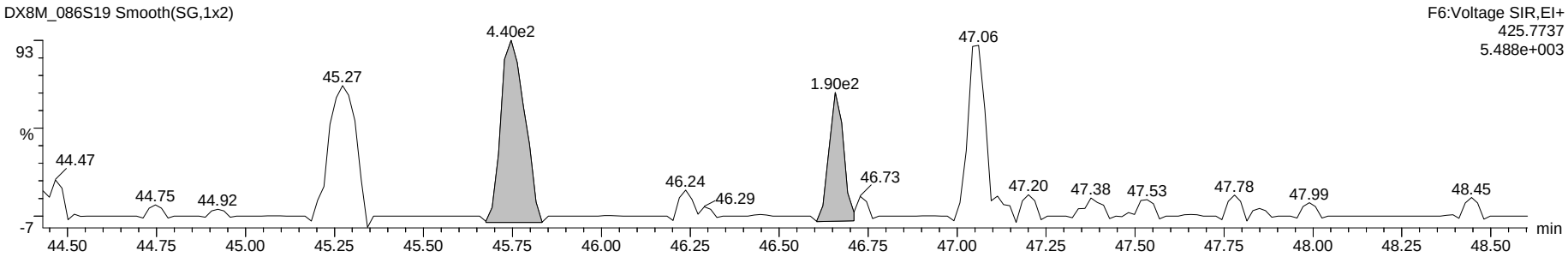


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

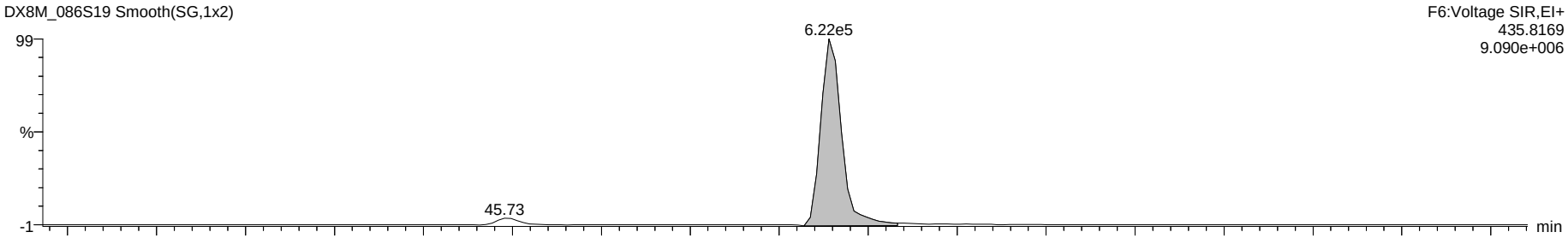
Name: DX8M_086S19, Date: 21-Jul-2018, Time: 08:44:15, ID: L29628-22,,, Description: 1,WG64578,1.0/20uL

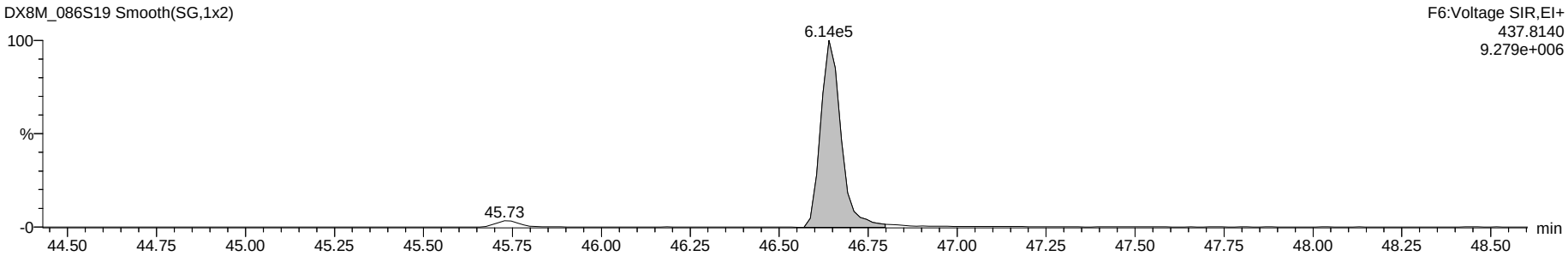
Total Hepta-Dioxins





13C-Hepta-Dioxins

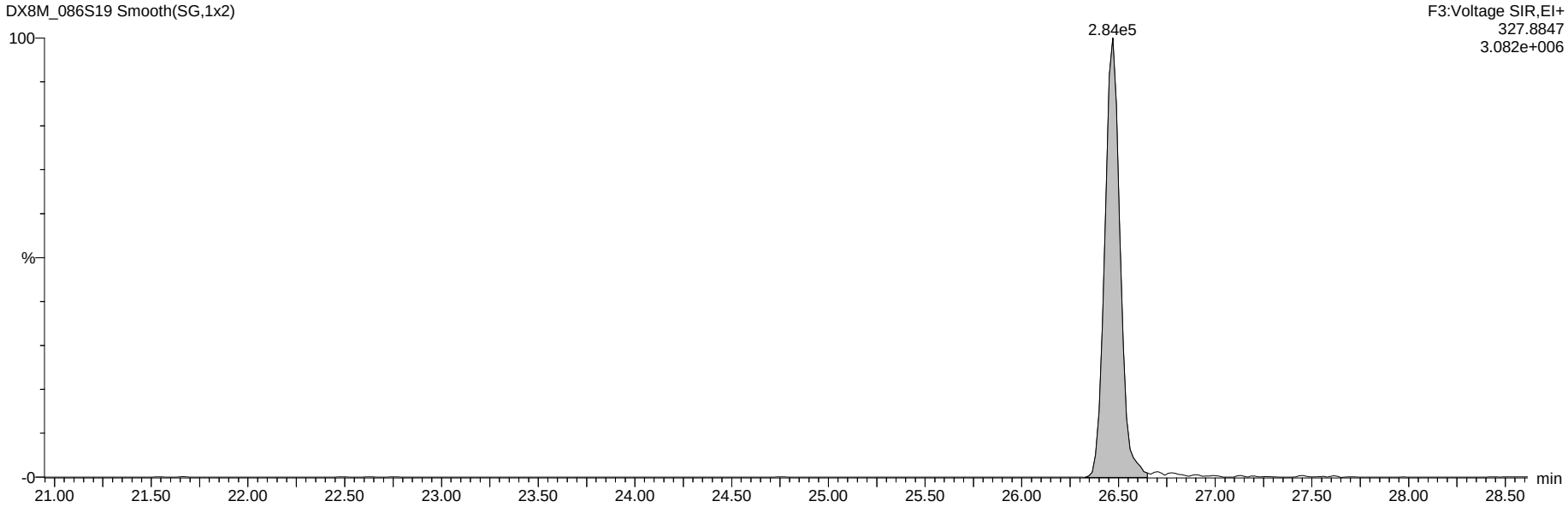




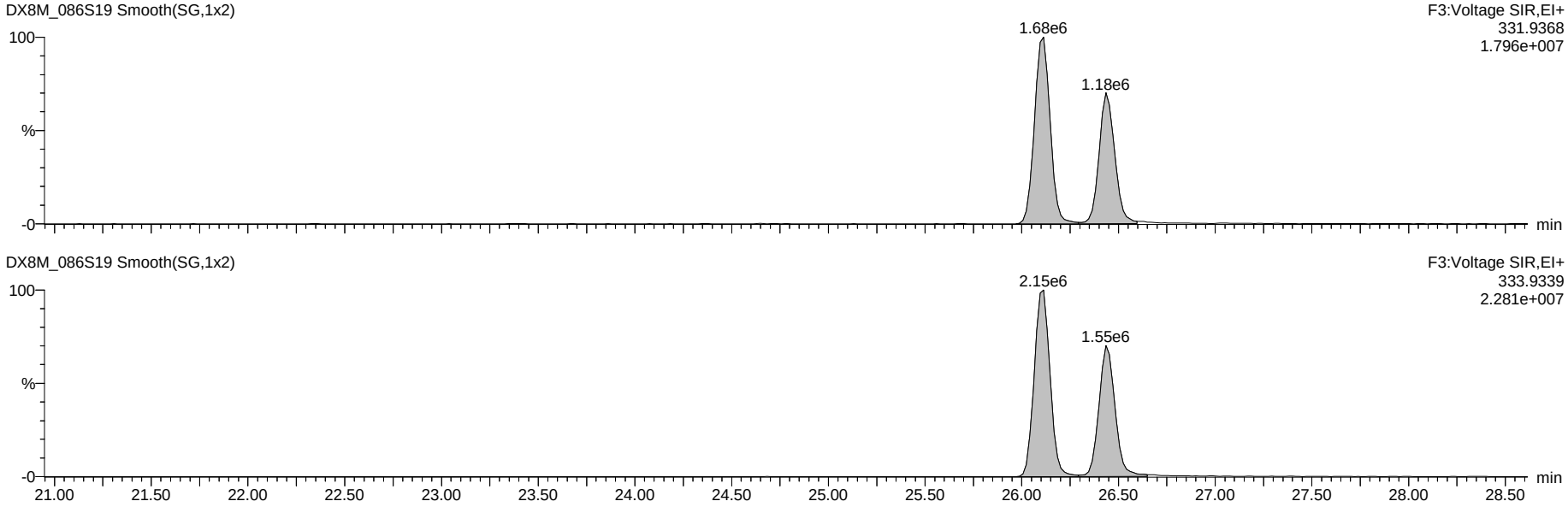
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S19, Date: 21-Jul-2018, Time: 08:44:15, ID: L29628-22,,, Description: 1,WG64578,1.0/20uL

37Cl-2,3,7,8-TCDD



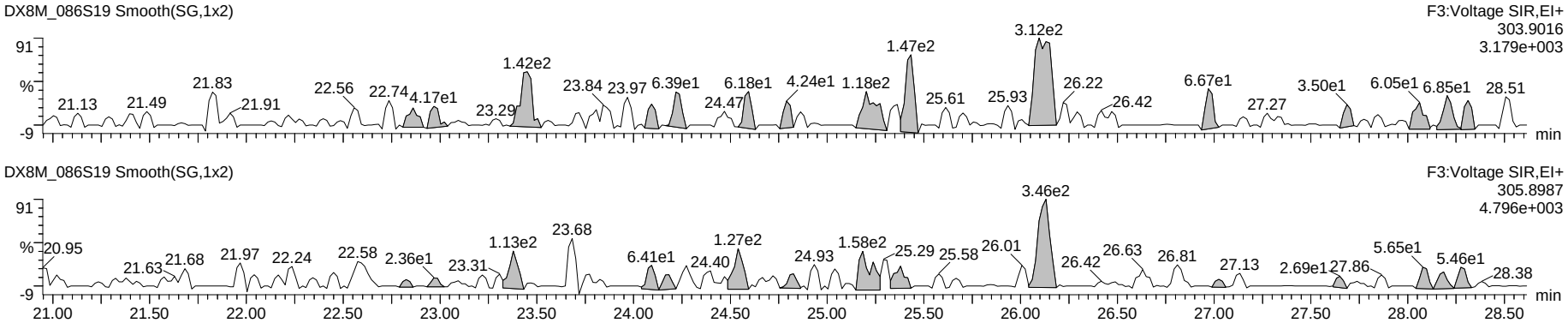
13C-Tetra-Dioxins



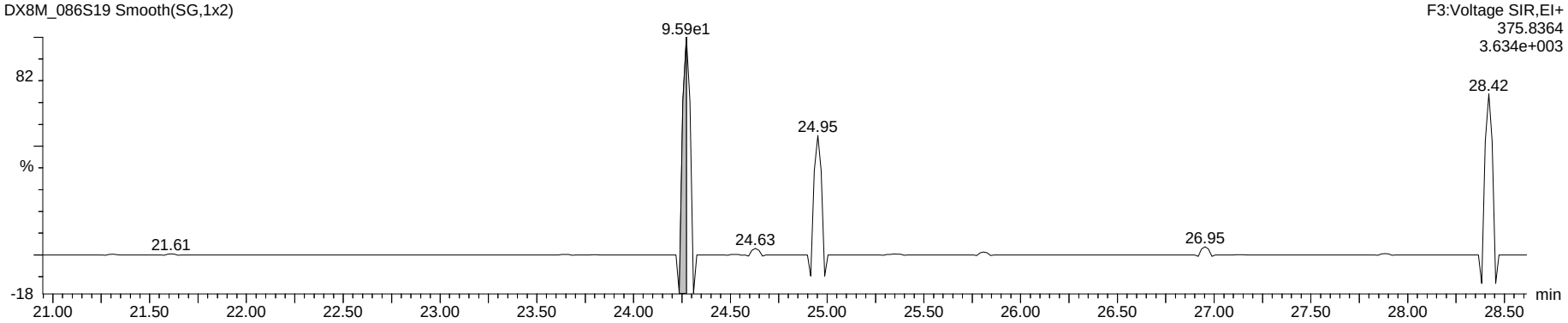
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S19, Date: 21-Jul-2018, Time: 08:44:15, ID: L29628-22,,, Description: 1,WG64578,1.0/20uL

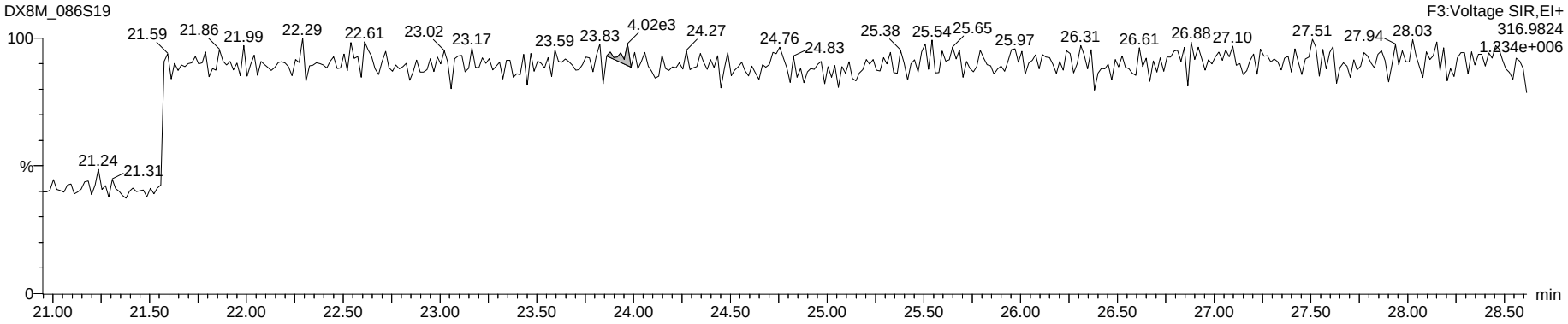
Total Tetra-Furans



Hexa DPE



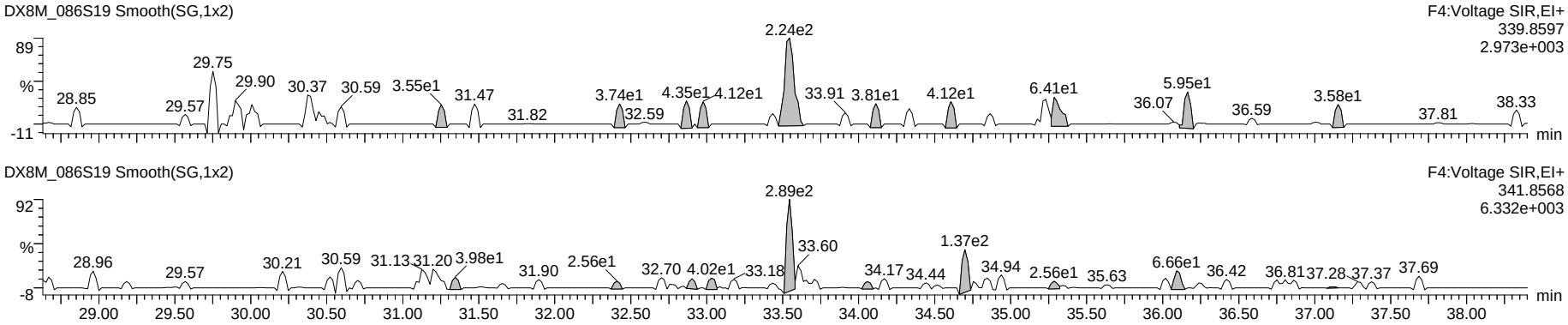
Tetra Lock



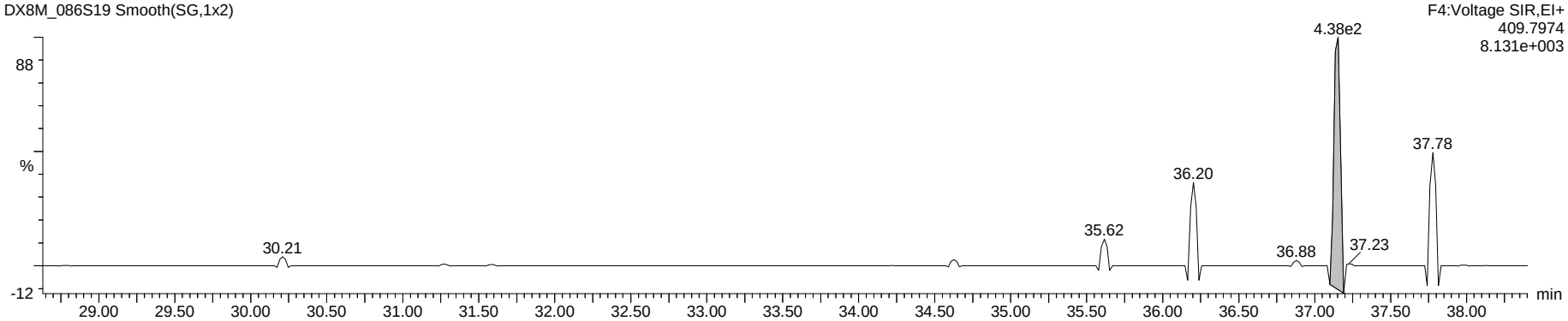
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S19, Date: 21-Jul-2018, Time: 08:44:15, ID: L29628-22,,, Description: 1,WG64578,1.0/20uL

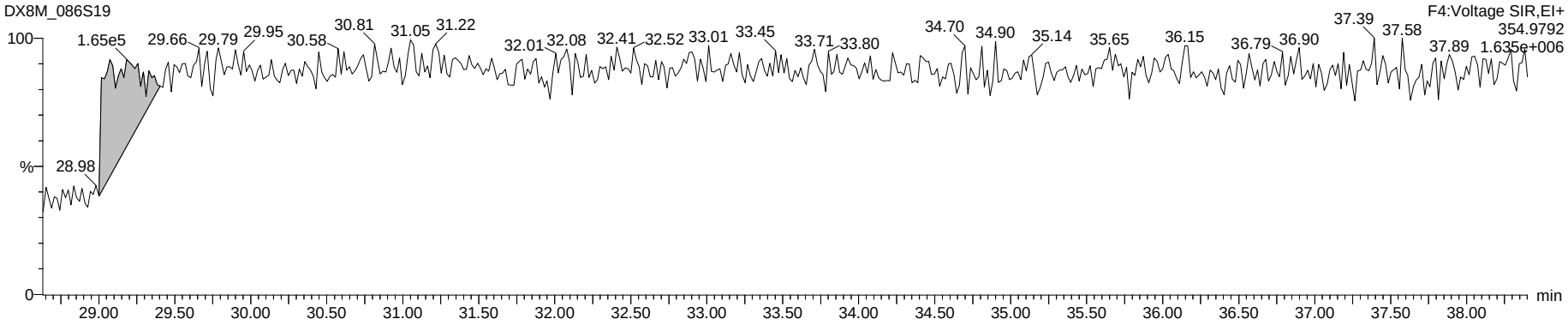
Total Penta-Furans



Hepta DPE



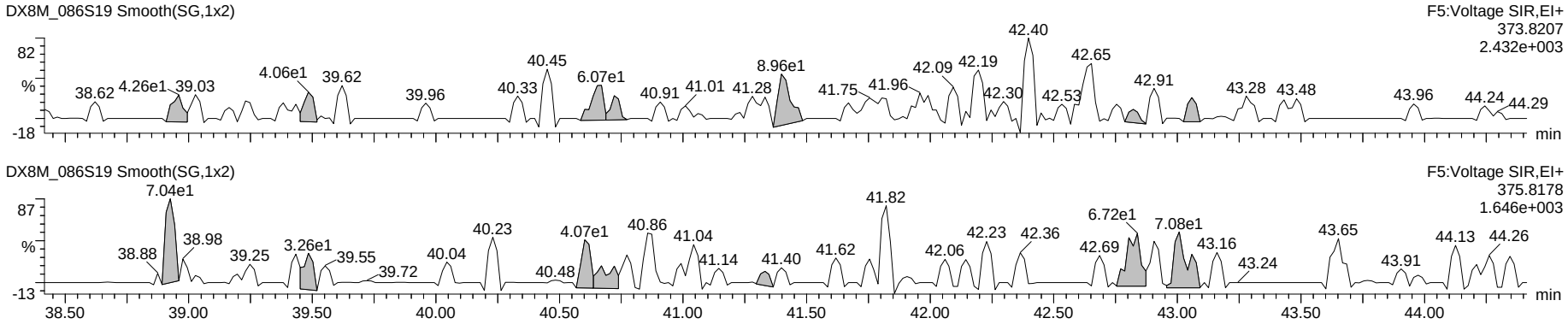
Penta Lock



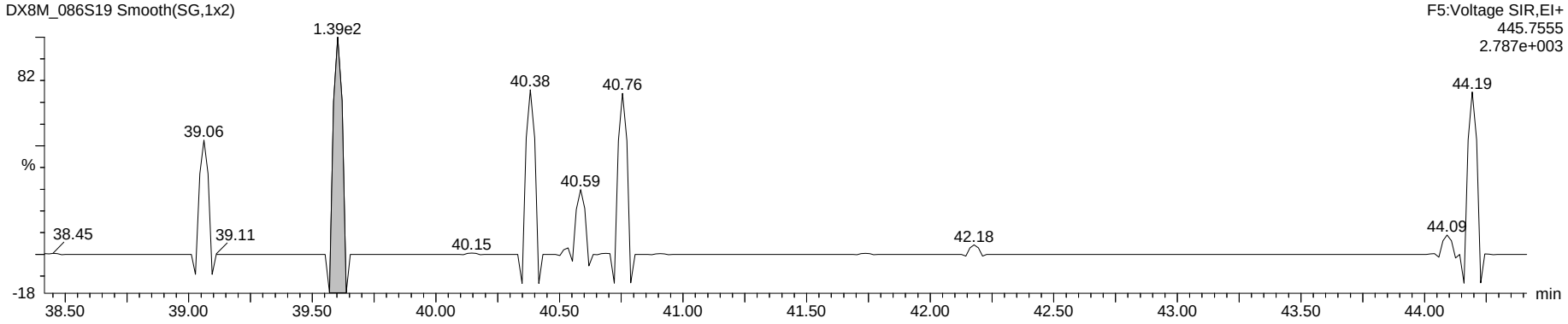
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S19, Date: 21-Jul-2018, Time: 08:44:15, ID: L29628-22,,, Description: 1,WG64578,1.0/20uL

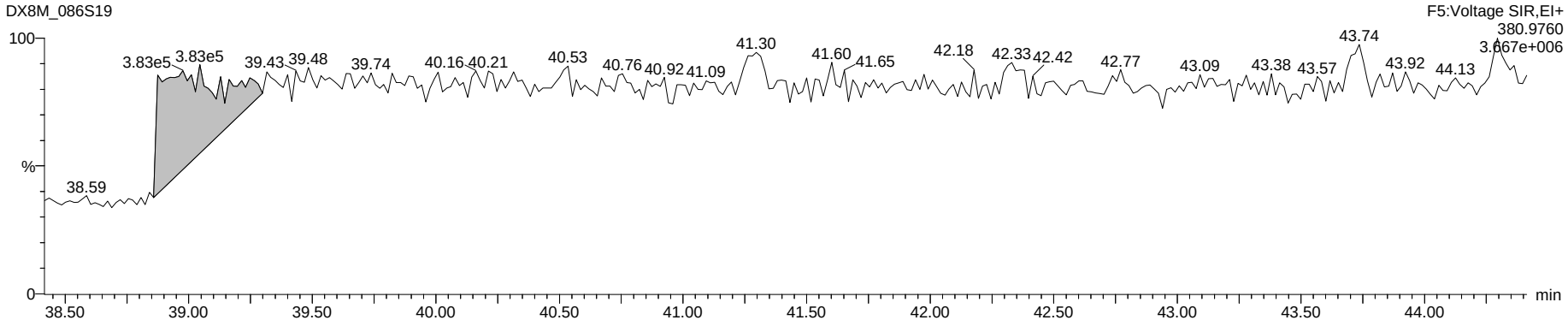
Total Hexa-Furans



Octa DPE



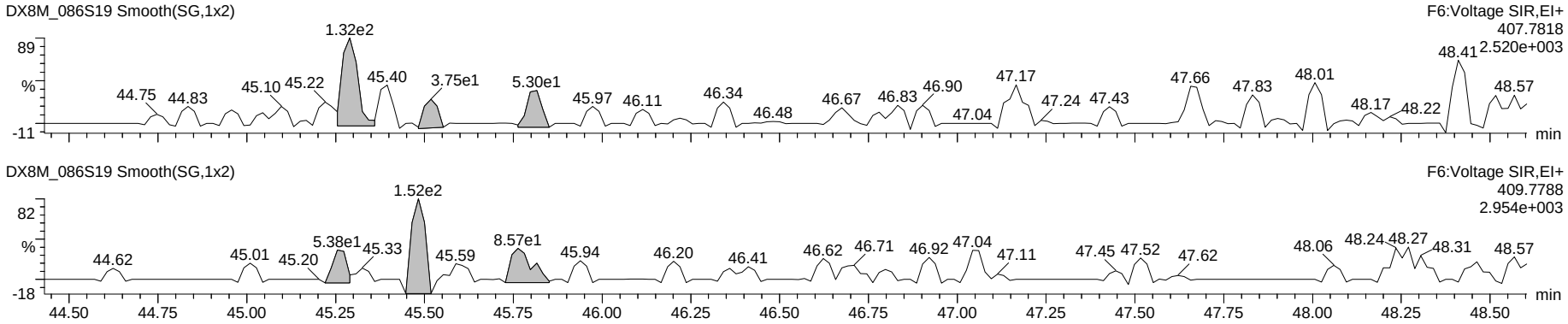
Hexa Lock



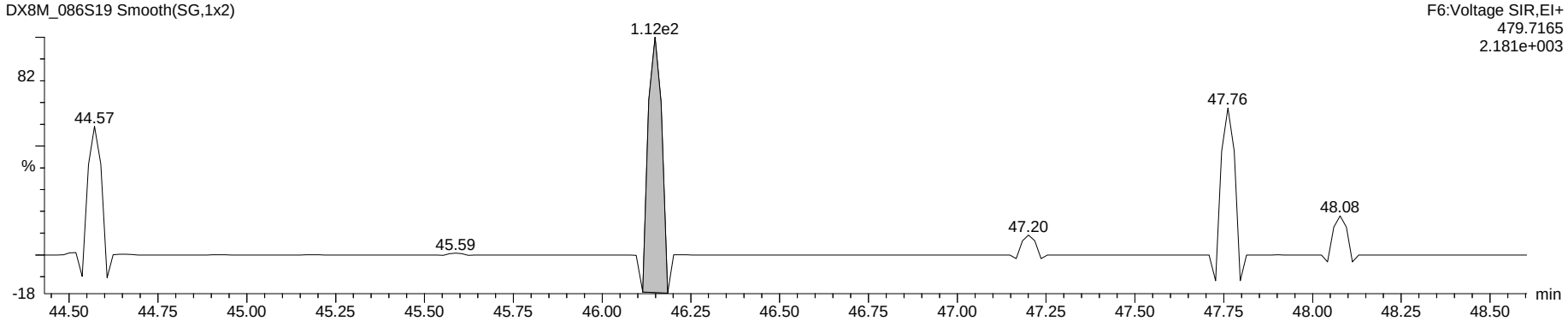
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S19, Date: 21-Jul-2018, Time: 08:44:15, ID: L29628-22,,, Description: 1,WG64578,1.0/20uL

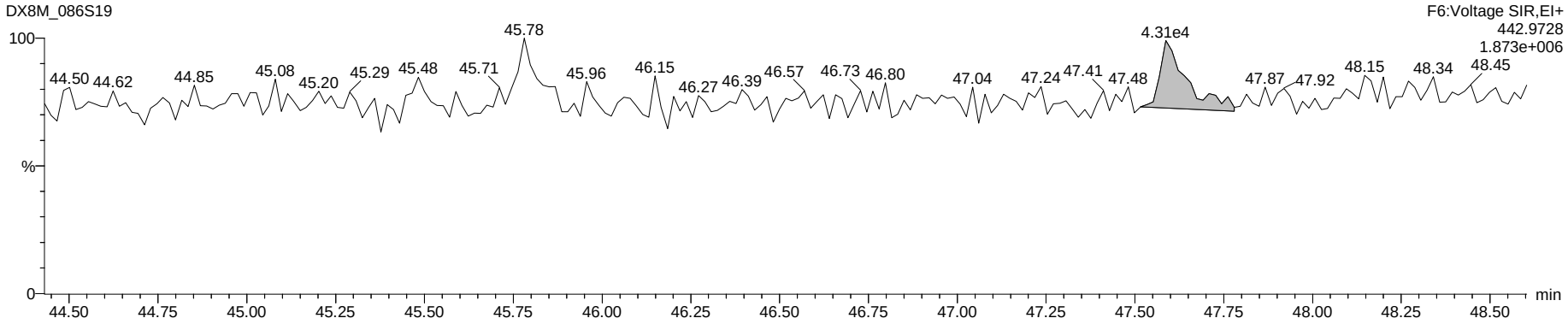
Total Hepta-Furans



Nona DPE



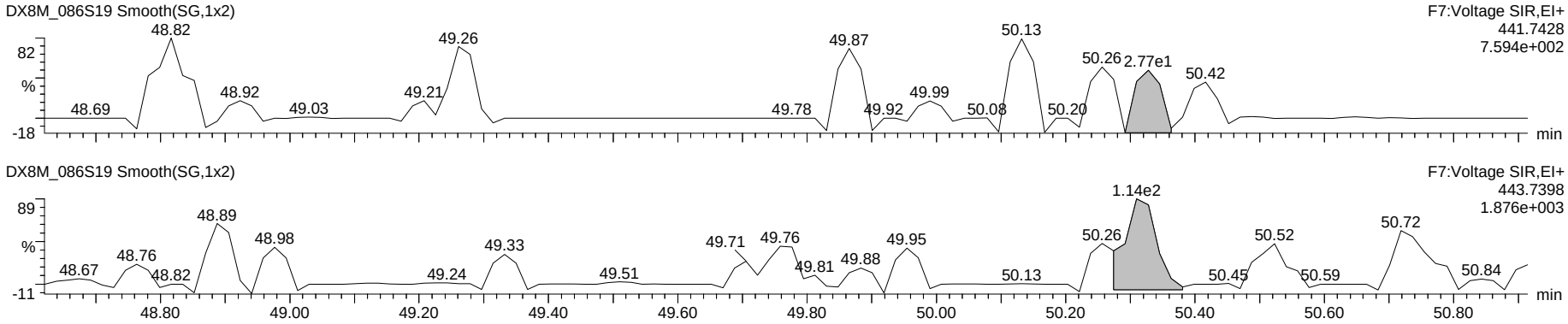
Hepta Lock



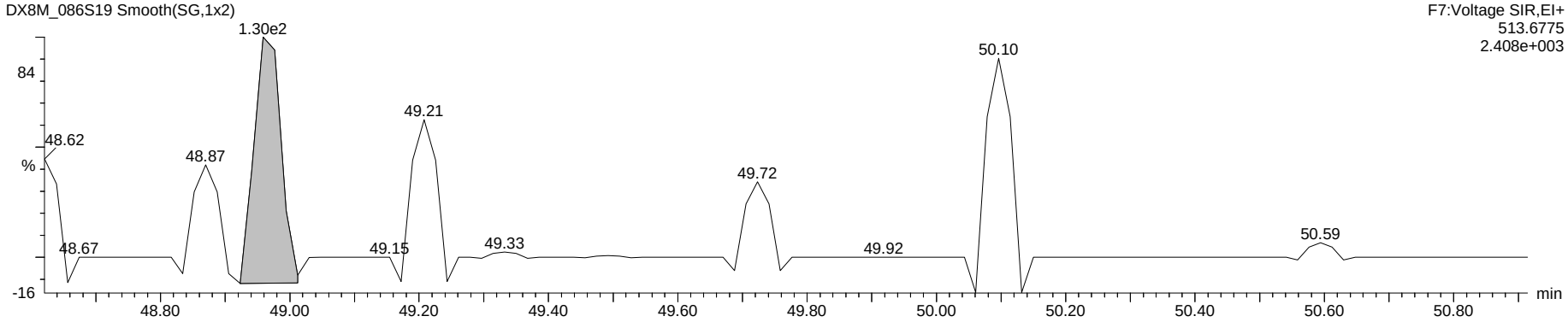
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S19, Date: 21-Jul-2018, Time: 08:44:15, ID: L29628-22,,, Description: 1,WG64578,1.0/20uL

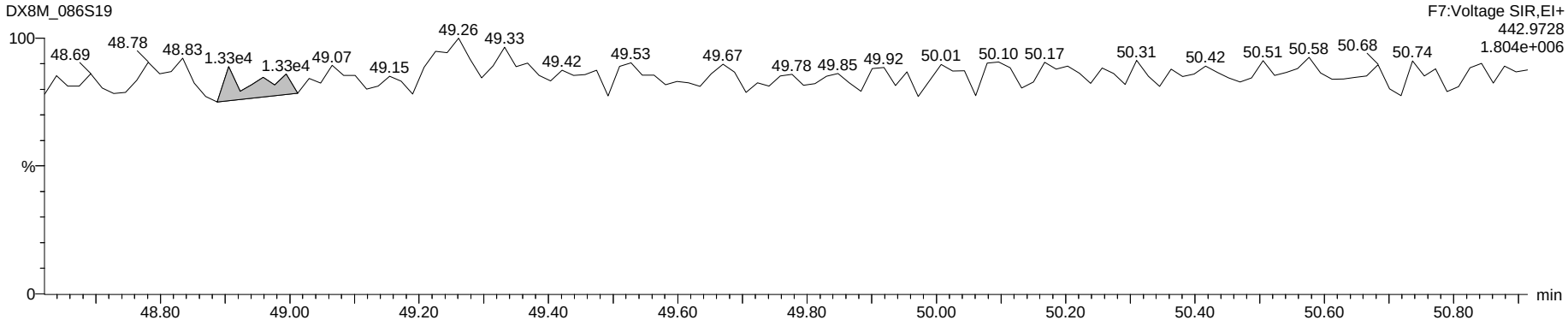
OCDF



Deca DPE



Octa Lock



Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S20, Date: 21-Jul-2018, Time: 09:39:28, ID: L29628-25,,, Description: 1,WG64578,1.0/20uL

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	1.073	1.63e2	0.34	YES	25.18	0.074	0.1044		7.01e2	3.07e2
2	1,2,3,7,8-PeCDF	1.073	1.47e2	1.41	NO	33.51	0.085	0.0695		2.17e2	2.20e2
3	2,3,4,7,8-PeCDF	1.073	1.41e2	1.88	YES	35.34	0.083	0.0604		2.17e2	2.20e2
4	1,2,3,4,7,8-HxCDF	1.073	5.25e1	2.70	YES	40.65	0.039	0.0337		3.46e-1	2.43e2
5	1,2,3,6,7,8-HxCDF	1.073	5.54e1	1.04	YES	40.89	0.039	0.0320		3.46e-1	2.43e2
6	2,3,4,6,7,8-HxCDF	1.073	3.75e1	1.96	YES	41.77	0.027	0.0309		3.46e-1	2.43e2
7	1,2,3,7,8,9-HxCDF	1.073	1.32e2	0.49	YES	42.82	0.123	0.0428		3.46e-1	2.43e2
8	1,2,3,4,6,7,8-HpCDF	1.073	2.38e2	1.51	YES	45.27	0.226	0.0408		1.92e2	6.54e1
9	1,2,3,4,7,8,9-HpCDF	1.073			NO			0.0549		1.92e2	6.54e1
10	OCDF	1.073	3.76e2	0.82	NO	50.31	0.643	0.2100		2.67e2	3.41e2
11	2,3,7,8-TCDD	1.073			NO			0.1659		5.83e2	6.49e2
12	1,2,3,7,8-PeCDD	1.073			NO			0.4125		1.16e3	8.47e2
13	1,2,3,4,7,8-HxCDD	1.073			NO			0.2847		3.93e2	1.23e3
14	1,2,3,6,7,8-HxCDD	1.073			NO			0.2821		3.93e2	1.23e3
15	1,2,3,7,8,9-HxCDD	1.073			NO			0.2821		3.93e2	1.23e3
16	1,2,3,4,6,7,8-HpCDD	1.073	7.36e2	0.50	YES	46.67	1.073	0.0813		1.44e2	1.74e2
17	OCDD	1.073	3.24e3	0.79	NO	50.22	6.670	0.0887		2.13e2	2.06e-1
18	13C-2,3,7,8-TCDF	1.073	4.51e6	0.71	NO	25.20	1371.848	1.0510	73.6	1.02e4	4.70e3
19	13C-1,2,3,7,8-PeCDF	1.073	3.48e6	1.39	NO	33.51	1470.348	1.0452	78.9	4.93e3	5.73e3
20	13C-2,3,4,7,8-PeCDF	1.073	3.39e6	1.41	NO	35.29	1482.391	1.0836	79.6	4.93e3	5.73e3
21	13C-1,2,3,4,7,8-HxCDF	1.073	2.24e6	0.51	NO	40.67	1514.846	2.2844	81.3	9.60e3	8.38e3
22	13C-1,2,3,6,7,8-HxCDF	1.073	2.49e6	0.51	NO	40.84	1576.278	2.1387	84.6	9.60e3	8.38e3
23	13C-2,3,4,6,7,8-HxCDF	1.073	2.23e6	0.51	NO	41.77	1584.209	2.3934	85.0	9.60e3	8.38e3
24	13C-1,2,3,7,8,9-HxCDF	1.073	2.00e6	0.52	NO	42.82	1438.231	2.4267	77.2	9.60e3	8.38e3
25	13C-1,2,3,4,6,7,8-HpCDF	1.073	1.61e6	0.45	NO	45.25	1363.177	1.3391	73.2	4.63e3	3.78e3
26	13C-1,2,3,4,7,8,9-HpCDF	1.073	1.22e6	0.44	NO	47.04	1329.616	1.7168	71.4	4.63e3	3.78e3
27	13C-2,3,7,8-TCDD	1.073	2.98e6	0.77	NO	26.43	1460.259	1.6512	78.4	5.13e3	9.40e3
28	13C-1,2,3,7,8-PeCDD	1.073	2.20e6	0.70	NO	36.11	1640.856	1.4202	88.1	2.96e3	5.23e3
29	13C-1,2,3,4,7,8-HxCDD	1.073	1.75e6	1.24	NO	42.06	1538.986	2.6515	82.6	4.97e3	1.11e4
30	13C-1,2,3,6,7,8-HxCDD	1.073	1.99e6	1.23	NO	42.19	1657.045	2.5074	88.9	4.97e3	1.11e4
31	13C-1,2,3,4,6,7,8-HpCDD	1.073	1.28e6	1.00	NO	46.64	1363.510	1.9473	73.2	4.78e3	4.99e3
32	13C-OCDD	1.073	1.78e6	0.89	NO	50.19	2146.840	3.3472	57.6	7.87e3	6.89e3
33	13C-1,2,3,4-TCDD	1.073	3.79e6	0.76	NO	26.10	156.229	0.1390	8.4	5.13e3	9.40e3
34	13C-1,2,3,7,8,9-HxCDD	1.073	2.15e6	1.23	NO	42.62	140.595	0.1969	7.5	4.97e3	1.11e4
35	37Cl-2,3,7,8-TCDD	1.073	3.02e5			26.45	133.520	0.3701	71.7		3.61e3
36	Total Tetra-Furans	1.073					0.817	0.1044			3.07e2
37	Total Tetra-Dioxins	1.073					0.656	0.1659			6.49e2
38	Total Penta-Furans	1.073					0.721	0.0655			2.20e2
39	Total Penta-Dioxins	1.073					0.433	0.4125			8.47e2
40	Total Hexa-Furans	1.073					0.813	0.0333			2.43e2
41	Total Hexa-Dioxins	1.073					0.888	0.2730			1.23e3
42	Total Hepta-Furans	1.073					0.997	0.0475			6.54e1
43	Total Hepta-Dioxins	1.073					3.019	0.0813			1.74e2
44	Hexa DPE	1.000	2.77e2			23.45					0.00e0
45	Hepta DPE	1.000	1.27e2			34.24					4.25e-1
46	Octa DPE	1.000	1.06e2			39.26					1.20e-2
47	Nona DPE	1.000	3.24e1			48.48					2.53e0
48	Deca DPE	1.000	1.86e2			49.15					0.00e0
49	Tetra Lock	1.000									1.21e5
50	Penta Lock	1.000	1.66e5			29.35					1.86e5
51	Hexa Lock	1.000	2.98e5			38.81					2.96e5
52	Hepta Lock	1.000	2.77e4			47.59					1.72e5
53	Octa Lock	1.000	9.30e3			48.99					2.05e5
54	13C-Tetra-Furans	1.073					1371.848	1.0510			4.70e3
55	13C-Tetra-Dioxins	1.073					1616.488	1.7902			9.40e3

pv'd by LHE 24-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

SWapK3 26/7/2018

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S20, Date: 21-Jul-2018, Time: 09:39:28, ID: L29628-25,,, Description: 1,WG64578,1.0/20uL

Tetrafurans

	RT	1° Ratio (A...	Fails?	pg
1	22.84	1.081	YES	0.043
2	22.66	0.538	YES	0.070
3	21.97	0.960	YES	0.055
4	26.11	0.790	NO	0.384
5	25.88	0.243	YES	0.077
6	25.18	0.338	YES	0.074
7	24.68	0.053	YES	0.058
8	23.79	1.226	YES	0.056

Tetradioxins

	RT	1° Ratio (A...	Fails?	pg
1	25.63	1.099	YES	0.110
2	25.26	2.393	YES	0.218
3	25.17	2.980	YES	0.233
4	22.92	1.156	YES	0.096

Pentafurans

	RT	1° Ratio (A...	Fails?	pg
1	28.83	1.407	NO	0.161
2	32.77	0.312	YES	0.054
3	31.42	0.989	YES	0.067
4	31.20	0.580	YES	0.047
5	37.01	3.881	YES	0.097
6	36.06	1.765	NO	0.044
7	35.63	0.507	YES	0.083
8	35.34	1.879	YES	0.083
9	33.51	1.406	NO	0.085

Pentadioxins

	RT	1° Ratio (A...	Fails?	pg
1	32.04	0.515	YES	0.065
2	34.92	0.435	YES	0.062
3	34.50	0.474	YES	0.048
4	33.82	0.821	YES	0.103
5	37.03	2.139	YES	0.089
6	35.65	0.563	NO	0.065

pv'd by LHE 24-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S20, Date: 21-Jul-2018, Time: 09:39:28, ID: L29628-25,,, Description: 1,WG64578,1.0/20uL

Hexafurans

	RT	1° Ratio (A...	Fails?	pg
1	41.20	0.777	YES	0.043
2	40.65	2.697	YES	0.039
3	40.03	0.928	YES	0.160
4	39.55	0.853	YES	0.069
5	39.18	0.475	YES	0.123
6	38.98	0.208	YES	0.076
7	38.59	0.660	YES	0.036
8	42.96	0.942	YES	0.035
9	42.82	0.485	YES	0.123
10	41.77	1.955	YES	0.027
11	41.30	1.178	NO	0.041
12	40.89	1.036	YES	0.039

Hexadioxins

	RT	1° Ratio (A...	Fails?	pg
1	40.82	11.827	YES	0.611
2	41.38	8.674	YES	0.074
3	41.18	0.654	YES	0.202

Heptafurans

	RT	1° Ratio (A...	Fails?	pg
1	45.76	1.687	YES	0.667
2	45.50	2.456	YES	0.105
3	45.27	1.512	YES	0.226

Heptadioxins

	RT	1° Ratio (A...	Fails?	pg
1	46.67	0.503	YES	1.073
2	45.73	1.275	YES	1.946

13C-TF

	RT	1° Ratio (A...	Fails?	pg
1	25.20	0.714	NO	1371.8...

13C-TD

	RT	1° Ratio (A...	Fails?	pg
1	26.43	0.766	NO	1460.2...
2	26.10	0.764	NO	156.229

13C-PF

	RT	1° Ratio (A...	Fails?	pg
1	33.51	1.394	NO	1470.3...
2	35.29	1.414	NO	1482.3...

13C-PD

	RT	1° Ratio (A...	Fails?	pg
1	36.11	0.700	NO	1640.8...

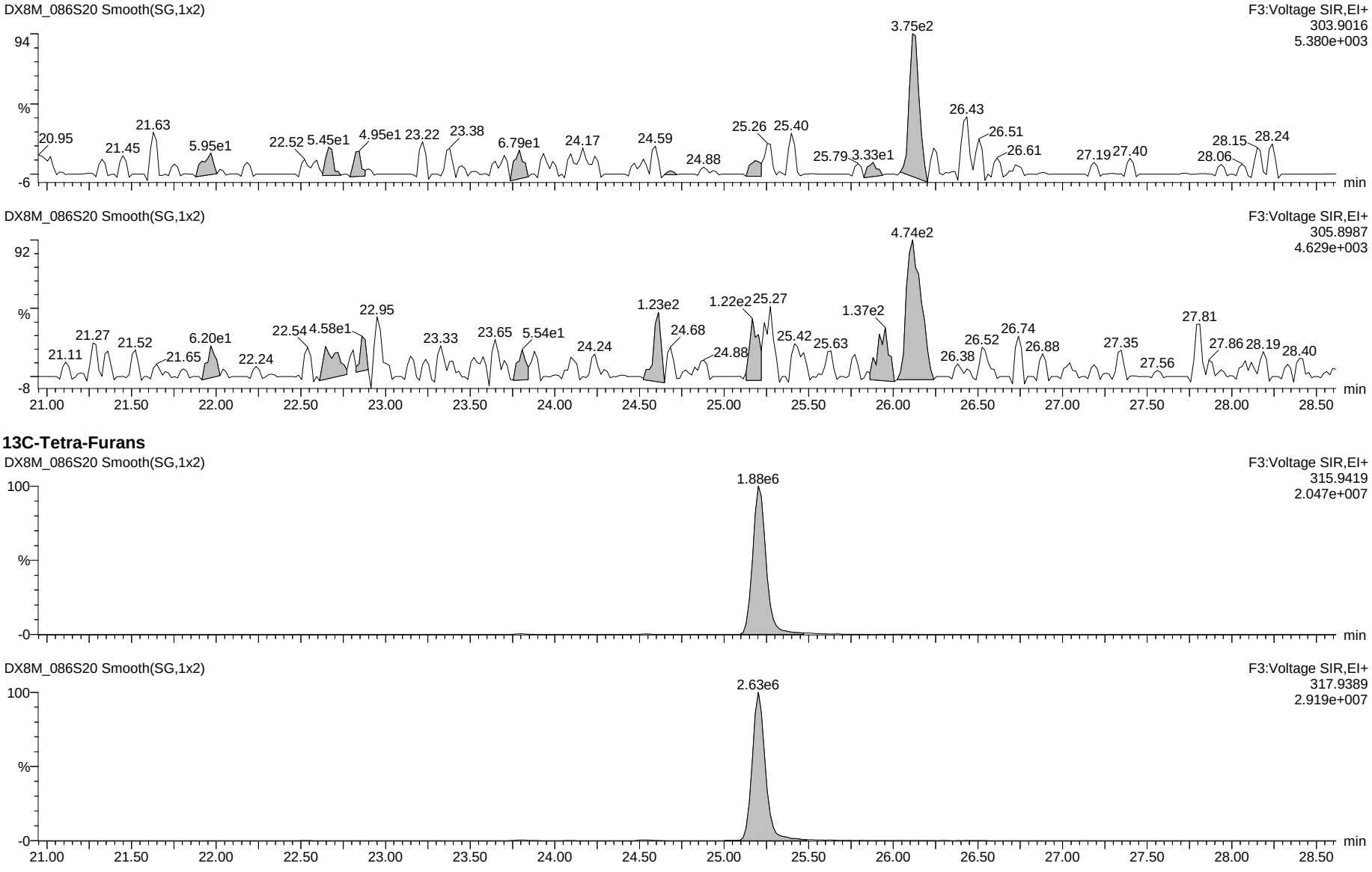
pv'd by LHE 24-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Method: G:\Masslynx\Inst_M\Projects\180604DX.pro\MethDB\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_086S20, Date: 21-Jul-2018, Time: 09:39:28, ID: L29628-25,,, Description: 1,WG64578,1.0/20uL

Total Tetra-Furans



13C-Tetra-Furans

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

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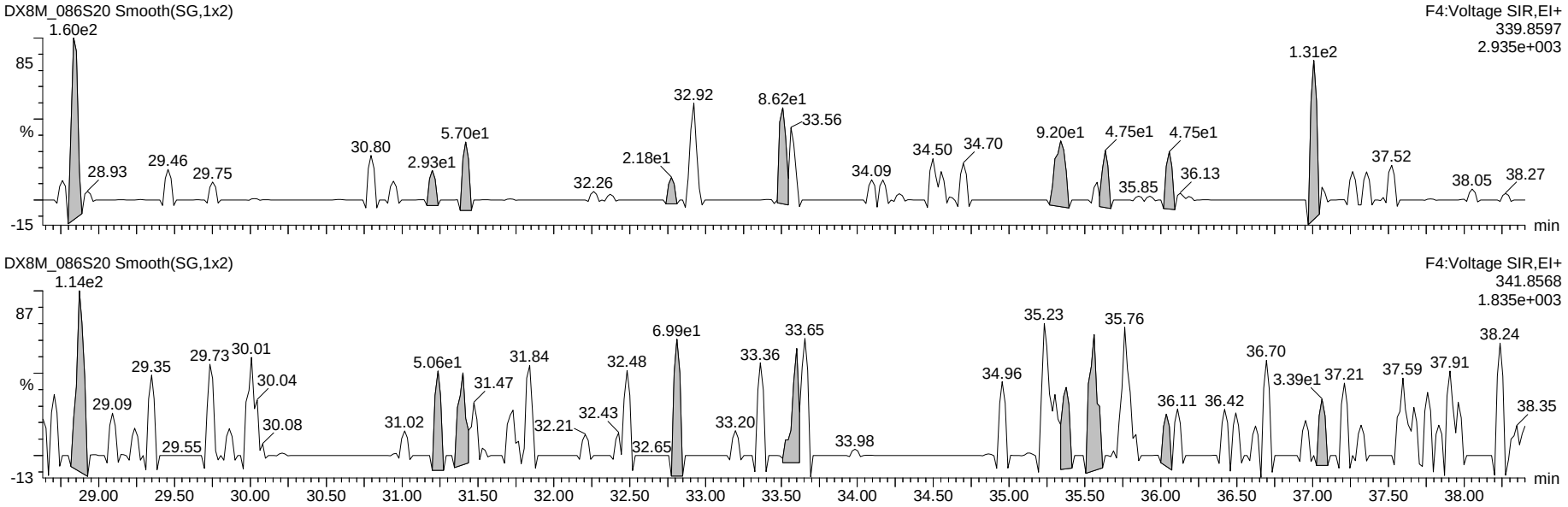
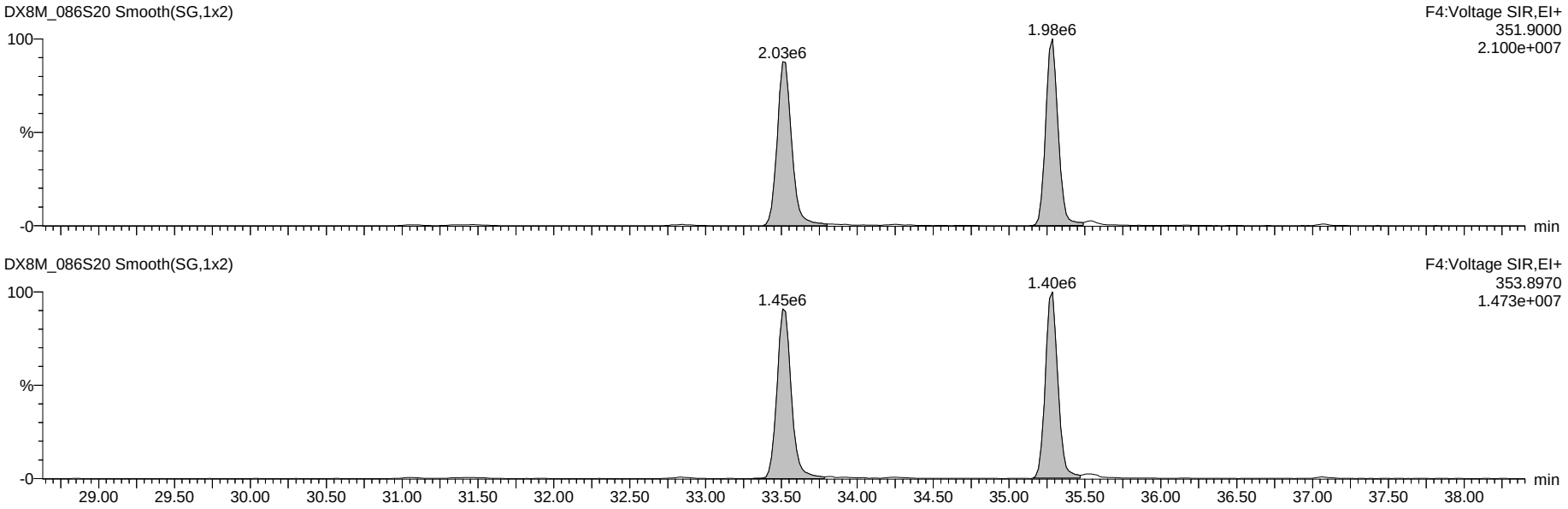
Total Penta-Furans



13C-Penta-Furans



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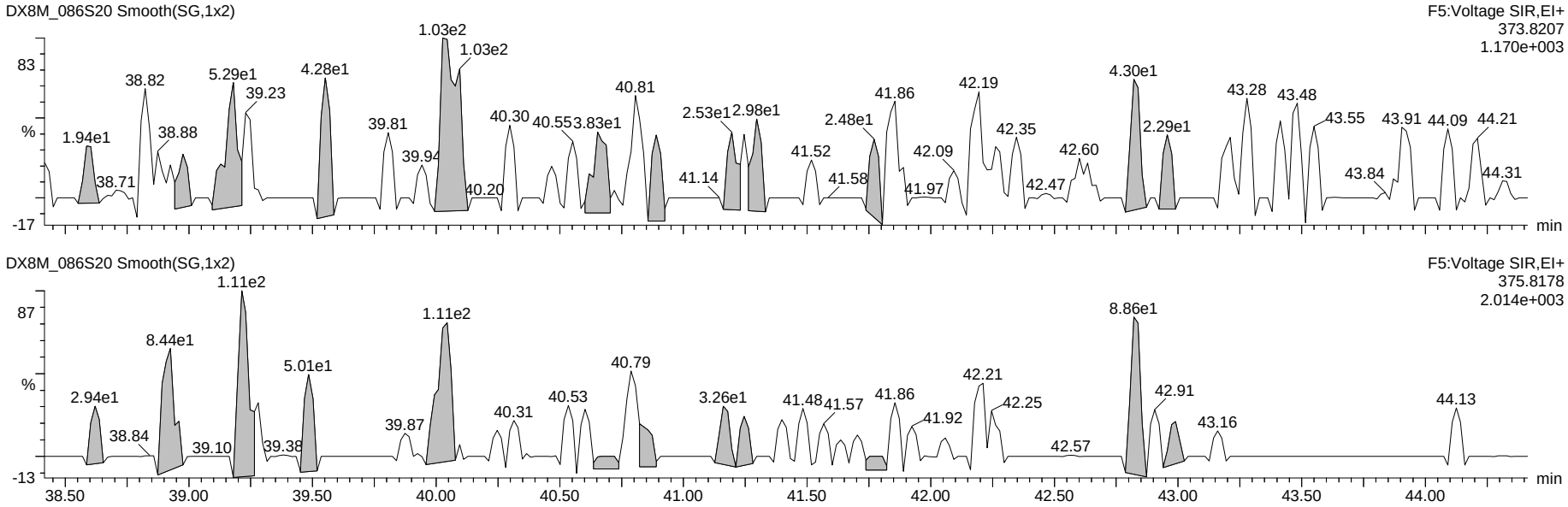
Name: DX8M_086S20, Date: 21-Jul-2018, Time: 09:39:28, ID: L29628-25,,, Description: 1,WG64578,1.0/20uL

Total Hexa-Furans



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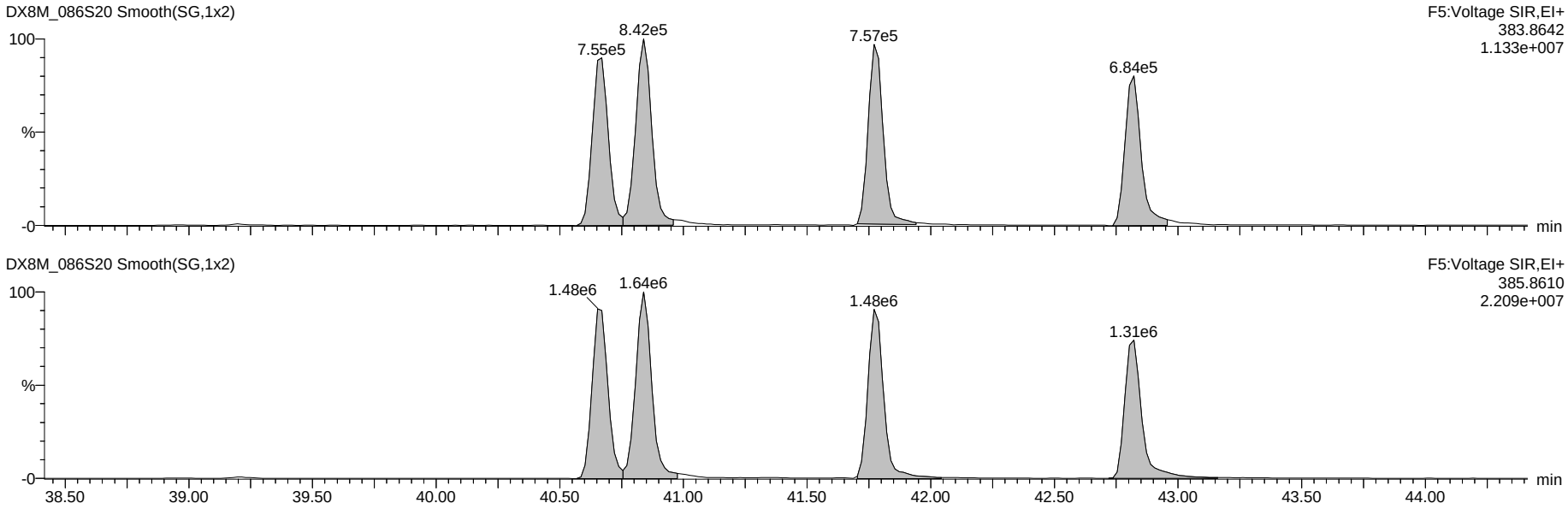

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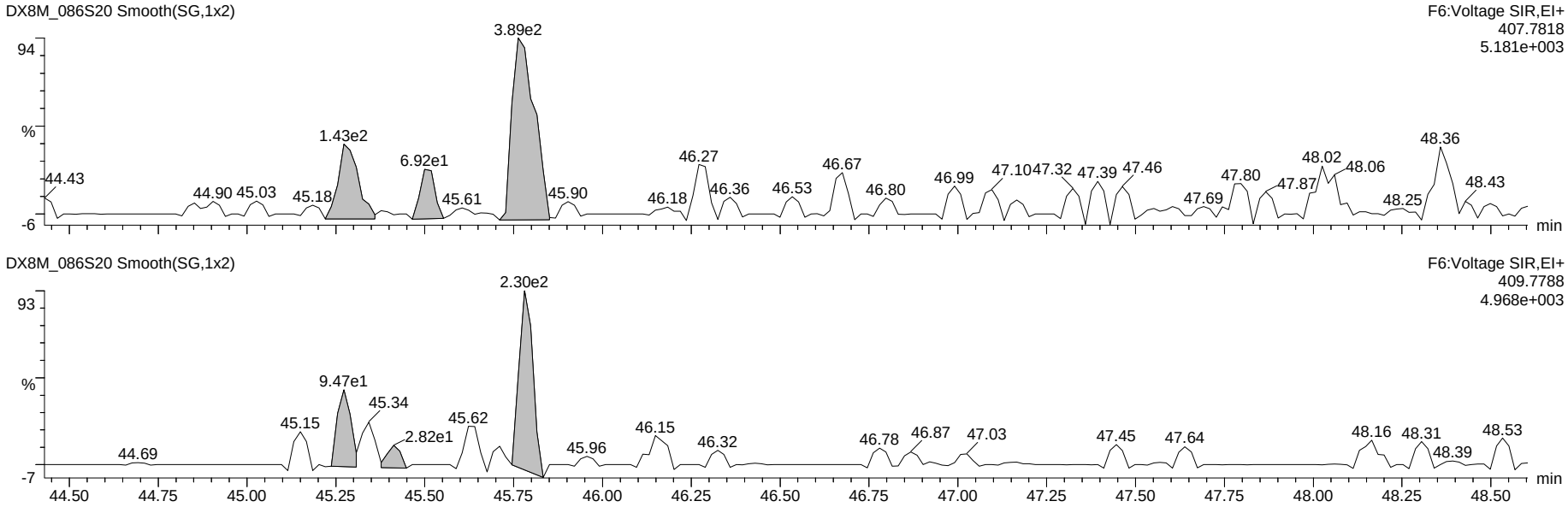
Total Hepta-Furans



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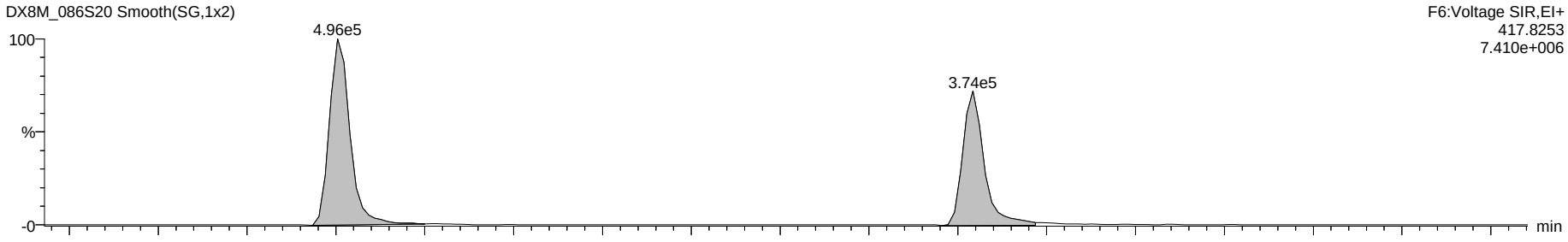

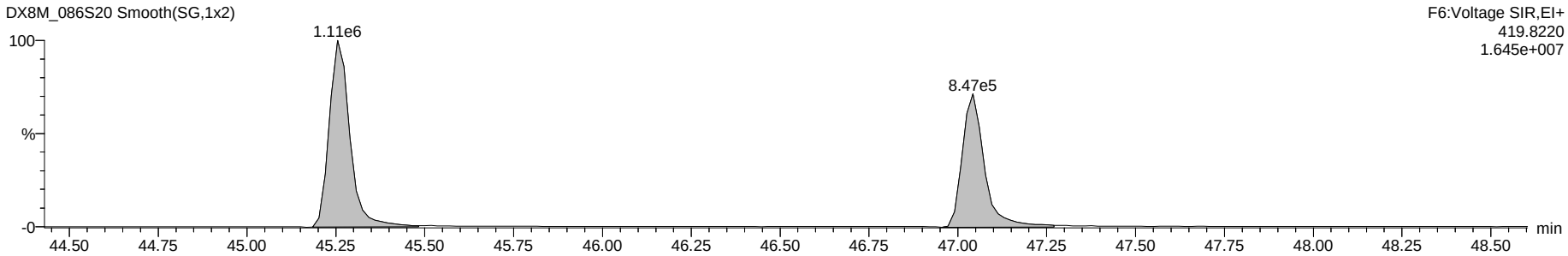

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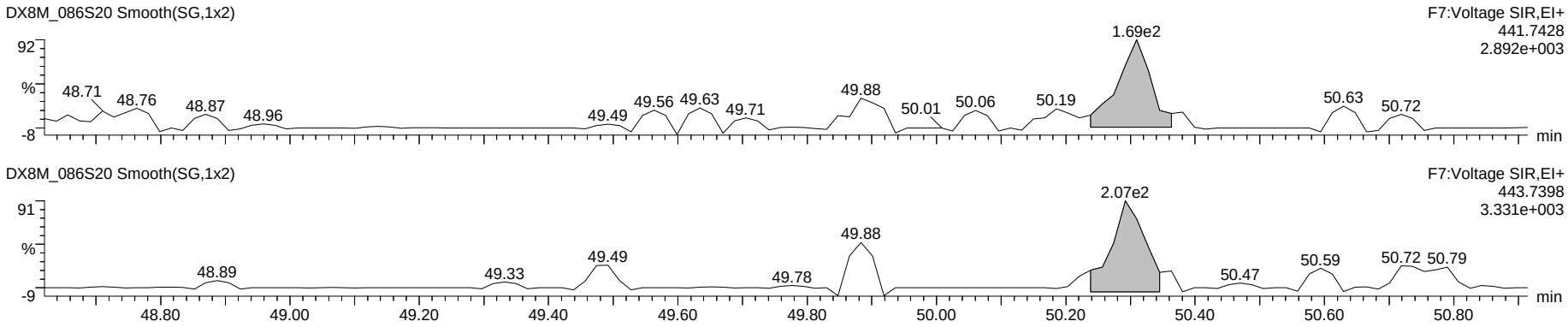
OCDF



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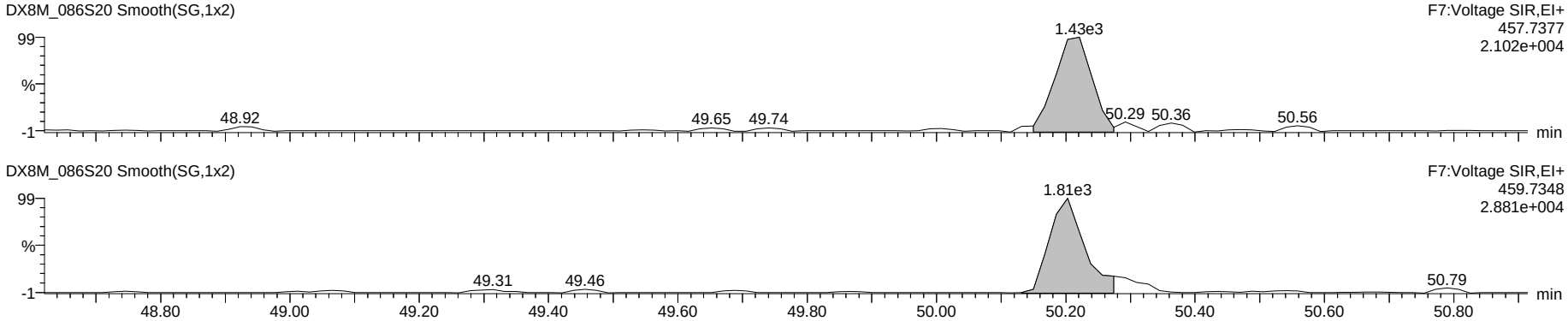

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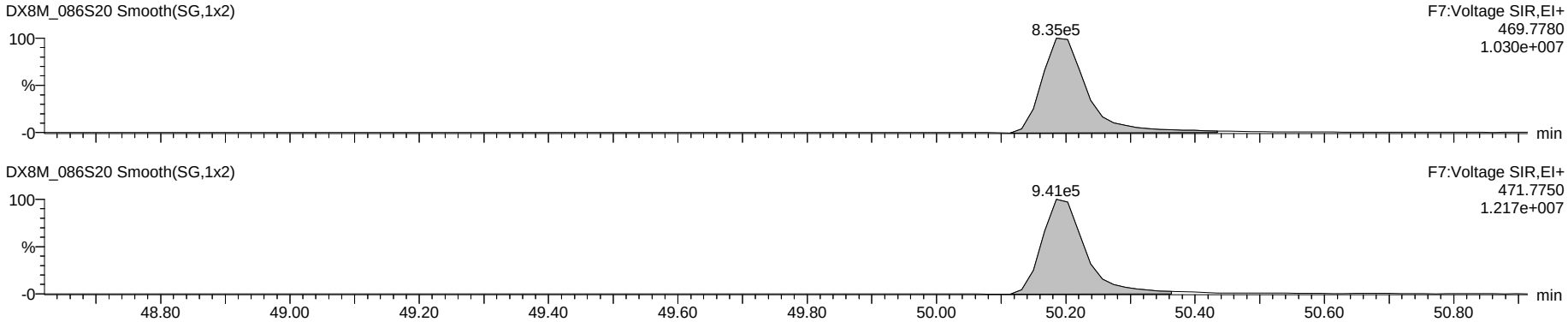

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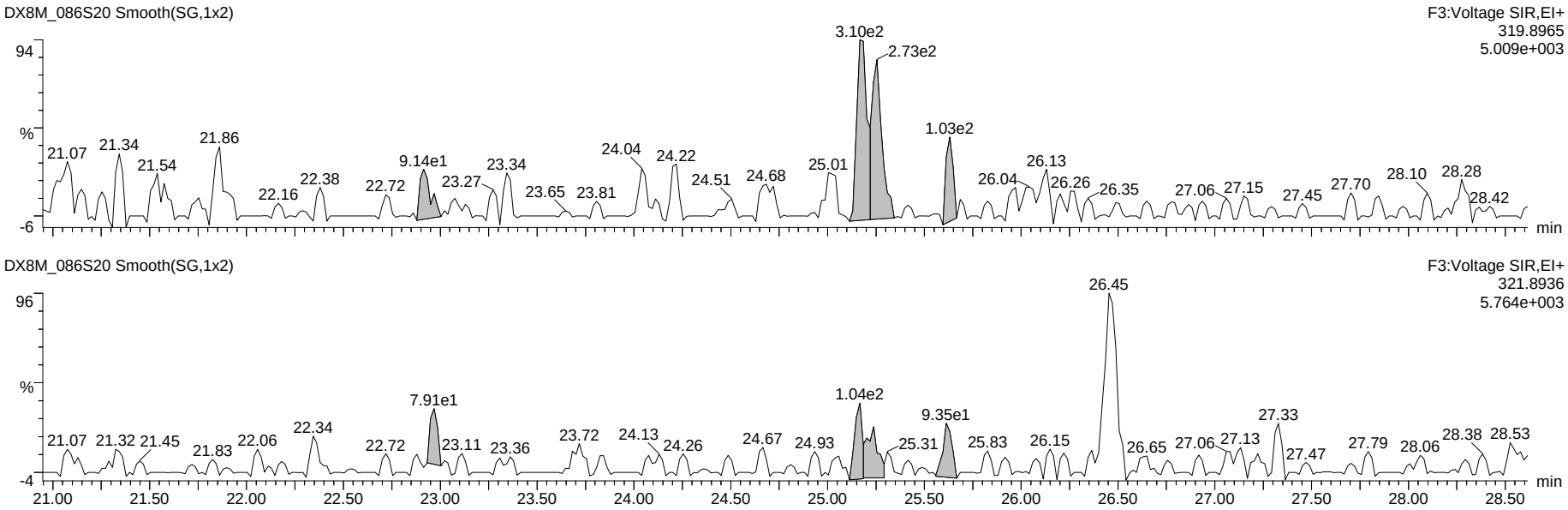
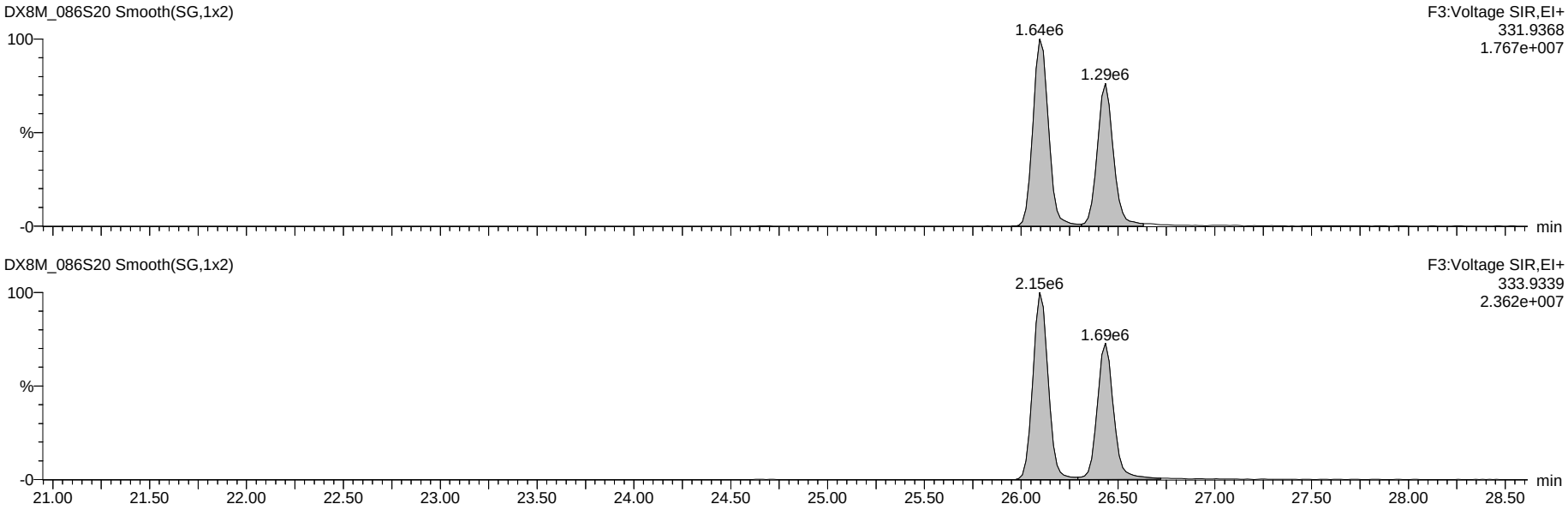
Total Tetra-Dioxins



13C-Tetra-Dioxins



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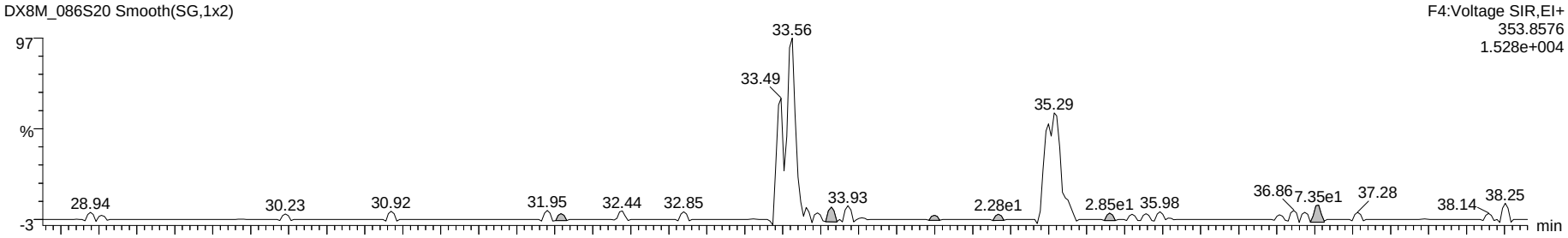
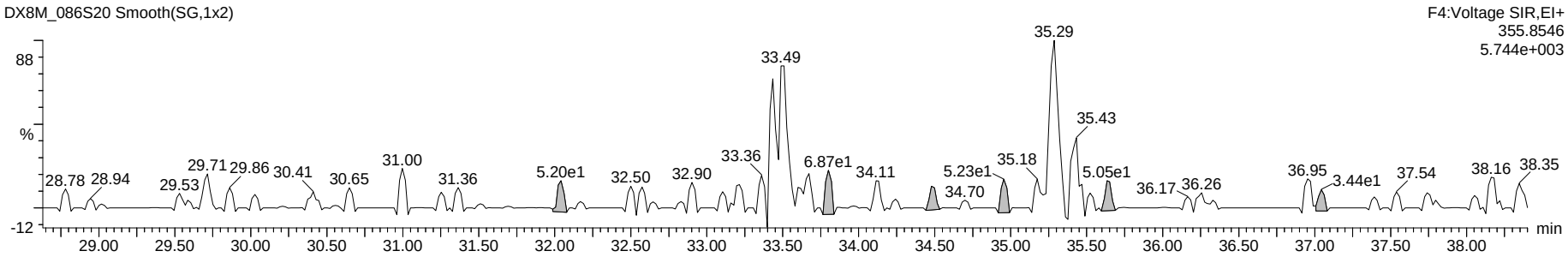
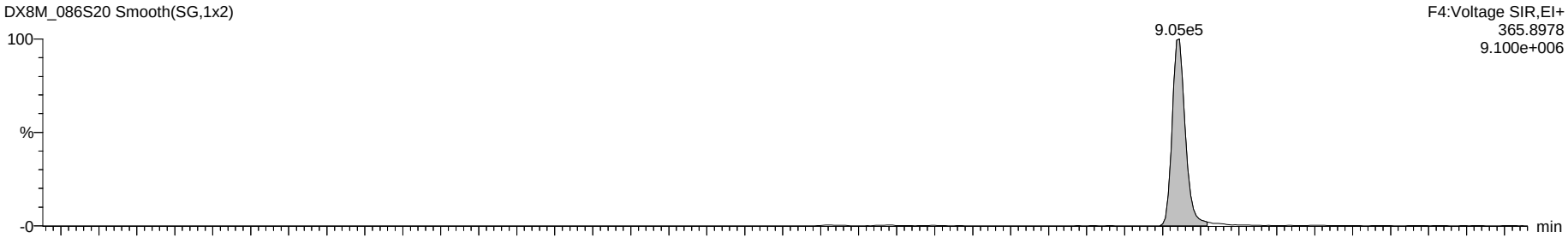
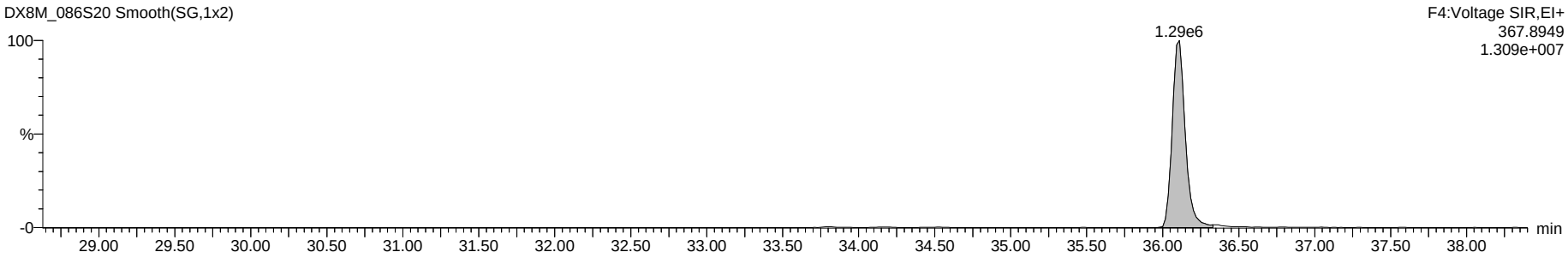
Total Penta-Dioxins





13C-Penta-Dioxins





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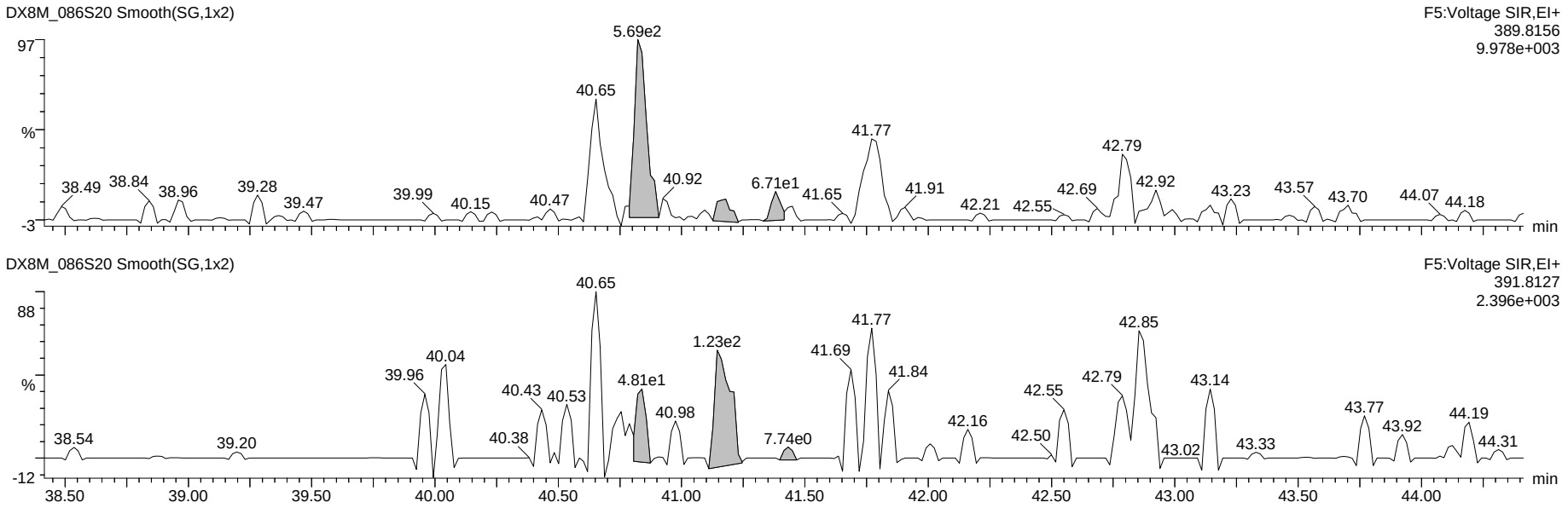
Name: DX8M_086S20, Date: 21-Jul-2018, Time: 09:39:28, ID: L29628-25,,, Description: 1,WG64578,1.0/20uL

Total Hexa-Dioxins



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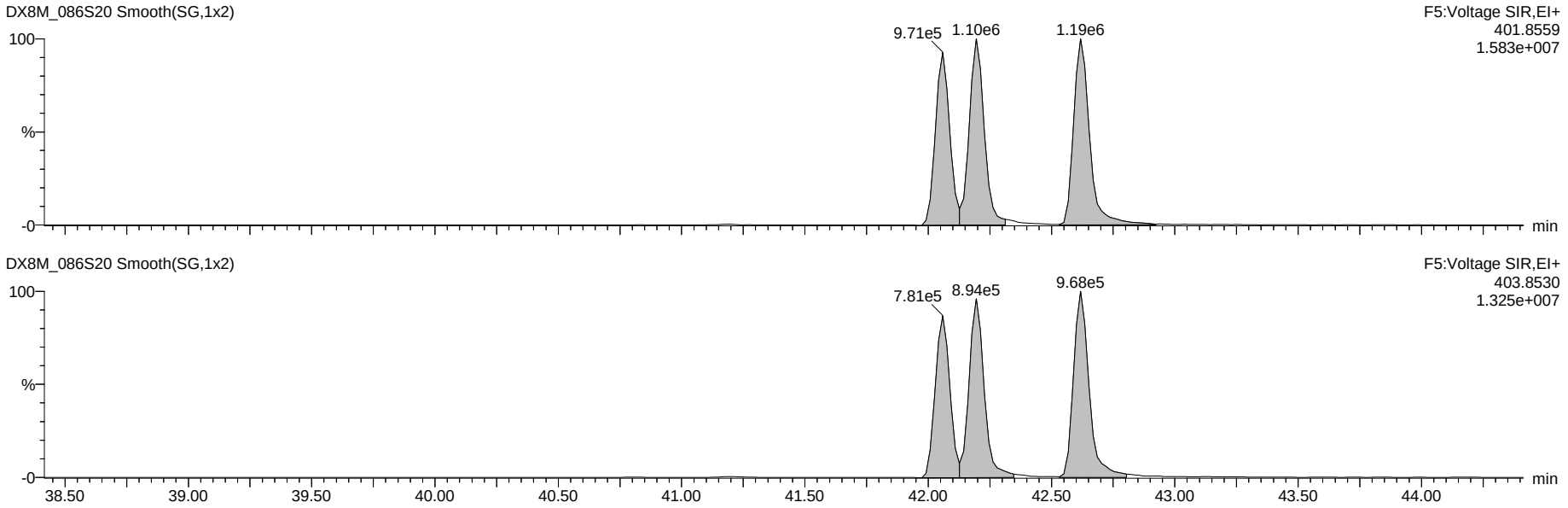

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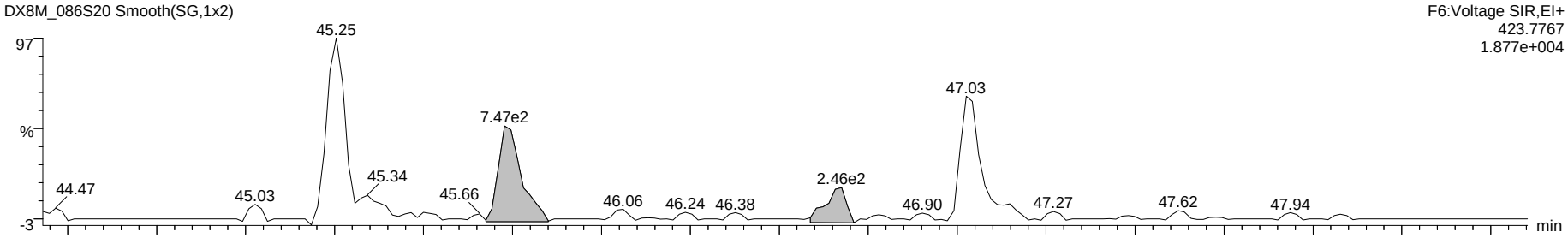
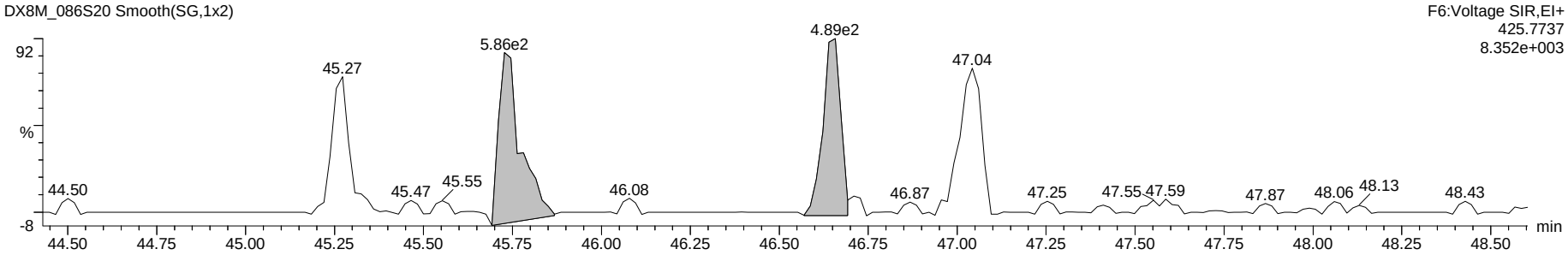
Total Hepta-Dioxins





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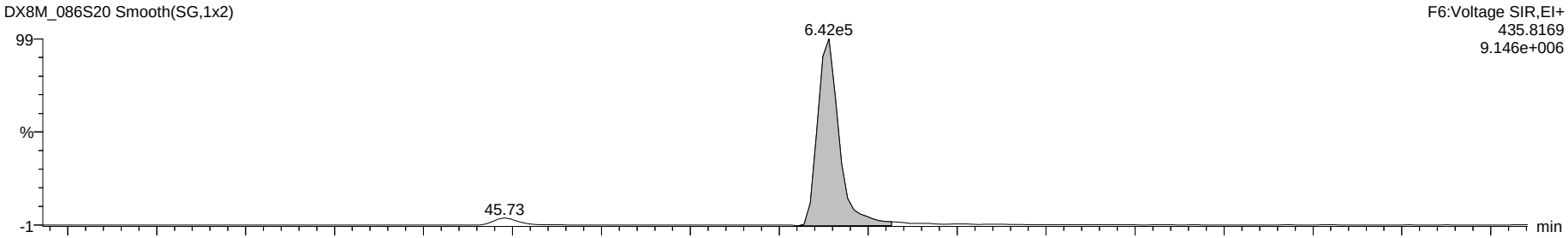

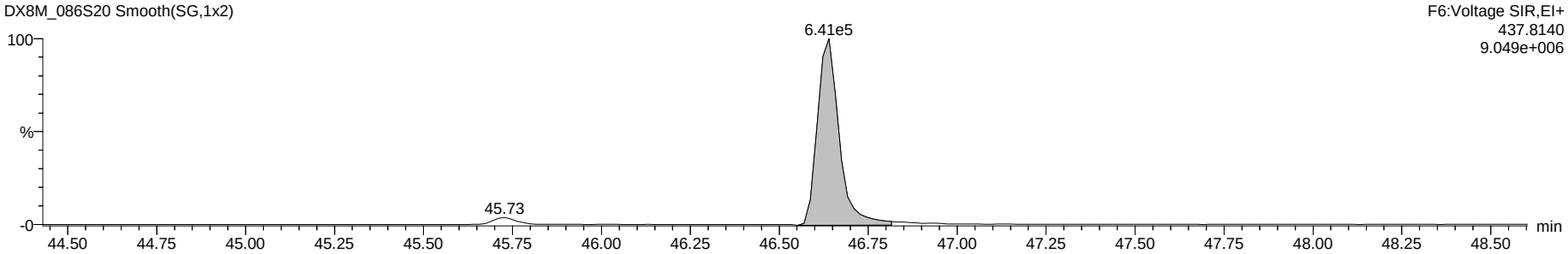

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Name: DX8M_086S20, Date: 21-Jul-2018, Time: 09:39:28, ID: L29628-25,,, Description: 1,WG64578,1.0/20uL

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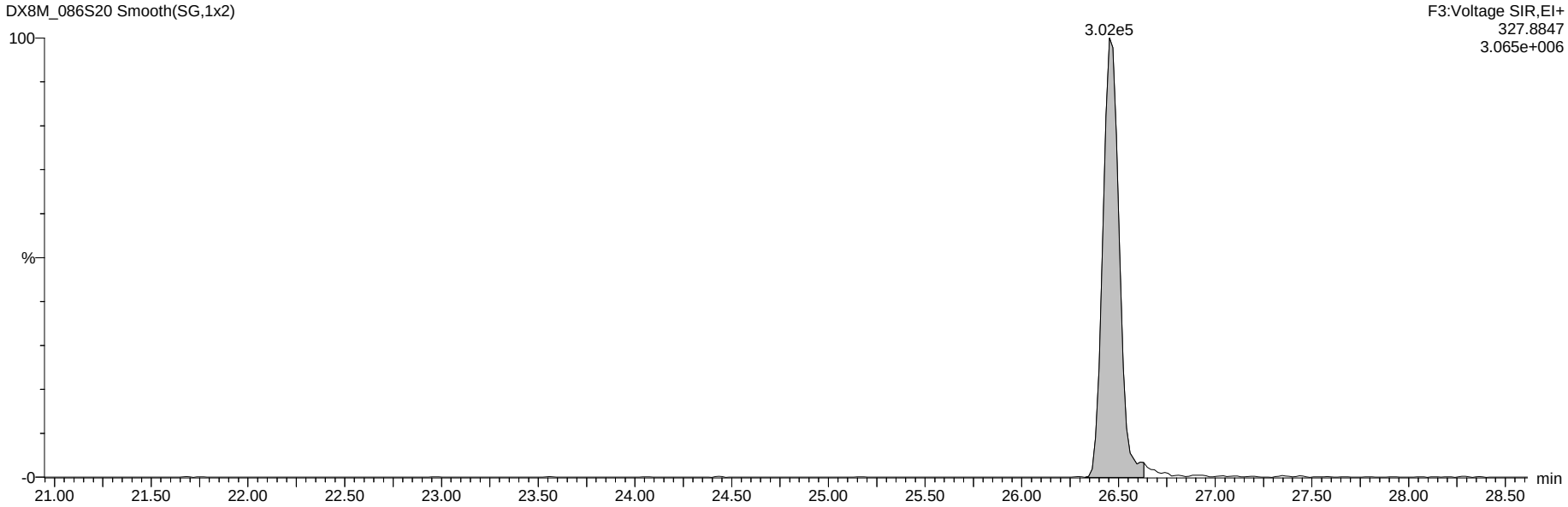

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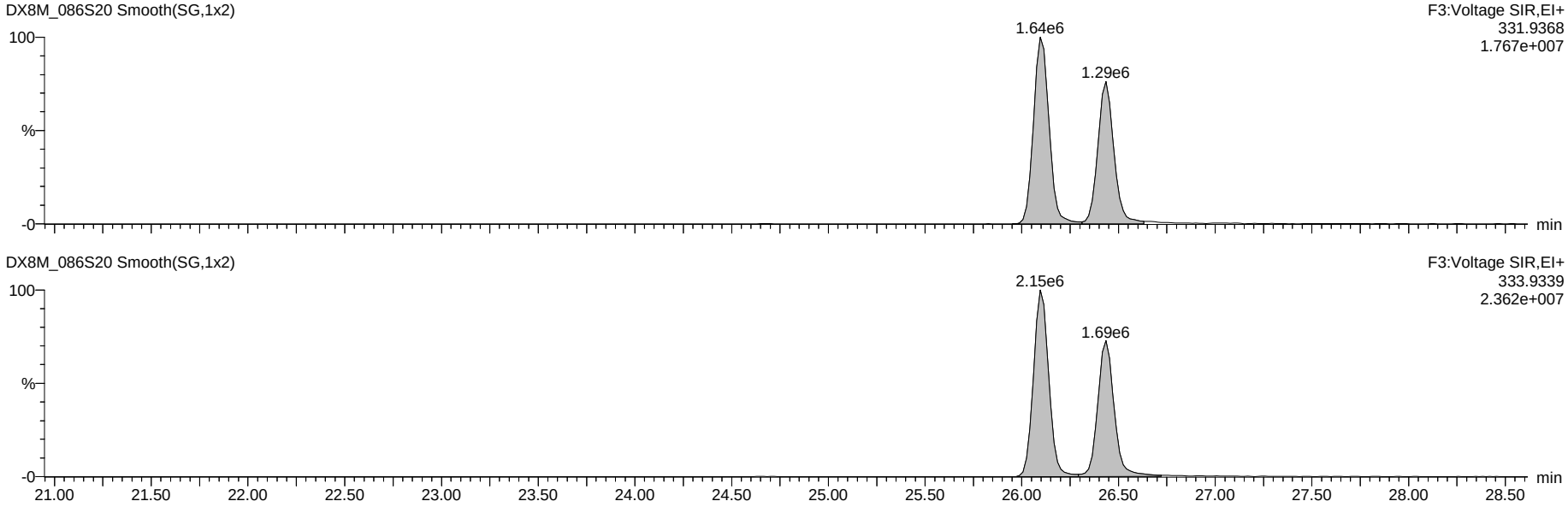

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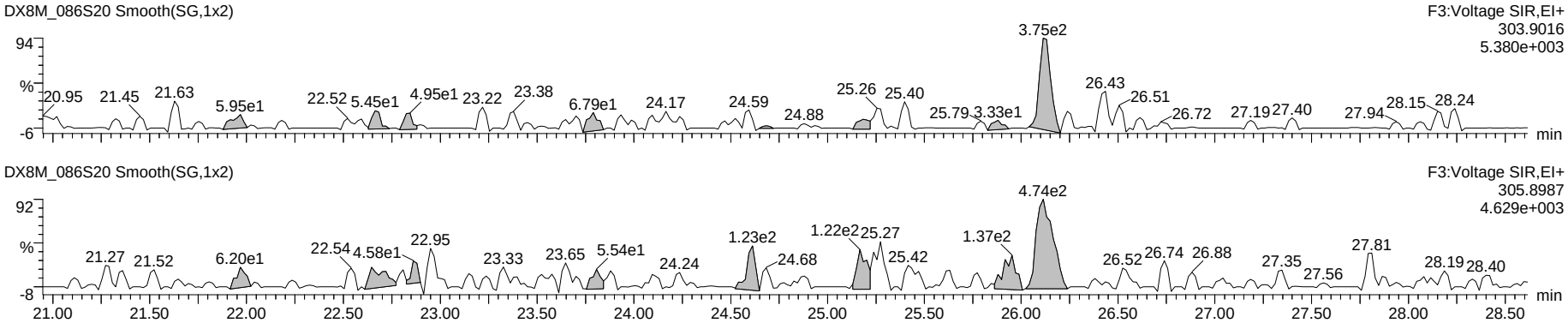
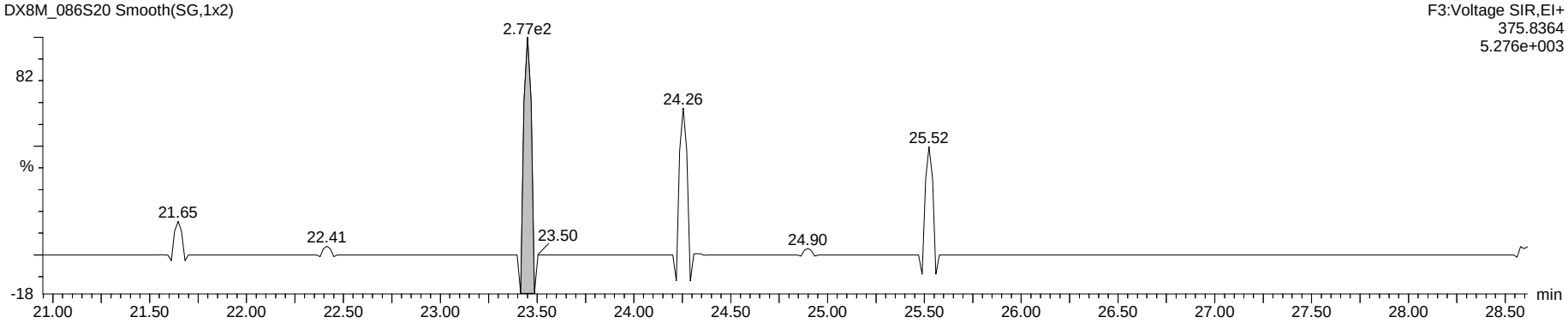
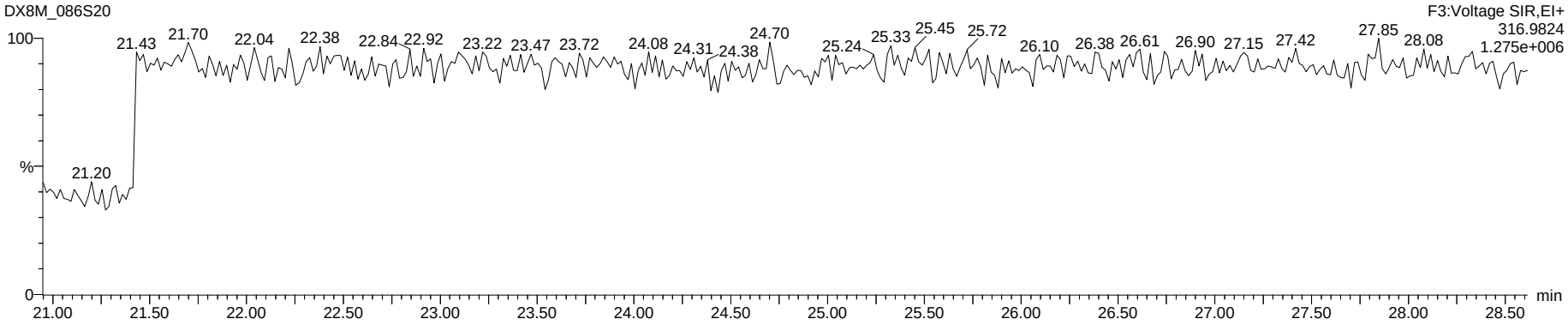
Total Tetra-Furans



Hexa DPE



Tetra Lock



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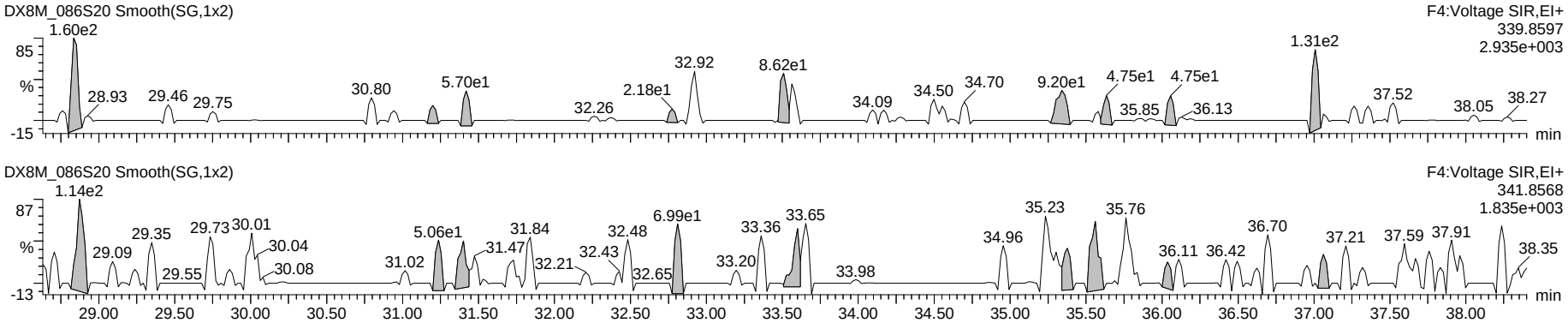
Total Penta-Furans



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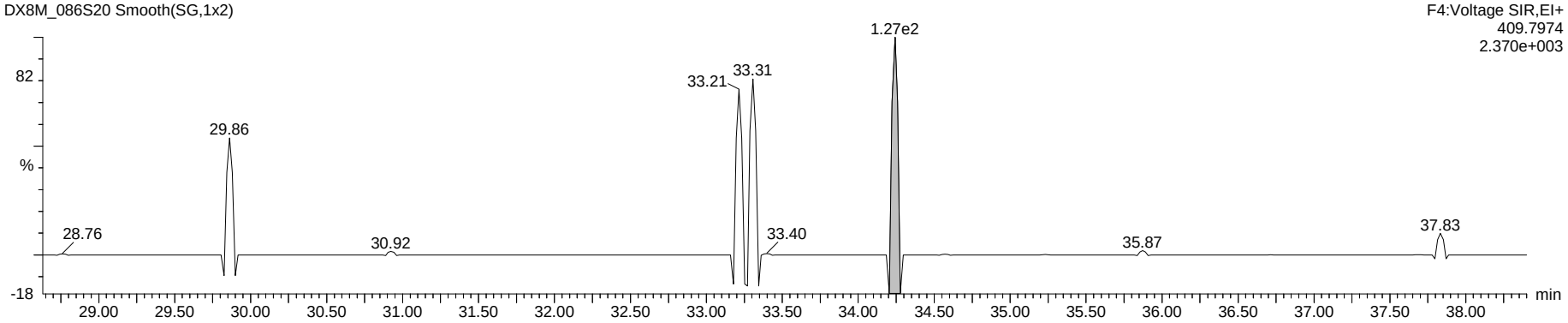

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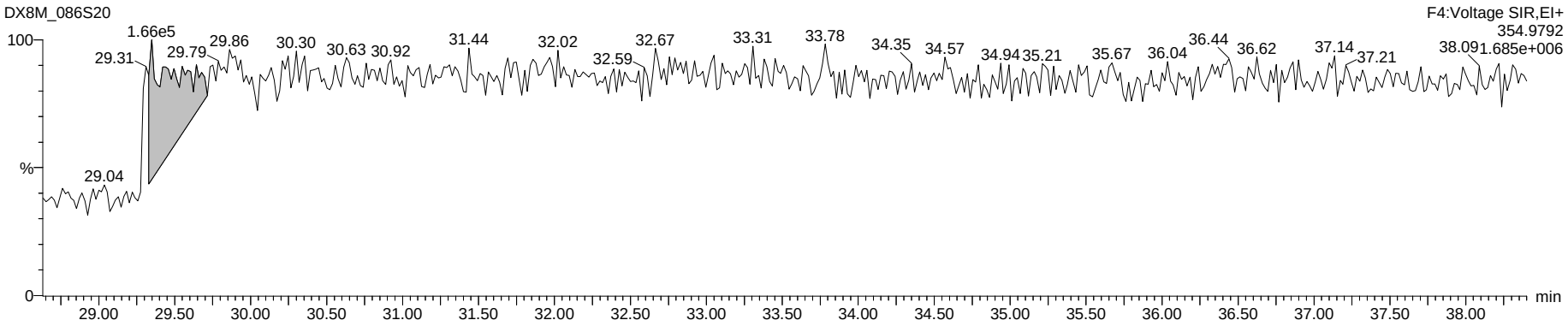

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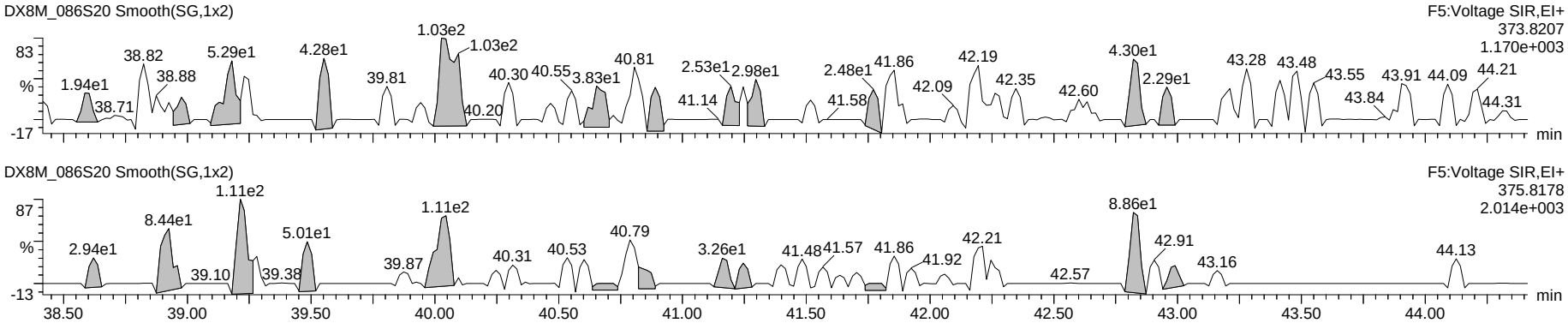
Total Hexa-Furans



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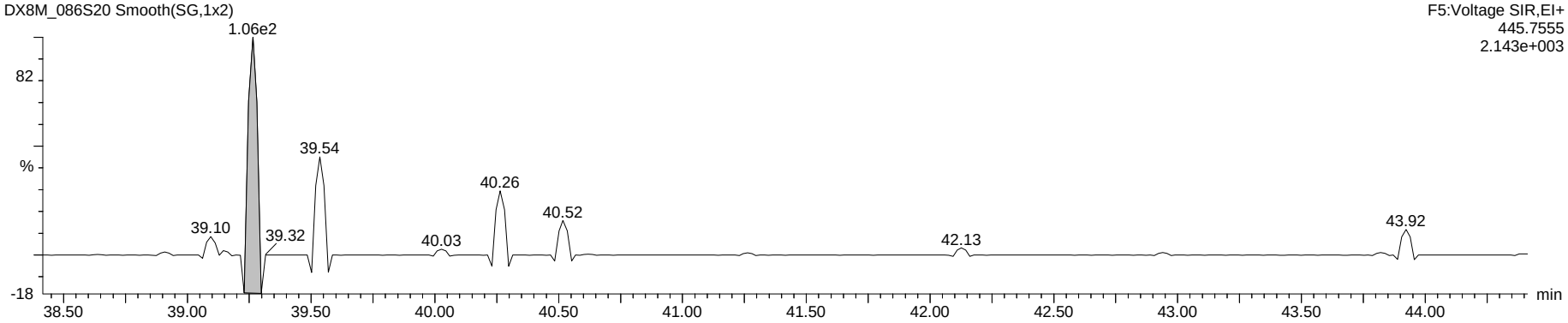

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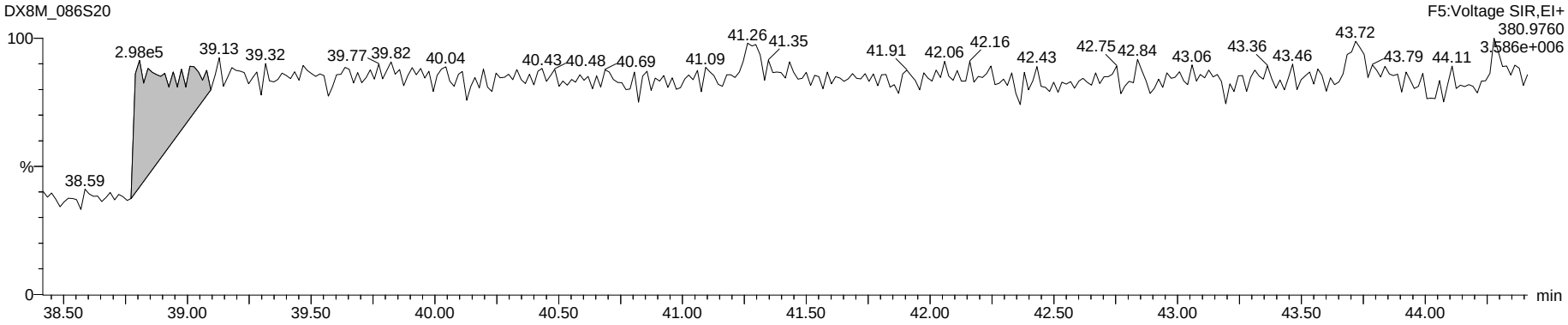

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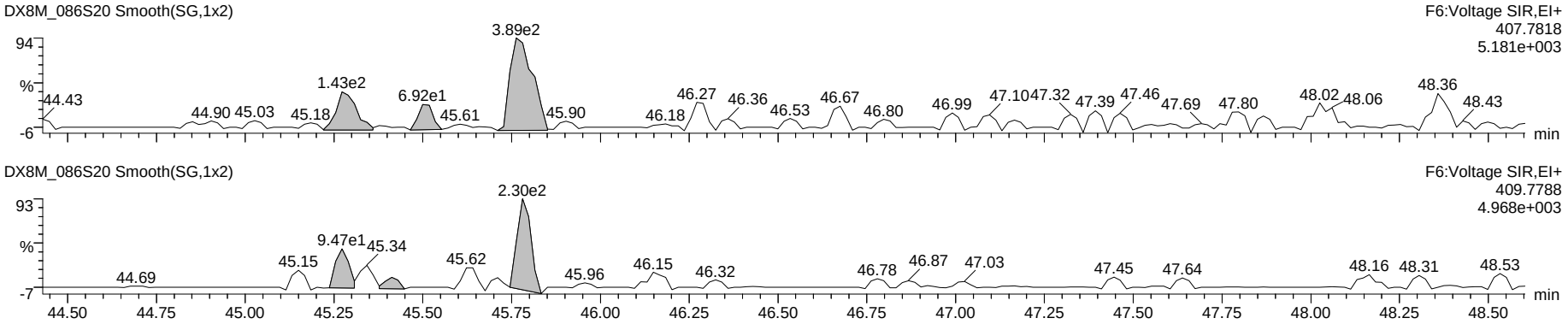
Total Hepta-Furans



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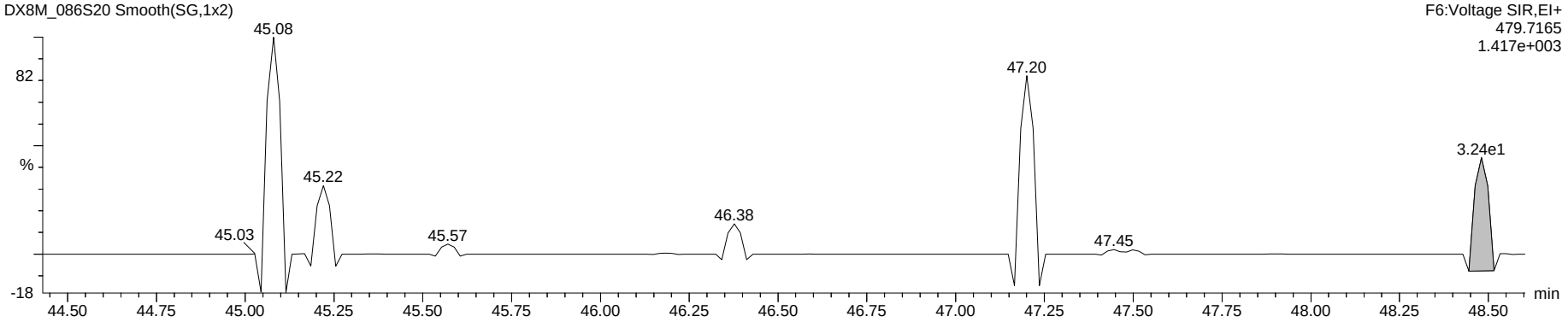
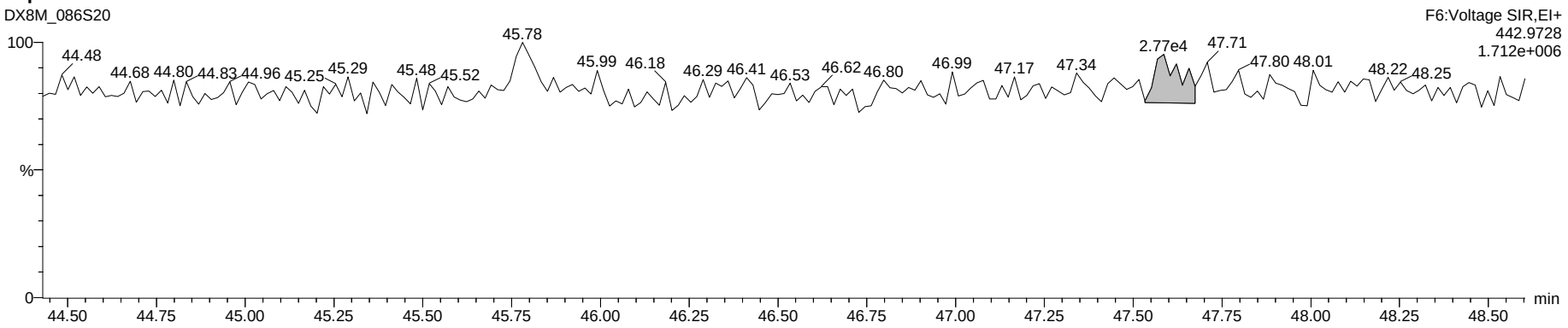


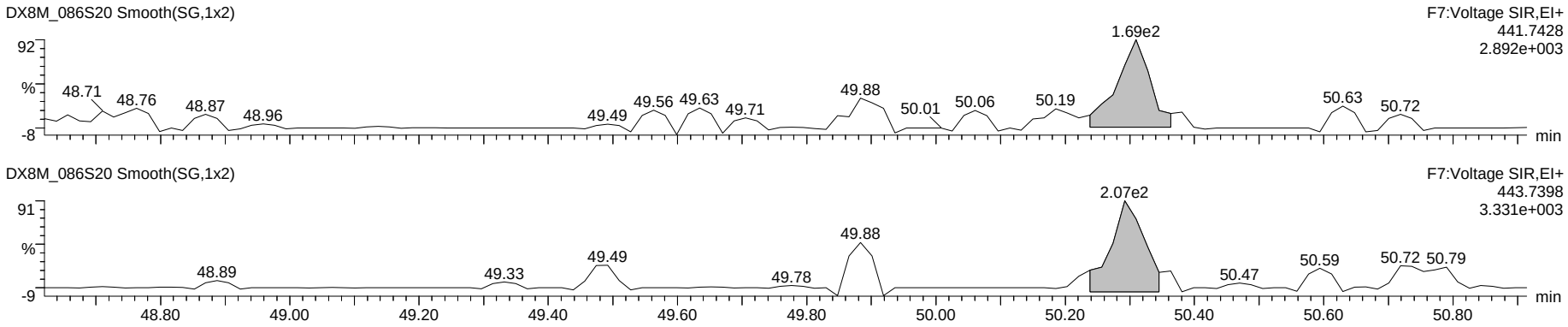
Hepta Lock



Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S20, Date: 21-Jul-2018, Time: 09:39:28, ID: L29628-25,,, Description: 1,WG64578,1.0/20uL

OCDF



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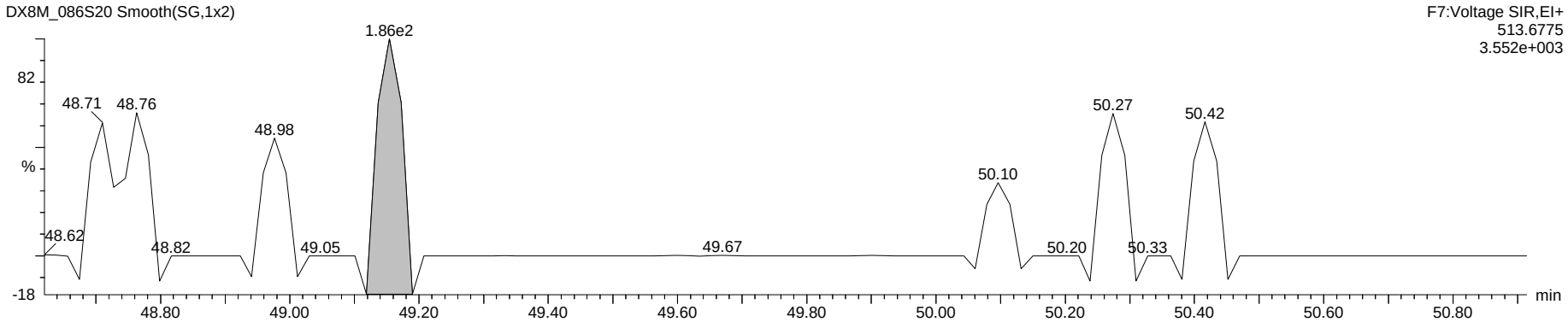

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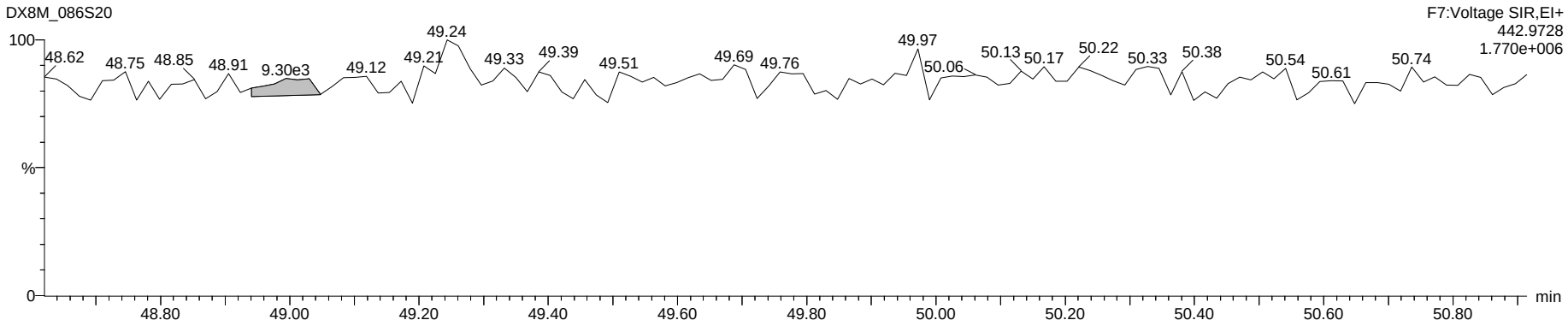


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S21, Date: 21-Jul-2018, Time: 10:34:36, ID: L29628-26,,, Description: 1,WG64578,1.0/20uL

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	1.080			NO			0.0962		5.97e2	3.63e2
2	1,2,3,7,8-PeCDF	1.080	2.76e2	5.01	YES	33.58	0.153	0.1001		5.33e2	1.45e2
3	2,3,4,7,8-PeCDF	1.080	2.09e2	5.90	YES	35.30	0.116	0.0890		5.33e2	1.45e2
4	1,2,3,4,7,8-HxCDF	1.080	1.35e2	0.57	YES	40.65	0.099	0.1107		1.98e2	6.32e2
5	1,2,3,6,7,8-HxCDF	1.080			NO			0.1032		1.98e2	6.32e2
6	2,3,4,6,7,8-HxCDF	1.080			NO			0.1093		1.98e2	6.32e2
7	1,2,3,7,8,9-HxCDF	1.080	1.42e2	1.23	NO	42.84	0.140	0.1527		1.98e2	6.32e2
8	1,2,3,4,6,7,8-HpCDF	1.080			NO			0.0197		1.61e-1	1.28e2
9	1,2,3,4,7,8,9-HpCDF	1.080			NO			0.0273		1.61e-1	1.28e2
10	OCDF	1.080	1.64e2	0.35	YES	50.33	0.266	0.0883		2.60e1	2.67e2
11	2,3,7,8-TCDD	1.080			NO			0.1720		6.34e2	6.44e2
12	1,2,3,7,8-PeCDD	1.080	7.34e1	1.14	YES	36.13	0.061	0.1206		4.06e2	2.04e2
13	1,2,3,4,7,8-HxCDD	1.080	3.62e1	31.23	YES	42.03	0.037	0.1924		4.09e2	7.13e2
14	1,2,3,6,7,8-HxCDD	1.080	8.68e1	1.05	NO	42.21	0.083	0.1922		4.09e2	7.13e2
15	1,2,3,7,8,9-HxCDD	1.080			NO			0.1914		4.09e2	7.13e2
16	1,2,3,4,6,7,8-HpCDD	1.080	2.92e2	1.14	NO	46.66	0.417	0.0012		2.41e-1	4.32e0
17	OCDD	1.080	5.83e2	0.78	NO	50.22	1.135	1.1090		2.70e3	3.60e2
18	13C-2,3,7,8-TCDF	1.080	4.55e6	0.70	NO	25.22	1356.747	1.0825	73.3	1.18e4	4.22e3
19	13C-1,2,3,7,8-PeCDF	1.080	3.63e6	1.42	NO	33.53	1501.583	1.3703	81.1	5.25e3	9.39e3
20	13C-2,3,4,7,8-PeCDF	1.080	3.55e6	1.41	NO	35.29	1522.913	1.4206	82.2	5.25e3	9.39e3
21	13C-1,2,3,4,7,8-HxCDF	1.080	2.27e6	0.52	NO	40.67	1531.303	2.7314	82.7	1.51e4	7.27e3
22	13C-1,2,3,6,7,8-HxCDF	1.080	2.66e6	0.54	NO	40.86	1683.476	2.5572	90.9	1.51e4	7.27e3
23	13C-2,3,4,6,7,8-HxCDF	1.080	2.20e6	0.54	NO	41.79	1557.154	2.8618	84.1	1.51e4	7.27e3
24	13C-1,2,3,7,8,9-HxCDF	1.080	1.88e6	0.53	NO	42.82	1351.506	2.9015	73.0	1.51e4	7.27e3
25	13C-1,2,3,4,6,7,8-HpCDF	1.080	1.59e6	0.45	NO	45.27	1350.792	1.9478	72.9	6.31e3	6.44e3
26	13C-1,2,3,4,7,8,9-HpCDF	1.080	1.23e6	0.43	NO	47.06	1335.019	2.4972	72.1	6.31e3	6.44e3
27	13C-2,3,7,8-TCDD	1.080	3.04e6	0.77	NO	26.45	1457.372	1.4876	78.7	5.56e3	8.15e3
28	13C-1,2,3,7,8-PeCDD	1.080	2.18e6	0.69	NO	36.11	1591.167	1.1085	85.9	4.90e3	1.79e3
29	13C-1,2,3,4,7,8-HxCDD	1.080	1.81e6	1.21	NO	42.08	1584.795	2.0646	85.6	5.53e3	7.52e3
30	13C-1,2,3,6,7,8-HxCDD	1.080	2.08e6	1.22	NO	42.21	1722.920	1.9524	93.0	5.53e3	7.52e3
31	13C-1,2,3,4,6,7,8-HpCDD	1.080	1.30e6	0.97	NO	46.66	1383.962	2.0319	74.7	5.12e3	5.50e3
32	13C-OCDD	1.080	1.87e6	0.86	NO	50.20	2251.217	2.5267	60.8	1.16e4	6.88e-1
33	13C-1,2,3,4-TCDD	1.080	3.85e6	0.78	NO	26.11	157.731	0.1272	8.5	5.56e3	8.15e3
34	13C-1,2,3,7,8,9-HxCDD	1.080	2.15e6	1.20	NO	42.64	139.184	0.1527	7.5	5.53e3	7.52e3
35	37Cl-2,3,7,8-TCDD	1.080	2.96e5			26.47	128.029	0.4016	69.1		4.10e3
36	Total Tetra-Furans	1.080					0.958	0.0962			3.63e2
37	Total Tetra-Dioxins	1.080					0.671	0.1720			6.44e2
38	Total Penta-Furans	1.080					0.704	0.0953			1.45e2
39	Total Penta-Dioxins	1.080					0.274	0.1206			2.04e2
40	Total Hexa-Furans	1.080					0.525	0.1127			6.32e2
41	Total Hexa-Dioxins	1.080					0.770	0.1852			7.13e2
42	Total Hepta-Furans	1.080					0.199	0.0233			1.28e2
43	Total Hepta-Dioxins	1.080					0.747	0.0012			4.32e0
44	Hexa DPE	1.000	1.23e2			24.76					0.00e0
45	Hepta DPE	1.000	3.61e2			35.27					1.60e-2
46	Octa DPE	1.000	1.56e2			41.26					9.22e-2
47	Nona DPE	1.000	1.17e2			46.82					3.71e-1
48	Deca DPE	1.000	1.33e2			48.76					0.00e0
49	Tetra Lock	1.000	1.06e4			23.99					1.73e5
50	Penta Lock	1.000	1.61e4			29.62					1.80e5
51	Hexa Lock	1.000	4.25e5			39.01					3.67e5
52	Hepta Lock	1.000	4.31e4			47.62					1.52e5
53	Octa Lock	1.000									1.89e5
54	13C-Tetra-Furans	1.080					1356.747	1.0825			4.22e3
55	13C-Tetra-Dioxins	1.080					1615.103	1.6149			8.15e3

pv'd by LHE 24-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

SWayk3 26JUL2018

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S21, Date: 21-Jul-2018, Time: 10:34:36, ID: L29628-26,,, Description: 1,WG64578,1.0/20uL

Tetrafurans

	RT	1° Ratio (A...	Fails?	pg
1	24.58	1.476	YES	0.080
2	24.51	0.499	YES	0.045
3	23.92	0.870	NO	0.032
4	23.72	0.488	YES	0.047
5	23.33	0.537	YES	0.037
6	23.00	0.490	YES	0.036
7	22.68	1.015	YES	0.049
8	22.56	0.978	YES	0.043
9	22.09	0.845	NO	0.029
10	28.22	0.666	NO	0.031
11	26.15	1.288	YES	0.250
12	26.08	1.002	YES	0.240
13	25.65	0.820	NO	0.039

1.149, yes, 0.489

Tetradioxins

	RT	1° Ratio (A...	Fails?	pg
1	27.47	0.706	NO	0.061
2	26.04	2.894	YES	0.056
3	25.20	2.769	YES	0.501
4	23.74	1.076	YES	0.053

Pentafurans

	RT	1° Ratio (A...	Fails?	pg
1	33.58	5.005	YES	0.153
2	33.53	1.842	YES	0.106
3	31.66	0.348	YES	0.075
4	31.51	0.260	YES	0.059
5	31.33	6.248	YES	0.059
6	35.96	1.294	YES	0.036
7	35.85	0.576	YES	0.048
8	35.30	5.898	YES	0.116
9	34.88	0.278	YES	0.053

Pentadioxins

	RT	1° Ratio (A...	Fails?	pg
1	36.75	0.940	YES	0.045
2	36.24	0.727	YES	0.037
3	36.13	1.139	YES	0.061
4	35.84	1.516	YES	0.061
5	37.14	0.956	YES	0.070

pv'd by LHE 24-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S21, Date: 21-Jul-2018, Time: 10:34:36, ID: L29628-26,,, Description: 1,WG64578,1.0/20uL

Hexafurans

	RT	1° Ratio (A...	Fails?	pg
1	39.96	2.856	YES	0.016
2	39.67	0.938	YES	0.023
3	39.35	0.642	YES	0.069
4	38.96	0.778	YES	0.098
5	40.65	0.570	YES	0.099
6	40.33	0.785	YES	0.018
7	40.11	0.851	YES	0.061
8	42.84	1.233	NO	0.140

Hexadioxins

	RT	1° Ratio (A...	Fails?	pg
1	41.18	0.826	YES	0.062
2	40.86	8.649	YES	0.531
3	39.84	0.685	YES	0.057
4	42.21	1.055	NO	0.083
5	42.03	31.227	YES	0.037

Heptafurans

	RT	1° Ratio (A...	Fails?	pg
1	45.57	1.611	YES	0.065
2	45.85	0.789	YES	0.134

Heptadioxins

	RT	1° Ratio (A...	Fails?	pg
1	46.66	1.137	NO	0.417
2	45.75	0.921	NO	0.330

13C-TF

	RT	1° Ratio (A...	Fails?	pg
1	25.22	0.696	NO	1356.7...

13C-TD

	RT	1° Ratio (A...	Fails?	pg
1	26.45	0.766	NO	1457.3...
2	26.11	0.781	NO	157.731

13C-PF

	RT	1° Ratio (A...	Fails?	pg
1	33.53	1.419	NO	1501.5...
2	35.29	1.409	NO	1522.9...

13C-PD

	RT	1° Ratio (A...	Fails?	pg
1	36.11	0.694	NO	1591.1...

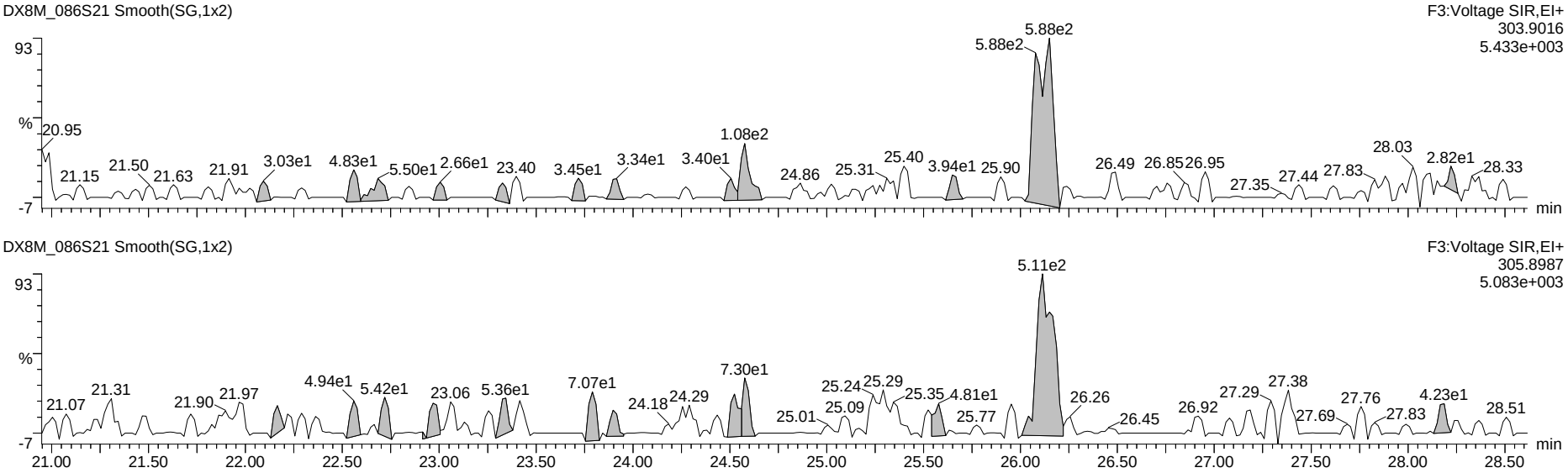
pv'd by LHE 24-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

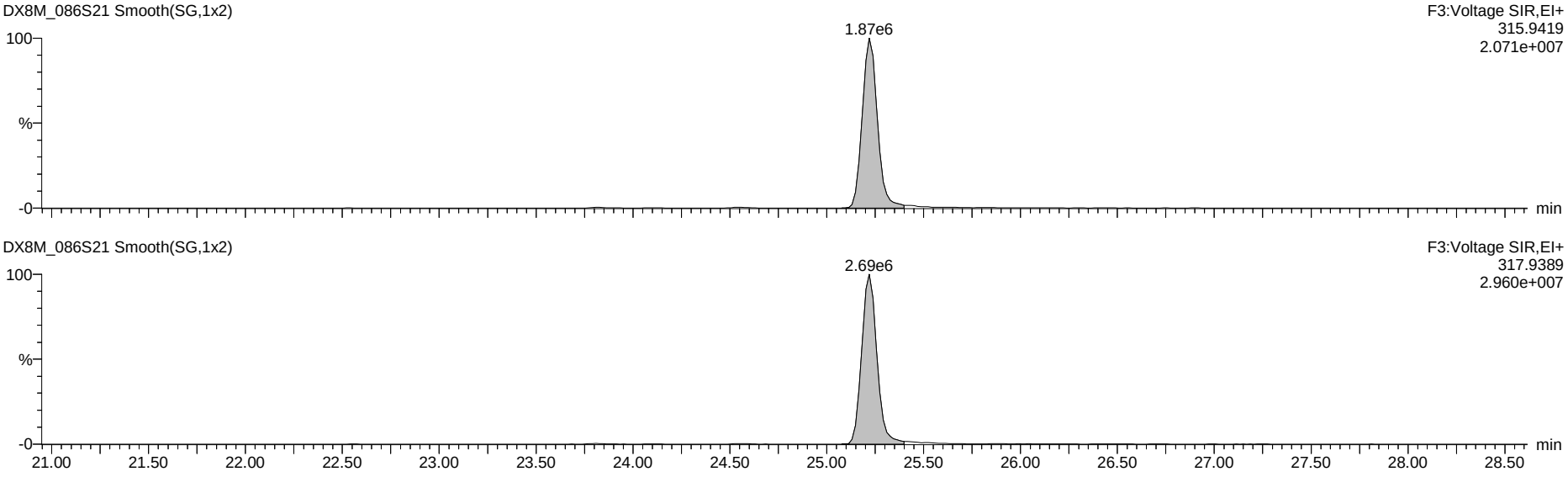
Method: G:\Masslynx\Inst_M\Projects\180604DX.pro\MethDB\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_086S21, Date: 21-Jul-2018, Time: 10:34:36, ID: L29628-26,,, Description: 1,WG64578,1.0/20uL

Total Tetra-Furans



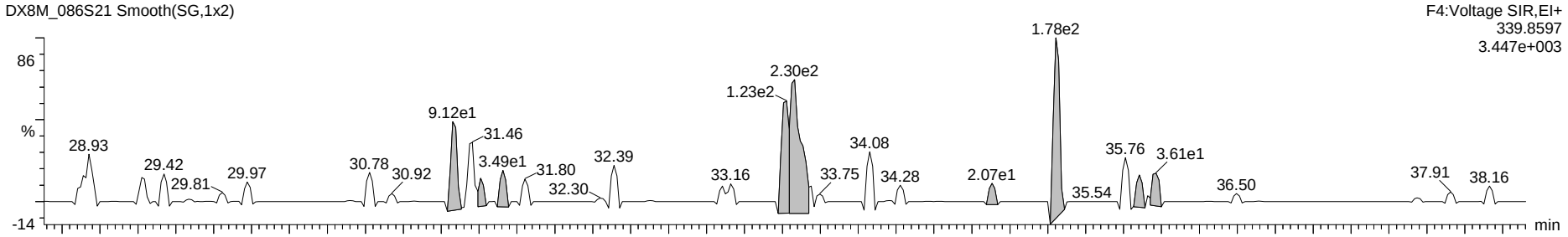
13C-Tetra-Furans

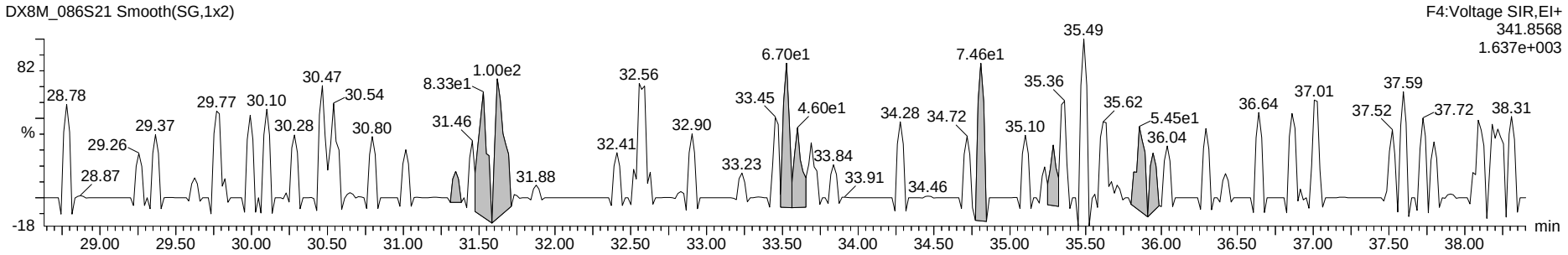


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

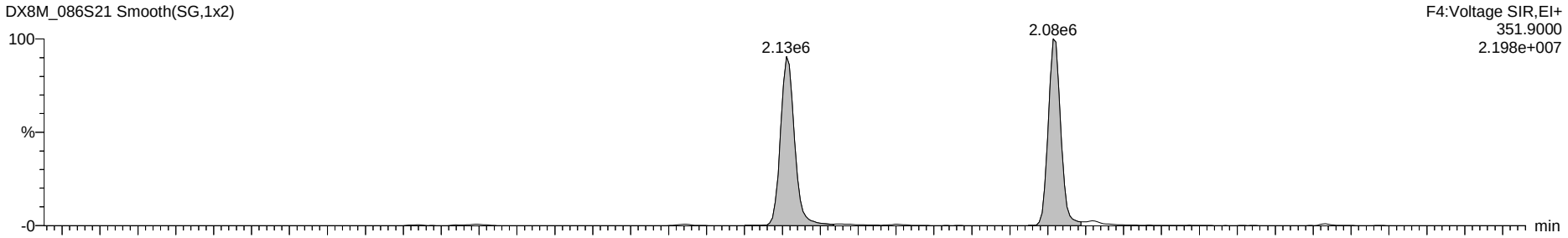
Name: DX8M_086S21, Date: 21-Jul-2018, Time: 10:34:36, ID: L29628-26,,, Description: 1,WG64578,1.0/20uL

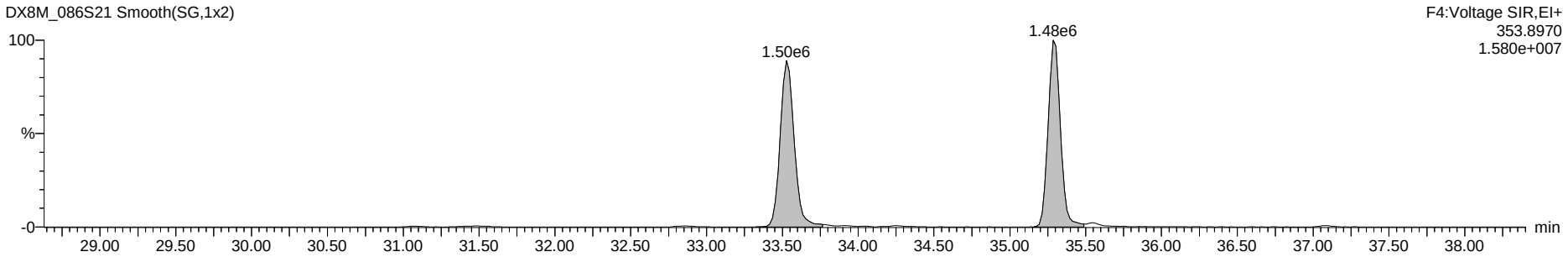
Total Penta-Furans





13C-Penta-Furans

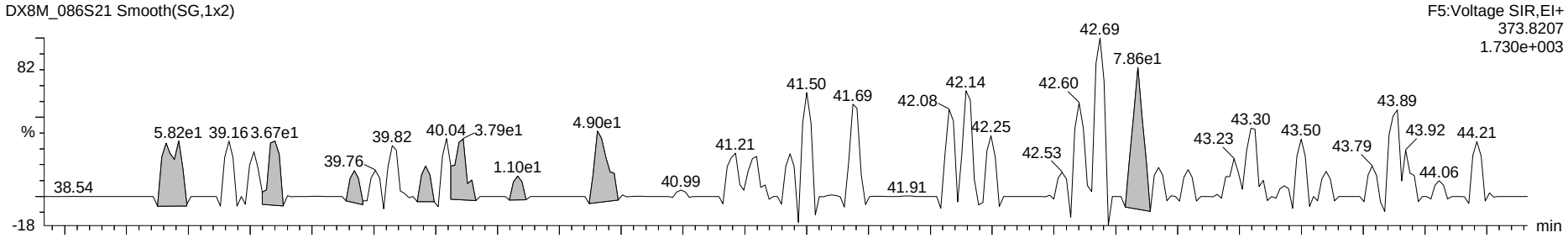


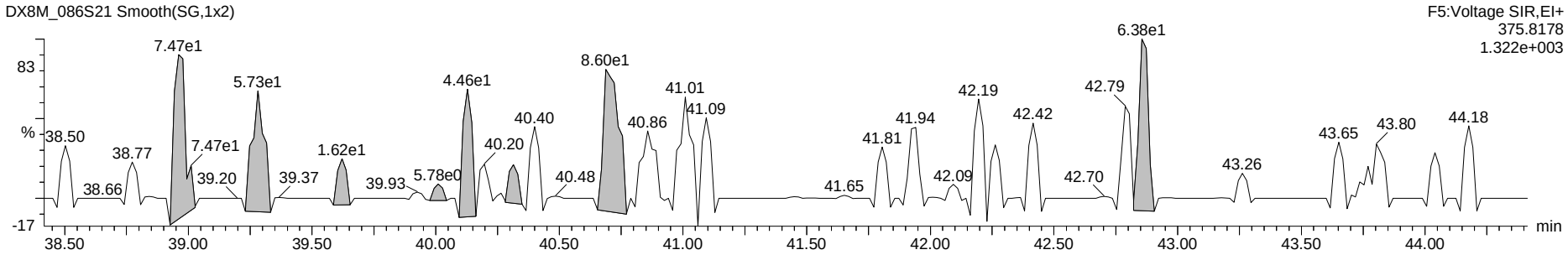


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

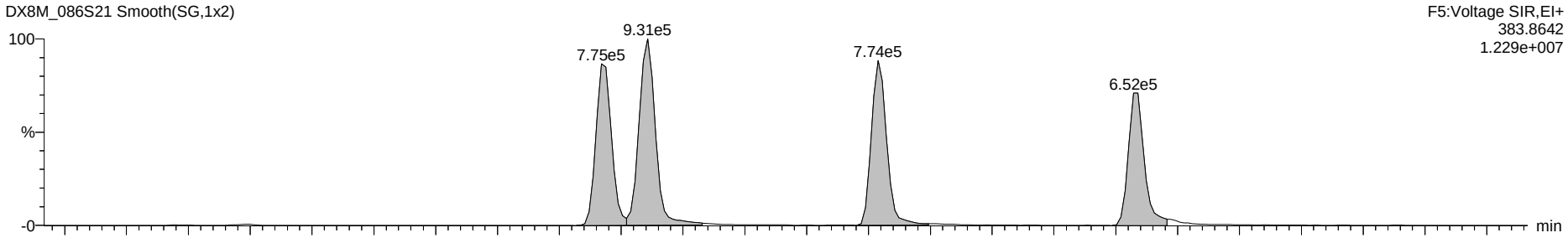
Name: DX8M_086S21, Date: 21-Jul-2018, Time: 10:34:36, ID: L29628-26,,, Description: 1,WG64578,1.0/20uL

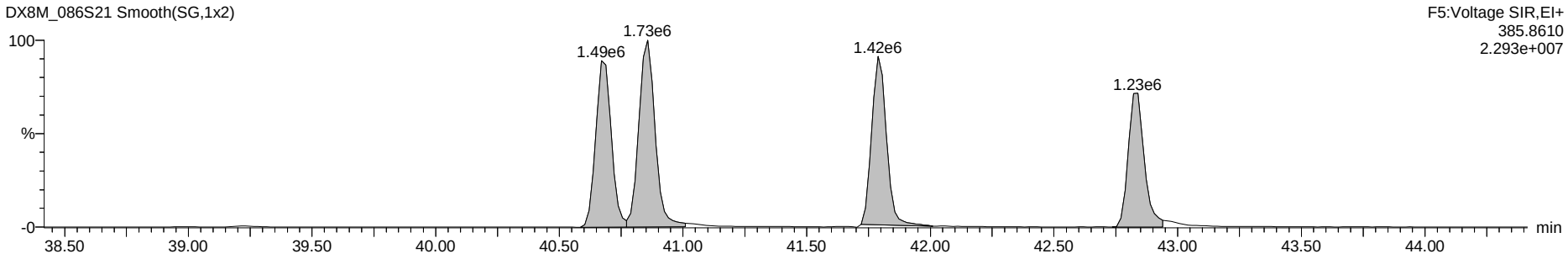
Total Hexa-Furans





13C-Hexa-Furans

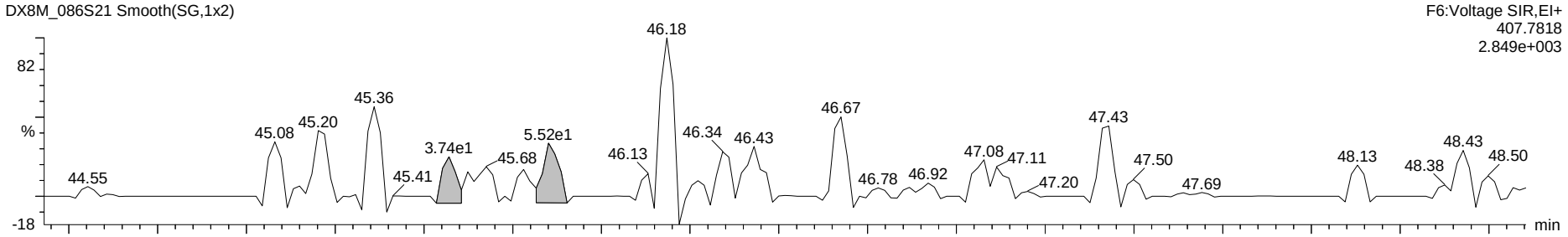


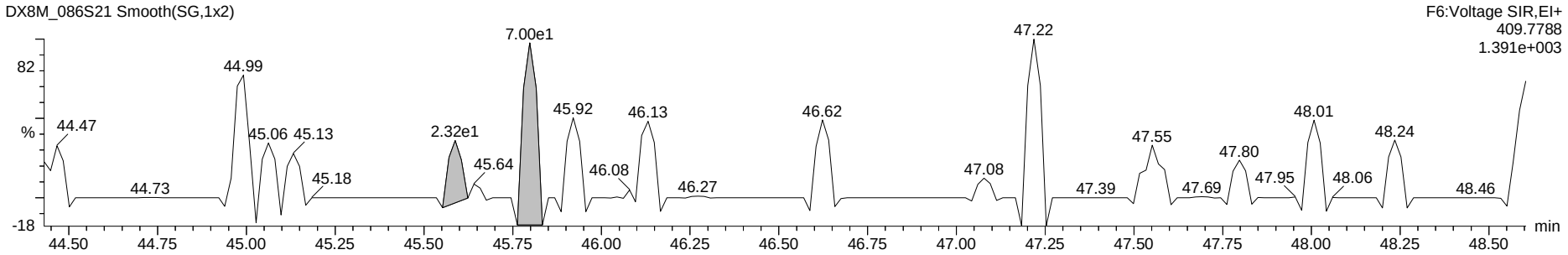


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

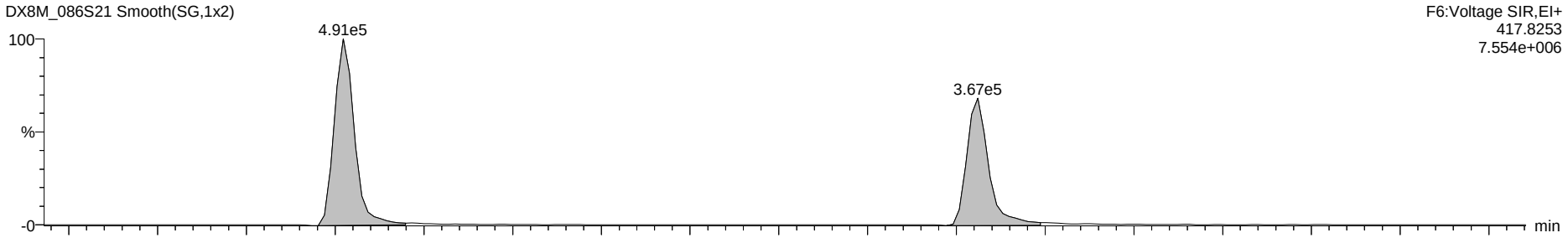
Name: DX8M_086S21, Date: 21-Jul-2018, Time: 10:34:36, ID: L29628-26,,, Description: 1,WG64578,1.0/20uL

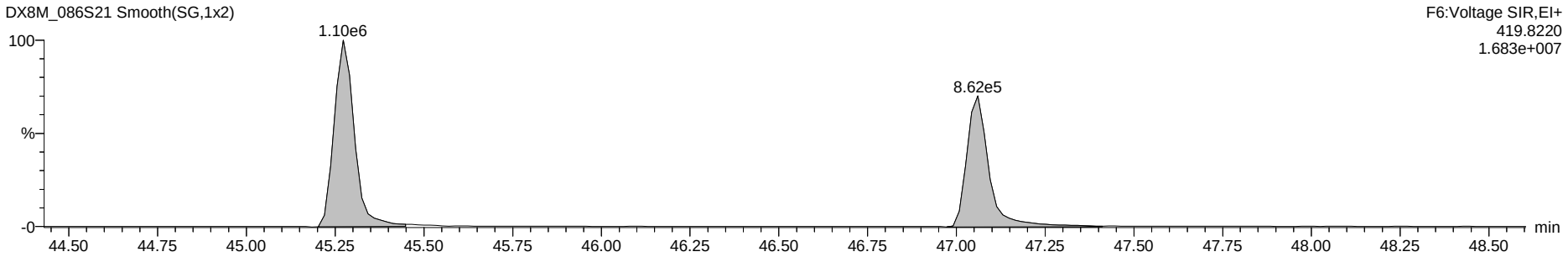
Total Hepta-Furans





13C-Hepta-Furans

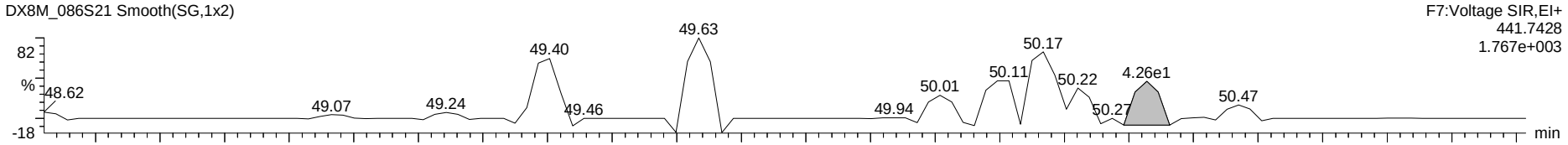


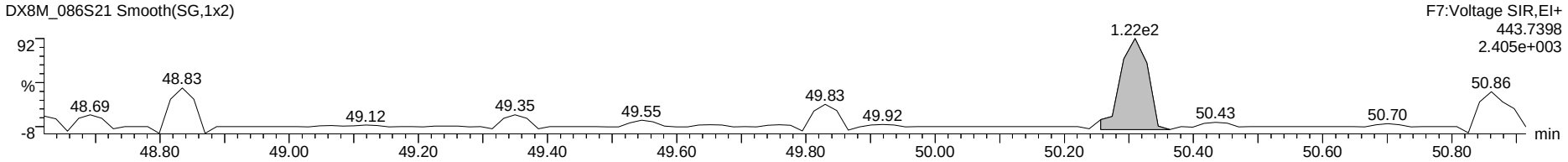


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

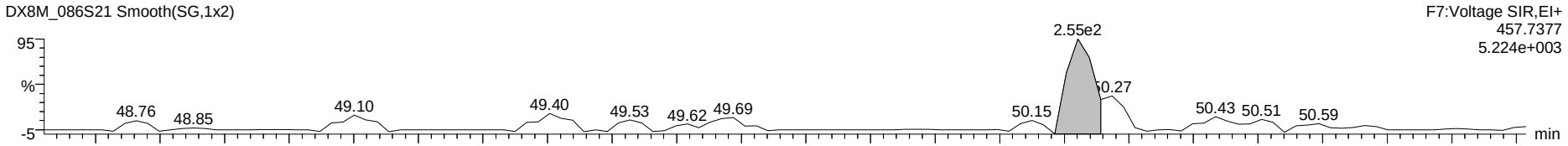
Name: DX8M_086S21, Date: 21-Jul-2018, Time: 10:34:36, ID: L29628-26,,, Description: 1,WG64578,1.0/20uL

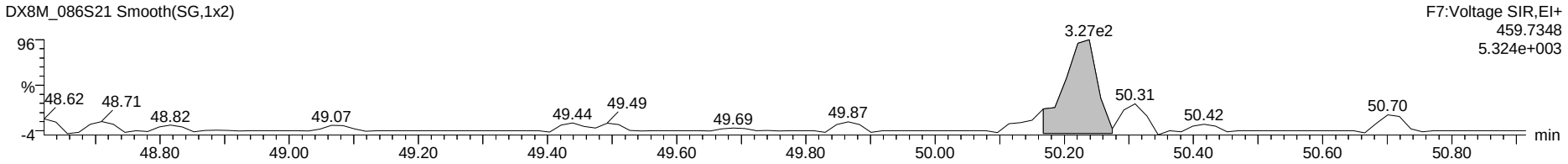
OCDF



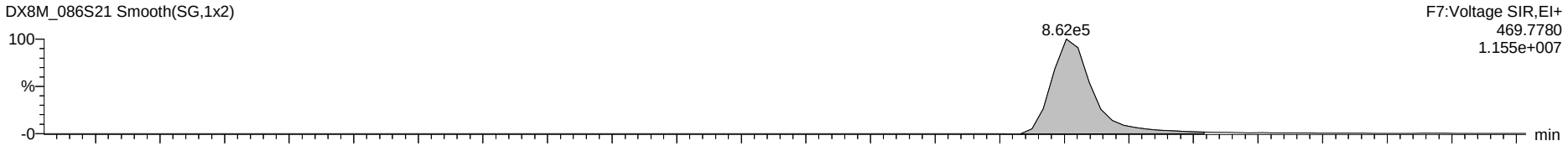


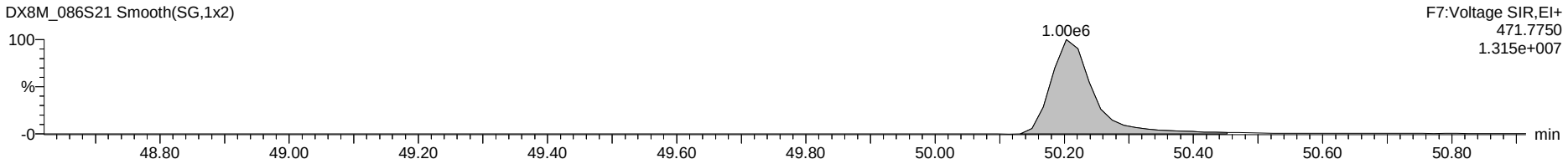
OCDD





13C-OCDD

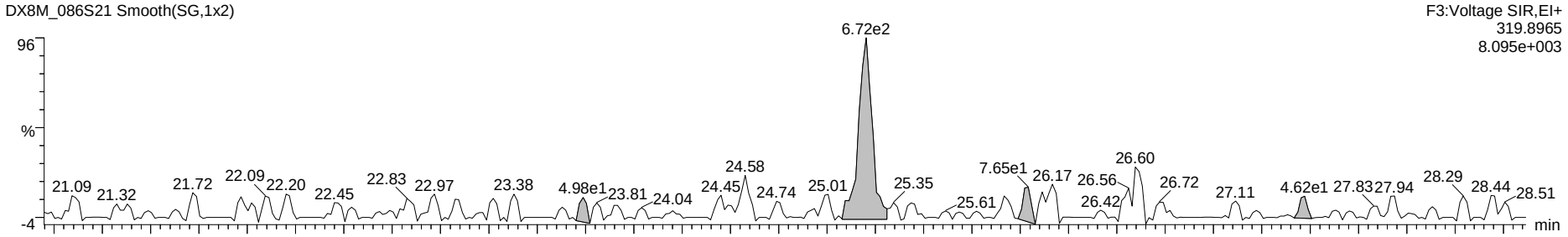


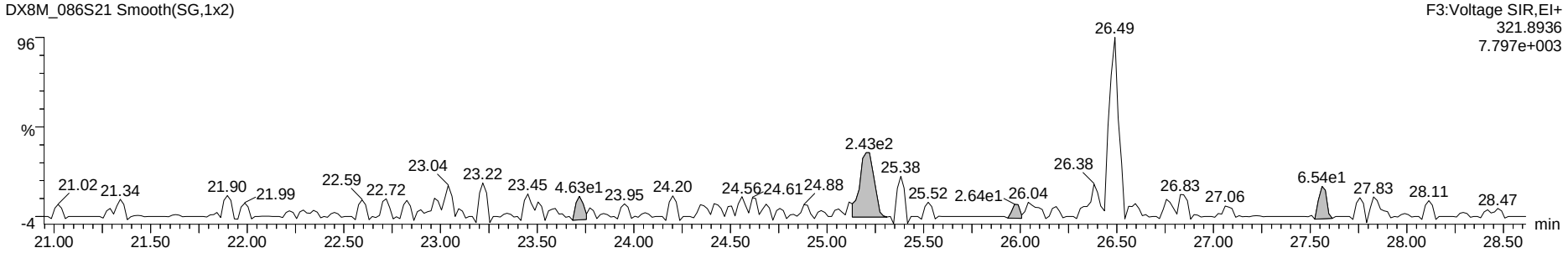


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

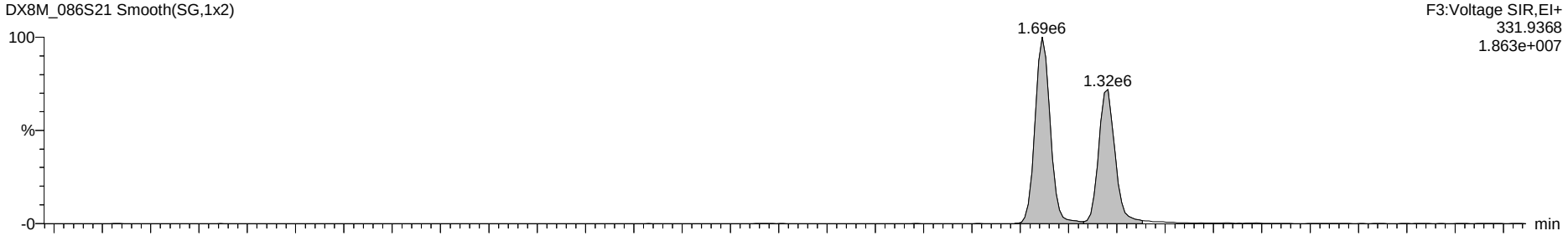
Name: DX8M_086S21, Date: 21-Jul-2018, Time: 10:34:36, ID: L29628-26,,, Description: 1,WG64578,1.0/20uL

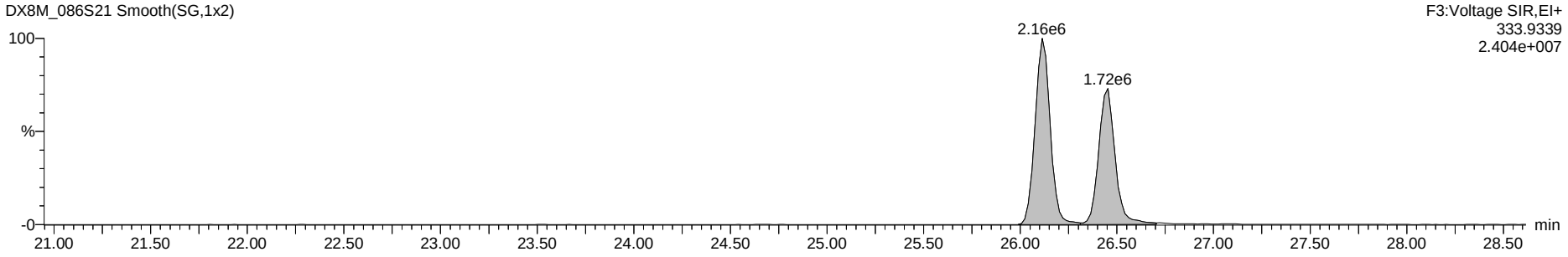
Total Tetra-Dioxins





13C-Tetra-Dioxins

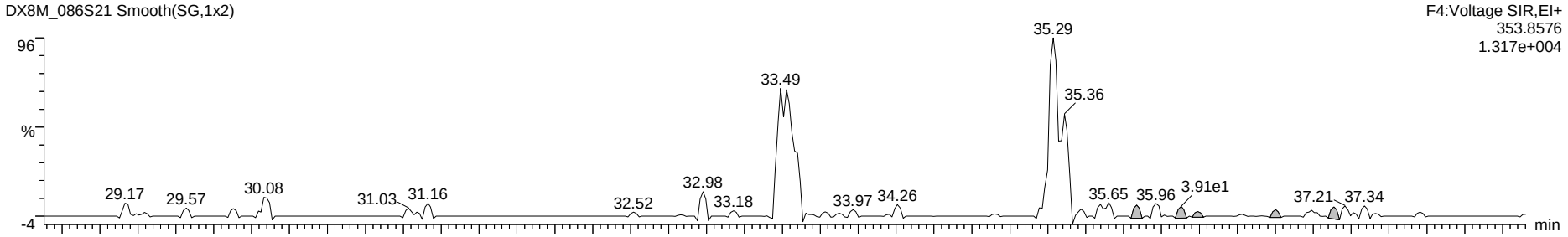


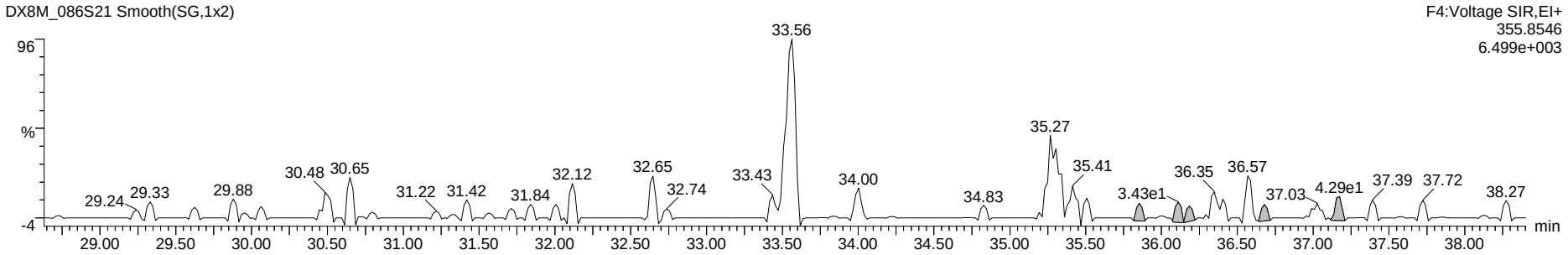


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

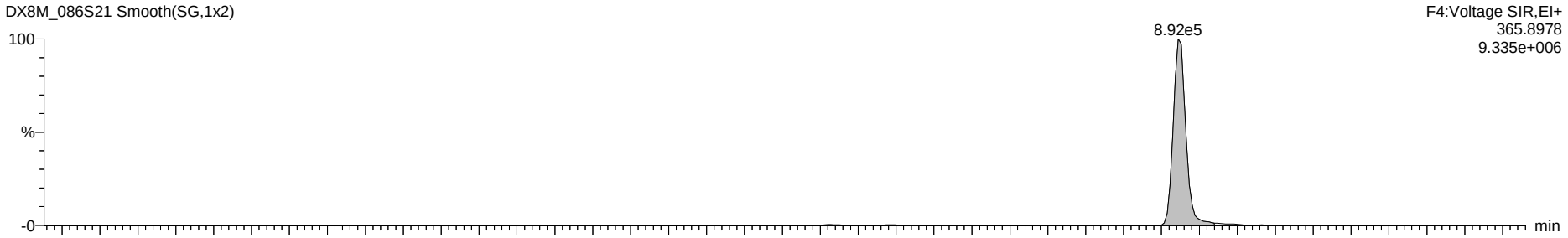
Name: DX8M_086S21, Date: 21-Jul-2018, Time: 10:34:36, ID: L29628-26,,, Description: 1,WG64578,1.0/20uL

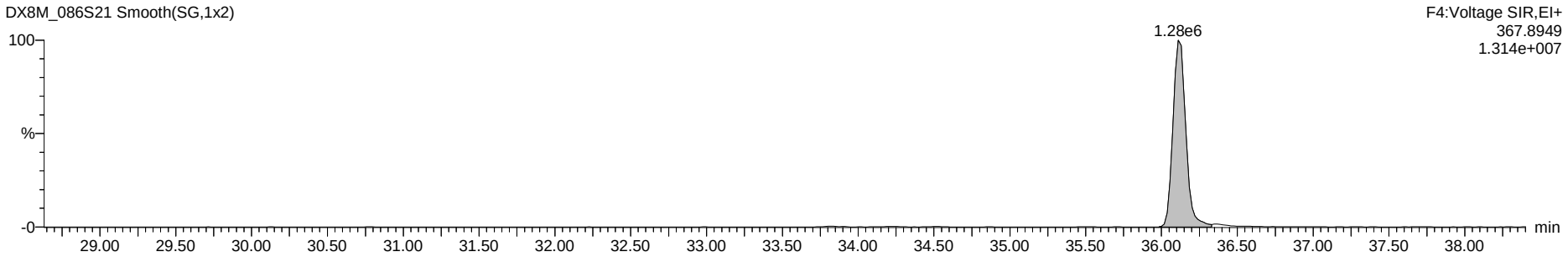
Total Penta-Dioxins





13C-Penta-Dioxins

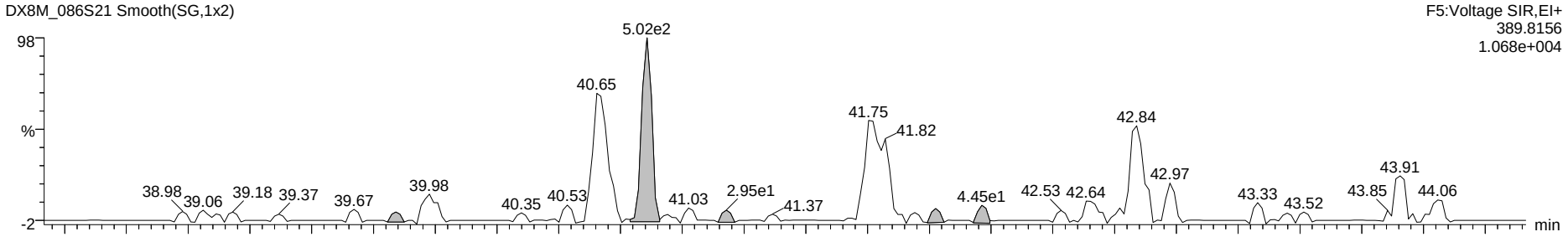


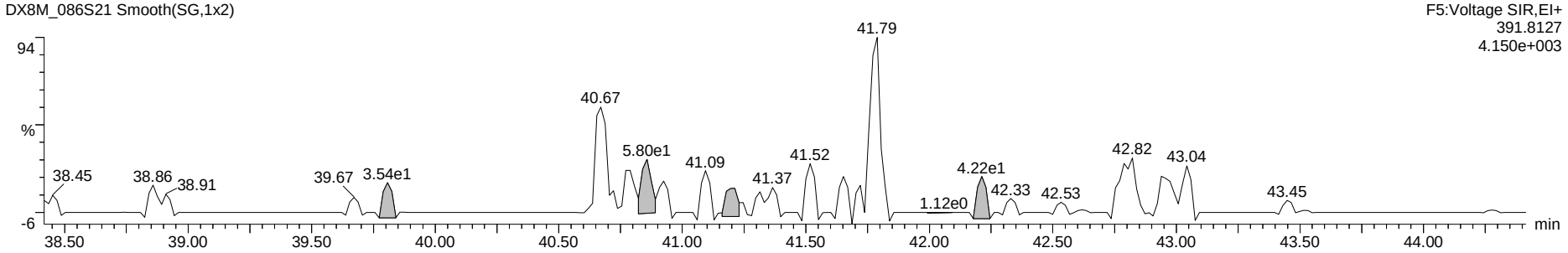


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

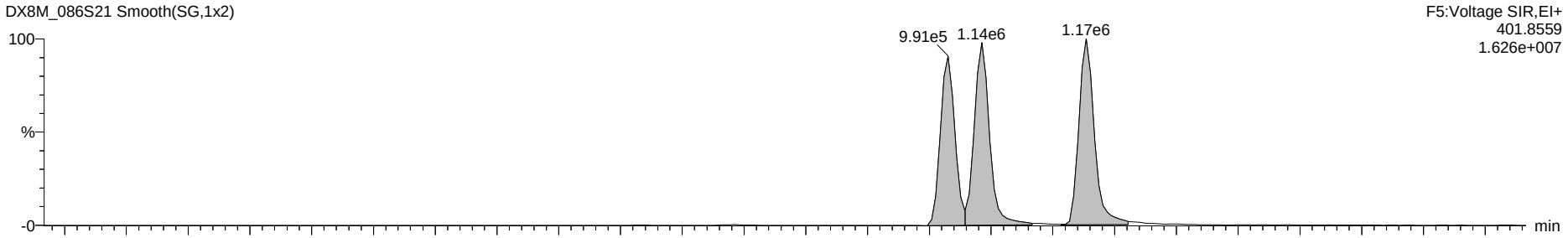
Name: DX8M_086S21, Date: 21-Jul-2018, Time: 10:34:36, ID: L29628-26,,, Description: 1,WG64578,1.0/20uL

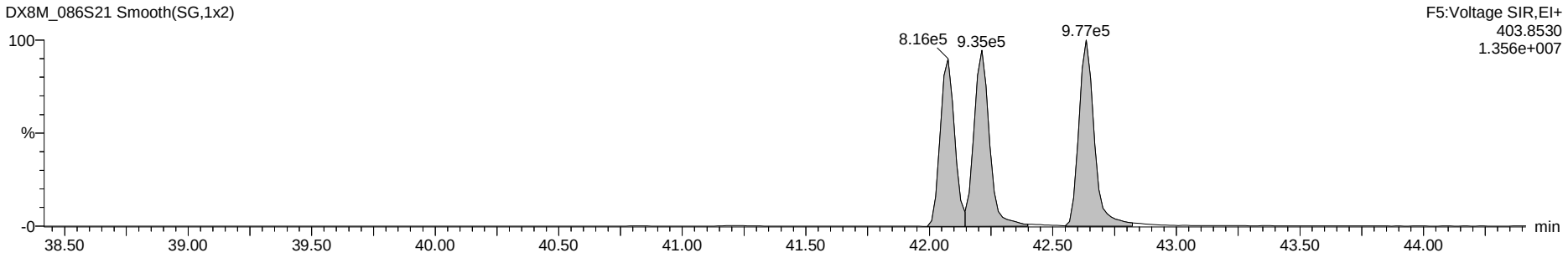
Total Hexa-Dioxins





13C-Hexa-Dioxins

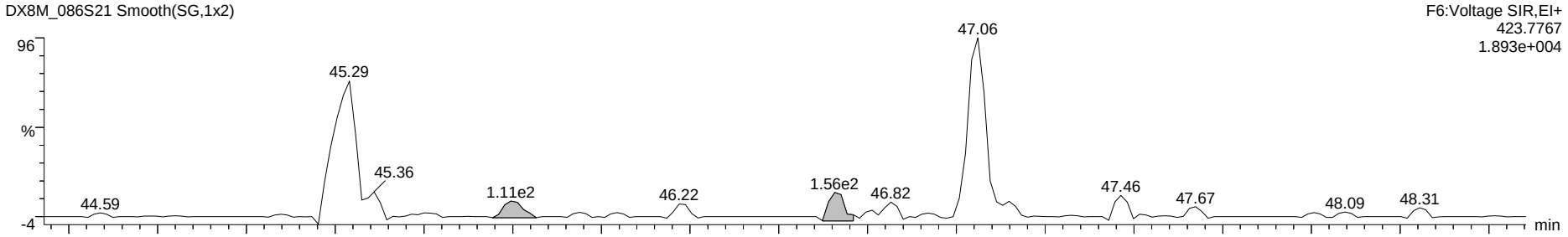


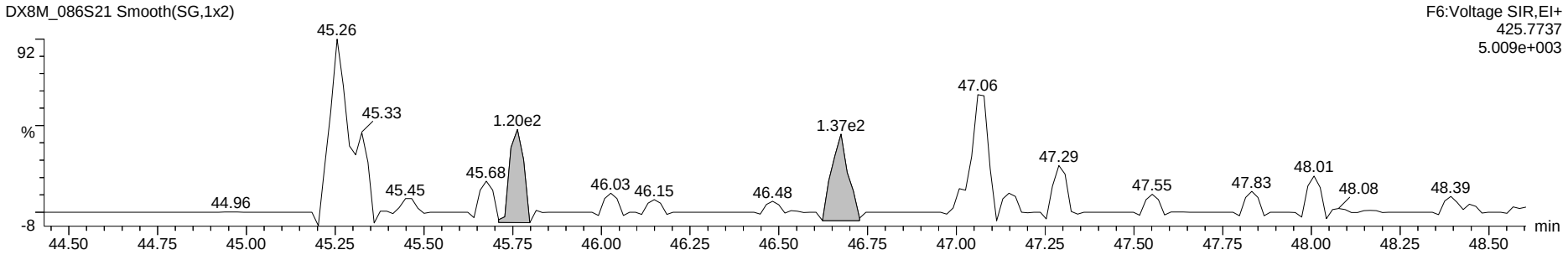


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

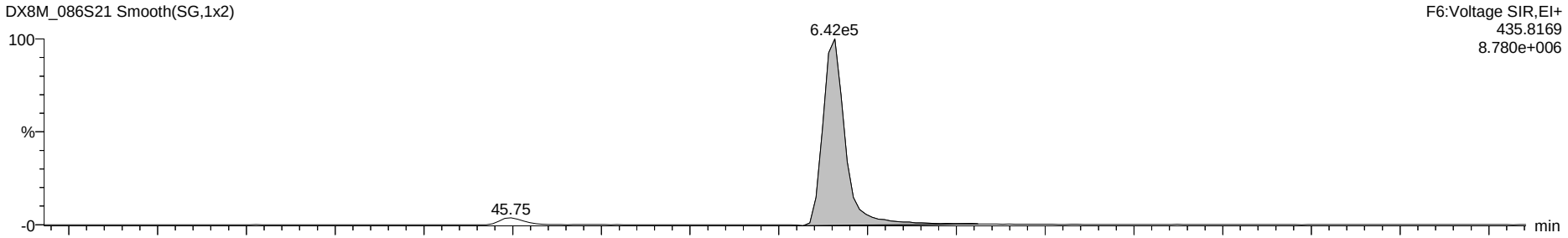
Name: DX8M_086S21, Date: 21-Jul-2018, Time: 10:34:36, ID: L29628-26,,, Description: 1,WG64578,1.0/20uL

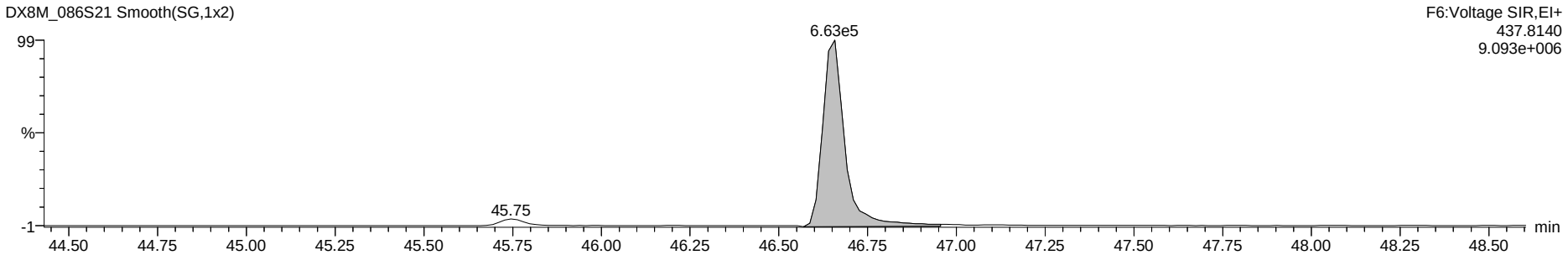
Total Hepta-Dioxins





13C-Hepta-Dioxins

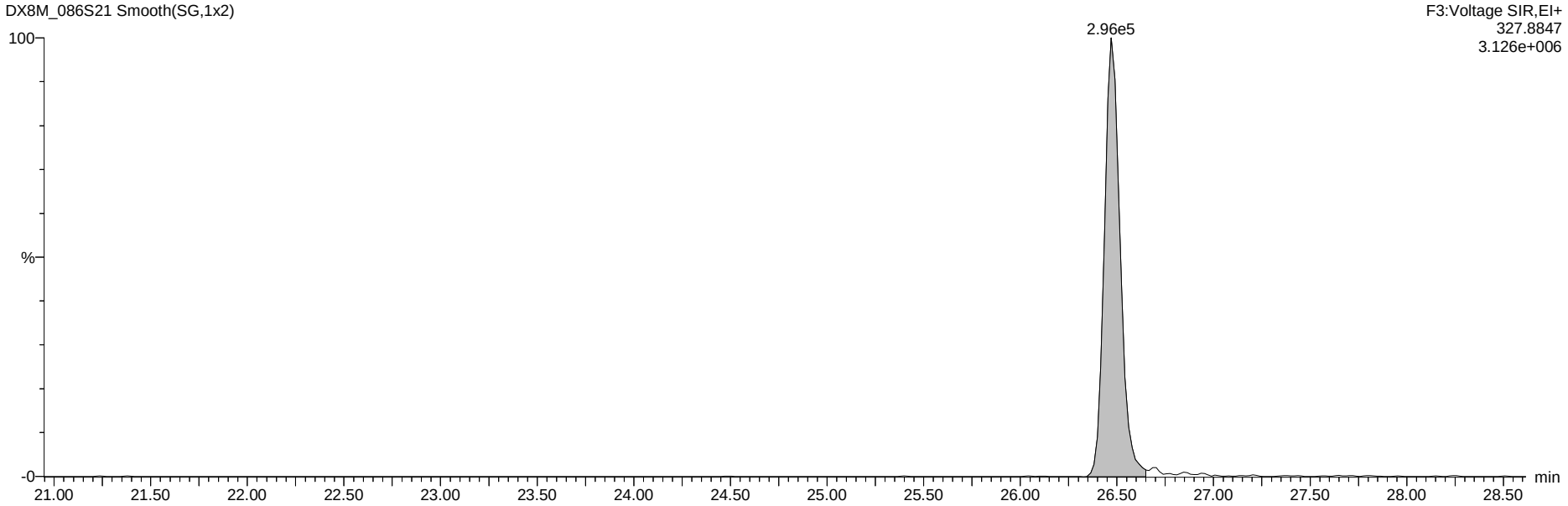




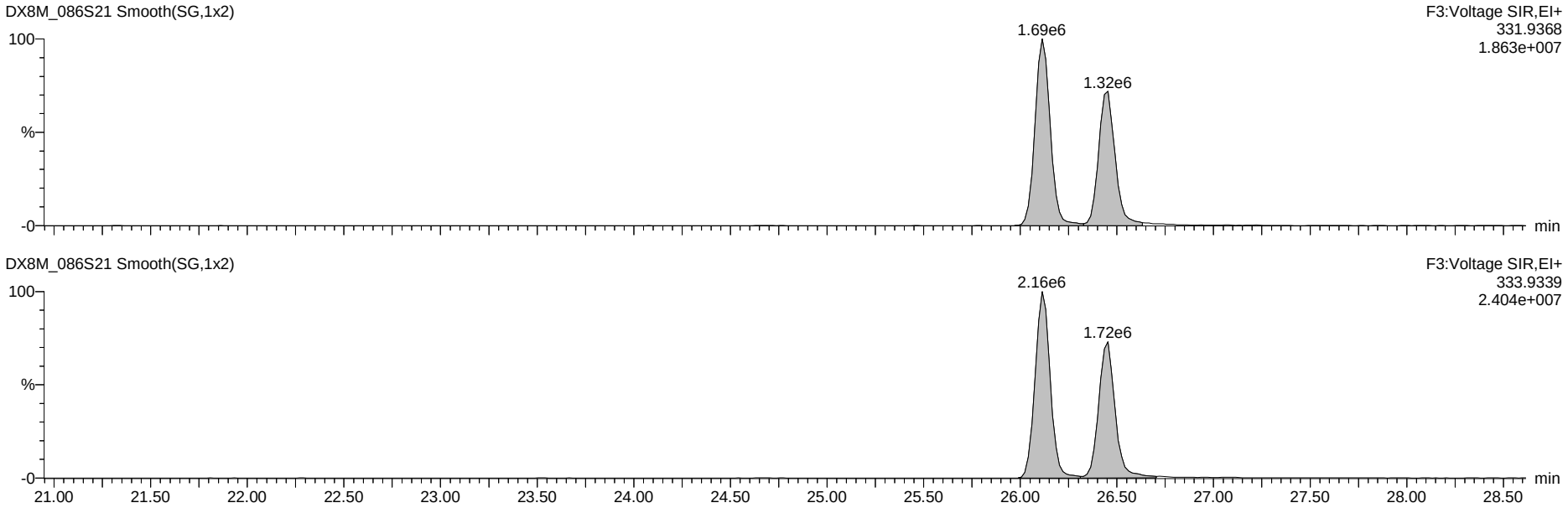
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S21, Date: 21-Jul-2018, Time: 10:34:36, ID: L29628-26,,, Description: 1,WG64578,1.0/20uL

37Cl-2,3,7,8-TCDD



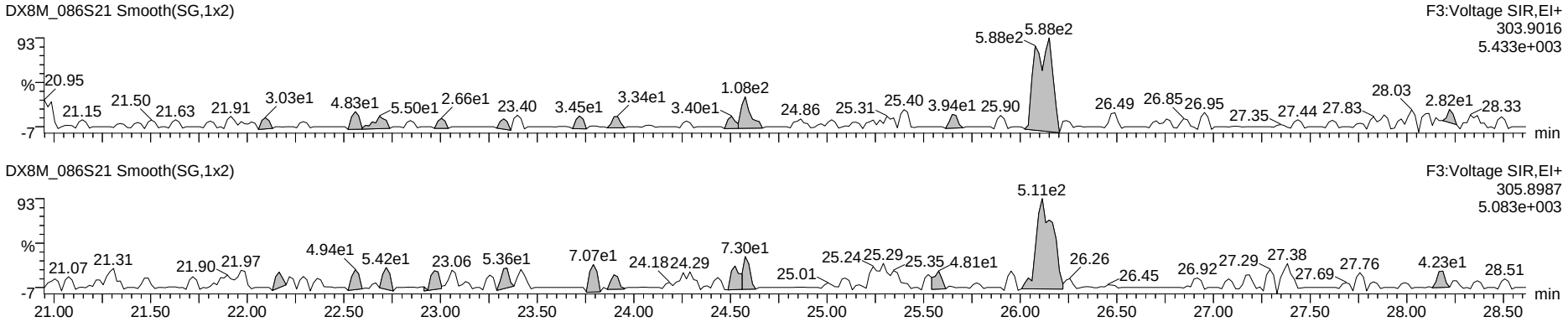
13C-Tetra-Dioxins



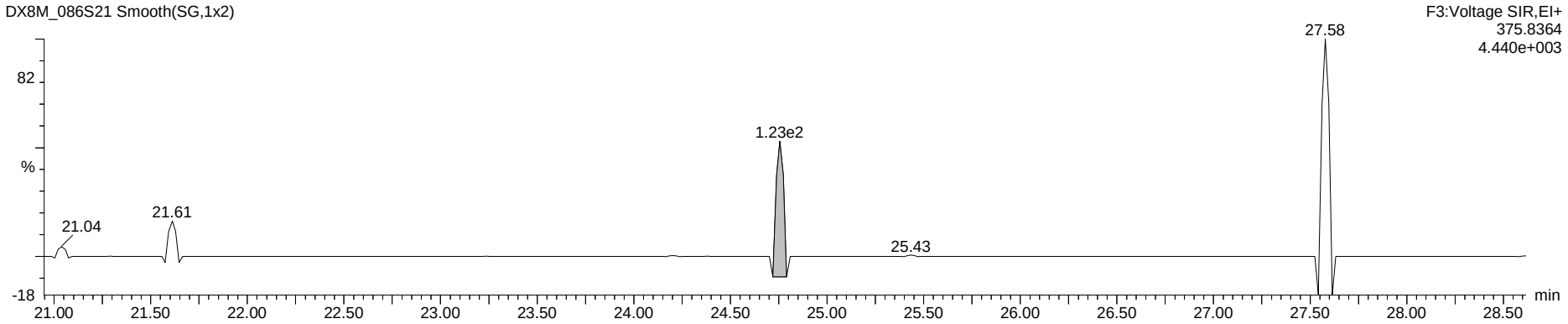
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S21, Date: 21-Jul-2018, Time: 10:34:36, ID: L29628-26,,, Description: 1,WG64578,1.0/20uL

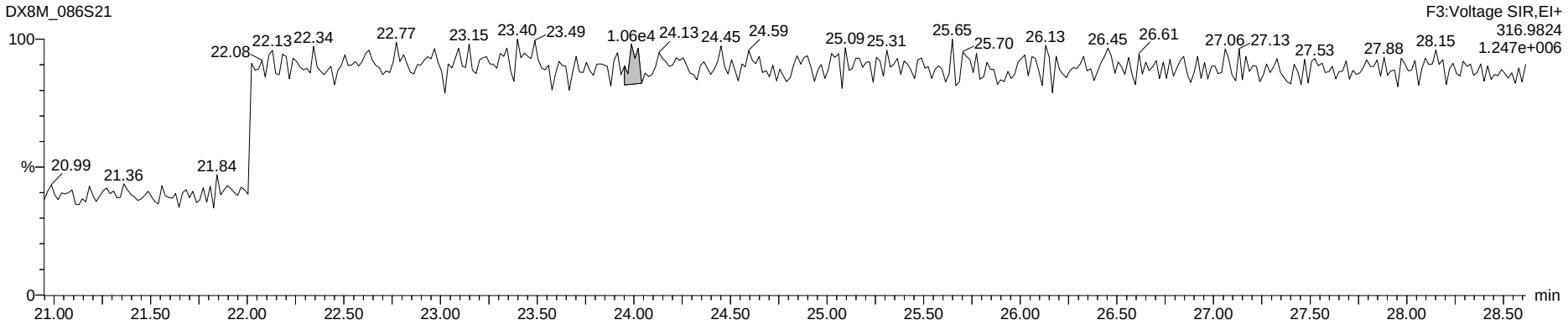
Total Tetra-Furans



Hexa DPE



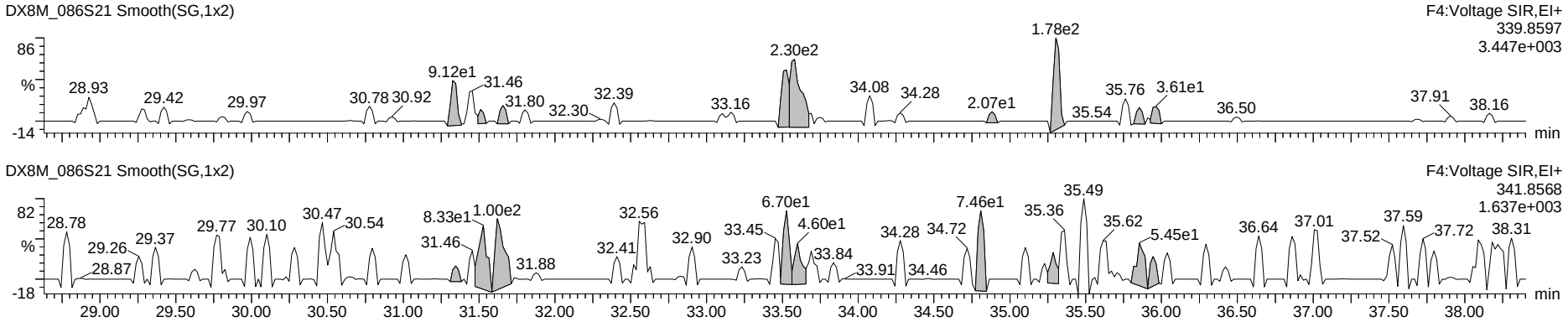
Tetra Lock



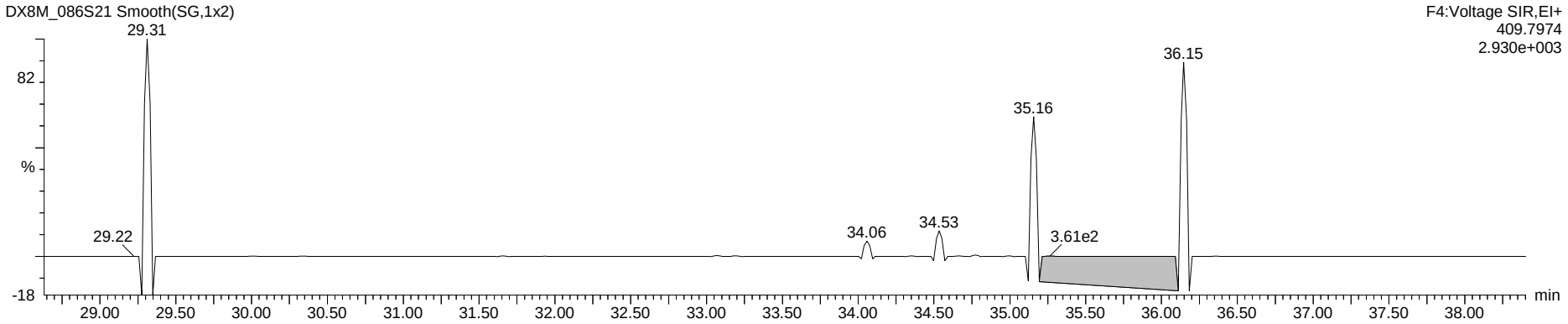
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S21, Date: 21-Jul-2018, Time: 10:34:36, ID: L29628-26,,, Description: 1,WG64578,1.0/20uL

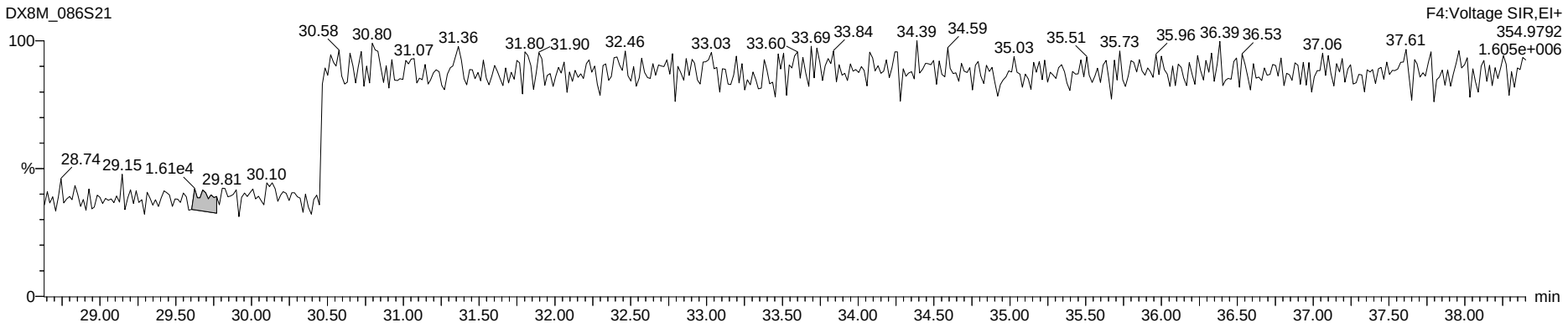
Total Penta-Furans



Hepta DPE



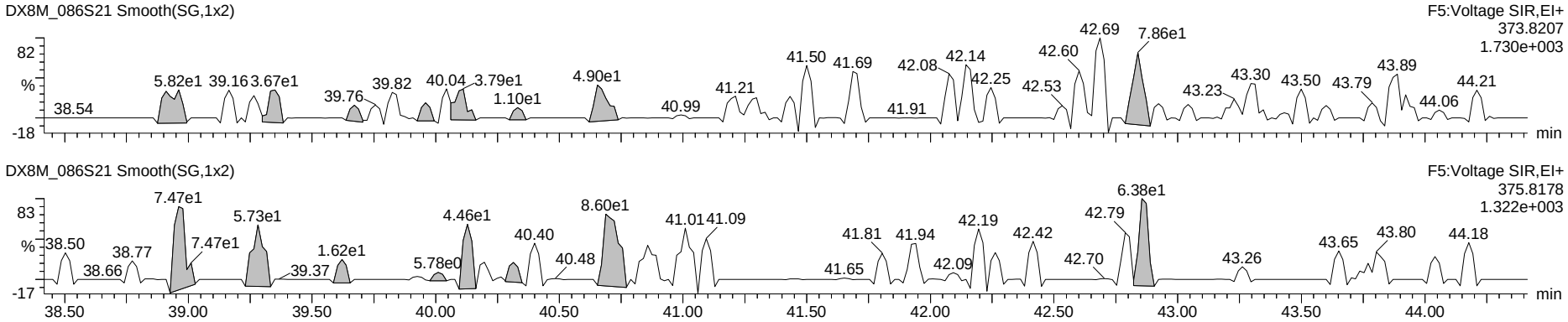
Penta Lock



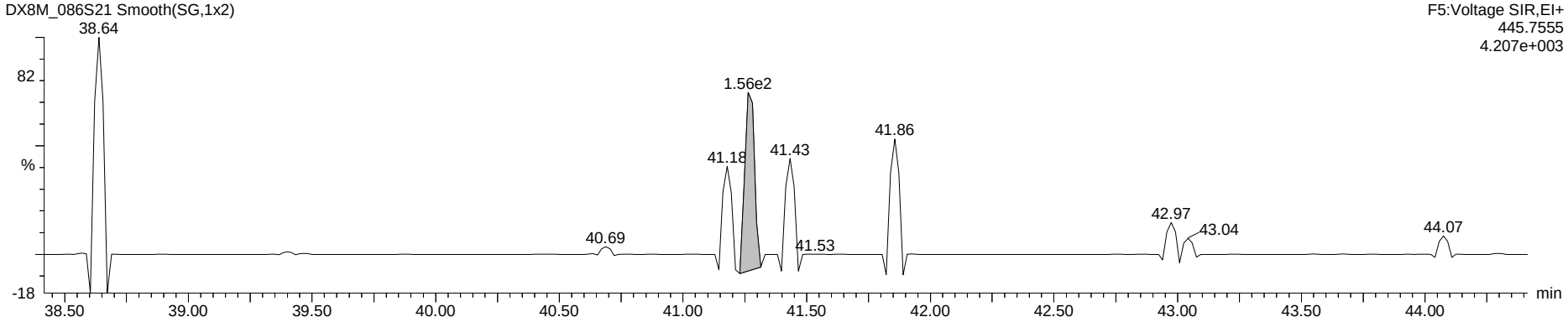
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S21, Date: 21-Jul-2018, Time: 10:34:36, ID: L29628-26,,, Description: 1,WG64578,1.0/20uL

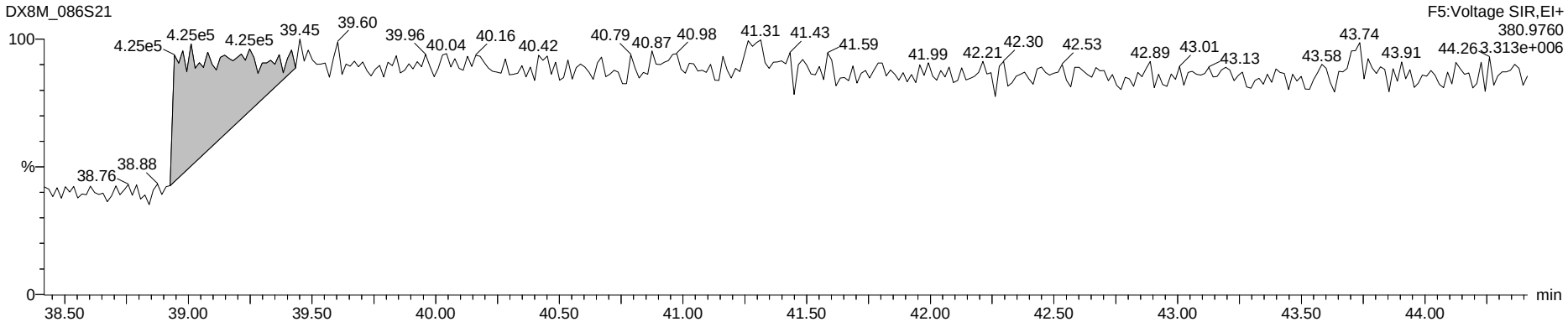
Total Hexa-Furans



Octa DPE



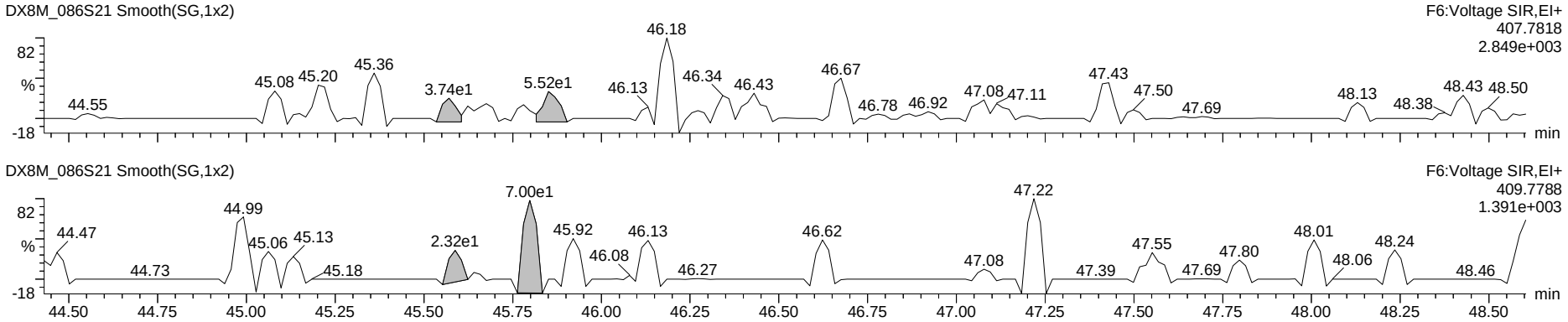
Hexa Lock



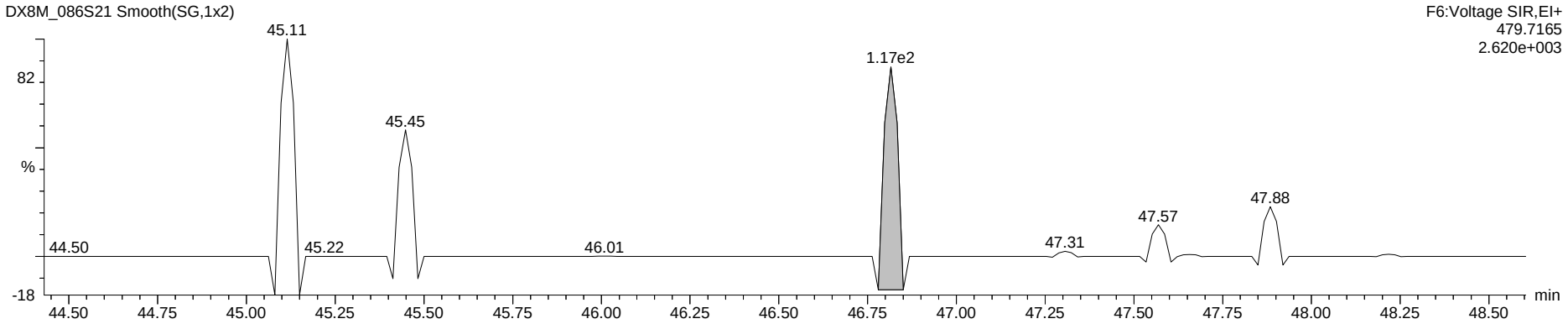
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S21, Date: 21-Jul-2018, Time: 10:34:36, ID: L29628-26,,, Description: 1,WG64578,1.0/20uL

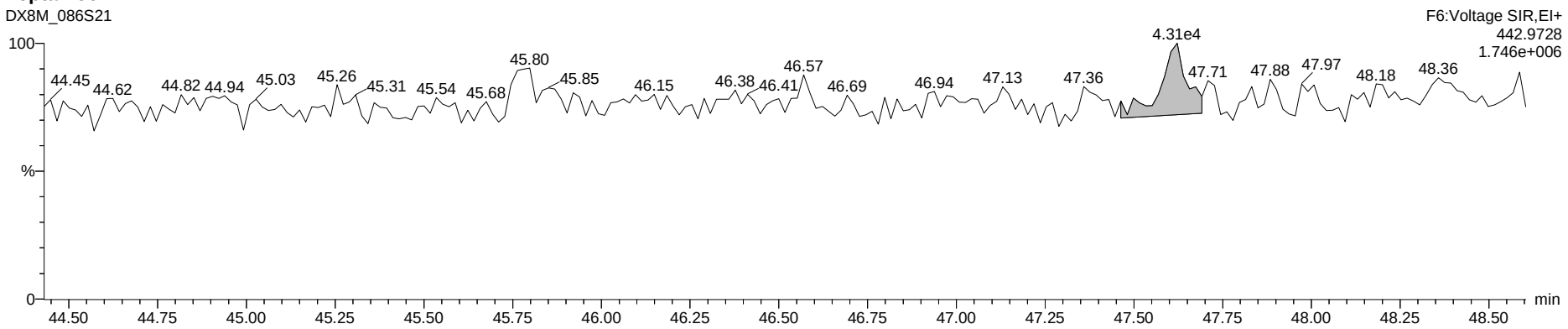
Total Hepta-Furans



Nona DPE



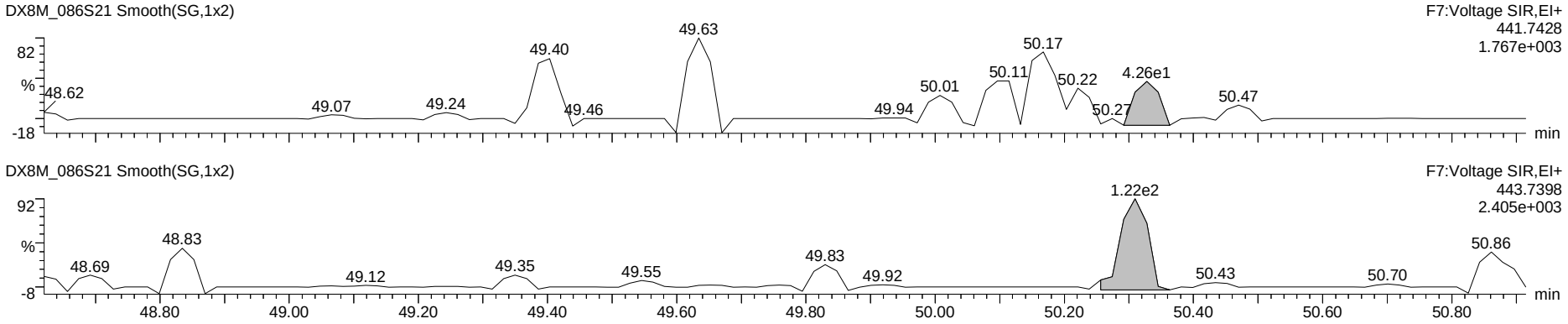
Hepta Lock



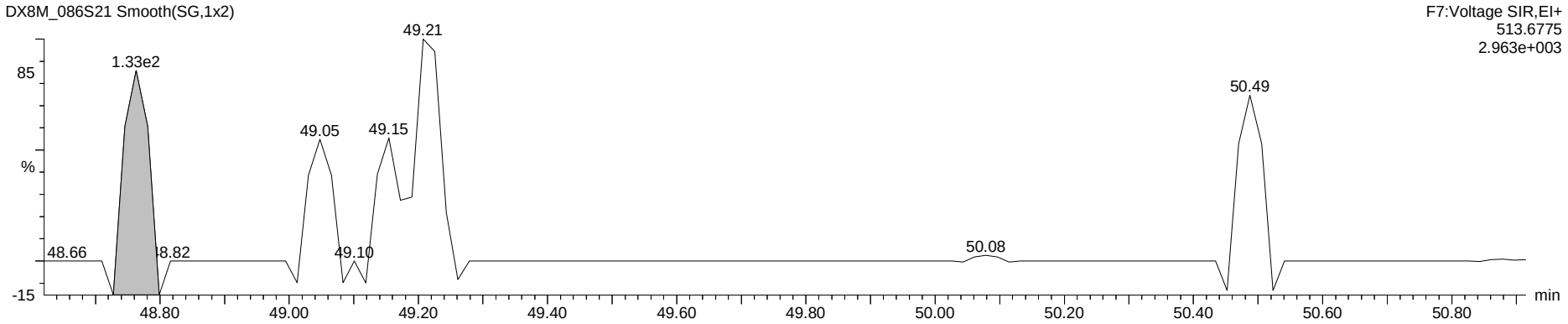
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S21, Date: 21-Jul-2018, Time: 10:34:36, ID: L29628-26,,, Description: 1,WG64578,1.0/20uL

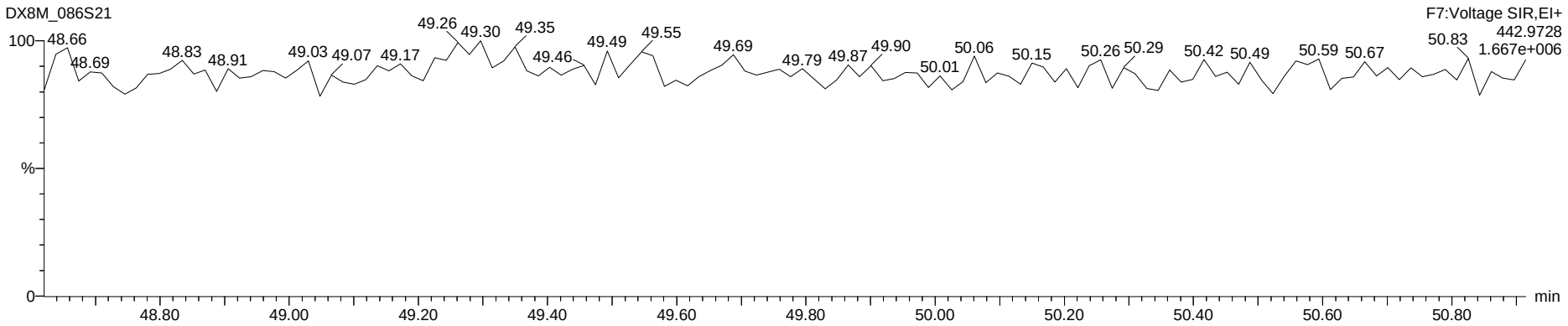
OCDF



Deca DPE



Octa Lock



Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_087-A.qld

Name: DX8M_087S5, Date: 23-Jul-2018, Time: 19:57:17, ID: L29628-28,I,, Description: 1,WG64578,1.0/20uL

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	1.060	5.17e2	0.66	NO	25.24	0.291	0.1560		8.02e2	4.03e2
2	1,2,3,7,8-PeCDF	1.060	5.61e2	1.21	YES	33.58	0.420	0.1506		4.36e2	2.94e2
3	2,3,4,7,8-PeCDF	1.060	1.81e2	2.17	YES	35.27	0.136	0.1278		4.36e2	2.94e2
4	1,2,3,4,7,8-HxCDF	1.060	3.06e2	1.77	YES	40.70	0.320	0.2656		4.85e2	8.39e2
5	1,2,3,6,7,8-HxCDF	1.060	2.92e2	1.45	YES	40.89	0.275	0.2418		4.85e2	8.39e2
6	2,3,4,6,7,8-HxCDF	1.060	1.34e2	0.89	YES	41.86	0.139	0.2458		4.85e2	8.39e2
7	1,2,3,7,8,9-HxCDF	1.060	3.67e2	0.48	YES	42.86	0.475	0.3525		4.85e2	8.39e2
8	1,2,3,4,6,7,8-HpCDF	1.060	4.39e2	1.14	NO	45.29	0.579	0.1949		6.29e2	1.83e2
9	1,2,3,4,7,8,9-HpCDF	1.060	2.61e2	2.77	YES	47.06	0.452	0.2755		6.29e2	1.83e2
10	OCDF	1.060	2.46e2	1.41	YES	50.31	0.544	0.0980		1.73e2	4.51e1
11	2,3,7,8-TCDD	1.060	5.56e2	0.22	YES	26.47	0.385	0.1738		6.33e2	3.99e2
12	1,2,3,7,8-PeCDD	1.060	1.16e2	0.98	YES	36.15	0.123	0.3730		1.09e3	2.80e2
13	1,2,3,4,7,8-HxCDD	1.060	1.89e2	1.12	NO	42.06	0.276	0.1374		1.59e2	3.86e2
14	1,2,3,6,7,8-HxCDD	1.060	1.82e2	1.29	NO	42.23	0.231	0.1268		1.59e2	3.86e2
15	1,2,3,7,8,9-HxCDD	1.060	2.82e2	2.48	YES	42.65	0.381	0.1310		1.59e2	3.86e2
16	1,2,3,4,6,7,8-HpCDD	1.060	3.45e2	0.75	YES	46.67	0.706	0.3454		5.50e2	3.32e2
17	OCDD	1.060	1.64e3	0.91	NO	50.22	4.388	0.2245		1.31e-1	4.14e2
18	13C-2,3,7,8-TCDF	1.060	3.66e6	0.72	NO	25.22	1380.337	0.9523	73.2	7.17e3	3.97e3
19	13C-1,2,3,7,8-PeCDF	1.060	2.73e6	1.42	NO	33.54	1429.386	2.8099	75.8	7.81e3	1.59e4
20	13C-2,3,4,7,8-PeCDF	1.060	2.66e6	1.40	NO	35.30	1445.541	2.9130	76.6	7.81e3	1.59e4
21	13C-1,2,3,4,7,8-HxCDF	1.060	1.61e6	0.51	NO	40.69	1468.276	3.9363	77.9	1.12e4	1.12e4
22	13C-1,2,3,6,7,8-HxCDF	1.060	1.89e6	0.52	NO	40.86	1609.317	3.6853	85.3	1.12e4	1.12e4
23	13C-2,3,4,6,7,8-HxCDF	1.060	1.59e6	0.55	NO	41.79	1514.519	4.1242	80.3	1.12e4	1.12e4
24	13C-1,2,3,7,8,9-HxCDF	1.060	1.46e6	0.51	NO	42.84	1415.081	4.1815	75.0	1.12e4	1.12e4
25	13C-1,2,3,4,6,7,8-HpCDF	1.060	1.17e6	0.44	NO	45.27	1336.347	3.8515	70.9	1.14e4	6.11e3
26	13C-1,2,3,4,7,8,9-HpCDF	1.060	8.69e5	0.45	NO	47.06	1272.764	4.9379	67.5	1.14e4	6.11e3
27	13C-2,3,7,8-TCDD	1.060	2.45e6	0.76	NO	26.45	1487.098	1.8320	78.9	9.10e3	4.24e3
28	13C-1,2,3,7,8-PeCDD	1.060	1.73e6	0.69	NO	36.13	1599.918	1.6265	84.8	4.59e3	3.18e3
29	13C-1,2,3,4,7,8-HxCDD	1.060	1.28e6	1.30	NO	42.08	1518.302	2.9557	80.5	7.09e3	5.90e3
30	13C-1,2,3,6,7,8-HxCDD	1.060	1.59e6	1.26	NO	42.21	1778.672	2.7950	94.3	7.09e3	5.90e3
31	13C-1,2,3,4,6,7,8-HpCDD	1.060	9.26e5	0.94	NO	46.66	1323.790	3.1402	70.2	6.78e3	4.63e3
32	13C-OCDD	1.060	1.39e6	0.91	NO	50.20	2256.982	7.6505	59.8	1.76e4	6.86e3
33	13C-1,2,3,4-TCDD	1.060	3.10e6	0.78	NO	26.11	129.132	0.1260	6.8	9.10e3	4.24e3
34	13C-1,2,3,7,8,9-HxCDD	1.060	1.62e6	1.23	NO	42.63	107.050	0.1651	5.7	7.09e3	5.90e3
35	37Cl-2,3,7,8-TCDD	1.060	2.50e5			26.49	136.829	0.2465	72.6		1.99e3
36	Total Tetra-Furans	1.060					0.927	0.1560			4.03e2
37	Total Tetra-Dioxins	1.060					1.083	0.1738			3.99e2
38	Total Penta-Furans	1.060					1.298	0.1404			2.94e2
39	Total Penta-Dioxins	1.060					0.858	0.3730			2.80e2
40	Total Hexa-Furans	1.060					2.020	0.2631			8.39e2
41	Total Hexa-Dioxins	1.060					2.111	0.1267			3.86e2
42	Total Hepta-Furans	1.060					1.597	0.2320			1.83e2
43	Total Hepta-Dioxins	1.060					1.756	0.3454			3.32e2
44	Hexa DPE	1.000	7.56e-1			25.47					1.37e-1
45	Hepta DPE	1.000	1.59e2			36.42					0.00e0
46	Octa DPE	1.000	4.86e1			39.26					1.13e-1
47	Nona DPE	1.000	1.34e2			47.32					0.00e0
48	Deca DPE	1.000	3.67e0			48.98					1.39e-1
49	Tetra Lock	1.000	2.48e3			24.33					1.11e5
50	Penta Lock	1.000									1.02e5
51	Hexa Lock	1.000	8.07e3			38.93					2.23e5
52	Hepta Lock	1.000	1.07e4			47.62					1.57e5
53	Octa Lock	1.000									1.48e5
54	13C-Tetra-Furans	1.060					1380.337	0.9523			3.97e3
55	13C-Tetra-Dioxins	1.060					1616.231	1.9580			4.24e3

pv'd by LHE 24-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

SVby K3 26Jul2018

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_087-A.qld

Name: DX8M_087S5, Date: 23-Jul-2018, Time: 19:57:17, ID: L29628-28,I,, Description: 1,WG64578,1.0/20uL

Tetrafurans

	RT	1° Ratio (A...	Fails?	pg
1	26.15	0.784	NO	0.532
2	25.24	0.665	NO	0.291
3	21.43	1.317	YES	0.103

Tetradioxins

	RT	1° Ratio (A...	Fails?	pg
1	22.95	1.695	YES	0.071
2	26.47	0.220	YES	0.385
3	26.08	1.002	YES	0.103
4	25.24	5.312	YES	0.524

Pentafurans

	RT	1° Ratio (A...	Fails?	pg
1	28.89	1.960	YES	0.344
2	31.57	0.128	YES	0.086
3	33.58	1.215	YES	0.420
4	32.83	1.176	YES	0.058
5	36.15	2.168	YES	0.078
6	35.27	2.169	YES	0.136
7	37.10	2.514	YES	0.178

Pentadioxins

	RT	1° Ratio (A...	Fails?	pg
1	33.03	2.133	YES	0.029
2	32.08	1.314	YES	0.358
3	37.04	0.476	YES	0.329
4	36.15	0.980	YES	0.123
5	37.94	0.123	YES	0.020

Hexafurans

	RT	1° Ratio (A...	Fails?	pg
1	41.47	1.671	YES	0.042
2	41.14	0.888	YES	0.036
3	40.89	1.450	YES	0.275
4	40.70	1.772	YES	0.320
5	39.98	0.918	YES	0.038
6	39.55	10.543	YES	0.031
7	39.25	0.726	YES	0.108
8	38.96	4.518	YES	0.315
9	42.99	0.806	YES	0.242
10	42.86	0.482	YES	0.475
11	41.86	0.891	YES	0.139

pv'd by LHE 24-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_087-A.qld

Name: DX8M_087S5, Date: 23-Jul-2018, Time: 19:57:17, ID: L29628-28,I,, Description: 1,WG64578,1.0/20uL

Hexadioxins

	RT	1° Ratio (A...	Fails?	pg
1	40.86	6.954	YES	1.058
2	42.65	2.478	YES	0.381
3	42.23	1.286	NO	0.231
4	42.06	1.117	NO	0.276
5	40.01	1.461	YES	0.165

Heptafurans

	RT	1° Ratio (A...	Fails?	pg
1	47.06	2.765	YES	0.452
2	45.80	0.709	YES	0.459
3	45.68	0.755	YES	0.108
4	45.29	1.143	NO	0.579

Heptadioxins

	RT	1° Ratio (A...	Fails?	pg
1	46.67	0.751	YES	0.706
2	45.76	1.929	YES	1.050

13C-TF

	RT	1° Ratio (A...	Fails?	pg
1	25.22	0.719	NO	1380.3...

13C-TD

	RT	1° Ratio (A...	Fails?	pg
1	26.45	0.764	NO	1487.0...
2	26.11	0.782	NO	129.132

13C-PF

	RT	1° Ratio (A...	Fails?	pg
1	33.54	1.422	NO	1429.3...
2	35.30	1.401	NO	1445.5...

13C-PD

	RT	1° Ratio (A...	Fails?	pg
1	36.13	0.685	NO	1599.9...

13C-HxF

	RT	1° Ratio (A...	Fails?	pg
1	40.86	0.519	NO	1609.3...
2	40.69	0.514	NO	1468.2...
3	42.84	0.511	NO	1415.0...
4	41.79	0.552	NO	1514.5...

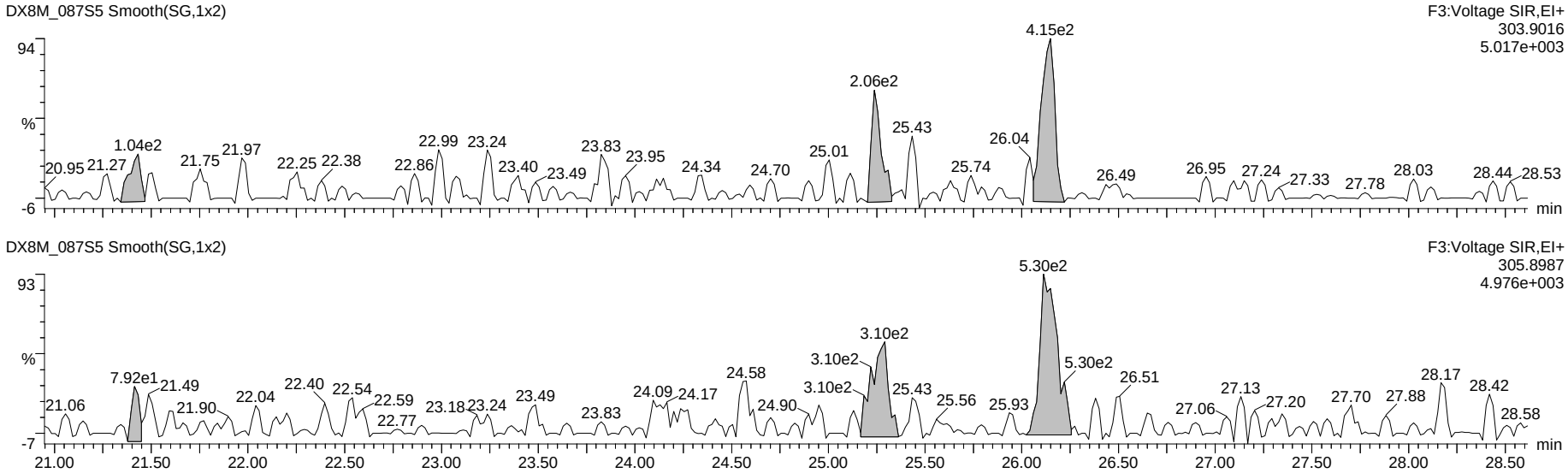
pv'd by LHE 24-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_087-A.qld

Method: G:\Masslynx\Inst_M\Projects\180604DX.PRO\MethDB\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_087S5, Date: 23-Jul-2018, Time: 19:57:17, ID: L29628-28,I,, Description: 1,WG64578,1.0/20uL

Total Tetra-Furans



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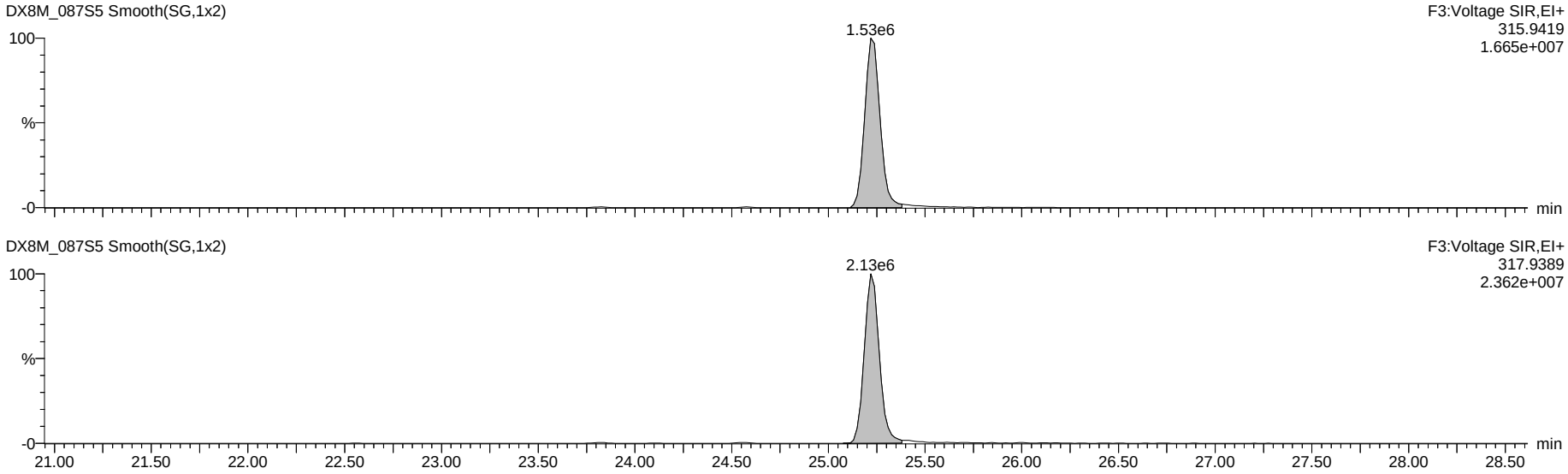

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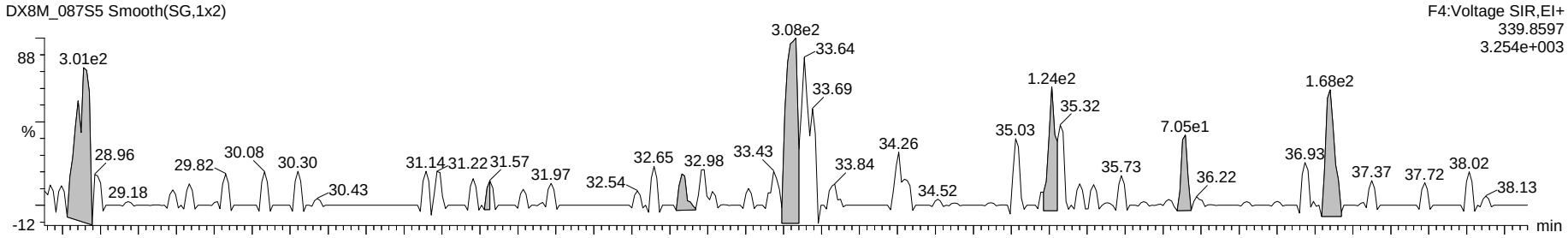
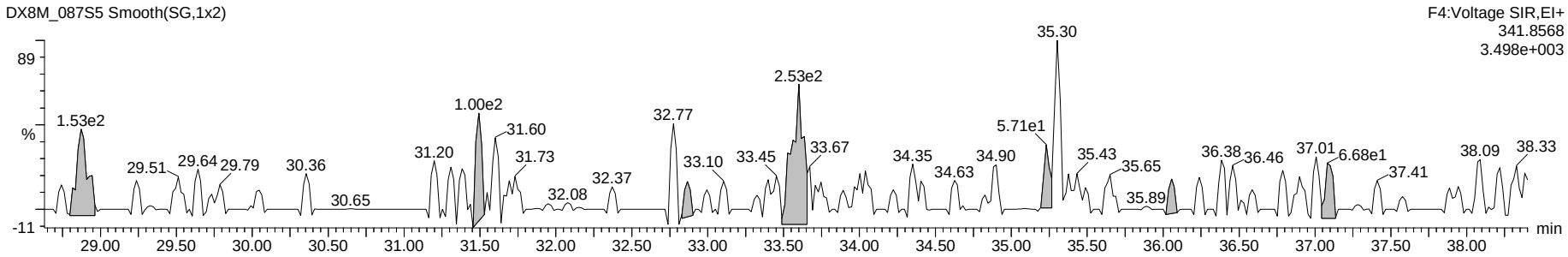
Name: DX8M_087S5, Date: 23-Jul-2018, Time: 19:57:17, ID: L29628-28,I,, Description: 1,WG64578,1.0/20uL

Total Penta-Furans





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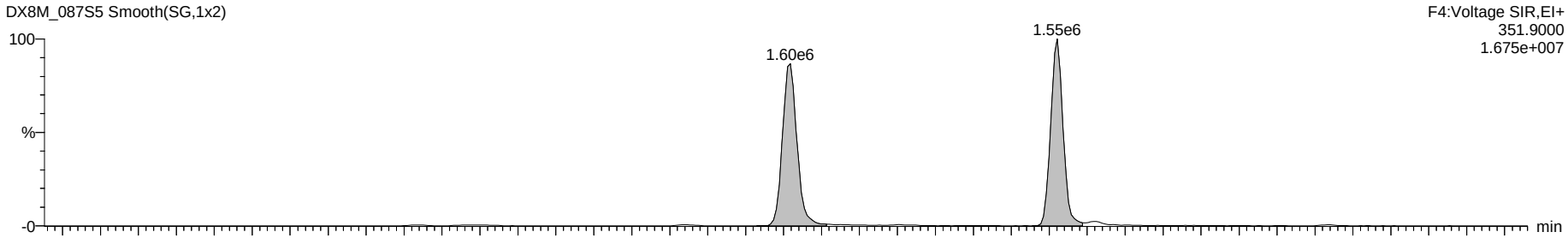

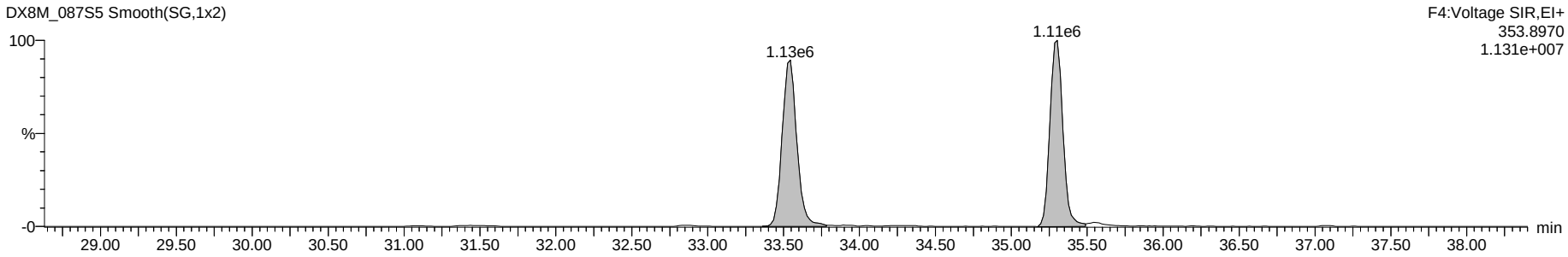

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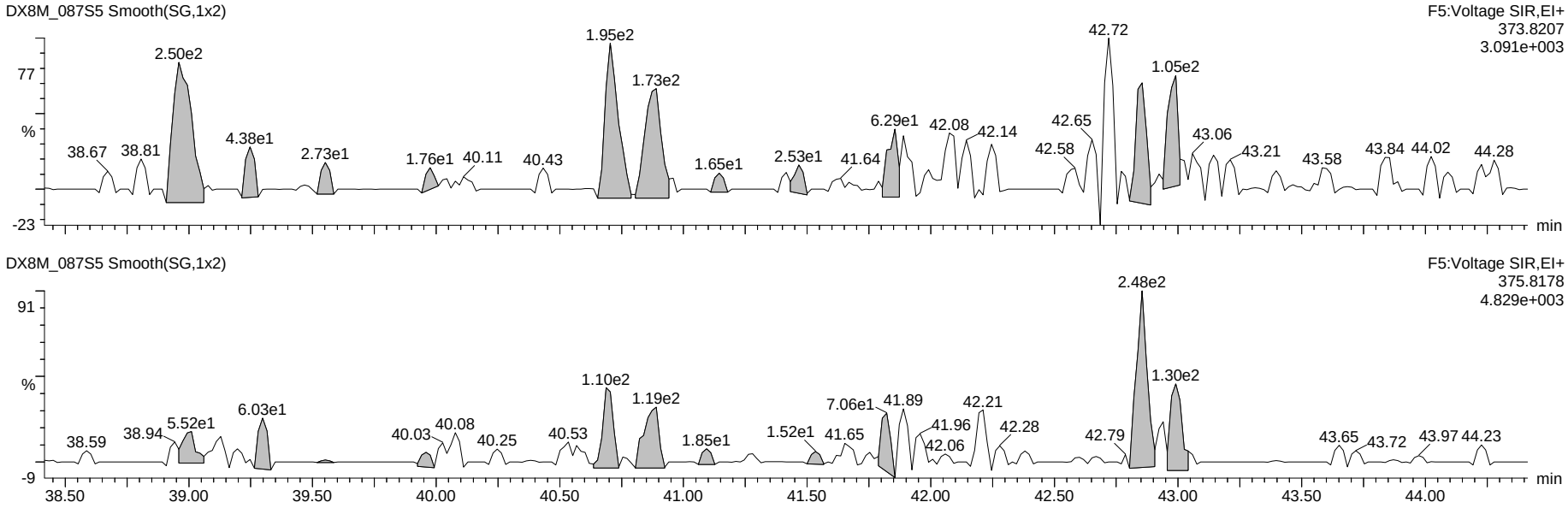
Name: DX8M_087S5, Date: 23-Jul-2018, Time: 19:57:17, ID: L29628-28,I,, Description: 1,WG64578,1.0/20uL

Total Hexa-Furans



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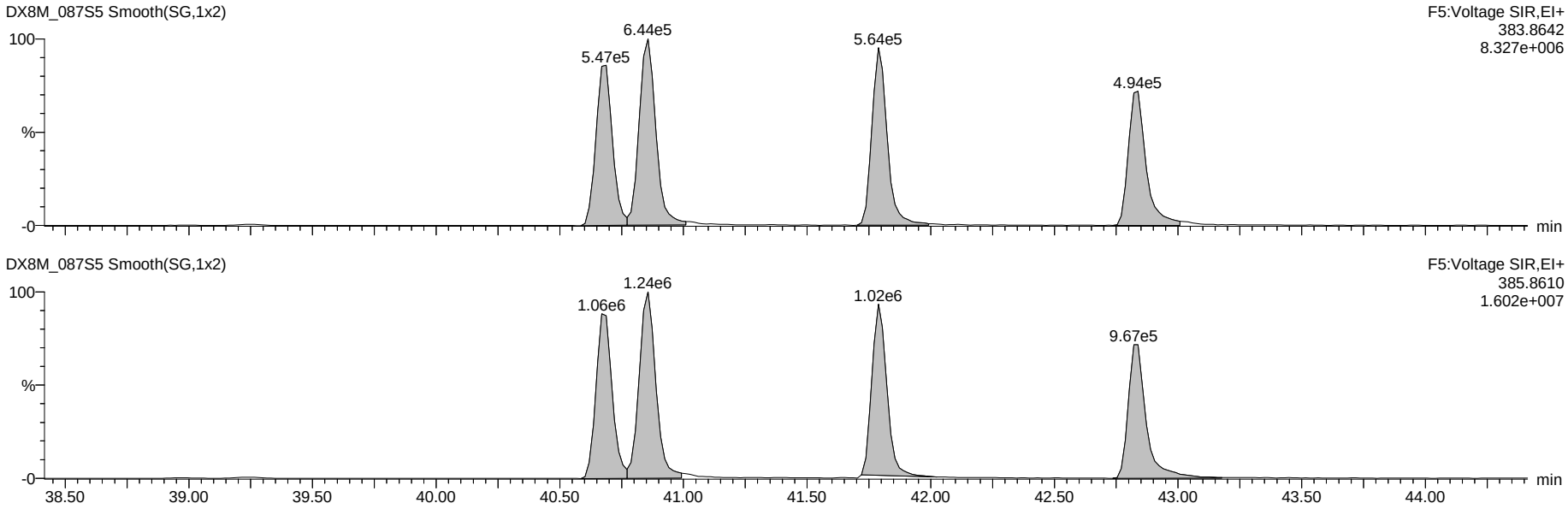

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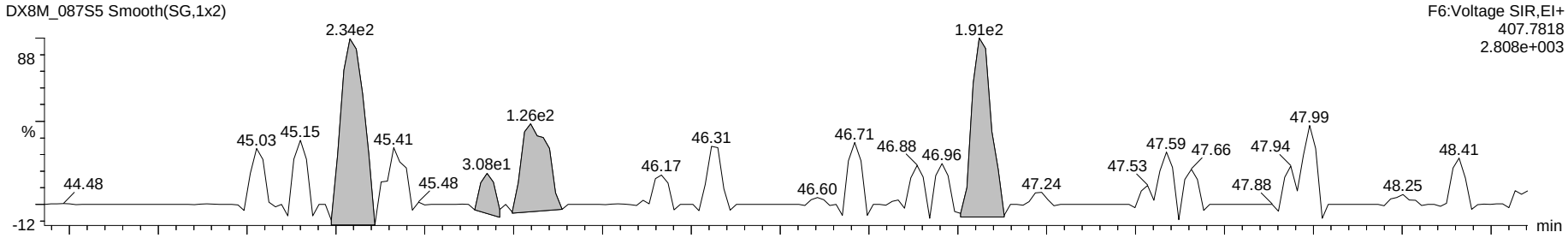
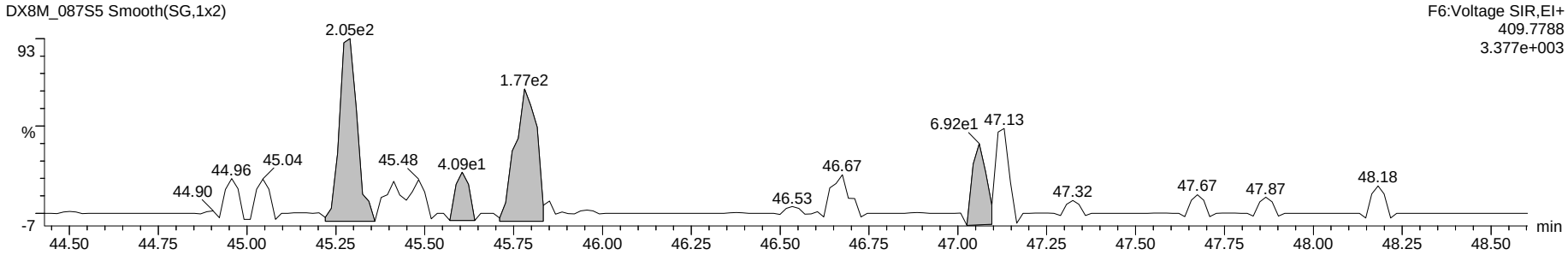
Total Hepta-Furans





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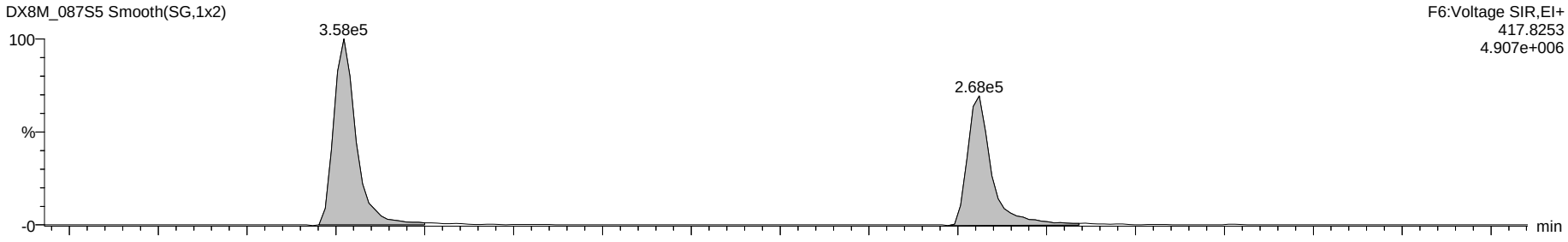

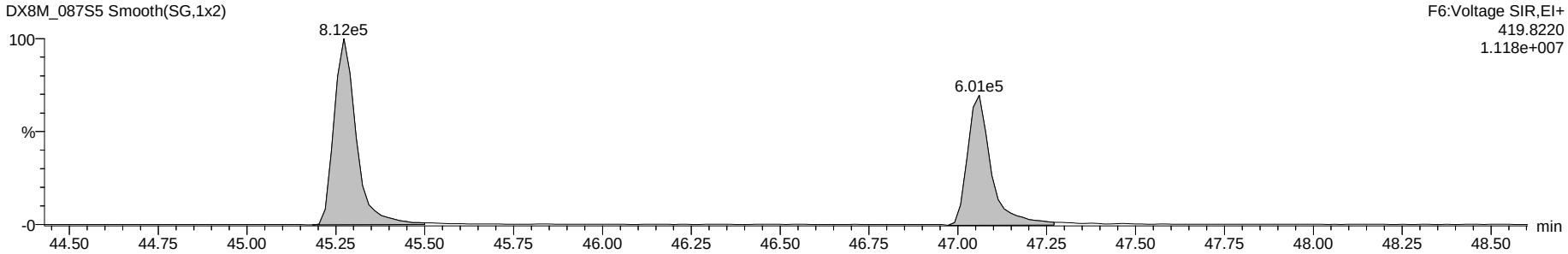

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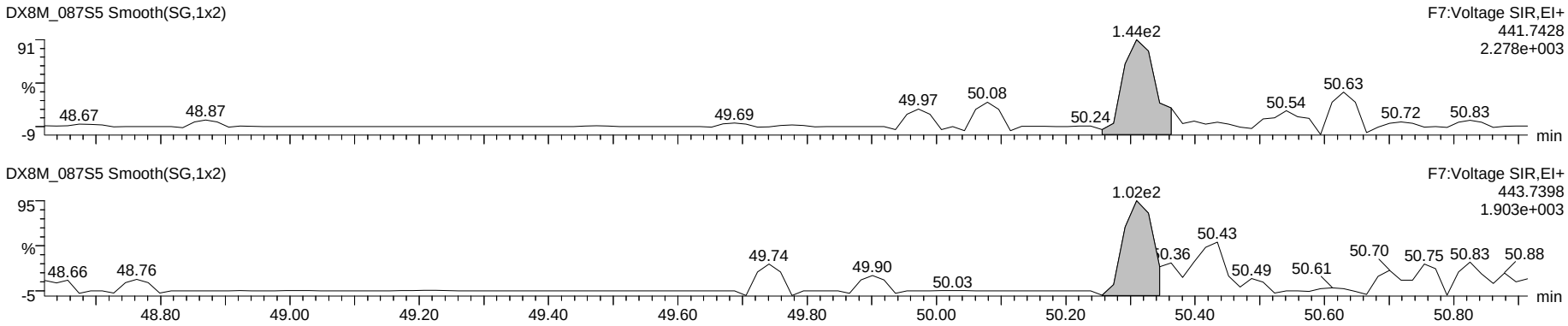

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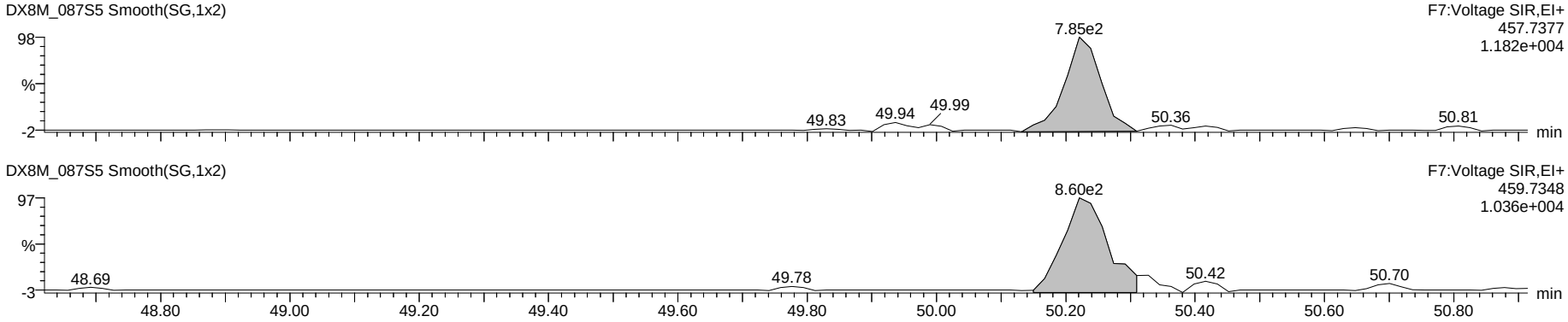

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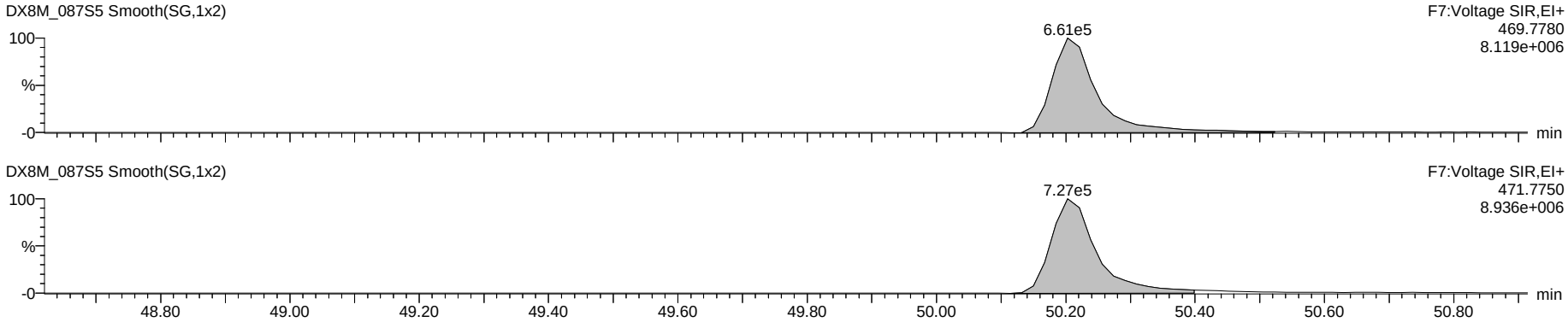

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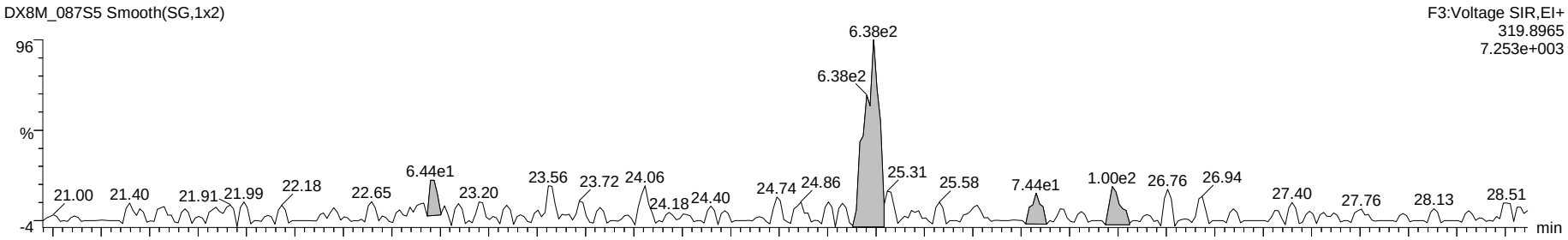
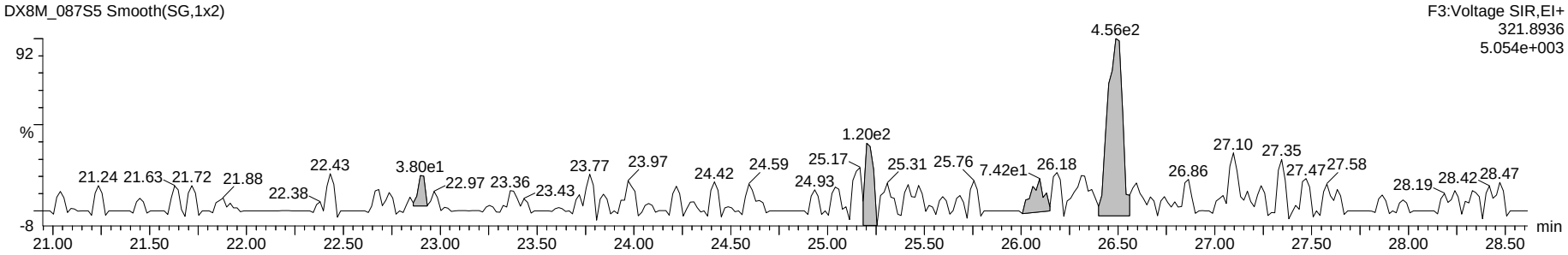
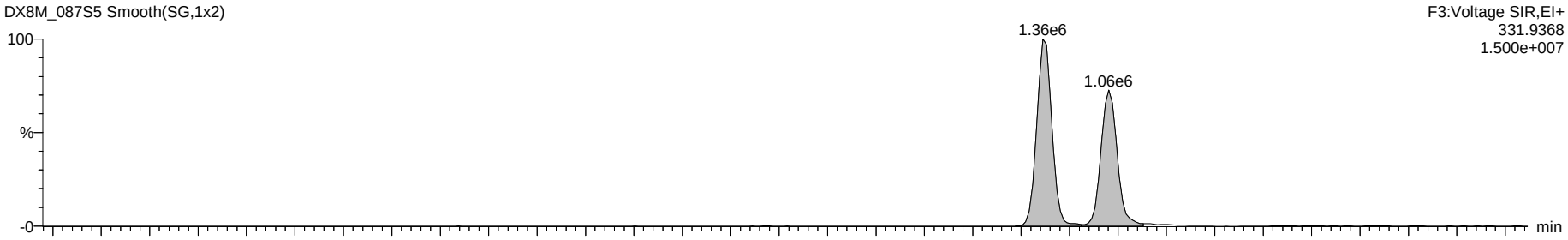
Name: DX8M_087S5, Date: 23-Jul-2018, Time: 19:57:17, ID: L29628-28,I,, Description: 1,WG64578,1.0/20uL

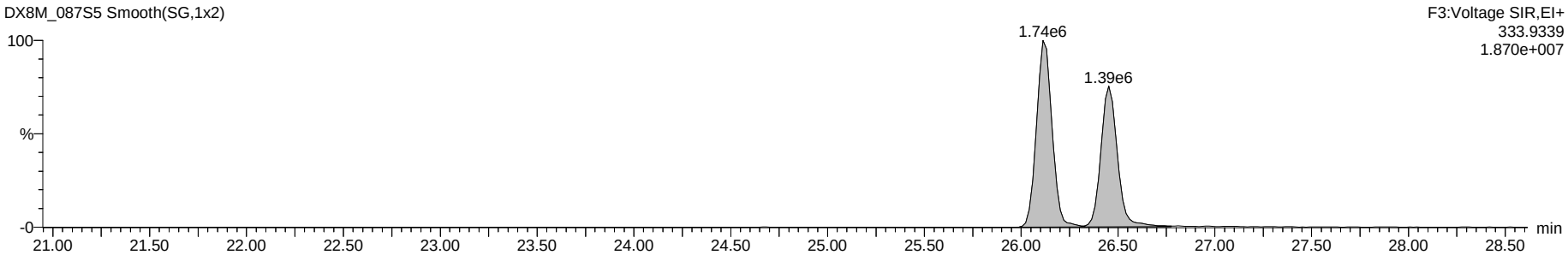
Total Tetra-Dioxins





13C-Tetra-Dioxins





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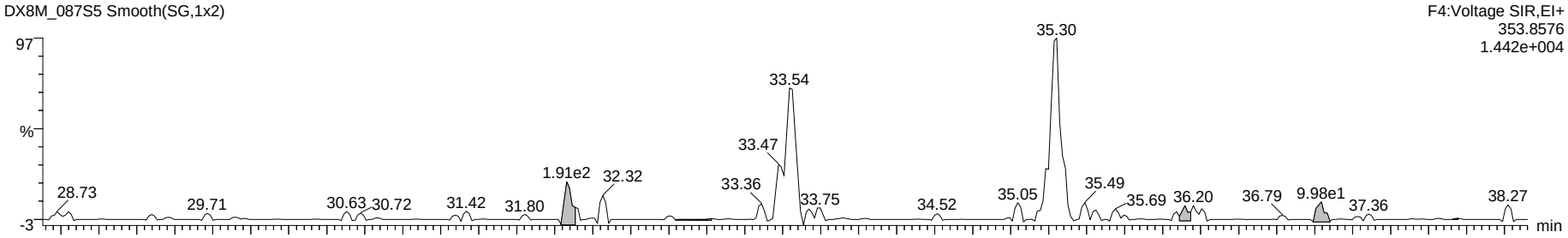
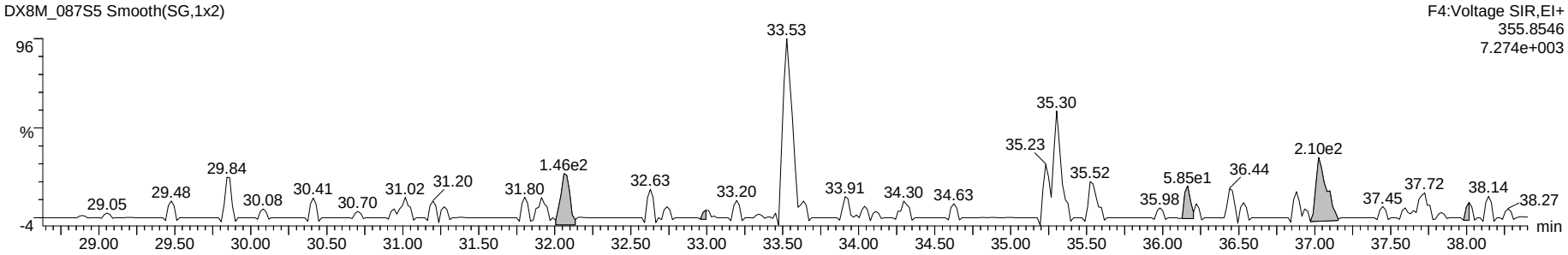
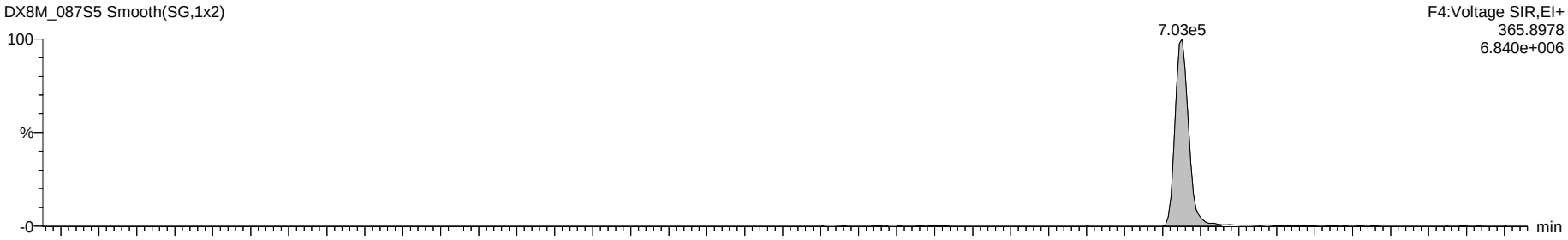
Name: DX8M_087S5, Date: 23-Jul-2018, Time: 19:57:17, ID: L29628-28,I,, Description: 1,WG64578,1.0/20uL

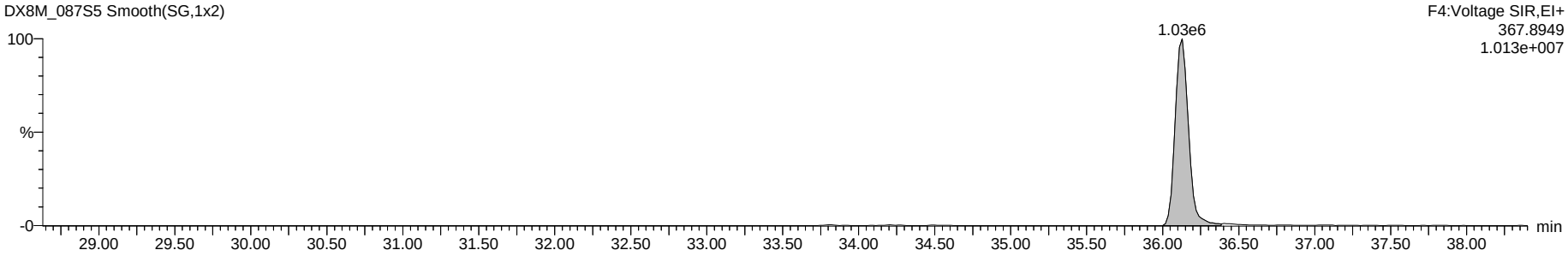
Total Penta-Dioxins





13C-Penta-Dioxins

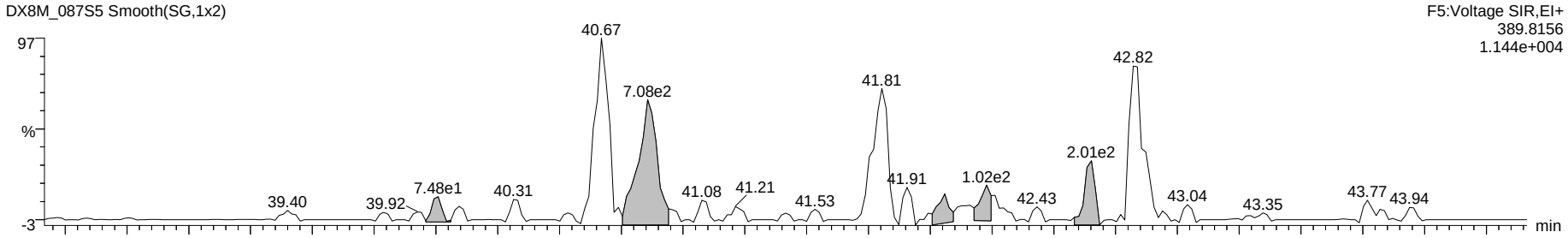


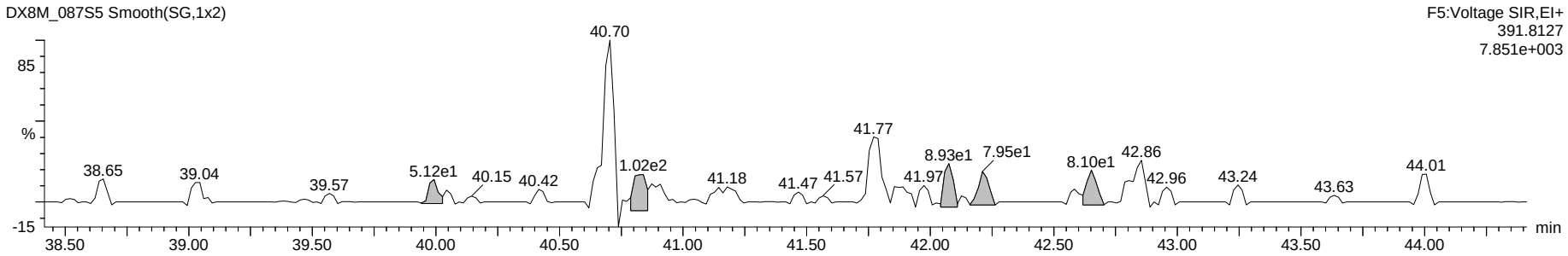


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_087-A.qld

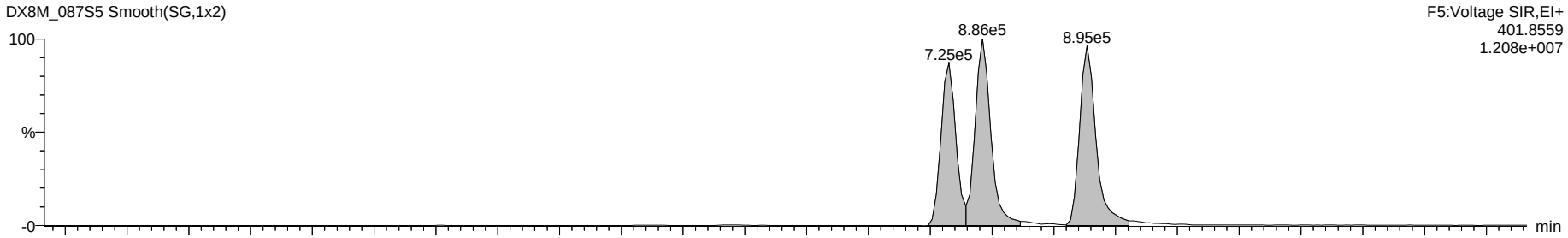
Name: DX8M_087S5, Date: 23-Jul-2018, Time: 19:57:17, ID: L29628-28,I,, Description: 1,WG64578,1.0/20uL

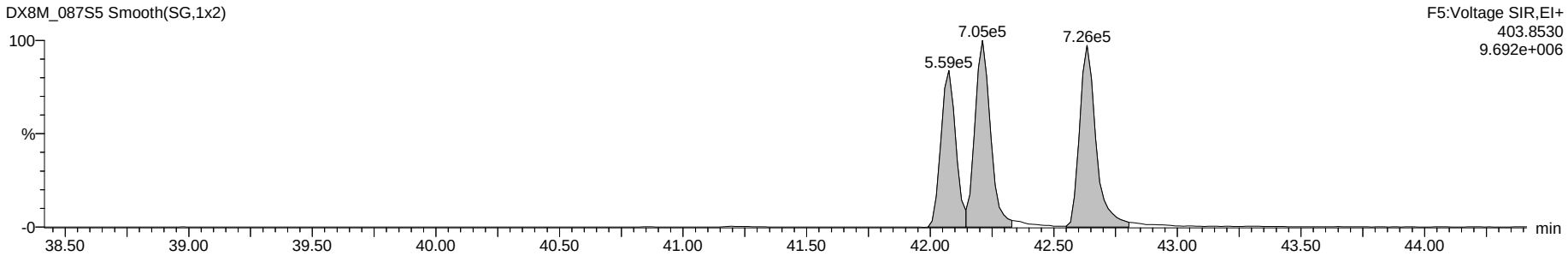
Total Hexa-Dioxins





13C-Hexa-Dioxins





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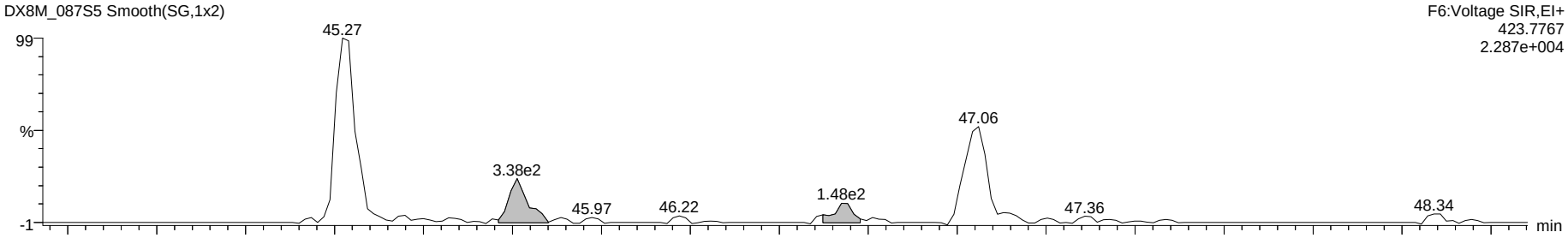
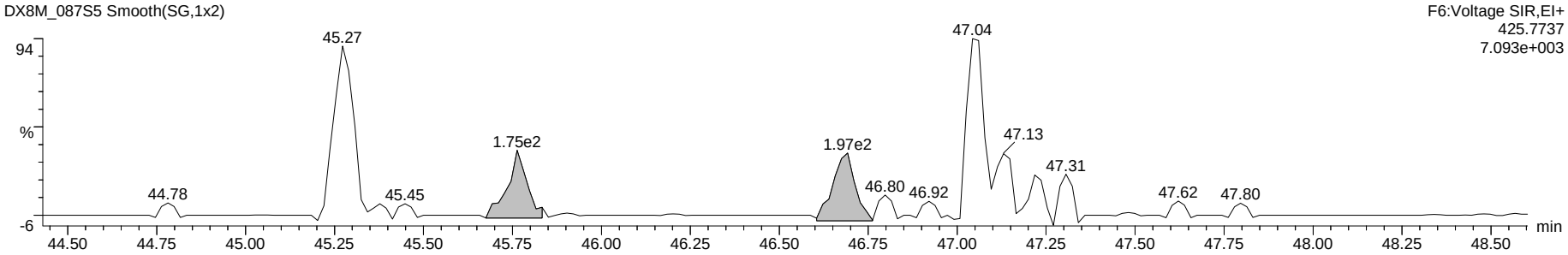
Name: DX8M_087S5, Date: 23-Jul-2018, Time: 19:57:17, ID: L29628-28,I,, Description: 1,WG64578,1.0/20uL

Total Hepta-Dioxins





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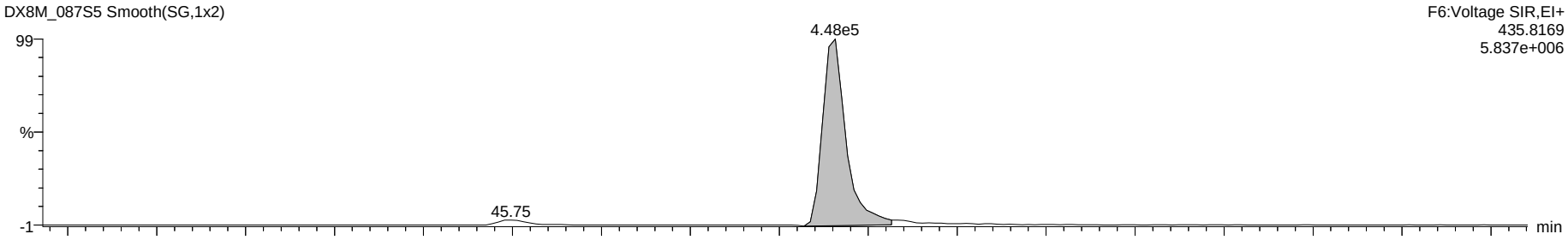

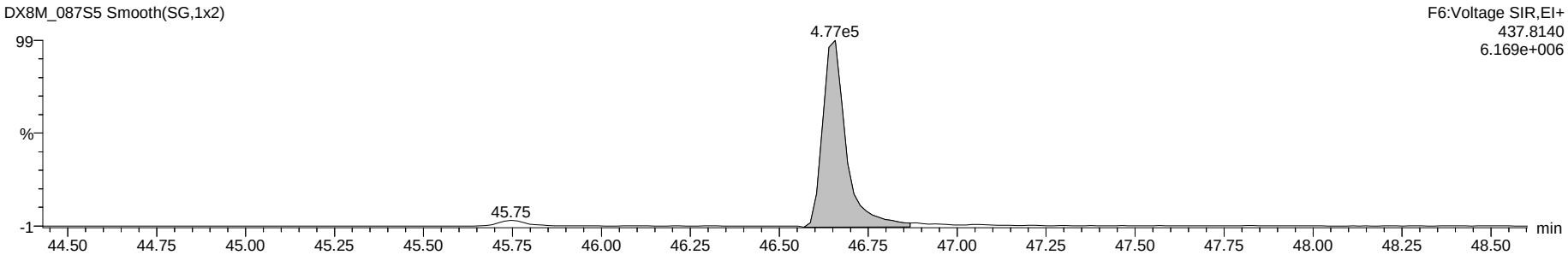

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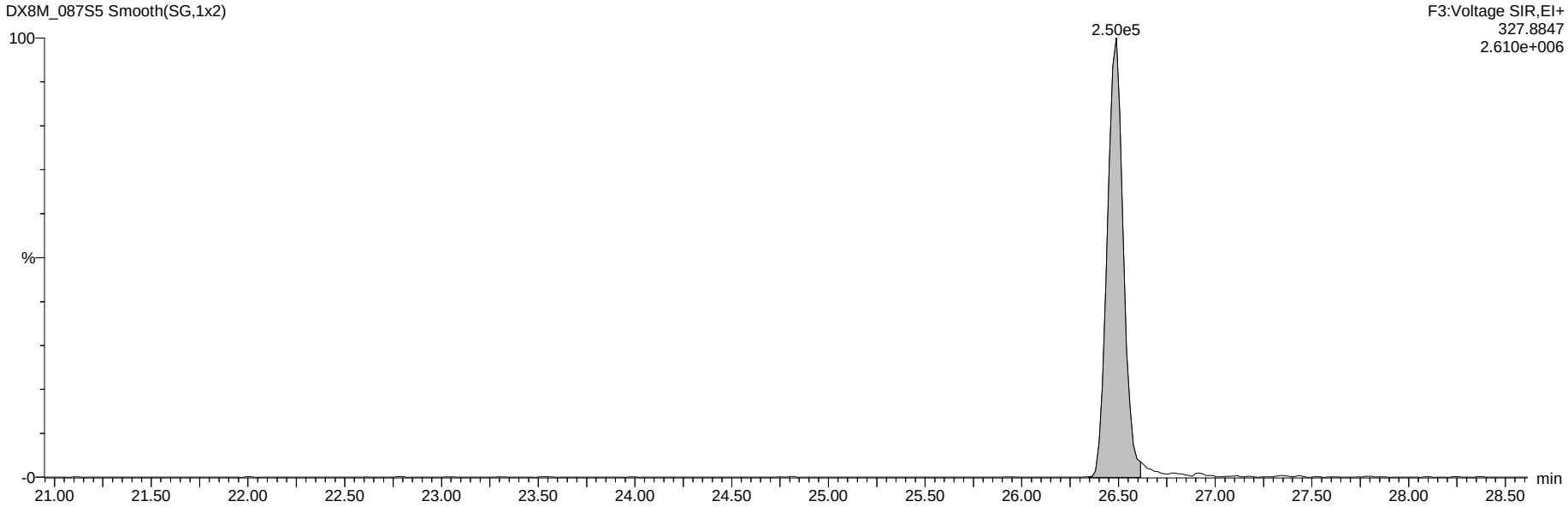
Name: DX8M_087S5, Date: 23-Jul-2018, Time: 19:57:17, ID: L29628-28,I,, Description: 1,WG64578,1.0/20uL

37Cl-2,3,7,8-TCDD



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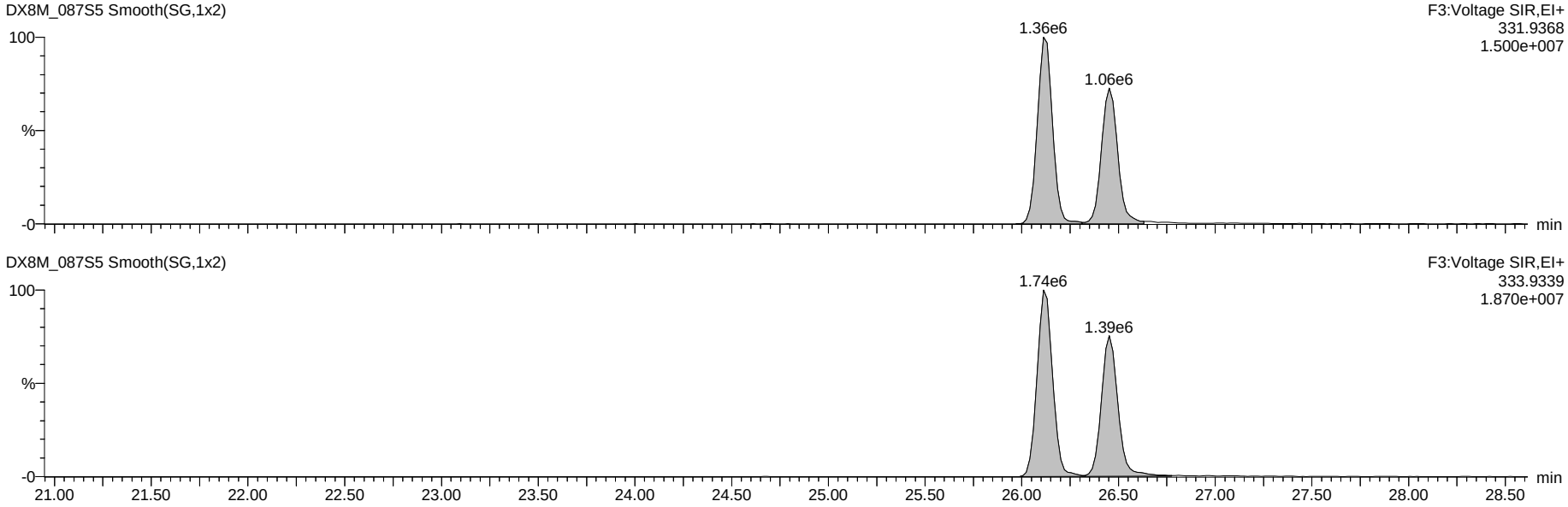

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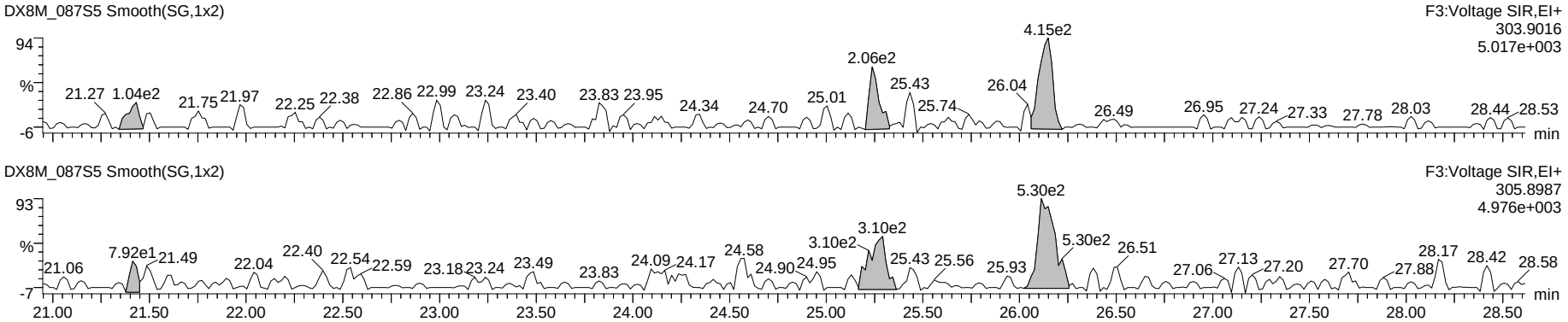
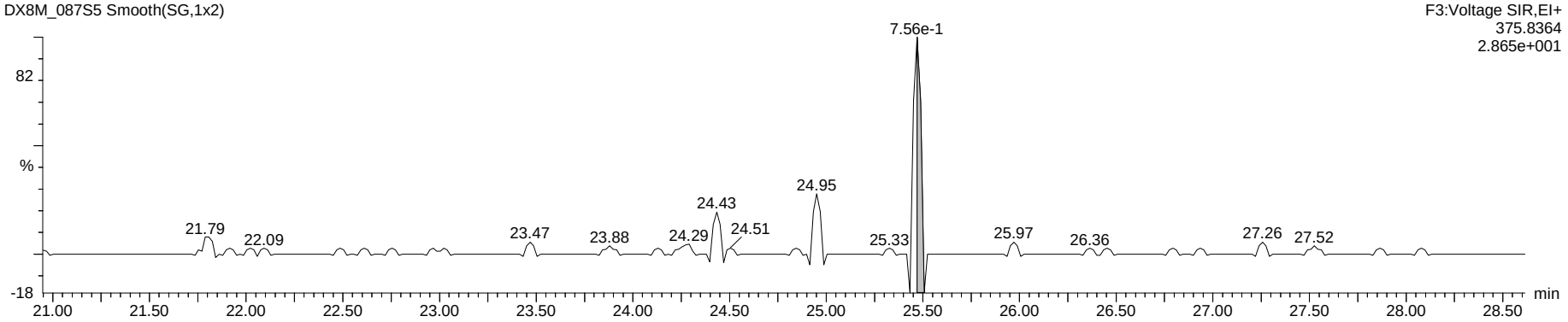
Name: DX8M_087S5, Date: 23-Jul-2018, Time: 19:57:17, ID: L29628-28,I,, Description: 1,WG64578,1.0/20uL

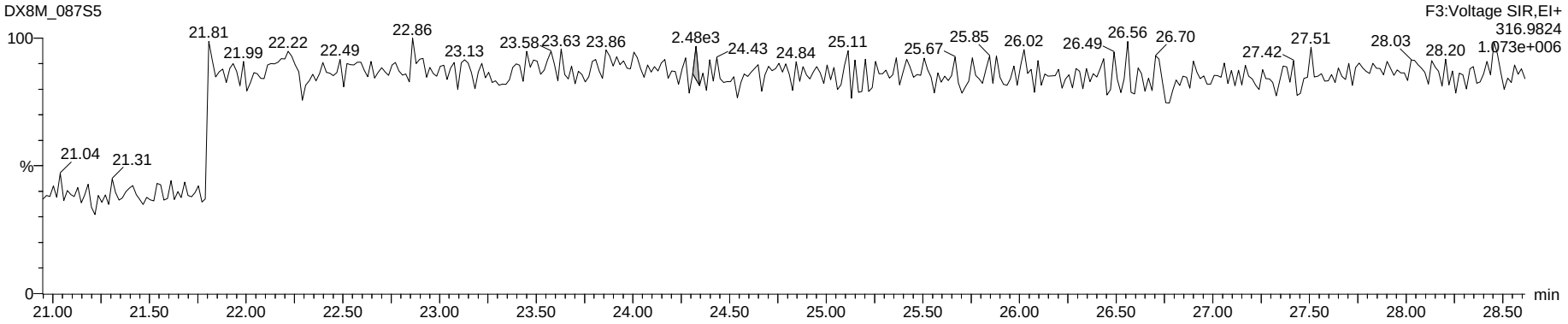
Total Tetra-Furans



Hexa DPE



Tetra Lock



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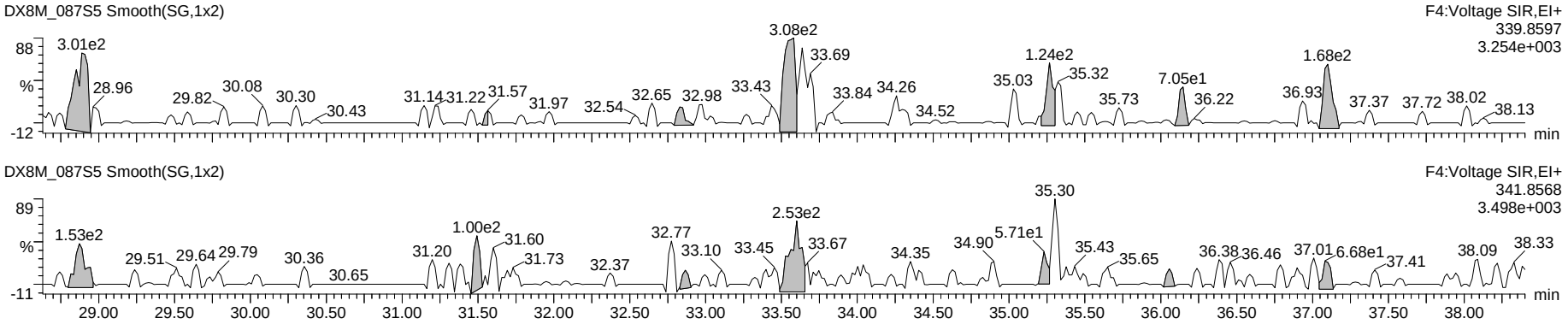
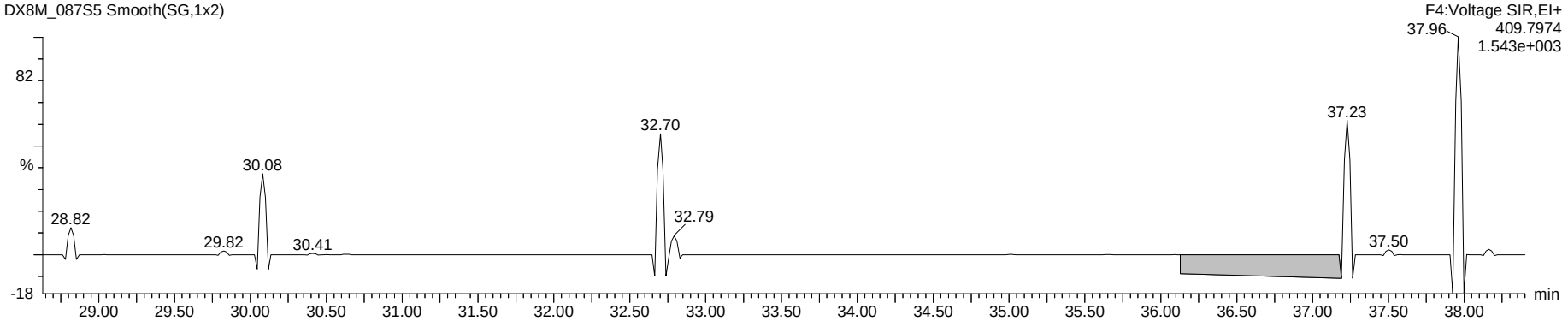
Name: DX8M_087S5, Date: 23-Jul-2018, Time: 19:57:17, ID: L29628-28,I,, Description: 1,WG64578,1.0/20uL

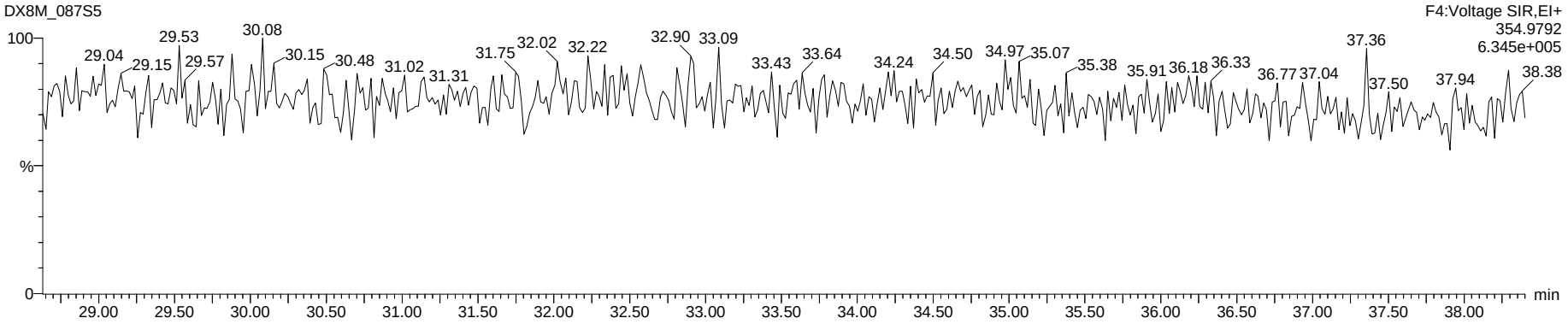
Total Penta-Furans



Hepta DPE



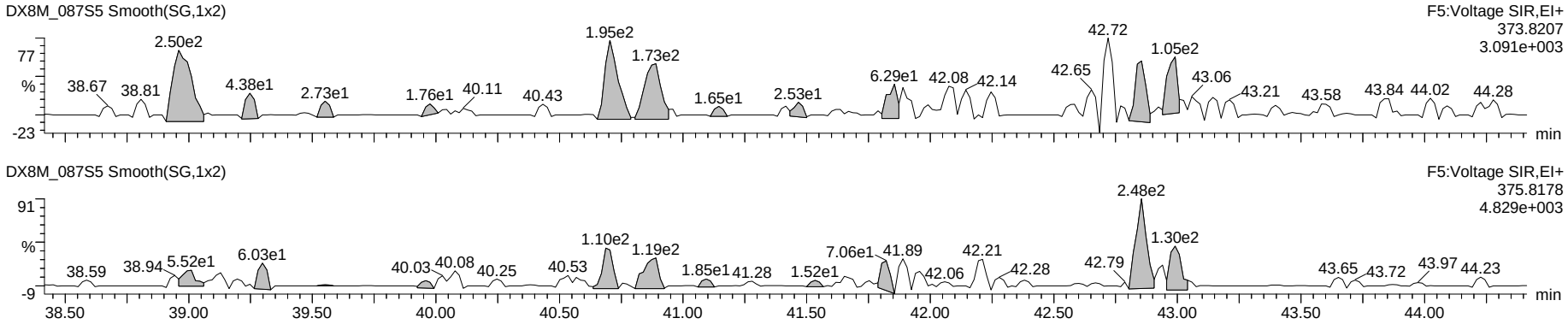
Penta Lock



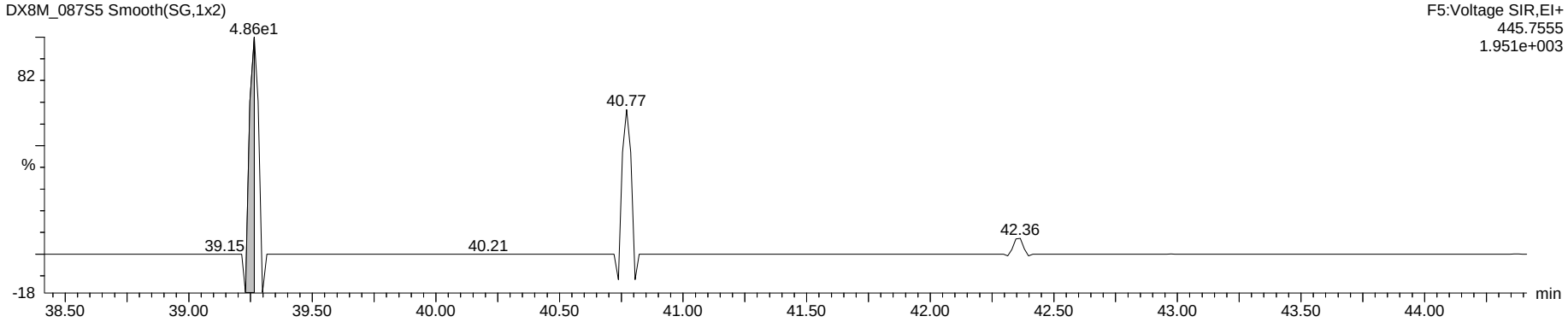
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_087-A.qld

Name: DX8M_087S5, Date: 23-Jul-2018, Time: 19:57:17, ID: L29628-28,I,, Description: 1,WG64578,1.0/20uL

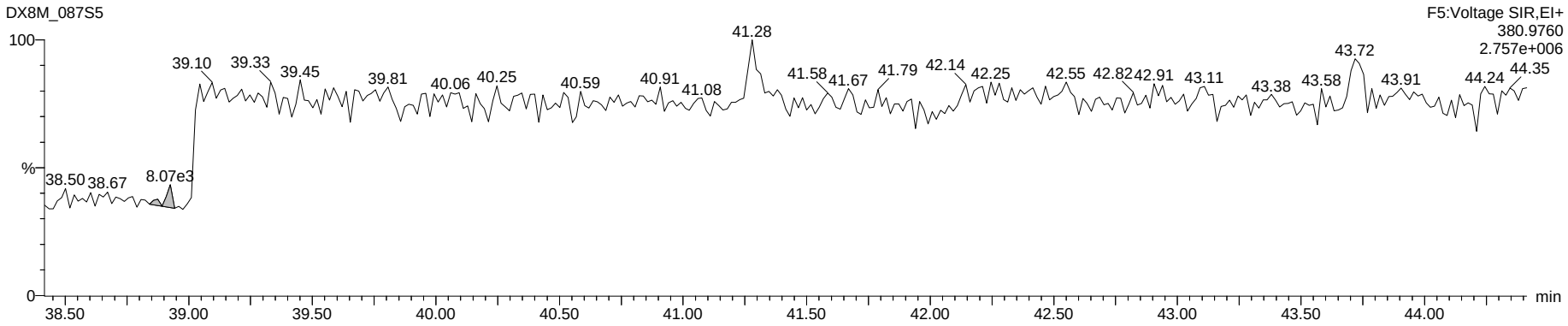
Total Hexa-Furans



Octa DPE



Hexa Lock



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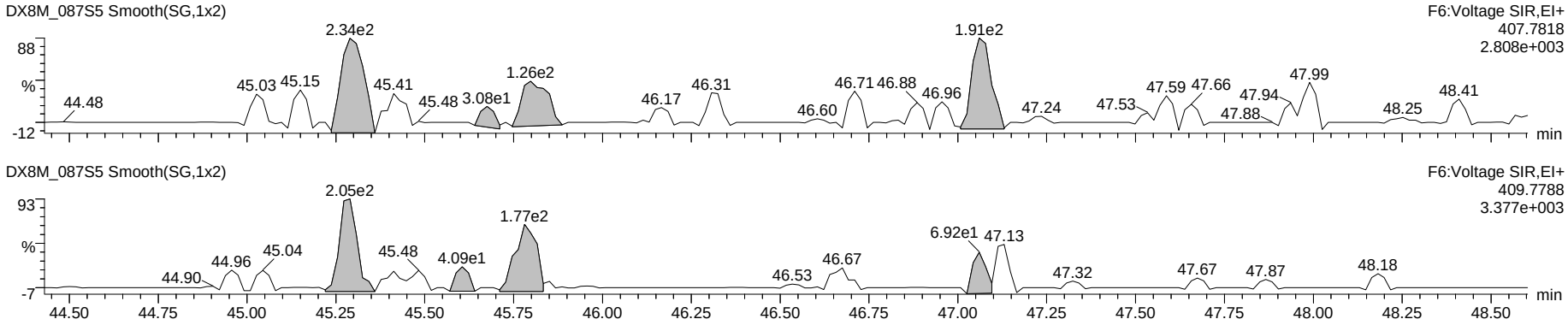
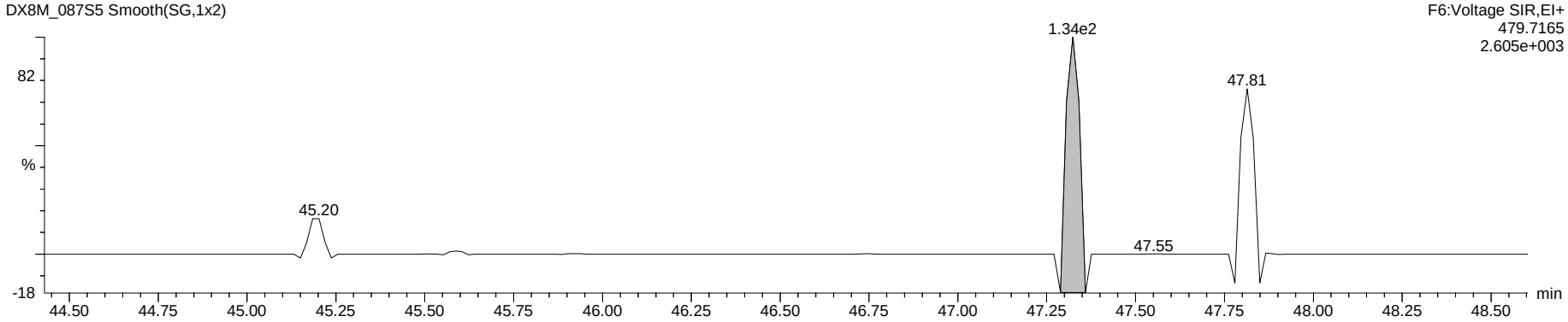
Name: DX8M_087S5, Date: 23-Jul-2018, Time: 19:57:17, ID: L29628-28,I,, Description: 1,WG64578,1.0/20uL

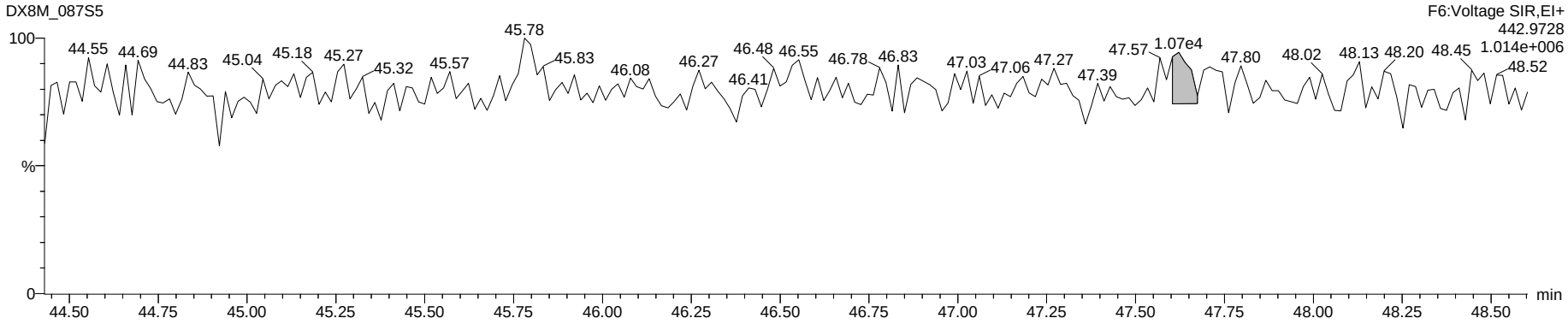
Total Hepta-Furans



Nona DPE



Hepta Lock



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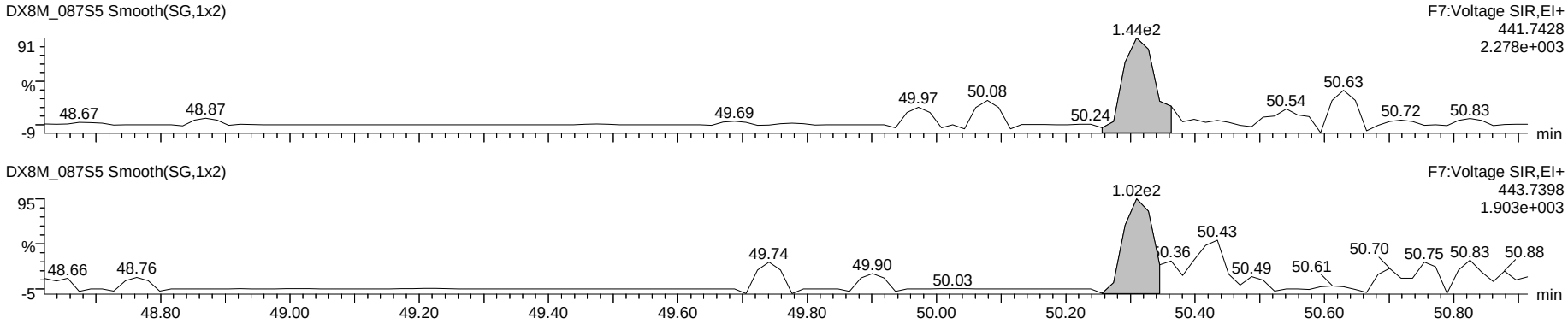
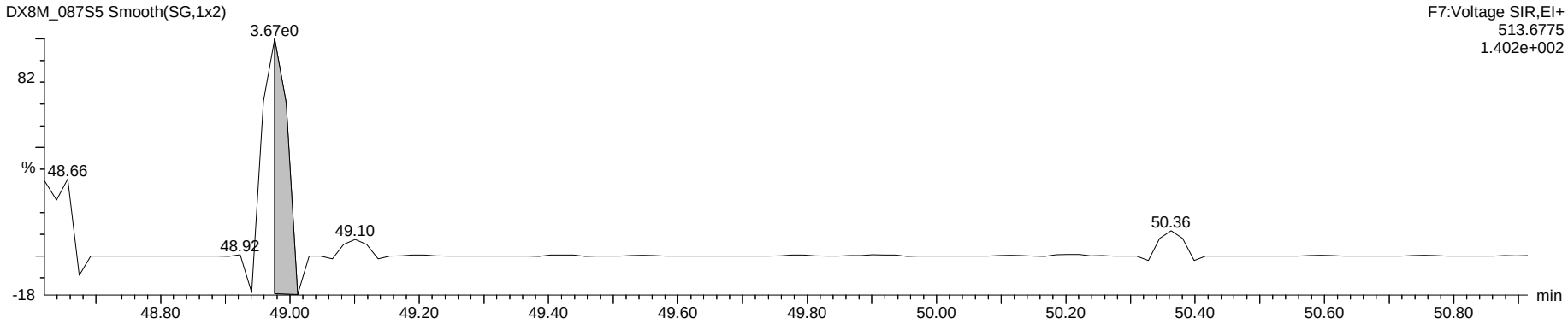
Name: DX8M_087S5, Date: 23-Jul-2018, Time: 19:57:17, ID: L29628-28,I,, Description: 1,WG64578,1.0/20uL

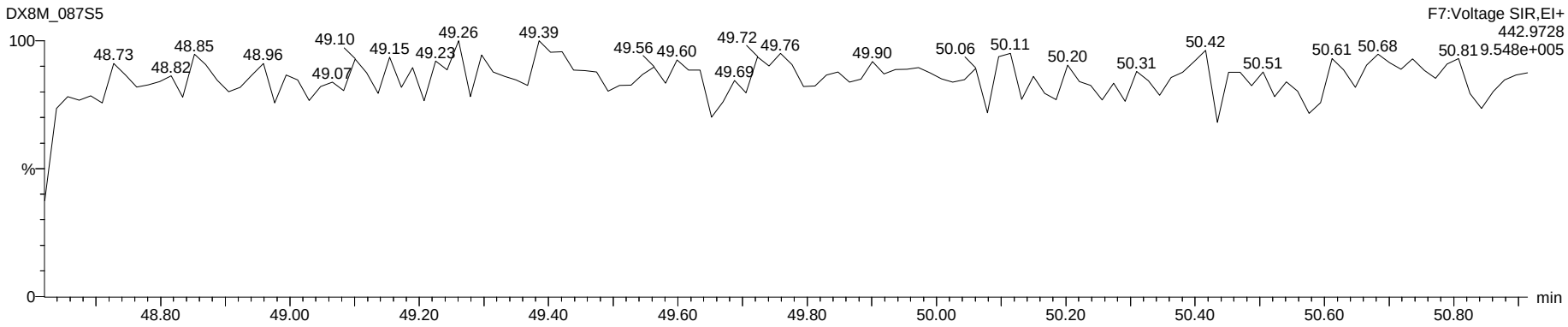
OCDF



Deca DPE



Octa Lock



Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S23, Date: 21-Jul-2018, Time: 12:24:58, ID: L29628-29,,, Description: 1,WG64578,1.0/20uL

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	1.070	2.30e2	0.78	NO	25.27	0.117	0.0975		3.33e2	4.99e2
2	1,2,3,7,8-PeCDF	1.070	3.60e2	1.40	NO	33.54	0.237	0.0450		1.95e2	6.47e1
3	2,3,4,7,8-PeCDF	1.070			NO			0.0409		1.95e2	6.47e1
4	1,2,3,4,7,8-HxCDF	1.070	1.02e2	4.98	YES	40.70	0.088	0.0451		7.15e1	2.25e2
5	1,2,3,6,7,8-HxCDF	1.070	6.05e1	102.65	YES	40.86	0.047	0.0430		7.15e1	2.25e2
6	2,3,4,6,7,8-HxCDF	1.070	1.48e2	1.30	NO	41.79	0.125	0.0455		7.15e1	2.25e2
7	1,2,3,7,8,9-HxCDF	1.070	3.82e1	7.45	YES	42.84	0.042	0.0612		7.15e1	2.25e2
8	1,2,3,4,6,7,8-HpCDF	1.070	5.68e1	0.83	YES	45.25	0.064	0.0895		1.31e2	3.06e2
9	1,2,3,4,7,8,9-HpCDF	1.070	3.47e1	0.10	YES	47.03	0.053	0.1149		1.31e2	3.06e2
10	OCDF	1.070	1.31e2	2.61	YES	50.33	0.264	0.0566		8.74e-1	1.45e2
11	2,3,7,8-TCDD	1.070	8.60e2	0.06	YES	26.45	0.554	0.1571		4.56e2	5.57e2
12	1,2,3,7,8-PeCDD	1.070	6.93e1	0.97	YES	36.17	0.069	0.2621		1.05e2	9.72e2
13	1,2,3,4,7,8-HxCDD	1.070	6.18e1	0.76	YES	42.06	0.078	0.1338		3.35e2	2.96e2
14	1,2,3,6,7,8-HxCDD	1.070	9.94e1	0.85	YES	42.23	0.117	0.1362		3.35e2	2.96e2
15	1,2,3,7,8,9-HxCDD	1.070	6.43e1	2.14	YES	42.60	0.078	0.1344		3.35e2	2.96e2
16	1,2,3,4,6,7,8-HpCDD	1.070	3.07e2	0.79	YES	46.69	0.538	0.3707		5.11e2	7.23e2
17	OCDD	1.070	1.03e3	1.02	NO	50.20	2.504	0.5634		1.19e3	1.45e1
18	13C-2,3,7,8-TCDF	1.070	4.03e6	0.70	NO	25.22	1458.953	1.5615	78.1	1.19e4	6.83e3
19	13C-1,2,3,7,8-PeCDF	1.070	3.08e6	1.40	NO	33.53	1545.781	1.6986	82.7	6.68e3	7.97e3
20	13C-2,3,4,7,8-PeCDF	1.070	2.93e6	1.39	NO	35.29	1528.576	1.7609	81.8	6.68e3	7.97e3
21	13C-1,2,3,4,7,8-HxCDF	1.070	1.93e6	0.53	NO	40.67	1601.396	2.7109	85.7	1.14e4	6.01e3
22	13C-1,2,3,6,7,8-HxCDF	1.070	2.25e6	0.52	NO	40.84	1750.097	2.5381	93.7	1.14e4	6.01e3
23	13C-2,3,4,6,7,8-HxCDF	1.070	1.95e6	0.52	NO	41.79	1692.092	2.8404	90.6	1.14e4	6.01e3
24	13C-1,2,3,7,8,9-HxCDF	1.070	1.72e6	0.52	NO	42.82	1518.156	2.8798	81.2	1.14e4	6.01e3
25	13C-1,2,3,4,6,7,8-HpCDF	1.070	1.35e6	0.45	NO	45.25	1402.843	2.3951	75.1	6.56e3	5.68e3
26	13C-1,2,3,4,7,8,9-HpCDF	1.070	9.78e5	0.43	NO	47.04	1303.974	3.0707	69.8	6.56e3	5.68e3
27	13C-2,3,7,8-TCDD	1.070	2.61e6	0.80	NO	26.43	1520.609	2.3329	81.4	1.04e4	7.00e3
28	13C-1,2,3,7,8-PeCDD	1.070	1.84e6	0.70	NO	36.11	1635.098	1.2206	87.5	3.72e3	2.23e3
29	13C-1,2,3,4,7,8-HxCDD	1.070	1.47e6	1.27	NO	42.06	1585.784	1.6586	84.9	2.53e3	5.66e3
30	13C-1,2,3,6,7,8-HxCDD	1.070	1.69e6	1.20	NO	42.19	1721.611	1.5684	92.1	2.53e3	5.66e3
31	13C-1,2,3,4,6,7,8-HpCDD	1.070	1.07e6	1.02	NO	46.64	1393.716	2.0751	74.6	5.66e3	2.81e3
32	13C-OCDD	1.070	1.51e6	0.90	NO	50.20	2233.014	2.5906	59.7	4.72e3	4.58e3
33	13C-1,2,3,4-TCDD	1.070	3.20e6	0.78	NO	26.11	132.072	0.1656	7.1	1.04e4	7.00e3
34	13C-1,2,3,7,8,9-HxCDD	1.070	1.76e6	1.27	NO	42.62	115.465	0.1009	6.2	2.53e3	5.66e3
35	37Cl-2,3,7,8-TCDD	1.070	2.73e5			26.47	143.649	0.3394	76.9		2.80e3
36	Total Tetra-Furans	1.070					1.362	0.0975			4.99e2
37	Total Tetra-Dioxins	1.070					1.288	0.1571			5.57e2
38	Total Penta-Furans	1.070					0.896	0.0434			6.47e1
39	Total Penta-Dioxins	1.070					0.504	0.2621			9.72e2
40	Total Hexa-Furans	1.070					0.616	0.0464			2.25e2
41	Total Hexa-Dioxins	1.070					1.175	0.1301			2.96e2
42	Total Hepta-Furans	1.070					0.215	0.1013			3.06e2
43	Total Hepta-Dioxins	1.070					1.337	0.3707			7.23e2
44	Hexa DPE	1.000	8.21e1			21.81					0.00e0
45	Hepta DPE	1.000	6.35e0			34.64					7.36e-1
46	Octa DPE	1.000	8.46e1			40.82					3.74e-2
47	Nona DPE	1.000	1.15e2			46.92					1.82e-1
48	Deca DPE	1.000	1.05e2			49.79					0.00e0
49	Tetra Lock	1.000	8.99e3			23.72					1.29e5
50	Penta Lock	1.000	1.81e5			29.20					1.94e5
51	Hexa Lock	1.000									2.73e5
52	Hepta Lock	1.000	1.88e4			47.59					1.68e5
53	Octa Lock	1.000	9.70e3			48.87					1.63e5
54	13C-Tetra-Furans	1.070					1458.953	1.5615			6.83e3
55	13C-Tetra-Dioxins	1.070					1652.682	2.4985			7.00e3

pv'd by LHE 24-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

SWyk326Jul2018

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S23, Date: 21-Jul-2018, Time: 12:24:58, ID: L29628-29,,, Description: 1,WG64578,1.0/20uL

Tetrafurans

	RT	1° Ratio (A...	Fails?	pg
1	22.93	0.541	YES	0.127
2	22.59	0.537	YES	0.058
3	22.33	0.812	NO	0.079
4	21.95	1.032	YES	0.080
5	21.63	0.686	NO	0.037
6	25.93	0.708	NO	0.072
7	25.72	0.530	YES	0.064
8	25.45	0.576	YES	0.047
9	25.27	0.775	NO	0.117
10	24.81	0.723	NO	0.038
11	24.63	0.599	YES	0.042
12	24.26	0.475	YES	0.030
13	23.84	0.500	YES	0.037
14	23.34	0.871	NO	0.089
15	28.17	0.681	NO	0.031
16	26.70	0.233	YES	0.043
17	26.20	1.338	YES	0.053
18	26.11	0.950	YES	0.317

Tetradioxins

	RT	1° Ratio (A...	Fails?	pg
1	22.95	0.738	NO	0.124
2	27.70	1.473	YES	0.082
3	25.20	3.420	YES	0.529
4	26.45	0.059	YES	0.554

Pentafurans

	RT	1° Ratio (A...	Fails?	pg
1	28.87	2.251	YES	0.073
2	31.58	0.510	YES	0.072
3	35.01	0.436	YES	0.039
4	34.44	1.589	NO	0.037
5	33.54	1.401	NO	0.237
6	32.44	0.741	YES	0.025
7	31.91	0.925	YES	0.041
8	31.77	1.725	NO	0.073
9	36.48	0.679	YES	0.047
10	35.82	0.748	YES	0.041
11	35.69	1.184	YES	0.054
12	35.58	0.399	YES	0.065
13	33.62	0.176	YES	0.093

pv'd by LHE 24-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S23, Date: 21-Jul-2018, Time: 12:24:58, ID: L29628-29,,, Description: 1,WG64578,1.0/20uL

Pentadioxins

	RT	1° Ratio (A...	Fails?	pg
1	34.28	0.549	NO	0.018
2	34.06	1.278	YES	0.052
3	33.95	1.153	YES	0.060
4	32.10	0.390	YES	0.040
5	36.66	1.039	YES	0.121
6	36.17	0.970	YES	0.069
7	34.75	0.039	YES	0.068
8	34.46	0.390	YES	0.003
9	37.10	2.784	YES	0.074

Hexafurans

	RT	1° Ratio (A...	Fails?	pg
1	40.86	102.651	YES	0.047
2	40.70	4.980	YES	0.088
3	40.06	12.844	YES	0.160
4	39.20	2.693	YES	0.067
5	38.98	0.283	YES	0.045
6	38.76	0.897	YES	0.043
7	42.84	7.455	YES	0.042
8	41.79	1.304	NO	0.125

Hexadioxins

	RT	1° Ratio (A...	Fails?	pg
1	40.03	2.769	YES	0.073
2	42.60	2.137	YES	0.078
3	42.23	0.849	YES	0.117
4	42.06	0.761	YES	0.078
5	41.26	1.084	NO	0.053
6	41.18	2.710	YES	0.079
7	40.84	4.251	YES	0.698

Heptafurans

	RT	1° Ratio (A...	Fails?	pg
1	45.78	0.992	NO	0.097
2	45.25	0.828	YES	0.064
3	47.03	0.104	YES	0.053

Heptadioxins

	RT	1° Ratio (A...	Fails?	pg
1	46.69	0.794	YES	0.538
2	45.75	1.116	NO	0.799

13C-TF

	RT	1° Ratio (A...	Fails?	pg
1	25.22	0.702	NO	1458.9...

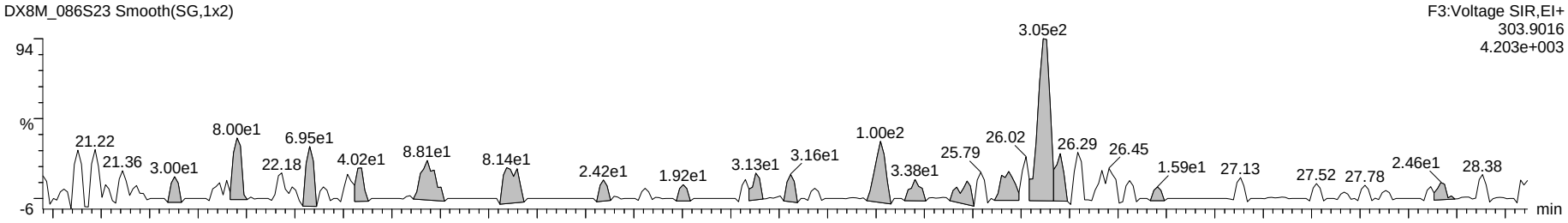
pv'd by LHE 24-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

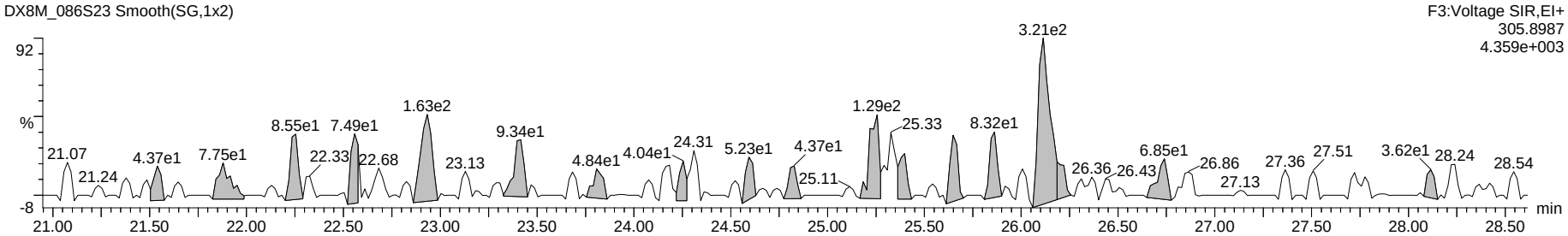
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Method: G:\Masslynx\Inst_M\Projects\180604DX.pro\MethDB\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

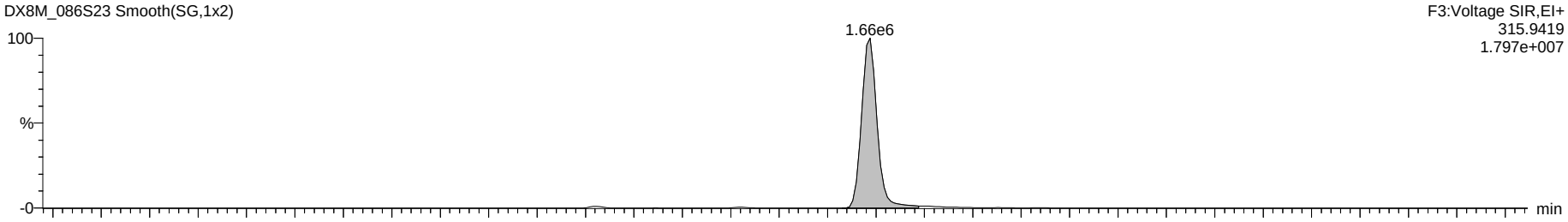
Name: DX8M_086S23, Date: 21-Jul-2018, Time: 12:24:58, ID: L29628-29,,, Description: 1,WG64578,1.0/20uL

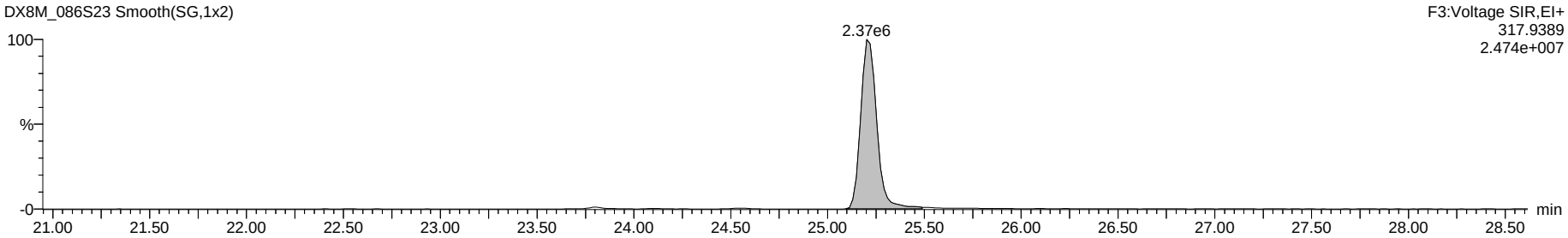
Total Tetra-Furans





13C-Tetra-Furans

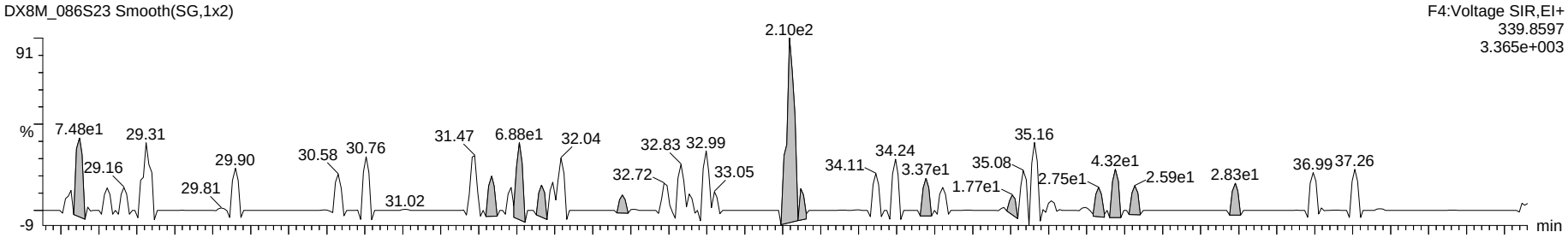


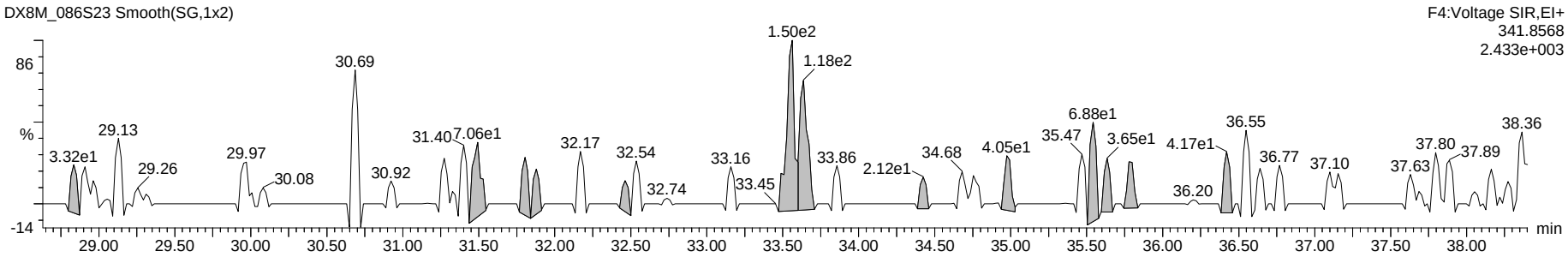


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

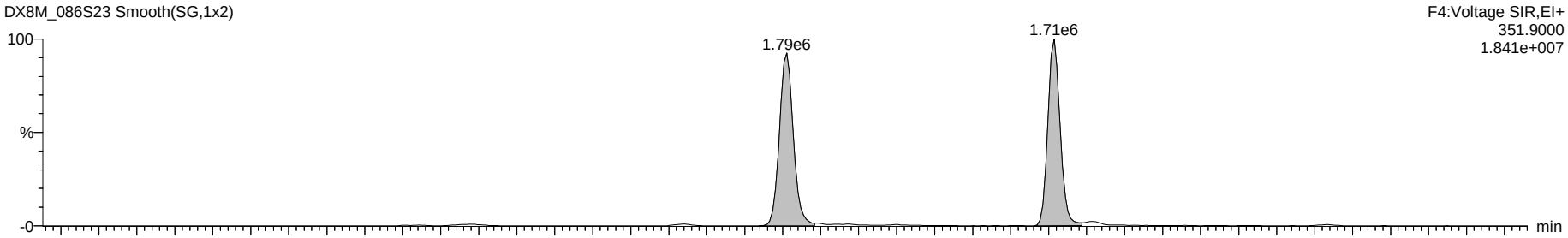
Name: DX8M_086S23, Date: 21-Jul-2018, Time: 12:24:58, ID: L29628-29,,, Description: 1,WG64578,1.0/20uL

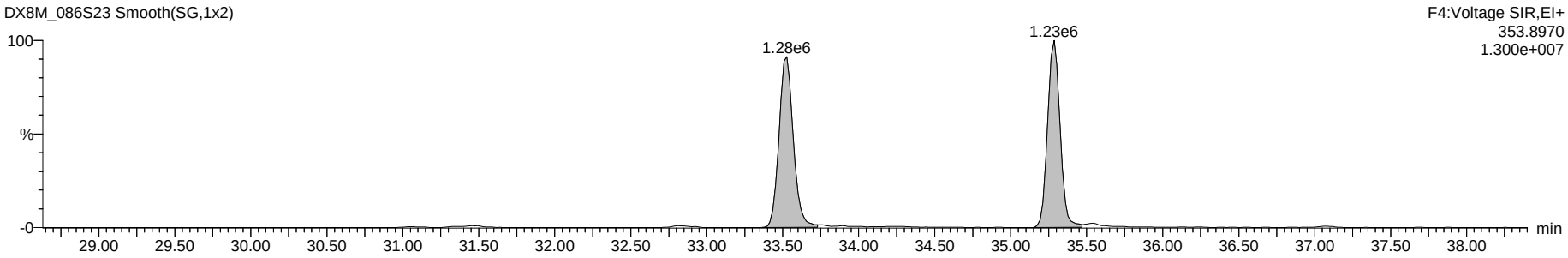
Total Penta-Furans





13C-Penta-Furans

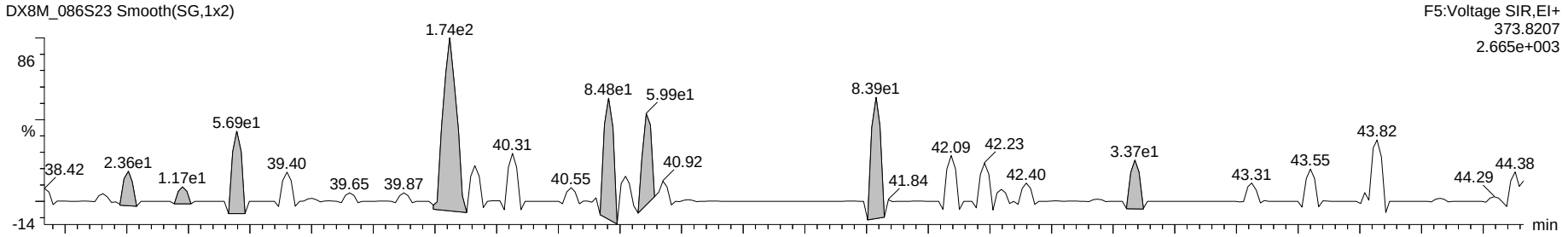


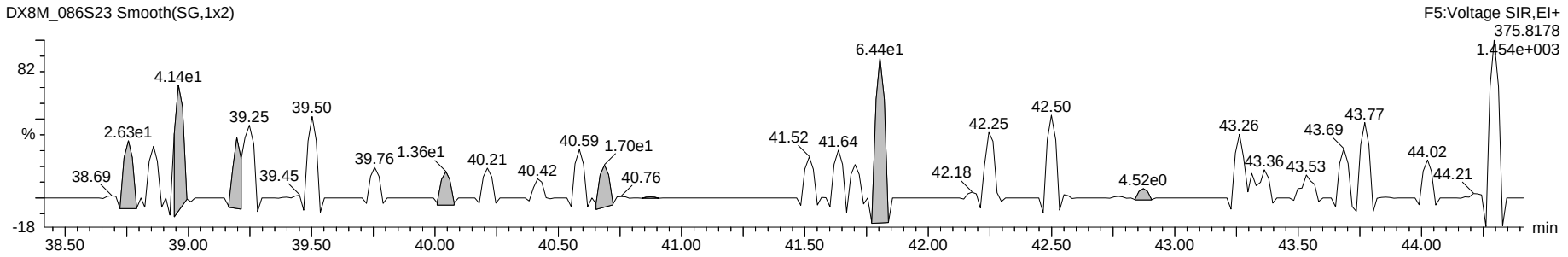


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

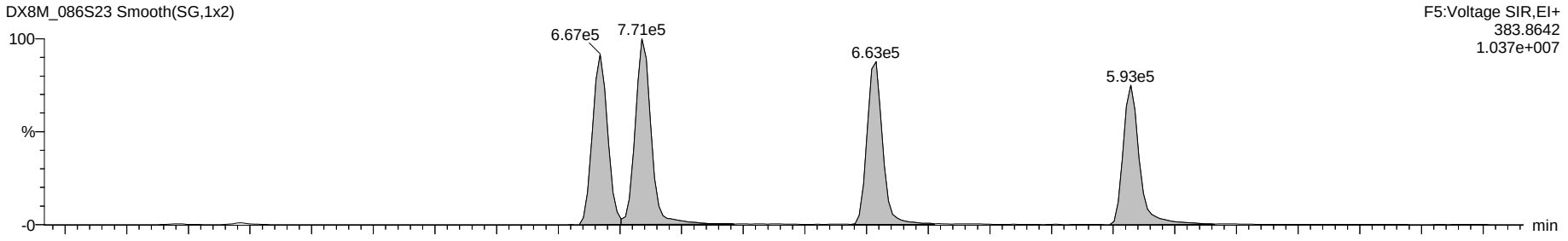
Name: DX8M_086S23, Date: 21-Jul-2018, Time: 12:24:58, ID: L29628-29,,, Description: 1,WG64578,1.0/20uL

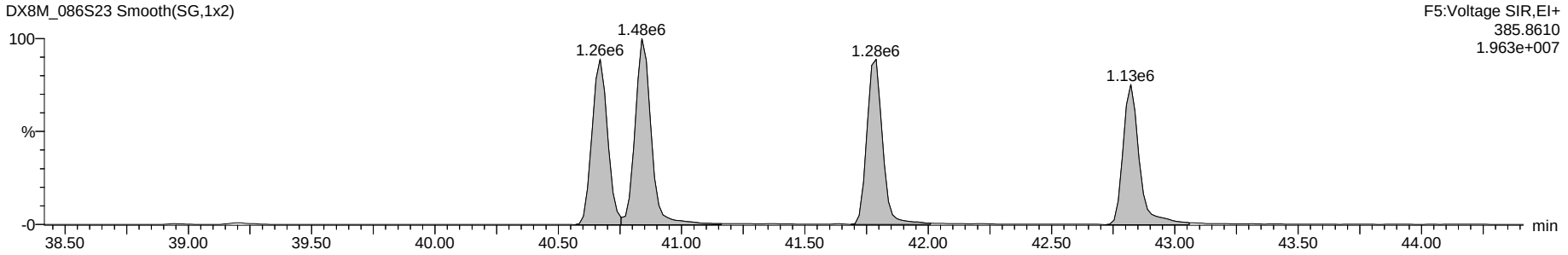
Total Hexa-Furans





13C-Hexa-Furans

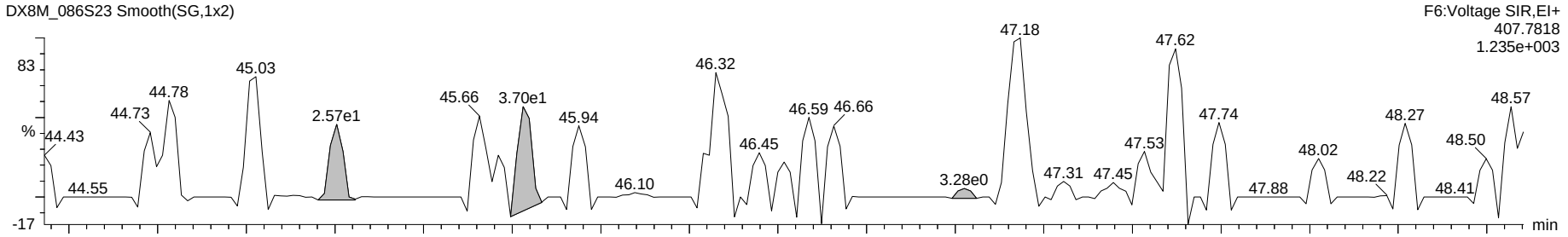


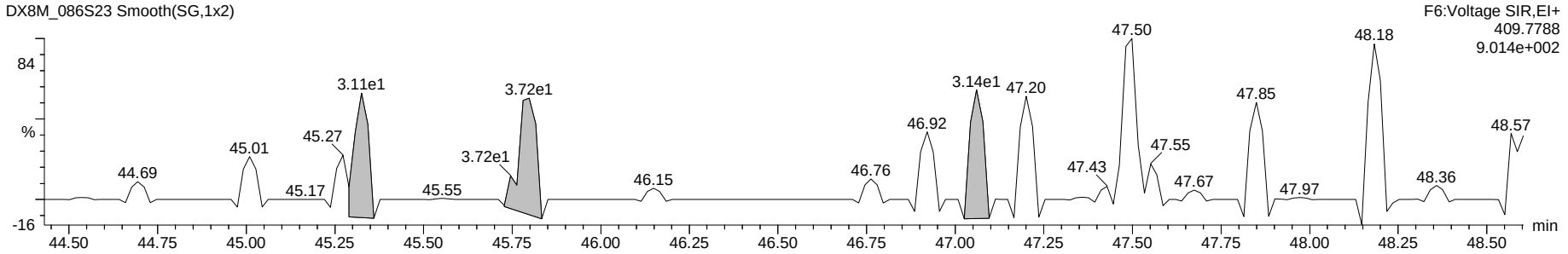


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

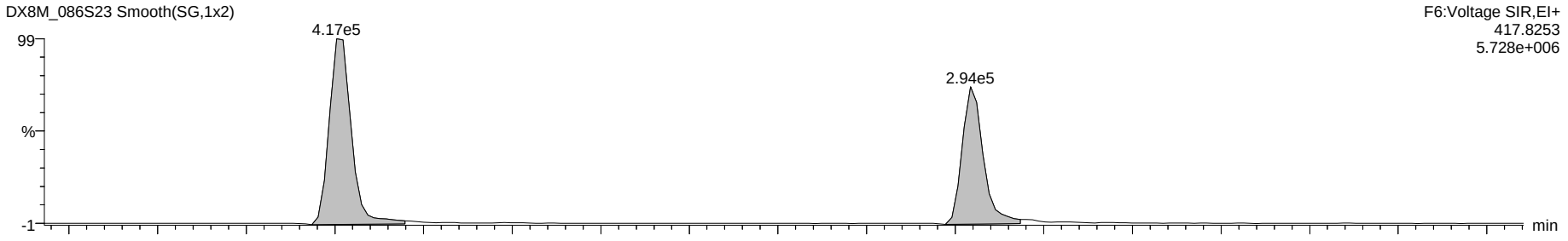
Name: DX8M_086S23, Date: 21-Jul-2018, Time: 12:24:58, ID: L29628-29,,, Description: 1,WG64578,1.0/20uL

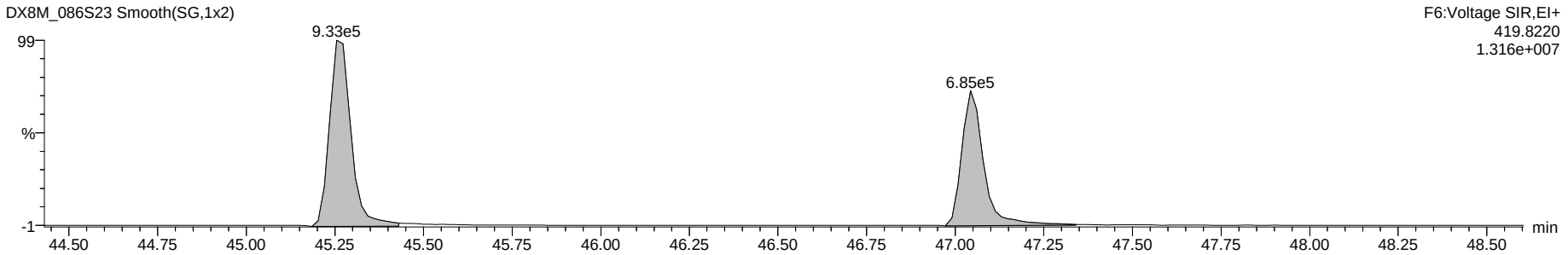
Total Hepta-Furans





13C-Hepta-Furans

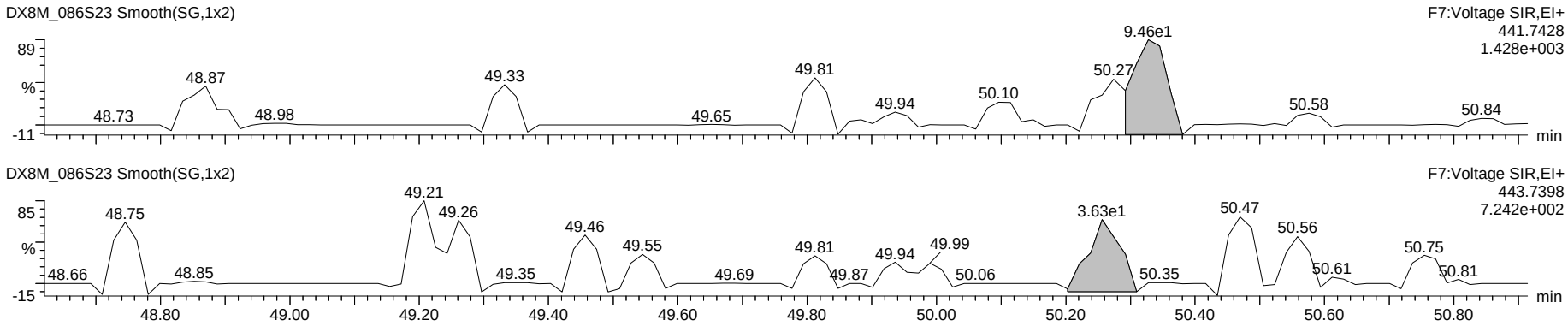




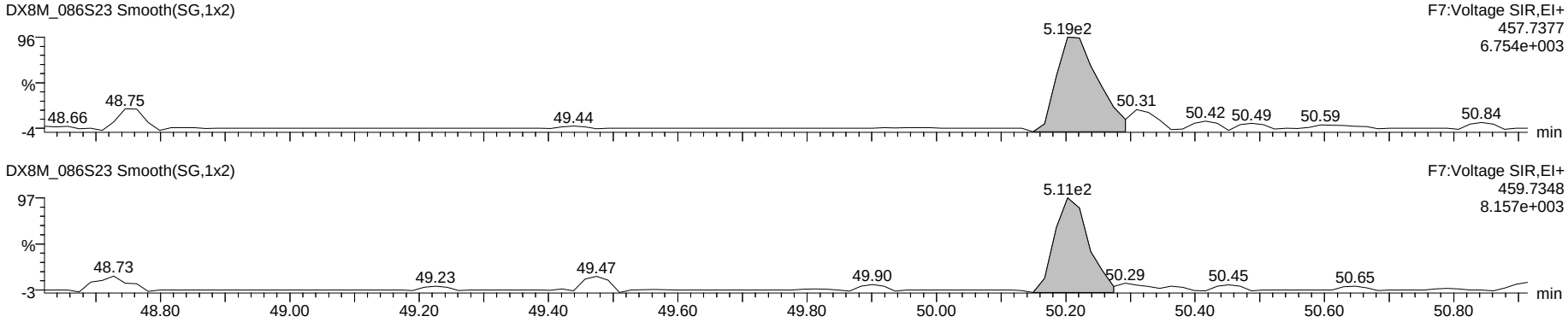
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S23, Date: 21-Jul-2018, Time: 12:24:58, ID: L29628-29,,, Description: 1,WG64578,1.0/20uL

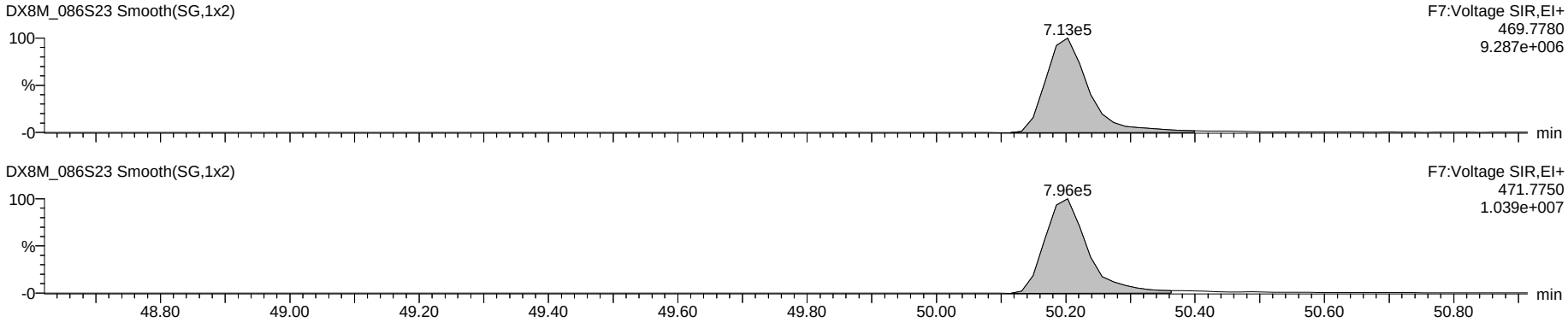
OCDF



OCDD



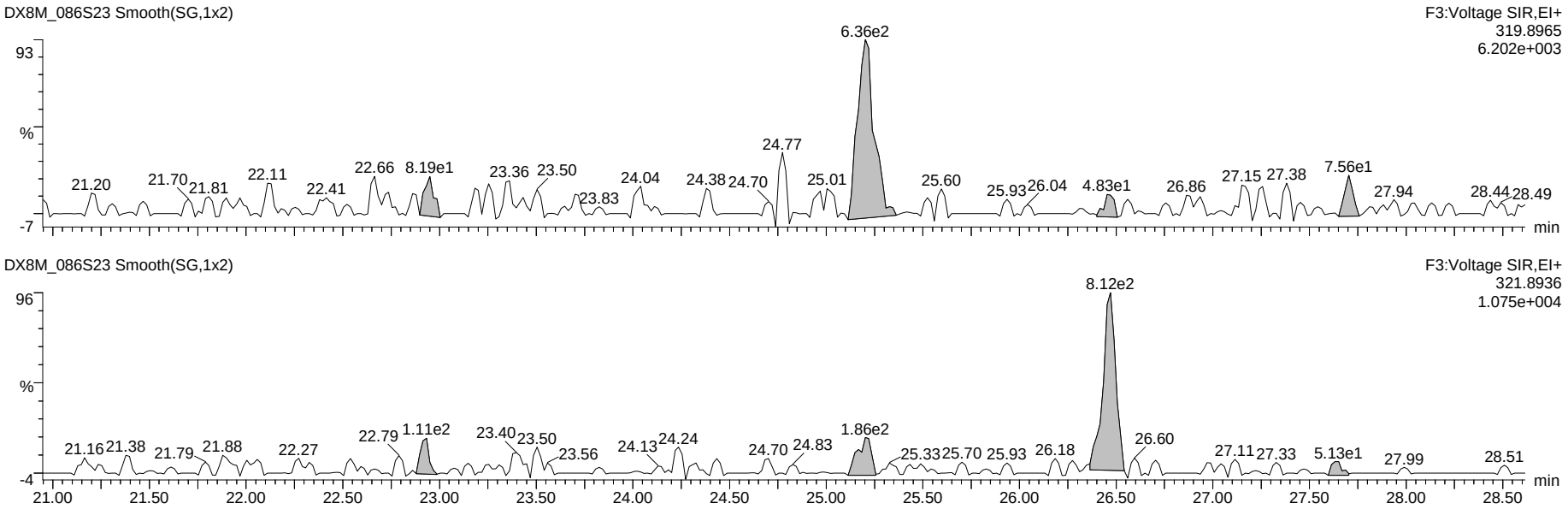
13C-OCDD



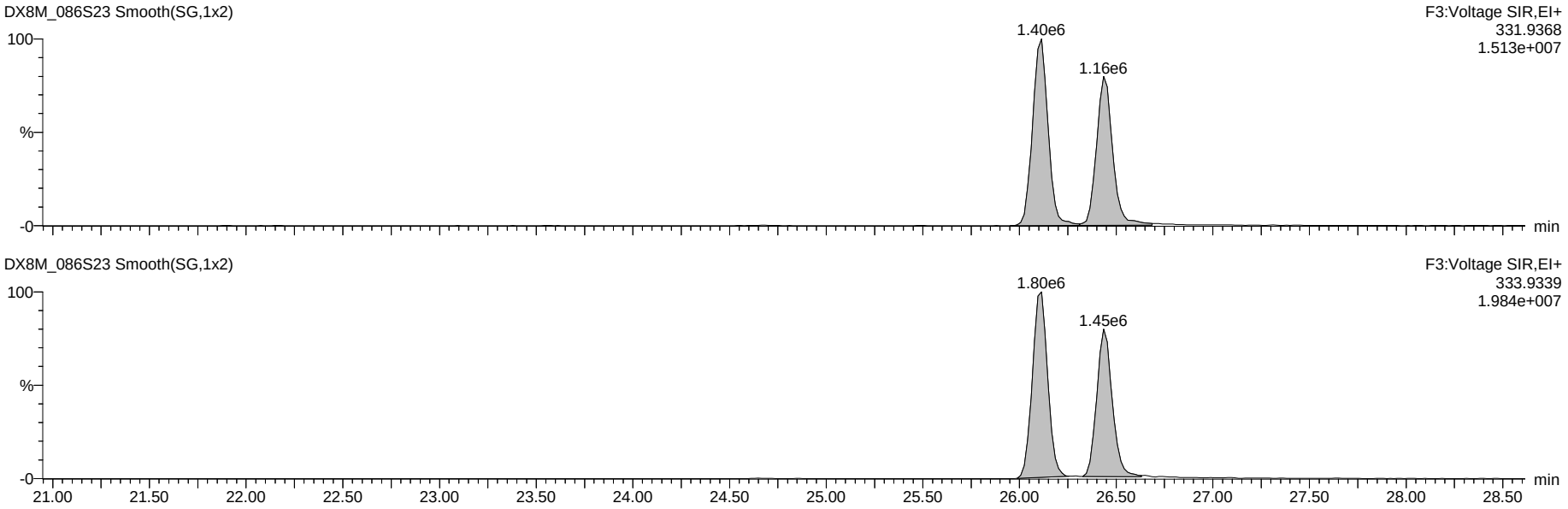
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S23, Date: 21-Jul-2018, Time: 12:24:58, ID: L29628-29,,, Description: 1,WG64578,1.0/20uL

Total Tetra-Dioxins



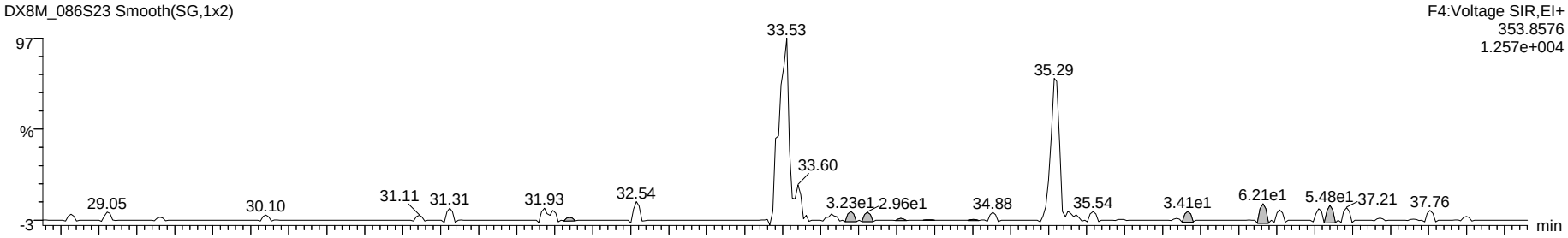
13C-Tetra-Dioxins

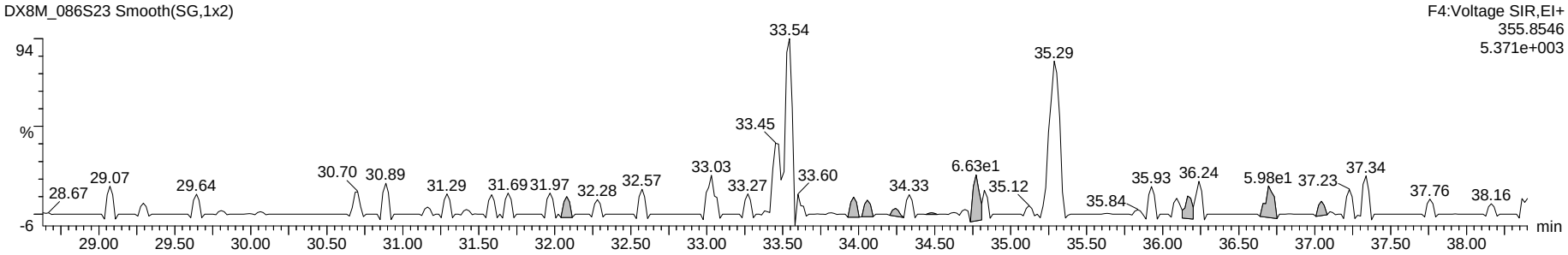


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

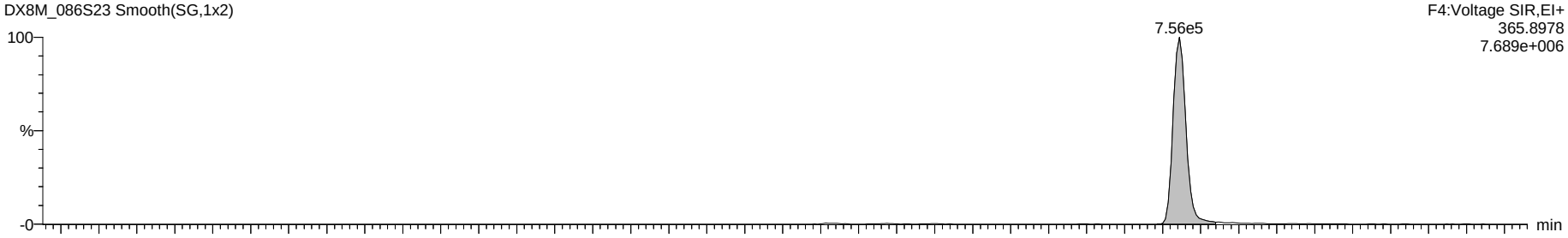
Name: DX8M_086S23, Date: 21-Jul-2018, Time: 12:24:58, ID: L29628-29,,, Description: 1,WG64578,1.0/20uL

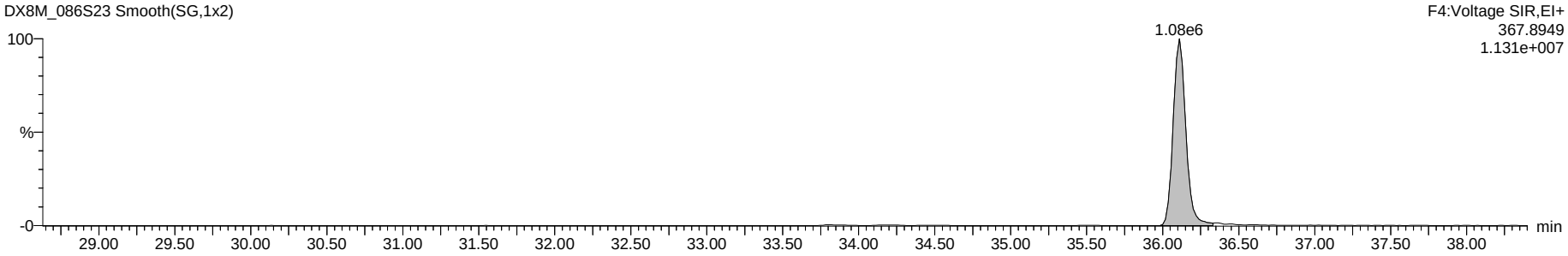
Total Penta-Dioxins





13C-Penta-Dioxins

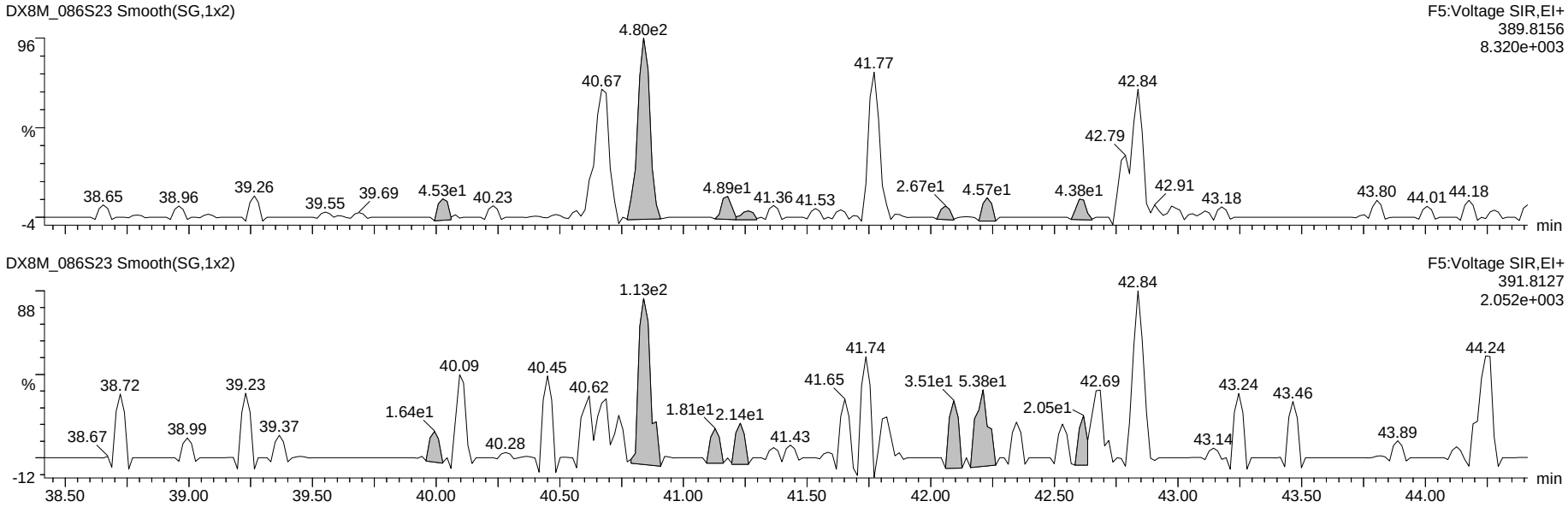




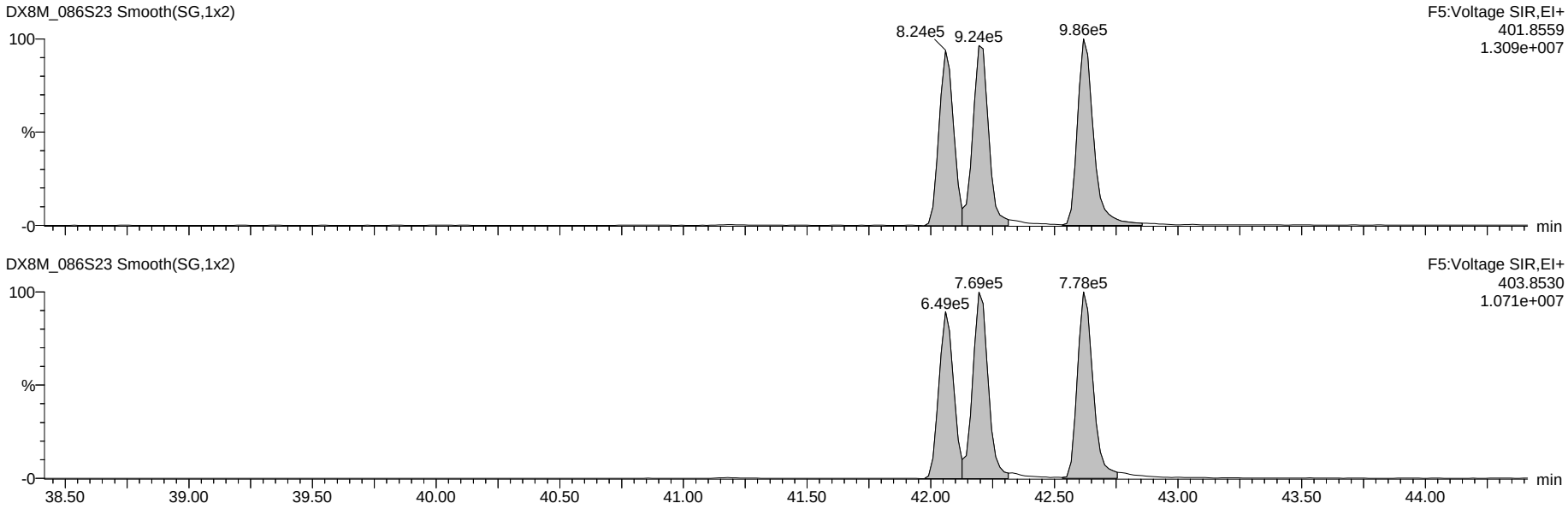
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S23, Date: 21-Jul-2018, Time: 12:24:58, ID: L29628-29,,, Description: 1,WG64578,1.0/20uL

Total Hexa-Dioxins



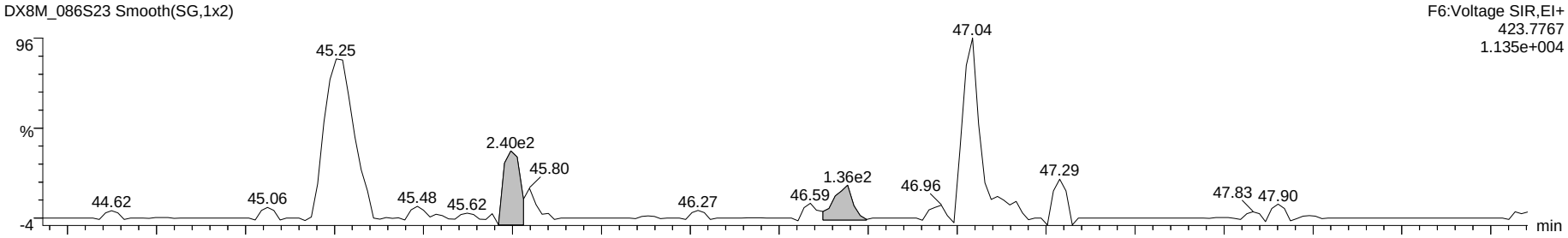
13C-Hexa-Dioxins

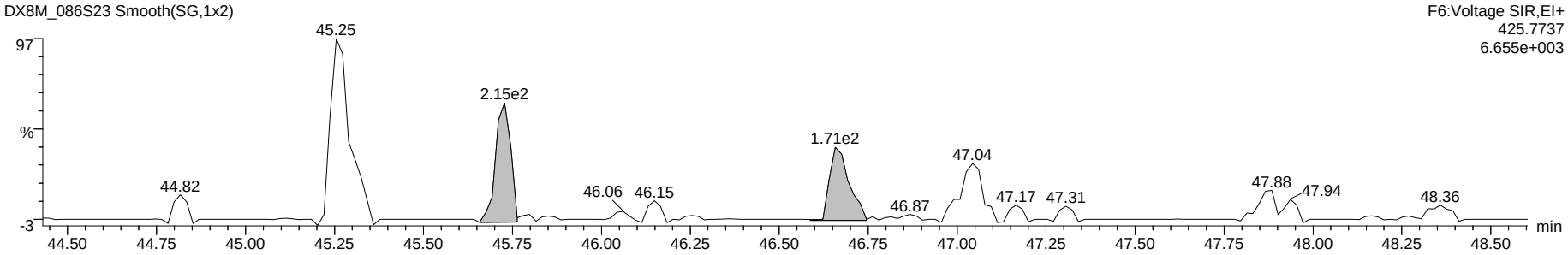


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

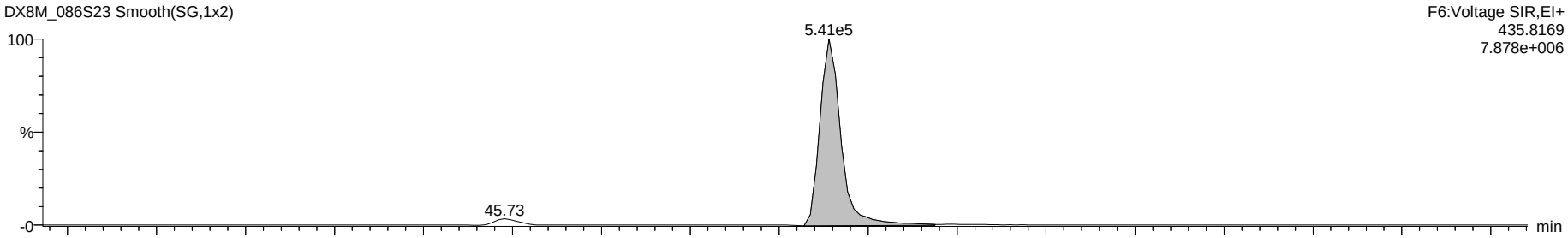
Name: DX8M_086S23, Date: 21-Jul-2018, Time: 12:24:58, ID: L29628-29,,, Description: 1,WG64578,1.0/20uL

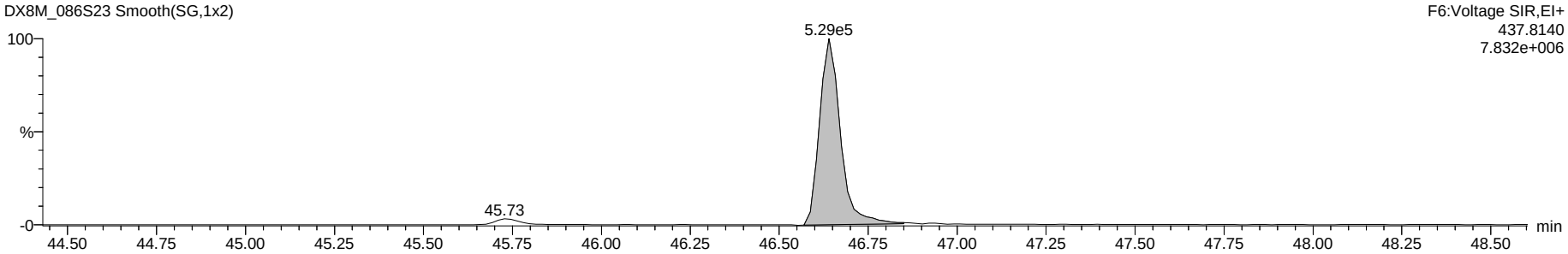
Total Hepta-Dioxins





13C-Hepta-Dioxins

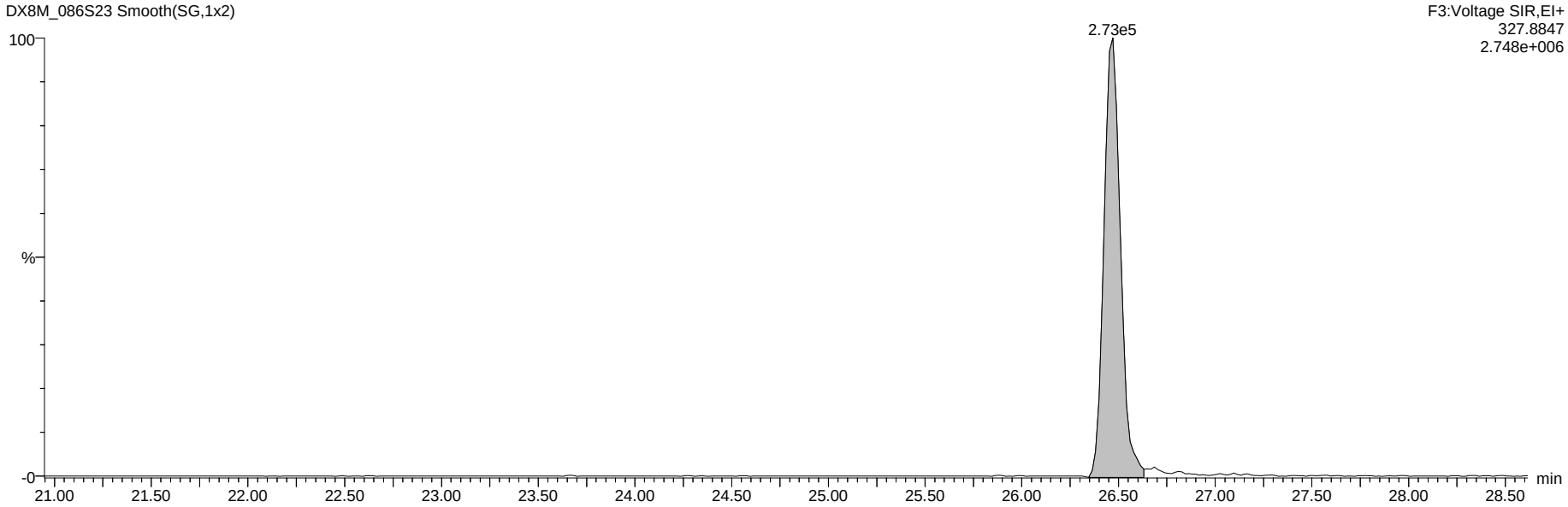




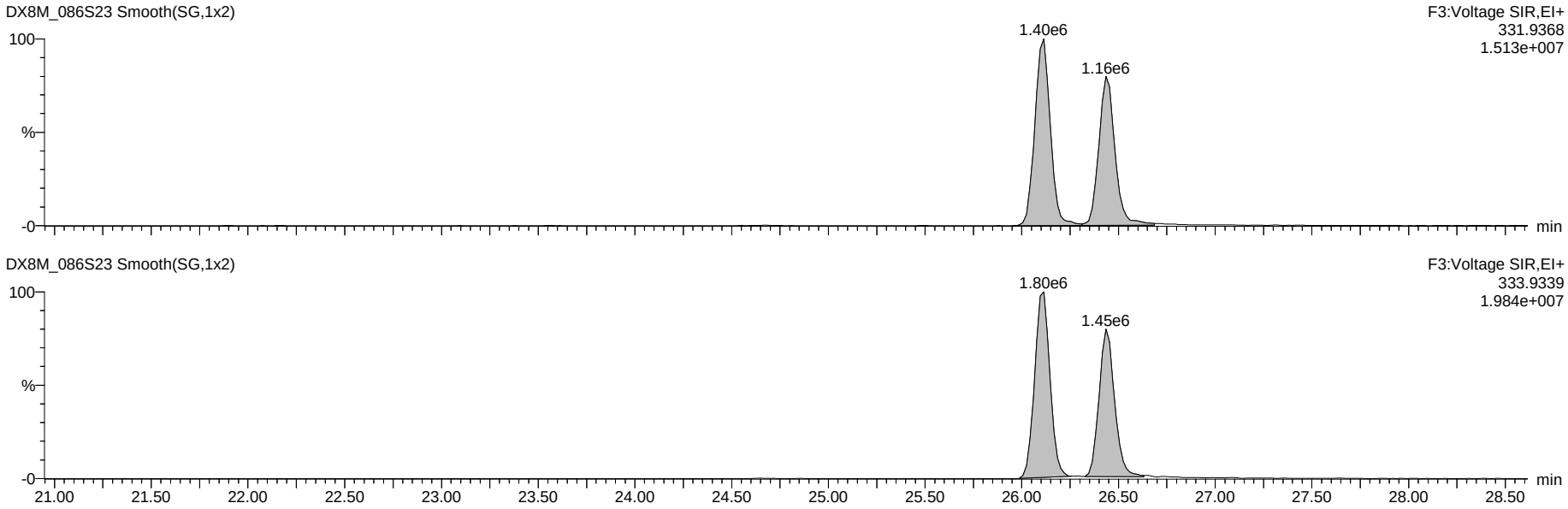
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S23, Date: 21-Jul-2018, Time: 12:24:58, ID: L29628-29,,, Description: 1,WG64578,1.0/20uL

37Cl-2,3,7,8-TCDD



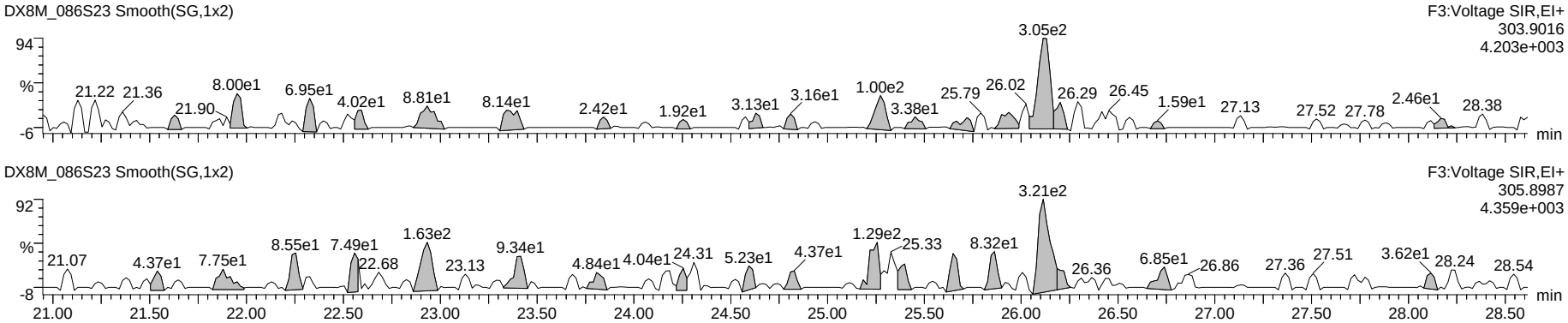
13C-Tetra-Dioxins



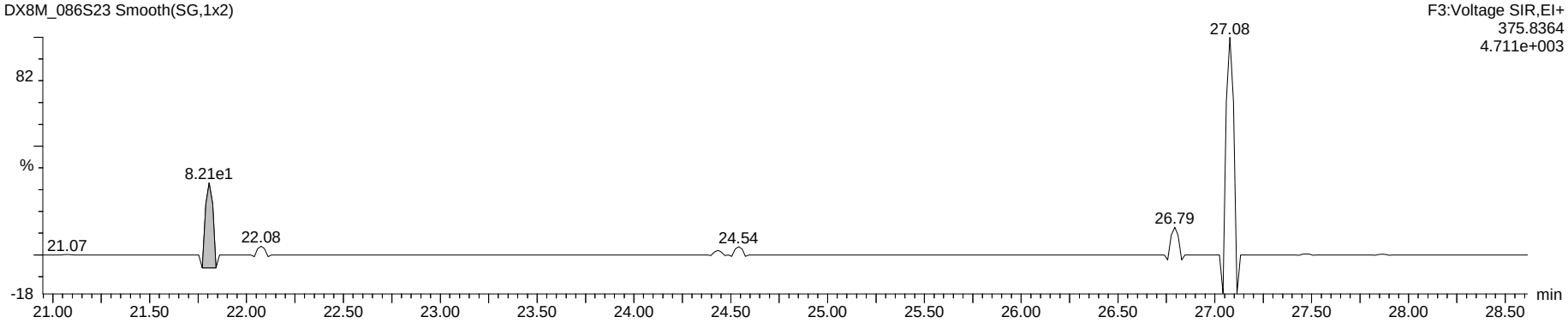
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S23, Date: 21-Jul-2018, Time: 12:24:58, ID: L29628-29,,, Description: 1,WG64578,1.0/20uL

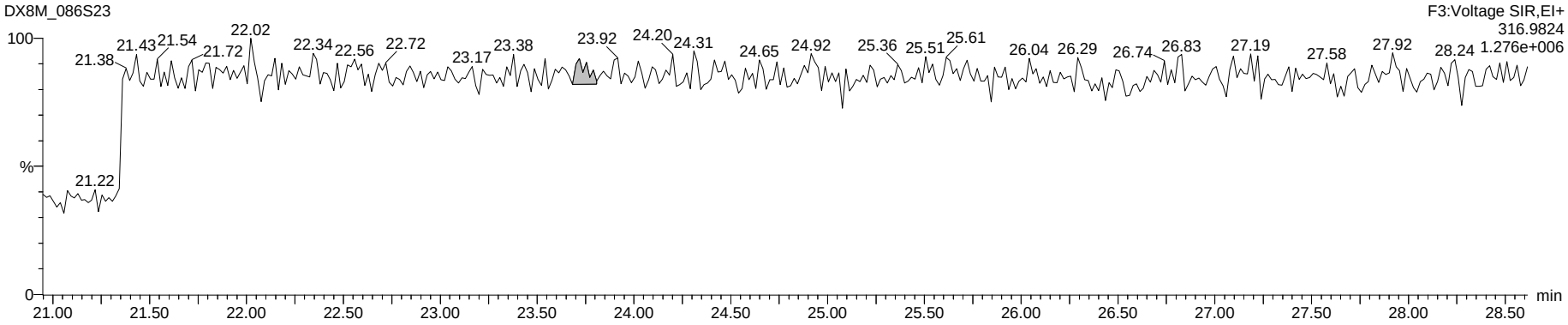
Total Tetra-Furans



Hexa DPE



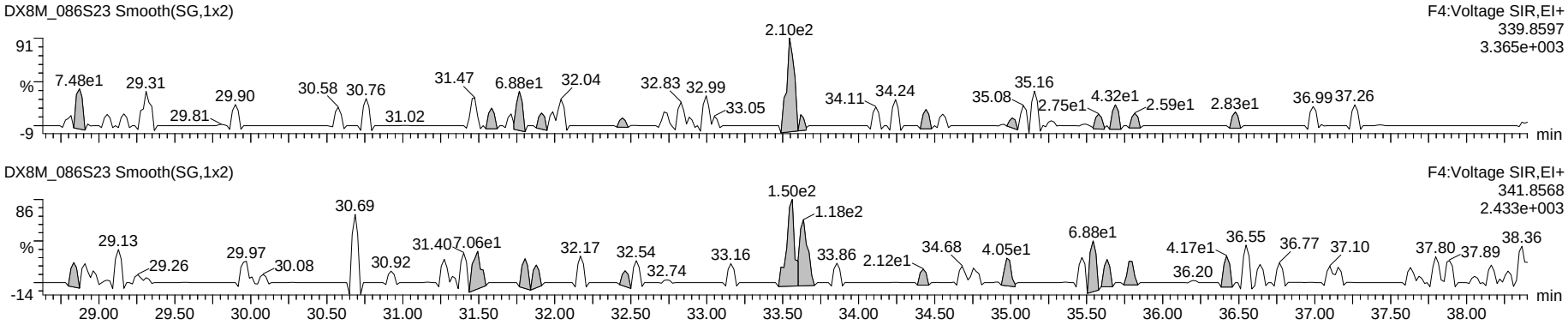
Tetra Lock



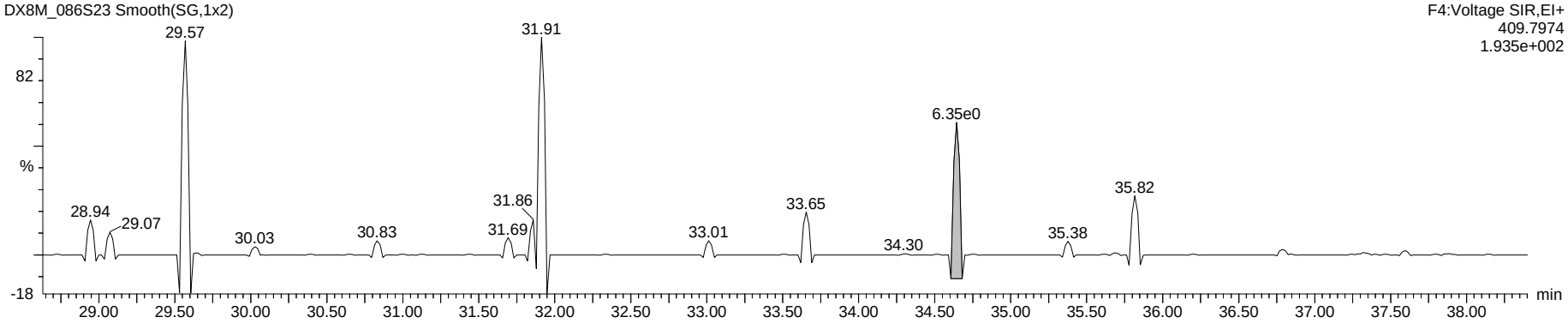
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S23, Date: 21-Jul-2018, Time: 12:24:58, ID: L29628-29,,, Description: 1,WG64578,1.0/20uL

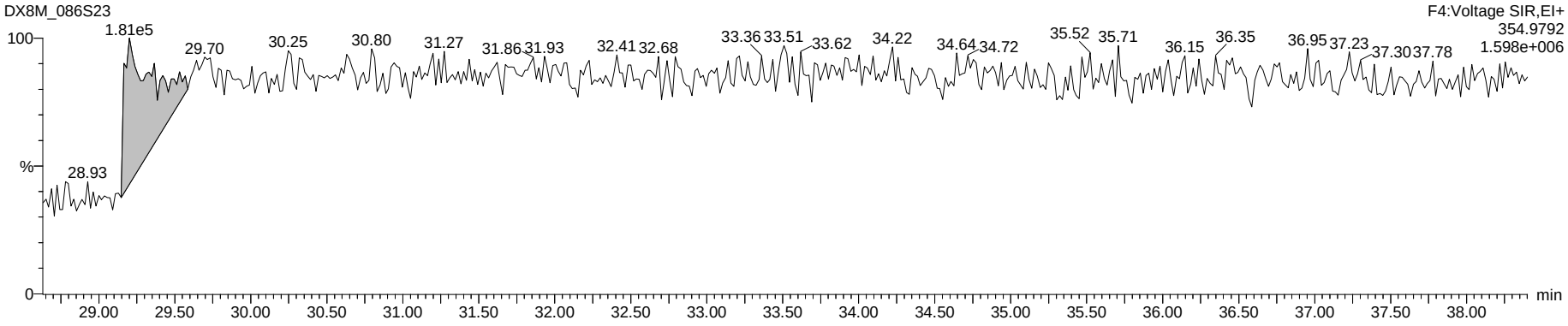
Total Penta-Furans



Hepta DPE



Penta Lock



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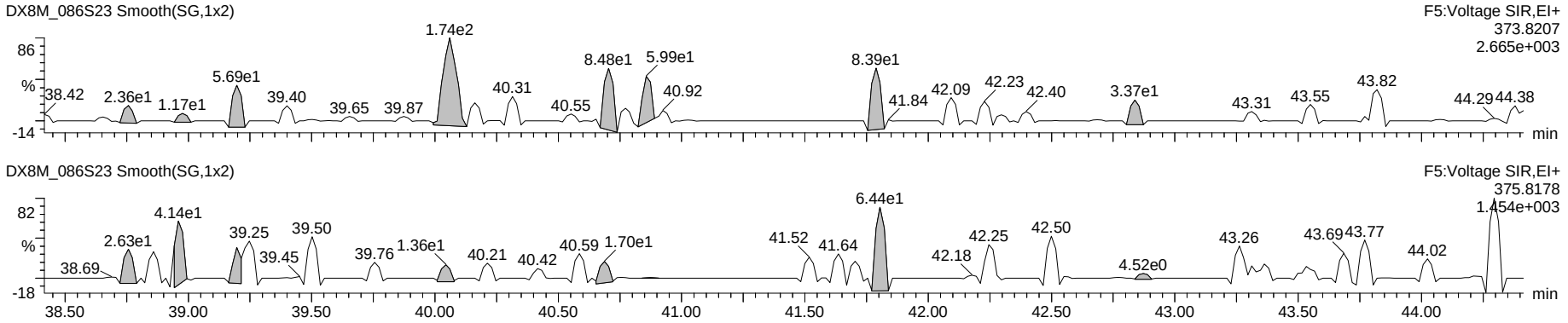
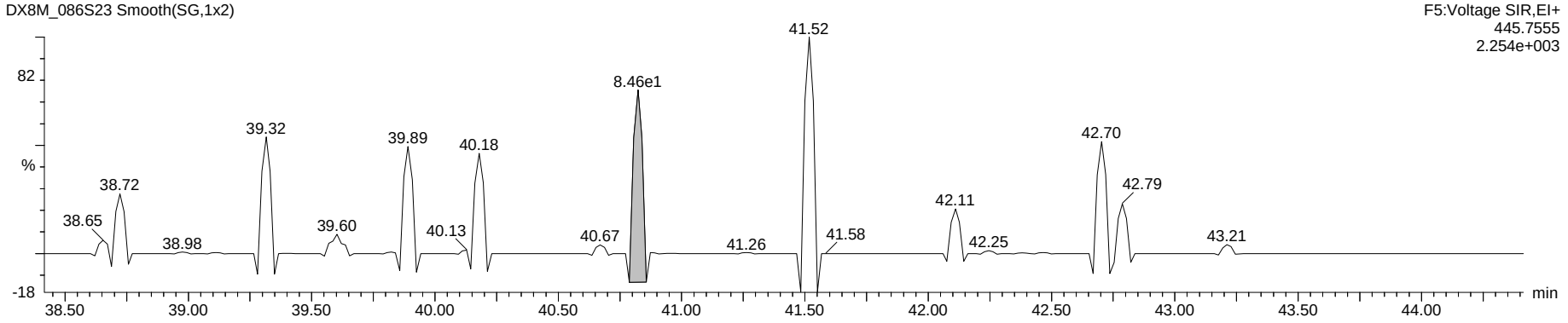
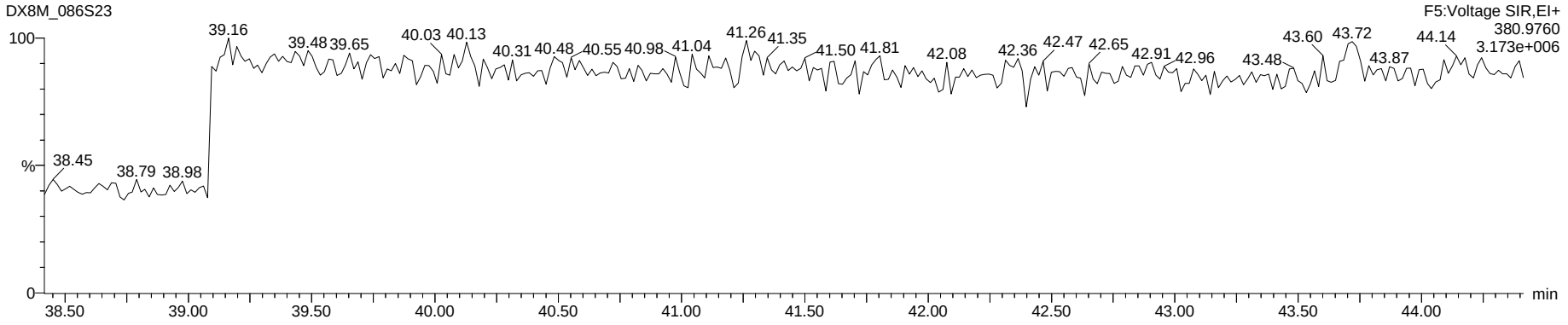
Total Hexa-Furans



Octa DPE



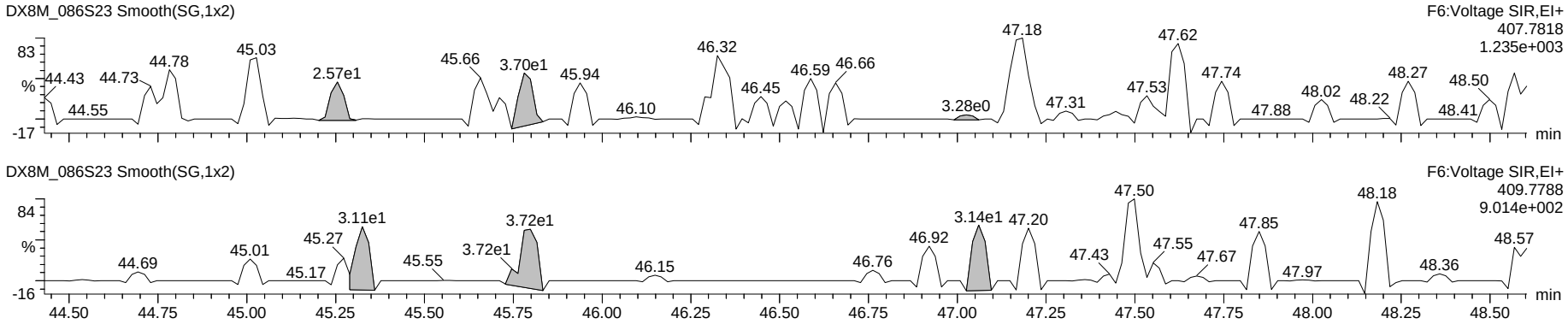
Hexa Lock



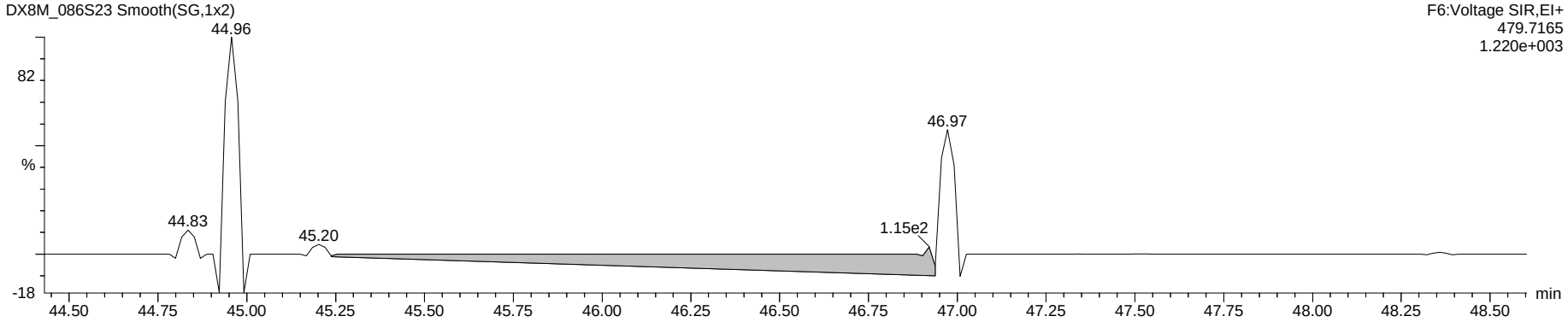
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S23, Date: 21-Jul-2018, Time: 12:24:58, ID: L29628-29,,, Description: 1,WG64578,1.0/20uL

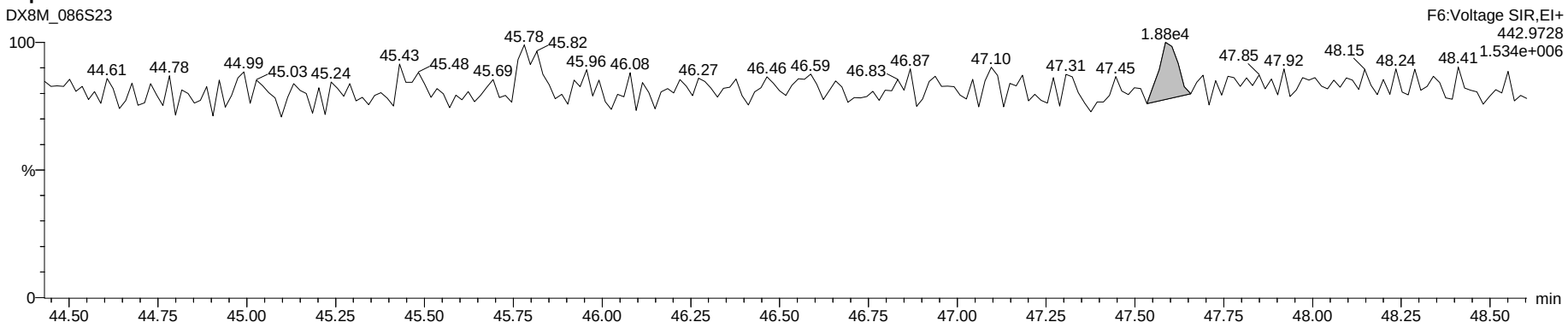
Total Hepta-Furans



Nona DPE



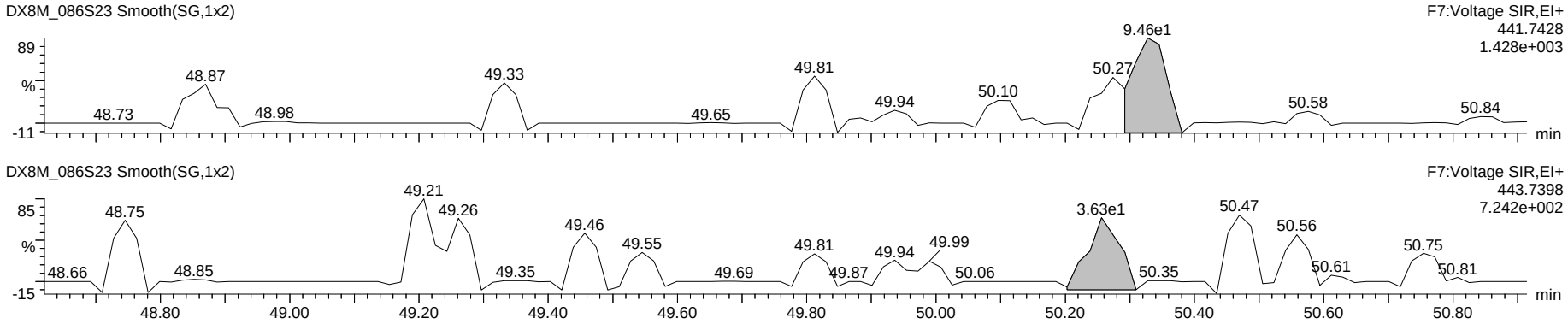
Hepta Lock



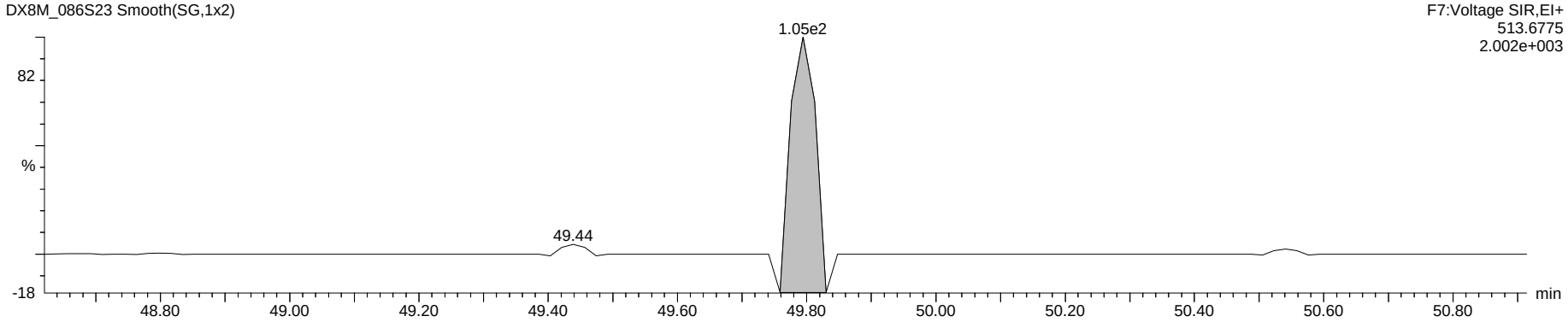
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S23, Date: 21-Jul-2018, Time: 12:24:58, ID: L29628-29,,, Description: 1,WG64578,1.0/20uL

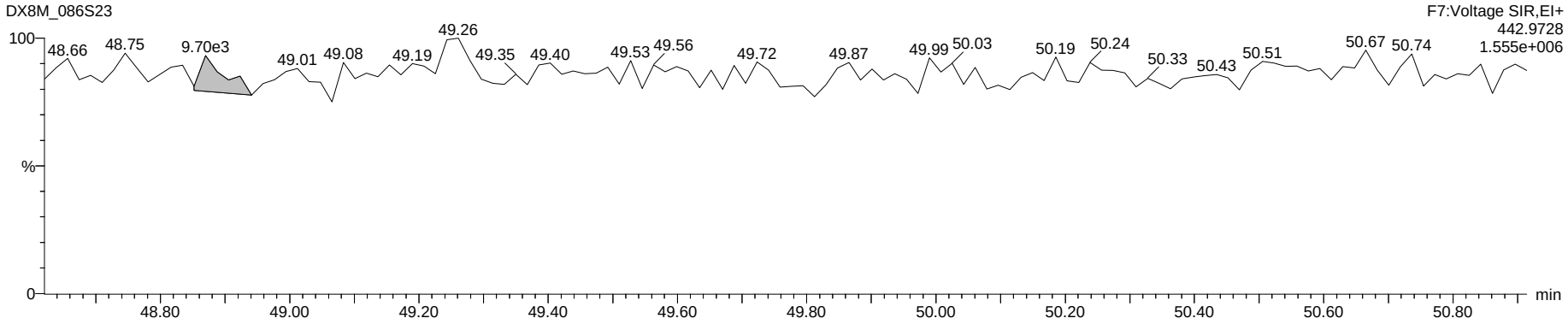
OCDF



Deca DPE



Octa Lock



Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S6, Date: 20-Jul-2018, Time: 20:40:09, ID: WG64578-101,,BLK, Description: 1,WG64578,1.0/20uL

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	1.000	3.85e2	0.66	NO	25.26	0.224	0.0816		3.80e2	2.22e2
2	1,2,3,7,8-PeCDF	1.000	4.54e2	0.54	YES	33.54	0.353	0.2009		8.07e2	1.13e2
3	2,3,4,7,8-PeCDF	1.000	8.78e1	1.15	YES	35.29	0.069	0.1782		8.07e2	1.13e2
4	1,2,3,4,7,8-HxCDF	1.000	2.72e2	0.51	YES	40.70	0.296	0.2816		7.96e2	5.53e2
5	1,2,3,6,7,8-HxCDF	1.000	1.57e2	1.50	YES	40.89	0.148	0.2497		7.96e2	5.53e2
6	2,3,4,6,7,8-HxCDF	1.000	1.16e2	0.83	YES	41.82	0.120	0.2523		7.96e2	5.53e2
7	1,2,3,7,8,9-HxCDF	1.000	1.65e2	2.06	YES	42.84	0.219	0.3672		7.96e2	5.53e2
8	1,2,3,4,6,7,8-HpCDF	1.000	1.63e2	6.68	YES	45.31	0.225	0.0701		1.02e2	1.91e2
9	1,2,3,4,7,8,9-HpCDF	1.000	1.05e2	0.24	YES	47.08	0.197	0.1042		1.02e2	1.91e2
10	OCDF	1.000	2.24e2	0.12	YES	50.29	0.582	0.0002		1.53e-1	2.94e-1
11	2,3,7,8-TCDD	1.000	5.82e2	0.24	YES	26.45	0.400	0.2129		7.48e2	5.11e2
12	1,2,3,7,8-PeCDD	1.000	1.32e2	0.65	NO	36.17	0.149	0.1420		4.24e2	9.94e1
13	1,2,3,4,7,8-HxCDD	1.000	1.57e2	0.50	YES	42.06	0.247	0.2732		1.00e3	1.95e-1
14	1,2,3,6,7,8-HxCDD	1.000	1.19e2	1.74	YES	42.21	0.170	0.2747		1.00e3	1.95e-1
15	1,2,3,7,8,9-HxCDD	1.000	1.66e2	6.63	YES	42.65	0.248	0.2725		1.00e3	1.95e-1
16	1,2,3,4,6,7,8-HpCDD	1.000	1.65e2	1.56	YES	46.64	0.367	0.7352		1.08e2	1.65e3
17	OCDD	1.000	2.92e2	0.87	NO	50.20	0.915	0.3200		5.14e2	2.88e-1
18	13C-2,3,7,8-TCDF	1.000	3.75e6	0.71	NO	25.22	1380.703	1.0234	69.0	8.76e3	3.30e3
19	13C-1,2,3,7,8-PeCDF	1.000	2.79e6	1.44	NO	33.53	1424.899	1.1869	71.2	4.76e3	5.33e3
20	13C-2,3,4,7,8-PeCDF	1.000	2.73e6	1.44	NO	35.30	1443.427	1.2305	72.2	4.76e3	5.33e3
21	13C-1,2,3,4,7,8-HxCDF	1.000	1.64e6	0.51	NO	40.67	1584.947	4.2163	79.2	1.60e4	7.10e3
22	13C-1,2,3,6,7,8-HxCDF	1.000	1.99e6	0.52	NO	40.86	1798.573	3.9475	89.9	1.60e4	7.10e3
23	13C-2,3,4,6,7,8-HxCDF	1.000	1.70e6	0.51	NO	41.79	1716.699	4.4176	85.8	1.60e4	7.10e3
24	13C-1,2,3,7,8,9-HxCDF	1.000	1.51e6	0.51	NO	42.84	1544.414	4.4789	77.2	1.60e4	7.10e3
25	13C-1,2,3,4,6,7,8-HpCDF	1.000	1.18e6	0.44	NO	45.27	1426.145	2.5324	71.3	6.57e3	4.49e3
26	13C-1,2,3,4,7,8,9-HpCDF	1.000	8.50e5	0.46	NO	47.06	1317.136	3.2467	65.9	6.57e3	4.49e3
27	13C-2,3,7,8-TCDD	1.000	2.61e6	0.75	NO	26.45	1547.233	1.0293	77.4	2.87e3	4.68e3
28	13C-1,2,3,7,8-PeCDD	1.000	1.72e6	0.66	NO	36.11	1551.174	1.3114	77.6	3.96e3	2.34e3
29	13C-1,2,3,4,7,8-HxCDD	1.000	1.27e6	1.23	NO	42.08	1584.035	2.6839	79.2	6.52e3	4.80e3
30	13C-1,2,3,6,7,8-HxCDD	1.000	1.50e6	1.24	NO	42.21	1774.390	2.5380	88.7	6.52e3	4.80e3
31	13C-1,2,3,4,6,7,8-HpCDD	1.000	9.03e5	1.03	NO	46.66	1365.330	3.7186	68.3	6.62e3	6.35e3
32	13C-OCDD	1.000	1.25e6	0.91	NO	50.20	2156.170	2.8468	53.9	8.73e3	0.00e0
33	13C-1,2,3,4-TCDD	1.000	3.37e6	0.77	NO	26.11	148.892	0.0769	7.4	2.87e3	4.68e3
34	13C-1,2,3,7,8,9-HxCDD	1.000	1.63e6	1.25	NO	42.64	113.809	0.1503	5.7	6.52e3	4.80e3
35	37Cl-2,3,7,8-TCDD	1.000	2.66e5			26.47	141.753	0.4272	70.9		3.47e3
36	Total Tetra-Furans	1.000					1.195	0.0816			2.22e2
37	Total Tetra-Dioxins	1.000					1.494	0.2129			5.11e2
38	Total Penta-Furans	1.000					0.988	0.1912			1.13e2
39	Total Penta-Dioxins	1.000					0.731	0.1420			9.94e1
40	Total Hexa-Furans	1.000					1.267	0.2733			5.53e2
41	Total Hexa-Dioxins	1.000					1.268	0.2637			1.95e-1
42	Total Hepta-Furans	1.000					0.422	0.0854			1.91e2
43	Total Hepta-Dioxins	1.000					0.367	0.7352			1.65e3
44	Hexa DPE	1.000	7.66e1			22.52					9.31e-2
45	Hepta DPE	1.000	9.64e1			35.98					2.02e-1
46	Octa DPE	1.000	1.07e2			41.48					4.20e-2
47	Nona DPE	1.000	2.09e0			47.78					1.45e-1
48	Deca DPE	1.000	9.16e1			49.99					6.57e-2
49	Tetra Lock	1.000	1.57e4			24.34					1.61e5
50	Penta Lock	1.000	3.36e5			29.77					2.20e5
51	Hexa Lock	1.000	5.17e5			38.86					3.02e5
52	Hepta Lock	1.000	3.12e3			47.46					1.87e5
53	Octa Lock	1.000	1.26e4			48.85					1.58e5
54	13C-Tetra-Furans	1.000					1380.703	1.0234			3.30e3
55	13C-Tetra-Dioxins	1.000					1696.125	1.1062			4.68e3

pv'd by LHE 23-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

SVB/KB 26JUL2018

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S6, Date: 20-Jul-2018, Time: 20:40:09, ID: WG64578-101,,BLK, Description: 1,WG64578,1.0/20uL

Tetrafurans

	RT	1° Ratio (A...	Fails?	pg
1	21.40	0.420	YES	0.065
2	21.66	0.063	YES	0.045
3	22.00	2.844	YES	0.047
4	22.52	0.076	YES	0.052
5	23.13	0.596	YES	0.020
6	23.25	0.629	YES	0.029
7	23.34	0.724	NO	0.034
8	23.42	0.365	YES	0.041
9	24.02	1.392	YES	0.031
10	24.47	0.452	YES	0.039
11	24.61	0.758	NO	0.068
12	25.08	1.000	YES	0.034
13	25.26	0.660	NO	0.224
14	25.51	1.016	YES	0.038
15	25.65	0.805	NO	0.024
16	26.13	0.716	NO	0.363
17	26.40	1.374	YES	0.041

Tetradioxins

	RT	1° Ratio (A...	Fails?	pg
1	22.84	0.849	NO	0.084
2	23.36	1.413	YES	0.100
3	24.13	1.379	YES	0.078
4	25.24	2.828	YES	0.487
5	25.86	0.647	YES	0.057
6	26.72	0.885	NO	0.073
7	27.20	0.907	YES	0.076
8	28.26	2.684	YES	0.078
9	28.36	0.413	YES	0.062
10	26.45	0.237	YES	0.400

Pentafurans

	RT	1° Ratio (A...	Fails?	pg
1	28.83	0.167	YES	0.121
2	30.56	0.520	YES	0.035
3	31.46	0.818	YES	0.054
4	32.35	0.788	YES	0.074
5	33.27	0.795	YES	0.057
6	33.54	0.539	YES	0.353
7	35.29	1.148	YES	0.069
8	35.54	1.085	YES	0.048
9	35.84	0.729	YES	0.073
10	37.14	3.036	YES	0.105

pv'd by LHE 23-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S6, Date: 20-Jul-2018, Time: 20:40:09, ID: WG64578-101,,BLK, Description: 1,WG64578,1.0/20uL

Pentadioxins

	RT	1° Ratio (A...	Fails?	pg
1	31.57	0.497	YES	0.093
2	35.56	3.649	YES	0.142
3	36.17	0.652	NO	0.149
4	36.26	5.463	YES	0.126
5	36.44	0.321	YES	0.119
6	37.04	2.066	YES	0.101

Hexafurans

	RT	1° Ratio (A...	Fails?	pg
1	38.57	42.894	YES	0.031
2	39.03	0.623	YES	0.181
3	39.91	0.034	YES	0.032
4	40.40	2.526	YES	0.103
5	40.70	0.507	YES	0.296
6	40.89	1.504	YES	0.148
7	41.28	2.456	YES	0.042
8	41.82	0.828	YES	0.120
9	42.84	2.060	YES	0.219
10	42.99	2.352	YES	0.096

Hexadioxins

	RT	1° Ratio (A...	Fails?	pg
1	40.86	2.128	YES	0.602
2	42.06	0.502	YES	0.247
3	42.21	1.739	YES	0.170
4	42.65	6.633	YES	0.248

Heptafurans

	RT	1° Ratio (A...	Fails?	pg
1	45.31	6.681	YES	0.225
2	47.08	0.238	YES	0.197

Heptadioxins

	RT	1° Ratio (A...	Fails?	pg
1	46.64	1.561	YES	0.367

13C-TF

	RT	1° Ratio (A...	Fails?	pg
1	25.22	0.715	NO	1380.7...

13C-TD

	RT	1° Ratio (A...	Fails?	pg
1	26.11	0.773	NO	148.892
2	26.45	0.748	NO	1547.2...

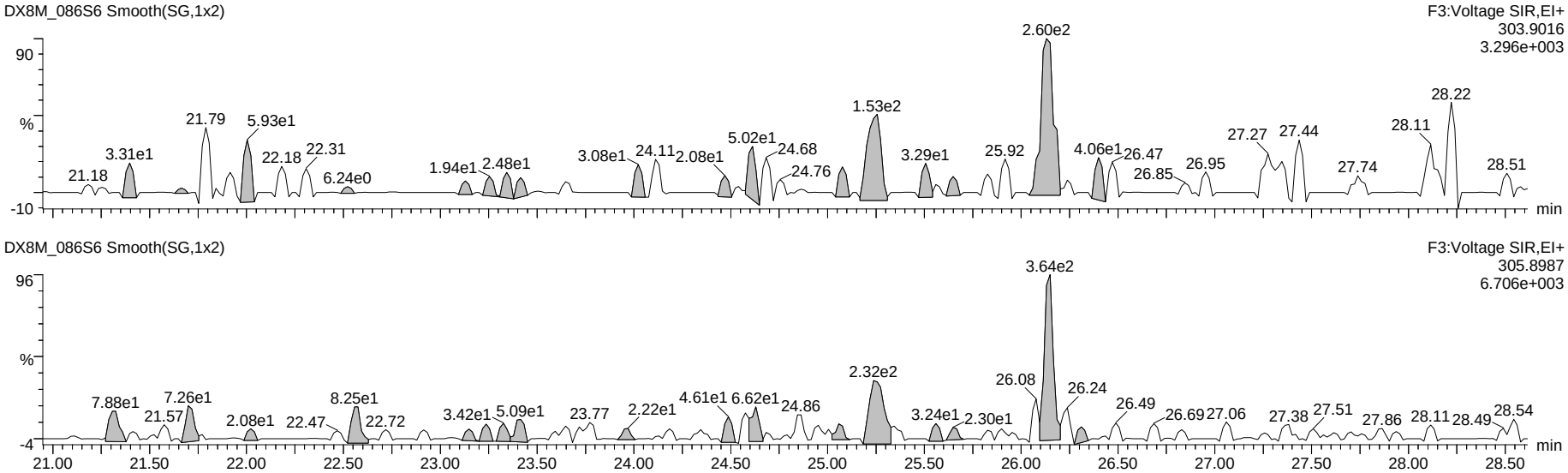
pv'd by LHE 23-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

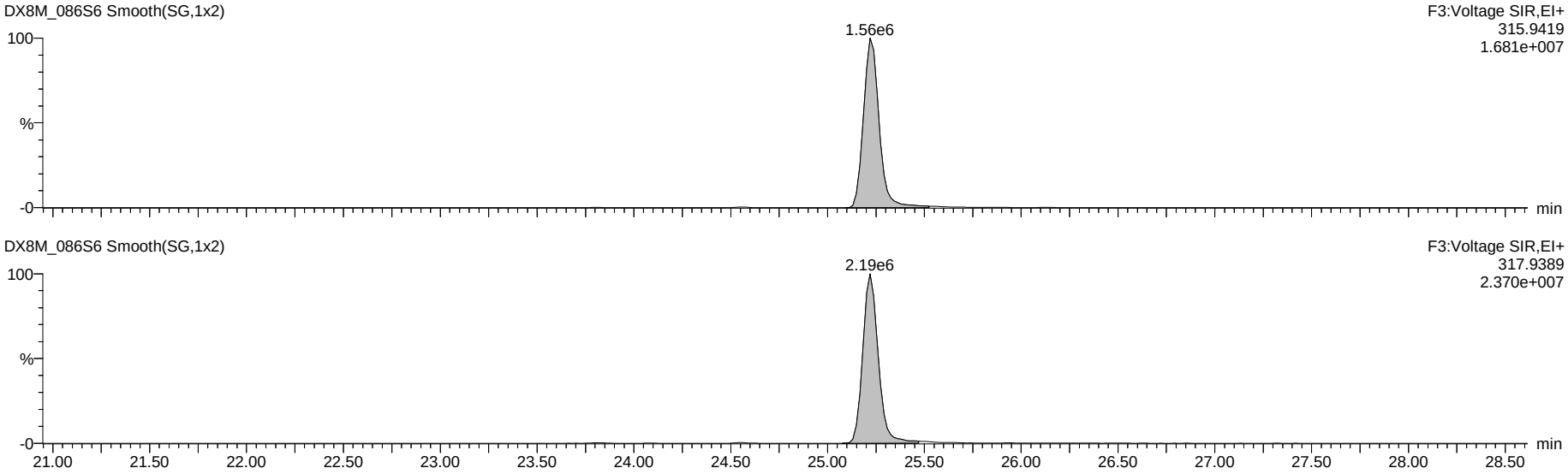
Method: G:\Masslynx\Inst_M\Exported_methods\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_086S6, Date: 20-Jul-2018, Time: 20:40:09, ID: WG64578-101,,BLK, Description: 1,WG64578,1.0/20uL

Total Tetra-Furans



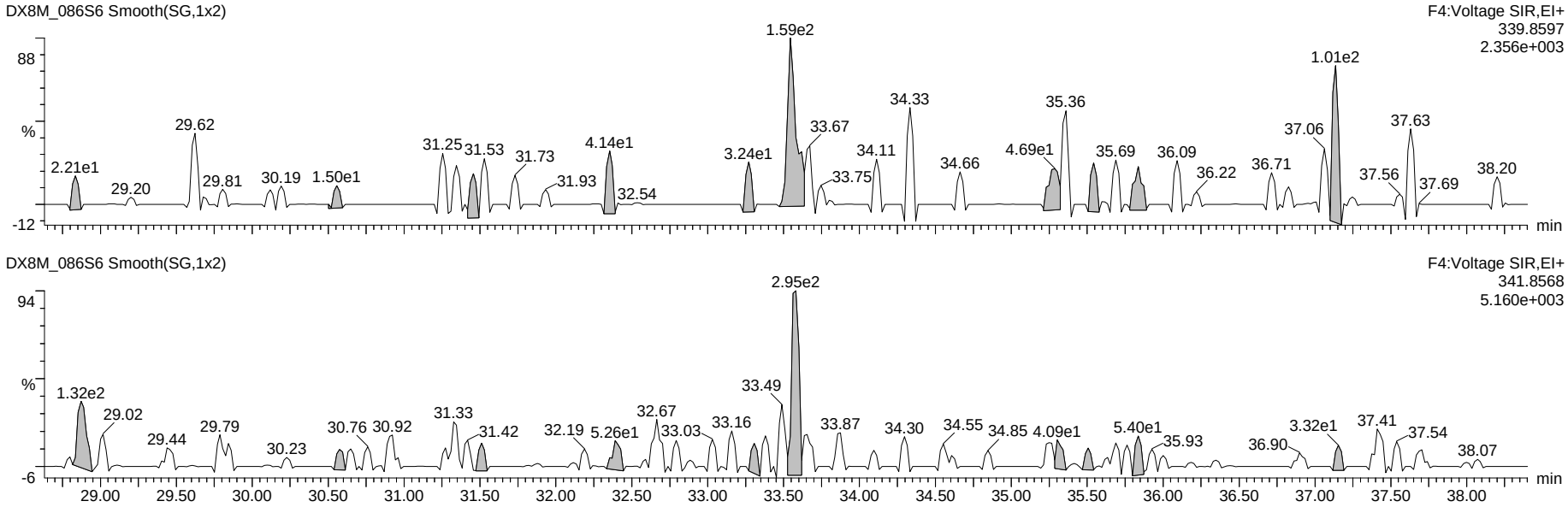
13C-Tetra-Furans



Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S6, Date: 20-Jul-2018, Time: 20:40:09, ID: WG64578-101,,BLK, Description: 1,WG64578,1.0/20uL

Total Penta-Furans



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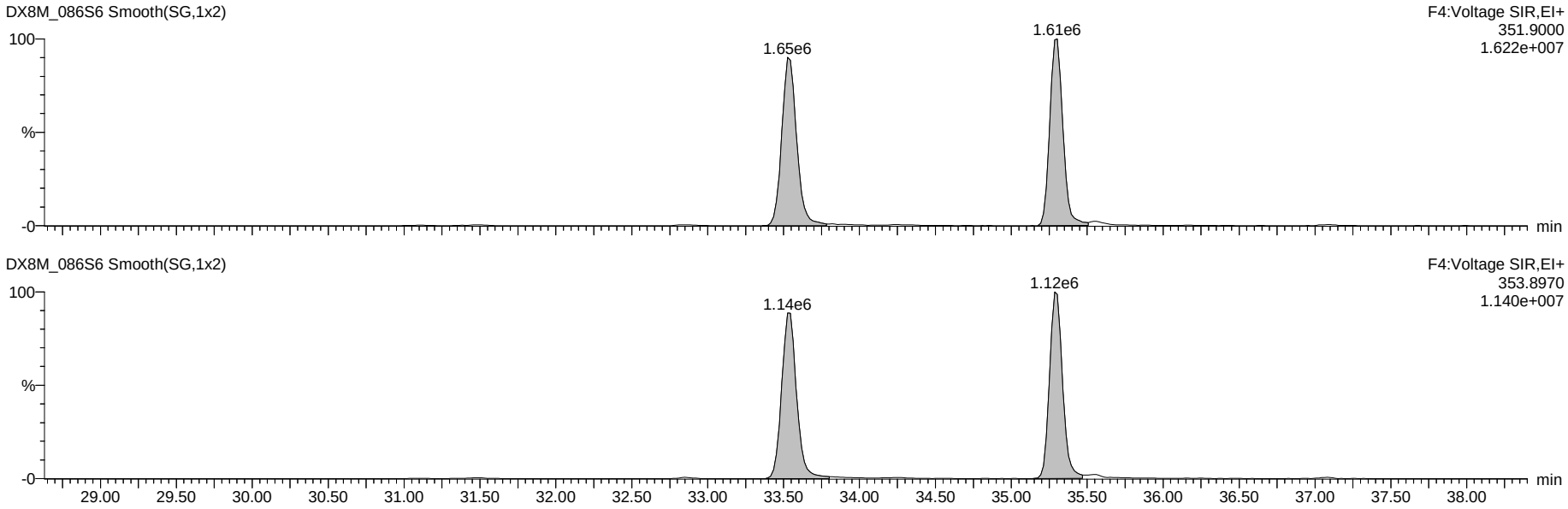

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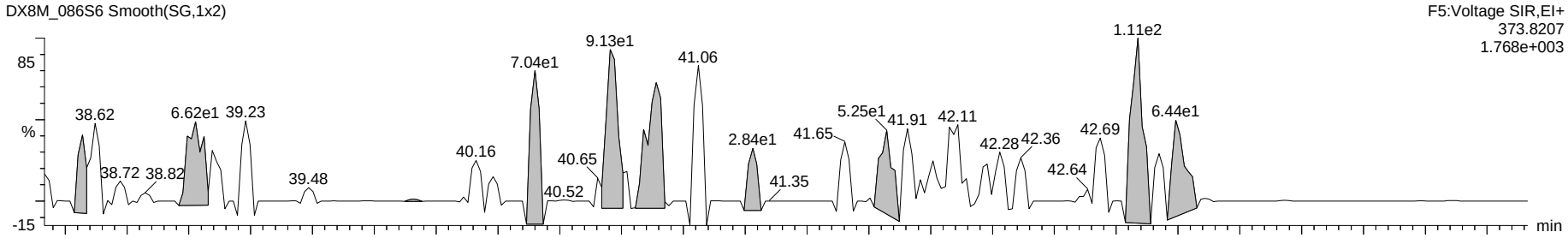
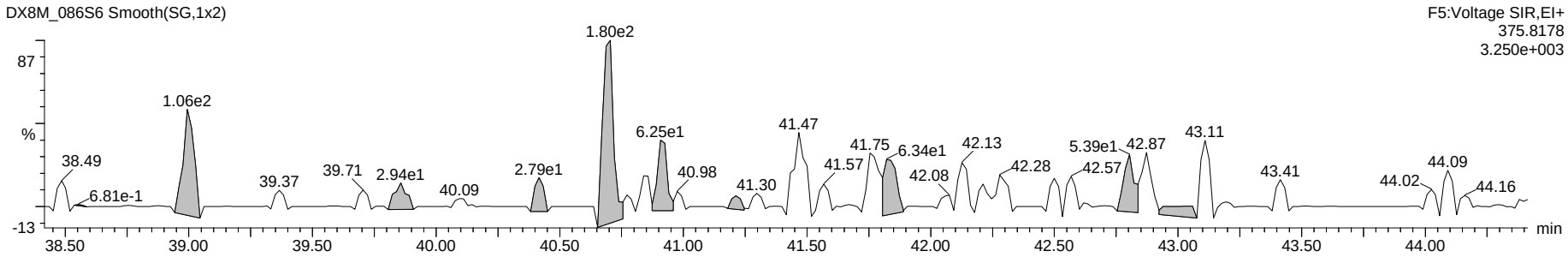
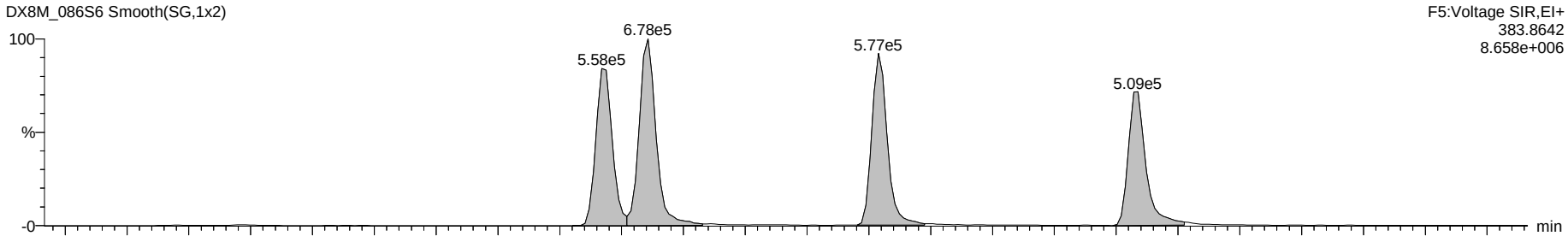
Name: DX8M_086S6, Date: 20-Jul-2018, Time: 20:40:09, ID: WG64578-101,,BLK, Description: 1,WG64578,1.0/20uL

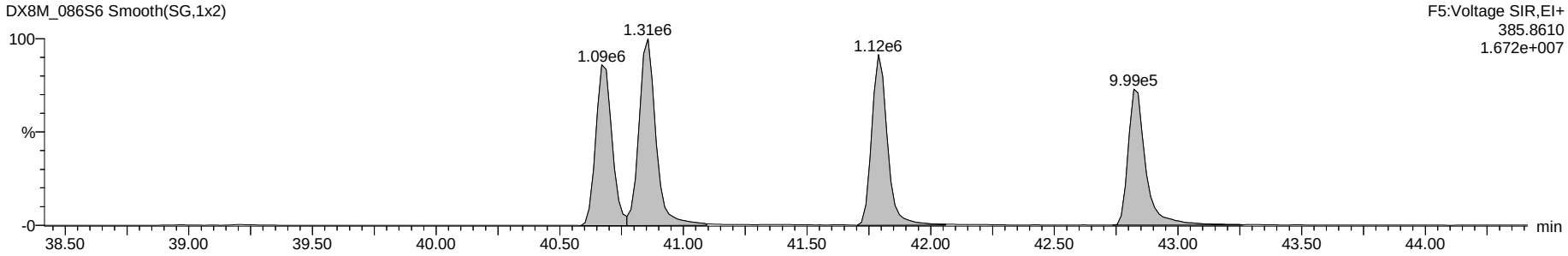
Total Hexa-Furans





13C-Hexa-Furans

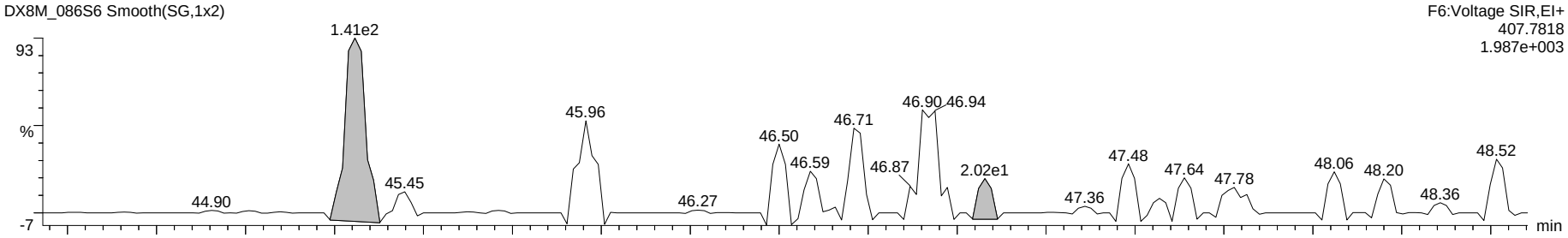


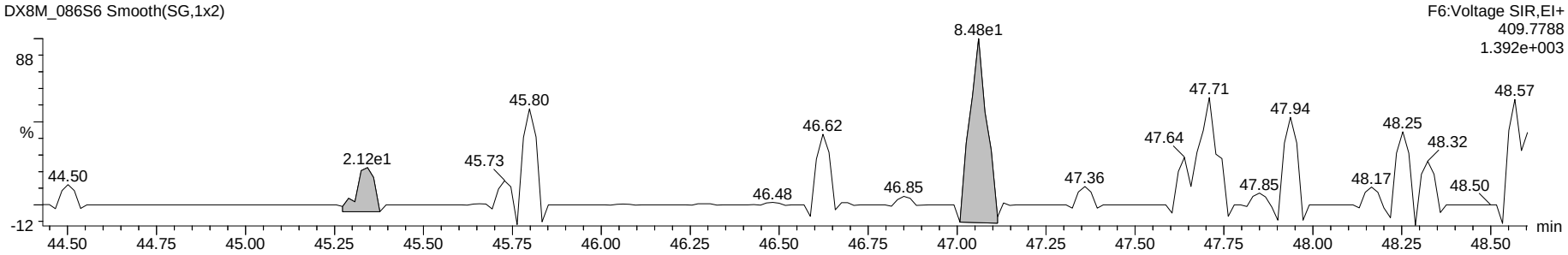


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

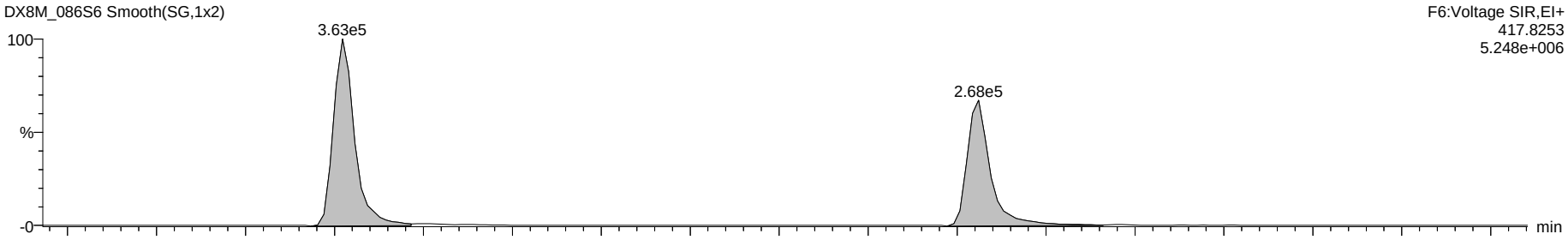
Name: DX8M_086S6, Date: 20-Jul-2018, Time: 20:40:09, ID: WG64578-101,,BLK, Description: 1,WG64578,1.0/20uL

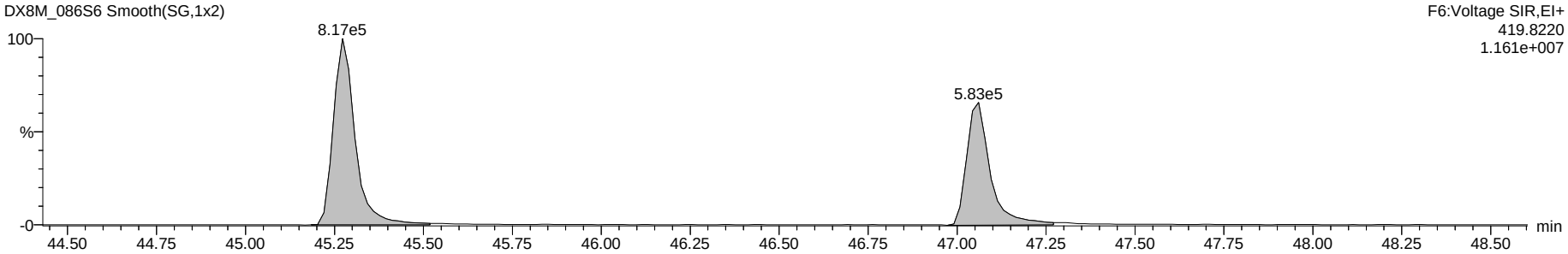
Total Hepta-Furans





13C-Hepta-Furans

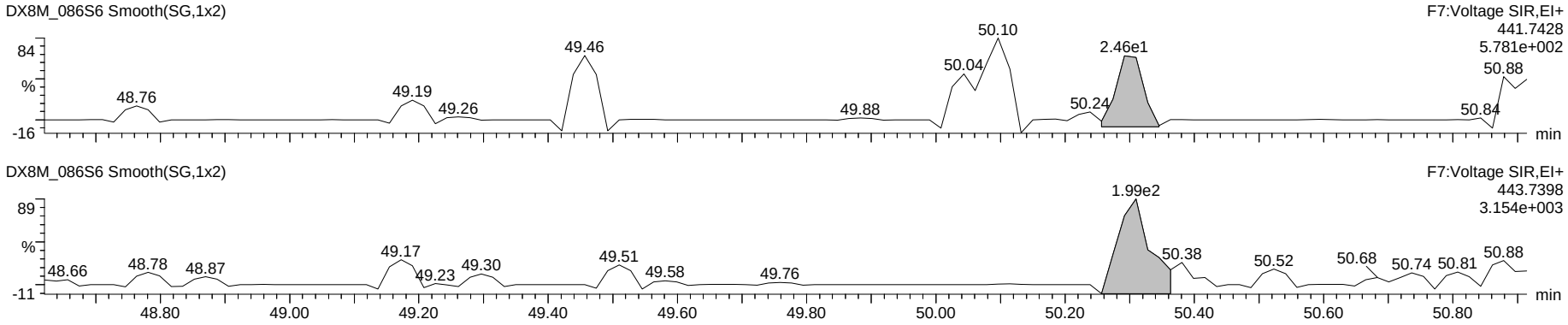




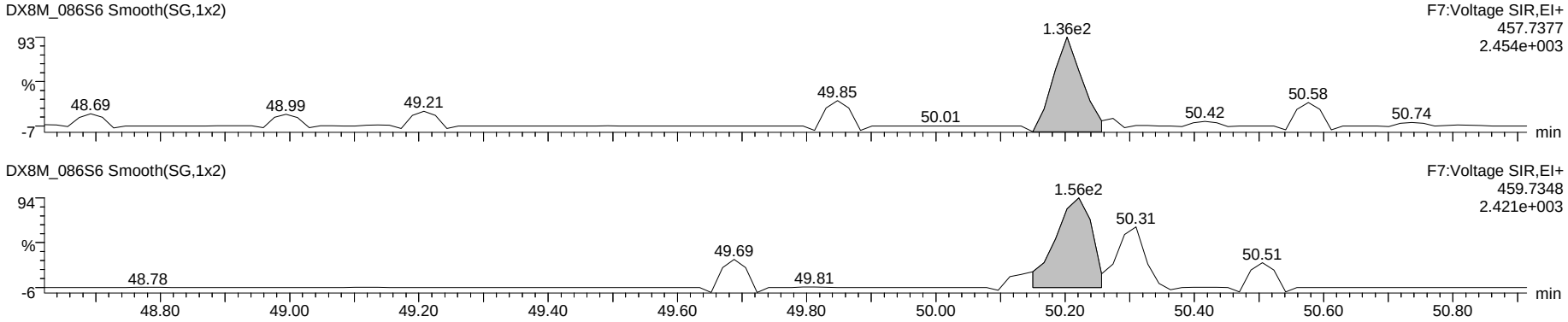
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S6, Date: 20-Jul-2018, Time: 20:40:09, ID: WG64578-101,,BLK, Description: 1,WG64578,1.0/20uL

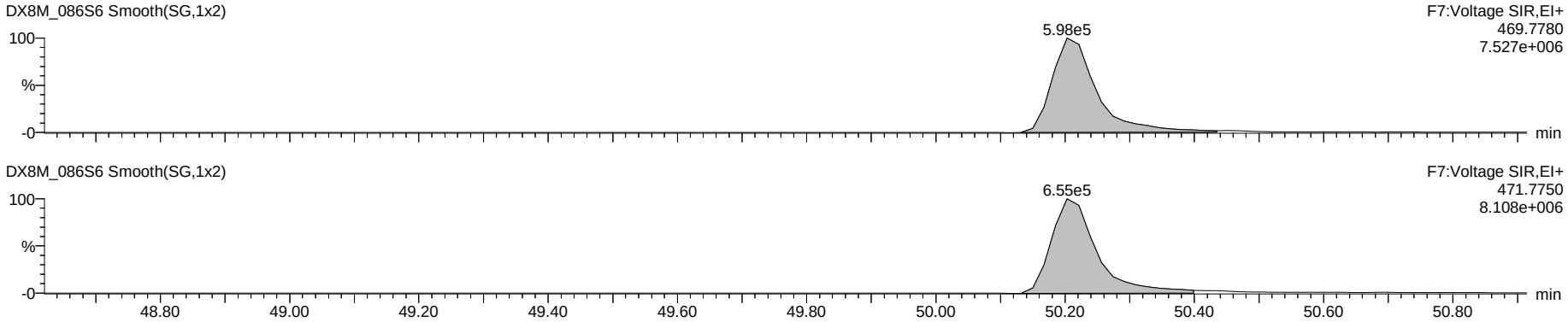
OCDF



OCDD



13C-OCDD



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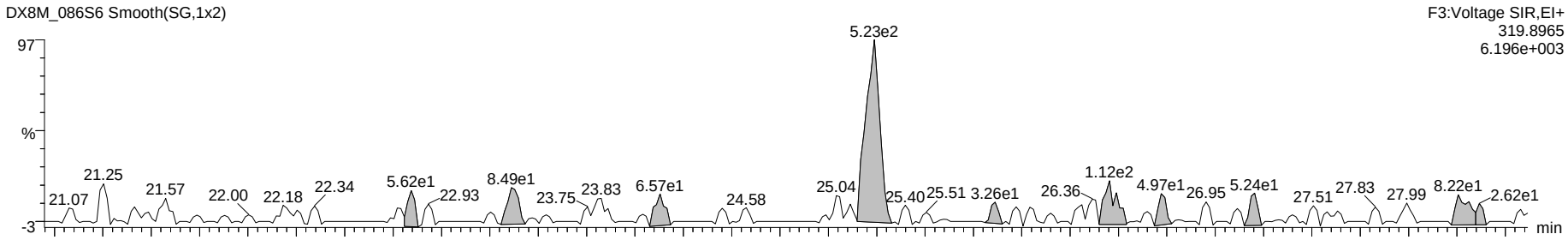
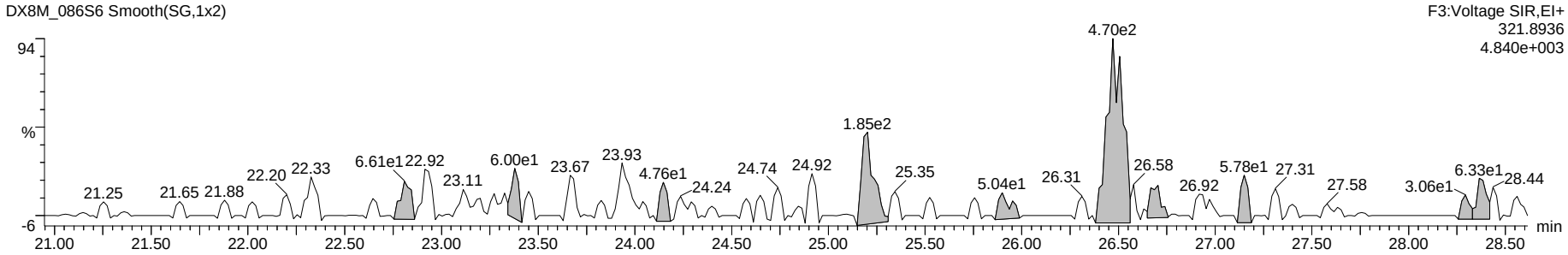
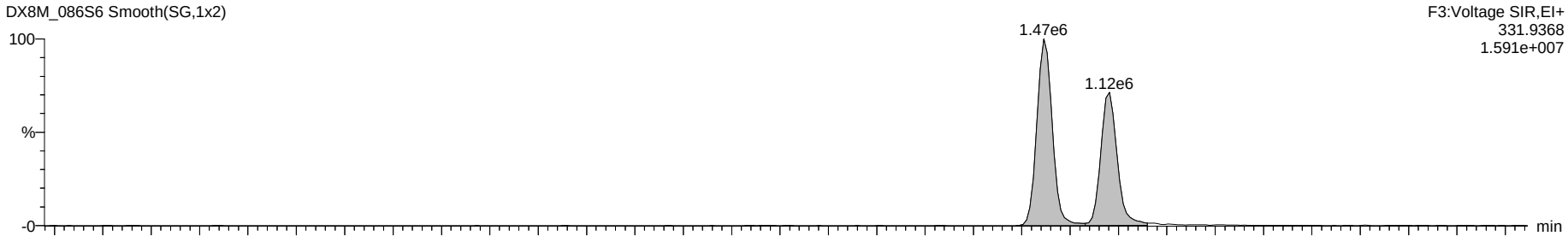
Name: DX8M_086S6, Date: 20-Jul-2018, Time: 20:40:09, ID: WG64578-101,,BLK, Description: 1,WG64578,1.0/20uL

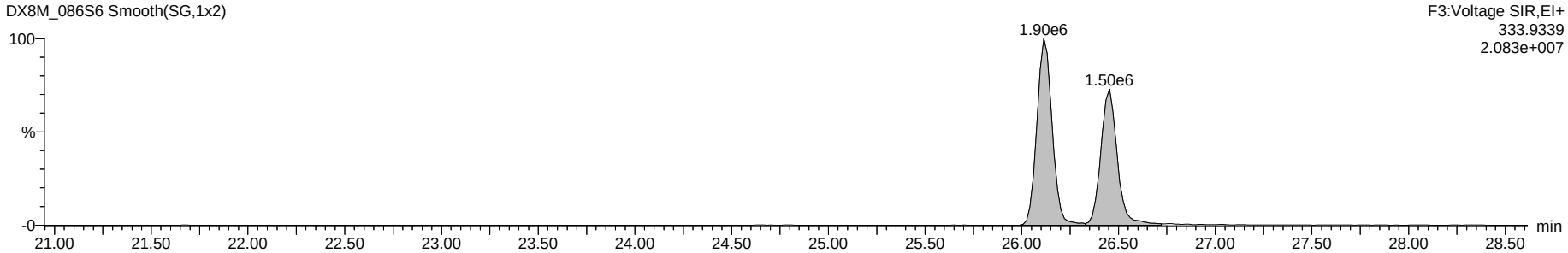
Total Tetra-Dioxins





13C-Tetra-Dioxins





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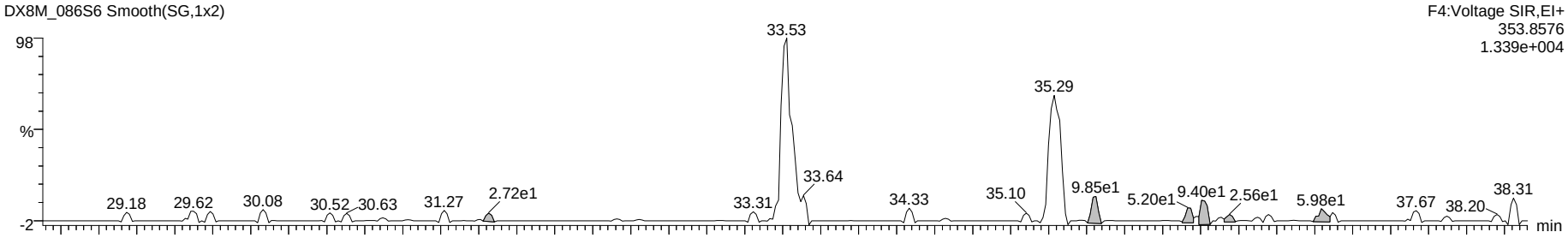
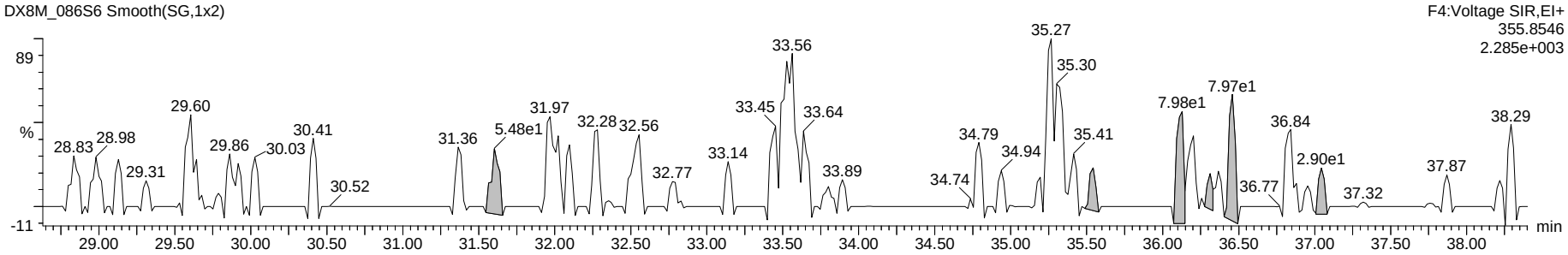
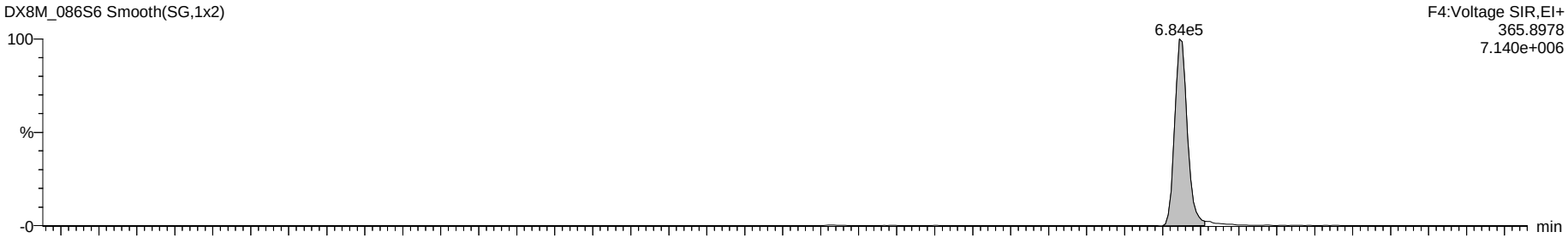
Name: DX8M_086S6, Date: 20-Jul-2018, Time: 20:40:09, ID: WG64578-101,,BLK, Description: 1,WG64578,1.0/20uL

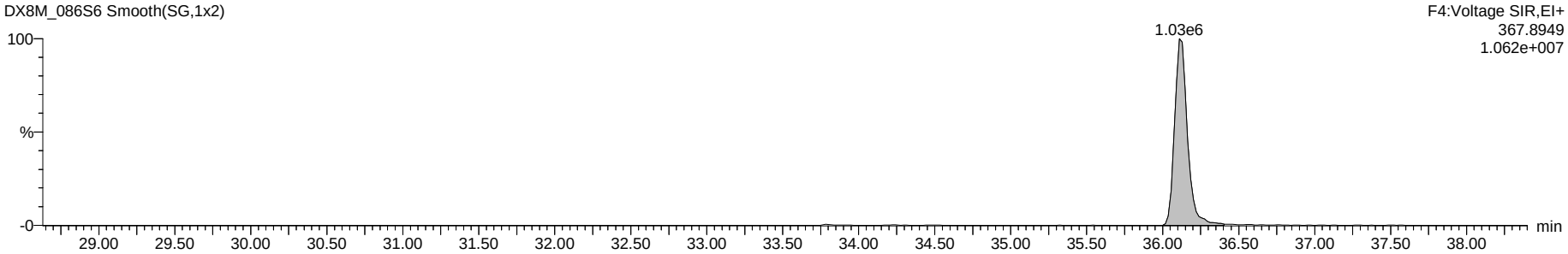
Total Penta-Dioxins





13C-Penta-Dioxins

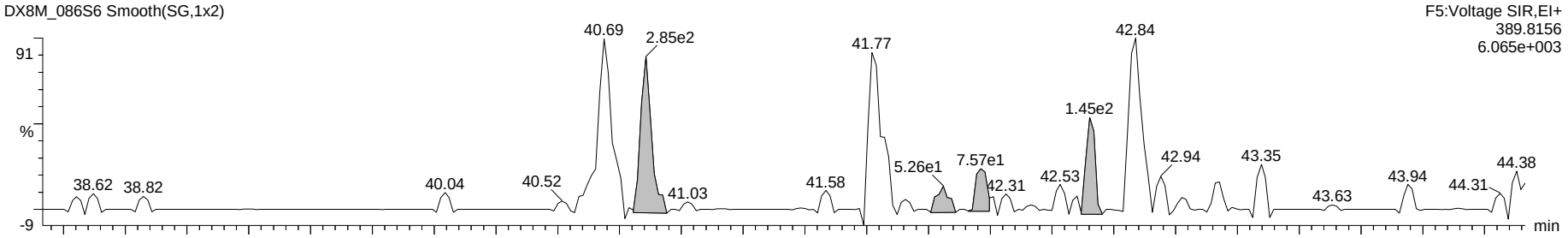


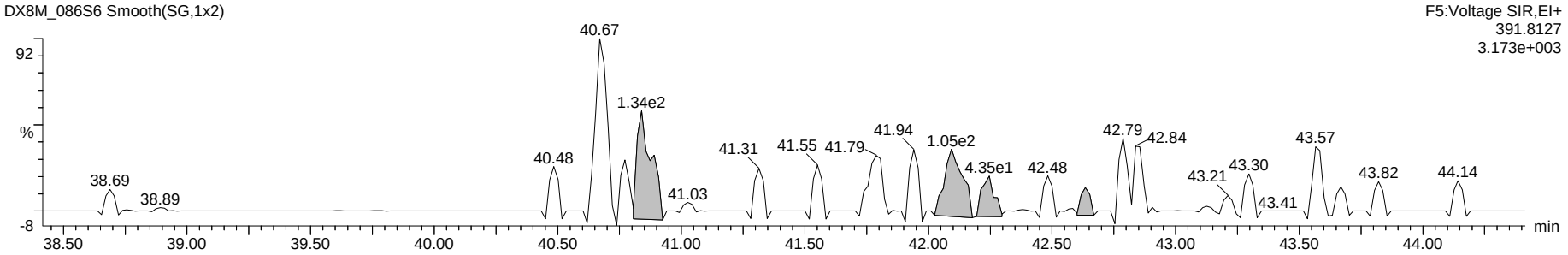


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

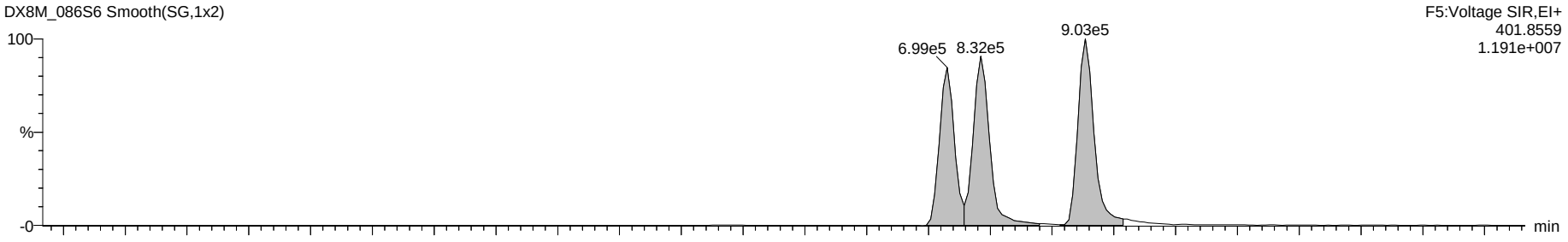
Name: DX8M_086S6, Date: 20-Jul-2018, Time: 20:40:09, ID: WG64578-101,,BLK, Description: 1,WG64578,1.0/20uL

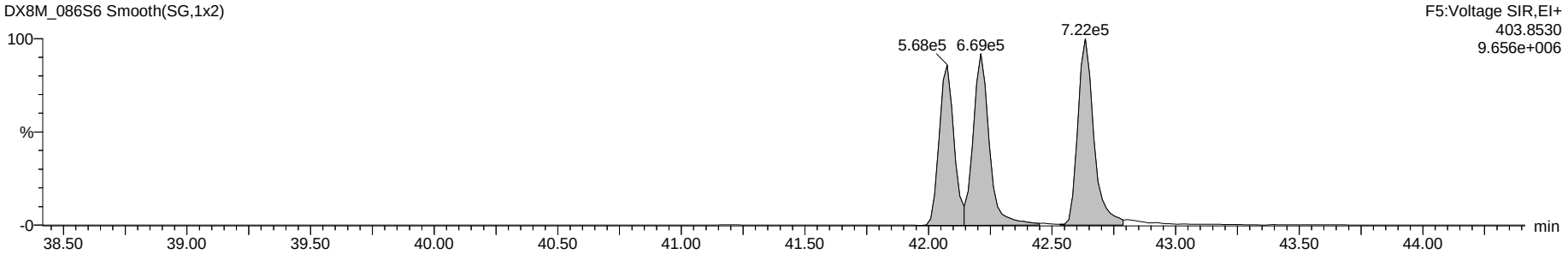
Total Hexa-Dioxins





13C-Hexa-Dioxins

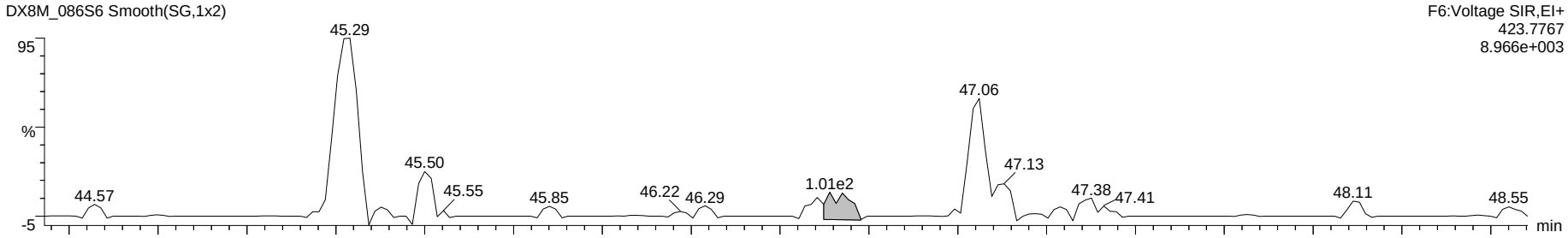


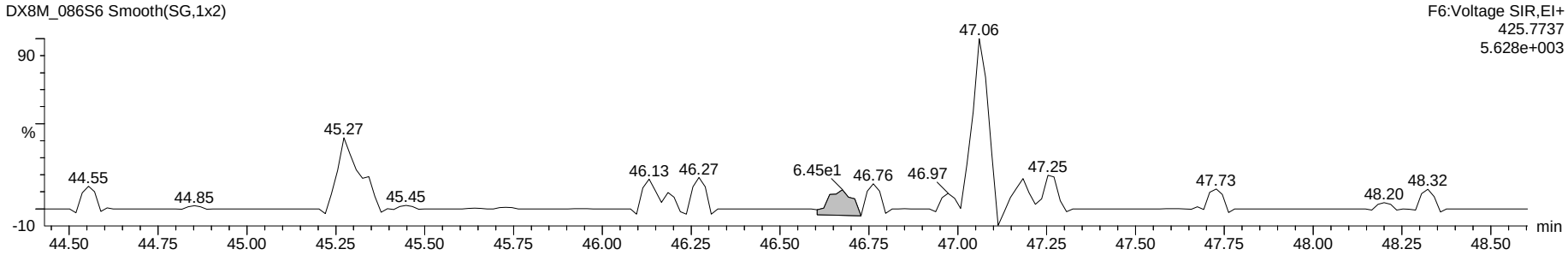


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

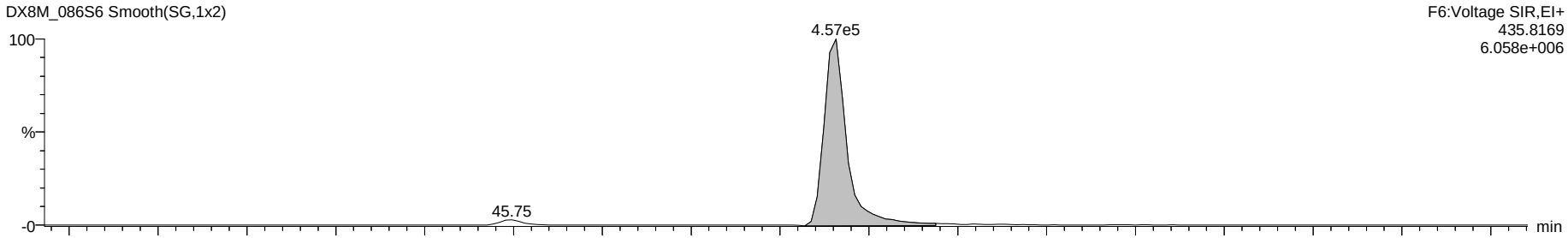
Name: DX8M_086S6, Date: 20-Jul-2018, Time: 20:40:09, ID: WG64578-101,,BLK, Description: 1,WG64578,1.0/20uL

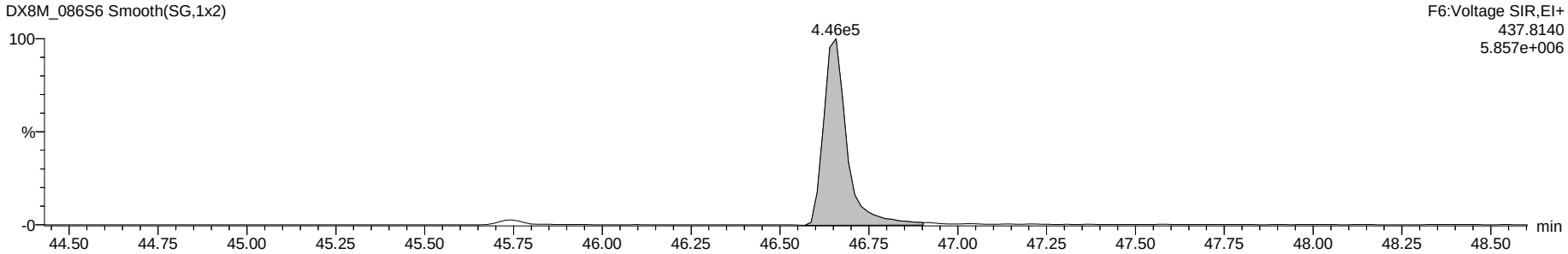
Total Hepta-Dioxins





13C-Hepta-Dioxins

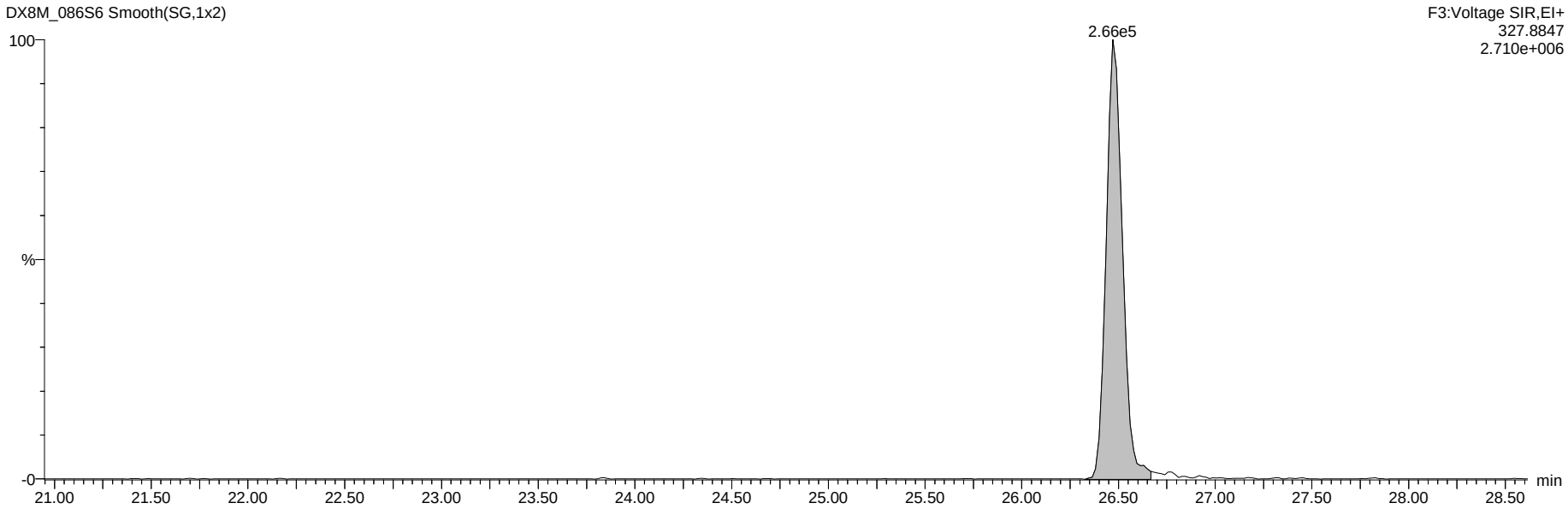




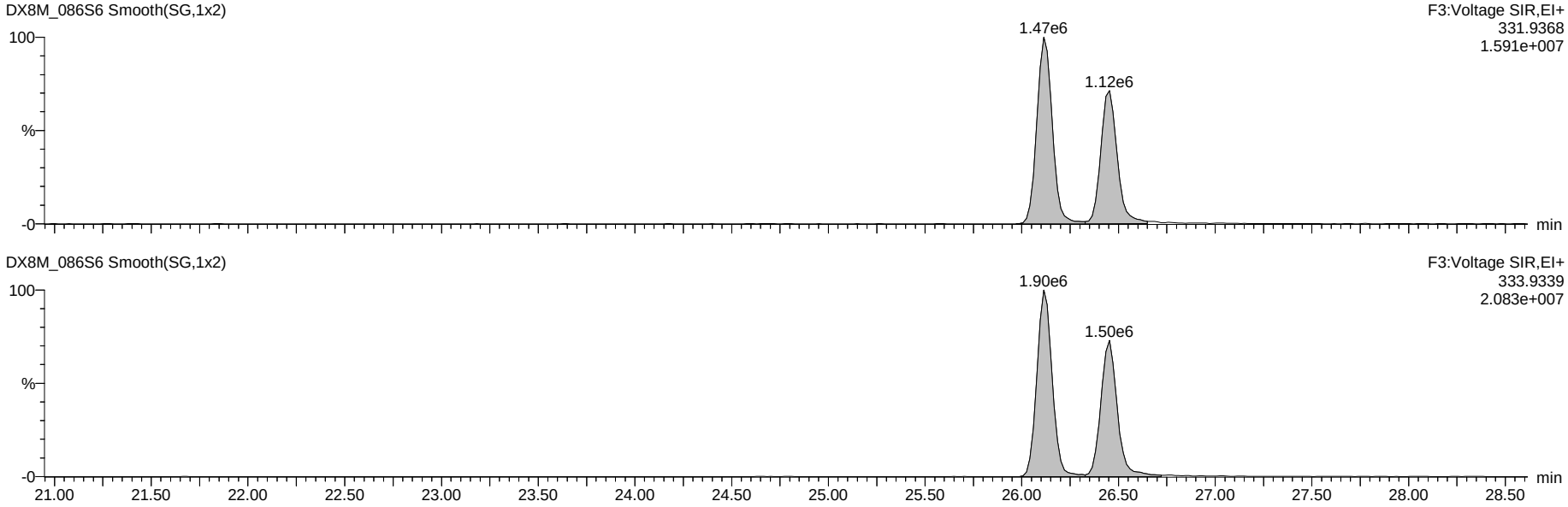
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S6, Date: 20-Jul-2018, Time: 20:40:09, ID: WG64578-101,,BLK, Description: 1,WG64578,1.0/20uL

37Cl-2,3,7,8-TCDD



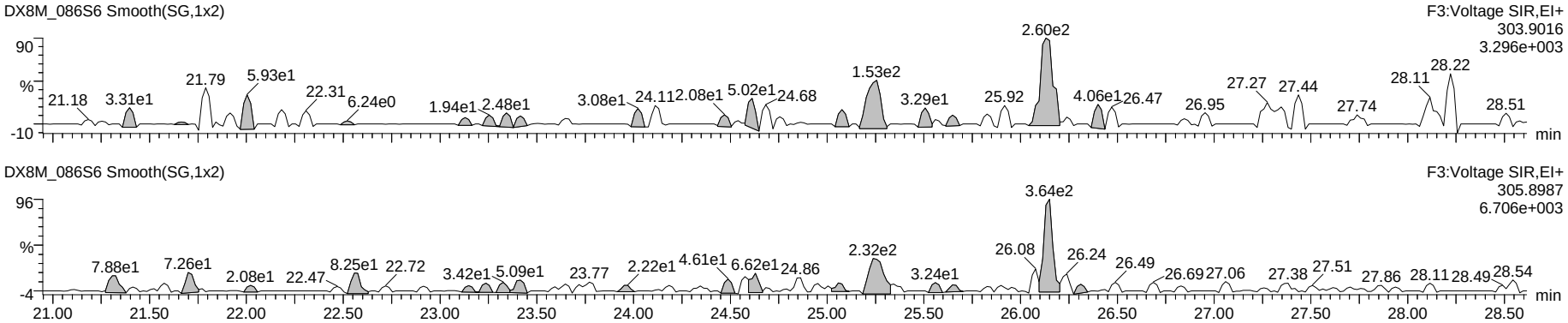
13C-Tetra-Dioxins



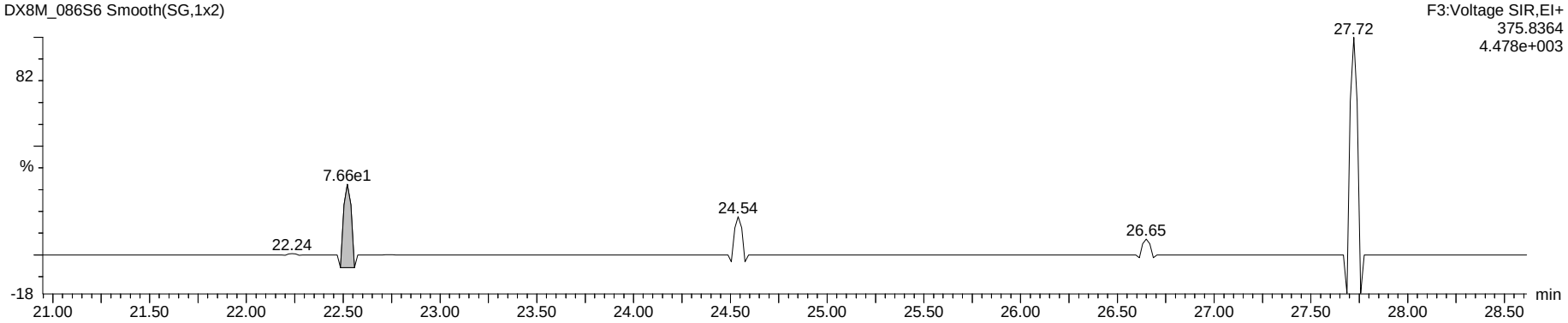
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S6, Date: 20-Jul-2018, Time: 20:40:09, ID: WG64578-101,,BLK, Description: 1,WG64578,1.0/20uL

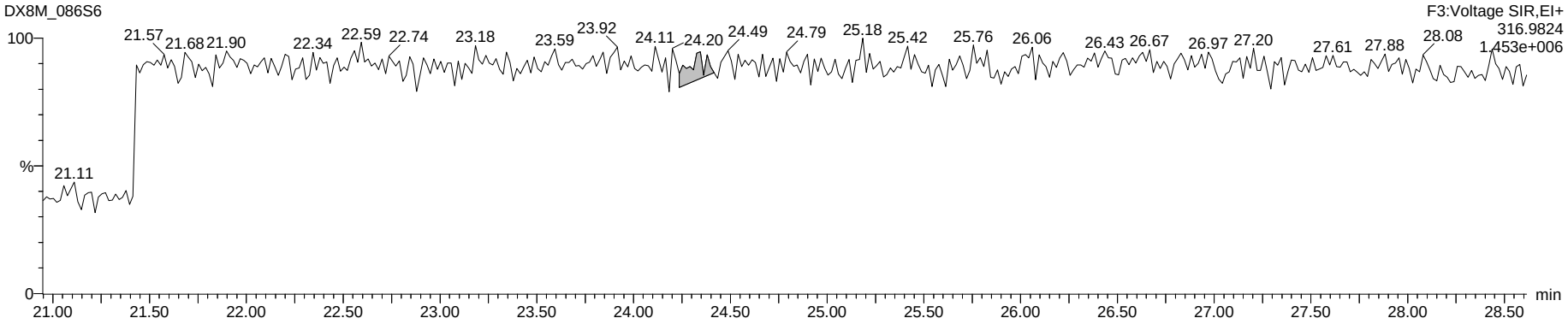
Total Tetra-Furans



Hexa DPE



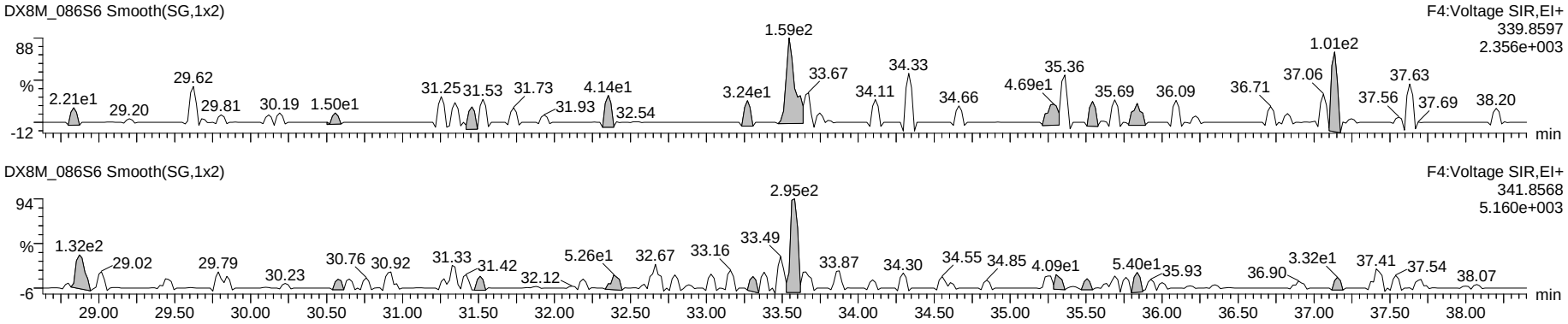
Tetra Lock



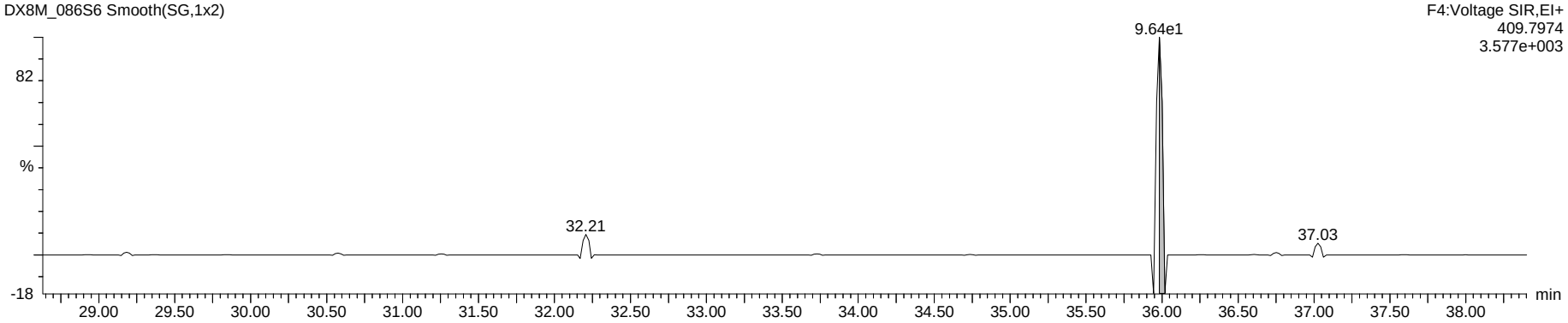
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S6, Date: 20-Jul-2018, Time: 20:40:09, ID: WG64578-101,,BLK, Description: 1,WG64578,1.0/20uL

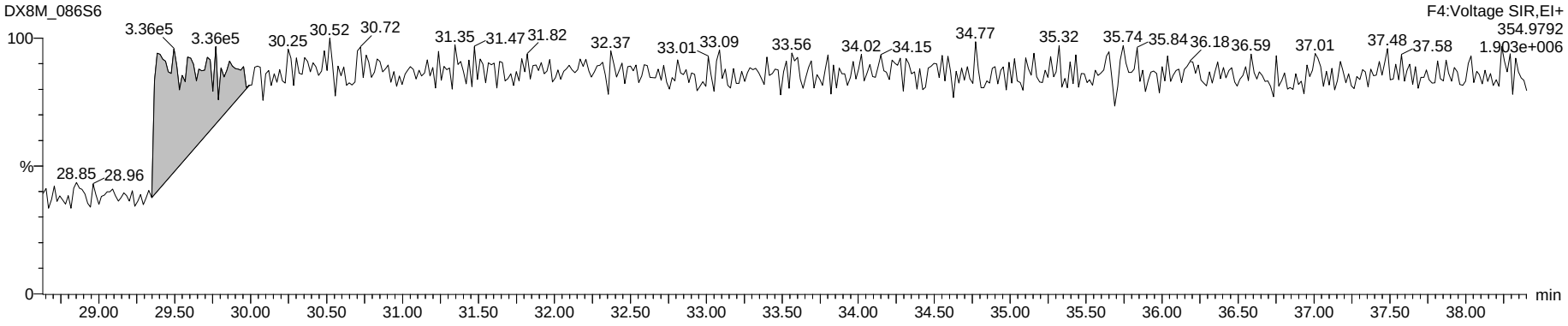
Total Penta-Furans



Hepta DPE



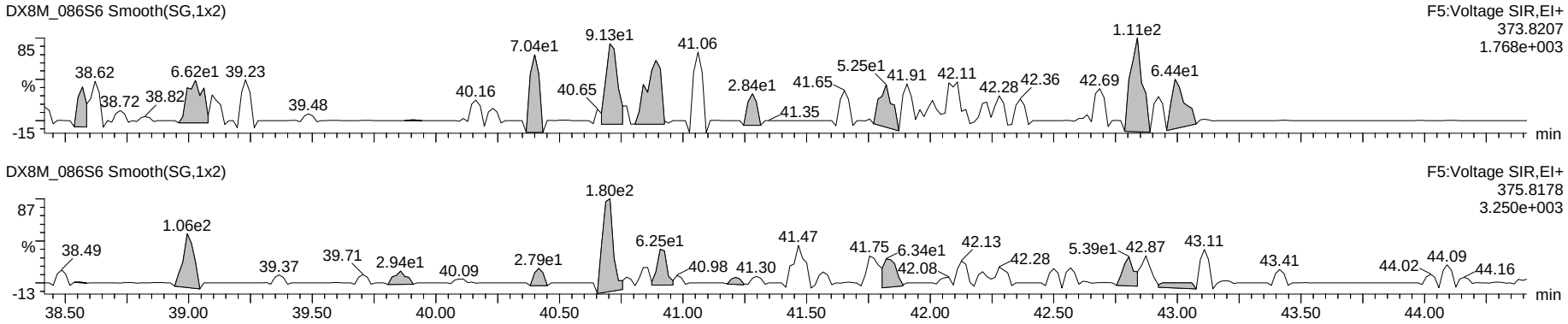
Penta Lock



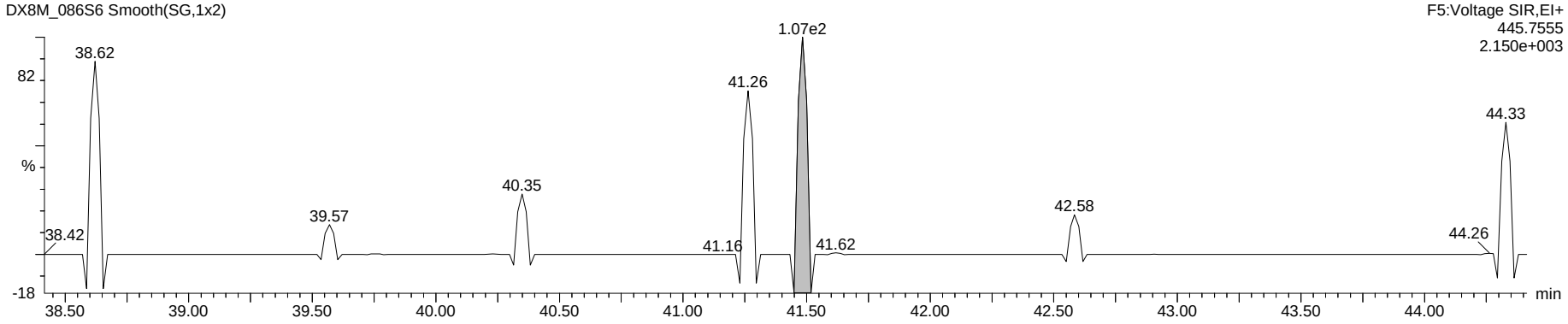
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S6, Date: 20-Jul-2018, Time: 20:40:09, ID: WG64578-101,,BLK, Description: 1,WG64578,1.0/20uL

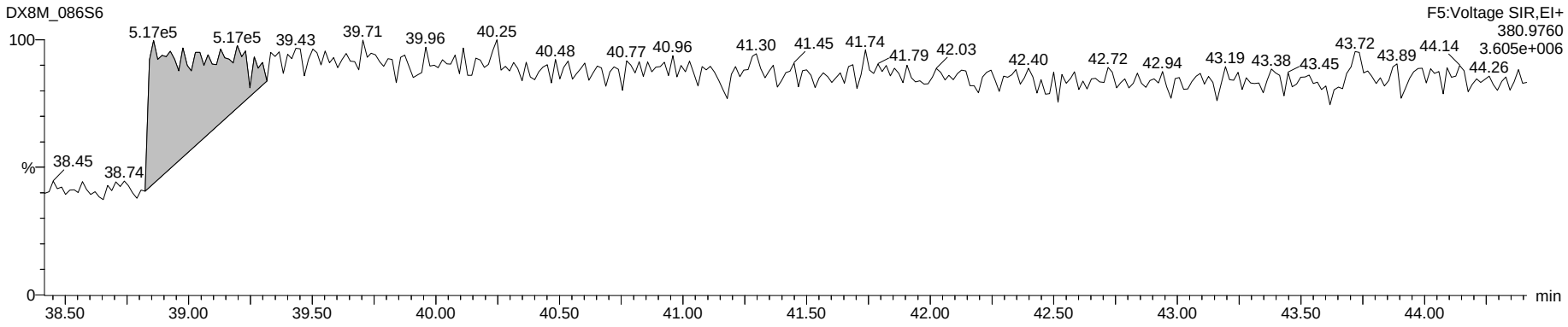
Total Hexa-Furans



Octa DPE



Hexa Lock



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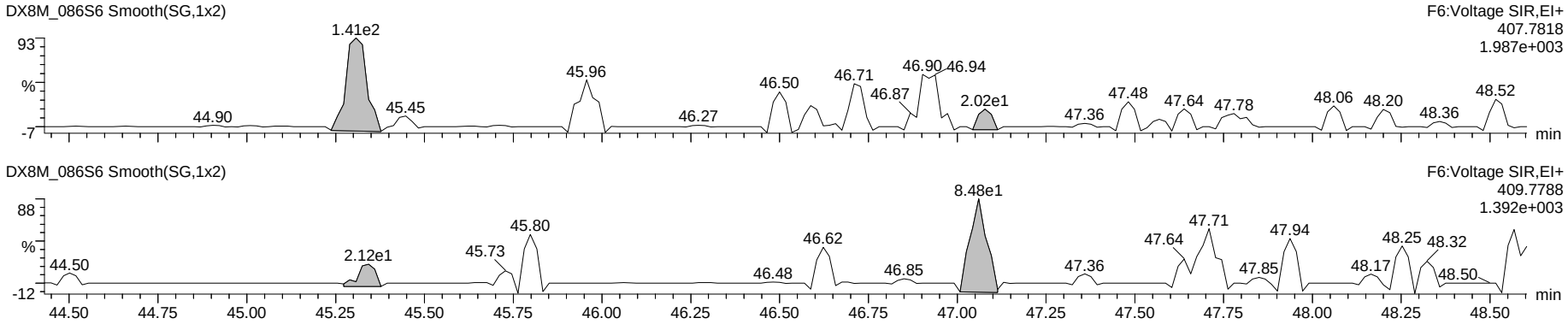
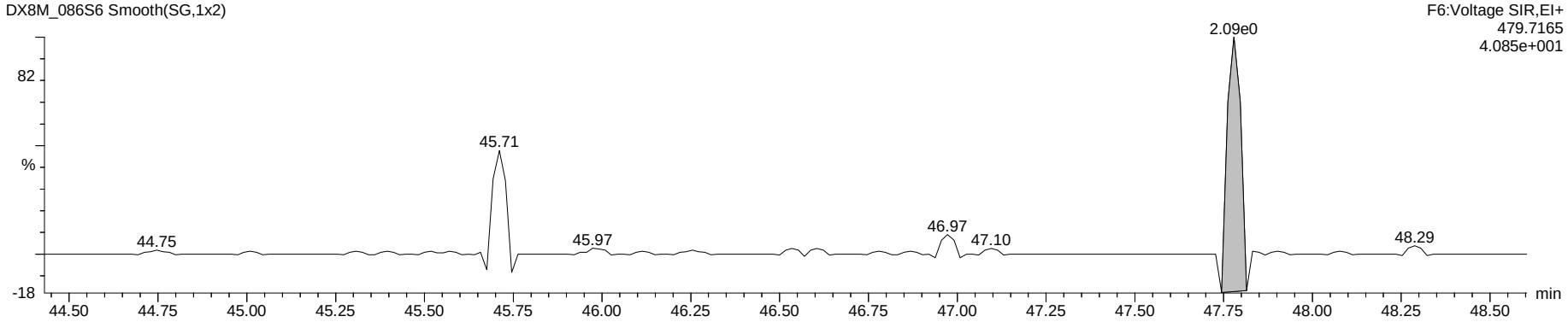
Name: DX8M_086S6, Date: 20-Jul-2018, Time: 20:40:09, ID: WG64578-101,,BLK, Description: 1,WG64578,1.0/20uL

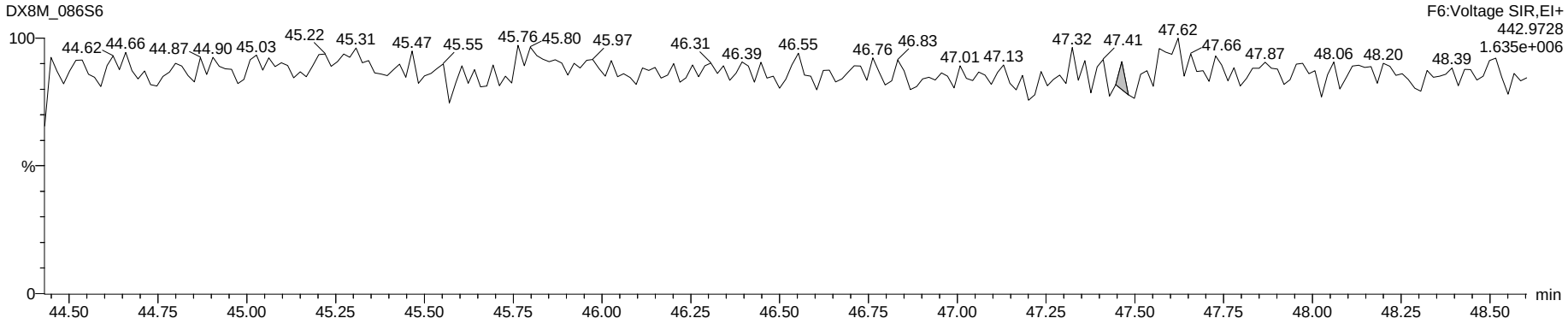
Total Hepta-Furans



Nona DPE



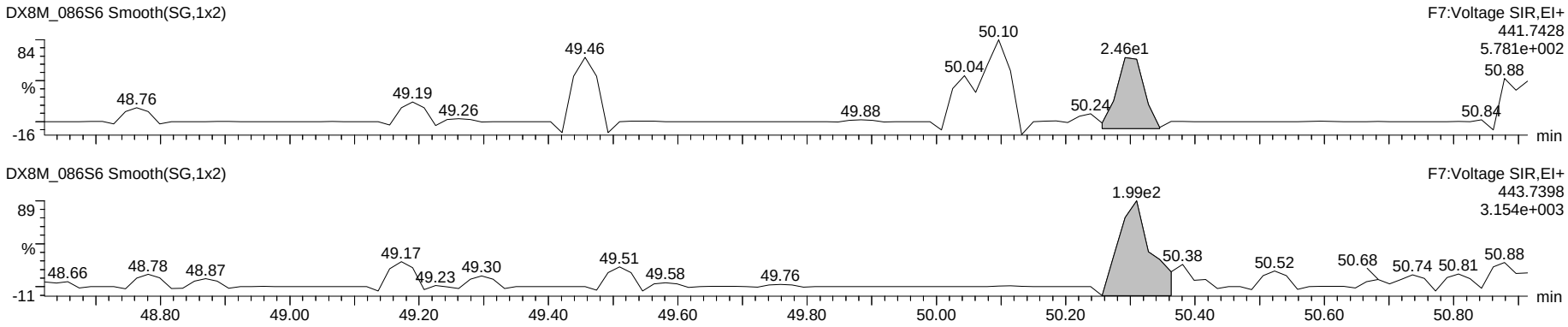
Hepta Lock



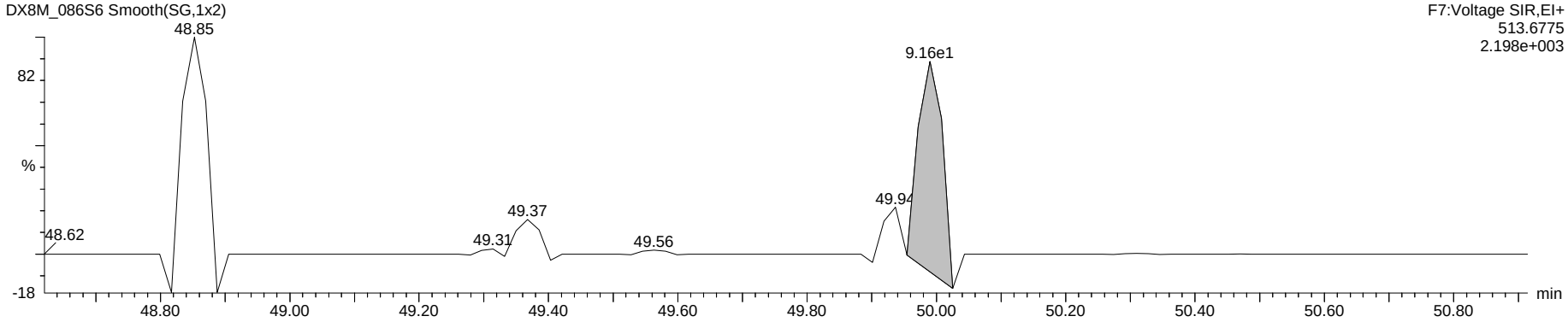
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S6, Date: 20-Jul-2018, Time: 20:40:09, ID: WG64578-101,,BLK, Description: 1,WG64578,1.0/20uL

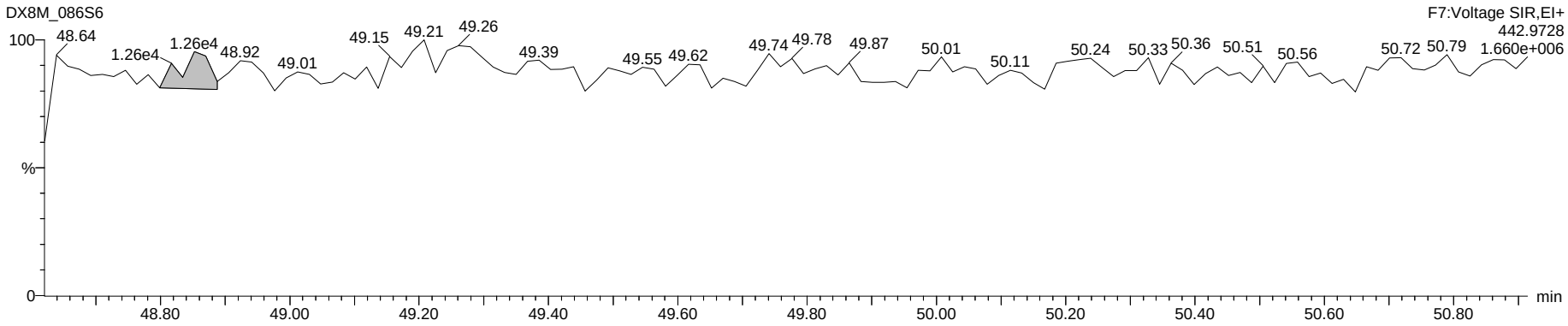
OCDF



Deca DPE



Octa Lock



Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S2, Date: 20-Jul-2018, Time: 16:56:28, ID: WG64578-102,,SPM, Description: 1,WG64578,1.0/20uL

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	20.000	4.73e5	0.72	NO	25.26	11.448	0.0216		2.02e3	1.74e3
2	1,2,3,7,8-PeCDF	20.000	1.72e6	1.50	NO	33.58	55.073	0.0356		2.08e3	1.93e3
3	2,3,4,7,8-PeCDF	20.000	1.72e6	1.51	NO	35.32	54.520	0.0304		2.08e3	1.93e3
4	1,2,3,4,7,8-HxCDF	20.000	1.31e6	1.22	NO	40.70	60.003	0.0698		4.56e3	3.75e3
5	1,2,3,6,7,8-HxCDF	20.000	1.46e6	1.19	NO	40.89	56.870	0.0657		4.56e3	3.75e3
6	2,3,4,6,7,8-HxCDF	20.000	1.34e6	1.23	NO	41.82	57.260	0.0703		4.56e3	3.75e3
7	1,2,3,7,8,9-HxCDF	20.000	1.03e6	1.26	NO	42.86	57.622	0.0927		4.56e3	3.75e3
8	1,2,3,4,6,7,8-HpCDF	20.000	9.77e5	1.02	NO	45.29	57.497	0.0621		2.67e3	2.88e3
9	1,2,3,4,7,8,9-HpCDF	20.000	6.89e5	1.03	NO	47.08	58.491	0.0837		2.67e3	2.88e3
10	OCDF	20.000	9.86e5	0.85	NO	50.31	120.192	0.0665		2.61e3	0.00e0
11	2,3,7,8-TCDD	20.000	3.67e5	0.75	NO	26.49	10.764	0.0365		2.86e3	2.25e3
12	1,2,3,7,8-PeCDD	20.000	1.28e6	0.62	NO	36.17	61.224	0.0456		1.56e3	2.32e3
13	1,2,3,4,7,8-HxCDD	20.000	8.82e5	1.27	NO	42.09	58.480	0.1000		4.00e3	4.65e3
14	1,2,3,6,7,8-HxCDD	20.000	1.02e6	1.23	NO	42.23	55.630	0.1006		4.00e3	4.65e3
15	1,2,3,7,8,9-HxCDD	20.000	9.32e5	1.23	NO	42.65	55.468	0.0996		4.00e3	4.65e3
16	1,2,3,4,6,7,8-HpCDD	20.000	5.87e5	1.09	NO	46.67	58.420	0.1062		2.18e3	3.57e3
17	OCDD	20.000	7.79e5	0.86	NO	50.22	114.368	0.1982		3.84e3	2.61e3
18	13C-2,3,7,8-TCDF	20.000	4.52e6	0.69	NO	25.22	68.240	0.0435	68.2	7.10e3	5.34e3
19	13C-1,2,3,7,8-PeCDF	20.000	3.38e6	1.43	NO	33.54	70.734	0.0563	70.7	5.38e3	6.22e3
20	13C-2,3,4,7,8-PeCDF	20.000	3.36e6	1.41	NO	35.30	72.958	0.0583	73.0	5.38e3	6.22e3
21	13C-1,2,3,4,7,8-HxCDF	20.000	1.96e6	0.52	NO	40.69	67.964	0.1781	68.0	1.50e4	8.93e3
22	13C-1,2,3,6,7,8-HxCDF	20.000	2.42e6	0.53	NO	40.86	78.793	0.1667	78.8	1.50e4	8.93e3
23	13C-2,3,4,6,7,8-HxCDF	20.000	2.05e6	0.52	NO	41.81	74.540	0.1866	74.5	1.50e4	8.93e3
24	13C-1,2,3,7,8,9-HxCDF	20.000	1.80e6	0.52	NO	42.84	66.287	0.1891	66.3	1.50e4	8.93e3
25	13C-1,2,3,4,6,7,8-HpCDF	20.000	1.39e6	0.46	NO	45.27	60.453	0.1195	60.5	7.00e3	5.79e3
26	13C-1,2,3,4,7,8,9-HpCDF	20.000	9.40e5	0.45	NO	47.06	52.442	0.1533	52.4	7.00e3	5.79e3
27	13C-2,3,7,8-TCDD	20.000	3.06e6	0.76	NO	26.45	74.350	0.0682	74.3	7.38e3	4.75e3
28	13C-1,2,3,7,8-PeCDD	20.000	2.04e6	0.70	NO	36.13	75.632	0.0776	75.6	6.47e3	2.57e3
29	13C-1,2,3,4,7,8-HxCDD	20.000	1.50e6	1.26	NO	42.08	67.672	0.0884	67.7	2.19e3	6.96e3
30	13C-1,2,3,6,7,8-HxCDD	20.000	1.96e6	1.24	NO	42.21	83.325	0.0836	83.3	2.19e3	6.96e3
31	13C-1,2,3,4,6,7,8-HpCDD	20.000	1.01e6	0.95	NO	46.66	54.956	0.0994	55.0	2.34e3	6.16e3
32	13C-OCDD	20.000	1.34e6	0.86	NO	50.22	82.798	0.0517	41.4	1.01e3	2.87e3
33	13C-1,2,3,4-TCDD	20.000	4.10e6	0.78	NO	26.13	9.075	0.0062	9.1	7.38e3	4.75e3
34	13C-1,2,3,7,8,9-HxCDD	20.000	2.26e6	1.22	NO	42.64	7.900	0.0069	7.9	2.19e3	6.96e3
35	37Cl-2,3,7,8-TCDD	20.000	3.58e5			26.49	7.834	0.0155	78.3		3.06e3
36	Total Tetra-Furans	20.000					33.534	0.0216			1.74e3
37	Total Tetra-Dioxins	20.000					39.163	0.0365			2.25e3
38	Total Penta-Furans	20.000					133.670	0.0333			1.93e3
39	Total Penta-Dioxins	20.000					124.756	0.0456			2.32e3
40	Total Hexa-Furans	20.000					234.855	0.0710			3.75e3
41	Total Hexa-Dioxins	20.000					171.575	0.0964			4.65e3
42	Total Hepta-Furans	20.000					120.371	0.0716			2.88e3
43	Total Hepta-Dioxins	20.000					64.267	0.1062			3.57e3
44	Hexa DPE	1.000	2.53e2			22.34					5.42e-1
45	Hepta DPE	1.000	1.20e2			34.59					3.41e-1
46	Octa DPE	1.000	6.60e0			41.01					2.85e-1
47	Nona DPE	1.000	1.06e2			48.17					1.41e-1
48	Deca DPE	1.000	1.19e1			50.22					3.05e-1
49	Tetra Lock	1.000									1.43e5
50	Penta Lock	1.000	1.42e5			29.59					2.22e5
51	Hexa Lock	1.000									5.37e5
52	Hepta Lock	1.000	3.17e4			47.60					2.15e5
53	Octa Lock	1.000	1.05e4			48.85					2.47e5
54	13C-Tetra-Furans	20.000					68.240	0.0435			5.34e3
55	13C-Tetra-Dioxins	20.000					83.425	0.0744			4.75e3

pv'd by LHE 23-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

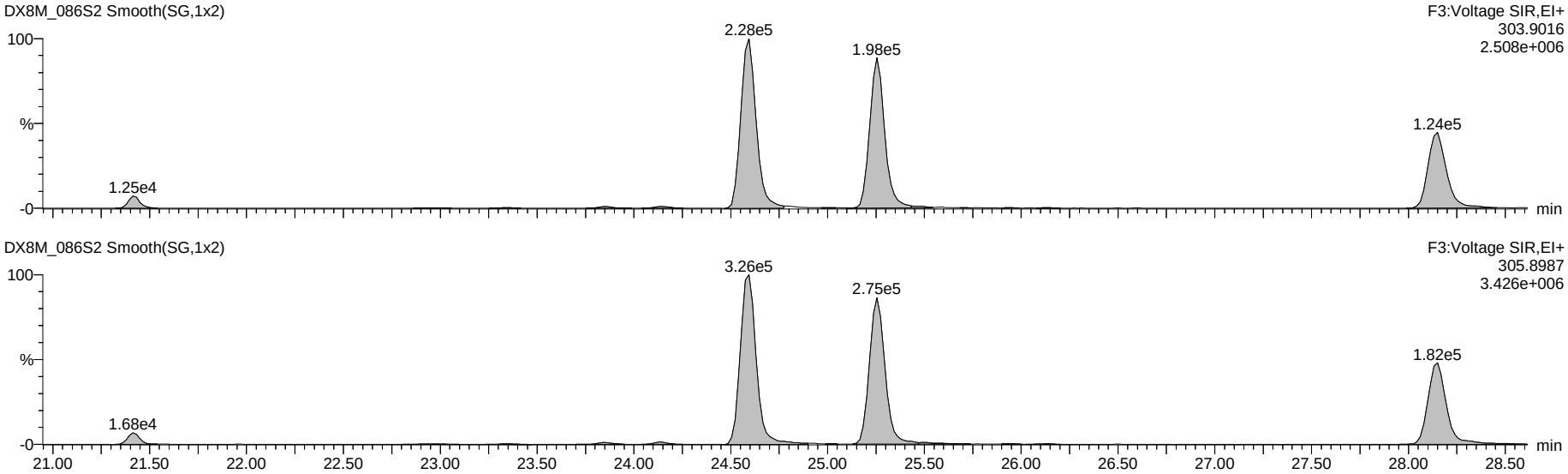
SVbyKB 26Jul2018

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

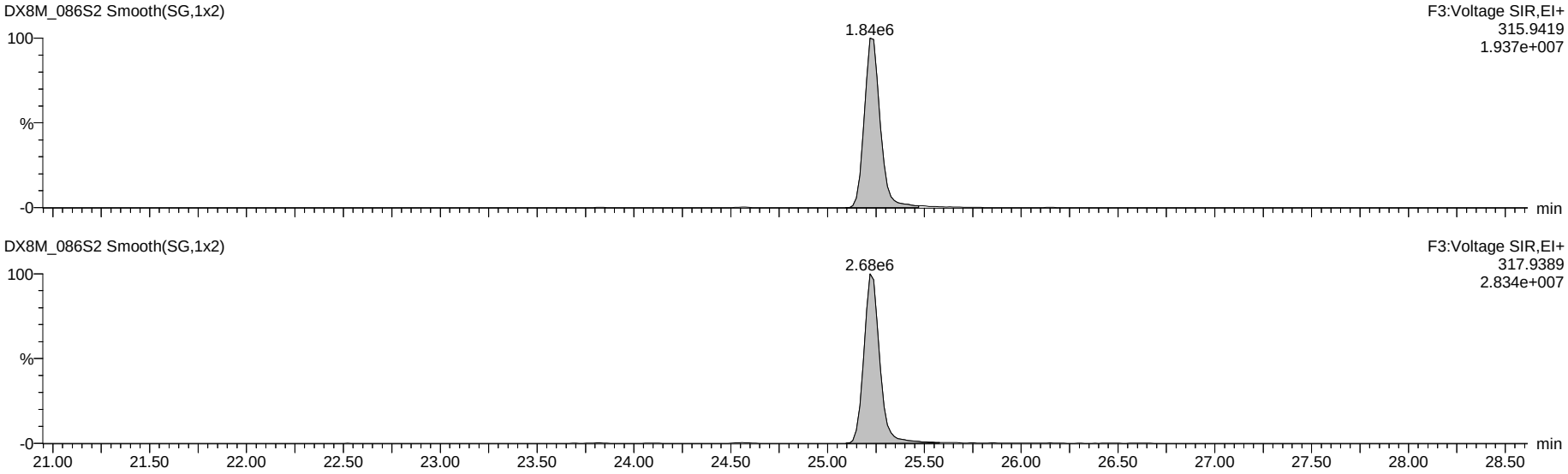
Method: G:\Masslynx\Inst_M\Exported_methods\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_086S2, Date: 20-Jul-2018, Time: 16:56:28, ID: WG64578-102,,SPM, Description: 1,WG64578,1.0/20uL

Total Tetra-Furans



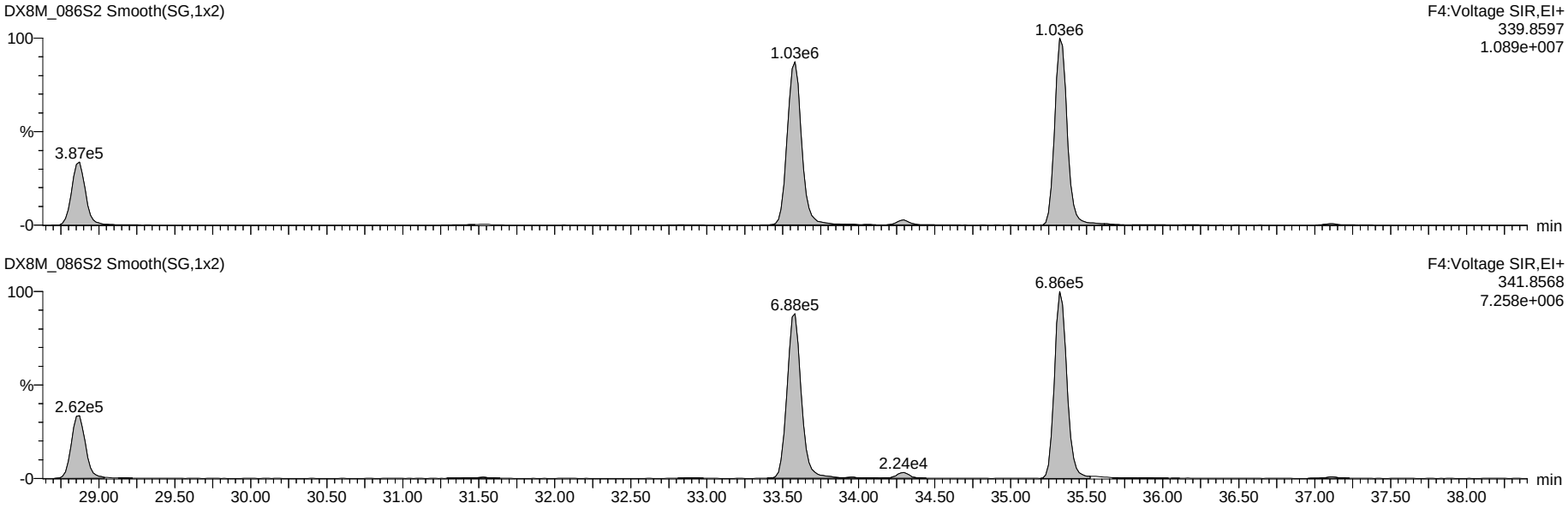
13C-Tetra-Furans



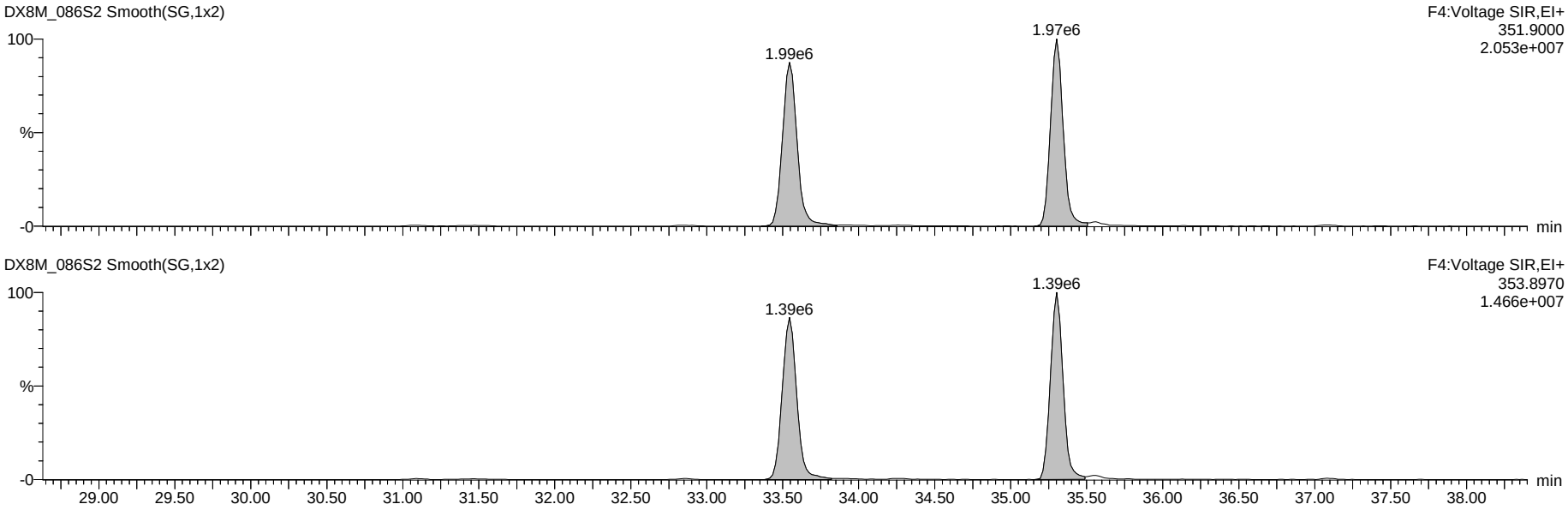
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S2, Date: 20-Jul-2018, Time: 16:56:28, ID: WG64578-102,,SPM, Description: 1,WG64578,1.0/20uL

Total Penta-Furans



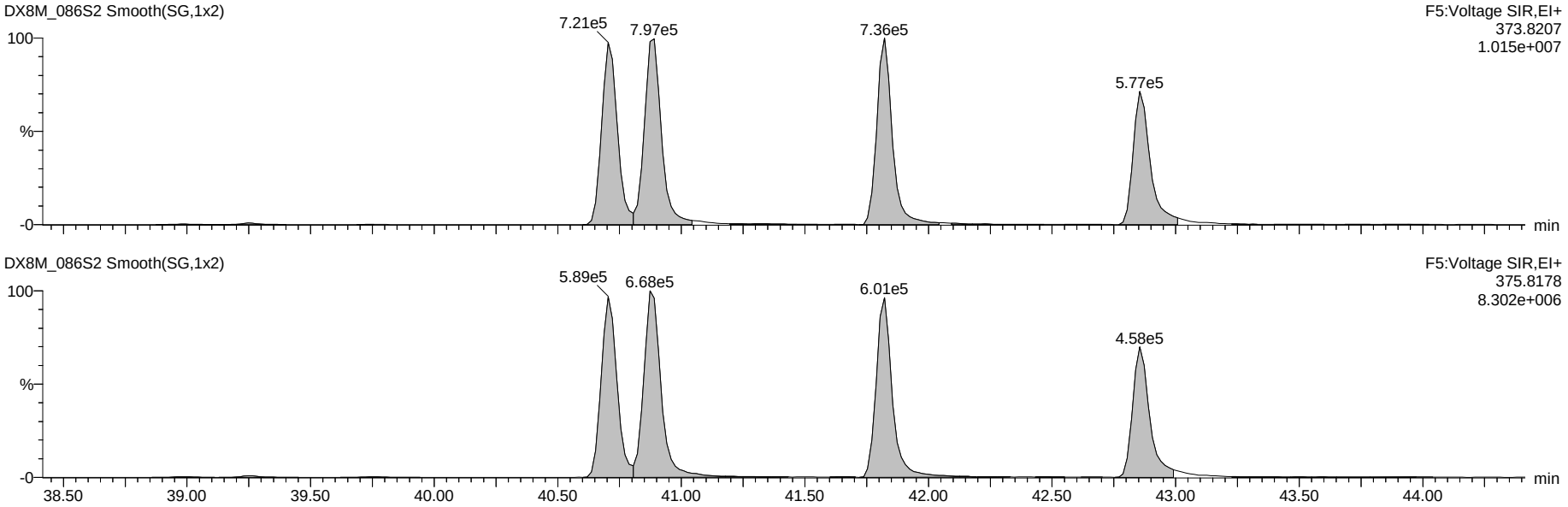
13C-Penta-Furans



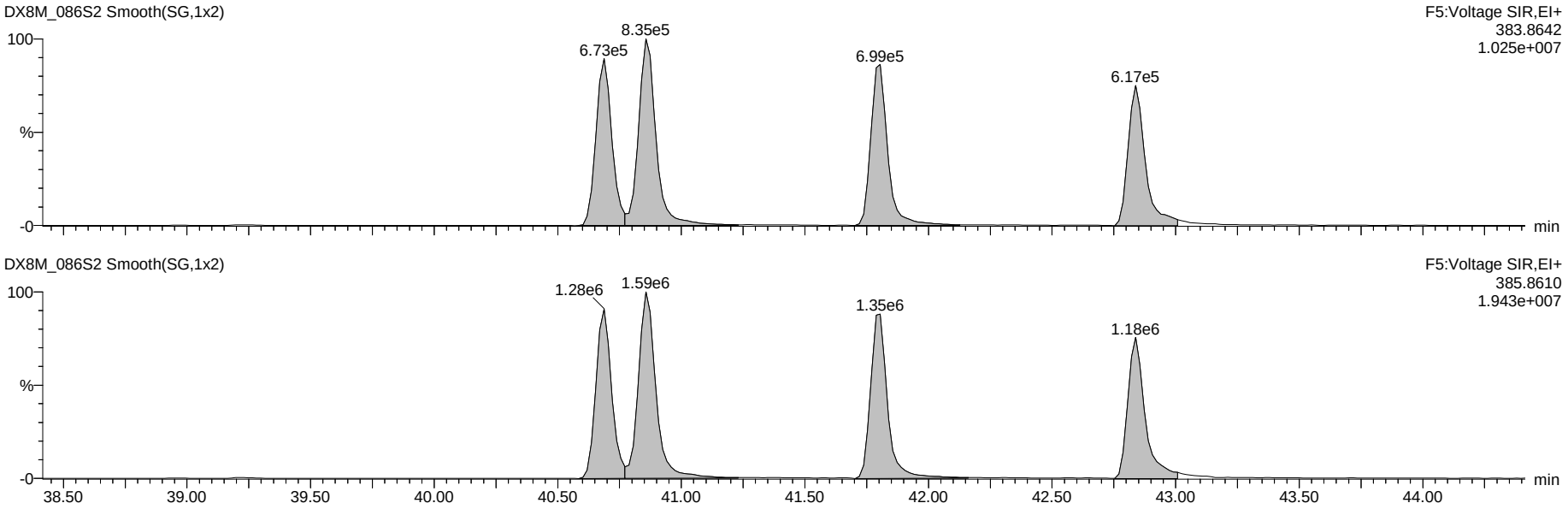
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S2, Date: 20-Jul-2018, Time: 16:56:28, ID: WG64578-102,,SPM, Description: 1,WG64578,1.0/20uL

Total Hexa-Furans



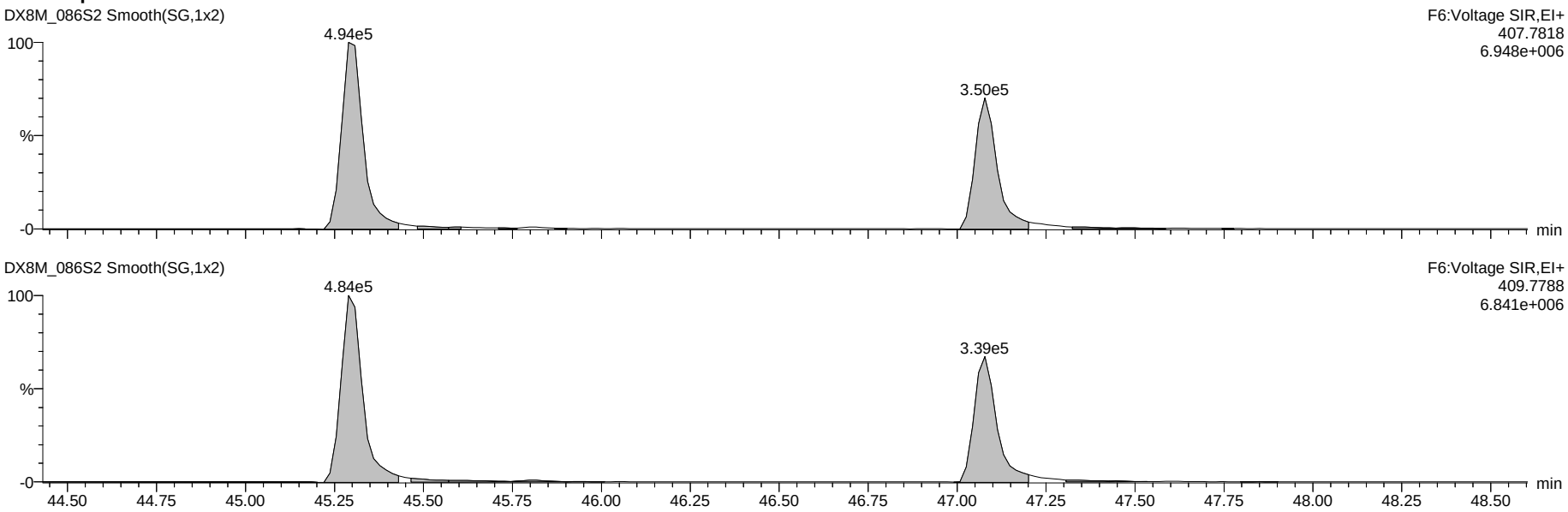
13C-Hexa-Furans



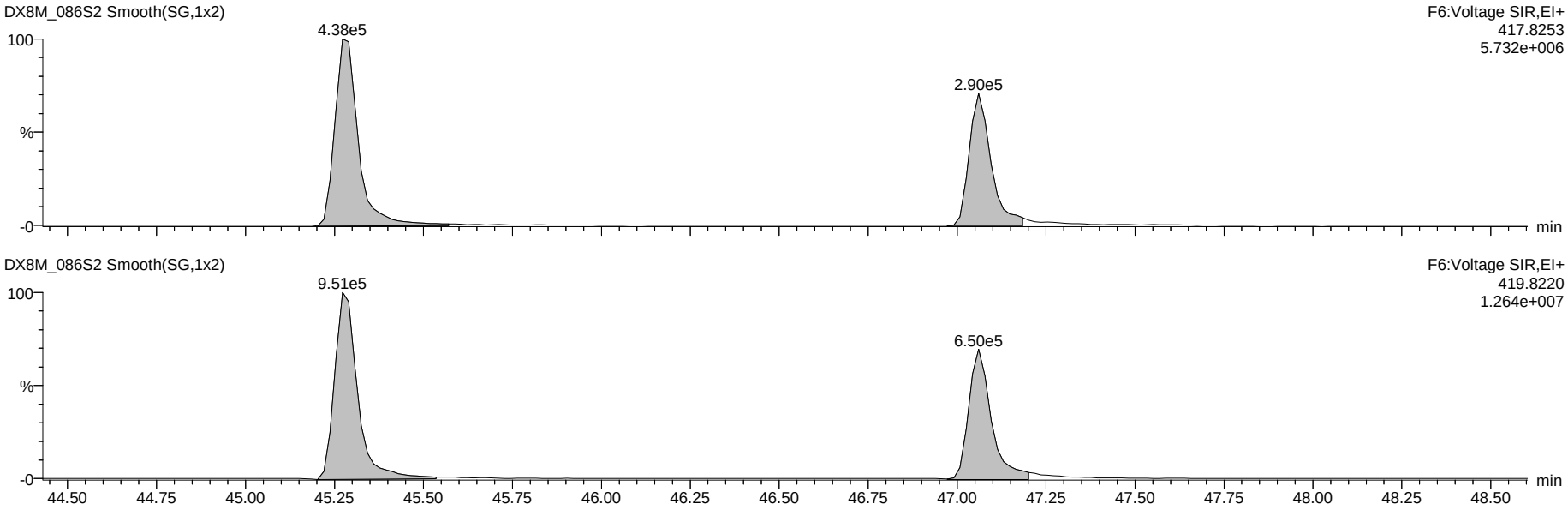
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S2, Date: 20-Jul-2018, Time: 16:56:28, ID: WG64578-102,,SPM, Description: 1,WG64578,1.0/20uL

Total Hepta-Furans



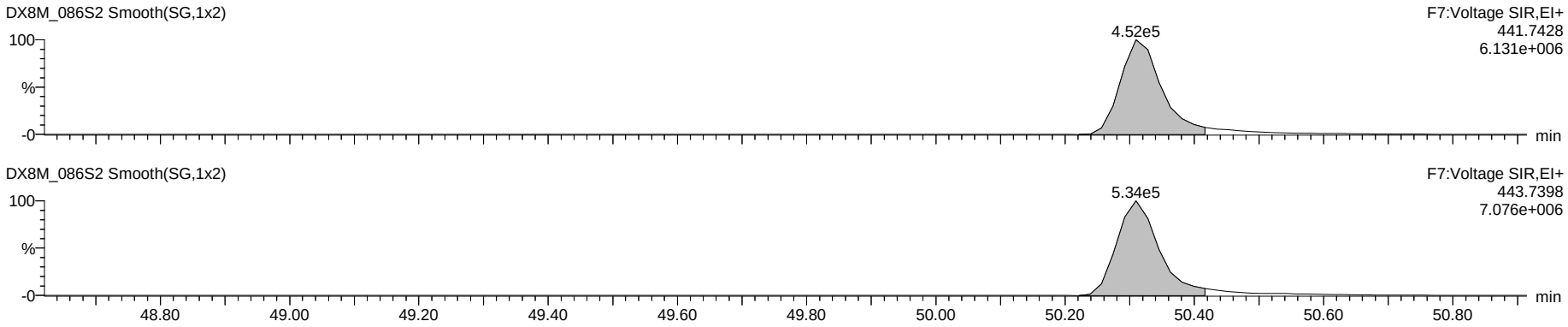
13C-Hepta-Furans



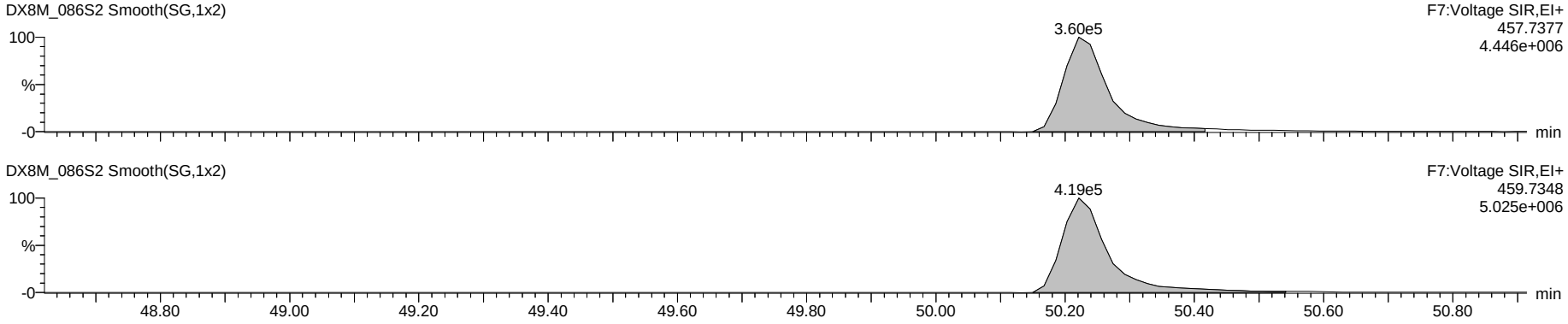
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S2, Date: 20-Jul-2018, Time: 16:56:28, ID: WG64578-102,,SPM, Description: 1,WG64578,1.0/20uL

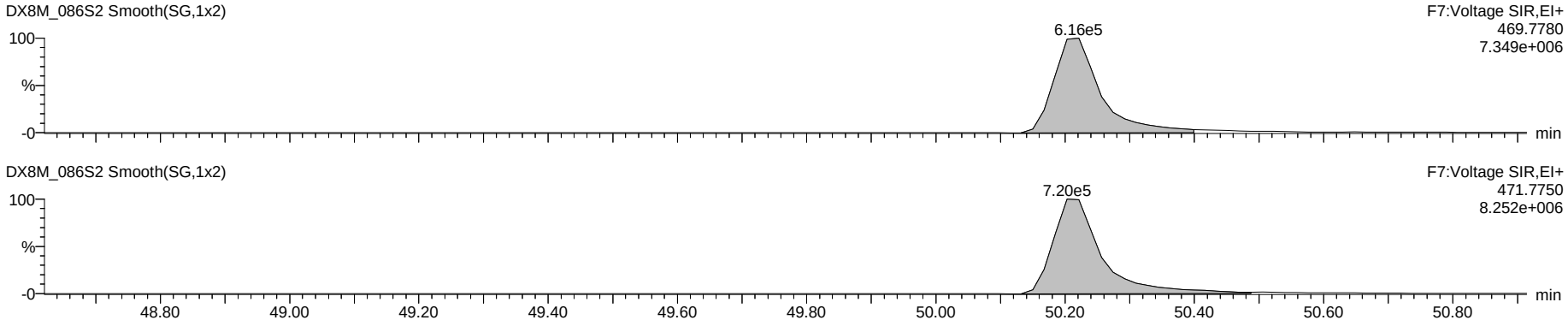
OCDF



OCDD



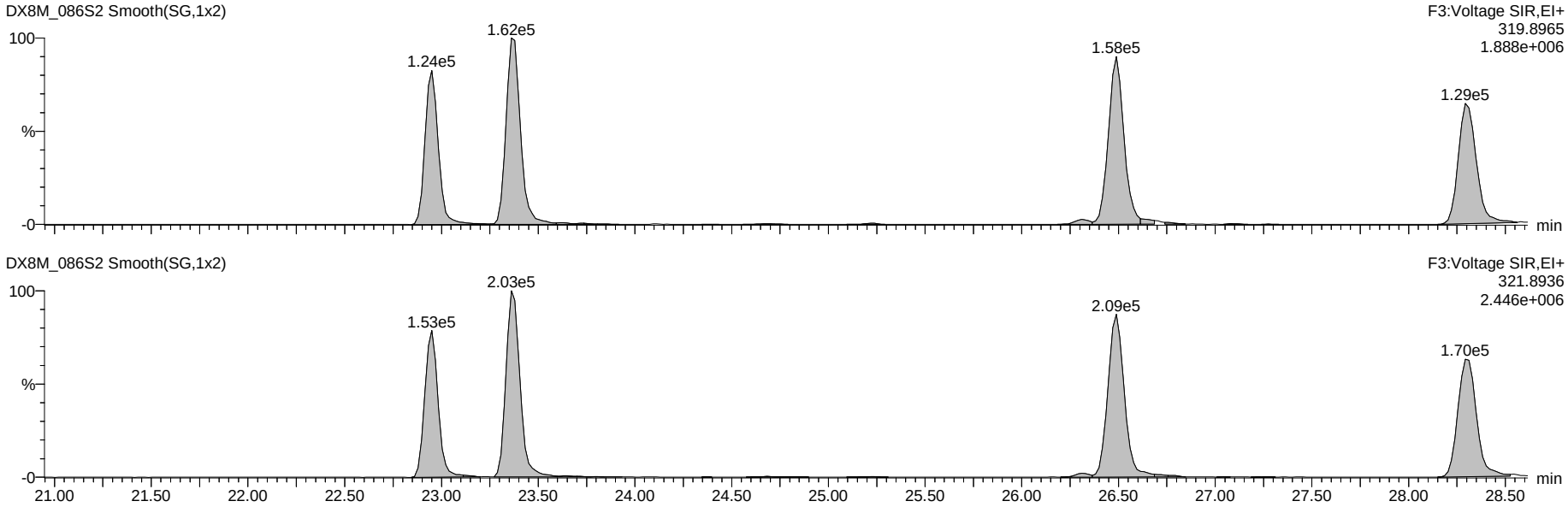
13C-OCDD



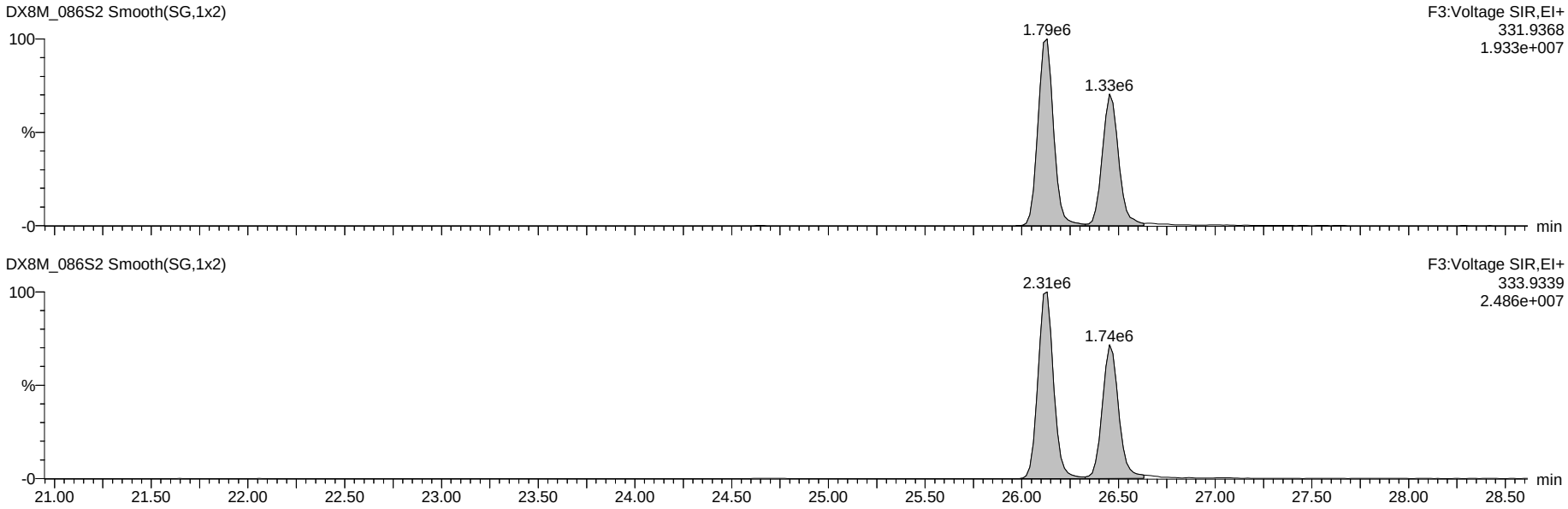
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S2, Date: 20-Jul-2018, Time: 16:56:28, ID: WG64578-102,,SPM, Description: 1,WG64578,1.0/20uL

Total Tetra-Dioxins



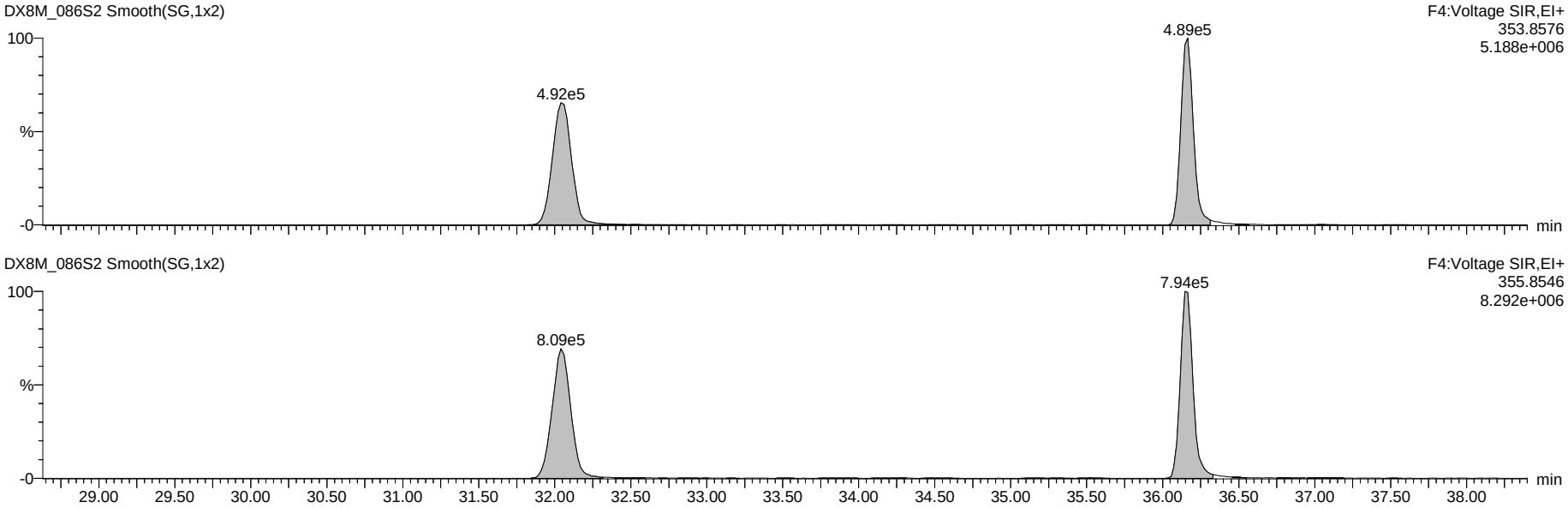
13C-Tetra-Dioxins



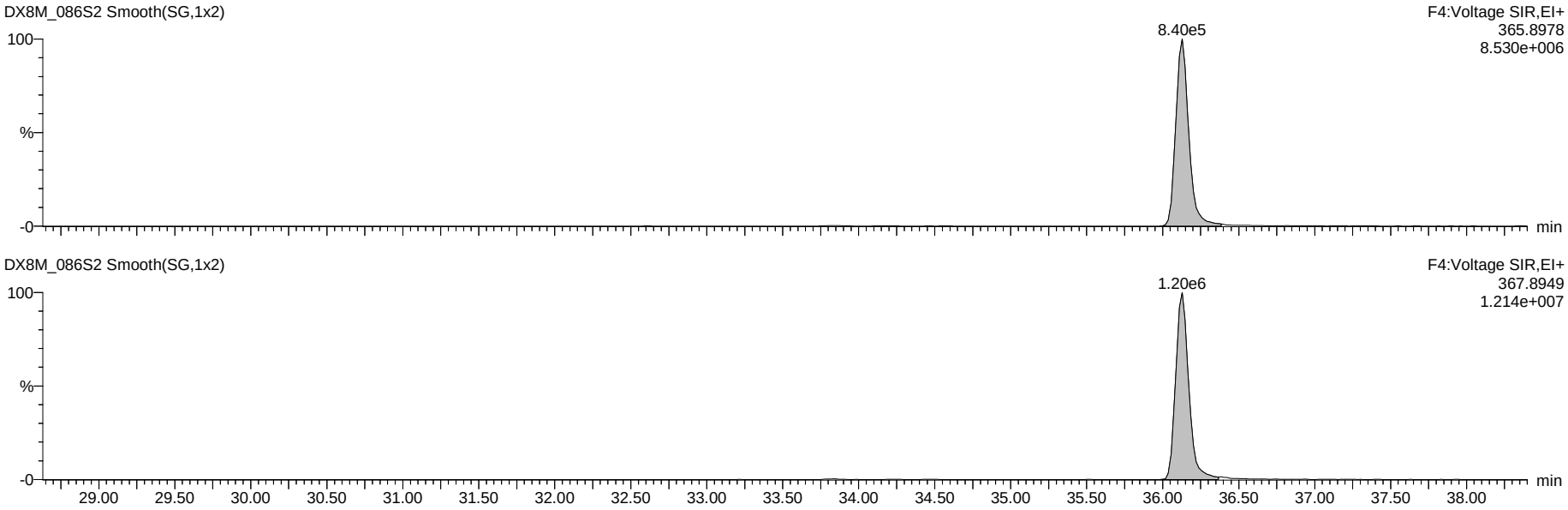
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S2, Date: 20-Jul-2018, Time: 16:56:28, ID: WG64578-102,,SPM, Description: 1,WG64578,1.0/20uL

Total Penta-Dioxins



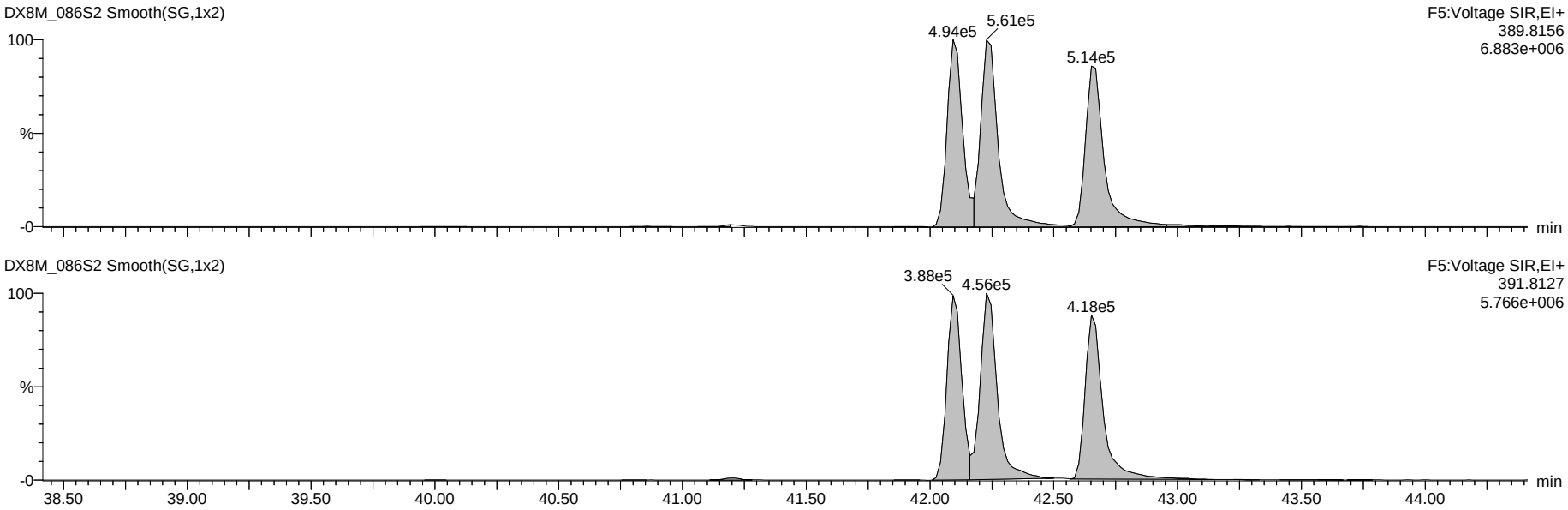
13C-Penta-Dioxins



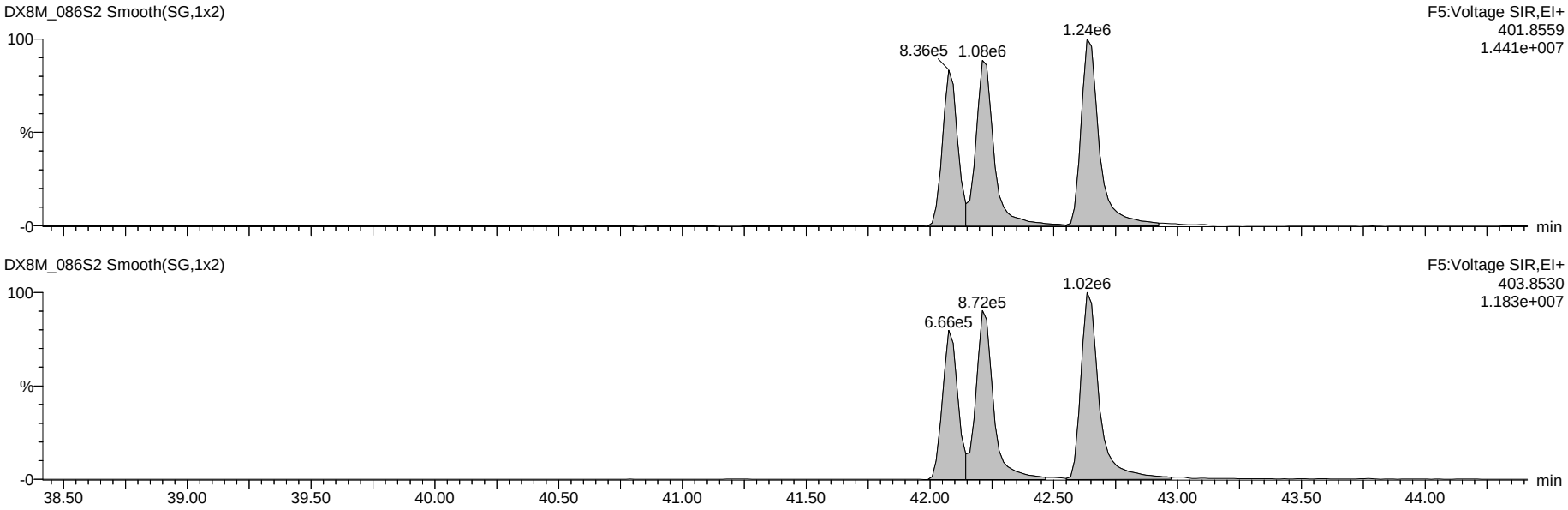
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S2, Date: 20-Jul-2018, Time: 16:56:28, ID: WG64578-102,,SPM, Description: 1,WG64578,1.0/20uL

Total Hexa-Dioxins



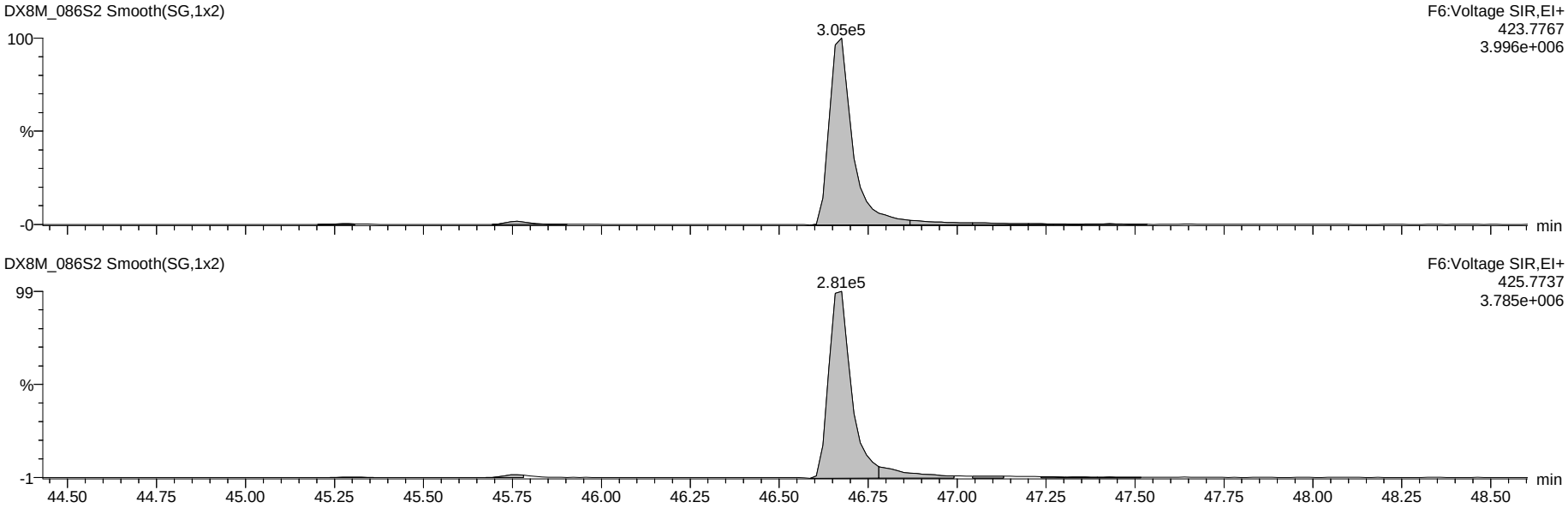
13C-Hexa-Dioxins



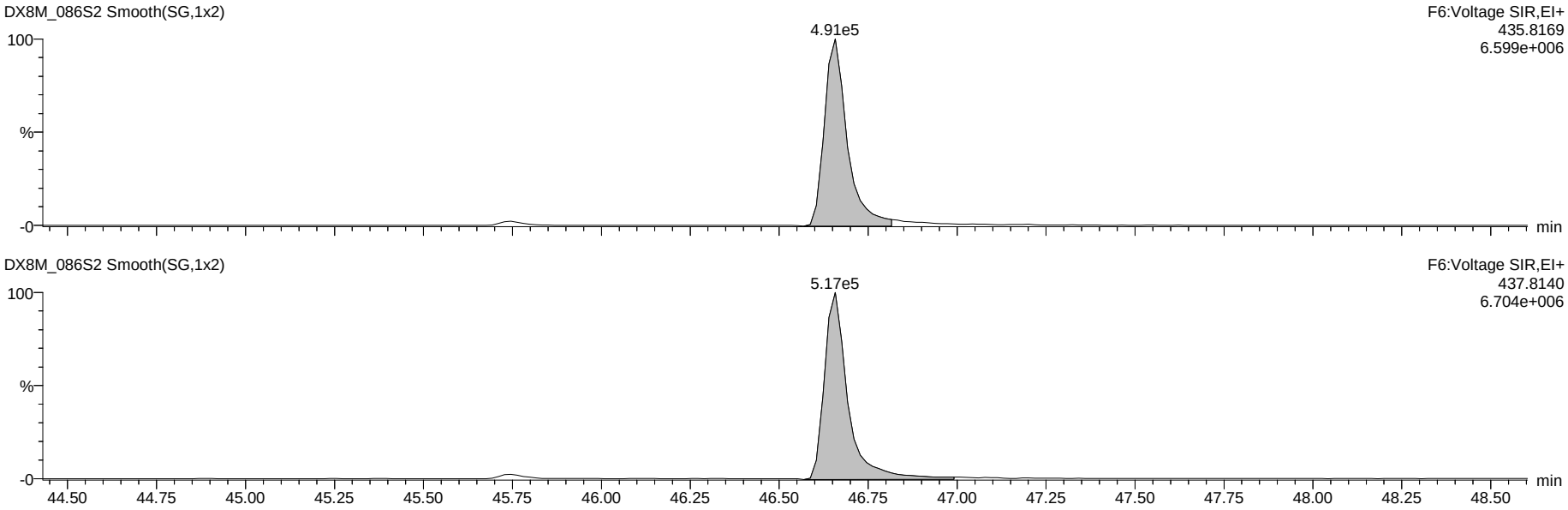
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S2, Date: 20-Jul-2018, Time: 16:56:28, ID: WG64578-102,,SPM, Description: 1,WG64578,1.0/20uL

Total Hepta-Dioxins



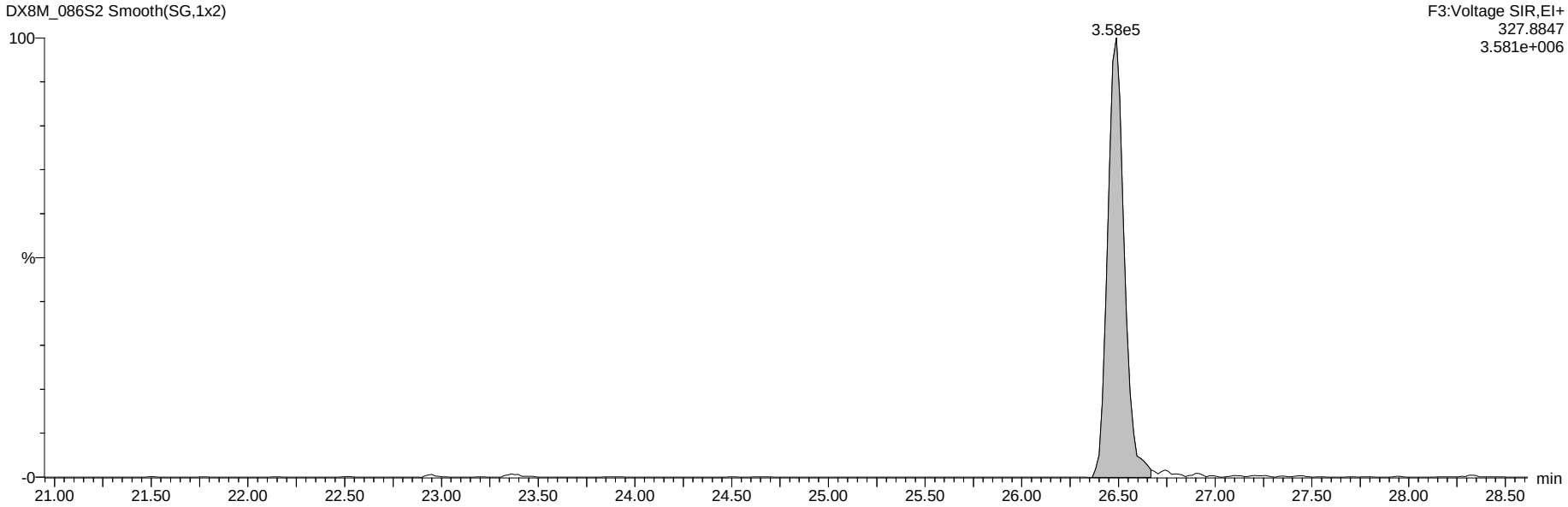
13C-Hepta-Dioxins



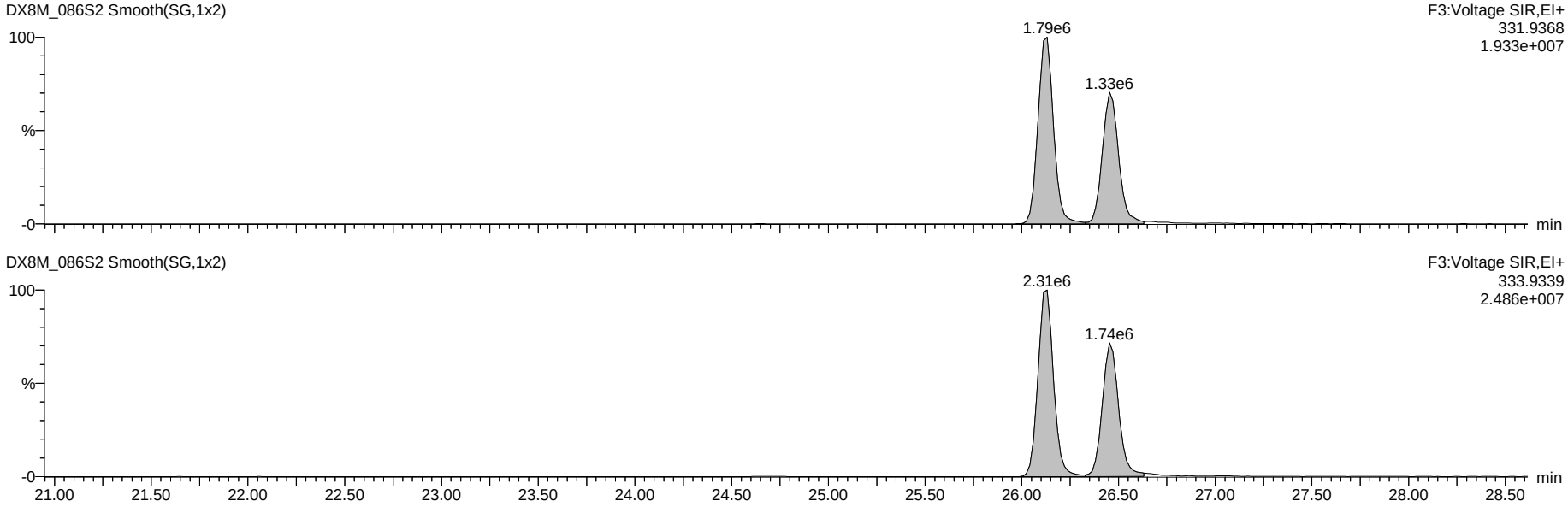
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S2, Date: 20-Jul-2018, Time: 16:56:28, ID: WG64578-102,,SPM, Description: 1,WG64578,1.0/20uL

37Cl-2,3,7,8-TCDD



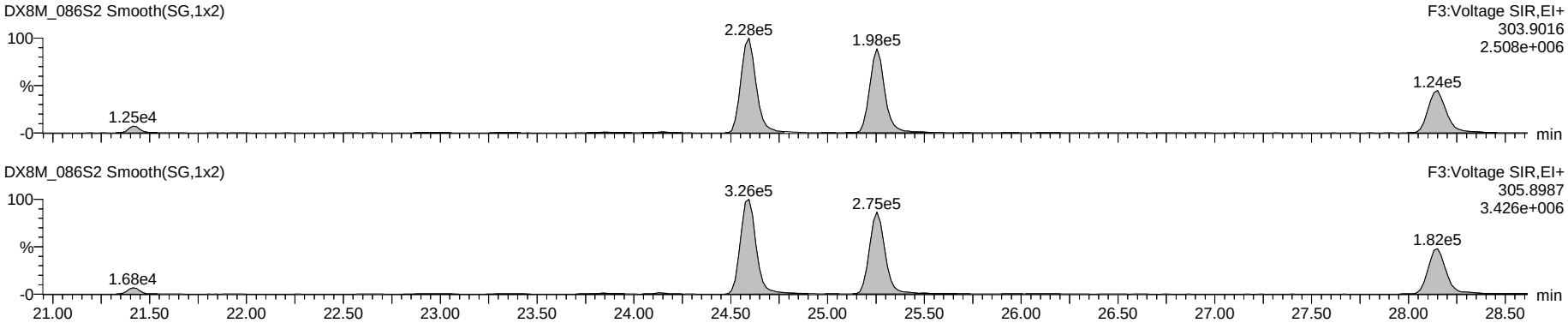
13C-Tetra-Dioxins



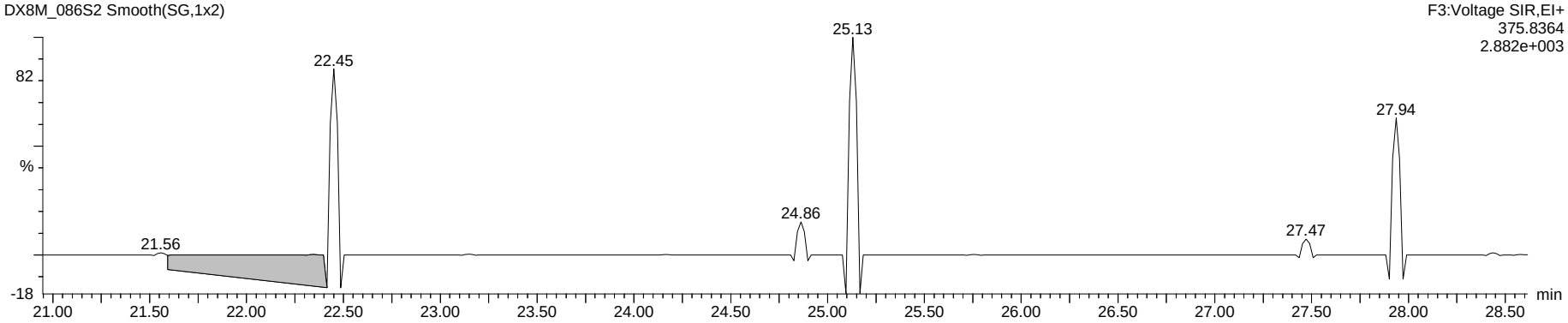
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S2, Date: 20-Jul-2018, Time: 16:56:28, ID: WG64578-102,,SPM, Description: 1,WG64578,1.0/20uL

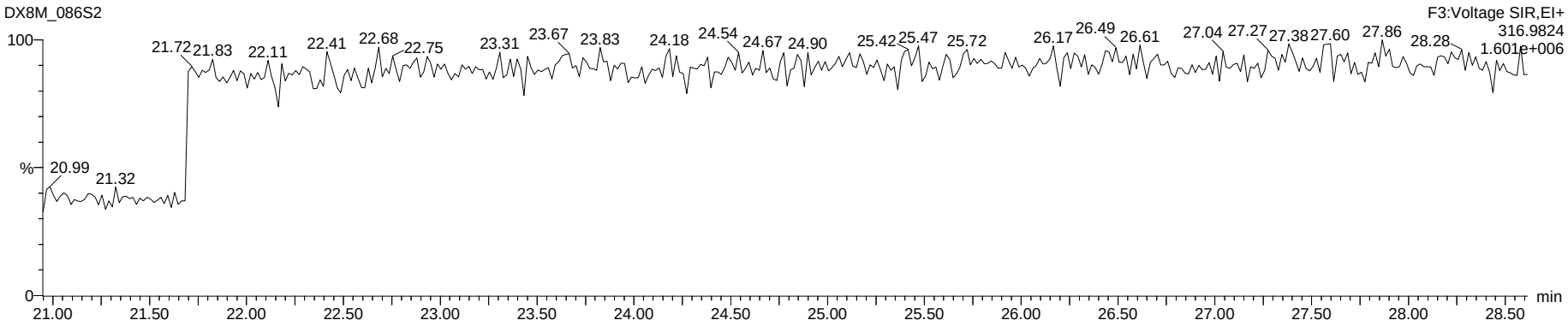
Total Tetra-Furans



Hexa DPE



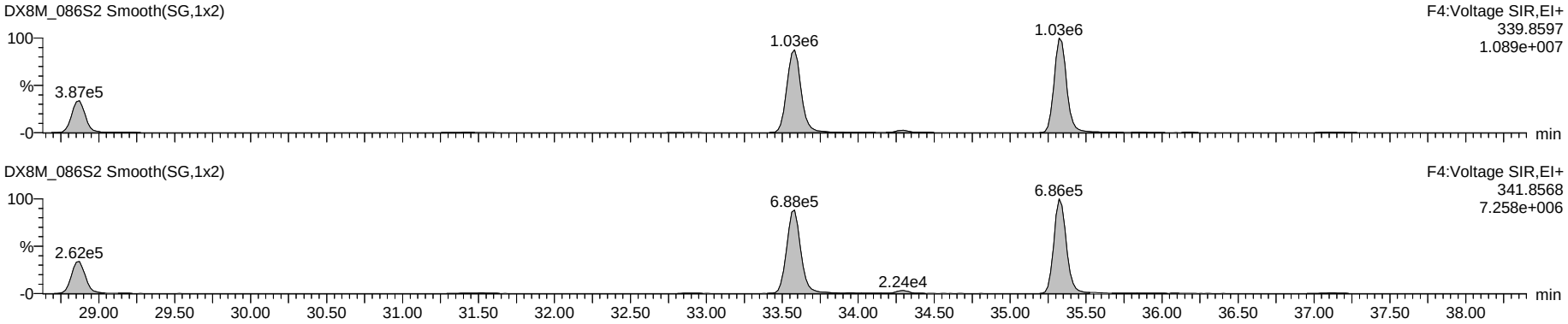
Tetra Lock



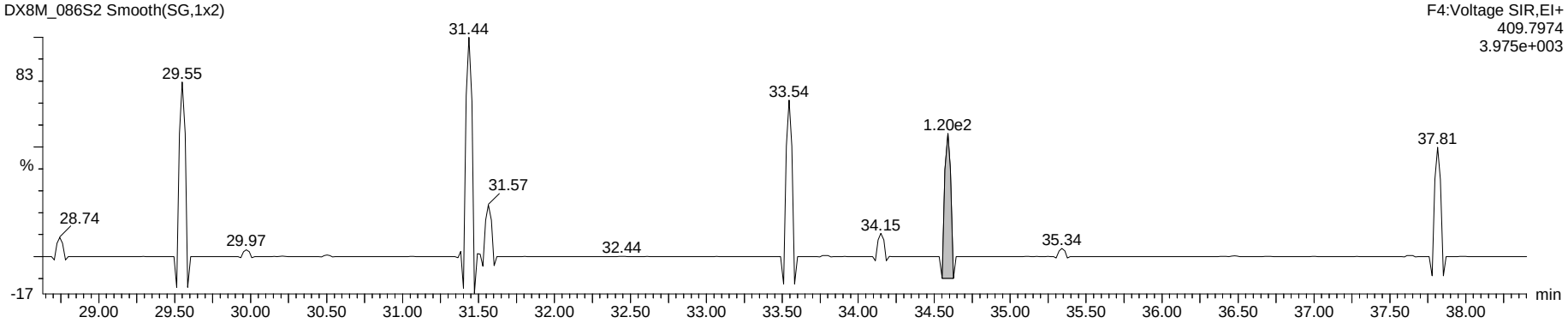
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S2, Date: 20-Jul-2018, Time: 16:56:28, ID: WG64578-102,,SPM, Description: 1,WG64578,1.0/20uL

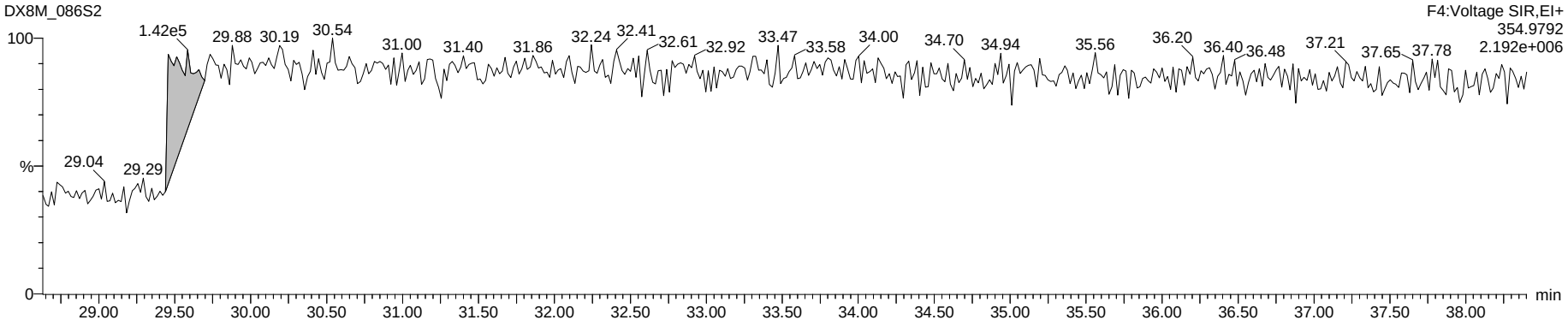
Total Penta-Furans



Hepta DPE



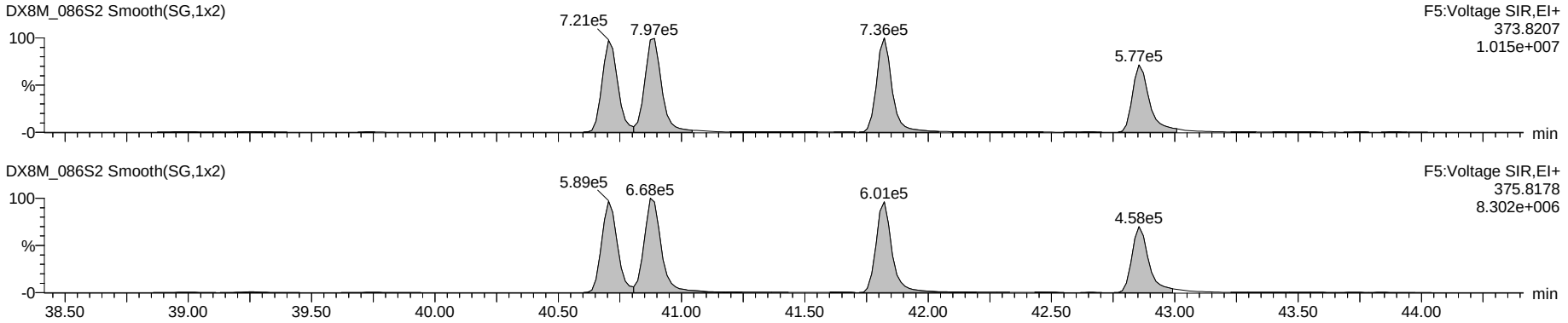
Penta Lock



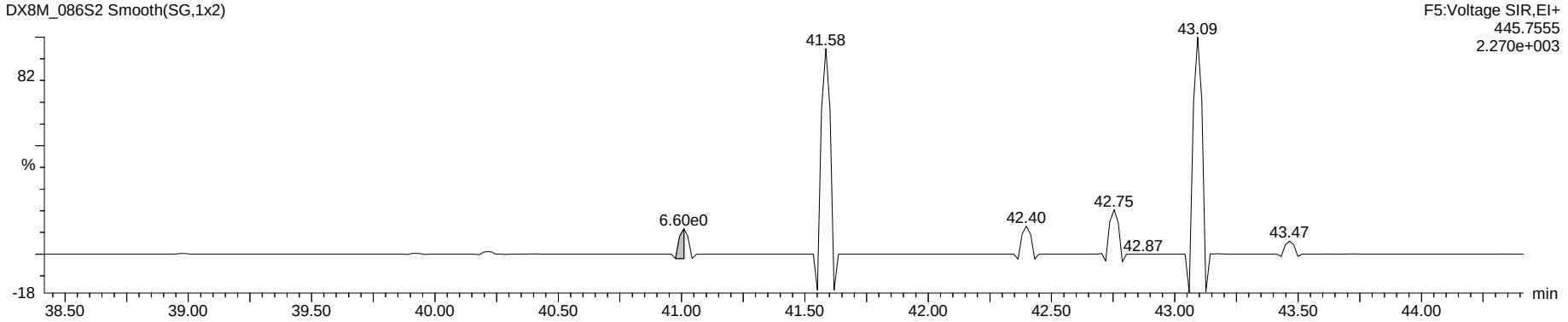
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S2, Date: 20-Jul-2018, Time: 16:56:28, ID: WG64578-102,,SPM, Description: 1,WG64578,1.0/20uL

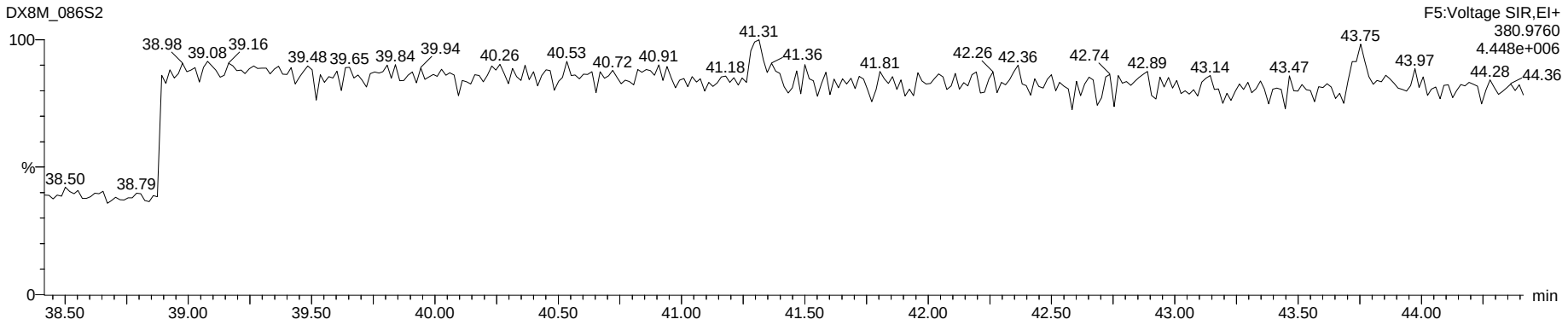
Total Hexa-Furans



Octa DPE



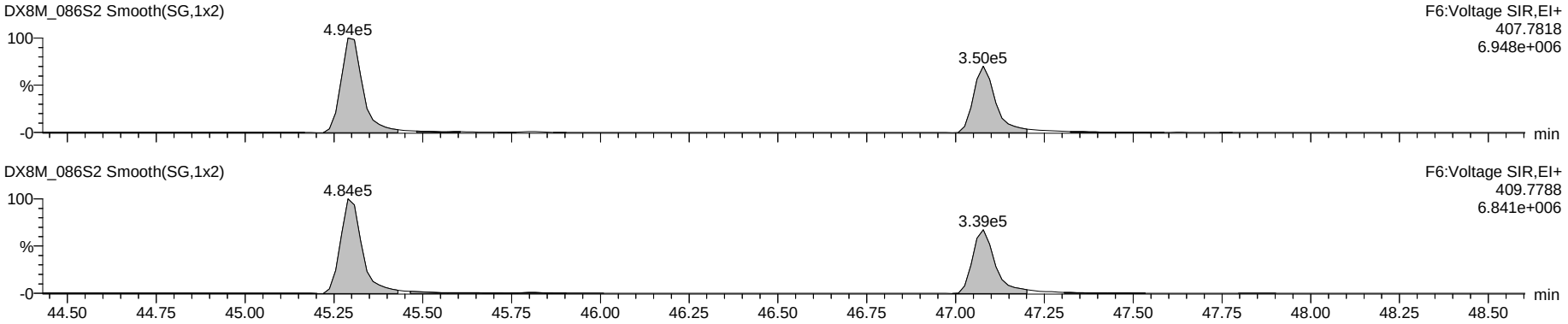
Hexa Lock



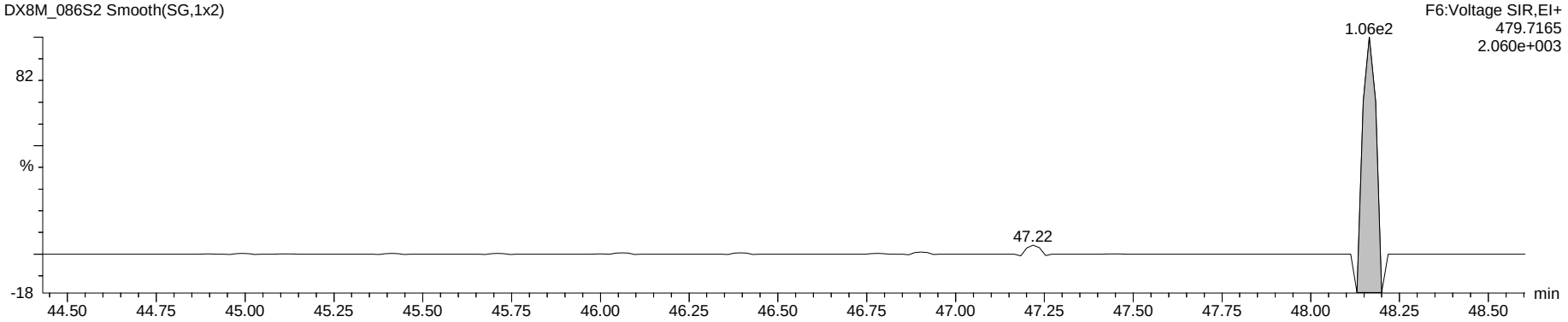
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S2, Date: 20-Jul-2018, Time: 16:56:28, ID: WG64578-102,,SPM, Description: 1,WG64578,1.0/20uL

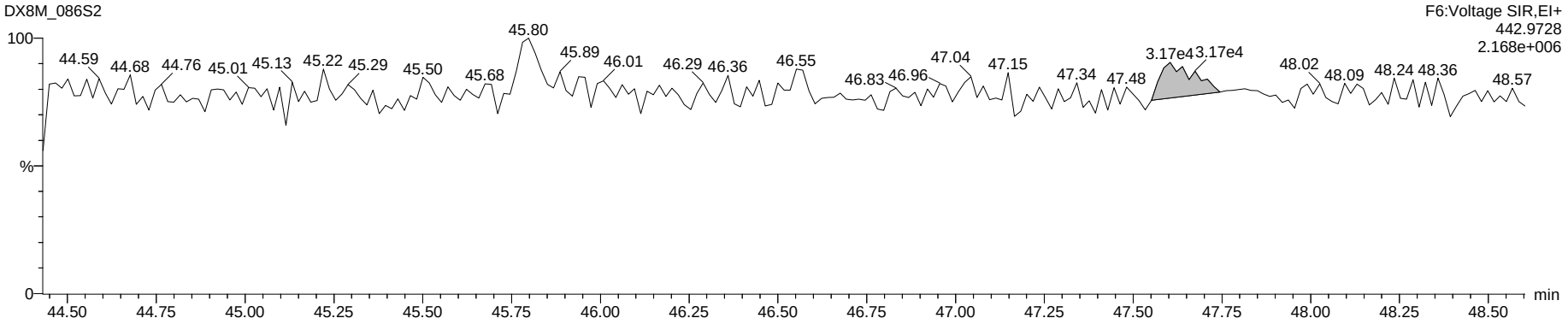
Total Hepta-Furans



Nona DPE



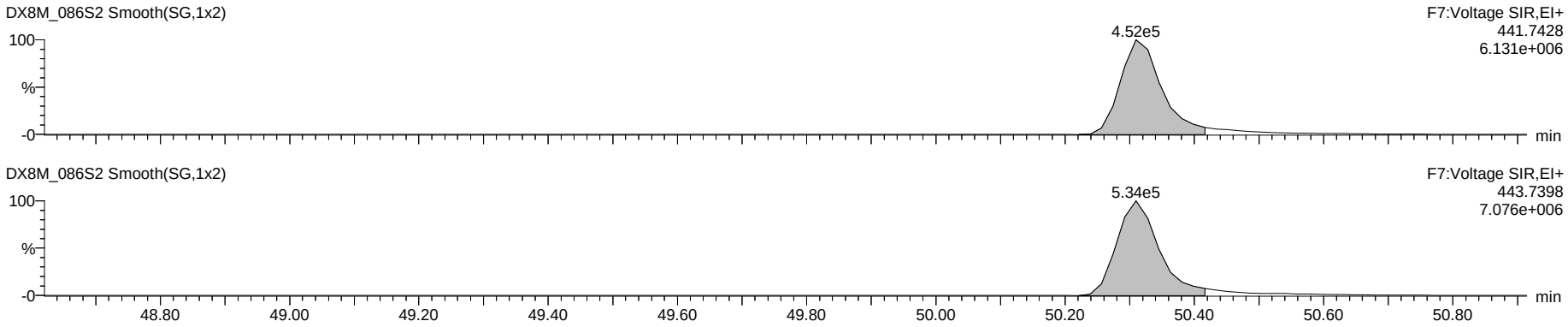
Hepta Lock



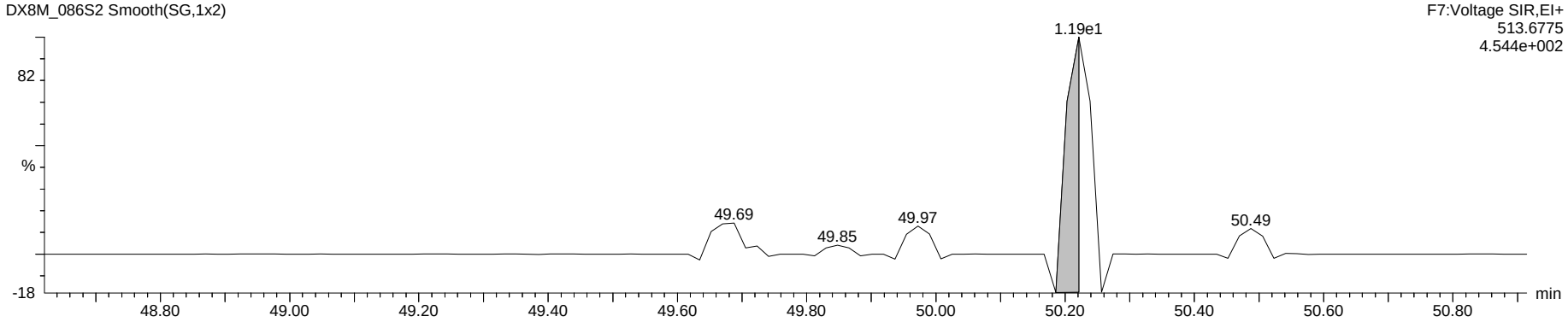
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S2, Date: 20-Jul-2018, Time: 16:56:28, ID: WG64578-102,,SPM, Description: 1,WG64578,1.0/20uL

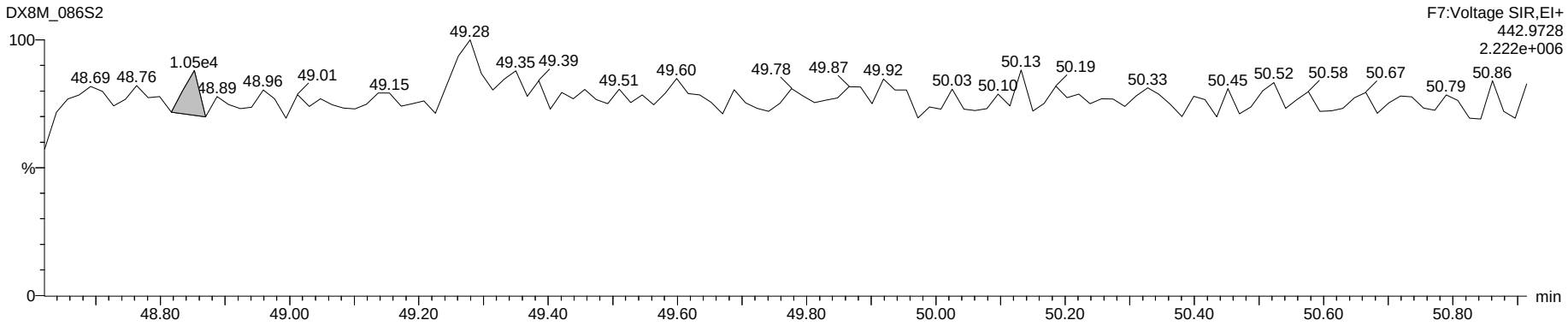
OCDF



Deca DPE



Octa Lock



Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S3, Date: 20-Jul-2018, Time: 17:57:26, ID: WG64578-103,,SPMDUP, Description: 1,WG64578,1.0/20uL

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	20.000	4.24e5	0.71	NO	25.26	10.687	0.0268		2.07e3	2.42e3
2	1,2,3,7,8-PeCDF	20.000	1.51e6	1.48	NO	33.58	48.454	0.0481		2.62e3	2.87e3
3	2,3,4,7,8-PeCDF	20.000	1.54e6	1.49	NO	35.32	50.055	0.0415		2.62e3	2.87e3
4	1,2,3,4,7,8-HxCDF	20.000	1.18e6	1.23	NO	40.70	52.276	0.0535		3.55e3	2.95e3
5	1,2,3,6,7,8-HxCDF	20.000	1.32e6	1.23	NO	40.89	52.428	0.0491		3.55e3	2.95e3
6	2,3,4,6,7,8-HxCDF	20.000	1.25e6	1.21	NO	41.82	51.893	0.0518		3.55e3	2.95e3
7	1,2,3,7,8,9-HxCDF	20.000	1.00e6	1.24	NO	42.85	54.817	0.0662		3.55e3	2.95e3
8	1,2,3,4,6,7,8-HpCDF	20.000	9.80e5	1.02	NO	45.29	56.483	0.0663		3.03e3	3.56e3
9	1,2,3,4,7,8,9-HpCDF	20.000	7.03e5	0.98	NO	47.08	53.316	0.0907		3.03e3	3.56e3
10	OCDF	20.000	1.05e6	0.84	NO	50.31	110.091	0.1499		7.11e3	1.89e-1
11	2,3,7,8-TCDD	20.000	3.26e5	0.82	NO	26.49	10.014	0.0264		2.10e3	1.48e3
12	1,2,3,7,8-PeCDD	20.000	1.18e6	0.64	NO	36.17	58.049	0.0653		2.64e3	2.84e3
13	1,2,3,4,7,8-HxCDD	20.000	7.95e5	1.22	NO	42.09	50.497	0.0480		2.05e3	2.35e3
14	1,2,3,6,7,8-HxCDD	20.000	9.27e5	1.23	NO	42.23	51.935	0.0475		2.05e3	2.35e3
15	1,2,3,7,8,9-HxCDD	20.000	8.25e5	1.20	NO	42.65	48.825	0.0474		2.05e3	2.35e3
16	1,2,3,4,6,7,8-HpCDD	20.000	6.17e5	1.07	NO	46.67	54.969	0.1121		2.54e3	4.27e3
17	OCDD	20.000	8.39e5	0.88	NO	50.22	106.039	0.0820		3.23e3	1.75e-1
18	13C-2,3,7,8-TCDF	20.000	4.33e6	0.71	NO	25.24	78.110	0.0560	78.1	6.85e3	6.49e3
19	13C-1,2,3,7,8-PeCDF	20.000	3.37e6	1.42	NO	33.54	84.269	0.0673	84.3	7.01e3	4.53e3
20	13C-2,3,4,7,8-PeCDF	20.000	3.27e6	1.42	NO	35.30	84.834	0.0697	84.8	7.01e3	4.53e3
21	13C-1,2,3,4,7,8-HxCDF	20.000	2.03e6	0.52	NO	40.69	82.199	0.1765	82.2	1.22e4	1.07e4
22	13C-1,2,3,6,7,8-HxCDF	20.000	2.38e6	0.52	NO	40.86	90.098	0.1652	90.1	1.22e4	1.07e4
23	13C-2,3,4,6,7,8-HxCDF	20.000	2.11e6	0.53	NO	41.79	89.624	0.1849	89.6	1.22e4	1.07e4
24	13C-1,2,3,7,8,9-HxCDF	20.000	1.83e6	0.49	NO	42.84	78.866	0.1875	78.9	1.22e4	1.07e4
25	13C-1,2,3,4,6,7,8-HpCDF	20.000	1.42e6	0.43	NO	45.27	72.026	0.1469	72.0	9.64e3	5.58e3
26	13C-1,2,3,4,7,8,9-HpCDF	20.000	1.05e6	0.45	NO	47.06	68.588	0.1883	68.6	9.64e3	5.58e3
27	13C-2,3,7,8-TCDD	20.000	2.93e6	0.75	NO	26.45	84.975	0.0852	85.0	4.69e3	7.93e3
28	13C-1,2,3,7,8-PeCDD	20.000	1.97e6	0.69	NO	36.13	87.239	0.0579	87.2	2.47e3	3.15e3
29	13C-1,2,3,4,7,8-HxCDD	20.000	1.57e6	1.24	NO	42.08	82.399	0.1241	82.4	6.38e3	6.04e3
30	13C-1,2,3,6,7,8-HxCDD	20.000	1.91e6	1.27	NO	42.21	94.915	0.1174	94.9	6.38e3	6.04e3
31	13C-1,2,3,4,6,7,8-HpCDD	20.000	1.13e6	1.00	NO	46.66	71.687	0.1422	71.7	4.41e3	7.36e3
32	13C-OCDD	20.000	1.55e6	0.86	NO	50.22	112.281	0.0877	56.1	3.32e3	3.07e3
33	13C-1,2,3,4-TCDD	20.000	3.44e6	0.77	NO	26.11	7.599	0.0065	7.6	4.69e3	7.93e3
34	13C-1,2,3,7,8,9-HxCDD	20.000	1.93e6	1.23	NO	42.63	6.770	0.0083	6.8	6.38e3	6.04e3
35	37Cl-2,3,7,8-TCDD	20.000	2.95e5			26.49	7.702	0.0247	77.0		4.06e3
36	Total Tetra-Furans	20.000					31.402	0.0268			2.42e3
37	Total Tetra-Dioxins	20.000					37.141	0.0264			1.48e3
38	Total Penta-Furans	20.000					122.254	0.0452			2.87e3
39	Total Penta-Dioxins	20.000					115.946	0.0653			2.84e3
40	Total Hexa-Furans	20.000					213.356	0.0527			2.95e3
41	Total Hexa-Dioxins	20.000					153.491	0.0459			2.35e3
42	Total Hepta-Furans	20.000					112.398	0.0776			3.56e3
43	Total Hepta-Dioxins	20.000					57.551	0.1121			4.27e3
44	Hexa DPE	1.000	8.54e1			24.74					0.00e0
45	Hepta DPE	1.000	1.47e0			37.01					1.08e-1
46	Octa DPE	1.000	2.92e2			39.84					2.31e-1
47	Nona DPE	1.000	4.33e1			46.24					2.15e-1
48	Deca DPE	1.000	2.69e1			48.92					7.24e-1
49	Tetra Lock	1.000	1.84e4			24.49					1.44e5
50	Penta Lock	1.000	3.36e5			29.33					2.74e5
51	Hexa Lock	1.000	3.29e5			38.98					3.11e5
52	Hepta Lock	1.000	3.16e4			47.60					1.76e5
53	Octa Lock	1.000	1.00e4			48.76					1.95e5
54	13C-Tetra-Furans	20.000					78.110	0.0560			6.49e3
55	13C-Tetra-Dioxins	20.000					92.574	0.0917			7.93e3

pv'd by LHE 23-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

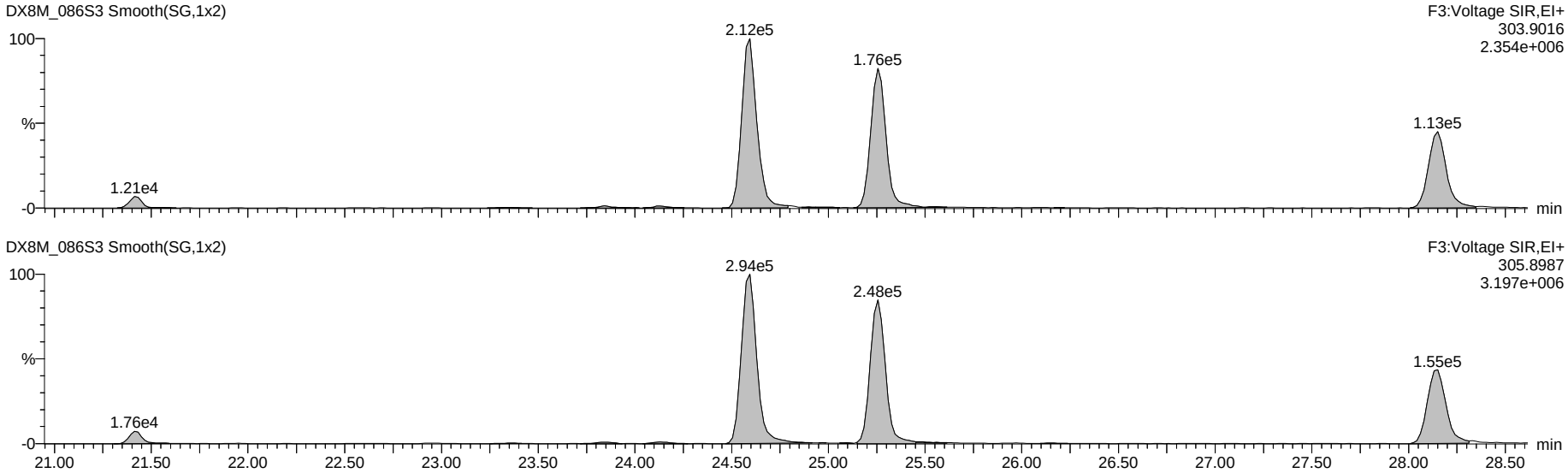
SVBy-KB 20JUL2018

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

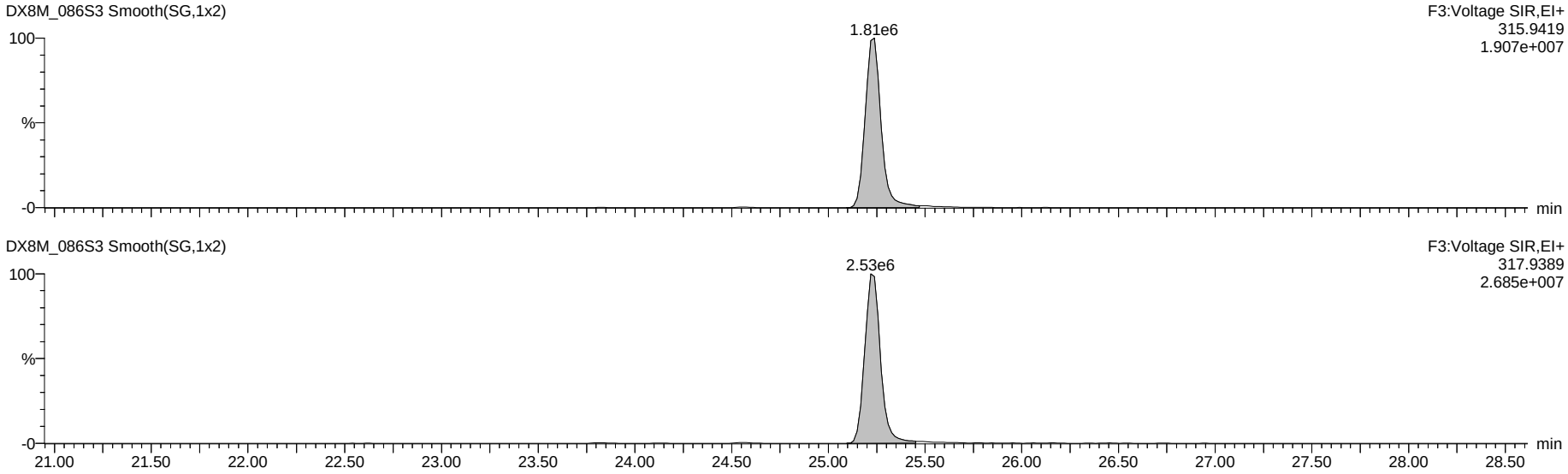
Method: G:\Masslynx\Inst_M\Exported_methods\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_086S3, Date: 20-Jul-2018, Time: 17:57:26, ID: WG64578-103,,SPMDUP, Description: 1,WG64578,1.0/20uL

Total Tetra-Furans



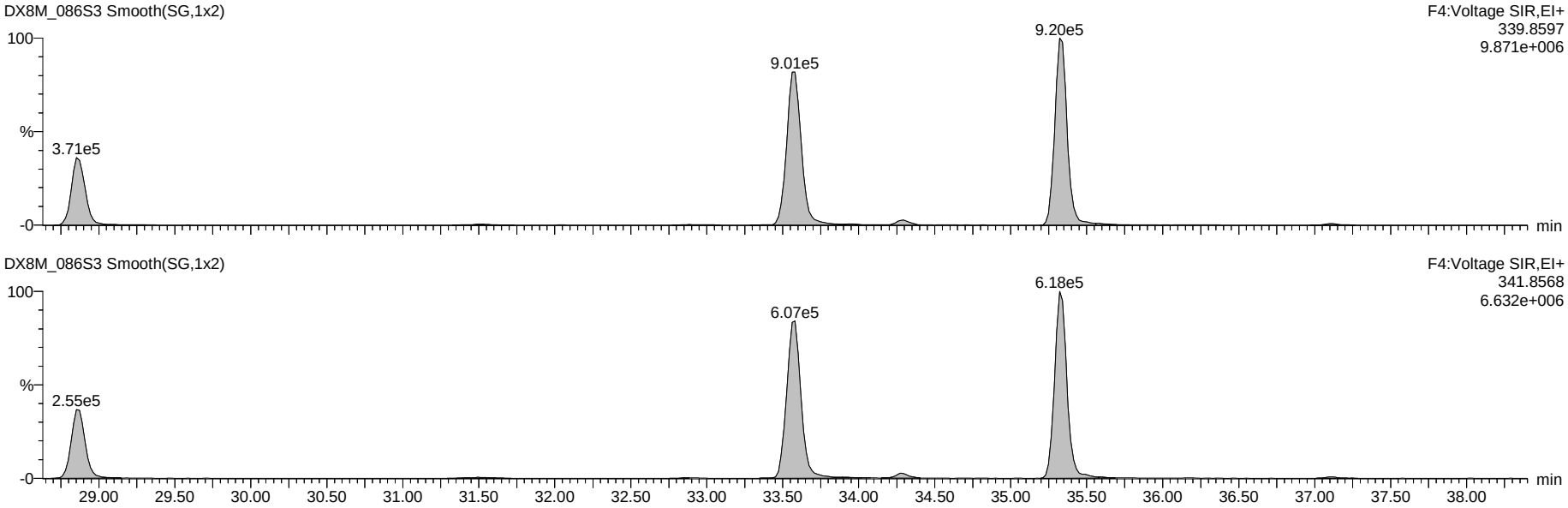
13C-Tetra-Furans



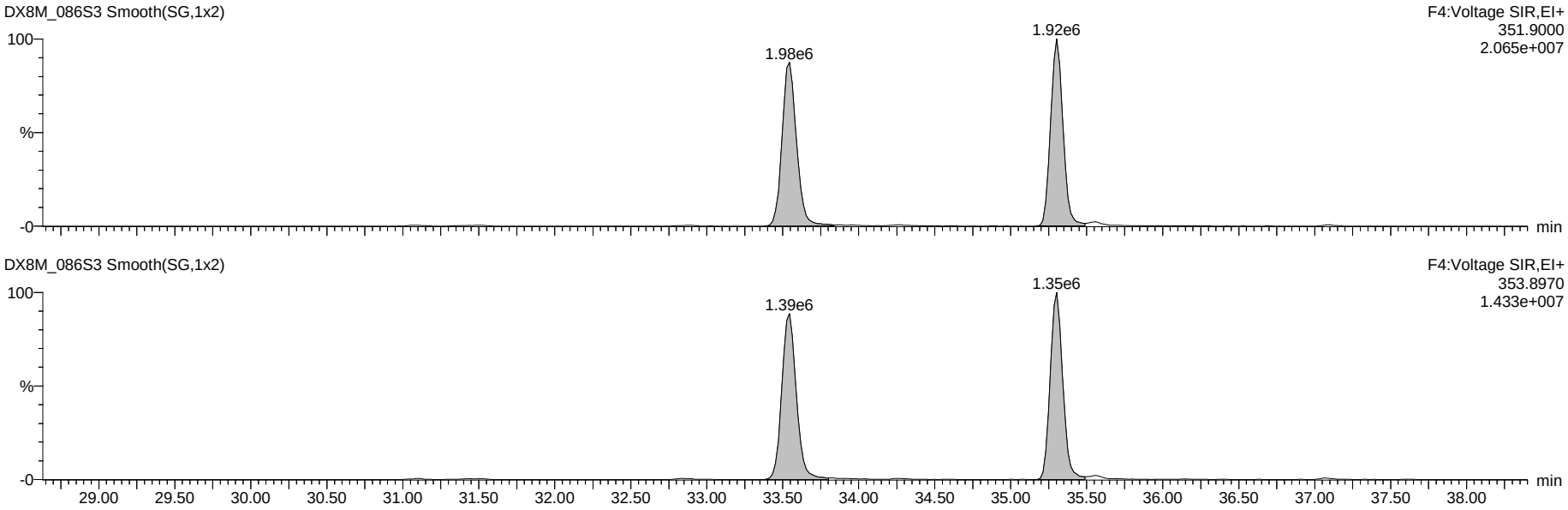
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S3, Date: 20-Jul-2018, Time: 17:57:26, ID: WG64578-103,,SPMDUP, Description: 1,WG64578,1.0/20uL

Total Penta-Furans



13C-Penta-Furans



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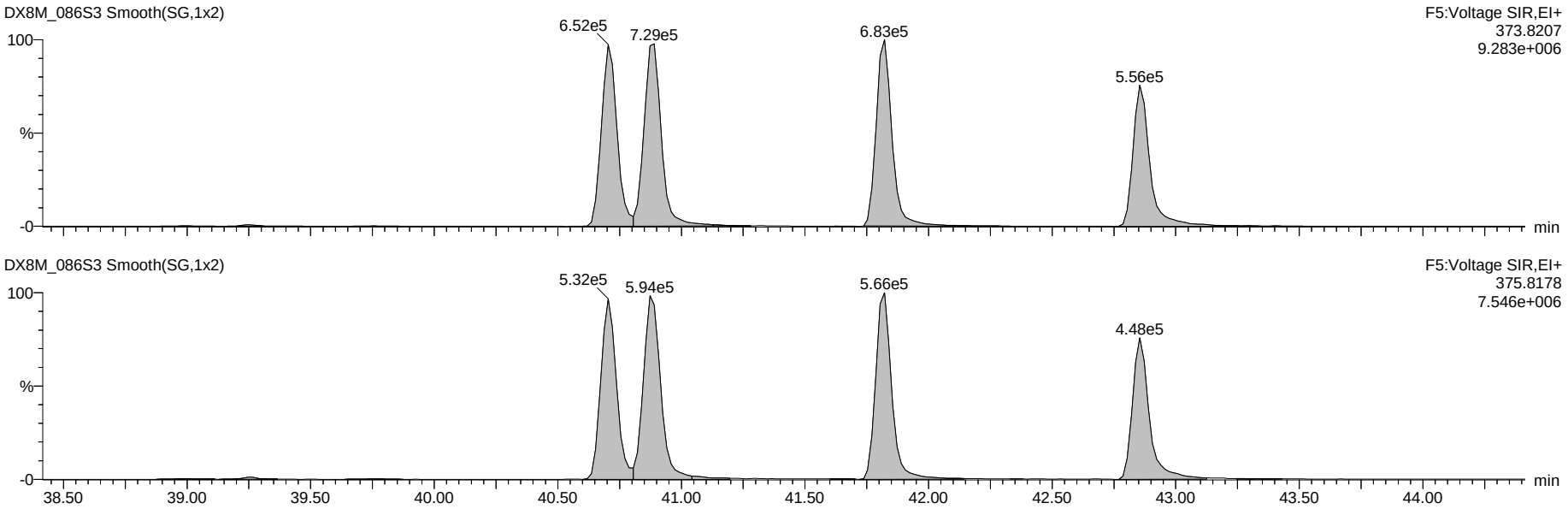
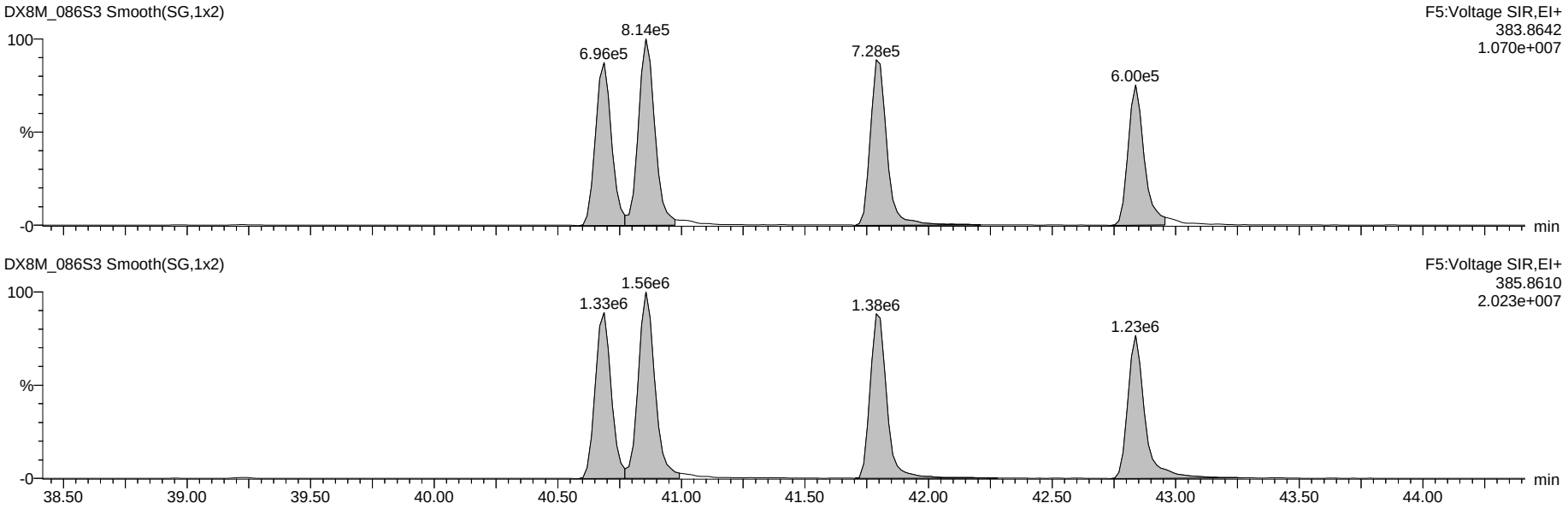
Name: DX8M_086S3, Date: 20-Jul-2018, Time: 17:57:26, ID: WG64578-103,,SPMDUP, Description: 1,WG64578,1.0/20uL

Total Hexa-Furans



13C-Hexa-Furans



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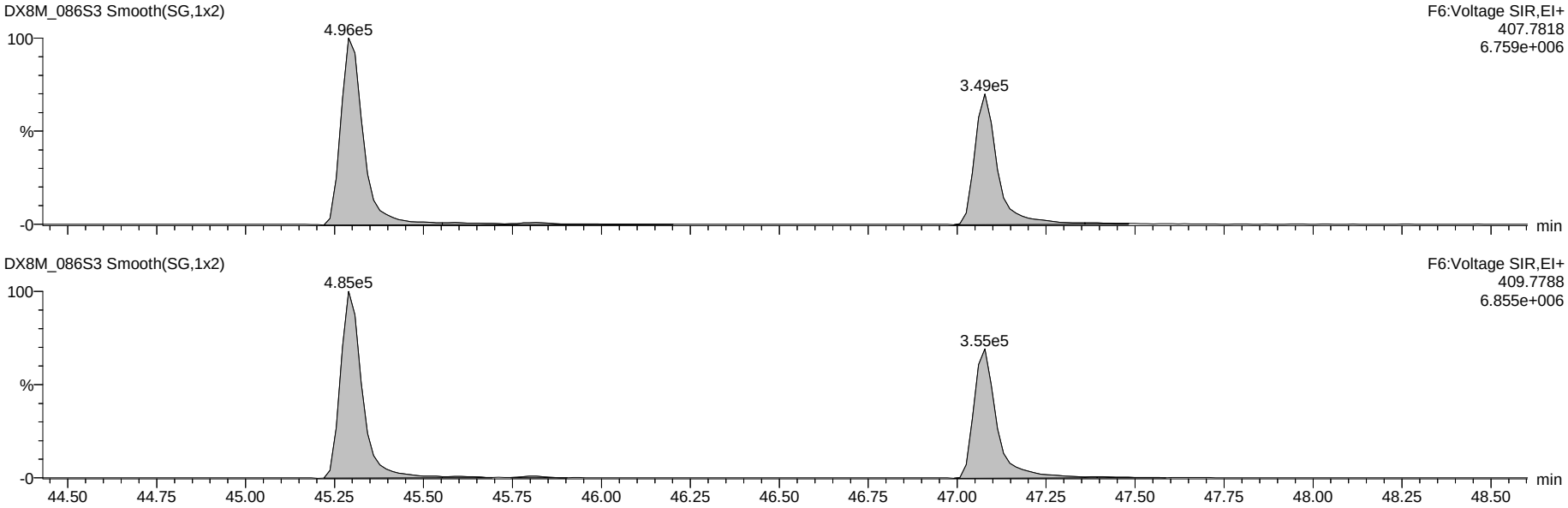
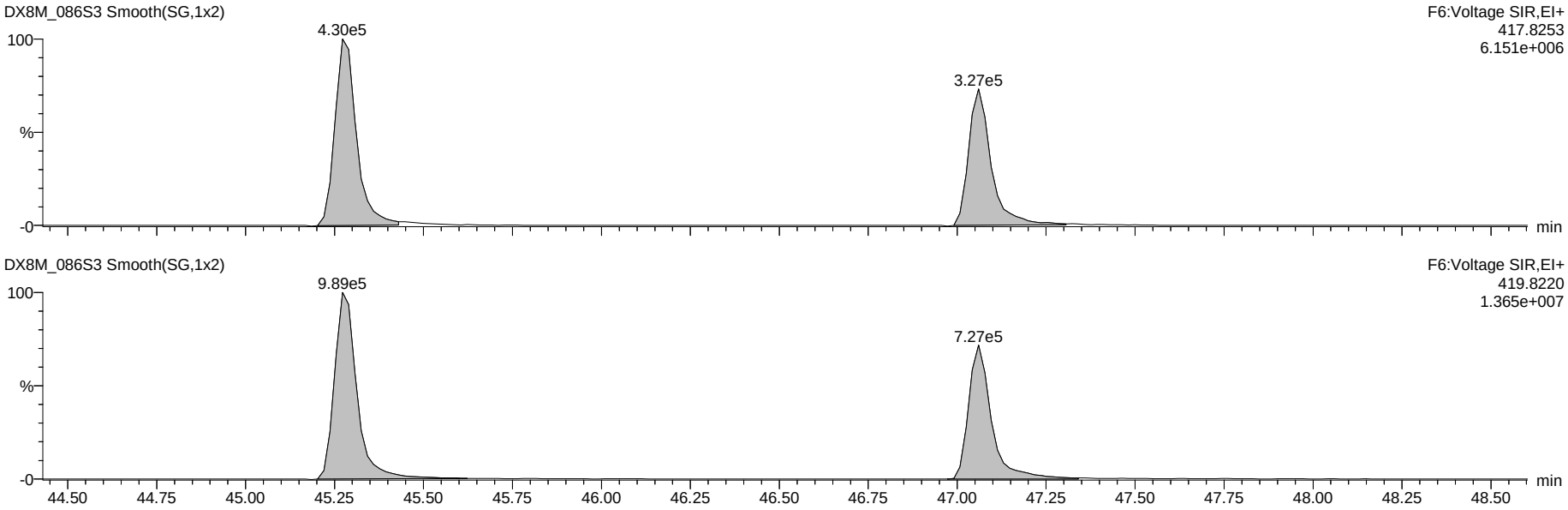
Total Hepta-Furans



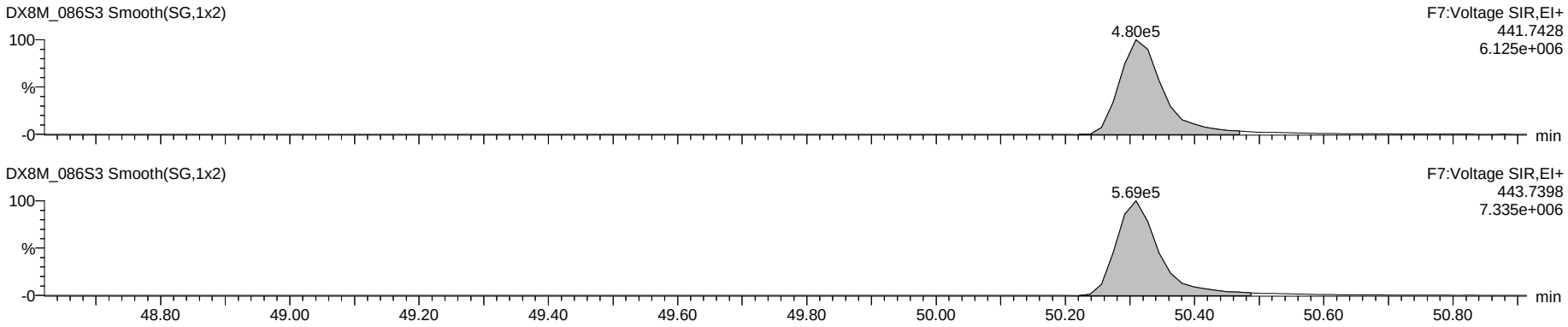
13C-Hepta-Furans



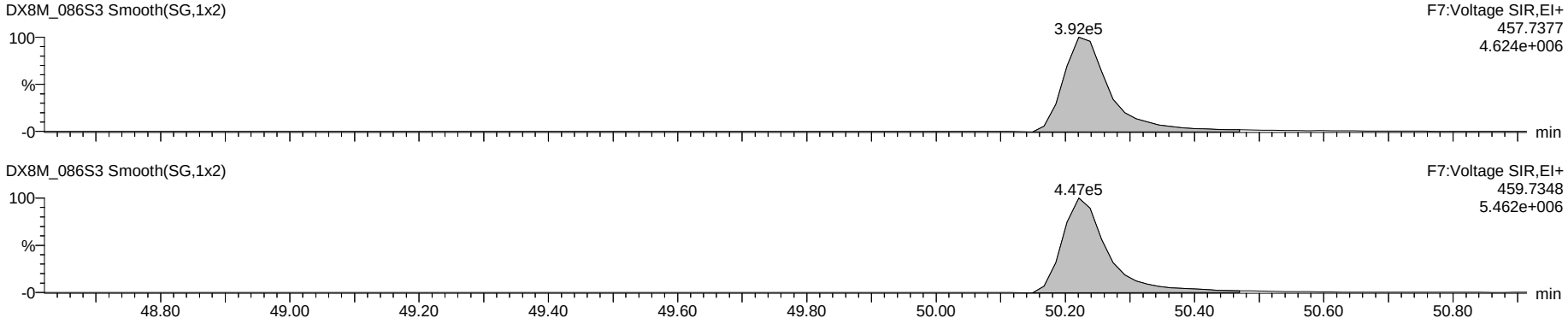
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S3, Date: 20-Jul-2018, Time: 17:57:26, ID: WG64578-103,,SPMDUP, Description: 1,WG64578,1.0/20uL

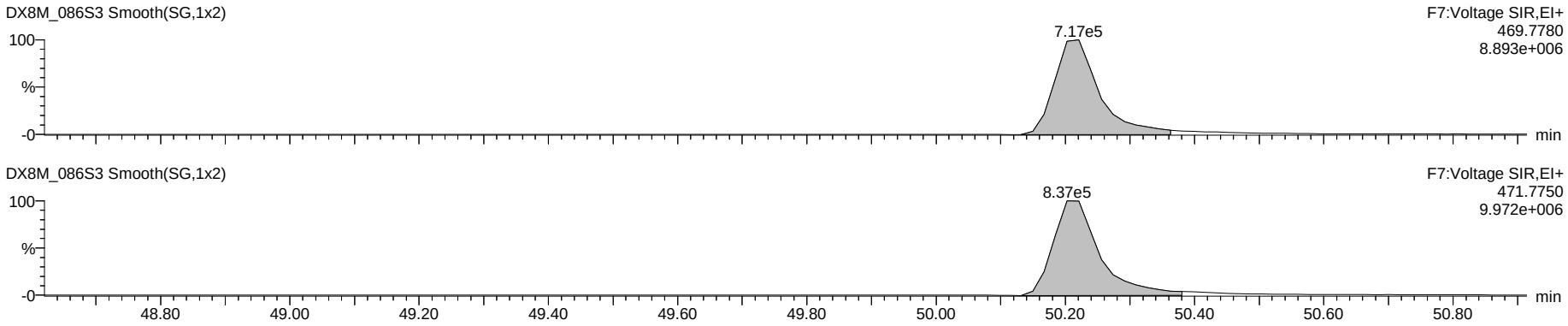
OCDF



OCDD



13C-OCDD



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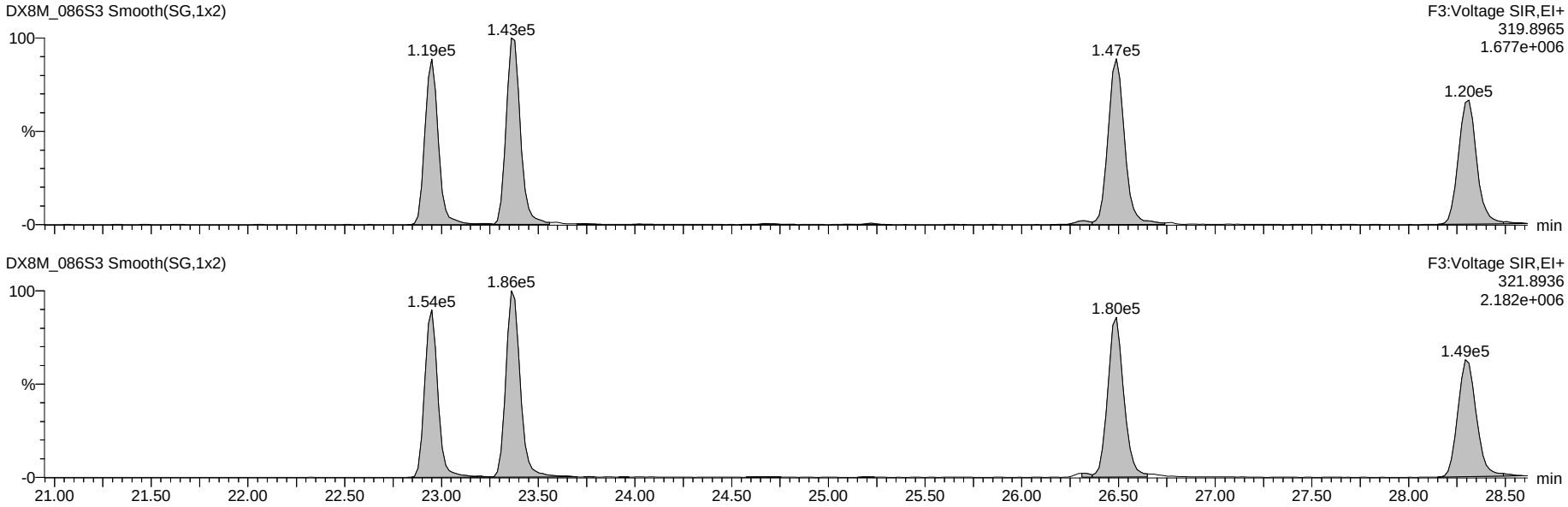
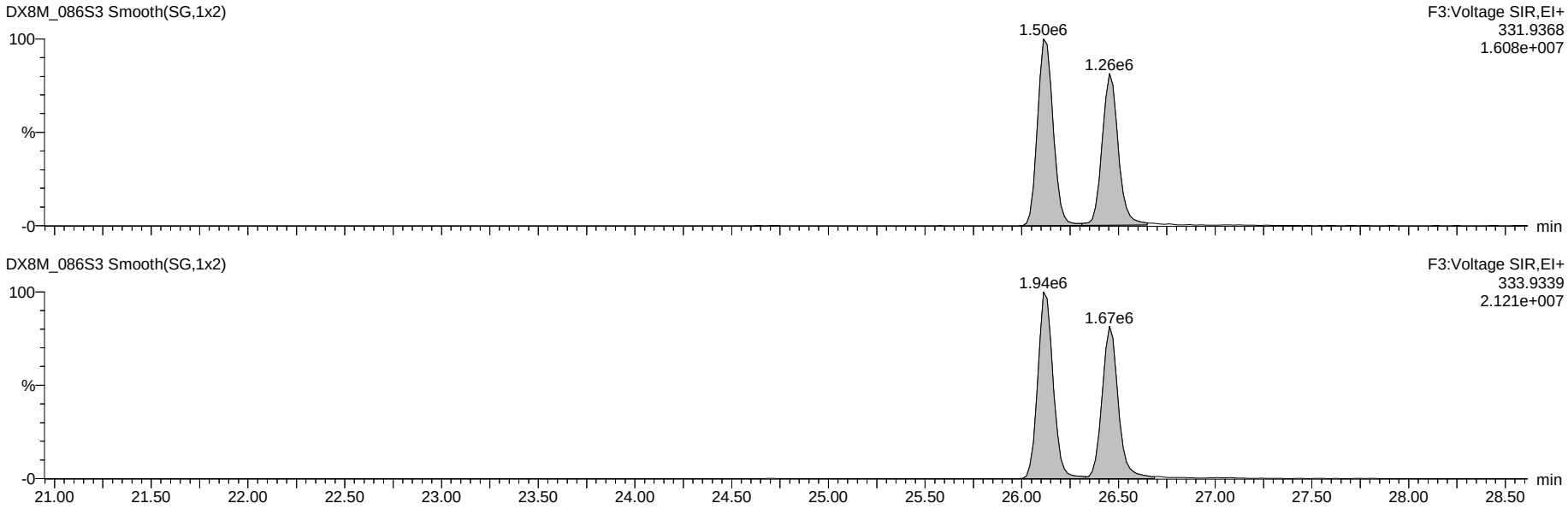
Name: DX8M_086S3, Date: 20-Jul-2018, Time: 17:57:26, ID: WG64578-103,,SPMDUP, Description: 1,WG64578,1.0/20uL

Total Tetra-Dioxins



13C-Tetra-Dioxins



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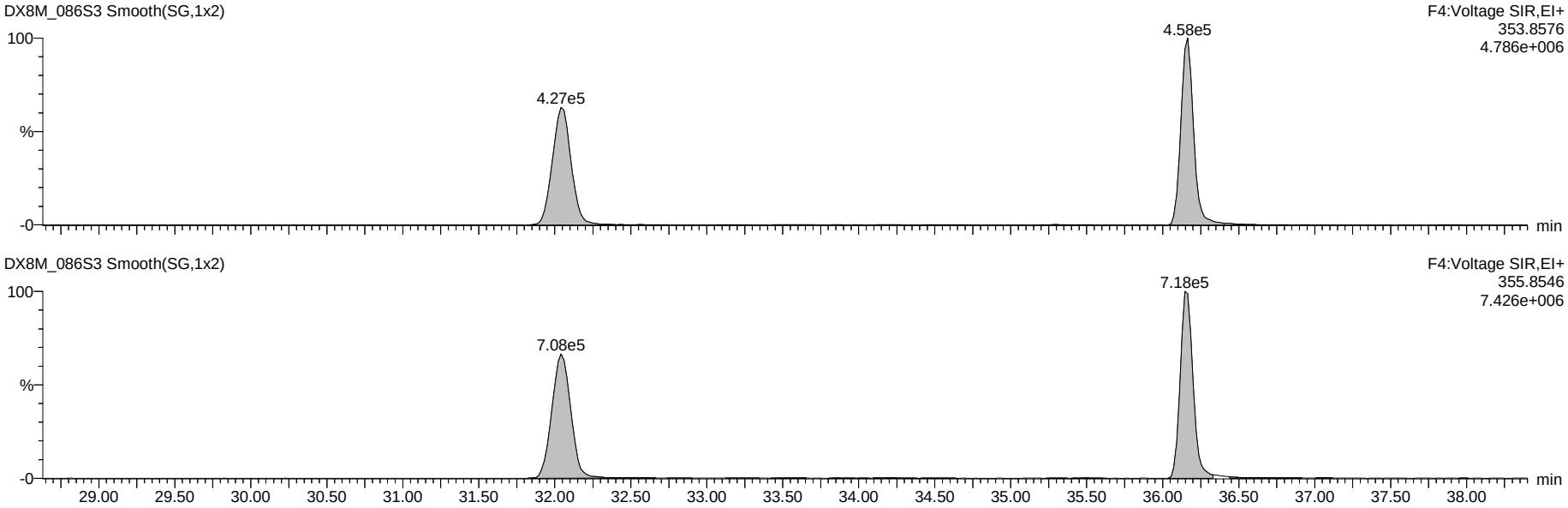
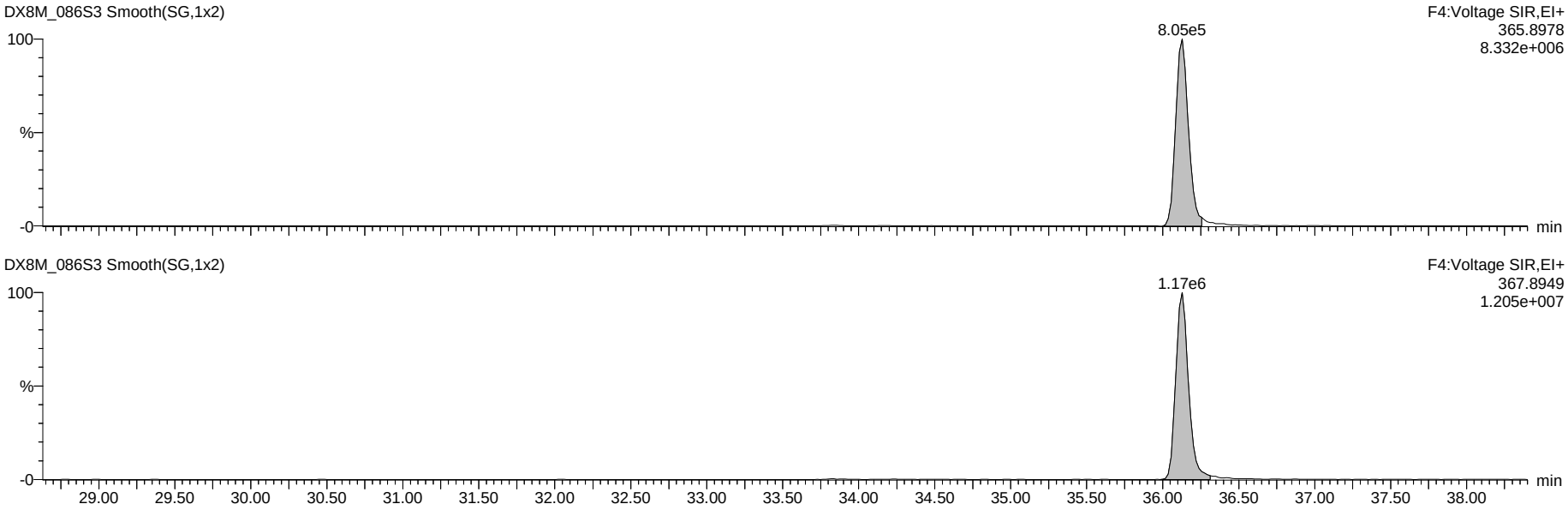
Name: DX8M_086S3, Date: 20-Jul-2018, Time: 17:57:26, ID: WG64578-103,,SPMDUP, Description: 1,WG64578,1.0/20uL

Total Penta-Dioxins



13C-Penta-Dioxins



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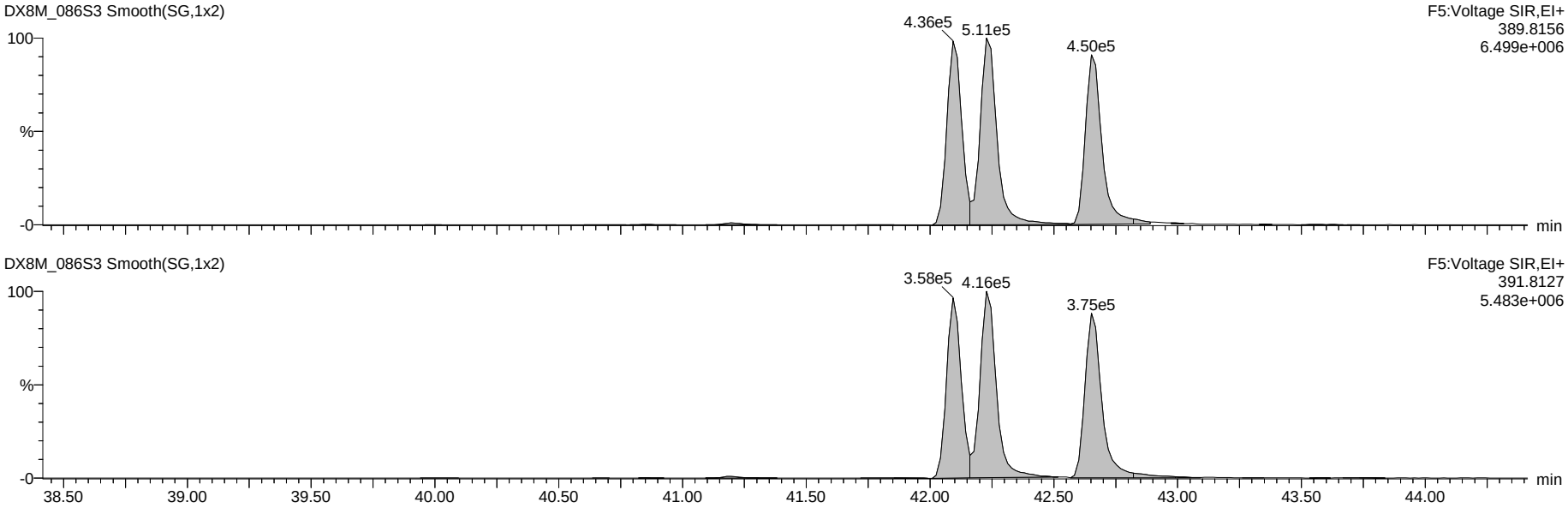
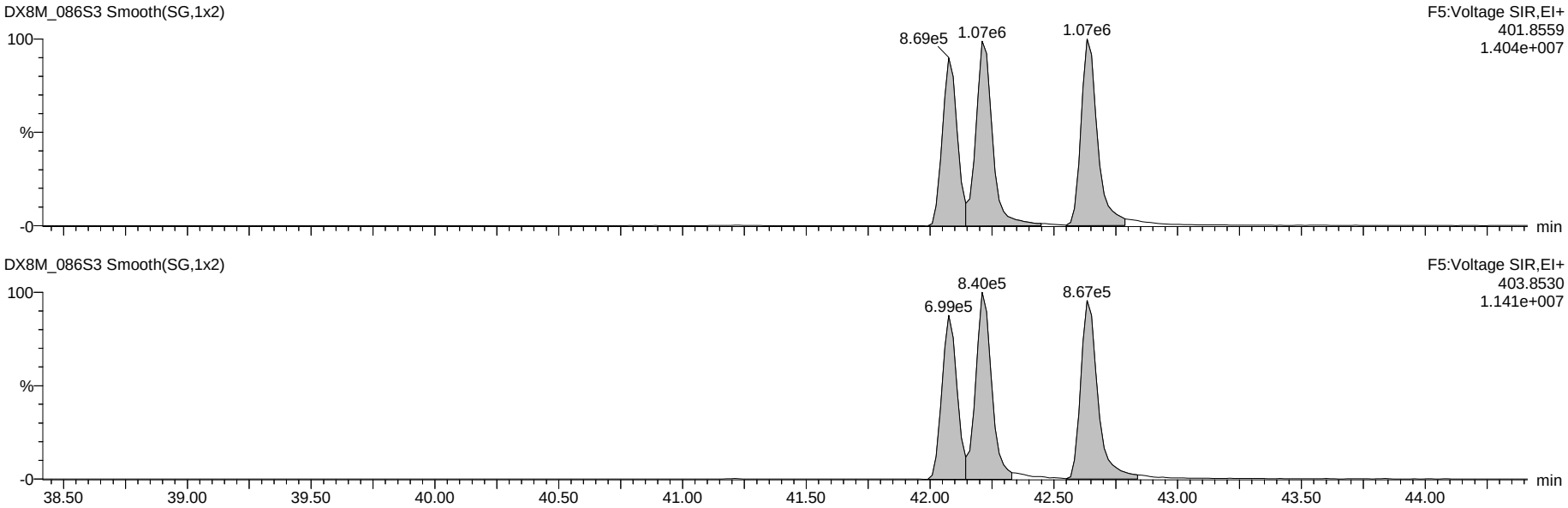
Name: DX8M_086S3, Date: 20-Jul-2018, Time: 17:57:26, ID: WG64578-103,,SPMDUP, Description: 1,WG64578,1.0/20uL

Total Hexa-Dioxins



13C-Hexa-Dioxins



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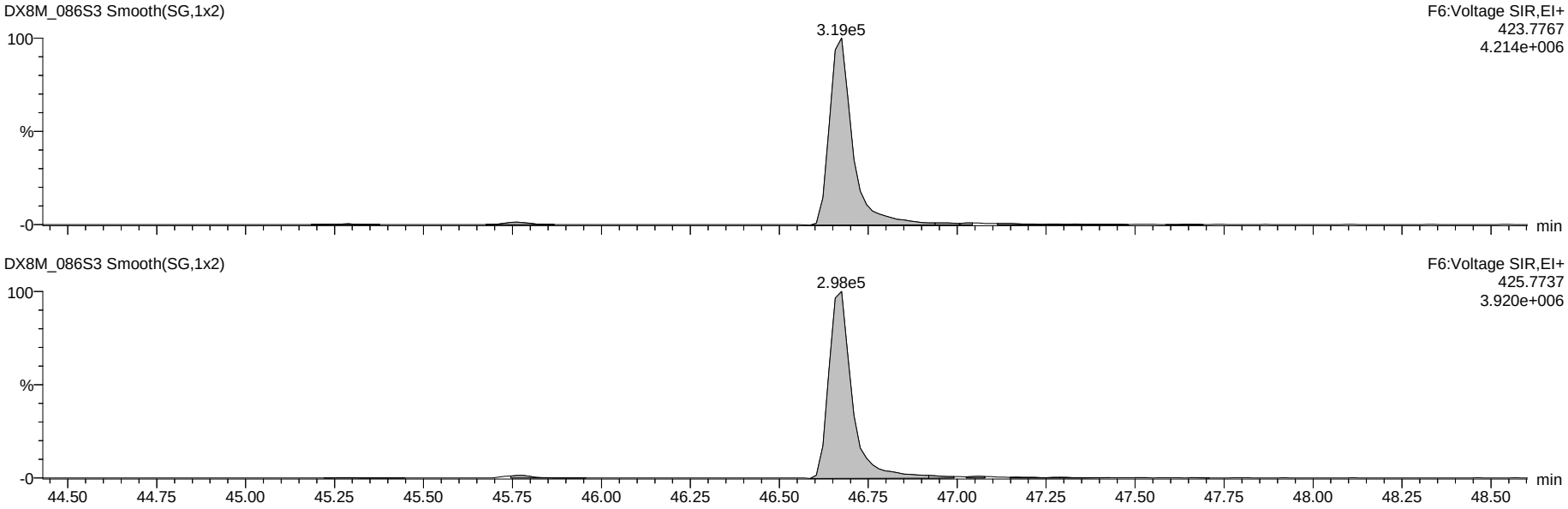
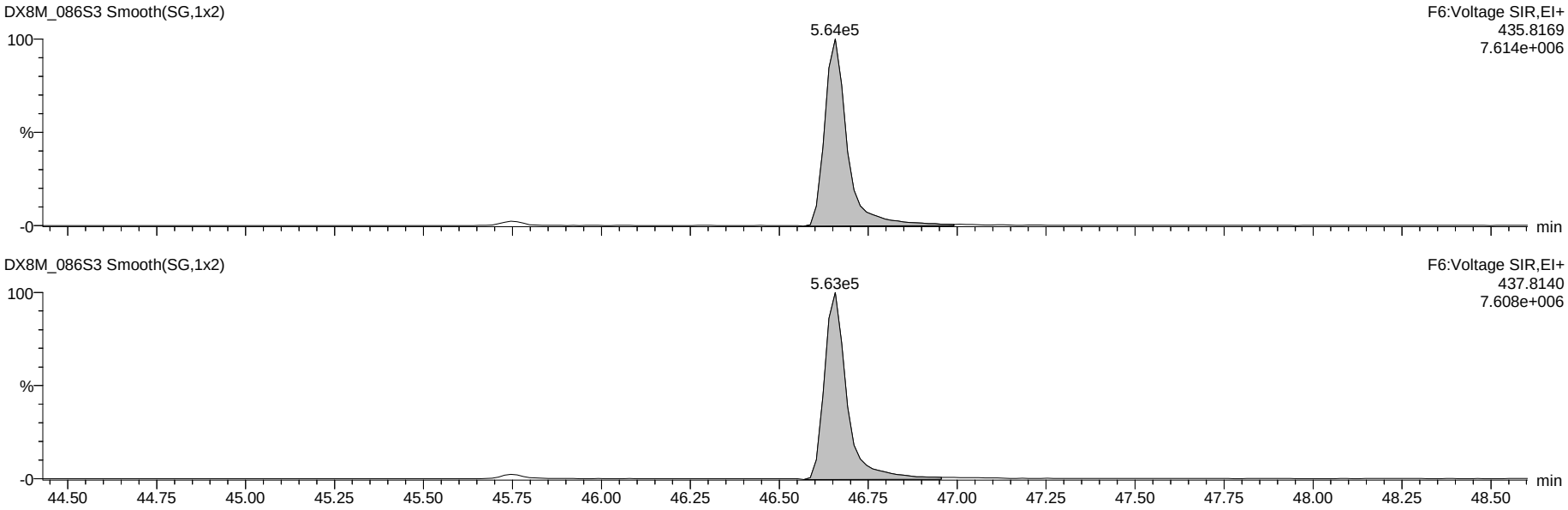
Total Hepta-Dioxins



13C-Hepta-Dioxins



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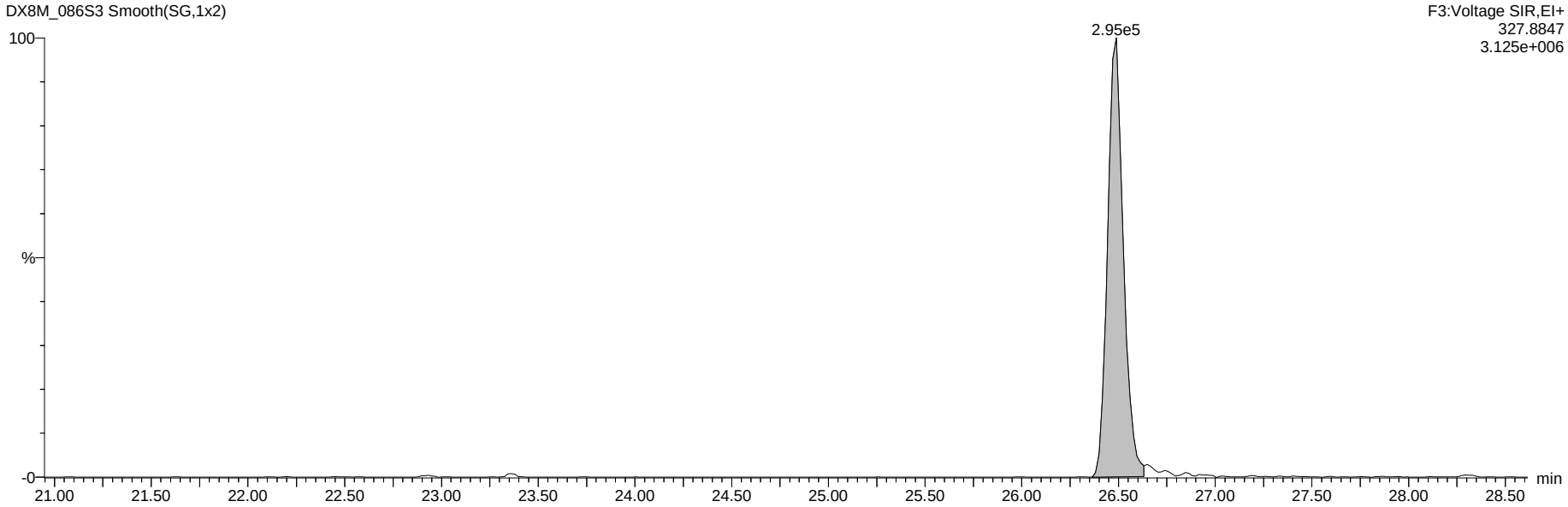
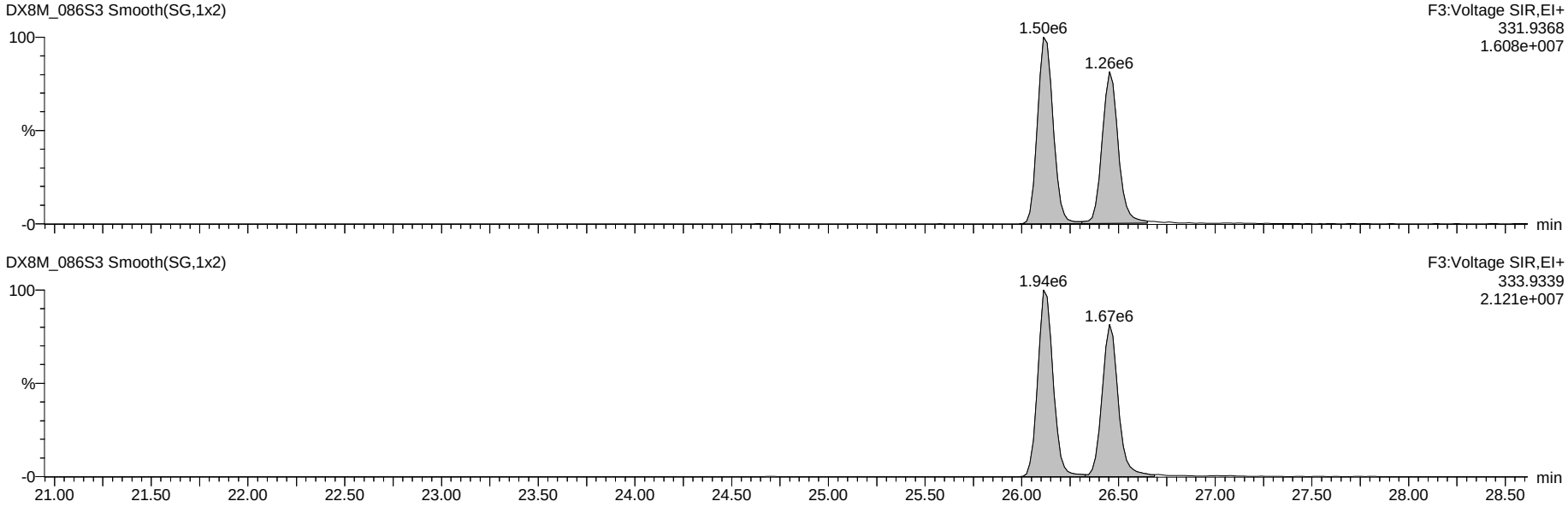
Name: DX8M_086S3, Date: 20-Jul-2018, Time: 17:57:26, ID: WG64578-103,,SPMDUP, Description: 1,WG64578,1.0/20uL

37Cl-2,3,7,8-TCDD



13C-Tetra-Dioxins



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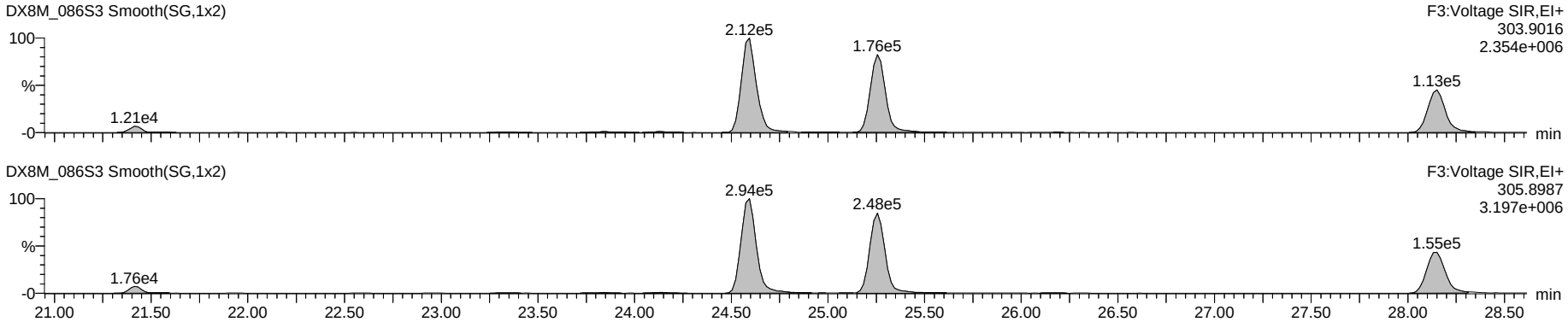
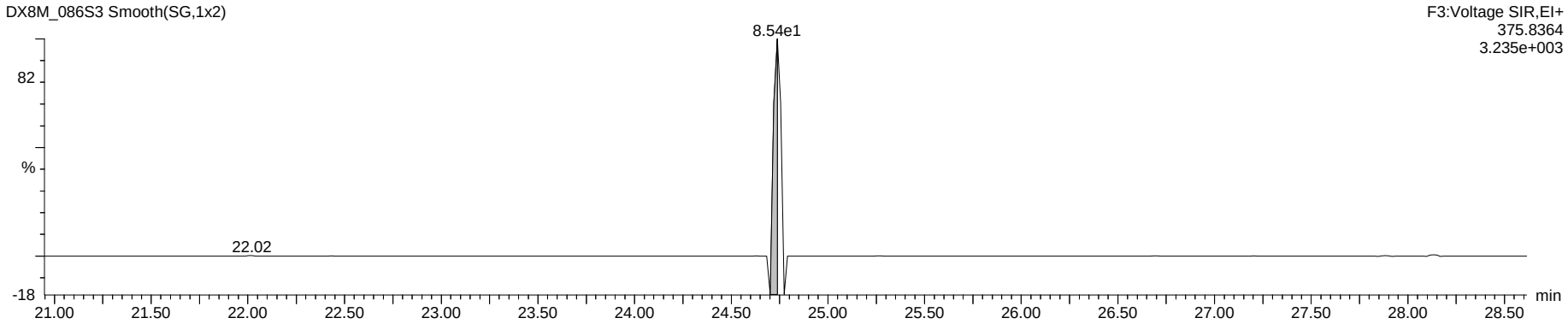
Name: DX8M_086S3, Date: 20-Jul-2018, Time: 17:57:26, ID: WG64578-103,,SPMDUP, Description: 1,WG64578,1.0/20uL

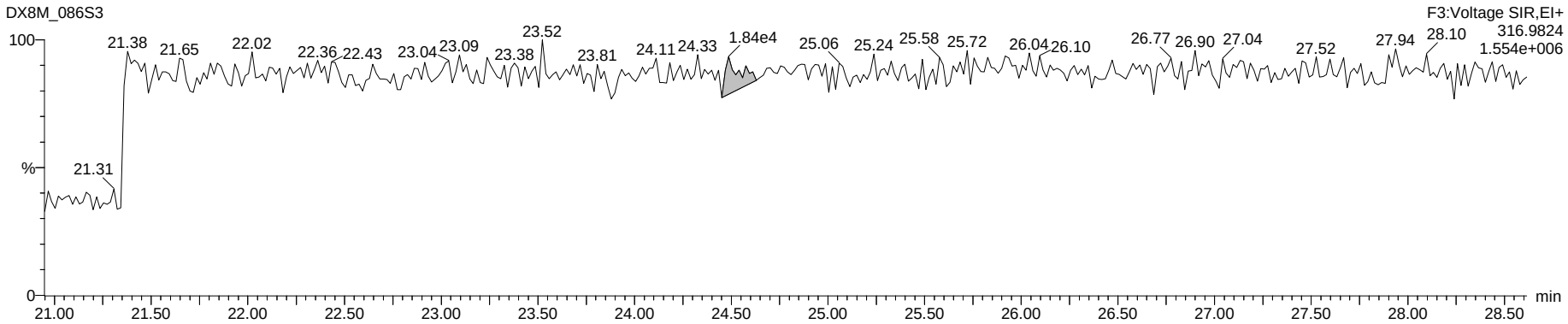
Total Tetra-Furans



Hexa DPE



Tetra Lock



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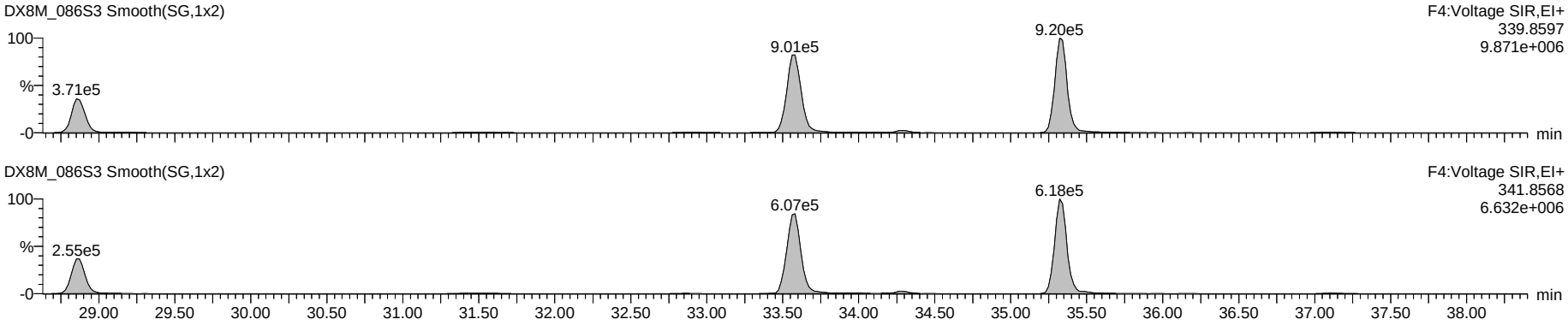
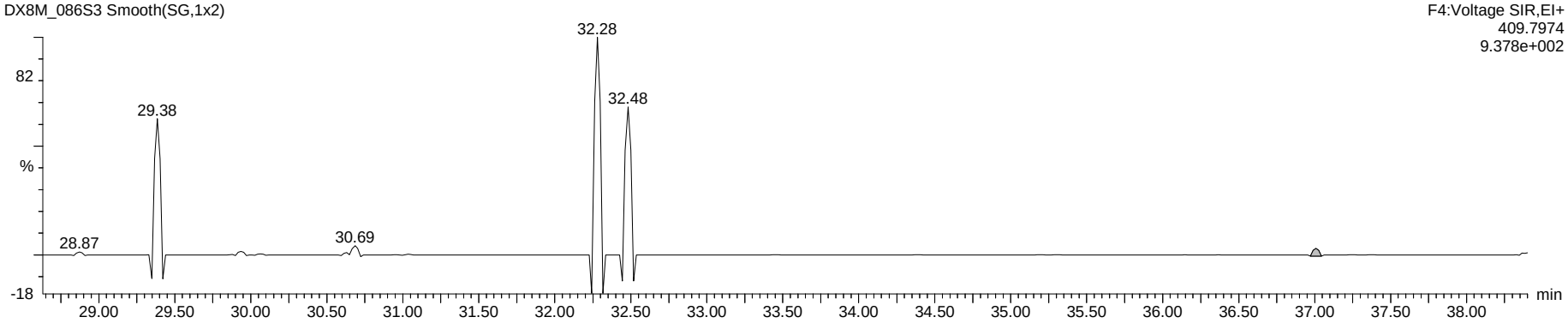
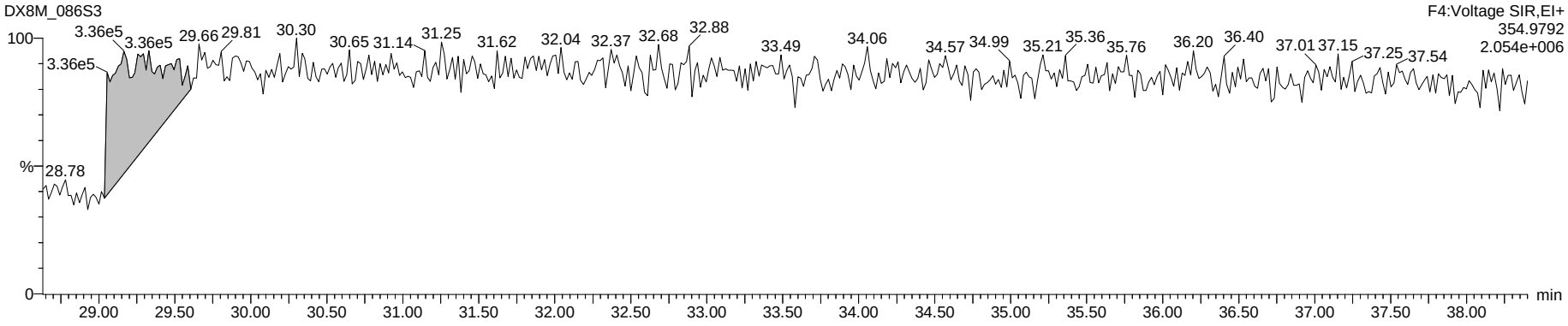
Total Penta-Furans



Hepta DPE



Penta Lock



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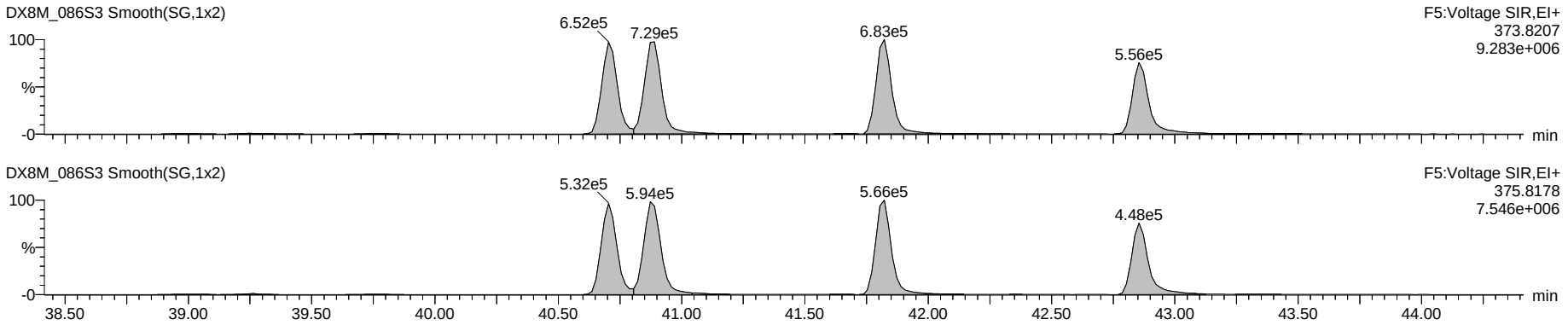
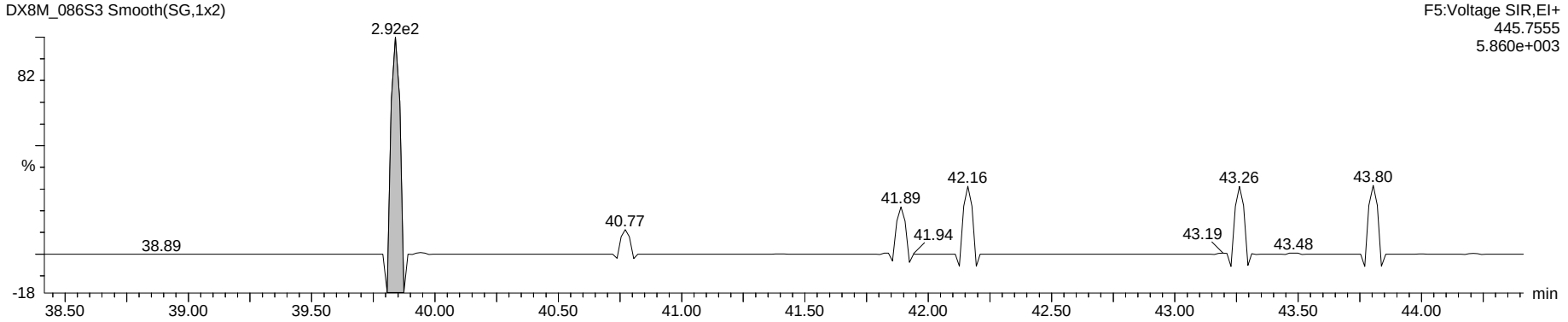
Name: DX8M_086S3, Date: 20-Jul-2018, Time: 17:57:26, ID: WG64578-103,,SPMDUP, Description: 1,WG64578,1.0/20uL

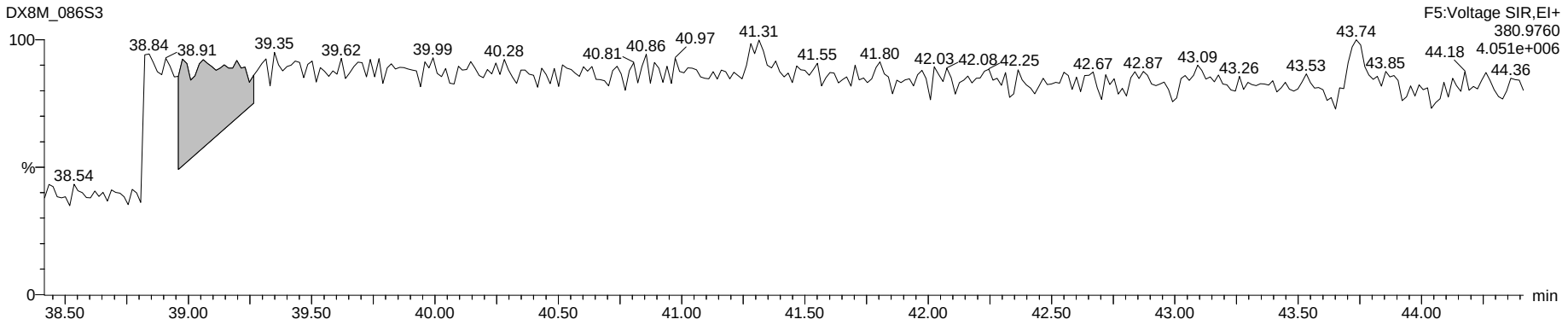
Total Hexa-Furans



Octa DPE



Hexa Lock



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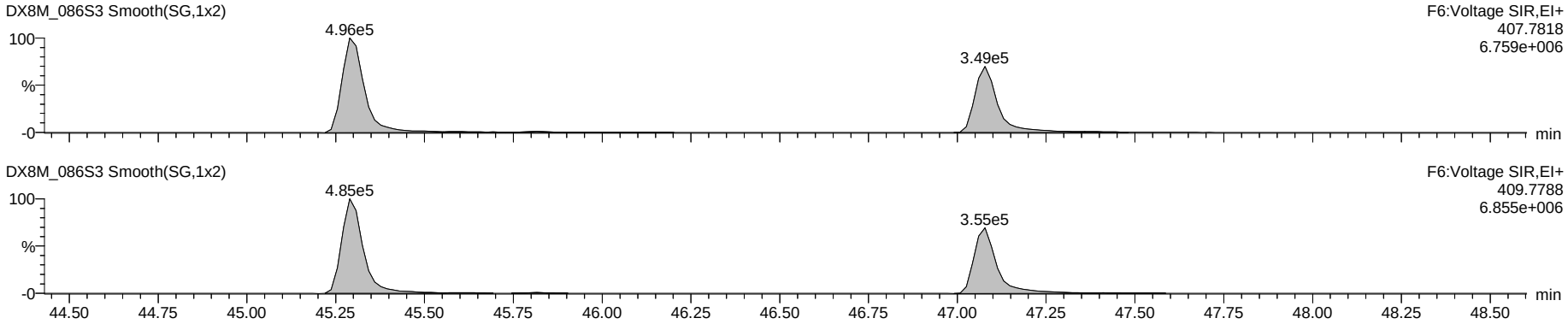
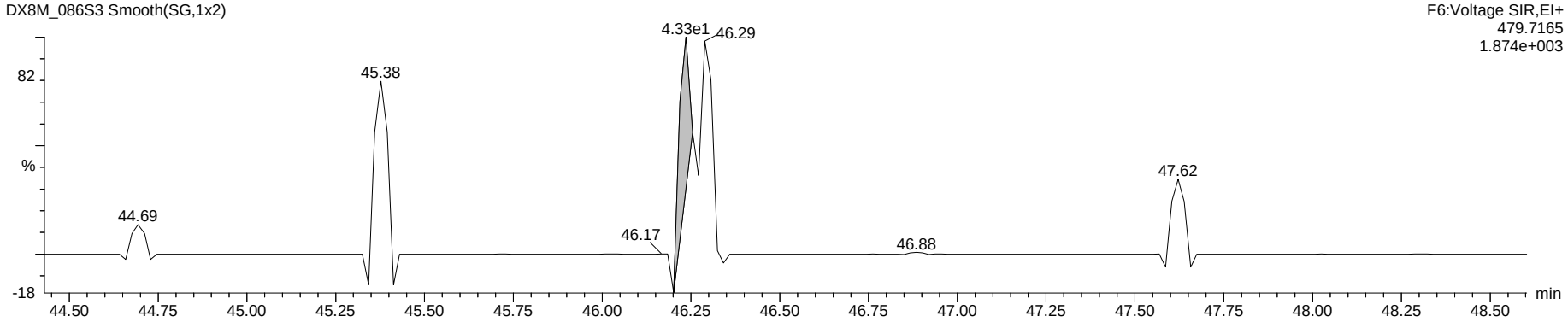
Name: DX8M_086S3, Date: 20-Jul-2018, Time: 17:57:26, ID: WG64578-103,,SPMDUP, Description: 1,WG64578,1.0/20uL

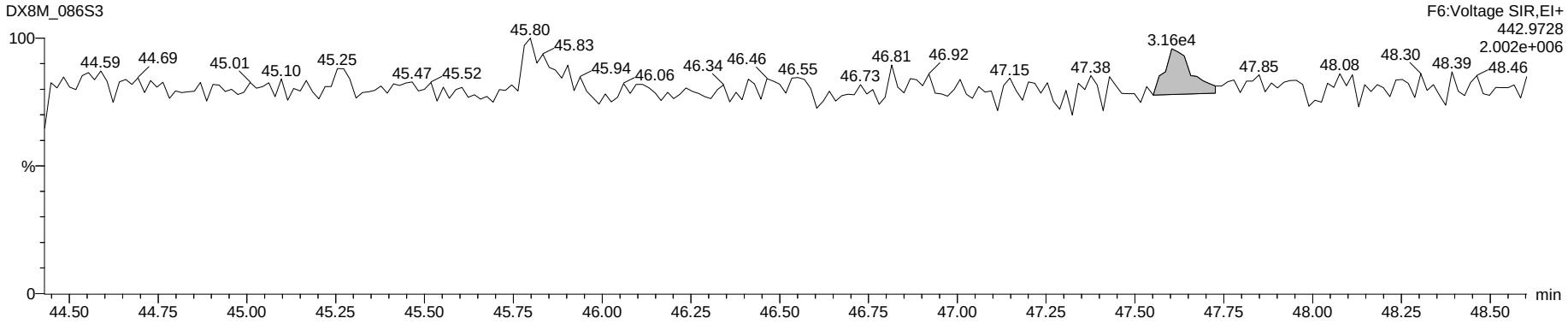
Total Hepta-Furans



Nona DPE



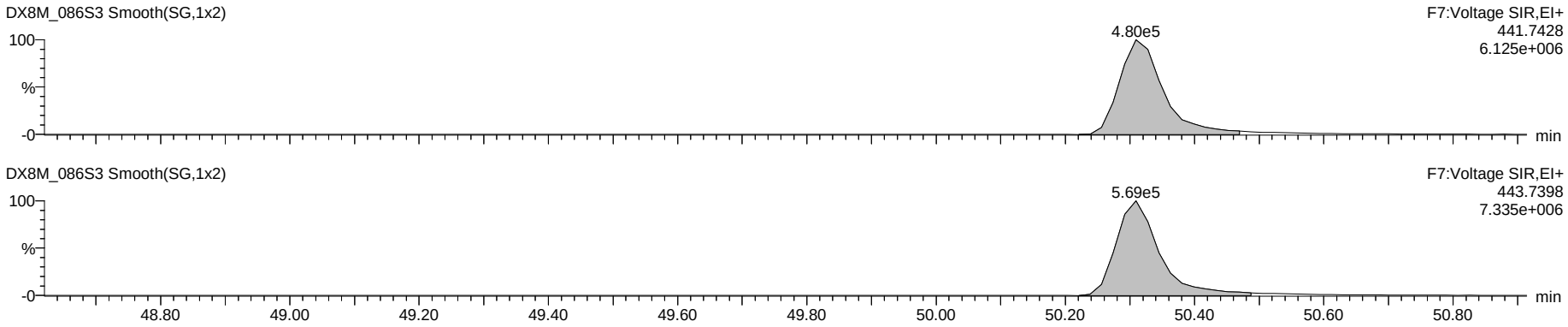
Hepta Lock



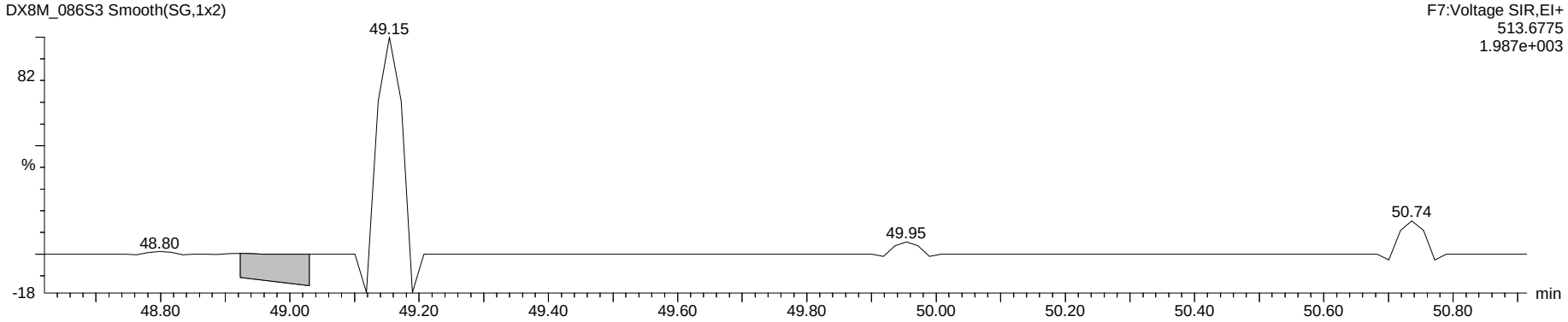
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S3, Date: 20-Jul-2018, Time: 17:57:26, ID: WG64578-103,,SPMDUP, Description: 1,WG64578,1.0/20uL

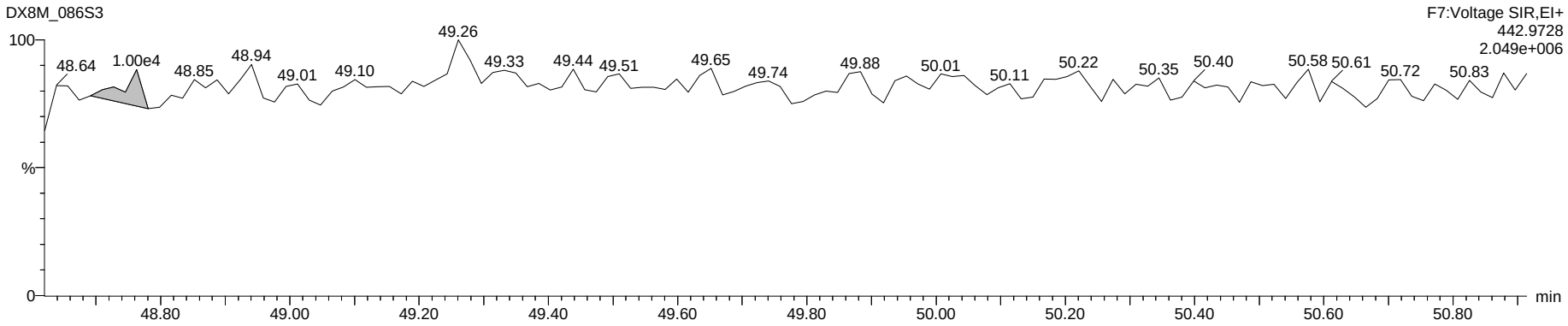
OCDF



Deca DPE



Octa Lock



SGS Axys Analytical Services, Ltd.

Method: G:\Masslynx\Inst_M\Projects\180604DX.PRO\MethDB\DX_Log.mdb 21 Nov 2008 11:39:44
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Compound name: -

#	Name	ID	Sample Text	Acq Date	Acq Time
1	DX8M_065CS1	DX041A-CAL,,/01	1,,1.0uL CS-0.2 Sens	04-Jun-18	17:29:08
2	DX8M_065CS2	DX041B-CAL,,/01	1,,1.0uL CS-1	04-Jun-18	19:18:47
3	DX8M_065CS3	DX041B-CAL,,/01	1,,1.0uL CS-1	04-Jun-18	20:28:43
4	DX8M_065CS4	DX041C-CAL,,/01	1,,1.0uL CS-2	04-Jun-18	21:21:16
5	DX8M_065CS5	DX041F-CAL,,/01	1,,1.0uL CS-5	04-Jun-18	22:16:47
6	DX8M_065CS6	DX041E-CAL,,/01	1,,1.0uL CS-4	04-Jun-18	23:11:40
7	DX8M_065CS7	DX041D-CAL,,/01-91	1,,1.0uL Cal Win/Res	05-Jun-18	00:06:54
8	DX8M_065CS8	DX003A-SSV,,/01	1,,1.0uL Cal	05-Jun-18	01:11:21

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6A.qld

Method: G:\Masslynx\Inst_M\Projects\180604DX.PRO\MethDB\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.PRO\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_065CS1, Date: 04-Jun-2018, Time: 17:29:08, ID: DX041A-CAL,,/01, Description: 1,,1.0uL CS-0.2 Sens

	Name	Amount	Resp	Ratio	fails?	RT	RRF	RRF Mean	RRF SD	RRF %Rel SD	S/N	1° S/N
1	2,3,7,8-TCDF	0.100	3.99e3	0.82	NO	25.24	0.935	0.9149	0.022	2.43	102	48
2	1,2,3,7,8-PeCDF	0.500	1.42e4	1.49	NO	33.56	0.932	0.9236	0.039	4.19	988	70
3	2,3,4,7,8-PeCDF	0.500	1.38e4	1.53	NO	35.34	0.946	0.9391	0.013	1.39	1087	82
4	1,2,3,4,7,8-HxCDF	0.500	1.14e4	1.36	NO	40.70	1.091	1.1161	0.036	3.26	525	583
5	1,2,3,6,7,8-HxCDF	0.500	1.18e4	1.27	NO	40.89	1.075	1.0626	0.029	2.74	530	533
6	2,3,4,6,7,8-HxCDF	0.500	1.09e4	1.26	NO	41.82	1.101	1.1400	0.036	3.17	483	620
7	1,2,3,7,8,9-HxCDF	0.500	9.41e3	1.20	NO	42.86	0.949	0.9992	0.030	2.99	436	475
8	1,2,3,4,6,7,8-HpCDF	0.500	9.75e3	1.01	NO	45.31	1.157	1.2235	0.041	3.38	743	377
9	1,2,3,4,7,8,9-HpCDF	0.500	8.29e3	1.02	NO	47.10	1.243	1.2522	0.017	1.37	603	309
10	OCDF	1.000	1.35e4	0.91	NO	50.33	1.117	1.2272	0.084	6.84	196075	1508
11	2,3,7,8-TCDD	0.100	3.32e3	0.77	NO	26.47	1.257	1.1119	0.079	7.15	29	88
12	1,2,3,7,8-PeCDD	0.500	8.02e3	0.53	NO	36.15	0.925	1.0267	0.055	5.33	51	310
13	1,2,3,4,7,8-HxCDD	0.500	7.65e3	1.19	NO	42.11	0.940	1.0036	0.036	3.60	31	140
14	1,2,3,6,7,8-HxCDD	0.500	7.38e3	1.41	NO	42.23	0.839	0.9343	0.029	3.09	30	138
15	1,2,3,7,8,9-HxCDD	0.500	8.39e3	1.24	NO	42.67	1.020	0.9712	0.032	3.34	28	148
16	1,2,3,4,6,7,8-HpCDD	0.500	6.99e3	1.02	NO	46.67	1.024	0.9956	0.020	2.04	118	58
17	OCDD	1.000	1.23e4	0.84	NO	50.26	1.021	1.0186	0.028	2.76	195090	416
18	13C-2,3,7,8-TCDF	100.000	4.26e6	0.77	NO	25.22	1.679	1.6147	0.046	2.83	3010	4894
19	13C-1,2,3,7,8-PeCDF	100.000	3.05e6	1.56	NO	33.54	1.203	1.1640	0.091	7.84	2789	2471
20	13C-2,3,4,7,8-PeCDF	100.000	2.92e6	1.54	NO	35.30	1.149	1.1228	0.100	8.87	3006	2748
21	13C-1,2,3,4,7,8-HxCDF	100.000	2.09e6	0.50	NO	40.69	1.345	1.2764	0.037	2.93	2103	6431
22	13C-1,2,3,6,7,8-HxCDF	100.000	2.20e6	0.52	NO	40.86	1.415	1.3633	0.031	2.30	2324	6789
23	13C-2,3,4,6,7,8-HxCDF	100.000	1.99e6	0.51	NO	41.81	1.280	1.2182	0.036	2.95	2086	6277
24	13C-1,2,3,7,8,9-HxCDF	100.000	1.98e6	0.52	NO	42.84	1.276	1.2015	0.043	3.61	2186	6453
25	13C-1,2,3,4,6,7,8-HpCDF	100.000	1.69e6	0.46	NO	45.29	1.085	1.0186	0.040	3.89	2759	4177
26	13C-1,2,3,4,7,8,9-HpCDF	100.000	1.33e6	0.47	NO	47.08	0.859	0.7945	0.043	5.44	2172	3262
27	13C-2,3,7,8-TCDD	100.000	2.64e6	0.79	NO	26.45	1.039	1.0042	0.038	3.74	2628	8006
28	13C-1,2,3,7,8-PeCDD	100.000	1.73e6	0.66	NO	36.13	0.683	0.6582	0.053	8.04	6063	12255
29	13C-1,2,3,4,7,8-HxCDD	100.000	1.63e6	1.27	NO	42.08	1.048	0.9841	0.037	3.74	4886	2789
30	13C-1,2,3,6,7,8-HxCDD	100.000	1.66e6	1.23	NO	42.23	1.069	1.0407	0.026	2.53	4952	2852
31	13C-1,2,3,4,6,7,8-HpCDD	100.000	1.36e6	1.01	NO	46.67	0.878	0.8135	0.035	4.34	7804	3670
32	13C-OCDD	200.000	2.41e6	0.88	NO	50.24	0.776	0.7155	0.075	10.43	6227	4558
33	13C-1,2,3,4-TCDD	100.000	2.54e6	0.79	NO	26.13	253...	22602.6799	1977.986	8.75	2513	7580
34	13C-1,2,3,7,8,9-HxCDD	100.000	1.55e6	1.30	NO	42.63	155...	14280.3905	2145.257	15.02	4690	2715
35	37Cl-2,3,7,8-TCDD	0.100	2.69e3			26.49	1.061	1.1134	0.079	7.11	77	
36	Total Tetra-Furans	0.100						0.9149	0.022	2.43		
37	Total Tetra-Dioxins	0.100						1.1119	0.079	7.15		
38	Total Penta-Furans	0.500						0.9236	0.039	4.19		
39	Total Penta-Dioxins	0.500						1.0267	0.055	5.33		
40	Total Hexa-Furans	0.500						1.1161	0.036	3.26		
41	Total Hexa-Dioxins	0.500						1.0036	0.036	3.60		
42	Total Hepta-Furans	0.500						1.2235	0.041	3.38		
43	Total Hepta-Dioxins	0.500						0.9956	0.020	2.04		
44	Hexa DPE	0.000	1.60e1			23.86	0.000				313	
45	Hepta DPE	0.000	1.89e2			32.77	0.000				17979	
46	Octa DPE	0.000	3.46e0			41.03	0.000				-0	
47	Nona DPE	0.000	9.63e1			47.03	0.000				4353	
48	Deca DPE	0.000	4.76e1			50.27	0.000				1364	
49	Tetra Lock	0.000										
50	Penta Lock	0.000	9.33e5			29.24	0.000				2	
51	Hexa Lock	0.000	1.72e6			38.81	0.000				1	

PV LHE 06-JUNE-2018

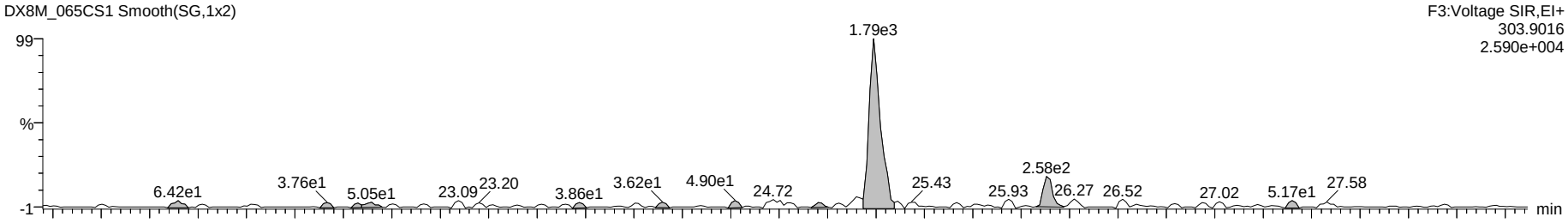
SVeyk 306Jun2018

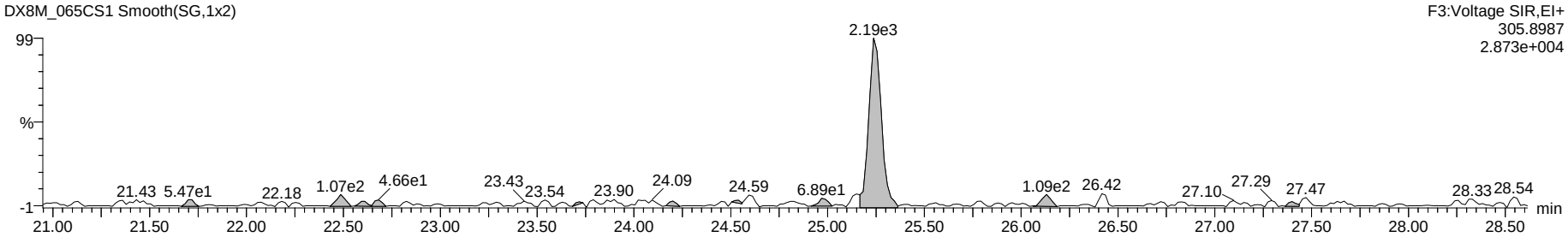
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6A.qld

Method: G:\Masslynx\Inst_M\Projects\180604DX.PRO\MethDB\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: 06 Jun 2018 09:11:00

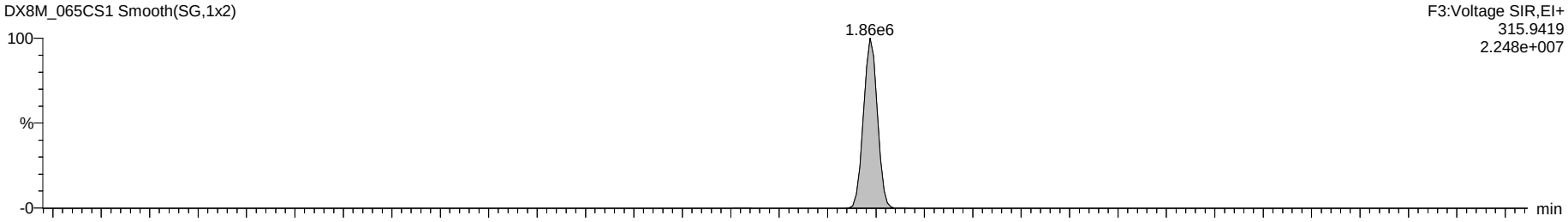
Name: DX8M_065CS1, Date: 04-Jun-2018, Time: 17:29:08, ID: DX041A-CAL,,/01, Description: 1,,1.0uL CS-0.2 Sens

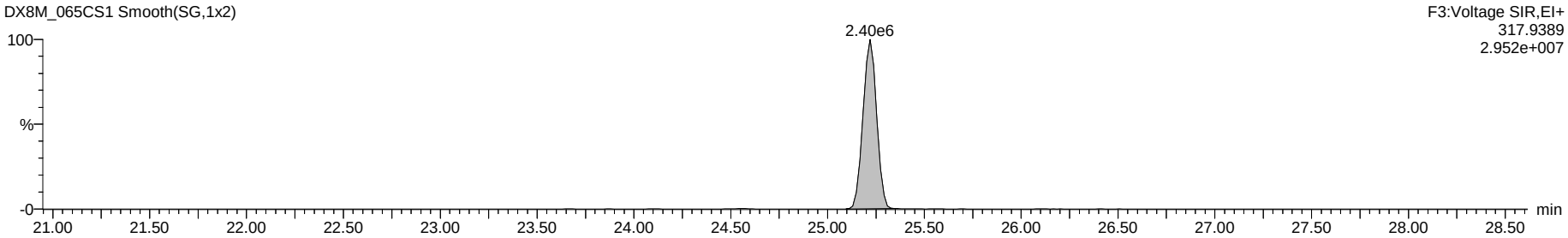
Total Tetra-Furans





13C-Tetra-Furans

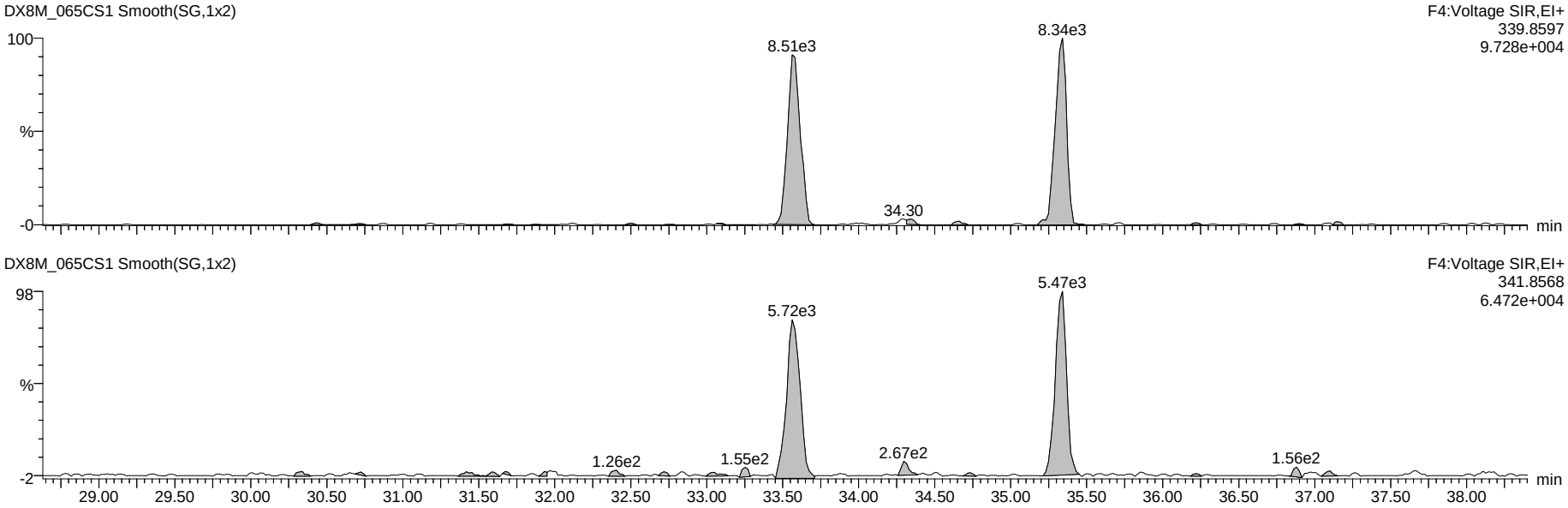




Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6A.qld

Name: DX8M_065CS1, Date: 04-Jun-2018, Time: 17:29:08, ID: DX041A-CAL,,/01, Description: 1,,1.0uL CS-0.2 Sens

Total Penta-Furans



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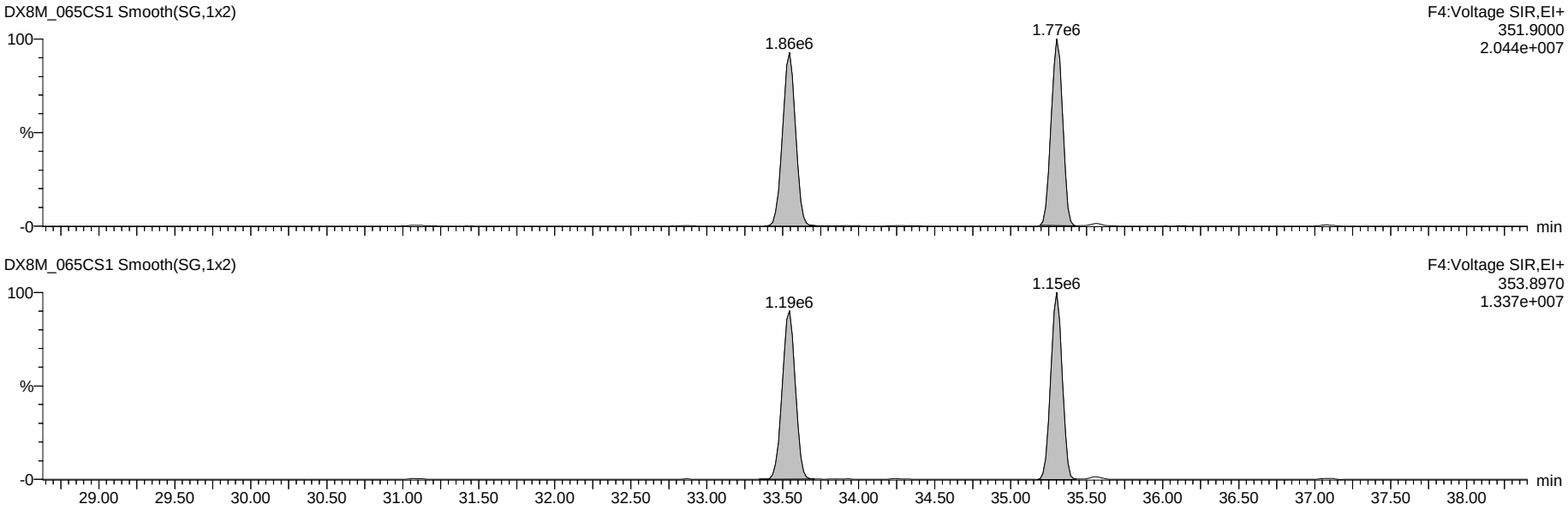

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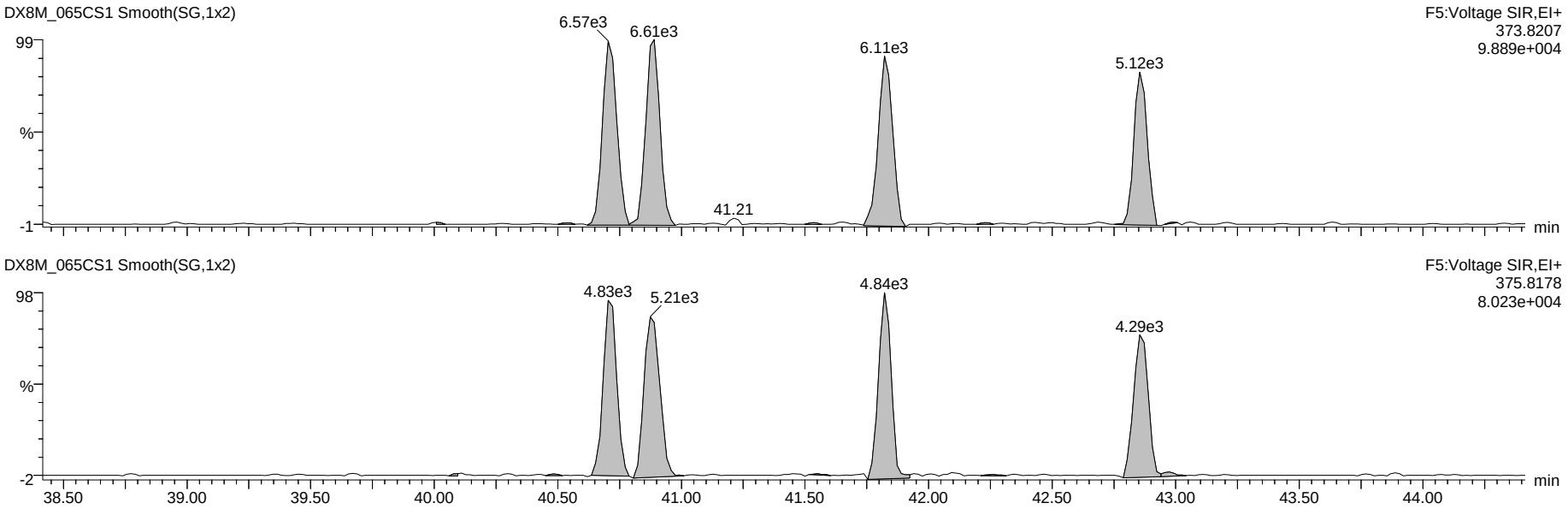
Name: DX8M_065CS1, Date: 04-Jun-2018, Time: 17:29:08, ID: DX041A-CAL,,/01, Description: 1,,1.0uL CS-0.2 Sens

Total Hexa-Furans



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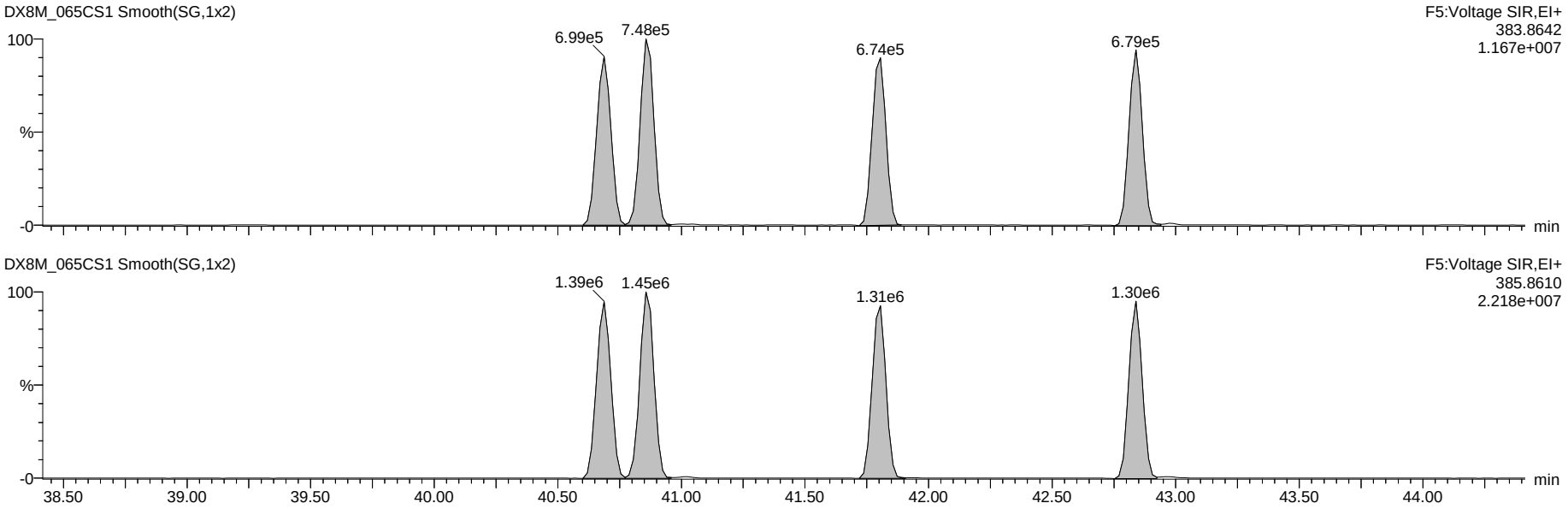

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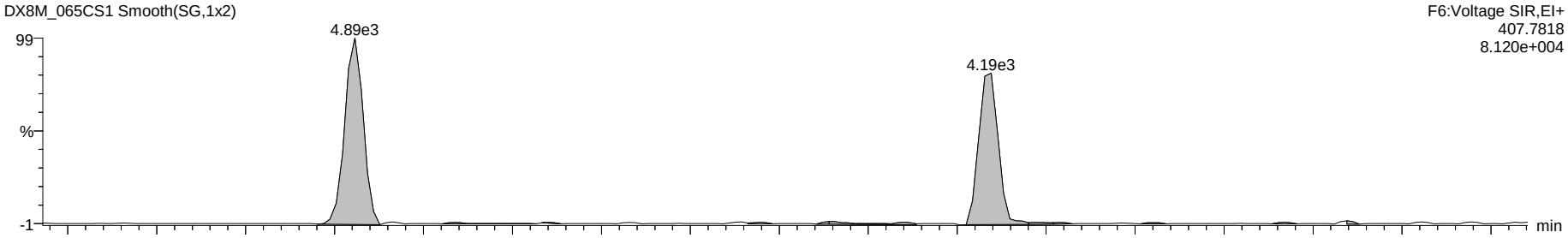
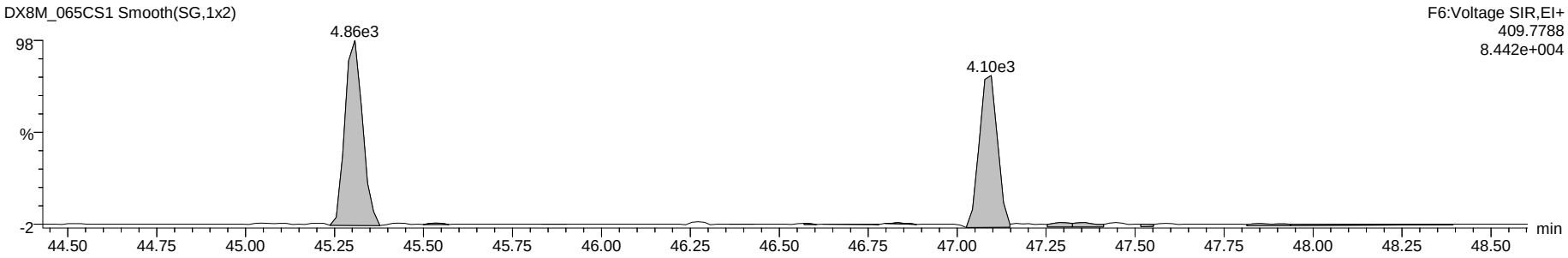
Total Hepta-Furans





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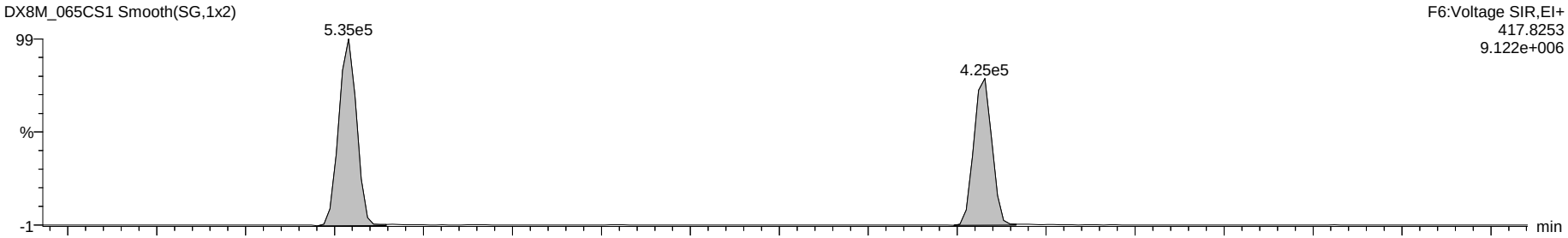

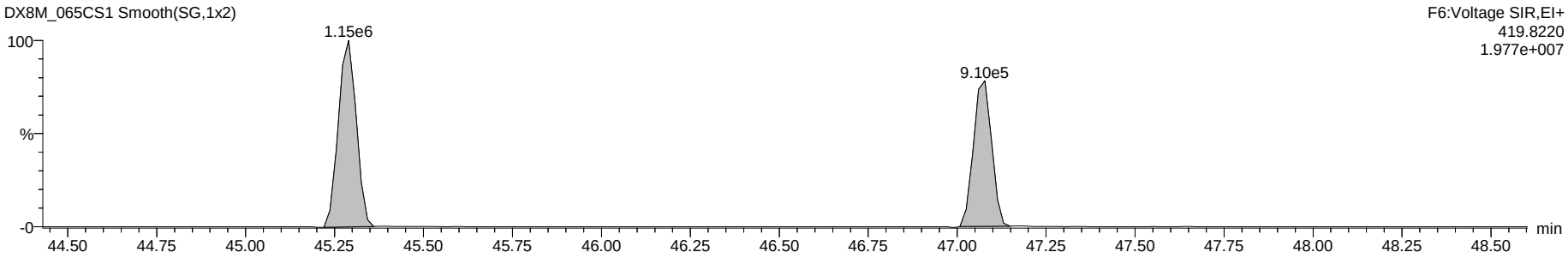

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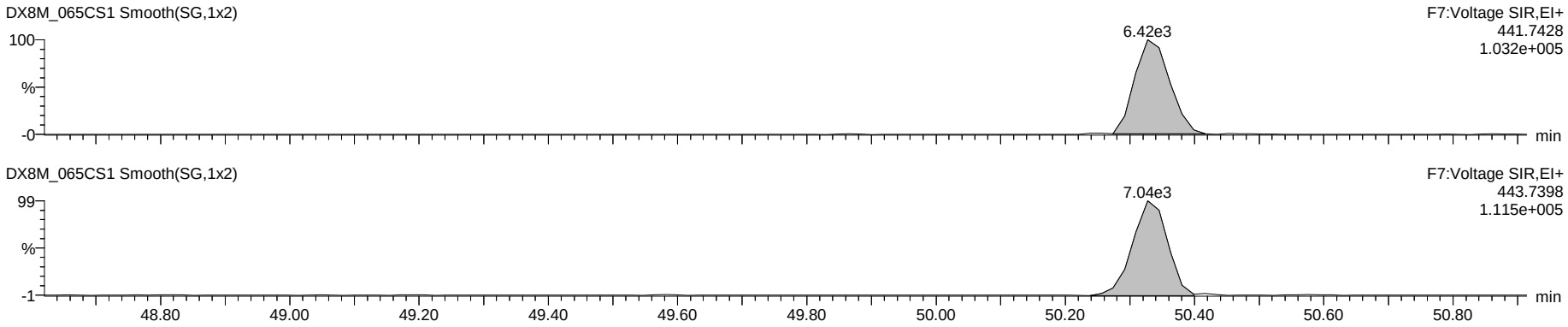
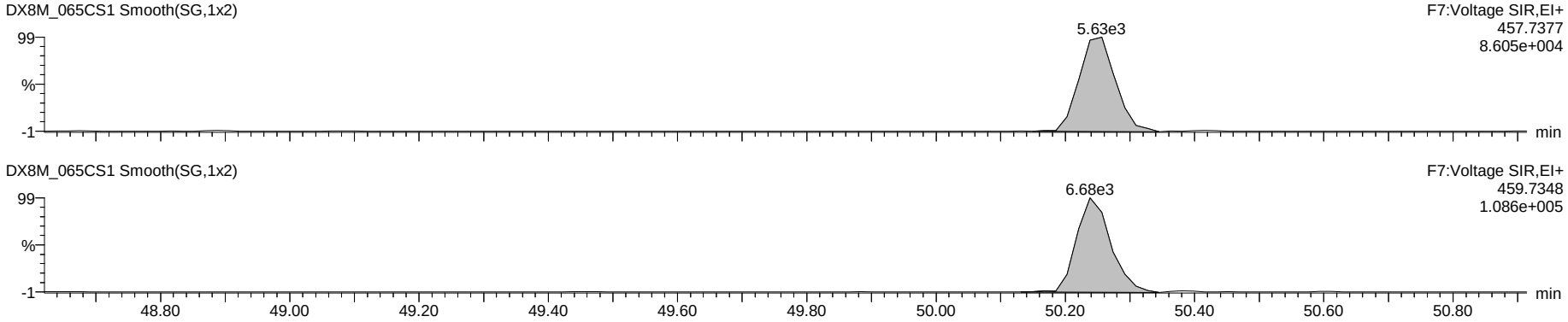
Name: DX8M_065CS1, Date: 04-Jun-2018, Time: 17:29:08, ID: DX041A-CAL,,/01, Description: 1,,1.0uL CS-0.2 Sens

OCDF



OCDD



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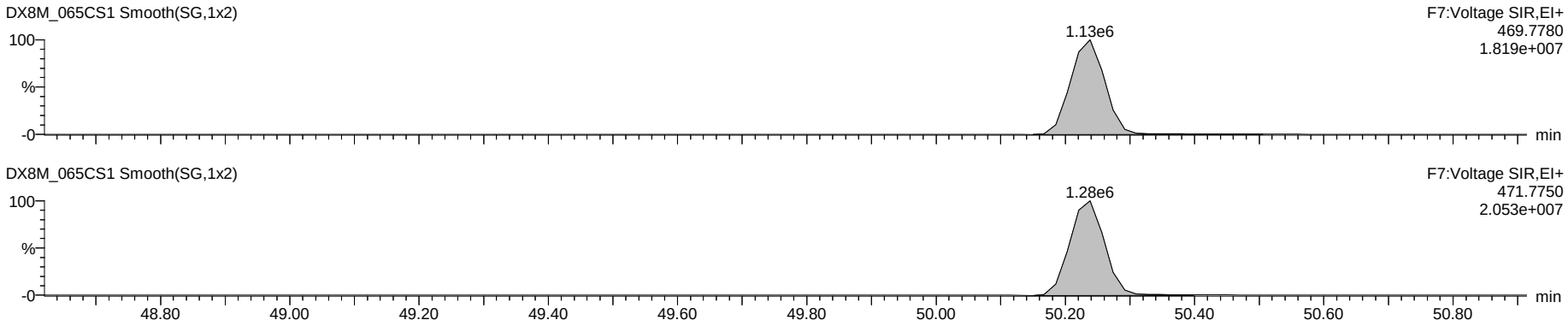

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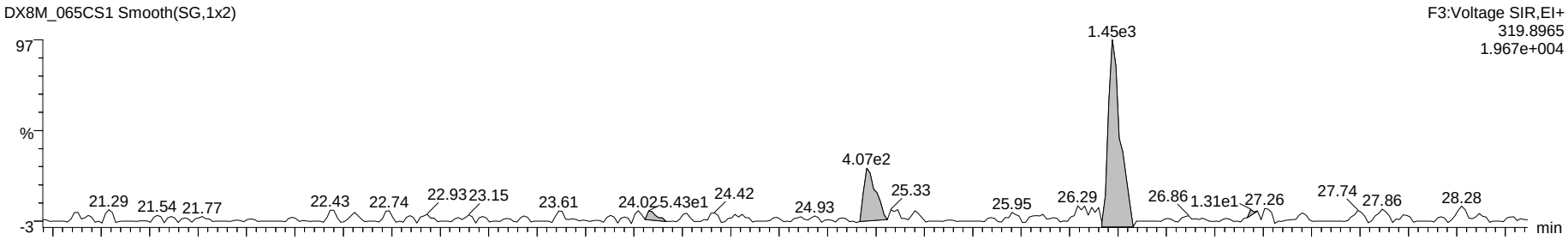
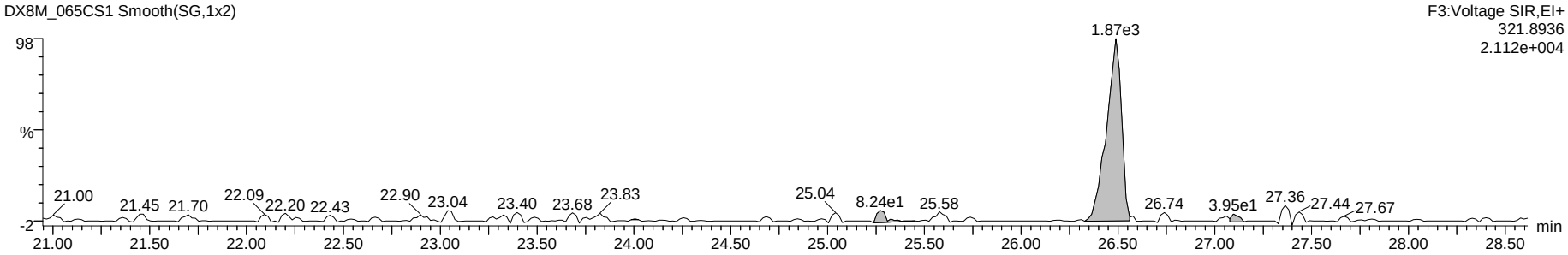
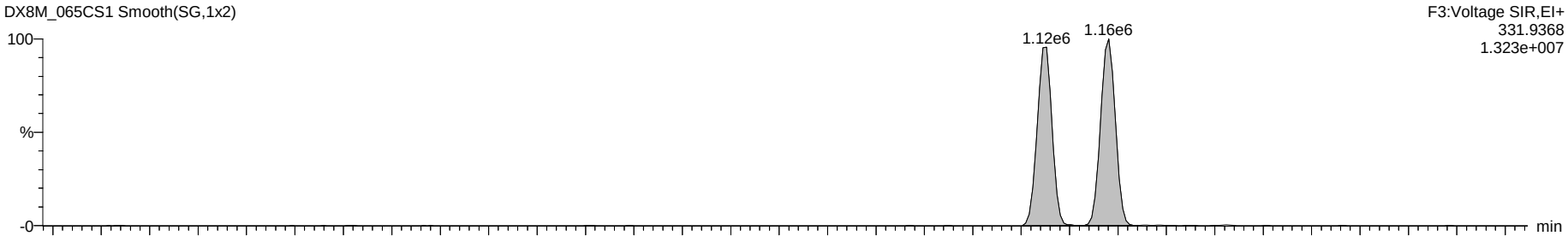
Name: DX8M_065CS1, Date: 04-Jun-2018, Time: 17:29:08, ID: DX041A-CAL,,/01, Description: 1,,1.0uL CS-0.2 Sens

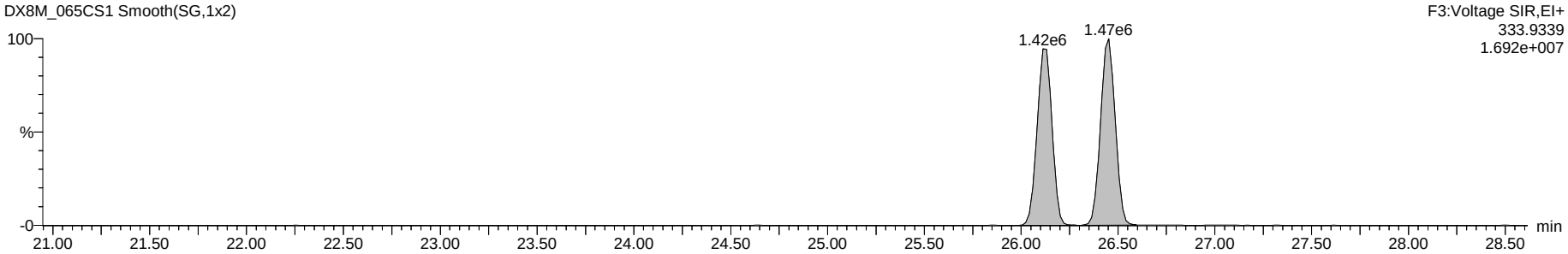
Total Tetra-Dioxins





13C-Tetra-Dioxins





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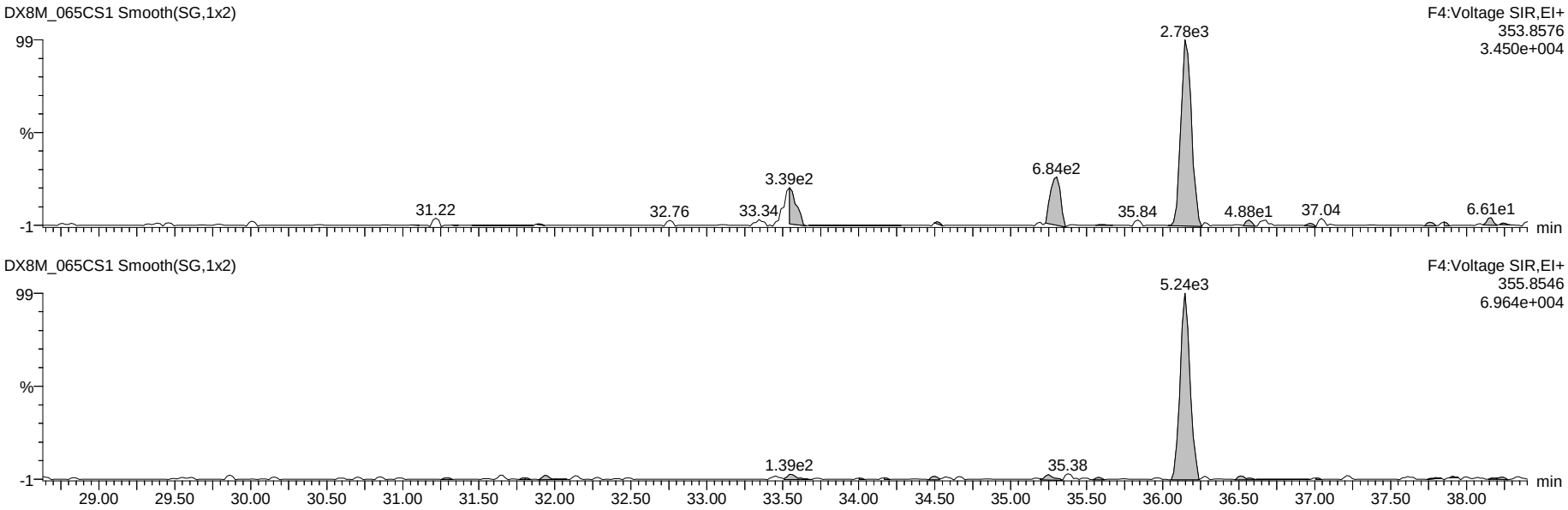
Name: DX8M_065CS1, Date: 04-Jun-2018, Time: 17:29:08, ID: DX041A-CAL,,/01, Description: 1,,1.0uL CS-0.2 Sens

Total Penta-Dioxins



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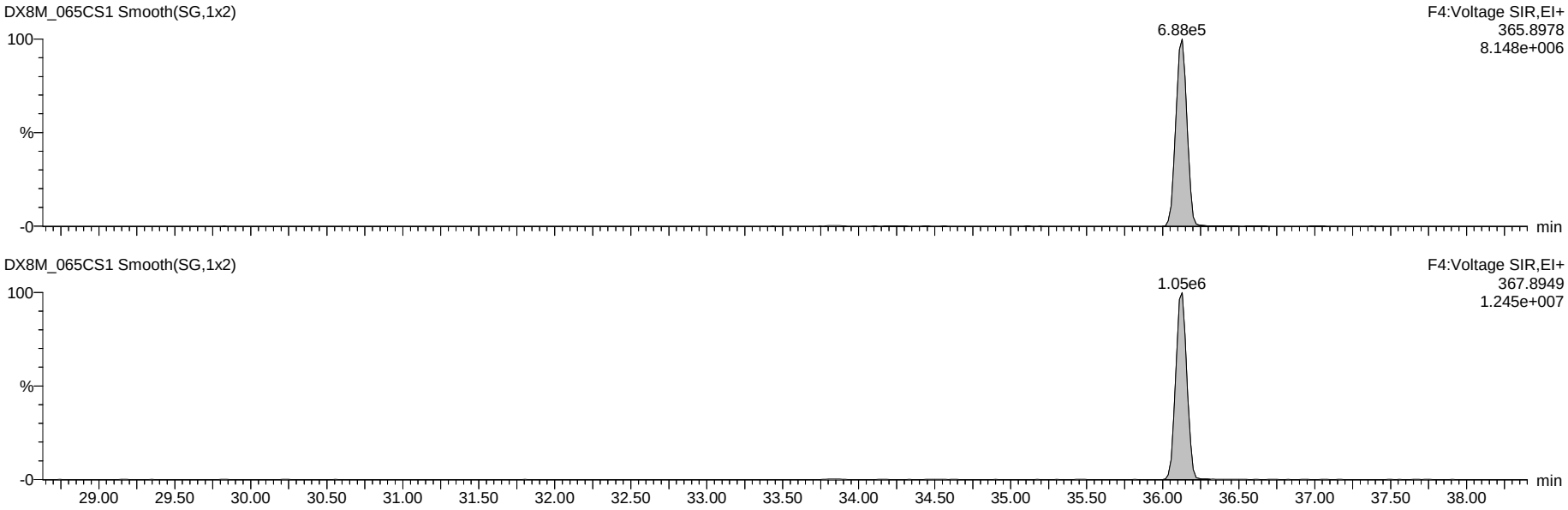

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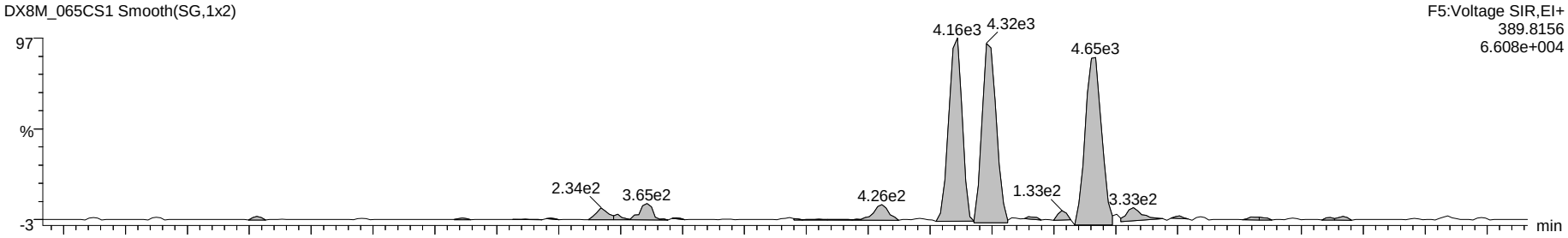
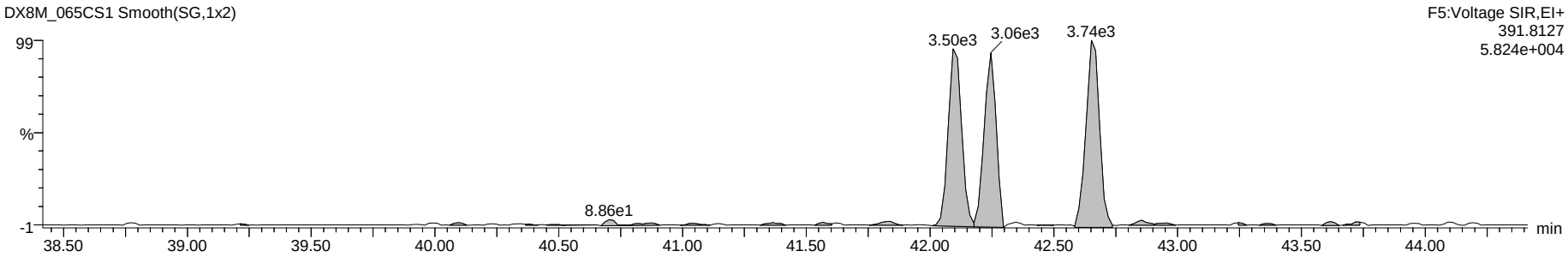
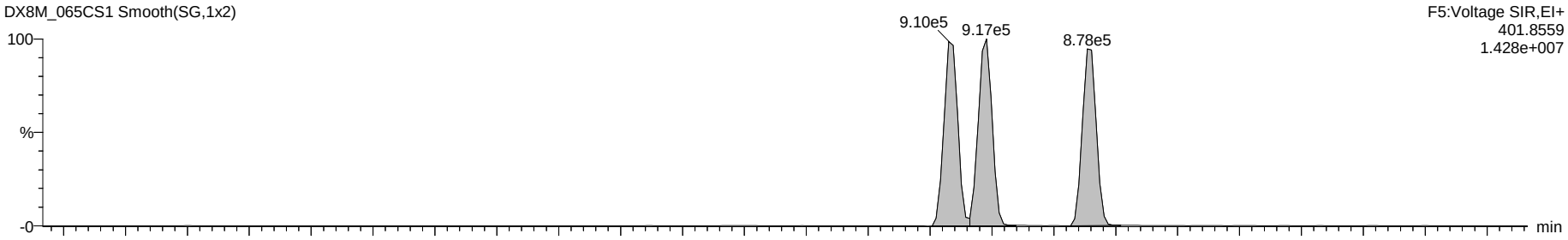
Name: DX8M_065CS1, Date: 04-Jun-2018, Time: 17:29:08, ID: DX041A-CAL,,/01, Description: 1,,1.0uL CS-0.2 Sens

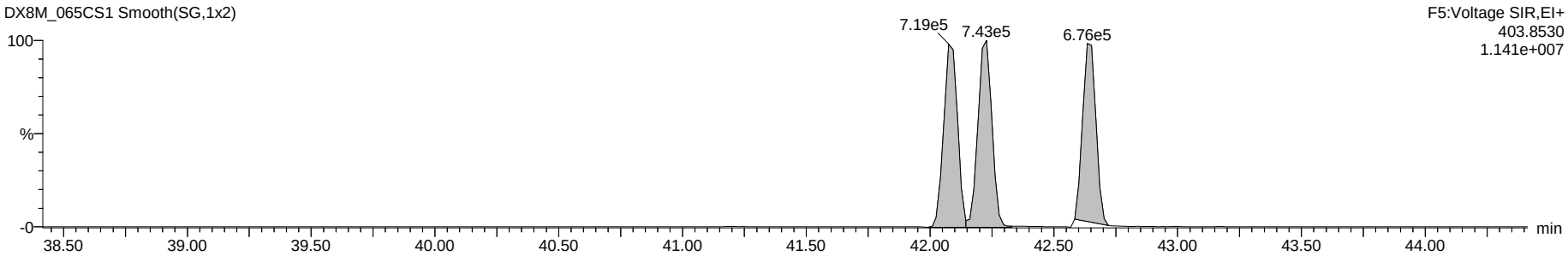
Total Hexa-Dioxins





13C-Hexa-Dioxins

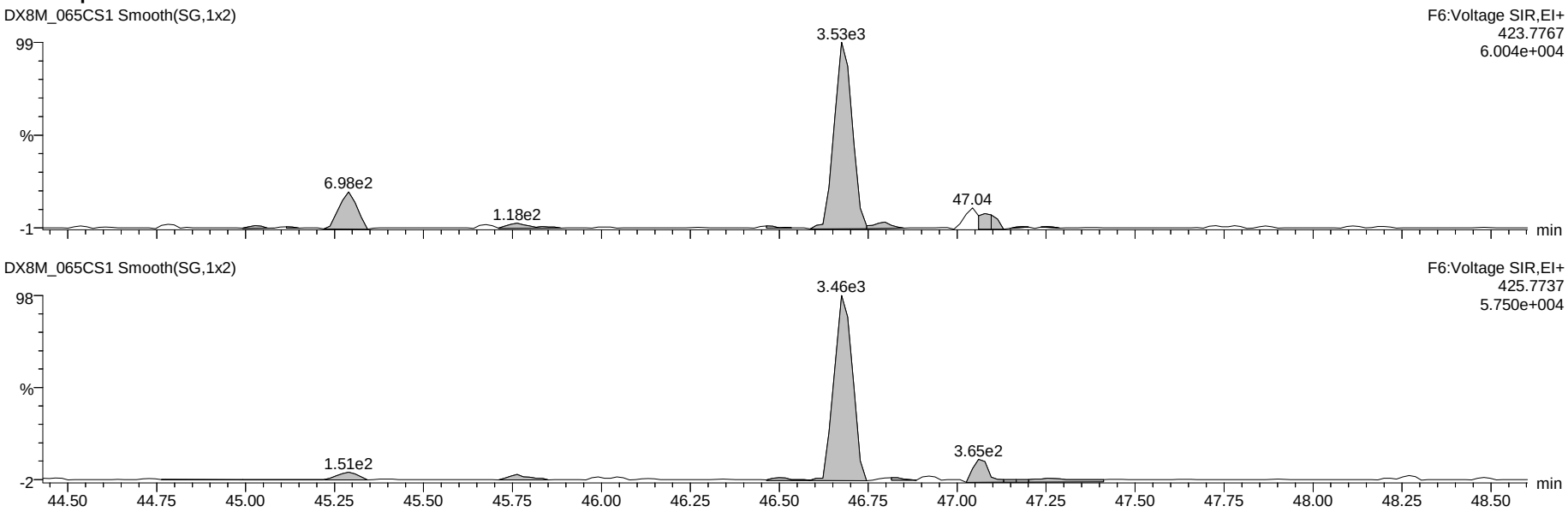




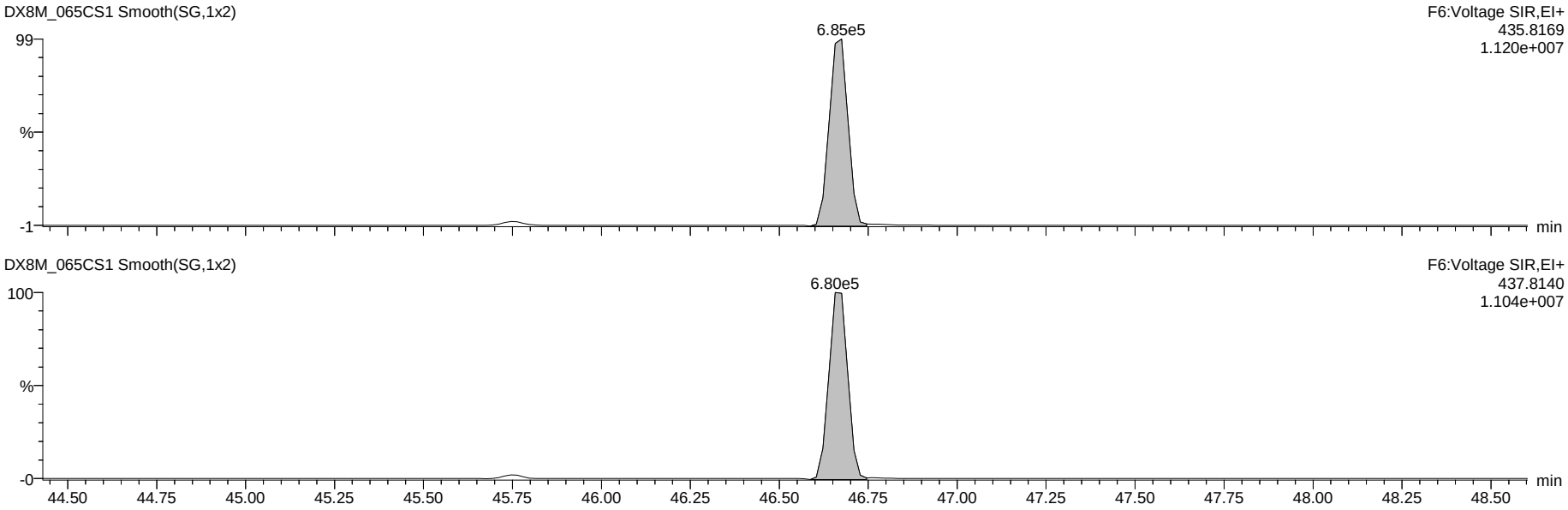
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6A.qld

Name: DX8M_065CS1, Date: 04-Jun-2018, Time: 17:29:08, ID: DX041A-CAL,,/01, Description: 1,,1.0uL CS-0.2 Sens

Total Hepta-Dioxins



13C-Hepta-Dioxins



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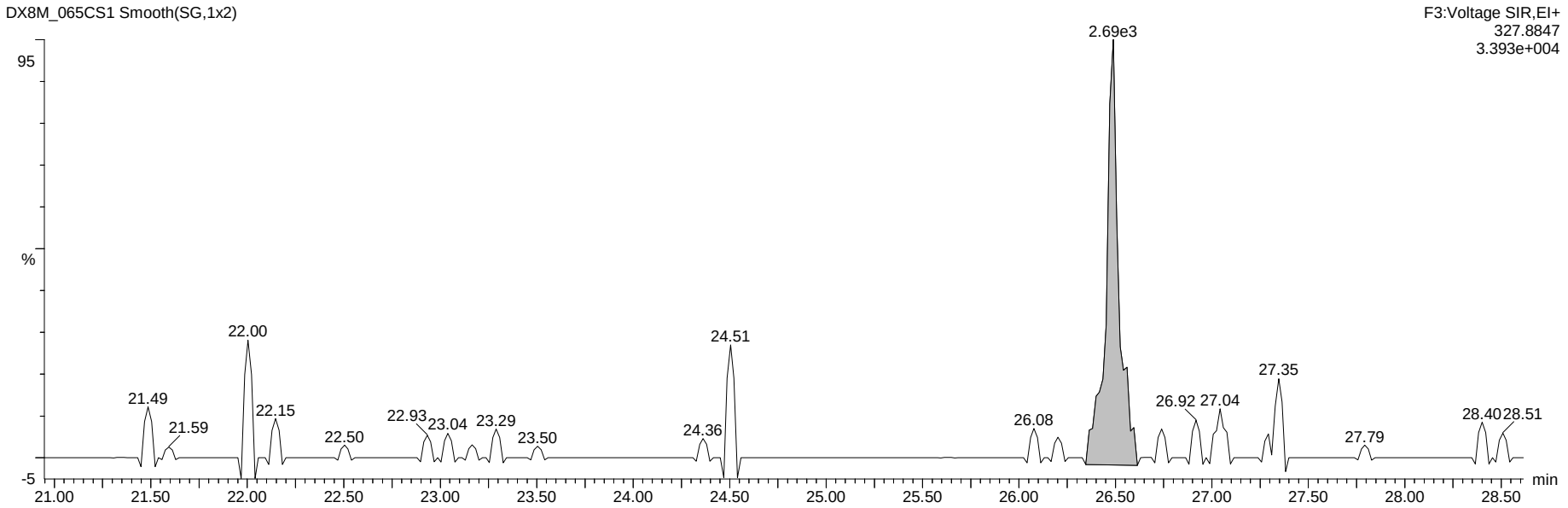
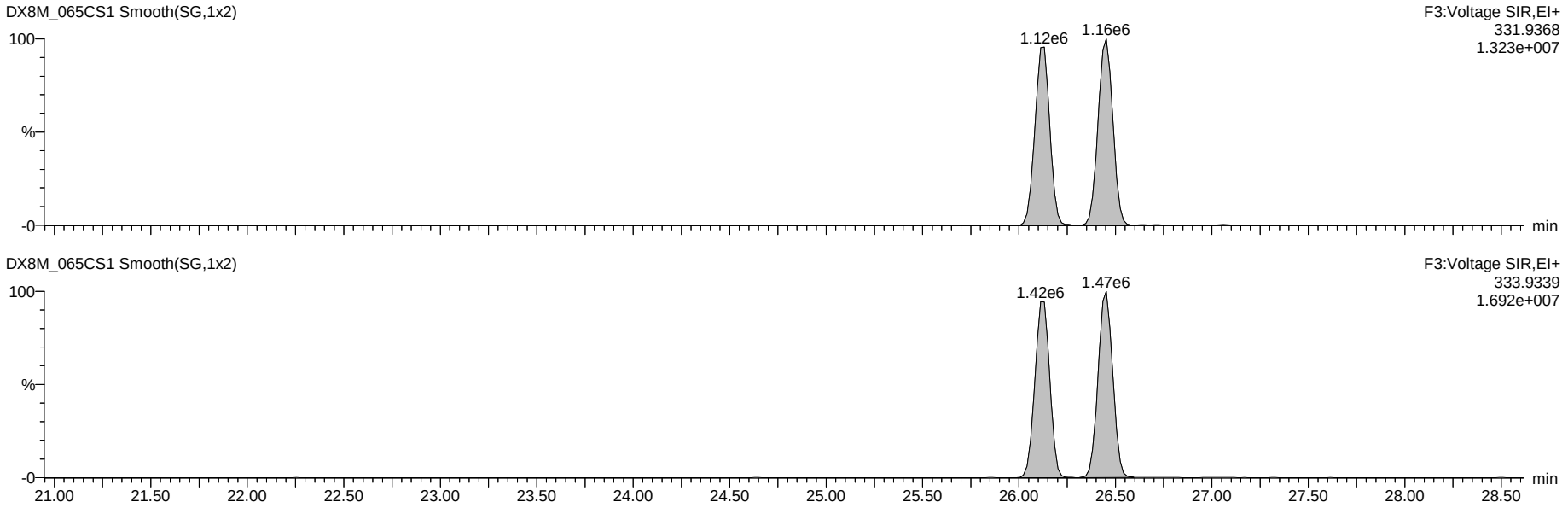
Name: DX8M_065CS1, Date: 04-Jun-2018, Time: 17:29:08, ID: DX041A-CAL,,/01, Description: 1,,1.0uL CS-0.2 Sens

37Cl-2,3,7,8-TCDD



13C-Tetra-Dioxins



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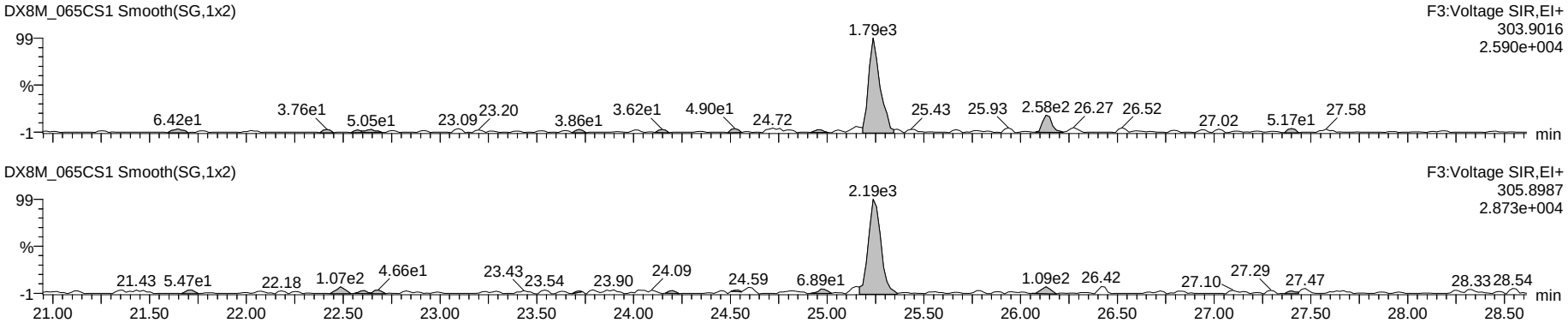
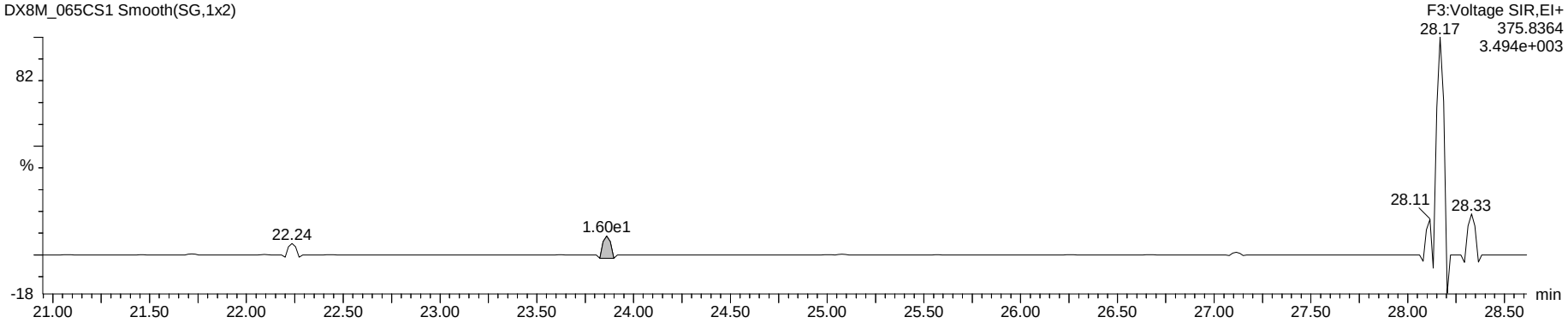
Name: DX8M_065CS1, Date: 04-Jun-2018, Time: 17:29:08, ID: DX041A-CAL,,/01, Description: 1,,1.0uL CS-0.2 Sens

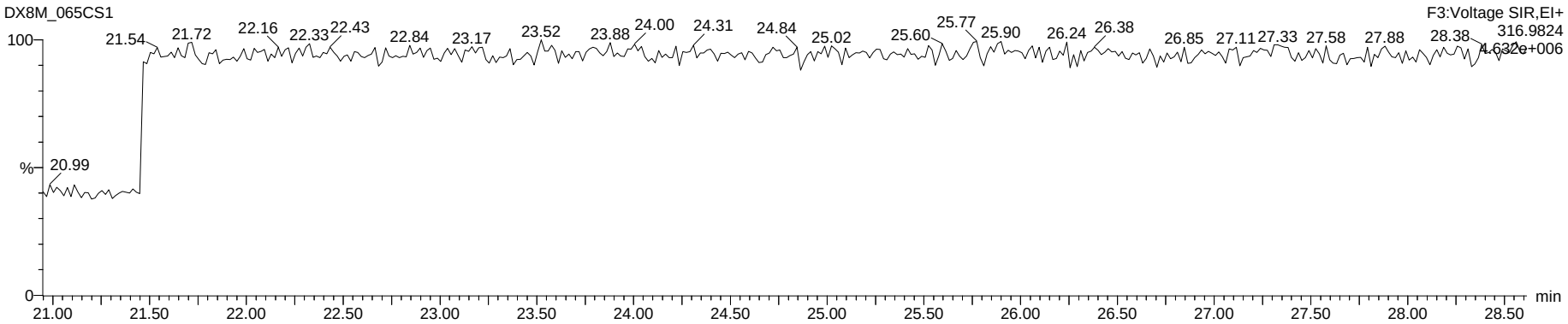
Total Tetra-Furans



Hexa DPE



Tetra Lock



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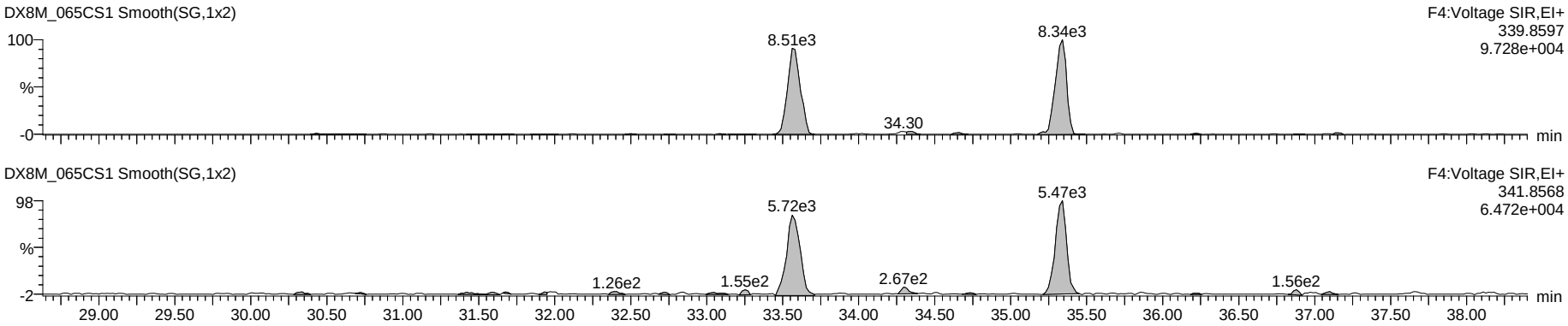
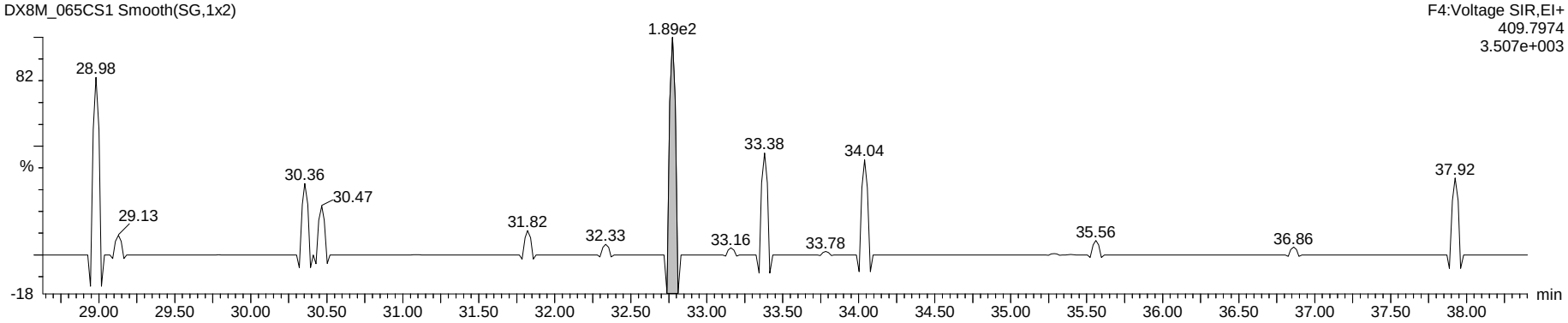
Name: DX8M_065CS1, Date: 04-Jun-2018, Time: 17:29:08, ID: DX041A-CAL,,/01, Description: 1,,1.0uL CS-0.2 Sens

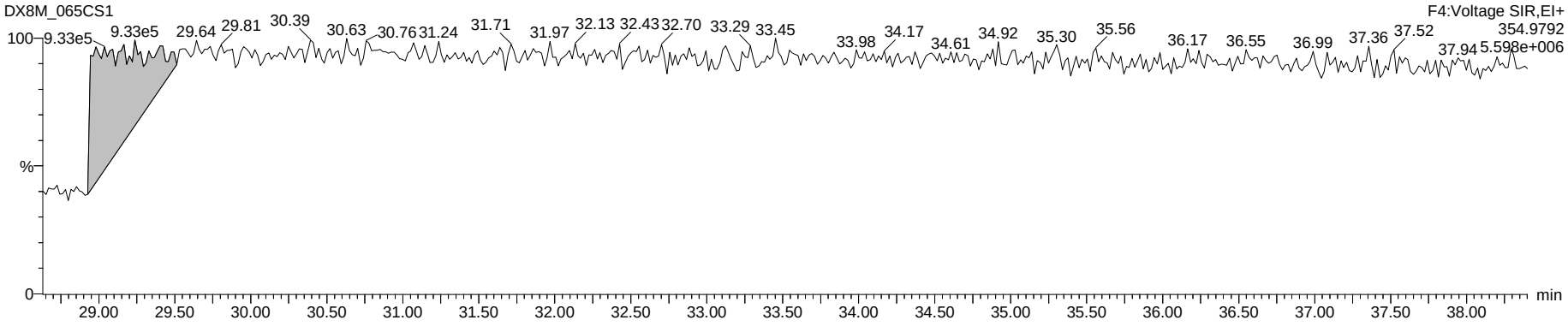
Total Penta-Furans



Hepta DPE



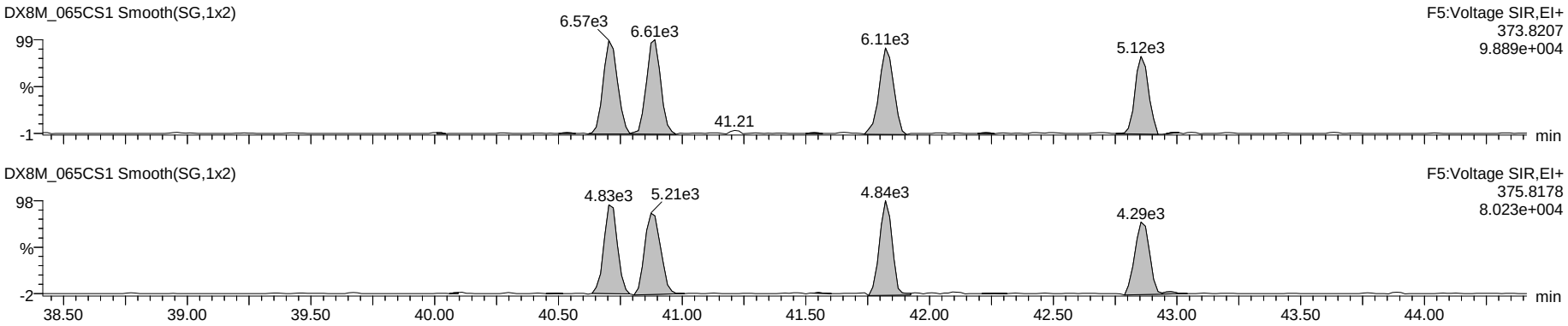
Penta Lock



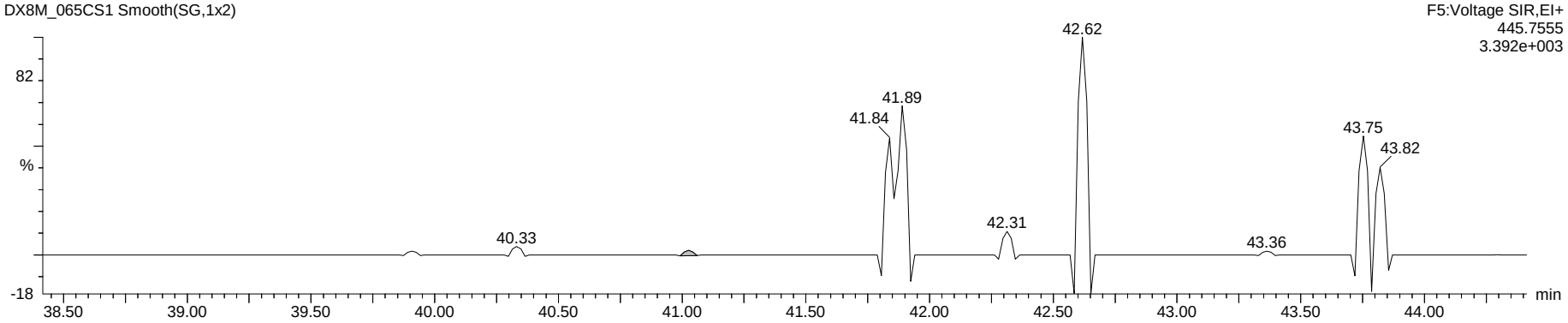
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6A.qld

Name: DX8M_065CS1, Date: 04-Jun-2018, Time: 17:29:08, ID: DX041A-CAL,,/01, Description: 1,,1.0uL CS-0.2 Sens

Total Hexa-Furans



Octa DPE



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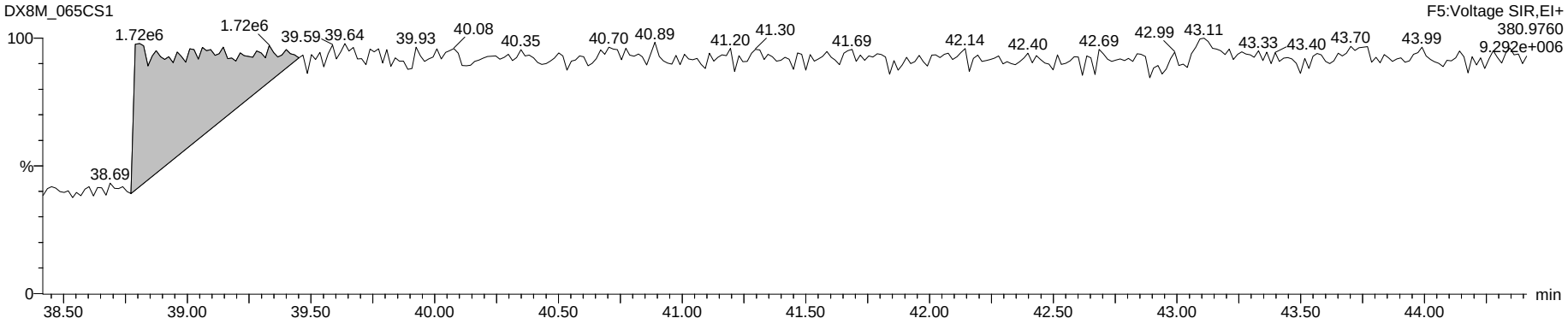

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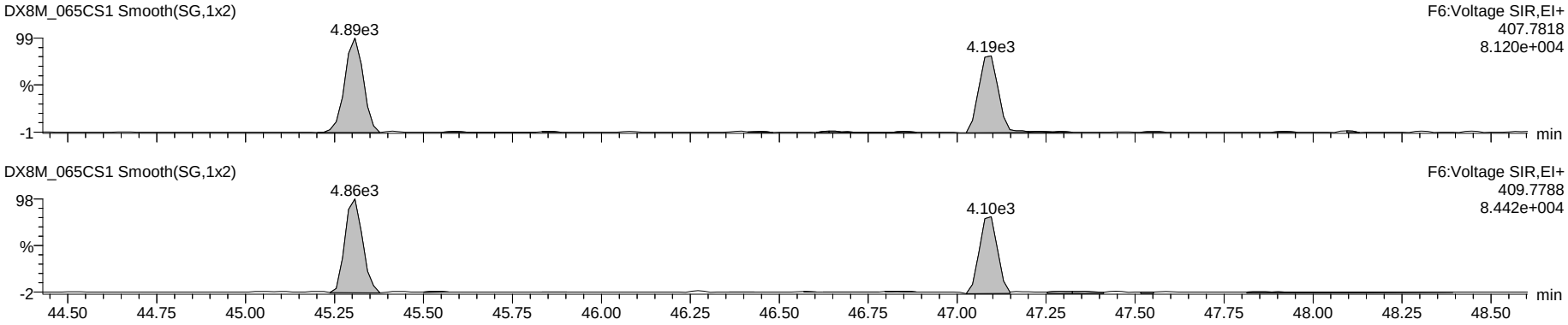
Total Hepta-Furans



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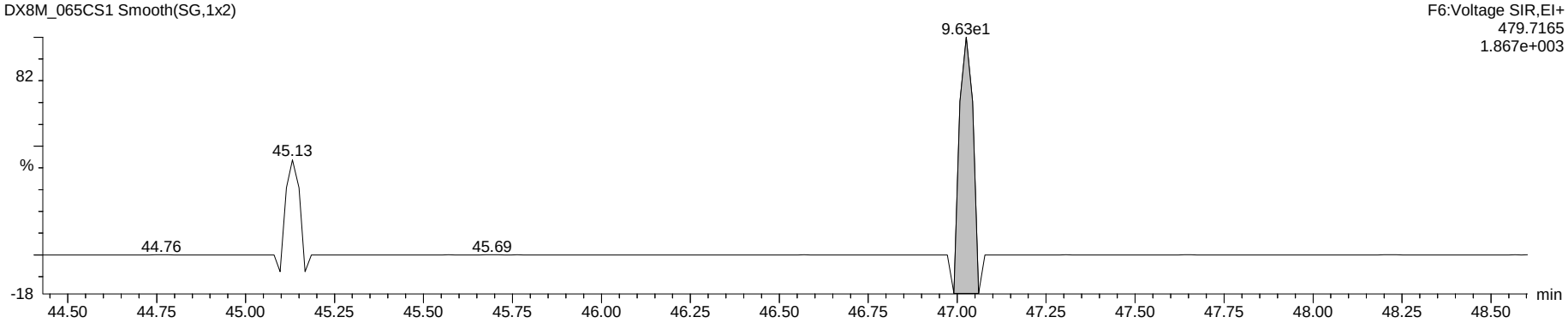
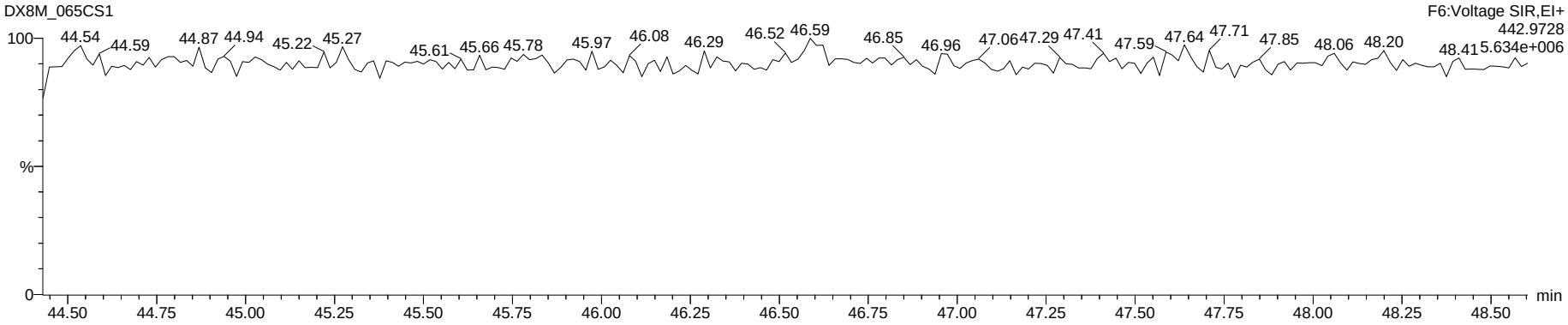


Hepta Lock



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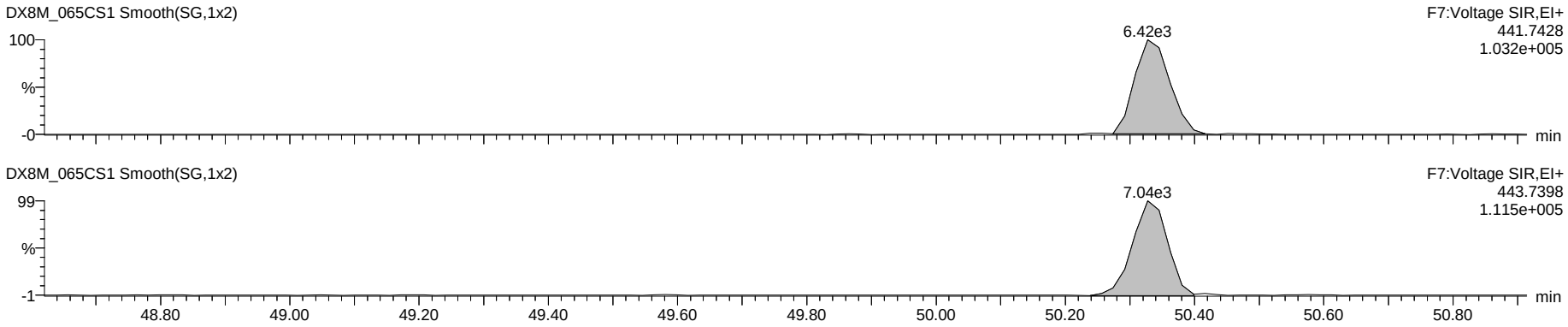
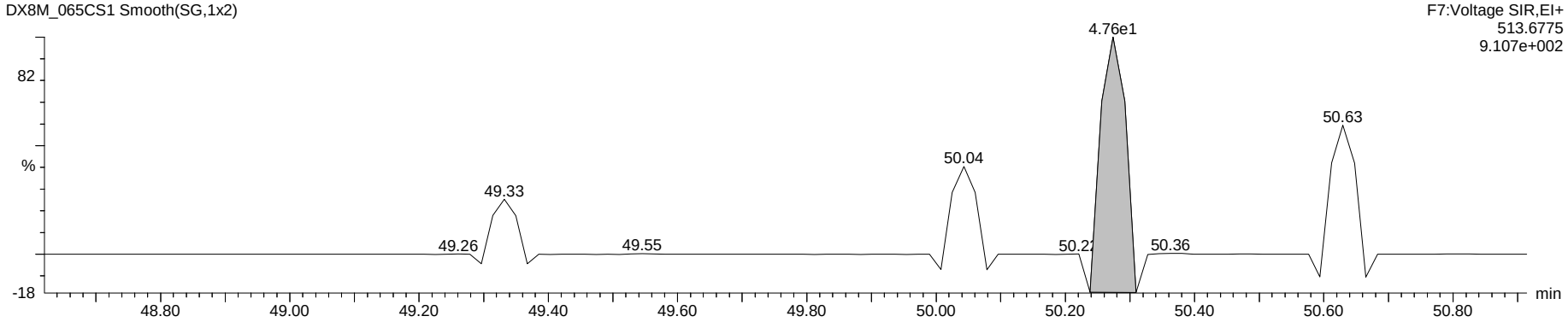
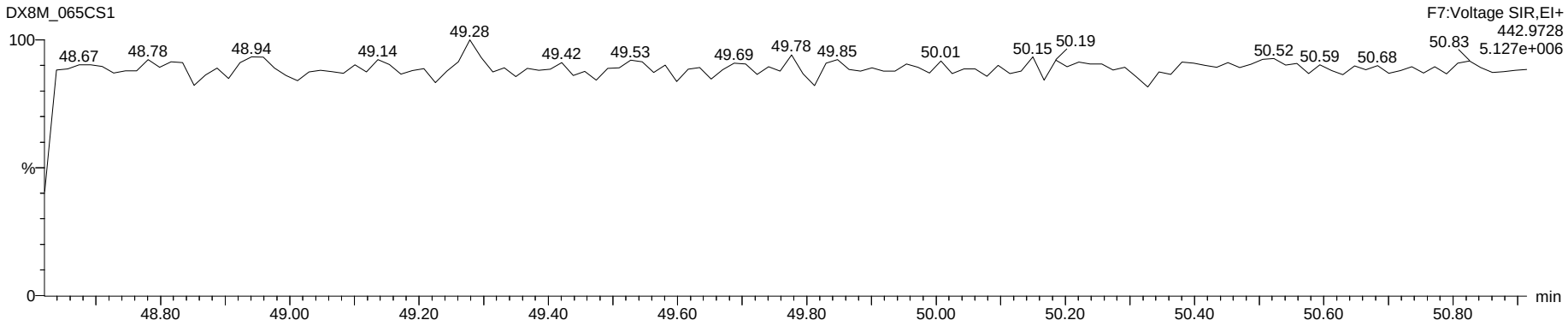
OCDF



Deca DPE



Octa Lock



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Name: DX8M_065CS3, Date: 04-Jun-2018, Time: 20:28:43, ID: DX041B-CAL,,/01, Description: 1,,1.0uL CS-1

	Name	Amount	Resp	Ratio	fails?	RT	RRF	RRF Mean	RRF SD	RRF %Rel SD	S/N	1° S/N
1	2,3,7,8-TCDF	0.500	1.52e4	0.67	NO	25.26	0.879	0.9149	0.022	2.43	464	147
2	1,2,3,7,8-PeCDF	2.500	5.35e4	1.49	NO	33.58	0.901	0.9236	0.039	4.19	835	581
3	2,3,4,7,8-PeCDF	2.500	5.33e4	1.41	NO	35.32	0.932	0.9391	0.013	1.39	928	615
4	1,2,3,4,7,8-HxCDF	2.500	4.54e4	1.15	NO	40.70	1.143	1.1161	0.036	3.26	561	631
5	1,2,3,6,7,8-HxCDF	2.500	4.50e4	1.07	NO	40.89	1.060	1.0626	0.029	2.74	570	667
6	2,3,4,6,7,8-HxCDF	2.500	4.28e4	1.16	NO	41.82	1.118	1.1400	0.036	3.17	613	639
7	1,2,3,7,8,9-HxCDF	2.500	3.80e4	1.13	NO	42.85	1.022	0.9992	0.030	2.99	527	570
8	1,2,3,4,6,7,8-HpCDF	2.500	4.06e4	0.98	NO	45.31	1.283	1.2235	0.041	3.38	956	1105
9	1,2,3,4,7,8,9-HpCDF	2.500	3.10e4	0.92	NO	47.10	1.267	1.2522	0.017	1.37	728	875
10	OCDF	5.000	5.03e4	0.79	NO	50.33	1.225	1.2272	0.084	6.84	358356	374
11	2,3,7,8-TCDD	0.500	1.20e4	0.82	NO	26.49	1.149	1.1119	0.079	7.15	89	279
12	1,2,3,7,8-PeCDD	2.500	3.69e4	0.64	NO	36.17	1.090	1.0267	0.055	5.33	493	745
13	1,2,3,4,7,8-HxCDD	2.500	3.11e4	1.27	NO	42.11	1.016	1.0036	0.036	3.60	1352	762
14	1,2,3,6,7,8-HxCDD	2.500	3.11e4	1.20	NO	42.25	0.955	0.9343	0.029	3.09	1449	803
15	1,2,3,7,8,9-HxCDD	2.500	3.05e4	1.35	NO	42.67	0.964	0.9712	0.032	3.34	1437	719
16	1,2,3,4,6,7,8-HpCDD	2.500	2.42e4	1.00	NO	46.67	0.969	0.9956	0.020	2.04	255	587
17	OCDD	5.000	4.28e4	0.95	NO	50.26	1.044	1.0186	0.028	2.76	271	714607
18	13C-2,3,7,8-TCDF	100.000	3.45e6	0.78	NO	25.22	1.556	1.6147	0.046	2.83	3108	4541
19	13C-1,2,3,7,8-PeCDF	100.000	2.37e6	1.55	NO	33.54	1.072	1.1640	0.091	7.84	5919	5471
20	13C-2,3,4,7,8-PeCDF	100.000	2.29e6	1.56	NO	35.30	1.033	1.1228	0.100	8.87	6696	6224
21	13C-1,2,3,4,7,8-HxCDF	100.000	1.59e6	0.53	NO	40.69	1.246	1.2764	0.037	2.93	3065	5983
22	13C-1,2,3,6,7,8-HxCDF	100.000	1.70e6	0.53	NO	40.86	1.332	1.3633	0.031	2.30	3207	6205
23	13C-2,3,4,6,7,8-HxCDF	100.000	1.53e6	0.52	NO	41.81	1.201	1.2182	0.036	2.95	3071	5971
24	13C-1,2,3,7,8,9-HxCDF	100.000	1.49e6	0.52	NO	42.84	1.168	1.2015	0.043	3.61	2978	5873
25	13C-1,2,3,4,6,7,8-HpCDF	100.000	1.27e6	0.46	NO	45.29	0.994	1.0186	0.040	3.89	4354	8804
26	13C-1,2,3,4,7,8,9-HpCDF	100.000	9.78e5	0.45	NO	47.08	0.767	0.7945	0.043	5.44	3259	6805
27	13C-2,3,7,8-TCDD	100.000	2.10e6	0.78	NO	26.45	0.946	1.0042	0.038	3.74	2086	2789
28	13C-1,2,3,7,8-PeCDD	100.000	1.35e6	0.66	NO	36.13	0.611	0.6582	0.053	8.04	10048	14989
29	13C-1,2,3,4,7,8-HxCDD	100.000	1.22e6	1.25	NO	42.09	0.960	0.9841	0.037	3.74	2277	3570
30	13C-1,2,3,6,7,8-HxCDD	100.000	1.30e6	1.22	NO	42.23	1.024	1.0407	0.026	2.53	2478	4041
31	13C-1,2,3,4,6,7,8-HpCDD	100.000	9.99e5	1.03	NO	46.67	0.784	0.8135	0.035	4.34	2743	5202
32	13C-OCDD	200.000	1.64e6	0.92	NO	50.24	0.644	0.7155	0.075	10.43	7319	5299
33	13C-1,2,3,4-TCDD	100.000	2.21e6	0.80	NO	26.13	221...	22602.6799	1977.986	8.75	2289	2949
34	13C-1,2,3,7,8,9-HxCDD	100.000	1.27e6	1.27	NO	42.65	127...	14280.3905	2145.257	15.02	2386	3710
35	37Cl-2,3,7,8-TCDD	0.500	1.40e4			26.47	1.266	1.1134	0.079	7.11	537	
36	Total Tetra-Furans	0.500						0.9149	0.022	2.43		
37	Total Tetra-Dioxins	0.500						1.1119	0.079	7.15		
38	Total Penta-Furans	2.500						0.9236	0.039	4.19		
39	Total Penta-Dioxins	2.500						1.0267	0.055	5.33		
40	Total Hexa-Furans	2.500						1.1161	0.036	3.26		
41	Total Hexa-Dioxins	2.500						1.0036	0.036	3.60		
42	Total Hepta-Furans	2.500						1.2235	0.041	3.38		
43	Total Hepta-Dioxins	2.500						0.9956	0.020	2.04		
44	Hexa DPE	0.000	2.29e2			24.83	0.000				5043	
45	Hepta DPE	0.000	2.05e2			36.20	0.000				11749	
46	Octa DPE	0.000	1.02e2			39.69	0.000				3122	
47	Nona DPE	0.000	2.51e0			46.53	0.000				127	
48	Deca DPE	0.000	1.01e2			50.19	0.000				2228	
49	Tetra Lock	0.000	1.49e4			24.40	0.000				1	
50	Penta Lock	0.000	1.38e6			29.68	0.000				1	
51	Hexa Lock	0.000	1.25e6			38.84	0.000				1	
52	Hepta Lock	0.000	2.79e4			47.38	0.000				0	
53	Octa Lock	0.000										
54	13C-Tetra-Furans	100.000						1.6147	0.046	2.83		
55	13C-Tetra-Dioxins	100.000						1.0042	0.038	3.74		

PV LHE 06-JUNE-2018

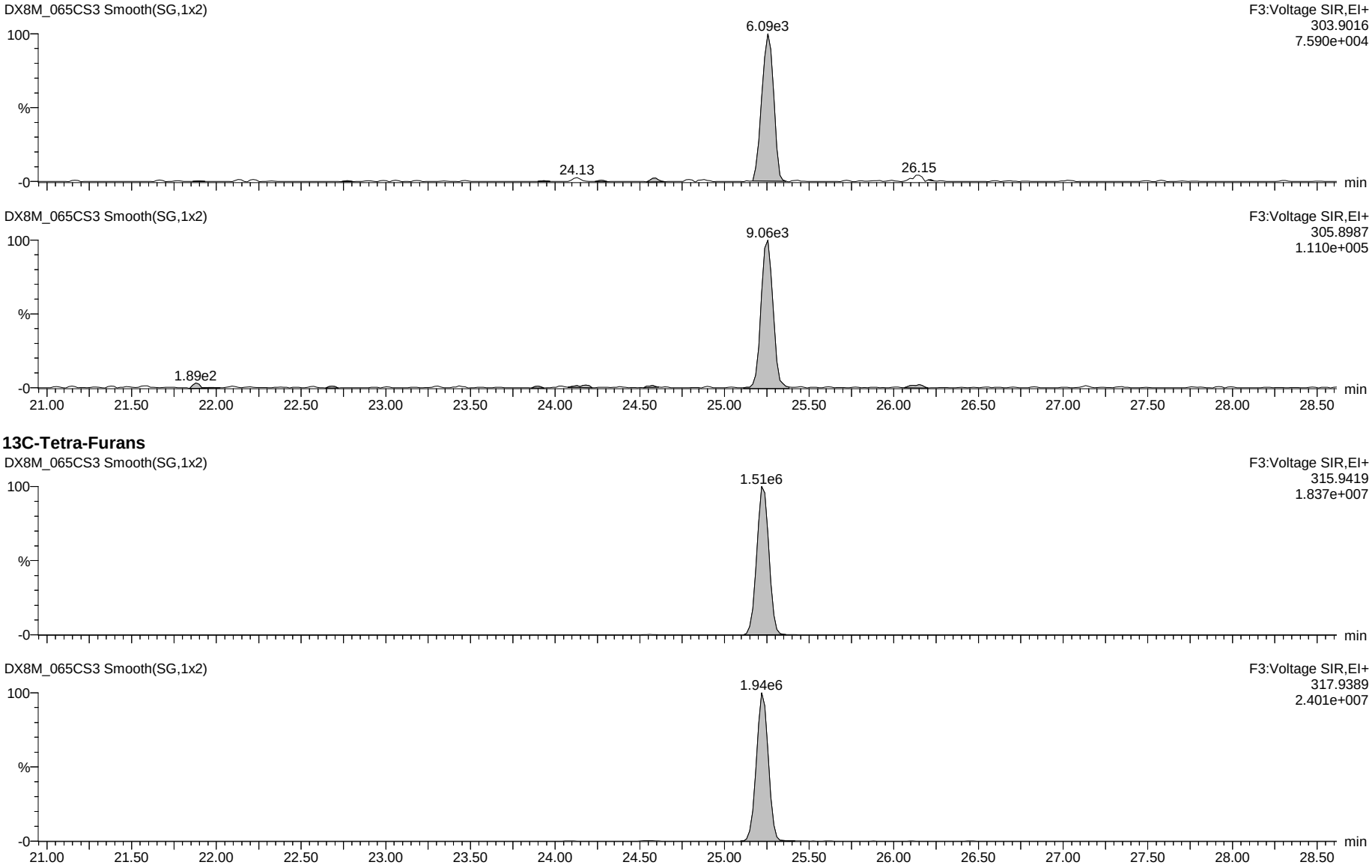
Shaykh 06 Jun 2018

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6A.qld

Method: G:\Masslynx\Inst_M\Projects\180604DX.PRO\MethDB\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: 06 Jun 2018 09:11:00

Name: DX8M_065CS3, Date: 04-Jun-2018, Time: 20:28:43, ID: DX041B-CAL,,/01, Description: 1,,1.0uL CS-1

Total Tetra-Furans



13C-Tetra-Furans

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6A.qld

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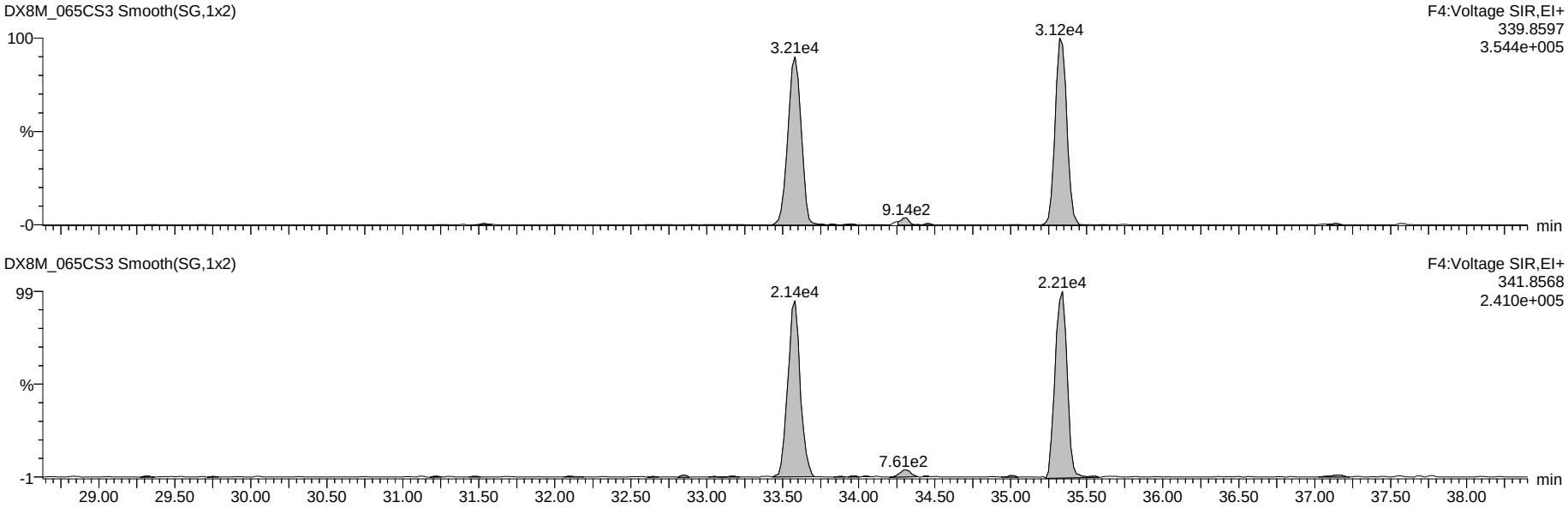
Total Penta-Furans



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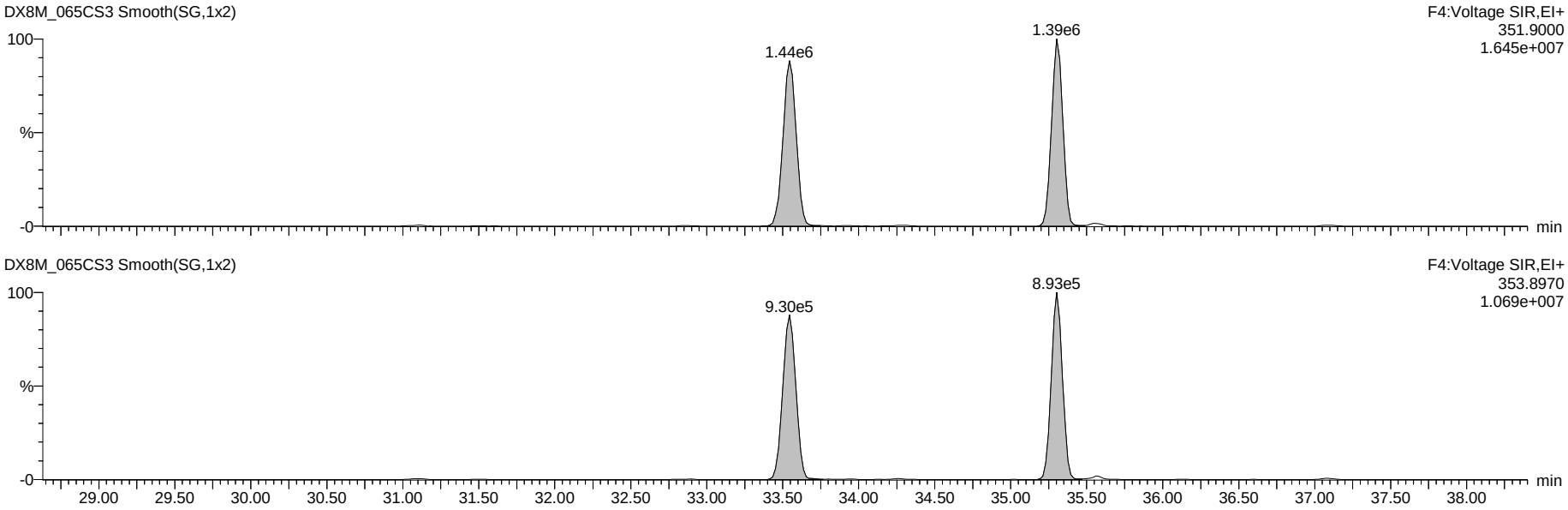

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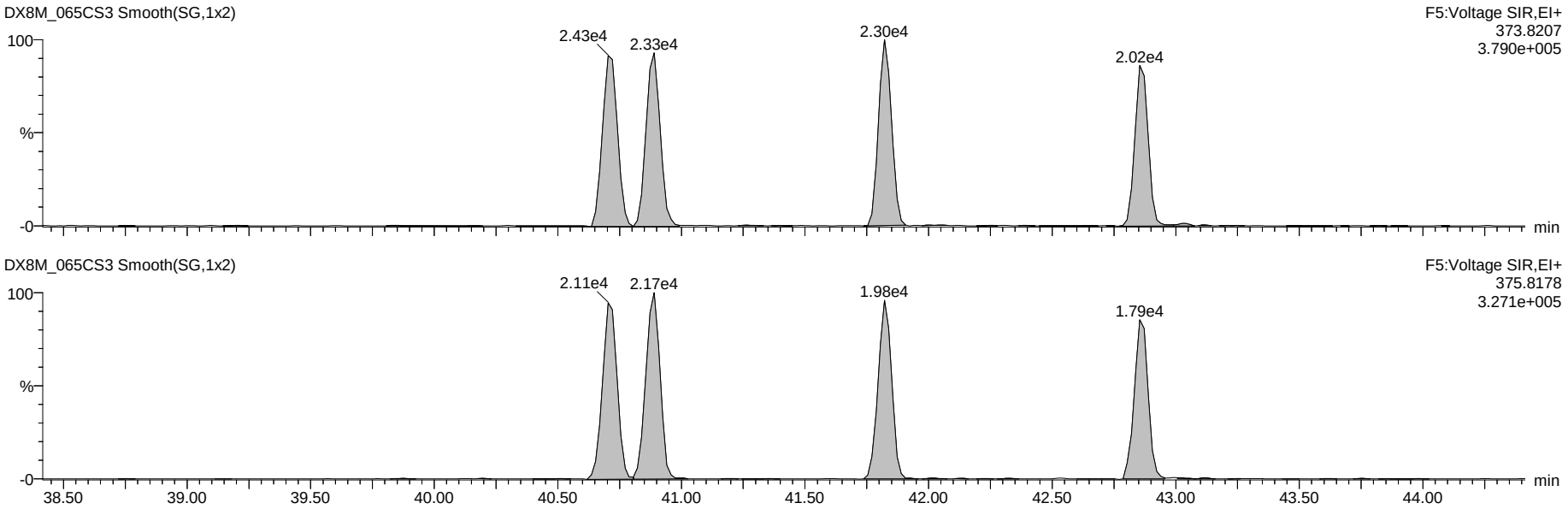
Total Hexa-Furans



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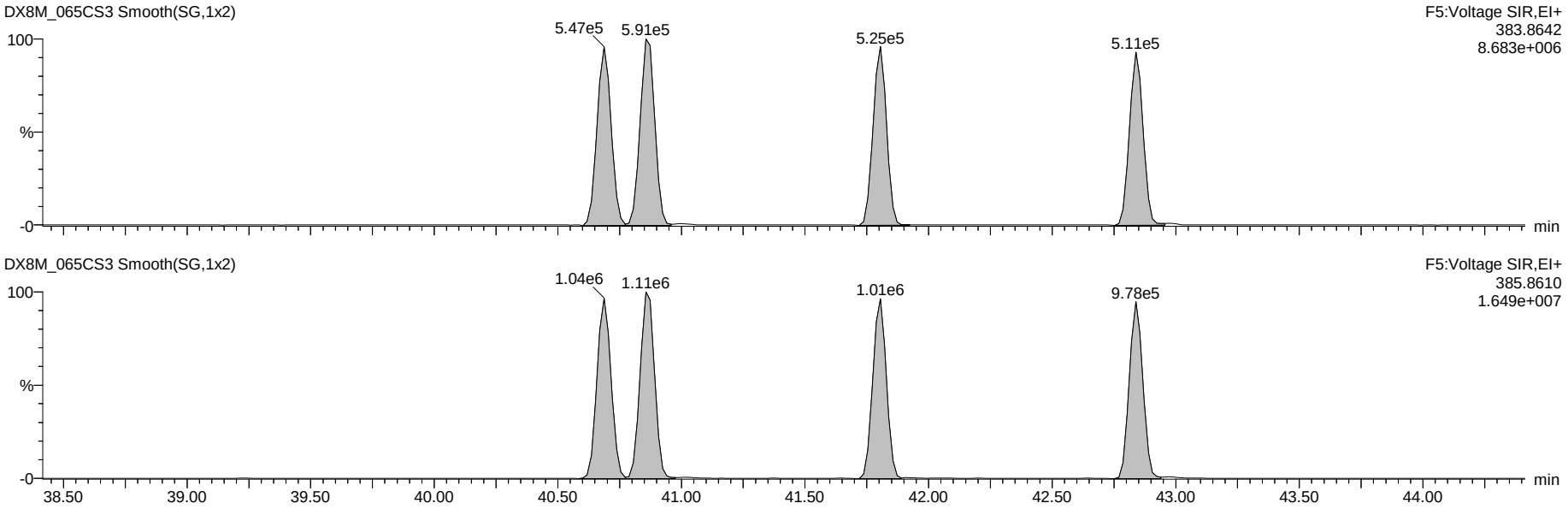

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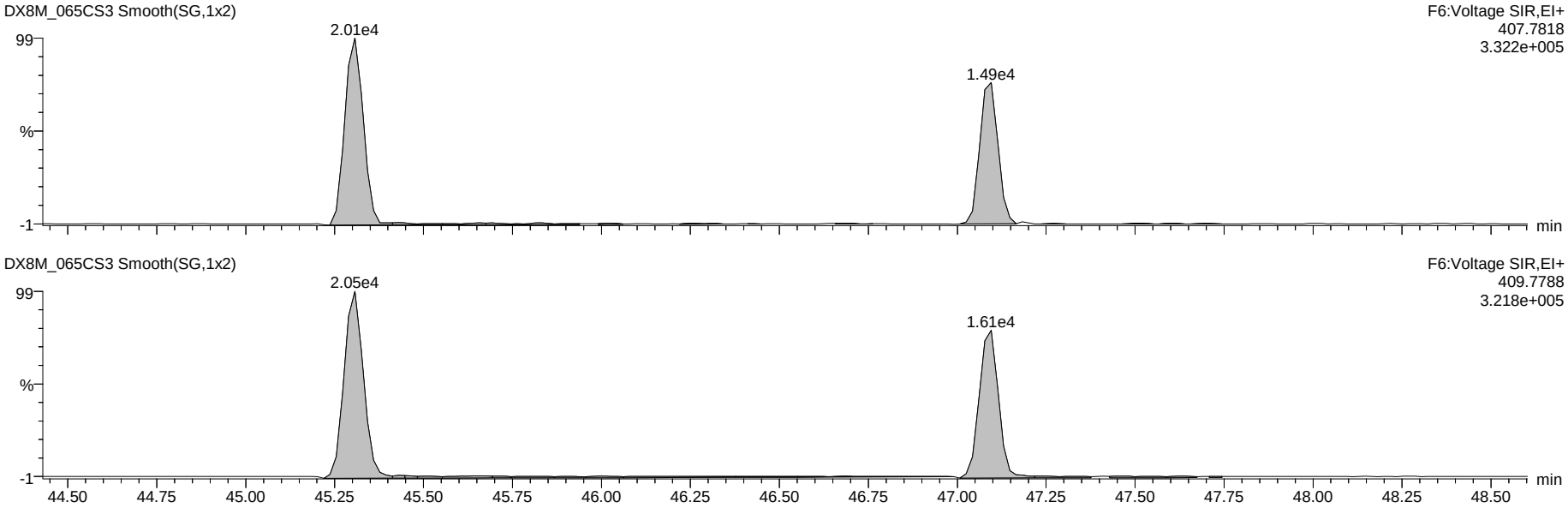
Total Hepta-Furans



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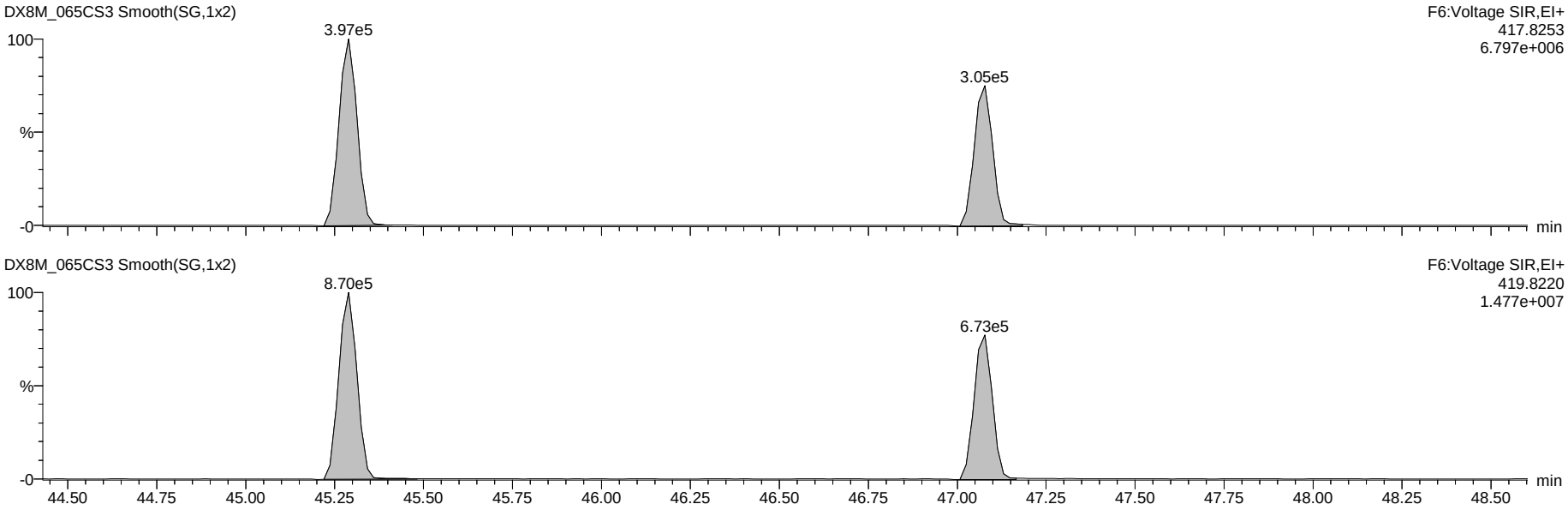

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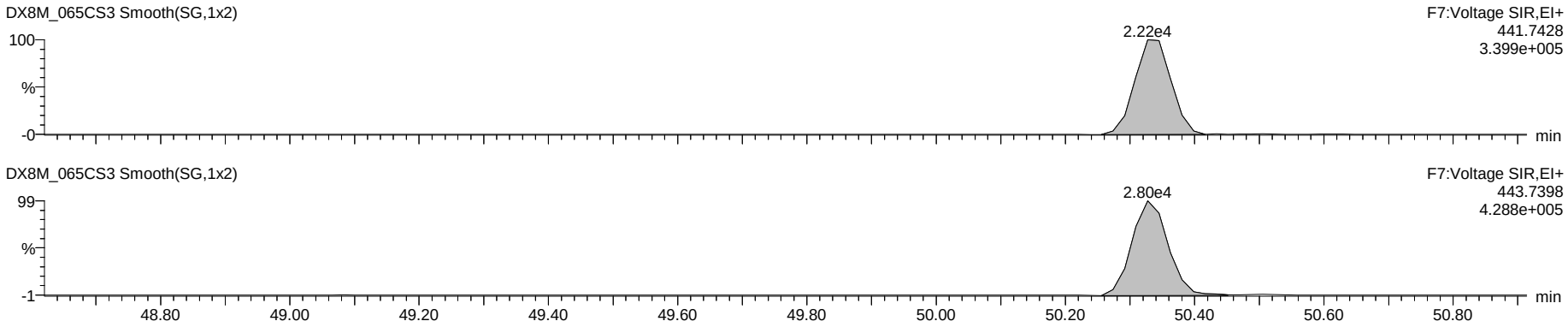
OCDF



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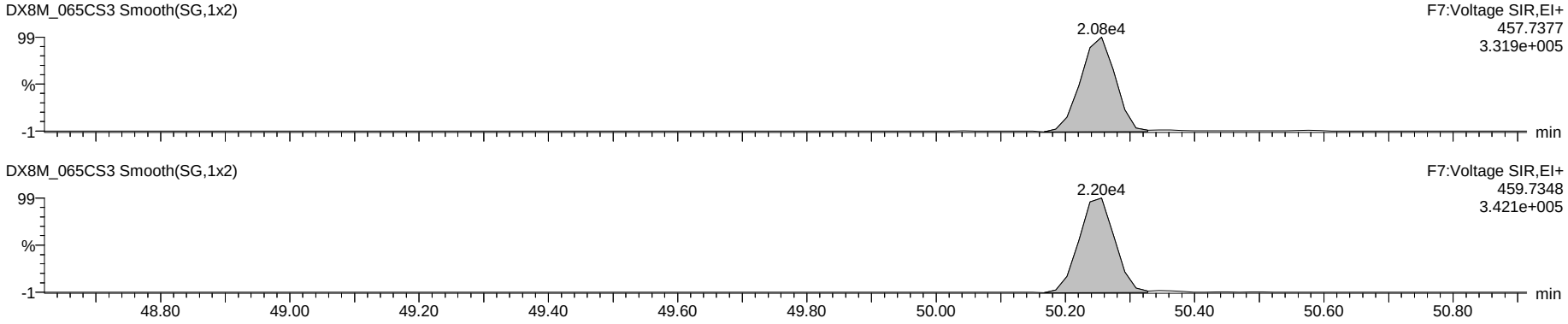

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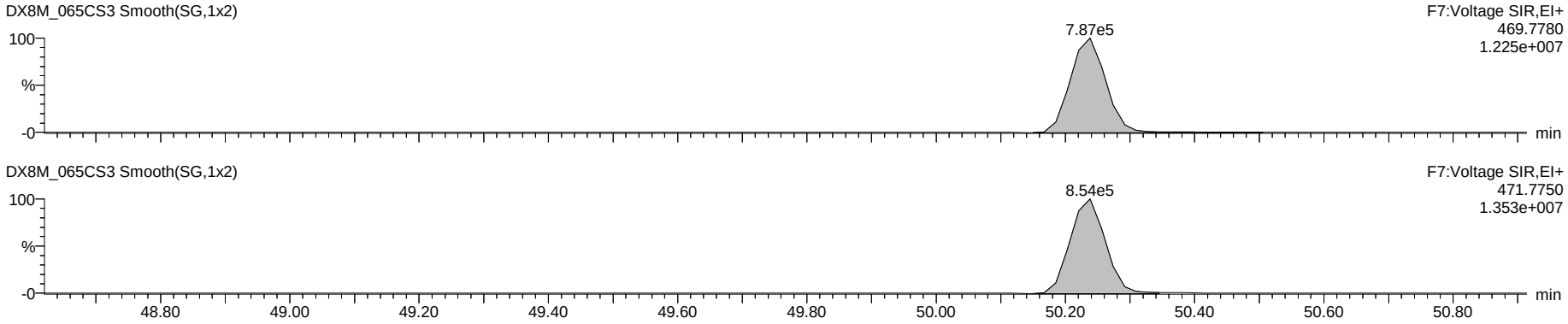

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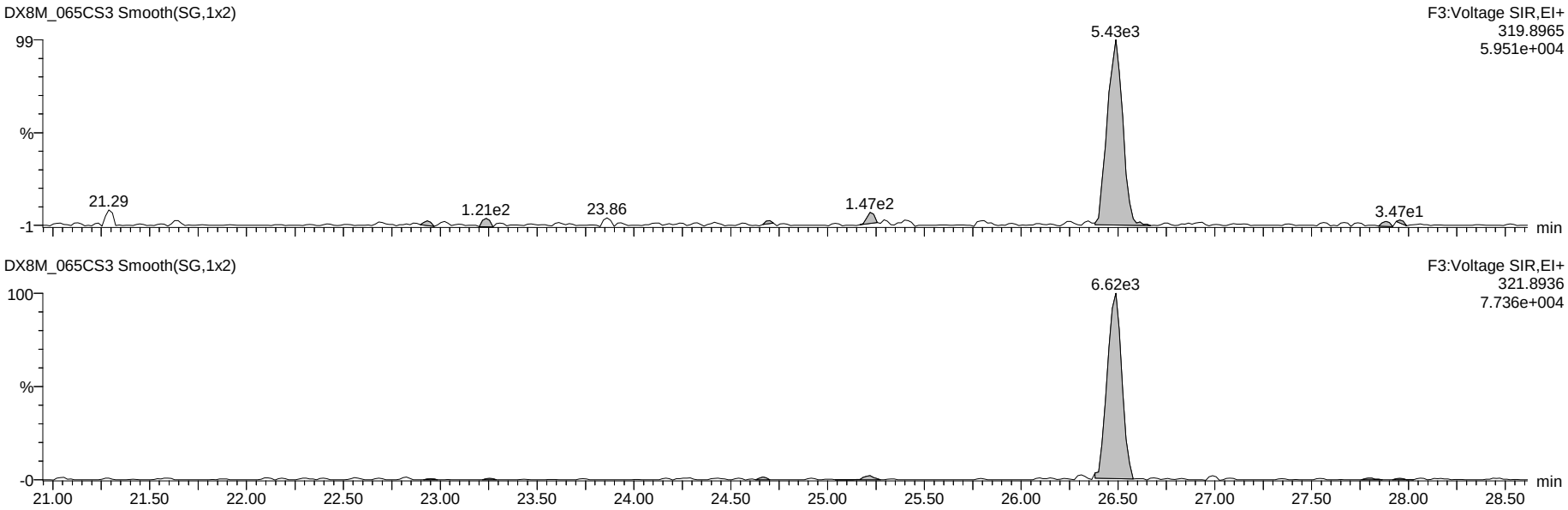
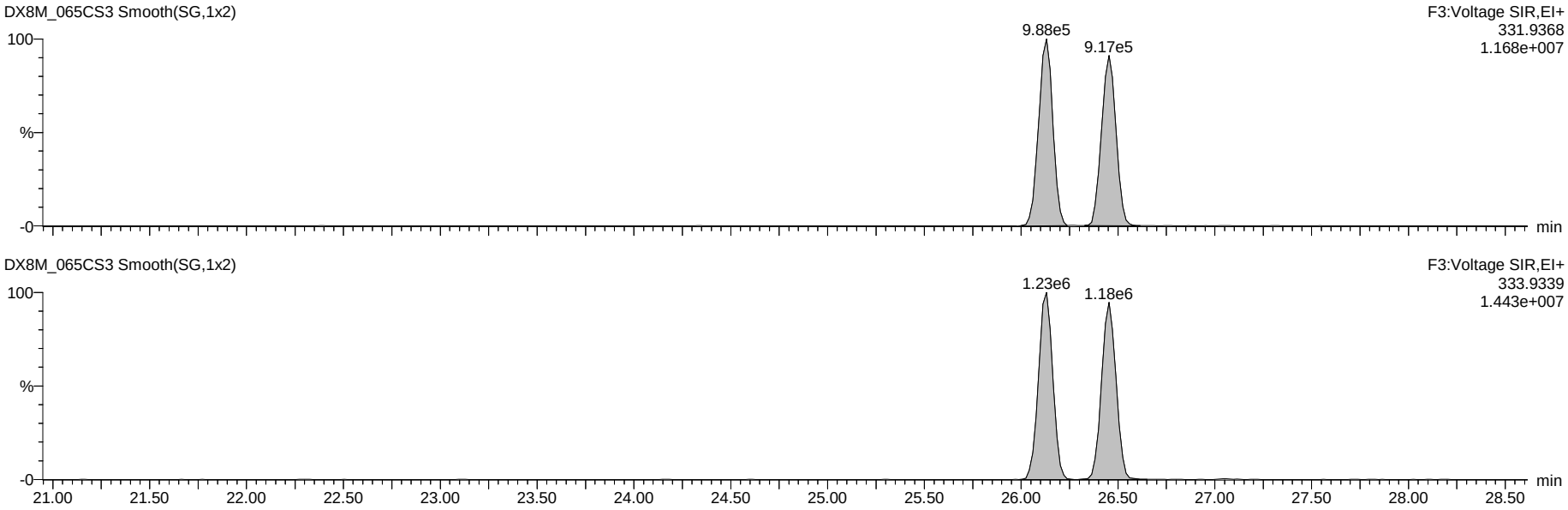
Total Tetra-Dioxins



13C-Tetra-Dioxins



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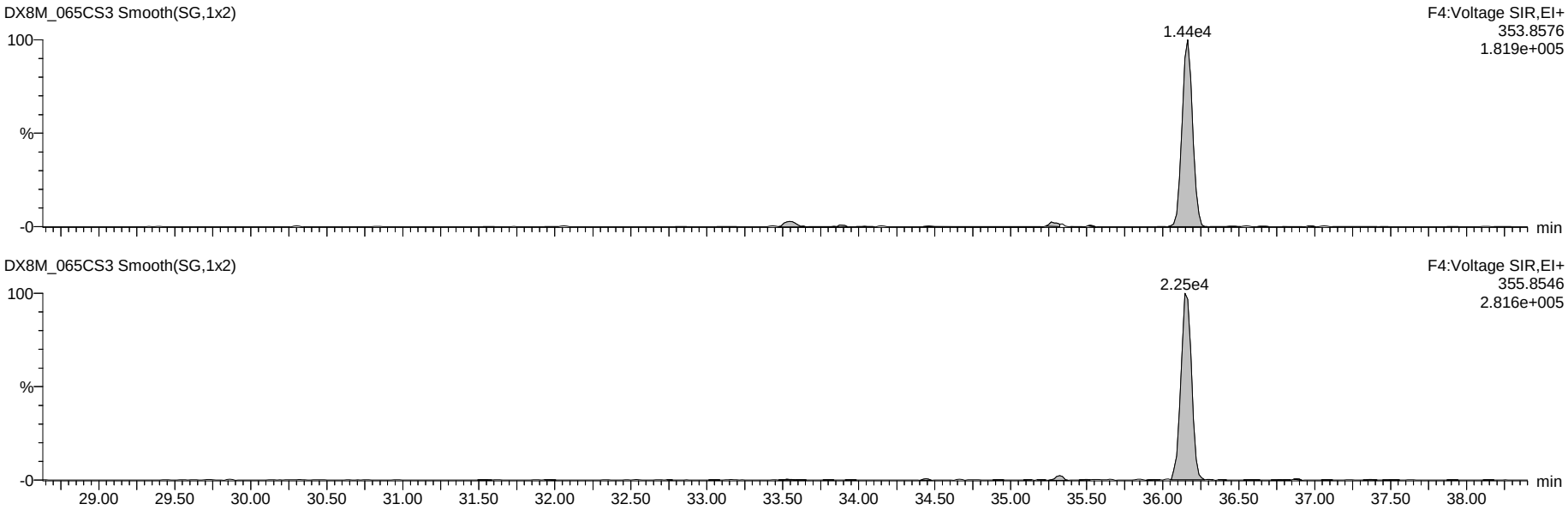
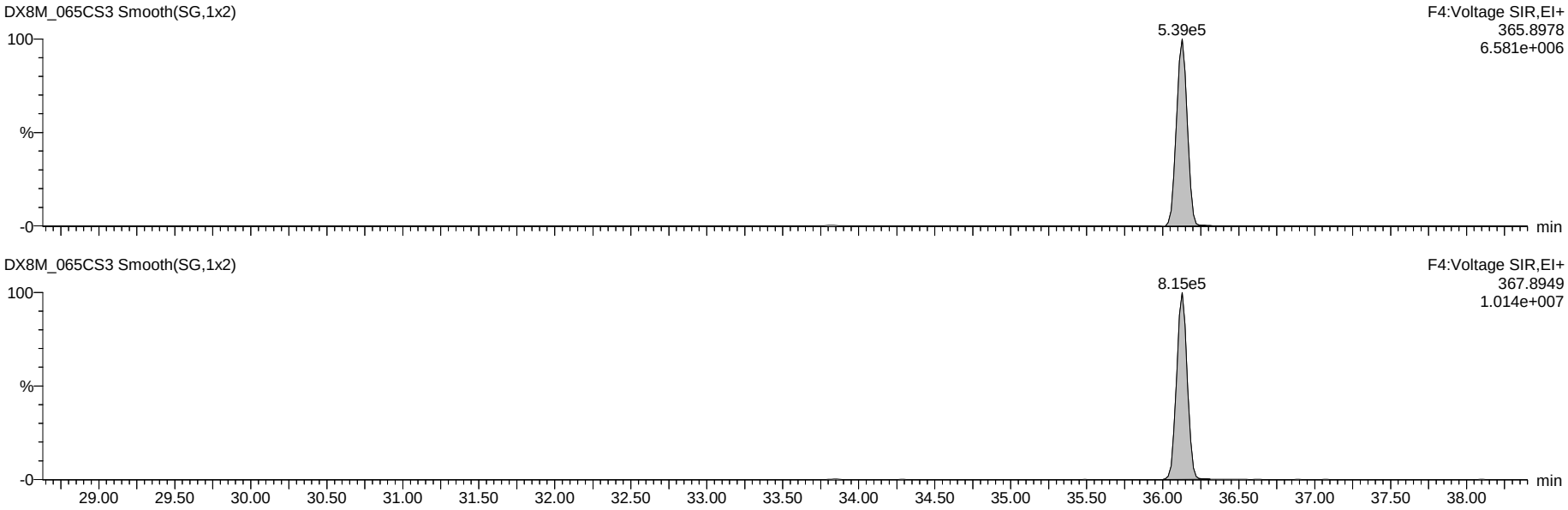
Total Penta-Dioxins



13C-Penta-Dioxins



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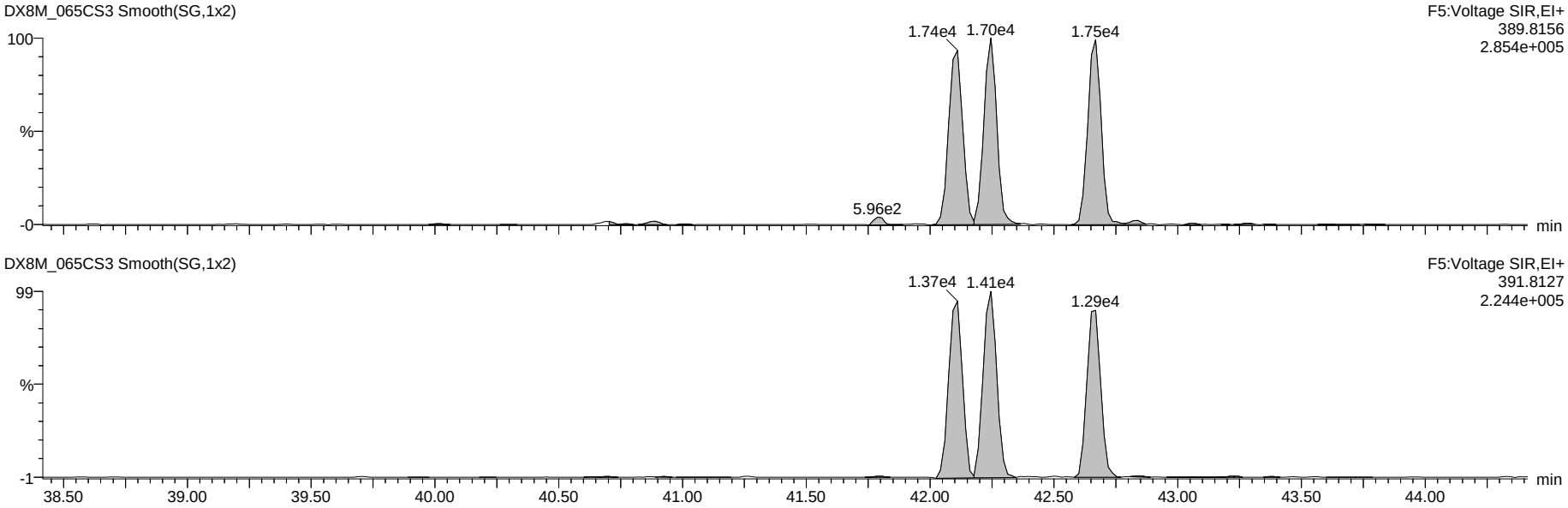
Total Hexa-Dioxins



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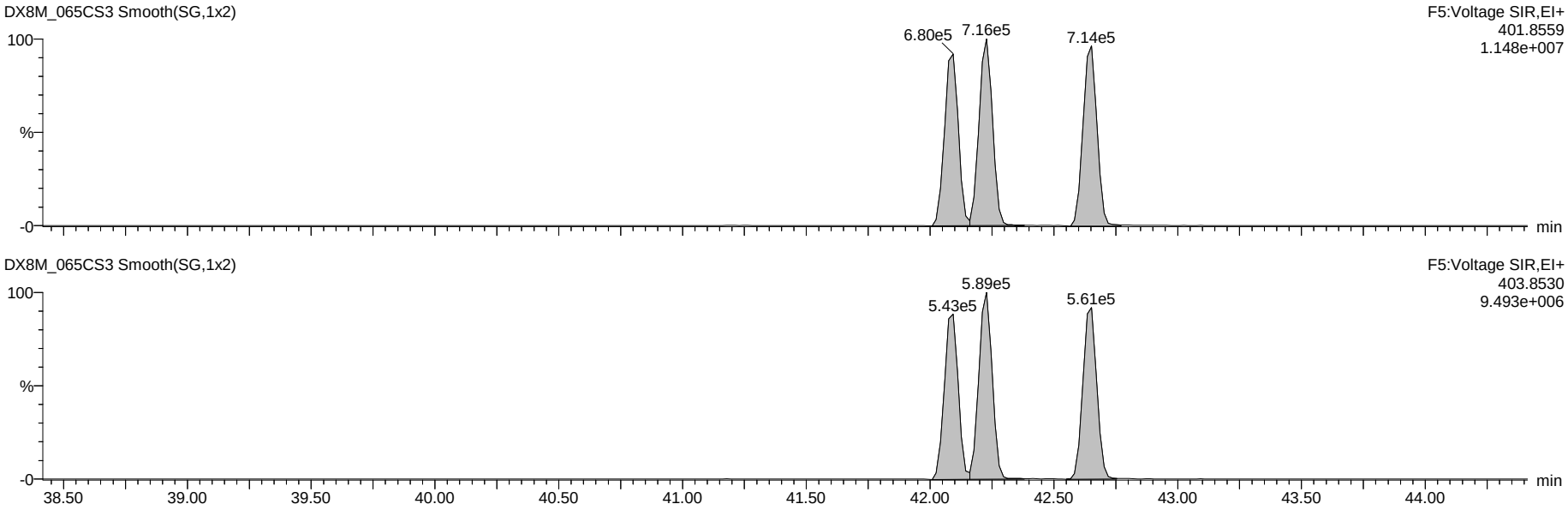

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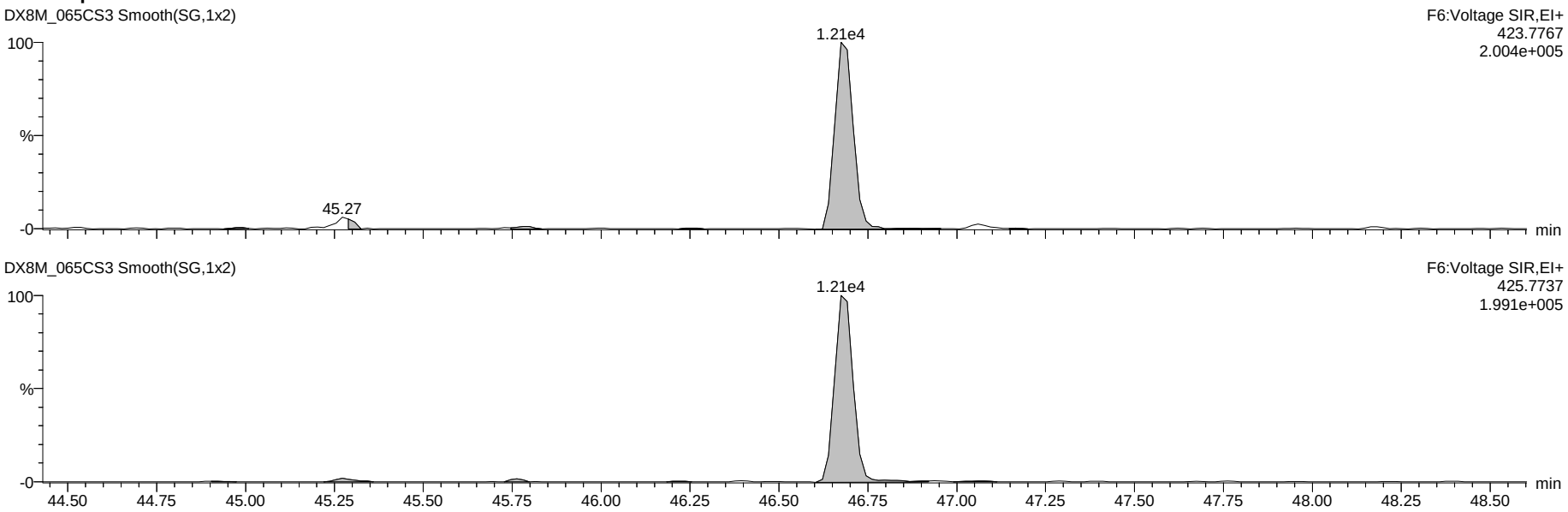
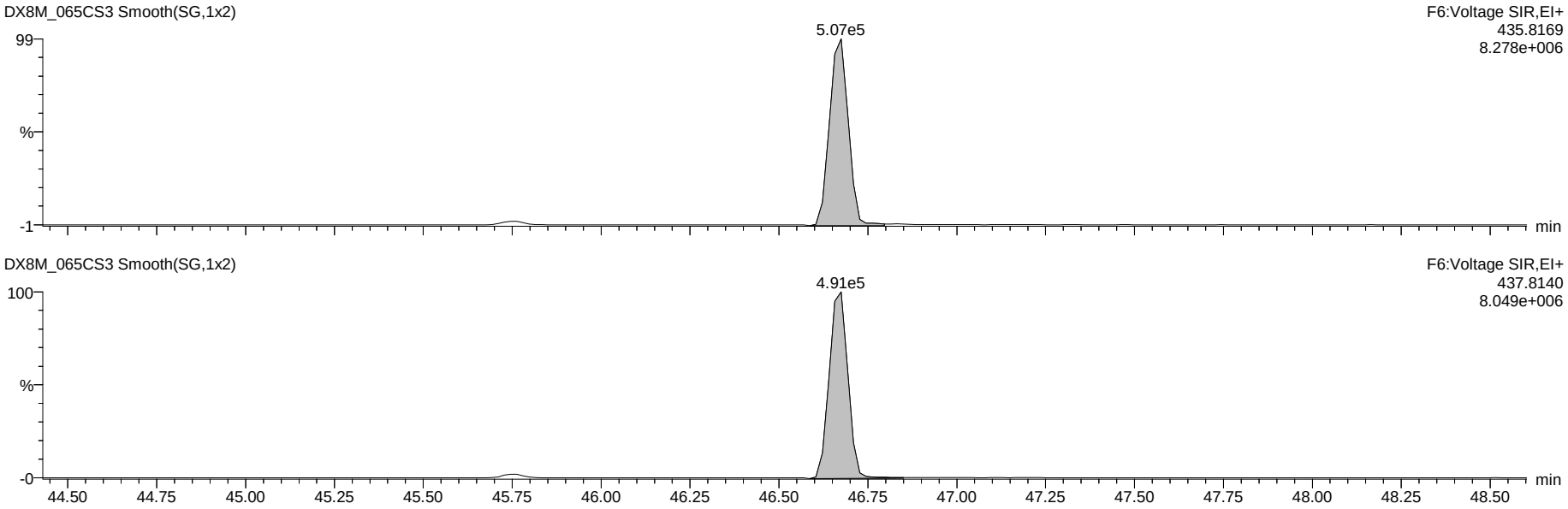
Name: DX8M_065CS3, Date: 04-Jun-2018, Time: 20:28:43, ID: DX041B-CAL,,/01, Description: 1,,1.0uL CS-1

Total Hepta-Dioxins



13C-Hepta-Dioxins



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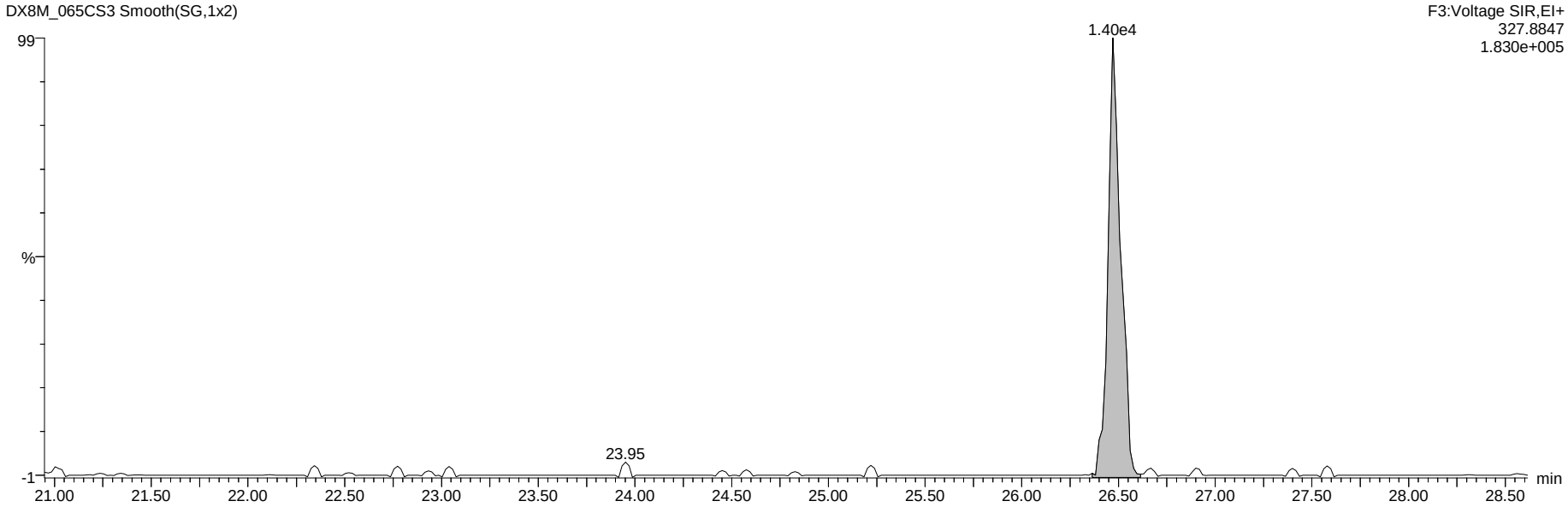
Name: DX8M_065CS3, Date: 04-Jun-2018, Time: 20:28:43, ID: DX041B-CAL,,/01, Description: 1,,1.0uL CS-1

37Cl-2,3,7,8-TCDD



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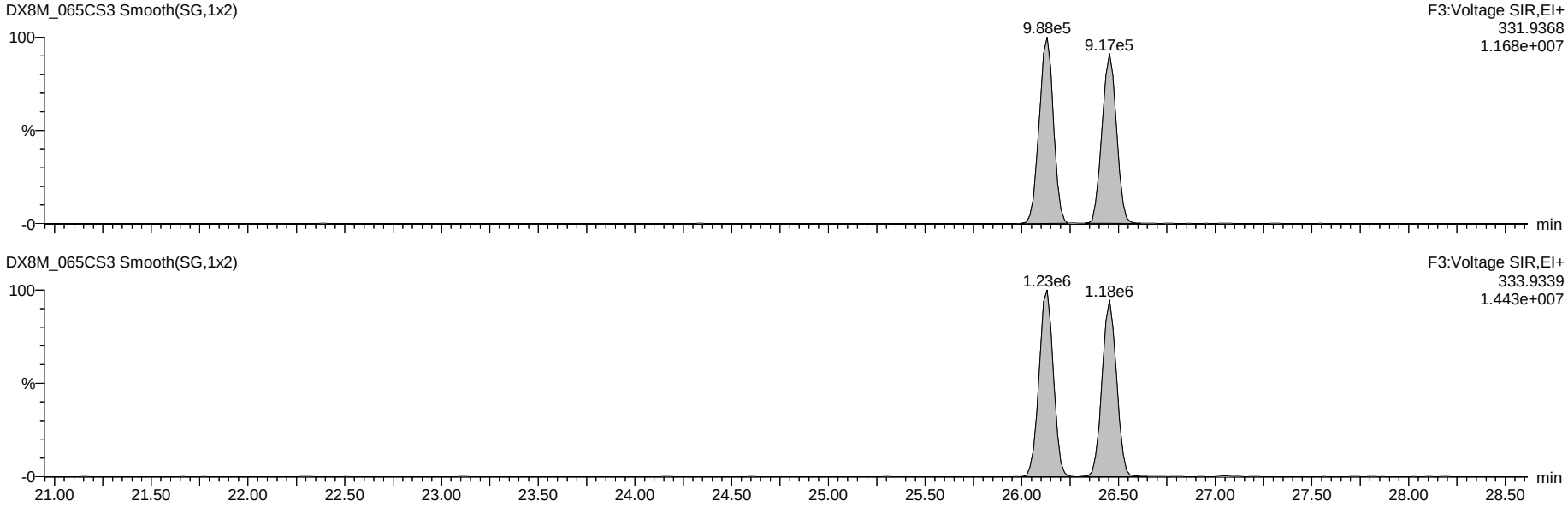

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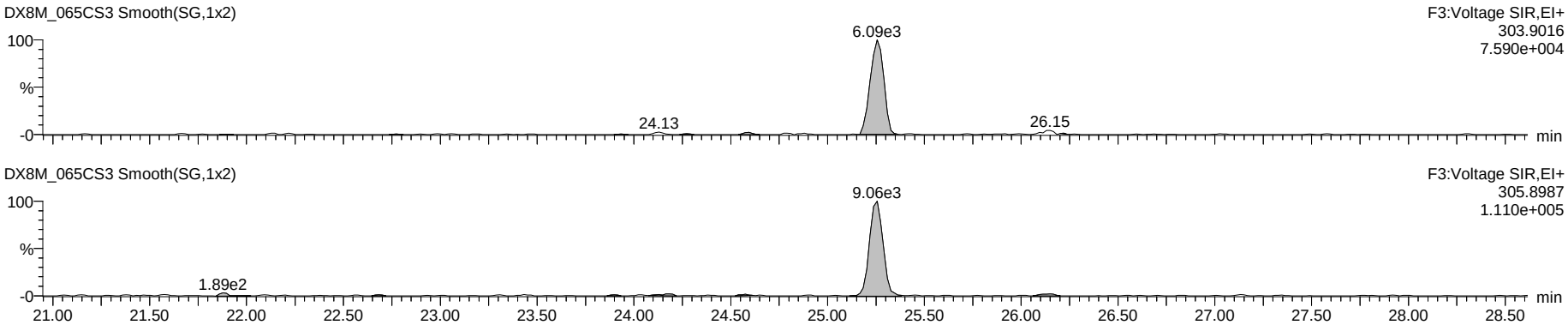
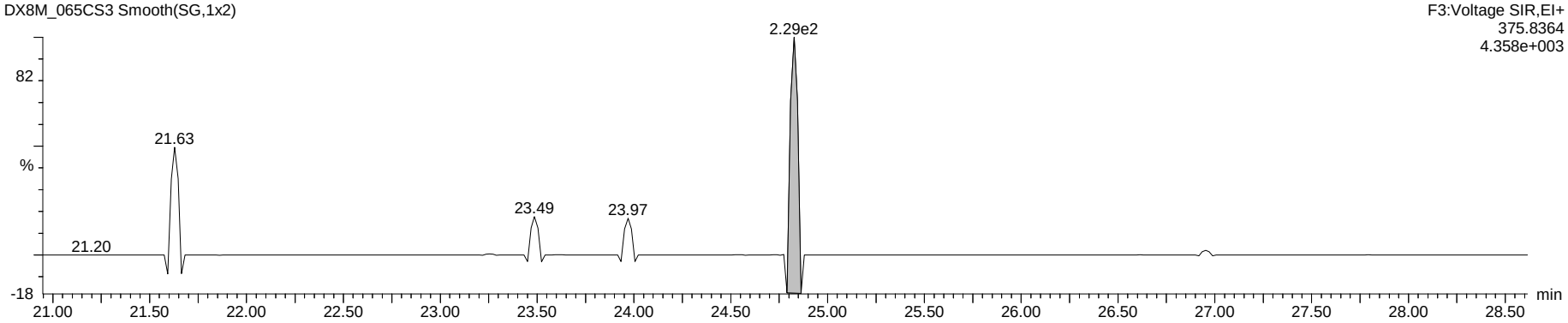
Name: DX8M_065CS3, Date: 04-Jun-2018, Time: 20:28:43, ID: DX041B-CAL,,/01, Description: 1,,1.0uL CS-1

Total Tetra-Furans



Hexa DPE



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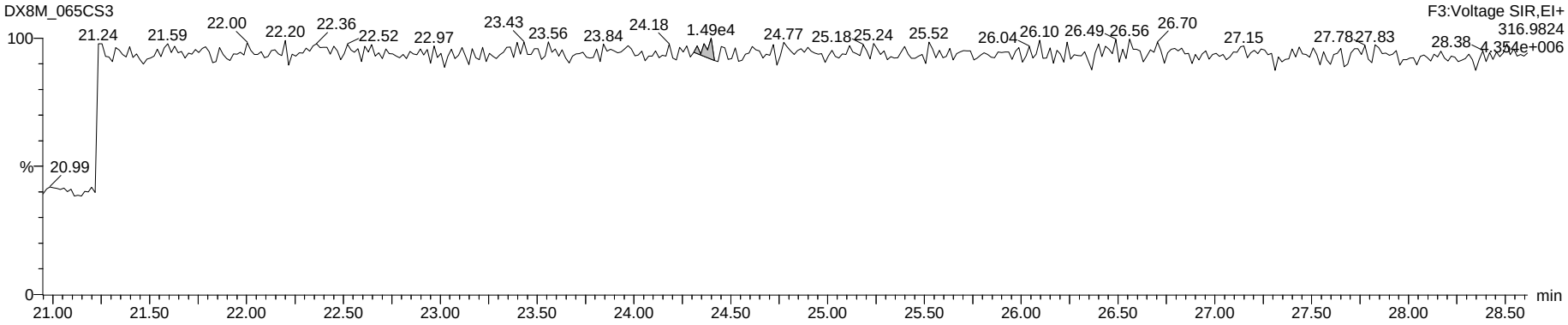

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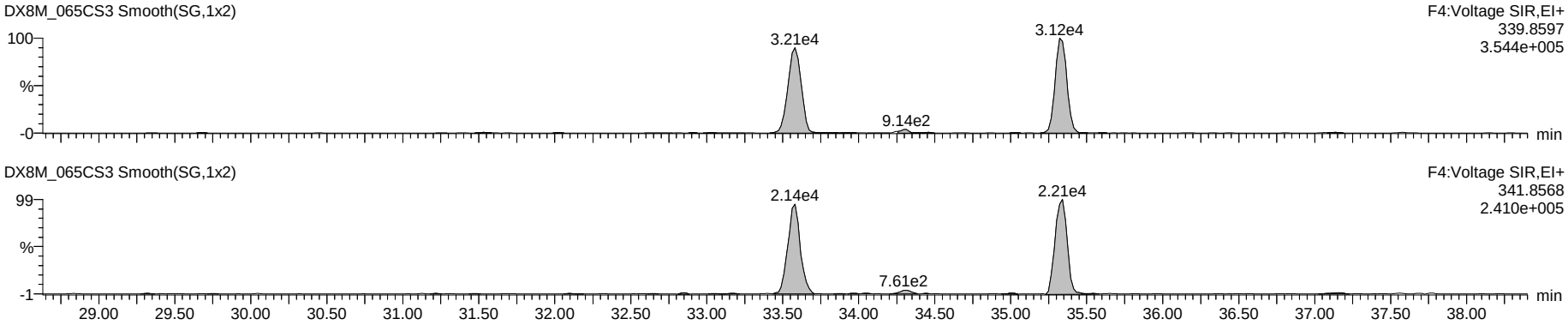
Total Penta-Furans



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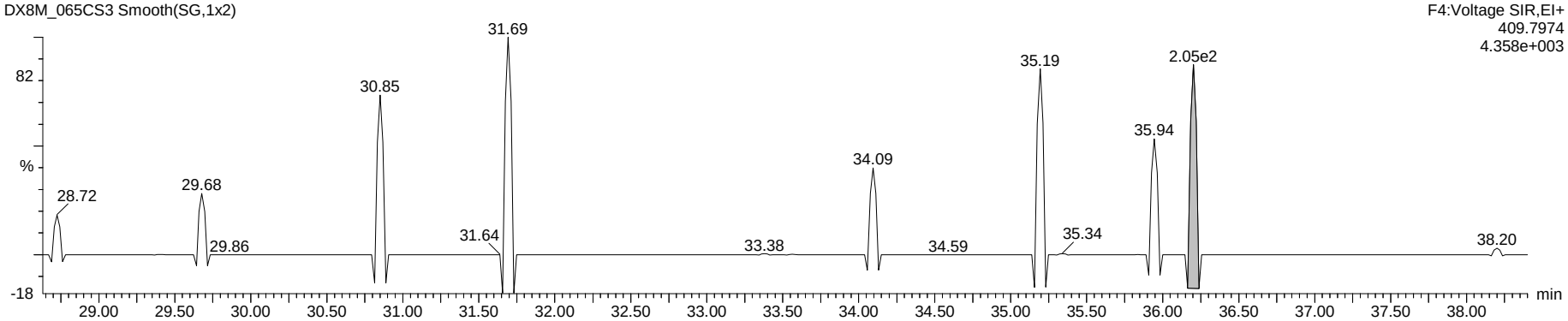

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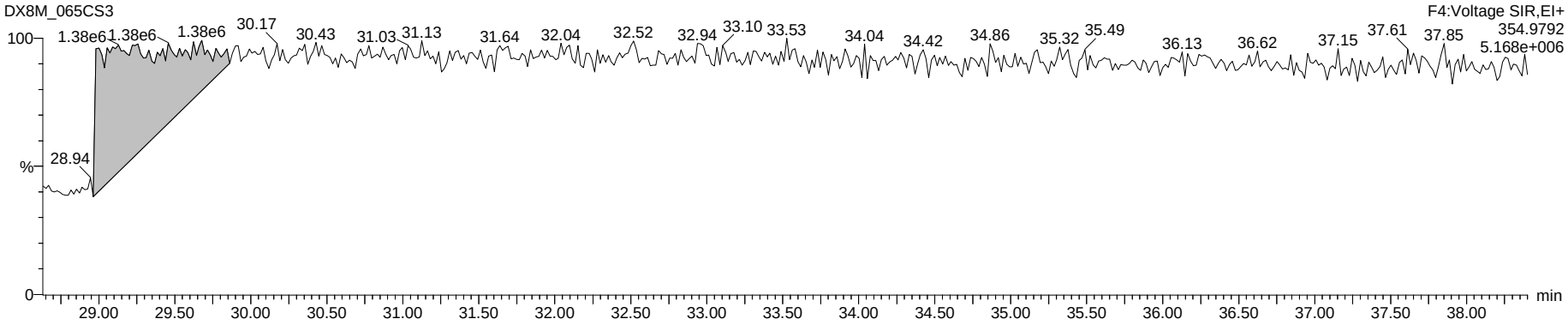

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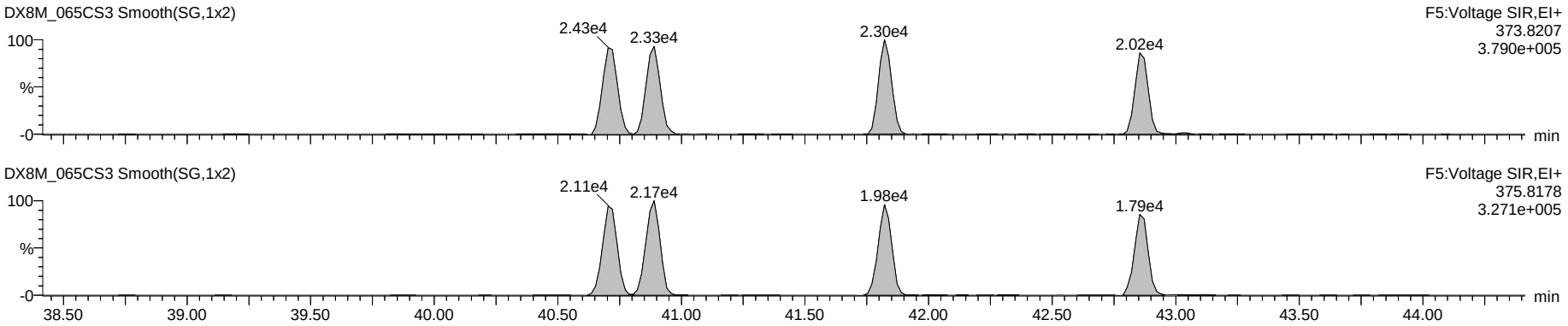
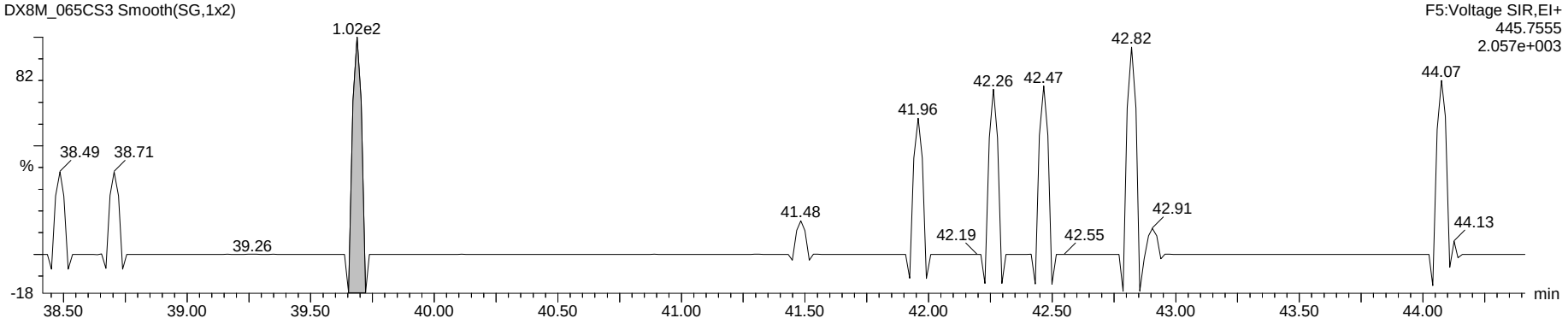
Total Hexa-Furans



Octa DPE



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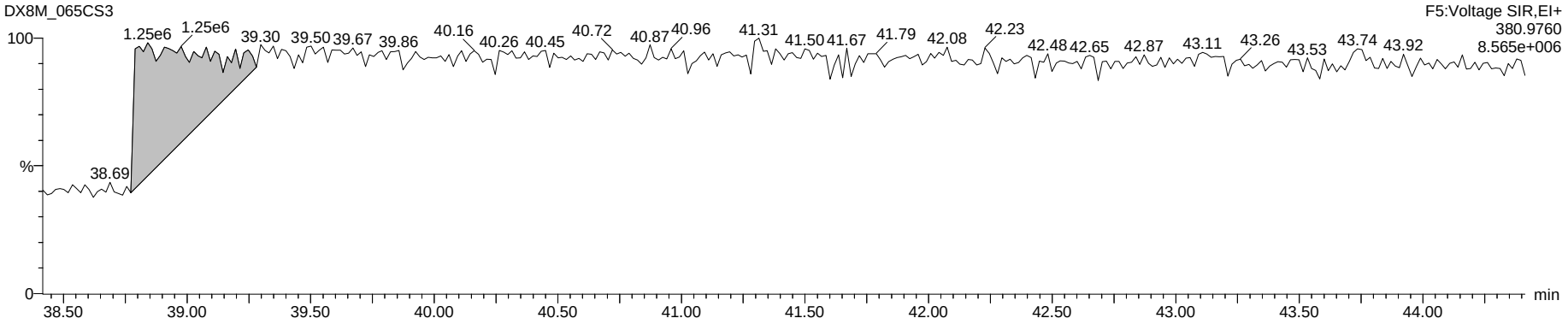

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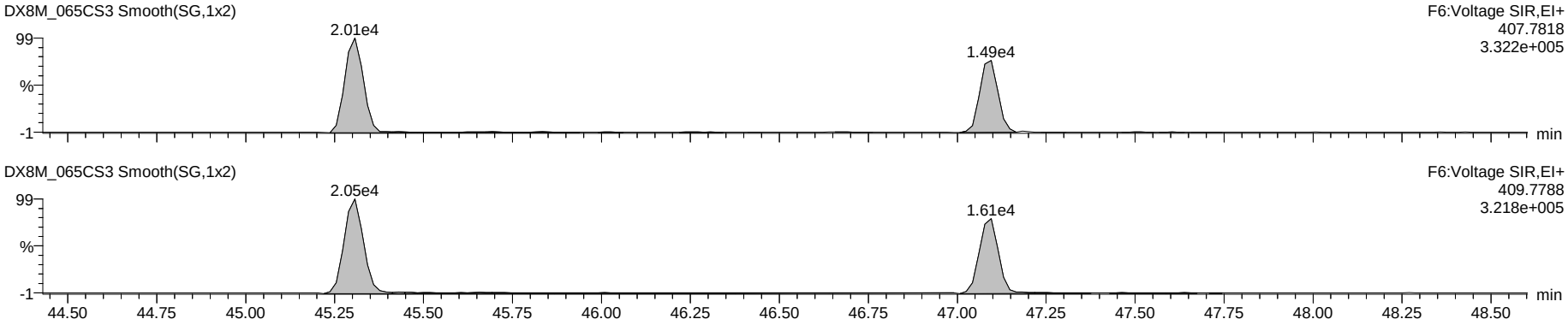
Total Hepta-Furans



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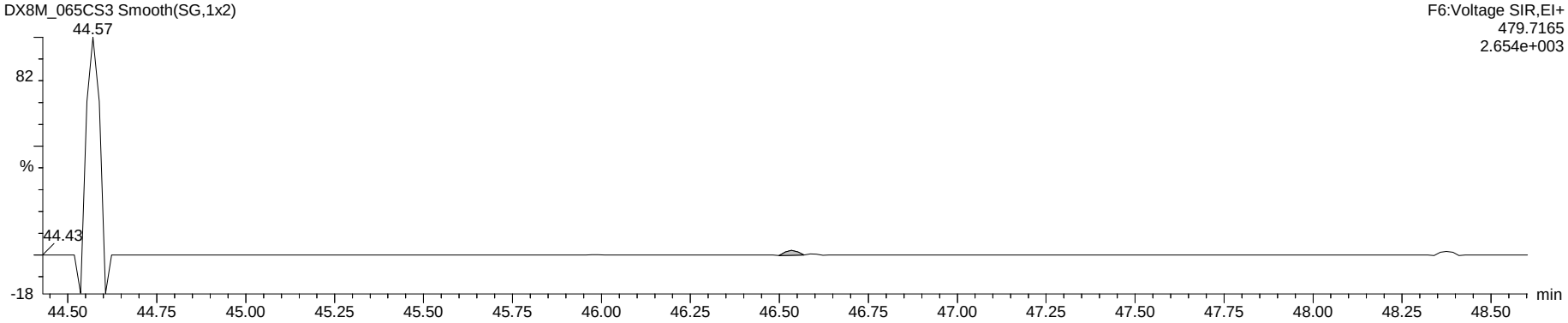
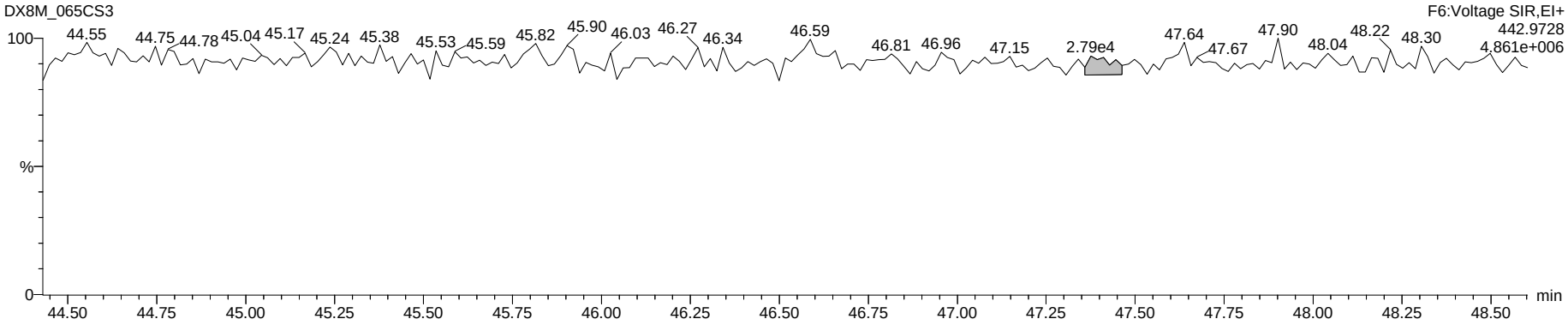


Hepta Lock



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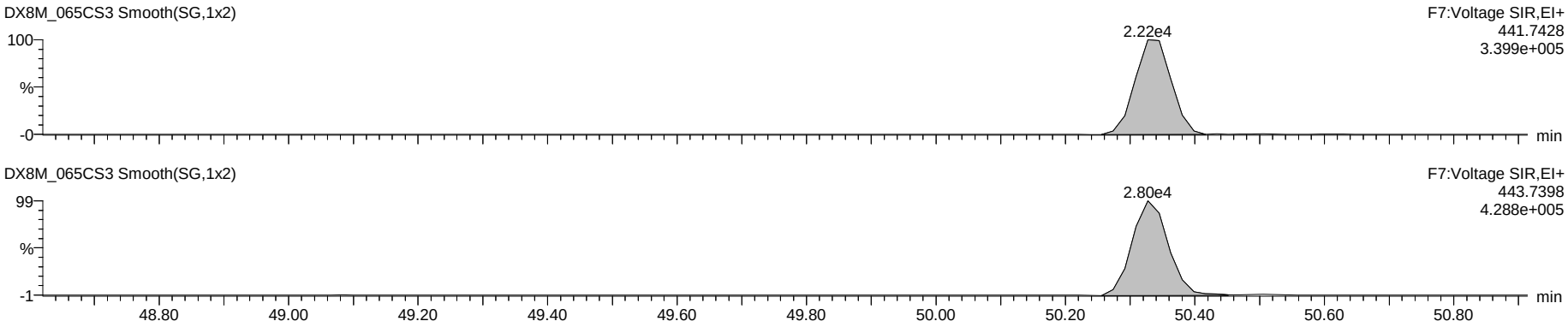
Name: DX8M_065CS3, Date: 04-Jun-2018, Time: 20:28:43, ID: DX041B-CAL,,/01, Description: 1,,1.0uL CS-1

OCDF



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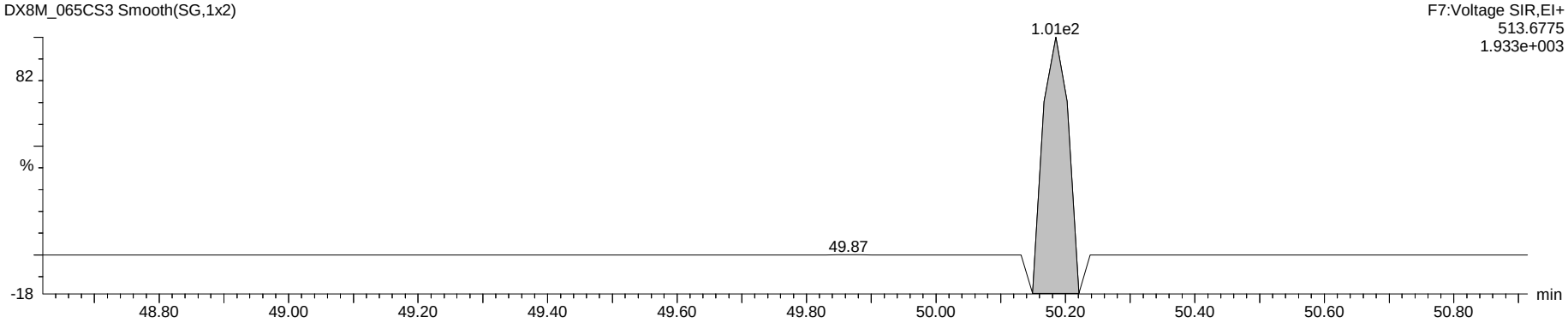
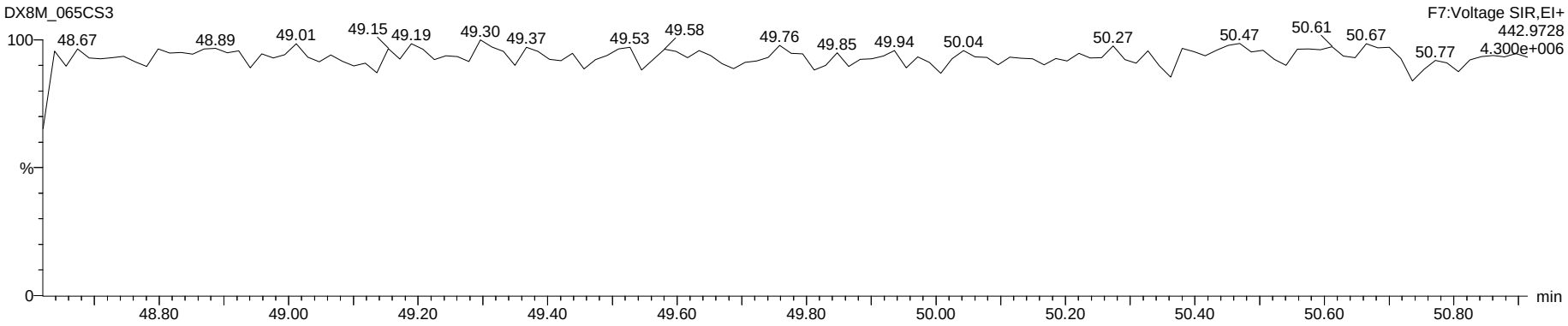


Octa Lock



Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6A.qld

Name: DX8M_065CS4, Date: 04-Jun-2018, Time: 21:21:16, ID: DX041C-CAL,,/01, Description: 1,,1.0uL CS-2

	Name	Amount	Resp	Ratio	fails?	RT	RRF	RRF Mean	RRF SD	RRF %Rel SD	S/N	1° S/N
1	2,3,7,8-TCDF	2.000	6.77e4	0.76	NO	25.26	0.901	0.9149	0.022	2.43	579	788
2	1,2,3,7,8-PeCDF	10.000	2.26e5	1.42	NO	33.58	0.859	0.9236	0.039	4.19	1645	1003
3	2,3,4,7,8-PeCDF	10.000	2.31e5	1.45	NO	35.34	0.917	0.9391	0.013	1.39	1998	1200
4	1,2,3,4,7,8-HxCDF	10.000	1.91e5	1.10	NO	40.72	1.053	1.1161	0.036	3.26	1480	1850
5	1,2,3,6,7,8-HxCDF	10.000	1.97e5	1.21	NO	40.89	1.012	1.0626	0.029	2.74	1557	1829
6	2,3,4,6,7,8-HxCDF	10.000	1.94e5	1.16	NO	41.84	1.106	1.1400	0.036	3.17	1517	1878
7	1,2,3,7,8,9-HxCDF	10.000	1.68e5	1.21	NO	42.87	0.977	0.9992	0.030	2.99	1369	1624
8	1,2,3,4,6,7,8-HpCDF	10.000	1.73e5	0.98	NO	45.31	1.211	1.2235	0.041	3.38	2593	642
9	1,2,3,4,7,8,9-HpCDF	10.000	1.37e5	0.99	NO	47.10	1.230	1.2522	0.017	1.37	2101	523
10	OCDF	20.000	2.22e5	0.84	NO	50.35	1.142	1.2272	0.084	6.84	1646	3724
11	2,3,7,8-TCDD	2.000	4.88e4	0.70	NO	26.49	1.047	1.1119	0.079	7.15	474	634
12	1,2,3,7,8-PeCDD	10.000	1.55e5	0.59	NO	36.17	1.039	1.0267	0.055	5.33	13440	3413
13	1,2,3,4,7,8-HxCDD	10.000	1.37e5	1.28	NO	42.11	0.984	1.0036	0.036	3.60	1061	2444
14	1,2,3,6,7,8-HxCDD	10.000	1.33e5	1.19	NO	42.25	0.910	0.9343	0.029	3.09	969	2388
15	1,2,3,7,8,9-HxCDD	10.000	1.32e5	1.25	NO	42.67	0.930	0.9712	0.032	3.34	1002	2310
16	1,2,3,4,6,7,8-HpCDD	10.000	1.14e5	1.01	NO	46.69	0.980	0.9956	0.020	2.04	6342	1365
17	OCDD	20.000	1.89e5	0.89	NO	50.26	0.971	1.0186	0.028	2.76	3072	3071
18	13C-2,3,7,8-TCDF	100.000	3.75e6	0.77	NO	25.24	1.603	1.6147	0.046	2.83	2776	5056
19	13C-1,2,3,7,8-PeCDF	100.000	2.63e6	1.57	NO	33.54	1.125	1.1640	0.091	7.84	2515	2404
20	13C-2,3,4,7,8-PeCDF	100.000	2.52e6	1.54	NO	35.32	1.077	1.1228	0.100	8.87	2739	2654
21	13C-1,2,3,4,7,8-HxCDF	100.000	1.82e6	0.52	NO	40.70	1.255	1.2764	0.037	2.93	2913	3156
22	13C-1,2,3,6,7,8-HxCDF	100.000	1.94e6	0.52	NO	40.87	1.343	1.3633	0.031	2.30	3178	3553
23	13C-2,3,4,6,7,8-HxCDF	100.000	1.75e6	0.54	NO	41.81	1.211	1.2182	0.036	2.95	2929	3193
24	13C-1,2,3,7,8,9-HxCDF	100.000	1.72e6	0.52	NO	42.86	1.188	1.2015	0.043	3.61	2917	3174
25	13C-1,2,3,4,6,7,8-HpCDF	100.000	1.42e6	0.45	NO	45.29	0.985	1.0186	0.040	3.89	1895	3710
26	13C-1,2,3,4,7,8,9-HpCDF	100.000	1.11e6	0.47	NO	47.08	0.768	0.7945	0.043	5.44	1591	2954
27	13C-2,3,7,8-TCDD	100.000	2.33e6	0.79	NO	26.45	0.994	1.0042	0.038	3.74	2149	2421
28	13C-1,2,3,7,8-PeCDD	100.000	1.49e6	0.67	NO	36.13	0.638	0.6582	0.053	8.04	6321	5533
29	13C-1,2,3,4,7,8-HxCDD	100.000	1.39e6	1.27	NO	42.09	0.961	0.9841	0.037	3.74	4552	3368
30	13C-1,2,3,6,7,8-HxCDD	100.000	1.46e6	1.22	NO	42.23	1.008	1.0407	0.026	2.53	4614	3585
31	13C-1,2,3,4,6,7,8-HpCDD	100.000	1.16e6	0.99	NO	46.67	0.802	0.8135	0.035	4.34	5864	2774
32	13C-OCDD	200.000	1.95e6	0.87	NO	50.24	0.673	0.7155	0.075	10.43	4907	5297
33	13C-1,2,3,4-TCDD	100.000	2.34e6	0.78	NO	26.13	234...	22602.6799	1977.986	8.75	2265	2498
34	13C-1,2,3,7,8,9-HxCDD	100.000	1.45e6	1.27	NO	42.65	144...	14280.3905	2145.257	15.02	4664	3453
35	37Cl-2,3,7,8-TCDD	2.000	5.03e4			26.49	1.073	1.1134	0.079	7.11	3664	
36	Total Tetra-Furans	2.000						0.9149	0.022	2.43		
37	Total Tetra-Dioxins	2.000						1.1119	0.079	7.15		
38	Total Penta-Furans	10.000						0.9236	0.039	4.19		
39	Total Penta-Dioxins	10.000						1.0267	0.055	5.33		
40	Total Hexa-Furans	10.000						1.1161	0.036	3.26		
41	Total Hexa-Dioxins	10.000						1.0036	0.036	3.60		
42	Total Hepta-Furans	10.000						1.2235	0.041	3.38		
43	Total Hepta-Dioxins	10.000						0.9956	0.020	2.04		
44	Hexa DPE	0.000	1.85e2			21.41	0.000				5085	
45	Hepta DPE	0.000	8.25e1			33.65	0.000				9866	
46	Octa DPE	0.000	8.80e1			38.89	0.000				3249	
47	Nona DPE	0.000	8.08e1			48.20	0.000				6496	
48	Deca DPE	0.000	9.22e1			49.28	0.000				6597	
49	Tetra Lock	0.000	3.91e4			24.15	0.000				1	
50	Penta Lock	0.000	7.21e5			29.13	0.000				1	
51	Hexa Lock	0.000										
52	Hepta Lock	0.000	3.98e4			47.64	0.000				1	
53	Octa Lock	0.000										
54	13C-Tetra-Furans	100.000						1.6147	0.046	2.83		
55	13C-Tetra-Dioxins	100.000						1.0042	0.038	3.74		

PV LHE 06-JUNE-2018

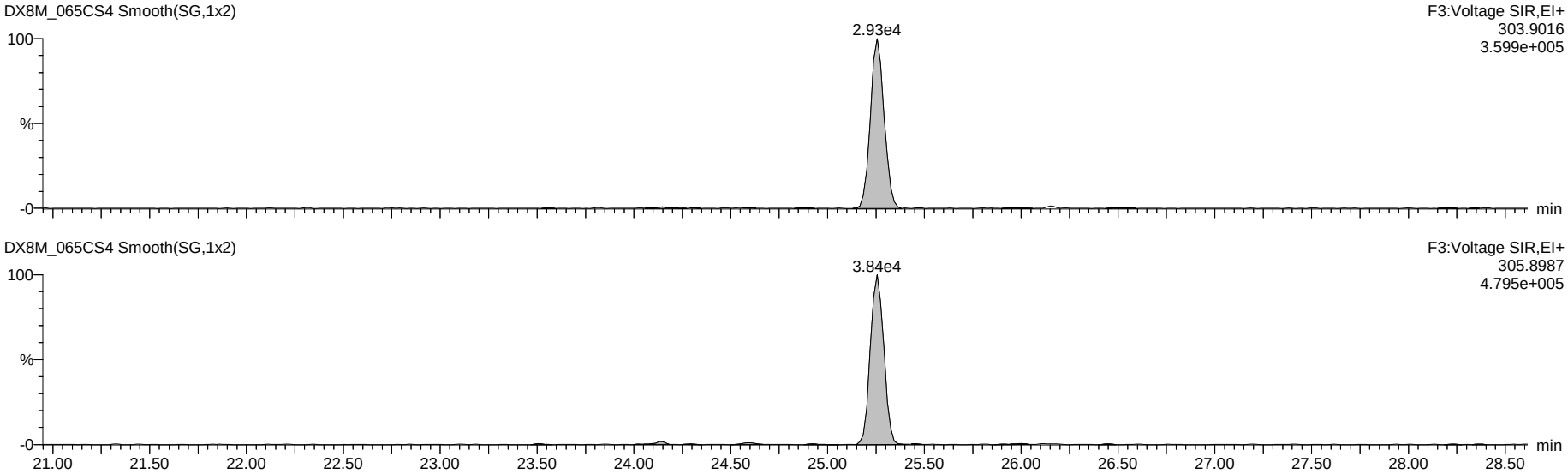
SVBy-K3 06JUN2018

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6A.qld

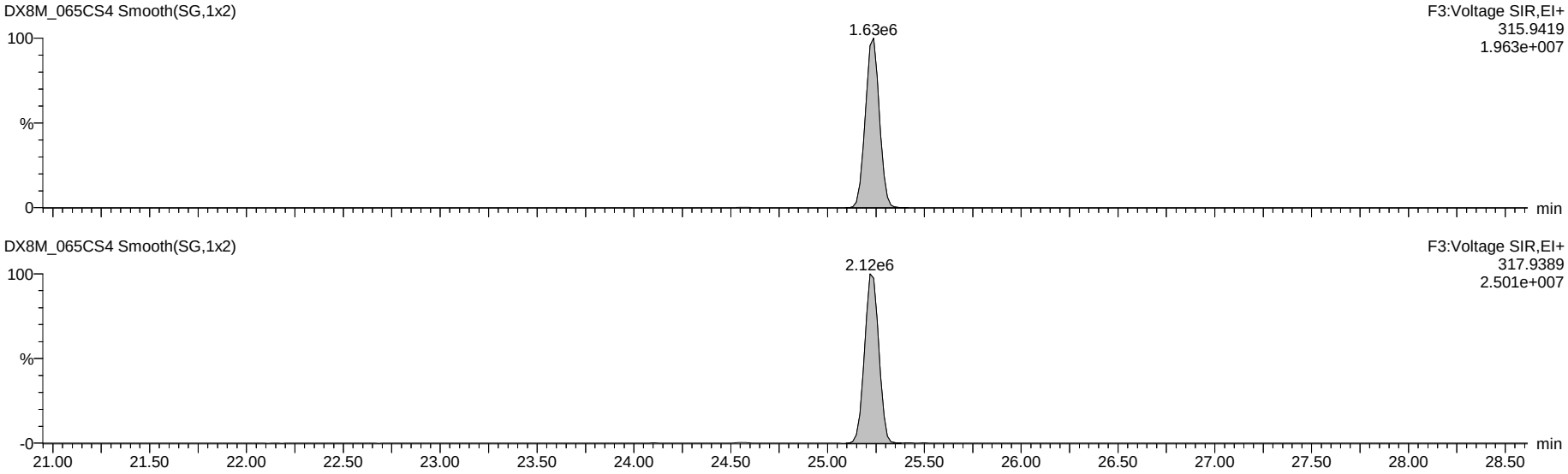
Method: G:\Masslynx\Inst_M\Projects\180604DX.PRO\MethDB\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: 06 Jun 2018 09:11:00

Name: DX8M_065CS4, Date: 04-Jun-2018, Time: 21:21:16, ID: DX041C-CAL,,/01, Description: 1,,1.0uL CS-2

Total Tetra-Furans



13C-Tetra-Furans



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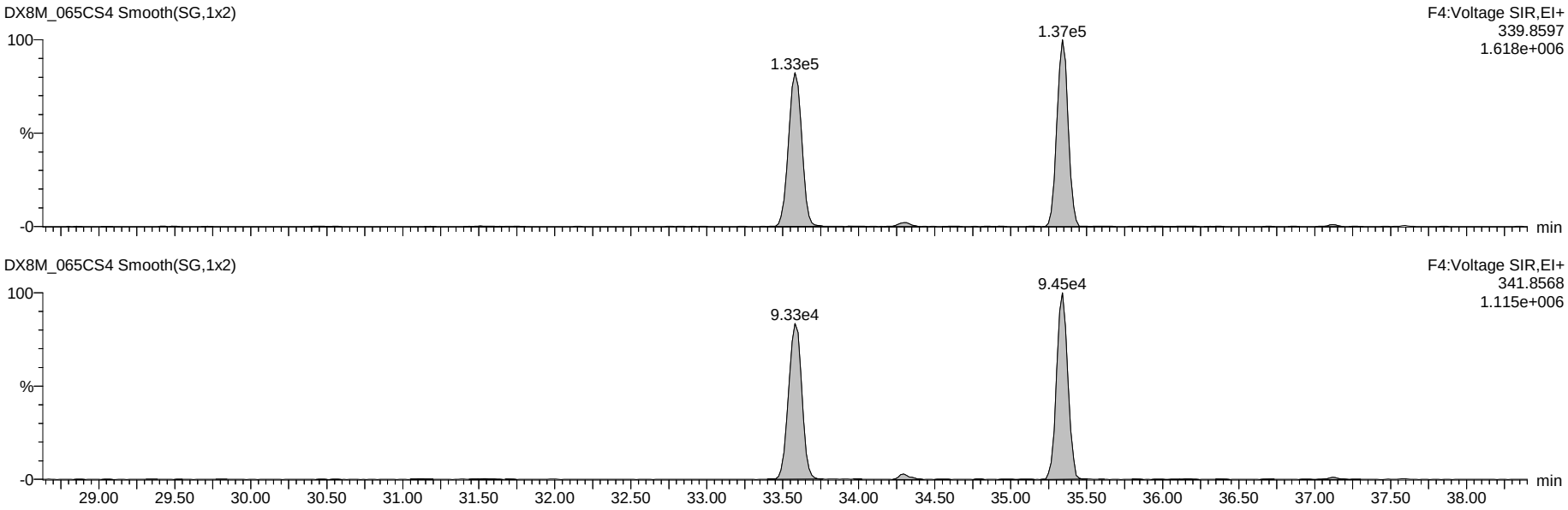
Total Penta-Furans



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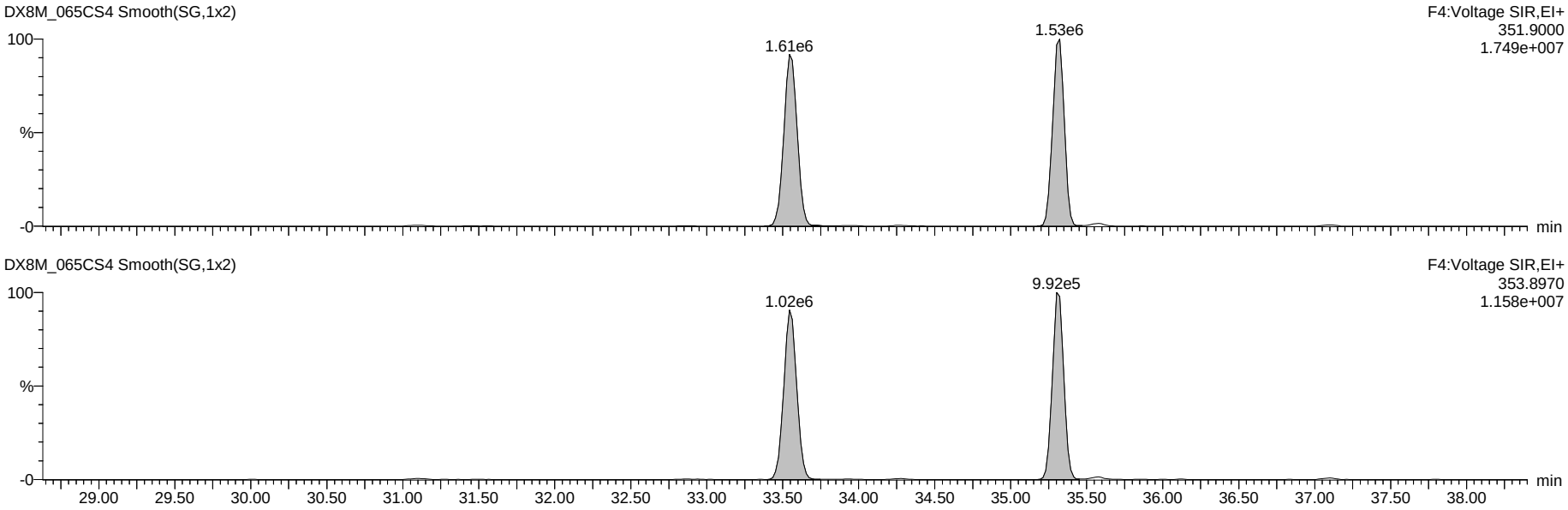

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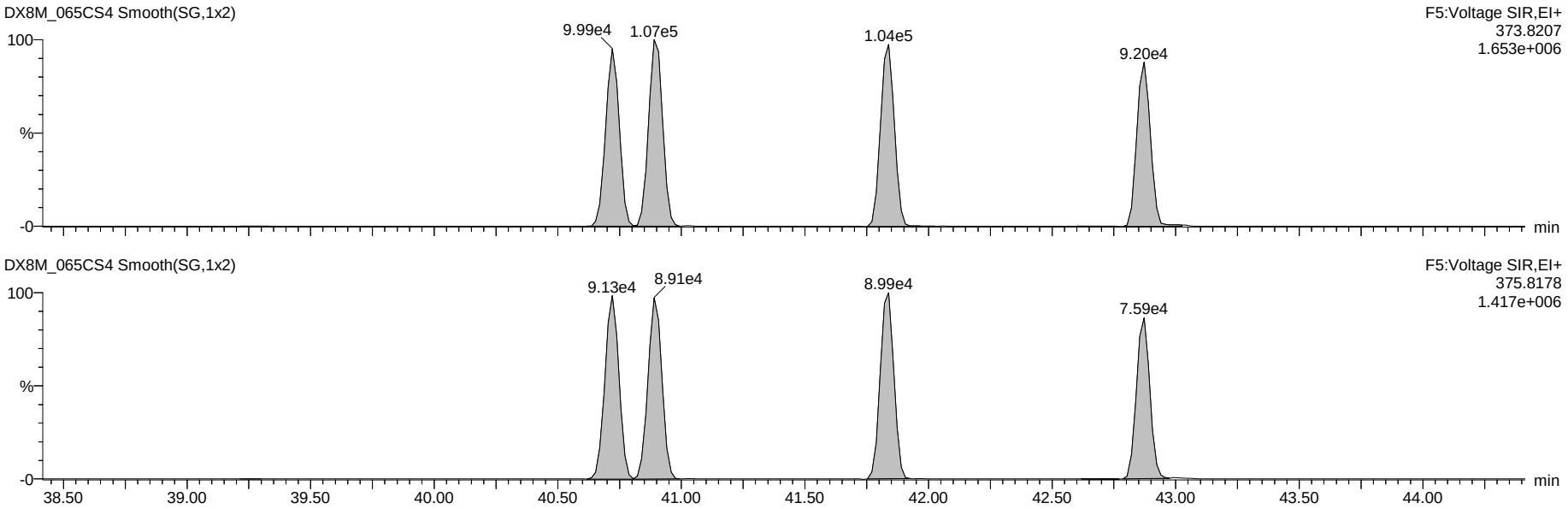
Name: DX8M_065CS4, Date: 04-Jun-2018, Time: 21:21:16, ID: DX041C-CAL,,/01, Description: 1,,1.0uL CS-2

Total Hexa-Furans



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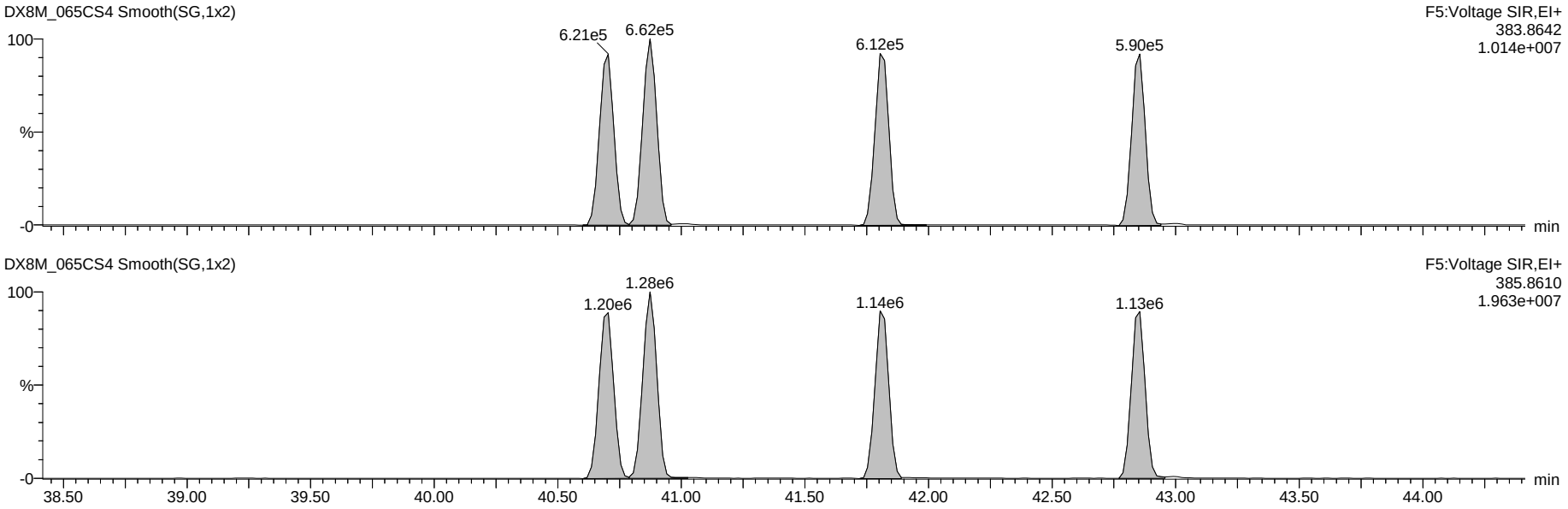

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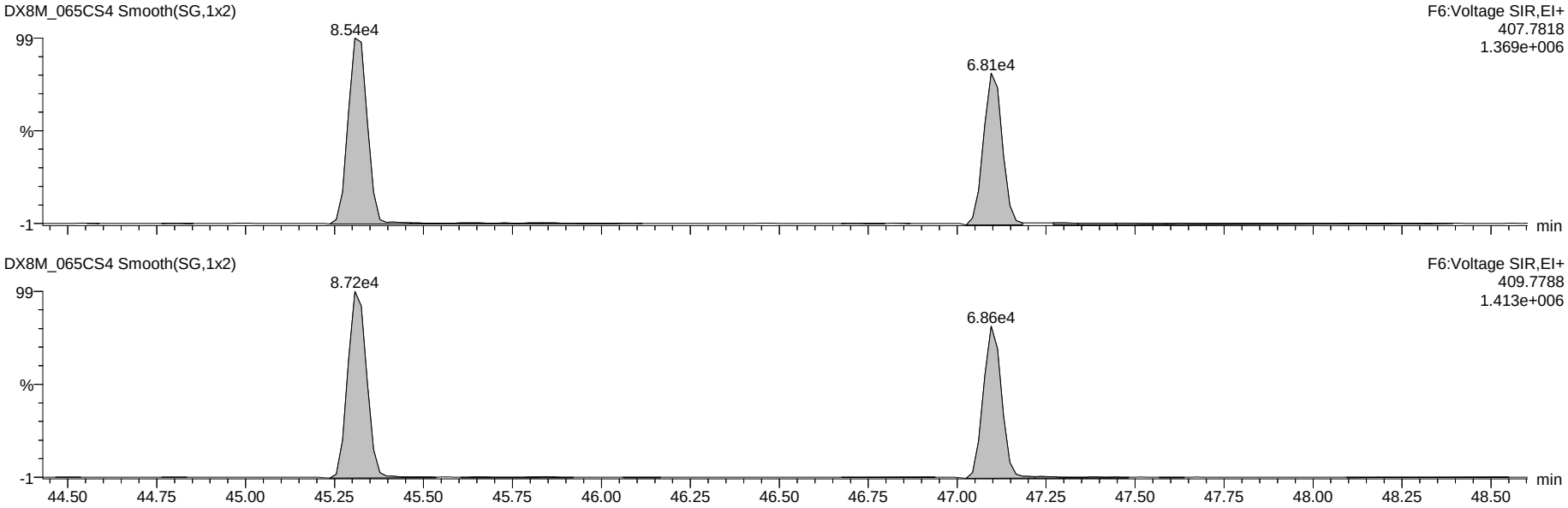
Total Hepta-Furans



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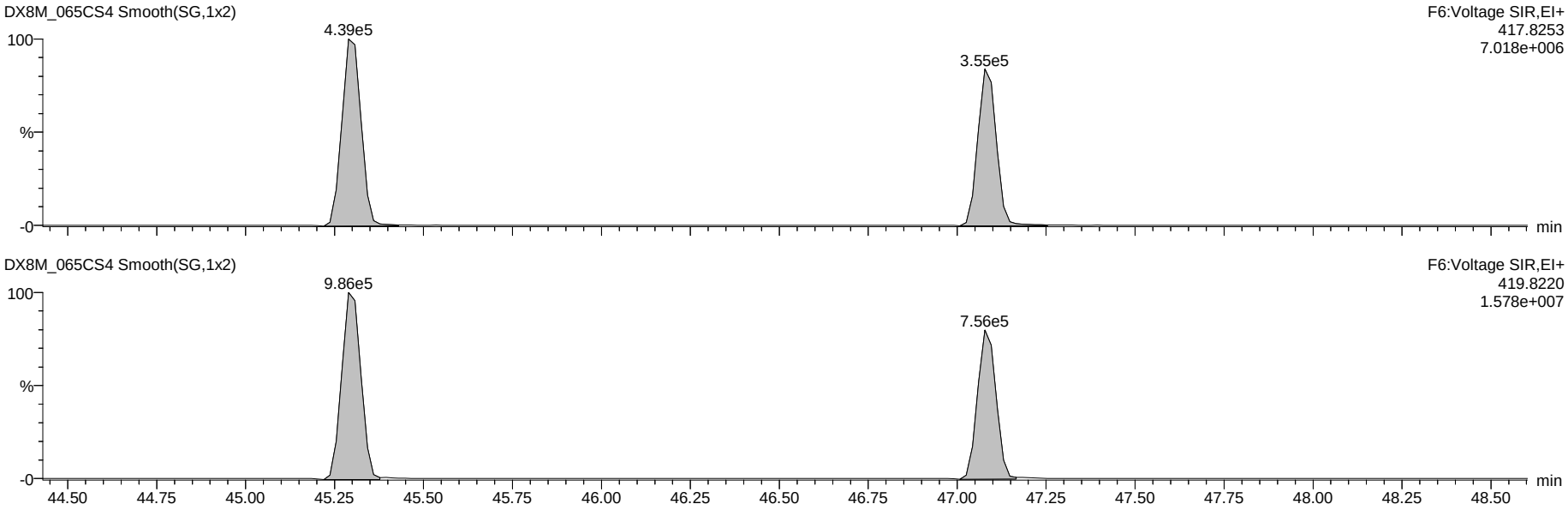

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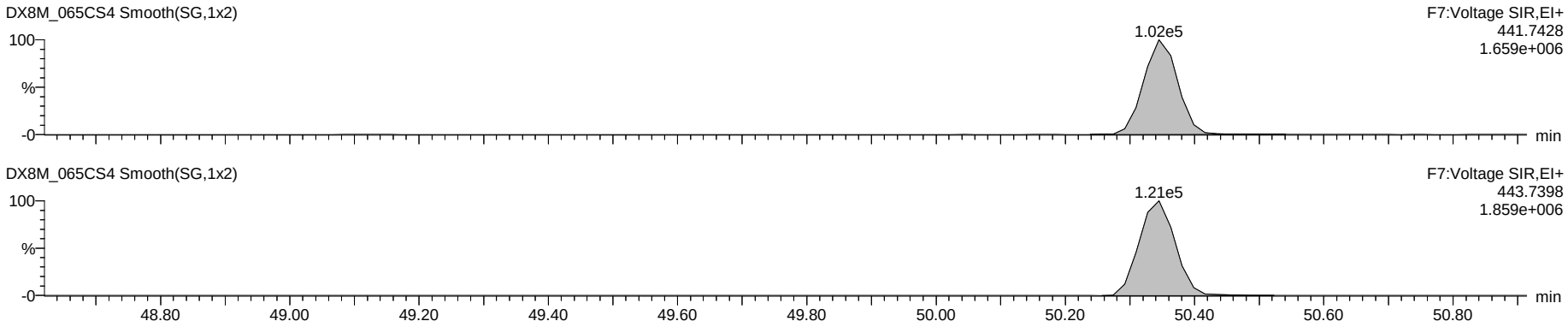
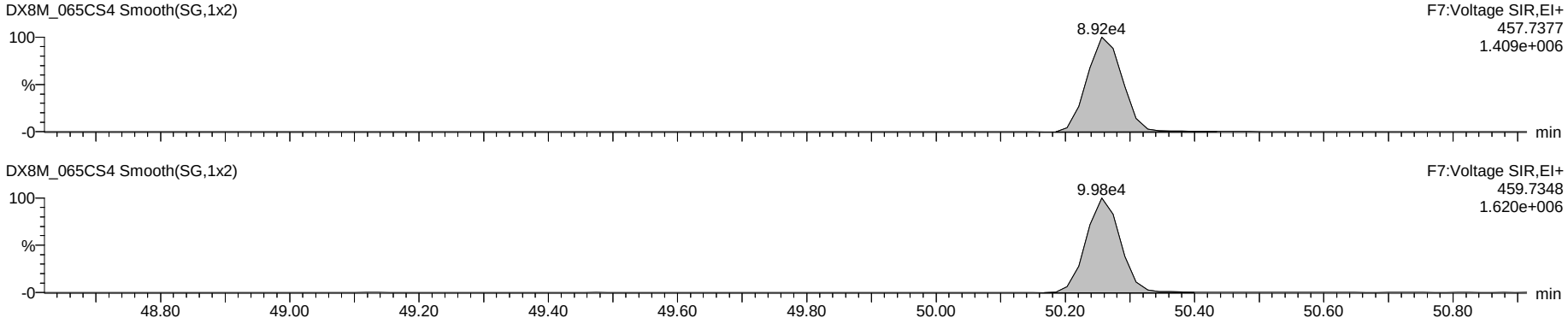
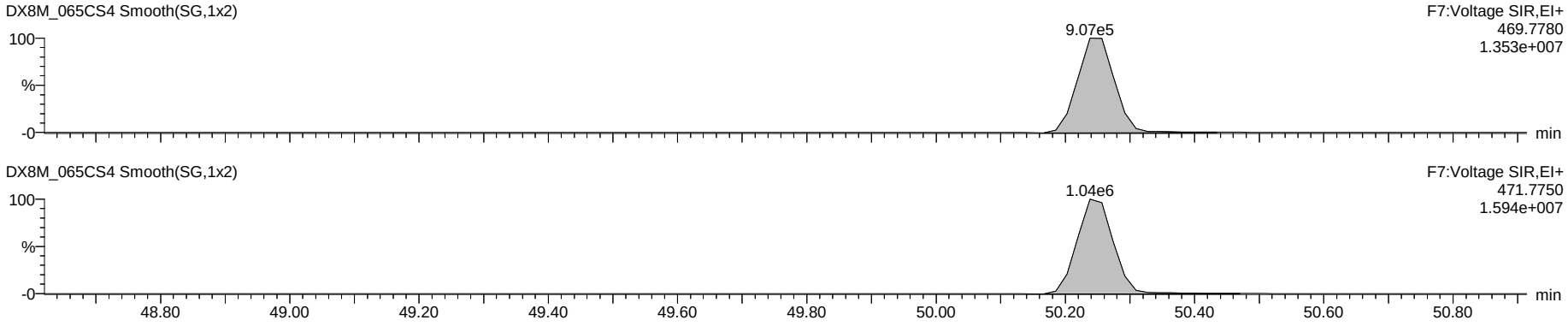
OCDF



OCDD



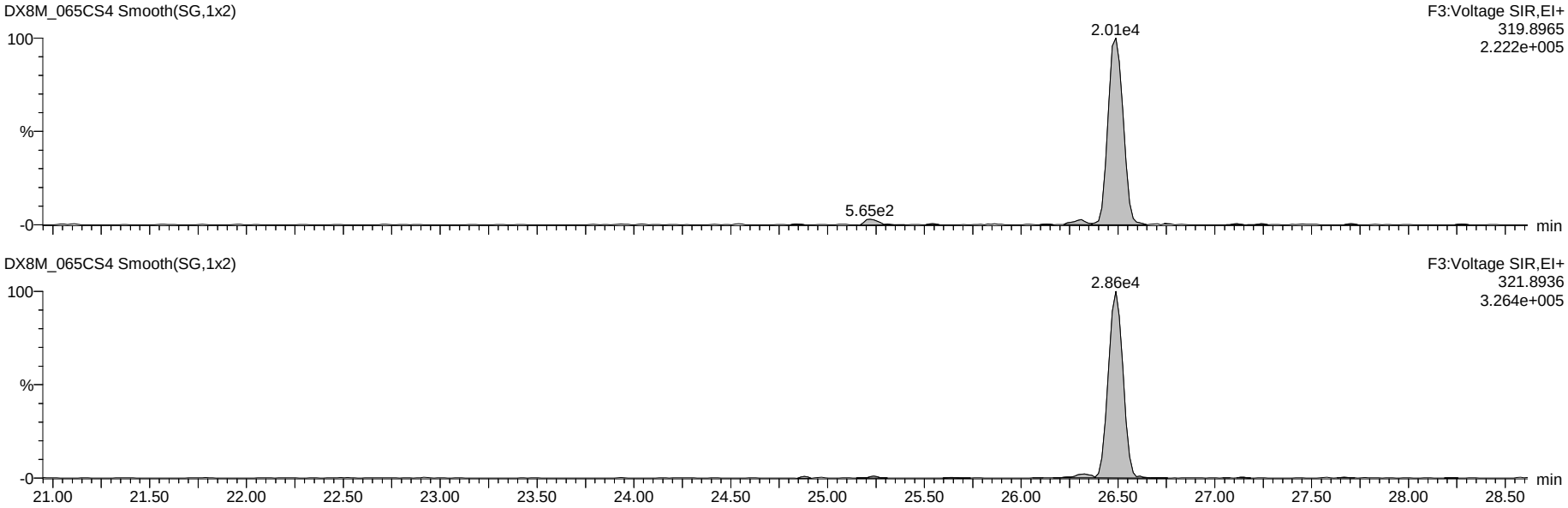
13C-OCDD



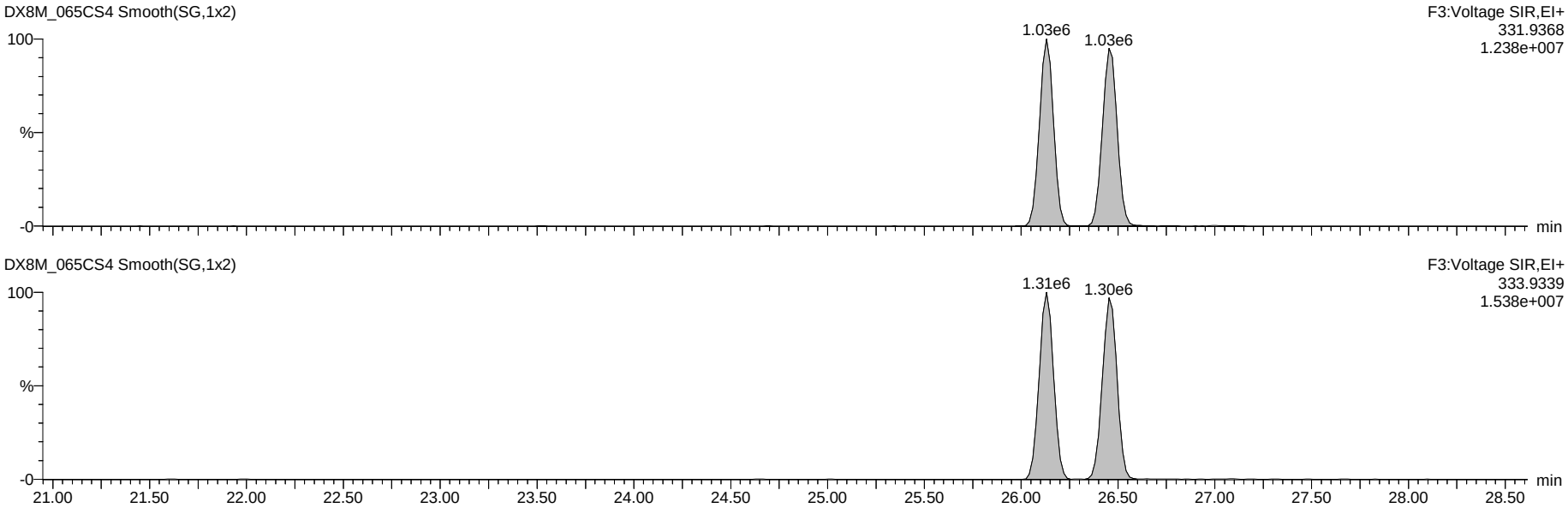
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6A.qld

Name: DX8M_065CS4, Date: 04-Jun-2018, Time: 21:21:16, ID: DX041C-CAL,,/01, Description: 1,,1.0uL CS-2

Total Tetra-Dioxins



13C-Tetra-Dioxins



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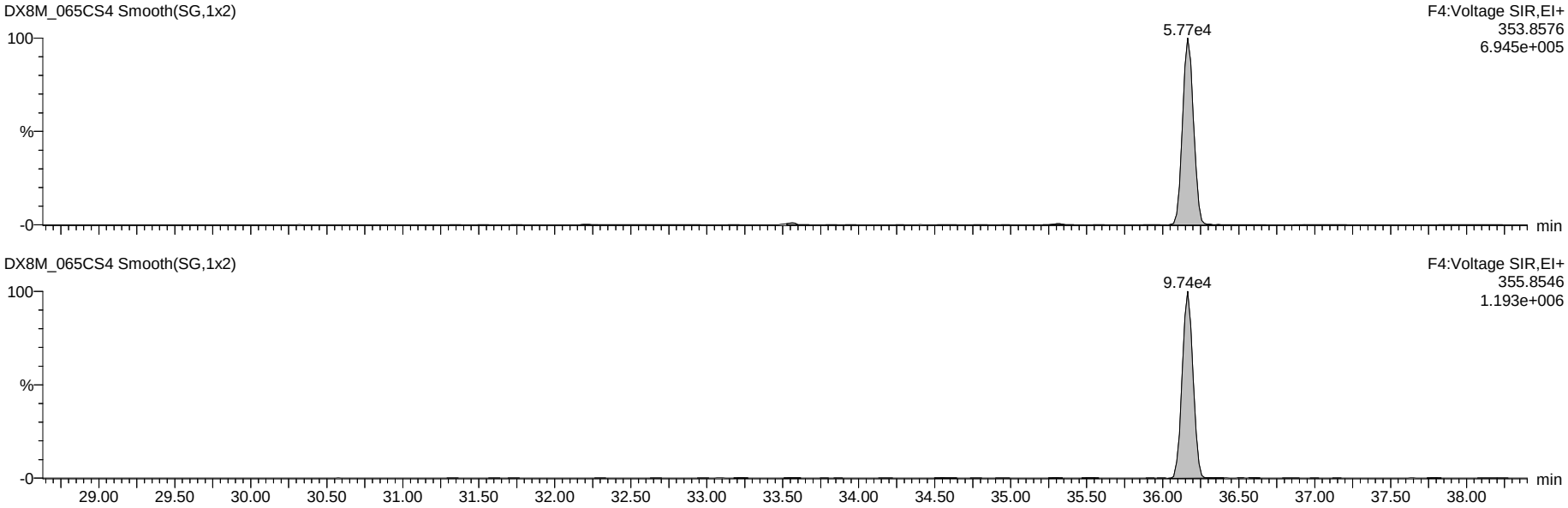
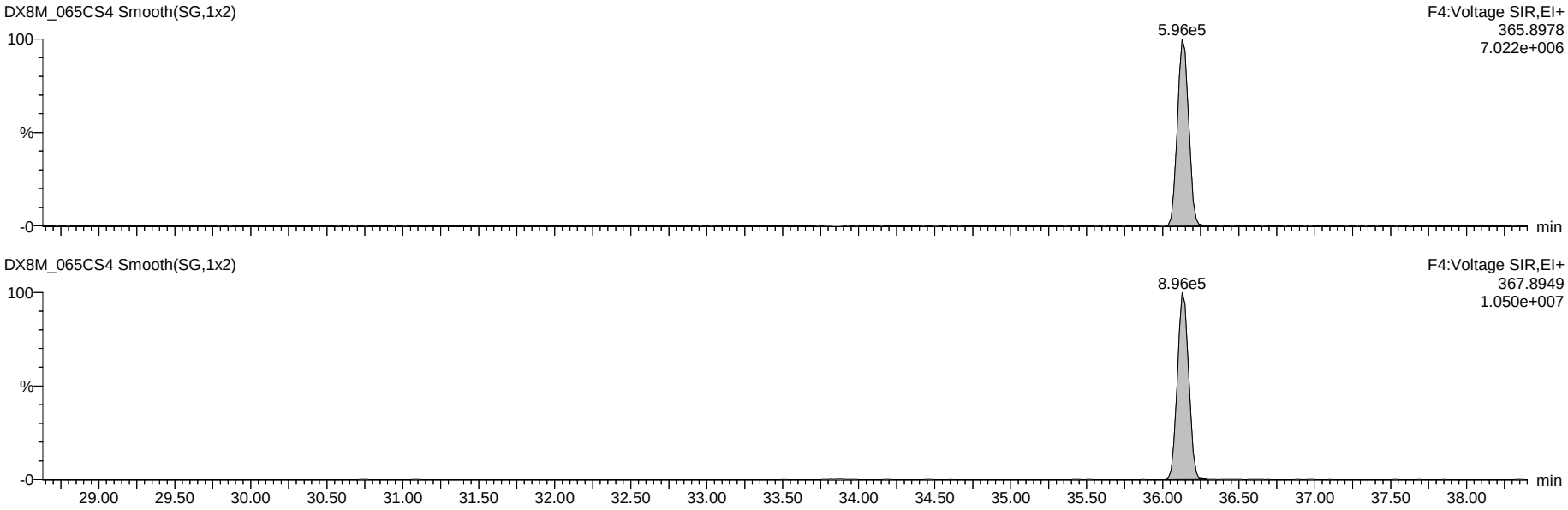
Name: DX8M_065CS4, Date: 04-Jun-2018, Time: 21:21:16, ID: DX041C-CAL,,/01, Description: 1,,1.0uL CS-2

Total Penta-Dioxins



13C-Penta-Dioxins



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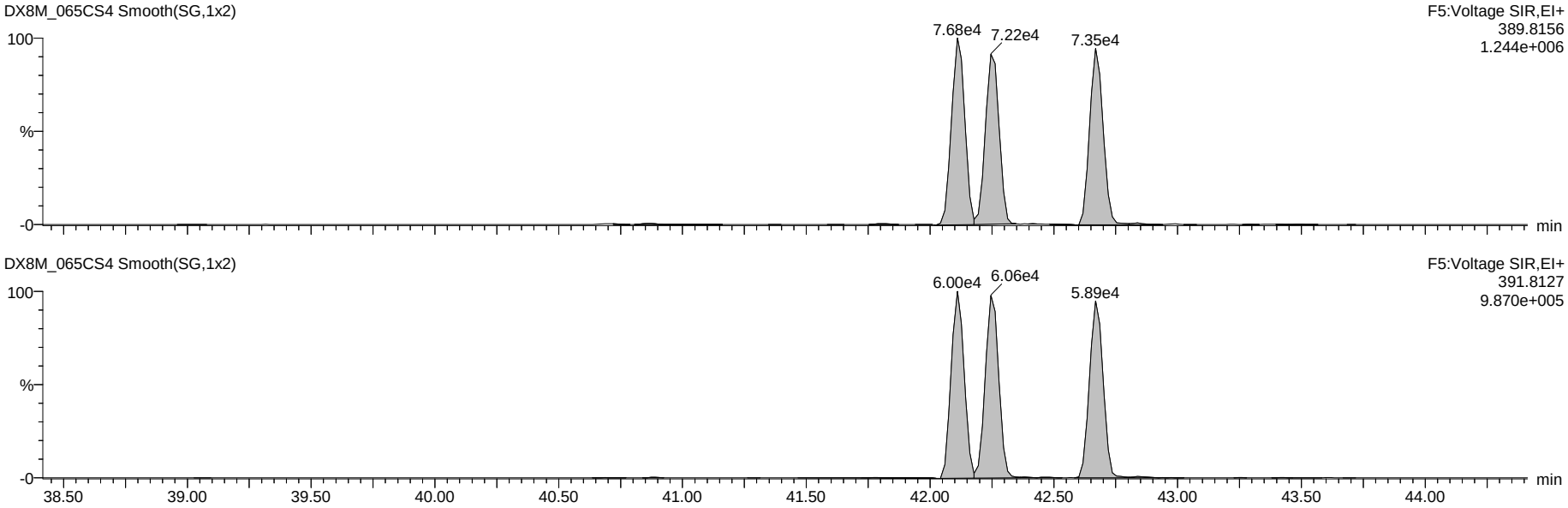
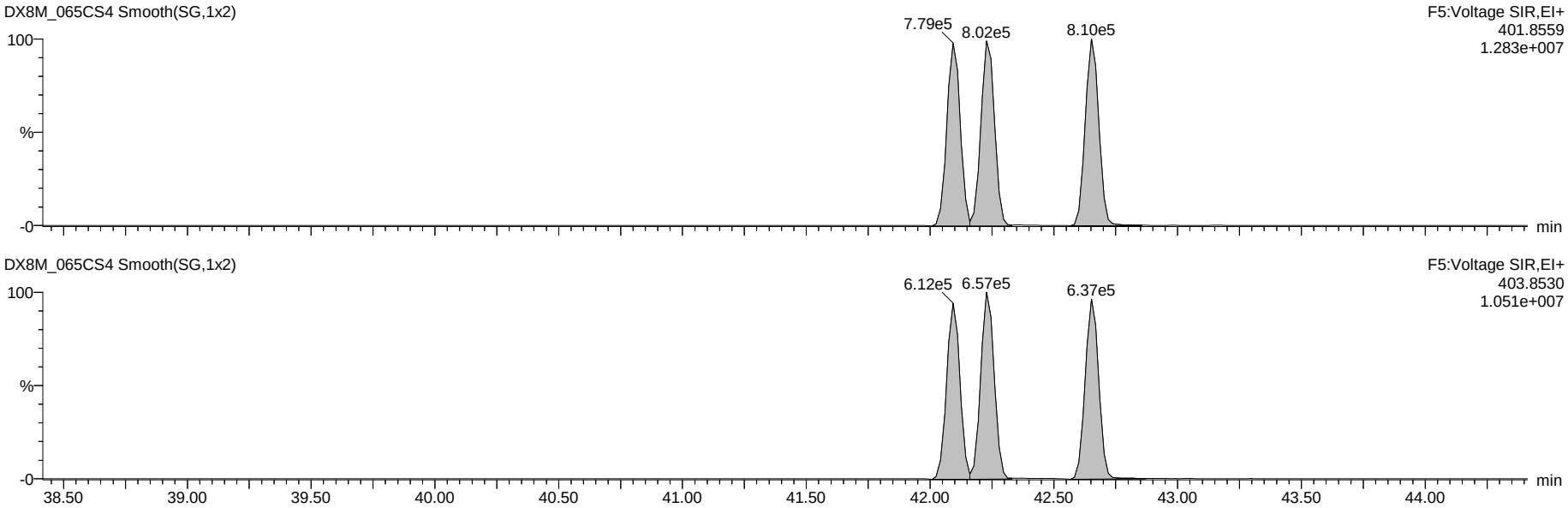
Name: DX8M_065CS4, Date: 04-Jun-2018, Time: 21:21:16, ID: DX041C-CAL,,/01, Description: 1,,1.0uL CS-2

Total Hexa-Dioxins



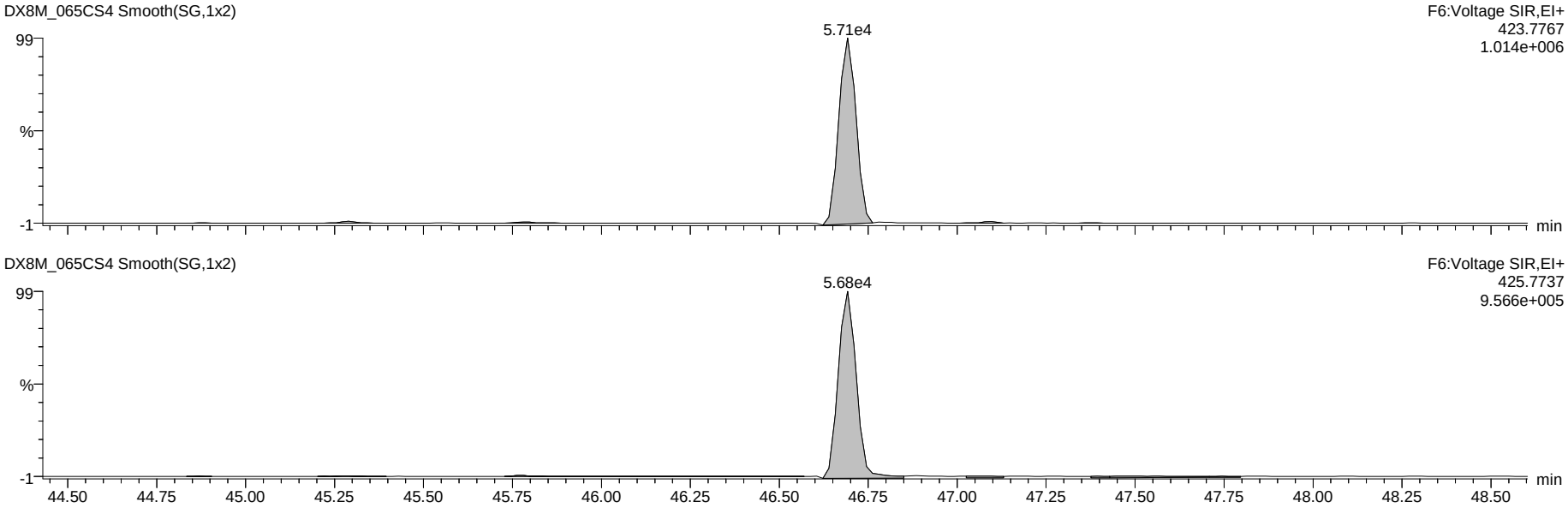
13C-Hexa-Dioxins



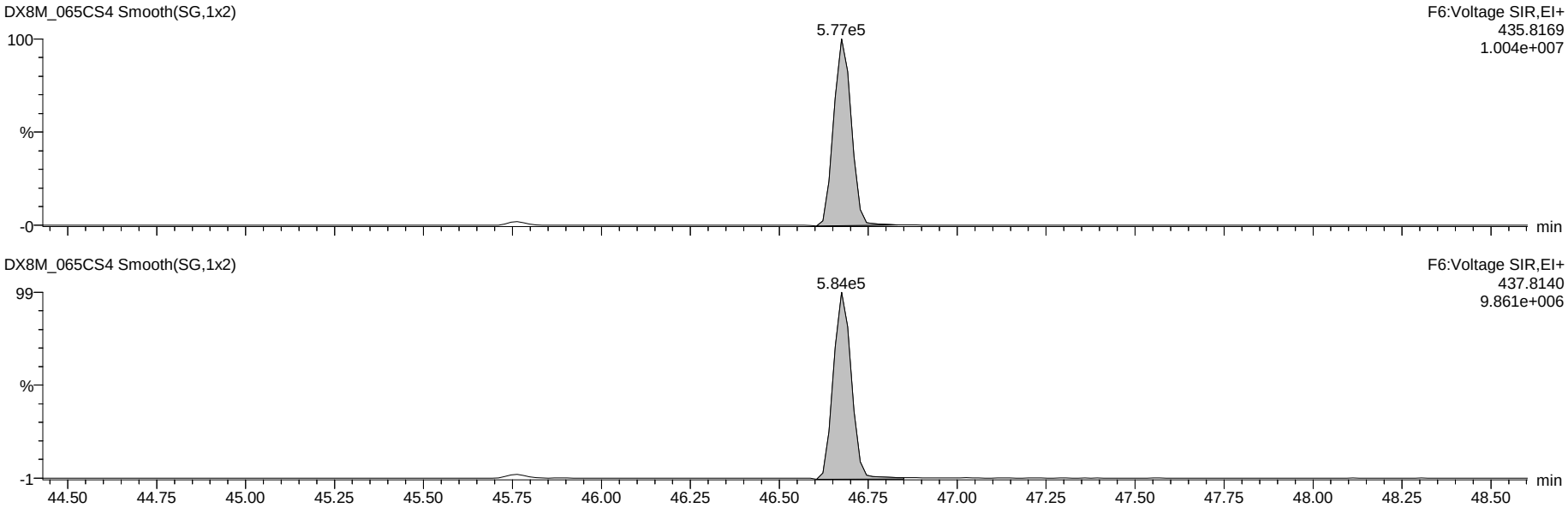
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6A.qld

Name: DX8M_065CS4, Date: 04-Jun-2018, Time: 21:21:16, ID: DX041C-CAL,,/01, Description: 1,,1.0uL CS-2

Total Hepta-Dioxins



13C-Hepta-Dioxins



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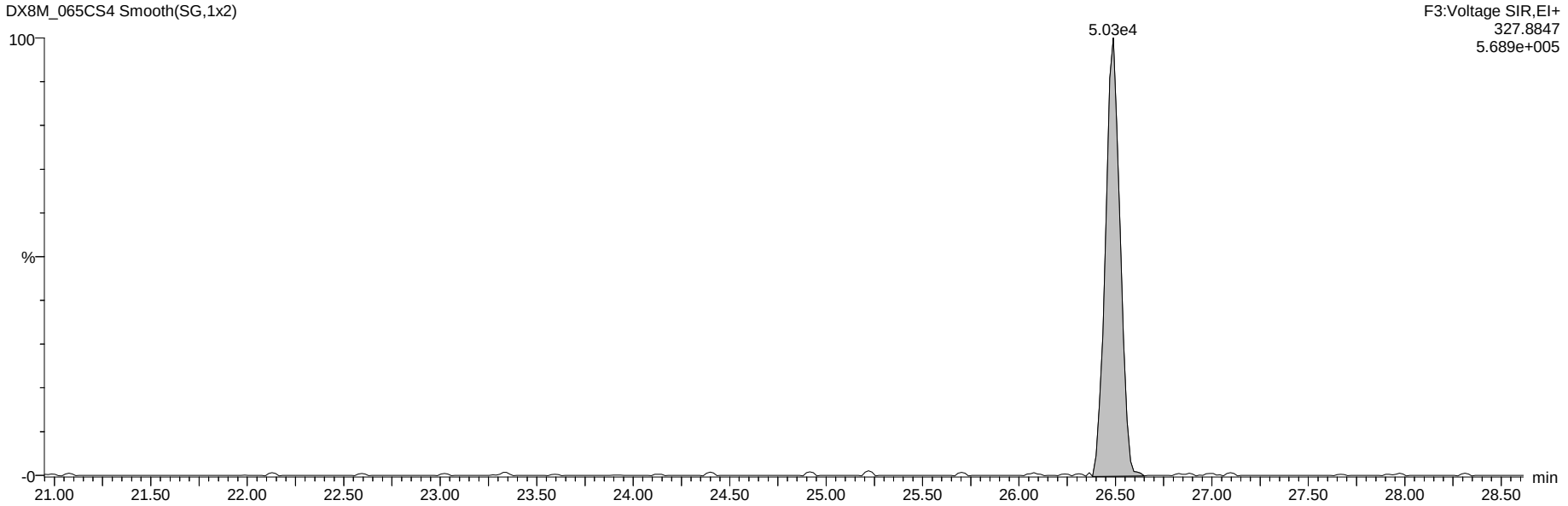
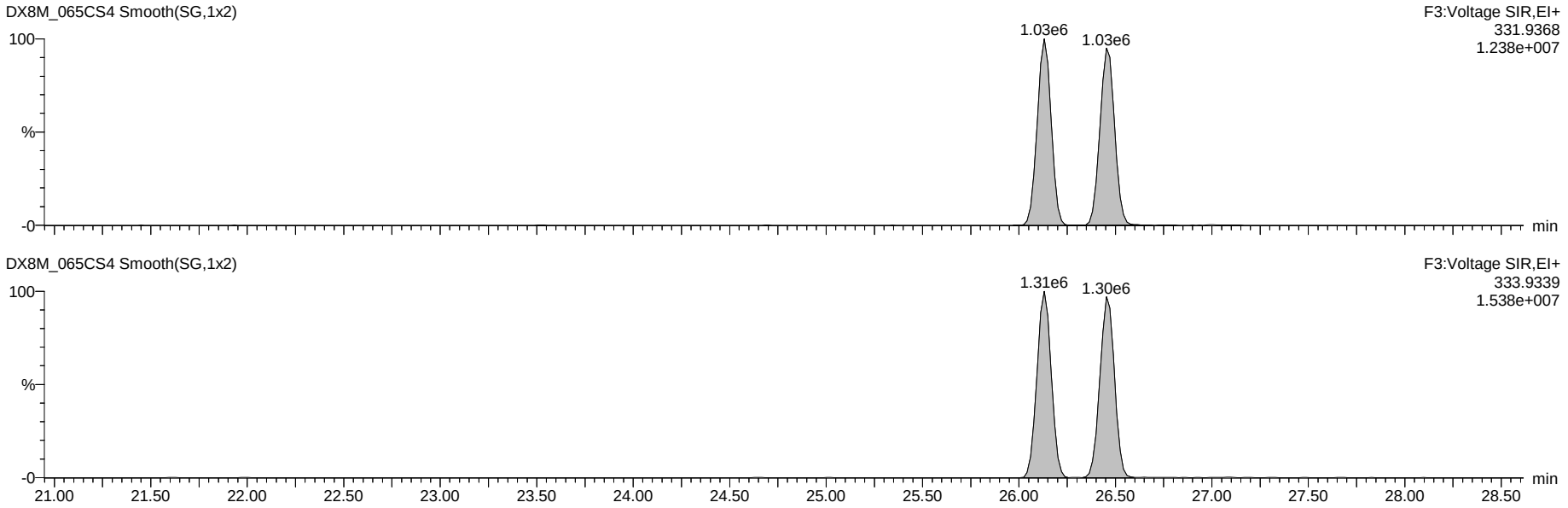
Name: DX8M_065CS4, Date: 04-Jun-2018, Time: 21:21:16, ID: DX041C-CAL,,/01, Description: 1,,1.0uL CS-2

37Cl-2,3,7,8-TCDD



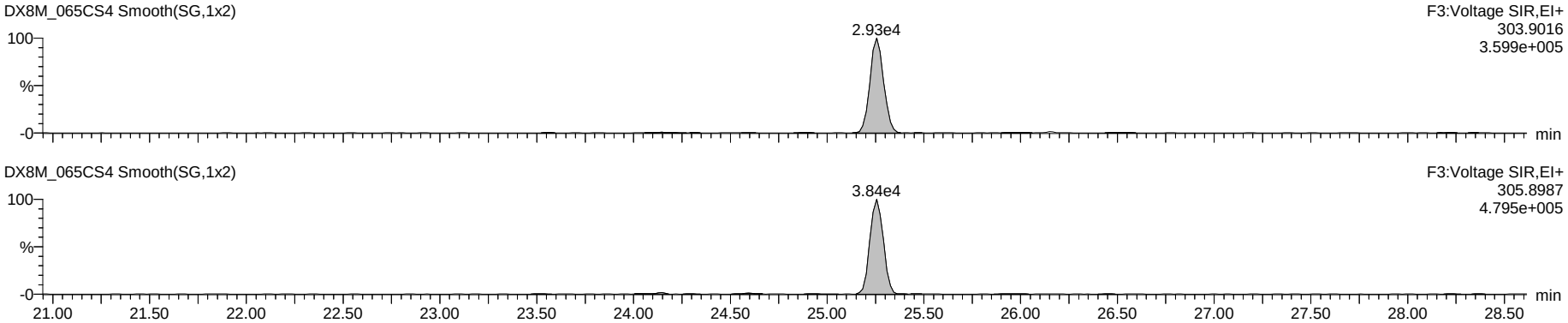
13C-Tetra-Dioxins



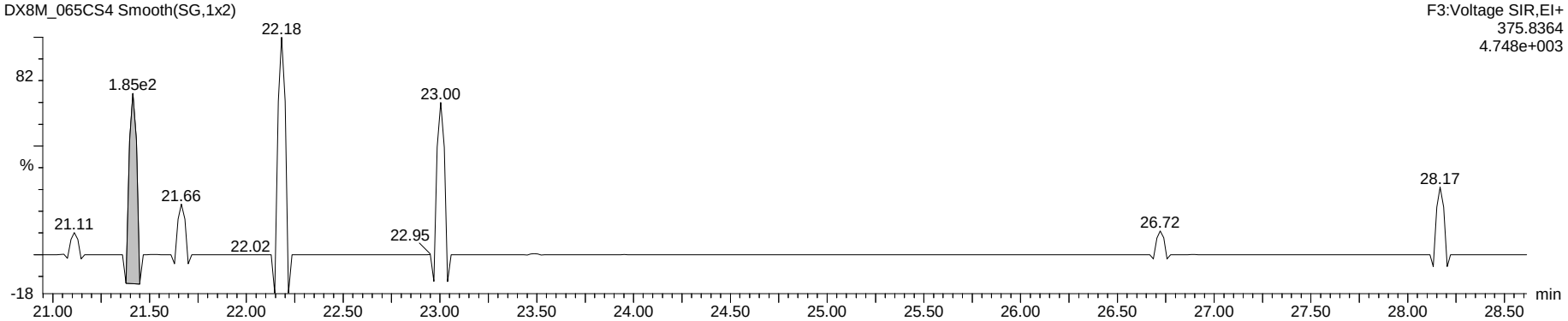
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6A.qld

Name: DX8M_065CS4, Date: 04-Jun-2018, Time: 21:21:16, ID: DX041C-CAL,,/01, Description: 1,,1.0uL CS-2

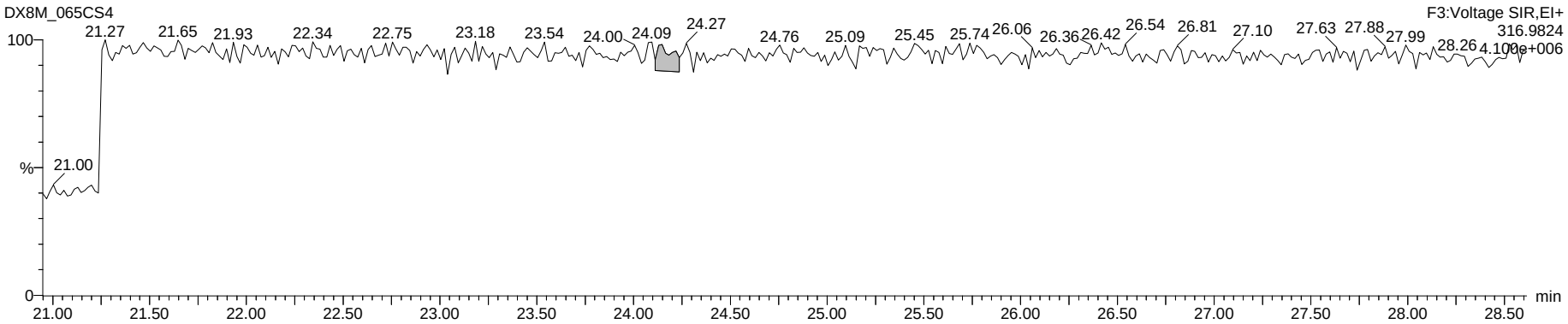
Total Tetra-Furans



Hexa DPE



Tetra Lock



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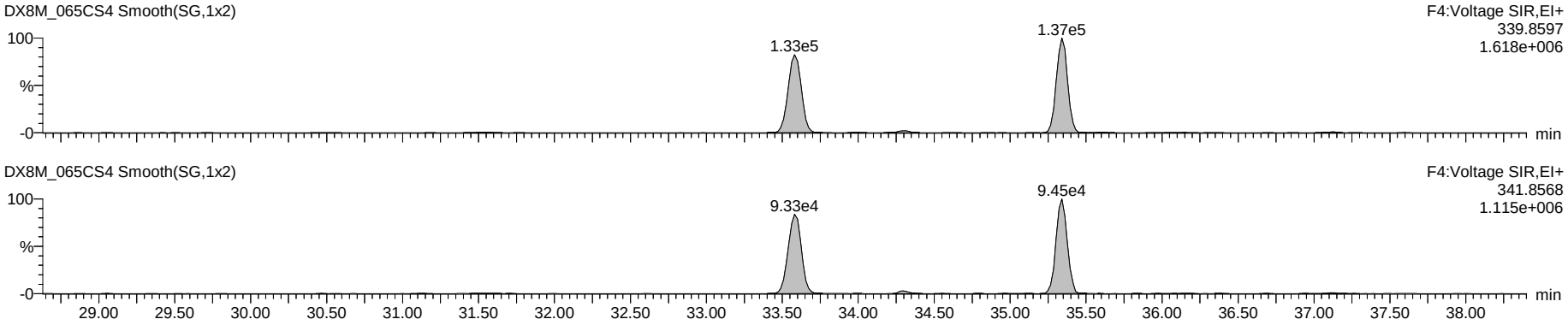
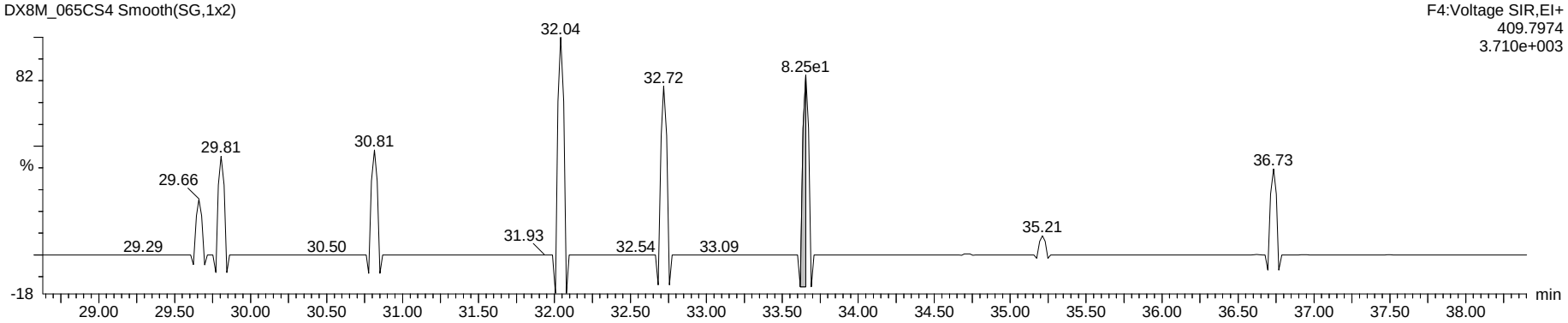
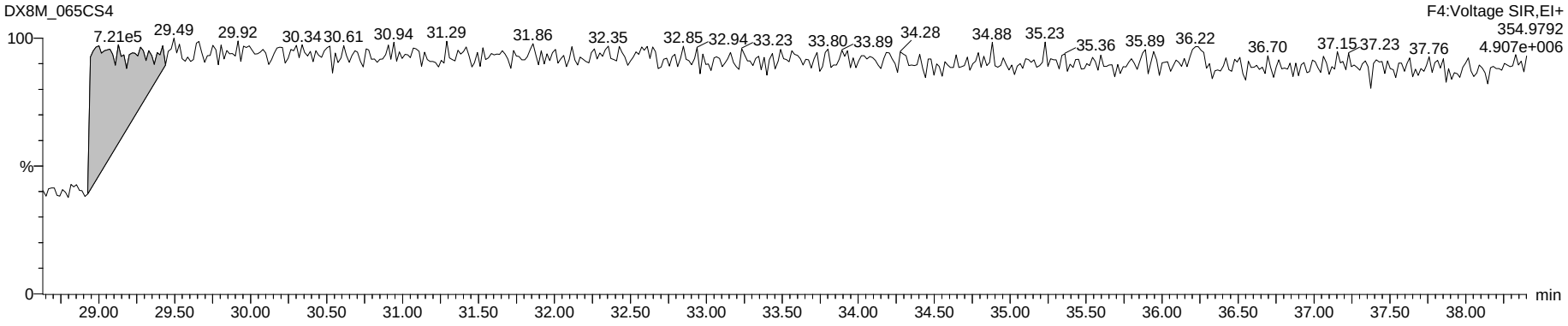
Total Penta-Furans



Hepta DPE



Penta Lock



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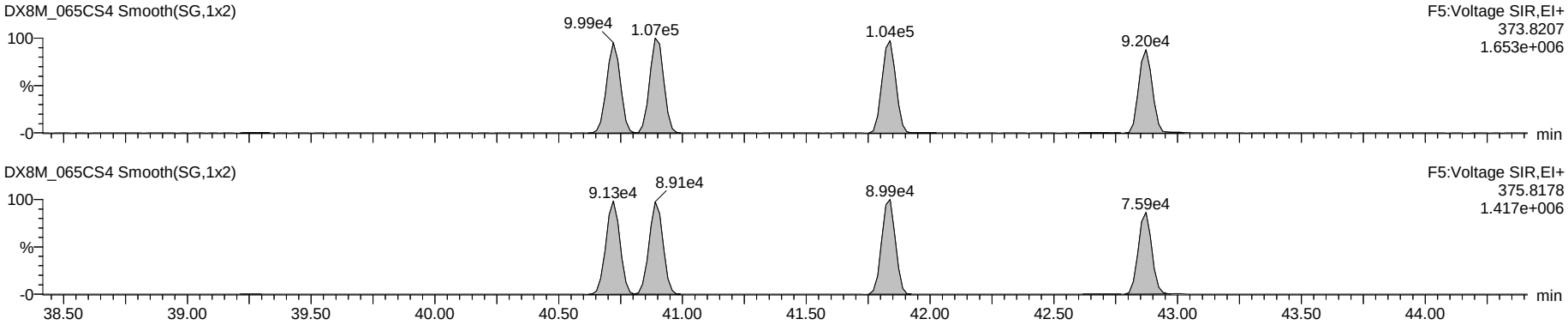
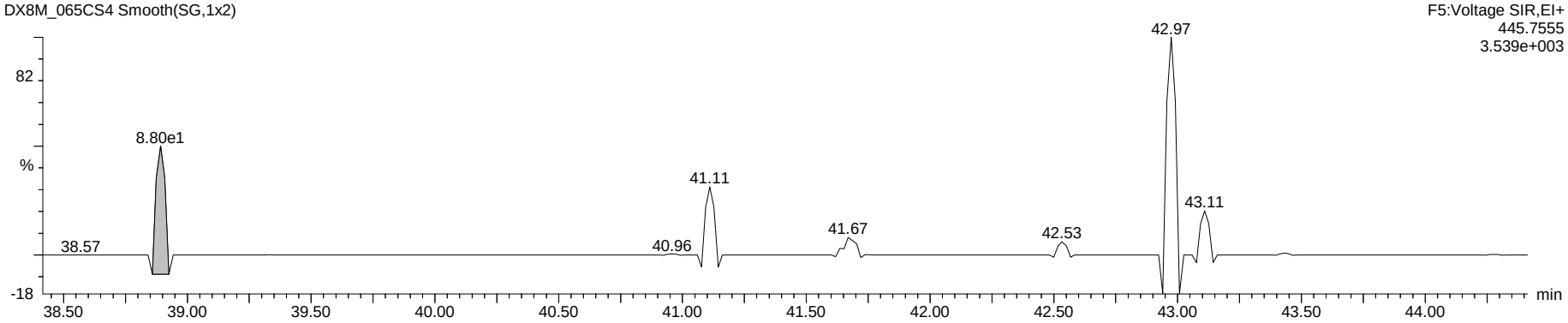
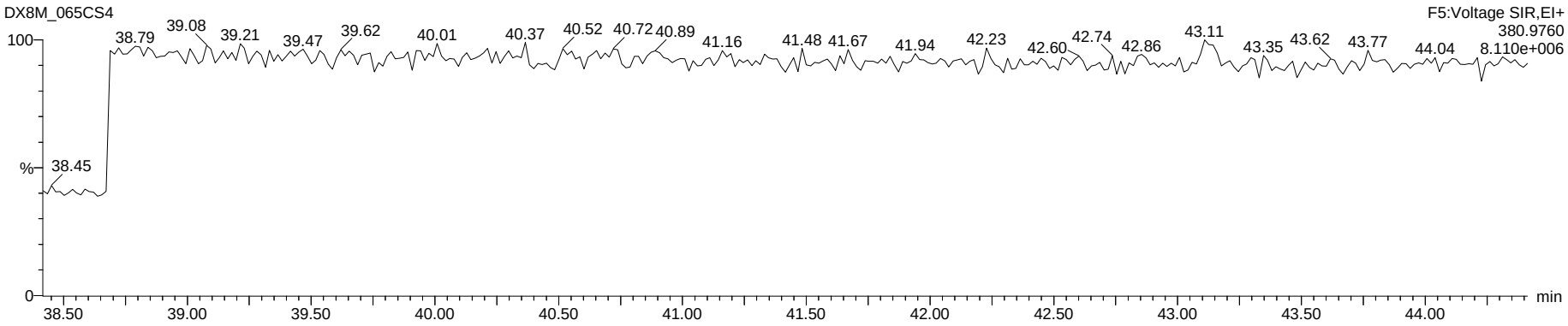
Total Hexa-Furans



Octa DPE



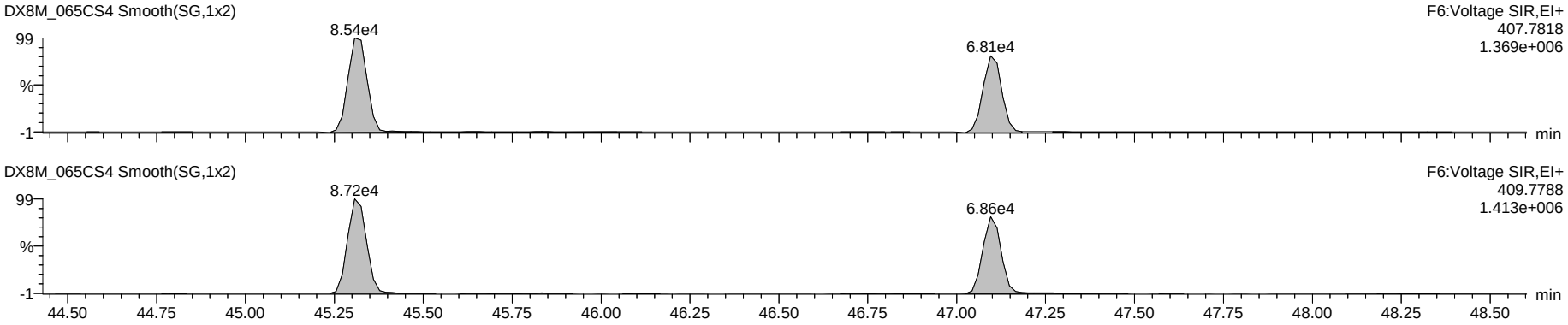
Hexa Lock



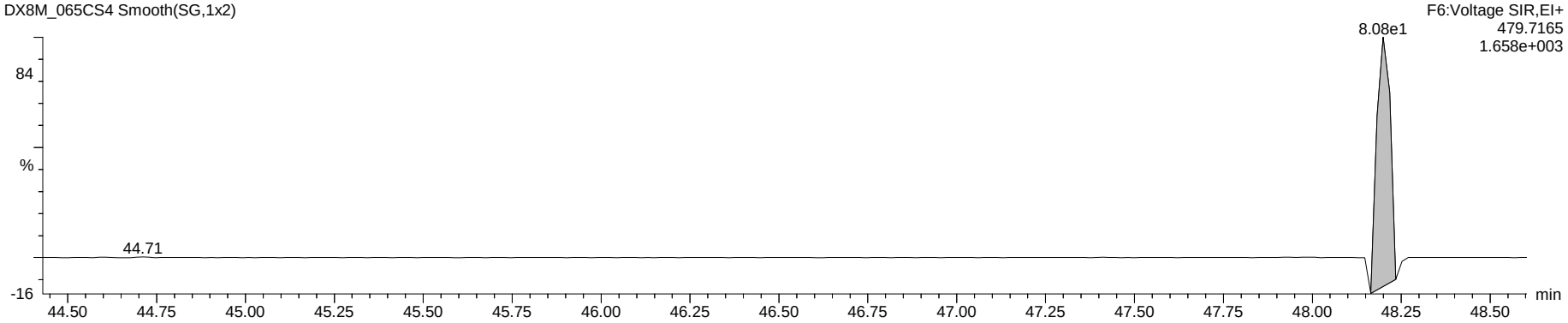
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6A.qld

Name: DX8M_065CS4, Date: 04-Jun-2018, Time: 21:21:16, ID: DX041C-CAL,,/01, Description: 1,,1.0uL CS-2

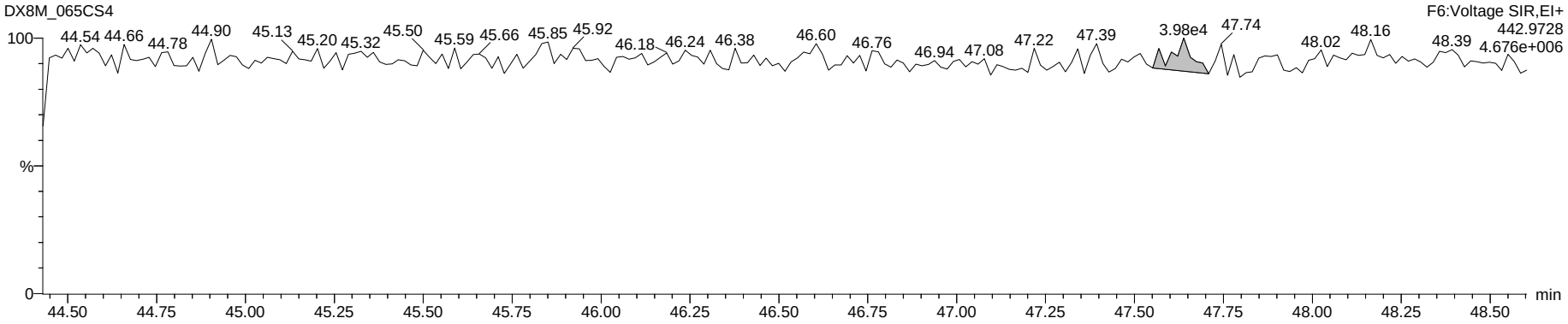
Total Hepta-Furans



Nona DPE



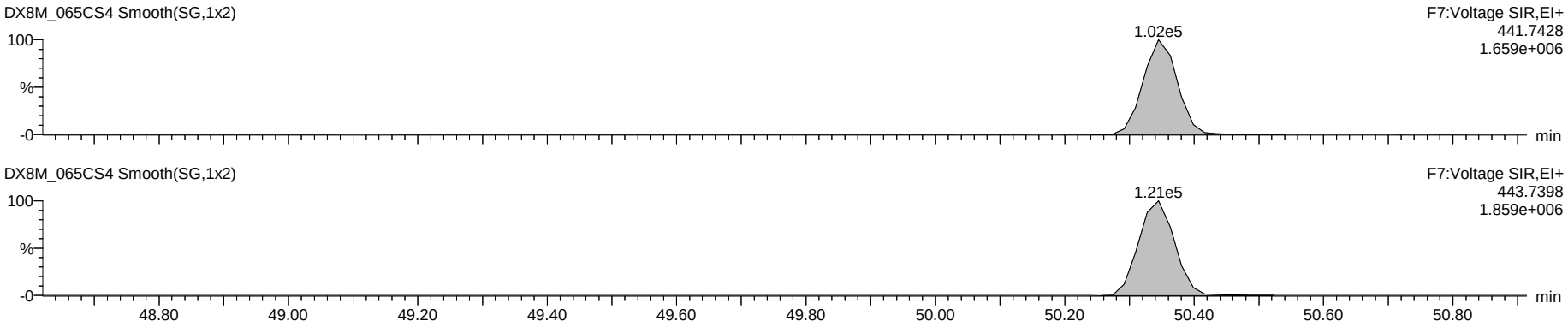
Hepta Lock



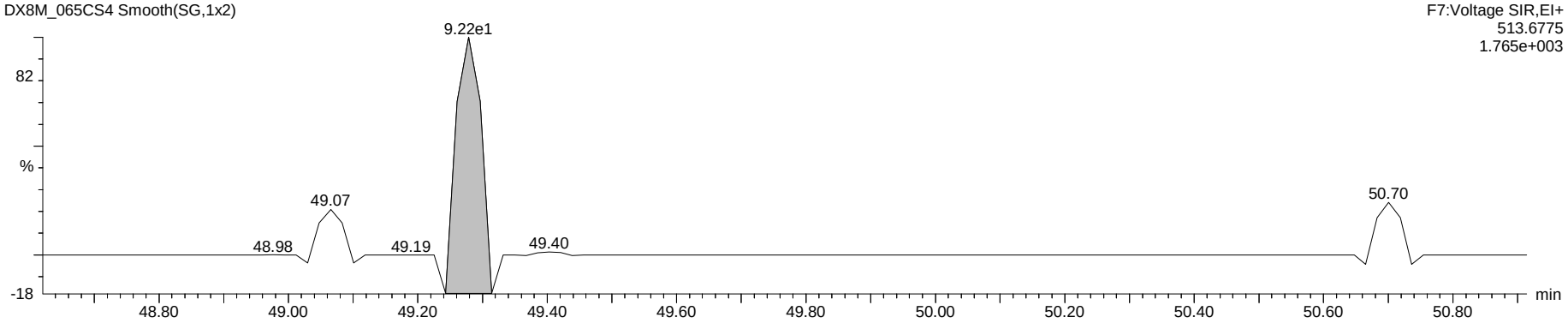
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6A.qld

Name: DX8M_065CS4, Date: 04-Jun-2018, Time: 21:21:16, ID: DX041C-CAL,,/01, Description: 1,,1.0uL CS-2

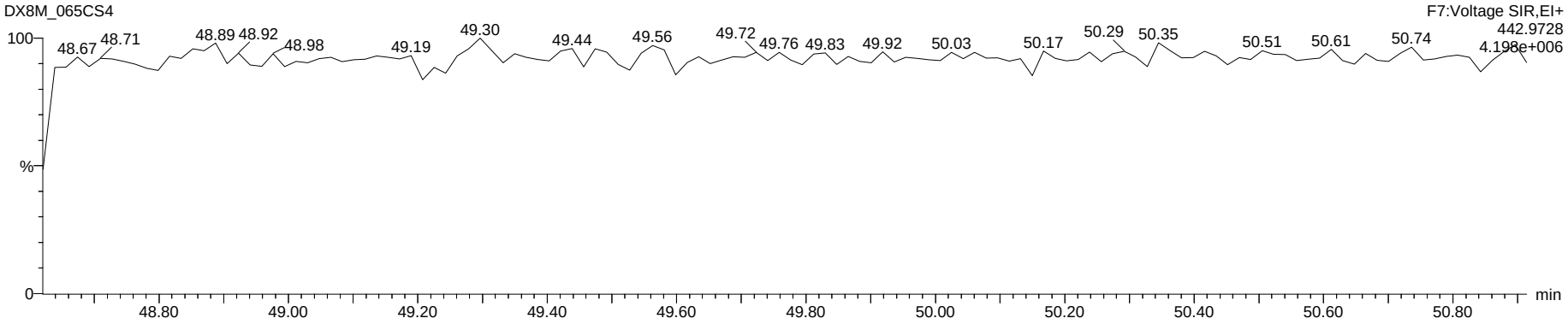
OCDF



Deca DPE



Octa Lock



Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6A.qld

Name: DX8M_065CS7, Date: 05-Jun-2018, Time: 00:06:54, ID: DX041D-CAL,,/01-91, Description: 1,,1.0uL Cal Win/Res

	Name	Amount	Resp	Ratio	fails?	RT	RRF	RRF Mean	RRF SD	RRF %Rel SD	S/N	1° S/N
1	2,3,7,8-TCDF	10.000	2.99e5	0.71	NO	25.26	0.937	0.9149	0.022	2.43	1572	1216
2	1,2,3,7,8-PeCDF	50.000	1.07e6	1.44	NO	33.58	0.970	0.9236	0.039	4.19	2653	3191
3	2,3,4,7,8-PeCDF	50.000	9.97e5	1.45	NO	35.34	0.938	0.9391	0.013	1.39	2898	3433
4	1,2,3,4,7,8-HxCDF	50.000	8.55e5	1.17	NO	40.72	1.134	1.1161	0.036	3.26	3964	4472
5	1,2,3,6,7,8-HxCDF	50.000	8.59e5	1.17	NO	40.89	1.058	1.0626	0.029	2.74	3919	4381
6	2,3,4,6,7,8-HxCDF	50.000	8.41e5	1.19	NO	41.84	1.188	1.1400	0.036	3.17	4028	4337
7	1,2,3,7,8,9-HxCDF	50.000	7.11e5	1.18	NO	42.87	1.019	0.9992	0.030	2.99	3442	3771
8	1,2,3,4,6,7,8-HpCDF	50.000	7.43e5	1.00	NO	45.31	1.242	1.2235	0.041	3.38	5574	6441
9	1,2,3,4,7,8,9-HpCDF	50.000	5.79e5	1.01	NO	47.10	1.277	1.2522	0.017	1.37	4508	5208
10	OCDF	100.000	1.01e6	0.86	NO	50.35	1.250	1.2272	0.084	6.84	20155	6070
11	2,3,7,8-TCDD	10.000	2.16e5	0.79	NO	26.49	1.088	1.1119	0.079	7.15	1536	883
12	1,2,3,7,8-PeCDD	50.000	6.46e5	0.64	NO	36.17	1.043	1.0267	0.055	5.33	2852	2931
13	1,2,3,4,7,8-HxCDD	50.000	5.96e5	1.22	NO	42.11	1.040	1.0036	0.036	3.60	3776	5462
14	1,2,3,6,7,8-HxCDD	50.000	5.99e5	1.27	NO	42.25	0.967	0.9343	0.029	3.09	3722	5229
15	1,2,3,7,8,9-HxCDD	50.000	5.92e5	1.24	NO	42.67	0.993	0.9712	0.032	3.34	3727	5291
16	1,2,3,4,6,7,8-HpCDD	50.000	4.71e5	1.03	NO	46.69	0.990	0.9956	0.020	2.04	4343	3330
17	OCDD	100.000	8.43e5	0.87	NO	50.26	1.039	1.0186	0.028	2.76	7460	5410
18	13C-2,3,7,8-TCDF	100.000	3.19e6	0.77	NO	25.24	1.597	1.6147	0.046	2.83	2887	3610
19	13C-1,2,3,7,8-PeCDF	100.000	2.21e6	1.51	NO	33.56	1.108	1.1640	0.091	7.84	7365	2813
20	13C-2,3,4,7,8-PeCDF	100.000	2.13e6	1.56	NO	35.32	1.066	1.1228	0.100	8.87	8475	2953
21	13C-1,2,3,4,7,8-HxCDF	100.000	1.51e6	0.52	NO	40.70	1.252	1.2764	0.037	2.93	1628	3685
22	13C-1,2,3,6,7,8-HxCDF	100.000	1.62e6	0.52	NO	40.87	1.348	1.3633	0.031	2.30	1781	4080
23	13C-2,3,4,6,7,8-HxCDF	100.000	1.42e6	0.53	NO	41.81	1.175	1.2182	0.036	2.95	1605	3550
24	13C-1,2,3,7,8,9-HxCDF	100.000	1.40e6	0.52	NO	42.86	1.158	1.2015	0.043	3.61	1580	3567
25	13C-1,2,3,4,6,7,8-HpCDF	100.000	1.20e6	0.45	NO	45.29	0.992	1.0186	0.040	3.89	3194	4492
26	13C-1,2,3,4,7,8,9-HpCDF	100.000	9.07e5	0.46	NO	47.08	0.753	0.7945	0.043	5.44	2548	3527
27	13C-2,3,7,8-TCDD	100.000	1.99e6	0.77	NO	26.45	0.997	1.0042	0.038	3.74	2161	508947
28	13C-1,2,3,7,8-PeCDD	100.000	1.24e6	0.65	NO	36.13	0.621	0.6582	0.053	8.04	4482	3014
29	13C-1,2,3,4,7,8-HxCDD	100.000	1.15e6	1.24	NO	42.09	0.952	0.9841	0.037	3.74	2194	6072
30	13C-1,2,3,6,7,8-HxCDD	100.000	1.24e6	1.22	NO	42.23	1.029	1.0407	0.026	2.53	2307	6533
31	13C-1,2,3,4,6,7,8-HpCDD	100.000	9.51e5	1.01	NO	46.67	0.790	0.8135	0.035	4.34	2273	3295
32	13C-OCDD	200.000	1.62e6	0.90	NO	50.24	0.674	0.7155	0.075	10.43	7051	5385
33	13C-1,2,3,4-TCDD	100.000	1.99e6	0.78	NO	26.13	199...	22602.6799	1977.986	8.75	2244	521455
34	13C-1,2,3,7,8,9-HxCDD	100.000	1.20e6	1.28	NO	42.65	120...	14280.3905	2145.257	15.02	2293	6230
35	37Cl-2,3,7,8-TCDD	10.000	2.14e5			26.49	1.071	1.1134	0.079	7.11	1666	
36	Total Tetra-Furans	10.000						0.9149	0.022	2.43		
37	Total Tetra-Dioxins	10.000						1.1119	0.079	7.15		
38	Total Penta-Furans	50.000						0.9236	0.039	4.19		
39	Total Penta-Dioxins	50.000						1.0267	0.055	5.33		
40	Total Hexa-Furans	50.000						1.1161	0.036	3.26		
41	Total Hexa-Dioxins	50.000						1.0036	0.036	3.60		
42	Total Hepta-Furans	50.000						1.2235	0.041	3.38		
43	Total Hepta-Dioxins	50.000						0.9956	0.020	2.04		
44	Hexa DPE	0.000	1.23e2			21.93	0.000				2713	
45	Hepta DPE	0.000	6.37e2			37.59	0.000				24541	
46	Octa DPE	0.000	4.70e1			39.16	0.000				2483	
47	Nona DPE	0.000	1.42e2			47.06	0.000				9944	
48	Deca DPE	0.000	1.32e2			50.61	0.000				3805	
49	Tetra Lock	0.000	2.66e4			23.99	0.000				1	
50	Penta Lock	0.000	6.13e5			29.22	0.000				2	
51	Hexa Lock	0.000										
52	Hepta Lock	0.000										
53	Octa Lock	0.000	4.60e4			48.89	0.000				1	
54	13C-Tetra-Furans	100.000						1.6147	0.046	2.83		
55	13C-Tetra-Dioxins	100.000						1.0042	0.038	3.74		

PV LHE 06-JUNE-2018

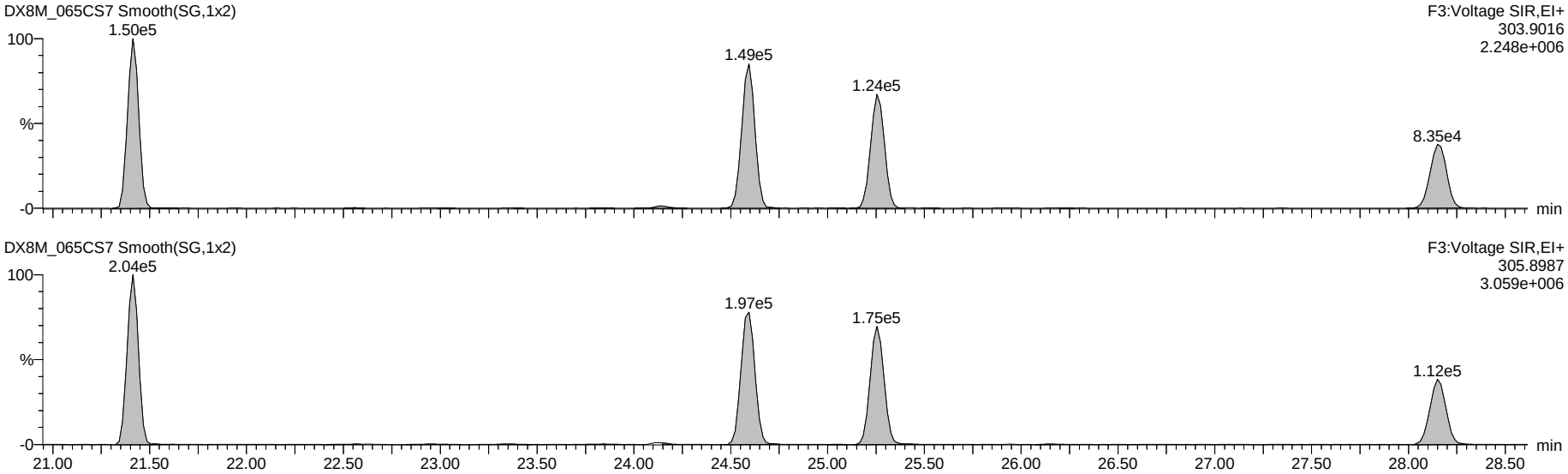
Sday K3 06 Jun 2018

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6A.qld

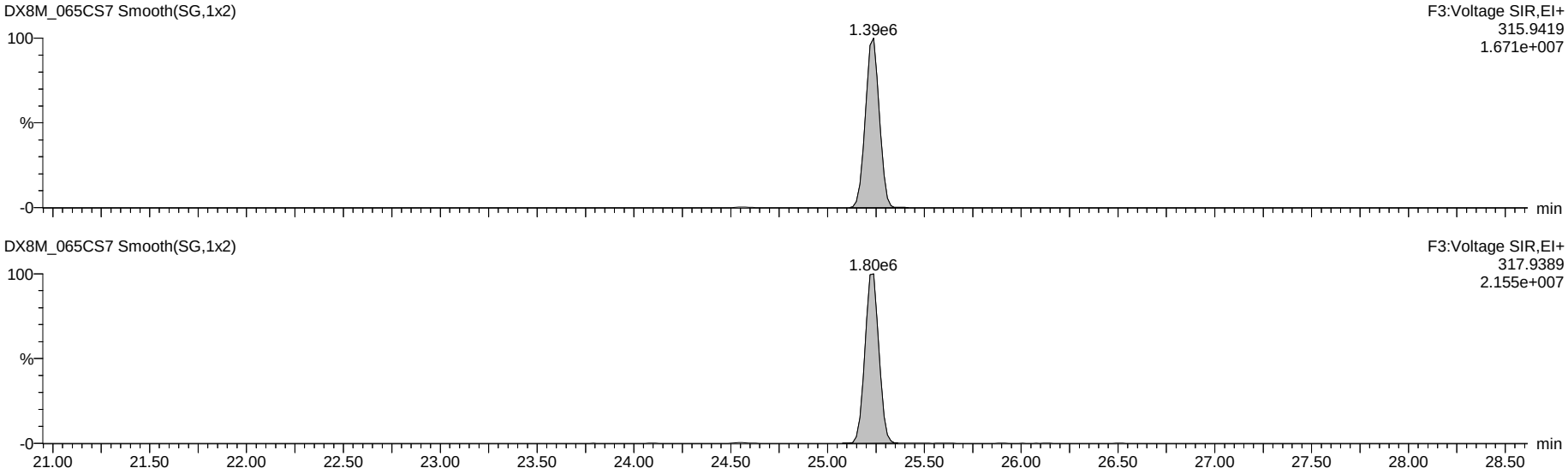
Method: G:\Masslynx\Inst_M\Projects\180604DX.PRO\MethDB\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: 06 Jun 2018 09:11:00

Name: DX8M_065CS7, Date: 05-Jun-2018, Time: 00:06:54, ID: DX041D-CAL,,/01-91, Description: 1,,1.0uL Cal Win/Res

Total Tetra-Furans



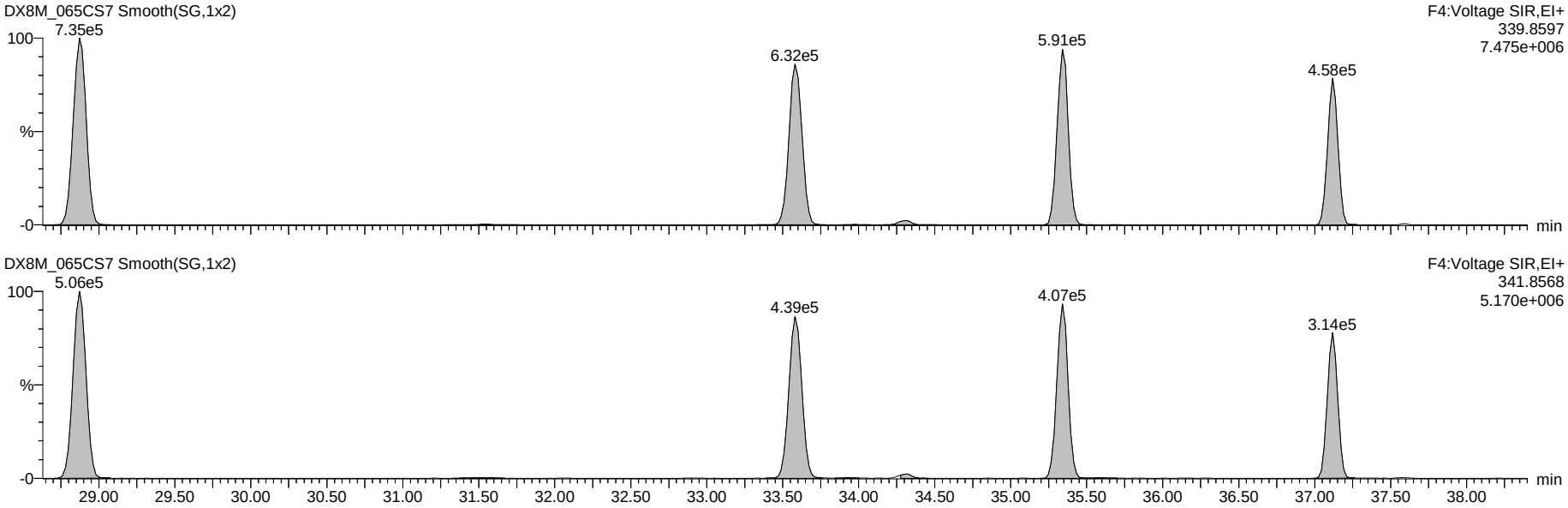
13C-Tetra-Furans



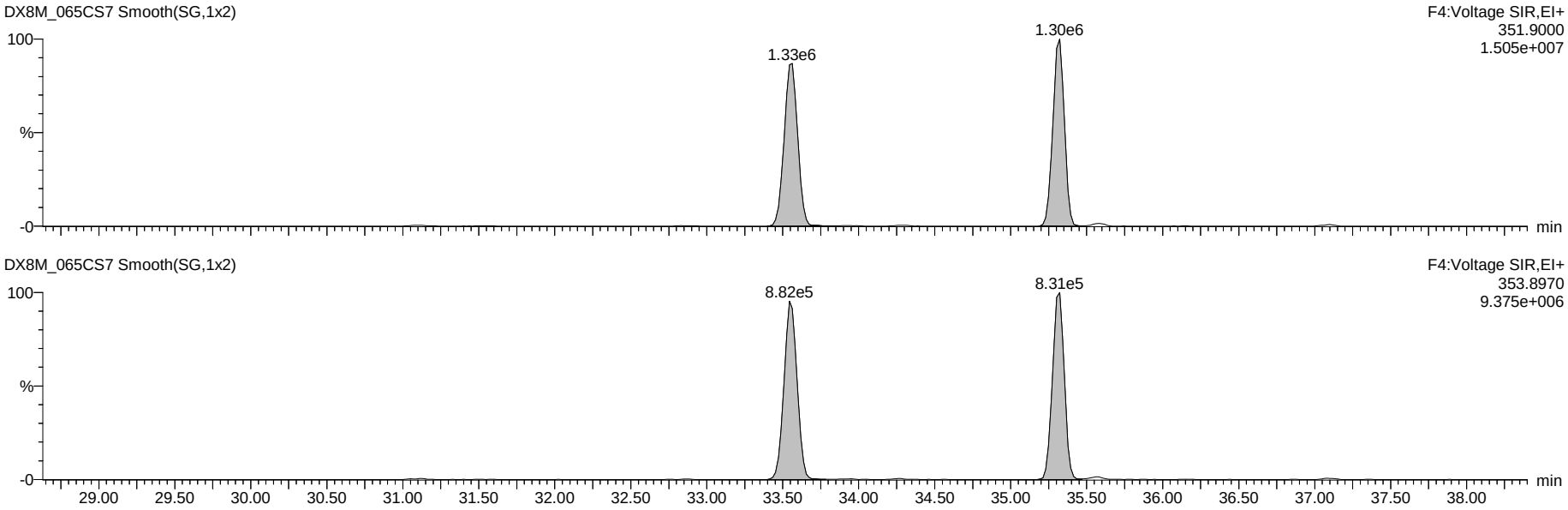
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6A.qld

Name: DX8M_065CS7, Date: 05-Jun-2018, Time: 00:06:54, ID: DX041D-CAL,,/01-91, Description: 1,,1.0uL Cal Win/Res

Total Penta-Furans



13C-Penta-Furans



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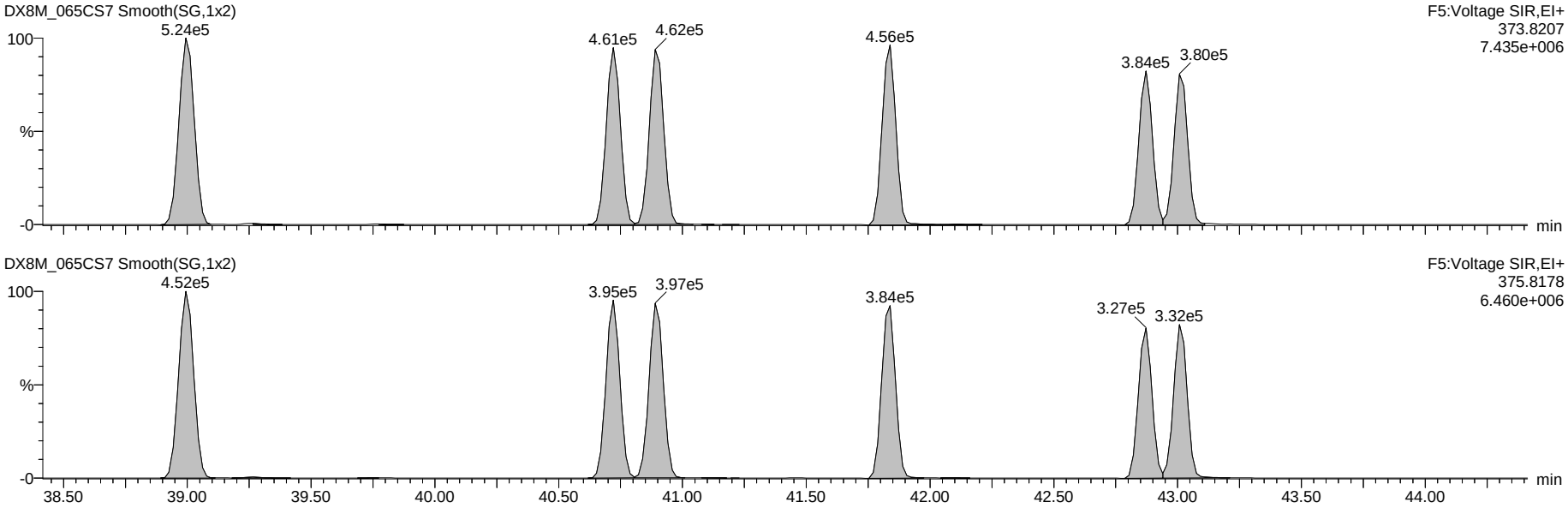
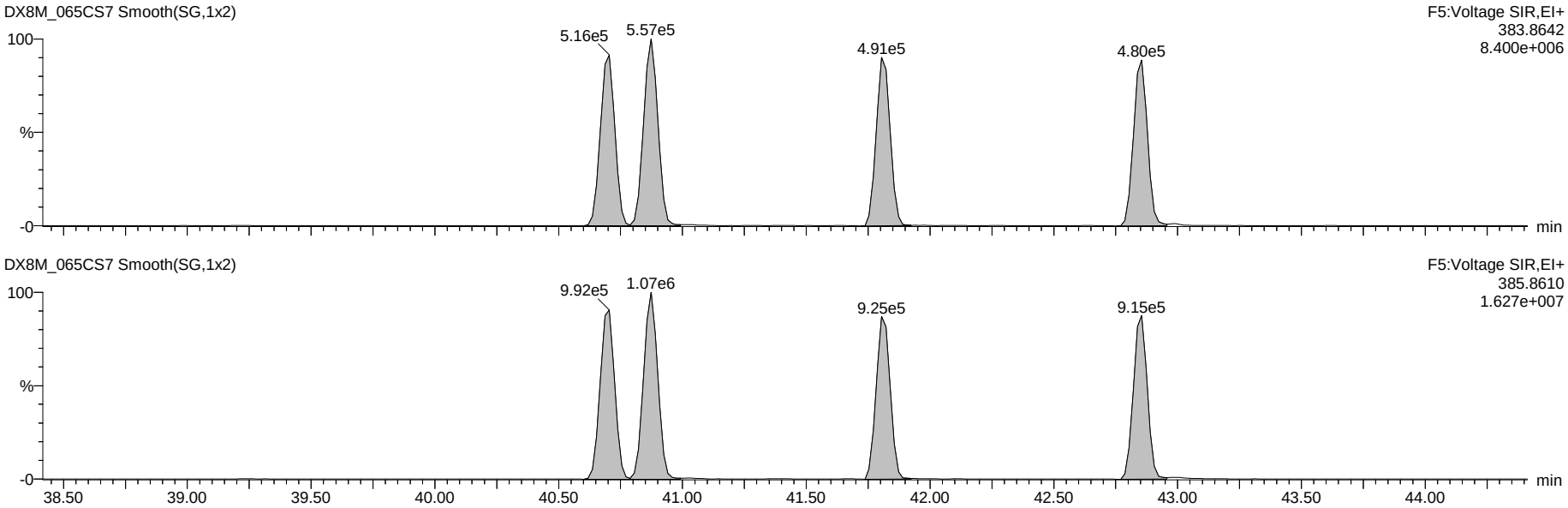
Name: DX8M_065CS7, Date: 05-Jun-2018, Time: 00:06:54, ID: DX041D-CAL,,/01-91, Description: 1,,1.0uL Cal Win/Res

Total Hexa-Furans



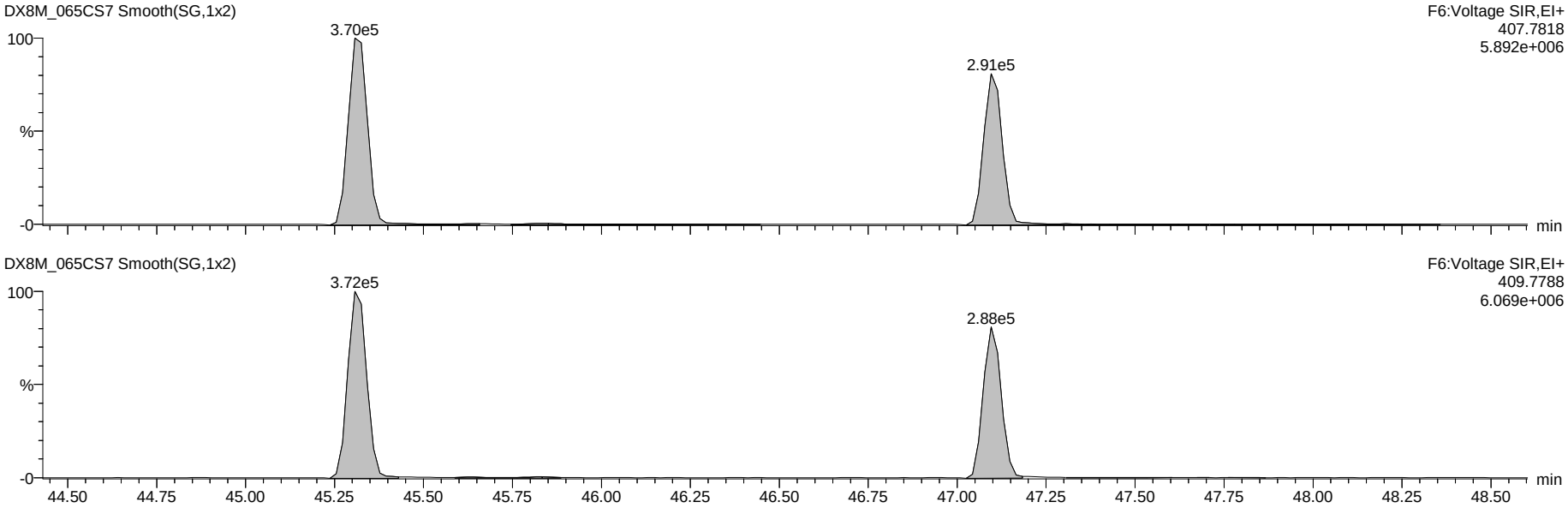
13C-Hexa-Furans



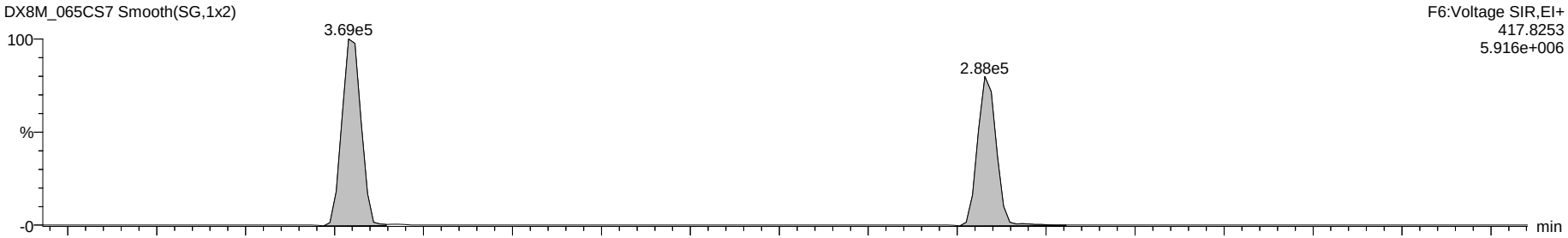
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6A.qld

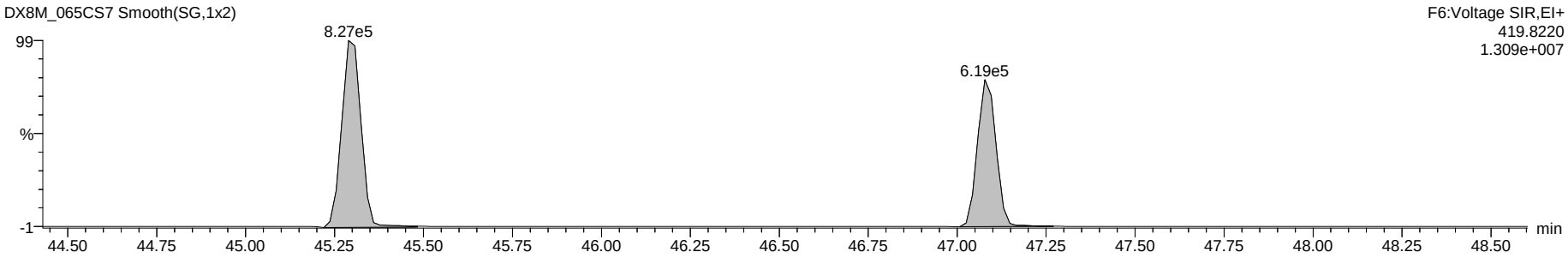
Name: DX8M_065CS7, Date: 05-Jun-2018, Time: 00:06:54, ID: DX041D-CAL,,/01-91, Description: 1,,1.0uL Cal Win/Res

Total Hepta-Furans



13C-Hepta-Furans

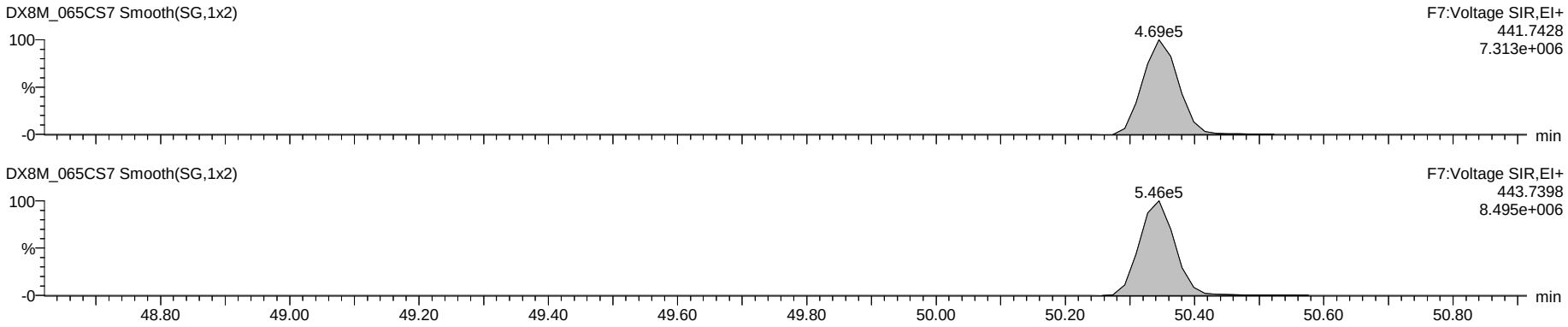




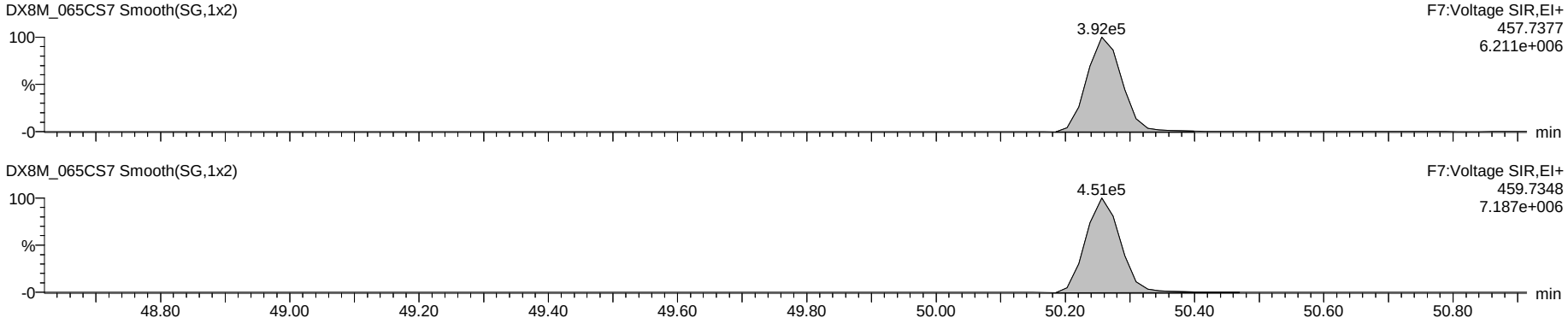
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6A.qld

Name: DX8M_065CS7, Date: 05-Jun-2018, Time: 00:06:54, ID: DX041D-CAL,,/01-91, Description: 1,,1.0uL Cal Win/Res

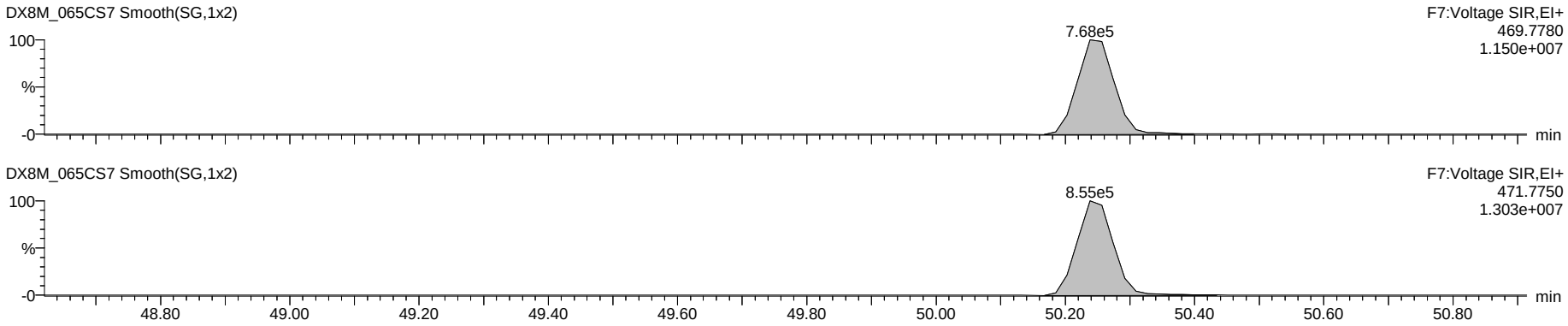
OCDF



OCDD



13C-OCDD



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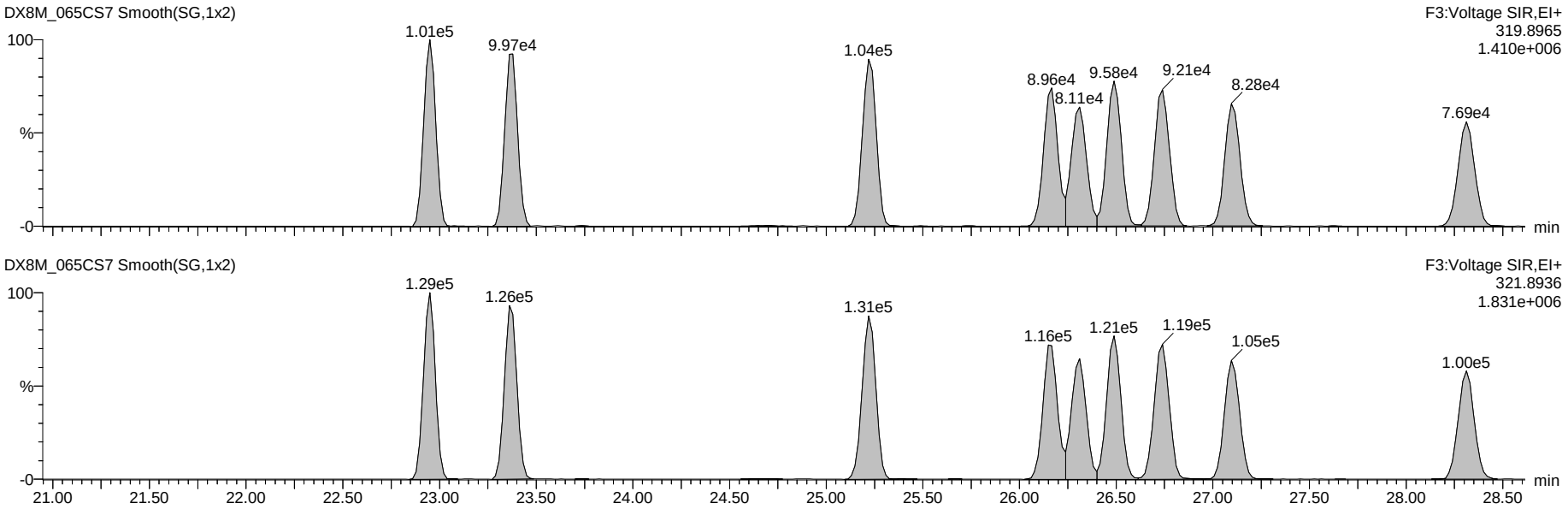
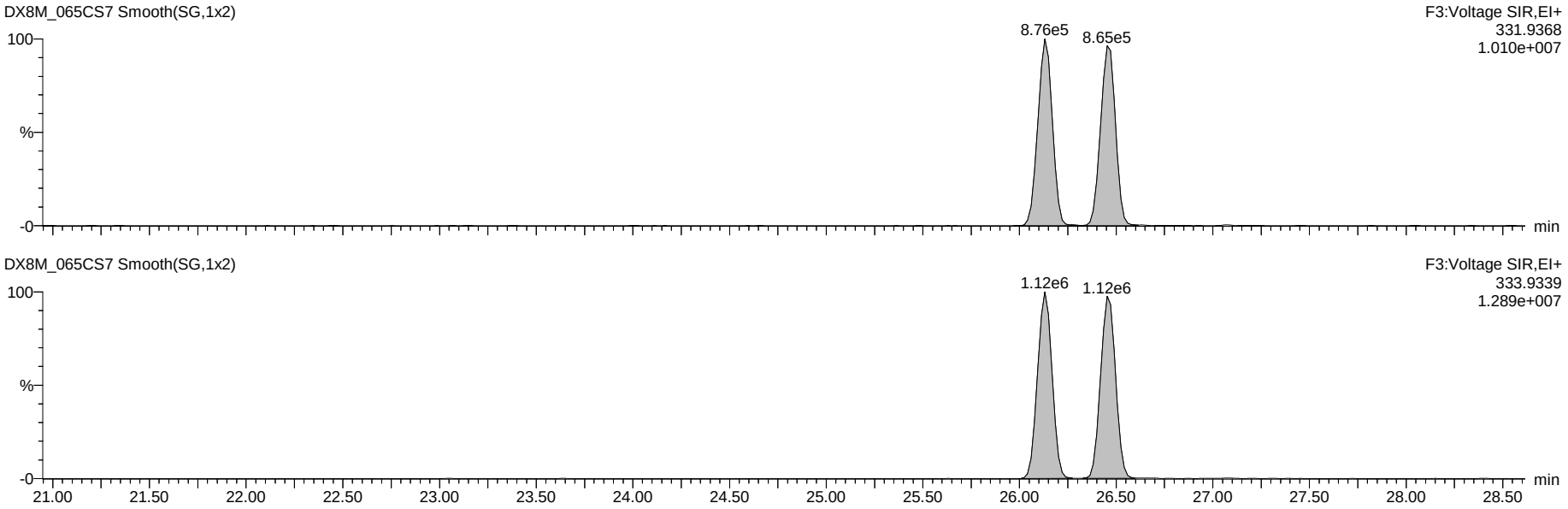
Name: DX8M_065CS7, Date: 05-Jun-2018, Time: 00:06:54, ID: DX041D-CAL,,/01-91, Description: 1,,1.0uL Cal Win/Res

Total Tetra-Dioxins



13C-Tetra-Dioxins



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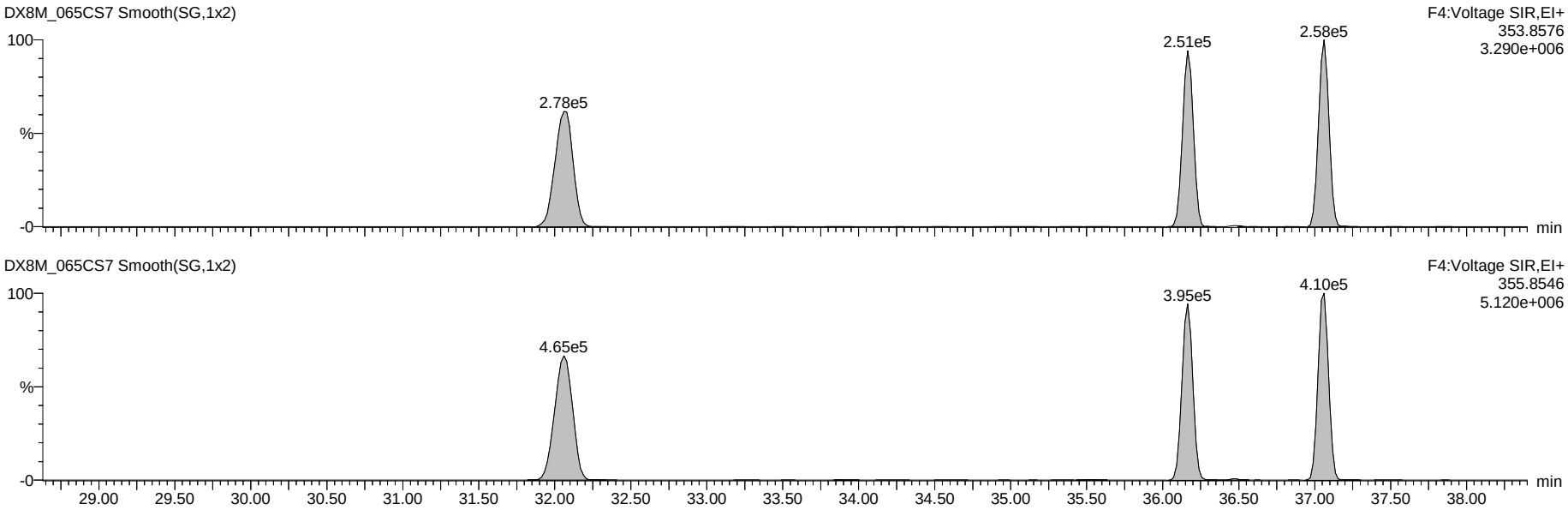
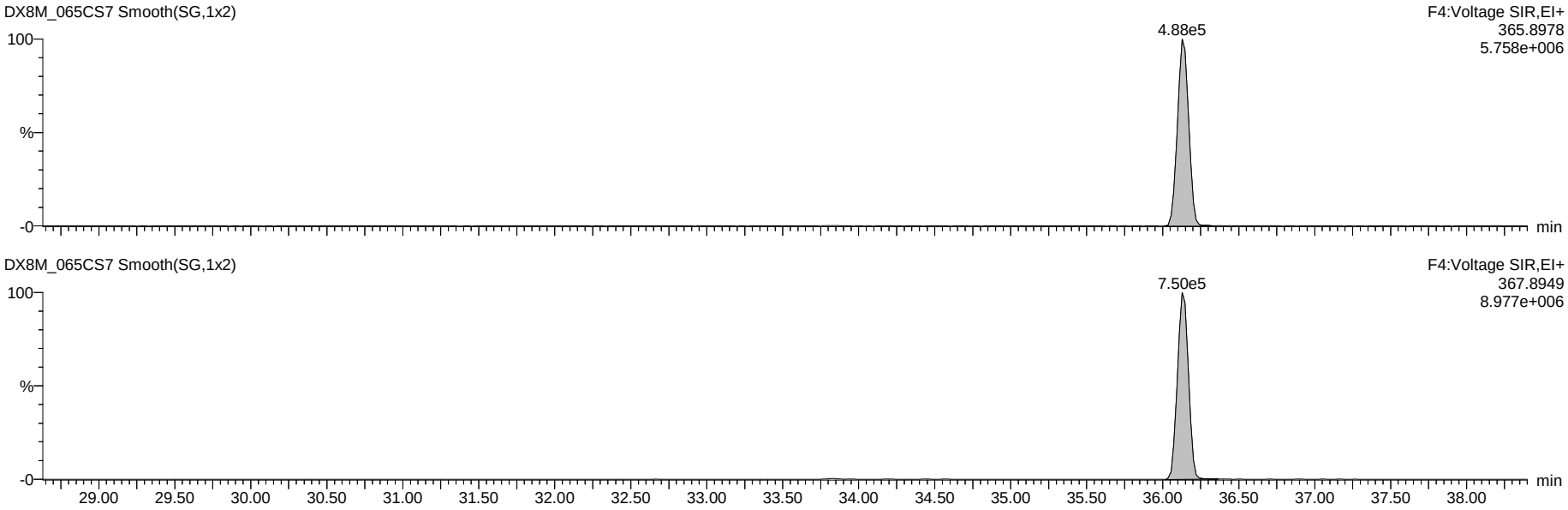
Total Penta-Dioxins



13C-Penta-Dioxins



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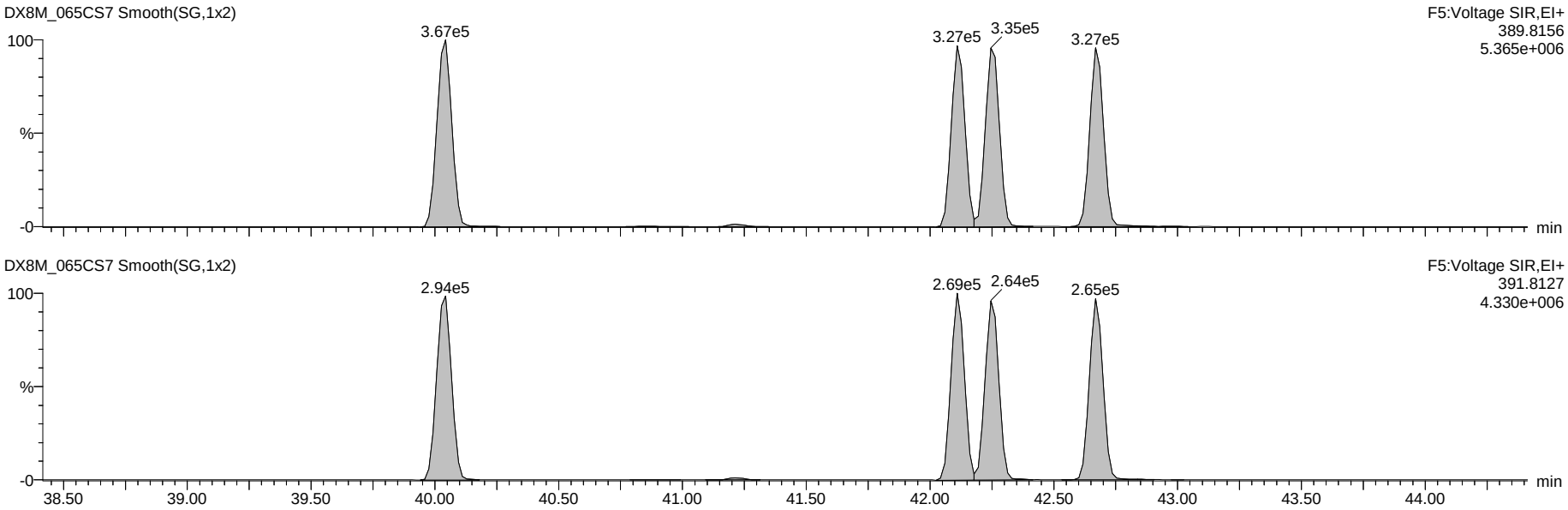
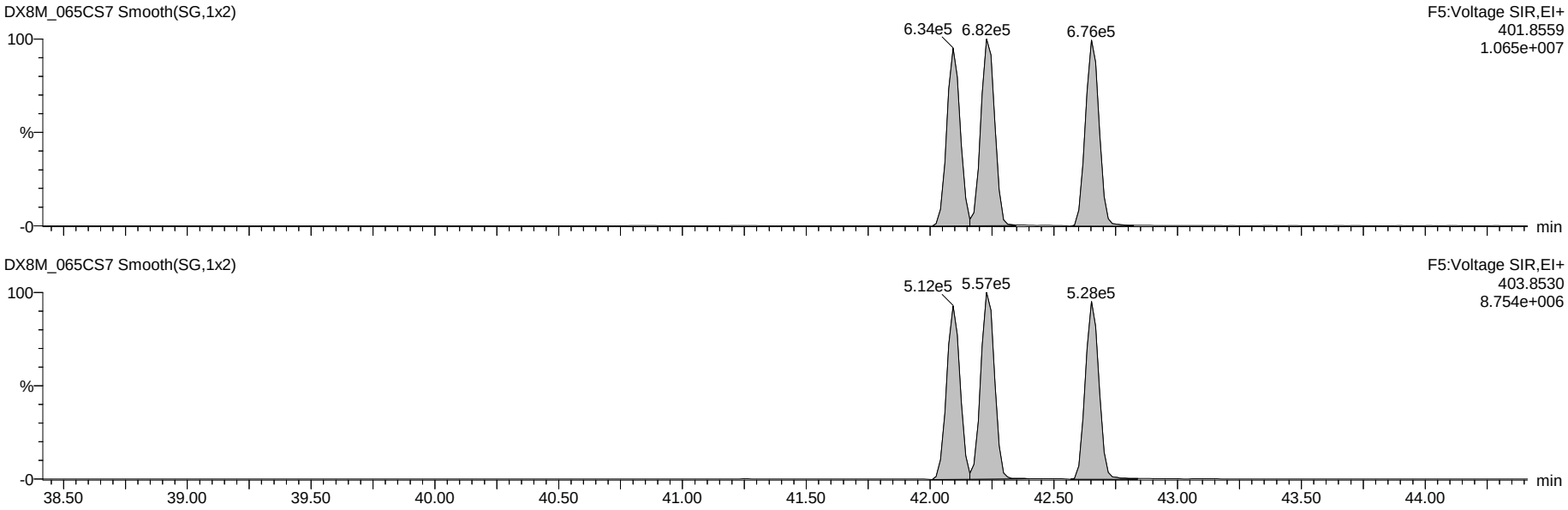
Total Hexa-Dioxins



13C-Hexa-Dioxins



Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6A.qld

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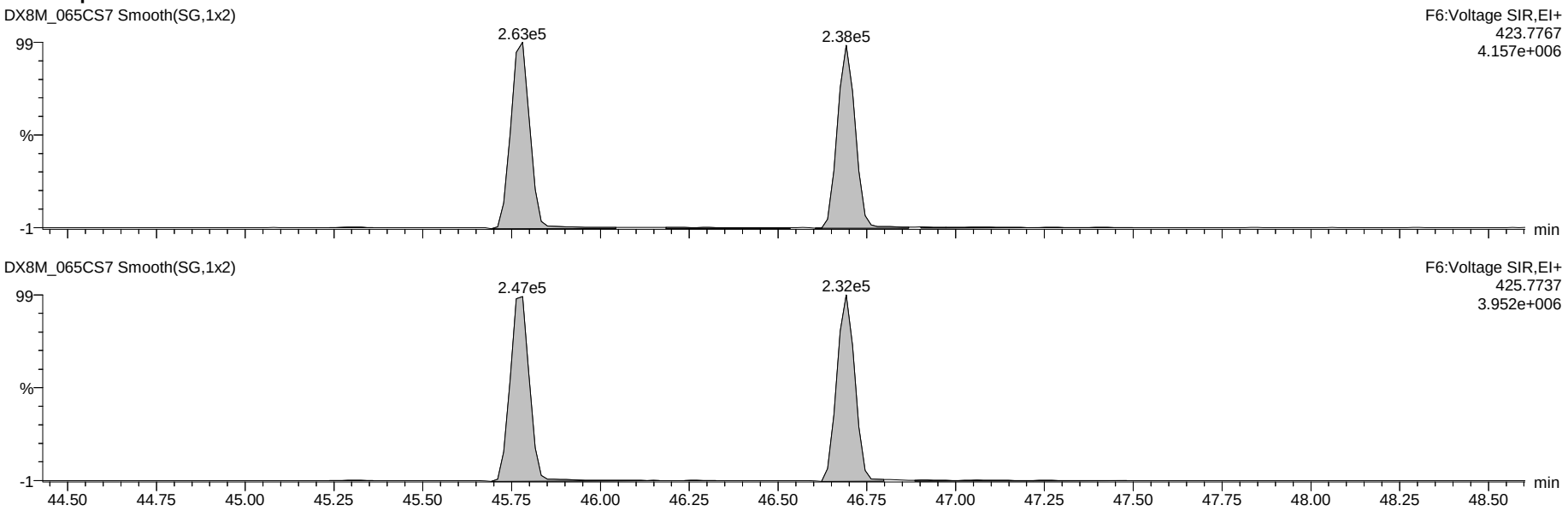
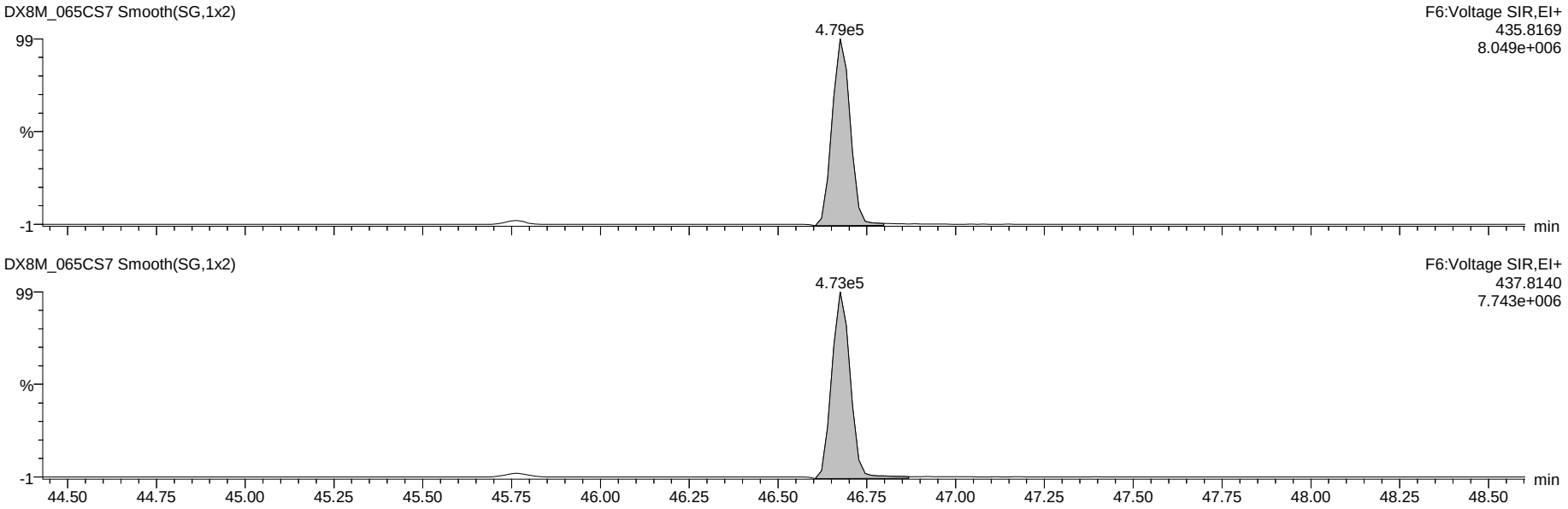
Total Hepta-Dioxins



13C-Hepta-Dioxins



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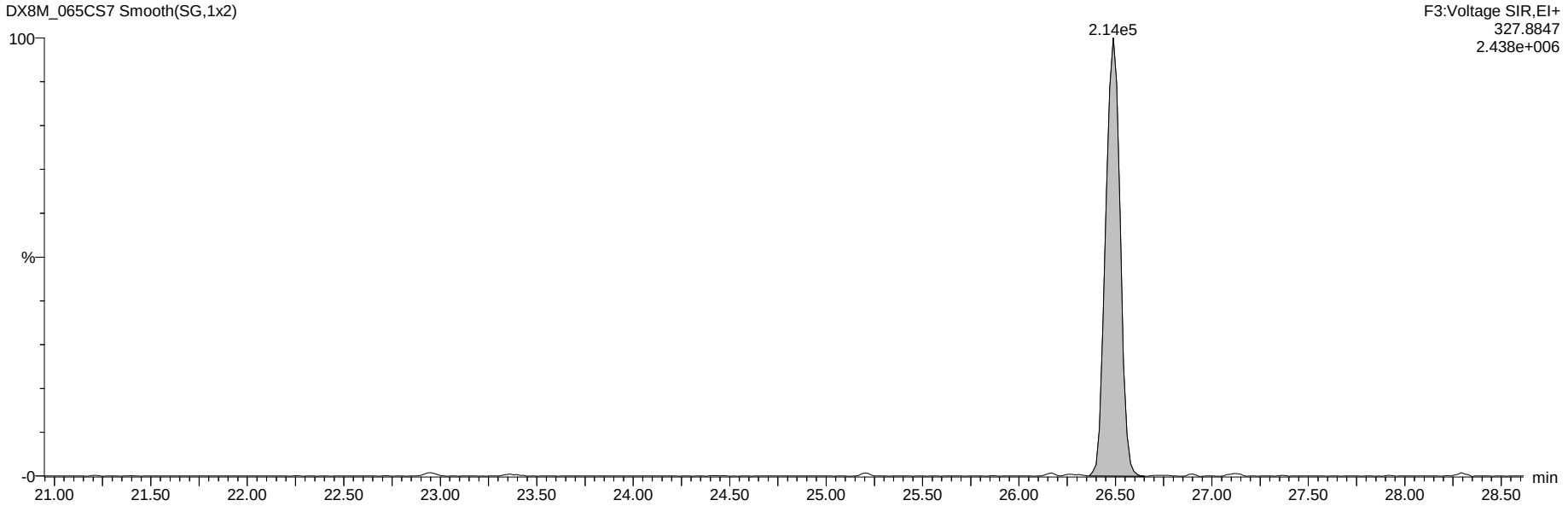
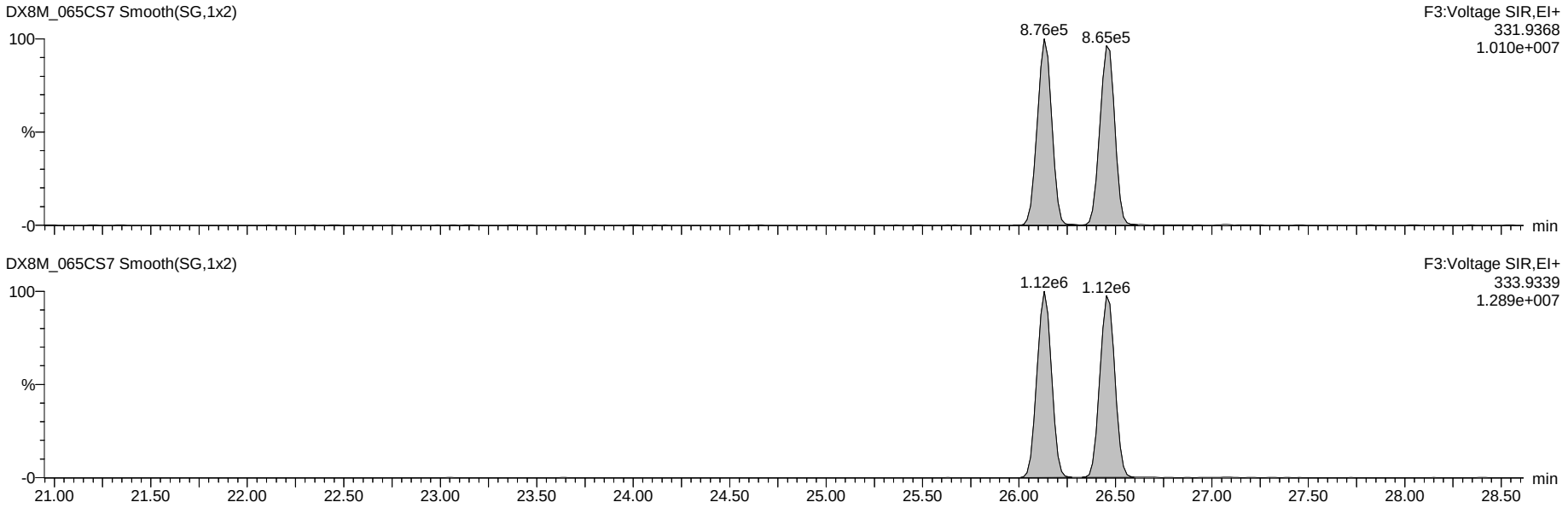
Name: DX8M_065CS7, Date: 05-Jun-2018, Time: 00:06:54, ID: DX041D-CAL,,/01-91, Description: 1,,1.0uL Cal Win/Res

37Cl-2,3,7,8-TCDD



13C-Tetra-Dioxins



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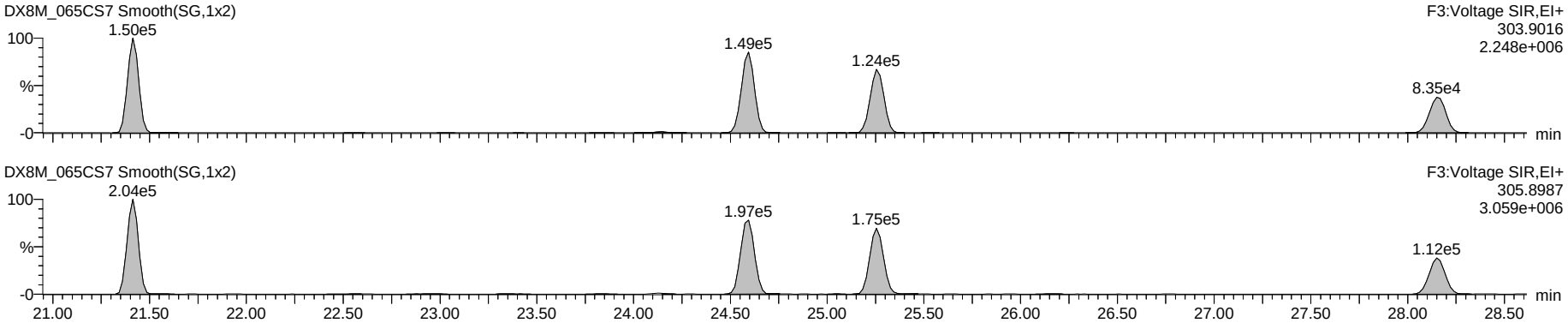
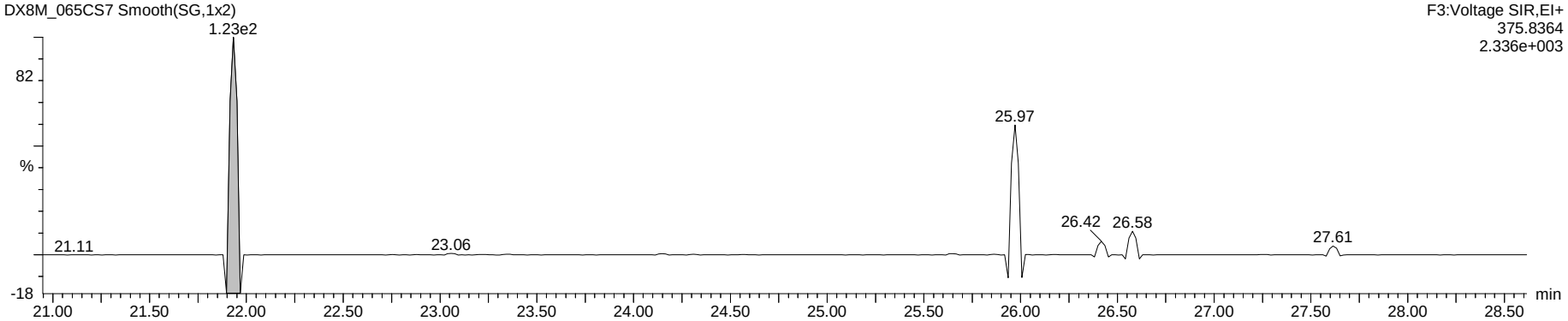
Name: DX8M_065CS7, Date: 05-Jun-2018, Time: 00:06:54, ID: DX041D-CAL,,/01-91, Description: 1,,1.0uL Cal Win/Res

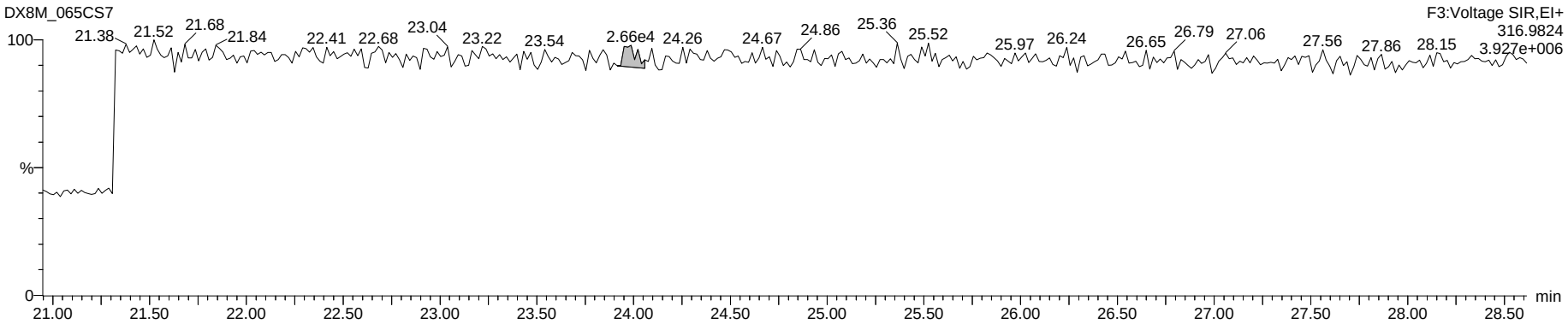
Total Tetra-Furans



Hexa DPE



Tetra Lock



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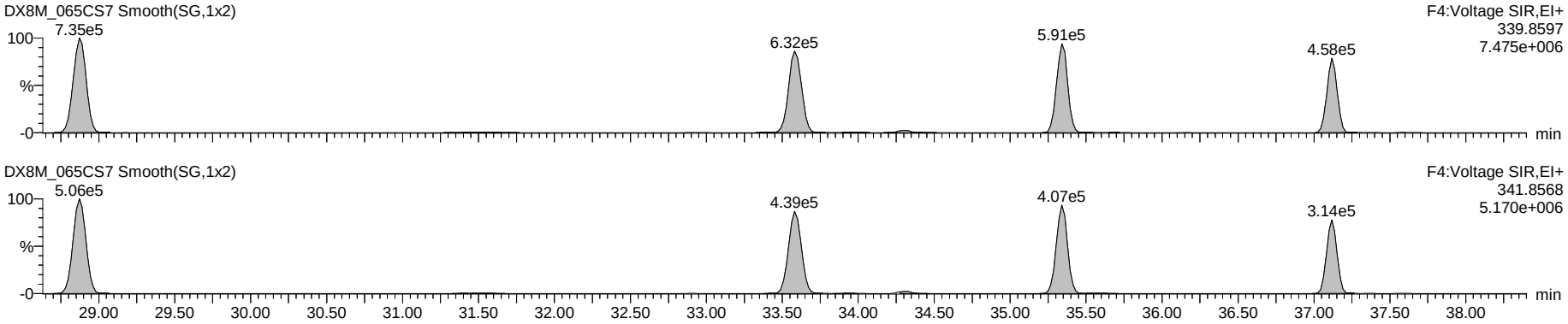
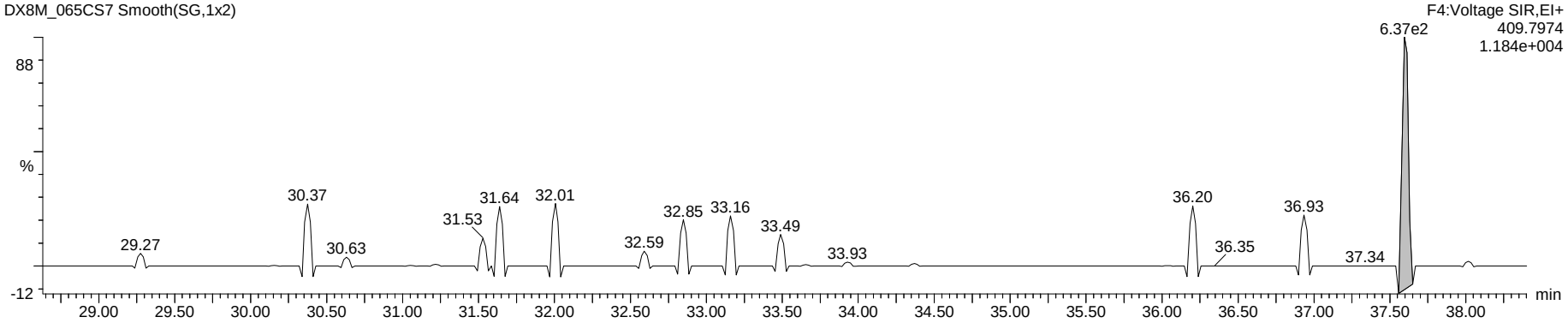
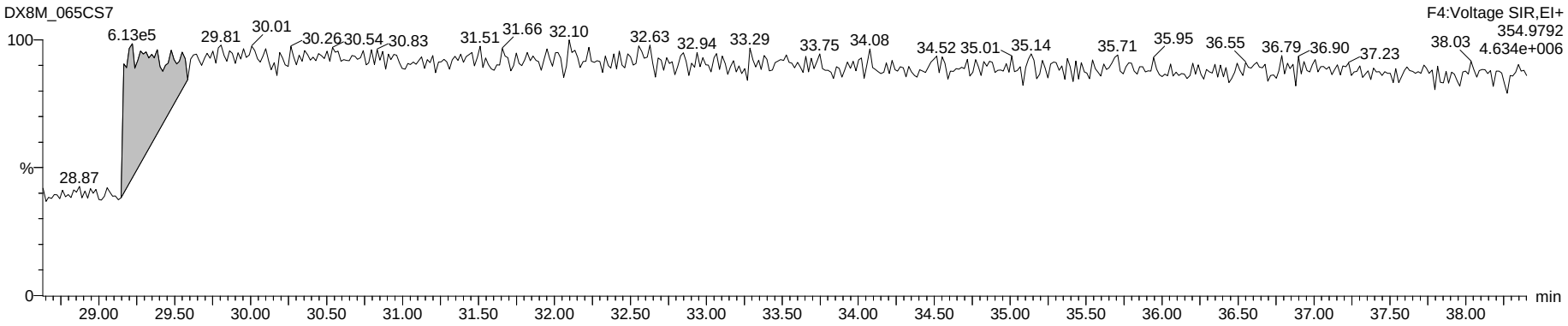
Total Penta-Furans



Hepta DPE



Penta Lock



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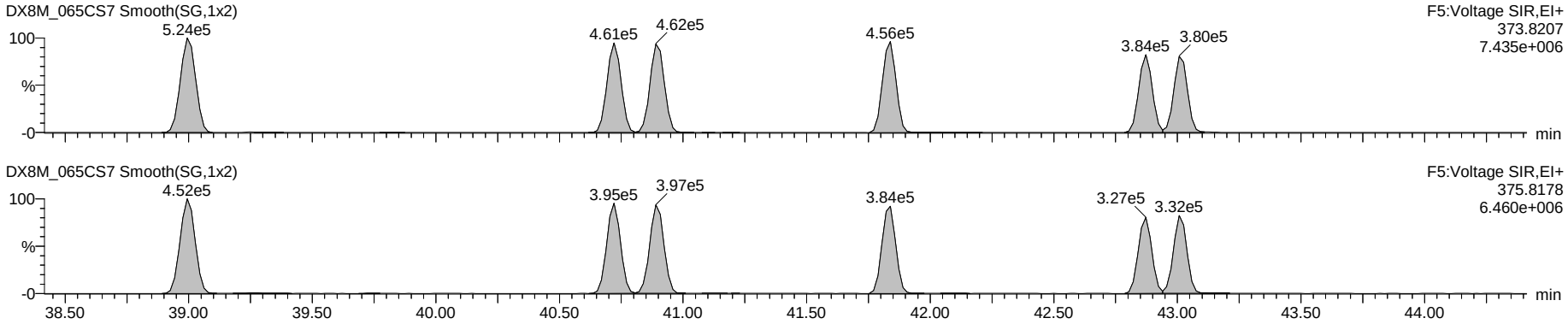
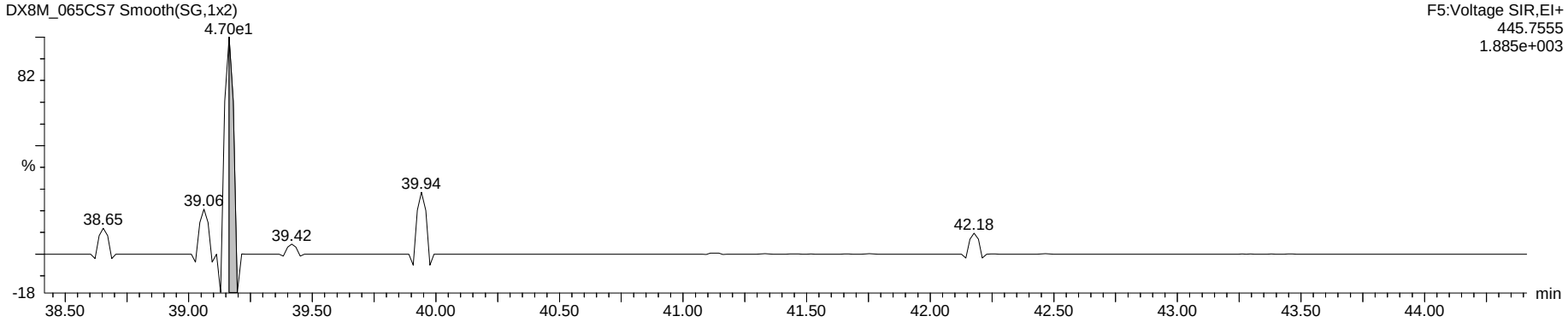
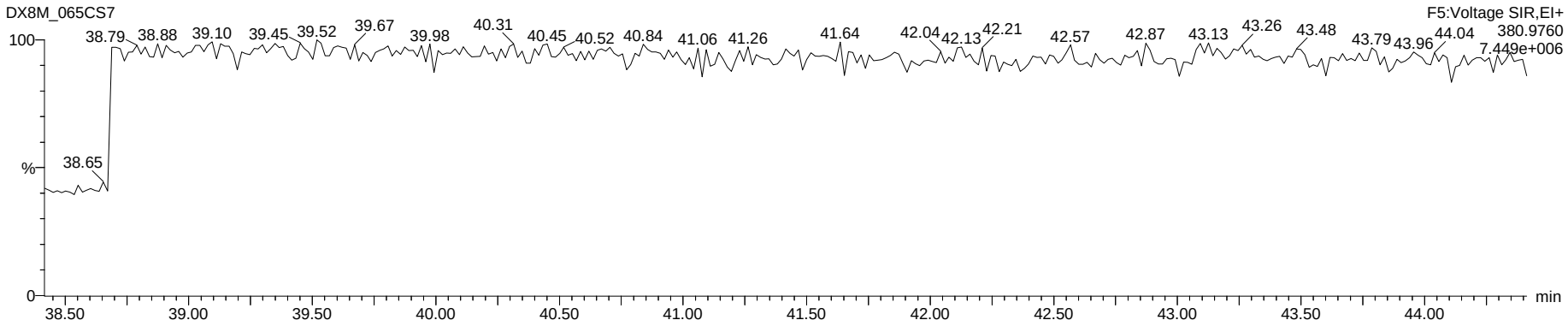
Total Hexa-Furans



Octa DPE



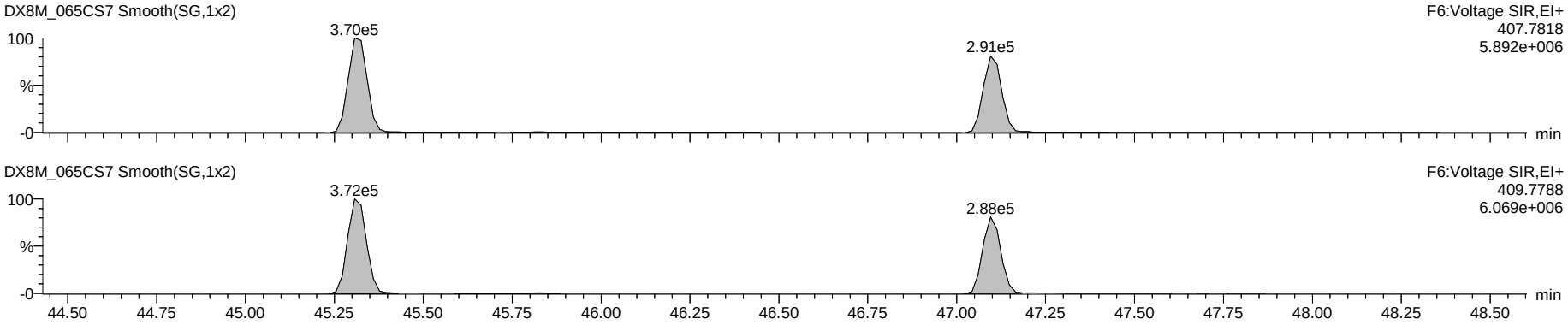
Hexa Lock



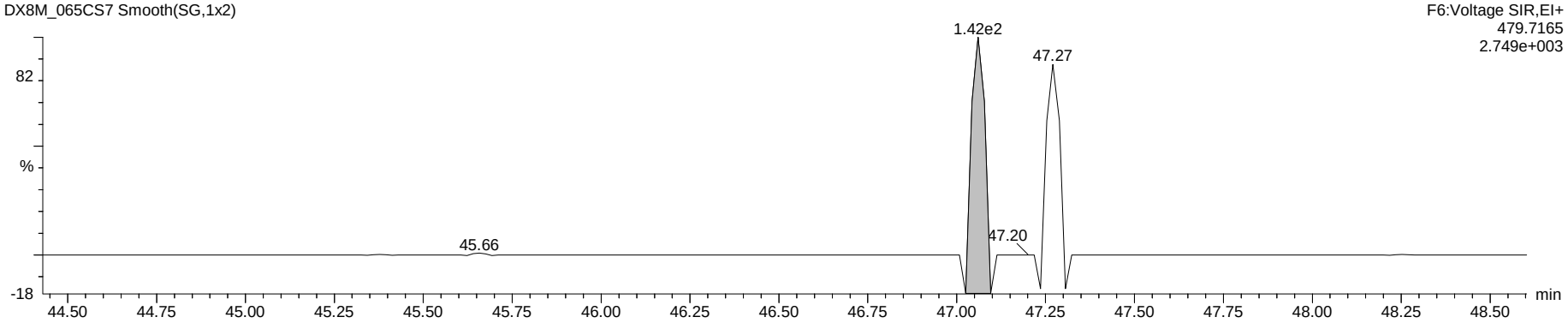
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6A.qld

Name: DX8M_065CS7, Date: 05-Jun-2018, Time: 00:06:54, ID: DX041D-CAL,,/01-91, Description: 1,,1.0uL Cal Win/Res

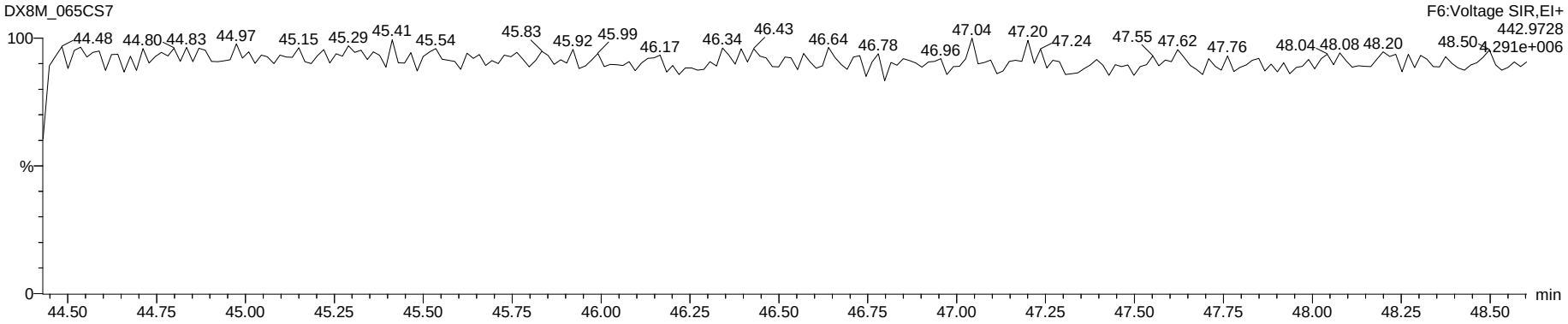
Total Hepta-Furans



Nona DPE



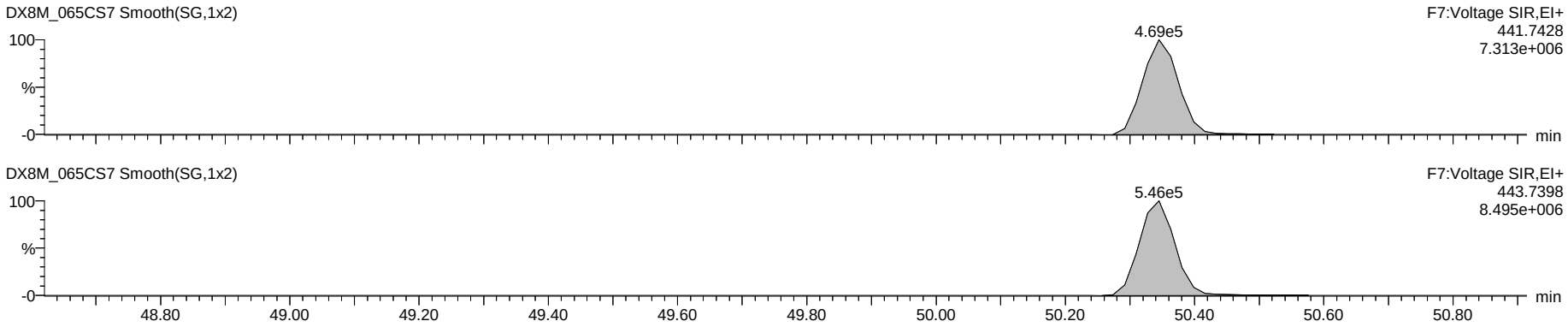
Hepta Lock



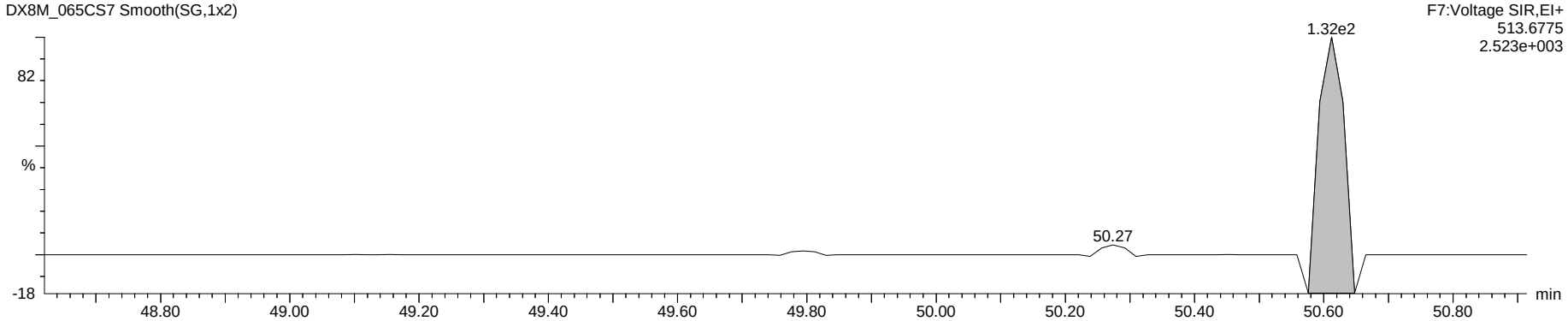
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6A.qld

Name: DX8M_065CS7, Date: 05-Jun-2018, Time: 00:06:54, ID: DX041D-CAL,,/01-91, Description: 1,,1.0uL Cal Win/Res

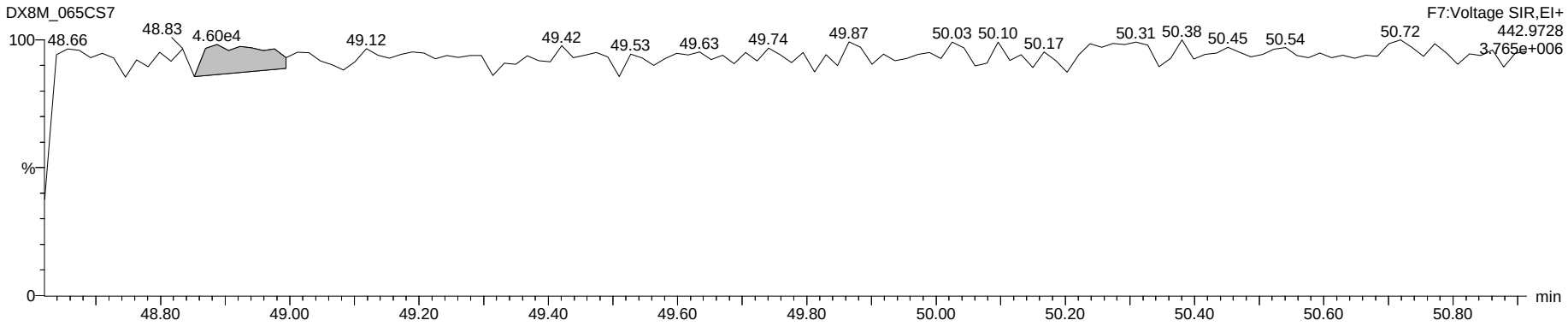
OCDF



Deca DPE



Octa Lock



Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6A.qld

Name: DX8M_065CS6, Date: 04-Jun-2018, Time: 23:11:40, ID: DX041E-CAL,,/01, Description: 1,,1.0uL CS-4

	Name	Amount	Resp	Ratio	fails?	RT	RRF	RRF Mean	RRF SD	RRF %Rel SD	S/N	1° S/N
1	2,3,7,8-TCDF	40.000	1.24e6	0.77	NO	25.26	0.926	0.9149	0.022	2.43	5010	4290
2	1,2,3,7,8-PeCDF	200.000	4.50e6	1.48	NO	33.58	0.934	0.9236	0.039	4.19	13354	11820
3	2,3,4,7,8-PeCDF	200.000	4.41e6	1.50	NO	35.32	0.953	0.9391	0.013	1.39	14302	12747
4	1,2,3,4,7,8-HxCDF	200.000	3.78e6	1.18	NO	40.70	1.142	1.1161	0.036	3.26	11924	9206
5	1,2,3,6,7,8-HxCDF	200.000	3.79e6	1.18	NO	40.89	1.070	1.0626	0.029	2.74	12048	9029
6	2,3,4,6,7,8-HxCDF	200.000	3.66e6	1.17	NO	41.82	1.163	1.1400	0.036	3.17	11977	9433
7	1,2,3,7,8,9-HxCDF	200.000	3.13e6	1.19	NO	42.86	1.006	0.9992	0.030	2.99	10393	8074
8	1,2,3,4,6,7,8-HpCDF	200.000	3.23e6	0.96	NO	45.31	1.228	1.2235	0.041	3.38	10839	13350
9	1,2,3,4,7,8,9-HpCDF	200.000	2.56e6	0.97	NO	47.10	1.251	1.2522	0.017	1.37	8264	9976
10	OCDF	400.000	4.71e6	0.89	NO	50.35	1.308	1.2272	0.084	6.84	45807	15492
11	2,3,7,8-TCDD	40.000	8.91e5	0.79	NO	26.47	1.065	1.1119	0.079	7.15	3595	10583
12	1,2,3,7,8-PeCDD	200.000	2.80e6	0.62	NO	36.17	1.037	1.0267	0.055	5.33	8413	7941
13	1,2,3,4,7,8-HxCDD	200.000	2.62e6	1.24	NO	42.11	1.022	1.0036	0.036	3.60	11364	17088
14	1,2,3,6,7,8-HxCDD	200.000	2.56e6	1.22	NO	42.25	0.944	0.9343	0.029	3.09	11299	17626
15	1,2,3,7,8,9-HxCDD	200.000	2.57e6	1.23	NO	42.67	0.973	0.9712	0.032	3.34	11135	17097
16	1,2,3,4,6,7,8-HpCDD	200.000	2.11e6	1.06	NO	46.67	1.012	0.9956	0.020	2.04	6453	8667
17	OCDD	400.000	3.73e6	0.87	NO	50.26	1.036	1.0186	0.028	2.76	3206	7576
18	13C-2,3,7,8-TCDF	100.000	3.35e6	0.78	NO	25.22	1.594	1.6147	0.046	2.83	2756	3385
19	13C-1,2,3,7,8-PeCDF	100.000	2.41e6	1.57	NO	33.54	1.149	1.1640	0.091	7.84	6596	2263
20	13C-2,3,4,7,8-PeCDF	100.000	2.31e6	1.56	NO	35.30	1.102	1.1228	0.100	8.87	7003	2496
21	13C-1,2,3,4,7,8-HxCDF	100.000	1.66e6	0.52	NO	40.69	1.268	1.2764	0.037	2.93	1721	5946
22	13C-1,2,3,6,7,8-HxCDF	100.000	1.77e6	0.53	NO	40.86	1.355	1.3633	0.031	2.30	1844	6140
23	13C-2,3,4,6,7,8-HxCDF	100.000	1.57e6	0.54	NO	41.81	1.206	1.2182	0.036	2.95	1737	5739
24	13C-1,2,3,7,8,9-HxCDF	100.000	1.56e6	0.53	NO	42.84	1.192	1.2015	0.043	3.61	1729	5868
25	13C-1,2,3,4,6,7,8-HpCDF	100.000	1.32e6	0.45	NO	45.29	1.007	1.0186	0.040	3.89	3984	5514
26	13C-1,2,3,4,7,8,9-HpCDF	100.000	1.02e6	0.46	NO	47.08	0.783	0.7945	0.043	5.44	3012	4180
27	13C-2,3,7,8-TCDD	100.000	2.09e6	0.76	NO	26.45	0.996	1.0042	0.038	3.74	1899	6321
28	13C-1,2,3,7,8-PeCDD	100.000	1.35e6	0.66	NO	36.13	0.643	0.6582	0.053	8.04	4504	8461
29	13C-1,2,3,4,7,8-HxCDD	100.000	1.28e6	1.26	NO	42.09	0.980	0.9841	0.037	3.74	4759	1918
30	13C-1,2,3,6,7,8-HxCDD	100.000	1.36e6	1.21	NO	42.23	1.040	1.0407	0.026	2.53	5247	2202
31	13C-1,2,3,4,6,7,8-HpCDD	100.000	1.04e6	1.03	NO	46.67	0.799	0.8135	0.035	4.34	3115	5395
32	13C-OCDD	200.000	1.80e6	0.86	NO	50.24	0.690	0.7155	0.075	10.43	1755	24648
33	13C-1,2,3,4-TCDD	100.000	2.10e6	0.80	NO	26.11	209...	22602.6799	1977.986	8.75	1966	6215
34	13C-1,2,3,7,8,9-HxCDD	100.000	1.31e6	1.24	NO	42.65	130...	14280.3905	2145.257	15.02	4852	1998
35	37Cl-2,3,7,8-TCDD	40.000	9.02e5			26.47	1.074	1.1134	0.079	7.11	9323	
36	Total Tetra-Furans	40.000						0.9149	0.022	2.43		
37	Total Tetra-Dioxins	40.000						1.1119	0.079	7.15		
38	Total Penta-Furans	200.000						0.9236	0.039	4.19		
39	Total Penta-Dioxins	200.000						1.0267	0.055	5.33		
40	Total Hexa-Furans	200.000						1.1161	0.036	3.26		
41	Total Hexa-Dioxins	200.000						1.0036	0.036	3.60		
42	Total Hepta-Furans	200.000						1.2235	0.041	3.38		
43	Total Hepta-Dioxins	200.000						0.9956	0.020	2.04		
44	Hexa DPE	0.000	2.22e2			26.22	0.000				15111	
45	Hepta DPE	0.000	3.50e3			37.54	0.000				23	
46	Octa DPE	0.000	7.17e1			38.60	0.000				2206	
47	Nona DPE	0.000	7.65e1			46.53	0.000				7	
48	Deca DPE	0.000	9.48e1			49.99	0.000				3073	
49	Tetra Lock	0.000	3.84e4			24.22	0.000				1	
50	Penta Lock	0.000	8.60e5			29.05	0.000				1	
51	Hexa Lock	0.000										
52	Hepta Lock	0.000	3.18e4			47.08	0.000				1	
53	Octa Lock	0.000	1.70e4			48.87	0.000				0	
54	13C-Tetra-Furans	100.000						1.6147	0.046	2.83		
55	13C-Tetra-Dioxins	100.000						1.0042	0.038	3.74		

PV LHE 06-JUNE-2018

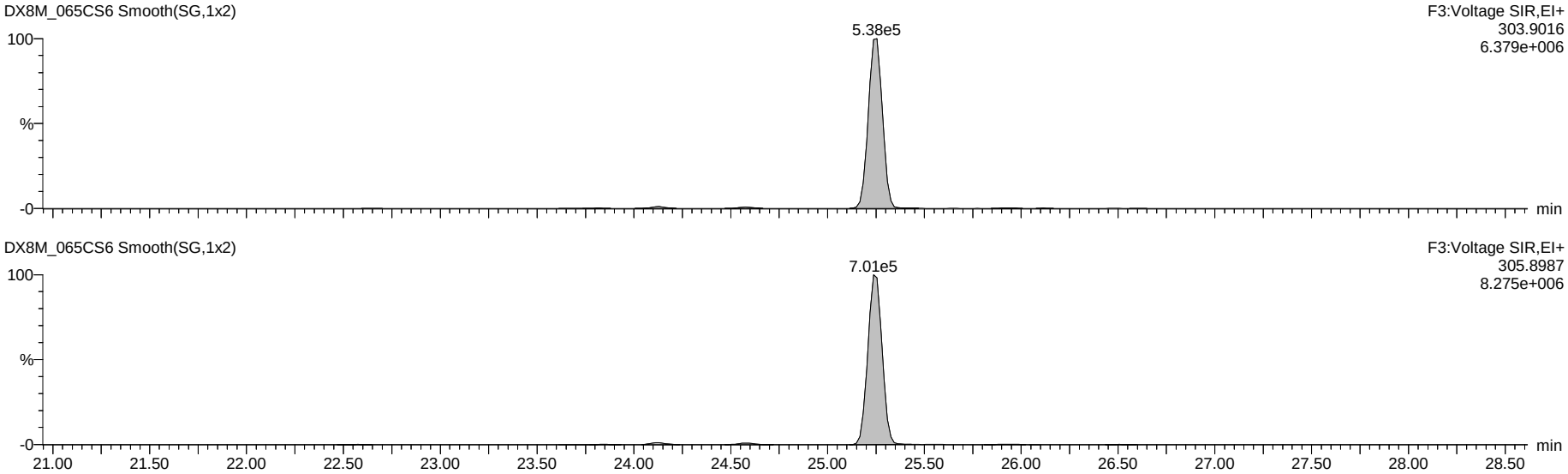
SVB 06 Jun 2018

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6A.qld

Method: G:\Masslynx\Inst_M\Projects\180604DX.PRO\MethDB\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: 06 Jun 2018 09:11:00

Name: DX8M_065CS6, Date: 04-Jun-2018, Time: 23:11:40, ID: DX041E-CAL,,/01, Description: 1,,1.0uL CS-4

Total Tetra-Furans



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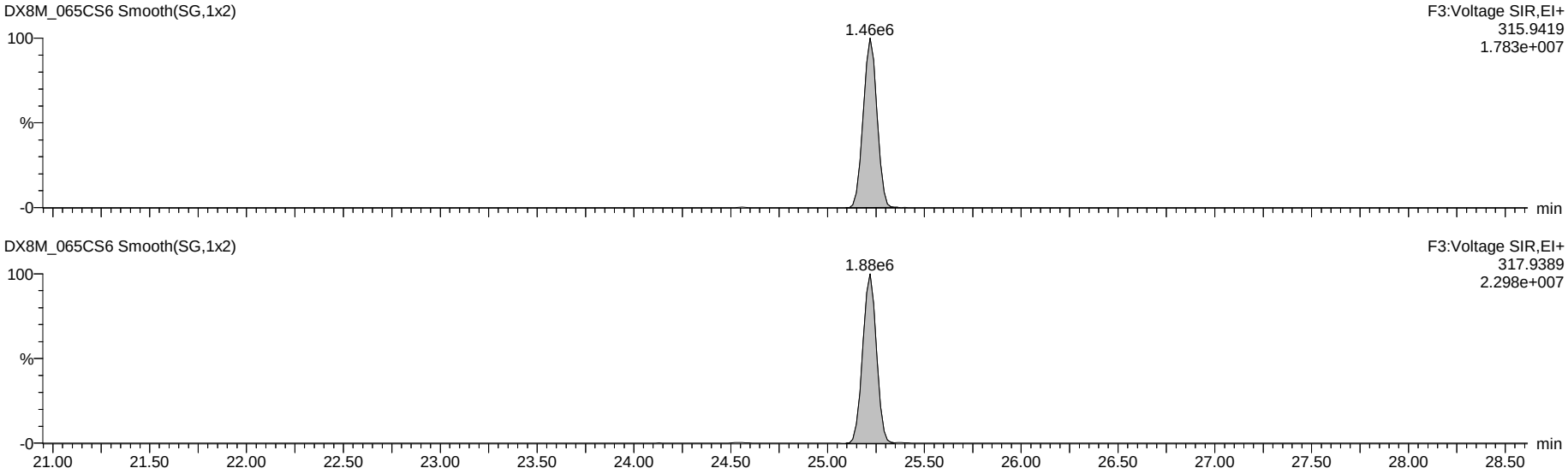

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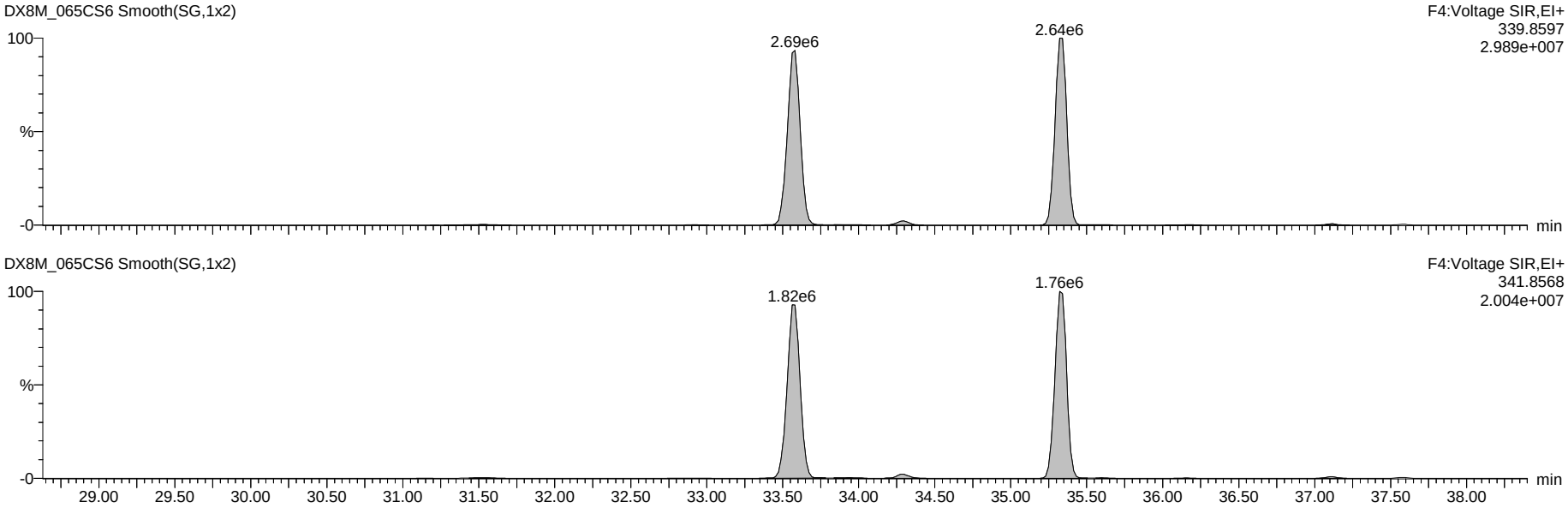
Total Penta-Furans



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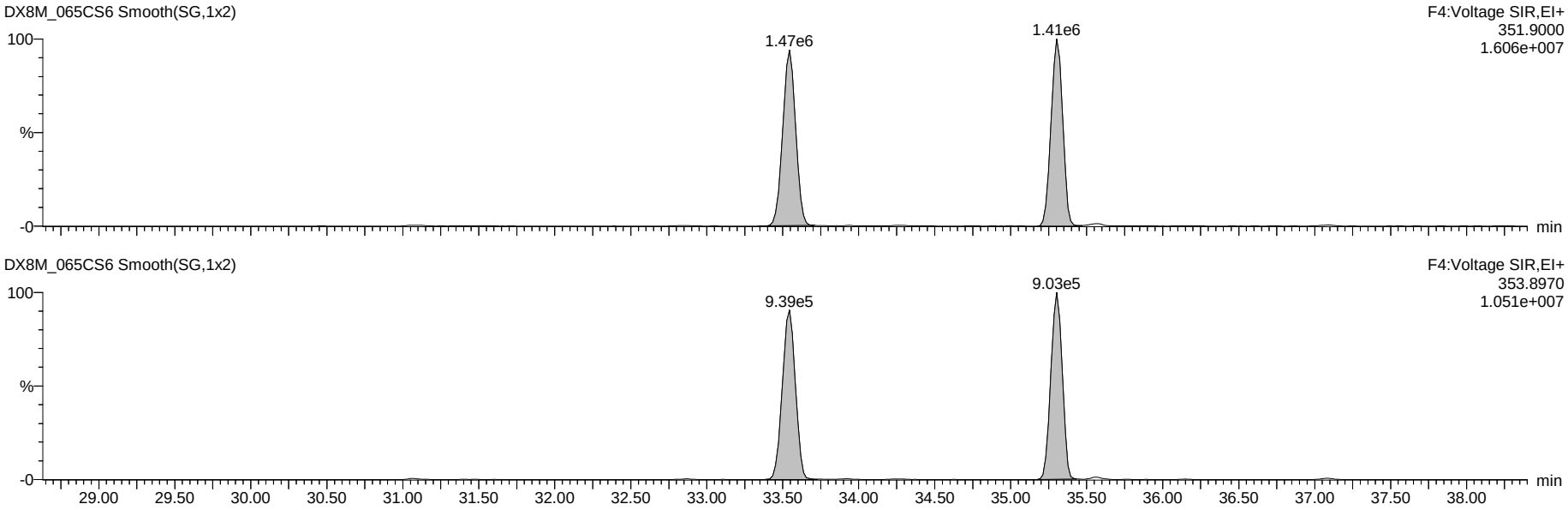

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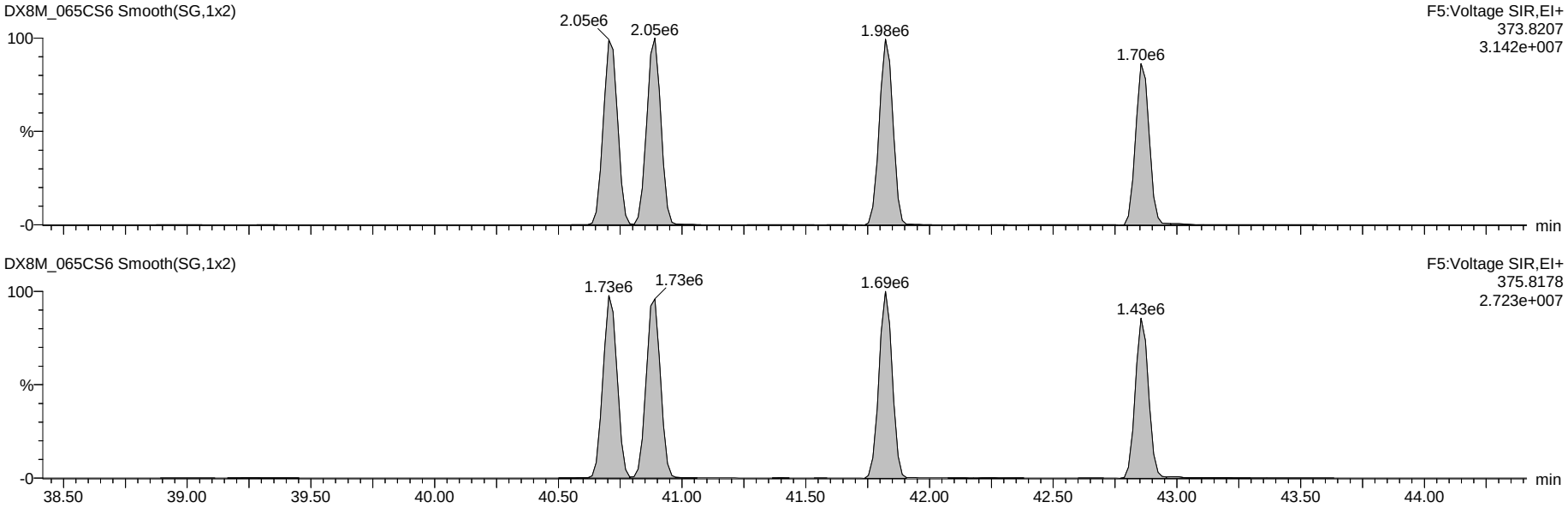

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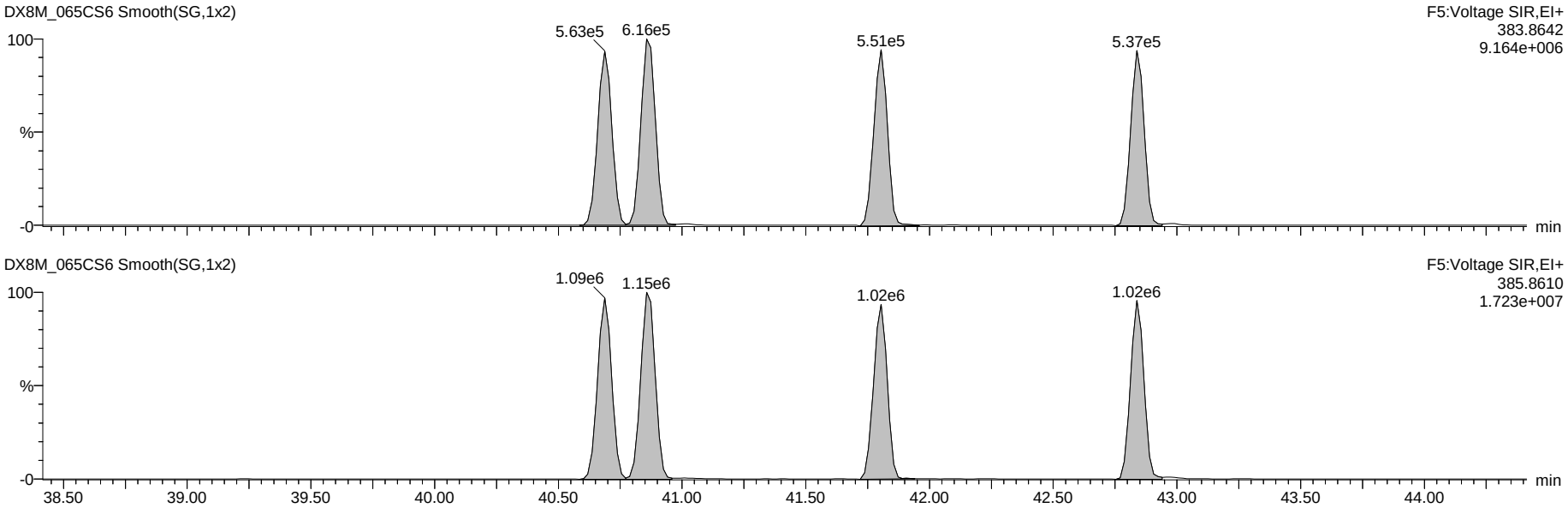

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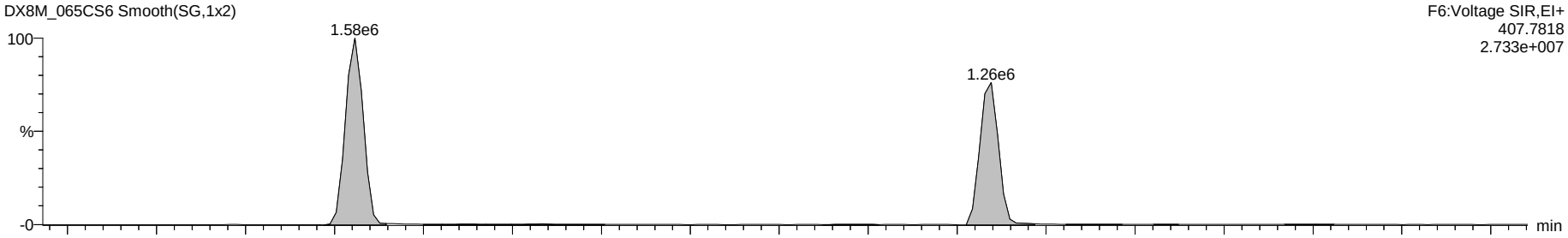
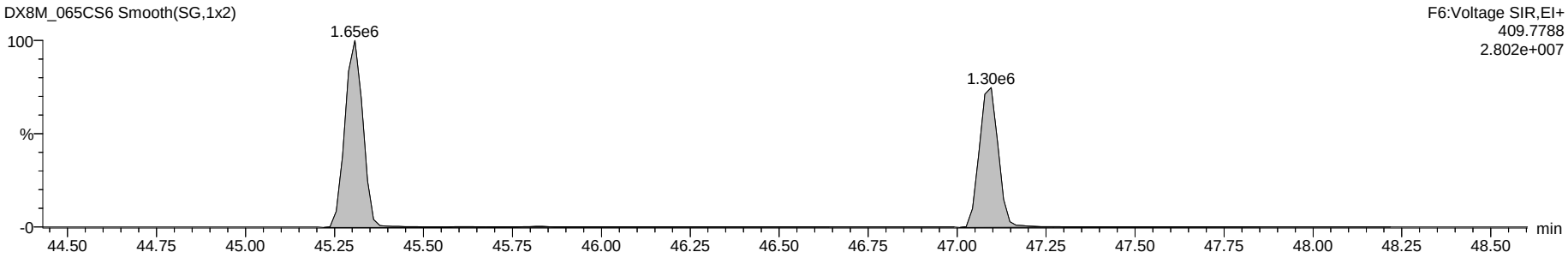
Total Hepta-Furans





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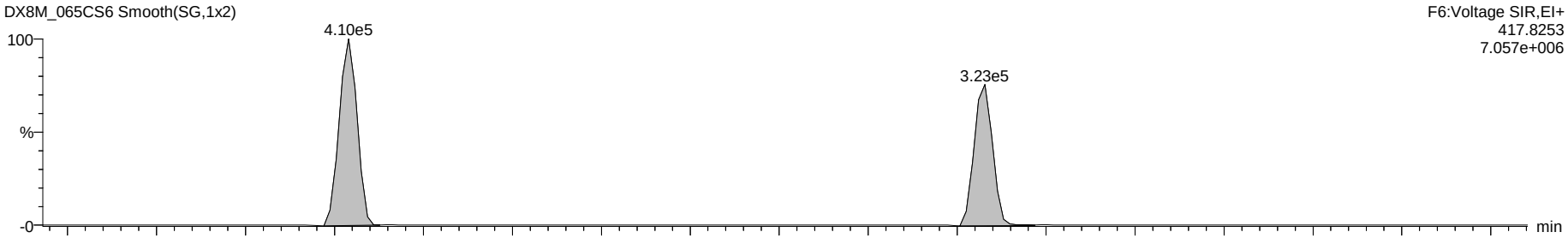

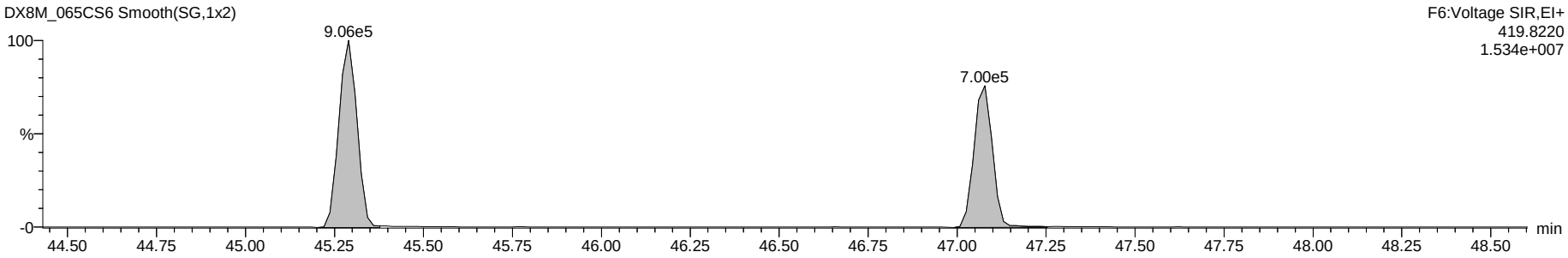

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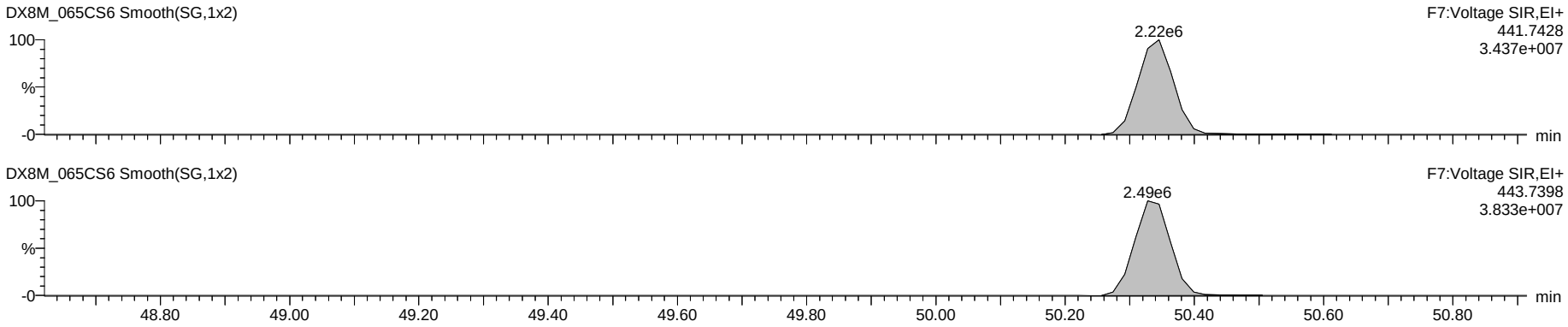
OCDF



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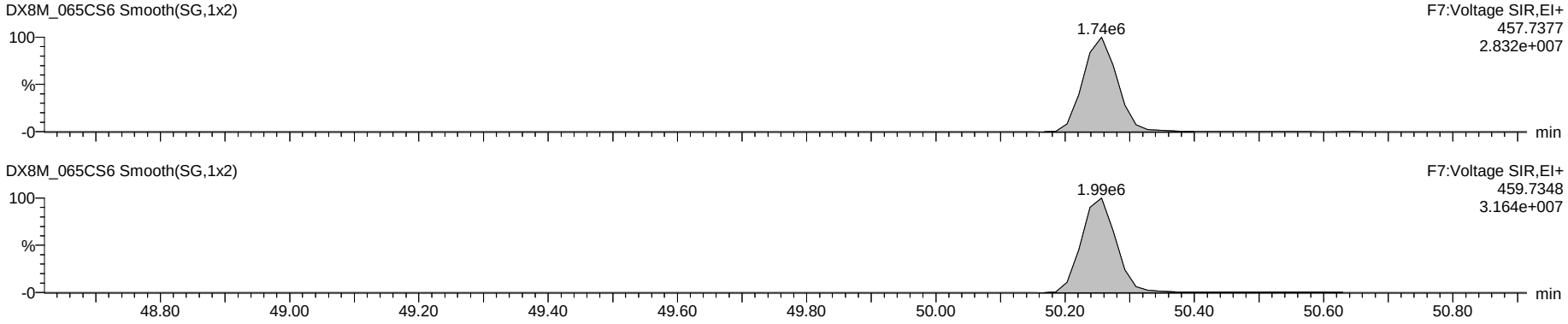

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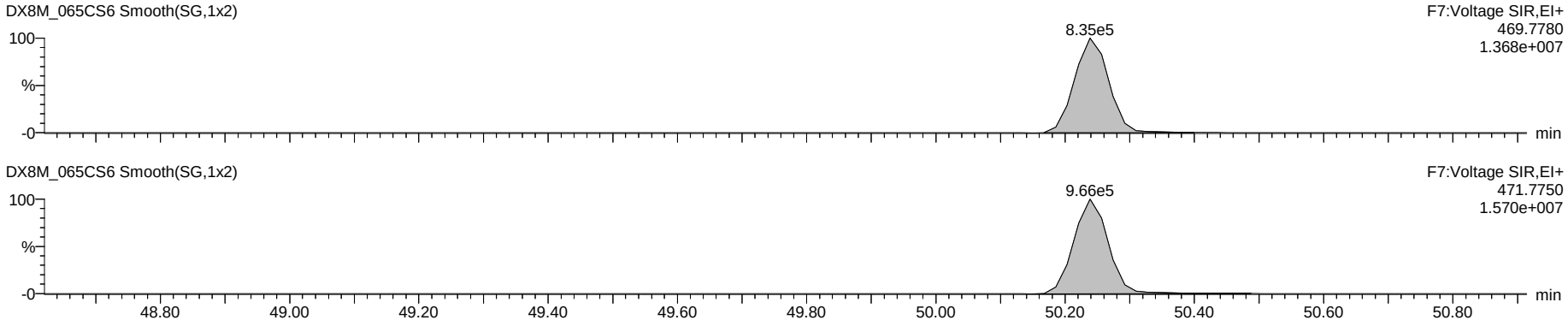

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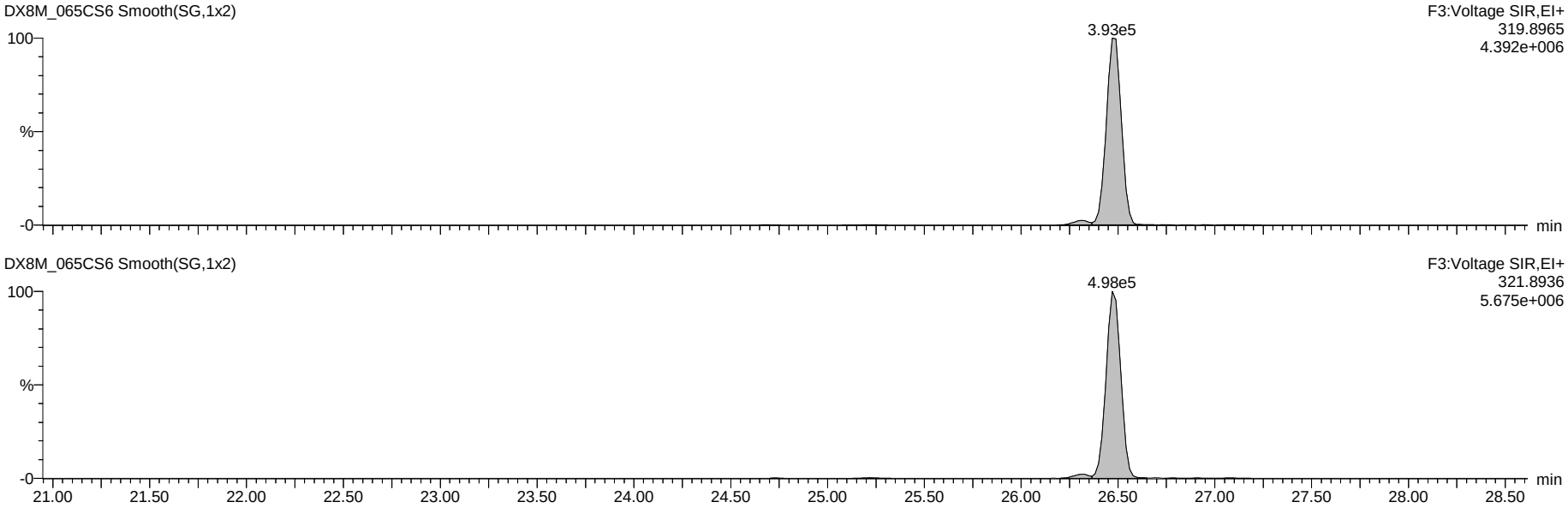
Total Tetra-Dioxins



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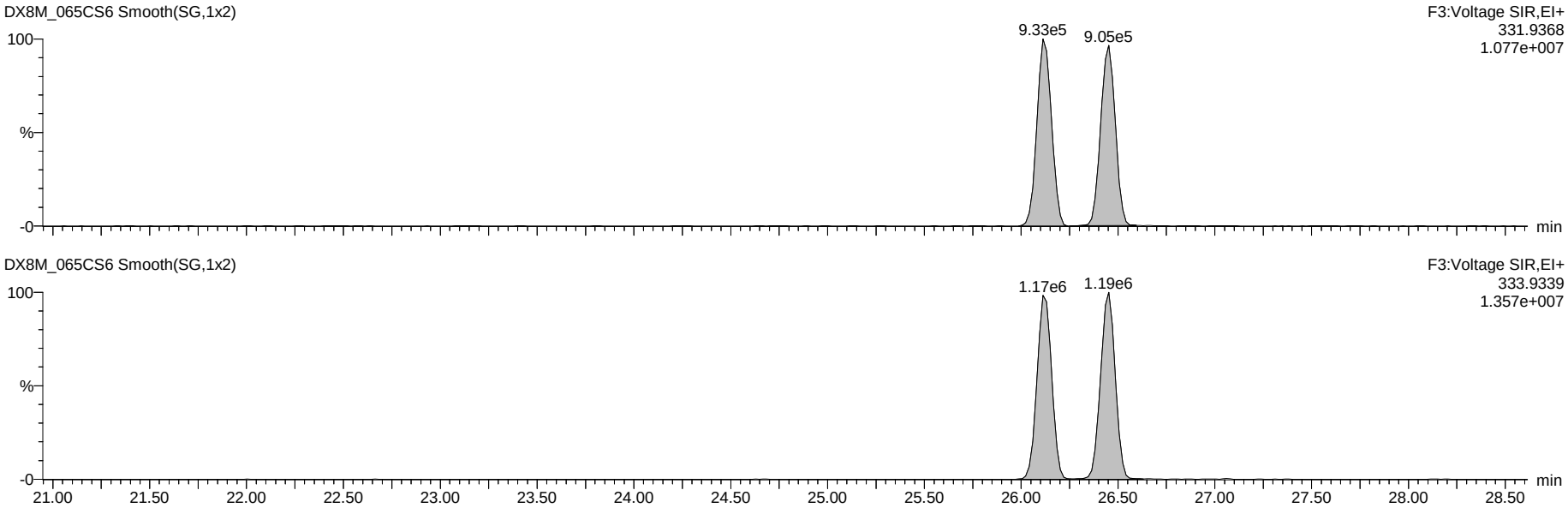

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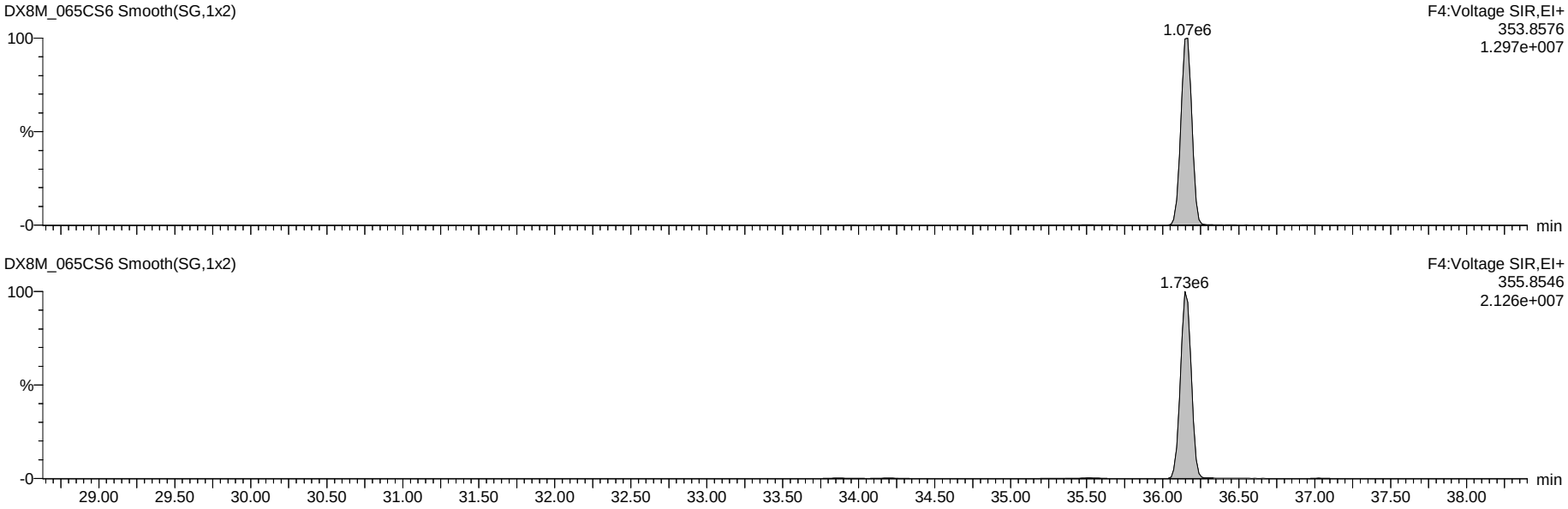
Total Penta-Dioxins



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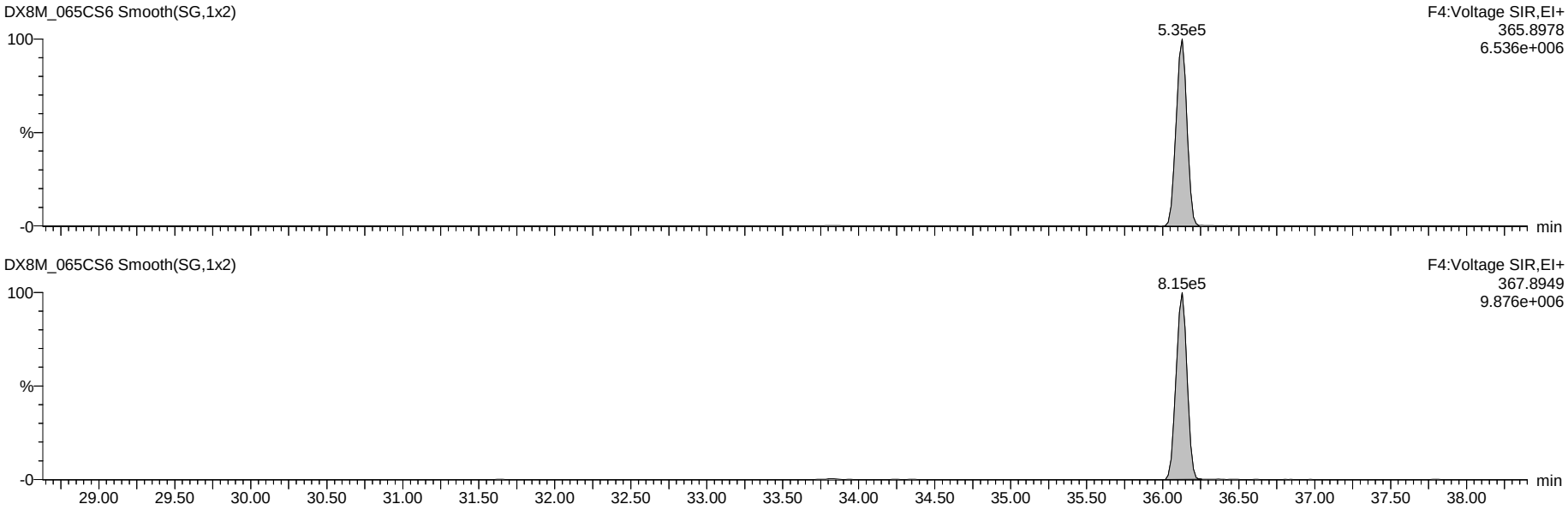

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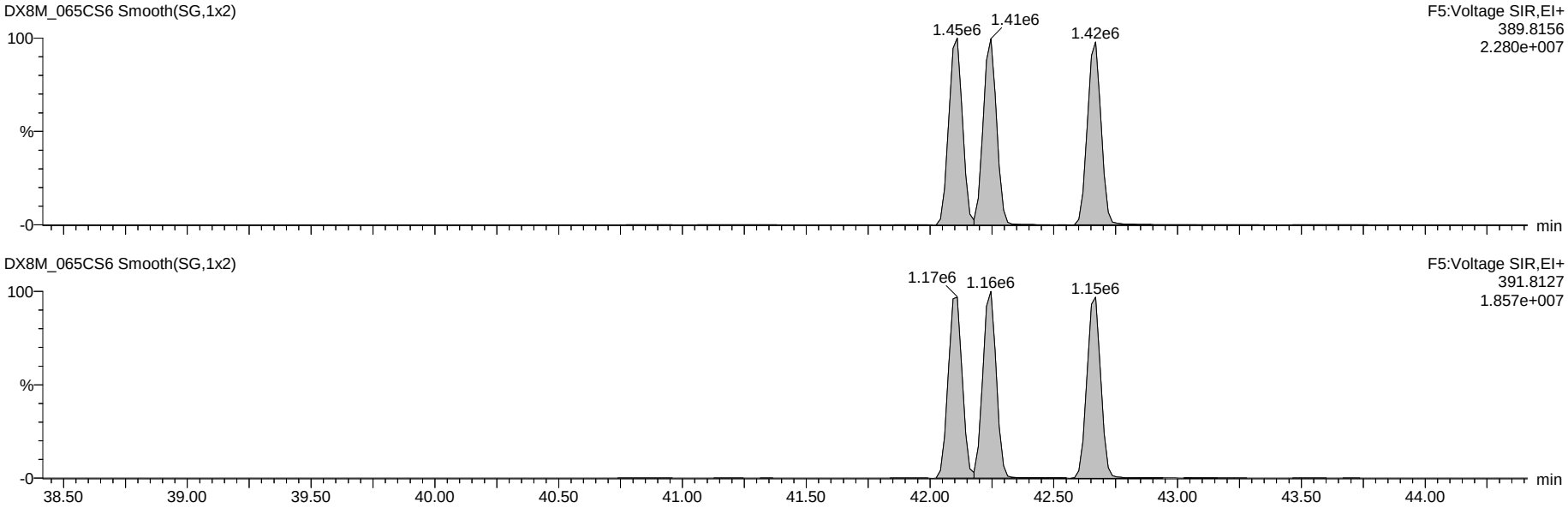
Total Hexa-Dioxins



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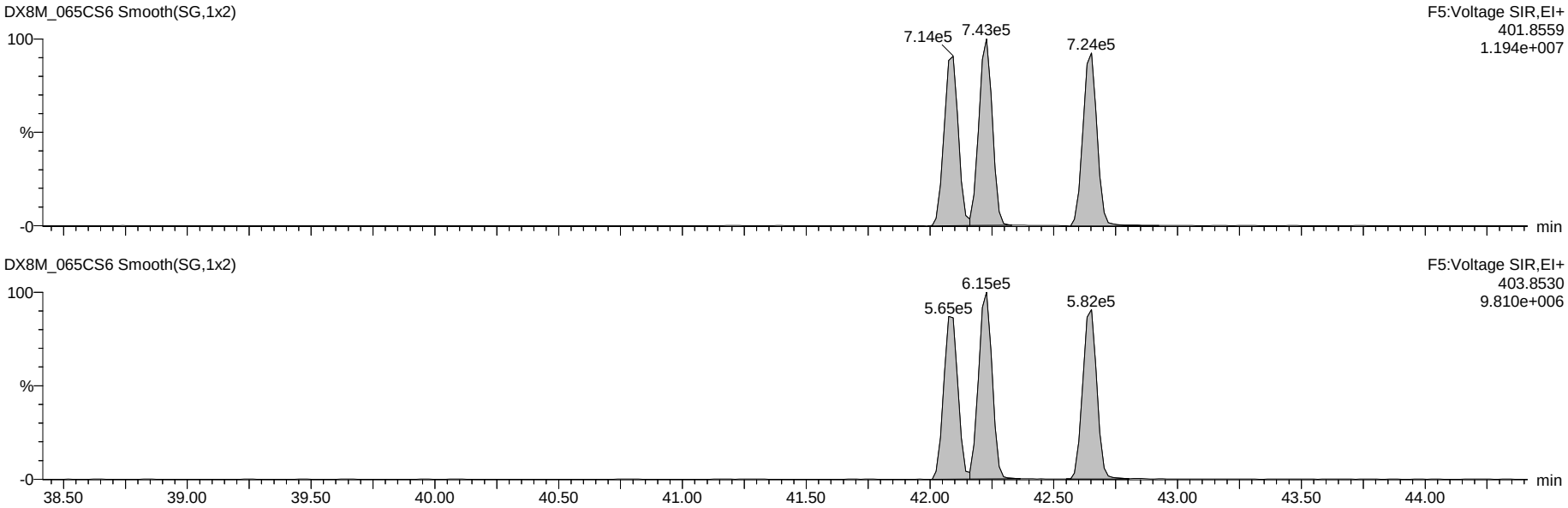

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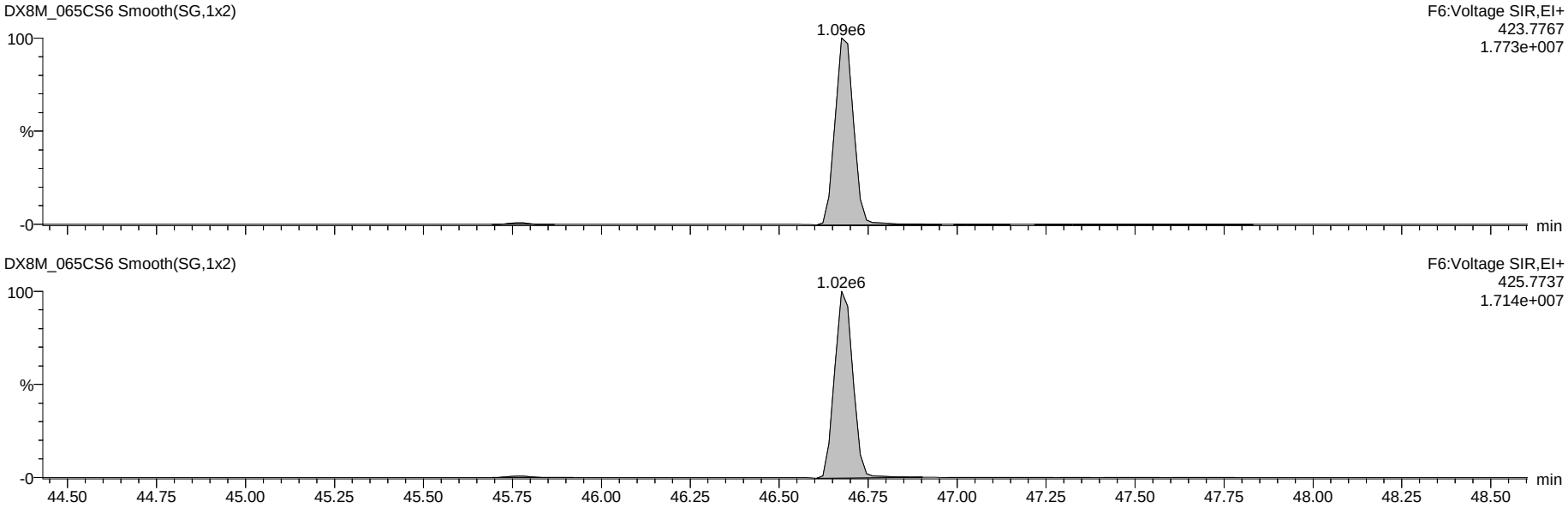
Total Hepta-Dioxins



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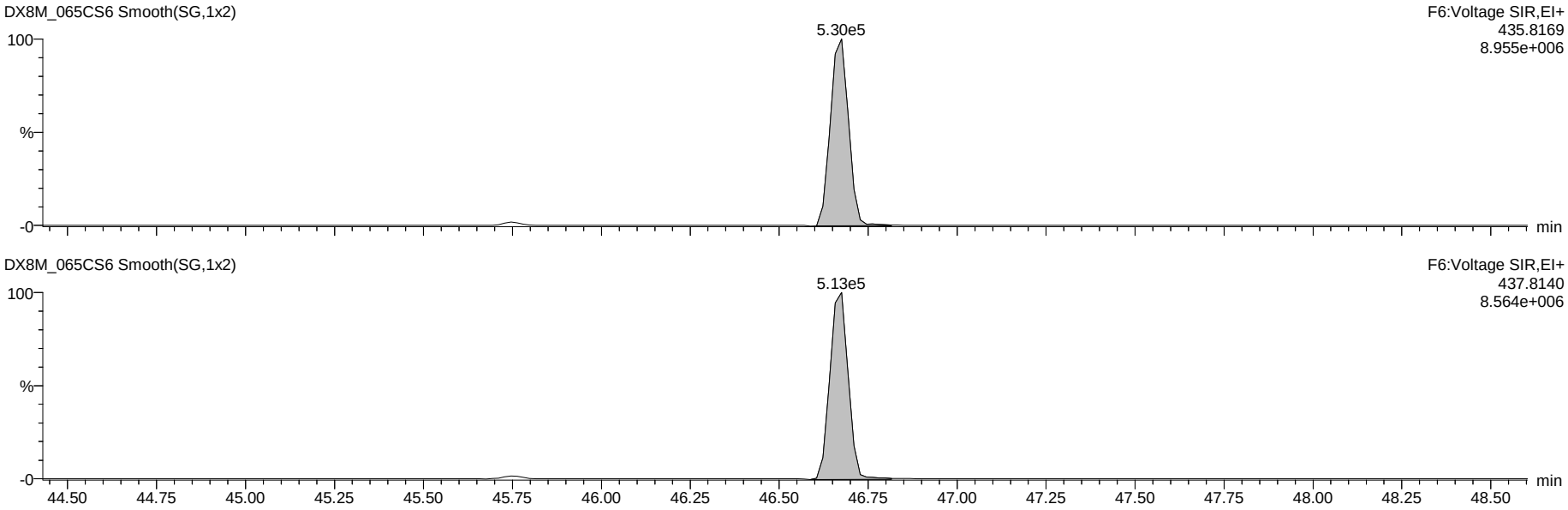

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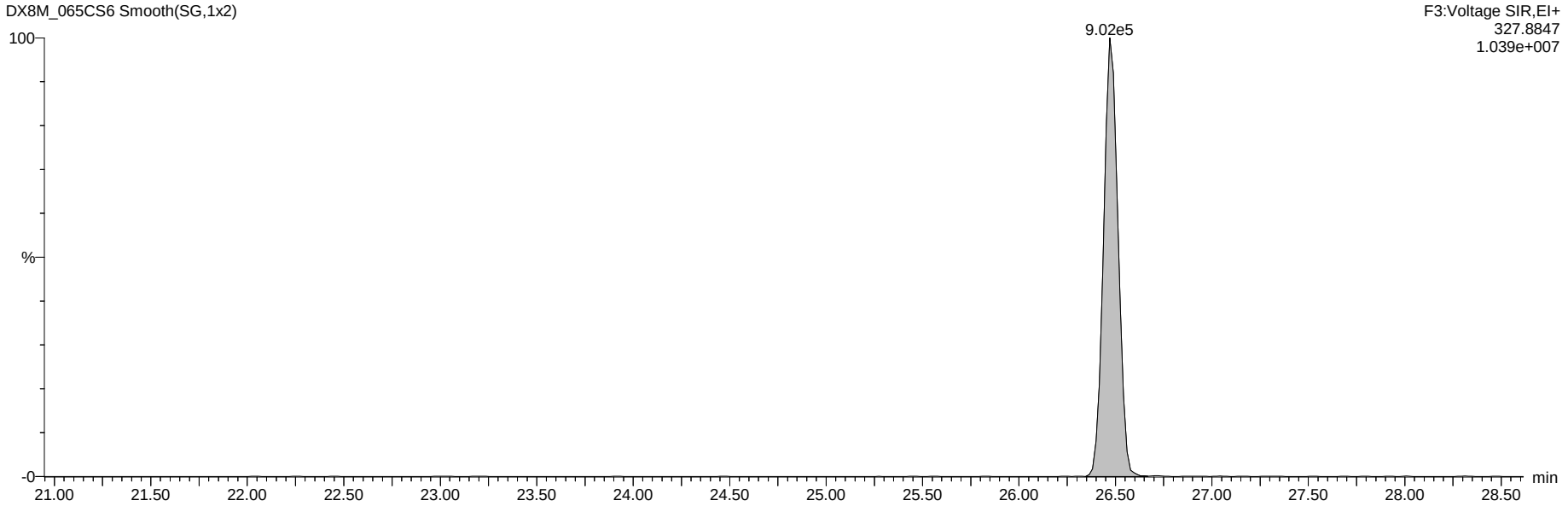
37Cl-2,3,7,8-TCDD



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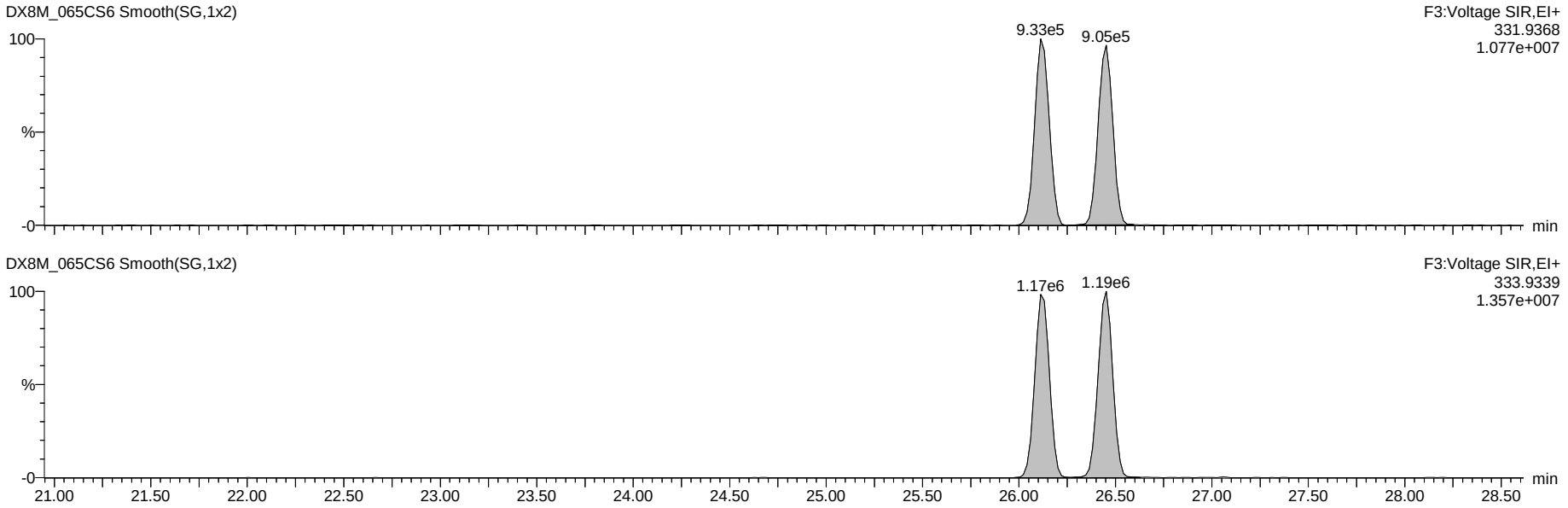

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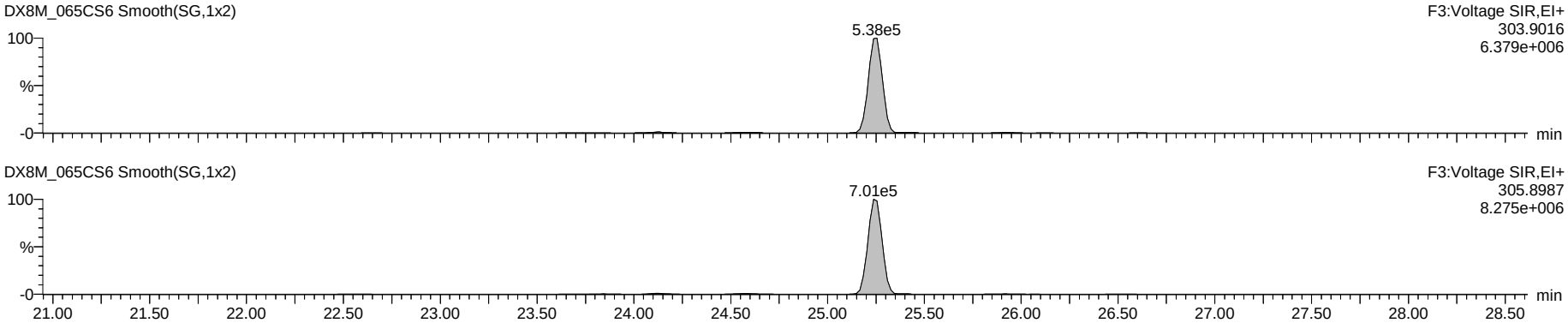
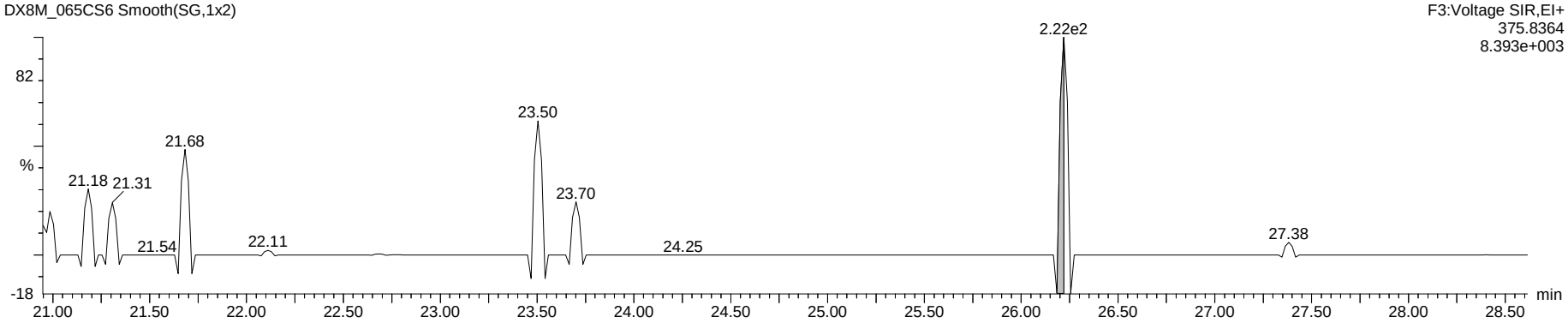
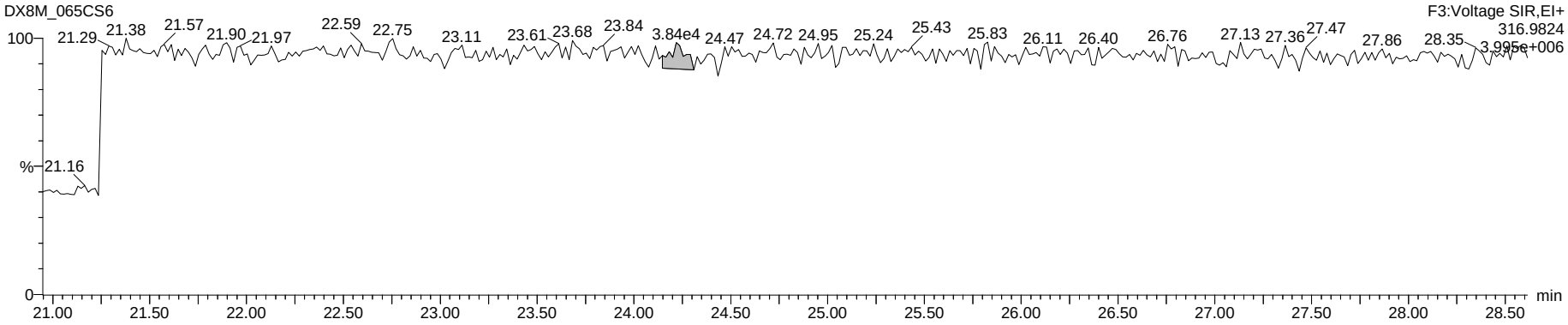
Total Tetra-Furans



Hexa DPE



Tetra Lock



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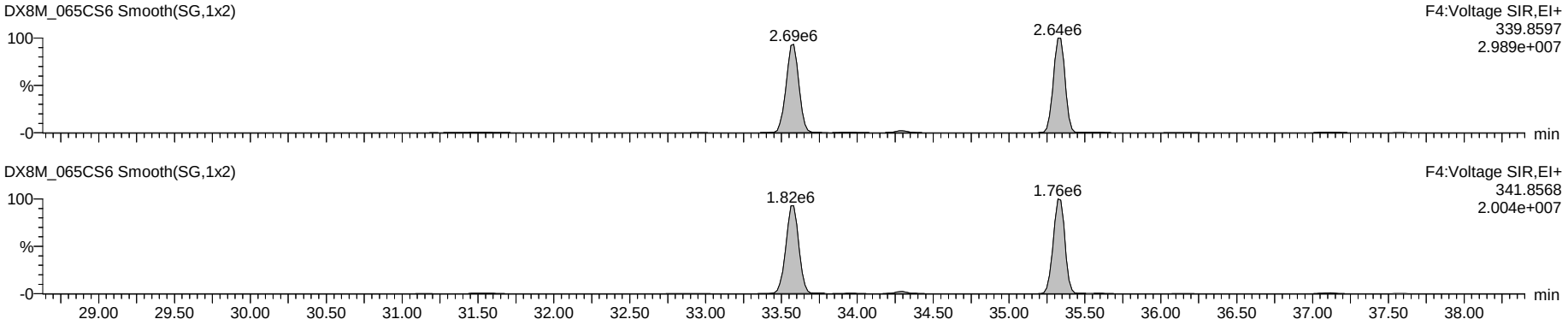
Total Penta-Furans



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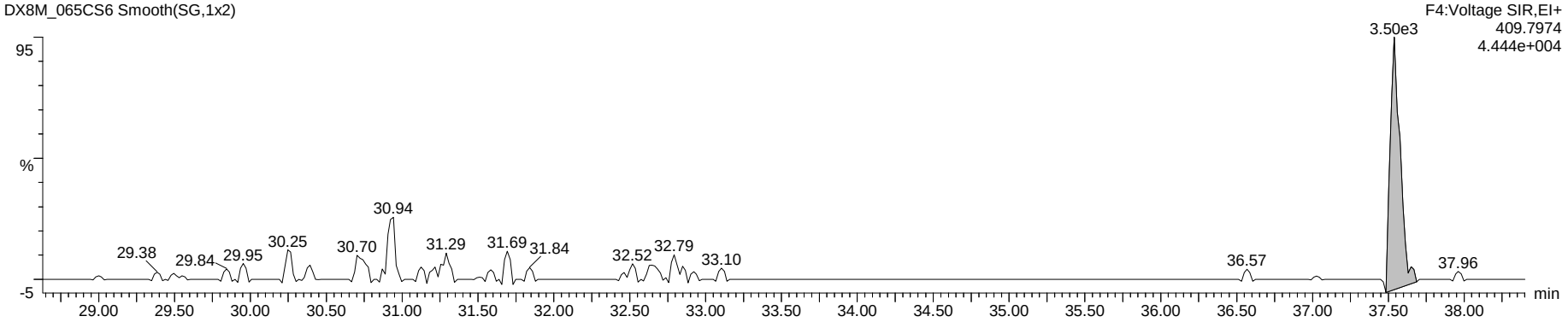
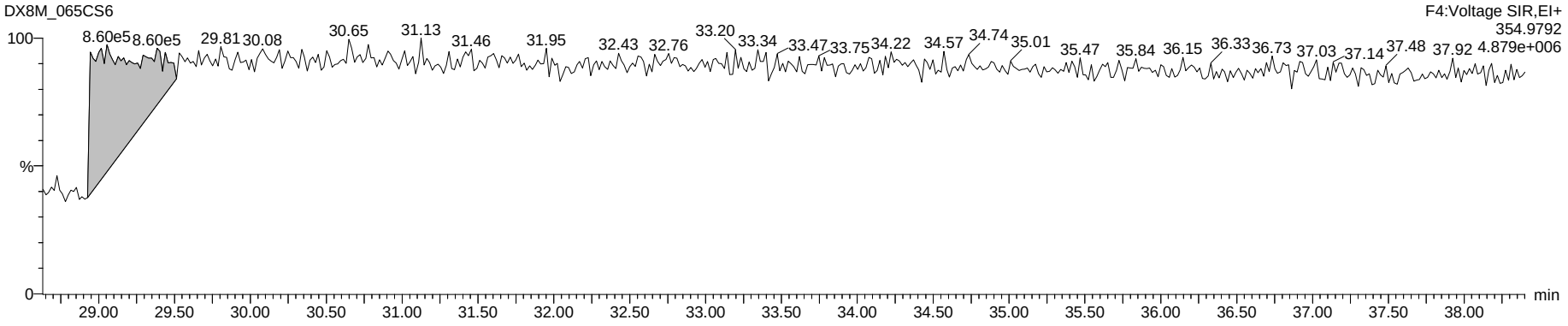


Penta Lock



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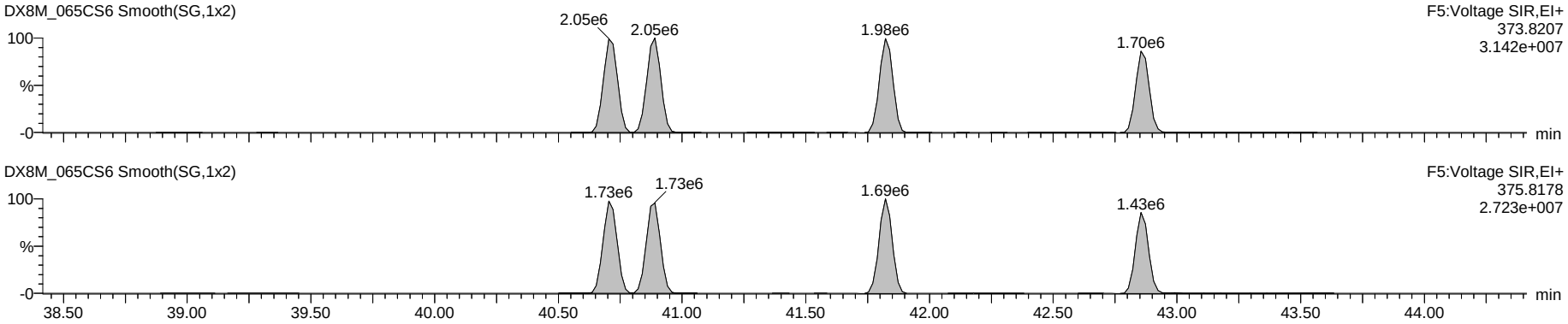
Total Hexa-Furans



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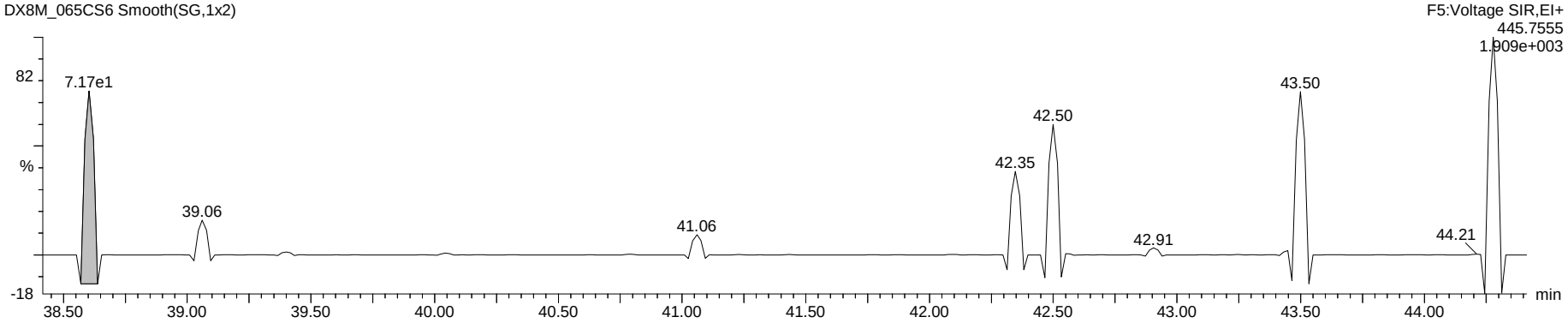

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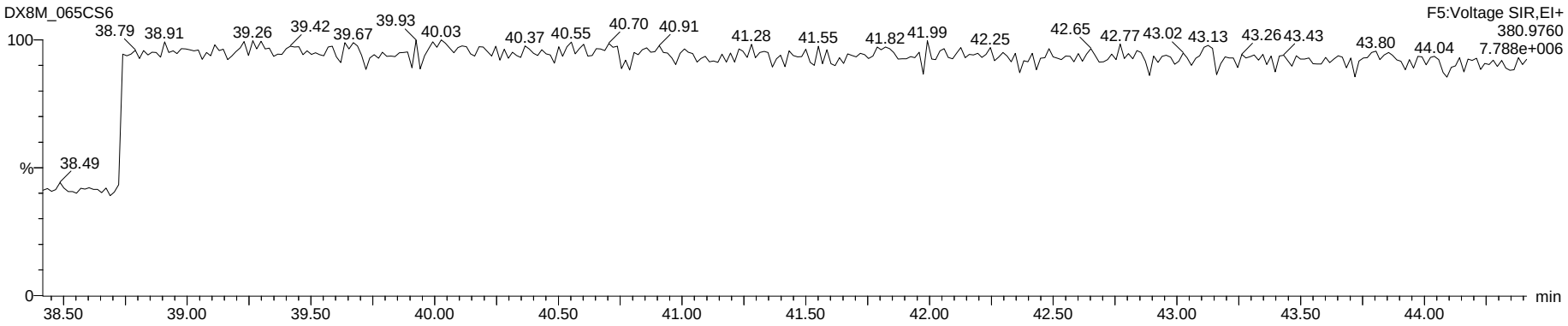

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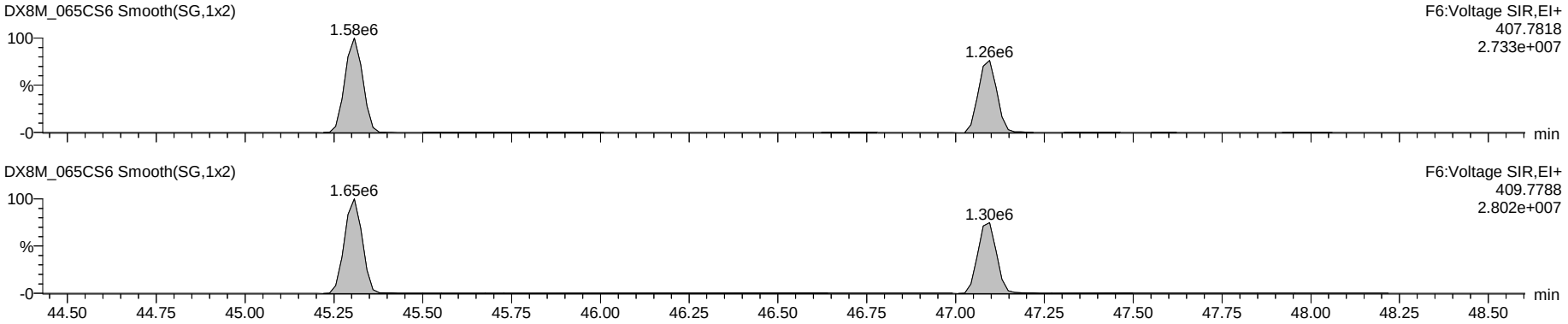
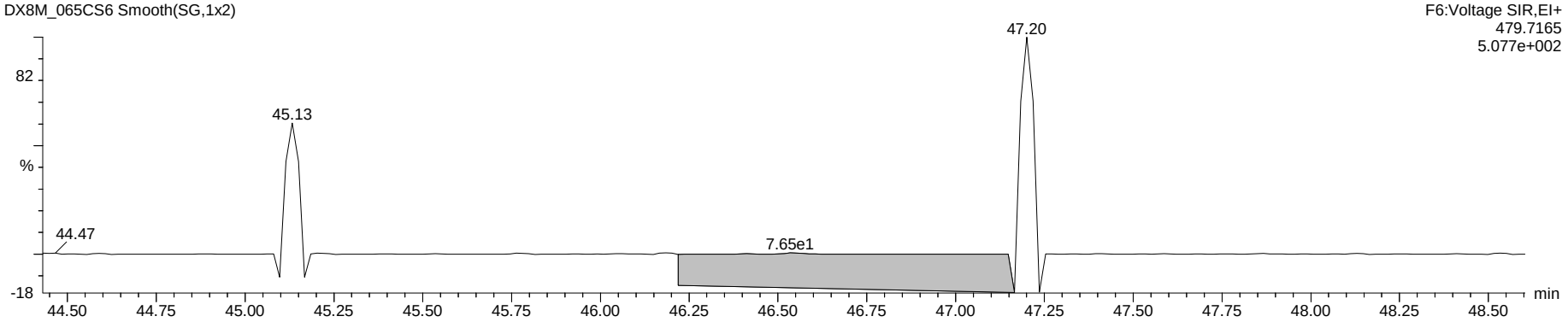
Total Hepta-Furans



Nona DPE



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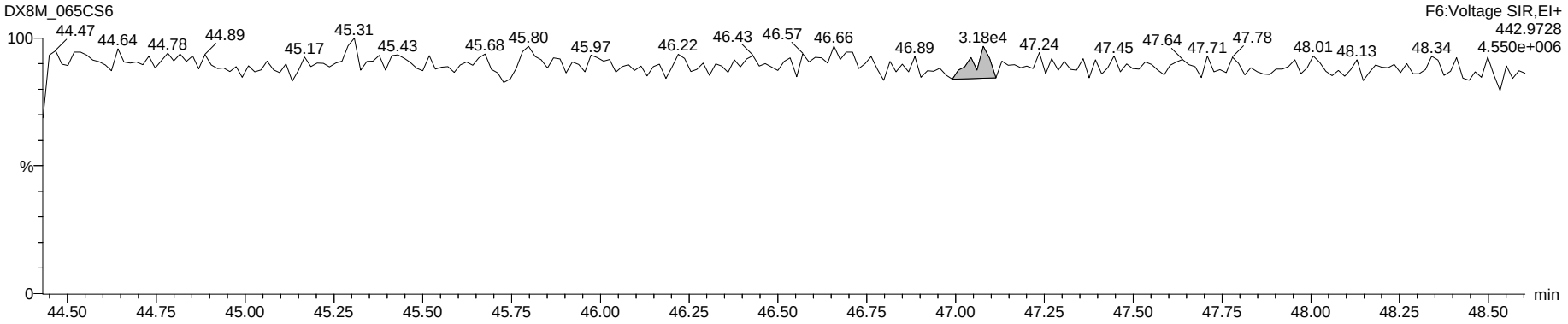

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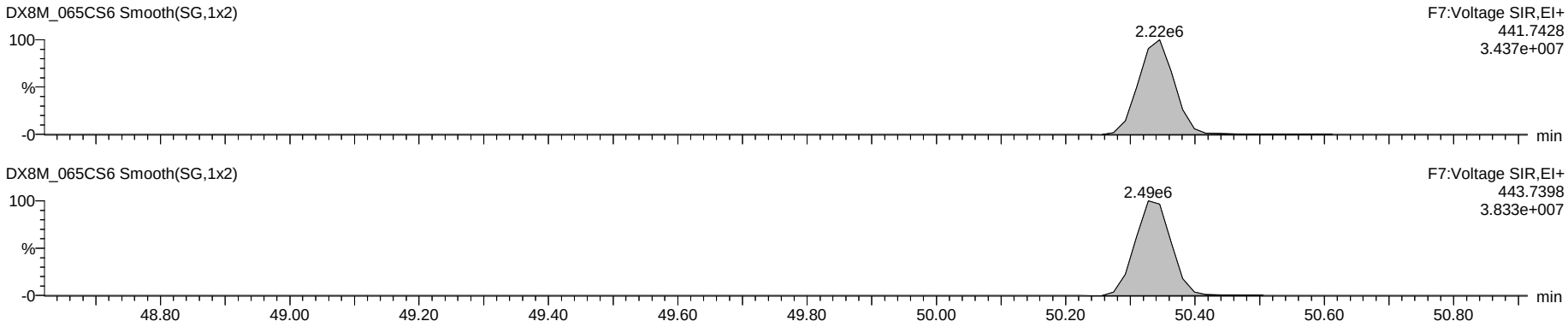
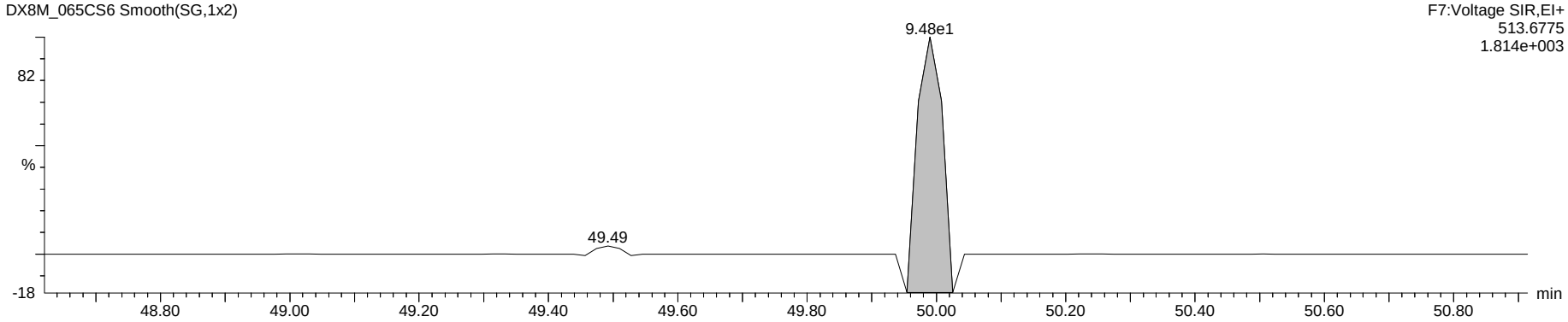
OCDF



Deca DPE



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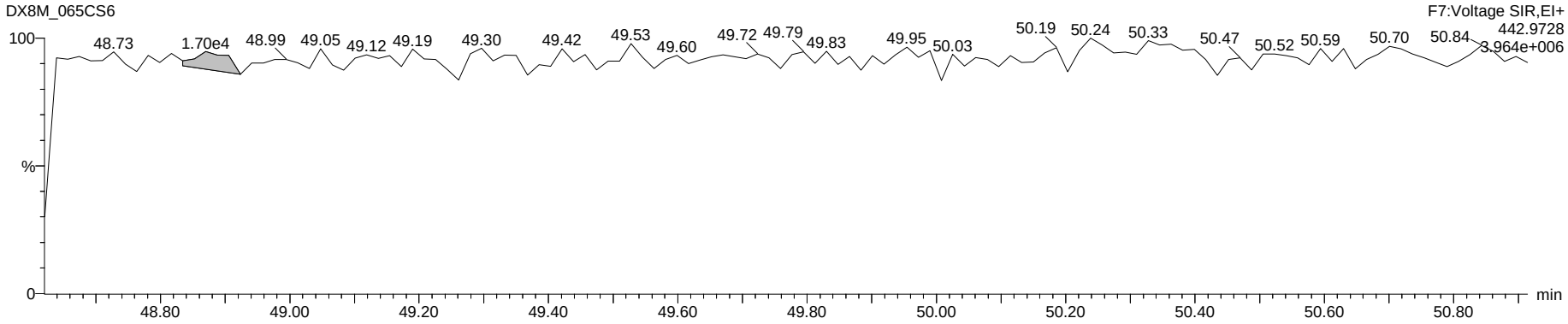

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Name: DX8M_065CS5, Date: 04-Jun-2018, Time: 22:16:47, ID: DX041F-CAL,,/01, Description: 1,,1.0uL CS-5

	Name	Amount	Resp	Ratio	fails?	RT	RRF	RRF Mean	RRF SD	RRF %Rel SD	S/N	1° S/N
1	2,3,7,8-TCDF	200.000	7.17e6	0.77	NO	25.26	0.911	0.9149	0.022	2.43	22158	22183
2	1,2,3,7,8-PeCDF	1000.000	2.98e7	1.47	NO	33.60	0.945	0.9236	0.039	4.19	89459	43544
3	2,3,4,7,8-PeCDF	1000.000	2.95e7	1.47	NO	35.34	0.948	0.9391	0.013	1.39	100969	50102
4	1,2,3,4,7,8-HxCDF	1000.000	2.61e7	1.18	NO	40.72	1.134	1.1161	0.036	3.26	52716	49278
5	1,2,3,6,7,8-HxCDF	1000.000	2.72e7	1.19	NO	40.91	1.100	1.0626	0.029	2.74	58446	52090
6	2,3,4,6,7,8-HxCDF	1000.000	2.57e7	1.19	NO	41.84	1.164	1.1400	0.036	3.17	55660	50594
7	1,2,3,7,8,9-HxCDF	1000.000	2.23e7	1.20	NO	42.87	1.022	0.9992	0.030	2.99	48492	44333
8	1,2,3,4,6,7,8-HpCDF	1000.000	2.28e7	1.01	NO	45.33	1.220	1.2235	0.041	3.38	44968	84091
9	1,2,3,4,7,8,9-HpCDF	1000.000	1.86e7	1.02	NO	47.11	1.245	1.2522	0.017	1.37	35372	67383
10	OCDF	2000.000	3.94e7	0.89	NO	50.36	1.321	1.2272	0.084	6.84	1682.0	973341
11	2,3,7,8-TCDD	200.000	5.32e6	0.78	NO	26.49	1.065	1.1119	0.079	7.15	34582	20910
12	1,2,3,7,8-PeCDD	1000.000	1.83e7	0.62	NO	36.17	1.026	1.0267	0.055	5.33	86212	72742
13	1,2,3,4,7,8-HxCDD	1000.000	1.83e7	1.25	NO	42.11	1.020	1.0036	0.036	3.60	56446	48039
14	1,2,3,6,7,8-HxCDD	1000.000	1.80e7	1.22	NO	42.26	0.941	0.9343	0.029	3.09	58187	48216
15	1,2,3,7,8,9-HxCDD	1000.000	1.75e7	1.23	NO	42.69	0.947	0.9712	0.032	3.34	53916	45269
16	1,2,3,4,6,7,8-HpCDD	1000.000	1.47e7	1.04	NO	46.69	0.998	0.9956	0.020	2.04	39682	95492
17	OCDD	2000.000	2.99e7	0.87	NO	50.27	1.001	1.0186	0.028	2.76	1672779	22017...
18	13C-2,3,7,8-TCDF	100.000	3.94e6	0.74	NO	25.24	1.659	1.6147	0.046	2.83	2819	5382
19	13C-1,2,3,7,8-PeCDF	100.000	3.15e6	1.54	NO	33.56	1.327	1.1640	0.091	7.84	6710	8542
20	13C-2,3,4,7,8-PeCDF	100.000	3.11e6	1.54	NO	35.32	1.310	1.1228	0.100	8.87	7608	9709
21	13C-1,2,3,4,7,8-HxCDF	100.000	2.30e6	0.52	NO	40.70	1.292	1.2764	0.037	2.93	2129	8318
22	13C-1,2,3,6,7,8-HxCDF	100.000	2.47e6	0.51	NO	40.87	1.386	1.3633	0.031	2.30	2240	8968
23	13C-2,3,4,6,7,8-HxCDF	100.000	2.20e6	0.53	NO	41.82	1.237	1.2182	0.036	2.95	2100	8250
24	13C-1,2,3,7,8,9-HxCDF	100.000	2.19e6	0.52	NO	42.86	1.226	1.2015	0.043	3.61	2116	8474
25	13C-1,2,3,4,6,7,8-HpCDF	100.000	1.87e6	0.45	NO	45.31	1.048	1.0186	0.040	3.89	3711	5278
26	13C-1,2,3,4,7,8,9-HpCDF	100.000	1.49e6	0.44	NO	47.10	0.837	0.7945	0.043	5.44	2854	4092
27	13C-2,3,7,8-TCDD	100.000	2.50e6	0.82	NO	26.45	1.052	1.0042	0.038	3.74	4030	5751
28	13C-1,2,3,7,8-PeCDD	100.000	1.79e6	0.67	NO	36.15	0.753	0.6582	0.053	8.04	7033	5504
29	13C-1,2,3,4,7,8-HxCDD	100.000	1.79e6	1.26	NO	42.11	1.004	0.9841	0.037	3.74	2932	3831
30	13C-1,2,3,6,7,8-HxCDD	100.000	1.92e6	1.26	NO	42.25	1.075	1.0407	0.026	2.53	3328	4327
31	13C-1,2,3,4,6,7,8-HpCDD	100.000	1.48e6	1.05	NO	46.69	0.828	0.8135	0.035	4.34	3395	12557
32	13C-OCDD	200.000	2.98e6	0.89	NO	50.27	0.837	0.7155	0.075	10.43	15568	2916
33	13C-1,2,3,4-TCDD	100.000	2.37e6	0.80	NO	26.13	237...	22602.6799	1977.986	8.75	3941	5862
34	13C-1,2,3,7,8,9-HxCDD	100.000	1.78e6	1.23	NO	42.67	178...	14280.3905	2145.257	15.02	3012	3870
35	37Cl-2,3,7,8-TCDD	200.000	5.38e6			26.49	1.135	1.1134	0.079	7.11	43575	
36	Total Tetra-Furans	200.000						0.9149	0.022	2.43		
37	Total Tetra-Dioxins	200.000						1.1119	0.079	7.15		
38	Total Penta-Furans	1000.000						0.9236	0.039	4.19		
39	Total Penta-Dioxins	1000.000						1.0267	0.055	5.33		
40	Total Hexa-Furans	1000.000						1.1161	0.036	3.26		
41	Total Hexa-Dioxins	1000.000						1.0036	0.036	3.60		
42	Total Hepta-Furans	1000.000						1.2235	0.041	3.38		
43	Total Hepta-Dioxins	1000.000						0.9956	0.020	2.04		
44	Hexa DPE	0.000	1.45e3			23.47	0.000				5	
45	Hepta DPE	0.000	1.29e4			37.56	0.000				470647	
46	Octa DPE	0.000	7.82e1			40.13	0.000				9	
47	Nona DPE	0.000	7.92e1			48.53	0.000				2102	
48	Deca DPE	0.000	1.05e1			49.07	0.000				214	
49	Tetra Lock	0.000	2.59e4			24.20	0.000				1	
50	Penta Lock	0.000	1.43e6			29.33	0.000				1	
51	Hexa Lock	0.000										
52	Hepta Lock	0.000	5.95e4			47.10	0.000				4	
53	Octa Lock	0.000										
54	13C-Tetra-Furans	100.000						1.6147	0.046	2.83		
55	13C-Tetra-Dioxins	100.000						1.0042	0.038	3.74		

PV LHE 06-JUNE-2018

SVByKB 06Jun2018

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6A.qld

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Calibration: 06 Jun 2018 09:11:00

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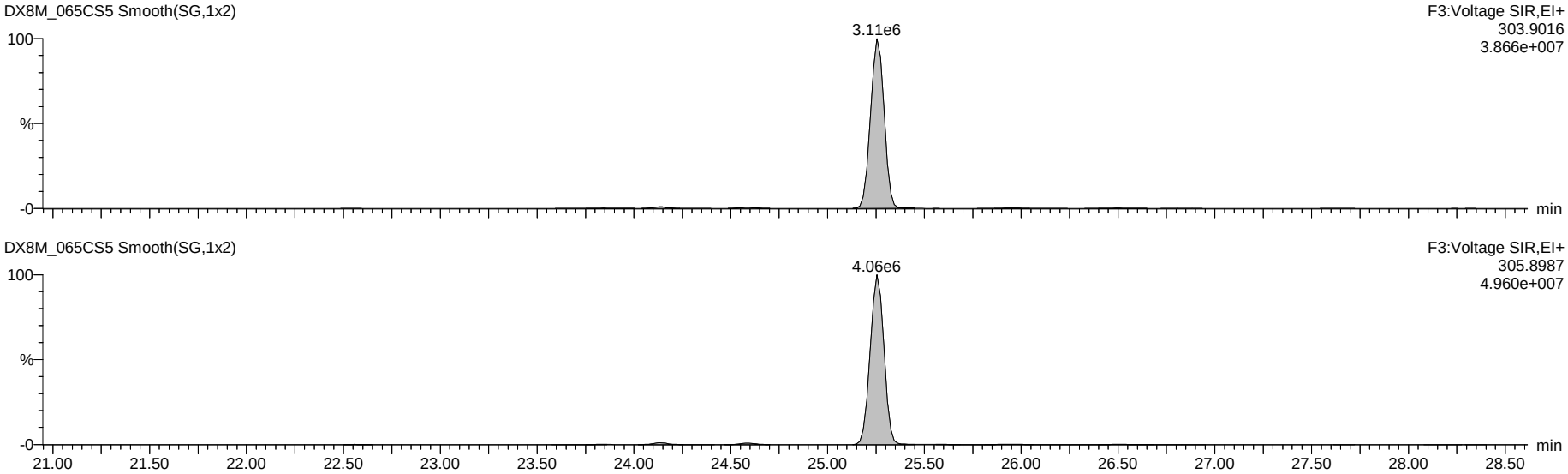
Total Tetra-Furans



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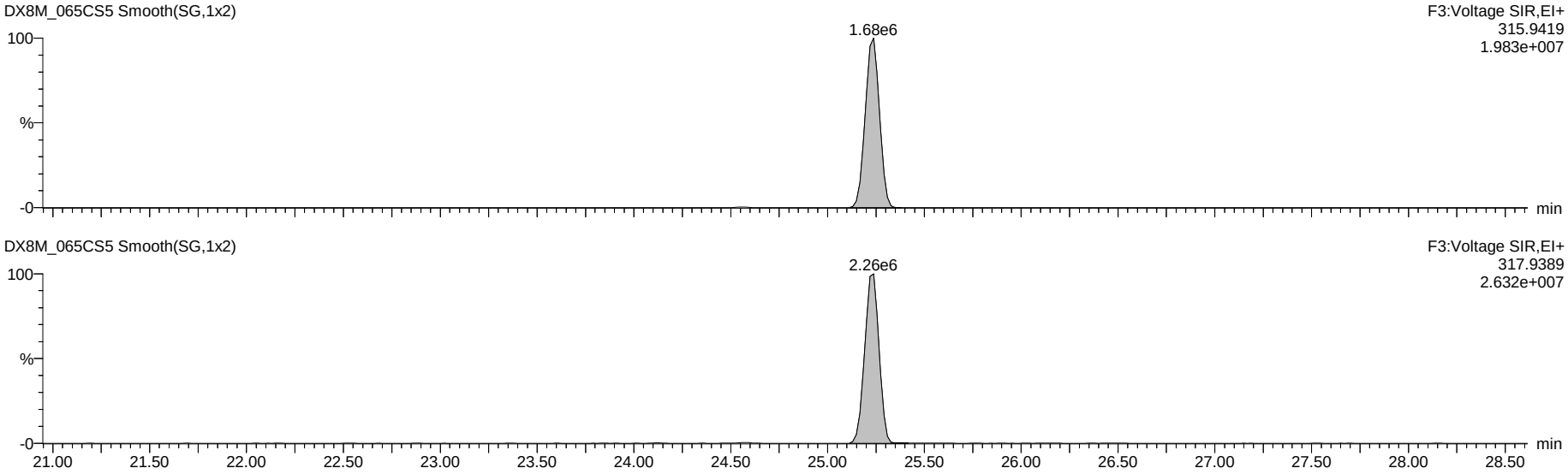

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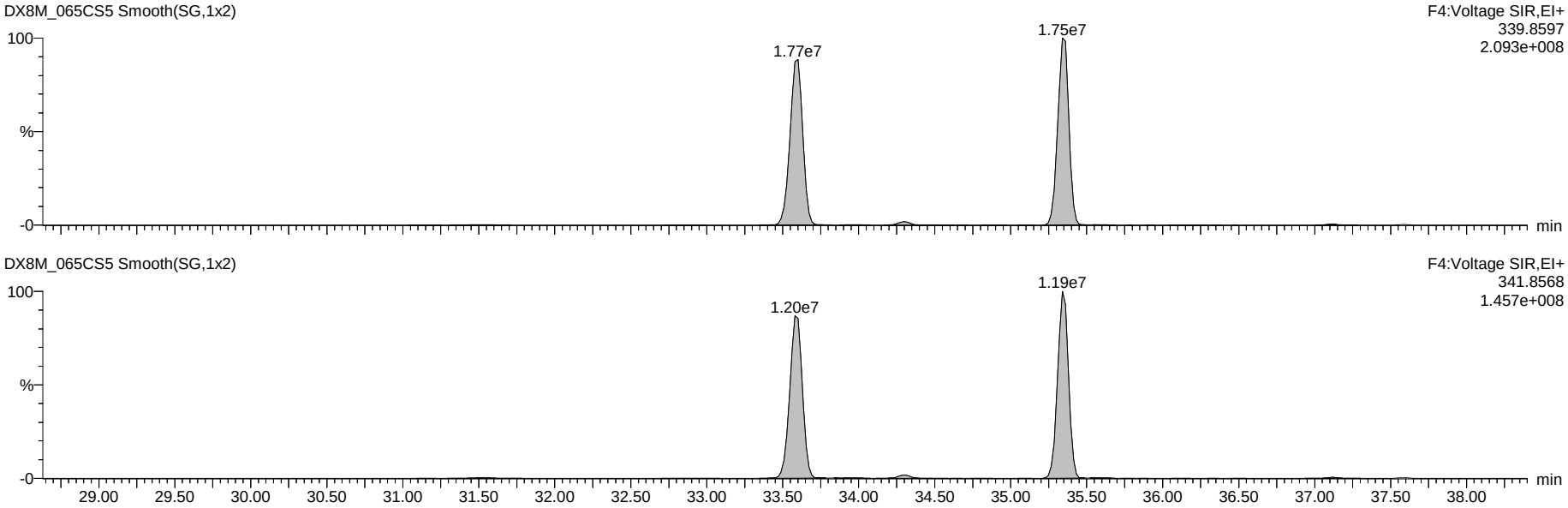
Total Penta-Furans



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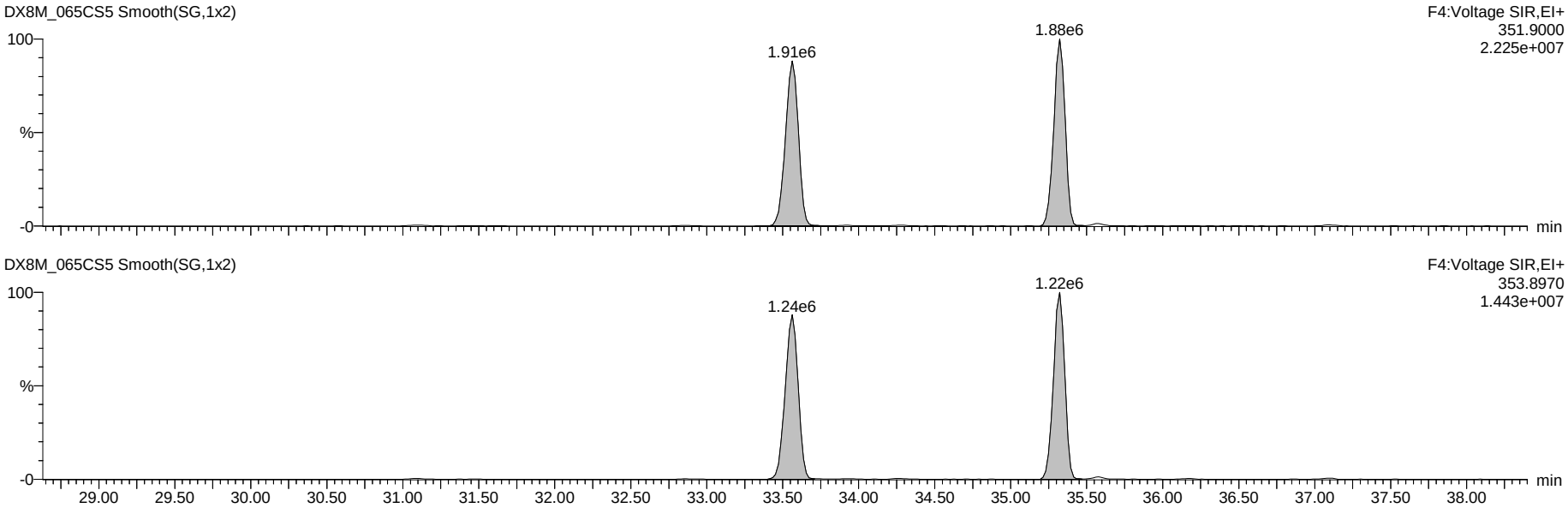

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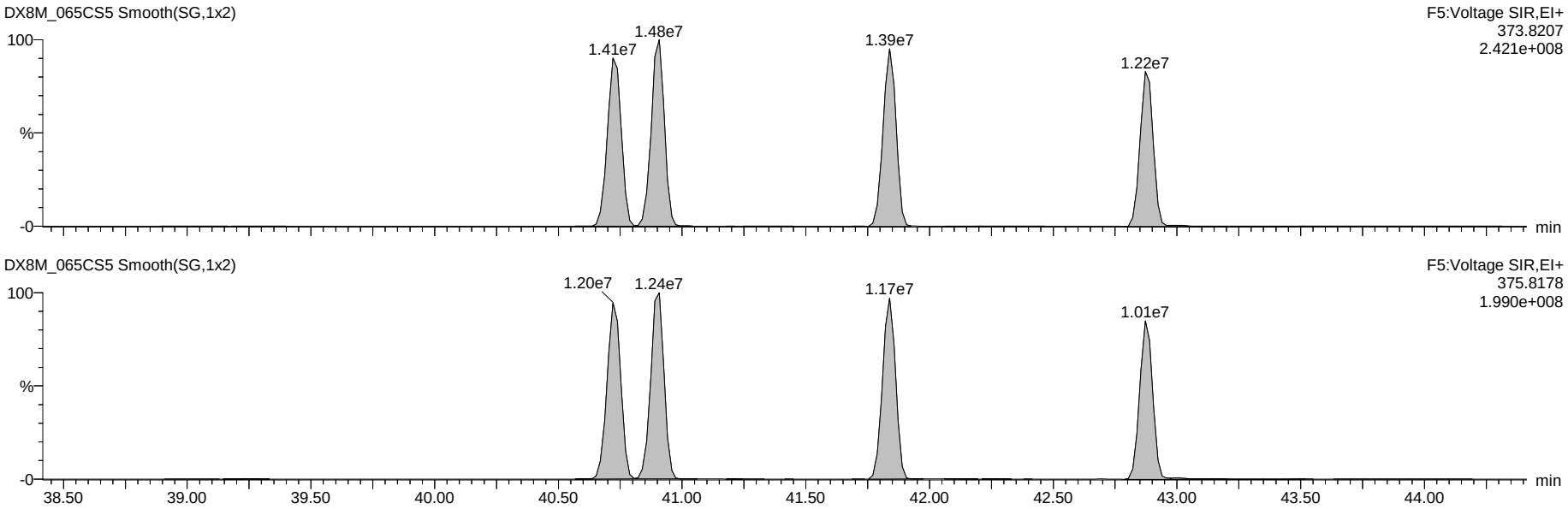
Total Hexa-Furans



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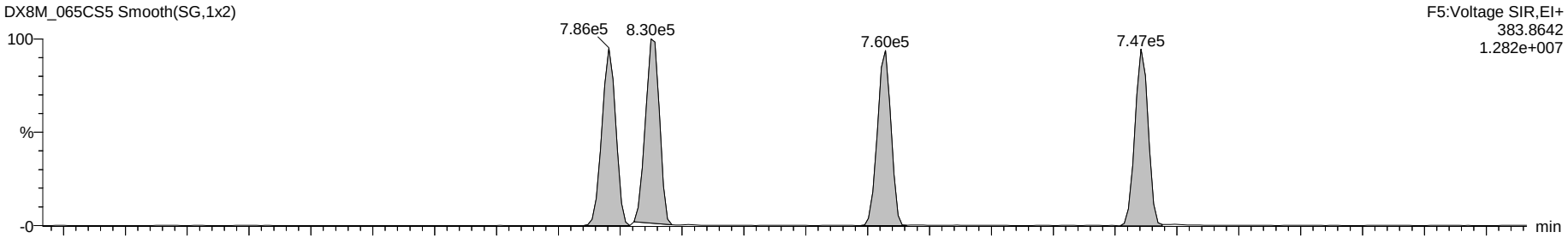

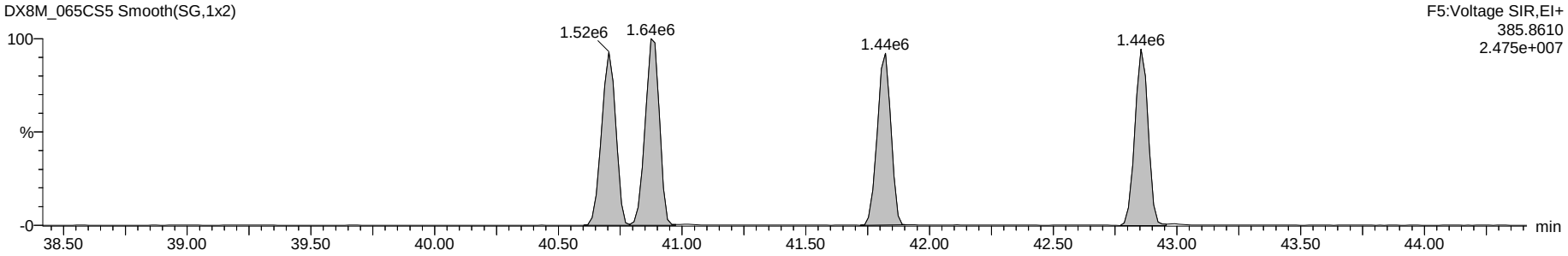

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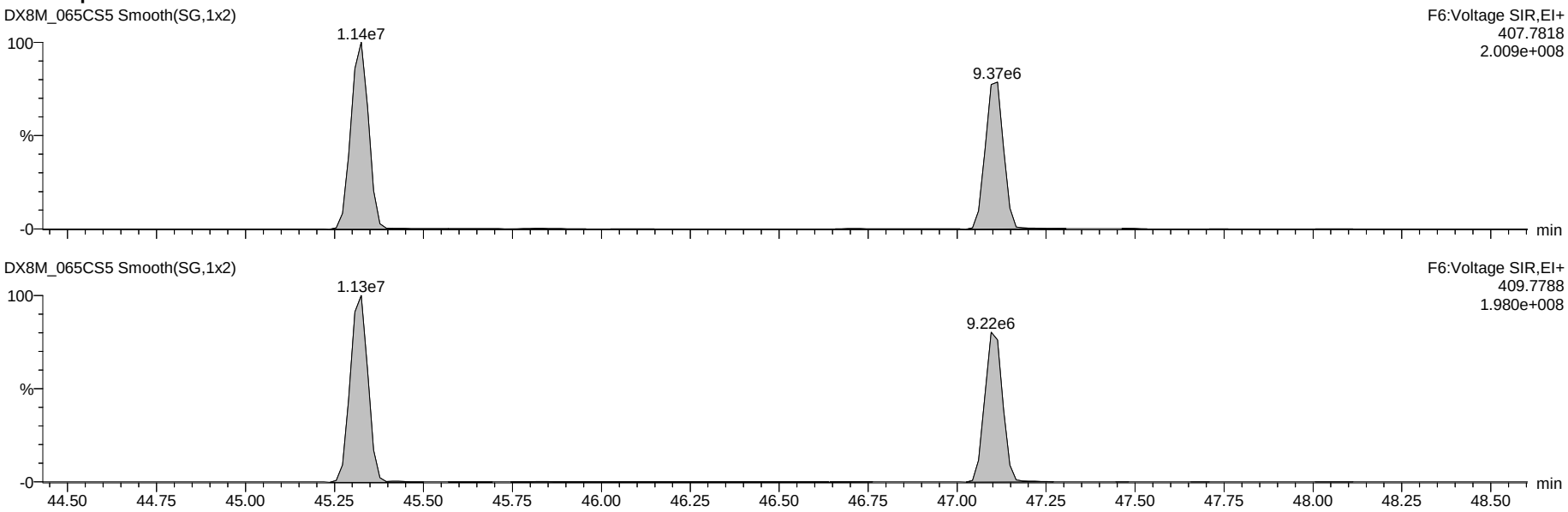
Total Hepta-Furans



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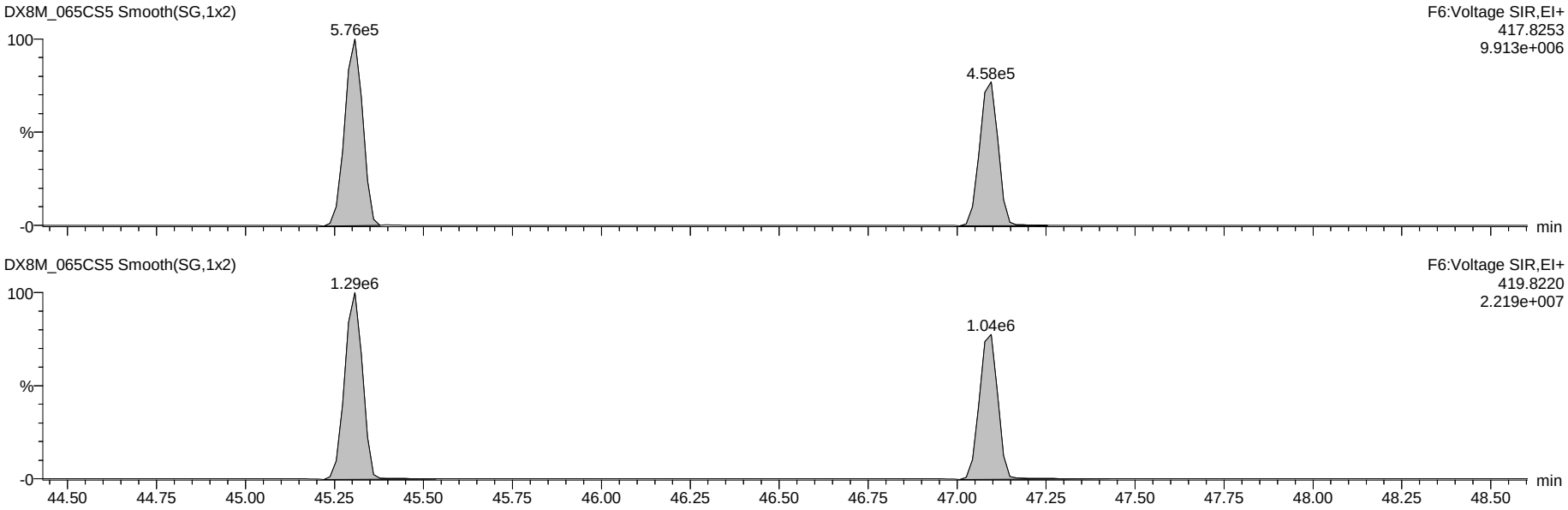

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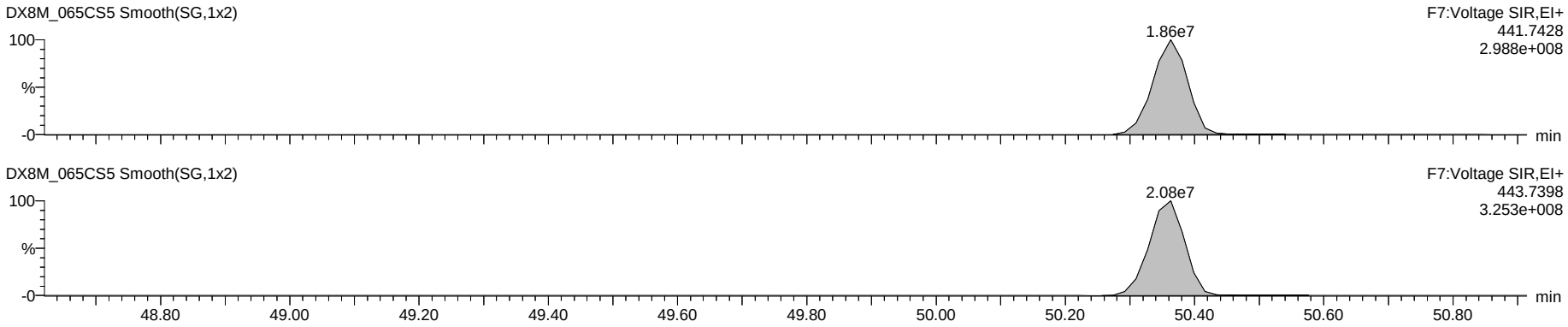
OCDF



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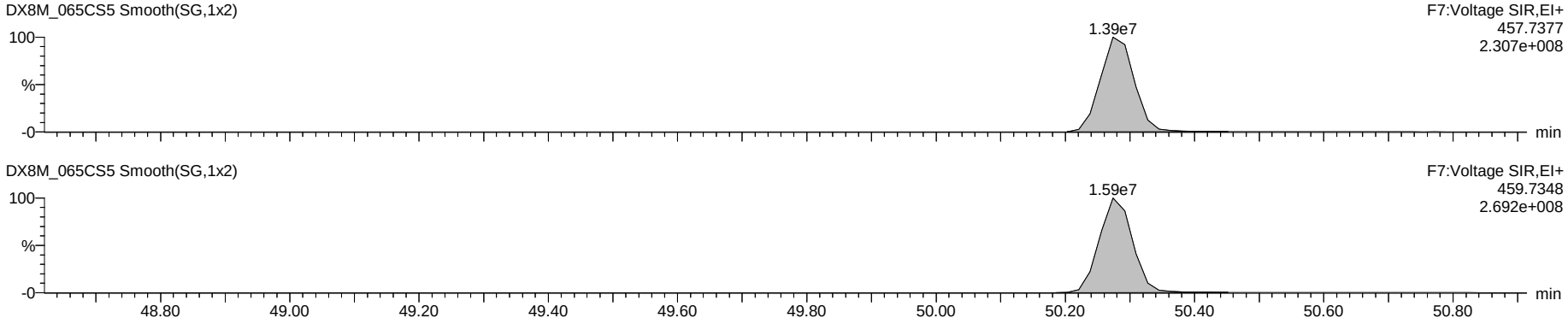

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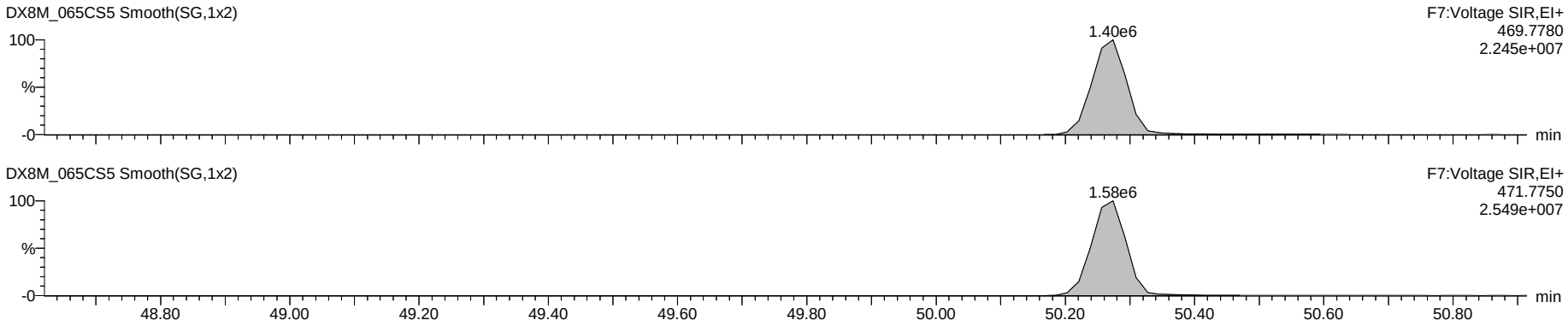

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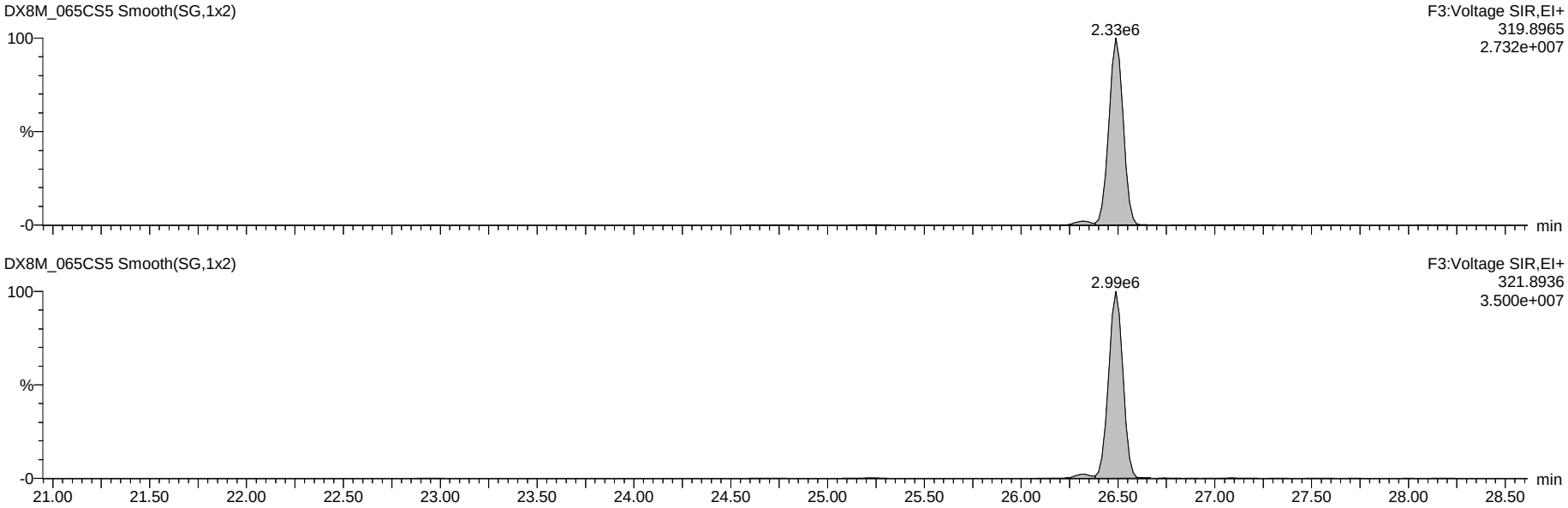
Total Tetra-Dioxins



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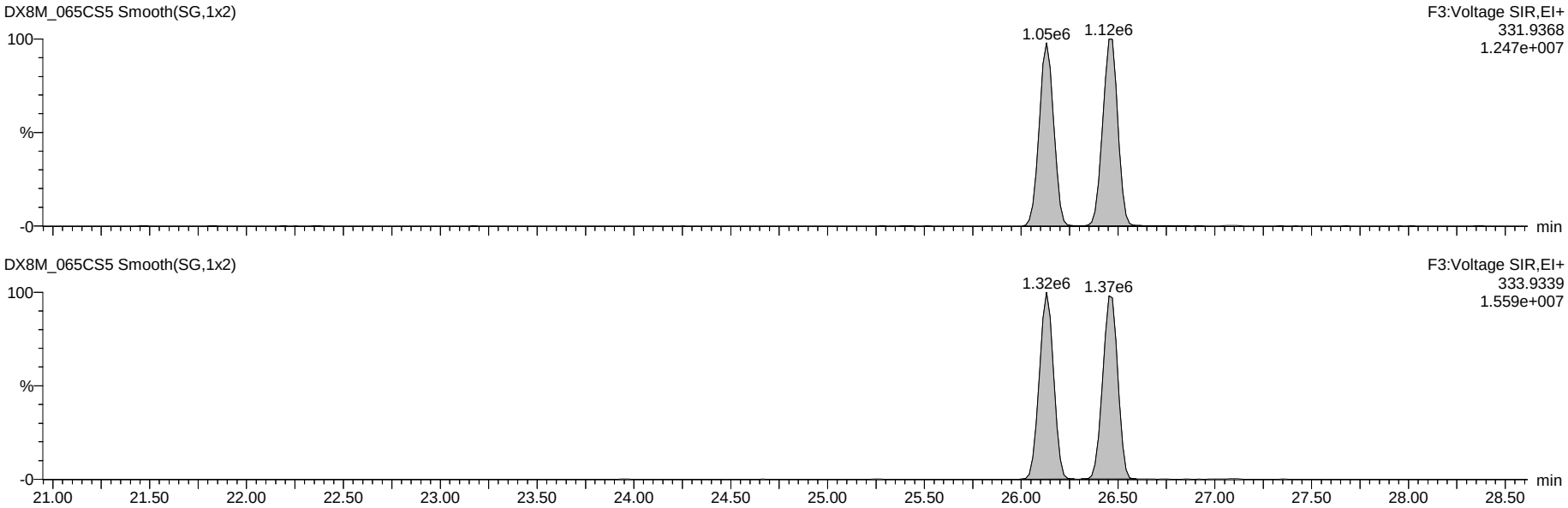

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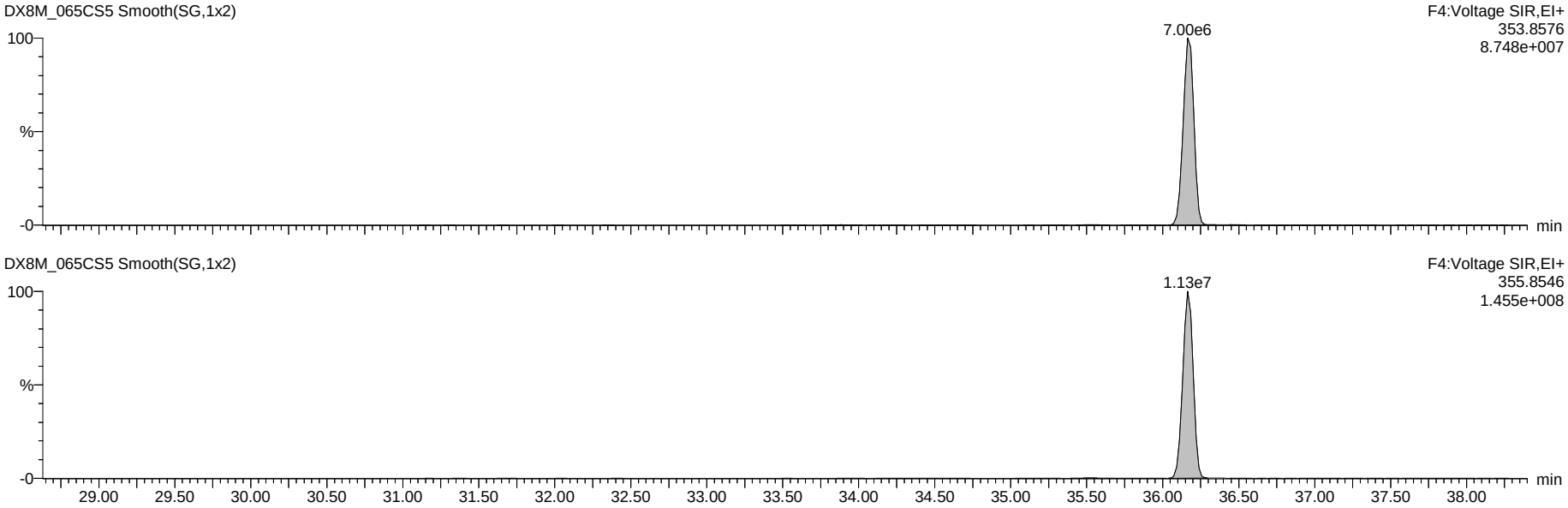
Total Penta-Dioxins



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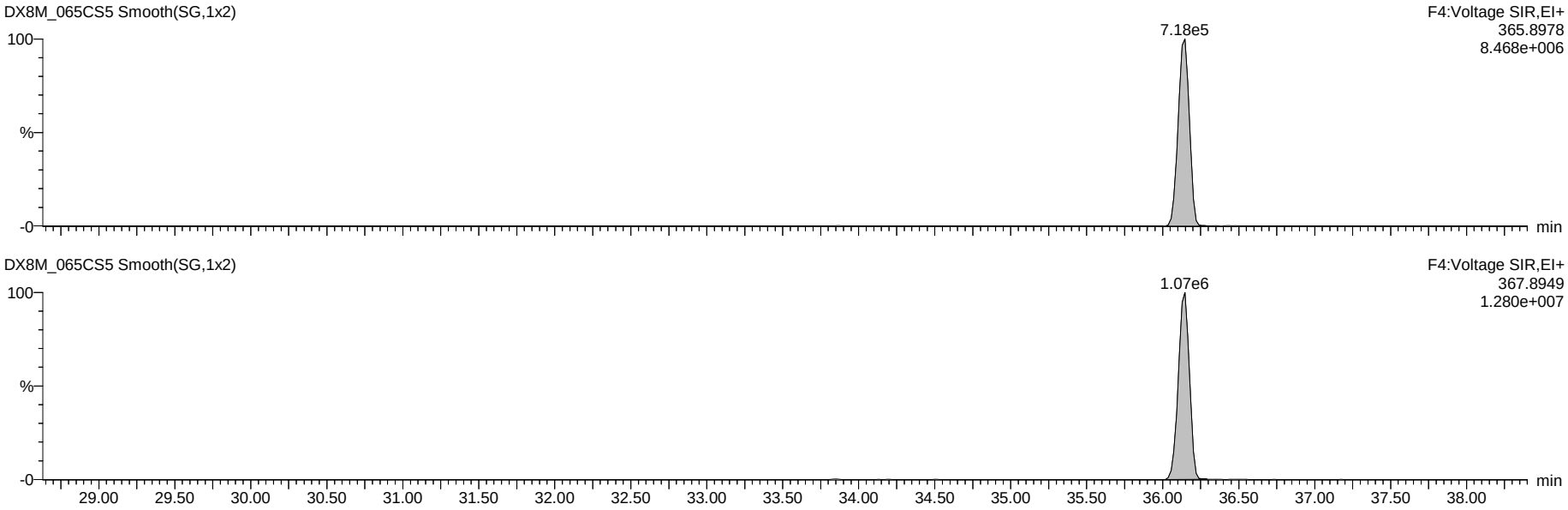

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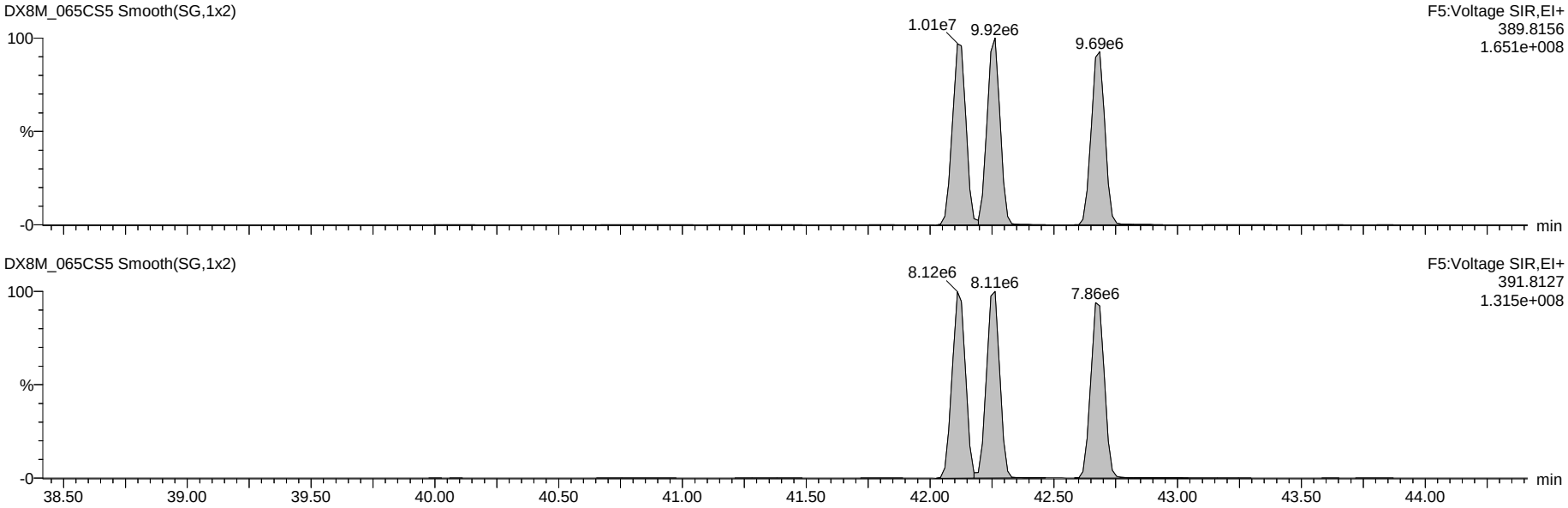
Total Hexa-Dioxins



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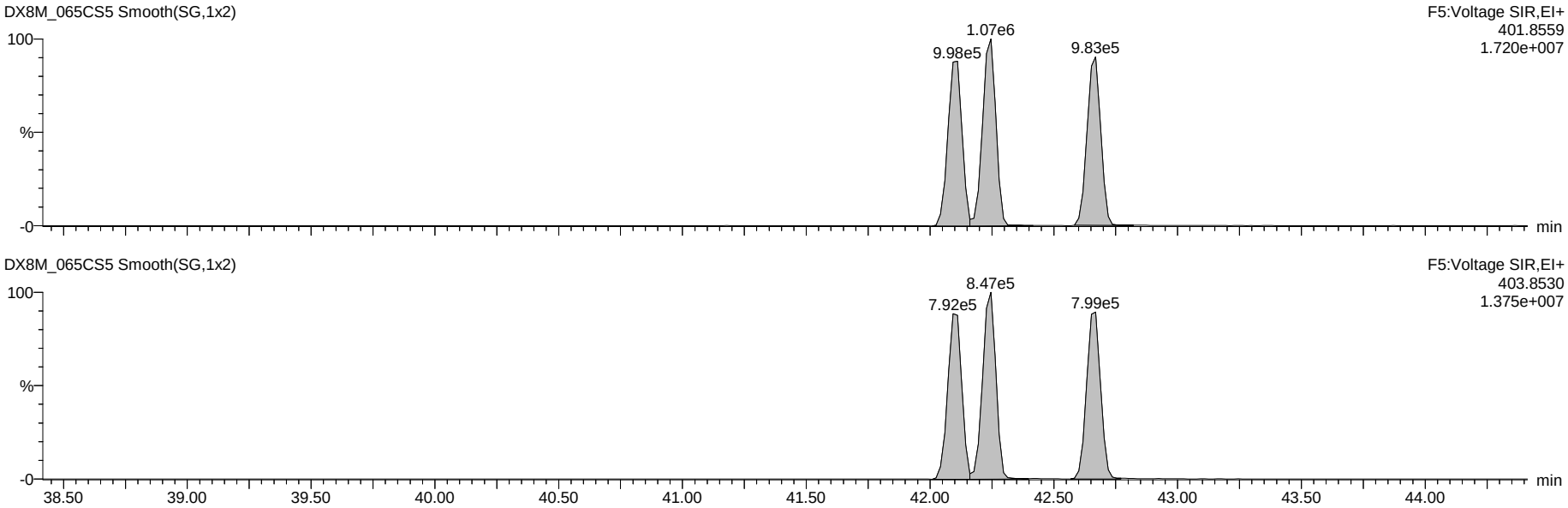

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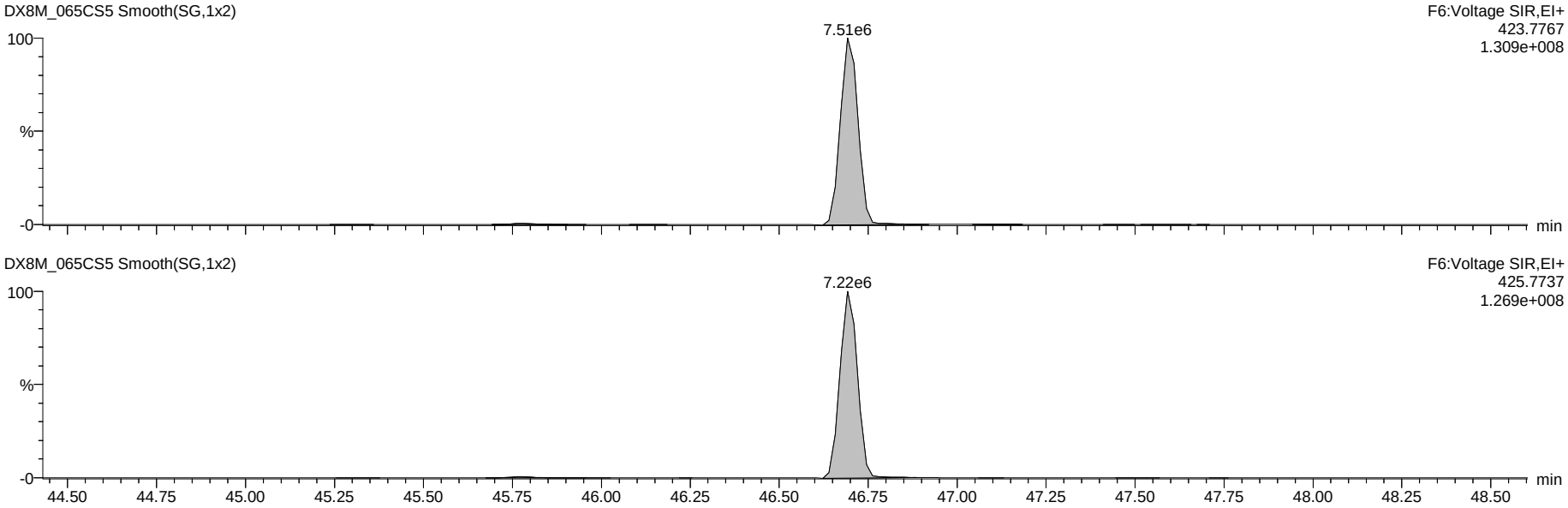
Total Hepta-Dioxins



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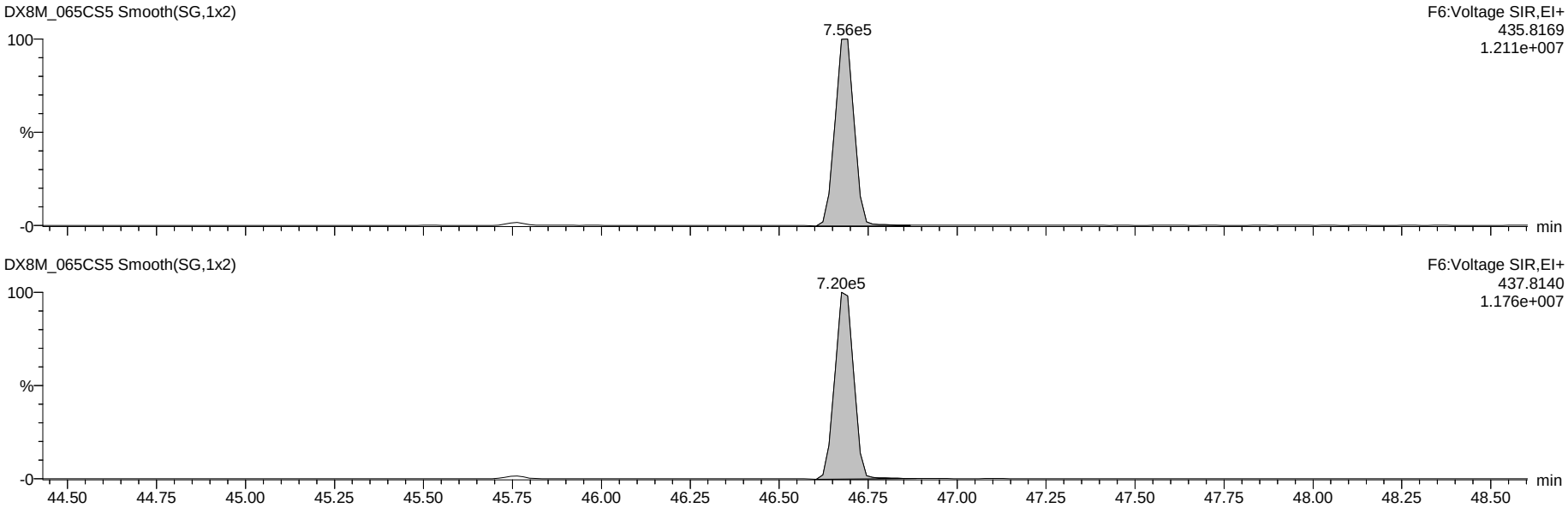

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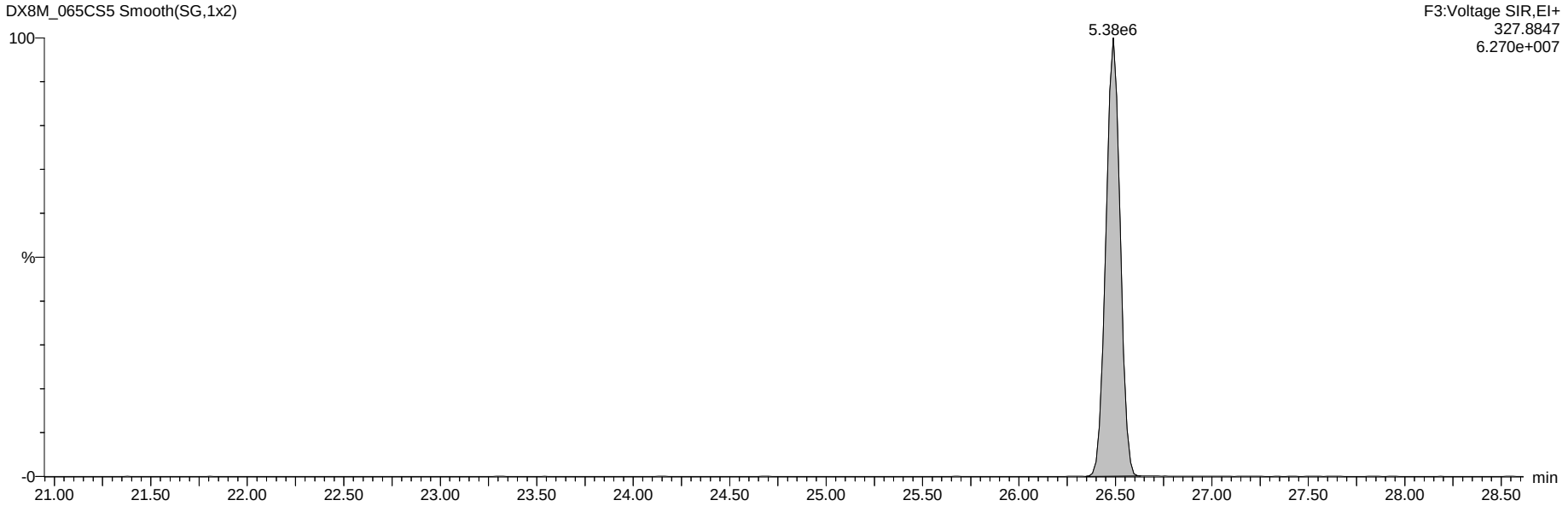
37Cl-2,3,7,8-TCDD



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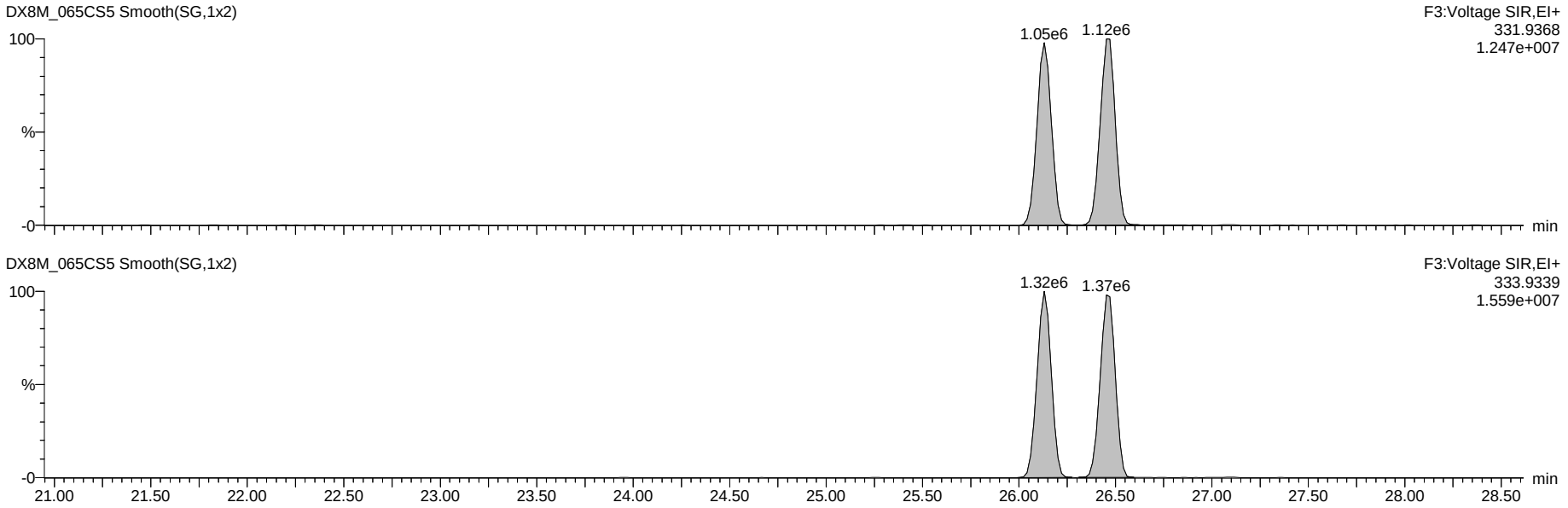

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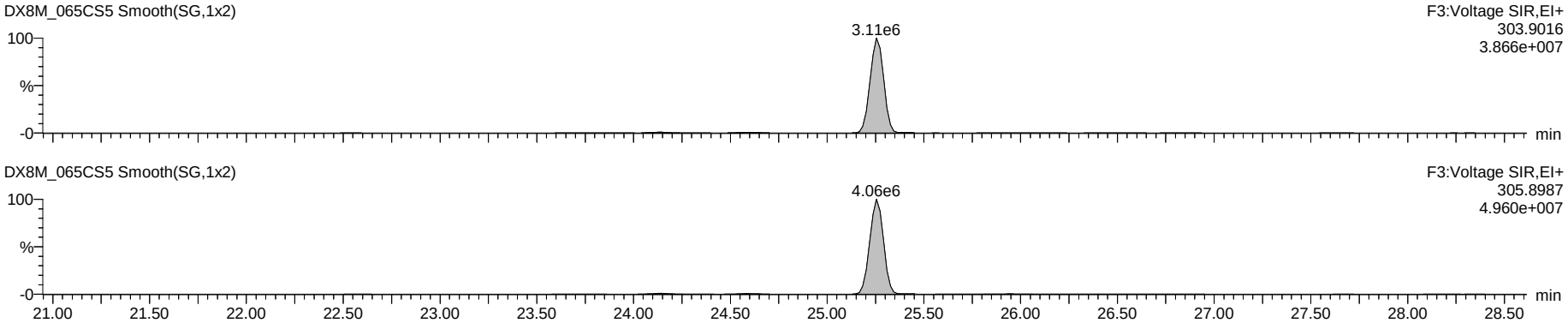
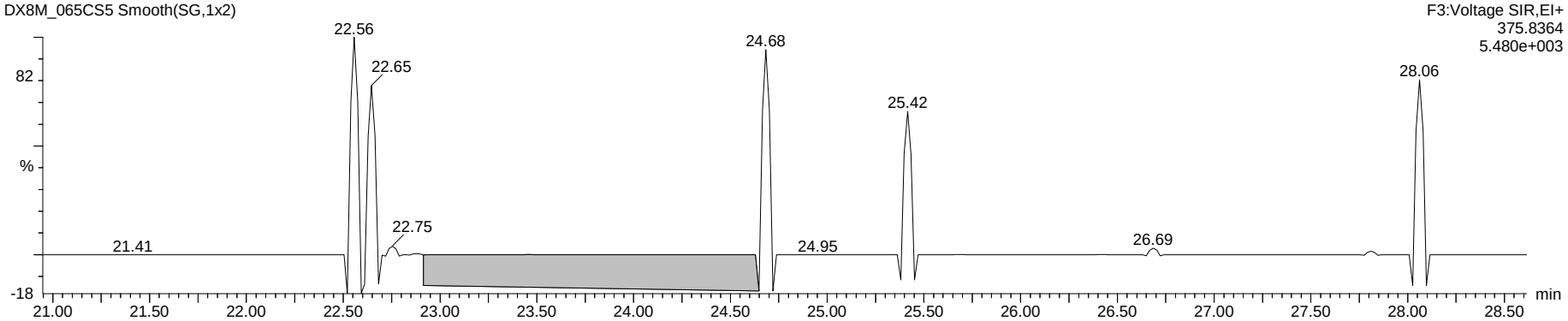
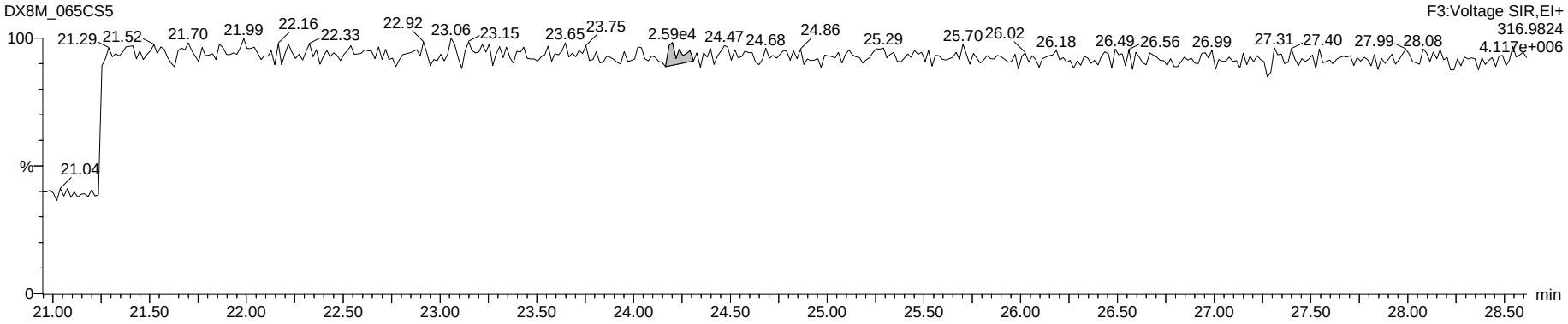
Total Tetra-Furans



Hexa DPE



Tetra Lock



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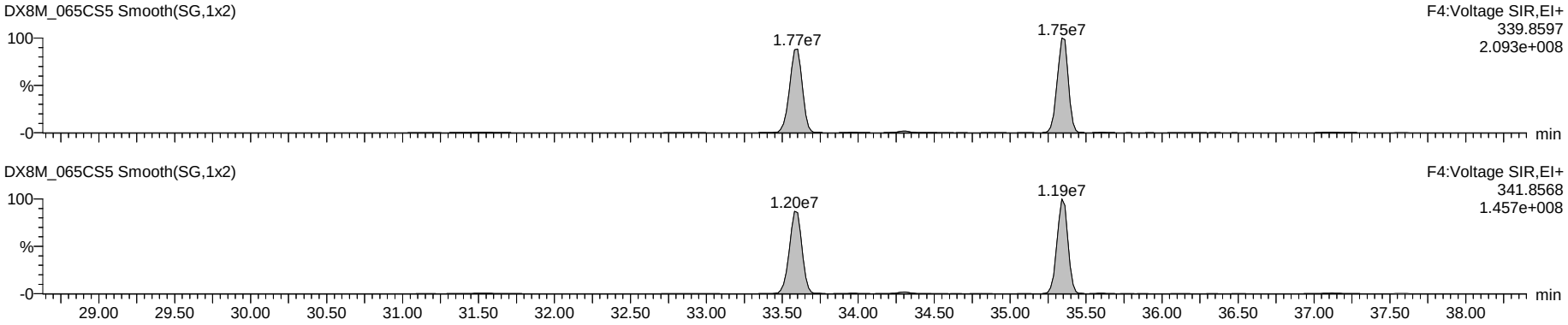
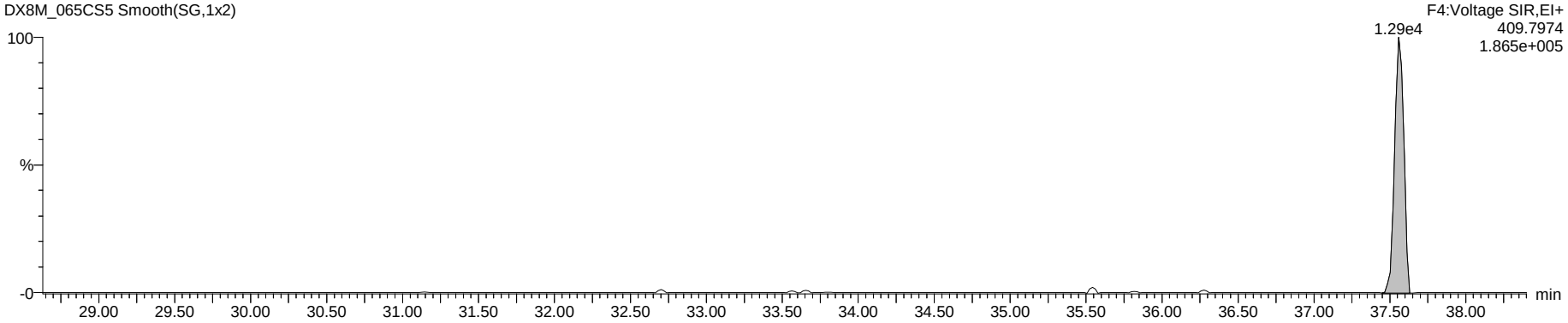
Name: DX8M_065CS5, Date: 04-Jun-2018, Time: 22:16:47, ID: DX041F-CAL,,/01, Description: 1,,1.0uL CS-5

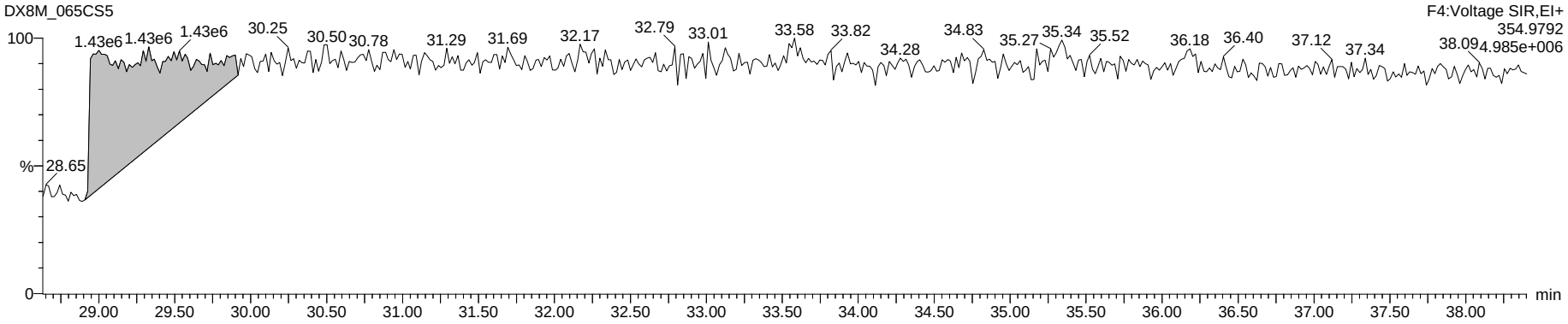
Total Penta-Furans



Hepta DPE



Penta Lock



Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6A.qld

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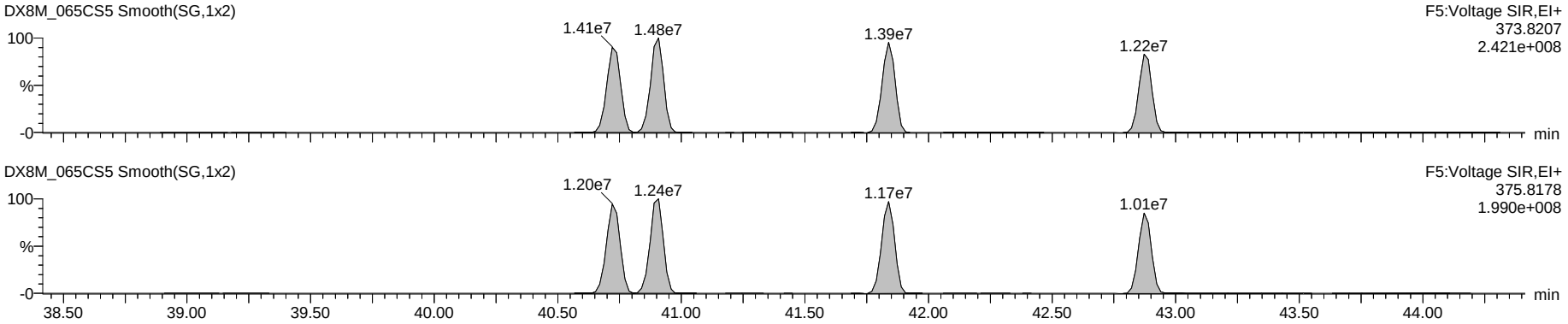
Total Hexa-Furans



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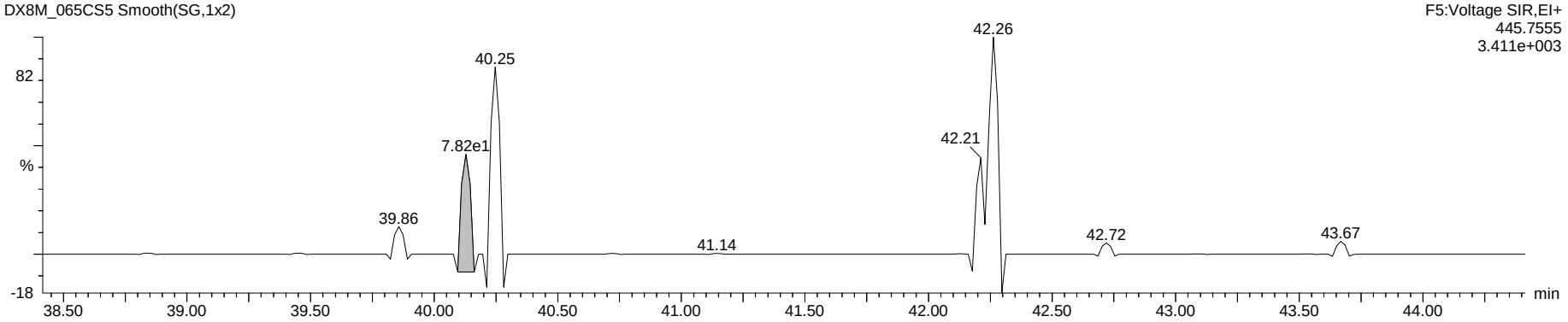

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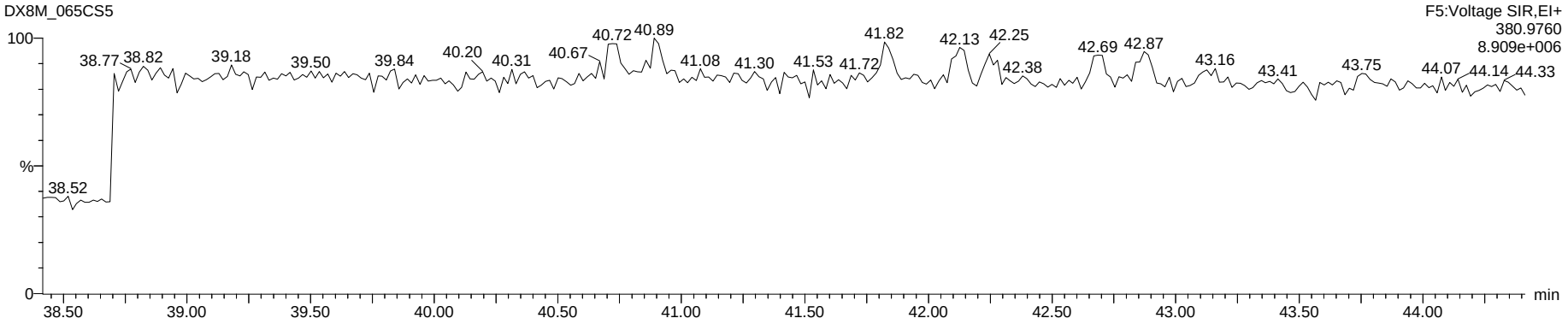

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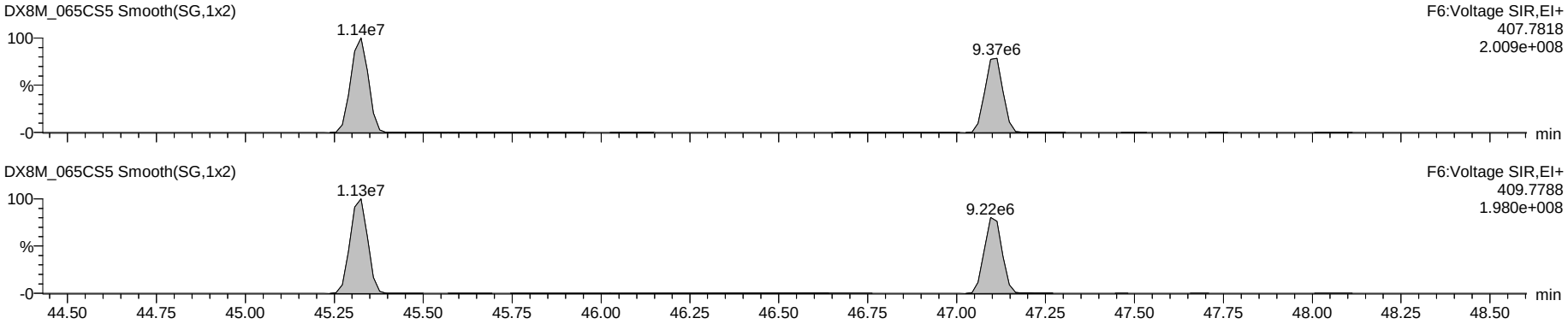
Total Hepta-Furans



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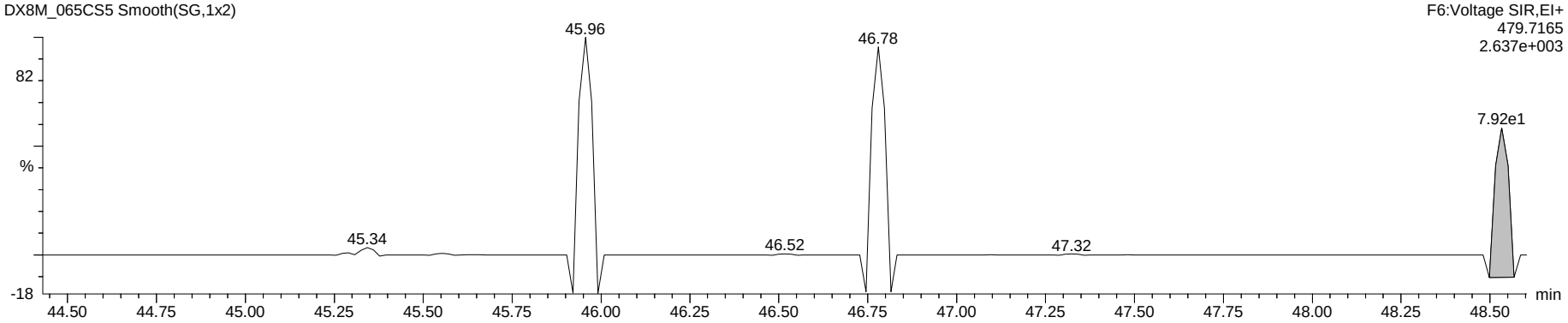
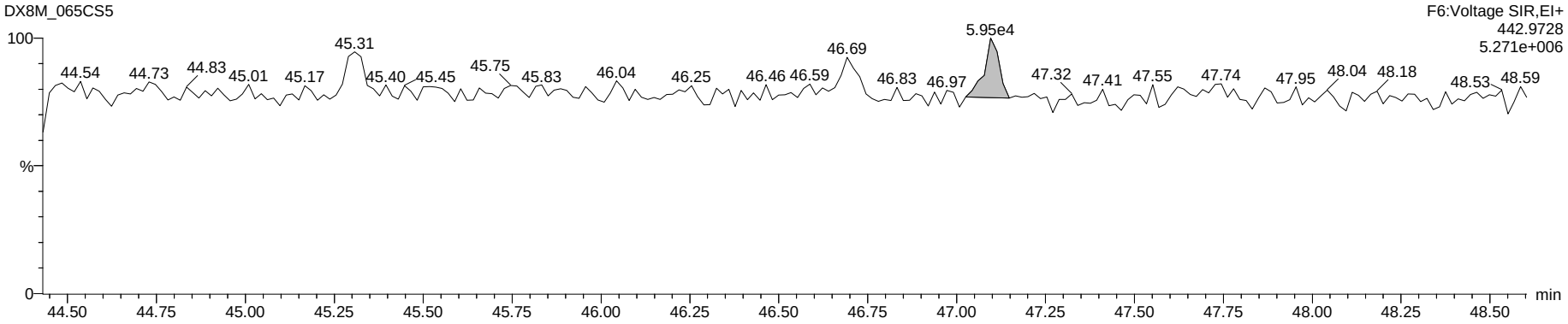


Hepta Lock



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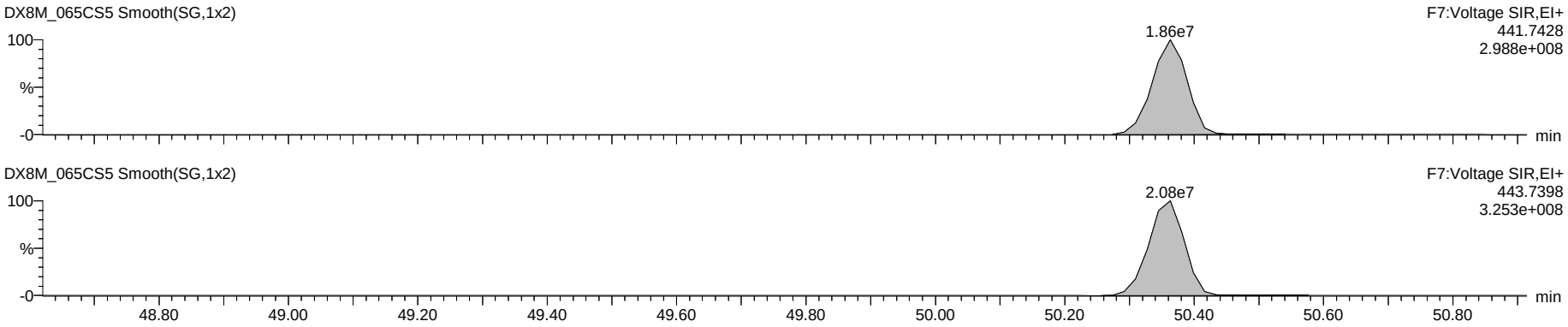
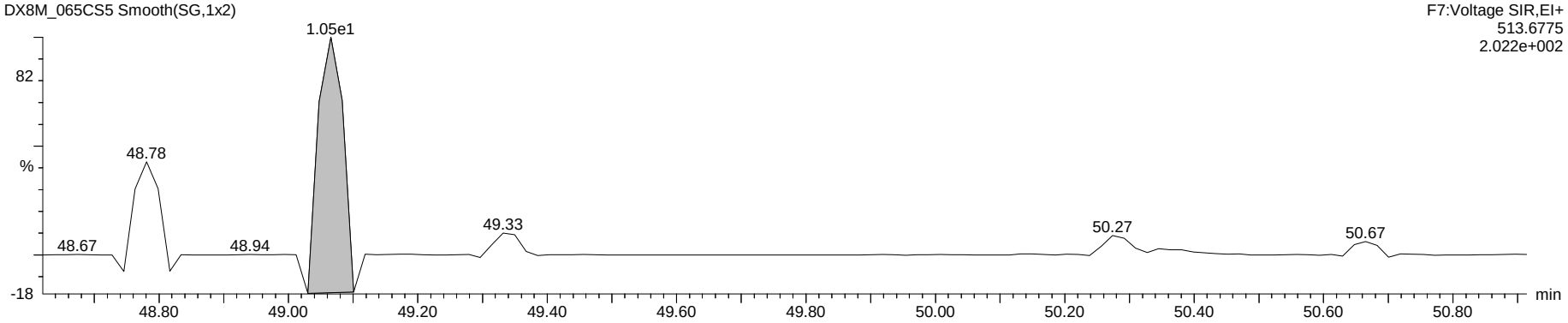
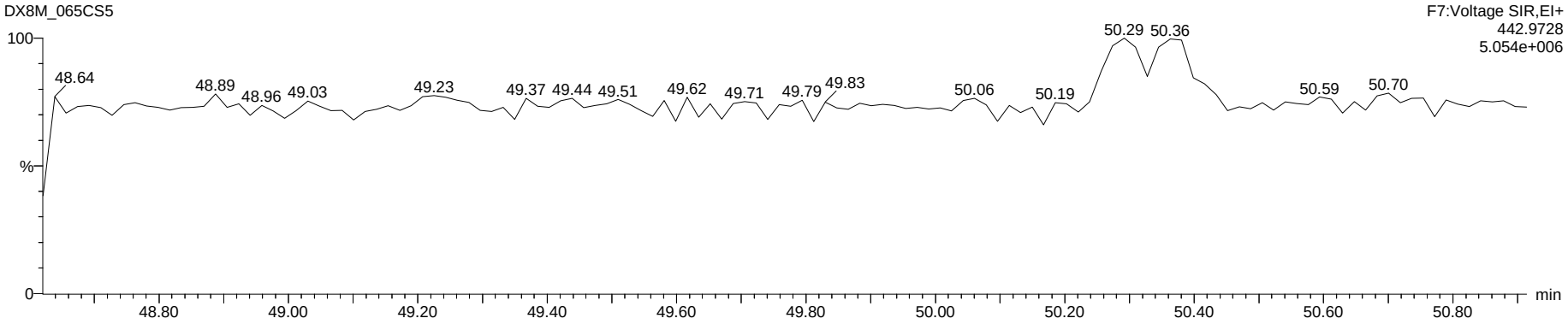
OCDF



Deca DPE



Octa Lock



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Name: DX8M_065CS8, Date: 05-Jun-2018, Time: 01:11:21, ID: DX003A-SSV,,/01, Description: 1,,1.0uL Cal

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	1.000	3.32e5	0.73	NO	25.26	10.264	0.0127	102.6	1.10e3	9.18e2
2	1,2,3,7,8-PeCDF	1.000	1.13e6	1.49	NO	33.58	50.216	0.0349	100.4	1.60e3	1.59e3
3	2,3,4,7,8-PeCDF	1.000	1.09e6	1.48	NO	35.34	49.594	0.0311	99.2	1.60e3	1.59e3
4	1,2,3,4,7,8-HxCDF	1.000	8.87e5	1.17	NO	40.72	48.481	0.0299	97.0	1.56e3	1.66e3
5	1,2,3,6,7,8-HxCDF	1.000	9.54e5	1.16	NO	40.89	50.355	0.0281	100.7	1.56e3	1.66e3
6	2,3,4,6,7,8-HxCDF	1.000	9.08e5	1.16	NO	41.84	50.923	0.0298	101.8	1.56e3	1.66e3
7	1,2,3,7,8,9-HxCDF	1.000	7.91e5	1.18	NO	42.87	50.662	0.0335	101.3	1.56e3	1.66e3
8	1,2,3,4,6,7,8-HpCDF	1.000	8.54e5	0.99	NO	45.31	53.764	0.0360	107.5	1.69e3	1.87e3
9	1,2,3,4,7,8,9-HpCDF	1.000	6.47e5	0.99	NO	47.10	49.530	0.0415	99.1	1.69e3	1.87e3
10	OCDF	1.000	1.11e6	0.87	NO	50.35	107.836	0.0211	107.8	8.83e2	4.18e2
11	2,3,7,8-TCDD	1.000	2.42e5	0.77	NO	26.49	10.069	0.0139	100.7	7.40e2	7.68e2
12	1,2,3,7,8-PeCDD	1.000	7.22e5	0.62	NO	36.17	51.628	0.0249	103.3	8.45e2	8.09e2
13	1,2,3,4,7,8-HxCDD	1.000	6.51e5	1.24	NO	42.11	51.275	0.0340	102.6	1.74e3	1.04e3
14	1,2,3,6,7,8-HxCDD	1.000	6.51e5	1.26	NO	42.25	52.033	0.0357	104.1	1.74e3	1.04e3
15	1,2,3,7,8,9-HxCDD	1.000	6.44e5	1.24	NO	42.67	50.912	0.0347	101.8	1.74e3	1.04e3
16	1,2,3,4,6,7,8-HpCDD	1.000	5.22e5	1.03	NO	46.69	51.465	0.0266	102.9	6.40e2	1.17e3
17	OCDD	1.000	8.62e5	0.89	NO	50.26	101.373	0.0600	101.4	1.61e3	1.46e3
18	13C-2,3,7,8-TCDF	1.000	3.54e6	0.76	NO	25.24	99.971	0.0725	100.0	4.98e3	6.63e3
19	13C-1,2,3,7,8-PeCDF	1.000	2.43e6	1.54	NO	33.56	95.186	0.0458	95.2	1.35e3	3.95e3
20	13C-2,3,4,7,8-PeCDF	1.000	2.35e6	1.56	NO	35.32	95.483	0.0475	95.5	1.35e3	3.95e3
21	13C-1,2,3,4,7,8-HxCDF	1.000	1.64e6	0.52	NO	40.70	99.362	0.0610	99.4	3.84e3	2.51e3
22	13C-1,2,3,6,7,8-HxCDF	1.000	1.78e6	0.52	NO	40.87	101.197	0.0571	101.2	3.84e3	2.51e3
23	13C-2,3,4,6,7,8-HxCDF	1.000	1.56e6	0.52	NO	41.81	99.399	0.0639	99.4	3.84e3	2.51e3
24	13C-1,2,3,7,8,9-HxCDF	1.000	1.56e6	0.54	NO	42.85	100.698	0.0648	100.7	3.84e3	2.51e3
25	13C-1,2,3,4,6,7,8-HpCDF	1.000	1.30e6	0.46	NO	45.29	98.673	0.0685	98.7	2.82e3	2.87e3
26	13C-1,2,3,4,7,8,9-HpCDF	1.000	1.04e6	0.46	NO	47.08	101.607	0.0878	101.6	2.82e3	2.87e3
27	13C-2,3,7,8-TCDD	1.000	2.16e6	0.81	NO	26.47	98.293	0.0873	98.3	5.13e3	3.58e3
28	13C-1,2,3,7,8-PeCDD	1.000	1.36e6	0.65	NO	36.15	94.509	0.0723	94.5	3.94e3	7.77e2
29	13C-1,2,3,4,7,8-HxCDD	1.000	1.27e6	1.26	NO	42.09	99.514	0.0562	99.5	1.76e3	2.75e3
30	13C-1,2,3,6,7,8-HxCDD	1.000	1.34e6	1.25	NO	42.23	99.598	0.0531	99.6	1.76e3	2.75e3
31	13C-1,2,3,4,6,7,8-HpCDD	1.000	1.02e6	1.02	NO	46.67	96.980	0.1276	97.0	4.17e3	4.30e3
32	13C-OCDD	1.000	1.67e6	0.88	NO	50.24	180.681	0.1429	90.3	2.04e3	6.30e3
33	13C-1,2,3,4-TCDD	1.000	2.19e6	0.78	NO	26.13	96.921	0.0850	96.9	5.13e3	3.58e3
34	13C-1,2,3,7,8,9-HxCDD	1.000	1.29e6	1.23	NO	42.65	90.486	0.0500	90.5	1.76e3	2.75e3
35	37Cl-2,3,7,8-TCDD	1.000	2.21e5			26.49	9.050	0.0019	90.5		2.14e2
36	Total Tetra-Furans	1.000					10.504	0.0127			9.18e2
37	Total Tetra-Dioxins	1.000					10.411	0.0139			7.68e2
38	Total Penta-Furans	1.000					101.849	0.0333			1.59e3
39	Total Penta-Dioxins	1.000					52.140	0.0249			8.09e2
40	Total Hexa-Furans	1.000					201.824	0.0292			1.66e3
41	Total Hexa-Dioxins	1.000					155.428	0.0336			1.04e3
42	Total Hepta-Furans	1.000					105.030	0.0389			1.87e3
43	Total Hepta-Dioxins	1.000					52.954	0.0266			1.17e3
44	Hexa DPE	1.000	1.70e2			25.47					5.62e-1
45	Hepta DPE	1.000	6.00e2			37.58					5.80e1
46	Octa DPE	1.000	4.39e1			39.81					6.32e-1
47	Nona DPE	1.000	1.25e1			46.20					3.06e-1
48	Deca DPE	1.000	1.90e0			48.78					6.98e-1
49	Tetra Lock	1.000	1.11e3			23.74					2.12e5
50	Penta Lock	1.000	9.73e5			29.24					3.89e5
51	Hexa Lock	1.000	6.26e5			38.93					7.96e5
52	Hepta Lock	1.000	1.49e4			47.67					2.78e5
53	Octa Lock	1.000									2.52e5
54	13C-Tetra-Furans	1.000					99.971	0.0725			6.63e3
55	13C-Tetra-Dioxins	1.000					195.214	0.1723			3.58e3

pv'd by LHE 06-JUNE-2018

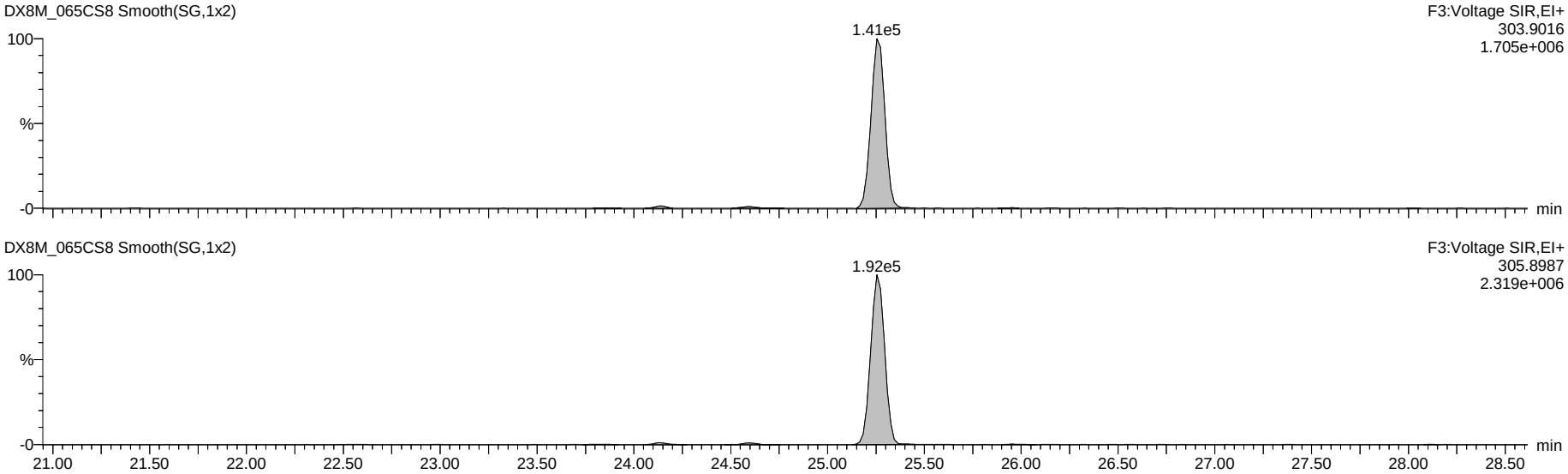
SVaj KB 06Jun2018

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6qc.qld

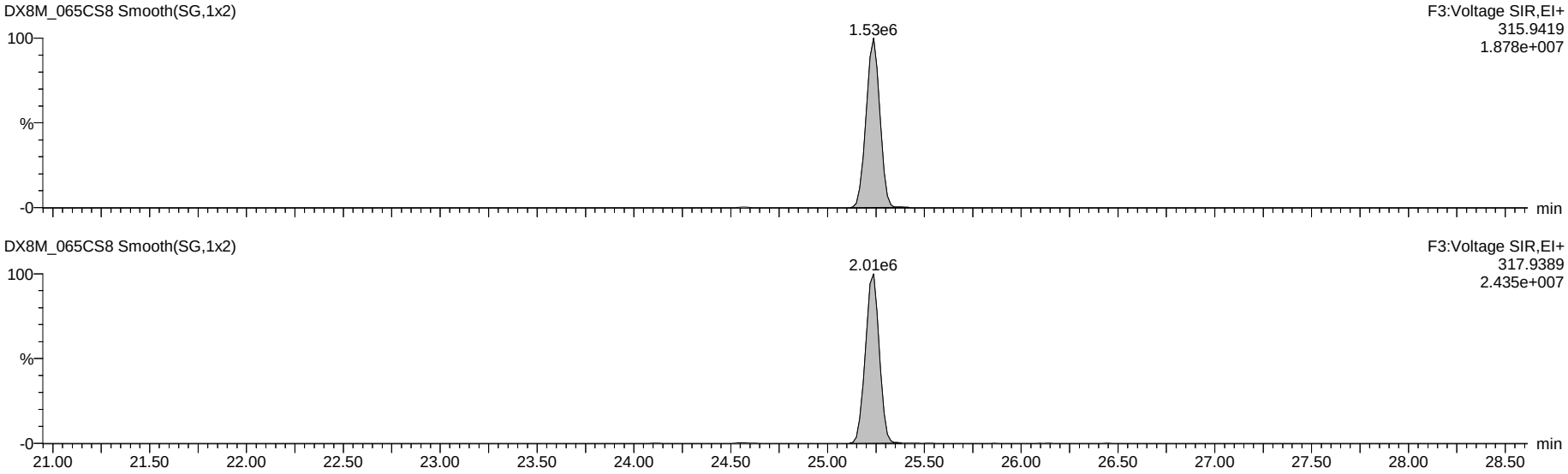
Method: G:\Masslynx\Inst_M\Projects\180604DX.PRO\MethDB\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_065CS8, Date: 05-Jun-2018, Time: 01:11:21, ID: DX003A-SSV,,/01, Description: 1,,1.0uL Cal

Total Tetra-Furans



13C-Tetra-Furans



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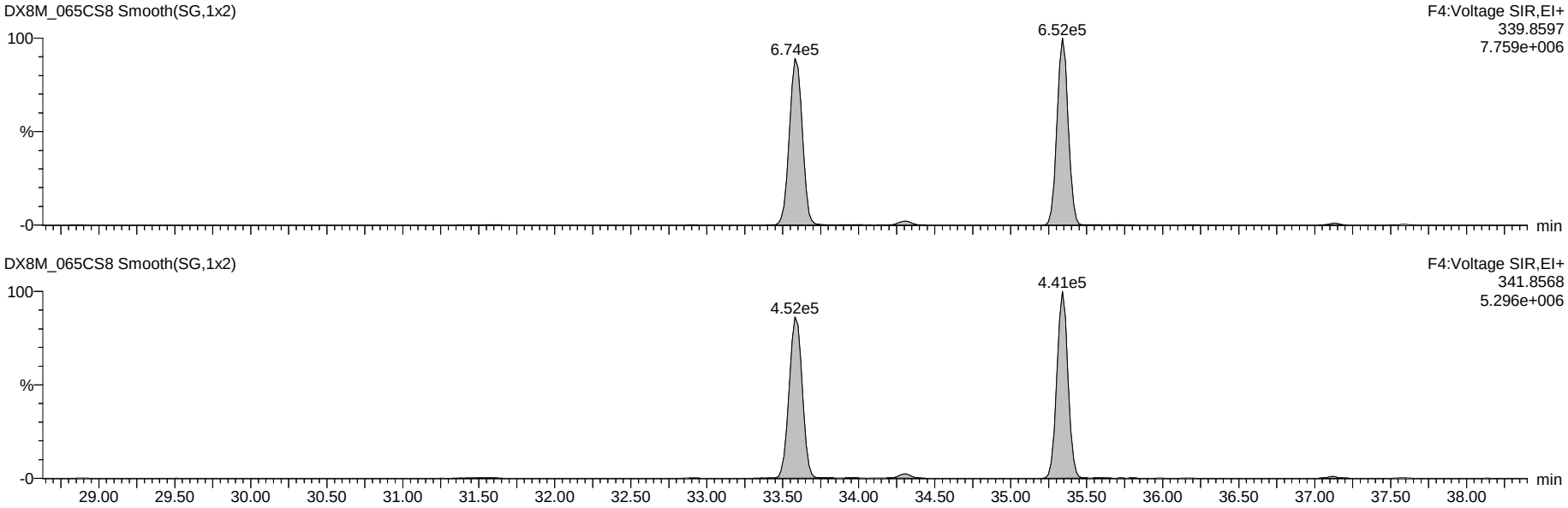
Total Penta-Furans



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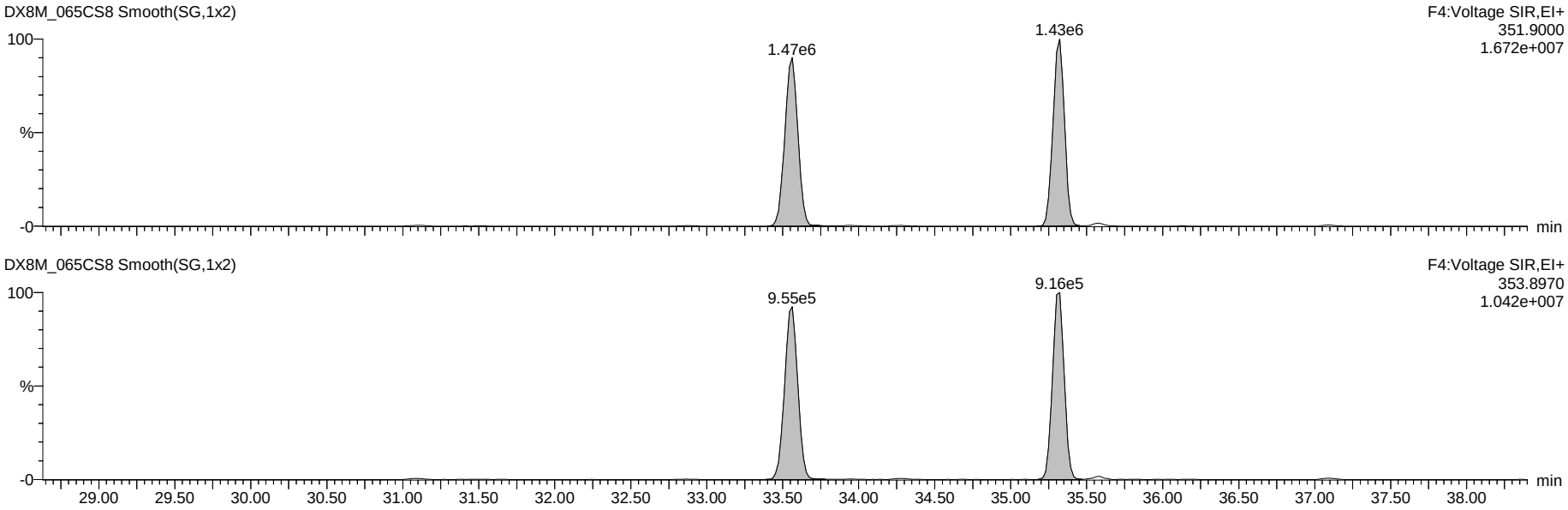

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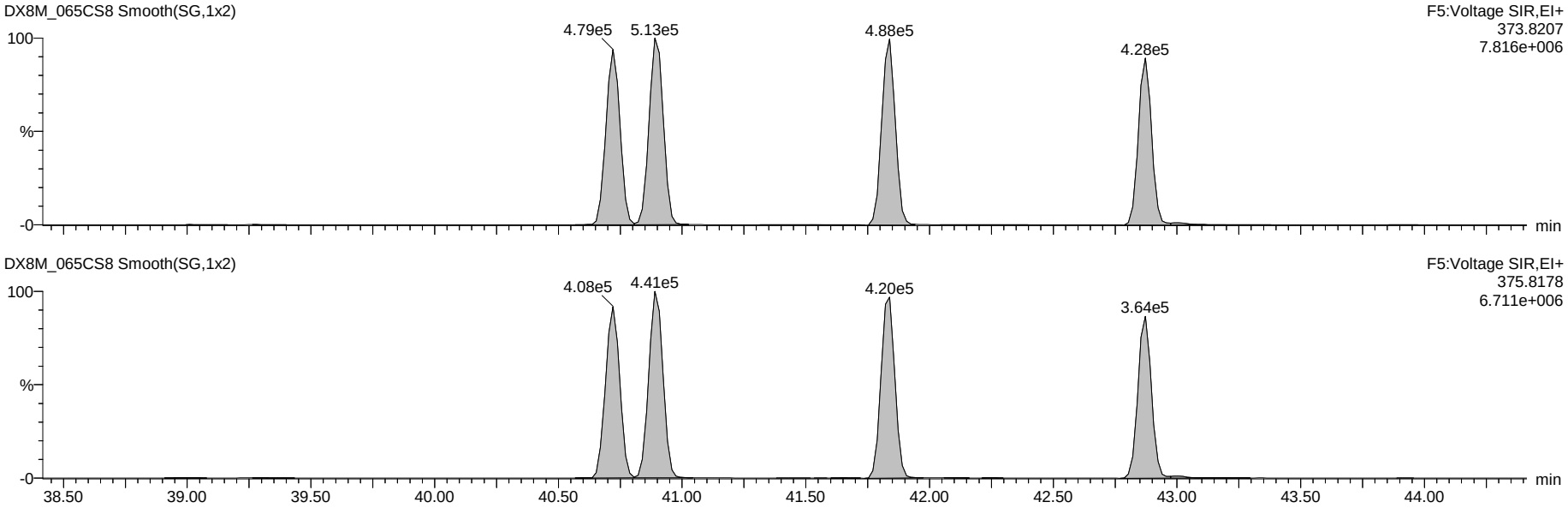
Total Hexa-Furans



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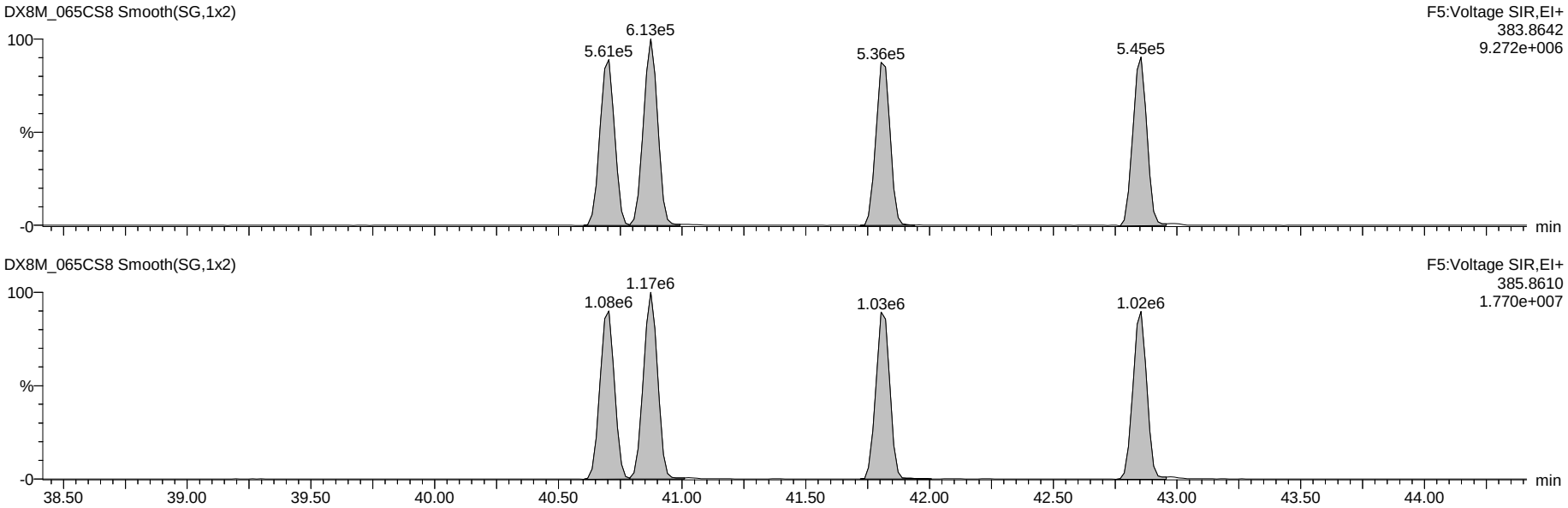

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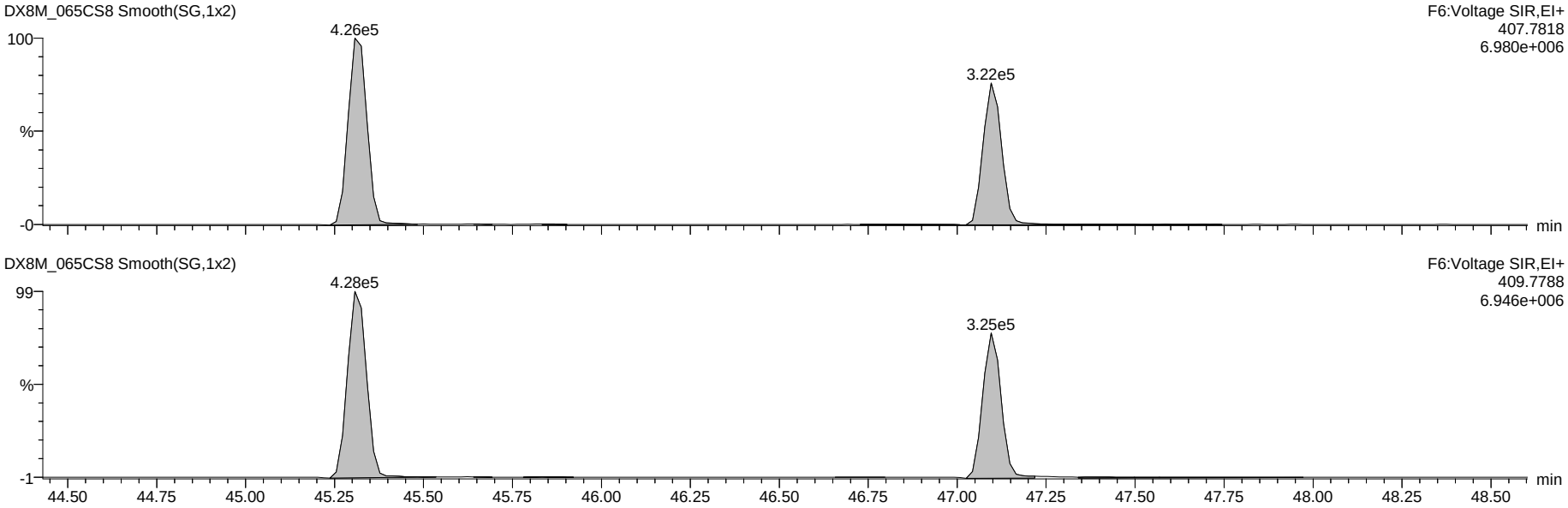
Total Hepta-Furans



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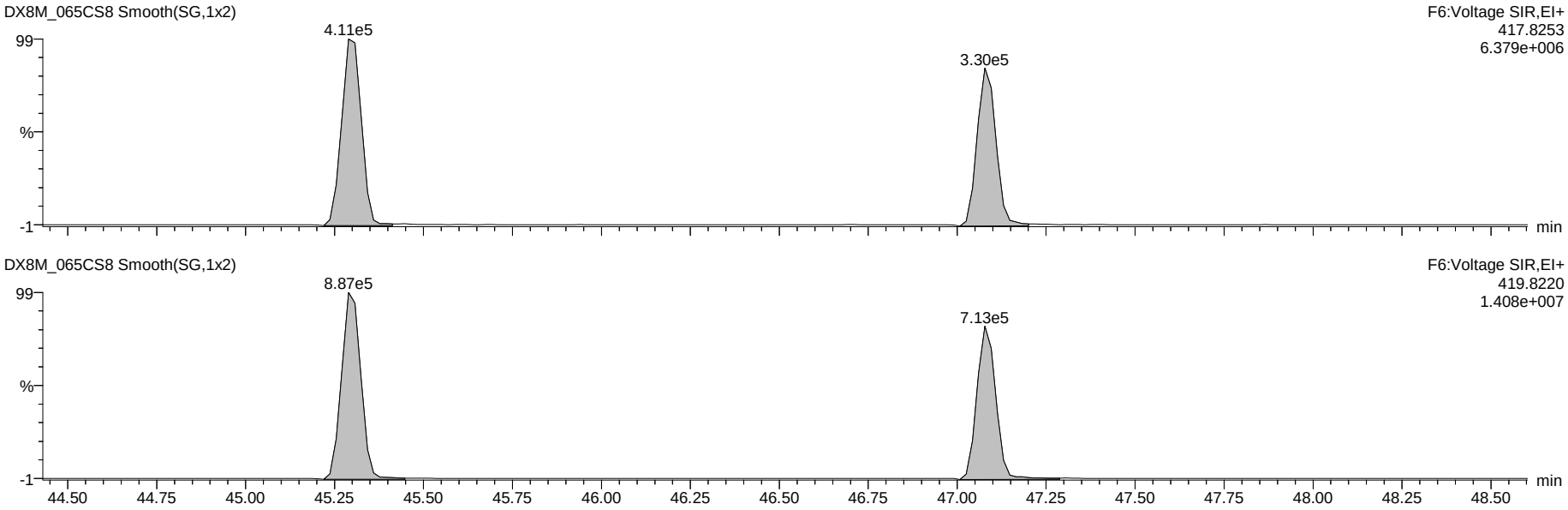

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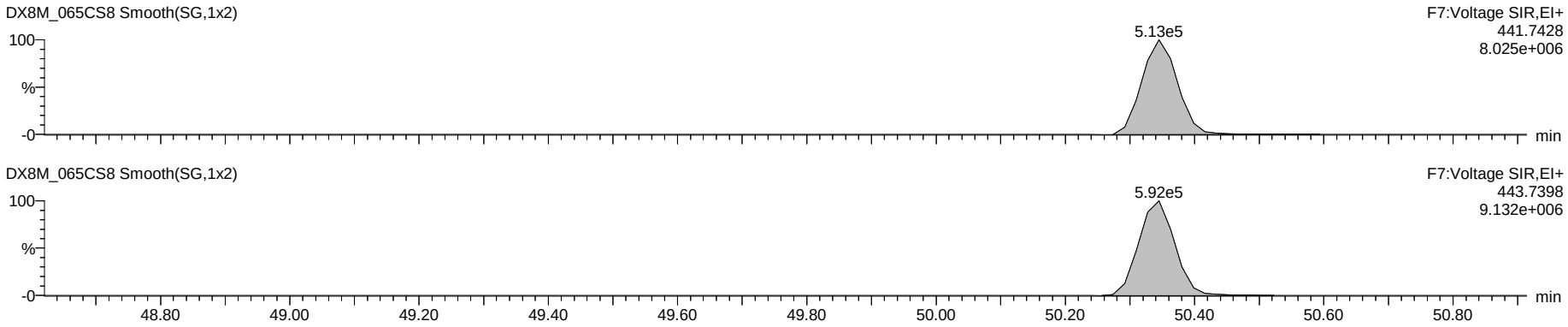
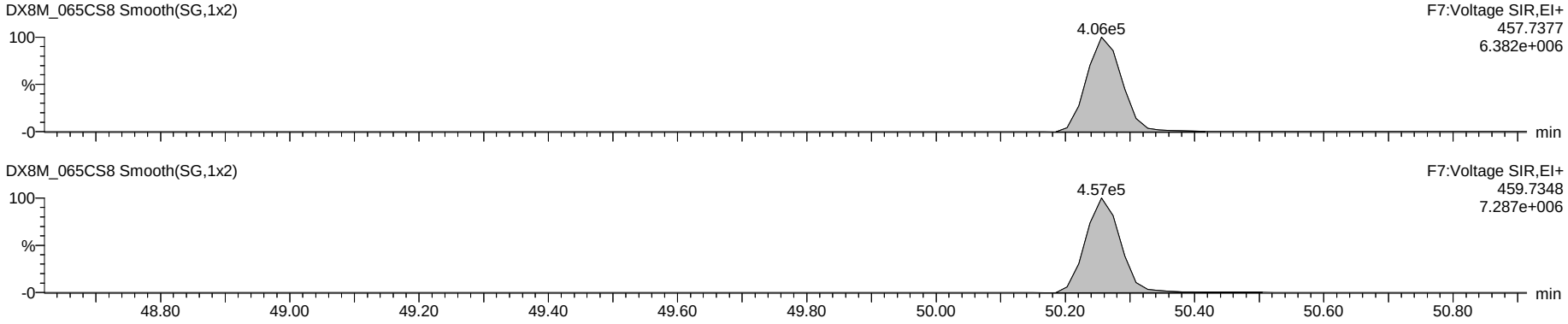
OCDF



OCDD



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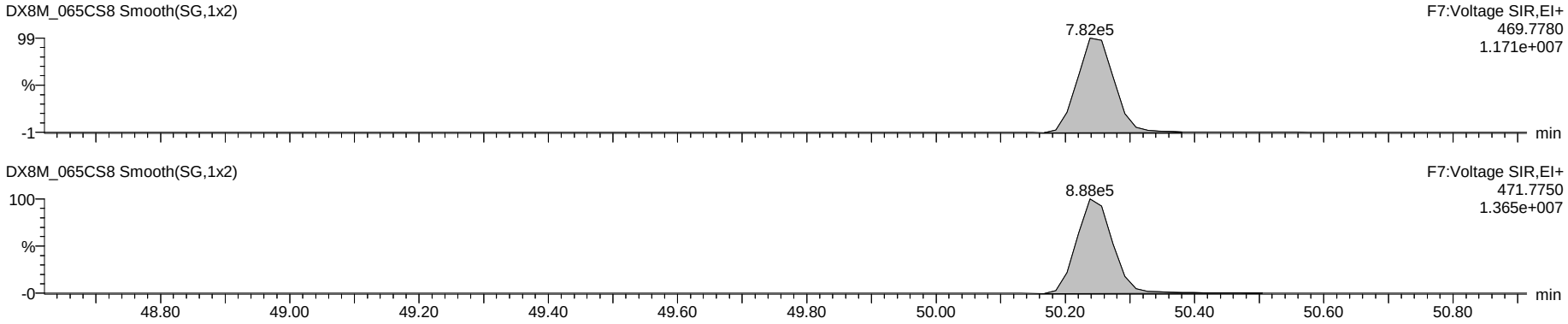

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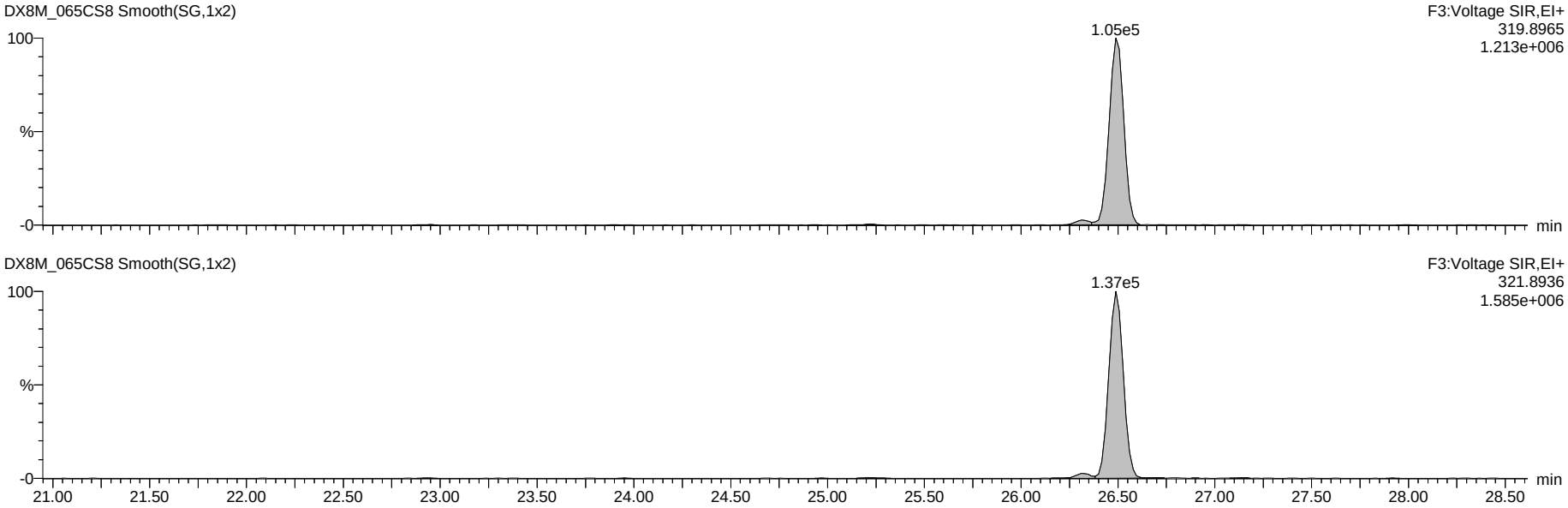
Total Tetra-Dioxins



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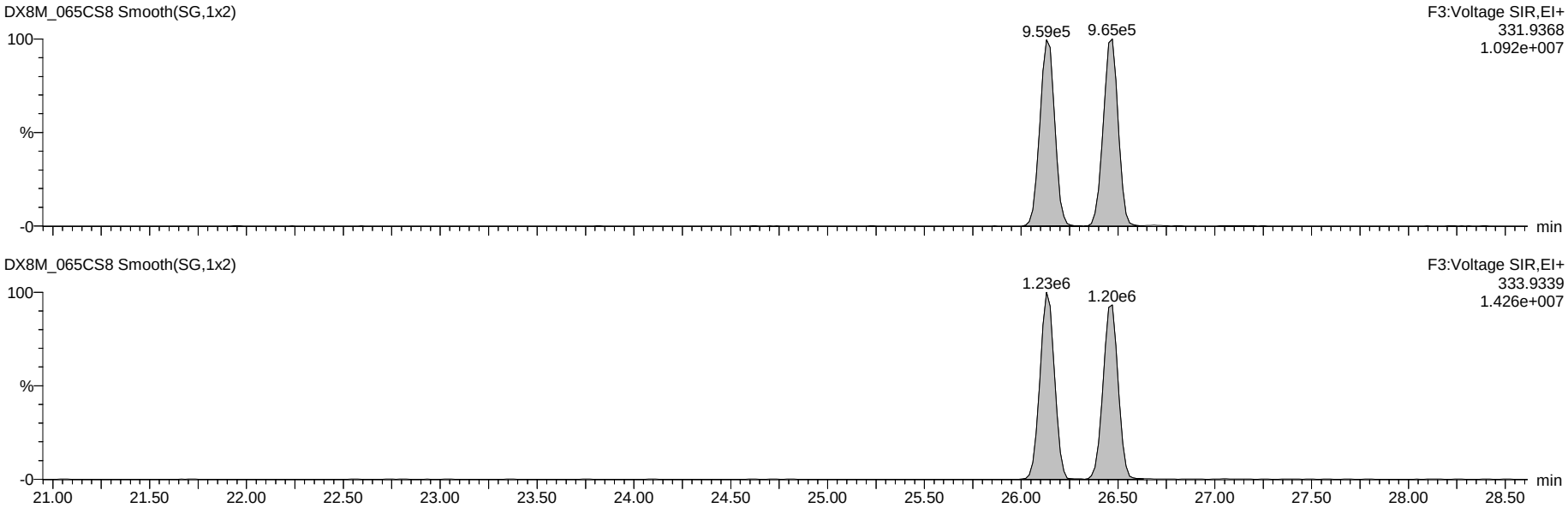

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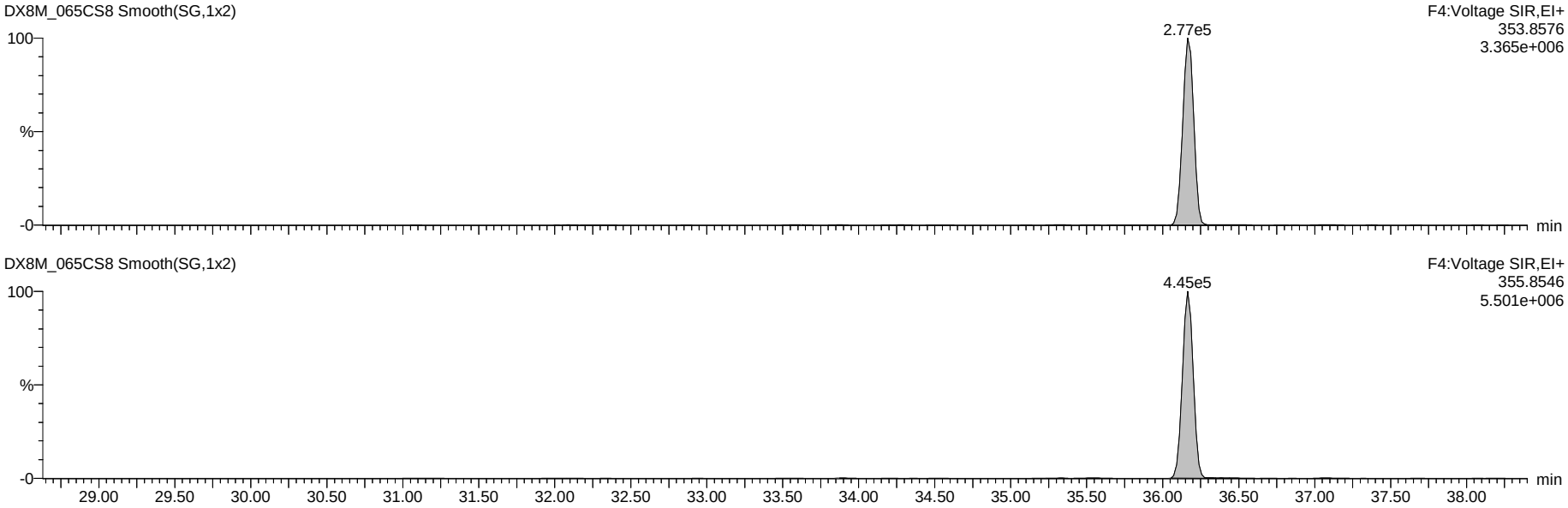
Total Penta-Dioxins



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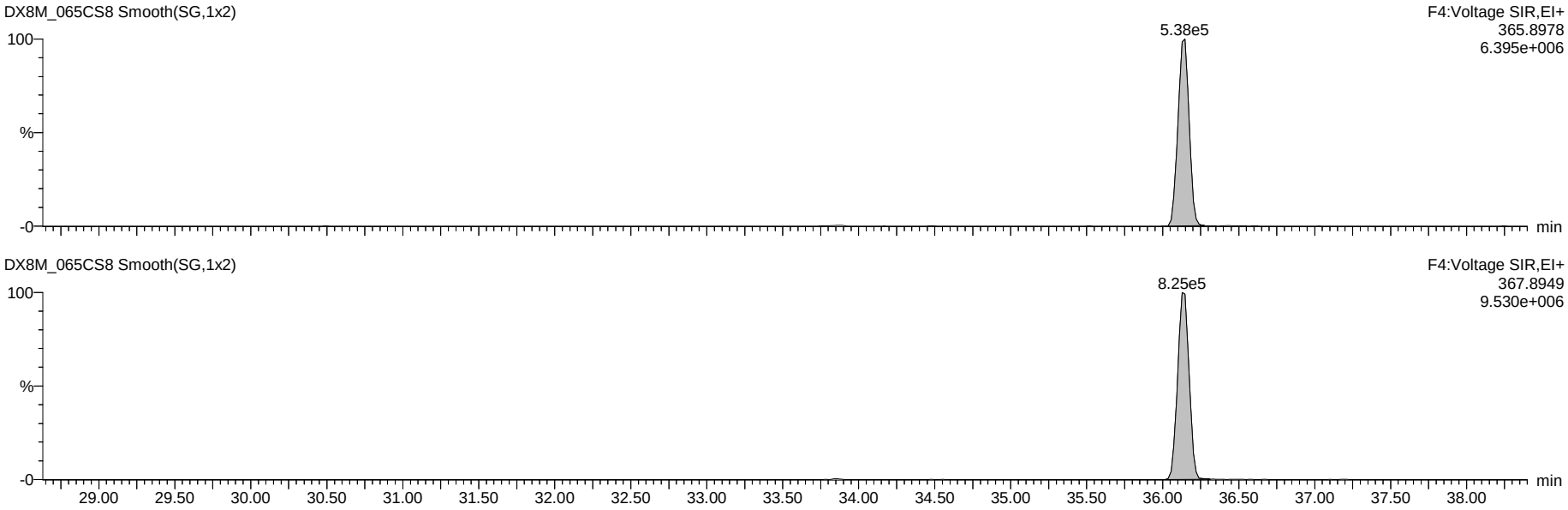

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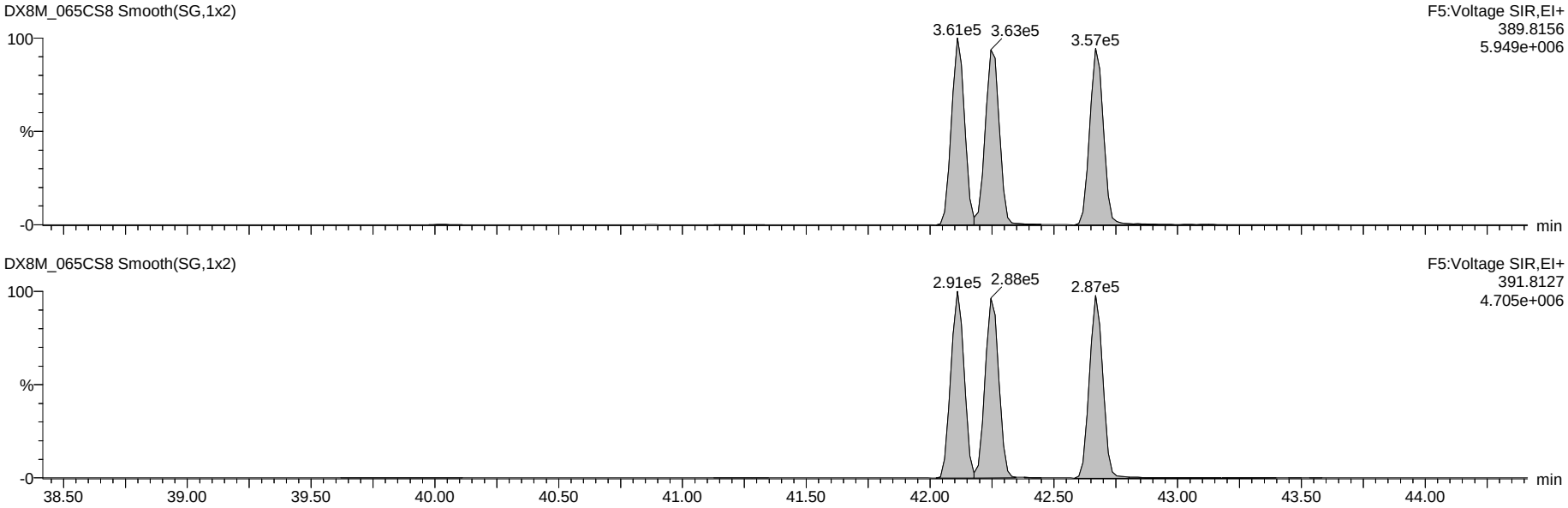
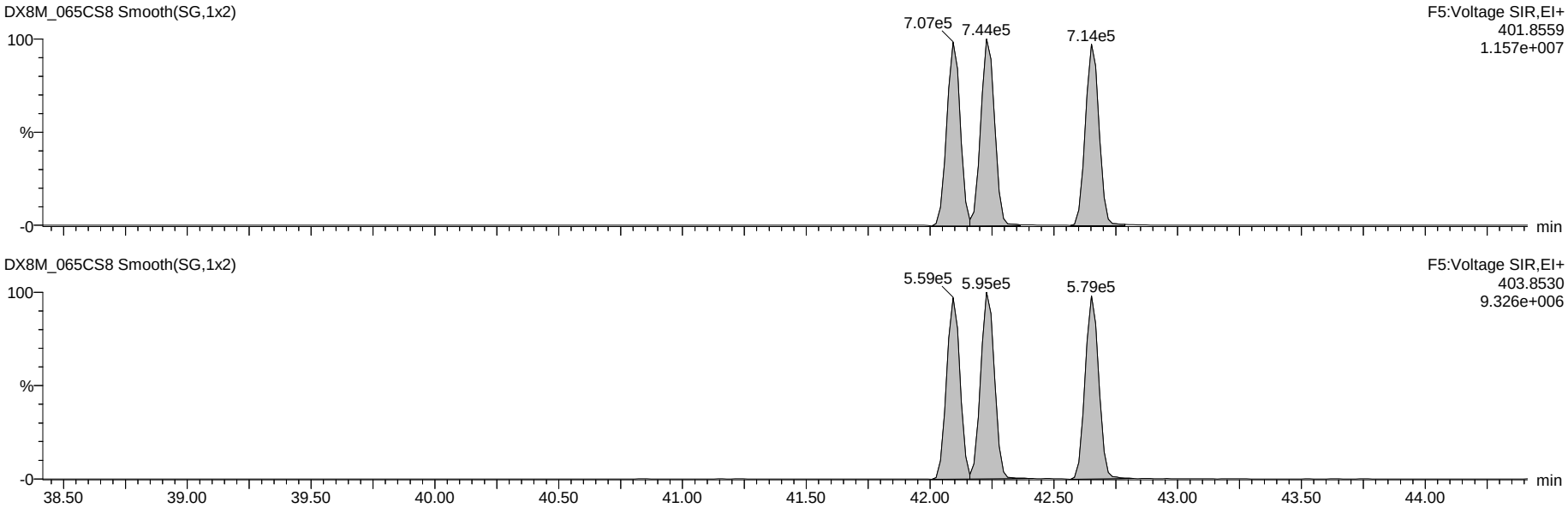
Total Hexa-Dioxins



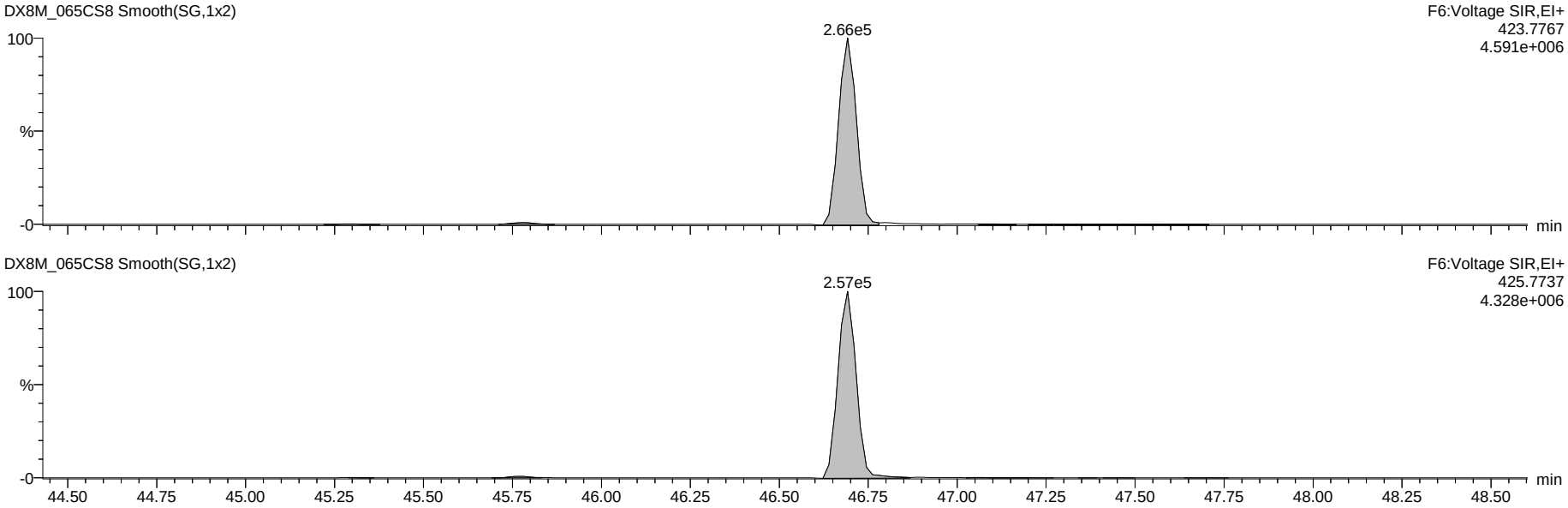
13C-Hexa-Dioxins



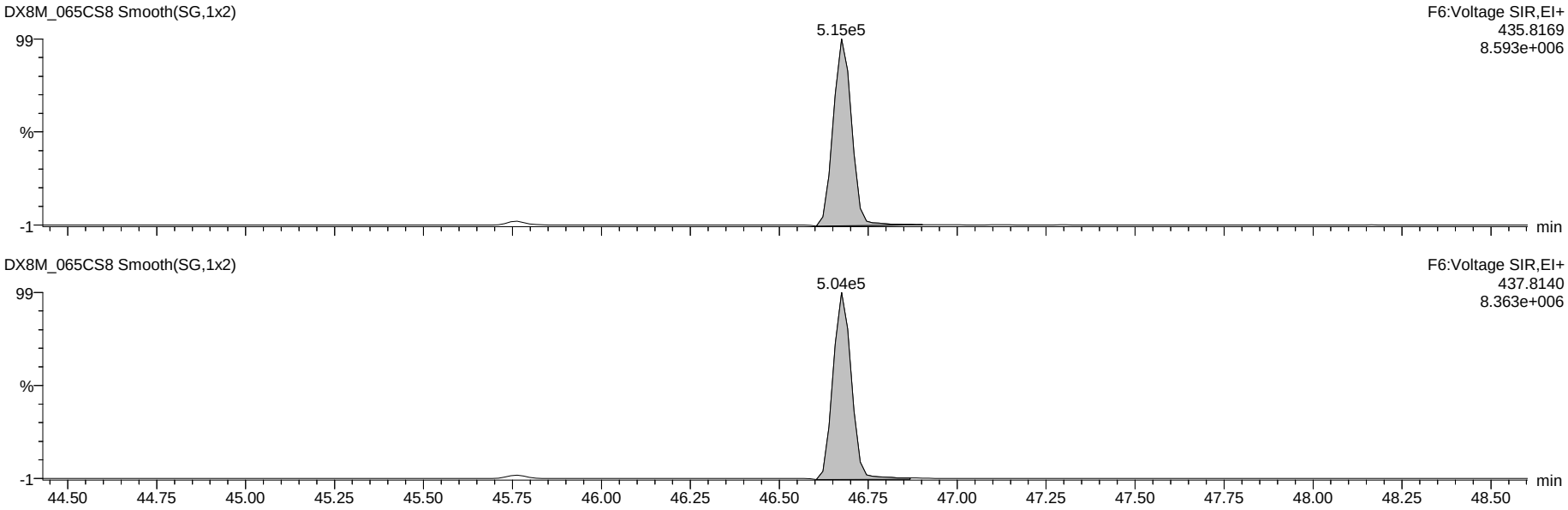
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6qc.qld

Name: DX8M_065CS8, Date: 05-Jun-2018, Time: 01:11:21, ID: DX003A-SSV,,/01, Description: 1,,1.0uL Cal

Total Hepta-Dioxins



13C-Hepta-Dioxins



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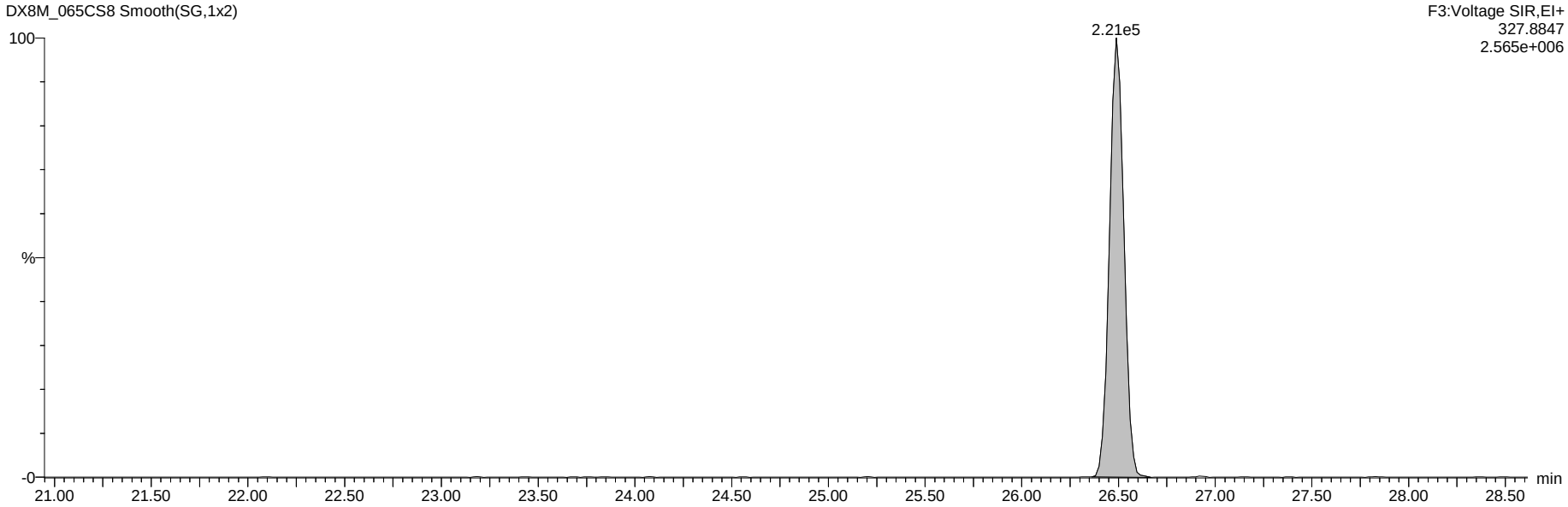
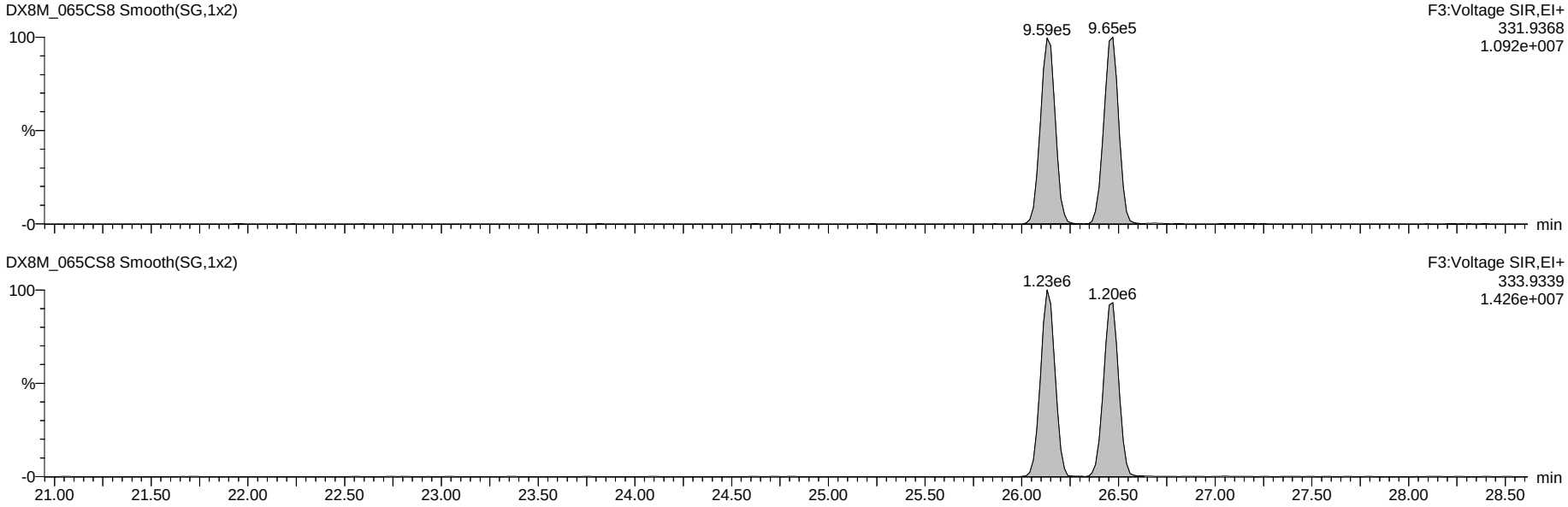
Name: DX8M_065CS8, Date: 05-Jun-2018, Time: 01:11:21, ID: DX003A-SSV,,/01, Description: 1,,1.0uL Cal

37Cl-2,3,7,8-TCDD



13C-Tetra-Dioxins



Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6qc.qld

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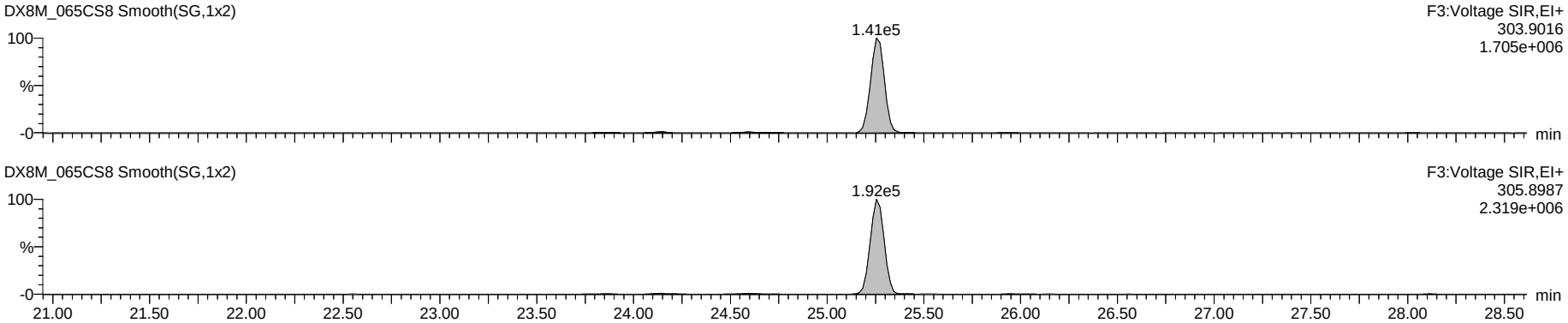
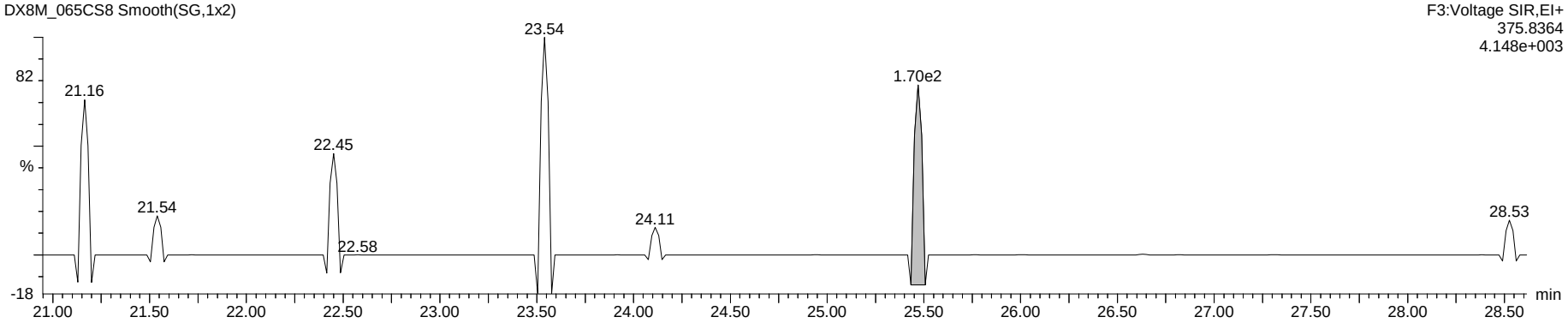
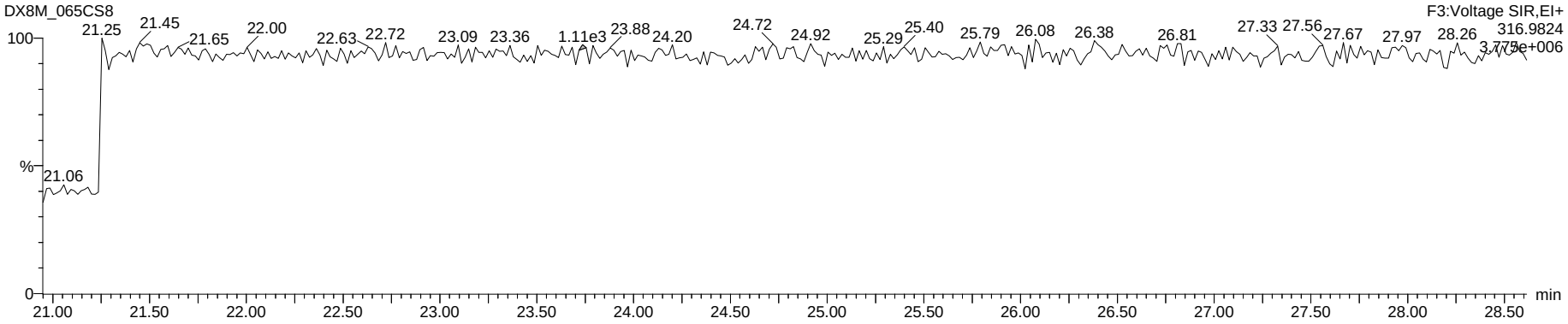
Total Tetra-Furans



Hexa DPE



Tetra Lock



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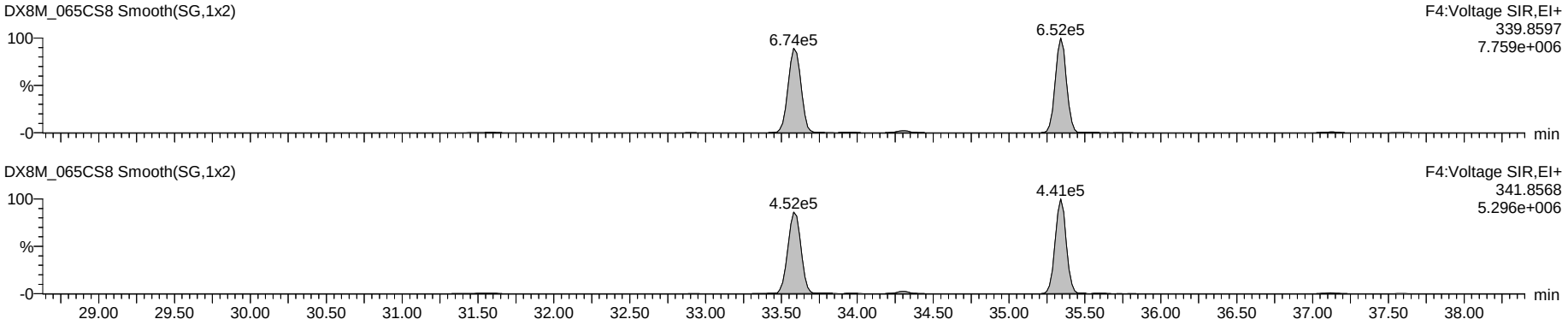
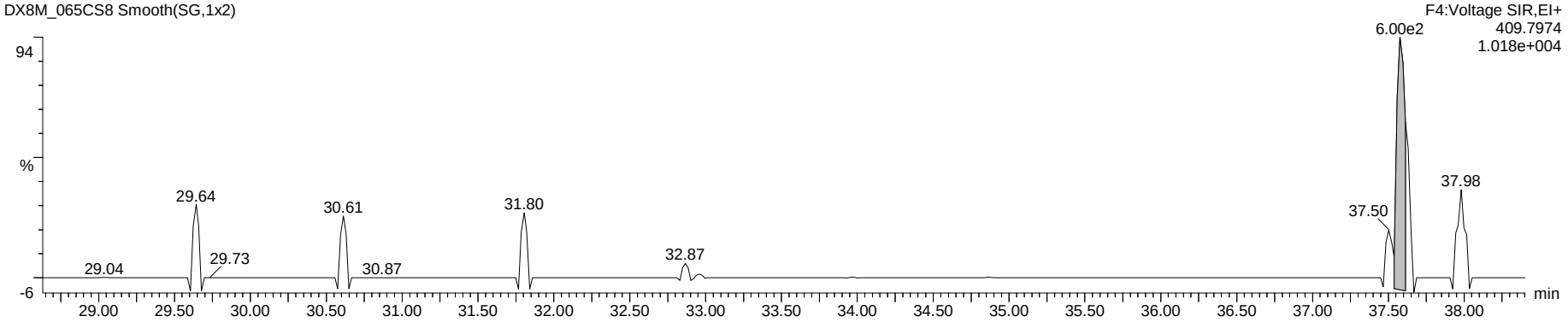
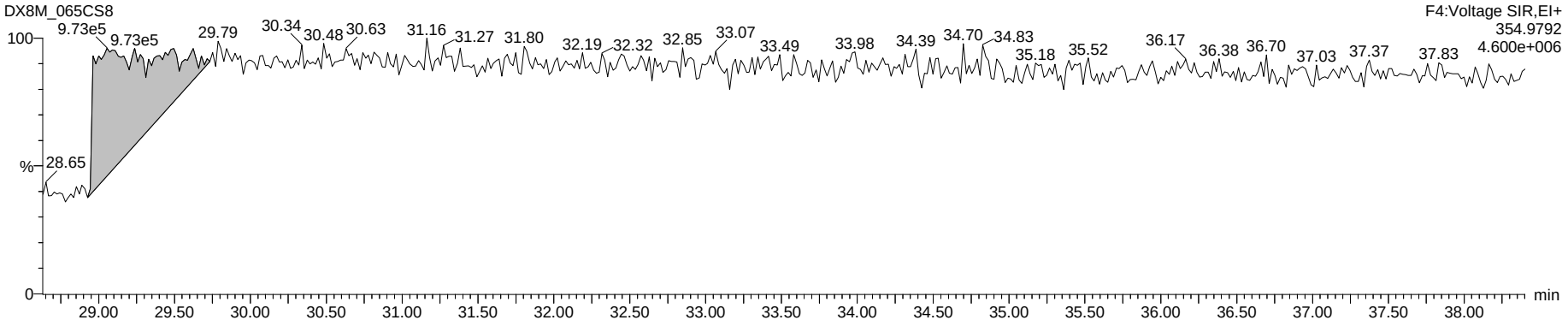
Total Penta-Furans



Hepta DPE



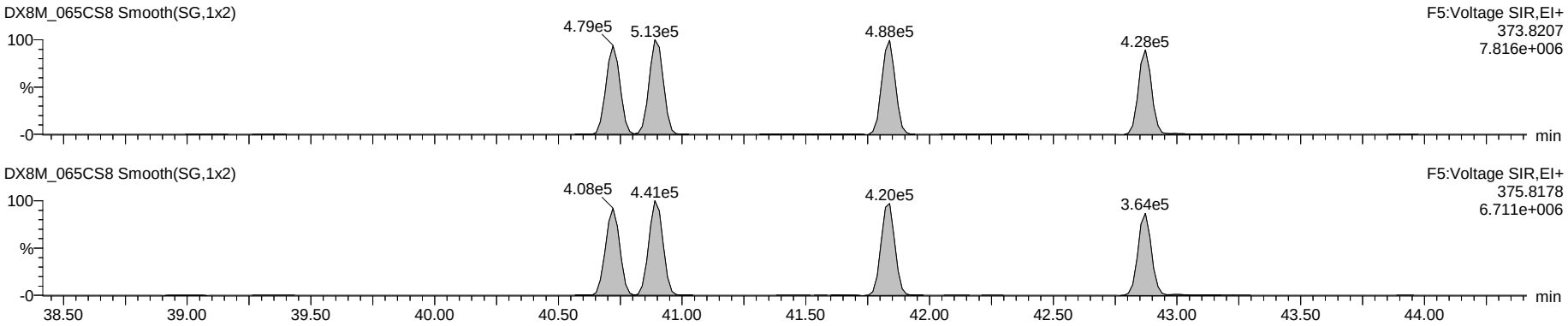
Penta Lock



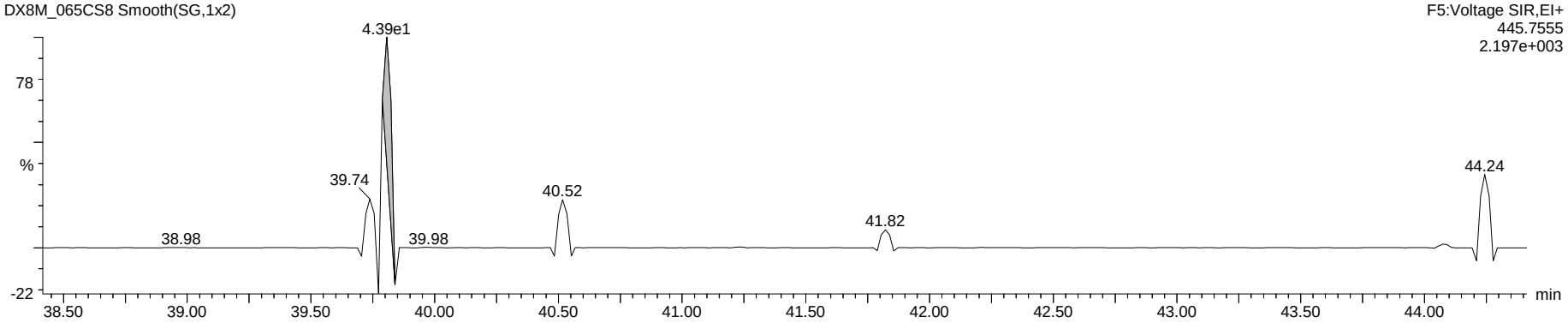
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6qc.qld

Name: DX8M_065CS8, Date: 05-Jun-2018, Time: 01:11:21, ID: DX003A-SSV,,/01, Description: 1,,1.0uL Cal

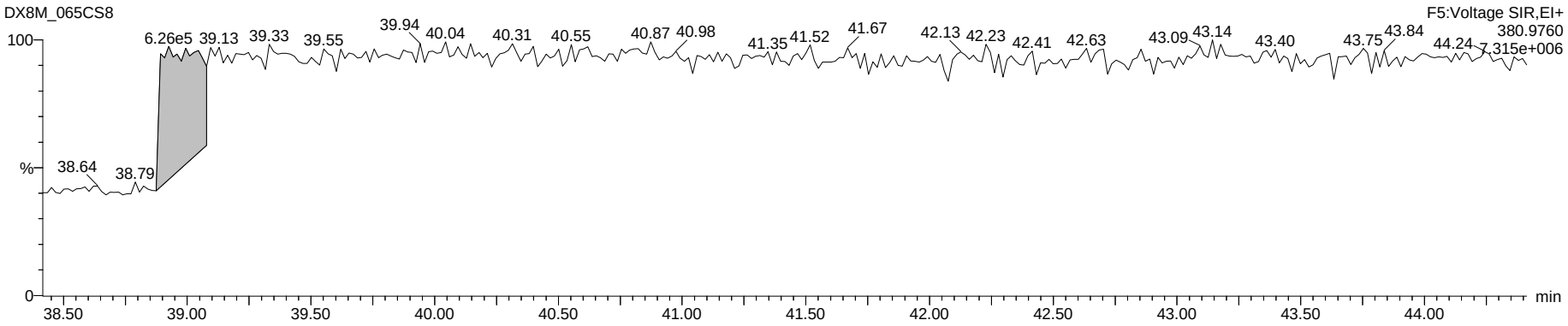
Total Hexa-Furans



Octa DPE



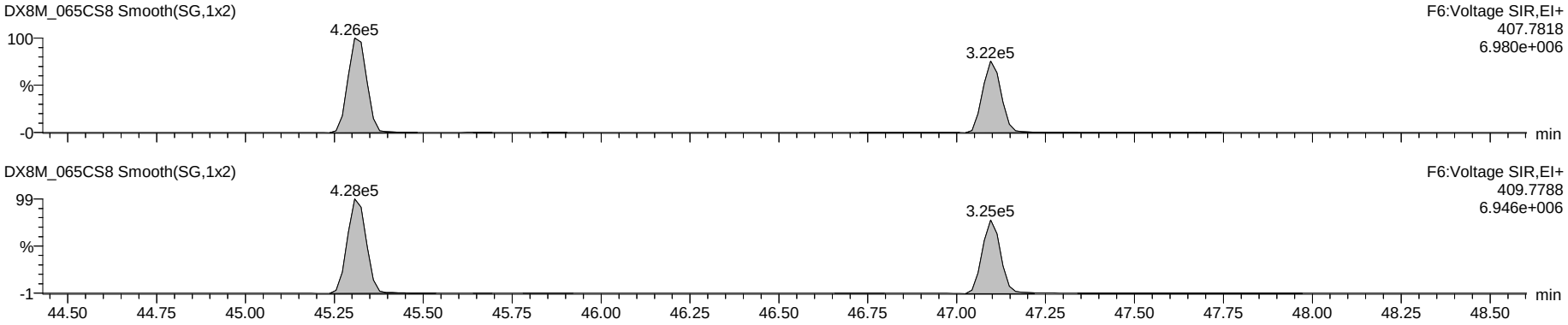
Hexa Lock



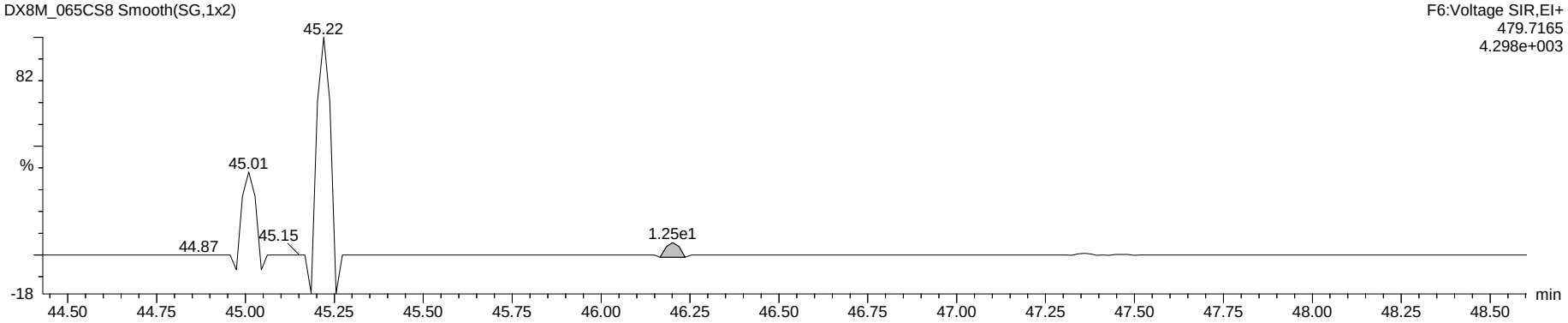
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6qc.qld

Name: DX8M_065CS8, Date: 05-Jun-2018, Time: 01:11:21, ID: DX003A-SSV,,/01, Description: 1,,1.0uL Cal

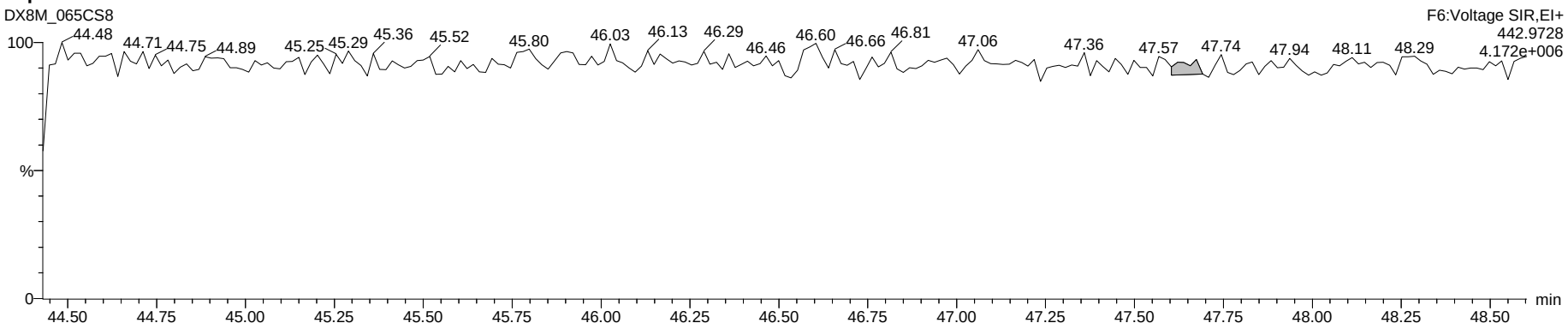
Total Hepta-Furans



Nona DPE



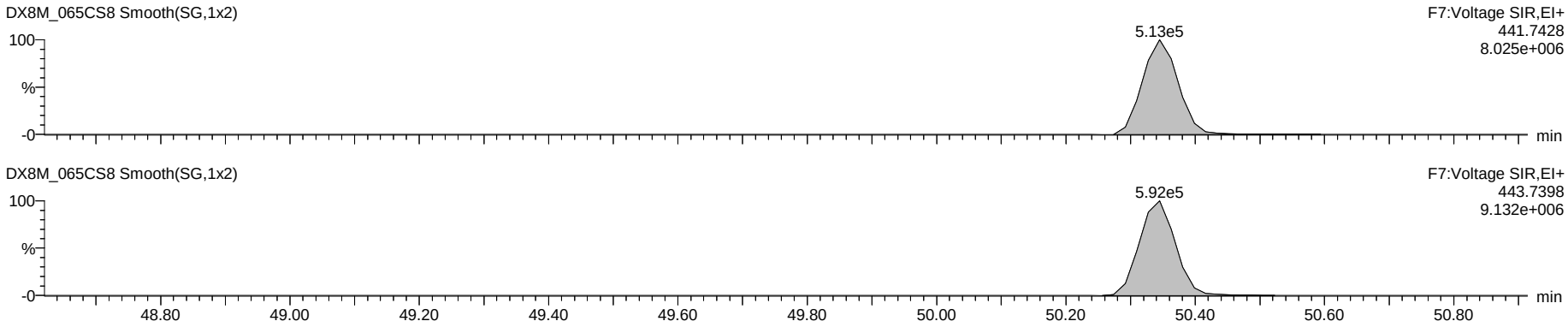
Hepta Lock



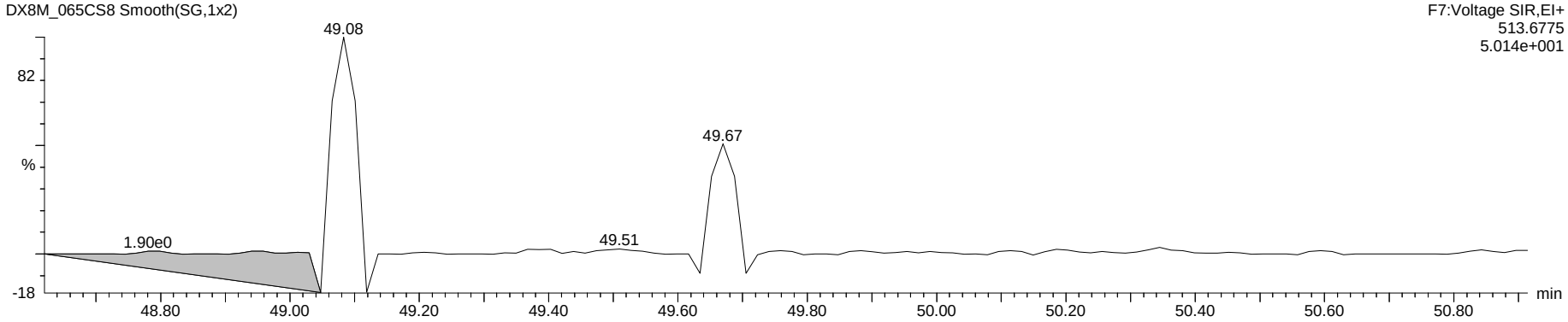
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_065C-6qc.qld

Name: DX8M_065CS8, Date: 05-Jun-2018, Time: 01:11:21, ID: DX003A-SSV,,/01, Description: 1,,1.0uL Cal

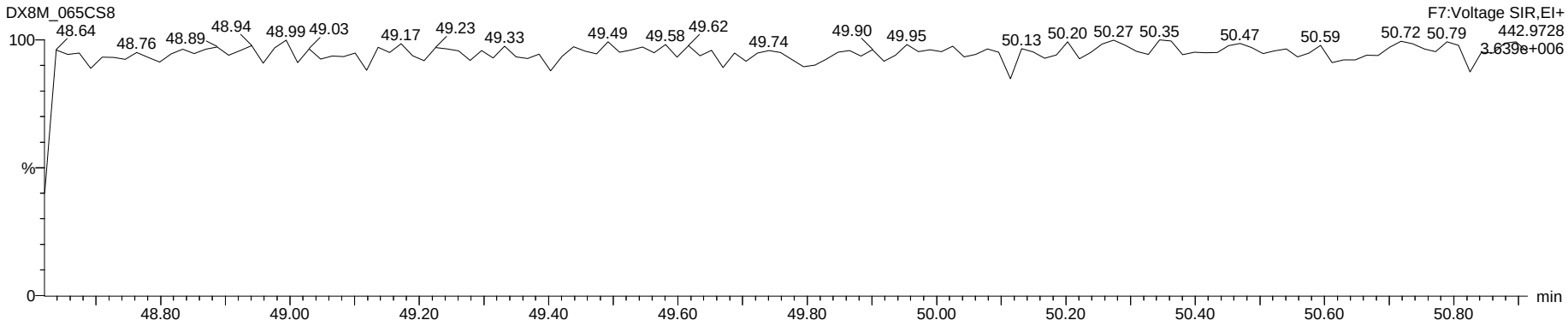
OCDF



Deca DPE

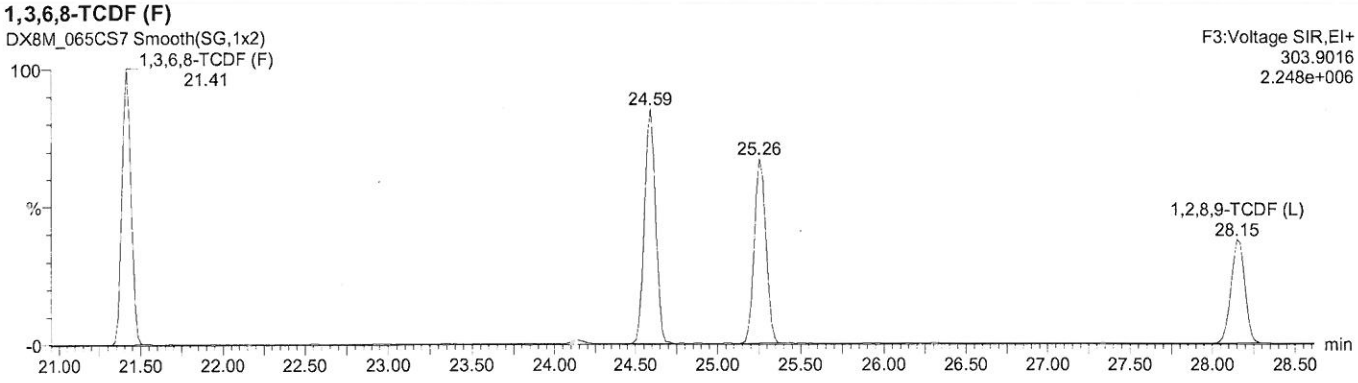


Octa Lock

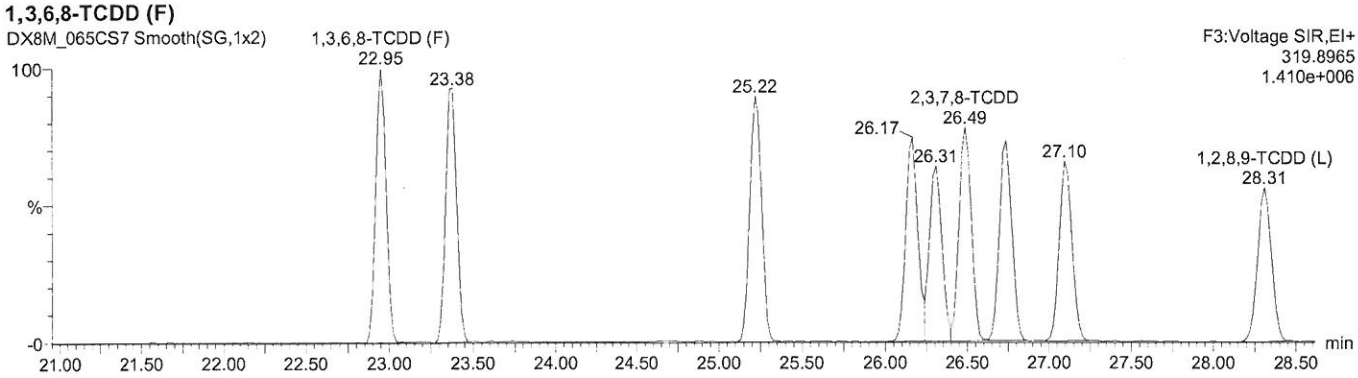


Name: DX8M_065CS7, Date: 05-Jun-2018, Time: 00:06:54, ID: DX041D-CAL,,/01-91, Description: 1,,1.0uL Cal Win/Res

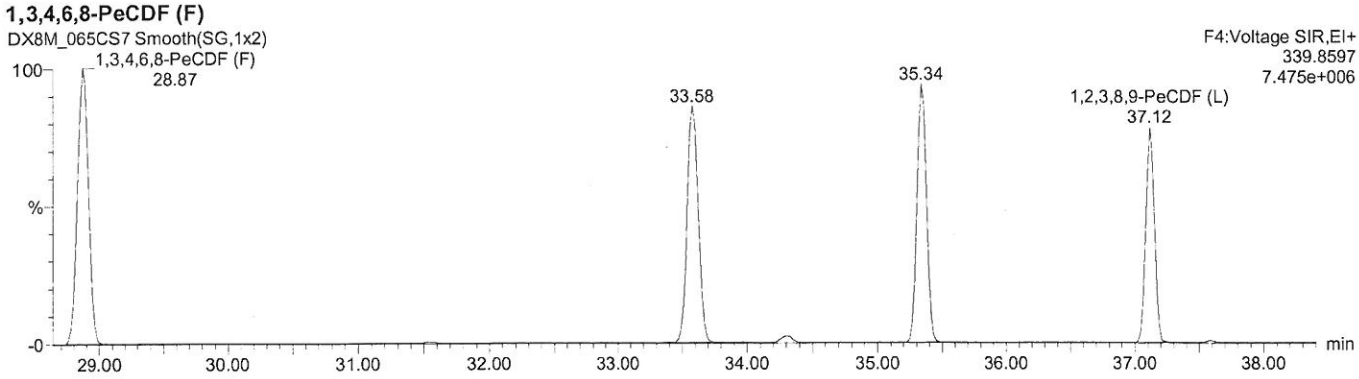
1,3,6,8-TCDF (F)



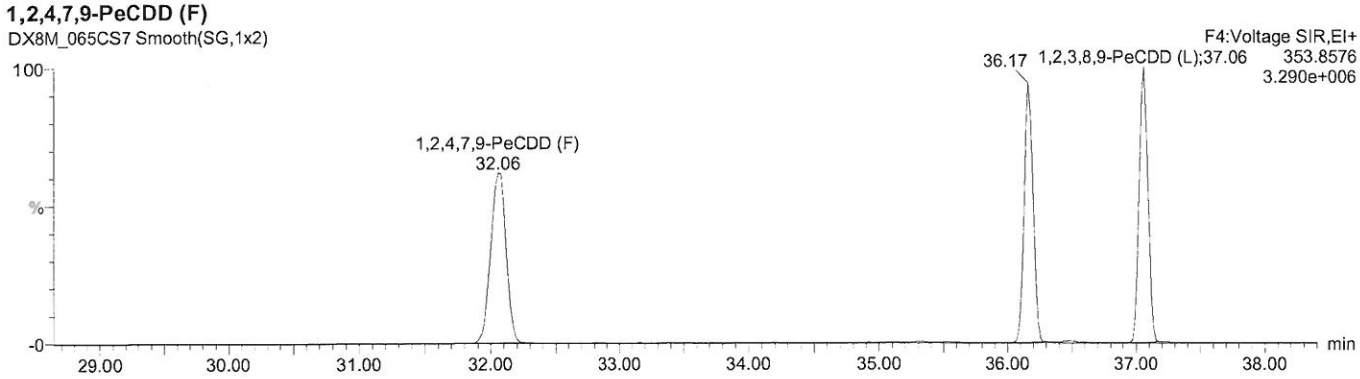
1,3,6,8-TCDD (F)



1,3,4,6,8-PeCDF (F)



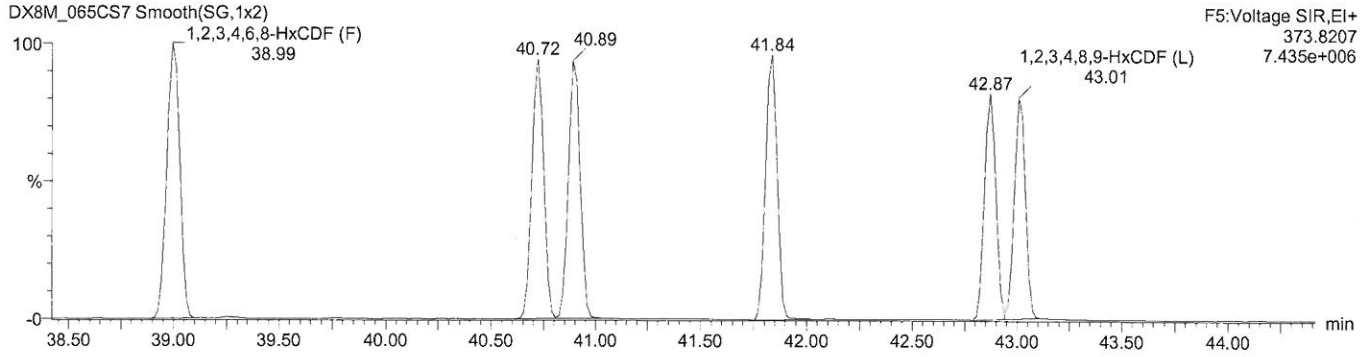
1,2,4,7,9-PeCDD (F)



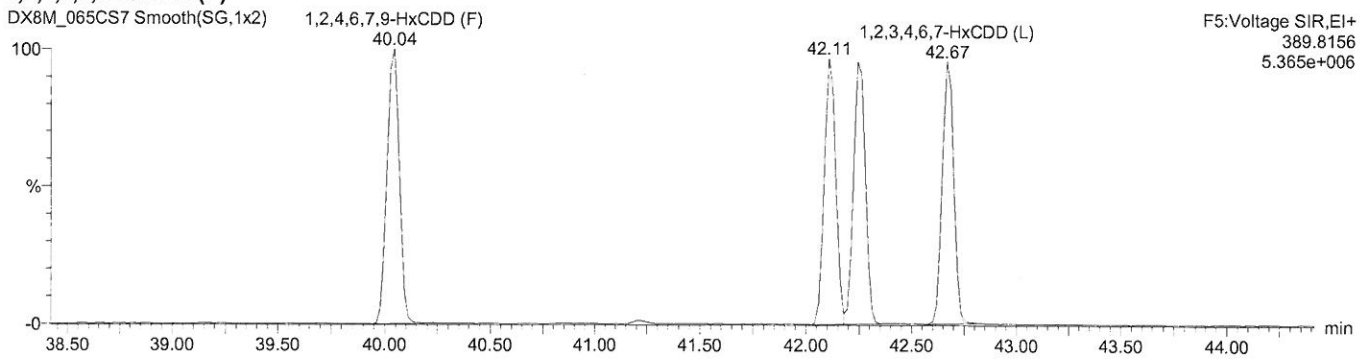
SGS Axys Analytical Services, Ltd.
Quantify Sample Report **MassLynx 4.1 SCN627**

Name: DX8M_065CS7, Date: 05-Jun-2018, Time: 00:06:54, ID: DX041D-CAL,,/01-91, Description: 1,,1.0uL Cal Win/Res

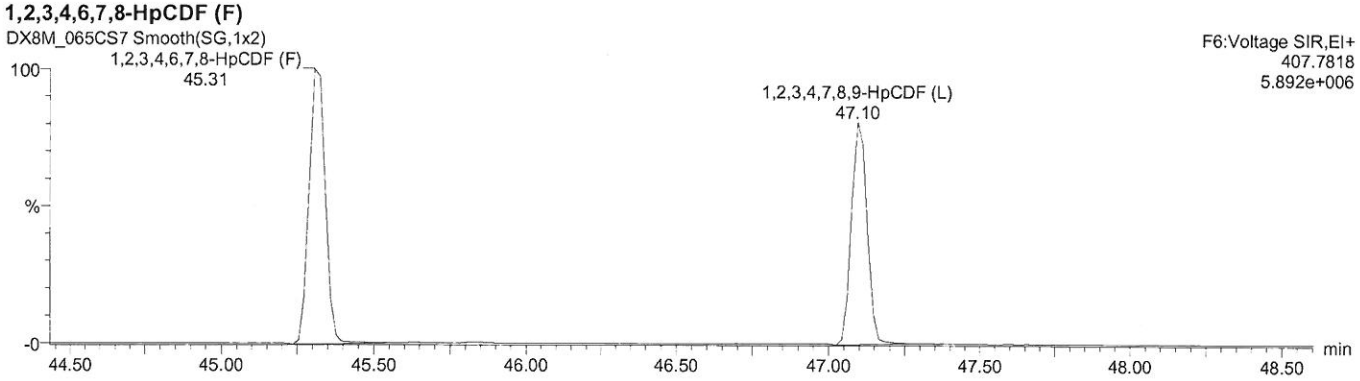
1,2,3,4,6,8-HxCDF (F)



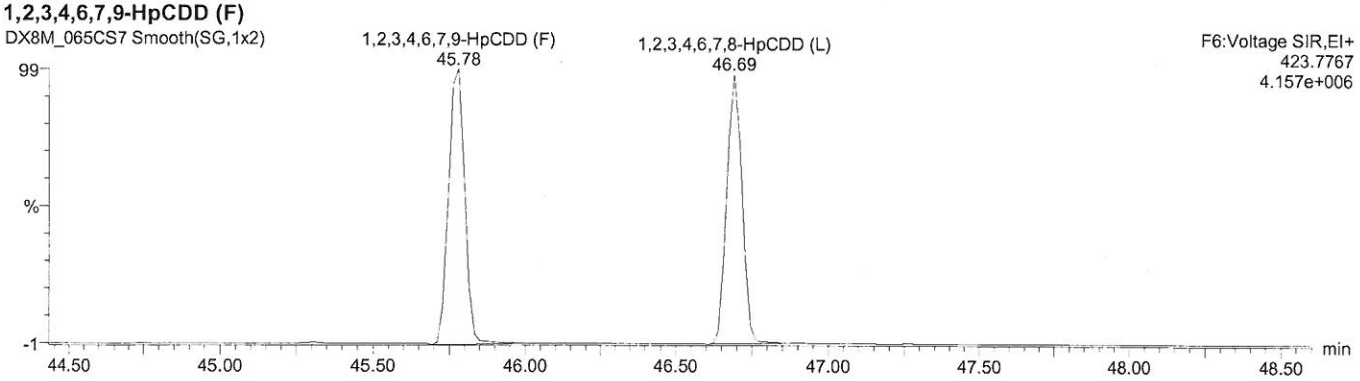
1,2,4,6,7,9-HxCDD (F)



1,2,3,4,6,7,8-HpCDF (F)



1,2,3,4,6,7,9-HpCDD (F)



www.axysanalytical.com

Experiment : DX-DB225-4_01
GC Program : DX-DB225-4_01
Column type : DB-225
Serial # : USA226732J/USA
kPa : 199
Vol injected: 2.0uL
PMT Voltage : 425

Temps -source: 250
-s resv: 160
-re_ent: 220
-cap_1 : 220
-cap_2 : 220

Tune : BA
List : EW/BA
Check :
LIMS :
Logfile:

Date -list : 10-JUL-2018
-liner : 13-JUN-2018
-septum: 13-JUN-2018
-guard : 60cm 13-JUN-2018
-column: 10CM 03-APR-2018
-t line: NEW 14-SEP-2017

#	Data file	S	V	Sample Text	Comments	Acquisition Date/Time
1	DB83_121	1	1	DX003A-RSN,,/01-23	1,,2.0uL Win/Res	10-JUL-18 15:40:53
2	DB83_121	2	2	DX041C-CAL,,/01	1,,2.0uL CS-2	10-JUL-18 16:22:08
3	DB83_121	3	3	DX041B-CAL,,/01	1,,2.0uL CS-1	10-JUL-18 17:03:24
4	DB83_121	4	4	DX041A-CAL,,/01-16	1,,2.0uL CS-0.2/SENS	10-JUL-18 17:44:40
5	DB83_121	5	5	DX041F-CAL,,/01	1,,2.0uL CS-5	10-JUL-18 18:25:52
6	DB83_121	6	6	DX041E-CAL,,/01	1,,2.0uL CS-4	10-JUL-18 19:07:08
7	DB83_121	7	7	DX041D-CAL,,/01-90	1,,2.0uL CAL	10-JUL-18 19:48:20
8	DB83_121	8	8	DX003A-SSV,,/01	1,,2.0uL CAL	10-JUL-18 20:29:36

Run: db83_121 Analyte: DB-HXD-C2 Cal: db83_121-6a Results: db83_121-6a Version: V3.6 6-JAN-2000 17:51:42

Name	Mean RRF	S. D.	%RSD	DB83_121 RRF#1	S4 SD	DB83_121 RRF#2	S3 SD	DB83_121 RRF#3	S2 SD	DB83_121 RRF#4	S7 SD	DB83_121 RRF#5	S6 SD	DB83_121 RRF#6	S5 SD
2,3,7,8-TCDF	0.9698	0.069	7.11 %	0.93	-0.5	0.91	-0.9	0.89	-1.2	1.04	1.1	1.03	0.9	1.01	0.6
1,2,3,7,8,9-HxCDD	0.9205	0.078	8.53 %	0.82	-1.3	0.89	-0.4	0.85	-0.9	0.97	0.7	0.99	0.9	1.00	1.0
13C-2,3,7,8-TCDF	1.7890	0.082	4.58 %	1.89	1.3	1.66	-1.6	1.75	-0.5	1.81	0.2	1.84	0.7	1.79	0.0
13C-1,2,3,4,7,8-HxCDD	1.0570	0.035	3.31 %	1.13	2.0	1.05	-0.2	1.03	-0.7	1.05	-0.2	1.05	-0.1	1.03	-0.8
13C-1,2,3,6,7,8-HxCDD	1.0907	0.042	3.84 %	1.17	1.9	1.06	-0.8	1.08	-0.1	1.10	0.3	1.07	-0.6	1.06	-0.7
13C-1,2,3,4-TCDD	-	-	- %	-	-	-	-	-	-	-	-	-	-	-	-
13C-1,2,3,7,8,9-HxCDD	-	-	- %	-	-	-	-	-	-	-	-	-	-	-	-
Hexa DPE	-	-	- %	-	-	-	-	-	-	-	-	-	-	-	-
Tetra Lock	-	-	- %	-	-	-	-	-	-	-	-	-	-	-	-
Hexa Lock	-	-	- %	-	-	-	-	-	-	-	-	-	-	-	-

PV by TD 12-Jul-2018

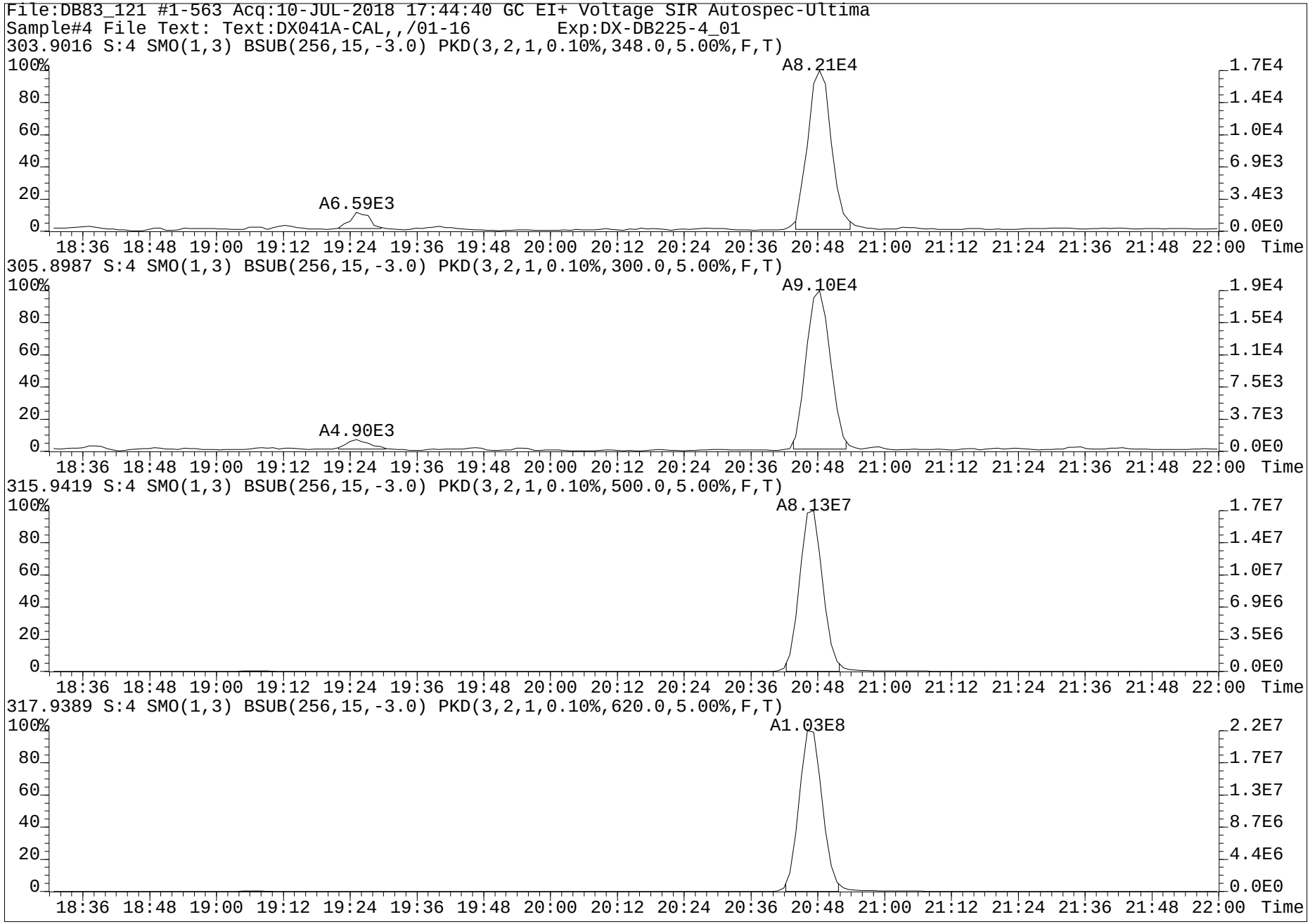
SV: TA 12-Jul-18

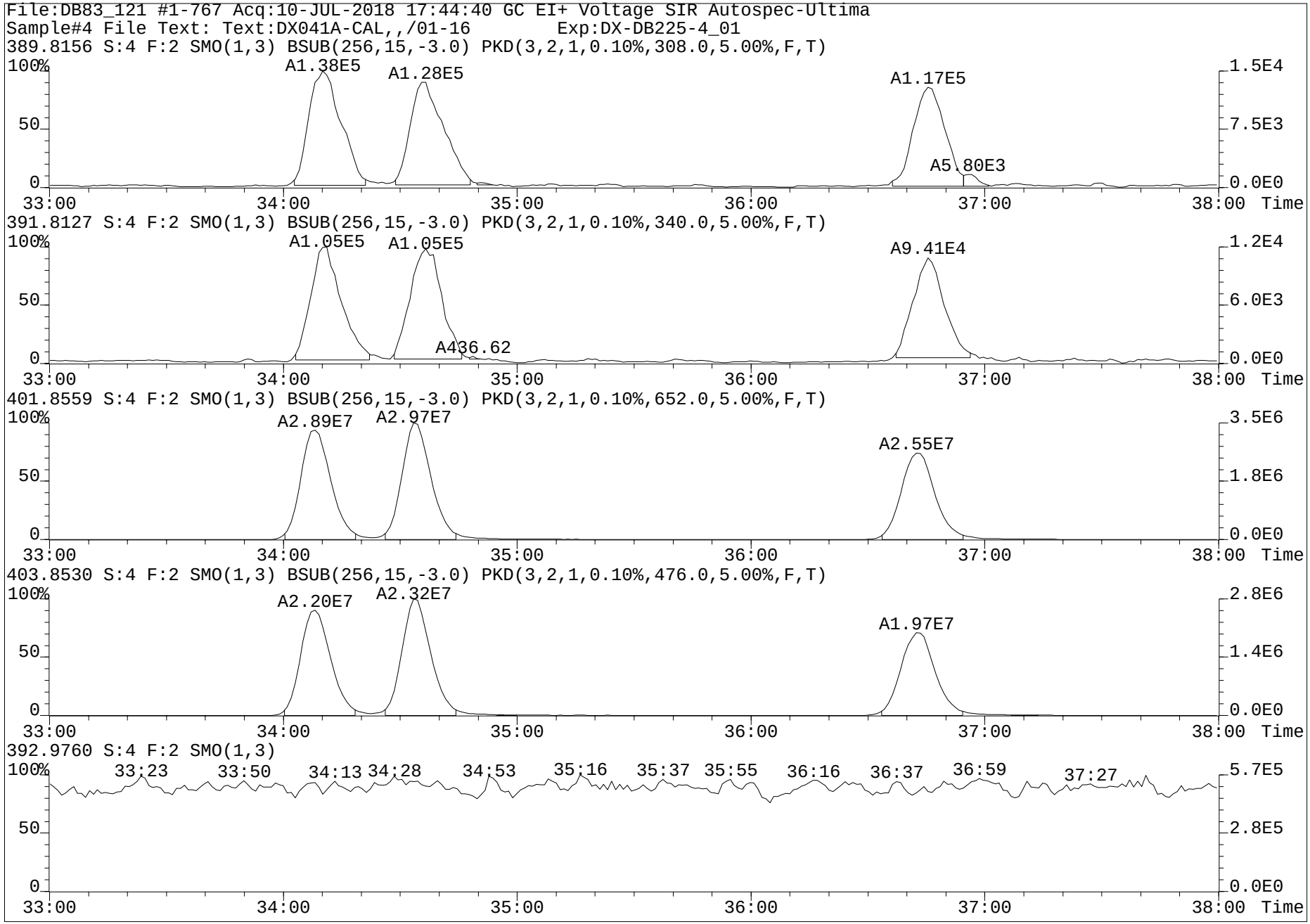
OPUSquan 12-JUL-2018 Page 1

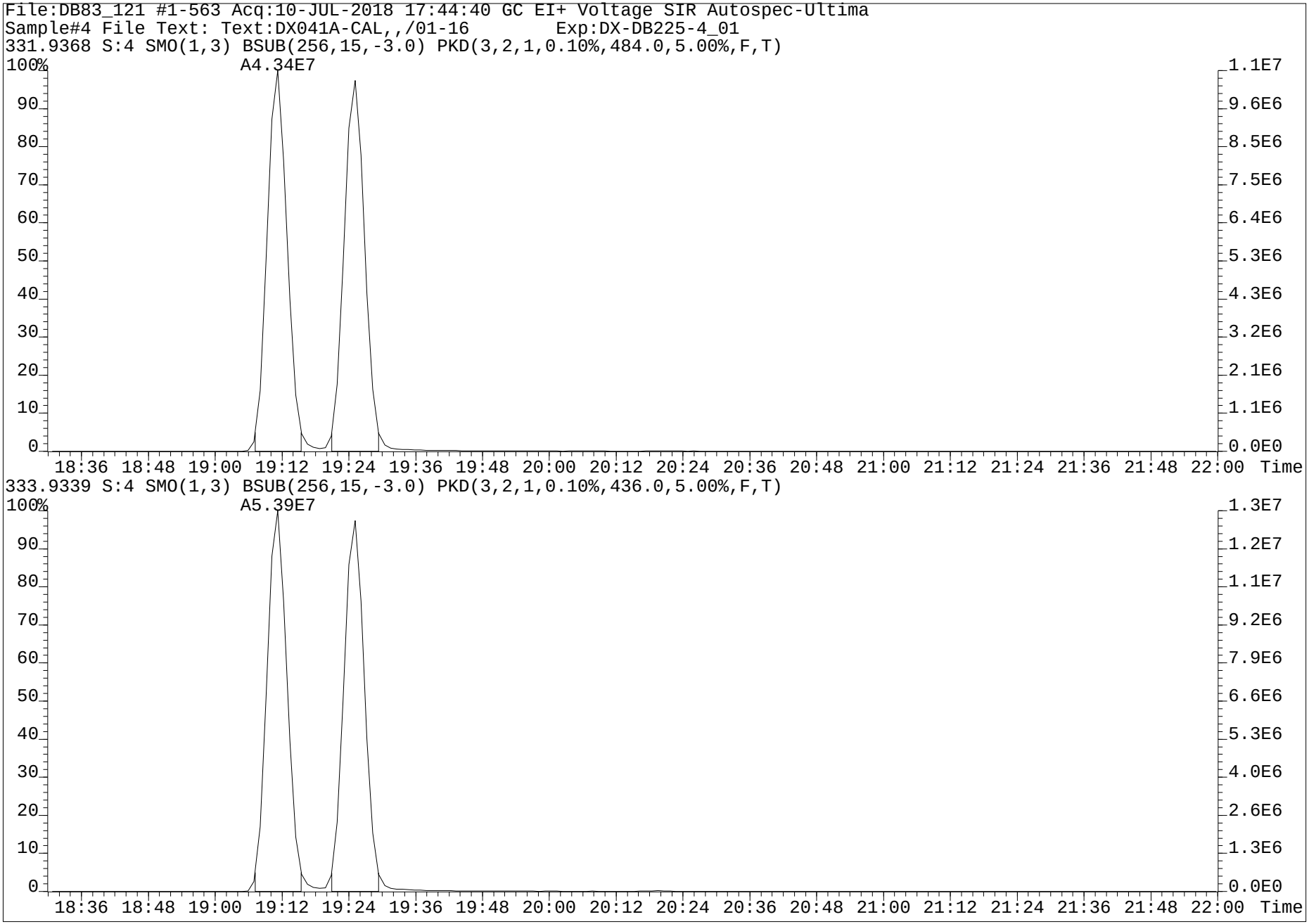
Run #1 Filename DB83_121 S: 4 I: 1 Acquired: 10-JUL-18 17:44:40 Processed: 12-JUL-18 08:19:37
Run: db83_121 Analyte: DB-HXD-C2 Cal: db83_121-6a Results: db83_121-6a Version: V3.6 6-JAN-2000 17:51:42
Sample text: DX041A-CAL,,/01-16 Comments: 1,,2.0uL CS-0.2/SENS F1: 0.20 F2: 1.00

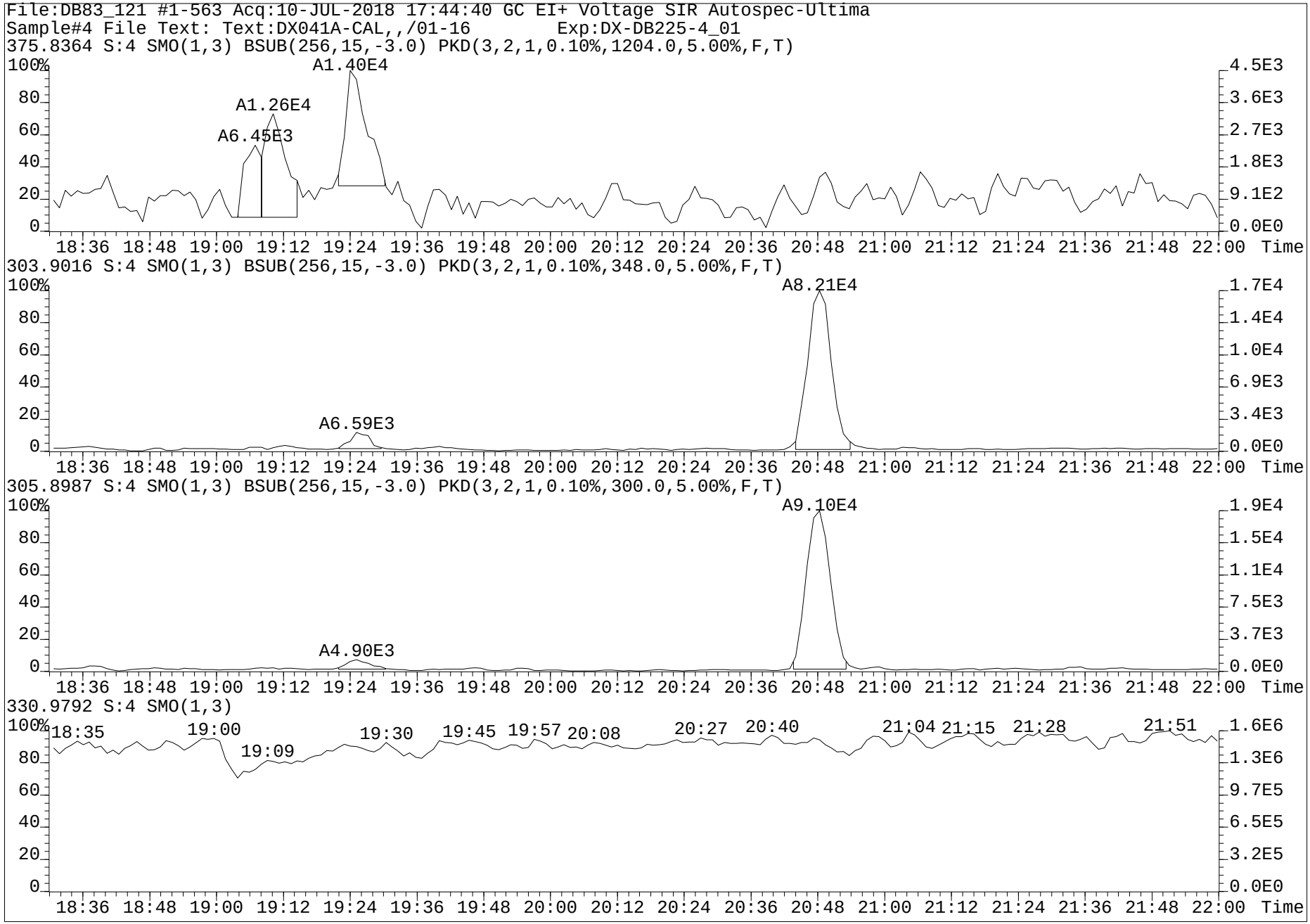
	Typ	Name	Amount	Resp	RA	RT	RF	RRF		Modified?
1	Unk	2,3,7,8-TCDF	0.10	1.72e+05	0.88 y	20:48	-	0.9332	y	y
2	Unk	1,2,3,7,8,9-HxCDD	0.50	2.11e+05	1.25 y	36:45	-	0.8156	y	n
3	IS/RT	13C-2,3,7,8-TCDF	100.00	1.84e+08	0.79 y	20:47	-	1.8937	y	n
4	IS/RT	13C-1,2,3,4,7,8-HxCDD	100.00	5.08e+07	1.31 y	34:09	-	1.1255	y	n
5	IS/RT	13C-1,2,3,6,7,8-HxCDD	100.00	5.28e+07	1.28 y	34:34	-	1.1697	y	n
6	RS	13C-1,2,3,4-TCDD	100.00	9.72e+07	0.81 y	19:25	9.72e+05	-	n	n
7	RS	13C-1,2,3,7,8,9-HxCDD	100.00	4.52e+07	1.30 y	36:43	4.52e+05	-	n	n
8	Tot	Hexa DPE	0.00	*		NotF»	Div0	-	n	n
9	Tot	Tetra Lock	0.00	-		-	-	-	n	n
10	Tot	Hexa Lock	0.00	-		-	-	-	n	n

PV by TD 12-Jul-2018
SVIP 12-Jul-18


File:DB83_121 #1-563 Acq:10-JUL-2018 17:44:40 GC EI+ Voltage SIR Autospec-Ultima
Sample#4 File Text: Text:DX041A-CAL,,/01-16 Exp:DX-DB225-4_01
303.9016 S:4 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,348.0,5.00%,F,T)
A8.21E4
A6.59E3
305.8987 S:4 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,300.0,5.00%,F,T)
A9.10E4
A4.90E3
315.9419 S:4 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,500.0,5.00%,F,T)
A8.13E7
317.9389 S:4 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,620.0,5.00%,F,T)
A1.03E8
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time


File:DB83_121 #1-767 Acq:10-JUL-2018 17:44:40 GC EI+ Voltage SIR Autospec-Ultima
Sample#4 File Text: Text:DX041A-CAL,,/01-16 Exp:DX-DB225-4_01
389.8156 S:4 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,308.0,5.00%,F,T)
A1.38E5
A1.28E5
A1.17E5
A5.80E3
391.8127 S:4 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,340.0,5.00%,F,T)
A1.05E5
A1.05E5
A9.41E4
A436.62
401.8559 S:4 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,652.0,5.00%,F,T)
A2.89E7
A2.97E7
A2.55E7
403.8530 S:4 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,476.0,5.00%,F,T)
A2.20E7
A2.32E7
A1.97E7
392.9760 S:4 F:2 SMO(1,3)
33:23
33:50
34:13
34:28
34:53
35:16
35:37
35:55
36:16
36:37
36:59
37:27
100%
50
0
33:00
34:00
35:00
36:00
37:00
38:00
Time
1.5E4
7.5E3
0.0E0
1.2E4
6.0E3
3.5E6
1.8E6
2.8E6
1.4E6
5.7E5
2.8E5


File:DB83_121 #1-563 Acq:10-JUL-2018 17:44:40 GC EI+ Voltage SIR Autospec-Ultima
Sample#4 File Text: Text:DX041A-CAL,,/01-16 Exp:DX-DB225-4_01
331.9368 S:4 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,484.0,5.00%,F,T)
100% A4.34E7
1.1E7
9.6E6
8.5E6
7.5E6
6.4E6
5.3E6
4.3E6
3.2E6
2.1E6
1.1E6
0.0E0
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time
333.9339 S:4 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,436.0,5.00%,F,T)
100% A5.39E7
1.3E7
1.2E7
1.1E7
9.2E6
7.9E6
6.6E6
5.3E6
4.0E6
2.6E6
1.3E6
0.0E0
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time

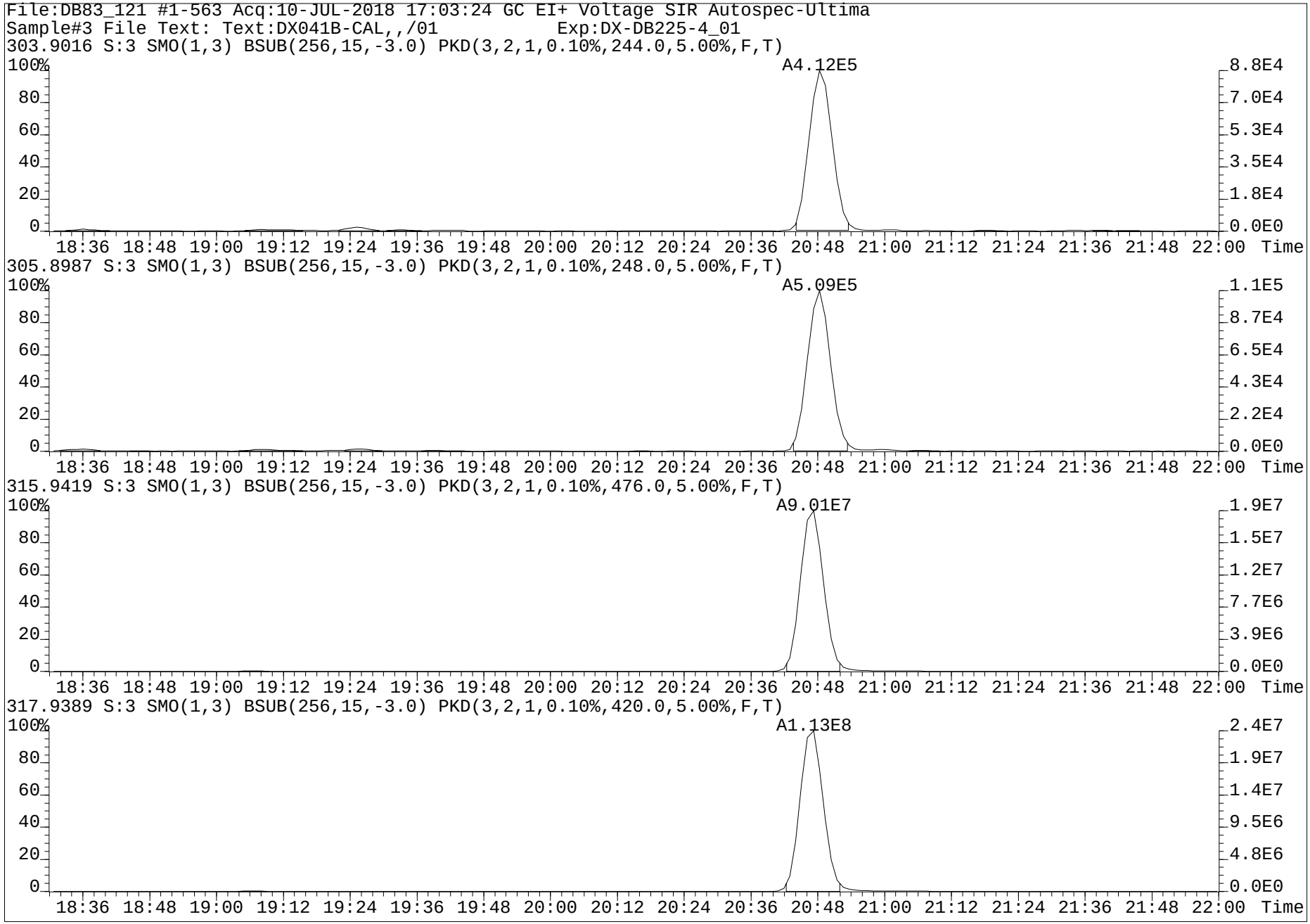

File:DB83_121 #1-563 Acq:10-JUL-2018 17:44:40 GC EI+ Voltage SIR Autospec-Ultima
Sample#4 File Text: Text:DX041A-CAL,,/01-16 Exp:DX-DB225-4_01
375.8364 S:4 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,1204.0,5.00%,F,T)
A1.40E4
A1.26E4
A6.45E3
303.9016 S:4 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,348.0,5.00%,F,T)
A8.21E4
A6.59E3
305.8987 S:4 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,300.0,5.00%,F,T)
A9.10E4
A4.90E3
330.9792 S:4 SMO(1,3)
18:35
19:00
19:09
19:30
19:45
19:57
20:08
20:27
20:40
21:04
21:15
21:28
21:51
Time

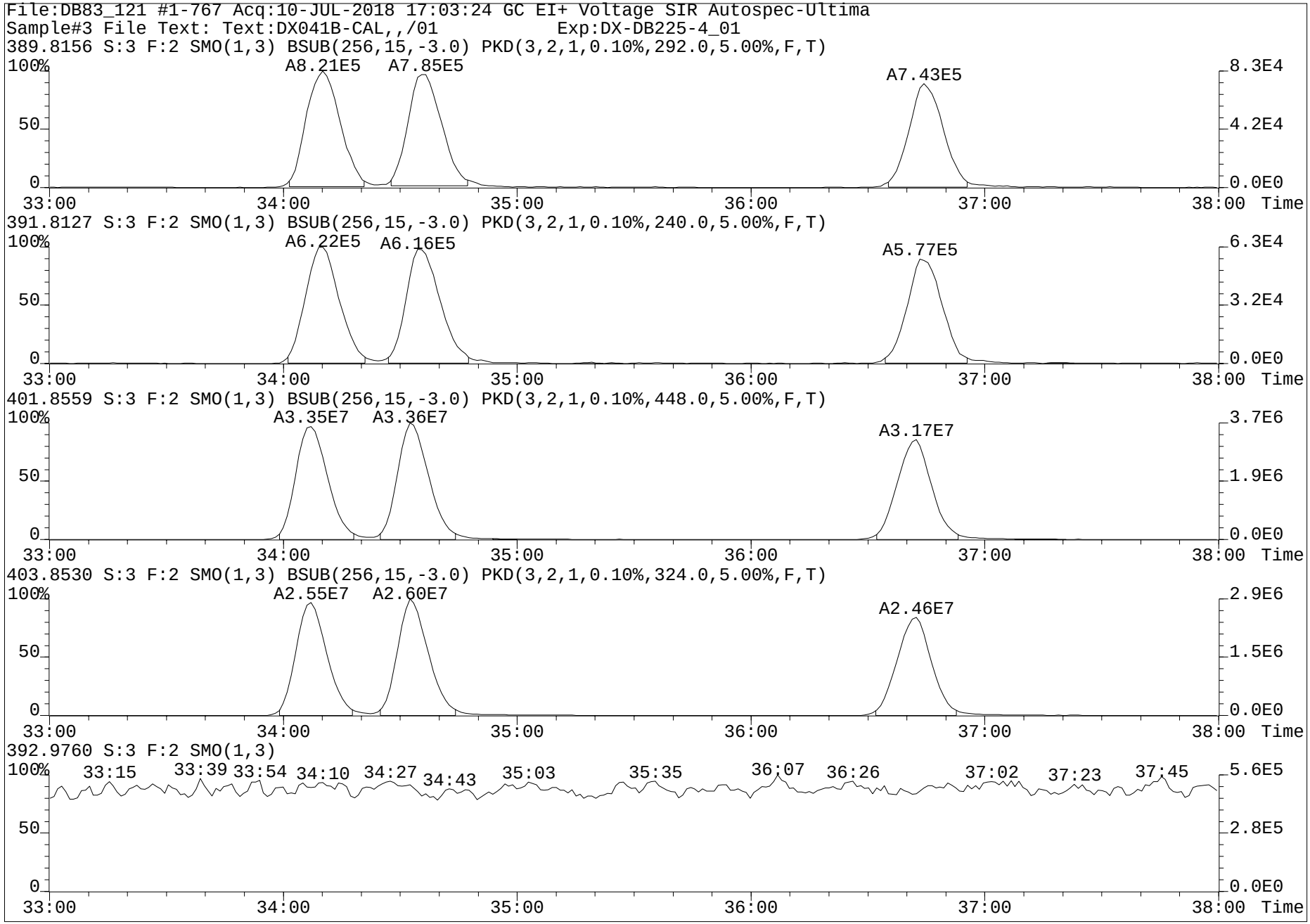
Run #2 Filename DB83_121 S: 3 I: 1 Acquired: 10-JUL-18 17:03:24 Processed: 12-JUL-18 08:19:37
Run: db83_121 Analyte: DB-HXD-C2 Cal: db83_113c-6a Results: db83_121-6a Version: V3.6 6-JAN-2000 17:51:42
Sample text: DX041B-CAL,,/01 Comments: 1,,2.0uL CS-1 F1: 1.00 F2: 1.00

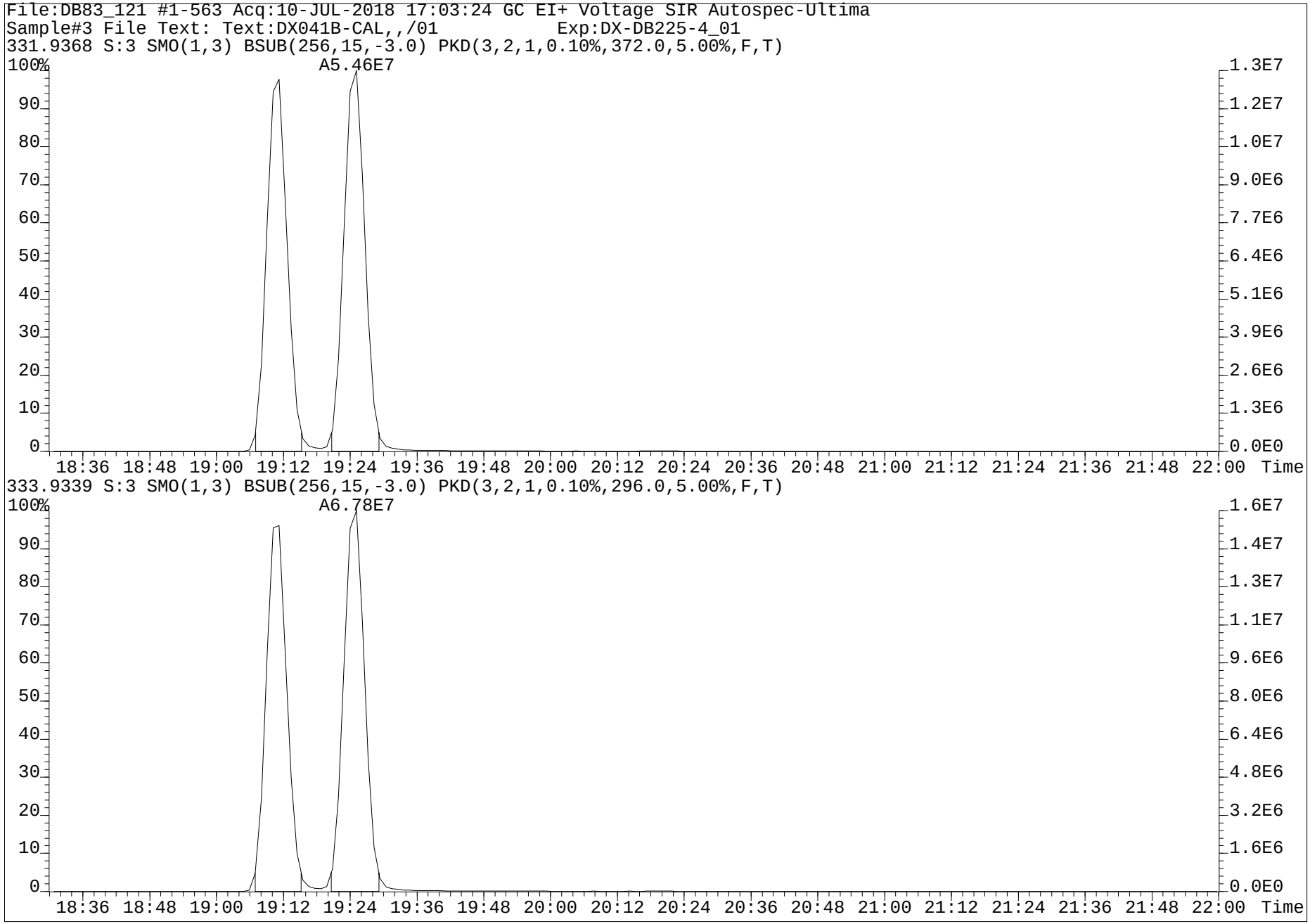
	Typ	Name	Amount	Resp	RA		RT	RF	RRF		Modified?	
1	Unk	2,3,7,8-TCDF	0.50	9.22e+05	0.81	y	20:48	-	0.9091	y	n	
2	Unk	1,2,3,7,8,9-HxCDD	2.50	1.32e+06	1.29	y	36:45	-	0.8899	y	n	
3	IS/RT	13C-2,3,7,8-TCDF	100.00	2.03e+08	0.80	y	20:47	-	1.6563	y	n	
4	IS/RT	13C-1,2,3,4,7,8-HxCDD	100.00	5.91e+07	1.32	y	34:08	-	1.0495	y	n	
5	IS/RT	13C-1,2,3,6,7,8-HxCDD	100.00	5.96e+07	1.29	y	34:33	-	1.0594	y	n	
6	RS	13C-1,2,3,4-TCDD	100.00	1.22e+08	0.80	y	19:25	1.22e+06	-	n	n	
7	RS	13C-1,2,3,7,8,9-HxCDD	100.00	5.63e+07	1.29	y	36:42	5.63e+05	-	n	n	
8	Tot	Hexa DPE	0.00	*			NotF»	Div0	-	n	n	
9	Tot	Tetra Lock	0.00	-			-	-	-	n	n	
10	Tot	Hexa Lock	0.00	-			-	-	-	n	n	

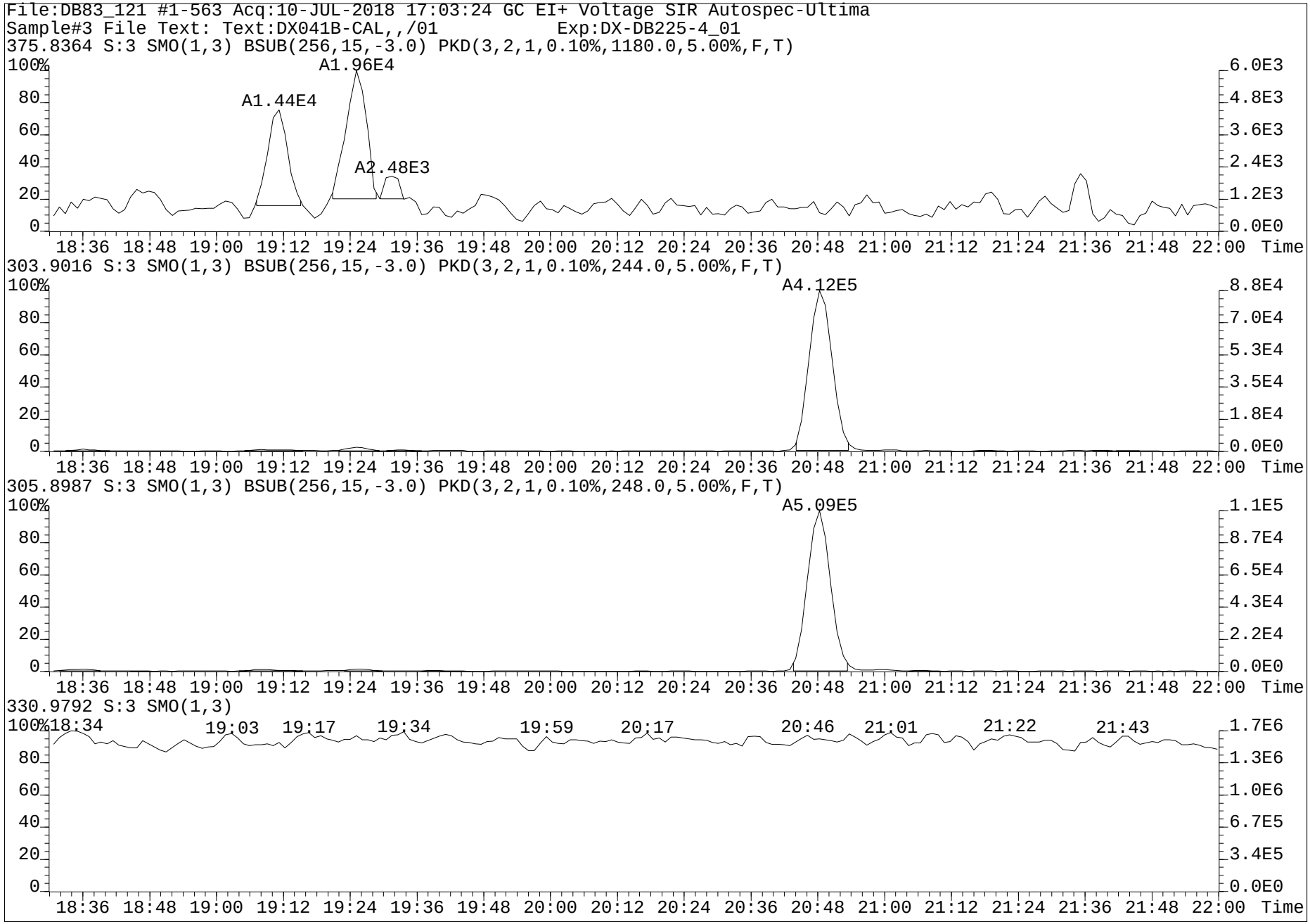
PV by TD 12-Jul-2018

SV: P^ 12-JUL-18


File:DB83_121 #1-563 Acq:10-JUL-2018 17:03:24 GC EI+ Voltage SIR Autospec-Ultima
Sample#3 File Text: Text:DX041B-CAL,,/01 Exp:DX-DB225-4_01
303.9016 S:3 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,244.0,5.00%,F,T)
A4.12E5
305.8987 S:3 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,248.0,5.00%,F,T)
A5.09E5
315.9419 S:3 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,476.0,5.00%,F,T)
A9.01E7
317.9389 S:3 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,420.0,5.00%,F,T)
A1.13E8
100%
80
60
40
20
0
8.8E4
7.0E4
5.3E4
3.5E4
1.8E4
0.0E0
1.1E5
8.7E4
6.5E4
4.3E4
2.2E4
1.9E7
1.5E7
1.2E7
7.7E6
3.9E6
2.4E7
1.9E7
1.4E7
9.5E6
4.8E6
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time


File:DB83_121 #1-767 Acq:10-JUL-2018 17:03:24 GC EI+ Voltage SIR Autospec-Ultima
Sample#3 File Text: Text:DX041B-CAL,,/01 Exp:DX-DB225-4_01
389.8156 S:3 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,292.0,5.00%,F,T)
A8.21E5
A7.85E5
A7.43E5
391.8127 S:3 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,240.0,5.00%,F,T)
A6.22E5
A6.16E5
A5.77E5
401.8559 S:3 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,448.0,5.00%,F,T)
A3.35E7
A3.36E7
A3.17E7
403.8530 S:3 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,324.0,5.00%,F,T)
A2.55E7
A2.60E7
A2.46E7
392.9760 S:3 F:2 SMO(1,3)
33:15
33:39
33:54
34:10
34:27
34:43
35:03
35:35
36:07
36:26
37:02
37:23
37:45
100%
50
0
33:00
34:00
35:00
36:00
37:00
38:00
Time
8.3E4
4.2E4
0.0E0
6.3E4
3.2E4
3.7E6
1.9E6
2.9E6
1.5E6
5.6E5
2.8E5


File:DB83_121 #1-563 Acq:10-JUL-2018 17:03:24 GC EI+ Voltage SIR Autospec-Ultima
Sample#3 File Text: Text:DX041B-CAL,,/01 Exp:DX-DB225-4_01
331.9368 S:3 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,372.0,5.00%,F,T)
A5.46E7
333.9339 S:3 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,296.0,5.00%,F,T)
A6.78E7
Time


File:DB83_121 #1-563 Acq:10-JUL-2018 17:03:24 GC EI+ Voltage SIR Autospec-Ultima
Sample#3 File Text: Text:DX041B-CAL,,/01 Exp:DX-DB225-4_01
375.8364 S:3 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,1180.0,5.00%,F,T)
A1.44E4
A1.96E4
A2.48E3
303.9016 S:3 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,244.0,5.00%,F,T)
A4.12E5
305.8987 S:3 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,248.0,5.00%,F,T)
A5.09E5
330.9792 S:3 SMO(1,3)
18:34 19:03 19:17 19:34 19:59 20:17 20:46 21:01 21:22 21:43
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time

Run #3 Filename DB83_121 S: 2 I: 1 Acquired: 10-JUL-18 16:22:08 Processed: 12-JUL-18 08:19:37
Run: db83_121 Analyte: DB-HXD-C2 Cal: db83_113c-6a Results: db83_121-6a Version: V3.6 6-JAN-2000 17:51:42
Sample text: DX041C-CAL,,/01 Comments: 1,,2.0uL CS-2 F1: 4.00 F2: 1.00

	Typ	Name	Amount	Resp	RA	RT	RF	RRF		Modified?
1	Unk	2,3,7,8-TCDF	2.00	3.90e+06	0.78 y	20:49	-	0.8851	y	n
2	Unk	1,2,3,7,8,9-HxCDD	10.00	4.60e+06	1.26 y	36:47	-	0.8526	y	n
3	IS/RT	13C-2,3,7,8-TCDF	100.00	2.20e+08	0.78 y	20:47	-	1.7466	y	n
4	IS/RT	13C-1,2,3,4,7,8-HxCDD	100.00	5.26e+07	1.30 y	34:10	-	1.0338	y	n
5	IS/RT	13C-1,2,3,6,7,8-HxCDD	100.00	5.52e+07	1.28 y	34:34	-	1.0849	y	n
6	RS	13C-1,2,3,4-TCDD	100.00	1.26e+08	0.80 y	19:25	1.26e+06	-	n	n
7	RS	13C-1,2,3,7,8,9-HxCDD	100.00	5.09e+07	1.28 y	36:43	5.09e+05	-	n	n
8	Tot	Hexa DPE	0.00	*		NotF»	Div0	-	n	n
9	Tot	Tetra Lock	0.00	-		-	-	-	n	n
10	Tot	Hexa Lock	0.00	-		-	-	-	n	n

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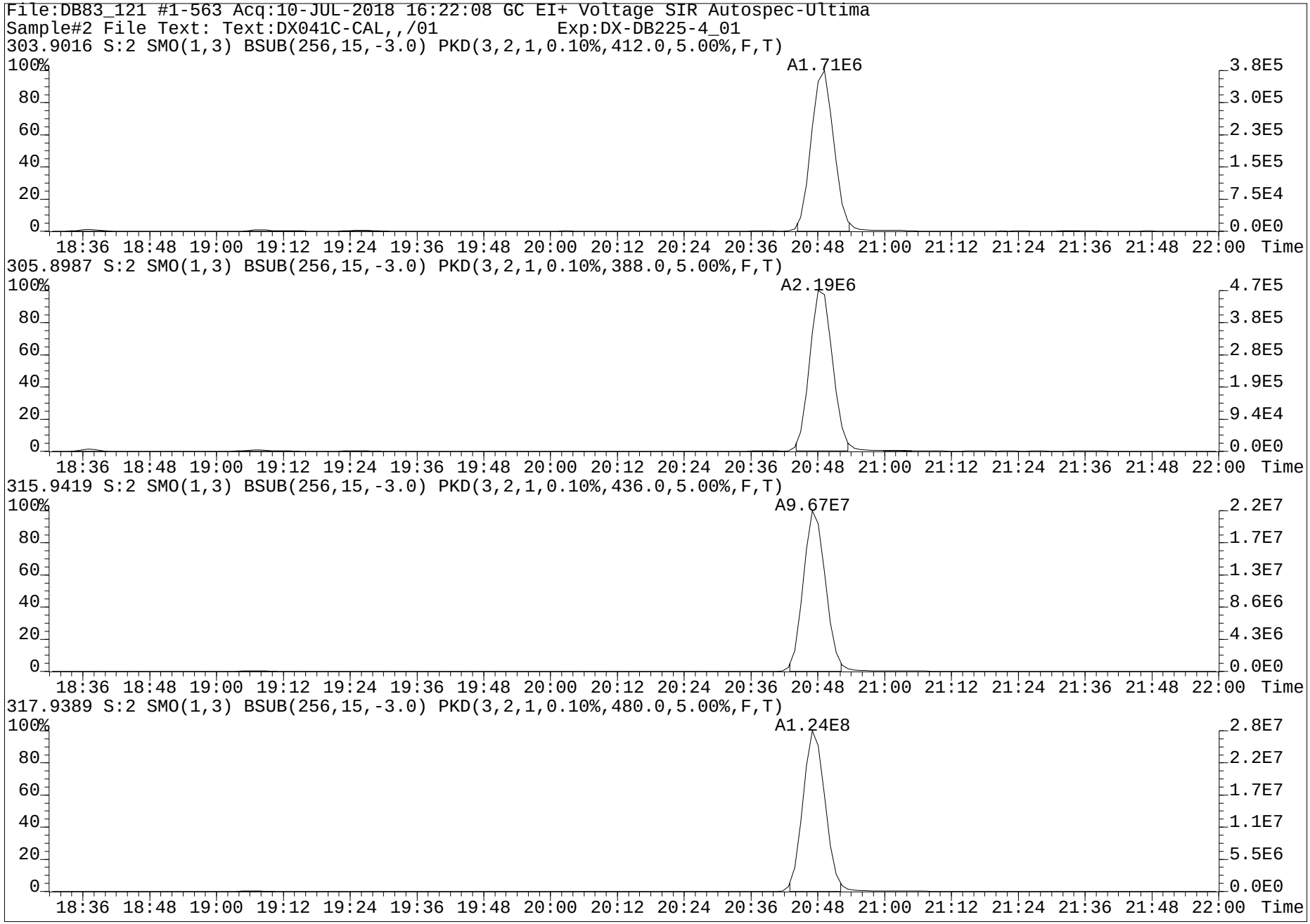
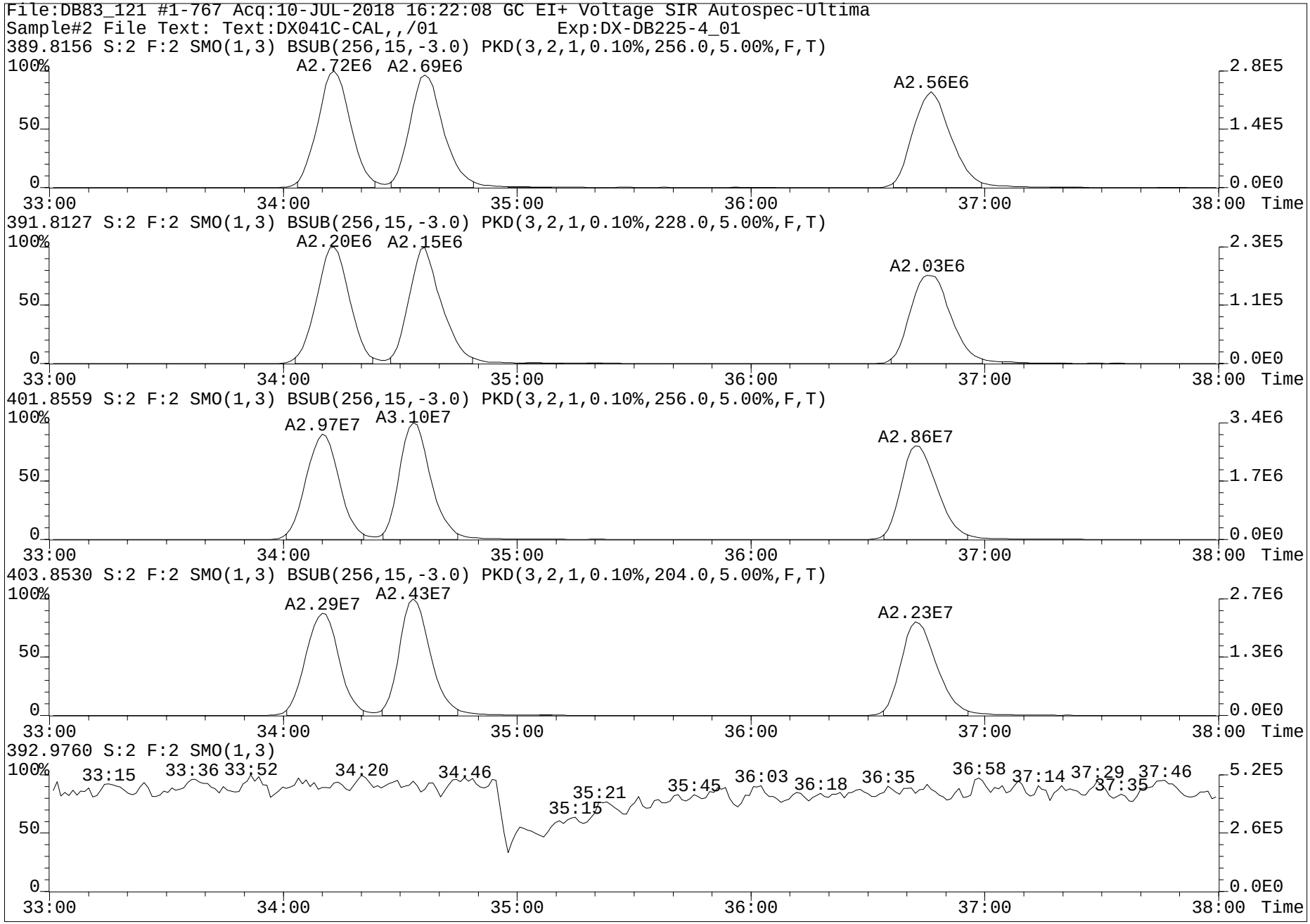
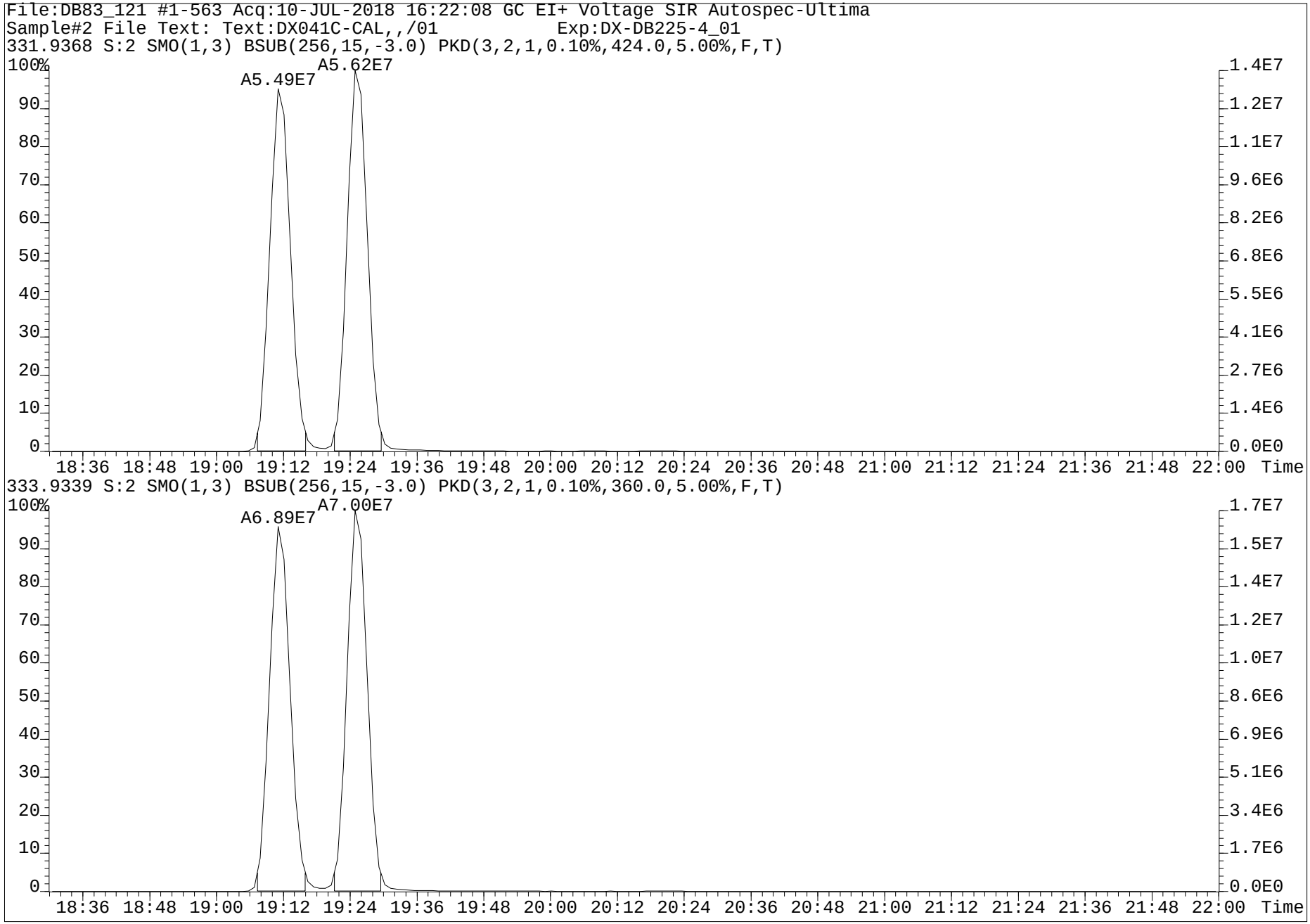
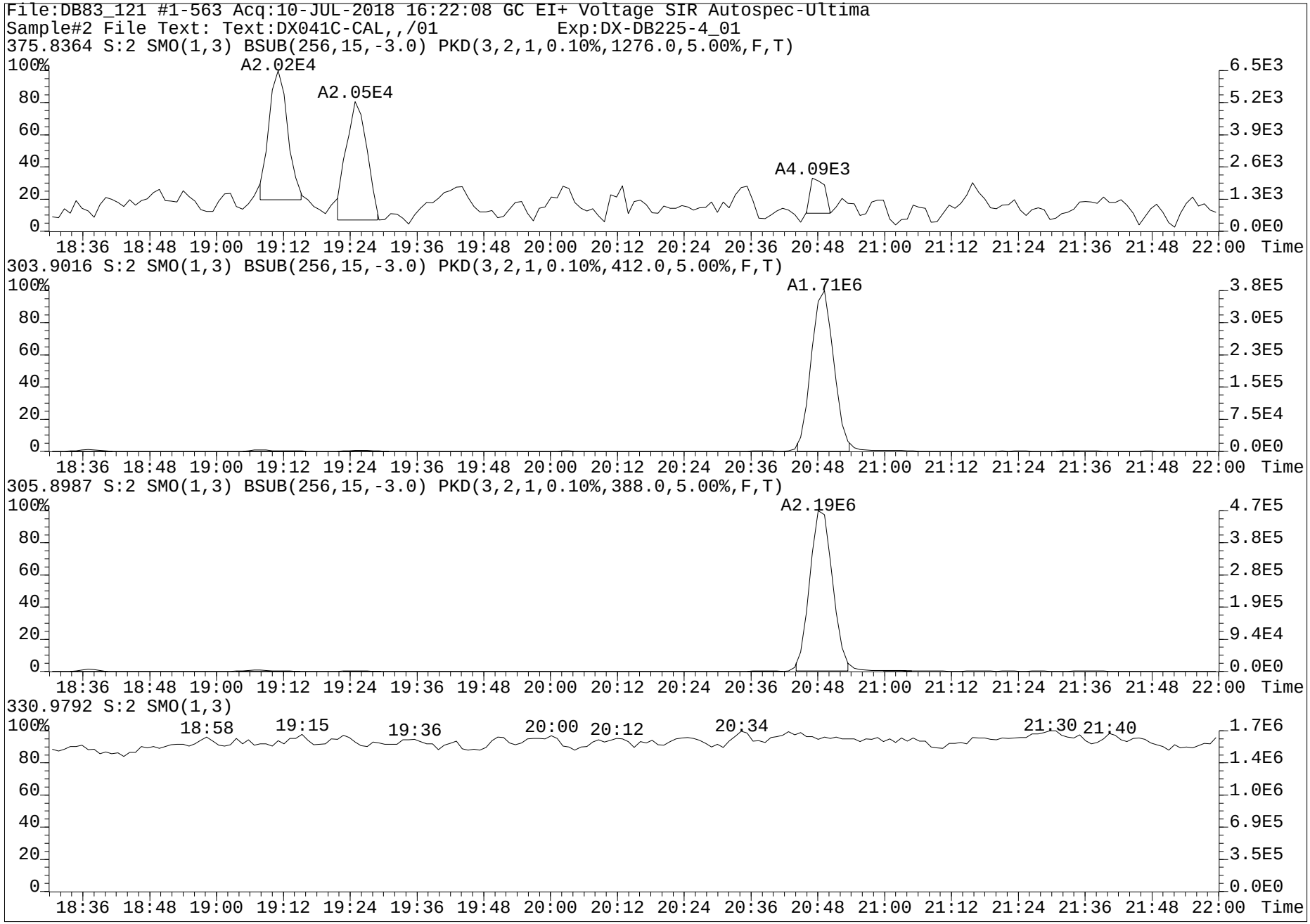

File:DB83_121 #1-563 Acq:10-JUL-2018 16:22:08 GC EI+ Voltage SIR Autospec-Ultima
Sample#2 File Text: Text:DX041C-CAL,,/01 Exp:DX-DB225-4_01
303.9016 S:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,412.0,5.00%,F,T)
A1.71E6
305.8987 S:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,388.0,5.00%,F,T)
A2.19E6
315.9419 S:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,436.0,5.00%,F,T)
A9.67E7
317.9389 S:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,480.0,5.00%,F,T)
A1.24E8
100%
80
60
40
20
0
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time
3.8E5
3.0E5
2.3E5
1.5E5
7.5E4
0.0E0
4.7E5
3.8E5
2.8E5
1.9E5
9.4E4
0.0E0
2.2E7
1.7E7
1.3E7
8.6E6
4.3E6
0.0E0
2.8E7
2.2E7
1.7E7
1.1E7
5.5E6
0.0E0


File:DB83_121 #1-767 Acq:10-JUL-2018 16:22:08 GC EI+ Voltage SIR Autospec-Ultima
Sample#2 File Text: Text:DX041C-CAL,,/01 Exp:DX-DB225-4_01
389.8156 S:2 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,256.0,5.00%,F,T)
A2.72E6 A2.69E6
A2.56E6
391.8127 S:2 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,228.0,5.00%,F,T)
A2.20E6 A2.15E6
A2.03E6
401.8559 S:2 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,256.0,5.00%,F,T)
A2.97E7 A3.10E7
A2.86E7
403.8530 S:2 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,204.0,5.00%,F,T)
A2.29E7 A2.43E7
A2.23E7
392.9760 S:2 F:2 SMO(1,3)
33:15 33:36 33:52 34:20 34:46 35:15 35:21 35:45 36:03 36:18 36:35 36:58 37:14 37:29 37:35 37:46
100%
50
0
33:00 34:00 35:00 36:00 37:00 38:00 Time
2.8E5 1.4E5 0.0E0
2.3E5 1.1E5 0.0E0
3.4E6 1.7E6 0.0E0
2.7E6 1.3E6 0.0E0
5.2E5 2.6E5 0.0E0


File:DB83_121 #1-563 Acq:10-JUL-2018 16:22:08 GC EI+ Voltage SIR Autospec-Ultima
Sample#2 File Text: Text:DX041C-CAL,,/01 Exp:DX-DB225-4_01
331.9368 S:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,424.0,5.00%,F,T)
A5.49E7
A5.62E7
333.9339 S:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,360.0,5.00%,F,T)
A6.89E7
A7.00E7
Time


File:DB83_121 #1-563 Acq:10-JUL-2018 16:22:08 GC EI+ Voltage SIR Autospec-Ultima
Sample#2 File Text: Text:DX041C-CAL,,/01 Exp:DX-DB225-4_01
375.8364 S:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,1276.0,5.00%,F,T)
A2.02E4
A2.05E4
A4.09E3
303.9016 S:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,412.0,5.00%,F,T)
A1.71E6
305.8987 S:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,388.0,5.00%,F,T)
A2.19E6
330.9792 S:2 SMO(1,3)
18:58
19:15
19:36
20:00
20:12
20:34
21:30
21:40
Time

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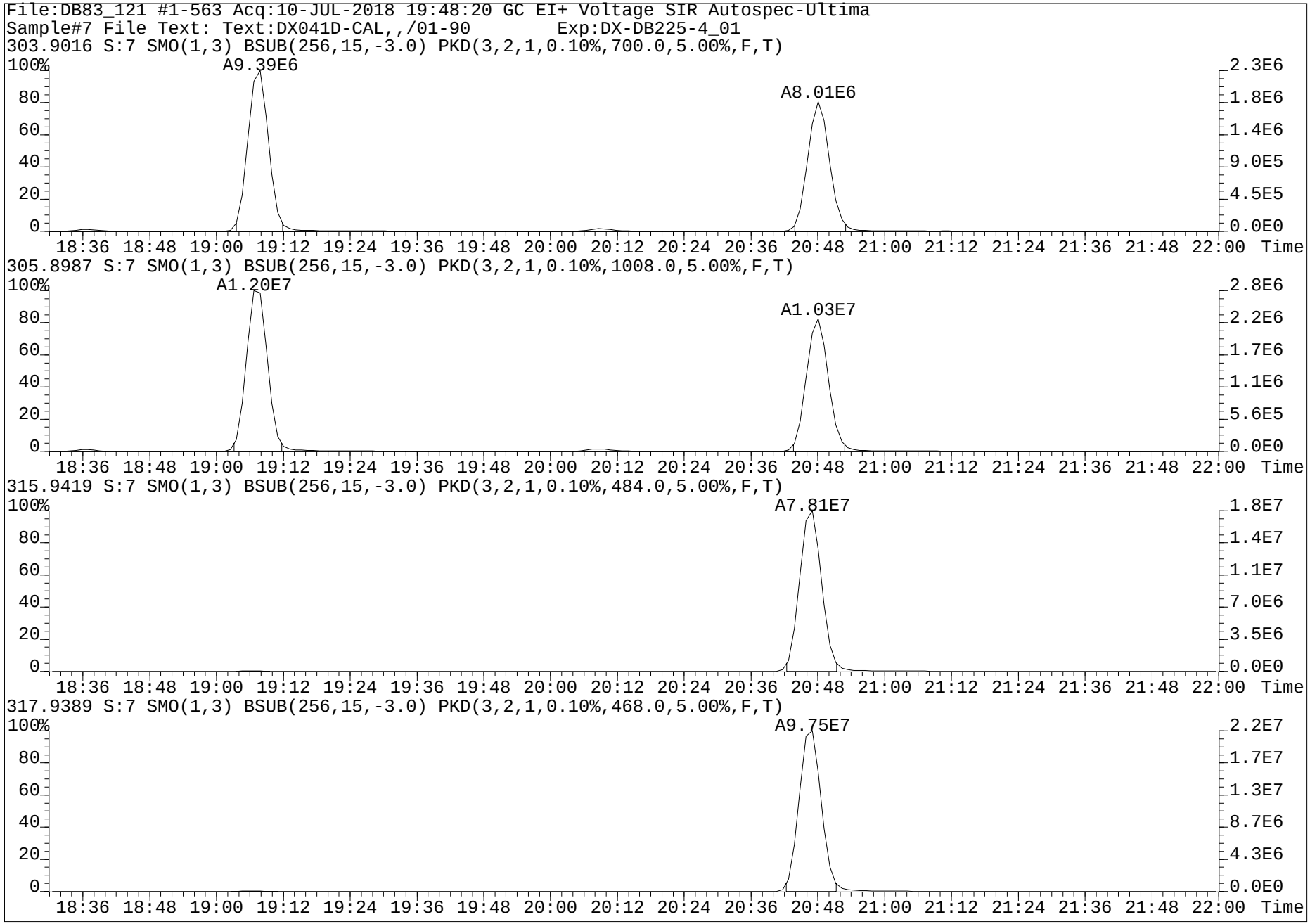
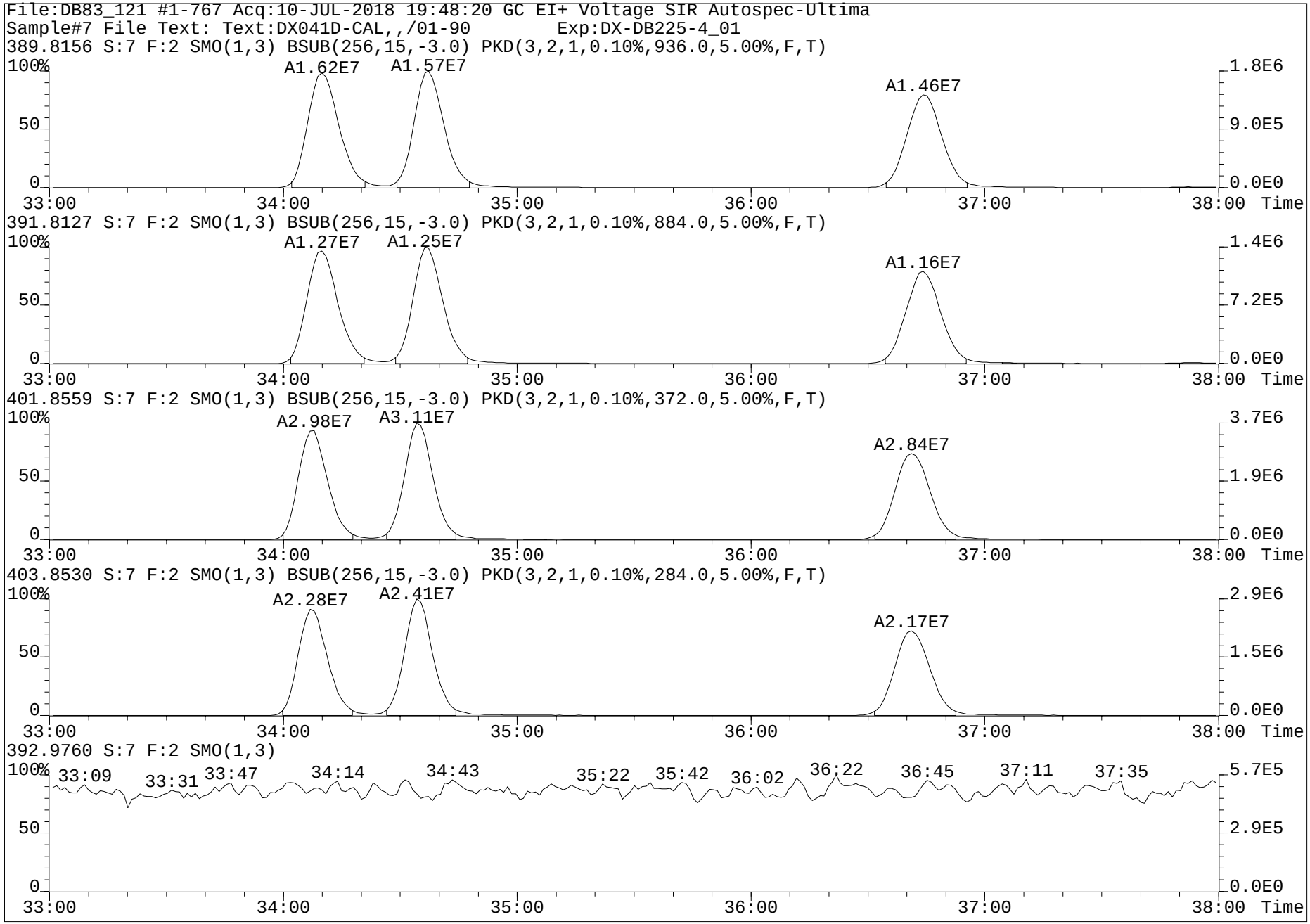
Run #4 Filename DB83_121 S: 7 I: 1 Acquired: 10-JUL-18 19:48:20 Processed: 12-JUL-18 08:19:37
Run: db83_121 Analyte: DB-HXD-C2 Cal: db83_113c-6a Results: db83_121-6a Version: V3.6 6-JAN-2000 17:51:42
Sample text: DX041D-CAL,,/01-90 Comments: 1,,2.0uL CAL F1: 20.00 F2: 1.00

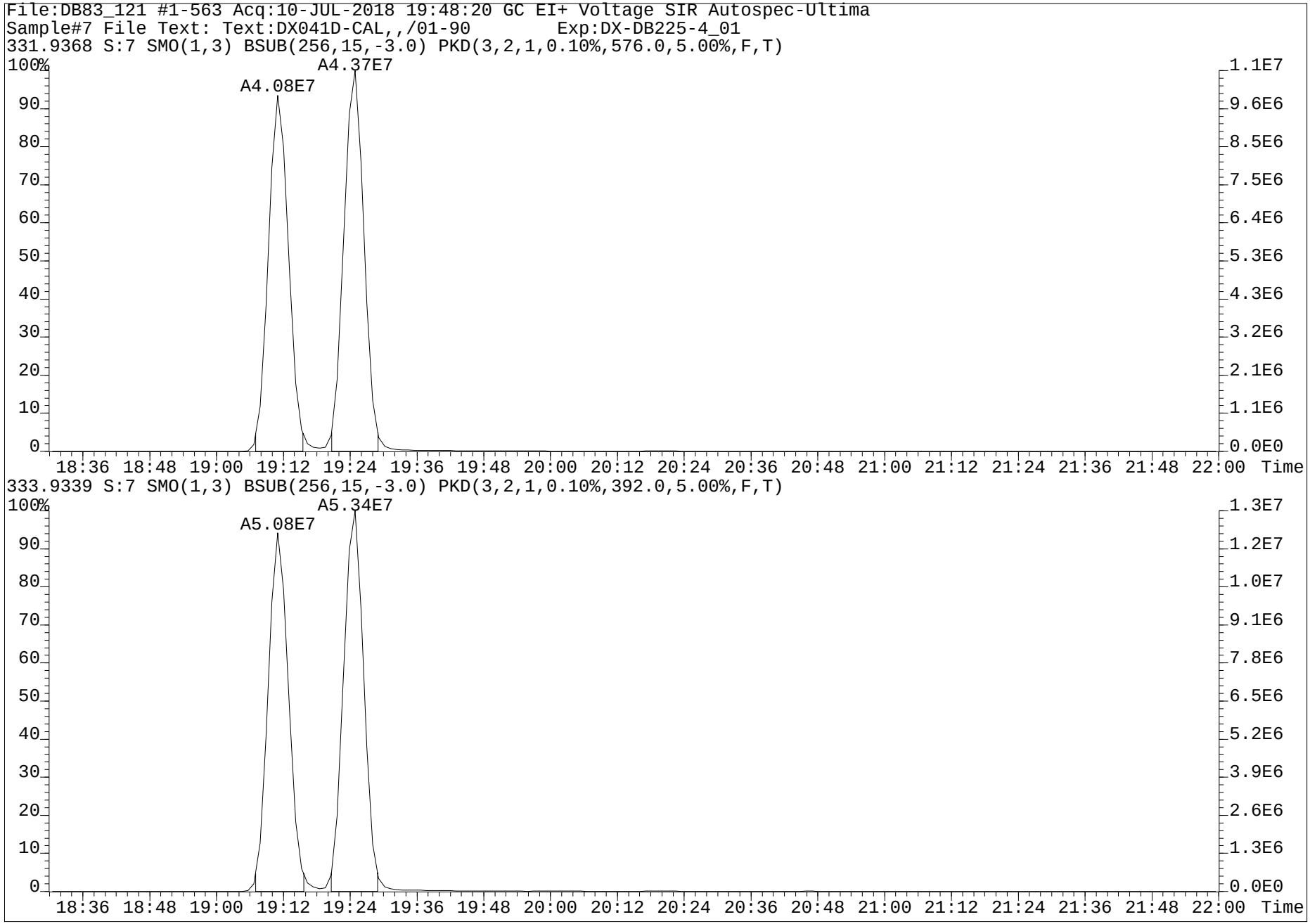
	Typ	Name	Amount	Resp	RA	RT	RF	RRF		Modified?
1	Unk	2,3,7,8-TCDF	10.00	1.83e+07	0.78 y	20:48	-	1.0438	y	n
2	Unk	1,2,3,7,8,9-HxCDD	50.00	2.62e+07	1.26 y	36:44	-	0.9718	y	n
3	IS/RT	13C-2,3,7,8-TCDF	100.00	1.76e+08	0.80 y	20:47	-	1.8071	y	n
4	IS/RT	13C-1,2,3,4,7,8-HxCDD	100.00	5.26e+07	1.31 y	34:08	-	1.0497	y	n
5	IS/RT	13C-1,2,3,6,7,8-HxCDD	100.00	5.52e+07	1.29 y	34:35	-	1.1013	y	n
6	RS	13C-1,2,3,4-TCDD	100.00	9.71e+07	0.82 y	19:25	9.71e+05	-	n	n
7	RS	13C-1,2,3,7,8,9-HxCDD	100.00	5.01e+07	1.31 y	36:42	5.01e+05	-	n	n
8	Tot	Hexa DPE	0.00	*		NotF»	Div0	-	n	n
9	Tot	Tetra Lock	0.00	-		-	-	-	n	n
10	Tot	Hexa Lock	0.00	-		-	-	-	n	n

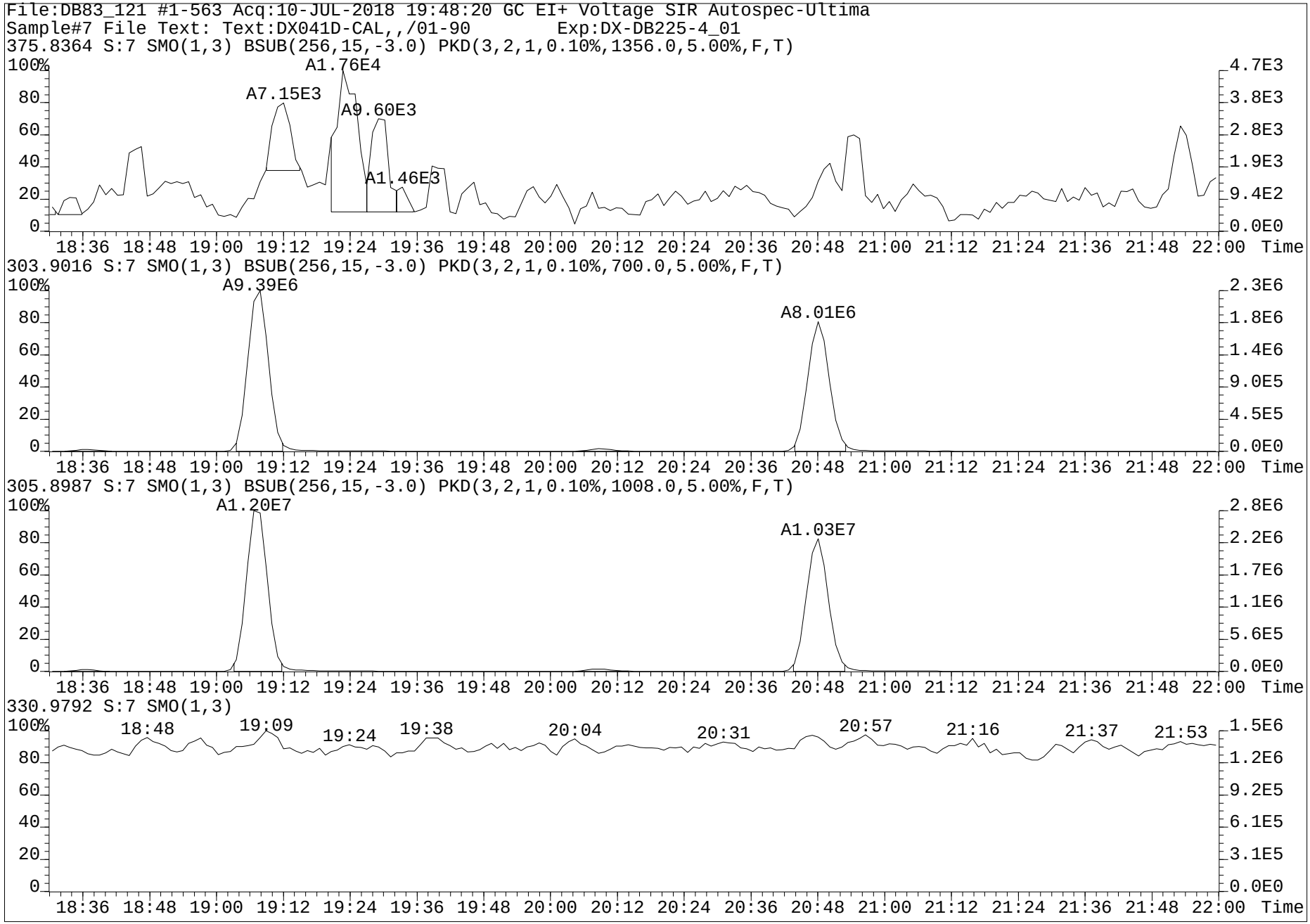
PV by TD 12-Jul-2018

SV: P^ 12-JUL-18


File:DB83_121 #1-563 Acq:10-JUL-2018 19:48:20 GC EI+ Voltage SIR Autospec-Ultima
Sample#7 File Text: Text:DX041D-CAL,,/01-90 Exp:DX-DB225-4_01
303.9016 S:7 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,700.0,5.00%,F,T)
A9.39E6
A8.01E6
305.8987 S:7 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,1008.0,5.00%,F,T)
A1.20E7
A1.03E7
315.9419 S:7 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,484.0,5.00%,F,T)
A7.81E7
317.9389 S:7 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,468.0,5.00%,F,T)
A9.75E7
100%
80
60
40
20
0
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time
2.3E6
1.8E6
1.4E6
9.0E5
4.5E5
0.0E0
2.8E6
2.2E6
1.7E6
1.1E6
5.6E5
0.0E0
1.8E7
1.4E7
1.1E7
7.0E6
3.5E6
0.0E0
2.2E7
1.7E7
1.3E7
8.7E6
4.3E6
0.0E0


File:DB83_121 #1-767 Acq:10-JUL-2018 19:48:20 GC EI+ Voltage SIR Autospec-Ultima
Sample#7 File Text: Text:DX041D-CAL,,/01-90 Exp:DX-DB225-4_01
389.8156 S:7 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,936.0,5.00%,F,T)
A1.62E7
A1.57E7
A1.46E7
391.8127 S:7 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,884.0,5.00%,F,T)
A1.27E7
A1.25E7
A1.16E7
401.8559 S:7 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,372.0,5.00%,F,T)
A2.98E7
A3.11E7
A2.84E7
403.8530 S:7 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,284.0,5.00%,F,T)
A2.28E7
A2.41E7
A2.17E7
392.9760 S:7 F:2 SMO(1,3)
33:09
33:31
33:47
34:14
34:43
35:22
35:42
36:02
36:22
36:45
37:11
37:35
100%
50
0
33:00
34:00
35:00
36:00
37:00
38:00
Time
1.8E6
9.0E5
0.0E0
1.4E6
7.2E5
3.7E6
1.9E6
2.9E6
1.5E6
5.7E5
2.9E5


File:DB83_121 #1-563 Acq:10-JUL-2018 19:48:20 GC EI+ Voltage SIR Autospec-Ultima
Sample#7 File Text: Text:DX041D-CAL,,/01-90 Exp:DX-DB225-4_01
331.9368 S:7 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,576.0,5.00%,F,T)
A4.08E7
A4.37E7
333.9339 S:7 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,392.0,5.00%,F,T)
A5.08E7
A5.34E7
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time

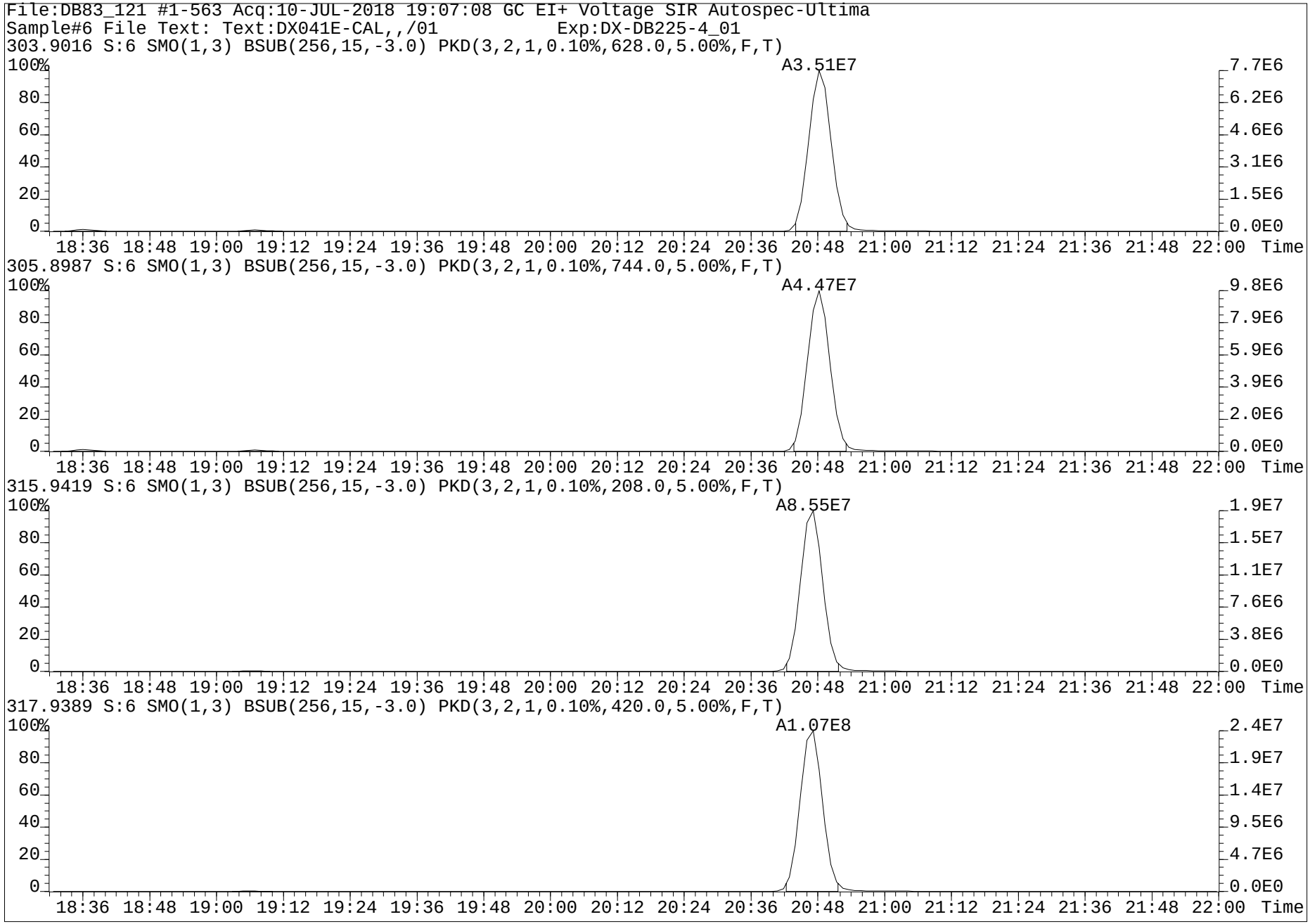

File:DB83_121 #1-563 Acq:10-JUL-2018 19:48:20 GC EI+ Voltage SIR Autospec-Ultima
Sample#7 File Text: Text:DX041D-CAL,,/01-90 Exp:DX-DB225-4_01
375.8364 S:7 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,1356.0,5.00%,F,T)
A1.76E4
A7.15E3
A9.60E3
A1.46E3
303.9016 S:7 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,700.0,5.00%,F,T)
A9.39E6
A8.01E6
305.8987 S:7 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,1008.0,5.00%,F,T)
A1.20E7
A1.03E7
330.9792 S:7 SMO(1,3)
18:48
19:09
19:24
19:38
20:04
20:31
20:57
21:16
21:37
21:53
Time

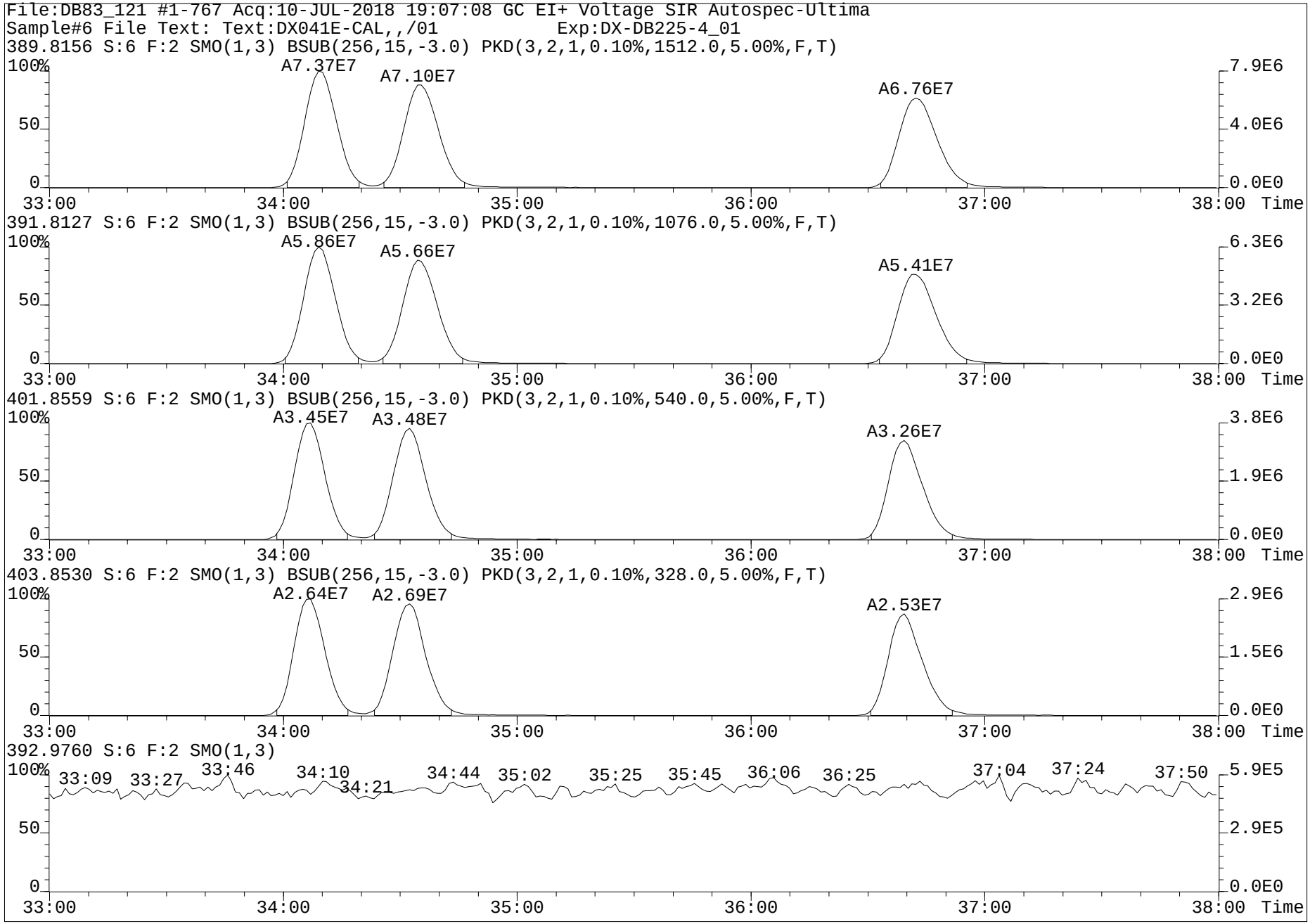
Run #5 Filename DB83_121 S: 6 I: 1 Acquired: 10-JUL-18 19:07:08 Processed: 12-JUL-18 08:19:37
Run: db83_121 Analyte: DB-HXD-C2 Cal: db83_113c-6a Results: db83_121-6a Version: V3.6 6-JAN-2000 17:51:42
Sample text: DX041E-CAL,,/01 Comments: 1,,2.0uL CS-4 F1: 80.00 F2: 1.00

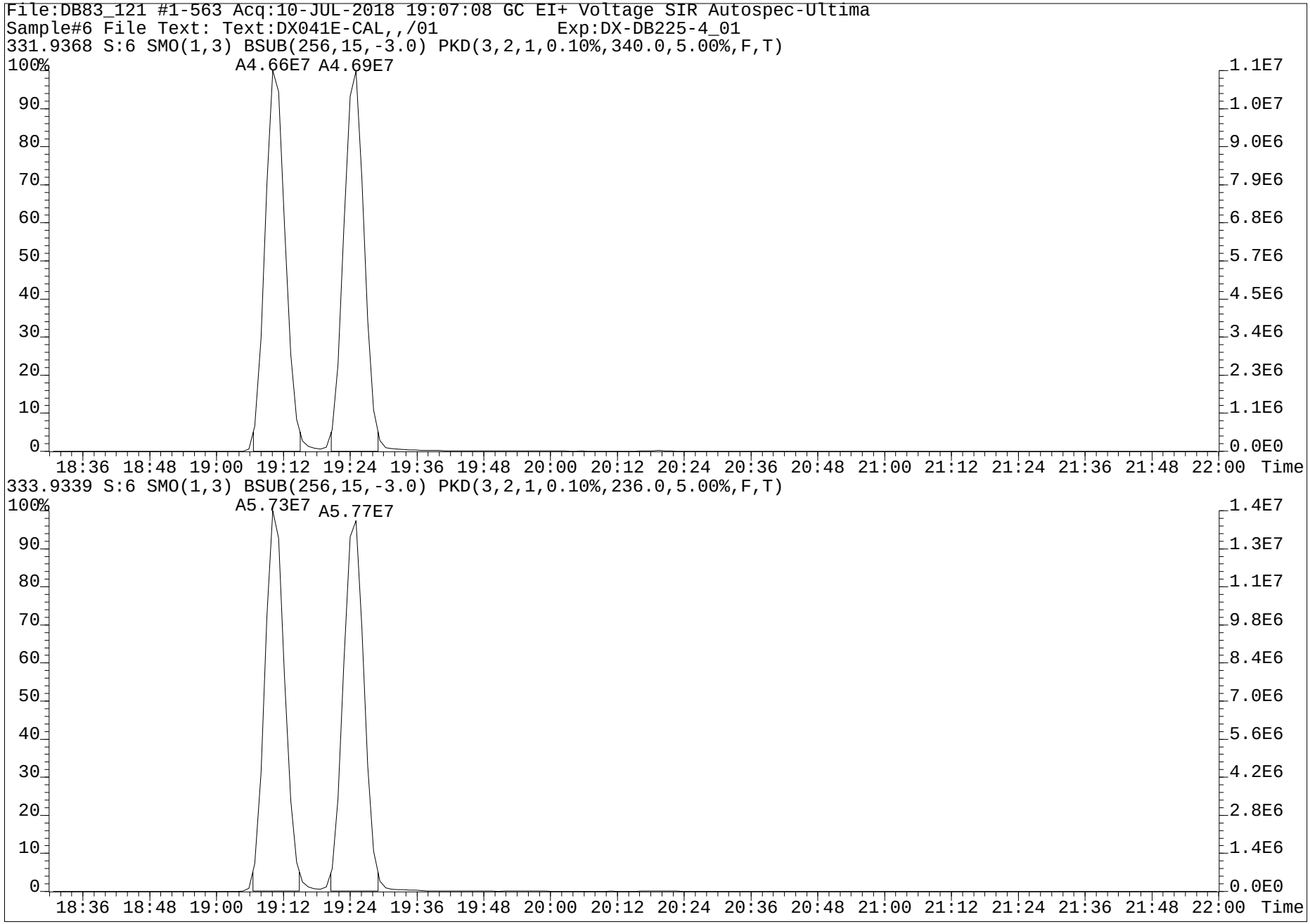
	Typ	Name	Amount	Resp	RA	RT	RF	RRF		Modified?
1	Unk	2,3,7,8-TCDF	40.00	7.98e+07	0.78 y	20:48	-	1.0349	y	n
2	Unk	1,2,3,7,8,9-HxCDD	200.00	1.22e+08	1.25 y	36:43	-	0.9922	y	n
3	IS/RT	13C-2,3,7,8-TCDF	100.00	1.93e+08	0.80 y	20:47	-	1.8426	y	n
4	IS/RT	13C-1,2,3,4,7,8-HxCDD	100.00	6.10e+07	1.31 y	34:07	-	1.0543	y	n
5	IS/RT	13C-1,2,3,6,7,8-HxCDD	100.00	6.17e+07	1.30 y	34:32	-	1.0672	y	n
6	RS	13C-1,2,3,4-TCDD	100.00	1.05e+08	0.81 y	19:25	1.05e+06	-	n	n
7	RS	13C-1,2,3,7,8,9-HxCDD	100.00	5.78e+07	1.29 y	36:40	5.78e+05	-	n	n
8	Tot	Hexa DPE	0.00	*		NotF»	Div0	-	n	n
9	Tot	Tetra Lock	0.00	-		-	-	-	n	n
10	Tot	Hexa Lock	0.00	-		-	-	-	n	n

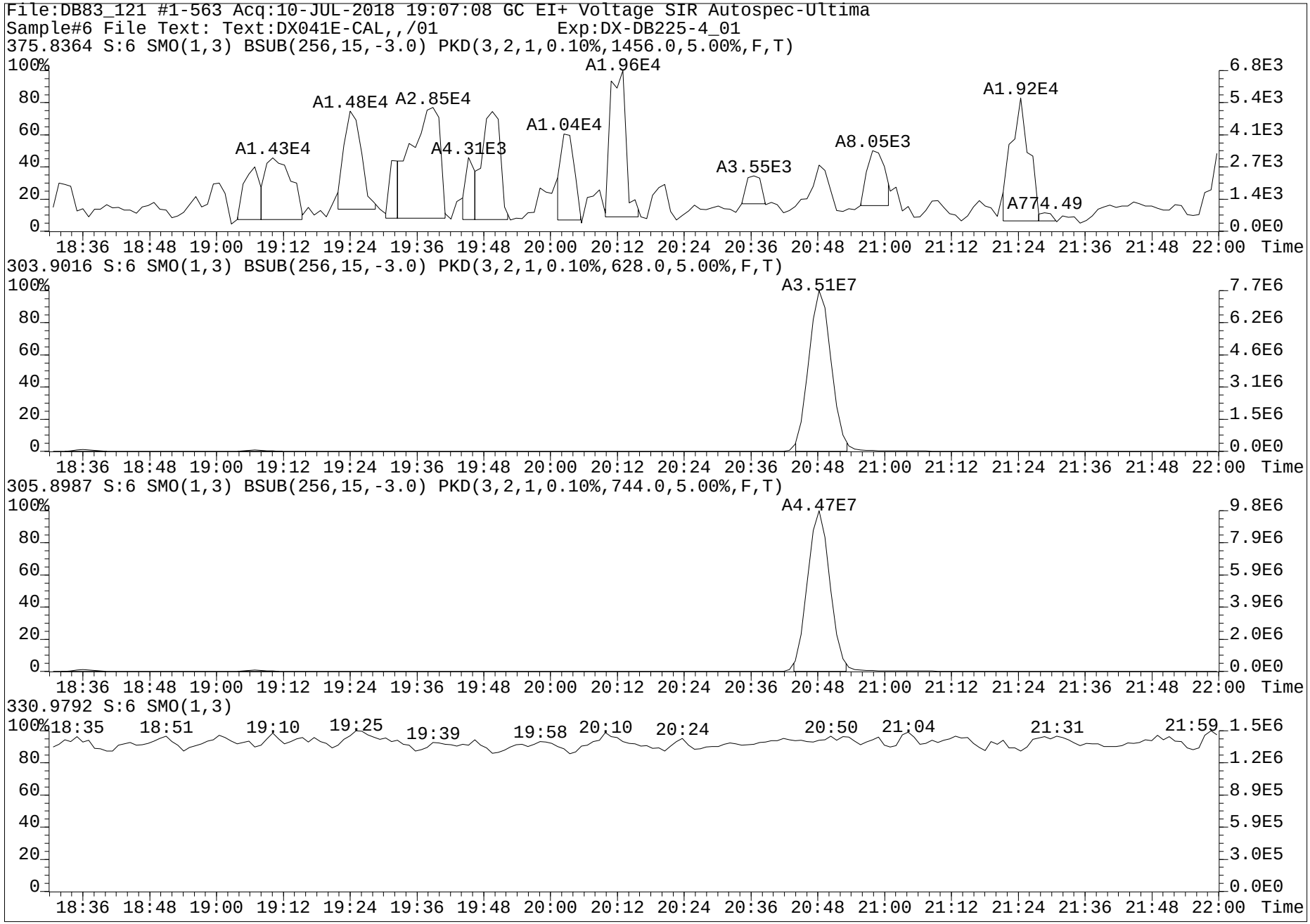
PV by TD 12-Jul-2018

SV: TD 12-JUL-18


File:DB83_121 #1-563 Acq:10-JUL-2018 19:07:08 GC EI+ Voltage SIR Autospec-Ultima
Sample#6 File Text: Text:DX041E-CAL,,/01 Exp:DX-DB225-4_01
303.9016 S:6 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,628.0,5.00%,F,T)
A3.51E7
305.8987 S:6 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,744.0,5.00%,F,T)
A4.47E7
315.9419 S:6 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,208.0,5.00%,F,T)
A8.55E7
317.9389 S:6 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,420.0,5.00%,F,T)
A1.07E8
100%
80
60
40
20
0
7.7E6
6.2E6
4.6E6
3.1E6
1.5E6
0.0E0
9.8E6
7.9E6
5.9E6
3.9E6
2.0E6
1.9E7
1.5E7
1.1E7
7.6E6
3.8E6
2.4E7
1.9E7
1.4E7
9.5E6
4.7E6
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time


File:DB83_121 #1-767 Acq:10-JUL-2018 19:07:08 GC EI+ Voltage SIR Autospec-Ultima
Sample#6 File Text: Text:DX041E-CAL,,/01 Exp:DX-DB225-4_01
389.8156 S:6 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,1512.0,5.00%,F,T)
A7.37E7
A7.10E7
A6.76E7
391.8127 S:6 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,1076.0,5.00%,F,T)
A5.86E7
A5.66E7
A5.41E7
401.8559 S:6 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,540.0,5.00%,F,T)
A3.45E7
A3.48E7
A3.26E7
403.8530 S:6 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,328.0,5.00%,F,T)
A2.64E7
A2.69E7
A2.53E7
392.9760 S:6 F:2 SMO(1,3)
33:09
33:27
33:46
34:10
34:21
34:44
35:02
35:25
35:45
36:06
36:25
37:04
37:24
37:50
100%
50
0
33:00
34:00
35:00
36:00
37:00
38:00
Time
7.9E6
4.0E6
0.0E0
6.3E6
3.2E6
0.0E0
3.8E6
1.9E6
0.0E0
2.9E6
1.5E6
0.0E0
5.9E5
2.9E5
0.0E0


File:DB83_121 #1-563 Acq:10-JUL-2018 19:07:08 GC EI+ Voltage SIR Autospec-Ultima
Sample#6 File Text: Text:DX041E-CAL,,/01 Exp:DX-DB225-4_01
331.9368 S:6 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,340.0,5.00%,F,T)
A4.66E7 A4.69E7
100%
90
80
70
60
50
40
30
20
10
0
1.1E7
1.0E7
9.0E6
7.9E6
6.8E6
5.7E6
4.5E6
3.4E6
2.3E6
1.1E6
0.0E0
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time
333.9339 S:6 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,236.0,5.00%,F,T)
A5.73E7 A5.77E7
100%
90
80
70
60
50
40
30
20
10
0
1.4E7
1.3E7
1.1E7
9.8E6
8.4E6
7.0E6
5.6E6
4.2E6
2.8E6
1.4E6
0.0E0
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time


File:DB83_121 #1-563 Acq:10-JUL-2018 19:07:08 GC EI+ Voltage SIR Autospec-Ultima
Sample#6 File Text: Text:DX041E-CAL,,/01 Exp:DX-DB225-4_01
375.8364 S:6 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,1456.0,5.00%,F,T)
A1.43E4
A1.48E4
A2.85E4
A4.31E3
A1.04E4
A1.96E4
A3.55E3
A8.05E3
A1.92E4
A774.49
303.9016 S:6 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,628.0,5.00%,F,T)
A3.51E7
305.8987 S:6 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,744.0,5.00%,F,T)
A4.47E7
330.9792 S:6 SMO(1,3)
18:35 18:51 19:10 19:25 19:39 19:58 20:10 20:24 20:50 21:04 21:31 21:59
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time

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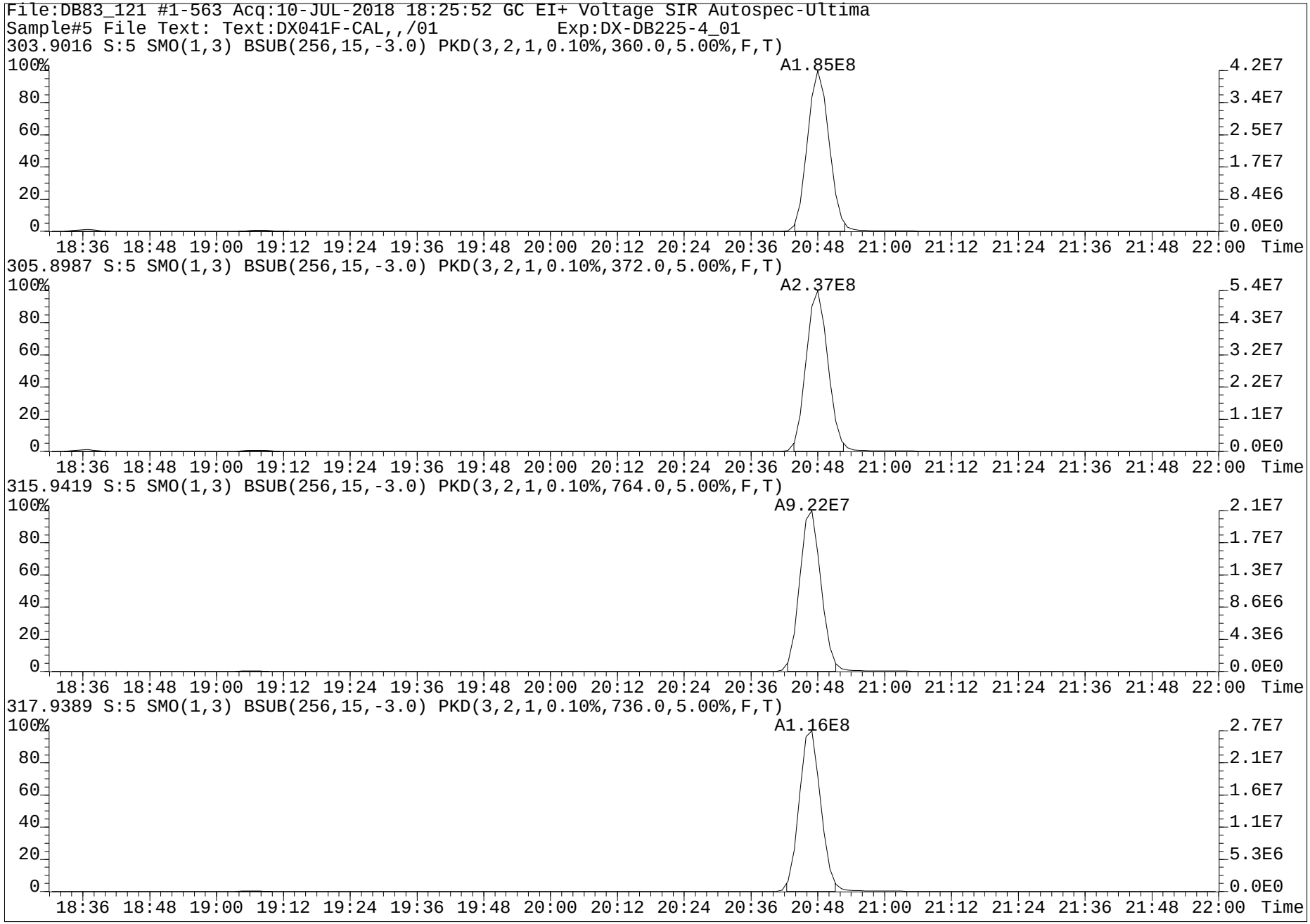
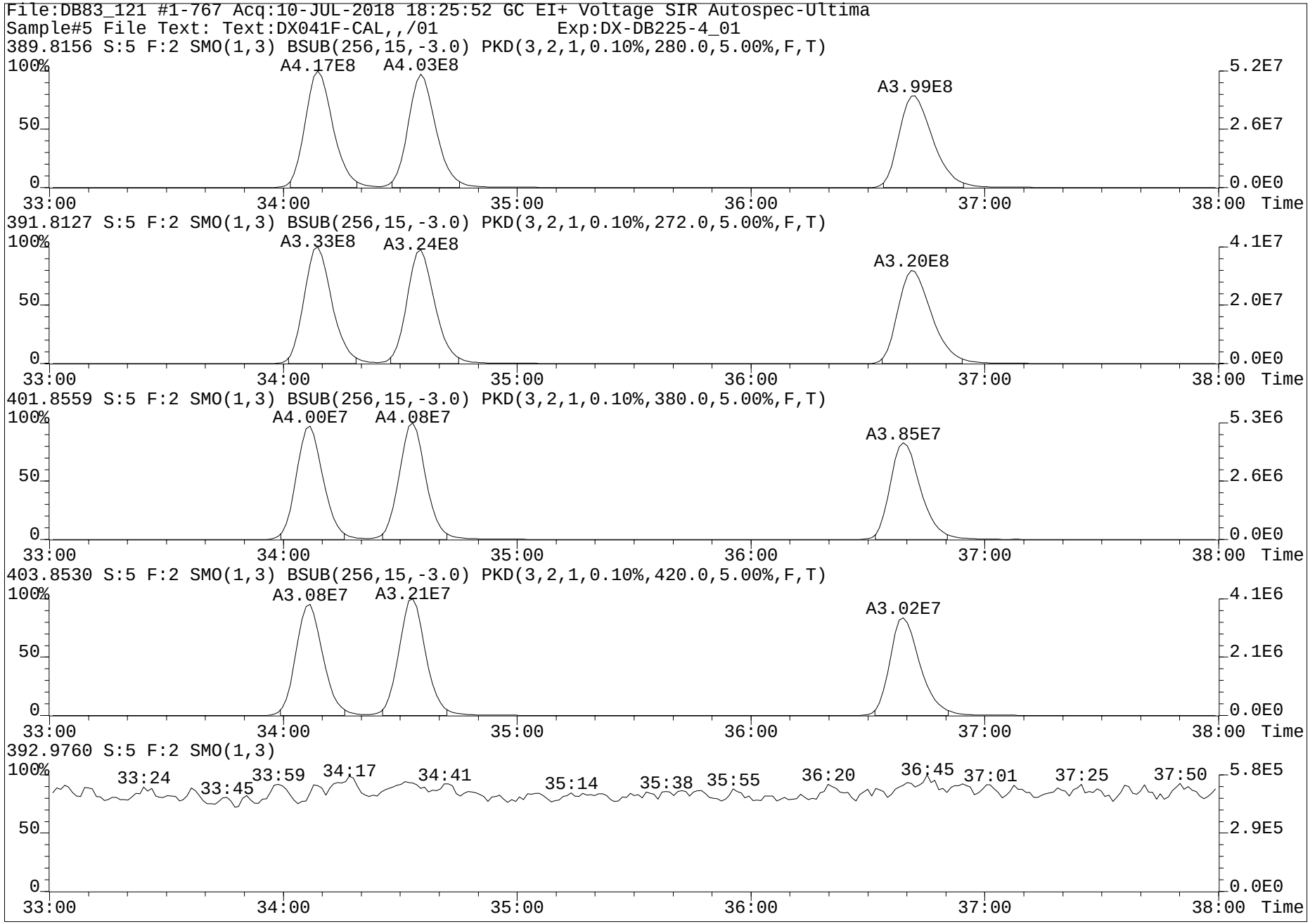
Run #6 Filename DB83_121 S: 5 I: 1 Acquired: 10-JUL-18 18:25:52 Processed: 12-JUL-18 08:19:37
Run: db83_121 Analyte: DB-HXD-C2 Cal: db83_113c-6a Results: db83_121-6a Version: V3.6 6-JAN-2000 17:51:42
Sample text: DX041F-CAL,,/01 Comments: 1,,2.0uL CS-5 F1: 400.00 F2: 1.00

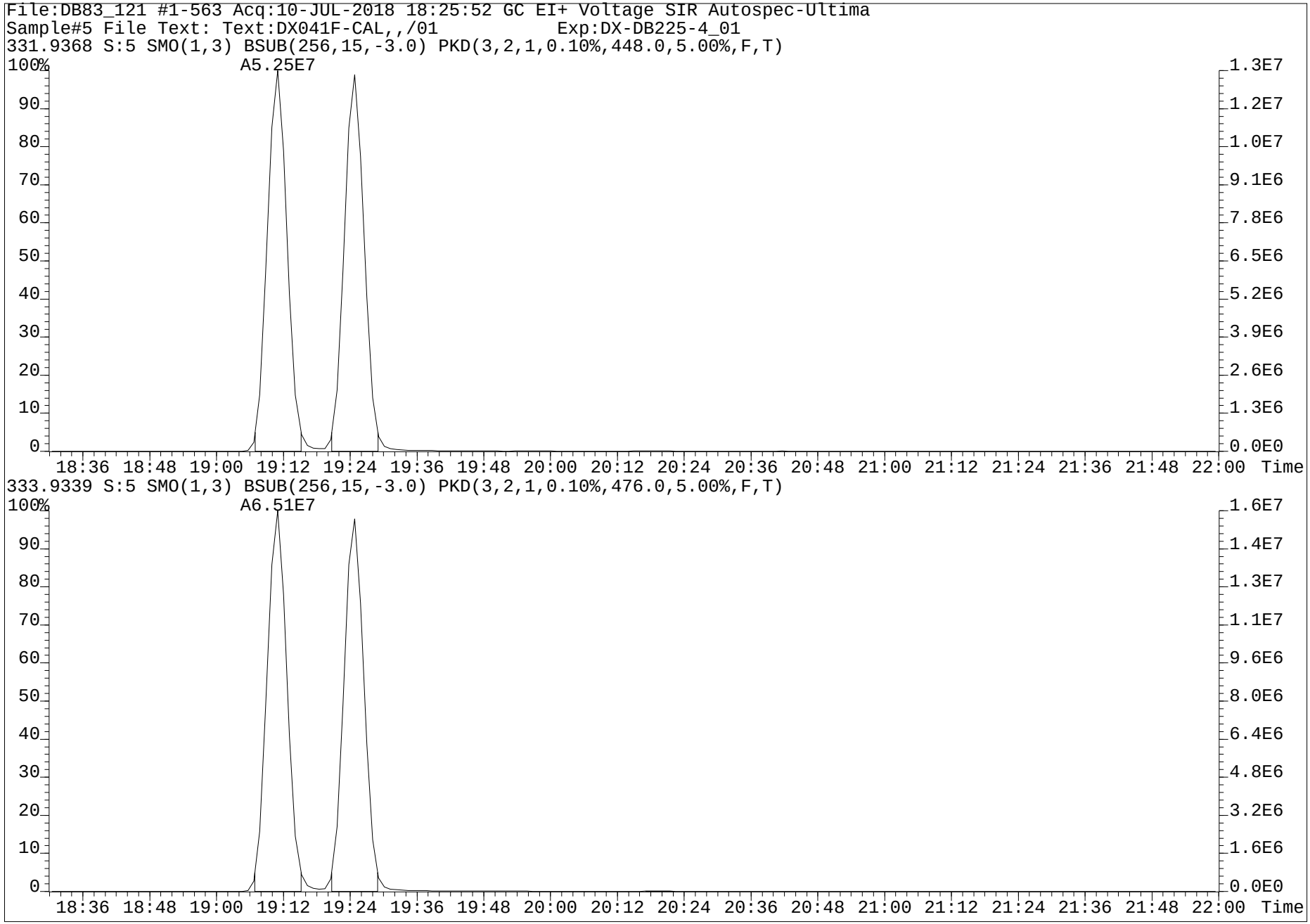
	Typ	Name	Amount	Resp	RA	RT	RF	RRF		Modified?
1	Unk	2,3,7,8-TCDF	200.00	4.22e+08	0.78 y	20:48	-	1.0129	y	n
2	Unk	1,2,3,7,8,9-HxCDD	1000.00	7.19e+08	1.25 y	36:43	-	1.0010	y	n
3	IS/RT	13C-2,3,7,8-TCDF	100.00	2.08e+08	0.79 y	20:47	-	1.7876	y	n
4	IS/RT	13C-1,2,3,4,7,8-HxCDD	100.00	7.07e+07	1.30 y	34:07	-	1.0294	y	n
5	IS/RT	13C-1,2,3,6,7,8-HxCDD	100.00	7.30e+07	1.27 y	34:33	-	1.0619	y	n
6	RS	13C-1,2,3,4-TCDD	100.00	1.16e+08	0.82 y	19:25	1.16e+06	-	n	n
7	RS	13C-1,2,3,7,8,9-HxCDD	100.00	6.87e+07	1.27 y	36:40	6.87e+05	-	n	n
8	Tot	Hexa DPE	0.00	*		NotF»	Div0	-	n	n
9	Tot	Tetra Lock	0.00	-		-	-	-	n	n
10	Tot	Hexa Lock	0.00	-		-	-	-	n	n

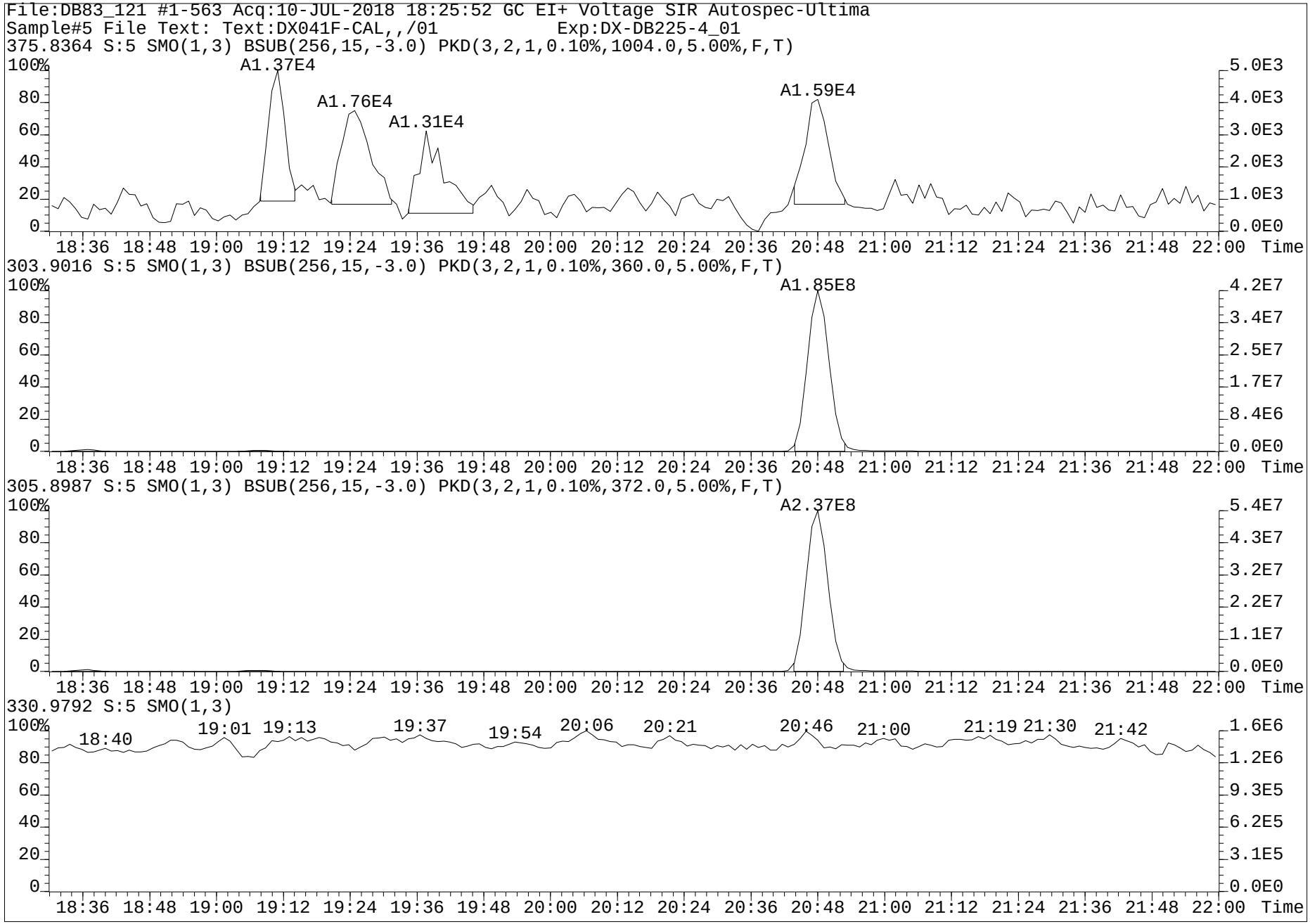
PV by TD 12-Jul-2018

SV: TA 12-JUL-18


File:DB83_121 #1-563 Acq:10-JUL-2018 18:25:52 GC EI+ Voltage SIR Autospec-Ultima
Sample#5 File Text: Text:DX041F-CAL,,/01 Exp:DX-DB225-4_01
303.9016 S:5 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,360.0,5.00%,F,T)
A1.85E8
305.8987 S:5 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,372.0,5.00%,F,T)
A2.37E8
315.9419 S:5 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,764.0,5.00%,F,T)
A9.22E7
317.9389 S:5 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,736.0,5.00%,F,T)
A1.16E8
100%
80
60
40
20
0
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time
4.2E7
3.4E7
2.5E7
1.7E7
8.4E6
0.0E0
5.4E7
4.3E7
3.2E7
2.2E7
1.1E7
2.1E7
1.7E7
1.3E7
8.6E6
4.3E6
2.7E7
2.1E7
1.6E7
1.1E7
5.3E6


File:DB83_121 #1-767 Acq:10-JUL-2018 18:25:52 GC EI+ Voltage SIR Autospec-Ultima
Sample#5 File Text: Text:DX041F-CAL,,/01 Exp:DX-DB225-4_01
389.8156 S:5 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,280.0,5.00%,F,T)
A4.17E8
A4.03E8
A3.99E8
391.8127 S:5 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,272.0,5.00%,F,T)
A3.33E8
A3.24E8
A3.20E8
401.8559 S:5 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,380.0,5.00%,F,T)
A4.00E7
A4.08E7
A3.85E7
403.8530 S:5 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,420.0,5.00%,F,T)
A3.08E7
A3.21E7
A3.02E7
392.9760 S:5 F:2 SMO(1,3)
33:24
33:45
33:59
34:17
34:41
35:14
35:38
35:55
36:20
36:45
37:01
37:25
37:50
100%
50
0
33:00
34:00
35:00
36:00
37:00
38:00
Time
5.2E7
2.6E7
0.0E0
4.1E7
2.0E7
5.3E6
2.6E6
4.1E6
2.1E6
5.8E5
2.9E5


File:DB83_121 #1-563 Acq:10-JUL-2018 18:25:52 GC EI+ Voltage SIR Autospec-Ultima
Sample#5 File Text: Text:DX041F-CAL,,/01 Exp:DX-DB225-4_01
331.9368 S:5 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,448.0,5.00%,F,T)
100%
A5.25E7
1.3E7
1.2E7
1.0E7
9.1E6
7.8E6
6.5E6
5.2E6
3.9E6
2.6E6
1.3E6
0.0E0
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time
333.9339 S:5 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,476.0,5.00%,F,T)
100%
A6.51E7
1.6E7
1.4E7
1.3E7
1.1E7
9.6E6
8.0E6
6.4E6
4.8E6
3.2E6
1.6E6
0.0E0
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time

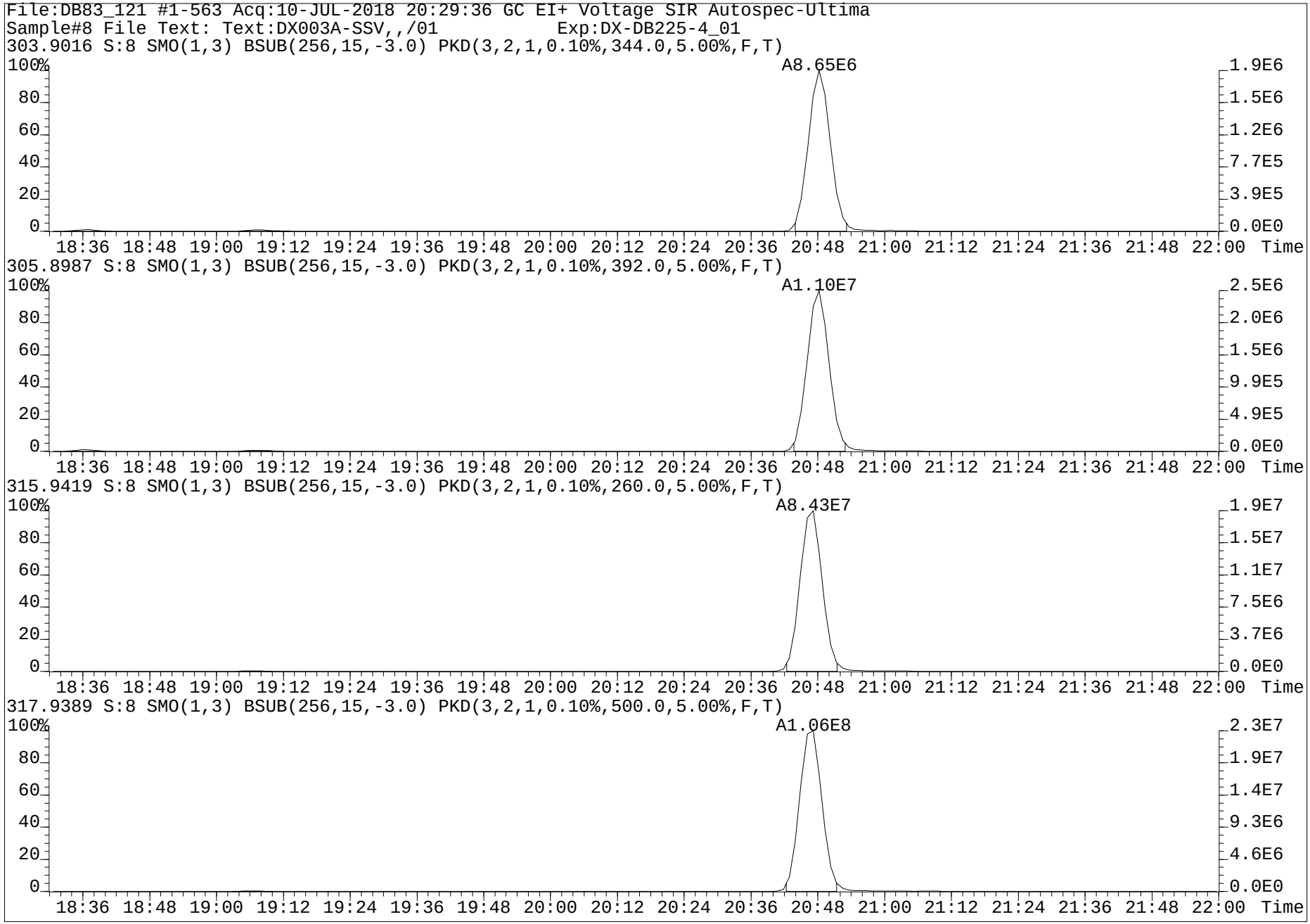

File:DB83_121 #1-563 Acq:10-JUL-2018 18:25:52 GC EI+ Voltage SIR Autospec-Ultima
Sample#5 File Text: Text:DX041F-CAL,,/01 Exp:DX-DB225-4_01
375.8364 S:5 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,1004.0,5.00%,F,T)
A1.37E4
A1.76E4
A1.31E4
A1.59E4
303.9016 S:5 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,360.0,5.00%,F,T)
A1.85E8
305.8987 S:5 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,372.0,5.00%,F,T)
A2.37E8
330.9792 S:5 SMO(1,3)
18:40
19:01
19:13
19:37
19:54
20:06
20:21
20:46
21:00
21:19
21:30
21:42
Time

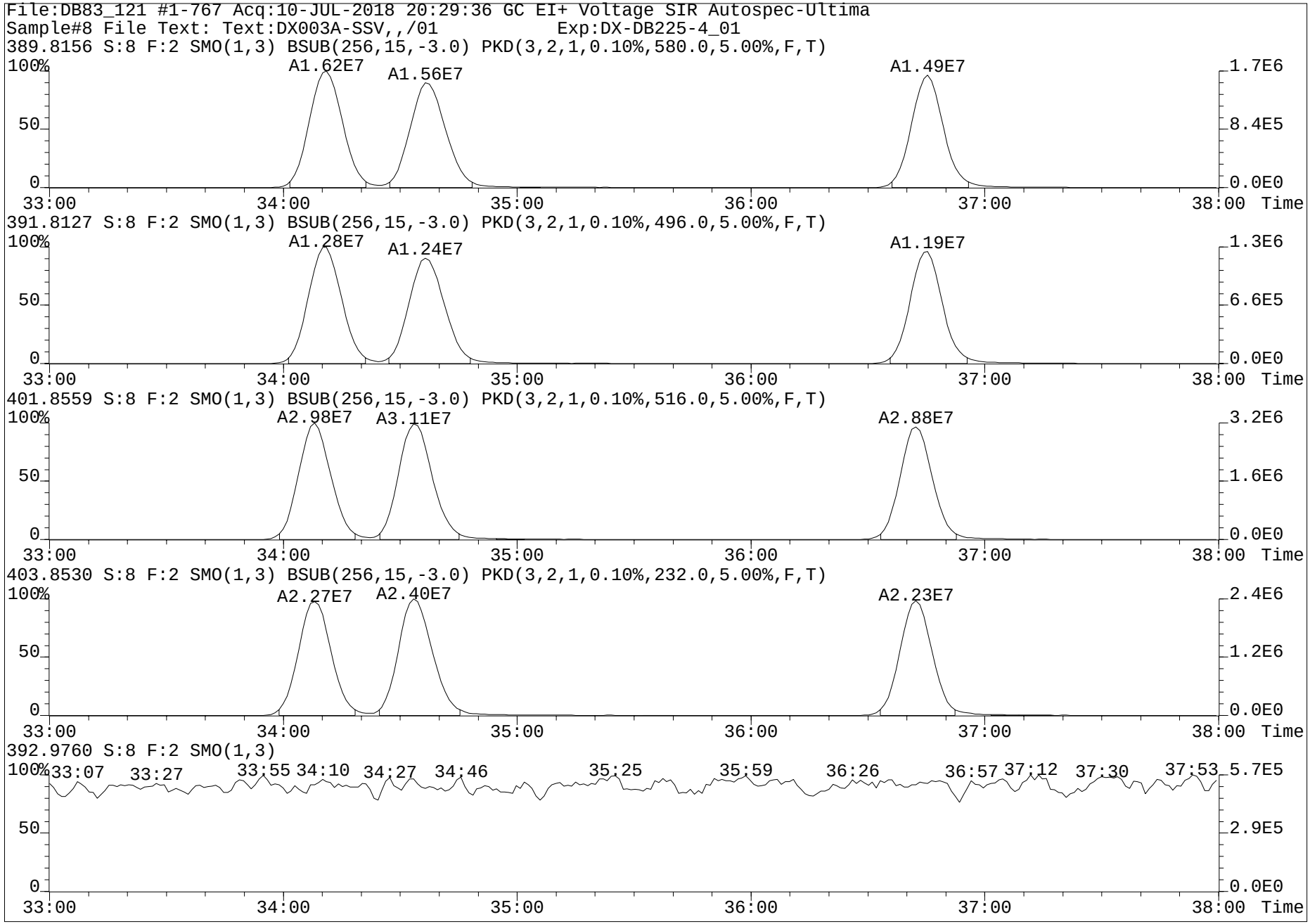
Run #7 Filename DB83_121 S: 8 I: 1 Acquired: 10-JUL-18 20:29:36 Processed: 12-JUL-18 08:19:37
Run: db83_121 Analyte: DB-HXD-C2 Cal: db83_113c-6a Results: db83_121-6a Version: V3.6 6-JAN-2000 17:51:42
Sample text: DX003A-SSV,,/01 Comments: 1,,2.0uL CAL
sample size: 1.000000 conc units: ng/mL total toxicity: 6.47 F1: 20.0000 F2: 1.0000

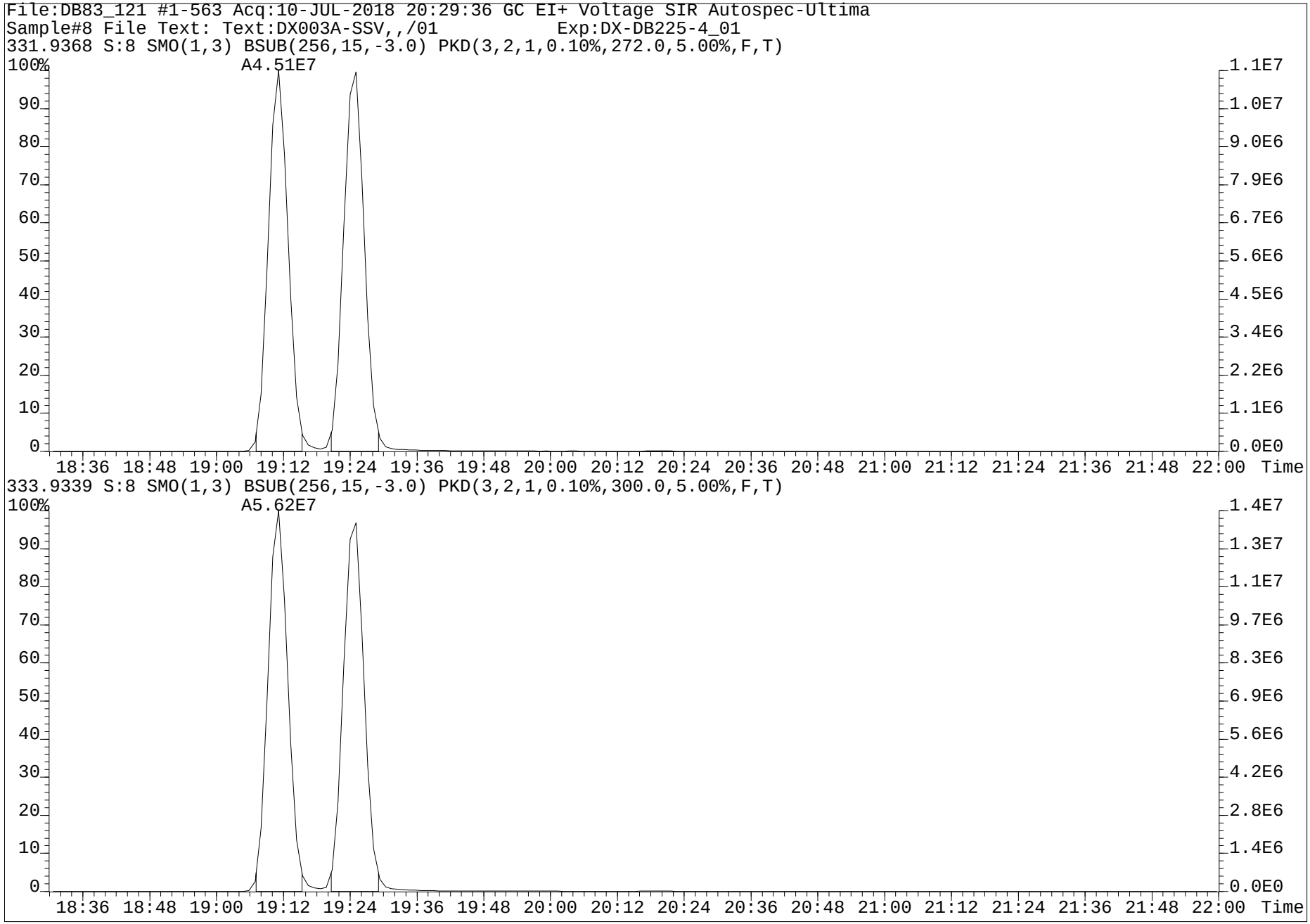
	Typ	Name	#Hom	Resp	RA		RT	Conc	Tox #1	DL	Rec	M?
1	Unk	2,3,7,8-TCDF	1	1.97e+07	0.79	y	20:48	10.656	1	0.0045	-	n
2	Unk	1,2,3,7,8,9-HxCDD	1	2.68e+07	1.25	y	36:45	54.071	5	0.0528	-	n
3	IS/RT	13C-2,3,7,8-TCDF	1	1.90e+08	0.79	y	20:47	102.400	-	0.0043	102.4	n
4	IS/RT	13C-1,2,3,4,7,8-HxCDD	1	5.25e+07	1.31	y	34:08	97.184	-	0.0326	97.2	n
5	IS/RT	13C-1,2,3,6,7,8-HxCDD	1	5.51e+07	1.29	y	34:34	98.861	-	0.0316	98.9	n
6	RS	13C-1,2,3,4-TCDD	1	1.04e+08	0.83	y	19:25	93.891	-	-	-	n
7	RS	13C-1,2,3,7,8,9-HxCDD	1	5.11e+07	1.29	y	36:42	93.223	-	-	-	n
8	Tot	Hexa DPE	0	*			NotFnd	*	-	-	-	n
9	Tot	Tetra Lock	-	-			-	-	-	-	-	n
10	Tot	Hexa Lock	-	-			-	-	-	-	-	n

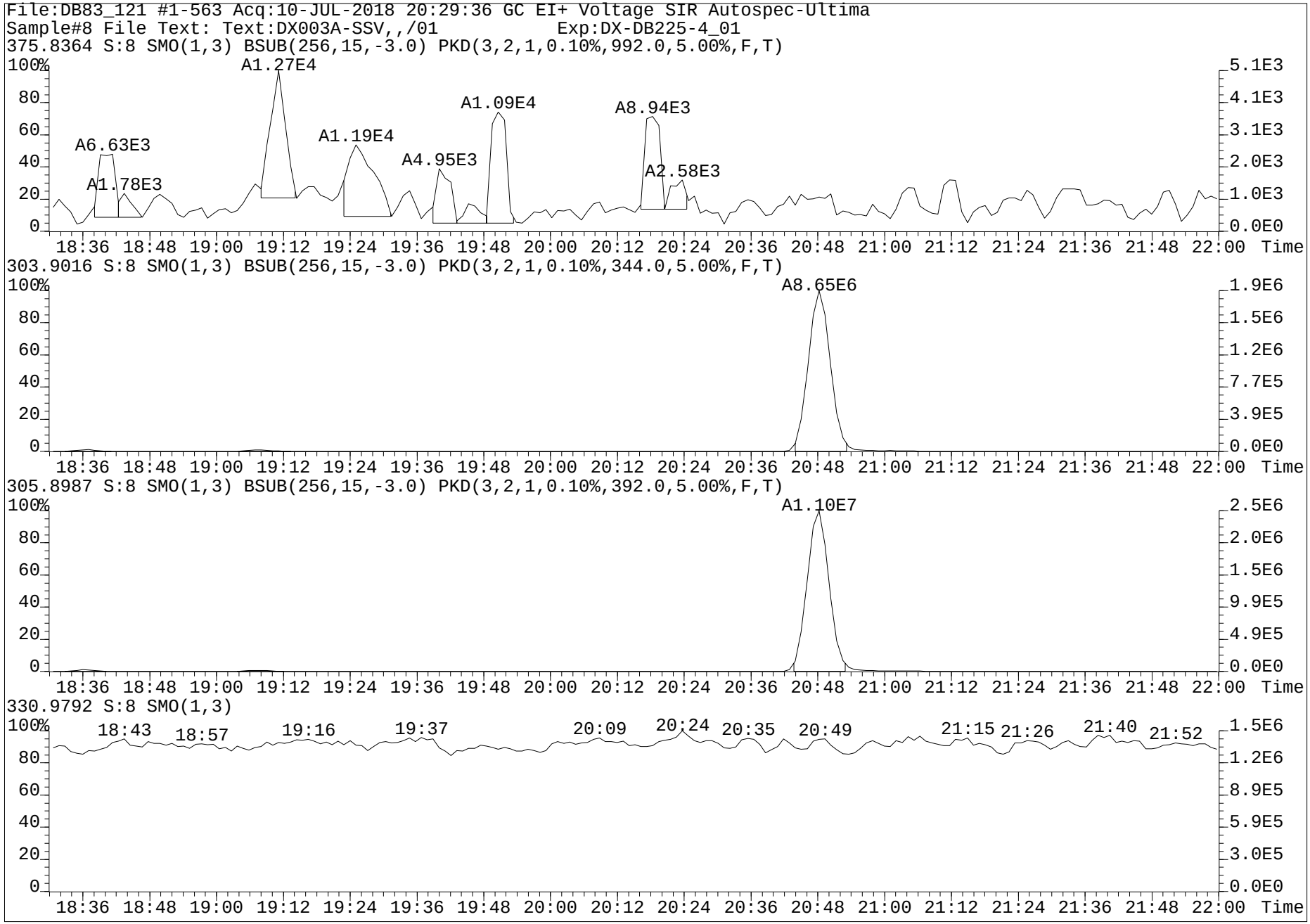
PV by TD 12-Jul-2018

SV:PA 12-Jul-18


File:DB83_121 #1-563 Acq:10-JUL-2018 20:29:36 GC EI+ Voltage SIR Autospec-Ultima
Sample#8 File Text: Text:DX003A-SSV,,/01 Exp:DX-DB225-4_01
303.9016 S:8 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,344.0,5.00%,F,T)
A8.65E6
305.8987 S:8 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,392.0,5.00%,F,T)
A1.10E7
315.9419 S:8 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,260.0,5.00%,F,T)
A8.43E7
317.9389 S:8 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,500.0,5.00%,F,T)
A1.06E8
100%
80
60
40
20
0
1.9E6
1.5E6
1.2E6
7.7E5
3.9E5
0.0E0
2.5E6
2.0E6
1.5E6
9.9E5
4.9E5
0.0E0
1.9E7
1.5E7
1.1E7
7.5E6
3.7E6
0.0E0
2.3E7
1.9E7
1.4E7
9.3E6
4.6E6
0.0E0
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time


File:DB83_121 #1-767 Acq:10-JUL-2018 20:29:36 GC EI+ Voltage SIR Autospec-Ultima
Sample#8 File Text: Text:DX003A-SSV,,/01 Exp:DX-DB225-4_01
389.8156 S:8 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,580.0,5.00%,F,T)
A1.62E7
A1.56E7
A1.49E7
391.8127 S:8 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,496.0,5.00%,F,T)
A1.28E7
A1.24E7
A1.19E7
401.8559 S:8 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,516.0,5.00%,F,T)
A2.98E7
A3.11E7
A2.88E7
403.8530 S:8 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,232.0,5.00%,F,T)
A2.27E7
A2.40E7
A2.23E7
392.9760 S:8 F:2 SMO(1,3)
33:07
33:27
33:55
34:10
34:27
34:46
35:25
35:59
36:26
36:57
37:12
37:30
37:53
100%
50
0
33:00
34:00
35:00
36:00
37:00
38:00
Time
1.7E6
8.4E5
0.0E0
1.3E6
6.6E5
3.2E6
1.6E6
2.4E6
1.2E6
5.7E5
2.9E5


File:DB83_121 #1-563 Acq:10-JUL-2018 20:29:36 GC EI+ Voltage SIR Autospec-Ultima
Sample#8 File Text: Text:DX003A-SSV,,/01 Exp:DX-DB225-4_01
331.9368 S:8 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,272.0,5.00%,F,T)
100% A4.51E7
1.1E7
1.0E7
9.0E6
7.9E6
6.7E6
5.6E6
4.5E6
3.4E6
2.2E6
1.1E6
0.0E0
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time
333.9339 S:8 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,300.0,5.00%,F,T)
100% A5.62E7
1.4E7
1.3E7
1.1E7
9.7E6
8.3E6
6.9E6
5.6E6
4.2E6
2.8E6
1.4E6
0.0E0
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time


File:DB83_121 #1-563 Acq:10-JUL-2018 20:29:36 GC EI+ Voltage SIR Autospec-Ultima
Sample#8 File Text: Text:DX003A-SSV,,/01 Exp:DX-DB225-4_01
375.8364 S:8 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,992.0,5.00%,F,T)
A6.63E3
A1.78E3
A1.27E4
A1.19E4
A4.95E3
A1.09E4
A8.94E3
A2.58E3
303.9016 S:8 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,344.0,5.00%,F,T)
A8.65E6
305.8987 S:8 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,392.0,5.00%,F,T)
A1.10E7
330.9792 S:8 SMO(1,3)
18:43
18:57
19:16
19:37
20:09
20:24
20:35
20:49
21:15
21:26
21:40
21:52
Time

SGS Axys Analytical Services, Ltd.

Method: C:\MassLynx\180604DX.PRO\MethDB\DX_Log.mdb 21 Nov 2008 11:39:44
Calibration: C:\MassLynx\180604DX.PRO\CurveDB\DX8M_065C-CAL.cdb 05 Jun 2018 06:43:58

Compound name: -

#	Name	ID	Sample Text	Acq Date	Acq Time
1	DX8M_086S1	DX041D-CAL,,/01-89	1,,1.0uL Cal Win/Res	20-Jul-18	15:48:11
2	DX8M_086S2	WG64578-102,,SPM	1,WG64578,1.0/20uL	20-Jul-18	16:56:28
3	DX8M_086S3	WG64578-103,,SPMDUP	1,WG64578,1.0/20uL	20-Jul-18	17:57:26
4	DX8M_086S4	DX051A-SUR,,/01	1,,1.0uL Inst Blank	20-Jul-18	18:50:07
5	DX8M_086S5	DX051A-SUR,,/01	1,,1.0uL Inst Blank	20-Jul-18	19:44:54
6	DX8M_086S6	WG64578-101,,BLK	1,WG64578,1.0/20uL	20-Jul-18	20:40:09
7	DX8M_086S7	L29628-1,,	1,WG64578,1.0/20uL	20-Jul-18	21:35:20
8	DX8M_086S8	L29628-7,,	1,WG64578,1.0/20uL	20-Jul-18	22:30:36
9	DX8M_086S9	L29628-11,,	1,WG64578,1.0/20uL	20-Jul-18	23:25:48
10	DX8M_086S10	L29628-12,,	1,WG64578,1.0/20uL	21-Jul-18	00:21:02
11	DX8M_086S11	L29628-14,,	1,WG64578,1.0/20uL	21-Jul-18	01:16:16
12	DX8M_086S12	DX041D-CAL,,/01-89	1,,1.0uL Cal Win/Res	21-Jul-18	02:11:30
13	DX8M_086S13	DX051A-SUR,,/01	1,,1.0uL Inst Blank	21-Jul-18	03:15:53
14	DX8M_086S14	DX051A-SUR,,/01	1,,1.0uL Inst Blank	21-Jul-18	04:08:24
15	DX8M_086S15	L29628-17,,	1,WG64578,1.0/20uL	21-Jul-18	05:03:32
16	DX8M_086S16	L29628-18,,	1,WG64578,1.0/20uL	21-Jul-18	05:58:39
17	DX8M_086S17	L29628-19,,	1,WG64578,1.0/20uL	21-Jul-18	06:53:48
18	DX8M_086S18	L29628-21,,	1,WG64578,1.0/20uL	21-Jul-18	07:49:02
19	DX8M_086S19	L29628-22,,	1,WG64578,1.0/20uL	21-Jul-18	08:44:15
20	DX8M_086S20	L29628-25,,	1,WG64578,1.0/20uL	21-Jul-18	09:39:28
21	DX8M_086S21	L29628-26,,	1,WG64578,1.0/20uL	21-Jul-18	10:34:36
22	DX8M_086S22	L29628-28,,	1,WG64578,1.0/20uL	21-Jul-18	11:29:44
23	DX8M_086S23	L29628-29,,	1,WG64578,1.0/20uL	21-Jul-18	12:24:58
24	DX8M_086S24	DX041D-CAL,,/01-89	1,,1.0uL Cal Win/Res	21-Jul-18	13:20:07

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Method: G:\Masslynx\Inst_M\Exported_methods\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_086S1, Date: 20-Jul-2018, Time: 15:48:11, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	1.000	3.74e5	0.76	NO	25.24	10.451	0.0326	104.5	2.29e3	2.51e3
2	1,2,3,7,8-PeCDF	1.000	1.29e6	1.48	NO	33.54	50.464	0.0572	100.9	2.69e3	2.45e3
3	2,3,4,7,8-PeCDF	1.000	1.28e6	1.50	NO	35.30	51.174	0.0492	102.3	2.69e3	2.45e3
4	1,2,3,4,7,8-HxCDF	1.000	9.39e5	1.22	NO	40.69	52.842	0.1106	105.7	3.19e3	7.29e3
5	1,2,3,6,7,8-HxCDF	1.000	1.10e6	1.23	NO	40.87	52.003	0.1063	104.0	3.19e3	7.29e3
6	2,3,4,6,7,8-HxCDF	1.000	9.89e5	1.27	NO	41.81	54.278	0.1152	108.6	3.19e3	7.29e3
7	1,2,3,7,8,9-HxCDF	1.000	6.53e5	1.22	NO	42.84	46.621	0.1577	93.2	3.19e3	7.29e3
8	1,2,3,4,6,7,8-HpCDF	1.000	7.29e5	1.03	NO	45.27	52.566	0.0858	105.1	3.56e3	2.58e3
9	1,2,3,4,7,8,9-HpCDF	1.000	5.53e5	1.05	NO	47.06	53.308	0.1158	106.6	3.56e3	2.58e3
10	OCDF	1.000	8.18e5	0.86	NO	50.29	111.011	0.0000	111.0	2.76e-1	1.94e-1
11	2,3,7,8-TCDD	1.000	3.10e5	0.77	NO	26.47	10.659	0.0479	106.6	3.20e3	2.14e3
12	1,2,3,7,8-PeCDD	1.000	8.19e5	0.61	NO	36.15	54.261	0.0858	108.5	2.86e3	2.61e3
13	1,2,3,4,7,8-HxCDD	1.000	6.23e5	1.27	NO	42.08	54.727	0.1115	109.5	1.78e3	5.27e3
14	1,2,3,6,7,8-HxCDD	1.000	7.50e5	1.18	NO	42.21	55.202	0.1039	110.4	1.78e3	5.27e3
15	1,2,3,7,8,9-HxCDD	1.000	6.32e5	1.15	NO	42.64	50.299	0.1066	100.6	1.78e3	5.27e3
16	1,2,3,4,6,7,8-HpCDD	1.000	4.67e5	1.09	NO	46.66	56.445	0.1408	112.9	2.77e3	3.13e3
17	OCDD	1.000	6.71e5	0.88	NO	50.20	109.839	0.1023	109.8	2.26e3	6.27e2
18	13C-2,3,7,8-TCDF	1.000	3.91e6	0.69	NO	25.20	94.593	0.0742	94.6	8.98e3	3.95e3
19	13C-1,2,3,7,8-PeCDF	1.000	2.78e6	1.45	NO	33.53	93.123	0.0926	93.1	4.50e3	7.13e3
20	13C-2,3,4,7,8-PeCDF	1.000	2.67e6	1.48	NO	35.29	92.821	0.0960	92.8	4.50e3	7.13e3
21	13C-1,2,3,4,7,8-HxCDF	1.000	1.59e6	0.51	NO	40.67	100.333	0.2518	100.3	1.20e4	6.18e3
22	13C-1,2,3,6,7,8-HxCDF	1.000	1.99e6	0.52	NO	40.84	117.247	0.2358	117.2	1.20e4	6.18e3
23	13C-2,3,4,6,7,8-HxCDF	1.000	1.60e6	0.51	NO	41.79	105.547	0.2638	105.5	1.20e4	6.18e3
24	13C-1,2,3,7,8,9-HxCDF	1.000	1.40e6	0.53	NO	42.82	93.878	0.2675	93.9	1.20e4	6.18e3
25	13C-1,2,3,4,6,7,8-HpCDF	1.000	1.13e6	0.44	NO	45.26	89.549	0.1942	89.5	6.25e3	4.94e3
26	13C-1,2,3,4,7,8,9-HpCDF	1.000	8.28e5	0.43	NO	47.04	83.794	0.2490	83.8	6.25e3	4.94e3
27	13C-2,3,7,8-TCDD	1.000	2.61e6	0.77	NO	26.44	101.516	0.1203	101.5	3.87e3	9.16e3
28	13C-1,2,3,7,8-PeCDD	1.000	1.47e6	0.66	NO	36.11	87.196	0.0980	87.2	4.66e3	2.30e3
29	13C-1,2,3,4,7,8-HxCDD	1.000	1.13e6	1.24	NO	42.06	92.667	0.1896	92.7	4.83e3	5.72e3
30	13C-1,2,3,6,7,8-HxCDD	1.000	1.45e6	1.21	NO	42.19	112.405	0.1793	112.4	4.83e3	5.72e3
31	13C-1,2,3,4,6,7,8-HpCDD	1.000	8.31e5	0.99	NO	46.64	82.184	0.1113	82.2	3.23e3	1.89e3
32	13C-OCDD	1.000	1.20e6	0.85	NO	50.20	134.925	0.4953	67.5	2.02e3	1.80e4
33	13C-1,2,3,4-TCDD	1.000	2.56e6	0.80	NO	26.11	113.367	0.1369	113.4	3.87e3	9.16e3
34	13C-1,2,3,7,8,9-HxCDD	1.000	1.24e6	1.25	NO	42.62	87.070	0.1625	87.1	4.83e3	5.72e3
35	37Cl-2,3,7,8-TCDD	1.000	2.61e5			26.47	9.137	0.0500	91.4		6.01e3
36	Total Tetra-Furans	1.000					41.836	0.0326			2.51e3
37	Total Tetra-Dioxins	1.000					86.648	0.0479			2.14e3
38	Total Penta-Furans	1.000					209.868	0.0537			2.45e3
39	Total Penta-Dioxins	1.000					173.763	0.0858			2.61e3
40	Total Hexa-Furans	1.000					322.957	0.1160			7.29e3
41	Total Hexa-Dioxins	1.000					221.652	0.1032			5.27e3
42	Total Hepta-Furans	1.000					108.778	0.0996			2.58e3
43	Total Hepta-Dioxins	1.000					120.419	0.1408			3.13e3
44	Hexa DPE	1.000	2.12e2			23.27					1.15e-1
45	Hepta DPE	1.000	4.07e2			37.56					3.14e2
46	Octa DPE	1.000	6.97e1			41.42					2.50e-1
47	Nona DPE	1.000	7.17e1			47.17					2.81e-1
48	Deca DPE	1.000	7.85e1			50.75					3.82e-1
49	Tetra Lock	1.000	8.45e3			23.65					1.71e5
50	Penta Lock	1.000	2.30e5			29.29					2.26e5
51	Hexa Lock	1.000									3.64e5

pv'd by LHE 23-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

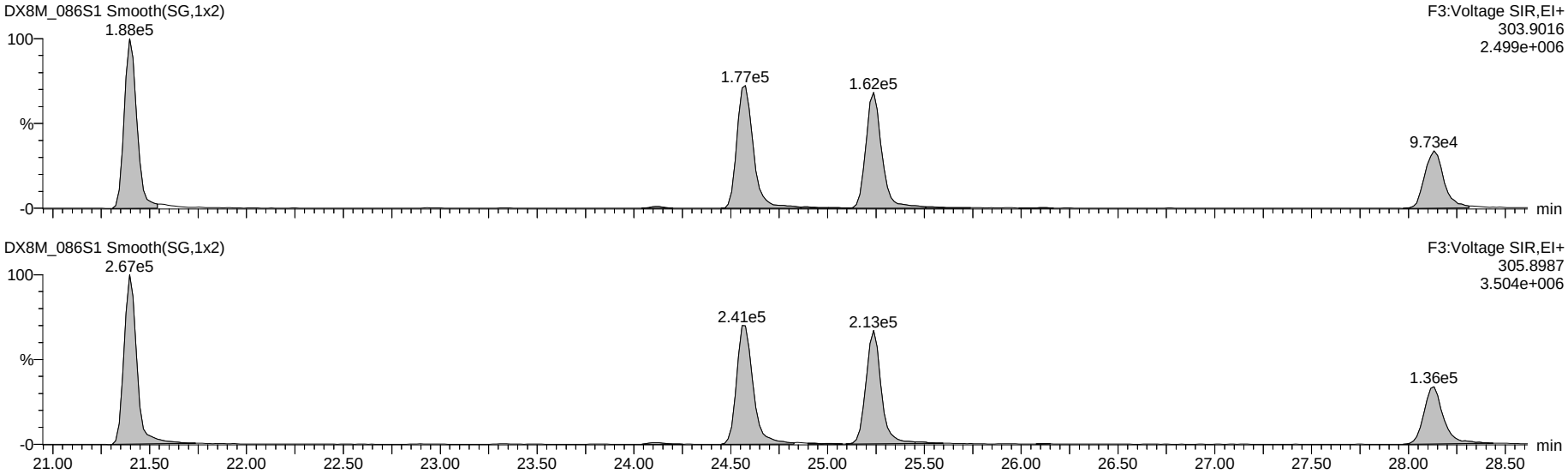
svbyKB 26Jul2018

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

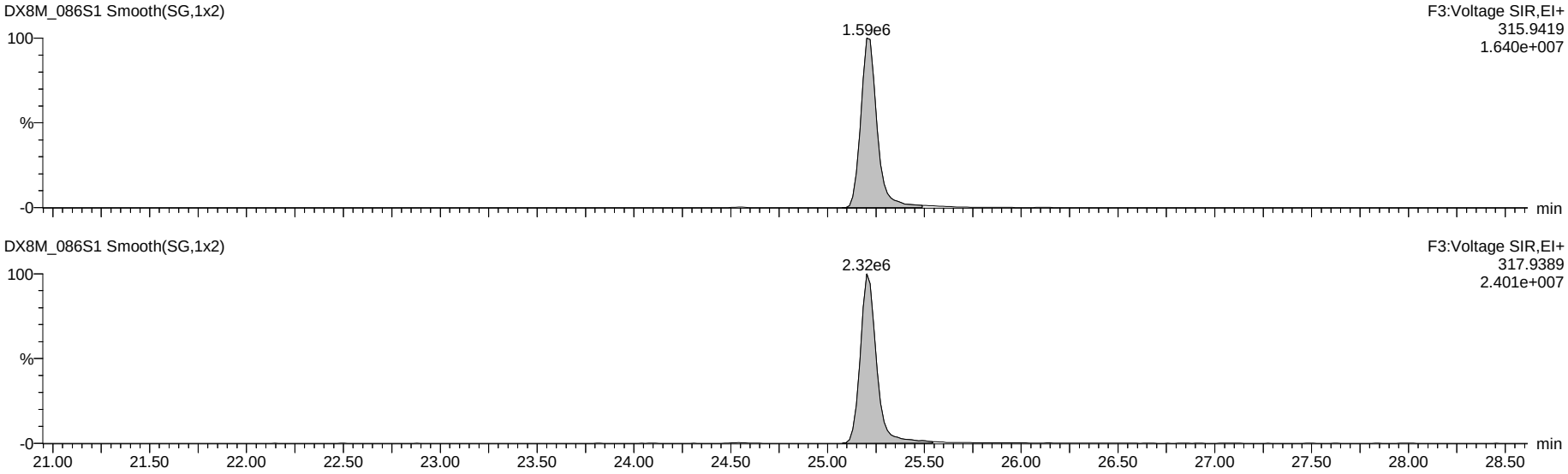
Method: G:\Masslynx\Inst_M\Exported_methods\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_086S1, Date: 20-Jul-2018, Time: 15:48:11, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Tetra-Furans



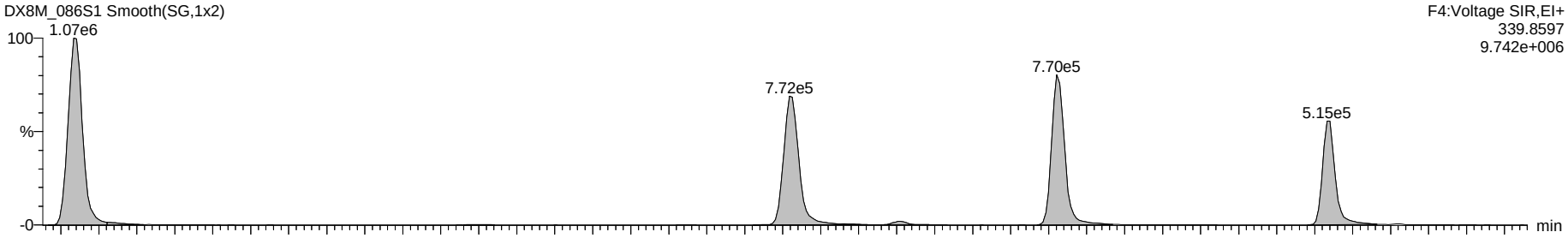
13C-Tetra-Furans

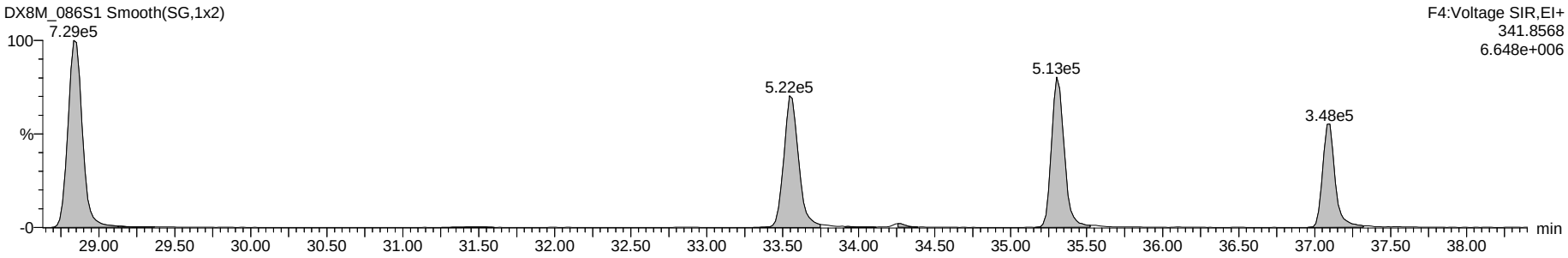


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

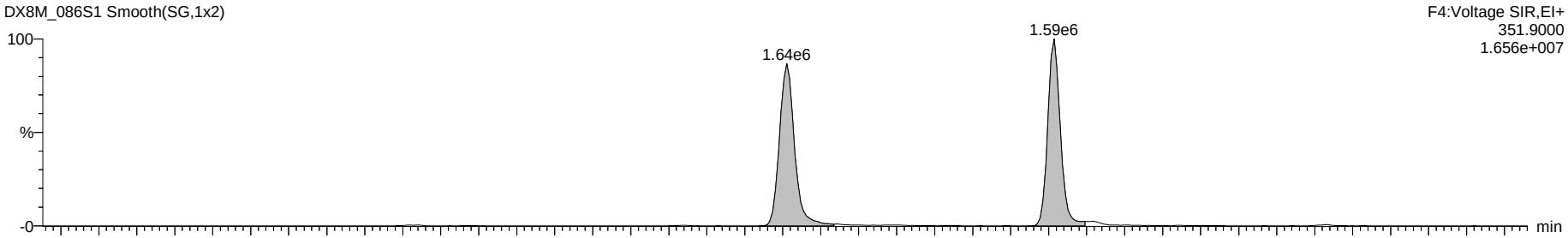
Name: DX8M_086S1, Date: 20-Jul-2018, Time: 15:48:11, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

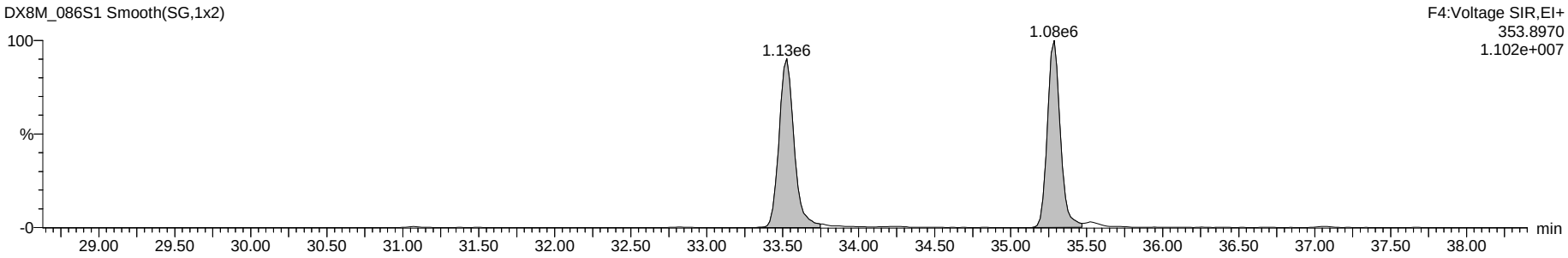
Total Penta-Furans





13C-Penta-Furans

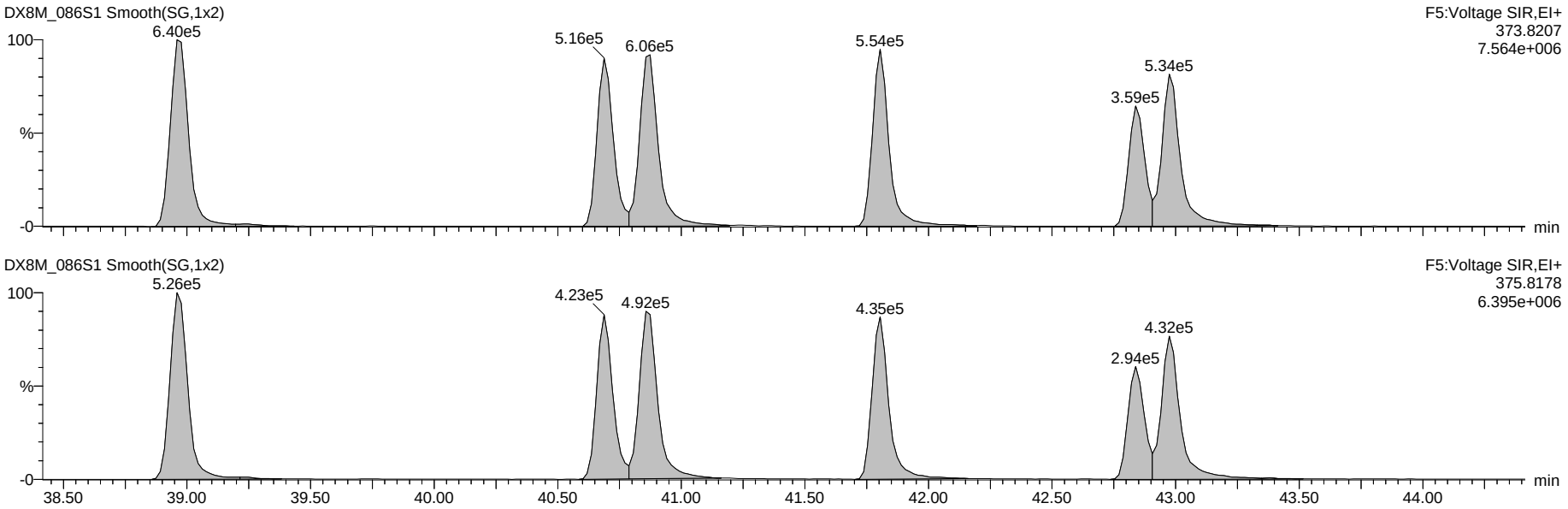




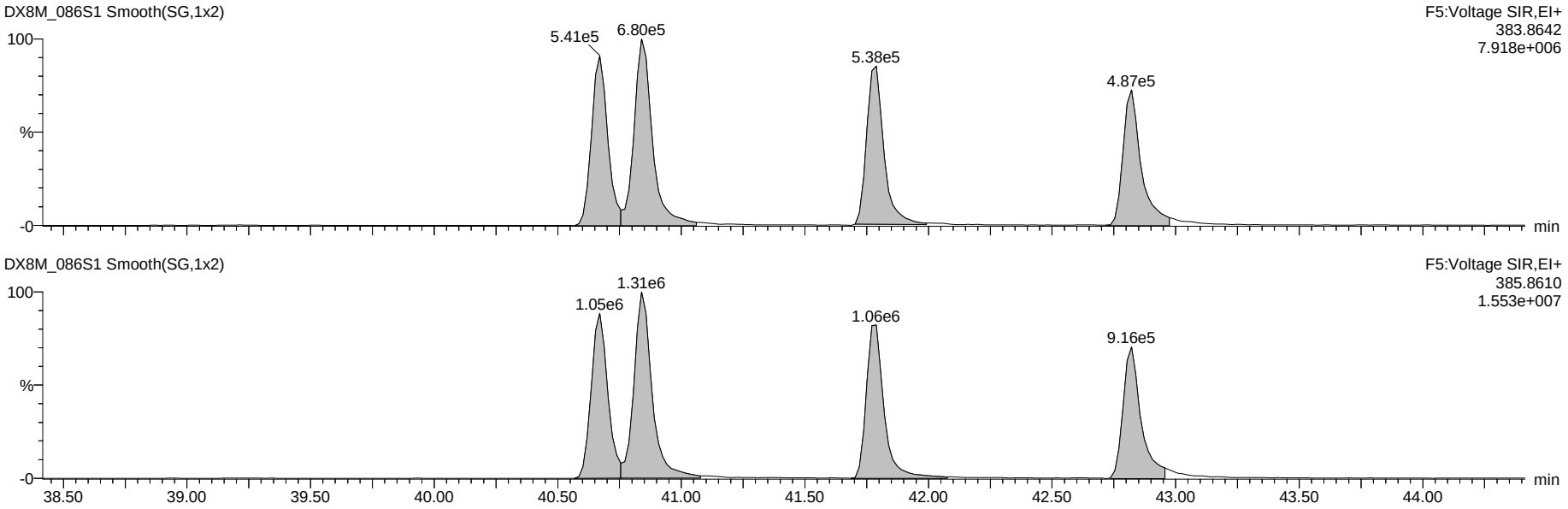
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S1, Date: 20-Jul-2018, Time: 15:48:11, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Hexa-Furans



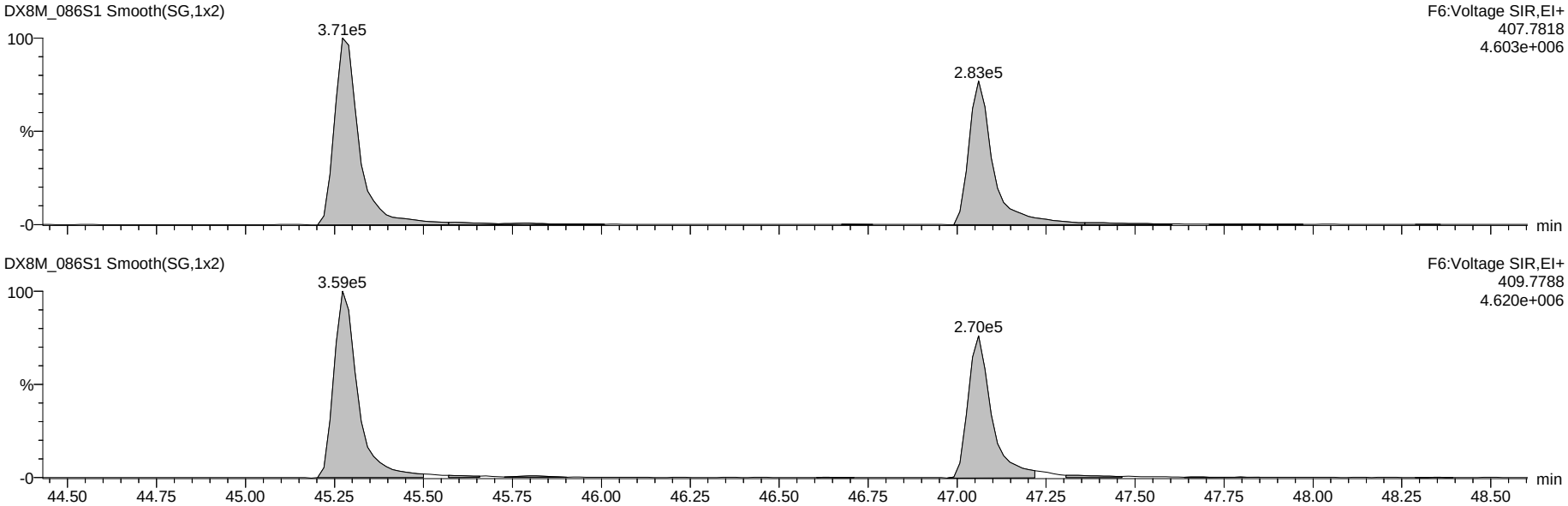
13C-Hexa-Furans



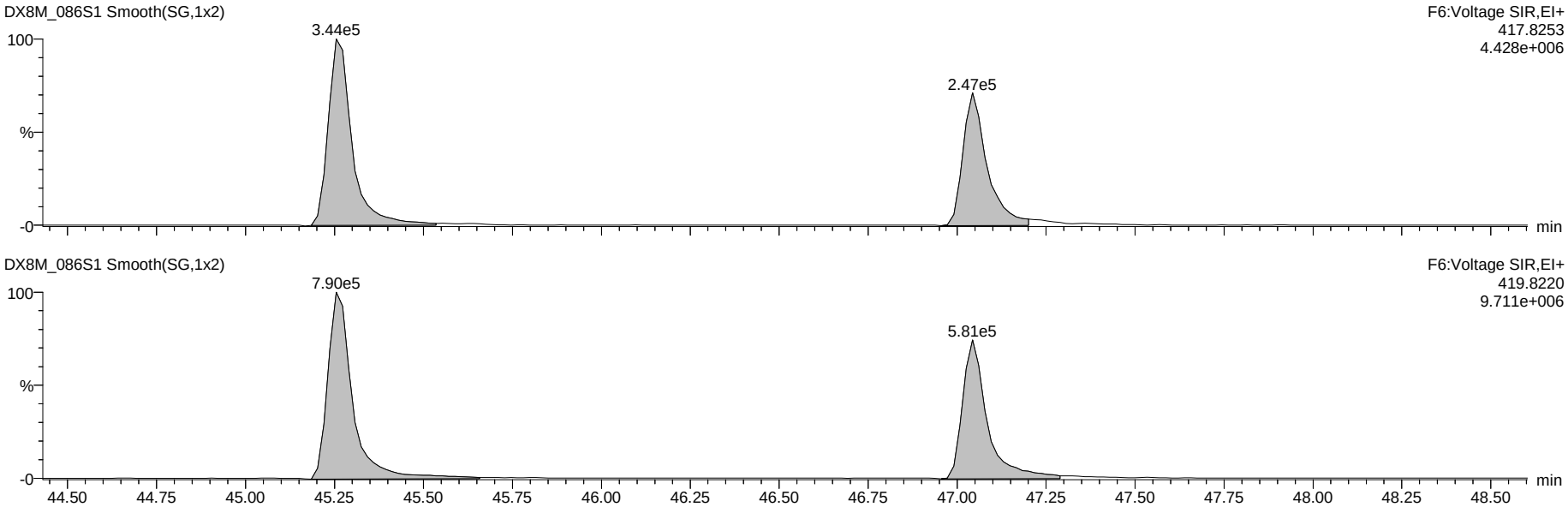
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S1, Date: 20-Jul-2018, Time: 15:48:11, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Hepta-Furans



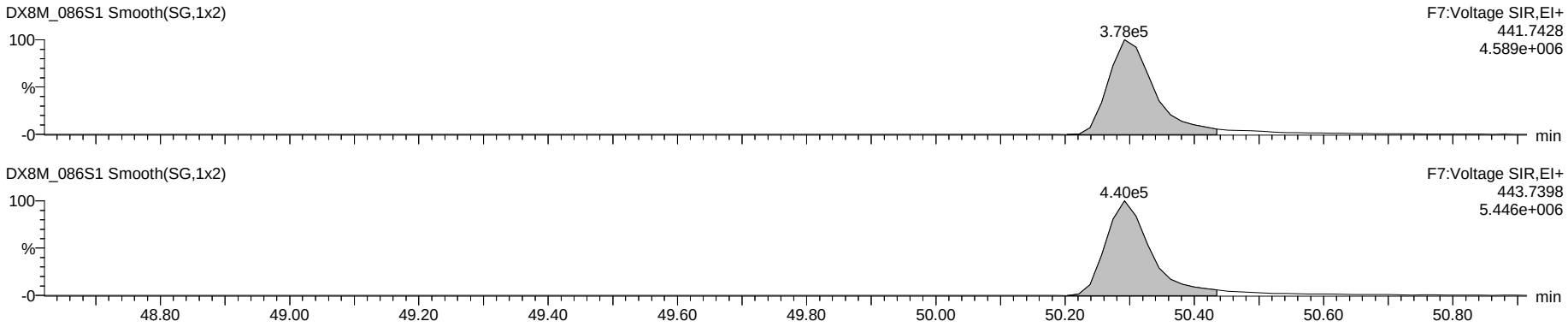
13C-Hepta-Furans



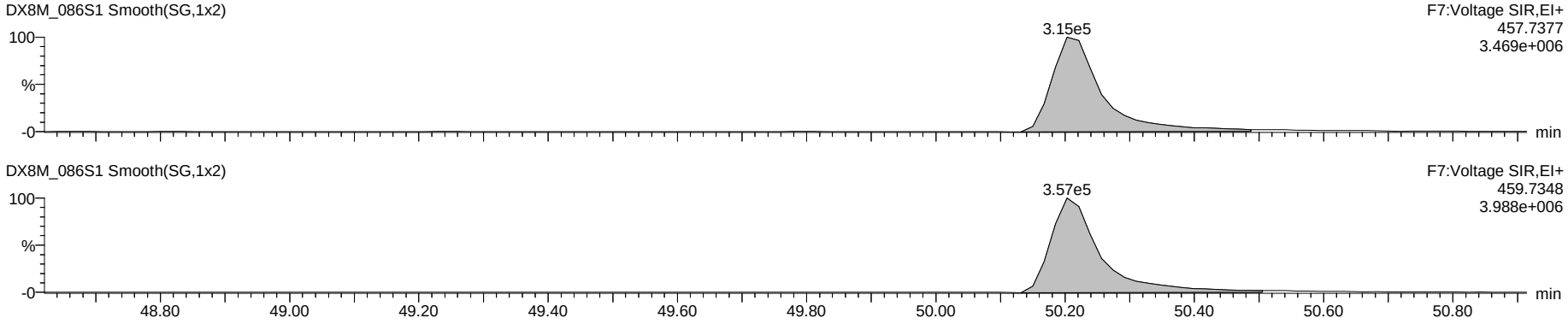
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S1, Date: 20-Jul-2018, Time: 15:48:11, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

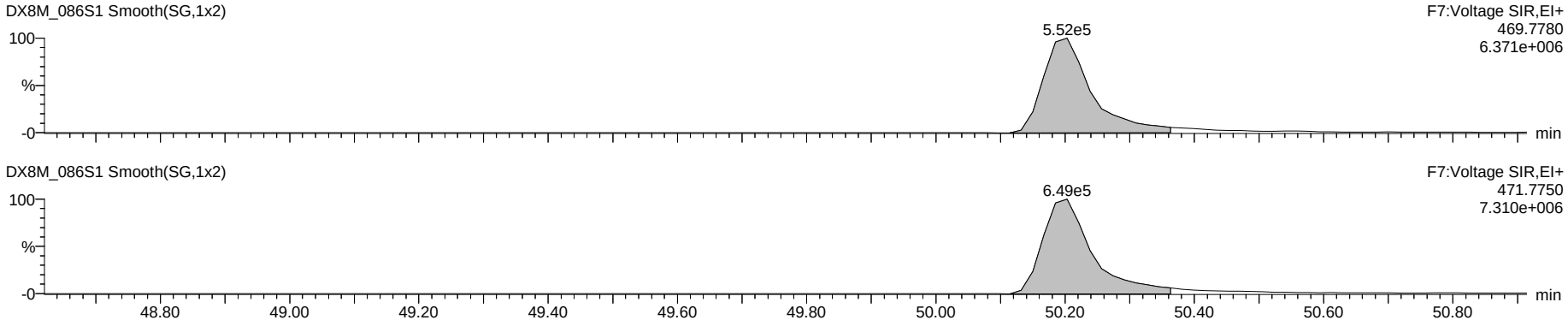
OCDF



OCDD



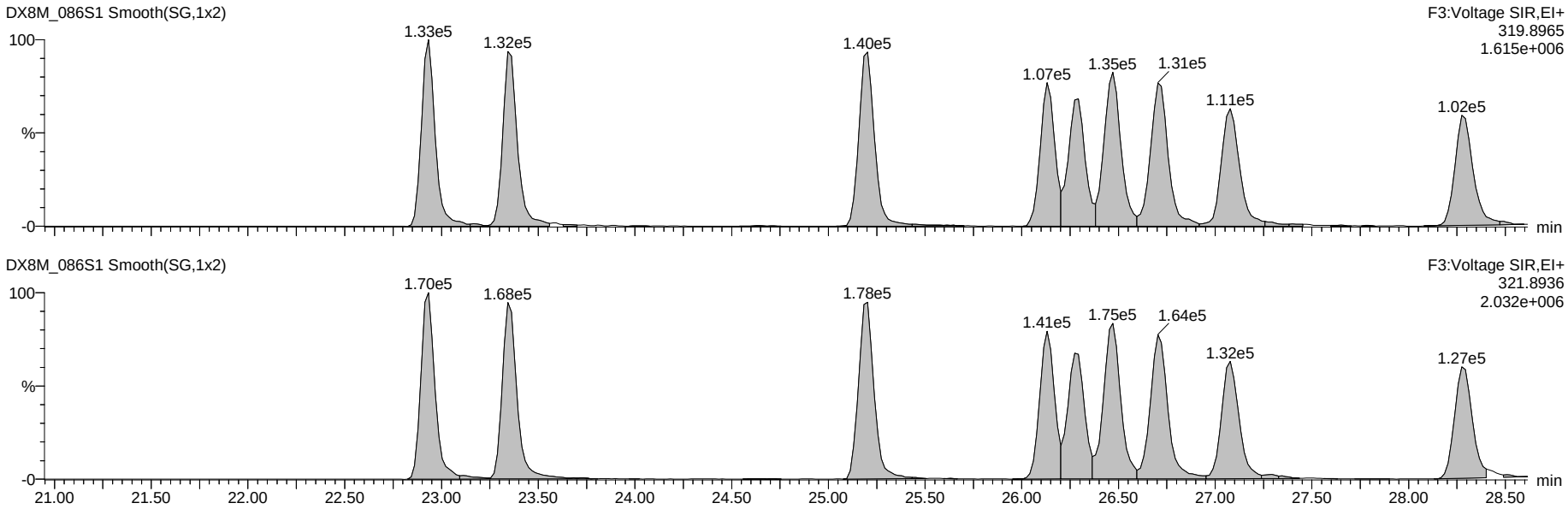
13C-OCDD



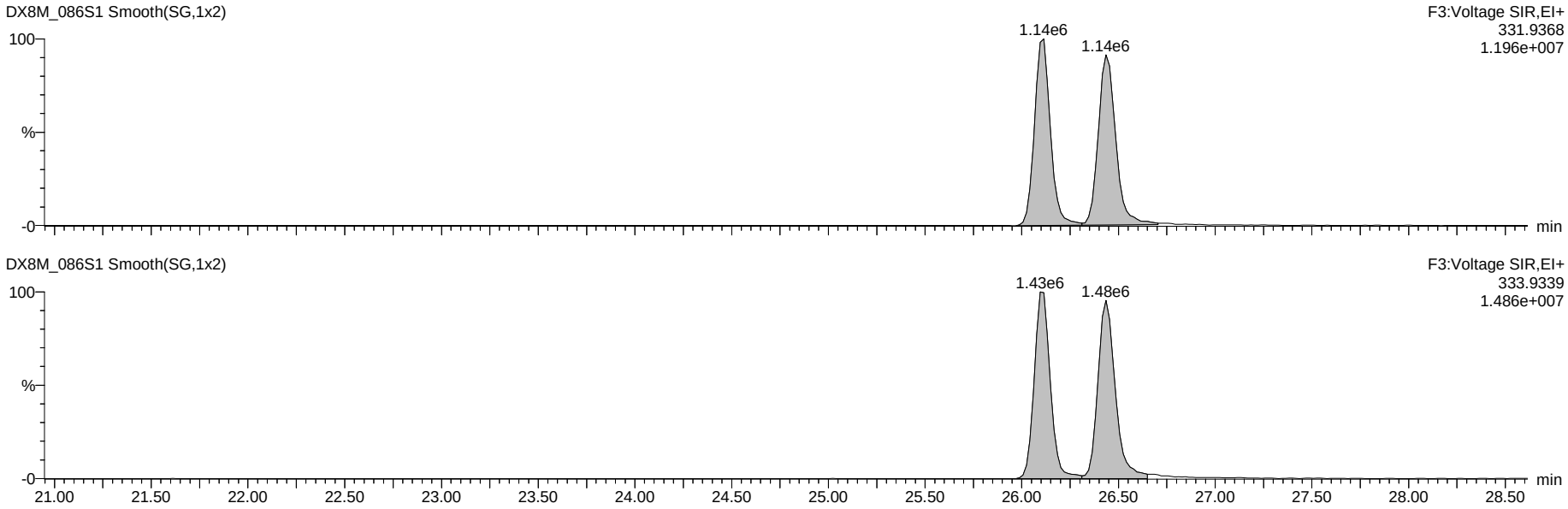
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S1, Date: 20-Jul-2018, Time: 15:48:11, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Tetra-Dioxins



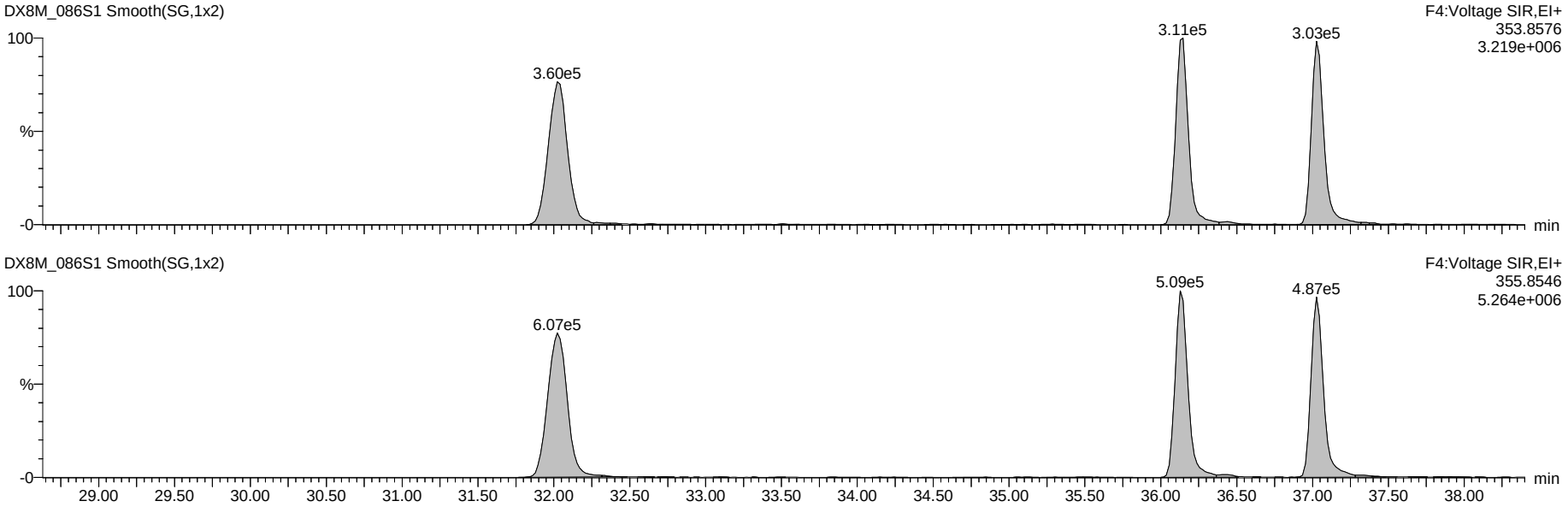
13C-Tetra-Dioxins



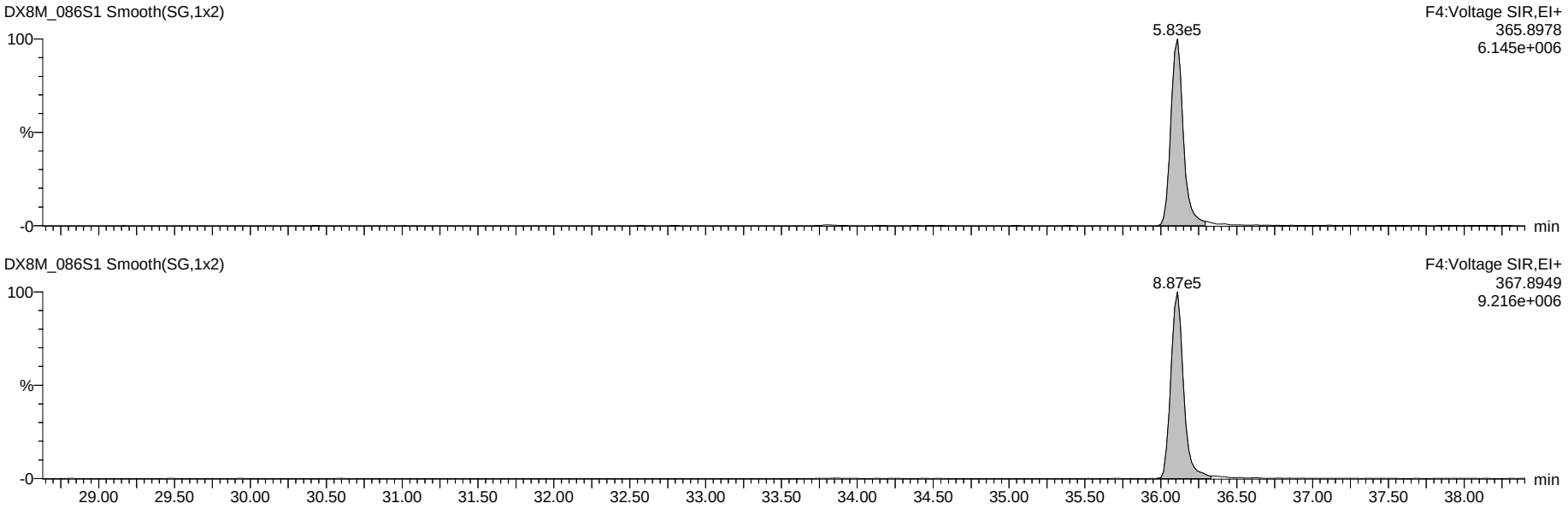
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S1, Date: 20-Jul-2018, Time: 15:48:11, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Penta-Dioxins



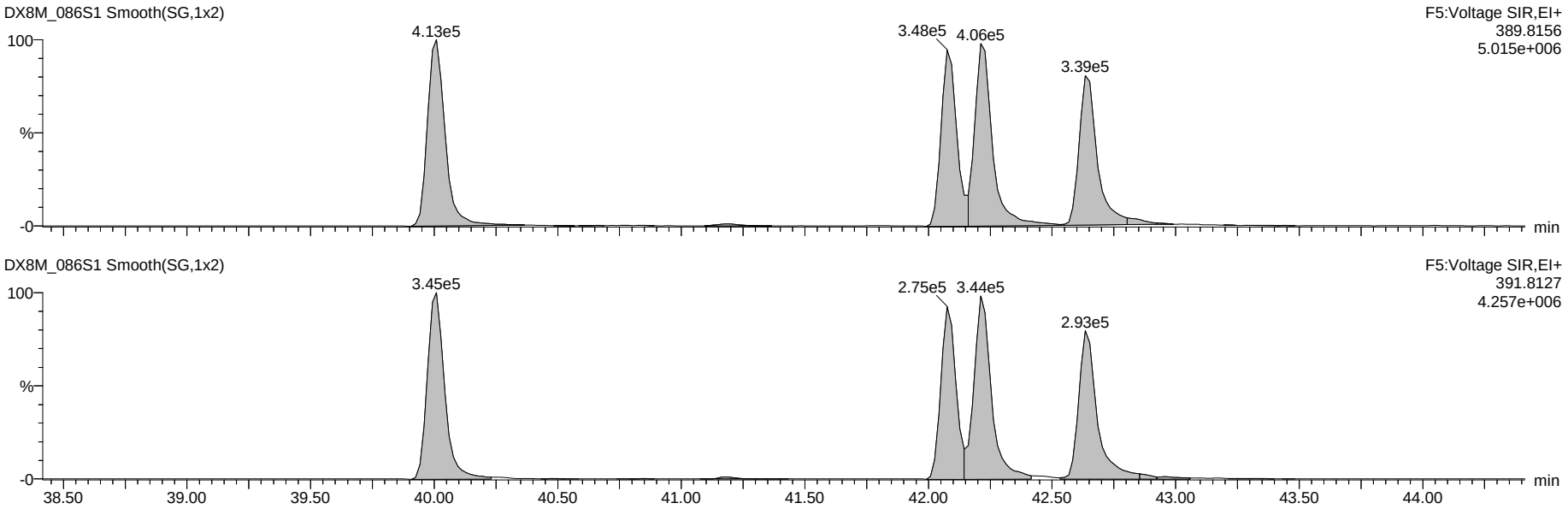
13C-Penta-Dioxins



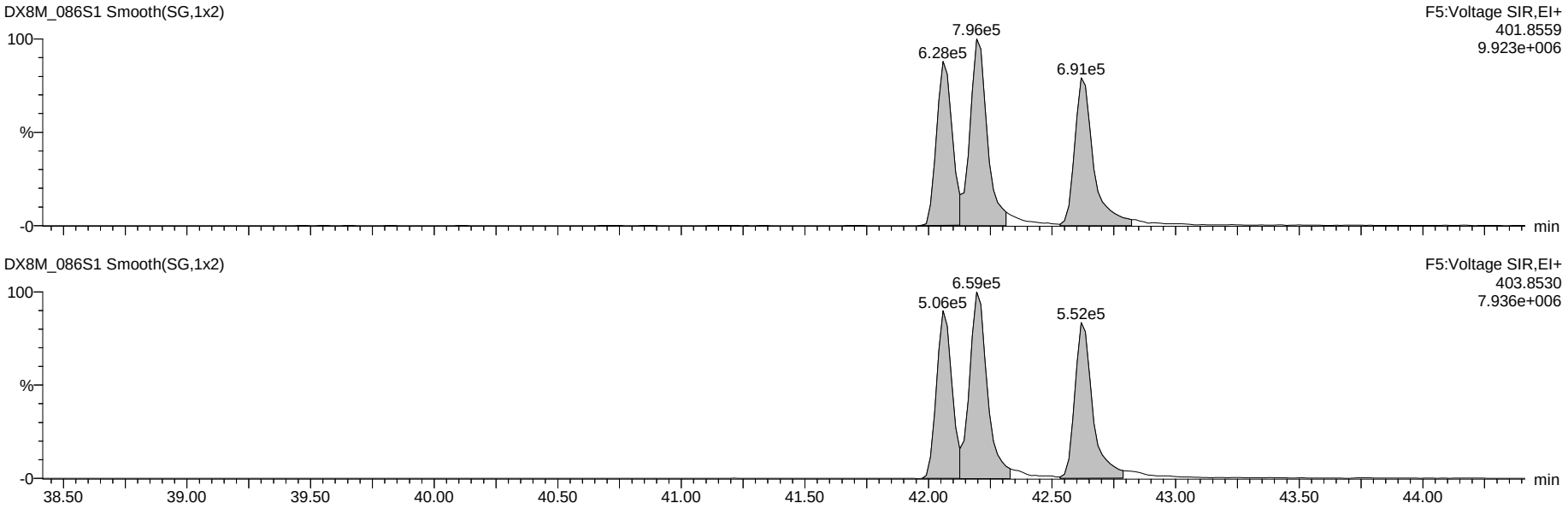
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S1, Date: 20-Jul-2018, Time: 15:48:11, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Hexa-Dioxins



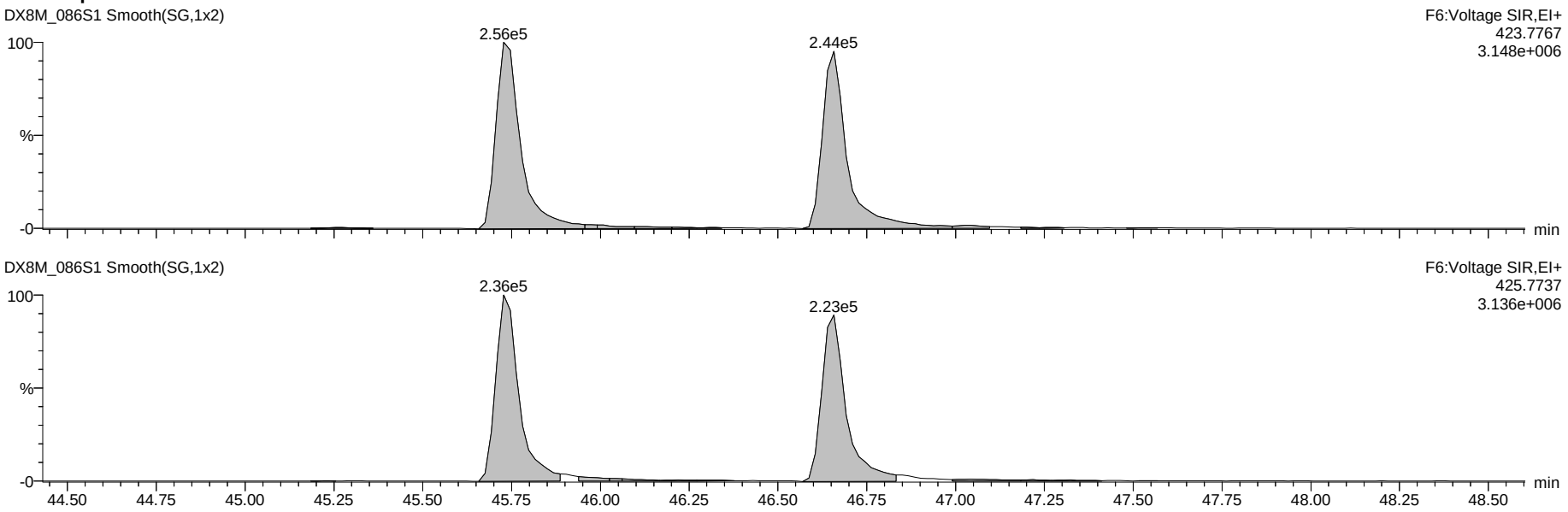
13C-Hexa-Dioxins



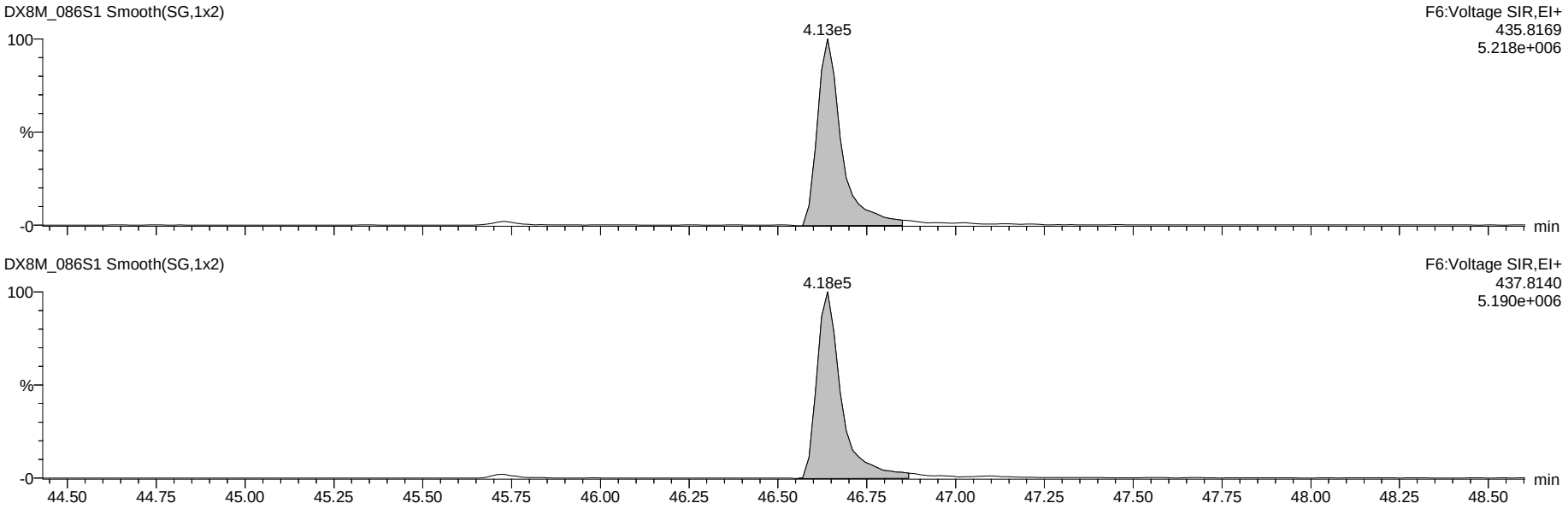
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S1, Date: 20-Jul-2018, Time: 15:48:11, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Hepta-Dioxins



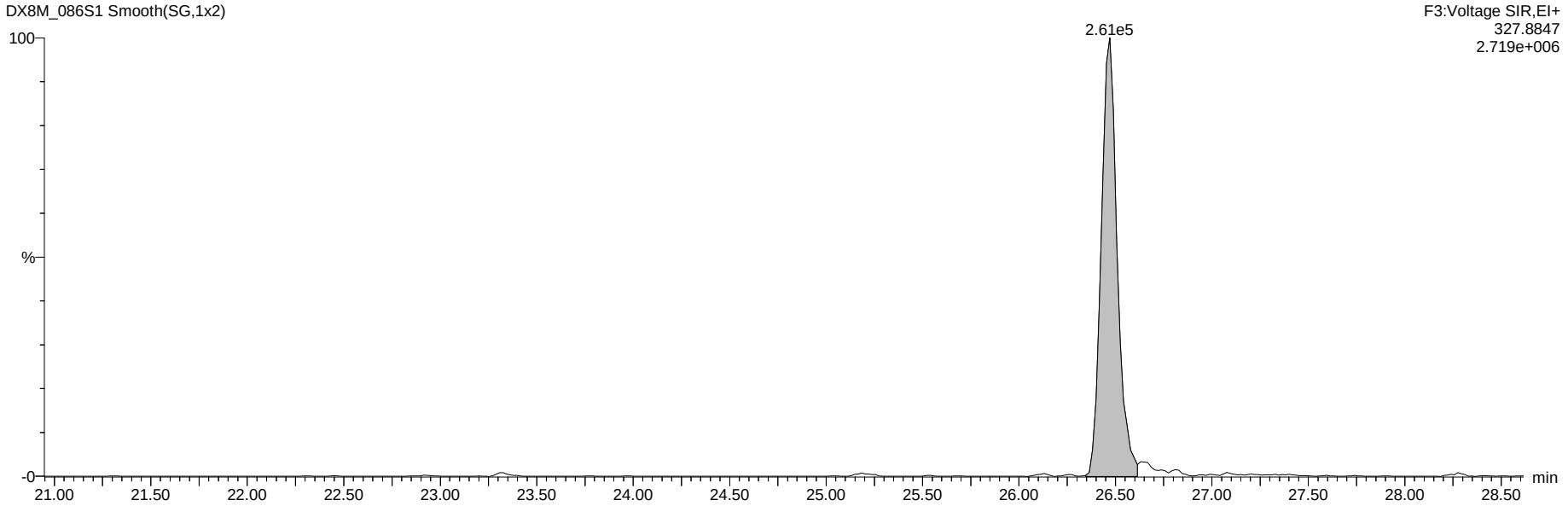
13C-Hepta-Dioxins



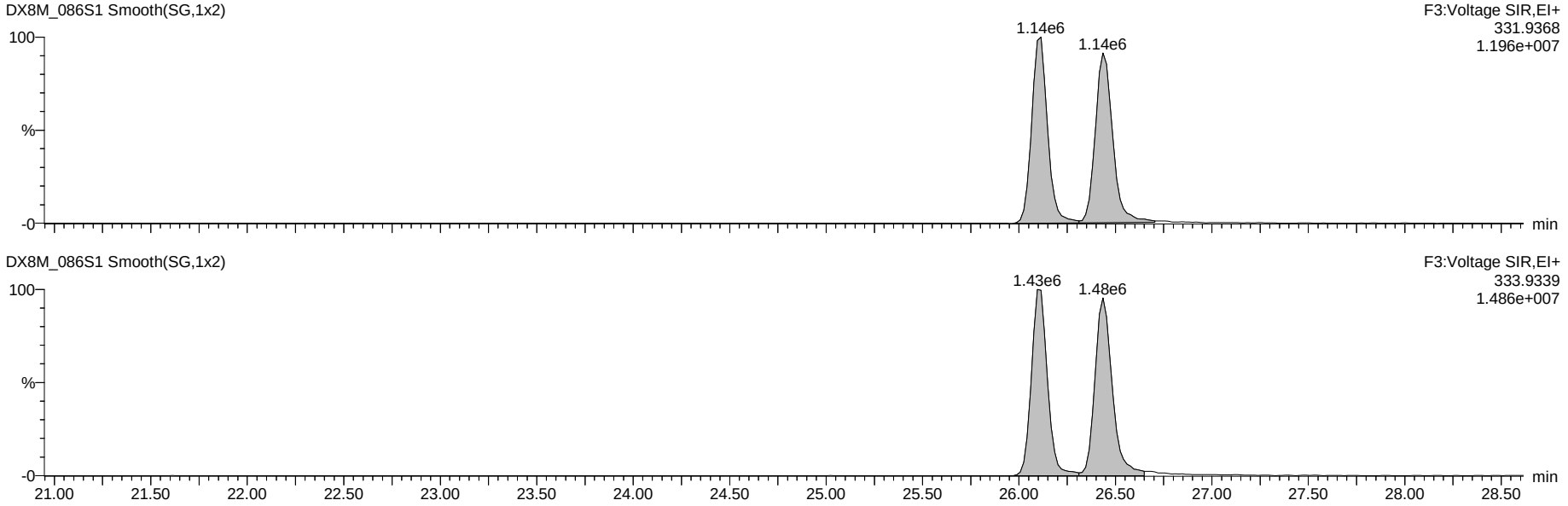
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S1, Date: 20-Jul-2018, Time: 15:48:11, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

37Cl-2,3,7,8-TCDD



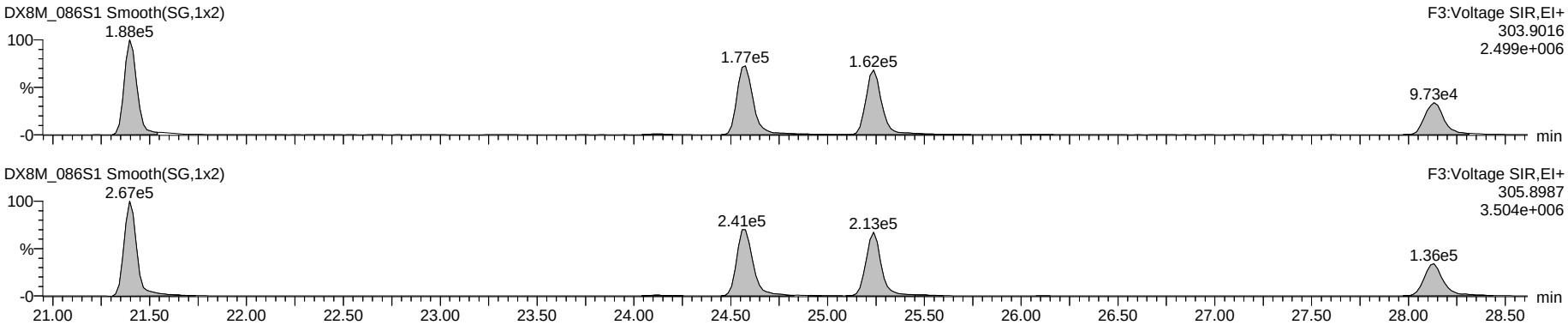
13C-Tetra-Dioxins



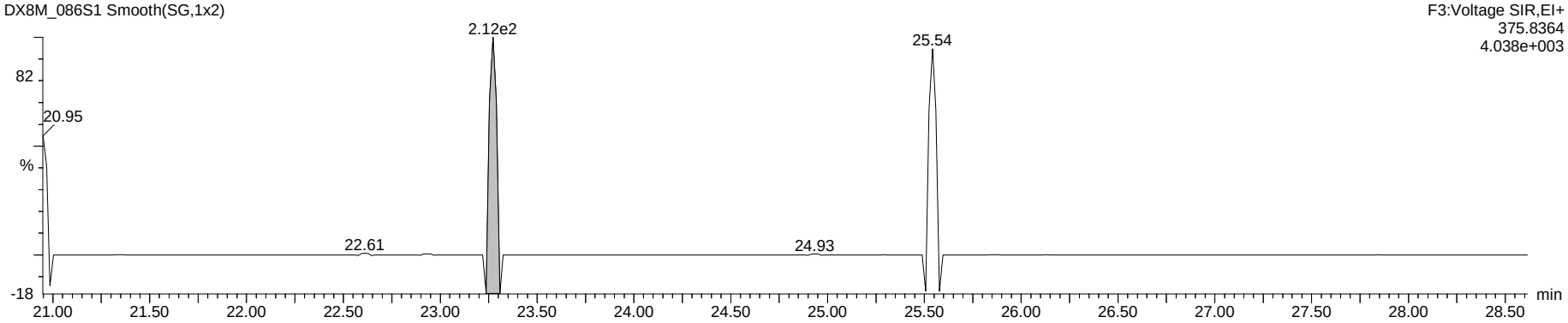
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S1, Date: 20-Jul-2018, Time: 15:48:11, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

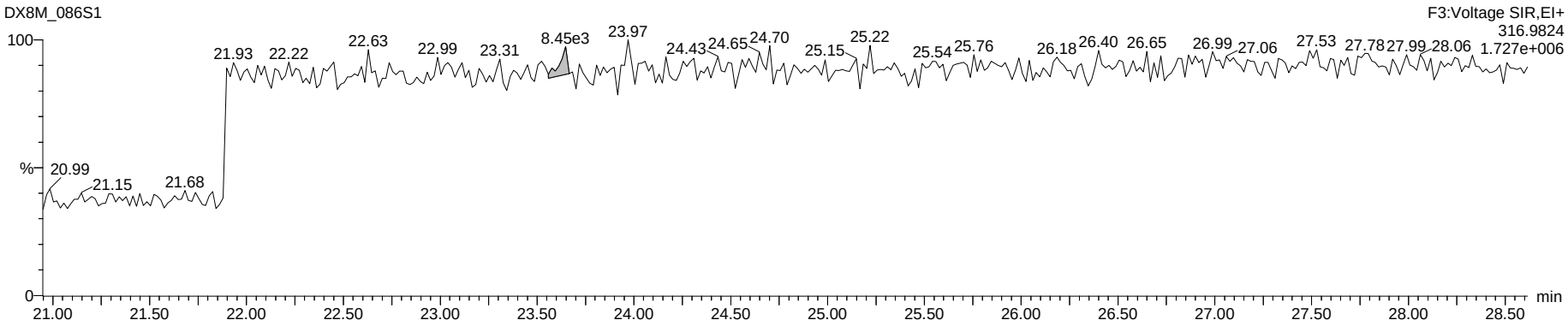
Total Tetra-Furans



Hexa DPE



Tetra Lock



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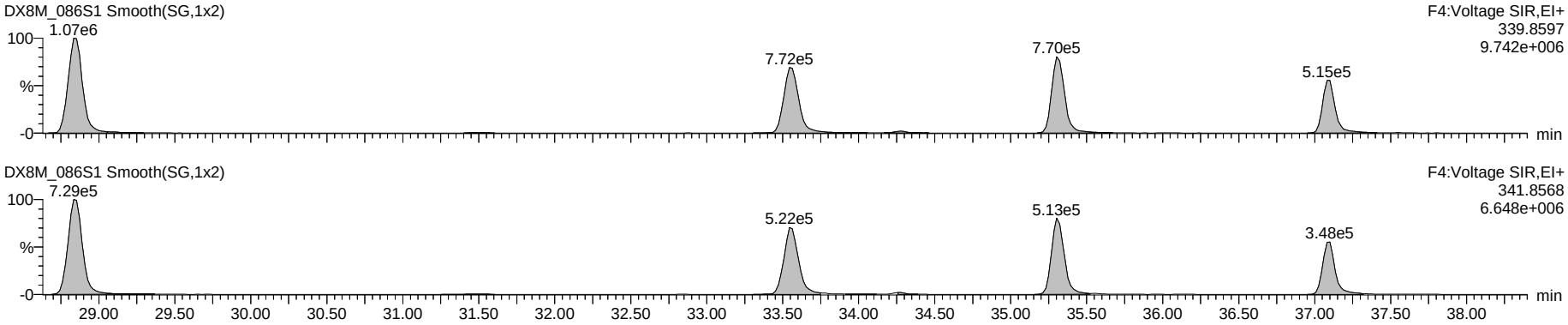
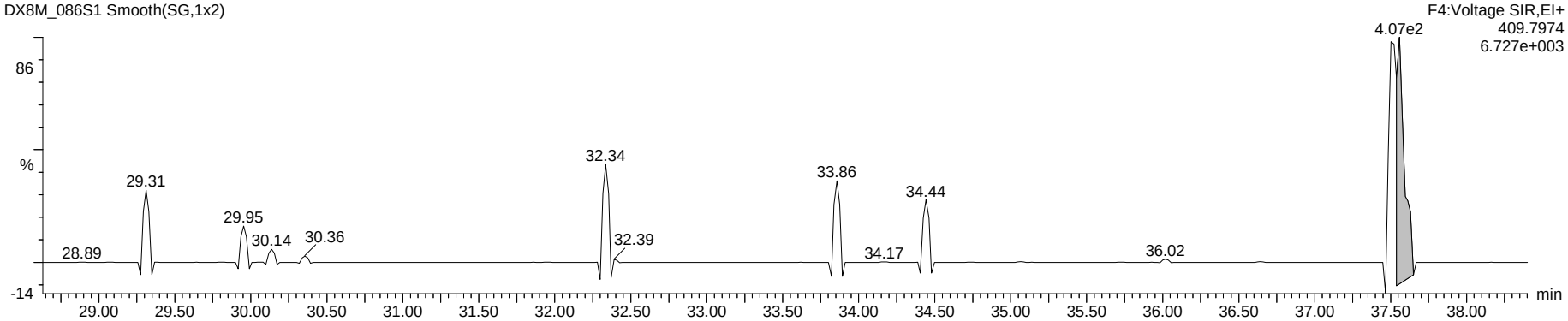
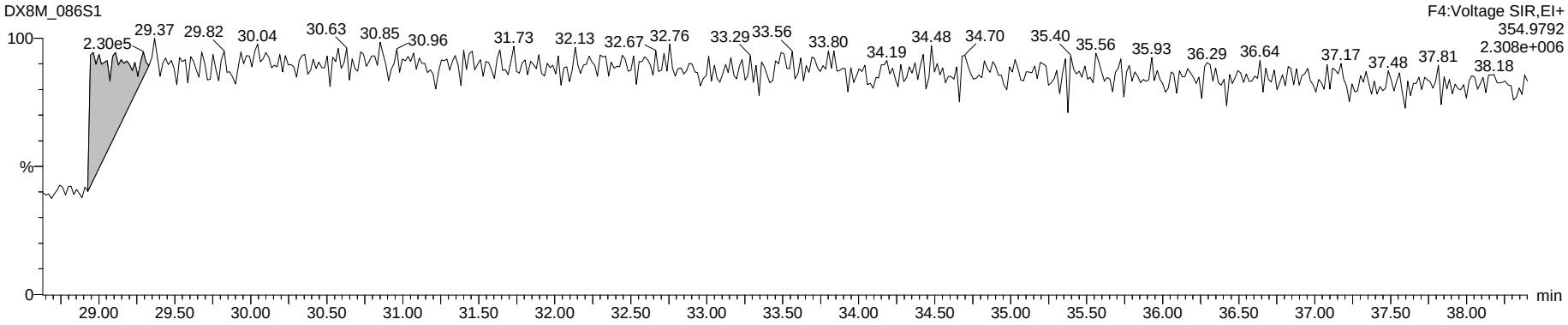
Total Penta-Furans



Hepta DPE



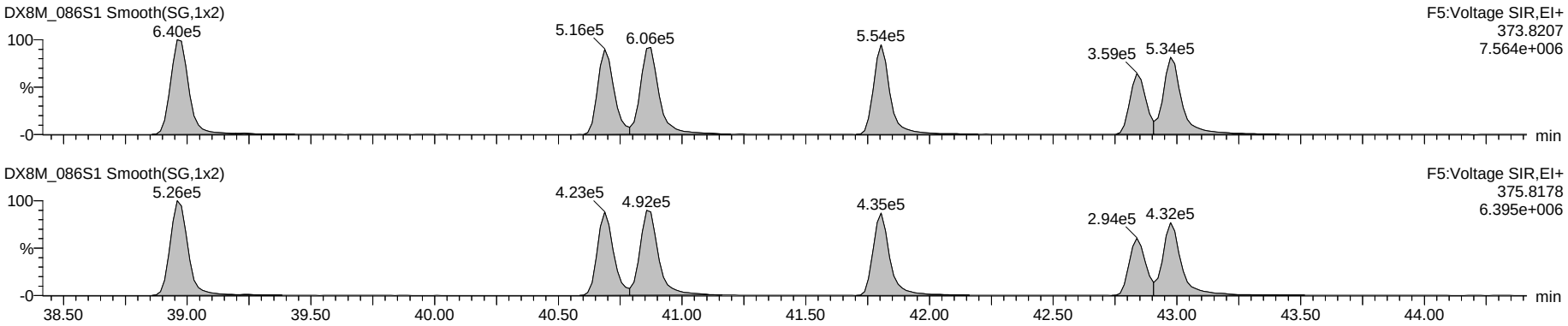
Penta Lock



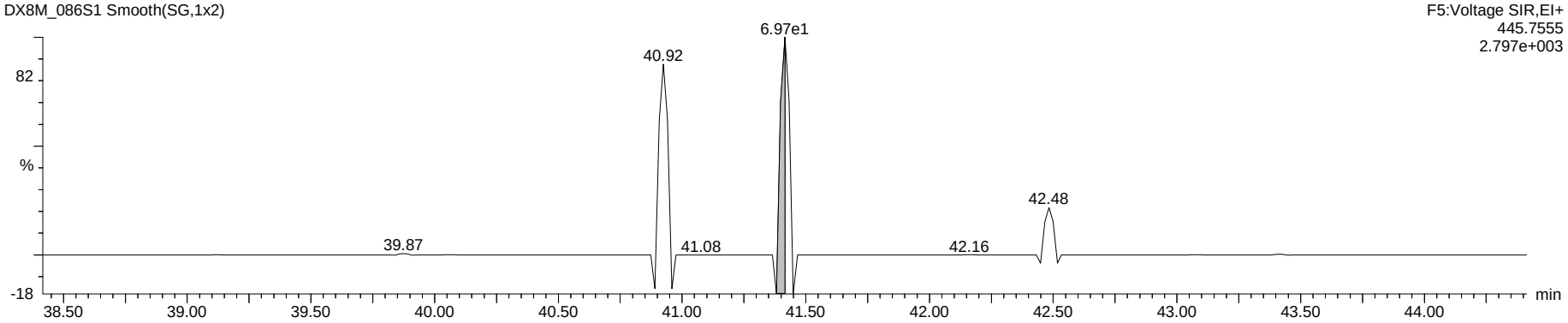
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S1, Date: 20-Jul-2018, Time: 15:48:11, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

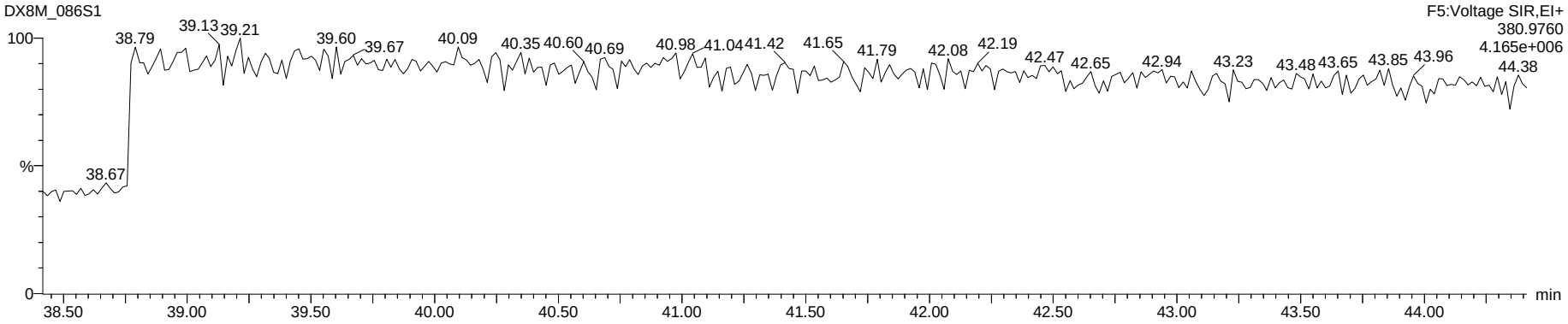
Total Hexa-Furans



Octa DPE



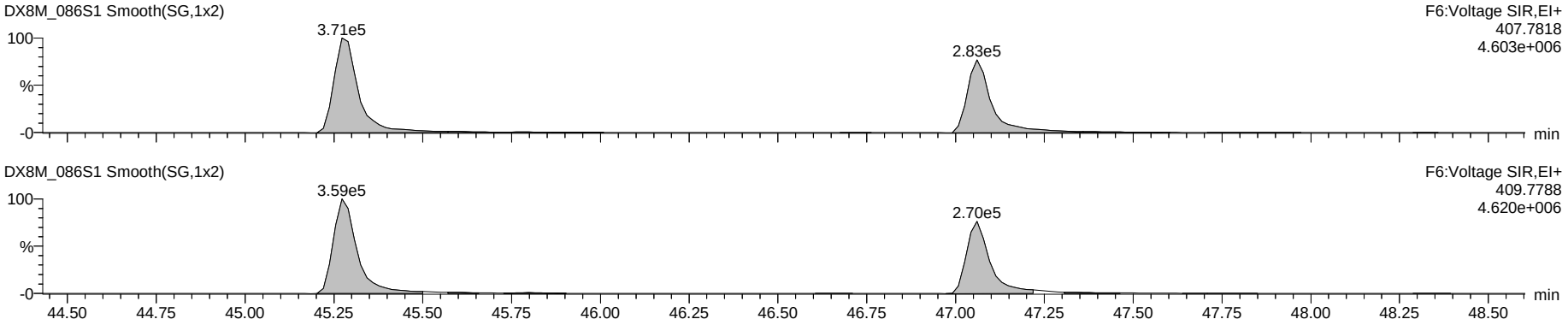
Hexa Lock



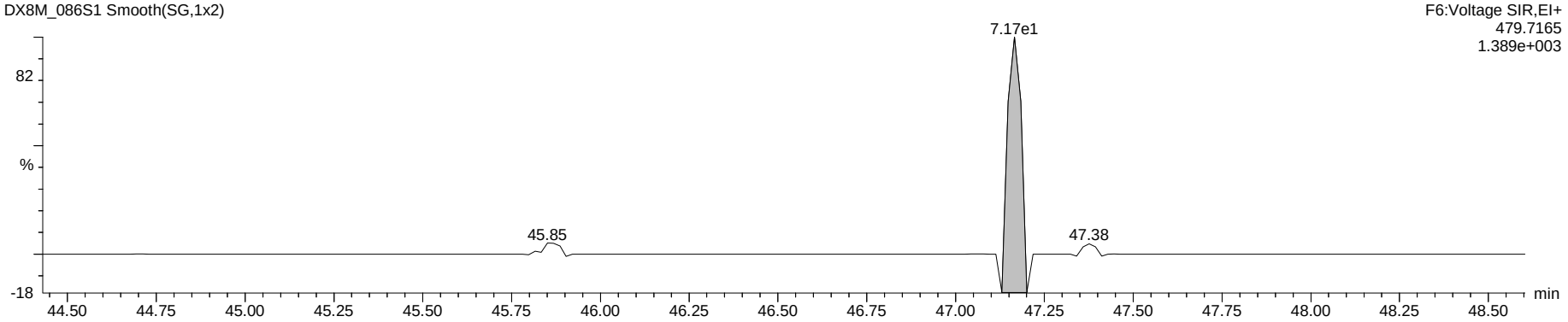
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S1, Date: 20-Jul-2018, Time: 15:48:11, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

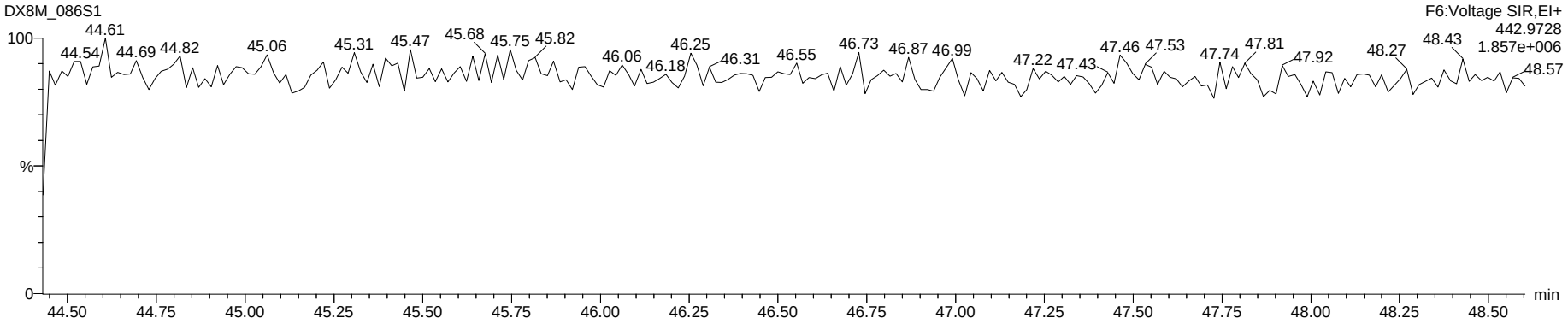
Total Hepta-Furans



Nona DPE



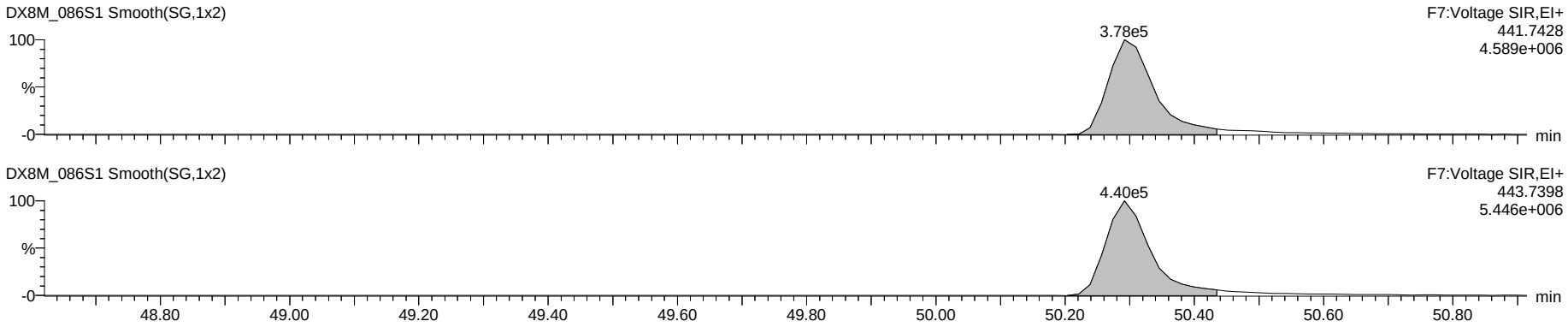
Hepta Lock



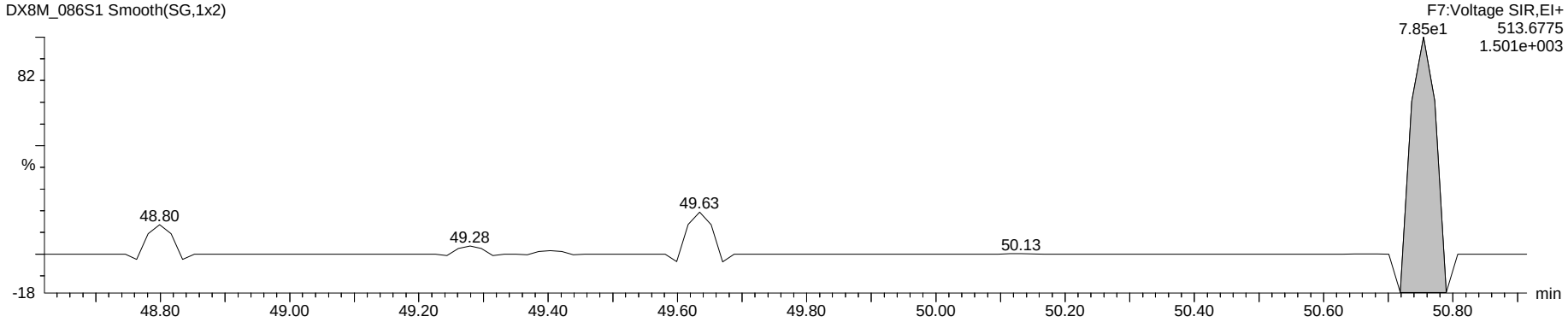
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-A.qld

Name: DX8M_086S1, Date: 20-Jul-2018, Time: 15:48:11, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

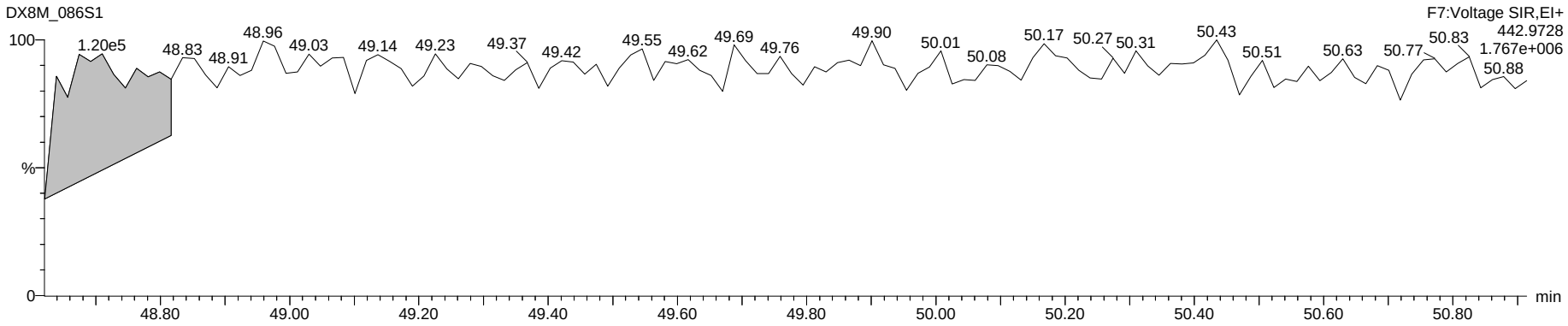
OCDF



Deca DPE



Octa Lock



Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Method: G:\Masslynx\Inst_M\Projects\180604DX.pro\MethDB\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_086S12, Date: 21-Jul-2018, Time: 02:11:30, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	1.000	3.64e5	0.72	NO	25.24	11.159	0.0365	111.6	2.69e3	2.27e3
2	1,2,3,7,8-PeCDF	1.000	1.30e6	1.49	NO	33.56	49.775	0.0812	99.5	3.31e3	4.45e3
3	2,3,4,7,8-PeCDF	1.000	1.20e6	1.45	NO	35.32	48.515	0.0755	97.0	3.31e3	4.45e3
4	1,2,3,4,7,8-HxCDF	1.000	9.94e5	1.24	NO	40.70	54.338	0.0711	108.7	2.94e3	4.01e3
5	1,2,3,6,7,8-HxCDF	1.000	1.08e6	1.25	NO	40.87	54.214	0.0663	108.4	2.94e3	4.01e3
6	2,3,4,6,7,8-HxCDF	1.000	9.80e5	1.24	NO	41.80	52.947	0.0696	105.9	2.94e3	4.01e3
7	1,2,3,7,8,9-HxCDF	1.000	7.86e5	1.23	NO	42.85	49.233	0.0898	98.5	2.94e3	4.01e3
8	1,2,3,4,6,7,8-HpCDF	1.000	7.71e5	0.97	NO	45.29	53.779	0.0575	107.6	2.65e3	2.19e3
9	1,2,3,4,7,8,9-HpCDF	1.000	5.84e5	1.08	NO	47.08	51.100	0.0801	102.2	2.65e3	2.19e3
10	OCDF	1.000	9.51e5	0.85	NO	50.31	106.248	0.0000	106.2	4.39e-1	1.72e-1
11	2,3,7,8-TCDD	1.000	3.05e5	0.77	NO	26.47	10.336	0.0537	103.4	2.65e3	3.49e3
12	1,2,3,7,8-PeCDD	1.000	8.85e5	0.61	NO	36.15	55.114	0.0651	110.2	2.11e3	2.43e3
13	1,2,3,4,7,8-HxCDD	1.000	6.35e5	1.22	NO	42.09	50.501	0.0667	101.0	1.98e3	2.71e3
14	1,2,3,6,7,8-HxCDD	1.000	7.04e5	1.22	NO	42.23	51.561	0.0633	103.1	1.98e3	2.71e3
15	1,2,3,7,8,9-HxCDD	1.000	7.11e5	1.20	NO	42.65	53.941	0.0646	107.9	1.98e3	2.71e3
16	1,2,3,4,6,7,8-HpCDD	1.000	5.17e5	1.09	NO	46.66	55.908	0.0984	111.8	1.82e3	3.01e3
17	OCDD	1.000	7.72e5	0.88	NO	50.22	103.915	0.0773	103.9	8.64e2	1.91e3
18	13C-2,3,7,8-TCDF	1.000	3.57e6	0.72	NO	25.22	79.926	0.1062	79.9	1.35e4	6.46e3
19	13C-1,2,3,7,8-PeCDF	1.000	2.83e6	1.44	NO	33.53	87.993	0.1037	88.0	8.75e3	5.28e3
20	13C-2,3,4,7,8-PeCDF	1.000	2.64e6	1.42	NO	35.29	85.183	0.1075	85.2	8.75e3	5.28e3
21	13C-1,2,3,4,7,8-HxCDF	1.000	1.64e6	0.52	NO	40.67	91.751	0.2096	91.8	1.15e4	7.95e3
22	13C-1,2,3,6,7,8-HxCDF	1.000	1.87e6	0.50	NO	40.86	97.952	0.1963	98.0	1.15e4	7.95e3
23	13C-2,3,4,6,7,8-HxCDF	1.000	1.62e6	0.52	NO	41.79	95.194	0.2196	95.2	1.15e4	7.95e3
24	13C-1,2,3,7,8,9-HxCDF	1.000	1.60e6	0.52	NO	42.82	94.994	0.2227	95.0	1.15e4	7.95e3
25	13C-1,2,3,4,6,7,8-HpCDF	1.000	1.17e6	0.45	NO	45.27	82.204	0.1189	82.2	5.82e3	2.97e3
26	13C-1,2,3,4,7,8,9-HpCDF	1.000	9.12e5	0.44	NO	47.06	82.026	0.1524	82.0	5.82e3	2.97e3
27	13C-2,3,7,8-TCDD	1.000	2.65e6	0.78	NO	26.45	95.617	0.1582	95.6	1.06e4	7.91e3
28	13C-1,2,3,7,8-PeCDD	1.000	1.56e6	0.68	NO	36.11	85.967	0.0851	86.0	4.53e3	1.98e3
29	13C-1,2,3,4,7,8-HxCDD	1.000	1.25e6	1.23	NO	42.08	90.964	0.1028	91.0	2.57e3	4.78e3
30	13C-1,2,3,6,7,8-HxCDD	1.000	1.46e6	1.23	NO	42.21	100.307	0.0972	100.3	2.57e3	4.78e3
31	13C-1,2,3,4,6,7,8-HpCDD	1.000	9.30e5	1.00	NO	46.66	81.641	0.1280	81.6	1.46e3	6.11e3
32	13C-OCDD	1.000	1.46e6	0.87	NO	50.20	145.674	0.3380	72.8	3.68e3	1.39e4
33	13C-1,2,3,4-TCDD	1.000	2.76e6	0.78	NO	26.11	122.322	0.1943	122.3	1.06e4	7.91e3
34	13C-1,2,3,7,8,9-HxCDD	1.000	1.40e6	1.21	NO	42.63	98.027	0.0992	98.0	2.57e3	4.78e3
35	37Cl-2,3,7,8-TCDD	1.000	2.60e5			26.47	8.439	0.0339	84.4		4.39e3
36	Total Tetra-Furans	1.000					44.907	0.0365			2.27e3
37	Total Tetra-Dioxins	1.000					85.490	0.0537			3.49e3
38	Total Penta-Furans	1.000					199.696	0.0791			4.45e3
39	Total Penta-Dioxins	1.000					171.787	0.0651			2.43e3
40	Total Hexa-Furans	1.000					326.932	0.0711			4.01e3
41	Total Hexa-Dioxins	1.000					216.813	0.0625			2.71e3
42	Total Hepta-Furans	1.000					107.814	0.0682			2.19e3
43	Total Hepta-Dioxins	1.000					120.535	0.0984			3.01e3
44	Hexa DPE	1.000	2.19e1			21.32					9.74e-1
45	Hepta DPE	1.000	1.38e2			37.59					1.49e2
46	Octa DPE	1.000	1.01e2			40.94					5.12e-2
47	Nona DPE	1.000	2.46e-1			46.46					0.00e0
48	Deca DPE	1.000	9.80e1			50.26					0.00e0
49	Tetra Lock	1.000									1.29e5
50	Penta Lock	1.000	2.43e5			29.53					3.19e5
51	Hexa Lock	1.000	2.61e5			38.81					2.90e5

pv'd by LHE 24-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

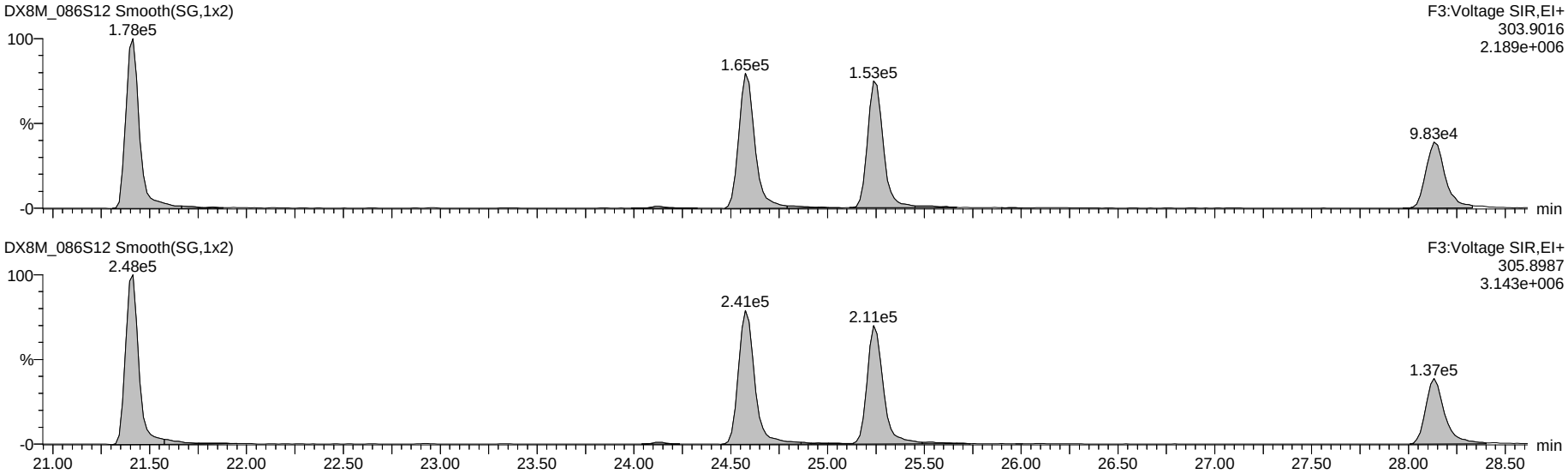
SVby KB 26JUL2018

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

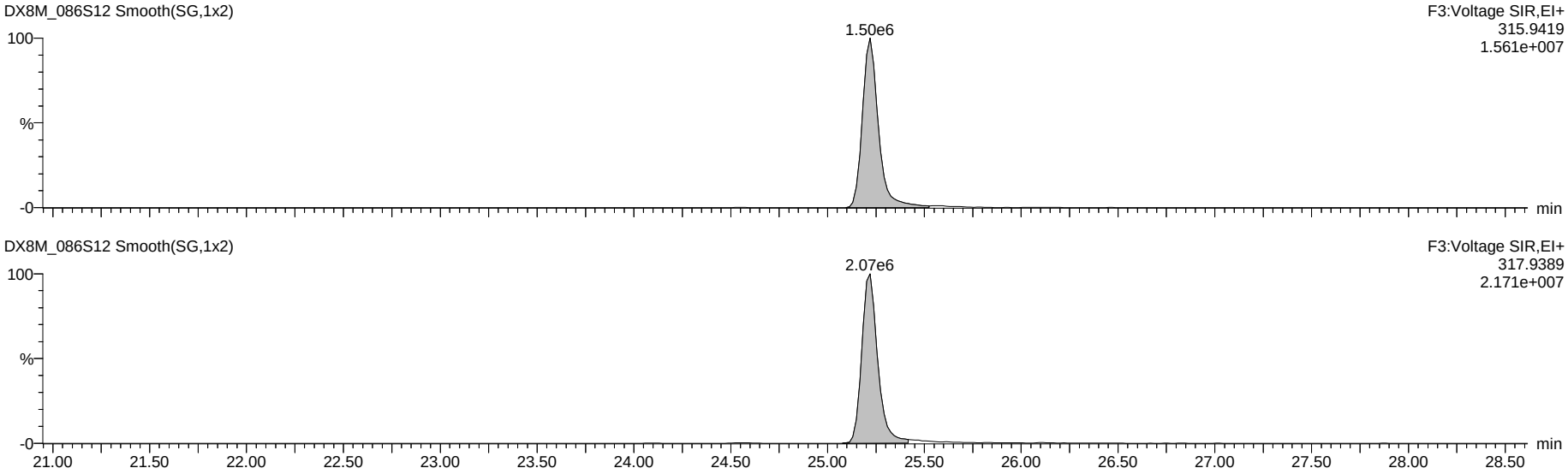
Method: G:\Masslynx\Inst_M\Projects\180604DX.pro\MethDB\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_086S12, Date: 21-Jul-2018, Time: 02:11:30, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Tetra-Furans



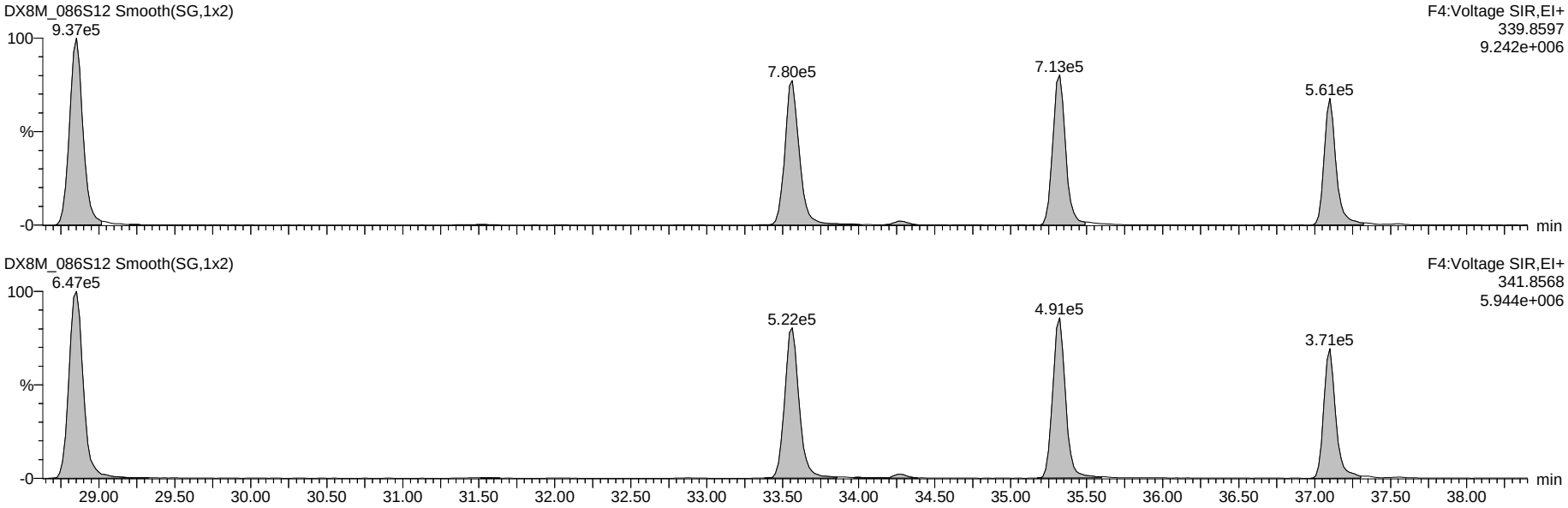
13C-Tetra-Furans



Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S12, Date: 21-Jul-2018, Time: 02:11:30, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Penta-Furans



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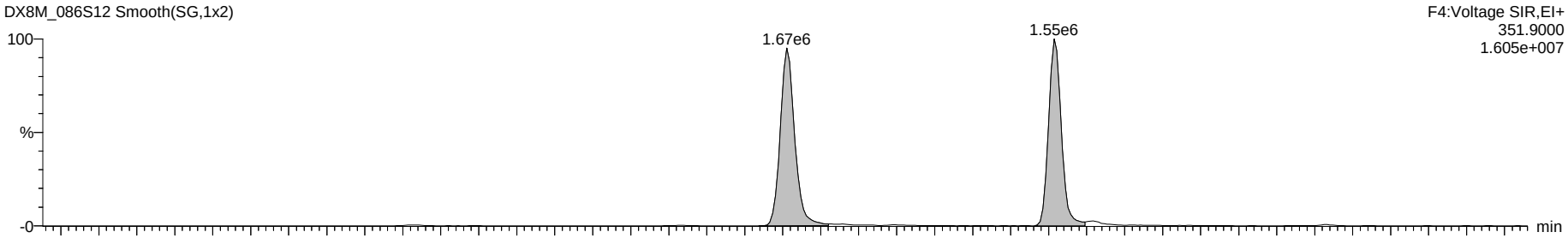
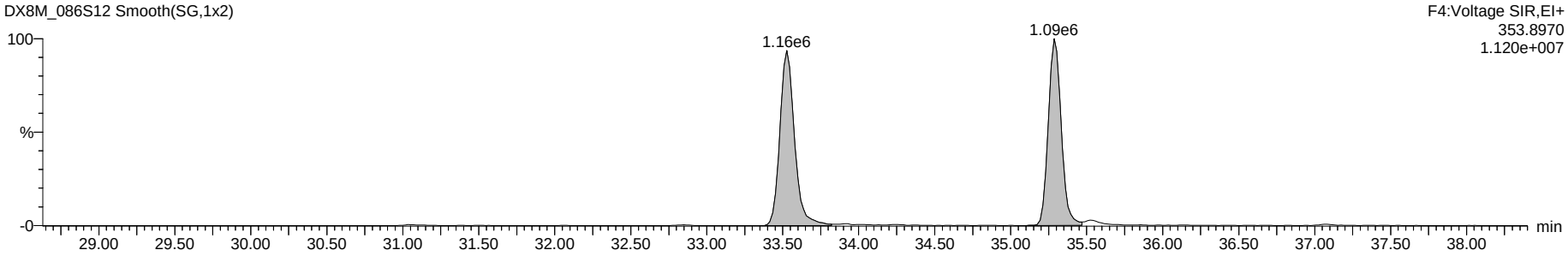
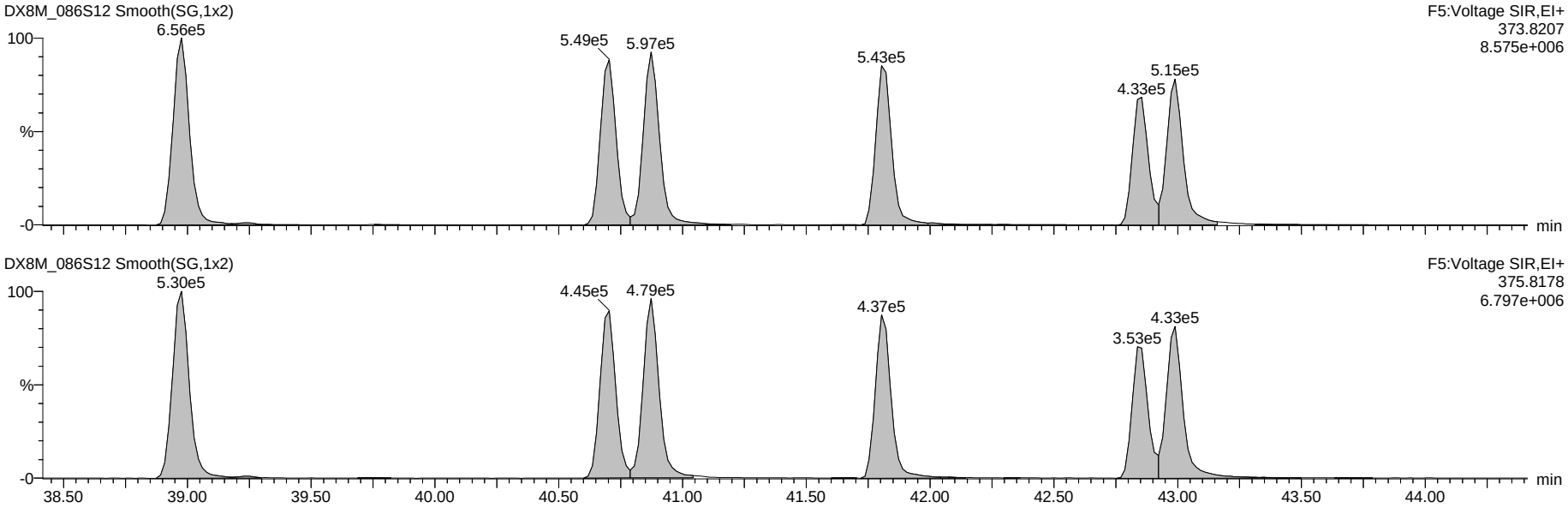




Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S12, Date: 21-Jul-2018, Time: 02:11:30, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Hexa-Furans



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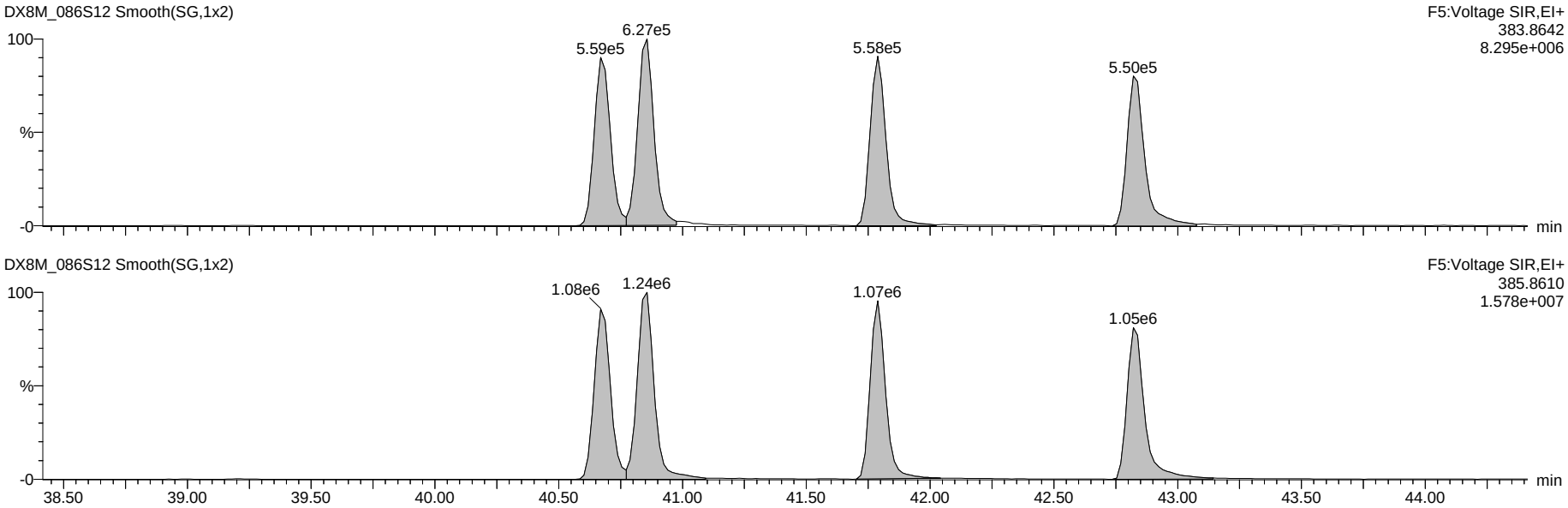

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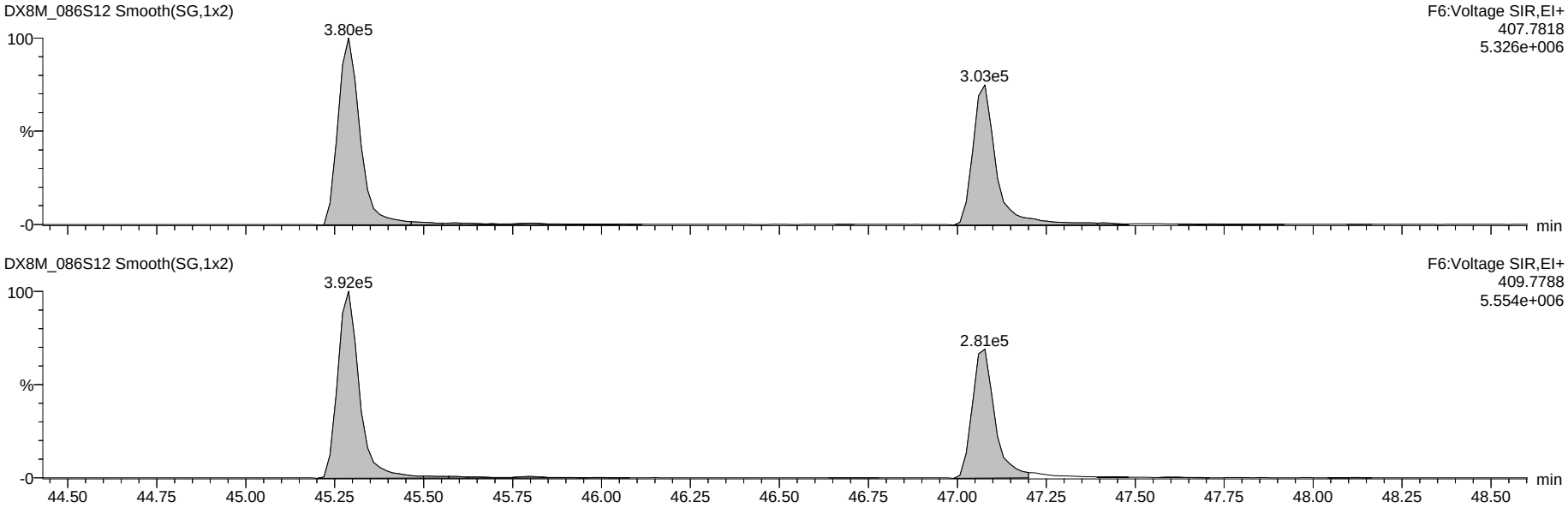
Total Hepta-Furans



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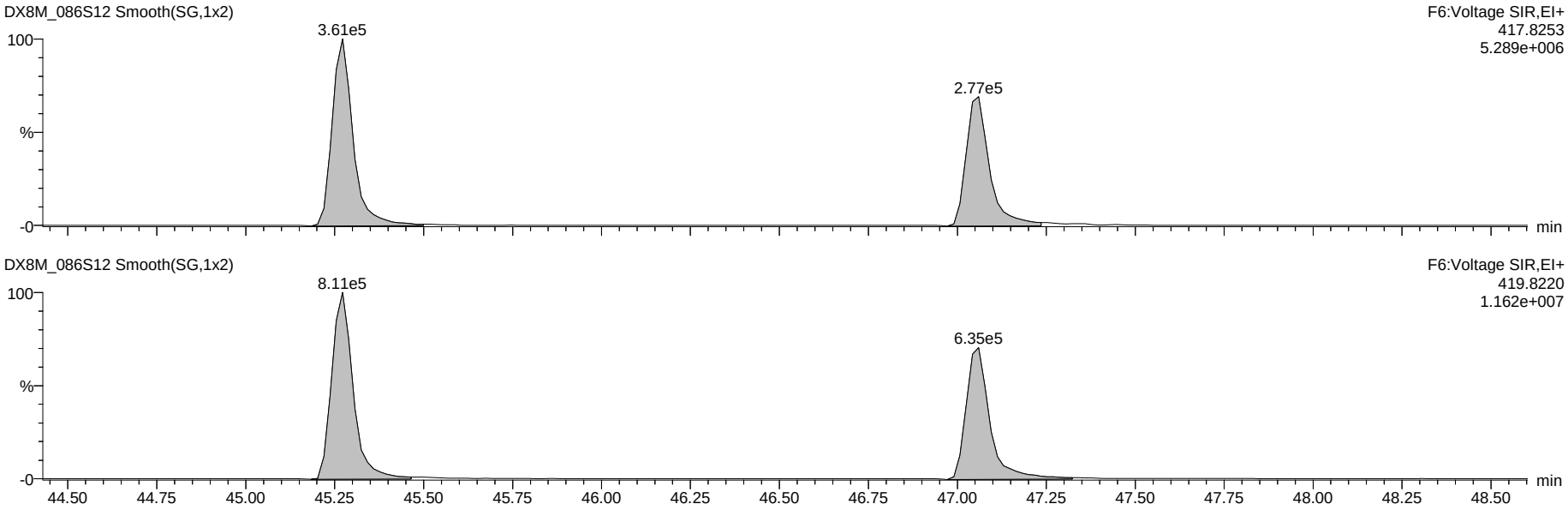

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

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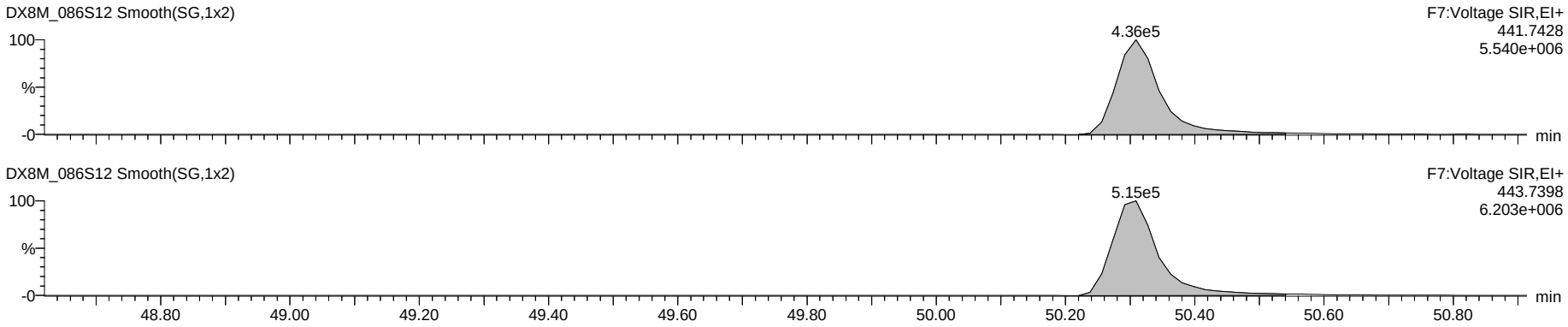
OCDF



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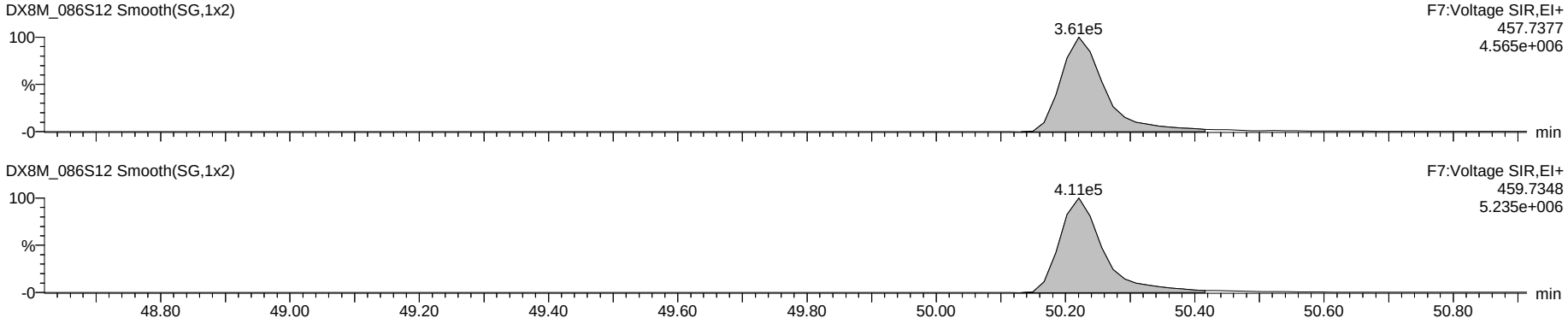

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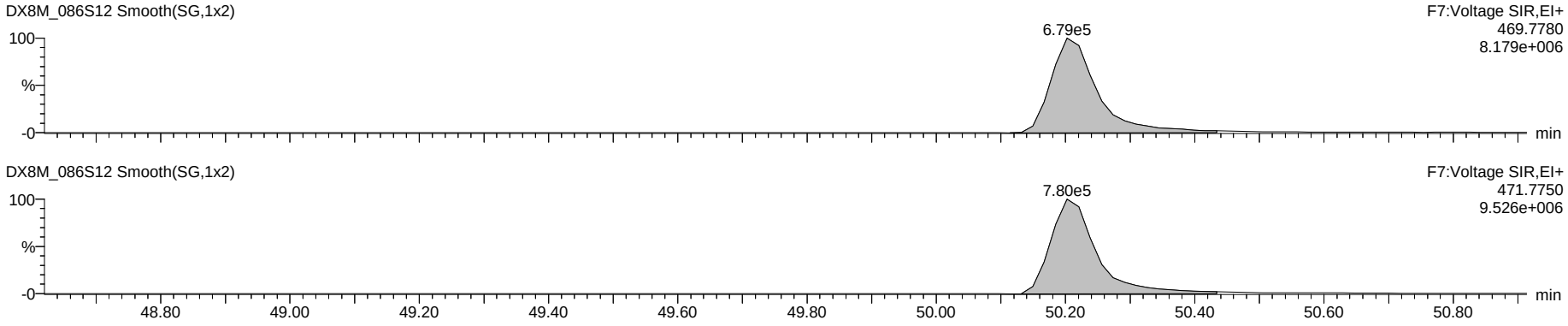

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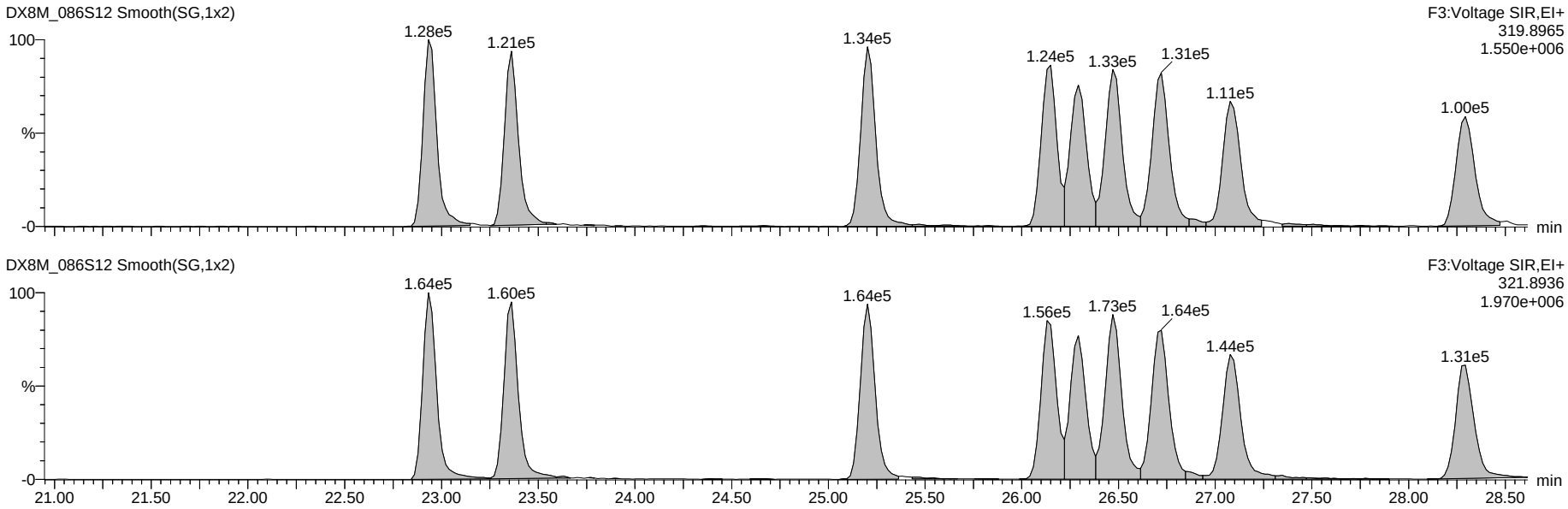
Name: DX8M_086S12, Date: 21-Jul-2018, Time: 02:11:30, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Tetra-Dioxins



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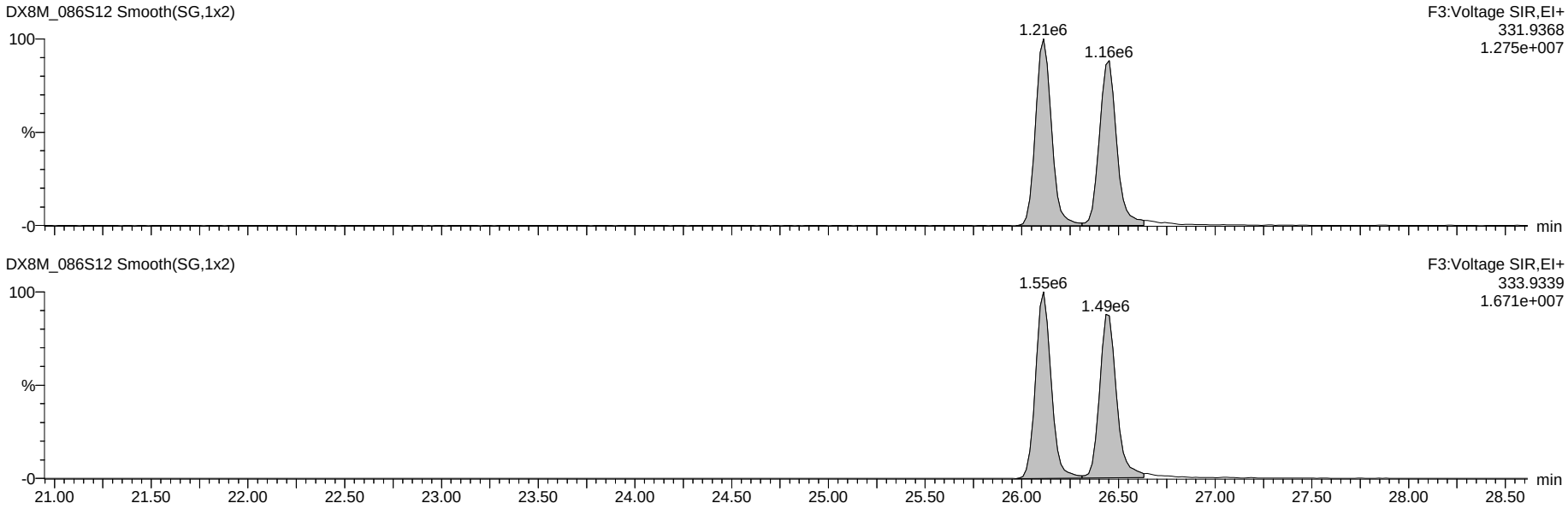

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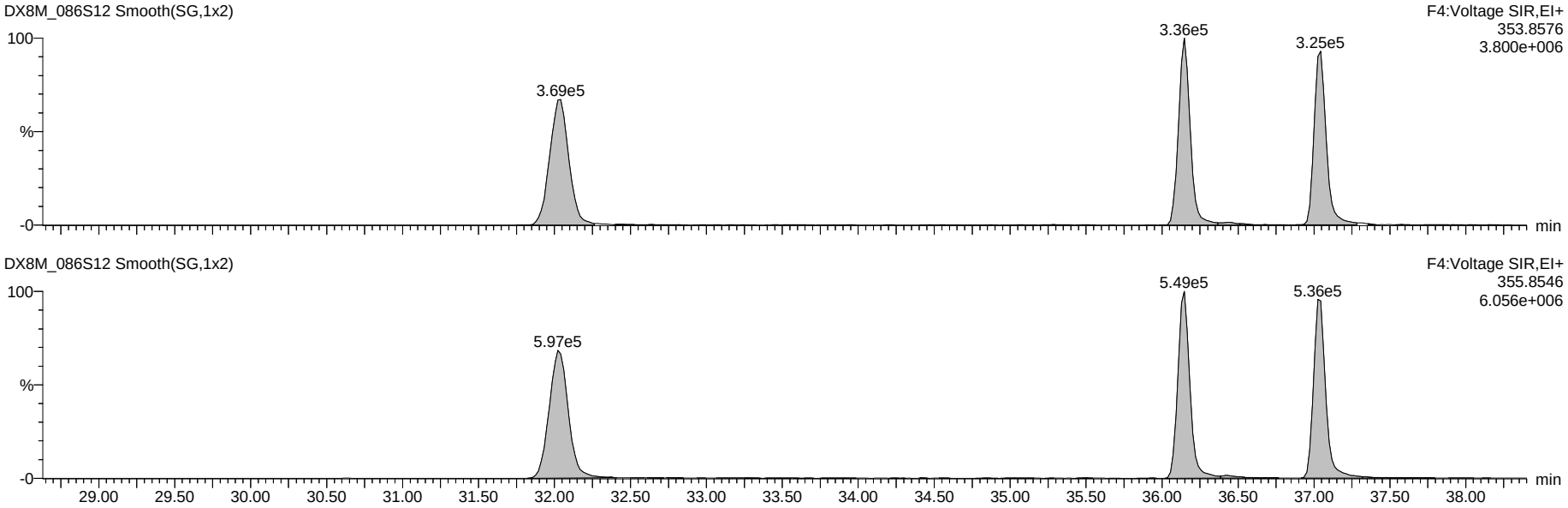
Total Penta-Dioxins



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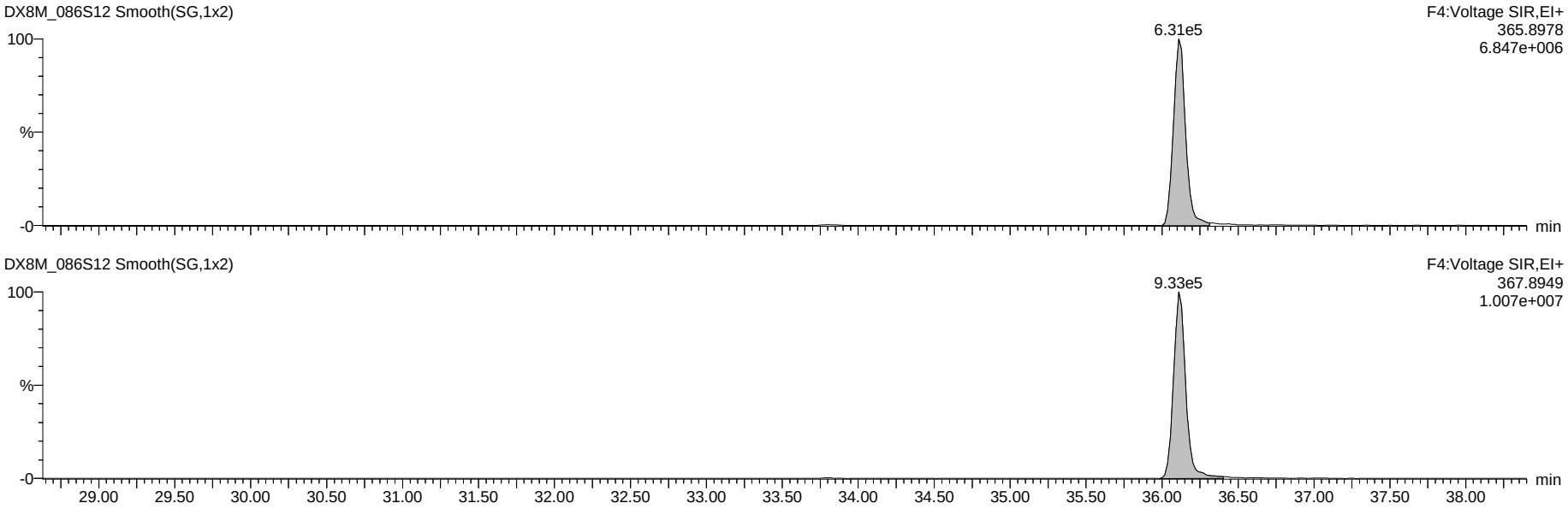

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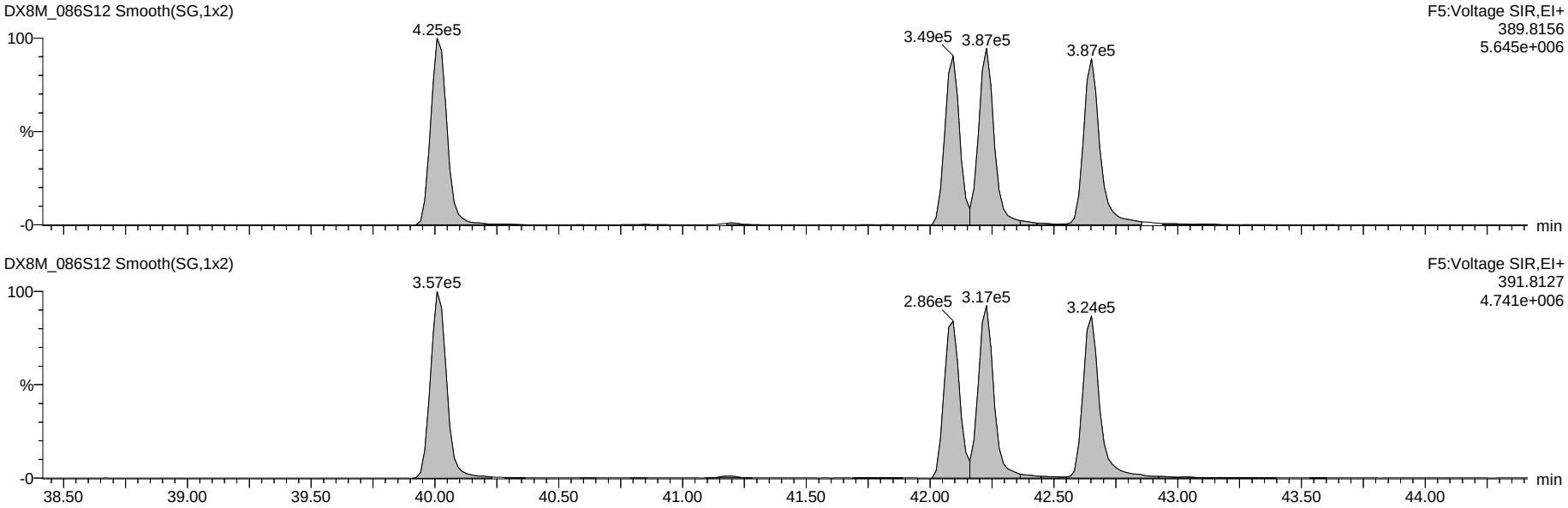
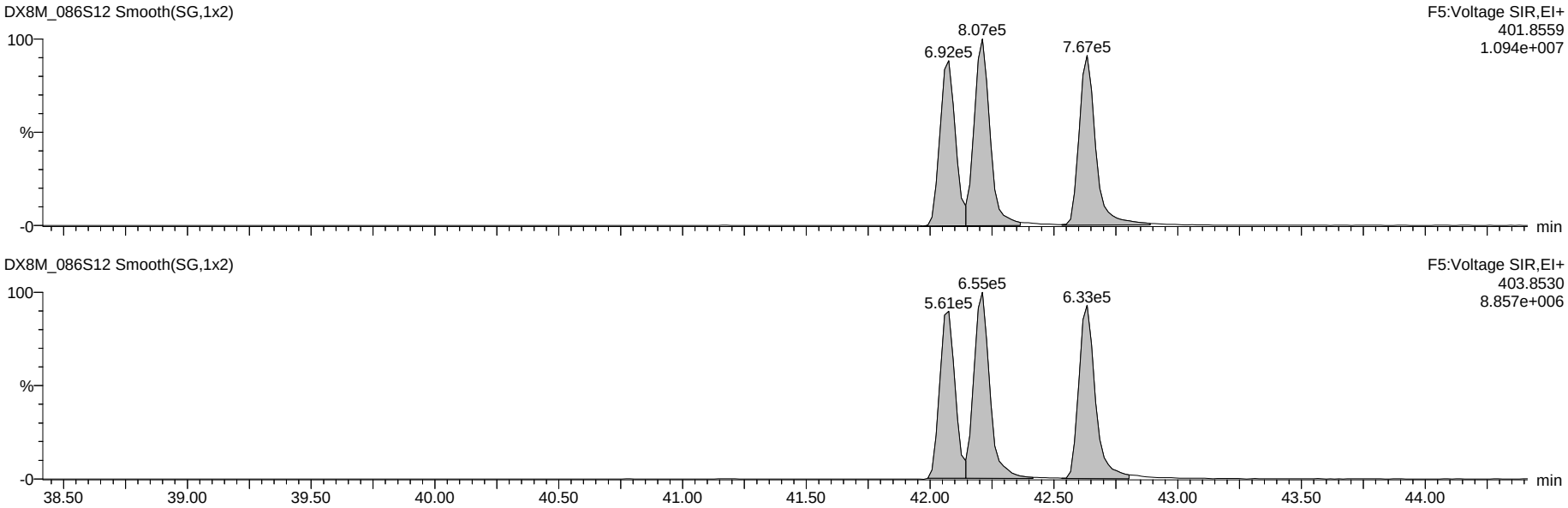
Total Hexa-Dioxins



13C-Hexa-Dioxins



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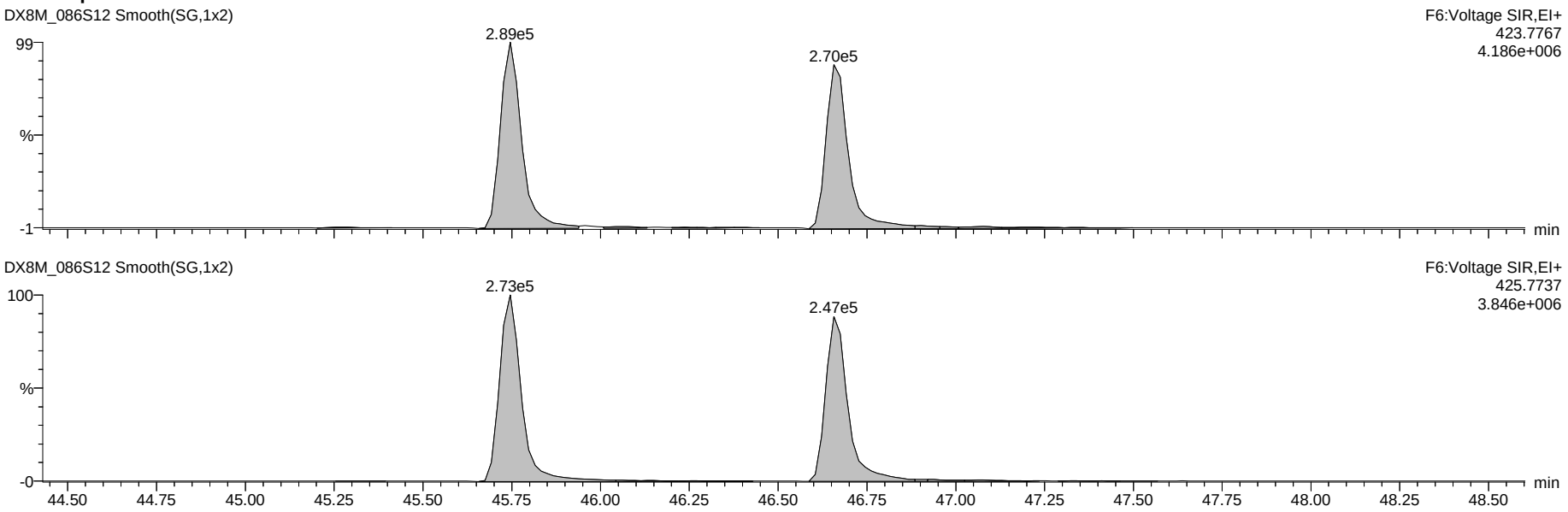
Total Hepta-Dioxins



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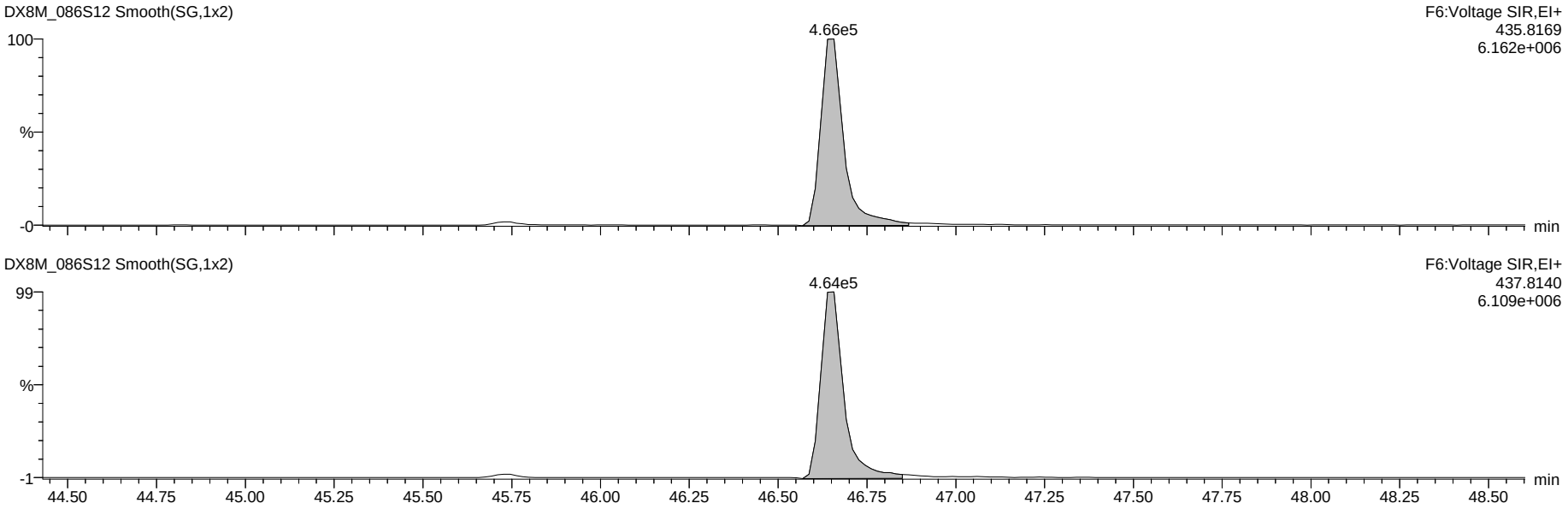

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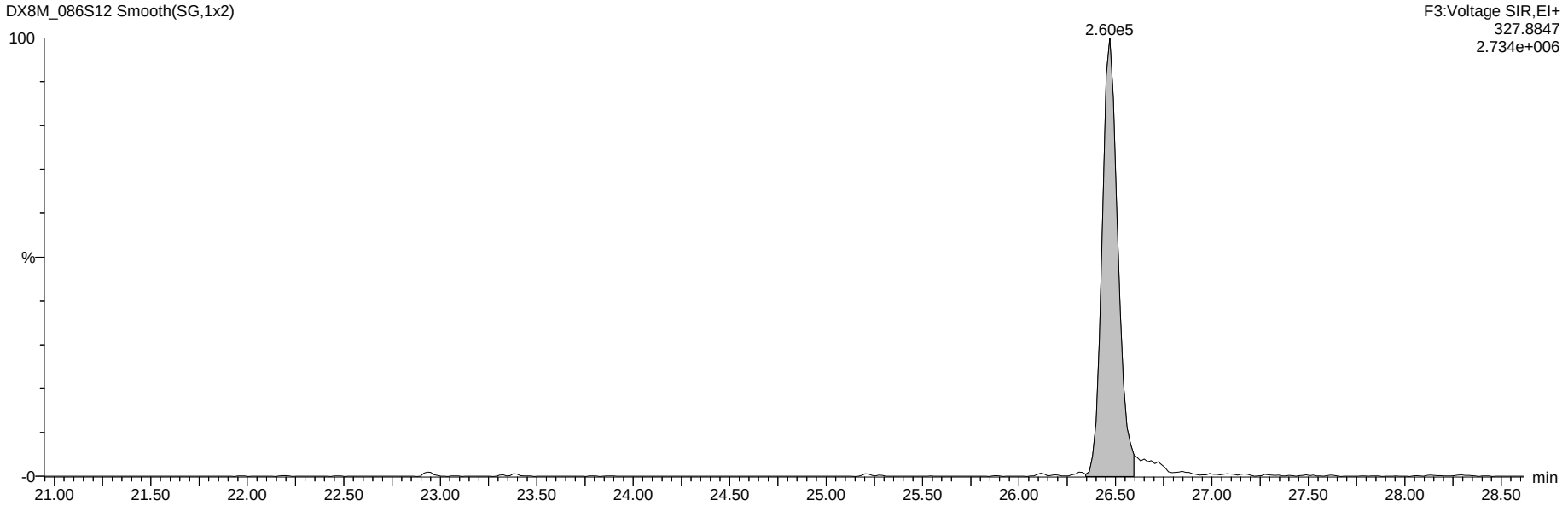
37Cl-2,3,7,8-TCDD



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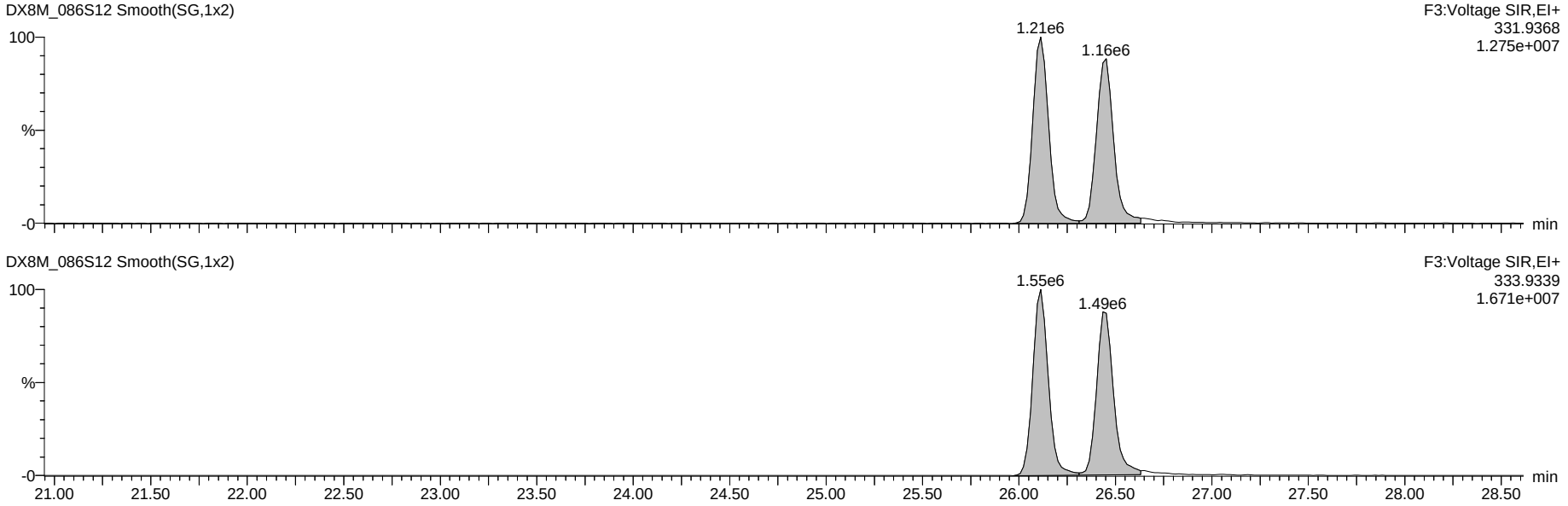

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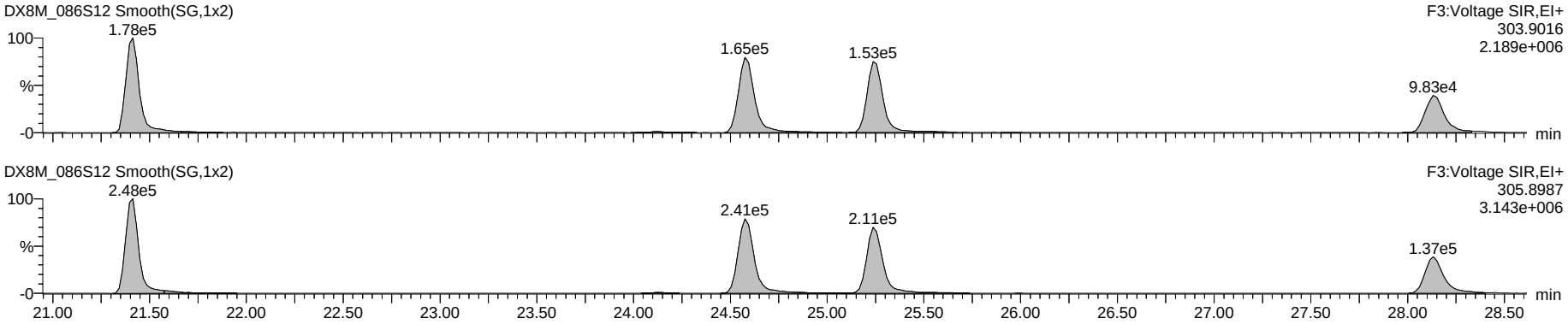
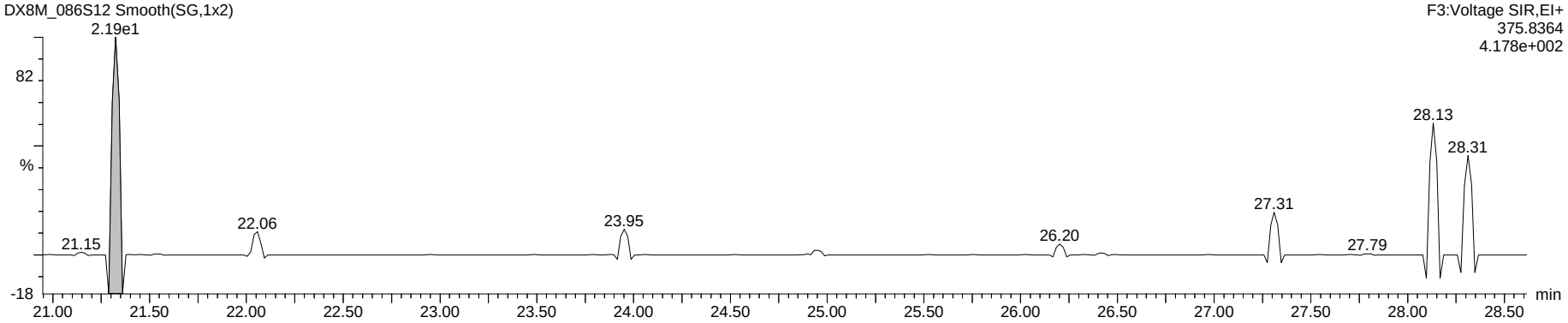
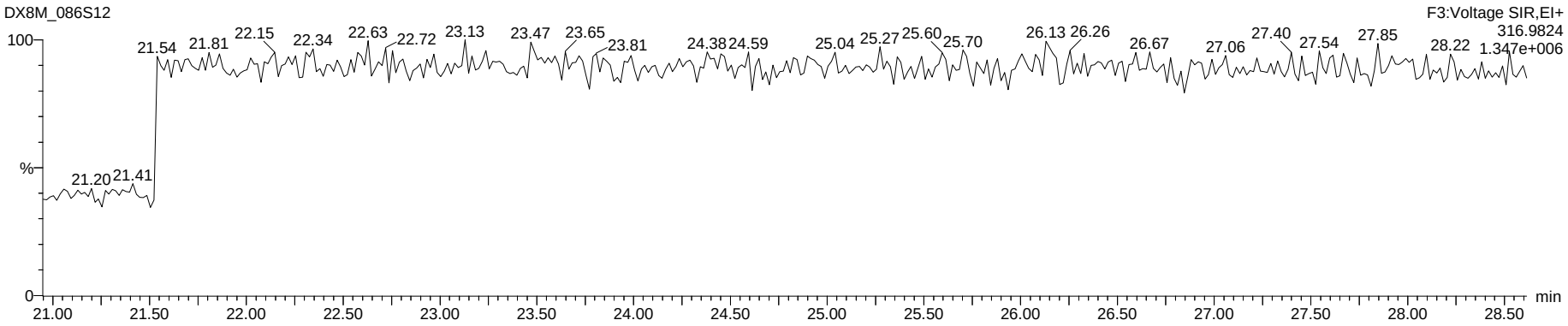
Total Tetra-Furans



Hexa DPE



Tetra Lock



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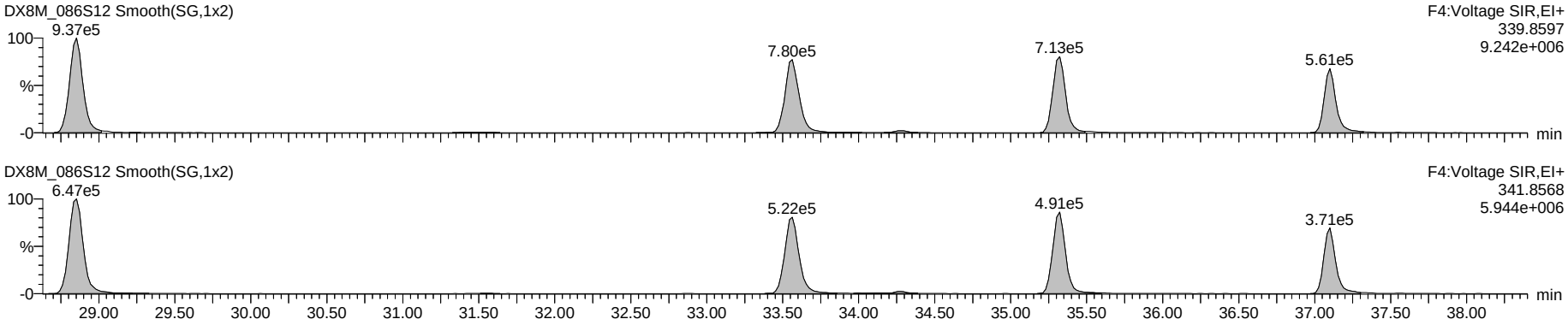
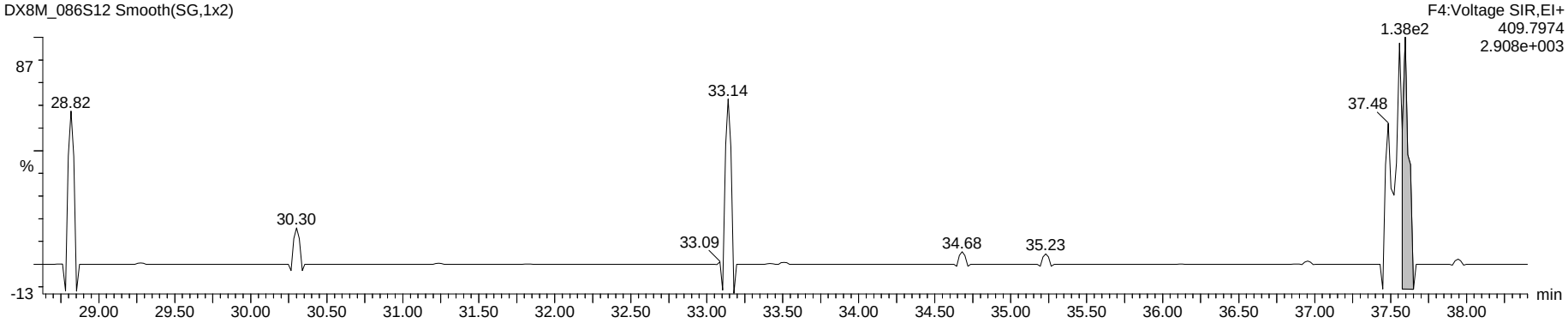
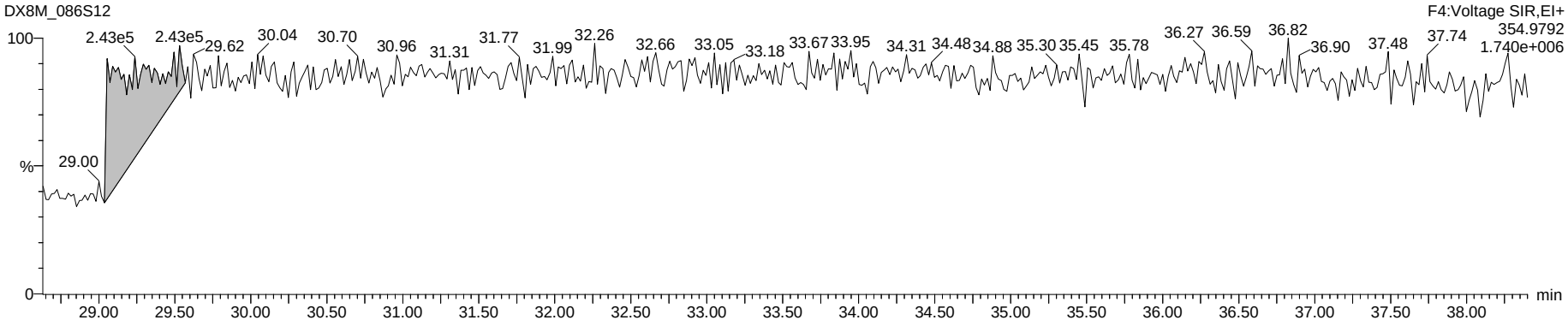
Total Penta-Furans



Hepta DPE



Penta Lock



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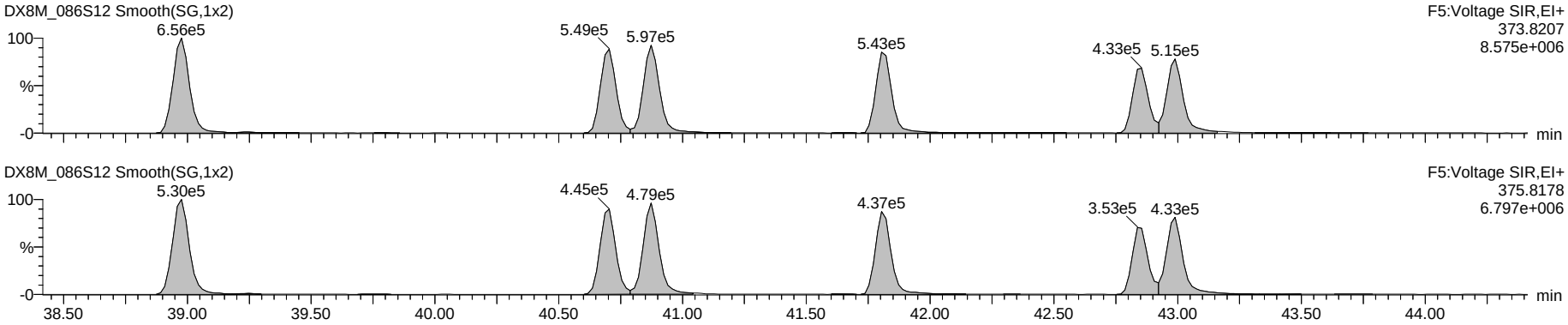
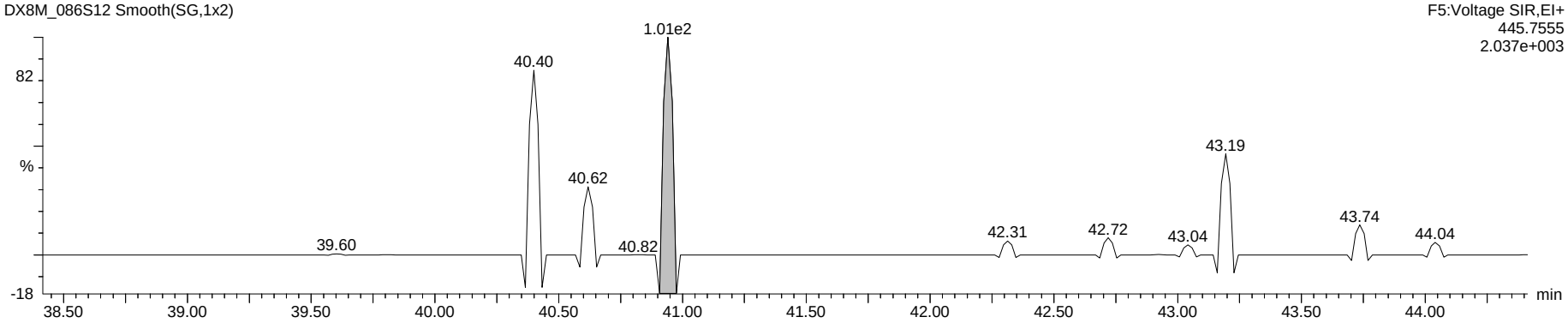
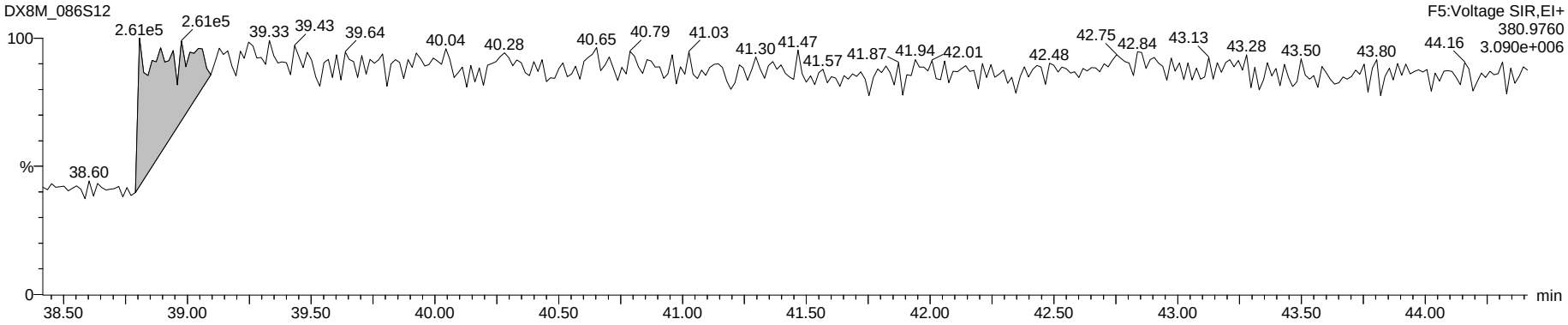
Total Hexa-Furans



Octa DPE



Hexa Lock



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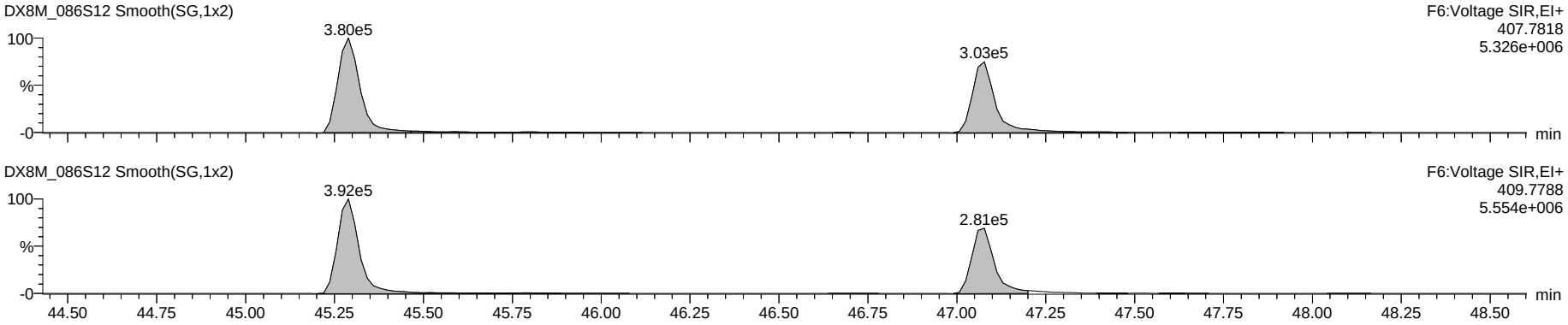
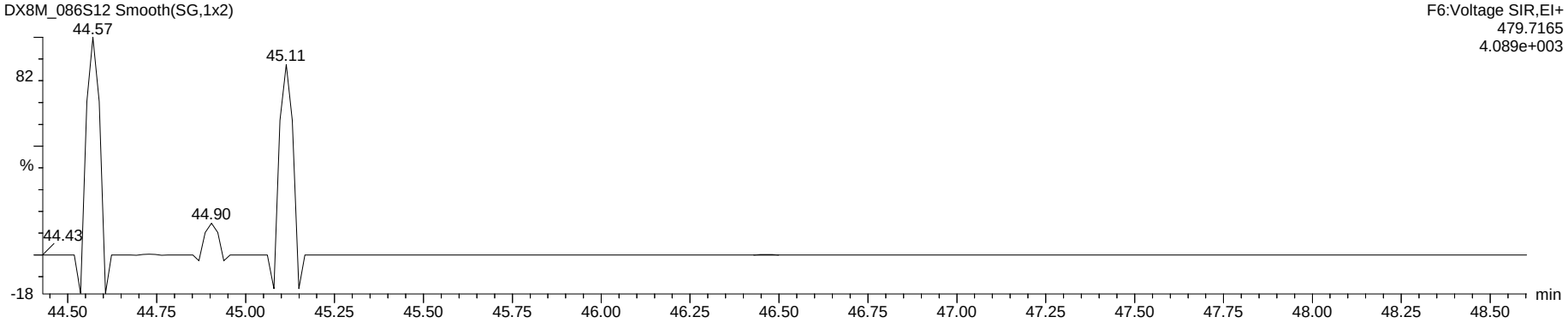
Name: DX8M_086S12, Date: 21-Jul-2018, Time: 02:11:30, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

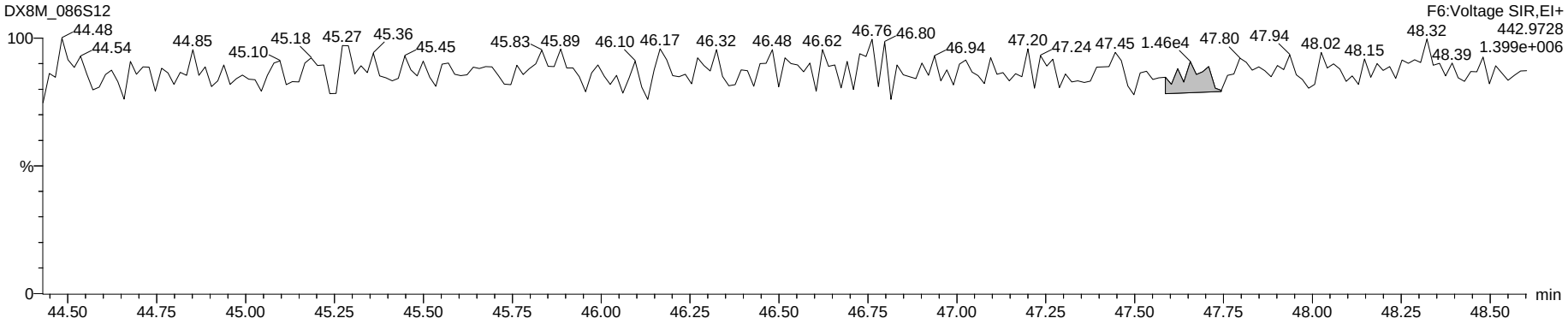
Total Hepta-Furans



Nona DPE



Hepta Lock



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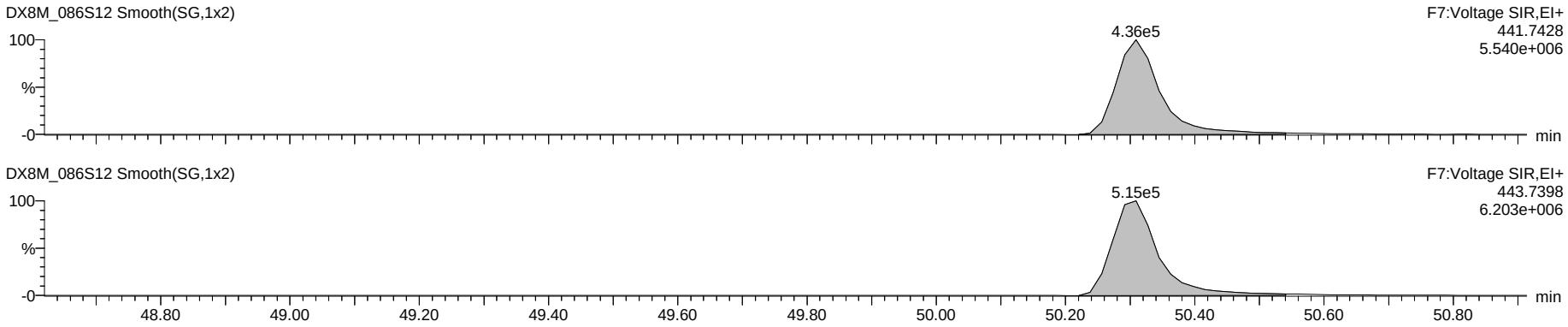
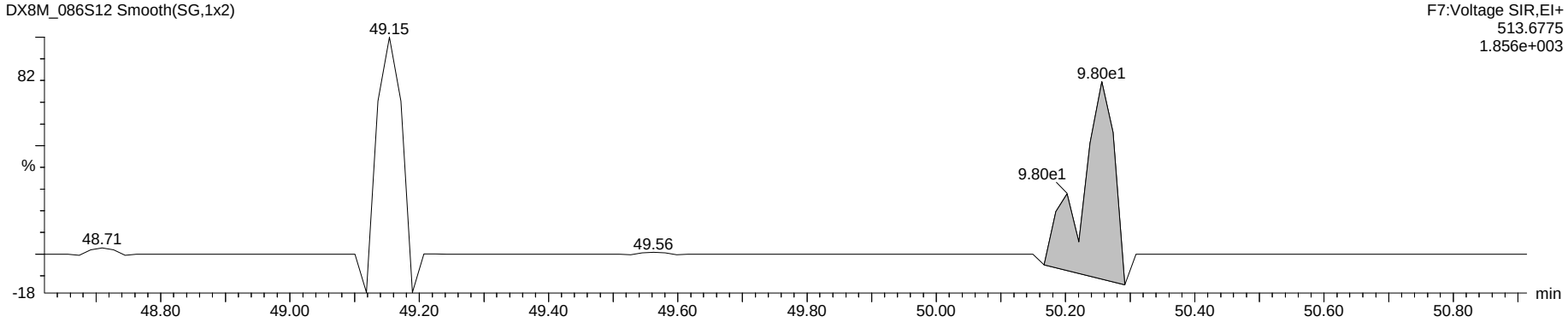
OCDF



Deca DPE



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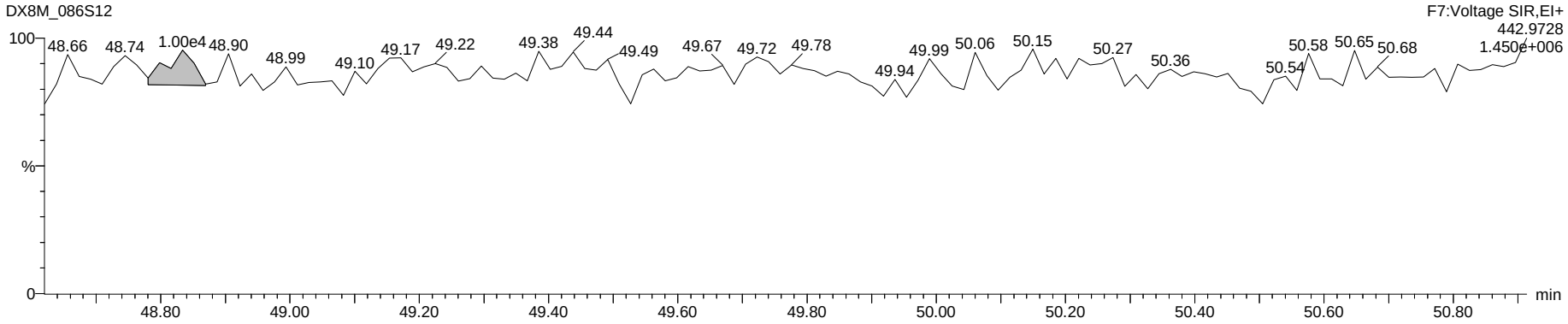


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S24, Date: 21-Jul-2018, Time: 13:20:07, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	1.000	3.86e5	0.71	NO	25.24	10.330	0.0396	103.3	2.78e3	3.09e3
2	1,2,3,7,8-PeCDF	1.000	1.30e6	1.43	NO	33.56	49.934	0.0824	99.9	3.55e3	4.08e3
3	2,3,4,7,8-PeCDF	1.000	1.29e6	1.49	NO	35.30	47.367	0.0662	94.7	3.55e3	4.08e3
4	1,2,3,4,7,8-HxCDF	1.000	1.09e6	1.24	NO	40.69	54.877	0.0871	109.8	4.92e3	4.61e3
5	1,2,3,6,7,8-HxCDF	1.000	1.16e6	1.25	NO	40.87	51.854	0.0788	103.7	4.92e3	4.61e3
6	2,3,4,6,7,8-HxCDF	1.000	1.08e6	1.22	NO	41.81	53.285	0.0875	106.6	4.92e3	4.61e3
7	1,2,3,7,8,9-HxCDF	1.000	7.85e5	1.23	NO	42.84	46.813	0.1092	93.6	4.92e3	4.61e3
8	1,2,3,4,6,7,8-HpCDF	1.000	8.71e5	1.01	NO	45.27	54.182	0.0651	108.4	2.61e3	3.12e3
9	1,2,3,4,7,8,9-HpCDF	1.000	6.79e5	0.98	NO	47.06	53.803	0.0799	107.6	2.61e3	3.12e3
10	OCDF	1.000	1.15e6	0.86	NO	50.31	112.013	0.0810	112.0	0.00e0	4.29e3
11	2,3,7,8-TCDD	1.000	2.94e5	0.78	NO	26.47	10.717	0.0468	107.2	2.00e3	3.08e3
12	1,2,3,7,8-PeCDD	1.000	8.92e5	0.61	NO	36.13	54.711	0.0953	109.4	3.66e3	2.83e3
13	1,2,3,4,7,8-HxCDD	1.000	7.10e5	1.18	NO	42.08	51.771	0.0887	103.5	3.60e3	3.84e3
14	1,2,3,6,7,8-HxCDD	1.000	7.88e5	1.24	NO	42.21	52.944	0.0920	105.9	3.60e3	3.84e3
15	1,2,3,7,8,9-HxCDD	1.000	7.49e5	1.26	NO	42.63	52.113	0.0900	104.2	3.60e3	3.84e3
16	1,2,3,4,6,7,8-HpCDD	1.000	5.70e5	1.06	NO	46.66	53.829	0.0703	107.7	2.34e3	2.06e3
17	OCDD	1.000	9.10e5	0.87	NO	50.22	107.083	0.0643	107.1	2.09e2	2.61e3
18	13C-2,3,7,8-TCDF	1.000	4.08e6	0.71	NO	25.22	101.378	0.0921	101.4	9.28e3	6.05e3
19	13C-1,2,3,7,8-PeCDF	1.000	2.83e6	1.40	NO	33.53	97.388	0.1212	97.4	6.67e3	7.86e3
20	13C-2,3,4,7,8-PeCDF	1.000	2.90e6	1.42	NO	35.29	103.444	0.1256	103.4	6.67e3	7.86e3
21	13C-1,2,3,4,7,8-HxCDF	1.000	1.79e6	0.53	NO	40.67	96.109	0.1513	96.1	9.01e3	5.94e3
22	13C-1,2,3,6,7,8-HxCDF	1.000	2.10e6	0.50	NO	40.84	105.943	0.1417	105.9	9.01e3	5.94e3
23	13C-2,3,4,6,7,8-HxCDF	1.000	1.78e6	0.52	NO	41.79	100.412	0.1586	100.4	9.01e3	5.94e3
24	13C-1,2,3,7,8,9-HxCDF	1.000	1.68e6	0.52	NO	42.82	95.869	0.1608	95.9	9.01e3	5.94e3
25	13C-1,2,3,4,6,7,8-HpCDF	1.000	1.31e6	0.44	NO	45.27	88.541	0.1610	88.5	6.79e3	5.90e3
26	13C-1,2,3,4,7,8,9-HpCDF	1.000	1.01e6	0.45	NO	47.04	87.030	0.2064	87.0	6.79e3	5.90e3
27	13C-2,3,7,8-TCDD	1.000	2.47e6	0.80	NO	26.44	98.648	0.1864	98.6	1.06e4	8.67e3
28	13C-1,2,3,7,8-PeCDD	1.000	1.59e6	0.69	NO	36.11	96.790	0.0746	96.8	2.76e3	2.30e3
29	13C-1,2,3,4,7,8-HxCDD	1.000	1.37e6	1.24	NO	42.06	95.356	0.1302	95.4	4.65e3	5.27e3
30	13C-1,2,3,6,7,8-HxCDD	1.000	1.59e6	1.22	NO	42.19	105.039	0.1231	105.0	4.65e3	5.27e3
31	13C-1,2,3,4,6,7,8-HpCDD	1.000	1.06e6	0.98	NO	46.64	89.747	0.1420	89.7	6.15e3	2.80e3
32	13C-OCDD	1.000	1.67e6	0.90	NO	50.20	160.083	0.5061	80.0	1.13e4	1.67e4
33	13C-1,2,3,4-TCDD	1.000	2.49e6	0.82	NO	26.11	110.334	0.2065	110.3	1.06e4	8.67e3
34	13C-1,2,3,7,8,9-HxCDD	1.000	1.46e6	1.26	NO	42.62	102.000	0.1307	102.0	4.65e3	5.27e3
35	37Cl-2,3,7,8-TCDD	1.000	2.55e5			26.47	9.182	0.0489	91.8		5.60e3
36	Total Tetra-Furans	1.000					40.196	0.0396			3.09e3
37	Total Tetra-Dioxins	1.000					91.157	0.0468			3.08e3
38	Total Penta-Furans	1.000					197.739	0.0748			4.08e3
39	Total Penta-Dioxins	1.000					176.972	0.0953			2.83e3
40	Total Hexa-Furans	1.000					324.525	0.0866			4.61e3
41	Total Hexa-Dioxins	1.000					219.290	0.0871			3.84e3
42	Total Hepta-Furans	1.000					112.490	0.0723			3.12e3
43	Total Hepta-Dioxins	1.000					115.988	0.0703			2.06e3
44	Hexa DPE	1.000	1.39e2			24.84					0.00e0
45	Hepta DPE	1.000	5.46e2			37.48					1.44e-2
46	Octa DPE	1.000	4.08e1			41.36					1.35e-1
47	Nona DPE	1.000	2.00e0			47.11					0.00e0
48	Deca DPE	1.000	1.36e2			49.92					0.00e0
49	Tetra Lock	1.000	6.70e3			24.02					1.21e5
50	Penta Lock	1.000									1.71e5
51	Hexa Lock	1.000	1.02e5			38.89					2.72e5
52	Hepta Lock	1.000									1.71e5
53	Octa Lock	1.000	9.07e3			49.01					1.48e5
54	13C-Tetra-Furans	1.000					101.378	0.0921			6.05e3
55	13C-Tetra-Dioxins	1.000					208.982	0.3928			8.67e3

pv'd by LHE 24-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

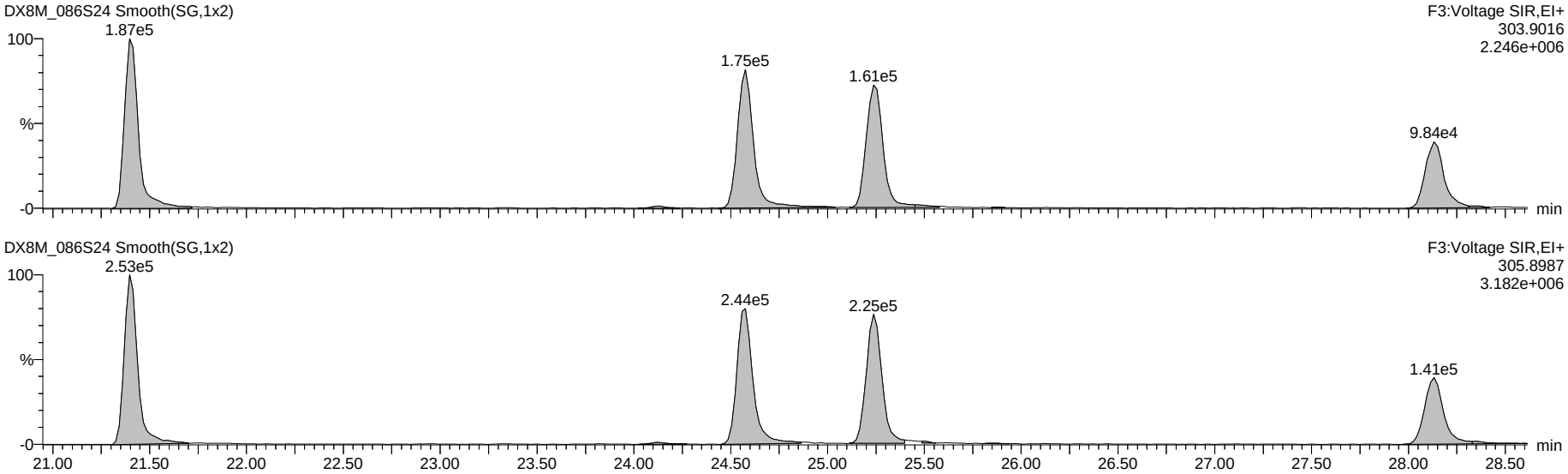
SVbyk3 26Jul2018

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

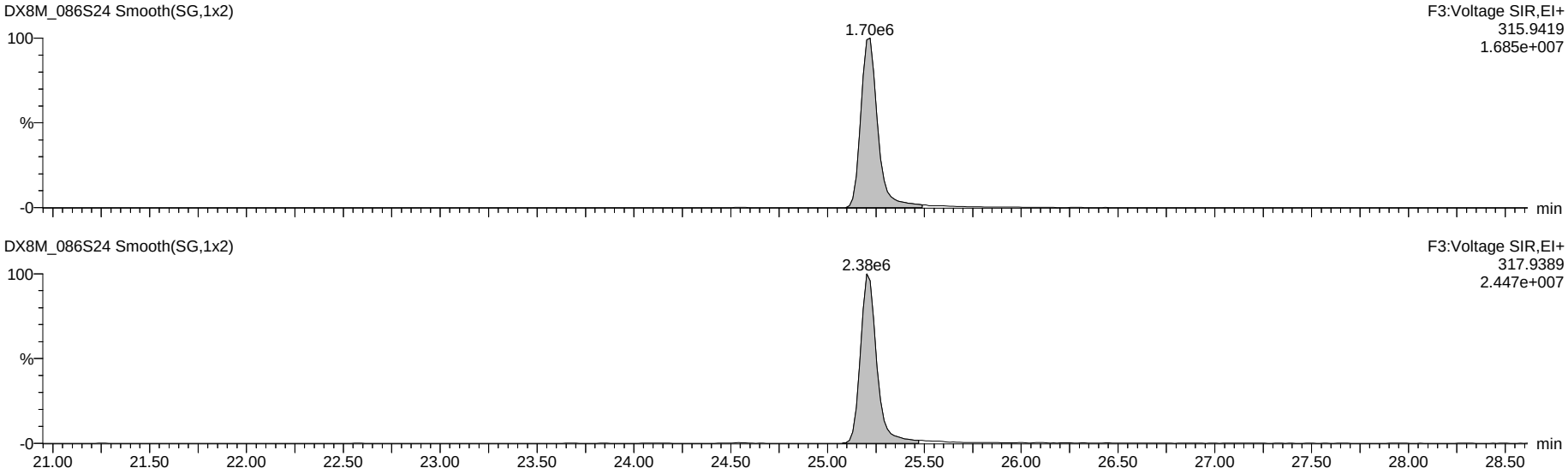
Method: G:\Masslynx\Inst_M\Projects\180604DX.pro\MethDB\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_086S24, Date: 21-Jul-2018, Time: 13:20:07, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Tetra-Furans



13C-Tetra-Furans



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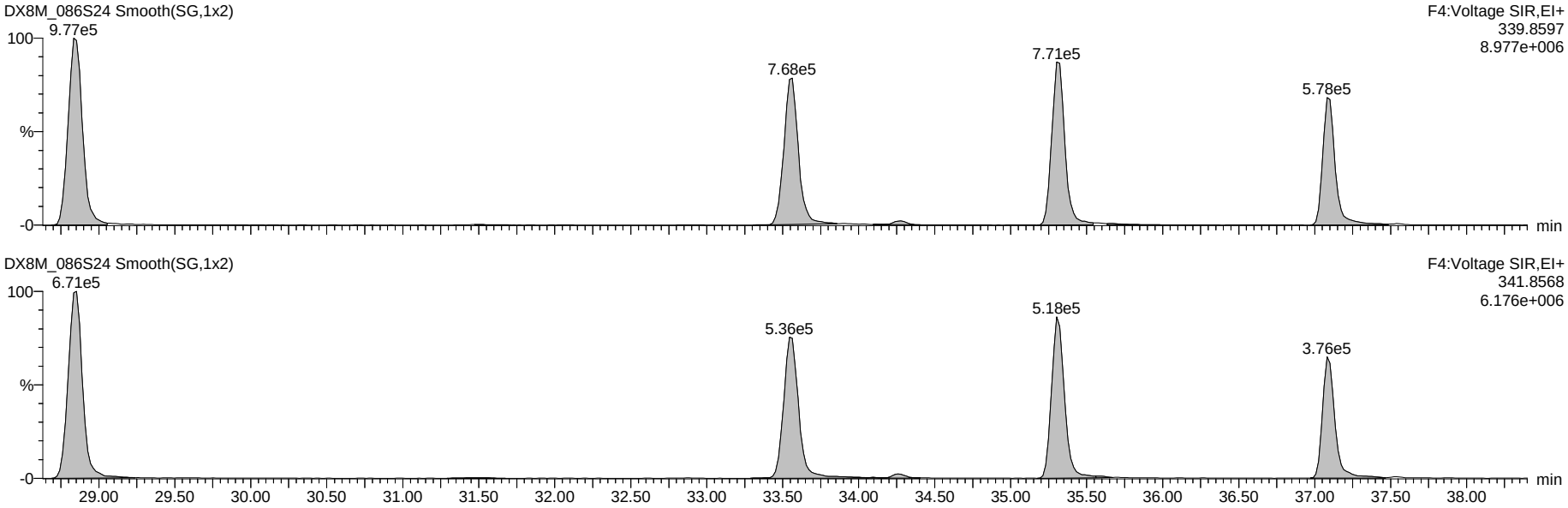
Name: DX8M_086S24, Date: 21-Jul-2018, Time: 13:20:07, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Penta-Furans



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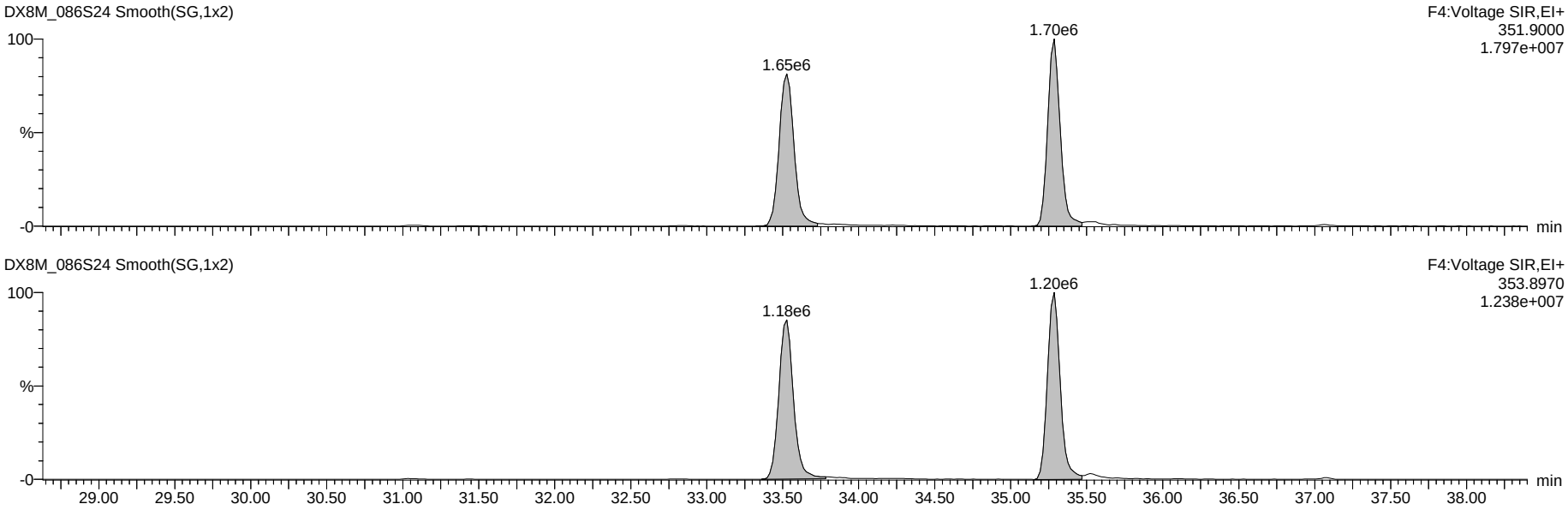

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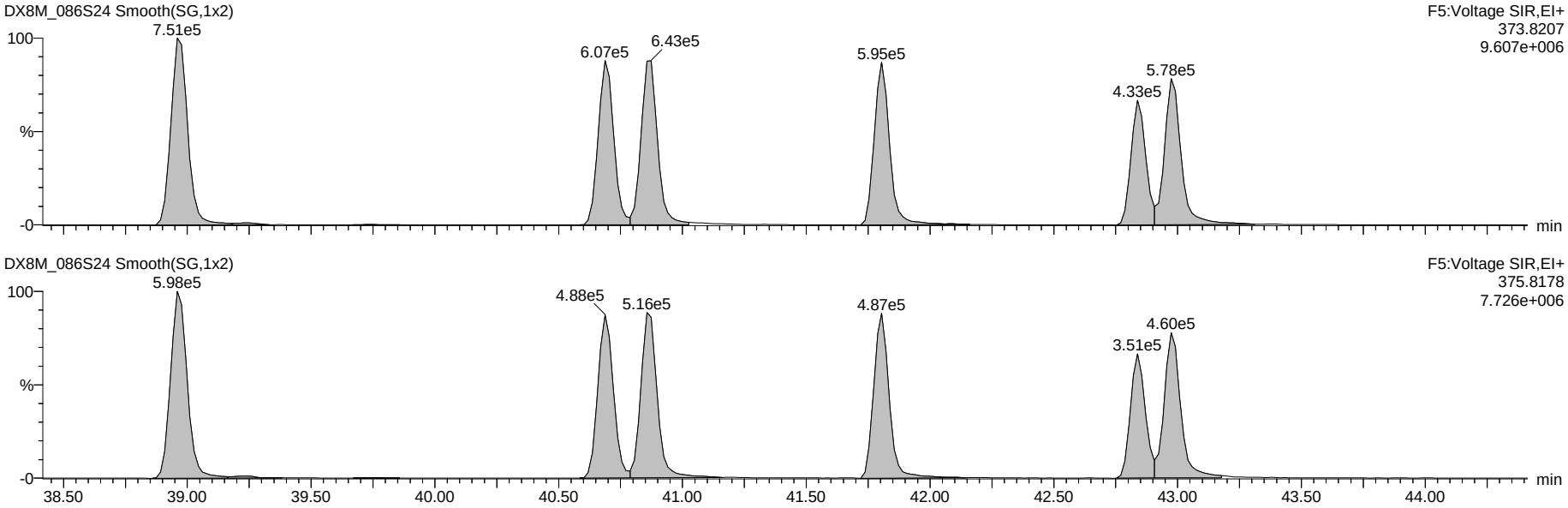
Total Hexa-Furans



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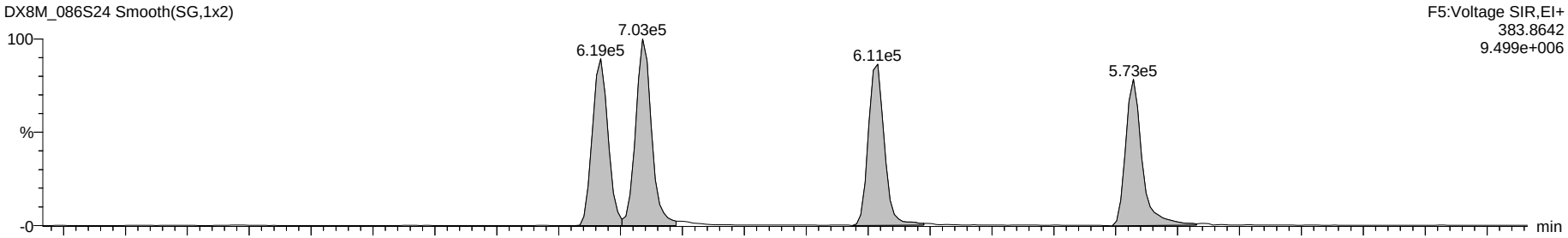

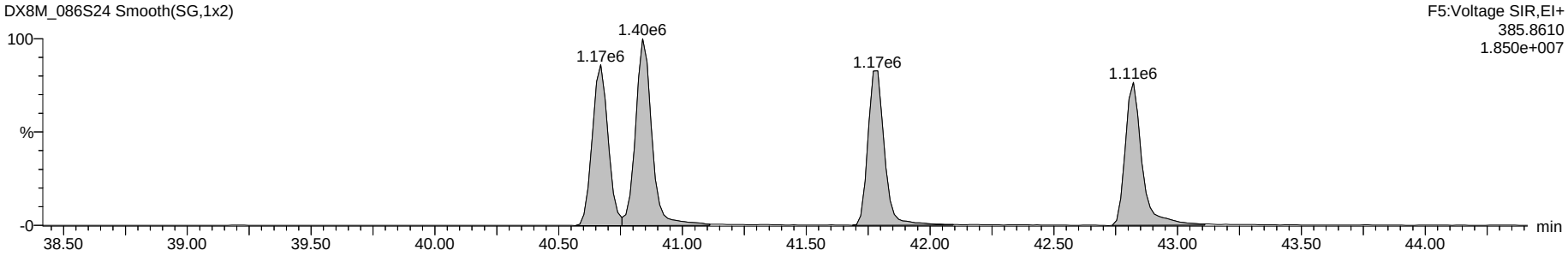

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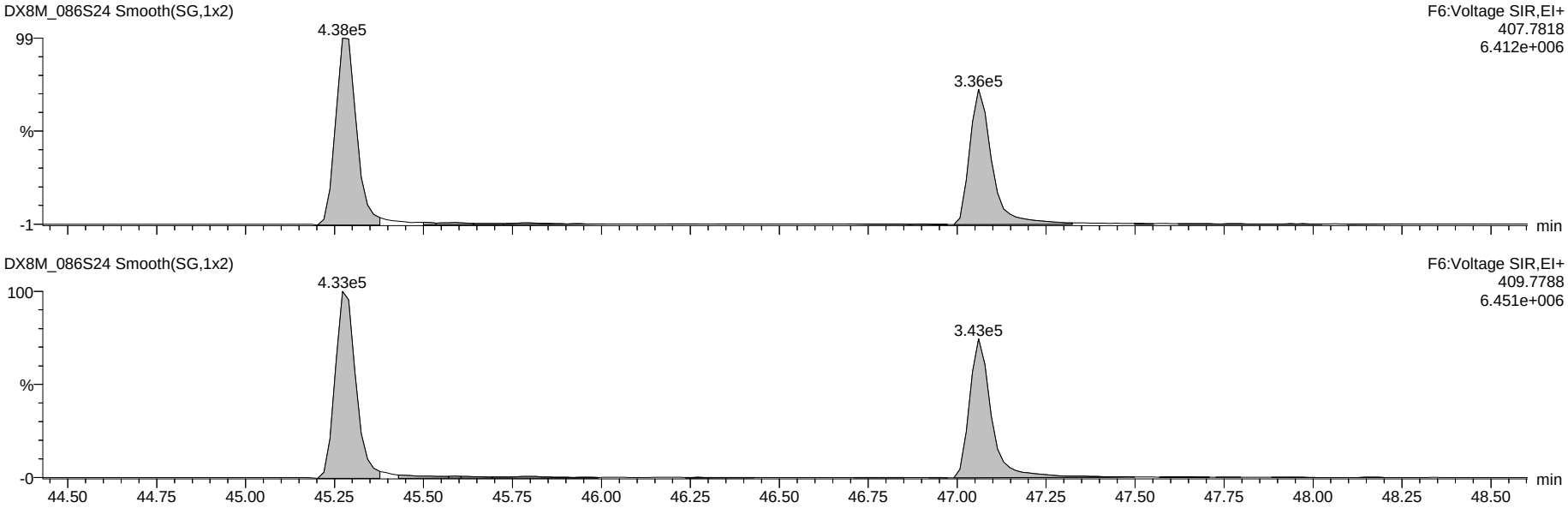
Total Hepta-Furans



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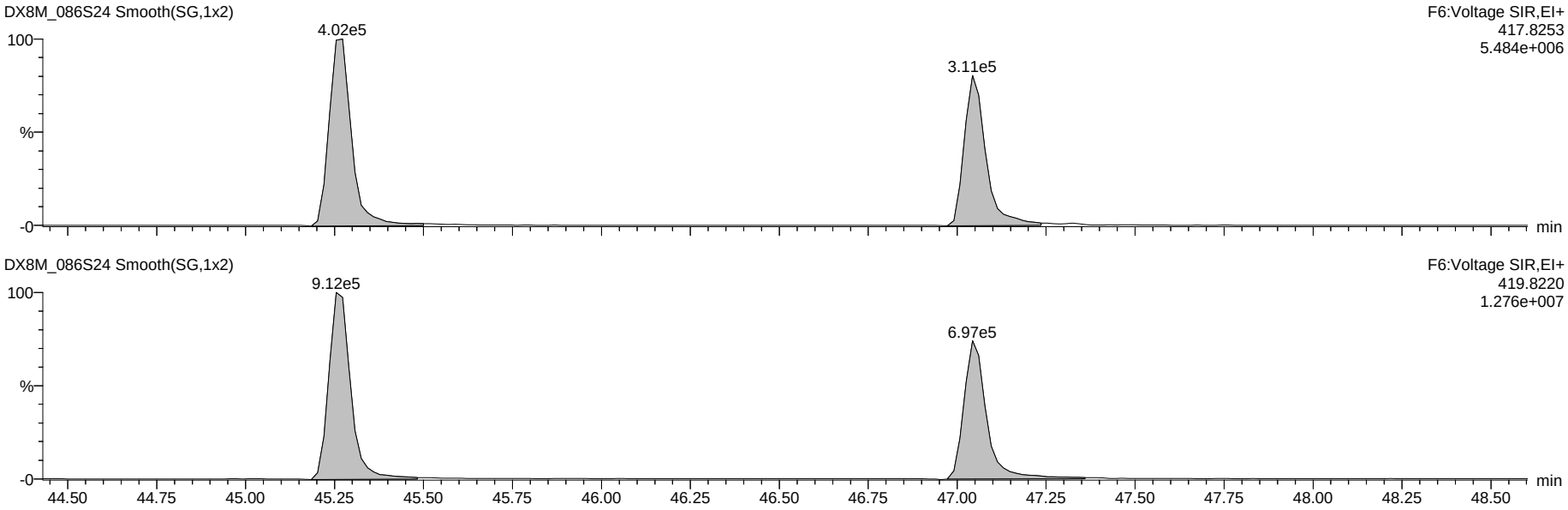

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

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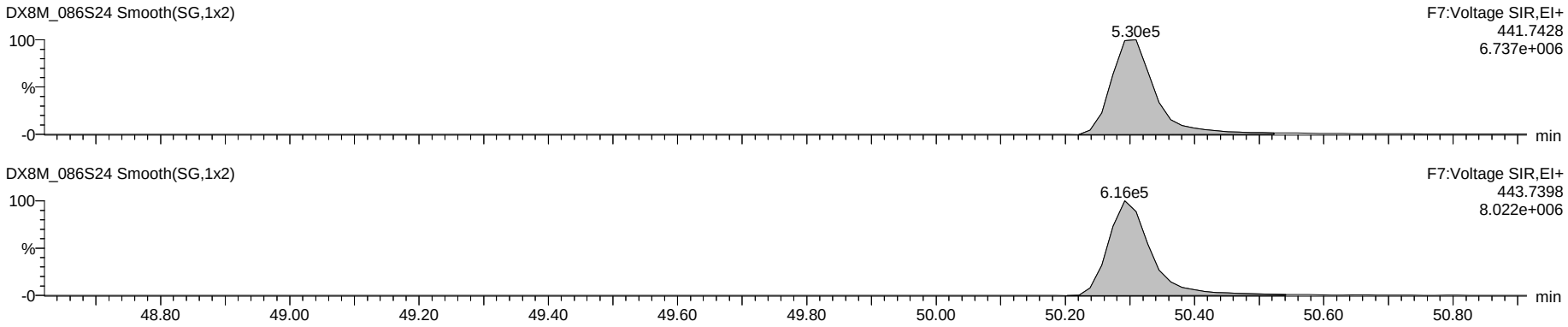
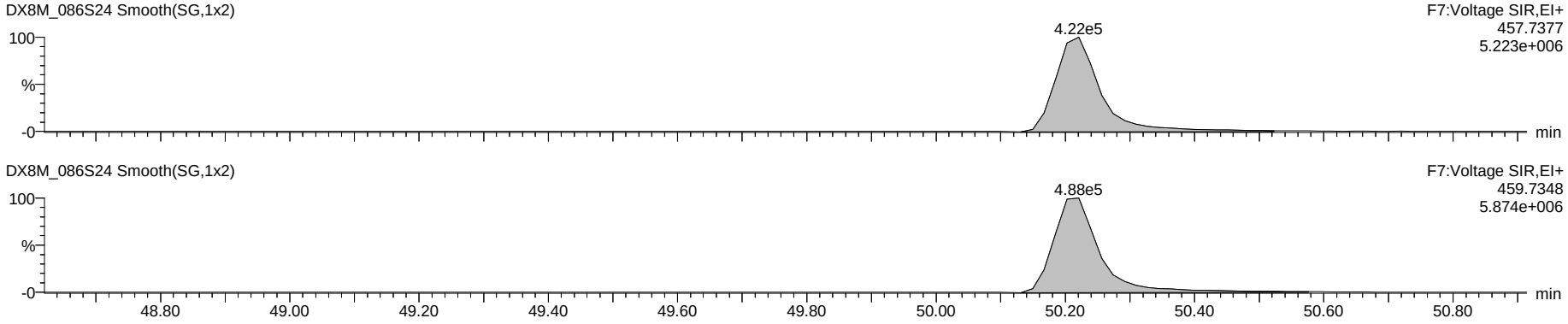
OCDF



OCDD



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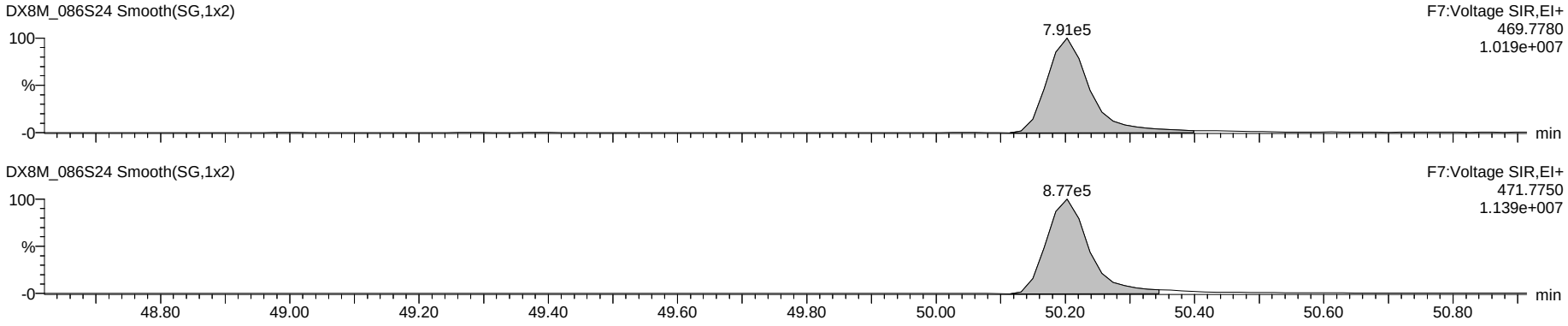

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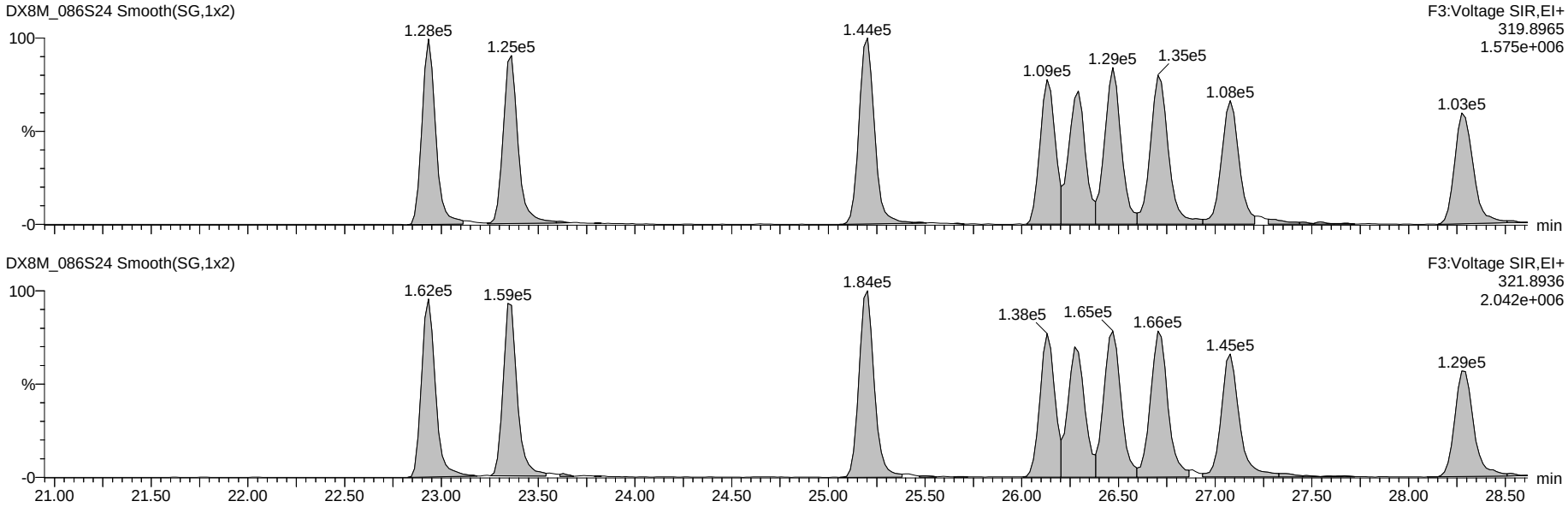
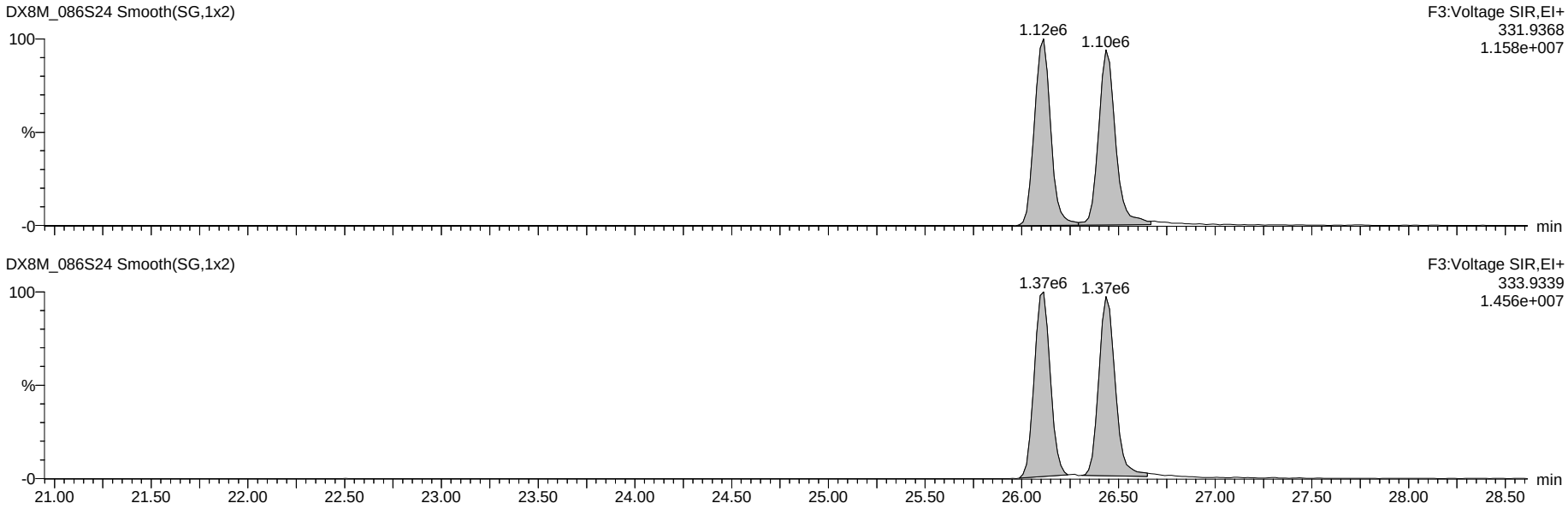
Name: DX8M_086S24, Date: 21-Jul-2018, Time: 13:20:07, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Tetra-Dioxins



13C-Tetra-Dioxins



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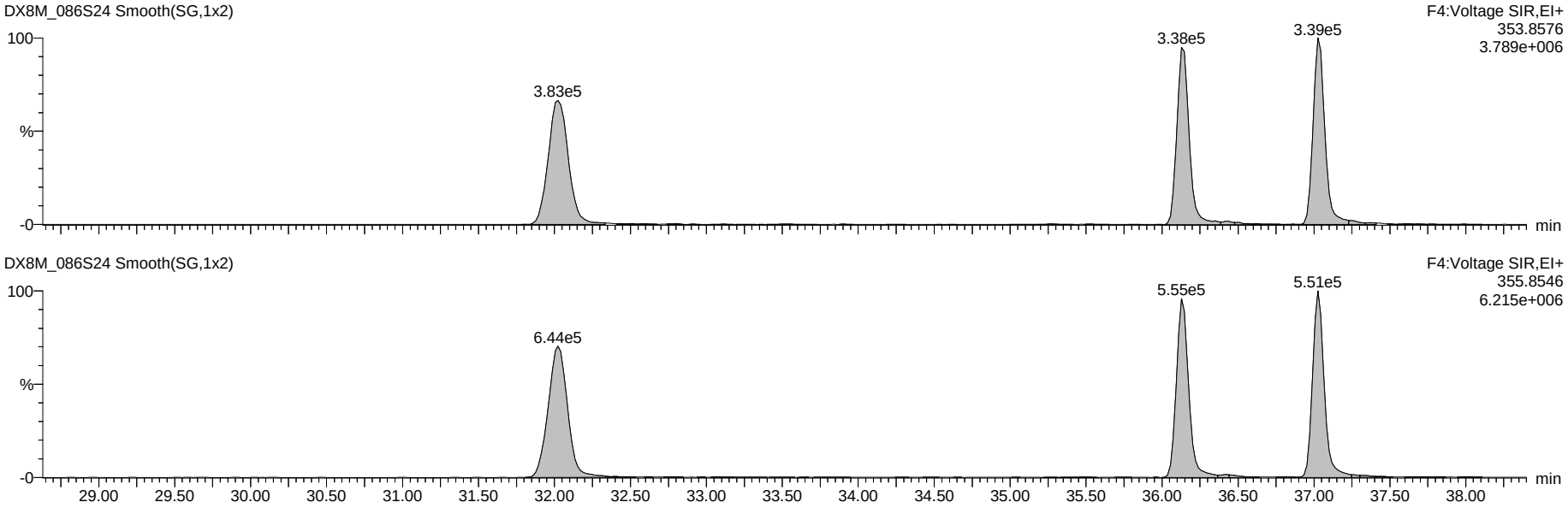
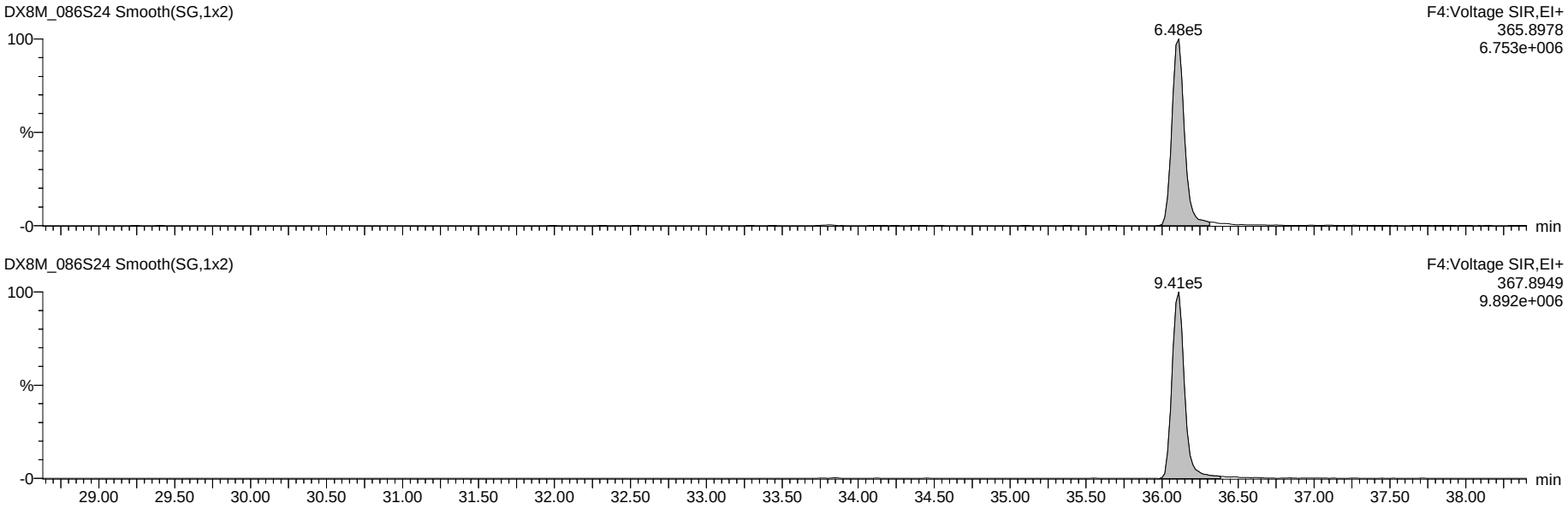
Total Penta-Dioxins



13C-Penta-Dioxins



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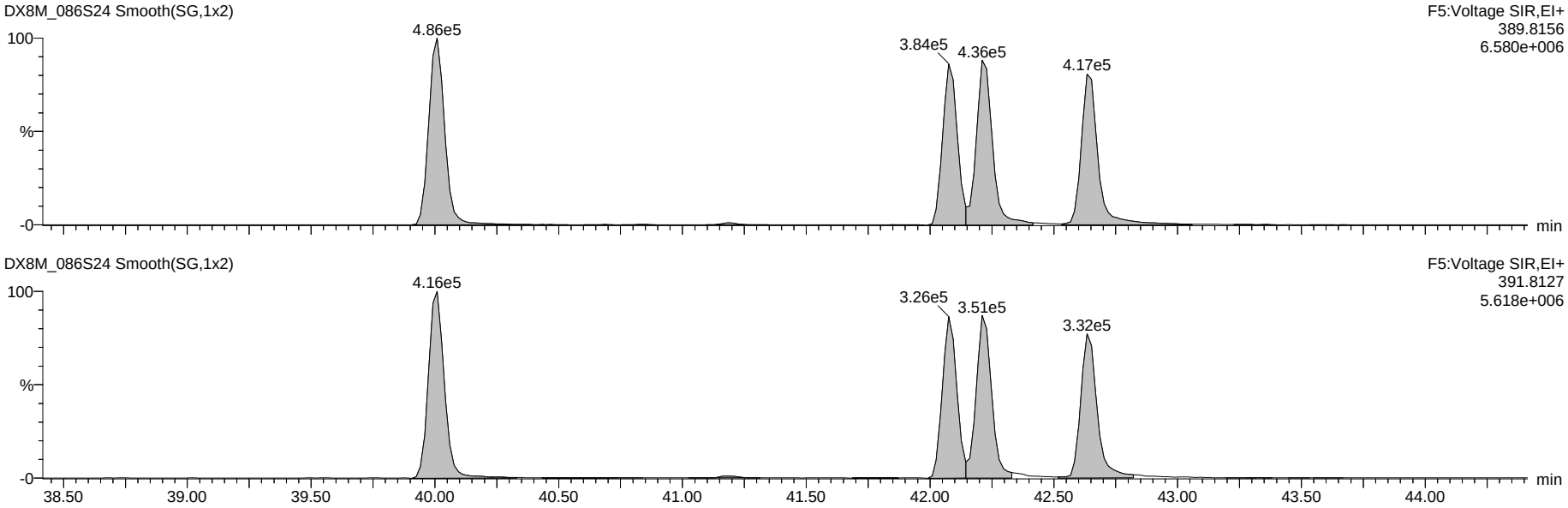
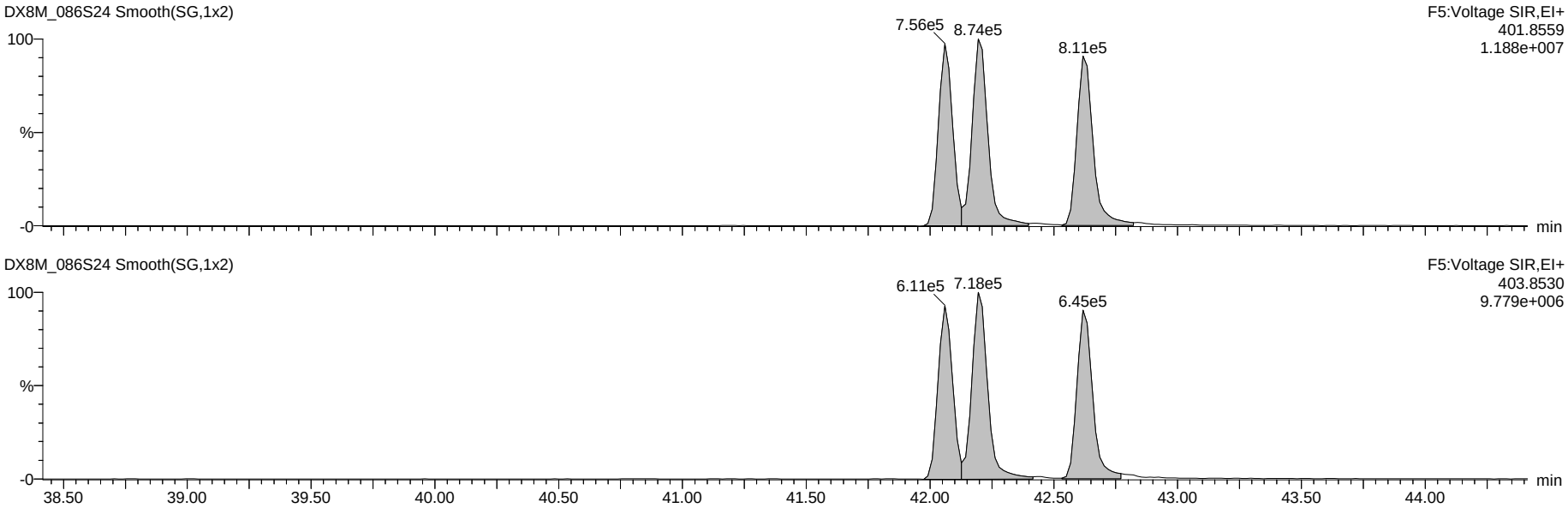
Name: DX8M_086S24, Date: 21-Jul-2018, Time: 13:20:07, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Hexa-Dioxins



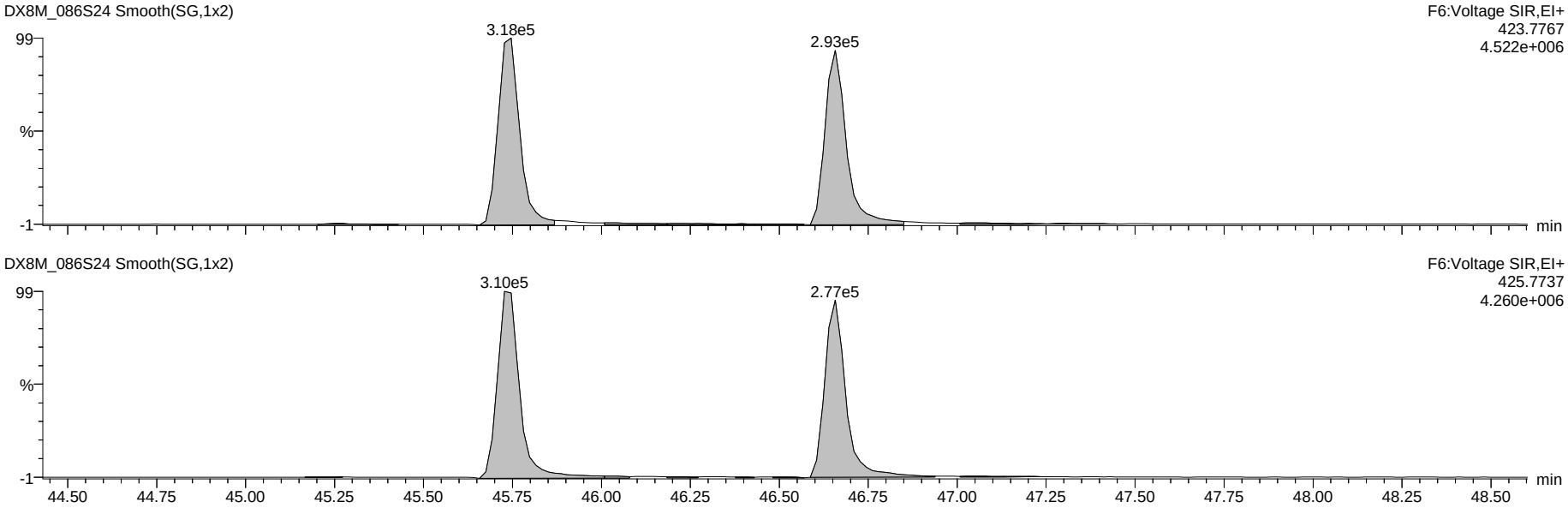
13C-Hexa-Dioxins



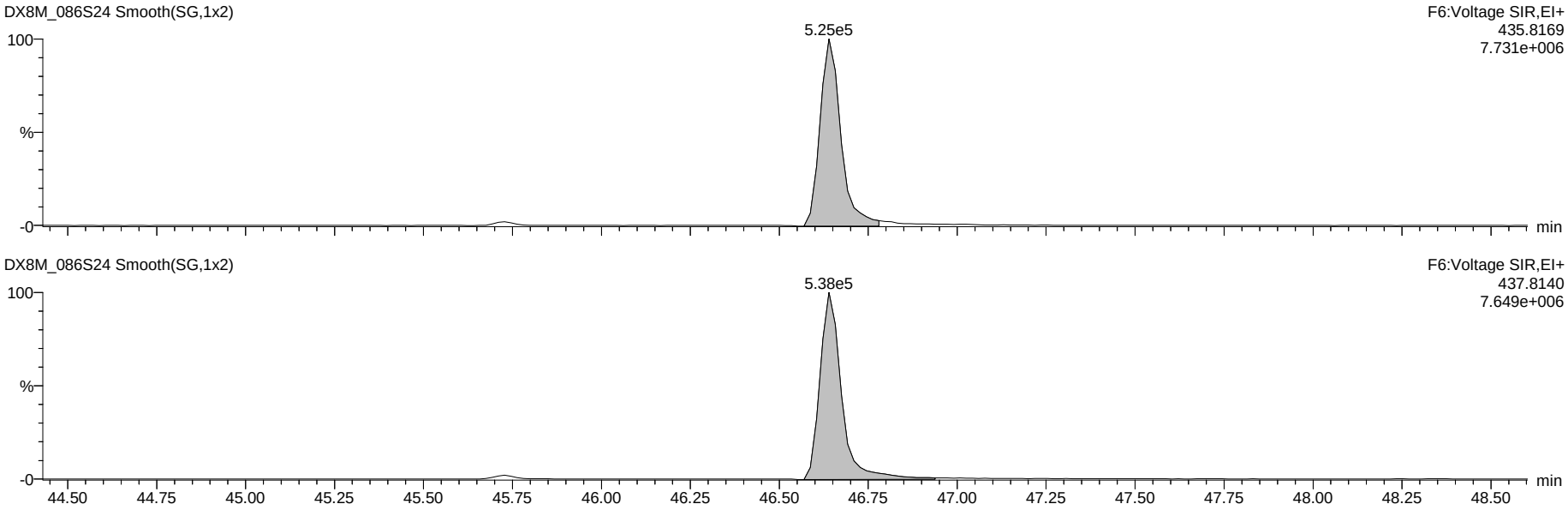
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S24, Date: 21-Jul-2018, Time: 13:20:07, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Hepta-Dioxins



13C-Hepta-Dioxins



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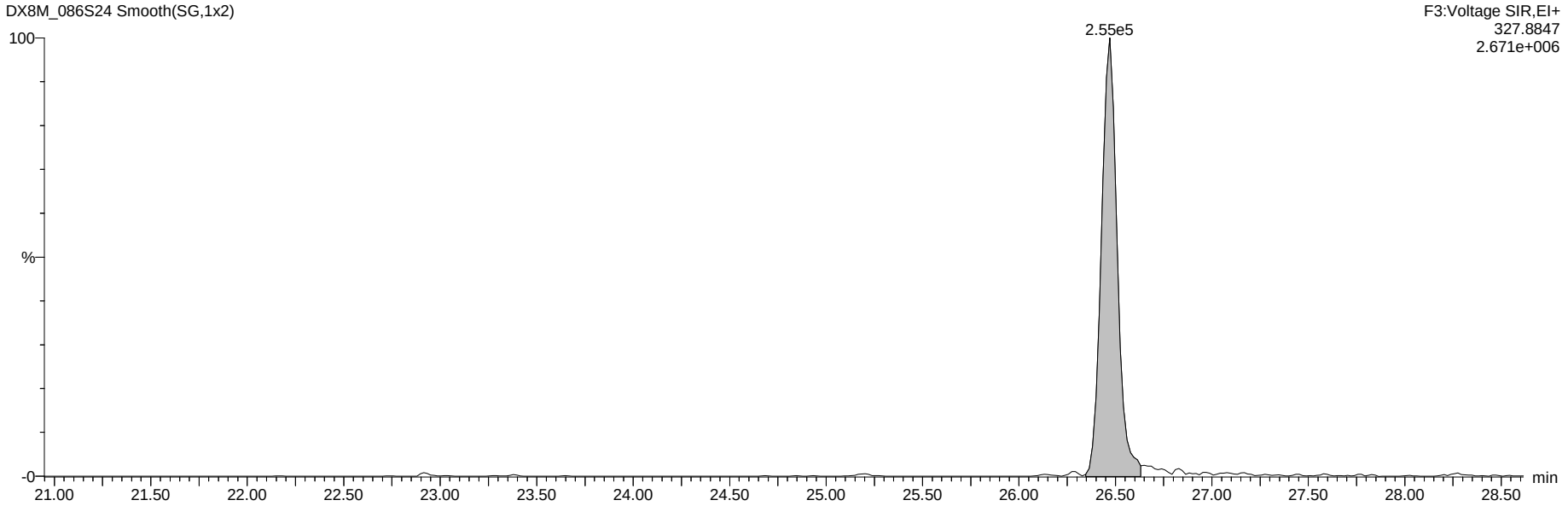
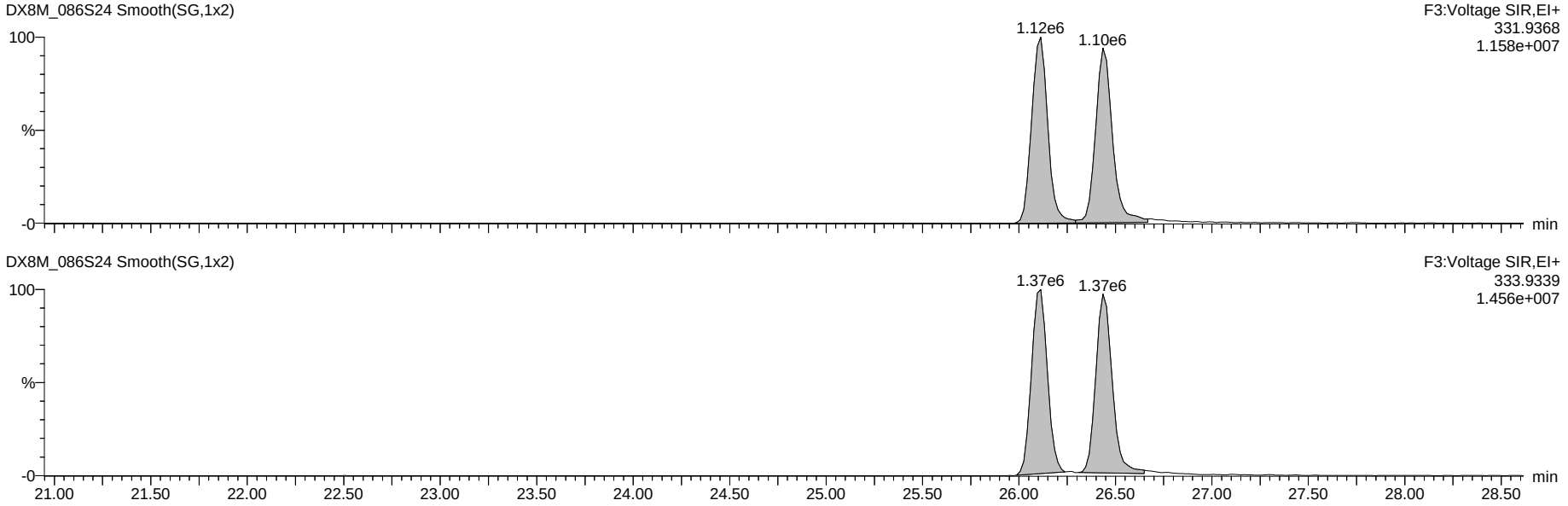
Name: DX8M_086S24, Date: 21-Jul-2018, Time: 13:20:07, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

37Cl-2,3,7,8-TCDD



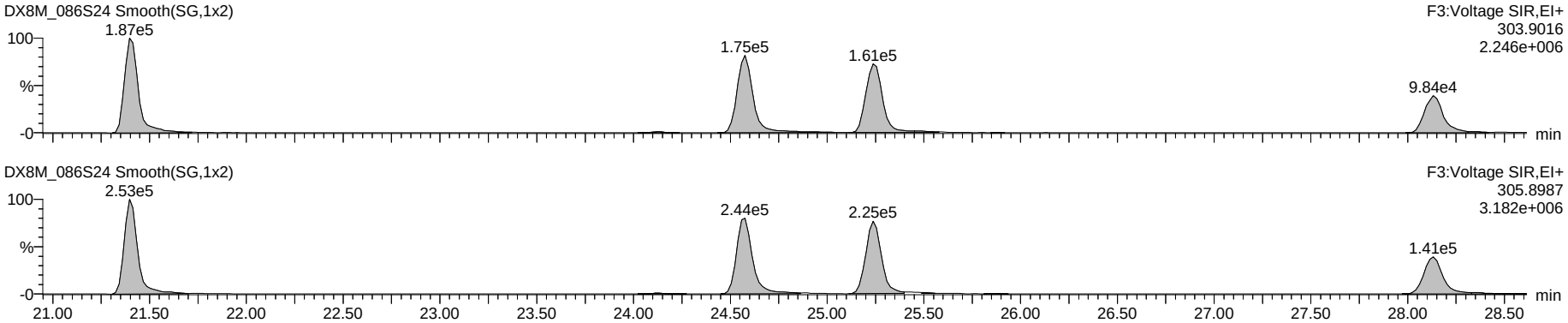
13C-Tetra-Dioxins



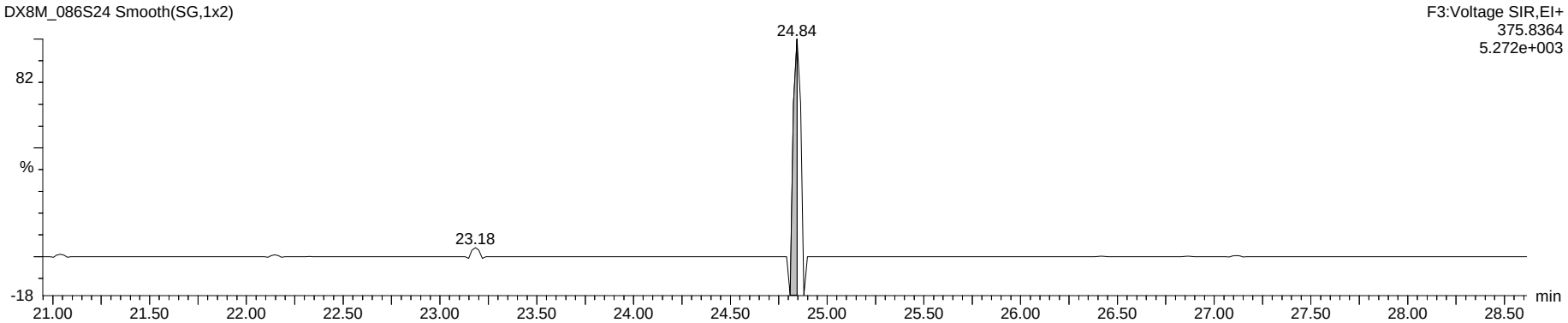
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S24, Date: 21-Jul-2018, Time: 13:20:07, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

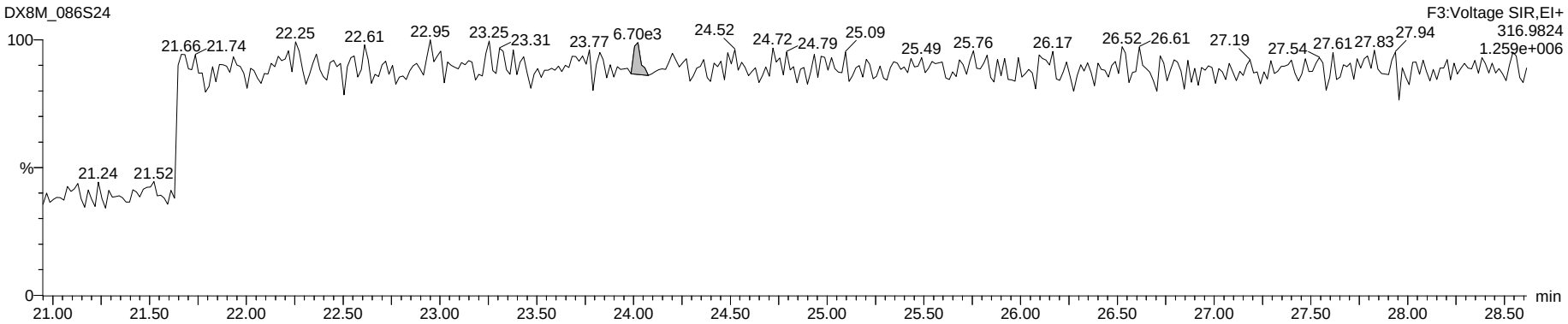
Total Tetra-Furans



Hexa DPE



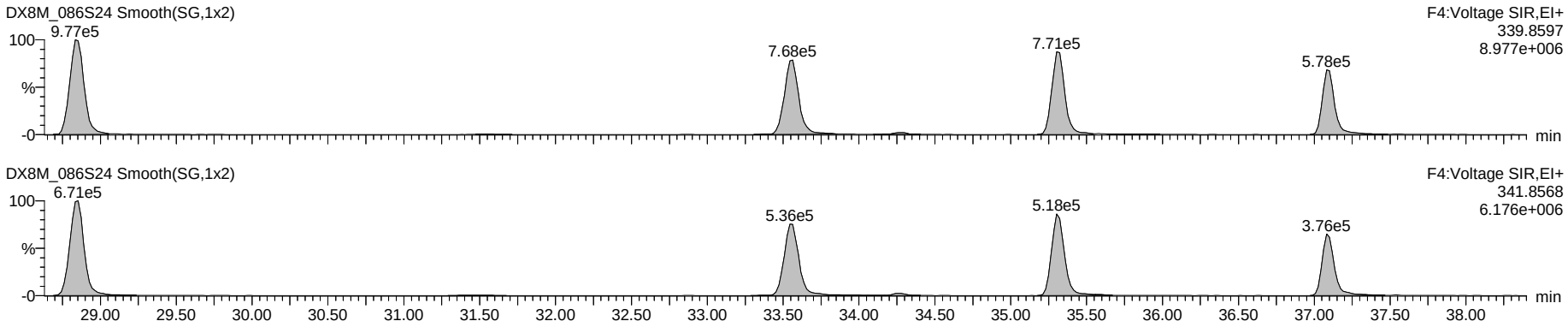
Tetra Lock



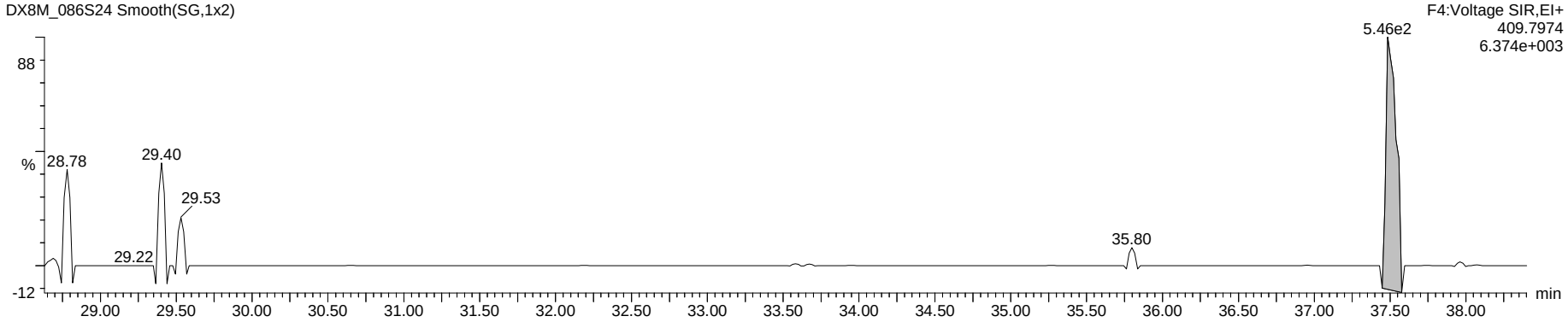
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S24, Date: 21-Jul-2018, Time: 13:20:07, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

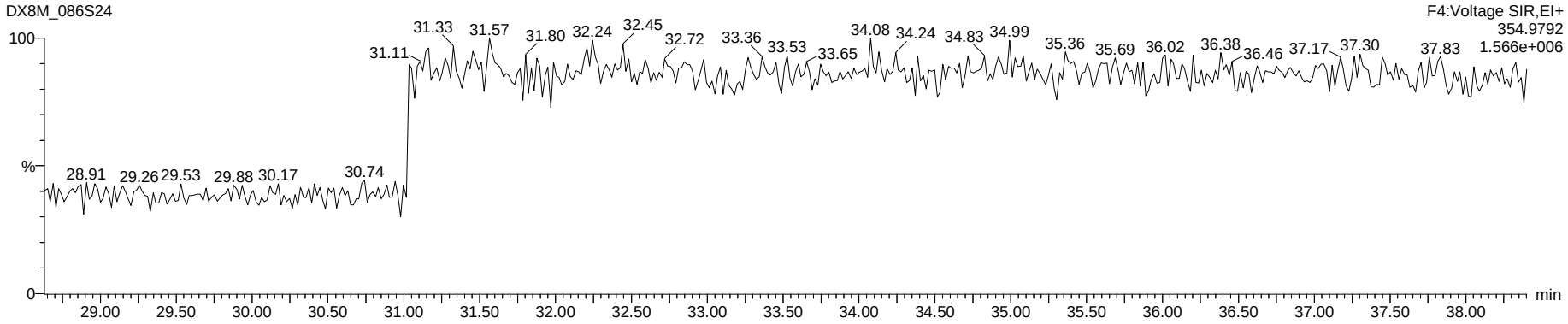
Total Penta-Furans



Hepta DPE



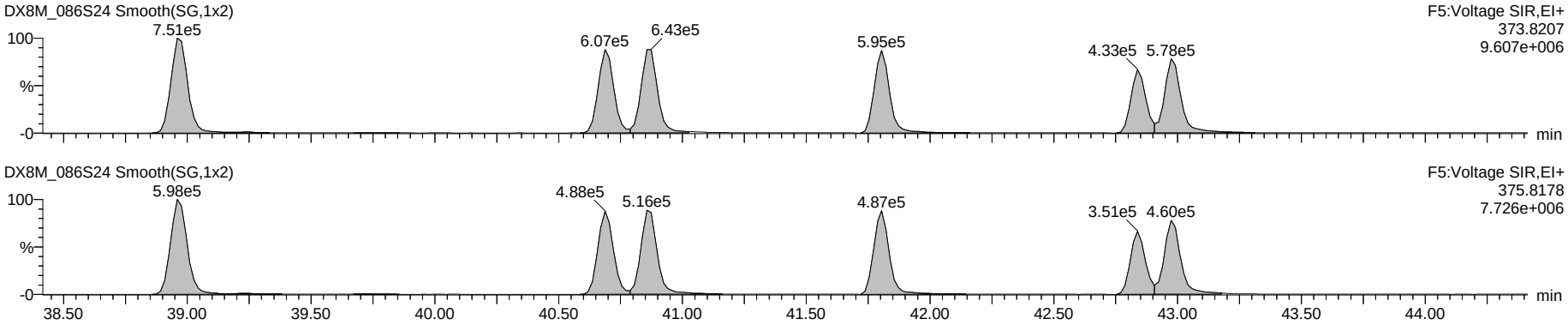
Penta Lock



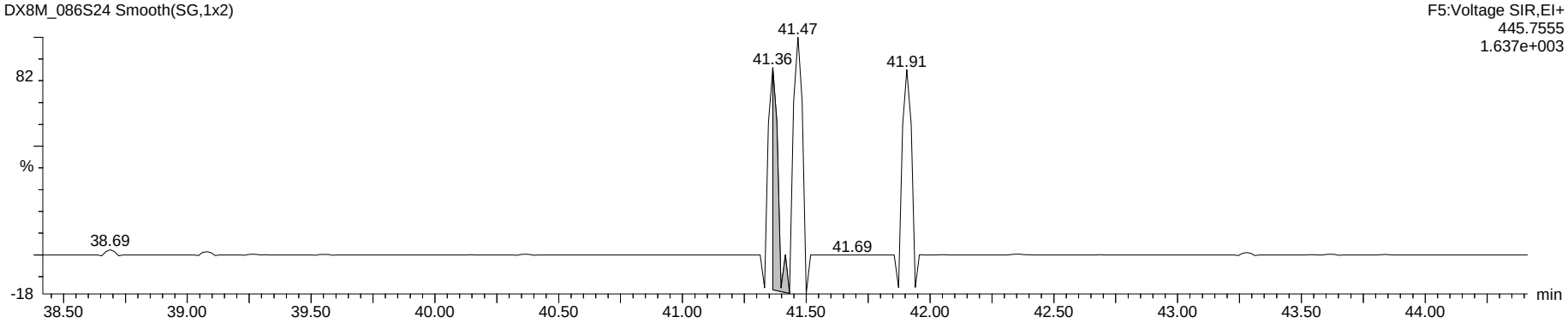
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S24, Date: 21-Jul-2018, Time: 13:20:07, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

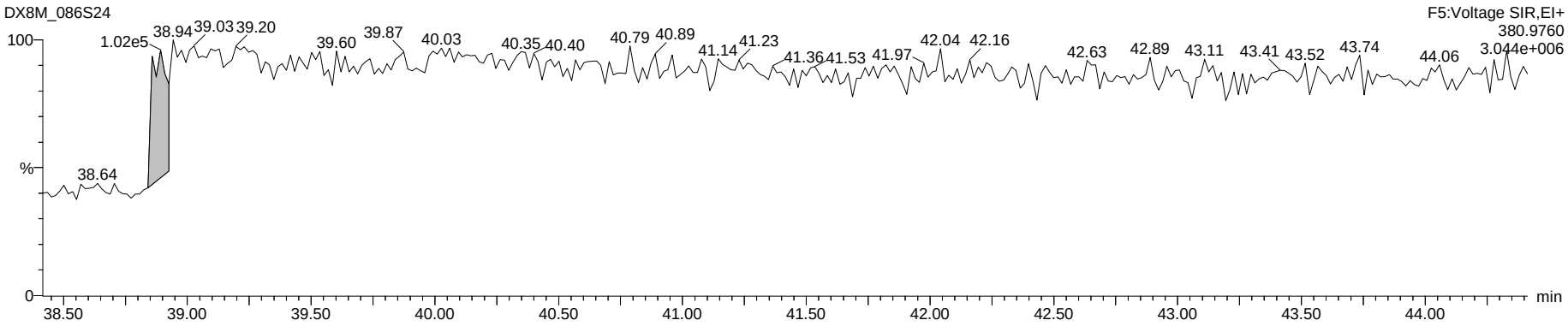
Total Hexa-Furans



Octa DPE



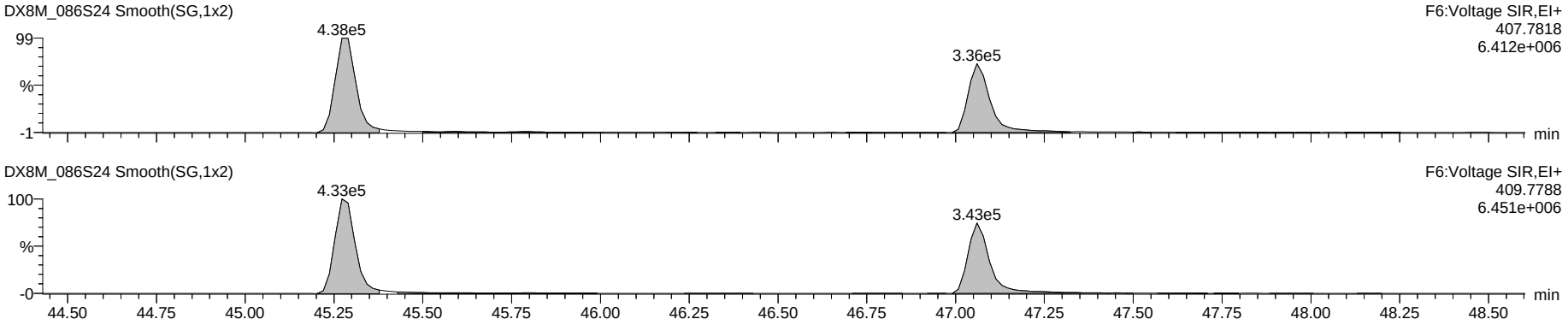
Hexa Lock



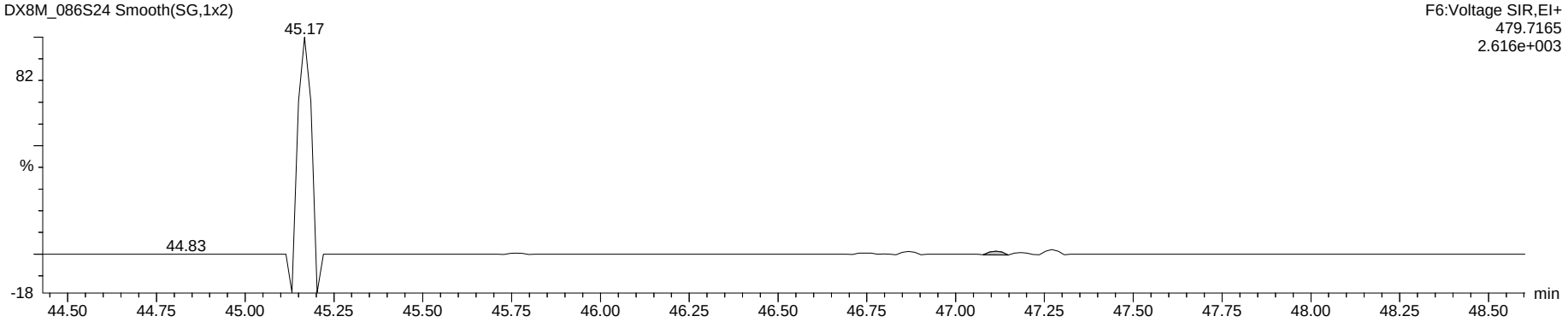
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S24, Date: 21-Jul-2018, Time: 13:20:07, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

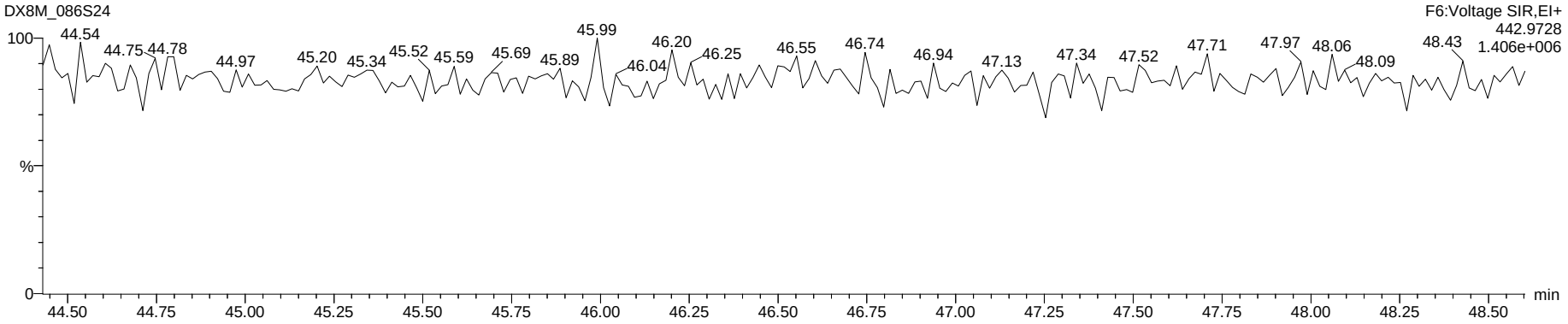
Total Hepta-Furans



Nona DPE



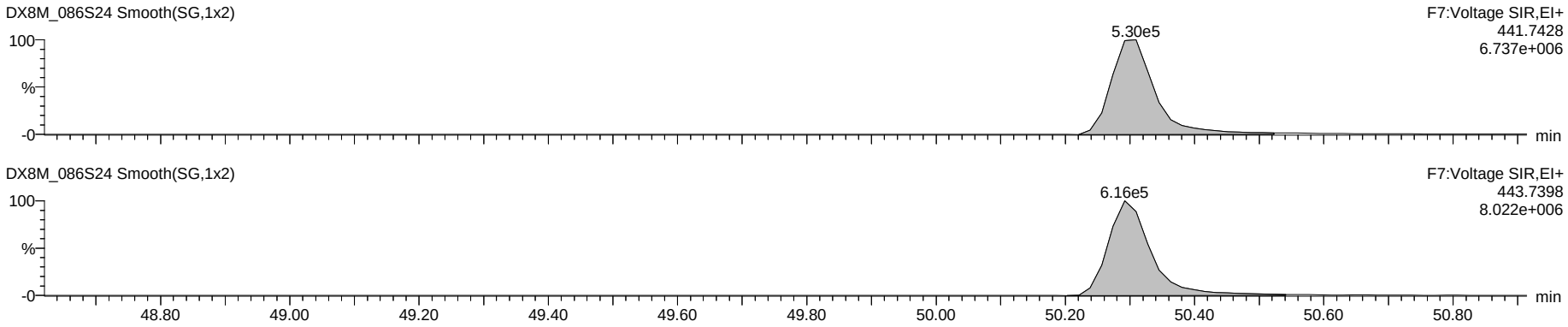
Hepta Lock



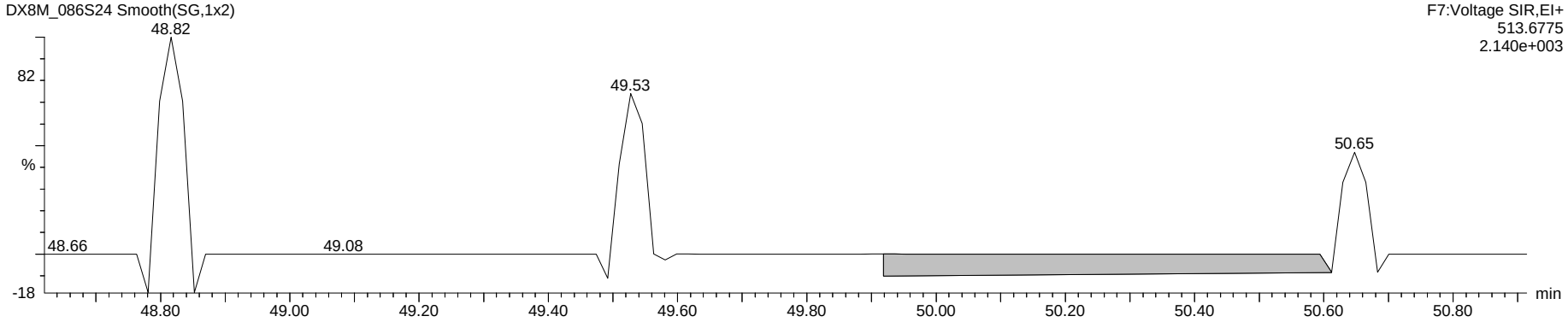
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_086-B.qld

Name: DX8M_086S24, Date: 21-Jul-2018, Time: 13:20:07, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

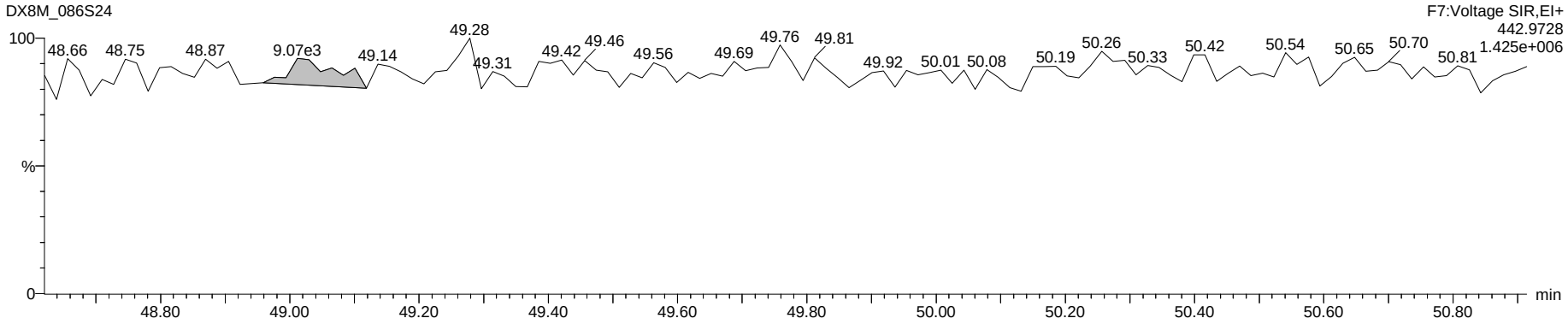
OCDF



Deca DPE



Octa Lock



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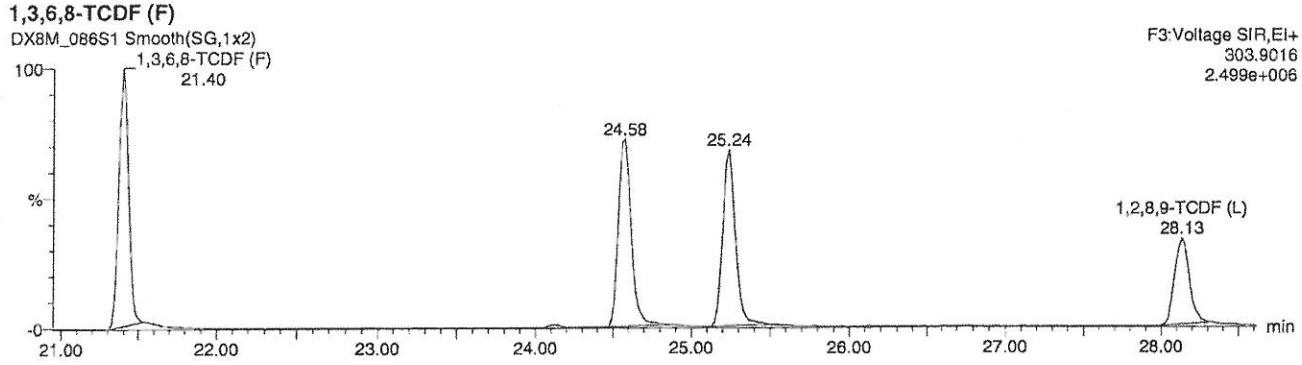
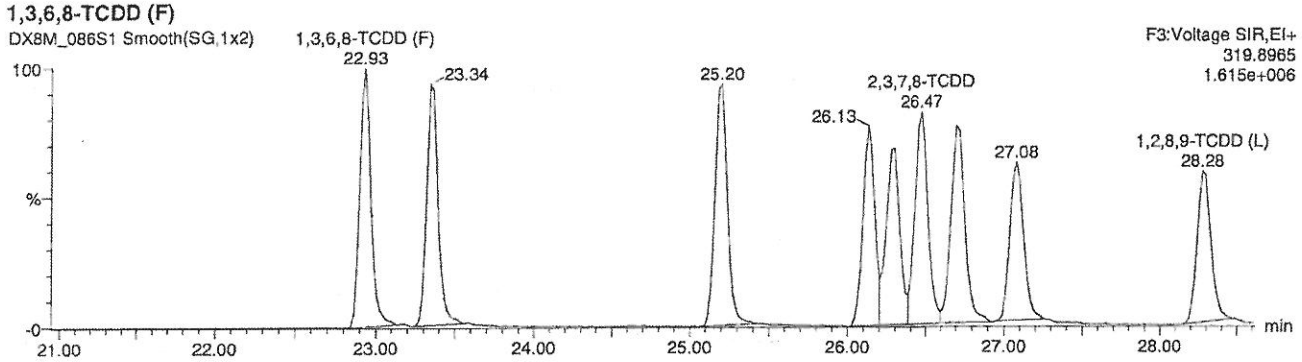
Name: DX8M_086S1, Date: 20-Jul-2018, Time: 15:48:11, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

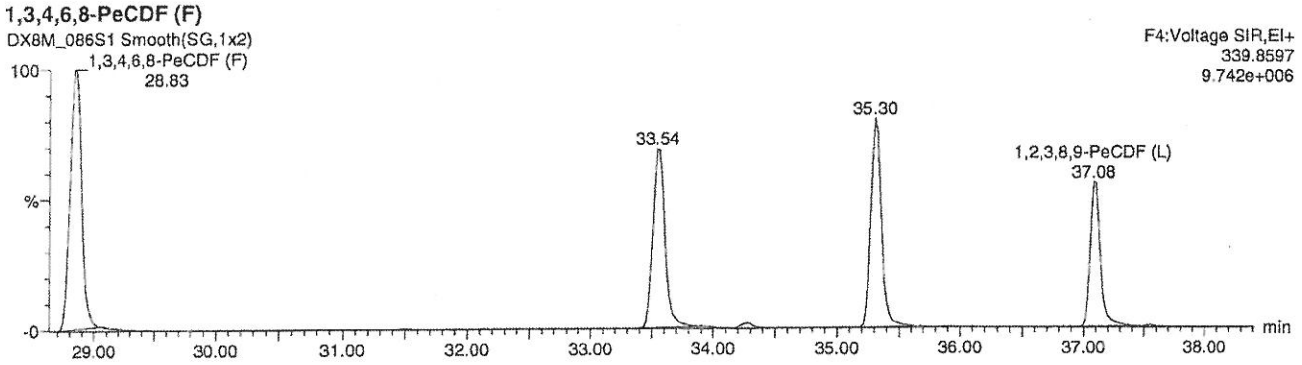
1,3,6,8-TCDF (F)



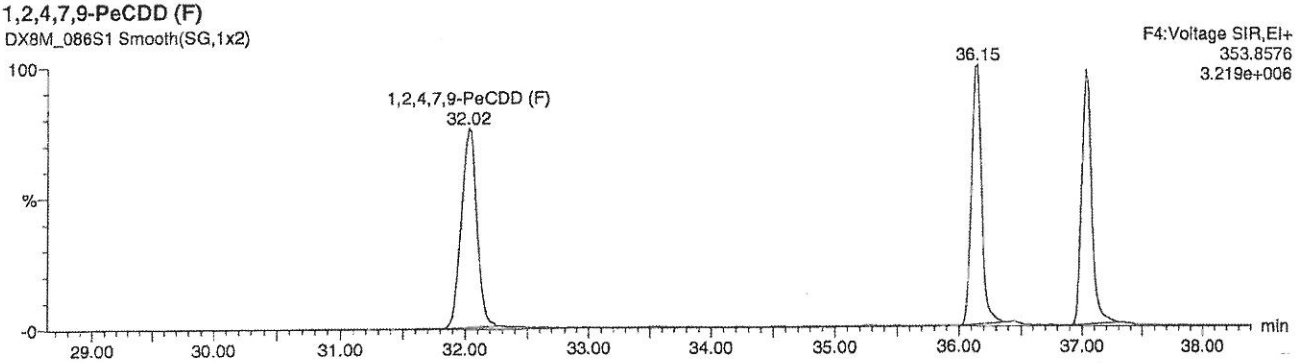
1,3,6,8-TCDD (F)



1,3,4,6,8-PeCDF (F)



1,2,4,7,9-PeCDD (F)



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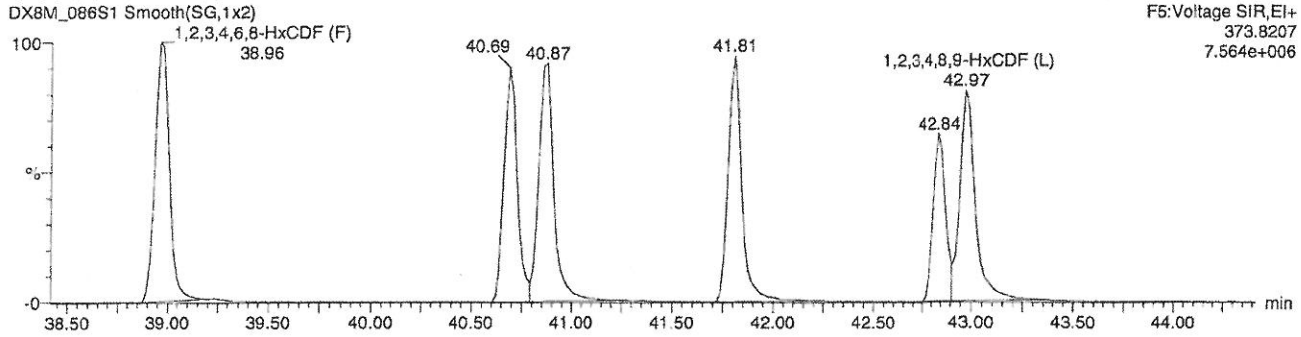
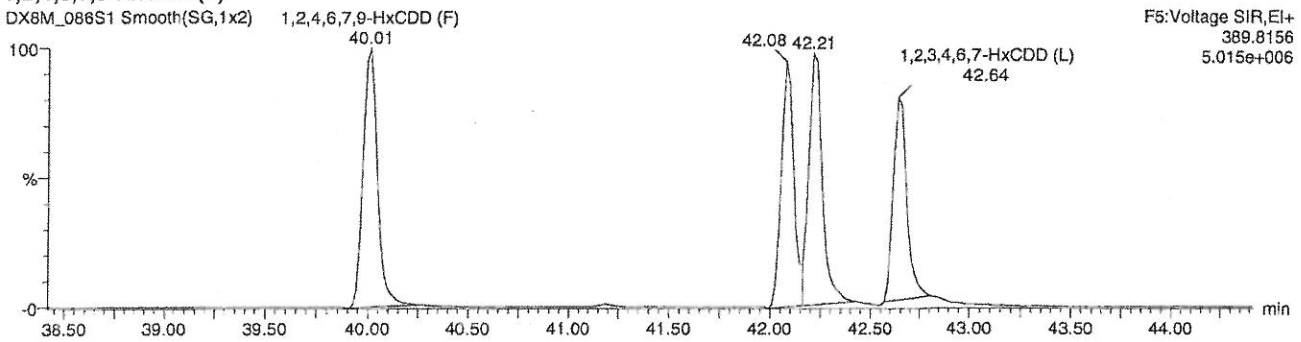
Name: DX8M_086S1, Date: 20-Jul-2018, Time: 15:48:11, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

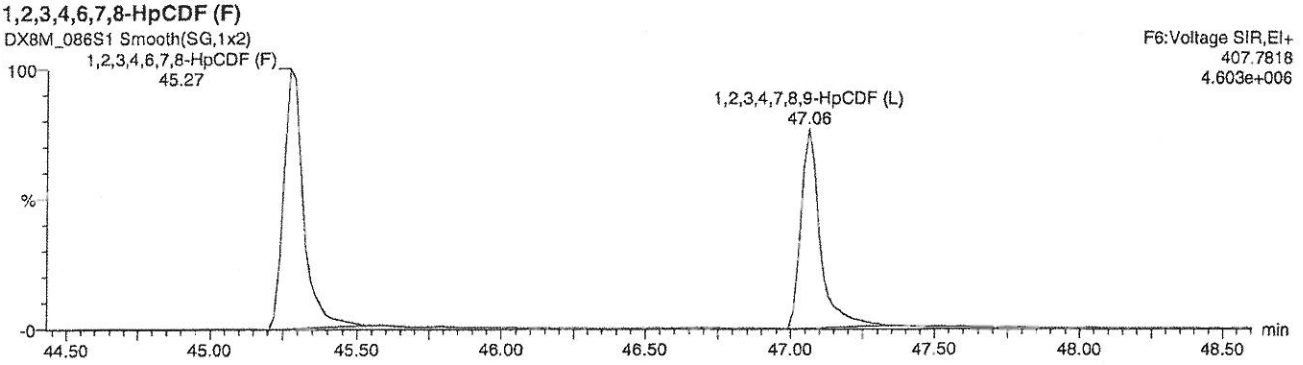
1,2,3,4,6,8-HxCDF (F)



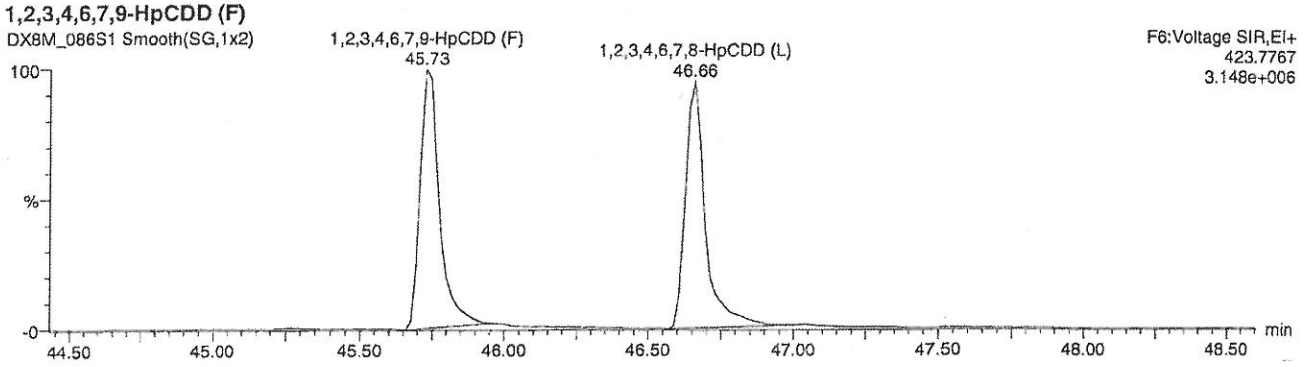
1,2,4,6,7,9-HxCDD (F)



1,2,3,4,6,7,8-HpCDF (F)



1,2,3,4,6,7,9-HpCDD (F)



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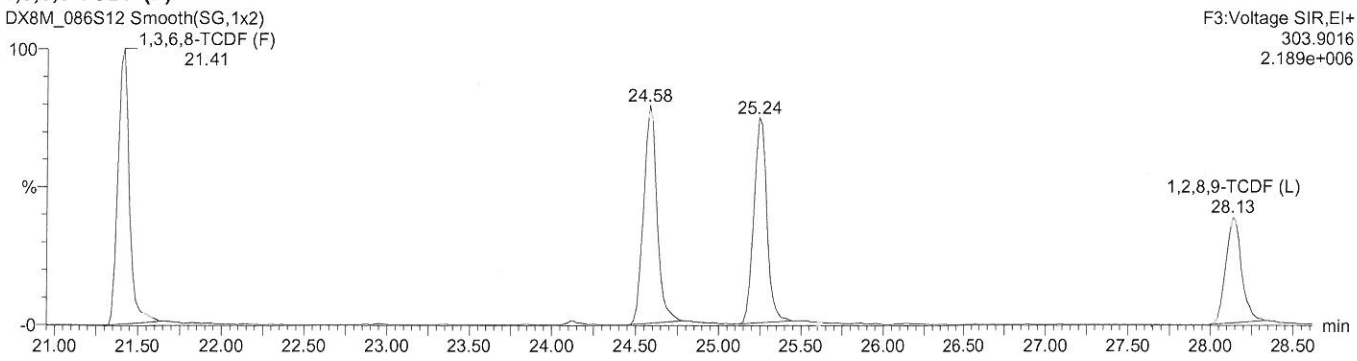
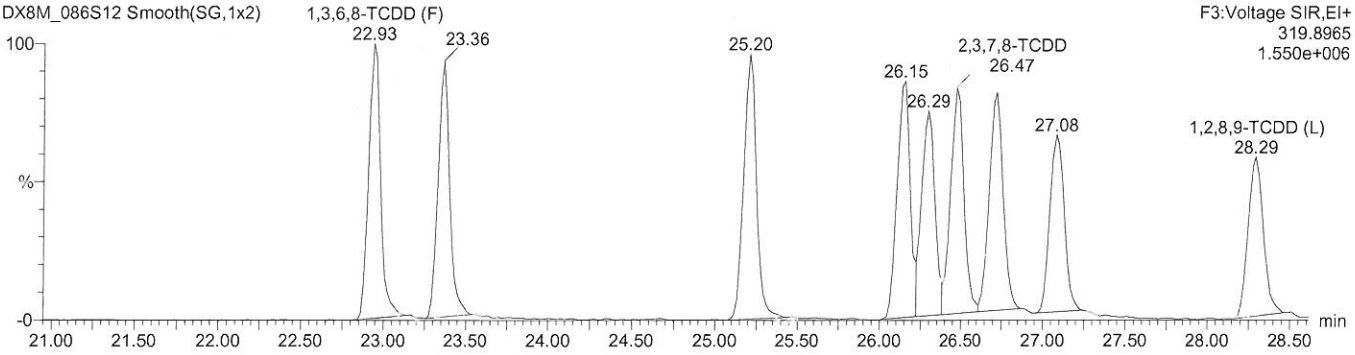
Name: DX8M_086S12, Date: 21-Jul-2018, Time: 02:11:30, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

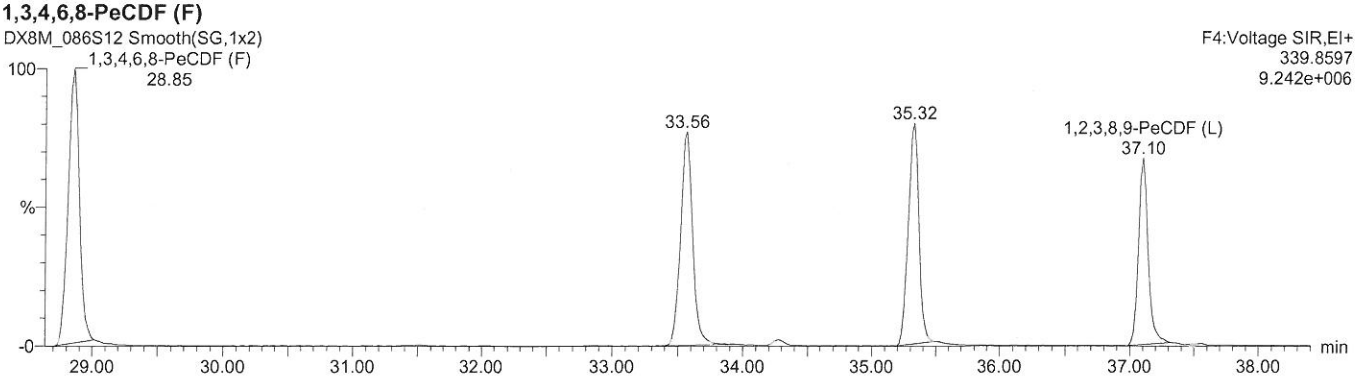
1,3,6,8-TCDF (F)



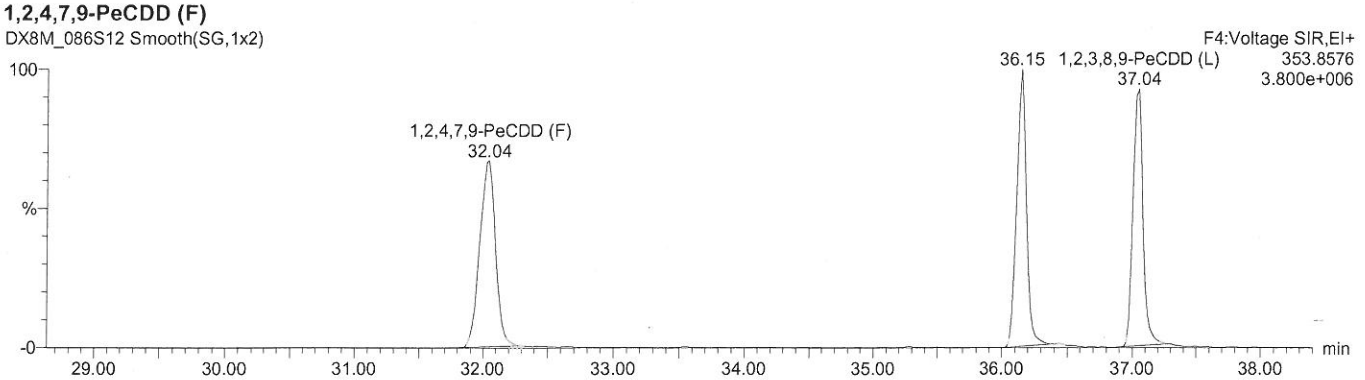
1,3,6,8-TCDD (F)



1,3,4,6,8-PeCDF (F)



1,2,4,7,9-PeCDD (F)



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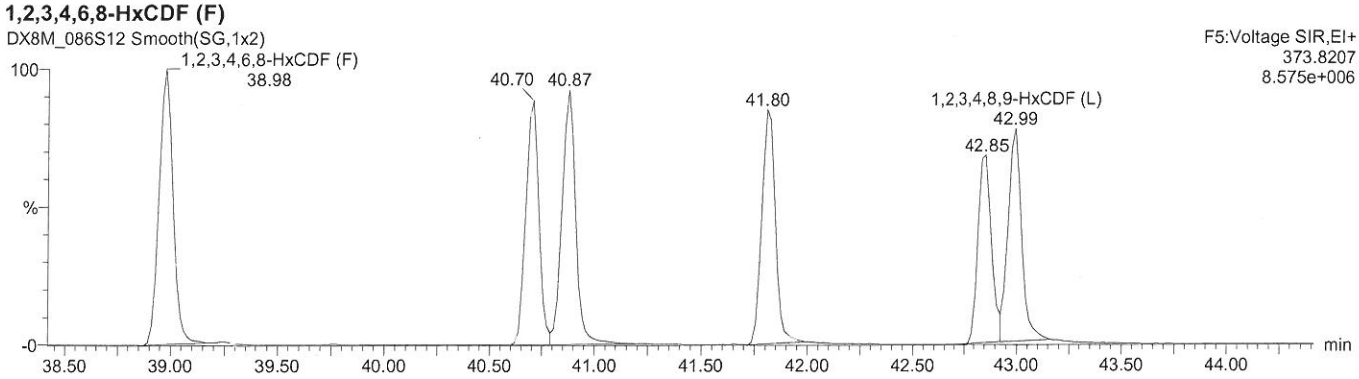
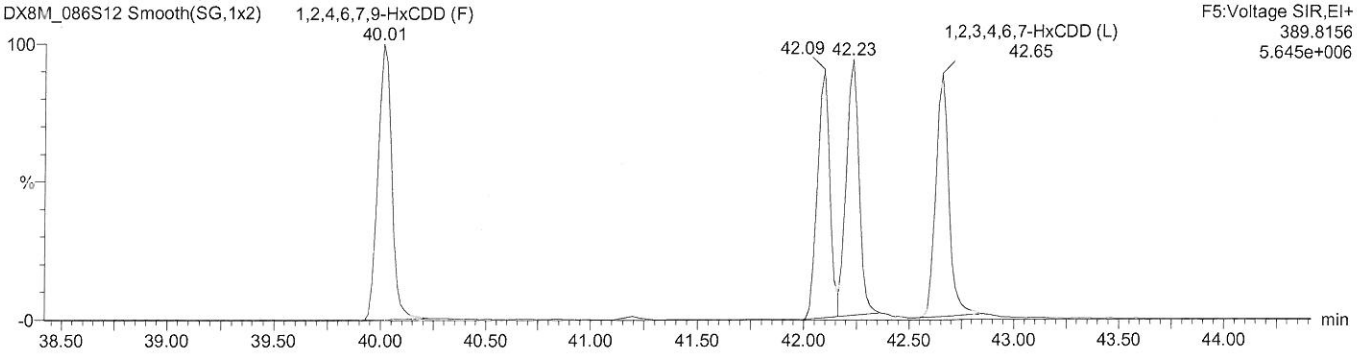
Name: DX8M_086S12, Date: 21-Jul-2018, Time: 02:11:30, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

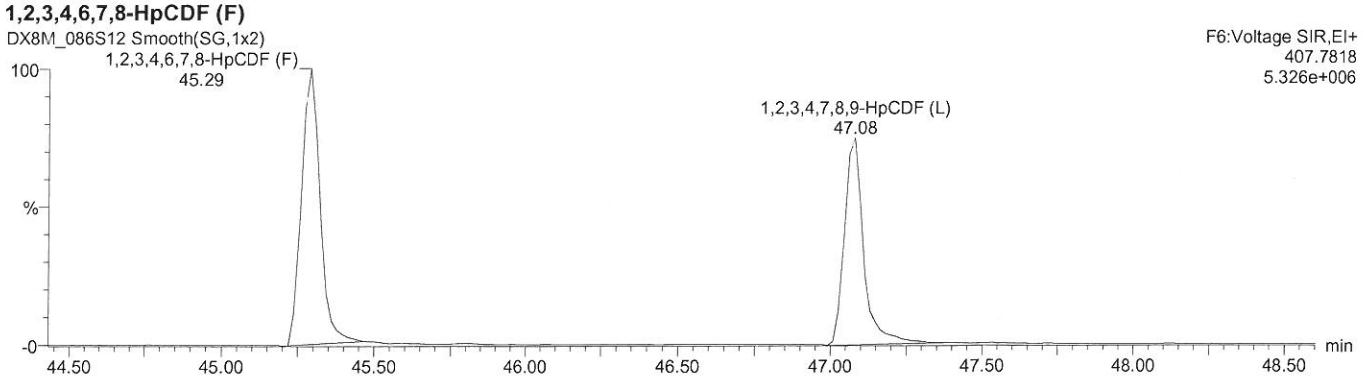
1,2,3,4,6,8-HxCDF (F)



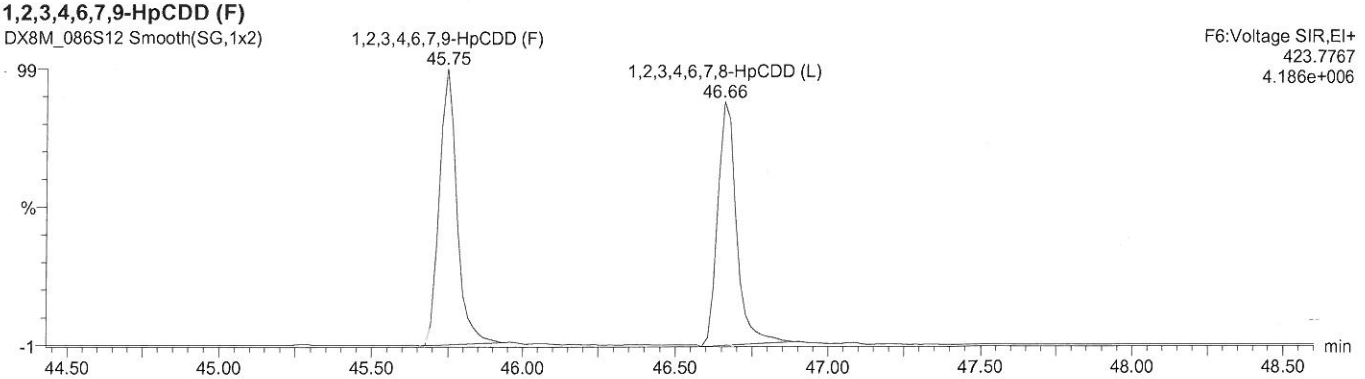
1,2,4,6,7,9-HxCDD (F)



1,2,3,4,6,7,8-HpCDF (F)



1,2,3,4,6,7,9-HpCDD (F)



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Experiment : DX-DB225-4_01
GC Program : DX-DB225-4_01
Column type : DB-225
Serial # : USA226732J/USA
kPa : 199
Vol injected: 2.0uL
PMT Voltage : 400

Temps -source: 250
-s resv: 160
-re_ent: 220
-cap_1 : 220
-cap_2 : 220

Tune : DN
List : DN
Check :
LIMS :
Logfile:

Date -list : 23-JUL-2018
-liner : 13-JUN-2018
-septum: 13-JUN-2018
-guard : 60cm 13-JUN-2018
-column: 10CM 03-APR-2018
-t line: NEW 14-SEP-2017

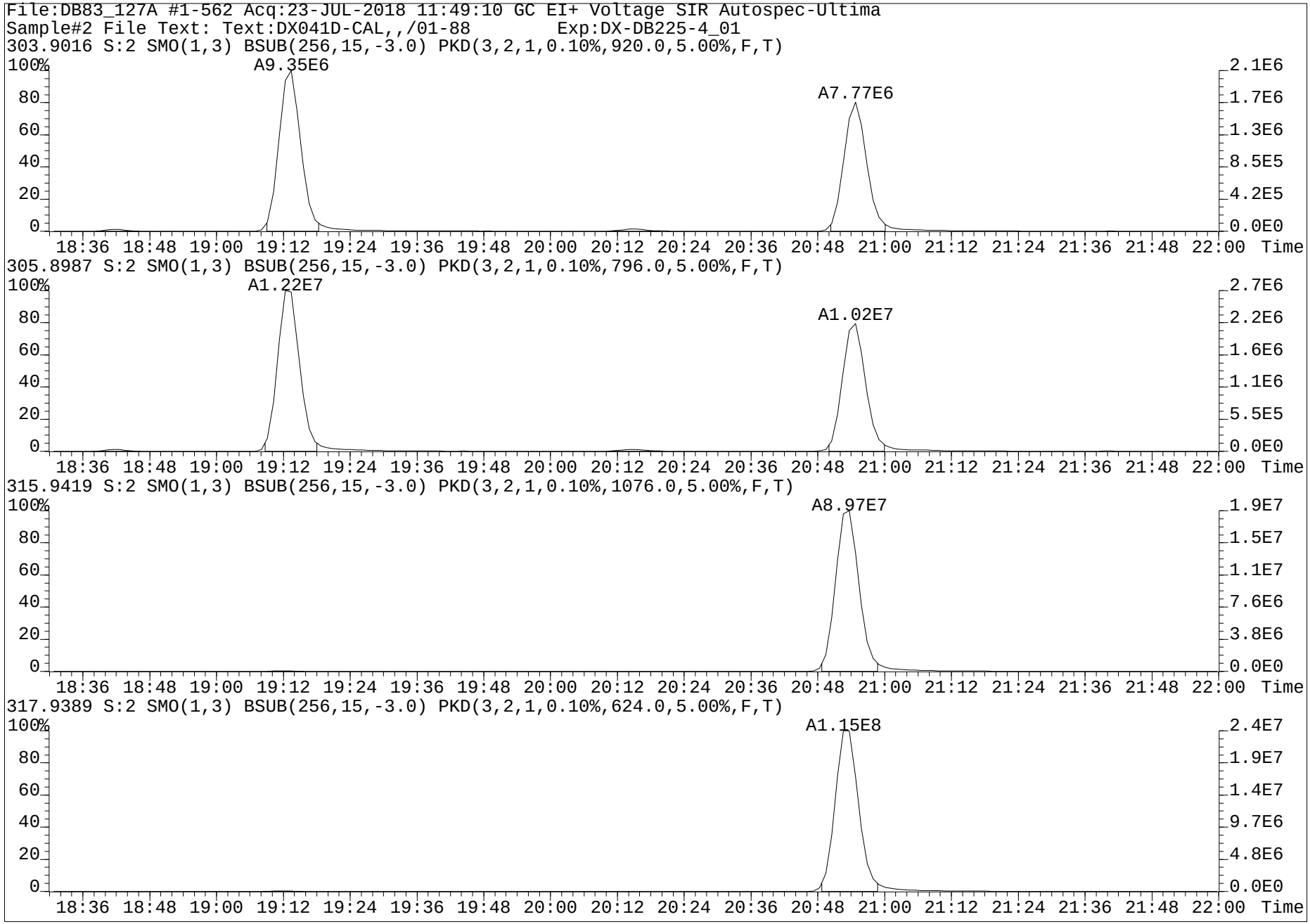
#	Data file	S	V	Sample Text	Comments	Acquisition Date/Time
1	DB83_127A	1	1	DX003A-RSN,,/01-23	1,,2.0uL Win/Res	23-JUL-18 10:33:00
2	DB83_127A	2	2	DX041D-CAL,,/01-88	1,,2.0uL Cal	23-JUL-18 11:49:10
3	DB83_127A	3	3	Toluene,,	1,,2.0uL	23-JUL-18 12:30:26
4	DB83_127A	4	4	Toluene,,	1,,2.0uL	23-JUL-18 13:11:42
5	DB83_127A	5	5	WG64578-101,,BLK	1,WG64578,2.0/20uL	23-JUL-18 13:52:59
6	DB83_127A	6	6	L29628-1,,	1,WG64578,2.0/20uL	23-JUL-18 14:34:15
7	DB83_127A	7	7	L29628-7,,	1,WG64578,2.0/20uL	23-JUL-18 15:15:31
8	DB83_127A	8	8	L29628-11,,	1,WG64578,2.0/20uL	23-JUL-18 15:56:47
9	DB83_127A	9	9	L29628-12,,	1,WG64578,2.0/20uL	23-JUL-18 16:37:59
10	DB83_127A	10	10	L29628-14,,	1,WG64578,2.0/20uL	23-JUL-18 17:19:15
11	DB83_127A	11	11	L29628-17,,	1,WG64578,2.0/20uL	23-JUL-18 18:00:27
12	DB83_127A	12	12	DX041D-CAL,,/01-88	1,,2.0uL Cal	23-JUL-18 18:41:43

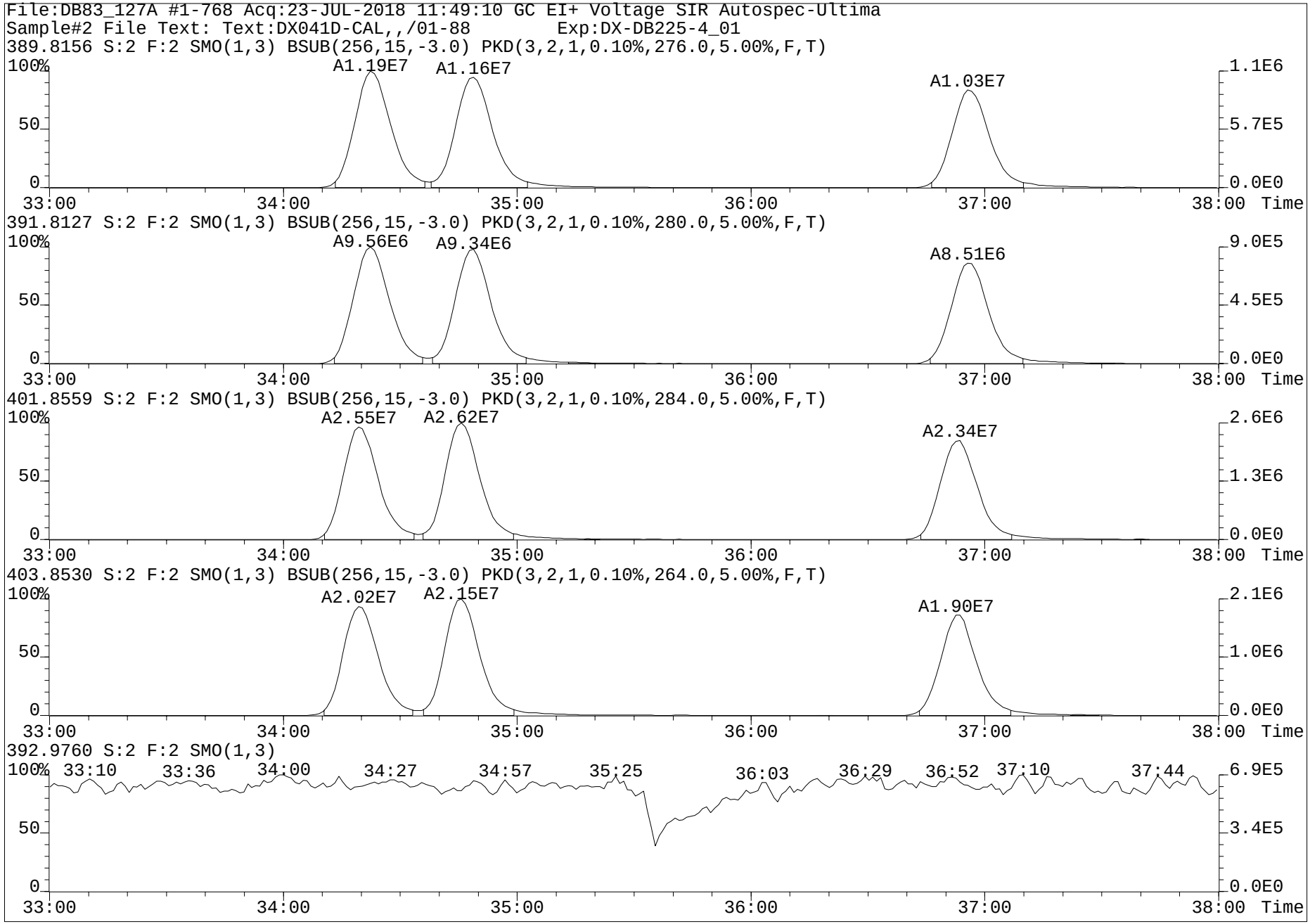
Run #8 Filename DB83_127A S: 2 I: 1 Acquired: 23-JUL-18 11:49:10 Processed: 24-JUL-18 11:55:27
Run: db83_127a-a Analyte: DB-HXD-C2 Cal: db83_121-6a Results: db83_127a-a Version: V3.6 6-JAN-2000 17:51:42
Sample text: DX041D-CAL,,/01-88 Comments: 1,,2.0uL Cal
sample size: 1.000000 conc units: ng/ml total toxicity: 5.29 F1: 20.0000 F2: 1.0000

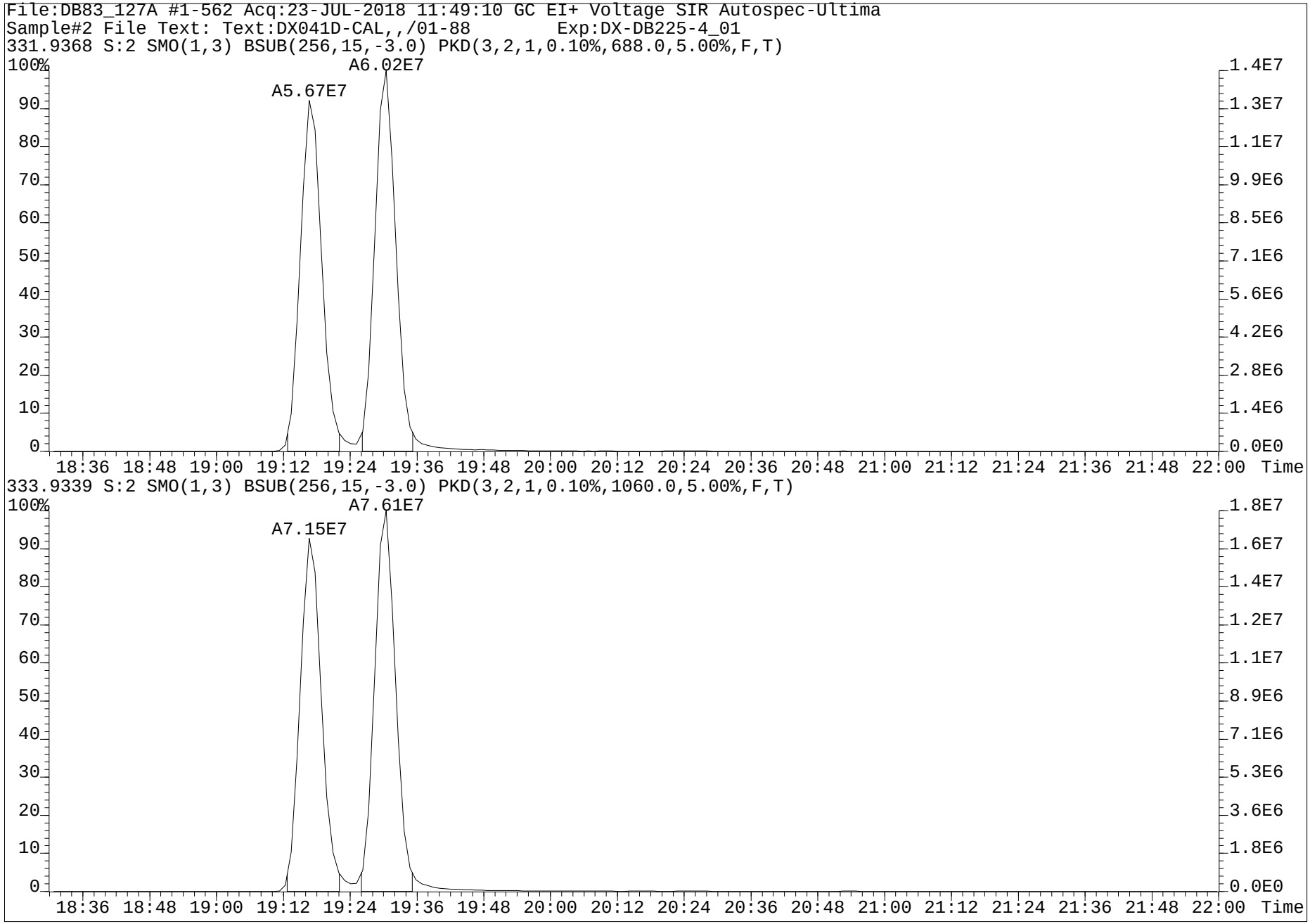
	Typ	Name	#Hom	Resp	RA		RT	Conc	Tox #1	DL	Rec	M?
1	Unk	2,3,7,8-TCDF	1	1.79e+07	0.76	y	20:55	9.022	1	0.0103	-	n
2	Unk	1,2,3,7,8,9-HxCDD	1	1.88e+07	1.21	y	36:57	43.845	4	0.0334	-	n
3	IS/RT	13C-2,3,7,8-TCDF	1	2.05e+08	0.78	y	20:53	84.014	-	0.0074	84.0	n
4	IS/RT	13C-1,2,3,4,7,8-HxCDD	1	4.57e+07	1.27	y	34:20	101.974	-	0.0327	102.0	n
5	IS/RT	13C-1,2,3,6,7,8-HxCDD	1	4.76e+07	1.22	y	34:46	102.929	-	0.0317	102.9	n
6	RS	13C-1,2,3,4-TCDD	1	1.36e+08	0.79	y	19:30	123.226	-	-	-	n
7	RS	13C-1,2,3,7,8,9-HxCDD	1	4.24e+07	1.23	y	36:54	77.359	-	-	-	n
8	Tot	Hexa DPE	0	*			NotFnd	*	-	-	-	n
9	Tot	Tetra Lock	-	-			-	-	-	-	-	n
10	Tot	Hexa Lock	-	-			-	-	-	-	-	n

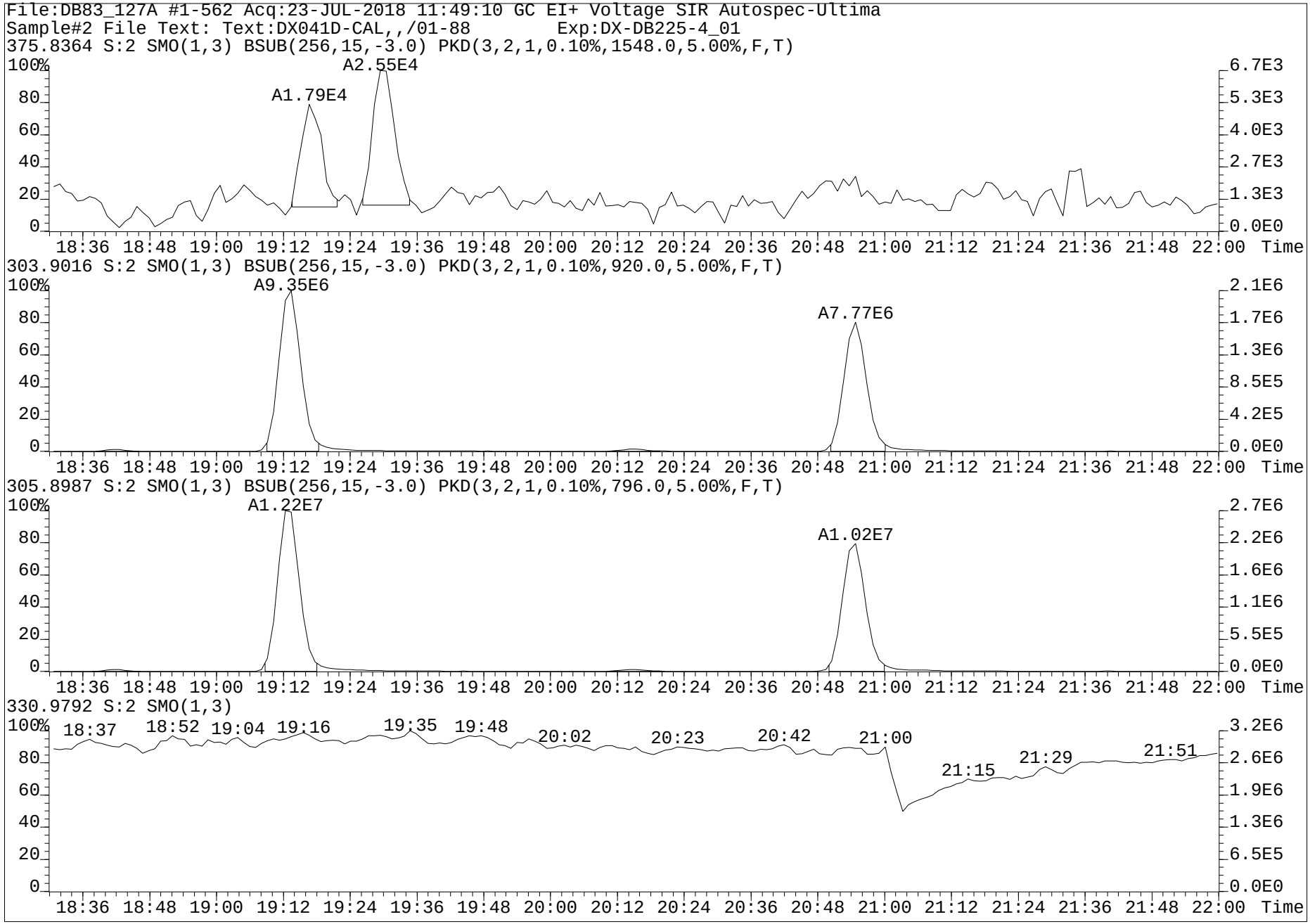
SVby KB 26JUL2018

PV by LHE
24-JULY-2018


File:DB83_127A #1-562 Acq:23-JUL-2018 11:49:10 GC EI+ Voltage SIR Autospec-Ultima
Sample#2 File Text: Text:DX041D-CAL,,/01-88 Exp:DX-DB225-4_01
303.9016 S:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,920.0,5.00%,F,T)
A9.35E6
A7.77E6
305.8987 S:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,796.0,5.00%,F,T)
A1.22E7
A1.02E7
315.9419 S:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,1076.0,5.00%,F,T)
A8.97E7
317.9389 S:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,624.0,5.00%,F,T)
A1.15E8
100%
80
60
40
20
0
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time
2.1E6
1.7E6
1.3E6
8.5E5
4.2E5
0.0E0
2.7E6
2.2E6
1.6E6
1.1E6
5.5E5
0.0E0
1.9E7
1.5E7
1.1E7
7.6E6
3.8E6
0.0E0
2.4E7
1.9E7
1.4E7
9.7E6
4.8E6
0.0E0


File:DB83_127A #1-768 Acq:23-JUL-2018 11:49:10 GC EI+ Voltage SIR Autospec-Ultima
Sample#2 File Text: Text:DX041D-CAL,,/01-88 Exp:DX-DB225-4_01
389.8156 S:2 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,276.0,5.00%,F,T)
A1.19E7
A1.16E7
A1.03E7
391.8127 S:2 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,280.0,5.00%,F,T)
A9.56E6
A9.34E6
A8.51E6
401.8559 S:2 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,284.0,5.00%,F,T)
A2.55E7
A2.62E7
A2.34E7
403.8530 S:2 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,264.0,5.00%,F,T)
A2.02E7
A2.15E7
A1.90E7
392.9760 S:2 F:2 SMO(1,3)
33:10
33:36
34:00
34:27
34:57
35:25
36:03
36:29
36:52
37:10
37:44
100%
50
0
33:00
34:00
35:00
36:00
37:00
38:00
Time
1.1E6
5.7E5
0.0E0
9.0E5
4.5E5
2.6E6
1.3E6
2.1E6
1.0E6
6.9E5
3.4E5


File:DB83_127A #1-562 Acq:23-JUL-2018 11:49:10 GC EI+ Voltage SIR Autospec-Ultima
Sample#2 File Text: Text:DX041D-CAL,,/01-88 Exp:DX-DB225-4_01
331.9368 S:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,688.0,5.00%,F,T)
A5.67E7
A6.02E7
333.9339 S:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,1060.0,5.00%,F,T)
A7.15E7
A7.61E7
Time

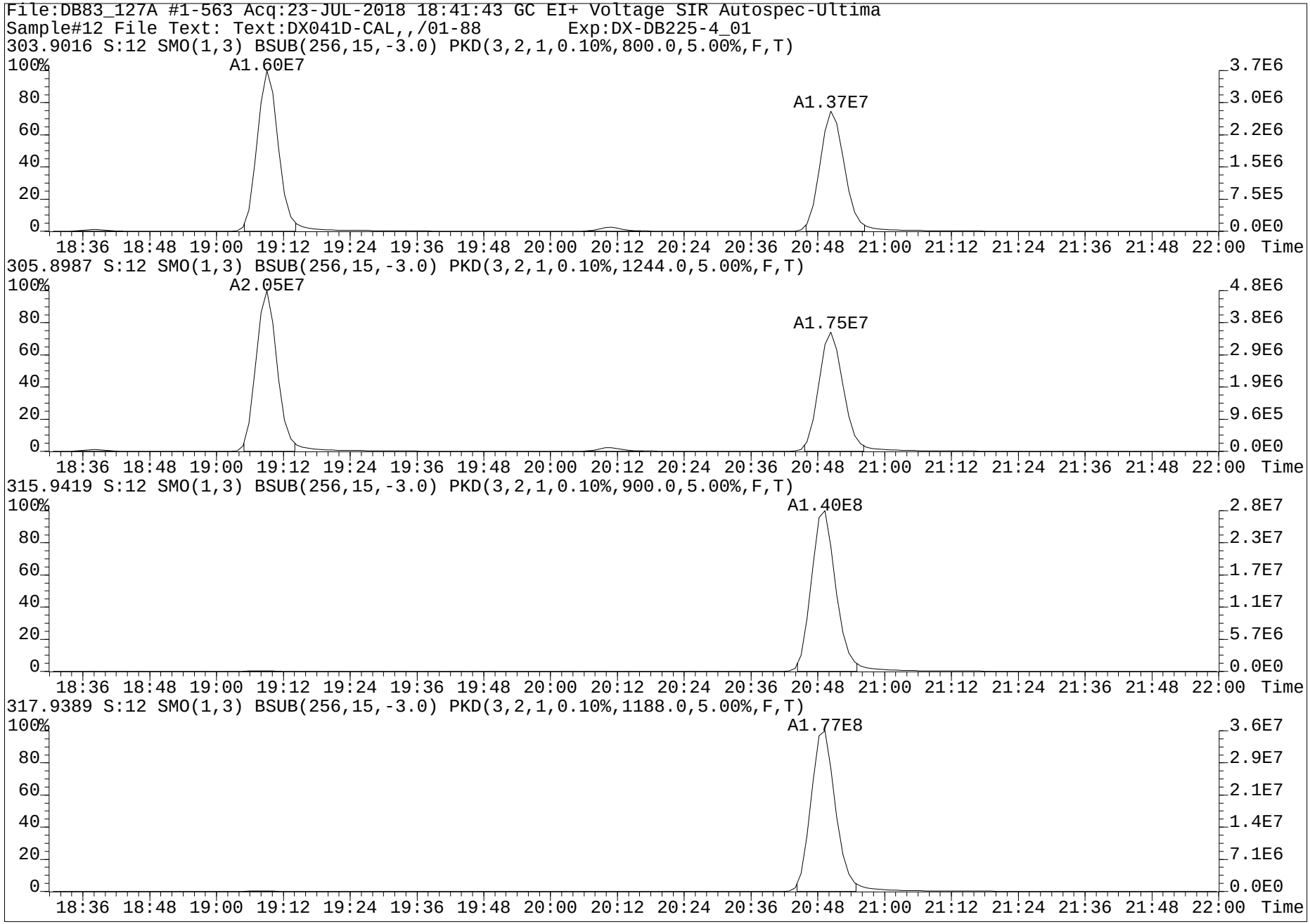

File:DB83_127A #1-562 Acq:23-JUL-2018 11:49:10 GC EI+ Voltage SIR Autospec-Ultima
Sample#2 File Text: Text:DX041D-CAL,,/01-88 Exp:DX-DB225-4_01
375.8364 S:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,1548.0,5.00%,F,T)
A1.79E4
A2.55E4
303.9016 S:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,920.0,5.00%,F,T)
A9.35E6
A7.77E6
305.8987 S:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,796.0,5.00%,F,T)
A1.22E7
A1.02E7
330.9792 S:2 SMO(1,3)
18:37
18:52
19:04
19:16
19:35
19:48
20:02
20:23
20:42
21:00
21:15
21:29
21:51
Time

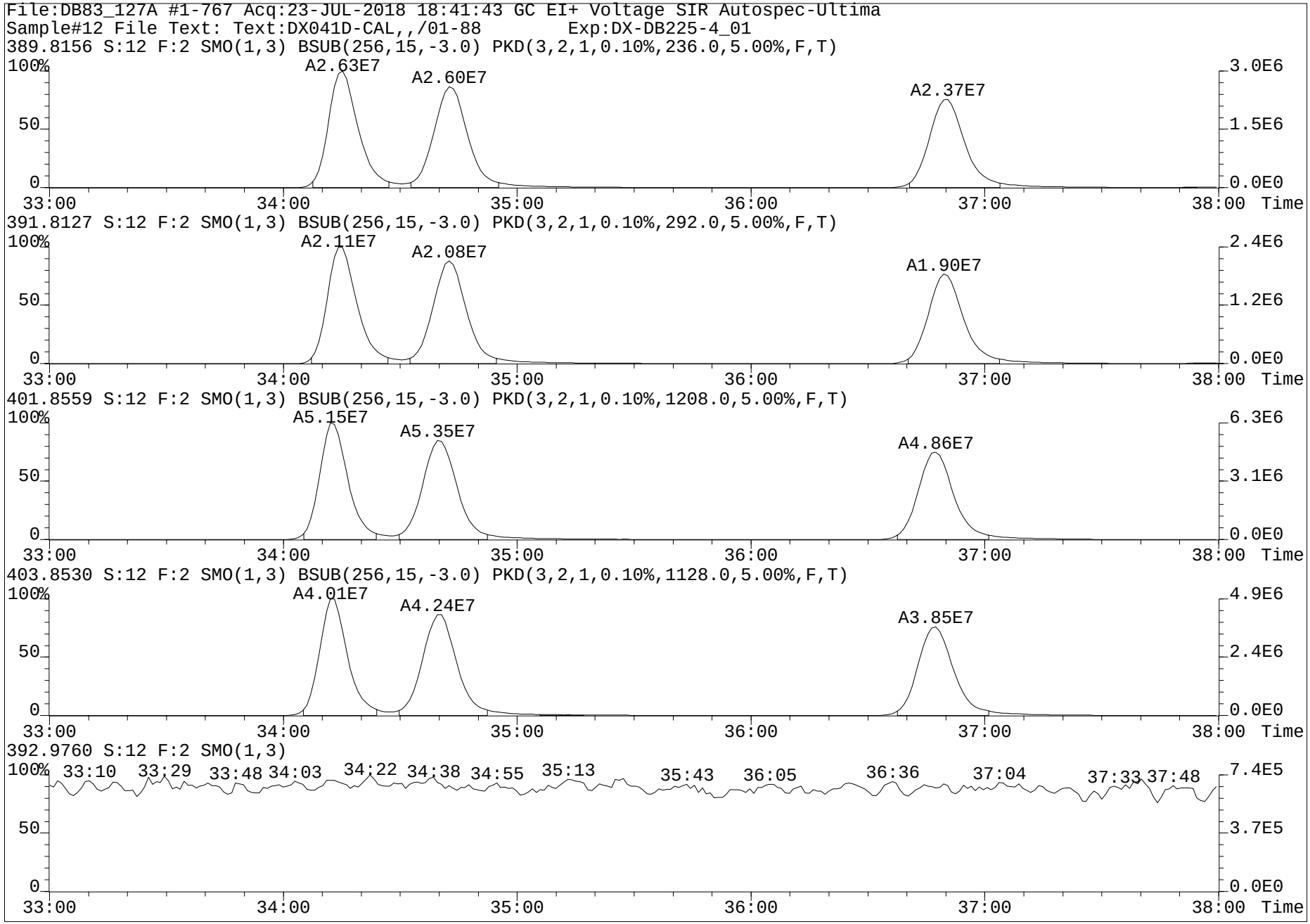
Run #18 Filename DB83_127A S: 12 I: 1 Acquired: 23-JUL-18 18:41:43 Processed: 24-JUL-18 11:55:28
Run: db83_127a-a Analyte: DB-HXD-C2 Cal: db83_121-6a Results: db83_127a-a Version: V3.6 6-JAN-2000 17:51:42
Sample text: DX041D-CAL,,/01-88 Comments: 1,,2.0uL Cal
sample size: 1.000000 conc units: ng/ml total toxicity: 5.97 F1: 20.0000 F2: 1.0000

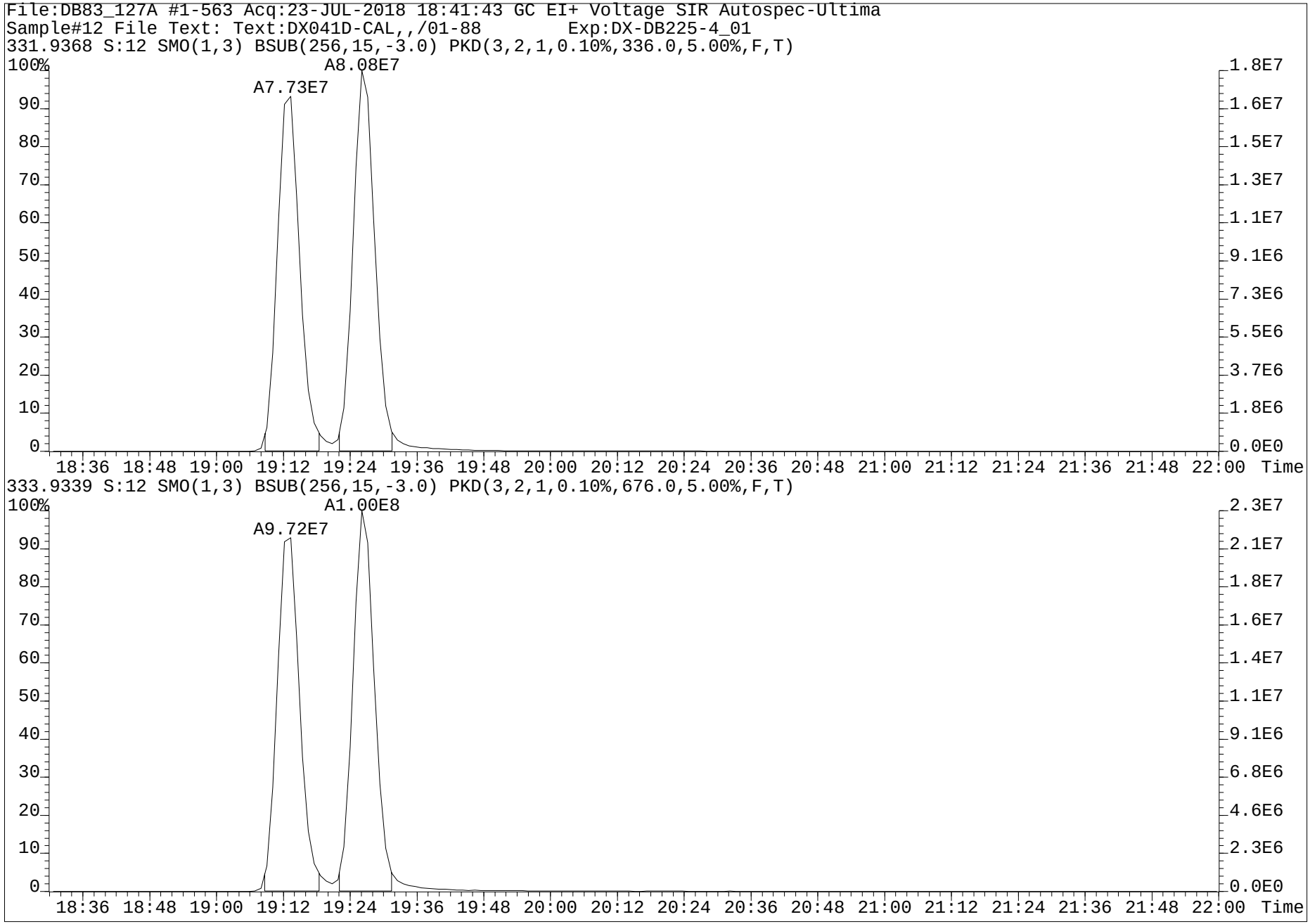
	Typ	Name	#Hom	Resp	RA		RT	Conc	Tox #1	DL	Rec	M?
1	Unk	2,3,7,8-TCDF	1	3.13e+07	0.78	y	20:50	10.157	1	0.0082	-	n
2	Unk	1,2,3,7,8,9-HxCDD	1	4.28e+07	1.25	y	36:50	49.574	5	0.0140	-	n
3	IS/RT	13C-2,3,7,8-TCDF	1	3.18e+08	0.79	y	20:49	98.067	-	0.0071	98.1	n
4	IS/RT	13C-1,2,3,4,7,8-HxCDD	1	9.16e+07	1.29	y	34:13	99.415	-	0.0657	99.4	n
5	IS/RT	13C-1,2,3,6,7,8-HxCDD	1	9.59e+07	1.26	y	34:40	100.888	-	0.0636	100.9	n
6	RS	13C-1,2,3,4-TCDD	1	1.81e+08	0.81	y	19:26	163.573	-	-	-	n
7	RS	13C-1,2,3,7,8,9-HxCDD	1	8.72e+07	1.26	y	36:47	158.916	-	-	-	n
8	Tot	Hexa DPE	0	*			NotFnd	*	-	-	-	n
9	Tot	Tetra Lock	-	-			-	-	-	-	-	n
10	Tot	Hexa Lock	-	-			-	-	-	-	-	n

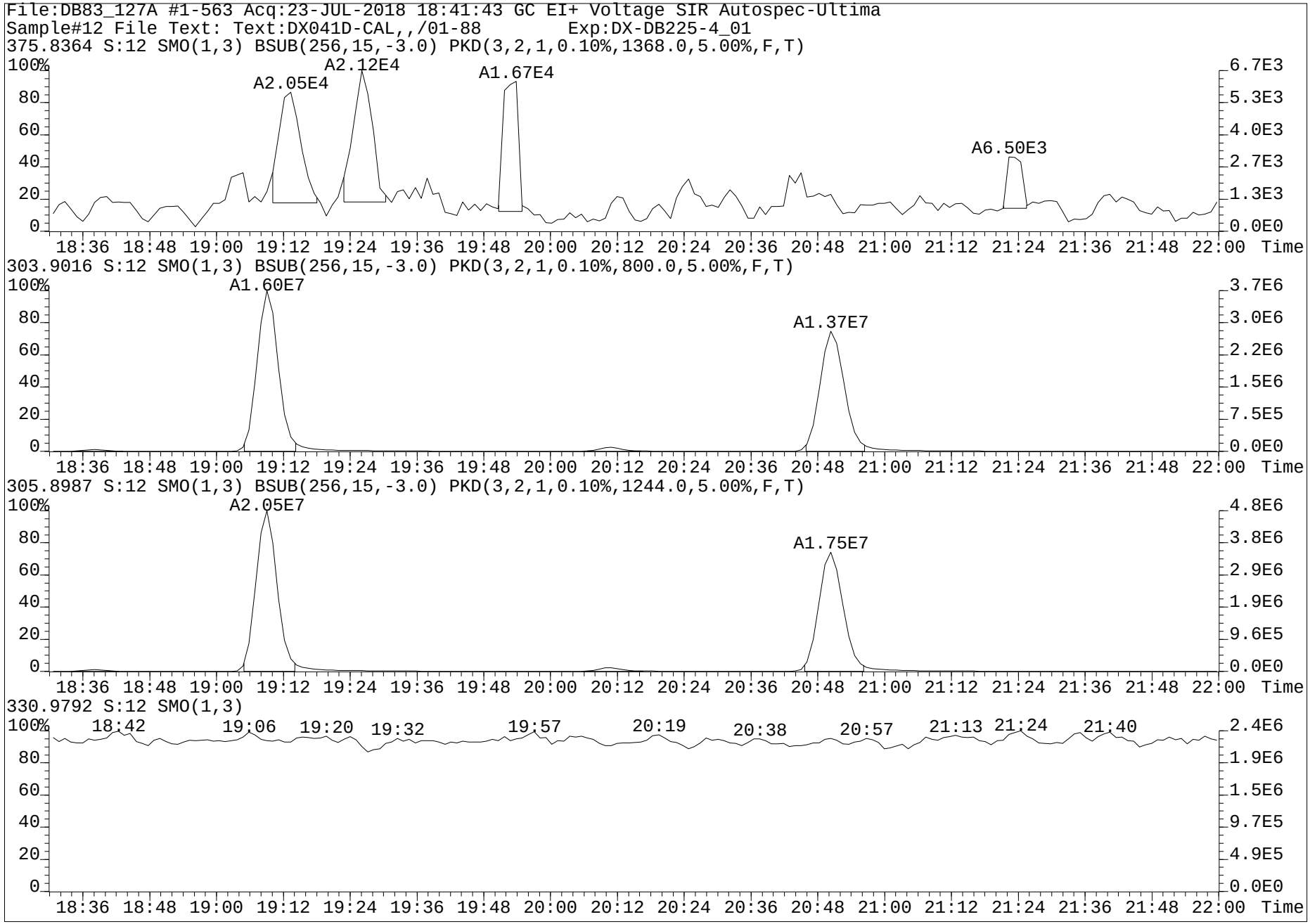
PV by LHE
24-JULY-2018

SVbyLHE26JUL2018


File:DB83_127A #1-563 Acq:23-JUL-2018 18:41:43 GC EI+ Voltage SIR Autospec-Ultima
Sample#12 File Text: Text:DX041D-CAL,,/01-88 Exp:DX-DB225-4_01
303.9016 S:12 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,800.0,5.00%,F,T)
A1.60E7
A1.37E7
305.8987 S:12 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,1244.0,5.00%,F,T)
A2.05E7
A1.75E7
315.9419 S:12 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,900.0,5.00%,F,T)
A1.40E8
317.9389 S:12 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,1188.0,5.00%,F,T)
A1.77E8
100%
80
60
40
20
0
3.7E6
3.0E6
2.2E6
1.5E6
7.5E5
0.0E0
4.8E6
3.8E6
2.9E6
1.9E6
9.6E5
2.8E7
2.3E7
1.7E7
1.1E7
5.7E6
3.6E7
2.9E7
2.1E7
1.4E7
7.1E6
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time


File:DB83_127A #1-767 Acq:23-JUL-2018 18:41:43 GC EI+ Voltage SIR Autospec-Ultima
Sample#12 File Text: Text:DX041D-CAL,,/01-88 Exp:DX-DB225-4_01
389.8156 S:12 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,236.0,5.00%,F,T)
A2.63E7
A2.60E7
A2.37E7
391.8127 S:12 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,292.0,5.00%,F,T)
A2.11E7
A2.08E7
A1.90E7
401.8559 S:12 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,1208.0,5.00%,F,T)
A5.15E7
A5.35E7
A4.86E7
403.8530 S:12 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,1128.0,5.00%,F,T)
A4.01E7
A4.24E7
A3.85E7
392.9760 S:12 F:2 SMO(1,3)
33:10 33:29 33:48 34:03 34:22 34:38 34:55 35:13 35:43 36:05 36:36 37:04 37:33 37:48
100%
50
0
33:00
34:00
35:00
36:00
37:00
38:00
Time
3.0E6
1.5E6
0.0E0
2.4E6
1.2E6
6.3E6
3.1E6
4.9E6
2.4E6
7.4E5
3.7E5


File:DB83_127A #1-563 Acq:23-JUL-2018 18:41:43 GC EI+ Voltage SIR Autospec-Ultima
Sample#12 File Text: Text:DX041D-CAL,,/01-88 Exp:DX-DB225-4_01
331.9368 S:12 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,336.0,5.00%,F,T)
A8.08E7
A7.73E7
333.9339 S:12 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,676.0,5.00%,F,T)
A1.00E8
A9.72E7
Time


File:DB83_127A #1-563 Acq:23-JUL-2018 18:41:43 GC EI+ Voltage SIR Autospec-Ultima
Sample#12 File Text: Text:DX041D-CAL,,/01-88 Exp:DX-DB225-4_01
375.8364 S:12 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,1368.0,5.00%,F,T)
A2.05E4
A2.12E4
A1.67E4
A6.50E3
303.9016 S:12 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,800.0,5.00%,F,T)
A1.60E7
A1.37E7
305.8987 S:12 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,1244.0,5.00%,F,T)
A2.05E7
A1.75E7
330.9792 S:12 SMO(1,3)
18:42
19:06
19:20
19:32
19:57
20:19
20:38
20:57
21:13
21:24
21:40
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time

SGS Axys Analytical Services, Ltd.

Method: C:\MassLynx\180604DX.PRO\MethDB\DX_Log.mdb 21 Nov 2008 11:39:44
Calibration: C:\MassLynx\180604DX.PRO\CurveDB\DX8M_065C-CAL.cdb 05 Jun 2018 06:43:58

Compound name: -

#	Name	ID	Sample Text	Acq Date	Acq Time
1	DX8M_087S1	DX041D-CAL,,/01-89	1,,1.0uL Cal Win/Res	23-Jul-18	16:00:43
2	DX8M_087S2	DX041D-CAL,,/01-89	1,,1.0uL Cal Win/Res	23-Jul-18	17:07:08
3	DX8M_087S3	DX051A-SUR,,/01	1,,1.0uL Inst Blank	23-Jul-18	18:09:35
4	DX8M_087S4	DX051A-SUR,,/01	1,,1.0uL Inst Blank	23-Jul-18	19:01:59
5	DX8M_087S5	L29628-28,I,	1,WG64578,1.0/20uL	23-Jul-18	19:57:17
6	DX8M_087S6	DX041D-CAL,,/01-89	1,,1.0uL Cal Win/Res	23-Jul-18	20:52:27

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_087-A.qld

Method: G:\Masslynx\Inst_M\Projects\180604DX.PRO\MethDB\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_087S2, Date: 23-Jul-2018, Time: 17:07:08, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	1.000	2.65e5	0.78	NO	25.27	11.167	0.0435	111.7	2.68e3	1.63e3
2	1,2,3,7,8-PeCDF	1.000	8.82e5	1.57	NO	33.58	54.474	0.1383	108.9	3.88e3	4.15e3
3	2,3,4,7,8-PeCDF	1.000	8.69e5	1.54	NO	35.34	52.650	0.1202	105.3	3.88e3	4.15e3
4	1,2,3,4,7,8-HxCDF	1.000	6.74e5	1.23	NO	40.70	54.248	0.1200	108.5	4.90e3	3.25e3
5	1,2,3,6,7,8-HxCDF	1.000	7.61e5	1.24	NO	40.89	52.670	0.1148	105.3	4.90e3	3.25e3
6	2,3,4,6,7,8-HxCDF	1.000	6.82e5	1.22	NO	41.82	51.427	0.1175	102.9	4.90e3	3.25e3
7	1,2,3,7,8,9-HxCDF	1.000	4.85e5	1.21	NO	42.85	45.664	0.1514	91.3	4.90e3	3.25e3
8	1,2,3,4,6,7,8-HpCDF	1.000	5.63e5	1.03	NO	45.29	52.434	0.1056	104.9	2.99e3	3.06e3
9	1,2,3,4,7,8,9-HpCDF	1.000	4.60e5	1.03	NO	47.08	54.340	0.1423	108.7	2.99e3	3.06e3
10	OCDF	1.000	7.92e5	0.86	NO	50.31	101.236	0.1076	101.2	4.12e3	1.37e-1
11	2,3,7,8-TCDD	1.000	1.95e5	0.78	NO	26.49	10.566	0.1285	105.7	3.59e3	5.64e3
12	1,2,3,7,8-PeCDD	1.000	5.27e5	0.61	NO	36.17	55.563	0.1536	111.1	2.77e3	3.52e3
13	1,2,3,4,7,8-HxCDD	1.000	4.45e5	1.20	NO	42.09	50.212	0.1178	100.4	2.55e3	3.25e3
14	1,2,3,6,7,8-HxCDD	1.000	5.11e5	1.15	NO	42.25	49.951	0.1164	99.9	2.55e3	3.25e3
15	1,2,3,7,8,9-HxCDD	1.000	4.65e5	1.18	NO	42.67	48.335	0.1163	96.7	2.55e3	3.25e3
16	1,2,3,4,6,7,8-HpCDD	1.000	3.69e5	1.00	NO	46.67	57.101	0.2005	114.2	3.18e3	3.96e3
17	OCDD	1.000	6.53e5	0.94	NO	50.22	100.581	0.2148	100.6	6.77e3	5.18e1
18	13C-2,3,7,8-TCDF	1.000	2.59e6	0.72	NO	25.24	92.491	0.1321	92.5	9.25e3	5.62e3
19	13C-1,2,3,7,8-PeCDF	1.000	1.75e6	1.43	NO	33.54	86.734	0.1928	86.7	7.35e3	8.30e3
20	13C-2,3,4,7,8-PeCDF	1.000	1.76e6	1.42	NO	35.30	90.187	0.1999	90.2	7.35e3	8.30e3
21	13C-1,2,3,4,7,8-HxCDF	1.000	1.11e6	0.53	NO	40.69	93.478	0.3031	93.5	9.67e3	8.00e3
22	13C-1,2,3,6,7,8-HxCDF	1.000	1.36e6	0.52	NO	40.86	106.868	0.2837	106.9	9.67e3	8.00e3
23	13C-2,3,4,6,7,8-HxCDF	1.000	1.16e6	0.51	NO	41.81	102.230	0.3175	102.2	9.67e3	8.00e3
24	13C-1,2,3,7,8,9-HxCDF	1.000	1.06e6	0.49	NO	42.84	94.786	0.3219	94.8	9.67e3	8.00e3
25	13C-1,2,3,4,6,7,8-HpCDF	1.000	8.77e5	0.45	NO	45.27	92.254	0.3103	92.3	1.03e4	4.11e3
26	13C-1,2,3,4,7,8,9-HpCDF	1.000	6.76e5	0.46	NO	47.06	91.162	0.3979	91.2	1.03e4	4.11e3
27	13C-2,3,7,8-TCDD	1.000	1.66e6	0.75	NO	26.47	95.116	0.2178	95.1	5.97e3	9.27e3
28	13C-1,2,3,7,8-PeCDD	1.000	9.23e5	0.66	NO	36.13	80.819	0.1509	80.8	3.74e3	3.18e3
29	13C-1,2,3,4,7,8-HxCDD	1.000	8.84e5	1.33	NO	42.08	96.178	0.1853	96.2	2.72e3	5.62e3
30	13C-1,2,3,6,7,8-HxCDD	1.000	1.10e6	1.19	NO	42.21	112.804	0.1753	112.8	2.72e3	5.62e3
31	13C-1,2,3,4,6,7,8-HpCDD	1.000	6.49e5	1.01	NO	46.66	85.468	0.2588	85.5	6.28e3	3.34e3
32	13C-OCDD	1.000	1.27e6	0.87	NO	50.22	190.848	0.5553	95.4	1.71e4	1.05e3
33	13C-1,2,3,4-TCDD	1.000	1.74e6	0.77	NO	26.13	76.787	0.1679	76.8	5.97e3	9.27e3
34	13C-1,2,3,7,8,9-HxCDD	1.000	9.33e5	1.26	NO	42.63	65.369	0.1192	65.4	2.72e3	5.62e3
35	37Cl-2,3,7,8-TCDD	1.000	1.73e5			26.49	8.953	0.0706	89.5		5.48e3
36	Total Tetra-Furans	1.000					46.065	0.0435			1.63e3
37	Total Tetra-Dioxins	1.000					90.467	0.1285			5.64e3
38	Total Penta-Furans	1.000					221.918	0.1303			4.15e3
39	Total Penta-Dioxins	1.000					180.789	0.1536			3.52e3
40	Total Hexa-Furans	1.000					324.188	0.1204			3.25e3
41	Total Hexa-Dioxins	1.000					203.632	0.1126			3.25e3
42	Total Hepta-Furans	1.000					111.919	0.1230			3.06e3
43	Total Hepta-Dioxins	1.000					120.747	0.2005			3.96e3
44	Hexa DPE	1.000	1.32e2			23.34					4.99e-2
45	Hepta DPE	1.000	1.16e2			37.54					6.36e-2
46	Octa DPE	1.000	7.64e1			39.94					3.08e-1
47	Nona DPE	1.000	3.17e-1			48.39					0.00e0
48	Deca DPE	1.000	2.30e2			50.15					3.15e-1
49	Tetra Lock	1.000	4.86e3			23.97					1.22e5
50	Penta Lock	1.000	1.02e4			29.53					1.20e5
51	Hexa Lock	1.000									2.65e5

pv'd by LHE 24-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

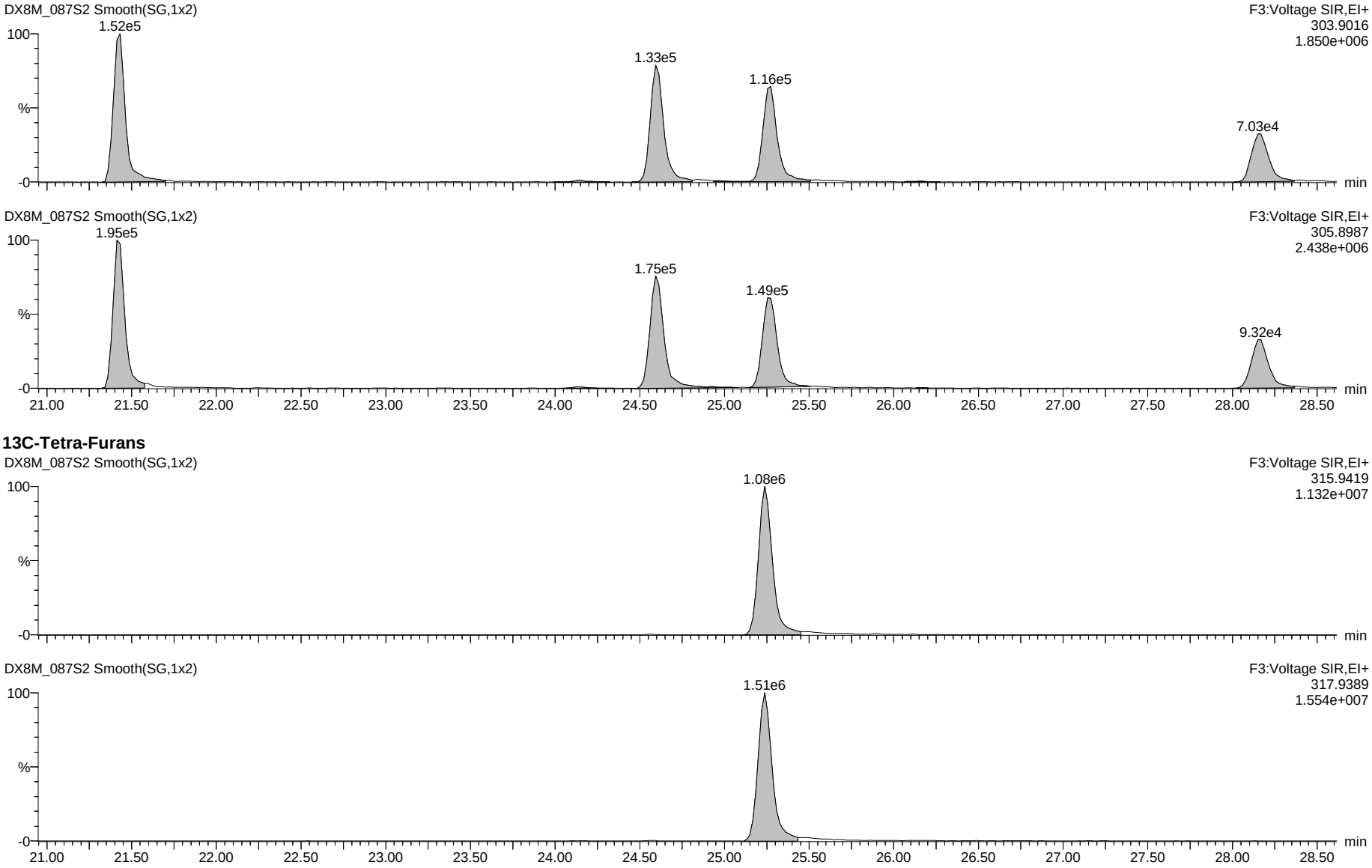
SVbyKB 26JUL2018

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_087-A.qld

Method: G:\Masslynx\Inst_M\Projects\180604DX.PRO\MethDB\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_087S2, Date: 23-Jul-2018, Time: 17:07:08, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Tetra-Furans

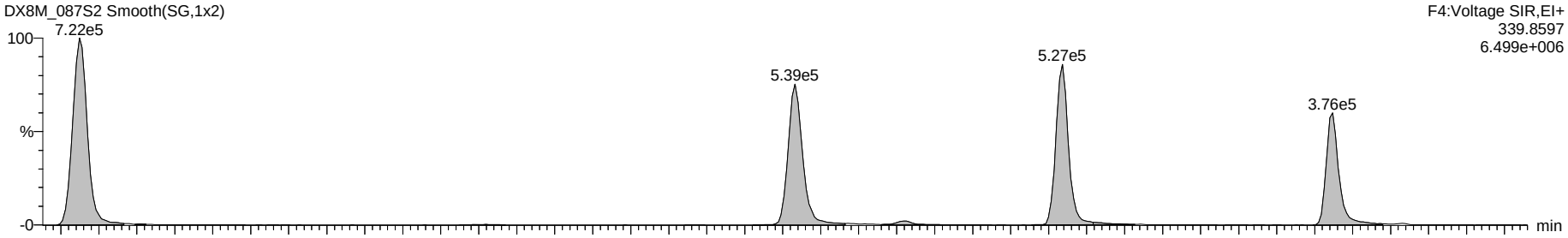


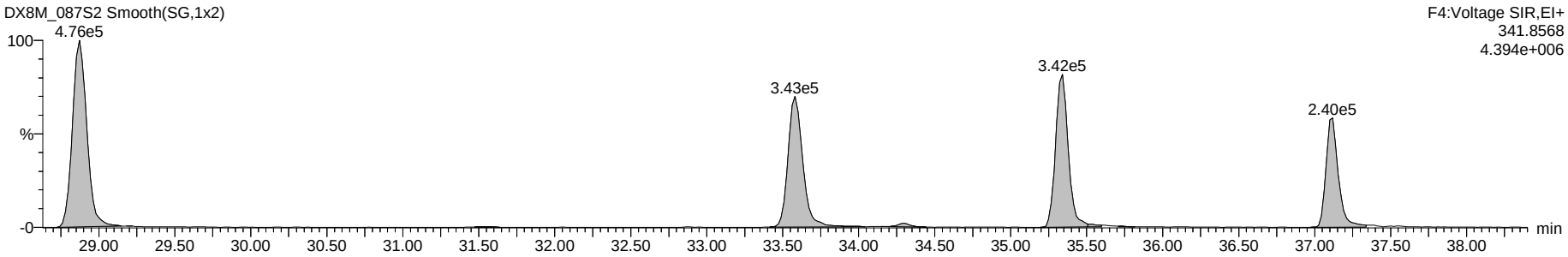
13C-Tetra-Furans

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_087-A.qld

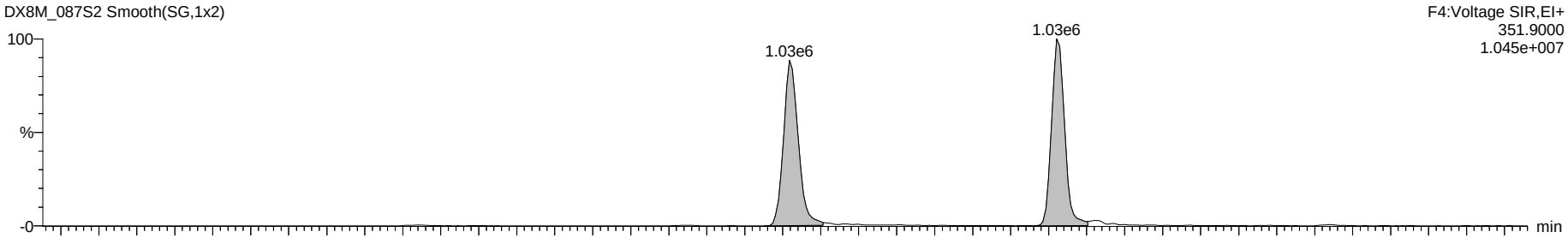
Name: DX8M_087S2, Date: 23-Jul-2018, Time: 17:07:08, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

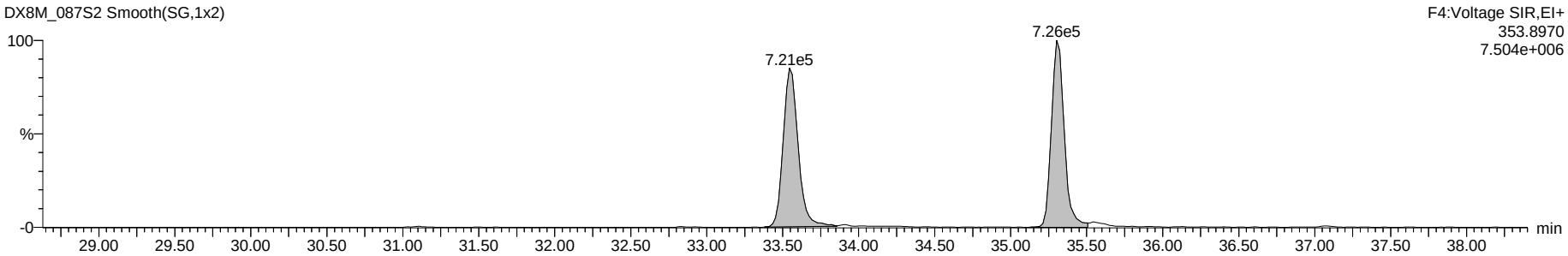
Total Penta-Furans





13C-Penta-Furans

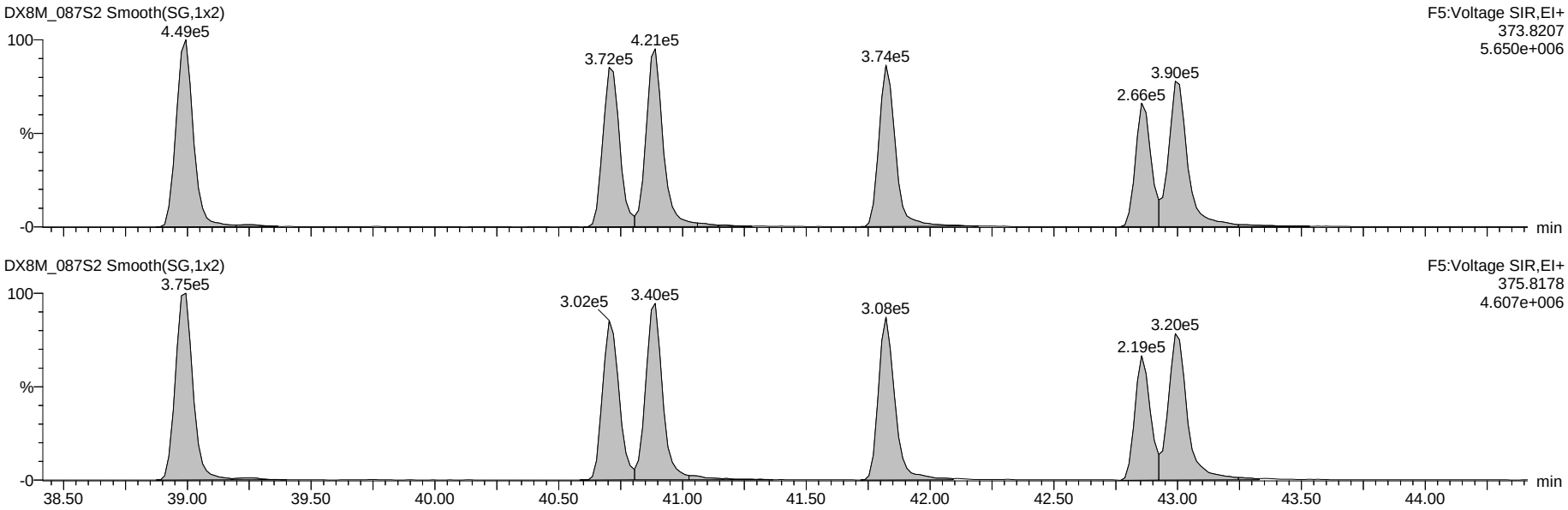




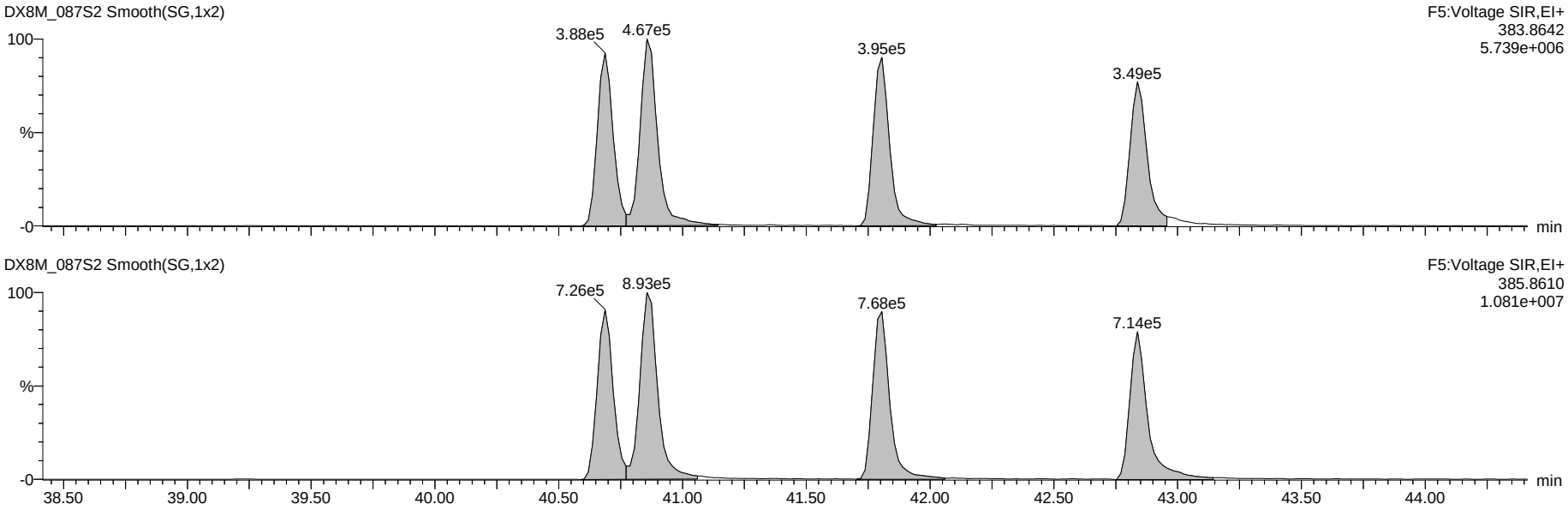
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_087-A.qld

Name: DX8M_087S2, Date: 23-Jul-2018, Time: 17:07:08, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Hexa-Furans



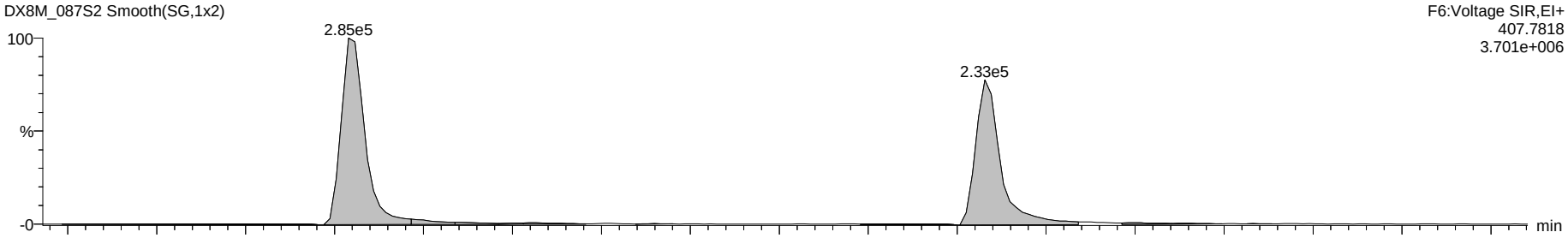
13C-Hexa-Furans

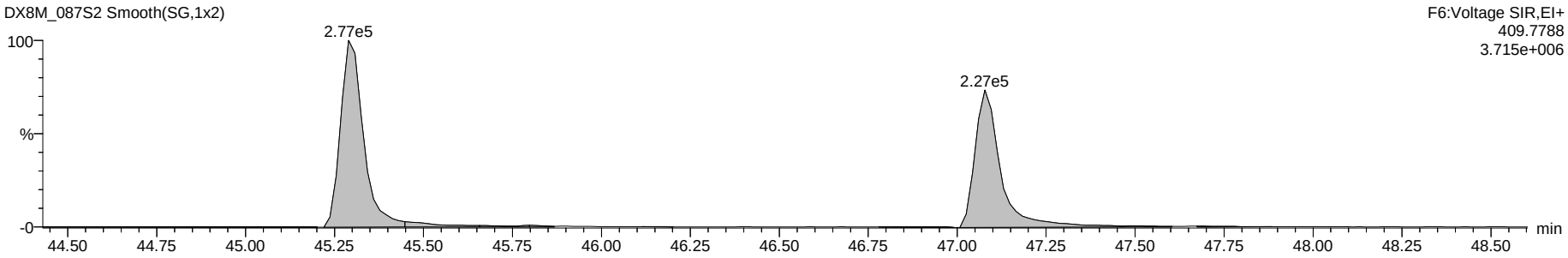


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_087-A.qld

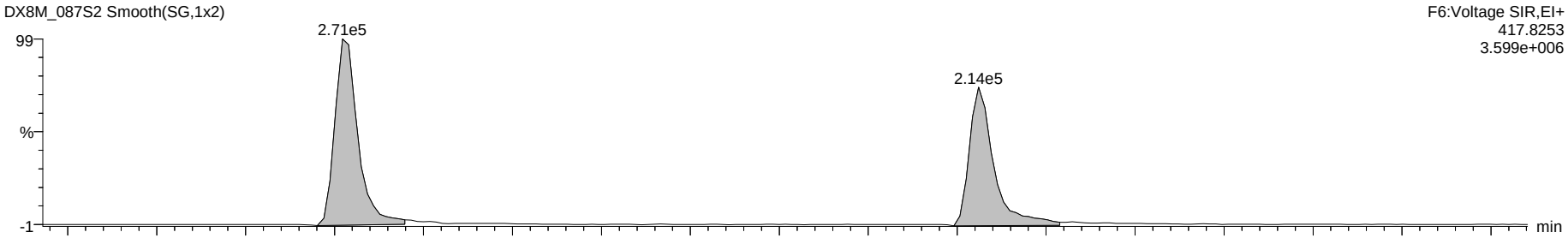
Name: DX8M_087S2, Date: 23-Jul-2018, Time: 17:07:08, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

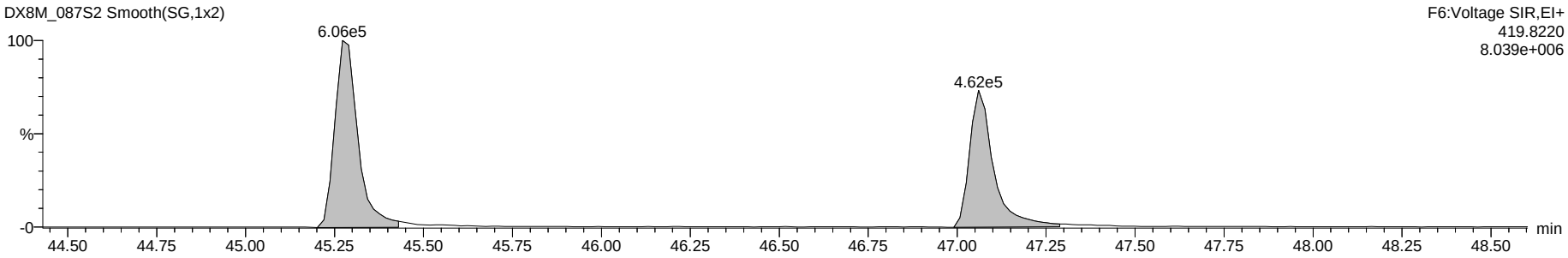
Total Hepta-Furans





13C-Hepta-Furans

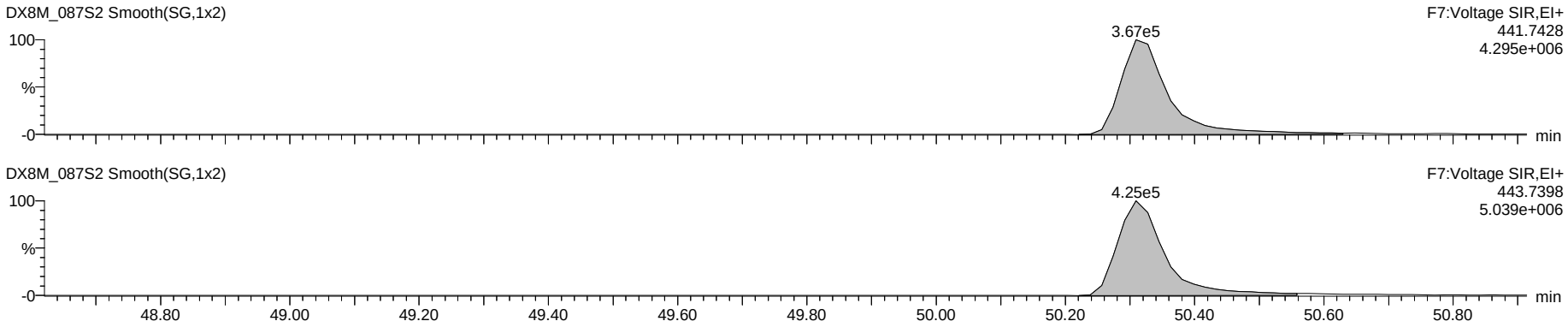




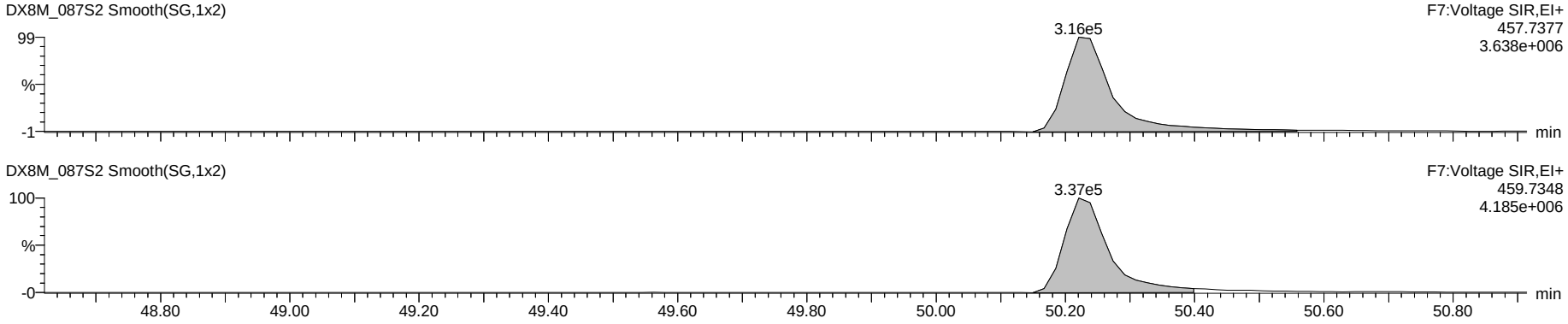
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_087-A.qld

Name: DX8M_087S2, Date: 23-Jul-2018, Time: 17:07:08, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

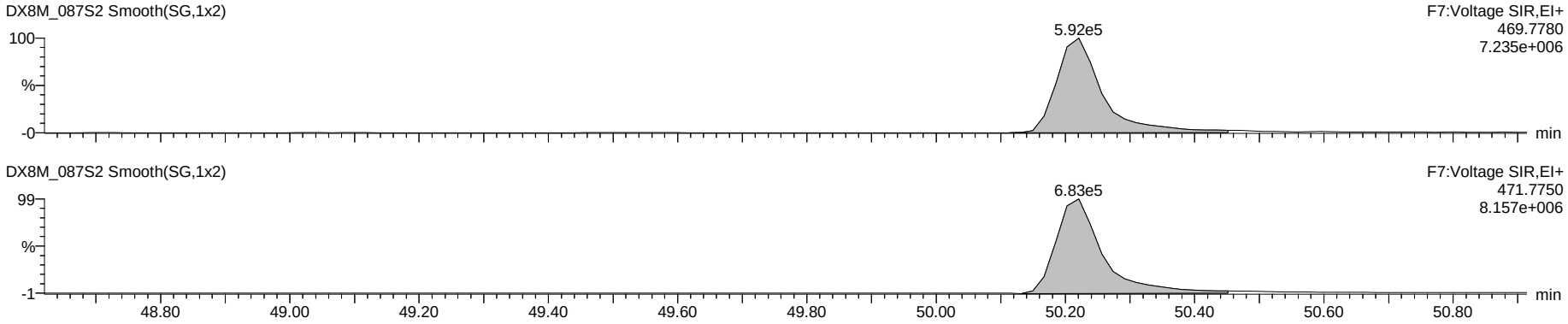
OCDF



OCDD



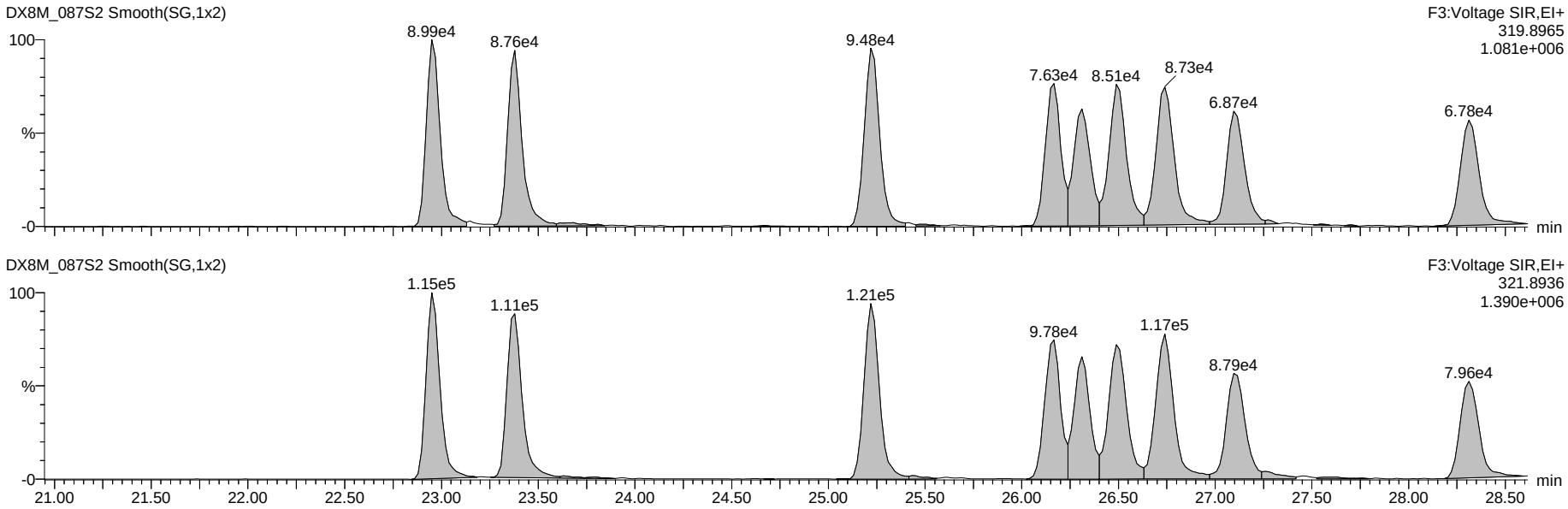
13C-OCDD



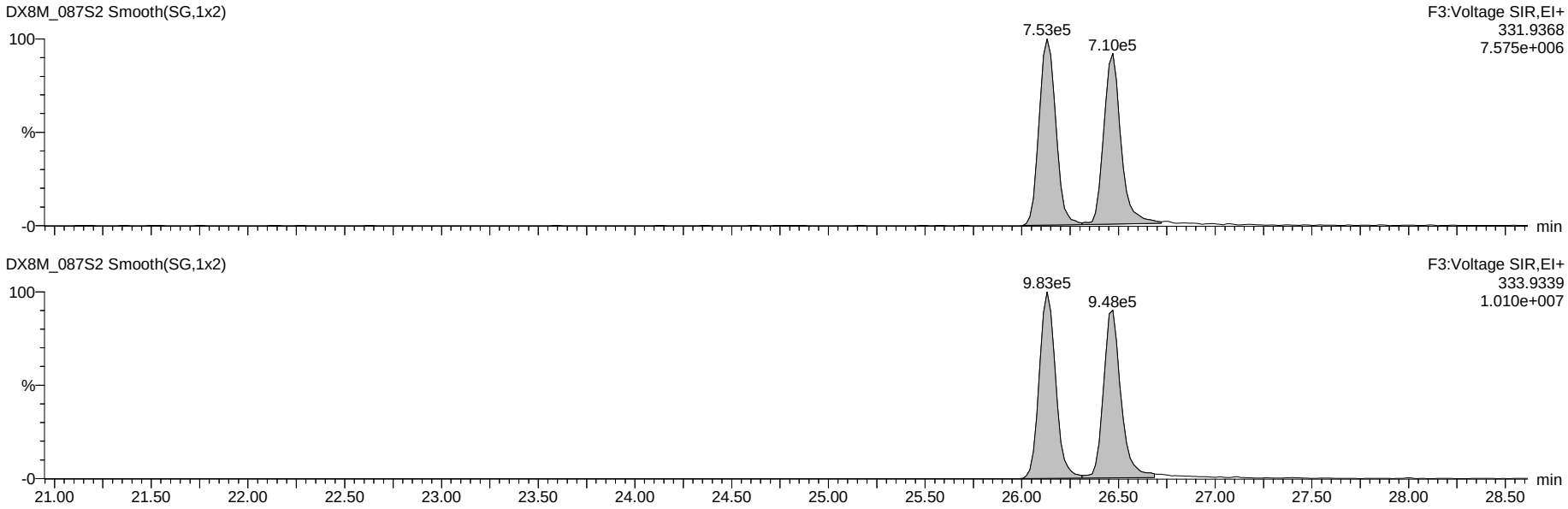
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_087-A.qld

Name: DX8M_087S2, Date: 23-Jul-2018, Time: 17:07:08, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Tetra-Dioxins



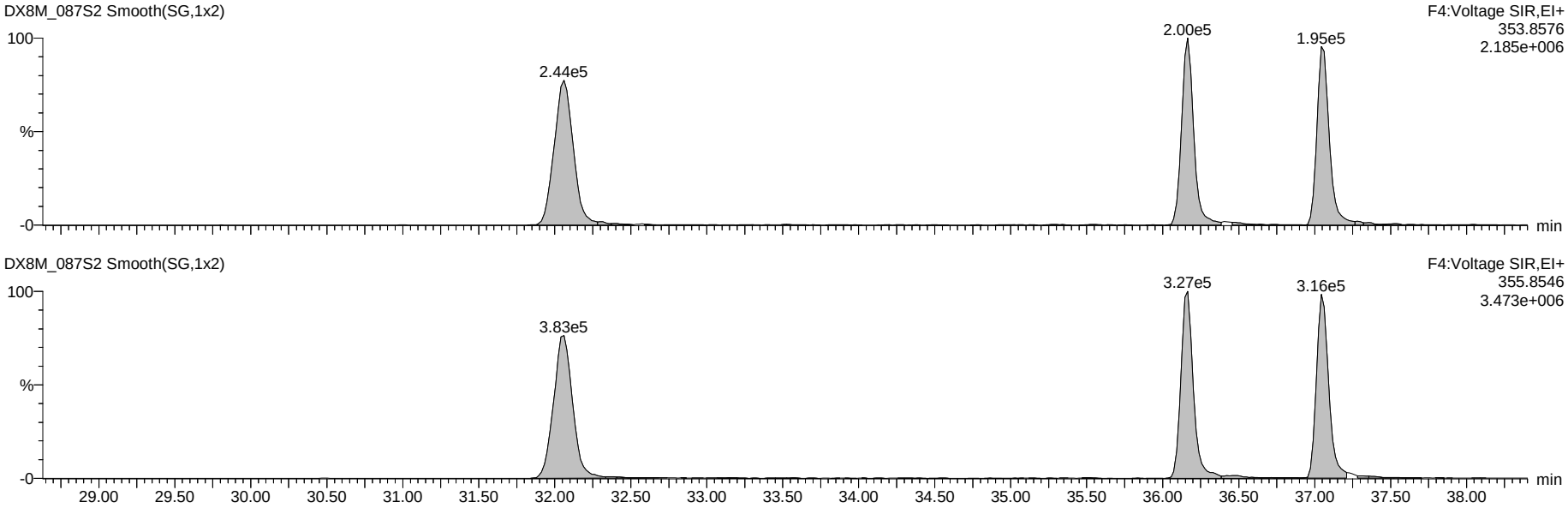
13C-Tetra-Dioxins



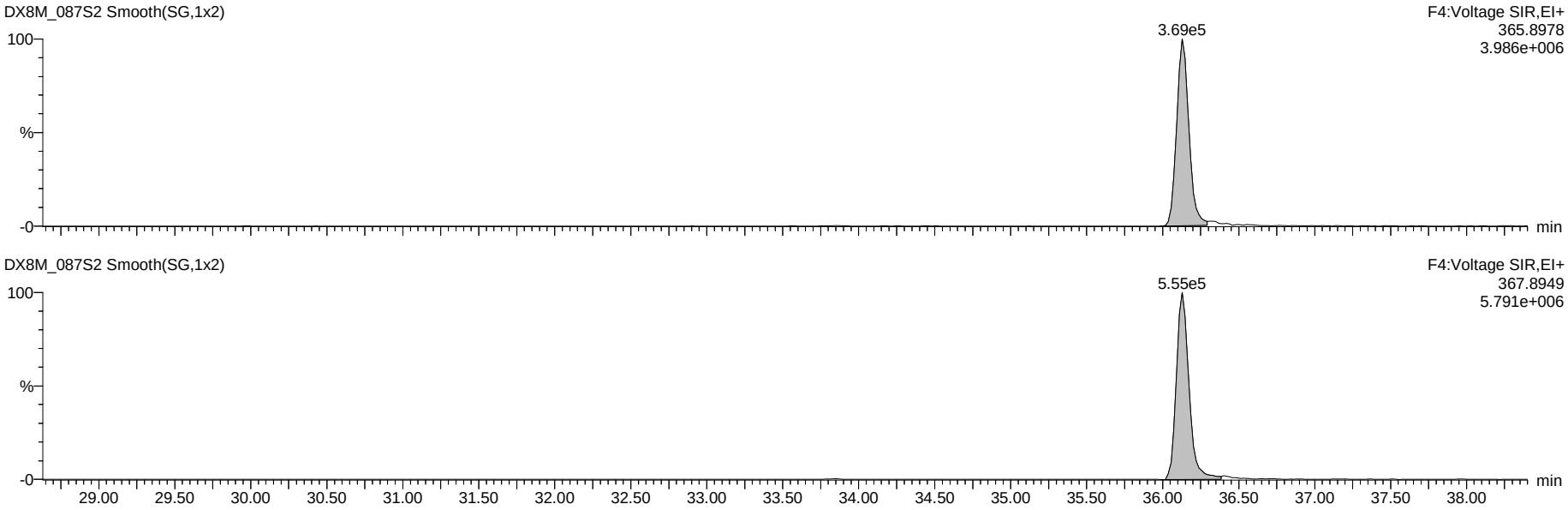
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_087-A.qld

Name: DX8M_087S2, Date: 23-Jul-2018, Time: 17:07:08, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Penta-Dioxins



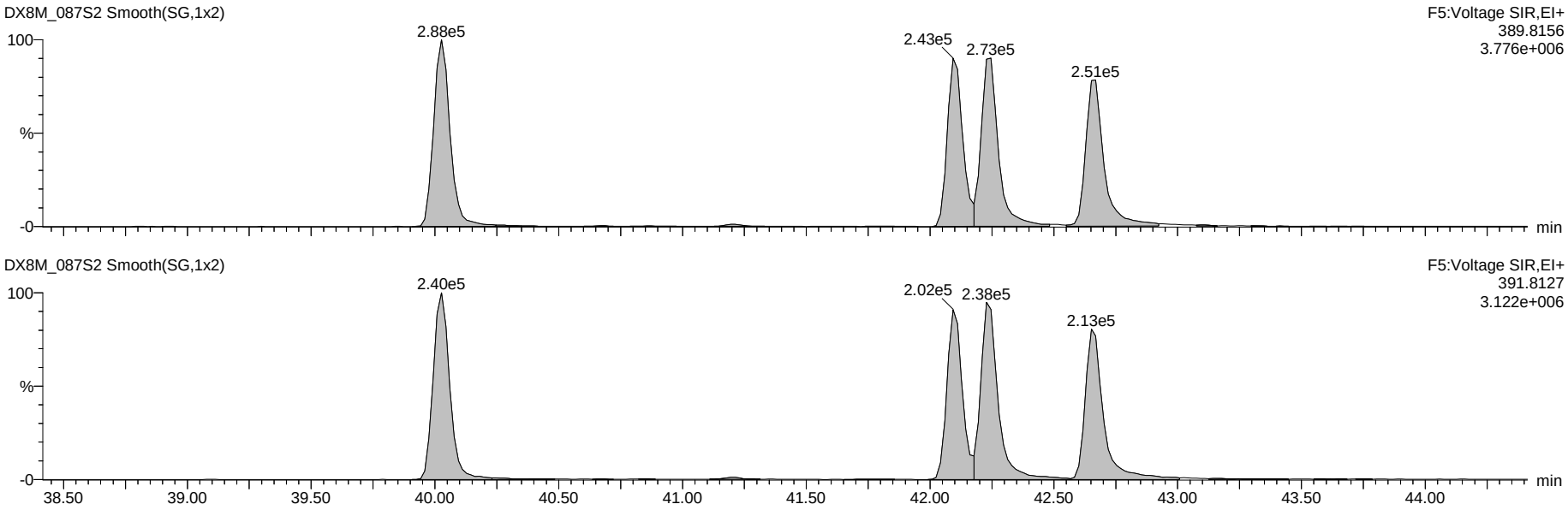
13C-Penta-Dioxins



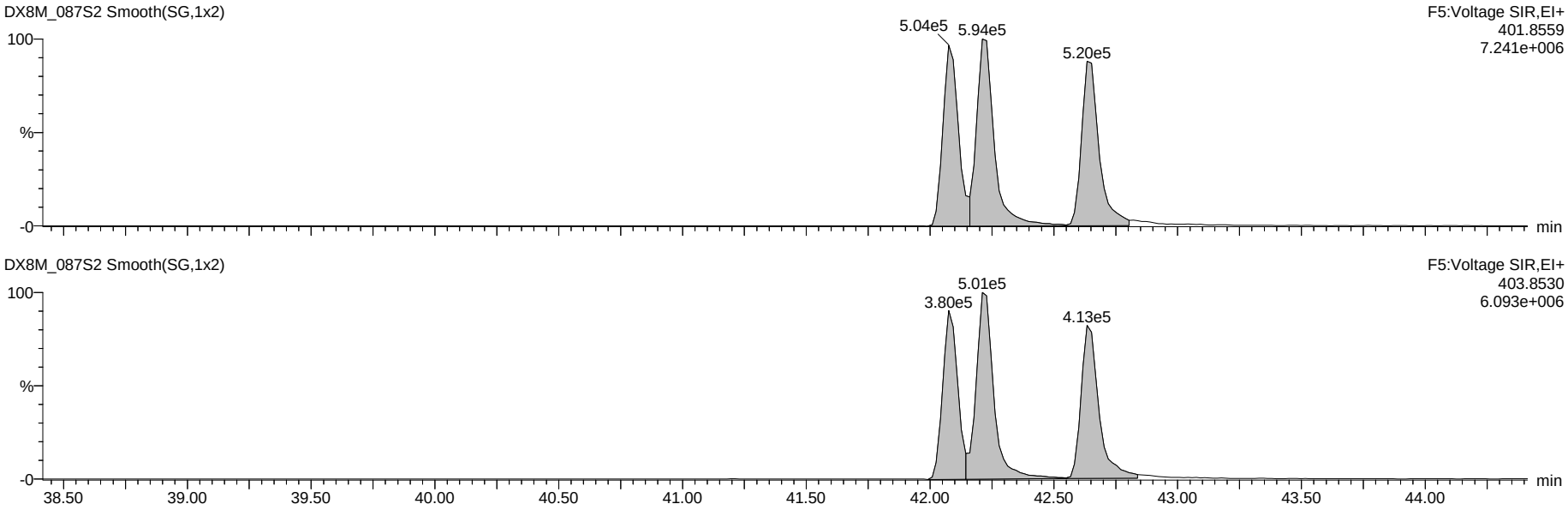
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_087-A.qld

Name: DX8M_087S2, Date: 23-Jul-2018, Time: 17:07:08, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Hexa-Dioxins



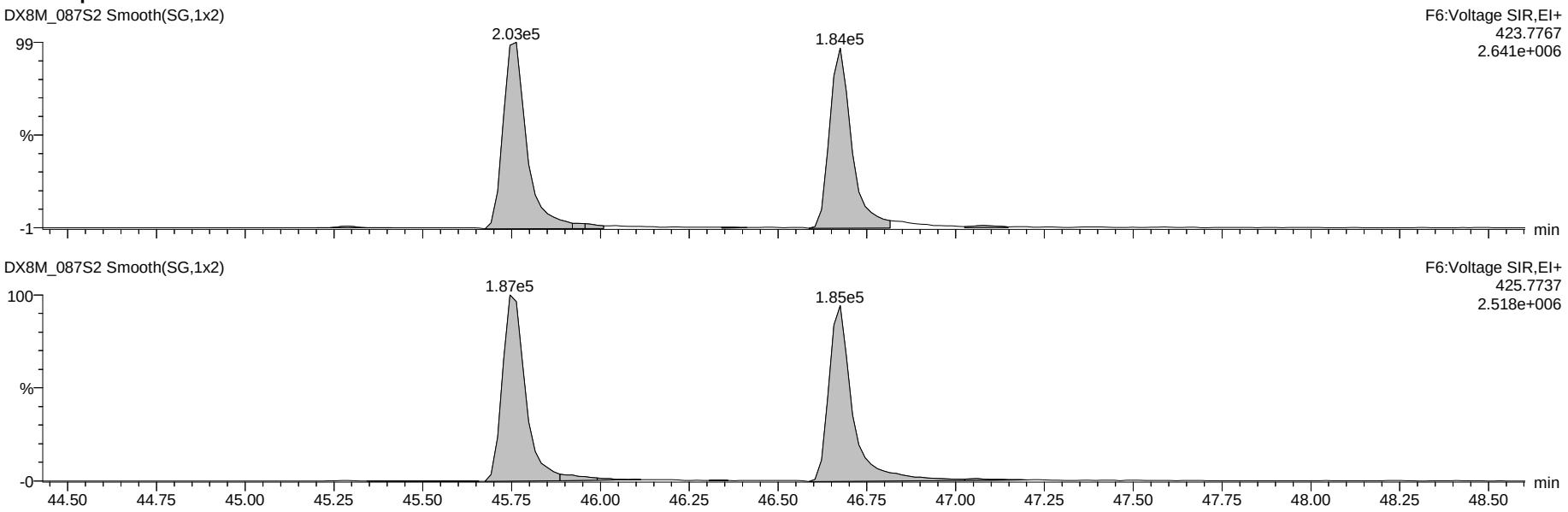
13C-Hexa-Dioxins



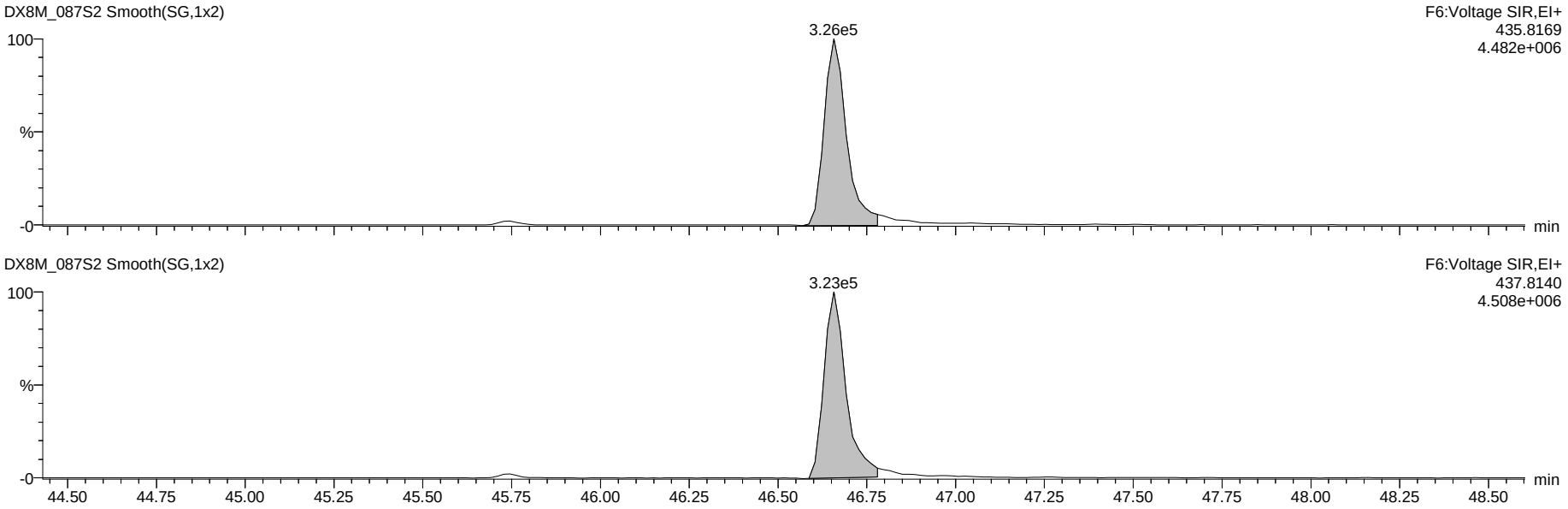
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_087-A.qld

Name: DX8M_087S2, Date: 23-Jul-2018, Time: 17:07:08, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Hepta-Dioxins



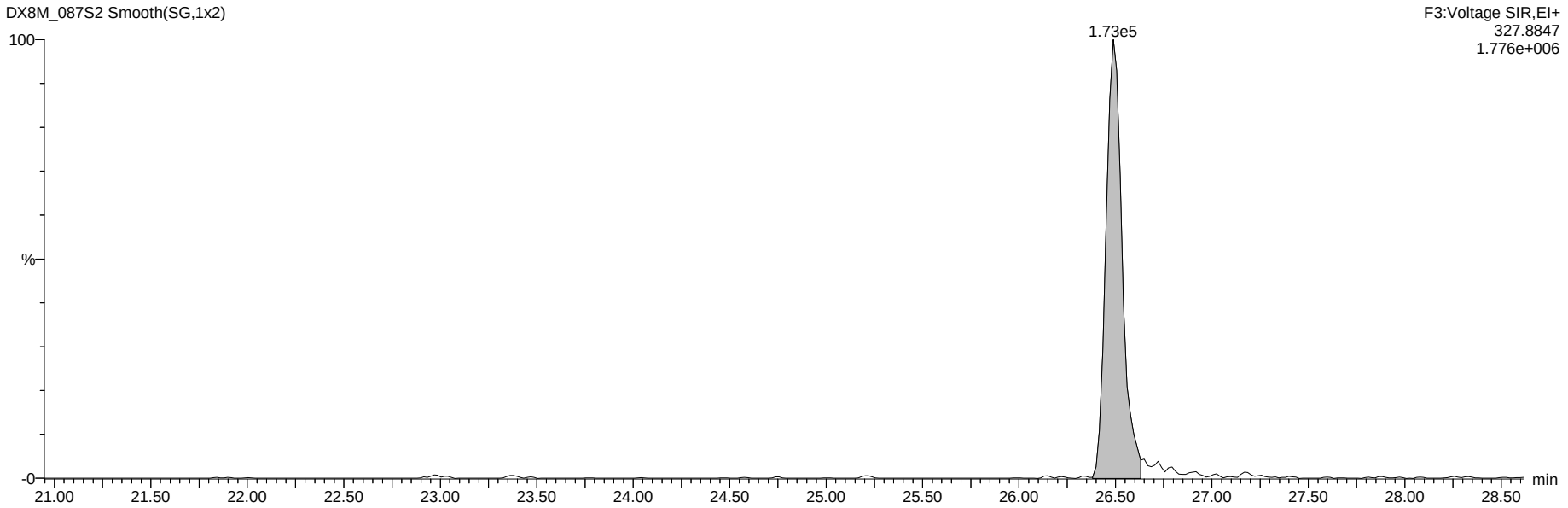
13C-Hepta-Dioxins



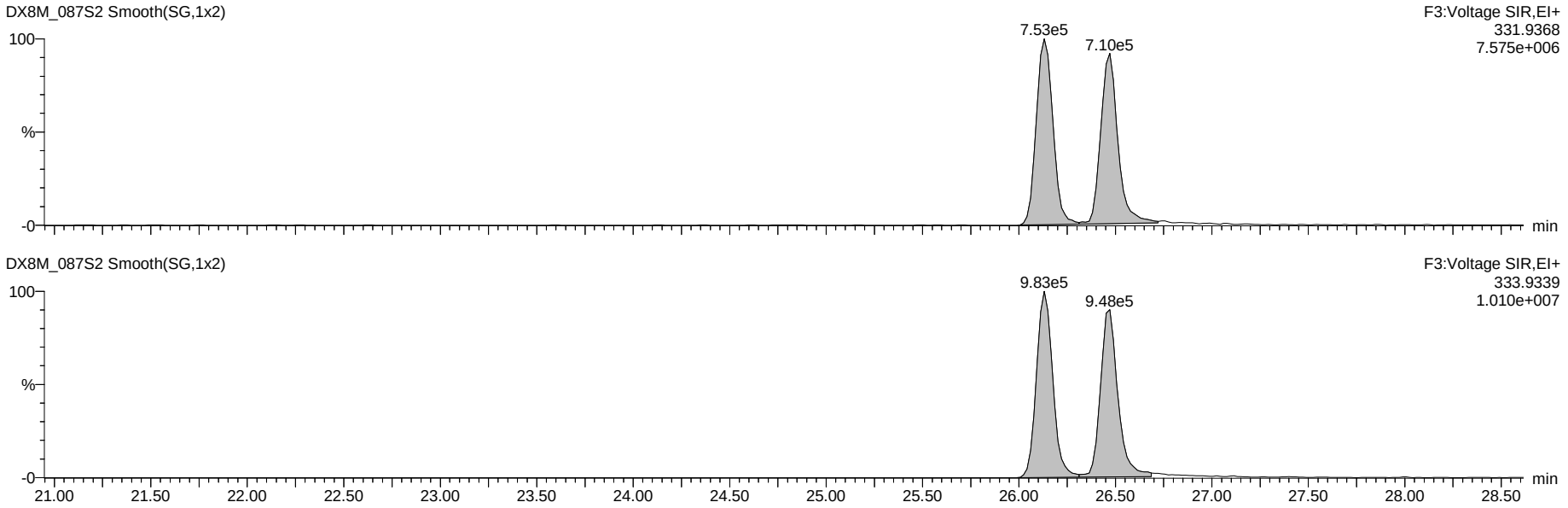
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_087-A.qld

Name: DX8M_087S2, Date: 23-Jul-2018, Time: 17:07:08, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

37Cl-2,3,7,8-TCDD



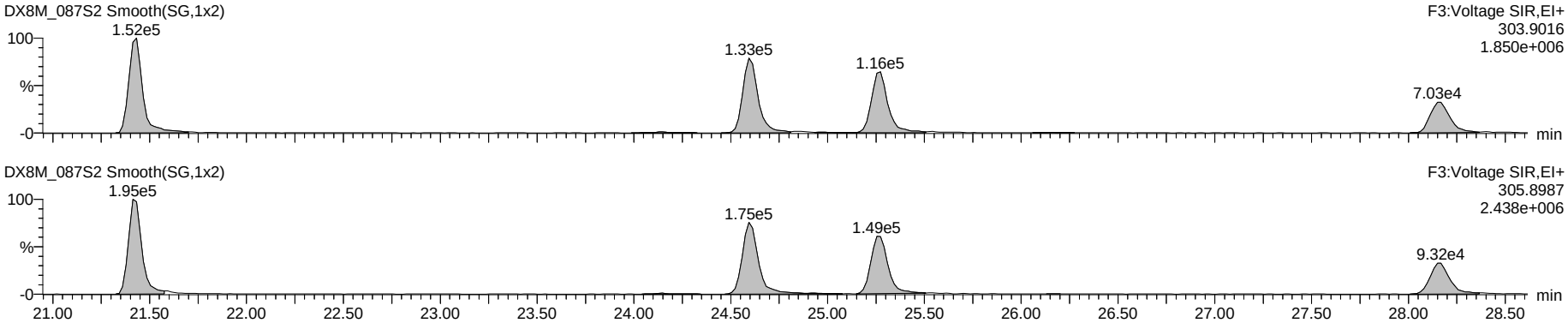
13C-Tetra-Dioxins



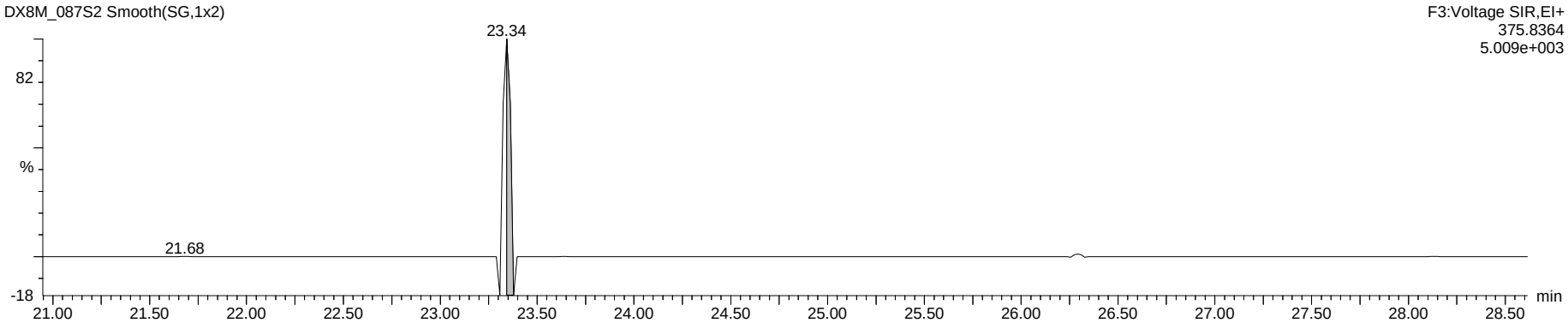
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_087-A.qld

Name: DX8M_087S2, Date: 23-Jul-2018, Time: 17:07:08, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

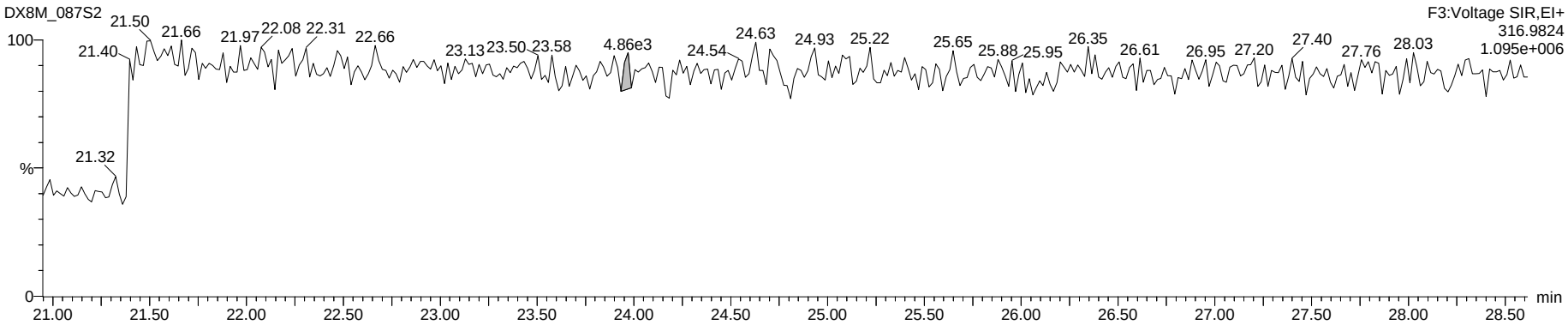
Total Tetra-Furans



Hexa DPE



Tetra Lock



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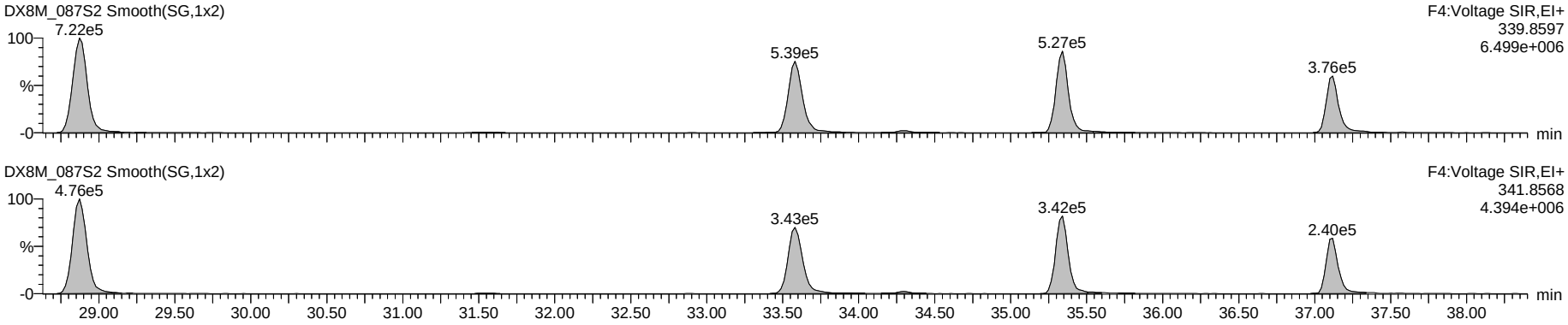
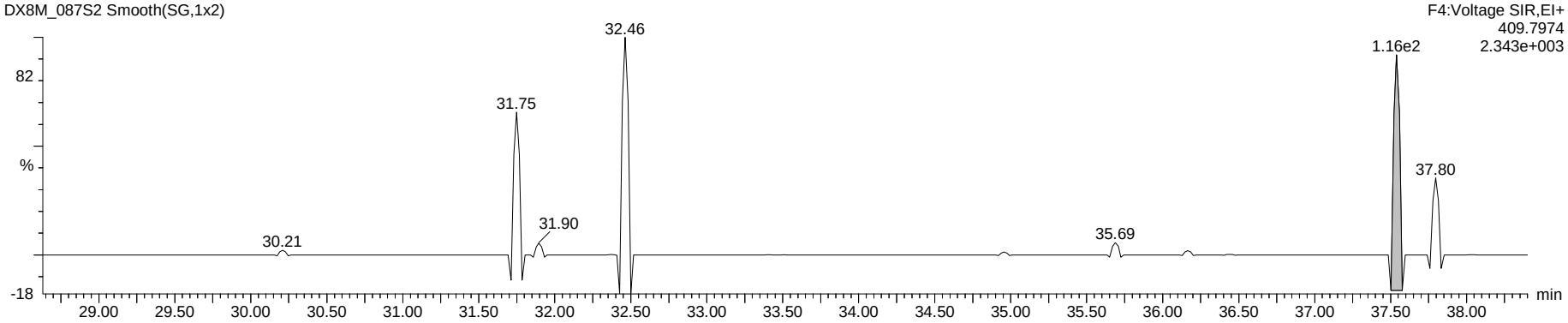
Name: DX8M_087S2, Date: 23-Jul-2018, Time: 17:07:08, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

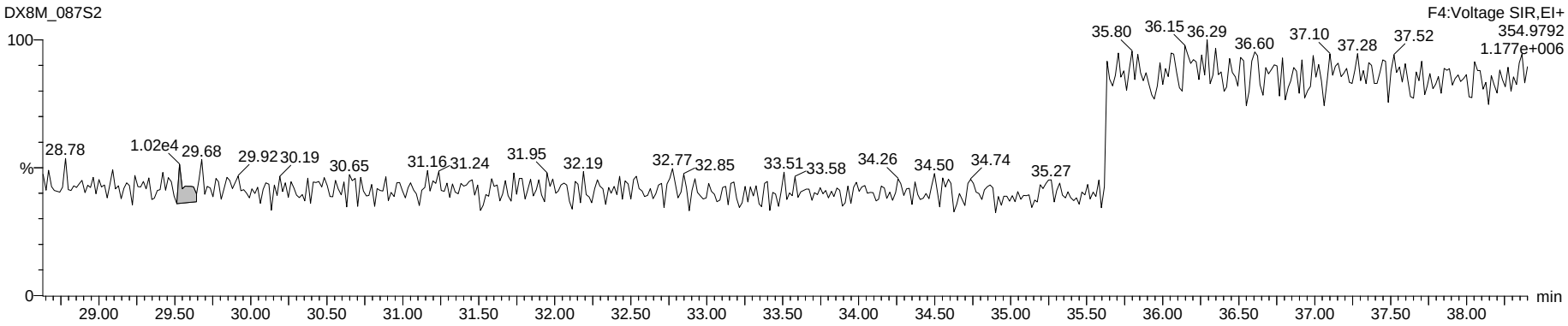
Total Penta-Furans



Hepta DPE



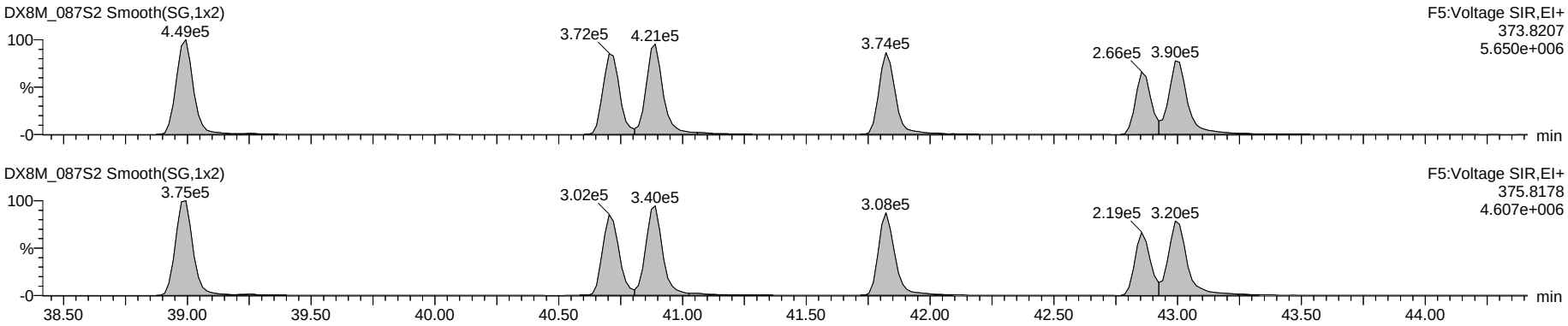
Penta Lock



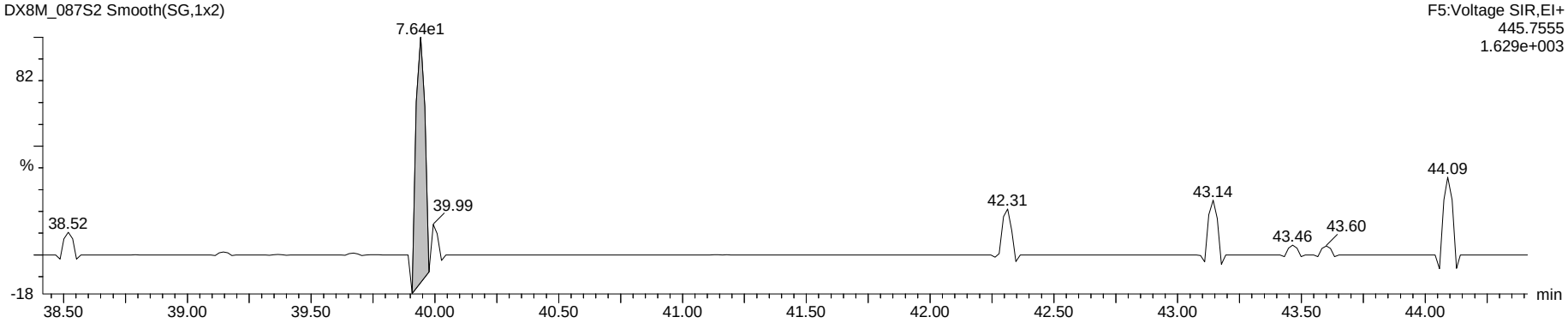
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_087-A.qld

Name: DX8M_087S2, Date: 23-Jul-2018, Time: 17:07:08, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

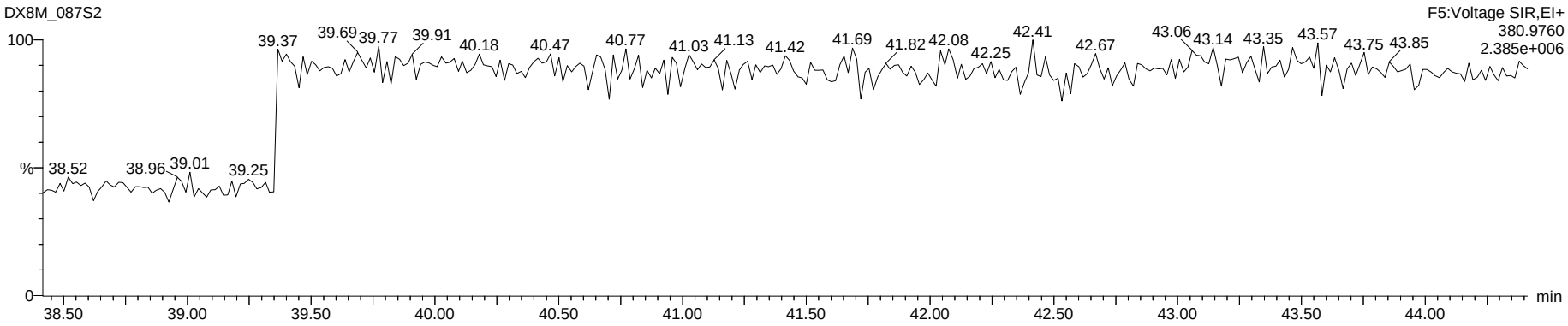
Total Hexa-Furans



Octa DPE



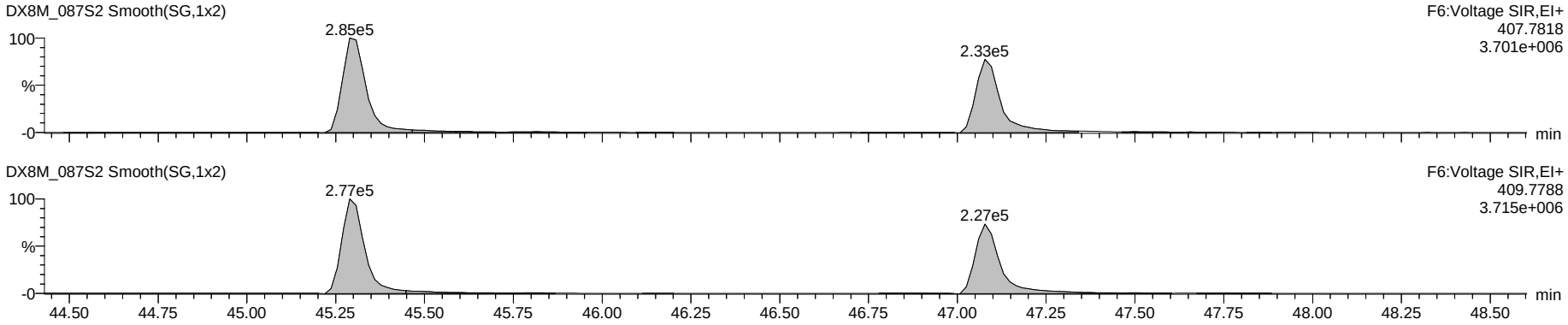
Hexa Lock



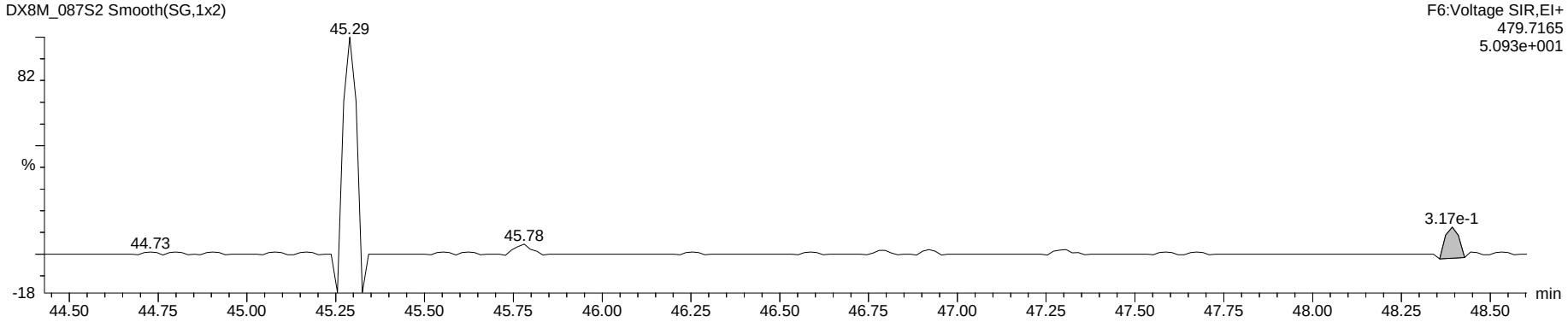
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_087-A.qld

Name: DX8M_087S2, Date: 23-Jul-2018, Time: 17:07:08, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

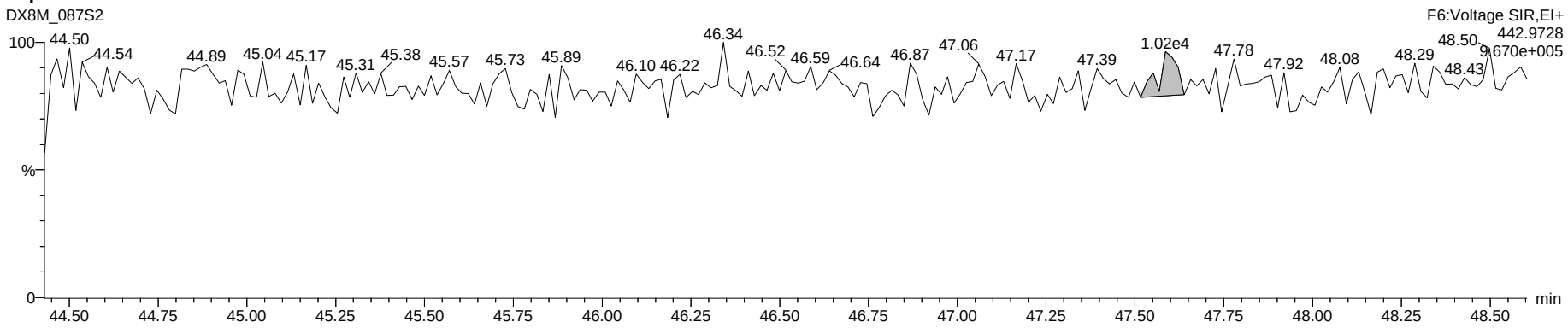
Total Hepta-Furans



Nona DPE



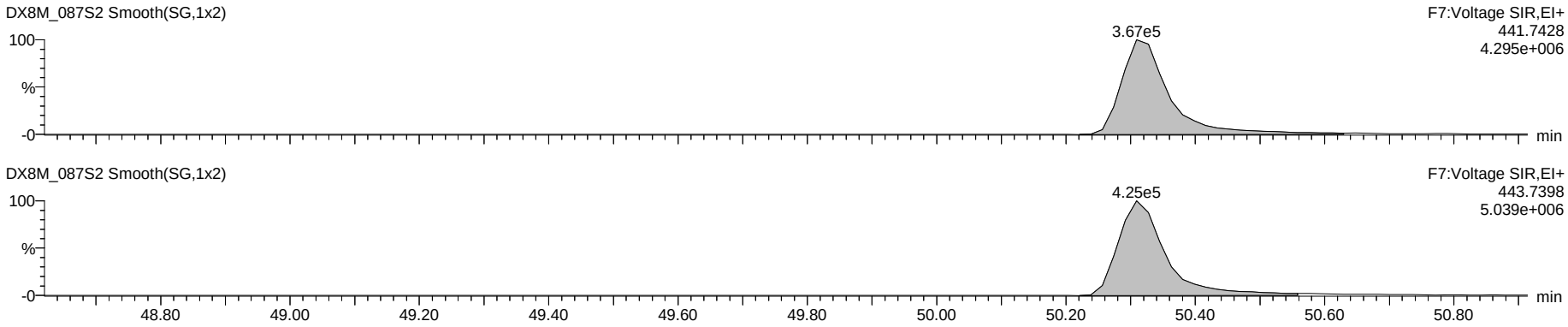
Hepta Lock



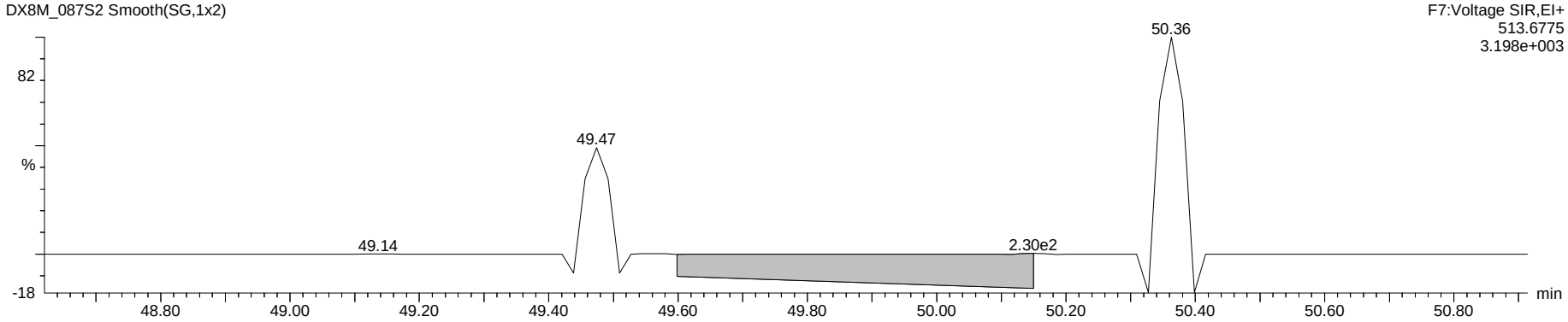
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_087-A.qld

Name: DX8M_087S2, Date: 23-Jul-2018, Time: 17:07:08, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

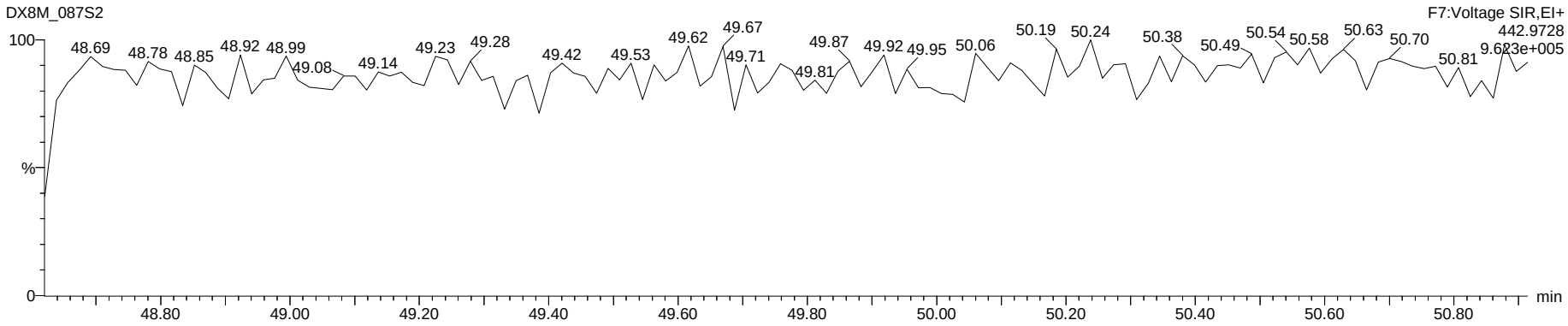
OCDF



Deca DPE



Octa Lock



Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_087-A.qld

Name: DX8M_087S6, Date: 23-Jul-2018, Time: 20:52:27, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	1.000	8.51e4	0.71	NO	25.31	10.811	0.1979	108.1	2.61e3	2.80e3
2	1,2,3,7,8-PeCDF	1.000	3.14e5	1.51	NO	33.60	51.534	0.3713	103.1	2.93e3	4.35e3
3	2,3,4,7,8-PeCDF	1.000	3.20e5	1.53	NO	35.34	51.241	0.3118	102.5	2.93e3	4.35e3
4	1,2,3,4,7,8-HxCDF	1.000	2.68e5	1.23	NO	40.70	52.420	0.2681	104.8	3.36e3	3.67e3
5	1,2,3,6,7,8-HxCDF	1.000	3.04e5	1.19	NO	40.89	52.202	0.2439	104.4	3.36e3	3.67e3
6	2,3,4,6,7,8-HxCDF	1.000	2.99e5	1.25	NO	41.82	52.586	0.2465	105.2	3.36e3	3.67e3
7	1,2,3,7,8,9-HxCDF	1.000	1.93e5	1.24	NO	42.86	46.223	0.3631	92.4	3.36e3	3.67e3
8	1,2,3,4,6,7,8-HpCDF	1.000	2.38e5	1.04	NO	45.29	52.479	0.1581	105.0	1.76e3	2.28e3
9	1,2,3,4,7,8,9-HpCDF	1.000	1.81e5	1.00	NO	47.08	56.845	0.2338	113.7	1.76e3	2.28e3
10	OCDF	1.000	3.17e5	0.80	NO	50.31	103.301	0.2172	103.3	3.05e3	1.93e-1
11	2,3,7,8-TCDD	1.000	6.90e4	0.73	NO	26.52	10.920	0.2315	109.2	3.13e3	1.94e3
12	1,2,3,7,8-PeCDD	1.000	1.90e5	0.63	NO	36.17	53.799	0.3280	107.6	1.88e3	2.87e3
13	1,2,3,4,7,8-HxCDD	1.000	1.77e5	1.19	NO	42.09	48.846	0.2154	97.7	1.90e3	2.55e3
14	1,2,3,6,7,8-HxCDD	1.000	2.25e5	1.22	NO	42.23	52.312	0.2104	104.6	1.90e3	2.55e3
15	1,2,3,7,8,9-HxCDD	1.000	1.93e5	1.20	NO	42.65	48.423	0.2113	96.8	1.90e3	2.55e3
16	1,2,3,4,6,7,8-HpCDD	1.000	1.55e5	1.03	NO	46.67	52.258	0.3041	104.5	2.65e3	1.87e3
17	OCDD	1.000	2.52e5	0.83	NO	50.22	99.041	0.5437	99.0	3.19e3	3.15e3
18	13C-2,3,7,8-TCDF	1.000	8.60e5	0.70	NO	25.27	93.577	0.3129	93.6	6.82e3	3.70e3
19	13C-1,2,3,7,8-PeCDF	1.000	6.59e5	1.44	NO	33.58	99.499	0.6431	99.5	5.97e3	9.61e3
20	13C-2,3,4,7,8-PeCDF	1.000	6.64e5	1.44	NO	35.32	103.946	0.6667	103.9	5.97e3	9.61e3
21	13C-1,2,3,4,7,8-HxCDF	1.000	4.58e5	0.51	NO	40.69	93.982	0.4829	94.0	6.45e3	5.05e3
22	13C-1,2,3,6,7,8-HxCDF	1.000	5.47e5	0.50	NO	40.86	105.056	0.4521	105.1	6.45e3	5.05e3
23	13C-2,3,4,6,7,8-HxCDF	1.000	4.99e5	0.52	NO	41.81	107.236	0.5060	107.2	6.45e3	5.05e3
24	13C-1,2,3,7,8,9-HxCDF	1.000	4.17e5	0.52	NO	42.84	90.907	0.5130	90.9	6.45e3	5.05e3
25	13C-1,2,3,4,6,7,8-HpCDF	1.000	3.71e5	0.46	NO	45.27	95.370	0.6198	95.4	5.54e3	6.24e3
26	13C-1,2,3,4,7,8,9-HpCDF	1.000	2.54e5	0.44	NO	47.06	83.801	0.7946	83.8	5.54e3	6.24e3
27	13C-2,3,7,8-TCDD	1.000	5.68e5	0.79	NO	26.49	99.427	0.7532	99.4	9.68e3	6.07e3
28	13C-1,2,3,7,8-PeCDD	1.000	3.44e5	0.66	NO	36.13	91.826	0.4114	91.8	2.43e3	3.21e3
29	13C-1,2,3,4,7,8-HxCDD	1.000	3.62e5	1.22	NO	42.08	96.147	0.5235	96.1	2.53e3	7.08e3
30	13C-1,2,3,6,7,8-HxCDD	1.000	4.60e5	1.32	NO	42.21	115.637	0.4951	115.6	2.53e3	7.08e3
31	13C-1,2,3,4,6,7,8-HpCDD	1.000	2.98e5	1.01	NO	46.66	95.838	0.4339	95.8	2.56e3	4.02e3
32	13C-OCDD	1.000	5.00e5	0.94	NO	50.20	182.845	1.7813	91.4	1.25e4	1.12e4
33	13C-1,2,3,4-TCDD	1.000	5.69e5	0.83	NO	26.17	25.189	0.1905	25.2	9.68e3	6.07e3
34	13C-1,2,3,7,8,9-HxCDD	1.000	3.82e5	1.29	NO	42.63	26.764	0.1379	26.8	2.53e3	7.08e3
35	37Cl-2,3,7,8-TCDD	1.000	5.40e4			26.52	8.521	0.0515	85.2		1.19e3
36	Total Tetra-Furans	1.000					45.660	0.1979			2.80e3
37	Total Tetra-Dioxins	1.000					89.397	0.2315			1.94e3
38	Total Penta-Furans	1.000					209.023	0.3440			4.35e3
39	Total Penta-Dioxins	1.000					184.729	0.3280			2.87e3
40	Total Hexa-Furans	1.000					321.137	0.2660			3.67e3
41	Total Hexa-Dioxins	1.000					207.288	0.2044			2.55e3
42	Total Hepta-Furans	1.000					114.268	0.1911			2.28e3
43	Total Hepta-Dioxins	1.000					110.942	0.3041			1.87e3
44	Hexa DPE	1.000	1.18e2			22.77					0.00e0
45	Hepta DPE	1.000	5.51e2			37.59					0.00e0
46	Octa DPE	1.000	1.49e1			41.33					1.89e-1
47	Nona DPE	1.000	1.88e1			47.67					0.00e0
48	Deca DPE	1.000	1.79e0			48.98					0.00e0
49	Tetra Lock	1.000	4.82e3			24.38					1.16e5
50	Penta Lock	1.000	9.14e4			29.68					1.57e5
51	Hexa Lock	1.000									2.19e5
52	Hepta Lock	1.000	8.57e3			47.11					1.47e5
53	Octa Lock	1.000	2.00e3			48.87					1.56e5
54	13C-Tetra-Furans	1.000					93.577	0.3129			3.70e3
55	13C-Tetra-Dioxins	1.000					124.617	0.9438			6.07e3

pv'd by LHE 24-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

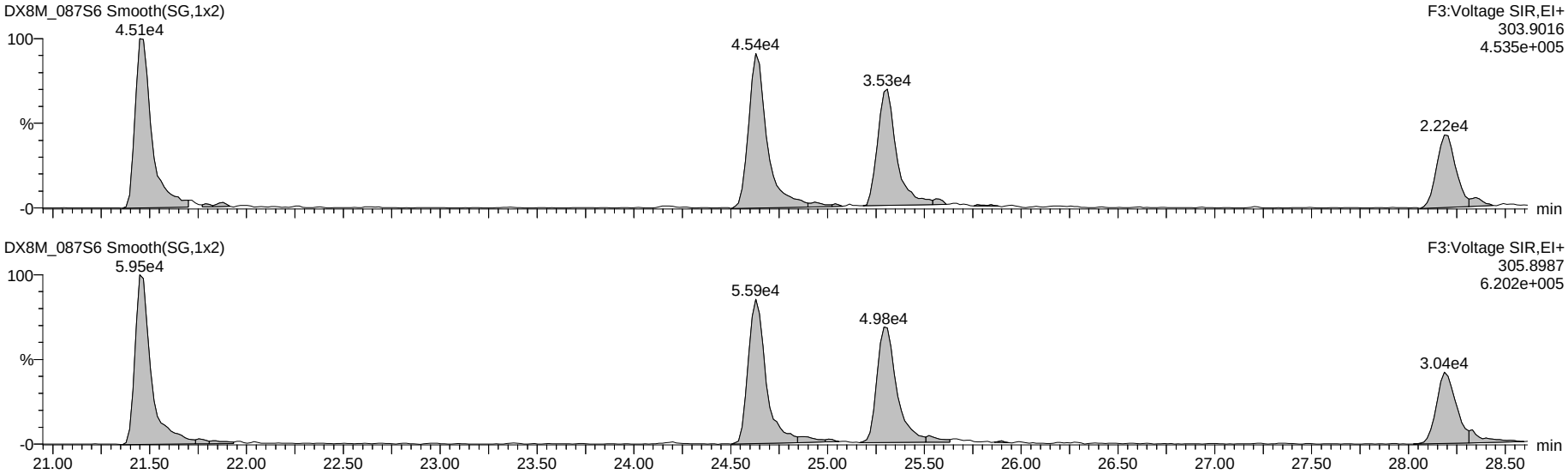
SVbyk326JU1298

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_087-A.qld

Method: G:\Masslynx\Inst_M\Projects\180604DX.PRO\MethDB\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_087S6, Date: 23-Jul-2018, Time: 20:52:27, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Tetra-Furans



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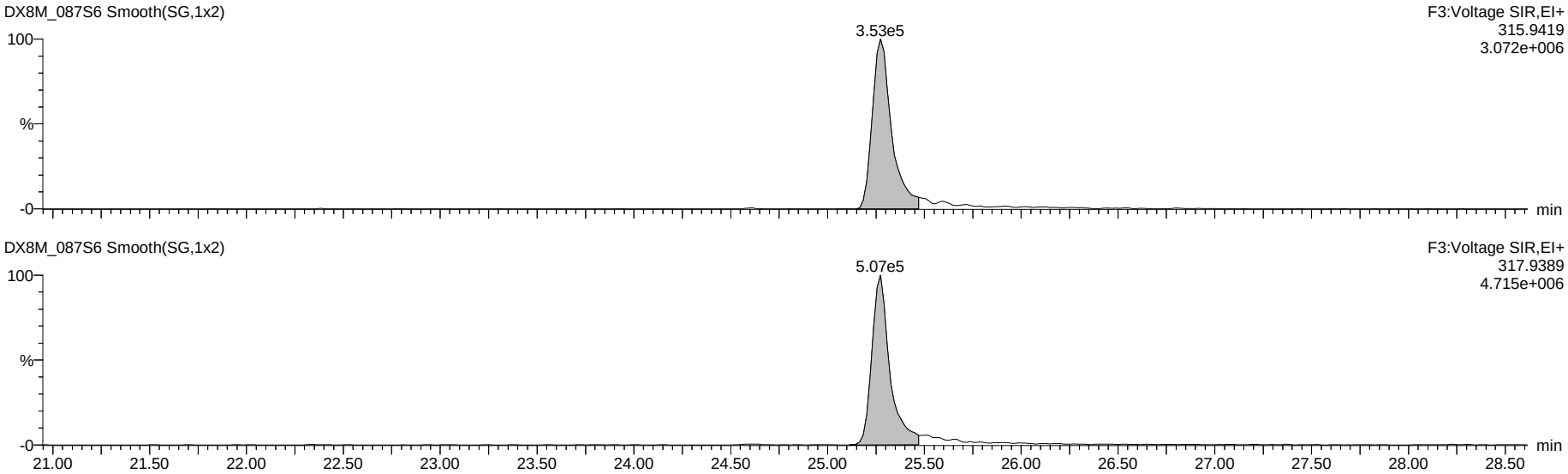
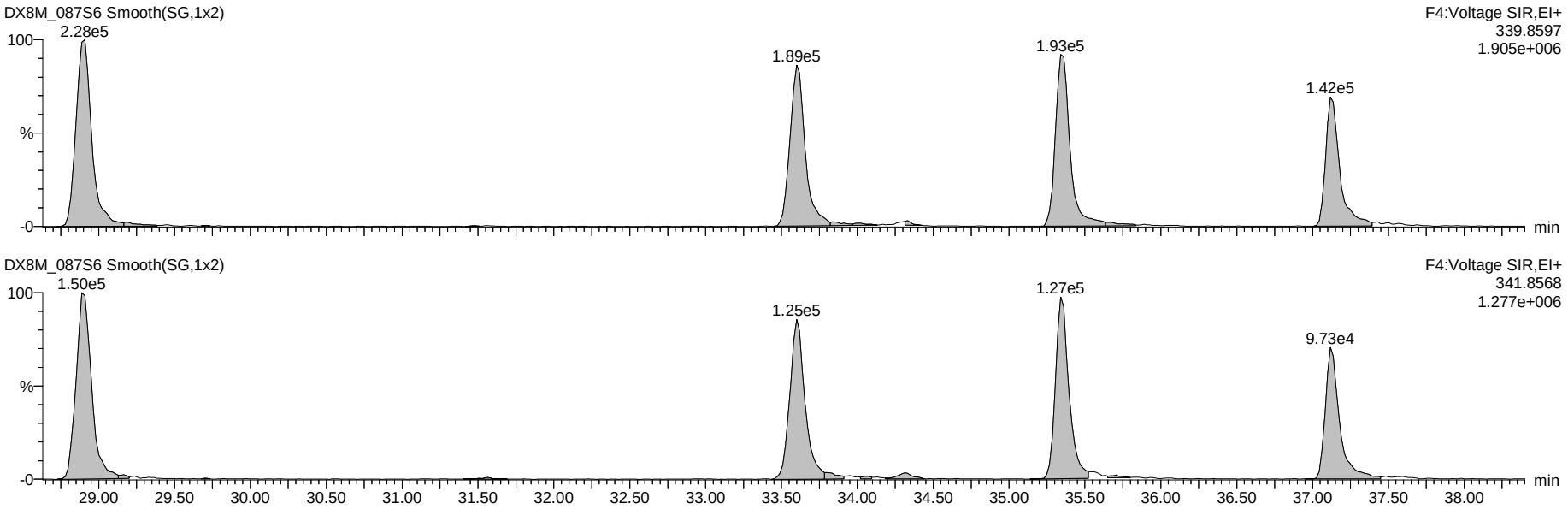


Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_087-A.qld

Name: DX8M_087S6, Date: 23-Jul-2018, Time: 20:52:27, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Penta-Furans



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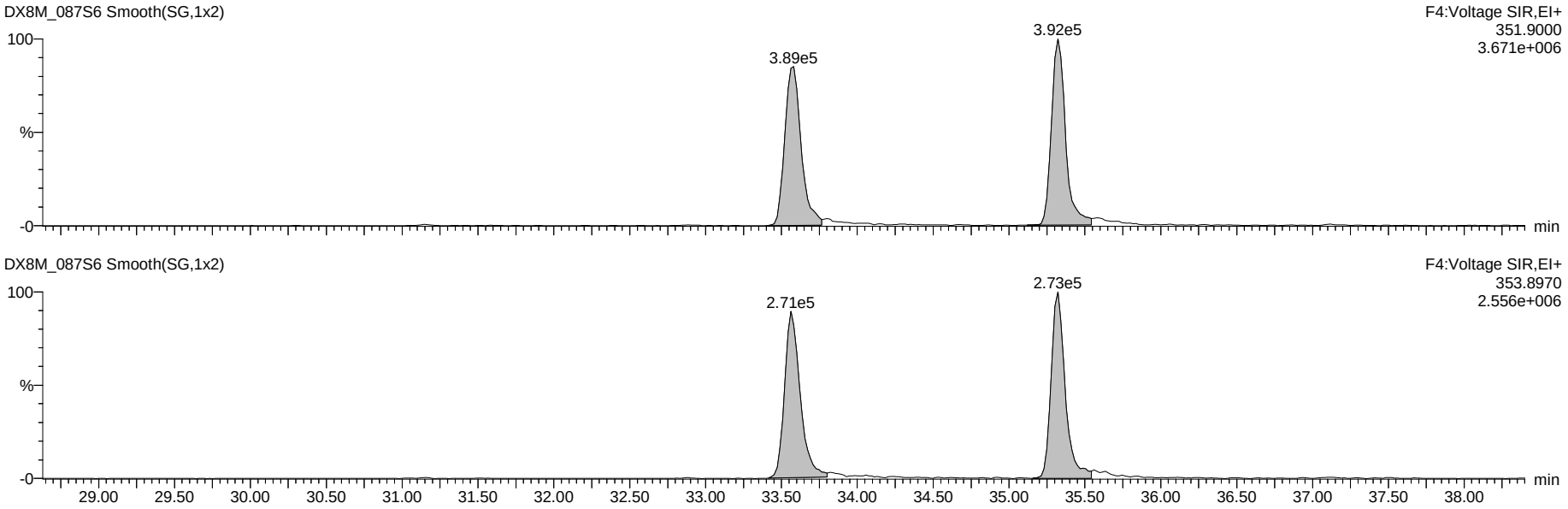

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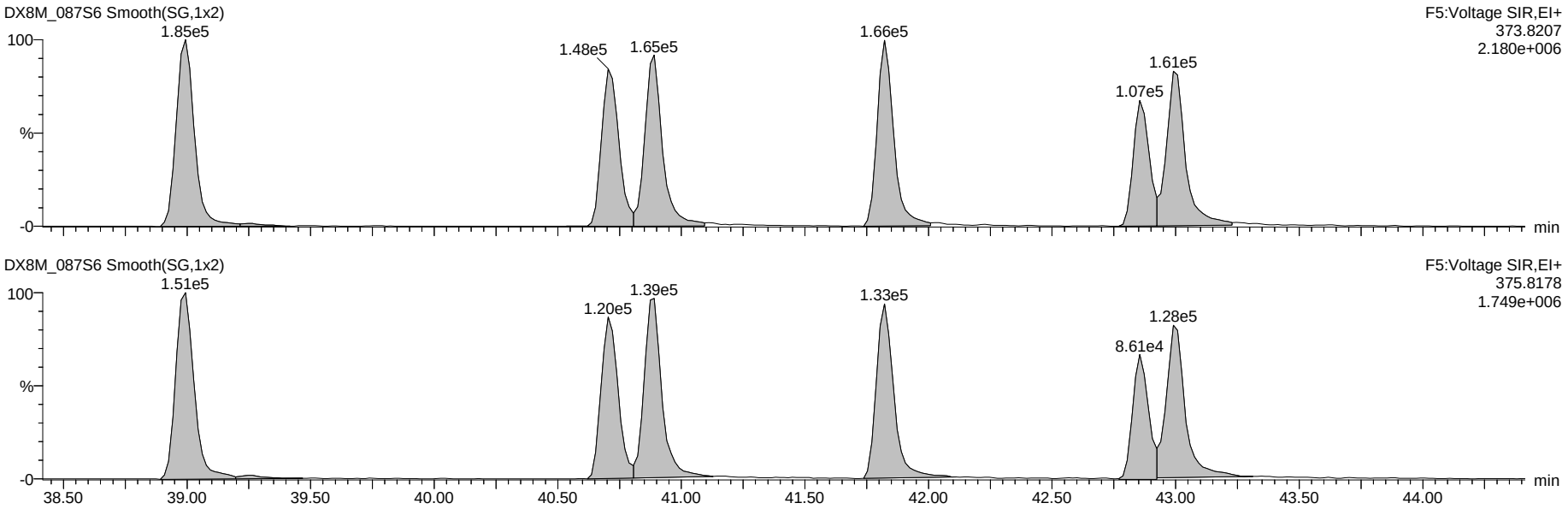
Total Hexa-Furans



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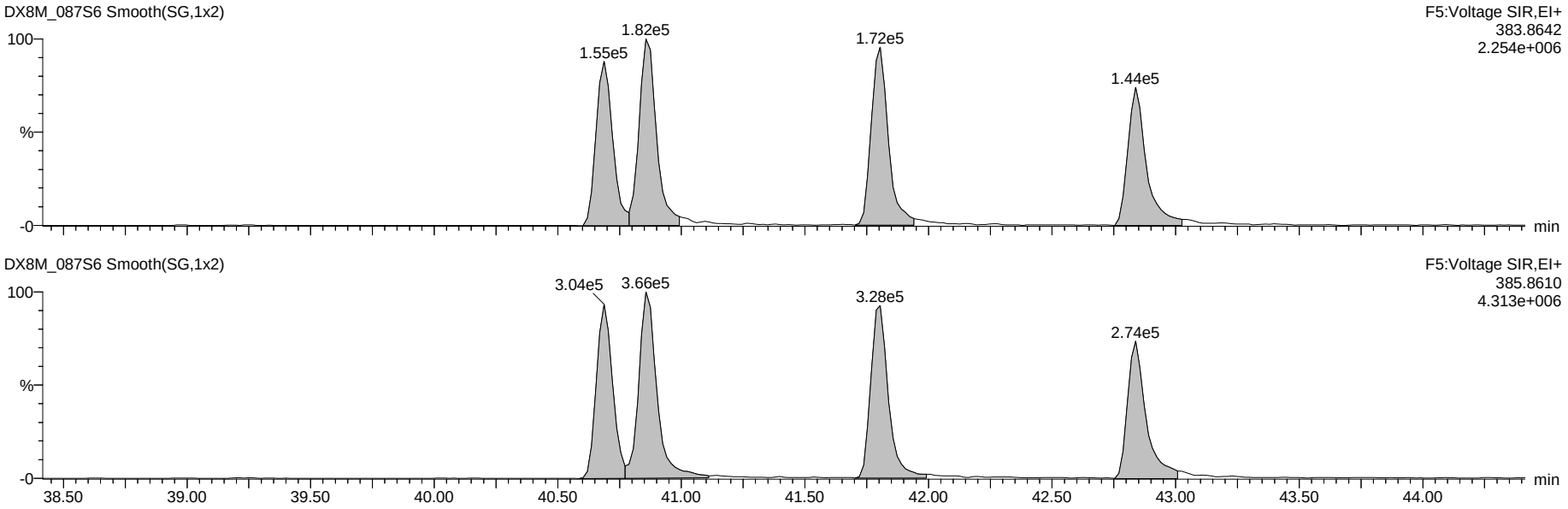

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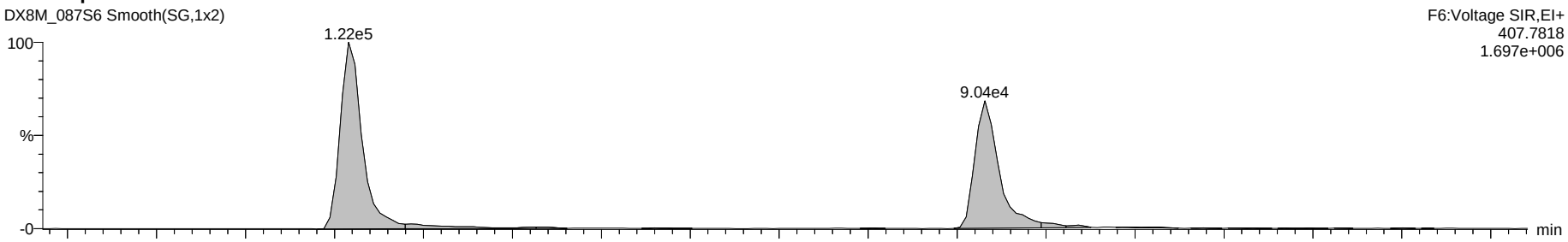
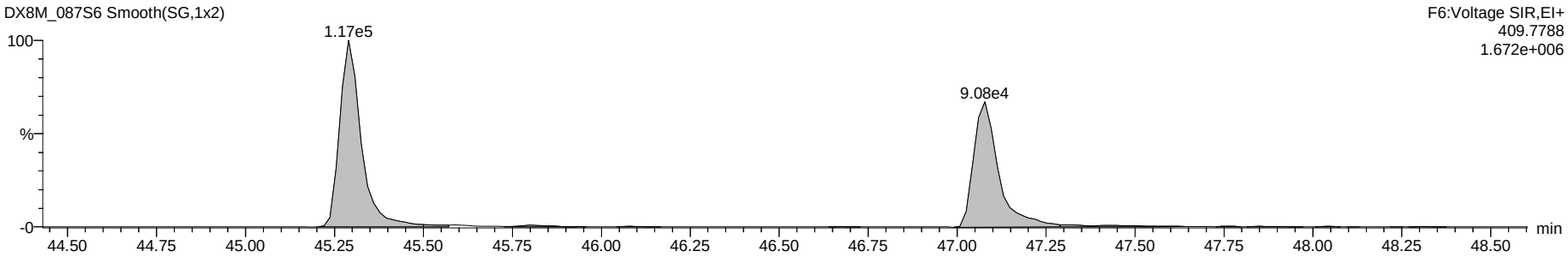
Total Hepta-Furans





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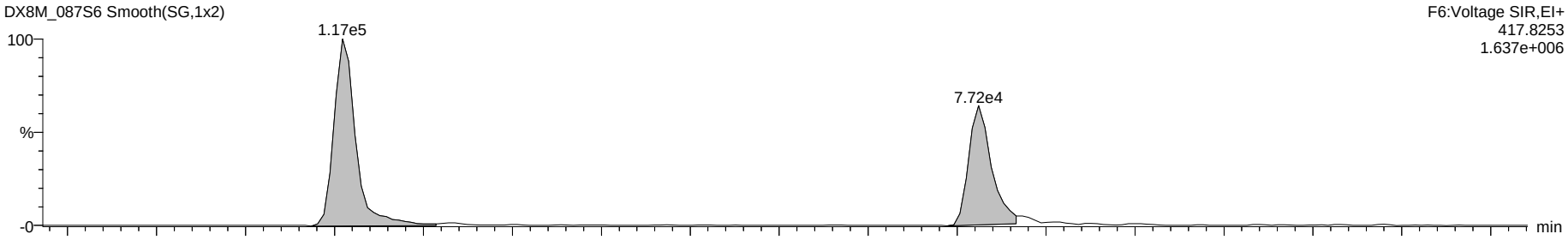

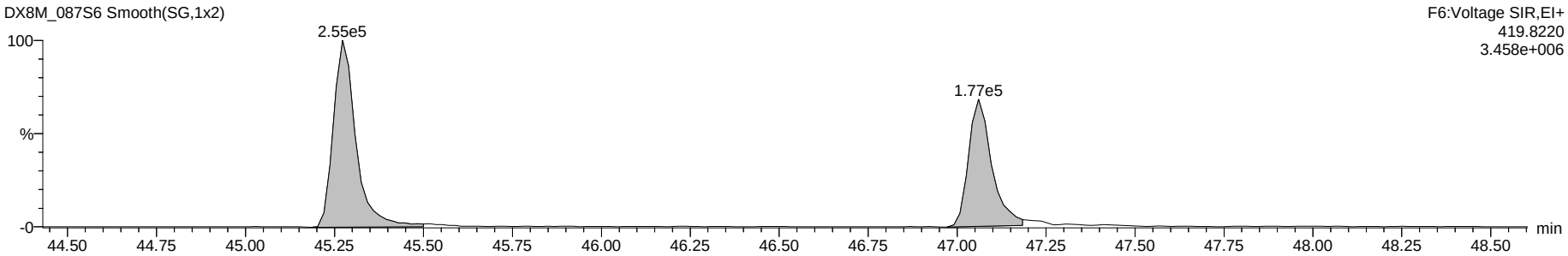

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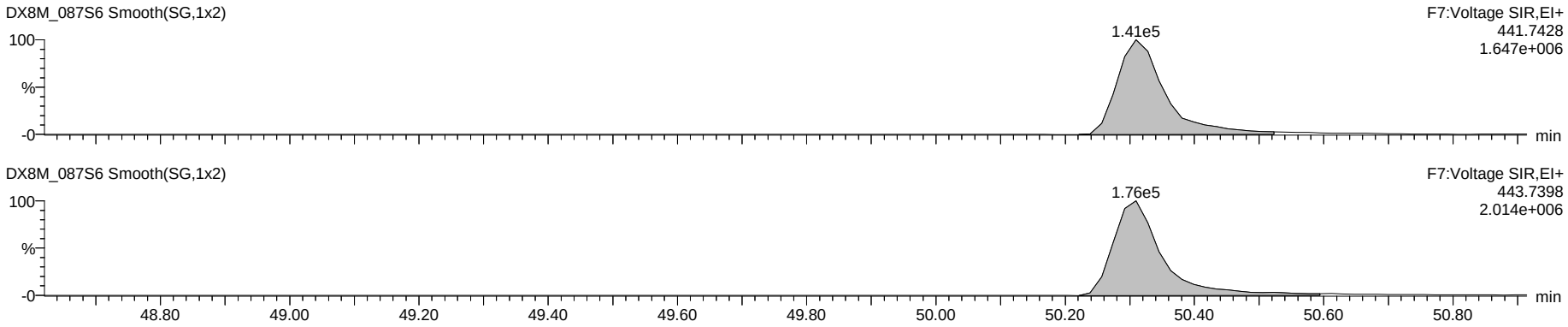
OCDF



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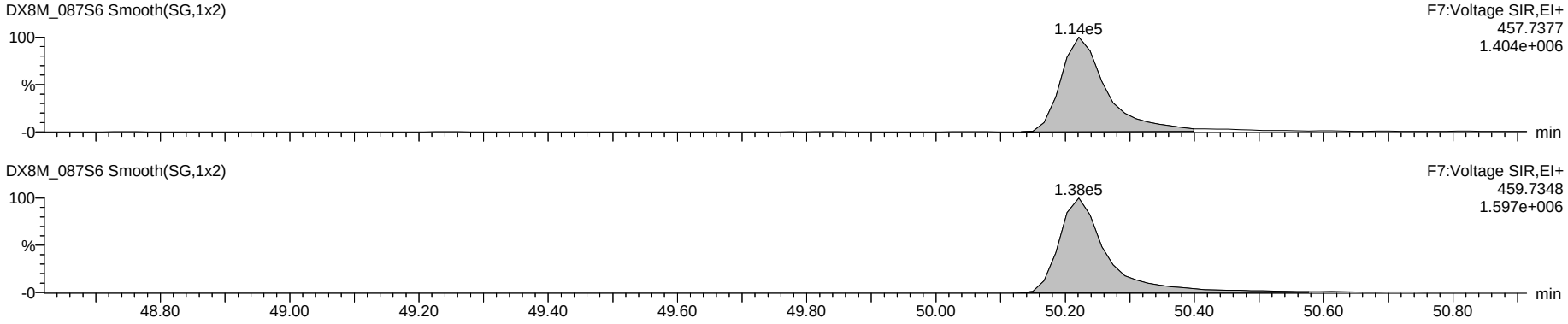

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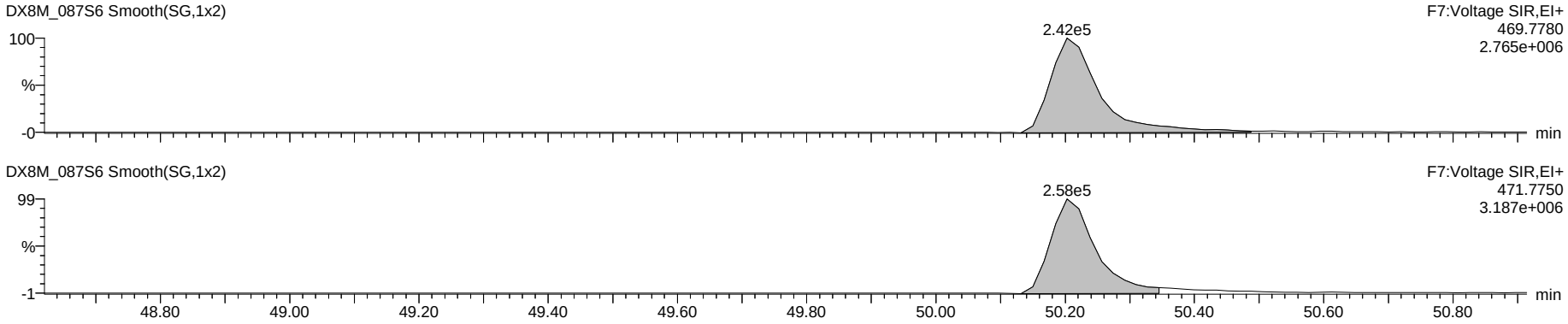

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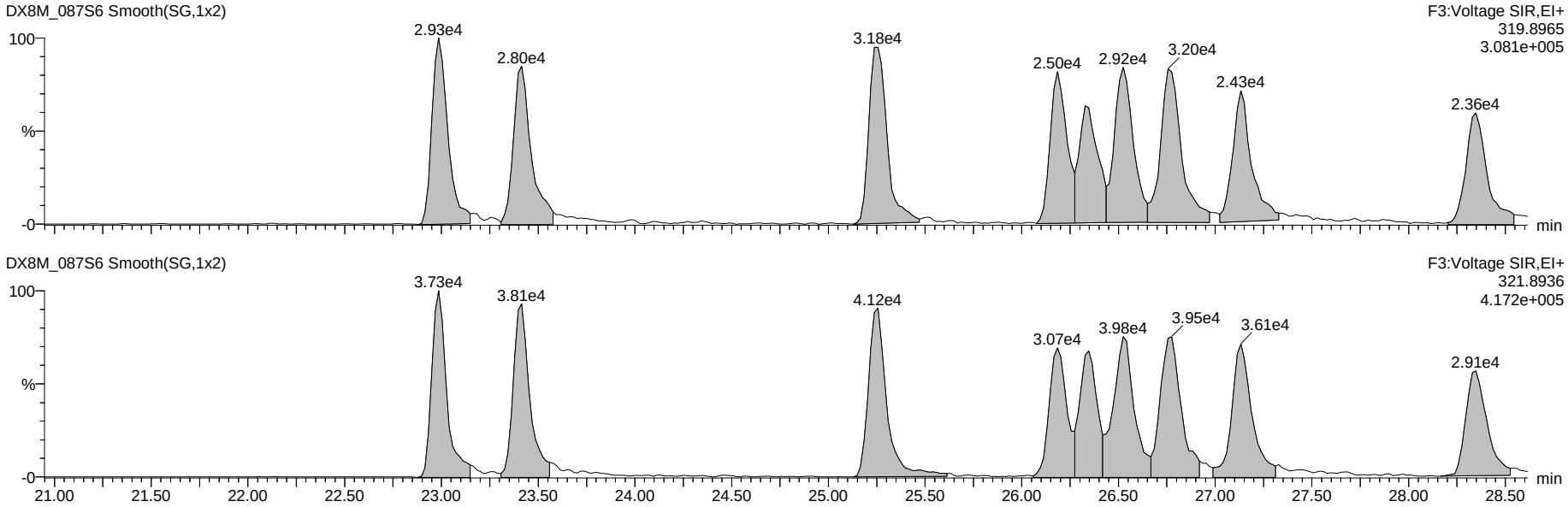
Total Tetra-Dioxins



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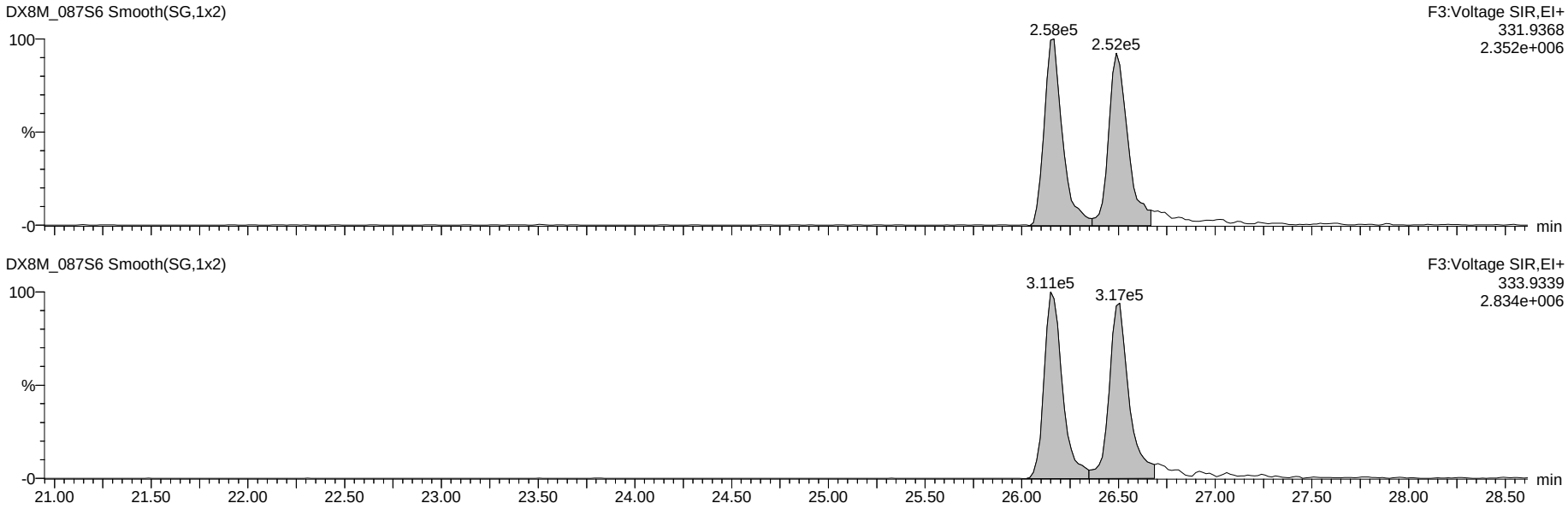

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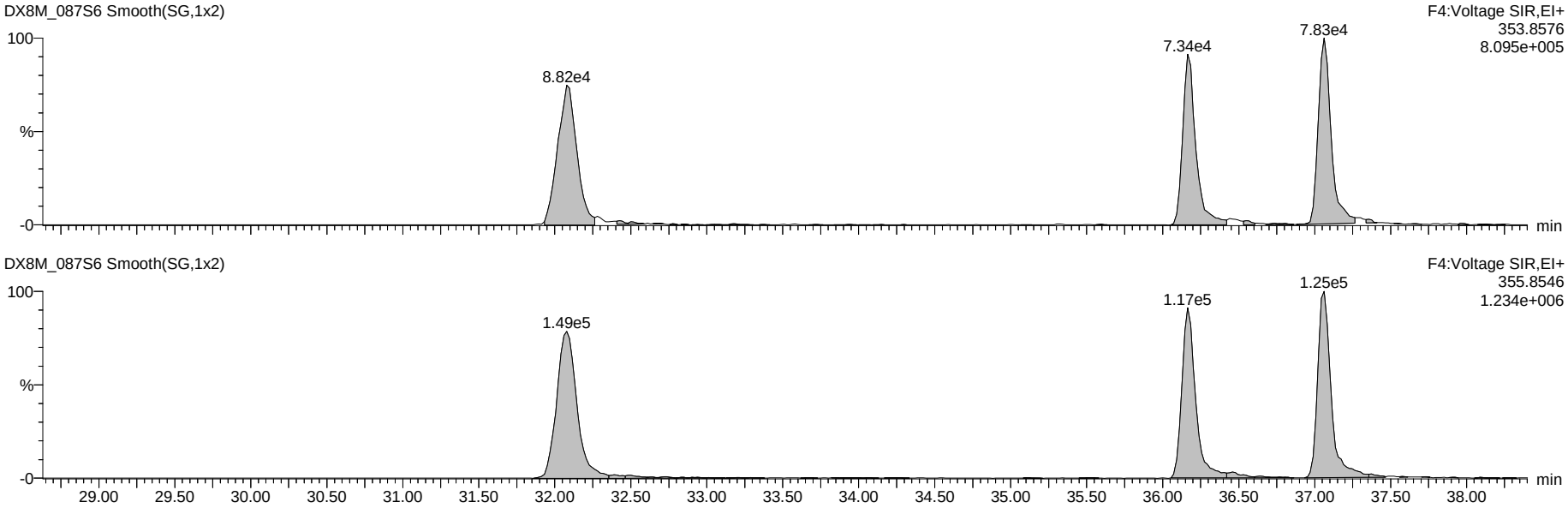
Total Penta-Dioxins



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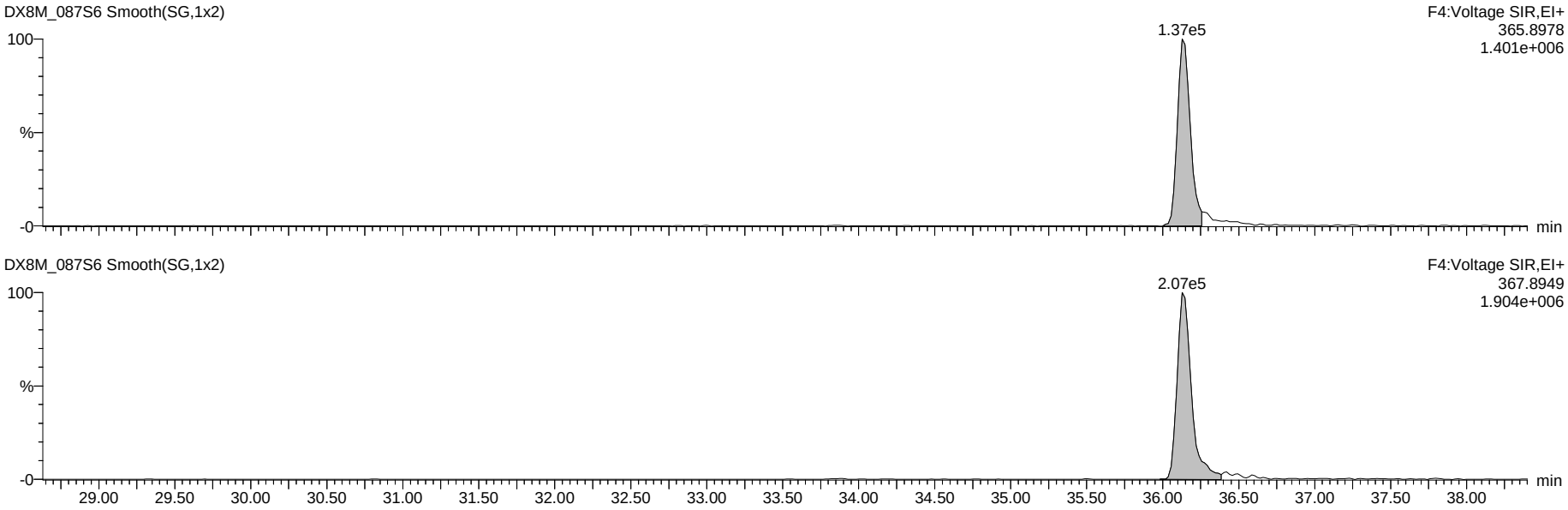

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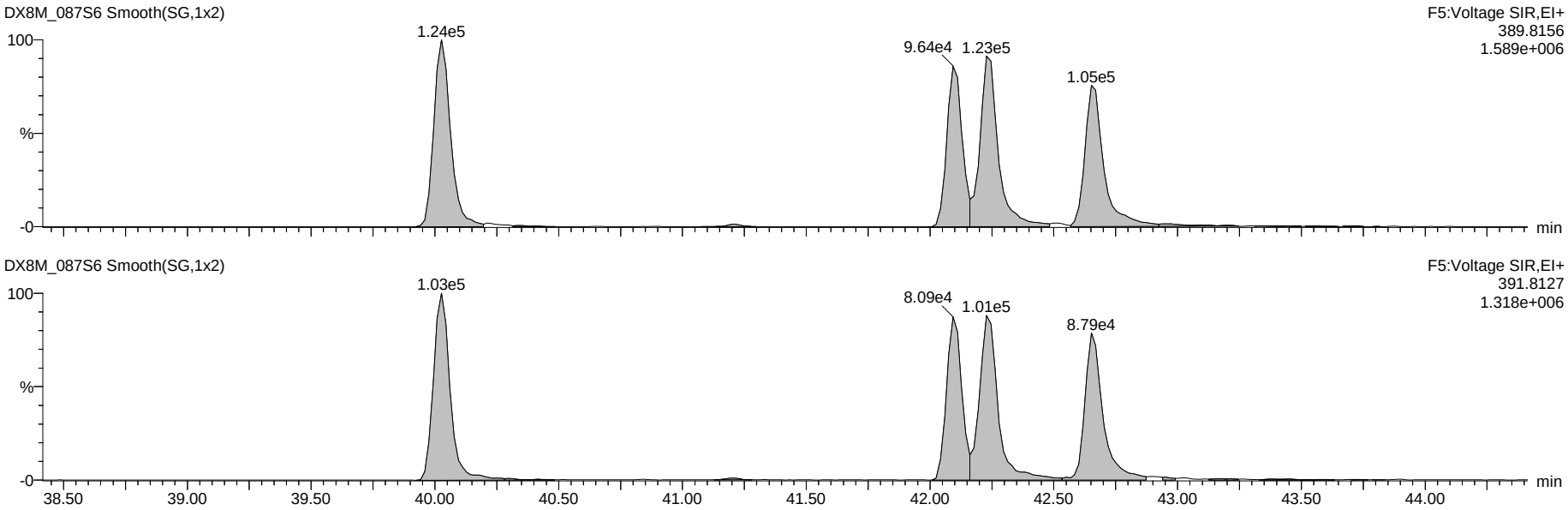
Total Hexa-Dioxins



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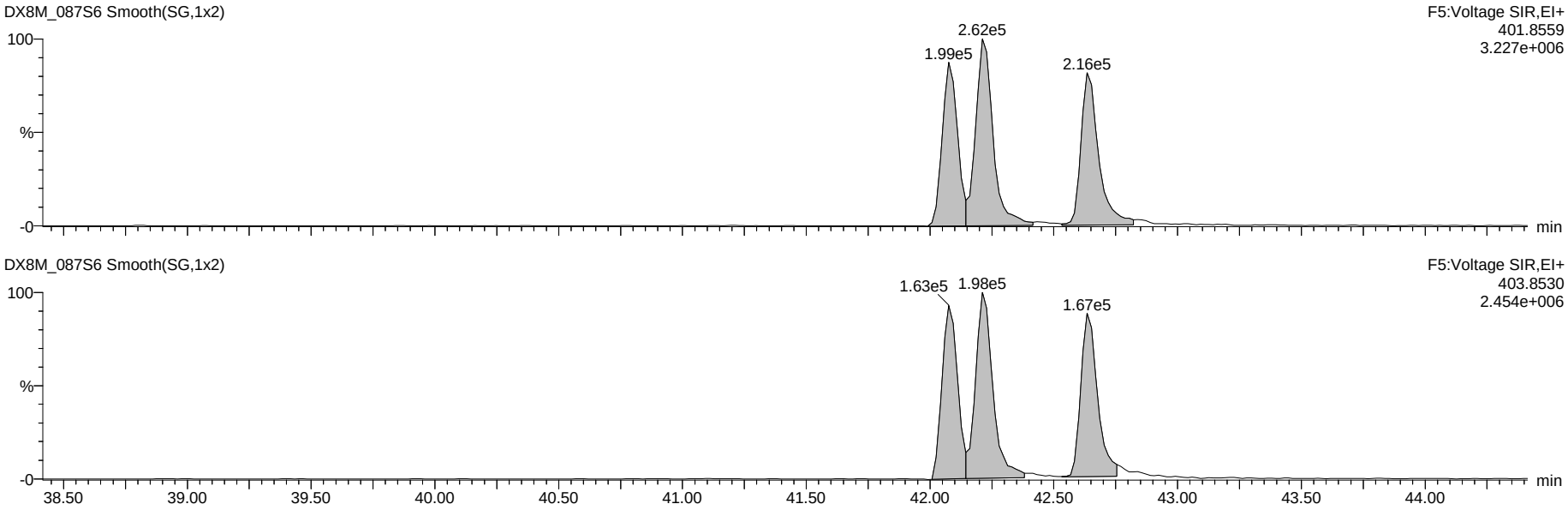

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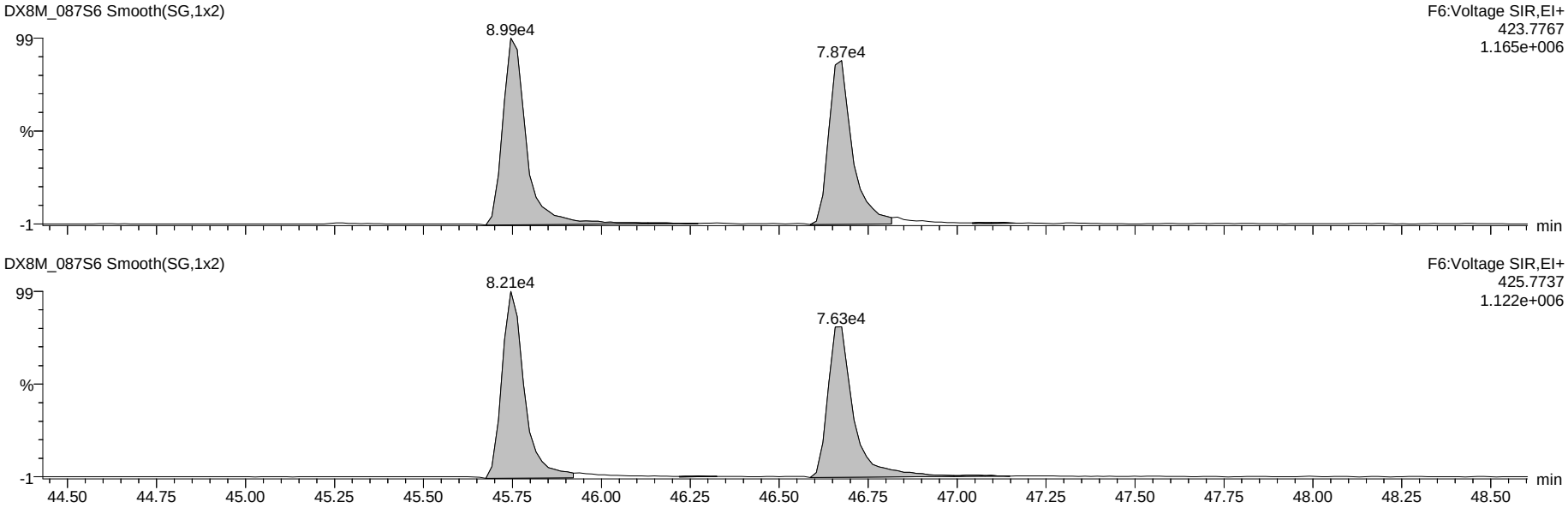
Total Hepta-Dioxins



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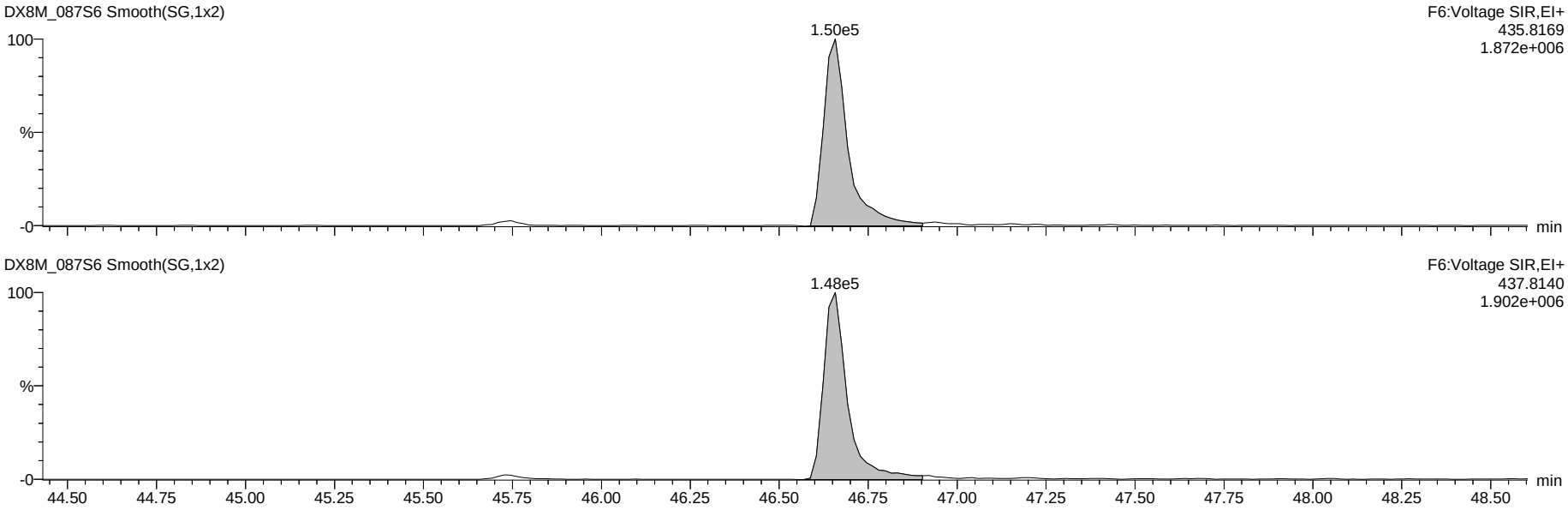

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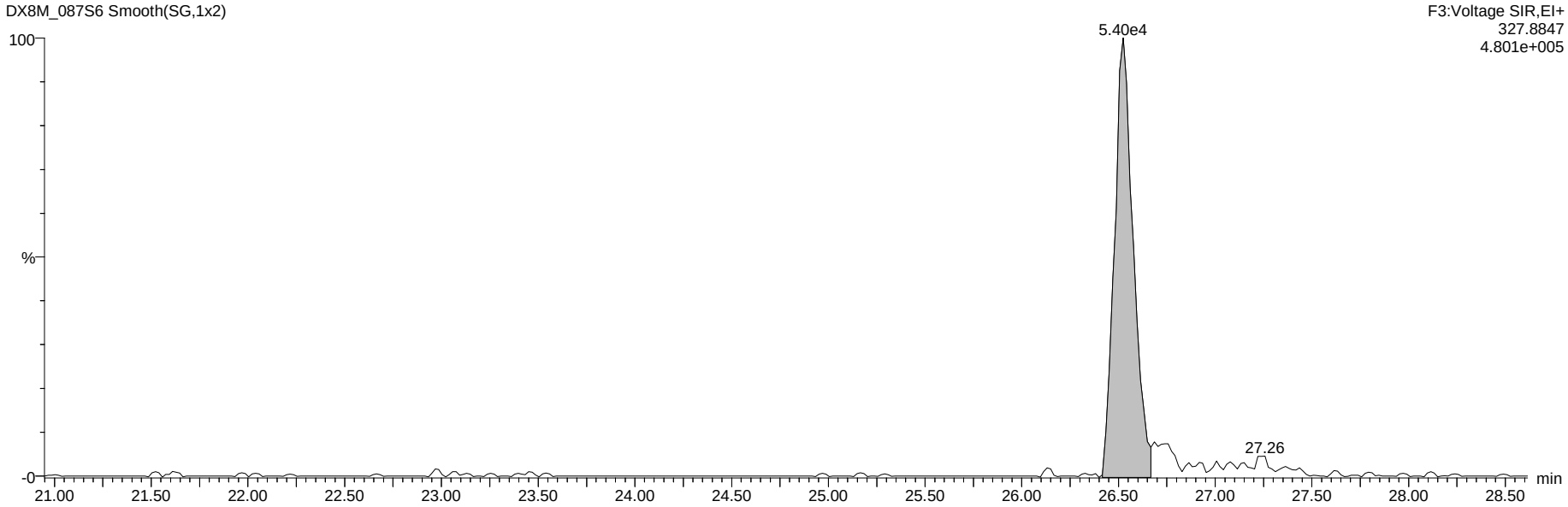
37Cl-2,3,7,8-TCDD



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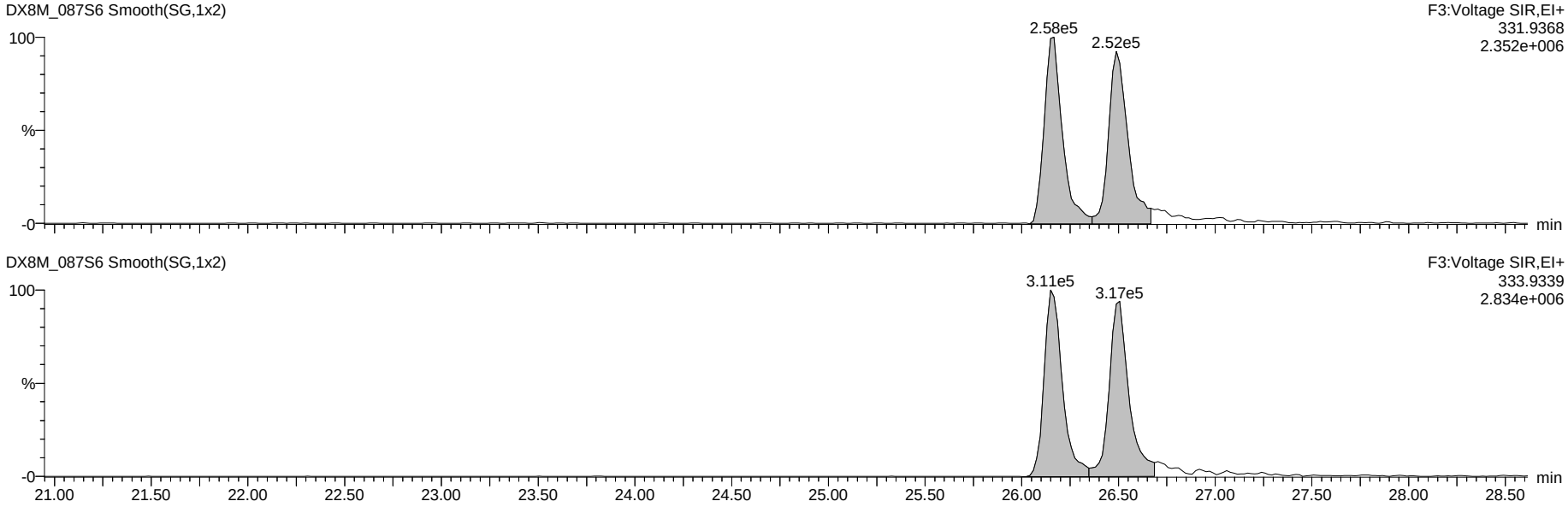

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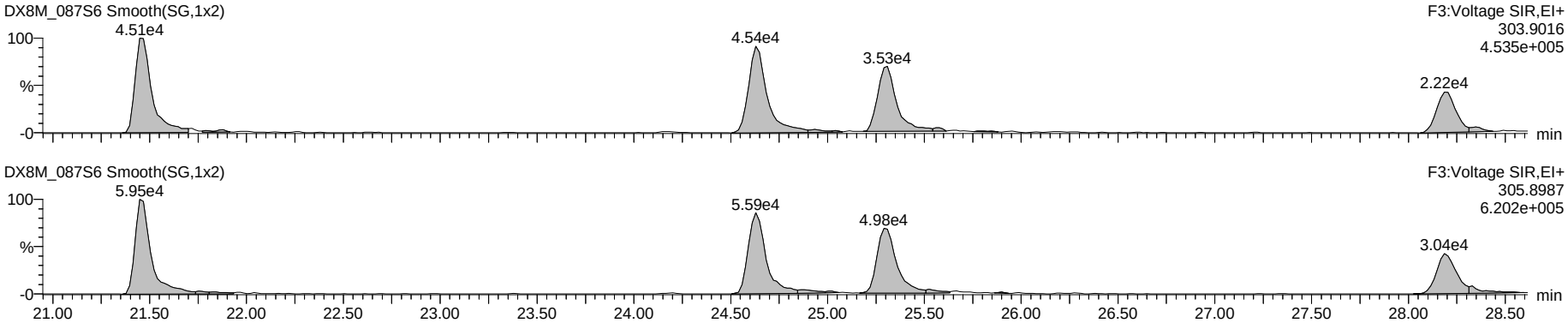
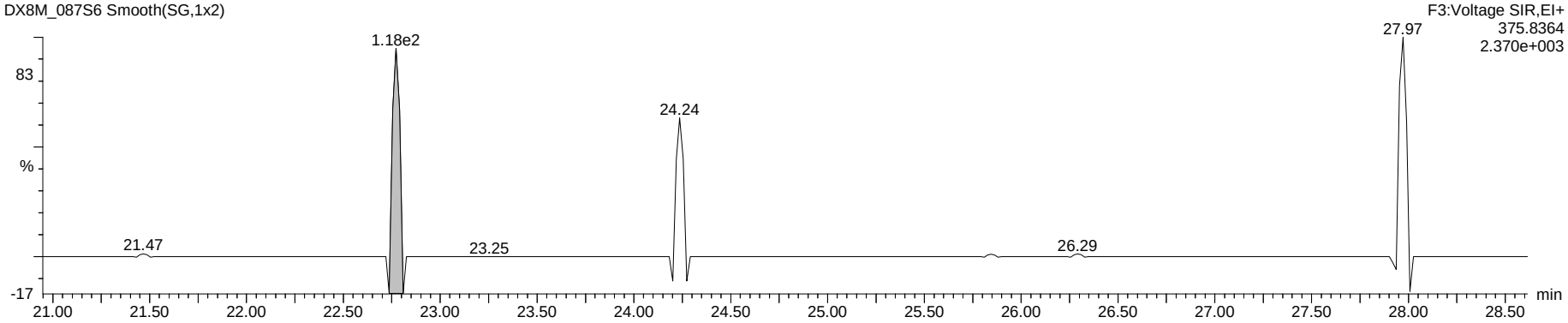
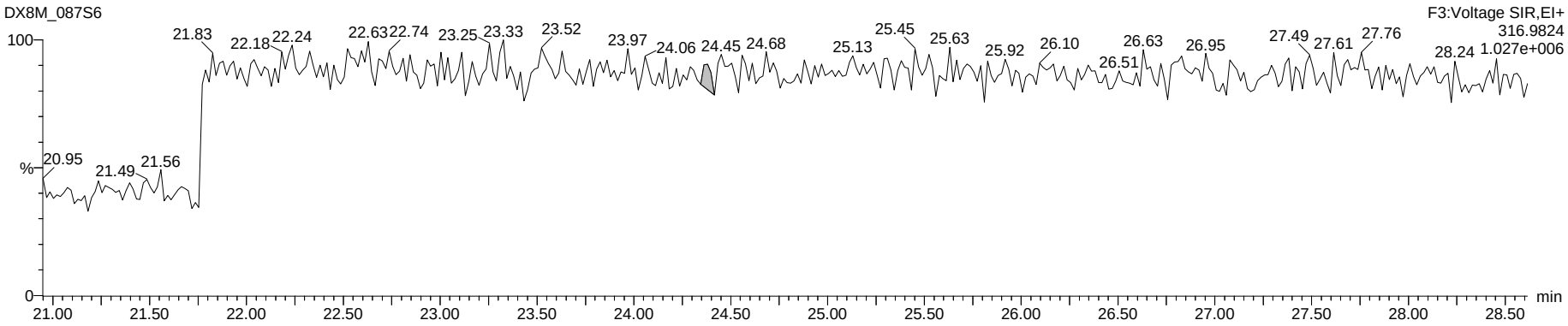
Total Tetra-Furans



Hexa DPE



Tetra Lock



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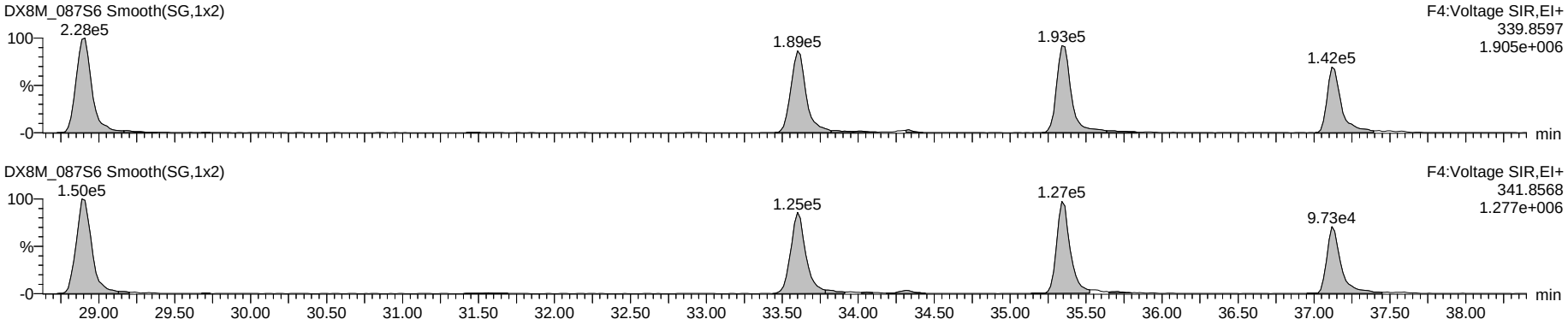
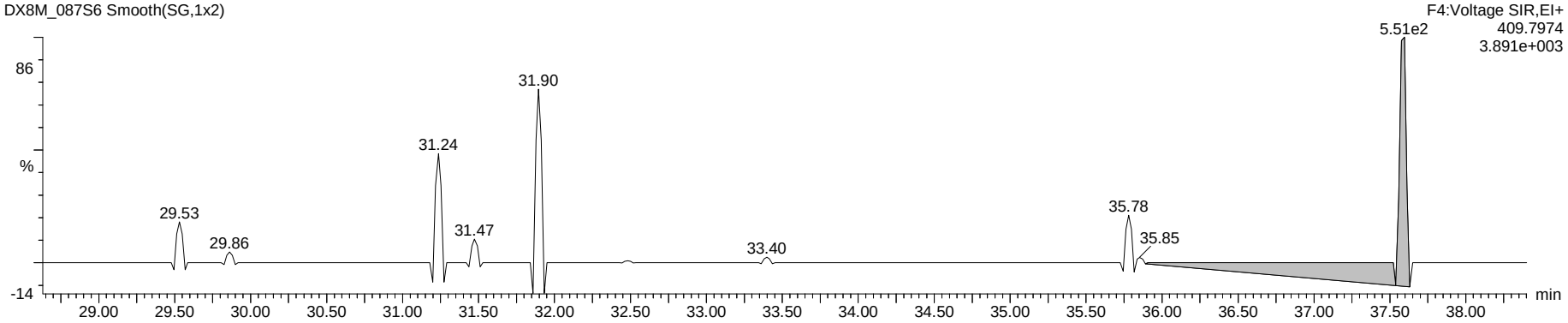
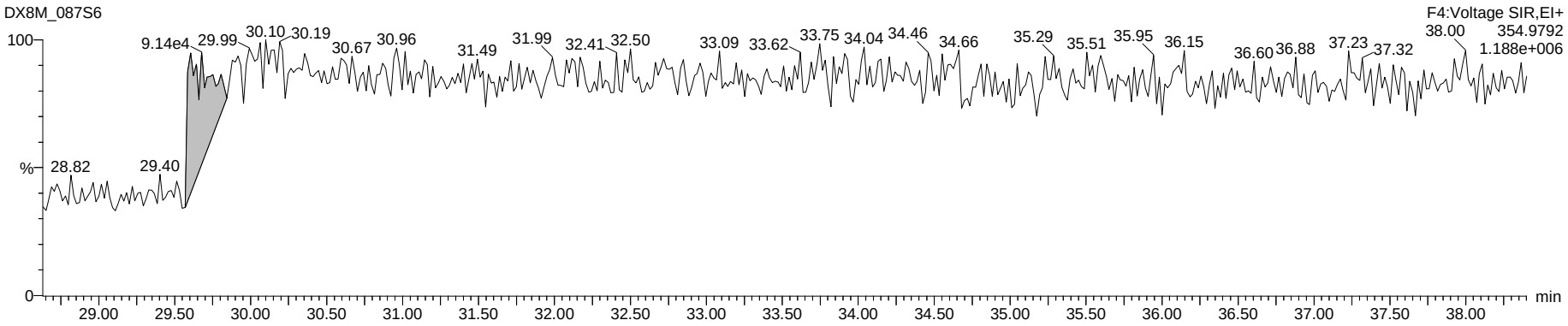
Total Penta-Furans



Hepta DPE



Penta Lock



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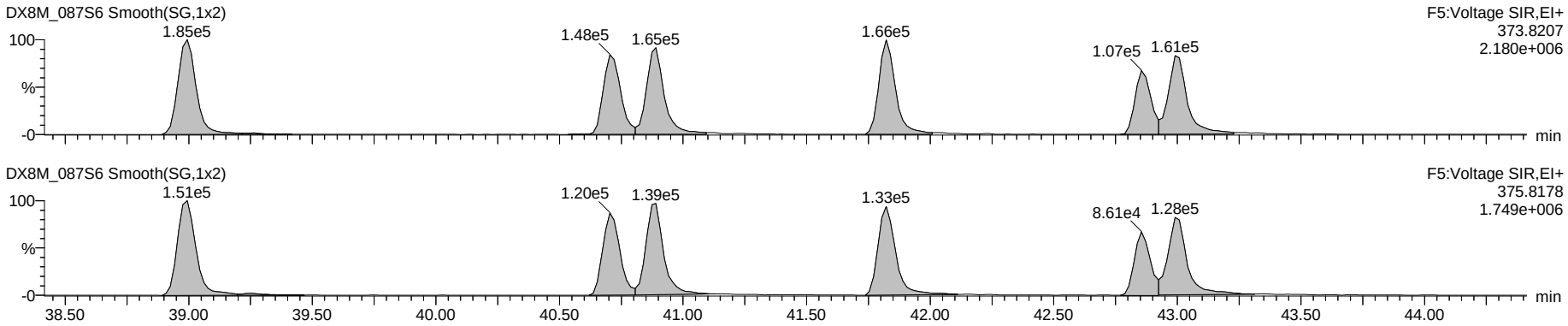
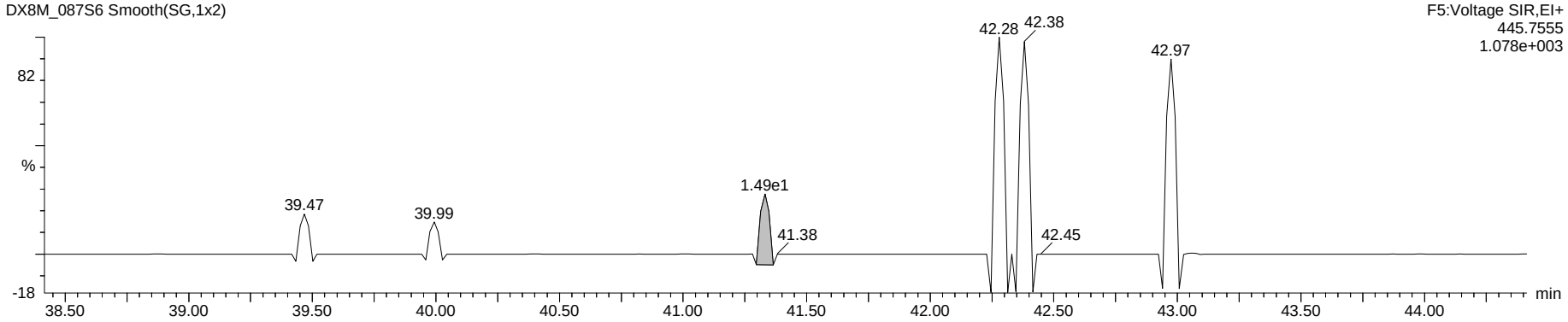
Total Hexa-Furans



Octa DPE



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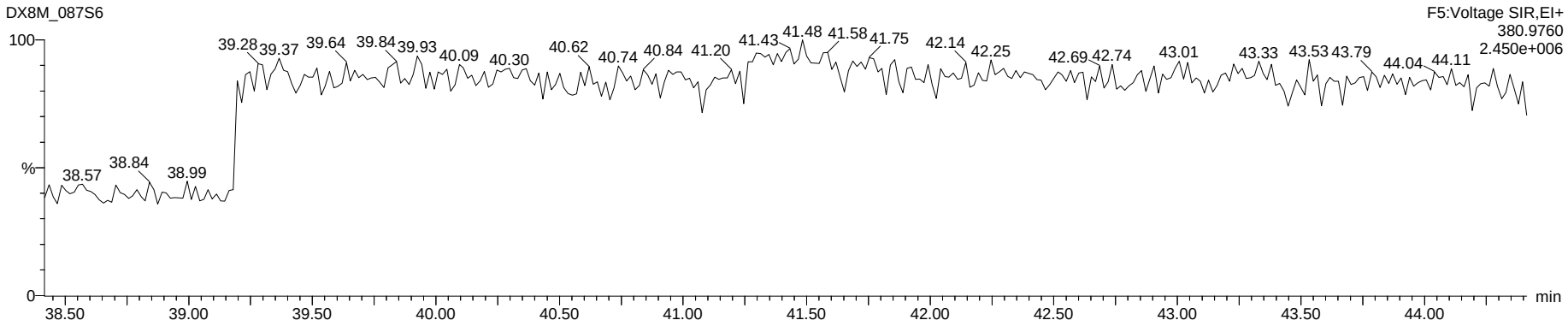

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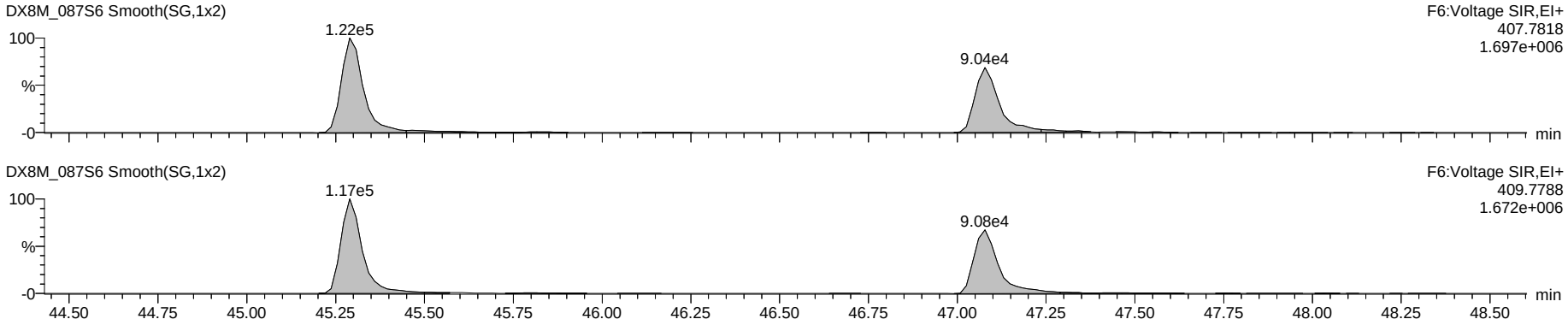
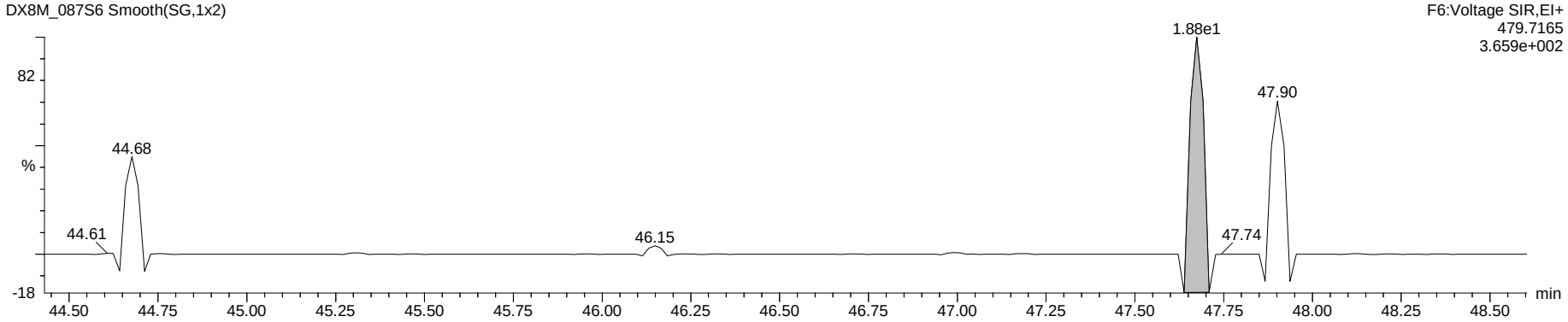
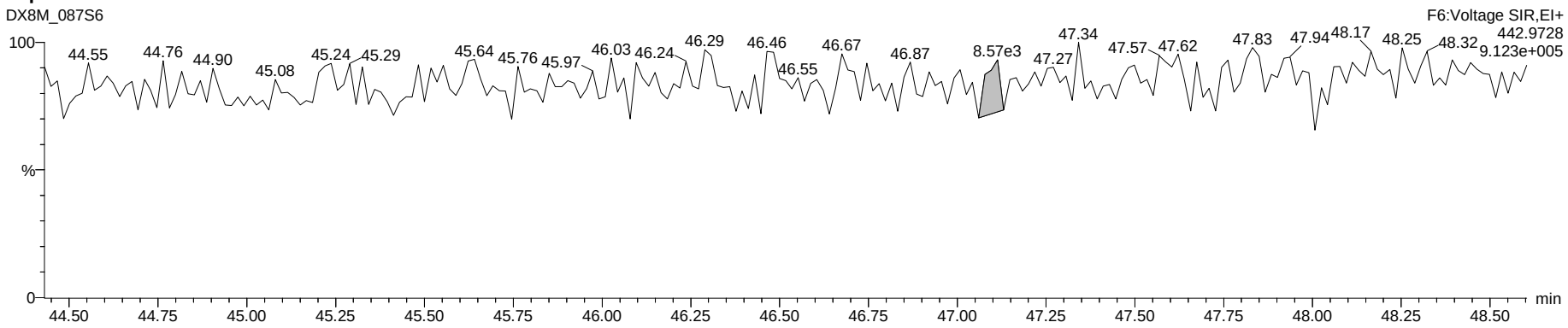
Total Hepta-Furans



Nona DPE



Hepta Lock



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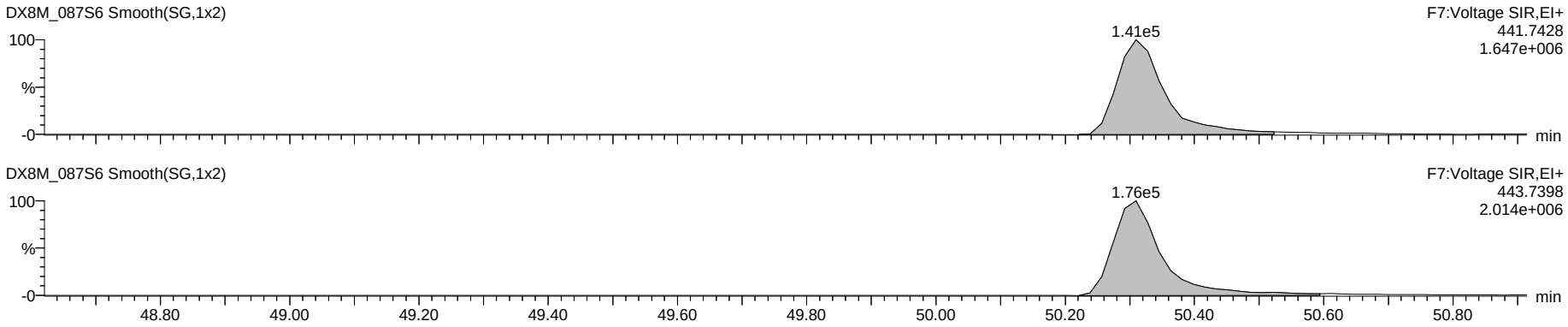
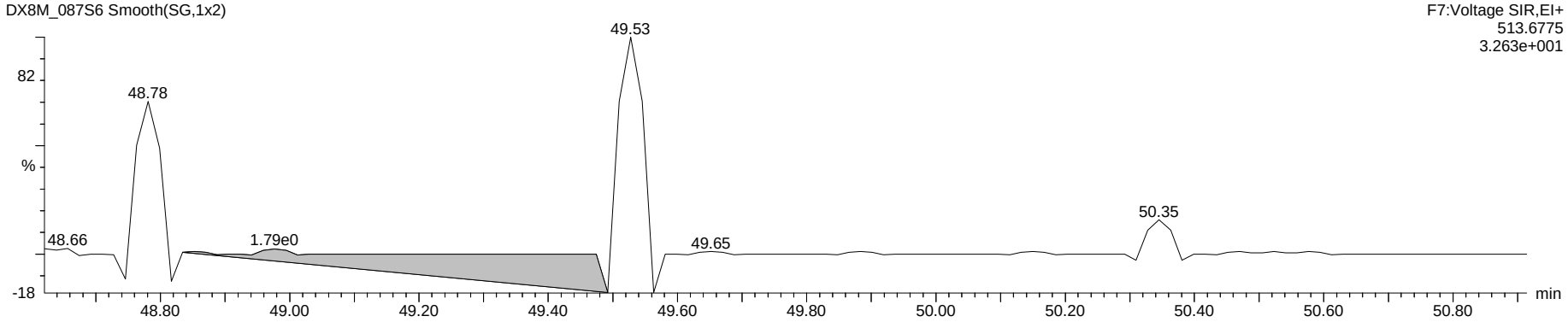
OCDF



Deca DPE



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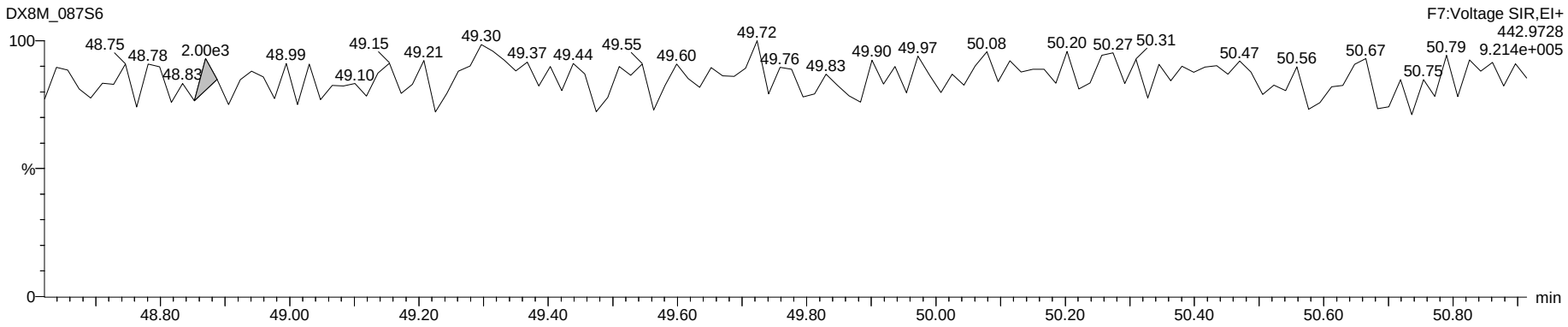

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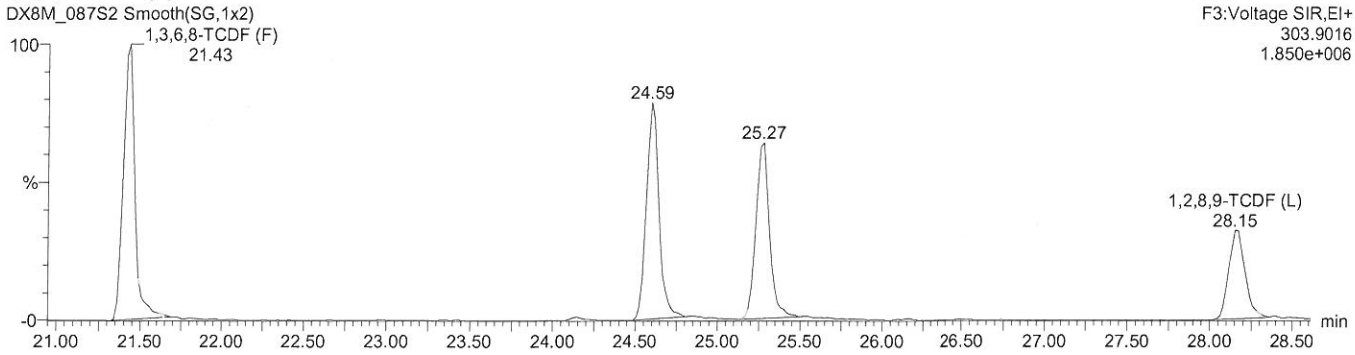
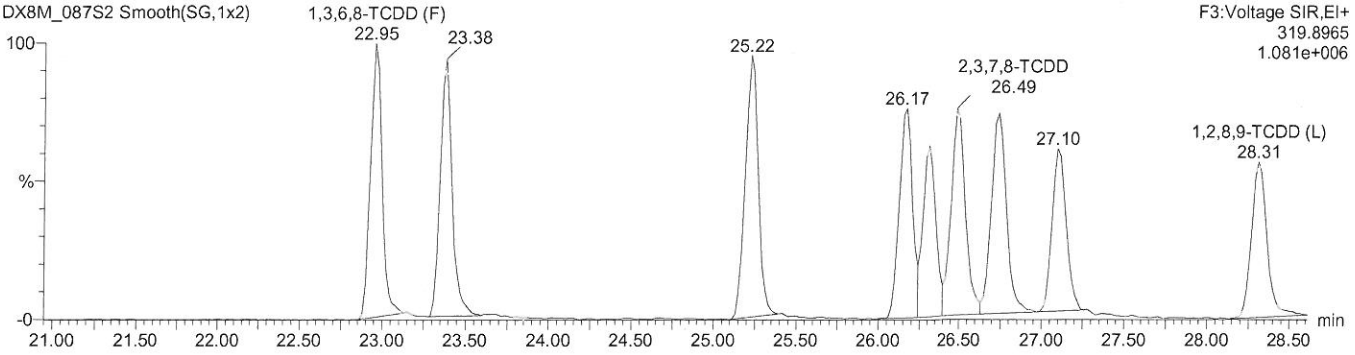
Name: DX8M_087S2, Date: 23-Jul-2018, Time: 17:07:08, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

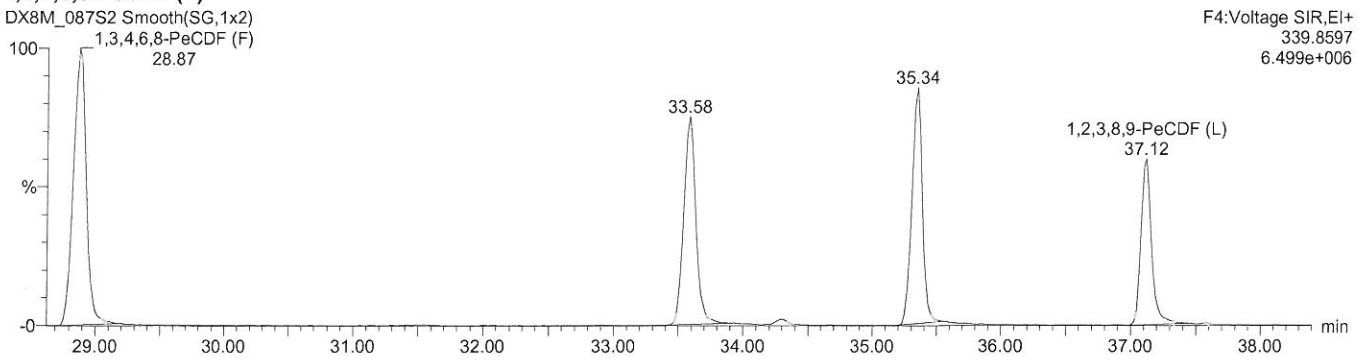
1,3,6,8-TCDF (F)



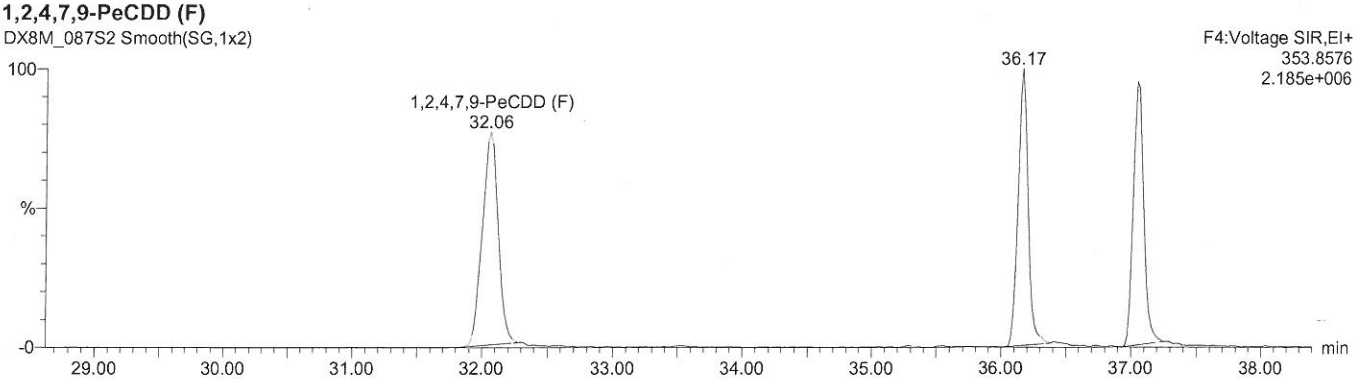
1,3,6,8-TCDD (F)



1,3,4,6,8-PeCDF (F)



1,2,4,7,9-PeCDD (F)



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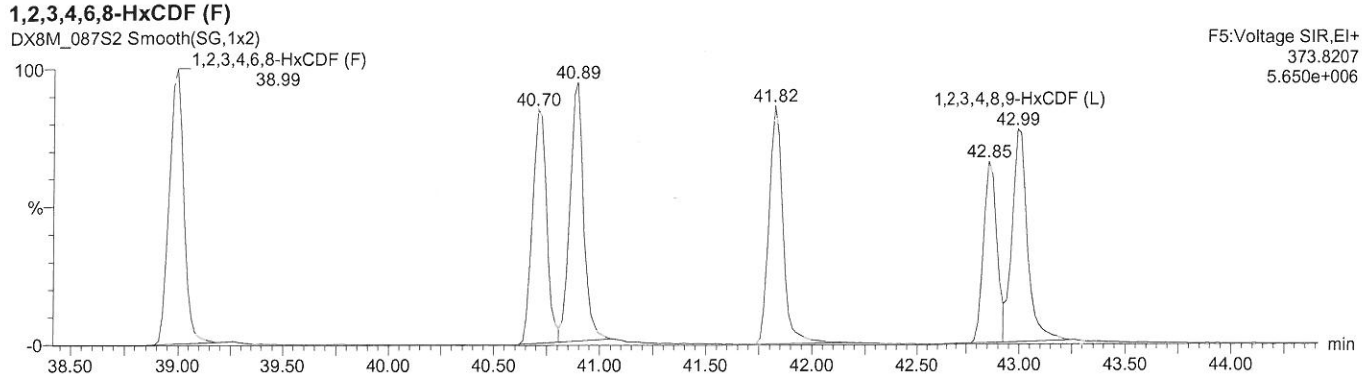
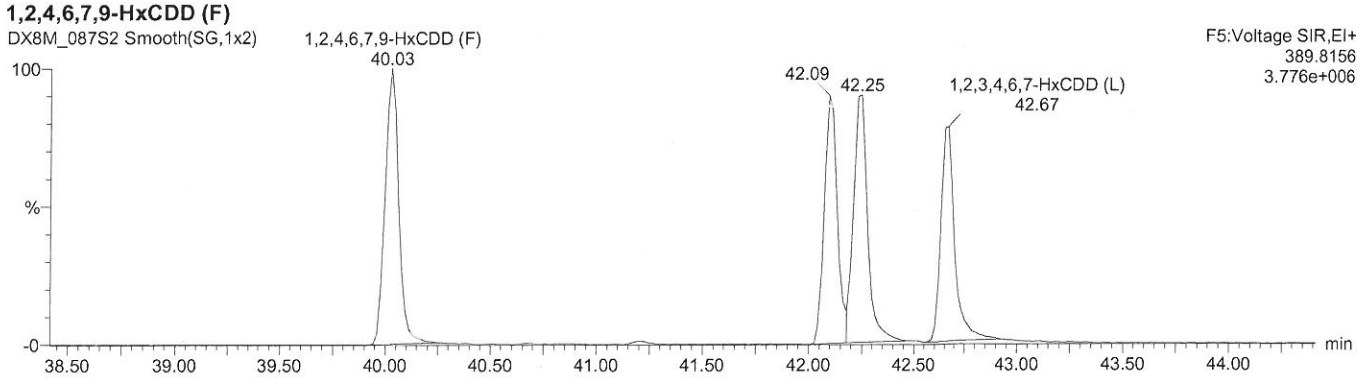
Name: DX8M_087S2, Date: 23-Jul-2018, Time: 17:07:08, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

1,2,3,4,6,8-HxCDF (F)



1,2,4,6,7,9-HxCDD (F)



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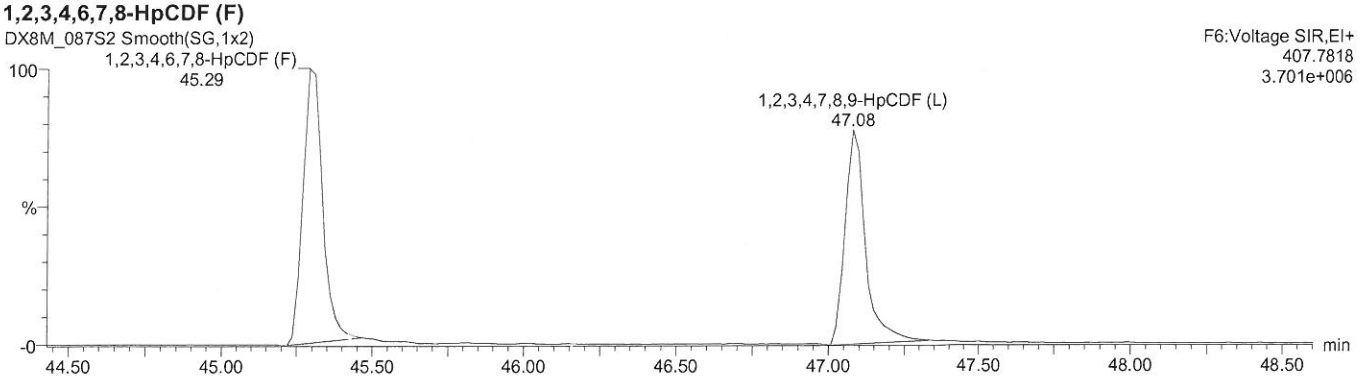

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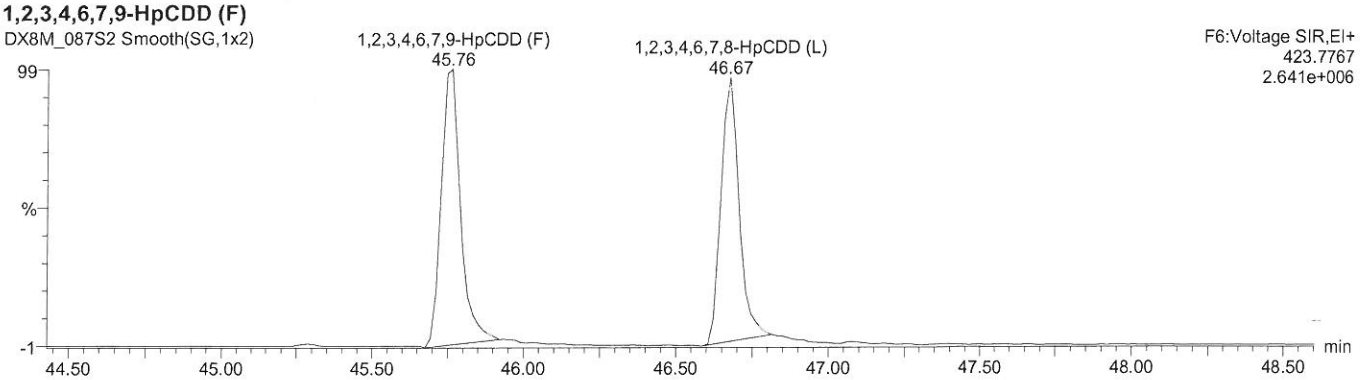

Method: G:\Masslynx\Inst_M\Projects\180604DX.PRO\MethDB\DX_Log.mdb 21 Nov 2008 11:39:44
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Compound name: -

#	Name	ID	Sample Text	Acq.Date	Acq.Time
1	DX8M_088S1	DX041D-CAL,,/01-89	1,,1.0uL Cal Win/Res	24-Jul-18	14:46:59
2	DX8M_088S2	DX041D-CAL,,/01-89	1,,1.0uL Cal Win/Res	24-Jul-18	15:55:08
3	DX8M_088S3	DX041D-CAL,,/01-89	1,,1.0uL Cal Win/Res	24-Jul-18	18:53:17
4	DX8M_088S4	WG64576-102,,SPM	1,WG64576,1.0/20uL	24-Jul-18	19:55:14
5	DX8M_088S5	DX051A-SUR,,/01	1,,1.0uL Inst Blank	24-Jul-18	20:47:42
6	DX8M_088S6	DX051A-SUR,,/01	1,,1.0uL Inst Blank	24-Jul-18	21:42:57
7	DX8M_088S7	WG64576-101,,BLK	1,WG64576,1.0/20uL	24-Jul-18	22:38:09
8	DX8M_088S8	L29628-18,L,	1,WG64578,1.0/20uL	24-Jul-18	23:33:23
9	DX8M_088S9	L29625-1,,	1,WG64576,1.0/20uL	25-Jul-18	00:28:35
10	DX8M_088S10	WG64576-103,,DUP	1,WG64576,1.0/20uL	25-Jul-18	01:23:43
11	DX8M_088S11	L29625-2,,	1,WG64576,1.0/20uL	25-Jul-18	02:18:51
12	DX8M_088S12	L29625-3,,	1,WG64576,1.0/20uL	25-Jul-18	03:14:06
13	DX8M_088S13	L29625-4,,	1,WG64576,1.0/20uL	25-Jul-18	04:09:19
14	DX8M_088S14	DX041D-CAL,,/01-89	1,,1.0uL Cal Win/Res	25-Jul-18	05:04:31

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

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Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_088S3, Date: 24-Jul-2018, Time: 18:53:17, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	1.000	2.66e5	0.76	NO	25.34	10.878	0.0357	108.8	2.07e3	1.83e3
2	1,2,3,7,8-PeCDF	1.000	1.02e6	1.47	NO	33.67	49.792	0.0704	99.6	2.28e3	3.18e3
3	2,3,4,7,8-PeCDF	1.000	1.00e6	1.51	NO	35.43	50.692	0.0646	101.4	2.28e3	3.18e3
4	1,2,3,4,7,8-HxCDF	1.000	8.65e5	1.19	NO	40.79	53.128	0.0784	106.3	3.33e3	3.41e3
5	1,2,3,6,7,8-HxCDF	1.000	9.24e5	1.18	NO	40.96	50.553	0.0708	101.1	3.33e3	3.41e3
6	2,3,4,6,7,8-HxCDF	1.000	8.27e5	1.22	NO	41.91	49.343	0.0751	98.7	3.33e3	3.41e3
7	1,2,3,7,8,9-HxCDF	1.000	6.19e5	1.19	NO	42.94	46.991	0.1054	94.0	3.33e3	3.41e3
8	1,2,3,4,6,7,8-HpCDF	1.000	6.82e5	1.06	NO	45.38	53.019	0.1027	106.0	3.71e3	3.18e3
9	1,2,3,4,7,8,9-HpCDF	1.000	5.15e5	1.06	NO	47.17	52.570	0.1286	105.1	3.71e3	3.18e3
10	OCDF	1.000	8.32e5	0.86	NO	50.43	106.362	0.0507	106.4	3.98e-1	2.02e3
11	2,3,7,8-TCDD	1.000	2.08e5	0.77	NO	26.58	10.621	0.0682	106.2	2.58e3	2.97e3
12	1,2,3,7,8-PeCDD	1.000	6.67e5	0.63	NO	36.24	53.829	0.0916	107.7	2.17e3	2.77e3
13	1,2,3,4,7,8-HxCDD	1.000	5.70e5	1.23	NO	42.18	49.284	0.0871	98.6	2.90e3	3.08e3
14	1,2,3,6,7,8-HxCDD	1.000	6.53e5	1.25	NO	42.31	50.201	0.0878	100.4	2.90e3	3.08e3
15	1,2,3,7,8,9-HxCDD	1.000	6.00e5	1.22	NO	42.74	48.554	0.0870	97.1	2.90e3	3.08e3
16	1,2,3,4,6,7,8-HpCDD	1.000	4.62e5	1.08	NO	46.76	54.647	0.1402	109.3	3.06e3	3.50e3
17	OCDD	1.000	6.83e5	0.89	NO	50.35	105.161	0.2305	105.2	3.84e3	3.78e3
18	13C-2,3,7,8-TCDF	1.000	2.68e6	0.73	NO	25.31	89.255	0.0901	89.3	6.35e3	5.60e3
19	13C-1,2,3,7,8-PeCDF	1.000	2.22e6	1.43	NO	33.64	102.613	0.1053	102.6	4.01e3	6.05e3
20	13C-2,3,4,7,8-PeCDF	1.000	2.11e6	1.38	NO	35.40	101.033	0.1092	101.0	4.01e3	6.05e3
21	13C-1,2,3,4,7,8-HxCDF	1.000	1.46e6	0.52	NO	40.77	94.822	0.1888	94.8	6.40e3	8.46e3
22	13C-1,2,3,6,7,8-HxCDF	1.000	1.72e6	0.51	NO	40.94	104.705	0.1767	104.7	6.40e3	8.46e3
23	13C-2,3,4,6,7,8-HxCDF	1.000	1.47e6	0.52	NO	41.87	100.128	0.1978	100.1	6.40e3	8.46e3
24	13C-1,2,3,7,8,9-HxCDF	1.000	1.32e6	0.54	NO	42.92	91.104	0.2005	91.1	6.40e3	8.46e3
25	13C-1,2,3,4,6,7,8-HpCDF	1.000	1.05e6	0.44	NO	45.36	85.638	0.1911	85.6	7.75e3	4.25e3
26	13C-1,2,3,4,7,8,9-HpCDF	1.000	7.82e5	0.42	NO	47.15	81.724	0.2450	81.7	7.75e3	4.25e3
27	13C-2,3,7,8-TCDD	1.000	1.76e6	0.76	NO	26.54	94.432	0.1682	94.4	7.62e3	6.24e3
28	13C-1,2,3,7,8-PeCDD	1.000	1.21e6	0.69	NO	36.20	98.752	0.1004	98.8	4.44e3	9.81e2
29	13C-1,2,3,4,7,8-HxCDD	1.000	1.15e6	1.29	NO	42.16	97.174	0.1834	97.2	6.16e3	4.97e3
30	13C-1,2,3,6,7,8-HxCDD	1.000	1.39e6	1.24	NO	42.30	111.002	0.1735	111.0	6.16e3	4.97e3
31	13C-1,2,3,4,6,7,8-HpCDD	1.000	8.49e5	0.93	NO	46.74	86.593	0.1942	86.6	6.72e3	3.03e3
32	13C-OCDD	1.000	1.28e6	0.86	NO	50.33	147.976	0.1389	74.0	0.00e0	6.13e3
33	13C-1,2,3,4-TCDD	1.000	1.86e6	0.79	NO	26.22	82.203	0.1389	82.2	7.62e3	6.24e3
34	13C-1,2,3,7,8,9-HxCDD	1.000	1.20e6	1.22	NO	42.72	84.373	0.1523	84.4	6.16e3	4.97e3
35	37Cl-2,3,7,8-TCDD	1.000	1.79e5			26.58	8.645	0.0496	86.5		4.54e3
36	Total Tetra-Furans	1.000					44.071	0.0357			1.83e3
37	Total Tetra-Dioxins	1.000					90.662	0.0682			2.97e3
38	Total Penta-Furans	1.000					199.393	0.0681			3.18e3
39	Total Penta-Dioxins	1.000					175.995	0.0916			2.77e3
40	Total Hexa-Furans	1.000					312.283	0.0784			3.41e3
41	Total Hexa-Dioxins	1.000					205.766	0.0842			3.08e3
42	Total Hepta-Furans	1.000					108.008	0.1150			3.18e3
43	Total Hepta-Dioxins	1.000					119.485	0.1402			3.50e3
44	Hexa DPE	1.000	6.68e2			25.04					6.40e-1
45	Hepta DPE	1.000	1.55e3			36.79					6.15e-1
46	Octa DPE	1.000	1.37e2			38.64					1.07e0
47	Nona DPE	1.000	1.12e1			47.45					3.22e-1
48	Deca DPE	1.000	2.87e0			49.31					8.73e-1
49	Tetra Lock	1.000	2.01e4			23.59					2.30e5
50	Penta Lock	1.000	2.94e5			29.44					2.60e5
51	Hexa Lock	1.000	5.22e5			38.84					4.47e5

pv'd by LHE 25-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

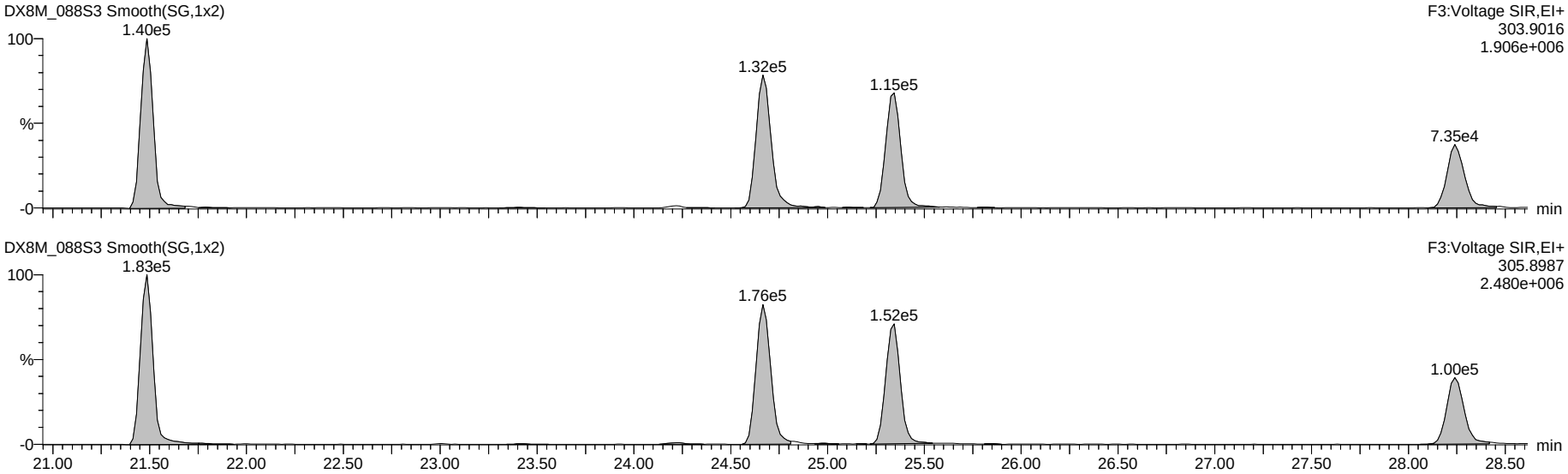
SVaykz 26JUl2018

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

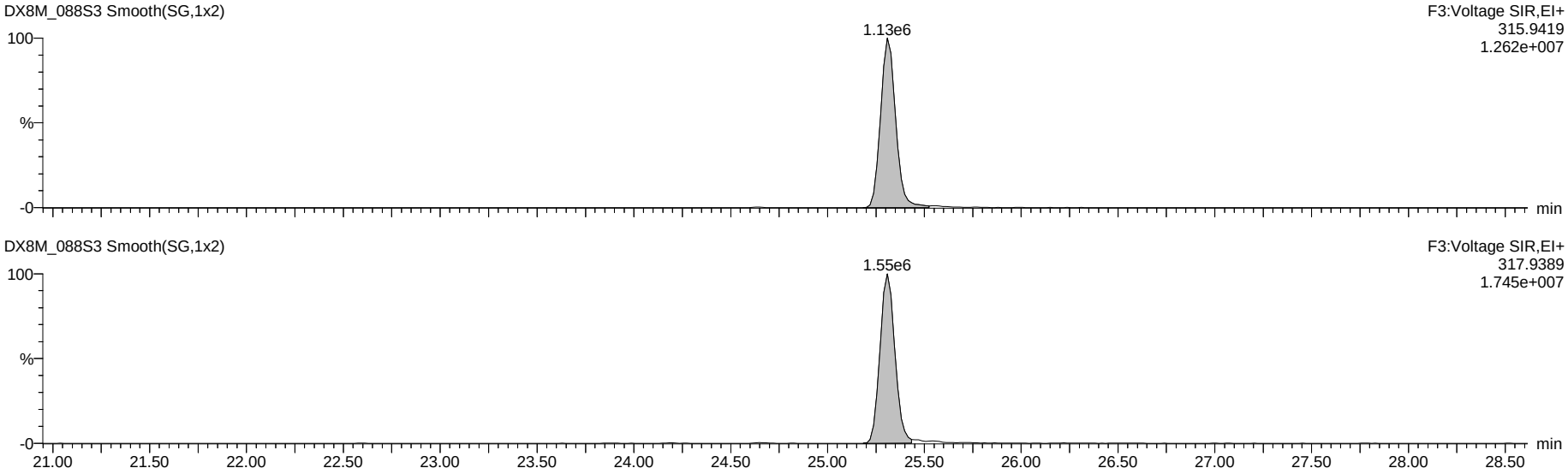
Method: G:\Masslynx\Inst_M\Projects\180604DX.pro\MethDB\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_088S3, Date: 24-Jul-2018, Time: 18:53:17, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Tetra-Furans



13C-Tetra-Furans



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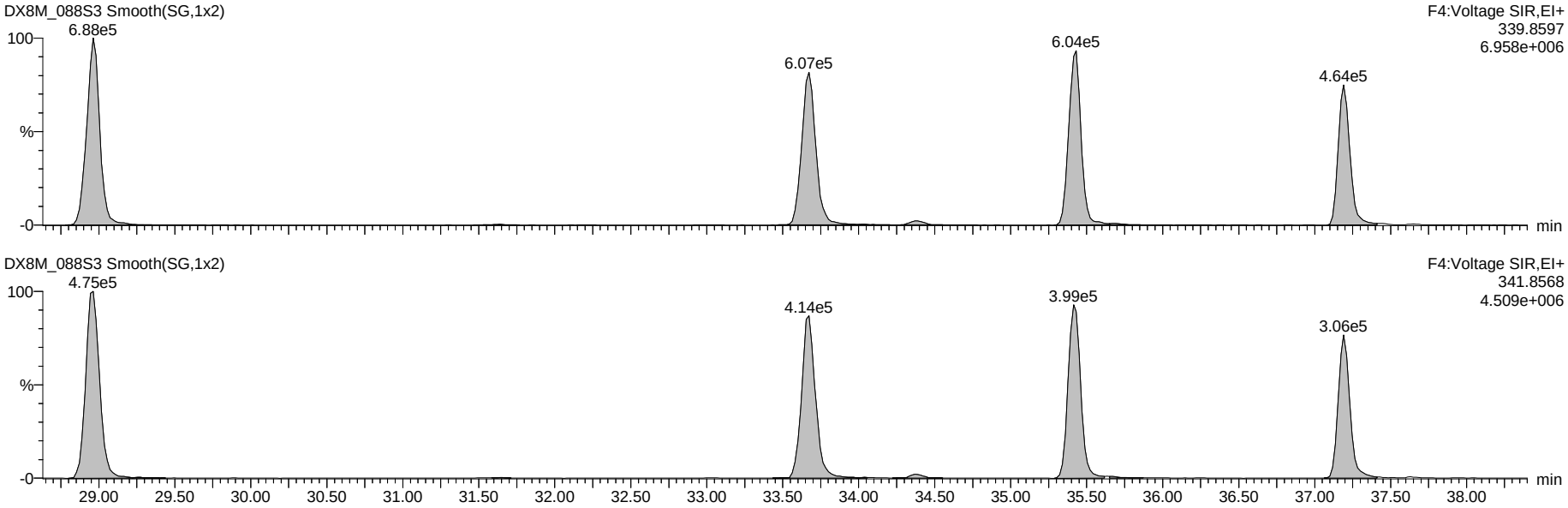
Total Penta-Furans



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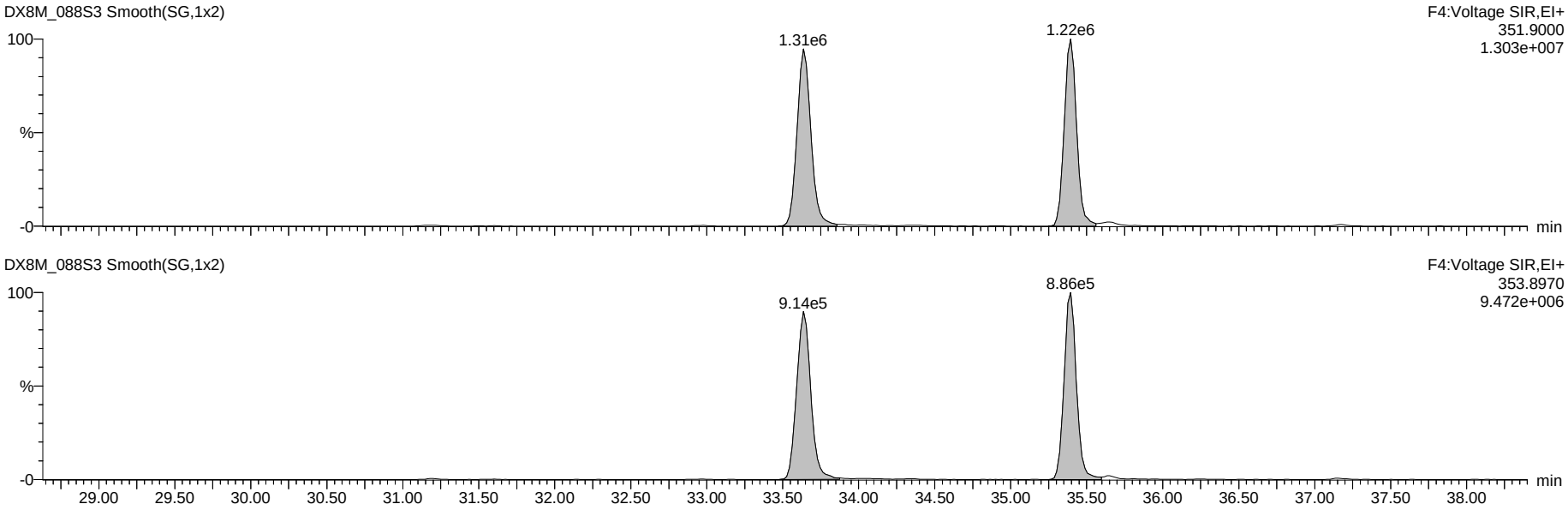

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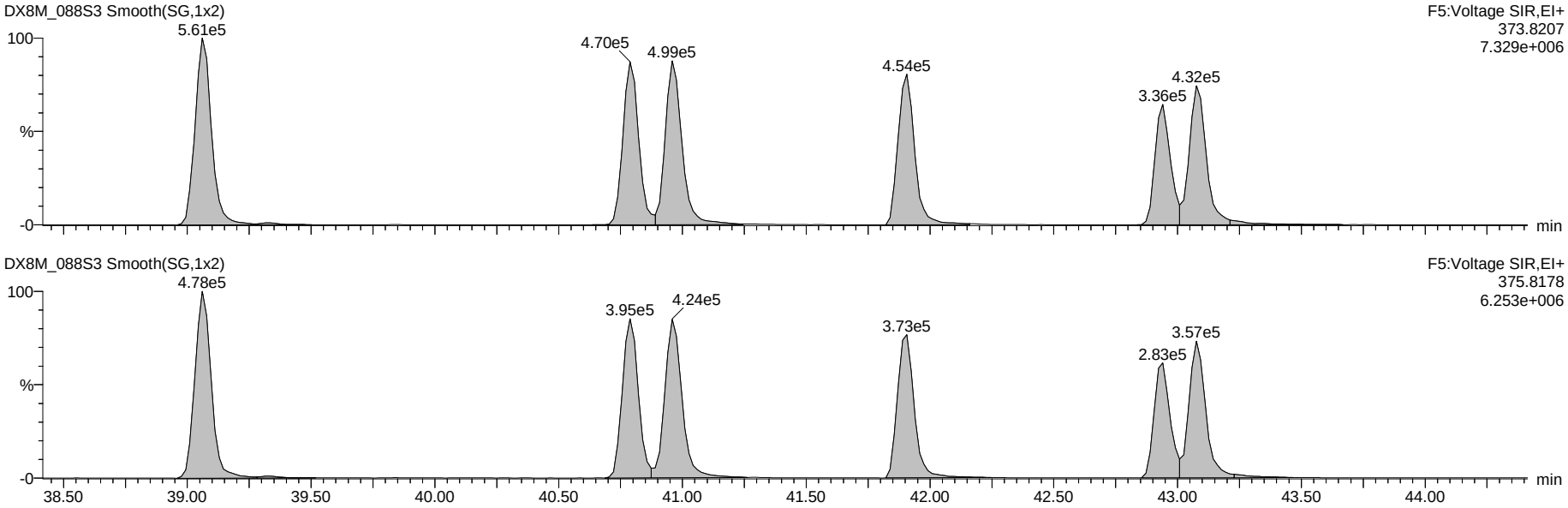
Total Hexa-Furans



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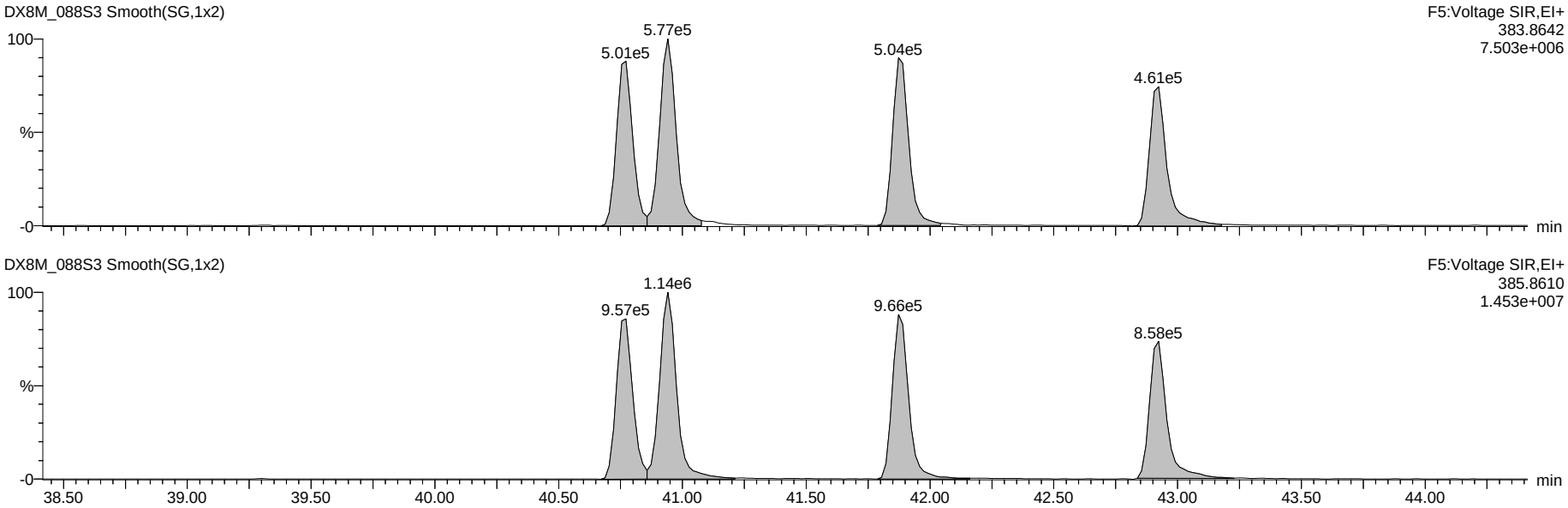

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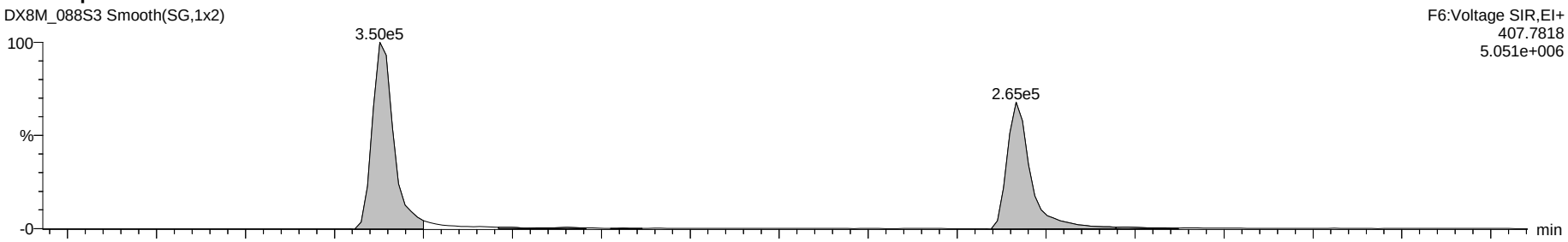
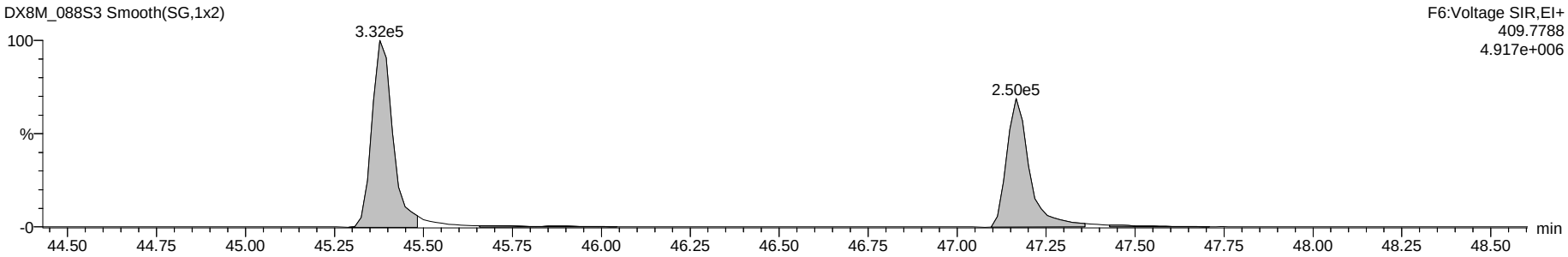
Total Hepta-Furans





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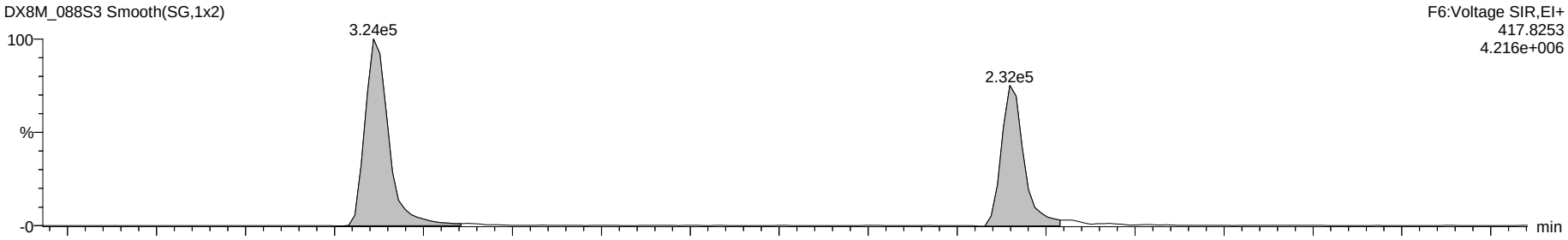

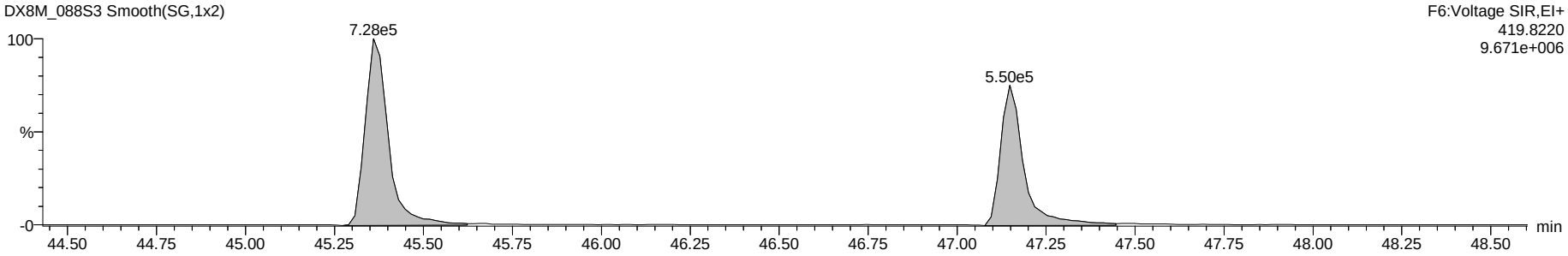

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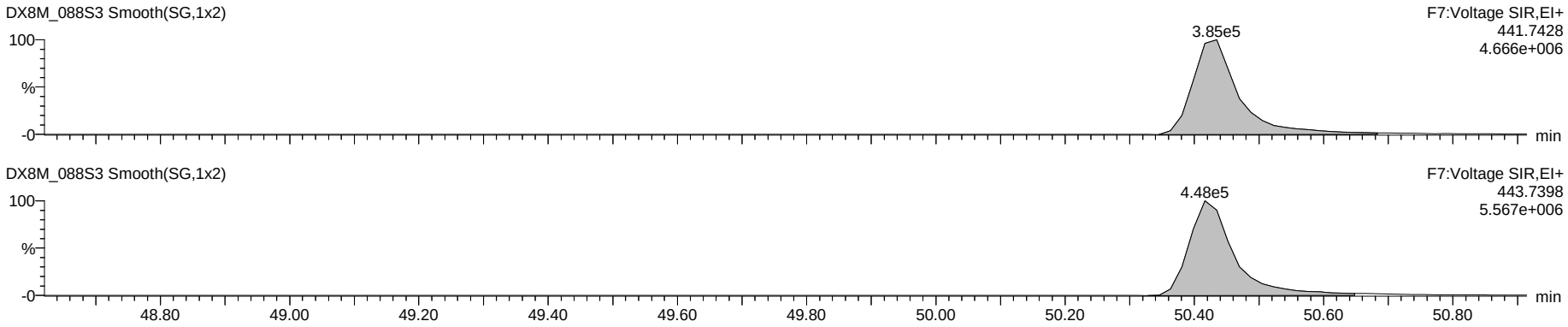
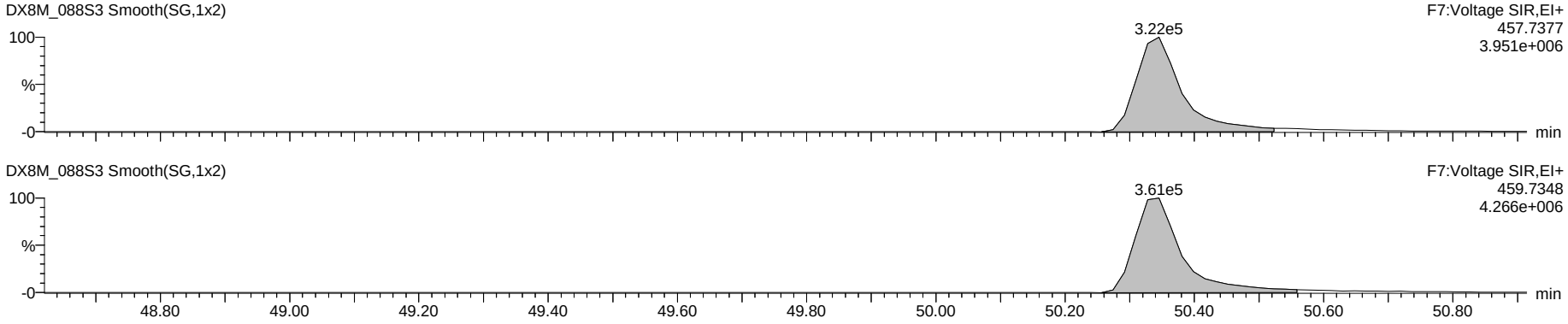
OCDF



OCDD



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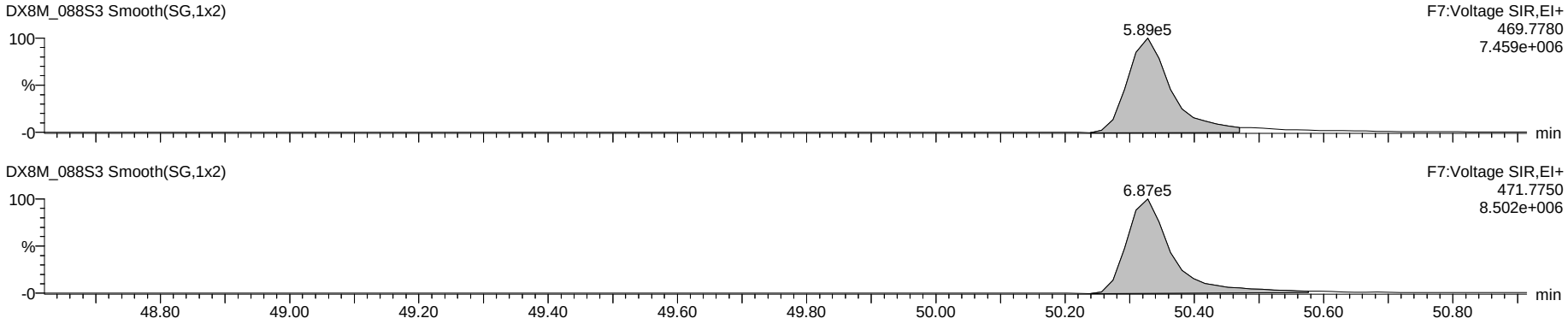

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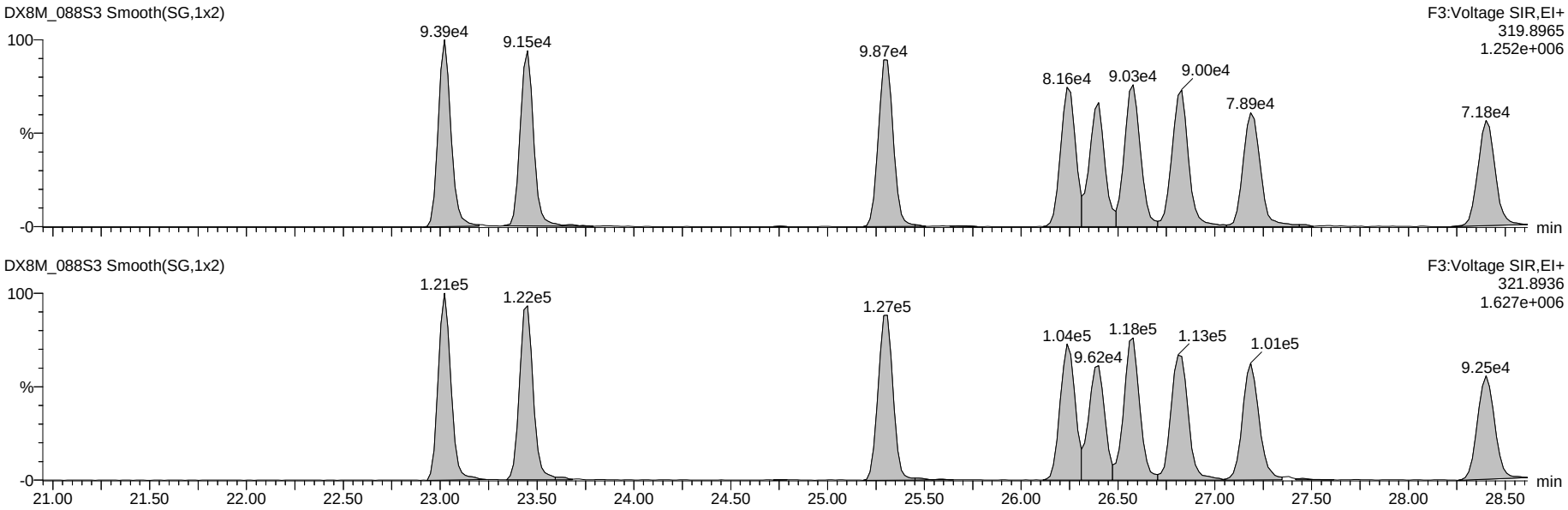
Name: DX8M_088S3, Date: 24-Jul-2018, Time: 18:53:17, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Tetra-Dioxins



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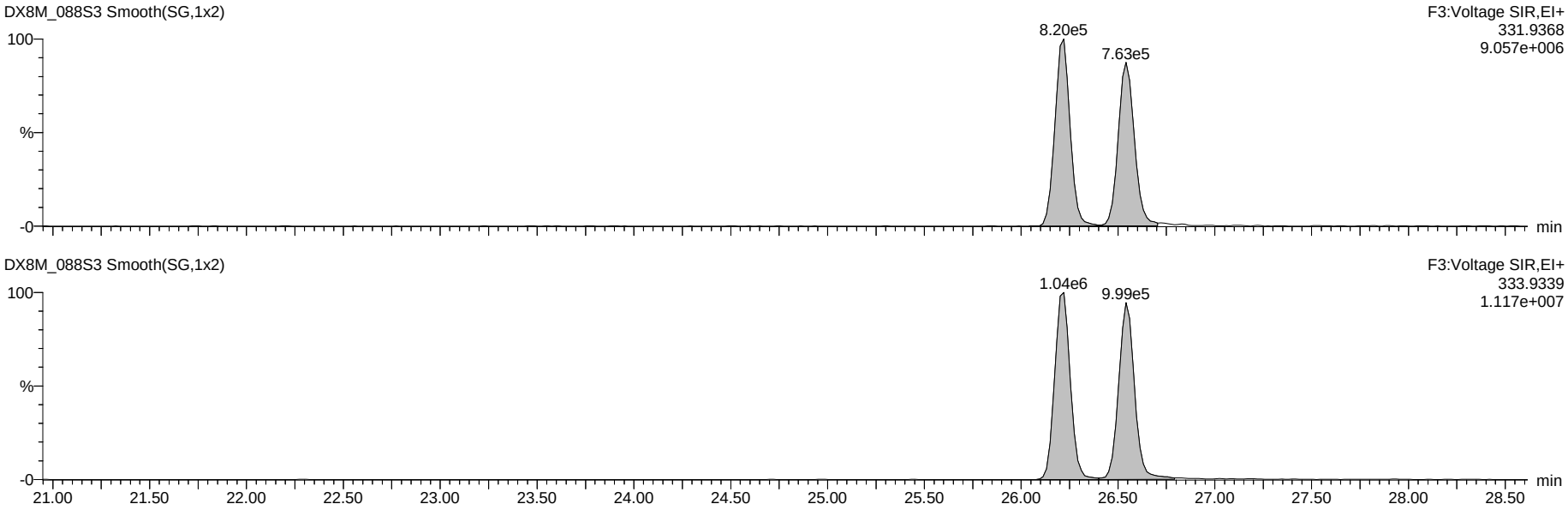

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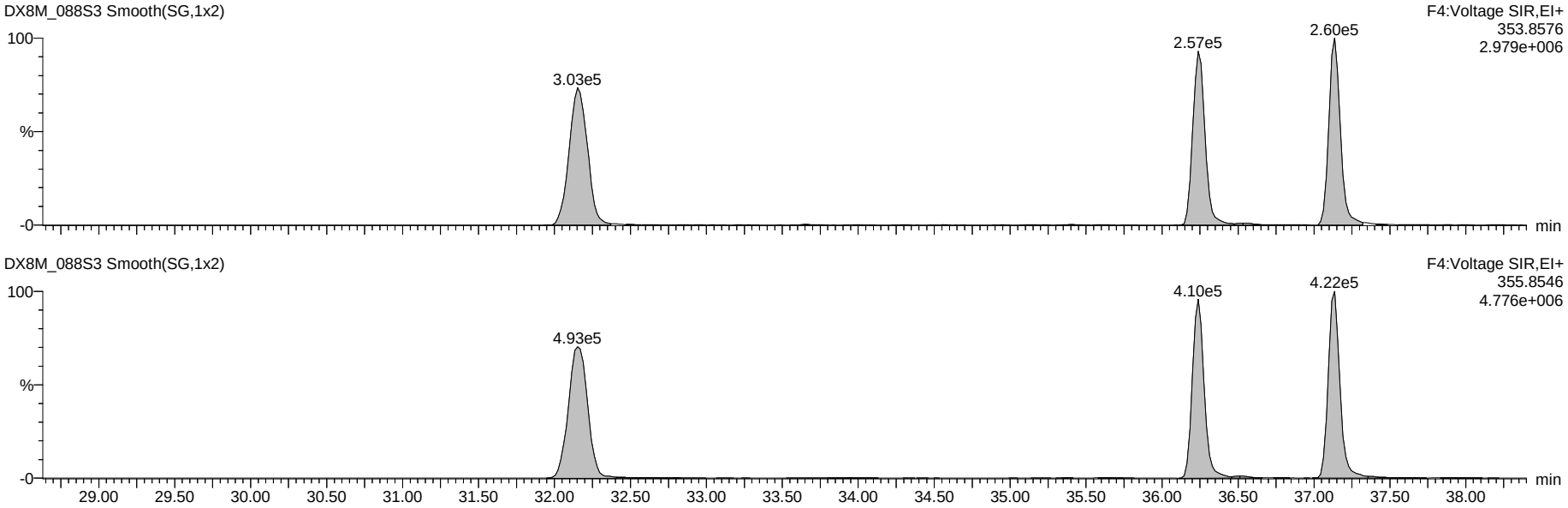
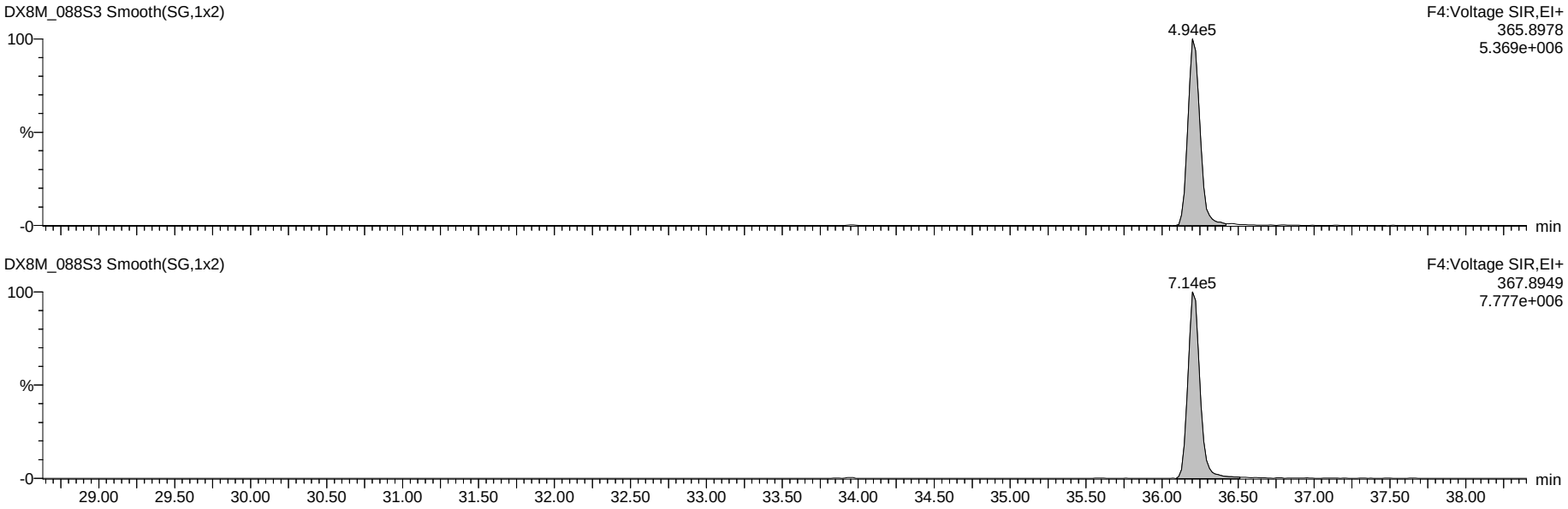
Total Penta-Dioxins



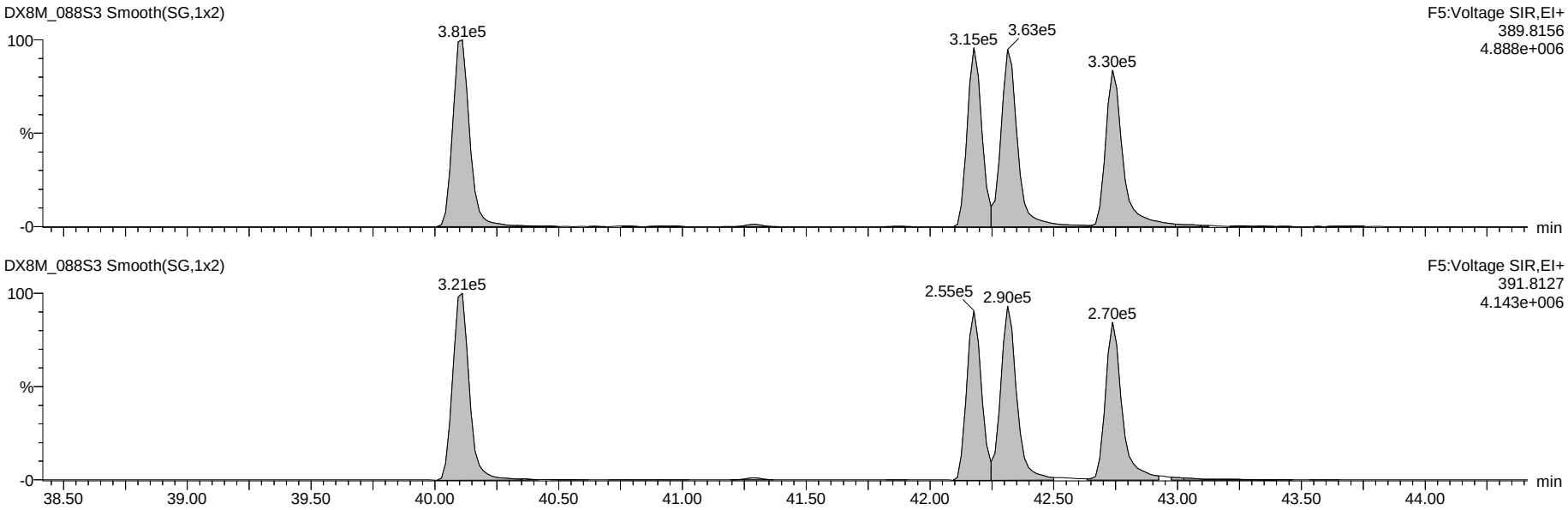
13C-Penta-Dioxins



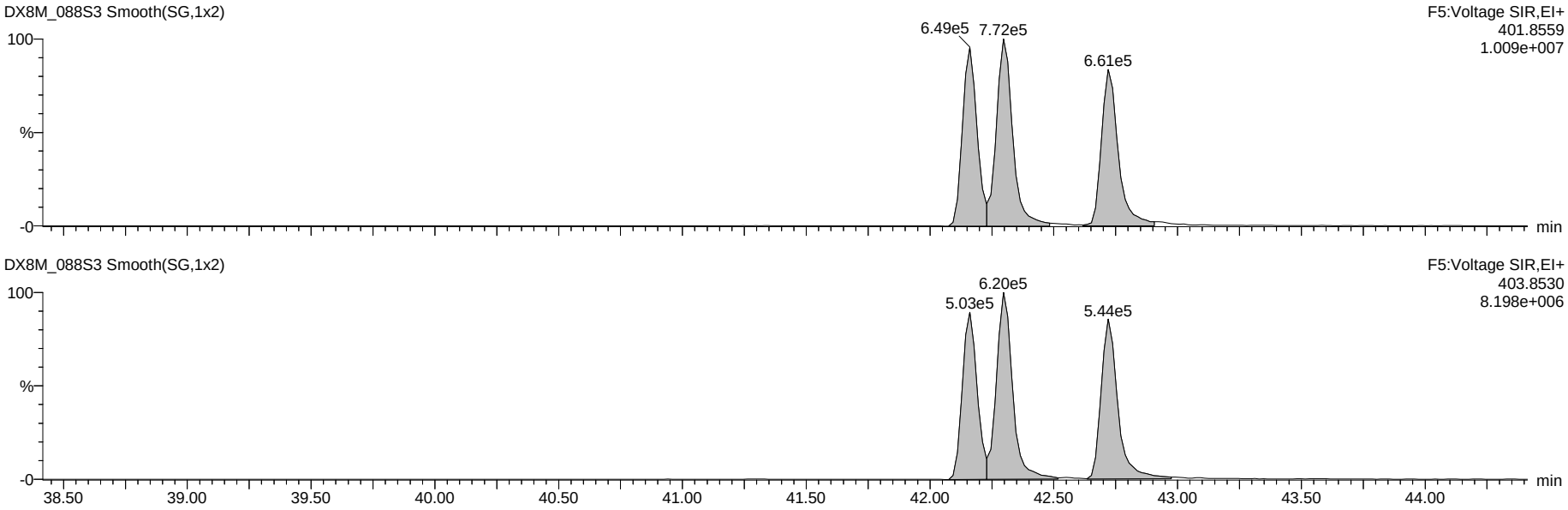
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

Name: DX8M_088S3, Date: 24-Jul-2018, Time: 18:53:17, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Hexa-Dioxins



13C-Hexa-Dioxins



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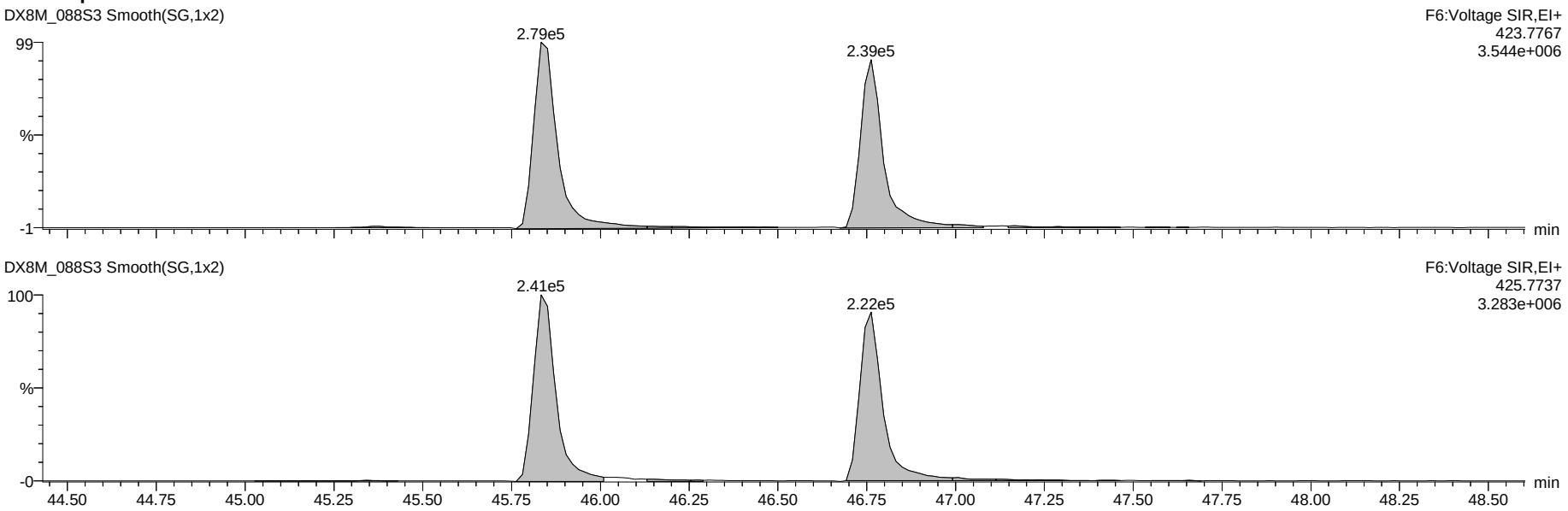
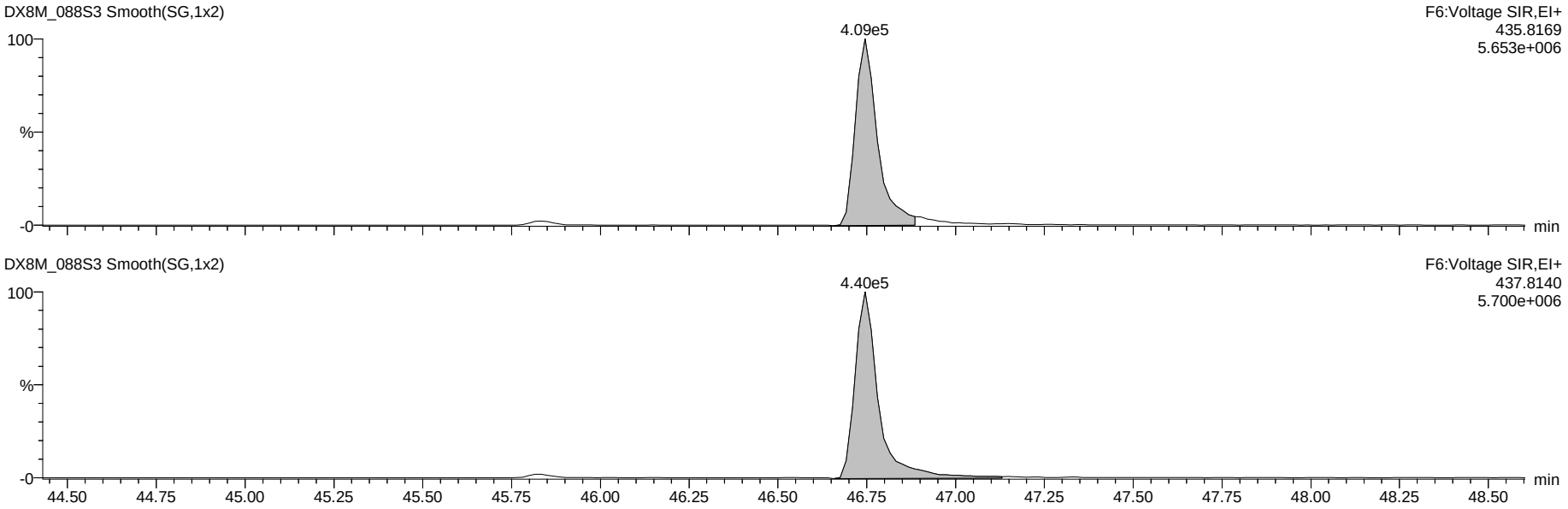
Name: DX8M_088S3, Date: 24-Jul-2018, Time: 18:53:17, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Hepta-Dioxins



13C-Hepta-Dioxins



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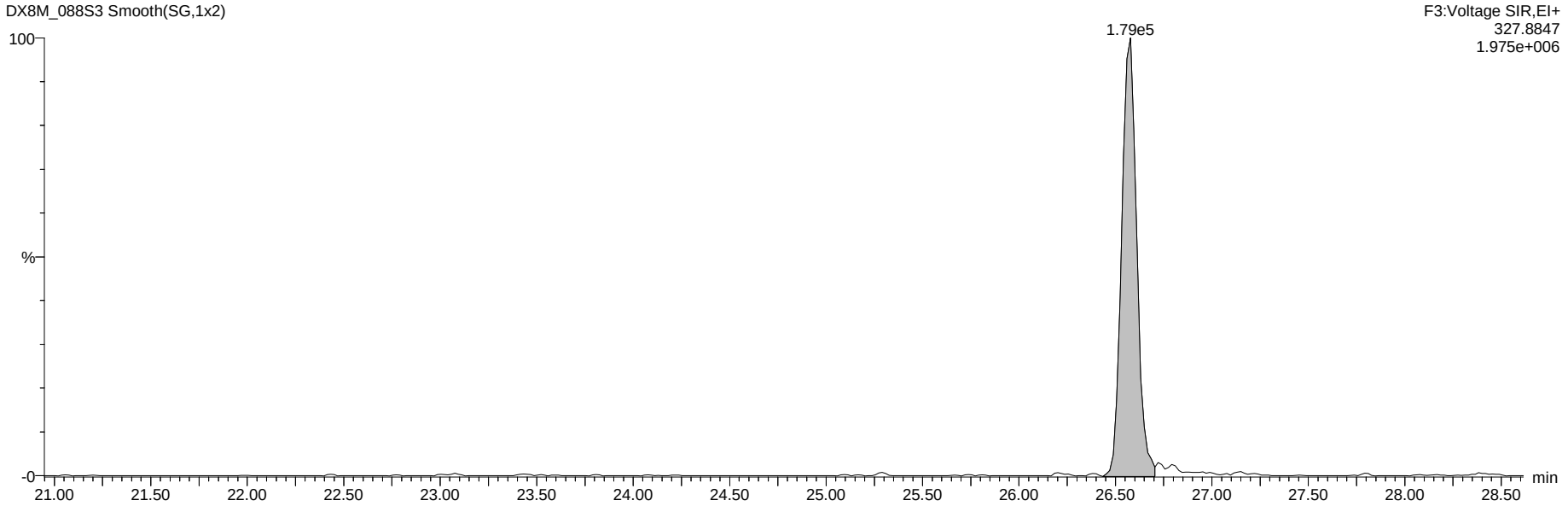
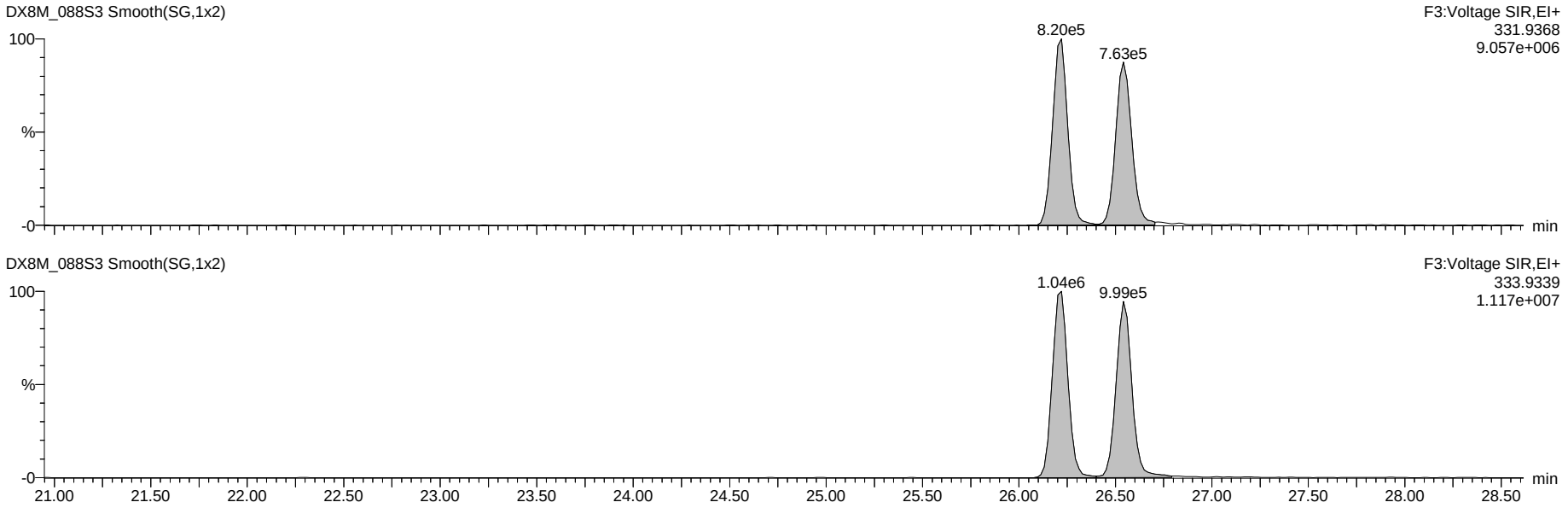
Name: DX8M_088S3, Date: 24-Jul-2018, Time: 18:53:17, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

37Cl-2,3,7,8-TCDD



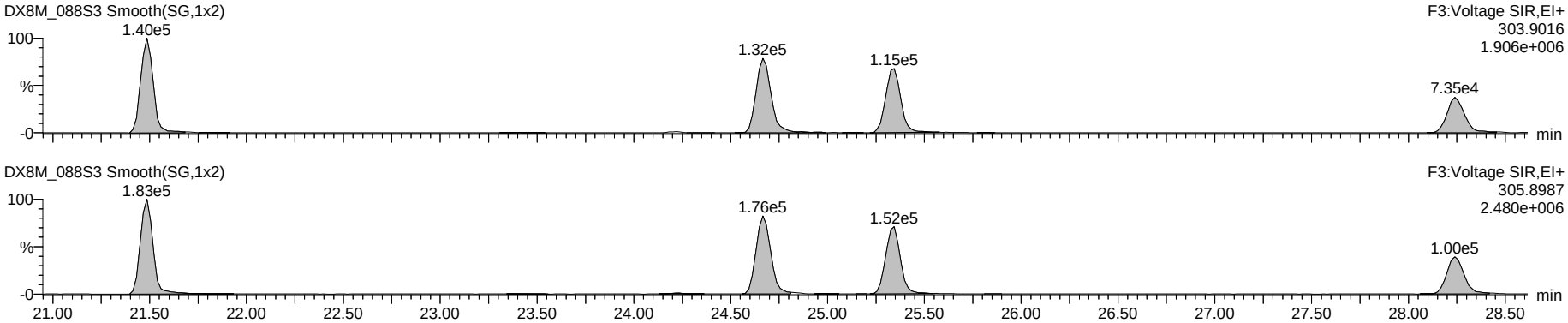
13C-Tetra-Dioxins



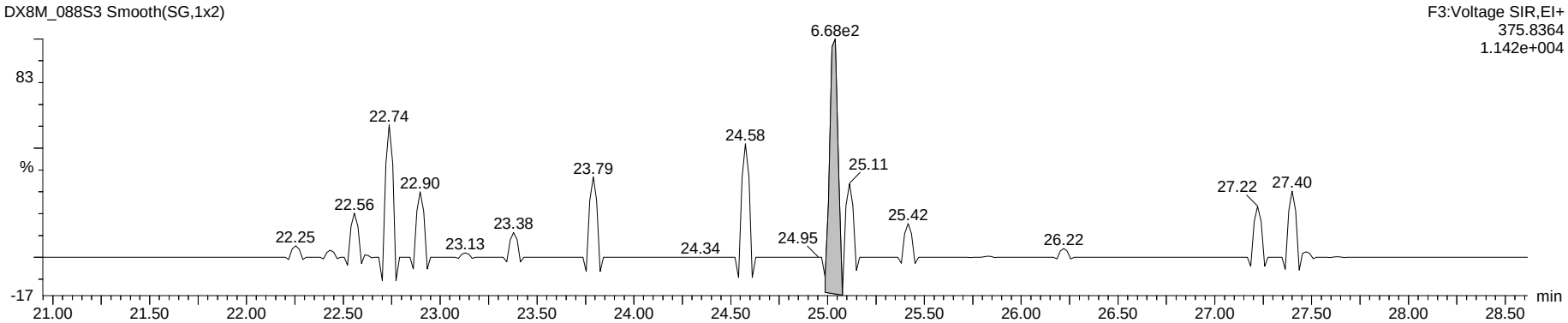
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

Name: DX8M_088S3, Date: 24-Jul-2018, Time: 18:53:17, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

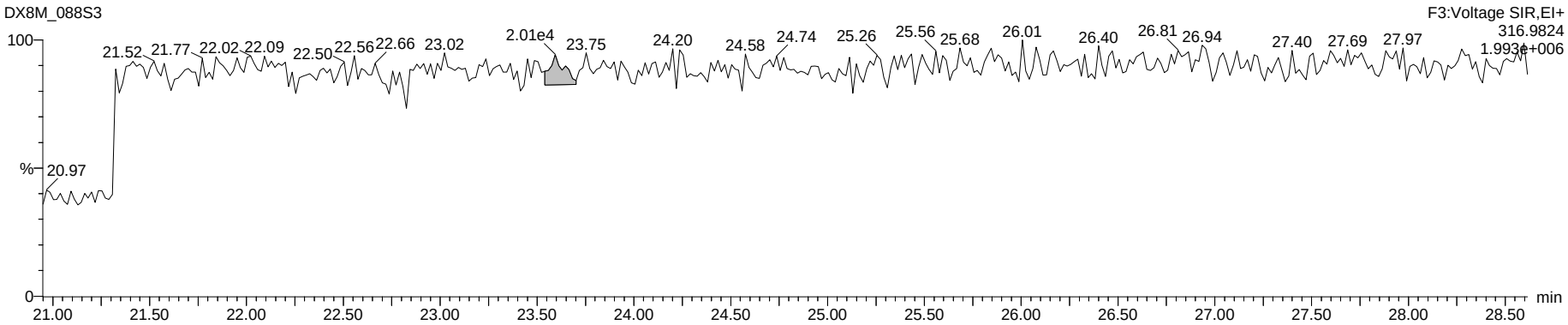
Total Tetra-Furans



Hexa DPE



Tetra Lock



Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

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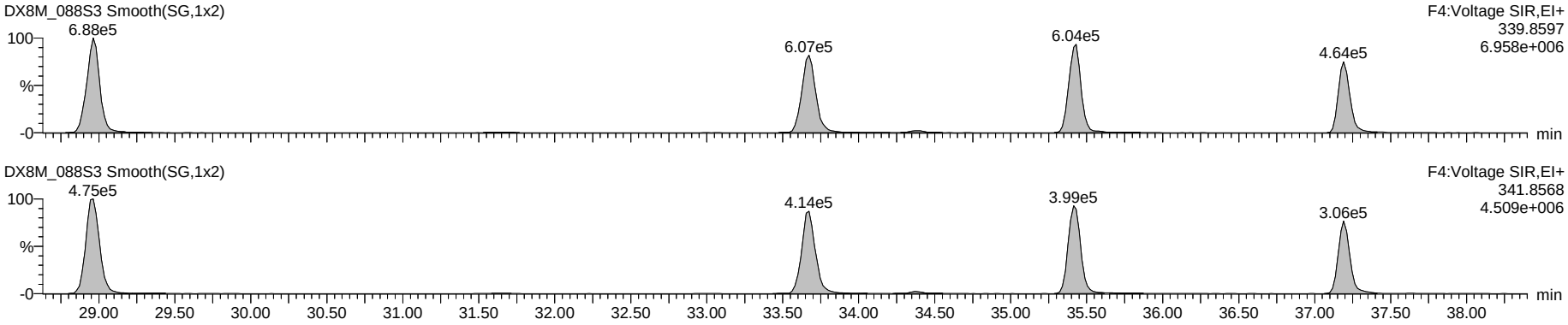
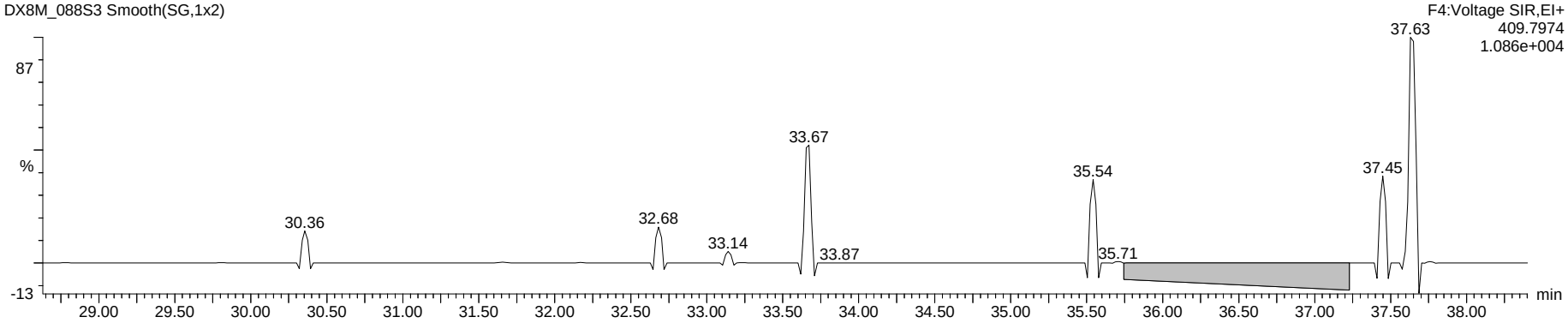
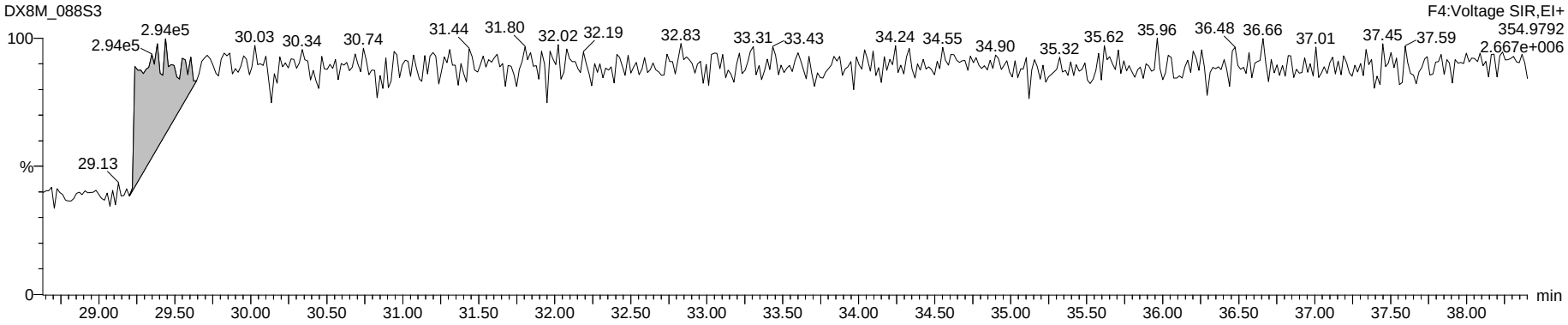
Total Penta-Furans



Hepta DPE



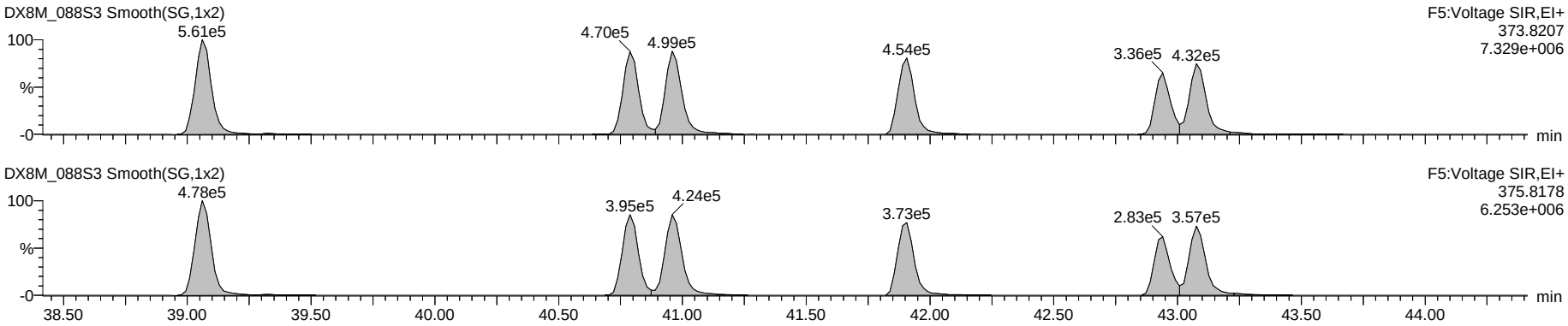
Penta Lock



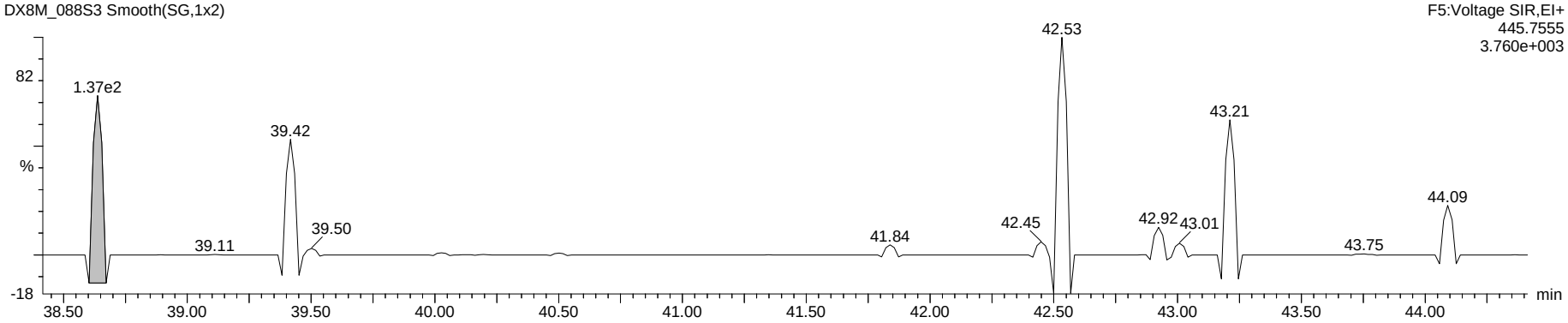
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

Name: DX8M_088S3, Date: 24-Jul-2018, Time: 18:53:17, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

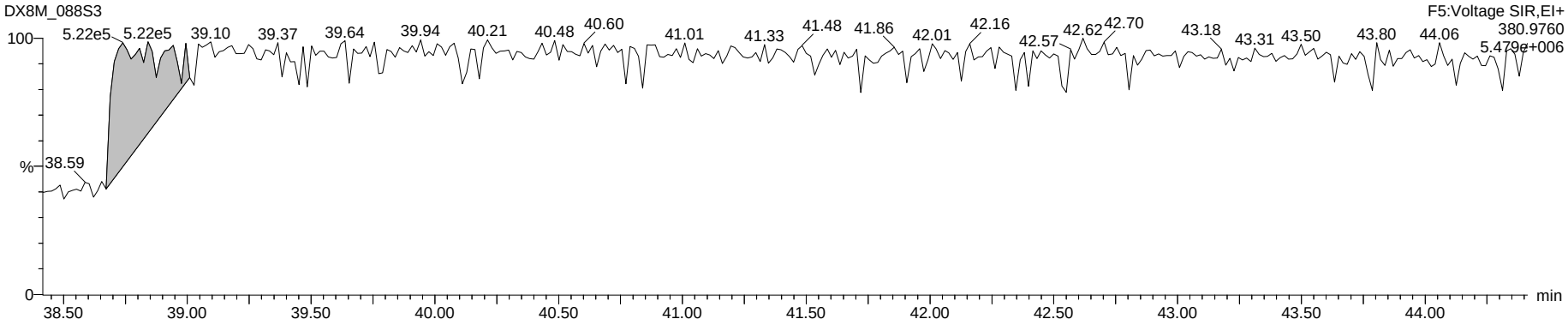
Total Hexa-Furans



Octa DPE



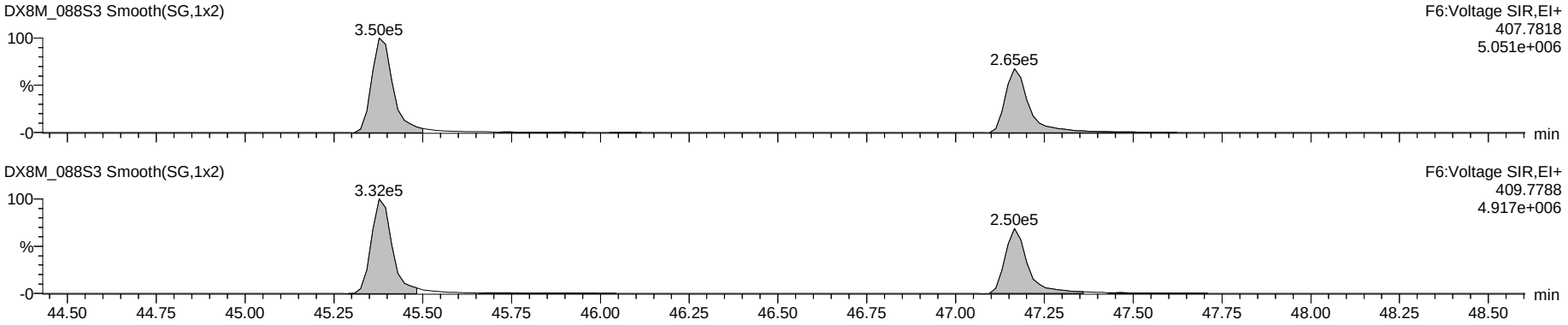
Hexa Lock



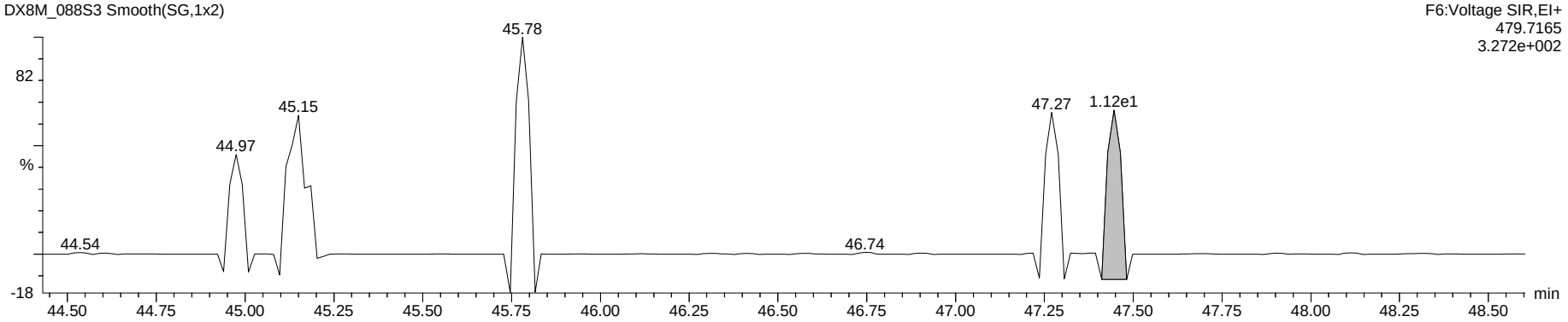
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

Name: DX8M_088S3, Date: 24-Jul-2018, Time: 18:53:17, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

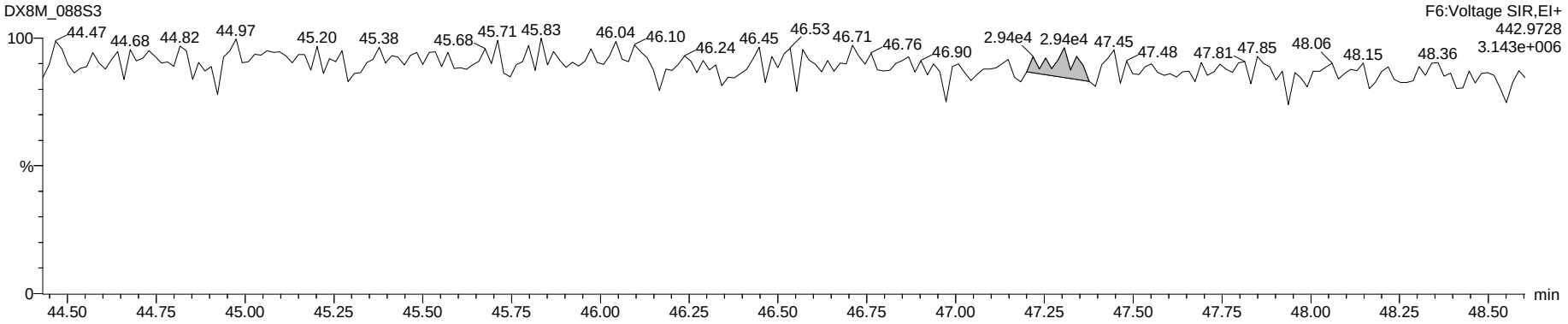
Total Hepta-Furans



Nona DPE



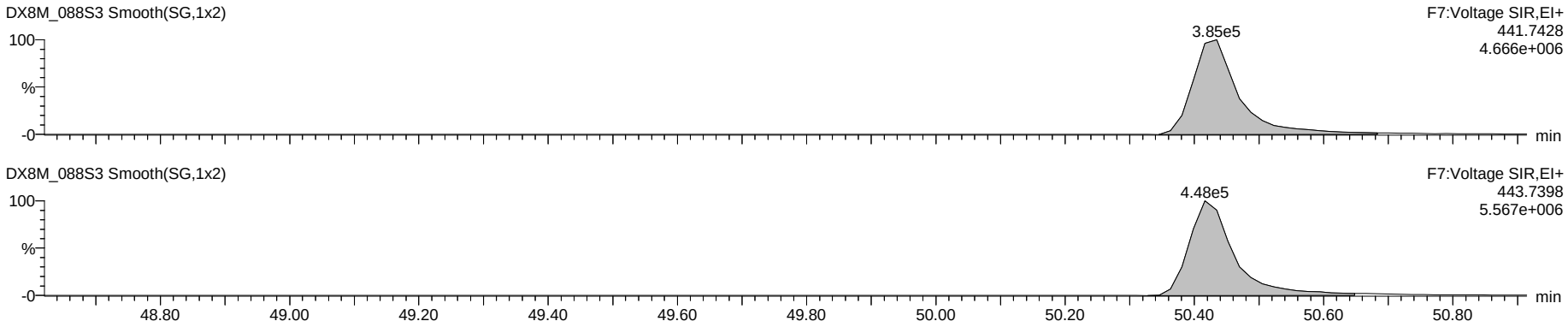
Hepta Lock



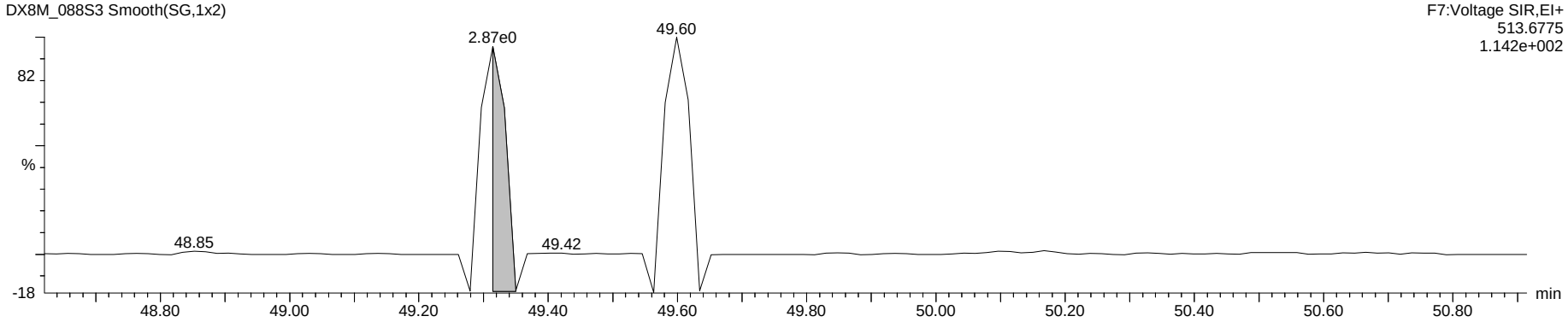
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

Name: DX8M_088S3, Date: 24-Jul-2018, Time: 18:53:17, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

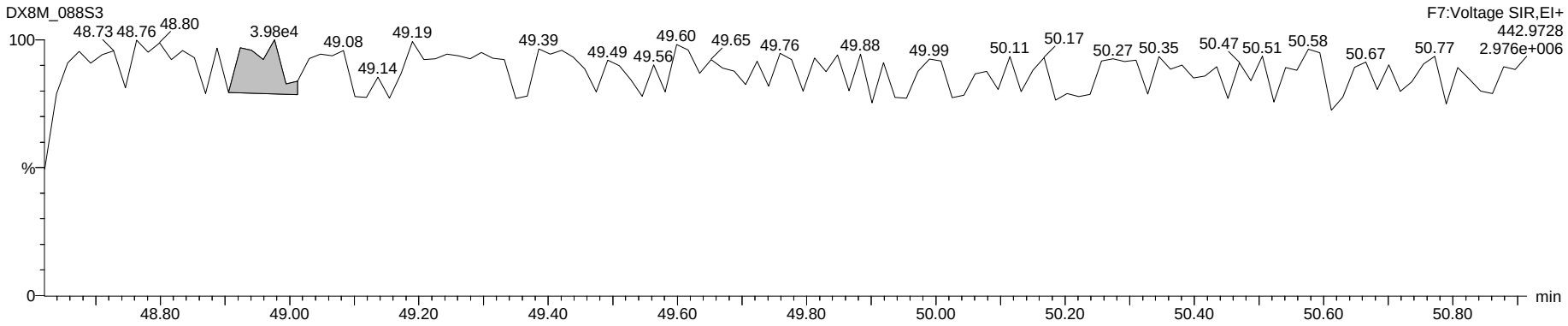
OCDF



Deca DPE



Octa Lock



Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

Name: DX8M_088S14, Date: 25-Jul-2018, Time: 05:04:31, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

	Name	Sample Size	Resp	Ratio	fails?	RT	pg	DL	%Rec	Noise 1	Noise 2
1	2,3,7,8-TCDF	1.000	2.49e5	0.66	NO	25.31	9.814	0.0448	98.1	2.91e3	2.11e3
2	1,2,3,7,8-PeCDF	1.000	9.91e5	1.32	NO	33.65	47.981	0.0817	96.0	2.40e3	3.86e3
3	2,3,4,7,8-PeCDF	1.000	9.36e5	1.32	NO	35.40	45.113	0.0711	90.2	2.40e3	3.86e3
4	1,2,3,4,7,8-HxCDF	1.000	8.73e5	1.09	NO	40.77	48.770	0.0635	97.5	3.46e3	2.88e3
5	1,2,3,6,7,8-HxCDF	1.000	9.41e5	1.10	NO	40.94	49.520	0.0607	99.0	3.46e3	2.88e3
6	2,3,4,6,7,8-HxCDF	1.000	9.00e5	1.07	NO	41.89	48.275	0.0612	96.6	3.46e3	2.88e3
7	1,2,3,7,8,9-HxCDF	1.000	6.56e5	1.12	NO	42.92	45.424	0.0789	90.8	3.46e3	2.88e3
8	1,2,3,4,6,7,8-HpCDF	1.000	7.62e5	0.95	NO	45.36	54.069	0.0501	108.1	2.09e3	2.04e3
9	1,2,3,4,7,8,9-HpCDF	1.000	6.18e5	0.91	NO	47.15	52.804	0.0610	105.6	2.09e3	2.04e3
10	OCDF	1.000	9.97e5	0.79	NO	50.42	100.660	0.0000	100.7	3.74e-1	2.52e-1
11	2,3,7,8-TCDD	1.000	2.07e5	0.76	NO	26.54	10.285	0.0615	102.9	2.24e3	2.99e3
12	1,2,3,7,8-PeCDD	1.000	7.16e5	0.61	NO	36.22	54.724	0.0864	109.4	3.41e3	1.86e3
13	1,2,3,4,7,8-HxCDD	1.000	6.69e5	1.18	NO	42.16	51.118	0.0591	102.2	2.63e3	2.08e3
14	1,2,3,6,7,8-HxCDD	1.000	7.10e5	1.21	NO	42.30	54.431	0.0638	108.9	2.63e3	2.08e3
15	1,2,3,7,8,9-HxCDD	1.000	6.78e5	1.21	NO	42.72	51.703	0.0612	103.4	2.63e3	2.08e3
16	1,2,3,4,6,7,8-HpCDD	1.000	5.64e5	1.09	NO	46.75	54.454	0.0994	108.9	2.70e3	3.09e3
17	OCDD	1.000	8.52e5	0.90	NO	50.33	103.651	0.2947	103.7	2.77e3	9.61e3
18	13C-2,3,7,8-TCDF	1.000	2.77e6	0.69	NO	25.29	95.444	0.1375	95.4	1.21e4	5.40e3
19	13C-1,2,3,7,8-PeCDF	1.000	2.24e6	1.42	NO	33.62	106.861	0.2468	106.9	4.70e3	1.79e4
20	13C-2,3,4,7,8-PeCDF	1.000	2.21e6	1.37	NO	35.38	109.432	0.2558	109.4	4.70e3	1.79e4
21	13C-1,2,3,4,7,8-HxCDF	1.000	1.60e6	0.51	NO	40.76	89.796	0.1474	89.8	8.76e3	5.56e3
22	13C-1,2,3,6,7,8-HxCDF	1.000	1.79e6	0.51	NO	40.92	93.725	0.1380	93.7	8.76e3	5.56e3
23	13C-2,3,4,6,7,8-HxCDF	1.000	1.63e6	0.51	NO	41.86	95.900	0.1544	95.9	8.76e3	5.56e3
24	13C-1,2,3,7,8,9-HxCDF	1.000	1.45e6	0.52	NO	42.91	85.993	0.1566	86.0	8.76e3	5.56e3
25	13C-1,2,3,4,6,7,8-HpCDF	1.000	1.15e6	0.45	NO	45.34	80.829	0.1618	80.8	7.36e3	5.19e3
26	13C-1,2,3,4,7,8,9-HpCDF	1.000	9.35e5	0.45	NO	47.13	84.128	0.2075	84.1	7.36e3	5.19e3
27	13C-2,3,7,8-TCDD	1.000	1.81e6	0.74	NO	26.51	100.136	0.1184	100.1	3.45e3	5.92e3
28	13C-1,2,3,7,8-PeCDD	1.000	1.27e6	0.70	NO	36.18	107.688	0.1119	107.7	4.71e3	1.10e3
29	13C-1,2,3,4,7,8-HxCDD	1.000	1.30e6	1.28	NO	42.14	94.639	0.1182	94.6	5.16e3	3.69e3
30	13C-1,2,3,6,7,8-HxCDD	1.000	1.40e6	1.15	NO	42.28	95.858	0.1117	95.9	5.16e3	3.69e3
31	13C-1,2,3,4,6,7,8-HpCDD	1.000	1.04e6	0.98	NO	46.73	91.332	0.1199	91.3	3.48e3	3.94e3
32	13C-OCDD	1.000	1.61e6	0.89	NO	50.31	161.266	0.1149	80.6	6.25e3	8.22e-2
33	13C-1,2,3,4-TCDD	1.000	1.80e6	0.79	NO	26.18	79.543	0.0945	79.5	3.45e3	5.92e3
34	13C-1,2,3,7,8,9-HxCDD	1.000	1.40e6	1.20	NO	42.70	97.987	0.1140	98.0	5.16e3	3.69e3
35	37Cl-2,3,7,8-TCDD	1.000	1.77e5			26.54	8.867	0.0693	88.7		6.09e3
36	Total Tetra-Furans	1.000					41.276	0.0448			2.11e3
37	Total Tetra-Dioxins	1.000					89.399	0.0615			2.99e3
38	Total Penta-Furans	1.000					180.415	0.0770			3.86e3
39	Total Penta-Dioxins	1.000					175.308	0.0864			1.86e3
40	Total Hexa-Furans	1.000					298.048	0.0633			2.88e3
41	Total Hexa-Dioxins	1.000					215.591	0.0592			2.08e3
42	Total Hepta-Furans	1.000					109.677	0.0556			2.04e3
43	Total Hepta-Dioxins	1.000					111.538	0.0994			3.09e3
44	Hexa DPE	1.000	9.57e1			21.45					1.15e-1
45	Hepta DPE	1.000	1.49e2			35.58					2.69e-1
46	Octa DPE	1.000	9.85e1			40.15					1.01e0
47	Nona DPE	1.000	1.51e2			46.73					3.02e-1
48	Deca DPE	1.000	2.44e1			50.31					9.72e-1
49	Tetra Lock	1.000	1.15e4			24.02					1.41e5
50	Penta Lock	1.000	2.90e5			29.68					2.30e5
51	Hexa Lock	1.000	3.96e5			38.88					5.50e5
52	Hepta Lock	1.000	1.15e4			47.08					2.32e5
53	Octa Lock	1.000									4.17e5
54	13C-Tetra-Furans	1.000					95.444	0.1375			5.40e3
55	13C-Tetra-Dioxins	1.000					179.678	0.2129			5.92e3

pv'd by LHE 25-JULY-2018 Cal/Ver and SPM units = ng/mL Samples and Lab Blank units = pg/L

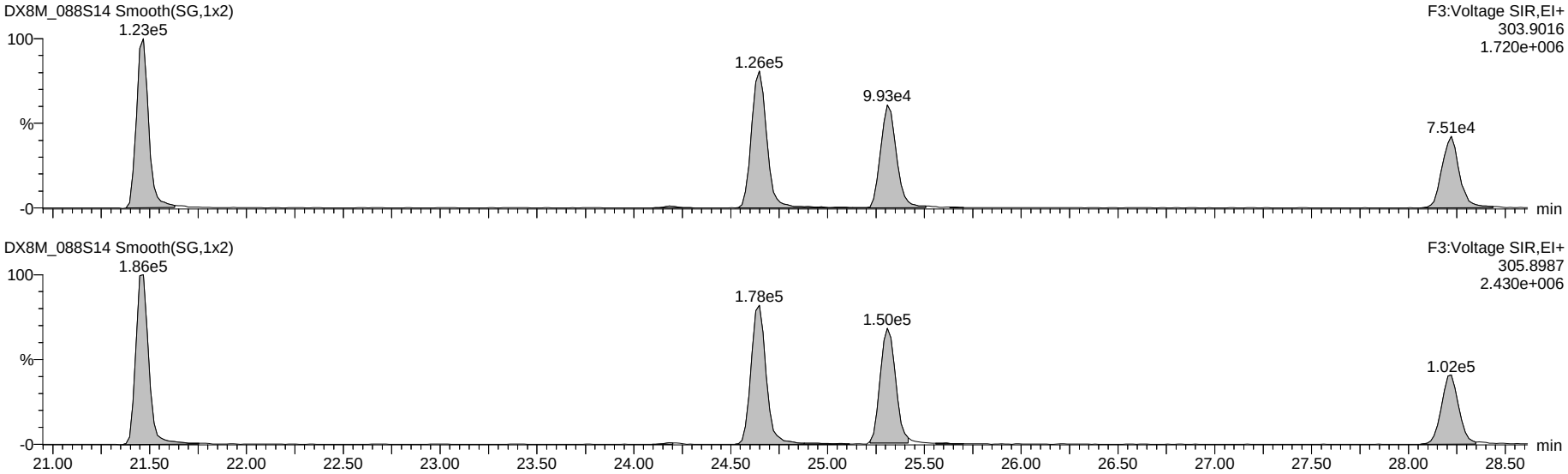
SVbyKB 26JUl2018

Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

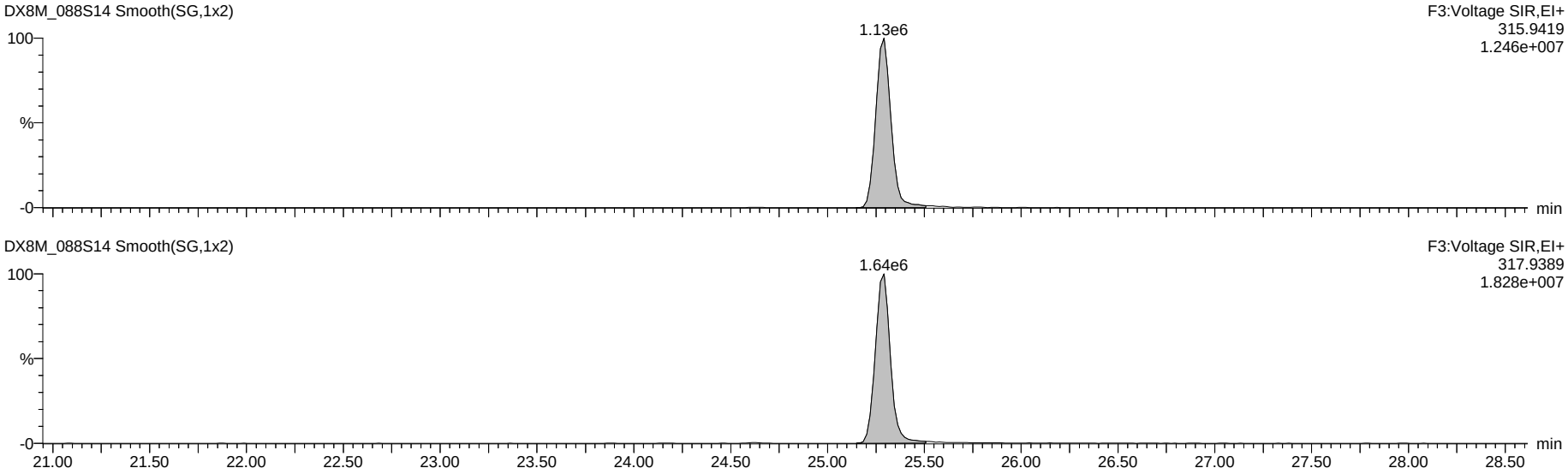
Method: G:\Masslynx\Inst_M\Projects\180604DX.pro\MethDB\DX_1613B_16.mdb 05 Apr 2018 09:34:55
Calibration: G:\Masslynx\Inst_M\Projects\180604DX.pro\CurveDB\DX8M_065C-6A.cdb 06 Jun 2018 09:11:00

Name: DX8M_088S14, Date: 25-Jul-2018, Time: 05:04:31, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Tetra-Furans



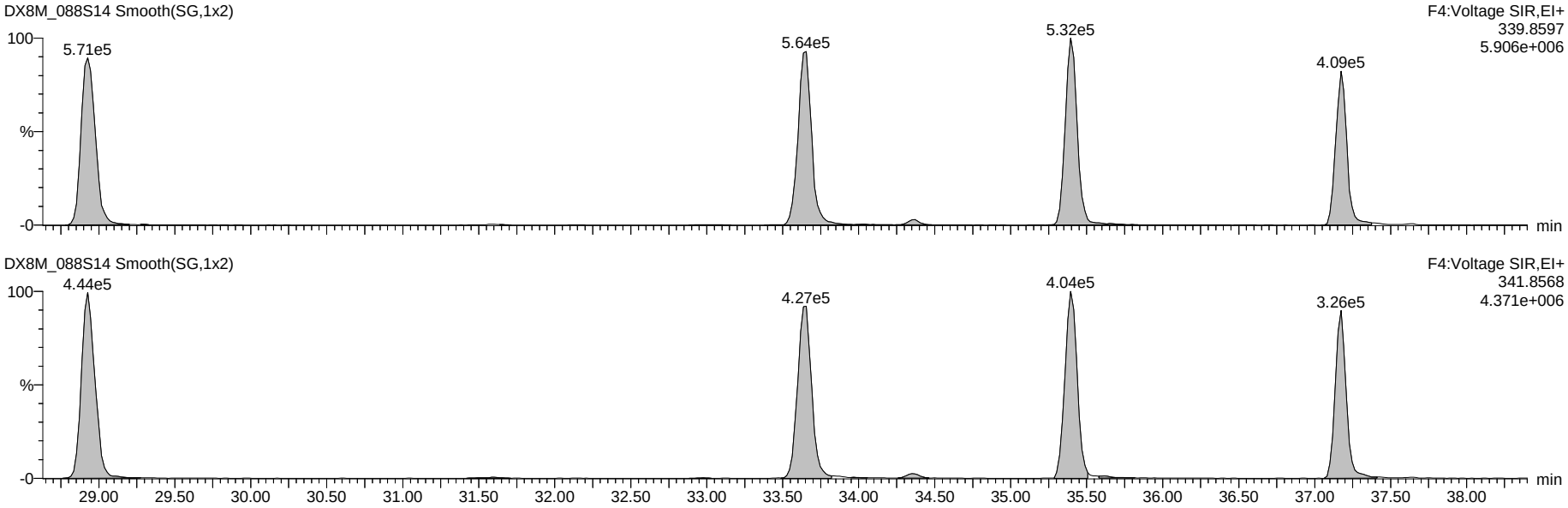
13C-Tetra-Furans



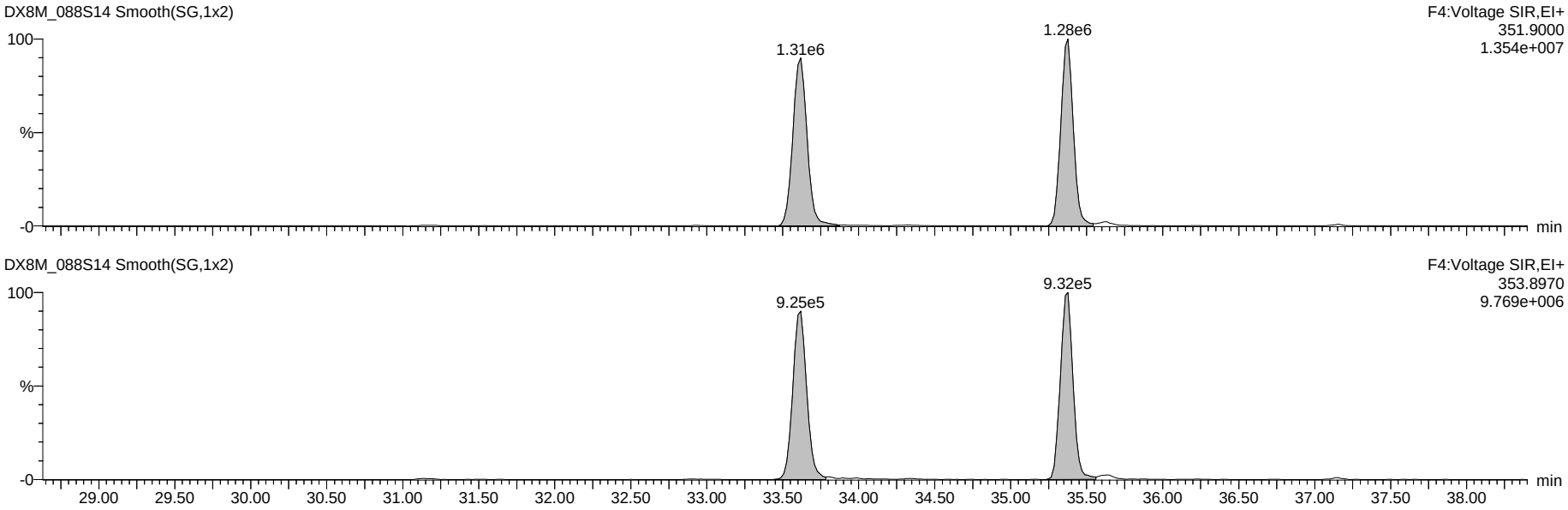
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

Name: DX8M_088S14, Date: 25-Jul-2018, Time: 05:04:31, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Penta-Furans



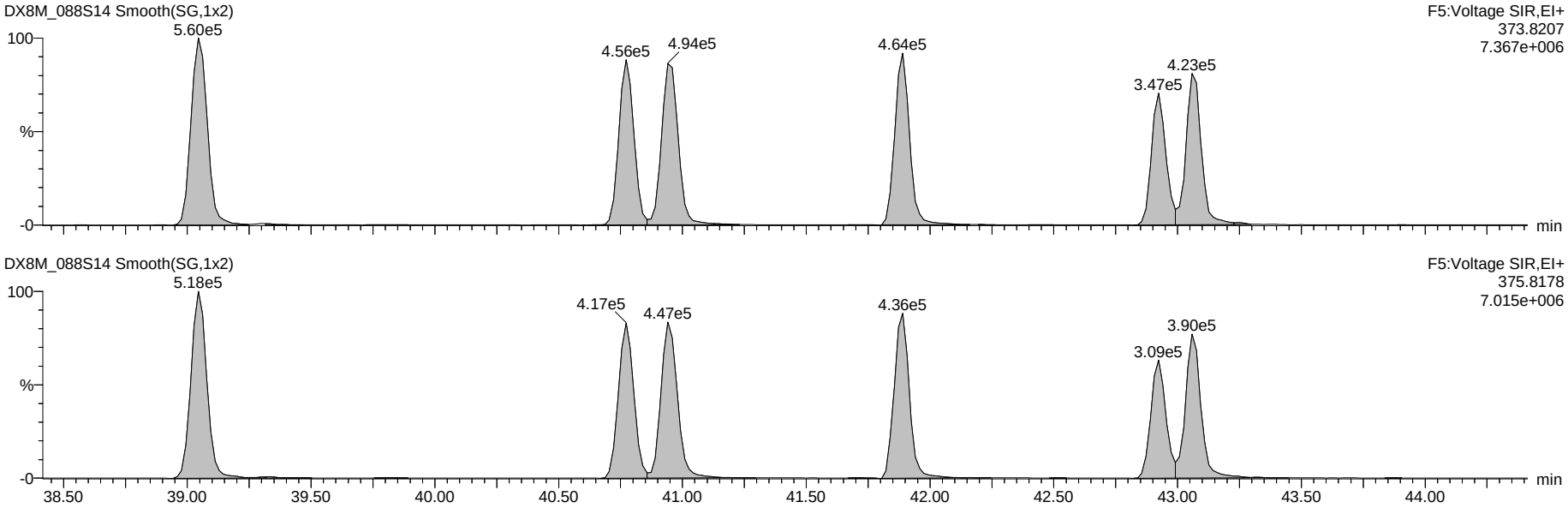
13C-Penta-Furans



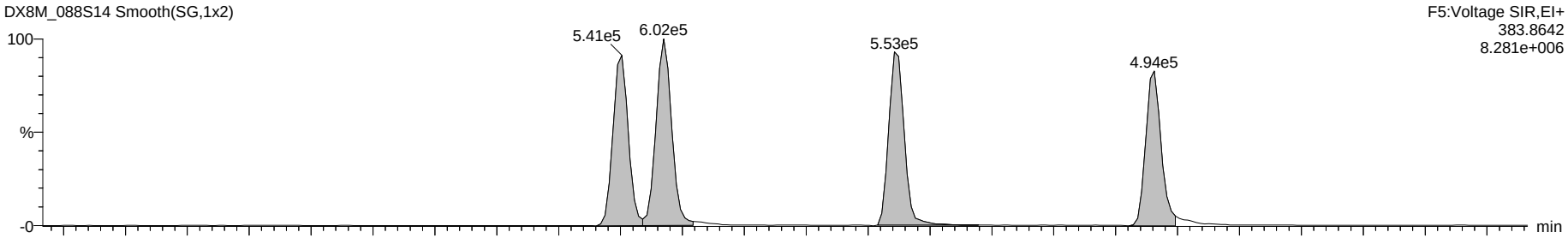
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

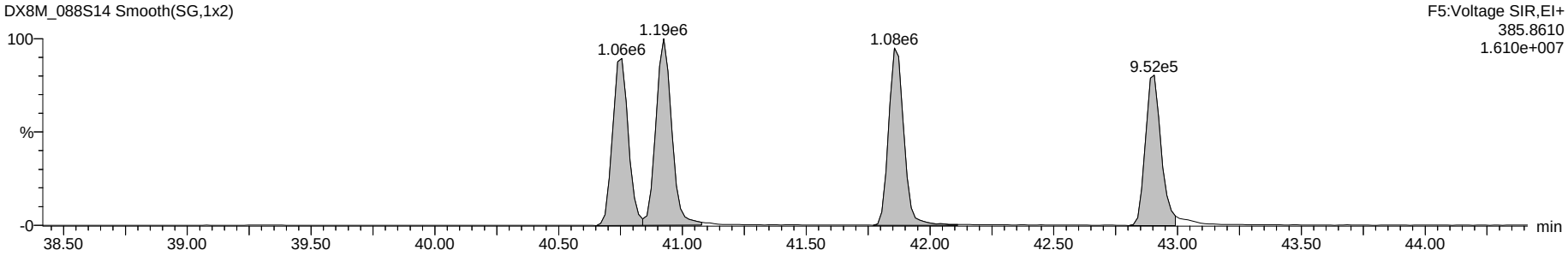
Name: DX8M_088S14, Date: 25-Jul-2018, Time: 05:04:31, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Hexa-Furans



13C-Hexa-Furans

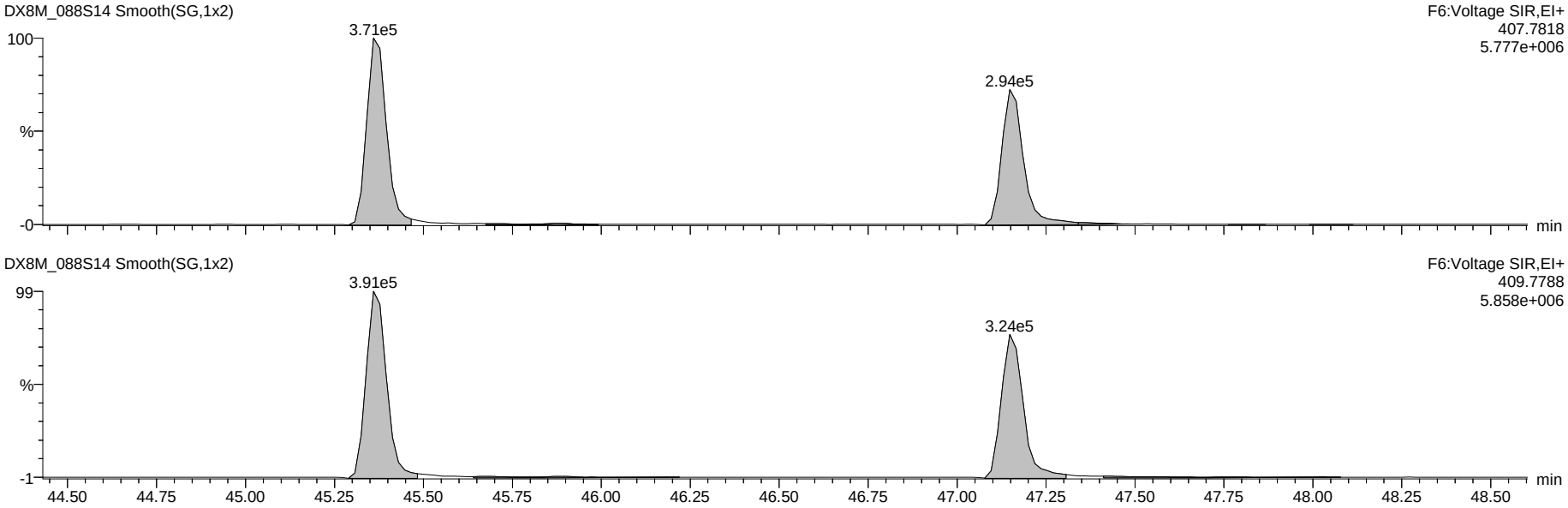




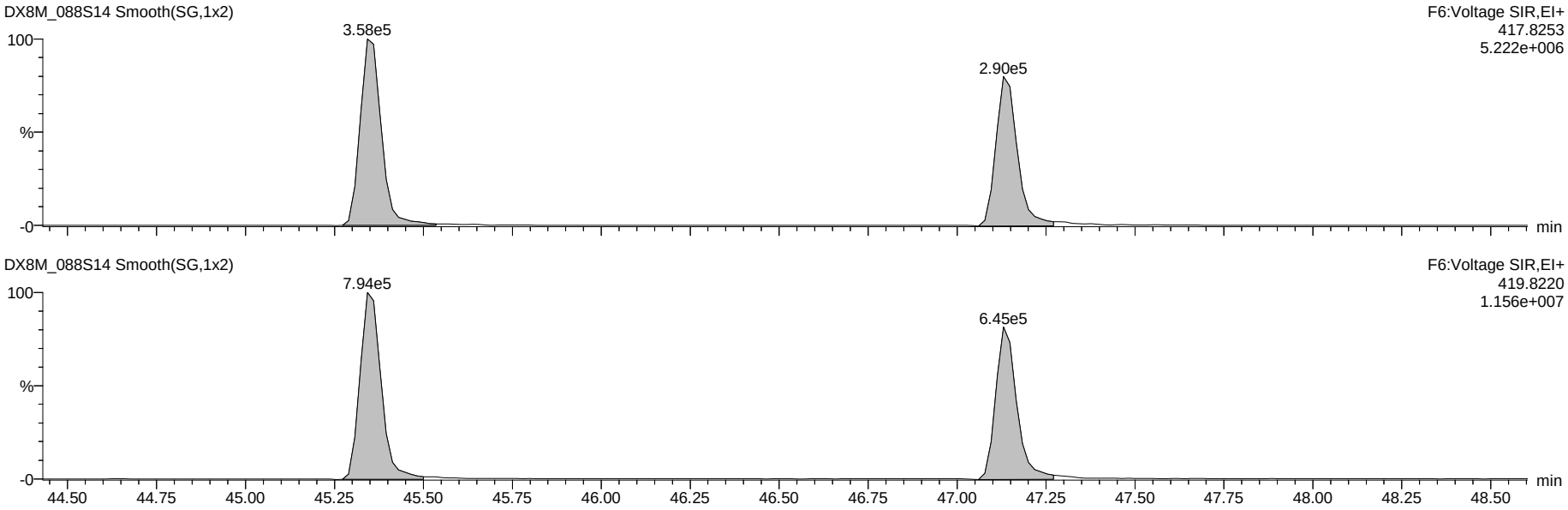
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

Name: DX8M_088S14, Date: 25-Jul-2018, Time: 05:04:31, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Hepta-Furans



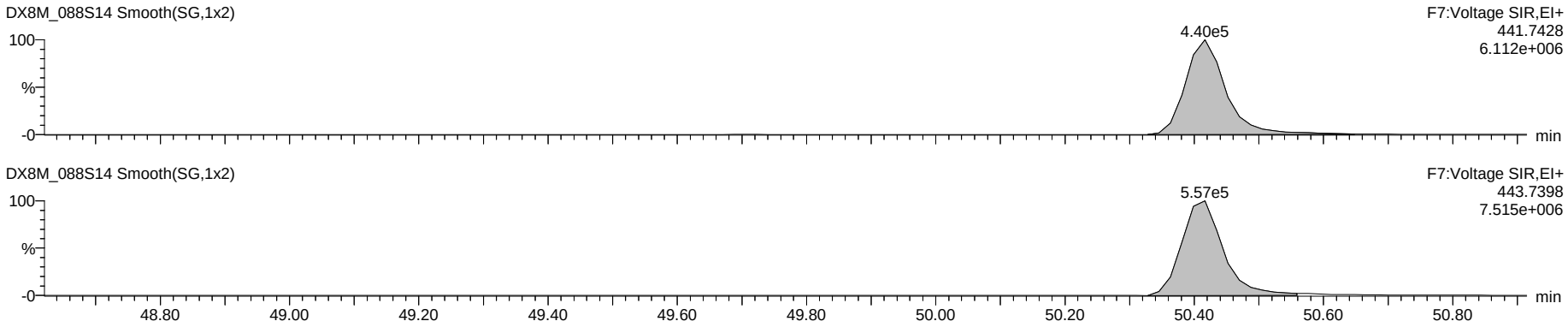
13C-Hepta-Furans



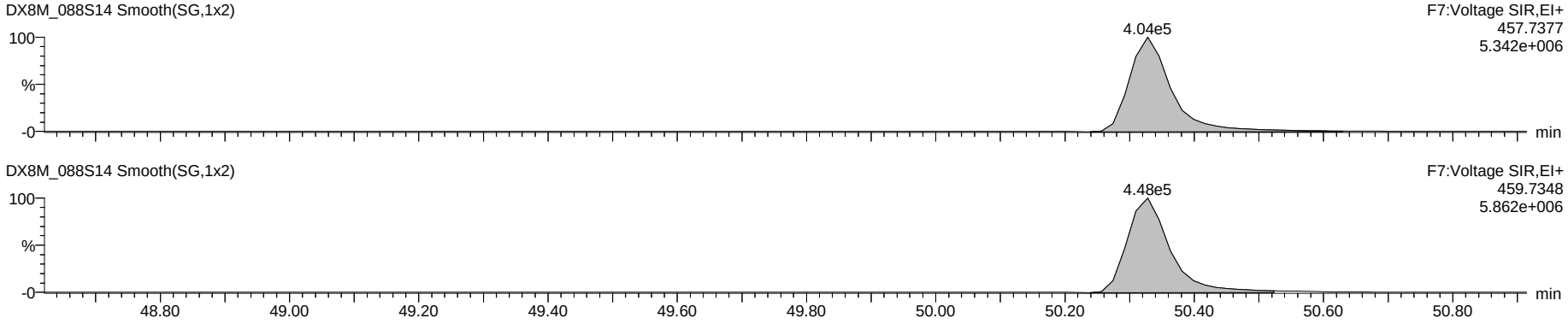
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

Name: DX8M_088S14, Date: 25-Jul-2018, Time: 05:04:31, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

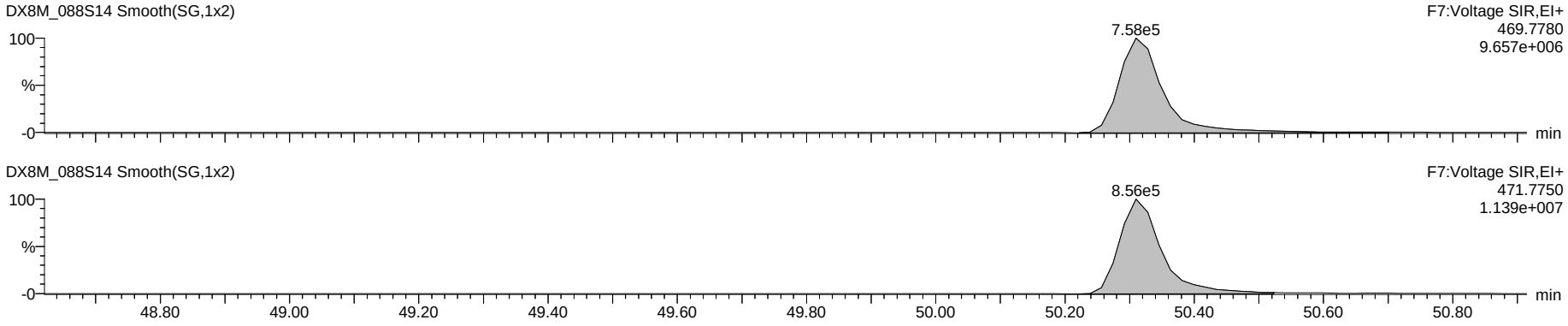
OCDF



OCDD



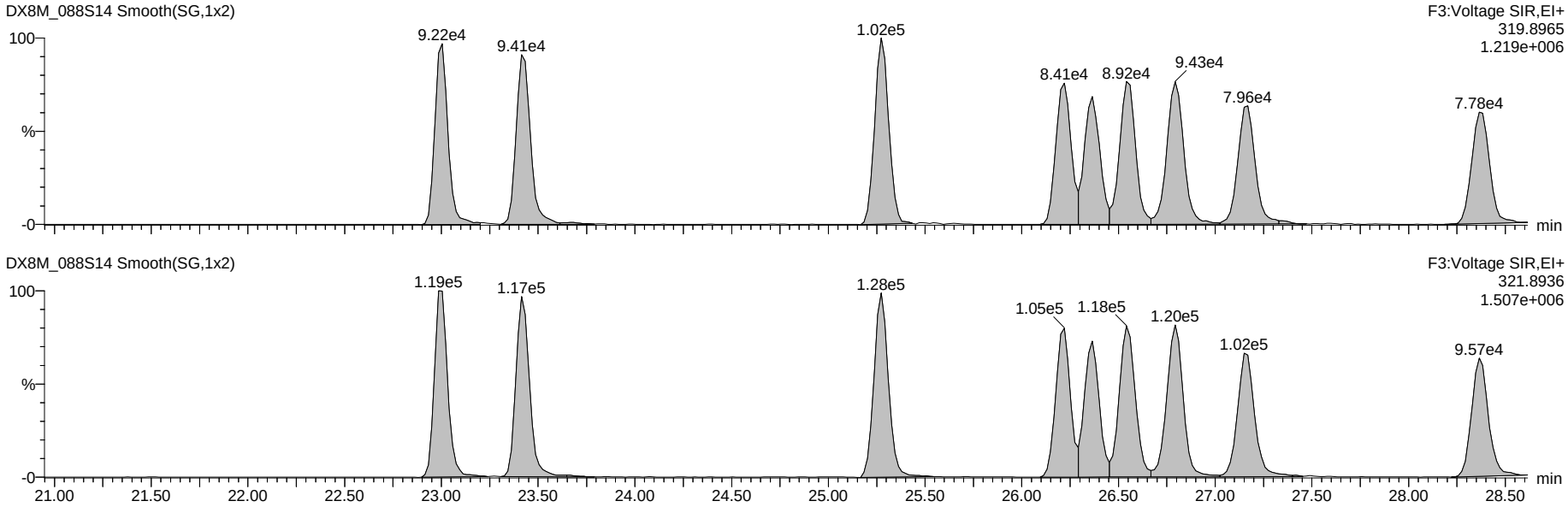
13C-OCDD



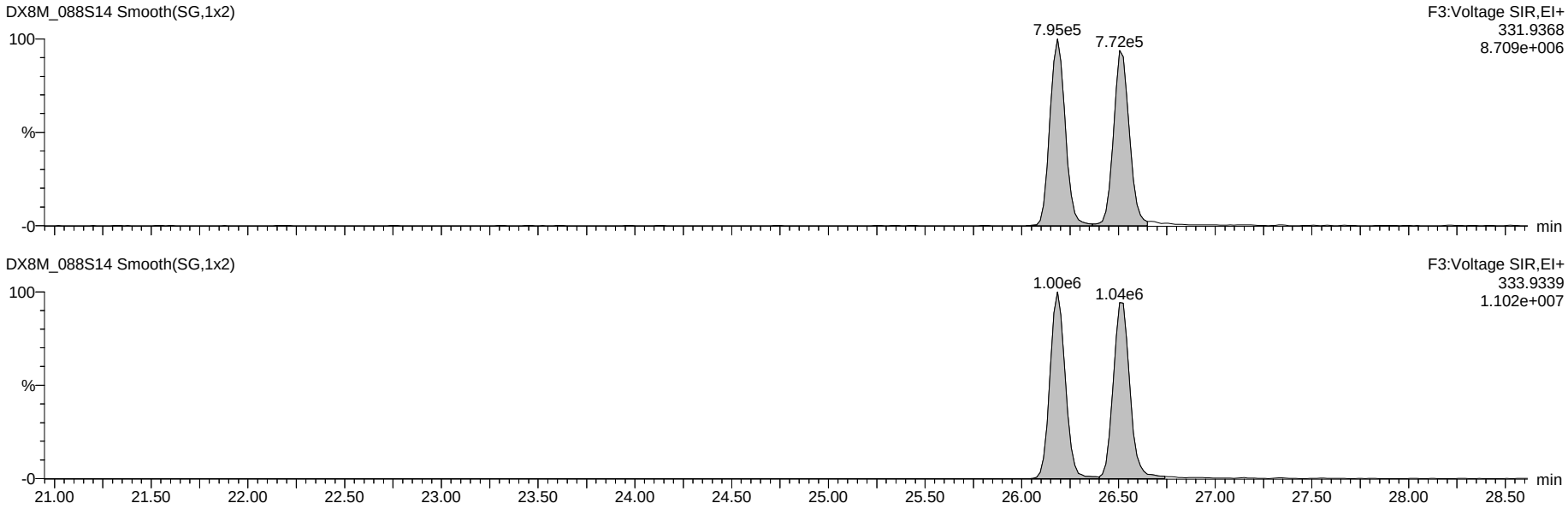
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

Name: DX8M_088S14, Date: 25-Jul-2018, Time: 05:04:31, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Tetra-Dioxins



13C-Tetra-Dioxins



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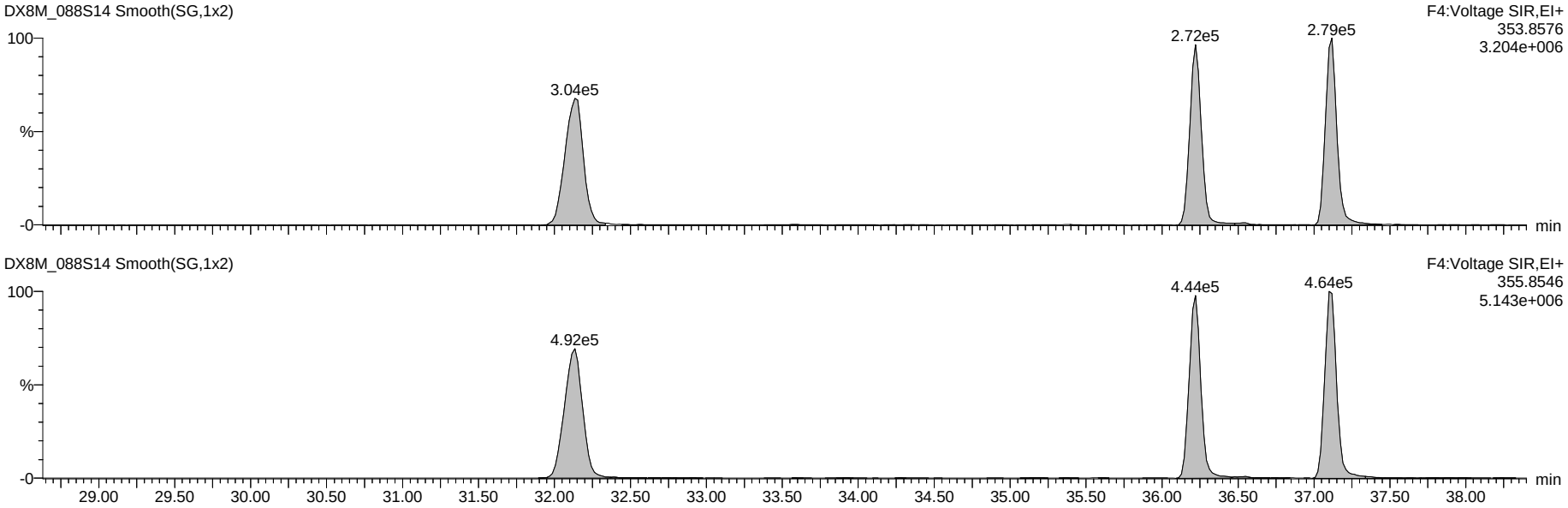
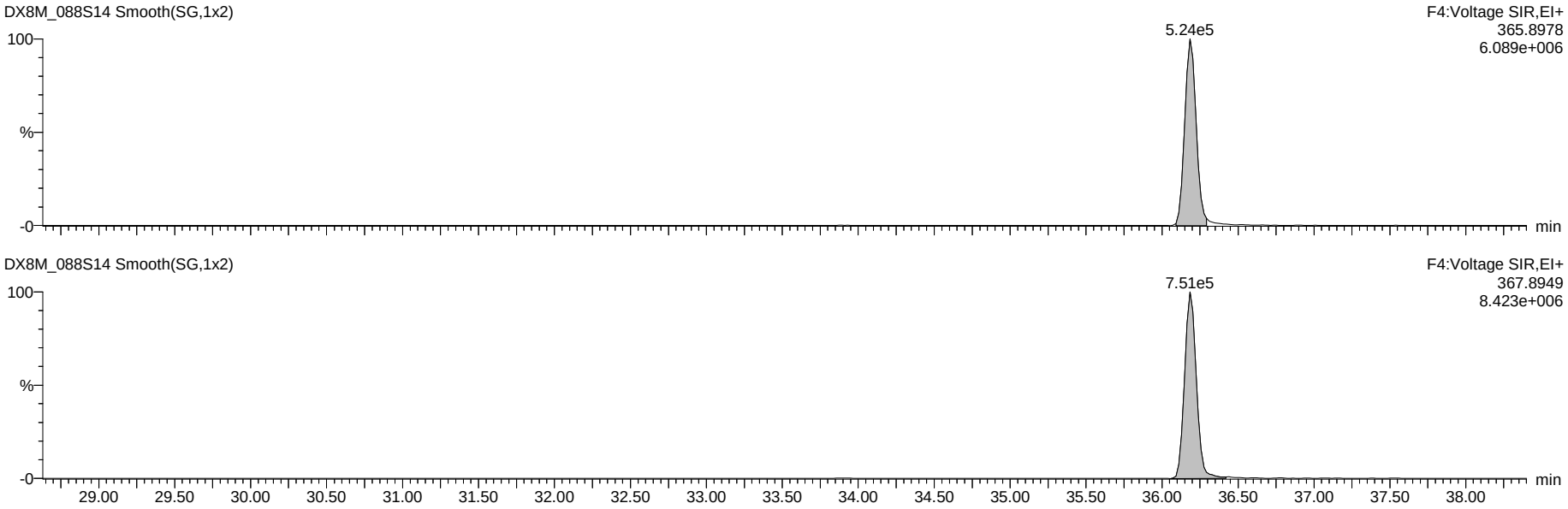
Name: DX8M_088S14, Date: 25-Jul-2018, Time: 05:04:31, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Penta-Dioxins



13C-Penta-Dioxins



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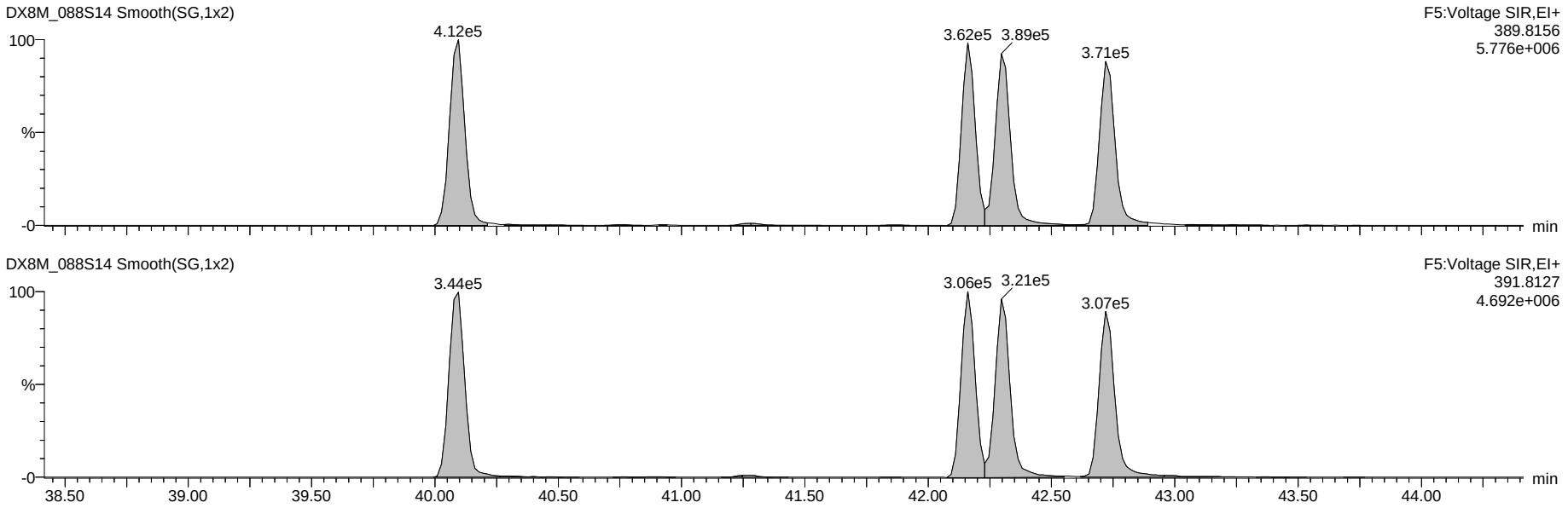
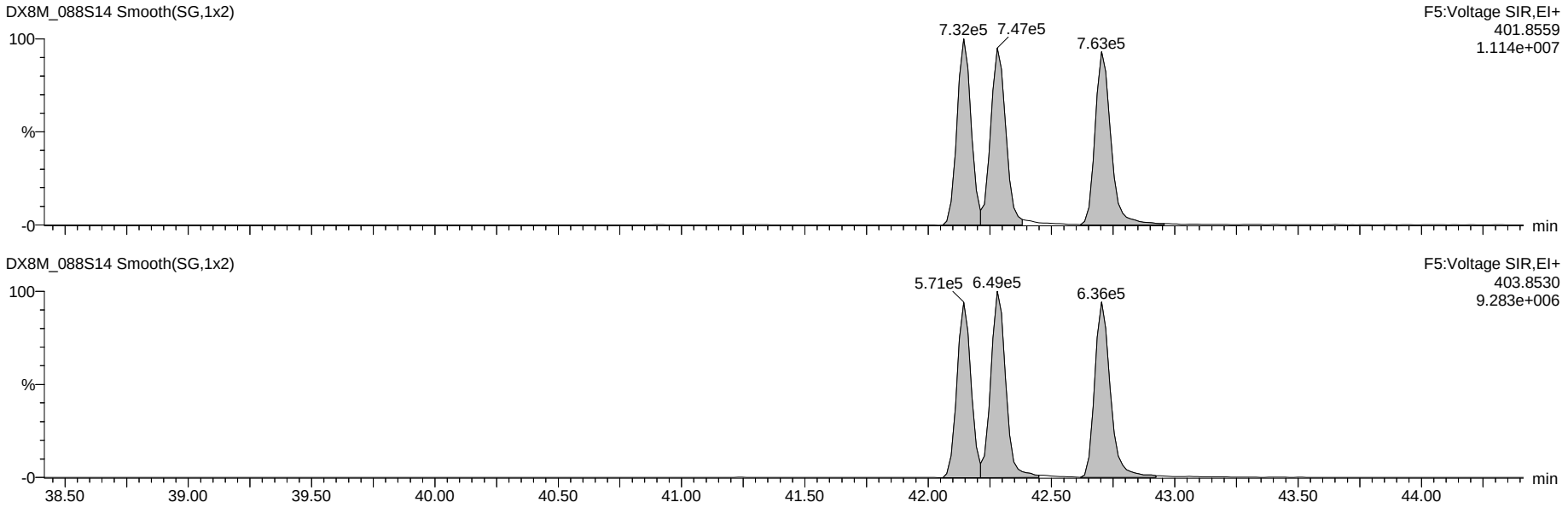
Name: DX8M_088S14, Date: 25-Jul-2018, Time: 05:04:31, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Hexa-Dioxins



13C-Hexa-Dioxins



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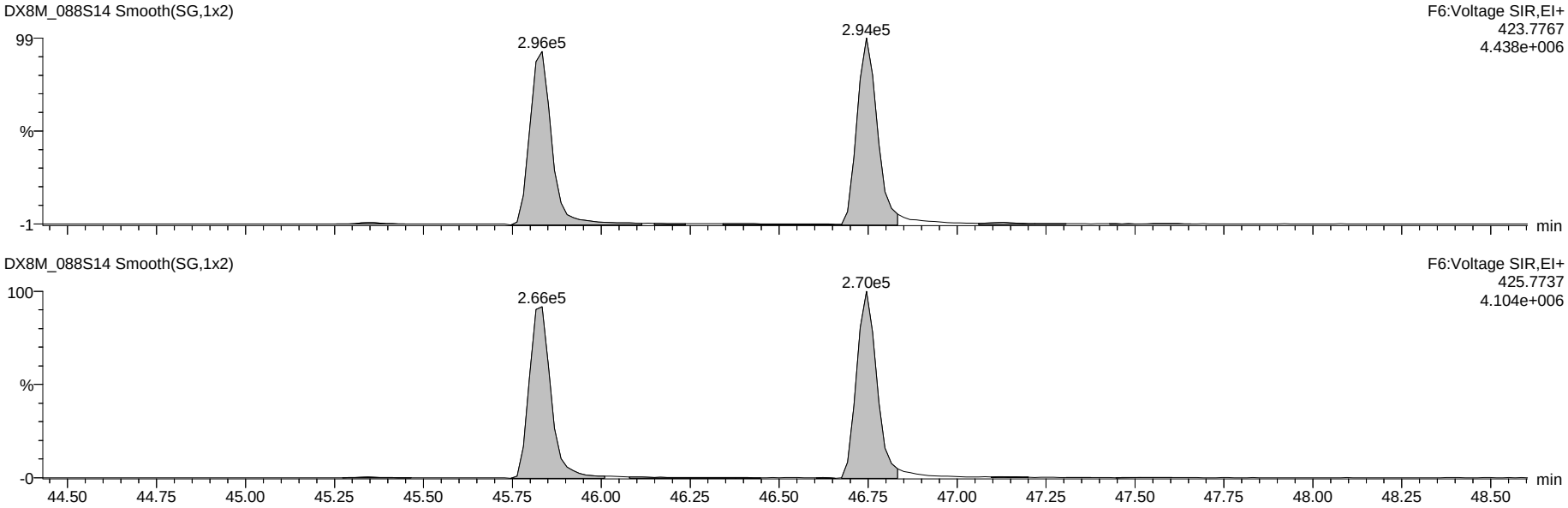
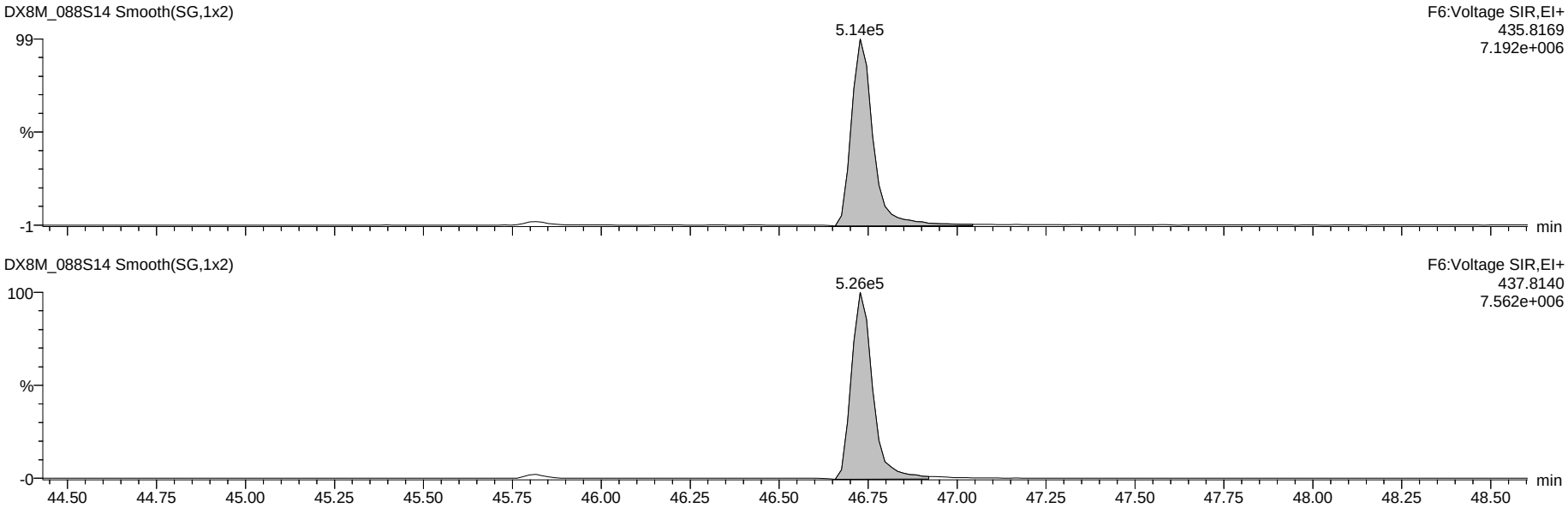
Name: DX8M_088S14, Date: 25-Jul-2018, Time: 05:04:31, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

Total Hepta-Dioxins



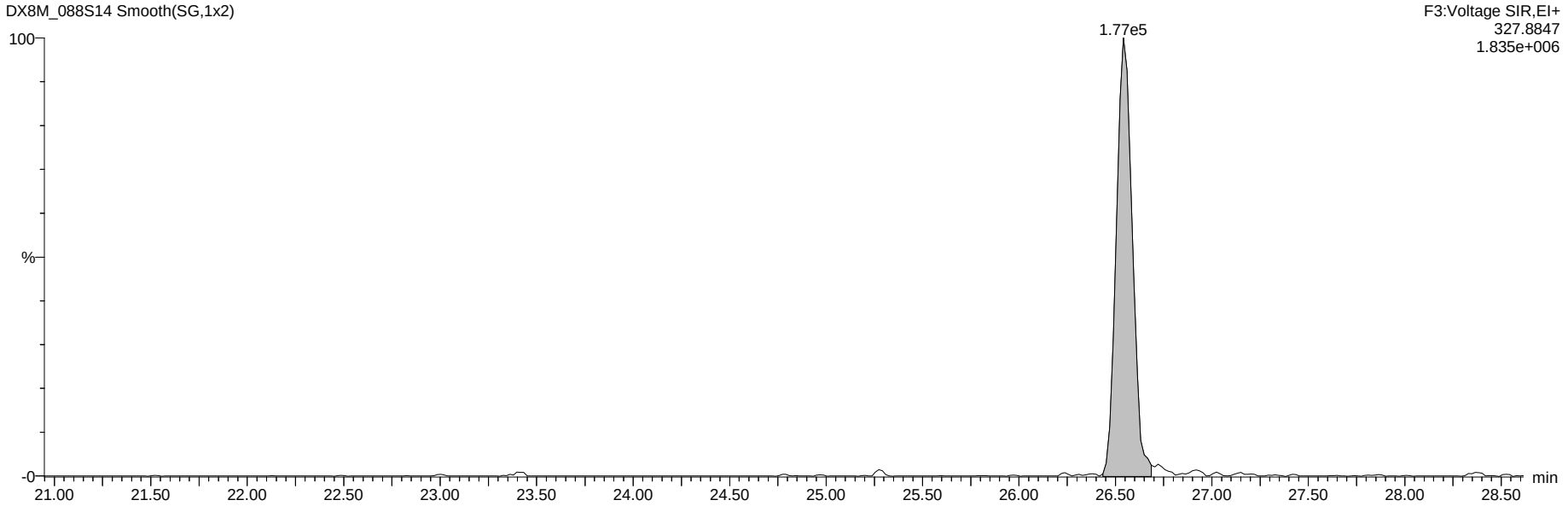
13C-Hepta-Dioxins



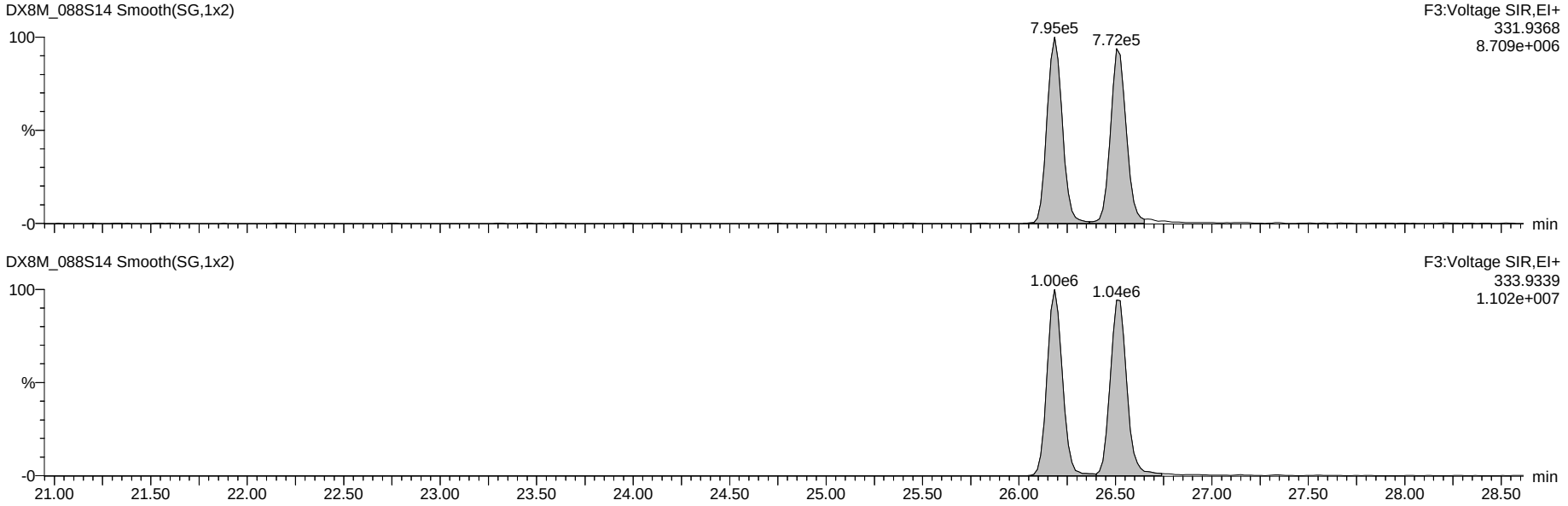
Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

Name: DX8M_088S14, Date: 25-Jul-2018, Time: 05:04:31, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

37Cl-2,3,7,8-TCDD



13C-Tetra-Dioxins



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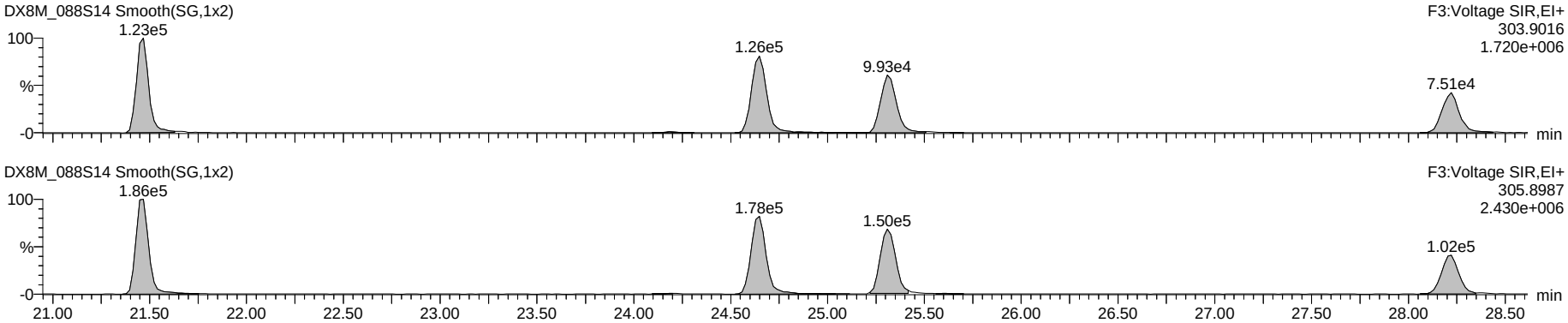
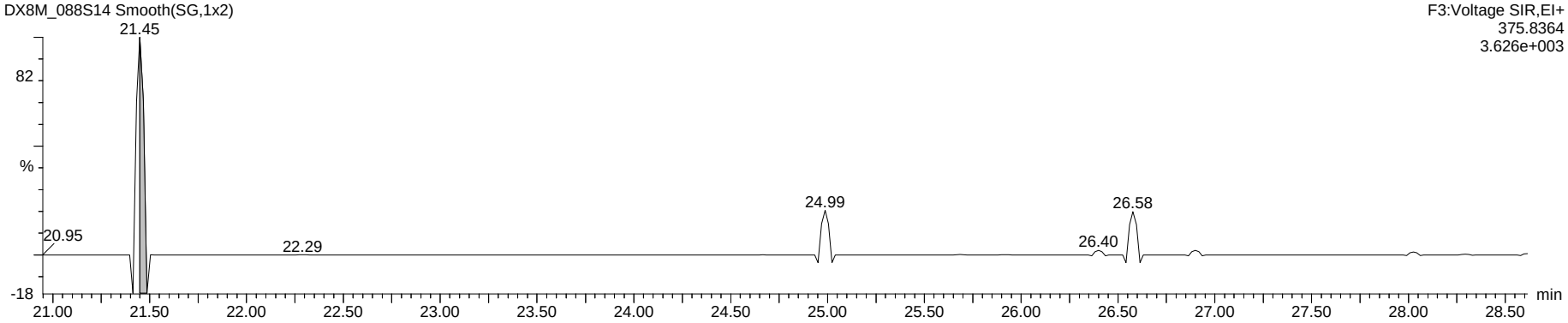
Name: DX8M_088S14, Date: 25-Jul-2018, Time: 05:04:31, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

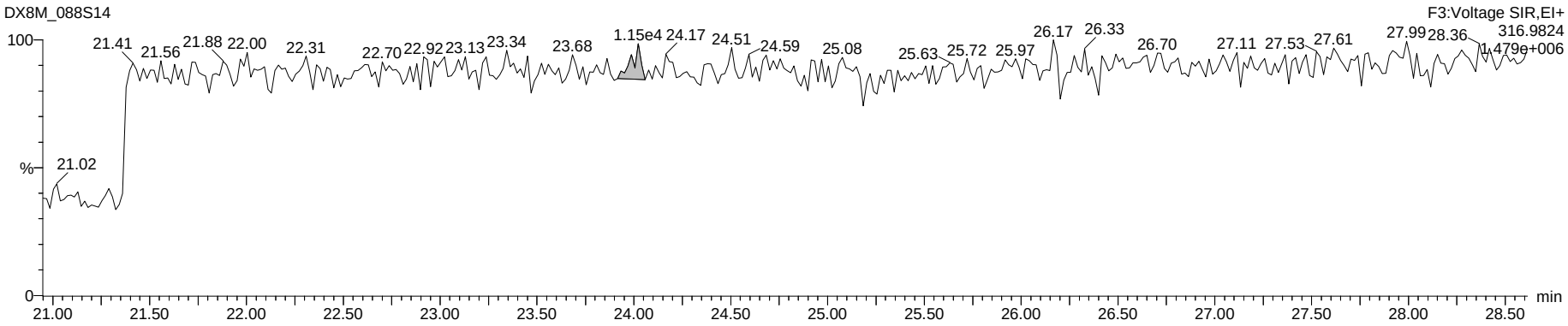
Total Tetra-Furans



Hexa DPE



Tetra Lock



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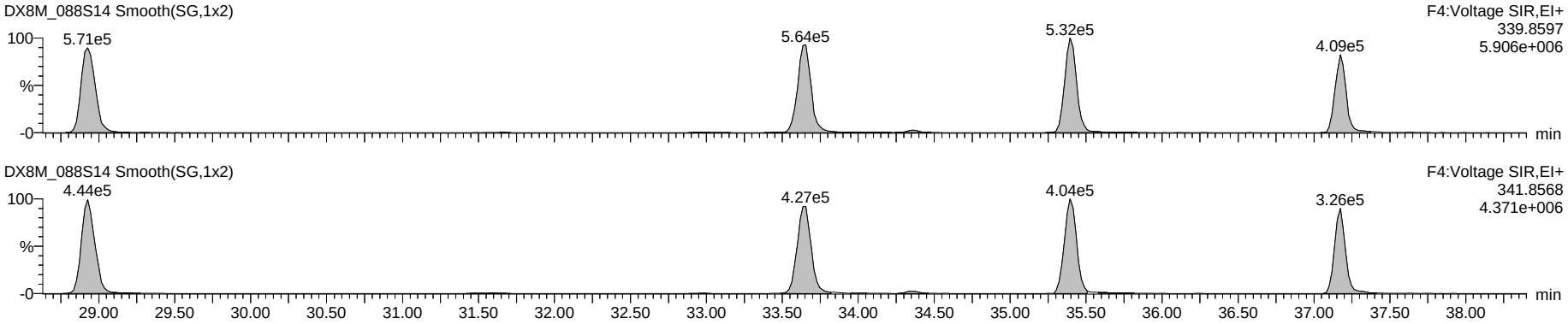
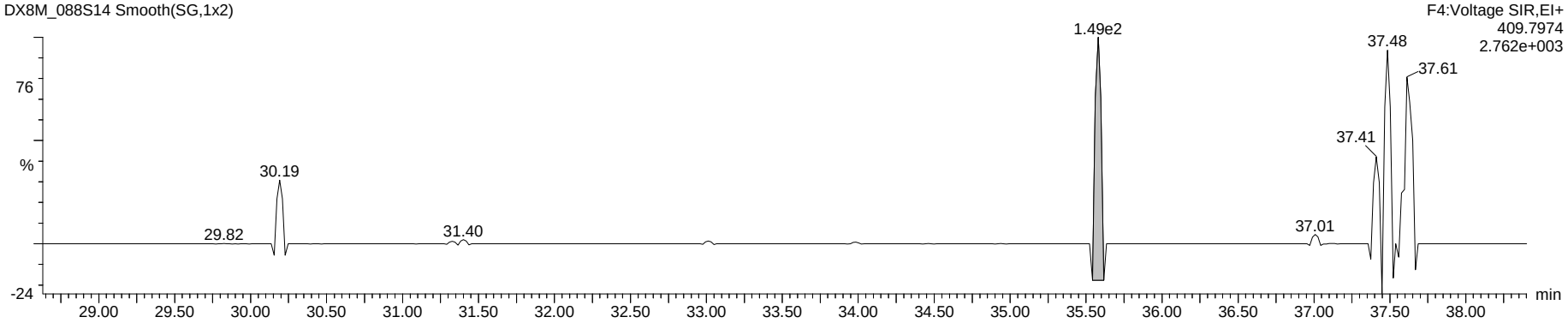
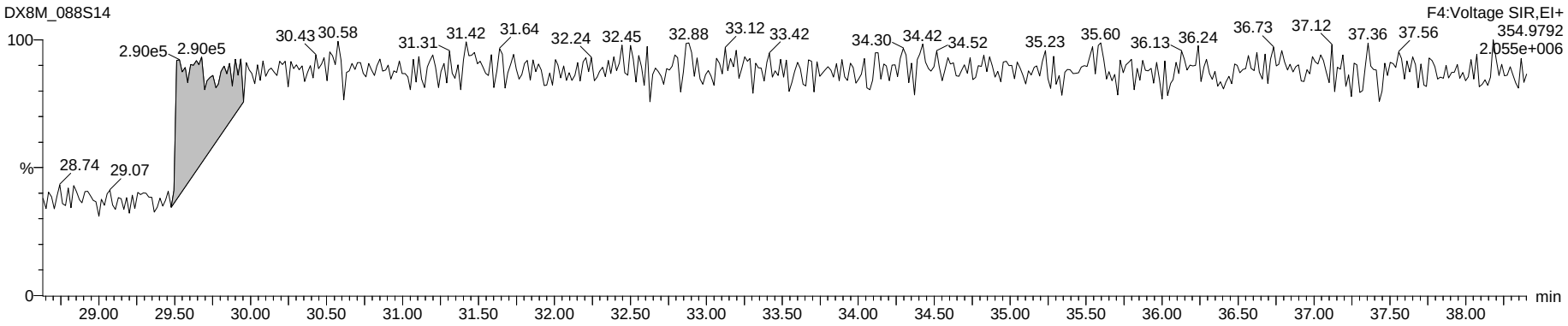
Total Penta-Furans



Hepta DPE



Penta Lock



Dataset: G:\Masslynx\Inst_M\Projects\180604DX.PRO\DX8M_088-B.qld

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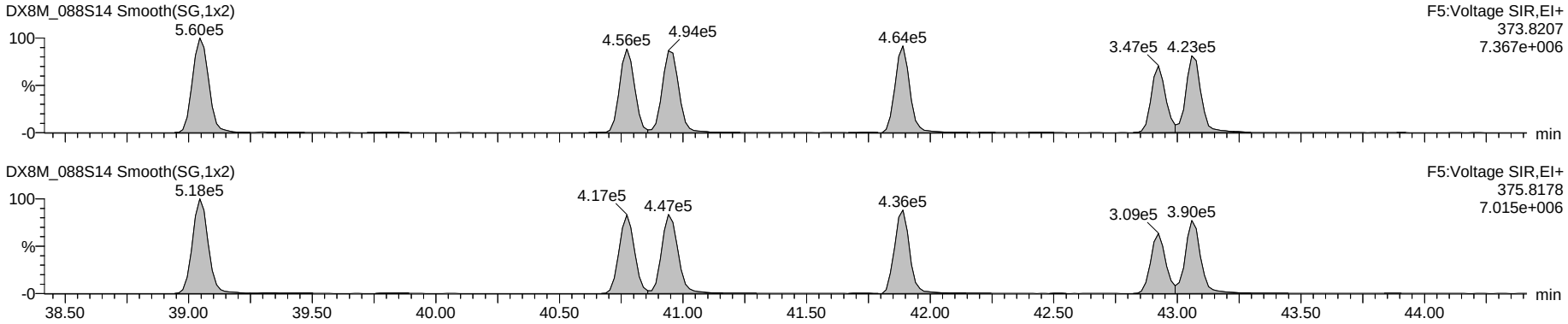
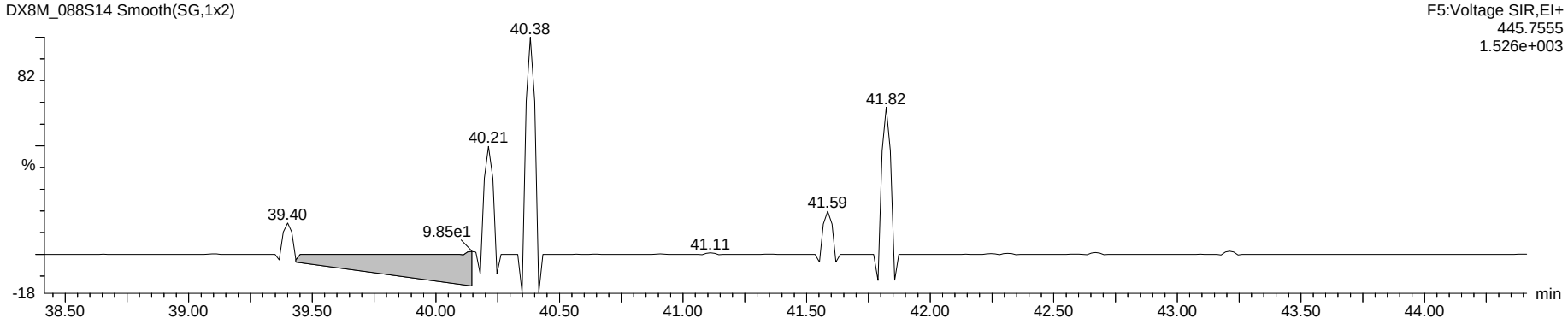
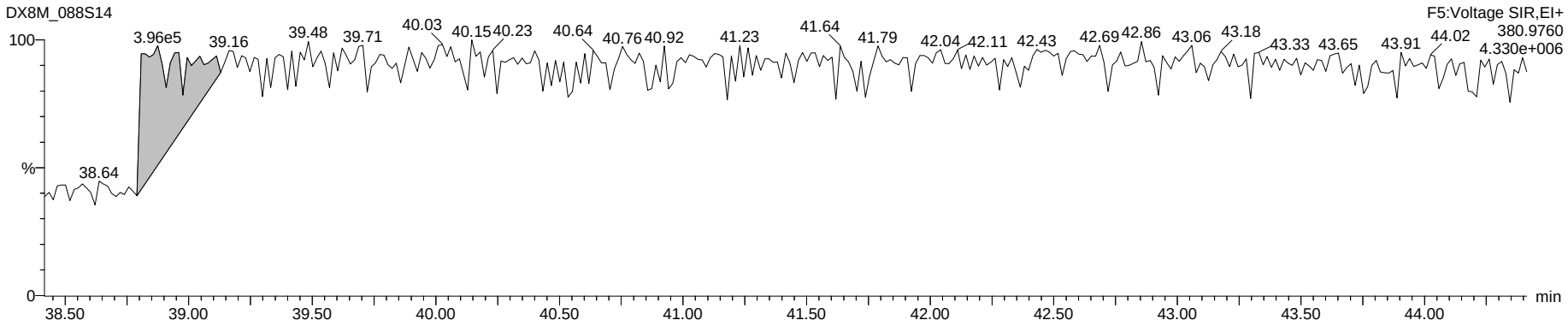
Total Hexa-Furans



Octa DPE



Hexa Lock



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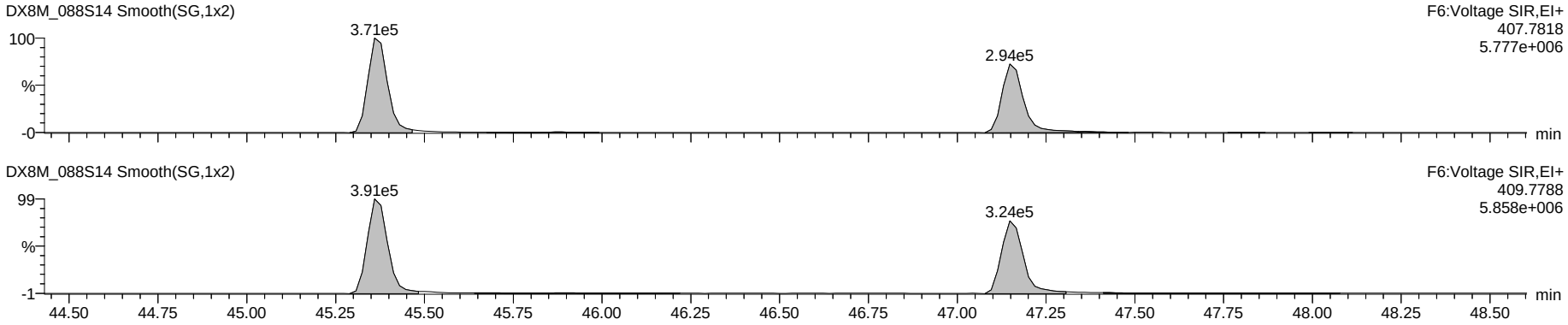
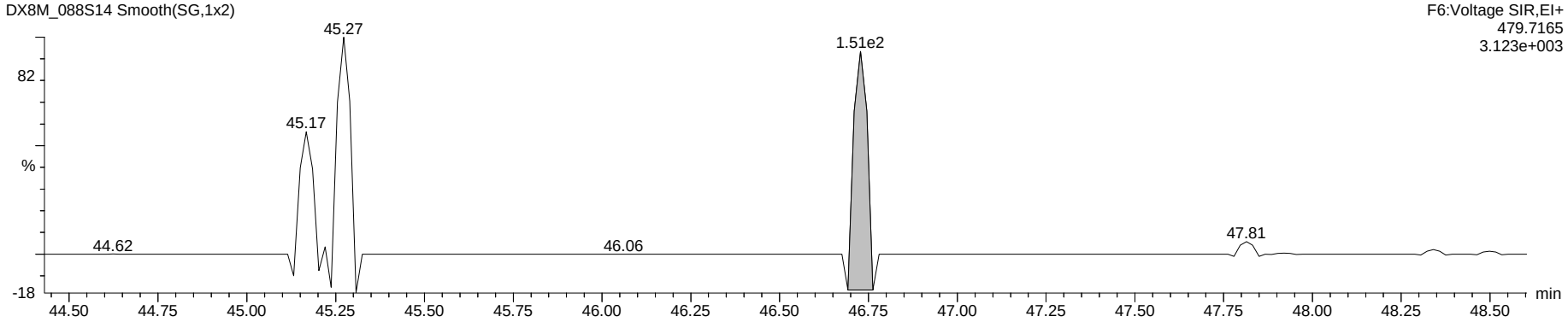
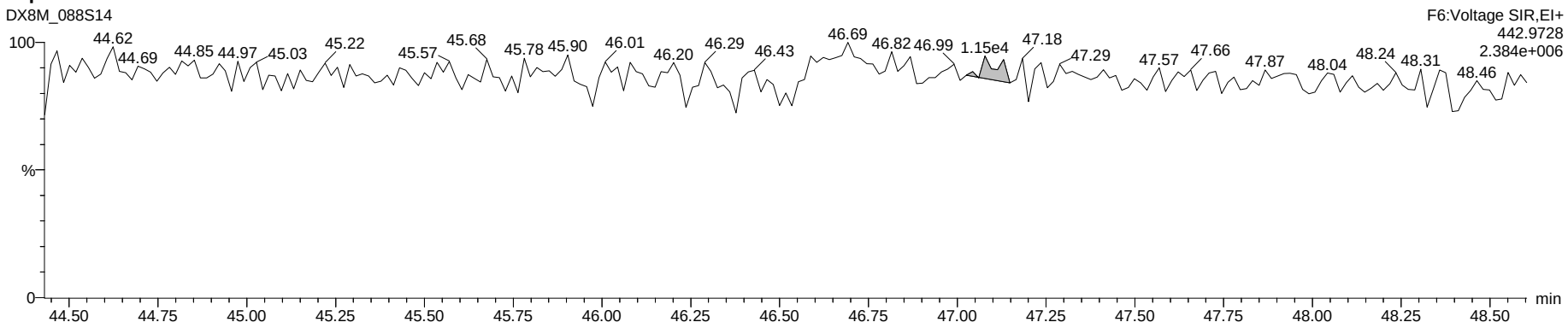
Total Hepta-Furans



Nona DPE



Hepta Lock



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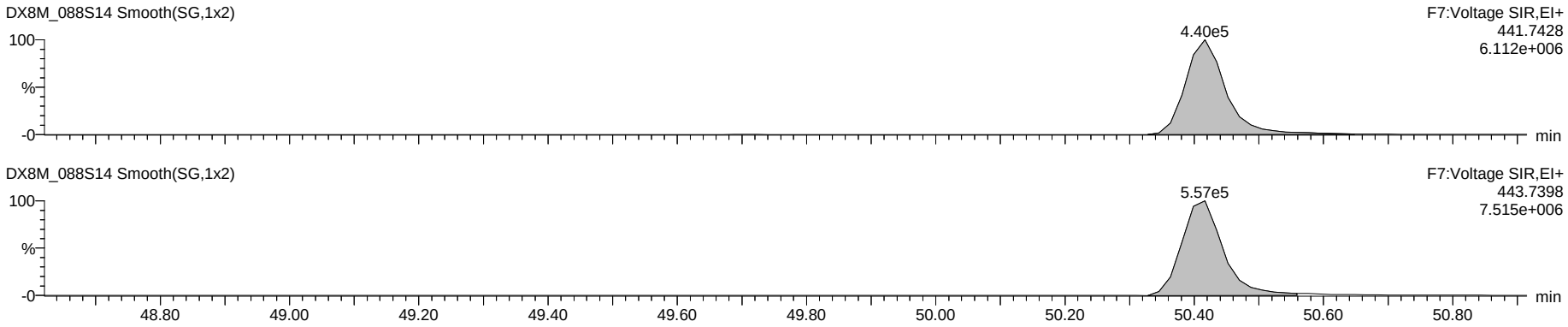
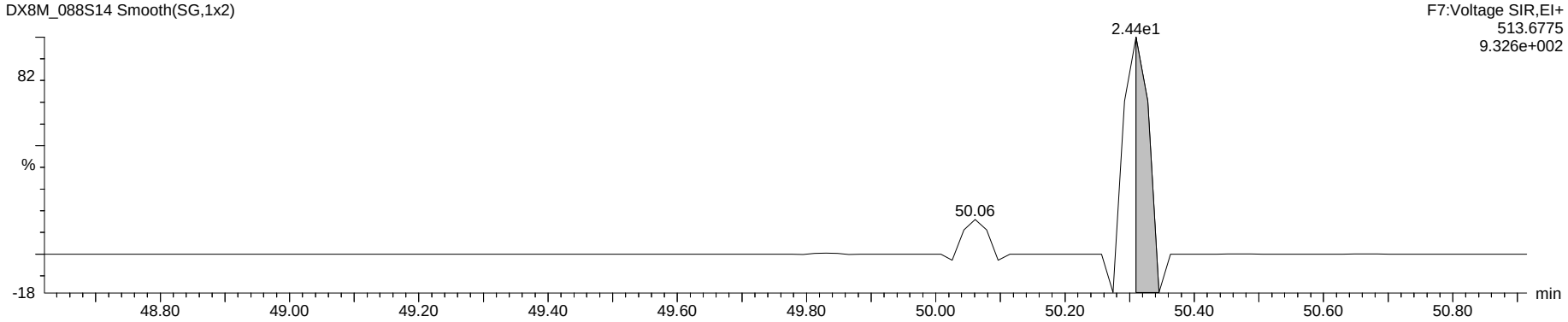
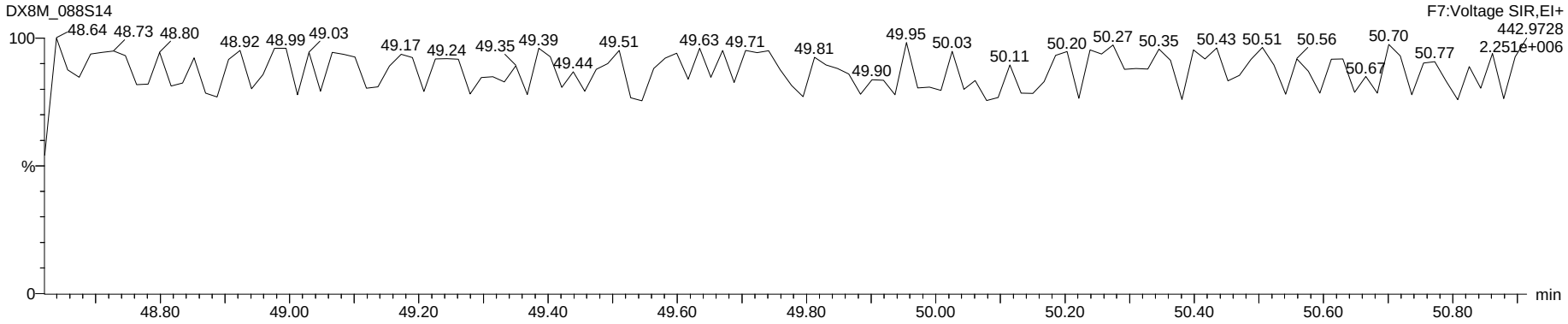
OCDF



Deca DPE



Octa Lock



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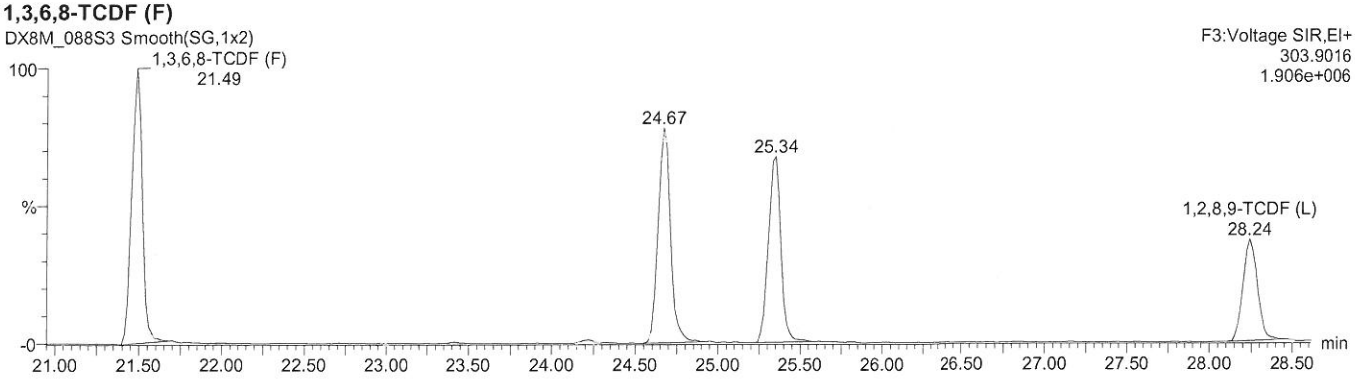
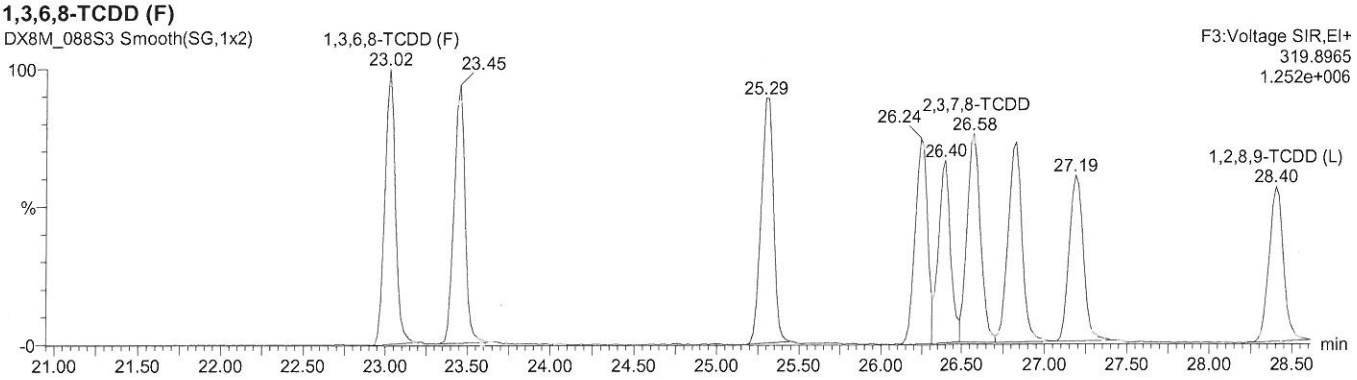
Name: DX8M_088S3, Date: 24-Jul-2018, Time: 18:53:17, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

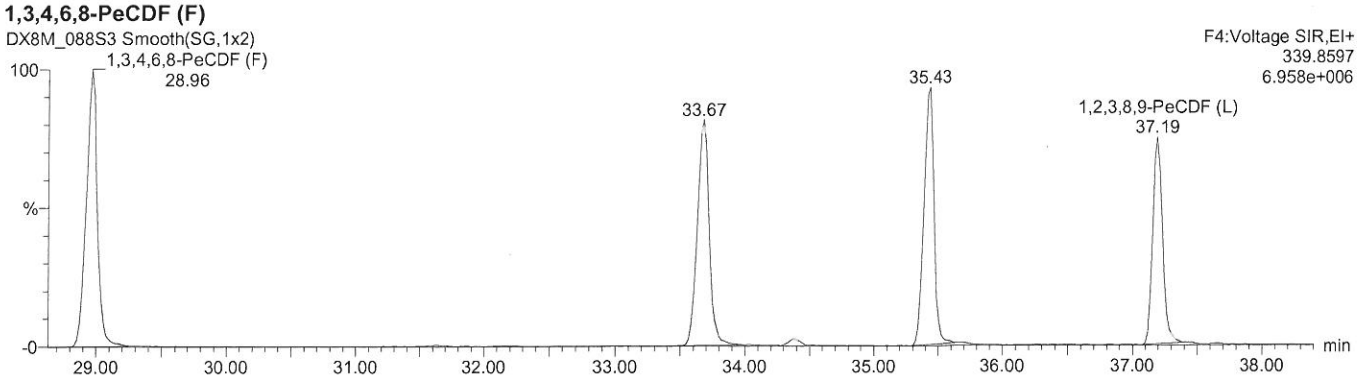
1,3,6,8-TCDF (F)



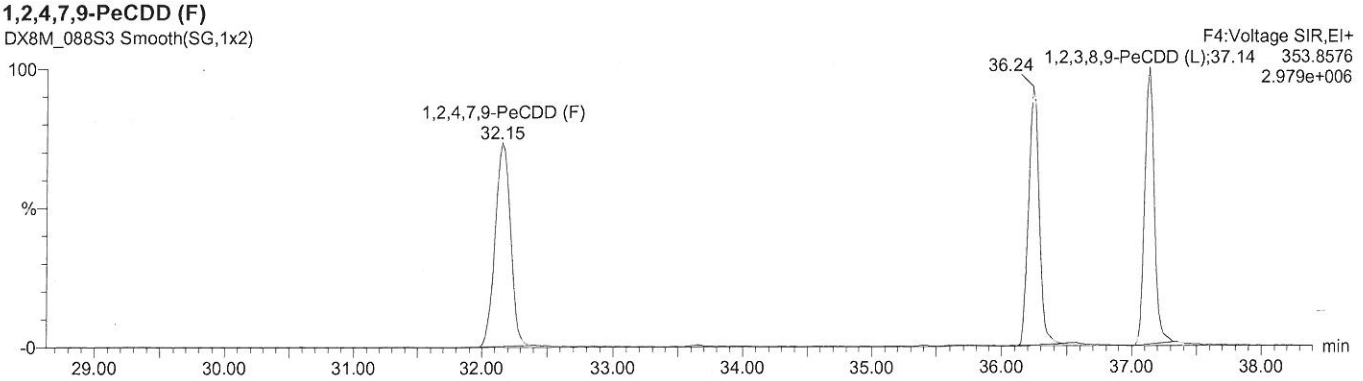
1,3,6,8-TCDD (F)



1,3,4,6,8-PeCDF (F)



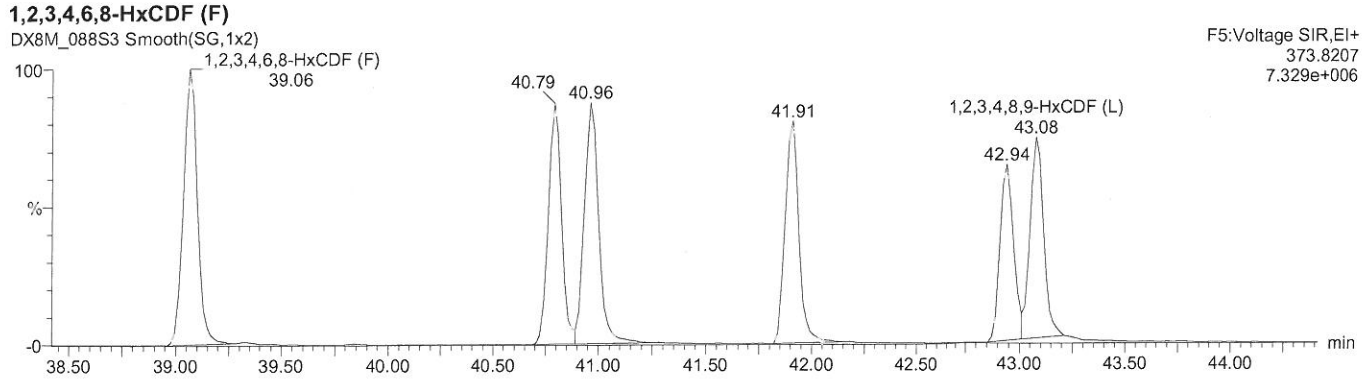
1,2,4,7,9-PeCDD (F)



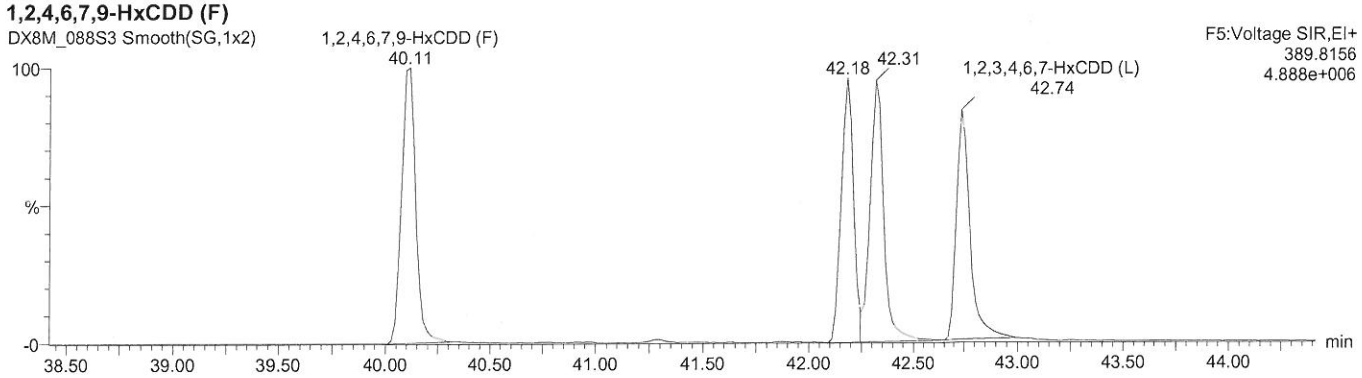
SGS Axys Analytical Services, Ltd.
Quantify Sample Report **MassLynx 4.1 SCN627**

Name: DX8M_088S3, Date: 24-Jul-2018, Time: 18:53:17, ID: DX041D-CAL,,/01-89, Description: 1,,1.0uL Cal Win/Res

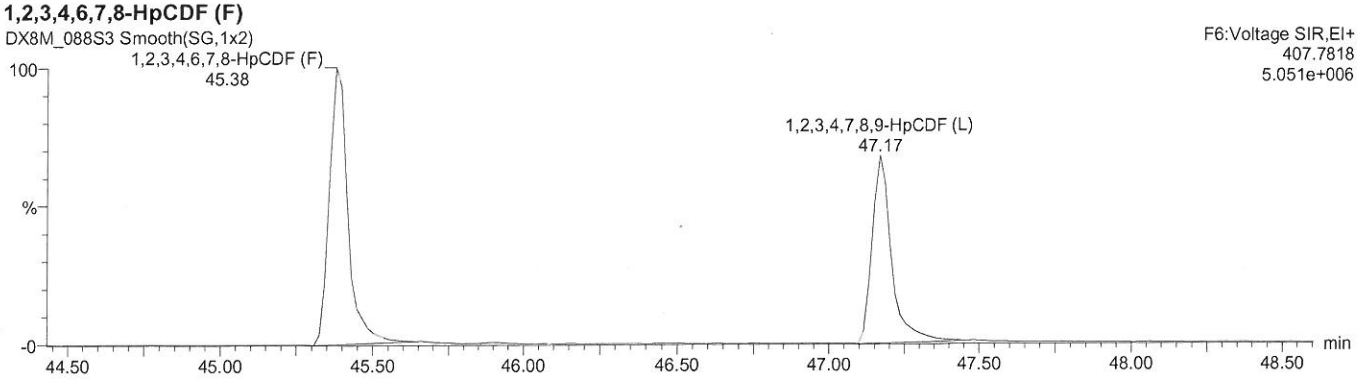
1,2,3,4,6,8-HxCDF (F)



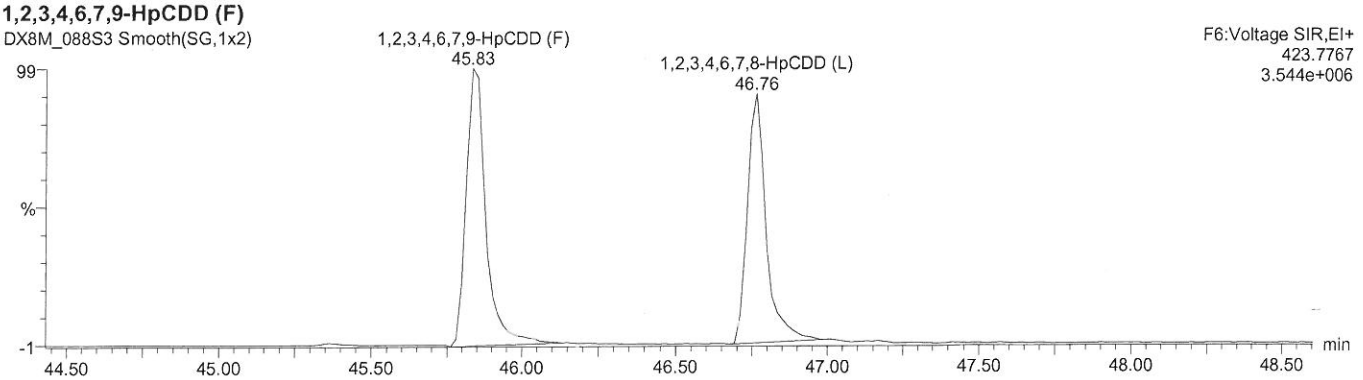
1,2,4,6,7,9-HxCDD (F)



1,2,3,4,6,7,8-HpCDF (F)



1,2,3,4,6,7,9-HpCDD (F)



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Experiment : DX-DB225-4_01
GC Program : DX-DB225-4_01
Column type : DB-225
Serial # : USA226732J/USA¶
kPa : 199
Vol injected: 2.0uL
PMT Voltage : 400

Temps -source: 250
-s resv: 160
-re_ent: 220
-cap_1 : 220
-cap_2 : 220

Tune : XX
List : EW
Check :
LIMS :
Logfile:

Date -list : 25-JUL-2018
-liner : 13-JUN-2018
-septum: 13-JUN-2018
-guard : 60cm 13-JUN-2018
-column: 10CM 03-APR-2018
-t line: NEW 14-SEP-2017

#	Data file	S	V	Sample Text	Comments	Acquisition Date/Time
1	DB83_128A	1	1	DX003A-RSN,,/01-23	1,,2.0uL Win/Res	25-JUL-18 08:01:57
2	DB83_128A	2	2	DX041D-CAL,,/01-88	1,,2.0uL Cal	25-JUL-18 08:43:13
3	DB83_128A	3	3	Toluene,,	1,,2.0uL	25-JUL-18 09:24:29
4	DB83_128A	4	4	Toluene,,	1,,2.0uL	25-JUL-18 10:05:45
5	DB83_128A	5	5	L29628-18,L,	1,WG64578,2.0/20uL	25-JUL-18 10:47:02
6	DB83_128A	6	6	DX041D-CAL,,/01-88	1,,2.0uL Cal	25-JUL-18 11:28:17

Run #8 Filename DB83_128A S: 2 I: 1 Acquired: 25-JUL-18 08:43:13 Processed: 25-JUL-18 12:52:34
Run: db83_128a-A Analyte: DB-HXD-C2 Cal: db83_121-6a Results: db83_128a-A Version: V3.6 6-JAN-2000 17:51:42
Sample text: DX041D-CAL,,/01-88 Comments: 1,,2.0uL Cal
sample size: 1.000000 conc units: ng/mL total toxicity: 5.40 F1: 20.0000 F2: 1.0000

	Typ	Name	#Hom	Resp	RA		RT	Conc	Tox #1	DL	Rec	M?
1	Unk	2,3,7,8-TCDF	1	1.19e+07	0.75	y	20:50	9.011	1	0.0079	-	n
2	Unk	1,2,3,7,8,9-HxCDD	1	1.16e+07	1.24	y	36:51	44.961	4	0.0773	-	n
3	IS/RT	13C-2,3,7,8-TCDF	1	1.36e+08	0.78	y	20:48	87.276	-	0.0066	87.3	n
4	IS/RT	13C-1,2,3,4,7,8-HxCDD	1	2.70e+07	1.27	y	34:13	101.322	-	0.0886	101.3	n
5	IS/RT	13C-1,2,3,6,7,8-HxCDD	1	2.92e+07	1.22	y	34:39	106.063	-	0.0858	106.1	n
6	RS	13C-1,2,3,4-TCDD	1	8.72e+07	0.80	y	19:26	78.771	-	-	-	n
7	RS	13C-1,2,3,7,8,9-HxCDD	1	2.52e+07	1.22	y	36:47	45.948	-	-	-	n
8	Tot	Hexa DPE	0	*			NotFnd	*	-	-	-	n
9	Tot	Tetra Lock	-	-			-	-	-	-	-	n
10	Tot	Hexa Lock	-	-			-	-	-	-	-	n

PV by LHE
25-JULY-2018

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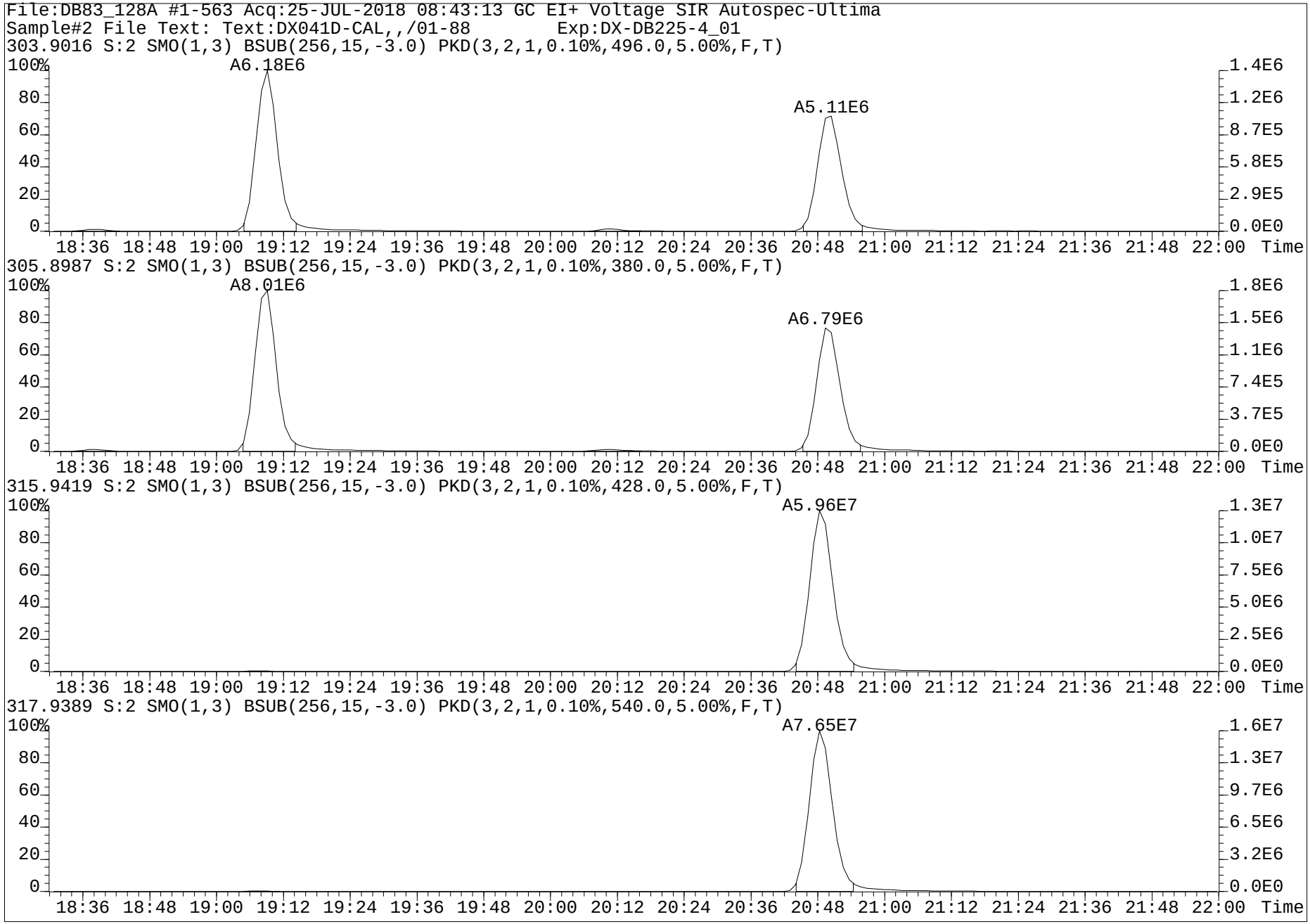
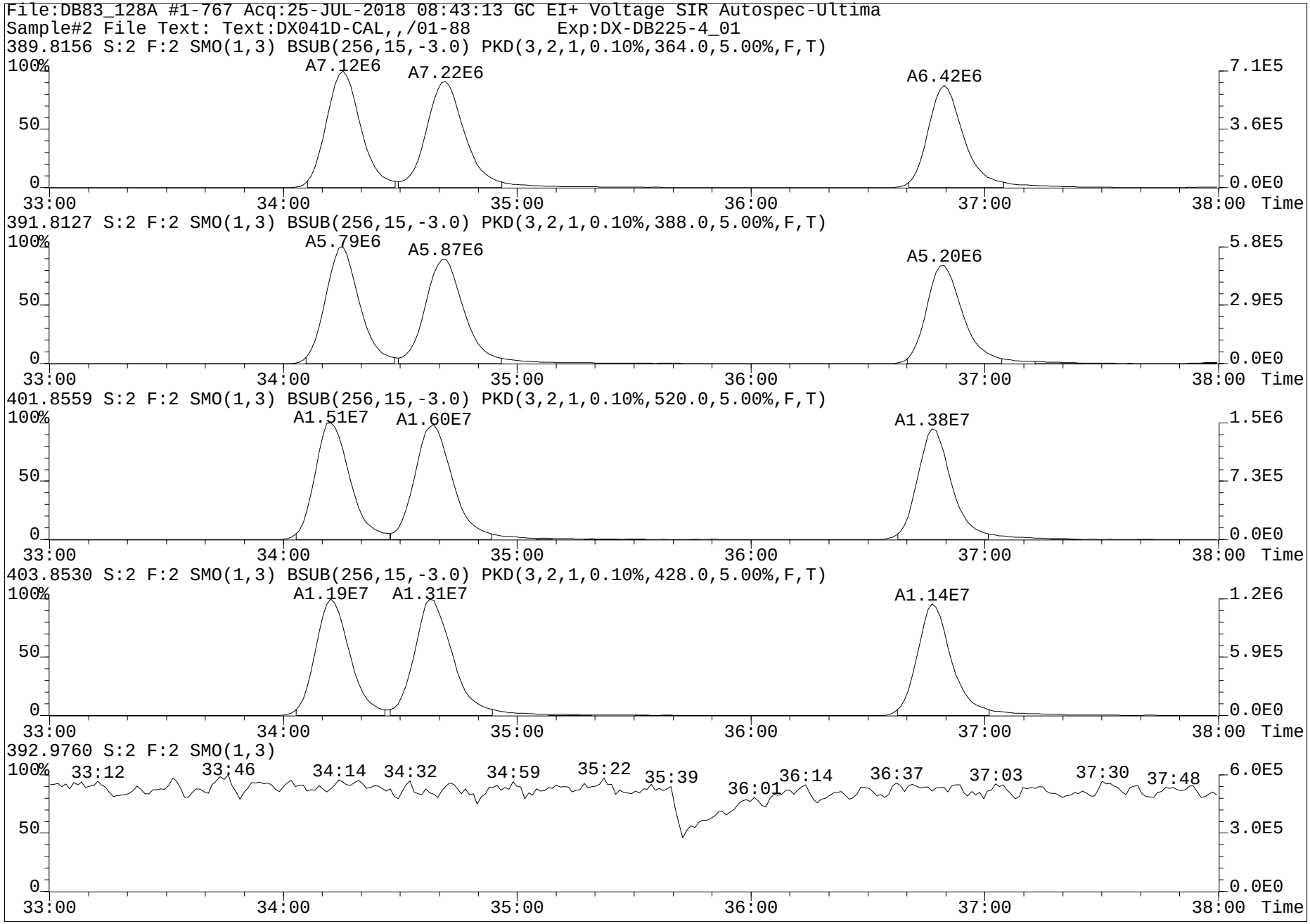
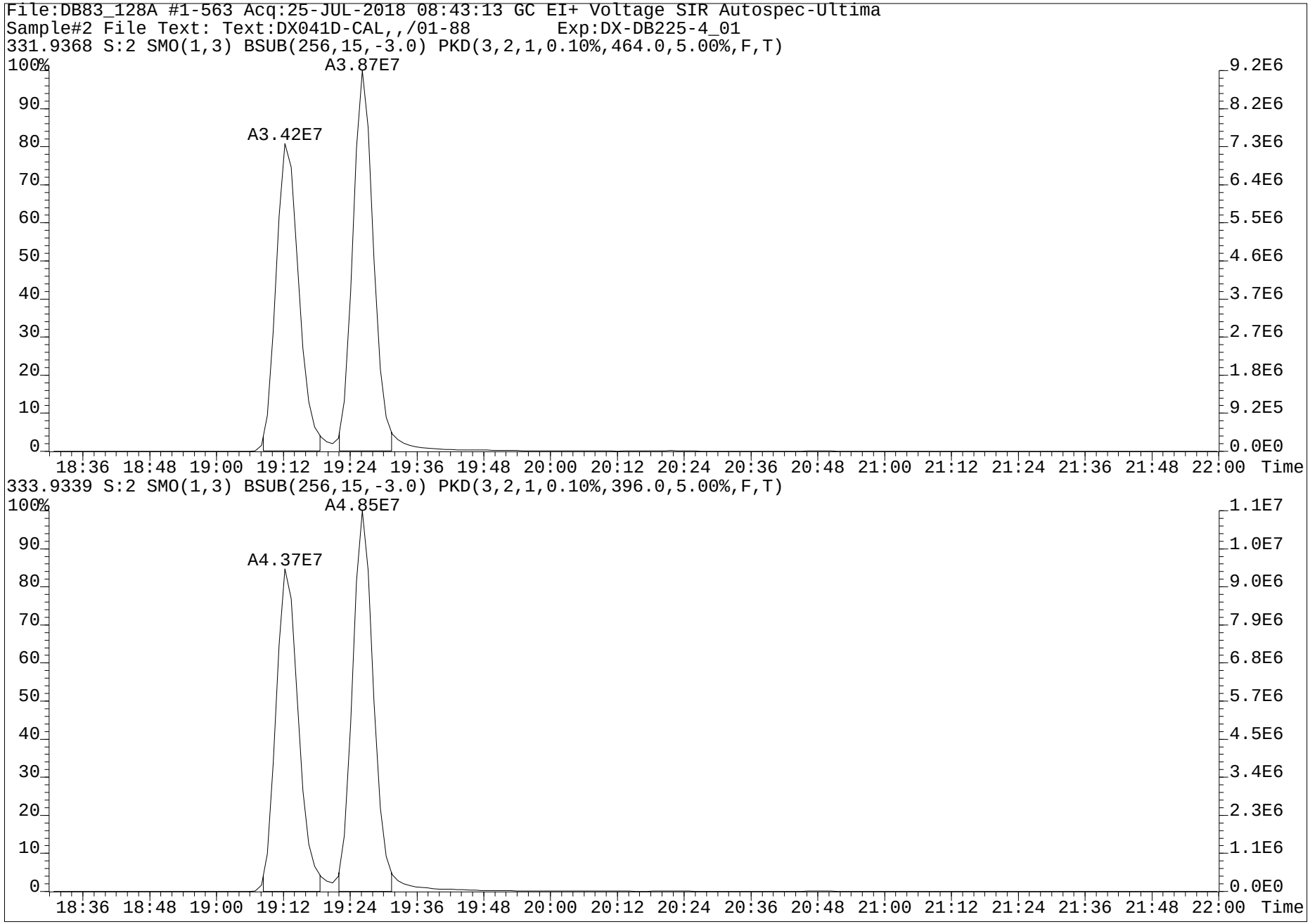
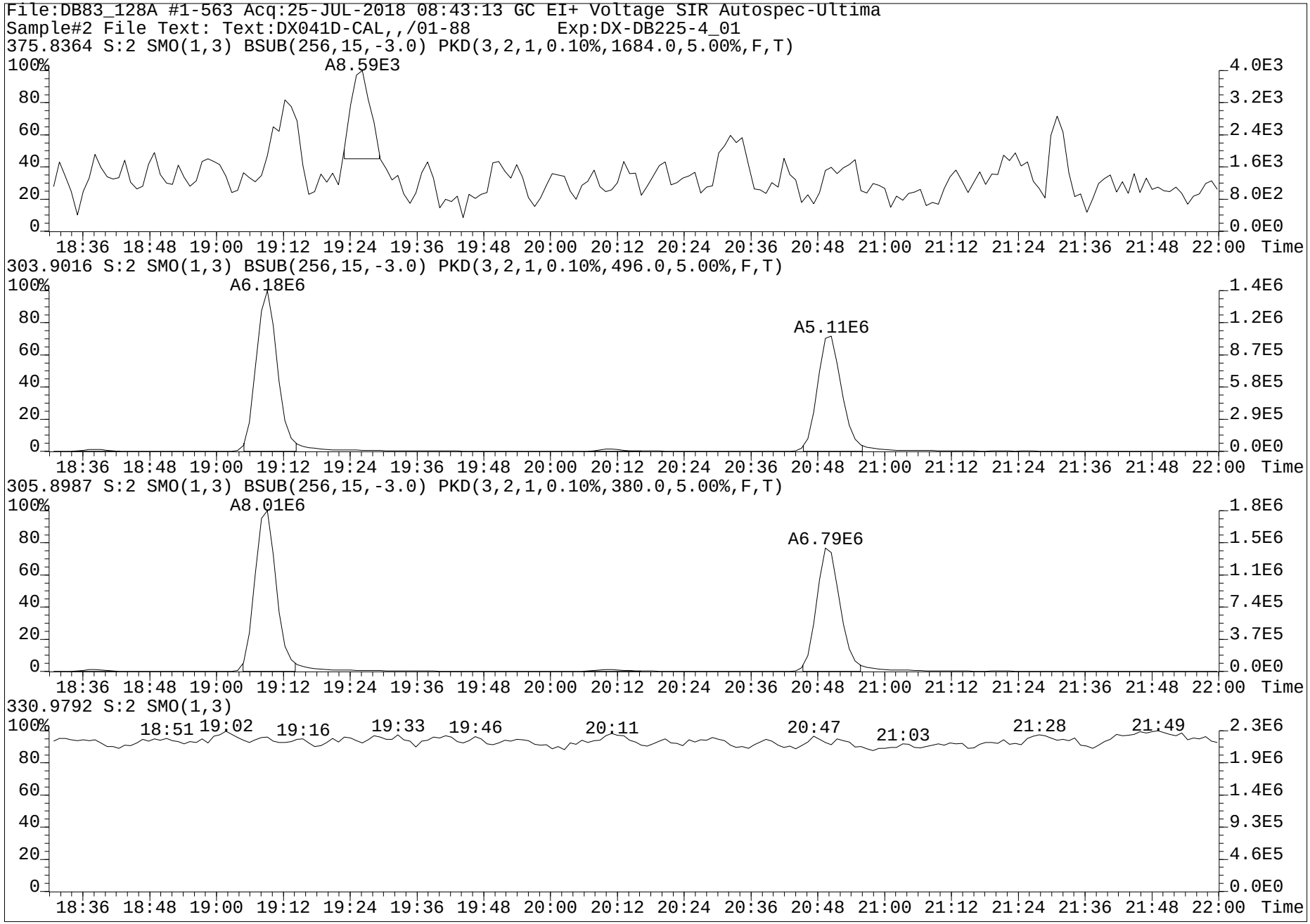
26JUl2018


File:DB83_128A #1-563 Acq:25-JUL-2018 08:43:13 GC EI+ Voltage SIR Autospec-Ultima
Sample#2 File Text: Text:DX041D-CAL,,/01-88 Exp:DX-DB225-4_01
303.9016 S:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,496.0,5.00%,F,T)
A6.18E6
A5.11E6
305.8987 S:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,380.0,5.00%,F,T)
A8.01E6
A6.79E6
315.9419 S:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,428.0,5.00%,F,T)
A5.96E7
317.9389 S:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,540.0,5.00%,F,T)
A7.65E7
100%
80
60
40
20
0
1.4E6
1.2E6
8.7E5
5.8E5
2.9E5
0.0E0
1.8E6
1.5E6
1.1E6
7.4E5
3.7E5
1.3E7
1.0E7
7.5E6
5.0E6
2.5E6
1.6E7
1.3E7
9.7E6
6.5E6
3.2E6
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time


File:DB83_128A #1-767 Acq:25-JUL-2018 08:43:13 GC EI+ Voltage SIR Autospec-Ultima
Sample#2 File Text: Text:DX041D-CAL,,/01-88 Exp:DX-DB225-4_01
389.8156 S:2 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,364.0,5.00%,F,T)
A7.12E6
A7.22E6
A6.42E6
391.8127 S:2 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,388.0,5.00%,F,T)
A5.79E6
A5.87E6
A5.20E6
401.8559 S:2 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,520.0,5.00%,F,T)
A1.51E7
A1.60E7
A1.38E7
403.8530 S:2 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,428.0,5.00%,F,T)
A1.19E7
A1.31E7
A1.14E7
392.9760 S:2 F:2 SMO(1,3)
33:12
33:46
34:14
34:32
34:59
35:22
35:39
36:01
36:14
36:37
37:03
37:30
37:48
100%
50
0
33:00
34:00
35:00
36:00
37:00
38:00
Time
7.1E5
3.6E5
0.0E0
5.8E5
2.9E5
1.5E6
7.3E5
1.2E6
5.9E5
6.0E5
3.0E5


File:DB83_128A #1-563 Acq:25-JUL-2018 08:43:13 GC EI+ Voltage SIR Autospec-Ultima
Sample#2 File Text: Text:DX041D-CAL,,/01-88 Exp:DX-DB225-4_01
331.9368 S:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,464.0,5.00%,F,T)
A3.87E7
A3.42E7
333.9339 S:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,396.0,5.00%,F,T)
A4.85E7
A4.37E7
Time


File:DB83_128A #1-563 Acq:25-JUL-2018 08:43:13 GC EI+ Voltage SIR Autospec-Ultima
Sample#2 File Text: Text:DX041D-CAL,,/01-88 Exp:DX-DB225-4_01
375.8364 S:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,1684.0,5.00%,F,T)
A8.59E3
303.9016 S:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,496.0,5.00%,F,T)
A6.18E6
A5.11E6
305.8987 S:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,380.0,5.00%,F,T)
A8.01E6
A6.79E6
330.9792 S:2 SMO(1,3)
18:51
19:02
19:16
19:33
19:46
20:11
20:47
21:03
21:28
21:49
Time

Run #12 Filename DB83_128A S: 6 I: 1 Acquired: 25-JUL-18 11:28:17 Processed: 25-JUL-18 12:52:34
Run: db83_128a-A Analyte: DB-HXD-C2 Cal: db83_121-6a Results: db83_128a-A Version: V3.6 6-JAN-2000 17:51:42
Sample text: DX041D-CAL,,/01-88 Comments: 1,,2.0uL Cal
sample size: 1.000000 conc units: ng/mL total toxicity: 6.38 F1: 20.0000 F2: 1.0000

	Typ	Name	#Hom	Resp	RA		RT	Conc	Tox #1	DL	Rec	M?
1	Unk	2,3,7,8-TCDF	1	1.53e+07	0.79	y	20:49	10.532	1	0.0070	-	n
2	Unk	1,2,3,7,8,9-HxCDD	1	1.74e+07	1.25	y	36:48	53.252	5	0.0373	-	n
3	IS/RT	13C-2,3,7,8-TCDF	1	1.49e+08	0.80	y	20:48	102.200	-	0.0066	102.2	n
4	IS/RT	13C-1,2,3,4,7,8-HxCDD	1	3.41e+07	1.29	y	34:10	98.785	-	0.0562	98.8	n
5	IS/RT	13C-1,2,3,6,7,8-HxCDD	1	3.67e+07	1.26	y	34:37	102.990	-	0.0545	103.0	n
6	RS	13C-1,2,3,4-TCDD	1	8.17e+07	0.80	y	19:26	73.853	-	-	-	n
7	RS	13C-1,2,3,7,8,9-HxCDD	1	3.27e+07	1.28	y	36:45	59.596	-	-	-	n
8	Tot	Hexa DPE	0	*			NotFnd	*	-	-	-	n
9	Tot	Tetra Lock	-	-			-	-	-	-	-	n
10	Tot	Hexa Lock	-	-			-	-	-	-	-	n

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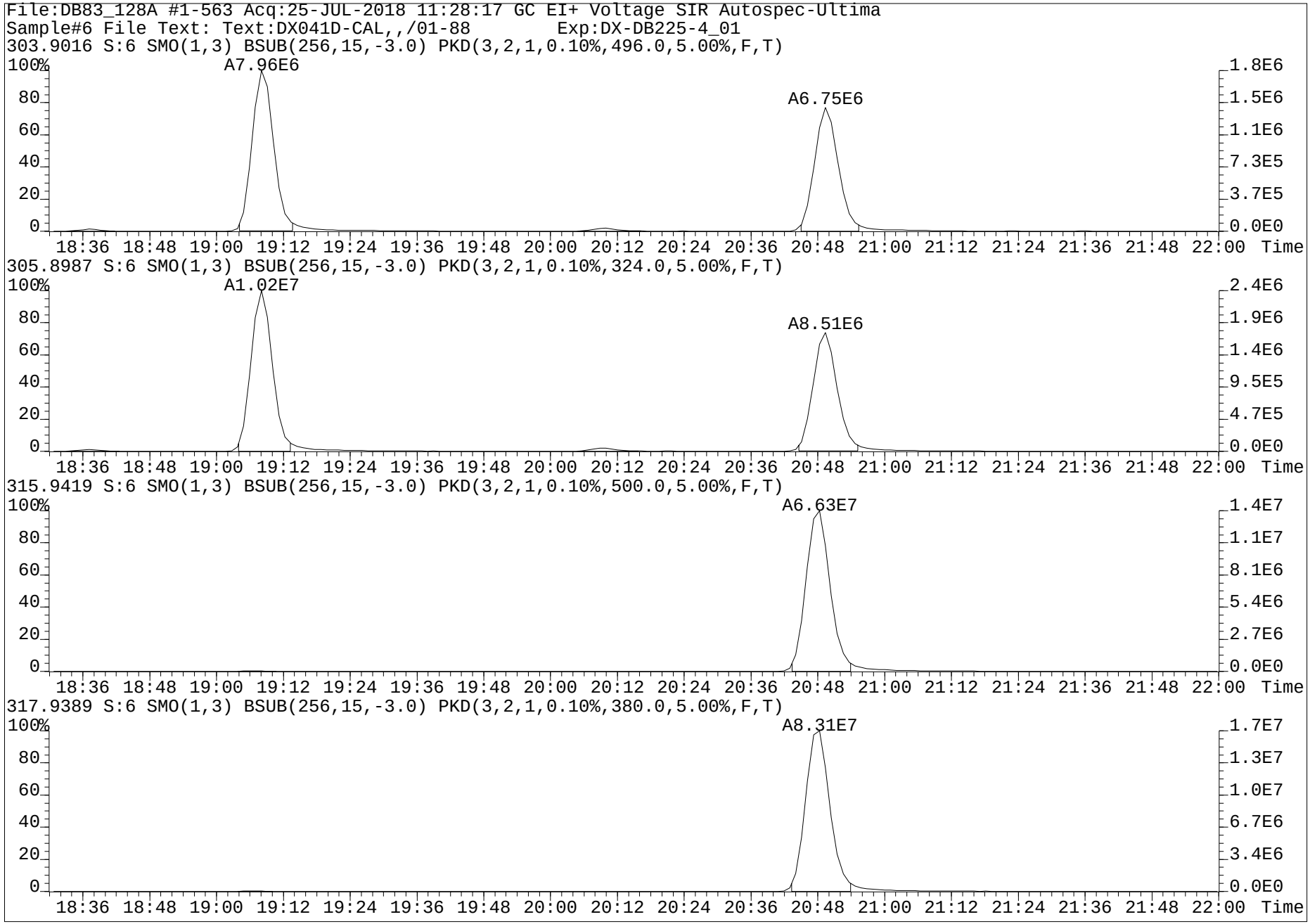
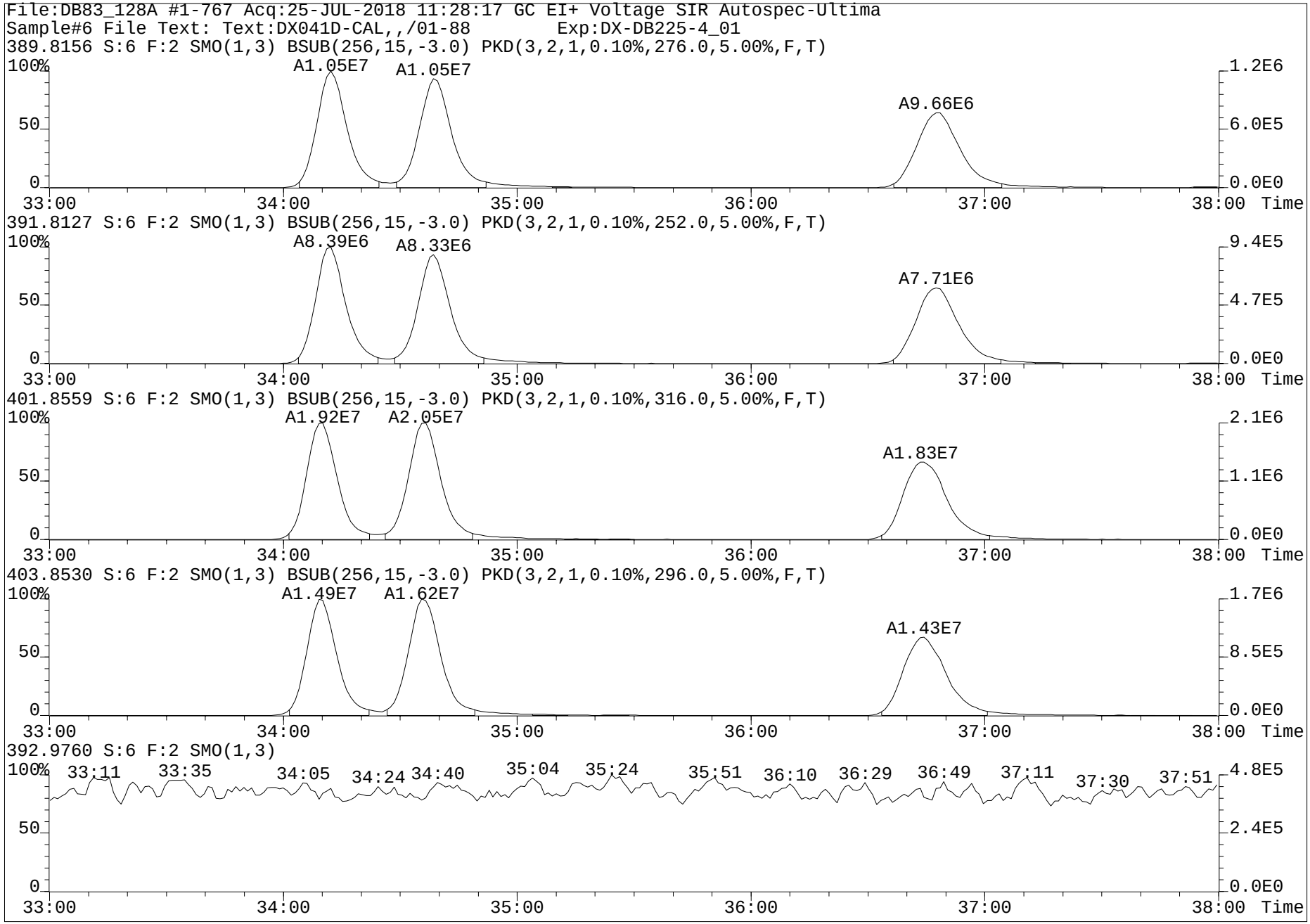
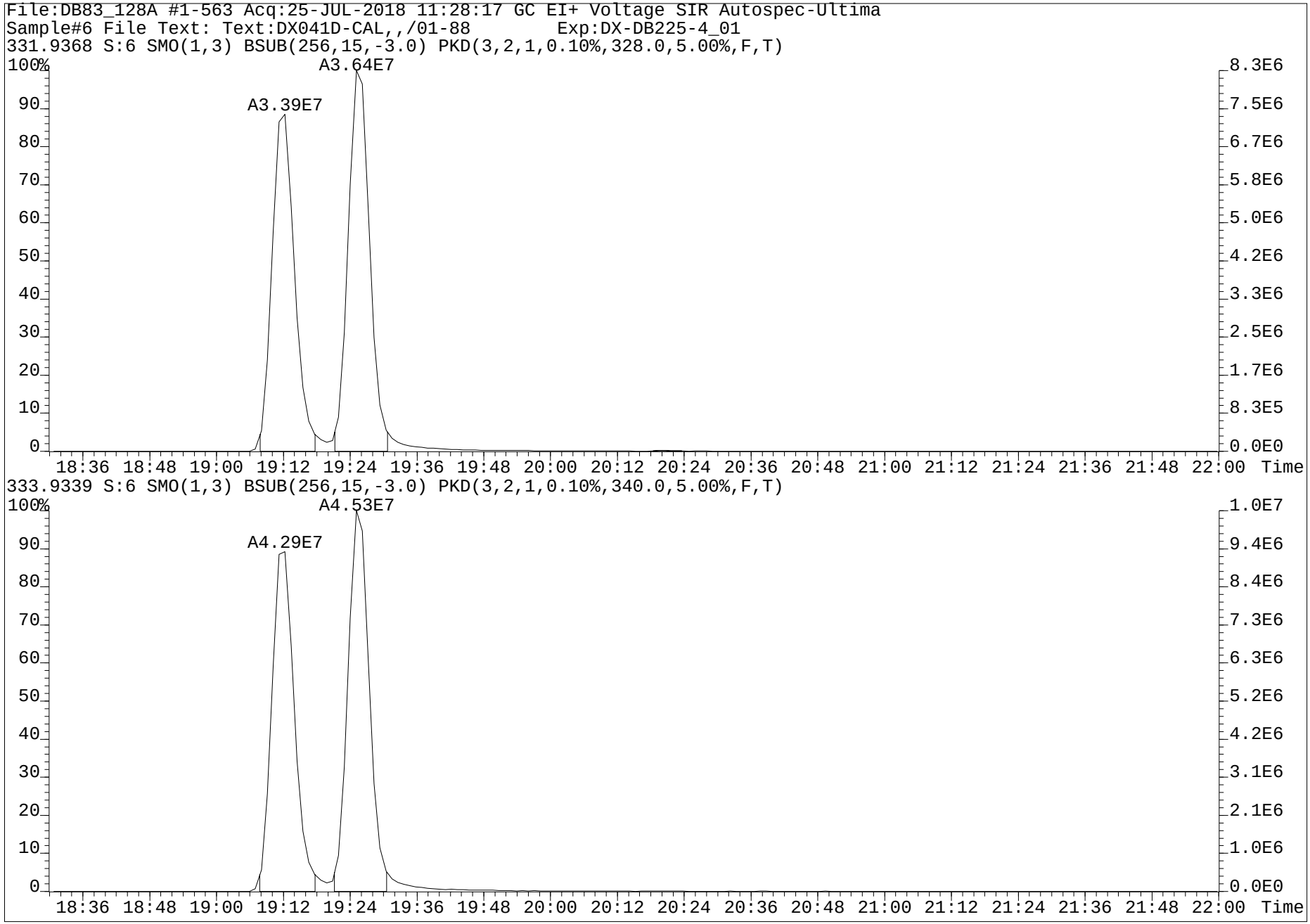
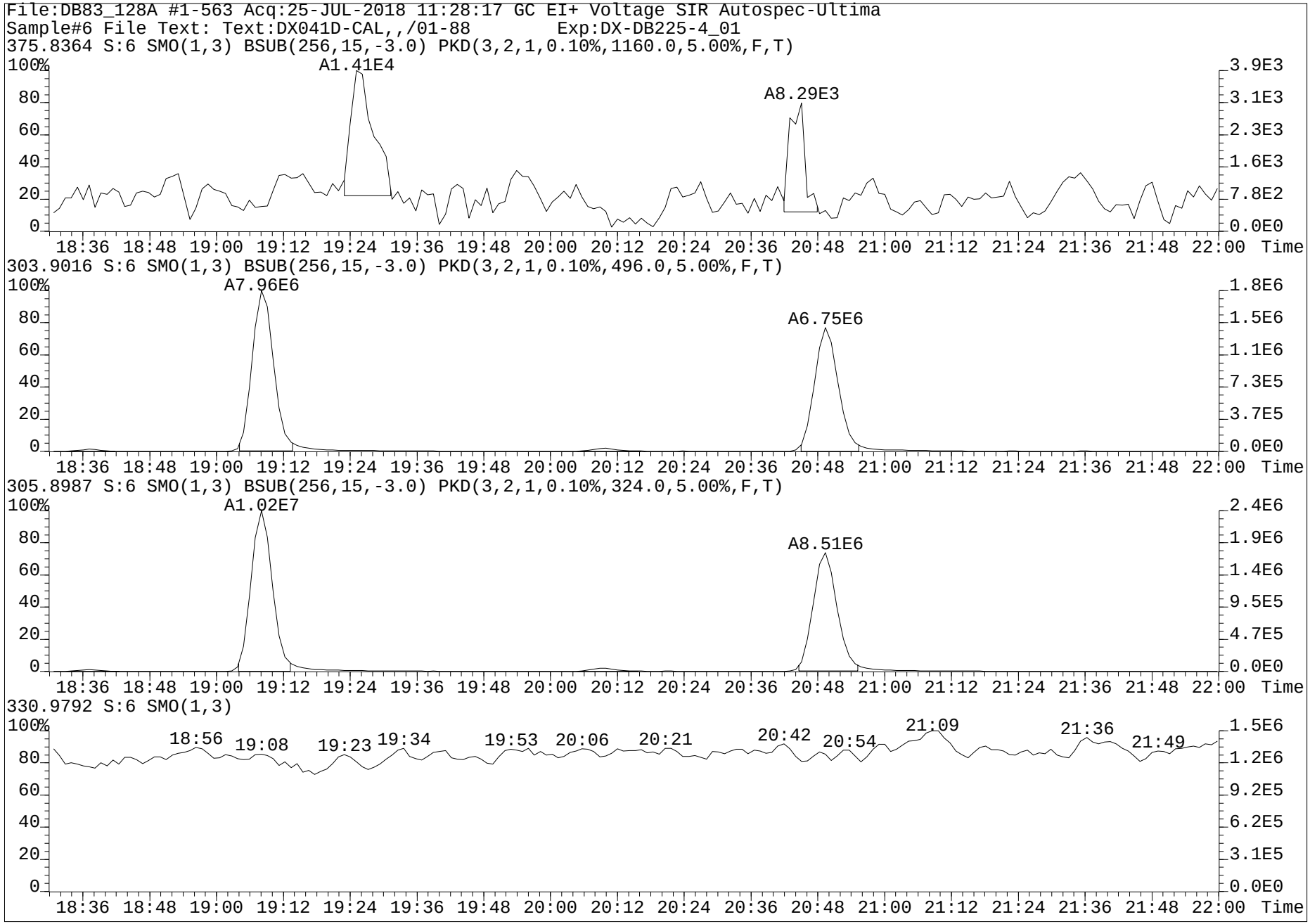
SVby KB 26 JUL 2018 25-JULY-2018


File:DB83_128A #1-563 Acq:25-JUL-2018 11:28:17 GC EI+ Voltage SIR Autospec-Ultima
Sample#6 File Text: Text:DX041D-CAL,,/01-88 Exp:DX-DB225-4_01
303.9016 S:6 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,496.0,5.00%,F,T)
A7.96E6
A6.75E6
305.8987 S:6 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,324.0,5.00%,F,T)
A1.02E7
A8.51E6
315.9419 S:6 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,500.0,5.00%,F,T)
A6.63E7
317.9389 S:6 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,380.0,5.00%,F,T)
A8.31E7
100%
80
60
40
20
0
1.8E6
1.5E6
1.1E6
7.3E5
3.7E5
0.0E0
2.4E6
1.9E6
1.4E6
9.5E5
4.7E5
1.4E7
1.1E7
8.1E6
5.4E6
2.7E6
1.7E7
1.3E7
1.0E7
6.7E6
3.4E6
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time


File:DB83_128A #1-767 Acq:25-JUL-2018 11:28:17 GC EI+ Voltage SIR Autospec-Ultima
Sample#6 File Text: Text:DX041D-CAL,,/01-88 Exp:DX-DB225-4_01
389.8156 S:6 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,276.0,5.00%,F,T)
A1.05E7
A1.05E7
A9.66E6
391.8127 S:6 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,252.0,5.00%,F,T)
A8.39E6
A8.33E6
A7.71E6
401.8559 S:6 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,316.0,5.00%,F,T)
A1.92E7
A2.05E7
A1.83E7
403.8530 S:6 F:2 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,296.0,5.00%,F,T)
A1.49E7
A1.62E7
A1.43E7
392.9760 S:6 F:2 SMO(1,3)
33:11
33:35
34:05
34:24
34:40
35:04
35:24
35:51
36:10
36:29
36:49
37:11
37:30
37:51
100%
50
0
33:00
34:00
35:00
36:00
37:00
38:00
Time
1.2E6
6.0E5
0.0E0
9.4E5
4.7E5
2.1E6
1.1E6
1.7E6
8.5E5
4.8E5
2.4E5


File:DB83_128A #1-563 Acq:25-JUL-2018 11:28:17 GC EI+ Voltage SIR Autospec-Ultima
Sample#6 File Text: Text:DX041D-CAL,,/01-88 Exp:DX-DB225-4_01
331.9368 S:6 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,328.0,5.00%,F,T)
A3.64E7
A3.39E7
100%
90
80
70
60
50
40
30
20
10
0
8.3E6
7.5E6
6.7E6
5.8E6
5.0E6
4.2E6
3.3E6
2.5E6
1.7E6
8.3E5
0.0E0
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time
333.9339 S:6 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,340.0,5.00%,F,T)
A4.53E7
A4.29E7
100%
90
80
70
60
50
40
30
20
10
0
1.0E7
9.4E6
8.4E6
7.3E6
6.3E6
5.2E6
4.2E6
3.1E6
2.1E6
1.0E6
0.0E0
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time


File:DB83_128A #1-563 Acq:25-JUL-2018 11:28:17 GC EI+ Voltage SIR Autospec-Ultima
Sample#6 File Text: Text:DX041D-CAL,,/01-88 Exp:DX-DB225-4_01
375.8364 S:6 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,1160.0,5.00%,F,T)
A1.41E4
A8.29E3
303.9016 S:6 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,496.0,5.00%,F,T)
A7.96E6
A6.75E6
305.8987 S:6 SMO(1,3) BSUB(256,15,-3.0) PKD(3,2,1,0.10%,324.0,5.00%,F,T)
A1.02E7
A8.51E6
330.9792 S:6 SMO(1,3)
18:56
19:08
19:23
19:34
19:53
20:06
20:21
20:42
20:54
21:09
21:36
21:49
100%
80
60
40
20
0
3.9E3
3.1E3
2.3E3
1.6E3
7.8E2
0.0E0
1.8E6
1.5E6
1.1E6
7.3E5
3.7E5
2.4E6
1.9E6
1.4E6
9.5E5
4.7E5
1.5E6
1.2E6
9.2E5
6.2E5
3.1E5
18:36 18:48 19:00 19:12 19:24 19:36 19:48 20:00 20:12 20:24 20:36 20:48 21:00 21:12 21:24 21:36 21:48 22:00 Time

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

| | | |

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

				Serum	Solids											Tissue							Urine	Water	Water, Non-Potable								
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		EPA 1699	MLA-028				Y							Y											Y								Y	
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y						Y			Y	
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y									Y	
	4,4'-DDT	EPA 625	MLA-007																						Y				Y	Y		Y		Y	
		EPA 8270	MLA-007				Y			Y	Y	Y	Y	Y																					
		EPA 1699	MLA-028				Y							Y											Y									Y	
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y						Y			Y	
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y									Y	
	Aldrin	EPA 625	MLA-007																						Y				Y	Y		Y		Y	
		EPA 8270	MLA-007				Y			Y	Y	Y	Y	Y																					
		EPA 1699	MLA-028				Y							Y											Y									Y	
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y						Y			Y	
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y									Y	
	Alpha-HCH	EPA 625	MLA-007																						Y				Y	Y		Y		Y	
		EPA 8270	MLA-007				Y			Y	Y	Y	Y	Y																					
		EPA 1699	MLA-028				Y							Y											Y									Y	
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y						Y			Y	
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y									Y	
	Beta-HCH	EPA 625	MLA-007																						Y				Y	Y		Y		Y	
		EPA 8270	MLA-007				Y			Y	Y	Y	Y	Y																					
		EPA 1699	MLA-028				Y							Y											Y									Y	
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y						Y			Y	
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y									Y	
	Chlordane, technical	EPA 625	MLA-007																													Y			
		EPA 8270	MLA-007				Y			Y	Y		Y	Y												Y				Y	Y		Y		Y	
		SGS AXYS MLA-007	MLA-007				Y							Y												Y									Y	
	cis-Chlordane (alpha-Chlordane)	EPA 8270	MLA-007				Y			Y		Y	Y	Y												Y				Y			Y		Y	
		EPA 1699	MLA-028				Y							Y											Y									Y	
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y						Y			Y	
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y									Y	
	cis-Nonachlor	EPA 8270	MLA-007				Y					Y		Y											Y									Y	
		EPA 1699	MLA-028				Y							Y											Y									Y	
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y						Y			Y	
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y									Y	
	Delta-HCH	EPA 608	MLA-007																						Y				Y	Y		Y		Y	
		EPA 8081	MLA-007				Y			Y	Y	Y	Y	Y																					
		EPA 1699	MLA-028				Y							Y											Y									Y	
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y						Y			Y	
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y									Y	
	Dieldrin	EPA 608	MLA-007																						Y				Y	Y		Y		Y	
		EPA 8081	MLA-007				Y			Y	Y	Y	Y	Y																					
		EPA 1699	MLA-028				Y							Y											Y									Y	
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y						Y			Y	
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y									Y	
	Endosulphan I	EPA 608	MLA-007																						Y				Y	Y		Y		Y	
		EPA 8081	MLA-007				Y			Y	Y	Y	Y	Y																					
		EPA 1699	MLA-028				Y							Y											Y									Y	
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y						Y			Y	
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y									Y	
	Endosulphan II	EPA 608	MLA-007																						Y				Y	Y		Y		Y	

Accreditation Scope

SGS AXYS Analytical Services Ltd.
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				Serum	Solids											Tissue							Urine	Water	Water, Non-Potable									
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		EPA 8081	MLA-007				Y			Y	Y	Y	Y	Y																			
		EPA 1699	MLA-028				Y							Y											Y									Y
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y					Y			Y
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y								Y
	Endosulphan sulphate	EPA 608	MLA-007																						Y				Y	Y		Y		Y
		EPA 8081	MLA-007				Y			Y	Y	Y	Y	Y																				
		EPA 1699	MLA-028				Y							Y											Y									Y
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y					Y			Y
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y								Y
	Endrin	EPA 608	MLA-007																						Y				Y	Y		Y		Y
		EPA 8081	MLA-007				Y			Y	Y	Y	Y	Y																				
		EPA 1699	MLA-028				Y							Y											Y									Y
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y					Y			Y
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y								Y
	Endrin aldehyde	EPA 608	MLA-007																						Y				Y	Y		Y		Y
		EPA 8081	MLA-007				Y			Y	Y	Y	Y	Y																				
		EPA 1699	MLA-028				Y							Y											Y									Y
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y					Y			Y
		SGS AXYS MLA-007	MLA-007		Y		Y							Y									Y		Y								Y
	Endrin ketone	EPA 8081	MLA-007				Y			Y		Y		Y																				
		EPA 1699	MLA-028				Y							Y											Y									Y
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y					Y			Y
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y								Y
	Gamma-HCH (Lindane)	EPA 625	MLA-007																						Y				Y	Y		Y		Y
		EPA 8270	MLA-007				Y			Y	Y	Y	Y	Y																				
		EPA 1699	MLA-028				Y							Y											Y									Y
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y					Y			Y
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y								Y
	Heptachlor	EPA 625	MLA-007																						Y				Y	Y		Y		Y
		EPA 8270	MLA-007				Y			Y	Y	Y	Y	Y																				
		EPA 1699	MLA-028				Y							Y											Y									Y
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y					Y			Y
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y								Y
	Heptachlor epoxide	EPA 608	MLA-007																						Y				Y	Y		Y		Y
		EPA 8081	MLA-007				Y			Y	Y	Y	Y	Y																				
		EPA 1699	MLA-028				Y							Y											Y									Y
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y					Y			Y
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y								Y
	Hexachlorobenzene	EPA 1625	MLA-007																						Y				Y					Y
		EPA 8270	MLA-007				Y			Y	Y	Y	Y	Y																				
		EPA 1699	MLA-028				Y							Y											Y									Y
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y					Y			Y
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y								Y
	Methoxychlor	EPA 608	MLA-007																						Y				Y	Y		Y		Y
		EPA 8081	MLA-007				Y			Y	Y	Y	Y	Y																				
		EPA 1699	MLA-028				Y							Y											Y									Y
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y							Y		Y					Y			Y
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y							Y		Y								Y
	Mirex	EPA 8270	MLA-007				Y			Y		Y		Y											Y				Y	Y		Y		Y
		EPA 1699	MLA-028				Y							Y											Y									Y

Accreditation Scope

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Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids											Tissue							Urine	Water	Water, Non-Potable									
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025		CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y								Y							Y			Y	
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y								Y										Y	
	Oxychlordane	EPA 8270	MLA-007				Y					Y														Y								Y	
		EPA 1699	MLA-028				Y							Y												Y								Y	
		SGS AXYS MLA-028	MLA-028	Y	Y		Y					Y		Y		Y								Y		Y					Y			Y	
		SGS AXYS MLA-007	MLA-007	Y	Y		Y									Y								Y		Y								Y	
	Toxaphene	EPA 8270	MLA-007									Y																							
		SGS AXYS MLA-007	MLA-007		Y											Y								Y											
	trans-Chlordane (gamma-Chlordane)	EPA 8270	MLA-007				Y				Y		Y	Y												Y				Y			Y		Y	
		EPA 1699	MLA-028				Y							Y												Y								Y	
		SGS AXYS MLA-028	MLA-028	Y	Y		Y						Y			Y								Y		Y						Y			Y	
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y								Y		Y								Y	
	trans-Nonachlor	EPA 8270	MLA-007				Y						Y													Y								Y	
		EPA 1699	MLA-028				Y							Y												Y								Y	
		SGS AXYS MLA-028	MLA-028	Y	Y		Y						Y			Y								Y		Y						Y			Y	
		SGS AXYS MLA-007	MLA-007	Y	Y		Y							Y		Y								Y		Y								Y	
PAH	1,2,6-Trimethylphenanthrene	SGS AXYS MLA-021	MLA-021		Y																			Y											
	1,2-Dimethylnaphthalene	SGS AXYS MLA-021	MLA-021		Y																			Y											
	1,4,6,7-Tetramethylnaphthalene	SGS AXYS MLA-021	MLA-021		Y																			Y											
	1,7-Dimethylfluorene	SGS AXYS MLA-021	MLA-021		Y																			Y											
	1,7-Dimethylphenanthrene	SGS AXYS MLA-021	MLA-021		Y																			Y											
	1,8-Dimethylphenanthrene	SGS AXYS MLA-021	MLA-021		Y																			Y											
	1-Methylchrysene	SGS AXYS MLA-021	MLA-021		Y																			Y											
	1-Methylnaphthalene	SGS AXYS MLA-021	MLA-021		Y																			Y											
	1-Methylphenanthrene	SGS AXYS MLA-021	MLA-021		Y																			Y											
	2,3,5-Trimethylnaphthalene	SGS AXYS MLA-021	MLA-021		Y																			Y											
	2,3,6-Trimethylnaphthalene	SGS AXYS MLA-021	MLA-021		Y																			Y											
	2,4-Dimethyldibenzothiophene	SGS AXYS MLA-021	MLA-021		Y																			Y											
	2,6-Dimethylnaphthalene	SGS AXYS MLA-021	MLA-021		Y																			Y											
	2,6-Dimethylphenanthrene	SGS AXYS MLA-021	MLA-021		Y																			Y											
	2-Methylanthracene	SGS AXYS MLA-021	MLA-021		Y																			Y											
	2-Methyldibenzothiophene	SGS AXYS MLA-021	MLA-021		Y																			Y											
	2-Methylfluorene	SGS AXYS MLA-021	MLA-021		Y																			Y											
	2-Methylnaphthalene	EPA 1625	MLA-021																															Y	
		EPA 8270	MLA-021				Y			Y				Y												Y										
		SGS AXYS MLA-021	MLA-021		Y		Y							Y																				Y	
	2-Methylphenanthrene	SGS AXYS MLA-021	MLA-021		Y																			Y											
	3,6-Dimethylphenanthrene	SGS AXYS MLA-021	MLA-021		Y																			Y											
	3-Methyldibenzothiophene	SGS AXYS MLA-021	MLA-021		Y																			Y											
	3-Methylfluoranthene/ Benzo(a)fluorene	SGS AXYS MLA-021	MLA-021		Y																			Y											
	3-Methylphenanthrene	SGS AXYS MLA-021	MLA-021		Y																			Y											
	5,9-Dimethylchrysene	SGS AXYS MLA-021	MLA-021		Y																			Y											
	5/6-Methylchrysenes	SGS AXYS MLA-021	MLA-021		Y																			Y											
	7-Methylbenzo(a)pyrene	SGS AXYS MLA-021	MLA-021		Y																			Y											
	9/4-Methylphenanthrenes	SGS AXYS MLA-021	MLA-021		Y																			Y											
	Acenaphthene	EPA 1625	MLA-021																							Y				Y	Y			Y	
		EPA 8270	MLA-021				Y			Y	Y			Y	Y																					
		SGS AXYS MLA-021	MLA-021		Y		Y								Y											Y									Y	
	Acenaphthylene	EPA 1625	MLA-021																							Y				Y	Y			Y	
		EPA 8270	MLA-021				Y			Y	Y			Y	Y																					

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Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids										Tissue						Urine	Water	Water, Non-Potable									
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		SGS AXYS MLA-021	MLA-021		Y		Y							Y		Y						Y			Y								Y	
	Anthracene	EPA 1625	MLA-021																						Y			Y	Y				Y	
		EPA 8270	MLA-021				Y			Y	Y		Y	Y																				
		SGS AXYS MLA-021	MLA-021		Y		Y							Y		Y						Y			Y								Y	
	Benz[a]anthracene	EPA 1625	MLA-021																						Y			Y	Y				Y	
		EPA 8270	MLA-021				Y			Y	Y		Y	Y																				
		SGS AXYS MLA-021	MLA-021		Y		Y							Y		Y						Y			Y								Y	
	Benzo[a]pyrene	EPA 1625	MLA-021																						Y			Y	Y				Y	
		EPA 8270	MLA-021				Y			Y	Y		Y	Y																				
		SGS AXYS MLA-021	MLA-021		Y		Y							Y		Y						Y			Y								Y	
	Benzo[b]fluoranthene	EPA 1625	MLA-021																						Y			Y	Y		Y		Y	
		EPA 8270	MLA-021				Y			Y	Y		Y	Y																				
		SGS AXYS MLA-021	MLA-021		Y		Y							Y		Y						Y			Y								Y	
	Benzo[e]pyrene	SGS AXYS MLA-021	MLA-021		Y											Y						Y												
	Benzo[ghi]perylene	EPA 1625	MLA-021																						Y			Y	Y				Y	
		EPA 8270	MLA-021				Y			Y	Y		Y	Y																				
		SGS AXYS MLA-021	MLA-021		Y		Y							Y		Y						Y			Y								Y	
	Benzo[j/k]fluoranthenes	SGS AXYS MLA-021	MLA-021		Y											Y						Y												
	Benzo[k]fluoranthene	EPA 1625	MLA-021																						Y			Y	Y		Y		Y	
		EPA 8270	MLA-021				Y			Y			Y	Y																				
		SGS AXYS MLA-021	MLA-021				Y							Y											Y								Y	
	Biphenyl	SGS AXYS MLA-021	MLA-021		Y																	Y												
	C1-Acenaphthenes	SGS AXYS MLA-021	MLA-021		Y																	Y												
	C1-Benz(a)anthracenes/chrysenes	SGS AXYS MLA-021	MLA-021		Y																	Y												
	C1-Benzofluoranthenes/ Benzopyrenes	SGS AXYS MLA-021	MLA-021		Y																	Y												
	C1-Biphenyls	SGS AXYS MLA-021	MLA-021		Y																	Y												
	C1-Dibenzothiophene	SGS AXYS MLA-021	MLA-021		Y																	Y												
	C1-Fluoranthenes/Pyrenes	SGS AXYS MLA-021	MLA-021		Y																	Y												
	C1-Fluorenes	SGS AXYS MLA-021	MLA-021		Y																	Y												
	C1-Naphthalenes	SGS AXYS MLA-021	MLA-021		Y																	Y												
	C1-Phenanthrenes/Anthracenes	SGS AXYS MLA-021	MLA-021		Y																	Y												
	C2-Benz(a)anthracenes/Chrysenes	SGS AXYS MLA-021	MLA-021		Y																	Y												
	C2-Benzofluoranthenes/ Benzopyrenes	SGS AXYS MLA-021	MLA-021		Y																	Y												
	C2-Biphenyls	SGS AXYS MLA-021	MLA-021		Y																	Y												
	C2-Dibenzothiophene	SGS AXYS MLA-021	MLA-021		Y																	Y												
	C2-Fluoranthenes/Pyrenes	SGS AXYS MLA-021	MLA-021		Y																	Y												
	C2-Fluorenes	SGS AXYS MLA-021	MLA-021		Y																	Y												
	C2-Naphthalenes	SGS AXYS MLA-021	MLA-021		Y																	Y												
	C2-Phenanthrenes/Anthracenes	SGS AXYS MLA-021	MLA-021		Y																	Y												
	C3-Benz(a)anthracenes/Chrysenes	SGS AXYS MLA-021	MLA-021		Y																	Y												
	C3-Dibenzothiophene	SGS AXYS MLA-021	MLA-021		Y																	Y												
	C3-Fluoranthenes/Pyrenes	SGS AXYS MLA-021	MLA-021		Y																	Y												
	C3-Fluorenes	SGS AXYS MLA-021	MLA-021		Y																	Y												
	C3-Naphthalenes	SGS AXYS MLA-021	MLA-021		Y																	Y												
	C3-Phenanthrenes/Anthracenes	SGS AXYS MLA-021	MLA-021		Y																	Y												
	C4-Benz(a)anthracenes/Chrysenes	SGS AXYS MLA-021	MLA-021		Y																	Y												
	C4-Dibenzothiophene	SGS AXYS MLA-021	MLA-021		Y																	Y												
	C4-Fluoranthenes/Pyrenes	SGS AXYS MLA-021	MLA-021		Y																	Y												
	C4-Naphthalenes	SGS AXYS MLA-021	MLA-021		Y																	Y												
	C4-Phenanthrenes/Anthracenes	SGS AXYS MLA-021	MLA-021		Y																	Y												

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Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids										Tissue						Urine	Water	Water, Non-Potable									
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	Chrysene	EPA 1625	MLA-021																					Y				Y	Y				Y	
		EPA 8270	MLA-021				Y			Y	Y		Y	Y																				
		SGS AXYS MLA-021	MLA-021		Y		Y							Y		Y							Y		Y									Y	
	Dibenz[a,h]anthracene	EPA 1625	MLA-021																						Y				Y	Y				Y	
		EPA 8270	MLA-021				Y			Y	Y		Y	Y																				
		SGS AXYS MLA-021	MLA-021		Y		Y							Y		Y							Y		Y									Y	
	Dibenzothiophene	SGS AXYS MLA-021	MLA-021		Y																		Y												
	Fluoranthene	EPA 1625	MLA-021																						Y				Y	Y				Y	
		EPA 8270	MLA-021				Y			Y	Y		Y	Y																				
		SGS AXYS MLA-021	MLA-021		Y		Y							Y		Y							Y		Y									Y	
	Fluorene	EPA 1625	MLA-021																						Y				Y	Y				Y	
		EPA 8270	MLA-021				Y			Y	Y		Y	Y																				
		SGS AXYS MLA-021	MLA-021		Y		Y							Y		Y							Y		Y									Y	
	Indeno[1,2,3-cd]pyrene	EPA 1625	MLA-021																						Y				Y	Y				Y	
		EPA 8270	MLA-021				Y			Y	Y		Y	Y																				
		SGS AXYS MLA-021	MLA-021		Y		Y							Y		Y							Y		Y									Y	
	Naphthalene	EPA 1625	MLA-021																						Y				Y	Y				Y	
		EPA 8270	MLA-021				Y			Y	Y		Y	Y																				
		SGS AXYS MLA-021	MLA-021		Y		Y							Y		Y							Y		Y									Y	
	Perylene	SGS AXYS MLA-021	MLA-021		Y											Y							Y												
	Phenanthrene	EPA 1625	MLA-021																						Y				Y	Y				Y	
		EPA 8270	MLA-021				Y			Y	Y		Y	Y																				
		SGS AXYS MLA-021	MLA-021		Y		Y							Y		Y							Y		Y									Y	
	Pyrene	EPA 1625	MLA-021																						Y				Y	Y				Y	
		EPA 8270	MLA-021				Y			Y	Y		Y	Y																				
		SGS AXYS MLA-021	MLA-021		Y		Y							Y		Y							Y		Y									Y	
	Retene	SGS AXYS MLA-021	MLA-021		Y											Y							Y												
PBDPE	BDE 10 2,6-dibromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y												
	BDE 100 2,2',4,4',6-pentabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y												
	BDE 105 2,3,3',4,4'-pentabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y												
	BDE 11 3,3'-dibromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y												
	BDE 116 2,3,4,5,6-pentabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y												
	BDE 119 2,3',4,4',6-pentabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y												
	BDE 12 3,4-dibromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y												
	BDE 126 3,3',4,4',5-pentabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y												
	BDE 13 3,4'-dibromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y												
	BDE 140 2,2',3,4,4',6'-hexabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y												
	BDE 15 4,4'-dibromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y												
	BDE 153 2,2',4,4',5,5'-hexabromodiphenylether	EPA 1614	MLA-033									Y																		Y				

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Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids										Tissue						Urine	Water	Water, Non-Potable								
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 154 2,2',4,4',5',6-hexabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 155 2,2',4,4',6,6'-hexabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 166 2,3,4,4',5,6-hexabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 17 2,2',4-tribromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 181 2,2',3,4,4',5,6-heptabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 190 2,3,3',4,4',5,6-heptabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 206 2,2',3,3',4,4',5,5',6-nonabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 207 2,2',3,3',4,4',5,6,6'-nonabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 208 2,2',3,3',4,5,5',6,6'-nonabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 209 Decabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 25 2,3',4-tribromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 28 2,4,4'-tribromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 30 2,4,6-tribromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 35 3,3',4-tribromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 37 3,4,4'-tribromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 47 2,2',4,4'-tetrabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 49 2,2',4,5'-tetrabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 66 2,3',4,4'-tetrabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 7 2,4-dibromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 75 2,4,4',6-tetrabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 77 3,3',4,4'-tetrabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 8 2,4'-dibromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 85 2,2',3,4,4'-pentabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE 99 2,2',4,4',5-pentabromodiphenylether	EPA 1614	MLA-033									Y																		Y				
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y											
	BDE-183 2,2',3,4,4',5',6-heptabromodiphenylether	EPA 1614	MLA-033									Y																		Y				

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SGS AXYS Analytical Services Ltd.
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Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids											Tissue						Urine	Water	Water, Non-Potable								
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y										
	BDE-33 2',3,4-tribromodiphenylether	EPA 1614	MLA-033									Y																		Y			
		SGS AXYS MLA-033	MLA-033	Y	Y											Y							Y										
PCB Aroclors	"PCBs" category (CA only)	EPA 625	MLA-007																					Y										
		EPA 8270	MLA-007			Y																												
	PCB Aroclor 1016	EPA 1668	MLA-010				Y						Y	Y											Y						Y		Y	
		EPA 625	MLA-007																						Y				Y	Y	Y		Y	
		EPA 8270	MLA-007				Y			Y	Y			Y																				
		SGS AXYS MLA-010	MLA-010				Y							Y											Y									Y	
		SGS AXYS MLA-007	MLA-007		Y		Y							Y		Y							Y		Y									Y	
	PCB Aroclor 1016/1242	EPA 8270	MLA-007									Y																						
	PCB Aroclor 1221	EPA 1668	MLA-010				Y						Y	Y											Y						Y		Y	
		EPA 625	MLA-007																						Y				Y	Y	Y		Y	
		EPA 8270	MLA-007				Y			Y	Y	Y		Y																				
		SGS AXYS MLA-010	MLA-010				Y							Y											Y									Y	
		SGS AXYS MLA-007	MLA-007		Y		Y							Y		Y							Y		Y									Y	
	PCB Aroclor 1232	EPA 1668	MLA-010				Y						Y	Y											Y						Y		Y	
		EPA 625	MLA-007																						Y				Y	Y	Y		Y	
		EPA 8270	MLA-007				Y			Y	Y	Y		Y																				
		SGS AXYS MLA-010	MLA-010				Y							Y											Y									Y	
		SGS AXYS MLA-007	MLA-007		Y		Y							Y		Y							Y		Y									Y	
	PCB Aroclor 1242	EPA 1668	MLA-010				Y						Y	Y											Y						Y		Y	
		EPA 625	MLA-007																						Y				Y	Y	Y		Y	
		EPA 8270	MLA-007				Y			Y	Y			Y																				
		SGS AXYS MLA-010	MLA-010				Y							Y											Y									Y	
		SGS AXYS MLA-007	MLA-007		Y		Y							Y		Y							Y		Y									Y	
	PCB Aroclor 1248	EPA 1668	MLA-010				Y						Y	Y											Y						Y		Y	
		EPA 625	MLA-007																						Y				Y	Y	Y		Y	
		EPA 8270	MLA-007				Y			Y	Y	Y		Y																				
		SGS AXYS MLA-010	MLA-010				Y							Y											Y									Y	
		SGS AXYS MLA-007	MLA-007		Y		Y							Y		Y							Y		Y									Y	
	PCB Aroclor 1254	EPA 1668	MLA-010				Y						Y	Y											Y						Y		Y	
		EPA 625	MLA-007																						Y				Y	Y	Y		Y	
		EPA 8270	MLA-007				Y			Y	Y	Y		Y																				
		SGS AXYS MLA-010	MLA-010				Y							Y											Y									Y	
		SGS AXYS MLA-007	MLA-007		Y		Y							Y		Y							Y		Y									Y	
	PCB Aroclor 1260	EPA 1668	MLA-010				Y						Y	Y											Y						Y		Y	
		EPA 625	MLA-007																						Y				Y	Y	Y		Y	
		EPA 8270	MLA-007				Y			Y	Y	Y		Y																				
		SGS AXYS MLA-010	MLA-010				Y							Y											Y									Y	
		SGS AXYS MLA-007	MLA-007		Y		Y							Y		Y							Y		Y									Y	
	PCB Aroclor 1268	SGS AXYS MLA-007	MLA-007		Y											Y							Y										
PCB congeners	PCB 1 2-Chlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y									Y	
	PCB 10 2,6-Dichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y		Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y									Y	
	PCB 100 2,2',4,4',6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y									Y	

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Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids										Tissue						Urine	Water	Water, Non-Potable									
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	PCB 101 2,2',4,5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y			Y								Y	
	PCB 101/90/89	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 102 2,2',4,5,6'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y			Y								Y	
	PCB 103 2,2',4,5',6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y			Y								Y	
	PCB 104 2,2',4,6,6'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y			Y								Y	
	PCB 105 2,3,3',4,4'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y			Y								Y	
	PCB 105/127	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 106 2,3,3',4,5-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y			Y								Y	
	PCB 107 2,3,3',4',5-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y			Y								Y	
	PCB 107/109	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 108 2,3,3',4,5'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y			Y								Y	
	PCB 109 2,3,3',4,6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y			Y								Y	
	PCB 11 3,3'-Dichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y			Y								Y	
	PCB 110 2,3,3',4',6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y			Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 111 2,3,3',5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y			Y								Y	
	PCB 111/117	EPA 8270	MLA-007									Y																						
	PCB 112 2,3,3',5,6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y			Y								Y	
	PCB 113 2,3,3',5',6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y			Y								Y	
	PCB 114 2,3,4,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y			Y								Y	
	PCB 115 2,3,4,4',6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y			Y								Y	
	PCB 116 2,3,4,5,6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y			Y								Y	
	PCB 117 2,3,4',5,6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		Y	Y	

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SGS AXYS Analytical Services Ltd.
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				Serum	Solids											Tissue						Urine	Water	Water, Non-Potable								
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y										Y	
	PCB 118 2,3',4,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y										Y	
		SGS AXYS MLA-901	MLA-901	Y																														
	PCB 118/106	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 119 2,3',4,4',6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y										Y	
	PCB 12 3,4-Dichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y										Y	
	PCB 12/13	EPA 8270	MLA-007									Y																						
	PCB 120 2,3',4,5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y										Y	
	PCB 121 2,3',4,5',6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y										Y	
	PCB 122 2,3,3',4',5'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y										Y	
	PCB 123 2,3',4,4',5'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y										Y	
	PCB 124 2,3',4',5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y										Y	
	PCB 125 2,3',4',5',6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y										Y	
	PCB 126 3,3',4,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y										Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 127 3,3',4,5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y										Y	
	PCB 128 2,2',3,3',4,4'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y										Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 129 2,2',3,3',4,5-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y										Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 13 3,4'-Dichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y										Y	
	PCB 130 2,2',3,3',4,5'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y		Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y										Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 131 2,2',3,3',4,6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y										Y	

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids										Tissue						Urine	Water	Water, Non-Potable								
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH
	PCB 131/142	EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-007	MLA-007		Y											Y							Y								
	PCB 132 2,2',3,3',4,6'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y						
	PCB 132/168	EPA 8270	MLA-007									Y																			
	PCB 133 2,2',3,3',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y	
		EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y						
	PCB 134 2,2',3,3',5,6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y						
	PCB 134/143	EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-007	MLA-007		Y											Y							Y								
	PCB 135 2,2',3,3',5,6'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y						
	PCB 136 2,2',3,3',6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y	
		EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y								
	PCB 137 2,2',3,4,4',5-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y	
		EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y								
	PCB 138 2,2',3,4,4',5'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y						
		SGS AXYS MLA-901	MLA-901	Y																											
	PCB 138/163/164	EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-007	MLA-007		Y											Y							Y								
	PCB 139 2,2',3,4,4',6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y						
	PCB 14 3,5-Dichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y	
		EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y						
	PCB 140 2,2',3,4,4',6'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y	
		EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y						
	PCB 141 2,2',3,4,5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y	
		EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y						
	PCB 142 2,2',3,4,5,6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y						
	PCB 143 2,2',3,4,5,6'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y						
	PCB 144 2,2',3,4,5',6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y						
	PCB 144/135	EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-007	MLA-007		Y											Y							Y								
	PCB 145 2,2',3,4,6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y	
		EPA 8270	MLA-007									Y																			
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y						
	PCB 146 2,2',3,4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y	

Water, Non-Potable							
Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **

Accreditation Scope

SGS AXYS Analytical Services Ltd.
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Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids										Tissue						Urine	Water	Water, Non-Potable									
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y			Y										Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
		SGS AXYS MLA-901	MLA-901	Y																														
	PCB 147 2,2',3,4',5,6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y			Y	Y	Y			Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y			Y		Y								Y	
	PCB 148 2,2',3,4',5,6'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y			Y	Y	Y			Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y			Y		Y								Y	
	PCB 149 2,2',3,4',5',6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y			Y	Y	Y			Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y			Y		Y								Y	
	PCB 149/139	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 15 4,4'-Dichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y			Y	Y	Y			Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y			Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 150 2,2',3,4',6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y			Y	Y	Y			Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y			Y		Y								Y	
	PCB 151 2,2',3,5,5',6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y			Y	Y	Y			Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y			Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 152 2,2',3,5,6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y			Y	Y	Y			Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y			Y		Y								Y	
	PCB 153 2,2',4,4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y			Y	Y	Y			Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y			Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
		SGS AXYS MLA-901	MLA-901	Y																														
	PCB 154 2,2',4,4',5,6'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y			Y	Y	Y			Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y			Y		Y								Y	
	PCB 155 2,2',4,4',6,6'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y			Y	Y	Y			Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y			Y		Y								Y	
	PCB 156 2,3,3',4,4',5-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y			Y	Y	Y			Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y			Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
		SGS AXYS MLA-901	MLA-901	Y																														
	PCB 157 2,3,3',4,4',5'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y			Y	Y	Y			Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y			Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 158 2,3,3',4,4',6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y			Y	Y	Y			Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y			Y		Y								Y	

Accreditation Scope

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				Serum	Solids											Tissue							Urine	Water	Water, Non-Potable								
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	PCB 158/160	EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 159 2,3,3',4,5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 16 2,2',3-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 16/32	EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 160 2,3,3',4,5,6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 161 2,3,3',4,5',6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 162 2,3,3',4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 163 2,3,3',4',5,6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 164 2,3,3',4',5',6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 165 2,3,3',5,5',6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 166 2,3,4,4',5,6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 167 2,3',4,4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 168 2,3',4,4',5',6-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 169 3,3',4,4',5,5'-Hexachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 17 2,2',4-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 170 2,2',3,3',4,4',5-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
		SGS AXYS MLA-901	MLA-901	Y																														
	PCB 170/190	EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 171 2,2',3,3',4,4',6-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																					

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SGS AXYS Analytical Services Ltd.
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Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids										Tissue						Urine	Water	Water, Non-Potable									
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 172 2,2',3,3',4,5,5'-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y		Y						Y					Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
	PCB 172/192	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 173 2,2',3,3',4,5,6-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y		Y						Y					Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
	PCB 174 2,2',3,3',4,5,6'-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
	PCB 174/181	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 175 2,2',3,3',4,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 176 2,2',3,3',4,6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 177 2,2',3,3',4,5',6'-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 178 2,2',3,3',5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 179 2,2',3,3',5,6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 18 2,2',5-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 180 2,2',3,4,4',5,5'-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
		SGS AXYS MLA-901	MLA-901	Y																														
	PCB 181 2,2',3,4,4',5,6-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
	PCB 182 2,2',3,4,4',5,6'-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
	PCB 183 2,2',3,4,4',5',6-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											

Accreditation Scope

SGS AXYS Analytical Services Ltd.
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Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids										Tissue						Urine	Water	Water, Non-Potable									
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	PCB 184 2,2',3,4,4',6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y				Y			Y		Y								Y	
	PCB 185 2,2',3,4,5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y				Y			Y		Y								Y	
		SGS AXYS MLA-007	MLA-007			Y										Y							Y											
	PCB 186 2,2',3,4,5,6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y				Y			Y		Y								Y	
	PCB 187 2,2',3,4',5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y				Y			Y		Y								Y	
		SGS AXYS MLA-901	MLA-901		Y																													
	PCB 187/182	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 188 2,2',3,4',5,6,6'-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y				Y			Y		Y								Y	
	PCB 189 2,3,3',4,4',5,5'-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y				Y			Y		Y								Y	
		SGS AXYS MLA-007	MLA-007			Y										Y							Y											
	PCB 19 2,2',6-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y				Y			Y		Y								Y	
		SGS AXYS MLA-007	MLA-007			Y										Y							Y											
	PCB 190 2,3,3',4,4',5,6-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y				Y			Y		Y								Y	
	PCB 191 2,3,3',4,4',5',6-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y				Y			Y		Y								Y	
		SGS AXYS MLA-007	MLA-007			Y										Y							Y											
	PCB 192 2,3,3',4,5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y				Y			Y		Y								Y	
	PCB 193 2,3,3',4',5,5',6-Heptachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y				Y			Y		Y								Y	
		SGS AXYS MLA-007	MLA-007			Y										Y							Y											
	PCB 194 2,2',3,3',4,4',5,5'-Octachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y				Y			Y		Y								Y	
		SGS AXYS MLA-007	MLA-007			Y										Y							Y											
		SGS AXYS MLA-901	MLA-901		Y																													
	PCB 195 2,2',3,3',4,4',5,6-Octachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y				Y			Y		Y								Y	
		SGS AXYS MLA-007	MLA-007			Y										Y							Y											
	PCB 196 2,2',3,3',4,4',5,6'-Octachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y						Y					Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010		Y	Y	Y							Y		Y				Y			Y		Y								Y	
	PCB 196/203	EPA 8270	MLA-007									Y																						

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Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids										Tissue						Urine	Water	Water, Non-Potable								
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 197 2,2',3,3',4,4',6,6'-Octachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y		Y					Y						Y			Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y			Y				Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 198 2,2',3,3',4,5,5',6-Octachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y					Y						Y			Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y			Y				Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 199 2,2',3,3',4,5,5',6'-Octachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y		Y					Y						Y			Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y			Y				Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 2 3-Chlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y					Y						Y			Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y			Y				Y		Y								Y	
	PCB 20 2,3,3'-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y					Y						Y			Y	Y	Y	Y		Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y			Y				Y		Y								Y	
	PCB 200 2,2',3,3',4,5,6,6'-Octachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y					Y						Y			Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y			Y				Y		Y								Y	
	PCB 201 2,2',3,3',4,5',6,6'-Octachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y		Y					Y						Y			Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y			Y				Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 202 2,2',3,3',5,5',6,6'-Octachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y					Y						Y			Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y			Y				Y		Y								Y	
	PCB 203 2,2',3,4,4',5,5',6-Octachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y					Y						Y			Y	Y	Y	Y		Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y			Y				Y		Y								Y	
	PCB 204 2,2',3,4,4',5,6,6'-Octachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y					Y						Y			Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y			Y				Y		Y								Y	
	PCB 205 2,3,3',4,4',5,5',6-Octachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y					Y						Y			Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y			Y				Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 206 2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y					Y						Y			Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y			Y				Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 207 2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y		Y					Y						Y			Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y			Y				Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 208 2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y		Y					Y						Y			Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y			Y				Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 209 Decachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y					Y						Y			Y	Y	Y	Y		Y	Y

Accreditation Scope

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				Serum	Solids											Tissue						Urine	Water	Water, Non-Potable									
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 21 2,3,4-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 22 2,3,4'-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 23 2,3,5-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y		Y							Y				Y		Y	Y	Y	Y		Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 23/34	EPA 8270	MLA-007									Y																					
	PCB 24 2,3,6-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 24/27	EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 25 2,3',4-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 26 2,3',5-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 27 2,3',6-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 28 2,4,4'-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 29 2,4,5-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y		Y							Y				Y		Y	Y	Y	Y		Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 3 4-Chlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 30 2,4,6-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 31 2,4',5-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 32 2,4',6-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 33 2,3',4'-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
	PCB 33/20/21	EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										
	PCB 34 2,3',5'-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y
		SGS AXYS MLA-007	MLA-007		Y											Y							Y										

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids											Tissue						Urine	Water	Water, Non-Potable									
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	PCB 35 3,3',4-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y									
	PCB 36 3,3',5-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y									
	PCB 37 3,4,4'-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y									
	PCB 38 3,4,5-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y									
	PCB 39 3,4',5-Trichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y									
	PCB 4 2,2'-Dichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y									
	PCB 4/10	EPA 8270	MLA-007									Y																						
	PCB 40 2,2',3,3'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y									
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 41 2,2',3,4-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y									
	PCB 41/71/64/68	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 42 2,2',3,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y									
	PCB 42/59	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 43 2,2',3,5-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y									
	PCB 44 2,2',3,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y									
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 45 2,2',3,6-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y									
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 46 2,2',3,6'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y									
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 47 2,2',4,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y									
	PCB 47/48/75	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 48 2,2',4,5-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y									

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids											Tissue						Urine	Water	Water, Non-Potable									
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	PCB 49 2,2',4,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 49/43	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 5 2,3-Dichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 50 2,2',4,6-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 51 2,2',4,6'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 52 2,2',5,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 52/73	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 53 2,2',5,6'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 54 2,2',6,6'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 55 2,3,3',4-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 56 2,3,3',4'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 56/60	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 57 2,3,3',5-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 58 2,3,3',5'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 59 2,3,3',6-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 6 2,3'-Dichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 60 2,3,4,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 61 2,3,4,5-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 62 2,3,4,6-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 62/65	EPA 8270	MLA-007									Y																						
	PCB 63 2,3,4',5-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids										Tissue						Urine	Water	Water, Non-Potable								
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
	PCB 64 2,3,4',6-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
	PCB 65 2,3,5,6-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
	PCB 66 2,3',4,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
	PCB 66/80	EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 67 2,3',4,5-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
	PCB 68 2,3',4,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
	PCB 69 2,3',4,6-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
	PCB 7 2,4-Dichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
	PCB 7/9	EPA 8270	MLA-007									Y																					
	PCB 70 2,3',4',5-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
	PCB 70/76	EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 71 2,3',4',6-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
	PCB 72 2,3',5,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
	PCB 73 2,3',5',6-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
	PCB 74 2,4,4',5-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
		SGS AXYS MLA-901	MLA-901	Y																													
	PCB 74/61	EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 75 2,4,4',6-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
	PCB 76 2,3',4',5'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
	PCB 77 3,3',4,4'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 78 3,3',4,5-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
	PCB 79 3,3',4,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																					
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

				Serum	Solids											Tissue						Urine	Water	Water, Non-Potable								
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	PCB 8 2,4'-Dichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 8/5	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 80 3,3',5,5'-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 81 3,4,4',5-Tetrachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 82 2,2',3,3',4-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 83 2,2',3,3',5-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 83/108	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 84 2,2',3,3',6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y		Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 85 2,2',3,4,4'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 85/120	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 86 2,2',3,4,5-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 87 2,2',3,4,5'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 87/115/116	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 88 2,2',3,4,6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 88/121	EPA 8270	MLA-007									Y																						
	PCB 89 2,2',3,4,6'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 9 2,5-Dichlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y		Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 90 2,2',3,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 91 2,2',3,4',6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	PCB 92 2,2',3,5,5'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 93 2,2',3,5,6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y					Y		Y		Y								Y	
	PCB 94 2,2',3,5,6'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y			Y	
		EPA 8270	MLA-007									Y																						

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SGS AXYS Analytical Services Ltd.
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Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids										Tissue						Urine	Water	Water, Non-Potable									
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
	PCB 95 2,2',3,5',6-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
	PCB 95/93	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y								Y										
	PCB 96 2,2',3,6,6'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
	PCB 97 2,2',3,4',5'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
	PCB 97/86	EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-007	MLA-007		Y											Y								Y										
	PCB 98 2,2',3,4',6'-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
	PCB 98/102	EPA 8270	MLA-007									Y																						
	PCB 99 2,2',4,4',5-Pentachlorobiphenyl	EPA 1668	MLA-010				Y		Y	Y	Y	Y	Y	Y							Y				Y		Y	Y	Y	Y		Y	Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y		Y							Y		Y				Y		Y		Y								Y	
		SGS AXYS MLA-007	MLA-007		Y											Y								Y										
		SGS AXYS MLA-901	MLA-901	Y																														
	PCB congeners, total	EPA 1668	MLA-010							Y																		Y						
	Sum - Dichlorobiphenyls (BZ-12-+ BZ-13)	EPA 1668	MLA-010											Y							Y												Y	
		SGS AXYS MLA-010	MLA-010											Y							Y												Y	
	Sum - Heptachlorobiphenyls (BZ-171 + BZ-173)	EPA 1668	MLA-010											Y							Y												Y	
		SGS AXYS MLA-010	MLA-010											Y							Y												Y	
	Sum - Heptachlorobiphenyls (BZ-180 + BZ-193)	EPA 1668	MLA-010											Y							Y												Y	
		SGS AXYS MLA-010	MLA-010											Y							Y												Y	
	Sum - Heptachlorobiphenyls (BZ-183 + BZ-185)	EPA 1668	MLA-010											Y							Y												Y	
		SGS AXYS MLA-010	MLA-010											Y							Y												Y	
	Sum - Hexachlorobiphenyls (BZ-128 + BZ-166)	EPA 1668	MLA-010											Y							Y												Y	
		SGS AXYS MLA-010	MLA-010											Y							Y												Y	
	Sum - Hexachlorobiphenyls (BZ-129 + BZ-138 + BZ-160 + BZ-163)	EPA 1668	MLA-010											Y							Y												Y	
		SGS AXYS MLA-010	MLA-010											Y							Y												Y	
	Sum - Hexachlorobiphenyls (BZ-134 + BZ-143)	EPA 1668	MLA-010											Y							Y												Y	
		SGS AXYS MLA-010	MLA-010											Y							Y												Y	
	Sum - Hexachlorobiphenyls (BZ-135 + BZ-151 + BZ-154)	EPA 1668	MLA-010											Y							Y												Y	
		SGS AXYS MLA-010	MLA-010											Y							Y												Y	
	Sum - Hexachlorobiphenyls (BZ-139 + BZ-140)	EPA 1668	MLA-010											Y							Y												Y	
		SGS AXYS MLA-010	MLA-010											Y							Y												Y	
	Sum - Hexachlorobiphenyls (BZ-147 + BZ-149)	EPA 1668	MLA-010											Y							Y												Y	
		SGS AXYS MLA-010	MLA-010											Y							Y												Y	
	Sum - Hexachlorobiphenyls (BZ-153 + BZ-168)	EPA 1668	MLA-010											Y							Y												Y	
		SGS AXYS MLA-010	MLA-010											Y							Y												Y	
	Sum - Hexachlorobiphenyls (BZ-156 + BZ-157)	EPA 1668	MLA-010											Y							Y												Y	
		SGS AXYS MLA-010	MLA-010											Y							Y												Y	
	Sum - Pentachlorobiphenyls (BZ-107 + BZ-124)	EPA 1668	MLA-010											Y							Y												Y	
		SGS AXYS MLA-010	MLA-010											Y							Y												Y	
	Sum - Pentachlorobiphenyls (BZ-108 + BZ-124)	EPA 1668	MLA-010											Y							Y												Y	
		SGS AXYS MLA-010	MLA-010											Y							Y												Y	
	Sum - Pentachlorobiphenyls (BZ-110 + BZ-115)	EPA 1668	MLA-010											Y							Y												Y	

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SGS AXYS Analytical Services Ltd.
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Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids											Tissue						Urine	Water	Water, Non-Potable								
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Pentachlorobiphenyls (BZ-83 + BZ-99)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Pentachlorobiphenyls (BZ-85 + BZ-116 + BZ-117)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Pentachlorobiphenyls (BZ-86 + BZ-87 + BZ 97 + BZ-109 + BZ-119 + BZ-125)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Pentachlorobiphenyls (BZ-86 + BZ-87 + BZ-97 + BZ-108 + BZ-119 +BZ-125)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Pentachlorobiphenyls (BZ-88 + BZ-91)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Pentachlorobiphenyls (BZ-90 + BZ-101 + BZ-113)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Pentachlorobiphenyls (BZ-93 + BZ-95 + BZ-98 + BZ-100 + BZ-102)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Tetrachlorobiphenyls (BZ-40 + BZ-41 + BZ-71)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Tetrachlorobiphenyls (BZ-44 + BZ-47 + BZ-65)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Tetrachlorobiphenyls (BZ-45 + BZ-51)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Tetrachlorobiphenyls (BZ-49 + BZ-69)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Tetrachlorobiphenyls (BZ-50 + BZ-53)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Tetrachlorobiphenyls (BZ-59 + BZ-62 + BZ-75)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Tetrachlorobiphenyls (BZ-61 + BZ-70 + BZ-74 + BZ-76)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Trichlorobiphenyls (BZ-18 + BZ-30)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Trichlorobiphenyls (BZ-20 + BZ-28)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Trichlorobiphenyls (BZ-21 + BZ-33)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Sum - Trichlorobiphenyls (BZ-26 + BZ-29)	EPA 1668	MLA-010											Y						Y													Y	
		SGS AXYS MLA-010	MLA-010											Y						Y													Y	
	Total Dichlorobiphenyls	EPA 1668	MLA-010											Y						Y													Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y									Y		Y				Y			Y											Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	Total Heptachlorobiphenyls	EPA 1668	MLA-010											Y						Y													Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y									Y		Y				Y			Y											Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	Total Hexachlorobiphenyls	EPA 1668	MLA-010											Y						Y													Y	
		EPA 8270	MLA-007									Y																						
		SGS AXYS MLA-010	MLA-010	Y	Y									Y		Y				Y			Y											Y	
		SGS AXYS MLA-007	MLA-007		Y											Y							Y											
	Total Monochlorobiphenyls	EPA 1668	MLA-010											Y						Y													Y	

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				Serum	Solids											Tissue							Urine	Water	Water, Non-Potable									
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	ANAB DoD **	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		SGS AXYS MLA-010	MLA-010	Y	Y									Y		Y					Y			Y										Y	
	Total Nonachlorobiphenyls	EPA 1668	MLA-010											Y							Y													Y	
		EPA 8270	MLA-007									Y																							
		SGS AXYS MLA-010	MLA-010	Y	Y									Y		Y					Y			Y										Y	
		SGS AXYS MLA-007	MLA-007		Y											Y								Y											
	Total Octachlorobiphenyls	EPA 1668	MLA-010											Y							Y													Y	
		EPA 8270	MLA-007									Y																							
		SGS AXYS MLA-010	MLA-010	Y	Y									Y		Y					Y			Y										Y	
		SGS AXYS MLA-007	MLA-007		Y											Y								Y											
	Total PCBs	EPA 1668	MLA-010											Y							Y													Y	
		SGS AXYS MLA-010	MLA-010											Y							Y													Y	
	Total Pentachlorobiphenyls	EPA 1668	MLA-010											Y							Y													Y	
		EPA 8270	MLA-007									Y																							
		SGS AXYS MLA-010	MLA-010	Y	Y									Y		Y					Y			Y										Y	
		SGS AXYS MLA-007	MLA-007		Y											Y								Y											
	Total Polychlorinated biphenyls	SGS AXYS MLA-007	MLA-007		Y											Y								Y											
	Total Tetrachlorobiphenyls	EPA 1668	MLA-010											Y							Y													Y	
		EPA 8270	MLA-007									Y																							
		SGS AXYS MLA-010	MLA-010	Y	Y									Y		Y					Y			Y										Y	
		SGS AXYS MLA-007	MLA-007		Y											Y								Y											
	Total Trichlorobiphenyls	EPA 1668	MLA-010											Y							Y													Y	
		EPA 8270	MLA-007									Y																							
		SGS AXYS MLA-010	MLA-010	Y	Y									Y		Y					Y			Y										Y	
		SGS AXYS MLA-007	MLA-007		Y											Y								Y											
PCDDF	"Dioxins and Dibenzofurans" category (CA only)	EPA 1613	MLA-017																						Y										
		EPA 8290	MLA-017			Y																													
	1,2,3,4,6,7,8-HpCDD	EPA 1613	MLA-017									Y		Y							Y					Y								Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y					Y				Y	Y			Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y			Y		Y								Y	
	1,2,3,4,6,7,8-HpCDF	EPA 1613	MLA-017									Y		Y							Y					Y								Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y					Y				Y	Y			Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y			Y		Y								Y	
	1,2,3,4,7,8,9-HpCDF	EPA 1613	MLA-017									Y		Y							Y					Y								Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y					Y				Y	Y			Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y			Y		Y								Y	
	1,2,3,4,7,8-HxCDD	EPA 1613	MLA-017									Y		Y							Y					Y								Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y					Y				Y	Y			Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y			Y		Y								Y	
	1,2,3,4,7,8-HxCDF	EPA 1613	MLA-017									Y		Y							Y					Y								Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y					Y				Y	Y			Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y			Y		Y								Y	
	1,2,3,6,7,8-HxCDD	EPA 1613	MLA-017									Y		Y							Y					Y								Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y					Y				Y	Y			Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y			Y		Y								Y	
	1,2,3,6,7,8-HxCDF	EPA 1613	MLA-017									Y		Y							Y					Y								Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y					Y				Y	Y			Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y			Y		Y								Y	
	1,2,3,7,8,9-HxCDD	EPA 1613	MLA-017									Y		Y							Y					Y								Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y					Y				Y	Y			Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y			Y		Y								Y	

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				Serum	Solids											Tissue							Urine	Water	Water, Non-Potable								
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	1,2,3,7,8,9-HxCDF	EPA 1613	MLA-017									Y		Y							Y				Y		Y	Y	Y	Y	Y		Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y				Y			Y	Y				Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y		Y		Y								Y	
	1,2,3,7,8-PeCDD	EPA 1613	MLA-017									Y		Y							Y				Y		Y	Y	Y	Y	Y		Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y				Y			Y	Y				Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y		Y		Y								Y	
	1,2,3,7,8-PeCDF	EPA 1613	MLA-017									Y		Y							Y				Y		Y	Y	Y	Y	Y		Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y				Y			Y	Y				Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y		Y		Y								Y	
	2,3,4,6,7,8-HxCDF	EPA 1613	MLA-017									Y		Y							Y				Y		Y	Y	Y	Y	Y		Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y				Y			Y	Y				Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y		Y		Y								Y	
	2,3,4,7,8-PeCDF	EPA 1613	MLA-017									Y		Y							Y				Y		Y	Y	Y	Y	Y		Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y				Y			Y	Y				Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y		Y		Y								Y	
	2,3,7,8-TCDD	EPA 1613	MLA-017									Y		Y							Y				Y		Y	Y	Y	Y	Y		Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y				Y			Y	Y				Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y		Y		Y								Y	
	2,3,7,8-TCDF	EPA 1613	MLA-017									Y		Y							Y				Y		Y	Y	Y	Y	Y		Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y				Y			Y	Y				Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y		Y		Y								Y	
	OCDD	EPA 1613	MLA-017									Y		Y							Y				Y		Y	Y	Y	Y	Y		Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y				Y			Y	Y				Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y		Y		Y								Y	
	OCDF	EPA 1613	MLA-017									Y		Y							Y				Y		Y	Y	Y	Y	Y		Y	
		EPA 8290	MLA-017				Y		Y	Y	Y		Y	Y			Y		Y	Y	Y				Y			Y	Y				Y	
		SGS AXYS MLA-017	MLA-017	Y	Y		Y							Y		Y	Y				Y		Y		Y								Y	
	Total HpCDD	EPA 1613	MLA-017											Y							Y				Y							Y	Y	
		EPA 8290	MLA-017				Y		Y		Y			Y	Y				Y	Y	Y					Y					Y			Y	
		SGS AXYS MLA-017	MLA-017				Y							Y			Y				Y				Y									Y	
	Total HpCDF	EPA 1613	MLA-017											Y							Y				Y							Y		
		EPA 8290	MLA-017				Y		Y		Y			Y	Y				Y	Y	Y					Y					Y			Y	
		SGS AXYS MLA-017	MLA-017				Y							Y			Y				Y				Y									Y	
	Total HxCDD	EPA 1613	MLA-017											Y							Y				Y							Y		
		EPA 8290	MLA-017				Y		Y		Y			Y	Y				Y	Y	Y					Y					Y			Y	
		SGS AXYS MLA-017	MLA-017				Y							Y			Y				Y				Y									Y	
	Total HxCDF	EPA 1613	MLA-017											Y							Y				Y							Y		
		EPA 8290	MLA-017				Y		Y		Y			Y	Y				Y	Y	Y					Y					Y			Y	
		SGS AXYS MLA-017	MLA-017				Y							Y			Y				Y				Y									Y	
	Total PCDD	EPA 1613	MLA-017											Y							Y													Y	
		EPA 8290	MLA-017											Y							Y													Y	
		SGS AXYS MLA-017	MLA-017											Y							Y													Y	
	Total PCDD+PCDF	EPA 1613	MLA-017											Y							Y													Y	
		EPA 8290	MLA-017											Y							Y													Y	
		SGS AXYS MLA-017	MLA-017											Y							Y													Y	
	Total PCDF	EPA 1613	MLA-017											Y							Y													Y	
		EPA 8290	MLA-017											Y							Y													Y	
		SGS AXYS MLA-017	MLA-017											Y							Y													Y	
	Total PeCDD	EPA 1613	MLA-017											Y							Y				Y							Y		Y	
		EPA 8290	MLA-017				Y		Y		Y			Y	Y				Y	Y	Y					Y					Y			Y	

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Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids										Tissue						Urine	Water	Water, Non-Potable									
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		SGS AXYS MLA-017	MLA-017				Y							Y			Y				Y				Y							Y	
	Total PeCDF	EPA 1613	MLA-017											Y							Y				Y						Y	Y	
		EPA 8290	MLA-017				Y		Y		Y		Y	Y			Y		Y	Y	Y				Y					Y			Y	
		SGS AXYS MLA-017	MLA-017				Y							Y			Y				Y				Y							Y	
	Total TCDD	EPA 1613	MLA-017											Y							Y				Y							Y	
		EPA 8290	MLA-017				Y		Y		Y		Y	Y			Y		Y	Y	Y				Y					Y			Y	
		SGS AXYS MLA-017	MLA-017				Y							Y			Y				Y				Y							Y	
	Total TCDF	EPA 1613	MLA-017											Y							Y				Y						Y	Y	
		EPA 8290	MLA-017				Y		Y		Y		Y	Y			Y		Y	Y	Y				Y					Y			Y	
		SGS AXYS MLA-017	MLA-017				Y							Y			Y				Y				Y							Y	
PFAS	4:2 Fluorotelomersulfonate (4:2 FTS)	SGS AXYS MLA-081	MLA-081																													Y	
		SGS AXYS MLA-089	MLA-089											Y																				
		SGS AXYS MLA-110	MLA-110		Y		Y					Y		Y	Y								Y		Y					Y			Y	Y
	6:2 Fluorotelomersulfonate (6:2 FTS)	SGS AXYS MLA-081	MLA-081																													Y	
		SGS AXYS MLA-089	MLA-089											Y																				
		SGS AXYS MLA-110	MLA-110		Y		Y					Y		Y	Y								Y		Y					Y			Y	Y
	8:2 Fluorotelomersulfonate (8:2 FTS)	SGS AXYS MLA-081	MLA-081																													Y	
		SGS AXYS MLA-089	MLA-089											Y																				
		SGS AXYS MLA-110	MLA-110		Y		Y					Y		Y	Y								Y		Y					Y			Y	Y
	N-Ethylperfluorooctanesulfonamide (N-EtFOSA)	SGS AXYS MLA-110	MLA-110		Y							Y											Y							Y				
	N-Ethylperfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	SGS AXYS MLA-110	MLA-110		Y		Y					Y		Y	Y								Y		Y					Y			Y	Y
	N-Ethylperfluorooctanesulfonamidoethanol (N-EtFOSE)	SGS AXYS MLA-110	MLA-110		Y							Y											Y							Y				
	N-Methylperfluorooctanesulfonamide (N-MeFOSA)	SGS AXYS MLA-110	MLA-110		Y							Y											Y							Y				
	N-Methylperfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	SGS AXYS MLA-110	MLA-110		Y		Y					Y		Y	Y								Y		Y					Y			Y	Y
	N-Methylperfluorooctanesulfonamidoethanol (N-MeFOSE)	SGS AXYS MLA-110	MLA-110		Y							Y											Y							Y				
	Perfluorobutanesulfonate (PFBS)	SGS AXYS MLA-060	MLA-060																				Y		Y	Y	Y						Y	
		SGS AXYS MLA-041	MLA-041		Y		Y	Y	Y					Y																				
		SGS AXYS MLA-043	MLA-043													Y	Y	Y	Y		Y													
		SGS AXYS MLA-042	MLA-042	Y																														
		SGS AXYS MLA-110	MLA-110		Y		Y	Y				Y		Y	Y								Y		Y	Y				Y			Y	Y
	Perfluorobutanoate (PFBA)	SGS AXYS MLA-060	MLA-060																				Y		Y	Y	Y						Y	
		SGS AXYS MLA-041	MLA-041		Y		Y	Y	Y					Y																				
		SGS AXYS MLA-043	MLA-043													Y	Y	Y	Y		Y													
		SGS AXYS MLA-042	MLA-042	Y																														
		SGS AXYS MLA-110	MLA-110		Y		Y	Y				Y		Y	Y								Y		Y	Y				Y			Y	Y
	Perfluorodecanesulfonate (PFDS)	SGS AXYS MLA-110	MLA-110		Y		Y					Y		Y	Y								Y		Y					Y			Y	Y
	Perfluorodecanoate (PFDA)	SGS AXYS MLA-060	MLA-060																				Y		Y	Y	Y						Y	
		SGS AXYS MLA-041	MLA-041		Y		Y	Y	Y					Y																				
		SGS AXYS MLA-043	MLA-043													Y	Y	Y	Y		Y													
		SGS AXYS MLA-042	MLA-042	Y																														
		SGS AXYS MLA-110	MLA-110		Y		Y	Y				Y		Y	Y								Y		Y	Y				Y			Y	Y
	Perfluorododecanesulfonate (PFDoS)	SGS AXYS MLA-110	MLA-110		Y							Y											Y							Y				
	Perfluorododecanoate (PFDoA)	SGS AXYS MLA-060	MLA-060																				Y		Y	Y	Y						Y	
		SGS AXYS MLA-041	MLA-041		Y		Y	Y	Y					Y																				
		SGS AXYS MLA-043	MLA-043													Y	Y	Y	Y		Y													
		SGS AXYS MLA-042	MLA-042	Y																														
		SGS AXYS MLA-110	MLA-110		Y		Y	Y				Y		Y	Y								Y		Y	Y				Y			Y	Y
	Perfluoroheptanesulfonate (PFHpS)	SGS AXYS MLA-110	MLA-110		Y		Y					Y		Y	Y								Y		Y					Y			Y	Y
	Perfluoroheptanoate (PFHpA)	SGS AXYS MLA-060	MLA-060																				Y		Y	Y	Y						Y	
		SGS AXYS MLA-041	MLA-041		Y		Y	Y	Y					Y																				

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				Serum	Solids											Tissue						Urine	Water	Water, Non-Potable								
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		SGS AXYS MLA-043	MLA-043													Y	Y	Y	Y	Y														
		SGS AXYS MLA-042	MLA-042	Y																														
		SGS AXYS MLA-110	MLA-110		Y		Y	Y				Y		Y	Y								Y		Y	Y				Y			Y	Y
	Perfluorohexanesulfonate (PFHxS)	SGS AXYS MLA-060	MLA-060																				Y		Y	Y	Y						Y	
		SGS AXYS MLA-041	MLA-041		Y		Y	Y	Y					Y																				
		SGS AXYS MLA-043	MLA-043													Y	Y	Y	Y	Y														
		SGS AXYS MLA-042	MLA-042	Y																														
		SGS AXYS MLA-110	MLA-110		Y		Y	Y				Y		Y	Y								Y		Y	Y				Y			Y	Y
	Perfluorohexanoate (PFHxA)	SGS AXYS MLA-060	MLA-060																				Y		Y	Y	Y						Y	
		SGS AXYS MLA-041	MLA-041		Y		Y	Y	Y					Y																				
		SGS AXYS MLA-043	MLA-043													Y	Y	Y	Y	Y														
		SGS AXYS MLA-042	MLA-042	Y																														
		SGS AXYS MLA-110	MLA-110		Y		Y	Y				Y		Y	Y								Y		Y	Y				Y			Y	Y
	Perfluorononanesulfonate (PFNS)	SGS AXYS MLA-110	MLA-110		Y		Y					Y		Y	Y								Y		Y					Y			Y	Y
	Perfluorononanoate (PFNA)	SGS AXYS MLA-060	MLA-060																				Y		Y	Y	Y						Y	
		SGS AXYS MLA-041	MLA-041		Y		Y	Y	Y					Y																				
		SGS AXYS MLA-043	MLA-043													Y	Y	Y	Y	Y														
		SGS AXYS MLA-042	MLA-042	Y																														
		SGS AXYS MLA-110	MLA-110		Y		Y	Y				Y		Y	Y								Y		Y	Y				Y			Y	Y
	Perfluorooctanesulfonamide (PFOSA), a.k.a. FOSA	SGS AXYS MLA-060	MLA-060																				Y		Y	Y	Y						Y	
		SGS AXYS MLA-041	MLA-041		Y		Y	Y	Y					Y																				
		SGS AXYS MLA-043	MLA-043													Y	Y	Y	Y	Y														
		SGS AXYS MLA-042	MLA-042	Y																														
		SGS AXYS MLA-110	MLA-110		Y		Y	Y				Y		Y	Y								Y		Y	Y				Y			Y	Y
	Perfluorooctanesulfonate (PFOS)	SGS AXYS MLA-060	MLA-060																				Y		Y	Y	Y						Y	
		SGS AXYS MLA-041	MLA-041		Y		Y	Y	Y					Y																				
		SGS AXYS MLA-043	MLA-043													Y	Y	Y	Y	Y														
		SGS AXYS MLA-042	MLA-042	Y																														
		SGS AXYS MLA-110	MLA-110		Y		Y	Y				Y		Y	Y								Y		Y	Y				Y			Y	Y
	Perfluorooctanoate (PFOA)	SGS AXYS MLA-060	MLA-060																				Y		Y	Y	Y						Y	
		SGS AXYS MLA-041	MLA-041		Y		Y	Y	Y					Y																				
		SGS AXYS MLA-043	MLA-043													Y	Y	Y	Y	Y														
		SGS AXYS MLA-042	MLA-042	Y																														
		SGS AXYS MLA-110	MLA-110		Y		Y	Y				Y		Y	Y								Y		Y	Y				Y			Y	Y
	Perfluoropentanesulfonate (PFPeS)	SGS AXYS MLA-110	MLA-110		Y		Y					Y		Y	Y								Y		Y					Y			Y	Y
	Perfluoropentanoate (PFPeA)	SGS AXYS MLA-060	MLA-060																				Y		Y	Y	Y						Y	
		SGS AXYS MLA-041	MLA-041		Y		Y	Y	Y					Y																				
		SGS AXYS MLA-043	MLA-043													Y	Y	Y	Y	Y														
		SGS AXYS MLA-042	MLA-042	Y																														
		SGS AXYS MLA-110	MLA-110		Y		Y	Y				Y		Y	Y								Y		Y	Y				Y			Y	Y
	Perfluorotetradecanoate (PFTeDA)	SGS AXYS MLA-110	MLA-110		Y		Y	Y				Y		Y									Y		Y	Y				Y			Y	Y
	Perfluorotridecanoate (PFTrDA)	SGS AXYS MLA-110	MLA-110		Y		Y					Y		Y									Y		Y					Y			Y	Y
	Perfluoroundecanoate (PFUnA)	SGS AXYS MLA-060	MLA-060																				Y		Y	Y	Y						Y	
		SGS AXYS MLA-041	MLA-041		Y		Y	Y	Y					Y																				
		SGS AXYS MLA-043	MLA-043													Y	Y	Y	Y	Y														
		SGS AXYS MLA-042	MLA-042	Y																														
		SGS AXYS MLA-110	MLA-110		Y		Y	Y				Y		Y	Y								Y		Y	Y				Y			Y	Y
PPCP	1,7-Dimethylxanthine	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
	10-hydroxy-amitriptyline	SGS AXYS MLA-075	MLA-075		Y																		Y											

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Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids										Tissue						Urine	Water	Water, Non-Potable								
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	2-hydroxy-ibuprofen	SGS AXYS MLA-075	MLA-075		Y																	Y											
	4-Epianhydrochlortetracycline (EACTC)	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	4-Epianhydrotetracycline (EATC)	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	4-Epichlortetracycline (ECTC)	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	4-Epioxytetracycline (EOTC)	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	4-Epitetracycline (ETC)	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Acetaminophen	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Albuterol	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Alprazolam	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Amitriptyline	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Amlodipine	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Amphetamine	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Anhydrochlortetracycline (ACTC)	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Anhydrotetracycline (ATC)	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Atenolol	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Atorvastatin	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Azithromycin	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Benzoylecgonine	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Benztropine	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Betamethasone	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Bisphenol A	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Caffeine	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Carbadox	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Carbamazepine	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Cefotaxime	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Chlortetracycline (CTC)	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Cimetidine	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Ciprofloxacin	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Clarithromycin	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Clinafloxacin	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																	Y											

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids										Tissue						Urine	Water	Water, Non-Potable								
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	Clonidine	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Cloxacillin	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Cocaine	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Codeine	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Cotinine	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	DEET (N,N-diethyl-m-toluamide)	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Dehydronifedipine	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Demeclocycline	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Desmethyldiltiazem	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Diazepam	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Digoxigenin	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Digoxin	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Diltiazem	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Diphenhydramine	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Doxycycline	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Enalapril	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Enrofloxacin	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Erythromycin	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Erythromycin anydrate	EPA 1694	MLA-075										Y																			Y		
	Flumequine	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Fluocinonide	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Fluoxetine	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Fluticasone propionate	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Furosemide	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Gemfibrozil	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Glipizide	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Glyburide	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Hydrochlorothiazide	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Hydrocodone	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Hydrocortisone	SGS AXYS MLA-075	MLA-075		Y																	Y											
	Ibuprofen	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Isochlortetracycline (ICTC)	EPA 1694	MLA-075										Y																			Y		
		SGS AXYS MLA-075	MLA-075		Y																	Y											
	Lincomycin	EPA 1694	MLA-075										Y																			Y		

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

				Serum	Solids											Tissue							Urine	Water	Water, Non-Potable								
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
		SGS AXYS MLA-075	MLA-075		Y																		Y										
	Lomefloxacin	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y										
	Meprobamate	SGS AXYS MLA-075	MLA-075		Y																		Y										
	Metformin	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y										
	Methylprednisolone	SGS AXYS MLA-075	MLA-075		Y																		Y										
	Metoprolol	SGS AXYS MLA-075	MLA-075		Y																		Y										
	Miconazole	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y										
	Minocycline	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y										
	Naproxen	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y										
	Norfloxacin	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y										
	Norfluoxetine	SGS AXYS MLA-075	MLA-075		Y																		Y										
	Norgestimate	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y										
	Norverapamil	SGS AXYS MLA-075	MLA-075		Y																		Y										
	Ofloxacin	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y										
	Ormetoprim	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y										
	Oxacillin	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y										
	Oxolinic acid	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y										
	Oxycodone	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y										
	Oxytetracycline (OTC)	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y										
	Paroxetine	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y										
	Penicillin G	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y										
	Penicillin V	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y										
	Prednisolone	SGS AXYS MLA-075	MLA-075		Y																		Y										
	Prednisone	SGS AXYS MLA-075	MLA-075		Y																		Y										
	Promethazine	SGS AXYS MLA-075	MLA-075		Y																		Y										
	Propoxyphene	SGS AXYS MLA-075	MLA-075		Y																		Y										
	Propranolol	SGS AXYS MLA-075	MLA-075		Y																		Y										
	Ranitidine	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y										
	Roxithromycin	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y										
	Sarafloxacin	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y										
	Sertraline	SGS AXYS MLA-075	MLA-075		Y																		Y										
	Simvastatin	SGS AXYS MLA-075	MLA-075		Y																		Y										
	Sulfachloropyridazine	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y										
	Sulfadiazine	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y										
	Sulfadimethoxine	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y										

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

				Serum	Solids											Tissue							Urine	Water	Water, Non-Potable								
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	Sulfamerazine	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
	Sulfamethazine	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
	Sulfamethizole	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
	Sulfamethoxazole	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
	Sulfanilamide	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
	Sulfathiazole	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
	Tetracycline (TC)	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
	Theophylline	SGS AXYS MLA-075	MLA-075		Y																		Y											
	Thiabendazole	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
	Trenbolone	SGS AXYS MLA-075	MLA-075		Y																		Y											
	Trenbolone acetate	SGS AXYS MLA-075	MLA-075		Y																		Y											
	Triamterene	SGS AXYS MLA-075	MLA-075		Y																		Y											
	Triclocarban	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
	Triclosan	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
	Trimethoprim	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
	Tylosin	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
	Valsartan	SGS AXYS MLA-075	MLA-075		Y																		Y											
	Verapamil	SGS AXYS MLA-075	MLA-075		Y																		Y											
	Virginiamycin	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
	Warfarin	EPA 1694	MLA-075										Y																		Y			
		SGS AXYS MLA-075	MLA-075		Y																		Y											
Targeted Metabolites	11, 14, 17-eicosatrienoic acid (eicosatrienoic acid)	SGS AXYS MLM-001	MLM-001													Y																		
	11, 14-eicosadienoic acid	SGS AXYS MLM-001	MLM-001													Y																		
	3-hydroxytyrosine	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	Acetylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	Acetylornithine	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	Alanine	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	alpha-Aminoadipic acid	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	Arginine	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	Asparagine	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	Aspartate	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	Asymmetric dimethylarginine	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	Butenylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	Butyrylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	C22:5 ISOMER 1 (tentatively all-cis-4, 8, 12, 15, 19-docosapentaenoic acid)	SGS AXYS MLM-001	MLM-001													Y																		
	C22:5 ISOMER 2 (all-cis-7,10,13,16,19-docosapentaenoic acid (DPA)	SGS AXYS MLM-001	MLM-001													Y																		
	C22:5 ISOMER 3 (tentatively all-cis-4, 7, 10, 13, 16-docosapentaenoic acid)	SGS AXYS MLM-001	MLM-001													Y																		
	Carnitine	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	Carnosine	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	chenodeoxycholic acid	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	cholic acid	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	Citrulline	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	Creatinine	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	Decadienylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y							Y											
	decanoic acid (capric acid)	SGS AXYS MLM-001	MLM-001													Y																		

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	Serum	Solids											Tissue						Urine	Water	Water, Non-Potable								
				CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	Decanoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Decenoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	deoxycholic acid	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	docosahexaenoic acid (DHA)	SGS AXYS MLM-001	MLM-001													Y																		
	docosatetraenoic acid (adrenic acid)	SGS AXYS MLM-001	MLM-001													Y																		
	Dodecanedioylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Dodecanoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Dodecenoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Dopamine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	eicosapentaenoic acid (EPA)	SGS AXYS MLM-001	MLM-001													Y																		
	Eicosatetraenoic acid (arachidonic acid)	SGS AXYS MLM-001	MLM-001													Y																		
	eicosatrienoic acid (dihomo-γ-linolenic acid)	SGS AXYS MLM-001	MLM-001													Y																		
	Glutaconylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Glutamate	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Glutamine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Glutarylcarnitine (Hydroxyhexanoylcarnitine)	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Glycine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	glycochenodeoxycholic acid	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	glycocholic acid	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	glycodeoxycholic acid	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hexadecadienylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	hexadecanoic acid (palmitic acid)	SGS AXYS MLM-001	MLM-001													Y																		
	Hexadecanoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	hexadecenoic acid (palmitoleic acid)	SGS AXYS MLM-001	MLM-001													Y																		
	Hexadecenoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hexanoylcarnitine (Fumarylcarnitine)	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hexenoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hexose (sum isomers)	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Histamine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Histidine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxyhexadecadienylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxyhexadecanoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxyhexadecenoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxylbutyrylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxyoctadecenoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxyproline	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxypropionylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxysphingomyeline C14:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxysphingomyeline C16:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxysphingomyeline C22:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxysphingomyeline C22:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxysphingomyeline C24:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxytetradecadienylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxytetradecenoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Hydroxyvalerylcarnitine (Methylmalonylcarnitine)	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Isoleucine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Kynurenine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Leucine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	lithocholic acid	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	Lysine	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	lysoPhosphatidylcholine acyl C14:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	lysoPhosphatidylcholine acyl C16:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	lysoPhosphatidylcholine acyl C16:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	lysoPhosphatidylcholine acyl C17:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	lysoPhosphatidylcholine acyl C18:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	lysoPhosphatidylcholine acyl C18:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	lysoPhosphatidylcholine acyl C18:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y												
	lysoPhosphatidylcholine acyl C20:3	SGS AXYS MLM-001	MLM-001	Y												Y						Y												

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

				Serum	Solids											Tissue						Urine	Water	Water, Non-Potable									
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	lysoPhosphatidylcholine acyl C20:4	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	lysoPhosphatidylcholine acyl C24:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	lysoPhosphatidylcholine acyl C26:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	lysoPhosphatidylcholine acyl C28:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	lysoPhosphatidylcholine acyl C28:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Methionine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Methioninesulfoxide	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Methylglutarylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Nitrotyrosine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Nonaylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	octadecadienoic acid (linoleic acid)	SGS AXYS MLM-001	MLM-001													Y																	
	Octadecadienylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	octadecanoic acid (stearic acid)	SGS AXYS MLM-001	MLM-001													Y																	
	Octadecanoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	octadecatrienoic acid (γ-linolenic acid)	SGS AXYS MLM-001	MLM-001													Y																	
	Octadecenoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Octanoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Ornithine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phenylalanine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phenylethylamine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C30:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C30:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C30:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C32:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C32:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C34:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C34:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C34:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C34:3	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C36:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C36:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C36:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C36:3	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C36:4	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C36:5	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C38:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C38:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C38:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C38:3	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C38:5	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C38:6	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C40:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C40:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C40:3	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C40:4	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C40:5	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C40:6	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C42:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C42:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C42:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C42:3	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C42:4	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C42:5	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C44:3	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C44:4	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C44:5	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine acyl-alkyl C44:6	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C24:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y											

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

				Serum	Solids											Tissue							Urine	Water	Water, Non-Potable								
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	Phosphatidylcholine diacyl C26:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C28:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C30:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C30:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C32:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C32:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C32:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C32:3	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C34:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C34:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C34:3	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C34:4	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C36:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C36:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C36:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C36:3	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C36:4	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C36:5	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C36:6	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C38:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C38:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C38:3	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C38:4	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C38:5	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C38:6	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C40:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C40:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C40:3	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C40:4	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C40:5	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C40:6	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C42:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C42:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C42:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C42:4	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C42:5	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Phosphatidylcholine diacyl C42:6	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Pimelylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Proline	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Propenoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Propionylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Putrescine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Sarcosine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Serine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Serotonin	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Spermidine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Spermine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Sphingomyeline C16:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Sphingomyeline C16:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Sphingomyeline C18:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Sphingomyeline C18:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Sphingomyeline C20:2	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Sphingomyeline C22:3	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Sphingomyeline C24:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Sphingomyeline C24:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Sphingomyeline C26:0	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Sphingomyeline C26:1	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Symmetric dimethylarginine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											

Accreditation Scope

SGS AXYS Analytical Services Ltd.
file ref.: ACC-101 Rev. 40

				Serum	Solids											Tissue						Urine	Water	Water, Non-Potable									
Compound Class	Compound	Accredited Method ID	SGS AXYS Method ID	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE	Maine DOH	ANAB ISO 17025	ANAB DoD **	CALA	Florida DOH	Minnesota DOH	New Jersey DEP	Virginia DGS	ANAB ISO 17025	CALA	CALA	California DPH	Florida DOH	Minnesota DOH	New Jersey DEP	New York DOH	Virginia DGS	Washington DE *	Maine DOH	Pennsylvania DEP	ANAB ISO 17025	ANAB DoD **
	Taurine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	taurochenodeoxycholic acid	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	taurocholic acid	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	taurodeoxycholic acid	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	taurolithocholic acid	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	tauroursodeoxycholic acid	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Tetradecadienylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	tetradecanoic acid (myristic acid)	SGS AXYS MLM-001	MLM-001													Y																	
	Tetradecanoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Tetradecenoylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Threonine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Tiglylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Total dimethylarginine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Tryptophan	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Tyrosine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	ursodexoycholic acid	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Valerylcarnitine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
	Valine	SGS AXYS MLM-001	MLM-001	Y												Y						Y											
TBBPA	Tetrabromobisphenol A	SGS AXYS MLA-079	MLA-079	Y																													
TOP	Perfluorobutanesulfonate (PFBS)	SGS AXYS MLA-111	MLA-111		Y																		Y										
	Perfluorobutanoate (PFBA)	SGS AXYS MLA-111	MLA-111		Y																		Y										
	Perfluorodecanesulfonate (PFDS)	SGS AXYS MLA-111	MLA-111		Y																		Y										
	Perfluorodecanoate (PFDA)	SGS AXYS MLA-111	MLA-111		Y																		Y										
	Perfluorododecanesulfonate (PFDoS)	SGS AXYS MLA-111	MLA-111		Y																		Y										
	Perfluorododecanoate (PFDoA)	SGS AXYS MLA-111	MLA-111		Y																		Y										
	Perfluoroheptanesulfonate (PFHpS)	SGS AXYS MLA-111	MLA-111		Y																		Y										
	Perfluoroheptanoate (PFHpA)	SGS AXYS MLA-111	MLA-111		Y																		Y										
	Perfluorohexanesulfonate (PFHxS)	SGS AXYS MLA-111	MLA-111		Y																		Y										
	Perfluorohexanoate (PFHxA)	SGS AXYS MLA-111	MLA-111		Y																		Y										
	Perfluorononanesulfonate (PFNS)	SGS AXYS MLA-111	MLA-111		Y																		Y										
	Perfluorononanoate (PFNA)	SGS AXYS MLA-111	MLA-111		Y																		Y										
	Perfluorooctanesulfonate (PFOS)	SGS AXYS MLA-111	MLA-111		Y																		Y										
	Perfluorooctanoate (PFOA)	SGS AXYS MLA-111	MLA-111		Y																		Y										
	Perfluoropentanesulfonate (PFPeS)	SGS AXYS MLA-111	MLA-111		Y																		Y										
	Perfluoropentanoate (PFPeA)	SGS AXYS MLA-111	MLA-111		Y																		Y										
	Perfluorotetradecanoate (PFTeDA)	SGS AXYS MLA-111	MLA-111		Y																		Y										
	Perfluorotridecanoate (PFTrDA)	SGS AXYS MLA-111	MLA-111		Y																		Y										
	Perfluoroundecanoate (PFUnA)	SGS AXYS MLA-111	MLA-111		Y																		Y										

Note * Analysis of pesticides and PCBs in non-potable water samples by AXYS method MLA-007, with the exception of NPDES or State permitted discharges and Stormwater applications, may fall within the scope of Washington State Department of Ecology solids matrix accreditation, subject to approval of the Ecology Project Manager.

Note ** PFAS by LC-MS/MS compliant with US DoD QSM 5.1 table B-15

Legend

Y	Accreditation scope
BFR	Brominated flame retardants (non-PBDPE)
BPA and mPE	Bisphenol A and mono-Phthalate Esters
HBCDD	Hexabromocyclododecane
OC Pesticides	Organochlorine Pesticides
PAH	Polycyclic Aromatic Hydrocarbons
PBDPE	Polybrominated diphenylethers
PCB	Polychlorinated Biphenyls
PCDDF	Polychlorinated dibenzodioxins/furans
PFAS	Per- and Polyfluoroalkyl Substances
PPCP	Pharmaceutical and Personal Care Products
TBBPA	Tetrabromobisphenol A
TOP	Total Oxidizable Precursors
California DPH	California Department of Public Health, Lab ID 2911
Florida DOH	Florida Department of Health, Lab ID E871007, (NELAC Standard)
Pennsylvania DEP	Pennsylvania Department of Environmental Protection
Minnesota DOH	Minnesota Department of Health, Lab ID 232-999-430, (NELAC Standard)
New Jersey DEP	New Jersey Department of Environmental Protection, Lab ID CANA005, (NELAC Standard)
New York DOH	New York Department of Health, Lab ID 11674, (NELAC Standard)
Washington DE	Washington Department of Ecology, Lab ID C404
Virginia DGS	Virginia Department of General Services, Division of Consolidated Laboratory Services, Lab ID 460224, (NELAC Standard)
Maine DOH	Maine Center for Disease Control and Prevention, Department of Health and Human Services, Lab ID CN00003

ANAB DoD	ANSI-ASQ National Accreditation Board, certificate ADE-1861, (US DoD QSM 5.1 Standard)
CALA	Canadian Association for Laboratory Accreditation Inc., Lab ID A2637, (ISO/IEC 17025:2005 Standard)
ANAB ISO 17025	ANSI-ASQ National Accreditation Board, certificate ADE-1861.01, (ISO/IEC 17025:2005 Standard)

Ecochem

DATA VALIDATION REPORT

Lower Duwamish Waterway
Baseline Surface Water Sampling Seeps Report 2

Prepared for:

Windward Environmental, LLC
200 West Mercer Street, Suite 401
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Prepared by:

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500 Union Street, Suite 1010
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EcoChem Project: C22033-5

December 31, 2018

Approved for Release:

Christina Mott Frans
Project Manager
EcoChem, Inc.

PROJECT NARRATIVE

Basis for the Data Validation

This report presents the results of Summary Validation (EPA Stage 2B) performed on seep and quality control sample data for the Lower Duwamish Waterway Baseline Surface Water Sampling project. A complete list of samples is provided in the **Sample Index**.

Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington and SGS Axys, Sidney BC, Canada. The analytical methods and EcoChem project chemists are listed below.

Analysis	Method	Primary Review	Secondary Review
Dioxins & Furans	EPA 1613B	R. Frans	C. Frans

The data were reviewed using guidance and quality control criteria documented in the analytical methods; *Lower Duwamish Waterway Group Seep Collection and Chemical Analyses – Quality Assurance Project Plan and Appendix C* (Windward, March 2018) and *USEPA National Functional Guidelines for Chlorinated Dioxin/Furan Data Review* (USEPA, September 2011).

EcoChem's goal in assigning data assessment qualifiers is to assist in proper data interpretation. If values are estimated (J or UJ), data may be used for site evaluation and risk assessment purposes but reasons for data qualification should be taken into consideration when interpreting sample concentrations. If values are assigned an R, the data are to be rejected and should not be used for any site evaluation purposes. If values have no data qualifier assigned, then the data meet the data quality objectives as stated in the documents and methods referenced previously.

Data qualifier definitions, reason codes, and validation criteria are included as Appendix A. A Qualified Data Summary Table is included in Appendix B. Data Validation Worksheets will be kept on file at EcoChem, Inc. A qualified laboratory electronic data deliverable (EDD) is also submitted with this report.

Sample Index
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Dioxins & Furans
WG66111	LDW18-SP-83-DF	L29628-27	✓

DATA VALIDATION REPORT
Lower Duwamish Waterway: Seeps
Dioxin/Furan Compounds by EPA 1613B

This report documents the review of analytical data from the analysis of one seep sample and the associated laboratory quality control (QC) samples. Samples were analyzed by SGS Axys, Sidney, BC, Canada. Refer to the Sample Index for a complete list of samples.

SDG	NUMBER OF SAMPLES	VALIDATION LEVEL
WG66111	1 Seep	EPA Stage 2B

DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

EDD TO HARDCOPY VERIFICATION

All sample IDs and results reported in the electronic data deliverable (EDD) were verified (100% verification) by comparing the EDD to the hardcopy laboratory data package. Ten percent (10%) of the laboratory QC results were also verified.

TECHNICAL DATA VALIDATION

The quality control (QC) requirements that were reviewed are listed in the following table.

✓	Sample Receipt, Preservation, and Holding Times	✓	Ongoing Precision and Recovery (OPR)
✓	System Performance and Resolution Checks	1	Certified Reference Material
✓	Initial Calibration (ICAL)	1	Field Duplicates
✓	Calibration Verification (CVER)	✓	Target Analyte List
✓	Laboratory Blanks	✓	Reporting Limits
1	Field Blanks	2	Compound Identification
1	Labeled Compound Recovery	✓	Compound Quantitation
1	Matrix Spike/Matrix Spike Duplicates (MS/MSD)		

✓Method quality objectives (MQO) and QC criteria have been met. No outliers are noted or discussed.
1 Quality control results are discussed below, but no data were qualified.
2 Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.

Sample Receipt, Preservation, Holding Times

As stated in validation guidance documents, sample shipping coolers arrived at the laboratory within the advisory temperature range of ≤6°C.

Laboratory Blanks

To assess the impact of any blank contaminant on the reported sample results, an action level is established at five times (5x) the concentration reported in the blank. If a contaminant is reported in an associated field sample and the concentration is less than the action level, the result is qualified as not detected (U-7). No action is taken if the sample result is greater than the action level, or for non-detected results. The laboratory assigned EMPC-flags to values when a peak was detected but did not meet identification criteria. These values cannot be considered as positive identifications, but are "estimated maximum possible concentrations". When these occurred in the method blank the results were considered as false positives. No action levels were established for these analytes.

Method blanks were analyzed at the appropriate frequency. Contaminant levels, associated samples, and action levels are documented in the data validation worksheets. Although detections were reported for Total TCDD and Total HxCDD; no results were qualified.

The laboratory case narrative noted that the extract for the method blank went dry during a concentration step of sample clean-up. The labeled compounds were in control with recoveries between 71.4% and 91% and because the isotope dilution method of quantitation corrects for such potential losses, data were not deemed significantly affected and no qualifiers were assigned

Field Blanks

No Field Blanks samples were analyzed with this data set.

Matrix Spike/Matrix Spike Duplicate

No Matrix Spike/Matrix Spike duplicate samples were analyzed with this data set. Accuracy was assessed using the OPR and OPR Duplicate recoveries as well as the labeled compound recoveries. Precision was assessed using the relative percent difference values from the OPR and OPR Duplicate samples.

Certified Reference Material

No certified reference material was analyzed with this analytical data set.

Field Duplicates

No field duplicate samples were analyzed with this analytical data set.

Compound Identification

The method requires the confirmation of 2,3,7,8-TCDF detects using an alternate GC column. The DB5 column that is typically used cannot fully separate 2,3,7,8-TCDF from closely eluting non-target TCDF isomers. 2,3,7,8-TCDF was not detected, confirmation was not required.

For several samples, the laboratory reported EMPC or "estimated maximum possible concentrations" values for one or more of the target analytes. An EMPC value is reported when a peak was detected but did not meet identification criteria, as required by the method; therefore, the result cannot be considered as a positive identification for the analyte. To indicate that the reported result for an individual analyte is in effect an elevated detection limit, the EMPC values were qualified as not detected (U-25) for native compound results below the reporting limit and were estimated (J-25) for homolog values and native compound results greater than the reporting limit.

OVERALL ASSESSMENT

As determined by this evaluation, the laboratory performed the specified analytical method. Accuracy was acceptable, as demonstrated by the labeled compound and OPR recoveries. With the exceptions noted above, precision was also acceptable as indicated by the RPD values for the OPR and OPR duplicate and field duplicate samples.

Data were qualified as not detected or estimated to indicate that EMPC values represent elevated detection limits.

All data, as qualified, are acceptable for use.

ECOCHEM
Data Quality

APPENDIX A

DATA QUALIFIER DEFINITIONS
REASON CODES
AND CRITERIA TABLES

DATA VALIDATION QUALIFIER CODES
Based on National Functional Guidelines

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents the approximate concentration.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

The following is an EcoChem qualifier that may also be assigned during the data review process:

DNR	Do not report; a more appropriate result is reported from another analysis or dilution.

DATA QUALIFIER REASON CODES

Group	Code	Reason for Qualification
Sample Handling	1	Improper Sample Handling or Sample Preservation (i.e., headspace, cooler temperature, pH, summa canister pressure); Exceeded Holding Times
Instrument Performance	24	Instrument Performance (i.e., tune, resolution, retention time window, endrin breakdown, lock-mass)
	5A	Initial Calibration (RF, %RSD, r^2)
	5B	Calibration Verification (CCV, CCAL; RF, %D, %R) Use bias flags (H,L)[1] where appropriate
	5C	Initial Calibration Verification (ICV %D, %R) Use bias flags (H,L)[1] where appropriate
Blank Contamination	6	Field Blank Contamination (Equipment Rinsate, Trip Blank, etc.)
	7	Lab Blank Contamination (i.e., method blank, instrument blank, etc.) Use low bias flag (L)[1] for negative instrument blanks
Precision and Accuracy	8	Matrix Spike (MS and/or MSD) Recoveries Use bias flags (H,L)[1] where appropriate
	9	Precision (all replicates: LCS/LCSD, MS/MSD, Lab Replicate, Field Replicate)
	10	Laboratory Control Sample Recoveries (a.k.a. Blank Spikes) Use bias flags (H,L)[1] where appropriate
	12	Reference Material Use bias flags (H,L)[1] where appropriate
	13	Surrogate Spike Recoveries (a.k.a. labeled compounds, recovery standards) Use bias flags (H,L)[1] where appropriate
Interferences	16	ICP/ICP-MS Serial Dilution Percent Difference
	17	ICP/ICP-MS Interference Check Standard Recovery Use bias flags (H,L)[1] where appropriate
	19	Internal Standard Performance (i.e., area, retention time, recovery)
	22	Elevated Detection Limit due to Interference (i.e., chemical and/or matrix)
	23	Bias from Matrix Interference (i.e. diphenyl ether, PCB/pesticides)
Identification and Quantitation	2	Chromatographic pattern in sample does not match pattern of calibration standard
	3	2nd column confirmation (RPD or %D)
	4	Tentatively Identified Compound (TIC) (associated with NJ only)
	20	Calibration Range or Linear Range Exceeded
	25	Compound Identification (i.e., ion ratio, retention time, relative abundance, etc.)
Miscellaneous	11	A more appropriate result is reported (multiple reported analyses i.e., dilutions, re-extractions, etc. Associated with "R" and "DNR" only)
	14	Other (See DV report for details)
	26	Method QC information not provided

[1] H = high bias indicated
L = low bias indicated

Dioxin/Furan Analysis by HRMS
(Based on Dioxin NFG 2011 and Methods EPA 1613B and SW-846 8290)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Sample Handling					
Cooler/Storage Temperature Preservation	Waters/Solids ≤ 6°C & in the dark Tissues <-10°C & in the dark **Preservation Aqueous:** If Cl_2 is present Thiosulfate must be added and if pH > 9 it must be adjusted to 7 - 9	NFG [1] Method[2]	J(pos)/R(ND) if thiosulfate not added if Cl_2 present; J(pos)/UJ(ND) if pH not adjusted J(pos)/UJ(ND) if temp > 20°C	1	**EcoChem PJ, see TM-05**
Holding Time	**If properly stored, 1 year or:** **Extraction (all matrices):** 30 days from collection **Analysis (all matrices)**: 45 days from extraction	NFG [1] Method[2]	If not properly stored or HT exceedance: J(pos)/UJ(ND)	1	**EcoChem PJ, see TM-05** Gross exceedance = > 1 year 2011 NFG **Note:** Under CWA, SDWA, and RCRA the HT for H2O is 7 days.
Instrument Performance					
Mass Resolution (Tuning)	PFK (Perfluorokerosene) ≥10,000 resolving power at m/z 304.9824. Exact mass of m/z 380.9760 w/in 5 ppm of theoretical value (380.97410 to 380.97790) . Analyzed prior to ICAL and at the start and end of each 12 hr. shift.	NFG [1] Method [2]	R(pos/ND) all analytes in all samples associated with the tune	24	Notify PM
Windows Defining Mix	Peaks for first and last eluters must be within established retention time windows for each selector group (chlorination level)	NFG [1] Method [2]	If peaks are not completely within windows (clipped): If natives are ok, J(pos)/UJ(ND) homologs (Totals) If natives are affected, R all results for that selector group	24	Notify PM
Column Performance Mix	Both mixes must be analyzed before ICAL and CCAL Valley < 25% (valley = (x/y)*100%) where x = ht. of TCDD (or TCDF) & y = baseline to bottom of valley For all isomers eluting near the 2378-TCDD (TCDF) peak (TCDD only for 8290)	NFG [1] Method [2]	J(pos) if valley > 25%	24	**EcoChem PJ, see TM-05, Rev. 2**; Note: TCDF is evaluated only if second column confirmation is performed
Initial Calibration **Sensitivity**	S/N ratio > 10 for all native and labeled compounds in CS1 std.	NFG [1] Method [2]	If <10, elevate Det. Limit or R(ND)	5A	
Initial Calibration **Selectivity**	Ion Abundance ratios within QC limits (Table 8 of method 8290) (Table 9 of method 1613B)	NFG [1] Method [2]	If 2 or more ion ratios are out for one compound in ICAL, J(pos)	5A	**EcoChem PJ, see TM-05, Rev. 2**

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Dioxin/Furan Analysis by HRMS
(Based on Dioxin NFG 2011 and Methods EPA 1613B and SW-846 8290)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Instrument Performance (continued)					
Initial Calibration (Minimum 5 stds.) **Stability**	%RSD < 20% for native compounds %RSD <30% for labeled compounds (%RSD < 35% for labeled compounds under 1613b)	NFG [1] Method [2]	J(pos) natives if %RSD > 20%	5A	
	Absolute RT of $^{13}C_{12}$-1234-TCDD >25 min on DB5 & >15 min on DB-225	NFG [1] Method [2]	Narrate, no action		**EcoChem PJ, see TM-05, Rev. 2**
Continuing Calibration (Prior to each 12 hr. shift) **Sensitivity**	S/N ratio for CS3 standard > 10	NFG [1] Method [2]	If <10, elevate Det. Limit or R(ND)	5B	
Continuing Calibration (Prior to each 12 hr. shift) **Selectivity**	Ion Abundance ratios within QC limits (Table 8 of method 8290) (Table 9 of method 1613B)	NFG [1] Method [2]	For congener with ion ratio outlier, J(pos) natives in all samples associated with CCAL. No action for labeled congener ion ratio outliers.	25	**EcoChem PJ, see TM-05**
Continuing Calibration (Prior to each 12 hr. shift) **Stability**	%D+/-20% for native compounds %D +/-30% for labeled compounds **(Must meet limits in Table 6, Method 1613B)** If %D in the closing CCAL are within 25%/35%, the mean RF from the two CCAL may be used to calculate samples **(Section 8.3.2.4 of 8290)**.	NFG [1] Method [2]	**Labeled compounds:** Narrate, no action. **Native compounds:** 1613: J(pos)/UJ(ND)if %D is outside Table 6 limits J(pos)/R(ND) if %D is +/-75% of Table 6 limits 8290: J(pos)/UJ(ND) if %D = 20% - 75% J(pos)/R(ND) if %D > 75%	5B (H,L)[3]	
	Absolute RT of $^{13}C_{12}$-1234-TCDD and $^{13}C_{12}$-123789-HxCDD should be ± 15 seconds of ICAL RRT for all other compounds must meet criteria listed in Table 2 Method 1316.	NFG [1] Method [2]	Narrate, no action	5B	**EcoChem PJ, see TM-05**
Blank Contamination					
Method Blank (MB)	MB: One per matrix per batch of (of ≤ 20 samples) No detected compounds > RL	NFG [1] Method [2]	U(pos) if result is < 5X action level.	7	**Hierarchy of blank review:** **#1 - Review MB, qualify as needed** **#2 - Review FB , qualify as needed**
Field Blank (FB)	FB: frequency as per QAPP No detected compounds > RL		U(pos) if result is < 5X action level.	6	

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Dioxin/Furan Analysis by HRMS
(Based on Dioxin NFG 2011 and Methods EPA 1613B and SW-846 8290)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Precision and Accuracy					
MS/MSD (recovery)	**MS/MSD not typically required for HRMS analyses.** If lab analyzes MS/MSD then one set per matrix per batch (of ≤ 20 samples) Use most current laboratory control limits	EcoChem standard policy	J(pos) if both %R > UCL - high bias J(pos)/UJ(ND) if both %R < LCL - low bias J(pos)/R(ND) if both %R < 10% - very low bias J(pos)/UJ(ND) if one > UCL & one < LCL, with no bias **PJ if only one %R outlier**	8 (H,L)[3]	No action if only one spike %R is outside criteria. No action if parent concentration is >4x the amount spiked. Qualify parent sample only unless other QC indicates systematic problems.
MS/MSD (RPD)	**MS/MSD not typically required for HRMS analyses.** If lab analyzes MS/MSD then one set per matrix per batch (of ≤ 20 samples) Use most current laboratory control limits	EcoChem standard policy	J(pos) in parent sample if RPD > CL	9	Qualify parent sample only.
LCS (or OPR)	One per lab batch (of ≤ 20 samples) Use most current laboratory control limits **or** Limits from Table 6 of 1613B	NFG [1] Method [2]	J(pos) if %R > UCL - high bias J(pos)/UJ(ND) if %R < LCL - low bias J(pos)/R(ND) if %R < 10% - very low bias	10 (H,L)[3]	No action if only one spike %R is outside criteria, when LCSD is analyzed. Qualify all associated samples.
LCS/LCSD (RPD)	**LCSD not typically required for HRMS analyses.** One set per matrix and batch of 20 samples RPD < 35%	Method [2] Ecochem standard policy	J(pos) assoc. compound in all samples if RPD > CL	9	Qualify all associated samples.
Lab Duplicate (RPD)	**Lab Dup not typically required for HRMS analyses.** One per lab batch (of ≤ 20 samples) Use most current laboratory control limits	EcoChem standard policy	J(pos)/UJ(ND) if RPD > CL	9	
Labeled Compounds (Internal Standards)	Added to all samples %R = 40% - 135% in all samples 8290 %R must meet limits in Table 7 Method 1613B	NFG [1] Method [2]	J(pos) if %R > UCL - high bias J(pos)/UJ(ND) if %R < LCL - low bias J(pos)/R(ND) if %R < 10% - very low bias	13 (H,L)[3]	
Field Duplicates	Solids: RPD <50% OR difference < 2X RL (for results < 5X RL) Aqueous: RPD <35% OR difference < 1X RL (for results < 5X RL)	EcoChem standard policy	Narrate and qualify if required by project	9	**Use professional judgment**

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Dioxin/Furan Analysis by HRMS
(Based on Dioxin NFG 2011 and Methods EPA 1613B and SW-846 8290)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Compound ID and Calculation					
Quantitation/ Identification	All ions for each isomer must maximize within ± 2 seconds. S/N ratio >2.5 Ion ratios must meet criteria listed in Table 8 Method 8290, or Table 9 of 1613B; RRTs w/in limits in Table 2 of 1613B	NFG [1] Method [2]	Narrate in report; qualify if necessary NJ(pos) for retention time outliers. U(pos) for ion ratio outliers.	25	**EcoChem PJ, see TM-05**
EMPC (estimated maximum possible concentration)	If quantitation identification criteria are not met, laboratory should report an EMPC value.	NFG [1] Method [2]	If laboratory correctly reported an EMPC value, qualify the native compound U(pos) to indicate that the value is a detection limit and qualify total homolog groups J (pos)	25	**Use professional judgment See TM-18**
Interferences	Interferences from chlorodiphenyl ether compounds	NFG [1] Method [2]	J(pos)/UJ(ND) if present	23	**See TM-16**
	Lock masses must not deviate ± 20% from values in Table 8 of 1613B	Method [2]	J(pos)/UJ(ND) if present	24	**See TM-17**
Second Column Confirmation	All 2,3,7,8-TCDF hits must be confirmed on a DB-225 (or equiv) column. All QC criteria must also be met for the confirmation analysis.	NFG [1] Method [2]	Report the DB-225 value. If not performed use PJ.	3	DNR-11 DB5 result if both results from both columns are reported. **EcoChem PJ, see TM-05**
Calculation Check	Check 10% of field & QC sample results	EcoChem standard policy	Contact laboratory for resolution and/or corrective action	na	Full data validation only.
Electronic Data Deliverable (EDD)					
Verification of EDD to hardcopy data	EcoChem verify @ 10% unless problems noted; then increase level up to 100% for next several packages.		Depending on scope of problem, correct at EcoChem (minor issues) to resubmittal by laboratory (major issues).	na	EcoChem Project Manager and/or Database Administrator will work with lab to provide long-term corrective action.
Dilutions, Re-extractions and/or Reanalyses	Report only one result per analyte	Standard reporting policy	Use "DNR" to flag results that will not be reported.	11	

(pos) - positive (detected) results; (ND) - not detected results

[1] National Functional Guidelines for Chlorinated Dibenzo-p-Dioxins (CDDs) & Chlorinated Dibenzofurans (CDFs) Data Review, September 2011

[2] Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by High-Resolution Gas Chromatography/High-Resolution Mass Spectrometry (HRGC/HRMS), USEPA SW-846, Method 8290

[2] EPA Method 1613, Rev.B, Tetra-through Octa-Chlorinated Dioxins and Furans by Isotope Dilution HRGS/HRMS, October 1994

[3] NFG 2013 suggests using "+ / -" to indicate bias; EcoChem has chosen "H" = high bias indicated; "L" = low bias indicated.

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ECOCHEM
Data Quality

APPENDIX B

QUALIFIED DATA SUMMARY TABLE

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG66111	LDW18-SP-83-DF	EPA 1613B	L29628-27	1,2,3,4,6,7,8-HpCDD	0.954	pg/L	K J	U	25
WG66111	LDW18-SP-83-DF	EPA 1613B	L29628-27	OCDF	0.601	pg/L	K J	U	25
WG66111	LDW18-SP-83-DF	EPA 1613B	L29628-27	Total TCDD	0.485	pg/L	K	J	25
WG66111	LDW18-SP-83-DF	EPA 1613B	L29628-27	Total HxCDD	0.968	pg/L	K	J	25
WG66111	LDW18-SP-83-DF	EPA 1613B	L29628-27	Total HpCDD	1.76	pg/L	K	J	25

DATA VALIDATION REPORT

Lower Duwamish Waterway
Baseline Surface Water Sampling Seeps Report

Revision 1

Prepared for:

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EcoChem Project: C22033-5

August 22, 2018

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PROJECT NARRATIVE

Basis for the Data Validation

This report presents the results of Summary Validation (EPA Stage 4 and Stage 2B) performed on seep and quality control sample data for the Lower Duwamish Waterway Baseline Surface Water Sampling project. A complete list of samples is provided in the **Sample Index**.

Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington and SGS Axys, Sidney BC, Canada. The analytical methods and EcoChem project chemists are listed below.

Analysis	Method	Primary Review	Secondary Review
Semivolatile Organic Compounds	SW 8270D	E. Clayton	C. Frans
Polynuclear Aromatic Hydrocarbon (PAH) Compounds	SW 8270D-SIM		
PCB Aroclors	SW 8082A		
Dioxins & Furans	EPA 1613B		
Total Metals	SW 6020A/ SW 7470A		
Total and Dissolved Organic Carbon	SM5310 B-00		
Total Suspended Solids	SM 2540 D-97		

The data were reviewed using guidance and quality control criteria documented in the analytical methods; *Lower Duwamish Waterway Group Seep Collection and Chemical Analyses – Quality Assurance Project Plan and Appendix C* (Windward, March 2018); *USEPA National Functional Guidelines for Chlorinated Dioxin/Furan Data Review* (USEPA, September 2011); *National Functional Guidelines for Organic Data Review* (USEPA 2008 & 2014); and *National Functional Guidelines for Inorganic Data Review* (USEPA 2010).

EcoChem's goal in assigning data assessment qualifiers is to assist in proper data interpretation. If values are estimated (J or UJ), data may be used for site evaluation and risk assessment purposes but reasons for data qualification should be taken into consideration when interpreting sample concentrations. If values are assigned an R, the data are to be rejected and should not be used for any site evaluation purposes. If values have no data qualifier assigned, then the data meet the data quality objectives as stated in the documents and methods referenced previously.

Data qualifier definitions, reason codes, and validation criteria are included as Appendix A. A Qualified Data Summary Table is included in Appendix B. Data Validation Worksheets will be kept on file at EcoChem, Inc. A qualified laboratory electronic data deliverable (EDD) is also submitted with this report.

Sample Index
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID		Dioxins & Furans	PAH & SVOCs	PCB Aroclors	Metals	Conventional Tests		
		ARI	Axys					TOC	DOC	TSS
18F0185	LDW18-SP-RB1	18F0185-01			✓	✓	✓	✓	✓	✓
	LDW18-SP-30	18F0185-03			✓	✓	✓	✓	✓	✓
	LDW18-SP-32	18F0185-04			✓	✓	✓	✓	✓	✓
	LDW18-SP-35	18F0185-05			✓	✓	✓	✓	✓	✓
	LDW18-SP-38	18F0185-06			✓	✓	✓	✓	✓	✓
	LDW18-SP-42	18F0185-07			✓	✓	✓	✓	✓	✓
	LDW18-SP-43	18F0185-08			✓	✓	✓	✓	✓	✓
	LDW18-SP-06	18F0208-01			✓	✓	✓	✓	✓	✓
	LDW18-SP-33	18F0208-02			✓	✓	✓	✓	✓	✓
	LDW18-SP-24	18F0208-03			✓	✓	✓	✓	✓	✓
	LDW18-SP-24-FD	18F0208-04			✓	✓	✓	✓	✓	✓
	LDW18-SP-05	18F0226-01			✓	✓	✓	✓	✓	✓
	LDW18-SP-57	18F0226-02			✓	✓	✓	✓	✓	✓
	LDW18-SP-73	18F0226-03			✓	✓	✓	✓	✓	✓
	LDW18-SP-74	18F0226-04			✓	✓	✓	✓	✓	✓
	LDW18-SP-77	18F0226-05			✓	✓	✓	✓	✓	✓
	LDW18-SP-78	18F0226-06			✓	✓	✓	✓	✓	✓
	LDW18-SP-79	18F0226-07			✓	✓	✓	✓	✓	✓
	LDW18-SP-84	18F0226-08			✓	✓	✓	✓	✓	✓
	LDW18-SP-87	18F0226-09			✓	✓	✓	✓	✓	✓
	LDW18-SP-01	18F0248-01			✓	✓	✓	✓	✓	✓
	LDW18-SP-45	18F0248-02			✓	✓	✓	✓	✓	✓
	LDW18-SP-47	18F0248-03			✓	✓	✓	✓	✓	✓
	LDW18-SP-66	18F0248-04			✓	✓	✓	✓	✓	✓
	LDW18-SP-70	18F0248-05			✓	✓	✓	✓	✓	✓
	LDW18-SP-83	18F0248-06			✓	✓	✓	✓	✓	✓
	LDW18-SP-86	18F0248-07			✓	✓	✓	✓	✓	✓
	LDW18-SP-88	18F0248-08			✓	✓	✓	✓	✓	✓
WG64578	LDW18-SP-RB1		L29628-1	✓						

Sample Index
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID		Dioxins & Furans	PAH & SVOCs	PCB Aroclors	Metals	Conventional Tests		
		ARI	Axys					TOC	DOC	TSS
WG64578	LDW18-SP-42		L29628-7	✓						
	LDW18-SP-24		L29628-11	✓						
	LDW18-SP-24-FD		L29628-12	✓						
	LDW18-SP-57		L29628-14	✓						
	LDW18-SP-77		L29628-17	✓						
	LDW18-SP-78		L29628-18 L	✓						
	LDW18-SP-79		L29628-19	✓						
	LDW18-SP-87		L29628-21	✓						
	LDW18-SP-01		L29628-22	✓						
	LDW18-SP-66		L29628-25	✓						
	LDW18-SP-70		L29628-26	✓						
	LDW18-SP-86		L29628-28 i	✓						
	LDW18-SP-88		L29628-29	✓						

DATA VALIDATION REPORT
Lower Duwamish Waterway: Seeps
Semi-Volatile Organic Compounds by EPA SW8270D

This report documents the review of analytical data from the analysis of seep samples and the associated laboratory quality control (QC) samples. Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington. Refer to the Sample Index for a complete list of samples.

SDG	NUMBER OF SAMPLES	VALIDATION LEVEL
18F0185	27 Seep & 1 Field Blank	EPA Stage 2B & Stage 4 (batch BGF0434)

DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

EDD TO HARDCOPY VERIFICATION

All sample IDs and results reported in the electronic data deliverable (EDD) were verified (100% verification) by comparing the EDD to the hardcopy laboratory data package. Ten percent (10%) of the laboratory QC results were also verified.

TECHNICAL DATA VALIDATION

The quality control (QC) requirements that were reviewed are listed in the following table:

1	Sample Receipt, Preservation, and Holding Times	✓	Matrix Spike/Matrix Spike Duplicates (MS/MSD)
✓	GC/MS Instrument Performance	1	Field Duplicates
✓	Initial Calibration (ICAL)	✓	Target Analyte List
✓	Continuing Calibration (CCAL)	✓	Internal Standards
✓	Laboratory Blanks	✓	Reporting Limits
1	Field Blanks	✓	Reported Results
✓	Surrogate Compounds	✓	Compound Identification
✓	Laboratory Control Samples (LCS/LCSD)	1	Calculation Verification

✓ Stated method quality objectives (MQO) and QC criteria have been met. No outliers are noted or discussed.
[1] Quality control results are discussed below, but no data were qualified.
[2] Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.

Sample Receipt, Preservation, Holding Times

As stated in validation guidance documents, sample shipping coolers should arrive at the laboratory within the advisory temperature range of ≤6°C. The laboratory received several sample coolers greater than the upper control limit at temperatures ranging from 6.9°C to 13.9°C. Samples were received at the laboratory within several hours of sampling on each collection date; no qualifiers were required.

Field Blanks

Sample LDW18-SP-RB1 was submitted as a rinsate blank. This field blank was associated with all seep samples collected. All acceptance criteria were met.

Surrogate Compounds

The surrogate compounds 2,4,6-tribromophenol, 2-fluorobiphenyl, 2-fluorophenol, nitrobenzene-d5, phenol-d6, terphenyl-d14, 1,2-dichlorobenzene-d4, and 2-chlorophenol were added to all field and batch QC samples. When two or more surrogate %R values are less than the control limits and indicate a potential low bias, associated results are estimated (J/UJ-13L). When two or more surrogate %R values are greater than the control limits and indicate a potential high bias, only the positive results for a sample are estimated (J-13H). If there is one surrogate outlier that is less than 10% recovery, the reporting limits for that fraction are rejected (R-13L) and the detections are estimated (J-13L). With the exceptions noted below, all surrogate spike recoveries were within the laboratory control limits.

For Sample LDW18-SP-73, the %R value for terphenyl-d14 was greater than the lower control limit. The %R values for fluoranthene-10 were less than the control limit for the laboratory control sample and a matrix spike sample. No qualifiers were added for the single outlier or QC samples.

Field Duplicates

The QAPP RPD control limit is 30% for results greater than 5x the reporting limit (RL). For results less than 5x the RL, the absolute difference between the sample and replicate must be less than 1x the RL.

Samples LDW18-SP-24 and LDW18-SP-24-FD were submitted as field duplicates. All acceptance criteria were met.

Calculation Verification

Several results were verified by recalculation from the raw data. No calculation or transcription errors were found.

OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable as demonstrated by the surrogate, LCS, and MS/MSD recovery values. Precision was acceptable as demonstrated by the RPD values for the MS/MSD and field duplicate analyses.

No data were qualified for any reason.

All data, as reported, are acceptable for use.

DATA VALIDATION REPORT
Lower Duwamish Waterway: Seeps
Polynuclear Aromatic Hydrocarbon Compounds by EPA SW8270D-SIM

This report documents the review of analytical data from the analysis of seep samples and the associated laboratory quality control (QC) samples. Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington. Refer to the Sample Index for a complete list of samples.

SDG	NUMBER OF SAMPLES	VALIDATION LEVEL
18F0185	27 Seep & 1 Field Blank	EPA Stage 2B & Stage 4 (batch BGF0434)

DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

EDD TO HARDCOPY VERIFICATION

All sample IDs and results reported in the electronic data deliverable (EDD) were verified (100% verification) by comparing the EDD to the hardcopy laboratory data package. Ten percent (10%) of the laboratory QC results were also verified.

TECHNICAL DATA VALIDATION

The quality control (QC) requirements that were reviewed are listed in the following table:

1	Sample Receipt, Preservation, and Holding Times	1	Matrix Spike/Matrix Spike Duplicates (MS/MSD)
✓	GC/MS Instrument Performance	1	Field Duplicates
✓	Initial Calibration (ICAL)	✓	Target Analyte List
✓	Continuing Calibration (CCAL)	✓	Internal Standards
2	Laboratory Blanks	1	Reporting Limits
2	Field Blanks	2	Reported Results
2	Surrogate Compounds	✓	Compound Identification
✓	Laboratory Control Samples (LCS/LCSD)	1	Calculation Verification

✓ Stated method quality objectives (MQO) and QC criteria have been met. No outliers are noted or discussed.
[1] Quality control results are discussed below, but no data were qualified.
[2] Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.

Sample Receipt, Preservation, Holding Times

As stated in validation guidance documents, sample shipping coolers should arrive at the laboratory within the advisory temperature range of ≤6°C. The laboratory received several sample coolers greater than the upper control limit at temperatures ranging from 6.9°C to 13.9°C. Samples were received at the laboratory within several hours of sampling on each collection date; no qualifiers were required.

Laboratory Blanks

A method blank was analyzed at the required frequency of one per batch of 20 or fewer samples. Action levels were established at five times (5x) the concentration reported in the field blank. If a contaminant is reported in an associated field sample and the concentration is less than the action level, the result is qualified as not detected (U-7). No action is taken if the sample result is greater than the action level, or for non-detected results.

Naphthalene, 2-methylnaphthalene, and benzo(b)fluoranthene were detected. Associated sample results for 2-methylnaphthalene and benzo(b)fluoranthene were greater than the action limits, no qualifiers were required. Results for naphthalene in Samples LDW18-SP-RB1, LDW18-SP-30, LDW18-SP-32, LDW18-SP-35, LDW18-SP-38, and LDW18-SP-42 were qualified as not detected (U-7).

Field Blanks

Action levels were established at five times (5x) the concentration reported in the field blank. If a contaminant is reported in an associated field sample and the concentration is less than the action level, the result is qualified as not detected (U-6). No action is taken if the sample result is greater than the action level, or for non-detected results.

Sample LDW18-SP-RB1 was submitted as a rinsate blank. This field blank was associated with all seep samples collected. After method blank evaluation, fluorene, phenanthrene, naphthalene, and 2-methylnaphthalene were detected in the field blank. All associated results less than the action level were qualified as not detected (U-6).

Surrogate Compounds

The surrogate compounds d10-2-methylnaphthalene, fluoranthene-D10, and d14-dibenzo(a,h)anthracene, were added to all field and batch QC samples. When two or more surrogate %R values are below the control limits and indicate a potential low bias, associated results are estimated (J/UJ-13L). When two or more surrogate %R values are greater than the control limit and indicate a potential high bias, only the positive results for a sample are estimated (J-13H). If there is one surrogate outlier that is less than 10% recovery, the reporting limits for that fraction are rejected (R-13L) and the detections are estimated (J-13L). With the exceptions noted below, all surrogate spike recoveries were within the laboratory control limits.

For Samples LDW18-SP-38 and LDW18-SP-42, the %R values for 2-methylnaphthalene-d10 and fluoranthene-d10 were less than the lower control limits. The base-neutral compounds were estimated (J/UJ-13L).

Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicate (MS/MSD) samples were analyzed at the appropriate frequency. No action is taken unless both the MS and MSD percent recovery (%R) values are outside the control limits for MS/MSD %R outliers. Precision is evaluated using the RPD values calculated between the MS and MSD results. Any RPD values outside the control limits indicate uncertainty in the measured results for the sample. Qualifiers were only issued to the parent sample.

When the MS/MSD %R values indicate a potential low bias, associated results are estimated (J/UJ-8). Only the associated positive results are estimated (J-8) if the %R values indicate a potential high bias. Associated positive results are estimated (J-9) if the RPD values indicate uncertainty.

The MS/MSD analyses were performed using Sample LDW18-SP-43. The MS/MSD RPD values for 2-methylnaphthalene and naphthalene were greater than the control limit. Although 2-methylnaphthalene was detected in the parent sample, it has been flagged as not detected due to rinsate blank contamination. Naphthalene was also not detected. No qualifiers were required for matrix spike imprecision.

Field Duplicates

The QAPP RPD control limit is 30% for results greater than 5x the reporting limit (RL). For results less than 5x the RL, the absolute difference between the sample and replicate must be less than 1x the RL.

Samples LDW18-SP-24 and LDW18-SP-24-FD were submitted as field duplicates. The absolute difference for phenanthrene was greater than the control limit.

Reporting Limits

Reporting limits for acenaphthene in Samples LDW18-SP-33 and LDW18-SP-77 were elevated due to required dilutions.

Reported Results

Acenaphthene was reported with an "E" flag indicating a result that exceeded the upper calibration range for Samples LDW18-SP-33 and LDW18-SP-77. The "E" flagged results were flagged as do-not-report (DNR-20) in the original analysis and all other results in the dilution analyses were flagged (DNR-11).

Calculation Verification

Several results were verified by recalculation from the raw data. No calculation or transcription errors were found.

OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical method. With the exceptions noted previously, accuracy was acceptable as demonstrated by the surrogate, LCS, and MS/MSD recovery values. With the exceptions noted above, precision was acceptable as demonstrated by the RPD values for the MS/MSD and field duplicate analyses.

Data were qualified as not detected at the reported concentration due to method blank and field blank contamination. Results were estimated due to surrogate recovery outliers. Data were qualified as do-not report to indicate which result from multiple reported results should not be used.

Data that have been flagged as do-not-report should not be used for any purpose.

All other data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
Lower Duwamish Waterway: Seeps
PCB Aroclors by EPA 8082A

This report documents the review of analytical data from the analysis of seep samples and the associated laboratory quality control (QC) samples. Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington. Refer to the Sample Index for a complete list of samples.

SDG	NUMBER OF SAMPLES	VALIDATION LEVEL
18F0185	27 Seep & 1 Field Blank	EPA Stage 2B & Stage 4 (batch BGF0415)

DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

EDD TO HARDCOPY VERIFICATION

All sample IDs and results reported in the electronic data deliverable (EDD) were verified (100% verification) by comparing the EDD to the hardcopy laboratory data package. Ten percent (10%) of the laboratory QC results were also verified.

TECHNICAL DATA VALIDATION

This report documents the review of analytical QC requirements as listed in the following table.

1	Sample Receipt, Preservation, and Holding Times	✓	Laboratory Control Samples (LCS)
✓	Initial Calibration (ICAL)	1	Field Duplicates
✓	Continuing Calibration (CCAL)	✓	Target Analyte List
✓	Laboratory Blanks	✓	Reporting Limits
1	Field Blanks	✓	Compound Identification
✓	Surrogate Compounds	2	Reported Results
✓	Matrix Spikes/Matrix Spike Duplicates (MS/MSD)	1	Calculation Verification (Full validation only)

1 Quality control results are discussed below, but no data were qualified.
2 Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.

Sample Receipt, Preservation, Holding Times

As stated in validation guidance documents, sample shipping coolers should arrive at the laboratory within the advisory temperature range of ≤6°C. The laboratory received several sample coolers greater than the upper control limit at temperatures ranging from 6.9°C to 13.9°C. Samples were received at the laboratory within several hours of sampling on each collection date; no qualifiers were required.

Field Blanks

Sample LDW18-SP-RB1 was submitted as a field blank. This field blank was associated with all seep samples collected. All acceptance criteria were met.

Field Duplicates

The RPD control limit is 30% for results greater than 5x the reporting limit (RL). For results less than 5x the RL, the absolute difference between the sample and replicate must be less than 1x the RL. No data were qualified based on field duplicate precision outliers. Users of the data should consider the impact of field precision outliers on the reported results.

Samples LDW18-SP-24 and LDW18-SP-24-FD were submitted as field blanks. All acceptance criteria were met.

Reported Results

The laboratory reported results from both the primary and confirmation columns. One result for each analyte was flagged as do-not-report (DNR-11) to indicate which result to use from multiple reported results.

Calculation Verification

Several results were verified by recalculation from the raw data. No calculation or transcription errors were found.

OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable as demonstrated by the surrogate, LCS/LCSD, and MS/MSD recoveries. Precision was also acceptable as demonstrated by the LCS/LCSD, MS/MSD, and field duplicate RPD values.

Data were qualified as do-not report to indicate which result from multiple reported results should not be used.

Data flagged as do-not-report should not be used for any reason.

All other data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
Lower Duwamish Waterway: Seeps
Dioxin/Furan Compounds by EPA 1613B

This report documents the review of analytical data from the analysis of seep samples and the associated laboratory quality control (QC) samples. Samples were analyzed by SGS Axys, Sidney, BC, Canada. Refer to the Sample Index for a complete list of samples.

SDG	NUMBER OF SAMPLES	VALIDATION LEVEL
WG64578	13 Seep & 1 Field Blank	EPA Stage 4

DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

EDD TO HARDCOPY VERIFICATION

All sample IDs and results reported in the electronic data deliverable (EDD) were verified (100% verification) by comparing the EDD to the hardcopy laboratory data package. Ten percent (10%) of the laboratory QC results were also verified.

TECHNICAL DATA VALIDATION

The quality control (QC) requirements that were reviewed are listed in the following table.

1	Sample Receipt, Preservation, and Holding Times	✓	Ongoing Precision and Recovery (OPR)
✓	System Performance and Resolution Checks	1	Certified Reference Material
✓	Initial Calibration (ICAL)	1	Field Duplicates
✓	Calibration Verification (CVER)	✓	Target Analyte List
2	Laboratory Blanks	✓	Reporting Limits
2	Field Blanks	2	Compound Identification
✓	Labeled Compound Recovery	✓	Compound Quantitation
1	Matrix Spike/Matrix Spike Duplicates (MS/MSD)	1	Calculation Verification (Full Validation Only)

✓Method quality objectives (MQO) and QC criteria have been met. No outliers are noted or discussed.
1 Quality control results are discussed below, but no data were qualified.
2 Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.

Sample Receipt, Preservation, Holding Times

As stated in validation guidance documents, sample shipping coolers should arrive at the laboratory within the advisory temperature range of ≤6°C. The laboratory received one of the sample coolers greater than the advisory temperature range at 6.5°C. No data were affected; no qualifiers were added.

Laboratory Blanks

To assess the impact of any blank contaminant on the reported sample results, an action level is established at five times (5x) the concentration reported in the blank. If a contaminant is reported in an associated field sample and the concentration is less than the action level, the result is qualified as not detected (U-7). No action is taken if the sample result is greater than the action level, or for non-detected results. The laboratory assigned EMPC-flags to values when a peak was detected but did not meet identification criteria. These values cannot be considered as positive identifications, but are "estimated maximum possible concentrations". When these occurred in the method blank the results were considered as false positives. No action levels were established for these analytes.

Method blanks were analyzed at the appropriate frequency. Contaminant levels, associated samples, and action levels are documented in the data validation worksheets.

OCDD was detected at a concentration less than the reporting limit. Associated sample results that were less than the 5x action level were qualified as not detected (U-7).

Field Blanks

Sample LDW18-SP-RB1 was submitted as a rinsate blank. This field blank was associated with all seep samples collected. 2,3,7,8-TCDF, 1,2,3,7,8-PeCDF, and total PeCDF were detected and associated results less than the action level were qualified as not detected (U-6).

Matrix Spike/Matrix Spike Duplicate

Matrix spike/matrix spike duplicate (MS/MSD) analyses were not performed. Accuracy was assessed using labeled compound recoveries and laboratory control samples. This QC sample goes through the entire extraction process prior to analysis. Precision is evaluated using the field duplicate analyses.

Certified Reference Material

No certified reference material was analyzed with this analytical data set.

Field Duplicates

The QAPP RPD control limit is 20% for results greater than 5x the reporting limit (RL). For results less than 5x the RL, the absolute difference between the sample and replicate must be less than 1x the RL.

Samples LDW18-SP-24 and LDW18-SP-24-FD were submitted as field duplicates. All acceptance criteria were met.

Compound Identification

The method requires the confirmation of 2,3,7,8-TCDF detects using an alternate GC column. The DB5 column that is typically used cannot fully separate 2,3,7,8-TCDF from closely eluting non-target TCDF isomers. The laboratory performed a second column confirmation on a DB225 column. All 2,3,7,8-TCDF results reported from the DB5 column were qualified as do-not-report (DNR-11) in favor of the DB225 results.

For several samples, the laboratory reported EMPC or "estimated maximum possible concentrations" values for one or more of the target analytes. An EMPC value is reported when a peak was detected but did not meet identification criteria, as required by the method; therefore, the result cannot be considered as a positive identification for the analyte. To indicate that the reported result for an individual analyte is in effect an elevated detection limit, the EMPC values were qualified as not detected (U-25) for native compound results below the reporting limit and were estimated (J-25) for homolog values and native compound results greater than the reporting limit.

Calculation Verification

Calculation verifications were performed for this sample delivery group (SDG). No calculation or transcription errors were found.

OVERALL ASSESSMENT

As determined by this evaluation, the laboratory performed the specified analytical method. Accuracy was acceptable, as demonstrated by the labeled compound and OPR recoveries. With the exceptions noted above, precision was also acceptable as indicated by the RPD values for the OPR and OPR duplicate and field duplicate samples.

Data were qualified as not detected at the reported concentration due to method blank and field blank contamination. Data were qualified as estimated to indicate that EMPC values represent elevated detection limits.

Data were flagged as do-not-report (DNR) to indicate which result (from multiple reported analyses) should not be used. Data that have been flagged DNR should not be used for any purpose.

All other data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
Lower Duwamish Waterway: Seeps
Total Metals by SW6020A
Total Mercury by SW7470A

This report documents the review of analytical data from the analyses of sediment samples and the associated laboratory and field quality control (QC) samples. Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington. Refer to the Sample Index for a complete list of samples.

SDG	NUMBER OF SAMPLES AND MATRIX	VALIDATION LEVEL
18F0185	27 Seeps & 1 Field Blank	EPA Stage 2B & Stage 4 (batches BGF0375 & BGF0478)

DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

The laboratory report was missing tuning, calibration, and raw data for samples analyzed on 6/27/18. The laboratory was contacted and submitted the missing documentation.

EDD TO HARDCOPY VERIFICATION

All sample IDs and results reported in the electronic data deliverable (EDD) were verified (100% verification) by comparing the EDD to the hardcopy laboratory data package. Ten percent (10%) of the laboratory QC results were also verified.

TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are listed below.

1	Sample Receipt, Preservation, and Holding Times	✓	Matrix Spikes (MS) and Matrix Spike Duplicates (MSD)
✓	ICP-MS Tune	✓	Laboratory Duplicates
✓	Initial Calibration	✓	ICP-MS Internal standards
✓	Calibration Verification	1	Interference Check Samples
✓	CRDL Standards	1	Field Duplicates
✓	Laboratory Blanks	1	Reporting Limits
2	Field Blanks	✓	Reported Results
✓	Laboratory Control Samples (LCS)	1	Calculation Verification

✓ Stated method quality objectives (MQO) and QC criteria have been met. No outliers are noted or discussed.
1 Quality control outliers are discussed below, but no data were qualified.
2 Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.

Sample Receipt, Preservation, and Holding Times

As stated in validation guidance documents, sample shipping coolers should arrive at the laboratory within the advisory temperature range of ≤6°C. The laboratory received several sample coolers greater than the upper control limit at temperatures ranging from 6.9°C to 13.9°C. Samples were received at the laboratory within several hours of sampling on each collection date; no qualifiers were required.

Field Blanks

Action levels were established at five times (5x) the concentration reported in the field blank. If a contaminant is reported in an associated field sample and the concentration is less than the action level, the result is qualified as not detected (U-6). No action is taken if the sample result is greater than the action level, or for non-detected results.

Sample LDW18-SP-RB1 was submitted as a rinsate blank. This field blank was associated with all seep samples collected. Chromium, copper, and zinc were detected in the field blank. All results less than the action level were qualified as not detected (U-6).

Interference Check Samples

Chromium and/or cadmium were detected in all ICSAs. Because spectral interferences are uncommon for ICPMS and the concentrations observed are usually due to low levels of contaminants in the purchased solutions used by the laboratory; no qualifiers were applied.

Field Duplicates

The QAPP RPD control limit is 25% for mercury and 20% for all other metals for results greater than 5x the reporting limit (RL). For results less than 5x the RL, the absolute difference between the sample and replicate must be less than 1x the RL.

Samples LDW18-SP-24 and LDW18-SP-24-FD were submitted as field duplicates. All acceptance criteria were met.

Reporting Limits

For method 6020, most samples were diluted due to interferences or other factors and the reporting limits were elevated.

Calculation Verification

Several results were verified by recalculation from the raw data. No calculation or transcription errors were noted.

OVERALL ASSESSMENT

As determined by this evaluation, the laboratory followed the specified analytical methods. Accuracy was acceptable as demonstrated by the LCS and MS/MSD %R values and precision was acceptable as demonstrated by the MS/MSD and laboratory and field duplicate RPD values.

Six results were qualified as not detected at the reported concentration due to field blank contamination.

All data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
Lower Duwamish Waterway: Seep
Total Suspended Solids SM 2540-D
Total and Dissolved Organic Carbon SM 5310B-00

This report documents the review of analytical data from the analysis of seep samples and the associated laboratory quality control (QC) samples. Analytical Resources, Inc., Tukwila, Washington, analyzed the samples. Refer to the Sample Index for a list of samples reviewed.

SDG	NUMBER OF SAMPLES	VALIDATION LEVEL
18F0185	27 Seep & 1 Field Blank	EPA Stage 2B & Stage 3 (batches BGF0409 & BGG0063)

DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

EDD TO HARDCOPY VERIFICATION

All sample IDs and results (100% verification) reported in the electronic data deliverable (EDD) were verified by comparing the EDD to the hardcopy laboratory data package. Ten percent (10%) of the laboratory QC results were also verified.

TECHNICAL DATA VALIDATION

The QC requirements for review are listed below.

2	Sample Receipt, Preservation, and Holding Times	1	Field Duplicates
✓	Laboratory Blanks	2	Laboratory Duplicates
2	Field Blanks	✓	Reporting Limits
✓	Laboratory Control Samples (LCS)	2	Reported Results
✓	Matrix Spike (MS)	✓	Calculation Verification

✓ Stated method quality objectives (MQO) and QC criteria have been met. No outliers are noted or discussed.
[1] Quality control results are discussed below, but no data were qualified.
[2] Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.

Sample Receipt, Preservation, Holding Times

As stated in validation guidance documents, sample shipping coolers should arrive at the laboratory within the advisory temperature range of ≤6°C. The laboratory received several sample coolers greater than the upper control limit at temperatures ranging from 6.9°C to 13.9°C. Samples were received at the laboratory within several hours of sampling on each collection date; no qualifiers were required.

TOC and/or DOC results were analyzed past the 28-day holding time at 29-34 days for seventeen samples. Associated TOC/DOC results were estimated (J-1).

Field Blanks

Action levels were established at five times (5x) the concentration reported in the field blank. If a contaminant is reported in an associated field sample and the concentration is less than the action level, the result is qualified as not detected (U-6). No action is taken if the sample result is greater than the action level, or for non-detected results.

Sample LDW18-SP-RB1 was submitted as a field blank. This field blank was associated with all seep samples. TOC was detected in this blank at a concentration less than the reporting limit; results less than the action level were qualified as not detected (U-6).

Field Duplicates

The RPD control limit is 20% for results greater than 5x the reporting limit (RL) for TOC. For results less than 5x the RL, the absolute difference between the sample and replicate must be less than 1x the RL. No data were qualified based on field duplicate precision outliers. Users of the data should consider the impact of field precision outliers on the reported results.

Samples LDW18-SP-24 and LDW18-SP-24-FD were submitted as field blanks. The RPD value for total suspended solids was greater than the control limit at 40%RPD.

Laboratory Duplicates

One sample from each laboratory batch was prepared and analyzed in duplicate. Relative percent difference (RPD) values were calculated for detected analytes where results are greater than five times the method detection limit (MDL). With the exception noted below, all RPD values were less than the 20% control limit. Qualifiers are applied to all samples in an analysis batch.

SDG	Parent Sample ID	Analyte	Outlier Type	Action
18F0185	LDW18-SP-57	TSS	Difference > RL	J-9
		TOC	Difference > RL	J-9

Reported Results

Multiple results were reported for each sample for DOC and TOC for the login group 18F0248. The laboratory indicated the instrument experienced the following issues resulting in inconsistent results for the initial runs for both TOC and DOC.

Inject line was spraying the sample onto the side of the combustion tube rather than directly down into the catalyst. The catalyst was saturated with salts from samples and was not flowing properly.

Verifications were sporadically in and out of acceptable limits and samples run during this time had high and low biases depending on the conditions of each injected sample with respect to the sample residue running down the side of the combustion tube.

Some injections were low biased due to part of the sample staying on the side of the combustion tube until the next injection washed it down, while others were high due to the last sample washing into the current injection from the previously mentioned condition.

Because the instrument problems, all results reported from the first two analysis days were qualified as do-not-report (DNR-11).

The DOC results were greater than TOC for samples LDW18-SP-01, LDW18-SP-45, LDW18-SP-47, LDW18-SP-70, and LDW18-SP-86. The results for TOC and DOC were estimated (J-14) in these samples.

Calculation Verification

Several results were verified by recalculation from the raw data. No calculation or transcription errors were found.

OVERALL ASSESSMENT

As determined by this evaluation, the laboratory followed the specified analytical methods. Accuracy was acceptable as demonstrated by the LCS and MS recoveries. With the exceptions noted above precision was acceptable as indicated by the laboratory and field duplicate RPD values.

Results were qualified as not detected due to field blank contamination. Results were estimated based on holding time outliers, laboratory duplicate precision outliers, as well as dissolved results being greater than the corresponding total results.

Data were flagged as do-not-report to indicate which results should be used from multiple reported results.

Data flagged DNR should not be used. All other data, as qualified, are acceptable for use.

ECOCHEM
Data Quality

APPENDIX A

DATA QUALIFIER DEFINITIONS
REASON CODES
AND CRITERIA TABLES

DATA VALIDATION QUALIFIER CODES
Based on National Functional Guidelines

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents the approximate concentration.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

The following is an EcoChem qualifier that may also be assigned during the data review process:

DNR	Do not report; a more appropriate result is reported from another analysis or dilution.

DATA QUALIFIER REASON CODES

Group	Code	Reason for Qualification
Sample Handling	1	Improper Sample Handling or Sample Preservation (i.e., headspace, cooler temperature, pH, summa canister pressure); Exceeded Holding Times
Instrument Performance	24	Instrument Performance (i.e., tune, resolution, retention time window, endrin breakdown, lock-mass)
	5A	Initial Calibration (RF, %RSD, r^2)
	5B	Calibration Verification (CCV, CCAL; RF, %D, %R) Use bias flags (H,L)[1] where appropriate
	5C	Initial Calibration Verification (ICV %D, %R) Use bias flags (H,L)[1] where appropriate
Blank Contamination	6	Field Blank Contamination (Equipment Rinsate, Trip Blank, etc.)
	7	Lab Blank Contamination (i.e., method blank, instrument blank, etc.) Use low bias flag (L)[1] for negative instrument blanks
Precision and Accuracy	8	Matrix Spike (MS and/or MSD) Recoveries Use bias flags (H,L)[1] where appropriate
	9	Precision (all replicates: LCS/LCSD, MS/MSD, Lab Replicate, Field Replicate)
	10	Laboratory Control Sample Recoveries (a.k.a. Blank Spikes) Use bias flags (H,L)[1] where appropriate
	12	Reference Material Use bias flags (H,L)[1] where appropriate
	13	Surrogate Spike Recoveries (a.k.a. labeled compounds, recovery standards) Use bias flags (H,L)[1] where appropriate
Interferences	16	ICP/ICP-MS Serial Dilution Percent Difference
	17	ICP/ICP-MS Interference Check Standard Recovery Use bias flags (H,L)[1] where appropriate
	19	Internal Standard Performance (i.e., area, retention time, recovery)
	22	Elevated Detection Limit due to Interference (i.e., chemical and/or matrix)
	23	Bias from Matrix Interference (i.e. diphenyl ether, PCB/pesticides)
Identification and Quantitation	2	Chromatographic pattern in sample does not match pattern of calibration standard
	3	2nd column confirmation (RPD or %D)
	4	Tentatively Identified Compound (TIC) (associated with NJ only)
	20	Calibration Range or Linear Range Exceeded
	25	Compound Identification (i.e., ion ratio, retention time, relative abundance, etc.)
Miscellaneous	11	A more appropriate result is reported (multiple reported analyses i.e., dilutions, re-extractions, etc. Associated with "R" and "DNR" only)
	14	Other (See DV report for details)
	26	Method QC information not provided

[1] H = high bias indicated
L = low bias indicated

Semivolatile Organic Compounds by Gas Chromatography-Mass Spectroscopy (GC-MS)
(Based on NFG 1999 & 2008 and SW-846 Method 8270D)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Sample Handling					
Cooler/Storage Temperature Preservation	4°C±2°C sediment/tissues may require storage at -20°C	NFG (1) Method (3)	**If required by project:** J (pos)/UJ (ND) if greater than 6° C	1	Use **PJ** for temp outliers; see **TM20** Current SW846 criterion is ≤ 6° C (3)
Holding Time	**Extraction Aqueous:** 7 days from collection **Extraction Solid:** 14 days from collection **Analysis (all matrices)**: 40 days from extraction Holding time may be extended to 1 year for frozen sediments/tissues	NFG (1) Method (3)	J (pos)/UJ (ND) if HT exceeded J (pos)/R (ND) if gross exceedance (> 2x HT)	1	Gross exceedance = > 2x HT, as per 1999 NFG
Instrument Performance					
Tuning	DFTPP Beginning of each 12 hour period Use method or project acceptance criteria	NFG (1) Method (3)	R (pos/ND) all analytes in all samples associated with the tune	24	
Initial Calibration **Sensitivity**	RRF ≥ 0.05 except: RRF ≥ 0.01 poor responders *	NFG (1) Method (3)	Use **PJ** to qualify J (pos)/UJ (ND)	5A	**TM-06** EcoChem Policy for the Evaluation and Qualification of GCMS Instrument Performance **PJ** - no action if response is stable (ICAL RSD and CCAL %D acceptable)
Initial Calibration **Stability**	Minimum 5 standards %RSD ≤ 20.0% except: %RSD ≤ 40.0% poor responders * **or** co-efficient of determination (r^2) > 0.99	NFG (1) Method (3)	J (pos) if %RSD > limit **or** r^2 value <0.99	5A	
Initial Calibration Verification Check	Prepared from second source; analyze after each ICAL Percent recovery limits = 70-130%	Method (3)	J (pos) %R > UCL J (pos)/UJ (ND) %R < LCL	5A (H,L)[4]	QAPP may have overriding accuracy limits.

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Semivolatile Organic Compounds by Gas Chromatography-Mass Spectroscopy (GC-MS)
(Based on NFG 1999 & 2008 and SW-846 Method 8270D)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Instrument Performance (continued)					
Continuing Calibration **Sensitivity**	RRF ≥ 0.05 except: RRF ≥ 0.01 poor responders *	NFG [1] Method [3]	Use **PJ** to qualify J (pos)/UJ (ND)	5B	see ICAL RRF guidance
Continuing Calibration **Stability**	Prior to sample analysis and every 12 hours %D ≤ 25% except: %D ≤ 40.0% poor responders *	NFG [1] Method [3]	J (pos) - %D > control limit (high bias) J (pos)/UJ (ND) - %D < -control limit (low bias)	5B (H,L)[4]	
Blank Contamination					
Method Blank (MB)	MB: One per matrix per batch of (of ≤ 20 samples) No detected compounds > MDL	NFG [2] Method [3]	U(pos) if result is < 5X or 10X action level	7	10X action level applies to phthalates only. 5X for all other target analytes **Hierarchy of blank review:** **#1 - Review MB, qualify as needed** **#2 - Review FB , qualify as needed** **Note: Actions as per 1999 NFG**
	No TICs present		R (pos) TICs using 10X rule	7	
Field Blank (FB)	No detected compounds > MDL	NFG [2] Method [3]	U (pos) if result is < 5X or 10X action level	6	
Precision and Accuracy					
LCS/LCSD (recovery)	One per matrix per batch (of ≤ 20 samples) LCSD not required by NFG or method Use method acceptance criteria/laboratory limits	Method [3]	J (pos) if %R > UCL J (pos)/UJ (ND) if %R < LCL J (pos)/R (ND)%R < 10%	10 (H,L)[4]	No action if only one spike %R is outside criteria when LCSD is analyzed, unless one recovery is <10%. QAPP may have overriding accuracy limits. Qualify all associated samples.
LCS/LCSD (RPD)	If LCSD analyzed RPD < lab limits	Method [3]	J (pos)	9	Qualify all associated samples. QAPP may have overriding precision limits.

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Semivolatile Organic Compounds by Gas Chromatography-Mass Spectroscopy (GC-MS)
(Based on NFG 1999 & 2008 and SW-846 Method 8270D)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Precision and Accuracy (continued)					
Reference Material (RM, SRM, or CRM)	Result ±20% of the 95% confidence interval of the true value for analytes	EcoChem standard policy	J (pos)/UJ (ND) if < LCL J (pos) if > UCL	12 (H,L)[4]	QAPP may have overriding accuracy limits. Some manufacturers have different RM control limits
MS/MSD (recovery)	One per matrix per batch (of ≤ 20 samples) Use method acceptance criteria/laboratory limits	NFG (1) Method (3)	J (pos) %R > UCL J (pos)/UJ (ND) if both %R < LCL J (pos)/R (ND) if both %R < 10% J (pos)/UJ (ND) if one > UCL & one < LCL, with no bias	8 (H,L)[4]	No action if only one spike %R is outside criteria. No action if parent concentration is >4x the amount spiked. Qualify parent sample only.
MS/MSD (RPD)	One per matrix per batch (of ≤ 20 samples) Use method acceptance criteria/laboratory limits	NFG (1) Method (2)	J (pos) in parent sample if RPD > CL	9	Qualify parent sample only
Surrogates	Minimum of 3 acid & 3 base/neutral (B/N) compounds added to all samples Within method control limits	NFG (1) Method (3)	J (pos) if %R > UCL J (pos)/UJ (ND) if %R < LCL J (pos)/R (ND) if %R < 10%	13 (H,L)[4]	Qualify all compounds in associated fraction. Do not qualify if only 1 acid and/or 1 B/N surrogate is out, unless <10%. If 1 surrogate outlier < 10% then J (pos)/R (ND)
Internal Standards	Added to all samples Acceptable Range: IS area 50% to 200% of CCAL area RT within 30 seconds of CC RT	NFG (1) Method (3)	J (pos) if > 200% J (pos)/UJ (ND) if < 50% J (pos)/R (ND) if < 25% if RT >30 seconds use **PJ**	19	Qualify compounds quantified using particular internal standard
Field Duplicates	**Solids:** RPD < 50% OR difference < 2X RL (for results < 5X RL) **Aqueous:** RPD < 35% OR difference < 1X RL (for results < 5X RL)	EcoChem standard policy	J (pos)/UJ (ND) Qualify only parent and field duplicate samples	9	Use project limits if specified

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Semivolatile Organic Compounds by Gas Chromatography-Mass Spectroscopy (GC-MS)
(Based on NFG 1999 & 2008 and SW-846 Method 8270D)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Compound Identification and Quantitation and Calculation					
Retention times and relative ion intensities	RRT within 0.06 of standard RRT Ion relative intensity within 20% of standard All ions in std. at > 10% intensity must be present in sample	NFG [(1)] Method [(3)]	U (pos) if identification criteria not met	25	
TICs	Major ions (>10%) in reference must be present in sample; intensities agree within 20%; check identification	NFG [(1)] Method [(3)]	NJ the TIC unless: R (pos) common laboratory contaminants	4	
Calibration Range	Results greater than highest calibration standard	EcoChem standard policy	Qualify J (pos)	20	If result from dilution analysis is not reported.
Dilutions, Re-extractions and/or Reanalyses	Report only one result per analyte	EcoChem standard policy	Use "DNR" to flag results that will not be reported.	11	**TM-04** EcoChem Policy for Rejection/Selection Process for Multiple Results

[1] National Functional Guidelines for Organic Data Review, June, 2008
[2] National Functional Guidelines for Organic Data Review, October, 1999
[3] Method SW846 8270D Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS), Revision 4, February 2007.
[4] NFG 2013 suggests using "+ / -" to indicate bias; EcoChem has chosen "H" = high bias indicated; "L" = low bias indicated.

(pos): Positive Result(s)
(ND): Non-detects

* "Poor responder" compounds: acetophenone, atrazine, benzaldehyde, 1,1'-biphenyl, bis(2-ethylhexyl)phthalate, butylbenzylphthalate, caprolactam, carbazole, 4-chloroaniline, diethylphthalate, di-n-butylphthalate, 3-3'-dichlorobenzidine, dimethylphthalate, 2,4-dinitrophenol, 4,6-dinitro-2-methylphenol, di-n-octylphthalate, hexachlorobutadiene, hexachlorocyclopentadiene, 2-nitroaniline, 3-nitroaniline, 4-nitroaniline, 4-nitrophenol, N-nitrosodiphenylamine, 2,2'-oxybis-(1-chloropropane), 1,2,4,5-tetrachlorobenzene use a 0.010 RRF criterion.

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PCB Aroclors by GC
(Based on Organic NFG 2008 and SW-846 Method 8082A)

QC Element	Acceptance Criteria (NFG)	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Sample					
Cooler/Storage Temperature Preservation	4°C ± 2°C Tissue/sediments (may be frozen -20°C)	NFG [1] Method [2]	**If required by project:** J (pos)/UJ (ND) if greater than 6° C	1	Use Professional Judgment (PJ) to qualify for temperature outlier. Current SW846 criterion is ≤ 6° C [3]
Holding Time	**Extraction Aqueous:** 7 days from collection **Extraction Solid:** 14 days from collection **Exraction Tissue/Sediment (frozen):** 1 year **Analysis (all matrices)**: 40 days from extraction	NFG [1] Method [2]	**If required by project:** J (pos)/UJ (ND) if ext/analyzed > HT J (pos)/R (ND) if gross exceedance (> 2x HT)	1	Use PJ to qualify for holding time outlier. ***Current SW846 does not have an extraction holding time limit.*** [3] Gross exceedance > 2x HT, as per NFG 1999
Instrument Performance					
Retention Times	Surrogates: TCMX (± 0.05); DCB (± 0.10) Aroclors (± 0.07)	NFG [1]	NJ (pos)/R (ND) results for analytes with RT shifts	24	
Initial Calibration	Minimum 5 point with RSD ≤ 20% OR correlation coefficient (r-value) ≥ 0.995 OR Minimum 6-point with co-efficient of determination (r2-value) ≥ 0.99	NFG [1] Method [4]	J (pos) if %RSD greater than 20% OR r-value < 0.995 OR r^2-value < 0.99	5A	Refer to TM-01 for additional information. Use bias flags (H,L)[5] where appropriate
Initial Calibration Verification (ICV)	No NFG criteria. Project specific.	Project	J (pos) if > UCL J (pos)/UJ (ND) if < LCL	5B	Use bias flags (H,L) where appropriate
Continuing Calibration (Prior to each 12 hr. shift)	%D ± 20%	Method [2]	If > 20% (high bias): J (pos) If <20% (low bias: J (pos)/UJ (ND)	5B	Refer to TM-01 for additional information. Use bias flags (H,L) where appropriate
Blank Contamination					
Method Blank (MB)	MB: One per matrix per batch of (of ≤ 20 samples) No detected compounds > RL	NFG [1] Method [2]	U (pos) if result is less than appropriate 5X action level.	7	**Hierarchy of blank review:** **#1 - Review MB and IB, qualify as needed** **#2 - Review FB , qualify as needed** Note: Actions as per NFG 1999 Note: IB not required by method
Field Blank (FB)	FB: frequency as per QAPP No detected compounds > RL	NFG [1] Method [2]	U (pos) if result is less than appropriate 5X action level.	6	
Instrument Blanks (IB)	Analyzed at the beginning and end of every 12 hour sequence No analyte > CRQL	NFG [1]	U (pos) if result is less than appropriate 5X action level.	7	

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PCB Aroclors by GC
(Based on Organic NFG 2008 and SW-846 Method 8082A)

QC Element	Acceptance Criteria (NFG)	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Precision and Accuracy					
MS/MSD (recovery)	One set per matrix per batch (of ≤ 20 samples) AR1016 and AR1260: %R = 29% - 135%, or project limits	NFG (1) Method (2)	Qualify parent only unless other QC indicates systematic problems. J (pos) if both %R > upper control limit (UCL) J (pos)/UJ (ND) if both %R < lower control limit (LCL) J (pos)/R (ND) if both %R < 10%	8	No action if only one spike %R is outside criteria. No action if native analyte conc. > 5x the amount spiked. Use bias flags (H,L) where appropriate. Actions apply to all Aroclors in parent sample.
MS/MSD (RPD)	One set per matrix per batch (of ≤ 20 samples) AR1016: RPD < 15%, AR1260: RPD < 20% or project limits	NFG (1) Method (2)	Qualify parent only unless other QC indicates systematic problems. J (pos) if RPD > control limit	9	No action if parent is ND.
LCS	One per lab batch (of ≤ 20 samples) AR1016 and AR1260: %R = 50% - 150%, or project limits	NFG (1)	J (pos) if %R > UCL J (pos)/UJ (ND) if %R < LCL J (pos)/R (ND) if %R < 10%	10	Use bias flags (H,L) where appropriate. Actions apply to all Aroclors in associated samples.
LCS/LCSD (RPD)	if analyzed use MS/MSD RPD criteria	NFG (1)	J (pos) assoc. compound in all samples	9	LCSD not required by method or NFG
Precision and Accuracy					
Surrogates	TCMX and DCBP added to every sample %R = 30% - 150% or project limits	NFG (1) Method (2)	J (pos) if either %R > UCL J (pos)/UJ (ND) if either %R < LCL J (pos)/R (ND) if either %R < 10%	13	If %R < 10% (sample dilution is a factor), use PJ Use bias flags (H,L) where appropriate
Internal Standards (if used)	Acceptable Range: IS area = 50% to 200% of CCAL area RT within 30 seconds of CC RT	Method (2)	J (pos) if area > 200% J (pos)/UJ (ND) if area < 50% J (pos)/R (ND) if area < 25% RT > 30 seconds, narrate	19	
Field Duplicates	**Solids:** RPD < 50% OR difference < 2X RL (for results < 5X RL) **Aqueous:** RPD < 35% OR difference < 1X RL (for results < 5X RL)	EcoChem	J (pos)/UJ (ND) Qualify only parent and field duplicate samples	9	use project limits if specified

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PCB Aroclors by GC
(Based on Organic NFG 2008 and SW-846 Method 8082A)

QC Element	Acceptance Criteria (NFG)	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Compound Identification/Quantification					
Quantitation/ Identification	Between two columns: RPD < 40% or %D < 25% Within Retention Time Windows on both columns.	NFG [1] Method [2]	J (pos) if RPD = 40% - 60% (25% - 60% for %D) NJ (pos) if > 60% R (pos) if RTW criterion not met	3	See TM-08 for additional info.
Calibration Range	on column concentration < high calibration standard	NFG [1] Method [2]	J (pos) if conc > high standard and sample was not diluted	20	
Dilutions, Re-extractions and/or Reanalyses	Report only one result per analyte	Standard reporting policy	Use "DNR" to flag results that will not be reported.	11	TM-04 Rev. 1 for additional info.
Sample Clean-up					
GPC/Sulfur/ Florisil/Acid	No criteria - cleanups are optional	NFG [1] Method [2]	Use Professional Judgment	14	special cleanups may be required for project cleanup standards may be associated with GPC/florisil cleanups

[1] National Functional Guidelines for Organic Data Review, June, 2008
[2] Polychlorinated Biphenyls (PCBs) by Gas Chromatography USEPA Method SW846 8082A, Feb 2007, Rev. 1
[3] SW846, Chapter 4, Organic Analytes
[4] Determinative Chromatographic Separations , Method 8000C , March 2003, Rev.3
[5] "H" = high bias indicated; "L" = low bias indicated

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Dioxin/Furan Analysis by HRMS
(Based on Dioxin NFG 2011 and Methods EPA 1613B and SW-846 8290)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Sample Handling					
Cooler/Storage Temperature Preservation	Waters/Solids ≤ 6°C & in the dark Tissues <-10°C & in the dark **Preservation Aqueous:** If Cl_2 is present Thiosulfate must be added and if pH > 9 it must be adjusted to 7 - 9	NFG [1] Method[2]	J(pos)/R(ND) if thiosulfate not added if Cl_2 present; J(pos)/UJ(ND) if pH not adjusted J(pos)/UJ(ND) if temp > 20°C	1	**EcoChem PJ, see TM-05**
Holding Time	**If properly stored, 1 year or:** **Extraction (all matrices):** 30 days from collection **Analysis (all matrices)**: 45 days from extraction	NFG [1] Method[2]	If not properly stored or HT exceedance: J(pos)/UJ(ND)	1	**EcoChem PJ, see TM-05** Gross exceedance = > 1 year 2011 NFG **Note:** Under CWA, SDWA, and RCRA the HT for H2O is 7 days.
Instrument Performance					
Mass Resolution (Tuning)	PFK (Perfluorokerosene) ≥10,000 resolving power at m/z 304.9824. Exact mass of m/z 380.9760 w/in 5 ppm of theoretical value (380.97410 to 380.97790) . Analyzed prior to ICAL and at the start and end of each 12 hr. shift.	NFG [1] Method [2]	R(pos/ND) all analytes in all samples associated with the tune	24	Notify PM
Windows Defining Mix	Peaks for first and last eluters must be within established retention time windows for each selector group (chlorination level)	NFG [1] Method [2]	If peaks are not completely within windows (clipped): If natives are ok, J(pos)/UJ(ND) homologs (Totals) If natives are affected, R all results for that selector group	24	Notify PM
Column Performance Mix	Both mixes must be analyzed before ICAL and CCAL Valley < 25% (valley = (x/y)*100%) where x = ht. of TCDD (or TCDF) & y = baseline to bottom of valley For all isomers eluting near the 2378-TCDD (TCDF) peak (TCDD only for 8290)	NFG [1] Method [2]	J(pos) if valley > 25%	24	**EcoChem PJ, see TM-05, Rev. 2**; Note: TCDF is evaluated only if second column confirmation is performed
Initial Calibration **Sensitivity**	S/N ratio > 10 for all native and labeled compounds in CS1 std.	NFG [1] Method [2]	If <10, elevate Det. Limit or R(ND)	5A	
Initial Calibration **Selectivity**	Ion Abundance ratios within QC limits (Table 8 of method 8290) (Table 9 of method 1613B)	NFG [1] Method [2]	If 2 or more ion ratios are out for one compound in ICAL, J(pos)	5A	**EcoChem PJ, see TM-05, Rev. 2**

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Dioxin/Furan Analysis by HRMS
(Based on Dioxin NFG 2011 and Methods EPA 1613B and SW-846 8290)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Instrument Performance (continued)					
Initial Calibration (Minimum 5 stds.) **Stability**	%RSD < 20% for native compounds %RSD <30% for labeled compounds (%RSD < 35% for labeled compounds under 1613b)	NFG [1] Method [2]	J(pos) natives if %RSD > 20%	5A	
	Absolute RT of $^{13}C_{12}$-1234-TCDD >25 min on DB5 & >15 min on DB-225	NFG [1] Method [2]	Narrate, no action		**EcoChem PJ, see TM-05, Rev. 2**
Continuing Calibration (Prior to each 12 hr. shift) **Sensitivity**	S/N ratio for CS3 standard > 10	NFG [1] Method [2]	If <10, elevate Det. Limit or R(ND)	5B	
Continuing Calibration (Prior to each 12 hr. shift) **Selectivity**	Ion Abundance ratios within QC limits (Table 8 of method 8290) (Table 9 of method 1613B)	NFG [1] Method [2]	For congener with ion ratio outlier, J(pos) natives in all samples associated with CCAL. No action for labeled congener ion ratio outliers.	25	**EcoChem PJ, see TM-05**
Continuing Calibration (Prior to each 12 hr. shift) **Stability**	%D+/-20% for native compounds %D +/-30% for labeled compounds **(Must meet limits in Table 6, Method 1613B)** If %D in the closing CCAL are within 25%/35%, the mean RF from the two CCAL may be used to calculate samples **(Section 8.3.2.4 of 8290)**.	NFG [1] Method [2]	**Labeled compounds:** Narrate, no action. **Native compounds:** 1613: J(pos)/UJ(ND)if %D is outside Table 6 limits J(pos)/R(ND) if %D is +/-75% of Table 6 limits 8290: J(pos)/UJ(ND) if %D = 20% - 75% J(pos)/R(ND) if %D > 75%	5B (H,L)[3]	
	Absolute RT of $^{13}C_{12}$-1234-TCDD and $^{13}C_{12}$-123789-HxCDD should be ± 15 seconds of ICAL RRT for all other compounds must meet criteria listed in Table 2 Method 1316.	NFG [1] Method [2]	Narrate, no action	5B	**EcoChem PJ, see TM-05**
Blank Contamination					
Method Blank (MB)	MB: One per matrix per batch of (of ≤ 20 samples) No detected compounds > RL	NFG [1] Method [2]	U(pos) if result is < 5X action level.	7	**Hierarchy of blank review:** **#1 - Review MB, qualify as needed** **#2 - Review FB , qualify as needed**
Field Blank (FB)	FB: frequency as per QAPP No detected compounds > RL		U(pos) if result is < 5X action level.	6	

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Dioxin/Furan Analysis by HRMS
(Based on Dioxin NFG 2011 and Methods EPA 1613B and SW-846 8290)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Precision and Accuracy					
MS/MSD (recovery)	**MS/MSD not typically required for HRMS analyses.** If lab analyzes MS/MSD then one set per matrix per batch (of ≤ 20 samples) Use most current laboratory control limits	EcoChem standard policy	J(pos) if both %R > UCL - high bias J(pos)/UJ(ND) if both %R < LCL - low bias J(pos)/R(ND) if both %R < 10% - very low bias J(pos)/UJ(ND) if one > UCL & one < LCL, with no bias **PJ if only one %R outlier**	8 (H,L)[3]	No action if only one spike %R is outside criteria. No action if parent concentration is >4x the amount spiked. Qualify parent sample only unless other QC indicates systematic problems.
MS/MSD (RPD)	**MS/MSD not typically required for HRMS analyses.** If lab analyzes MS/MSD then one set per matrix per batch (of ≤ 20 samples) Use most current laboratory control limits	EcoChem standard policy	J(pos) in parent sample if RPD > CL	9	Qualify parent sample only.
LCS (or OPR)	One per lab batch (of ≤ 20 samples) Use most current laboratory control limits **or** Limits from Table 6 of 1613B	NFG [1] Method [2]	J(pos) if %R > UCL - high bias J(pos)/UJ(ND) if %R < LCL - low bias J(pos)/R(ND) if %R < 10% - very low bias	10 (H,L)[3]	No action if only one spike %R is outside criteria, when LCSD is analyzed. Qualify all associated samples.
LCS/LCSD (RPD)	**LCSD not typically required for HRMS analyses.** One set per matrix and batch of 20 samples RPD < 35%	Method [2] Ecochem standard policy	J(pos) assoc. compound in all samples if RPD > CL	9	Qualify all associated samples.
Lab Duplicate (RPD)	**Lab Dup not typically required for HRMS analyses.** One per lab batch (of ≤ 20 samples) Use most current laboratory control limits	EcoChem standard policy	J(pos)/UJ(ND) if RPD > CL	9	
Labeled Compounds (Internal Standards)	Added to all samples %R = 40% - 135% in all samples 8290 %R must meet limits in Table 7 Method 1613B	NFG [1] Method [2]	J(pos) if %R > UCL - high bias J(pos)/UJ(ND) if %R < LCL - low bias J(pos)/R(ND) if %R < 10% - very low bias	13 (H,L)[3]	
Field Duplicates	Solids: RPD <50% OR difference < 2X RL (for results < 5X RL) Aqueous: RPD <35% OR difference < 1X RL (for results < 5X RL)	EcoChem standard policy	Narrate and qualify if required by project	9	**Use professional judgment**

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Dioxin/Furan Analysis by HRMS
(Based on Dioxin NFG 2011 and Methods EPA 1613B and SW-846 8290)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Compound ID and Calculation					
Quantitation/ Identification	All ions for each isomer must maximize within ± 2 seconds. S/N ratio >2.5 Ion ratios must meet criteria listed in Table 8 Method 8290, or Table 9 of 1613B; RRTs w/in limits in Table 2 of 1613B	NFG [1] Method [2]	Narrate in report; qualify if necessary NJ(pos) for retention time outliers. U(pos) for ion ratio outliers.	25	**EcoChem PJ, see TM-05**
EMPC (estimated maximum possible concentration)	If quantitation identification criteria are not met, laboratory should report an EMPC value.	NFG [1] Method [2]	If laboratory correctly reported an EMPC value, qualify the native compound U(pos) to indicate that the value is a detection limit and qualify total homolog groups J (pos)	25	**Use professional judgment See TM-18**
Interferences	Interferences from chlorodiphenyl ether compounds	NFG [1] Method [2]	J(pos)/UJ(ND) if present	23	**See TM-16**
	Lock masses must not deviate ± 20% from values in Table 8 of 1613B	Method [2]	J(pos)/UJ(ND) if present	24	**See TM-17**
Second Column Confirmation	All 2,3,7,8-TCDF hits must be confirmed on a DB-225 (or equiv) column. All QC criteria must also be met for the confirmation analysis.	NFG [1] Method [2]	Report the DB-225 value. If not performed use PJ.	3	DNR-11 DB5 result if both results from both columns are reported. **EcoChem PJ, see TM-05**
Calculation Check	Check 10% of field & QC sample results	EcoChem standard policy	Contact laboratory for resolution and/or corrective action	na	Full data validation only.
Electronic Data Deliverable (EDD)					
Verification of EDD to hardcopy data	EcoChem verify @ 10% unless problems noted; then increase level up to 100% for next several packages.		Depending on scope of problem, correct at EcoChem (minor issues) to resubmittal by laboratory (major issues).	na	EcoChem Project Manager and/or Database Administrator will work with lab to provide long-term corrective action.
Dilutions, Re-extractions and/or Reanalyses	Report only one result per analyte	Standard reporting policy	Use "DNR" to flag results that will not be reported.	11	

(pos) - positive (detected) results; (ND) - not detected results

[1] National Functional Guidelines for Chlorinated Dibenzo-p-Dioxins (CDDs) & Chlorinated Dibenzofurans (CDFs) Data Review, September 2011

[2] Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by High-Resolution Gas Chromatography/High-Resolution Mass Spectrometry (HRGC/HRMS), USEPA SW-846, Method 8290

[2] EPA Method 1613, Rev.B, Tetra-through Octa-Chlorinated Dioxins and Furans by Isotope Dilution HRGS/HRMS, October 1994

[3] NFG 2013 suggests using "+ / -" to indicate bias; EcoChem has chosen "H" = high bias indicated; "L" = low bias indicated.

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Metals by ICP-MS
(Based on Inorganic NFG 2010 and SW-846 6020A)

QC Element	EcoChem Acceptance Criteria	Source of Criteria	EcoChem Action for Non-Conformance	Reason Code	Discussion and Comments
Sample Handling					
Cooler / Storage Temperature Preservation	**Solid:** Cooler temperature 4°C±2°C **Aqueous:** Nitric Acid to pH < 2 **Dissolved Metals:** 0.45 µm filter, preserve to pH < 2 after filtration	NFG (1) Method (2)	Cooler Temps: **If required by project** J (pos)/UJ (ND) if greater than 6° C Aqueous: J (pos)/UJ (ND) if pH > 2	1	Use **PJ** to qualify for temperature outlier. Current SW846 criterion is ≤ 6° C (4) No quals for pH if samples preserved by lab immediately upon receipt and within 1 day of collection.
Holding Time	All matrices: 180 days from date sampled Frozen soils, sediments, tissues (-20°C) - HT extended to 1 year	NFG (1) Method (2) EcoChem standard policy	J (pos)/UJ (ND) if holding time exceeded	1	
Instrument Performance					
Tune	Analyzed prior to ICAL tunignsolution analyzed 5 times with Std. Dev. ≤ 5% Mass calibration < 0.1 amu difference from target mass Resolution < 0.9 amu @ 10% peak height	NFG (1) Method (2)	J(pos)/UJ(ND) if tune criteria not met	5A	Use **PJ** to evaluate tune. Alternate Resolution critteria may apply based on instrument specs (i.e <0.75 amu at 5% peak height)
Initial Calibration (ICAL)	Based on instrument requirements, blank + 1 standard minimum requirement for calibration If more than 1 standard used, r ≥ 0.995	NFG (1) Method (2)	J (pos)/UJ (ND) if r < 0.995	5A	
Initial Calibration Verification (ICV)	Independent source analyzed immediately after calibration %R within ± 10% of true value	NFG (1) Method (2)	R (pos/ND) if %R < 75% J (pos)/UJ (ND) if %R 75% - 89% J (pos) if %R >111%	5A (H,L)[3]	Qualify all samples in run
Reporting Limit (RL) Standard Low Level ICV/CCV	concentration at RL %R = 70%-130%	Method (2)	J (pos) < 2x RL / R (ND) if %R <50% J (pos) < 2x RL / UJ (ND) if %R 50 - 69% J (pos) < 2x RL if %R > 130%	5A (H,L)[3]	Qualify all samples in run

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Metals by ICP-MS
(Based on Inorganic NFG 2010 and SW-846 6020A)

QC Element	EcoChem Acceptance Criteria	Source of Criteria	EcoChem Action for Non-Conformance	Reason Code	Discussion and Comments
Instrument Performance cont'd					
Continuing Calibration Verification (CCV)	Immediately following ICV/ICB, then every two hours or ten samples, and at end of run. %R within ± 10% of true value	NFG [1] Method [2]	R (pos/ND) if %R < 75% J (pos)/UJ (ND) if %R 75% - 89% J (pos) if %R >111%	5B (H,L)[3]	Qualify samples bracketed by CCV outliers
Interference Check Samples (ICSA / ICSAB)	ICSAB %R 80% - 120% for all spiked elements | ICSA | < MDL for all unspiked elements	NFG [1] Method [2]	For samples with Al, Ca, Fe, Mg > ICS levels: **ICSAB**: J(pos)/R (ND) if %R < 50% J (pos)/UJ (ND) if %R = 50% - 79% J (pos) if %R > 120% **ICSA:** J (pos)< 2x ICSA/UJ (ND) for ICSA <Neg MDL J (pos) < 2x ICSA for ICSA > MDL	17 (H,L)[3]	Use **PJ** and molecular interferences to evaluate ICSA to determine if bias is present. Refer to **TM-14** for additional information.
Blank Contamination					
Method Blank (MB)	One per matrix per batch of (of ≤ 20 samples) Blank conc < MDL	NFG [1] Method [2]	U (pos) if result is < 5X method blank concentration	7	Refer to **TM-02** for additional information. Blank Evaluation based on NFG 1994
Instrument Blanks (ICB/CCB)	After each ICV & CCV | blank concentration | < MDL	NFG [1] Method [2]	Action level is 5x absolute value of blank conc. For positive blanks: U (pos) results < action level For negative blanks: J (pos)/UJ (ND) results < action level	Pos Blks: 7 Neg Blks: 7L[3]	Use blanks bracketing samples for Qualification Refer to **TM-02** for additional information. **Hierarchy of blank review: #1 - Review MB, quaify as needed #2 - Review IB , qualify as needed #3 - Review FB , qualify as needed**
Field Blank (FB)	Blank conc < MDL	EcoChem standard policy	U (pos) if result is < 5x action level, as per analyte.	6	Qualify in associated field samples only. Refer to **TM-02** for additional information.

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Metals by ICP-MS
(Based on Inorganic NFG 2010 and SW-846 6020A)

QC Element	EcoChem Acceptance Criteria	Source of Criteria	EcoChem Action for Non-Conformance	Reason Code	Discussion and Comments
Precision and Accuracy					
Internal Standards (IS)	Added to all samples. All analytes must be associated with an internal standard 60-125% of cal blank IS	NFG [1] Method [2]	J(pos)/UJ(ND) all analytes associated with IS outlier	19	6020A criteria - IS >70% of ICAL std
LCS (recovery)	One per matrix per batch (of ≤ 20 samples); LCSD not required %R between 80-120%	Method [2]	J (pos)/R (ND) if %R <50% J (pos)/UJ (ND) if %R 50% - 79% J (pos) if %R > 120%	10 (H,L)[3]	Qualify all samples in batch QAPP may have overriding accuracy limits. NFG Limits 70% -130%
LCS/LCSD (RPD)	LCSD not required, if analyzed: RPD ≤ 20%	Method [2]	J (pos)/UJ (ND) if RPD > 20%	9	Qualify all samples in batch QAPP may have overriding precision limits.
MS/MSD (recovery)	One per matrix per batch (of ≤ 20 samples); MSD not required %R between 75-125%	NFG [1] Method [2]	J (pos) if %R > 125% J (pos)/UJ (ND) if %R <75% J (pos)/R (ND) if %R < 30%, unless post digestion spike analyzed, J (pos)/UJ (ND) if post digestion spike %R OK	8 (H,L)[3]	No action if only one spike %R is outside criteria. NA if parent concentration >4x the amount spiked. Qualify all samples in batch. QAPP may have overriding accuracy limits.
Post Digestion Spikes	If MS is outside 75-125%, post-spike should be analyzed %R 80%-120% (method); 75%-125% (NFG)	NFG [1] Method [2]	Only used to support MS qualification decisions	NA	No qualifiers assigned based solely on this element.
MS/MSD (RPD)	MSD not required, if analyzed: RPD ≤ 20%	NFG [1] Method [2]	J (pos)/UJ (ND) if RPD > 20%	9	QAPP may have overriding precision limits.
Laboratory Duplicate	One per matrix per batch (of ≤ 20 samples) RPD ≤ 20% for results ≥ 5x RL Solids: difference < 2X RL for results < 5X RL Aqueous: difference < 1X RL for results < 5X RL	NFG [1] Method [2]	J (pos)/UJ (ND) if RPD > 20% or if difference > control limit	9	Qualify all samples in batch. QAPP may have overriding precision limits.

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Metals by ICP-MS
(Based on Inorganic NFG 2010 and SW-846 6020A)

QC Element	EcoChem Acceptance Criteria	Source of Criteria	EcoChem Action for Non-Conformance	Reason Code	Discussion and Comments
Precision and Accuracy cont'd					
Reference Material (RM, SRM, or CRM)	Result ±20% of the 95% confidence interval of the true value for analytes	EcoChem standard policy	J (pos)/UJ (ND) if < LCL J (pos) if > UCL	12 (H,L)[3]	QAPP may have overriding accuracy limits. Some manufacturers may have different RM control limits
Serial Dilution	Analyze one sample per matrix at a 5x dilution %D <10% for original sample conc. > 50x MDL	NFG [(1)]	J(pos)/UJ(ND) if %D > 10% and native sample concentration > 50x MDL	16	Note serial dilutions for soil are reported in ug/L, but the MDL is in mg/kg. The units need to be adjusted. Qualify all samples in batch.
Field Duplicate	Solids: RPD <50% OR difference < 2X RL (for results < 5X RL) Aqueous: RPD <35% OR difference < 1X RL (for results < 5X RL)	EcoChem standard policy	Narrate and qualify if required by project **(EcoChem PJ)** Qualify only field duplicate samples J(pos)/UJ(ND)	9	QAPP may have overriding precision limits.
Compound Quantitation					
Total and Dissolved Comparison	Total > Dissolved	EcoChem standard policy	J (pos)/UJ (ND) if Dissolved > Total and results fall outside of standard duplicate precision criteria	14	
Calibration Range	Results < instrument linear range	NFG [(1)] Method [(2)]	if result exceeds linear range and sample was not diluted J (pos)	20	
Dilutions, Re-extractions and/or Reanalyses	Report only one result per analyte	EcoChem standard policy	Use "DNR" to flag results that will not be reported.	11	**TM-04** EcoChem Policy for Rejection/Selection Process for Multiple Results

[1] National Functional Guidelines for Inorganic Superfund Data Review, January 2010.
[2] Method SW846 6020A Inductively Coupled Plasma-Mass Spectrometry (ICP-MS), Revision 1, February 2007.
[3] "H" = high bias indicated; "L" = low bias indicated
[4] SW846, Chapter 3, Inorganic Analytes

(pos): Positive Result
(ND): Not detected

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Mercury by CVAA
(Based on Inorganic NFG 2010 and SW846 7470A & 7471B)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Sample Handling					
Cooler / Storage Temperature Preservation	**Solid:** Cooler temperature 4°C±2°C **Aqueous:** Nitric Acid to pH < 2 **Dissolved Metals:** 0.45 µm filter, preserve to pH < 2 after filtration	NFG (1) Method (2)	Cooler Temps: **If required by project** J (pos)/UJ (ND) if greater than 6° C Aqueous: J (pos)/UJ (ND) if pH > 2	1	Use **PJ** to qualify for temperature outlier. Current SW846 criterion is ≤ 6° C (4) No quals for pH if samples preserved by lab immediately upon receipt and within 1 day of collection.
Holding Time	28 days from date sampled Frozen solids and tissues HT extended to 6 months	NFG (1) Method (2) EcoChem standard policy	J (pos)/UJ (ND) if HT exceeded	1	
Instrument Performance					
Initial Calibration (ICAL)	Daily Calibration Blank + 5 standards, one ≤ RL Correlation coefficient (r) ≥ 0.995	NFG (1) Method (2)	J (pos)/UJ (ND) if r < 0.995	5A (H,L)[3]	
Initial Calibration Verification (ICV)	Independent source analyzed immediately after ICAL %R within ± 15% of true value	NFG (1) Method (2)	R(pos/ND) if %R <70% J(pos)/UJ(ND) if %R = 70-84% J(pos) if %R = > 116%	5A (H,L)[3]	Qualify all samples in run
Reporting Limit (RL) Standard	Conc = RL %R = 70-130%	Method (2)	J (pos) < 2x RL / R (ND) if %R <50% J (pos) < 2x RL / UJ (ND) if %R 50 - 69% J (pos) < 2x RL if %R > 130%	5A (H,L)[3]	Qualify all samples in run
Continuing Calibration Verification (CCV)	At beginning of run, every ten samples, and again after last sample. %R within ± 15% of true value	NFG (1) Method (2)	R(pos/ND) if %R <70% J(pos)/UJ(ND) if %R = 70-84% J(pos) if %R = > 116%	5B (H,L)[3]	Qualify samples bracketed by CCV outliers
Blank Contamination					
Method Blank (MB)	One per matrix per batch of (of ≤ 20 samples) Blank conc < MDL	NFG (1) Method (2)	U (pos) if result is < 5X method blank concentration	7	Refer to **TM-02** for additional information. Blank Evaluation based on NFG 1994

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Mercury by CVAA
(Based on Inorganic NFG 2010 and SW846 7470A & 7471B)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Instrument Blanks (ICB/CCB)	After each ICV & CCV | blank concentration | < MDL	NFG (1) Method (2)	Action level is 5x absolute value of blank conc. For positive blanks: U (pos) results < action level For negative blanks: J (pos)/UJ (ND) results < action level	Pos Blanks: 7 Neg Blanks: 7L[3]	Use blanks bracketing samples for Qualification Refer to **TM-02** for additional information. **Hierarchy of blank review:** **#1 - Review MB, quaify as needed** **#2 - Review IB , qualify as needed** **#3 - Review FB , qualify as needed**
Field Blank (FB)	Blank conc < MDL	EcoChem standard policy	U (pos) if result is < 5x action level, as per analyte.	6	Qualify in associated field samples only. Refer to **TM-02** for additional information.
Precision and Accuracy					
Laboratroy Control Sample (recovery)	One per matrix per batch (of ≤ 20 samples); LCSD not required %R between 80-120%	Method (2)	J (pos)/R (ND) if %R <50% J (pos)/UJ (ND) if %R 50% - 79% J (pos) if %R > 120%	10 (H,L)[3]	Qualify all samples in batch QAPP may have overriding accuracy limits. NFG does not address LCS
LCS/LCSD (RPD)	LCSD not required, if analyzed: RPD ≤ 20%	Method (2)	J (pos)/UJ (ND) if RPD > 20%	9	Qualify all samples in batch QAPP may have overriding precision limits.
Matris Spike/Matrix Spike Duplicate MS/MSD (recovery)	One per matrix per batch (of ≤ 20 samples); MSD not required %R between 75-125%	NFG (1) Method (2)	J (pos) if %R > 125% J (pos)/UJ (ND) if %R <75% J (pos)/R (ND) if %R < 30%	8 (H,L)[3]	No action if only one spike %R is outside criteria. NA if parent concentration >4x the amount spiked. Qualify all samples in batch. QAPP may have overriding accuracy limits.
MS/MSD (RPD)	MSD not required, if analyzed: RPD ≤ 20%	NFG (1) Method (2)	J (pos)/UJ (ND) if RPD > 20%	9	QAPP may have overriding precision limits.
Laboratory Duplicate	One per matrix per batch (of ≤ 20 samples) RPD ≤ 20% for results ≥ 5x RL Solids: difference < 2X RL for results < 5X RL Aqueous: difference < 1X RL for results < 5X RL	NFG (1) Method (2)	J (pos)/UJ (ND) if RPD > 20% or if difference > control limit	9	Qualify all samples in batch. QAPP may have overriding precision limits.

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Mercury by CVAA
(Based on Inorganic NFG 2010 and SW846 7470A & 7471B)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Reference Material (RM, SRM, or CRM)	Result ±20% of the 95% confidence interval of the true value for analytes	EcoChem standard policy	J (pos)/UJ (ND) if < LCL J (pos) if > UCL	12 (H,L)[3]	QAPP may have overriding accuracy limits. Some manufacturers may have different RM control limits
Field Duplicate	Solids: RPD <50% (for results ≥ 5x RL) OR difference < 2X RL (for results < 5X RL) Aqueous: RPD <35% (for results ≥ 5x RL) OR difference < 1X RL (for results < 5X RL)	EcoChem standard policy	Qualify only parent and field duplicate samples J (pos)/UJ (ND)	9	QAPP may have overriding precision limits. Client/QAPP may not require qualification based on field precision.
Compound Quantitation					
Total and Dissolved Comparison	Total > Dissolved	EcoChem standard policy	J (pos)/UJ (ND) if Dissolved > Total and results fall outside of standard duplicate precision criteria	14	
Calibration Range	Results < instrument linear range	NFG (1) Method (2)	if result exceeds linear range and sample was not diluted J (pos)	20	
Dilutions, Re-extractions and/or Reanalyses	Report only one result per analyte	EcoChem standard policy	Use "DNR" to flag results that will not be reported.	11	**TM-04** EcoChem Policy for Rejection/Selection Process for Multiple Results

[1] National Functional Guidelines for Inorganic Superfund Data Review, January 2010.

[2] Method SW846 7470A Mercury in Liquid Waste (Manual Cold-Vapor Technique), Revision 1, September 1994.
Method SW846 7471B Mercury in Solid or Semisolid Waste (Manual Cold-Vapor Technique), Revision 2, February 2007.

[3] "H" = high bias indicated; "L" = low bias indicated

[4] SW846, Chapter 3, Inorganic Analytes

(pos): Positive Result
(ND): Not Detected

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Conventional Methods with Instrument Calibrations (i.e., Ion Chromatography, Total Organic Carbon)
(Based on Inorganic NFG 2010 and EPA methods)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Sample Handling					
Cooler/Storage Temperature Preservation	Cooler temperature: 4°C±2°C Preservation: Analyte/Method Specific	NFG [(1)] Method [(2)]	J (pos)/UJ (ND) if preservation requirements not met	1	Use **PJ** to qualify for cooler temp outliers.
Holding Time	Analyte/Method Specific	NFG [(1)] Method [(2)]	J (pos)/UJ (ND) if holding time exceeded	1	
Instrument Performance					
Initial Calibration (ICAL)	blank + multiple standards as per method requirements r ≥ 0.995	NFG [(1)] Method [(2)]	J (pos)/UJ (ND) for r < 0.995	5A	
Initial Calibration Verification (ICV)	Independent source analyzed immediately after calibration %R method specific	NFG [(1)] Method [(2)]	J (pos)/UJ (ND) if %R < lower control limit (LCL) J (pos) if %R > upper control limit (UCL)	5A (H,L)[3]	Qualify all samples in run
Continuing Calibration Verification (CCV)	Immediately following ICV, every 10 samples, and end of run %R method specific	NFG [(1)] Method [(2)]	J(pos)/UJ(ND) if %R < LCL J(pos) if %R > UCL	5B (H,L)[3]	Qualify samples bracketed by CCV outliers
Blank Contamination					
Method Blank (MB)	One per matrix per batch of (of ≤ 20 samples) Blank conc < MDL	NFG [(1)] Method [(2)]	U (pos) if result is < 5X method blank concentration	7	Refer to **TM-02** for additional information. Blank Evaluation based on NFG 1994

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Conventional Methods with Instrument Calibrations (i.e., Ion Chromatography, Total Organic Carbon)
(Based on Inorganic NFG 2010 and EPA methods)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Instrument Blanks (ICB/CCB)	After each ICV & CCV | blank concentration | < MDL	NFG [(1)] Method [(2)]	Action level is 5x absolute value of blank conc. For positive blanks: U (pos) results < action level For negative blanks: J (pos)/UJ (ND) results < action level	Pos Blanks: 7 Neg Blanks: 7L[3]	Use blanks bracketing samples for Qualification Refer to **TM-02** for additional information. **Hierarchy of blank review:** **#1 - Review MB, quaify as needed** **#2 - Review IB , qualify as needed** **#3 - Review FB , qualify as needed**
Field Blank (FB)	Blank conc < MDL	EcoChem standard policy	U (pos) if result is < 5x action level, as per analyte.	6	Qualify in associated field samples only. Refer to **TM-02** for additional information.
Precision and Accuracy					
Laboratory Control Sample (LCS)	One per matrix per batch (of ≤ 20 samples) %R within Method control limits (or Laboratory control limtis if none specified in method)	NFG [(1)] Method [(2)]	J (pos)/UJ (ND) if %R < LCL J (pos) if %R > UCL	10 (H,L)[3]	Qualify all samples in batch QAPP may have overriding accuracy limits.
Reference Materials (RM, CRM, SRM)	Result ±20% of the 95% confidence interval of the true value for analytes	EcoChem standard policy	J (pos)/UJ (ND) if < LCL J (pos) if > UCL	12 (H,L)[3]	QAPP may have overriding accuracy limits. Some manufacturers may have different RM control limits

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Conventional Methods with Instrument Calibrations (i.e., Ion Chromatography, Total Organic Carbon)
(Based on Inorganic NFG 2010 and EPA methods)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Matrix Spike/ Matrix Spike Duplicate (MS/MSD)	Where applicable to method; MSD may not be required One per matrix per batch (of ≤ 20 samples) For samples <4x spike level, %R within method control limits (or Laboratory control limtis if none specified in method)	NFG [1] Method [2]	J (pos)/UJ (ND) if %R < LCL J (pos) if %R > UCL	8 (H,L)3	Qualify all samples in batch No action if native analyte concentration ≥ 4x spike added. Qualify all samples in batch. QAPP may have overriding accuracy limits.
Laboratory Duplicate (or MS/MSD)	One per matrix per batch (of ≤ 20 samples) RPD ≤ 20% for results ≥ 5x RL Solids: difference < 2X RL for results < 5X RL Aqueous: difference < 1X RL for results < 5X RL	NFG [1] Method [2]	J (pos)/UJ (ND) if RPD > 20% or if difference > control limit	9	Qualify all samples in batch. QAPP may have overriding precision limits.
Field Duplicate	Solids: RPD <50% (for results ≥ 5x RL) OR difference < 2X RL (for results < 5X RL) Aqueous: RPD <35% (for results ≥ 5x RL) OR difference < 1X RL (for results < 5X RL)	EcoChem standard policy	Qualify only parent and field duplicate samples J (pos)/UJ (ND)	9	QAPP may have overriding precision limits. Client/QAPP may not require qualification based on field precision.
Compound Quantitation					
Linear Range	Sample concentrations less than highest calibration standard	NFG [1] Method [2]	If result exceeds linear range & sample was not diluted J (pos)	20	
Dilutions, Re-extractions and/or Reanalyses	Report only one result per analyte	EcoChem standard policy	Use "DNR" to flag results that will not be reported.	11	**TM-04** EcoChem Policy for Rejection/Selection Process for Multiple Results

[1] National Functional Guidelines for Inorganic Superfund Data Review, January 2010.
[2] SW846 or EPA Standard Methods
[3] "H" = high bias indicated; "L" = low bias indicated

(pos): Positive Result
(ND): Not Detected

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Conventional Methods by Gravimetric Analysis
(i.e., Total Solids, Total Dissolved Solids, Total Suspended Solids, Grain Size)
(Based on Inorganic NFG 2010 and EPA methods)

QC Element	EcoChem Acceptance Criteria	Source of Criteria	EcoChem Action for Non-Conformance	Reason Code	Discussion and Comments
Sample Handling					
Cooler/Storage Temperature Preservation	Cooler temperature: 4°C±2°C Preservation: Analyte/Method Specific	Method [(1)] NFG[(2)]	J (pos)/UJ (ND) if preservation requirements not met	1	Use **PJ** to qualify for cooler temp outliers.
Holding Time	Analyte/Method Specific	Method NFG[(2)]	J (pos)/UJ (ND) if holding time exceeded	1	
Blank Contamination					
Method Blank (MB)	If required by method,one per matrix per batch of (of ≤ 20 samples) Blank conc < MDL	NFG [(1)] Method [(2)]	U (pos) if result is < 5X method blank concentration	7	Refer to **TM-02** for additional information. Blank Evaluation based on NFG 1994
Precision and Accuracy					
LCS (If appropriate to method)	One per matrix per batch (of ≤ 20 samples) %R between 80-120%	Method [(2)]	J (pos)/R (ND) if %R <50% J (pos)/UJ (ND) if %R 50% - 79% J (pos) if %R > 120%	10 (H,L)[3]	Qualify all samples in batch QAPP may have overriding accuracy limits.
Reference Material (RM, SRM, or CRM)	Result ±20% of the 95% confidence interval of the true value for analytes	EcoChem standard policy	J (pos)/UJ (ND) if < LCL J (pos) if > UCL	12 (H,L)[3]	QAPP may have overriding accuracy limits. Some manufacturers may have different RM control limits

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Conventional Methods by Gravimetric Analysis
(i.e., Total Solids, Total Dissolved Solids, Total Suspended Solids, Grain Size)
(Based on Inorganic NFG 2010 and EPA methods)

QC Element	EcoChem Acceptance Criteria	Source of Criteria	EcoChem Action for Non-Conformance	Reason Code	Discussion and Comments
Laboratory Duplicate	One per matrix per batch (of ≤ 20 samples) RPD ≤ 20% for results ≥ 5x RL Solids: difference < 2X RL for results < 5X RL Aqueous: difference < 1X RL for results < 5X RL	NFG [1] Method [2]	J (pos)/UJ (ND) if RPD > 20% For Grain Size, no action if results for fraction are less than 5%	9	Qualify all samples in batch, except Grain Size - qualify parent only. QAPP may have overriding precision limits.
Field Duplicate	Solids: RPD <50% (for results ≥ 5x RL) OR difference < 2X RL (for results < 5X RL) Aqueous: RPD <35% (for results ≥ 5x RL) OR difference < 1X RL (for results < 5X RL)	EcoChem standard policy	Qualify only parent and field duplicate samples J (pos)/UJ (ND)	9	QAPP may have overriding precision limits. Client/QAPP may not require qualification based on field precision.
Compound Quantitation					
Dilutions, Re-extractions and/or Reanalyses	Report only one result per analyte per sample	EcoChem standard policy	Use "DNR" to flag results that will not be reported.	11	

[1] National Functional Guidelines for Inorganic Superfund Data Review, January 2010.
[2] SW846 or EPA Standard Methods
[3] "H" = high bias indicated; "L" = low bias indicated

(pos): Positive Result
(ND): Not Detected

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ECOCHEM
Data Quality

APPENDIX B

QUALIFIED DATA SUMMARY TABLE

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG64578	LDW18-SP-01	L29628-22	EPA 1613B	1,2,3,4,6,7,8-HpCDD	0.666	pg/L	K J	U	25
WG64578	LDW18-SP-01	L29628-22	EPA 1613B	OCDD	3.23	pg/L	B J	U	7
WG64578	LDW18-SP-01	L29628-22	EPA 1613B	Total TCDD	0.686	pg/L	K	J	25
WG64578	LDW18-SP-01	L29628-22	EPA 1613B	Total HxCDD	1.13	pg/L	K	U	6
WG64578	LDW18-SP-01	L29628-22	EPA 1613B	Total HpCDD	1.89	pg/L	K	U	6
WG64578	LDW18-SP-24	L29628-11	EPA 1613B	1,2,3,4,6,7,8-HpCDD	0.704	pg/L	K J	U	25
WG64578	LDW18-SP-24	L29628-11	EPA 1613B	OCDD	5.35	pg/L	K B J	U	25
WG64578	LDW18-SP-24	L29628-11	EPA 1613B	Total HxCDD	0.897	pg/L	K	U	6
WG64578	LDW18-SP-24	L29628-11	EPA 1613B	Total HpCDD	3.15	pg/L	K	U	6
WG64578	LDW18-SP-24-FD	L29628-12	EPA 1613B	OCDD	2.41	pg/L	K B J	U	25
WG64578	LDW18-SP-24-FD	L29628-12	EPA 1613B	Total TCDD	0.601	pg/L	K	J	25
WG64578	LDW18-SP-24-FD	L29628-12	EPA 1613B	Total HxCDD	0.642	pg/L	K	U	6
WG64578	LDW18-SP-24-FD	L29628-12	EPA 1613B	Total HpCDD	0.92	pg/L	K	U	6
WG64578	LDW18-SP-24-FD	L29628-12	EPA 1613B	Total TCDF	0.522	pg/L	K	U	6
WG64578	LDW18-SP-42	L29628-7	EPA 1613B	1,2,3,4,6,7,8-HpCDD	0.904	pg/L	K J	U	25
WG64578	LDW18-SP-42	L29628-7	EPA 1613B	OCDD	2.98	pg/L	B J	U	7
WG64578	LDW18-SP-42	L29628-7	EPA 1613B	1,2,3,7,8-PeCDF	0.654	pg/L	J	U	6
WG64578	LDW18-SP-42	L29628-7	EPA 1613B	OCDF	0.477	pg/L	K J	U	25
WG64578	LDW18-SP-42	L29628-7	EPA 1613B	Total TCDD	0.504	pg/L	K	J	25
WG64578	LDW18-SP-42	L29628-7	EPA 1613B	Total HxCDD	0.749	pg/L	K	U	6
WG64578	LDW18-SP-42	L29628-7	EPA 1613B	Total HpCDD	1.41	pg/L	K	U	6
WG64578	LDW18-SP-42	L29628-7	EPA 1613B	Total TCDF	0.619	pg/L	K	U	6
WG64578	LDW18-SP-42	L29628-7	EPA 1613B	Total PeCDF	0.654	pg/L		U	6
WG64578	LDW18-SP-57	L29628-14	EPA 1613B	1,2,3,4,6,7,8-HpCDD	0.528	pg/L	K J	U	25
WG64578	LDW18-SP-57	L29628-14	EPA 1613B	OCDD	2.5	pg/L	K B J	U	25
WG64578	LDW18-SP-57	L29628-14	EPA 1613B	Total HxCDD	0.859	pg/L	K	U	6
WG64578	LDW18-SP-57	L29628-14	EPA 1613B	Total HpCDD	0.528	pg/L	K	U	6
WG64578	LDW18-SP-66	L29628-25	EPA 1613B	1,2,3,4,6,7,8-HpCDD	1.07	pg/L	K J	U	25
WG64578	LDW18-SP-66	L29628-25	EPA 1613B	Total HxCDD	0.611	pg/L	K	U	6
WG64578	LDW18-SP-66	L29628-25	EPA 1613B	Total HpCDD	3.02	pg/L	K	U	6
WG64578	LDW18-SP-66	L29628-25	EPA 1613B	Total HpCDF	0.667	pg/L	K	J	25

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG64578	LDW18-SP-70	L29628-26	EPA 1613B	OCDD	1.13	pg/L	B J	U	7
WG64578	LDW18-SP-70	L29628-26	EPA 1613B	Total TCDD	0.501	pg/L	K	J	25
WG64578	LDW18-SP-70	L29628-26	EPA 1613B	Total HxCDD	0.531	pg/L	K	U	6
WG64578	LDW18-SP-70	L29628-26	EPA 1613B	Total TCDF	0.489	pg/L	K	U	6
WG64578	LDW18-SP-77	L29628-17	EPA 1613B	OCDD	0.665	pg/L	K B J	U	25
WG64578	LDW18-SP-77	L29628-17	EPA 1613B	Total TCDD	0.532	pg/L	K	J	25
WG64578	LDW18-SP-77	L29628-17	EPA 1613B	Total HxCDD	0.746	pg/L	K	U	6
WG64578	LDW18-SP-78	L29628-18 L	EPA 1613B	1,2,3,4,6,7,8-HpCDD	1.63	pg/L	K J	U	25
WG64578	LDW18-SP-78	L29628-18 L	EPA 1613B	2,3,7,8-TCDF	0.736	pg/L	K J	DNR	11
WG64578	LDW18-SP-78	L29628-18 L	EPA 1613B	1,2,3,7,8-PeCDF	0.485	pg/L	K J	U	25
WG64578	LDW18-SP-78	L29628-18 L	EPA 1613B	1,2,3,4,6,7,8-HpCDF	1.22	pg/L	K J	U	25
WG64578	LDW18-SP-78	L29628-18 L	EPA 1613B	OCDF	0.819	pg/L	K J	U	25
WG64578	LDW18-SP-78	L29628-18 L	EPA 1613B	Total HxCDD	1.04	pg/L	K	U	6
WG64578	LDW18-SP-78	L29628-18 L	EPA 1613B	Total HpCDD	3.28	pg/L	K	U	6
WG64578	LDW18-SP-78	L29628-18 L	EPA 1613B	Total TCDF	0.736	pg/L	K	U	6
WG64578	LDW18-SP-78	L29628-18 L	EPA 1613B	Total PeCDF	0.485	pg/L	K	U	6
WG64578	LDW18-SP-78	L29628-18 L	EPA 1613B	Total HxCDF	1.37	pg/L	K	J	25
WG64578	LDW18-SP-78	L29628-18 L	EPA 1613B	Total HpCDF	2.29	pg/L	K	J	25
WG64578	LDW18-SP-79	L29628-19	EPA 1613B	1,2,3,4,6,7,8-HpCDD	0.605	pg/L	K J	U	25
WG64578	LDW18-SP-79	L29628-19	EPA 1613B	OCDD	3.27	pg/L	K B J	U	25
WG64578	LDW18-SP-79	L29628-19	EPA 1613B	Total TCDD	0.59	pg/L	K	J	25
WG64578	LDW18-SP-79	L29628-19	EPA 1613B	Total HxCDD	0.664	pg/L	K	U	6
WG64578	LDW18-SP-79	L29628-19	EPA 1613B	Total HpCDD	0.605	pg/L	K	U	6
WG64578	LDW18-SP-86	L29628-28 i	EPA 1613B	1,2,3,4,6,7,8-HpCDD	0.706	pg/L	K J	U	25
WG64578	LDW18-SP-86	L29628-28 i	EPA 1613B	OCDD	4.39	pg/L	B J	U	7
WG64578	LDW18-SP-86	L29628-28 i	EPA 1613B	1,2,3,7,8,9-HxCDF	0.475	pg/L	K J	U	25
WG64578	LDW18-SP-86	L29628-28 i	EPA 1613B	OCDF	0.544	pg/L	K J	U	25
WG64578	LDW18-SP-86	L29628-28 i	EPA 1613B	Total TCDD	0.524	pg/L	K	J	25
WG64578	LDW18-SP-86	L29628-28 i	EPA 1613B	Total HxCDD	1.06	pg/L	K	U	6
WG64578	LDW18-SP-86	L29628-28 i	EPA 1613B	Total HpCDD	1.76	pg/L	K	U	6
WG64578	LDW18-SP-86	L29628-28 i	EPA 1613B	Total TCDF	0.532	pg/L		U	6

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG64578	LDW18-SP-86	L29628-28 i	EPA 1613B	Total HxCDF	0.475	pg/L	K	J	25
WG64578	LDW18-SP-87	L29628-21	EPA 1613B	1,2,3,4,6,7,8-HpCDD	1.17	pg/L	K J	U	25
WG64578	LDW18-SP-87	L29628-21	EPA 1613B	Total HxCDD	0.749	pg/L	K	U	6
WG64578	LDW18-SP-87	L29628-21	EPA 1613B	Total HpCDD	2.59	pg/L	K	U	6
WG64578	LDW18-SP-87	L29628-21	EPA 1613B	Total HpCDF	0.522	pg/L	K	J	25
WG64578	LDW18-SP-88	L29628-29	EPA 1613B	2,3,7,8-TCDD	0.554	pg/L	K J	U	25
WG64578	LDW18-SP-88	L29628-29	EPA 1613B	1,2,3,4,6,7,8-HpCDD	0.538	pg/L	K J	U	25
WG64578	LDW18-SP-88	L29628-29	EPA 1613B	OCDD	2.5	pg/L	B J	U	7
WG64578	LDW18-SP-88	L29628-29	EPA 1613B	Total TCDD	1.08	pg/L	K	J	25
WG64578	LDW18-SP-88	L29628-29	EPA 1613B	Total HxCDD	0.698	pg/L	K	U	6
WG64578	LDW18-SP-88	L29628-29	EPA 1613B	Total HpCDD	1.34	pg/L	K	U	6
WG64578	LDW18-SP-RB1	L29628-1	EPA 1613B	1,2,3,4,6,7,8-HpCDD	0.625	pg/L	K J	U	25
WG64578	LDW18-SP-RB1	L29628-1	EPA 1613B	OCDD	0.831	pg/L	K B J	U	25
WG64578	LDW18-SP-RB1	L29628-1	EPA 1613B	2,3,7,8-TCDF	0.56	pg/L	J	DNR	11
WG64578	LDW18-SP-RB1	L29628-1	EPA 1613B	Total HxCDD	0.778	pg/L	K	U	6
WG64578	LDW18-SP-RB1	L29628-1	EPA 1613B	Total HpCDD	1.27	pg/L	K	U	6
WG64578	LDW18-SP-RB1	L29628-1	EPA 1613B	Total TCDF	1.22	pg/L	K	U	6
18F0185	LDW18-SP-01	18F0248-01	EPA 6020	Chromium	4.78	ug/L	D J	U	6
18F0185	LDW18-SP-01	18F0248-01	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-01	18F0248-01	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-01	18F0248-01	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-01	18F0248-01	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-01	18F0248-01	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-01	18F0248-01	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-01	18F0248-01	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-01	18F0248-01	EPA 8270D-SIM	Phenanthrene	0.038	ug/L		U	6
18F0185	LDW18-SP-01	18F0248-01	EPA 8270D-SIM	2-Methylnaphthalene	0.003	ug/L	J	U	6
18F0185	LDW18-SP-01	18F0248-01	SM 5310-B	Dissolved Organic carbon	1.7	mg/L		DNR	11
18F0185	LDW18-SP-01	18F0248-01RE2	SM 5310-B	Total Organic carbon (TOC)	1.7	mg/L		DNR	11
18F0185	LDW18-SP-01	18F0248-01RE3	SM 5310-B	Total Organic carbon (TOC)	1.77	mg/L		UJ	1,9,14
18F0185	LDW18-SP-01	18F0248-01RE3	SM 5310-B	Dissolved Organic carbon	2.52	mg/L		J	1,14

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
18F0185	LDW18-SP-05	18F0226-01	EPA 6020	Zinc	7.22	ug/L	D J	U	6
18F0185	LDW18-SP-05	18F0226-01	EPA 6020	Chromium	5.62	ug/L	D	U	6
18F0185	LDW18-SP-05	18F0226-01	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-05	18F0226-01	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-05	18F0226-01	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-05	18F0226-01	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-05	18F0226-01	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-05	18F0226-01	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-05	18F0226-01	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-05	18F0226-01	EPA 8270D-SIM	Phenanthrene	0.006	ug/L	J	U	6
18F0185	LDW18-SP-05	18F0226-01	EPA 8270D-SIM	2-Methylnaphthalene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-05	18F0226-01	SM 2540-D	Total Suspended solids	11	mg/L		J	9
18F0185	LDW18-SP-05	18F0226-01RE3	SM 5310-B	Total Organic carbon (TOC)	1.33	mg/L		UJ	1,6
18F0185	LDW18-SP-06	18F0208-01	EPA 6020	Chromium	4.17	ug/L	D J	U	6
18F0185	LDW18-SP-06	18F0208-01	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-06	18F0208-01	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-06	18F0208-01	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-06	18F0208-01	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-06	18F0208-01	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-06	18F0208-01	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-06	18F0208-01	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-06	18F0208-01	EPA 8270D-SIM	Phenanthrene	0.004	ug/L	J	U	6
18F0185	LDW18-SP-06	18F0208-01	EPA 8270D-SIM	2-Methylnaphthalene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-06	18F0208-01	SM 2540-D	Total Suspended solids	8	mg/L		J	9
18F0185	LDW18-SP-06	18F0208-01	SM 5310-B	Total Organic carbon (TOC)	1.65	mg/L		U	6
18F0185	LDW18-SP-24	18F0208-03	EPA 6020	Chromium	2.09	ug/L	D J	U	6
18F0185	LDW18-SP-24	18F0208-03	EPA 6020	Copper	1.86	ug/L	D J	U	6
18F0185	LDW18-SP-24	18F0208-03	EPA 6020	Zinc	4.41	ug/L	D J	U	6
18F0185	LDW18-SP-24	18F0208-03	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-24	18F0208-03	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-24	18F0208-03	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
18F0185	LDW18-SP-24	18F0208-03	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-24	18F0208-03	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-24	18F0208-03	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-24	18F0208-03	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-24	18F0208-03	EPA 8270D-SIM	Phenanthrene	0.003	ug/L	J	U	6
18F0185	LDW18-SP-24	18F0208-03	EPA 8270D-SIM	2-Methylnaphthalene	0.001	ug/L	J	U	6
18F0185	LDW18-SP-24	18F0208-03	SM 2540-D	Total Suspended solids	33	mg/L		J	9
18F0185	LDW18-SP-24-FD	18F0208-04	EPA 6020	Chromium	2.08	ug/L	D J	U	6
18F0185	LDW18-SP-24-FD	18F0208-04	EPA 6020	Copper	2.08	ug/L	D J	U	6
18F0185	LDW18-SP-24-FD	18F0208-04	EPA 6020	Zinc	4.94	ug/L	D J	U	6
18F0185	LDW18-SP-24-FD	18F0208-04	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-24-FD	18F0208-04	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-24-FD	18F0208-04	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-24-FD	18F0208-04	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-24-FD	18F0208-04	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-24-FD	18F0208-04	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-24-FD	18F0208-04	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-24-FD	18F0208-04	EPA 8270D-SIM	Phenanthrene	0.046	ug/L		U	6
18F0185	LDW18-SP-24-FD	18F0208-04	EPA 8270D-SIM	2-Methylnaphthalene	0.01	ug/L	J	U	6
18F0185	LDW18-SP-24-FD	18F0208-04	SM 2540-D	Total Suspended solids	22	mg/L		J	9
18F0185	LDW18-SP-30	18F0185-03	EPA 6020	Chromium	3.07	ug/L	D	U	6
18F0185	LDW18-SP-30	18F0185-03	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-30	18F0185-03	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-30	18F0185-03	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-30	18F0185-03	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-30	18F0185-03	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-30	18F0185-03	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-30	18F0185-03	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-30	18F0185-03	EPA 8270D-SIM	Phenanthrene	0.037	ug/L		U	6
18F0185	LDW18-SP-30	18F0185-03	EPA 8270D-SIM	Fluorene	0.008	ug/L	J	U	6
18F0185	LDW18-SP-30	18F0185-03	EPA 8270D-SIM	Naphthalene	0.003	ug/L	B J	U	6

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
18F0185	LDW18-SP-30	18F0185-03	EPA 8270D-SIM	2-Methylnaphthalene	0.004	ug/L	B J	U	6
18F0185	LDW18-SP-30	18F0185-03	SM 5310-B	Total Organic carbon (TOC)	2.24	mg/L		U	6
18F0185	LDW18-SP-32	18F0185-04	EPA 6020	Chromium	3.35	ug/L	D	U	6
18F0185	LDW18-SP-32	18F0185-04	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-32	18F0185-04	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-32	18F0185-04	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-32	18F0185-04	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-32	18F0185-04	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-32	18F0185-04	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-32	18F0185-04	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-32	18F0185-04	EPA 8270D-SIM	Phenanthrene	0.004	ug/L	J	U	6
18F0185	LDW18-SP-32	18F0185-04	EPA 8270D-SIM	Naphthalene	0.002	ug/L	B J	U	6
18F0185	LDW18-SP-32	18F0185-04	EPA 8270D-SIM	2-Methylnaphthalene	0.002	ug/L	B J	U	6
18F0185	LDW18-SP-32	18F0185-04	SM 5310-B	Total Organic carbon (TOC)	1.67	mg/L		U	6
18F0185	LDW18-SP-33	18F0208-02	EPA 6020	Chromium	2.81	ug/L	D	U	6
18F0185	LDW18-SP-33	18F0208-02	EPA 6020	Copper	2.15	ug/L	D J	U	6
18F0185	LDW18-SP-33	18F0208-02	EPA 6020	Zinc	4.49	ug/L	D J	U	6
18F0185	LDW18-SP-33	18F0208-02	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-33	18F0208-02	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-33	18F0208-02	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-33	18F0208-02	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-33	18F0208-02	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-33	18F0208-02	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-33	18F0208-02	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-33	18F0208-02	EPA 8270D-SIM	Acenaphthene	1.21	ug/L	E	DNR	20
18F0185	LDW18-SP-33	18F0208-02	EPA 8270D-SIM	Phenanthrene	0.25	ug/L		U	6
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Anthracene	0.06	ug/L	D	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Pyrene	0.112	ug/L	D	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Benzo(g,h,i)perylene		ug/L	D U	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Indeno(1,2,3-cd)pyrene		ug/L	D U	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Benzo(j)fluoranthene		ug/L	D U	DNR	11

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Benzo(b)fluoranthene	0.004	ug/L	D J	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Fluoranthene	0.334	ug/L	D	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Benzo(k)fluoranthene		ug/L	D U	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Acenaphthylene	0.018	ug/L	D J	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Chrysene	0.006	ug/L	D J	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Benzo(a)pyrene		ug/L	D U	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Dibenzo(a,h)anthracene		ug/L	D U	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Benzo(a)anthracene	0.007	ug/L	D J	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Phenanthrene	0.273	ug/L	D	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Fluorene	0.795	ug/L	D	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Naphthalene	0.226	ug/L	D	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	2-Methylnaphthalene	0.041	ug/L	D	DNR	11
18F0185	LDW18-SP-33	18F0208-02	SM 2540-D	Total Suspended solids	36	mg/L		J	9
18F0185	LDW18-SP-35	18F0185-05	EPA 6020	Chromium	3.93	ug/L	D	U	6
18F0185	LDW18-SP-35	18F0185-05	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-35	18F0185-05	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-35	18F0185-05	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-35	18F0185-05	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-35	18F0185-05	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-35	18F0185-05	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-35	18F0185-05	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-35	18F0185-05	EPA 8270D-SIM	Phenanthrene	0.003	ug/L	J	U	6
18F0185	LDW18-SP-35	18F0185-05	EPA 8270D-SIM	Naphthalene	0.002	ug/L	B J	U	6
18F0185	LDW18-SP-35	18F0185-05	EPA 8270D-SIM	2-Methylnaphthalene	0.002	ug/L	B J	U	6
18F0185	LDW18-SP-38	18F0185-06	EPA 6020	Chromium	3.14	ug/L	D	U	6
18F0185	LDW18-SP-38	18F0185-06	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-38	18F0185-06	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-38	18F0185-06	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-38	18F0185-06	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-38	18F0185-06	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-38	18F0185-06	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
18F0185	LDW18-SP-38	18F0185-06	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Anthracene	0.001	ug/L	J	J	13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Pyrene	0.002	ug/L	J	J	13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Benzo(g,h,i)perylene		ug/L	U	UJ	13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Indeno(1,2,3-cd)pyrene		ug/L	U	UJ	13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Benzo(j)fluoranthene		ug/L	U	UJ	13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Benzo(b)fluoranthene		ug/L	U	UJ	13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Fluoranthene	0.009	ug/L	J	J	13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Benzo(k)fluoranthene		ug/L	U	UJ	13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Acenaphthylene		ug/L	U	UJ	13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Chrysene		ug/L	U	UJ	13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Benzo(a)pyrene		ug/L	U	UJ	13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Dibenzo(a,h)anthracene		ug/L	U	UJ	13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Benzo(a)anthracene		ug/L	U	UJ	13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Acenaphthene	0.011	ug/L		J	13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Phenanthrene	0.01	ug/L	J	UJ	6,13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Fluorene	0.002	ug/L	J	UJ	6,13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Naphthalene	0.003	ug/L	B J	UJ	6,13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	2-Methylnaphthalene	0.001	ug/L	B J	UJ	6,13L
18F0185	LDW18-SP-38	18F0185-06	SM 5310-B	Total Organic carbon (TOC)	1.89	mg/L		U	6
18F0185	LDW18-SP-42	18F0185-07	EPA 6020	Chromium	0.638	ug/L		U	6
18F0185	LDW18-SP-42	18F0185-07	EPA 6020	Copper	1.8	ug/L	D J	U	6
18F0185	LDW18-SP-42	18F0185-07	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-42	18F0185-07	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-42	18F0185-07	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-42	18F0185-07	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-42	18F0185-07	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-42	18F0185-07	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-42	18F0185-07	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Anthracene		ug/L	U	UJ	13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Pyrene	0.002	ug/L	J	J	13L

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Benzo(g,h,i)perylene		ug/L	U	UJ	13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Indeno(1,2,3-cd)pyrene		ug/L	U	UJ	13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Benzo(j)fluoranthene		ug/L	U	UJ	13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Benzo(b)fluoranthene		ug/L	U	UJ	13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Fluoranthene	0.003	ug/L	J	J	13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Benzo(k)fluoranthene		ug/L	U	UJ	13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Acenaphthylene		ug/L	U	UJ	13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Chrysene		ug/L	U	UJ	13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Benzo(a)pyrene		ug/L	U	UJ	13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Dibenzo(a,h)anthracene		ug/L	U	UJ	13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Benzo(a)anthracene		ug/L	U	UJ	13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Acenaphthene		ug/L	U	UJ	13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Phenanthrene	0.003	ug/L	J	UJ	6,13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Fluorene		ug/L	U	UJ	13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Naphthalene	0.002	ug/L	B J	UJ	6,13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	2-Methylnaphthalene	0.001	ug/L	B J	UJ	6,13L
18F0185	LDW18-SP-43	18F0185-08	EPA 6020	Chromium	3.46	ug/L	D J	U	6
18F0185	LDW18-SP-43	18F0185-08	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-43	18F0185-08	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-43	18F0185-08	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-43	18F0185-08	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-43	18F0185-08	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-43	18F0185-08	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-43	18F0185-08	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-43	18F0185-08	EPA 8270D-SIM	2-Methylnaphthalene	0.001	ug/L	B J	U	6
18F0185	LDW18-SP-43	18F0185-08	SM 5310-B	Total Organic carbon (TOC)	0.87	mg/L		U	6
18F0185	LDW18-SP-45	18F0248-02	EPA 6020	Copper	3.42	ug/L	D	U	6
18F0185	LDW18-SP-45	18F0248-02	EPA 6020	Zinc	5.49	ug/L	D J	U	6
18F0185	LDW18-SP-45	18F0248-02	EPA 6020	Chromium	4.15	ug/L	D J	U	6
18F0185	LDW18-SP-45	18F0248-02	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-45	18F0248-02	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
18F0185	LDW18-SP-45	18F0248-02	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-45	18F0248-02	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-45	18F0248-02	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-45	18F0248-02	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-45	18F0248-02	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-45	18F0248-02	EPA 8270D-SIM	Phenanthrene	0.007	ug/L	J	U	6
18F0185	LDW18-SP-45	18F0248-02	EPA 8270D-SIM	Fluorene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-45	18F0248-02	EPA 8270D-SIM	2-Methylnaphthalene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-45	18F0248-02	SM 5310-B	Dissolved Organic carbon	1.74	mg/L		DNR	11
18F0185	LDW18-SP-45	18F0248-02RE2	SM 5310-B	Total Organic carbon (TOC)	1.69	mg/L		DNR	11
18F0185	LDW18-SP-45	18F0248-02RE3	SM 5310-B	Total Organic carbon (TOC)	1.81	mg/L		UJ	1,6,9,14
18F0185	LDW18-SP-45	18F0248-02RE3	SM 5310-B	Dissolved Organic carbon	3.87	mg/L		J	1,14
18F0185	LDW18-SP-47	18F0248-03	EPA 6020	Copper	2.98	ug/L	D	U	6
18F0185	LDW18-SP-47	18F0248-03	EPA 6020	Zinc	7.2	ug/L	D J	U	6
18F0185	LDW18-SP-47	18F0248-03	EPA 6020	Chromium	5.86	ug/L	D	U	6
18F0185	LDW18-SP-47	18F0248-03	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-47	18F0248-03	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-47	18F0248-03	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-47	18F0248-03	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-47	18F0248-03	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-47	18F0248-03	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-47	18F0248-03	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-47	18F0248-03	EPA 8270D-SIM	Phenanthrene	0.008	ug/L	J	U	6
18F0185	LDW18-SP-47	18F0248-03	EPA 8270D-SIM	Fluorene	0.003	ug/L	J	U	6
18F0185	LDW18-SP-47	18F0248-03	EPA 8270D-SIM	2-Methylnaphthalene	0.003	ug/L	J	U	6
18F0185	LDW18-SP-47	18F0248-03	SM 5310-B	Dissolved Organic carbon	1.55	mg/L		DNR	11
18F0185	LDW18-SP-47	18F0248-03RE2	SM 5310-B	Total Organic carbon (TOC)	1.51	mg/L		DNR	11
18F0185	LDW18-SP-47	18F0248-03RE3	SM 5310-B	Total Organic carbon (TOC)	1.63	mg/L		UJ	1,6,9,14
18F0185	LDW18-SP-47	18F0248-03RE3	SM 5310-B	Dissolved Organic carbon	2.86	mg/L		J	1,14
18F0185	LDW18-SP-57	18F0226-02	EPA 6020	Copper	1.84	ug/L	D J	U	6
18F0185	LDW18-SP-57	18F0226-02	EPA 6020	Zinc	6.54	ug/L	D J	U	6

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
18F0185	LDW18-SP-57	18F0226-02	EPA 6020	Chromium	5.71	ug/L	D	U	6
18F0185	LDW18-SP-57	18F0226-02	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-57	18F0226-02	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-57	18F0226-02	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-57	18F0226-02	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-57	18F0226-02	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-57	18F0226-02	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-57	18F0226-02	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-57	18F0226-02	EPA 8270D-SIM	Phenanthrene	0.003	ug/L	J	U	6
18F0185	LDW18-SP-57	18F0226-02	EPA 8270D-SIM	Fluorene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-57	18F0226-02	EPA 8270D-SIM	2-Methylnaphthalene	0.001	ug/L	J	U	6
18F0185	LDW18-SP-57	18F0226-02	SM 2540-D	Total Suspended solids	17	mg/L		J	9
18F0185	LDW18-SP-57	18F0226-02RE4	SM 5310-B	Total Organic carbon (TOC)	1.31	mg/L		UJ	1,6
18F0185	LDW18-SP-66	18F0248-04	EPA 6020	Copper	3.44	ug/L	D	U	6
18F0185	LDW18-SP-66	18F0248-04	EPA 6020	Chromium	5	ug/L	D	U	6
18F0185	LDW18-SP-66	18F0248-04	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-66	18F0248-04	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-66	18F0248-04	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-66	18F0248-04	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-66	18F0248-04	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-66	18F0248-04	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-66	18F0248-04	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-66	18F0248-04	EPA 8270D-SIM	Phenanthrene	0.007	ug/L	J	U	6
18F0185	LDW18-SP-66	18F0248-04	EPA 8270D-SIM	Fluorene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-66	18F0248-04	EPA 8270D-SIM	2-Methylnaphthalene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-66	18F0248-04	SM 5310-B	Dissolved Organic carbon	1.36	mg/L		DNR	11
18F0185	LDW18-SP-66	18F0248-04RE2	SM 5310-B	Total Organic carbon (TOC)	1.37	mg/L		DNR	11
18F0185	LDW18-SP-66	18F0248-04RE3	SM 5310-B	Total Organic carbon (TOC)	1.43	mg/L		UJ	1,6,9
18F0185	LDW18-SP-66	18F0248-04RE3	SM 5310-B	Dissolved Organic carbon	1.57	mg/L		J	1
18F0185	LDW18-SP-70	18F0248-05RE1	EPA 6020	Chromium	6.56	ug/L	D J	U	6
18F0185	LDW18-SP-70	18F0248-05	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
18F0185	LDW18-SP-70	18F0248-05	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-70	18F0248-05	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-70	18F0248-05	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-70	18F0248-05	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-70	18F0248-05	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-70	18F0248-05	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-70	18F0248-05	EPA 8270D-SIM	Phenanthrene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-70	18F0248-05	EPA 8270D-SIM	2-Methylnaphthalene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-70	18F0248-05	SM 5310-B	Dissolved Organic carbon	0.9	mg/L		DNR	11
18F0185	LDW18-SP-70	18F0248-05RE2	SM 5310-B	Total Organic carbon (TOC)	0.9	mg/L		DNR	11
18F0185	LDW18-SP-70	18F0248-05RE3	SM 5310-B	Total Organic carbon (TOC)	0.94	mg/L		UJ	1,6,9,14
18F0185	LDW18-SP-70	18F0248-05RE3	SM 5310-B	Dissolved Organic carbon	1.23	mg/L		J	1,14
18F0185	LDW18-SP-73	18F0226-03	EPA 6020	Copper	3.34	ug/L	D	U	6
18F0185	LDW18-SP-73	18F0226-03	EPA 6020	Chromium	2.98	ug/L	D J	U	6
18F0185	LDW18-SP-73	18F0226-03	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-73	18F0226-03	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-73	18F0226-03	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-73	18F0226-03	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-73	18F0226-03	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-73	18F0226-03	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-73	18F0226-03	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-73	18F0226-03	EPA 8270D-SIM	Phenanthrene	0.006	ug/L	J	U	6
18F0185	LDW18-SP-73	18F0226-03	EPA 8270D-SIM	Fluorene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-73	18F0226-03	EPA 8270D-SIM	2-Methylnaphthalene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-73	18F0226-03	SM 2540-D	Total Suspended solids	39	mg/L		J	9
18F0185	LDW18-SP-73	18F0226-03RE3	SM 5310-B	Dissolved Organic carbon	3.03	mg/L		J	1
18F0185	LDW18-SP-73	18F0226-03RE3	SM 5310-B	Total Organic carbon (TOC)	2.9	mg/L		J	1
18F0185	LDW18-SP-74	18F0226-04	EPA 6020	Copper	2.11	ug/L	D J	U	6
18F0185	LDW18-SP-74	18F0226-04	EPA 6020	Chromium	5.62	ug/L	D	U	6
18F0185	LDW18-SP-74	18F0226-04	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-74	18F0226-04	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
18F0185	LDW18-SP-74	18F0226-04	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-74	18F0226-04	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-74	18F0226-04	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-74	18F0226-04	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-74	18F0226-04	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-74	18F0226-04	EPA 8270D-SIM	Phenanthrene	0.005	ug/L	J	U	6
18F0185	LDW18-SP-74	18F0226-04	EPA 8270D-SIM	2-Methylnaphthalene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-74	18F0226-04	SM 2540-D	Total Suspended solids	28	mg/L		J	9
18F0185	LDW18-SP-74	18F0226-04RE3	SM 5310-B	Dissolved Organic carbon	2.33	mg/L		J	1
18F0185	LDW18-SP-74	18F0226-04RE3	SM 5310-B	Total Organic carbon (TOC)	2.24	mg/L		UJ	1,6
18F0185	LDW18-SP-77	18F0226-05	EPA 6020	Chromium	5.11	ug/L	D	U	6
18F0185	LDW18-SP-77	18F0226-05	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-77	18F0226-05	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-77	18F0226-05	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-77	18F0226-05	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-77	18F0226-05	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-77	18F0226-05	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-77	18F0226-05	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-77	18F0226-05	EPA 8270D-SIM	Acenaphthene	3.61	ug/L	E	DNR	20
18F0185	LDW18-SP-77	18F0226-05	EPA 8270D-SIM	Phenanthrene	0.165	ug/L		U	6
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Anthracene	0.019	ug/L	D J	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Pyrene	0.078	ug/L	D J	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Benzo(g,h,i)perylene		ug/L	D U	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Indeno(1,2,3-cd)pyrene		ug/L	D U	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Benzo(j)fluoranthene		ug/L	D U	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Benzo(b)fluoranthene		ug/L	D U	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Fluoranthene	0.207	ug/L	D	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Benzo(k)fluoranthene		ug/L	D U	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Acenaphthylene	0.036	ug/L	D J	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Chrysene		ug/L	D U	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Benzo(a)pyrene		ug/L	D U	DNR	11

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Dibenzo(a,h)anthracene		ug/L	D U	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Benzo(a)anthracene		ug/L	D U	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Phenanthrene	0.156	ug/L	D	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Fluorene	0.453	ug/L	D	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Naphthalene	0.792	ug/L	D	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	2-Methylnaphthalene	1.01	ug/L	D	DNR	11
18F0185	LDW18-SP-77	18F0226-05	SM 2540-D	Total Suspended solids	9	mg/L		J	9
18F0185	LDW18-SP-77	18F0226-05RE3	SM 5310-B	Dissolved Organic carbon	4.4	mg/L		J	1
18F0185	LDW18-SP-77	18F0226-05RE3	SM 5310-B	Total Organic carbon (TOC)	5.51	mg/L		J	1
18F0185	LDW18-SP-78	18F0226-06	EPA 6020	Copper	2	ug/L	D J	U	6
18F0185	LDW18-SP-78	18F0226-06	EPA 6020	Chromium	5.6	ug/L	D	U	6
18F0185	LDW18-SP-78	18F0226-06	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-78	18F0226-06	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-78	18F0226-06	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-78	18F0226-06	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-78	18F0226-06	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-78	18F0226-06	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-78	18F0226-06	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-78	18F0226-06	EPA 8270D-SIM	Phenanthrene	0.006	ug/L	J	U	6
18F0185	LDW18-SP-78	18F0226-06	EPA 8270D-SIM	Fluorene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-78	18F0226-06	EPA 8270D-SIM	2-Methylnaphthalene	0.003	ug/L	J	U	6
18F0185	LDW18-SP-78	18F0226-06	SM 2540-D	Total Suspended solids	7	mg/L		J	9
18F0185	LDW18-SP-78	18F0226-06RE3	SM 5310-B	Dissolved Organic carbon	1.61	mg/L		J	1
18F0185	LDW18-SP-78	18F0226-06RE3	SM 5310-B	Total Organic carbon (TOC)	1.63	mg/L		UJ	1,6
18F0185	LDW18-SP-79	18F0226-07	EPA 6020	Chromium	5.72	ug/L	D	U	6
18F0185	LDW18-SP-79	18F0226-07	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-79	18F0226-07	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-79	18F0226-07	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-79	18F0226-07	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-79	18F0226-07	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-79	18F0226-07	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
18F0185	LDW18-SP-79	18F0226-07	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-79	18F0226-07	EPA 8270D-SIM	Phenanthrene	0.006	ug/L	J	U	6
18F0185	LDW18-SP-79	18F0226-07	EPA 8270D-SIM	Fluorene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-79	18F0226-07	EPA 8270D-SIM	2-Methylnaphthalene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-79	18F0226-07	SM 2540-D	Total Suspended solids	21	mg/L		J	9
18F0185	LDW18-SP-79	18F0226-07RE3	SM 5310-B	Dissolved Organic carbon	1.76	mg/L		J	1
18F0185	LDW18-SP-79	18F0226-07RE3	SM 5310-B	Total Organic carbon (TOC)	1.73	mg/L		UJ	1,6
18F0185	LDW18-SP-83	18F0248-06	EPA 6020	Copper	3.17	ug/L	D	U	6
18F0185	LDW18-SP-83	18F0248-06	EPA 6020	Zinc	6.58	ug/L	D J	U	6
18F0185	LDW18-SP-83	18F0248-06	EPA 6020	Chromium	5.96	ug/L	D	U	6
18F0185	LDW18-SP-83	18F0248-06	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-83	18F0248-06	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-83	18F0248-06	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-83	18F0248-06	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-83	18F0248-06	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-83	18F0248-06	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-83	18F0248-06	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-83	18F0248-06	EPA 8270D-SIM	Phenanthrene	0.005	ug/L	J	U	6
18F0185	LDW18-SP-83	18F0248-06	EPA 8270D-SIM	2-Methylnaphthalene	0.001	ug/L	J	U	6
18F0185	LDW18-SP-83	18F0248-06	SM 5310-B	Dissolved Organic carbon	1.15	mg/L		DNR	11
18F0185	LDW18-SP-83	18F0248-06RE2	SM 5310-B	Total Organic carbon (TOC)	1.18	mg/L		DNR	11
18F0185	LDW18-SP-83	18F0248-06RE3	SM 5310-B	Total Organic carbon (TOC)	1.24	mg/L		UJ	1,6,9
18F0185	LDW18-SP-83	18F0248-06RE3	SM 5310-B	Dissolved Organic carbon	1.49	mg/L		J	1
18F0185	LDW18-SP-84	18F0226-08	EPA 6020	Copper	2.3	ug/L	D J	U	6
18F0185	LDW18-SP-84	18F0226-08	EPA 6020	Zinc	4.44	ug/L	D J	U	6
18F0185	LDW18-SP-84	18F0226-08	EPA 6020	Chromium	5.33	ug/L	D	U	6
18F0185	LDW18-SP-84	18F0226-08	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-84	18F0226-08	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-84	18F0226-08	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-84	18F0226-08	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-84	18F0226-08	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
18F0185	LDW18-SP-84	18F0226-08	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-84	18F0226-08	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-84	18F0226-08	EPA 8270D-SIM	Phenanthrene	0.003	ug/L	J	U	6
18F0185	LDW18-SP-84	18F0226-08	EPA 8270D-SIM	2-Methylnaphthalene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-84	18F0226-08	SM 2540-D	Total Suspended solids	9	mg/L		J	9
18F0185	LDW18-SP-84	18F0226-08RE3	SM 5310-B	Dissolved Organic carbon	1.42	mg/L		J	1
18F0185	LDW18-SP-84	18F0226-08RE3	SM 5310-B	Total Organic carbon (TOC)	1.26	mg/L		UJ	1,6
18F0185	LDW18-SP-86	18F0248-07	EPA 6020	Chromium	4.99	ug/L	D J	U	6
18F0185	LDW18-SP-86	18F0248-07	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-86	18F0248-07	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-86	18F0248-07	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-86	18F0248-07	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-86	18F0248-07	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-86	18F0248-07	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-86	18F0248-07	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-86	18F0248-07	EPA 8270D-SIM	Phenanthrene	0.003	ug/L	J	U	6
18F0185	LDW18-SP-86	18F0248-07	EPA 8270D-SIM	2-Methylnaphthalene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-86	18F0248-07	SM 5310-B	Dissolved Organic carbon	1.44	mg/L		DNR	11
18F0185	LDW18-SP-86	18F0248-07RE2	SM 5310-B	Total Organic carbon (TOC)	1.45	mg/L		DNR	11
18F0185	LDW18-SP-86	18F0248-07RE3	SM 5310-B	Total Organic carbon (TOC)	1.49	mg/L		UJ	1,6,9,14
18F0185	LDW18-SP-86	18F0248-07RE3	SM 5310-B	Dissolved Organic carbon	1.84	mg/L		J	1,14
18F0185	LDW18-SP-87	18F0226-09	EPA 6020	Copper	2.08	ug/L	D J	U	6
18F0185	LDW18-SP-87	18F0226-09	EPA 6020	Zinc	6.37	ug/L	D J	U	6
18F0185	LDW18-SP-87	18F0226-09	EPA 6020	Chromium	3.57	ug/L	D J	U	6
18F0185	LDW18-SP-87	18F0226-09	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-87	18F0226-09	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-87	18F0226-09	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-87	18F0226-09	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-87	18F0226-09	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-87	18F0226-09	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-87	18F0226-09	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
18F0185	LDW18-SP-87	18F0226-09	EPA 8270D-SIM	Phenanthrene	0.018	ug/L		U	6
18F0185	LDW18-SP-87	18F0226-09	EPA 8270D-SIM	2-Methylnaphthalene	0.007	ug/L	J	U	6
18F0185	LDW18-SP-87	18F0226-09	SM 2540-D	Total Suspended solids	16	mg/L		J	9
18F0185	LDW18-SP-87	18F0226-09RE3	SM 5310-B	Dissolved Organic carbon	1.21	mg/L		J	1
18F0185	LDW18-SP-87	18F0226-09RE3	SM 5310-B	Total Organic carbon (TOC)	1.07	mg/L		UJ	1,6
18F0185	LDW18-SP-88	18F0248-08	EPA 6020	Chromium	12	ug/L	D	U	6
18F0185	LDW18-SP-88	18F0248-08	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-88	18F0248-08	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-88	18F0248-08	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-88	18F0248-08	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-88	18F0248-08	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-88	18F0248-08	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-88	18F0248-08	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-88	18F0248-08	EPA 8270D-SIM	Phenanthrene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-88	18F0248-08	EPA 8270D-SIM	Fluorene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-88	18F0248-08	EPA 8270D-SIM	2-Methylnaphthalene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-88	18F0248-08	SM 5310-B	Dissolved Organic carbon	1.08	mg/L		DNR	11
18F0185	LDW18-SP-88	18F0248-08RE2	SM 5310-B	Total Organic carbon (TOC)	1.09	mg/L		DNR	11
18F0185	LDW18-SP-88	18F0248-08RE3	SM 5310-B	Total Organic carbon (TOC)	1.12	mg/L		UJ	1,6,9
18F0185	LDW18-SP-88	18F0248-08RE3	SM 5310-B	Dissolved Organic carbon	1.25	mg/L		J	1
18F0185	LDW18-SP-RB1	18F0185-01	EPA 6020	Copper	0.701	ug/L		U	6
18F0185	LDW18-SP-RB1	18F0185-01	EPA 6020	Zinc	1.45	ug/L	J	U	6
18F0185	LDW18-SP-RB1	18F0185-01	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-RB1	18F0185-01	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-RB1	18F0185-01	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-RB1	18F0185-01	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-RB1	18F0185-01	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-RB1	18F0185-01	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-RB1	18F0185-01	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-RB1	18F0185-01	EPA 8270D-SIM	Phenanthrene	0.053	ug/L		U	6
18F0185	LDW18-SP-RB1	18F0185-01	EPA 8270D-SIM	Fluorene	0.002	ug/L	J	U	6

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
18F0185	LDW18-SP-RB1	18F0185-01	EPA 8270D-SIM	Naphthalene	0.008	ug/L	B J	U	7
18F0185	LDW18-SP-RB1	18F0185-01	EPA 8270D-SIM	2-Methylnaphthalene	0.005	ug/L	B J	U	6

DATA VALIDATION REPORT

Lower Duwamish Waterway
Baseline Surface Water Sampling Seeps Report

Revision 3

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September 10, 2018

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PROJECT NARRATIVE

Basis for the Data Validation

This report presents the results of Summary Validation (EPA Stage 4 and Stage 2B) performed on seep and quality control sample data for the Lower Duwamish Waterway Baseline Surface Water Sampling project. A complete list of samples is provided in the **Sample Index**.

Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington and SGS Axys, Sidney BC, Canada. The analytical methods and EcoChem project chemists are listed below.

Analysis	Method	Primary Review	Secondary Review
Semivolatile Organic Compounds	SW 8270D	E. Clayton	C. Frans
Polynuclear Aromatic Hydrocarbon (PAH) Compounds	SW 8270D-SIM		
PCB Aroclors	SW 8082A		
Dioxins & Furans	EPA 1613B		
Total Metals	SW 6020A/ SW 7470A		
Total and Dissolved Organic Carbon	SM5310 B-00		
Total Suspended Solids	SM 2540 D-97		

The data were reviewed using guidance and quality control criteria documented in the analytical methods; *Lower Duwamish Waterway Group Seep Collection and Chemical Analyses – Quality Assurance Project Plan and Appendix C* (Windward, March 2018); *USEPA National Functional Guidelines for Chlorinated Dioxin/Furan Data Review* (USEPA, September 2011); *National Functional Guidelines for Organic Data Review* (USEPA 2008 & 2014); and *National Functional Guidelines for Inorganic Data Review* (USEPA 2010).

EcoChem's goal in assigning data assessment qualifiers is to assist in proper data interpretation. If values are estimated (J or UJ), data may be used for site evaluation and risk assessment purposes but reasons for data qualification should be taken into consideration when interpreting sample concentrations. If values are assigned an R, the data are to be rejected and should not be used for any site evaluation purposes. If values have no data qualifier assigned, then the data meet the data quality objectives as stated in the documents and methods referenced previously.

Data qualifier definitions, reason codes, and validation criteria are included as Appendix A. A Qualified Data Summary Table is included in Appendix B. Data Validation Worksheets will be kept on file at EcoChem, Inc. A qualified laboratory electronic data deliverable (EDD) is also submitted with this report.

Sample Index
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID		Dioxins & Furans	PAH & SVOCs	PCB Aroclors	Metals	Conventional Tests		
		ARI	Axys					TOC	DOC	TSS
18F0185	LDW18-SP-RB1	18F0185-01			✓	✓	✓	✓	✓	✓
	LDW18-SP-30	18F0185-03			✓	✓	✓	✓	✓	✓
	LDW18-SP-32	18F0185-04			✓	✓	✓	✓	✓	✓
	LDW18-SP-35	18F0185-05			✓	✓	✓	✓	✓	✓
	LDW18-SP-38	18F0185-06			✓	✓	✓	✓	✓	✓
	LDW18-SP-42	18F0185-07			✓	✓	✓	✓	✓	✓
	LDW18-SP-43	18F0185-08			✓	✓	✓	✓	✓	✓
	LDW18-SP-06	18F0208-01			✓	✓	✓	✓	✓	✓
	LDW18-SP-33	18F0208-02			✓	✓	✓	✓	✓	✓
	LDW18-SP-24	18F0208-03			✓	✓	✓	✓	✓	✓
	LDW18-SP-24-FD	18F0208-04			✓	✓	✓	✓	✓	✓
	LDW18-SP-05	18F0226-01			✓	✓	✓	✓	✓	✓
	LDW18-SP-57	18F0226-02			✓	✓	✓	✓	✓	✓
	LDW18-SP-73	18F0226-03			✓	✓	✓	✓	✓	✓
	LDW18-SP-74	18F0226-04			✓	✓	✓	✓	✓	✓
	LDW18-SP-77	18F0226-05			✓	✓	✓	✓	✓	✓
	LDW18-SP-78	18F0226-06			✓	✓	✓	✓	✓	✓
	LDW18-SP-79	18F0226-07			✓	✓	✓	✓	✓	✓
	LDW18-SP-84	18F0226-08			✓	✓	✓	✓	✓	✓
	LDW18-SP-87	18F0226-09			✓	✓	✓	✓	✓	✓
	LDW18-SP-01	18F0248-01			✓	✓	✓	✓	✓	✓
	LDW18-SP-45	18F0248-02			✓	✓	✓	✓	✓	✓
	LDW18-SP-47	18F0248-03			✓	✓	✓	✓	✓	✓
	LDW18-SP-66	18F0248-04			✓	✓	✓	✓	✓	✓
	LDW18-SP-70	18F0248-05			✓	✓	✓	✓	✓	✓
	LDW18-SP-83	18F0248-06			✓	✓	✓	✓	✓	✓
	LDW18-SP-86	18F0248-07			✓	✓	✓	✓	✓	✓
	LDW18-SP-88	18F0248-08			✓	✓	✓	✓	✓	✓
18H0269	LDW18-SP-RB2	18H0269-01					✓			

Sample Index
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID		Dioxins & Furans	PAH & SVOCs	PCB Aroclors	Metals	Conventional Tests		
		ARI	Axys					TOC	DOC	TSS
WG64578	LDW18-SP-RB1		L29628-1	✓						
	LDW18-SP-42		L29628-7	✓						
	LDW18-SP-24		L29628-11	✓						
	LDW18-SP-24-FD		L29628-12	✓						
	LDW18-SP-57		L29628-14	✓						
	LDW18-SP-77		L29628-17	✓						
	LDW18-SP-78		L29628-18 L	✓						
	LDW18-SP-79		L29628-19	✓						
	LDW18-SP-87		L29628-21	✓						
	LDW18-SP-01		L29628-22	✓						
	LDW18-SP-66		L29628-25	✓						
	LDW18-SP-70		L29628-26	✓						
	LDW18-SP-86		L29628-28 i	✓						
	LDW18-SP-88		L29628-29	✓						

DATA VALIDATION REPORT
Lower Duwamish Waterway: Seeps
Semi-Volatile Organic Compounds by EPA SW8270D

This report documents the review of analytical data from the analysis of seep samples and the associated laboratory quality control (QC) samples. Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington. Refer to the Sample Index for a complete list of samples.

SDG	NUMBER OF SAMPLES	VALIDATION LEVEL
18F0185	27 Seep & 1 Field Blank	EPA Stage 2B & Stage 4 (batch BGF0434)

DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

EDD TO HARDCOPY VERIFICATION

All sample IDs and results reported in the electronic data deliverable (EDD) were verified (100% verification) by comparing the EDD to the hardcopy laboratory data package. Ten percent (10%) of the laboratory QC results were also verified.

TECHNICAL DATA VALIDATION

The quality control (QC) requirements that were reviewed are listed in the following table:

1	Sample Receipt, Preservation, and Holding Times	✓	Matrix Spike/Matrix Spike Duplicates (MS/MSD)
✓	GC/MS Instrument Performance	1	Field Duplicates
✓	Initial Calibration (ICAL)	✓	Target Analyte List
✓	Continuing Calibration (CCAL)	✓	Internal Standards
✓	Laboratory Blanks	✓	Reporting Limits
1	Field Blanks	✓	Reported Results
✓	Surrogate Compounds	✓	Compound Identification
✓	Laboratory Control Samples (LCS/LCSD)	1	Calculation Verification

✓ Stated method quality objectives (MQO) and QC criteria have been met. No outliers are noted or discussed.
[1] Quality control results are discussed below, but no data were qualified.
[2] Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.

Sample Receipt, Preservation, Holding Times

As stated in validation guidance documents, sample shipping coolers should arrive at the laboratory within the advisory temperature range of ≤6°C. The laboratory received several sample coolers greater than the upper control limit at temperatures ranging from 6.9°C to 13.9°C. Samples were received at the laboratory within several hours of sampling on each collection date; no qualifiers were required.

Field Blanks

Sample LDW18-SP-RB1 was submitted as a rinsate blank. This field blank was associated with all seep samples collected. All acceptance criteria were met.

Surrogate Compounds

The surrogate compounds 2,4,6-tribromophenol, 2-fluorobiphenyl, 2-fluorophenol, nitrobenzene-d5, phenol-d6, terphenyl-d14, 1,2-dichlorobenzene-d4, and 2-chlorophenol were added to all field and batch QC samples. When two or more surrogate %R values are less than the control limits and indicate a potential low bias, associated results are estimated (J/UJ-13L). When two or more surrogate %R values are greater than the control limits and indicate a potential high bias, only the positive results for a sample are estimated (J-13H). If there is one surrogate outlier that is less than 10% recovery, the reporting limits for that fraction are rejected (R-13L) and the detections are estimated (J-13L). With the exceptions noted below, all surrogate spike recoveries were within the laboratory control limits.

For Sample LDW18-SP-73, the %R value for terphenyl-d14 was greater than the lower control limit. The %R values for fluoranthene-10 were less than the control limit for the laboratory control sample and a matrix spike sample. No qualifiers were added for the single outlier or QC samples.

Field Duplicates

The QAPP RPD control limit is 30% for results greater than 5x the reporting limit (RL). For results less than 5x the RL, the absolute difference between the sample and replicate must be less than 1x the RL.

Samples LDW18-SP-24 and LDW18-SP-24-FD were submitted as field duplicates. All acceptance criteria were met.

Calculation Verification

Several results were verified by recalculation from the raw data. No calculation or transcription errors were found.

OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable as demonstrated by the surrogate, LCS, and MS/MSD recovery values. Precision was acceptable as demonstrated by the RPD values for the MS/MSD and field duplicate analyses.

No data were qualified for any reason.

All data, as reported, are acceptable for use.

DATA VALIDATION REPORT
Lower Duwamish Waterway: Seeps
Polynuclear Aromatic Hydrocarbon Compounds by EPA SW8270D-SIM

This report documents the review of analytical data from the analysis of seep samples and the associated laboratory quality control (QC) samples. Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington. Refer to the Sample Index for a complete list of samples.

SDG	NUMBER OF SAMPLES	VALIDATION LEVEL
18F0185	27 Seep & 1 Field Blank	EPA Stage 2B & Stage 4 (batch BGF0434)

DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

EDD TO HARDCOPY VERIFICATION

All sample IDs and results reported in the electronic data deliverable (EDD) were verified (100% verification) by comparing the EDD to the hardcopy laboratory data package. Ten percent (10%) of the laboratory QC results were also verified.

TECHNICAL DATA VALIDATION

The quality control (QC) requirements that were reviewed are listed in the following table:

1	Sample Receipt, Preservation, and Holding Times	1	Matrix Spike/Matrix Spike Duplicates (MS/MSD)
✓	GC/MS Instrument Performance	1	Field Duplicates
✓	Initial Calibration (ICAL)	✓	Target Analyte List
✓	Continuing Calibration (CCAL)	✓	Internal Standards
2	Laboratory Blanks	1	Reporting Limits
2	Field Blanks	2	Reported Results
2	Surrogate Compounds	✓	Compound Identification
✓	Laboratory Control Samples (LCS/LCSD)	1	Calculation Verification

✓ Stated method quality objectives (MQO) and QC criteria have been met. No outliers are noted or discussed.
[1] Quality control results are discussed below, but no data were qualified.
[2] Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.

Sample Receipt, Preservation, Holding Times

As stated in validation guidance documents, sample shipping coolers should arrive at the laboratory within the advisory temperature range of ≤6°C. The laboratory received several sample coolers greater than the upper control limit at temperatures ranging from 6.9°C to 13.9°C. Samples were received at the laboratory within several hours of sampling on each collection date; no qualifiers were required.

Laboratory Blanks

A method blank was analyzed at the required frequency of one per batch of 20 or fewer samples. Action levels were established at five times (5x) the concentration reported in the field blank. If a contaminant is reported in an associated field sample and the concentration is less than the action level, the result is qualified as not detected (U-7). No action is taken if the sample result is greater than the action level, or for non-detected results.

Naphthalene, 2-methylnaphthalene, and benzo(b)fluoranthene were detected. Associated sample results for 2-methylnaphthalene and benzo(b)fluoranthene were greater than the action limits, no qualifiers were required. Results for naphthalene in Samples LDW18-SP-RB1, LDW18-SP-30, LDW18-SP-32, LDW18-SP-35, LDW18-SP-38, and LDW18-SP-42 were qualified as not detected (U-7).

Field Blanks

Action levels were established at five times (5x) the concentration reported in the field blank. If a contaminant is reported in an associated field sample and the concentration is less than the action level, the result is qualified as not detected (U-6). No action is taken if the sample result is greater than the action level, or for non-detected results.

Sample LDW18-SP-RB1 was submitted as a rinsate blank. This field blank was associated with all seep samples collected. After method blank evaluation, fluorene, phenanthrene, naphthalene, and 2-methylnaphthalene were detected in the field blank. All associated results less than the action level were qualified as not detected (U-6).

Surrogate Compounds

The surrogate compounds d10-2-methylnaphthalene, fluoranthene-D10, and d14-dibenzo(a,h)anthracene, were added to all field and batch QC samples. When two or more surrogate %R values are below the control limits and indicate a potential low bias, associated results are estimated (J/UJ-13L). When two or more surrogate %R values are greater than the control limit and indicate a potential high bias, only the positive results for a sample are estimated (J-13H). If there is one surrogate outlier that is less than 10% recovery, the reporting limits for that fraction are rejected (R-13L) and the detections are estimated (J-13L). With the exceptions noted below, all surrogate spike recoveries were within the laboratory control limits.

For Samples LDW18-SP-38 and LDW18-SP-42, the %R values for 2-methylnaphthalene-d10 and fluoranthene-d10 were less than the lower control limits. The base-neutral compounds were estimated (J/UJ-13L).

Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicate (MS/MSD) samples were analyzed at the appropriate frequency. No action is taken unless both the MS and MSD percent recovery (%R) values are outside the control limits for MS/MSD %R outliers. Precision is evaluated using the RPD values calculated between the MS and MSD results. Any RPD values outside the control limits indicate uncertainty in the measured results for the sample. Qualifiers were only issued to the parent sample.

When the MS/MSD %R values indicate a potential low bias, associated results are estimated (J/UJ-8). Only the associated positive results are estimated (J-8) if the %R values indicate a potential high bias. Associated positive results are estimated (J-9) if the RPD values indicate uncertainty.

The MS/MSD analyses were performed using Sample LDW18-SP-43. The MS/MSD RPD values for 2-methylnaphthalene and naphthalene were greater than the control limit. Although 2-methylnaphthalene was detected in the parent sample, it has been flagged as not detected due to rinsate blank contamination. Naphthalene was also not detected. No qualifiers were required for matrix spike imprecision.

Field Duplicates

The QAPP RPD control limit is 30% for results greater than 5x the reporting limit (RL). For results less than 5x the RL, the absolute difference between the sample and replicate must be less than 1x the RL.

Samples LDW18-SP-24 and LDW18-SP-24-FD were submitted as field duplicates. The absolute difference for phenanthrene was greater than the control limit.

Reporting Limits

Reporting limits for acenaphthene in Samples LDW18-SP-33 and LDW18-SP-77 were elevated due to required dilutions.

Reported Results

Acenaphthene was reported with an "E" flag indicating a result that exceeded the upper calibration range for Samples LDW18-SP-33 and LDW18-SP-77. The "E" flagged results were flagged as do-not-report (DNR-20) in the original analysis and all other results in the dilution analyses were flagged (DNR-11).

Calculation Verification

Several results were verified by recalculation from the raw data. No calculation or transcription errors were found.

OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical method. With the exceptions noted previously, accuracy was acceptable as demonstrated by the surrogate, LCS, and MS/MSD recovery values. With the exceptions noted above, precision was acceptable as demonstrated by the RPD values for the MS/MSD and field duplicate analyses.

Data were qualified as not detected at the reported concentration due to method blank and field blank contamination. Results were estimated due to surrogate recovery outliers. Data were qualified as do-not report to indicate which result from multiple reported results should not be used.

Data that have been flagged as do-not-report should not be used for any purpose.

All other data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
Lower Duwamish Waterway: Seeps
PCB Aroclors by EPA 8082A

This report documents the review of analytical data from the analysis of seep samples and the associated laboratory quality control (QC) samples. Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington. Refer to the Sample Index for a complete list of samples.

SDG	NUMBER OF SAMPLES	VALIDATION LEVEL
18F0185	27 Seep & 1 Field Blank	EPA Stage 2B & Stage 4 (batch BGF0415)

DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

EDD TO HARDCOPY VERIFICATION

All sample IDs and results reported in the electronic data deliverable (EDD) were verified (100% verification) by comparing the EDD to the hardcopy laboratory data package. Ten percent (10%) of the laboratory QC results were also verified.

TECHNICAL DATA VALIDATION

This report documents the review of analytical QC requirements as listed in the following table.

1	Sample Receipt, Preservation, and Holding Times	✓	Laboratory Control Samples (LCS)
✓	Initial Calibration (ICAL)	1	Field Duplicates
✓	Continuing Calibration (CCAL)	✓	Target Analyte List
✓	Laboratory Blanks	✓	Reporting Limits
1	Field Blanks	✓	Compound Identification
✓	Surrogate Compounds	2	Reported Results
✓	Matrix Spikes/Matrix Spike Duplicates (MS/MSD)	1	Calculation Verification (Full validation only)

1 Quality control results are discussed below, but no data were qualified.
2 Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.

Sample Receipt, Preservation, Holding Times

As stated in validation guidance documents, sample shipping coolers should arrive at the laboratory within the advisory temperature range of ≤6°C. The laboratory received several sample coolers greater than the upper control limit at temperatures ranging from 6.9°C to 13.9°C. Samples were received at the laboratory within several hours of sampling on each collection date; no qualifiers were required.

Field Blanks

Sample LDW18-SP-RB1 was submitted as a field blank. This field blank was associated with all seep samples collected. All acceptance criteria were met.

Field Duplicates

The RPD control limit is 30% for results greater than 5x the reporting limit (RL). For results less than 5x the RL, the absolute difference between the sample and replicate must be less than 1x the RL. No data were qualified based on field duplicate precision outliers. Users of the data should consider the impact of field precision outliers on the reported results.

Samples LDW18-SP-24 and LDW18-SP-24-FD were submitted as field blanks. All acceptance criteria were met.

Reported Results

The laboratory reported results from both the primary and confirmation columns. One result for each analyte was flagged as do-not-report (DNR-11) to indicate which result to use from multiple reported results.

Calculation Verification

Several results were verified by recalculation from the raw data. No calculation or transcription errors were found.

OVERALL ASSESSMENT

As was determined by this evaluation, the laboratory followed the specified analytical method. Accuracy was acceptable as demonstrated by the surrogate, LCS/LCSD, and MS/MSD recoveries. Precision was also acceptable as demonstrated by the LCS/LCSD, MS/MSD, and field duplicate RPD values.

Data were qualified as do-not report to indicate which result from multiple reported results should not be used.

Data flagged as do-not-report should not be used for any reason.

All other data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
Lower Duwamish Waterway: Seeps
Dioxin/Furan Compounds by EPA 1613B

This report documents the review of analytical data from the analysis of seep samples and the associated laboratory quality control (QC) samples. Samples were analyzed by SGS Axys, Sidney, BC, Canada. Refer to the Sample Index for a complete list of samples.

SDG	NUMBER OF SAMPLES	VALIDATION LEVEL
WG64578	13 Seep & 1 Field Blank	EPA Stage 4

DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

EDD TO HARDCOPY VERIFICATION

All sample IDs and results reported in the electronic data deliverable (EDD) were verified (100% verification) by comparing the EDD to the hardcopy laboratory data package. Ten percent (10%) of the laboratory QC results were also verified.

TECHNICAL DATA VALIDATION

The quality control (QC) requirements that were reviewed are listed in the following table.

1	Sample Receipt, Preservation, and Holding Times	✓	Ongoing Precision and Recovery (OPR)
✓	System Performance and Resolution Checks	1	Certified Reference Material
✓	Initial Calibration (ICAL)	1	Field Duplicates
✓	Calibration Verification (CVER)	✓	Target Analyte List
2	Laboratory Blanks	✓	Reporting Limits
2	Field Blanks	2	Compound Identification
✓	Labeled Compound Recovery	✓	Compound Quantitation
1	Matrix Spike/Matrix Spike Duplicates (MS/MSD)	1	Calculation Verification (Full Validation Only)

✓Method quality objectives (MQO) and QC criteria have been met. No outliers are noted or discussed.
1 Quality control results are discussed below, but no data were qualified.
2 Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.

Sample Receipt, Preservation, Holding Times

As stated in validation guidance documents, sample shipping coolers should arrive at the laboratory within the advisory temperature range of ≤6°C. The laboratory received one of the sample coolers greater than the advisory temperature range at 6.5°C. No data were affected; no qualifiers were added.

Laboratory Blanks

To assess the impact of any blank contaminant on the reported sample results, an action level is established at five times (5x) the concentration reported in the blank. If a contaminant is reported in an associated field sample and the concentration is less than the action level, the result is qualified as not detected (U-7). No action is taken if the sample result is greater than the action level, or for non-detected results. The laboratory assigned EMPC-flags to values when a peak was detected but did not meet identification criteria. These values cannot be considered as positive identifications, but are "estimated maximum possible concentrations". When these occurred in the method blank the results were considered as false positives. No action levels were established for these analytes.

Method blanks were analyzed at the appropriate frequency. Contaminant levels, associated samples, and action levels are documented in the data validation worksheets.

OCDD was detected at a concentration less than the reporting limit. Associated sample results that were less than the 5x action level were qualified as not detected (U-7).

Field Blanks

Sample LDW18-SP-RB1 was submitted as a rinsate blank. This field blank was associated with all seep samples collected. 2,3,7,8-TCDF, 1,2,3,7,8-PeCDF, and total PeCDF were detected and associated results less than the action level were qualified as not detected (U-6).

Matrix Spike/Matrix Spike Duplicate

Matrix spike/matrix spike duplicate (MS/MSD) analyses were not performed. Accuracy was assessed using labeled compound recoveries and laboratory control samples. This QC sample goes through the entire extraction process prior to analysis. Precision is evaluated using the field duplicate analyses.

Certified Reference Material

No certified reference material was analyzed with this analytical data set.

Field Duplicates

The QAPP RPD control limit is 20% for results greater than 5x the reporting limit (RL). For results less than 5x the RL, the absolute difference between the sample and replicate must be less than 1x the RL.

Samples LDW18-SP-24 and LDW18-SP-24-FD were submitted as field duplicates. All acceptance criteria were met.

Compound Identification

The method requires the confirmation of 2,3,7,8-TCDF detects using an alternate GC column. The DB5 column that is typically used cannot fully separate 2,3,7,8-TCDF from closely eluting non-target TCDF isomers. The laboratory performed a second column confirmation on a DB225 column. All 2,3,7,8-TCDF results reported from the DB5 column were qualified as do-not-report (DNR-11) in favor of the DB225 results.

For several samples, the laboratory reported EMPC or "estimated maximum possible concentrations" values for one or more of the target analytes. An EMPC value is reported when a peak was detected but did not meet identification criteria, as required by the method; therefore, the result cannot be considered as a positive identification for the analyte. To indicate that the reported result for an individual analyte is in effect an elevated detection limit, the EMPC values were qualified as not detected (U-25) for native compound results below the reporting limit and were estimated (J-25) for homolog values and native compound results greater than the reporting limit.

Calculation Verification

Calculation verifications were performed for this sample delivery group (SDG). No calculation or transcription errors were found.

OVERALL ASSESSMENT

As determined by this evaluation, the laboratory performed the specified analytical method. Accuracy was acceptable, as demonstrated by the labeled compound and OPR recoveries. With the exceptions noted above, precision was also acceptable as indicated by the RPD values for the OPR and OPR duplicate and field duplicate samples.

Data were qualified as not detected at the reported concentration due to method blank and field blank contamination. Data were qualified as estimated to indicate that EMPC values represent elevated detection limits.

Data were flagged as do-not-report (DNR) to indicate which result (from multiple reported analyses) should not be used. Data that have been flagged DNR should not be used for any purpose.

All other data, as qualified, are acceptable for use.

DATA VALIDATION REPORT
Lower Duwamish Waterway: Seeps
Total Metals by SW6020A
Total Mercury by SW7470A

This report documents the review of analytical data from the analyses of sediment samples and the associated laboratory and field quality control (QC) samples. Samples were analyzed by Analytical Resources, Inc. (ARI), Tukwila, Washington. Refer to the Sample Index for a complete list of samples.

SDG	Number of Samples and Matrix	Validation Level
18F0185	27 Seeps & 1 Field Blank	EPA Stage 2B & Stage 4 (batches BGF0375 & BGF0478)
18F0269	1 Field Blank	EPA Stage 2A

DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

The laboratory report was missing tuning, calibration, and raw data for samples analyzed on 6/27/18. The laboratory was contacted and submitted the missing documentation.

EDD TO HARDCOPY VERIFICATION

All sample IDs and results reported in the electronic data deliverable (EDD) were verified (100% verification) by comparing the EDD to the hardcopy laboratory data package. Ten percent (10%) of the laboratory QC results were also verified.

TECHNICAL DATA VALIDATION

The QC requirements that were reviewed are listed below.

1	Sample Receipt, Preservation, and Holding Times	✓	Matrix Spikes (MS) and Matrix Spike Duplicates (MSD)
✓	ICP-MS Tune	✓	Laboratory Duplicates
✓	Initial Calibration	✓	ICP-MS Internal standards
✓	Calibration Verification	1	Interference Check Samples
✓	CRDL Standards	1	Field Duplicates
✓	Laboratory Blanks	1	Reporting Limits
2	Field Blanks	✓	Reported Results
✓	Laboratory Control Samples (LCS)	1	Calculation Verification

✓ Stated method quality objectives (MQO) and QC criteria have been met. No outliers are noted or discussed.
1 Quality control outliers are discussed below, but no data were qualified.
2 Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.

Sample Receipt, Preservation, and Holding Times

As stated in validation guidance documents, sample shipping coolers should arrive at the laboratory within the advisory temperature range of ≤6°C. The laboratory received several sample coolers greater than the upper control limit at temperatures ranging from 6.9°C to 13.9°C. Samples were received at the laboratory within several hours of sampling on each collection date; no qualifiers were required.

Field Blanks

Action levels were established at five times (5x) the concentration reported in the field blank. If a contaminant is reported in an associated field sample and the concentration is less than the action level, the result is qualified as not detected (U-6). No action is taken if the sample result is greater than the action level, or for non-detected results.

Sample LDW18-SP-RB1 was submitted as a rinsate blank. This field blank was associated with all seep samples collected.

In the initial analysis of this blank, chromium, copper, and zinc were detected. The result for chromium is anomalous in particular because the concentration of chromium in the rinse blank was at least four times greater than the concentration of chromium in all but two of the associated samples. Based on this observation, the laboratory was asked to redigest and reanalyze the rinse blank sample.

There were no detections of any target analytes in the redigested and reanalyzed aliquot of the rinse blank. The laboratory method blanks for both digestion batches did not have any detections of target analytes. Because the laboratory noted in their case narrative associated with the reanalysis of the rinse blank that the sample as filtered and preserved at the time of the redigestion (outside of holding time) and the results are significantly different from the original analysis with no definitive cause for the difference, the non-detected results for the reanalysis have been estimated, but associated sample results have not been flagged as not detected at the reported concentrations.

The original rinse blank results have been flagged as do-not-report (DNR-11) in favor of the reanalysis results.

Interference Check Samples

Chromium and/or cadmium were detected in all ICSAs. Because spectral interferences are uncommon for ICPMS and the concentrations observed are usually due to low levels of contaminants in the purchased solutions used by the laboratory; no qualifiers were applied.

Field Duplicates

The QAPP RPD control limit is 25% for mercury and 20% for all other metals for results greater than 5x the reporting limit (RL). For results less than 5x the RL, the absolute difference between the sample and replicate must be less than 1x the RL.

Samples LDW18-SP-24 and LDW18-SP-24-FD were submitted as field duplicates. All acceptance criteria were met.

Reporting Limits

For method 6020, most samples were diluted due to interferences or other factors and the reporting limits were elevated.

Calculation Verification

Several results were verified by recalculation from the raw data. No calculation or transcription errors were noted.

OVERALL ASSESSMENT

As determined by this evaluation, the laboratory followed the specified analytical methods. Accuracy was acceptable as demonstrated by the LCS and MS/MSD %R values and precision was acceptable as demonstrated by the MS/MSD and laboratory and field duplicate RPD values.

Results for the project rinse blank have been estimated due to sample filtration and preservation holding time exceedance.

Data were flagged as do-not-report (DNR) to indicate which result (from multiple reported analyses) should not be used. Data that have been flagged DNR should not be used for any purpose.

All other data, as reported, are acceptable for use.

DATA VALIDATION REPORT
Lower Duwamish Waterway: Seep
Total Suspended Solids SM 2540-D
Total and Dissolved Organic Carbon SM 5310B-00

This report documents the review of analytical data from the analysis of seep samples and the associated laboratory quality control (QC) samples. Analytical Resources, Inc., Tukwila, Washington, analyzed the samples. Refer to the Sample Index for a list of samples reviewed.

SDG	NUMBER OF SAMPLES	VALIDATION LEVEL
18F0185	27 Seep & 1 Field Blank	EPA Stage 2B & Stage 3 (batches BGF0409 & BGG0063)

DATA PACKAGE COMPLETENESS

The laboratory submitted all required deliverables. The laboratory followed adequate corrective action processes and all anomalies were discussed in the case narrative.

EDD TO HARDCOPY VERIFICATION

All sample IDs and results (100% verification) reported in the electronic data deliverable (EDD) were verified by comparing the EDD to the hardcopy laboratory data package. Ten percent (10%) of the laboratory QC results were also verified.

TECHNICAL DATA VALIDATION

The QC requirements for review are listed below.

2	Sample Receipt, Preservation, and Holding Times	1	Field Duplicates
✓	Laboratory Blanks	2	Laboratory Duplicates
2	Field Blanks	✓	Reporting Limits
✓	Laboratory Control Samples (LCS)	2	Reported Results
✓	Matrix Spike (MS)	✓	Calculation Verification

✓ Stated method quality objectives (MQO) and QC criteria have been met. No outliers are noted or discussed.
[1] Quality control results are discussed below, but no data were qualified.
[2] Quality control outliers that impact the reported data were noted. Data qualifiers were issued as discussed below.

Sample Receipt, Preservation, Holding Times

As stated in validation guidance documents, sample shipping coolers should arrive at the laboratory within the advisory temperature range of ≤6°C. The laboratory received several sample coolers greater than the upper control limit at temperatures ranging from 6.9°C to 13.9°C. Samples were received at the laboratory within several hours of sampling on each collection date; no qualifiers were required.

TOC and/or DOC results were analyzed past the 28-day holding time at 29-34 days for seventeen samples. Associated TOC/DOC results were estimated (J-1).

Field Blanks

Action levels were established at five times (5x) the concentration reported in the field blank. If a contaminant is reported in an associated field sample and the concentration is less than the action level, the result is qualified as not detected (U-6). No action is taken if the sample result is greater than the action level, or for non-detected results.

Sample LDW18-SP-RB1 was submitted as a field blank. This field blank was associated with all seep samples. TOC was detected in this blank at a concentration less than the reporting limit; results less than the action level were qualified as not detected (U-6).

Field Duplicates

The RPD control limit is 20% for results greater than 5x the reporting limit (RL) for TOC. For results less than 5x the RL, the absolute difference between the sample and replicate must be less than 1x the RL. No data were qualified based on field duplicate precision outliers. Users of the data should consider the impact of field precision outliers on the reported results.

Samples LDW18-SP-24 and LDW18-SP-24-FD were submitted as field blanks. The RPD value for total suspended solids was greater than the control limit at 40%RPD.

Laboratory Duplicates

One sample from each laboratory batch was prepared and analyzed in duplicate. Relative percent difference (RPD) values were calculated for detected analytes where results are greater than five times the method detection limit (MDL). With the exception noted below, all RPD values were less than the 20% control limit. Qualifiers are applied to all samples in an analysis batch.

SDG	Parent Sample ID	Analyte	Outlier Type	Action
18F0185	LDW18-SP-57	TSS	Difference > RL	J-9
		TOC	Difference > RL	J-9

Reported Results

Multiple results were reported for each sample for DOC and TOC for the login group 18F0248. The laboratory indicated the instrument experienced the following issues resulting in inconsistent results for the initial runs for both TOC and DOC.

Inject line was spraying the sample onto the side of the combustion tube rather than directly down into the catalyst. The catalyst was saturated with salts from samples and was not flowing properly.

Verifications were sporadically in and out of acceptable limits and samples run during this time had high and low biases depending on the conditions of each injected sample with respect to the sample residue running down the side of the combustion tube.

Some injections were low biased due to part of the sample staying on the side of the combustion tube until the next injection washed it down, while others were high due to the last sample washing into the current injection from the previously mentioned condition.

Because the instrument problems, all results reported from the first two analysis days were qualified as do-not-report (DNR-11).

The DOC results were greater than TOC for samples LDW18-SP-01, LDW18-SP-45, LDW18-SP-47, LDW18-SP-70, and LDW18-SP-86. The results for TOC and DOC were estimated (J-14) in these samples.

Calculation Verification

Several results were verified by recalculation from the raw data. No calculation or transcription errors were found.

OVERALL ASSESSMENT

As determined by this evaluation, the laboratory followed the specified analytical methods. Accuracy was acceptable as demonstrated by the LCS and MS recoveries. With the exceptions noted above precision was acceptable as indicated by the laboratory and field duplicate RPD values.

Results were qualified as not detected due to field blank contamination. Results were estimated based on holding time outliers, laboratory duplicate precision outliers, as well as dissolved results being greater than the corresponding total results.

Data were flagged as do-not-report to indicate which results should be used from multiple reported results.

Data flagged DNR should not be used. All other data, as qualified, are acceptable for use.

ECOCHEM
Data Quality

APPENDIX A

DATA QUALIFIER DEFINITIONS
REASON CODES
AND CRITERIA TABLES

DATA VALIDATION QUALIFIER CODES
Based on National Functional Guidelines

The following definitions provide brief explanations of the qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents the approximate concentration.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

The following is an EcoChem qualifier that may also be assigned during the data review process:

DNR	Do not report; a more appropriate result is reported from another analysis or dilution.

DATA QUALIFIER REASON CODES

Group	Code	Reason for Qualification
Sample Handling	1	Improper Sample Handling or Sample Preservation (i.e., headspace, cooler temperature, pH, summa canister pressure); Exceeded Holding Times
Instrument Performance	24	Instrument Performance (i.e., tune, resolution, retention time window, endrin breakdown, lock-mass)
	5A	Initial Calibration (RF, %RSD, r^2)
	5B	Calibration Verification (CCV, CCAL; RF, %D, %R) Use bias flags (H,L)[1] where appropriate
	5C	Initial Calibration Verification (ICV %D, %R) Use bias flags (H,L)[1] where appropriate
Blank Contamination	6	Field Blank Contamination (Equipment Rinsate, Trip Blank, etc.)
	7	Lab Blank Contamination (i.e., method blank, instrument blank, etc.) Use low bias flag (L)[1] for negative instrument blanks
Precision and Accuracy	8	Matrix Spike (MS and/or MSD) Recoveries Use bias flags (H,L)[1] where appropriate
	9	Precision (all replicates: LCS/LCSD, MS/MSD, Lab Replicate, Field Replicate)
	10	Laboratory Control Sample Recoveries (a.k.a. Blank Spikes) Use bias flags (H,L)[1] where appropriate
	12	Reference Material Use bias flags (H,L)[1] where appropriate
	13	Surrogate Spike Recoveries (a.k.a. labeled compounds, recovery standards) Use bias flags (H,L)[1] where appropriate
Interferences	16	ICP/ICP-MS Serial Dilution Percent Difference
	17	ICP/ICP-MS Interference Check Standard Recovery Use bias flags (H,L)[1] where appropriate
	19	Internal Standard Performance (i.e., area, retention time, recovery)
	22	Elevated Detection Limit due to Interference (i.e., chemical and/or matrix)
	23	Bias from Matrix Interference (i.e. diphenyl ether, PCB/pesticides)
Identification and Quantitation	2	Chromatographic pattern in sample does not match pattern of calibration standard
	3	2nd column confirmation (RPD or %D)
	4	Tentatively Identified Compound (TIC) (associated with NJ only)
	20	Calibration Range or Linear Range Exceeded
	25	Compound Identification (i.e., ion ratio, retention time, relative abundance, etc.)
Miscellaneous	11	A more appropriate result is reported (multiple reported analyses i.e., dilutions, re-extractions, etc. Associated with "R" and "DNR" only)
	14	Other (See DV report for details)
	26	Method QC information not provided

[1] H = high bias indicated
L = low bias indicated

Semivolatile Organic Compounds by Gas Chromatography-Mass Spectroscopy (GC-MS)
(Based on NFG 1999 & 2008 and SW-846 Method 8270D)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Sample Handling					
Cooler/Storage Temperature Preservation	4°C±2°C sediment/tissues may require storage at -20°C	NFG (1) Method (3)	**If required by project:** J (pos)/UJ (ND) if greater than 6° C	1	Use **PJ** for temp outliers; see **TM20** Current SW846 criterion is ≤ 6° C (3)
Holding Time	**Extraction Aqueous:** 7 days from collection **Extraction Solid:** 14 days from collection **Analysis (all matrices)**: 40 days from extraction Holding time may be extended to 1 year for frozen sediments/tissues	NFG (1) Method (3)	J (pos)/UJ (ND) if HT exceeded J (pos)/R (ND) if gross exceedance (> 2x HT)	1	Gross exceedance = > 2x HT, as per 1999 NFG
Instrument Performance					
Tuning	DFTPP Beginning of each 12 hour period Use method or project acceptance criteria	NFG (1) Method (3)	R (pos/ND) all analytes in all samples associated with the tune	24	
Initial Calibration **Sensitivity**	RRF ≥ 0.05 except: RRF ≥ 0.01 poor responders *	NFG (1) Method (3)	Use **PJ** to qualify J (pos)/UJ (ND)	5A	**TM-06** EcoChem Policy for the Evaluation and Qualification of GCMS Instrument Performance **PJ** - no action if response is stable (ICAL RSD and CCAL %D acceptable)
Initial Calibration **Stability**	Minimum 5 standards %RSD ≤ 20.0% except: %RSD ≤ 40.0% poor responders * **or** co-efficient of determination (r^2) > 0.99	NFG (1) Method (3)	J (pos) if %RSD > limit **or** r^2 value <0.99	5A	
Initial Calibration Verification Check	Prepared from second source; analyze after each ICAL Percent recovery limits = 70-130%	Method (3)	J (pos) %R > UCL J (pos)/UJ (ND) %R < LCL	5A (H,L)[4]	QAPP may have overriding accuracy limits.

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Semivolatile Organic Compounds by Gas Chromatography-Mass Spectroscopy (GC-MS)
(Based on NFG 1999 & 2008 and SW-846 Method 8270D)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Instrument Performance (continued)					
Continuing Calibration **Sensitivity**	RRF ≥ 0.05 except: RRF ≥ 0.01 poor responders *	NFG [1] Method [3]	Use **PJ** to qualify J (pos)/UJ (ND)	5B	see ICAL RRF guidance
Continuing Calibration **Stability**	Prior to sample analysis and every 12 hours %D ≤ 25% except: %D ≤ 40.0% poor responders *	NFG [1] Method [3]	J (pos) - %D > control limit (high bias) J (pos)/UJ (ND) - %D < -control limit (low bias)	5B (H,L)[4]	
Blank Contamination					
Method Blank (MB)	MB: One per matrix per batch of (of ≤ 20 samples) No detected compounds > MDL	NFG [2] Method [3]	U(pos) if result is < 5X or 10X action level	7	10X action level applies to phthalates only. 5X for all other target analytes **Hierarchy of blank review:** **#1 - Review MB, qualify as needed** **#2 - Review FB , qualify as needed** **Note: Actions as per 1999 NFG**
	No TICs present		R (pos) TICs using 10X rule	7	
Field Blank (FB)	No detected compounds > MDL	NFG [2] Method [3]	U (pos) if result is < 5X or 10X action level	6	
Precision and Accuracy					
LCS/LCSD (recovery)	One per matrix per batch (of ≤ 20 samples) LCSD not required by NFG or method Use method acceptance criteria/laboratory limits	Method [3]	J (pos) if %R > UCL J (pos)/UJ (ND) if %R < LCL J (pos)/R (ND)%R < 10%	10 (H,L)[4]	No action if only one spike %R is outside criteria when LCSD is analyzed, unless one recovery is <10%. QAPP may have overriding accuracy limits. Qualify all associated samples.
LCS/LCSD (RPD)	If LCSD analyzed RPD < lab limits	Method [3]	J (pos)	9	Qualify all associated samples. QAPP may have overriding precision limits.

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Semivolatile Organic Compounds by Gas Chromatography-Mass Spectroscopy (GC-MS)
(Based on NFG 1999 & 2008 and SW-846 Method 8270D)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Precision and Accuracy (continued)					
Reference Material (RM, SRM, or CRM)	Result ±20% of the 95% confidence interval of the true value for analytes	EcoChem standard policy	J (pos)/UJ (ND) if < LCL J (pos) if > UCL	12 (H,L)[4]	QAPP may have overriding accuracy limits. Some manufacturers have different RM control limits
MS/MSD (recovery)	One per matrix per batch (of ≤ 20 samples) Use method acceptance criteria/laboratory limits	NFG (1) Method (3)	J (pos) %R > UCL J (pos)/UJ (ND) if both %R < LCL J (pos)/R (ND) if both %R < 10% J (pos)/UJ (ND) if one > UCL & one < LCL, with no bias	8 (H,L)[4]	No action if only one spike %R is outside criteria. No action if parent concentration is >4x the amount spiked. Qualify parent sample only.
MS/MSD (RPD)	One per matrix per batch (of ≤ 20 samples) Use method acceptance criteria/laboratory limits	NFG (1) Method (2)	J (pos) in parent sample if RPD > CL	9	Qualify parent sample only
Surrogates	Minimum of 3 acid & 3 base/neutral (B/N) compounds added to all samples Within method control limits	NFG (1) Method (3)	J (pos) if %R > UCL J (pos)/UJ (ND) if %R < LCL J (pos)/R (ND) if %R < 10%	13 (H,L)[4]	Qualify all compounds in associated fraction. Do not qualify if only 1 acid and/or 1 B/N surrogate is out, unless <10%. If 1 surrogate outlier < 10% then J (pos)/R (ND)
Internal Standards	Added to all samples Acceptable Range: IS area 50% to 200% of CCAL area RT within 30 seconds of CC RT	NFG (1) Method (3)	J (pos) if > 200% J (pos)/UJ (ND) if < 50% J (pos)/R (ND) if < 25% if RT >30 seconds use **PJ**	19	Qualify compounds quantified using particular internal standard
Field Duplicates	**Solids:** RPD < 50% OR difference < 2X RL (for results < 5X RL) **Aqueous:** RPD < 35% OR difference < 1X RL (for results < 5X RL)	EcoChem standard policy	J (pos)/UJ (ND) Qualify only parent and field duplicate samples	9	Use project limits if specified

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Semivolatile Organic Compounds by Gas Chromatography-Mass Spectroscopy (GC-MS)
(Based on NFG 1999 & 2008 and SW-846 Method 8270D)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Compound Identification and Quantitation and Calculation					
Retention times and relative ion intensities	RRT within 0.06 of standard RRT Ion relative intensity within 20% of standard All ions in std. at > 10% intensity must be present in sample	NFG [(1)] Method [(3)]	U (pos) if identification criteria not met	25	
TICs	Major ions (>10%) in reference must be present in sample; intensities agree within 20%; check identification	NFG [(1)] Method [(3)]	NJ the TIC unless: R (pos) common laboratory contaminants	4	
Calibration Range	Results greater than highest calibration standard	EcoChem standard policy	Qualify J (pos)	20	If result from dilution analysis is not reported.
Dilutions, Re-extractions and/or Reanalyses	Report only one result per analyte	EcoChem standard policy	Use "DNR" to flag results that will not be reported.	11	**TM-04** EcoChem Policy for Rejection/Selection Process for Multiple Results

[1] National Functional Guidelines for Organic Data Review, June, 2008
[2] National Functional Guidelines for Organic Data Review, October, 1999
[3] Method SW846 8270D Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS), Revision 4, February 2007.
[4] NFG 2013 suggests using "+ / -" to indicate bias; EcoChem has chosen "H" = high bias indicated; "L" = low bias indicated.

(pos): Positive Result(s)
(ND): Non-detects

* "Poor responder" compounds: acetophenone, atrazine, benzaldehyde, 1,1'-biphenyl, bis(2-ethylhexyl)phthalate, butylbenzylphthalate, caprolactam, carbazole, 4-chloroaniline, diethylphthalate, di-n-butylphthalate, 3-3'-dichlorobenzidine, dimethylphthalate, 2,4-dinitrophenol, 4,6-dinitro-2-methylphenol, di-n-octylphthalate, hexachlorobutadiene, hexachlorocyclopentadiene, 2-nitroaniline, 3-nitroaniline, 4-nitroaniline, 4-nitrophenol, N-nitrosodiphenylamine, 2,2'-oxybis-(1-chloropropane), 1,2,4,5-tetrachlorobenzene use a 0.010 RRF criterion.

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PCB Aroclors by GC
(Based on Organic NFG 2008 and SW-846 Method 8082A)

QC Element	Acceptance Criteria (NFG)	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Sample					
Cooler/Storage Temperature Preservation	4°C ± 2°C Tissue/sediments (may be frozen -20°C)	NFG [1] Method [2]	**If required by project:** J (pos)/UJ (ND) if greater than 6° C	1	Use Professional Judgment (PJ) to qualify for temperature outlier. Current SW846 criterion is ≤ 6° C [3]
Holding Time	**Extraction Aqueous:** 7 days from collection **Extraction Solid:** 14 days from collection **Exraction Tissue/Sediment (frozen):** 1 year **Analysis (all matrices)**: 40 days from extraction	NFG [1] Method [2]	**If required by project:** J (pos)/UJ (ND) if ext/analyzed > HT J (pos)/R (ND) if gross exceedance (> 2x HT)	1	Use PJ to qualify for holding time outlier. ***Current SW846 does not have an extraction holding time limit.*** [3] Gross exceedance > 2x HT, as per NFG 1999
Instrument Performance					
Retention Times	Surrogates: TCMX (± 0.05); DCB (± 0.10) Aroclors (± 0.07)	NFG [1]	NJ (pos)/R (ND) results for analytes with RT shifts	24	
Initial Calibration	Minimum 5 point with RSD ≤ 20% OR correlation coefficient (r-value) ≥ 0.995 OR Minimum 6-point with co-efficient of determination (r2-value) ≥ 0.99	NFG [1] Method [4]	J (pos) if %RSD greater than 20% OR r-value < 0.995 OR r^2-value < 0.99	5A	Refer to TM-01 for additional information. Use bias flags (H,L)[5] where appropriate
Initial Calibration Verification (ICV)	No NFG criteria. Project specific.	Project	J (pos) if > UCL J (pos)/UJ (ND) if < LCL	5B	Use bias flags (H,L) where appropriate
Continuing Calibration (Prior to each 12 hr. shift)	%D ± 20%	Method [2]	If > 20% (high bias): J (pos) If <20% (low bias: J (pos)/UJ (ND)	5B	Refer to TM-01 for additional information. Use bias flags (H,L) where appropriate
Blank Contamination					
Method Blank (MB)	MB: One per matrix per batch of (of ≤ 20 samples) No detected compounds > RL	NFG [1] Method [2]	U (pos) if result is less than appropriate 5X action level.	7	**Hierarchy of blank review:** **#1 - Review MB and IB, qualify as needed** **#2 - Review FB , qualify as needed** Note: Actions as per NFG 1999 Note: IB not required by method
Field Blank (FB)	FB: frequency as per QAPP No detected compounds > RL	NFG [1] Method [2]	U (pos) if result is less than appropriate 5X action level.	6	
Instrument Blanks (IB)	Analyzed at the beginning and end of every 12 hour sequence No analyte > CRQL	NFG [1]	U (pos) if result is less than appropriate 5X action level.	7	

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PCB Aroclors by GC
(Based on Organic NFG 2008 and SW-846 Method 8082A)

QC Element	Acceptance Criteria (NFG)	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Precision and Accuracy					
MS/MSD (recovery)	One set per matrix per batch (of ≤ 20 samples) AR1016 and AR1260: %R = 29% - 135%, or project limits	NFG (1) Method (2)	Qualify parent only unless other QC indicates systematic problems. J (pos) if both %R > upper control limit (UCL) J (pos)/UJ (ND) if both %R < lower control limit (LCL) J (pos)/R (ND) if both %R < 10%	8	No action if only one spike %R is outside criteria. No action if native analyte conc. > 5x the amount spiked. Use bias flags (H,L) where appropriate. Actions apply to all Aroclors in parent sample.
MS/MSD (RPD)	One set per matrix per batch (of ≤ 20 samples) AR1016: RPD < 15%, AR1260: RPD < 20% or project limits	NFG (1) Method (2)	Qualify parent only unless other QC indicates systematic problems. J (pos) if RPD > control limit	9	No action if parent is ND.
LCS	One per lab batch (of ≤ 20 samples) AR1016 and AR1260: %R = 50% - 150%, or project limits	NFG (1)	J (pos) if %R > UCL J (pos)/UJ (ND) if %R < LCL J (pos)/R (ND) if %R < 10%	10	Use bias flags (H,L) where appropriate. Actions apply to all Aroclors in associated samples.
LCS/LCSD (RPD)	if analyzed use MS/MSD RPD criteria	NFG (1)	J (pos) assoc. compound in all samples	9	LCSD not required by method or NFG
Precision and Accuracy					
Surrogates	TCMX and DCBP added to every sample %R = 30% - 150% or project limits	NFG (1) Method (2)	J (pos) if either %R > UCL J (pos)/UJ (ND) if either %R < LCL J (pos)/R (ND) if either %R < 10%	13	If %R < 10% (sample dilution is a factor), use PJ Use bias flags (H,L) where appropriate
Internal Standards (if used)	Acceptable Range: IS area = 50% to 200% of CCAL area RT within 30 seconds of CC RT	Method (2)	J (pos) if area > 200% J (pos)/UJ (ND) if area < 50% J (pos)/R (ND) if area < 25% RT > 30 seconds, narrate	19	
Field Duplicates	**Solids:** RPD < 50% OR difference < 2X RL (for results < 5X RL) **Aqueous:** RPD < 35% OR difference < 1X RL (for results < 5X RL)	EcoChem	J (pos)/UJ (ND) Qualify only parent and field duplicate samples	9	use project limits if specified

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PCB Aroclors by GC
(Based on Organic NFG 2008 and SW-846 Method 8082A)

QC Element	Acceptance Criteria (NFG)	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Compound Identification/Quantification					
Quantitation/ Identification	Between two columns: RPD < 40% or %D < 25% Within Retention Time Windows on both columns.	NFG [1] Method [2]	J (pos) if RPD = 40% - 60% (25% - 60% for %D) NJ (pos) if > 60% R (pos) if RTW criterion not met	3	See TM-08 for additional info.
Calibration Range	on column concentration < high calibration standard	NFG [1] Method [2]	J (pos) if conc > high standard and sample was not diluted	20	
Dilutions, Re-extractions and/or Reanalyses	Report only one result per analyte	Standard reporting policy	Use "DNR" to flag results that will not be reported.	11	TM-04 Rev. 1 for additional info.
Sample Clean-up					
GPC/Sulfur/ Florisil/Acid	No criteria - cleanups are optional	NFG [1] Method [2]	Use Professional Judgment	14	special cleanups may be required for project cleanup standards may be associated with GPC/florisil cleanups

[1] National Functional Guidelines for Organic Data Review, June, 2008
[2] Polychlorinated Biphenyls (PCBs) by Gas Chromatography USEPA Method SW846 8082A, Feb 2007, Rev. 1
[3] SW846, Chapter 4, Organic Analytes
[4] Determinative Chromatographic Separations , Method 8000C , March 2003, Rev.3
[5] "H" = high bias indicated; "L" = low bias indicated

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Dioxin/Furan Analysis by HRMS
(Based on Dioxin NFG 2011 and Methods EPA 1613B and SW-846 8290)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Sample Handling					
Cooler/Storage Temperature Preservation	Waters/Solids ≤ 6°C & in the dark Tissues <-10°C & in the dark **Preservation Aqueous:** If Cl_2 is present Thiosulfate must be added and if pH > 9 it must be adjusted to 7 - 9	NFG [1] Method[2]	J(pos)/R(ND) if thiosulfate not added if Cl_2 present; J(pos)/UJ(ND) if pH not adjusted J(pos)/UJ(ND) if temp > 20°C	1	**EcoChem PJ, see TM-05**
Holding Time	**If properly stored, 1 year or:** **Extraction (all matrices):** 30 days from collection **Analysis (all matrices)**: 45 days from extraction	NFG [1] Method[2]	If not properly stored or HT exceedance: J(pos)/UJ(ND)	1	**EcoChem PJ, see TM-05** Gross exceedance = > 1 year 2011 NFG **Note:** Under CWA, SDWA, and RCRA the HT for H2O is 7 days.
Instrument Performance					
Mass Resolution (Tuning)	PFK (Perfluorokerosene) ≥10,000 resolving power at m/z 304.9824. Exact mass of m/z 380.9760 w/in 5 ppm of theoretical value (380.97410 to 380.97790) . Analyzed prior to ICAL and at the start and end of each 12 hr. shift.	NFG [1] Method [2]	R(pos/ND) all analytes in all samples associated with the tune	24	Notify PM
Windows Defining Mix	Peaks for first and last eluters must be within established retention time windows for each selector group (chlorination level)	NFG [1] Method [2]	If peaks are not completely within windows (clipped): If natives are ok, J(pos)/UJ(ND) homologs (Totals) If natives are affected, R all results for that selector group	24	Notify PM
Column Performance Mix	Both mixes must be analyzed before ICAL and CCAL Valley < 25% (valley = (x/y)*100%) where x = ht. of TCDD (or TCDF) & y = baseline to bottom of valley For all isomers eluting near the 2378-TCDD (TCDF) peak (TCDD only for 8290)	NFG [1] Method [2]	J(pos) if valley > 25%	24	**EcoChem PJ, see TM-05, Rev. 2**; Note: TCDF is evaluated only if second column confirmation is performed
Initial Calibration **Sensitivity**	S/N ratio > 10 for all native and labeled compounds in CS1 std.	NFG [1] Method [2]	If <10, elevate Det. Limit or R(ND)	5A	
Initial Calibration **Selectivity**	Ion Abundance ratios within QC limits (Table 8 of method 8290) (Table 9 of method 1613B)	NFG [1] Method [2]	If 2 or more ion ratios are out for one compound in ICAL, J(pos)	5A	**EcoChem PJ, see TM-05, Rev. 2**

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Dioxin/Furan Analysis by HRMS
(Based on Dioxin NFG 2011 and Methods EPA 1613B and SW-846 8290)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Instrument Performance (continued)					
Initial Calibration (Minimum 5 stds.) **Stability**	%RSD < 20% for native compounds %RSD <30% for labeled compounds (%RSD < 35% for labeled compounds under 1613b)	NFG [1] Method [2]	J(pos) natives if %RSD > 20%	5A	
	Absolute RT of $^{13}C_{12}$-1234-TCDD >25 min on DB5 & >15 min on DB-225	NFG [1] Method [2]	Narrate, no action		**EcoChem PJ, see TM-05, Rev. 2**
Continuing Calibration (Prior to each 12 hr. shift) **Sensitivity**	S/N ratio for CS3 standard > 10	NFG [1] Method [2]	If <10, elevate Det. Limit or R(ND)	5B	
Continuing Calibration (Prior to each 12 hr. shift) **Selectivity**	Ion Abundance ratios within QC limits (Table 8 of method 8290) (Table 9 of method 1613B)	NFG [1] Method [2]	For congener with ion ratio outlier, J(pos) natives in all samples associated with CCAL. No action for labeled congener ion ratio outliers.	25	**EcoChem PJ, see TM-05**
Continuing Calibration (Prior to each 12 hr. shift) **Stability**	%D+/-20% for native compounds %D +/-30% for labeled compounds **(Must meet limits in Table 6, Method 1613B)** If %D in the closing CCAL are within 25%/35%, the mean RF from the two CCAL may be used to calculate samples **(Section 8.3.2.4 of 8290)**.	NFG [1] Method [2]	**Labeled compounds:** Narrate, no action. **Native compounds:** 1613: J(pos)/UJ(ND)if %D is outside Table 6 limits J(pos)/R(ND) if %D is +/-75% of Table 6 limits 8290: J(pos)/UJ(ND) if %D = 20% - 75% J(pos)/R(ND) if %D > 75%	5B (H,L)[3]	
	Absolute RT of $^{13}C_{12}$-1234-TCDD and $^{13}C_{12}$-123789-HxCDD should be ± 15 seconds of ICAL RRT for all other compounds must meet criteria listed in Table 2 Method 1316.	NFG [1] Method [2]	Narrate, no action	5B	**EcoChem PJ, see TM-05**
Blank Contamination					
Method Blank (MB)	MB: One per matrix per batch of (of ≤ 20 samples) No detected compounds > RL	NFG [1] Method [2]	U(pos) if result is < 5X action level.	7	**Hierarchy of blank review:** **#1 - Review MB, qualify as needed** **#2 - Review FB , qualify as needed**
Field Blank (FB)	FB: frequency as per QAPP No detected compounds > RL		U(pos) if result is < 5X action level.	6	

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Dioxin/Furan Analysis by HRMS
(Based on Dioxin NFG 2011 and Methods EPA 1613B and SW-846 8290)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Precision and Accuracy					
MS/MSD (recovery)	**MS/MSD not typically required for HRMS analyses.** If lab analyzes MS/MSD then one set per matrix per batch (of ≤ 20 samples) Use most current laboratory control limits	EcoChem standard policy	J(pos) if both %R > UCL - high bias J(pos)/UJ(ND) if both %R < LCL - low bias J(pos)/R(ND) if both %R < 10% - very low bias J(pos)/UJ(ND) if one > UCL & one < LCL, with no bias **PJ if only one %R outlier**	8 (H,L)[3]	No action if only one spike %R is outside criteria. No action if parent concentration is >4x the amount spiked. Qualify parent sample only unless other QC indicates systematic problems.
MS/MSD (RPD)	**MS/MSD not typically required for HRMS analyses.** If lab analyzes MS/MSD then one set per matrix per batch (of ≤ 20 samples) Use most current laboratory control limits	EcoChem standard policy	J(pos) in parent sample if RPD > CL	9	Qualify parent sample only.
LCS (or OPR)	One per lab batch (of ≤ 20 samples) Use most current laboratory control limits **or** Limits from Table 6 of 1613B	NFG [1] Method [2]	J(pos) if %R > UCL - high bias J(pos)/UJ(ND) if %R < LCL - low bias J(pos)/R(ND) if %R < 10% - very low bias	10 (H,L)[3]	No action if only one spike %R is outside criteria, when LCSD is analyzed. Qualify all associated samples.
LCS/LCSD (RPD)	**LCSD not typically required for HRMS analyses.** One set per matrix and batch of 20 samples RPD < 35%	Method [2] Ecochem standard policy	J(pos) assoc. compound in all samples if RPD > CL	9	Qualify all associated samples.
Lab Duplicate (RPD)	**Lab Dup not typically required for HRMS analyses.** One per lab batch (of ≤ 20 samples) Use most current laboratory control limits	EcoChem standard policy	J(pos)/UJ(ND) if RPD > CL	9	
Labeled Compounds (Internal Standards)	Added to all samples %R = 40% - 135% in all samples 8290 %R must meet limits in Table 7 Method 1613B	NFG [1] Method [2]	J(pos) if %R > UCL - high bias J(pos)/UJ(ND) if %R < LCL - low bias J(pos)/R(ND) if %R < 10% - very low bias	13 (H,L)[3]	
Field Duplicates	Solids: RPD <50% OR difference < 2X RL (for results < 5X RL) Aqueous: RPD <35% OR difference < 1X RL (for results < 5X RL)	EcoChem standard policy	Narrate and qualify if required by project	9	**Use professional judgment**

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Dioxin/Furan Analysis by HRMS
(Based on Dioxin NFG 2011 and Methods EPA 1613B and SW-846 8290)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Compound ID and Calculation					
Quantitation/ Identification	All ions for each isomer must maximize within ± 2 seconds. S/N ratio >2.5 Ion ratios must meet criteria listed in Table 8 Method 8290, or Table 9 of 1613B; RRTs w/in limits in Table 2 of 1613B	NFG [1] Method [2]	Narrate in report; qualify if necessary NJ(pos) for retention time outliers. U(pos) for ion ratio outliers.	25	**EcoChem PJ, see TM-05**
EMPC (estimated maximum possible concentration)	If quantitation identification criteria are not met, laboratory should report an EMPC value.	NFG [1] Method [2]	If laboratory correctly reported an EMPC value, qualify the native compound U(pos) to indicate that the value is a detection limit and qualify total homolog groups J (pos)	25	**Use professional judgment See TM-18**
Interferences	Interferences from chlorodiphenyl ether compounds	NFG [1] Method [2]	J(pos)/UJ(ND) if present	23	**See TM-16**
	Lock masses must not deviate ± 20% from values in Table 8 of 1613B	Method [2]	J(pos)/UJ(ND) if present	24	**See TM-17**
Second Column Confirmation	All 2,3,7,8-TCDF hits must be confirmed on a DB-225 (or equiv) column. All QC criteria must also be met for the confirmation analysis.	NFG [1] Method [2]	Report the DB-225 value. If not performed use PJ.	3	DNR-11 DB5 result if both results from both columns are reported. **EcoChem PJ, see TM-05**
Calculation Check	Check 10% of field & QC sample results	EcoChem standard policy	Contact laboratory for resolution and/or corrective action	na	Full data validation only.
Electronic Data Deliverable (EDD)					
Verification of EDD to hardcopy data	EcoChem verify @ 10% unless problems noted; then increase level up to 100% for next several packages.		Depending on scope of problem, correct at EcoChem (minor issues) to resubmittal by laboratory (major issues).	na	EcoChem Project Manager and/or Database Administrator will work with lab to provide long-term corrective action.
Dilutions, Re-extractions and/or Reanalyses	Report only one result per analyte	Standard reporting policy	Use "DNR" to flag results that will not be reported.	11	

(pos) - positive (detected) results; (ND) - not detected results

[1] National Functional Guidelines for Chlorinated Dibenzo-p-Dioxins (CDDs) & Chlorinated Dibenzofurans (CDFs) Data Review, September 2011

[2] Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by High-Resolution Gas Chromatography/High-Resolution Mass Spectrometry (HRGC/HRMS), USEPA SW-846, Method 8290

[2] EPA Method 1613, Rev.B, Tetra-through Octa-Chlorinated Dioxins and Furans by Isotope Dilution HRGS/HRMS, October 1994

[3] NFG 2013 suggests using "+ / -" to indicate bias; EcoChem has chosen "H" = high bias indicated; "L" = low bias indicated.

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Metals by ICP-MS
(Based on Inorganic NFG 2010 and SW-846 6020A)

QC Element	EcoChem Acceptance Criteria	Source of Criteria	EcoChem Action for Non-Conformance	Reason Code	Discussion and Comments
Sample Handling					
Cooler / Storage Temperature Preservation	**Solid:** Cooler temperature 4°C±2°C **Aqueous:** Nitric Acid to pH < 2 **Dissolved Metals:** 0.45 µm filter, preserve to pH < 2 after filtration	NFG (1) Method (2)	Cooler Temps: **If required by project** J (pos)/UJ (ND) if greater than 6° C Aqueous: J (pos)/UJ (ND) if pH > 2	1	Use **PJ** to qualify for temperature outlier. Current SW846 criterion is ≤ 6° C (4) No quals for pH if samples preserved by lab immediately upon receipt and within 1 day of collection.
Holding Time	All matrices: 180 days from date sampled Frozen soils, sediments, tissues (-20°C) - HT extended to 1 year	NFG (1) Method (2) EcoChem standard policy	J (pos)/UJ (ND) if holding time exceeded	1	
Instrument Performance					
Tune	Analyzed prior to ICAL tunignsolution analyzed 5 times with Std. Dev. ≤ 5% Mass calibration < 0.1 amu difference from target mass Resolution < 0.9 amu @ 10% peak height	NFG (1) Method (2)	J(pos)/UJ(ND) if tune criteria not met	5A	Use **PJ** to evaluate tune. Alternate Resolution critteria may apply based on instrument specs (i.e <0.75 amu at 5% peak height)
Initial Calibration (ICAL)	Based on instrument requirements, blank + 1 standard minimum requirement for calibration If more than 1 standard used, r ≥ 0.995	NFG (1) Method (2)	J (pos)/UJ (ND) if r < 0.995	5A	
Initial Calibration Verification (ICV)	Independent source analyzed immediately after calibration %R within ± 10% of true value	NFG (1) Method (2)	R (pos/ND) if %R < 75% J (pos)/UJ (ND) if %R 75% - 89% J (pos) if %R >111%	5A (H,L)[3]	Qualify all samples in run
Reporting Limit (RL) Standard Low Level ICV/CCV	concentration at RL %R = 70%-130%	Method (2)	J (pos) < 2x RL / R (ND) if %R <50% J (pos) < 2x RL / UJ (ND) if %R 50 - 69% J (pos) < 2x RL if %R > 130%	5A (H,L)[3]	Qualify all samples in run

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Metals by ICP-MS
(Based on Inorganic NFG 2010 and SW-846 6020A)

QC Element	EcoChem Acceptance Criteria	Source of Criteria	EcoChem Action for Non-Conformance	Reason Code	Discussion and Comments
Instrument Performance cont'd					
Continuing Calibration Verification (CCV)	Immediately following ICV/ICB, then every two hours or ten samples, and at end of run. %R within ± 10% of true value	NFG [1] Method [2]	R (pos/ND) if %R < 75% J (pos)/UJ (ND) if %R 75% - 89% J (pos) if %R >111%	5B (H,L)[3]	Qualify samples bracketed by CCV outliers
Interference Check Samples (ICSA / ICSAB)	ICSAB %R 80% - 120% for all spiked elements | ICSA | < MDL for all unspiked elements	NFG [1] Method [2]	For samples with Al, Ca, Fe, Mg > ICS levels: **ICSAB**: J(pos)/R (ND) if %R < 50% J (pos)/UJ (ND) if %R = 50% - 79% J (pos) if %R > 120% **ICSA:** J (pos)< 2x ICSA/UJ (ND) for ICSA <Neg MDL J (pos) < 2x ICSA for ICSA > MDL	17 (H,L)[3]	Use **PJ** and molecular interferences to evaluate ICSA to determine if bias is present. Refer to **TM-14** for additional information.
Blank Contamination					
Method Blank (MB)	One per matrix per batch of (of ≤ 20 samples) Blank conc < MDL	NFG [1] Method [2]	U (pos) if result is < 5X method blank concentration	7	Refer to **TM-02** for additional information. Blank Evaluation based on NFG 1994
Instrument Blanks (ICB/CCB)	After each ICV & CCV | blank concentration | < MDL	NFG [1] Method [2]	Action level is 5x absolute value of blank conc. For positive blanks: U (pos) results < action level For negative blanks: J (pos)/UJ (ND) results < action level	Pos Blks: 7 Neg Blks: 7L[3]	Use blanks bracketing samples for Qualification Refer to **TM-02** for additional information. **Hierarchy of blank review: #1 - Review MB, quaify as needed #2 - Review IB , qualify as needed #3 - Review FB , qualify as needed**
Field Blank (FB)	Blank conc < MDL	EcoChem standard policy	U (pos) if result is < 5x action level, as per analyte.	6	Qualify in associated field samples only. Refer to **TM-02** for additional information.

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Metals by ICP-MS
(Based on Inorganic NFG 2010 and SW-846 6020A)

QC Element	EcoChem Acceptance Criteria	Source of Criteria	EcoChem Action for Non-Conformance	Reason Code	Discussion and Comments
Precision and Accuracy					
Internal Standards (IS)	Added to all samples. All analytes must be associated with an internal standard 60-125% of cal blank IS	NFG [1] Method [2]	J(pos)/UJ(ND) all analytes associated with IS outlier	19	6020A criteria - IS >70% of ICAL std
LCS (recovery)	One per matrix per batch (of ≤ 20 samples); LCSD not required %R between 80-120%	Method [2]	J (pos)/R (ND) if %R <50% J (pos)/UJ (ND) if %R 50% - 79% J (pos) if %R > 120%	10 (H,L)[3]	Qualify all samples in batch QAPP may have overriding accuracy limits. NFG Limits 70% -130%
LCS/LCSD (RPD)	LCSD not required, if analyzed: RPD ≤ 20%	Method [2]	J (pos)/UJ (ND) if RPD > 20%	9	Qualify all samples in batch QAPP may have overriding precision limits.
MS/MSD (recovery)	One per matrix per batch (of ≤ 20 samples); MSD not required %R between 75-125%	NFG [1] Method [2]	J (pos) if %R > 125% J (pos)/UJ (ND) if %R <75% J (pos)/R (ND) if %R < 30%, unless post digestion spike analyzed, J (pos)/UJ (ND) if post digestion spike %R OK	8 (H,L)[3]	No action if only one spike %R is outside criteria. NA if parent concentration >4x the amount spiked. Qualify all samples in batch. QAPP may have overriding accuracy limits.
Post Digestion Spikes	If MS is outside 75-125%, post-spike should be analyzed %R 80%-120% (method); 75%-125% (NFG)	NFG [1] Method [2]	Only used to support MS qualification decisions	NA	No qualifiers assigned based solely on this element.
MS/MSD (RPD)	MSD not required, if analyzed: RPD ≤ 20%	NFG [1] Method [2]	J (pos)/UJ (ND) if RPD > 20%	9	QAPP may have overriding precision limits.
Laboratory Duplicate	One per matrix per batch (of ≤ 20 samples) RPD ≤ 20% for results ≥ 5x RL Solids: difference < 2X RL for results < 5X RL Aqueous: difference < 1X RL for results < 5X RL	NFG [1] Method [2]	J (pos)/UJ (ND) if RPD > 20% or if difference > control limit	9	Qualify all samples in batch. QAPP may have overriding precision limits.

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Metals by ICP-MS
(Based on Inorganic NFG 2010 and SW-846 6020A)

QC Element	EcoChem Acceptance Criteria	Source of Criteria	EcoChem Action for Non-Conformance	Reason Code	Discussion and Comments
Precision and Accuracy cont'd					
Reference Material (RM, SRM, or CRM)	Result ±20% of the 95% confidence interval of the true value for analytes	EcoChem standard policy	J (pos)/UJ (ND) if < LCL J (pos) if > UCL	12 (H,L)[3]	QAPP may have overriding accuracy limits. Some manufacturers may have different RM control limits
Serial Dilution	Analyze one sample per matrix at a 5x dilution %D <10% for original sample conc. > 50x MDL	NFG [(1)]	J(pos)/UJ(ND) if %D > 10% and native sample concentration > 50x MDL	16	Note serial dilutions for soil are reported in ug/L, but the MDL is in mg/kg. The units need to be adjusted. Qualify all samples in batch.
Field Duplicate	Solids: RPD <50% OR difference < 2X RL (for results < 5X RL) Aqueous: RPD <35% OR difference < 1X RL (for results < 5X RL)	EcoChem standard policy	Narrate and qualify if required by project **(EcoChem PJ)** Qualify only field duplicate samples J(pos)/UJ(ND)	9	QAPP may have overriding precision limits.
Compound Quantitation					
Total and Dissolved Comparison	Total > Dissolved	EcoChem standard policy	J (pos)/UJ (ND) if Dissolved > Total and results fall outside of standard duplicate precision criteria	14	
Calibration Range	Results < instrument linear range	NFG [(1)] Method [(2)]	if result exceeds linear range and sample was not diluted J (pos)	20	
Dilutions, Re-extractions and/or Reanalyses	Report only one result per analyte	EcoChem standard policy	Use "DNR" to flag results that will not be reported.	11	**TM-04** EcoChem Policy for Rejection/Selection Process for Multiple Results

[1] National Functional Guidelines for Inorganic Superfund Data Review, January 2010.
[2] Method SW846 6020A Inductively Coupled Plasma-Mass Spectrometry (ICP-MS), Revision 1, February 2007.
[3] "H" = high bias indicated; "L" = low bias indicated
[4] SW846, Chapter 3, Inorganic Analytes

(pos): Positive Result
(ND): Not detected

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Mercury by CVAA
(Based on Inorganic NFG 2010 and SW846 7470A & 7471B)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Sample Handling					
Cooler / Storage Temperature Preservation	**Solid:** Cooler temperature 4°C±2°C **Aqueous:** Nitric Acid to pH < 2 **Dissolved Metals:** 0.45 µm filter, preserve to pH < 2 after filtration	NFG (1) Method (2)	Cooler Temps: **If required by project** J (pos)/UJ (ND) if greater than 6° C Aqueous: J (pos)/UJ (ND) if pH > 2	1	Use **PJ** to qualify for temperature outlier. Current SW846 criterion is ≤ 6° C (4) No quals for pH if samples preserved by lab immediately upon receipt and within 1 day of collection.
Holding Time	28 days from date sampled Frozen solids and tissues HT extended to 6 months	NFG (1) Method (2) EcoChem standard policy	J (pos)/UJ (ND) if HT exceeded	1	
Instrument Performance					
Initial Calibration (ICAL)	Daily Calibration Blank + 5 standards, one ≤ RL Correlation coefficient (r) ≥ 0.995	NFG (1) Method (2)	J (pos)/UJ (ND) if r < 0.995	5A (H,L)[3]	
Initial Calibration Verification (ICV)	Independent source analyzed immediately after ICAL %R within ± 15% of true value	NFG (1) Method (2)	R(pos/ND) if %R <70% J(pos)/UJ(ND) if %R = 70-84% J(pos) if %R = > 116%	5A (H,L)[3]	Qualify all samples in run
Reporting Limit (RL) Standard	Conc = RL %R = 70-130%	Method (2)	J (pos) < 2x RL / R (ND) if %R <50% J (pos) < 2x RL / UJ (ND) if %R 50 - 69% J (pos) < 2x RL if %R > 130%	5A (H,L)[3]	Qualify all samples in run
Continuing Calibration Verification (CCV)	At beginning of run, every ten samples, and again after last sample. %R within ± 15% of true value	NFG (1) Method (2)	R(pos/ND) if %R <70% J(pos)/UJ(ND) if %R = 70-84% J(pos) if %R = > 116%	5B (H,L)[3]	Qualify samples bracketed by CCV outliers
Blank Contamination					
Method Blank (MB)	One per matrix per batch of (of ≤ 20 samples) Blank conc < MDL	NFG (1) Method (2)	U (pos) if result is < 5X method blank concentration	7	Refer to **TM-02** for additional information. Blank Evaluation based on NFG 1994

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Mercury by CVAA
(Based on Inorganic NFG 2010 and SW846 7470A & 7471B)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Instrument Blanks (ICB/CCB)	After each ICV & CCV | blank concentration | < MDL	NFG (1) Method (2)	Action level is 5x absolute value of blank conc. For positive blanks: U (pos) results < action level For negative blanks: J (pos)/UJ (ND) results < action level	Pos Blanks: 7 Neg Blanks: 7L[3]	Use blanks bracketing samples for Qualification Refer to **TM-02** for additional information. **Hierarchy of blank review:** **#1 - Review MB, quaify as needed** **#2 - Review IB , qualify as needed** **#3 - Review FB , qualify as needed**
Field Blank (FB)	Blank conc < MDL	EcoChem standard policy	U (pos) if result is < 5x action level, as per analyte.	6	Qualify in associated field samples only. Refer to **TM-02** for additional information.
Precision and Accuracy					
Laboratroy Control Sample (recovery)	One per matrix per batch (of ≤ 20 samples); LCSD not required %R between 80-120%	Method (2)	J (pos)/R (ND) if %R <50% J (pos)/UJ (ND) if %R 50% - 79% J (pos) if %R > 120%	10 (H,L)[3]	Qualify all samples in batch QAPP may have overriding accuracy limits. NFG does not address LCS
LCS/LCSD (RPD)	LCSD not required, if analyzed: RPD ≤ 20%	Method (2)	J (pos)/UJ (ND) if RPD > 20%	9	Qualify all samples in batch QAPP may have overriding precision limits.
Matris Spike/Matrix Spike Duplicate MS/MSD (recovery)	One per matrix per batch (of ≤ 20 samples); MSD not required %R between 75-125%	NFG (1) Method (2)	J (pos) if %R > 125% J (pos)/UJ (ND) if %R <75% J (pos)/R (ND) if %R < 30%	8 (H,L)[3]	No action if only one spike %R is outside criteria. NA if parent concentration >4x the amount spiked. Qualify all samples in batch. QAPP may have overriding accuracy limits.
MS/MSD (RPD)	MSD not required, if analyzed: RPD ≤ 20%	NFG (1) Method (2)	J (pos)/UJ (ND) if RPD > 20%	9	QAPP may have overriding precision limits.
Laboratory Duplicate	One per matrix per batch (of ≤ 20 samples) RPD ≤ 20% for results ≥ 5x RL Solids: difference < 2X RL for results < 5X RL Aqueous: difference < 1X RL for results < 5X RL	NFG (1) Method (2)	J (pos)/UJ (ND) if RPD > 20% or if difference > control limit	9	Qualify all samples in batch. QAPP may have overriding precision limits.

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Mercury by CVAA
(Based on Inorganic NFG 2010 and SW846 7470A & 7471B)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Reference Material (RM, SRM, or CRM)	Result ±20% of the 95% confidence interval of the true value for analytes	EcoChem standard policy	J (pos)/UJ (ND) if < LCL J (pos) if > UCL	12 (H,L)[3]	QAPP may have overriding accuracy limits. Some manufacturers may have different RM control limits
Field Duplicate	Solids: RPD <50% (for results ≥ 5x RL) OR difference < 2X RL (for results < 5X RL) Aqueous: RPD <35% (for results ≥ 5x RL) OR difference < 1X RL (for results < 5X RL)	EcoChem standard policy	Qualify only parent and field duplicate samples J (pos)/UJ (ND)	9	QAPP may have overriding precision limits. Client/QAPP may not require qualification based on field precision.
Compound Quantitation					
Total and Dissolved Comparison	Total > Dissolved	EcoChem standard policy	J (pos)/UJ (ND) if Dissolved > Total and results fall outside of standard duplicate precision criteria	14	
Calibration Range	Results < instrument linear range	NFG (1) Method (2)	if result exceeds linear range and sample was not diluted J (pos)	20	
Dilutions, Re-extractions and/or Reanalyses	Report only one result per analyte	EcoChem standard policy	Use "DNR" to flag results that will not be reported.	11	**TM-04** EcoChem Policy for Rejection/Selection Process for Multiple Results

[1] National Functional Guidelines for Inorganic Superfund Data Review, January 2010.

[2] Method SW846 7470A Mercury in Liquid Waste (Manual Cold-Vapor Technique), Revision 1, September 1994.
Method SW846 7471B Mercury in Solid or Semisolid Waste (Manual Cold-Vapor Technique), Revision 2, February 2007.

[3] "H" = high bias indicated; "L" = low bias indicated

[4] SW846, Chapter 3, Inorganic Analytes

(pos): Positive Result
(ND): Not Detected

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Conventional Methods with Instrument Calibrations (i.e., Ion Chromatography, Total Organic Carbon)
(Based on Inorganic NFG 2010 and EPA methods)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Sample Handling					
Cooler/Storage Temperature Preservation	Cooler temperature: 4°C±2°C Preservation: Analyte/Method Specific	NFG [(1)] Method [(2)]	J (pos)/UJ (ND) if preservation requirements not met	1	Use **PJ** to qualify for cooler temp outliers.
Holding Time	Analyte/Method Specific	NFG [(1)] Method [(2)]	J (pos)/UJ (ND) if holding time exceeded	1	
Instrument Performance					
Initial Calibration (ICAL)	blank + multiple standards as per method requirements r ≥ 0.995	NFG [(1)] Method [(2)]	J (pos)/UJ (ND) for r < 0.995	5A	
Initial Calibration Verification (ICV)	Independent source analyzed immediately after calibration %R method specific	NFG [(1)] Method [(2)]	J (pos)/UJ (ND) if %R < lower control limit (LCL) J (pos) if %R > upper control limit (UCL)	5A (H,L)[3]	Qualify all samples in run
Continuing Calibration Verification (CCV)	Immediately following ICV, every 10 samples, and end of run %R method specific	NFG [(1)] Method [(2)]	J(pos)/UJ(ND) if %R < LCL J(pos) if %R > UCL	5B (H,L)[3]	Qualify samples bracketed by CCV outliers
Blank Contamination					
Method Blank (MB)	One per matrix per batch of (of ≤ 20 samples) Blank conc < MDL	NFG [(1)] Method [(2)]	U (pos) if result is < 5X method blank concentration	7	Refer to **TM-02** for additional information. Blank Evaluation based on NFG 1994

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Conventional Methods with Instrument Calibrations (i.e., Ion Chromatography, Total Organic Carbon)
(Based on Inorganic NFG 2010 and EPA methods)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Instrument Blanks (ICB/CCB)	After each ICV & CCV | blank concentration | < MDL	NFG [(1)] Method [(2)]	Action level is 5x absolute value of blank conc. For positive blanks: U (pos) results < action level For negative blanks: J (pos)/UJ (ND) results < action level	Pos Blanks: 7 Neg Blanks: 7L[3]	Use blanks bracketing samples for Qualification Refer to **TM-02** for additional information. **Hierarchy of blank review:** **#1 - Review MB, quaify as needed** **#2 - Review IB , qualify as needed** **#3 - Review FB , qualify as needed**
Field Blank (FB)	Blank conc < MDL	EcoChem standard policy	U (pos) if result is < 5x action level, as per analyte.	6	Qualify in associated field samples only. Refer to **TM-02** for additional information.
Precision and Accuracy					
Laboratory Control Sample (LCS)	One per matrix per batch (of ≤ 20 samples) %R within Method control limits (or Laboratory control limtis if none specified in method)	NFG [(1)] Method [(2)]	J (pos)/UJ (ND) if %R < LCL J (pos) if %R > UCL	10 (H,L)[3]	Qualify all samples in batch QAPP may have overriding accuracy limits.
Reference Materials (RM, CRM, SRM)	Result ±20% of the 95% confidence interval of the true value for analytes	EcoChem standard policy	J (pos)/UJ (ND) if < LCL J (pos) if > UCL	12 (H,L)[3]	QAPP may have overriding accuracy limits. Some manufacturers may have different RM control limits

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Conventional Methods with Instrument Calibrations (i.e., Ion Chromatography, Total Organic Carbon)
(Based on Inorganic NFG 2010 and EPA methods)

QC Element	Acceptance Criteria	Source of Criteria	Action for Non-Conformance	Reason Code	Discussion and Comments
Matrix Spike/ Matrix Spike Duplicate (MS/MSD)	Where applicable to method; MSD may not be required One per matrix per batch (of ≤ 20 samples) For samples <4x spike level, %R within method control limits (or Laboratory control limtis if none specified in method)	NFG [1] Method [2]	J (pos)/UJ (ND) if %R < LCL J (pos) if %R > UCL	8 (H,L)3	Qualify all samples in batch No action if native analyte concentration ≥ 4x spike added. Qualify all samples in batch. QAPP may have overriding accuracy limits.
Laboratory Duplicate (or MS/MSD)	One per matrix per batch (of ≤ 20 samples) RPD ≤ 20% for results ≥ 5x RL Solids: difference < 2X RL for results < 5X RL Aqueous: difference < 1X RL for results < 5X RL	NFG [1] Method [2]	J (pos)/UJ (ND) if RPD > 20% or if difference > control limit	9	Qualify all samples in batch. QAPP may have overriding precision limits.
Field Duplicate	Solids: RPD <50% (for results ≥ 5x RL) OR difference < 2X RL (for results < 5X RL) Aqueous: RPD <35% (for results ≥ 5x RL) OR difference < 1X RL (for results < 5X RL)	EcoChem standard policy	Qualify only parent and field duplicate samples J (pos)/UJ (ND)	9	QAPP may have overriding precision limits. Client/QAPP may not require qualification based on field precision.
Compound Quantitation					
Linear Range	Sample concentrations less than highest calibration standard	NFG [1] Method [2]	If result exceeds linear range & sample was not diluted J (pos)	20	
Dilutions, Re-extractions and/or Reanalyses	Report only one result per analyte	EcoChem standard policy	Use "DNR" to flag results that will not be reported.	11	**TM-04** EcoChem Policy for Rejection/Selection Process for Multiple Results

[1] National Functional Guidelines for Inorganic Superfund Data Review, January 2010.
[2] SW846 or EPA Standard Methods
[3] "H" = high bias indicated; "L" = low bias indicated

(pos): Positive Result
(ND): Not Detected

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Conventional Methods by Gravimetric Analysis
(i.e., Total Solids, Total Dissolved Solids, Total Suspended Solids, Grain Size)
(Based on Inorganic NFG 2010 and EPA methods)

QC Element	EcoChem Acceptance Criteria	Source of Criteria	EcoChem Action for Non-Conformance	Reason Code	Discussion and Comments
Sample Handling					
Cooler/Storage Temperature Preservation	Cooler temperature: 4°C±2°C Preservation: Analyte/Method Specific	Method [(1)] NFG[(2)]	J (pos)/UJ (ND) if preservation requirements not met	1	Use **PJ** to qualify for cooler temp outliers.
Holding Time	Analyte/Method Specific	Method NFG[(2)]	J (pos)/UJ (ND) if holding time exceeded	1	
Blank Contamination					
Method Blank (MB)	If required by method,one per matrix per batch of (of ≤ 20 samples) Blank conc < MDL	NFG [(1)] Method [(2)]	U (pos) if result is < 5X method blank concentration	7	Refer to **TM-02** for additional information. Blank Evaluation based on NFG 1994
Precision and Accuracy					
LCS (If appropriate to method)	One per matrix per batch (of ≤ 20 samples) %R between 80-120%	Method [(2)]	J (pos)/R (ND) if %R <50% J (pos)/UJ (ND) if %R 50% - 79% J (pos) if %R > 120%	10 (H,L)[3]	Qualify all samples in batch QAPP may have overriding accuracy limits.
Reference Material (RM, SRM, or CRM)	Result ±20% of the 95% confidence interval of the true value for analytes	EcoChem standard policy	J (pos)/UJ (ND) if < LCL J (pos) if > UCL	12 (H,L)[3]	QAPP may have overriding accuracy limits. Some manufacturers may have different RM control limits

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Conventional Methods by Gravimetric Analysis
(i.e., Total Solids, Total Dissolved Solids, Total Suspended Solids, Grain Size)
(Based on Inorganic NFG 2010 and EPA methods)

QC Element	EcoChem Acceptance Criteria	Source of Criteria	EcoChem Action for Non-Conformance	Reason Code	Discussion and Comments
Laboratory Duplicate	One per matrix per batch (of ≤ 20 samples) RPD ≤ 20% for results ≥ 5x RL Solids: difference < 2X RL for results < 5X RL Aqueous: difference < 1X RL for results < 5X RL	NFG [1] Method [2]	J (pos)/UJ (ND) if RPD > 20% For Grain Size, no action if results for fraction are less than 5%	9	Qualify all samples in batch, except Grain Size - qualify parent only. QAPP may have overriding precision limits.
Field Duplicate	Solids: RPD <50% (for results ≥ 5x RL) OR difference < 2X RL (for results < 5X RL) Aqueous: RPD <35% (for results ≥ 5x RL) OR difference < 1X RL (for results < 5X RL)	EcoChem standard policy	Qualify only parent and field duplicate samples J (pos)/UJ (ND)	9	QAPP may have overriding precision limits. Client/QAPP may not require qualification based on field precision.
Compound Quantitation					
Dilutions, Re-extractions and/or Reanalyses	Report only one result per analyte per sample	EcoChem standard policy	Use "DNR" to flag results that will not be reported.	11	

[1] National Functional Guidelines for Inorganic Superfund Data Review, January 2010.
[2] SW846 or EPA Standard Methods
[3] "H" = high bias indicated; "L" = low bias indicated

(pos): Positive Result
(ND): Not Detected

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ECOCHEM
Data Quality

APPENDIX B

QUALIFIED DATA SUMMARY TABLE

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG64578	LDW18-SP-01	L29628-22	EPA 1613B	1,2,3,4,6,7,8-HpCDD	0.666	pg/L	K J	U	25
WG64578	LDW18-SP-01	L29628-22	EPA 1613B	OCDD	3.23	pg/L	B J	U	7
WG64578	LDW18-SP-01	L29628-22	EPA 1613B	Total TCDD	0.686	pg/L	K	J	25
WG64578	LDW18-SP-01	L29628-22	EPA 1613B	Total HxCDD	1.13	pg/L	K	U	6
WG64578	LDW18-SP-01	L29628-22	EPA 1613B	Total HpCDD	1.89	pg/L	K	U	6
WG64578	LDW18-SP-24	L29628-11	EPA 1613B	1,2,3,4,6,7,8-HpCDD	0.704	pg/L	K J	U	25
WG64578	LDW18-SP-24	L29628-11	EPA 1613B	OCDD	5.35	pg/L	K B J	U	25
WG64578	LDW18-SP-24	L29628-11	EPA 1613B	Total HxCDD	0.897	pg/L	K	U	6
WG64578	LDW18-SP-24	L29628-11	EPA 1613B	Total HpCDD	3.15	pg/L	K	U	6
WG64578	LDW18-SP-24-FD	L29628-12	EPA 1613B	OCDD	2.41	pg/L	K B J	U	25
WG64578	LDW18-SP-24-FD	L29628-12	EPA 1613B	Total TCDD	0.601	pg/L	K	J	25
WG64578	LDW18-SP-24-FD	L29628-12	EPA 1613B	Total HxCDD	0.642	pg/L	K	U	6
WG64578	LDW18-SP-24-FD	L29628-12	EPA 1613B	Total HpCDD	0.92	pg/L	K	U	6
WG64578	LDW18-SP-24-FD	L29628-12	EPA 1613B	Total TCDF	0.522	pg/L	K	U	6
WG64578	LDW18-SP-42	L29628-7	EPA 1613B	1,2,3,4,6,7,8-HpCDD	0.904	pg/L	K J	U	25
WG64578	LDW18-SP-42	L29628-7	EPA 1613B	OCDD	2.98	pg/L	B J	U	7
WG64578	LDW18-SP-42	L29628-7	EPA 1613B	1,2,3,7,8-PeCDF	0.654	pg/L	J	U	6
WG64578	LDW18-SP-42	L29628-7	EPA 1613B	OCDF	0.477	pg/L	K J	U	25
WG64578	LDW18-SP-42	L29628-7	EPA 1613B	Total TCDD	0.504	pg/L	K	J	25
WG64578	LDW18-SP-42	L29628-7	EPA 1613B	Total HxCDD	0.749	pg/L	K	U	6
WG64578	LDW18-SP-42	L29628-7	EPA 1613B	Total HpCDD	1.41	pg/L	K	U	6
WG64578	LDW18-SP-42	L29628-7	EPA 1613B	Total TCDF	0.619	pg/L	K	U	6
WG64578	LDW18-SP-42	L29628-7	EPA 1613B	Total PeCDF	0.654	pg/L		U	6
WG64578	LDW18-SP-57	L29628-14	EPA 1613B	1,2,3,4,6,7,8-HpCDD	0.528	pg/L	K J	U	25
WG64578	LDW18-SP-57	L29628-14	EPA 1613B	OCDD	2.5	pg/L	K B J	U	25
WG64578	LDW18-SP-57	L29628-14	EPA 1613B	Total HxCDD	0.859	pg/L	K	U	6
WG64578	LDW18-SP-57	L29628-14	EPA 1613B	Total HpCDD	0.528	pg/L	K	U	6
WG64578	LDW18-SP-66	L29628-25	EPA 1613B	1,2,3,4,6,7,8-HpCDD	1.07	pg/L	K J	U	25
WG64578	LDW18-SP-66	L29628-25	EPA 1613B	Total HxCDD	0.611	pg/L	K	U	6
WG64578	LDW18-SP-66	L29628-25	EPA 1613B	Total HpCDD	3.02	pg/L	K	U	6
WG64578	LDW18-SP-66	L29628-25	EPA 1613B	Total HpCDF	0.667	pg/L	K	J	25

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG64578	LDW18-SP-70	L29628-26	EPA 1613B	OCDD	1.13	pg/L	B J	U	7
WG64578	LDW18-SP-70	L29628-26	EPA 1613B	Total TCDD	0.501	pg/L	K	J	25
WG64578	LDW18-SP-70	L29628-26	EPA 1613B	Total HxCDD	0.531	pg/L	K	U	6
WG64578	LDW18-SP-70	L29628-26	EPA 1613B	Total TCDF	0.489	pg/L	K	U	6
WG64578	LDW18-SP-77	L29628-17	EPA 1613B	OCDD	0.665	pg/L	K B J	U	25
WG64578	LDW18-SP-77	L29628-17	EPA 1613B	Total TCDD	0.532	pg/L	K	J	25
WG64578	LDW18-SP-77	L29628-17	EPA 1613B	Total HxCDD	0.746	pg/L	K	U	6
WG64578	LDW18-SP-78	L29628-18 L	EPA 1613B	1,2,3,4,6,7,8-HpCDD	1.63	pg/L	K J	U	25
WG64578	LDW18-SP-78	L29628-18 L	EPA 1613B	2,3,7,8-TCDF	0.736	pg/L	K J	DNR	11
WG64578	LDW18-SP-78	L29628-18 L	EPA 1613B	1,2,3,7,8-PeCDF	0.485	pg/L	K J	U	25
WG64578	LDW18-SP-78	L29628-18 L	EPA 1613B	1,2,3,4,6,7,8-HpCDF	1.22	pg/L	K J	U	25
WG64578	LDW18-SP-78	L29628-18 L	EPA 1613B	OCDF	0.819	pg/L	K J	U	25
WG64578	LDW18-SP-78	L29628-18 L	EPA 1613B	Total HxCDD	1.04	pg/L	K	U	6
WG64578	LDW18-SP-78	L29628-18 L	EPA 1613B	Total HpCDD	3.28	pg/L	K	U	6
WG64578	LDW18-SP-78	L29628-18 L	EPA 1613B	Total TCDF	0.736	pg/L	K	U	6
WG64578	LDW18-SP-78	L29628-18 L	EPA 1613B	Total PeCDF	0.485	pg/L	K	U	6
WG64578	LDW18-SP-78	L29628-18 L	EPA 1613B	Total HxCDF	1.37	pg/L	K	J	25
WG64578	LDW18-SP-78	L29628-18 L	EPA 1613B	Total HpCDF	2.29	pg/L	K	J	25
WG64578	LDW18-SP-79	L29628-19	EPA 1613B	1,2,3,4,6,7,8-HpCDD	0.605	pg/L	K J	U	25
WG64578	LDW18-SP-79	L29628-19	EPA 1613B	OCDD	3.27	pg/L	K B J	U	25
WG64578	LDW18-SP-79	L29628-19	EPA 1613B	Total TCDD	0.59	pg/L	K	J	25
WG64578	LDW18-SP-79	L29628-19	EPA 1613B	Total HxCDD	0.664	pg/L	K	U	6
WG64578	LDW18-SP-79	L29628-19	EPA 1613B	Total HpCDD	0.605	pg/L	K	U	6
WG64578	LDW18-SP-86	L29628-28 i	EPA 1613B	1,2,3,4,6,7,8-HpCDD	0.706	pg/L	K J	U	25
WG64578	LDW18-SP-86	L29628-28 i	EPA 1613B	OCDD	4.39	pg/L	B J	U	7
WG64578	LDW18-SP-86	L29628-28 i	EPA 1613B	1,2,3,7,8,9-HxCDF	0.475	pg/L	K J	U	25
WG64578	LDW18-SP-86	L29628-28 i	EPA 1613B	OCDF	0.544	pg/L	K J	U	25
WG64578	LDW18-SP-86	L29628-28 i	EPA 1613B	Total TCDD	0.524	pg/L	K	J	25
WG64578	LDW18-SP-86	L29628-28 i	EPA 1613B	Total HxCDD	1.06	pg/L	K	U	6
WG64578	LDW18-SP-86	L29628-28 i	EPA 1613B	Total HpCDD	1.76	pg/L	K	U	6
WG64578	LDW18-SP-86	L29628-28 i	EPA 1613B	Total TCDF	0.532	pg/L		U	6

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
WG64578	LDW18-SP-86	L29628-28 i	EPA 1613B	Total HxCDF	0.475	pg/L	K	J	25
WG64578	LDW18-SP-87	L29628-21	EPA 1613B	1,2,3,4,6,7,8-HpCDD	1.17	pg/L	K J	U	25
WG64578	LDW18-SP-87	L29628-21	EPA 1613B	Total HxCDD	0.749	pg/L	K	U	6
WG64578	LDW18-SP-87	L29628-21	EPA 1613B	Total HpCDD	2.59	pg/L	K	U	6
WG64578	LDW18-SP-87	L29628-21	EPA 1613B	Total HpCDF	0.522	pg/L	K	J	25
WG64578	LDW18-SP-88	L29628-29	EPA 1613B	2,3,7,8-TCDD	0.554	pg/L	K J	U	25
WG64578	LDW18-SP-88	L29628-29	EPA 1613B	1,2,3,4,6,7,8-HpCDD	0.538	pg/L	K J	U	25
WG64578	LDW18-SP-88	L29628-29	EPA 1613B	OCDD	2.5	pg/L	B J	U	7
WG64578	LDW18-SP-88	L29628-29	EPA 1613B	Total TCDD	1.08	pg/L	K	J	25
WG64578	LDW18-SP-88	L29628-29	EPA 1613B	Total HxCDD	0.698	pg/L	K	U	6
WG64578	LDW18-SP-88	L29628-29	EPA 1613B	Total HpCDD	1.34	pg/L	K	U	6
WG64578	LDW18-SP-RB1	L29628-1	EPA 1613B	1,2,3,4,6,7,8-HpCDD	0.625	pg/L	K J	U	25
WG64578	LDW18-SP-RB1	L29628-1	EPA 1613B	OCDD	0.831	pg/L	K B J	U	25
WG64578	LDW18-SP-RB1	L29628-1	EPA 1613B	2,3,7,8-TCDF	0.56	pg/L	J	DNR	11
WG64578	LDW18-SP-RB1	L29628-1	EPA 1613B	Total HxCDD	0.778	pg/L	K	U	6
WG64578	LDW18-SP-RB1	L29628-1	EPA 1613B	Total HpCDD	1.27	pg/L	K	U	6
WG64578	LDW18-SP-RB1	L29628-1	EPA 1613B	Total TCDF	1.22	pg/L	K	U	6
18F0185	LDW18-SP-01	18F0248-01	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-01	18F0248-01	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-01	18F0248-01	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-01	18F0248-01	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-01	18F0248-01	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-01	18F0248-01	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-01	18F0248-01	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-01	18F0248-01	EPA 8270D-SIM	Phenanthrene	0.038	ug/L		U	6
18F0185	LDW18-SP-01	18F0248-01	EPA 8270D-SIM	2-Methylnaphthalene	0.003	ug/L	J	U	6
18F0185	LDW18-SP-01	18F0248-01	SM 5310-B	Dissolved Organic carbon	1.7	mg/L		DNR	11
18F0185	LDW18-SP-01	18F0248-01RE2	SM 5310-B	Total Organic carbon (TOC)	1.7	mg/L		DNR	11
18F0185	LDW18-SP-01	18F0248-01RE3	SM 5310-B	Total Organic carbon (TOC)	1.77	mg/L		UJ	1,6,9,14
18F0185	LDW18-SP-01	18F0248-01RE3	SM 5310-B	Dissolved Organic carbon	2.52	mg/L		J	1,14
18F0185	LDW18-SP-05	18F0226-01	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
18F0185	LDW18-SP-05	18F0226-01	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-05	18F0226-01	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-05	18F0226-01	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-05	18F0226-01	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-05	18F0226-01	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-05	18F0226-01	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-05	18F0226-01	EPA 8270D-SIM	Phenanthrene	0.006	ug/L	J	U	6
18F0185	LDW18-SP-05	18F0226-01	EPA 8270D-SIM	2-Methylnaphthalene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-05	18F0226-01	SM 2540-D	Total Suspended solids	11	mg/L		J	9
18F0185	LDW18-SP-05	18F0226-01RE3	SM 5310-B	Total Organic carbon (TOC)	1.33	mg/L		UJ	1,6
18F0185	LDW18-SP-06	18F0208-01	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-06	18F0208-01	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-06	18F0208-01	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-06	18F0208-01	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-06	18F0208-01	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-06	18F0208-01	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-06	18F0208-01	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-06	18F0208-01	EPA 8270D-SIM	Phenanthrene	0.004	ug/L	J	U	6
18F0185	LDW18-SP-06	18F0208-01	EPA 8270D-SIM	2-Methylnaphthalene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-06	18F0208-01	SM 2540-D	Total Suspended solids	8	mg/L		J	9
18F0185	LDW18-SP-06	18F0208-01	SM 5310-B	Total Organic carbon (TOC)	1.65	mg/L		U	6
18F0185	LDW18-SP-24	18F0208-03	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-24	18F0208-03	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-24	18F0208-03	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-24	18F0208-03	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-24	18F0208-03	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-24	18F0208-03	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-24	18F0208-03	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-24	18F0208-03	EPA 8270D-SIM	Phenanthrene	0.003	ug/L	J	U	6
18F0185	LDW18-SP-24	18F0208-03	EPA 8270D-SIM	2-Methylnaphthalene	0.001	ug/L	J	U	6
18F0185	LDW18-SP-24	18F0208-03	SM 2540-D	Total Suspended solids	33	mg/L		J	9

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
18F0185	LDW18-SP-24-FD	18F0208-04	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-24-FD	18F0208-04	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-24-FD	18F0208-04	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-24-FD	18F0208-04	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-24-FD	18F0208-04	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-24-FD	18F0208-04	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-24-FD	18F0208-04	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-24-FD	18F0208-04	EPA 8270D-SIM	Phenanthrene	0.046	ug/L		U	6
18F0185	LDW18-SP-24-FD	18F0208-04	EPA 8270D-SIM	2-Methylnaphthalene	0.01	ug/L	J	U	6
18F0185	LDW18-SP-24-FD	18F0208-04	SM 2540-D	Total Suspended solids	22	mg/L		J	9
18F0185	LDW18-SP-30	18F0185-03	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-30	18F0185-03	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-30	18F0185-03	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-30	18F0185-03	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-30	18F0185-03	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-30	18F0185-03	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-30	18F0185-03	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-30	18F0185-03	EPA 8270D-SIM	Phenanthrene	0.037	ug/L		U	6
18F0185	LDW18-SP-30	18F0185-03	EPA 8270D-SIM	Fluorene	0.008	ug/L	J	U	6
18F0185	LDW18-SP-30	18F0185-03	EPA 8270D-SIM	Naphthalene	0.003	ug/L	B J	U	6
18F0185	LDW18-SP-30	18F0185-03	EPA 8270D-SIM	2-Methylnaphthalene	0.004	ug/L	B J	U	6
18F0185	LDW18-SP-30	18F0185-03	SM 5310-B	Total Organic carbon (TOC)	2.24	mg/L		U	6
18F0185	LDW18-SP-32	18F0185-04	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-32	18F0185-04	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-32	18F0185-04	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-32	18F0185-04	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-32	18F0185-04	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-32	18F0185-04	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-32	18F0185-04	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-32	18F0185-04	EPA 8270D-SIM	Phenanthrene	0.004	ug/L	J	U	6
18F0185	LDW18-SP-32	18F0185-04	EPA 8270D-SIM	Naphthalene	0.002	ug/L	B J	U	6

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
18F0185	LDW18-SP-32	18F0185-04	EPA 8270D-SIM	2-Methylnaphthalene	0.002	ug/L	B J	U	6
18F0185	LDW18-SP-32	18F0185-04	SM 5310-B	Total Organic carbon (TOC)	1.67	mg/L		U	6
18F0185	LDW18-SP-33	18F0208-02	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-33	18F0208-02	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-33	18F0208-02	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-33	18F0208-02	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-33	18F0208-02	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-33	18F0208-02	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-33	18F0208-02	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-33	18F0208-02	EPA 8270D-SIM	Acenaphthene	1.21	ug/L	E	DNR	20
18F0185	LDW18-SP-33	18F0208-02	EPA 8270D-SIM	Phenanthrene	0.25	ug/L		U	6
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Anthracene	0.06	ug/L	D	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Pyrene	0.112	ug/L	D	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Benzo(g,h,i)perylene		ug/L	D U	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Indeno(1,2,3-cd)pyrene		ug/L	D U	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Benzo(j)fluoranthene		ug/L	D U	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Benzo(b)fluoranthene	0.004	ug/L	D J	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Fluoranthene	0.334	ug/L	D	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Benzo(k)fluoranthene		ug/L	D U	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Acenaphthylene	0.018	ug/L	D J	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Chrysene	0.006	ug/L	D J	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Benzo(a)pyrene		ug/L	D U	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Dibenzo(a,h)anthracene		ug/L	D U	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Benzo(a)anthracene	0.007	ug/L	D J	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Phenanthrene	0.273	ug/L	D	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Fluorene	0.795	ug/L	D	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	Naphthalene	0.226	ug/L	D	DNR	11
18F0185	LDW18-SP-33	18F0208-02RE1	EPA 8270D-SIM	2-Methylnaphthalene	0.041	ug/L	D	DNR	11
18F0185	LDW18-SP-33	18F0208-02	SM 2540-D	Total Suspended solids	36	mg/L		J	9
18F0185	LDW18-SP-35	18F0185-05	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-35	18F0185-05	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
18F0185	LDW18-SP-35	18F0185-05	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-35	18F0185-05	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-35	18F0185-05	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-35	18F0185-05	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-35	18F0185-05	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-35	18F0185-05	EPA 8270D-SIM	Phenanthrene	0.003	ug/L	J	U	6
18F0185	LDW18-SP-35	18F0185-05	EPA 8270D-SIM	Naphthalene	0.002	ug/L	B J	U	6
18F0185	LDW18-SP-35	18F0185-05	EPA 8270D-SIM	2-Methylnaphthalene	0.002	ug/L	B J	U	6
18F0185	LDW18-SP-38	18F0185-06	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-38	18F0185-06	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-38	18F0185-06	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-38	18F0185-06	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-38	18F0185-06	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-38	18F0185-06	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-38	18F0185-06	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Anthracene	0.001	ug/L	J	J	13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Pyrene	0.002	ug/L	J	J	13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Benzo(g,h,i)perylene		ug/L	U	UJ	13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Indeno(1,2,3-cd)pyrene		ug/L	U	UJ	13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Benzo(j)fluoranthene		ug/L	U	UJ	13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Benzo(b)fluoranthene		ug/L	U	UJ	13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Fluoranthene	0.009	ug/L	J	J	13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Benzo(k)fluoranthene		ug/L	U	UJ	13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Acenaphthylene		ug/L	U	UJ	13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Chrysene		ug/L	U	UJ	13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Benzo(a)pyrene		ug/L	U	UJ	13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Dibenzo(a,h)anthracene		ug/L	U	UJ	13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Benzo(a)anthracene		ug/L	U	UJ	13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Acenaphthene	0.011	ug/L		J	13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Phenanthrene	0.01	ug/L	J	UJ	6,13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Fluorene	0.002	ug/L	J	UJ	6,13L

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	Naphthalene	0.003	ug/L	B J	UJ	6,13L
18F0185	LDW18-SP-38	18F0185-06	EPA 8270D-SIM	2-Methylnaphthalene	0.001	ug/L	B J	UJ	6,13L
18F0185	LDW18-SP-38	18F0185-06	SM 5310-B	Total Organic carbon (TOC)	1.89	mg/L		U	6
18F0185	LDW18-SP-42	18F0185-07	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-42	18F0185-07	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-42	18F0185-07	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-42	18F0185-07	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-42	18F0185-07	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-42	18F0185-07	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-42	18F0185-07	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Anthracene		ug/L	U	UJ	13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Pyrene	0.002	ug/L	J	J	13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Benzo(g,h,i)perylene		ug/L	U	UJ	13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Indeno(1,2,3-cd)pyrene		ug/L	U	UJ	13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Benzo(j)fluoranthene		ug/L	U	UJ	13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Benzo(b)fluoranthene		ug/L	U	UJ	13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Fluoranthene	0.003	ug/L	J	J	13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Benzo(k)fluoranthene		ug/L	U	UJ	13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Acenaphthylene		ug/L	U	UJ	13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Chrysene		ug/L	U	UJ	13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Benzo(a)pyrene		ug/L	U	UJ	13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Dibenzo(a,h)anthracene		ug/L	U	UJ	13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Benzo(a)anthracene		ug/L	U	UJ	13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Acenaphthene		ug/L	U	UJ	13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Phenanthrene	0.003	ug/L	J	UJ	6,13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Fluorene		ug/L	U	UJ	13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	Naphthalene	0.002	ug/L	B J	UJ	6,13L
18F0185	LDW18-SP-42	18F0185-07	EPA 8270D-SIM	2-Methylnaphthalene	0.001	ug/L	B J	UJ	6,13L
18F0185	LDW18-SP-43	18F0185-08	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-43	18F0185-08	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-43	18F0185-08	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
18F0185	LDW18-SP-43	18F0185-08	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-43	18F0185-08	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-43	18F0185-08	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-43	18F0185-08	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-43	18F0185-08	EPA 8270D-SIM	2-Methylnaphthalene	0.001	ug/L	B J	U	6
18F0185	LDW18-SP-43	18F0185-08	SM 5310-B	Total Organic carbon (TOC)	0.87	mg/L		U	6
18F0185	LDW18-SP-45	18F0248-02	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-45	18F0248-02	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-45	18F0248-02	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-45	18F0248-02	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-45	18F0248-02	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-45	18F0248-02	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-45	18F0248-02	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-45	18F0248-02	EPA 8270D-SIM	Phenanthrene	0.007	ug/L	J	U	6
18F0185	LDW18-SP-45	18F0248-02	EPA 8270D-SIM	Fluorene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-45	18F0248-02	EPA 8270D-SIM	2-Methylnaphthalene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-45	18F0248-02	SM 5310-B	Dissolved Organic carbon	1.74	mg/L		DNR	11
18F0185	LDW18-SP-45	18F0248-02RE2	SM 5310-B	Total Organic carbon (TOC)	1.69	mg/L		DNR	11
18F0185	LDW18-SP-45	18F0248-02RE3	SM 5310-B	Total Organic carbon (TOC)	1.81	mg/L		UJ	1,6,9,14
18F0185	LDW18-SP-45	18F0248-02RE3	SM 5310-B	Dissolved Organic carbon	3.87	mg/L		J	1,14
18F0185	LDW18-SP-47	18F0248-03	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-47	18F0248-03	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-47	18F0248-03	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-47	18F0248-03	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-47	18F0248-03	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-47	18F0248-03	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-47	18F0248-03	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-47	18F0248-03	EPA 8270D-SIM	Phenanthrene	0.008	ug/L	J	U	6
18F0185	LDW18-SP-47	18F0248-03	EPA 8270D-SIM	Fluorene	0.003	ug/L	J	U	6
18F0185	LDW18-SP-47	18F0248-03	EPA 8270D-SIM	2-Methylnaphthalene	0.003	ug/L	J	U	6
18F0185	LDW18-SP-47	18F0248-03	SM 5310-B	Dissolved Organic carbon	1.55	mg/L		DNR	11

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
18F0185	LDW18-SP-47	18F0248-03RE2	SM 5310-B	Total Organic carbon (TOC)	1.51	mg/L		DNR	11
18F0185	LDW18-SP-47	18F0248-03RE3	SM 5310-B	Total Organic carbon (TOC)	1.63	mg/L		UJ	1,6,9,14
18F0185	LDW18-SP-47	18F0248-03RE3	SM 5310-B	Dissolved Organic carbon	2.86	mg/L		J	1,14
18F0185	LDW18-SP-57	18F0226-02	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-57	18F0226-02	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-57	18F0226-02	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-57	18F0226-02	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-57	18F0226-02	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-57	18F0226-02	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-57	18F0226-02	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-57	18F0226-02	EPA 8270D-SIM	Phenanthrene	0.003	ug/L	J	U	6
18F0185	LDW18-SP-57	18F0226-02	EPA 8270D-SIM	Fluorene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-57	18F0226-02	EPA 8270D-SIM	2-Methylnaphthalene	0.001	ug/L	J	U	6
18F0185	LDW18-SP-57	18F0226-02	SM 2540-D	Total Suspended solids	17	mg/L		J	9
18F0185	LDW18-SP-57	18F0226-02RE4	SM 5310-B	Total Organic carbon (TOC)	1.31	mg/L		UJ	1,6
18F0185	LDW18-SP-66	18F0248-04	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-66	18F0248-04	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-66	18F0248-04	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-66	18F0248-04	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-66	18F0248-04	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-66	18F0248-04	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-66	18F0248-04	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-66	18F0248-04	EPA 8270D-SIM	Phenanthrene	0.007	ug/L	J	U	6
18F0185	LDW18-SP-66	18F0248-04	EPA 8270D-SIM	Fluorene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-66	18F0248-04	EPA 8270D-SIM	2-Methylnaphthalene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-66	18F0248-04	SM 5310-B	Dissolved Organic carbon	1.36	mg/L		DNR	11
18F0185	LDW18-SP-66	18F0248-04RE2	SM 5310-B	Total Organic carbon (TOC)	1.37	mg/L		DNR	11
18F0185	LDW18-SP-66	18F0248-04RE3	SM 5310-B	Total Organic carbon (TOC)	1.43	mg/L		UJ	1,6,9
18F0185	LDW18-SP-66	18F0248-04RE3	SM 5310-B	Dissolved Organic carbon	1.57	mg/L		J	1
18F0185	LDW18-SP-70	18F0248-05	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-70	18F0248-05	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
18F0185	LDW18-SP-70	18F0248-05	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-70	18F0248-05	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-70	18F0248-05	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-70	18F0248-05	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-70	18F0248-05	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-70	18F0248-05	EPA 8270D-SIM	Phenanthrene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-70	18F0248-05	EPA 8270D-SIM	2-Methylnaphthalene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-70	18F0248-05	SM 5310-B	Dissolved Organic carbon	0.9	mg/L		DNR	11
18F0185	LDW18-SP-70	18F0248-05RE2	SM 5310-B	Total Organic carbon (TOC)	0.9	mg/L		DNR	11
18F0185	LDW18-SP-70	18F0248-05RE3	SM 5310-B	Total Organic carbon (TOC)	0.94	mg/L		UJ	1,6,9,14
18F0185	LDW18-SP-70	18F0248-05RE3	SM 5310-B	Dissolved Organic carbon	1.23	mg/L		J	1,14
18F0185	LDW18-SP-73	18F0226-03	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-73	18F0226-03	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-73	18F0226-03	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-73	18F0226-03	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-73	18F0226-03	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-73	18F0226-03	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-73	18F0226-03	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-73	18F0226-03	EPA 8270D-SIM	Phenanthrene	0.006	ug/L	J	U	6
18F0185	LDW18-SP-73	18F0226-03	EPA 8270D-SIM	Fluorene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-73	18F0226-03	EPA 8270D-SIM	2-Methylnaphthalene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-73	18F0226-03	SM 2540-D	Total Suspended solids	39	mg/L		J	9
18F0185	LDW18-SP-73	18F0226-03RE3	SM 5310-B	Dissolved Organic carbon	3.03	mg/L		J	1
18F0185	LDW18-SP-73	18F0226-03RE3	SM 5310-B	Total Organic carbon (TOC)	2.9	mg/L		J	1
18F0185	LDW18-SP-74	18F0226-04	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-74	18F0226-04	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-74	18F0226-04	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-74	18F0226-04	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-74	18F0226-04	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-74	18F0226-04	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-74	18F0226-04	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
18F0185	LDW18-SP-74	18F0226-04	EPA 8270D-SIM	Phenanthrene	0.005	ug/L	J	U	6
18F0185	LDW18-SP-74	18F0226-04	EPA 8270D-SIM	2-Methylnaphthalene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-74	18F0226-04	SM 2540-D	Total Suspended solids	28	mg/L		J	9
18F0185	LDW18-SP-74	18F0226-04RE3	SM 5310-B	Dissolved Organic carbon	2.33	mg/L		J	1
18F0185	LDW18-SP-74	18F0226-04RE3	SM 5310-B	Total Organic carbon (TOC)	2.24	mg/L		UJ	1,6
18F0185	LDW18-SP-77	18F0226-05	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-77	18F0226-05	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-77	18F0226-05	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-77	18F0226-05	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-77	18F0226-05	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-77	18F0226-05	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-77	18F0226-05	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-77	18F0226-05	EPA 8270D-SIM	Acenaphthene	3.61	ug/L	E	DNR	20
18F0185	LDW18-SP-77	18F0226-05	EPA 8270D-SIM	Phenanthrene	0.165	ug/L		U	6
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Anthracene	0.019	ug/L	D J	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Pyrene	0.078	ug/L	D J	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Benzo(g,h,i)perylene		ug/L	D U	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Indeno(1,2,3-cd)pyrene		ug/L	D U	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Benzo(j)fluoranthene		ug/L	D U	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Benzo(b)fluoranthene		ug/L	D U	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Fluoranthene	0.207	ug/L	D	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Benzo(k)fluoranthene		ug/L	D U	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Acenaphthylene	0.036	ug/L	D J	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Chrysene		ug/L	D U	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Benzo(a)pyrene		ug/L	D U	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Dibenzo(a,h)anthracene		ug/L	D U	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Benzo(a)anthracene		ug/L	D U	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Phenanthrene	0.156	ug/L	D	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Fluorene	0.453	ug/L	D	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	Naphthalene	0.792	ug/L	D	DNR	11
18F0185	LDW18-SP-77	18F0226-05RE1	EPA 8270D-SIM	2-Methylnaphthalene	1.01	ug/L	D	DNR	11

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
18F0185	LDW18-SP-77	18F0226-05	SM 2540-D	Total Suspended solids	9	mg/L		J	9
18F0185	LDW18-SP-77	18F0226-05RE3	SM 5310-B	Dissolved Organic carbon	4.4	mg/L		J	1
18F0185	LDW18-SP-77	18F0226-05RE3	SM 5310-B	Total Organic carbon (TOC)	5.51	mg/L		J	1
18F0185	LDW18-SP-78	18F0226-06	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-78	18F0226-06	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-78	18F0226-06	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-78	18F0226-06	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-78	18F0226-06	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-78	18F0226-06	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-78	18F0226-06	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-78	18F0226-06	EPA 8270D-SIM	Phenanthrene	0.006	ug/L	J	U	6
18F0185	LDW18-SP-78	18F0226-06	EPA 8270D-SIM	Fluorene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-78	18F0226-06	EPA 8270D-SIM	2-Methylnaphthalene	0.003	ug/L	J	U	6
18F0185	LDW18-SP-78	18F0226-06	SM 2540-D	Total Suspended solids	7	mg/L		J	9
18F0185	LDW18-SP-78	18F0226-06RE3	SM 5310-B	Dissolved Organic carbon	1.61	mg/L		J	1
18F0185	LDW18-SP-78	18F0226-06RE3	SM 5310-B	Total Organic carbon (TOC)	1.63	mg/L		UJ	1,6
18F0185	LDW18-SP-79	18F0226-07	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-79	18F0226-07	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-79	18F0226-07	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-79	18F0226-07	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-79	18F0226-07	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-79	18F0226-07	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-79	18F0226-07	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-79	18F0226-07	EPA 8270D-SIM	Phenanthrene	0.006	ug/L	J	U	6
18F0185	LDW18-SP-79	18F0226-07	EPA 8270D-SIM	Fluorene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-79	18F0226-07	EPA 8270D-SIM	2-Methylnaphthalene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-79	18F0226-07	SM 2540-D	Total Suspended solids	21	mg/L		J	9
18F0185	LDW18-SP-79	18F0226-07RE3	SM 5310-B	Dissolved Organic carbon	1.76	mg/L		J	1
18F0185	LDW18-SP-79	18F0226-07RE3	SM 5310-B	Total Organic carbon (TOC)	1.73	mg/L		UJ	1,6
18F0185	LDW18-SP-83	18F0248-06	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-83	18F0248-06	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
18F0185	LDW18-SP-83	18F0248-06	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-83	18F0248-06	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-83	18F0248-06	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-83	18F0248-06	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-83	18F0248-06	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-83	18F0248-06	EPA 8270D-SIM	Phenanthrene	0.005	ug/L	J	U	6
18F0185	LDW18-SP-83	18F0248-06	EPA 8270D-SIM	2-Methylnaphthalene	0.001	ug/L	J	U	6
18F0185	LDW18-SP-83	18F0248-06	SM 5310-B	Dissolved Organic carbon	1.15	mg/L		DNR	11
18F0185	LDW18-SP-83	18F0248-06RE2	SM 5310-B	Total Organic carbon (TOC)	1.18	mg/L		DNR	11
18F0185	LDW18-SP-83	18F0248-06RE3	SM 5310-B	Total Organic carbon (TOC)	1.24	mg/L		UJ	1,6,9
18F0185	LDW18-SP-83	18F0248-06RE3	SM 5310-B	Dissolved Organic carbon	1.49	mg/L		J	1
18F0185	LDW18-SP-84	18F0226-08	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-84	18F0226-08	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-84	18F0226-08	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-84	18F0226-08	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-84	18F0226-08	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-84	18F0226-08	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-84	18F0226-08	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-84	18F0226-08	EPA 8270D-SIM	Phenanthrene	0.003	ug/L	J	U	6
18F0185	LDW18-SP-84	18F0226-08	EPA 8270D-SIM	2-Methylnaphthalene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-84	18F0226-08	SM 2540-D	Total Suspended solids	9	mg/L		J	9
18F0185	LDW18-SP-84	18F0226-08RE3	SM 5310-B	Dissolved Organic carbon	1.42	mg/L		J	1
18F0185	LDW18-SP-84	18F0226-08RE3	SM 5310-B	Total Organic carbon (TOC)	1.26	mg/L		UJ	1,6
18F0185	LDW18-SP-86	18F0248-07	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-86	18F0248-07	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-86	18F0248-07	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-86	18F0248-07	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-86	18F0248-07	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-86	18F0248-07	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-86	18F0248-07	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-86	18F0248-07	EPA 8270D-SIM	Phenanthrene	0.003	ug/L	J	U	6

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
18F0185	LDW18-SP-86	18F0248-07	EPA 8270D-SIM	2-Methylnaphthalene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-86	18F0248-07	SM 5310-B	Dissolved Organic carbon	1.44	mg/L		DNR	11
18F0185	LDW18-SP-86	18F0248-07RE2	SM 5310-B	Total Organic carbon (TOC)	1.45	mg/L		DNR	11
18F0185	LDW18-SP-86	18F0248-07RE3	SM 5310-B	Total Organic carbon (TOC)	1.49	mg/L		UJ	1,6,9,14
18F0185	LDW18-SP-86	18F0248-07RE3	SM 5310-B	Dissolved Organic carbon	1.84	mg/L		J	1,14
18F0185	LDW18-SP-87	18F0226-09	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-87	18F0226-09	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-87	18F0226-09	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-87	18F0226-09	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-87	18F0226-09	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-87	18F0226-09	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-87	18F0226-09	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-87	18F0226-09	EPA 8270D-SIM	Phenanthrene	0.018	ug/L		U	6
18F0185	LDW18-SP-87	18F0226-09	EPA 8270D-SIM	2-Methylnaphthalene	0.007	ug/L	J	U	6
18F0185	LDW18-SP-87	18F0226-09	SM 2540-D	Total Suspended solids	16	mg/L		J	9
18F0185	LDW18-SP-87	18F0226-09RE3	SM 5310-B	Dissolved Organic carbon	1.21	mg/L		J	1
18F0185	LDW18-SP-87	18F0226-09RE3	SM 5310-B	Total Organic carbon (TOC)	1.07	mg/L		UJ	1,6
18F0185	LDW18-SP-88	18F0248-08	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-88	18F0248-08	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-88	18F0248-08	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-88	18F0248-08	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-88	18F0248-08	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-88	18F0248-08	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-88	18F0248-08	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-88	18F0248-08	EPA 8270D-SIM	Phenanthrene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-88	18F0248-08	EPA 8270D-SIM	Fluorene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-88	18F0248-08	EPA 8270D-SIM	2-Methylnaphthalene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-88	18F0248-08	SM 5310-B	Dissolved Organic carbon	1.08	mg/L		DNR	11
18F0185	LDW18-SP-88	18F0248-08RE2	SM 5310-B	Total Organic carbon (TOC)	1.09	mg/L		DNR	11
18F0185	LDW18-SP-88	18F0248-08RE3	SM 5310-B	Total Organic carbon (TOC)	1.12	mg/L		UJ	1,6,9
18F0185	LDW18-SP-88	18F0248-08RE3	SM 5310-B	Dissolved Organic carbon	1.25	mg/L		J	1

Qualified Data Summary Table
Lower Duwamish Waterway - Seeps Sampling

SDG	Sample ID	Laboratory ID	Method	Analyte	Result	Units	Laboratory Qualifier	Validation Qualifier	Validation Reason
18F0185	LDW18-SP-RB1	18F0185-01	EPA 8082A	Aroclor-1260		ug/L	U	DNR	11
18F0185	LDW18-SP-RB1	18F0185-01	EPA 8082A	Aroclor-1254		ug/L	U	DNR	11
18F0185	LDW18-SP-RB1	18F0185-01	EPA 8082A	Aroclor-1221		ug/L	U	DNR	11
18F0185	LDW18-SP-RB1	18F0185-01	EPA 8082A	Aroclor-1232		ug/L	U	DNR	11
18F0185	LDW18-SP-RB1	18F0185-01	EPA 8082A	Aroclor-1248		ug/L	U	DNR	11
18F0185	LDW18-SP-RB1	18F0185-01	EPA 8082A	Aroclor-1016		ug/L	U	DNR	11
18F0185	LDW18-SP-RB1	18F0185-01	EPA 8082A	Aroclor-1242		ug/L	U	DNR	11
18F0185	LDW18-SP-RB1	18F0185-01	EPA 8270D-SIM	Phenanthrene	0.053	ug/L		U	6
18F0185	LDW18-SP-RB1	18F0185-01	EPA 8270D-SIM	Fluorene	0.002	ug/L	J	U	6
18F0185	LDW18-SP-RB1	18F0185-01	EPA 8270D-SIM	Naphthalene	0.008	ug/L	B J	U	7
18F0185	LDW18-SP-RB1	18F0185-01	EPA 8270D-SIM	2-Methylnaphthalene	0.005	ug/L	B J	U	6
18F0185	LDW18-SP-RB1	18F0185-01	EPA 6020	Silver		ug/L	U	DNR	11
18F0185	LDW18-SP-RB1	18F0185-01	EPA 6020	Arsenic		ug/L	U	DNR	11
18F0185	LDW18-SP-RB1	18F0185-01	EPA 6020	Cadmium		ug/L	U	DNR	11
18F0185	LDW18-SP-RB1	18F0185-01	EPA 6020	Chromium	24.7	ug/L		DNR	11
18F0185	LDW18-SP-RB1	18F0185-01	EPA 6020	Copper	0.701	ug/L		DNR	11
18F0185	LDW18-SP-RB1	18F0185-01	EPA 6020	Zinc	1.45	ug/L	J	DNR	11
18F0185	LDW18-SP-RB1	18F0185-01	EPA 6020	Lead		ug/L	U	DNR	11
18H0269	LDW18-SP-RB2	18H0269-01	EPA 6020	Silver		ug/L	U	UJ	1
18H0269	LDW18-SP-RB2	18H0269-01	EPA 6020	Lead		ug/L	U	UJ	1
18H0269	LDW18-SP-RB2	18H0269-01	EPA 6020	Chromium		ug/L	U	UJ	1
18H0269	LDW18-SP-RB2	18H0269-01	EPA 6020	Copper		ug/L	U	UJ	1
18H0269	LDW18-SP-RB2	18H0269-01	EPA 6020	Cadmium		ug/L	U	UJ	1
18H0269	LDW18-SP-RB2	18H0269-01RE1	EPA 6020	Arsenic		ug/L	U	UJ	1
18H0269	LDW18-SP-RB2	18H0269-01	EPA 6020	Zinc		ug/L	U	UJ	1